12-AUG-2013 12:33 BBrooks	0008690_01 GDOT_11x17.pen	Y:\Roadways\126379\0008690\Dgn\0008690_01.dgn GRWCOV	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
			GA	CSMSL-0008-00(690)	1	730

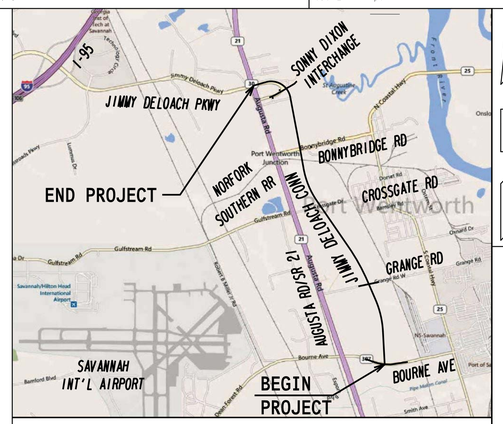
DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

PLAN AND PROFILE OF PROPOSED
JIMMY DELOACH CONNECTOR
FROM BOURNE AVENUE/SR 307
TO EXISTING JIMMY DELOACH PARKWAY

RELEASED FOR CONSTRUCTION
07/23/13

STATE AID PROJECT
CSMSL-0008-00(690)
CHATHAM

FEDERAL ROUTE * NA
STATE ROUTE * NA
P. I. NO. 0008690



LOCATION SKETCH

DESIGN DATA:

TRAFFIC A.D.T.:	(2012) 23360
TRAFFIC A.D.T.:	(2032) 30880
TRAFFIC D.H.V.:	(ONE WAY) 1460
DIRECTIONAL DIST:	55%
24 HRS. TRUCKS %:	55%
SPEED DESIGN:	55 MPH

LOCATION & DESIGN
APPROVAL DATE: 08/01/2011

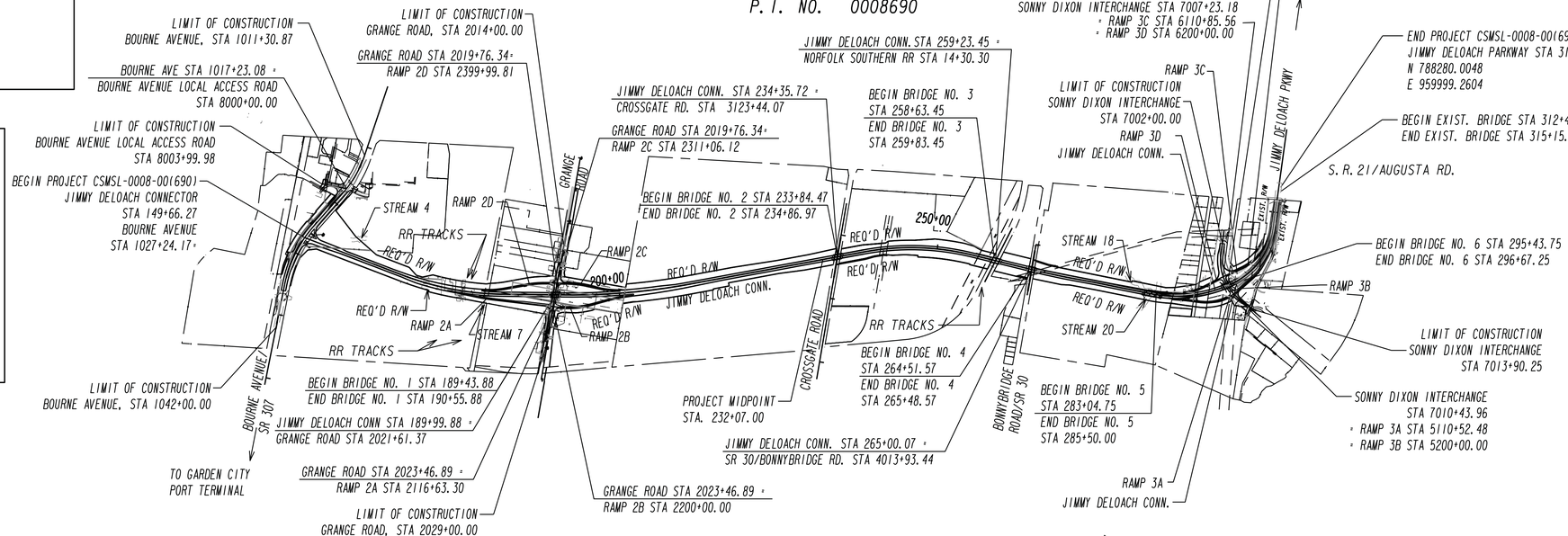
FUNCTIONAL CLASS:
RURAL PRINCIPAL ARTERIAL
WITH LIMITED ACCESS

THIS PROJECT IS 100% IN CHATHAM COUNTY AND IS 100% IN CONG. DIST. NO. 1.

PROJECT DESIGNATION:
EXEMPT

DESIGNED IN ENGLISH UNITS.

THIS PROJECT HAS BEEN PREPARED USING THE HORIZONTAL GEORGIA COORDINATE SYSTEM OF 1984 (NAD 1983)/94 EAST ZONE. AND THE NORTH AMERICAN VERTICAL DATUM (NAVD) OF 1988.



MID-POINT COORDINATES
STA 232+07.00
N 782178.1901
E 963766.2423
LAT 32° 08' 47.90"
LONG 81° 10' 22.08"

NOTE :
ALL REFERENCES IN THIS DOCUMENT, WHICH INCLUDES ALL PAPERS, WRITINGS, DOCUMENTS, DRAWINGS, OR PHOTOGRAPHS USED, OR TO BE USED IN CONNECTION WITH THIS DOCUMENT, TO " STATE HIGHWAY DEPARTMENT OF GEORGIA ", "STATE HIGHWAY DEPARTMENT ", GEORGIA STATE HIGHWAY DEPARTMENT ", " HIGHWAY DEPARTMENT ", OR " DEPARTMENT " WHEN THE CONTEXT THEREOF MEANS THE STATE HIGHWAY DEPARTMENT OF GEORGIA, AND SHALL BE DEEMED TO MEAN THE DEPARTMENT OF TRANSPORTATION.

THE DATA, TOGETHER WITH ALL OTHER INFORMATION SHOWN ON THESE PLANS OR IN ANYWAY INDICATED THEREBY, WHETHER BY DRAWINGS OR NOTES, OR IN ANY OTHER MANNER, ARE BASED UPON FIELD INVESTIGATIONS AND ARE BELIEVED TO BE INDICATIVE OF ACTUAL CONDITIONS. HOWEVER, THE SAME ARE SHOWN AS INFORMATION ONLY, ARE NOT GUARANTEED, AND DO NOT BIND THE DEPARTMENT OF TRANSPORTATION IN ANY WAY. THE ATTENTION OF BIDDER IS SPECIFICALLY DIRECTED TO SUBSECTIONS 102.04, 102.05, AND 104.03 OF THE SPECIFICATIONS.

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

P. I. NO.
0008690
CHATHAM
COUNTY

SCALE IN FEET
0 1000 2000 4000

LENGTH OF PROJECT COUNTY: CHATHAM	COUNTY No. 51 Project No. 0008690 MILES
NET LENGTH OF ROADWAY	2.969
NET LENGTH OF BRIDGES	0.152
NET LENGTH OF PROJECT	3.121
NET LENGTH OF EXCEPTIONS	0.000
GROSS LENGTH OF PROJECT	3.121

GEORGIA
No. 23954
PROFESSIONAL
7/18/13
ENGINEER
THOMAS D. MONTGOMERY

PREPARED BY:
ARCHER WESTERN DESIGN BUILD TEAM

RECOMMENDED FOR APPROVAL BY:
STATE INNOVATIVE PROGRAM DELIVERY ENGINEER

7-18-2013 Russell R McMurry
DATE CHIEF ENGINEER

PLANS COMPLETED 7-18-2013	
REVISIONS 8-02-2013	
SHEETS: 455, 460-471, 473, & 509-535	

RELEASED FOR CONSTRUCTION - 07-23-13

SHEET NO.	DWG NO.		DESCRIPTION
			CONSTRUCTION PLANS
1	01-001		COVER SHEET
2-3	02-001 TO 02-002		INDEX OF DRAWINGS
4	03-001		REVISION SUMMARY
5-12	04-001 TO 04-008		GENERAL NOTES
13-19	05-001 TO 05-007		TYPICAL SECTIONS
20-23	09-001 TO 09-004		DETAILED ESTIMATE
24-27	10-001 TO 10-004		TRAFFIC DIAGRAMS
28-29	11-001 TO 11-002		CONSTRUCTION LAYOUT
30-42	13-001 TO 13-013		MAINLINE ROADWAY PLAN
43-47	14-001 TO 14-005		CROSSROAD ROADWAY PLAN
48-53	15-001 TO 15-006		MAINLINE PROFILE
54-66	16-001 TO 16-013		CROSSROAD PROFILE
67-68	17-001 TO 17-002		DRIVEWAY PROFILES
69-188	19-001 TO 19-120		CONSTRUCTION STAGING PLANS
189-191	21-001 TO 21-003		DRAINAGE AREA MAP
192-211	22-001 TO 22-020		DRAINAGE PROFILES
212-393	23-001 TO 23-182		EARTHWORK CROSS SECTIONS
394-421	24-00A TO 24-023		UTILITY PLANS
422-441	26-001 TO 26-020		SIGNING AND MARKING PLANS & DETAILS
442-445	27-001 TO 27-004		SIGNAL PLANS & DETAILS
446	29-001		LANDSCAPING PLAN
447-471	31-001 TO 31-025		STRUCTURE LOCATIONS & RETAINING WALL PLANS
472-535	35-001 TO 35-064		BRIDGE PLANS
536-540	37-001 TO 37-005		PSC PILE - SPECIAL DESIGN
541-542	38-001 TO 38-002		SPECIAL CONSTRUCTION DETAILS
			SPECIAL DESIGN CONSTRUCTION DETAILS — REV. DATE
543	40-001	S-1	CONCRETE MEDIAN BARRIER, TYPE S-1, S-2, S-3
544	40-002	4948	MODIFIED STANDARD NO. 4948, SPECIAL DESIGN CONCRETE SIDE BARRIER, TYPES 2-S, 6-S, 7-CS, 7-RS, 7-WS & 7-TS
			GEORGIA CONSTRUCTION DETAILS — REV. DATE
545	40-003	A-3	SPECIAL DETAILS- CONCRETE SIDEWALK DETAILS CURB CUT (WHEELCHAIR) RAMPS — 6-09
546	40-004	A-4	DETECTABLE WARNING SURFACE TRUNCATED DOME SIZE, SPACING AND ALIGNMENT REQUIREMENTS — 6-09
547	40-005	D-3	MEDIAN DROP INLET SPECIAL DESIGN — 2-74
548	40-006	D-7	BERM DITCHES, SIDE DITCHES, SURFACE DITCHES — 7-80
549	40-007	D-10	4" CONCRETE DITCH PAVING DETAILS & QUANTITIES — 1-88
550	40-008	D-15	TYPICAL SKEWED CULVERT ENDS — 12-83
551	40-009	D-26	ASPHALTIC CONCRETE SPILLWAY WITH METAL DRAIN INLET ASPHALTIC CONCRETE CURB; OUTLET APRON — 4-99
552	40-010	D-34	PIPE/BOX CULVERT COLLAR CONNECTION DETAIL — 3-88
553	40-011	D-40	CULVERT PLUGS — 3-08
554	40-012	F-1	WOVEN WIRE FENCE — 3-88
555	40-013	F-2	GATE DETAILS FOR CHAIN LINK & WOVEN WIRE FENCE — 1-88
556	40-014	F-4	TYPICAL DETAILS FOR FIELD FENCING — 2-88
557	40-015	R-1	EXIT RAMPS FOR INTERCHANGES PARALLEL TYPE — 4-11
558	40-016	R-2	EXIT RAMPS FOR INTERCHANGES TAPER TYPE — 4-11
559	40-017	R-3	ENTRANCE RAMPS FOR INTERCHANGES — 4-11

SHEET NO.	DWG NO.		DESCRIPTION
			GEORGIA CONSTRUCTION DETAILS (CONT.) — REV. DATE
560	40-018	S-4B	CONSTRUCTION DETAILS SHOULDER PAVING AND SURFACING UNDER GUARDRAIL (INTERSTATES AND FREEWAYS) — 9-02
561	40-019	S-7	SERRATED SLOPE DETAIL/BENCHING DETAIL — 6-09
562	40-020	S-9	CONTINUOUS INDENTATION RUMBLE STRIPS - GROUND-IN-PLACE INTERSTATE — 3-10
563	40-021	T-1	SIGN PLATES — 1-00
564	40-022	T-2	DETAILS FOR TYPICAL FRAMING — 3-00
565	40-023	T-3A	TYPE 7, 8 AND 9 SQUARE TUBE POST INSTALLATION DETAIL — 7-02
566	40-024	T-3B	DETAILS OF SQUARE TUBE POST (BREAKAWAY SUPPORT) — 7-02
567	40-025	T-3C	DETAILS OF STRAIN POLE ERECTION FOR OVERHEAD SIGNS — 1-00
568	40-026	T-3D	DETAILS OF TIMBER POLE ERECTION FOR OVERHEAD SIGNS — 1-00
569	40-027	T-4	DETAILS OF CARDINAL DIRECTION SIGNS — 1-00
570	40-028	T-5A	DETAILS OF REGULATORY SIGNS (SHEET 1 OF 2) — 1-03
571	40-029	T-5B	DETAILS OF REGULATORY SIGNS (SHEET 2 OF 2) — 1-00
572	40-030	T-5C	DETAILS OF WARNING SIGNS — 1-00
573	40-031	T-6	DETAILS OF OVERHEAD SIGNS — 1-00
574	40-032	T-7	DETAILS OF BRIDGE ATTACHMENT — 9-01
575	40-033	T-11A	DETAILS OF PAVEMENT MARKING PLACEMENT ON NON-LIMITED ACCESS ROADWAY — 1-00
576	40-034	T-11B	DETAILS OF PAVEMENT MARKING PLACEMENT ON LIMITED ACCESS ROADWAY — 1-00
577	40-035	T-12A	DETAILS OF PAVEMENT MARKING ARROW LOCATION — 1-00
578	40-036	T-12B	DETAILS OF PAVEMENT MARKINGS - ARROWS — 4-00
579	40-037	T-13A	DETAILS OF PAVEMENT MARKING WORDS (SHEET 1 OF 2) — 1-00
580	40-038	T-13B	DETAILS OF PAVEMENT MARKING WORDS (SHEET 2 OF 2) — 1-00
581	40-039	T-13C	DETAILS OF PAVEMENT MARKING WORDS PLACEMENT — 1-00
582	40-040	T-14	DETAILS OF PAVEMENT MARKING HATCHING — 11-08
583	40-041	T-15A	DETAILS OF RAISED PAVEMENT MARKER LOCATION NON-LIMITED ACCESS ROADWAY — 1-04
584	40-042	T-15B	DETAILS OF RAISED PAVEMENT MARKER LOCATION LIMITED ACCESS ROADWAY — 1-00
585	40-043	T-15C	DETAILS OF RAISED PAVEMENT MARKERS — 9-11
586	40-044	T-22A	DETAILS FOR BRIDGE DELINEATION ON DIVIDED HIGHWAYS — 9-06
587	40-045	T-22B	DETAILS FOR BRIDGE DELINEATION ON DIVIDED HIGHWAY TWO WAY OPERATION — 9-06
588	40-046	T-23	DETAILS OF EDGE LINE RUMBLE STRIPS — 1-05
589	40-047	TS-01	INDUCTIVE-LOOP DETECTOR INSTALLATION — 4-10
590	40-048	TS-02	PULL BOX ASSEMBLY AND INSTALLATION — 4-10
591	40-049	TS-03	CABINET BASE DETAIL — 4-10
592	40-050	TS-03A	PEDESTRIAN FACILITIES INSTALLATION DETAILS — 4-10
593	40-051	TS-05	DETAILS OF CONCRETE POLES — 4-10
594	40-052	TS-06	DETAILS OF STRAIN POLE AND MAST ARM FOUNDATIONS — 4-10
595	40-053	TS-07	GROUNDING DETAILS FOR TRAFFIC SIGNAL SUPPORT STRUCTURES — 4-10
596	40-054	TS-08	UTILITY CLEARANCE DETAIL — 4-10

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0 20 40 80

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

INDEX

DRAWING No. 2-001

1/5/2009 GPLN

RELEASED FOR CONSTRUCTION - 07-23-13

SHEET NO.	DWG NO.		DESCRIPTION	REV. DATE
			GEORGIA CONSTRUCTION STANDARDS	
597	41-001	1030D	CONCRETE AND METAL PIPE CULVERTS, SHEET 1 OF 3	9-01
598	41-002	1030D	CONCRETE AND METAL PIPE CULVERTS, SHEET 2 OF 3	9-01
599	41-003	1030D	CONCRETE AND METAL PIPE CULVERTS, SHEET 3 OF 3	9-01
600	41-004	1031	SAND CEMENT BAG DITCH CHECKS	7-97
601	41-005	1035	DRAIN INLET (ELBOW TYPE)	11-99
602	41-006	1120	FLARED END SECTIONS FOR PIPES	6-06
603	41-007	1125	INLET HEADWALL - OUTLET HEADWALL	10-99
604	41-008	1401	PAVEMENT PATCHING DETAILS (STORM DRAIN OR UTILITY INSTALLATIONS BY OPEN CUT ACROSS EXISTING PAVEMENT)	8-99
605	41-009	2327	REINFORCED CONCRETE BOX CULVERTS DOUBLE 10' X 4' TO TRIPLE 10' X 12' FOR DEPTHS OF FILL FILL UP TO 20 FEET. (1 OF 2)	11-01
606	41-010	2327	REINFORCED CONCRETE BOX CULVERTS DOUBLE 10' X 4' TO TRIPLE 10' X 12' FOR DEPTHS OF FILL FILL UP TO 20 FEET. (2 OF 2)	11-01
607	41-011	3054	END POST AND END POST GUARDRAIL ATTACHMENT DETAIL	9-02
608	41-012	3215	SQUARE PRESTRESSED CONCRETE PILES	2-84
609	41-013	3901	BAR BENDING DETAILS	8-69
610	41-014	4000W	GUARDRAIL WARRANT GUIDES	9-07
611	41-015	4360	REFLECTORIZED GUARDRAIL WASHERS AND ANCHORAGE NOSE STRIPING	4-06
612	41-016	4380	"W" BEAM GUARDRAIL 31 INCH GUARDRAIL HEIGHT	8-11
613	41-017	4381	POSTS AND OFFSET BLOCKS FOR "W" & "T" BEAM GUARDRAIL 31 INCH GUARDRAIL HEIGHT	8-11
614	41-018	4383	GUARDRAIL ANCHORAGE TYPE 1 31 INCH GUARDRAIL HEIGHT	8-11
615	41-019	4384	GUARDRAIL ANCHORAGE TYPE 12 31 INCH GUARDRAIL HEIGHT	8-11
616	41-020	4385	"T" BEAM GUARDRAIL CONNECTION TO 31 INCH HEIGHT "W" BEAM	8-11
617	41-021	4386	GUARDRAIL LOCATIONS IN MEDIANS GUARDRAIL LOCATIONS AT TURNOUTS 31 INCH GUARDRAIL HEIGHT	8-11
618	41-022	4387	GUARDRAIL LOCATION DETAILS FOR MULTI-LANE DIVIDED HIGHWAYS (WITH SHOULDERS ADJACENT TO ROADWAY) 31 INCH GUARDRAIL HEIGHT	8-11
619	41-023	4388	GUARDRAIL LOCATION DETAILS FOR UNDIVIDED HIGHWAYS AND ROADS (WITH SHOULDERS ADJACENT TO THE ROADWAY) 31 INCH GUARDRAIL HEIGHT	8-11
620	41-024	4389	GUARDRAIL LOCATION AT FIXED OBJECTS IN MEDIAN 31 INCH GUARDRAIL HEIGHT	8-11
621	41-025	4391	GUARDRAIL LOCATION (ON ROADS WITH CURB & GUTTER, HEADER CURB OR INTEGRAL CURB) 31 INCH GUARDRAIL HEIGHT	8-11
622	41-026	4948B	CONCRETE SIDE BARRIER TYPES 2, 2-A, 2-B, AND 2-C (REPLACES STANDARD 4948)	1-07
623	41-027	4960	CONCRETE BARRIER - TEMPORARY(END TREATMENT OPTIONS)	5-07
624	41-028	4961	DETAILS OF PRECAST TEMPORARY BARRIER	9-06
625	41-029	4962	TEMPORARY TRAFFIC IMPACT ATTENUATOR - SAND LOADED MODULES	5-99
626	41-030	5001M	DROP INLET TYPES M-1 AND M-2 ADJACENT TO CONCRETE BARRIER (SHEET 1 OF 2)	6-10
627	41-031	5001M	DROP INLET TYPES M-1 AND M-2 ADJACENT TO CONCRETE BARRIER (SHEET 2 OF 2)	6-10
628	41-032	5046H	JOINT DETAILS FOR PLAIN PORTLAND CEMENT CONCRETE PAVING	1-07
629	41-033	9003	FEDERAL AID AND STATE PROJECT MARKERS; RIGHT OF WAY MARKERS; COUNTY LINE MARKER	4-06
630	41-034	9013	CONCRETE SPILLWAYS (TYPICAL USE: ALONG ROADWAY AT END OF CURB)	2-81
631	41-035	9017J	CONCRETE SPILLWAYS (ADJACENT TO APPROACH SLABS)	2-95
632	41-036	9017M	REINFORCED CONCRETE APPROACH SLAB 30 FT. LENGTH (WITH CONCRETE BARRIER)	6-93
633	41-037	9029B	PERFORATED UNDERDRAIN	8-83
634	41-038	9030C	DELINEATORS & OBJECT MARKERS & ALTERNATE POST	4-06
635	41-039	9031H	DETAIL FOR PLUGGING DRILLED WELL, STATIONING OF CONCRETE PAVEMENT, CONCRETE SLAB WELL COVER, DETAIL OF TURNOUTS-RURAL	10-87
636	41-040	9031L	RETAINING WALL TYPICAL SECTIONS, RAISING HEADWALL, AND TYPICAL PIPE PLUG (SHEET 1)	6-98
637	41-041	9031L	DETAILS OF: CATCH BASINS MODIFIED FOR DOUBLE GRATES - CONCRETE CATCH BASINS OF DROP INLET, CONNECTION TO CONCRETE BOX CULVERT - CONCRETE, COVER FOR DROP INLET - CONCRETE STEPS - CONCRETE, SPRING BOX - RETAINING WALL TYPICAL SECTIONS, RAISING HEADWALL - TYPICAL PIPE PLUG (SHEET 2)	6-98

SHEET NO.	DWG NO.		DESCRIPTION	REV. DATE
			GEORGIA CONSTRUCTION STANDARDS (CONT.)	
638	41-042	9031S	MEDIAN DROP INLET (PRECAST OR BUILT-IN-PLACE) AND CONCRETE APRON	4-96
639	41-043	9031U	JUNCTION BOXES (PRECAST OR BUILT-IN-PLACE) PIPE COLLARS, PIPE ELBOW & PIPE CURVED ALIGNMENT	7-85
640	41-044	9033	MILEPOSTS	3-06
641	41-045	9037	TYPICAL FILL DETAIL AT END OF BRIDGE	9-99
642	41-046	9041	ASSEMBLY DETAILS ON ALUMINUM BOLTED EXTRUDED PANELS FOR SPECIAL ROADSIDE SIGNS	8-93
643	41-047	9042	ALUMINUM BOLTED EXTRUDED PANELS ASSEMBLY COMPONENTS DETAILS FOR SPECIAL ROADSIDE SIGNS	9-66
644	41-048	9054A	ERECTION AND FOUNDATION DETAILS FOR SPECIAL ROADSIDE SIGNS-BREAKAWAY POST	10-81
645	41-049	9054B	ERECTION AND FOUNDATION DETAILS FOR SPECIAL ROADSIDE SIGN-BREAKAWAY TYPE POST	3-87
646	41-050	9054C	ERECTION AND FOUNDATION DETAILS FOR SPECIAL ROADSIDE SIGNS-BREAKAWAY TYPE POST	10-81
647	41-051	9100	TRAFFIC CONTROL GENERAL NOTES, STANDARD LEGEND, MISCELLANEOUS DETAILS	3-06
648	41-052	9102	TRAFFIC CONTROL DETAIL FOR LANE CLOSURE ON TWO-LANE HIGHWAY	3-06
649	41-053	9106	TRAFFIC CONTROL DETAIL FOR LANE CLOSURE ON SIX-LANE DIVIDED HIGHWAY	9-07
			EROSION CONTROL PLANS	
650	50-001		EROSION CONTROL COVER SHEET	
651-656	51-001 TO 51-006		EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN GENERAL NOTES	
657	52-001		EC-L1 EROSION CONTROL LEGEND AND UNIFORM CODE SHEET (SHEET 1 OF 6)	1-13
658	52-002		EC-L2 EROSION CONTROL LEGEND AND UNIFORM CODE SHEET (SHEET 2 OF 6)	1-13
659	52-003		EC-L3 EROSION CONTROL LEGEND AND UNIFORM CODE SHEET (SHEET 3 OF 6)	1-13
660	52-004		EC-L4 EROSION CONTROL LEGEND AND UNIFORM CODE SHEET (SHEET 4 OF 6)	1-13
661	52-005		EC-L5 EROSION CONTROL LEGEND AND UNIFORM CODE SHEET (SHEET 5 OF 6)	1-13
662	52-006		EC-L6 EROSION CONTROL LEGEND AND UNIFORM CODE SHEET (SHEET 6 OF 6)	1-13
663-665	53-001 TO 53-003		DRAINAGE AREA MAP	
666-718	54-001 TO 54-053		EROSION CONTROL PLANS	
719	55-001		EROSION CONTROL WATERSHED MAP & SITE MONITORING LOCATION	
			GEORGIA EROSION CONTROL CONSTRUCTION DETAILS	
720	56-001	D-19	TEMPORARY PIPE SLOPE DRAIN WITH DRAIN INLET	2-00
721	56-002	D-20	SILT CONTROL GATES FOR STRUCTURES TYPE - 1, 2, AND 3	1-11
722	56-003	D-22	SEDIMENT BASIN TYPE - 1, FOR USE OUTSIDE NATURAL CHANNELS	8-11
723	56-004	D-24A	TEMPORARY SILT FENCE (SHEET 1 OF 4)	1-11
724	56-005	D-24B	TEMPORARY SILT FENCE BERM DITCH, INSTALLATION, BRUSH BARRIER (SHEET 2 OF 4)	1-11
725	56-006	D-24C	TEMPORARY SILT FENCE J-HOOKS, INLET SEDIMENT TRAPS (SHEET 3 OF 4)	1-11
726	56-007	D-24D	TEMPORARY SILT FENCE FABRIC CHECK DAM (SHEET 4 OF 4)	1-11
727	56-008	D-35	PERMANENT SOIL REINFORCING MAT (TURF REINFORCING MAT) INSTALLATION ON DITCHES	1-11
728	56-009	D-38	EXAMPLES OF DIVERSION CHANNELS	6-93
729	56-010	D-41	CONSTRUCTION EXIT	1-11
730	56-011	D-42	INLET SEDIMENT TRAPS	5-08
730			TOTAL SHEETS	

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SCALE IN FEET
0 20 40 80

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

INDEX

DRAWING No. 2-002

1/5/2009 GPLN

DATE	SHEET NO.	REVISION
8/02/13	1	ADDED REVISION DATE TO COVER
8/02/13	4	ADDED REVISIONS TO REVISION SUMMARY SHEET
8/02/13	455	REVISED INVERT ELEVATION OF PROPOSED 18" CMP
8/02/13	460-470	ADDED RELEASE FOR CONSTRUCTION DATE
8/02/13	471	REMOVED WALL NOTE REGARDING TEMPORARY SHORING
8/02/13	473	REVISED NOTE REGARDING PREDILLING FOR PILING
8/02/13	509-535	ADDED RELEASE FOR CONSTRUCTION DATE

DATE	SHEET NO.	REVISION

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

REVISION SUMMARY

DRAWING No. 3-001

RELEASED FOR CONSTRUCTION - 07-23-13

1. ALL DRIVEWAYS THAT ARE TO BE RECONSTRUCTED SHALL BE PAVED BACK TO THE R/W, BEYOND THE R/W, ALL RECONSTRUCTED DRIVES SHALL BE REPLACED IN KIND, I.E. ASPHALT FOR ASPHALT, CONCRETE FOR CONCRETE, AND G.A.B. FOR GRAVEL OR EARTH, EXCEPT AS NOTED ON THE PLANS. THE DEPTH OF MATERIALS SHALL BE AS FOLLOWS:

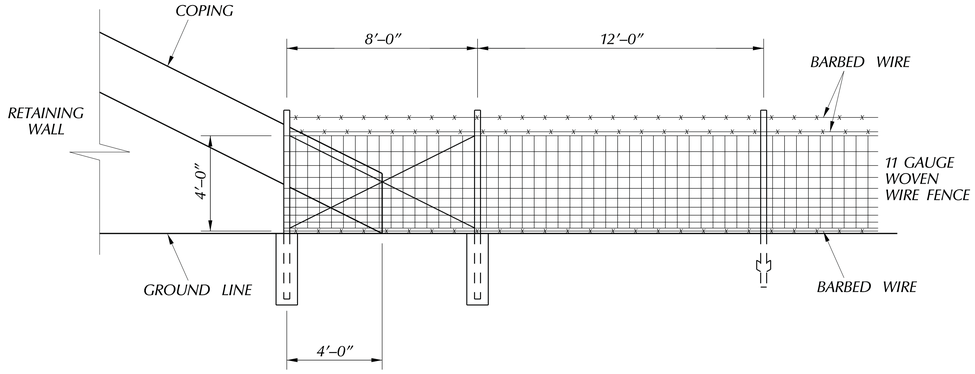
   ASPHALTIC CONCRETE DRIVES
   - RESIDENTIAL- RECYCLED ASPH CONC 12.5 MM SUPERPAVE, GP 1 OR 2 , INCL BITUM MATL & H LIME - 165*/SY
     - RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 1 OR 2 , INCL BITUM MATL & H LIME - 220*/SY
     - GRADED AGGREGATE BASE CRS, 6" INCL MATL
   - COMMERCIAL - RECYCLED ASPH CONC 12.5 MM SUPERPAVE, GP 1 OR 2 , INCL BITUM MATL & H LIME - 165*/SY
     RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 1 OR 2 , INCL BITUM MATL & H LIME - 220*/SY
     RECYCLED ASPH CONC 25 MM SUPERPAVE, GP 1 OR 2 , INCL BITUM MATL & H LIME - 330*/SY
     - GRADED AGGREGATE BASE CRS, 8" INCL MATL

   CONCRETE DRIVES
   - RESIDENTIAL - 4" CONCRETE DRIVEWAY
     - GRADED AGGREGATE BASE CRS, 6" INCL MATL
   - COMMERCIAL - 8" CONCRETE DRIVEWAY
     - GRADED AGGREGATE BASE CRS, 10" INCL MATL
2. ALL DRIVES SHALL BE PAVED TO THE RIGHT-OF-WAY LINE OR TIE-IN POINT, WHICHEVER IS GREATER
3. ALL EXISTING DRAINAGE PIPES SHALL BE REMOVED UNLESS OTHERWISE NOTED ON THE PLANS OR AS DIRECTED BY THE ENGINEER. ALL COSTS FOR REMOVAL SHALL BE INCLUDED IN THE PRICE BID FOR CONSTRUCTION COMPLETE.
4. THIS PROJECT WILL REQUIRE A NOI.
5. CLEAR AND GRUB THE ENTIRE RIGHT-OF-WAY, EXISTING AND REQUIRED, UNLESS OTHERWISE NOTED ON THE PLANS.
6. EXISTING PAVEMENT AND BASE MATERIAL WHERE FULL-DEPTH NEW CONSTRUCTION OVERLAPS EXISTING SECTION OF ROADWAY SHALL BE REMOVED.

C-1 STAY OFF ENVIRONMENTALLY SENSISITIVE AREA (ESA) - NO CONSTRUCTION ACTIVITIES OR DISTURBANCE ALLOWED

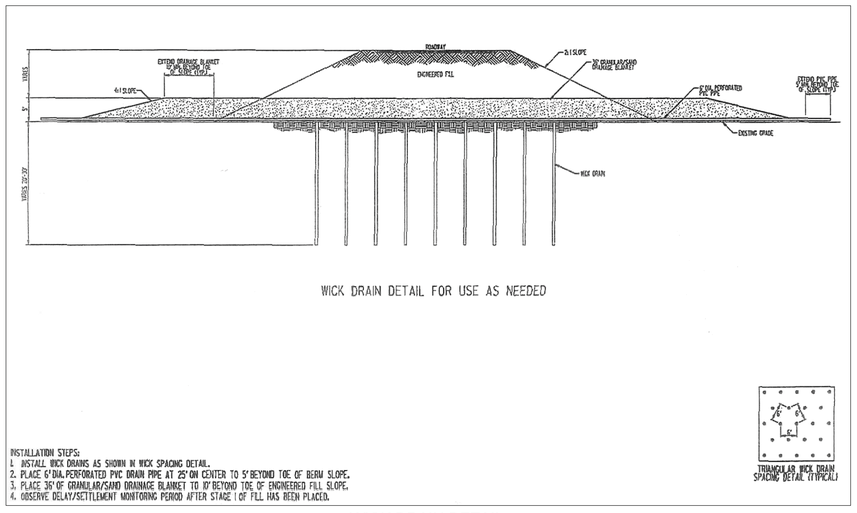
C-3 THE CONTRACTOR SHALL IMPLEMENT BEST POSSIBLE ENGINEERING AND MANAGEMENT CONTROLS TO ENSURE ADEQUATE PROTECTION OF EMPLOYEE SAFETY IN ACCORDANCE WITH GEORGIA'S RULES FOR HAZARDOUS WASTE MANAGEMENT. THE CONTRACTOR SHALL ALSO ENSURE THAT WORKERS DO NOT COME INTO PROLONGED CONTACT WITH CONTAMINATED SOILS OR GROUNDWATER.

C-4 ANY CONTAMINATED SOIL EXCAVATED OR DISTURBED DURING CONSTRUCTION ACTIVITIES MUST BE DISPOSED OF OFF-SITE IN ACCORDANCE WITH THE PREVAILING RULES AND REGULATIONS OF EPD, LAND PROTECTION BRANCH, SOLID WASTE MANAGEMENT PROGRAM RULES AND REGULATIONS.



FOR FENCING DETAILS, REFER TO GEORGIA D.O.T. STANDARD DETAIL F-1

4' WOVEN WIRE FENCE AT RETAINING WALL



WICK DRAIN DETAIL

WICK DRAIN DETAIL FOR USE AS NEEDED

GEORGIA811 Utilities Protection Center, Inc.
Know what's below. Call before you dig.

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

GENERAL NOTES

DRAWING No. 4-001

1/5/2009 GPLN

24-JUL-2013 13:58	1:58:09 PM	0008690_04-002	Y:\Roadways\126379\0008690\Dgn\0008690_04-002.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	6	730

RELEASED FOR CONSTRUCTION - 07-23-13

PROJECT DESCRIPTION:

A QL-B OVERHEAD/SUBSURFACE UTILITY ENGINEERING INVESTIGATION (SUE) WAS PERFORMED AND COMPLETED BY TBE GROUP, INC. ON 11/23/10 FOR THIS PROJECT. THE EXISTING OVERHEAD AND UNDERGROUND FACILITIES SHOWN HEREON WERE INCLUDED IN THIS SUE INVESTIGATION. THE PRESENCE OF THESE UTILITIES HAVE BEEN THOROUGHLY INVESTIGATED AND THE METHOD OF DETERMINING THEIR LOCATION IS INDICATED AS SHOWN IN THE PLANS. UTILITIES THAT HAVE BEEN INSTALLED AFTER THE DATE ABOVE HAVE NOT BEEN INCLUDED IN THIS INVESTIGATION AND SHOULD BE CONSIDERED AS FROM RECORD DRAWING ONLY. ALL OTHER EXISTING TOPOGRAPHIC FEATURES DEPICTED HEREON HAVE BEEN REFERENCED FROM TOPOGRAPHIC/MAPPING PROVIDED BY PARSONS AND SURVEY PACKAGE PROVIDED BY ARCADIS WITH A DATE OF 10/27/09.

GENERAL NOTES:

1. SIZES AND MATERIAL TYPES ARE FROM FIELD VERIFICATION. WHEN NOT ATTAINABLE, THEY ARE NOTED PER RECORD PLANS.
2. PRIVATE LIGHT POLES MAY NOT SHOW CONNECTIVITY.
3. SOME SERVICES STOP SHORT OF THE LOS DUE TO PRIVATE PROPERTY.
4. PREVIOUSLY OWNED SEPCO FACILITIES NOW OWNED BY GEORGIA POWER.

UTILITY SUMMARY:

ALL OF THE FOLLOWING UTILITY OWNERS WERE REPORTED TO HAVE FACILITIES WITHIN THE VICINITY OF THIS PROJECT AT THE TIME OF THE SUE INVESTIGATION. UTILITIES FOUND WITHIN THE LOS AT THE TIME OF THE INVESTIGATION ARE NOTED FOR EACH OWNER LISTED AND ARE SHOWN ON THE PLANS HEREON.

(ROF) = RECORDS ON FILE (RNA) = RECORDS NOT AVAILABLE

1. AGL RESOURCES (AGL) - GAS
   CONTACT: PAUL TEAGUE
   1668 CHATHAM PARKWAY
   SAVANNAH, GEORGIA 31405
   TEL.NO.: (912) 239-6526
   NOTE: ALL GAS IS OWNED BY AGL UNLESS OTHERWISE NOTED (ROF)

2. AT&T (ATT) - TELEPHONE
   CONTACT: STACEY SCARBORO
   126 CHATHAM PARKWAY, ROOM 111
   GARDEN CITY, GEORGIA 31408
   TEL.NO.: (912) 964-7305
   NOTE: ALL TELEPHONE IS OWNED BY ATT UNLESS OTHERWISE NOTED (ROF)

3. CITY OF PORT WENTWORTH (COPW) - WATER & SEWER
   CONTACT: PAT BURK
   7393 HODGSON MEMORIAL DRIVE
   SUITE 200
   SAVANNAH, GEORGIA 31406
   TEL.NO.: (912) 927-1485
   NOTE: AS NOTED ON PLANS (ROF)

4. CITY OF SAVANNAH (COS) - WATER & SEWER
   CONTACT: JOHN SAWYER
   CITY OF SAVANNAH
   P.O. BOX 1027
   SAVANNAH, GA 31402
   TEL.NO.: (912) 651-6573
   NOTE: AS NOTED ON PLANS (ROF)

5. COMCAST (CC) - CABLE TV
   CONTACT: DONNIE LITTLE
   145 PARK OF COMMERCE DRIVE
   SAVANNAH, GA 31405
   TEL.NO.: (912) 658-7466
   NOTE: LOCATED THROUGHOUT (ROF)

6. SOUTHERN NATURAL GAS (SNG) - GAS
   CONTACT: DON COCHRAN
   202 BOURNE AVENUE
   SUITE 150
   SAVANNAH, GEORGIA 31408
   TEL.NO.: (205) 678-6210
   NOTE: AS NOTED ON PLANS (ROF)

7. GEORGIA POWER (GP) - DISTRIBUTION
   CONTACT: RICK LONG
   COSTAL REGION-SAVANNAH
   TEL.NO.: (912) 547-0660
   NOTE: LOCATED THROUGHOUT (ROF)

8. GEORGIA POWER TRANSMISSION (GPT) - TRANSMISSION
   CONTACT: DAN EVERITT
   241 RALPH MCGILL BLVD
   ATLANTA, GA 30396
   TEL.NO.: (404) 506-2889
   NOTE: LOCATED ALONG BOURNE AVE, AUGUSTA RD, AND APPROXIMATELY 150 SOUTH OF NORFOLK SOUTHERN RAILROAD (ROF)

9. LEVEL 3 COMMUNICATIONS (L3) - TELECOMMUNICATION
   CONTACT: JEREMY COOPER
   81 ROSS ROAD
   SAVANNAH, GEORGIA 31405
   TEL.NO.: (912) 655-9688
   NOTE: AS NOTED ON PLANS (ROF)

10. HARGRAY COMMUNICATIONS (HC) - TELECOMMUNICAITON
    CONTACT: DEAN PITTINGER
    5 STATE ROAD S-7-29
    BLUFFTON, SC 29910
    TEL.NO.: (877) 420-7729
    NOTE: LOCATED ALONG CROSSGATE DRIVE (RNA)

11. NORFOLK SOUTHERN RAILROAD (NSRR) - TRACKS
    CONTACT: LEON JACKSON
    1200 PEACHTREE STREET NE
    BOX 142
    ATLANTA, GA 30309
    TEL.NO.: (404) 529-1251
    NOTE: NO UTILITIES FOUND, ONLY TRACKS (RNA)

THE LPA GROUP
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STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

GENERAL NOTES

DRAWING No. 4-002

1/5/2009 GPLN

RELEASED FOR CONSTRUCTION - 07-23-13

ENVIRONMENTAL RESOURCES IMPACT TABLE

RESOURCE NAME/TYPE	LOCATION BEGINNING STA.	LOCATION ENDING STA.	SIDE	CONSTRUCTION ACTIVITY	PERMITTED ACTIVITY	CONTROLLING CRITERIA	SPECIAL PROVISIONS	COMMENTS INCLUDING ANY PERMIT EXPIRATION DATES
WETLAND 1	1020+12 BOURNE AVENUE	1020+84 BOURNE AVENUE	LT.	ROADWAY CONSTRUCTION	0.01 AC PERM. 0.01 AC TEMP. SEE C-2 AND D-2	SECTION 404 IP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	NONE	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
	157+49 JDC	157+72 JDC	LT.				NONE	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
	153+28 JDC	157+49 BOURNE AVENUE	LT.	ROADWAY CONSTRUCTION	0.01 AC PERM. 0.02 AC TEMP. SEE C-2 AND D-2	SECTION 404 IP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	NONE	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
WETLAND 2	1028+28 BOURNE AVENUE	1033+41 BOURNE AVENUE	LT.	ROADWAY CONSTRUCTION	0.61 AC PERM. 0.50 AC TEMP. SEE C-2 AND D-2	SECTION 404 IP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	NONE	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
WETLAND 3	156+14 JDC	160+30 JDC	RT. & LT.	ROADWAY CONSTRUCTION	1.20 AC PERM. 0.30 AC TEMP. SEE C-2 AND D-2	SECTION 404 IP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	NONE	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
STREAM 4	156+27 JDC	158+00 JDC	LT.	NONE	NO IMPACT	SECTION 404 IP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	NONE	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
OPEN WATER 5	168+00 JDC	169+33 JDC	LT.	NONE	NO IMPACT (OUTSIDE ROW)	SECTION 404 IP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	NONE	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
WETLAND 6	179+05 JDC	179+93 JDC	LT. & RT.	ROADWAY CONSTRUCTION	0.22 AC PERM. 0.05 AC TEMP. SEE C-2 AND D-2	SECTION 404 IP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	NONE	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
STREAM 7	179+00 JDC	179+46 JDC	RT.	NONE	NO IMPACT	SECTION 404 IP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	NONE	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
JURISDICTIONAL DITCH 8	179+58 JDC	180+22 JDC	LT. & RT.	ROADWAY CONSTRUCTION	0.04 AC PERM. 0.01 AC TEMP. SEE C-2 AND D-2	SECTION 404 IP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	NONE	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
WETLAND 9	179+40 JDC	182+92 JDC	RT.	ROADWAY CONSTRUCTION	0.03 AC PERM. 0.06 AC TEMP. SEE C-2 AND D-2	SECTION 404 IP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	NONE	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
JURISDICTIONAL DITCH 9A	183+89 JDC	2206+65 GRANGE RD.	RT.	ROADWAY CONSTRUCTION	0.10 AC PERM. 0.18 AC TEMP. SEE C-2 AND D-2	SECTION 404 IP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	NONE	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
WETLAND 9B	2026+50 GRANGE RD.	2028+15 GRANGE RD.	LT.	ROADWAY CONSTRUCTION	0.06 AC PERM. 0.04 AC TEMP. SEE C-2 AND D-2	SECTION 404 IP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	NONE	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
WETLAND 10	179+58 JDC	183+50 JDC	LT. & RT.	ROADWAY CONSTRUCTION	0.11 AC PERM. 0.01 AC TEMP. SEE C-2 AND D-2	SECTION 404 IP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	NONE	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
JURISDICTIONAL DITCH 10A	183+88 JDC	189+50 JDC	LT. & RT.	ROADWAY CONSTRUCTION	0.35 AC PERM. 0.00 AC TEMP. SEE C-2 AND D-2	SECTION 404 IP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	NONE	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
WETLAND 11	200+47 JDC	202+05 JDC	RT.	ROADWAY CONSTRUCTION	0.20 AC PERM. 0.07 AC TEMP. SEE C-2 AND D-2	SECTION 404 IP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	NONE	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
WETLAND 12	220+00 JDC	223+50 JDC	LT. & RT.	ROADWAY CONSTRUCTION	0.00 AC PERM. 0.00 AC TEMP. (NON-JURISDICTIONAL)	SECTION 404 IP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	NONE	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
WETLAND 13	241+64 JDC	242+79 JDC	RT.	ROADWAY CONSTRUCTION	0.00 AC PERM. 0.00 AC TEMP. (NON-JURISDICTIONAL)	SECTION 404 IP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	NONE	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
WETLAND 14	244+75 JDC	247+82 JDC	LT.	ROADWAY CONSTRUCTION	0.00 AC PERM. 0.00 AC TEMP. (NON-JURISDICTIONAL)	SECTION 404 IP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	NONE	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
WETLAND 15	253+00 JDC	256+19 JDC	RT.	ROADWAY CONSTRUCTION	0.00 AC PERM. 0.00 AC TEMP. (NON-JURISDICTIONAL)	SECTION 404 IP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	NONE	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
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GENERAL NOTES

DRAWING No. 4-003

1/5/2009 GPLN

RELEASED FOR CONSTRUCTION - 07-23-13

ENVIRONMENTAL RESOURCES IMPACT TABLE

RESOURCE NAME/TYPE	LOCATION BEGINNING STA.	LOCATION ENDING STA.	SIDE	CONSTRUCTION ACTIVITY	PERMITTED ACTIVITY	CONTROLLING CRITERIA	SPECIAL PROVISIONS	COMMENTS INCLUDING ANY PERMIT EXPIRATION DATES
WETLAND 16	263+98 JDC	264+81 JDC	LT.& RT.	ROADWAY & BRIDGE CONSTRUCTION	0.22 AC PERM. 0.09 AC TEMP. SEE C-2 AND D-2	SECTION 404 JP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	NONE	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
WETLAND 16A	265+34 JDC	269+32 JDC	LT.& RT.	ROADWAY & BRIDGE CONSTRUCTION	1.68 AC PERM. 0.27 AC TEMP. SEE C-2 AND D-2	SECTION 404 JP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	NONE	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
WETLAND 16B	269+50 JDC	273+04 JDC	LT.& RT.	ROADWAY CONSTRUCTION	1.41 AC PERM. 0.42 AC TEMP. SEE C-2 AND D-2	SECTION 404 JP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	NONE	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
WETLAND 17	280+81 JDC	284+25 JDC	LT.	ROADWAY & BRIDGE CONSTRUCTION	0.44 AC PERM. 0.16 AC TEMP. SEE C-2 AND D-2	SECTION 404 JP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	NONE	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
STREAM 18	280+46 JDC	284+08 JDC	LT.	ROADWAY & BRIDGE CONSTRUCTION	230 LF PERM. (0.04 AC EFH) SEE C-2 AND D-2	SECTION 404 JP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	700,702	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
STREAM 18 BUFFER	280+46 JDC	284+08 JDC	LT.	ROADWAY & BRIDGE CONSTRUCTION	6,598 SF (265 LF NON-EXEMPT BUFFER IMPACT (6,335 SF (215 LF) CRITERION (b) + 263 SF (50 LF) CRITERION (a)(2)); SEE D-4	SECTION 404 JP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	700,702	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
WETLAND 19	282+05 JDC	283+03 JDC	RT.	NONE (OUTSIDE ROW)	NO IMPACT	SECTION 404 JP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	NONE	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
STREAM 20	283+07 JDC	285+39 JDC	LT.& RT.	ROADWAY & BRIDGE CONSTRUCTION	70.00 LF TEMP. (0.03 AC EFH)	SECTION 404 JP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	700,702	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
STREAM 20 BUFFER	283+07 JDC	285+39 JDC	LT.& RT.	ROADWAY & BRIDGE CONSTRUCTION	EXEMPT	SECTION 404 JP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	700,702	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
WETLAND 21	283+48 JDC	284+90 JDC	RT.& LT.	BRIDGE CONSTRUCTION	0.00 AC PERM. 0.05 AC TEMP.	SECTION 404 JP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	NONE	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
WETLAND 21A	283+07 JDC	286+88 JDC	RT.& LT.	ROADWAY & BRIDGE CONSTRUCTION	0.60 AC PERM. 0.69 AC TEMP. SEE C-2 AND D-2	SECTION 404 JP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	NONE	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
WETLAND 21B	286+25 JDC	287+50 JDC	RT.& LT.	ROADWAY CONSTRUCTION	0.26 AC PERM. 0.03 AC TEMP. SEE C-2 AND D-2	SECTION 404 JP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	NONE	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
WETLAND 22	289+59 JDC	7013+39 SONNY DIXON INTERCHANGE	LT.& RT.	ROADWAY CONSTRUCTION	1.37 AC PERM. 0.13 AC TEMP. SEE C-2 AND D-2	SECTION 404 JP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	NONE	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
WETLAND 22A	289+03 JDC	7011+43 SONNY DIXON INTERCHANGE	LT.& RT.	ROADWAY CONSTRUCTION	1.35 AC PERM. 0.22 AC TEMP. SEE C-2 AND D-2	SECTION 404 JP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	NONE	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
WETLAND 23	292+60 JDC	296+34 JDC	RT.	ROADWAY & BRIDGE CONSTRUCTION	0.09 AC PERM. 0.00 AC TEMP. SEE C-2 AND D-2	SECTION 404 JP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	700,702	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
STATE WATER 23 BUFFER	292+60 JDC	296+34 JDC	RT.	ROADWAY & BRIDGE CONSTRUCTION	10,454 SF (158 LF) NON-EXEMPT CRITERION (H) BUFFER IMPACT;SEE D-4	SECTION 404 JP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	700,702	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
WETLAND 24	292+78 JDC	293+43 JDC	LT.	ROADWAY CONSTRUCTION	0.02 AC PERM. 0.00 AC TEMP. SEE C-2 AND D-2	SECTION 404 JP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	NONE	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
WETLAND 25	294+08 JDC	294+58 JDC	RT.& LT.	ROADWAY CONSTRUCTION	0.05 AC PERM. 0.00 AC TEMP. SEE C-2 AND D-2	SECTION 404 JP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	NONE	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
JURISDICTIONAL DITCH 26	294+58 JDC	296+21 JDC	LT.	ROADWAY CONSTRUCTION	0.03 AC PERM. 0.00 AC TEMP. SEE C-2 AND D-2	SECTION 404 JP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	NONE	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
WETLAND 27	7010+19 SONNY DIXON INTERCHANGE 297+17 JDC	7012+67 SONNY DIXON INTERCHANGE 298+20 JDC	LT. RT.	ROADWAY CONSTRUCTION	0.23 AC PERM. 0.09 AC TEMP. SEE C-2 AND D-2	SECTION 404 JP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	NONE	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
ESA-THE OHIO REDOUBT	215+25 JDC	215+72 JDC	RT.	NONE	NO IMPACT REFER TO PLAN NOTE C-1	NATIONAL HISTORIC PRESERVATION ACT	NONE	CONTRACTOR SHALL DIRECT QUESTIONS TO THE ENGINEER, AND THE ENGINEER SHALL CONTACT ENVIRONMENTAL SERVICES IF NECESSARY FOR RESOLUTION
ESA	249+89 JDC	250+12 JDC	RT.	NONE	NO IMPACT REFER TO PLAN NOTE C-1	NATIONAL HISTORIC PRESERVATION ACT	NONE	CONTRACTOR SHALL DIRECT QUESTIONS TO THE ENGINEER, AND THE ENGINEER SHALL CONTACT ENVIRONMENTAL SERVICES IF NECESSARY FOR RESOLUTION
ESA-FORMER CHARLESTON & SAVANNAH RAILROAD	314+30 JDC	315+30 JDC	LT. & RT.	NONE	NO IMPACT REFER TO PLAN NOTE C-1	NATIONAL HISTORIC PRESERVATION ACT	NONE	CONTRACTOR SHALL DIRECT QUESTIONS TO THE ENGINEER, AND THE ENGINEER SHALL CONTACT ENVIRONMENTAL SERVICES IF NECESSARY FOR RESOLUTION
ESA-FORMER SAVANNAH & ATLANTA RAILROAD	258+00 JDC	259+78 JDC	LT. & RT.	BRIDGE CONSTRUCTION	TEMP. IMPACT REFER TO PLAN NOTE C-1	NATIONAL HISTORIC PRESERVATION ACT	NONE	CONTRACTOR SHALL DIRECT QUESTIONS TO THE ENGINEER, AND THE ENGINEER SHALL CONTACT ENVIRONMENTAL SERVICES IF NECESSARY FOR RESOLUTION
UST/HAZARDOUS WASTE SITE NO.1 (GLENN LEE TRUCKING, PARCEL 3)	1016+23 BOURNE AVENUE	160+00 JDC	LT.	NONE	NO IMPACT REFER TO PLAN NOTE C-1	EPD, LAND PROTECTION BRANCH, SOLID WASTE MANAGEMENT PROGRAM RULES AND REGULATIONS	NONE	CONTRACTOR SHALL DIRECT QUESTIONS TO THE ENGINEER, AND THE ENGINEER SHALL CONTACT ENVIRONMENTAL SERVICES IF NECESSARY FOR RESOLUTION
UST/HAZARDOUS WASTE SITE NO.2 (PCS NITROGEN FERTILIZER ARCADIAN, PARCEL 4)	1038+00 BOURNE AVENUE	178+88 JDC	LT. & RT.	ROADWAY CONSTRUCTION	REFER TO PLAN NOTES C-3 AND C-4 AND COMMITMENTS E-2 AND E-3	EPD, LAND PROTECTION BRANCH, SOLID WASTE MANAGEMENT PROGRAM RULES AND REGULATIONS	NONE	CONTRACTOR SHALL DIRECT QUESTIONS TO THE ENGINEER, AND THE ENGINEER SHALL CONTACT ENVIRONMENTAL SERVICES IF NECESSARY FOR RESOLUTION
UST/HAZARDOUS WASTE SITE NO.3 (MIT TANK WASH, PARCEL 7)	179+48 JDC	189+44 JDC	RT.	ROADWAY CONSTRUCTION	REFER TO PLAN NOTES C-4	EPD, LAND PROTECTION BRANCH, SOLID WASTE MANAGEMENT PROGRAM RULES AND REGULATIONS	NONE	CONTRACTOR SHALL DIRECT QUESTIONS TO THE ENGINEER, AND THE ENGINEER SHALL CONTACT ENVIRONMENTAL SERVICES IF NECESSARY FOR RESOLUTION
UST/HAZARDOUS WASTE SITE NO.4 (MAXIM CRANE AKA ANTHONY CRANE, PARCEL 13)	2017+11 GRANGE ROAD	201+06 JDC	LT.	ROADWAY CONSTRUCTION	REFER TO PLAN NOTES C-3 AND C-4 AND COMMITMENTS E-2 AND E-3	EPD, LAND PROTECTION BRANCH, SOLID WASTE MANAGEMENT PROGRAM RULES AND REGULATIONS	NONE	CONTRACTOR SHALL DIRECT QUESTIONS TO THE ENGINEER, AND THE ENGINEER SHALL CONTACT ENVIRONMENTAL SERVICES IF NECESSARY FOR RESOLUTION
UST/HAZARDOUS WASTE SITE NO.5 (INTERSTATE NATIONAL LEASE, INC., PARCEL 14)	190+54 JDC	201+06 JDC	LT.	ROADWAY CONSTRUCTION	REFER TO PLAN NOTES C-3 AND C-4 AND COMMITMENTS E-2 AND E-3	EPD, LAND PROTECTION BRANCH, SOLID WASTE MANAGEMENT PROGRAM RULES AND REGULATIONS	NONE	CONTRACTOR SHALL DIRECT QUESTIONS TO THE ENGINEER, AND THE ENGINEER SHALL CONTACT ENVIRONMENTAL SERVICES IF NECESSARY FOR RESOLUTION
UST/HAZARDOUS WASTE SITE NO.6 (COASTAL TRANSPORT PARCEL 17)	2026+89 GRANGE ROAD	196+12 JDC	LT. & RT.	ROADWAY CONSTRUCTION	REFER TO PLAN NOTES C-3 AND C-4 AND COMMITMENTS E-2 AND E-3 AND E-4	EPD, LAND PROTECTION BRANCH, SOLID WASTE MANAGEMENT PROGRAM RULES AND REGULATIONS	NONE	CONTRACTOR SHALL DIRECT QUESTIONS TO THE ENGINEER, AND THE ENGINEER SHALL CONTACT ENVIRONMENTAL SERVICES IF NECESSARY FOR RESOLUTION
UST/HAZARDOUS WASTE SITE (RICHARD GODBEE PARCEL 15)	189+89 JDC	200+54 JDC	RT.	ROADWAY CONSTRUCTION	REFER TO PLAN NOTES C-3 AND C-4 AND COMMITMENTS E-2 AND E-3 AND E-4	EPD, LAND PROTECTION BRANCH, SOLID WASTE MANAGEMENT PROGRAM RULES AND REGULATIONS	NONE	CONTRACTOR SHALL DIRECT QUESTIONS TO THE ENGINEER, AND THE ENGINEER SHALL CONTACT ENVIRONMENTAL SERVICES IF NECESSARY FOR RESOLUTION

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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

GENERAL NOTES

DRAWING No. 4-004

1/5/2009 GPLN

RELEASED FOR CONSTRUCTION - 07-23-13

GENERAL NOTES FOR STANDARD HIGHWAY SIGNS, SPECIAL ROADSIDE SIGNS AND OVERHEAD HIGHWAY SIGNS

1. ALL SIGNS SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH THE DETAILS SHOWN IN THE PLANS AND SHALL CONFORM TO THE REQUIREMENTS SET FORTH IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, CURRENT EDITION, AS WELL AS ALL GEORGIA SPECIFICATIONS, SUPPLEMENTAL SPECIFICATIONS, AND/OR SPECIAL PROVISIONS.

2. SIGN ERECTION MILE POINTS ARE APPROXIMATE AND MAY BE ADJUSTED TO MEET FIELD CONDITIONS WHERE NECESSARY, BUT SHALL BE WITHIN THE LIMITATIONS SET FORTH IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, CURRENT EDITION. APPROVAL FROM THE OFFICE OF TRAFFIC OPERATIONS IS REQUIRED FOR ANY OVERHEAD STRUCTURE OR SUPPLEMENTAL GUIDE SIGN THAT NEEDS TO BE RELOCATED FROM THE LOCATION FOR WHICH IT WAS DESIGNED.

3. MILE MARKERS SHALL BE ERECTED AT A HEIGHT OF 4 FEET ABOVE THE NORMAL EDGE OF PAVEMENT TO THE BOTTOM OF THE SIGN OR ASSEMBLY. ALL STANDARD HIGHWAY SIGNS SHALL BE ERECTED AT A HEIGHT OF 7 FEET ABOVE THE NORMAL EDGE OF PAVEMENT TO THE BOTTOM OF THE SIGN.

4. HORIZONTAL CLEARANCE FOR HIGHWAY SIGNS MOUNTED BEHIND GUARDRAIL SHALL BE 6 FEET FROM THE FACE OF THE GUARD RAIL TO THE NEARER EDGE OF THE SIGN(S).

5. SINGLE PLATE, HORIZONTAL RECTANGULAR SIGNS OVER 48 INCHES IN WIDTH SHALL BE MOUNTED ON TWO POSTS WITH 2 EACH 2 INCH x $^{1}/_{2}$ INCH x (WIDTH OF SIGN) ALUMINUM OR GALVANIZED STEEL STRAPS. THE STRAPS SHALL BE FLUSH WITH THE BACK OF THE SIGN WITH ONE EACH ACROSS THE TOP AND BOTTOM OF THE SIGN. THE CENTERLINE OF EACH POST SHALL BE INSET 1/6TH OF THE SIGN WIDTH FROM THE EDGE OF THE SIGN. SIGN PLATE BOLT HOLES SHALL BE $^{3}/_{8}$ INCH DIAMETER, DRILLED OR PUNCHED, AS SHOWN ON THE SIGN PLATE DETAILS.

6. EACH 42 OR 48 INCH WIDE x 18 OR 24 INCH HIGH SIGN REQUIRES ONE 2 INCH x $^{1}/_{2}$ INCH x (WIDTH OF SIGN) ALUMINUM OR GALVANIZED STEEL STRAP LOCATED IN THE CENTER OF THE SIGN AND FLUSH WITH THE BACK OF THE SIGN.

7. SIGN ASSEMBLIES SHALL BE MOUNTED ON ALUMINUM OR GALVANIZED STEEL STRAP FRAMES. FOR DETAILS AND STRAP SPECIFICATIONS REFER TO SIGN ASSEMBLY-TYPICAL FRAMING DETAILS.

8. TYPE III (HIGH INTENSITY) RETRO-REFLECTIVE SHEETING SHALL BE USED FOR ALL STANDARD HIGHWAY SIGNS REQUIRING REFLECTORIZED BACKGROUNDS EXCEPT AS SPECIFIED BELOW OR SPECIFIED OTHERWISE IN THE PLANS. EITHER CLASS 1 OR CLASS 2 ADHESIVE BACKING IS PERMISSIBLE.

9. TYPE IX (VERY HIGH INTENSITY) FLUORESCENT YELLOW RETRO-REFLECTIVE SHEETING SHALL BE USED FOR ALL WARNING SIGNS.

10. A $^{1}/_{2}$ INCH MINIMUM AIR SPACE SHALL BE REQUIRED BETWEEN ALL SIGN PLATES WITHIN AN ASSEMBLY.

11. WHERE SIGNS WITHIN AN ASSEMBLY EXTEND BELOW THE STANDARD MOUNTING HOLES ON THE POST(S), ADDITIONAL $^{3}/_{8}$ INCH DIAMETER HOLE(S), DRILLED OR PUNCHED, SHALL BE REQUIRED TO PROPERLY MOUNT THE ASSEMBLY.

12. INTERSTATE SHIELDS SHALL CONTAIN THE WORD GEORGIA. ALL INTERSTATE, U.S., AND GEORGIA SHIELDS REQUIRING ALT, BUS, CONN, LOOP, OR SPUR SHALL USE 4 INCH SERIES "D" LETTERS. REFER TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, CURRENT EDITION, FOR DETAILS.

13. FOR DETAILS OF SPECIAL DESIGN HIGHWAY SIGNS, SEE DETAILS OF SPECIAL ROADSIDE SIGNS AND DETAILS AND CLEARANCE DIAGRAMS.

14. THE CONTRACTOR WILL BE REQUIRED TO REMOVE ANY EXISTING SIGNS THAT ARE DUPLICATED OR ARE CONTRARY TO THESE SIGN PLANS.

15. HORIZONTAL CLEARANCE FOR SPECIAL ROADSIDE SIGNS SHALL BE 32 FEET FROM THE NORMAL EDGE OF PAVEMENT TO THE NEAR EDGE OF THE SIGN UNLESS SPECIFIED OTHERWISE IN THE PLANS.

16. SPECIAL ROADSIDE SIGNS ERECTED ON CUT SLOPES SHALL HAVE A MINIMUM CLEARANCE OF 1 FOOT ABOVE THE GROUNDLINE AND MAXIMUM HEIGHT OF 10 FEET ABOVE THE NORMAL EDGE OF PAVEMENT TO THE BOTTOM OF THE SIGN.

17. POST LENGTHS, POST SIZES, AND FOOTING SIZES FOR SPECIAL ROADSIDE SIGNS ARE ESTIMATED, ONLY. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE ACTUAL LENGTHS AND SIZES REQUIRED ACCORDING TO GEORGIA STANDARDS PRIOR TO ORDERING MATERIALS. FOR ERECTION AND FOUNDATION DETAILS FOR SPECIAL ROADSIDE SIGNS WITH BREAK-AWAY POSTS, REFER TO GEORGIA STANDARDS 9054A, 9054B, AND 9054C.

18. GALVANIZED STEEL I-BEAMS SHALL HAVE ALL IDENTIFICATION NUMBERS RE-ESTABLISHED AFTER COMPLETION OF GALVANIZING.

19. FOR BREAK-AWAY POSTS THE CONTRACT BID PRICE FOR CLASS "A" CONCRETE SHALL INCLUDE THE COST OF FURNISHING AND PLACING REINFORCEMENT STEEL AND STUB POSTS AS SHOWN IN THE FOOTING DETAILS ON GEORGIA STANDARD 9054A.

20. THE CONTRACTOR SHALL ENSURE THAT ALL SPECIAL ROADSIDE SIGNS AND OVERHEAD SIGNS INSTALLED BY THIS PROJECT HAVE A MINIMUM SIGHT DISTANCE OF 1000 FEET. CLEARING OF OBSTACLES TO OBTAIN THE MINIMUM SIGHT DISTANCE SHALL BE IN ACCORDANCE WITH SECTION 201 OF THE GEORGIA STANDARD SPECIFICATIONS.

21. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE AND AVOID ANY INTERFERENCE WITH UNDERGROUND UTILITIES OR GDOT COMMUNICATIONS. ANY DAMAGE TO UTILITIES OR GDOT COMMUNICATIONS CAUSED BY THE CONTRACTOR SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL CALL GEORGIA 811 AND CONTACT THE GDOT ITS MANAGER AT 404-694-6613 PRIOR TO ANY DIGGING. CALLS SHALL BE PLACED AT LEAST 48 HOURS IN ADVANCE FOR LOCATES.

22. MAINTENANCE WALKWAYS ARE NOT REQUIRED ON STRUCTURAL SUPPORTS OF ANY TYPE.

23. FOR PLACEMENT OF GUARDRAIL, SEE GEORGIA STANDARDS 4022A AND 4051 AND/OR CONSTRUCTION DETAILS.

24. ANY TREES, SHRUBS, OR FLOWERS THAT ARE DAMAGED DURING INSTALLATION OF NEW SIGN STRUCTURES SHALL BE REPLACED IN KIND AT NO ADDITIONAL COST TO THE DEPARTMENT IN ACCORDANCE WITH SECTION 702 OF THE GEORGIA STANDARD SPECIFICATIONS.

25. EXISTING FOOTINGS NO LONGER IN USE SHALL BE PARTIALLY REMOVED ONE (1) FOOT BELOW EXISTING GROUND LINE. THE RESULTING HOLE SHALL BE FILLED IN AND STABALIZED.

26. ALL SPECIAL ROADSIDE AND OVERHEAD HIGHWAY SIGNS SHALL BE FABRICATED WITH ALUMINUM BOLTED EXTRUDED PANELS.

27. BACKGROUNDS FOR ALL SPECIAL ROADSIDE AND OVERHEAD HIGHWAY SIGNS SHALL BE STANDARD INTERSTATE GREEN, TYPE III (HIGH INTENSITY) RETRO-REFLECTIVE SHEETING, UNLESS SPECIFIED OTHERWISE IN THE PLANS.

28. LEGENDS FOR ALL SPECIAL ROADSIDE AND OVERHEAD HIGHWAY SIGNS SHALL BE WHITE, TYPE IX (VERY HIGH INTENSITY) RETRO-REFLECTIVE SHEETING LETTERS, NUMERALS, SYMBOLS AND BORDERS ON 0.032 INCH ALUMINUM CUTOUTS.

29. ALL SHIELDS SHALL BE 0.08 INCH ALUMINUM OF THE SIZE AND SHAPE SPECIFIED IN THE PLANS. U.S. AND GEORGIA SHIELD LEGENDS SHALL BE BLACK NUMERALS AND LETTERS SILK SCREENED ON WHITE, TYPE IX (VERY HIGH INTENSITY) REFLECTIVE SHEETING BACKGROUNDS WITH NO BORDERS. INTERSTATE SHIELDS SHALL BE PER THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, CURRENT EDITION.

30. FOR DETAILS OF U.S. AND INTERSTATE SHIELDS AND ARROWS, REFER TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, CURRENT EDITION.

31. SPACING BETWEEN LETTERS OR OTHER CHARACTERS THAT IS NOT SHOWN IN THE PLANS MAY BE RECOMMENDED BY THE MANUFACTURER, BUT SHALL CONFORM TO INTERSTATE SIGNING REQUIREMENTS.

32. FOR ASSEMBLY DETAILS AND ASSEMBLY COMPONENTS DETAILS ON ALUMINUM BOLTED EXTRUDED PANELS, REFER TO GEORGIA STANDARDS 9041 AND 9042.

33. YELLOW OVERLAYS SHALL BE 0.08 INCH ALUMINUM OF THE SIZE SPECIFIED IN THE PLANS. LEGENDS SHALL BE BLACK LETTERS, NUMERALS AND SYMBOLS SILK SCREENED ON STANDARD INTERSTATE YELLOW, TYPE III (HIGH INTENSITY) REFLECTIVE SHEETING BACKGROUNDS. SIGN PANELS BEHIND YELLOW OVERLAYS SHALL BE THE SAME COLOR AS THE REST OF THE SIGN.

34. STRUCTURE NUMBERS SHALL BE PLACED ON OUTSIDE SHOULDER VERTICAL SUPPORT OF STRUCTURE USING DIE CUT, 6 INCH SERIES "D" WHITE, TYPE I (ENCLOSED LENS) REFLECTIVE SHEETING CHARACTERS ON STANDARD INTERSTATE GREEN, TYPE I (ENCLOSED LENS) REFLECTIVE SHEETING. THE STRUCTURE NUMBER, WHICH SHALL READ FROM TOP TO BOTTOM, SHALL BE PLACED AT EYE LEVEL AND POSITIONED SO THAT IT IS VISIBLE TO ONCOMING TRAFFIC. THE AREA WHERE STRUCTURE NUMBER IS TO BE PLACED SHALL BE COATED WITH PRIMER AND ALLOWED TO DRY BEFORE PLACING STRUCTURE NUMBER.

35. ANCHOR BOLTS SHALL MEET THE REQUIREMENTS OF AASHTO M 314 GRADE 55.

36. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THAT THE SPAN LENGTHS SHOWN ON THE PLANS ARE CORRECT AND FOR DETERMINING THE ELEVATION OF THE HIGHEST POINT OF THE PAVEMENT OR SHOULDER AND OF THE GROUNDLINE AT THE CENTERLINE OF EACH VERTICAL SUPPORT FOR ALL OVERHEAD STRUCTURES PRIOR TO THEIR DESIGN AND FABRICATION.

37. CONTRACTOR TO CONTACT GEORGIA LOGO, 770-447-6399 TO ADVISE ON THE "REMOVE AND RESET" OF THE LOGO SIGNS.

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0 20 40 80

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

GENERAL NOTES

DRAWING No. 4-005

1/5/2009 GPLN

RELEASED FOR CONSTRUCTION - 07-23-13

TRAFFIC SIGNAL GENERAL NOTES

1. THE COMPLETE SIGNAL INSTALLATION SHALL CONFORM TO ALL APPROPRIATE PARTS OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES CURRENT EDITION.

2. SIGNAL HEADS SHALL BE ERECTED TO PROVIDE AT LEAST 17 FEET BUT NO MORE THAN 19 FEET CLEARANCE FROM BOTTOM OF SIGNAL HEADS TO TOP OF ROAD SURFACE AND A MINIMUM OF 8 FEET MEASURED HORIZONTALLY BETWEEN CENTERS OF SIGNAL FACES.

3. SHIELDED CABLE WILL BE USED FOR DETECTOR RUNS AS SHOWN ON THE DETAIL SHEET. DETECTORS SHALL HAVE SEPERATE LEAD-INS TO THE CONTROL CABINET.

4. THE CONTRACTOR SHALL LOCATE UNDERGROUND UTILITIES IN VICINITY OF NEW TRAFFIC SIGNAL POLES BEFORE INSTALLATION. AT THE DISCRETION OF THE ENGINEER, MINOR SHIFTS, (UP TO A MAXIMUM OF 5 FEET), IN LOCATION OF NEW SIGNAL POLES, ARE ACCEPTABLE TO AVOID UNDERGROUND UTILITIES. MINUMUM CLEARANCES FROM EDGE OF PAVEMENT SHALL BE MAINTAINED. PLACEMENT OF THE SIGNAL HEADS SHALL BE RETAINED AS SHOWN ON THE PLANS.

5. THE CONTRACTOR SHALL MAINTAIN EXISTING TRAFFIC SIGNALS DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAFFIC SIGNAL AND/OR CONTROL SYSTEM ADJUSTMENTS, INCLUDING TEMPORARY SUPPORT POLE LOCATIONS(S) REQUIRED BY THE PROJECT DURING THE INTERIM PERIOD THROUGH INSTALLATION OF NEW SIGNAL EQUIPMENT. AT NO TIME SHALL THE CONTRACTOR CAUSE ANY PART OF THE SIGNAL OPERATION TO BE INOPERABLE.

6. THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL NEW GUYS ON EXISTING UTILITY TIMBER POLES WHEN ATTACHING SPAN WIRE OR INTERCONNECT CABLE TO THE POLES UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

7. INSTALLATION IS TO BE CHECKED AND ACCEPTED BY THE DISTRICT TRAFFIC ENGINEER PRIOR TO FINAL ACCEPTANCE.

8. WHEN REMOVED, EXISTING EQUIPMENT SHALL BE DELIVERED AND UNLOADED BY THE CONTRACTOR TO THE DEPARTMENT OF TRANSPORTATION OFFICE OF TRAFFIC OPERATIONS DISTRICT SIGNAL SHOP. CONTACT THE DISTRICT SIGNAL ENGINEER AT (912)427-5703.

9. FOR STRAIN POLE FOUNDATION SIZE AND REINFORCEMENT, SEE STRAIN POLE AND MAST ARM POLE FOUNDATION SHEET.

10. MATERIAL CERTIFICATION IS REQUIRED PRIOR TO BEGINNING ANY SIGNAL INSTALLATION WORK. THE CONTRACTOR SHALL FOLLOW PROCEDURES OUTLINED IN THE DOT SPECIFICATION.

11. THE INSTALLATIONS SHALL BE CAPABLE OF "CLOSED LOOP" ISOLATED MONITORING OVER TELEPHONE LINES FROM EXISTING CENTRAL COMPUTERS LOCATED AT BOTH THE LOCAL DOT DISTRICT OFFICE, TRAFFIC ENGINEERING SECTION, AND THE DOT OFFICE OF TRAFFIC SIGNAL ELECTRICAL FACILITIES, 935 E. CONFEDERATE AVENUE BLDG. 5 ATLANTA, GEORGIA 30316. CLOSED LOOP SYSTEM DEMONSTRATION IS REQUIRED AT BOTH CENTRAL SITES, NOTED PRIOR TO FINAL ACCEPTANCE.

12. ALL EXISTING STOP BARS, WORDS, ARROWS AND CROSSWALKS THAT ARE NOT REMOVED OR RELOCATED SHALL BE REPLACED IN ACCORDANCE WITH CURRENT GDOT STANDARDS.

13. PROPOSED SIGNAL SUPPORT WIRE ATTACHMENT HEIGHTS ON POLES ARE PROVIDED AS GENERAL GUIDELINES TO INSTALLER. ACTUAL ATTACHMENT HEIGHTS SHALL BE FIELD DETERMINED BY INSTALLER TO PROVIDE REQUIRED SIGNAL HEAD MOUNTING HEIGHTS AND CLEARANCE FROM EXISTING UTILITIES.

14. SAWCUTS AND REMOVAL OF ALL CONCRETE ASSOCIATED WITH CURB CUT RAMPS SHALL BE INCLUDED IN THE PRICE BID FOR CONSTRUCTION COMPLETE.

15. THE CONTRACTOR SHALL REPLACE IN KIND AND SIZE, AT NO SEPARATE EXPENSE TO THE DEPARTMENT, ANY BARRIER WALL, FENCE, DITCH PAVING, CURBING, SIDEWALK, GUTTER, SLOPE PAVEMENT, SIGNS, GUARDRAILS, LANDSCAPING, GRASSINGS, UTILITY SERVICE LINES, STORM DRAIN PIPES, MASONRY WALLS AND PAVING THAT IS REMOVED, DAMAGED OR DESTROYED, DUE TO CONTRACTOR'S ACTIVITY.

16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL PERTINENT EROSION CONTROL. THESE MEASURES SHALL BE IMPLEMENTED AND MAINTAINED FOR THE DURATION OF THE WORK.

17. ALL TRAFFIC MARKING, SYMBOLS OR STRIPING TO BE REMOVED AND/OR REPLACED SHALL BE INCLUDED IN THE PRICE BID FOR CONSTRUCTION COMPLETE

18. NOTICE OF INTENT (NOI) IS REQUIRED FOR THIS PROJECT.

NOTES:
UTILITY DISCLAIMER: EXISTING UTILITY LINES SHOWN ARE APPROXIMATE LOCATIONS ONLY. THE CONTRACTOR/INSTALLER SHALL FIELD VERIFY ALL EXISTING UTILITY LINE LOCATIONS PRIOR TO ANY CONSTRUCTION. DAMAGE TO EXISTING UTILITY LINES RESULTING FROM THE CONTRACTORS/INSTALLERS NEGLIGENCE SHALL BE REPAIRED AT THE CONTRACTORS/INSTALLERS EXPENSE.

CONTRACTOR/INSTALLER SHALL CONTACT UTILITY LOCATOR SERVICE BY CALLING GEORGIA 811 AND COUNTY OF CHATHAM AT 912-652-7800 PRIOR TO ANY CONSTRUCTION.

EXISTING POLE ATTACHMENT DATA IS APPROXIMATE AND IS PROVIDED AS A GENERAL GUIDELINE TO THE CONTRACTOR/INSTALLER TO AID IN IDENTIFYING POTENTIAL INSTALLATION CONFLICTS. THE CONTRACTOR/INSTALLER SHALL PROVIDE APPROPRIATE CLEARANCES FROM UTILITIES.

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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

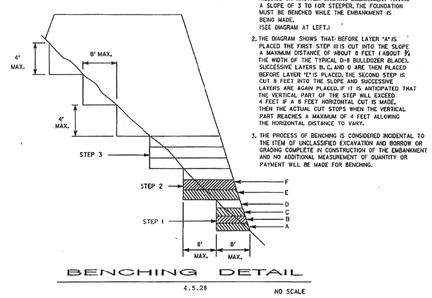
GENERAL NOTES

DRAWING No. 4-006

1/5/2009 GPLN

RELEASED FOR CONSTRUCTION - 07-23-13

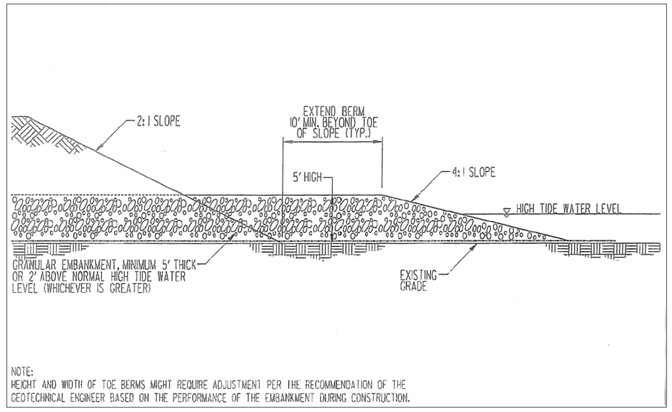
REVISED 5-29-2008



1. WHERE THE EMBANKMENT IS TO BE PLACED ON A HILLSIDE OR ANOTHER EXISTING EMBANKMENT HAVING A SLOPE OF 3 TO 1OR STEEPER, THE FOUNDATION MUST BE BENCHED WHILE THE EMBANKMENT IS BEING MADE. (SEE DIAGRAM AT LEFT.)
2. THE DIAGRAM SHOWS THAT BEFORE LAYER "A" IS PLACED THE FIRST STEP IS CUT INTO THE SLOPE, A MAXIMUM DISTANCE OF ABOUT 8 FEET (ABOUT ½ THE WIDTH OF THE TYPICAL D-8 BULLDOZER BLADES). SUCCESSIVE LAYERS B, C, AND D ARE THEN PLACED. BEFORE LAYER "E" IS PLACED, THE SECOND STEP IS CUT 8 FEET INTO THE SLOPE AND SUCCESSIVE LAYERS ARE AGAIN PLACED. IF IT IS ANTICIPATED THAT THE VERTICAL PART OF THE STEP WILL EXCEED 4 FEET IF A 8 FEET HORIZONTAL CUT IS MADE, THEN THE ACTUAL CUT STOPS WHEN THE VERTICAL PART REACHES A MAXIMUM OF 4 FEET ALLOWING THE HORIZONTAL DISTANCE TO VARY.
3. THE PROCESS OF BENCHING IS CONSIDERED INCIDENTAL TO THE ITEM OF UNCLASSIFIED EXCAVATION AND BORROW OR GRADING COMPLETE IN CONSTRUCTION OF THE EMBANKMENT AND NO ADDITIONAL MEASUREMENT OF QUANTITY OR PAYMENT WILL BE MADE FOR BENCHING.

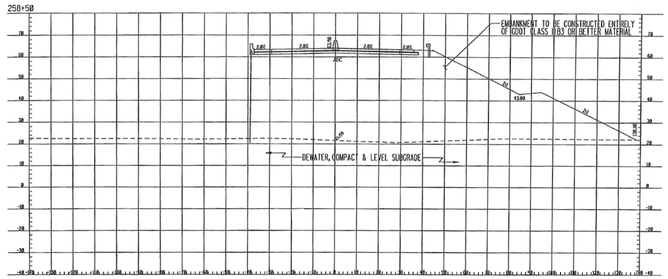
BENCHING DETAIL

4.5.28 NO SCALE



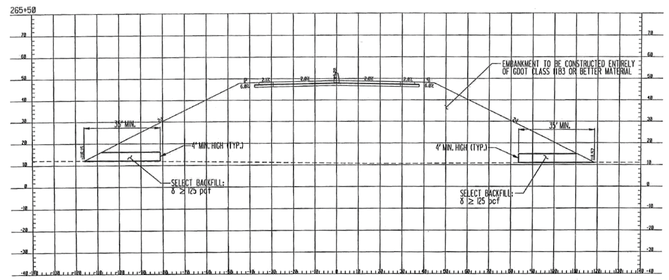
NOTE:
HEIGHT AND WIDTH OF TOE BERMS MIGHT REQUIRE ADJUSTMENT PER THE RECOMMENDATION OF THE GEOTECHNICAL ENGINEER BASED ON THE PERFORMANCE OF THE EMBANKMENT DURING CONSTRUCTION.

BERM DETAIL



JDC STATIONS 253+50 TO 258+00 CL, RT
DEWATER & DENSIFY SUBGRADE USING A HEAVY VIBRATORY ROLLER PRIOR TO EMBANKMENT CONSTRUCTION. COMPACTED SUBGRADE SHOULD HAVE AN IN-PLACE DENSITY OF 115 pcf OR HIGHER TO A DEPTH OF AT LEAST 3 FEET BELOW SUBGRADE

REMOVAL/STABILIZATION DETAIL

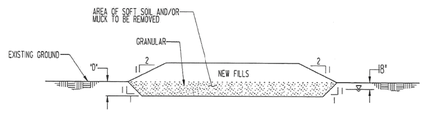


JDC STATIONS 265+50 TO 268+50 LT, RT
CONSTRUCT THE BASE OF THE EMBANKMENT (FROM TOE OF SLOPE TO AT LEAST 35 FEET INTO THE EMBANKMENT) USING SELECT BACKFILL TO A HEIGHT OF AT LEAST 4 FEET ABOVE SUBGRADE ELEVATION. SELECT BACKFILL SHALL MEET THE REQUIREMENTS OF GRANULAR EMBANKMENT OR MSE WALL BACKFILL AND SHALL HAVE AN IN-PLACE DENSITY OF AT LEAST 125 pcf.

REMOVAL/STABILIZATION DETAIL

JIMMY DELOACH CONNECTOR
CSMSL-008-00(690) CHATHAM COUNTY - P.I. NO. 0008690

REMOVAL DETAIL



NOTE:
1. UNDERCUT EXISTING SOILS TO DEPTH "D" BELOW EXISTING GROUND.
* 2. REPLACE THE UNDERCUT AREA WITH GRANULAR EMBANKMENT TO AT LEAST 18" ABOVE WATER LEVEL PRIOR TO PLACING NORMAL FILLS.
3. DETAILS APPLY TO THE FOLLOWING STATIONS BELOW:

* REQUIRED ONLY IF THE AREAS ARE INUNDATED AND DITCHING IS NOT FEASIBLE AT THE TIME OF CONSTRUCTION.

STATION TO STATION	LOCATION	UNDERCUT DEPTH "D"
157+50± TO 160+00±	LEFT	3.0 FEET
158+25± TO 158+75±	CENTER	1.5 FEET
158+75± TO 159+75±	RIGHT	2.0 FEET

REMOVAL AT THESE LOCATIONS IS LIMITED TO MUCK WITHIN THE EXISTING DRAINAGE DITCH WHERE IT CROSSES THE ALIGNMENT

V:\Jobs\2015\0338802.SGN

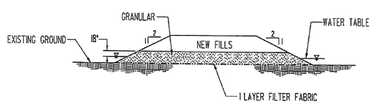
pH 4.0
Resistivity 407
Project No.: CSMSL-0008-00(690) County: Chatham P.I. No.: 0008690

Pipe Culvert Material Alternates
For Coastal Plain Region

TYPE OF PIPE INSTALLATION			CONCRETE	CORRUGATED STEEL AASHTO M-36		CORRUGATED ALUMINUM AASHTO M-196	PLASTIC			
				ALUMINUM COATED (TYPE 2) CORR. STEEL	PLAIN ZINC COATED	PLAIN UNCOATED ALUMINUM	CORR. POLY-ETHYLENE AASHTO M-252	CORR. POLY-ETHYLENE SMOOTHED INTERIOR AASHTO M-294 TYPE "S"	POLY VINYL CHLORIDE (PVC) PROFILE WALL AASHTO M-304	POLY VINYL CHLORIDE (PVC) CORRUGATED SMOOTH INTERIOR ASTM F-949
LONGITUDINAL INTERSTATE AND TRAVEL BEARING			X							
LONGITUDINAL NON-INTERSTATE AND NON-TRAVEL BEARING			X					X	X	X
STORM DRAIN CROSS DRAIN GRADE ≤ 10%	ADT < 250		X					X	X	X
	250 < ADT < 1,500		X					X	X	X
	1,500 < ADT < 15,000		X					X	X	X
	ADT > 15,000		X							
STORM DRAIN CROSS DRAIN GRADE > 10%	ADT < 250							X	X	X
	ADT > 250							X	X	X
SIDE DRAIN			X					X	X	X
PERMANENT SLOPE DRAIN				X	X	X		X	X	X
PERFORATED UNDERDRAIN				X	X	X	X	X		X

NOTES:
1 Allowable materials are indicated by an "X".
2 Structural requirements of storm drain pipe will be in accordance with Georgia Standard 1030-D or 1030-P, whichever is applicable, and the Standard Specifications.
3 Graded aggregate backfill shall be used in cross drain applications for all plastic pipes (AASHTO M-294, HDPE pipe; AASHTO M-304, PVC pipe; ASTM F-949, PVC pipe).
4 The Contractor shall provide additional storm sewer capacity calculations if a pipe material other than concrete is selected.
5 Pipe used under mechanically stabilized earth (MSE) walls, within MSE wall backfill, or within five feet of an MSE wall face shall be Class V Concrete Pipe.
6 Project specific pH and Resistivity values are entered into the respective boxes above to determine allowable pipe materials.

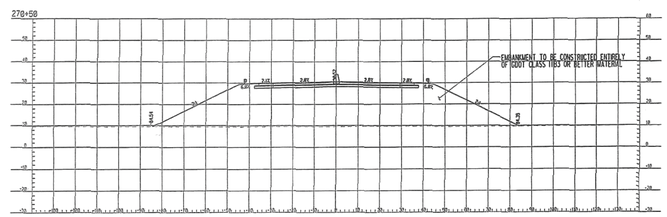
Rev. 03-22-10



NOTE:
1. PLACE 1 LAYER OF FILTER FABRIC ON TOP OF THE EXISTING GROUND.
* 2. PLACE A MAT OF GRANULAR EMBANKMENT TO 18" ABOVE WATER LEVEL.

* REQUIRED ONLY IN AREAS THAT ARE INUNDATED AND DITCHING IS NOT FEASIBLE AT THE TIME OF CONSTRUCTION

FABRIC ON INUNDATED SUBGRADE



JDC STATIONS 268+50~ TO 272+50~

NOTE:
IF SUBGRADE IS INUNDATED AND CAN'T BE DRAINED, PLACE LIGHT-WEIGHT FILTER FABRIC AND GRANULAR EMBANKMENT TO 24-INCHES ABOVE THE WATER LEVEL.

REMOVAL/STABILIZATION DETAIL

GPLN 4407034 4407035 4407036 4407037 4407074

1/5/2009

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 20 40 80

REVISION DATES

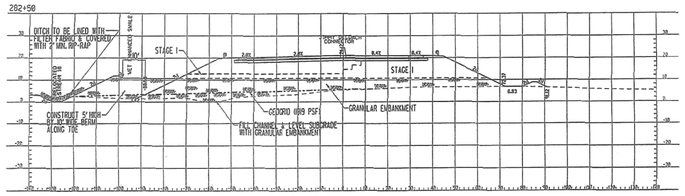
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

GENERAL NOTES

DRAWING No. 4-007

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	12	730

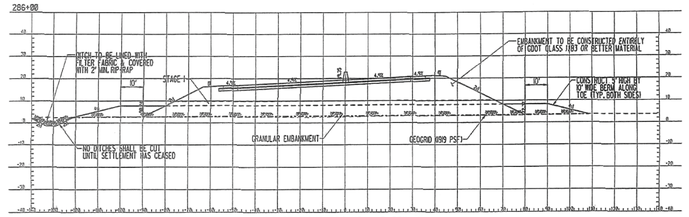
RELEASED FOR CONSTRUCTION - 07-23-13



JDC STATIONS 280+50~ TO 284+00~

NOTES:
1. WICK DRAINS MAY BE INSTALLED AS NEEDED PER THE ATTACHED WICK DRAIN DETAIL TO ACCELERATE TIME CONSOLIDATION/SETTLEMENT.
2. DITCH SHALL BE CONSTRUCTED AND RIP-RAP PLACED PRIOR TO BERM EMBANKMENT CONSTRUCTION.
3. DO NOT CONSTRUCT ENHANCED SWALE BERM AT THE LEFT END OF THE TOE BERM UNTIL SETTLEMENT CEASES.
4. ENTIRE TOE-DITCH SLOPE FACES AND BOTTOM OF TOE DITCHES TO BE COVERED WITH A FILTER FABRIC AND AT LEAST 2 FEET OF TYPE III RIP-RAP. RIP-RAP TO EXTEND AT LEAST 2 FEET ABOVE THE TOP OF THE RIGHT SIDE OF THE DITCH UP THE FACE OF THE ENHANCED SWALE BERM.
5. STAGED CONSTRUCTION NOT REQUIRED OUTSIDE THE MARSH LIMITS, RIGHT OF JDC CL.
6. DELAY PERIODS, RATE OF FILL PLACEMENT, AND DRAINAGE DITCH CONSTRUCTION CAN BE ADJUSTED PER THE RECOMMENDATION OF THE GEOTECHNICAL ENGINEER BASED ON SETTLEMENT MONITORING DATA AT THE TIME OF CONSTRUCTION.

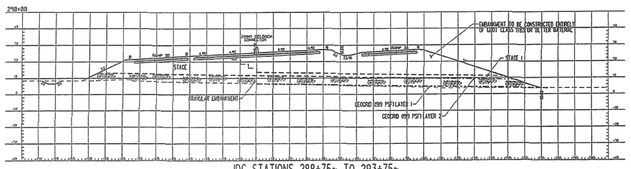
SEQUENCE:
1. FILL TIDAL CREEK CHANNEL AND LEVEL SUBGRADE WITH GRANULAR EMBANKMENT.
2. PLACE GEOGRID @ LTOS 1189 PSF) FROM JDC CL (AT LEAST 20 FEET BEYOND MARSH LIMITS) TO THE LEFT END OF THE TOE BERM/ENHANCED SWALE BERM.
3. JDC LEFT AND CL: PLACE GRANULAR EMBANKMENT TO CONSTRUCT THE TOE BERM AND THE BASE OF THE JDC EMBANKMENT. GRANULAR EMBANKMENT SHALL BE PLACED TO AT LEAST 24 INCHES ABOVE THE NORMAL HIGH TIDE WATER LEVEL OR TO A DEPTH OF AT LEAST 5 FEET (WHICHEVER IS GREATER).
4. PLACE STAGE I FILL TO TOTAL FILL HEIGHT OF 8 FEET AT LEFT & CL (INCLUDING THE GRANULAR EMBANKMENT BASE).
5. OBSERVE SETTLEMENT/DELAY PERIOD UNTIL SETTLEMENT CEASES.
6. PLACE SUBSEQUENT STAGES OF FILL IN MAXIMUM 7 FOOT INCREMENTS WITH SETTLEMENT/DELAY PERIODS BETWEEN EACH INCREMENT.



JDC STATIONS 284+50~ TO 288+75~
RAMP 3A STATIONS 5100+00~ TO 5102+50~

NOTES:
1. WICK DRAINS MAY BE INSTALLED AS NEEDED PER THE ATTACHED WICK DRAIN DETAIL TO ACCELERATE TIME CONSOLIDATION/SETTLEMENT.
2. TOE BERMS NOT REQUIRED IN AREAS OUTSIDE THE LIMITS OF THE TIDAL MARSH (STATIONS 287+00~ TO 288+75~).
3. DO NOT EXCAVATE DRAINAGE DITCHES WITHIN 25 FEET OF THE EMBANKMENT TOE UNTIL ALL FILL HAS BEEN PLACED AND SETTLEMENT CEASES.
4. ENTIRE TOE-DITCH SLOPE FACES AND BOTTOM OF TOE DITCHES TO BE COVERED WITH A FILTER FABRIC AND AT LEAST 2 FEET OF TYPE III RIP-RAP.
5. DELAY PERIODS, RATE OF FILL PLACEMENT, AND DRAINAGE DITCH CONSTRUCTION CAN BE ADJUSTED PER THE RECOMMENDATION OF THE GEOTECHNICAL ENGINEER BASED ON SETTLEMENT MONITORING DATA AT THE TIME OF CONSTRUCTION.

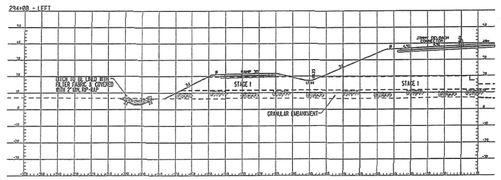
SEQUENCE:
1. PLACE GEOGRID @ LTOS 1189 PSF) FULL WIDTH OF EMBANKMENT AND TOE BERMS.
2. PLACE GRANULAR EMBANKMENT TO CONSTRUCT THE TOE BERMS AND THE BASE OF THE JDC EMBANKMENT. GRANULAR EMBANKMENT SHALL BE PLACED TO AT LEAST 24 INCHES ABOVE THE NORMAL HIGH TIDE WATER LEVEL OR TO A DEPTH OF AT LEAST 5 FEET (WHICHEVER IS GREATER).
3. PLACE STAGE I FILL TO A TOTAL FILL HEIGHT OF 7 FEET (INCLUDING THE GRANULAR EMBANKMENT BASE).
4. OBSERVE SETTLEMENT/DELAY PERIOD UNTIL SETTLEMENT CEASES.
5. PLACE SUBSEQUENT STAGES OF FILL IN MAXIMUM 7 FOOT INCREMENTS WITH SETTLEMENT/DELAY PERIODS BETWEEN EACH INCREMENT.



JDC STATIONS 288+75~ TO 293+75~
RAMP 3A STATIONS 5102+50~ TO 5108+00~
RAMP 3D STATIONS 6205+00~ TO 6207+00~

NOTES:
1. WICK DRAINS MAY BE INSTALLED AS NEEDED PER THE ATTACHED WICK DRAIN DETAIL TO ACCELERATE TIME CONSOLIDATION/SETTLEMENT.
2. DELAY PERIODS, AND RATE OF FILL PLACEMENT CAN BE ADJUSTED PER THE RECOMMENDATION OF THE GEOTECHNICAL ENGINEER BASED ON SETTLEMENT MONITORING DATA AT THE TIME OF CONSTRUCTION.
3. IF SUBGRADE LEFT OF JDC CL IS INUNDATED AND CAN'T BE DRAINED, PLACE LIGHT-WEIGHT FILTER FABRIC AND GRANULAR EMBANKMENT TO 24-INCHES ABOVE THE WATER LEVEL.
4. RAMP 3A STATION 5107+00~ TO 5108+00~ FILTER FABRIC AND 2.5 FEET HIGH AND 15 FEET WIDE AREA OF TYPE III RIP-RAP REQUIRED WITHIN THE DITCH BETWEEN THE MAINLINE AND RAMP 3A.

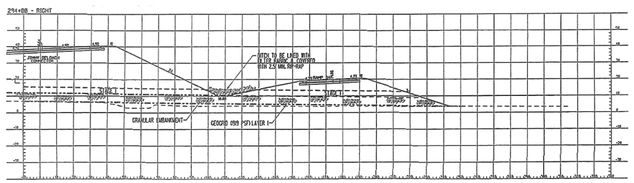
SEQUENCE:
1. PLACE GEOGRID LAYER 1 @ LTOS 1199 PSF) FROM JDC CL TO BEYOND TOE OF RAMP 3A.
2. PLACE GRANULAR EMBANKMENT TO CONSTRUCT THE BASE OF THE JDC EMBANKMENT. GRANULAR EMBANKMENT SHALL BE PLACED TO AT LEAST 24 INCHES ABOVE THE NORMAL HIGH TIDE WATER LEVEL. A MINIMUM OF 5 FEET GRANULAR EMBANKMENT IS REQUIRED FROM JDC CL TO RIGHT TOE OF RAMP 3A.
3. INSTALL GEOGRID LAYER 2 @ LTOS 1189 PSF) FROM CL RAMP 3A TO FACE OF EMBANKMENT, AT LEAST 5', AND NO GREATER THAN 10', ABOVE GEOGRID LAYER 1.
4. JDC CL & RIGHT, PLACE STAGE I FILL TO A TOTAL HEIGHT OF 10 FEET (INCLUDING THE GRANULAR EMBANKMENT BASE). STAGED CONSTRUCTION NOT REQUIRED LEFT OF JDC CL.
5. OBSERVE SETTLEMENT/DELAY PERIOD UNTIL SETTLEMENT CEASES.
6. PLACE SUBSEQUENT STAGES OF FILL IN MAXIMUM 7 FOOT INCREMENTS WITH SETTLEMENT/DELAY PERIODS BETWEEN EACH INCREMENT.



JDC STATIONS 293+75~ TO 296+00~
RAMP 3D STATIONS 6201+00~ TO 6205+00~

NOTES:
1. WICK DRAINS MAY BE INSTALLED AS NEEDED PER THE ATTACHED WICK DRAIN DETAIL TO ACCELERATE TIME CONSOLIDATION/SETTLEMENT.
2. DELAY PERIODS, AND RATE OF FILL PLACEMENT CAN BE ADJUSTED PER THE RECOMMENDATION OF THE GEOTECHNICAL ENGINEER BASED ON SETTLEMENT MONITORING DATA AT THE TIME OF CONSTRUCTION.
3. IF SUBGRADE LEFT OF JDC CL IS INUNDATED AND CAN'T BE DRAINED, PLACE LIGHT-WEIGHT FILTER FABRIC AND GRANULAR EMBANKMENT TO 24-INCHES ABOVE THE WATER LEVEL.
4. RAMP 3D STATION 6201+00~ TO 6205+00~ DO NOT EXCAVATE DRAINAGE DITCHES WITHIN 25 FEET OF THE EMBANKMENT TOE UNTIL SETTLEMENT CEASES.
5. RAMP 3D STATION 6201+00~ TO 6205+00~ ENTIRE TOE-DITCH SLOPE FACES AND BOTTOM OF TOE DITCHES TO BE COVERED WITH A FILTER FABRIC AND AT LEAST 2 FEET OF TYPE III RIP-RAP.

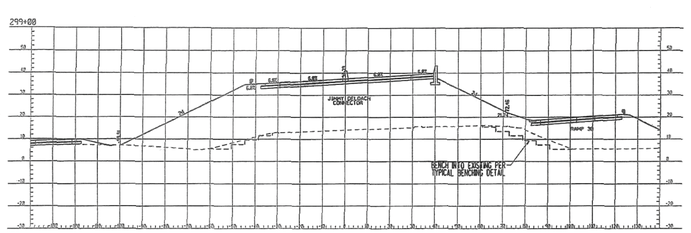
SEQUENCE:
1. PLACE GEOGRID LAYER 1 @ LTOS 1199 PSF) FROM JDC CL TO BEYOND TOE OF RAMP 3A.
2. PLACE GRANULAR EMBANKMENT TO CONSTRUCT THE BASE OF THE JDC EMBANKMENT. GRANULAR EMBANKMENT SHALL BE PLACED TO AT LEAST 24 INCHES ABOVE THE NORMAL HIGH TIDE WATER LEVEL. A MINIMUM OF 5 FEET GRANULAR EMBANKMENT IS REQUIRED FROM JDC CL TO RIGHT TOE OF RAMP 3A.
3. PLACE STAGE I FILL CONCURRENTLY ON JDC AND RAMP 3A TO A MAXIMUM TOTAL FILL HEIGHT OF 7 FEET (INCLUDING THE GRANULAR EMBANKMENT BASE) AND ON RAMP 3D TO A MAXIMUM TOTAL FILL HEIGHT OF 13 FEET.
4. OBSERVE SETTLEMENT/DELAY PERIOD UNTIL SETTLEMENT CEASES.
5. PLACE SUBSEQUENT STAGES OF FILL IN MAXIMUM 7 FOOT INCREMENTS WITH SETTLEMENT/DELAY PERIODS BETWEEN EACH INCREMENT.



JDC STATIONS 293+75~ TO 296+00~
RAMP 3A STATIONS 5108+00~ TO 5110+50~

NOTES:
1. WICK DRAINS MAY BE INSTALLED AS NEEDED PER THE ATTACHED WICK DRAIN DETAIL TO ACCELERATE TIME CONSOLIDATION/SETTLEMENT.
2. DELAY PERIODS, AND RATE OF FILL PLACEMENT CAN BE ADJUSTED PER THE RECOMMENDATION OF THE GEOTECHNICAL ENGINEER BASED ON SETTLEMENT MONITORING DATA AT THE TIME OF CONSTRUCTION.
3. IF SUBGRADE LEFT OF JDC CL IS INUNDATED AND CAN'T BE DRAINED, PLACE LIGHT-WEIGHT FILTER FABRIC AND GRANULAR EMBANKMENT TO 24-INCHES ABOVE THE WATER LEVEL.
4. RAMP 3A STATION 5108+00 TO 5109+25 FILTER FABRIC AND 2.5 FEET HIGH AND 15 FEET WIDE AREA OF TYPE III RIP RAP REQUIRED WITHIN THE DITCH BETWEEN THE MAINLINE AND RAMP 3A.

SEQUENCE:
1. PLACE GEOGRID LAYER 1 @ LTOS 1199 PSF) FROM JDC CL TO BEYOND TOE OF RAMP 3A.
2. PLACE GRANULAR EMBANKMENT TO CONSTRUCT THE BASE OF THE JDC EMBANKMENT. GRANULAR EMBANKMENT SHALL BE PLACED TO AT LEAST 24 INCHES ABOVE THE NORMAL HIGH TIDE WATER LEVEL. A MINIMUM OF 5 FEET GRANULAR EMBANKMENT IS REQUIRED FROM JDC CL TO RIGHT TOE OF RAMP 3A.
3. PLACE STAGE I FILL CONCURRENTLY ON JDC AND RAMP 3A TO A MAXIMUM TOTAL FILL HEIGHT OF 7 FEET (INCLUDING THE GRANULAR EMBANKMENT BASE) AND ON RAMP 3D TO A MAXIMUM TOTAL FILL HEIGHT OF 13 FEET.
4. OBSERVE SETTLEMENT/DELAY PERIOD UNTIL SETTLEMENT CEASES.
5. PLACE SUBSEQUENT STAGES OF FILL IN MAXIMUM 7 FOOT INCREMENTS WITH SETTLEMENT/DELAY PERIODS BETWEEN EACH INCREMENT.



JDC STATIONS 296+50~ TO 303+50~
RAMP 3B STATIONS 5200+00~ TO 5208+00~

NOTE:
IF SUBGRADE IS INUNDATED AND CAN'T BE DRAINED PLACE LIGHT-WEIGHT FILTER FABRIC AND GRANULAR EMBANKMENT TO 24-INCHES ABOVE THE WATER LEVEL.

1/5/2009 GPLN

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 20 40 80

REVISION DATES

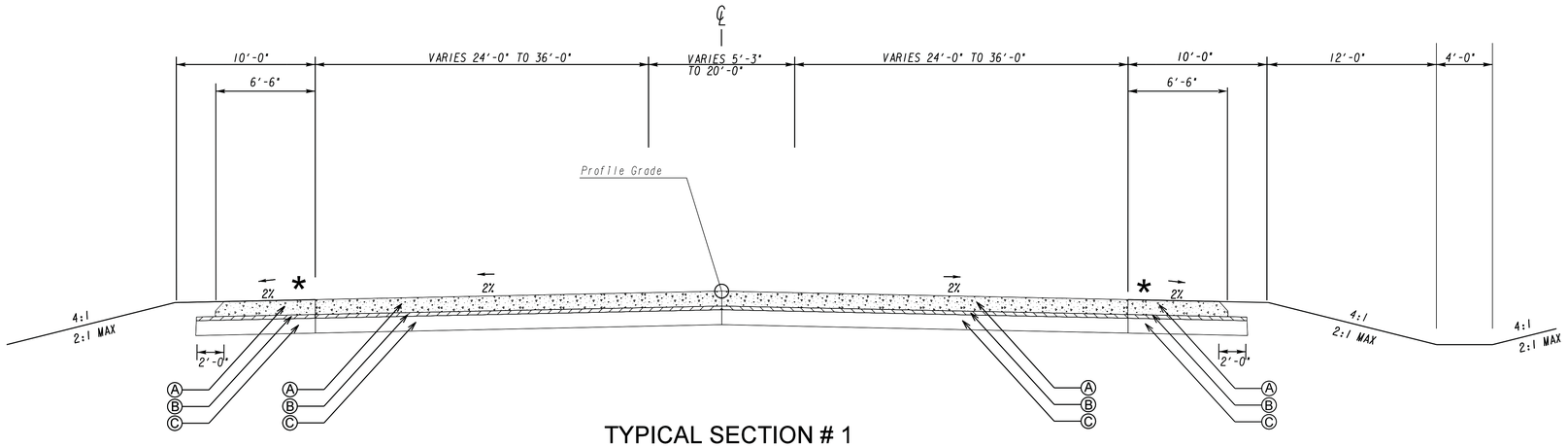
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

GENERAL NOTES

DRAWING No. 4-008

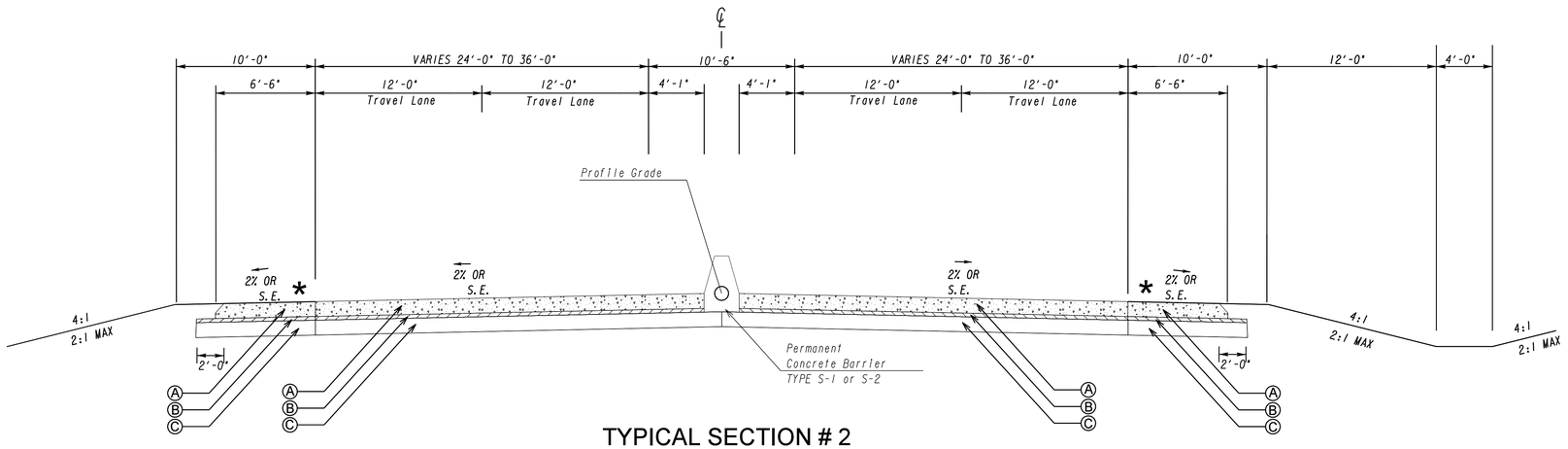
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	13	730

RELEASED FOR CONSTRUCTION - 07-23-13



TYPICAL SECTION # 1
PROPOSED JIMMY DELOACH CONNECTOR

STA 150+00.00 TO STA 161+17.00
NOTE: TRANSVERSE JOINTS AT 20' INTERVALS



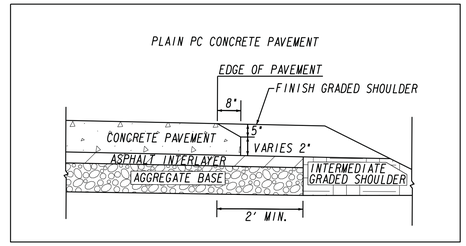
TYPICAL SECTION # 2
PROPOSED JIMMY DELOACH CONNECTOR

STA 161+17.00 TO STA 189+43.88
STA 190+55.88 TO STA 233+84.47
STA 234+86.97 TO STA 256+00.00
STA 259+83.45 TO STA 264+51.57
STA 265+48.57 TO STA 283+04.75
STA 285+50.00 TO STA 295+43.75
STA 296+67.25 TO STA 307+98.29
NOTE: TRANSVERSE JOINTS AT 20' INTERVALS

REQUIRED PAVEMENT

- Ⓐ PLAIN PORTLAND CEMENT CONCRETE PVMT, CL 1 CONC, 12 INCH THK
- Ⓑ RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME (330 LBS/SY)
- Ⓒ GR AGGR BASE CRS, 12 " INCL MATL
- Ⓓ RECYCLED ASPH CONC 12.5 MM, SUPERPAVE, GP 2 ONLY, INCL POLYMER-MODIFIED BITUM MATL & H LIME (165 LBS/SY)
- Ⓔ RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME (220 LBS/SY)
- Ⓕ RECYCLED ASPH CONC 25 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME (660 LBS/SY)
- Ⓖ 6" CONCRETE DOWELED INTEGRAL MEDIAN, CURB FACE TYPE 7
- Ⓗ RECYCLED ASPH CONC 25 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME (440 LBS/SY)
- Ⓘ GR AGGR BASE CRS, 8 " INCL MATL
- Ⓙ RECYCLED ASPH CONC 25 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME (330 LBS/SY)
- Ⓚ GR AGGR BASE CRS, 6 " INCL MATL
- Ⓛ RECYCLED ASPH CONC LEVELING, AS REQUIRED

NOTE ① SEE ROADWAY PLANS FOR SUPERELEVATION RATES & TRANSITIONS.
* 16" MILLED SKIP RUMBLE STRIPS, GA STD DETAIL S-9



1/5/2009 GPLN

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3595 ENGINEERING DRIVE
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REVISION DATES		

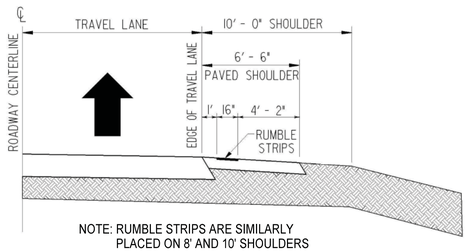
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

TYPICAL SECTIONS

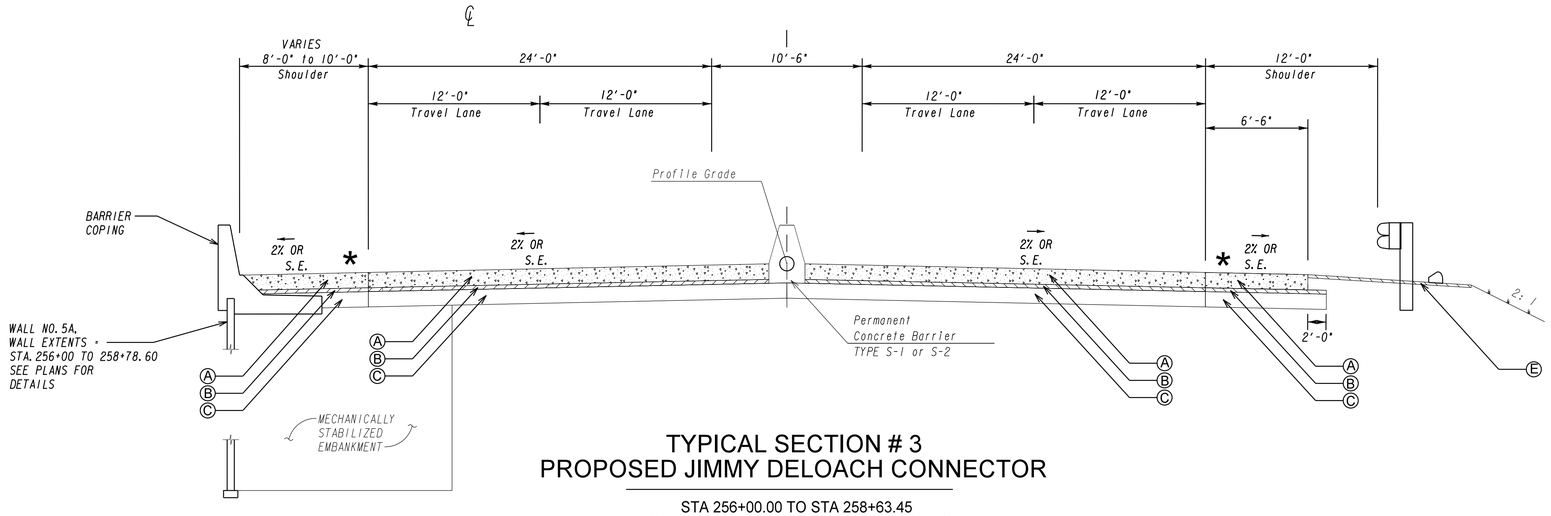
DRAWING No. 5-001

RELEASED FOR CONSTRUCTION - 07-23-13

6' - 6" PAVED SHOULDER WITH 16" MILLED RUMBLE STRIPS

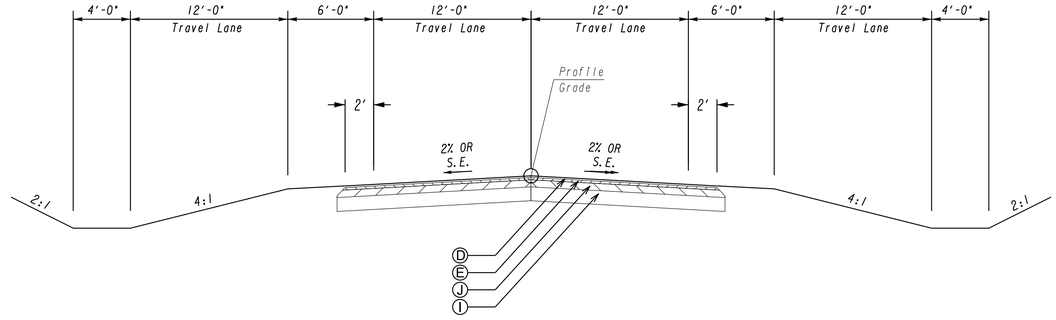


NOTE: RUMBLE STRIPS ARE SIMILARLY PLACED ON 8' AND 10' SHOULDERS



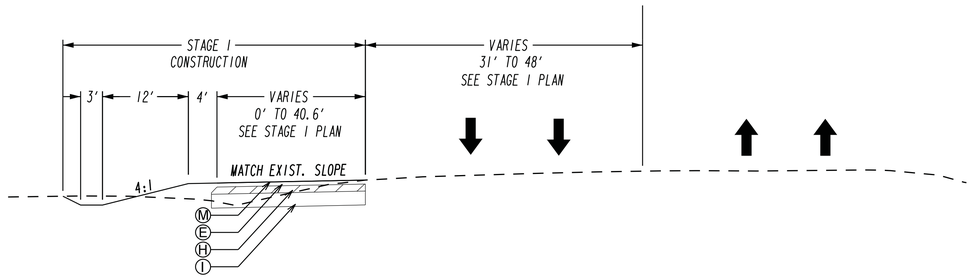
TYPICAL SECTION # 3
PROPOSED JIMMY DELOACH CONNECTOR

STA 256+00.00 TO STA 258+63.45
NOTE: TRANSVERSE JOINTS AT 20' INTERVALS



TYPICAL SECTION #16
BOURNE AVENUE LOCAL ACCESS

CONSTR ℄ BOURNE AVE



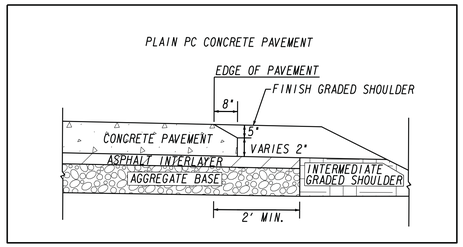
TEMPORARY STAGE CONSTRUCTION PAVEMENT ALONG BOURNE AVENUE

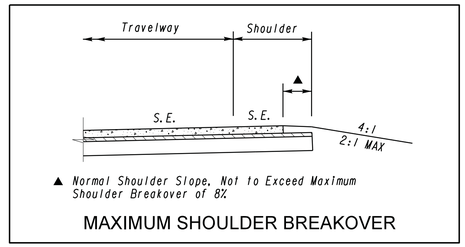
STA.1012+31.7 TO STA.1040+04.7

REQUIRED PAVEMENT

- Ⓐ PLAIN PORTLAND CEMENT CONCRETE PVMT, CL 1 CONC, 12 INCH THK
- Ⓑ RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME (330 LBS/SY)
- Ⓒ GR AGGR BASE CRS, 12 " INCL MATL
- Ⓓ RECYCLED ASPH CONC 12.5 MM, SUPERPAVE, GP 2 ONLY, INCL POLYMER-MODIFIED BITUM MATL & H LIME (165 LBS/SY)
- Ⓔ RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME (220 LBS/SY)
- Ⓕ RECYCLED ASPH CONC 25 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME (660 LBS/SY)
- Ⓖ 6" CONCRETE DOWELED INTEGRAL MEDIAN, CURB FACE TYPE 7
- Ⓗ RECYCLED ASPH CONC 25 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME (440 LBS/SY)
- Ⓘ GR AGGR BASE CRS, 8 " INCL MATL
- Ⓙ RECYCLED ASPH CONC 25 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME (330 LBS/SY)
- Ⓚ GR AGGR BASE CRS, 6 " INCL MATL
- Ⓛ RECYCLED ASPH CONC LEVELING, AS REQUIRED
- Ⓜ RECYCLED ASPH CONC 12.5MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL (165 LBS/SY)

NOTE ① SEE ROADWAY PLANS FOR SUPERELEVATION RATES & TRANSITIONS.
✱ 16" MILLED SKIP RUMBLE STRIPS, GA STD DETAIL S-9





▲ Normal Shoulder Slope. Not to Exceed Maximum Shoulder Breakover of 8%

MAXIMUM SHOULDER BREAKOVER

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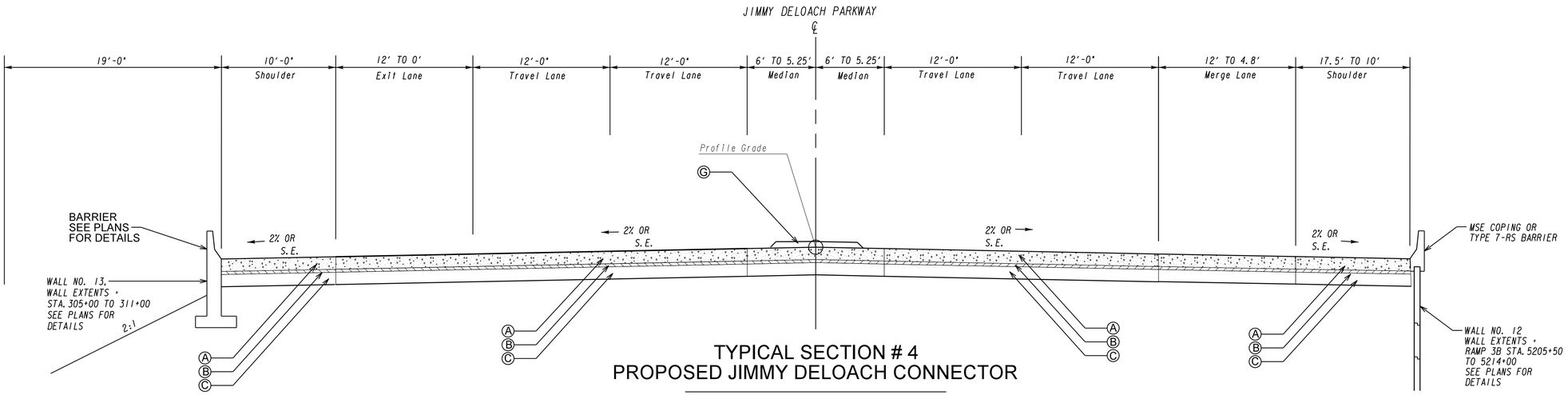
REVISION DATES		

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
TYPICAL SECTIONS

DRAWING No. 5-002

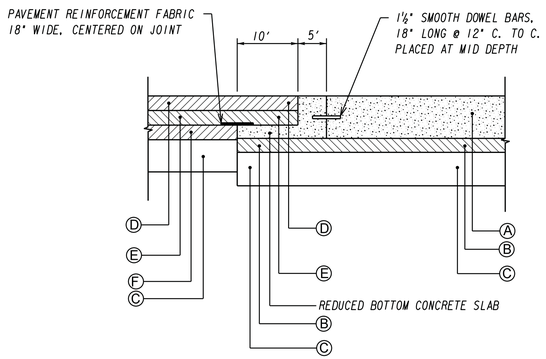
1/5/2009 GPLN

RELEASED FOR CONSTRUCTION - 07-23-13



TYPICAL SECTION # 4
PROPOSED JIMMY DELOACH CONNECTOR

STA 307+98.29 TO STA 312+12.81
NOTE: TRANSVERSE JOINTS AT 20' INTERVALS

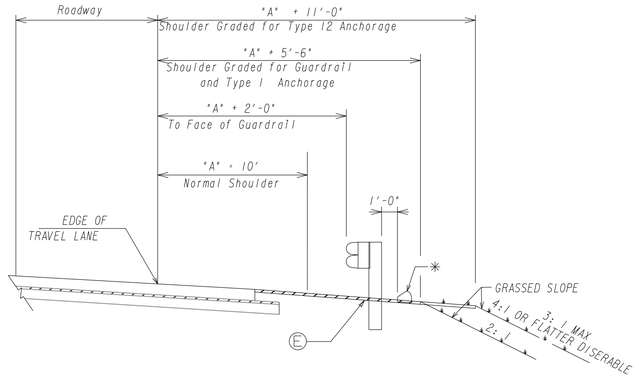


JOINTED PLAIN CONCRETE PAVEMENT TO ASPHALT PAVEMENT TRANSITION DETAIL

REQUIRED PAVEMENT

- Ⓐ PLAIN PORTLAND CEMENT CONCRETE PVMT, CL 1 CONC, 12 INCH THK
- Ⓑ RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME (330 LBS/SY)
- Ⓒ GR AGGR BASE CRS, 12 " INCL MATL
- Ⓓ RECYCLED ASPH CONC 12.5 MM, SUPERPAVE, GP 2 ONLY, INCL POLYMER-MODIFIED BITUM MATL & H LIME (165 LBS/SY)
- Ⓔ RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME (220 LBS/SY)
- Ⓕ RECYCLED ASPH CONC 25 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME (660 LBS/SY)
- Ⓖ 6" CONCRETE DOWELED INTEGRAL MEDIAN, CURB FACE TYPE 7
- Ⓗ RECYCLED ASPH CONC 25 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME (440 LBS/SY)
- Ⓘ GR AGGR BASE CRS, 8 " INCL MATL
- Ⓙ RECYCLED ASPH CONC 25 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME (330 LBS/SY)
- Ⓚ GR AGGR BASE CRS, 6 " INCL MATL
- Ⓛ RECYCLED ASPH CONC LEVELING, AS REQUIRED

NOTE ① SEE ROADWAY PLANS FOR SUPERELEVATION RATES & TRANSITIONS.
✱ 16" MILLED SKIP RUMBLE STRIPS, GA STD DETAIL S-9



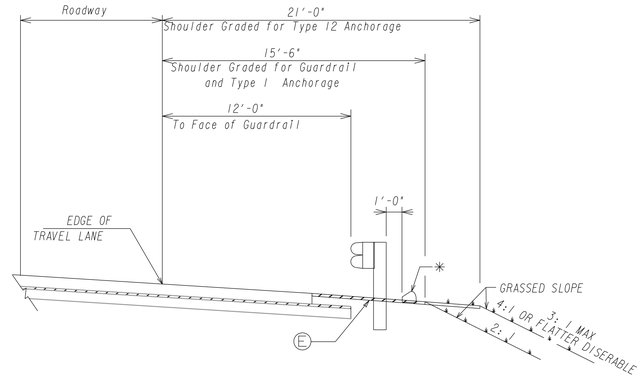
TYPICAL SHOULDER DETAIL AT CONCRETE SECTION FOR GUARDRAIL

FOR JDC

SEE PLANS FOR LOCATIONS

SEE GA STD 4388 FOR DETAILS

✱ ASPHALTIC CONCRETE CURB PER SECTION 436 SHALL BE REQUIRED WHERE SPECIFIED. TYPICAL USE IS FOR EROSION PREVENTION OF HIGH FILL SLOPES WHERE SPILLWAYS ARE REQUIRED. SEE PLAN FOR SPILLWAY LOCATIONS.



TYPICAL SHOULDER DETAIL AT CONCRETE SECTION FOR GUARDRAIL

RAMPS 2A, 2D,3A,3B,3C,3D

SEE PLANS FOR LOCATIONS

SEE GA STD 4388 FOR DETAILS

✱ ASPHALTIC CONCRETE CURB PER SECTION 436 SHALL BE REQUIRED WHERE SPECIFIED. TYPICAL USE IS FOR EROSION PREVENTION OF HIGH FILL SLOPES WHERE SPILLWAYS ARE REQUIRED. SEE PLAN FOR SPILLWAY LOCATIONS.

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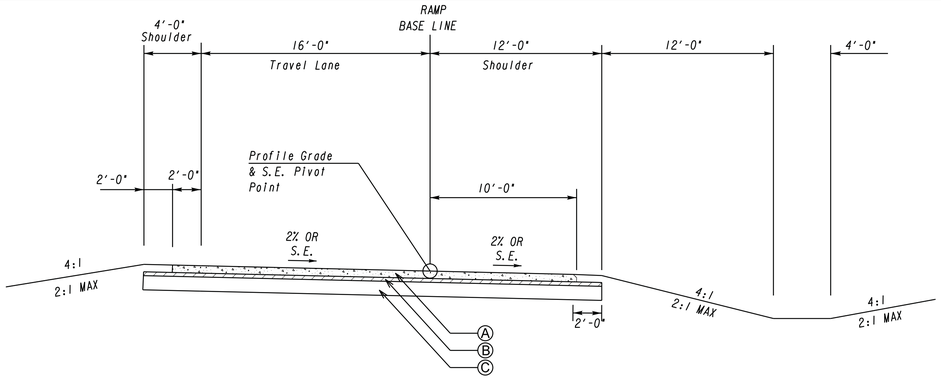
TYPICAL SECTIONS

DRAWING No. 5-003

1/5/2009 GPLN

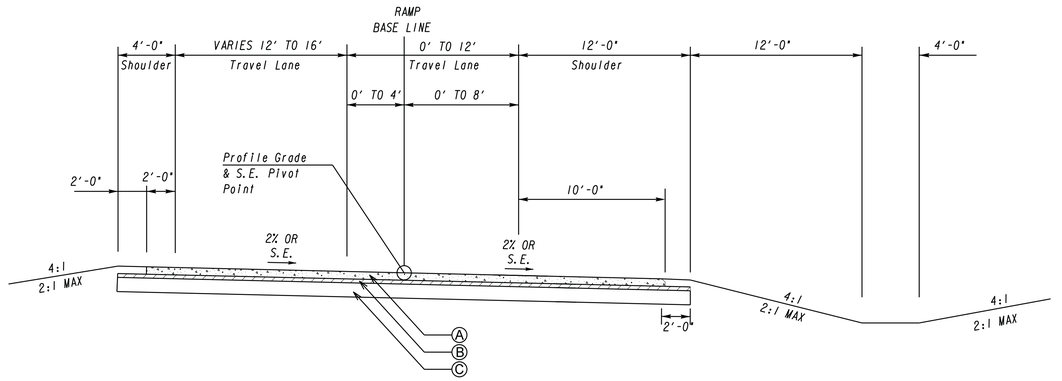
RELEASED FOR CONSTRUCTION - 07-23-13



TYPICAL SECTION # 5
PROPOSED RAMPS ALONG JIMMY DELOACH CONNECTOR

EXIT RAMP 2A STA. 2105+69.29 TO STA. 2110+93.06
ENT. RAMP 2B STA. 2207+01.17 TO STA. 2211+28.31
EXIT RAMP 2C STA. 2303+66.65 TO STA. 2304+59.94
ENT. RAMP 2D STA. 2400+38.55 TO STA. 2410+55.59
EXIT RAMP 3A STA. 5102+25.75 TO STA. 5107+01.97
EXIT RAMP 3C STA. 6103+28.65 TO STA. 6104+96.22
ENT. RAMP 3D STA. 6200+57.50 TO STA. 6206+10.96

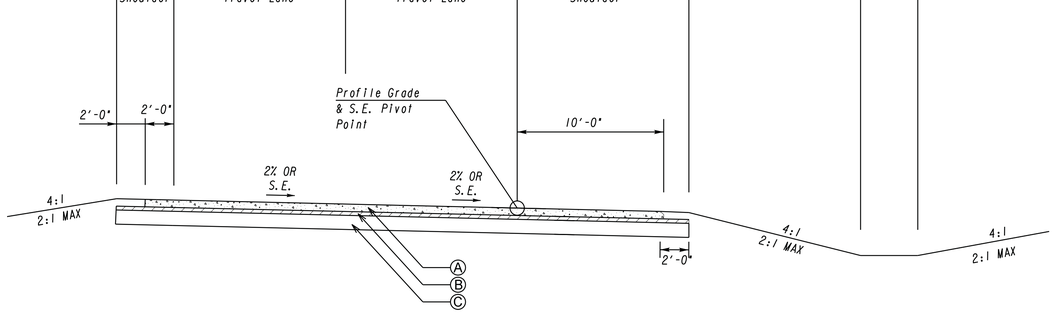
NOTE: TRANSVERSE JOINTS AT 20' INTERVALS



TYPICAL SECTION # 6
PROPOSED RAMPS ALONG JIMMY DELOACH CONNECTOR

ENT. RAMP 2B STA. 2200+37.33 TO STA. 2207+01.17
EXIT RAMP 2C STA. 2304+59.94 TO STA. 2310+69.68
EXIT RAMP 3A STA. 5107+01.97 TO STA. 5110+27.50
ENT. RAMP 3B STA. 5200+61.05 TO STA. 5208+07.31
EXIT RAMP 3C STA. 6104+96.22 TO STA. 6110+49.07

NOTE: TRANSVERSE JOINTS AT 20' INTERVALS



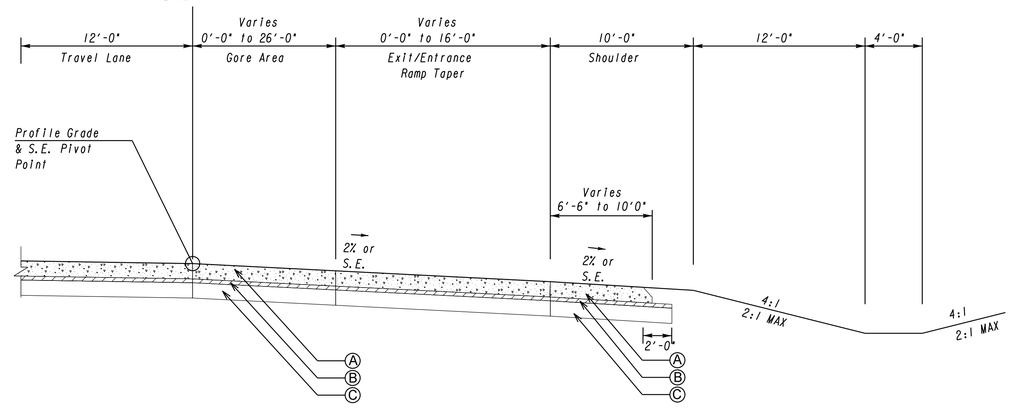
TYPICAL SECTION # 7
PROPOSED EXIT RAMP AT GRANGE ROAD

EXIT RAMP 2A STA. 2110+93.06 TO STA. 2116+25.58

REQUIRED PAVEMENT

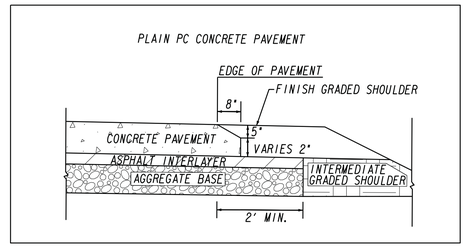
- Ⓐ PLAIN PORTLAND CEMENT CONCRETE PVMT, CL 1 CONC, 12 INCH THK
- Ⓑ RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME (330 LBS/SY)
- Ⓒ GR AGGR BASE CRS, 12 " INCL MATL
- Ⓓ RECYCLED ASPH CONC 12.5 MM, SUPERPAVE, GP 2 ONLY, INCL POLYMER-MODIFIED BITUM MATL & H LIME (165 LBS/SY)
- Ⓔ RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME (220 LBS/SY)
- Ⓕ RECYCLED ASPH CONC 25 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME (660 LBS/SY)
- Ⓖ 6" CONCRETE DOWELED INTEGRAL MEDIAN, CURB FACE TYPE 7
- Ⓗ RECYCLED ASPH CONC 25 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME (440 LBS/SY)
- Ⓘ GR AGGR BASE CRS, 8 " INCL MATL
- Ⓙ RECYCLED ASPH CONC 25 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME (330 LBS/SY)
- Ⓚ GR AGGR BASE CRS, 6 " INCL MATL
- Ⓛ RECYCLED ASPH CONC LEVELING, AS REQUIRED

NOTE ① SEE ROADWAY PLANS FOR SUPERELEVATION RATES & TRANSITIONS.
✱ 16" MILLED SKIP RUMBLE STRIPS, GA STD DETAIL S-9



TAPER DETAIL FOR ENTRANCE/EXIT RAMP JIMMY DELOACH CONNECTOR

SEE PLANS FOR LOCATIONS
NOTE: TRANSVERSE JOINTS AT 20' INTERVALS



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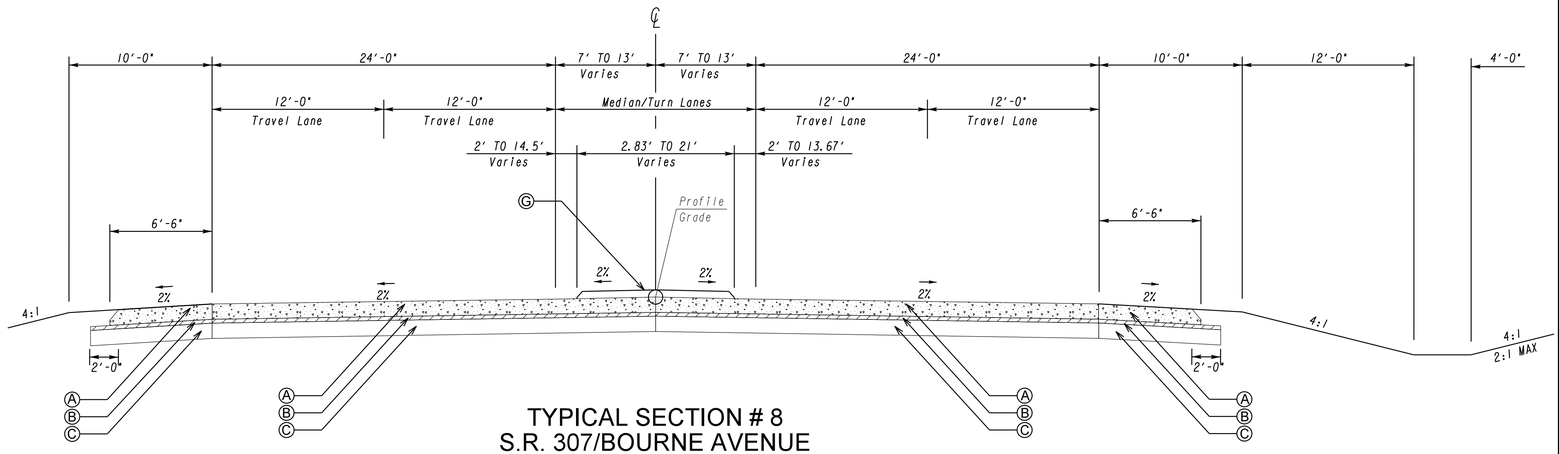
TYPICAL SECTIONS

DRAWING No. 5-004

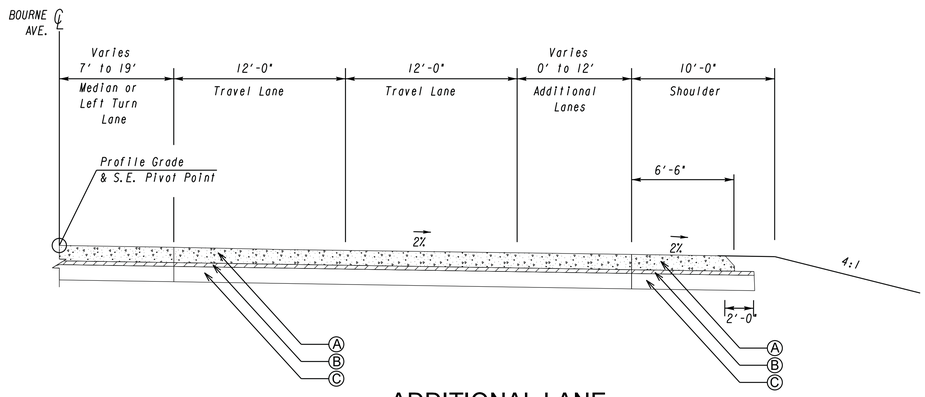
11/5/2009 GPLN

RELEASED FOR CONSTRUCTION - 07-23-13



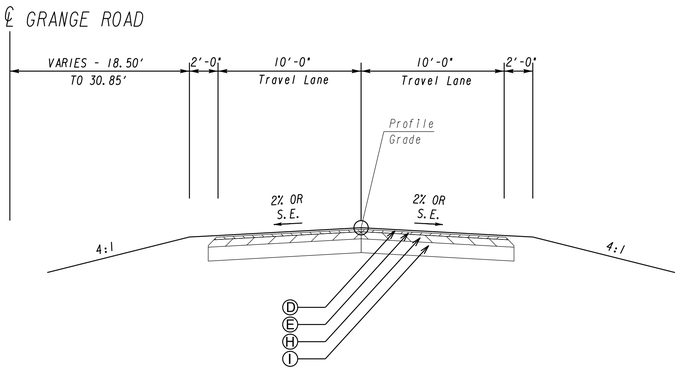
TYPICAL SECTION # 8
S.R. 307/BOURNE AVENUE

STA 1015+95.31 TO STA 1036+18.48
NOTE: TRANSVERSE JOINTS AT 20' INTERVALS



ADDITIONAL LANE
DETAIL ON S.R. 307/BOURNE AVE.

SEE PLANS FOR LOCATIONS
NOTE: TRANSVERSE JOINTS AT 20' INTERVALS



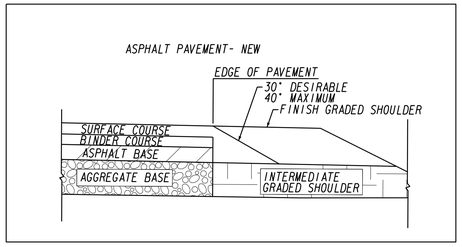
TYPICAL SECTION #9
TRANSITION LANES ON GRANGE ROAD

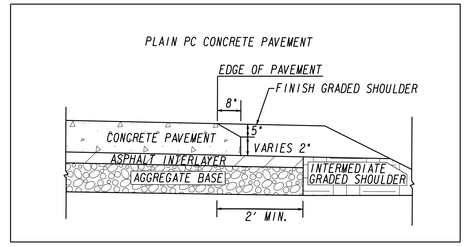
STA 2016+50.00 TO STA 2016+88.91
STA 2026+45.28 TO STA 2029+00.00

REQUIRED PAVEMENT

- Ⓐ PLAIN PORTLAND CEMENT CONCRETE PVMT, CL 1 CONC, 12 INCH THK
- Ⓑ RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME (330 LBS/SY)
- Ⓒ GR AGGR BASE CRS, 12 " INCL MATL
- Ⓓ RECYCLED ASPH CONC 12.5 MM, SUPERPAVE, GP 2 ONLY, INCL POLYMER-MODIFIED BITUM MATL & H LIME (165 LBS/SY)
- Ⓔ RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME (220 LBS/SY)
- Ⓕ RECYCLED ASPH CONC 25 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME (660 LBS/SY)
- Ⓖ 6" CONCRETE DOWELED INTEGRAL MEDIAN, CURB FACE TYPE 7
- Ⓗ RECYCLED ASPH CONC 25 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME (440 LBS/SY)
- Ⓘ GR AGGR BASE CRS, 8 " INCL MATL
- Ⓙ RECYCLED ASPH CONC 25 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME (330 LBS/SY)
- Ⓚ GR AGGR BASE CRS, 6 " INCL MATL
- Ⓛ RECYCLED ASPH CONC LEVELING, AS REQUIRED

NOTE ① SEE ROADWAY PLANS FOR SUPERELEVATION RATES & TRANSITIONS.
✱ 16" MILLED SKIP RUMBLE STRIPS, GA STD DETAIL S-9





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TYPICAL SECTIONS

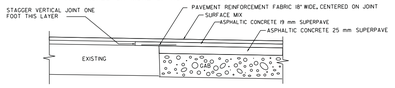
DRAWING No. 5-005

1/5/2009 GPLN

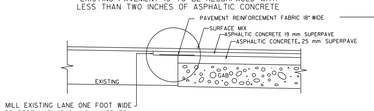
24-JUL-2013 14:00	2:00:02 PM	0008690_055	R:\126379\0008690\Dgn\0008690_05.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-001690)	18	730

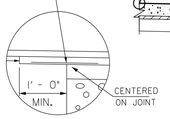
RELEASED FOR CONSTRUCTION - 07-23-13

TYPICAL SECTION DETAIL TO BE USED WHEN EXISTING PAVEMENT IS TO BE RESURFACED WITH TWO INCHES OR MORE OF ASPHALTIC CONCRETE



TYPICAL SECTION DETAIL TO BE USED WHEN EXISTING PAVEMENT IS TO BE RESURFACED WITH LESS THAN TWO INCHES OF ASPHALTIC CONCRETE





PAVEMENT FABRIC REINFORCEMENT DETAIL

SONNY DIXON INTERCHANGE
STA 7002+00.00 TO STA 7003+50.00

ALLOWABLE RANGES TABLE

FOR THIS PROJECT, CROSS SLOPES THAT ARE ADJUSTED TO "BEST FIT" EXISTING PAVEMENT SLOPES ARE SUBJECT TO THE FOLLOWING LIMITS:

A. NORMAL CROWN

SECTION WITH GRADES 0.5% OR GREATER	SECTION WITH GRADES LESS THAN 0.5%
0.0150 ft/ft - MINIMUM	0.0156 ft/ft - MINIMUM
0.0208 ft/ft - DESIRABLE	0.0208 ft/ft - DESIRABLE
0.0250 ft/ft - MAXIMUM	0.0300 ft/ft - MAXIMUM

B. SUPERELEVATION RATE

S.E. RATE SHOWN ON PLANS OR SE RATE EXISTING IN FIELD, WHICHEVER IS GREATER.

C. SUPERELEVATION TRANSITION LENGTH (LENGTH FROM FLAT POINT TO FULL SE)

	RATE OF CHANGE	CORRESPONDING DIFFERENCE IN GRADE BETWEEN PIVOT POINT AND EDGE OF PAVEMENT
MINIMUM	1:150	0.67%
DESIRABLE	1:200	0.50%
MAXIMUM	1:300	0.33%

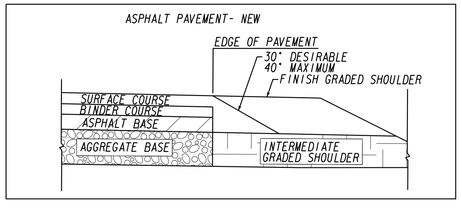
LENGTH SHALL BE SET TO AVOID CREATING A FLAT GUTTER GRADE ON LOW SIDE AND TO AVOID FLAT CROSS SLOPES AT OR NEAR THE LOW POINT OF VERTICAL CURVES.

D. POSITIONING OF SUPERELEVATION TRANSITION LENGTH ON SIMPLE CURVES

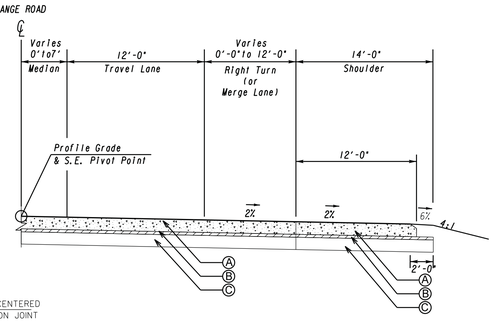
50% OF TRANSITION INSIDE CURVE - MAXIMUM
33% OF TRANSITION INSIDE CURVE - DESIRABLE
20% OF TRANSITION INSIDE CURVE - MINIMUM

NOTE: CROWN WIPE-OUT SHALL BE AT THE SAME RATE AS THE SE TRANSITION.

E. SMOOTHING OF BREAKS IN EDGE PROFILE AT BEGIN AND END OF TRANSITION SHALL BE ACCOMPLISHED BY VERTICAL CURVE WITH A MINIMUM LENGTH (IN FEET) EQUAL TO THE SPEED DESIGN (IN MPH).

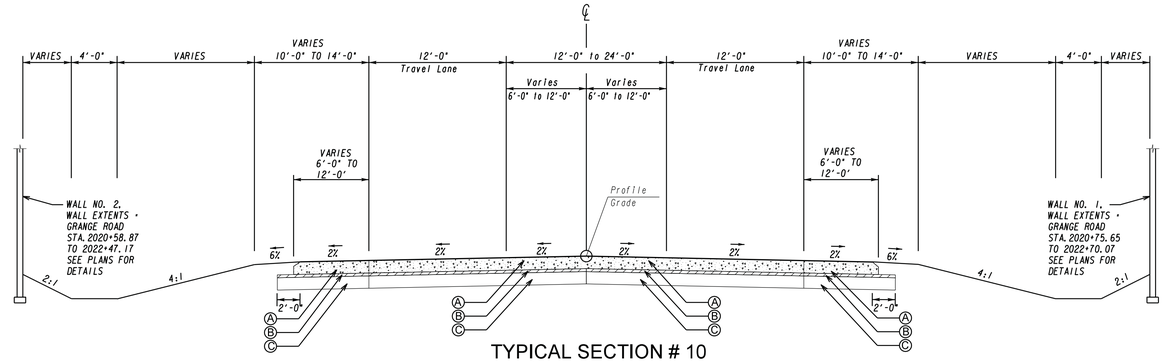


GRANGE ROAD



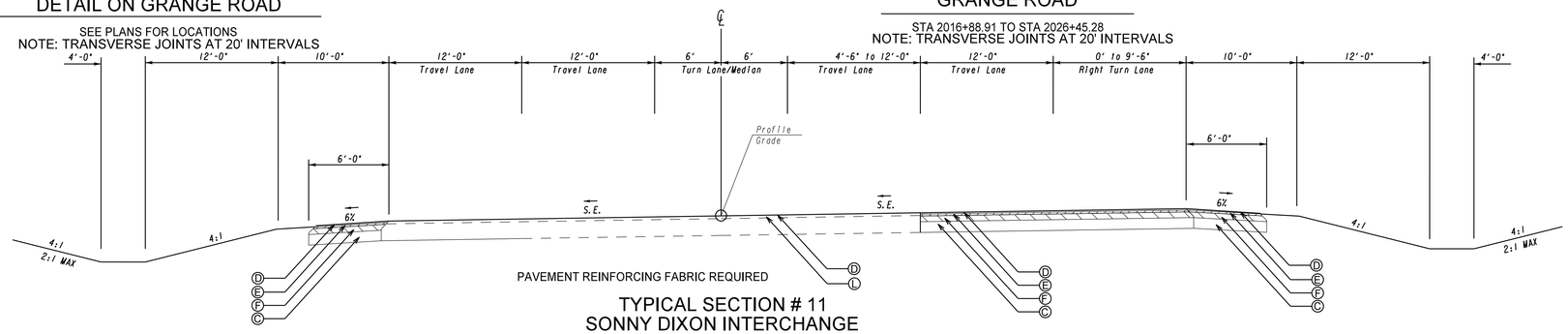
RIGHT TURN LANE (OR MERGE LANE) DETAIL ON GRANGE ROAD

SEE PLANS FOR LOCATIONS
NOTE: TRANSVERSE JOINTS AT 20' INTERVALS



TYPICAL SECTION # 10 GRANGE ROAD

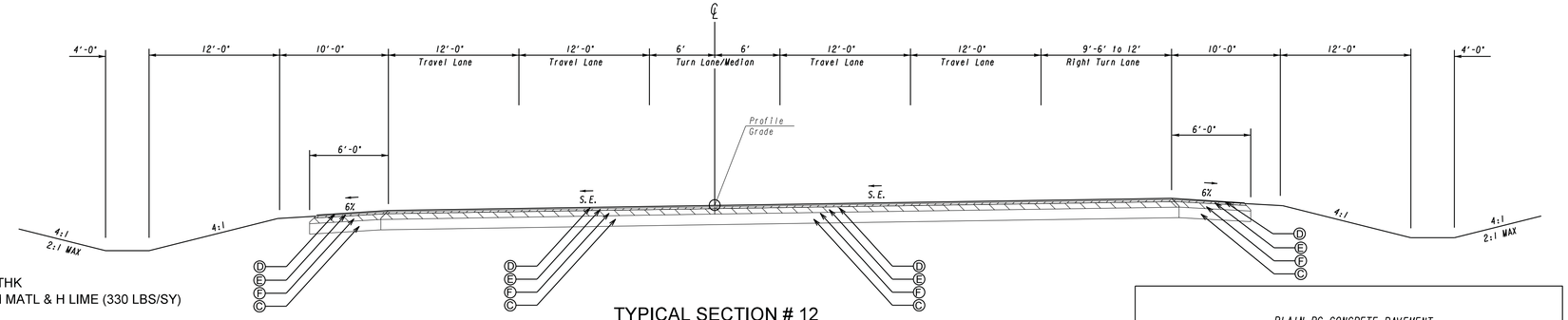
STA 2016+88.91 TO STA 2026+45.28
NOTE: TRANSVERSE JOINTS AT 20' INTERVALS



PAVEMENT REINFORCING FABRIC REQUIRED

TYPICAL SECTION # 11 SONNY DIXON INTERCHANGE

STA 7002+00.00 TO STA 7003+50.00



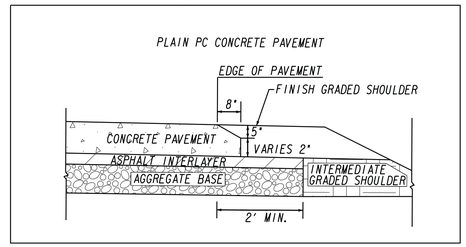
TYPICAL SECTION # 12 SONNY DIXON INTERCHANGE

STA 7003+50.00 TO STA 7007+00.00

REQUIRED PAVEMENT

- (A) PLAIN PORTLAND CEMENT CONCRETE PVMT, CL 1 CONC, 12 INCH THK
- (B) RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME (330 LBS/SY)
- (C) GR AGGR BASE CRS, 12 " INCL MATL
- (D) RECYCLED ASPH CONC 12.5 MM, SUPERPAVE, GP 2 ONLY, INCL POLYMER-MODIFIED BITUM MATL & H LIME (165 LBS/SY)
- (E) RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME (220 LBS/SY)
- (F) RECYCLED ASPH CONC 25 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME (660 LBS/SY)
- (G) 6" CONCRETE DOWELED INTEGRAL MEDIAN, CURB FACE TYPE 7
- (H) RECYCLED ASPH CONC 25 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME (440 LBS/SY)
- (I) GR AGGR BASE CRS, 8 " INCL MATL
- (J) RECYCLED ASPH CONC 25 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME (330 LBS/SY)
- (K) GR AGGR BASE CRS, 6 " INCL MATL
- (L) RECYCLED ASPH CONC LEVELING, AS REQUIRED

NOTE (1) SEE ROADWAY PLANS FOR SUPERELEVATION RATES & TRANSITIONS.
✱ 16" MILLED SKIP RUMBLE STRIPS, GA STD DETAIL S-9



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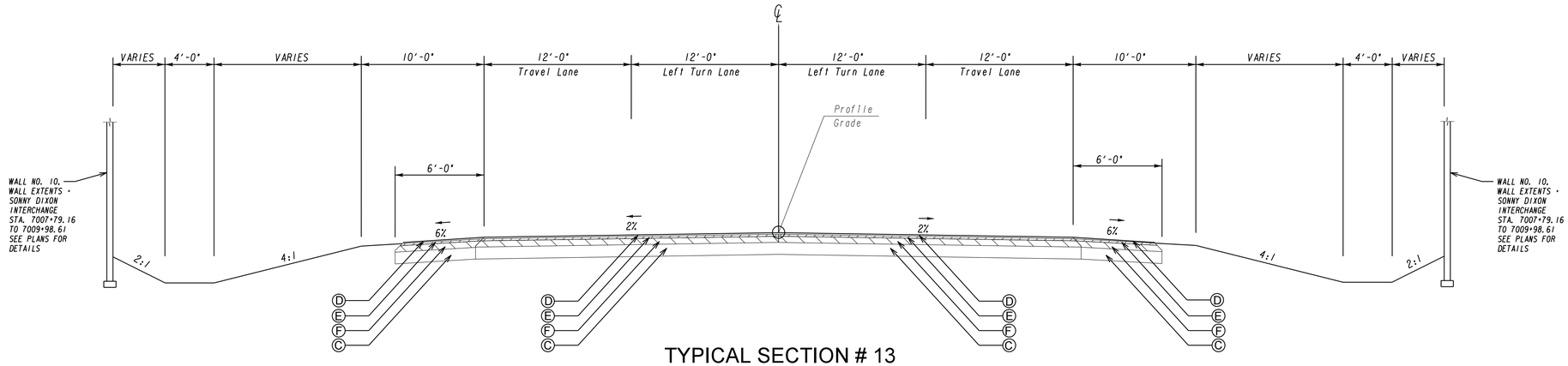
TYPICAL SECTIONS

DRAWING No. 5-006

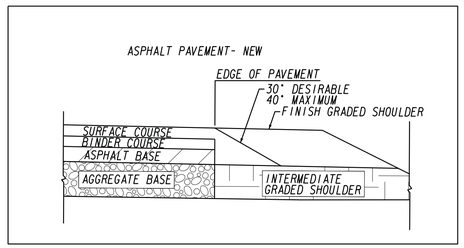
1/5/2009 GPLN

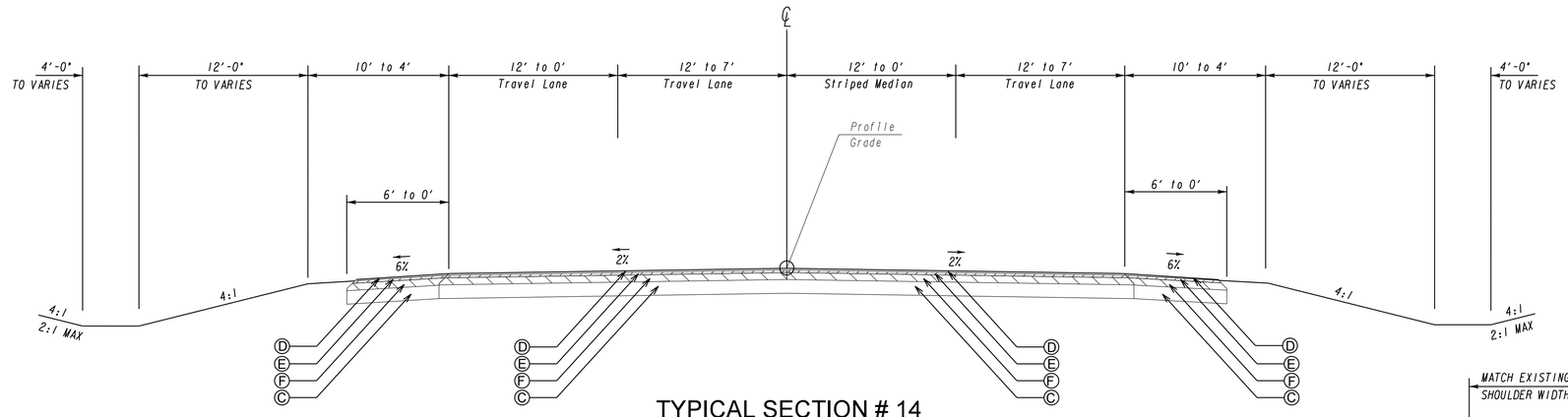
RELEASED FOR CONSTRUCTION - 07-23-13



TYPICAL SECTION # 13
SONNY DIXON INTERCHANGE

STA 7007+00.00 TO STA 7010+95.53



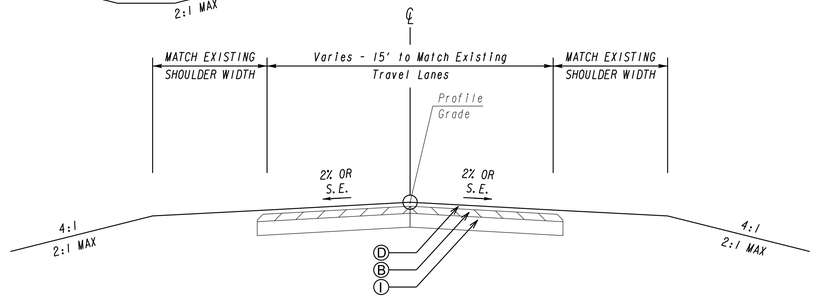


TYPICAL SECTION # 14
SONNY DIXON INTERCHANGE

REQUIRED PAVEMENT

- (A) PLAIN PORTLAND CEMENT CONCRETE PVMT, CL 1 CONC, 12 INCH THK
- (B) RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME (330 LBS/SY)
- (C) GR AGGR BASE CRS, 12 " INCL MATL
- (D) RECYCLED ASPH CONC 12.5 MM, SUPERPAVE, GP 2 ONLY, INCL POLYMER-MODIFIED BITUM MATL & H LIME (165 LBS/SY)
- (E) RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME (220 LBS/SY)
- (F) RECYCLED ASPH CONC 25 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME (660 LBS/SY)
- (G) 6" CONCRETE DOWELED INTEGRAL MEDIAN, CURB FACE TYPE 7
- (H) RECYCLED ASPH CONC 25 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME (440 LBS/SY)
- (I) GR AGGR BASE CRS, 8 " INCL MATL
- (J) RECYCLED ASPH CONC 25 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME (330 LBS/SY)
- (K) GR AGGR BASE CRS, 6 " INCL MATL
- (L) RECYCLED ASPH CONC LEVELING, AS REQUIRED

NOTE (1) SEE ROADWAY PLANS FOR SUPERELEVATION RATES & TRANSITIONS.
✱ 16" MILLED SKIP RUMBLE STRIPS, GA STD DETAIL S-9



TYPICAL SECTION #15
FLONNEL DRIVE

SEE PLANS FOR LOCATIONS

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES		

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

TYPICAL SECTIONS

DRAWING No. 5-007

1/5/2009 GPLN

ITEM NO.	DESCRIPTION		UNITS	QUANTITY
	ROADWAY ITEMS			
150-1000	TRAFFIC CONTROL - CSMSL-0008-00(690)		LS	LS
150-5010	TRAFFIC CONTROL, PORTABLE IMPACT ATTENUATOR		EA	4
153-1300	FIELD ENGINEERS OFFICE TP 3		EA	1
210-0100	GRADING COMPLETE-CSMSL-0008-00(690)		LS	LS
212-1000	GRANULAR EMBANKMENT, INCL MATL & HAUL		CY	104,928
310-1101	GR AGGR BASE CRS, INCL MATL		TN	152,436
402-1812	RECYCLED ASPH CONC LEVELING, INCL BITUM MATL		TN	100
402-3121	RECYCLED ASPH CONC 25 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME		TN	6,315
402-4512	RECYCLED ASPH CONC 12.5 MM SUPERPAVE, GP 1 OR 2, INCL POLYMER-MODIFIED BITUM MATL & H-LIME		TN	703
402-3141	RECYCLED ASPH CONC 12.5 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL		TN	645
402-3130	RECYCLED ASPH CONC 12.5 MM SUPERPAVE, GP 2 ONLY, INCL BITUM MATL & H LIME		TN	386
402-3190	RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME		TN	37,363
413-1000	BITUM TACK COAT		TN	11,592
430-0220	PLAIN PC CONC PVMT,CL 1 CONC, 12 INCH THK		SY	189,783
433-1000	REINF CONC APPROACH SLAB		SY	3,380
436-1000	ASPHALTIC CONCRETE CURB, 5 IN		LF	12,877
441-0018	DRIVEWAY CONCRETE, 8 IN TK		SY	717
441-0748	CONCRETE MEDIAN, 6 IN		SY	2,405
441-0204	PLAIN CONC DITCH PAVING, 4 IN		SY	439
441-3999	CONCRETE V GUTTER		LF	700
441-5057	CONC DOWELED INTEGRAL CURB, TP 7, INCL DOWELS		LF	2,806
446-1100	PVMT REINF FABRIC STRIPS, TP 2, 18 INCH WIDTH		LF	300
455-1000	FILTER FABRIC FOR EMBANKMENT STABILIZATION		SY	58,760
456-2012	INDENTATION RUMBLE STRIPS - GROUND IN PLACE (CONTINUOUS)		GLM	6
573-2006	UNDDR PIPE INCL DRAINAGE AGGR, 6 IN		LF	2,000
620-0100	TEMPORARY BARRIER, METHOD NO. 1		LF	3,500
621-4080	CONCRETE SIDE BARRIER, TYPE 7R		LF	406
621-6001	CONC BARRIER, TYPE S-1		LF	14,700
632-0003	CHANGEABLE MESSAGE SIGN, PORTABLE, TYPE 3		EA	10
634-1200	RIGHT OF WAY MARKERS		EA	102
639-4004	STRAIN POLE, TP IV		EA	2
641-1200	GUARDRAIL, TP W		LF	17,350
641-2200	DBL FACED GUARDRAIL, TP W		LF	561
641-5001	GUARDRAIL ANCHORAGE, TP 1		EA	9
641-5012	GUARDRAIL ANCHORAGE, TP 12		EA	9
641-6000	GUARDRAIL ANCHORAGE TP 10D, SPCL DES		EA	5
643-0010	FIELD FENCE WOVEN WIRE		LF	27,125
648-1350	IMPACT ATTENUATOR UNIT, TYPE P-3-B-28		EA	2
	GRADING & DRAINAGE			
207-0203	FOUND BKFILL MATL, TP II		CY	400
441-0301	CONC SPILLWAY, TP 1		EA	19
500-3101	CLASS A CONCRETE		CY	1,230

ITEM NO.	DESCRIPTION		UNITS	QUANTITY
	GRADING & DRAINAGE (CONT.)			
500-3200	CLASS B CONCRETE		CY	24
500-3800	CLASS A CONCRETE, INCL REINF STEEL		CY	10
511-1000	BAR REINF STEEL		LB	127,260
550-1180	STORM DRAIN PIPE, 18 IN, H 1-10		LF	3,724
550-1187	STORM DRAIN PIPE, 18 IN, H 40-50		LF	133
550-1240	STORM DRAIN PIPE, 24 IN, H 1-10		LF	1,164
550-1247	STORM DRAIN PIPE, 24 IN, H 40-50		LF	515
550-1300	STORM DRAIN PIPE, 30 IN, H 1-10		LF	3,181
550-1360	STORM DRAIN PIPE, 36 IN, H 1-10		LF	39
550-1480	STORM DRAIN PIPE, 48 IN, H 1-10		LF	108
550-2180	SIDE DRAIN PIPE, 18 IN, H 1-10		LF	312
550-2240	SIDE DRAIN PIPE, 24 IN, H 1-10		LF	47
550-3318	SAFETY END SECTION 18 IN, STORM DRAIN, 4:1 SLOPE		EA	12
550-3324	SAFETY END SECTION 24 IN, STORM DRAIN, 4:1 SLOPE		EA	2
550-4218	FLARED END SECTION 18 IN, STORM DRAIN		EA	19
550-4224	FLARED END SECTION 24 IN, STORM DRAIN		EA	14
550-4230	FLARED END SECTION 30 IN, STORM DRAIN		EA	55
550-4236	FLARED END SECTION 36 IN, STORM DRAIN		EA	1
550-4242	FLARED END SECTION 24 IN, STORM DRAIN		EA	14
576-1015	SLOPE DRAIN PIPE, 15 IN		LF	2,634
576-1018	SLOPE DRAIN PIPE, 18 IN		LF	268
577-1100	METAL DRAIN INLET-COMPLETE ASSEMBLY		EA	38
668-2100	DROP INLET, GP 1		EA	9
668-2200	DROP INLET, GP 1, V-GUTTER		EA	6
668-2231	DROP INLET, GP 1, MODIFIED TP M-1		EA	61
668-5000	JUNCTION BOX		EA	1
	EROSION CONTROL			
163-0232	TEMPORARY GRASSING		AC	46
163-0240	MULCH		TN	1,800
163-0300	CONSTRUCTION EXIT		EA	7
163-0503	CONSTRUCT AND REMOVE SILT CONTROL GATE, TP 3		EA	12
163-0520	CONSTRUCT AND REMOVE TEMPORARY PIPE SLOPE DRAIN		LF	3,200
163-0523	CONSTRUCT AND REMOVE TEMPORARY DITCH CHECKS-TYPE C SILT FENCE		EA	152
163-0527	CONSTRUCT AND REMOVE RIP RAP CHECK DAMS, STONE PLAIN RIP RAP/SAND BAGS		EA	8
163-0530	CONSTRUCT AND REMOVE BALED STRAW EROSION CHECK		LF	11,000
163-0550	CONSTRUCT AND REMOVE INLET SEDIMENT TRAP		EA	133
165-0030	MAINTENANCE OF TEMPORARY SILT FENCE, TP C		LF	25,150
163-0531	CONSTRUCT AND REMOVE SEDIMENT BASIN, TP1, STA. 2207+00 RT		EA	1
163-0531	CONSTRUCT AND REMOVE SEDIMENT BASIN, TP1, STA. 2403+50 RT		EA	1
165-0041	MAINTENANCE OF CHECKDAMS-ALL TYPES		LF	2,400
165-0060	MAINTENANCE OF TEMPORARY SEDIMENT BASIN, STA. 2207+00 RT		EA	2

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DETAILED ESTIMATE

DRAWING No. 9-001

ITEM NO.	DESCRIPTION		UNITS	QUANTITY
	EROSION CONTROL (CONT.)			
165-0060	MAINTENANCE OF TEMPORARY SEDIMENT BASIN, STA. 2403+50 RT		EA	2
165-0070	MAINTENANCE OF BALED STRAW EROSION CHECK		LF	5,500
165-0087	MAINTENANCE OF SILT CONTROL GATE, TP 3		EA	12
165-0101	MAINTENANCE OF CONSTRUCTION EXIT		EA	7
165-0105	MAINTENANCE OF INLET SEDIMENT TRAP		EA	133
167-1000	WATER QUALITY MONITORING AND SAMPLING		EA	2
167-1500	WATER QUALITY INSPECTIONS		MO	36
171-0030	TEMPORARY SILT FENCE, TYPE C		LF	50,300
603-2024	STN DUMPED RIP RAP, TP 1, 24 IN		SY	88
603-2181	STN DUMPED RIP RAP, TP 3, 18 IN		SY	1,320
603-2182	STN DUMPED RIP RAP, TP 3, 24 IN		SY	95
603-7000	PLASTIC FILTER FABRIC		SY	1,503
643-8200	BARRIER FENCE (ORANGE), 4 FT		LF	9,100
700-6910	PERMANENT GRASSING		AC	91
700-7000	AGRICULTURAL LIME		TN	275
700-8000	FERTILIZER MIXED GRADE		TN	55
700-8100	FERTILIZER NITROGEN CONTENT		LB	4,550
710-9000	PERMANENT SOIL REINFORCING MAT		SY	2,800
713-0300	COCONUT FIBER BLANKET, WATERWAYS		SY	550
716-2000	EROSION CONTROL MATS, SLOPES		SY	103,000
	SIGNING & MARKING			
500-3101	CLASS A CONCRETE, SIGNS		CY	11
636-1020	HIGHWAY SIGNS, TP1 MATL, REFL SHEETING, TP 3		SF	240
636-1020	HIGHWAY SIGNS, TP2 MATL, REFL SHEETING, TP 3		SF	528
636-1020	HIGHWAY SIGNS, TP1 MATL, REFL SHEETING, TP 9		SF	278
636-1020	HIGHWAY SIGNS, TP1 MATL, REFL SHEETING, TP 9		SF	112
636-1072	HIGHWAY SIGNS, ALUM EXTRUDED PANELS, REFL SHEETING, TP 3		SF	962
636-2070	GALV STEEL POSTS, TP 7		LF	714
636-2080	GALV STEEL POSTS, TP 8		LF	250
636-2090	GALV STEEL POSTS, TP 9		LF	1054
636-3010	GROUND-MOUNTED BREAKAWAY SIGN SUPPORT		EA	18
652-0120	PAVEMENT MARKING, ARROW, TP 2		EA	10
653-0120	THERMOPLASTIC PVMT MARKING, ARROW TP 2		EA	47
653-0130	THERMOPLASTIC PVMT MARKING, ARROW TP 3		EA	14
653-0140	THERMOPLASTIC PVMT MARKING, ARROW TP 4		EA	4
653-1501	THERMOPLASTIC SOLID TRAF STRIPE, 5 IN, WHITE		LF	3,330
653-1502	THERMOPLASTIC SOLID TRAF STRIPE, 5 IN, YELLOW		LF	1,120
653-1704	THERMOPLASTIC SOLID TRAF STRIPE, 24 IN, WHITE		LF	-
653-3501	THERMOPLASTIC SKIP TRAF STRIPE, 5 IN, WHITE		GLF	1,020
653-6004	THERMOPLASTIC TRAF STRIPING, WHITE		SY	255

ITEM NO.	DESCRIPTION		UNITS	QUANTITY
	SIGNING & MARKING (CONT.)			
653-6006	THERMOPLASTIC TRAF STRIPING, YELLOW		SY	738
654-1001	RAISED PVMT MARKERS TP 1		EA	68
654-1003	RAISED PVMT MARKERS TP 3		EA	985
654-1010	RAISED PVMT MARKERS TP 10		EA	30
655-7000	PAVEMENT ARROW, PREFORMED PLASTIC WITH RAISED REFELCTORS		EA	14
657-1084	PREFORMED PLASTIC SOLID PVMT MKG, 8 IN, WHITE TP PB		LF	980
657-1085	PREFORMED PLASTIC SOLID PVMT MKG, 8 IN, CONSTRAST (BLACK-WHITE), TP PB		LF	46,325
657-1104	PREFORMED PLASTIC SOLID PVMT MKG, 10 IN, WHITE TP PB		LF	4,920
657-1244	PREFORMED PLASTIC SOLID PVMT MKG, 24 IN, WHITE TP PB		LF	105
657-3085	PREFORMED PLASTIC SKIP PVMT MKG, 8 IN, CONSTRAST (BLACK-WHITE), TP PB		GLF	40,410
657-3086	PREFORMED PLASTIC SKIP PVMT MKG, 8 IN, CONSTRAST (BLACK-YELLOW), TP PB		GLF	420
657-5001	PREFORMED PLASTIC PAVEMENT MARKING, WHITE, TP PB		SY	2,039
657-5002	PREFORMED PLASTIC PAVEMENT MARKING, YELLOW, TP PB		SY	2,767
657-5017	PREFORMED PLASTIC PVMT MKG, WORDS AND/OR SYM, ARROW TP 2, WHITE, TP PB		EA	59
657-6085	PREFORMED PLASTIC SOLID PVMT MKG, 8 IN, CONSTRAST (BLACK-YELLOW), TP PB		LF	40,075
	SIGNAL ITEMS			
615-1200	DIRECTIONAL BORE, 5 IN		LF	160
636-1041	HIGHWAY SIGNS, TP 2 MATL,REFLECTIVE SHEETING, TP 9		SF	45
639-4004	STRAIN POLE, TP IV		EA	4
647-1000	TRAFFIC SIGNAL INSTALLATION NO. 1		LS	1
682-6233	CONDUIT, NONMETAL,TYPE 3, 2 IN		LF	320
	WALLS			
457-1005	GEOGRID REINFORCEMENT, TP A		SY	43,024
627-1000	MSE WALL FACE, 0-10 FT HT, WALL NO-1		SF	176
627-1010	MSE WALL FACE, 10-20 FT HT, WALL NO-1		SF	757
627-1020	MSE WALL FACE, 20-30 FT HT, WALL NO-1		SF	2,639
627-1100	COPING A, WALL NO-1		LF	202
627-1000	MSE WALL FACE, 0-10 FT HT, WALL NO-2		SF	138
627-1010	MSE WALL FACE, 10-20 FT HT, WALL NO-2		SF	673
627-1020	MSE WALL FACE, 20-30 FT HT, WALL NO-2		SF	2,602
627-1100	COPING A, WALL NO-2		LF	195
627-1000	MSE WALL FACE, 0-10 FT HT, WALL NO-3		SF	161
627-1010	MSE WALL FACE, 10-20 FT HT, WALL NO-3		SF	1,384
627-1020	MSE WALL FACE, 20-30 FT HT, WALL NO-3		SF	1,479
627-1100	COPING A, WALL NO-3		LF	188

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DETAILED ESTIMATE

DRAWING No. 9-002

ITEM NO.	DESCRIPTION	UNITS	QUANTITY
	WALLS (CONT.)		
627-1000	MSE WALL FACE, 0-10 FT HT, WALL NO-4	SF	163
627-1010	MSE WALL FACE, 10-20 FT HT, WALL NO-4	SF	699
627-1020	MSE WALL FACE, 20-30 FT HT, WALL NO-4	SF	2,165
627-1100	COPING A, WALL NO-4	LF	189
627-1000	MSE WALL FACE, 0-10 FT HT, WALL NO-5	SF	193
627-1010	MSE WALL FACE, 10-20 FT HT, WALL NO-5	SF	2,756
627-1020	MSE WALL FACE, 20-30 FT HT, WALL NO-5	SF	2,577
627-1030	MSE WALL FACE, GTR THAN 30 FT HT, WALL NO-5	SF	5,602
627-1100	COPING A, WALL NO-5	LF	180
627-1160	TRAFFIC BARRIER H, WALL N0-5	LF	272
627-1000	MSE WALL FACE, 0-10 FT HT, WALL NO-6	SF	110
627-1010	MSE WALL FACE, 10-20 FT HT, WALL NO-6	SF	526
627-1020	MSE WALL FACE, 20-30 FT HT, WALL NO-6	SF	1,169
627-1030	MSE WALL FACE, GTR THAN 30 FT HT, WALL NO-6	SF	4,467
627-1100	COPING A, WALL NO-6	LF	259
627-1000	MSE WALL FACE, 0-10 FT HT, WALL NO-7	SF	149
627-1010	MSE WALL FACE, 10-20 FT HT, WALL NO-7	SF	570
627-1020	MSE WALL FACE, 20-30 FT HT, WALL NO-7	SF	1,287
627-1030	MSE WALL FACE, GTR THAN 30 FT HT, WALL NO-7	SF	3,895
627-1100	COPING A, WALL NO-7	LF	250
627-1000	MSE WALL FACE, 0-10 FT HT, WALL NO-8	SF	178
627-1010	MSE WALL FACE, 10-20 FT HT, WALL NO-8	SF	643
627-1020	MSE WALL FACE, 20-30 FT HT, WALL NO-8	SF	1,242
627-1030	MSE WALL FACE, GTR THAN 30 FT HT, WALL NO-8	SF	3,198
627-1100	COPING A, WALL NO-8	LF	233
627-1000	MSE WALL FACE, 0-10 FT HT, WALL NO-9	SF	215
627-1010	MSE WALL FACE, 10-20 FT HT, WALL NO-9	SF	1,549
627-1020	MSE WALL FACE, 20-30 FT HT, WALL NO-9	SF	1,653
627-1100	COPING A, WALL NO-9	LF	209
627-1000	MSE WALL FACE, 0-10 FT HT, WALL NO-10	SF	192
627-1010	MSE WALL FACE, 10-20 FT HT, WALL NO-10	SF	880
627-1020	MSE WALL FACE, 20-30 FT HT, WALL NO-10	SF	3,083
627-1100	COPING A, WALL NO-10	LF	223

ITEM NO.	DESCRIPTION	UNITS	QUANTITY
	WALLS (CONT.)		
	WALL NO-11		
621-4020	CONCRETE SIDE BARRIER, TYPE 2	LF	150
627-1000	MSE WALL FACE, 0-10 FT HT, WALL NO-12A	SF	2,096
627-1010	MSE WALL FACE, 10-20 FT HT, WALL NO-12A	SF	1,426
627-1160	TRAFFIC BARRIER H, WALL N0-12A	LF	368
627-1000	MSE WALL FACE, 0-10 FT HT, WALL NO-12B	SF	1,903
627-1160	TRAFFIC BARRIER H, WALL N0-12B	LF	493
	WALL NO - 13		
627-1160	TRAFFIC BARRIER H, WALL N0-12C	LF	193
621-4020	CONCRETE SIDE BARRIER, TYPE 2	LF	500
	BRIDGE NO.1		
500-0100	GROOVED CONCRETE	SY	848
500-1011	SUPERSTR CONCRETE, CL D, BR NO - 1 (343)	LS	LS
500-2100	CONCRETE BARRIER	LF	212
500-3101	CLASS A CONCRETE	CY	62
507-9031	PSC BEAMS, AASHTO, BULB TEE, 63 IN, BR NO -1	LF	881
511-1000	BAR REINF STEEL	LB	7,426
511-3000	SUPERSTR REINF STEEL, BR NO -1 (70459)	LS	LS
520-2218	PILING, PSC, 18 IN SQ	LF	995
520-3218	TEST PILE, PSC, 18 IN SQ	EA	2
520-4218	LOAD TEST, PSC, 18 IN SQ (IF REQUIRED)	EA	1
	BRIDGE NO.2		
500-0100	GROOVED CONCRETE	SY	776
500-1011	SUPERSTR CONCRETE, CL D, BR NO - 2 (322)	LS	LS
500-2100	CONCRETE BARRIER	LF	193
500-3101	CLASS A CONCRETE	CY	66
507-9031	PSC BEAMS, AASHTO, BULB TEE, 63 IN, BR NO -2	LF	804
511-1000	BAR REINF STEEL	LB	7,810
511-3000	SUPERSTR REINF STEEL, BR NO -2 (68444)	LS	LS
520-2218	PILING, PSC, 18 IN SQ	LF	1,235
520-3218	TEST PILE, PSC, 18 IN SQ	EA	2
520-4218	LOAD TEST, PSC, 18 IN SQ (IF REQUIRED)	EA	1

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DRAWING No. 9-003

ITEM NO.	DESCRIPTION		UNITS	QUANTITY
	BRIDGES (CONT.)			
	BRIDGE NO.3			
500-0100	GROOVED CONCRETE		SY	909
500-1011	SUPERSTR CONCRETE, CL D, BR NO - 3 (368)		LS	LS
500-2100	CONCRETE BARRIER		LF	231
500-3101	CLASS A CONCRETE		CY	59
507-9034	PSC BEAMS, AASHTO, BULB TEE, 65 IN, BR NO -3		LF	946
511-1000	BAR REINF STEEL		LB	7,031
511-3000	SUPERSTR REINF STEEL, BR NO -3 (74465)		LS	LS
520-2218	PILING, PSC, 18 IN SQ		LF	1,625
520-3218	TEST PILE, PSC, 18 IN SQ		EA	2
520-4218	LOAD TEST, PSC, 18 IN SQ (IF REQUIRED)		EA	1
	BRIDGE NO.4			
500-0100	GROOVED CONCRETE		SY	735
500-1011	SUPERSTR CONCRETE, CL D, BR NO - 4 (315)		LS	LS
500-2100	CONCRETE BARRIER		LF	182
500-3101	CLASS A CONCRETE		CY	63
507-9031	PSC BEAMS, AASHTO, BULB TEE, 63 IN, BR NO -4		LF	761
511-1000	BAR REINF STEEL		LB	6,631
511-3000	SUPERSTR REINF STEEL, BR NO -4 (61837)		LS	6,631
520-2216	PILING, PSC, 16 IN SQ		LF	1,175
520-3216	TEST PILE, PSC, 16 IN SQ		EA	2
520-4216	LOAD TEST, PSC, 16 IN SQ (IF REQUIRED)		EA	1
	BRIDGE NO.5			
500-0100	GROOVED CONCRETE		SY	2,375
500-1011	SUPERSTR CONCRETE, CL D, BR NO - 5 (814)		LS	LS
500-2100	CONCRETE BARRIER		LF	481
500-3101	CLASS A CONCRETE		CY	219
507-9003	PSC BEAMS, AASHTO TYPE III, BR NO -5		LF	2,412
511-1000	BAR REINF STEEL		LB	29,603
511-3000	SUPERSTR REINF STEEL, BR NO -5 (193989)		LS	LS
520-2216	PILING, PSC, 16 IN SQ		LF	1,585
520-2220	PILING, PSC, 20 IN SQ		LF	1,905
520-3216	TEST PILE, PSC, 16 IN SQ		EA	2
520-3220	TEST PILE, PSC, 20 IN SQ		EA	1
520-4216	LOAD TEST, PSC, 16 IN SQ (IF REQUIRED)		EA	2
520-4220	LOAD TEST, PSC, 20 IN SQ (IF REQUIRED)		EA	1
603-2024	STN DUMPED RIP RAP, TP 1, 24 IN		SY	1,712
603-7000	PLASTIC FILTER FABRIC		SY	1,712

ITEM NO.	DESCRIPTION		UNITS	QUANTITY
	BRIDGES (CONT.)			
	BRIDGE NO.6			
500-0100	GROOVED CONCRETE		SY	935
500-1011	SUPERSTR CONCRETE, CL D, BR NO - 6 (390)		LS	LS
500-2100	CONCRETE BARRIER		LF	235
500-3101	CLASS A CONCRETE		CY	66
507-9034	PSC BEAMS, AASHTO, BULB TEE, 65 IN, BR NO -6		LF	974
511-1000	BAR REINF STEEL		LB	8,115
511-3000	SUPERSTR REINF STEEL, BR NO -6 (79844)		LS	LS
520-2218	PILING, PSC, 18 IN SQ		LF	1,460
520-3218	TEST PILE, PSC, 18 IN SQ		EA	2
520-4218	LOAD TEST, PSC, 18 IN SQ (IF REQUIRED)		EA	1
	LANDSCAPING			
702-0139	CEPHALANTHUS OCCIDENTALS		EA	1,500
702-0165	CLETHERA ALNIFOLIA		EA	1,500
702-0487	JUNCUS EFFUSUS		EA	1,500
702-0675	MYRICA CERIFERA		EA	1,500
702-1034	SAMBUCUS CANADENSIS		EA	1,500

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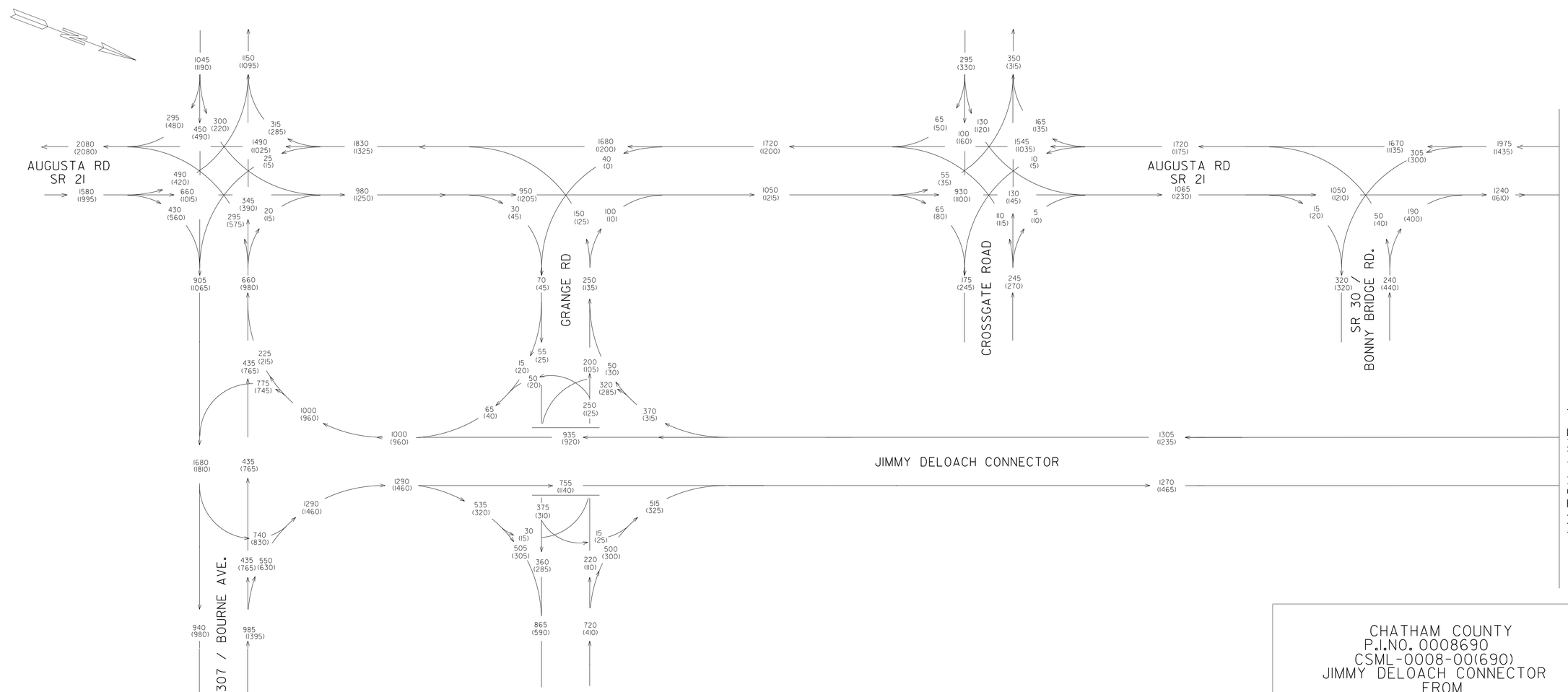
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

DETAILED ESTIMATE

DRAWING No. 9-004

24-JUL-2013 14:01	2:01:01 PM	0008690_10-001	Y:\Roadways\126379\0008690\Dgn\0008690_10-001.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	24	730

RELEASED FOR CONSTRUCTION - 07-23-13



CHATHAM COUNTY
P.I.NO. 0008690
CSML-0008-00(690)
JIMMY DELOACH CONNECTOR
FROM
BOURNE AVENUE/SR 307
TO
EXISTING JIMMY DELOACH
PARKWAY

BUILD 2032 DHV
2032 AM= 000
2032 PM= (000)
T (SR21) = 11%
T (JDC) = 55%

12/2010

3/11/2007 GPLN

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

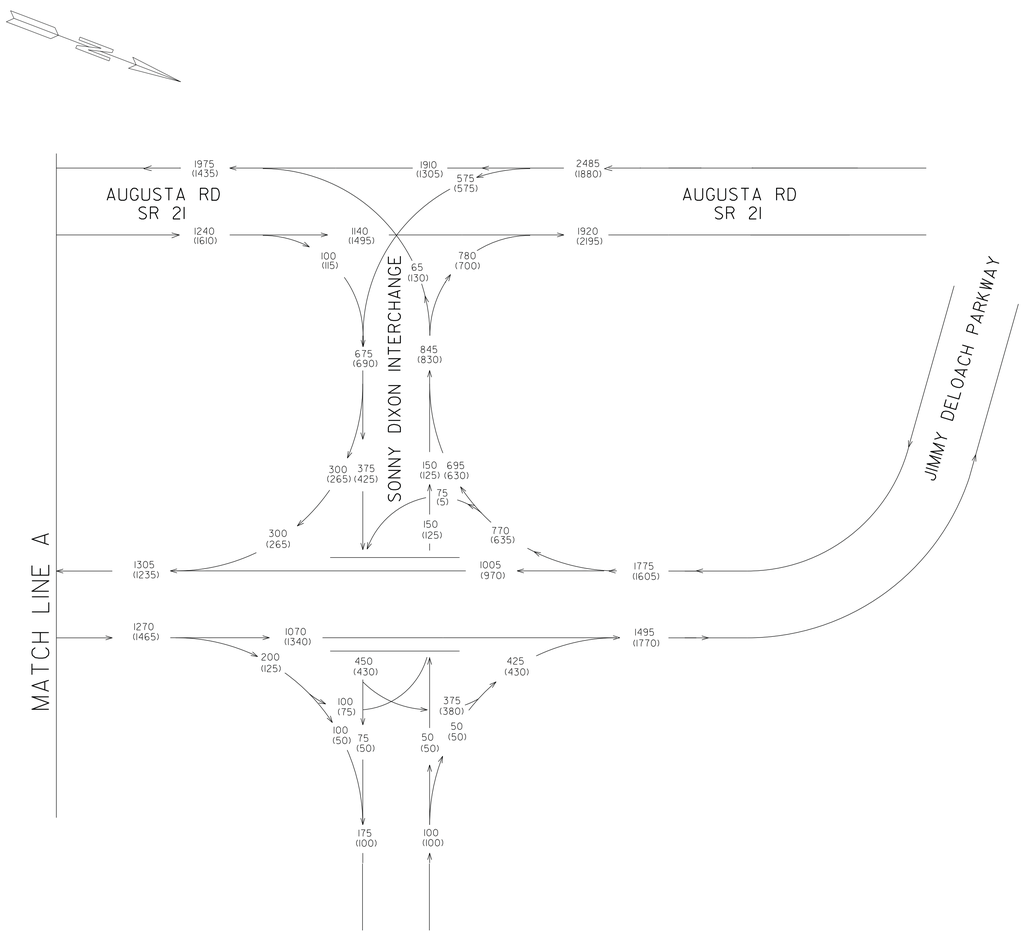
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

TRAFFIC DIAGRAM

DRAWING No. 10-001

24-JUL-2013 14:01	2:01:04 PM	0008690_10-002	Y:\Roadways\126379\0008690\Dgn\0008690_10-002.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	25	730

RELEASED FOR CONSTRUCTION - 07-23-13



CHATHAM COUNTY
P.I.NO. 0008690
CSML-0008-00(690)
JIMMY DELOACH CONNECTOR
FROM
BOURNE AVENUE/SR 307
TO
EXISTING JIMMY DELOACH
PARKWAY

BUILD 2032 DHV
2032 AM= 000
2032 PM= (000)
T (SR21) = 11%
T (JDC) = 55%

12/2010

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STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

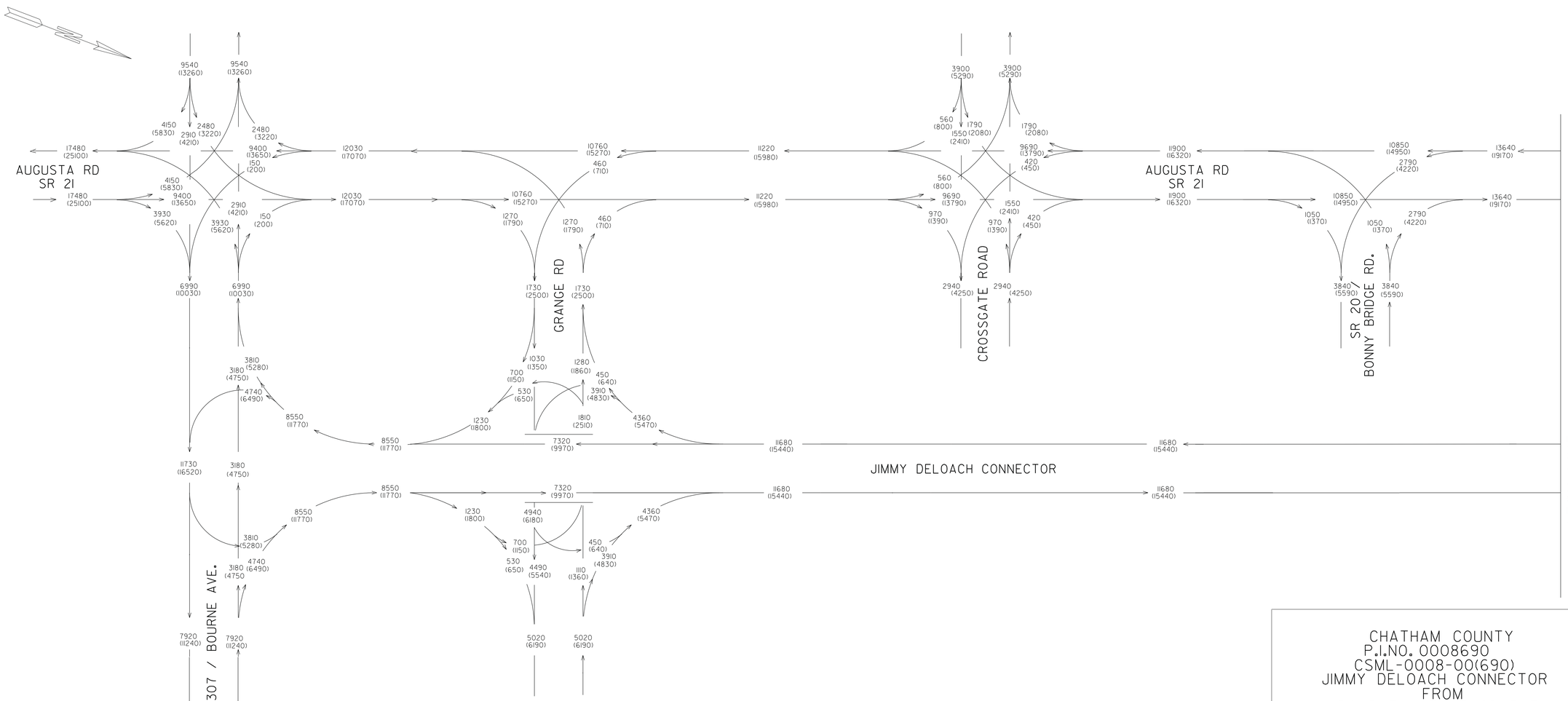
TRAFFIC DIAGRAM

DRAWING No.
10-002

3/11/2007 GPLN

24-JUL-2013 14:01	2:01:09 PM	0008690_10-003	Y:\Roadways\126379\0008690\Dgn\0008690_10-003.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	26	730

RELEASED FOR CONSTRUCTION - 07-23-13



CHATHAM COUNTY
P.I.NO. 0008690
CSML-0008-00(690)
JIMMY DELOACH CONNECTOR
FROM
BOURNE AVENUE/SR 307
TO
EXISTING JIMMY DELOACH
PARKWAY

BUILD ADT
2012 (BUILD) ADT= 000
2032 (BUILD) ADT= (000)
24 HOUR T (SR 21) = 11%
S.U. (SR 21) = 5%
COMB. (SR 21) = 6%
24 HOUR T (JDC) = 55%
S.U. (JDC) = 22%
COMB. (JDC) = 33%

12/2010

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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION

OFFICE: INNOVATIVE PROGRAM DELIVERY

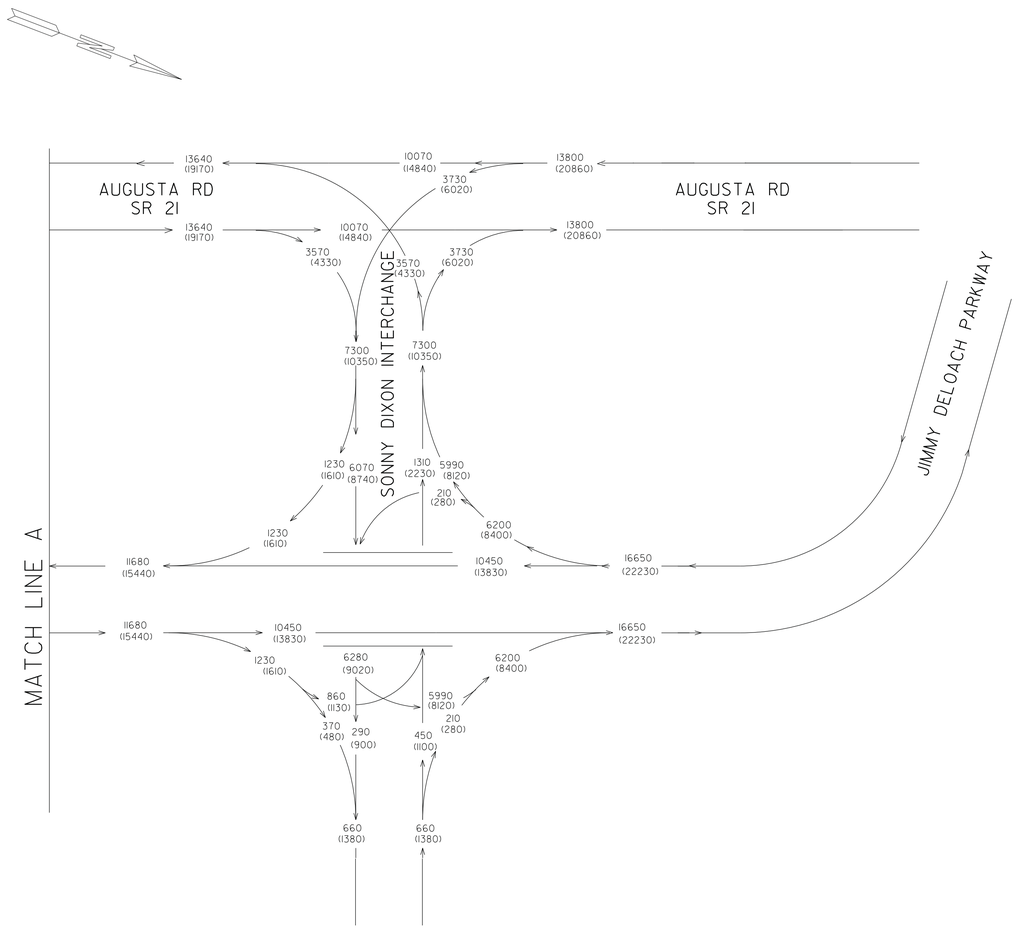
TRAFFIC DIAGRAM

DRAWING No. 10-003

3/1/2007 GPLN

24-JUL-2013 14:01	2:01:12 PM	0008690_10-004	Y:\Roadways\126379\0008690\Dgn\0008690_10-004.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	27	730

RELEASED FOR CONSTRUCTION - 07-23-13



CHATHAM COUNTY
P.I.NO. 0008690
CSML-0008-00(690)
JIMMY DELOACH CONNECTOR
FROM
BOURNE AVENUE/SR 307
TO
EXISTING JIMMY DELOACH
PARKWAY

BUILD ADT
2012 (BUILD) ADT= 000
2032 (BUILD) ADT= (000)
24 HOUR T (SR 21) = 11%
S.U. (SR 21) = 5%
COMB. (SR 21) = 6%
24 HOUR T (JDC) = 55%
S.U. (JDC) = 22%
COMB. (JDC) = 33%

12/2010

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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION

OFFICE: INNOVATIVE PROGRAM DELIVERY

TRAFFIC DIAGRAM

DRAWING No. 10-004

3/1/2007 GPLN

24-JUL-2013 14:01	2:01:17 PM	0008690_11-001	Y:\Roadways\126379\0008690\Dgn\0008690_11-001.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	28	730

RELEASED FOR CONSTRUCTION - 07-23-13

LIMIT OF CONSTRUCTION
BOURNE AVENUE
STA 1011+30.87
N 774984.4170
E 965015.6896

S.R.307/ BOURNE AVENUE STA. 1017+23.08 =
BOURNE AVENUE LOCAL ACCESS RD. STA. 8000+00.00
62^ 51' 32.3"

LIMIT OF CONSTRUCTION
BOURNE AVENUE LOCAL ACCESS ROAD
STA 8003+99.98
N 774531.9946
E 965680.1869

BEGIN PROJECT
CSMSL-008-00(690)
JIMMY DELOACH CONNECTOR
STA. 149+66.27=
BOURNE AVENUE
STA 1027+24.17
N 774617.6010
E 966554.3920
76^03'42.3"

LIMIT OF CONSTRUCTION
BOURNE AVENUE
STA 1042+00.00
N 774744.9778
E 968011.1982

RAMP 2A 2100+00.00 =
JIMMY DELOACH CONNECTOR
STA. 173+25.09
41.25' RT.

GRANGE ROAD STA 2019+76.34=
RAMP 2C STA 2311+06.12=
RAMP 2D STA 2399+99.81
80^ 31' 57.3"

RAMP 2D 2411+55.84 =
JIMMY DELOACH CONNECTOR
STA. 178+81.83
58.22' LT.

GRANGE ROAD STA 2023+46.89=
RAMP 2A STA 2116+63.30=
RAMP 2B STA 2200+00.00
86^ 33' 24.5"

LIMIT OF CONSTRUCTION
GRANGE ROAD
STA. 2029+00.00
N 778695.5136
E 966497.3325

LIMIT OF CONSTRUCTION
GRANGE ROAD
STA. 2014+00.00
N 778387.3790
E 965131.8142

RAMP 2C 2300+00.00 =
JIMMY DELOACH CONNECTOR
STA. 201+33.59
41.25' LT

RAMP 2B 2212+78.39 =
JIMMY DELOACH CONNECTOR
STA. 202+21.20
57.25' RT.

JIMMY DELOACH CONNECTOR
STA. 189+99.88 =
GRANGE ROAD STA. 2021+61.37
80^ 31' 26.5"

MATCH LINE STA. 225+00.00

Curve# 1
PI Sta= 1030+29.01
N= 774508.41
E= 966839.75
DELTA= 30^04'27.5" (LT)
D= 02^56'44.87"
T= 522.51
L= 1020.92
R= 1945.00
E= 68.96
e= 4.00%

Curve# 2
PI Sta= 173+98.43
N= 777048.70
E= 966482.52
DELTA= 20^19'28.2" (LT)
D= 01^16'23.66"
T= 806.62
L= 1596.28
R= 4500.00
E= 71.72
e= 3.00%

Curve# 3
PI Sta= 2409+58.98
N= 777674.03
E= 966161.17
DELTA= 12^24'10.4" (RT)
D= 03^49'10.99"
T= 162.99
L= 324.71
R= 1500.00
E= 8.83
e= 5.40%

Curve# 4
PI Sta= 2105+86.64
N= 777554.08
E= 966353.45
DELTA= 04^57'19.1" (LT)
D= 01^16'23.66"
T= 194.72
L= 389.19
R= 4500.00
E= 4.21
e= 3.20%

Curve# 5
PI Sta= 2403+30.21
N= 778202.57
E= 965818.99
DELTA= 10^54'35.5" (LT)
D= 03^49'10.99"
T= 143.24
L= 285.62
R= 1500.00
E= 6.82
e= 5.40%

Curve# 6
PI Sta= 2308+02.54
N= 778791.27
E= 965581.03
DELTA= 11^28'00.9" (LT)
D= 03^49'10.99"
T= 150.60
L= 300.20
R= 1500.00
E= 7.54
e= 5.40%

Curve# 7
PI Sta= 2203+52.34
N= 778928.07
E= 965959.86
DELTA= 21^55'11.0" (LT)
D= 03^49'10.99"
T= 290.48
L= 573.86
R= 1500.00
E= 27.87
e= 5.40%

Curve# 8
PI Sta= 2026+15.26
N= 778647.63
E= 966318.85
DELTA= 2^28'34" (LT)
D= 0^42'58"
T= 172.89
L= 345.73
R= 8000.00
E= 1.87
e= NC

Curve# 9
PI Sta= 2302+25.37
N= 779361.99
E= 965474.82
DELTA= 17^05'21.2" (RT)
D= 03^49'10.99"
T= 225.37
L= 447.39
R= 1500.00
E= 16.84
e= 5.40%

Curve# 10
PI Sta= 2210+65.71
N= 779496.55
E= 965517.24
DELTA= 09^46'21.2" (RT)
D= 02^17'30.59"
T= 213.72
L= 426.41
R= 2500.00
E= 9.12
e= 3.80%

Curve# 11
PI Sta= 201+27.48
N= 779594.43
E= 965453.06
DELTA= 11^07'14.9" (LT)
D= 00^34'22.65"
T= 973.53
L= 1940.95
R= 10000.00
E= 47.28
e= NC

Curve# 22
PI Sta= 1014+73.24
N= 778008.99
E= 965357.18
DELTA= 22^46'24.8" (RT)
D= 03^22'13.22"
T= 342.37
L= 675.71
R= 1700.00
E= 34.13
e= 4.20%

Curve# 23
PI Sta= 2009+33.60
N= 778296.83
E= 964674.28
DELTA= 1^27'40" (LT)
D= 0^42'58"
T= 102.00
L= 204.00
R= 8000.00
E= 0.65
e= NC

Curve# 24
PI Sta= 2015+58.58
N= 778418.17
E= 965287.38
DELTA= 1^20'48" (LT)
D= 0^42'58"
T= 94.03
L= 188.05
R= 8000.00
E= 0.55
e= NC

Curve# 31
PI Sta= 2030+53.01
N= 778761.08
E= 966741.71
DELTA= 2^21'43" (RT)
D= 0^42'58"
T= 164.91
L= 329.78
R= 8000.00
E= 1.70
e= NC

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SCALE IN FEET
0 300 600 1200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
CONSTRUCTION LAYOUT

DRAWING No. 11-001

3/1/2007 GPLN

RELEASED FOR CONSTRUCTION - 07-23-13

Curve# 12
PI Sta= 247+14.53
N= 783440.52
E= 962942.12
DELTA= 24^11'56.5" (RT)
D= 01^25'56.62"
T= 857.49
L= 1689.41
R= 4000.00
E= 90.88
e= 3.20%

Curve# 13
PI Sta= 268+51.15
N= 785849.66
E= 962606.13
DELTA= 03^12'05.6" (LT)
D= 00^34'22.6"
T= 279.46
L= 558.78
R= 10000.00
E= 3.90
e= NC

Curve# 14
PI Sta= 275+00.18
N= 786211.10
E= 962469.60
DELTA= 00^52'12.7" (RT)
D= 00^17'11.3"
T= 151.88
L= 303.75
R= 20000.00
E= 0.58
e= NC

Curve# 15
PI Sta= 290+97.21
N= 787777.34
E= 962157.46
DELTA= 39^03'35.5" (LT)
D= 02^51'53.2"
T= 709.41
L= 1363.45
R= 2000.00
E= 122.09
e=4.86%

Curve# 16
PI Sta= 303+18.24
N= 788592.14
E= 961174.95
DELTA= 54^32'15.2" (LT)
D= 05^12'31.3"
T= 566.99
L= 1047.05
R= 1100.00
E= 137.53
e=5.97%

Curve# 17
PI Sta= 5107+33.50
N= 788063.68
E= 962060.52
DELTA= 35^00'01.9" (LT)
D= 07^38'22.0"
T= 236.48
L= 458.16
R= 750.00
E= 36.40
e=8.00%

Curve# 18
PI Sta= 5205+18.41
N= 788505.08
E= 961338.50
DELTA= 20^29'04.9" (LT)
D= 05^43'46.5"
T= 180.69
L= 357.53
R= 1000.00
E= 16.19
e=7.20%

Curve# 19
PI Sta= 5210+14.75
N= 788553.34
E= 960840.63
DELTA= 21^35'27.4" (LT)
D= 04^58'51.6"
T= 219.33
L= 433.47
R= 1150.29
E= 20.72
e=5.97%

Curve# 20
PI Sta= 6104+19.42
N= 788510.18
E= 961074.79
DELTA= 55^20'01.8" (RT)
D= 07^09'43.2"
T= 419.42
L= 772.60
R= 800.00
E= 103.28
e=7.60%

Curve# 21
PI Sta= 6205+56.22
N= 787661.17
E= 962043.91
DELTA= 27^28'27.6" (RT)
D= 05^43'46.7"
T= 244.46
L= 479.51
R= 999.99
E= 29.45
e=6.80%

Curve# 21A
PI Sta= 6209+82.42
N= 787260.05
E= 962213.71
DELTA= 11^10'43.5" (RT)
D= 02^56'00.68"
T= 191.14
L= 381.07
R= 1953.14
E= 9.33
e=4.86%

Curve# 23
PI Sta= 7007+80.37
N= 787959.26
E= 961707.01
DELTA= 57^13'46.2" (LT)
D= 07^38'22.0"
T= 409.16
L= 749.13
R= 750.00
E= 104.35
e=5.87%

END PROJECT
CSMSL-0008-00(690)
JIMMY DELOACH PARKWAY
STA. 314+47.72
N 788280.0048
E 959999.2604

RAMP 3B STA. 5216+60.35 =
JIMMY DELOACH PARKWAY
STA. 312+15.06
34.80' RT.

LIMIT OF CONSTRUCTION
SONNY DIXON INTERCHANGE
STA. 7002+00.00
N 787808.0506
E 961146.6932

RAMP 3C STA 6100+00.00=
JIMMY DELOACH CONNECTOR
STA 307+67.22
41.25' LT.

SONNY DIXON INTERCHANGE
STA 7007+23.18 =
RAMP 3C STA. 6110+85.56 =
RAMP 3D STA. 6200+00.00
84^ 04' 32"
84^ 04' 30"

RAMP 3D STA 6211+72.35 =
JDC STA. 283+87.80
42.15' LT.

BONNY BRIDGE ROAD
4013+93.44 =
JIMMY DELOACH CONNECTOR
STA. 265+00.07
93^ 50' 53.8"

JIMMY DELOACH CONNECTOR
STA. 234+35.72 =
CROSSGATE ROAD
STA. 3123+44.07
69^ 53' 24.9"

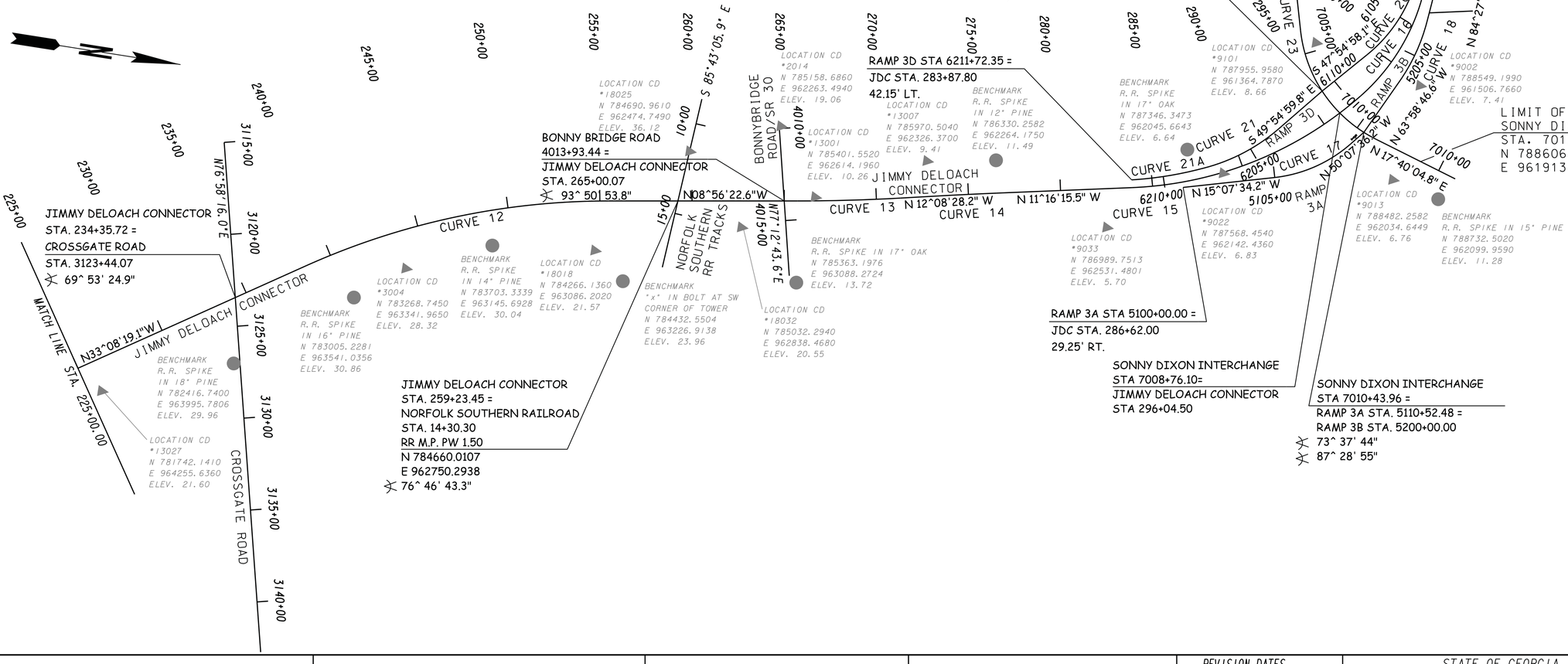
JIMMY DELOACH CONNECTOR
STA. 259+23.45 =
NORFOLK SOUTHERN RAILROAD
STA. 14+30.30
RR M.P. PW 1.50
N 784660.0107
E 962750.2938
76^ 46' 43.3"

RAMP 3A STA 5100+00.00 =
JDC STA. 286+62.00
29.25' RT.

SONNY DIXON INTERCHANGE
STA 7008+76.10=
JIMMY DELOACH CONNECTOR
STA 296+04.50

SONNY DIXON INTERCHANGE
STA 7010+43.96 =
RAMP 3A STA. 5110+52.48 =
RAMP 3B STA. 5200+00.00
73^ 37' 44"
87^ 28' 55"

LIMIT OF CONSTRUCTION
SONNY DIXON INTERCHANGE
STA. 7013+90.25
N 788606.3142
E 961913.1162



SCALE IN FEET
0 300 600 1200

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STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CONSTRUCTION LAYOUT

DRAWING No. 11-002

3/1/2007 GPLN

RELEASED FOR CONSTRUCTION - 07-23-13

MATCH LINE STA. 1021+00.00
SEE SHEET 14-001

END RAISED CONCRETE MEDIAN
STA. 1021+53.79

+52.9
0.3' LT.
R 5'

+41.7
5.3' RT

EXIST. R/W

43'

43'

S 71°20'34.3" E

REQ'D R/W & L/A

1023+00.00
130.00'

1023+00.00
120.00'

6.5' PAVED SHLD

GRATE INLET
TOP 5.87
I.E. 1.76

GRATE INLET
TOP 5.54

PIPE TO REMAIN

ENC
-2.00%
+51

FLAT
0.00%
+18

BSE
-2.00%
+18

+48.67
43.00'
LT.

RC
2.00%
+84

1025+06.49
120.00'

1025+06.49
130.00'

24" RCP
@ 2.84%

24" RCP
@ 3.10%

24"

2
CROSS
ATLANTIC, LLC

STRUCTURE NO. A-20
GA. STANDARD. 1019A, TYPE E
Sta 1025+37.55, 37.78' LT

8 SY
RIP RAP
TYP 3, 18"

STA. 152+31.46
195.00', LT.
R 150'

TYPE IV STRAIN POLE
5'x5' STA 1025+55, 116' LT
PED. PAD
WITH 2'
DETECTABLE
WARNING
(TYP)

STA. 152+29.09
45.00', LT.

P.C. 1025+06.49

R 5
+34.55
37.00'
LT.

+34.40
44.00'
LT.

BFSE
-4.00%
+51

TYPE IV STRAIN POLE
STA 1026+20, 87' RT

BEGIN PROJECT
CSMSL-008-00(690)
JIMMY DELOACH CONNECTOR
STA 149+66.27
BOURNE AVENUE
STA 1027+24.17

6' RAISED
CONC. ISLAND
(TYP)

TYPE A
WCR

+37.74
44.00'
LT.

+34.96
44.00'
LT.

S.R. 307/BOURNE AVENUE
CONSTRUCTION ℄

BEGIN TAPER

END TAPER

+94.22
3.40' LT.
R 8.40'

+10.75
43.00'
RT.

+35.08
55.00'
RT.

76°03'42"

150+00

BNC
-2.00%
+94

+13.13
44.00'
LT.

N 01°41'36.0" W

WETLAND 2 (PCS "D")
USACE SAS-2011-00688

MATCH LINE
BOURNE AVE.

CURVE 1

+63.38
35.00'
LT.

+93.12
35.00'
LT.

+106.36
44.43'
LT.

BEGIN 6" RAISED CONC.
MEDIAN (INTEGRAL)
WITH TYPE 7 FACE
STA. 1027+93.19

BEGIN TAPER

REQ'D R/W & L/A

+32.33
55.00'
RT.

R 452

5.0'

+76.58
16.10'
RT.

R 1961

00' CA.

TYPE IV STRAIN POLE
STA 1027+99, 82' RT

MATCH LINE STA. 1029+00.00
SEE SHEET 14-002

STA. 151+23.32
46.00', RT.

4' WOVEN WIRE, 2 STRAND BARB

BEGIN TAPER
STA. 152+73.30
44.31', RT.

TYPE IV STRAIN POLE
STA. 155+10. 63.0 RT

END TAPER
STA. 155+72.69
29.25', RT.

152+00.00
100.00'

1028+65.00
- 145.00'

ORANGE
BARRIER
FENCE

STA. 151+23.34
195.00', RT.
R 150'

BEGIN WOVEN WIRE FENCE, STA. 1028+63

TYPE IV STRAIN POLE
STA 1028+16, 99' LT

+93.57
43.00' LT.

3
JOE C. SIKES

ESA - SEE ENVIRONMENTAL RESOURCES
IMPACT TABLE IN GENERAL NOTES
FOR CONSTRUCTION RESTRICTIONS

157+00.00
- 300.00'

STREAM 4

BEGIN WOVEN WIRE FENCE,
STA. 161+00

160+03.60
- 186.15'

REMAINDER LT.
161+00.00
- 150.00'

ESA - SEE ENVIRONMENTAL RESOURCES
IMPACT TABLE IN GENERAL NOTES
FOR CONSTRUCTION
RESTRICTIONS
32 SY
RIP RAP
TP 3, 18"

TYPE IV STRAIN POLE
STA. 155+10. 72.0 LT

WETLAND 1

BEGIN TAPER
STA. 155+53.49
41.25', LT.

END TAPER
STA. 156+53.49
29.25', LT.

6.5' PAVED
SHLD

160+00

155+00

JIMMY DELOACH CONNECTOR
CONSTRUCTION ℄

2.30%

CP-02

29.25'

24"

REQ'D R/W & L/A

WETLAND 3 (PCS "E")
USACE SAS-2011-00688

ORANGE
BARRIER
FENCE

BEGIN CONCRETE
MEDIAN BARRIER
STA. 161+17

BI-DIRECTIONAL
IMPACT
ATTENUATOR
(P-3-B-28)
STA. 160+96.9

MATCH LINE STA. 162+00.00

4
PCS NITROGEN INC.

REMAINDER RT.

PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

BEGIN LIMIT OF ACCESS.....BLA
END LIMIT OF ACCESS.....ELA
LIMIT OF ACCESS
REQ'D R/W & LIMIT OF ACCESS

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

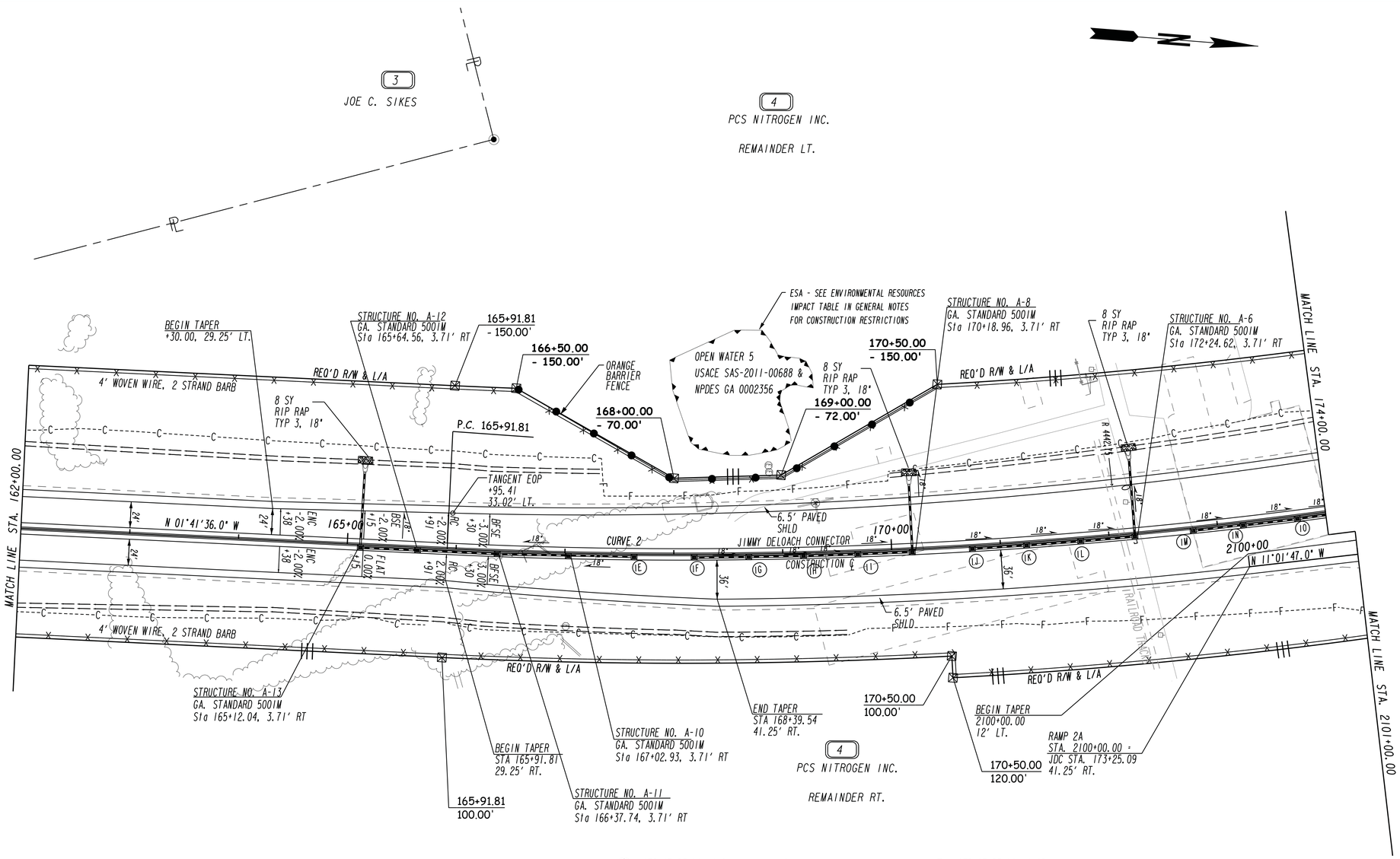
MAINLINE PLAN

JIMMY DELOACH CONNECTOR
BEGIN TO STA. 162+00

DRAWING No. 13-001

3/1/2007 GPLN

RELEASED FOR CONSTRUCTION - 07-23-13



PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

BEGIN LIMIT OF ACCESS.....BLA
END LIMIT OF ACCESS.....ELA
LIMIT OF ACCESS
REQ'D R/W & LIMIT OF ACCESS

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

MAINLINE PLAN

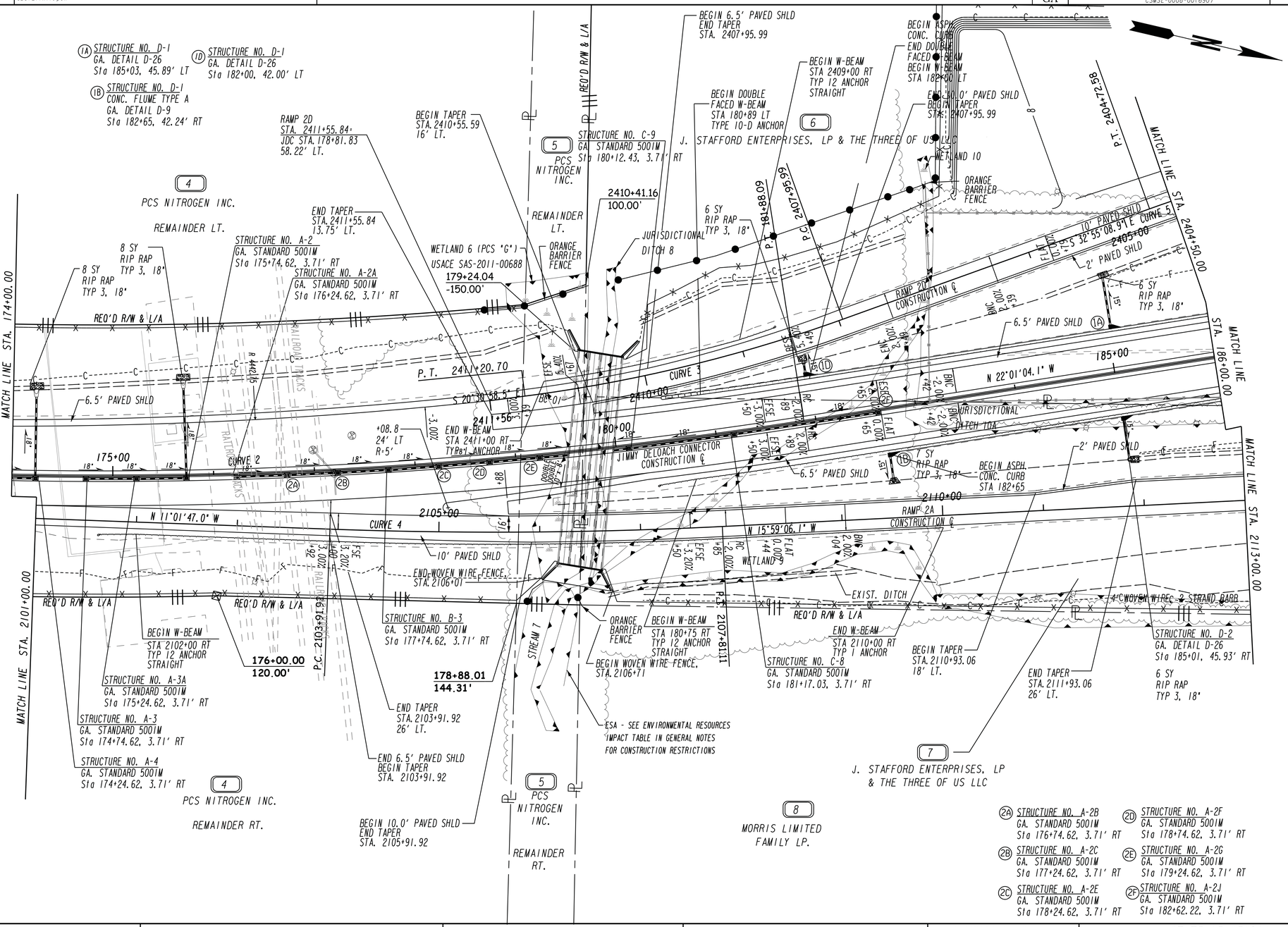
JIMMY DELOACH CONNECTOR
STA. 162+00 TO STA. 174+00

DRAWING No. 13-002

3/11/2007 GPLN

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	32	730

RELEASED FOR CONSTRUCTION - 07-23-13



PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

BEGIN LIMIT OF ACCESS.....BLA
END LIMIT OF ACCESS.....ELA
LIMIT OF ACCESS
REQ'D R/W & LIMIT OF ACCESS

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

MAINLINE PLAN

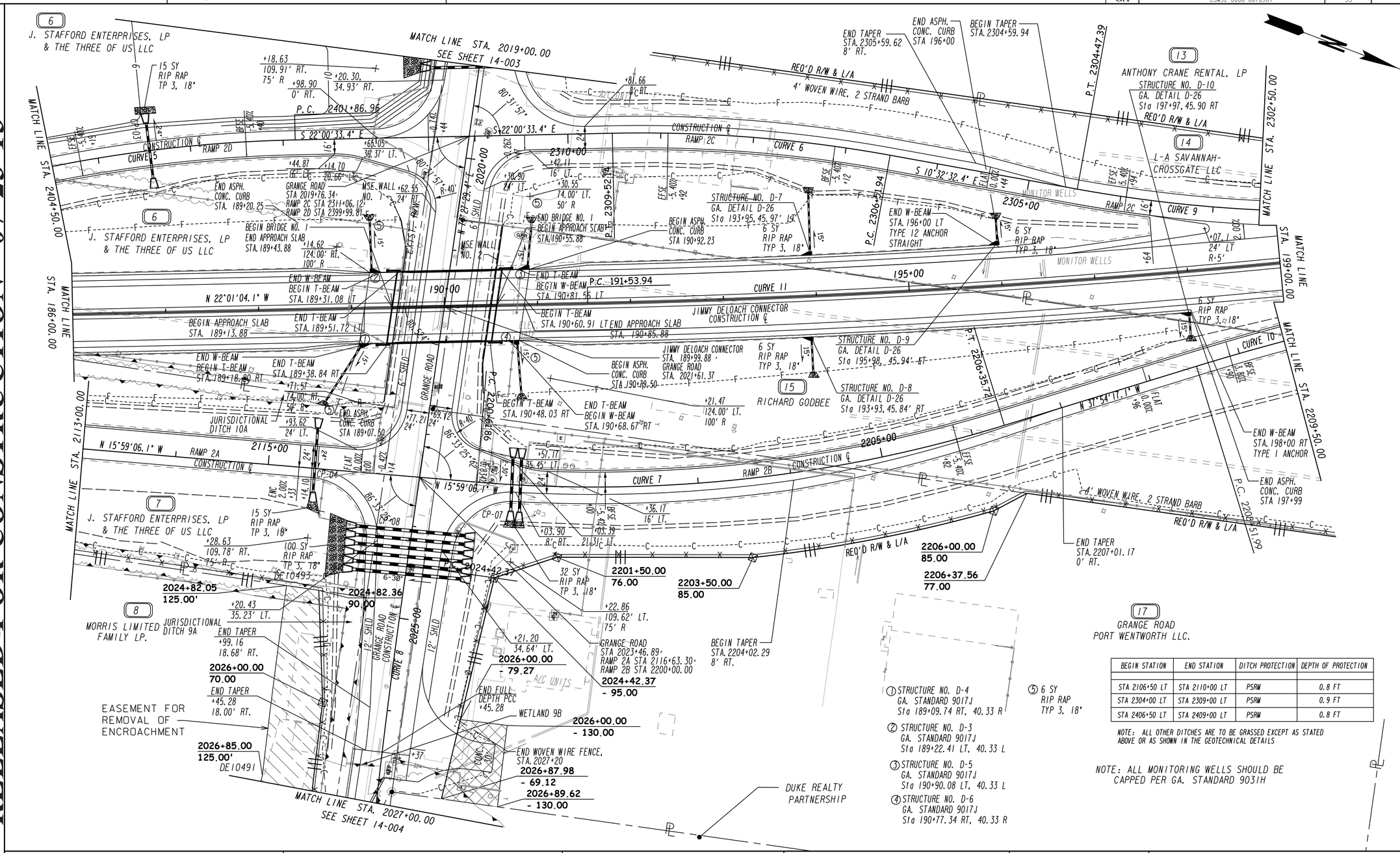
JIMMY DELOACH CONNECTOR
STA. 174+00 TO STA. 186+00

DRAWING No. 13-003

3/1/2007 GPLN

23-JUL-2013 13:47	1:47:00 PM	0008690_13-004	Y:\Roadways\126379\0008690\Dgn\0008690_13-004.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	33	730

RELEASED FOR CONSTRUCTION - 07-23-13



BEGIN STATION	END STATION	DITCH PROTECTION	DEPTH OF PROTECTION
STA 2106+50 LT	STA 2110+00 LT	PSRW	0.8 FT
STA 2304+00 LT	STA 2309+00 LT	PSRW	0.9 FT
STA 2406+50 LT	STA 2409+00 LT	PSRW	0.8 FT

NOTE: ALL OTHER DITCHES ARE TO BE GRASSED EXCEPT AS STATED ABOVE OR AS SHOWN IN THE GEOTECHNICAL DETAILS

PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

BEGIN LIMIT OF ACCESS.....BLA
END LIMIT OF ACCESS.....ELA
LIMIT OF ACCESS
REQ'D R/W & LIMIT OF ACCESS

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

MAINLINE PLAN

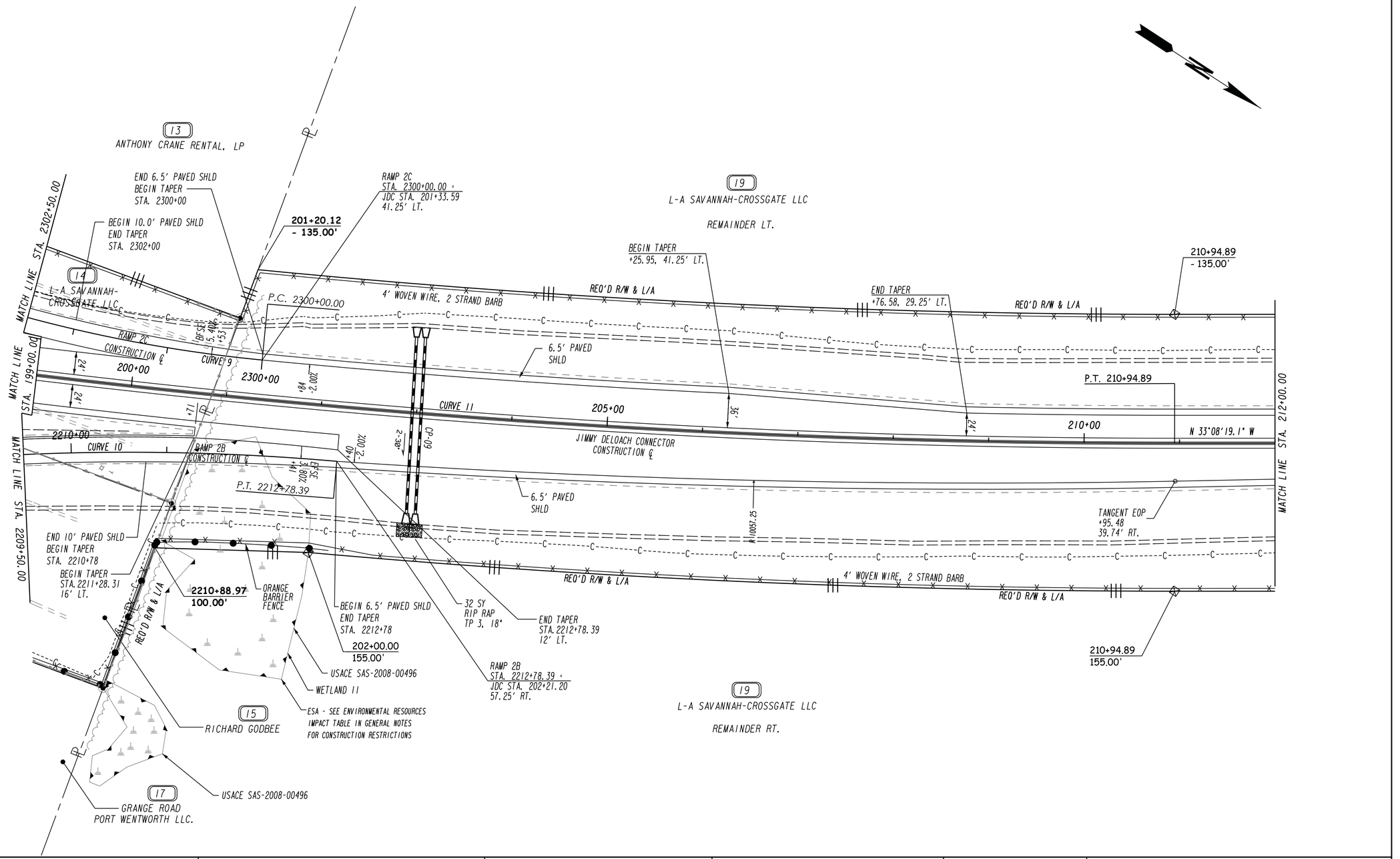
JIMMY DELOACH CONNECTOR
STA. 186+00 TO STA. 199+00

DRAWING No. 13-004

3/1/2007 GPLN

23-JUL-2013 13:47	1:47:10 PM	0008690_13-005	Y:\Roadways\126379\0008690\Dgn\0008690_13-005.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	34	730

RELEASED FOR CONSTRUCTION - 07-23-13



PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

BEGIN LIMIT OF ACCESS.....BLA
END LIMIT OF ACCESS.....ELA
LIMIT OF ACCESS
REQ'D R/W & LIMIT OF ACCESS

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

MAINLINE PLAN

JIMMY DELOACH CONNECTOR
STA. 199+00 TO STA. 212+00

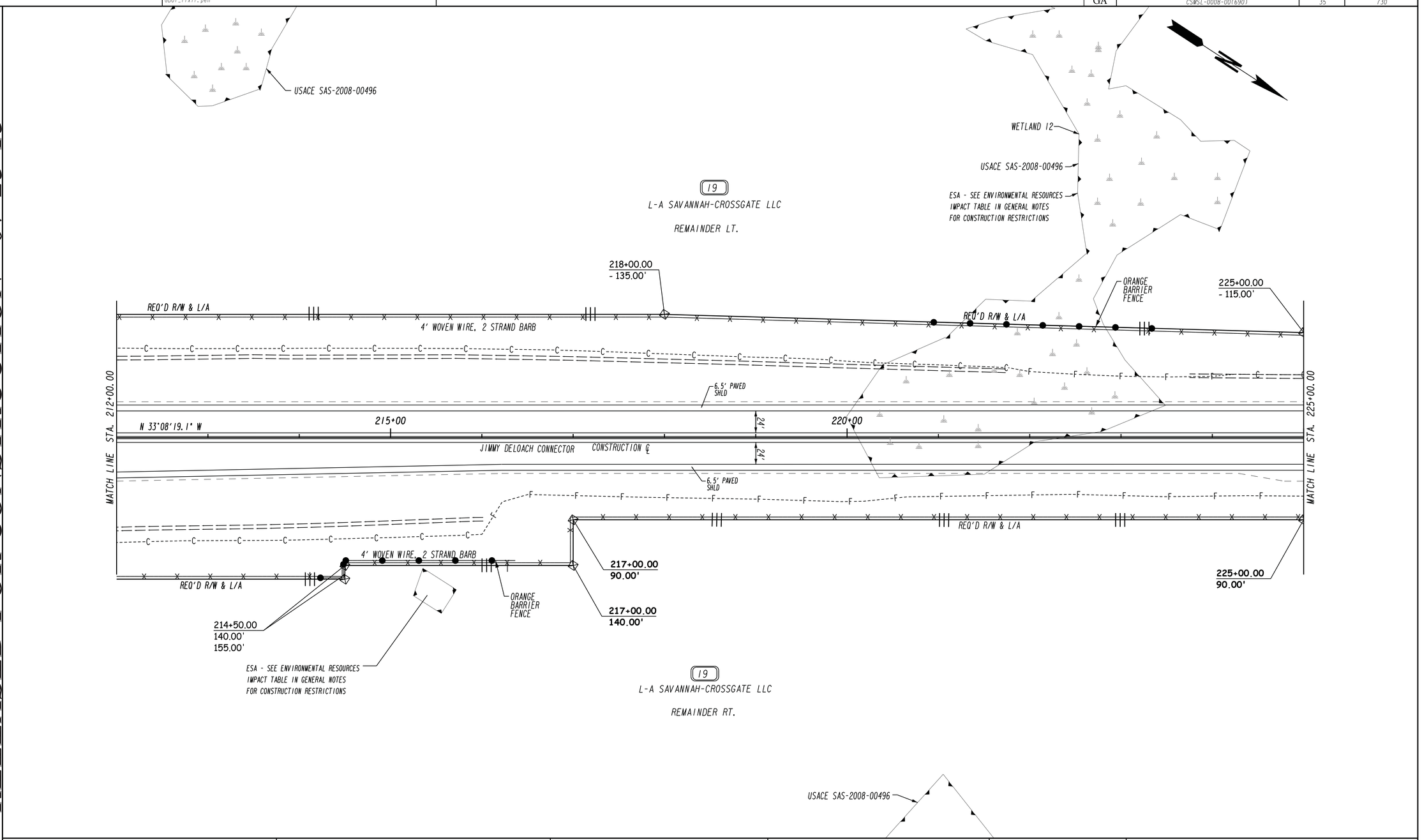
DRAWING No. 13-005

3/11/2007 GPLN

23-JUL-2013 13:47 1:47:17 PM
JParks
0008690_13-006
GDOT_11x17.pen
Y:\Roadways\126379\0008690\Dgn\0008690_13-006.dgn

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	35	730

RELEASED FOR CONSTRUCTION - 07-23-13



PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

BEGIN LIMIT OF ACCESS.....BLA
END LIMIT OF ACCESS.....ELA
LIMIT OF ACCESS
REQ'D R/W & LIMIT OF ACCESS

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

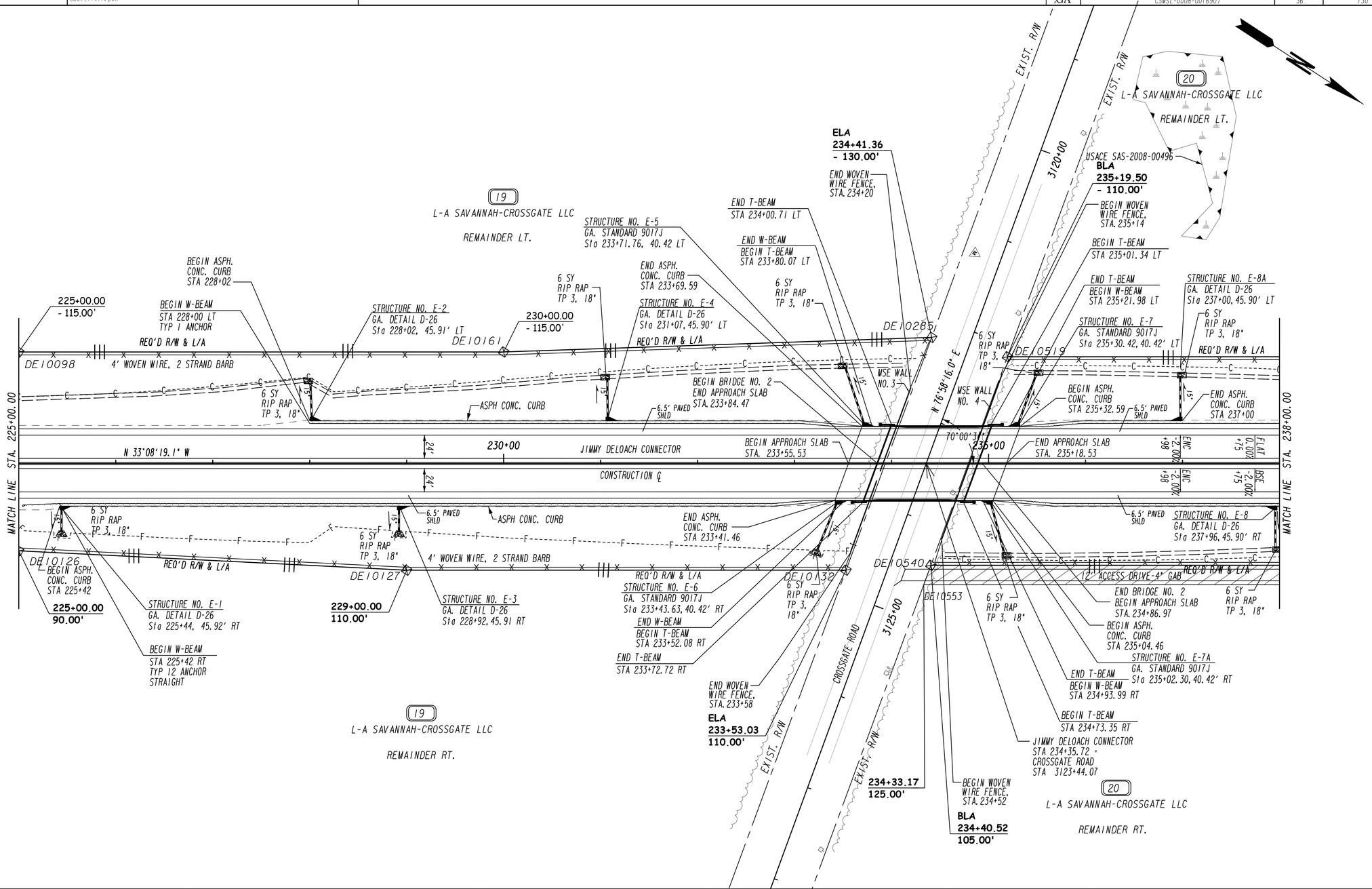
MAINLINE PLAN

JIMMY DELOACH CONNECTOR
STA. 212+00 TO STA. 225+00

DRAWING No. 13-006

3/1/2007 GPLN

RELEASED FOR CONSTRUCTION - 07-23-13



PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

BEGIN LIMIT OF ACCESS.....BLA
END LIMIT OF ACCESS.....ELA
LIMIT OF ACCESS
REQ'D R/W & LIMIT OF ACCESS

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

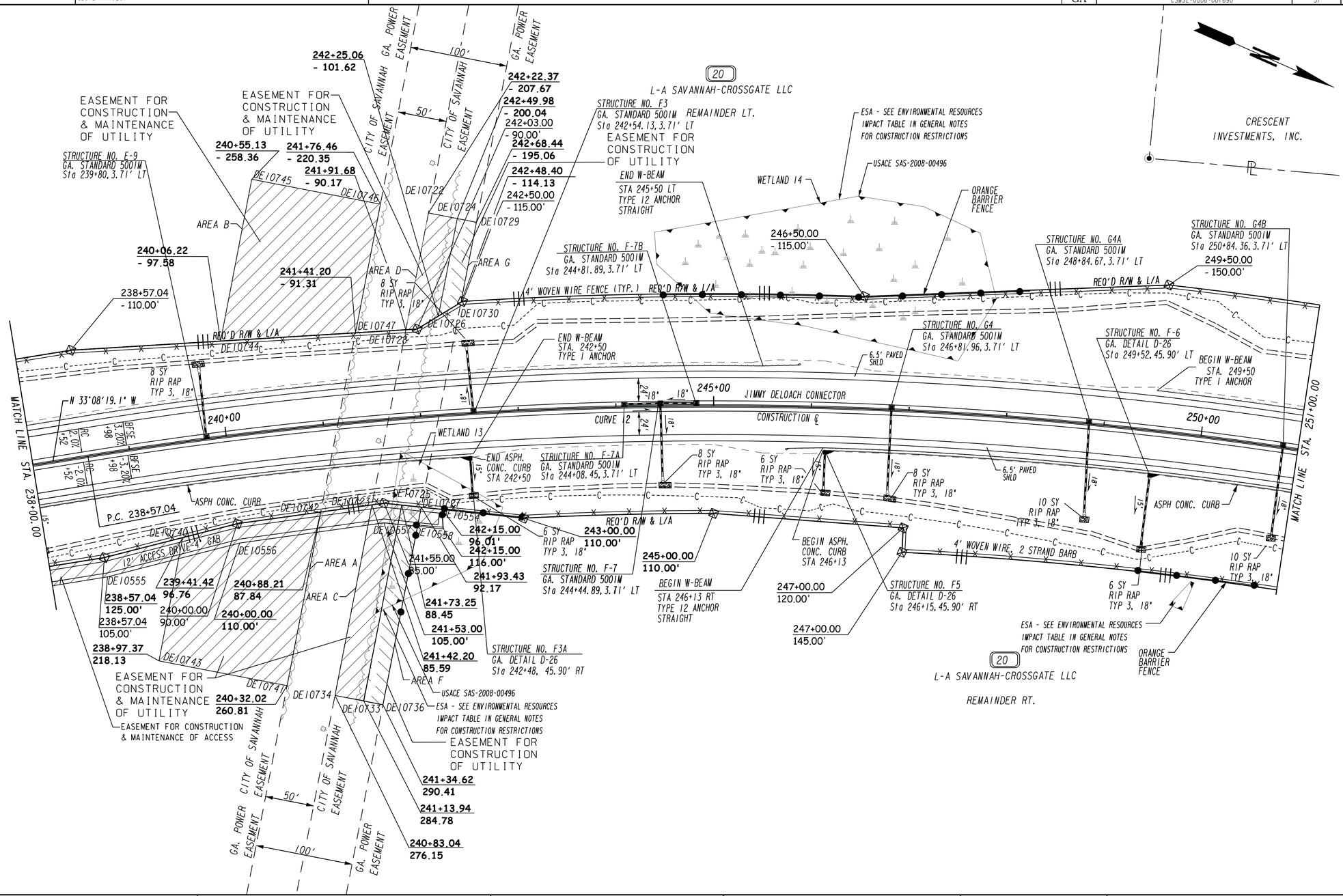
MAINLINE PLAN

JIMMY DELOACH CONNECTOR
STA. 225+00 TO STA. 238+00

DRAWING No. 13-007

3/1/2007 GPLN

RELEASED FOR CONSTRUCTION - 07-23-13



PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

BEGIN LIMIT OF ACCESS.....BLA
END LIMIT OF ACCESS.....ELA
LIMIT OF ACCESS
REQ'D R/W & LIMIT OF ACCESS

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

MAINLINE PLAN

JIMMY DELOACH CONNECTOR
STA. 238+00 TO STA. 251+00

DRAWING No. 13-008

3/1/2007 GPLN

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	38	730

RELEASED FOR CONSTRUCTION - 07-23-13

N
N=962183.8971
E=784702.4194
Z=0.0000

CRESCENT INVESTMENTS, INC.

BEGIN MSE WALL NO. 5A
SEE GA. STD. 4948 FOR BARRIER TRANSITION

END W-BEAM
BEGIN T-BEAM
STA. 255+94.35 LT

254+00.00
- 150.00'

255+46.45
- 140.00'

END T-BEAM
STA. 256+02.50 LT
GA STD 4012-C

256+70.00
- 105.00'

20
L-A SAVANNAH-CROSSGATE LLC
REMAINDER LT.
REQ'D R/W & L/A
4' WOVEN WIRE, 2 STRAND BARB

STRUCTURE NO. H1A
GA. STANDARD 5001M
Sta 254+80.03, 3.71' LT

STRUCTURE NO. H1
GA. STANDARD 5001M
Sta 253+00, 3.71' LT

6.5' PAVED SHLD

255+00

JIMMY DELOACH CONNECTOR CONSTRUCTION ℄ CURVE 12

24'
24'

MATCH LINE STA. 251+00.00

STRUCTURE NO. H2A
GA. DETAIL D-26
Sta 252+50, 45.89' RT

ASPH. CONC. CURB

6.5' PAVED SHLD

P.T. 255+46.45
STRUCTURE NO. H2
GA. DETAIL D-26
Sta 256+00, 45.90 RT

4' WOVEN WIRE FENCE (TYP.)
REQ'D R/W & L/A

8 SY RIP RAP TYP 3, 18"
6 SY RIP RAP TYP 3, 18"
10 SY RIP RAP TYP 3, 18"
88 SY RIP RAP TYP I, 24"
ORANGE BARRIER FENCE
WETLAND 15

255+46.45
145.00'
255+46.45
155.00'

20
L-A SAVANNAH-CROSSGATE LLC
REMAINDER RT.

STRUCTURE NO. H3
GA. STANDARD 5001M
Sta 256+28.38.34' LT
END MSE WALL NO. 5A
BEGIN MSE WALL NO. 5B
SEE WALL PLANS

BEGIN BRIDGE NO. 3
END APPROACH SLAB
STA 258+63.45

18 SY RIP RAP TYP 3, 18"
MSE WALL NO. 5A
6 SY RIP RAP TYP 3, 18"
30:1 TAPER
N 08°56'22.6" W
BEGIN APPROACH SLAB
STA. 258+33.45

END ASPH. CONC. CURB
STA 258+44
END W-BEAM
BEGIN T-BEAM
STA 258+35.12 RT
MSE WALL NO. 5B

4' WOVEN WIRE, 2 STRAND BARB
END T-BEAM
STA 258+55.76 RT
END MSE WALL NO. 5B
SEE WALL PLANS
6 SY RIP RAP TYP 3, 18"
13 SY RIP RAP TYP 3, 18"
7 SY RIP RAP TYP 3, 18"

STRUCTURE NO. H4
CONC. FLUME TYP A
GA. DETAIL D-9
Sta 255+50 RT
USACE SAS-2008-00496
ESA - SEE ENVIRONMENTAL RESOURCES IMPACT TABLE IN GENERAL NOTES FOR CONSTRUCTION RESTRICTIONS

150' GEORGIA POWER EASEMENT

JIMMY DELOACH CONNECTOR
STA. 259+23.45
NORFOLK SOUTHERN RAILROAD
STA. 14+30.30
RR W.P. PW 1.50
N 784660.0107
E 962750.2938
EASEMENT FOR CONSTRUCTION OF BRIDGE & WALLS

AREA A

END WOVEN WIRE FENCE, STA. 258+79

CENTRAL OF GEORGIA RAILROAD COMPANY

S 85°43'05.9" E
10400
50'
50'

47

END WOVEN WIRE FENCE, STA. 258+38

NORFOLK SOUTHERN RR TRACKS

RAILROAD TRACKS

EXIST. RAILROAD R/W

EXIST. PELICAN PARKWAY

15+00

MSE WALL NO. 6

DE10766
259+37.55
-60.00

76°46'43"

260+00

BEGIN WOVEN WIRE FENCE, STA. 259+52

EASEMENT FOR CONSTRUCTION OF BRIDGE & WALLS

CITY OF PORT WENTWORTH

4 STRUCTURE NO. L2
GA. STANDARD 5001M
Sta 258+38, 35.15' LT

5 STRUCTURE NO. L3
GA. STANDARD 9017J
Sta 260+20.27, 40.42' LT

6 STRUCTURE NO. L4
GA. STANDARD 9017J
Sta 258+26.63, 40.42' RT

7 STRUCTURE NO. L5
GA. STANDARD 9017J
Sta 260+02.31, 40.42' RT

21
L-A SAVANNAH-CROSSGATE LLC
REMAINDER LT.
BEGIN MSE WALL NO. 6
SEE WALL PLANS
BEGIN T-BEAM
STA 259+91.14 LT

END BRIDGE NO. 3
BEGIN APPROACH SLAB
STA 259+83.45
6 SY RIP RAP TYP 3, 18"

BEGIN WOVEN WIRE FENCE, STA. 260+08

BEGIN ASPH. CONC. CURB
STA 260+22.44

END T-BEAM
BEGIN W-BEAM
STA 260+11.78 LT

END APPROACH SLAB
STA. 260+13.45

JIMMY DELOACH CONNECTOR CONSTRUCTION ℄

CP-11

BEGIN ASPH. CONC. CURB
STA 260+04.47

EASEMENT FOR CONSTRUCTION & MAINTENANCE OF BRIDGE & WALLS

END T-BEAM
BEGIN W-BEAM
STA 259+94.10 RT

262+86.96
160.00
262+46.00
160.00
262+30.66
168.50'

DE10518
DE10517
DE10372

AREA B

REQ'D R/W & L/A
BEGIN T-BEAM
STA 259+73.45 RT

6 SY RIP RAP TYP 3, 18"

21
L-A SAVANNAH-CROSSGATE LLC
REMAINDER RT.
END MSE WALL NO. 6
SEE WALL PLANS

262+40.40
185.97'
DE10375

AREA A

SOUTHERN NATURAL GAS EASEMENT
AREA B
DE10370

262+64.72
229.56'

DE10369

EASEMENT FOR CONSTRUCTION OF UTILITY
262+99.84
228.39'

STRUCTURE NO. H6
CONC. FLUME TYP A
GA. DETAIL D-9
Sta 262+00 LT
REQ'D R/W & L/A

13 SY RIP RAP TYP 3, 18"

STRUCTURE NO. H5
CONC. FLUME TYP A
GA. DETAIL D-9
Sta 262+50 RT

28 SY RIP RAP TYP 3, 18"

MATCH LINE STA. 263+00.00

PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

BEGIN LIMIT OF ACCESS.....BLA
END LIMIT OF ACCESS.....ELA
LIMIT OF ACCESS
REQ'D R/W & LIMIT OF ACCESS

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

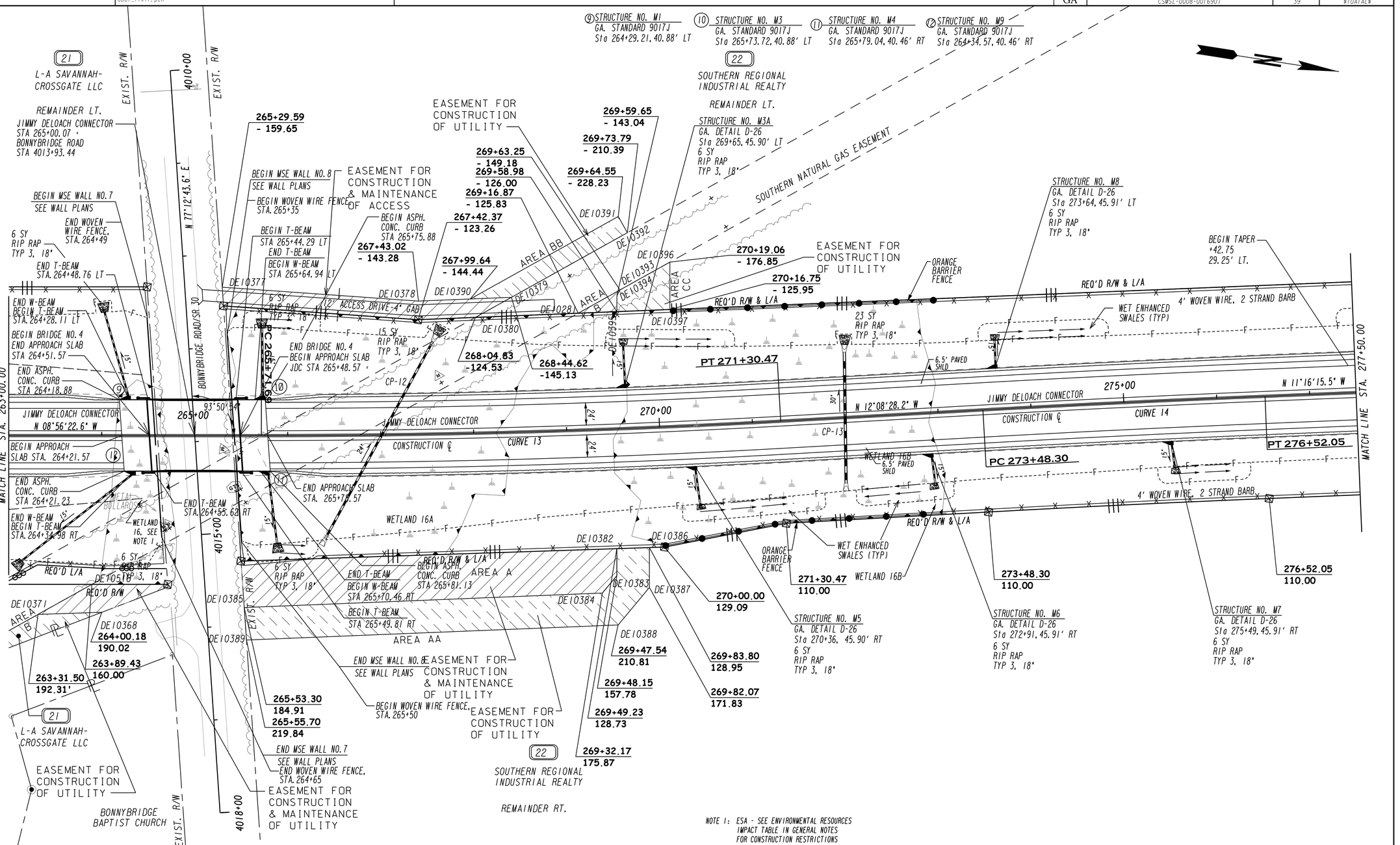
MAINLINE PLAN

JIMMY DELOACH CONNECTOR
STA. 251+00 TO STA. 263+00

DRAWING No. 13-009

3/1/2007 GPLN

RELEASED FOR CONSTRUCTION - 07-23-13



NOTE 1: ESA - SEE ENVIRONMENTAL RESOURCES IMPACT TABLE IN GENERAL NOTES FOR CONSTRUCTION RESTRICTIONS

PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

BEGIN LIMIT OF ACCESS.....BLA
END LIMIT OF ACCESS.....ELA
LIMIT OF ACCESS
REQ'D R/W & LIMIT OF ACCESS

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

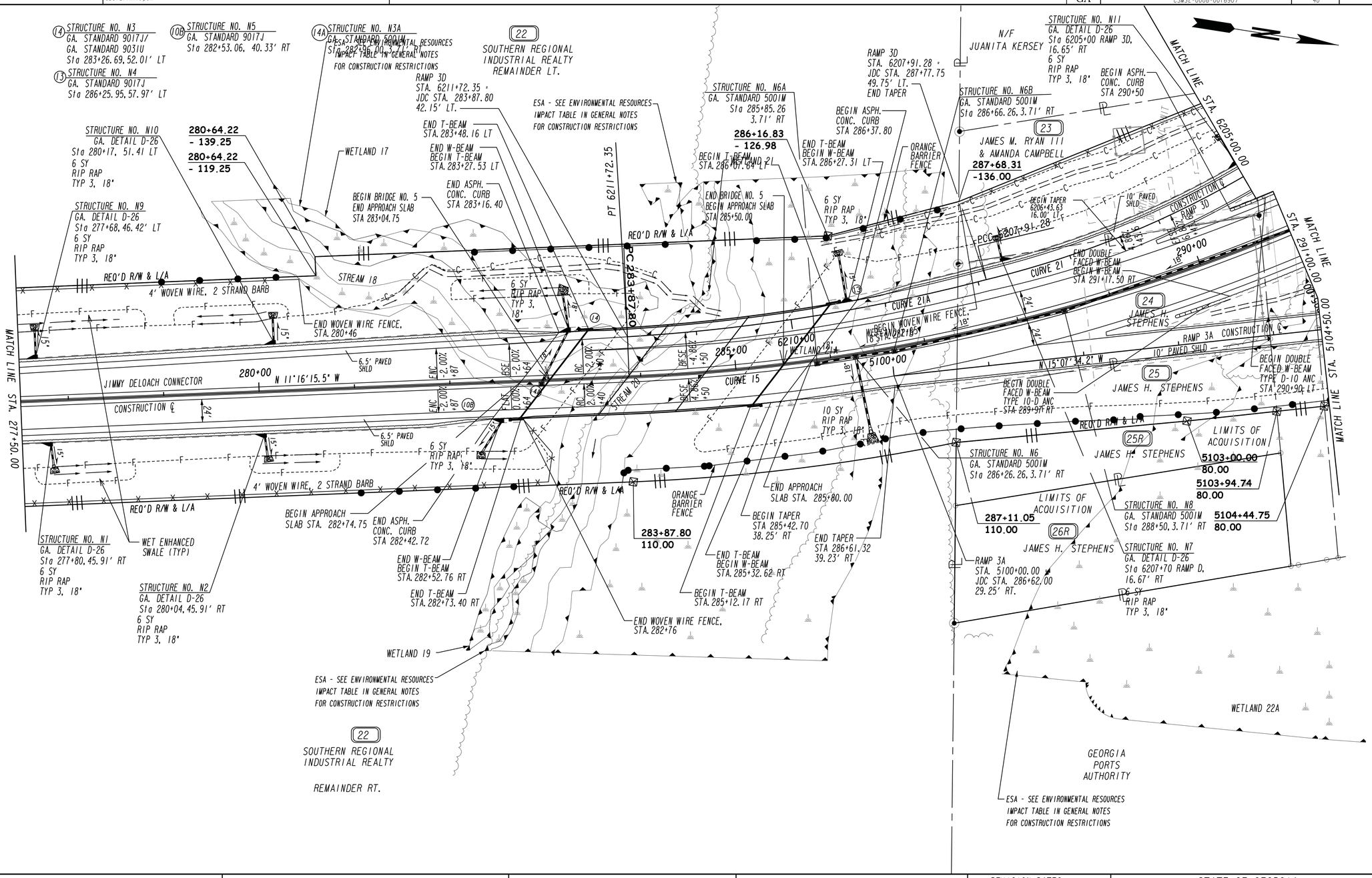
MAINLINE PLAN

JDC STA. 263+00 TO STA. 277+00

DRAWING No. 13-010

3/1/2007 GPLN

RELEASED FOR CONSTRUCTION - 07-23-13



PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

BEGIN LIMIT OF ACCESS.....BLA
END LIMIT OF ACCESS.....ELA
LIMIT OF ACCESS
REQ'D R/W & LIMIT OF ACCESS

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

MAINLINE PLAN

JDC STA. 277+50 TO STA. 291+00

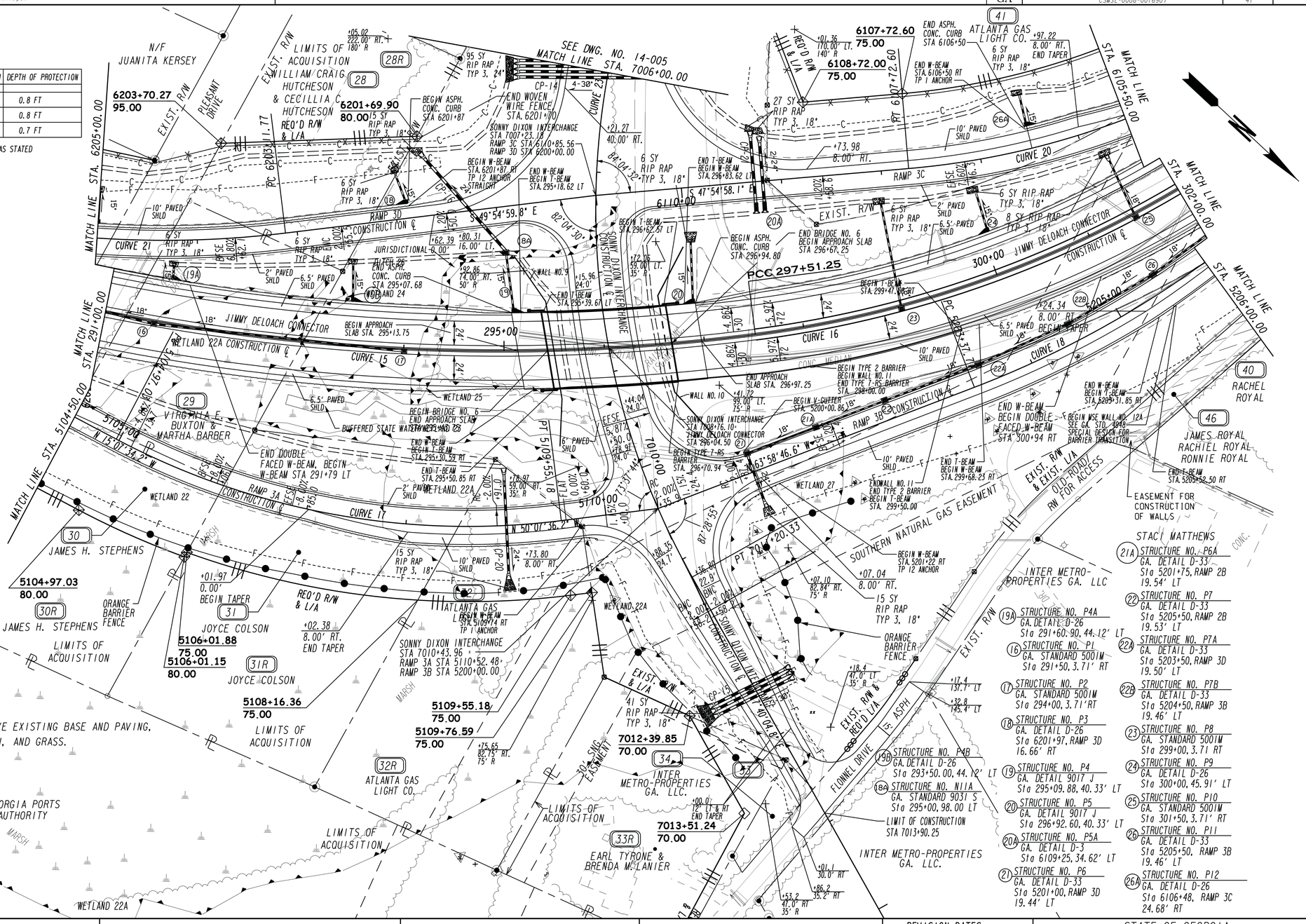
DRAWING No. 13-011

3/1/2007 GPLN

RELEASED FOR CONSTRUCTION - 07-23-13

BEGIN STATION	END STATION	DITCH PROTECTION	DEPTH OF PROTECTION
STA 5103+00 LT	STA 5109+00 LT	PSRW	0.8 FT
STA 6104+50 LT	STA 6109+10 LT	PSRW	0.8 FT
STA 6201+00 LT	STA 6204+00 LT	PSRW	0.7 FT

NOTE: ALL OTHER DITCHES ARE TO BE GRASSED EXCEPT AS STATED ABOVE OR AS SHOWN IN THE GEOTECHNICAL DETAILS



PROPERTY AND EXISTING R/W LINE	BEGIN LIMIT OF ACCESS.....BLA
REQUIRED R/W LINE	END LIMIT OF ACCESS.....ELA
CONSTRUCTION LIMITS	LIMIT OF ACCESS
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES	REQ'D R/W & LIMIT OF ACCESS
EASEMENT FOR CONSTR OF SLOPES	
EASEMENT FOR CONSTR OF DRIVES	

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
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(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

MAINLINE PLAN

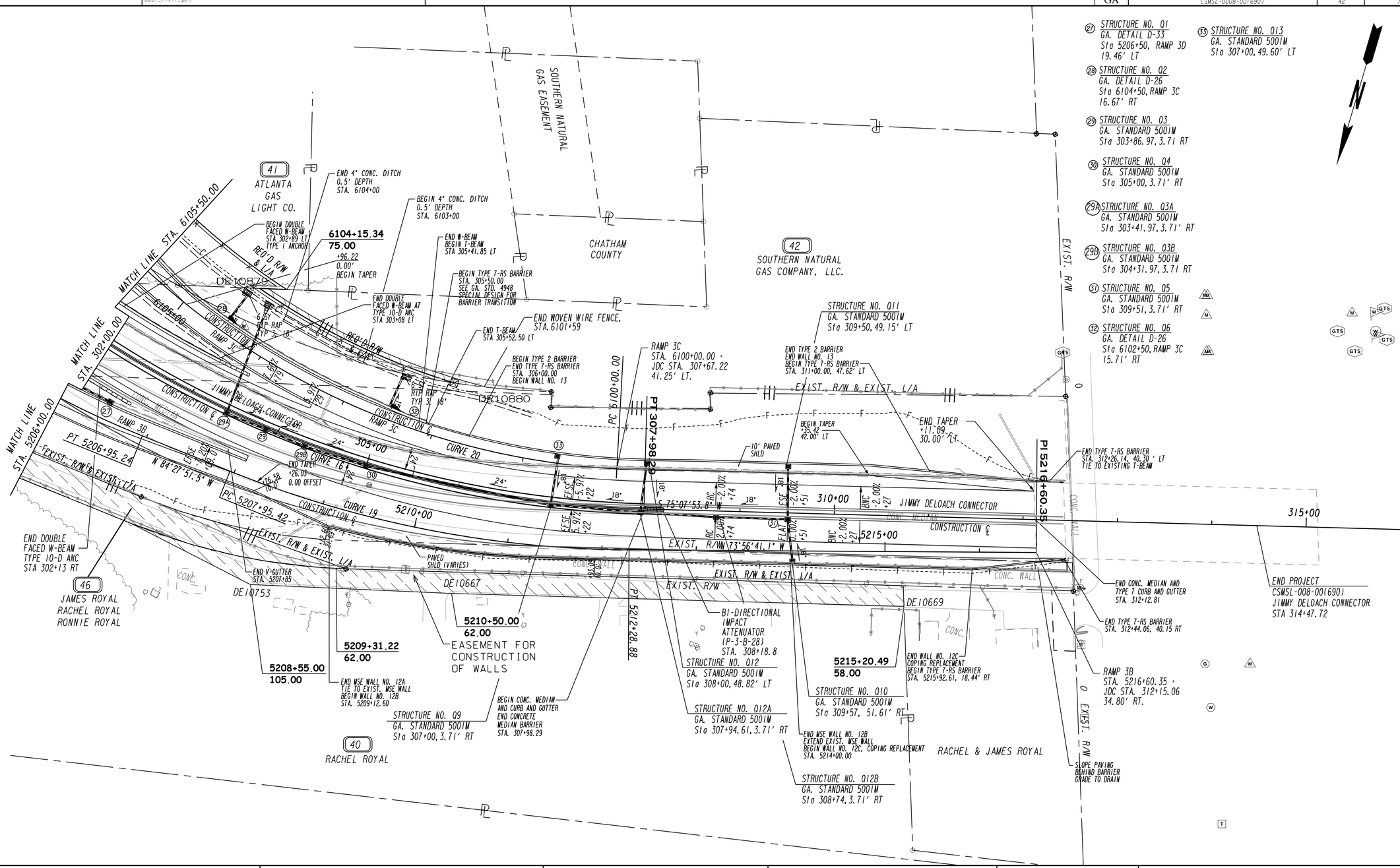
JDC STA. 291+00 TO STA. 302+00

DRAWING No. 13-012

3/11/2007 GPLN

23-JUL-2013 13:56	1:56:13 PM	0008690_13-013	Y:\Roadways\126379\0008690\Dgn\0008690_13-013.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	42	730

RELEASED FOR CONSTRUCTION - 07-23-13



PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

BEGIN LIMIT OF ACCESS.....BLA
END LIMIT OF ACCESS.....ELA
LIMIT OF ACCESS
REQ'D R/W & LIMIT OF ACCESS

THE LPA GROUP
TRANSPORTATION CONSULTANTS
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3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

MAINLINE PLAN

JDC STA. 302+50 TO END PROJECT

DRAWING No. 13-013

3/1/2007 GPLN

RELEASED FOR CONSTRUCTION - 07-23-13

3 JOE C. SIKES

UTILITY EASEMENT

ACCESS EASEMENT

ESA - SEE ENVIRONMENTAL RESOURCES IMPACT TABLE IN GENERAL NOTES FOR CONSTRUCTION RESTRICTIONS

STRUCTURE NO. A-16
GA. STANDARD 1019A, TYPE E
Sta 1018+70, 8.75 RT

WETLAND I

BEGIN 6" RAISED CONCRETE MEDIAN (INTEGRAL) WITH TYPE 7 FACE
STA. 1018+09.32

+56.89
118.00' LT.
75' R

1017+10.00
- 115.00'

1016+24.55
- 113.80'

REQ'D R/W

+9.32
8.08' RT.
1.42' R

1018+06.58
- 105.00'

1020+90.00
- 100.00'

1018+06.58
- 100.00'

ORANGE BARRIER FENCE

REQ'D R/W & L/A

EXIST. R/W

6.5' PAVED SHLD

LIMIT OF CONSTRUCTION
BOURNE AVENUE, STA 1011+30.87
N 774984.4170, E 965015.6896

+99.67
96.36' LT.
50' R

1016+23.18
- 75.20'

ASPH

1017+10.00
- 105.00'

1017+10.00
- 78.79'

P.T. 1018+06.58

1020+00

CP-X1

EXIST. R/W

P.C. 1011+30.87

1015+00

S.R. 307/BOURNE AVENUE CONSTRUCTION ℄

CURVE 22

62°51'32"

CP-X2

8000+00

8000+45.80
85.00

+62.7
34.4'

CP-X3

8001+00.00
45.00

8001+50.00
45.00
60.00

+78.89
109.54' RT.
75' R

8001+87.52
45.00

8001+87.55
60.00

BOURNE AVENUE LOCAL ACCESS ROAD

8002+42

1018+20.34 ℄

MATCH LINE STA. 1021+00.00
SEE SHEET 13-001

1010+00

N 85°53'00.8" E

EXIST. R/W

SR 307/BOURNE AVE STA 1017+23.08 =
BOURNE AVE LOCAL ACCESS
ROAD STA 8000+00.00

35' UTILITY EASEMENT

25' DRAINAGE & UTILITY ESMT.

PRIVATE VEHICULAR ACCESS EASEMENT

44
INTOWN SUITES
SAVANNAH, LLC

45
SAVANNAH
NORTH, LLC.

COLE AP PORTFOLIO III, LLC.

STRUCTURE NO. A-15
GA. STANDARD 1011A
Sta 1018+22.
62.00 RT

STRUCTURE NO. A-15a
GA. STANDARD 1011A
Sta 1018+22
62.00 RT

+82.99
47.01' LT.
35' R

8001+87.52
45.00

DRAINAGE EASEMENT

8003+03.71
45.00

8003+03.78
75.00'

ESA - SEE ENVIRONMENTAL RESOURCES IMPACT TABLE IN GENERAL NOTES FOR CONSTRUCTION RESTRICTIONS

25' UTILITY EASEMENT

12.5' UTILITY EASEMENT

PRIVATE ACCESS EASEMENT

40' DRAINAGE EASEMENT

8003+80.00
75.00

LIMIT OF CONSTRUCTION
BOURNE AVENUE LOCAL ACCESS ROAD
STA 8003+99.98
N 774531.9946, E 965680.1869

P.I. 8003+99.98
8003+80.00
- 7.00
1019+83.63

1 WBT EMPIRE, LLC 328.00

2 CROSS ATLANTIC, LLC

1019+57.04
210.00

1020+25.00
210.00'

1020+65.00
328.00

23 SY RIP RAP TYP 3, 18"

26 SY RIP RAP TYP 3, 18"

36 SY RIP RAP TYP 3, 18"

8 SY RIP RAP TYP 3, 18"

24 SY RIP RAP TYP 3, 18"

84 SY RIP RAP TP 3, 18"

+97.65
127.61' RT.
75' R

+55.9
70.1'

+66.15
17.24' RT.

+07.64
128.00' RT.
85' R

+56.73
143.09' RT.
120' R

18" SES GA. STD 1132

PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

BEGIN LIMIT OF ACCESS.....BLA
END LIMIT OF ACCESS.....ELA
LIMIT OF ACCESS
REQ'D R/W & LIMIT OF ACCESS

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSSROAD PLAN

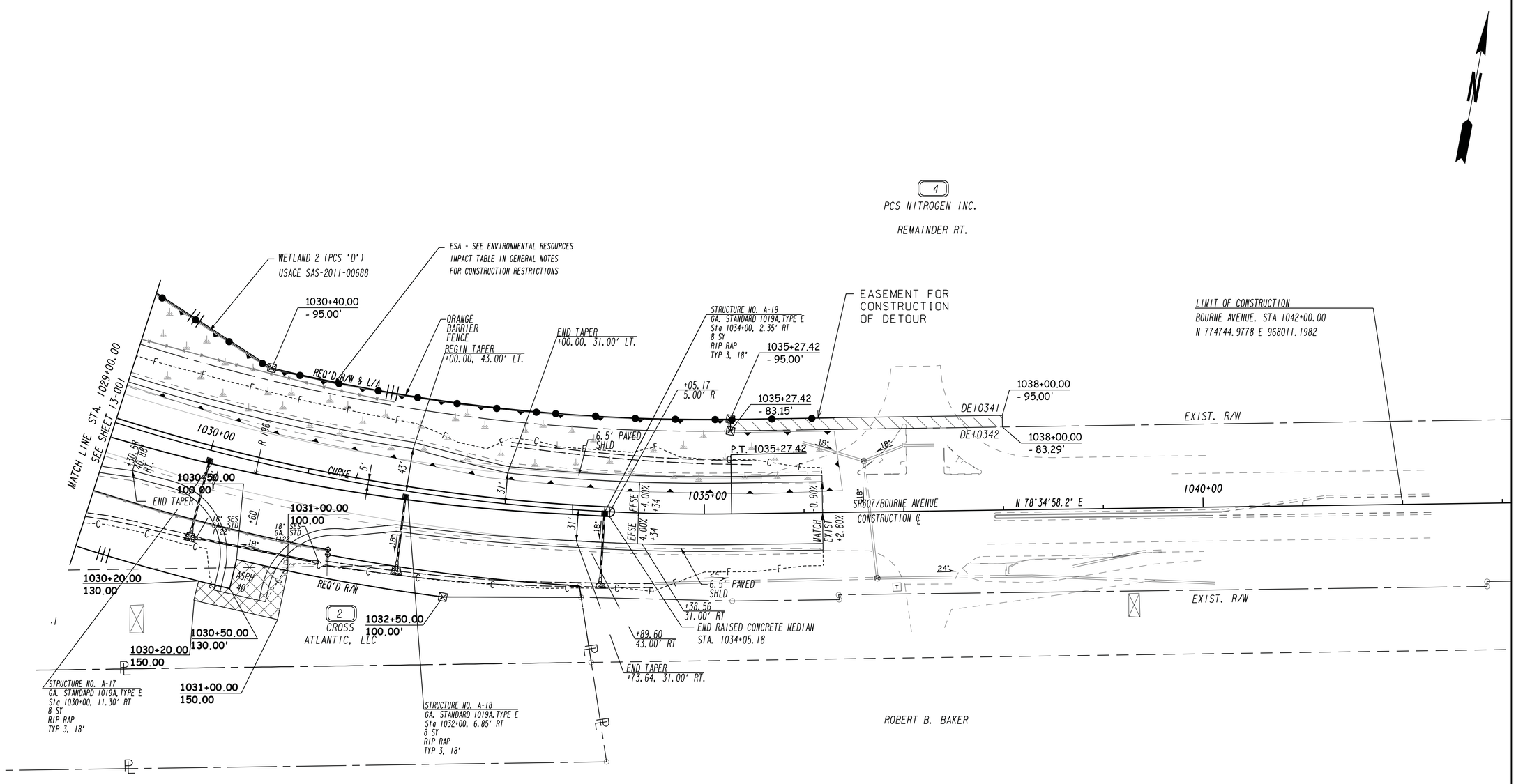
BEGIN CONSTRUCTION TO
STA. 1021+00

DRAWING No. 14-001

3/1/2007 GPLN

23-JUL-2013 13:56	1:56:31 PM	0008690_14-002	Y:\Roadways\126379\0008690\Dgn\0008690_14-002.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	44	730

RELEASED FOR CONSTRUCTION - 07-23-13



PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

BEGIN LIMIT OF ACCESS.....BLA
END LIMIT OF ACCESS.....ELA
LIMIT OF ACCESS
REQ'D R/W & LIMIT OF ACCESS

THE LPA GROUP
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SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

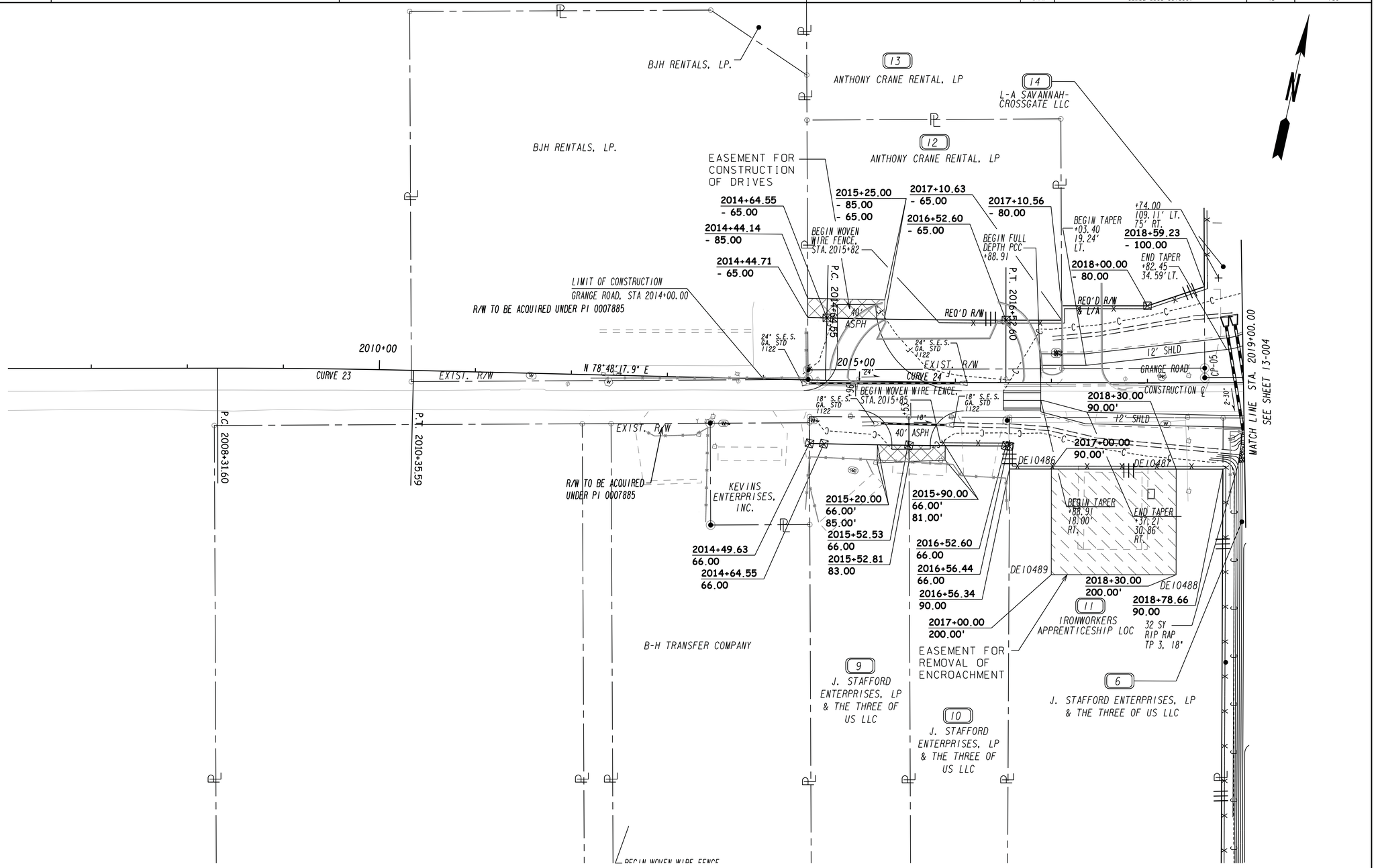
CROSSROAD PLAN

STA. 1029+00 TO
END CONSTRUCTION

DRAWING No. 14-002

3/1/2007 GPLN

RELEASED FOR CONSTRUCTION - 07-23-13



PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

BEGIN LIMIT OF ACCESS.....BLA
END LIMIT OF ACCESS.....ELA
LIMIT OF ACCESS
REQ'D R/W & LIMIT OF ACCESS

THE LPA GROUP
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SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSSROAD PLAN

BEGIN CONSTRUCTION TO STA. 2009+00

DRAWING No. 14-003

3/1/2007 GPLN

23-JUL-2013 13:56 1:56:46 PM
JParks
0008690_14-004
GDOT_11x17.pen
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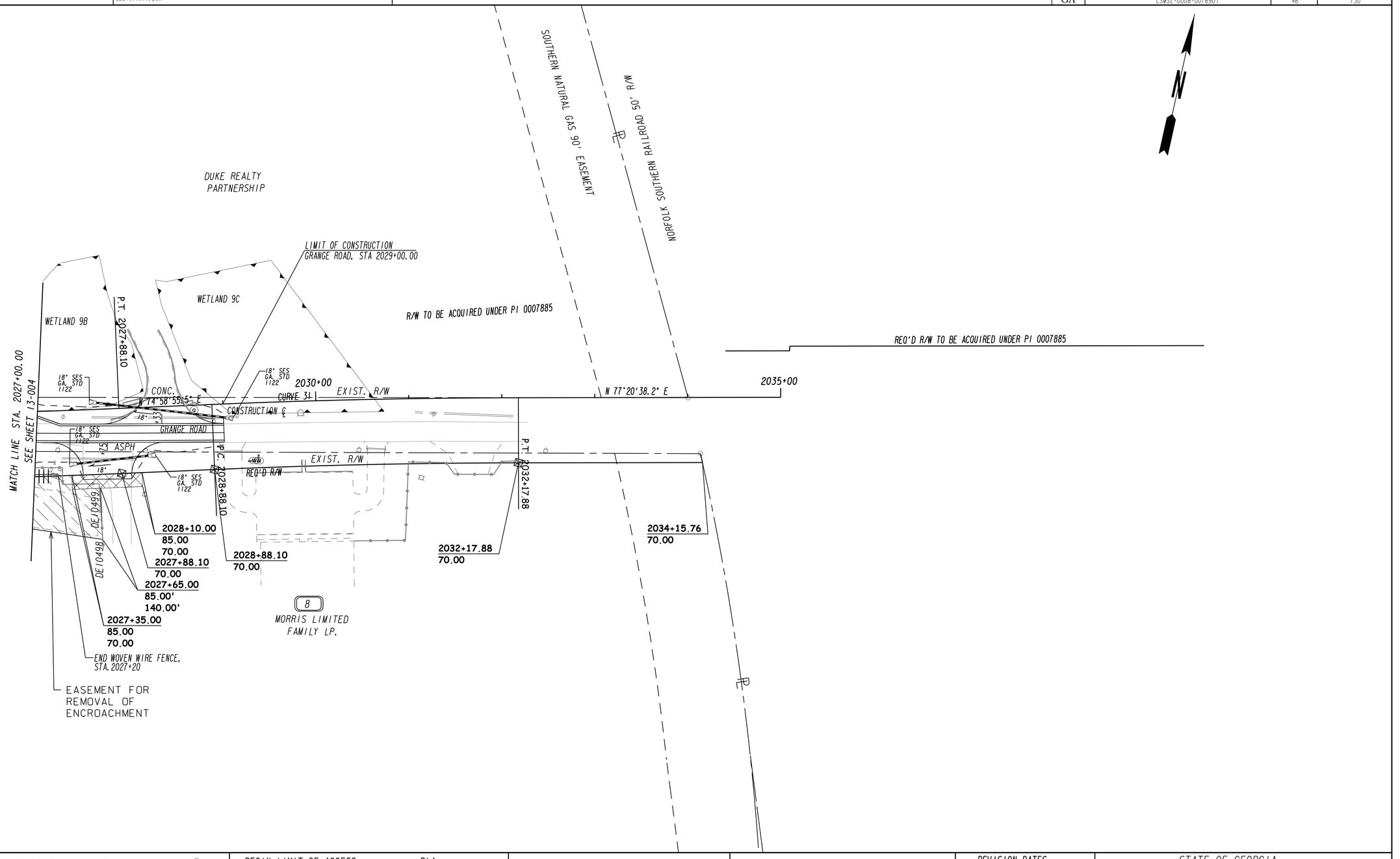
RELEASED FOR CONSTRUCTION - 07-23-13



PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

BEGIN LIMIT OF ACCESS.....BLA
END LIMIT OF ACCESS.....ELA
LIMIT OF ACCESS
REQ'D R/W & LIMIT OF ACCESS

THE LPA GROUP
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(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSSROAD PLAN

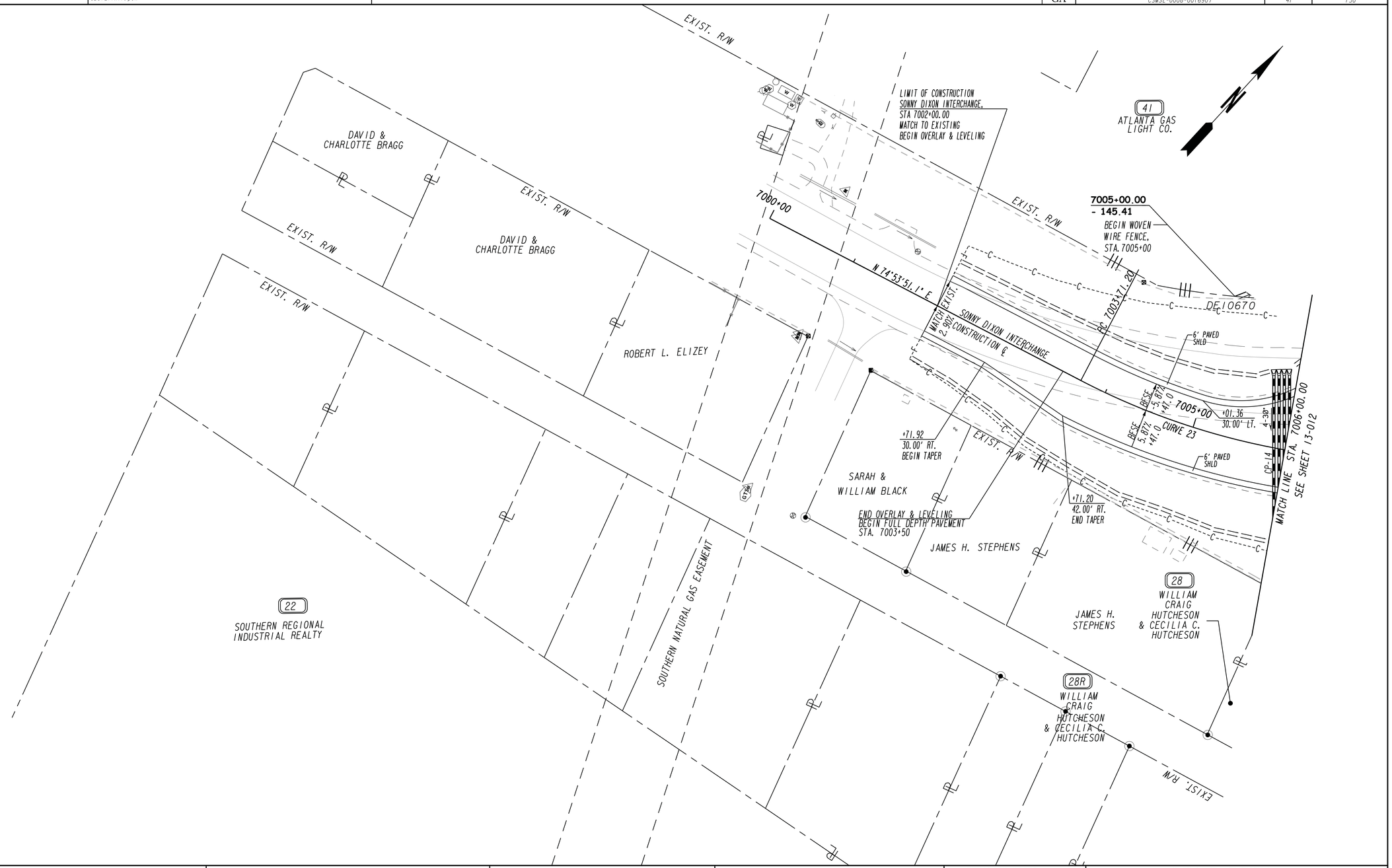
STA. 2017+00 TO
END CONSTRUCTION

DRAWING No. 14-004

3/11/2007 GPLN

23-JUL-2013 13:56	1:56:53 PM	0008690_14-005	Y:\Roadways\126379\0008690\Dgn\0008690_14-005.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	47	730

RELEASED FOR CONSTRUCTION - 07-23-13



PROPERTY AND EXISTING R/W LINE	℄
REQUIRED R/W LINE	
CONSTRUCTION LIMITS	
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES	G F
EASEMENT FOR CONSTR OF SLOPES	
EASEMENT FOR CONSTR OF DRIVES	

BEGIN LIMIT OF ACCESS	BLA
END LIMIT OF ACCESS	ELA
LIMIT OF ACCESS	
REQ'D R/W & LIMIT OF ACCESS	

THE LPA GROUP
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3595 ENGINEERING DRIVE
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(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

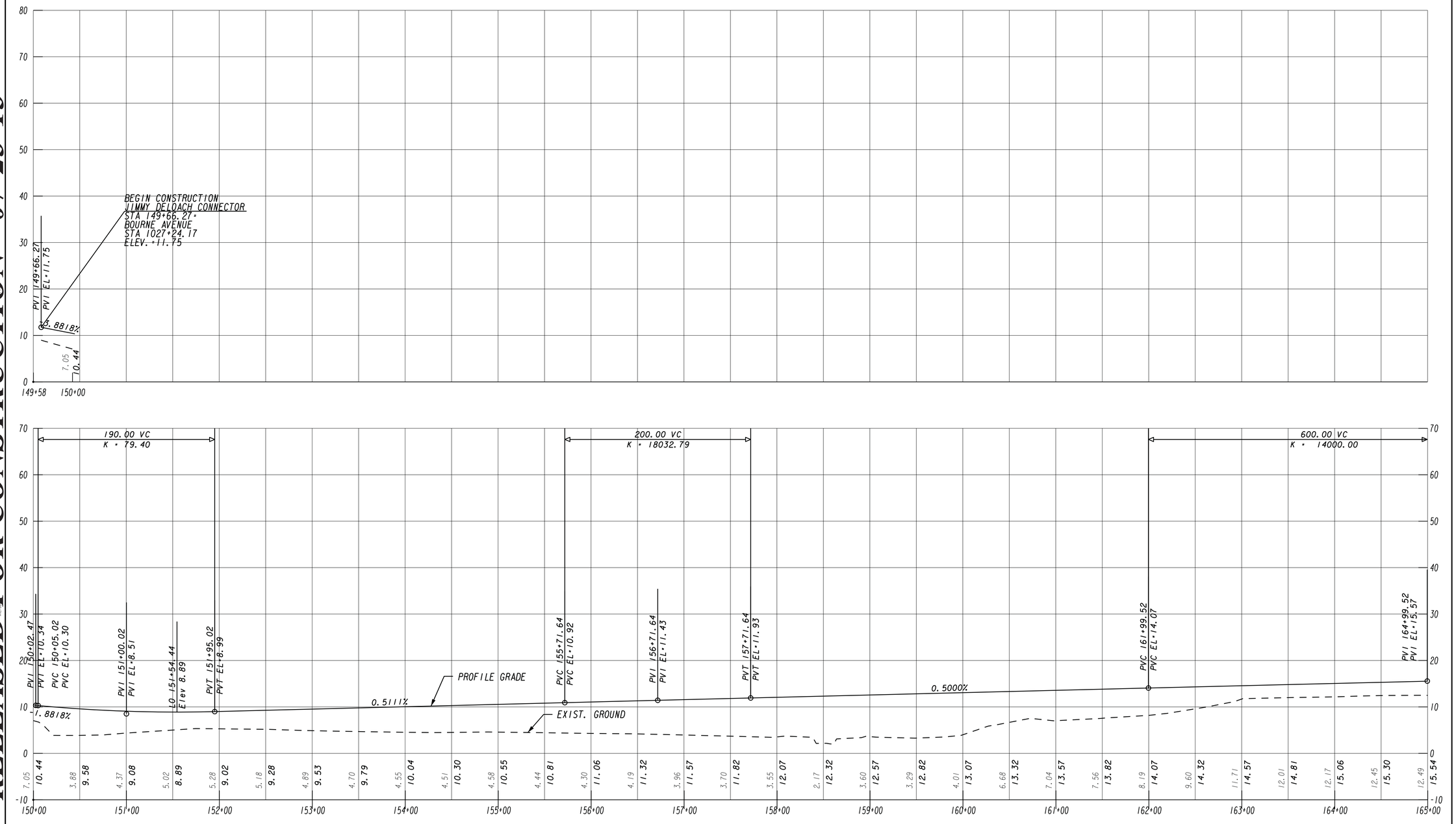
CROSSROAD PLAN

BEGIN CONSTRUCTION TO SONNY DIXON INTERCHANGE STA. 7006+00

DRAWING No. 14-005

3/1/2007 GPLN

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 GREEDG

THE LPA GROUP
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A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

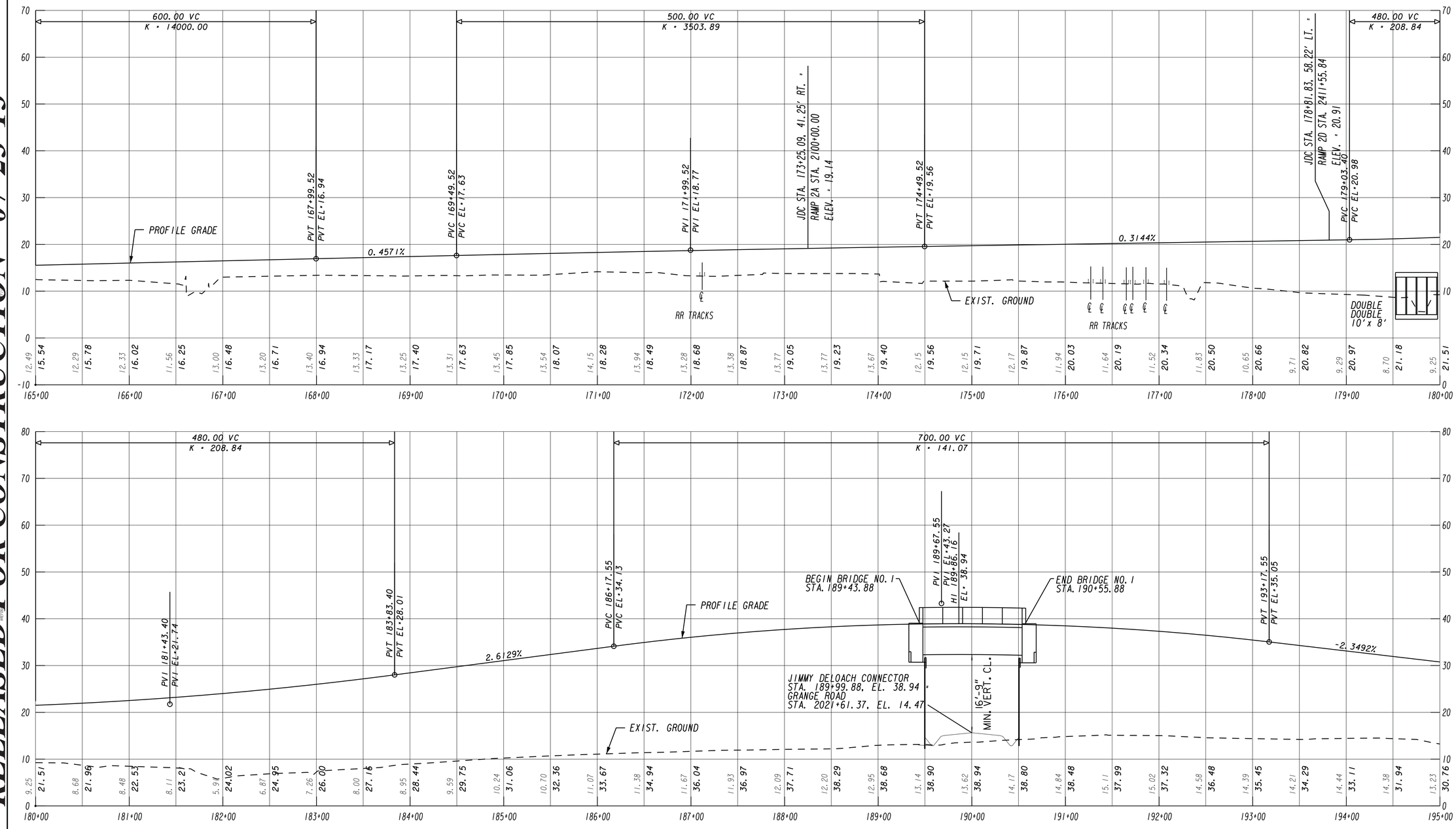
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

MAINLINE PROFILE

JIMMY DELOACH CONNECTOR

DRAWING No. 15-001

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 GREEDG

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE : 1" = 50' HORIZ.
1" = 10' VERT.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

MAINLINE PROFILE

JIMMY DELOACH CONNECTOR

DRAWING No. 15-002

24-JUL-2013 13:28 1:28:15 PM
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0008690_15S12
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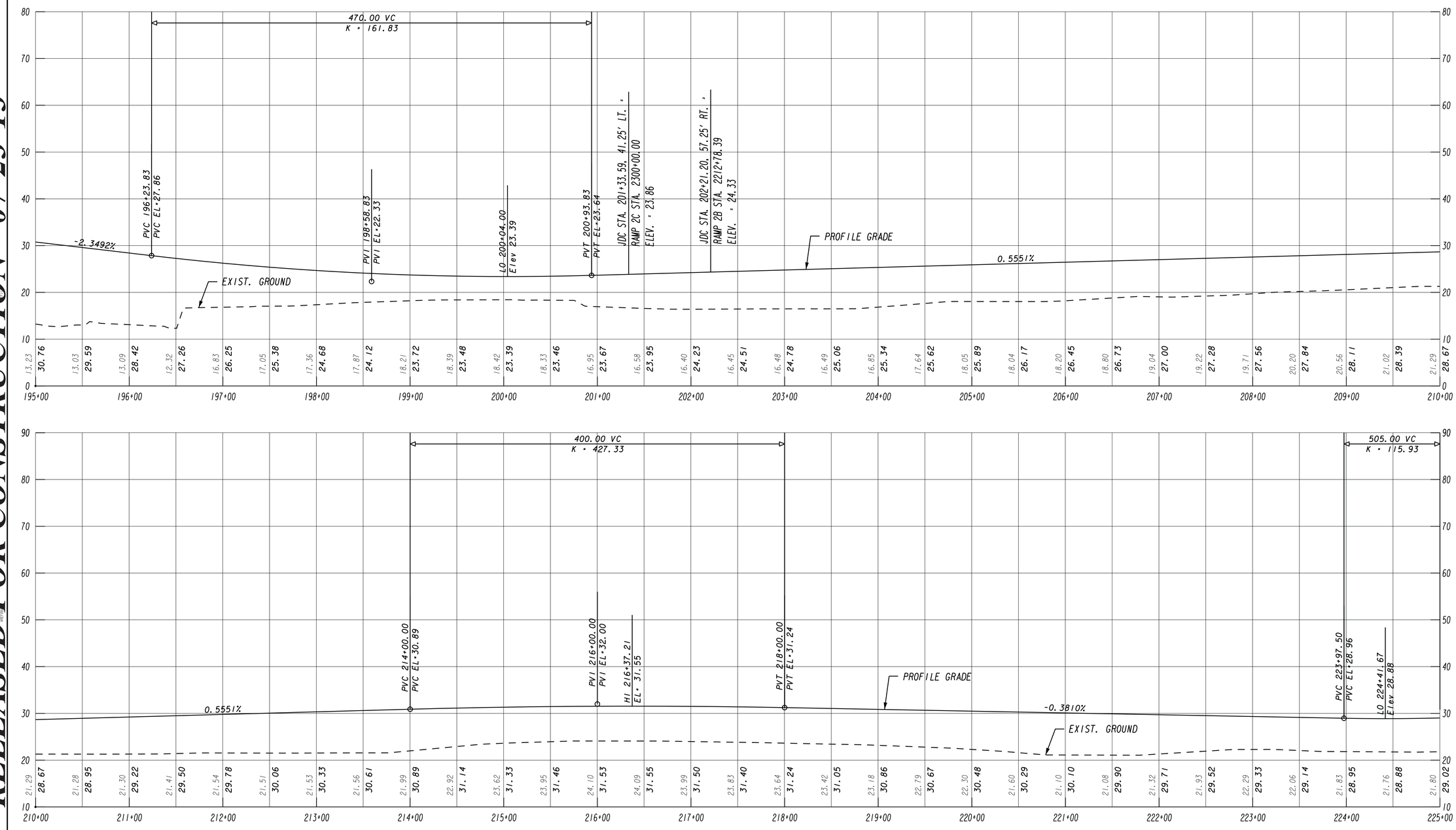
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	50	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 GREEDG

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

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1" = 10' VERT.

REVISION DATES

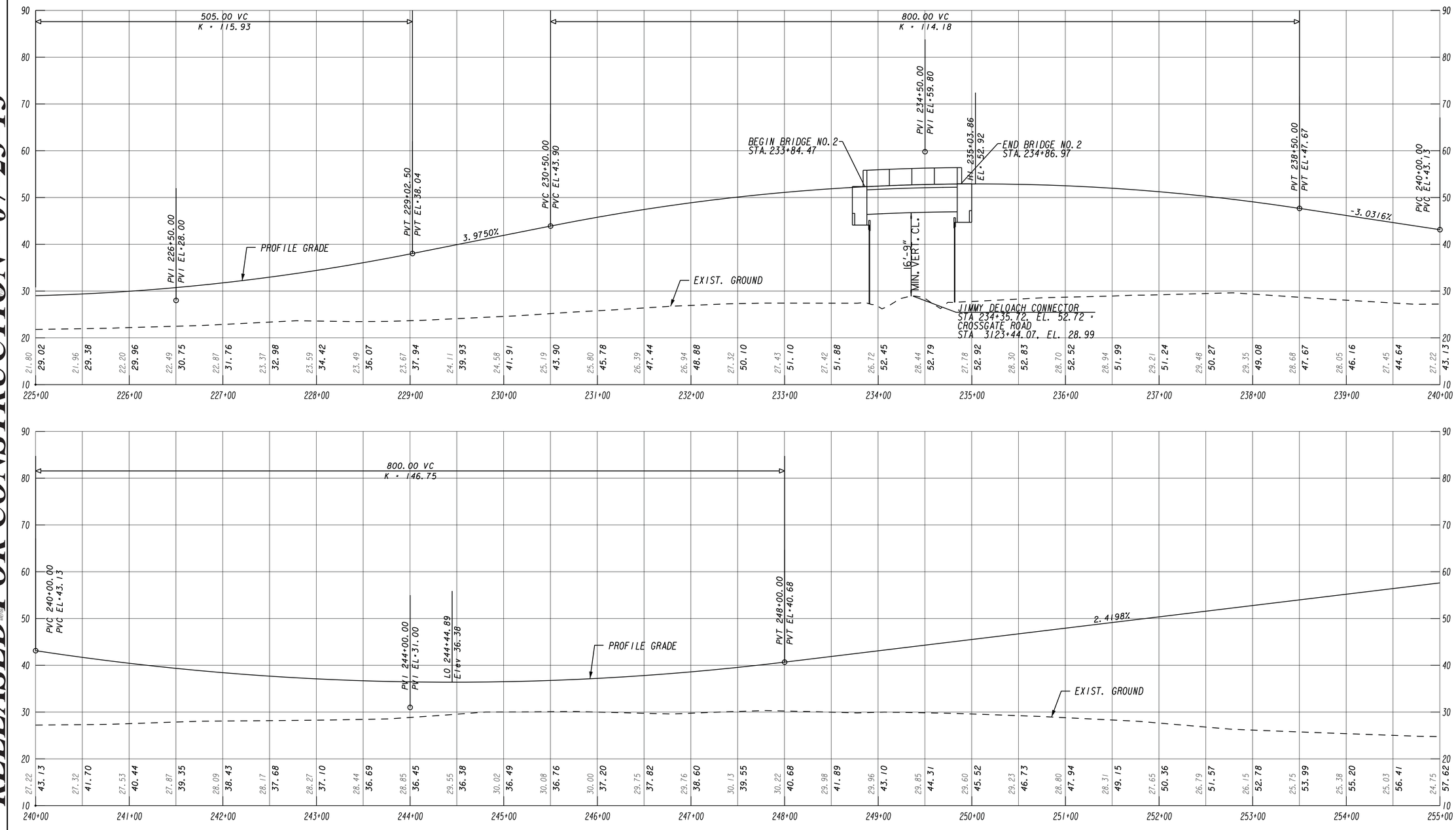
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

MAINLINE PROFILE

JIMMY DELOACH CONNECTOR

DRAWING No. 15-003

RELEASED FOR CONSTRUCTION - 07-23-13



THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE : 1" = 50' HORIZ.
1" = 10' VERT.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

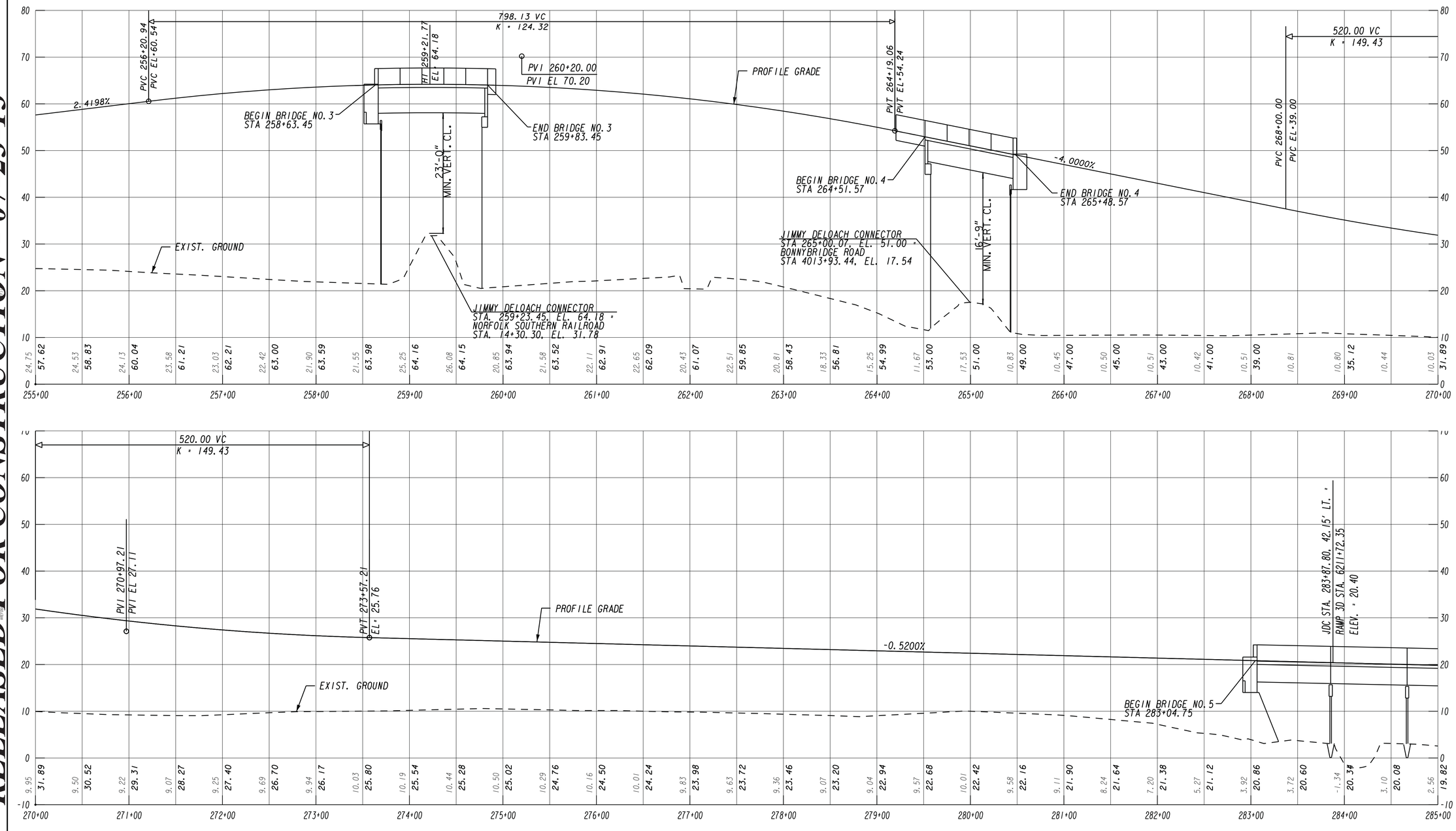
MAINLINE PROFILE

JIMMY DELOACH CONNECTOR

DRAWING No. 15-004

3/1/2007 GR2EDG

RELEASED FOR CONSTRUCTION - 07-23-13



THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE : 1" = 50' HORIZ.
1" = 10' VERT.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

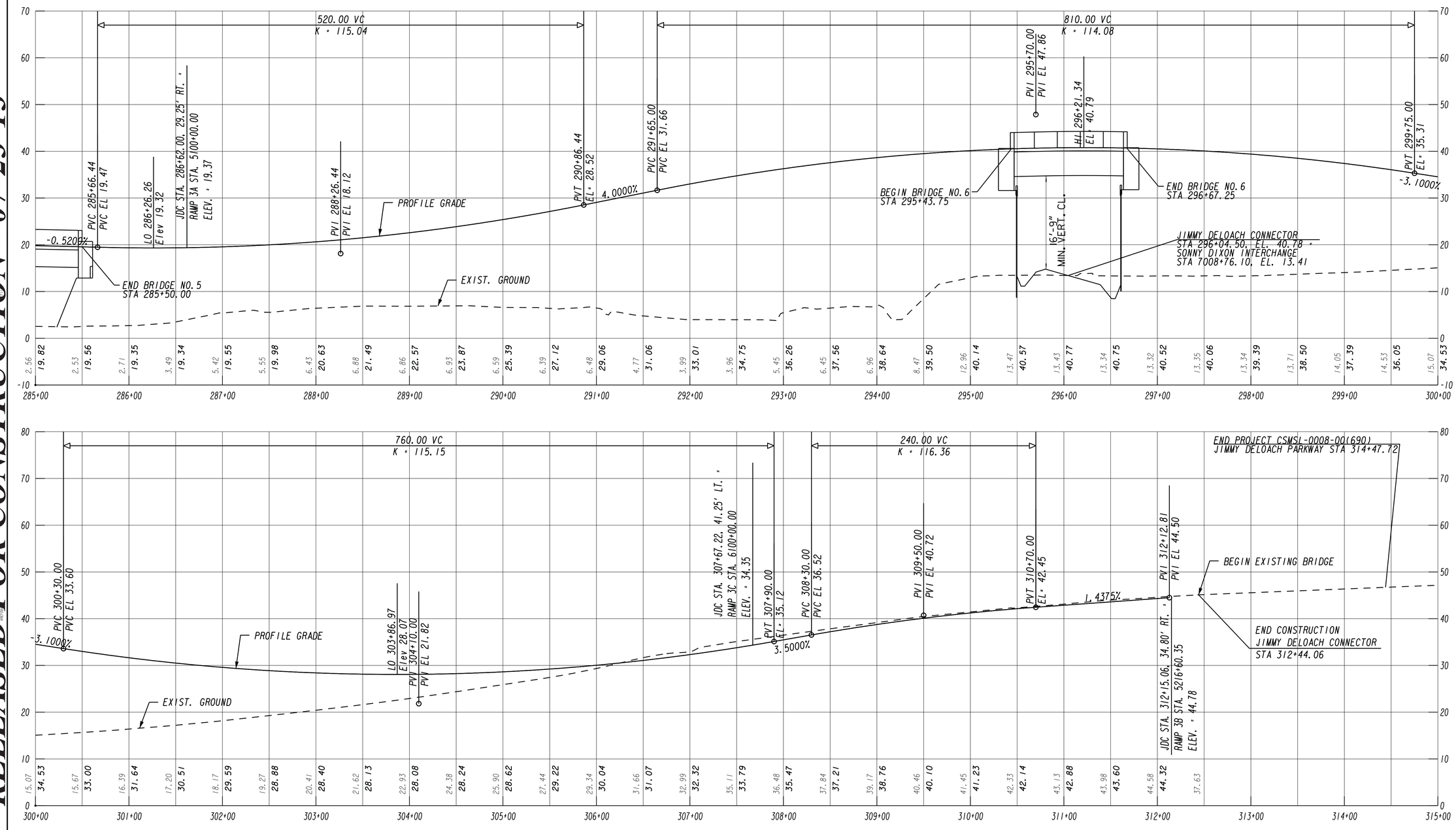
MAINLINE PROFILE

JIMMY DELOACH CONNECTOR

DRAWING NO.
15-005

3/1/2007 GREDG

RELEASED FOR CONSTRUCTION - 07-23-13



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3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE : 1" = 50' HORIZ.
1" = 10' VERT.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION

OFFICE: INNOVATIVE PROGRAM DELIVERY

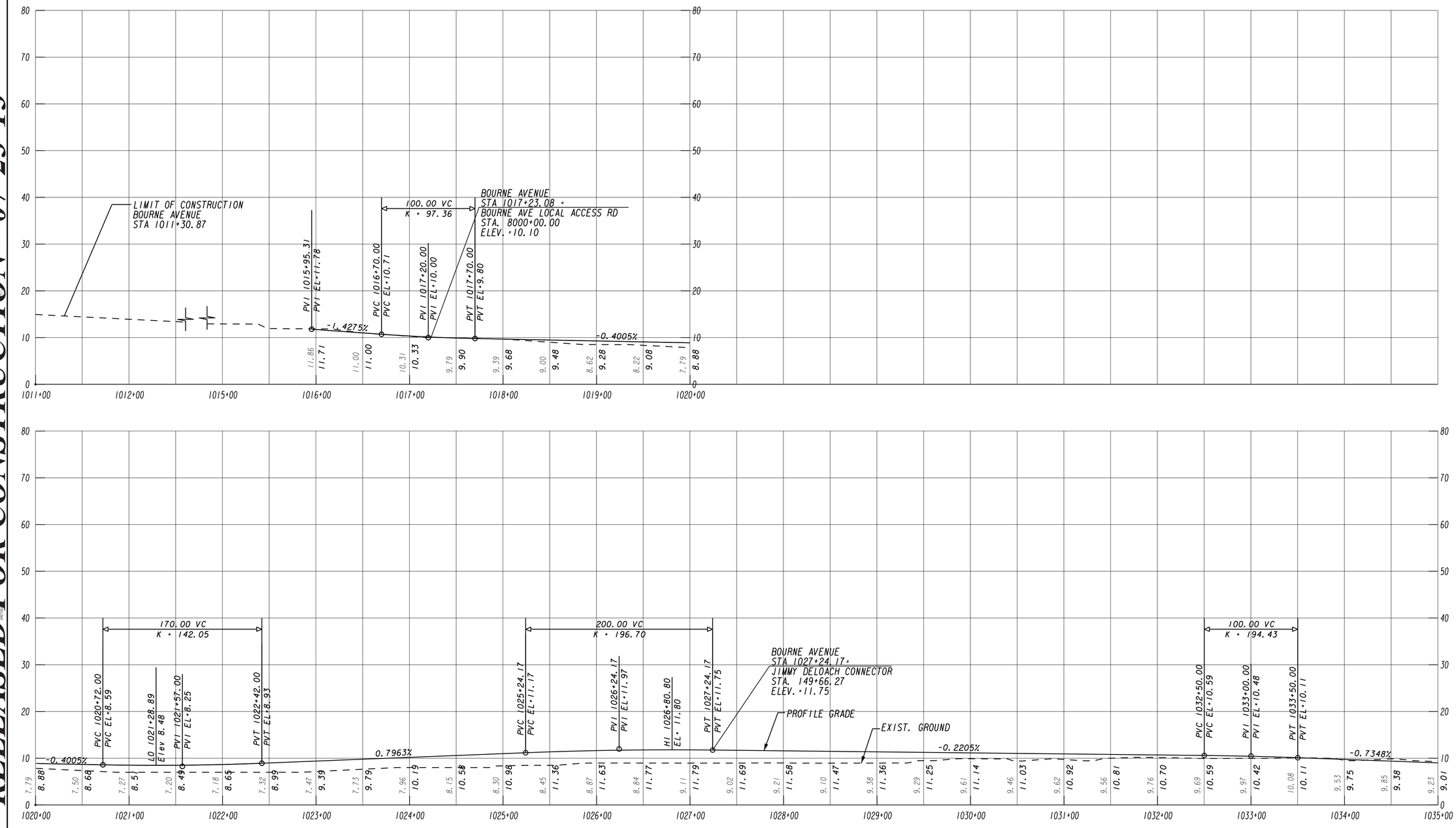
MAINLINE PROFILE

JIMMY DELOACH CONNECTOR

DRAWING No. 15-006

3/1/2007 GREEDG

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 GREEDG

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

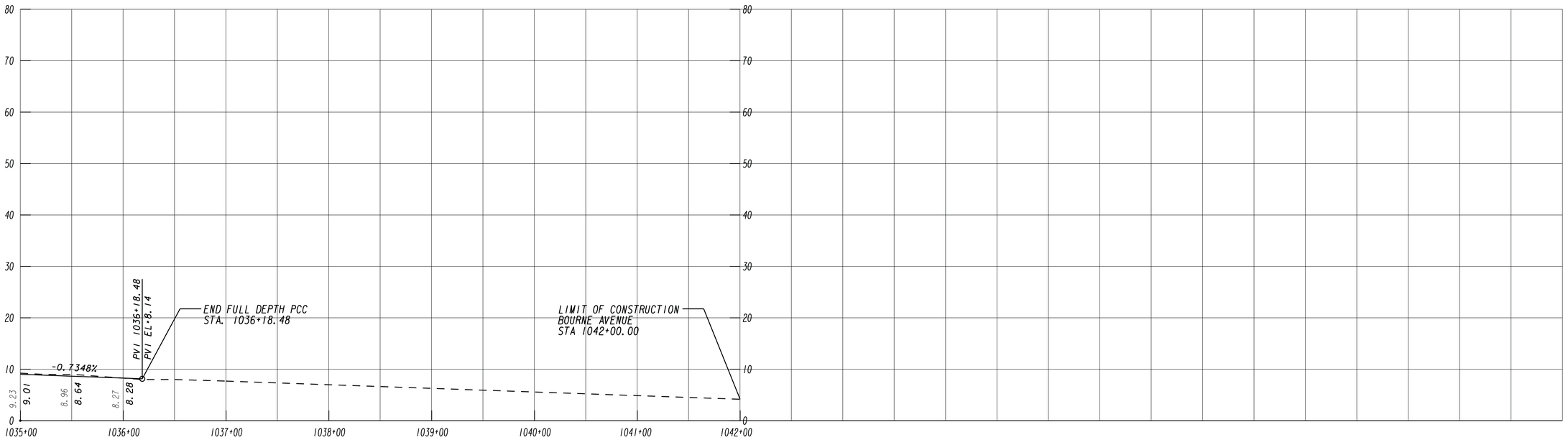
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSSROAD PROFILE

SR307/BOURNE AVE

DRAWING No. 16-001

RELEASED FOR CONSTRUCTION - 07-23-13



THE LPA GROUP
TRANSPORTATION CONSULTANTS
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3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSSROAD PROFILE

SR307/BOURNE AVE

DRAWING No.: 16-002

3/1/2007 GP2.DG

24-JUL-2013 13:28	1:28:29 PM	0008690_1652	Y:\Roadways\126379\0008690\Dgn\0008690_1652.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
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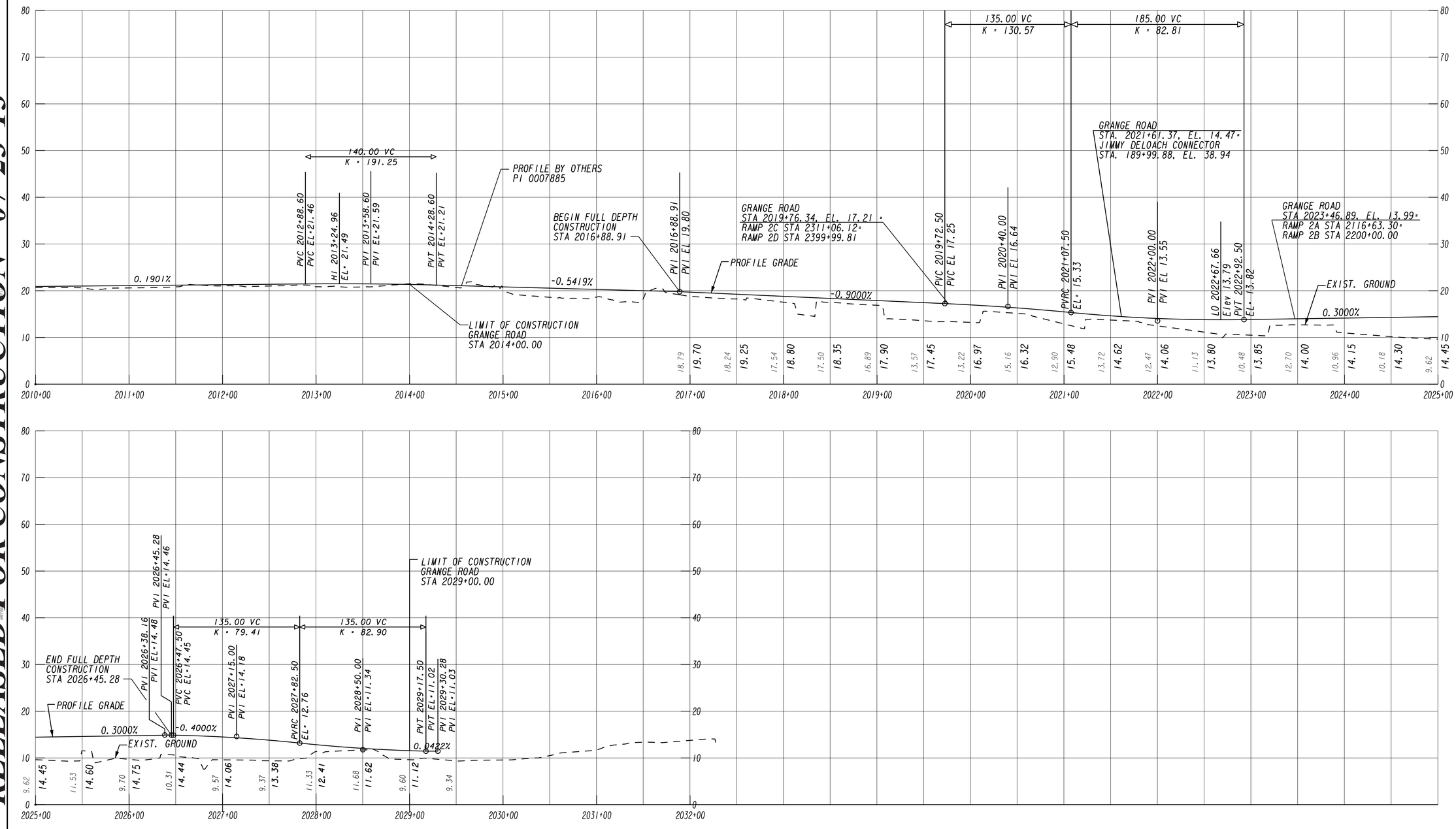
RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 GREEDG

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSSROAD PROFILE

GRANGE RD.

DRAWING No. 16-003

24-JUL-2013 13:28 JParks | 1:28:31 PM | 0008690_1653 GDOT_11x17.pen | Y:\Roadways\126379\0008690\Dgn\0008690_1653.dgn

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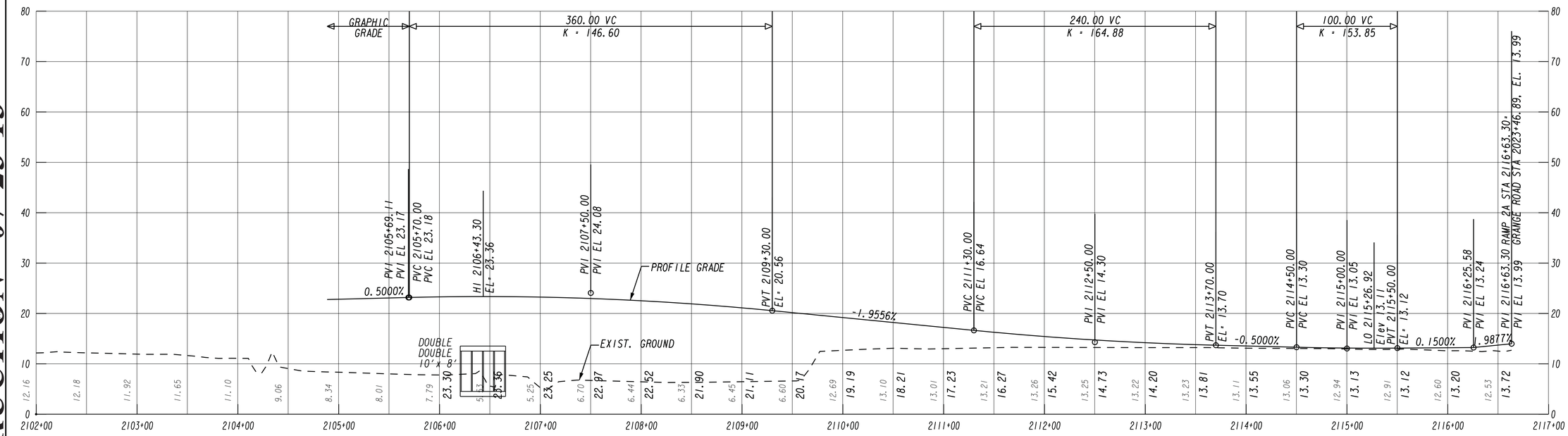

RELEASED FOR CONSTRUCTION - 07-23-13

3/1/2007 GP2.DG

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSSROAD PROFILE

RAMP 2A

DRAWING No. 16-004

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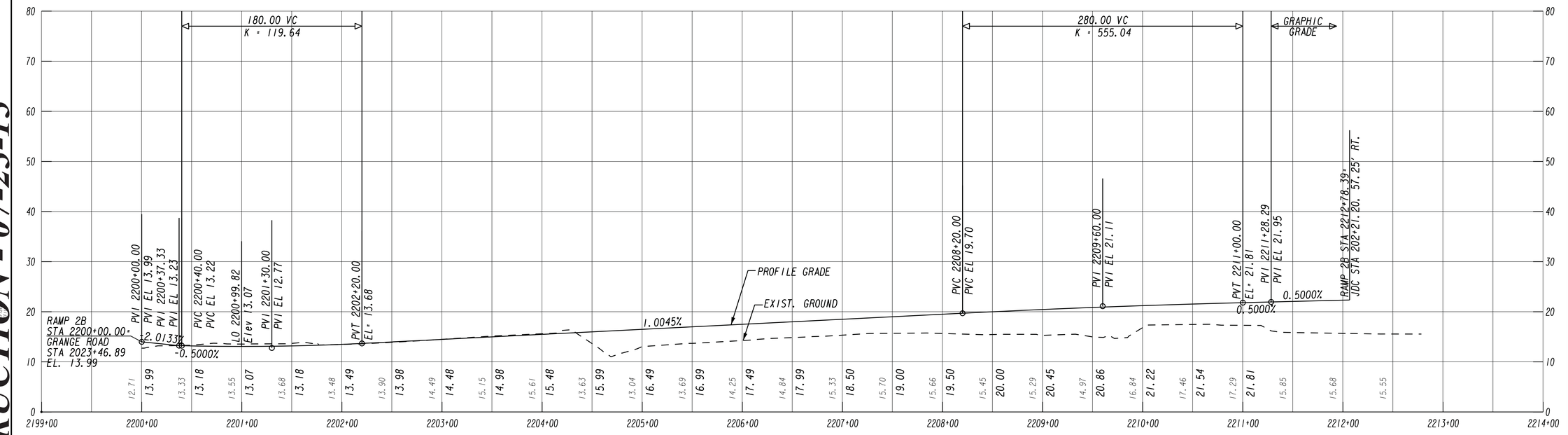

RELEASED FOR CONSTRUCTION - 07-23-13

3/1/2007 GP2.DG

THE LPA GROUP
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A UNIT OF MICHAEL BAKER CORPORATION
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(770) 263-9118

REVISION DATES

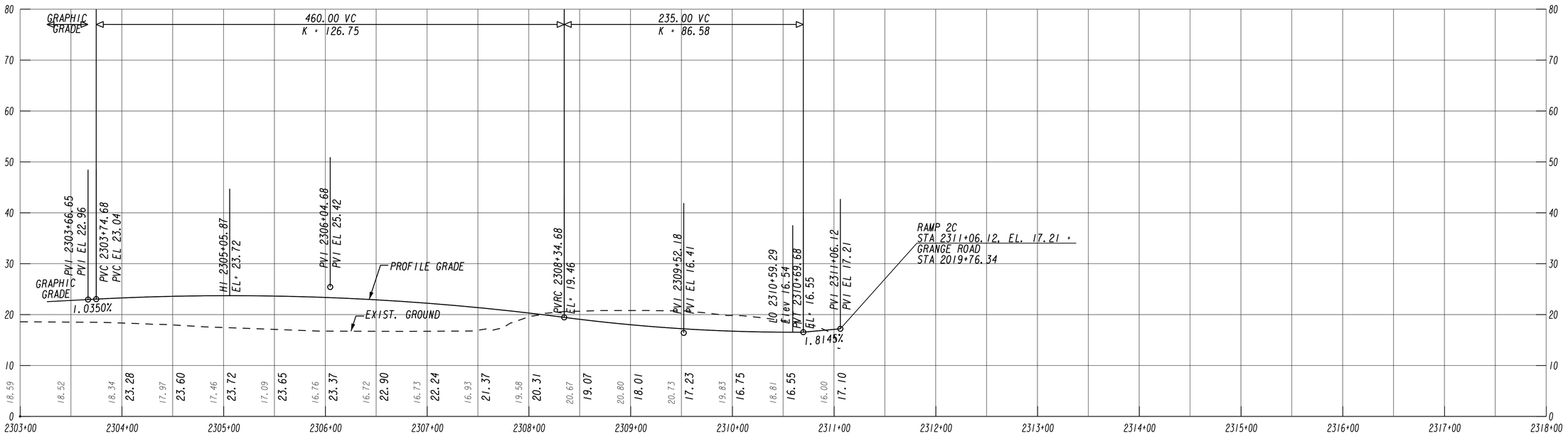
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSSROAD PROFILE

RAMP 2B

DRAWING No.
16-005

RELEASED FOR CONSTRUCTION - 07-23-13



THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION

OFFICE: INNOVATIVE PROGRAM DELIVERY

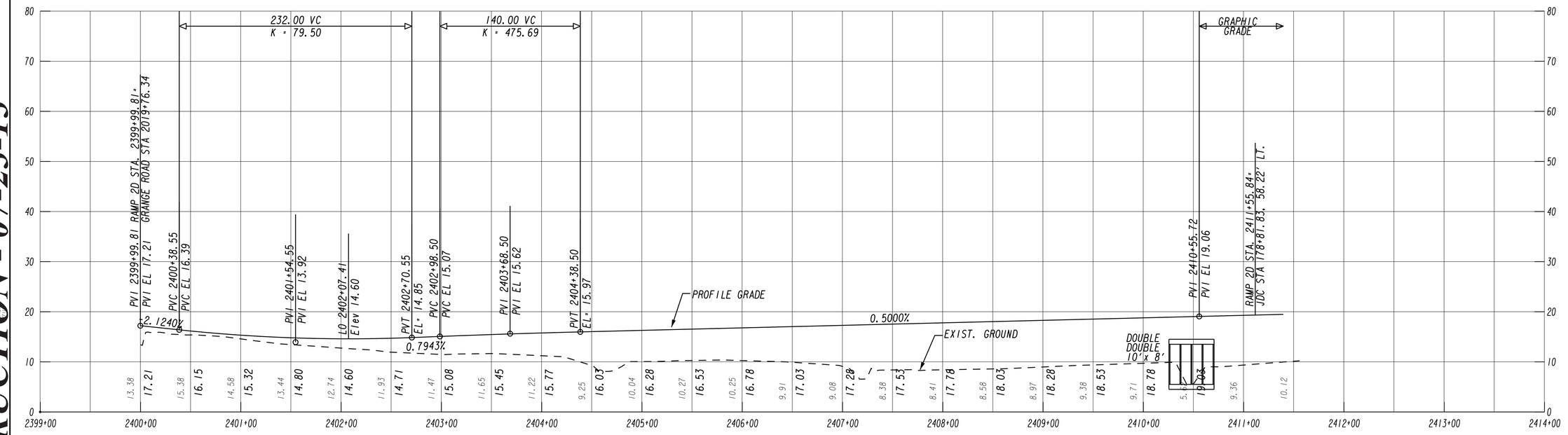
CROSSROAD PROFILE

RAMP 2C

DRAWING No. 16-006

3/1/2007 GREDG

24-JUL-2013 13:28 JParks	1:28:37 PM	0008690_1656 GDOT_11x17.pen	Y:\Roadways\126379\0008690\Dgn\0008690_1656.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
				GA	CSMSL-0008-00(690)	60	730



RELEASED FOR CONSTRUCTION - 07-23-13

3/1/2007 GP2.DG

THE LPA GROUP
TRANSPORTATION CONSULTANTS
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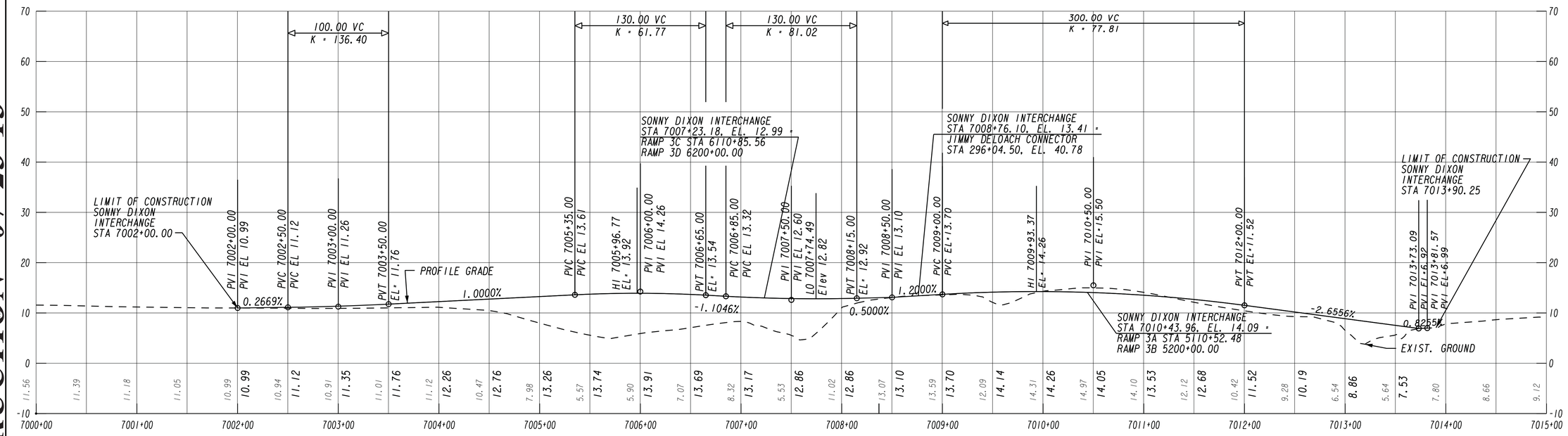
REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSSROAD PROFILE

RAMP 2D

DRAWING No.
16-007



RELEASED FOR CONSTRUCTION - 07-23-13

3/1/2007 GP2.DG

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NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION

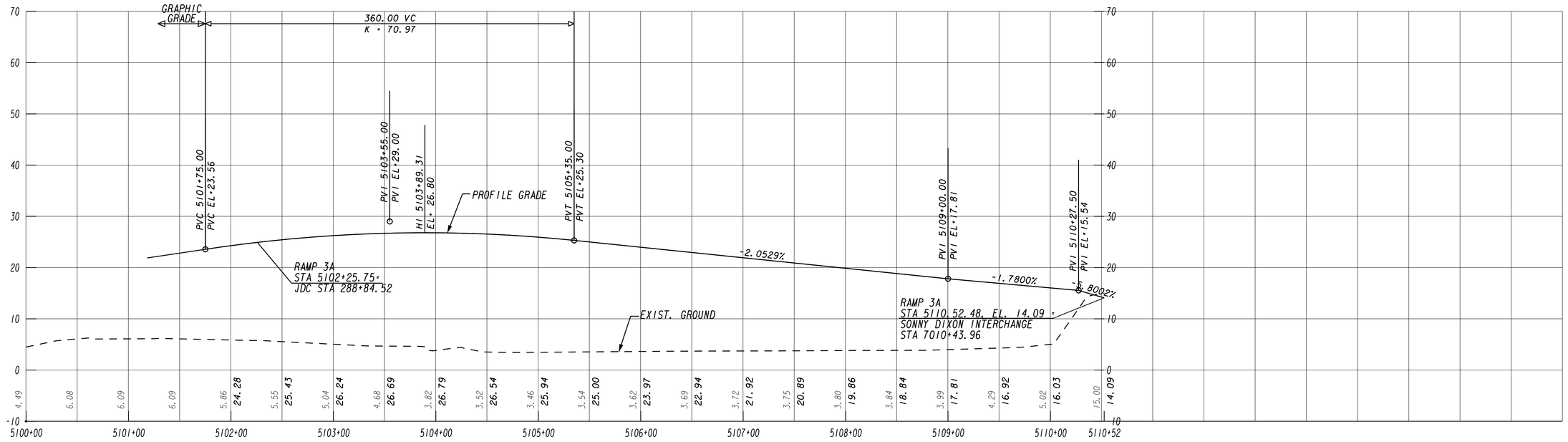
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSSROAD PROFILE

SONNY DIXON INTERCHANGE

DRAWING No.
16-008

RELEASED FOR CONSTRUCTION - 07-23-13



THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSSROAD PROFILE

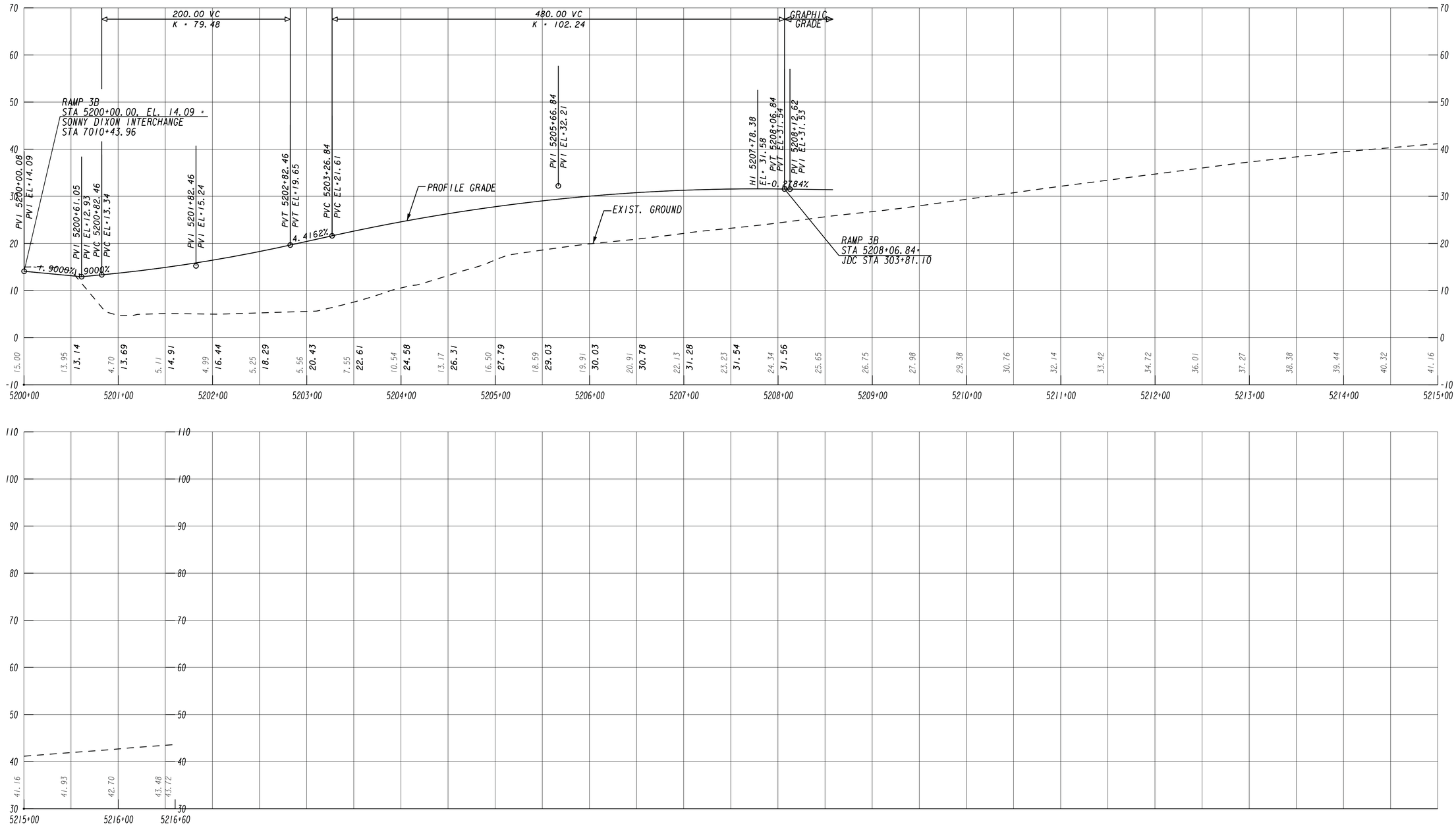
RAMP 3A

DRAWING No.
16-009

3/1/2007 GP2.DG

24-JUL-2013 13:28	1:28:43 PM	0008690_16S111	Y:\Roadways\126379\0008690\Dgn\0008690_16S11.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	63	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 GREEDG

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

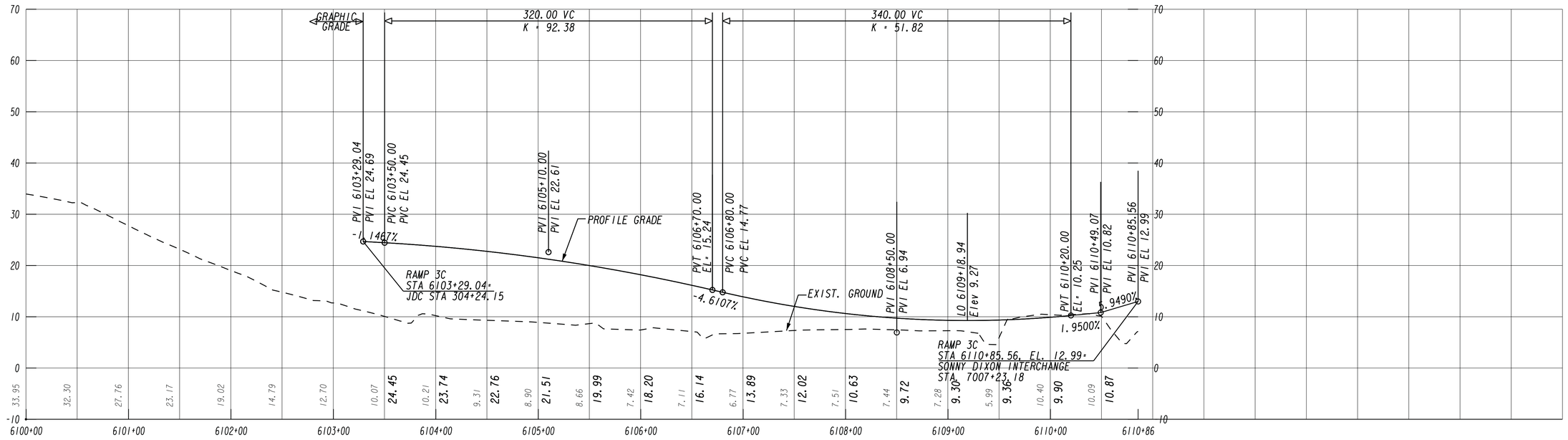
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSSROAD PROFILE
RAMP 3B

DRAWING No. 16-010

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	64	730

RELEASED FOR CONSTRUCTION - 07-23-13



THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

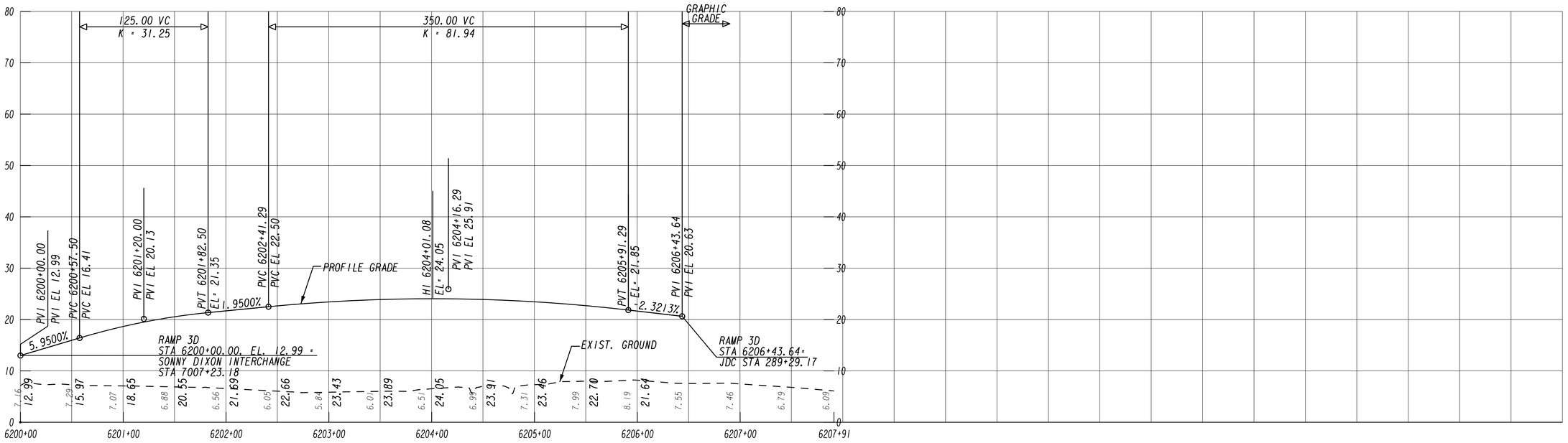
CROSSROAD PROFILE
RAMP 3C

DRAWING No. 16-011

3/1/2007 GREDG

24-JUL-2013 13:28	1:28:47 PM	0008690_16S13	Y:\Roadways\126379\0008690\Dgn\0008690_16S13.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	65	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 GREDG

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

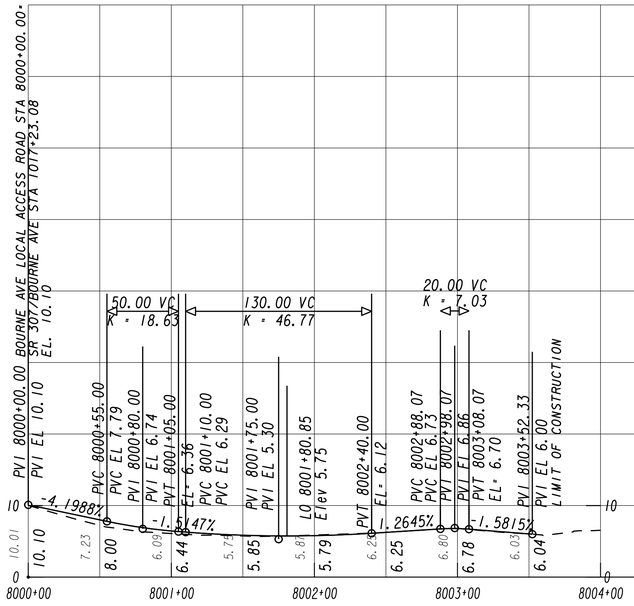
REVISION DATES		

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSSROAD PROFILE
RAMP 3D

DRAWING No.
16-012

RELEASED FOR CONSTRUCTION - 07-23-13



THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION

OFFICE: INNOVATIVE PROGRAM DELIVERY

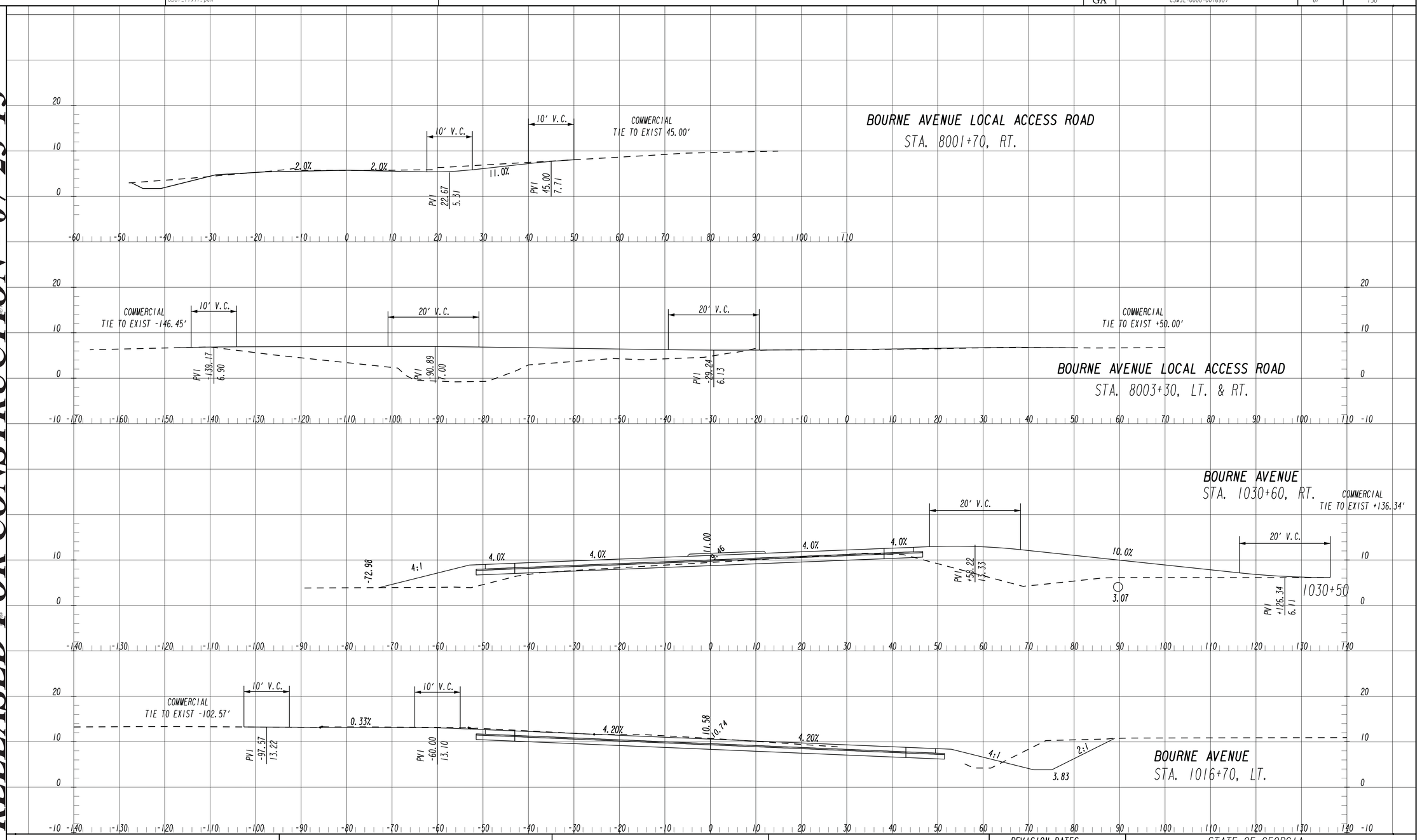
CROSSROAD PROFILE

BOURNE AVENUE LOCAL ACCESS ROAD

DRAWING No.: 16-013

3/1/2007 GREDG

RELEASED FOR CONSTRUCTION - 07-23-13



THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

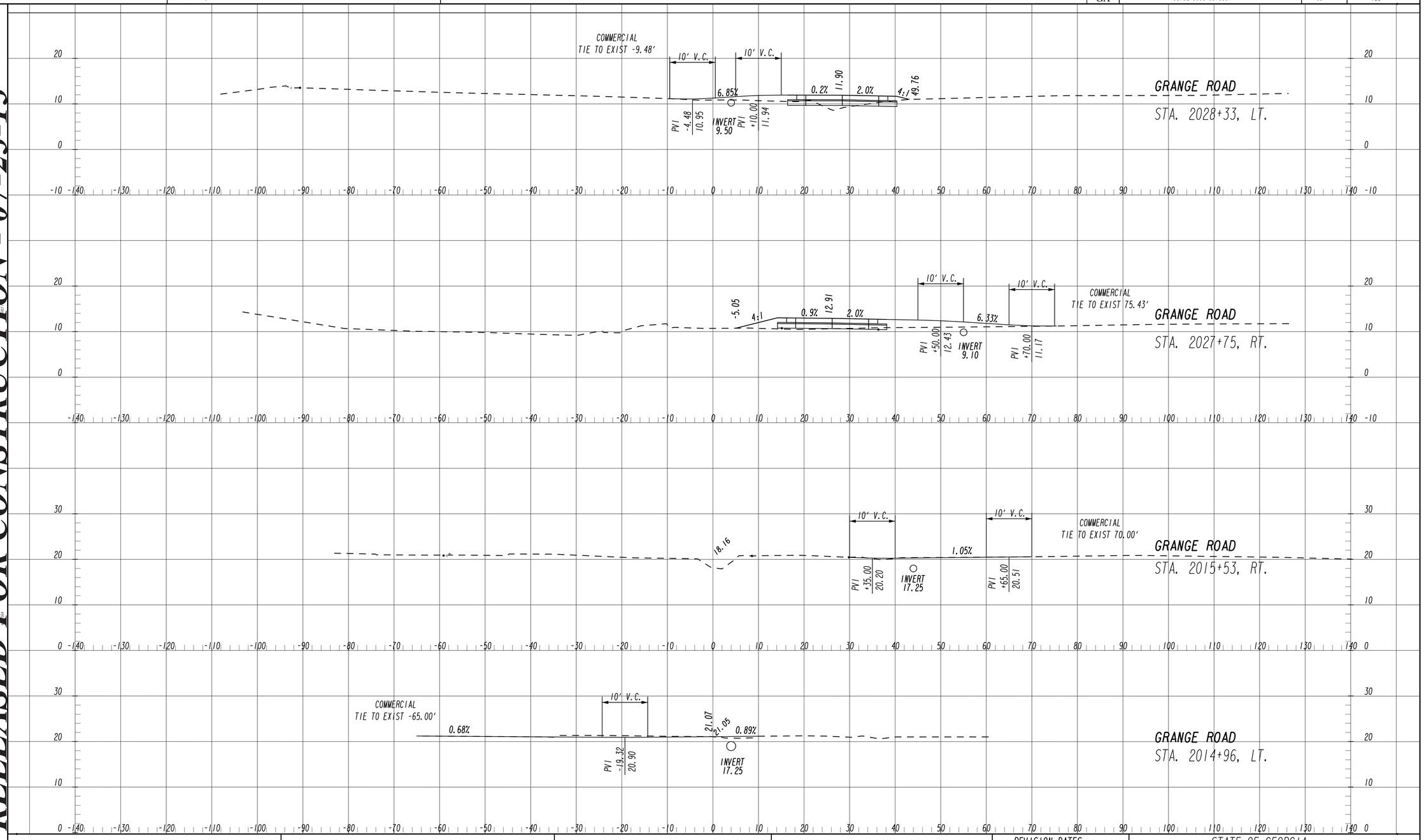
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

DRIVEWAY PROFILES

DRAWING No.
17-001

3/1/2007 SUXSEW

RELEASED FOR CONSTRUCTION - 07-23-13



THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

DRIVEWAY PROFILES

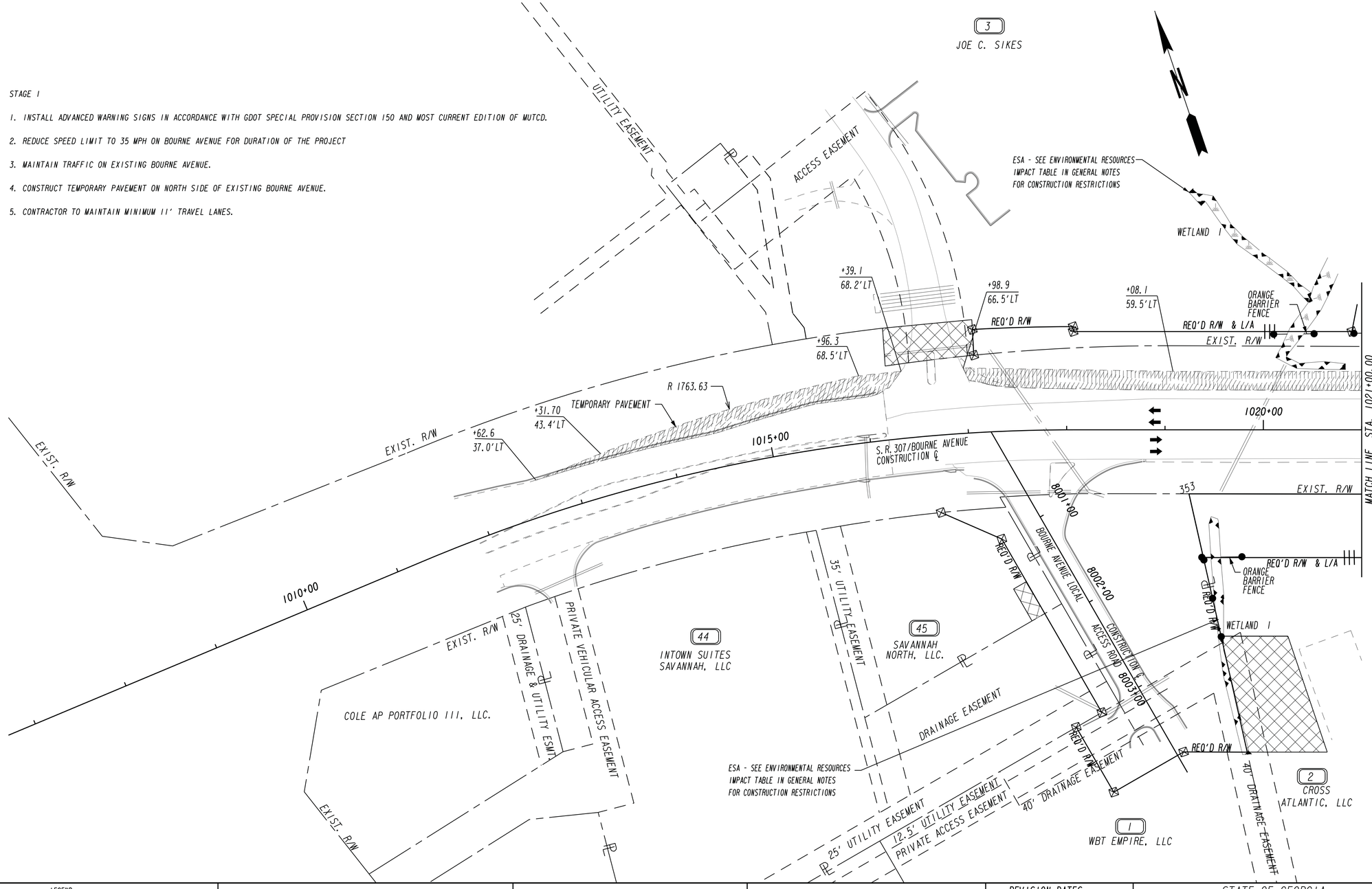
DRAWING No.
17-002

3/1/2007 SUXSEW

RELEASED FOR CONSTRUCTION - 07-23-13

STAGE 1

1. INSTALL ADVANCED WARNING SIGNS IN ACCORDANCE WITH GDOT SPECIAL PROVISION SECTION 150 AND MOST CURRENT EDITION OF MUTCD.
2. REDUCE SPEED LIMIT TO 35 MPH ON BOURNE AVENUE FOR DURATION OF THE PROJECT
3. MAINTAIN TRAFFIC ON EXISTING BOURNE AVENUE.
4. CONSTRUCT TEMPORARY PAVEMENT ON NORTH SIDE OF EXISTING BOURNE AVENUE.
5. CONTRACTOR TO MAINTAIN MINIMUM 11' TRAVEL LANES.



LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

STAGE 1

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CONSTRUCTION STAGING PLAN

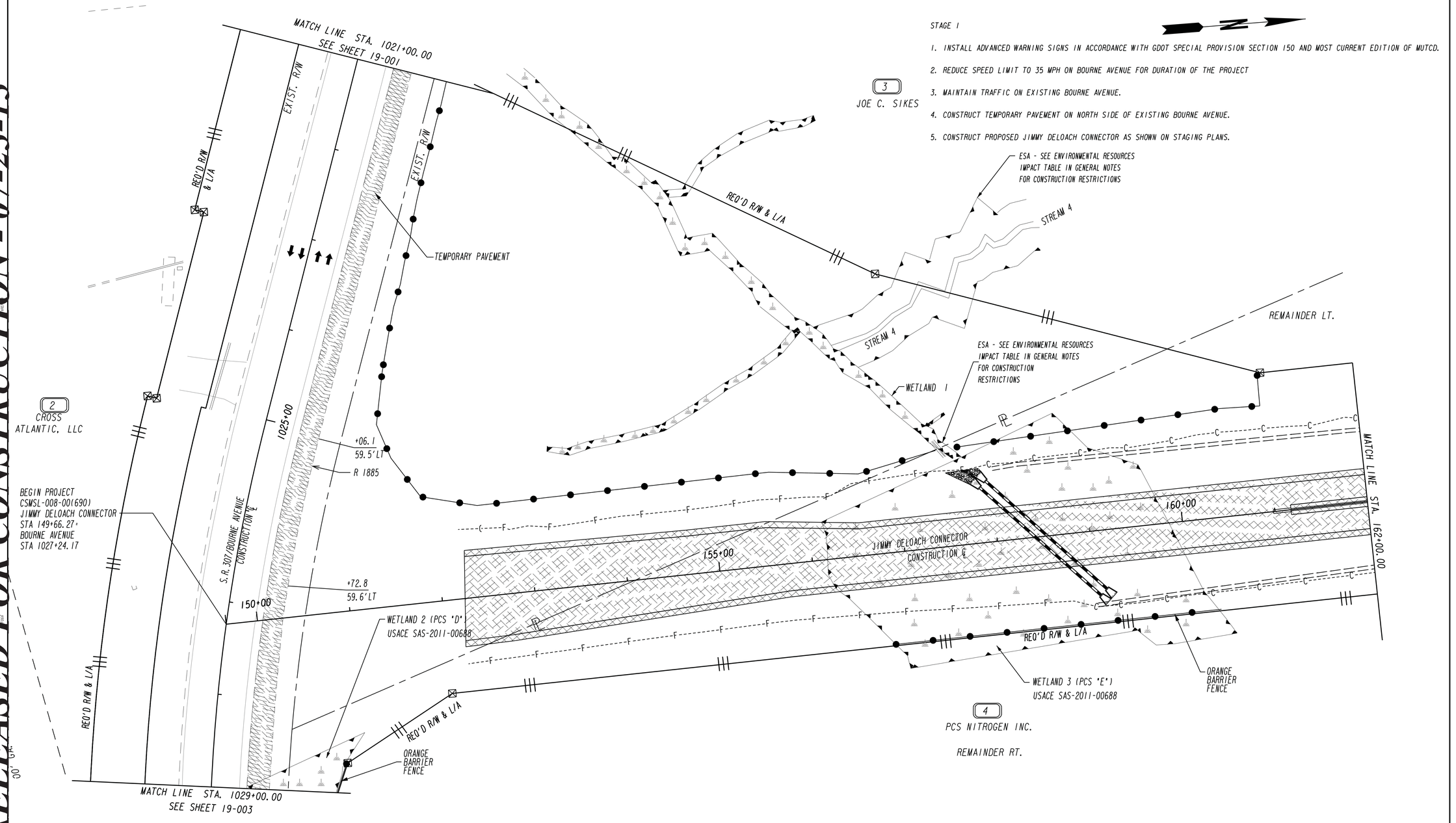
BOURNE AVENUE
BEGIN CONST. TO STA. 1021+00

DRAWING No. 19-001

3/1/2007 GPLN

24-JUL-2013 13:29	1:29:21 PM	0008690_19-002	Y:\Roadways\126379\0008690\Dgn\0008690_19-002.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	70	730

RELEASED FOR CONSTRUCTION - 07-23-13



STAGE 1

1. INSTALL ADVANCED WARNING SIGNS IN ACCORDANCE WITH GDOT SPECIAL PROVISION SECTION 150 AND MOST CURRENT EDITION OF MUTCD.
2. REDUCE SPEED LIMIT TO 35 MPH ON BOURNE AVENUE FOR DURATION OF THE PROJECT
3. MAINTAIN TRAFFIC ON EXISTING BOURNE AVENUE.
4. CONSTRUCT TEMPORARY PAVEMENT ON NORTH SIDE OF EXISTING BOURNE AVENUE.
5. CONSTRUCT PROPOSED JIMMY DELOACH CONNECTOR AS SHOWN ON STAGING PLANS.

LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

STAGE 1

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CONSTRUCTION STAGING PLAN

JIMMY DELOACH CONNECTOR
BEGIN PROJECT TO STA. 162+00

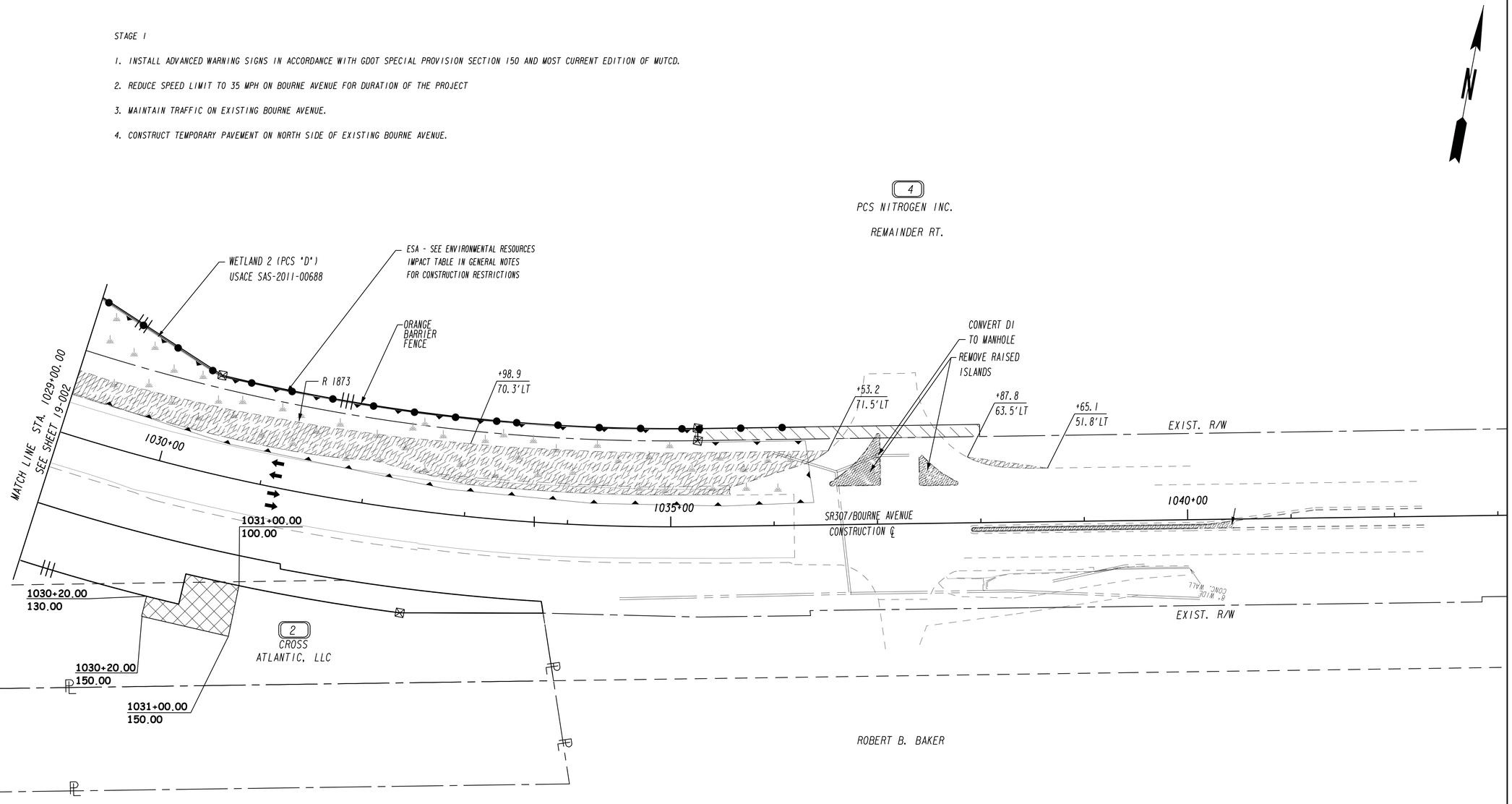
DRAWING No. 19-002

3/1/2007 GPLN

RELEASED FOR CONSTRUCTION - 07-23-13

STAGE 1

1. INSTALL ADVANCED WARNING SIGNS IN ACCORDANCE WITH GDOT SPECIAL PROVISION SECTION 150 AND MOST CURRENT EDITION OF MUTCD.
2. REDUCE SPEED LIMIT TO 35 MPH ON BOURNE AVENUE FOR DURATION OF THE PROJECT
3. MAINTAIN TRAFFIC ON EXISTING BOURNE AVENUE.
4. CONSTRUCT TEMPORARY PAVEMENT ON NORTH SIDE OF EXISTING BOURNE AVENUE.



LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

STAGE 1

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CONSTRUCTION STAGING PLAN

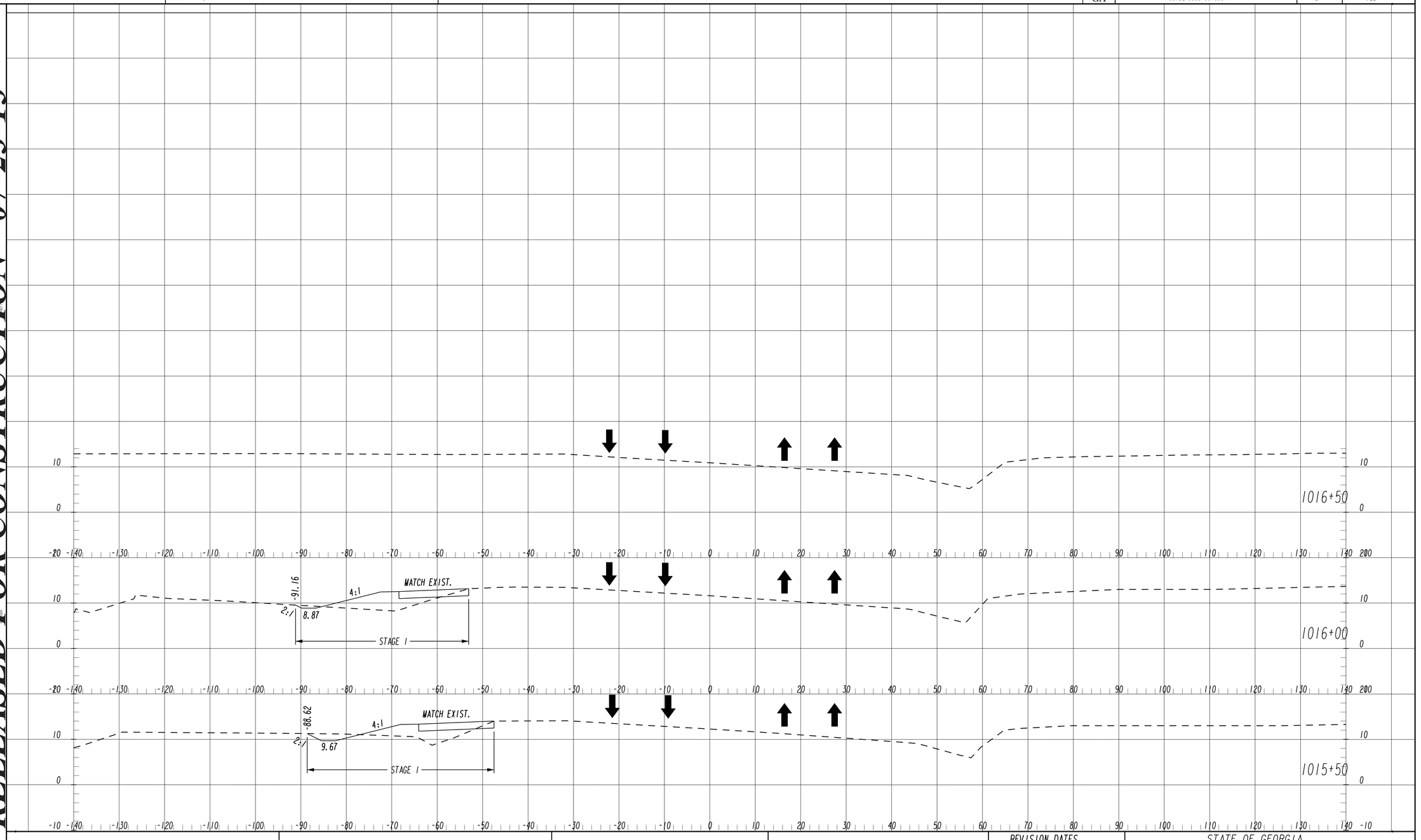
BOURNE AVENUE
STA. 1029+00 TO END CONST.

DRAWING No. 19-003

3/1/2007 GPLN

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	72	730

RELEASED FOR CONSTRUCTION - 07-23-13



THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS CONSTRUCTION STAGING

SR307/BOURNE AVENUE
STAGE 1

DRAWING No. 19-004

3/1/2007 SUXSEW

24-JUL-2013 13:29 1:29:35 PM
JParks

0008690_SX01_BOURNE1
GDOT_11x17.pen

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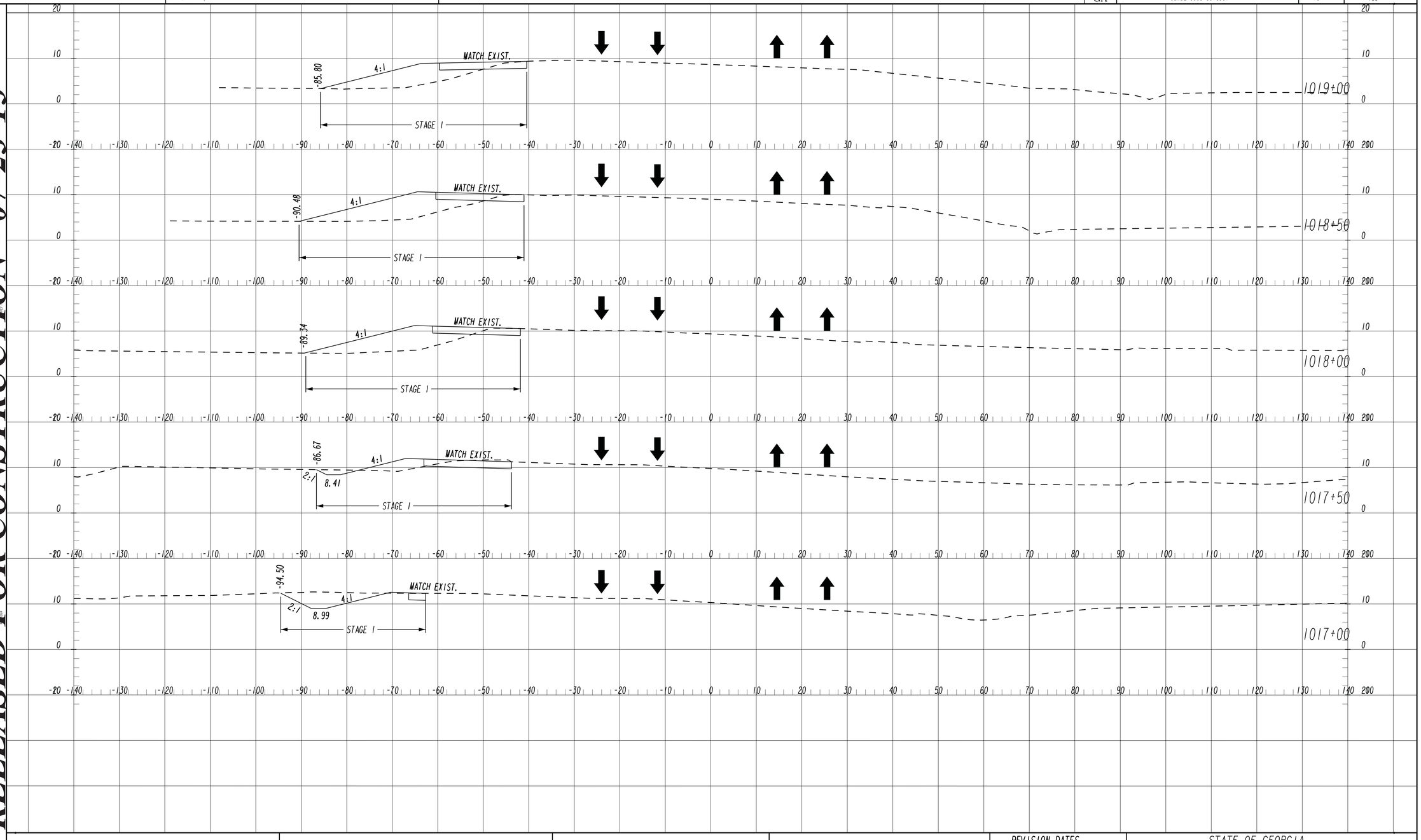
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	73	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS CONSTRUCTION STAGING

SR307/BOURNE AVENUE
STAGE 1

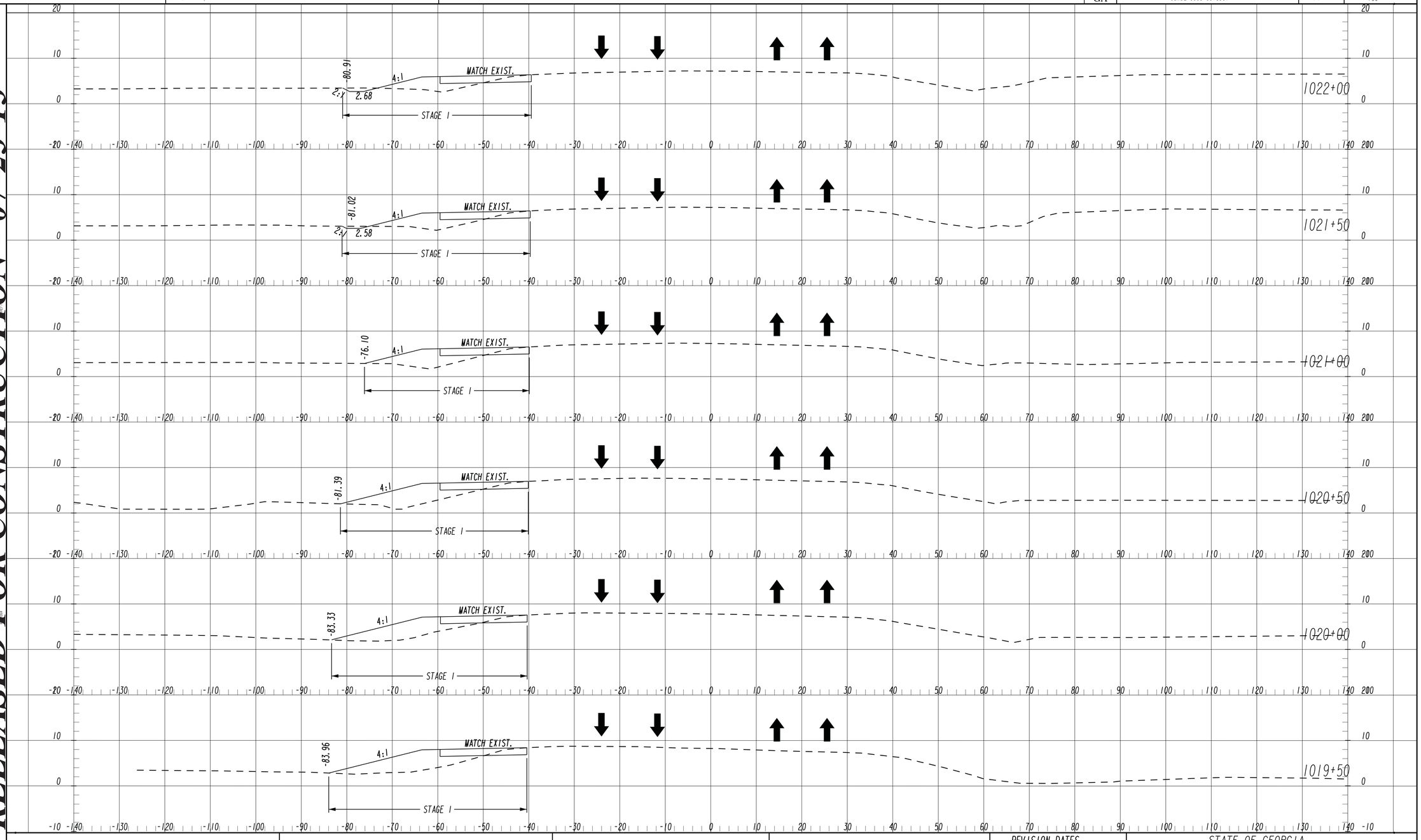
DRAWING No.
19-005

24-JUL-2013 13:29 | 1:29:37 PM | 0008690_SX01_BOURNE2 | Y:\Roadways\126379\0008690\Dgn\0008690_SX01_BOURNE.dgn

JParks | GDOT_11x17.pen

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	74	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS CONSTRUCTION STAGING

SR307/BOURNE AVENUE
STAGE 1

DRAWING No. 19-006

24-JUL-2013 13:29 1:29:38 PM
JParks

0008690_SX01_BOURNE3
GDOT_11x17.pen

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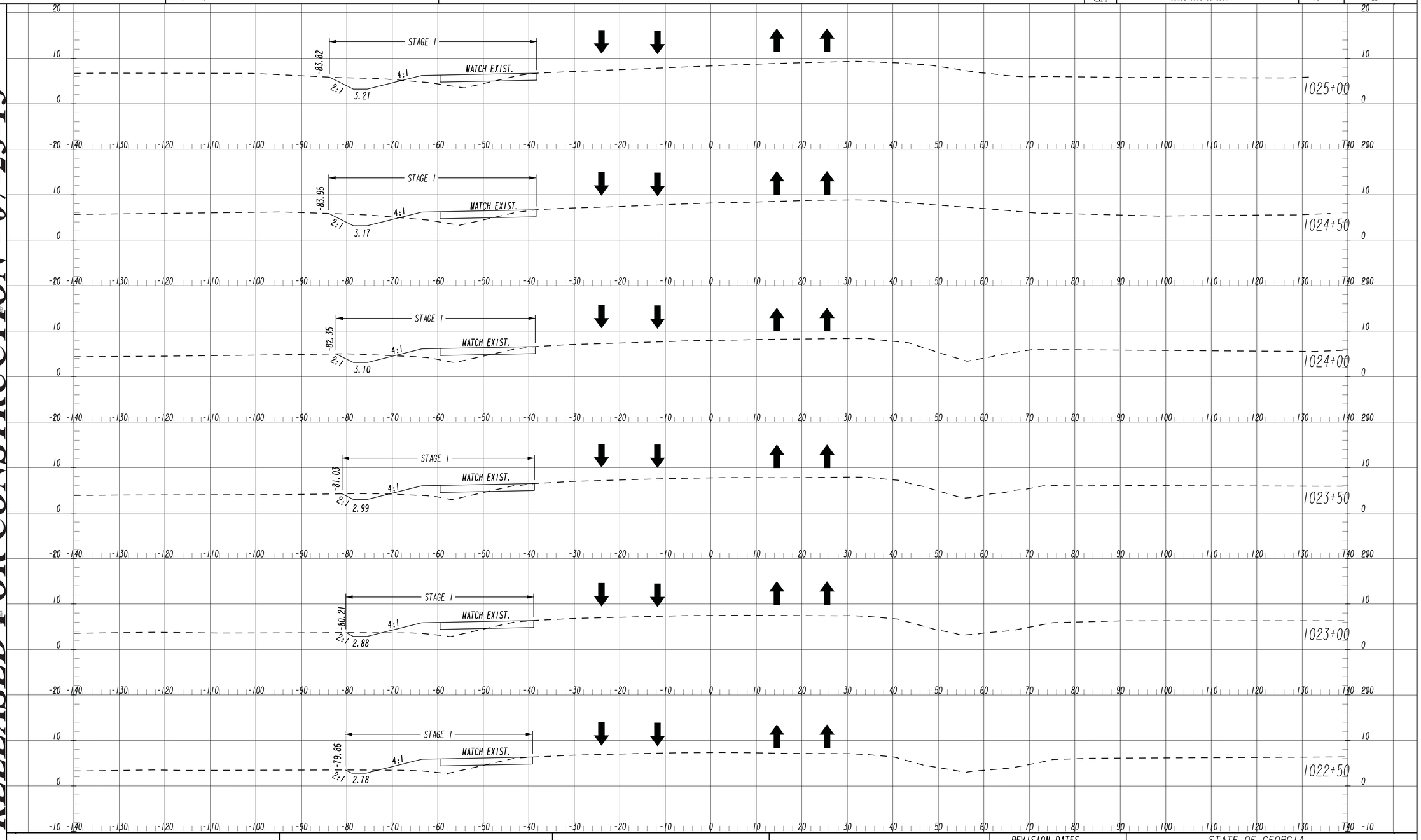
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	75	130

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS CONSTRUCTION STAGING

SR307/BOURNE AVENUE
STAGE 1

DRAWING No.
19-007

24-JUL-2013 13:29 1:29:40 PM
JParks

0008690_SX01_BOURNE4
GDOT_11x17.pen

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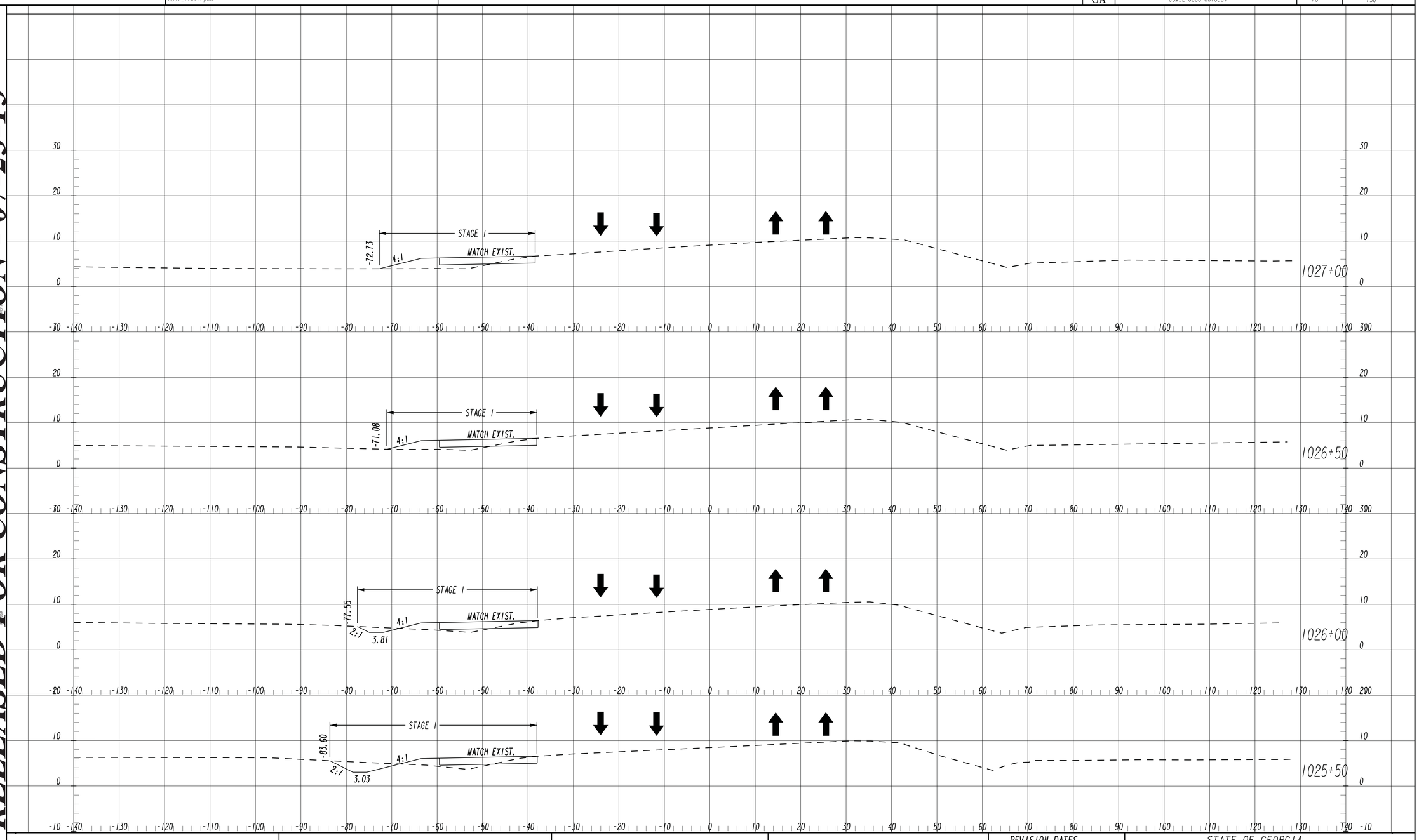
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	76	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS CONSTRUCTION STAGING

SR307/BOURNE AVENUE
STAGE 1

DRAWING No. 19-008

24-JUL-2013 13:29 1:29:41 PM
JParks

0008690_SX01_BOURNE5
GDOT_11x17.pen

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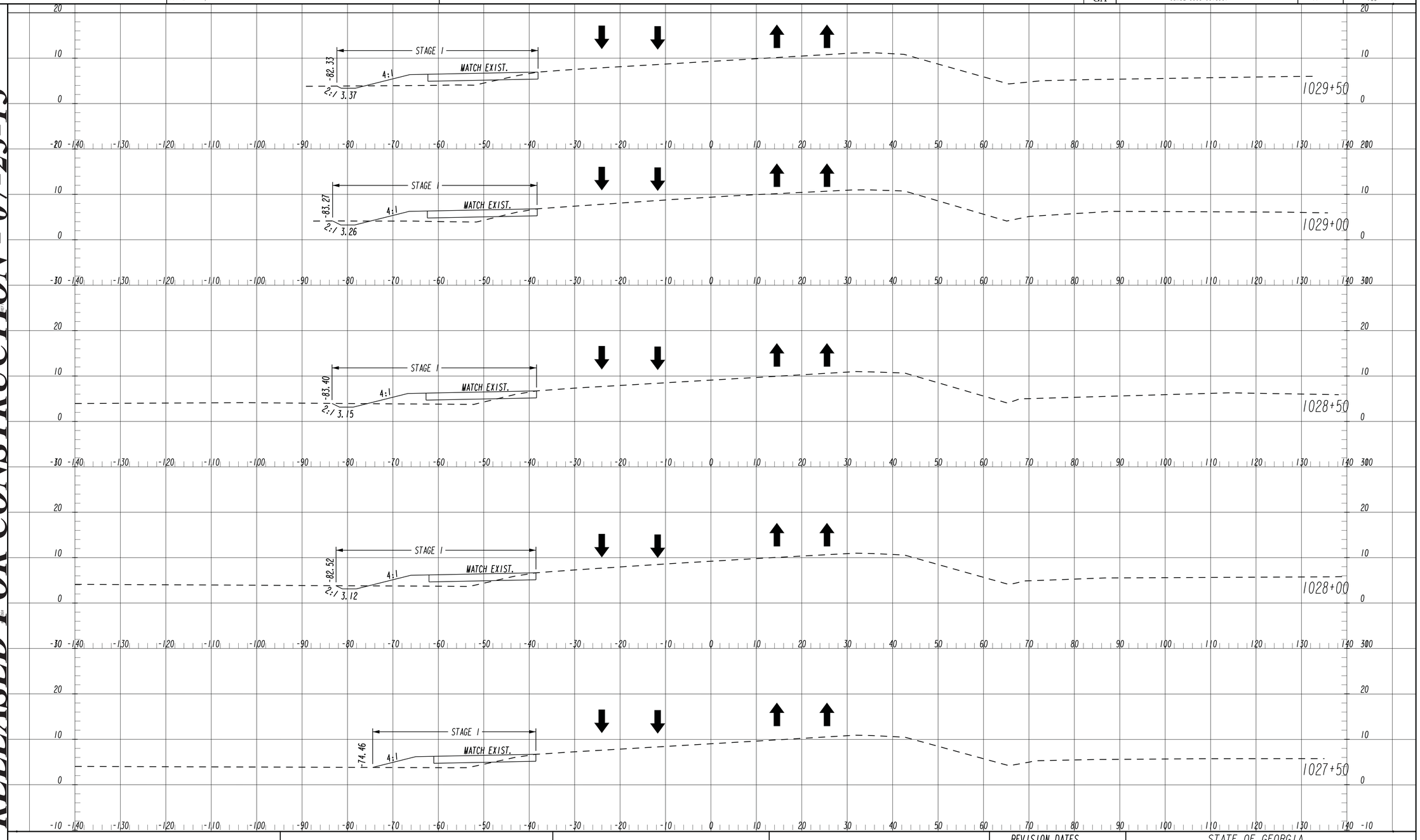
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	77	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS CONSTRUCTION STAGING

SR307/BOURNE AVENUE
STAGE 1

DRAWING No. 19-009

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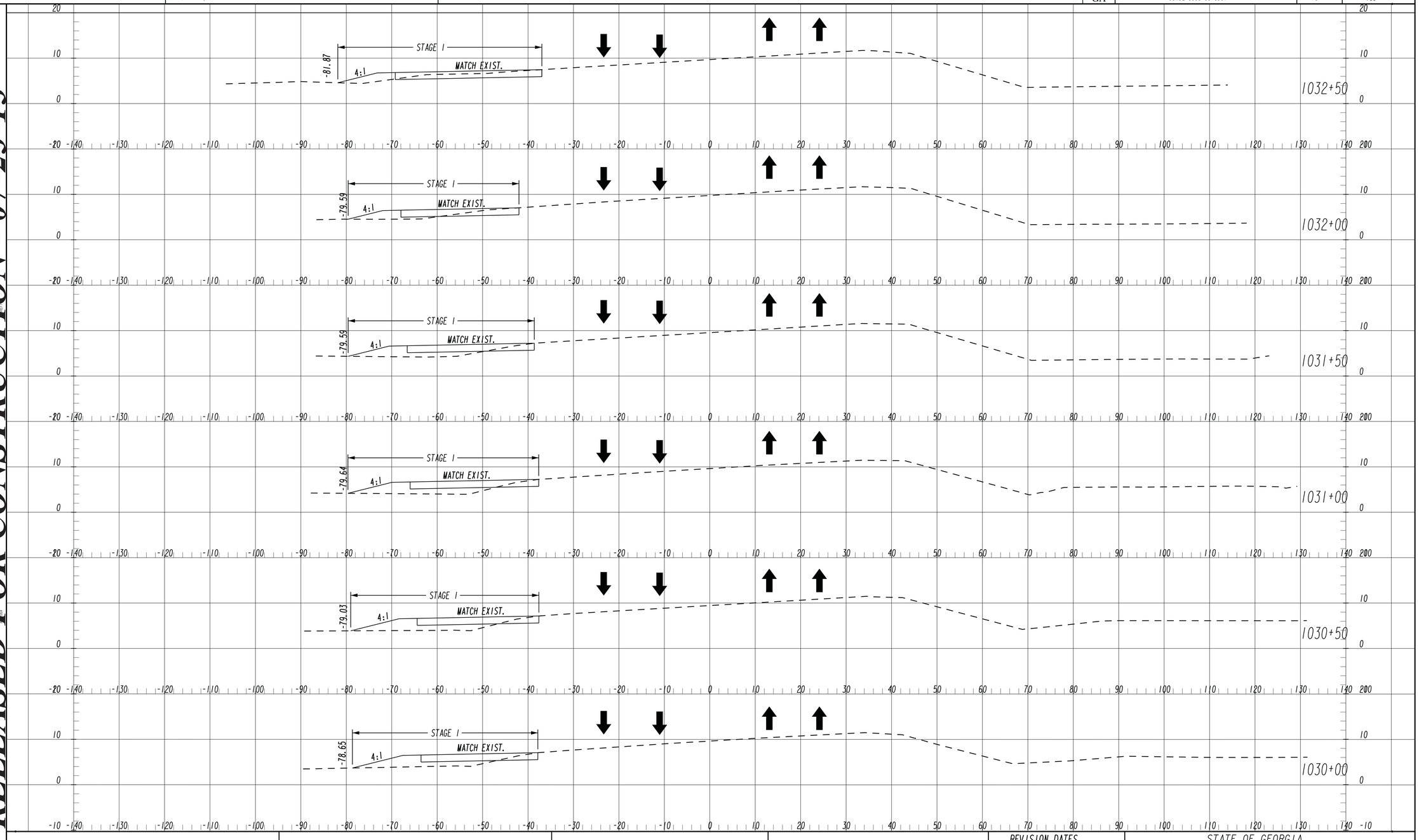
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	78	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS CONSTRUCTION STAGING

SR307/BOURNE AVENUE
STAGE 1

DRAWING No. 19-010

24-JUL-2013 13:29 | 1:29:44 PM | JParks
0008690_SX01_BOURNET | GDOT_11x17.pen
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STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	79	730

RELEASED FOR CONSTRUCTION - 07-23-13

STAGE 1
MATCH EXIST.
4:1
2:1
-99.51
2.56
1035+50

STAGE 1
MATCH EXIST.
4:1
2:1
-91.72
3.75
1035+00

STAGE 1
MATCH EXIST.
4:1
-83.94
5.00
1034+50

STAGE 1
MATCH EXIST.
4:1
2:1
-86.97
4.95
1034+00

STAGE 1
MATCH EXIST.
4:1
2:1
-86.81
4.80
1033+50

STAGE 1
MATCH EXIST.
4:1
2:1
-87.10
4.60
1033+00

3/1/2007 SUXSEW

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS CONSTRUCTION STAGING

SR307/BOURNE AVENUE
STAGE 1

DRAWING No.
19-011

24-JUL-2013 13:29 1:29:45 PM
JParks

0008690_SX01_BOURNE8
GDOT_11x17.pen

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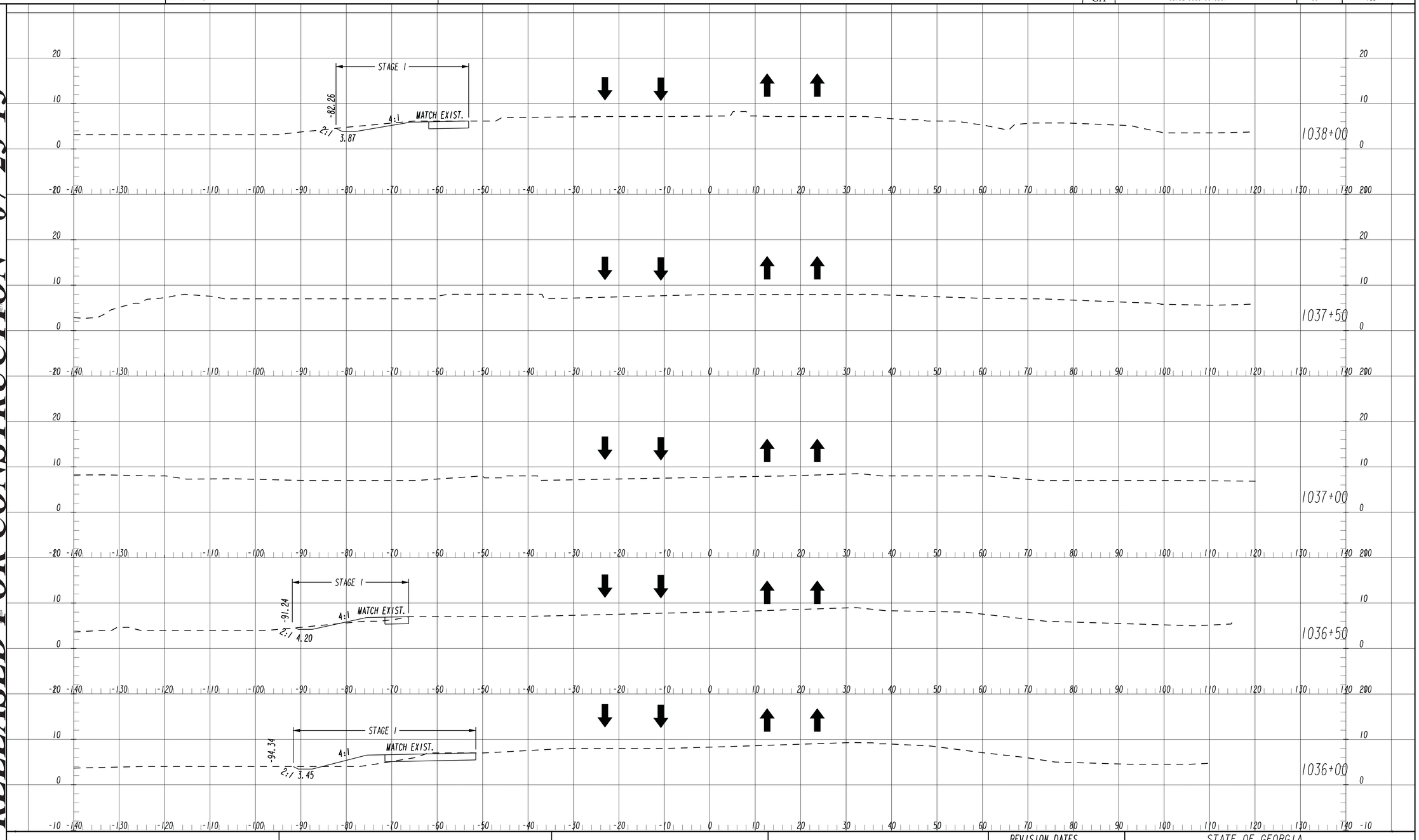
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	80	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS CONSTRUCTION STAGING

SR307/BOURNE AVENUE
STAGE 1

DRAWING No.
19-012

24-JUL-2013 13:29 1:29:47 PM
JParks

0008690_SX01_BOURNE9
GDOT_11x17.pen

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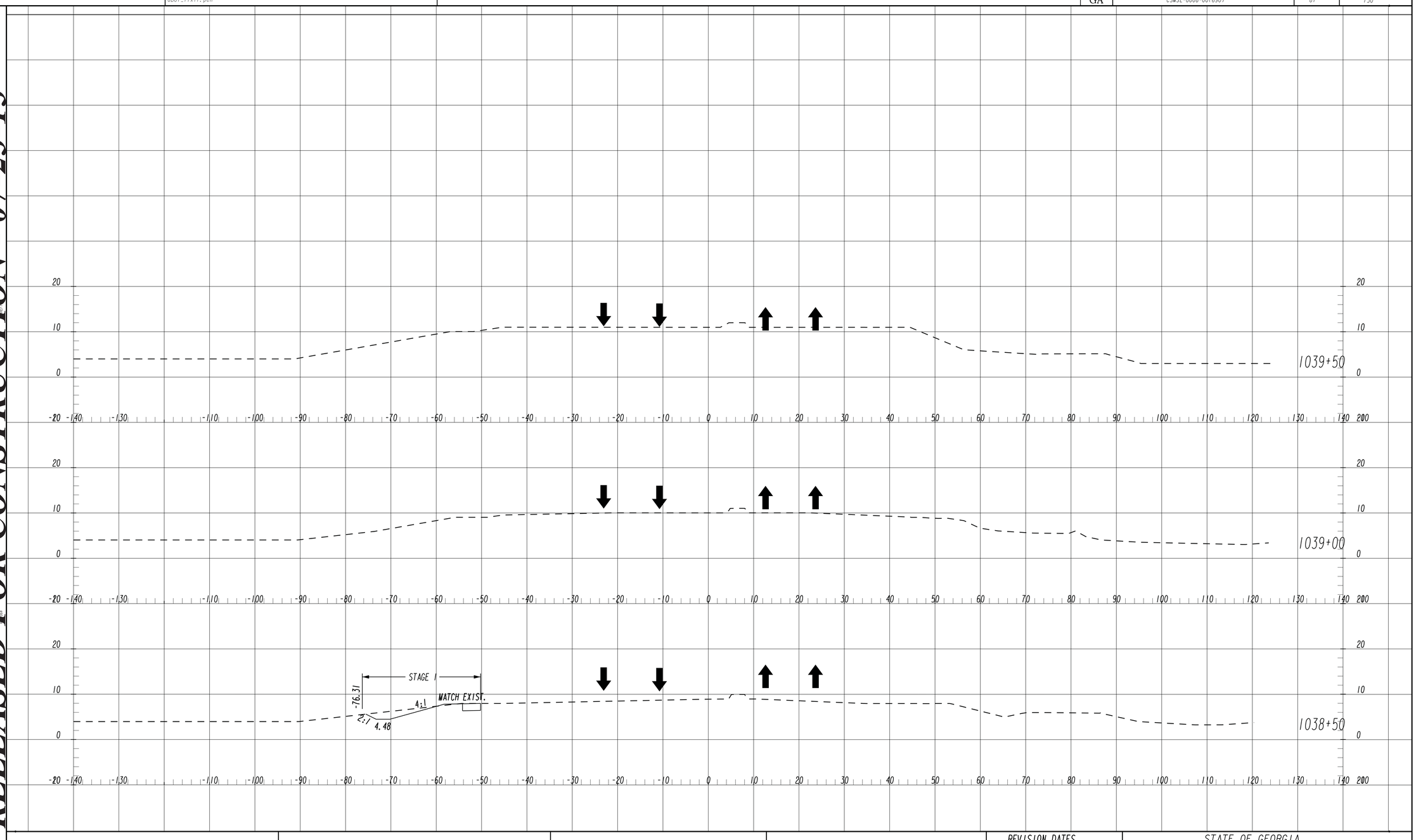
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	81	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE:

CROSS SECTIONS
CONSTRUCTION STAGING
SR307/BOURNE AVENUE
STAGE 1

DRAWING No.
19-013

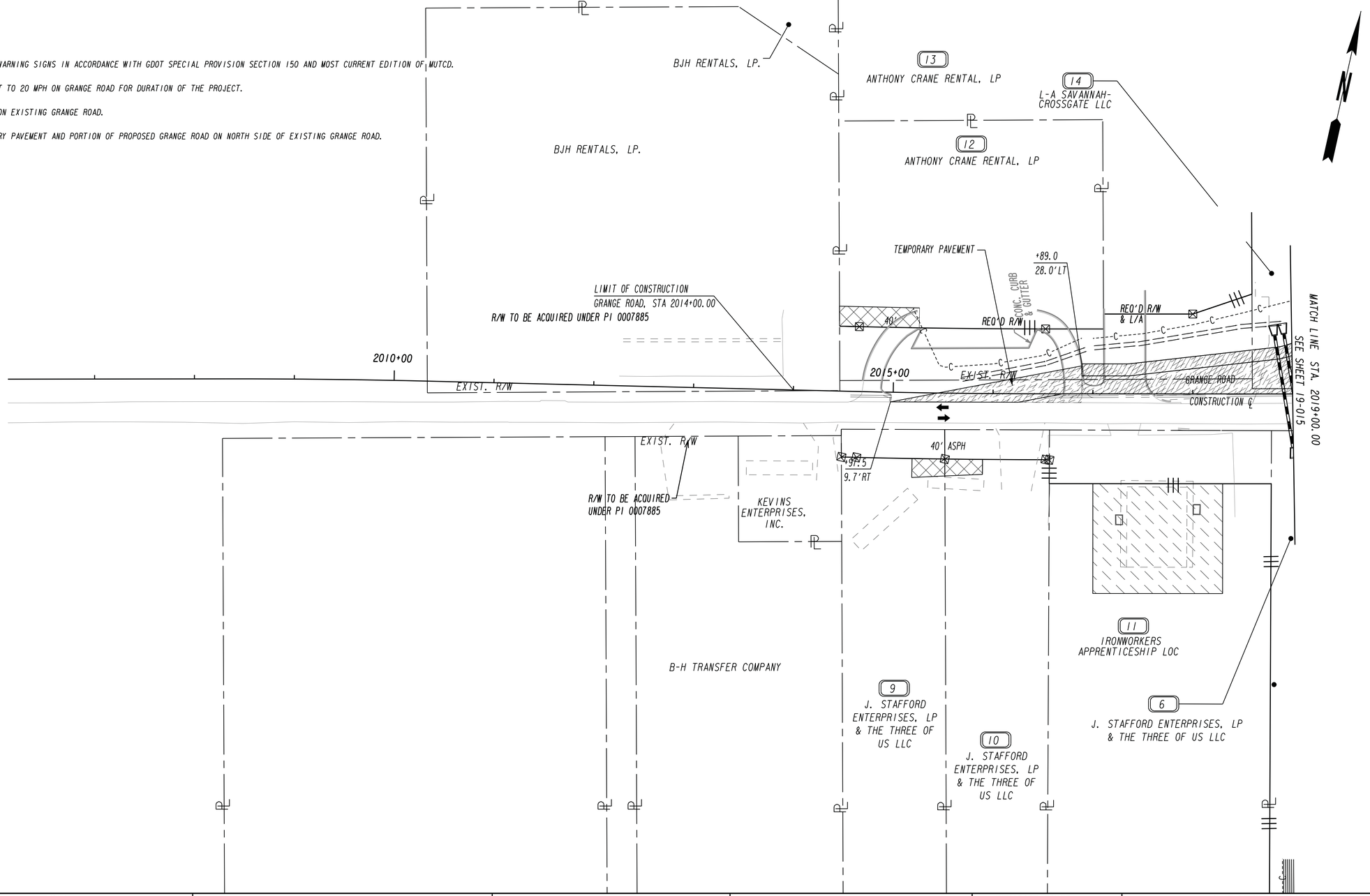
23-JUL-2013 14:06 2:06:59 PM | 0008690_19-014 | Y:\Roadways\126379\0008690\Dgn\0008690_19-014.dgn
JParks | GDOT_11x17.pen

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	82	730

RELEASED FOR CONSTRUCTION - 07-23-13

STAGE 1

1. INSTALL ADVANCED WARNING SIGNS IN ACCORDANCE WITH GDOT SPECIAL PROVISION SECTION 150 AND MOST CURRENT EDITION OF MUTCD.
2. REDUCE SPEED LIMIT TO 20 MPH ON GRANGE ROAD FOR DURATION OF THE PROJECT.
3. MAINTAIN TRAFFIC ON EXISTING GRANGE ROAD.
4. CONSTRUCT TEMPORARY PAVEMENT AND PORTION OF PROPOSED GRANGE ROAD ON NORTH SIDE OF EXISTING GRANGE ROAD.



LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

STAGE 1

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CONSTRUCTION STAGING PLAN

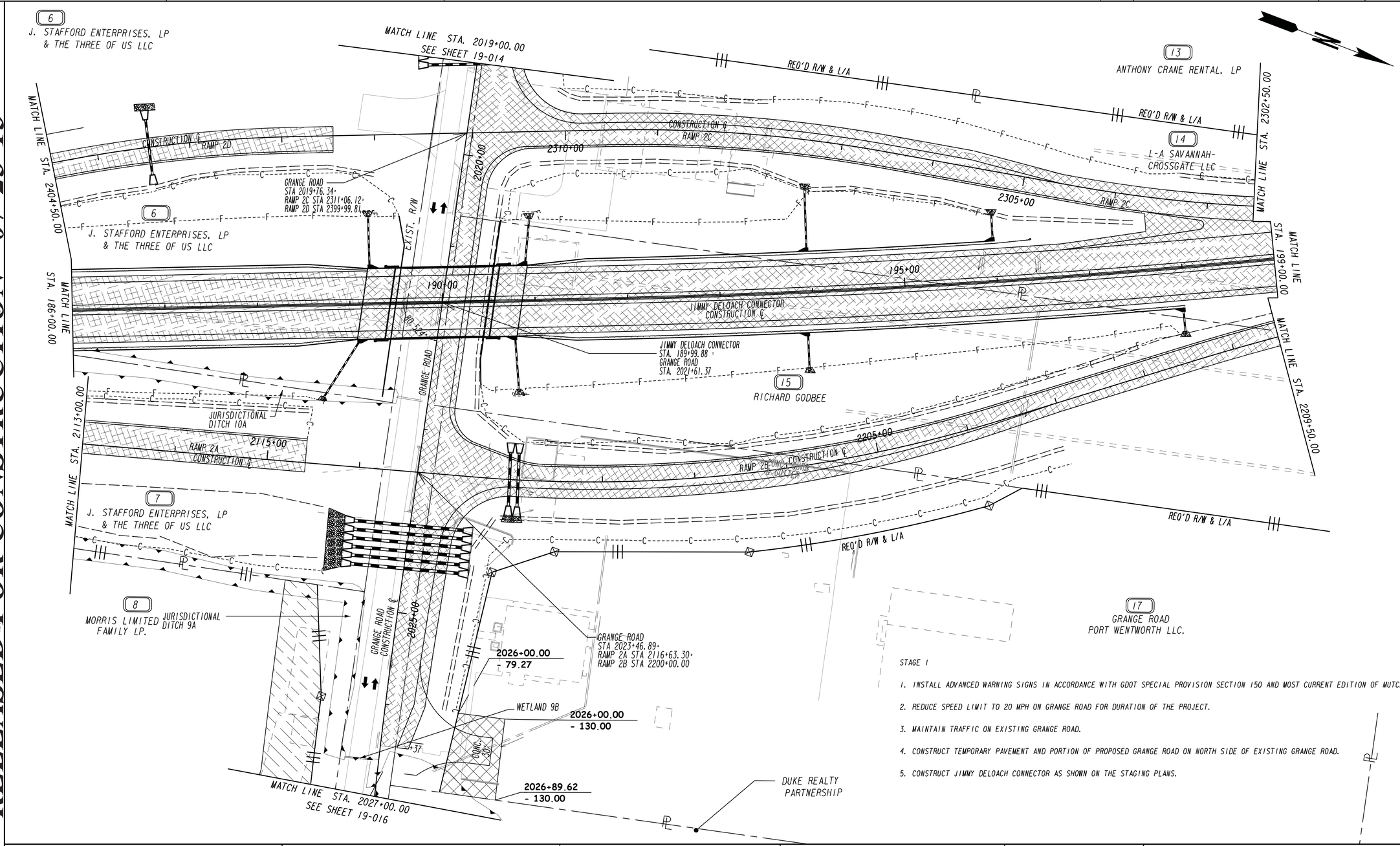
GRANGE ROAD
BEGIN CONST. TO STA. 2009+00

DRAWING No. 19-014

3/1/2007 GPLN

23-JUL-2013 14:07	2:07:05 PM	0008690_19-015	Y:\Roadways\126379\0008690\Dgn\0008690_19-015.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	83	730

RELEASED FOR CONSTRUCTION - 07-23-13



STAGE 1

1. INSTALL ADVANCED WARNING SIGNS IN ACCORDANCE WITH GDOT SPECIAL PROVISION SECTION 150 AND MOST CURRENT EDITION OF MUTCD.
2. REDUCE SPEED LIMIT TO 20 MPH ON GRANGE ROAD FOR DURATION OF THE PROJECT.
3. MAINTAIN TRAFFIC ON EXISTING GRANGE ROAD.
4. CONSTRUCT TEMPORARY PAVEMENT AND PORTION OF PROPOSED GRANGE ROAD ON NORTH SIDE OF EXISTING GRANGE ROAD.
5. CONSTRUCT JIMMY DELOACH CONNECTOR AS SHOWN ON THE STAGING PLANS.

LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

STAGE 1

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CONSTRUCTION STAGING PLAN

JIMMY DELOACH CONNECTOR
STA. 186+00 TO STA. 199+00

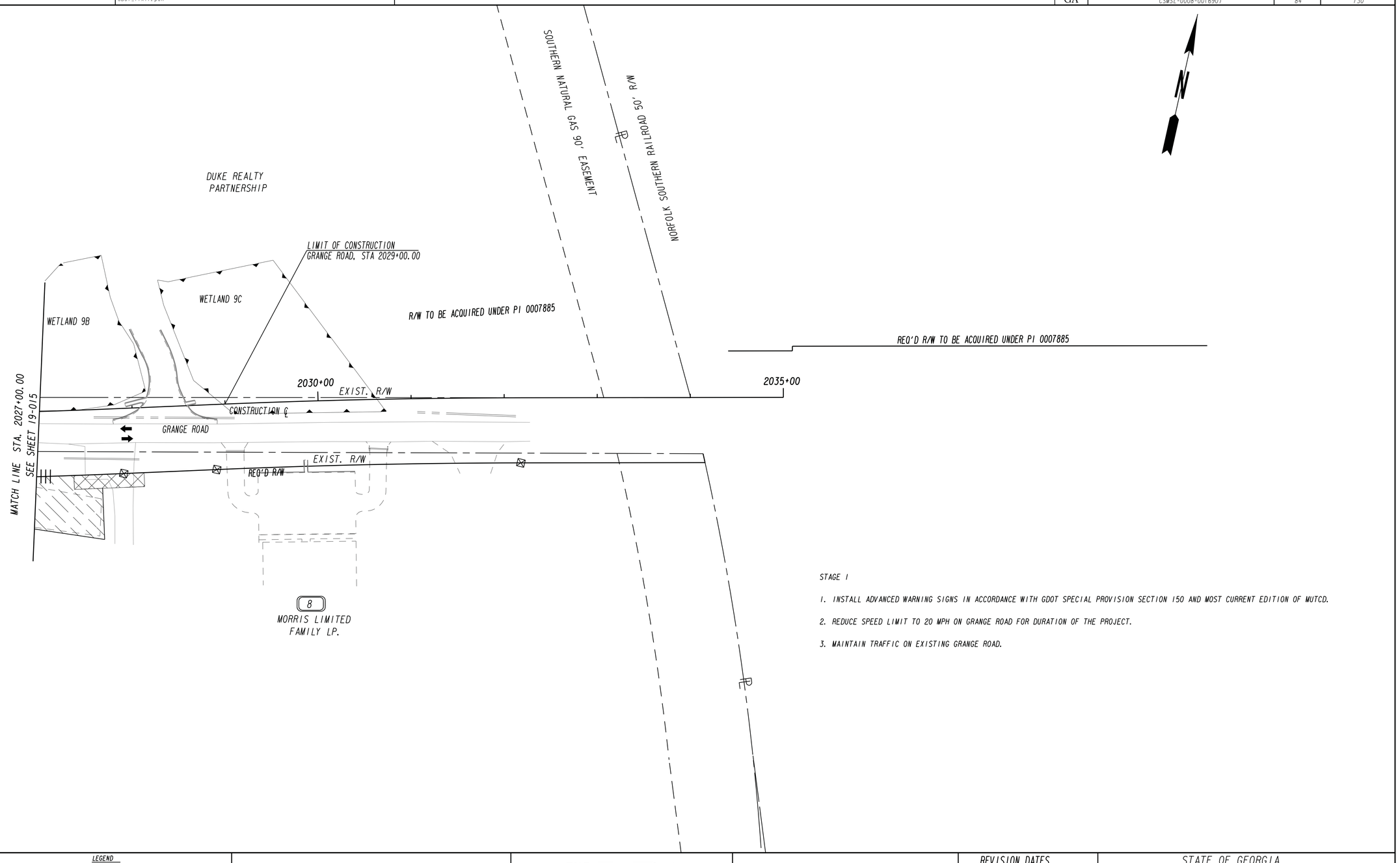
DRAWING No. 19-015

3/1/2007 GPLN

23-JUL-2013 14:07 2:07:12 PM
JParks
0008690_19-016
GDOT_11x17.pen
Y:\Roadways\126379\0008690\Dgn\0008690_19-016.dgn

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	84	730

RELEASED FOR CONSTRUCTION - 07-23-13



STAGE 1

1. INSTALL ADVANCED WARNING SIGNS IN ACCORDANCE WITH GDOT SPECIAL PROVISION SECTION 150 AND MOST CURRENT EDITION OF MUTCD.
2. REDUCE SPEED LIMIT TO 20 MPH ON GRANGE ROAD FOR DURATION OF THE PROJECT.
3. MAINTAIN TRAFFIC ON EXISTING GRANGE ROAD.

LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

STAGE 1

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CONSTRUCTION STAGING PLAN

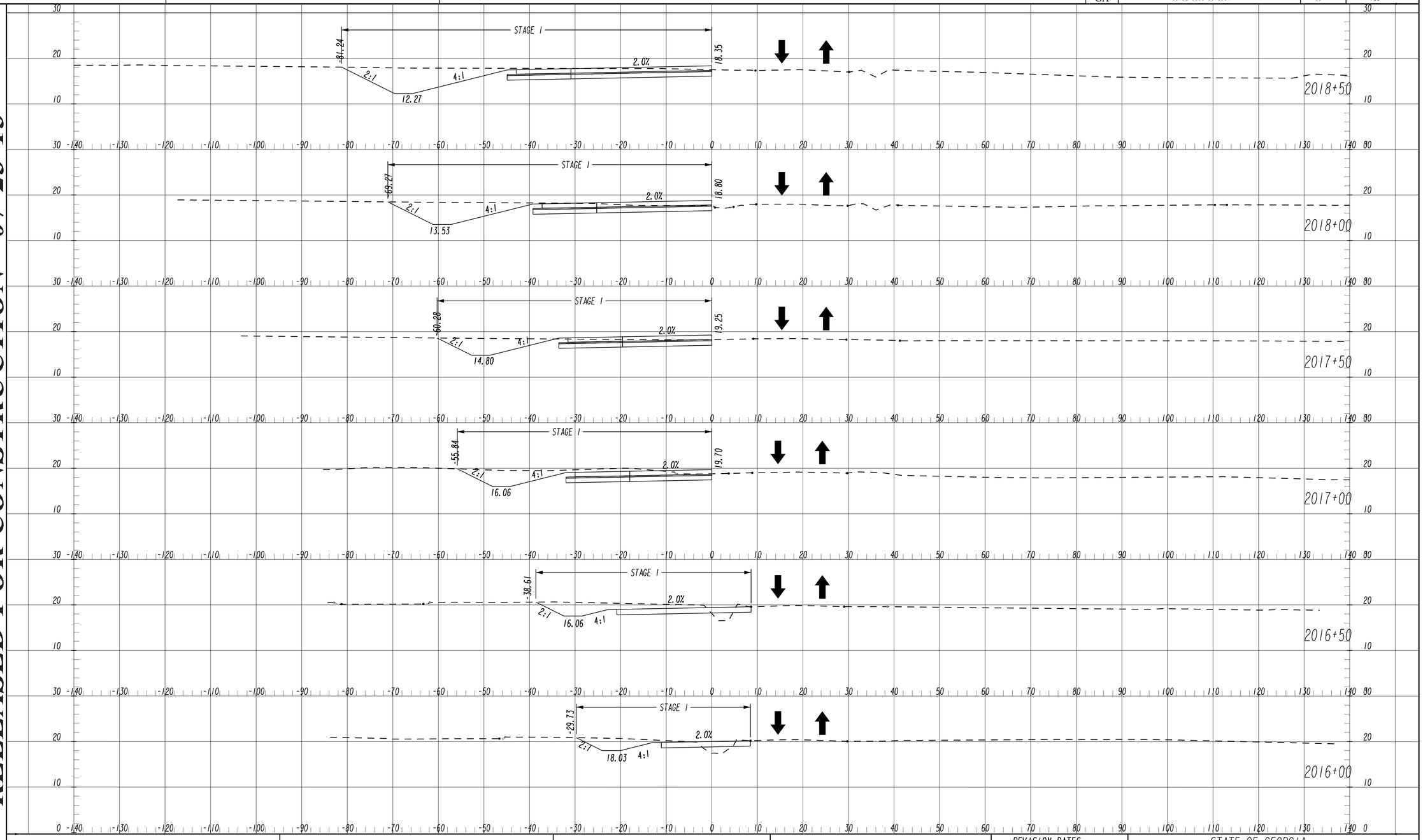
GRANGE ROAD
STA. 2017+00 TO END CONST.

DRAWING No. 19-016

3/1/2007 GPLN

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	85	730

RELEASED FOR CONSTRUCTION - 07-23-13



THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS CONSTRUCTION STAGING

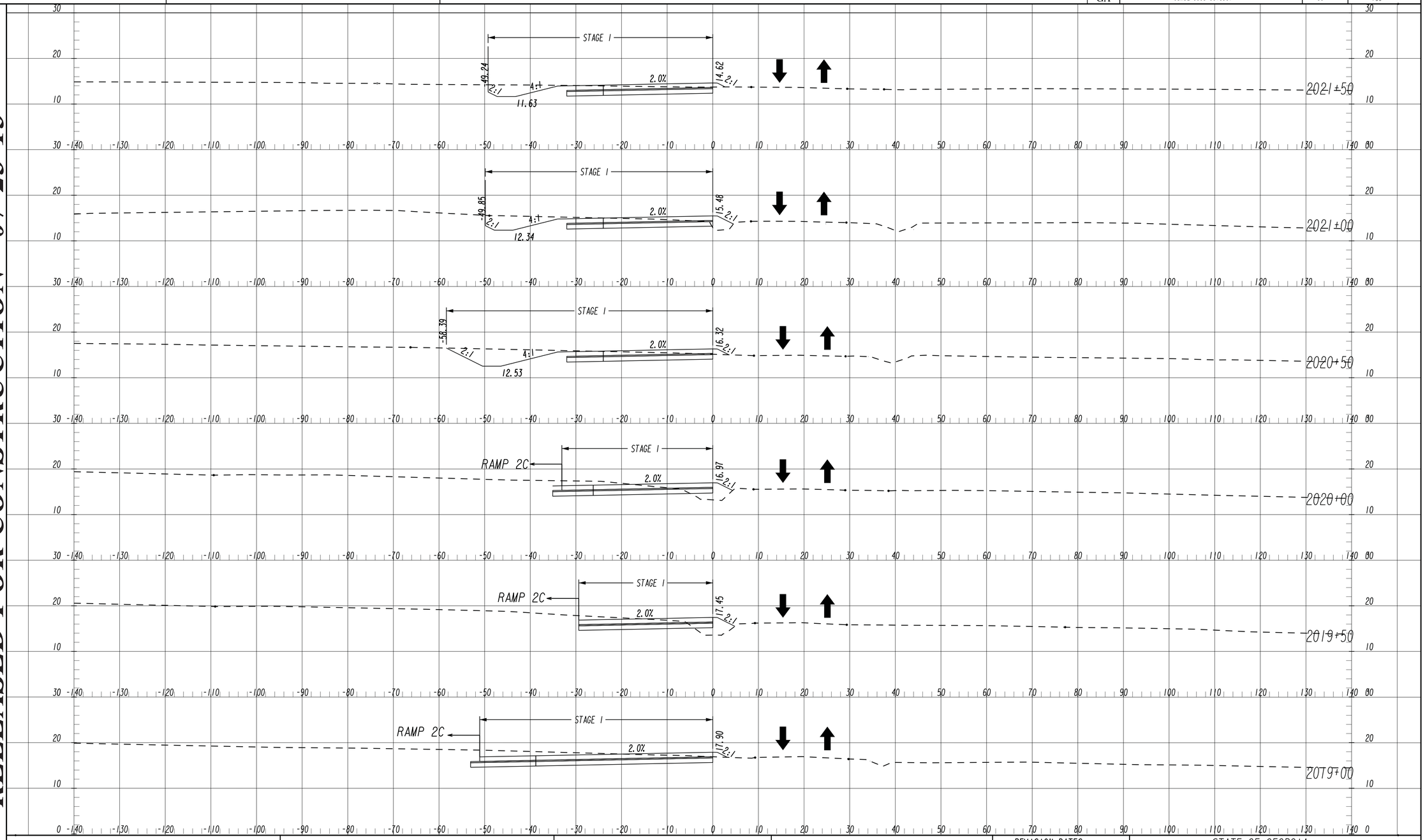
GRANGE ROAD
STAGE 1

DRAWING No. 19-017

3/1/2007 SUXSEW

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	86	730

RELEASED FOR CONSTRUCTION - 07-23-13



THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS CONSTRUCTION STAGING

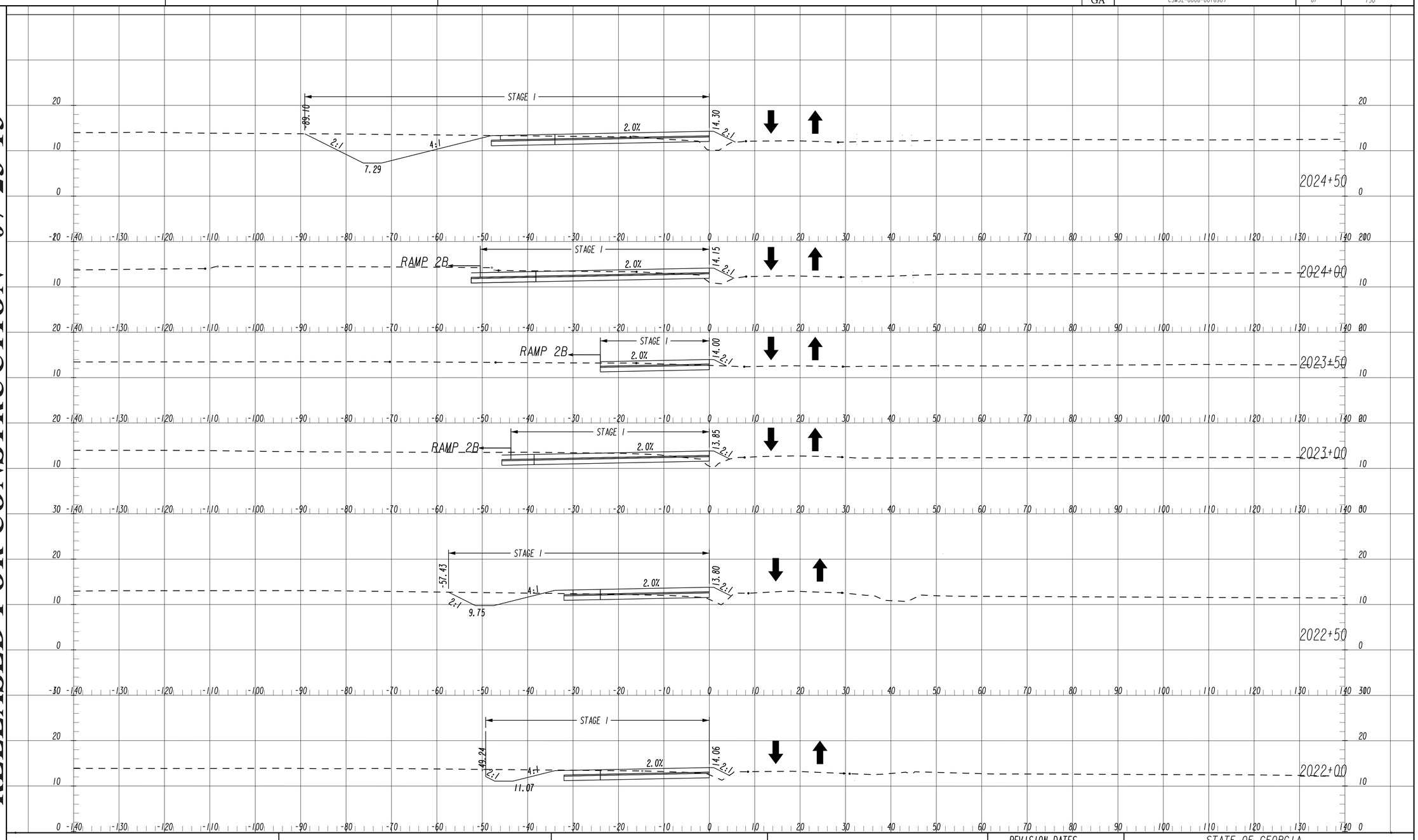
GRANGE ROAD
STAGE 1

DRAWING No. 19-018

3/1/2007 SUXSEW

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	87	730

RELEASED FOR CONSTRUCTION - 07-23-13



THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS CONSTRUCTION STAGING

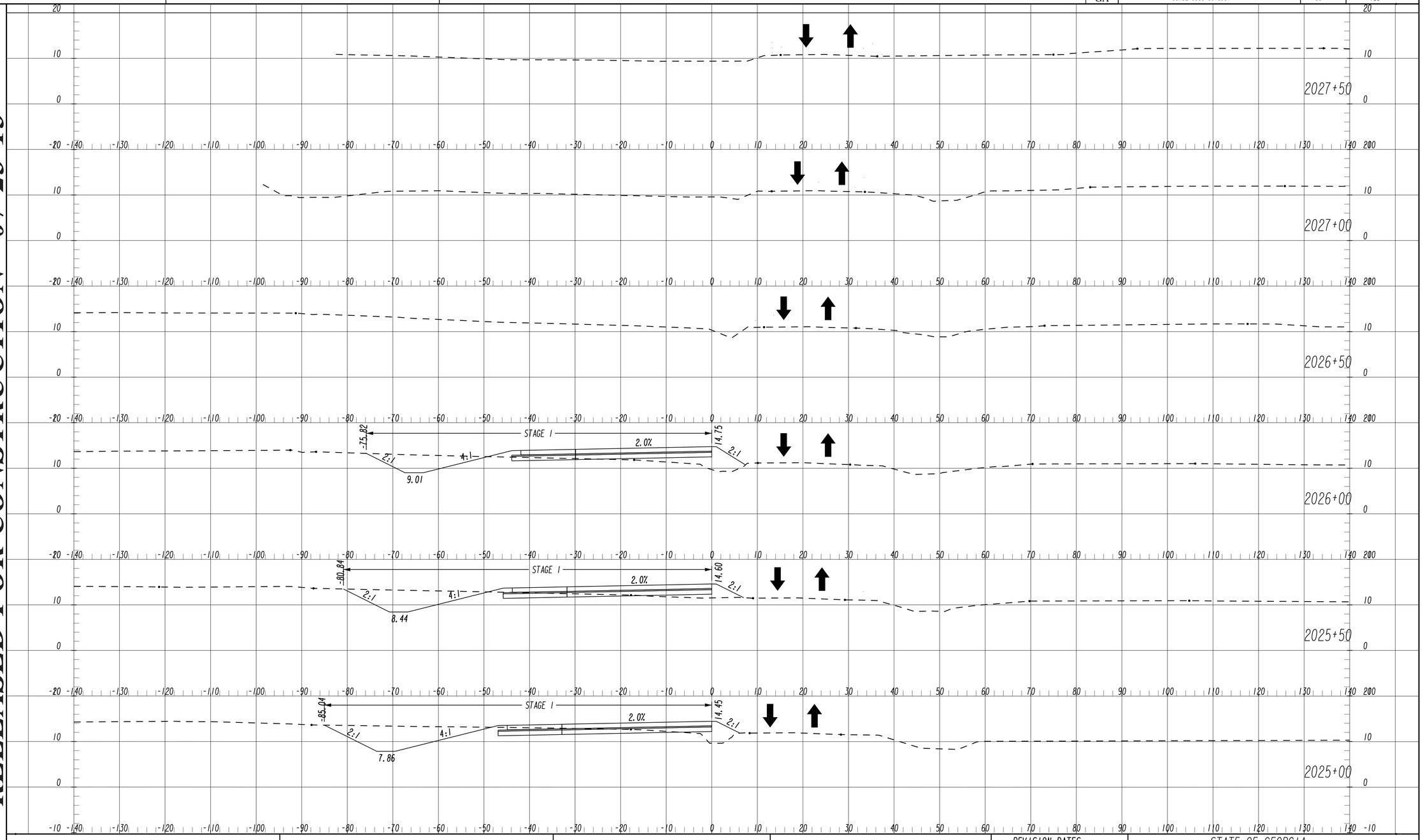
GRANGE ROAD
STAGE 1

DRAWING No. 19-019

3/1/2007 SUXSEW

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	88	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

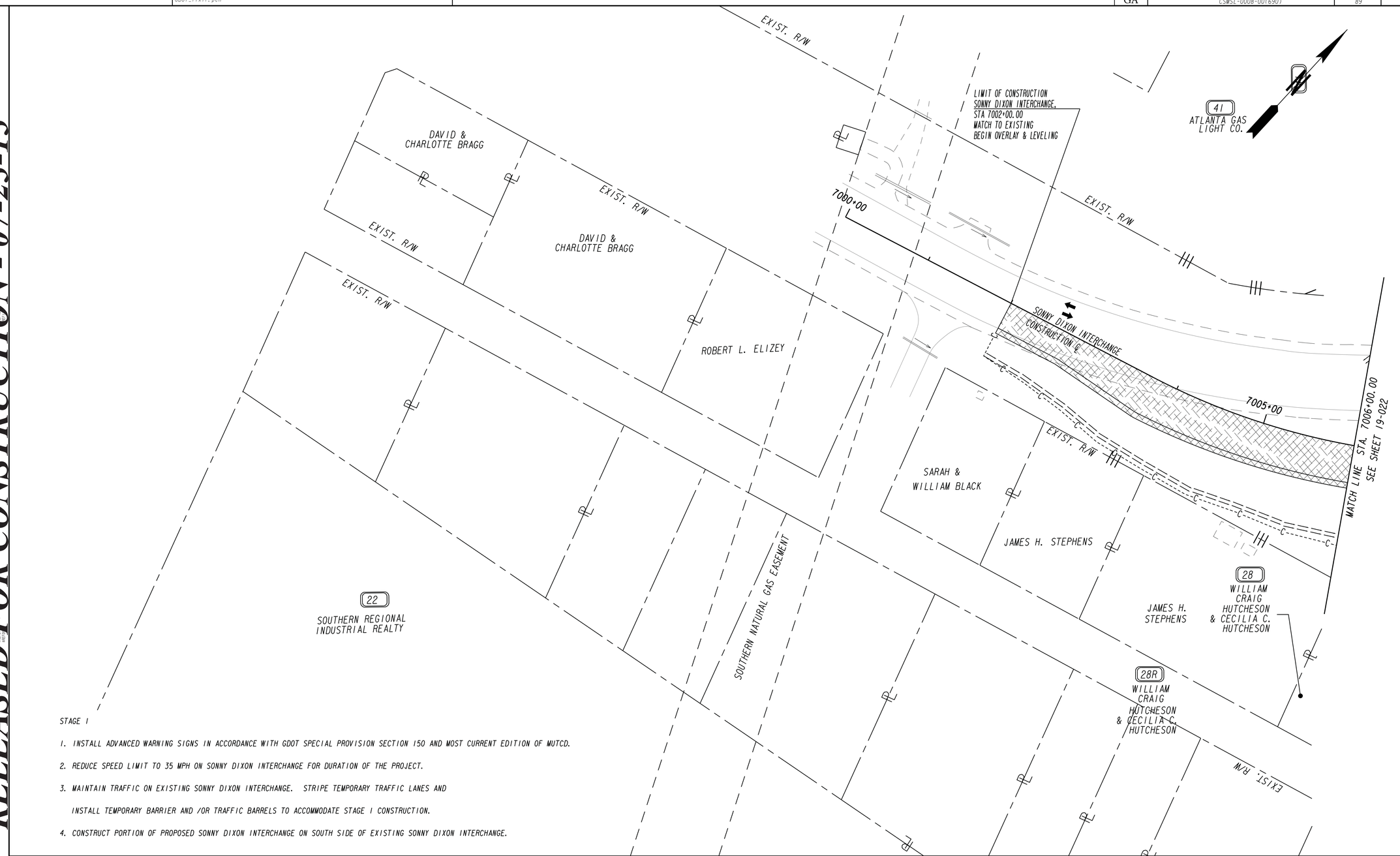
CROSS SECTIONS CONSTRUCTION STAGING

GRANGE ROAD
STAGE 1

DRAWING No. 19-020

23-JUL-2013 14:07	2:07:32 PM	0008690_19-021	Y:\Roadways\126379\0008690\Dgn\0008690_19-021.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	89	730

RELEASED FOR CONSTRUCTION - 07-23-13



STAGE I

1. INSTALL ADVANCED WARNING SIGNS IN ACCORDANCE WITH GDOT SPECIAL PROVISION SECTION 150 AND MOST CURRENT EDITION OF MUTCD.
2. REDUCE SPEED LIMIT TO 35 MPH ON SONNY DIXON INTERCHANGE FOR DURATION OF THE PROJECT.
3. MAINTAIN TRAFFIC ON EXISTING SONNY DIXON INTERCHANGE. STRIPE TEMPORARY TRAFFIC LANES AND INSTALL TEMPORARY BARRIER AND /OR TRAFFIC BARRELS TO ACCOMMODATE STAGE I CONSTRUCTION.
4. CONSTRUCT PORTION OF PROPOSED SONNY DIXON INTERCHANGE ON SOUTH SIDE OF EXISTING SONNY DIXON INTERCHANGE.

LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

3/11/2007 GPLN

STAGE I

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

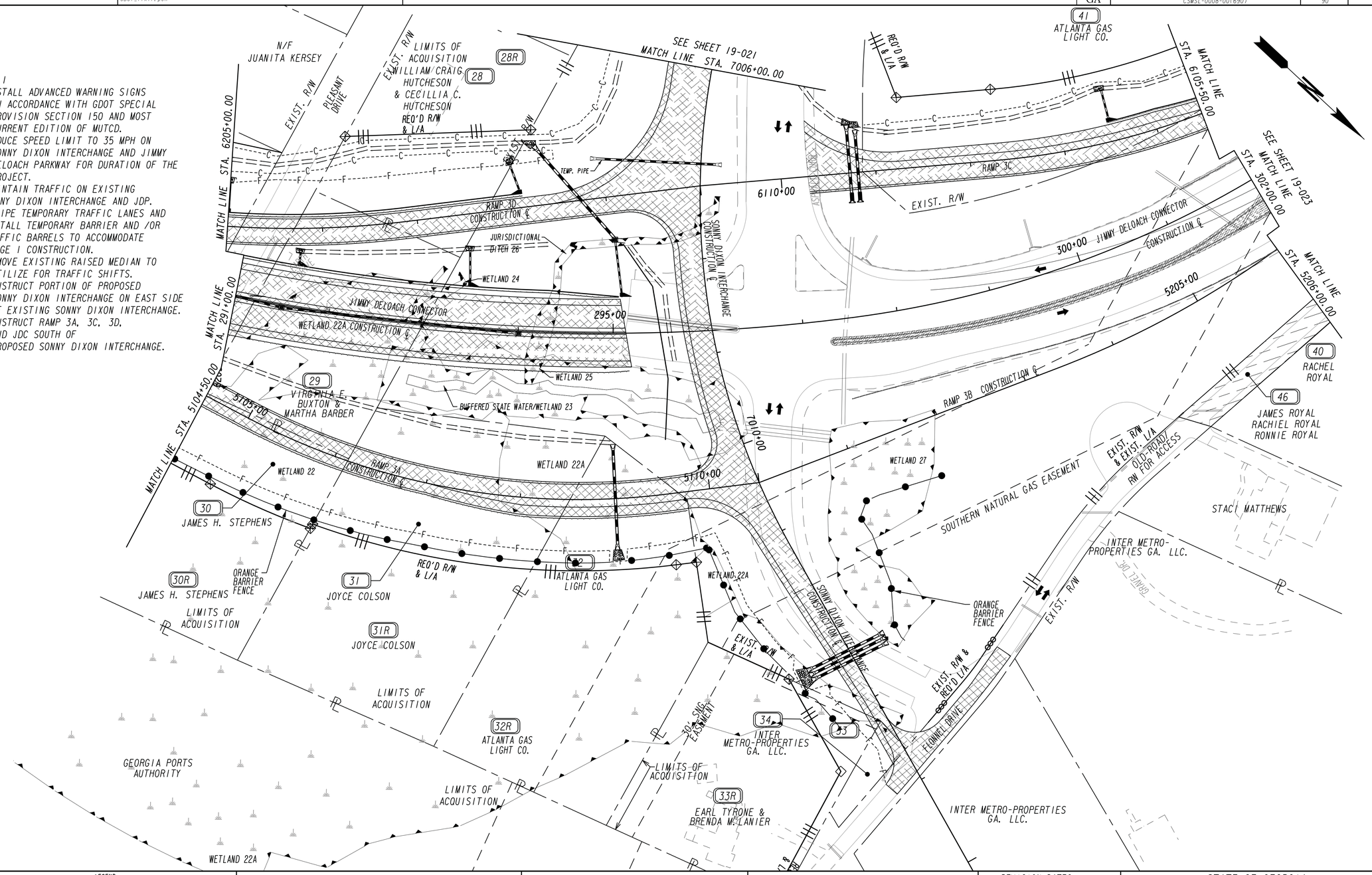
CONSTRUCTION STAGING PLAN

STAGE I - BEGIN CONST. TO SONNY DIXON INTERCHANGE STA. 7006+00

DRAWING No. 19-021

RELEASED FOR CONSTRUCTION - 07-23-13

STAGE 1
1. INSTALL ADVANCED WARNING SIGNS IN ACCORDANCE WITH GDOT SPECIAL PROVISION SECTION 150 AND MOST CURRENT EDITION OF MUTCD.
2. REDUCE SPEED LIMIT TO 35 MPH ON SONNY DIXON INTERCHANGE AND JIMMY DELOACH PARKWAY FOR DURATION OF THE PROJECT.
3. MAINTAIN TRAFFIC ON EXISTING SONNY DIXON INTERCHANGE AND JDP. STRIPE TEMPORARY TRAFFIC LANES AND INSTALL TEMPORARY BARRIER AND /OR TRAFFIC BARRELS TO ACCOMMODATE STAGE 1 CONSTRUCTION.
4. REMOVE EXISTING RAISED MEDIAN TO UTILIZE FOR TRAFFIC SHIFTS.
5. CONSTRUCT PORTION OF PROPOSED SONNY DIXON INTERCHANGE ON EAST SIDE OF EXISTING SONNY DIXON INTERCHANGE.
6. CONSTRUCT RAMP 3A, 3C, 3D, AND JDC SOUTH OF PROPOSED SONNY DIXON INTERCHANGE.



LEGEND
- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

STAGE 1

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CONSTRUCTION STAGING PLAN

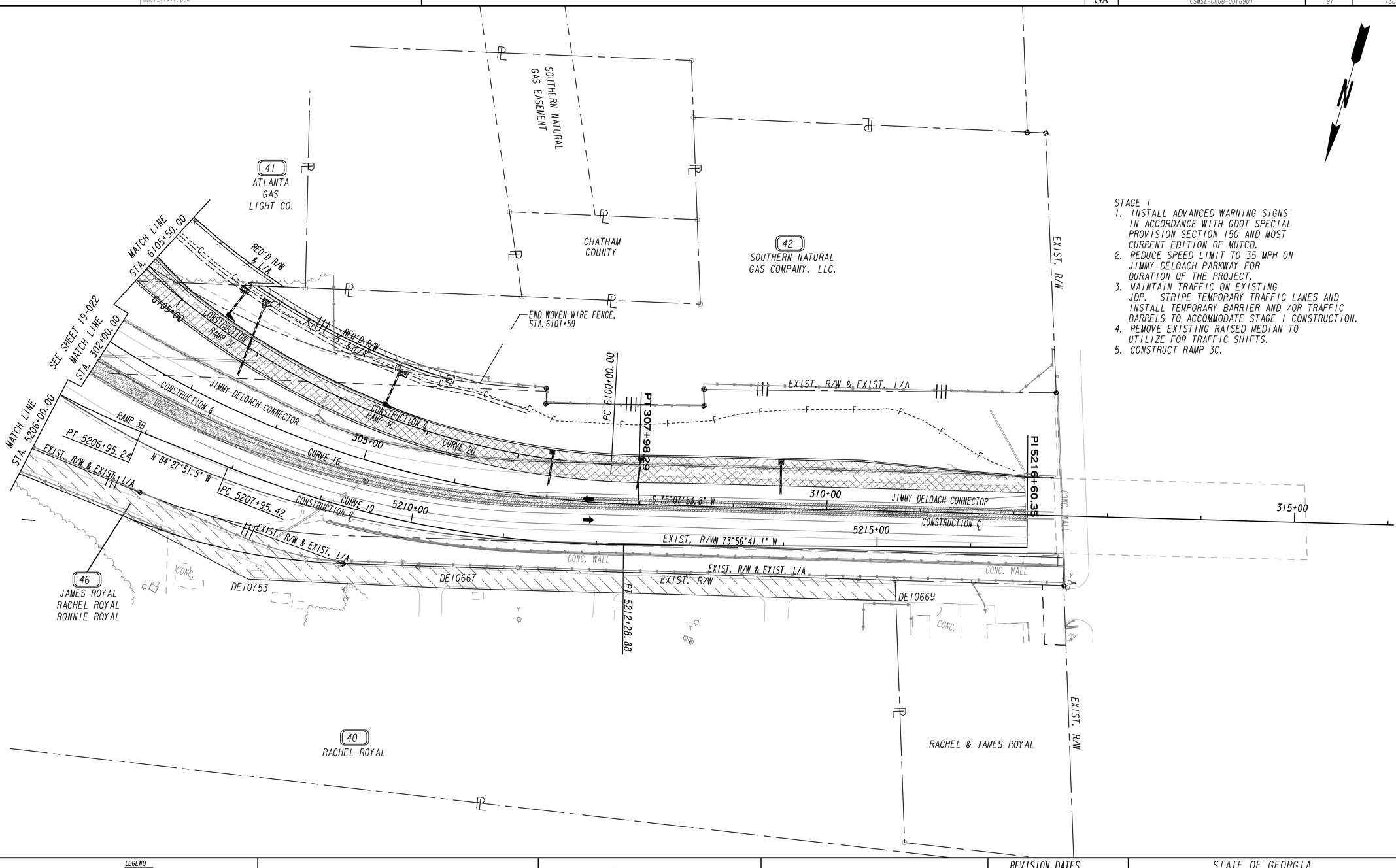
JIMMY DELOACH CONNECTOR
STA. 291+00 TO STA. 302+00

DRAWING No. 19-022

3/1/2007 GPLN

23-JUL-2013 14:07	2:07:46 PM	0008690_19-023	Y:\Roadways\126379\0008690\Dgn\0008690_19-023.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	91	730

RELEASED FOR CONSTRUCTION - 07-23-13



STAGE 1
1. INSTALL ADVANCED WARNING SIGNS IN ACCORDANCE WITH GDOT SPECIAL PROVISION SECTION 150 AND MOST CURRENT EDITION OF MUTCD.
2. REDUCE SPEED LIMIT TO 35 MPH ON JIMMY DELOACH PARKWAY FOR DURATION OF THE PROJECT.
3. MAINTAIN TRAFFIC ON EXISTING JDP. STRIPE TEMPORARY TRAFFIC LANES AND INSTALL TEMPORARY BARRIER AND /OR TRAFFIC BARRELS TO ACCOMMODATE STAGE 1 CONSTRUCTION.
4. REMOVE EXISTING RAISED MEDIAN TO UTILIZE FOR TRAFFIC SHIFTS.
5. CONSTRUCT RAMP 3C.

LEGEND
- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

STAGE 1

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CONSTRUCTION STAGING PLAN

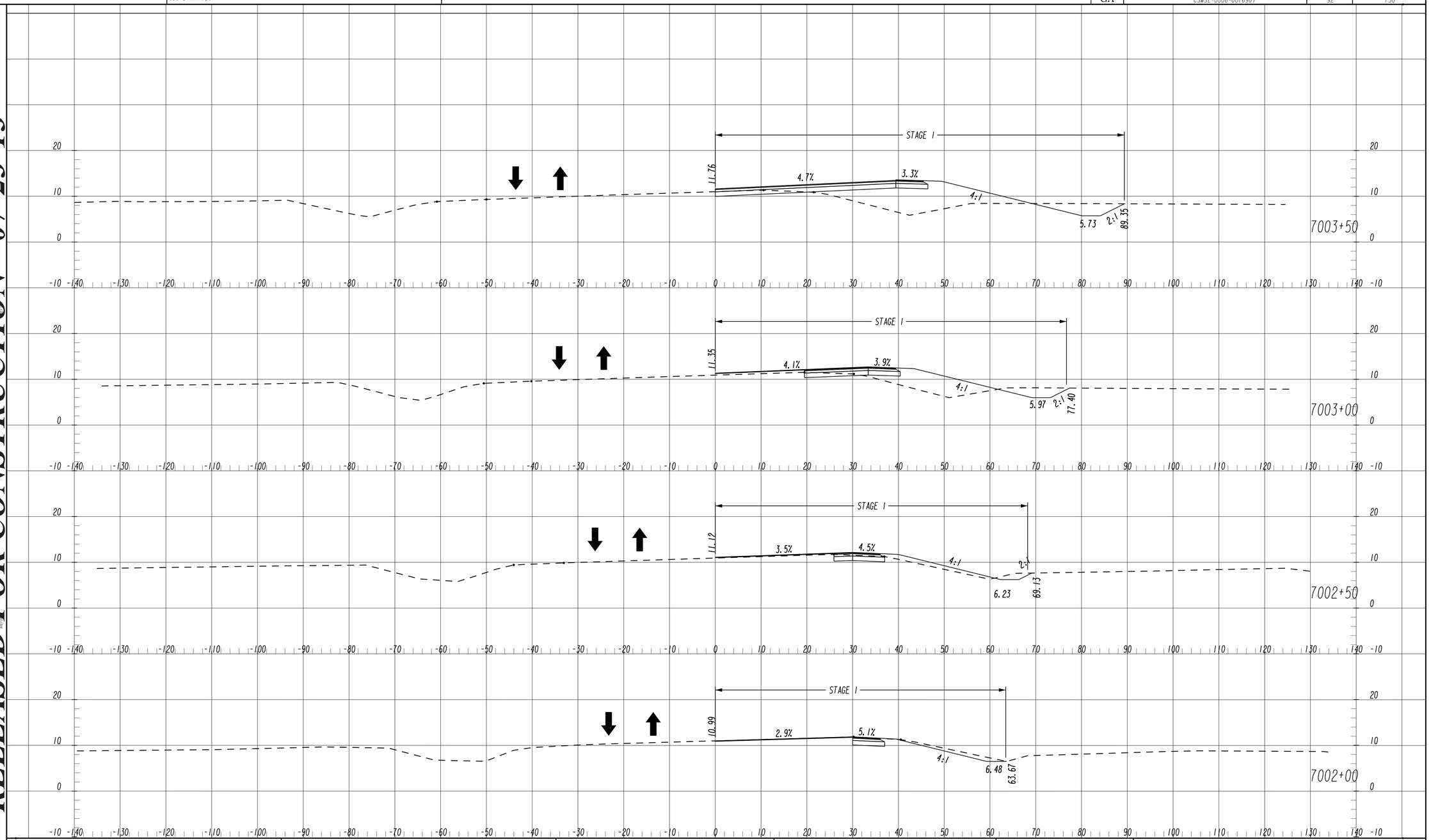
JIMMY DELOACH CONNECTOR
STA. 302+00 TO END PROJECT

DRAWING No. 19-023

3/1/2007 GPLN

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	92	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

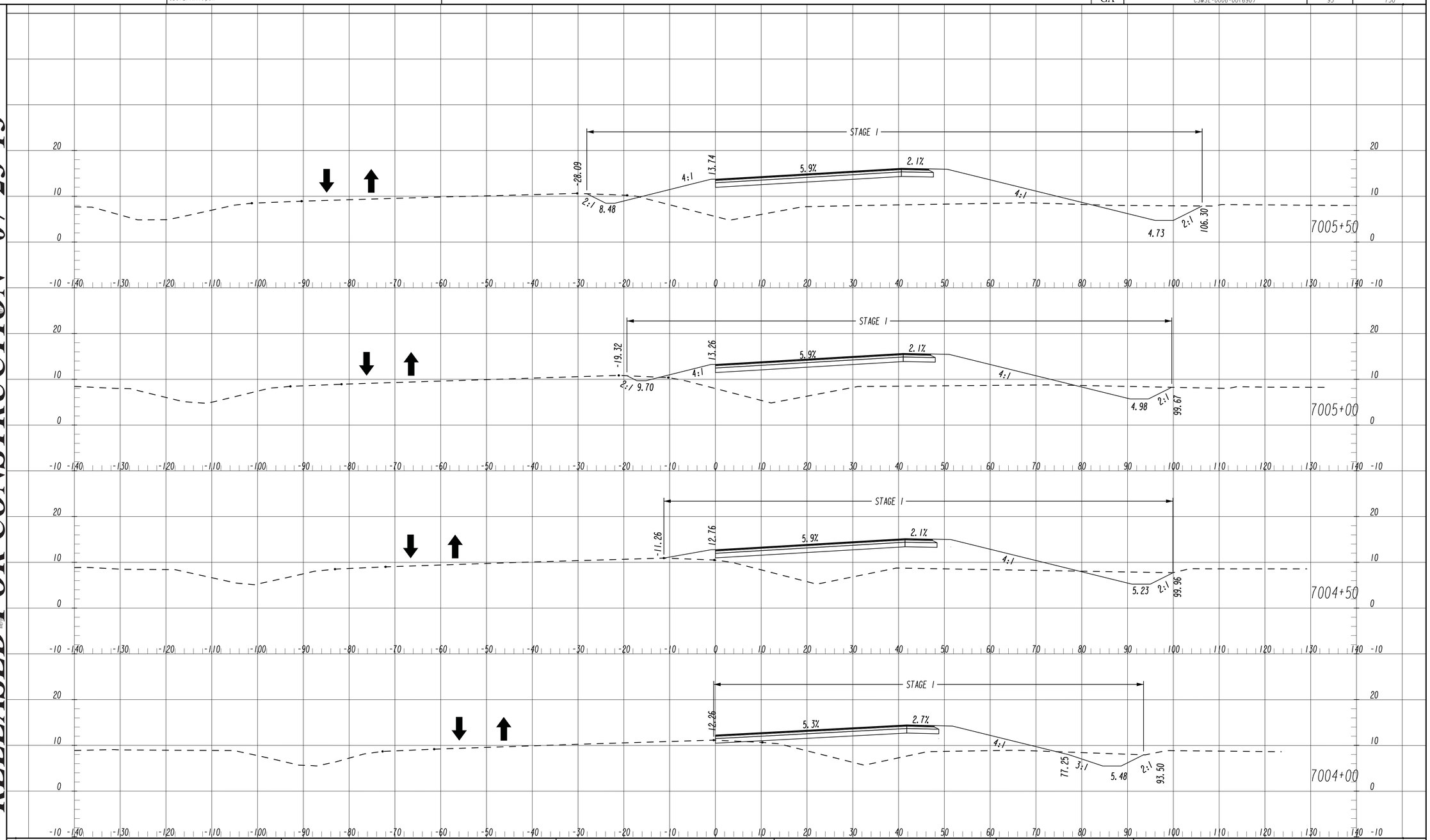
CROSS SECTIONS CONSTRUCTION STAGING

SONNY DIXON INTERCHANGE
STAGE 1

DRAWING No. 19-024

23-JUL-2013 14:07	2:07:52 PM	0008690_SX01_PIERCE1	Y:\Roadways\126379\0008690\Dgn\0008690_SX01_PIERCE.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	93	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

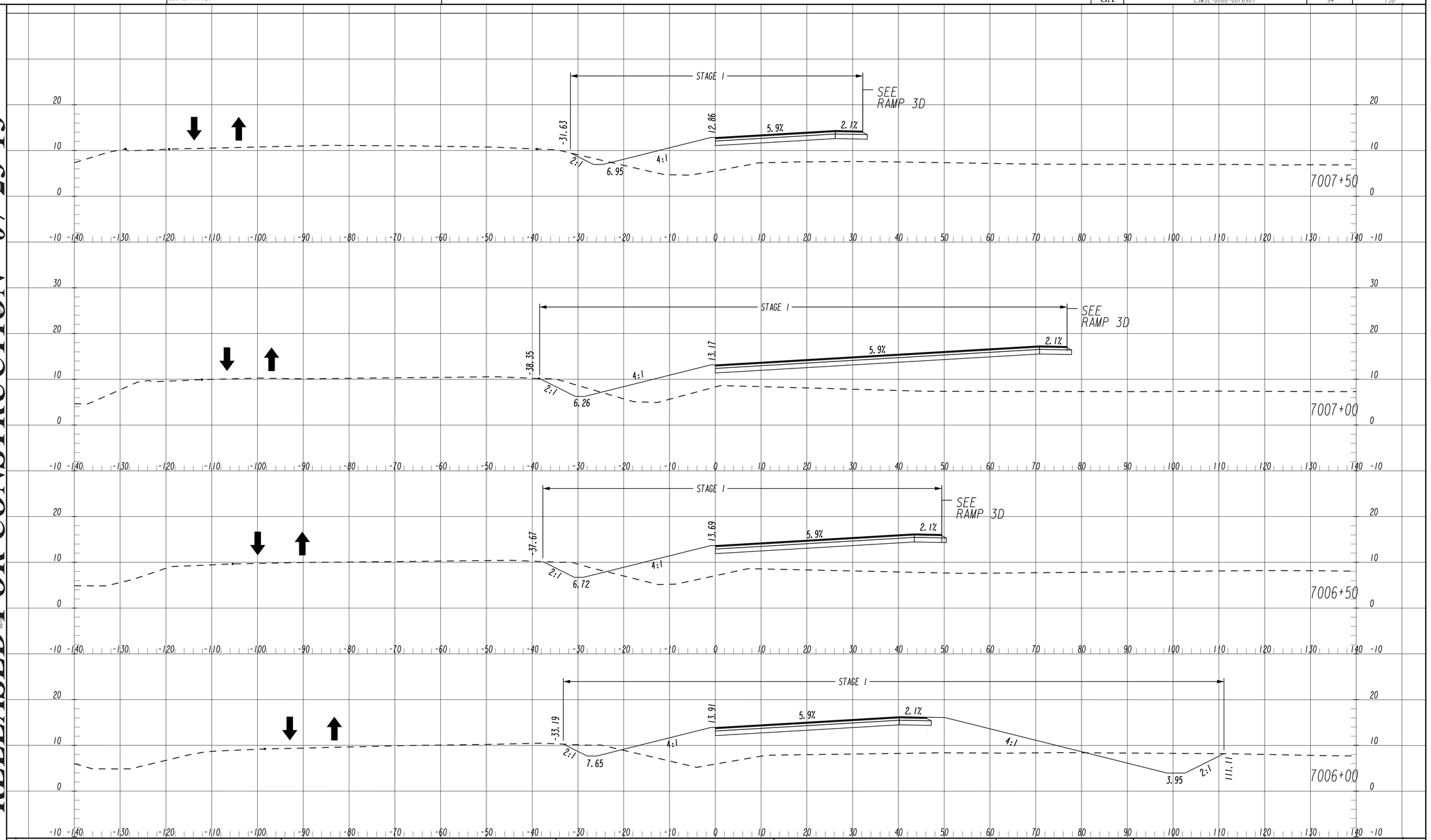
CROSS SECTIONS CONSTRUCTION STAGING

SONNY DIXON INTERCHANGE
STAGE 1

DRAWING No. 19-025

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	94	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

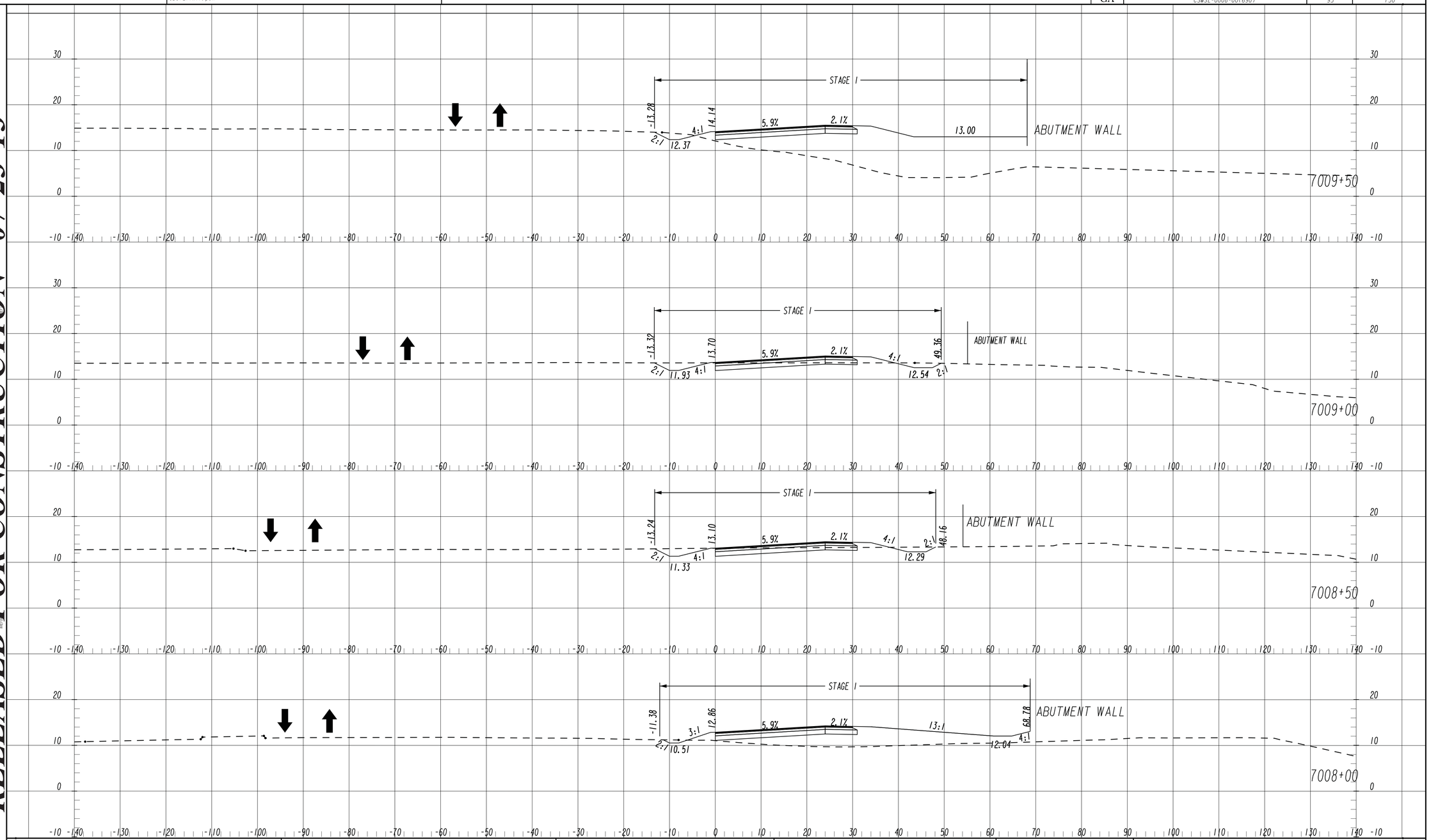
CROSS SECTIONS CONSTRUCTION STAGING

SONNY DIXON INTERCHANGE
STAGE 1

DRAWING No. 19-026

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	95	730

RELEASED FOR CONSTRUCTION - 07-23-13



THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS CONSTRUCTION STAGING

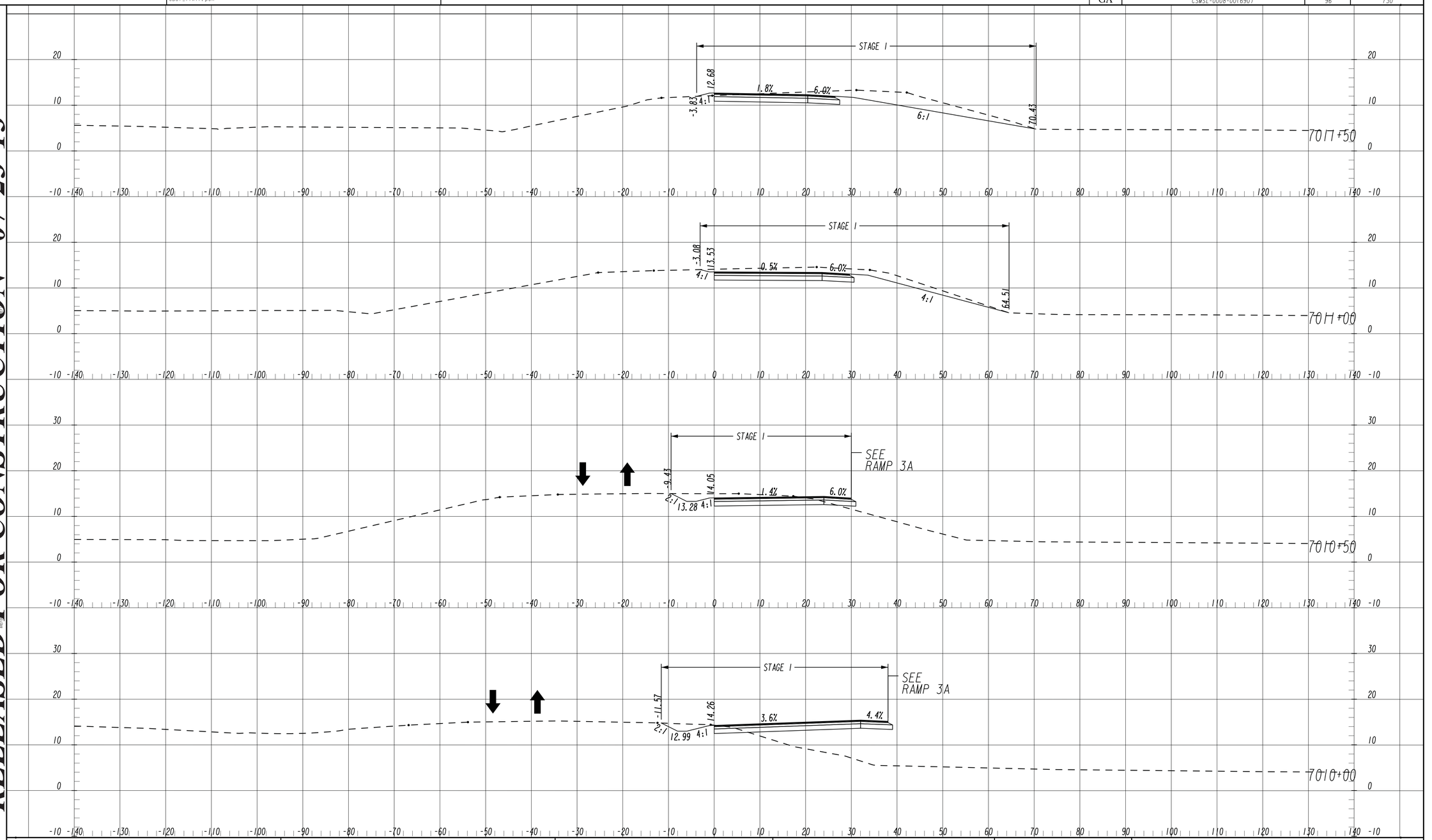
SONNY DIXON INTERCHANGE
STAGE 1

DRAWING No. 19-027

3/1/2007 SUXSEW

23-JUL-2013 14:07	2:07:56 PM	0008690_SX01_PIERCE4	Y:\Roadways\126379\0008690\Dgn\0008690_SX01_PIERCE.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	96	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/11/2007 SUXSEW

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS CONSTRUCTION STAGING

SONNY DIXON INTERCHANGE
STAGE 1

DRAWING No. 19-028

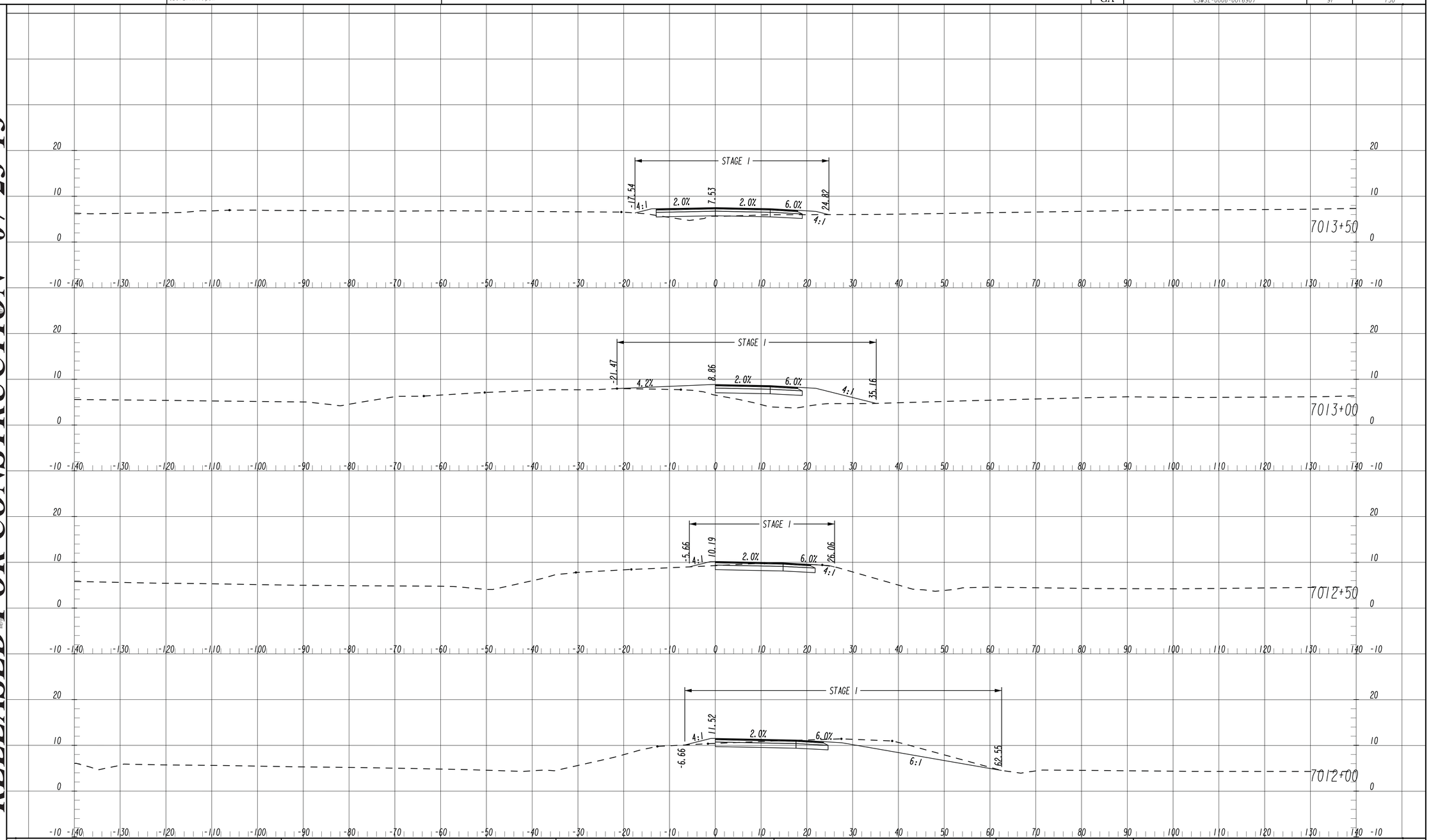
23-JUL-2013 14:07 2:07:58 PM
JParks

0008690_SX01_PIERCE5
GDOT_11x17.pen

Y:\Roadways\126379\0008690\Dgn\0008690_SX01_PIERCE.dgn

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	97	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

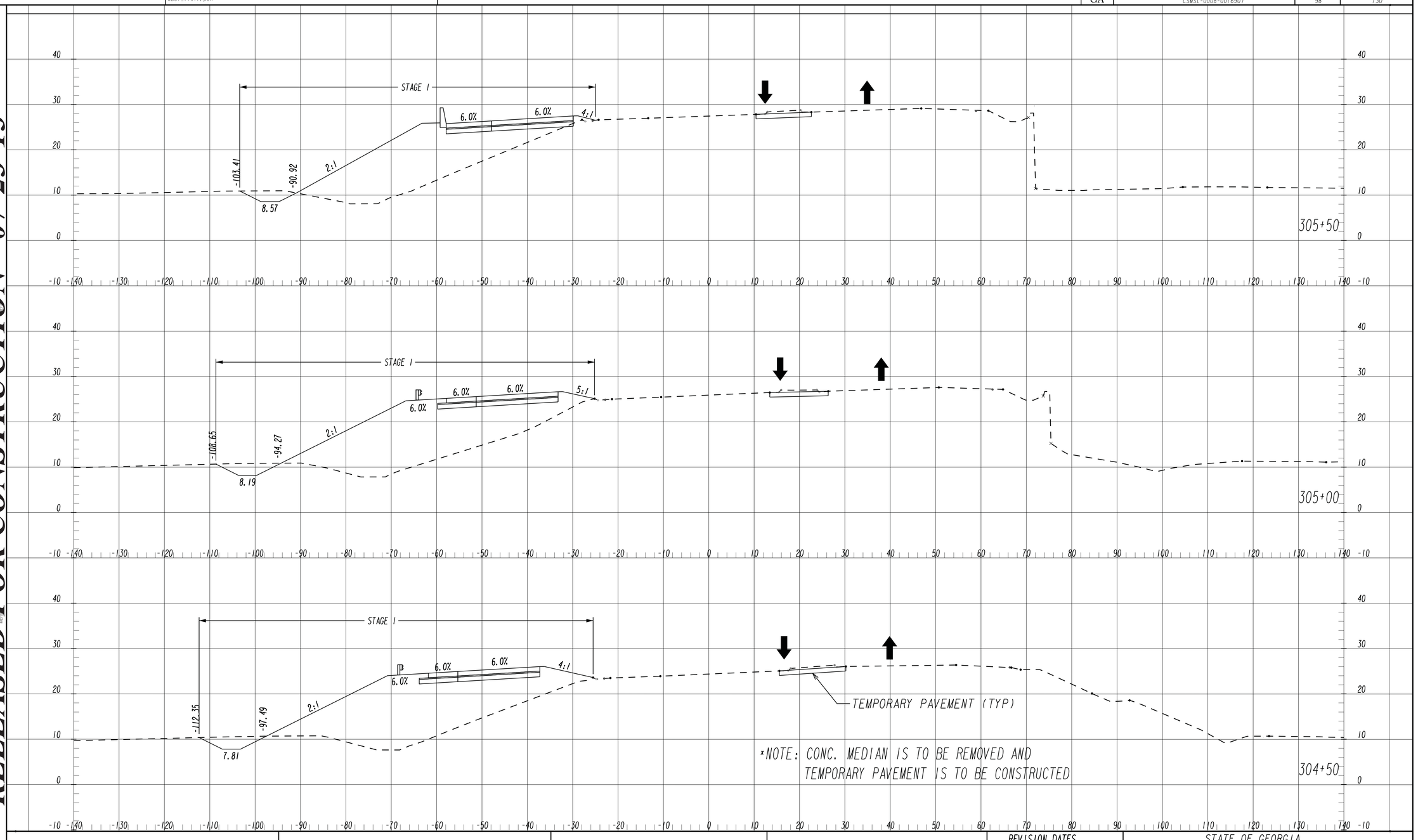
CROSS SECTIONS CONSTRUCTION STAGING

SONNY DIXON INTERCHANGE
STAGE 1

DRAWING No. 19-029

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	98	730

RELEASED FOR CONSTRUCTION - 07-23-13



*NOTE: CONC. MEDIAN IS TO BE REMOVED AND TEMPORARY PAVEMENT IS TO BE CONSTRUCTED

3/1/2007 SUXSEW

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

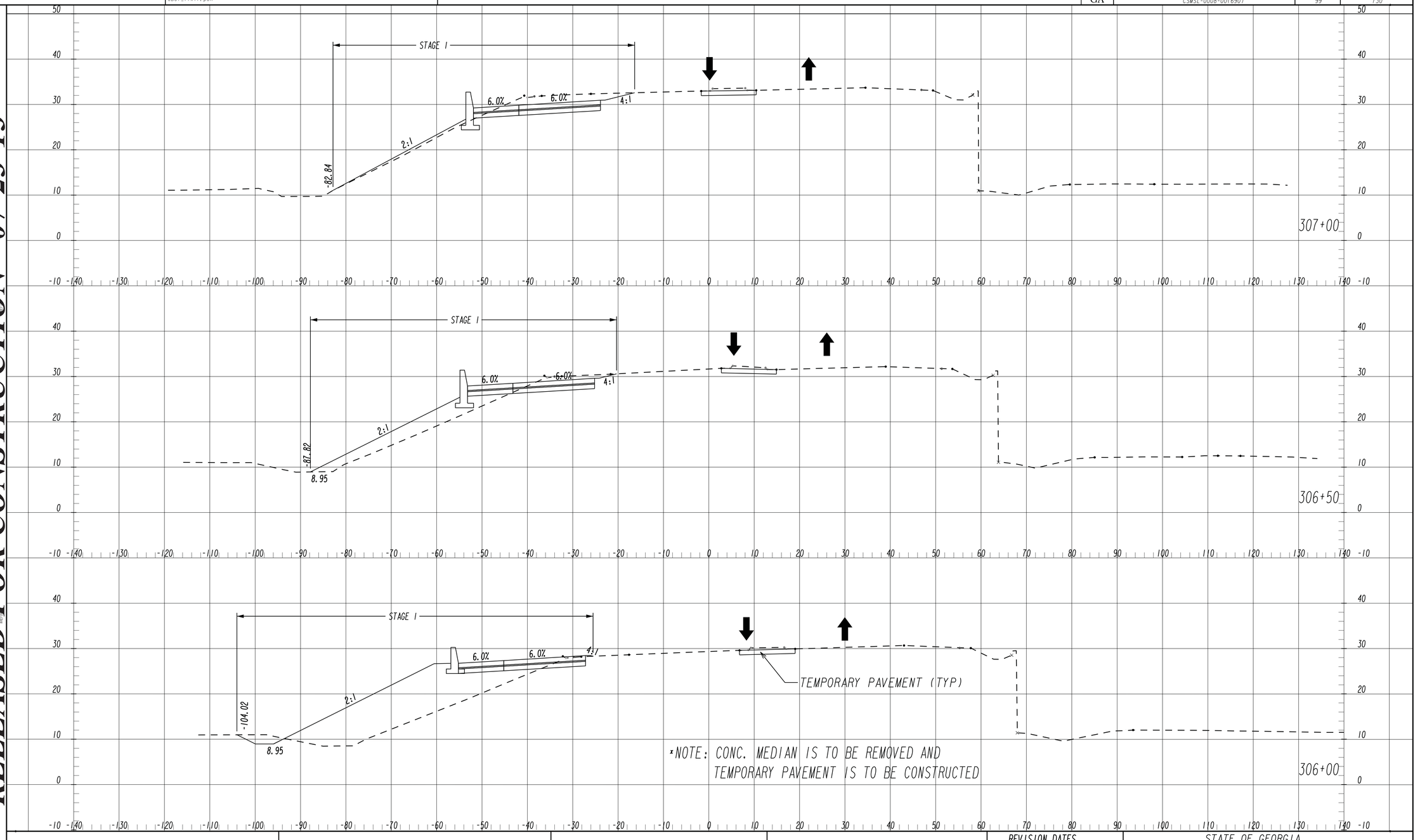
CROSS SECTIONS CONSTRUCTION STAGING

JIMMY DELOACH CONNECTOR
STAGE 1

DRAWING No. 19-030

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	99	730

RELEASED FOR CONSTRUCTION - 07-23-13



*NOTE: CONC. MEDIAN IS TO BE REMOVED AND TEMPORARY PAVEMENT IS TO BE CONSTRUCTED

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

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1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS CONSTRUCTION STAGING

JIMMY DELOACH CONNECTOR
STAGE 1

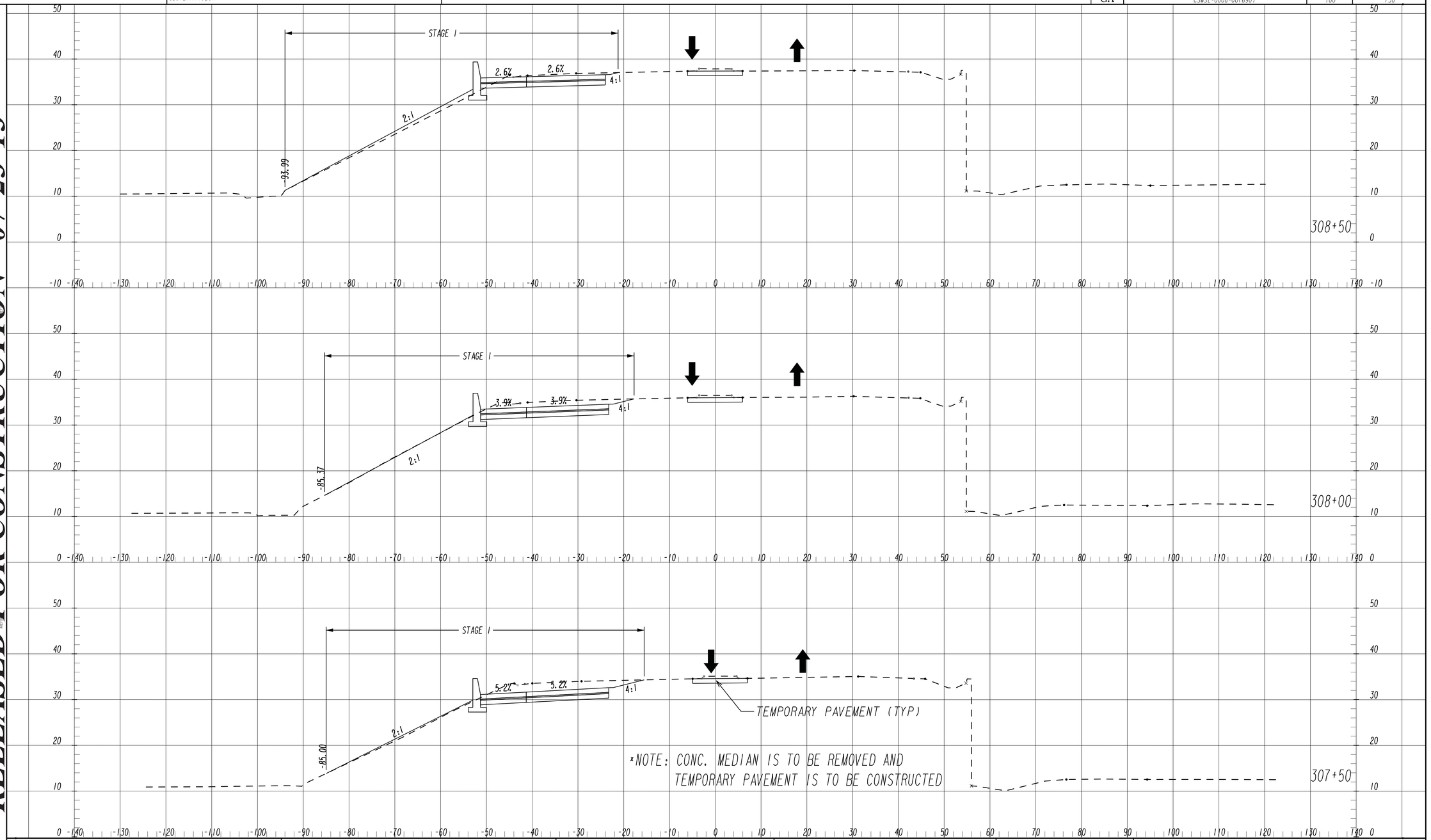
DRAWING No. 19-031

3/1/2007 SUXSEW

23-JUL-2013 14:08 2:08:08 PM | 0008690_SX01_JDC2 | Y:\Roadways\126379\0008690\Dgn\0008690_SX01_JDC.dgn | STATE: GA | PROJECT NUMBER: CSMSL-0008-00(690) | SHEET NO.: 100 | TOTAL SHEETS: 730

JParks | GDOT_11x17.pen

RELEASED FOR CONSTRUCTION - 07-23-13



*NOTE: CONC. MEDIAN IS TO BE REMOVED AND TEMPORARY PAVEMENT IS TO BE CONSTRUCTED

3/1/2007 SUXSEW

THE LPA GROUP
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3595 ENGINEERING DRIVE
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(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

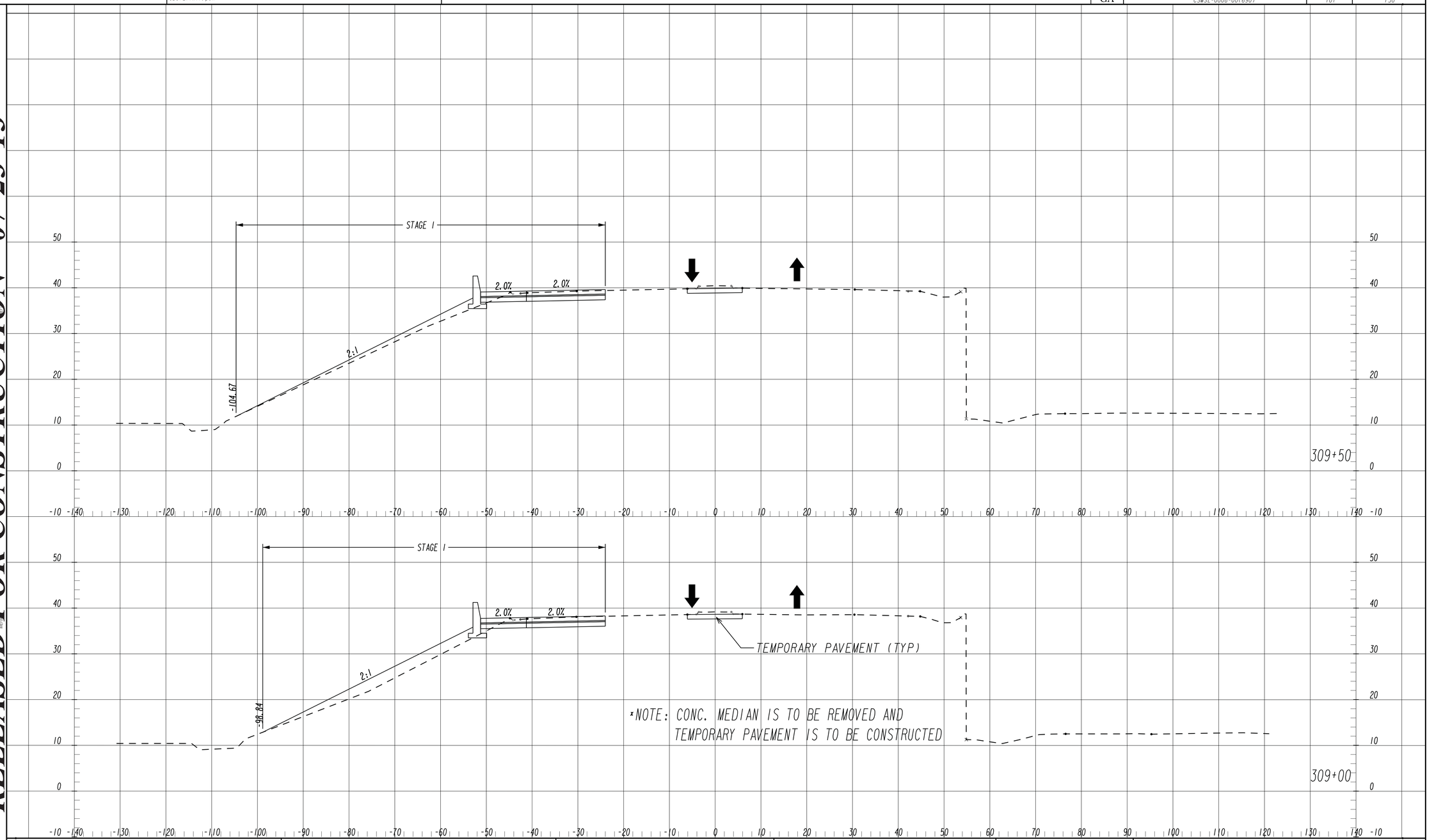
CROSS SECTIONS CONSTRUCTION STAGING

JIMMY DELOACH CONNECTOR
STAGE 1

DRAWING No. 19-032

23-JUL-2013 14:08	2:08:10 PM	0008690_SX01_JDC3	Y:\Roadways\126379\0008690\Dgn\0008690_SX01_JDC.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	101	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

THE LPA GROUP
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A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS CONSTRUCTION STAGING

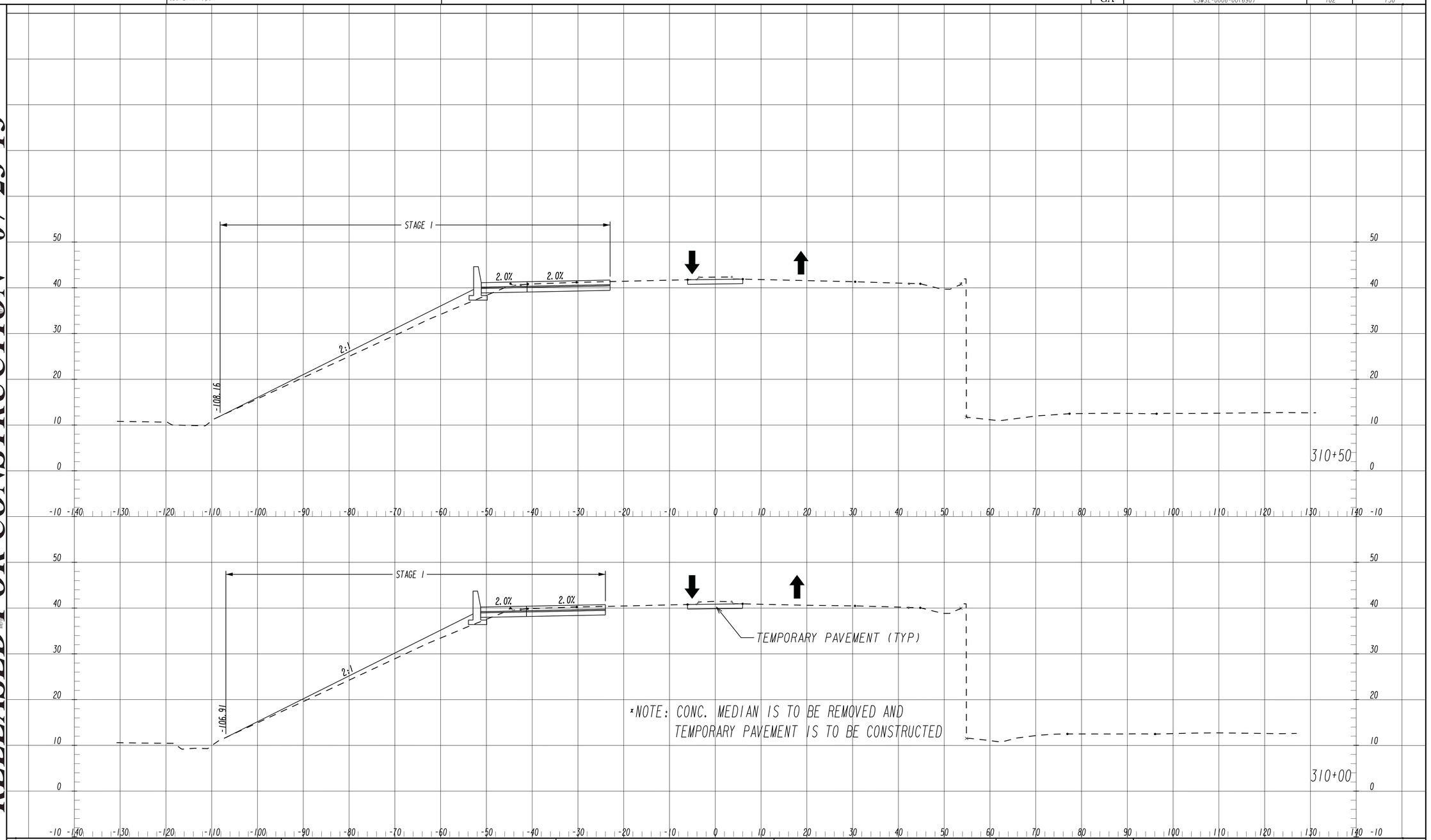
JIMMY DELOACH CONNECTOR
STAGE 1

DRAWING No. 19-033

23-JUL-2013 14:08 2:08:11 PM
JParks
0008690_SX01_JDC4
GDOT_11x17.pen
Y:\Roadways\126379\0008690\Dgn\0008690_SX01_JDC.dgn

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	102	730

RELEASED FOR CONSTRUCTION - 07-23-13



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A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
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1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

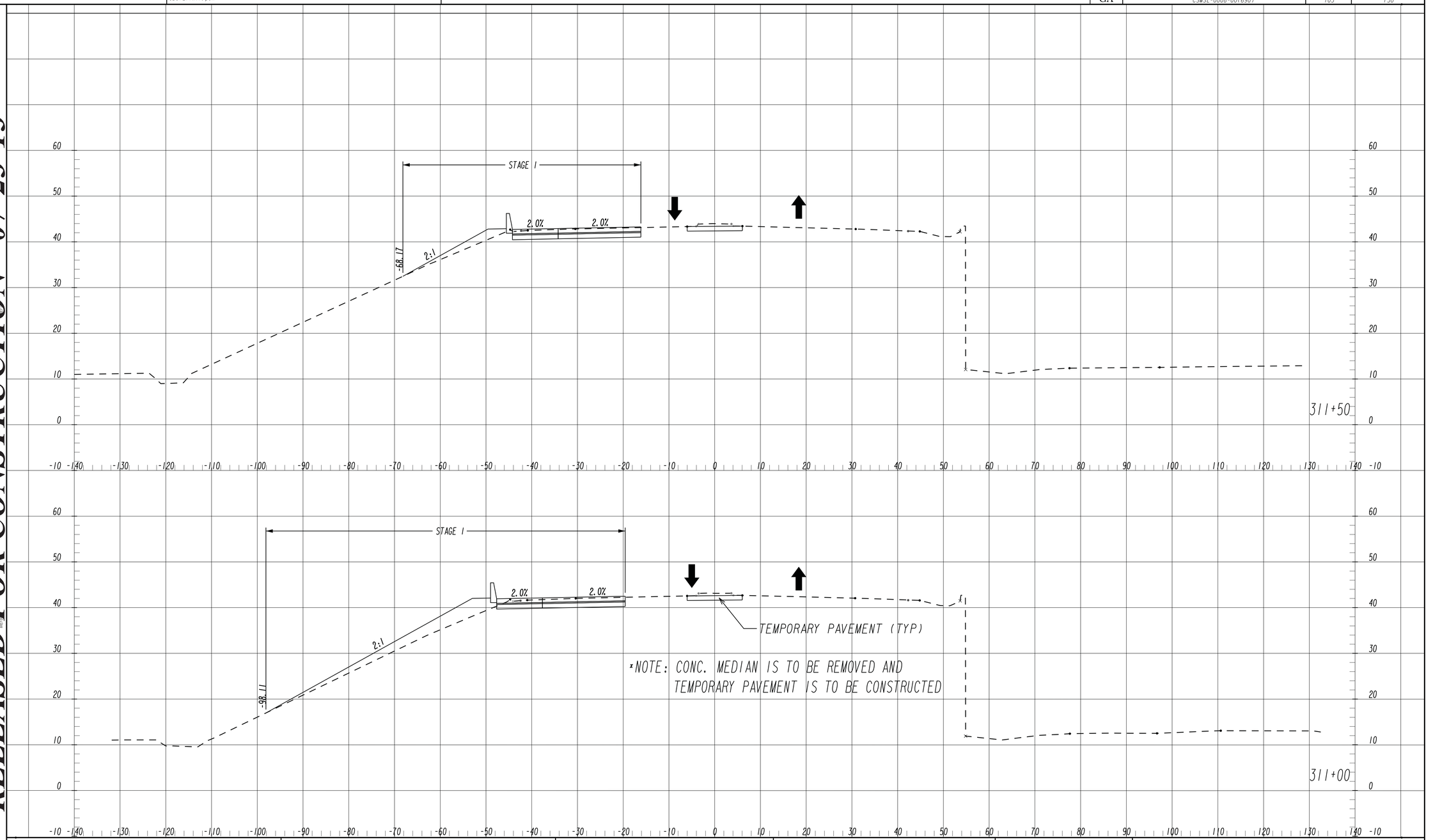
CROSS SECTIONS CONSTRUCTION STAGING

JIMMY DELOACH CONNECTOR
STAGE 1

DRAWING No. 19-034

23-JUL-2013 14:08	2:08:12 PM	0008690_SX01_JDC5	Y:\Roadways\126379\0008690\Dgn\0008690_SX01_JDC.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	103	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

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3595 ENGINEERING DRIVE
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(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS CONSTRUCTION STAGING

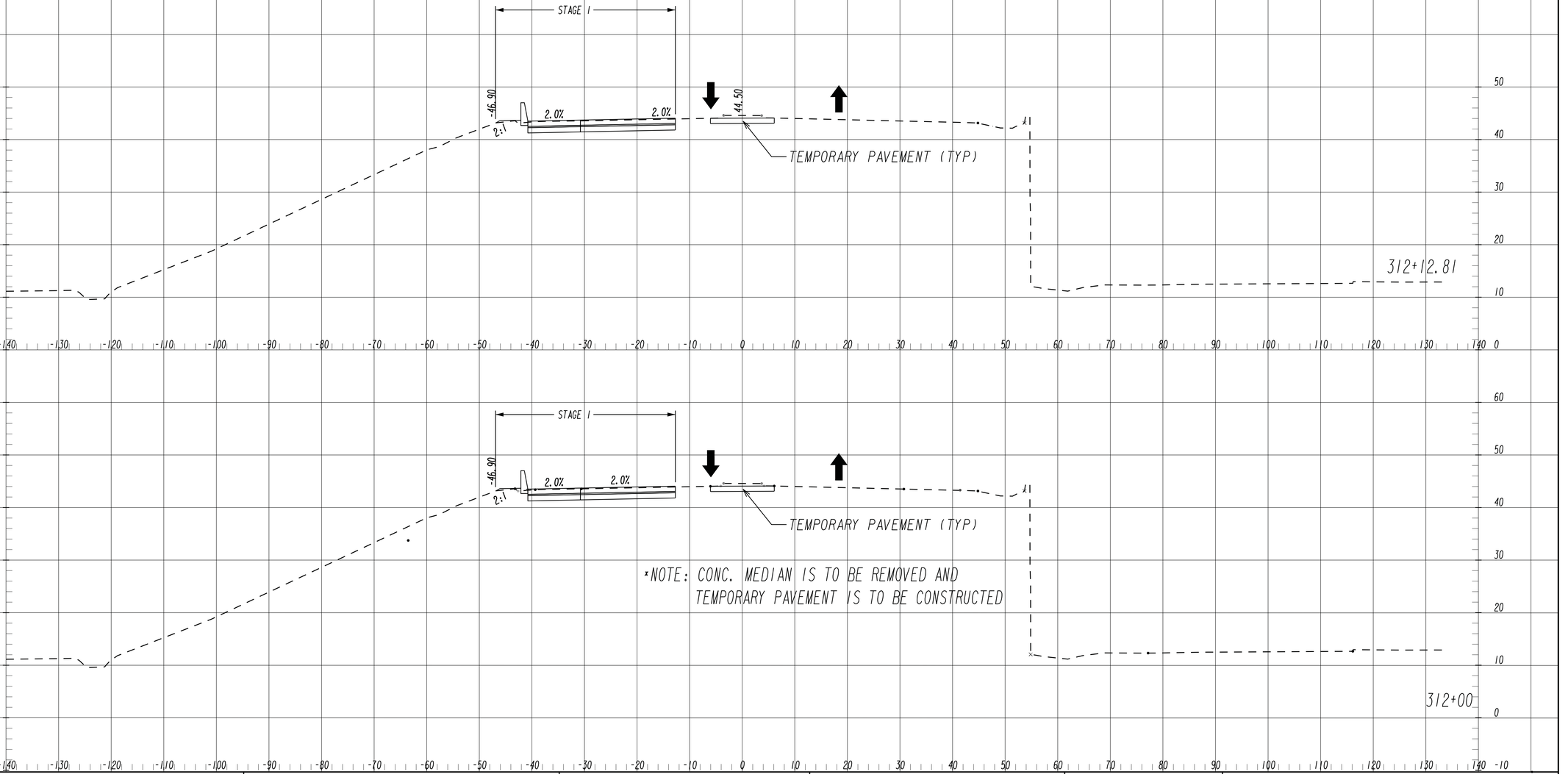
JIMMY DELOACH CONNECTOR
STAGE 1

DRAWING No. 19-035

23-JUL-2013 14:08 2:08:14 PM
JParks
0008690_SX01_JDC6
GDOT_11x17.pen
Y:\Roadways\126379\0008690\Dgn\0008690_SX01_JDC.dgn

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	104	730

RELEASED FOR CONSTRUCTION - 07-23-13



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3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS CONSTRUCTION STAGING

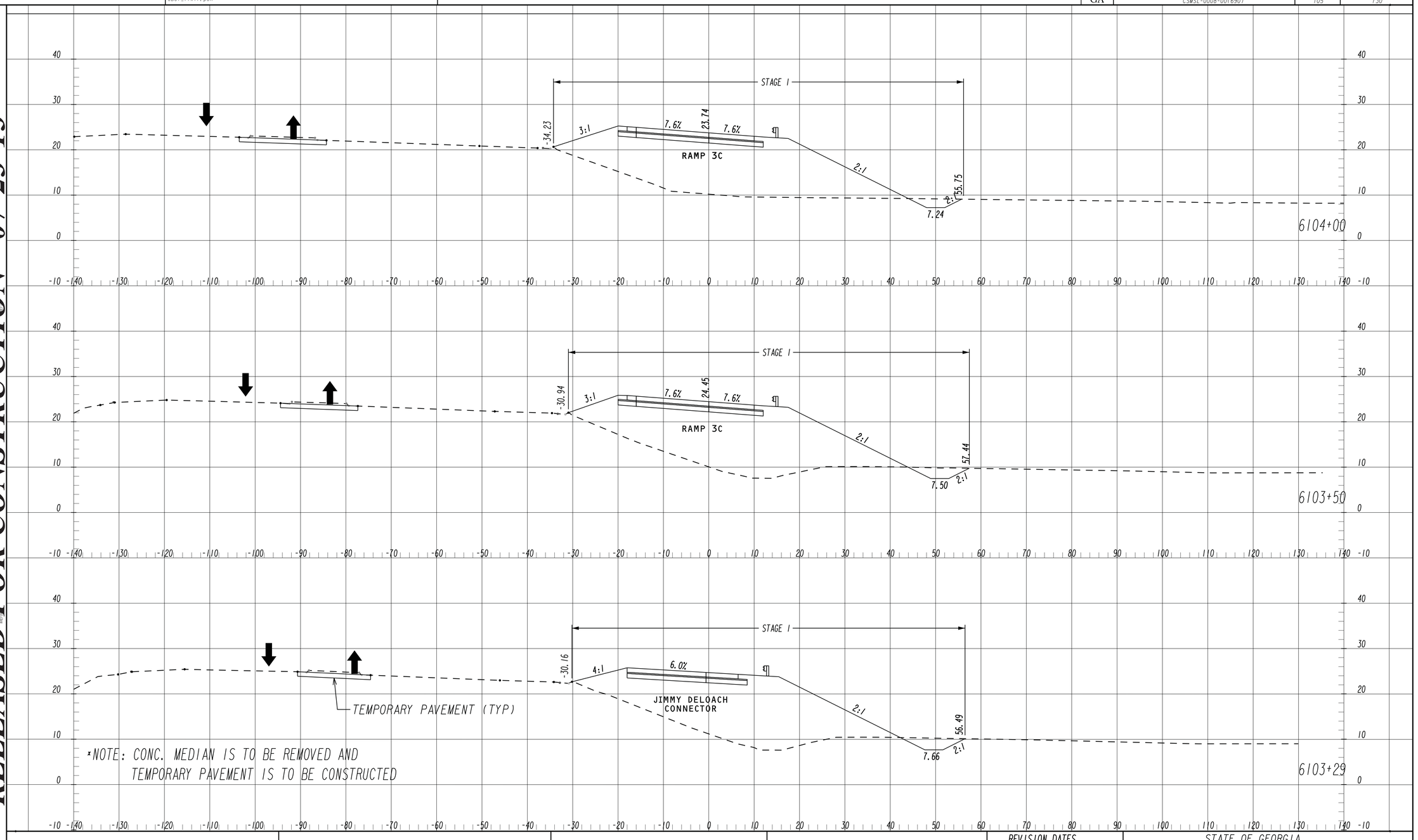
JIMMY DELOACH CONNECTOR
STAGE 1

DRAWING No. 19-036

3/1/2007 SUXSEW

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	105	730

RELEASED FOR CONSTRUCTION - 07-23-13



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(770) 263-9118

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1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS CONSTRUCTION STAGING

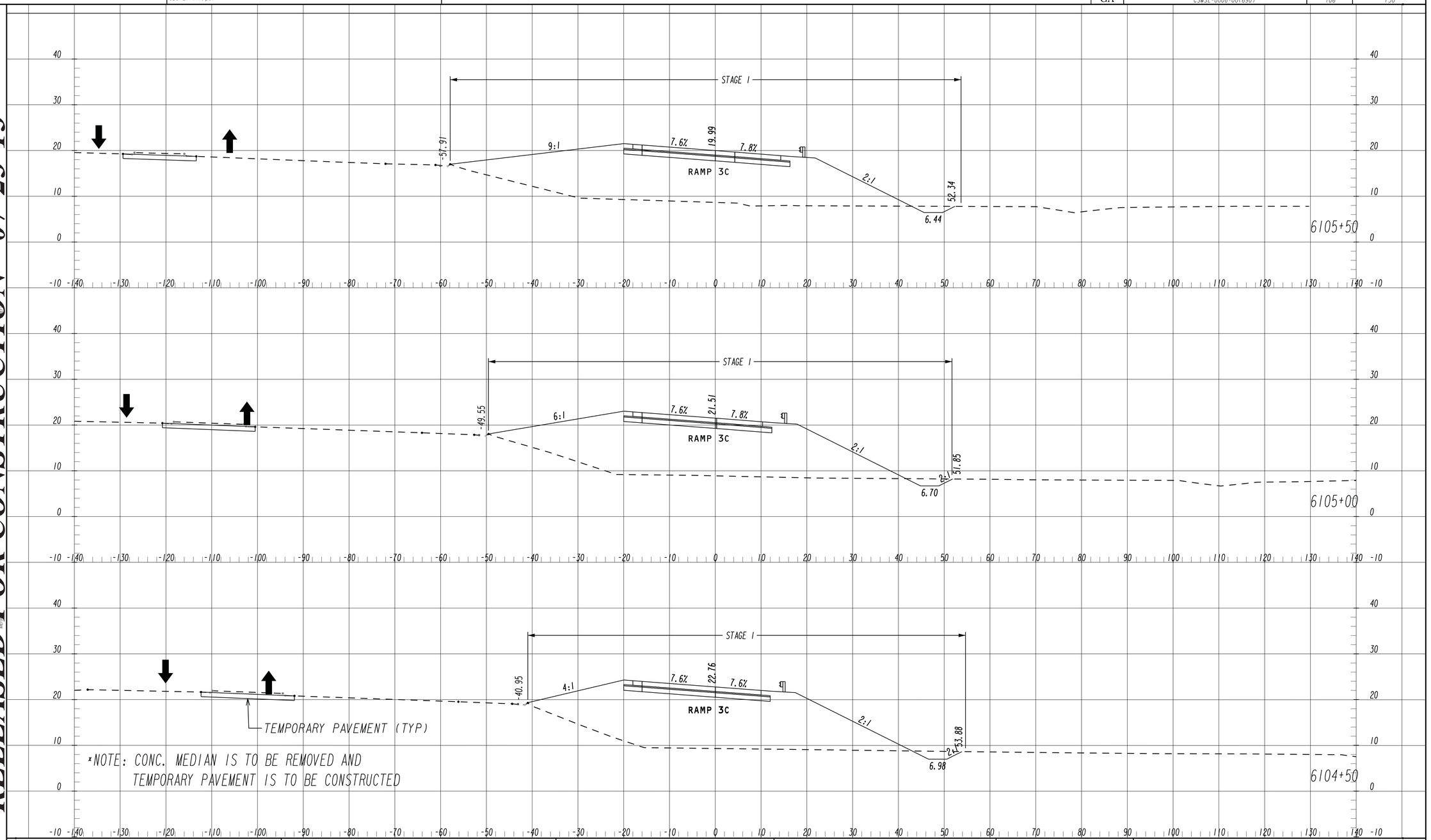
RAMP 3C
STAGE 1

DRAWING No. 19-037

3/1/2007 SUXSEW

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	106	730

RELEASED FOR CONSTRUCTION - 07-23-13



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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS CONSTRUCTION STAGING

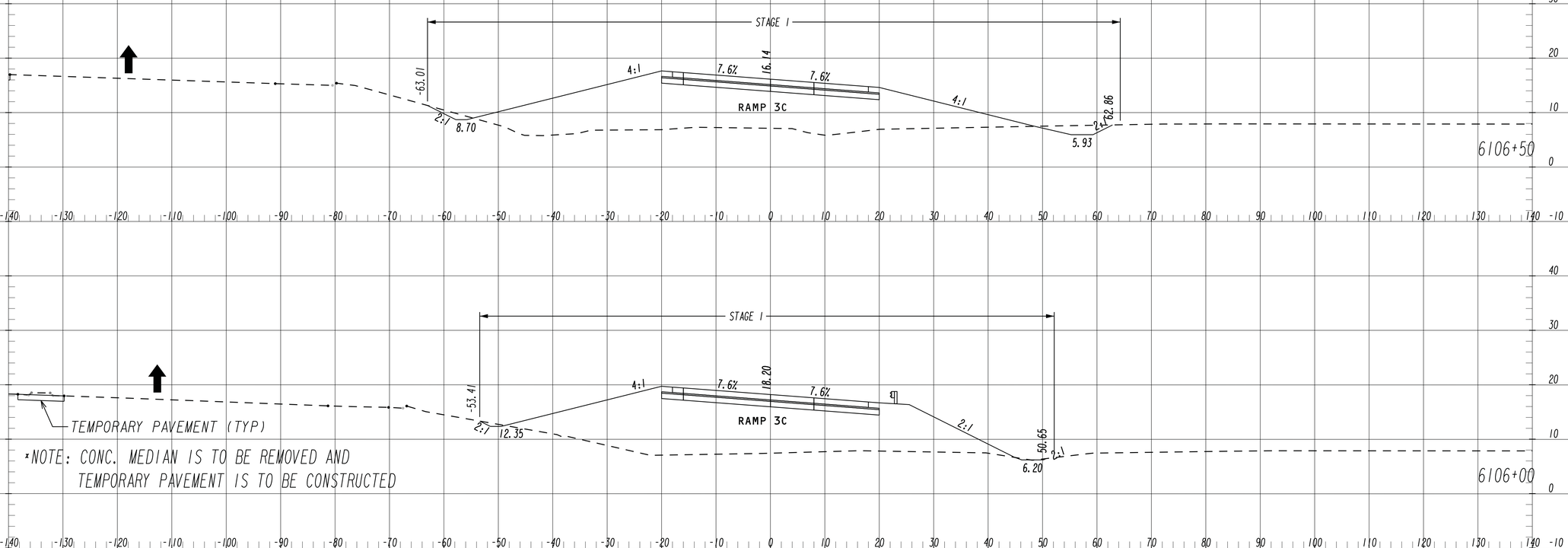
RAMP 3C
STAGE 1

DRAWING No. 19-038

3/1/2007 SUYSEW

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	107	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

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A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
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(770) 263-9118

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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

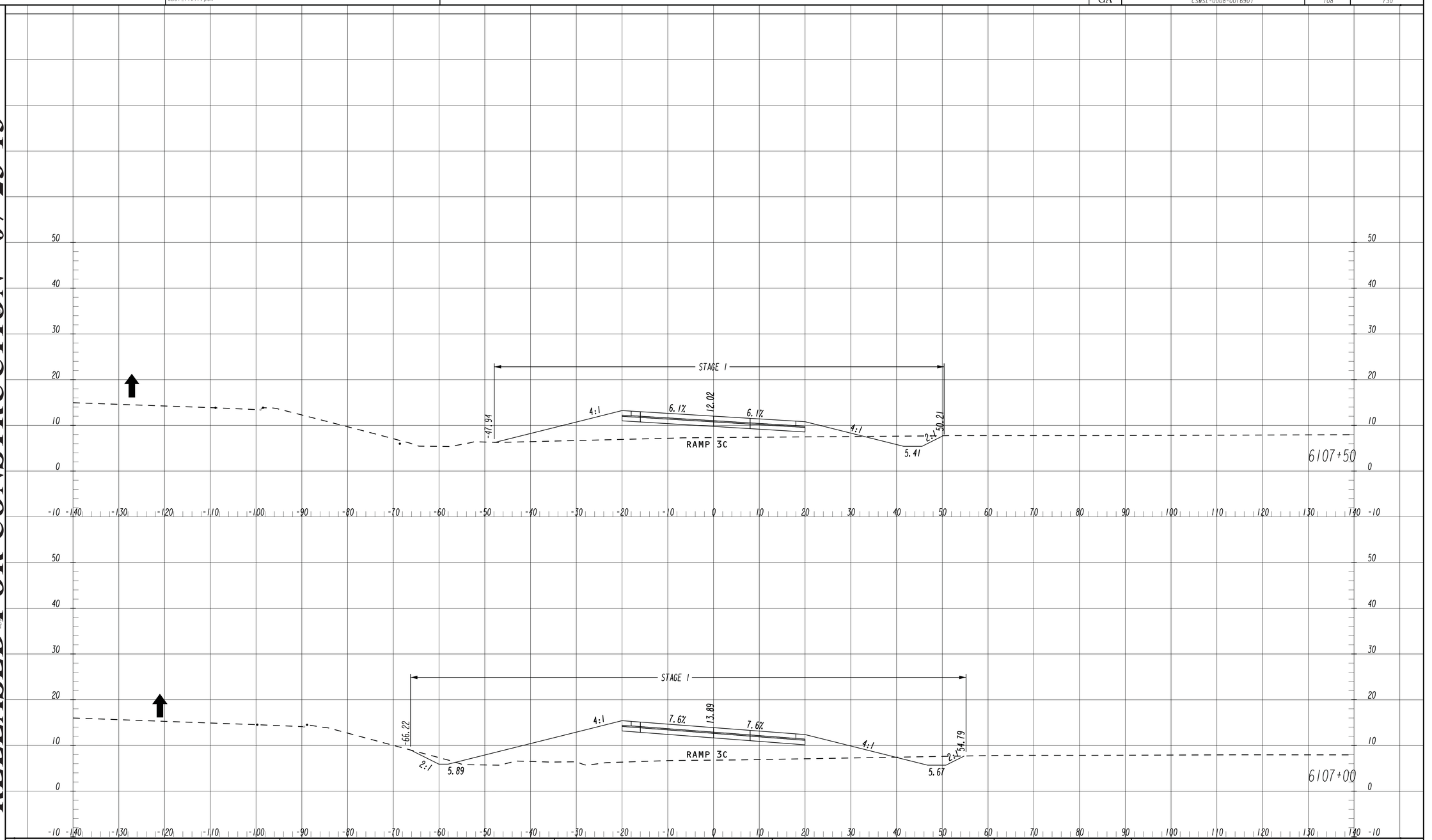
CROSS SECTIONS CONSTRUCTION STAGING

RAMP 3C
STAGE 1

DRAWING No. 19-039

23-JUL-2013 14:08	2:08:20 PM	0008690_SX01_RAMP3C3	Y:\Roadways\126379\0008690\Dgn\0008690_SX01_RAMP3C.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	108	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

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3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

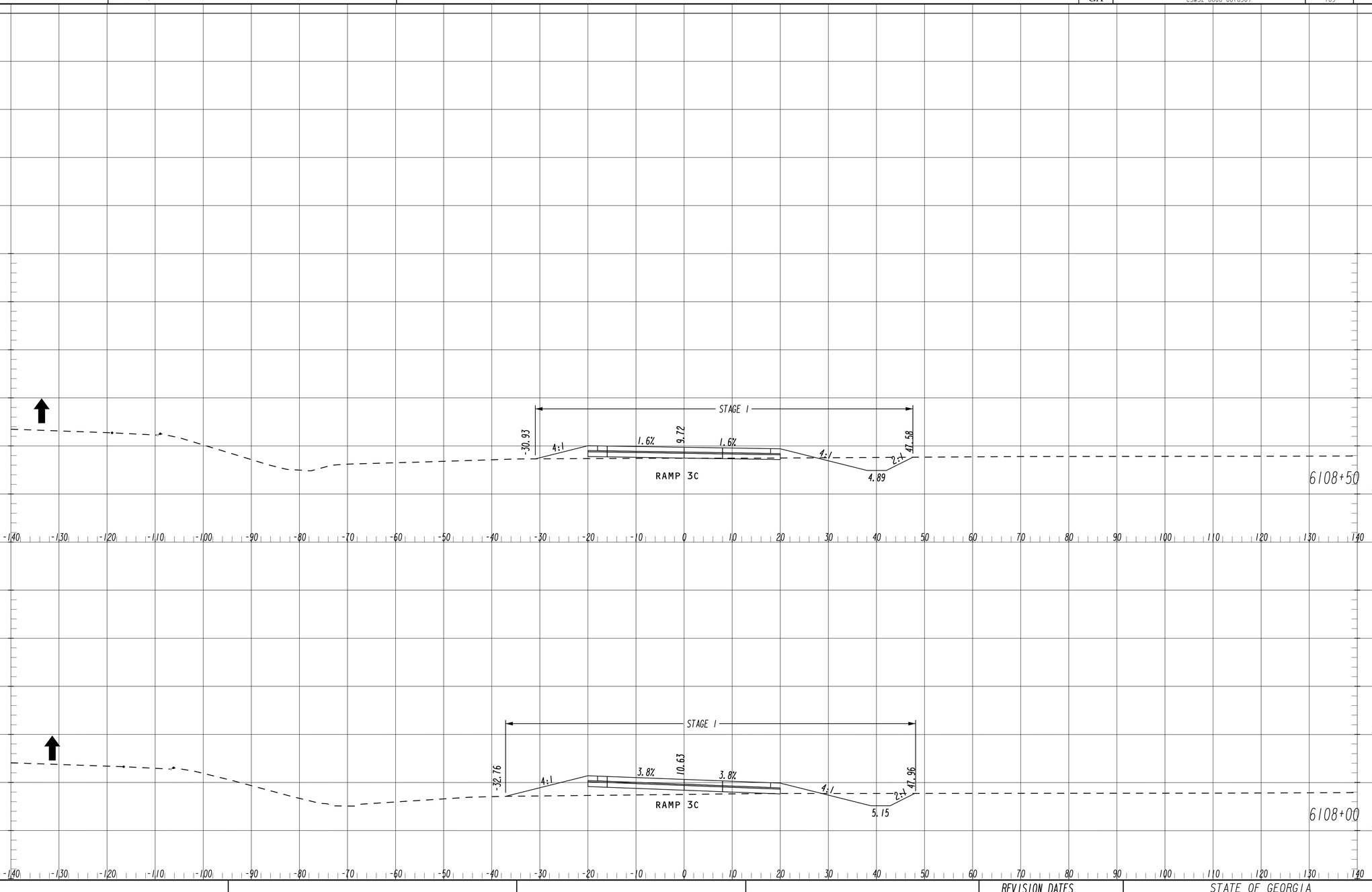
CROSS SECTIONS CONSTRUCTION STAGING

RAMP 3C
STAGE 1

DRAWING No. 19-040

23-JUL-2013 14:08	2:08:22 PM	0008690_SX01_RAMP3C4	Y:\Roadways\126379\0008690\Dgn\0008690_SX01_RAMP3C.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	109	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

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A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

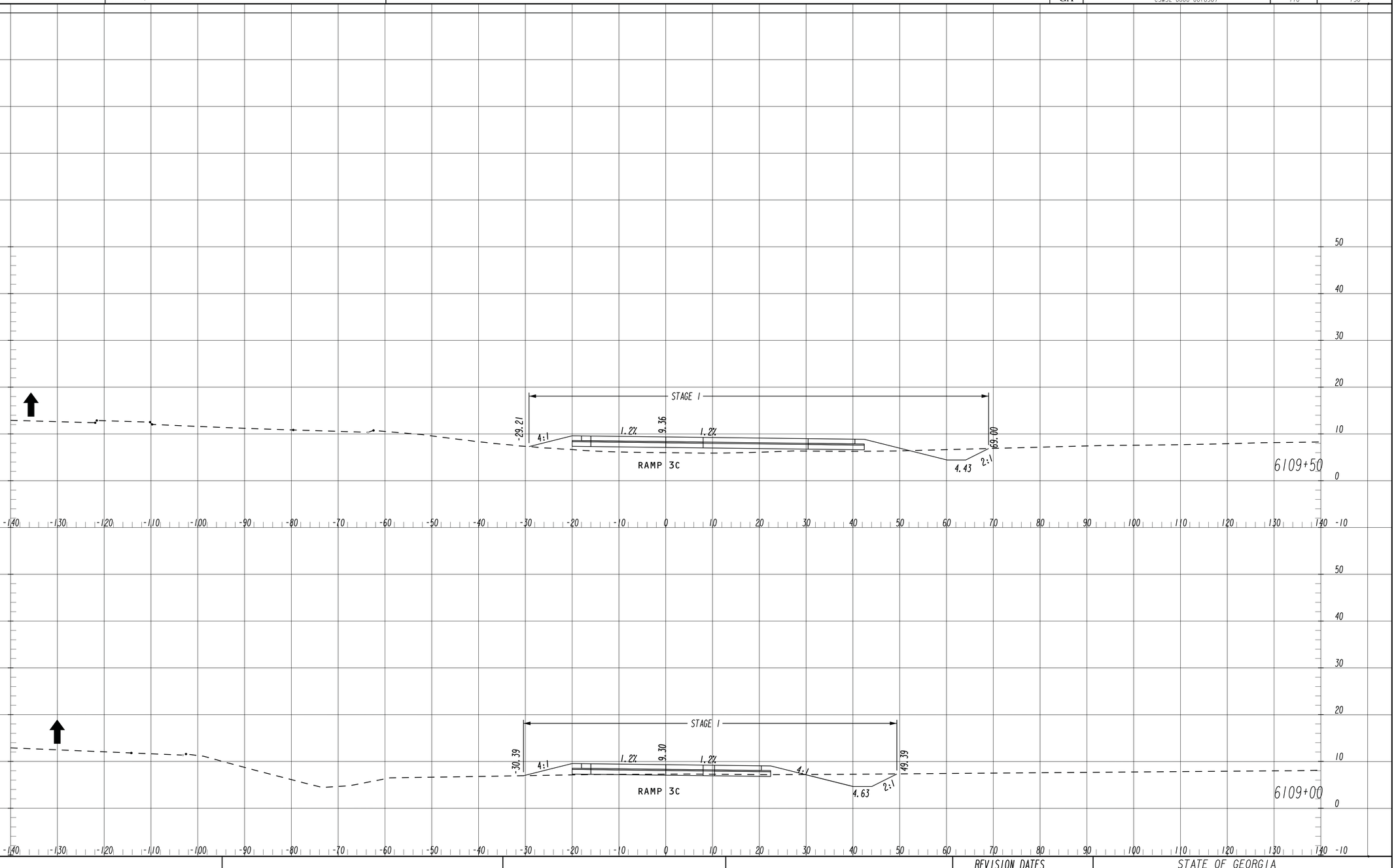
CROSS SECTIONS CONSTRUCTION STAGING

RAMP 3C
STAGE 1

DRAWING No. 19-041

23-JUL-2013 14:08	2:08:23 PM	0008690_SX01_RAMP3C5	Y:\Roadways\126379\0008690\Dgn\0008690_SX01_RAMP3C.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	110	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

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A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

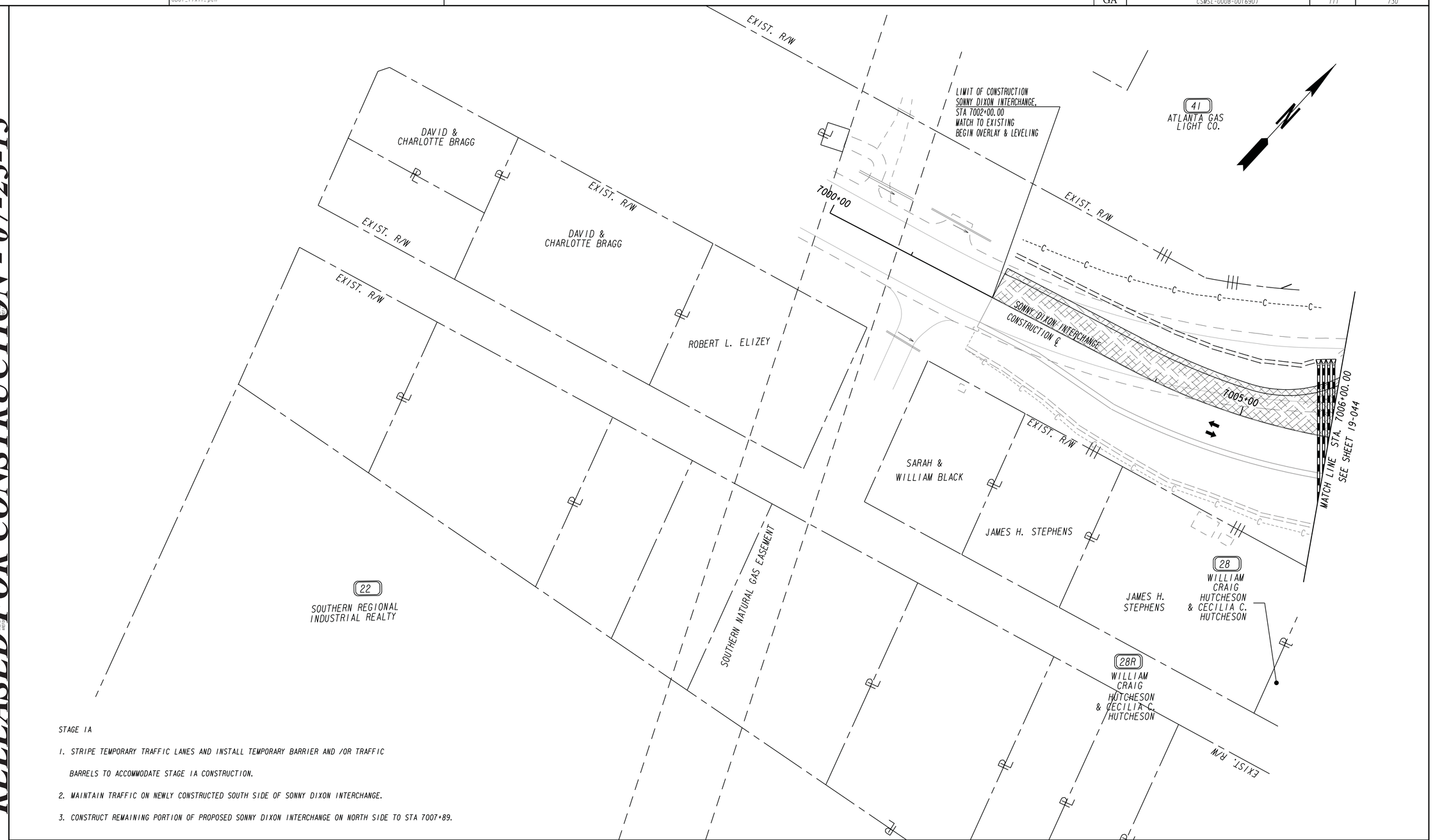
CROSS SECTIONS CONSTRUCTION STAGING

RAMP 3C
STAGE 1

DRAWING No. 19-042

23-JUL-2013 14:15	2:15:44 PM	0008690_19-043	Y:\Roadways\126379\0008690\Dgn\0008690_19-043.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	111	730

RELEASED FOR CONSTRUCTION - 07-23-13



STAGE IA

1. STRIPE TEMPORARY TRAFFIC LANES AND INSTALL TEMPORARY BARRIER AND /OR TRAFFIC BARRELS TO ACCOMMODATE STAGE IA CONSTRUCTION.
2. MAINTAIN TRAFFIC ON NEWLY CONSTRUCTED SOUTH SIDE OF SONNY DIXON INTERCHANGE.
3. CONSTRUCT REMAINING PORTION OF PROPOSED SONNY DIXON INTERCHANGE ON NORTH SIDE TO STA 7007+89.

LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

STAGE IA

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CONSTRUCTION STAGING PLAN

STAGE IA - BEGIN CONST. TO SONNY DIXON INTERCHANGE STA. 7006+00

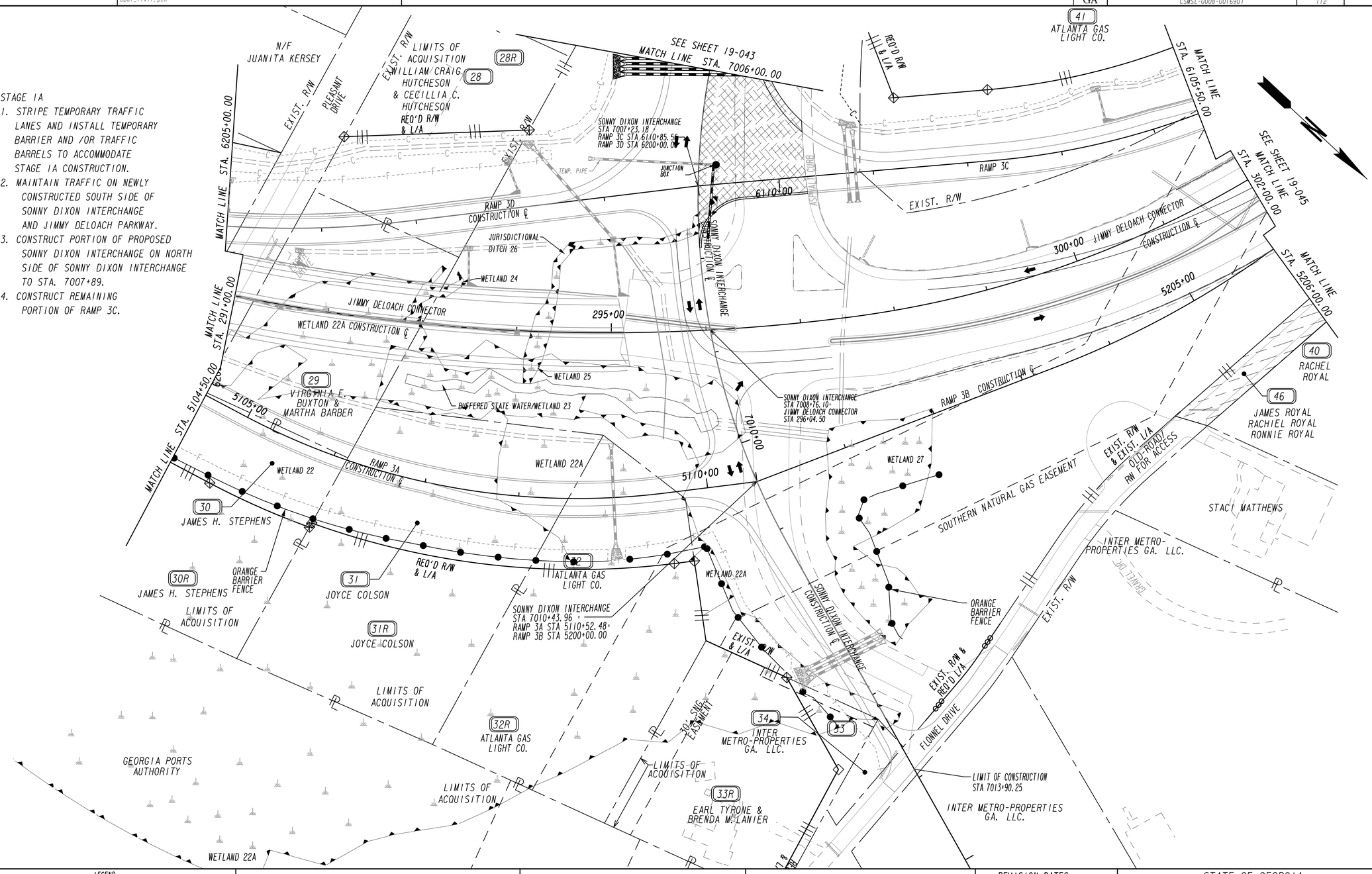
DRAWING No. 19-043

3/1/2007 GPLN

23-JUL-2013 14:15	2:15:52 PM	0008690_19-044	Y:\Roadways\126379\0008690\Dgn\0008690_19-044.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	112	730

RELEASED FOR CONSTRUCTION - 07-23-13

STAGE IA
1. STRIPE TEMPORARY TRAFFIC LANES AND INSTALL TEMPORARY BARRIER AND /OR TRAFFIC BARRELS TO ACCOMMODATE STAGE IA CONSTRUCTION.
2. MAINTAIN TRAFFIC ON NEWLY CONSTRUCTED SOUTH SIDE OF SONNY DIXON INTERCHANGE AND JIMMY DELOACH PARKWAY.
3. CONSTRUCT PORTION OF PROPOSED SONNY DIXON INTERCHANGE ON NORTH SIDE OF SONNY DIXON INTERCHANGE TO STA. 7007+89.
4. CONSTRUCT REMAINING PORTION OF RAMP 3C.



LEGEND
- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

STAGE IA

THE LPA GROUP
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3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

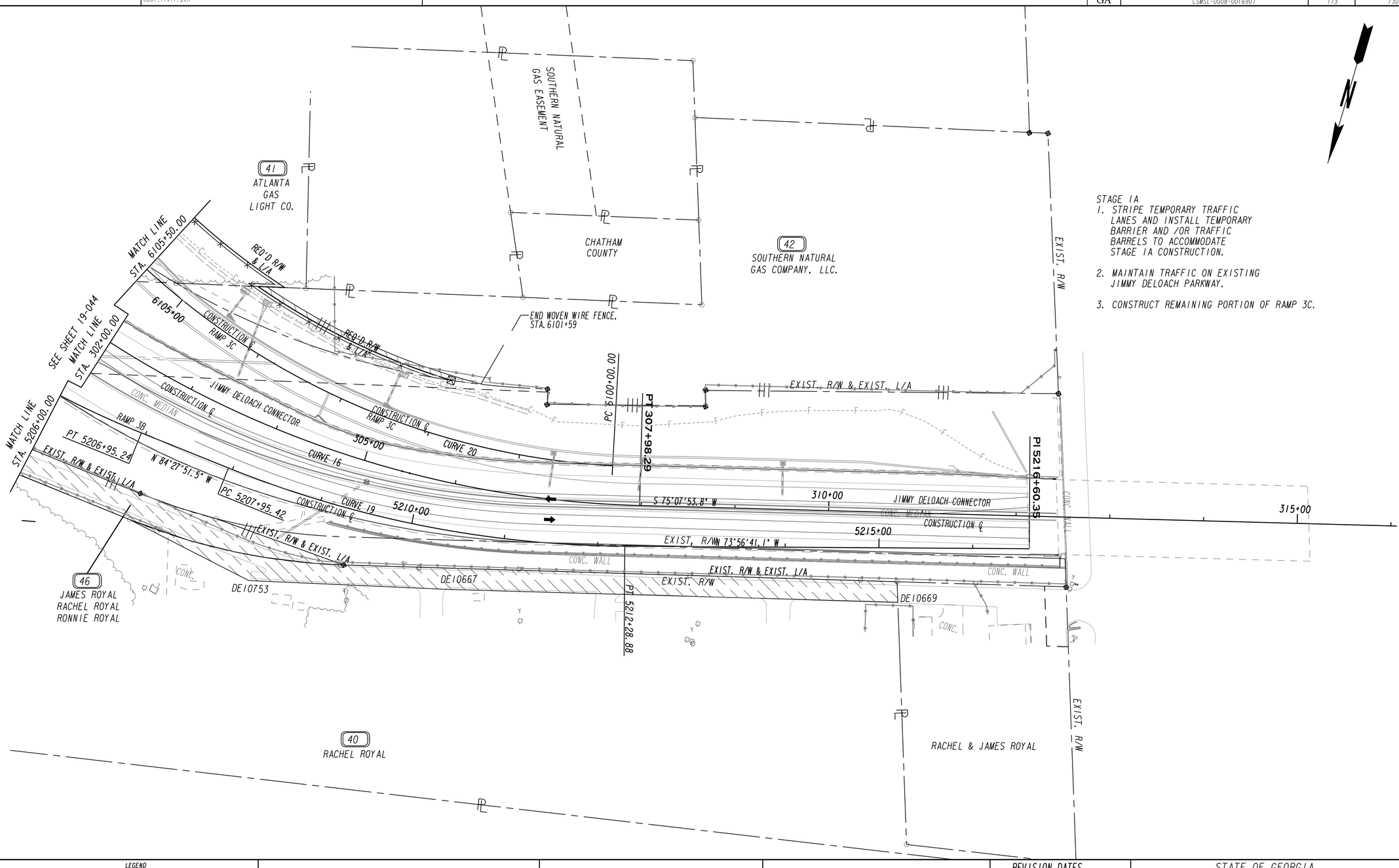
CONSTRUCTION STAGING PLAN

STAGE IA - JIMMY DELOACH CONN.
STA. 291+00 TO STA. 302+00

DRAWING No. 19-044

3/11/2007 GPLN

RELEASED FOR CONSTRUCTION - 07-23-13



STAGE IA
1. STRIPE TEMPORARY TRAFFIC LANES AND INSTALL TEMPORARY BARRIER AND /OR TRAFFIC BARRELS TO ACCOMMODATE STAGE IA CONSTRUCTION.

2. MAINTAIN TRAFFIC ON EXISTING JIMMY DELOACH PARKWAY.

3. CONSTRUCT REMAINING PORTION OF RAMP 3C.

LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

STAGE IA

THE LPA GROUP
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3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CONSTRUCTION STAGING PLAN

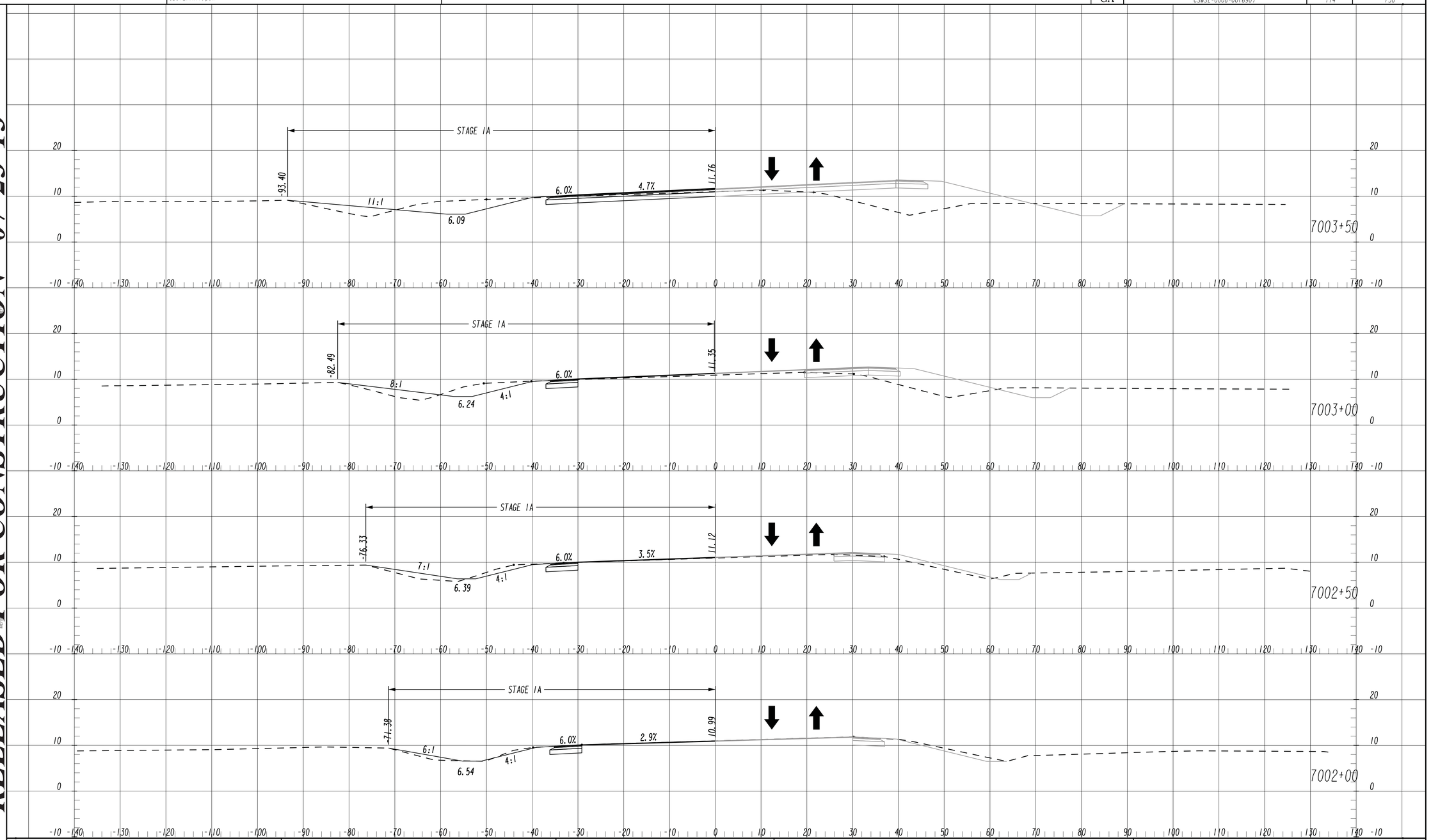
STAGE IA - JIMMY DELOACH CONN.
STA. 302+00 TO END PROJECT

DRAWING No. 19-045

3/1/2007 GPLN

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	114	730

RELEASED FOR CONSTRUCTION - 07-23-13



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A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS CONSTRUCTION STAGING

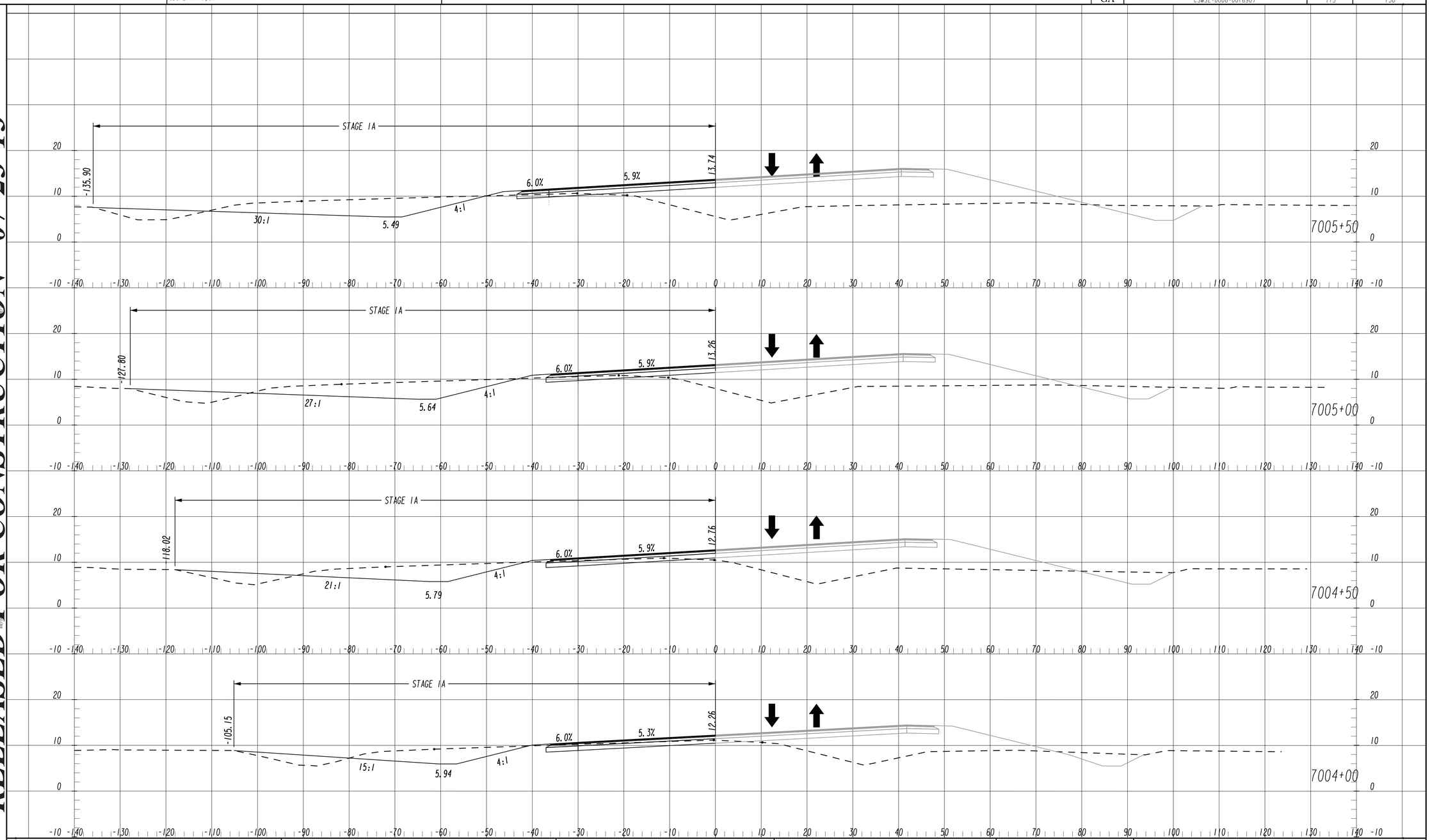
SONNY DIXON INTERCHANGE
STAGE 1A

DRAWING No. 19-046

3/1/2007 SUXSEW

23-JUL-2013 14:16	2:16:06 PM	0008690_SX01A_PIERCE1	Y:\Roadways\126379\0008690\Dgn\0008690_SX01A_PIERCE.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	115	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

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A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

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1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS CONSTRUCTION STAGING

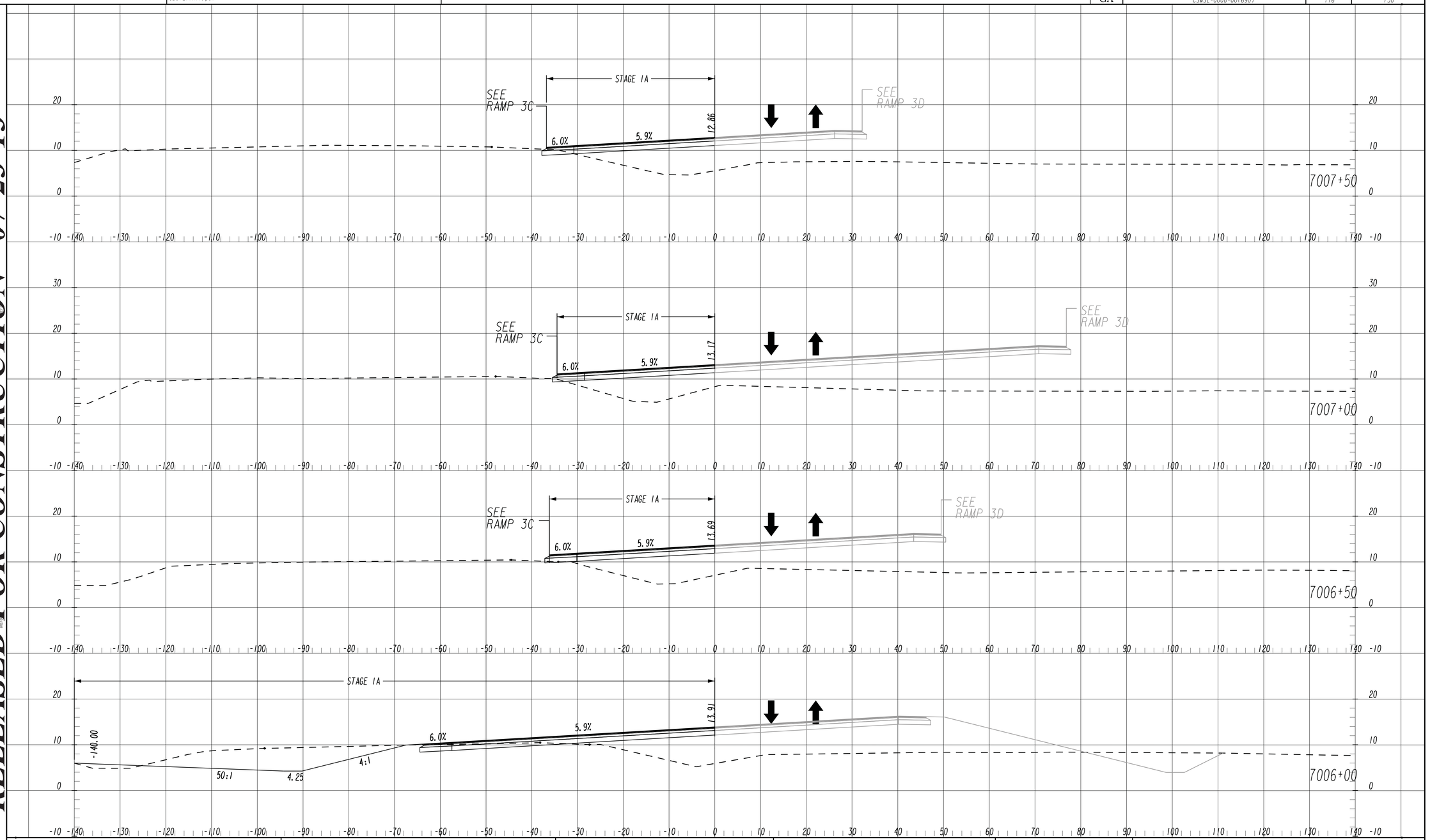
SONNY DIXON INTERCHANGE

STAGE 1A

DRAWING No. 19-047

23-JUL-2013 14:16	2:16:08 PM	0008690_SX01A_PIERCE2	Y:\Roadways\126379\0008690\Dgn\0008690_SX01A_PIERCE.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	116	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

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NORCROSS, GEORGIA 30092
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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS CONSTRUCTION STAGING

SONNY DIXON INTERCHANGE
STAGE 1A

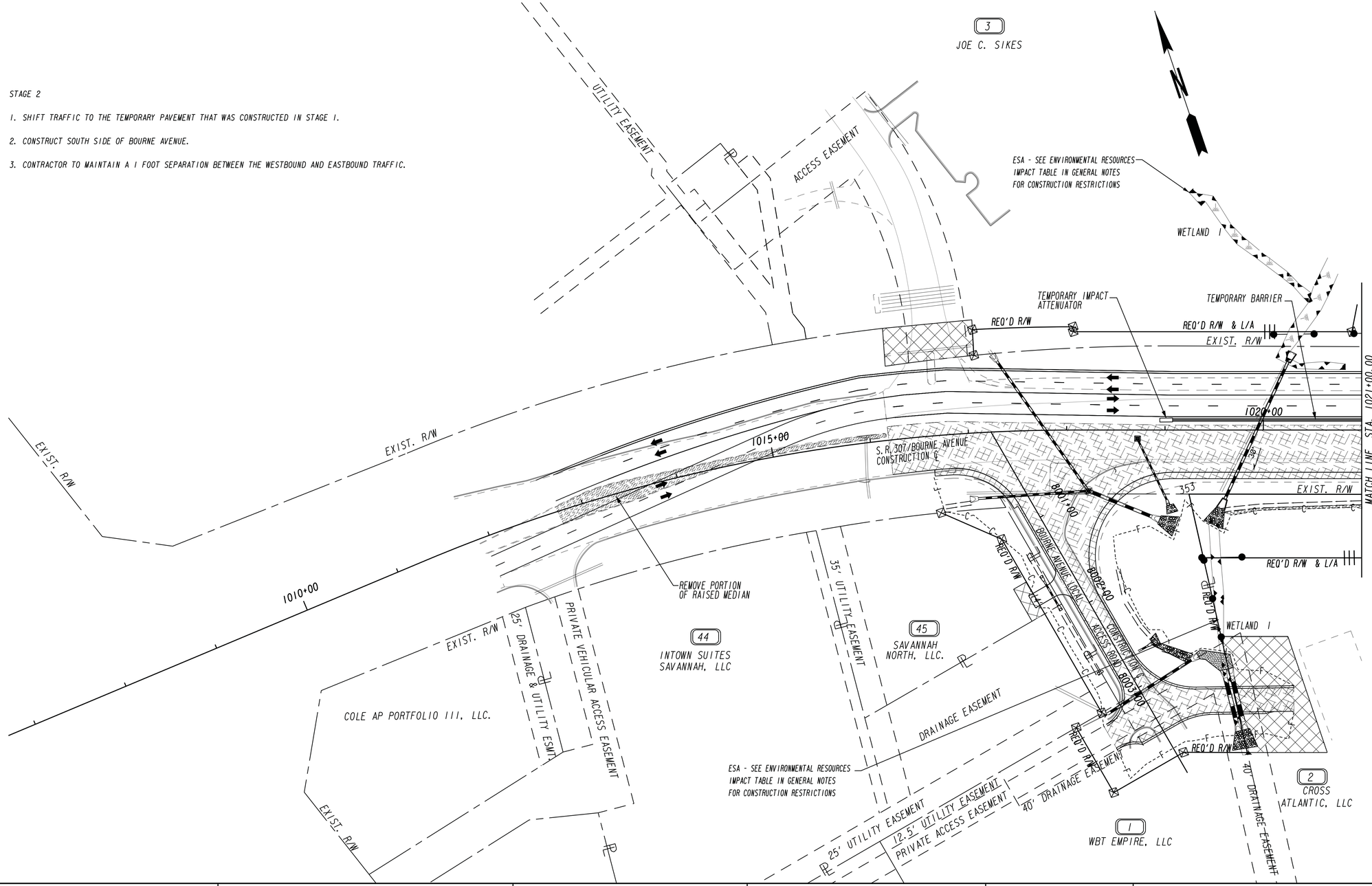
DRAWING No. 19-048

23-JUL-2013 14:16	2:16:19 PM	0008690_19-049	Y:\Roadways\126379\0008690\Dgn\0008690_19-049.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	117	730

RELEASED FOR CONSTRUCTION - 07-23-13

STAGE 2

1. SHIFT TRAFFIC TO THE TEMPORARY PAVEMENT THAT WAS CONSTRUCTED IN STAGE 1.
2. CONSTRUCT SOUTH SIDE OF BOURNE AVENUE.
3. CONTRACTOR TO MAINTAIN A 1 FOOT SEPARATION BETWEEN THE WESTBOUND AND EASTBOUND TRAFFIC.



LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

STAGE 2

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CONSTRUCTION STAGING PLAN

STAGE 2 - JIMMY DELOACH CONN.
BEGIN CONST. TO STA. 1021+00

DRAWING No. 19-049

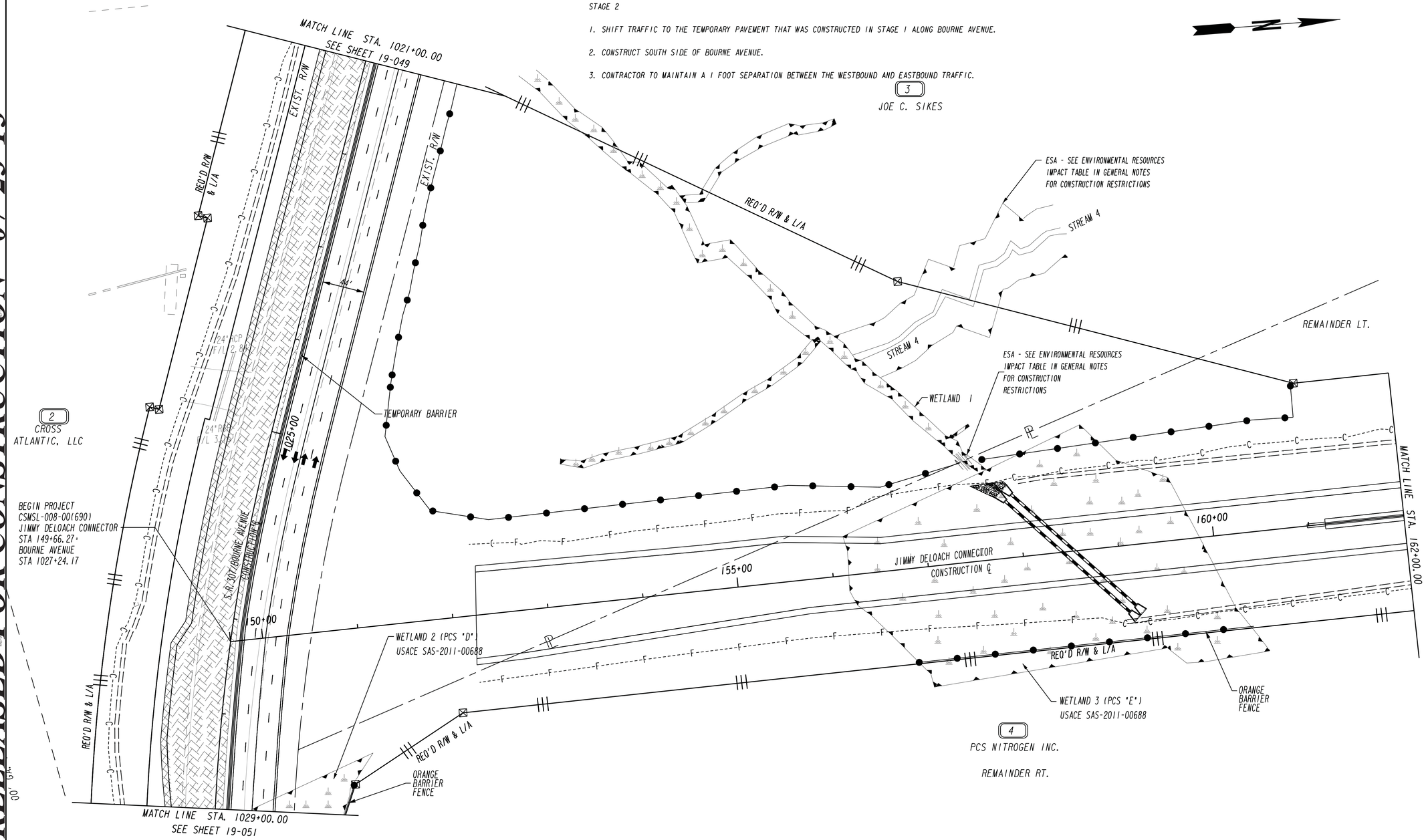
3/1/2007 GPLN

23-JUL-2013 14:16	2:16:26 PM	0008690_19-050	Y:\Roadways\126379\0008690\Dgn\0008690_19-050.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	118	730

RELEASED FOR CONSTRUCTION - 07-23-13

STAGE 2

1. SHIFT TRAFFIC TO THE TEMPORARY PAVEMENT THAT WAS CONSTRUCTED IN STAGE 1 ALONG BOURNE AVENUE.
2. CONSTRUCT SOUTH SIDE OF BOURNE AVENUE.
3. CONTRACTOR TO MAINTAIN A 1 FOOT SEPARATION BETWEEN THE WESTBOUND AND EASTBOUND TRAFFIC.



LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

STAGE 2

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CONSTRUCTION STAGING PLAN

STAGE 2 - JIMMY DELOACH CONN.
BEGIN CONST. TO STA. 162+00

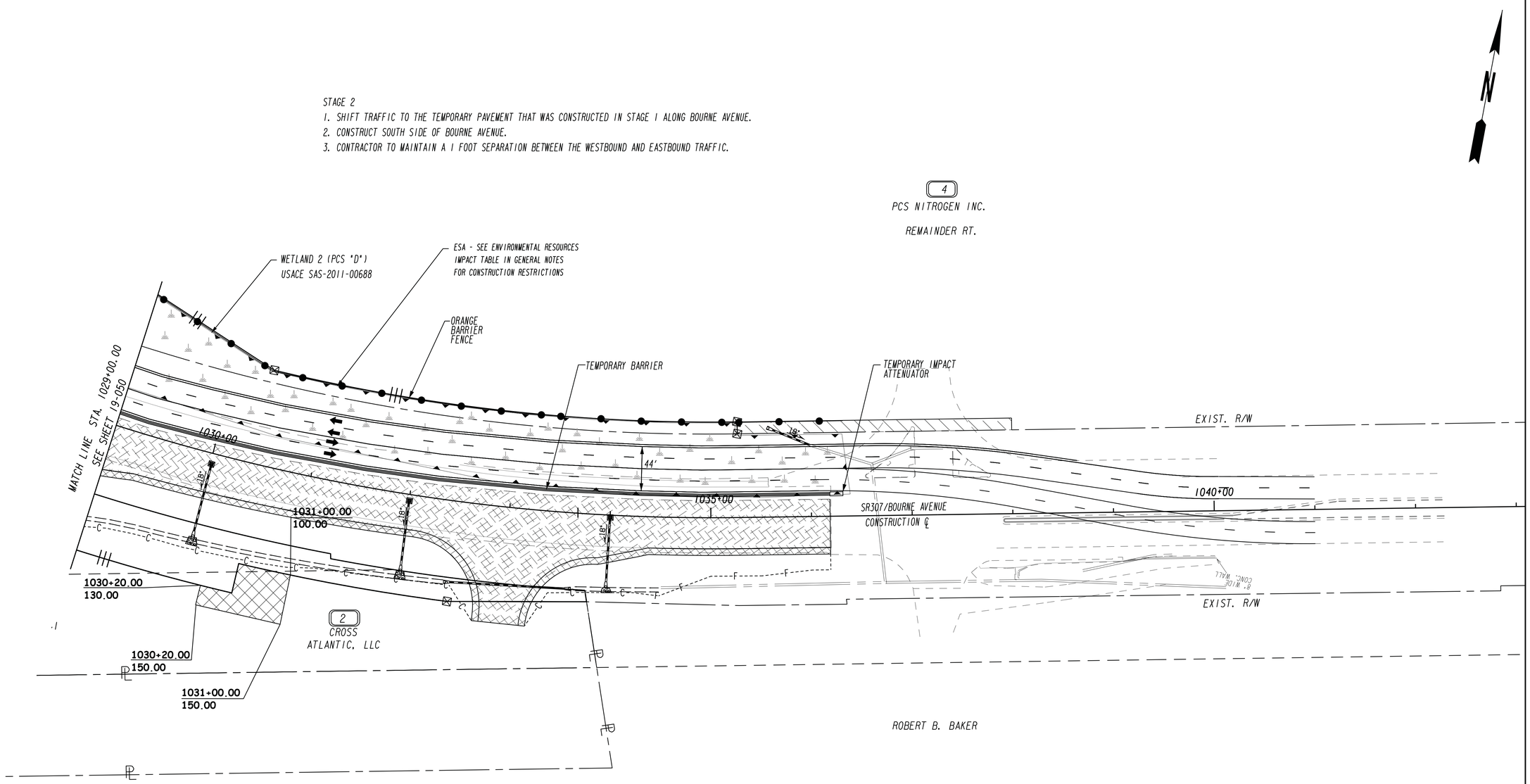
DRAWING No. 19-050

3/1/2007 GPLN

23-JUL-2013 14:16	2:16:32 PM	0008690_19-051	Y:\Roadways\126379\0008690\Dgn\0008690_19-051.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	119	730

RELEASED FOR CONSTRUCTION - 07-23-13

STAGE 2
1. SHIFT TRAFFIC TO THE TEMPORARY PAVEMENT THAT WAS CONSTRUCTED IN STAGE 1 ALONG BOURNE AVENUE.
2. CONSTRUCT SOUTH SIDE OF BOURNE AVENUE.
3. CONTRACTOR TO MAINTAIN A 1 FOOT SEPARATION BETWEEN THE WESTBOUND AND EASTBOUND TRAFFIC.



LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

STAGE 2

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CONSTRUCTION STAGING PLAN

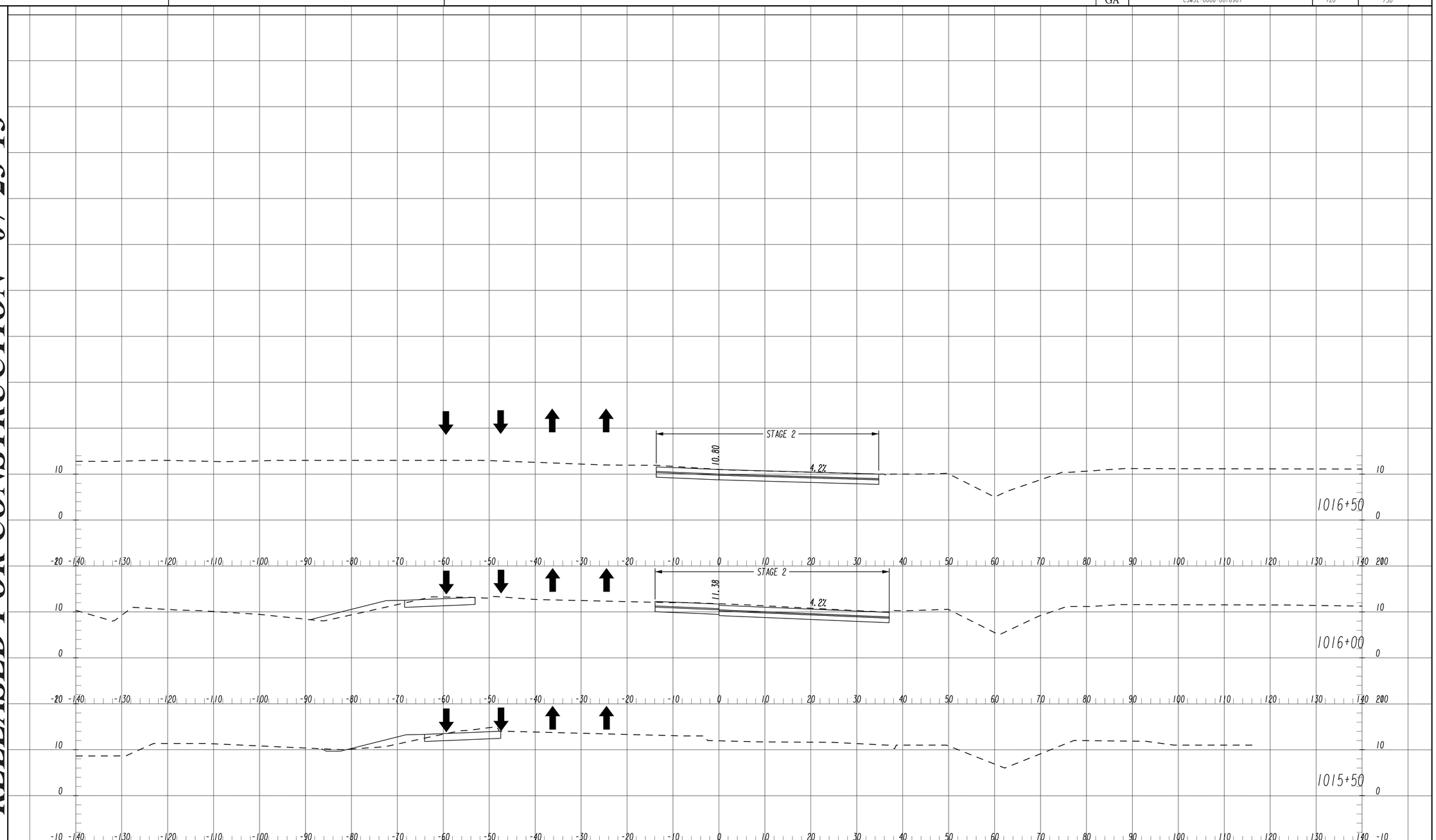
STAGE 2 - JIMMY DELOACH CONN.
STA. 1029+00 TO END CONST.

DRAWING No. 19-051

3/11/2007 GPLN

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	120	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

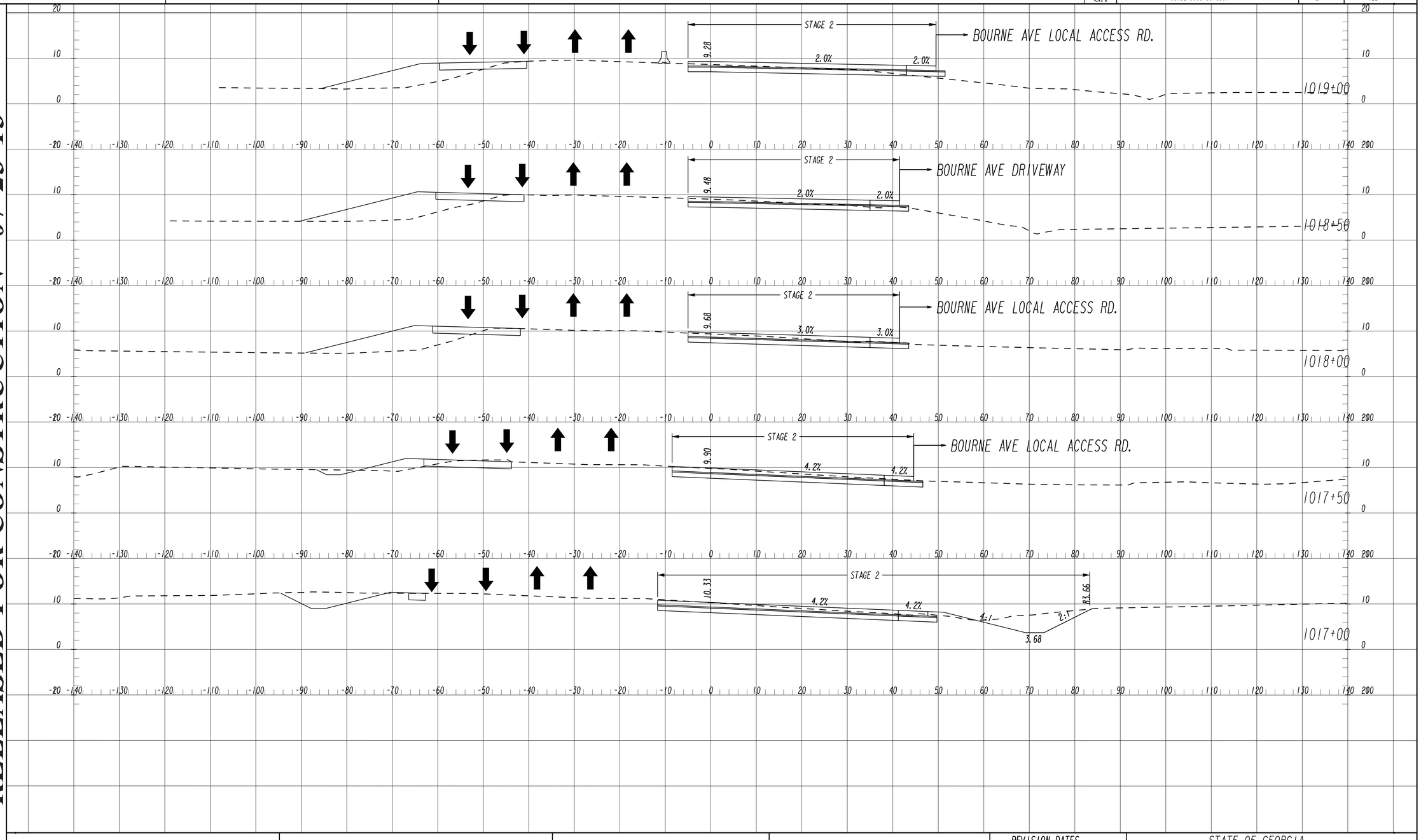
CROSS SECTIONS CONSTRUCTION STAGING

SR307/BOURNE AVENUE
STAGE 2

DRAWING No. 19-052

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	121	730

RELEASED FOR CONSTRUCTION - 07-23-13



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3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS CONSTRUCTION STAGING

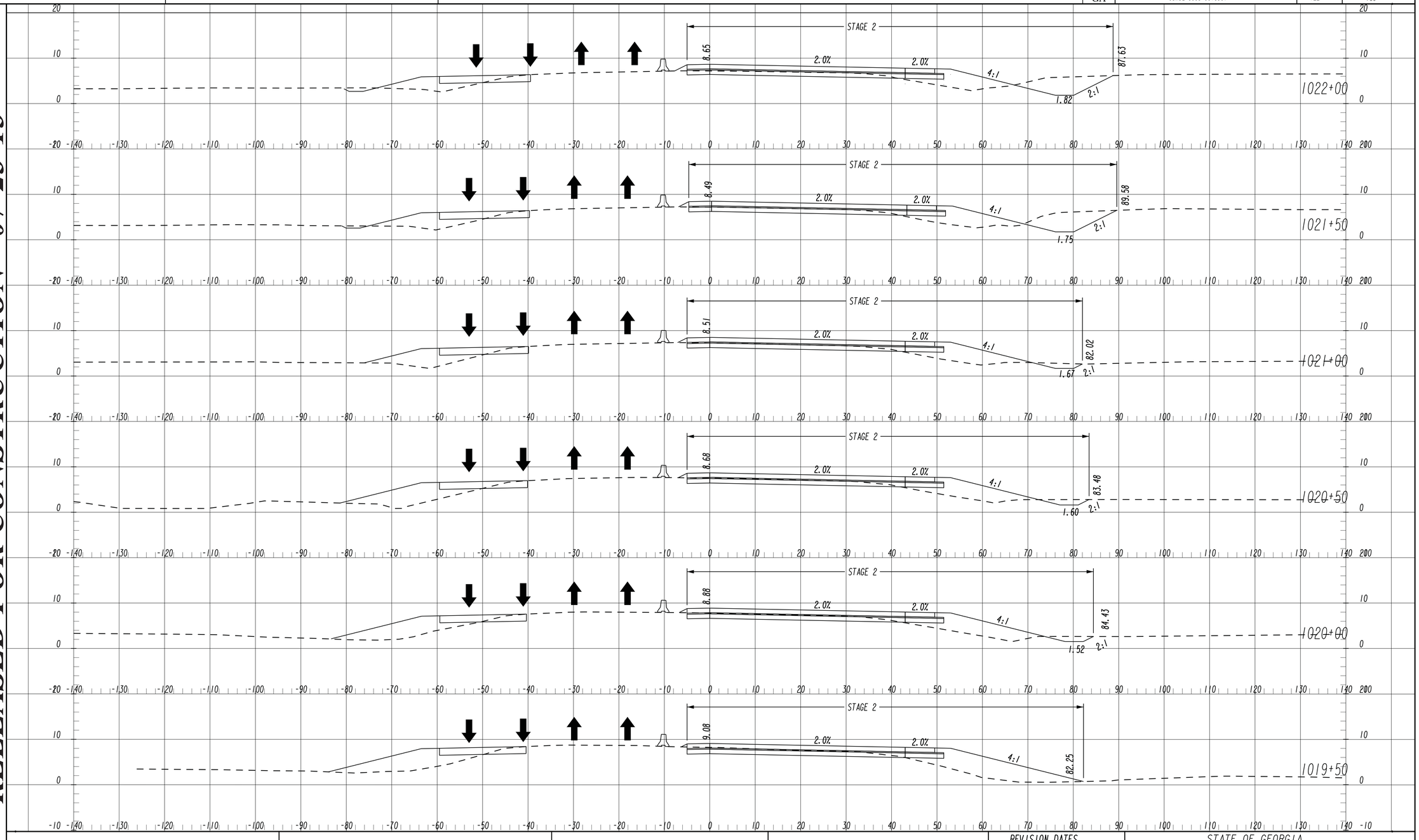
SR307/BOURNE AVENUE
STAGE 2

DRAWING No. 19-053

3/1/2007 SUXSEW

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	122	730

RELEASED FOR CONSTRUCTION - 07-23-13



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3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

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1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS CONSTRUCTION STAGING

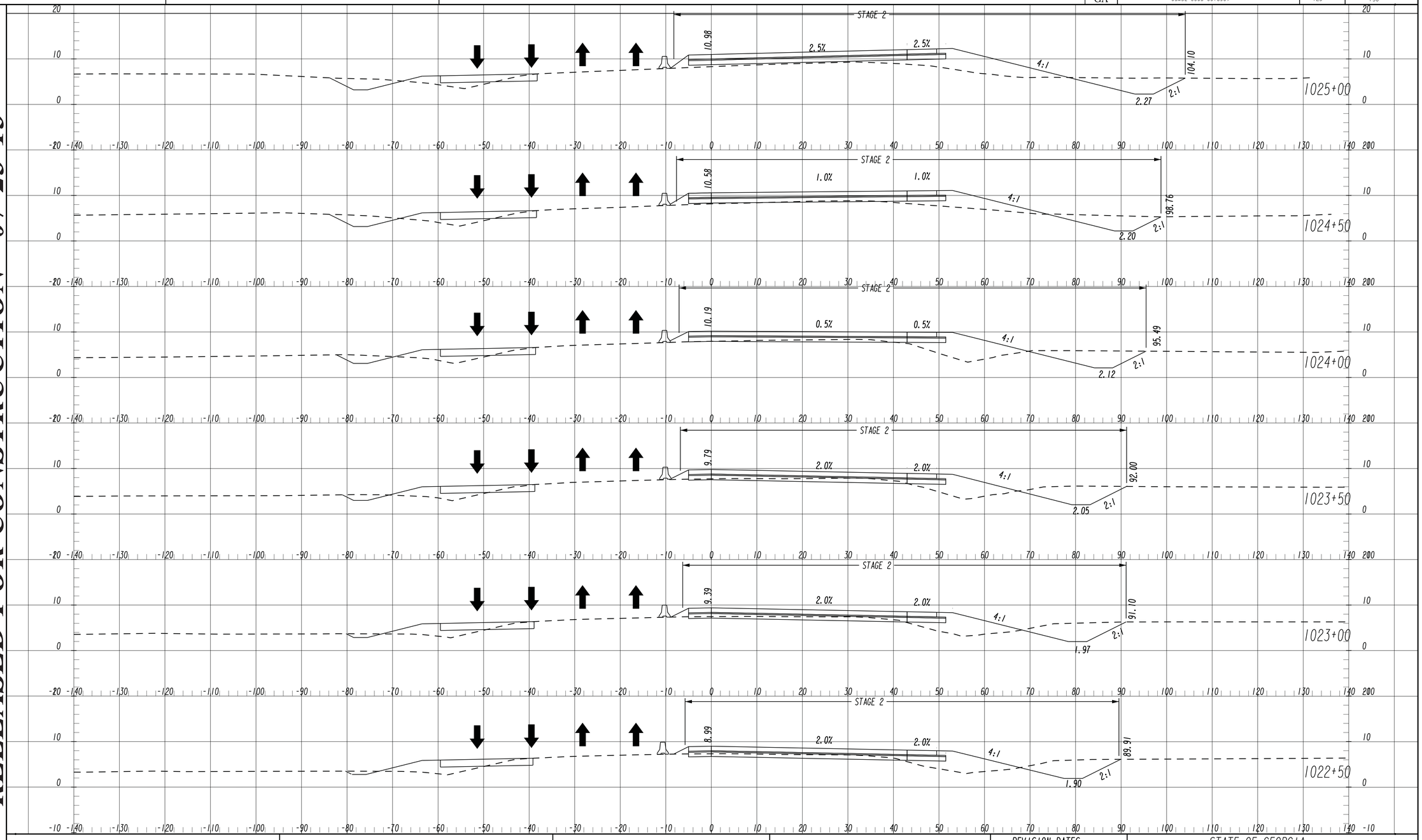
SR307/BOURNE AVENUE
STAGE 2

DRAWING No. 19-054

3/1/2007 SUXSEW

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	123	730

RELEASED FOR CONSTRUCTION - 07-23-13



THE LPA GROUP
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3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS CONSTRUCTION STAGING

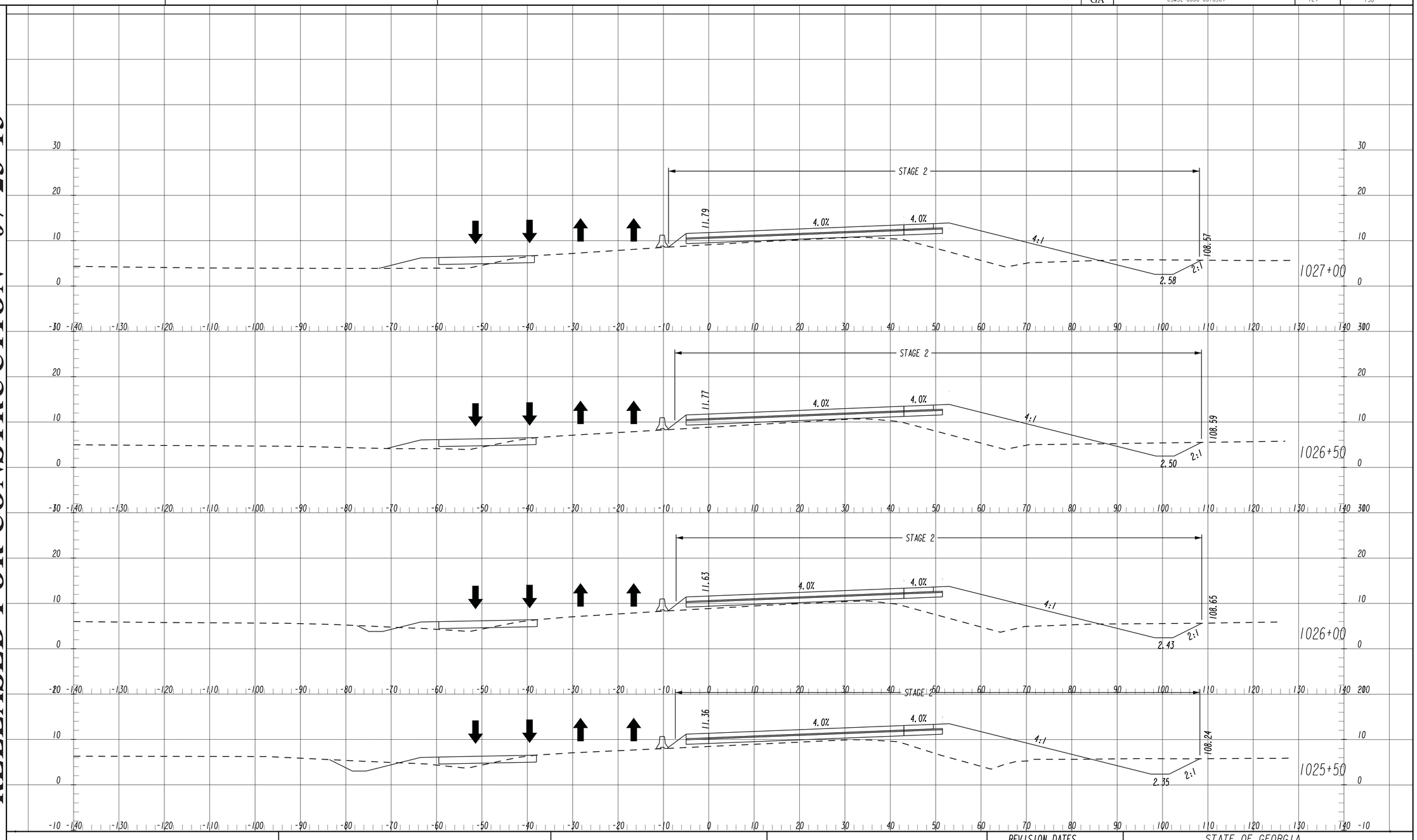
SR307/BOURNE AVENUE
STAGE 2

DRAWING No. 19-055

3/1/2007 SUXSEW

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-001690	124	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

THE LPA GROUP
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A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

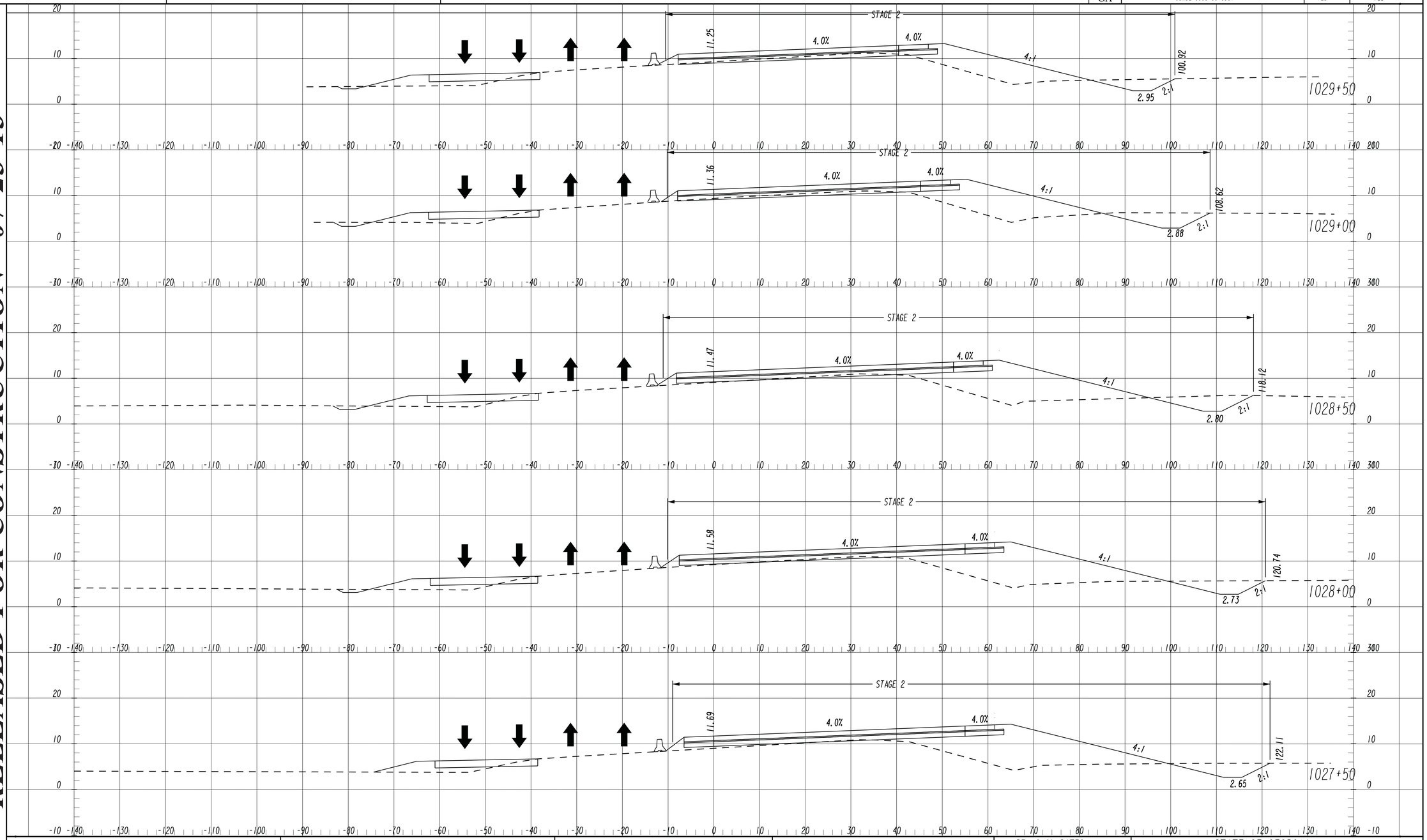
CROSS SECTIONS CONSTRUCTION STAGING

SR307/BOURNE AVENUE
STAGE 2

DRAWING No. 19-056

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-001690	125	730

RELEASED FOR CONSTRUCTION - 07-23-13



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3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS CONSTRUCTION STAGING

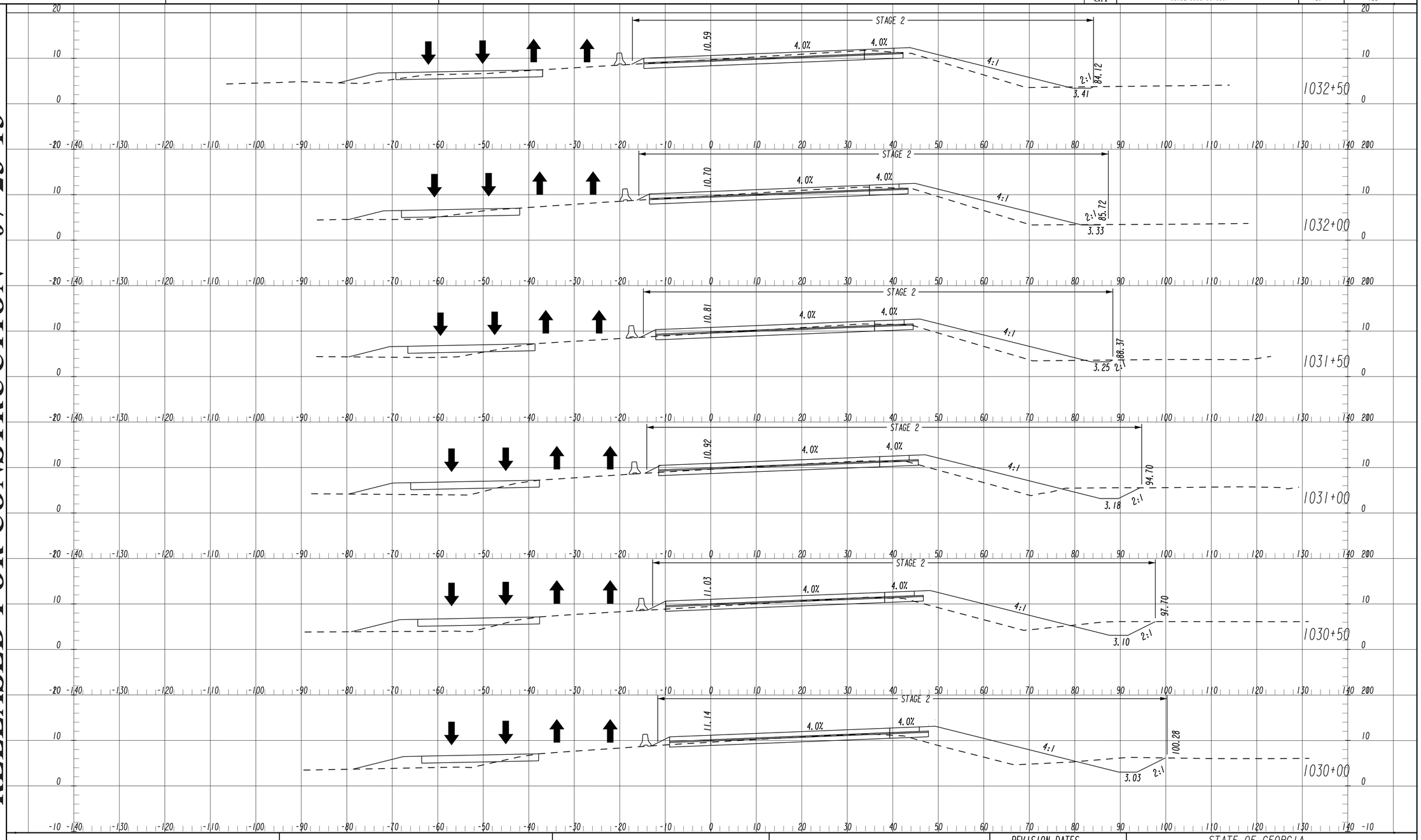
SR307/BOURNE AVENUE
STAGE 2

DRAWING No. 19-057

3/1/2007 SUXSEW

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-001690J	126	730

RELEASED FOR CONSTRUCTION - 07-23-13



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3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

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1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS CONSTRUCTION STAGING

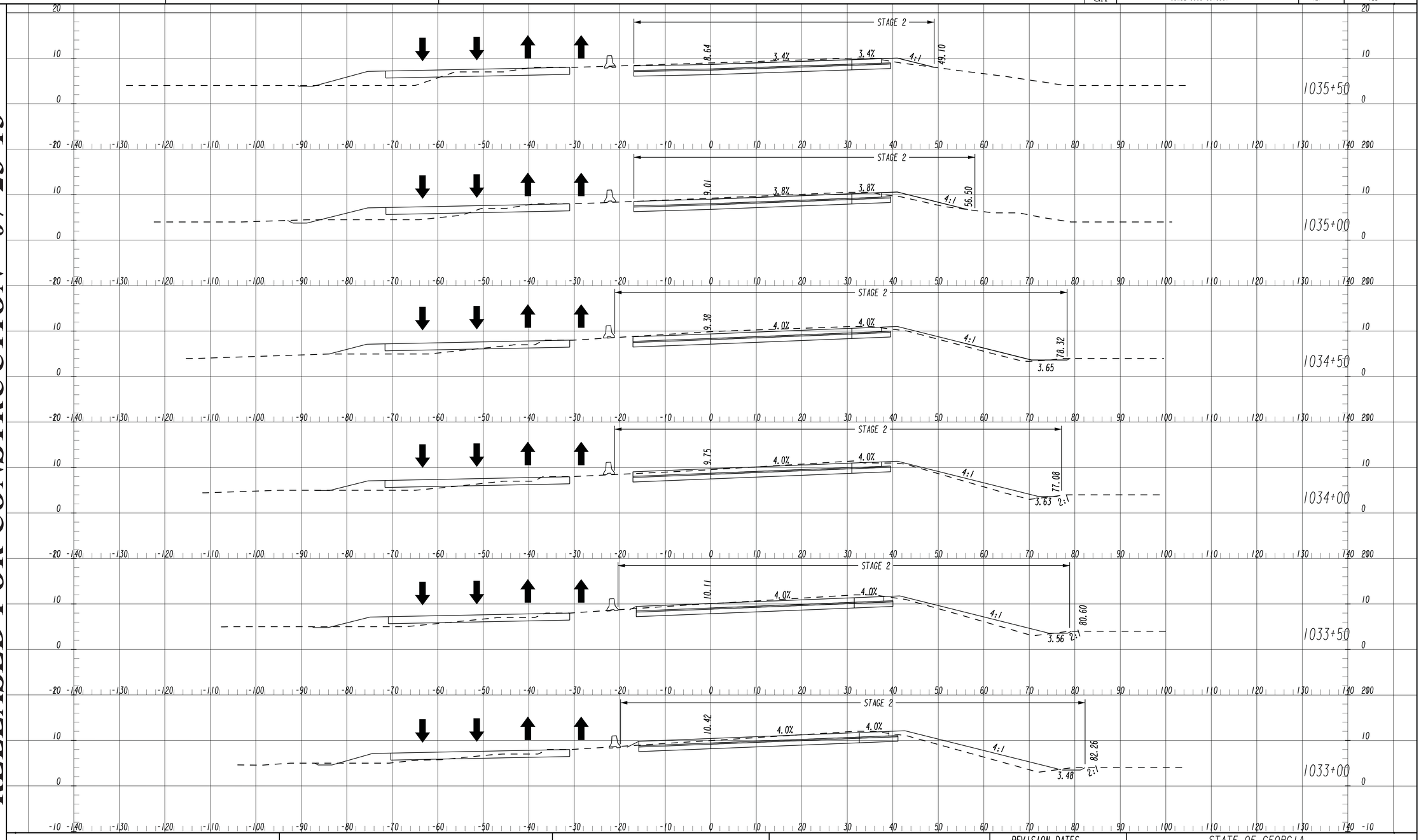
SR307/BOURNE AVENUE
STAGE 2

DRAWING No. 19-058

3/1/2007 SUXSEW

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	127	730

RELEASED FOR CONSTRUCTION - 07-23-13



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3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

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1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS CONSTRUCTION STAGING

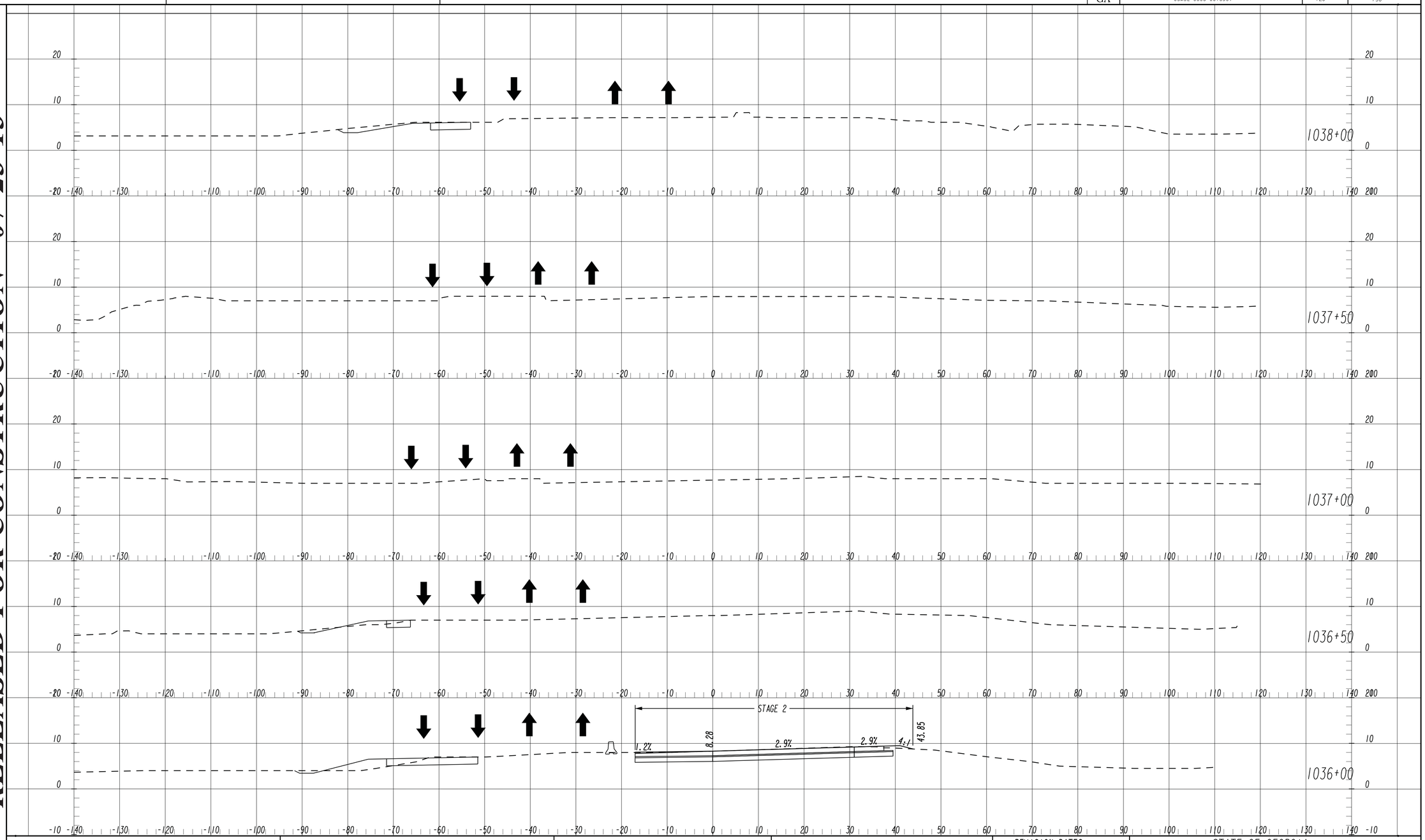
SR307/BOURNE AVENUE
STAGE 2

DRAWING No. 19-059

3/1/2007 SUXSEW

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	128	730

RELEASED FOR CONSTRUCTION - 07-23-13



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A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS CONSTRUCTION STAGING

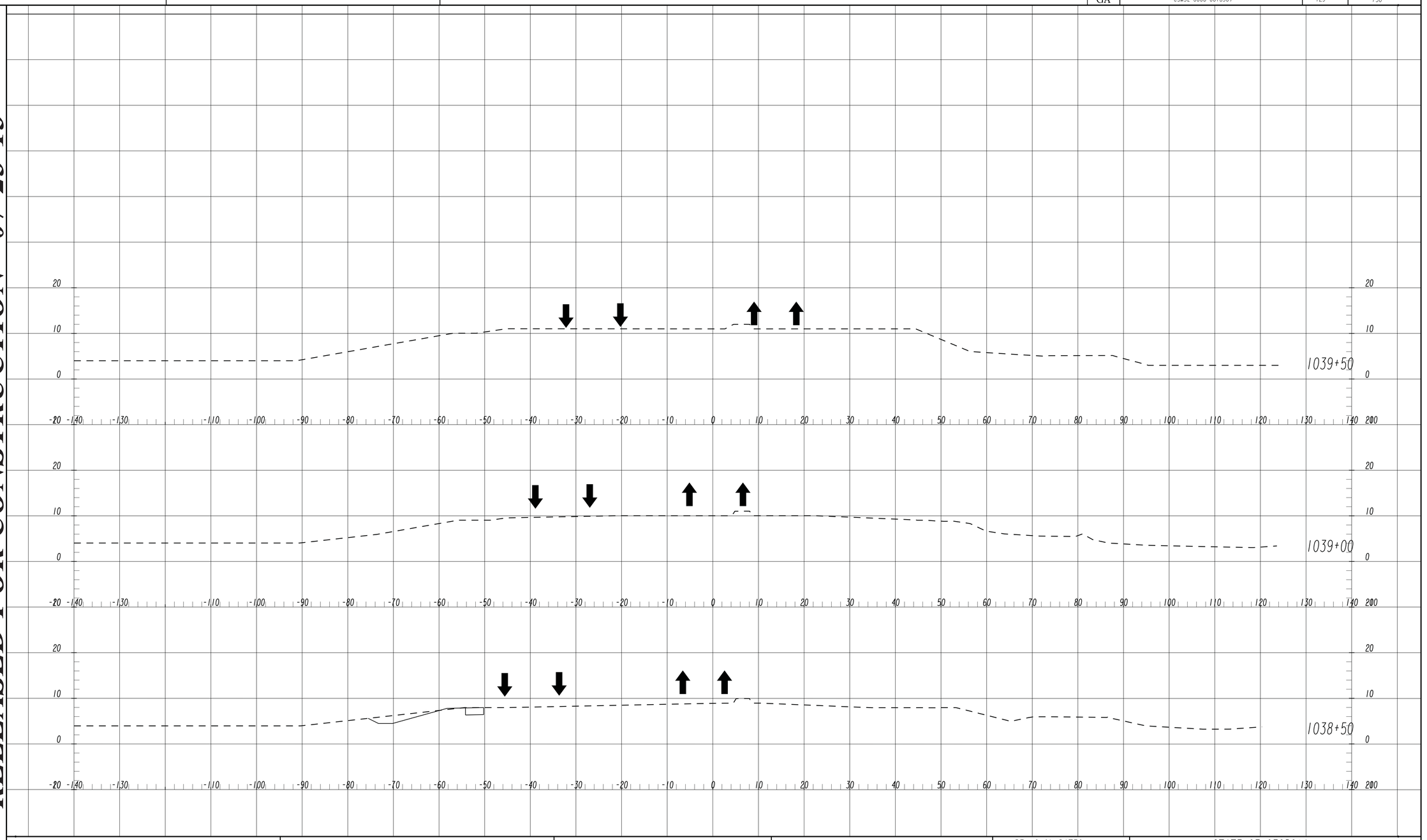
SR307/BOURNE AVENUE
STAGE 2

DRAWING No. 19-060

3/1/2007 SUXSEW

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	129	730

RELEASED FOR CONSTRUCTION - 07-23-13



THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE:

CROSS SECTIONS CONSTRUCTION STAGING

SR307/BOURNE AVENUE
STAGE 2

DRAWING No. 19-061

3/1/2007 SUXSEW

23-JUL-2013 14:17 2:17:02 PM
JParks
0008690_19-062
GDOT_11x17.pen
Y:\Roadways\126379\0008690\Dgn\0008690_19-062.dgn

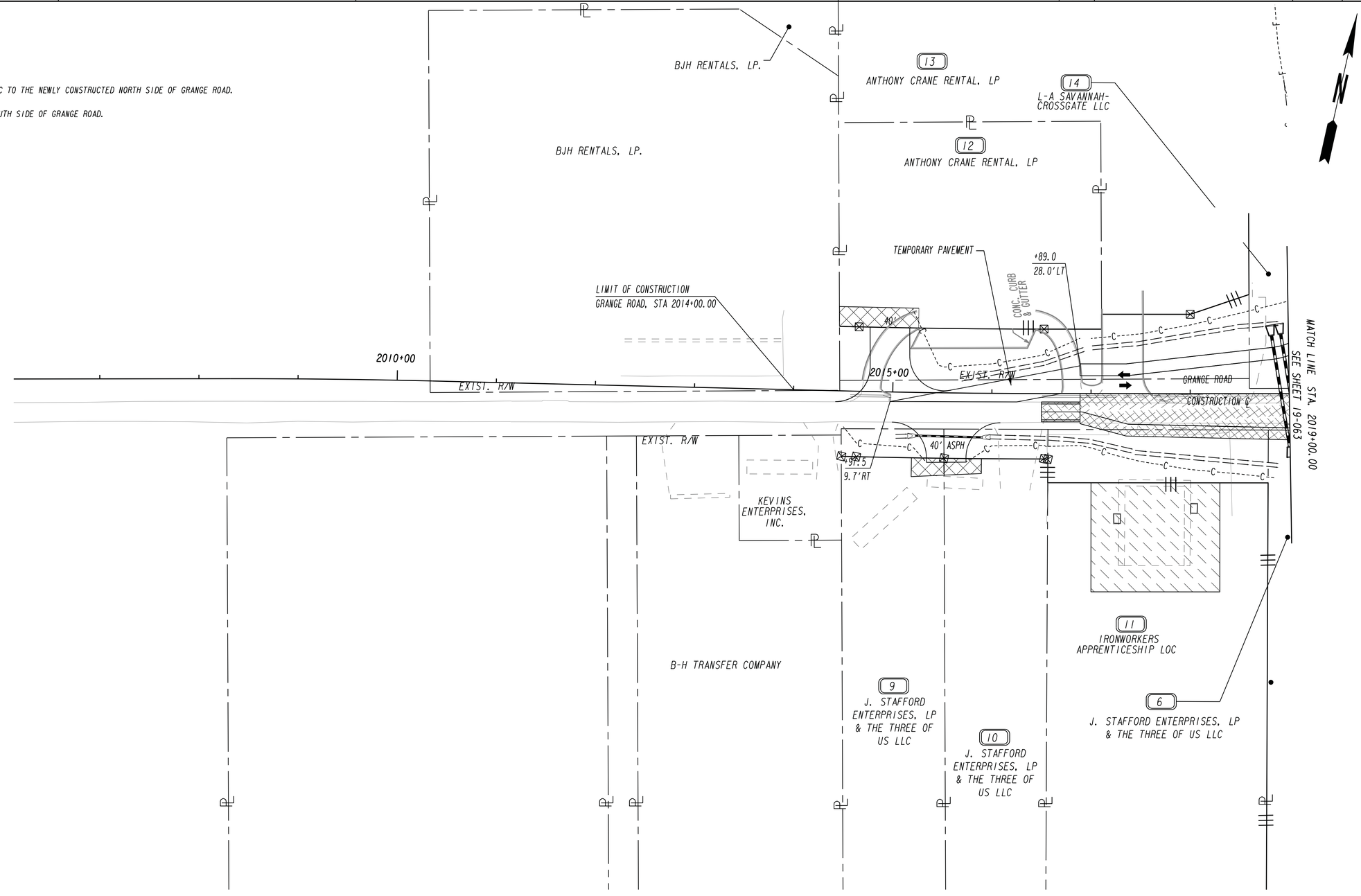
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	130	730

RELEASED FOR CONSTRUCTION - 07-23-13

STAGE 2

1. SHIFT TRAFFIC TO THE NEWLY CONSTRUCTED NORTH SIDE OF GRANGE ROAD.

2. CONSTRUCT SOUTH SIDE OF GRANGE ROAD.



LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

STAGE 2

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CONSTRUCTION STAGING PLAN

STAGE 2 - GRANGE ROAD
BEGIN CONST. TO STA. 2009+00

DRAWING No. 19-062

3/11/2007 GPLN

23-JUL-2013 14:17	2:17:08 PM	0008690_19-063	Y:\Roadways\126379\0008690\Dgn\0008690_19-063.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	131	730

RELEASED FOR CONSTRUCTION - 07-23-13

STAGE 2

1. SHIFT TRAFFIC TO THE NEWLY CONSTRUCTED NORTH SIDE OF GRANGE ROAD.
2. CONSTRUCT SOUTH SIDE OF GRANGE ROAD.

6 J. STAFFORD ENTERPRISES, LP & THE THREE OF US LLC

MATCH LINE STA. 2019+00.00 SEE SHEET 19-062

13 ANTHONY CRANE RENTAL, LP

14 L-A SAVANNAH-CROSSGATE LLC

MATCH LINE STA. 2404+50.00

MATCH LINE STA. 2302+50.00

MATCH LINE STA. 199+00.00

MATCH LINE STA. 186+00.00

MATCH LINE STA. 2209+50.00

MATCH LINE STA. 2113+00.00

CONSTRUCTION ℄ RAMP 2D

CONSTRUCTION ℄ RAMP 2C

2310+00

2020+00

2305+00

RAMP 2C

GRANGE ROAD STA 2019+76.34
RAMP 2C STA 2311+06.12
RAMP 2D STA 2399+99.81

6 J. STAFFORD ENTERPRISES, LP & THE THREE OF US LLC

EAST R/W

195+00

190+00

JIMMY DELOACH CONNECTOR CONSTRUCTION ℄

JIMMY DELOACH CONNECTOR STA. 189+99.88
GRANGE ROAD STA. 2021+61.37

15 RICHARD GODBEE

GRANGE ROAD

JURISDICTIONAL DITCH 10A

2115+00

RAMP 2A CONSTRUCTION ℄

2205+00

RAMP 2B CONSTRUCTION ℄

CONC. CURB & GUTTER

7 J. STAFFORD ENTERPRISES, LP & THE THREE OF US LLC

8 MORRIS LIMITED FAMILY LP.

JURISDICTIONAL DITCH 9A

GRANGE ROAD CONSTRUCTION ℄

2025+00

GRANGE ROAD STA 2023+46.89
RAMP 2A STA 2116+63.30
RAMP 2B STA 2200+00.00

17 GRANGE ROAD PORT WENTWORTH LLC.

WETLAND 9B

MATCH LINE STA. 2027+00.00 SEE SHEET 19-064

DUKE REALTY PARTNERSHIP

℄

LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

STAGE 2

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CONSTRUCTION STAGING PLAN

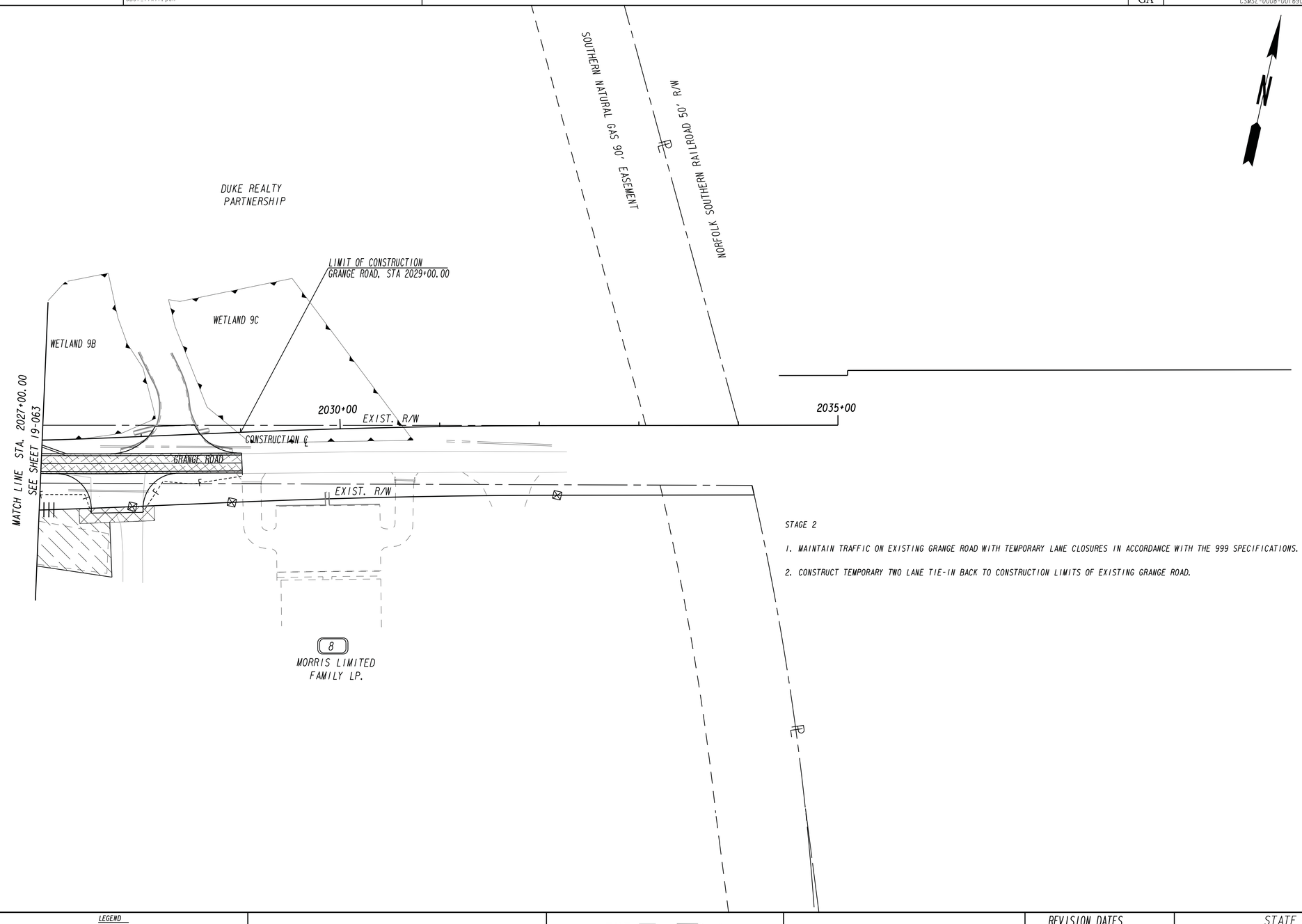
STAGE 2 - JIMMY DELOACH CONN.
STA. 186+00 TO STA. 199+00

DRAWING No. 19-063

3/11/2007 GPLN

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	132	730

RELEASED FOR CONSTRUCTION - 07-23-13



STAGE 2

1. MAINTAIN TRAFFIC ON EXISTING GRANGE ROAD WITH TEMPORARY LANE CLOSURES IN ACCORDANCE WITH THE 999 SPECIFICATIONS.

2. CONSTRUCT TEMPORARY TWO LANE TIE-IN BACK TO CONSTRUCTION LIMITS OF EXISTING GRANGE ROAD.

LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

STAGE 2

THE LPA GROUP
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SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CONSTRUCTION STAGING PLAN

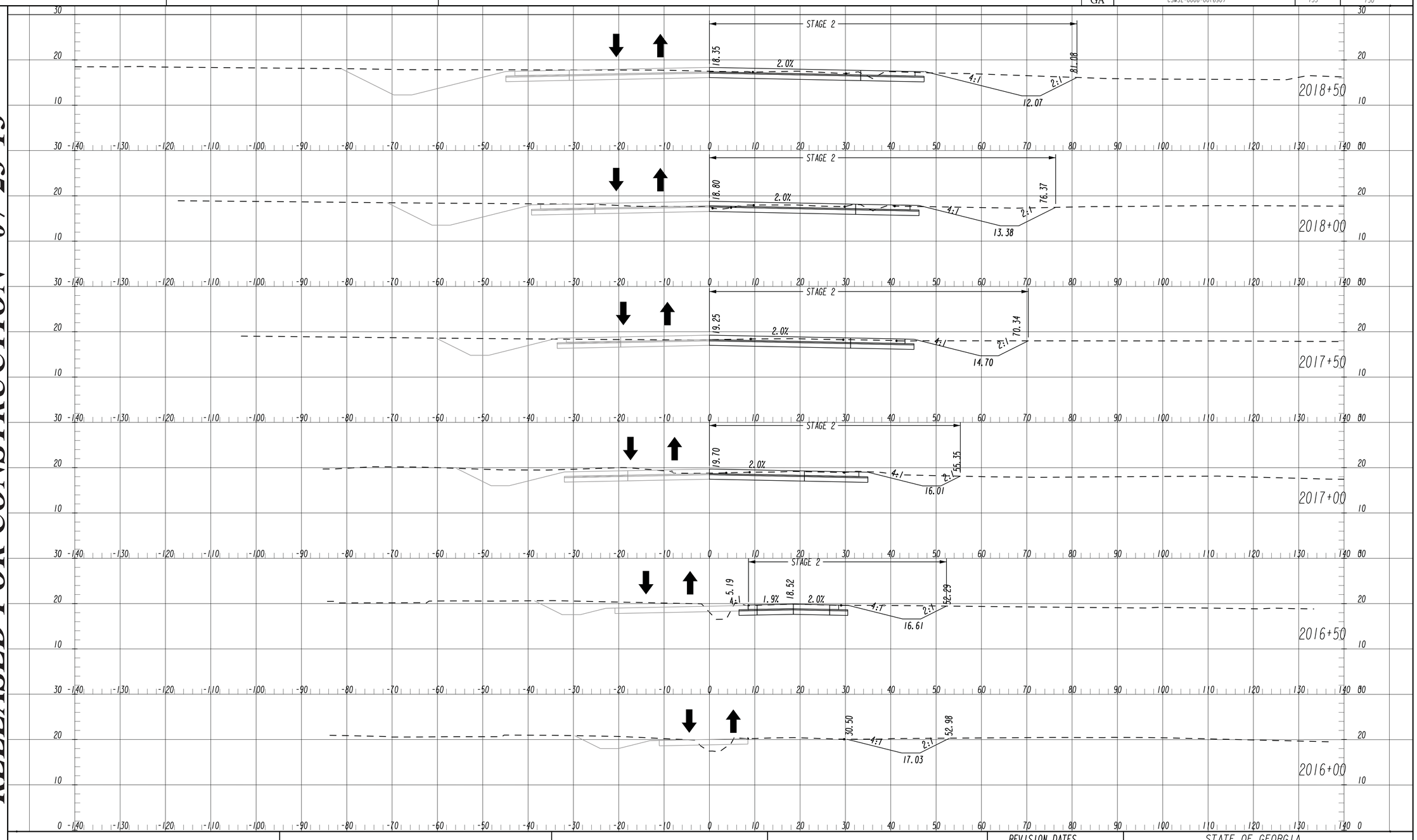
STAGE 2 - GRANGE ROAD
STA. 2017+00 TO END CONST.

DRAWING No. 19-064

3/1/2007 GPLN

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	133	730

RELEASED FOR CONSTRUCTION - 07-23-13



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TRANSPORTATION CONSULTANTS
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3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

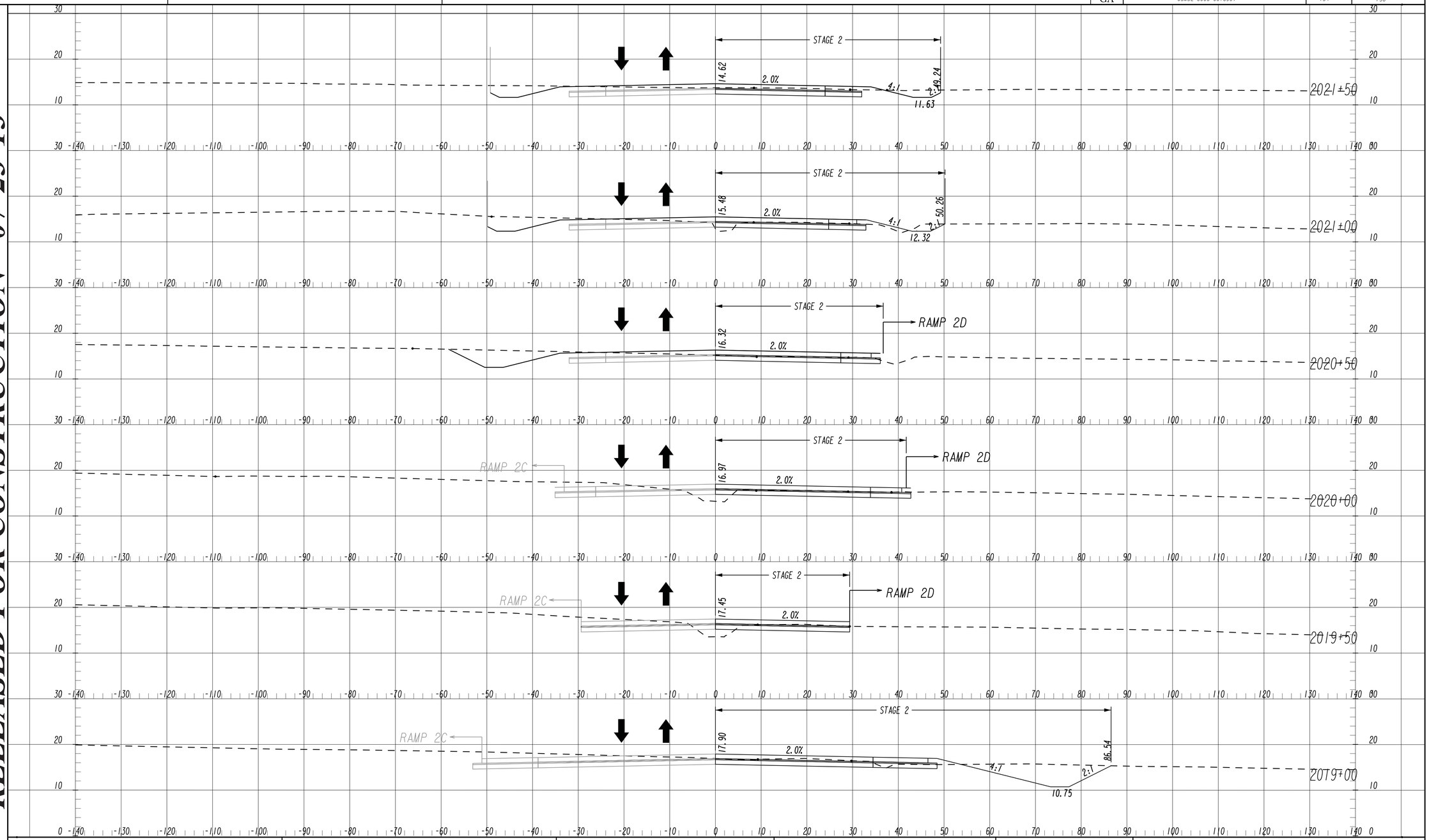
CROSS SECTIONS
CONSTRUCTION STAGING
GRANGE ROAD
STAGE 2

DRAWING No. 19-065

3/1/2007 SUXSEW

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	134	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

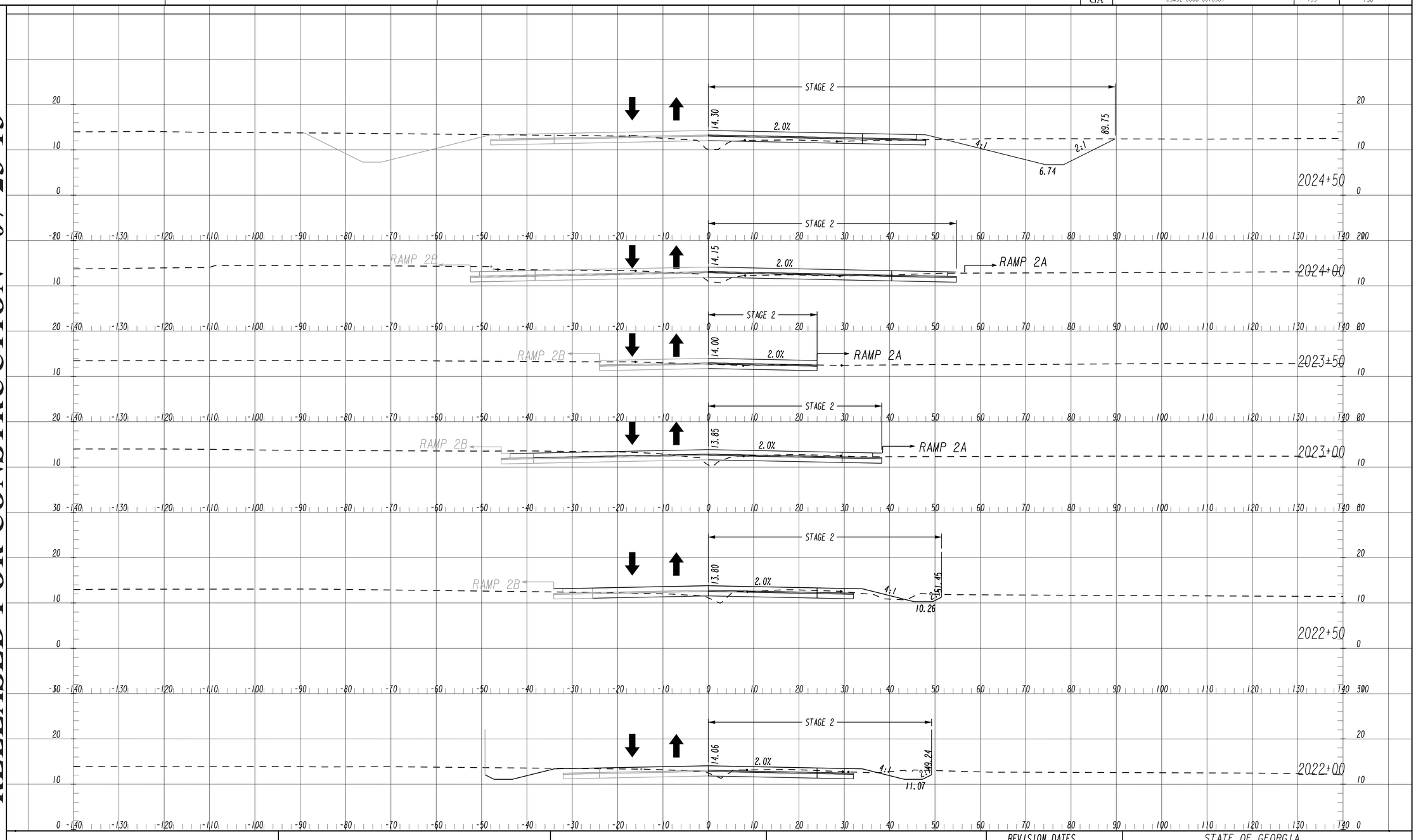
CROSS SECTIONS CONSTRUCTION STAGING

GRANGE ROAD
STAGE 2

DRAWING No. 19-066

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	135	730

RELEASED FOR CONSTRUCTION - 07-23-13



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1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS CONSTRUCTION STAGING

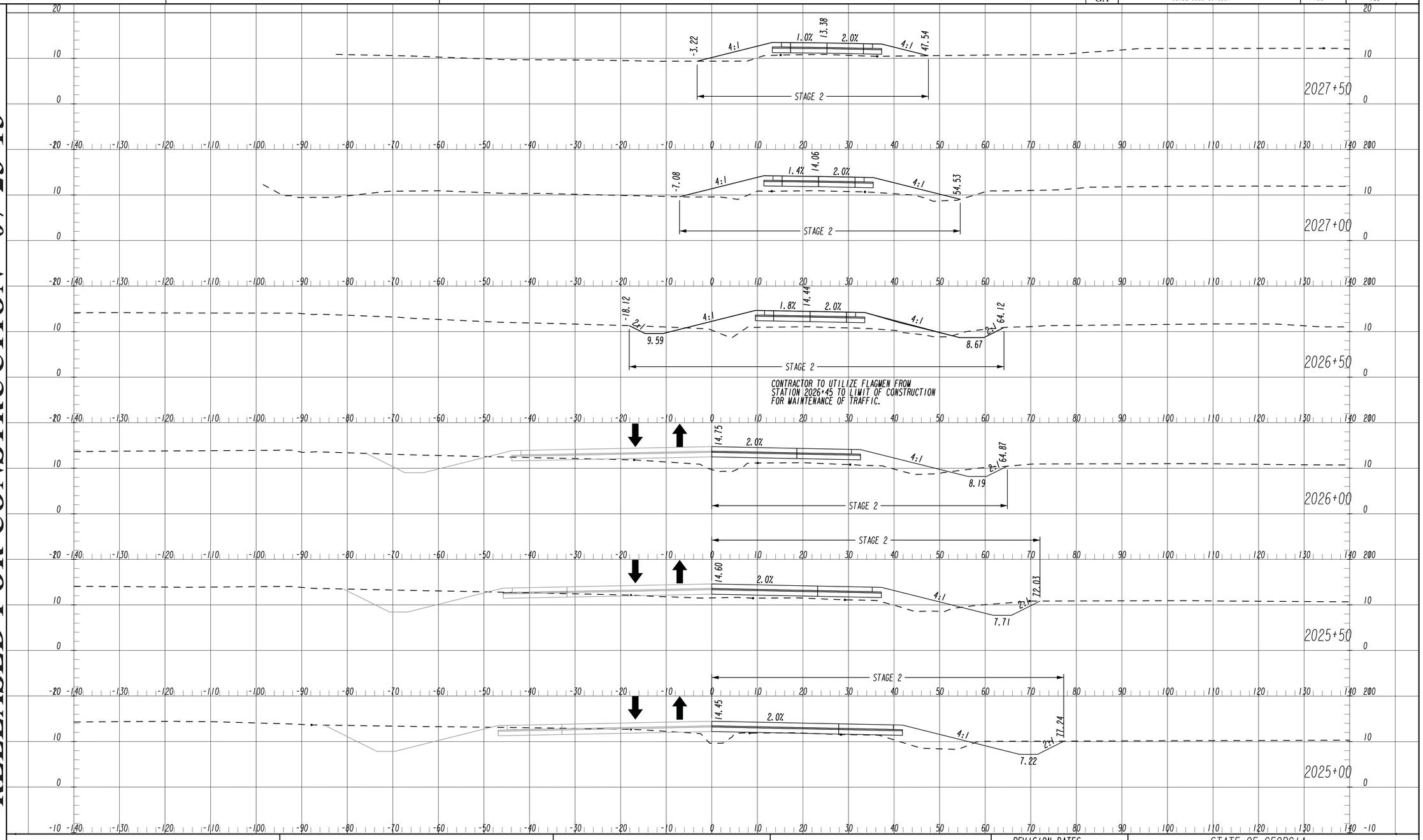
GRANGE ROAD
STAGE 2

DRAWING No. 19-067

3/1/2007 SUXSEW

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-001690	136	730

RELEASED FOR CONSTRUCTION - 07-23-13



THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS CONSTRUCTION STAGING

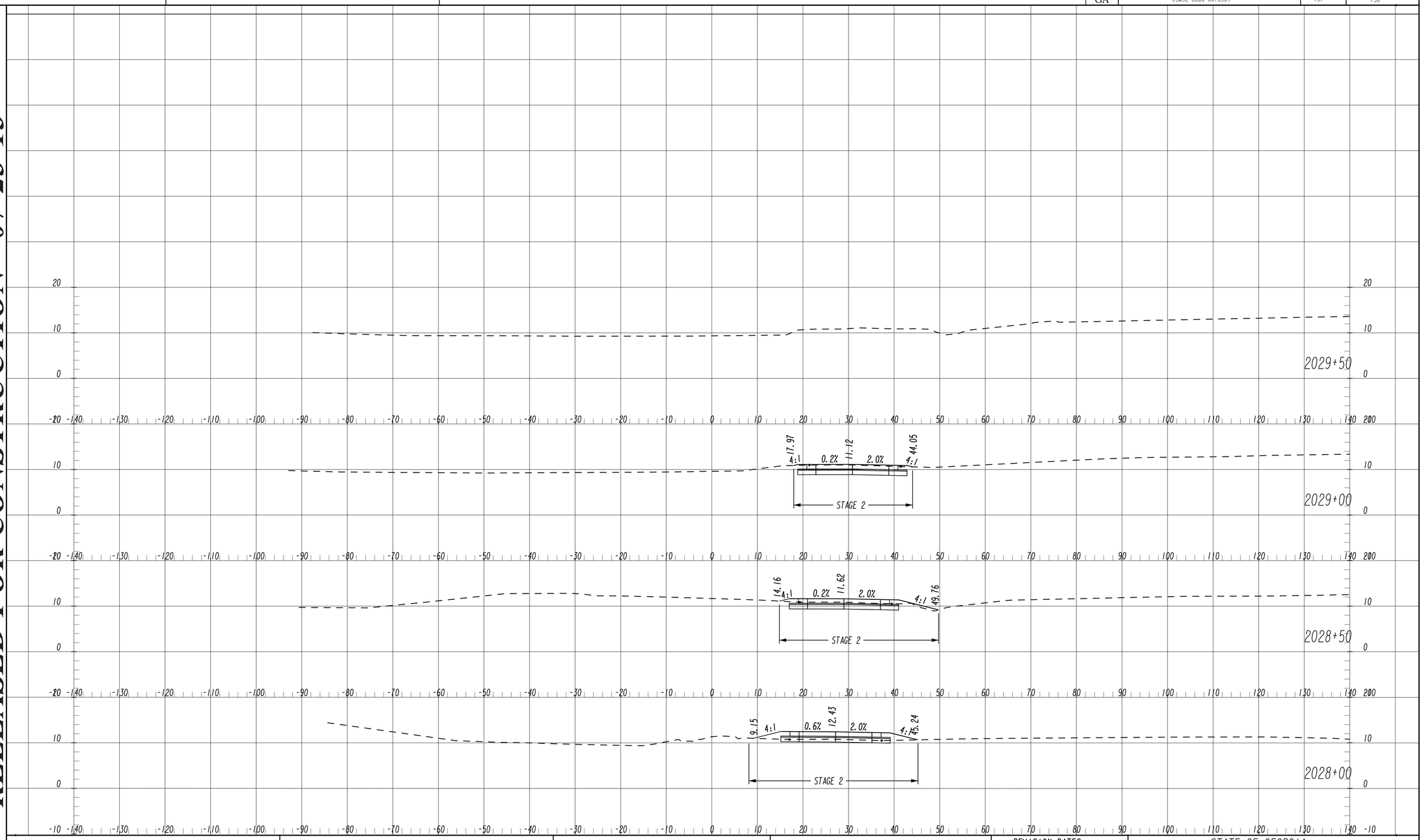
GRANGE ROAD
STAGE 2

DRAWING No. 19-068

3/1/2007 SUXSEW

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	137	730

RELEASED FOR CONSTRUCTION - 07-23-13



THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

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1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS CONSTRUCTION STAGING

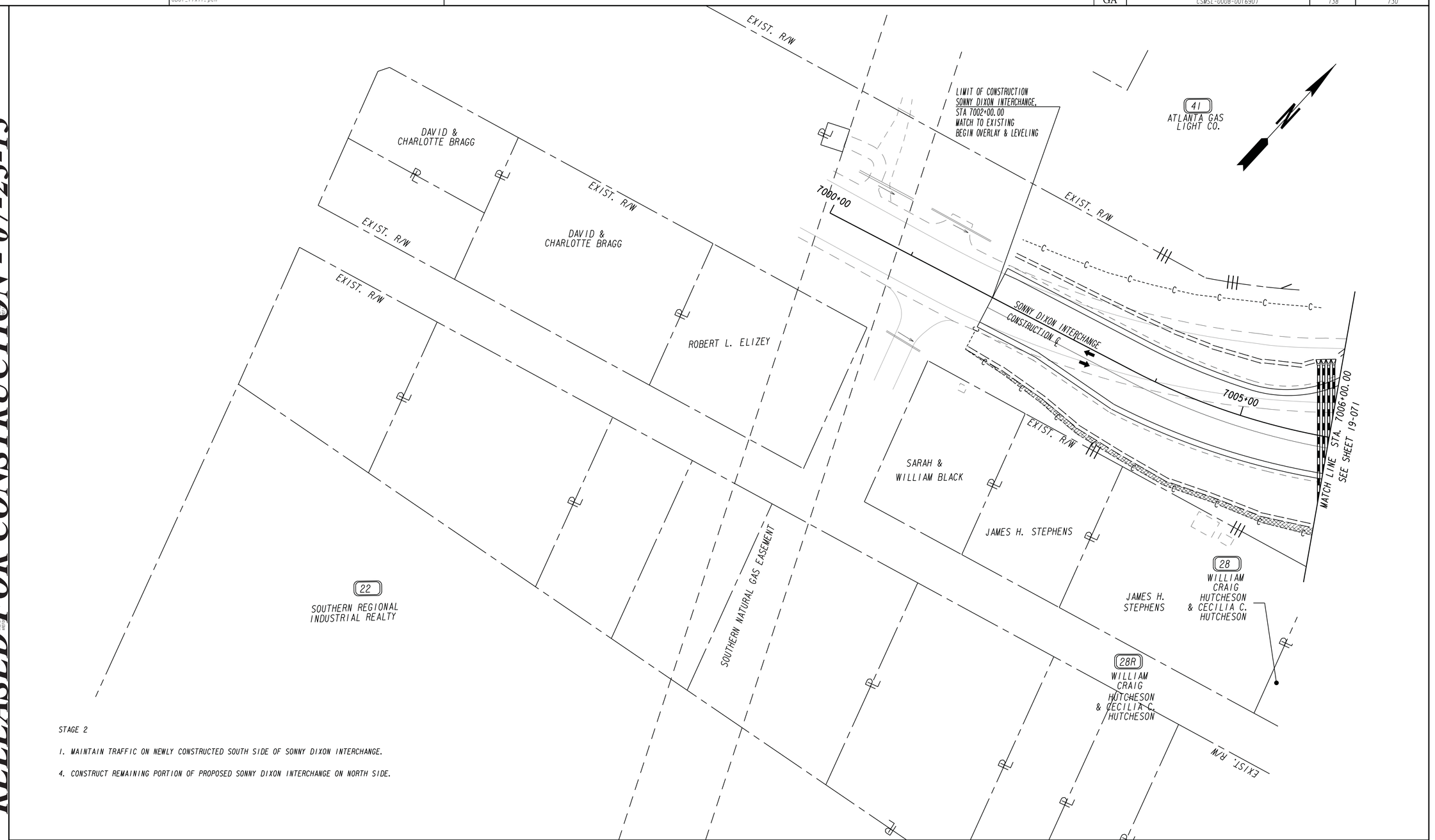
GRANGE ROAD
STAGE 2

DRAWING No. 19-069

3/1/2007 SUXSEW

23-JUL-2013 14:17	2:17:36 PM	0008690_19-070	Y:\Roadways\126379\0008690\Dgn\0008690_19-070.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	138	730

RELEASED FOR CONSTRUCTION - 07-23-13



STAGE 2

1. MAINTAIN TRAFFIC ON NEWLY CONSTRUCTED SOUTH SIDE OF SONNY DIXON INTERCHANGE.

4. CONSTRUCT REMAINING PORTION OF PROPOSED SONNY DIXON INTERCHANGE ON NORTH SIDE.

LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

STAGE 2

THE LPA GROUP
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A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
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(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CONSTRUCTION STAGING PLAN

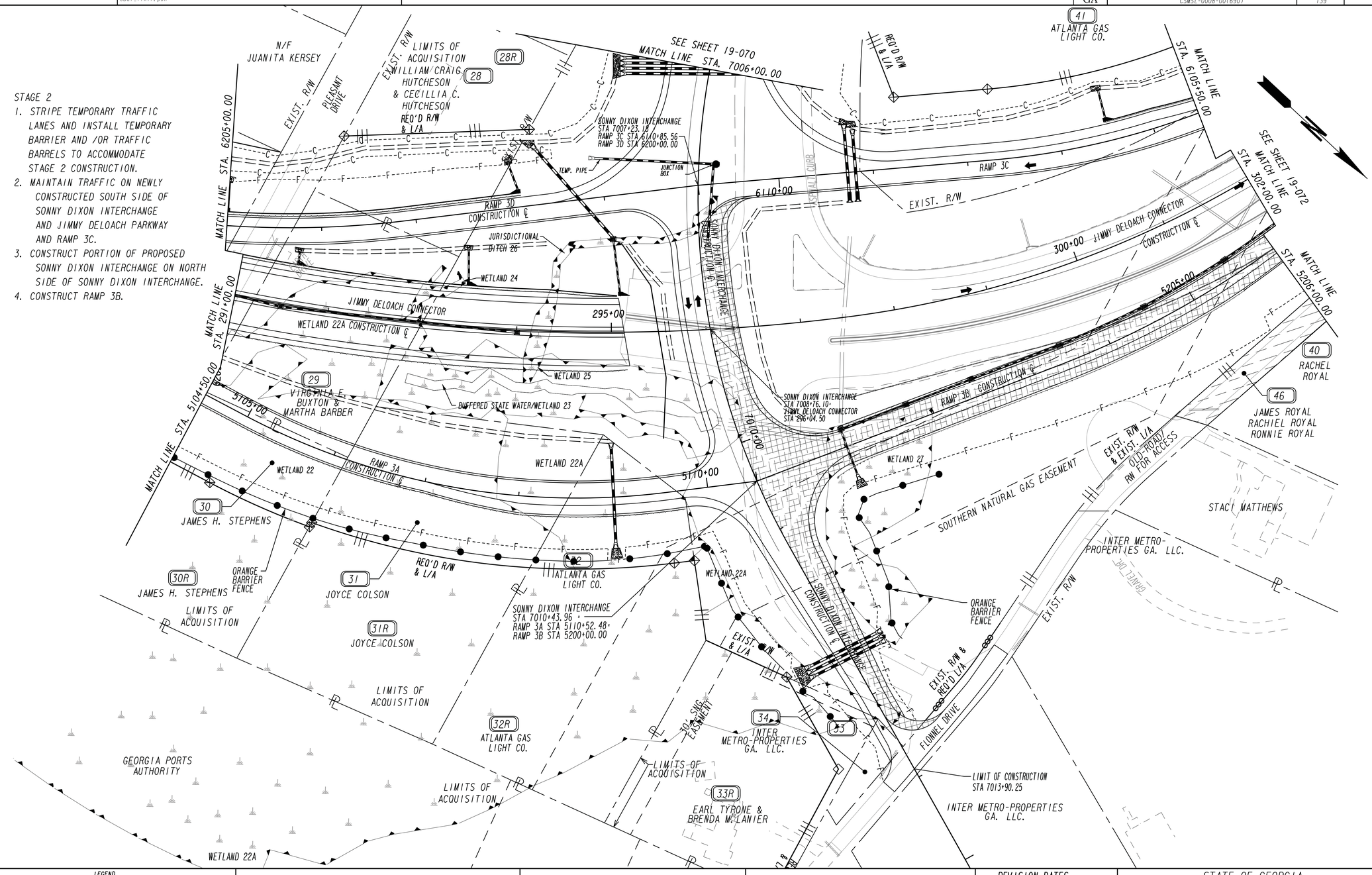
STAGE 2 - BEGIN CONST. TO SONNY DIXON INTERCHANGE STA. 7006+00

DRAWING No. 19-070

3/1/2007 GPLN

RELEASED FOR CONSTRUCTION - 07-23-13

STAGE 2
1. STRIPE TEMPORARY TRAFFIC LANES AND INSTALL TEMPORARY BARRIER AND /OR TRAFFIC BARRELS TO ACCOMMODATE STAGE 2 CONSTRUCTION.
2. MAINTAIN TRAFFIC ON NEWLY CONSTRUCTED SOUTH SIDE OF SONNY DIXON INTERCHANGE AND JIMMY DELOACH PARKWAY AND RAMP 3C.
3. CONSTRUCT PORTION OF PROPOSED SONNY DIXON INTERCHANGE ON NORTH SIDE OF SONNY DIXON INTERCHANGE.
4. CONSTRUCT RAMP 3B.



LEGEND
- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

STAGE 2

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CONSTRUCTION STAGING PLAN

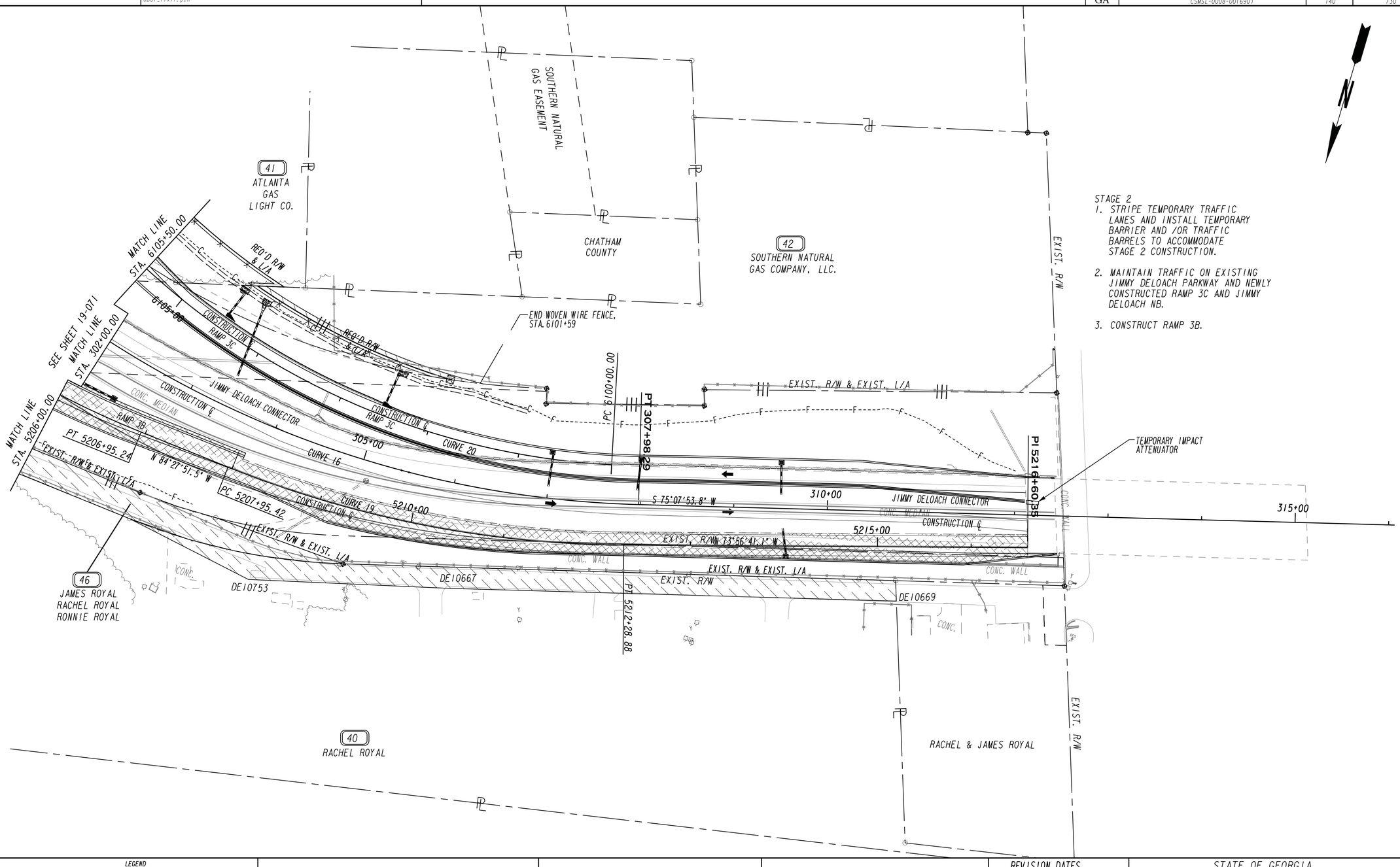
STAGE 2 - JIMMY DELOACH CONN.
STA. 291+00 TO STA. 302+00

DRAWING No. 19-071

3/11/2007 GPLN

23-JUL-2013 14:17 JParks	2:17:52 PM	0008690_19-072 GDOT_11x17.pen	Y:\Roadways\126379\0008690\Dgn\0008690_19-072.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
				GA	CSMSL-0008-00(690)	140	730

RELEASED FOR CONSTRUCTION - 07-23-13



STAGE 2
1. STRIPE TEMPORARY TRAFFIC LANES AND INSTALL TEMPORARY BARRIER AND /OR TRAFFIC BARRELS TO ACCOMMODATE STAGE 2 CONSTRUCTION.

2. MAINTAIN TRAFFIC ON EXISTING JIMMY DELOACH PARKWAY AND NEWLY CONSTRUCTED RAMP 3C AND JIMMY DELOACH NB.

3. CONSTRUCT RAMP 3B.

LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

STAGE 2

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CONSTRUCTION STAGING PLAN

STAGE 2 - JIMMY DELOACH CONN.
STA. 302+00 TO END PROJECT

DRAWING No. 19-072

3/1/2007 GPLN

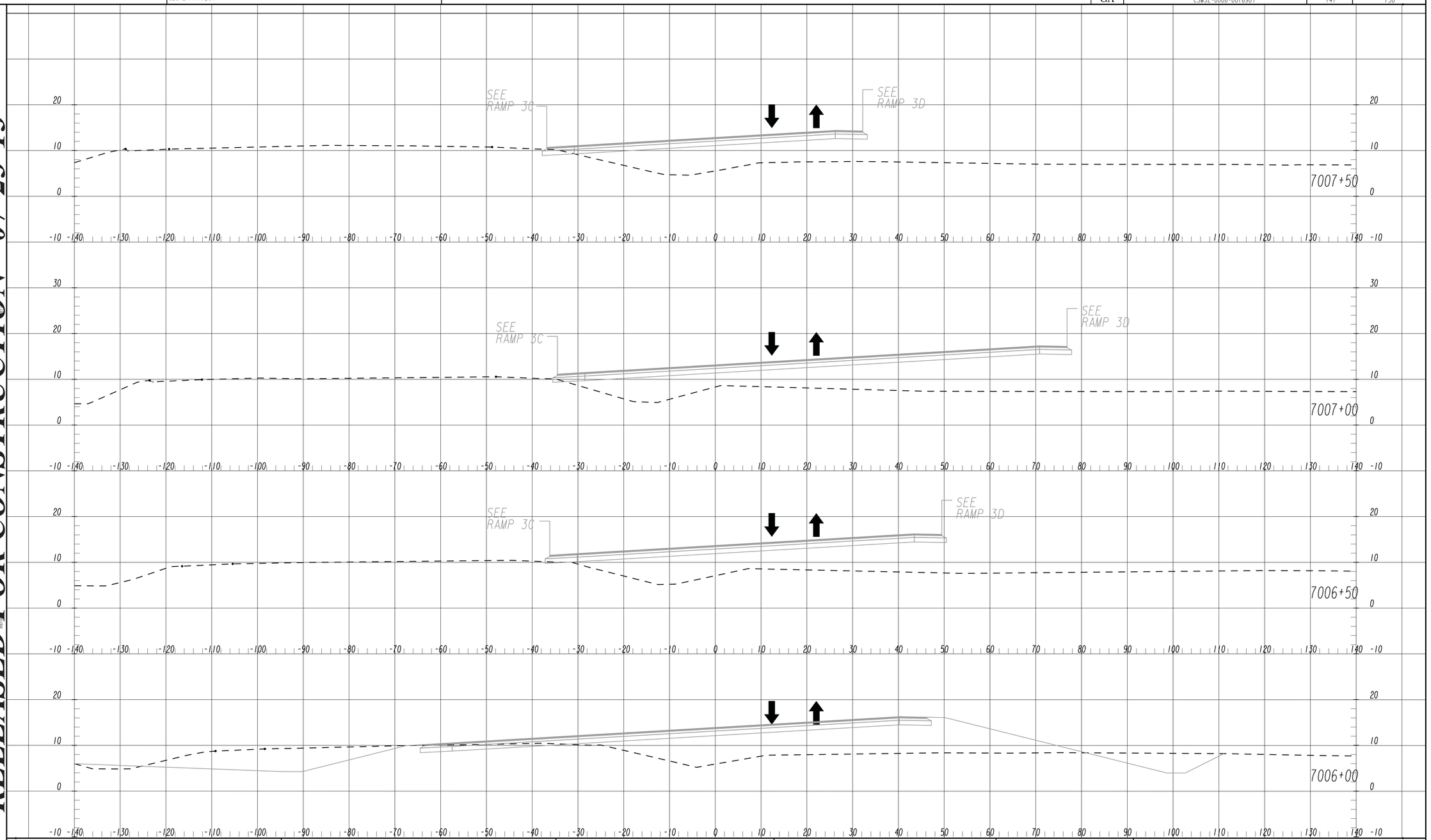
23-JUL-2013 14:17 2:17:56 PM
JParks

0008690_SX02_PIERCE
GDOT_11x17.pen

Y:\Roadways\126379\0008690\Dgn\0008690_SX02_PIERCE.dgn

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	141	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

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A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
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1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

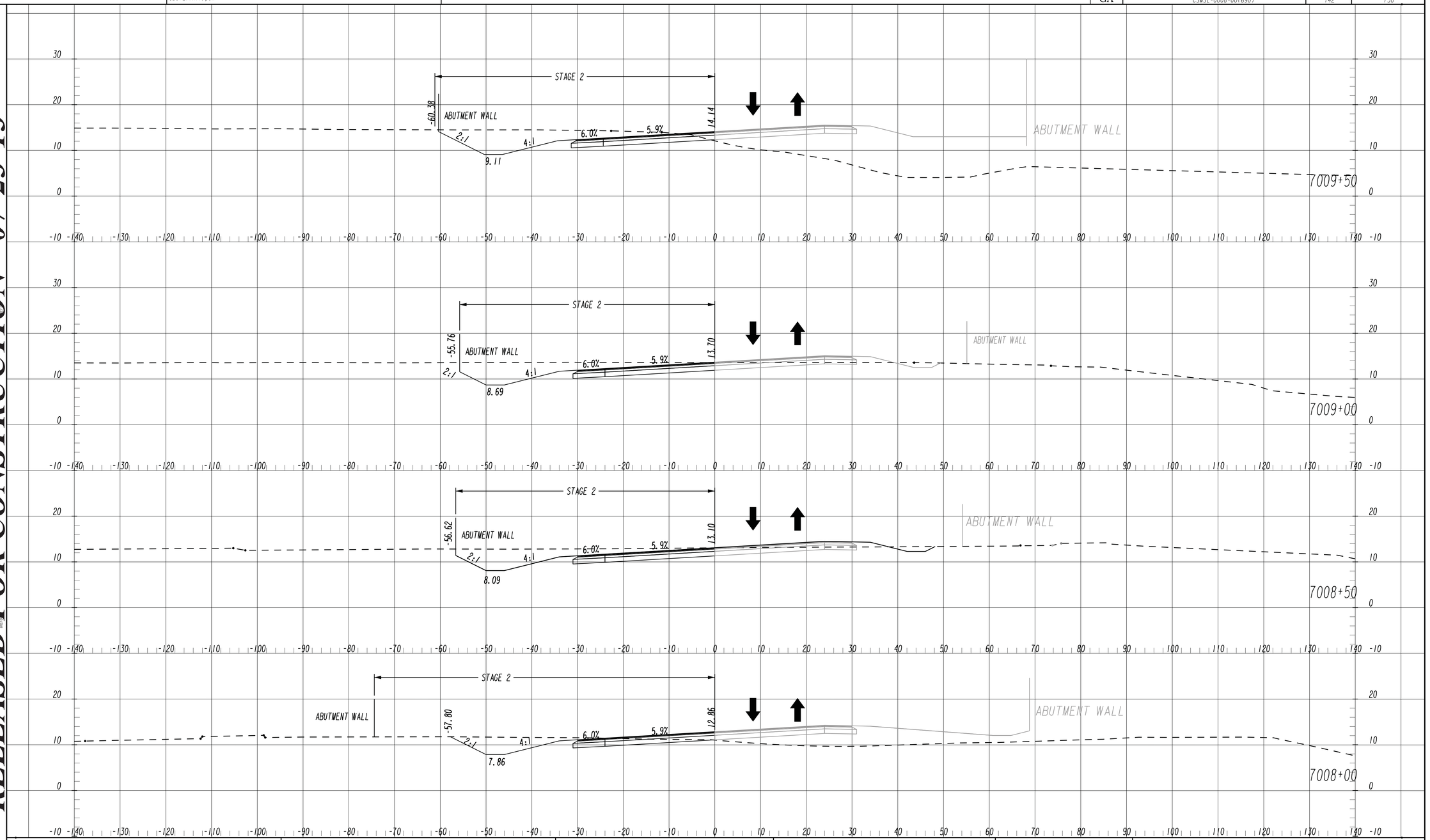
CROSS SECTIONS CONSTRUCTION STAGING

SONNY DIXON INTERCHANGE
STAGE 2

DRAWING No. 19-073

23-JUL-2013 14:17	2:17:58 PM	0008690_SX02_PIERCE1	Y:\Roadways\126379\0008690\Dgn\0008690_SX02_PIERCE.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	142	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

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A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS CONSTRUCTION STAGING

SONNY DIXON INTERCHANGE
STAGE 2

DRAWING No. 19-074

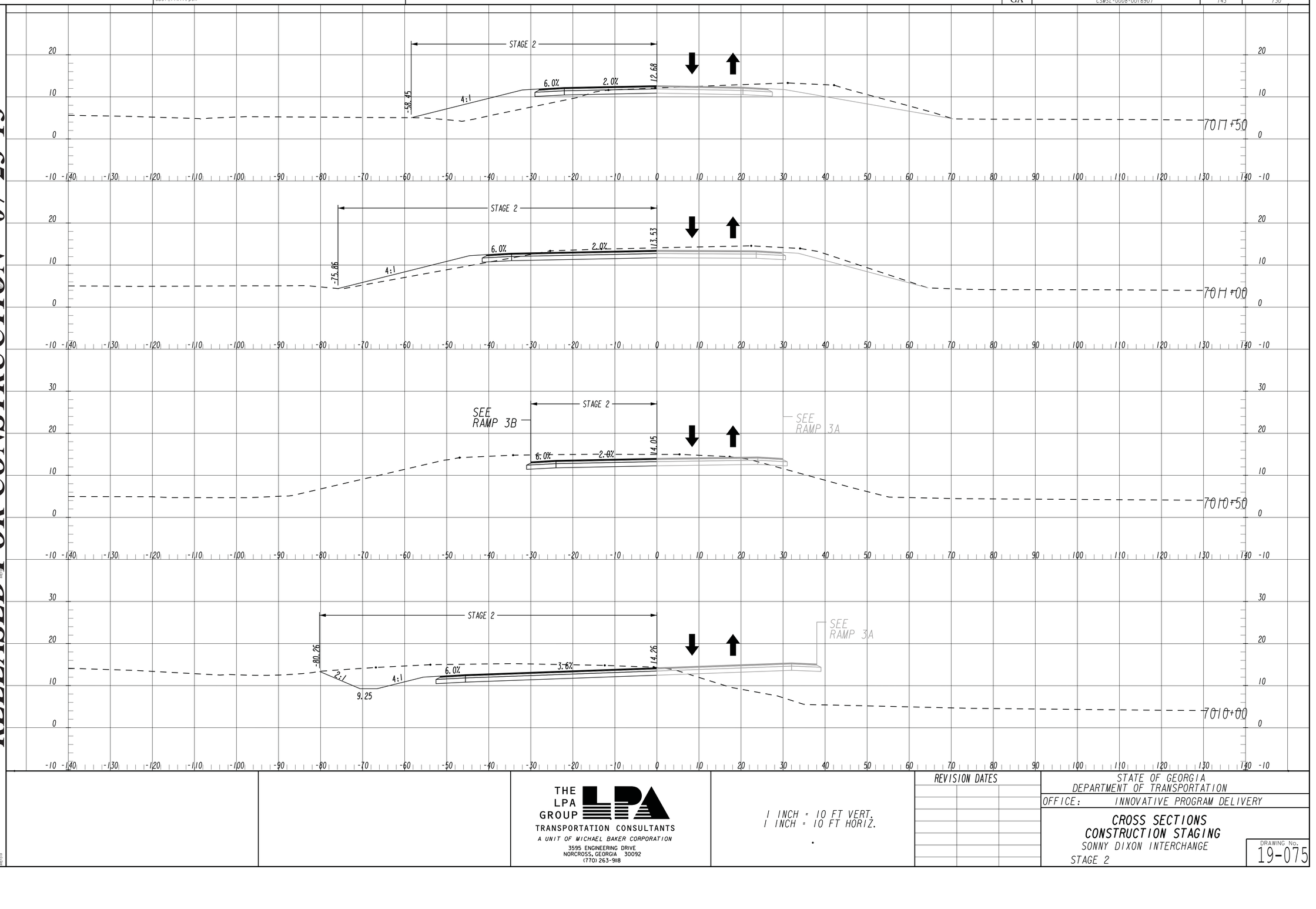
23-JUL-2013 14:18 2:18:01 PM
JParks

0008690_SX02_PIERCE2
GDOT_11x17.pen

Y:\Roadways\126379\0008690\Dgn\0008690_SX02_PIERCE.dgn

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	143	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/11/2007 SUXSEW

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A UNIT OF MICHAEL BAKER CORPORATION
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NORCROSS, GEORGIA 30092
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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

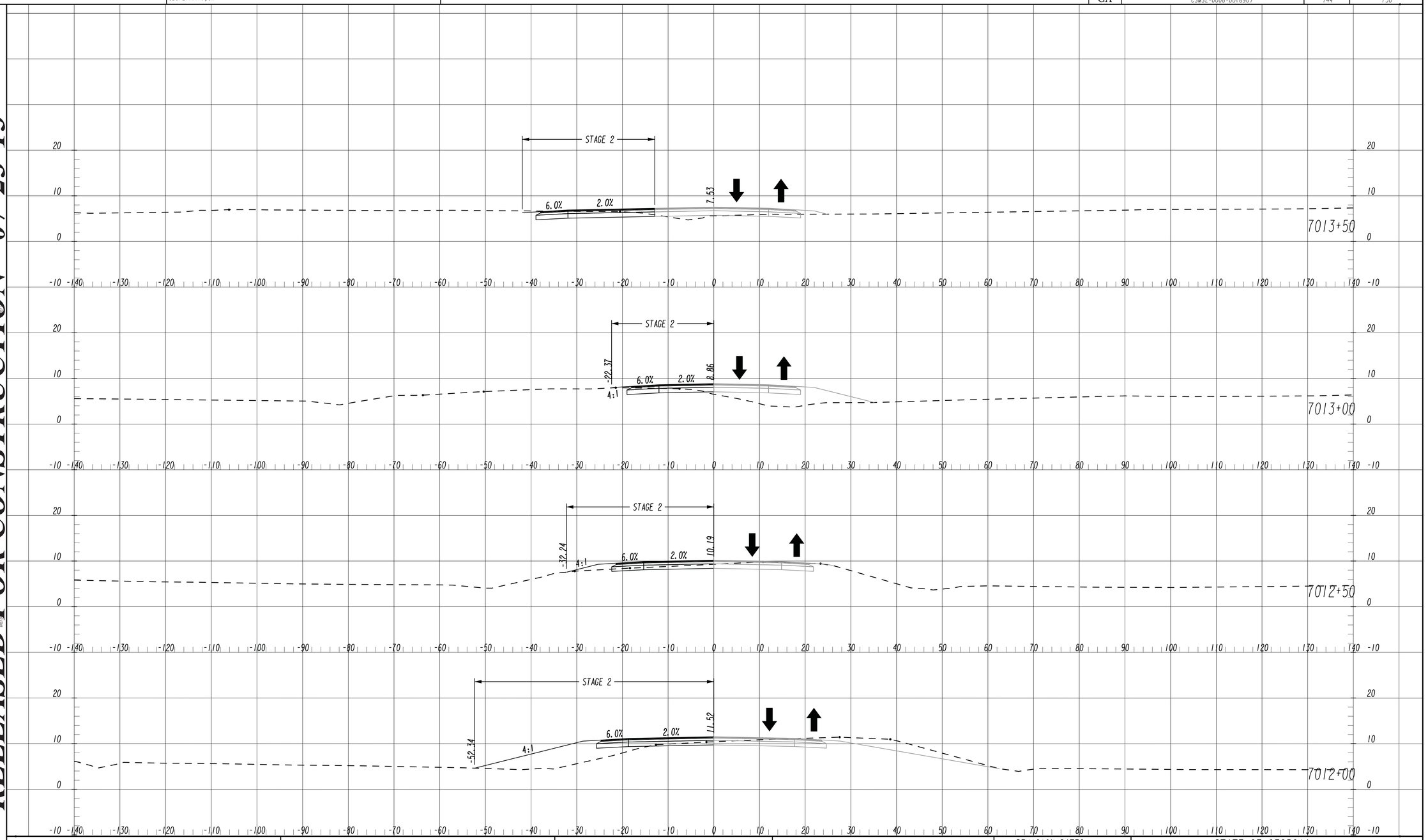
CROSS SECTIONS CONSTRUCTION STAGING

SONNY DIXON INTERCHANGE
STAGE 2

DRAWING No. 19-075

23-JUL-2013 14:18	2:18:03 PM	0008690_SX02_PIERCE3	Y:\Roadways\126379\0008690\Dgn\0008690_SX02_PIERCE.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	144	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

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A UNIT OF MICHAEL BAKER CORPORATION
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NORCROSS, GEORGIA 30092
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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS CONSTRUCTION STAGING

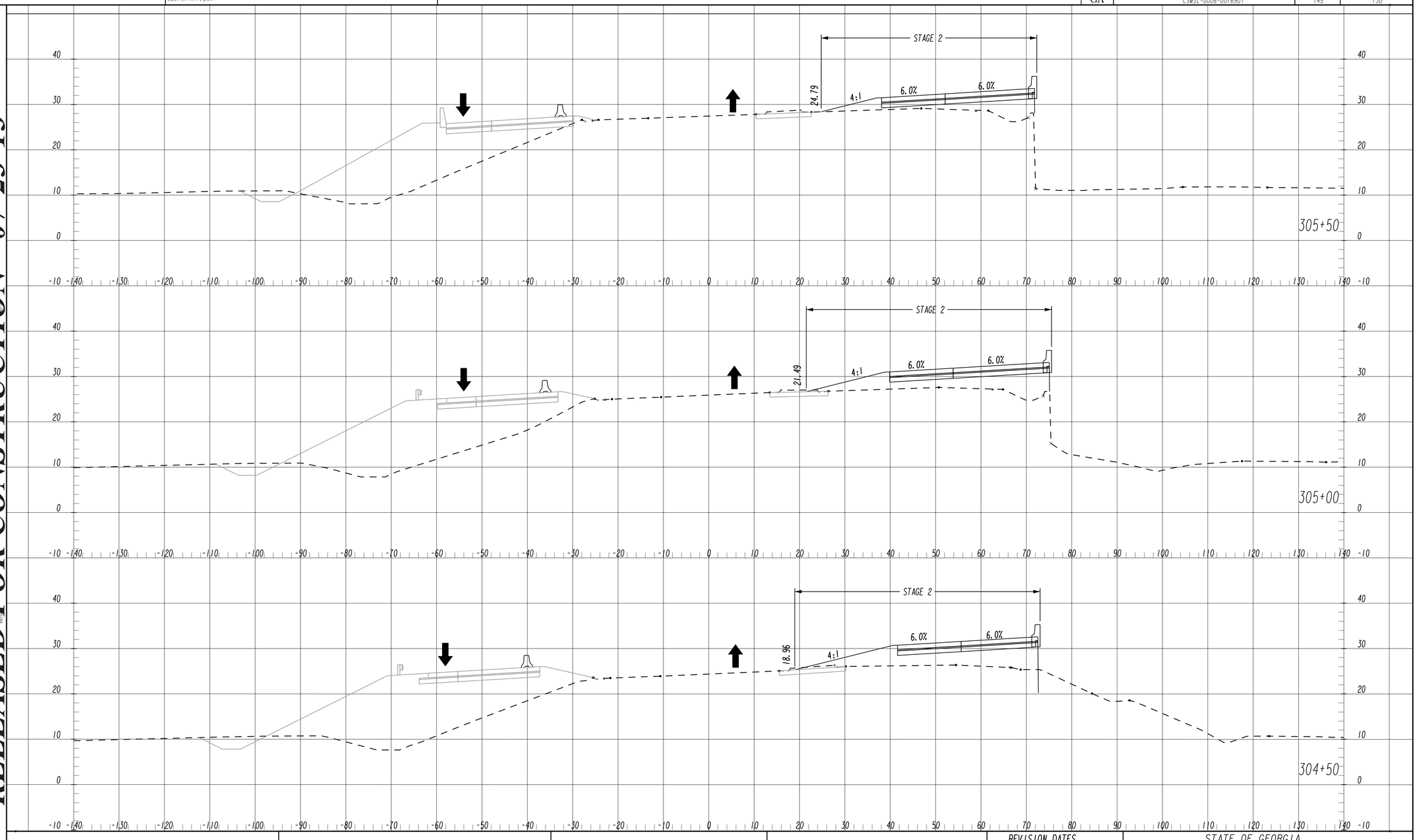
SONNY DIXON INTERCHANGE

STAGE 2

DRAWING No. 19-076

23-JUL-2013 14:26	2:26:00 PM	0008690_SX02_JDC	Y:\Roadways\126379\0008690\Dgn\0008690_SX02_JDC.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	145	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

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A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

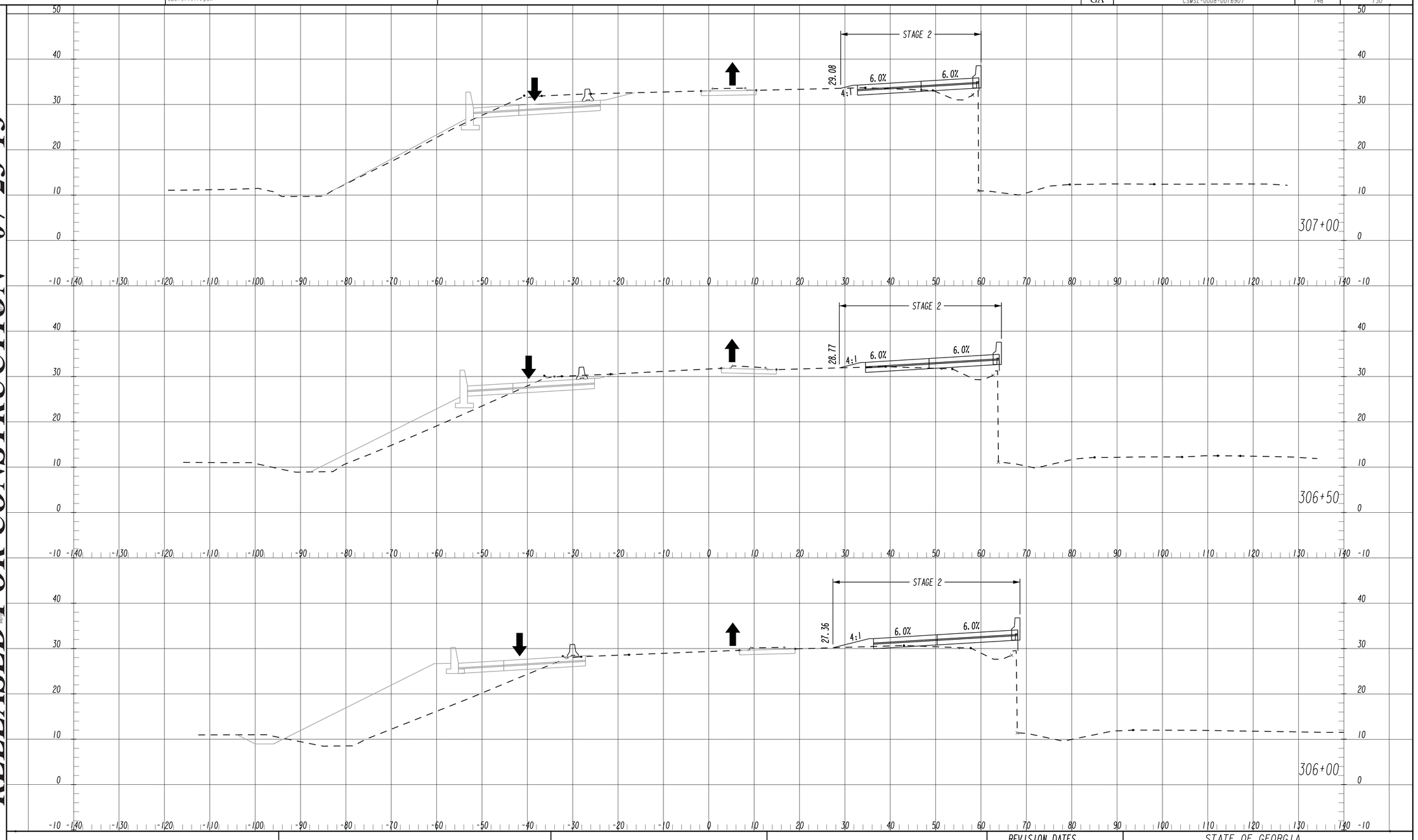
CROSS SECTIONS CONSTRUCTION STAGING

JIMMY DELOACH CONNECTOR
STAGE 2

DRAWING No. 19-077

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	146	730

RELEASED FOR CONSTRUCTION - 07-23-13



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3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

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1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS CONSTRUCTION STAGING

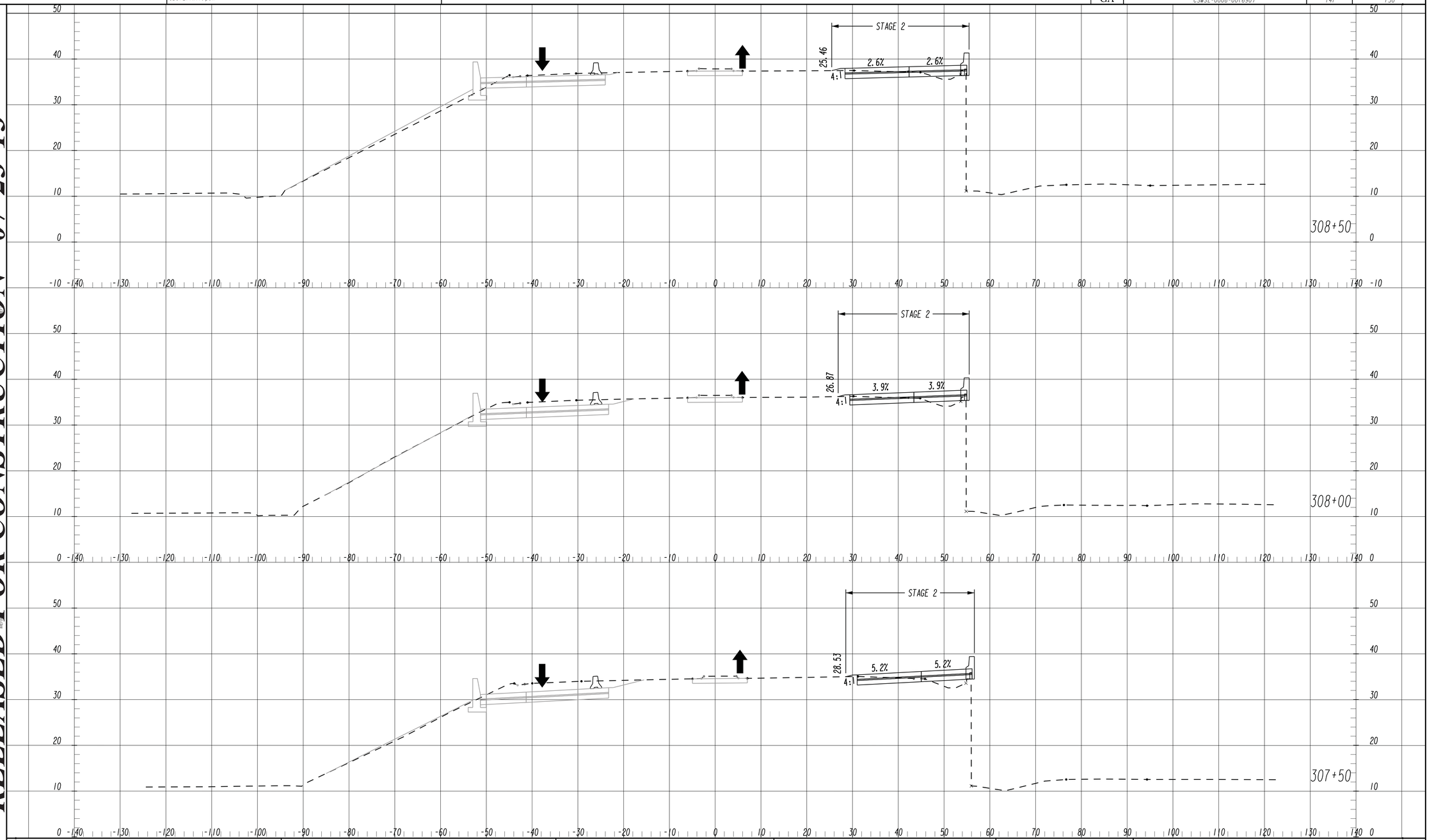
JIMMY DELOACH CONNECTOR
STAGE 2

DRAWING No. 19-078

3/1/2007 SUXSEW

23-JUL-2013 14:26	2:26:04 PM	0008690_SX02_JDC2	Y:\Roadways\126379\0008690\Dgn\0008690_SX02_JDC.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	147	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

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A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

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1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

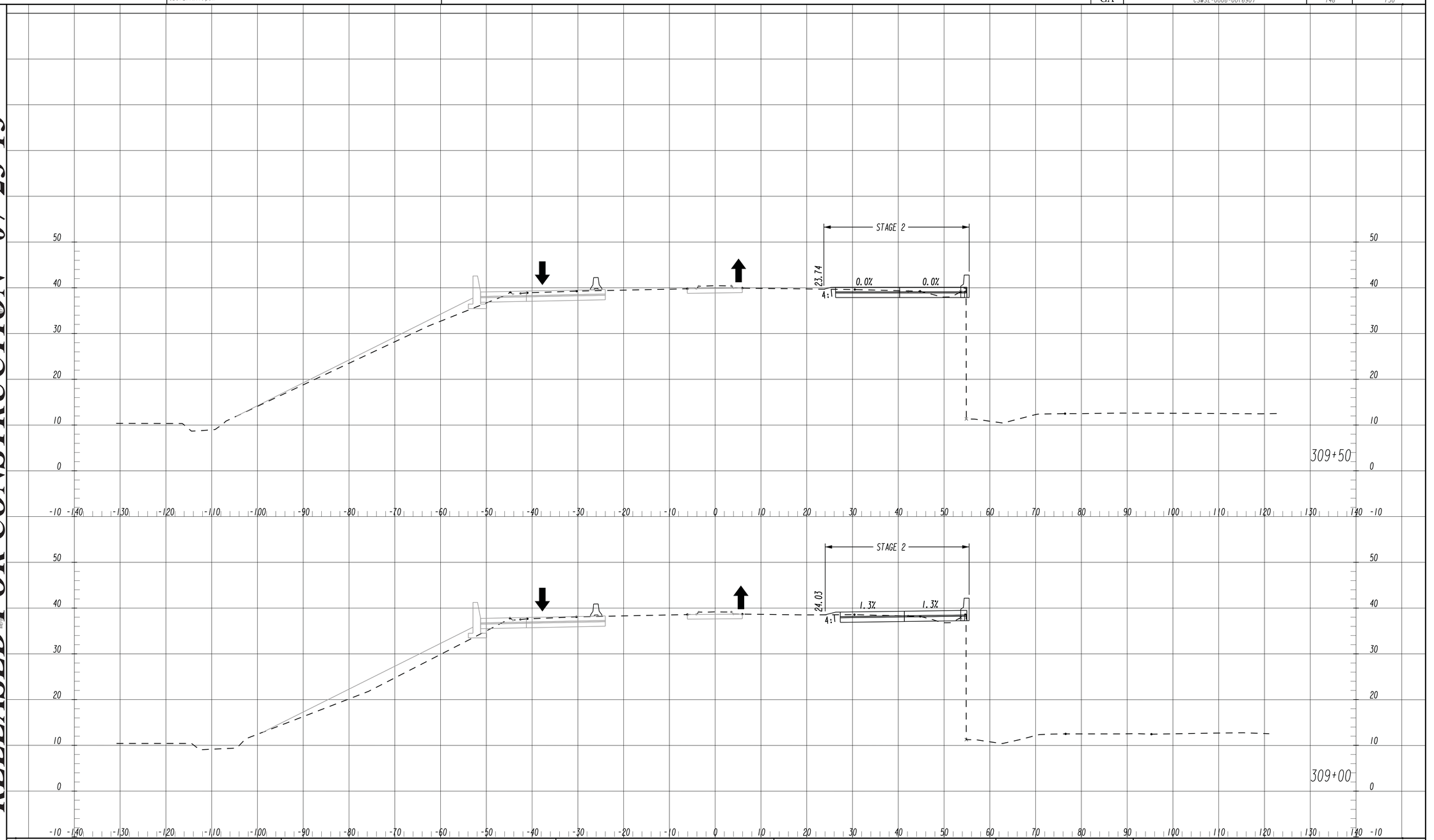
CROSS SECTIONS CONSTRUCTION STAGING

JIMMY DELOACH CONNECTOR
STAGE 2

DRAWING No. 19-079

23-JUL-2013 14:26	2:26:05 PM	0008690_SK02_JDC3	Y:\Roadways\126379\0008690\Dgn\0008690_SK02_JDC.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	148	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

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A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

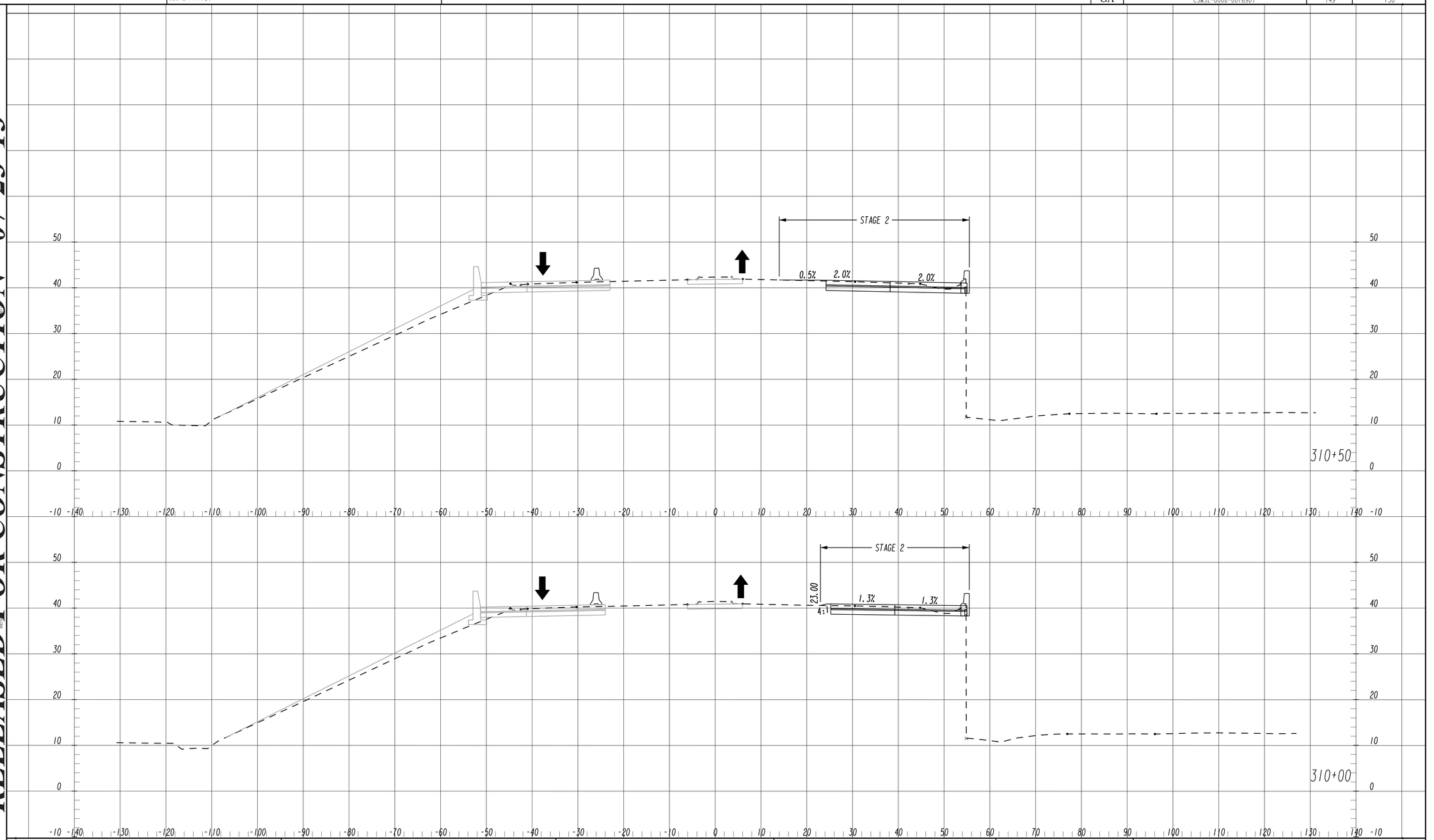
CROSS SECTIONS CONSTRUCTION STAGING

JIMMY DELOACH CONNECTOR
STAGE 2

DRAWING No. 19-080

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	149	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

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A UNIT OF MICHAEL BAKER CORPORATION
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NORCROSS, GEORGIA 30092
(770) 263-9118

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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

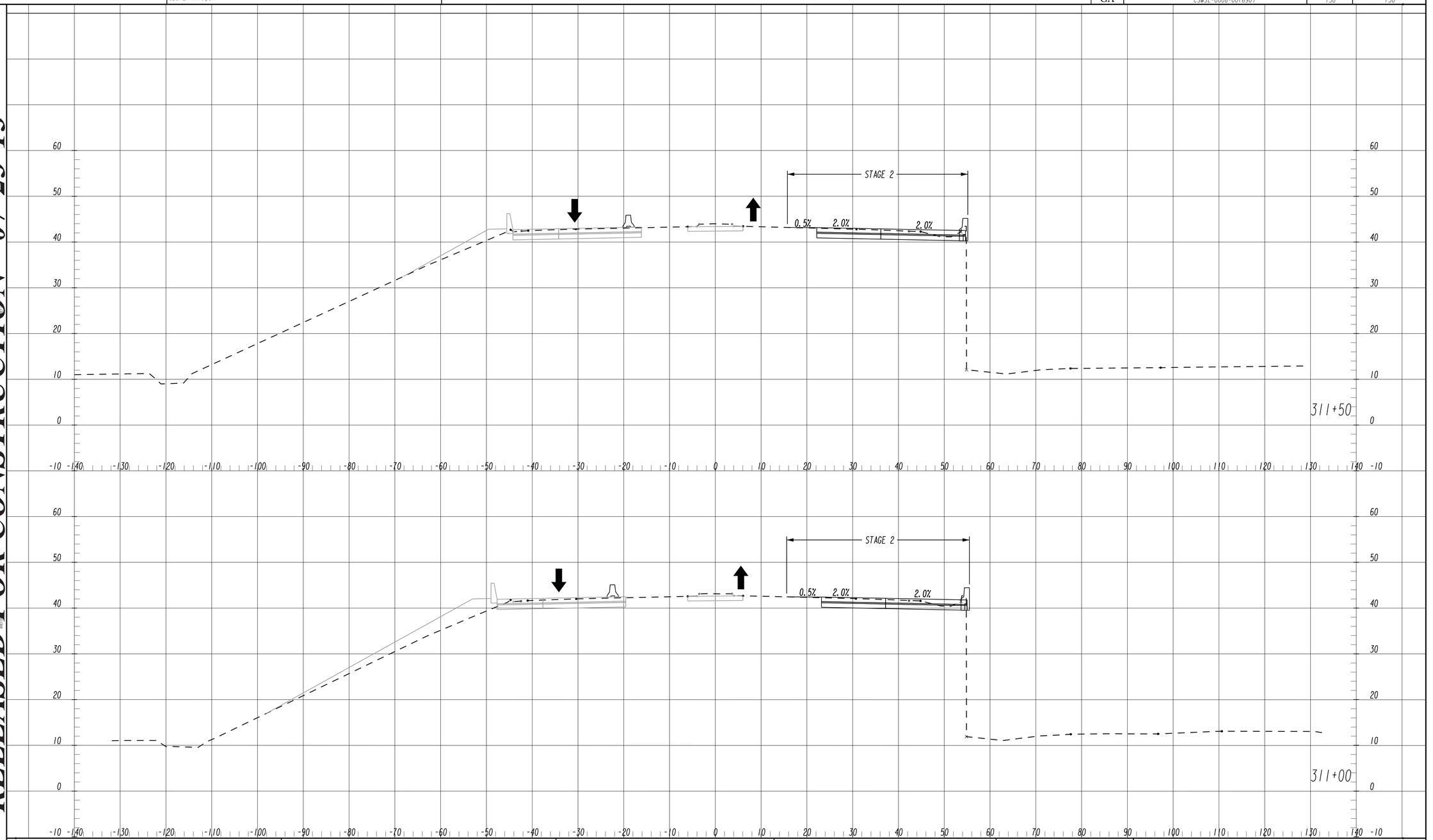
CROSS SECTIONS CONSTRUCTION STAGING

JIMMY DELOACH CONNECTOR
STAGE 2

DRAWING No. 19-081

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	150	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

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A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS CONSTRUCTION STAGING

JIMMY DELOACH CONNECTOR
STAGE 2

DRAWING No. 19-082

23-JUL-2013 14:26 2:26:10 PM
JParks

0008690_SX02_JDC6
GDOT_11x17.pen

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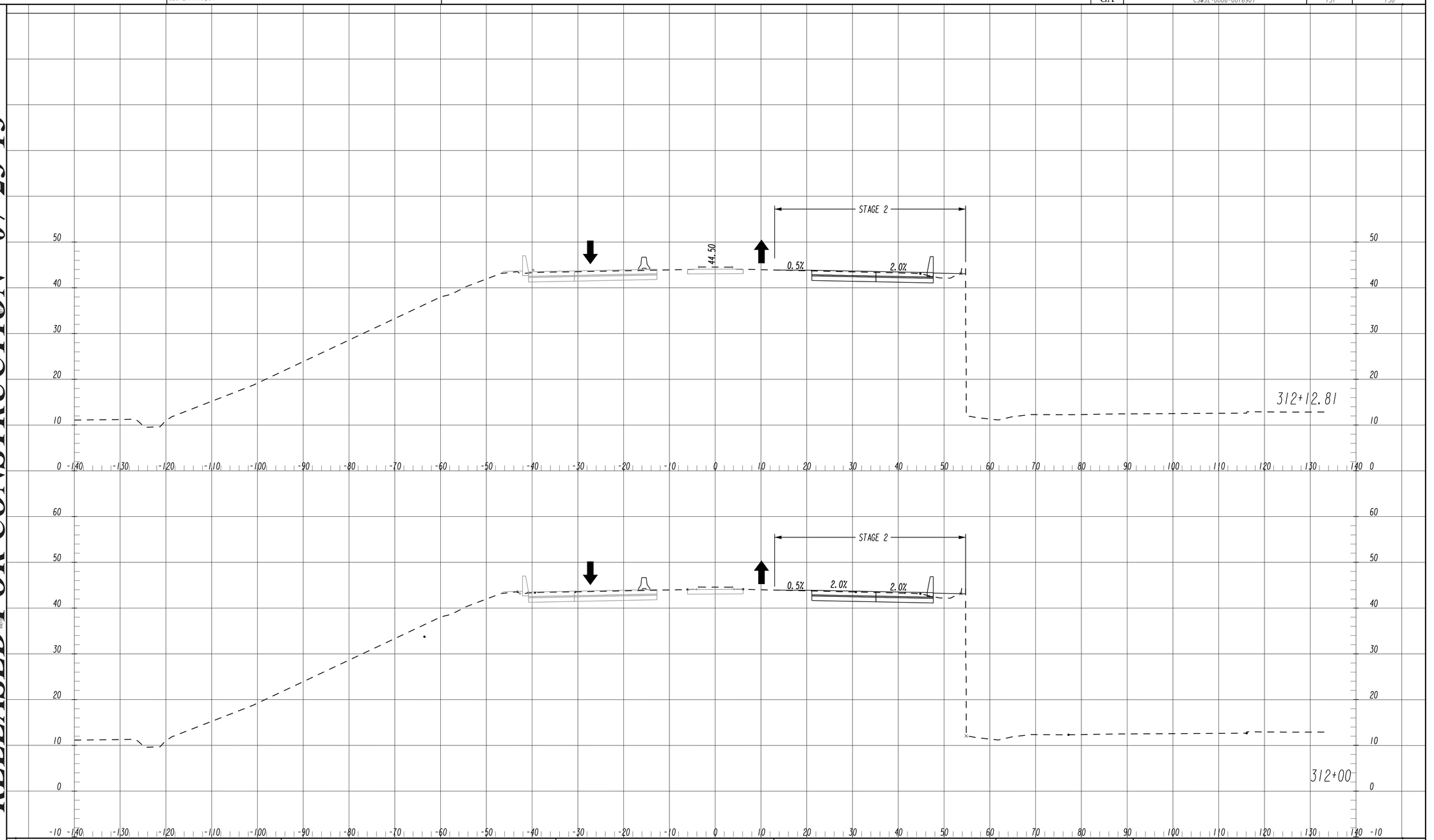
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	151	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

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REVISION DATES

STATE OF GEORGIA
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OFFICE: INNOVATIVE PROGRAM DELIVERY

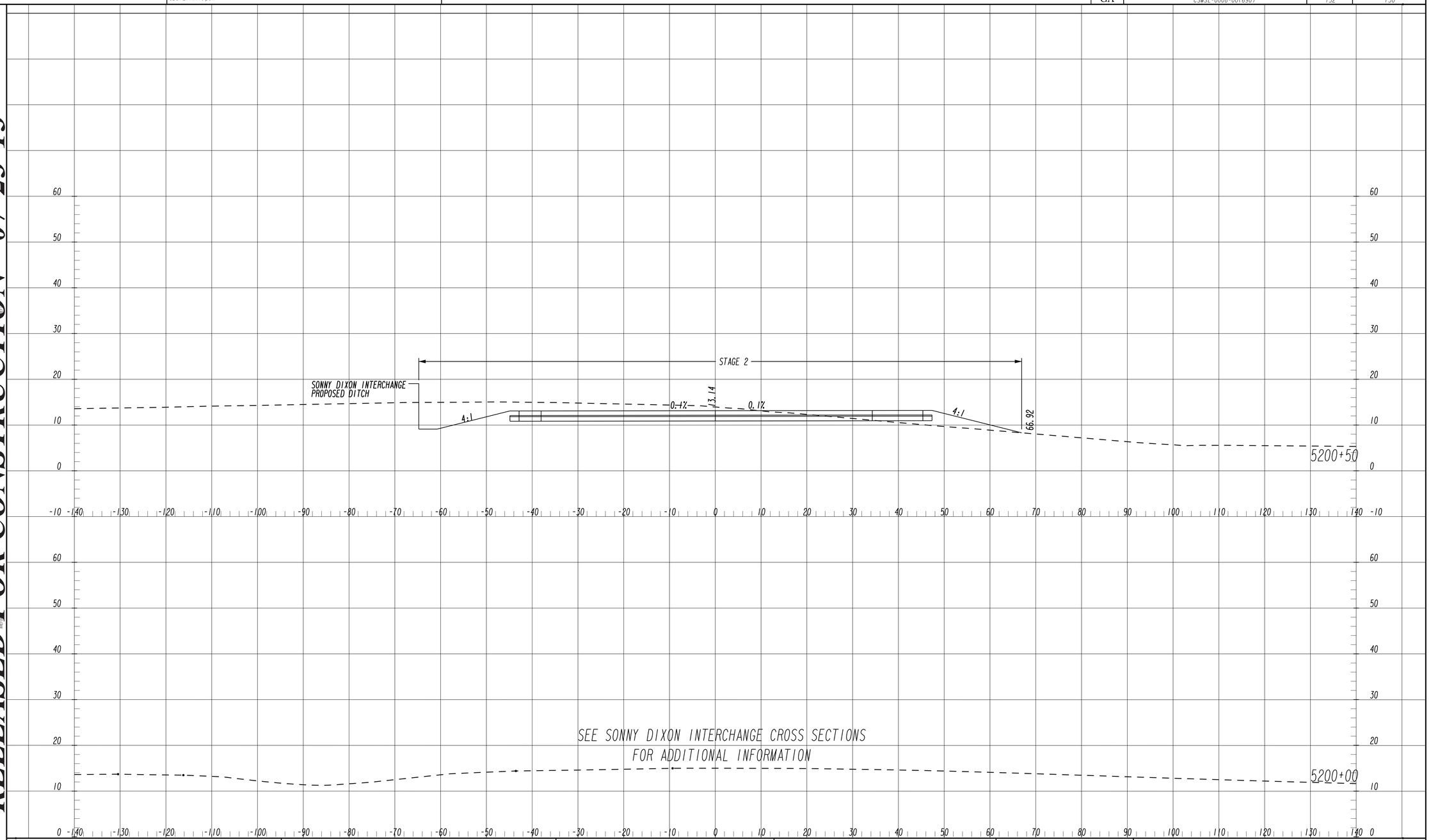
CROSS SECTIONS CONSTRUCTION STAGING

JIMMY DELOACH CONNECTOR
STAGE 2

DRAWING No. 19-083

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	152	730

RELEASED FOR CONSTRUCTION - 07-23-13



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NORCROSS, GEORGIA 30092
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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS CONSTRUCTION STAGING

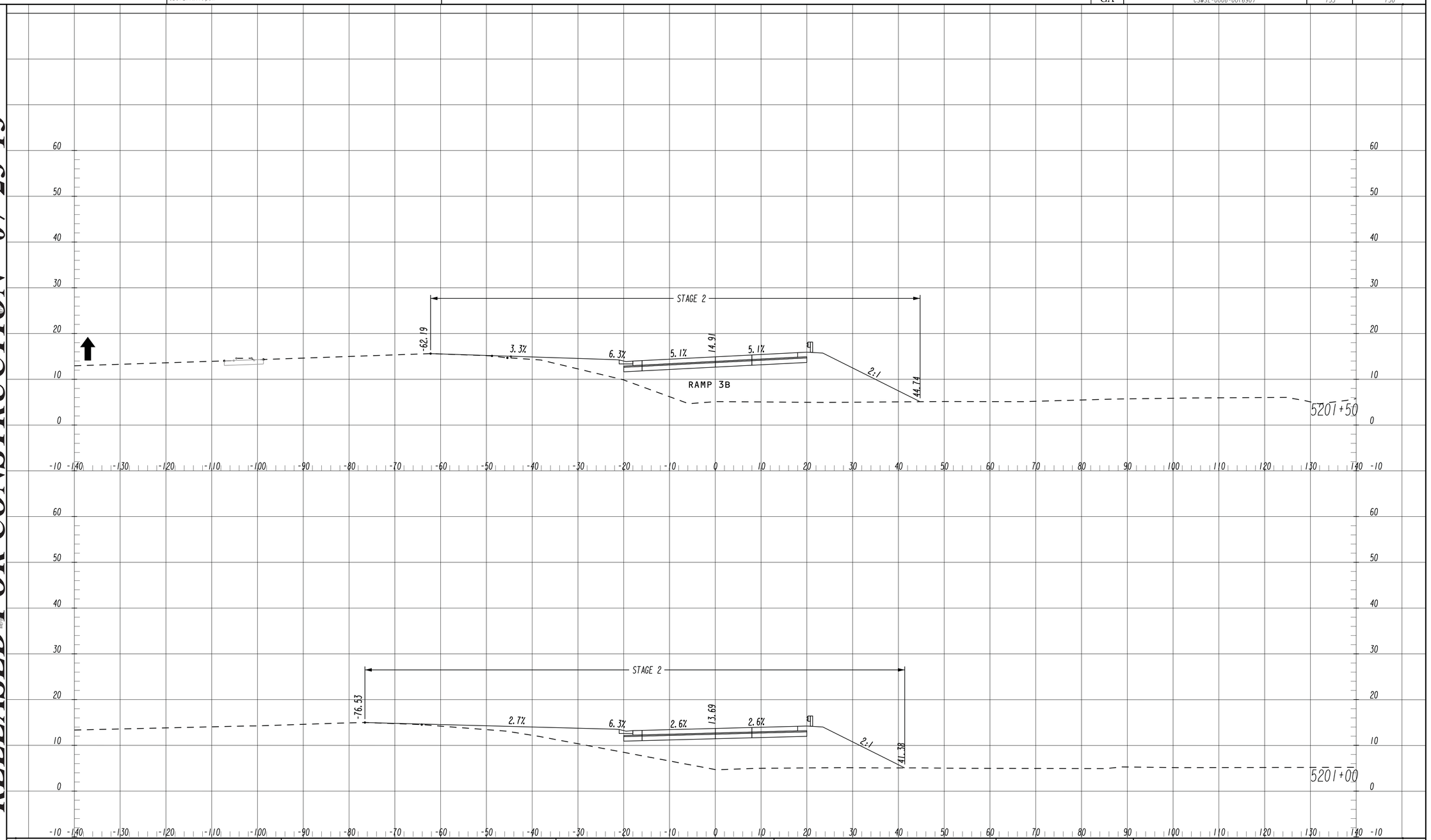
RAMP 3B
STAGE 2

DRAWING No. 19-084

3/1/2007 SUXSEW

23-JUL-2013 14:26	2:26:13 PM	0008690_SX02_RAMP3B1	Y:\Roadways\126379\0008690\Dgn\0008690_SX02_RAMP3B.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	153	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

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REVISION DATES

STATE OF GEORGIA
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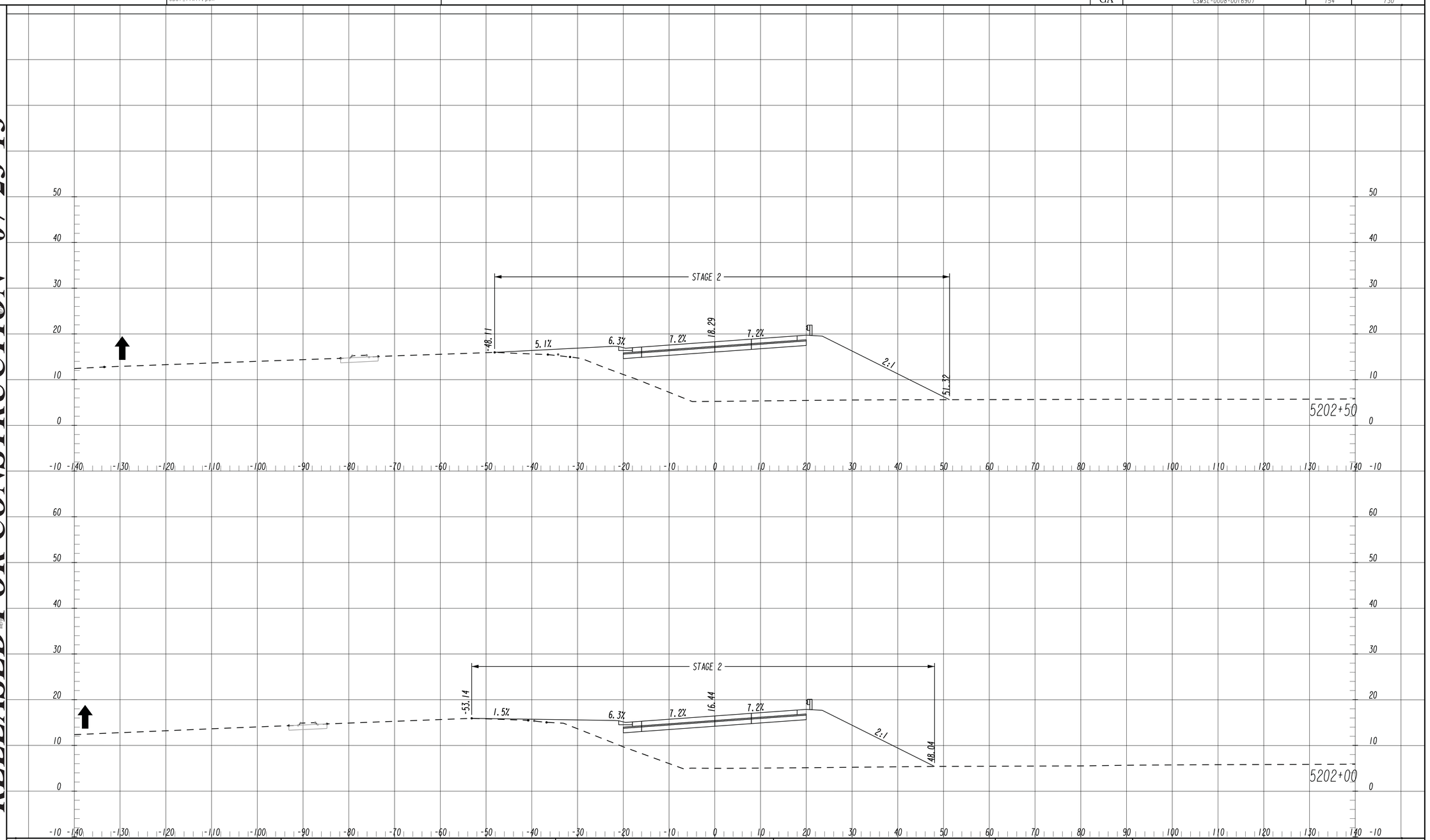
CROSS SECTIONS CONSTRUCTION STAGING

RAMP 3B
STAGE 2

DRAWING No. 19-085

23-JUL-2013 14:26	2:26:14 PM	0008690_SX02_RAMP3B2	Y:\Roadways\126379\0008690\Dgn\0008690_SX02_RAMP3B.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	154	730

RELEASED FOR CONSTRUCTION - 07-23-13



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REVISION DATES

STATE OF GEORGIA
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CROSS SECTIONS CONSTRUCTION STAGING

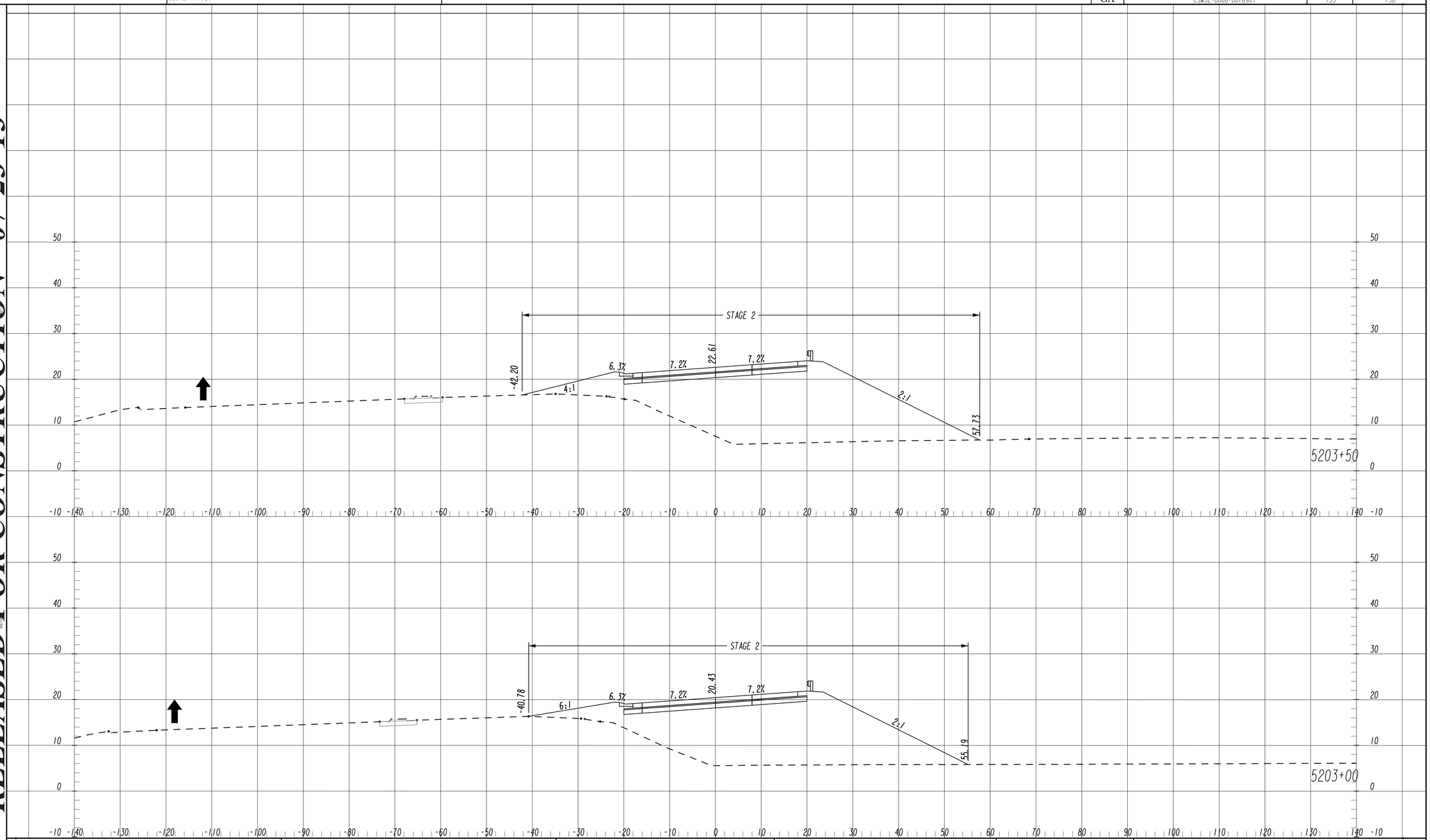
RAMP 3B
STAGE 2

DRAWING No. 19-086

3/1/2007 SUXSEW

23-JUL-2013 14:26	2:26:15 PM	0008690_SX02_RAMP3B3	Y:\Roadways\126379\0008690\Dgn\0008690_SX02_RAMP3B.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	155	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

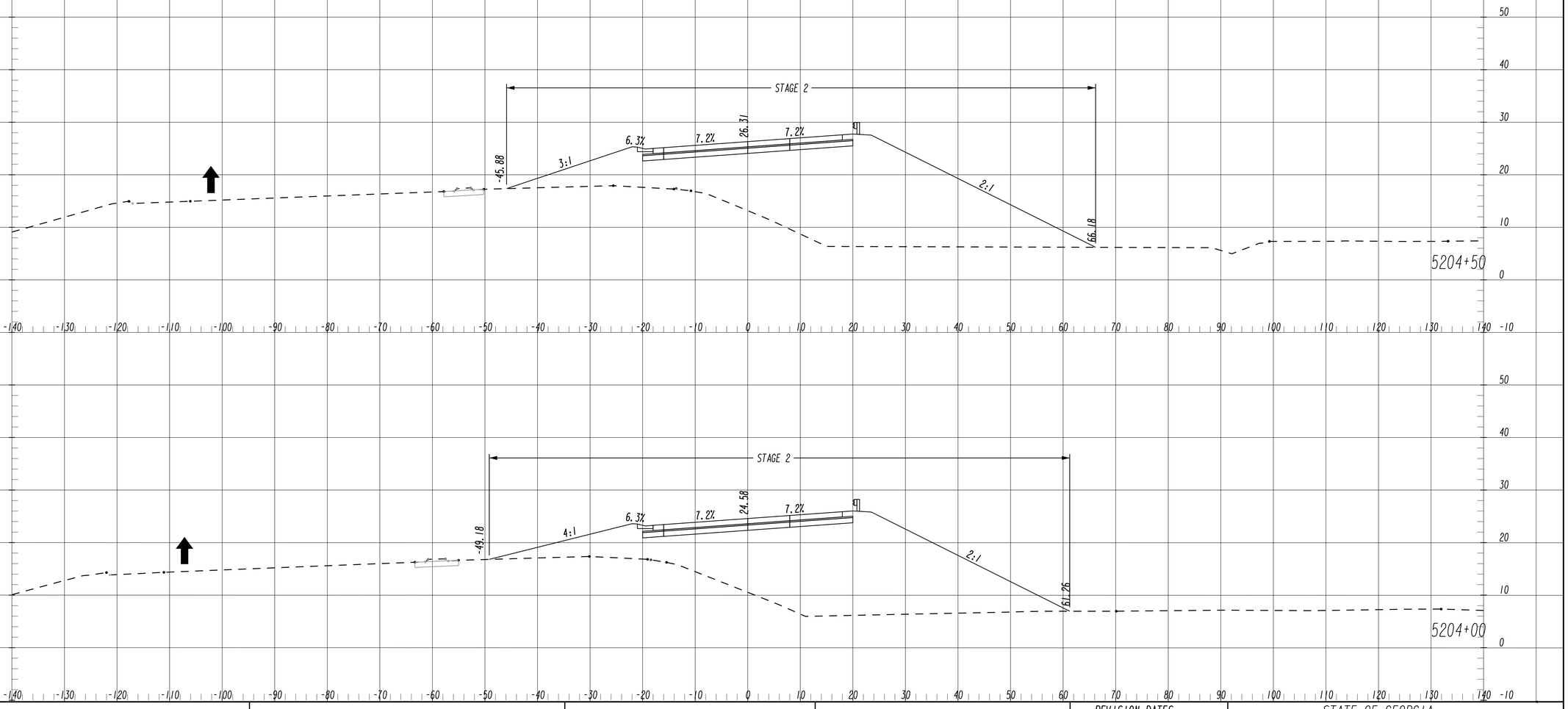
CROSS SECTIONS CONSTRUCTION STAGING

RAMP 3B
STAGE 2

DRAWING No. 19-087

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	156	730

RELEASED FOR CONSTRUCTION - 07-23-13



THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS CONSTRUCTION STAGING

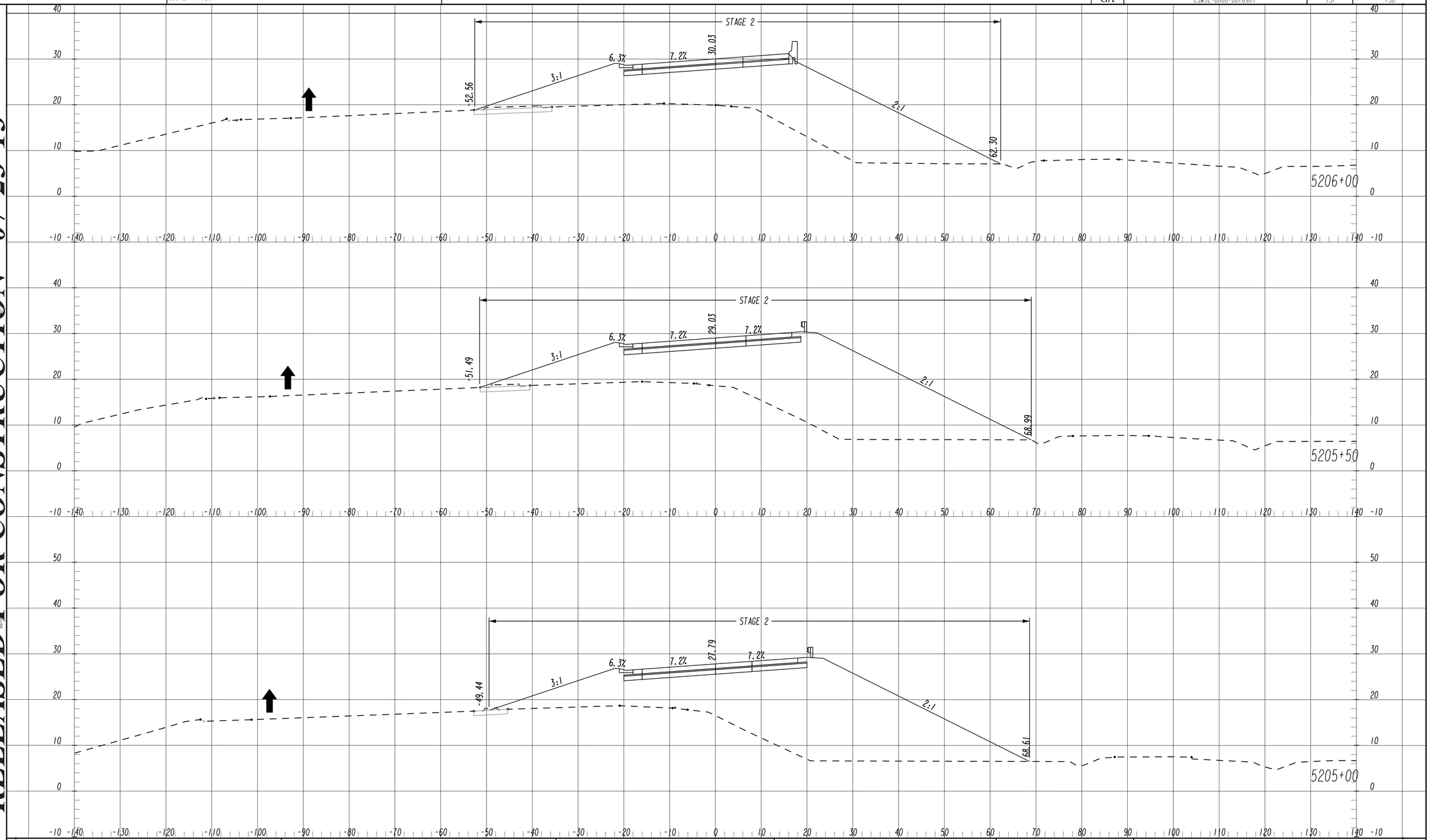
RAMP 3B
STAGE 2

DRAWING No. 19-088

3/1/2007 SUYSEW

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	157	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

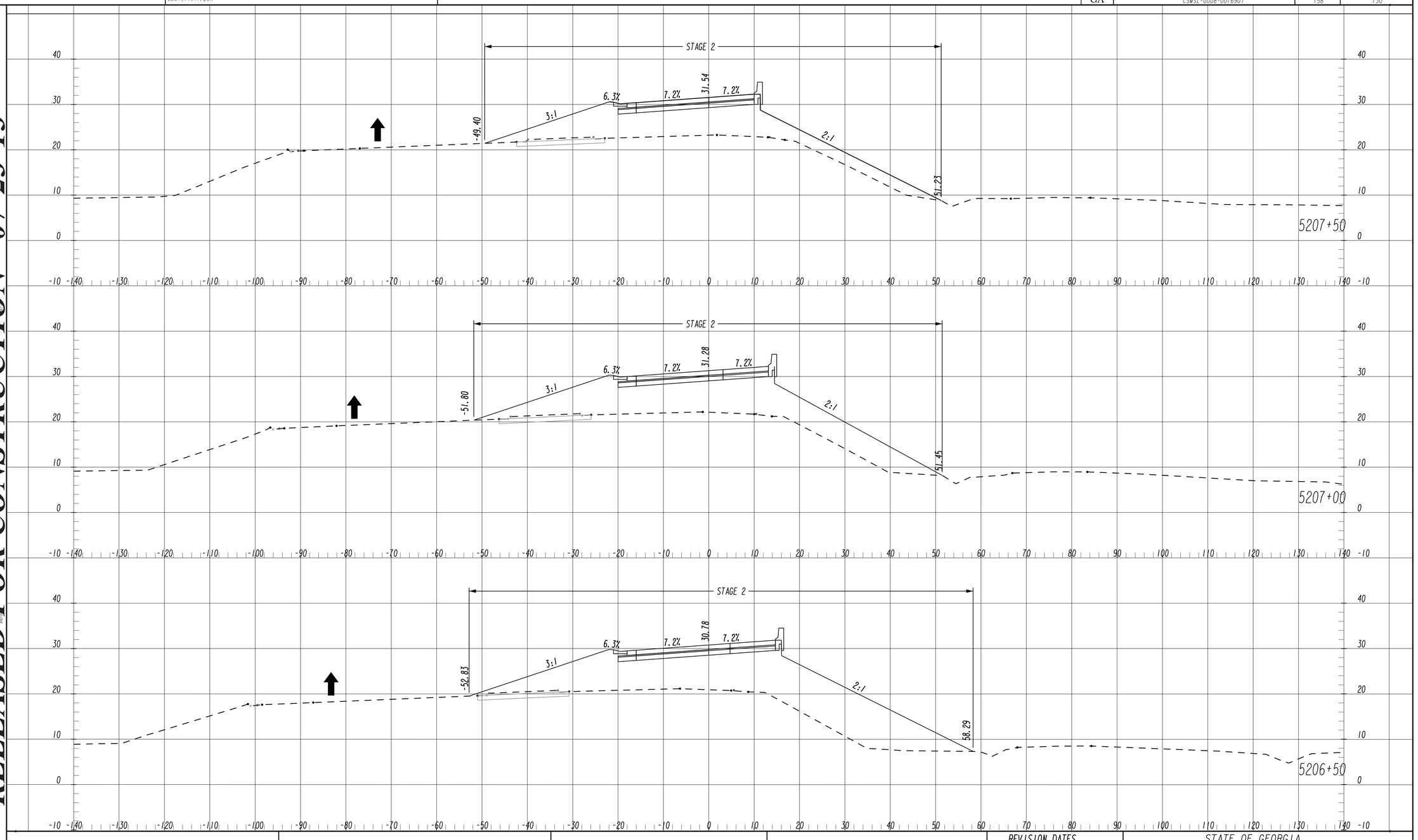
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS CONSTRUCTION STAGING

RAMP 3B
STAGE 2

DRAWING No. 19-089

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

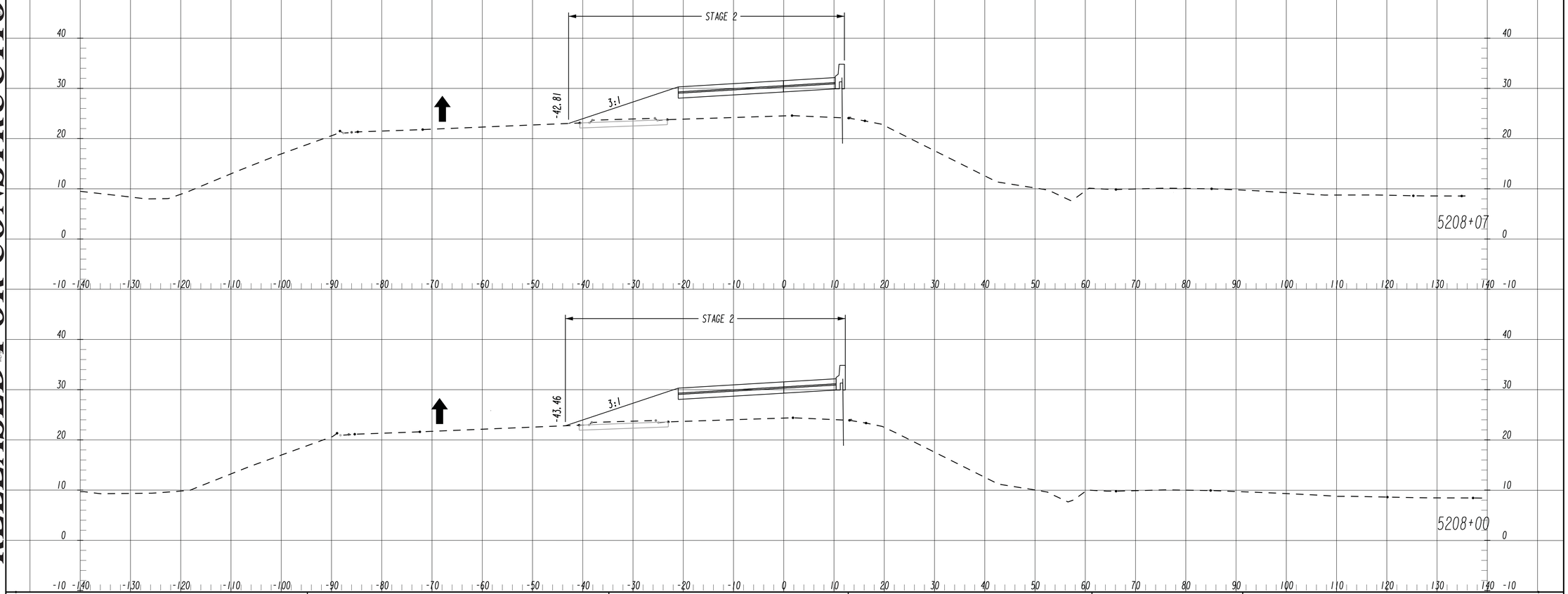
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS CONSTRUCTION STAGING

RAMP 3B
STAGE 2

DRAWING No. 19-090

RELEASED FOR CONSTRUCTION - 07-23-13



THE LPA GROUP
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A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

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1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS CONSTRUCTION STAGING

RAMP 3B
STAGE 2

DRAWING No. 19-091

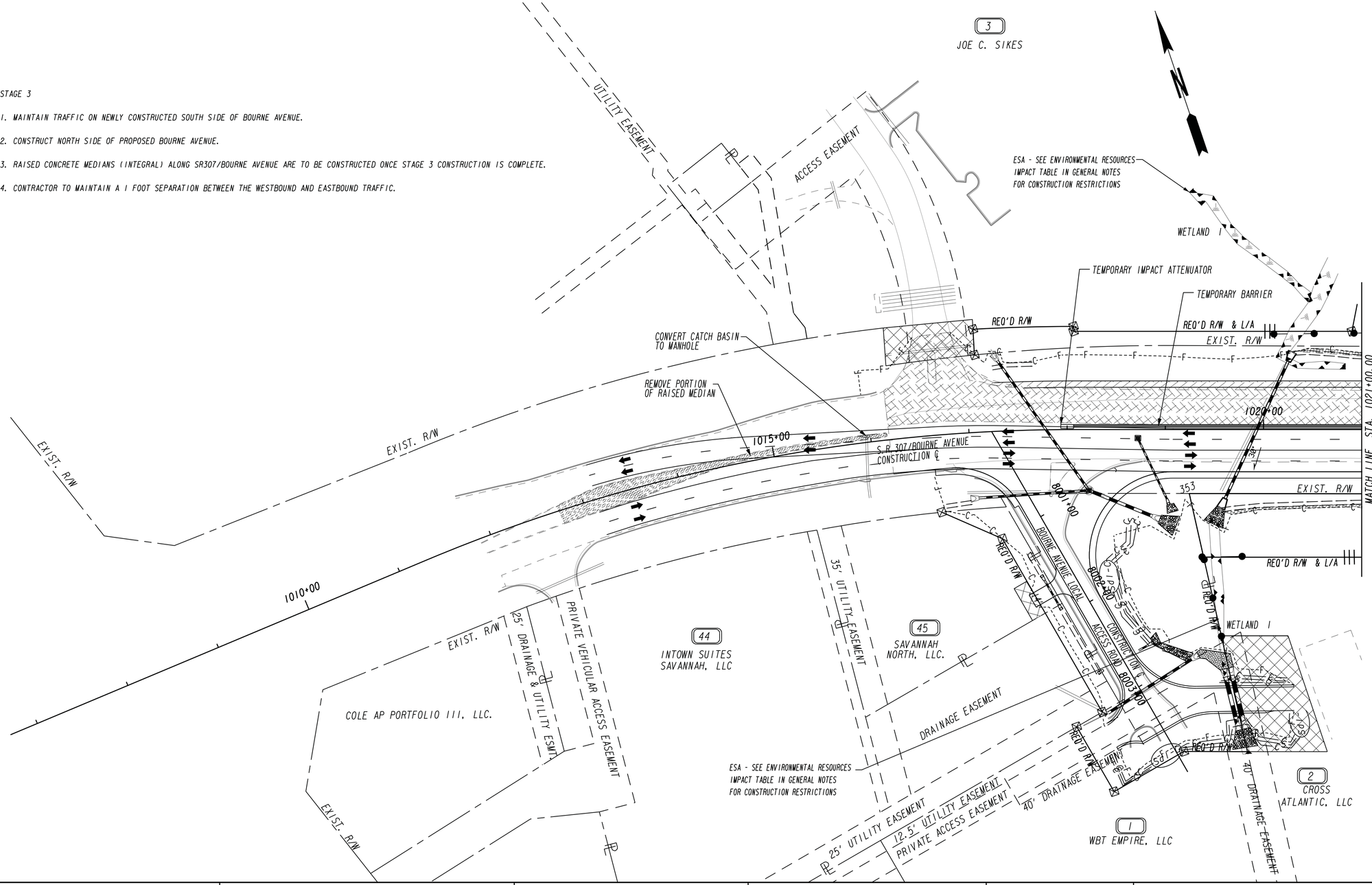
3/1/2007 SUYSEW

23-JUL-2013 14:26 JParks	2:26:37 PM	0008690_19-092 GDOT_11x17.pen	Y:\Roadways\126379\0008690\Dgn\0008690_19-092.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
				GA	CSMSL-0008-00(690)	160	730

RELEASED FOR CONSTRUCTION - 07-23-13

STAGE 3

1. MAINTAIN TRAFFIC ON NEWLY CONSTRUCTED SOUTH SIDE OF BOURNE AVENUE.
2. CONSTRUCT NORTH SIDE OF PROPOSED BOURNE AVENUE.
3. RAISED CONCRETE MEDIANS (INTEGRAL) ALONG SR307/BOURNE AVENUE ARE TO BE CONSTRUCTED ONCE STAGE 3 CONSTRUCTION IS COMPLETE.
4. CONTRACTOR TO MAINTAIN A 1 FOOT SEPARATION BETWEEN THE WESTBOUND AND EASTBOUND TRAFFIC.



LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

STAGE 3

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CONSTRUCTION STAGING PLAN

STAGE 3 - BEGIN CONST. TO SONNY DIXON INTERCHANGE STA. 1021+00

DRAWING No. 19-092

3/1/2007 GPLN

23-JUL-2013 14:26	2:26:44 PM	0008690_19-093	Y:\Roadways\126379\0008690\Dgn\0008690_19-093.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	161	730

RELEASED FOR CONSTRUCTION - 07-23-13

STAGE 3

1. MAINTAIN TRAFFIC ON NEWLY CONSTRUCTED SOUTH SIDE OF BOURNE AVENUE.
2. CONSTRUCT NORTH SIDE OF PROPOSED BOURNE AVENUE.
3. RAISED CONCRETE MEDIANS (INTEGRAL) ALONG SR307/BOURNE AVENUE ARE TO BE CONSTRUCTED ONCE STAGE 3 CONSTRUCTION IS COMPLETE.
4. CONTRACTOR TO MAINTAIN A 1 FOOT SEPARATION BETWEEN THE WESTBOUND AND EASTBOUND TRAFFIC.

MATCH LINE STA. 1021+00.00
SEE SHEET 19-092

EXIST. R/W

REQ'D R/W & L/A

TEMPORARY BARRIER

2
CROSS ATLANTIC, LLC

BEGIN PROJECT
CSMSL-008-00(690)
JIMMY DELOACH CONNECTOR
STA 149+66.27'
BOURNE AVENUE
STA 1027+24.17

S.R. 307/BOURNE AVENUE

1025+00

150+00

WETLAND 2 (PCS 'D')
USACE SAS-2011-00688

ORANGE BARRIER FENCE

MATCH LINE STA. 1029+00.00
SEE SHEET 19-094

3
JOE C. SIKES

ESA - SEE ENVIRONMENTAL RESOURCES IMPACT TABLE IN GENERAL NOTES FOR CONSTRUCTION RESTRICTIONS

STREAM 4

WETLAND 1

REMAINDER LT.

155+00

160+00

JIMMY DELOACH CONNECTOR
CONSTRUCTION ℄

WETLAND 3 (PCS 'E')
USACE SAS-2011-00688

4
PCS NITROGEN INC.

REMAINDER RT.

MATCH LINE STA. 162+00.00

LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

STAGE 3

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CONSTRUCTION STAGING PLAN

STAGE 3 - JIMMY DELOACH CONN.
BEGIN CONST. TO STA. 162+00

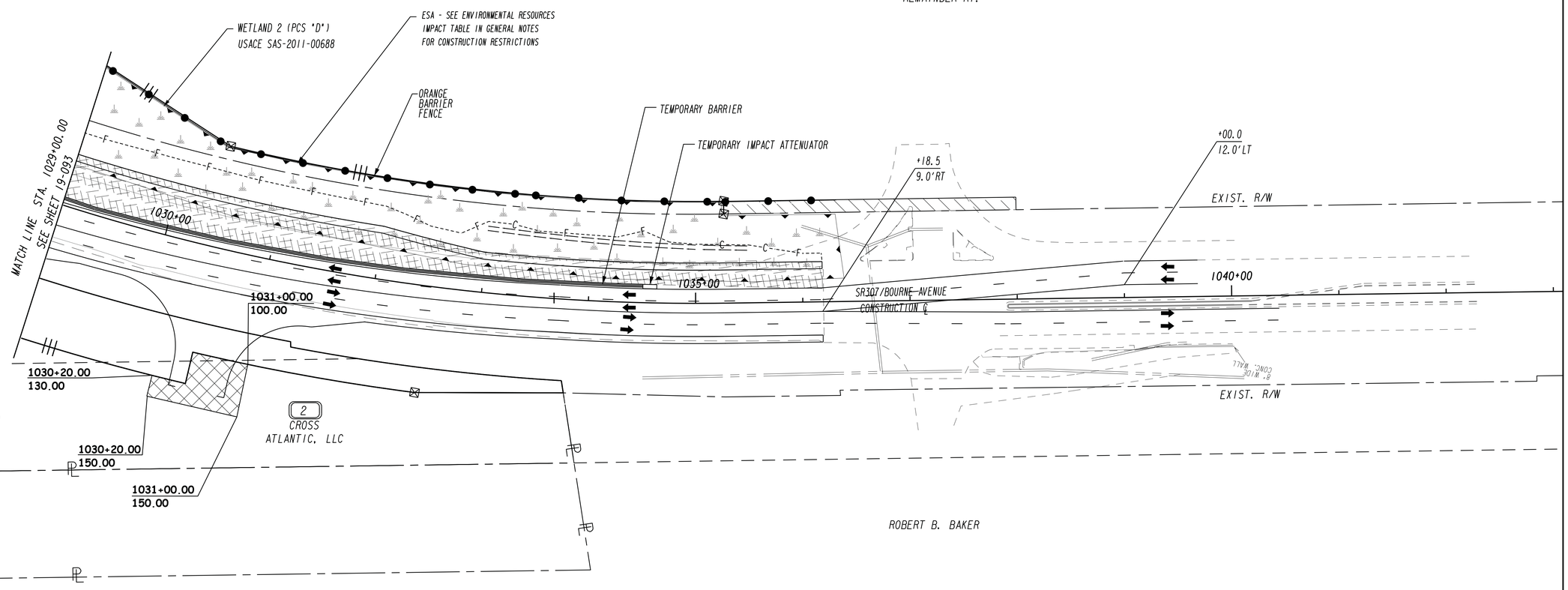
DRAWING No. 19-093

3/1/2007 GPLN

RELEASED FOR CONSTRUCTION - 07-23-13

STAGE 3

1. MAINTAIN TRAFFIC ON NEWLY CONSTRUCTED SOUTH SIDE OF BOURNE AVENUE.
2. CONSTRUCT NORTH SIDE OF PROPOSED BOURNE AVENUE.
3. RAISED CONCRETE MEDIANS (INTEGRAL) ALONG SR307/BOURNE AVENUE ARE TO BE CONSTRUCTED ONCE STAGE 3 CONSTRUCTION IS COMPLETE.
4. CONTRACTOR TO MAINTAIN A 1 FOOT SEPARATION BETWEEN THE WESTBOUND AND EASTBOUND TRAFFIC.



LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

STAGE 3

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CONSTRUCTION STAGING PLAN

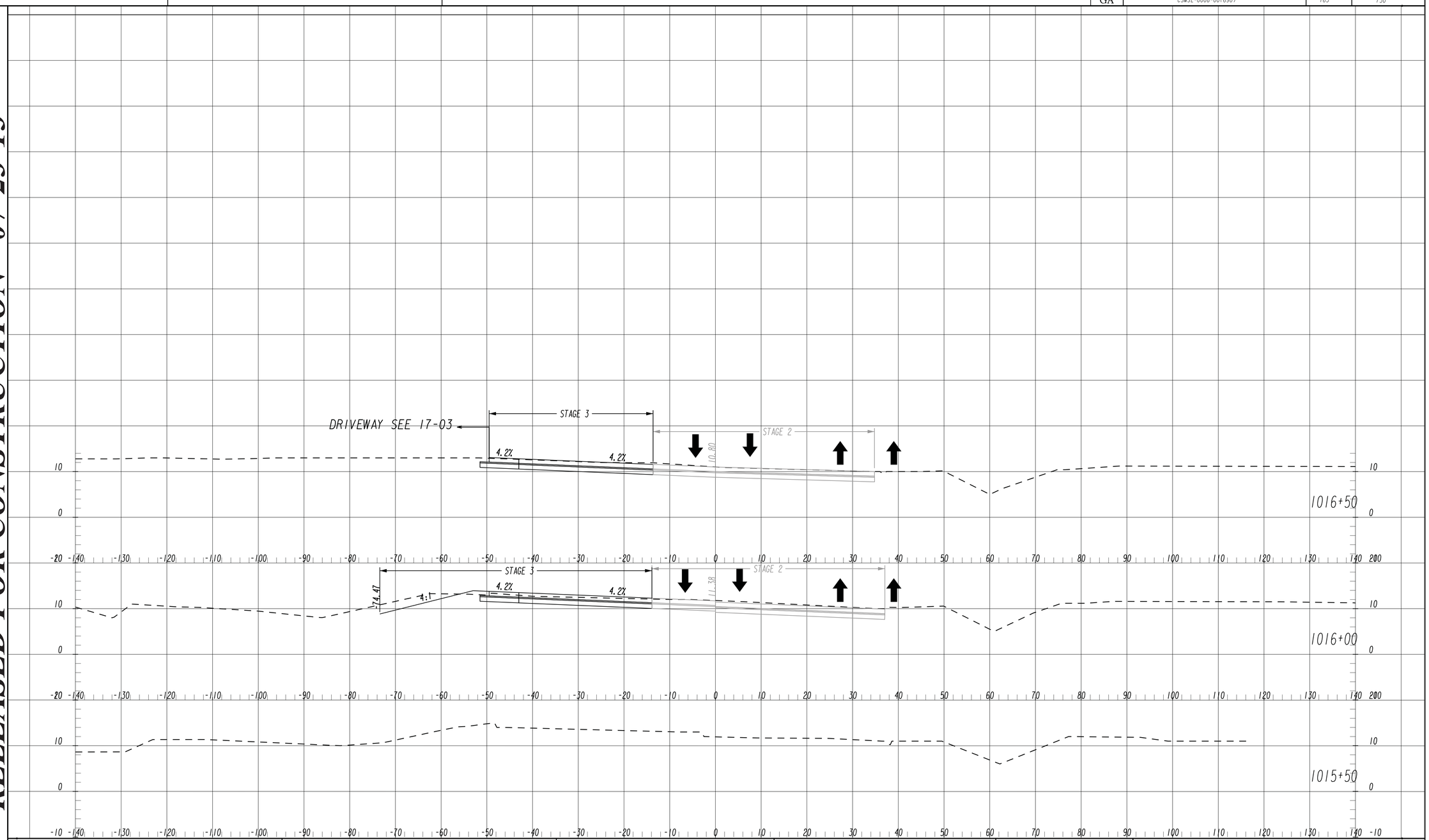
STAGE 3 - BOURNE AVENUE
STA. 1029+00 TO END CONST.

DRAWING No. 19-094

3/1/2007 GPLN

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	163	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

THE LPA GROUP
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A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

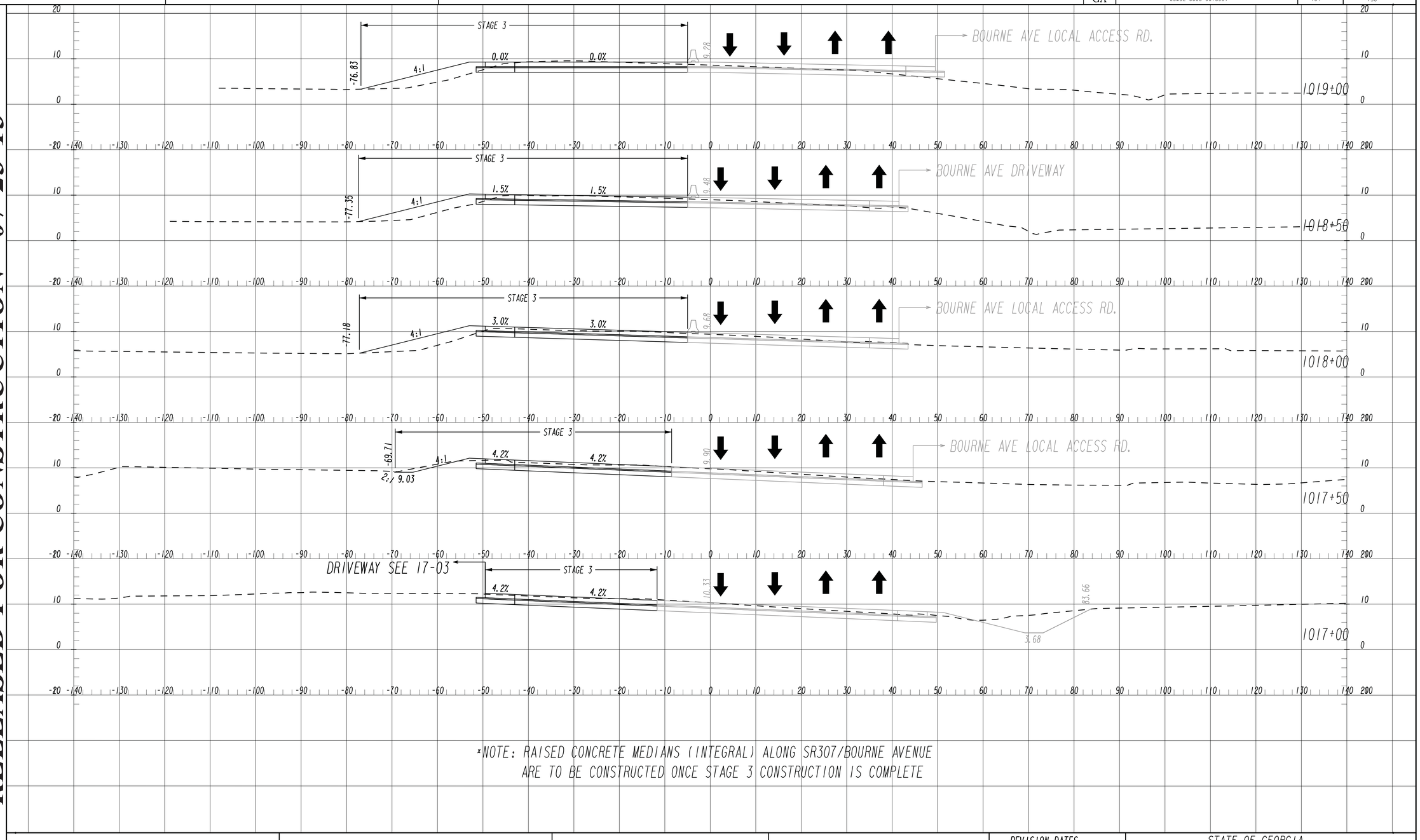
CROSS SECTIONS CONSTRUCTION STAGING

SR307/BOURNE AVENUE
STAGE 3

DRAWING No. 19-095

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	164	730

RELEASED FOR CONSTRUCTION - 07-23-13



*NOTE: RAISED CONCRETE MEDIANS (INTEGRAL) ALONG SR307/BOURNE AVENUE ARE TO BE CONSTRUCTED ONCE STAGE 3 CONSTRUCTION IS COMPLETE

THE LPA GROUP
TRANSPORTATION CONSULTANTS
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NORCROSS, GEORGIA 30092
(770) 263-9118

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1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS CONSTRUCTION STAGING

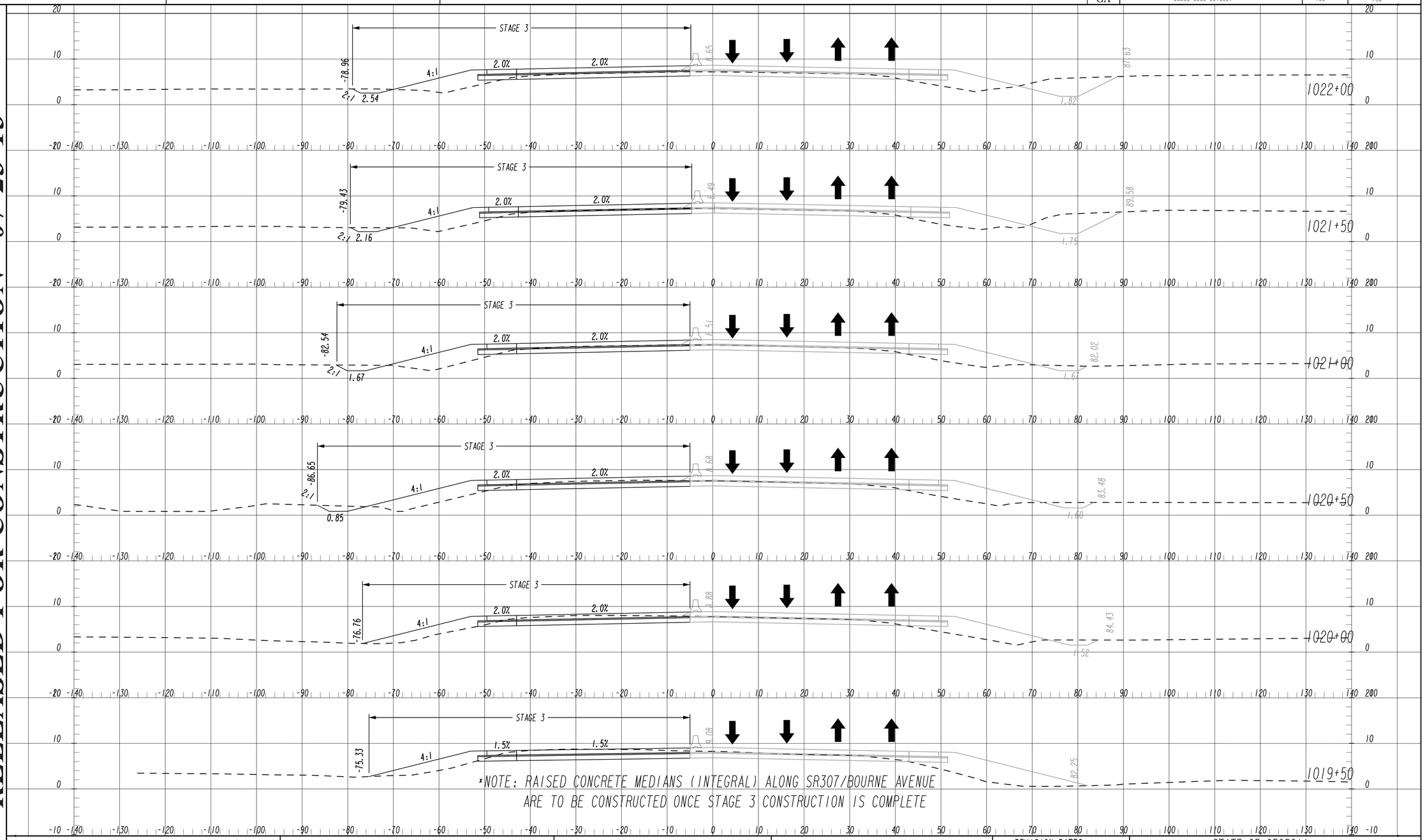
SR307/BOURNE AVENUE
STAGE 3

DRAWING No. 19-096

3/1/2007 SUXSEW

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	165	730

RELEASED FOR CONSTRUCTION - 07-23-13



*NOTE: RAISED CONCRETE MEDIANS (INTEGRAL) ALONG SR307/BOURNE AVENUE ARE TO BE CONSTRUCTED ONCE STAGE 3 CONSTRUCTION IS COMPLETE

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS CONSTRUCTION STAGING

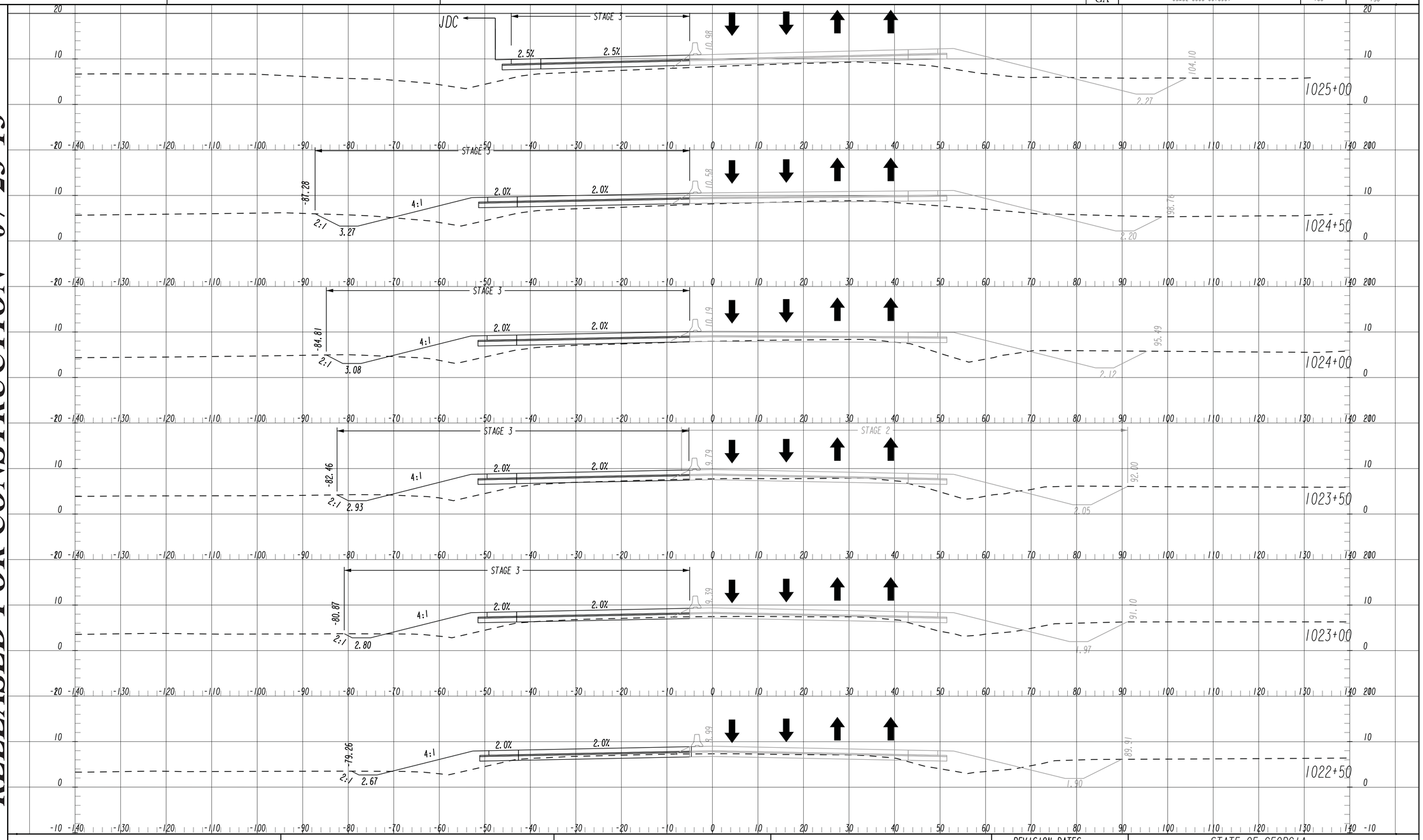
SR307/BOURNE AVENUE
STAGE 3

DRAWING No. 19-097

3/1/2007 SUXSEW

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	166	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

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A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

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1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

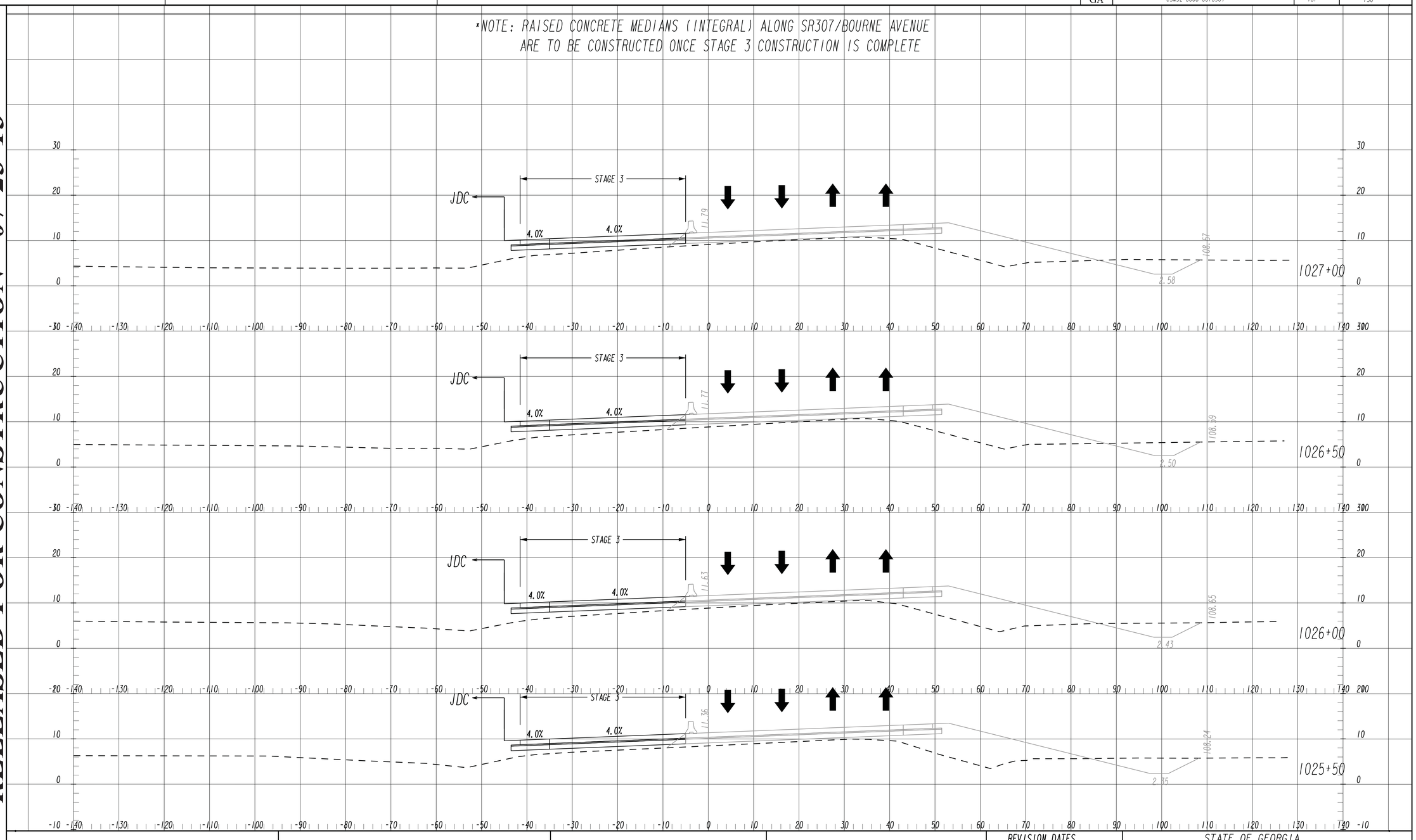
CROSS SECTIONS CONSTRUCTION STAGING

SR307/BOURNE AVENUE
STAGE 3

DRAWING No. 19-098

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	167	730

*NOTE: RAISED CONCRETE MEDIANS (INTEGRAL) ALONG SR307/BOURNE AVENUE ARE TO BE CONSTRUCTED ONCE STAGE 3 CONSTRUCTION IS COMPLETE



RELEASED FOR CONSTRUCTION - 07-23-13

3/1/2007 SUXSEW

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A UNIT OF MICHAEL BAKER CORPORATION
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NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

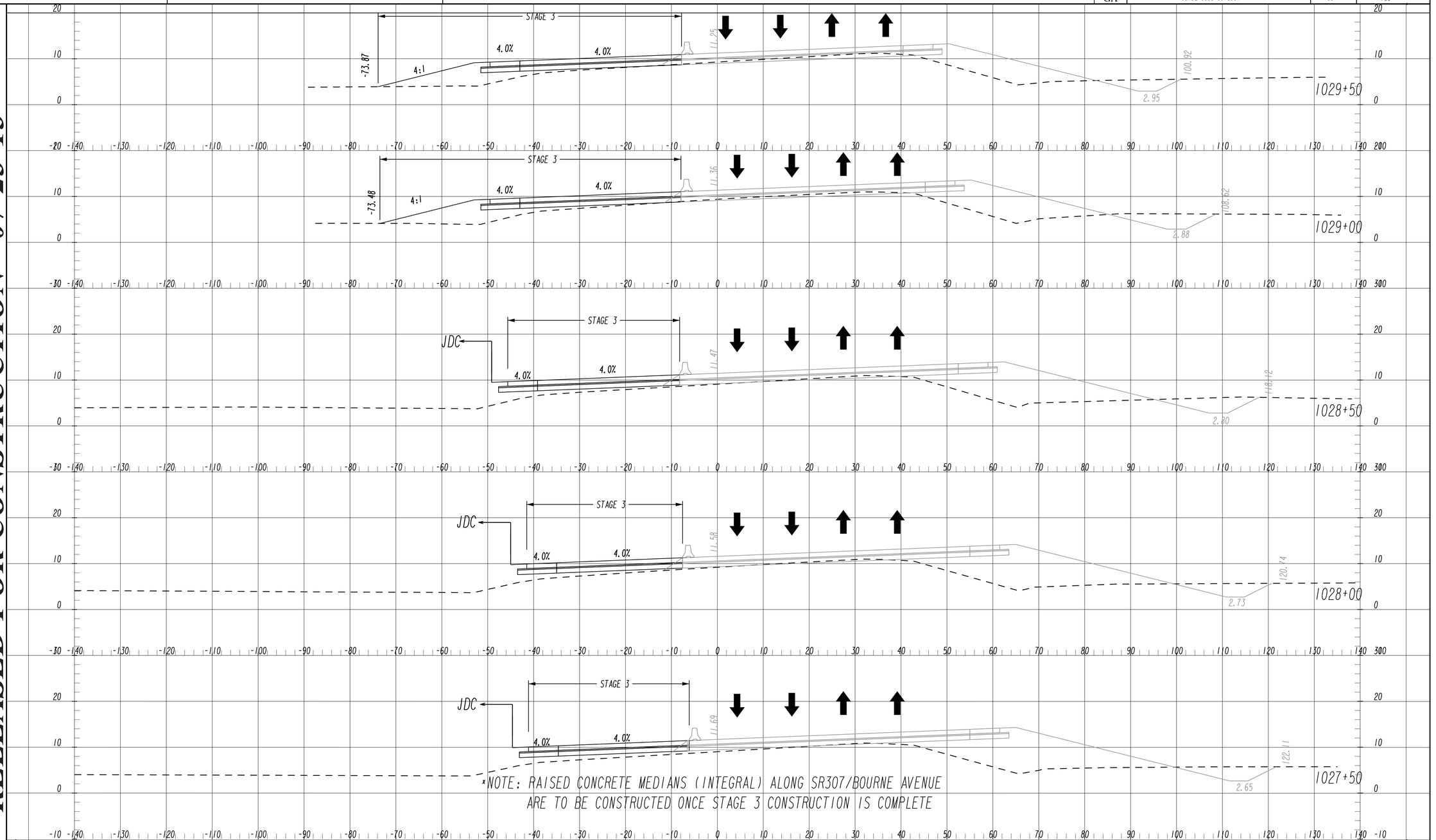
CROSS SECTIONS CONSTRUCTION STAGING

SR307/BOURNE AVENUE
STAGE 3

DRAWING No. 19-099

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	168	730

RELEASED FOR CONSTRUCTION - 07-23-13



*NOTE: RAISED CONCRETE MEDIANS (INTEGRAL) ALONG SR307/BOURNE AVENUE ARE TO BE CONSTRUCTED ONCE STAGE 3 CONSTRUCTION IS COMPLETE

THE LPA GROUP
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(770) 263-9118

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1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS CONSTRUCTION STAGING

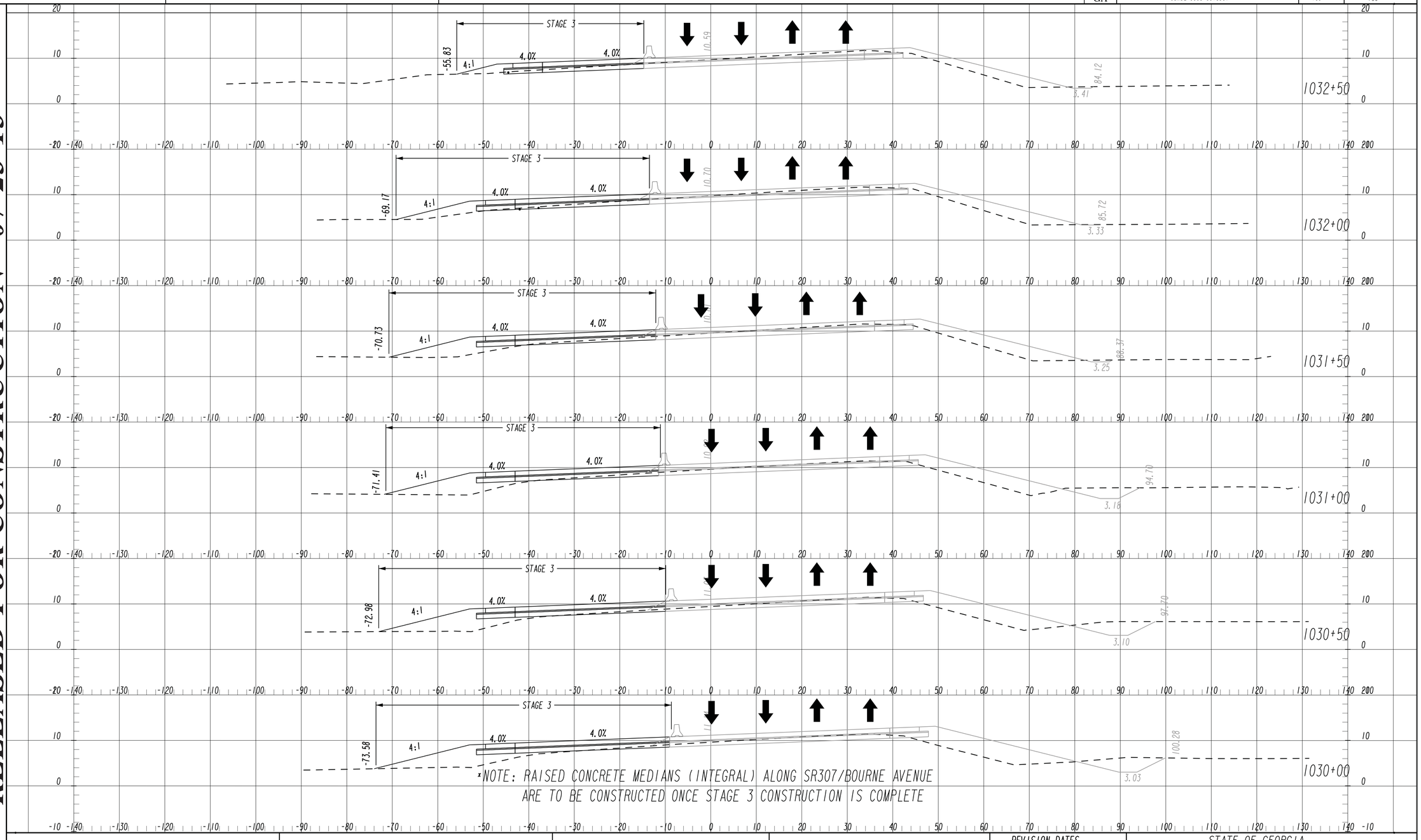
SR307/BOURNE AVENUE
STAGE 3

DRAWING No. 19-100

3/1/2007 SUXSEW

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	169	730

RELEASED FOR CONSTRUCTION - 07-23-13



*NOTE: RAISED CONCRETE MEDIANS (INTEGRAL) ALONG SR307/BOURNE AVENUE ARE TO BE CONSTRUCTED ONCE STAGE 3 CONSTRUCTION IS COMPLETE

3/1/2007 SUXSEW

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

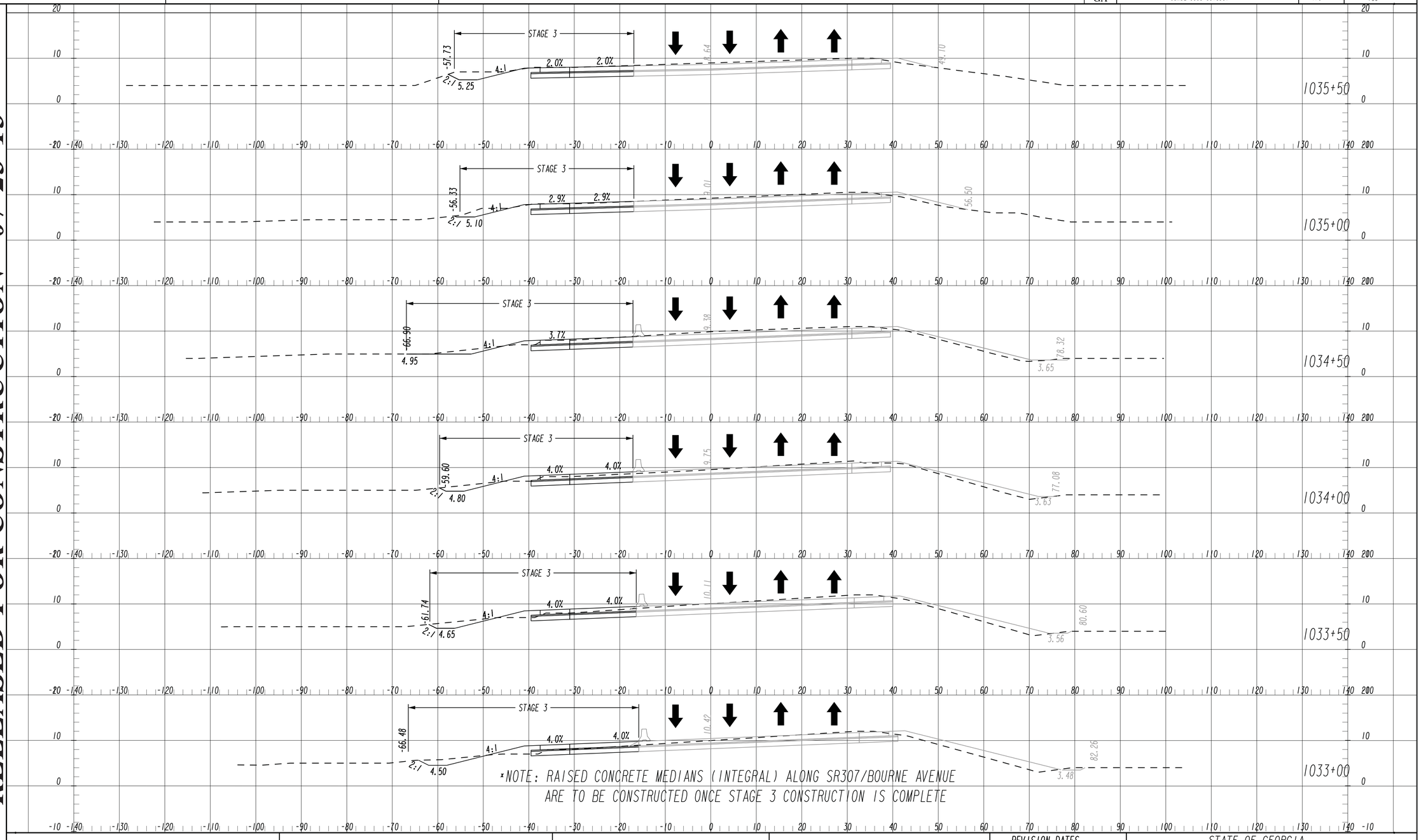
CROSS SECTIONS CONSTRUCTION STAGING

SR307/BOURNE AVENUE
STAGE 3

DRAWING No. 19-101

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	170	730

RELEASED FOR CONSTRUCTION - 07-23-13



*NOTE: RAISED CONCRETE MEDIANS (INTEGRAL) ALONG SR307/BOURNE AVENUE ARE TO BE CONSTRUCTED ONCE STAGE 3 CONSTRUCTION IS COMPLETE

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS CONSTRUCTION STAGING

SR307/BOURNE AVENUE
STAGE 3

DRAWING No. 19-102

3/1/2007 SUXSEW

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	171	730

RELEASED FOR CONSTRUCTION - 07-23-13

1038+00

1037+50

1037+00

1036+50

1036+00

STAGE 3

42.85

4:1

1.2%

1.2%

8.28

43.85

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS CONSTRUCTION STAGING

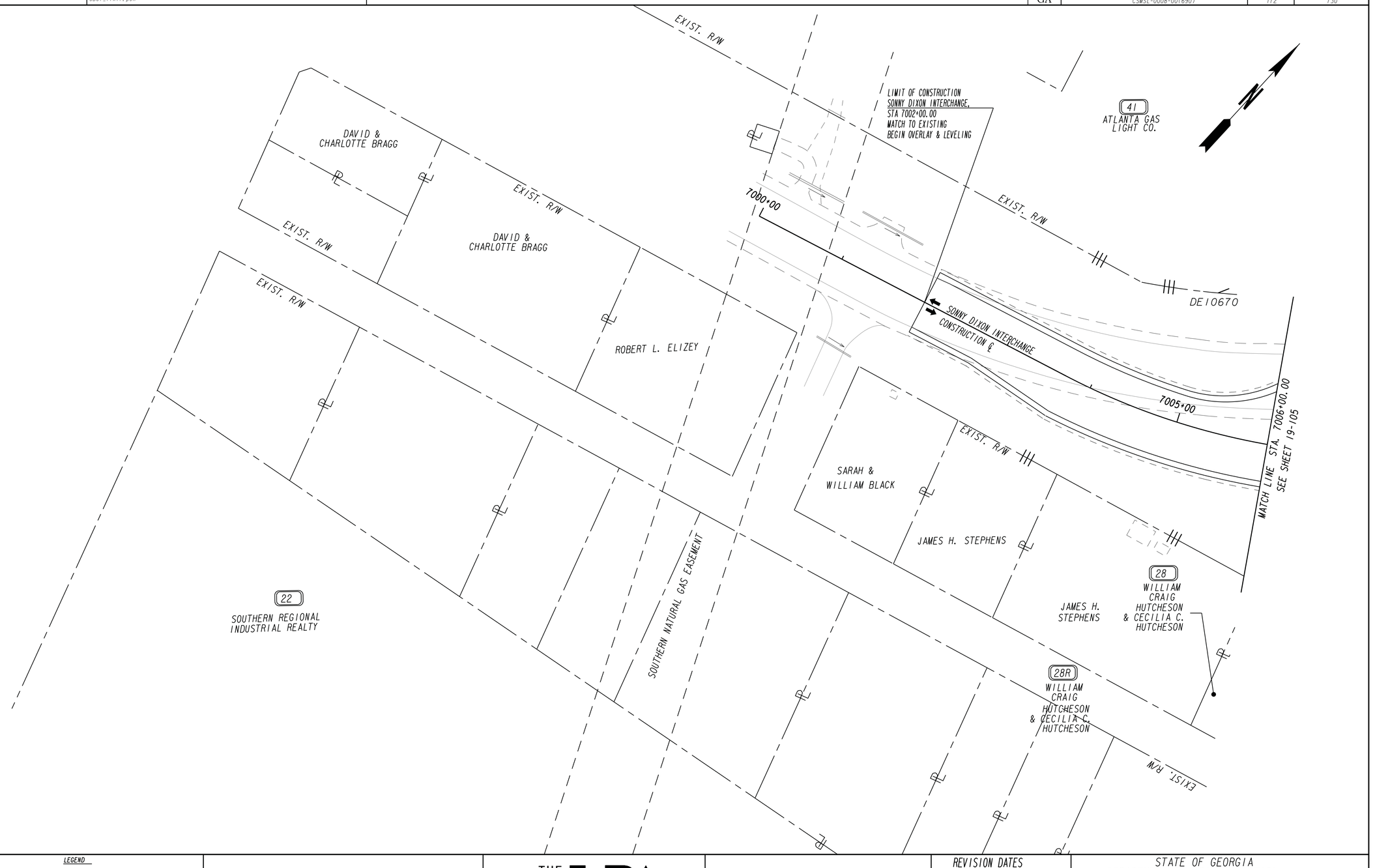
SR307/BOURNE AVENUE
STAGE 3

DRAWING No. 19-103

3/1/2007 SUXSEW

23-JUL-2013 14:27	2:27:17 PM	0008690_19-104	Y:\Roadways\126379\0008690\Dgn\0008690_19-104.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	172	730

RELEASED FOR CONSTRUCTION - 07-23-13



LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

3/11/2007 GPLN

STAGE 3

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

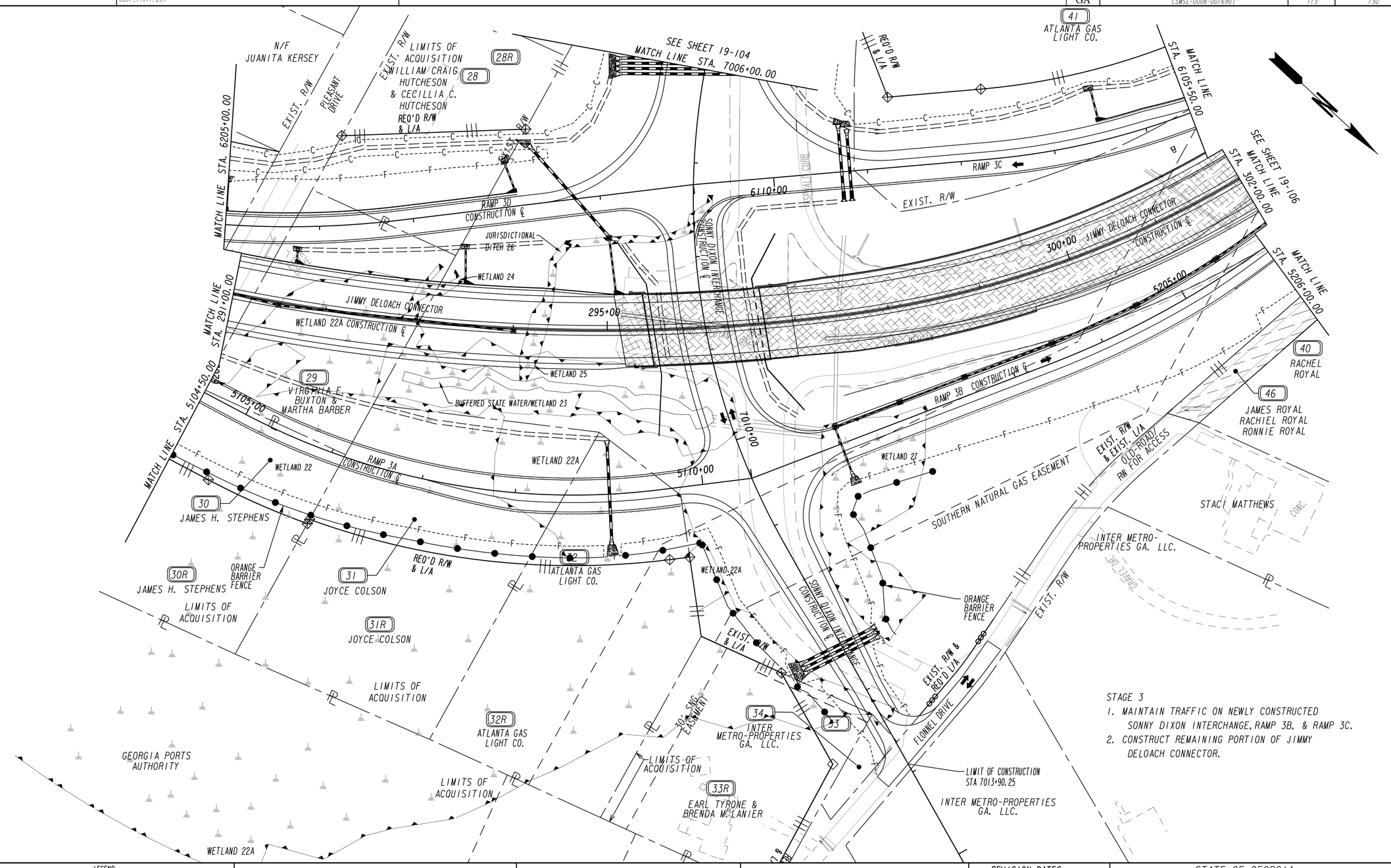
CONSTRUCTION STAGING PLAN

STAGE 3 - BEGIN CONST. TO SONNY DIXON INTERCHANGE STA. 7006+00

DRAWING No. 19-104

23-JUL-2013 14:27	2:27:25 PM	0008690_19-105	Y:\Roadways\126379\0008690\Dgn\0008690_19-105.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	173	730

RELEASED FOR CONSTRUCTION - 07-23-13



STAGE 3
1. MAINTAIN TRAFFIC ON NEWLY CONSTRUCTED SONNY DIXON INTERCHANGE, RAMP 3B, & RAMP 3C.
2. CONSTRUCT REMAINING PORTION OF JIMMY DELOACH CONNECTOR.

LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

STAGE 3

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

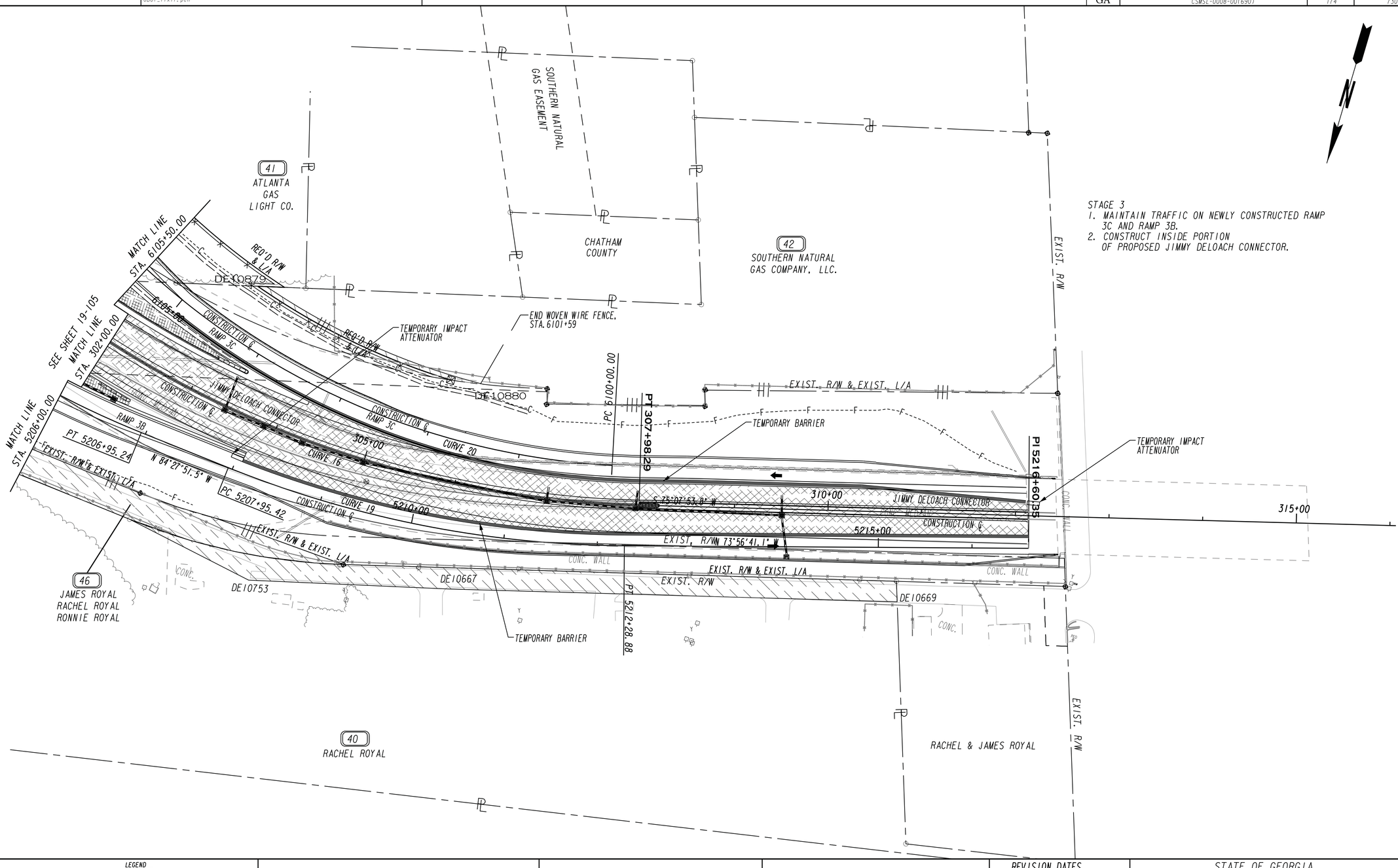
CONSTRUCTION STAGING PLAN

STAGE 3 - JIMMY DELOACH CONN.
STA. 291+00 TO STA. 302+00

DRAWING No. 19-105

3/11/2007 GPLN

RELEASED FOR CONSTRUCTION - 07-23-13



STAGE 3
1. MAINTAIN TRAFFIC ON NEWLY CONSTRUCTED RAMP 3C AND RAMP 3B.
2. CONSTRUCT INSIDE PORTION OF PROPOSED JIMMY DELOACH CONNECTOR.

LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

STAGE 3

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CONSTRUCTION STAGING PLAN

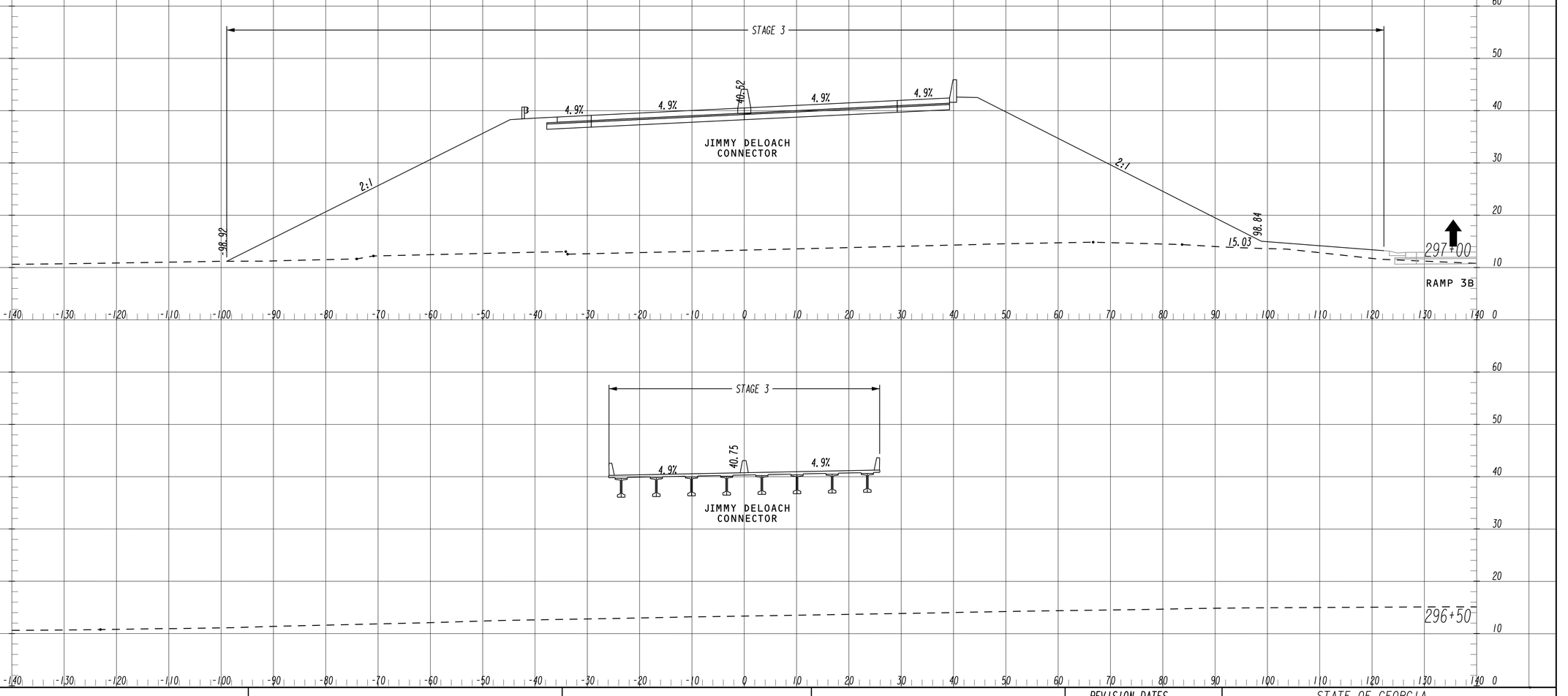
STAGE 3 - JIMMY DELOACH CONN.
STA. 302+00 TO END PROJECT

DRAWING No. 19-106

3/1/2007 GPLN

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	175	730

RELEASED FOR CONSTRUCTION - 07-23-13



THE LPA GROUP
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A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS CONSTRUCTION STAGING

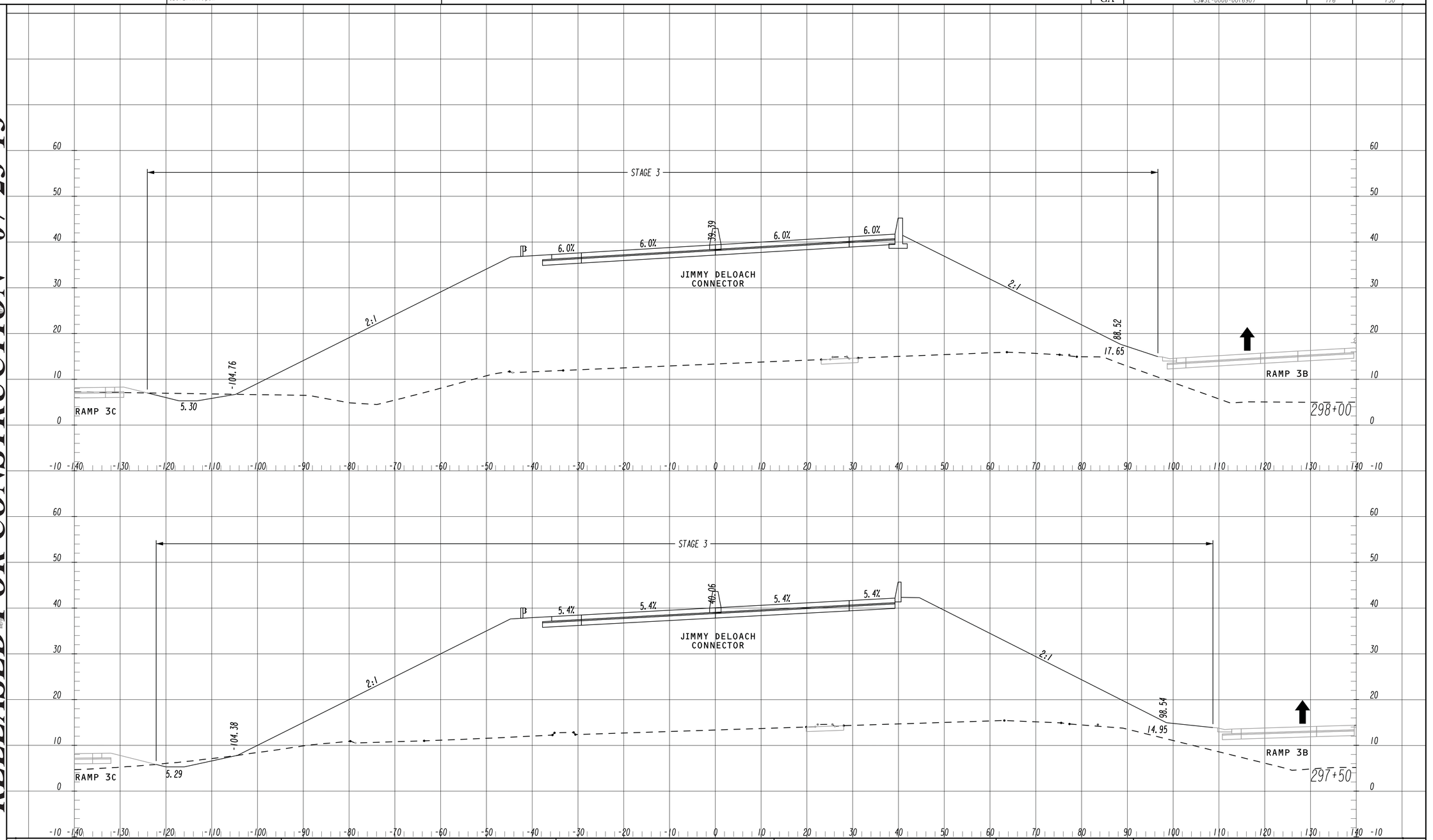
JIMMY DELOACH CONNECTOR
STAGE 3

DRAWING No. 19-107

3/1/2007 SUXSEW

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	176	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

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A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

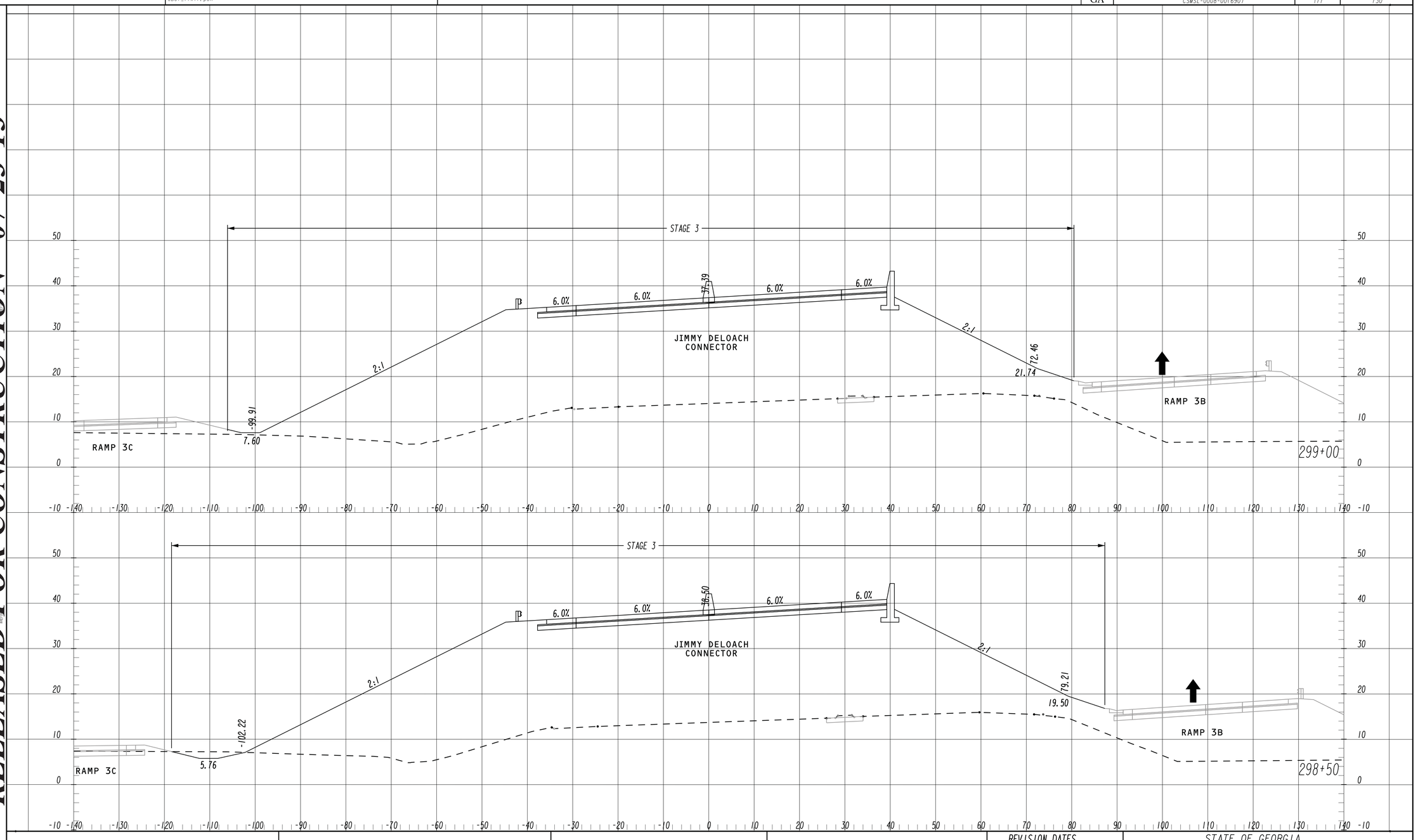
CROSS SECTIONS CONSTRUCTION STAGING

JIMMY DELOACH CONNECTOR
STAGE 3

DRAWING No. 19-108

23-JUL-2013 14:27 JParks	2:27:42 PM	0008690_SX03_JDC2 GDOT_11x17.pen	Y:\Roadways\126379\0008690\Dgn\0008690_SX03_JDC.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
				GA	CSMSL-0008-00(690)	177	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

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A UNIT OF MICHAEL BAKER CORPORATION
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NORCROSS, GEORGIA 30092
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1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS CONSTRUCTION STAGING

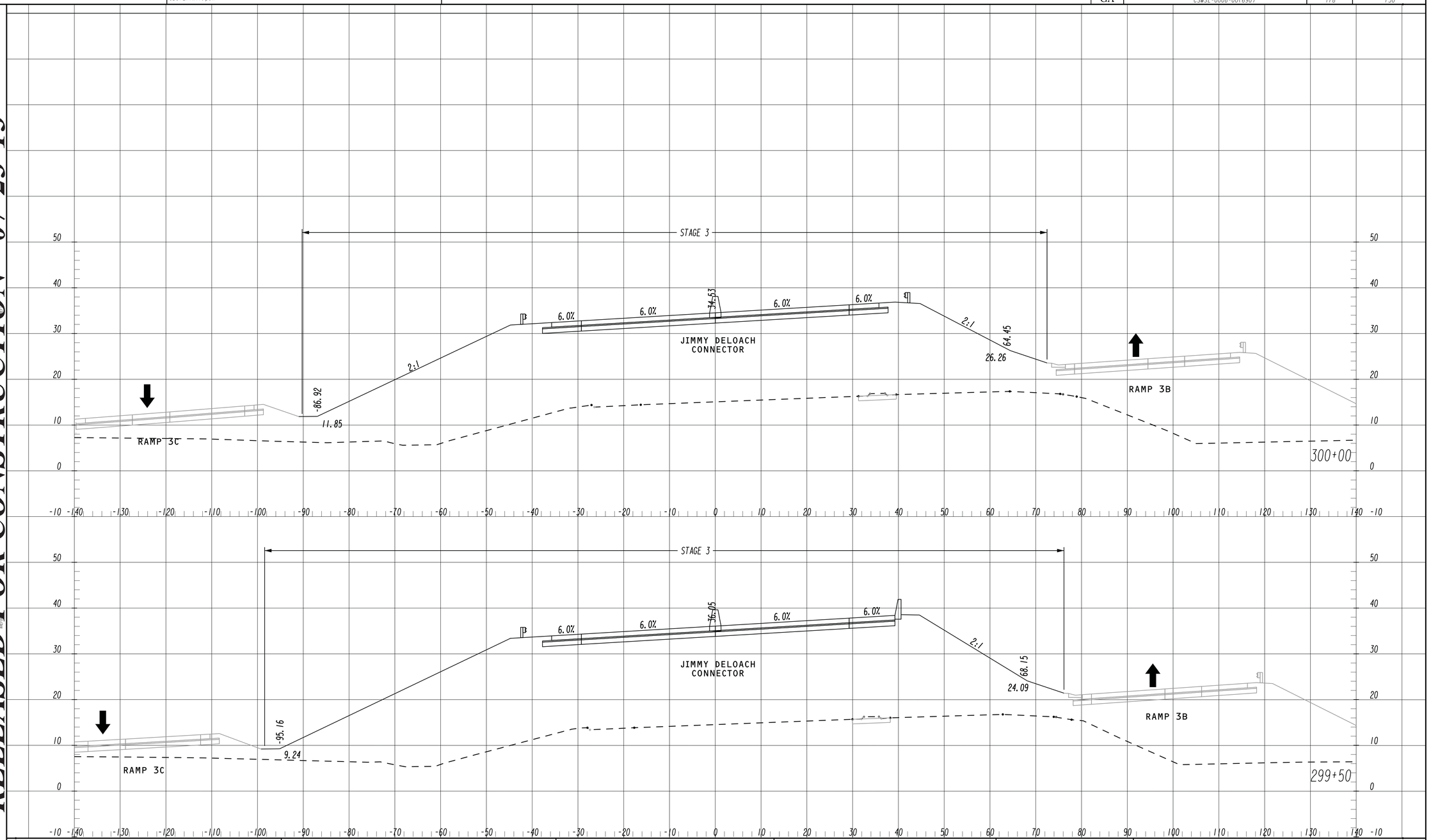
JIMMY DELOACH CONNECTOR
STAGE 3

DRAWING No. 19-109

23-JUL-2013 14:27 2:27:44 PM
JParks
0008690_SX03_JDC3
GDOT_11x17.pen
Y:\Roadways\126379\0008690\Dgn\0008690_SX03_JDC.dgn

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	178	730

RELEASED FOR CONSTRUCTION - 07-23-13



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1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS CONSTRUCTION STAGING

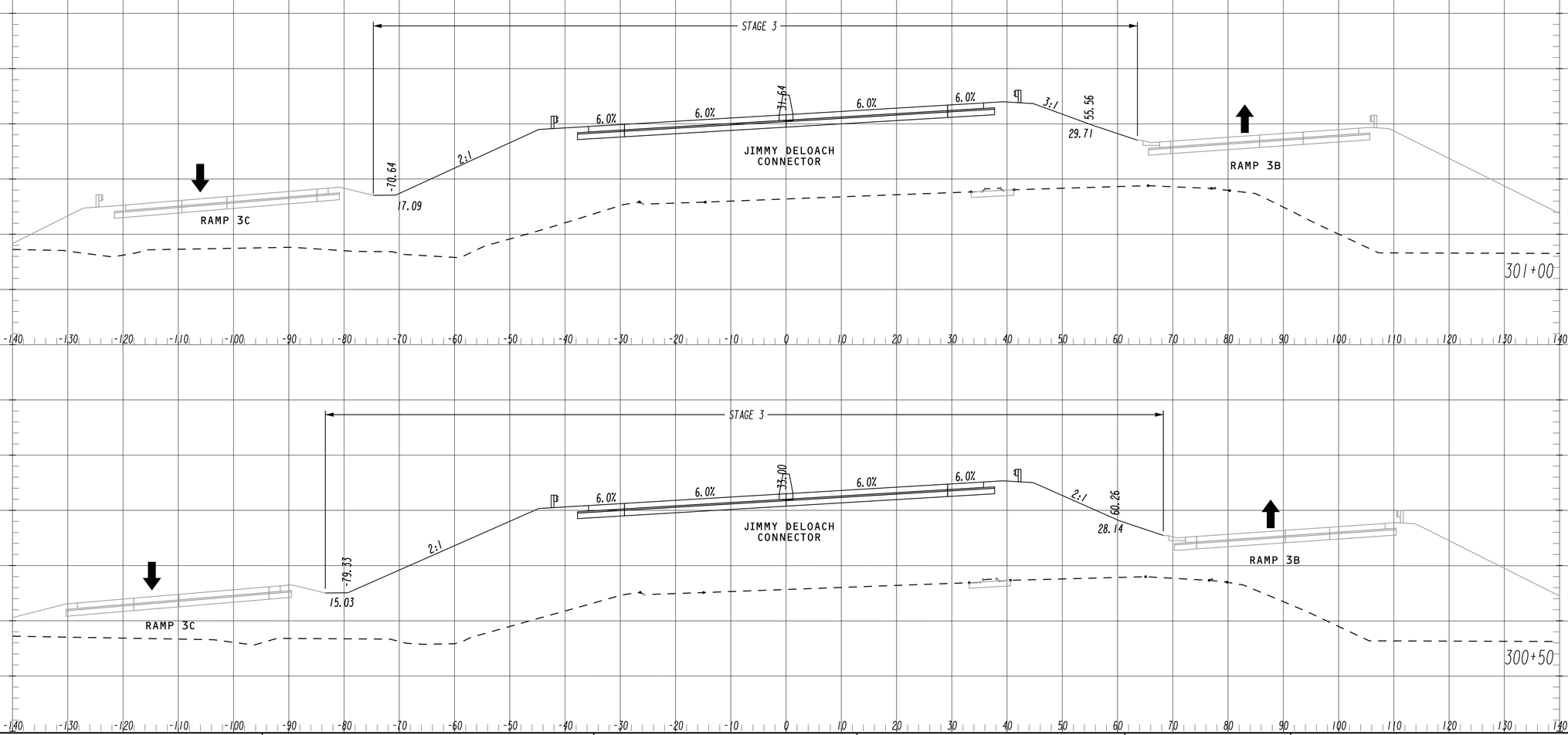
JIMMY DELOACH CONNECTOR
STAGE 3

DRAWING No. 19-110

3/1/2007 SUXSEW

23-JUL-2013 14:27	2:27:46 PM	0008690_SK03_JDC4	Y:\Roadways\126379\0008690\Dgn\0008690_SK03_JDC.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	179	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

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NORCROSS, GEORGIA 30092
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1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

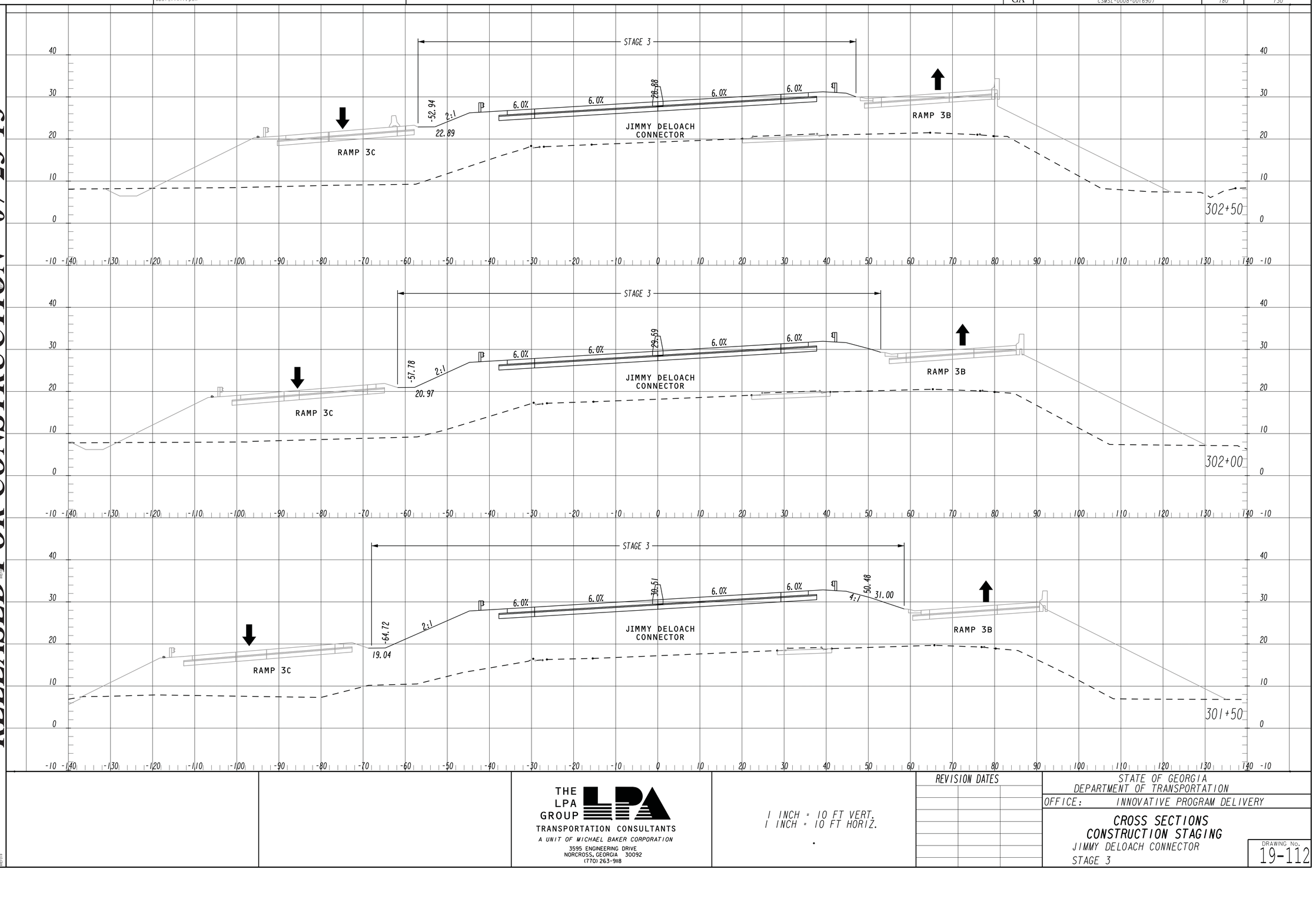
CROSS SECTIONS CONSTRUCTION STAGING

JIMMY DELOACH CONNECTOR
STAGE 3

DRAWING No. 19-111

23-JUL-2013 14:27	2:27:47 PM	0008690_SX03_JDC5	Y:\Roadways\126379\0008690\Dgn\0008690_SX03_JDC.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	180	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

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NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS CONSTRUCTION STAGING

JIMMY DELOACH CONNECTOR
STAGE 3

DRAWING No. 19-112

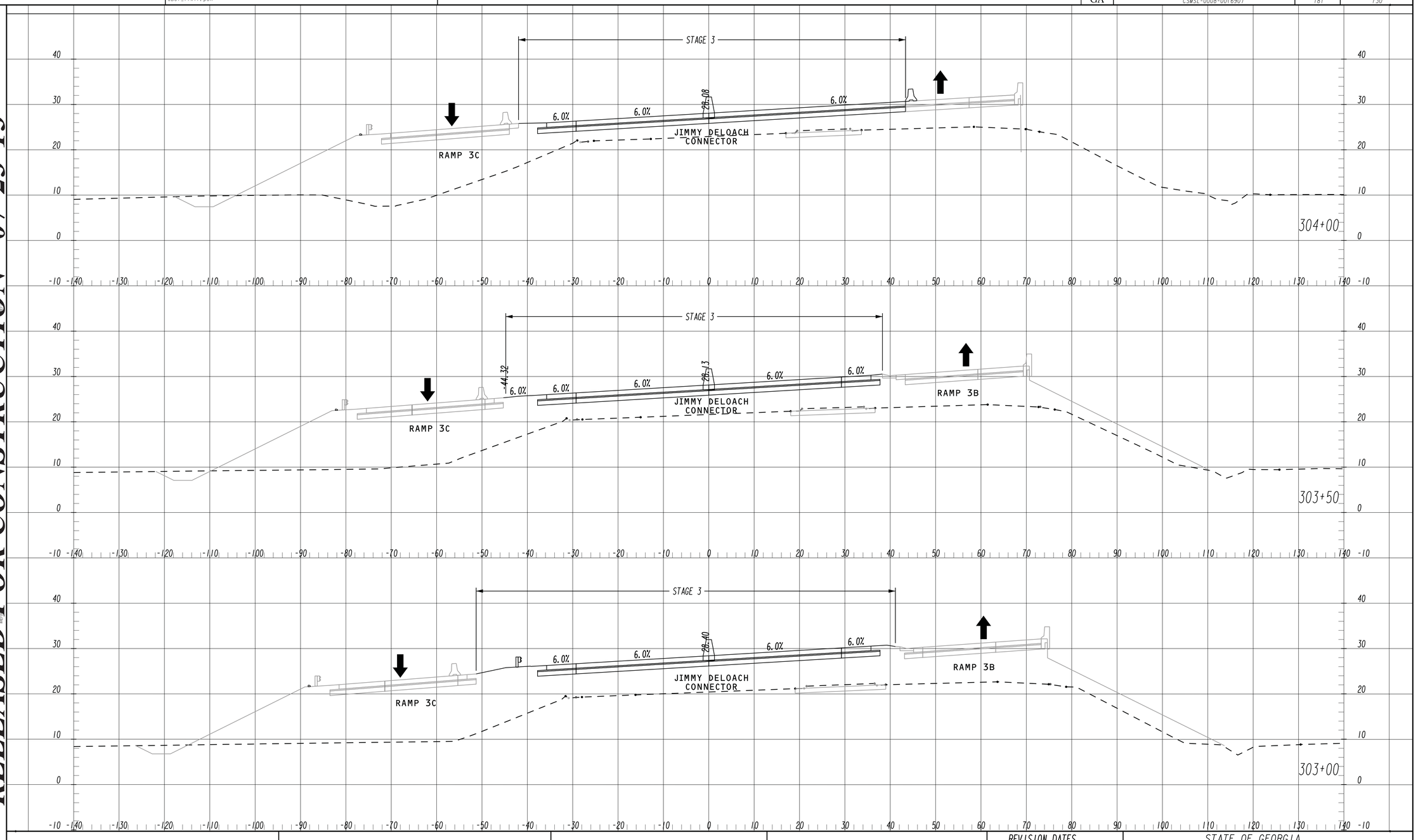
23-JUL-2013 14:27 2:27:49 PM
JParks

0008690_SX03_JDC6
GDOT_11x17.pen

Y:\Roadways\126379\0008690\Dgn\0008690_SX03_JDC.dgn

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	181	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

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A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS CONSTRUCTION STAGING

JIMMY DELOACH CONNECTOR
STAGE 3

DRAWING No. 19-113

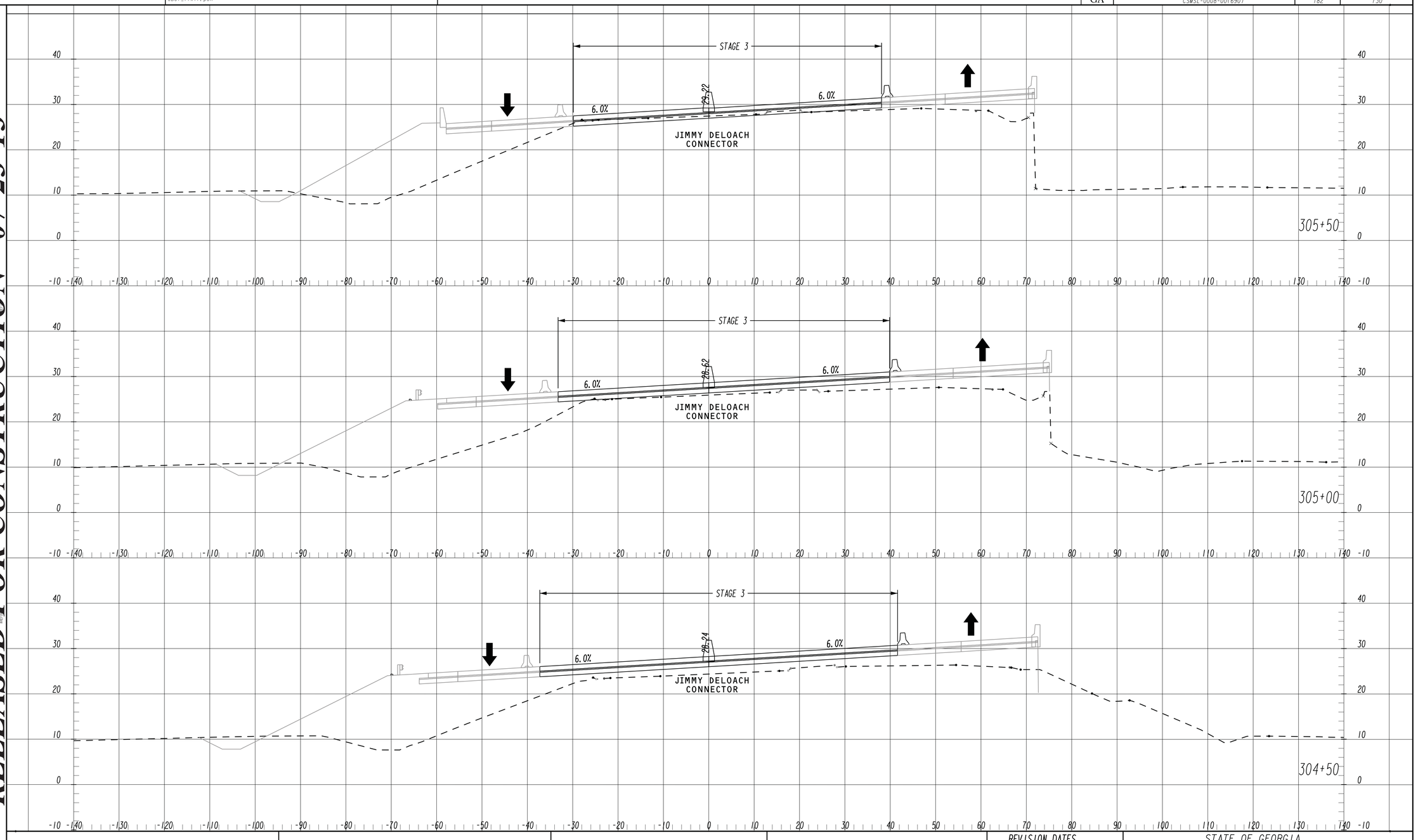
23-JUL-2013 14:27 2:27:51 PM
JParks

0008690_SX03_JDC7
GDOT_11x17.pen

Y:\Roadways\126379\0008690\Dgn\0008690_SX03_JDC.dgn

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	182	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

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A UNIT OF MICHAEL BAKER CORPORATION
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NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

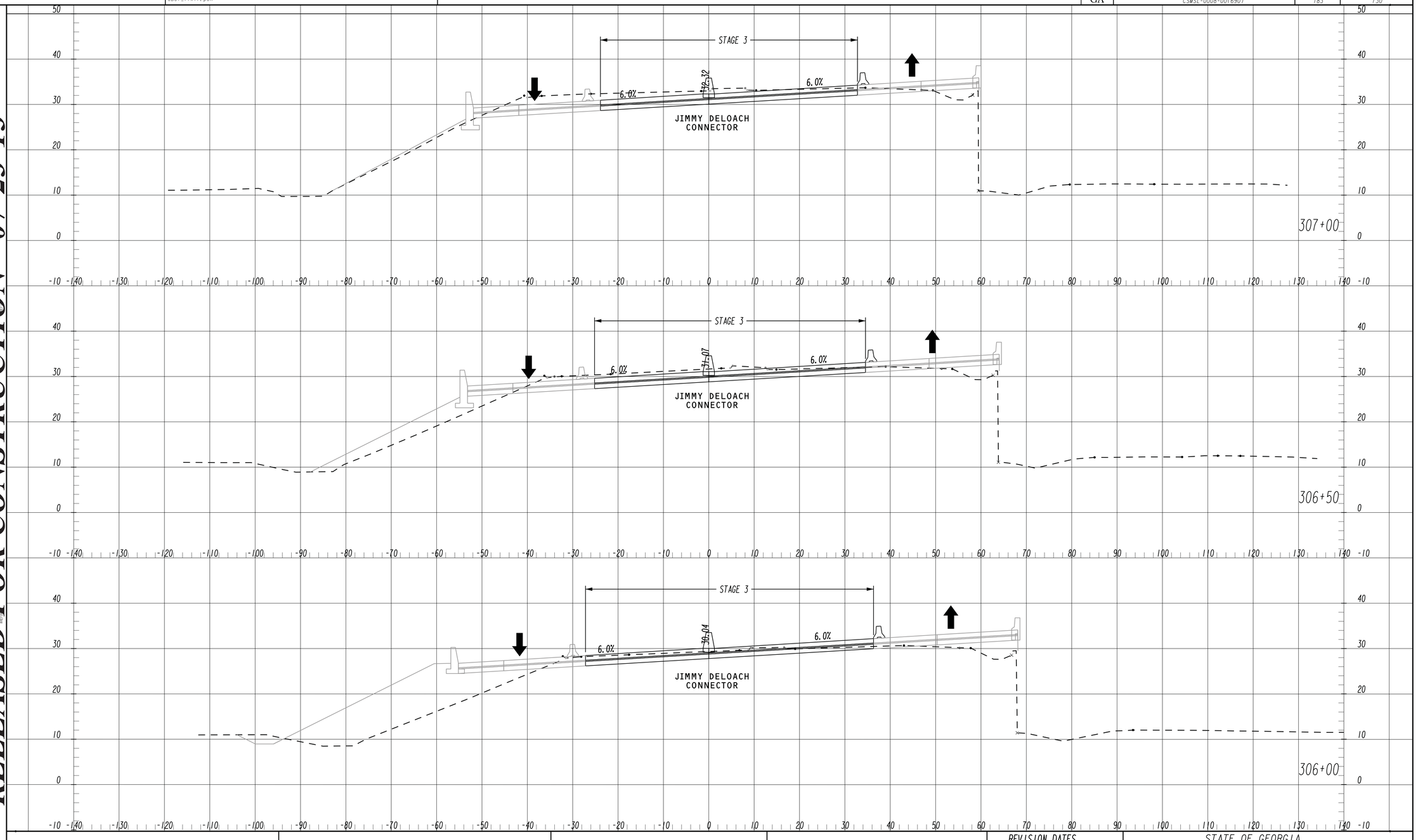
CROSS SECTIONS CONSTRUCTION STAGING

JIMMY DELOACH CONNECTOR
STAGE 3

DRAWING No. 19-114

23-JUL-2013 14:27	2:27:53 PM	0008690_SX03_JDC8	Y:\Roadways\126379\0008690\Dgn\0008690_SX03_JDC.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	183	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

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A UNIT OF MICHAEL BAKER CORPORATION
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NORCROSS, GEORGIA 30092
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1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

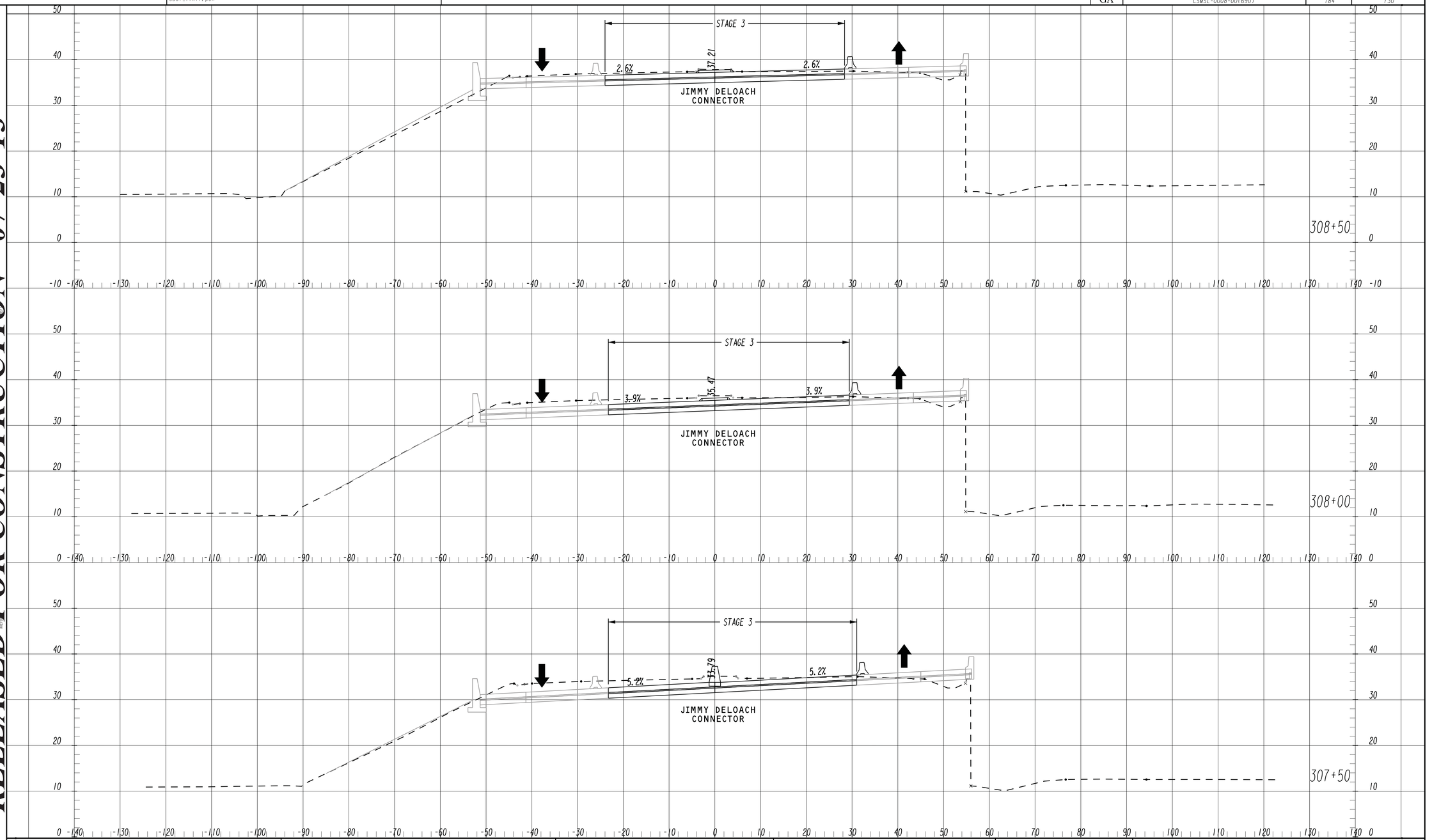
CROSS SECTIONS CONSTRUCTION STAGING

JIMMY DELOACH CONNECTOR
STAGE 3

DRAWING No. 19-115

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	184	730

RELEASED FOR CONSTRUCTION - 07-23-13



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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
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CROSS SECTIONS CONSTRUCTION STAGING

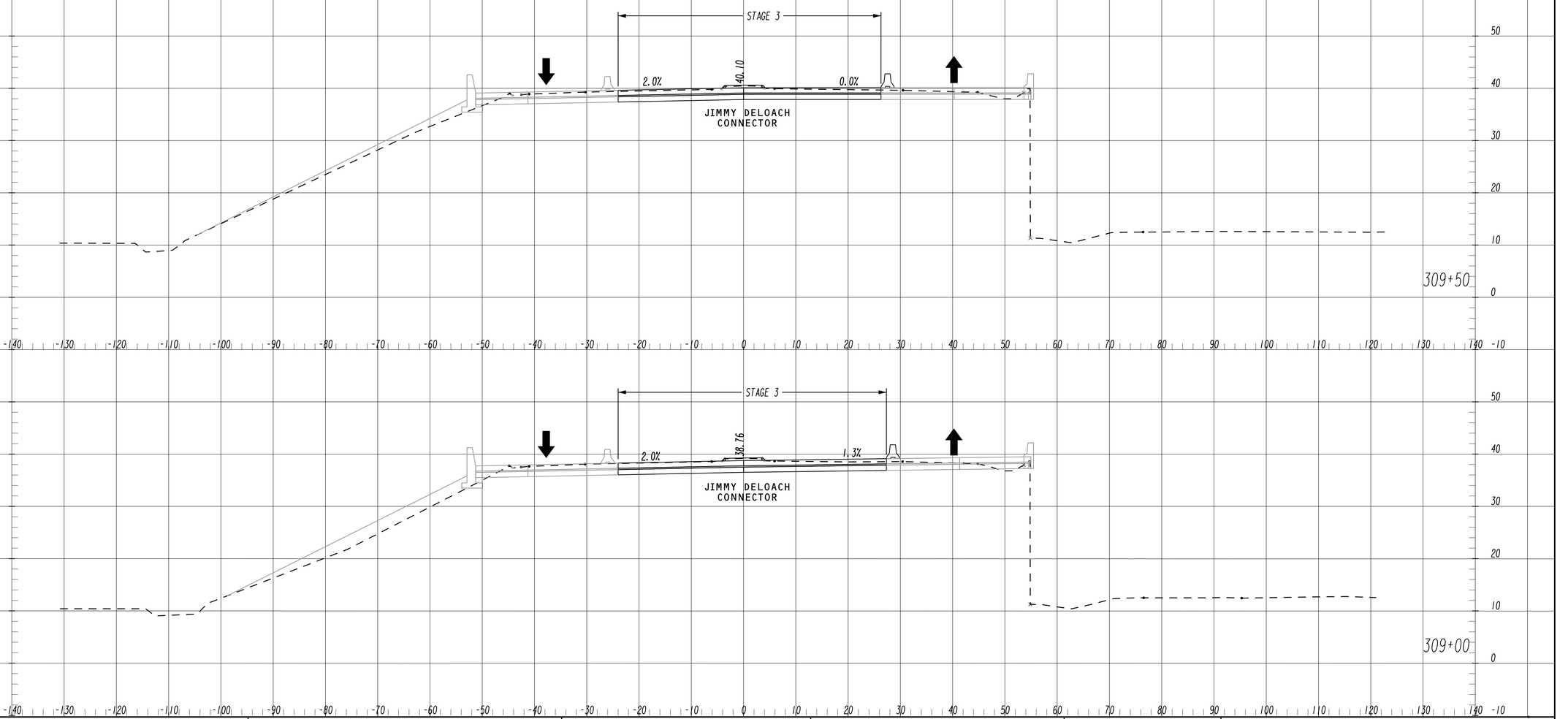
JIMMY DELOACH CONNECTOR
STAGE 3

DRAWING No. 19-116

3/1/2007 SUXSEW

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	185	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

THE LPA GROUP
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A UNIT OF MICHAEL BAKER CORPORATION
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NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

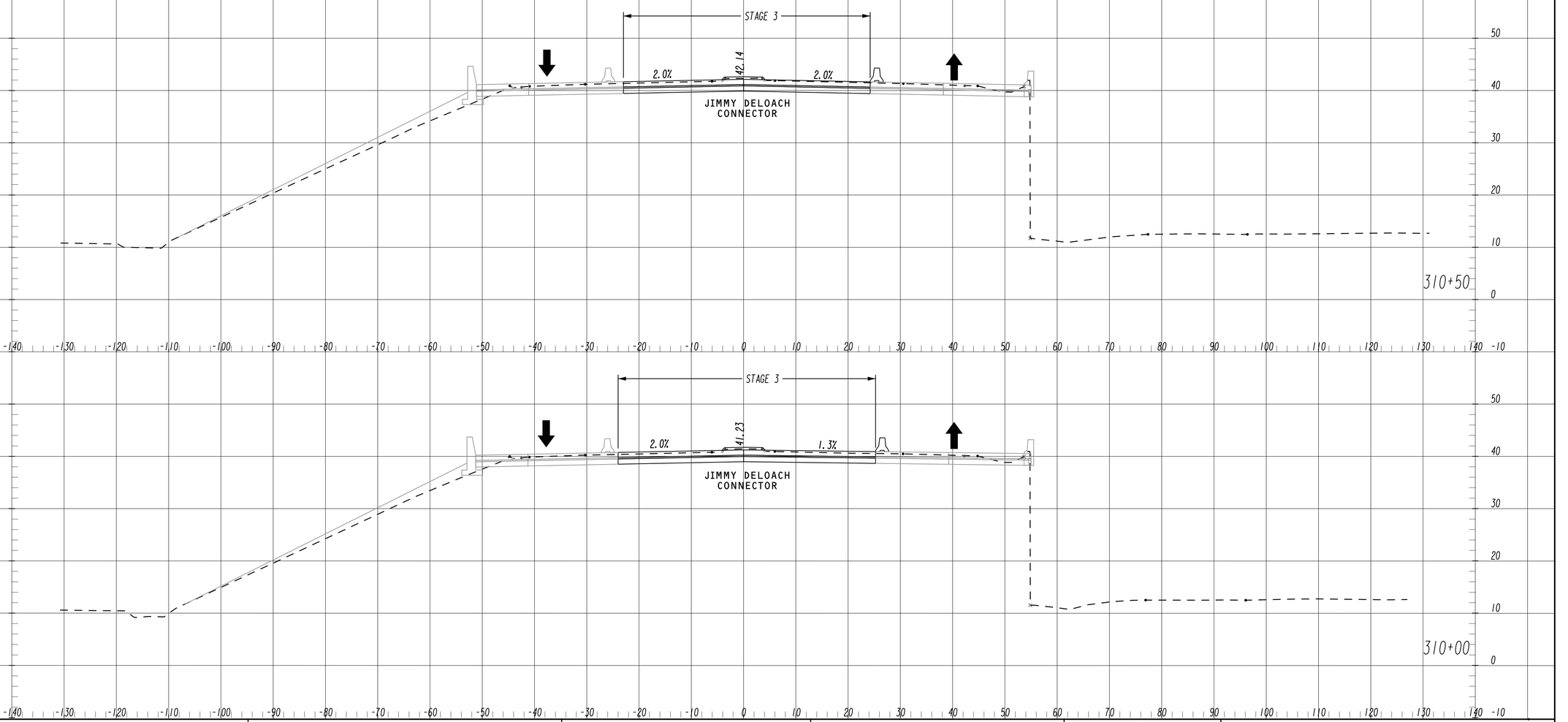
CROSS SECTIONS CONSTRUCTION STAGING

JIMMY DELOACH CONNECTOR
STAGE 3

DRAWING No. 19-117

23-JUL-2013 14:27	2:27:59 PM	0008690_SX03_JDC11	Y:\Roadways\126379\0008690\Dgn\0008690_SX03_JDC.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	186	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

THE LPA GROUP
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A UNIT OF MICHAEL BAKER CORPORATION
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NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

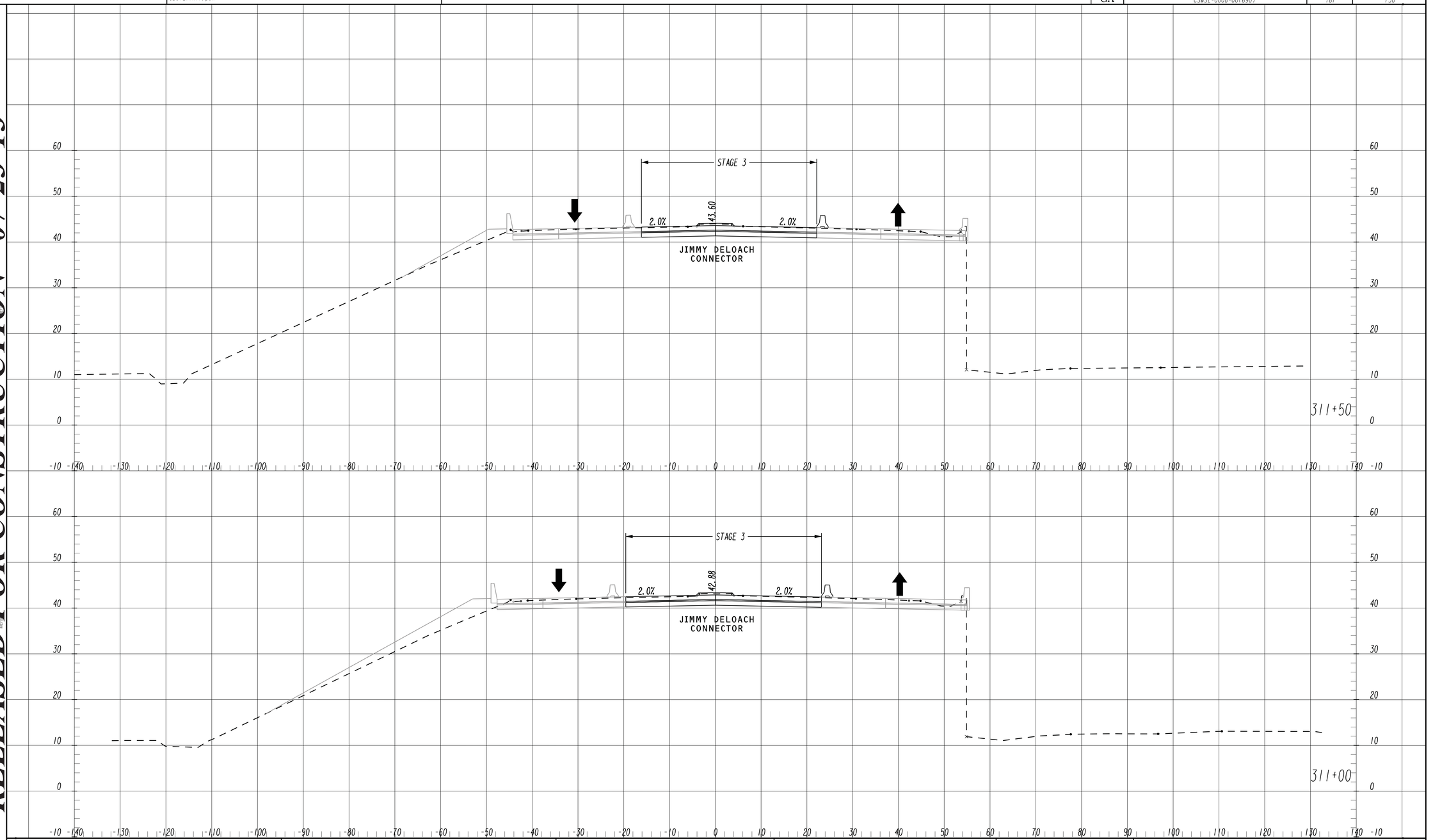
CROSS SECTIONS CONSTRUCTION STAGING

JIMMY DELOACH CONNECTOR
STAGE 3

DRAWING No. 19-118

23-JUL-2013 14:28	2:28:01 PM	0008690_SX03_JDC12	Y:\Roadways\126379\0008690\Dgn\0008690_SX03_JDC.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	187	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

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1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

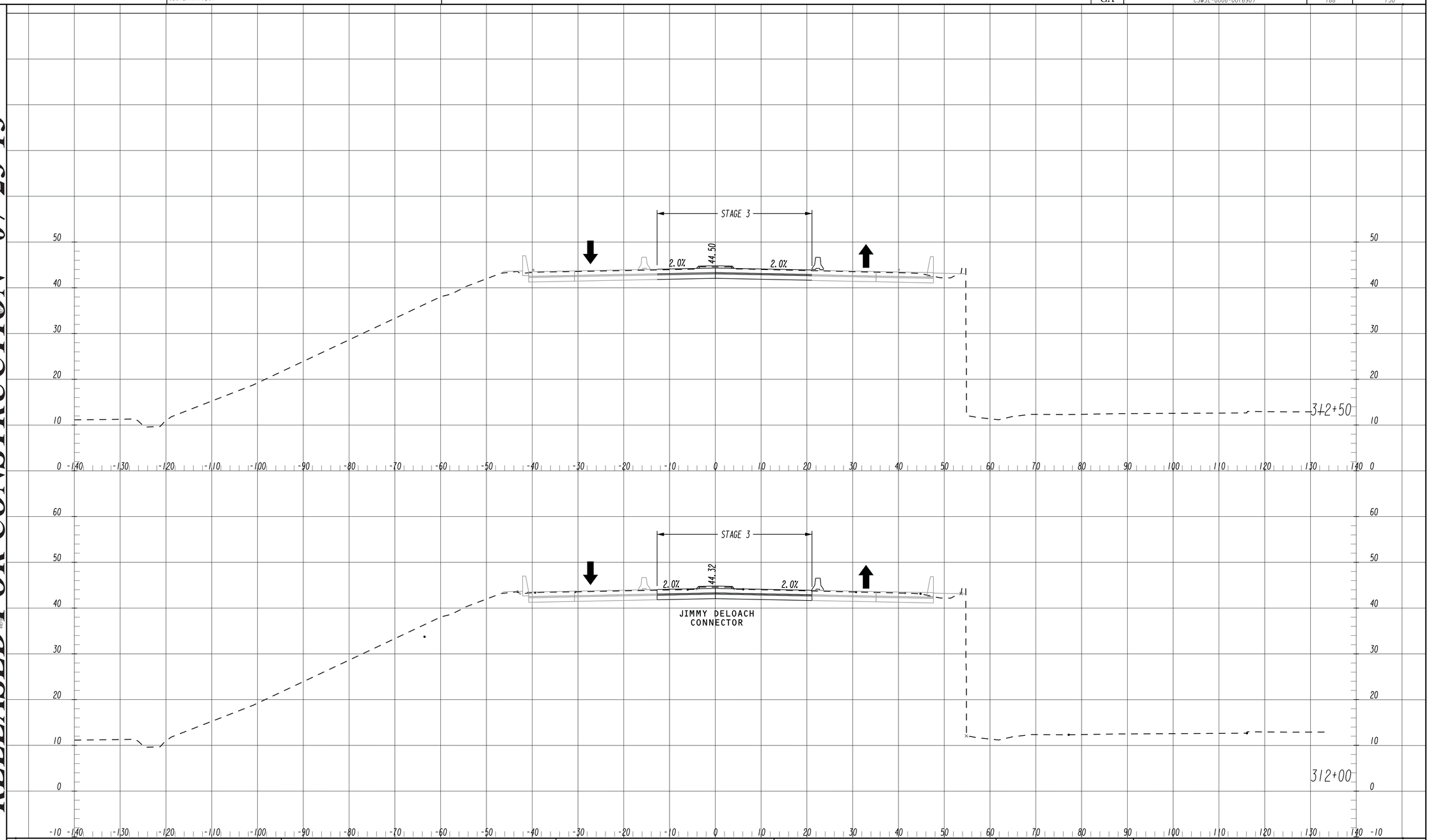
CROSS SECTIONS CONSTRUCTION STAGING

JIMMY DELOACH CONNECTOR
STAGE 3

DRAWING No. 19-119

23-JUL-2013 14:28	2:28:03 PM	0008690_SK03_JDC13	Y:\Roadways\126379\0008690\Dgn\0008690_SK03_JDC.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	188	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

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NORCROSS, GEORGIA 30092
(770) 263-9118

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1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS CONSTRUCTION STAGING

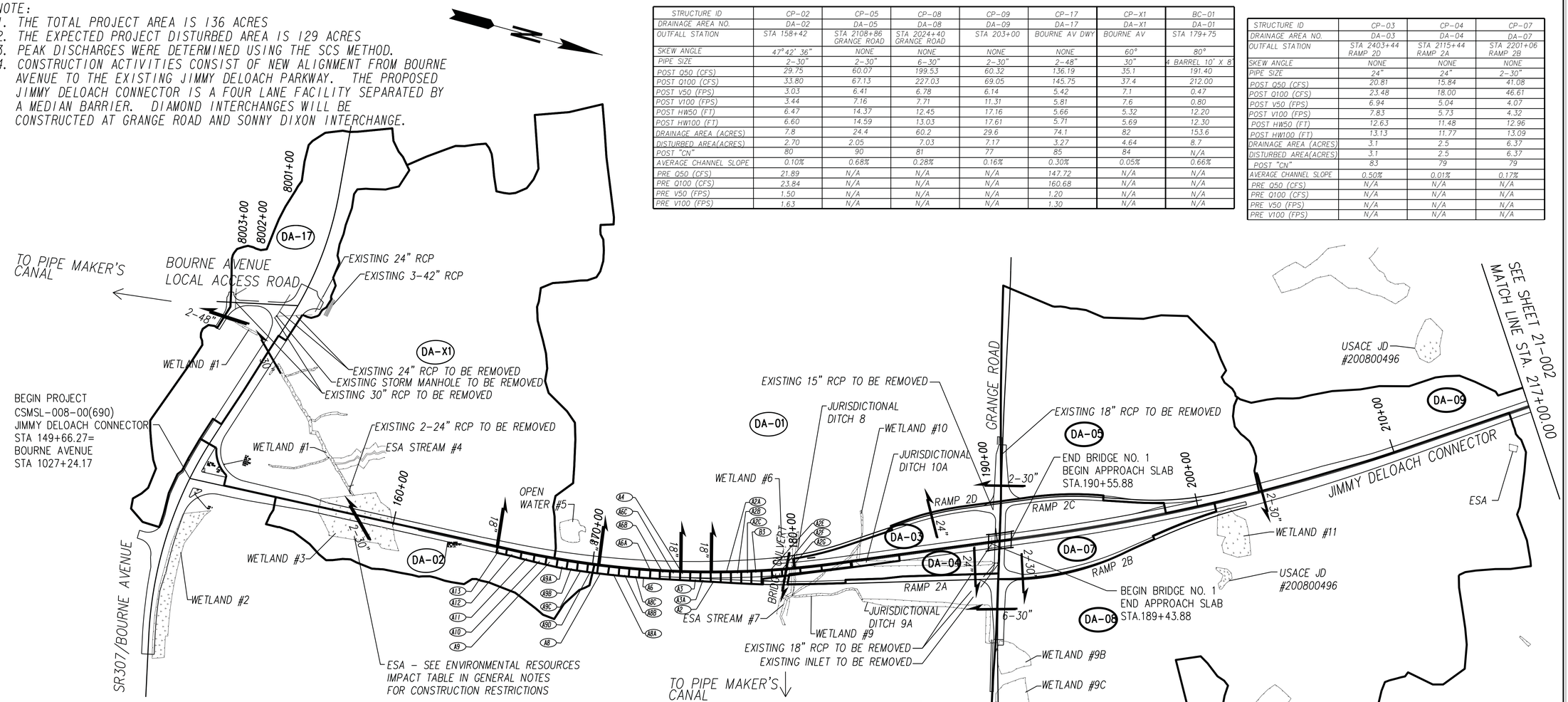
JIMMY DELOACH CONNECTOR
STAGE 3

DRAWING No. 19-120

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	189	730

RELEASED FOR CONSTRUCTION - 07-23-13

NOTE:
1. THE TOTAL PROJECT AREA IS 136 ACRES
2. THE EXPECTED PROJECT DISTURBED AREA IS 129 ACRES
3. PEAK DISCHARGES WERE DETERMINED USING THE SCS METHOD.
4. CONSTRUCTION ACTIVITIES CONSIST OF NEW ALIGNMENT FROM BOURNE AVENUE TO THE EXISTING JIMMY DELOACH PARKWAY. THE PROPOSED JIMMY DELOACH CONNECTOR IS A FOUR LANE FACILITY SEPARATED BY A MEDIAN BARRIER. DIAMOND INTERCHANGES WILL BE CONSTRUCTED AT GRANGE ROAD AND SONNY DIXON INTERCHANGE.



STRUCTURE ID	CP-02	CP-05	CP-08	CP-09	CP-17	CP-X1	BC-01
DRAINAGE AREA NO.	DA-02	DA-05	DA-08	DA-09	DA-17	DA-X1	DA-01
OUTFALL STATION	STA 158+42	STA 2108+86 GRANGE ROAD	STA 2024+40 GRANGE ROAD	STA 203+00	BOURNE AV DWY	BOURNE AV	STA 179+75
SKEW ANGLE	47°42' 36"	NONE	NONE	NONE	NONE	60°	80°
PIPE SIZE	2-30"	2-30"	6-30"	2-30"	2-48"	30"	4 BARREL 10' X 8'
POST Q50 (CFS)	29.75	60.07	199.53	60.32	136.19	35.1	191.40
POST Q100 (CFS)	33.80	67.13	227.03	69.05	145.75	37.4	212.00
POST V50 (FPS)	3.03	6.41	6.78	6.14	5.42	7.1	0.47
POST V100 (FPS)	3.44	7.16	7.71	11.31	5.81	7.6	0.80
POST HW50 (FT)	6.47	14.37	12.45	17.16	5.66	5.32	12.20
POST HW100 (FT)	6.60	14.59	13.03	17.61	5.71	5.69	12.30
DRAINAGE AREA (ACRES)	7.8	24.4	60.2	29.6	74.1	82	153.6
DISTURBED AREA(ACRES)	2.70	2.05	7.03	7.17	3.27	4.64	8.7
POST "CN"	80	90	81	77	85	84	N/A
AVERAGE CHANNEL SLOPE	0.10%	0.68%	0.28%	0.16%	0.30%	0.05%	0.66%
PRE Q50 (CFS)	21.89	N/A	N/A	N/A	147.72	N/A	N/A
PRE Q100 (CFS)	23.84	N/A	N/A	N/A	160.68	N/A	N/A
PRE V50 (FPS)	1.50	N/A	N/A	N/A	1.20	N/A	N/A
PRE V100 (FPS)	1.63	N/A	N/A	N/A	1.30	N/A	N/A

STRUCTURE ID	CP-03	CP-04	CP-07
DRAINAGE AREA NO.	DA-03	DA-04	DA-07
OUTFALL STATION	STA 2403+44 RAMP 2D	STA 2115+44 RAMP 2A	STA 2201+06 RAMP 2B
SKEW ANGLE	NONE	NONE	NONE
PIPE SIZE	24"	24"	2-30"
POST Q50 (CFS)	20.81	15.84	41.08
POST Q100 (CFS)	23.48	18.00	46.61
POST V50 (FPS)	6.94	5.04	4.07
POST V100 (FPS)	7.83	5.73	4.32
POST HW50 (FT)	12.63	11.48	12.96
POST HW100 (FT)	13.13	11.77	13.09
DRAINAGE AREA (ACRES)	3.1	2.5	6.37
DISTURBED AREA(ACRES)	3.1	2.5	6.37
POST "CN"	83	79	79
AVERAGE CHANNEL SLOPE	0.50%	0.01%	0.17%
PRE Q50 (CFS)	N/A	N/A	N/A
PRE Q100 (CFS)	N/A	N/A	N/A
PRE V50 (FPS)	N/A	N/A	N/A
PRE V100 (FPS)	N/A	N/A	N/A

STRUCTURE ID	A13	A12	A11	A10	A9	A9A	A9B	A9C	A9D	A8	A8A	A8B
DRAINAGE AREA NO.	A13	A12	A11	A10	A9	A9A	A9B	A9C	A9D	A8	A8A	A8B
OUTFALL STATION	STA 165+12.04, 3.71 RT	STA 165+64.56 3.71 RT	STA 166+37.74 3.71 RT	STA 167+02.93 3.71 RT	STA 167+63.48 3.71 RT	STA 168+18.58, 3.71 RT	STA 168+68.72 3.71 RT	STA 169+18.89 3.71 RT	STA 169+68.36 3.71 RT	STA 170+18.96 3.71 RT	STA 170+74.62 3.71 RT	STA 171+24.62 3.71 RT
SKEW ANGLE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
PIPE SIZE	18"	18"	18"	18"	18"	18"	18"	18"	18"	18"	18"	18"
POST Q10(CFS)	1.69	1.42	1.06	0.71	0.35	0.37	0.75	1.11	1.50	1.82	0.35	0.75
POST V10 (FPS)	0.96	0.80	0.60	0.40	0.20	0.21	0.42	0.63	0.85	1.03	0.20	0.40
DRAINAGE AREA (ACRES)	0.24	0.20	0.15	0.10	0.05	0.05	0.11	0.16	0.22	0.27	0.05	0.10
RUNOFF COEFFICIENT "C"	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95

STRUCTURE ID	A8C	A6	A6A	A6B	A6C	A4	A3	A3A	A2	A2A	A2B	A2C	B3	A2E	A2F	A2G	CP9	CP8	A2J
DRAINAGE AREA NO.	A8C	A6	A6A	A6B	A6C	A4	A3	A3A	A2	A2A	A2B	A2C	B3	A2E	A2F	A2G	CP9	CP8	A2J
OUTFALL STATION	STA 171+74.62 3.71 RT	STA 172+24.62 3.71 RT	STA 172+74.62 3.71 RT	STA 173+24.62 3.71 RT	STA 173+74.62 3.71 RT	STA 174+24.62 3.71 RT	STA 174+74.62 3.71 RT	STA 175+24.62 3.71 RT	STA 175+74.62 3.71 RT	STA 176+24.62 3.71 RT	STA 176+74.62 3.71 RT	STA 177+24.62 3.71 RT	STA 177+74.62 3.71 RT	STA 178+24.62 3.71 RT	STA 178+74.62 3.71 RT	STA 179+24.62 3.71 RT	STA 180+12.43 3.71 RT	STA 181+17.03 3.71 RT	STA 182+62.22 3.71 RT
SKEW ANGLE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
PIPE SIZE	18"	18"	18"	18"	18"	18"	18"	18"	18"	18"	18"	18"	18"	18"	18"	18"	18"	18"	18"
POST Q10(CFS)	1.04	1.29	0.38	0.72	1.06	1.30	0.40	0.81	1.24	0.47	0.95	1.44	2.00	2.57	3.18	3.81	1.24	0.85	0.07
POST V10 (FPS)	0.59	0.73	0.21	0.41	0.60	0.74	0.23	0.46	0.70	0.26	0.54	0.81	1.13	1.45	1.80	2.16	0.70	0.52	0.04
DRAINAGE AREA (ACRES)	0.15	0.19	0.05	0.10	0.15	0.19	0.06	0.12	0.18	0.07	0.14	0.21	0.29	0.38	0.47	0.57	0.21	0.13	0.01
RUNOFF COEFFICIENT "C"	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95

PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

BEGIN LIMIT OF ACCESS.....BLA
END LIMIT OF ACCESS.....ELA
LIMIT OF ACCESS
REQ'D R/W & LIMIT OF ACCESS

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 250 500 1000

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

DRAINAGE AREA MAP
JIMMY DELOACH CONNECTOR

BEGIN TO STA 217+00

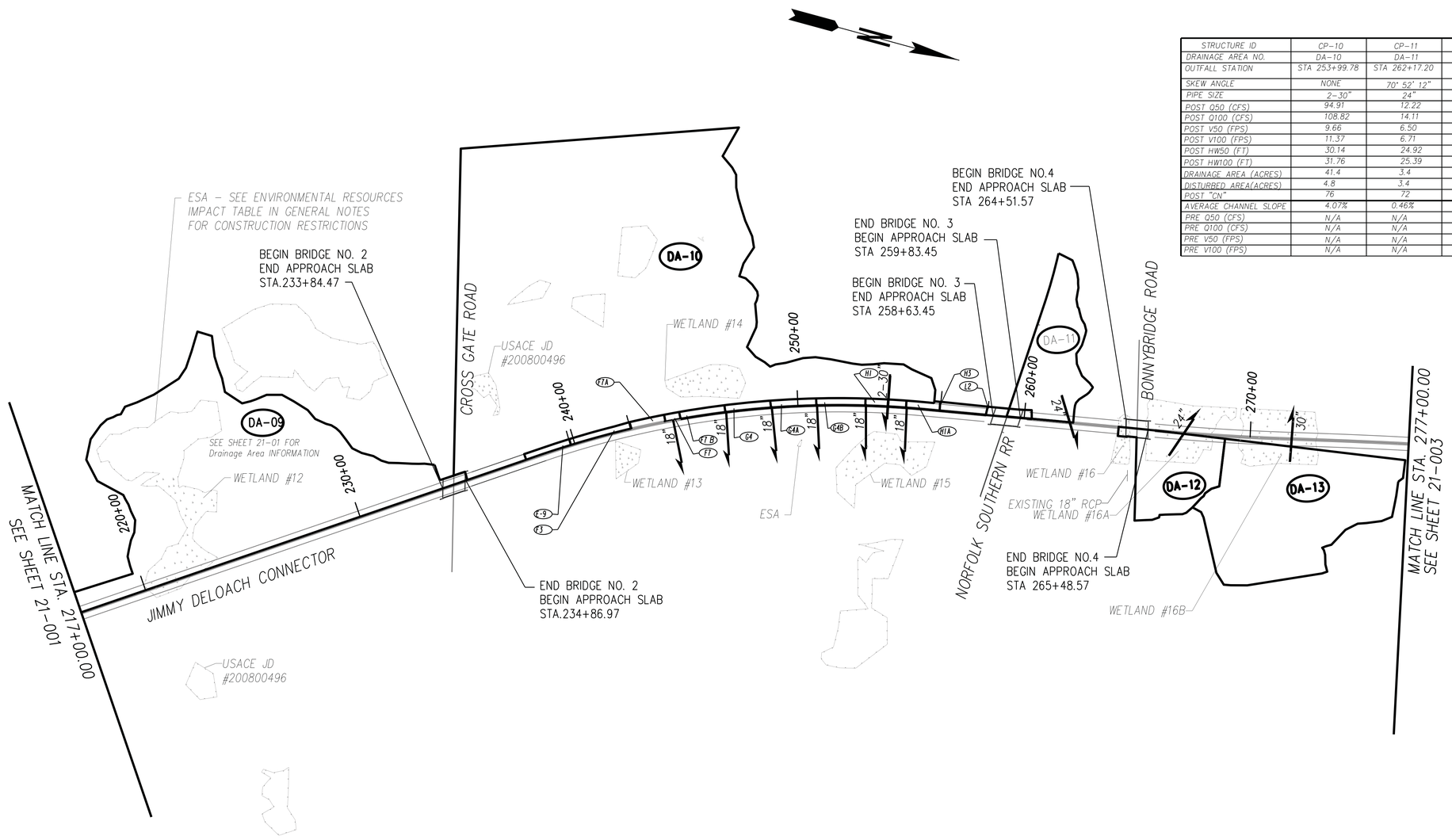
DRAWING No. 21-001

1/5/2009

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	190	730

RELEASED FOR CONSTRUCTION - 07-23-13

STRUCTURE ID	CP-10	CP-11	CP-12	CP-13
DRAINAGE AREA NO.	DA-10	DA-11	DA-12	DA-13
OUTFALL STATION	STA 253+99.78	STA 262+17.20	STA 267+08.95	STA 272+00
SKEW ANGLE	NONE	70° 52' 12"	118° 33' 36"	NONE
PIPE SIZE	2-30"	24"	24"	30"
POST Q50 (CFS)	94.91	12.22	9.79	23.67
POST Q100 (CFS)	108.82	14.11	11.10	27.08
POST V50 (FPS)	9.66	6.50	5.44	6.88
POST V100 (FPS)	11.37	6.71	5.69	7.28
POST HW50 (FT)	30.14	24.92	12.52	12.34
POST HW100 (FT)	31.76	25.39	12.71	12.75
DRAINAGE AREA (ACRES)	41.4	3.4	3.0	9.7
DISTURBED AREA(ACRES)	4.8	3.4	3.0	6.1
POST "CN"	76	72	81	77
AVERAGE CHANNEL SLOPE	4.07%	0.46%	0.50%	0.50%
PRE Q50 (CFS)	N/A	N/A	4.86	10.12
PRE Q100 (CFS)	N/A	N/A	5.34	11.17
PRE V50 (FPS)	N/A	N/A	1.40	1.60
PRE V100 (FPS)	N/A	N/A	1.53	1.76



STRUCTURE ID	E9	F3	F7A	F7	F7B	G4	G4A	G4B	H1	H1A	H3	L2
DRAINAGE AREA NO.	E9	F3	F7A	F7	F7B	G4	G4A	G4B	H1	H1A	H3	L2
OUTFALL STATION	STA 239+80, 3.71 LT	STA 242+54.13 3.71 LT	STA 244+08.45 3.71 LT	STA 244+44.89 3.71 LT	STA 244+81.89 3.71 LT	STA 246+81.96, 3.71 LT	STA 248+84.67 3.71 LT	STA 250+84.36 3.71 LT	STA 253+00 3.71 LT	STA 254+80.03 3.71 LT	STA 256+28 38.34 LT	STA 258+38 35.15 LT
SKEW ANGLE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
PIPE SIZE	18"	18"	18"	18"	18"	18"	18"	18"	18"	18"	18"	18"
POST Q10(CFS)	1.06	1.06	1.13	2.92	1.46	0.99	0.99	0.99	1.10	0.99	1.26	0.55
POST V10 (FPS)	0.60	0.60	0.67	1.65	0.83	0.56	0.56	0.56	0.62	0.56	2.31	1.01
DRAINAGE AREA (ACRES)	0.15	0.15	0.16	0.43	0.16	0.14	0.14	0.14	0.16	0.14	0.18	0.08
RUNOFF COEFFICIENT "C"	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95

PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
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EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

BEGIN LIMIT OF ACCESS.....BLA
END LIMIT OF ACCESS.....ELA
LIMIT OF ACCESS
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THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 250 500 1000

REVISION DATES		

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

DRAINAGE AREA MAP
JIMMY DELOACH CONNECTOR

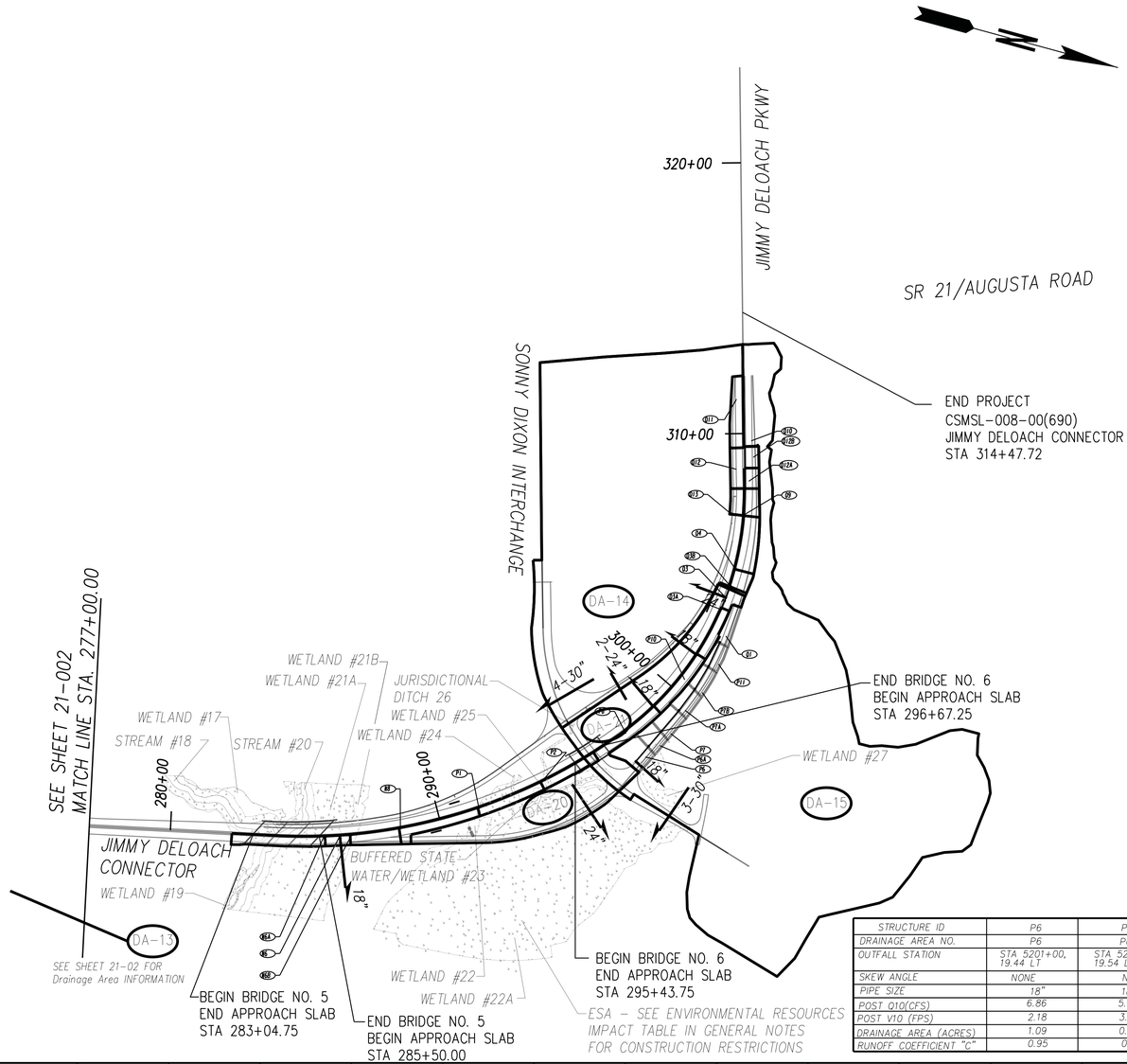
STA 217+00 TO
STA 277+00

DRAWING No. 21-002

1/5/2009

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	191	730

RELEASED FOR CONSTRUCTION - 07-23-13



STRUCTURE ID	CP-14	CP-15
DRAINAGE AREA NO.	DA-14	DA-15
OUTFALL STATION	STA 7005+97 SONNY DIXON	STA 7012+50 SONNY DIXON
SKEW ANGLE	NONE	NONE
PIPE SIZE	4-30"	3-30"
POST Q50 (CFS)	92.30	89.62
POST Q100 (CFS)	103.68	102.60
POST V50 (FPS)	4.70	7.62
POST V100 (FPS)	5.28	8.18
POST HW50 (FT)	7.23	7.13
POST HW100 (FT)	7.52	7.64
DRAINAGE AREA (ACRES)	20.6	25.2
DISTURBED AREA(ACRES)	4.4	5.3
POST "CN"	86	76
AVERAGE CHANNEL SLOPE	0.33%	0.44%
PRE Q50 (CFS)	N/A	N/A
PRE Q100 (CFS)	N/A	N/A
PRE V50 (FPS)	N/A	N/A
PRE V100 (FPS)	N/A	N/A

STRUCTURE ID	CP-20	CP-21
DRAINAGE AREA NO.	DA-20	DA-21
OUTFALL STATION	STA 5109+00 RAMP 3A	STA 6108+50 RAMP 3C
SKEW ANGLE	NONE	NONE
PIPE SIZE	24"	2-24"
POST Q50 (CFS)	11.83	20.48
POST Q100 (CFS)	13.56	22.95
POST V50 (FPS)	3.76	3.26
POST V100 (FPS)	10.79	3.65
POST HW 50 (FT)	10.83	5.72
POST HW100 (FT)	11.02	5.85
DRAINAGE AREA (ACRES)	2.0	2.9
DISTURBED AREA(ACRES)	2.0	2.9
POST "CN"	75	87
AVERAGE CHANNEL SLOPE	0.41%	0.40%
PRE Q50 (CFS)	8.94	N/A
PRE Q100 (CFS)	9.61	N/A
PRE V50 (FPS)	1.80	N/A
PRE V100 (FPS)	1.90	N/A

STRUCTURE ID	P6	P6A	P7	P7A	P7B	P11
DRAINAGE AREA NO.	P6	P6A	P7	P7A	P7B	P11
OUTFALL STATION	STA 5201+00, 19.44 LT	STA 5201+75 19.54 LT	STA 5205+50 19.53 LT	STA 5203+50 19.50 LT	STA 5204+50, 19.47 LT	STA 5205+50 19.46 RT
SKEW ANGLE	NONE	NONE	NONE	NONE	NONE	NONE
PIPE SIZE	18"	18"	18"	18"	18"	18"
POST Q10(CFS)	6.86	5.88	4.91	3.79	2.72	1.76
POST V10 (FPS)	2.18	3.33	2.78	2.15	1.54	1.00
DRAINAGE AREA (ACRES)	1.09	0.93	0.77	0.57	0.42	0.27
RUNOFF COEFFICIENT "C"	0.95	0.95	0.95	0.95	0.95	0.95

STRUCTURE ID	N6A	N6	N6B	N8	P1	P2	P8	P10	Q3A	Q3	Q3B	Q4	Q9	Q12A	Q12B	Q5	Q10	Q11	Q12	Q13
DRAINAGE AREA NO.	N6A	N6	N6B	N8	P1	P2	P8	P10	Q3A	Q3	Q3B	Q4	Q9	Q12A	Q12B	Q5	Q10	Q11	Q12	Q13
OUTFALL STATION	STA 285+85.26, 3.71 RT	STA 286+26.26 3.71 RT	STA 286+66.26 3.71 RT	STA 288+50 3.71 RT	STA 291+50, 3.71 RT	STA 294+00 3.71 RT.	STA 299+00 3.71 RT	STA 301+50 3.71 RT	STA 303+41.97 3.71 RT	STA 303+86.97 3.71 RT	STA 304+31.97 3.71 RT	STA 305+00 3.71 RT	STA 307+00 3.71 RT	STA 307+94.61 3.71 RT	STA 308+74 3.71 RT	STA 309+51 3.71 RT	STA 309+57 3.71 RT	STA 309+50 49.15 LT	STA 308+00 48.82 LT	STA 307+00 49.60 LT
SKEW ANGLE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
PIPE SIZE	18"	18"	18"	18"	18"	18"	18"	18"	24"	24"	24"	18"	18"	18"	18"	18"	18"	18"	18"	18"
POST Q10(CFS)	0.89	6.89	5.41	3.98	2.67	1.27	0.92	1.42	0.39	11.68	10.75	10.16	8.66	6.06	4.50	4.03	1.91	1.77	1.13	0.78
POST V10 (FPS)	1.64	12.53	9.93	7.30	4.90	2.34	1.69	2.60	0.22	6.61	6.08	5.75	4.90	3.43	2.55	2.28	1.08	1.00	0.64	1.43
DRAINAGE AREA (ACRES)	0.13	0.99	0.78	0.57	0.38	0.18	0.13	0.16	0.06	1.77	1.61	1.51	1.28	0.89	0.65	0.57	0.27	0.25	0.16	1.61
RUNOFF COEFFICIENT "C"	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95

PROPERTY AND EXISTING R/W LINE
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EASEMENT FOR CONSTR OF DRIVES

BEGIN LIMIT OF ACCESS.....BLA
END LIMIT OF ACCESS.....ELA
LIMIT OF ACCESS
REQ'D R/W & LIMIT OF ACCESS

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 250 500 1000

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

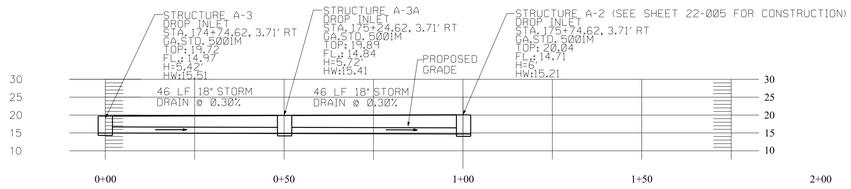
DRAINAGE AREA MAP
JIMMY DELOACH CONNECTOR

STA 277+00
TO END

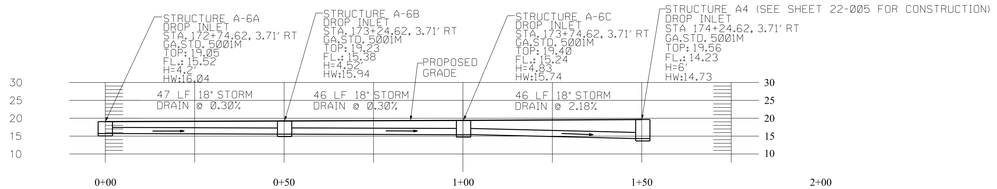
DRAWING No. 21-003

1/5/2009

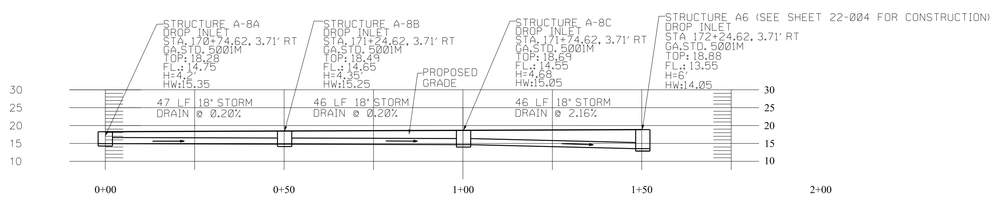
RELEASED FOR CONSTRUCTION - 07-23-13



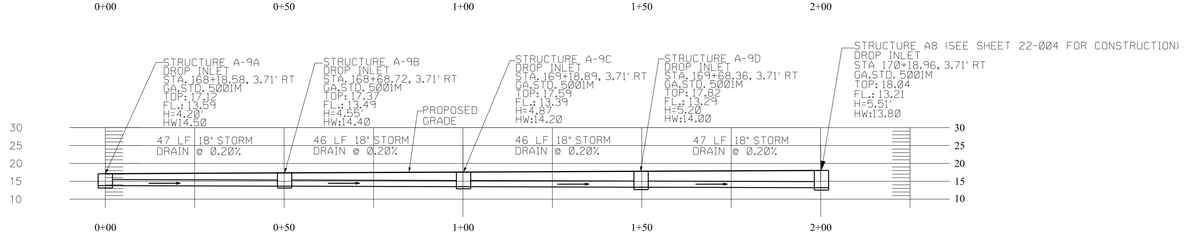
INLET A-3 TO INLET A2



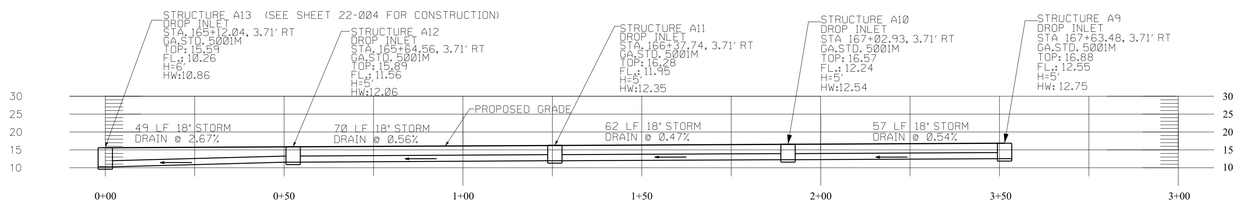
INLET A-6A TO INLET A4



INLET A-8A TO INLET A6



INLET A-9A TO INLET A10



INLET A9 TO INLET A13

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 20 FT VERT.
1 INCH = 20 FT HORIZ.

REVISION DATES

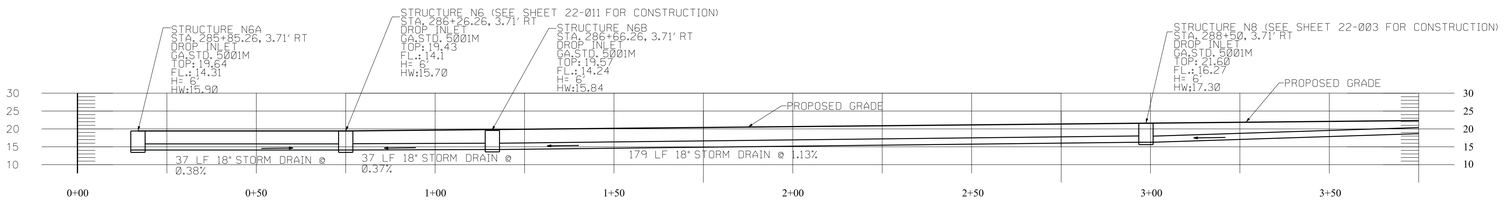
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

DRAINAGE PROFILES

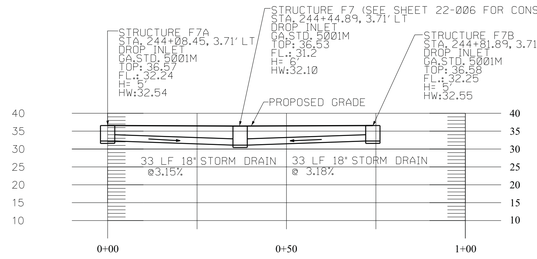
DRAWING No. 22-001

3/1/2007 SUXSEW

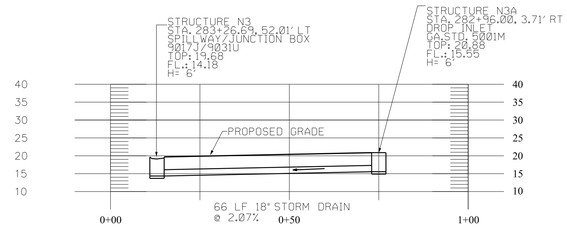
RELEASED FOR CONSTRUCTION - 07-23-13



INLET N6A TO INLET N8



INLET F7A TO INLET 7FB



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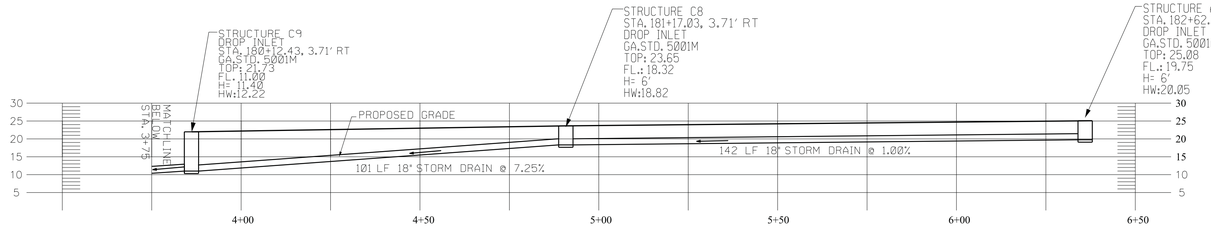
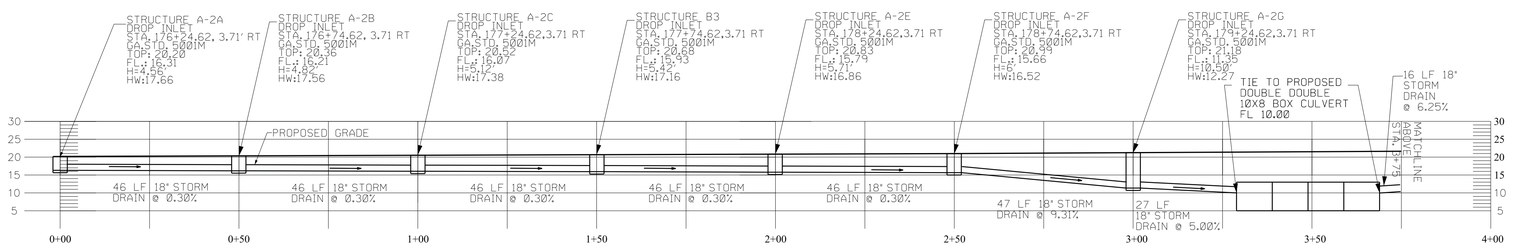


INLET C9 TO A-2J



INLET A-2A TO CULVERT

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 20 FT VERT.
1 INCH = 20 FT HORIZ.

REVISION DATES

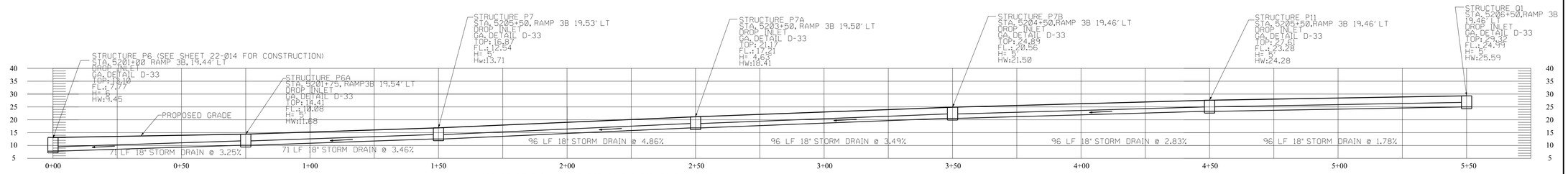
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

DRAINAGE PROFILES

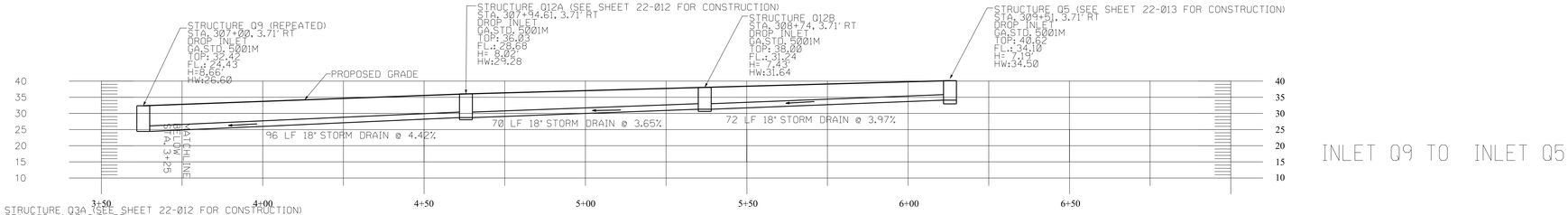
DRAWING No. 22-002

3/1/2007 SUXSEW

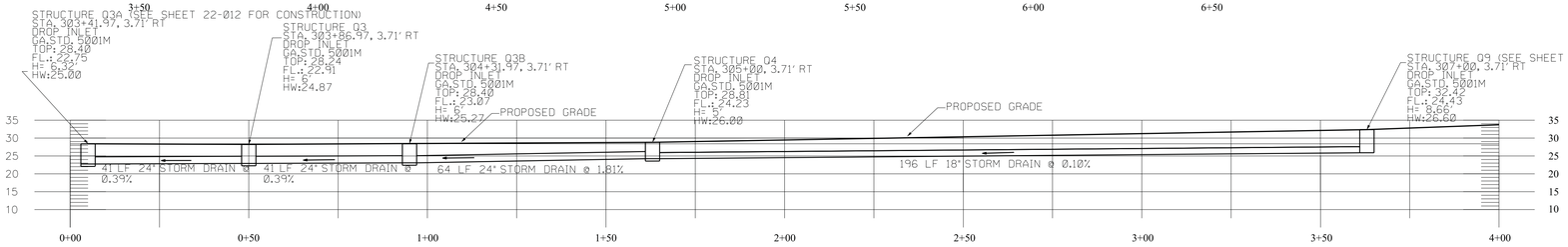
RELEASED FOR CONSTRUCTION - 07-23-13



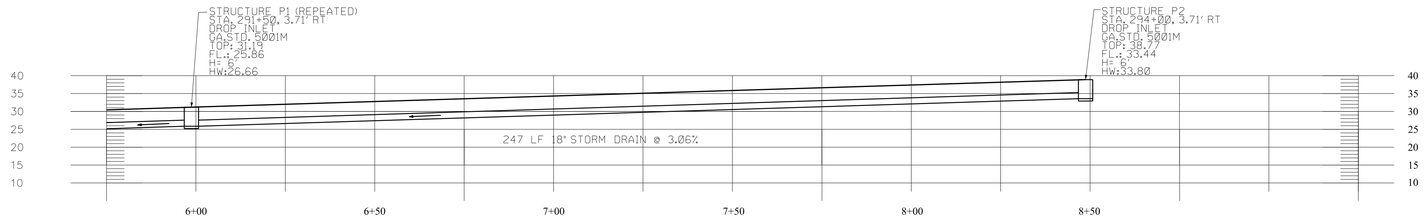
INLET P6 TO INLET Q1



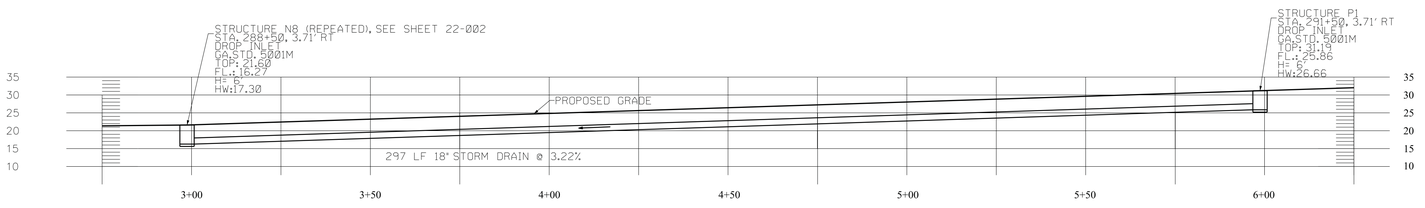
INLET Q9 TO INLET Q5



INLET Q3 TO INLET Q9



INLET P1 TO INLET P2



INLET N8 TO INLET P1

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1 INCH = 20 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
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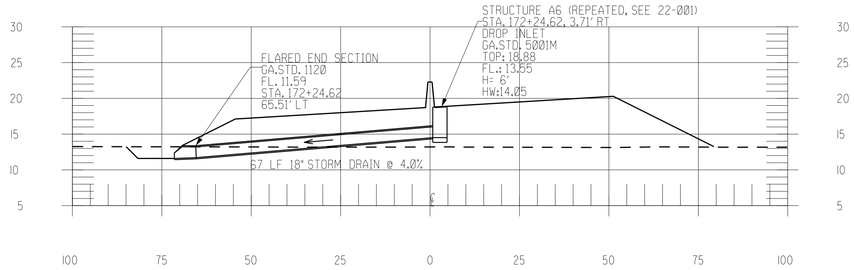
DRAINAGE PROFILES

DRAWING No. 22-003

3/1/2007 SUXSEW

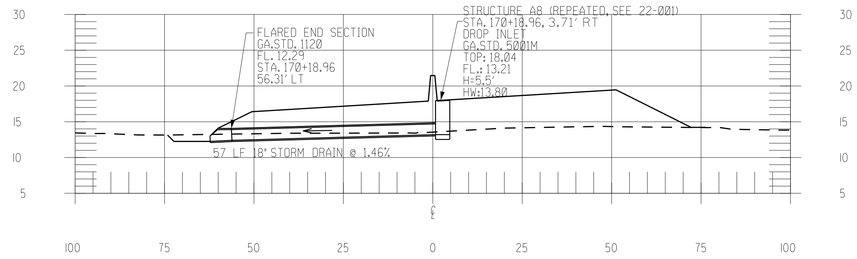
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-001690)	195	730

RELEASED FOR CONSTRUCTION - 07-23-13



172+24.62

A6



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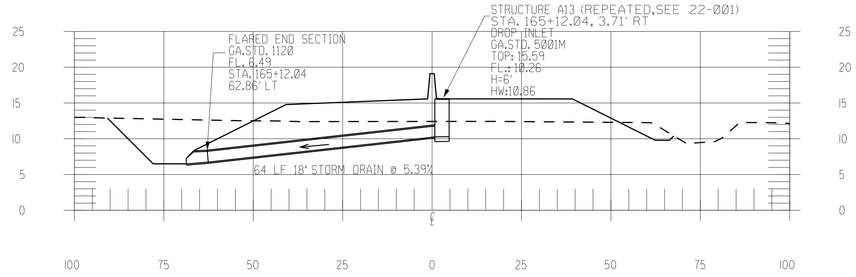
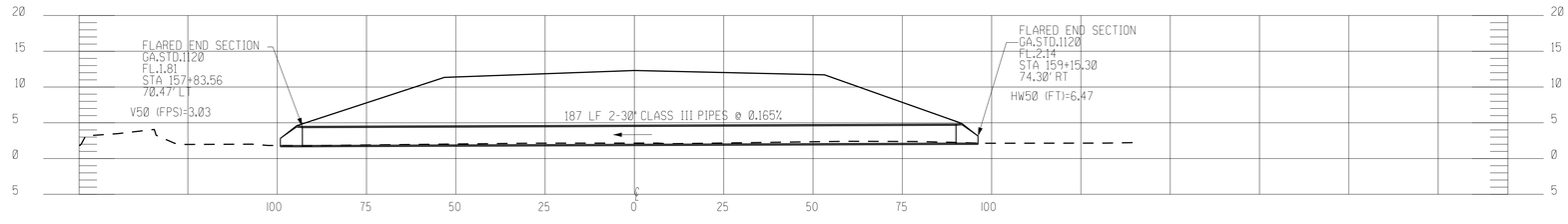
A8



165+12.04

A13



158+50

CP02

SKEW ANGLE 47.71°

3/1/2007 SUXSEW

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 20 FT HORIZ.

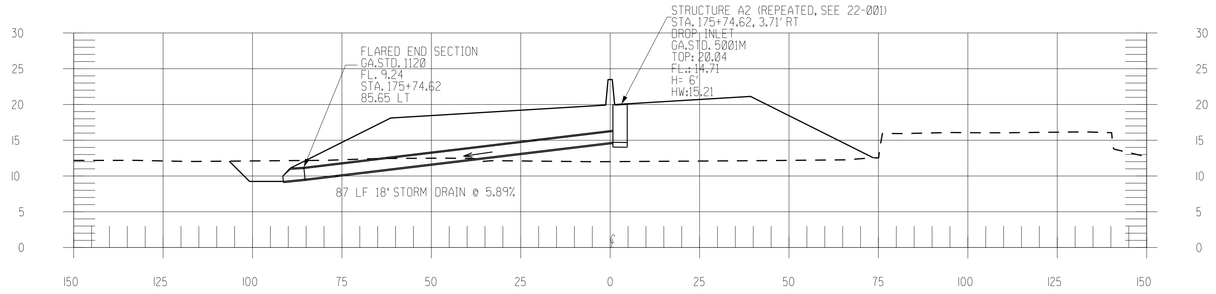
REVISION DATES		

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

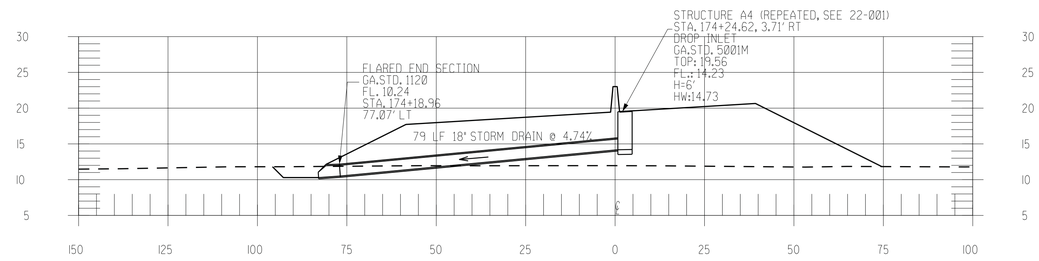
DRAINAGE CROSS SECTIONS

DRAWING No. 22-004

RELEASED FOR CONSTRUCTION - 07-23-13
3/1/2007 SUXSEW



175+74.62
A2



174+24.62
A4

THE LPA GROUP
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REVISION DATES

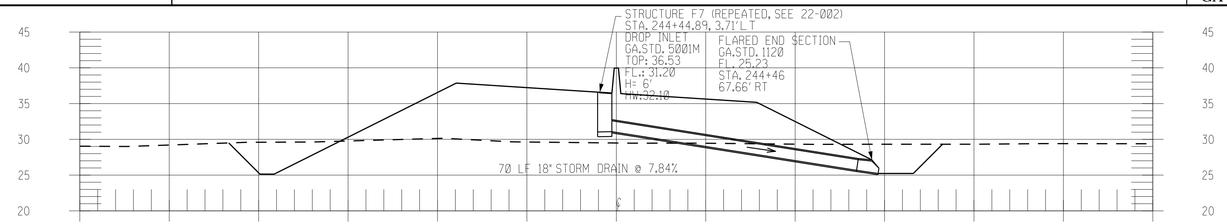
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

DRAINAGE CROSS SECTIONS

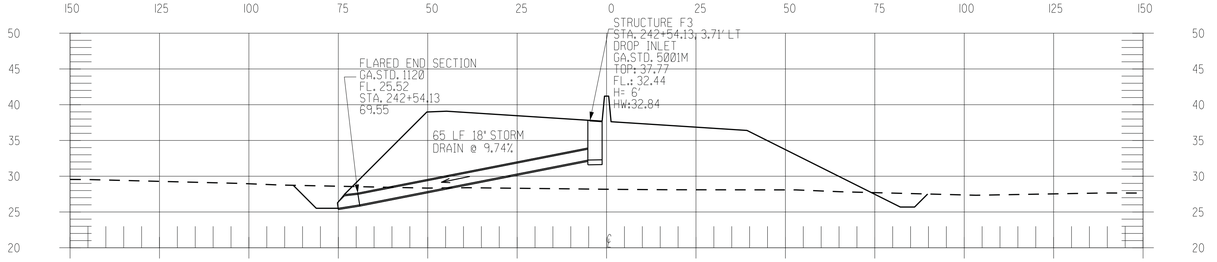
DRAWING No. 22-005

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-001690)	197	730

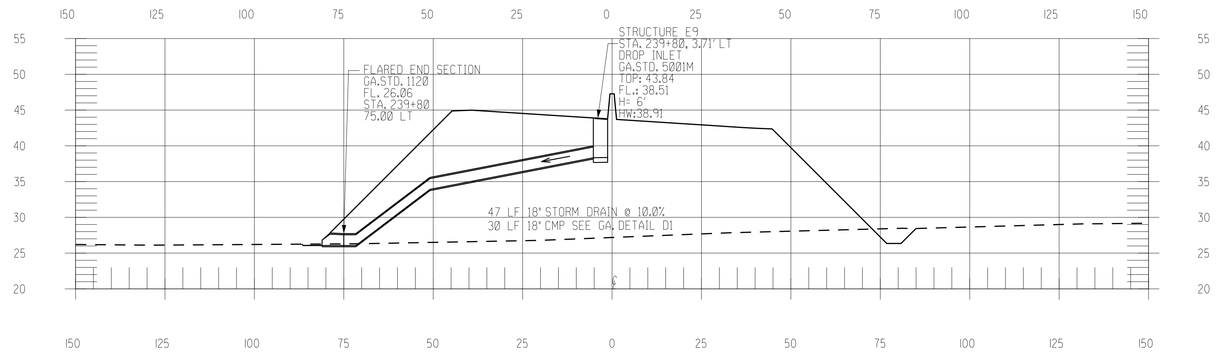
RELEASED FOR CONSTRUCTION - 07-23-13



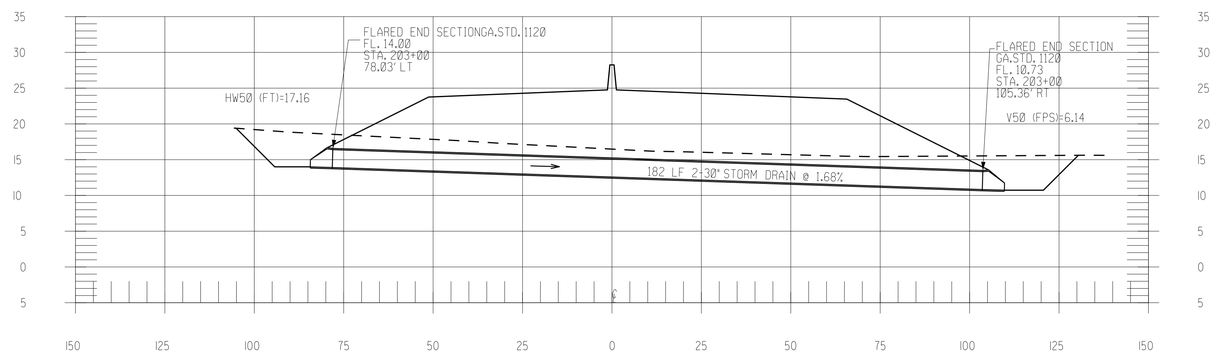
244+44.89
F7



242+54.13
F3



239+80
E9



203+00
CP-09

3/1/2007 SUXSEW

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
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(770) 263-9118

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REVISION DATES

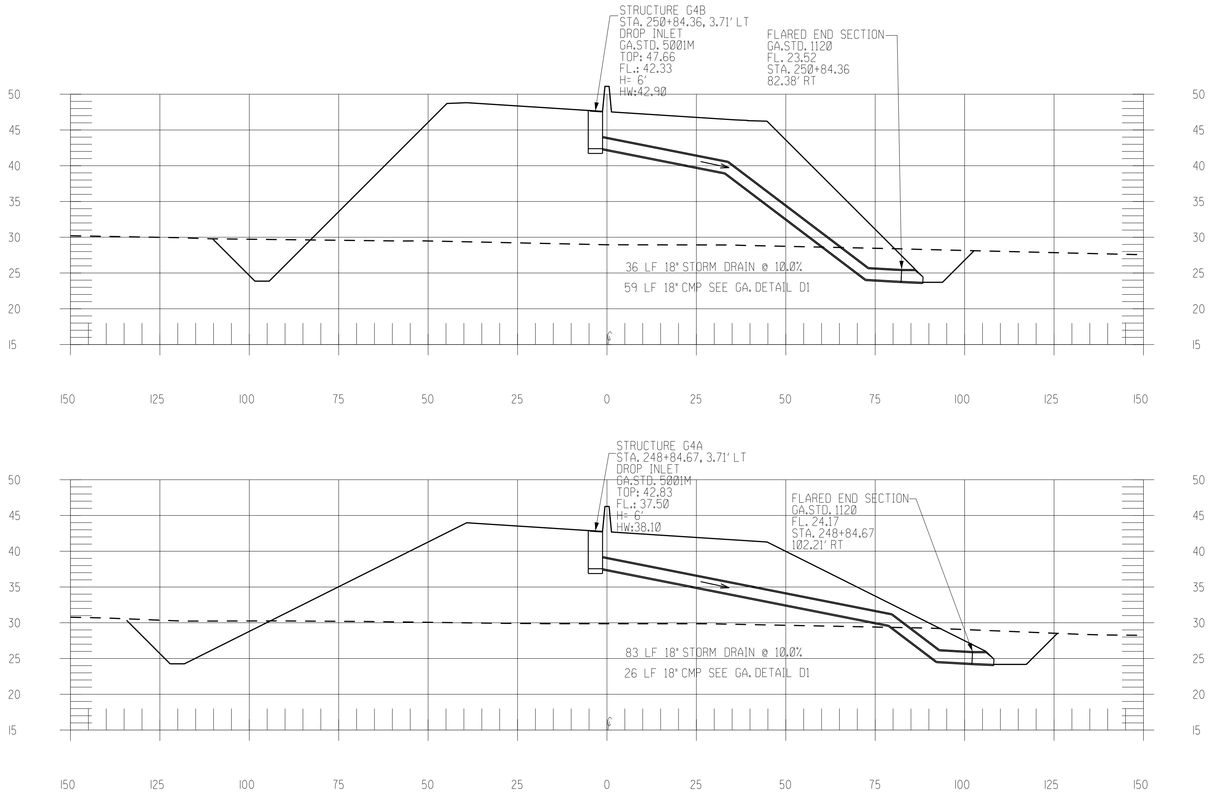
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

DRAINAGE CROSS SECTIONS

DRAWING No. 22-006

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-001690)	198	730

RELEASED FOR CONSTRUCTION - 07-23-13

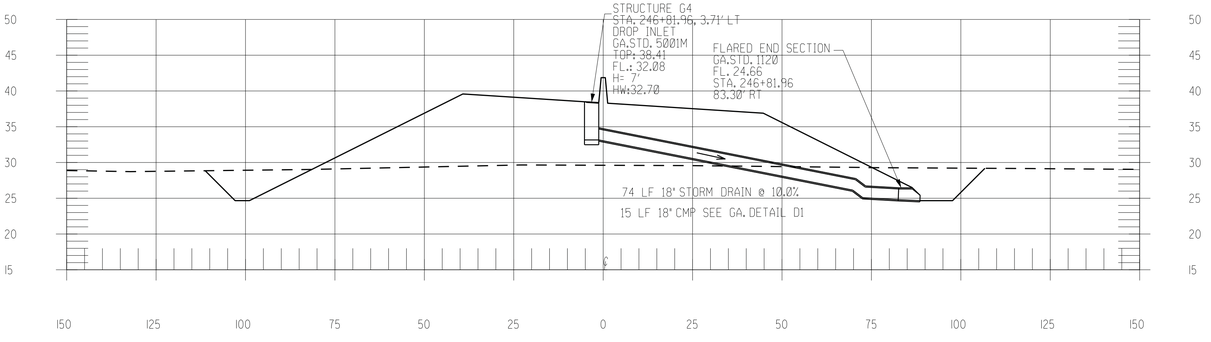


250+84.36

G4B

248+84.67

G4A



246+81.96

G4

REVISION DATES		

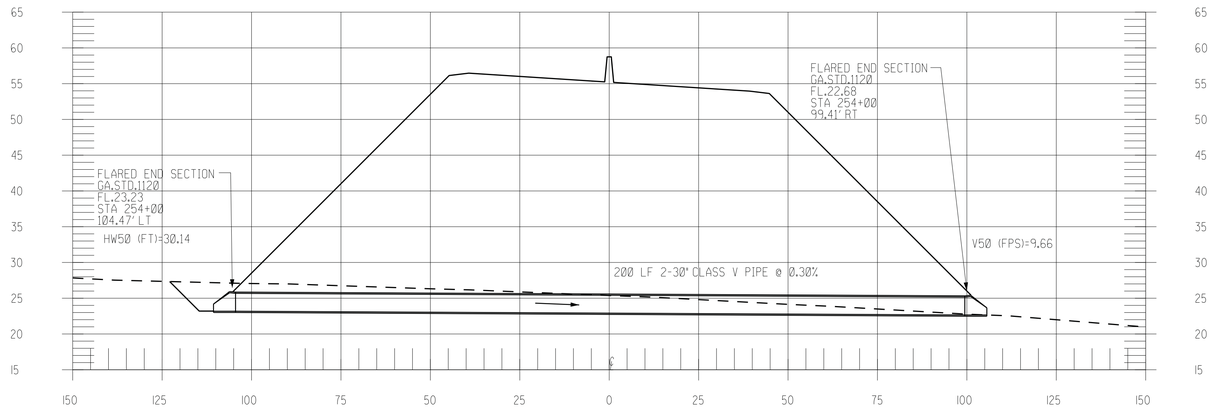
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

DRAINAGE PROFILES

DRAWING No. 22-007

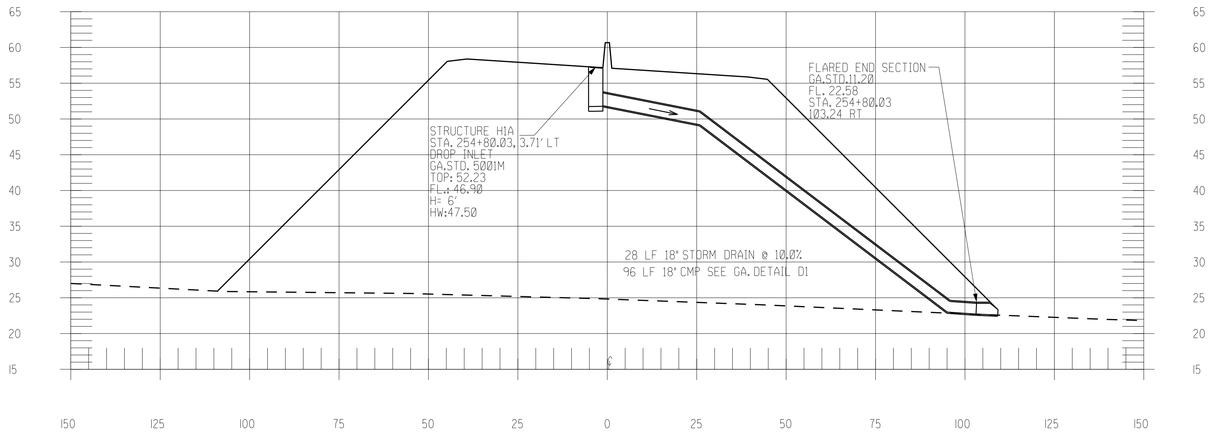
3/1/2007 SUXSEW

RELEASED FOR CONSTRUCTION - 07-23-13



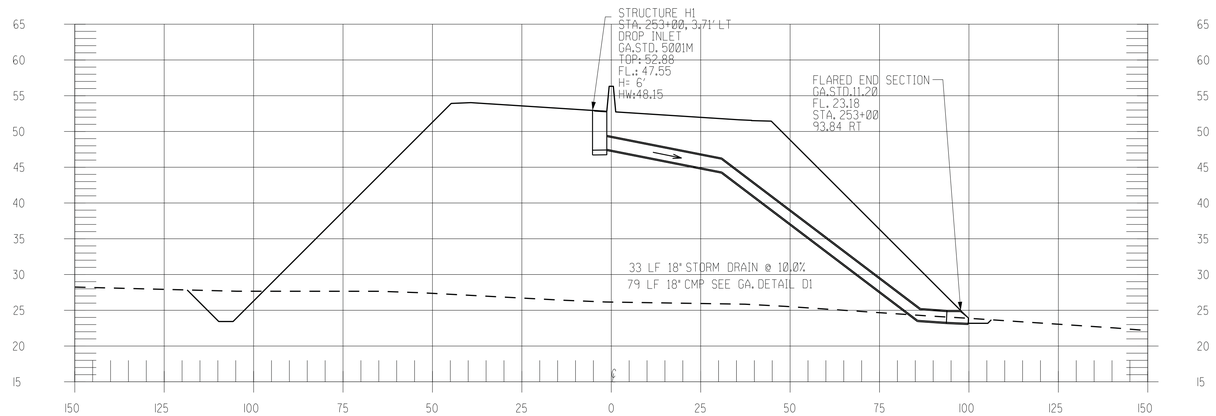
254+00

CP10



254+80.03

H1A



253+00

H1

THE LPA GROUP
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A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
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(770) 263-9118

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REVISION DATES

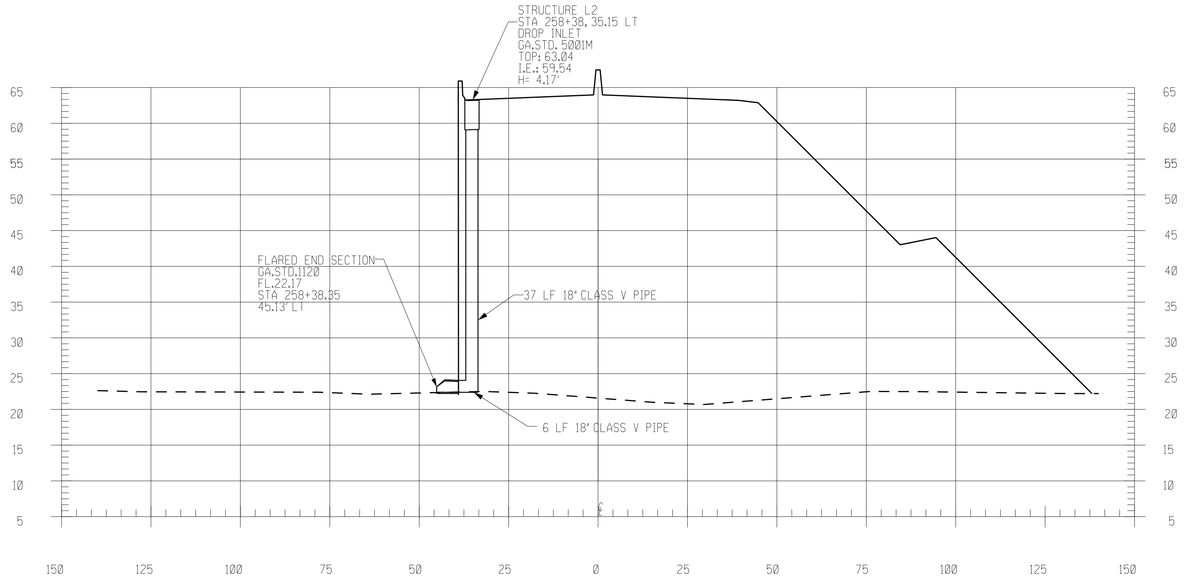
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

DRAINAGE CROSS SECTIONS

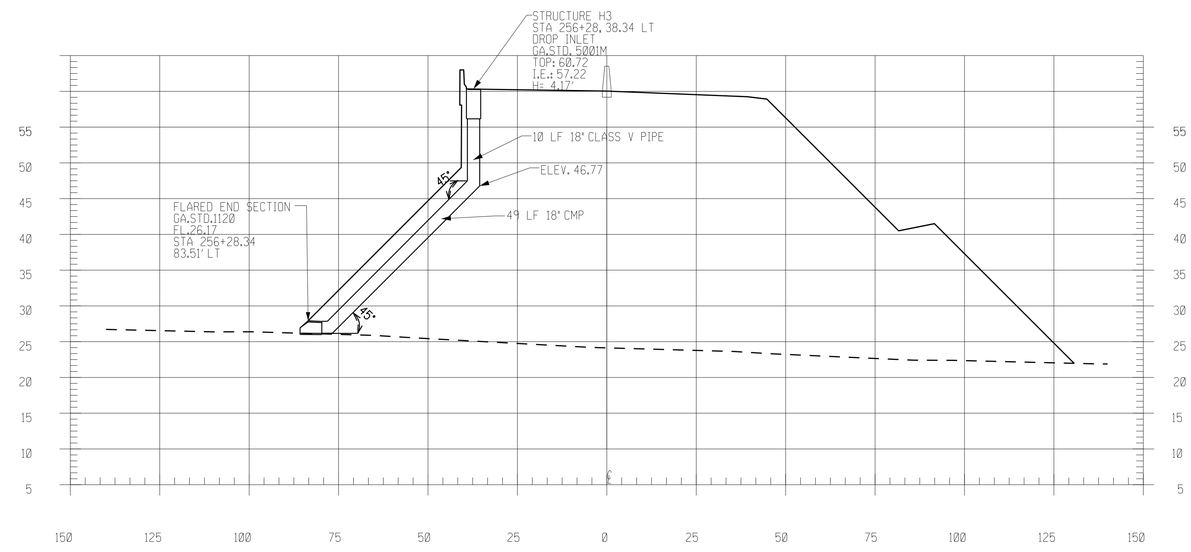
DRAWING No. 22-008

3/1/2007 SUXSEW

RELEASED FOR CONSTRUCTION - 07-23-13



258+38
L2



256+28
H3

REVISION DATES		

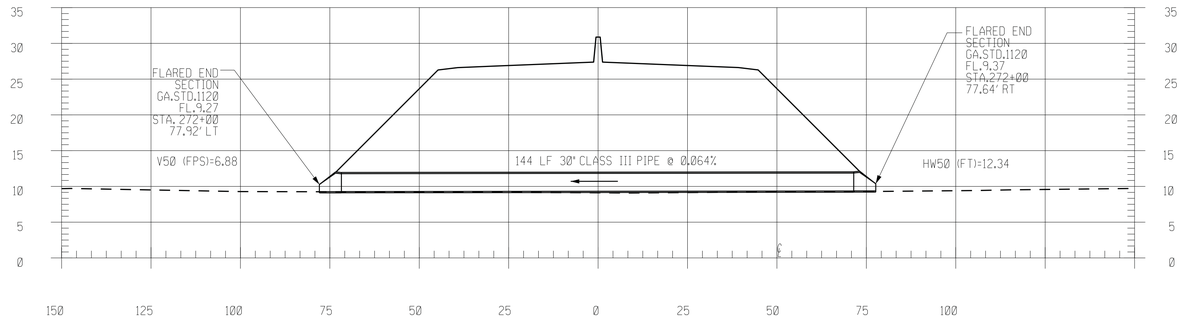
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

DRAINAGE CROSS SECTIONS

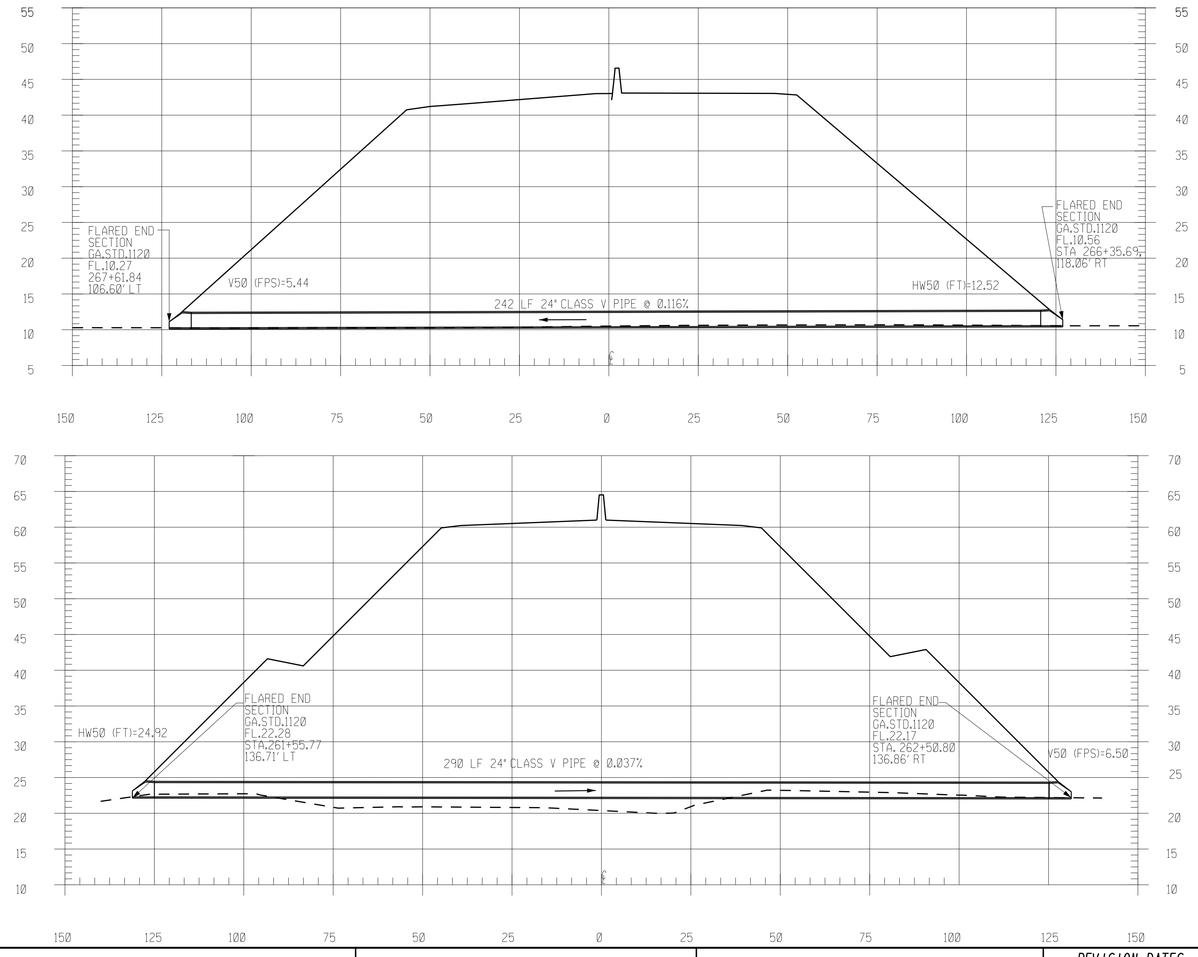
DRAWING No. 22-009

3/1/2007 SUXSEW

RELEASED FOR CONSTRUCTION - 07-23-13



272+00
CP13



267+06.87
SKEW ANGLE 61.4°
CP12

262+00
SKEW ANGLE 70.87°
CP11

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REVISION DATES

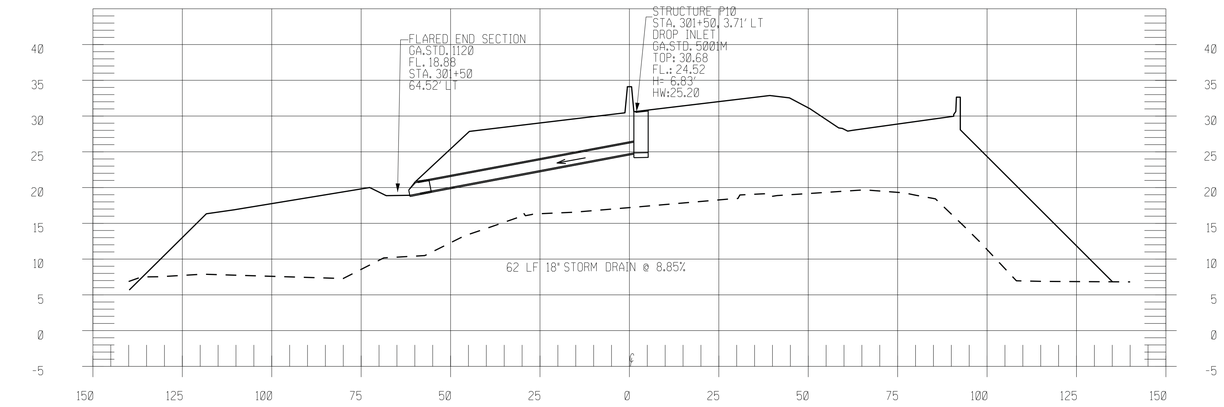
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

DRAINAGE CROSS SECTIONS

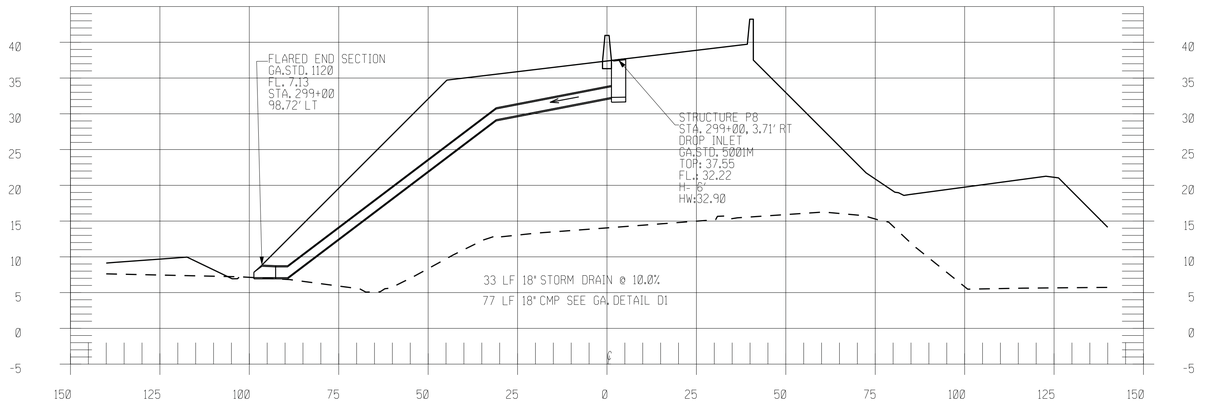
DRAWING No. 22-010

3/1/2007 SUXSEW

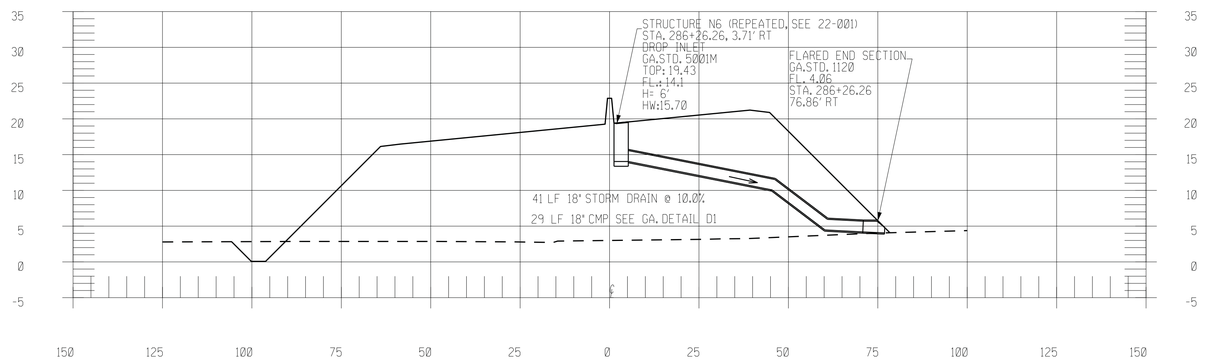
RELEASED FOR CONSTRUCTION - 07-23-13



301+50
CONNECTOR
P10



299+00
CONNECTOR
P8



286+26.26
CONNECTOR
N6

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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

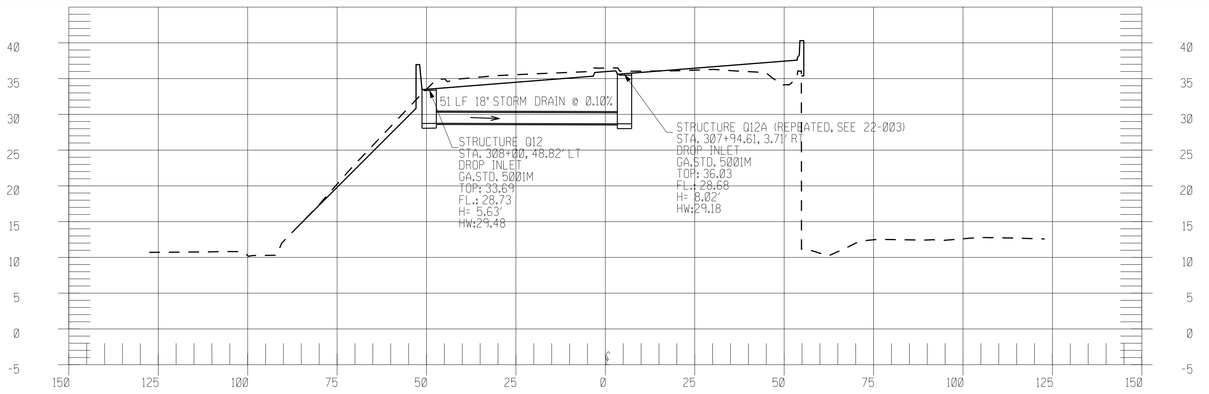
DRAINAGE CROSS SECTIONS

DRAWING No. 22-011

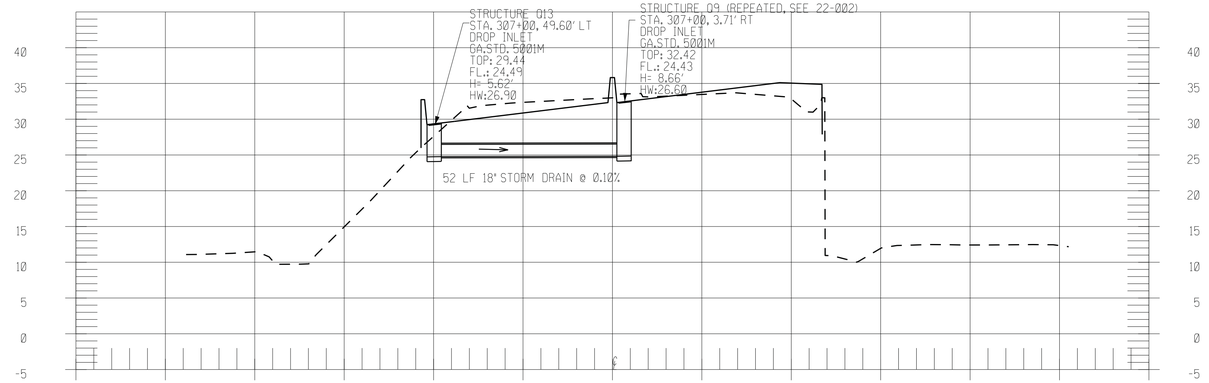
3/1/2007 SUXSEW

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	203	730

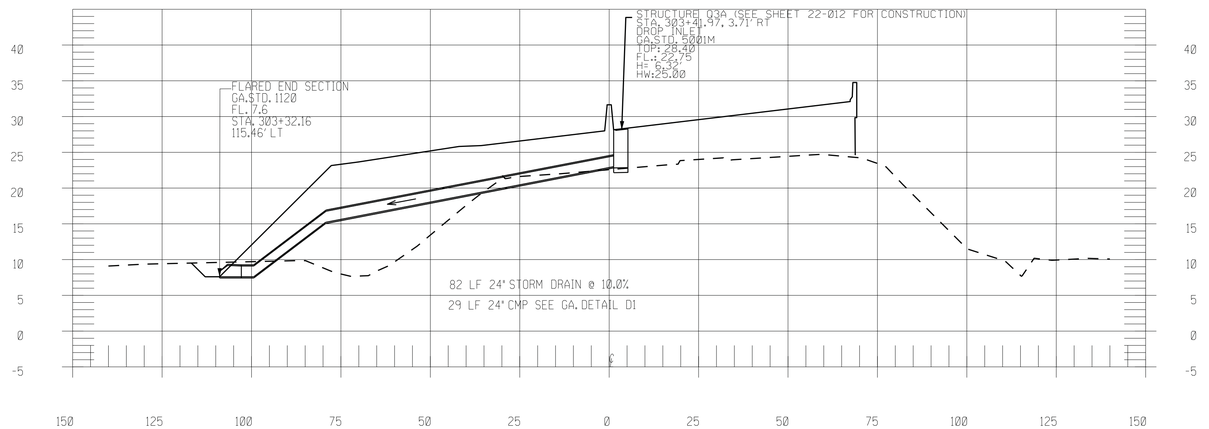
RELEASED FOR CONSTRUCTION - 07-23-13



308+00
CONNECTOR
Q12 AND Q12A



307+00
CONNECTOR
Q9 AND Q13



303+41.97
CONNECTOR
Q3A

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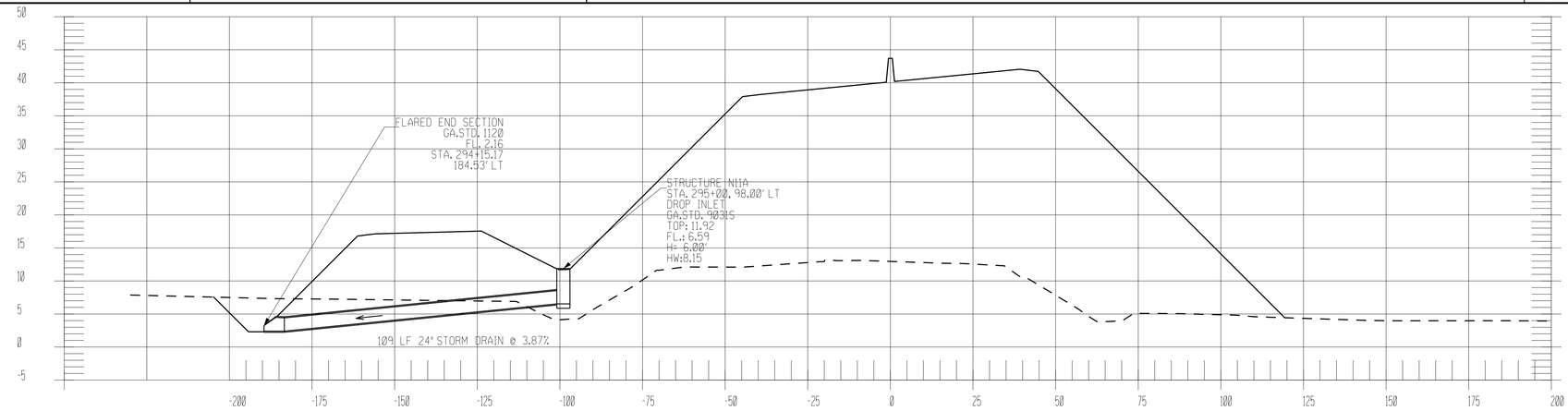
REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

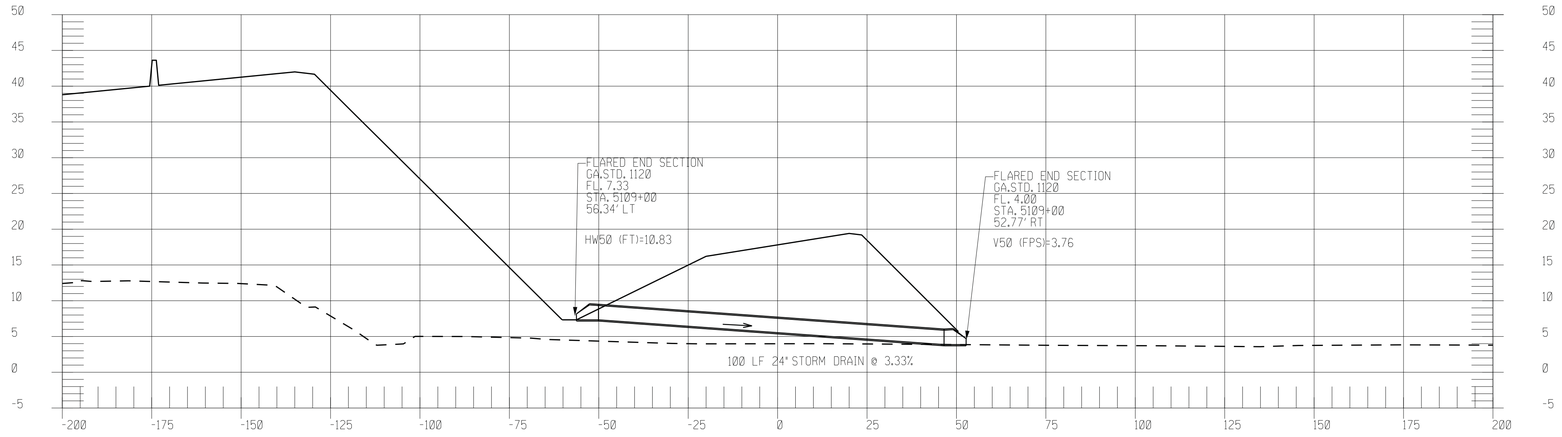
DRAINAGE CROSS SECTIONS

DRAWING No. 22-012

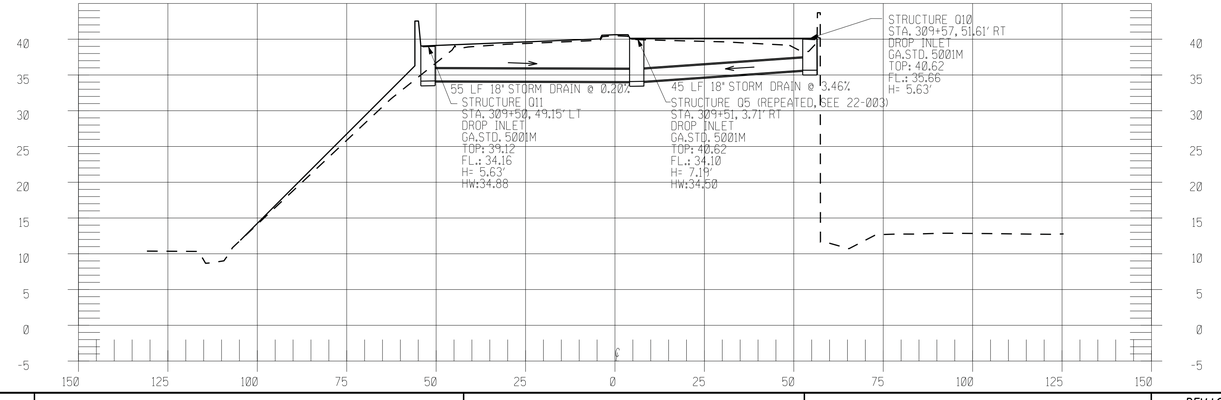
3/1/2007 SUXSEW



295+00
CONNECTOR
SKEW ANGLE 54.85°
CP 16
N11A



5109+00
RAMP 3A
CP-20



309+51
CONNECTOR
Q10 AND Q11

RELEASED FOR CONSTRUCTION - 07-23-13

3/1/2007 SUXSEW

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REVISION DATES

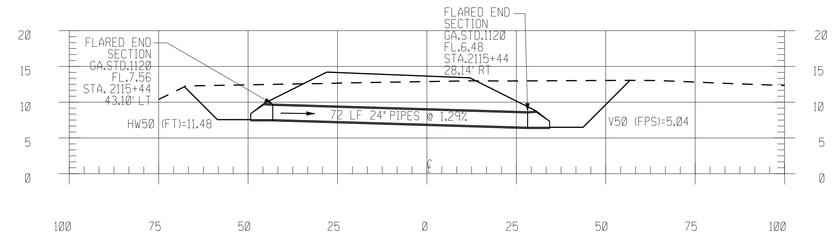
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

DRAINAGE CROSS SECTIONS

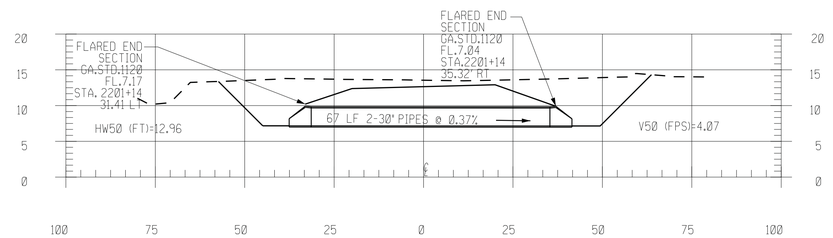
DRAWING No. 22-013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	205	730

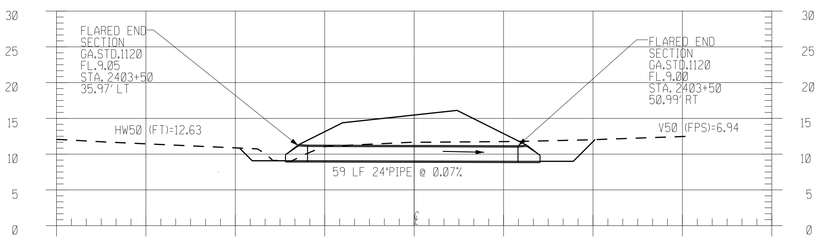
RELEASED FOR CONSTRUCTION - 07-23-13



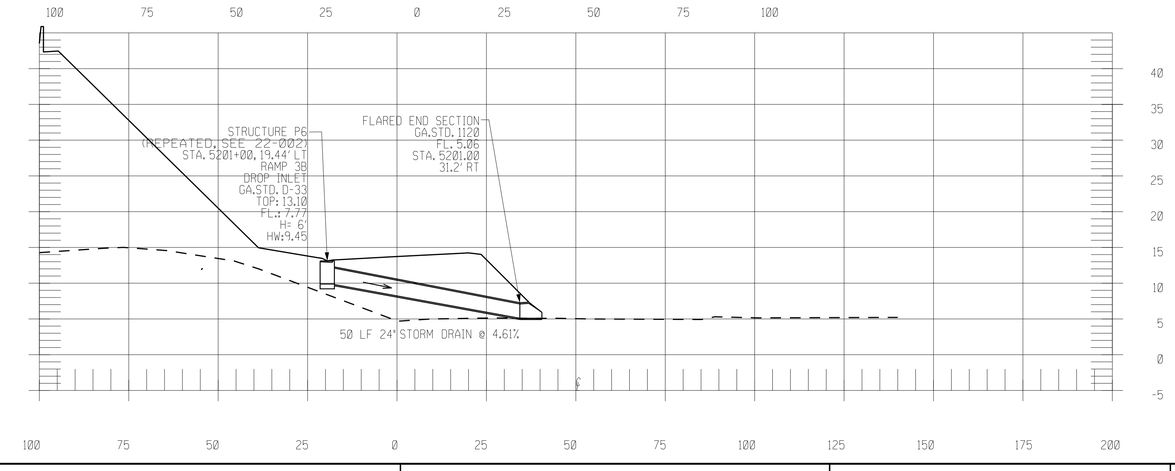
2115+44
RAMP 2A
CP-04



2201+06
RAMP 2B
CP07



2403+50
RAMP 2D
CP03



5201+00
CONNECTOR
P6

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REVISION DATES

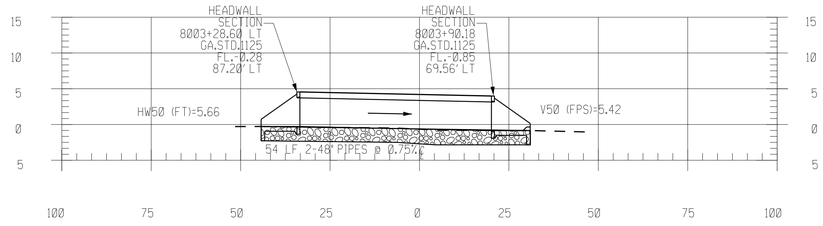
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

DRAINAGE CROSS SECTIONS

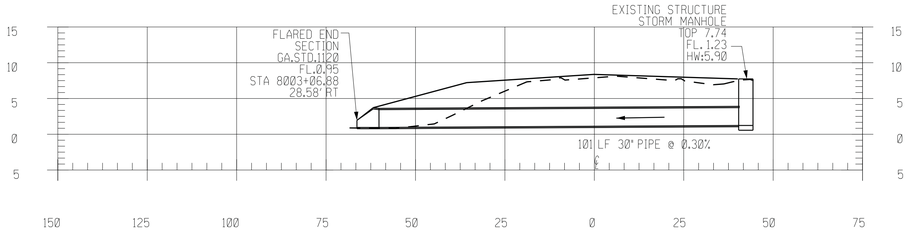
DRAWING No. 22-014

3/1/2007 SUXSEW

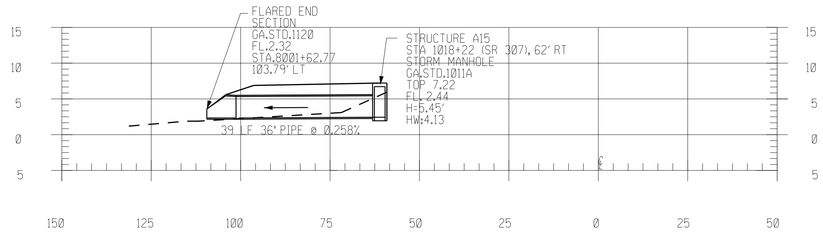
RELEASED FOR CONSTRUCTION - 07-23-13



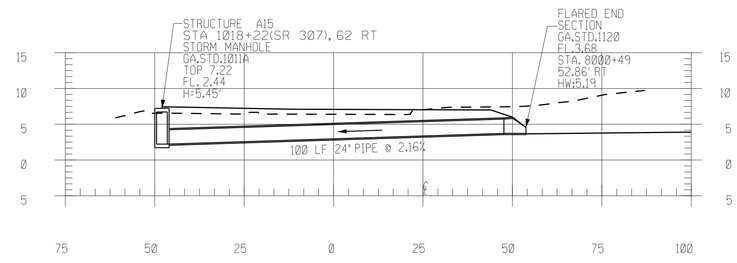
BOURNE AVE. LOCAL ACCESS ROAD
CP17



8003+06.88
BOURNE AVE. LOCAL ACCESS ROAD
CPX5



8001+00
BOURNE AVE. LOCAL ACCESS ROAD
CPX2
A-15



8000+74
BOURNE AVE. LOCAL ACCESS ROAD
CPX3
A-15

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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

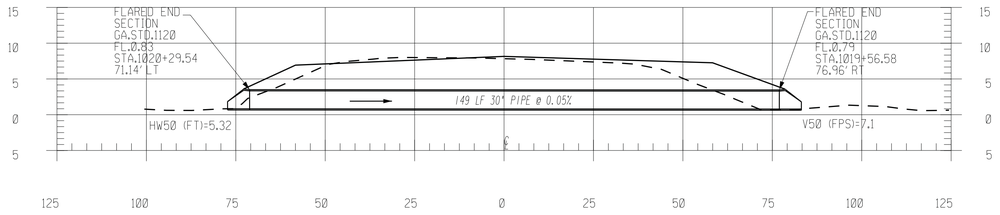
DRAINAGE CROSS SECTIONS

DRAWING No. 22-015

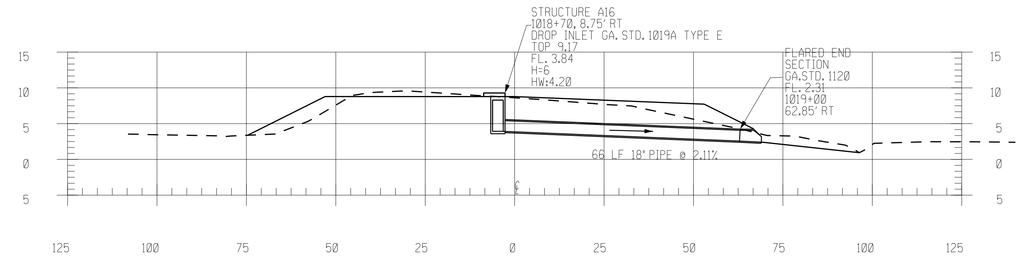
3/1/2007 SUXSEW

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	207	730

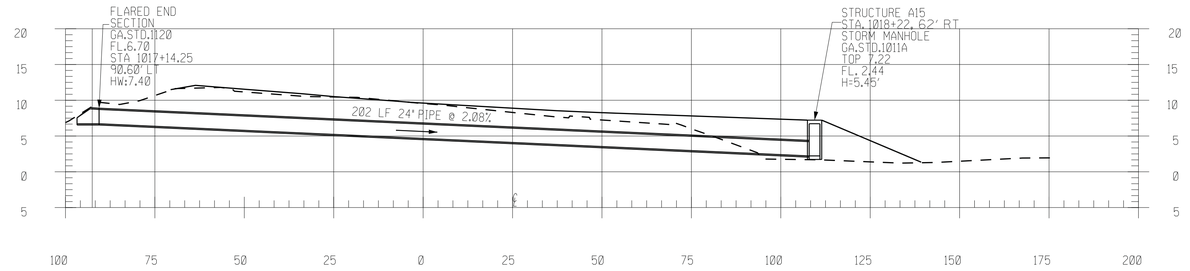
RELEASED FOR CONSTRUCTION - 07-23-13



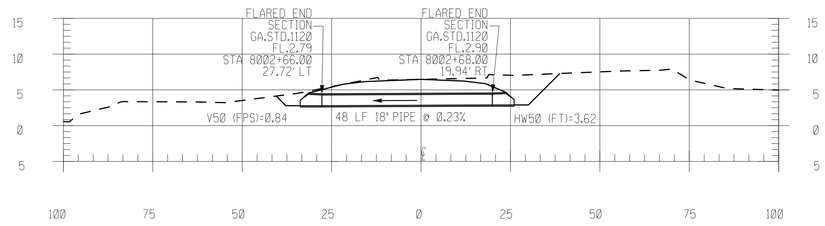
1019+93
BOURNE AVE.
SKEW ANGLE 65.4°
CPX1



1018+70.00
BOURNE AVE.
SKEW ANGLE 64.32°
A16



1017+79
BOURNE AVE.
SKEW ANGLE 124.6°
CPX4
A-15



8002+67.66
BOURNE AVE. LOCAL ACCESS ROAD
CPX6

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REVISION DATES

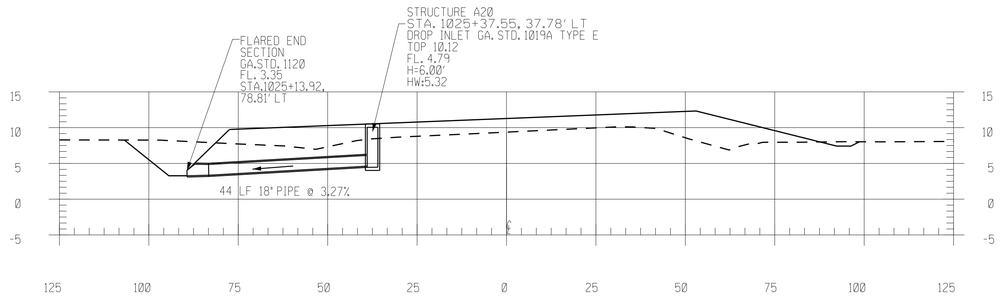
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

DRAINAGE CROSS SECTIONS

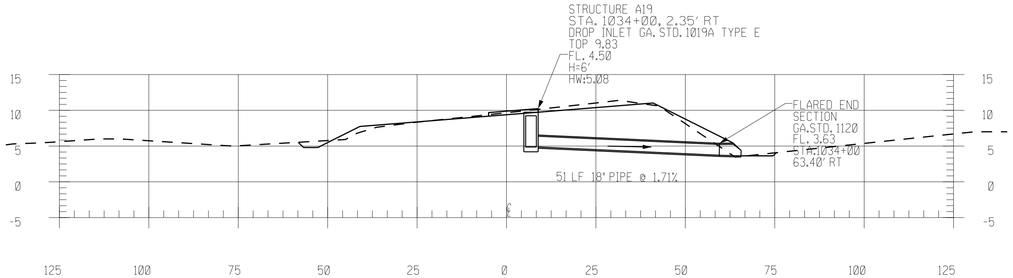
DRAWING No. 22-016

3/1/2007 SUXSEW

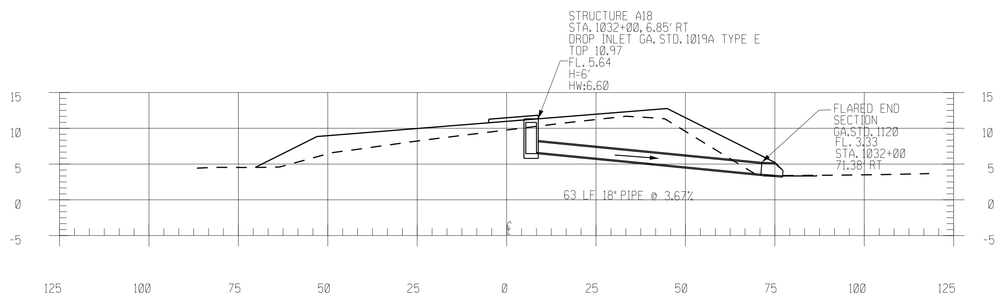
RELEASED FOR CONSTRUCTION - 07-23-13



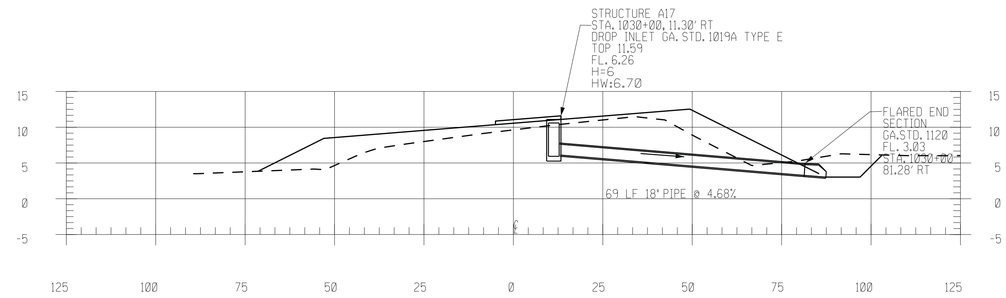
1025+37.55
BOURNE AVE.
SKEW ANGLE 61.31°
A20



1034+00.00
BOURNE AVE.
SKEW ANGLE 90°
A19



1032+00.00
BOURNE AVE.
SKEW ANGLE 90°
A18



1030+00.00
BOURNE AVE.
SKEW ANGLE 90°
A17

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 20 FT HORIZ.

REVISION DATES

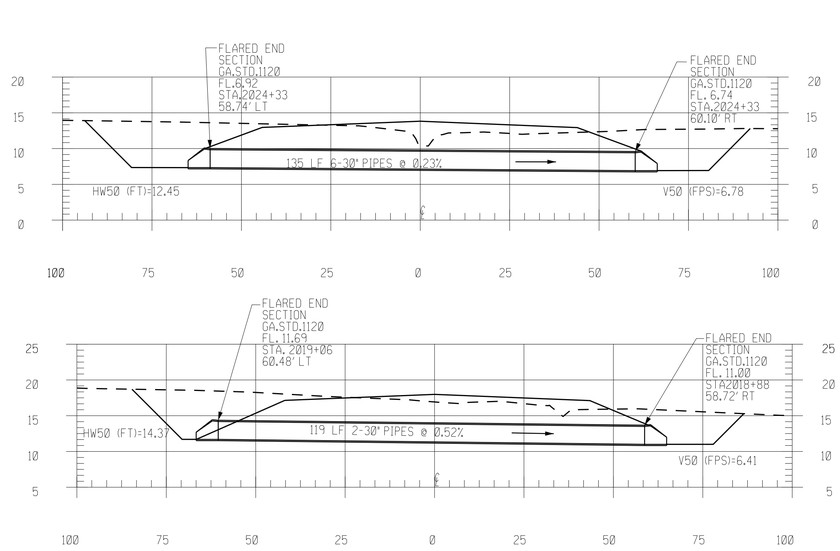
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

DRAINAGE CROSS SECTIONS

DRAWING No. 22-017

3/1/2007 SUXSEW

RELEASED FOR CONSTRUCTION - 07-23-13



2024+27.02
GRANGE ROAD

CP08

2018+90.82
GRANGE ROAD

CP05

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
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1 INCH = 20 FT HORIZ.

REVISION DATES

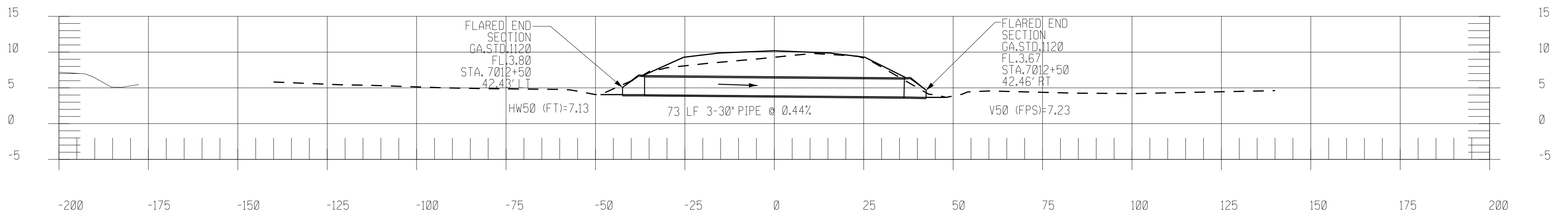
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

DRAINAGE CROSS SECTIONS

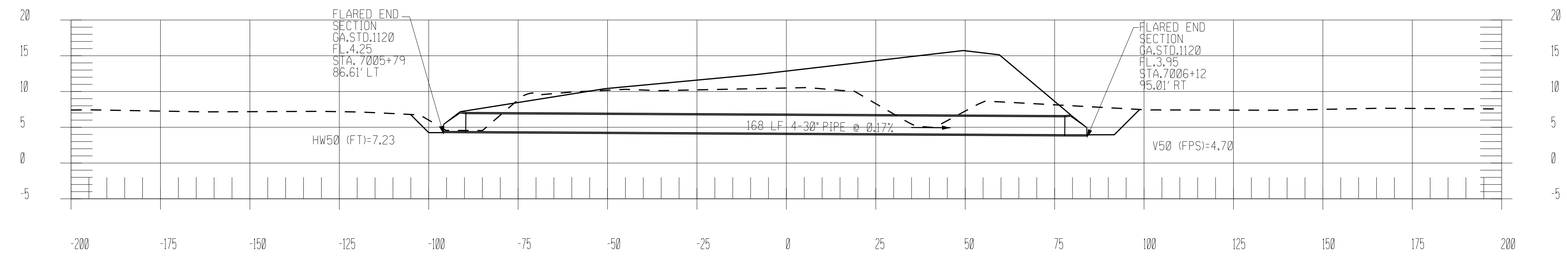
DRAWING No. 22-018

3/1/2007 SUXSEW

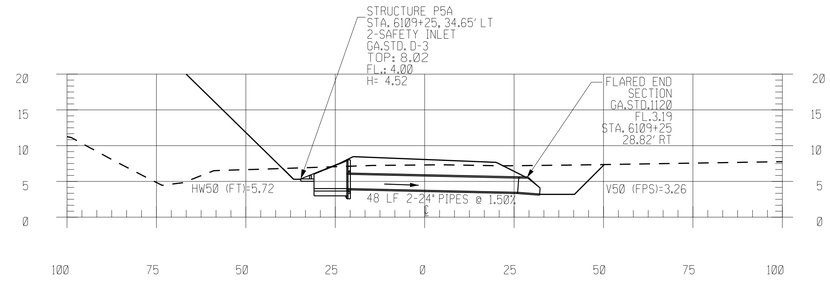
23-JUL-2013 14:28	2:28:53 PM	0008690_22-001-22-02018	Y:\Roadways\126379\0008690\Dgn\0008690_22-001-22-020.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-001690)	210	730



7012+50
SONNY DIXON INTERCHANGE
CP15



7005+97
SONNY DIXON INTERCHANGE
SKEW ANGLE 79°
CP14



6109+25
RAMP 3C
SKEW ANGLE 90°
CP-21

RELEASED FOR CONSTRUCTION - 07-23-13

3/1/2007 SUXSEW

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

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REVISION DATES

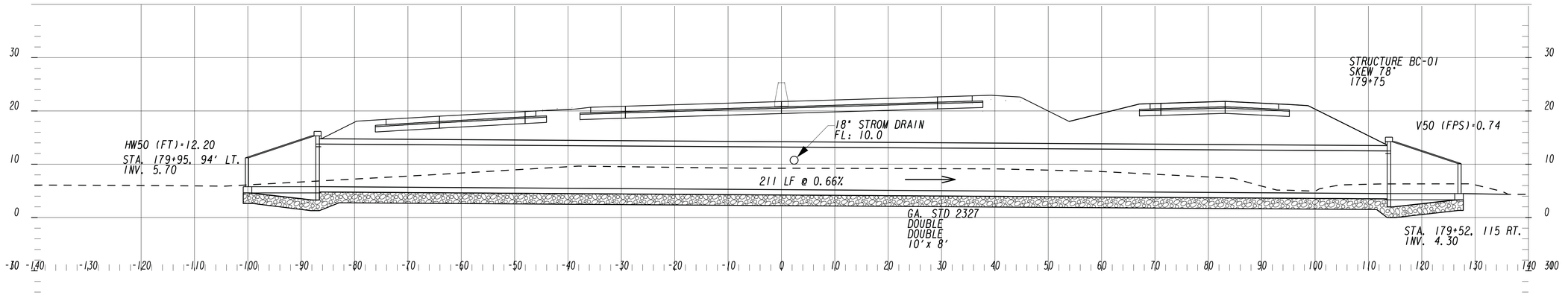
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

DRAINAGE CROSS SECTIONS

DRAWING No. 22-019

23-JUL-2013 14:28	2:28:54 PM	0008690_22-001-22-02019	Y:\Roadways\126379\0008690\Dgn\0008690_22-001-22-020.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-001690)	211	730

RELEASED FOR CONSTRUCTION - 07-23-13



THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

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1 INCH = 10 FT HORIZ.

REVISION DATES		

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

DRAINAGE CROSS SECTIONS

DRAWING No. 22-020

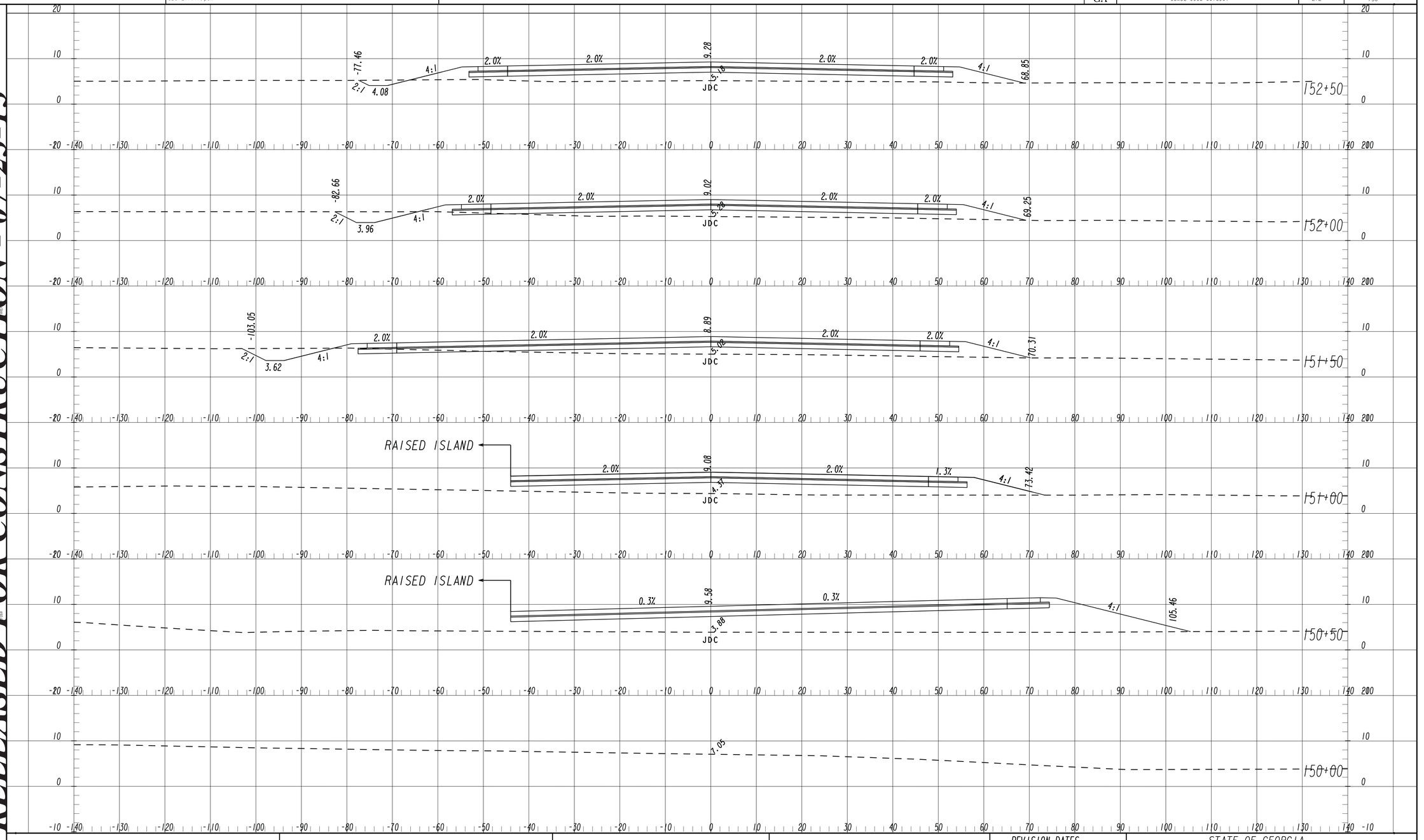
3/1/2007 SUXSEW

23-JUL-2013 14:32 2:32:24 PM | 0008690_23-001 | Y:\Roadways\126379\0008690\Dgn\0008690_23-001.dgn

JParks | GDOT_11x17.pen

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	212	730

RELEASED FOR CONSTRUCTION - 07-23-13



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A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

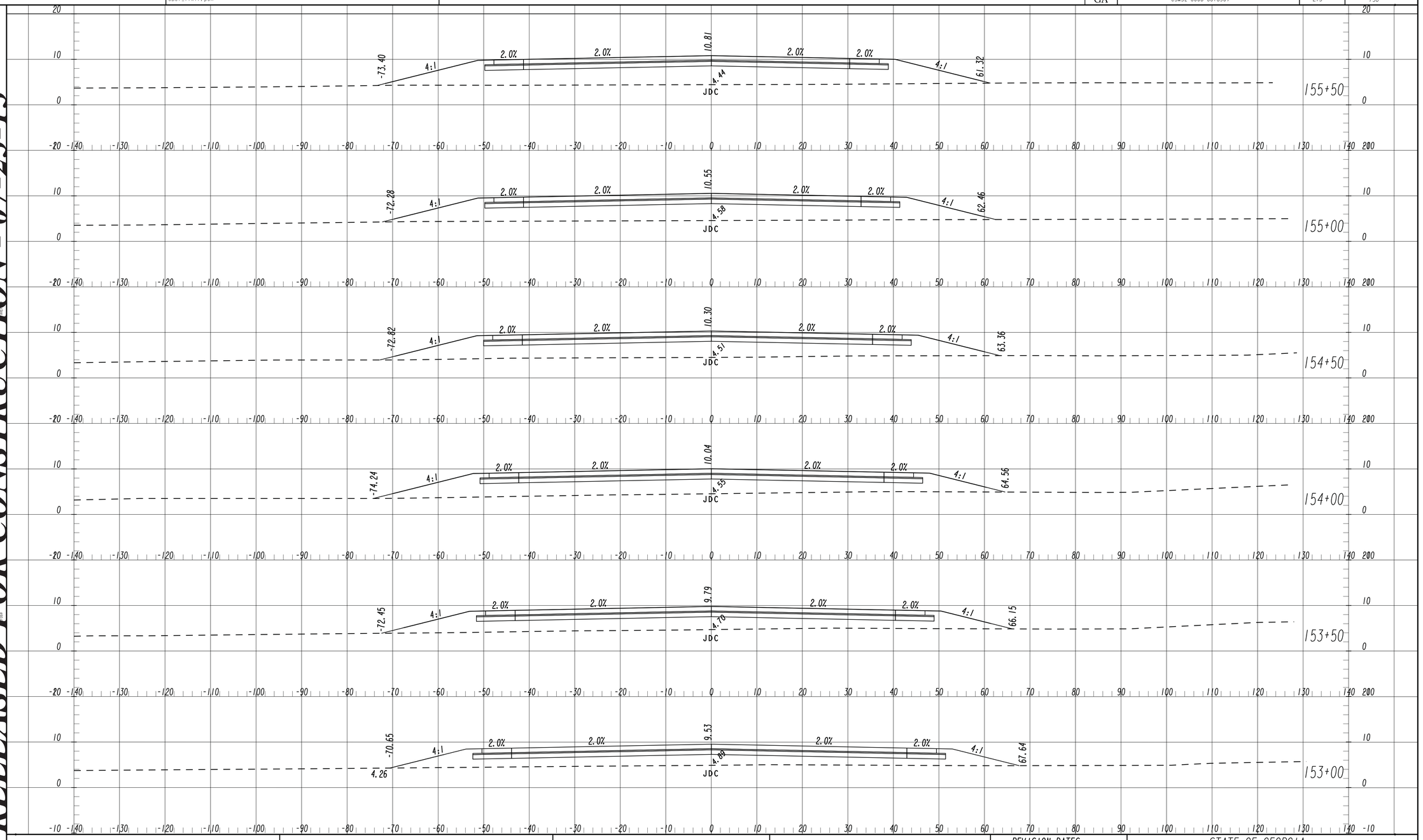
JIMMY DELOACH CONNECTOR

DRAWING No. 23-001

3/1/2007 SUXSEW

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	213	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

JIMMY DELOACH CONNECTOR

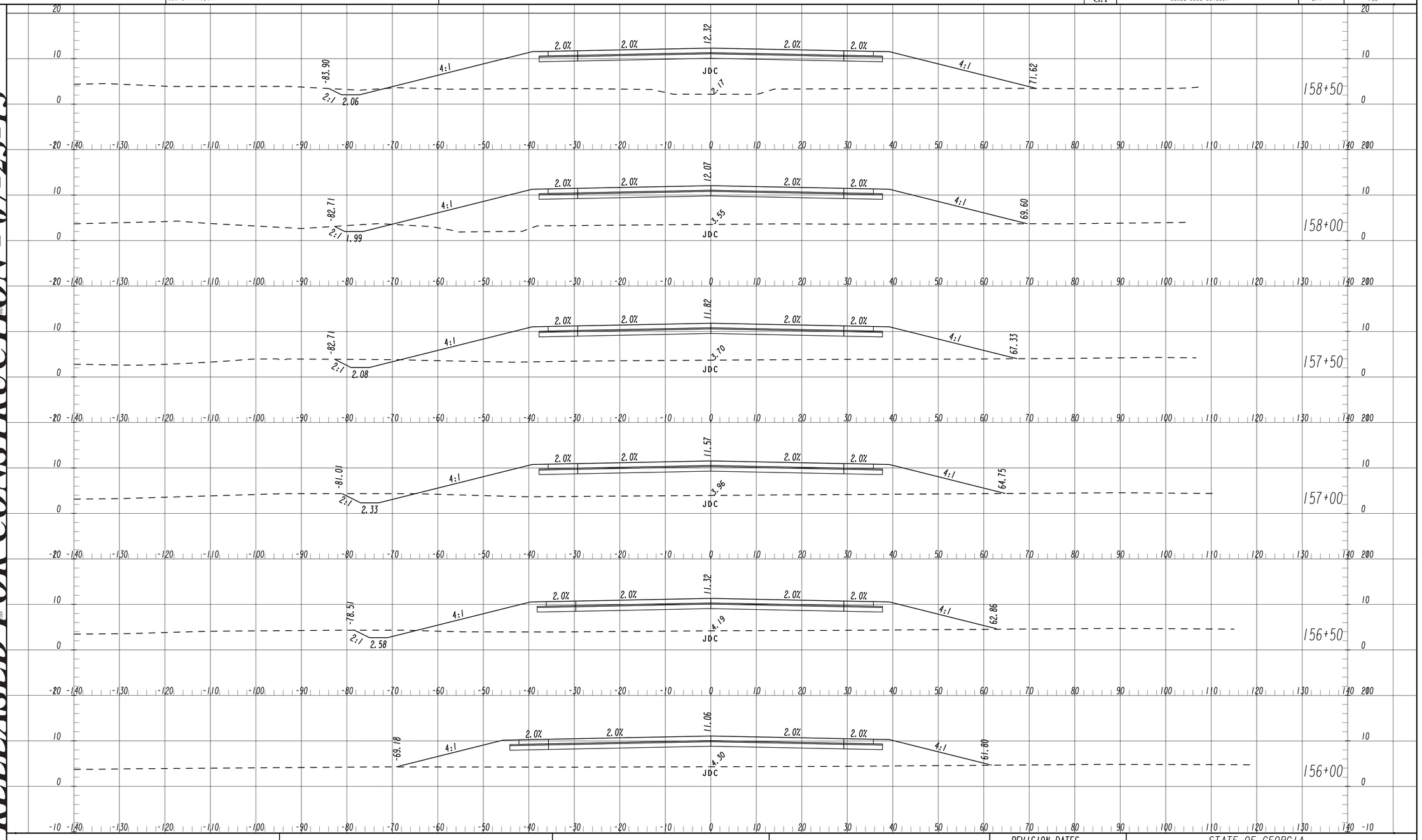
DRAWING No. 23-002

23-JUL-2013 14:32 2:32:27 PM | 0008690_23-0012 | Y:\Roadways\126379\0008690\Dgn\0008690_23-001.dgn

JParks | GDOT_11x17.pen

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	214	730

RELEASED FOR CONSTRUCTION - 07-23-13



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A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

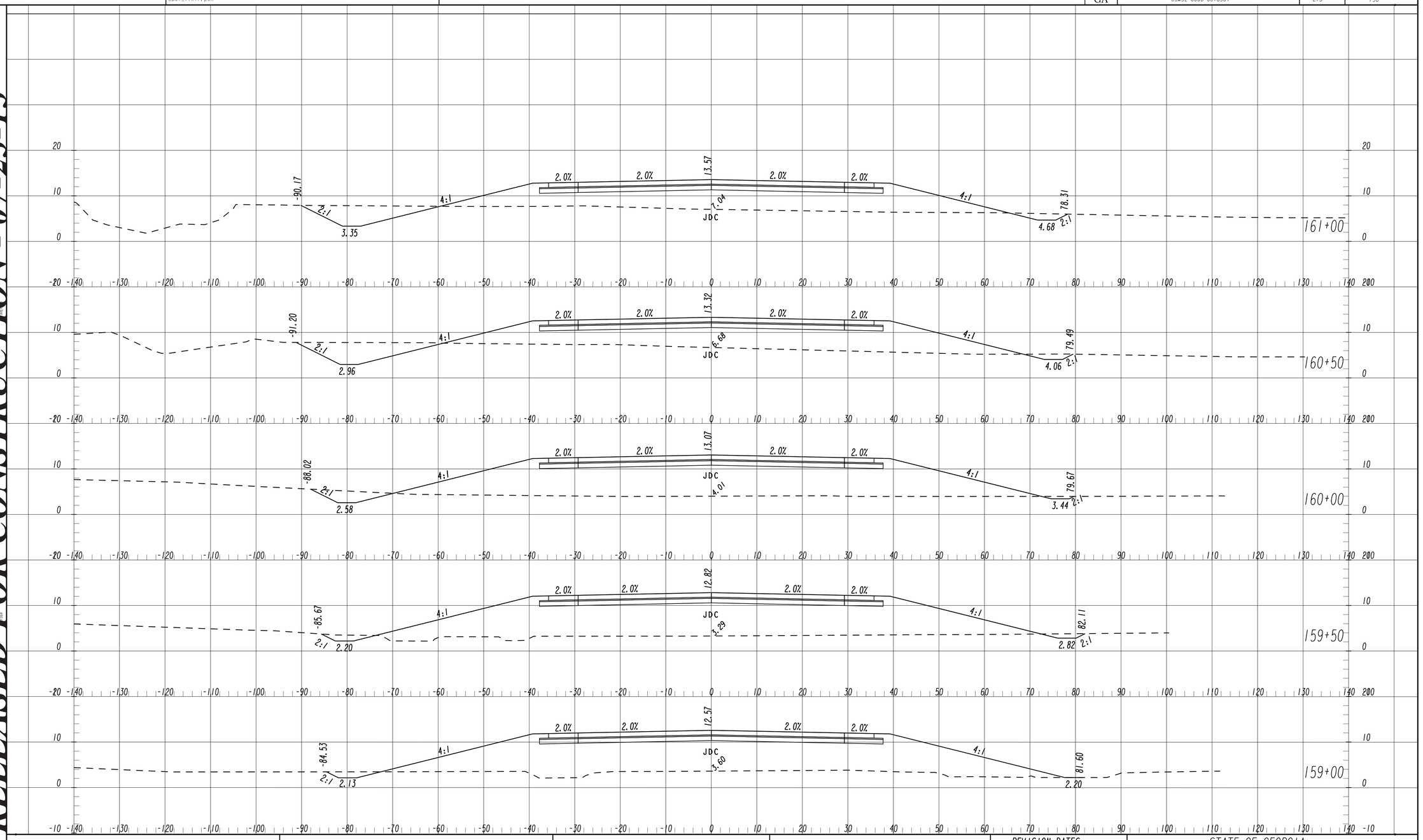
JIMMY DELOACH CONNECTOR

DRAWING No. 23-003

3/1/2007 SUXSEW

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	215	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

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A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

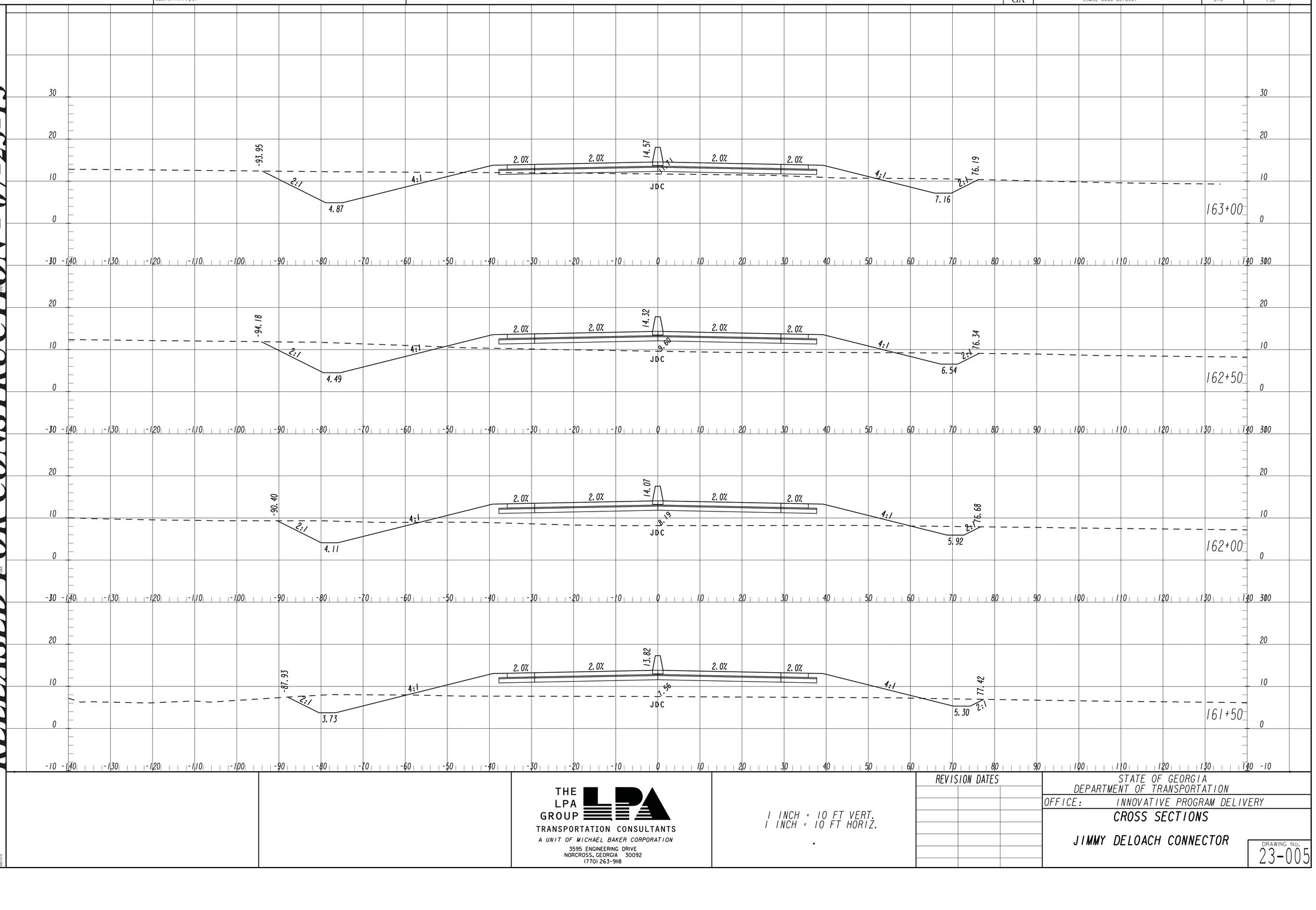
CROSS SECTIONS

JIMMY DELOACH CONNECTOR

DRAWING No. 23-004

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	216	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

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A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

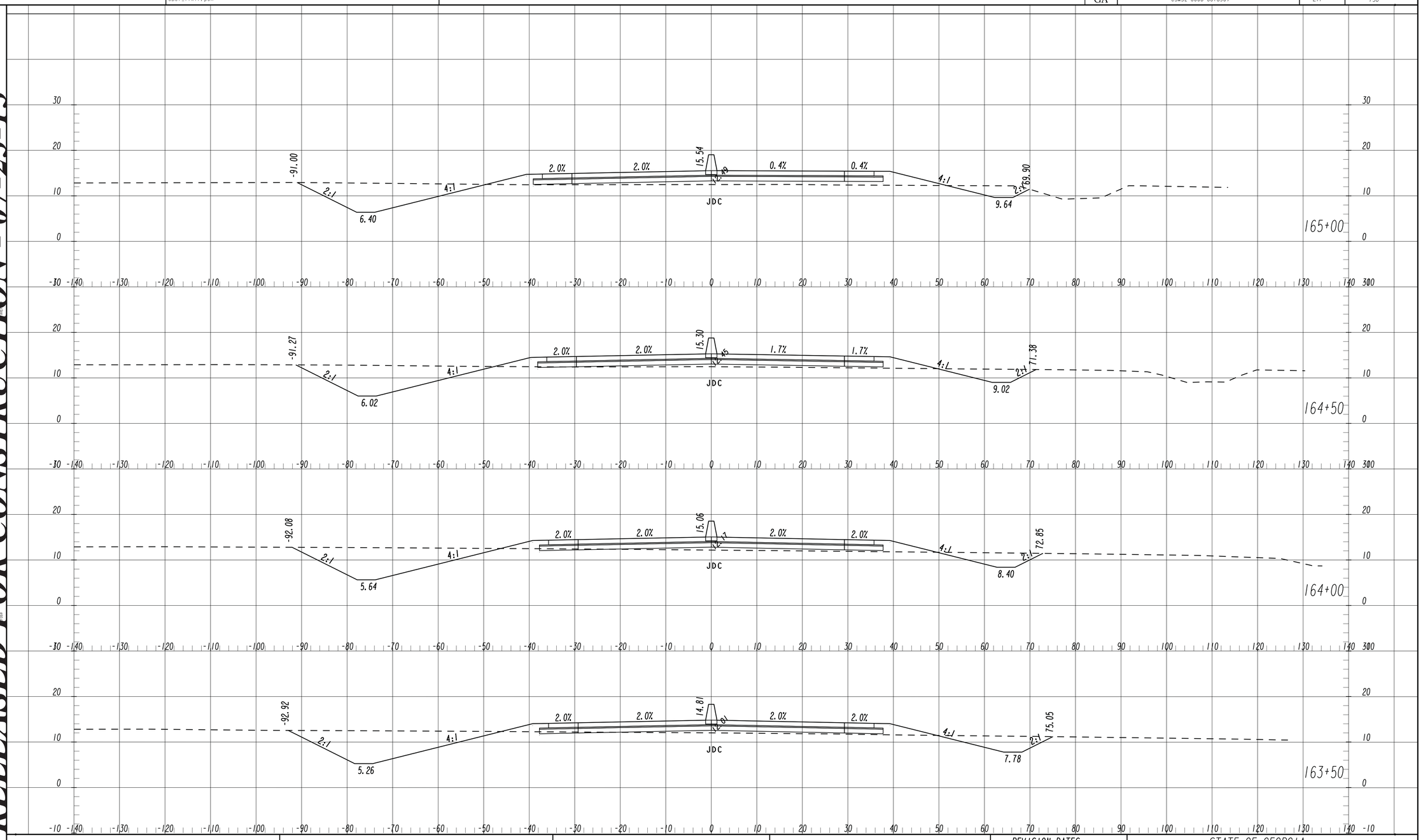
CROSS SECTIONS

JIMMY DELOACH CONNECTOR

DRAWING No. 23-005

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	217	730

RELEASED FOR CONSTRUCTION - 07-23-13



THE LPA GROUP
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3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

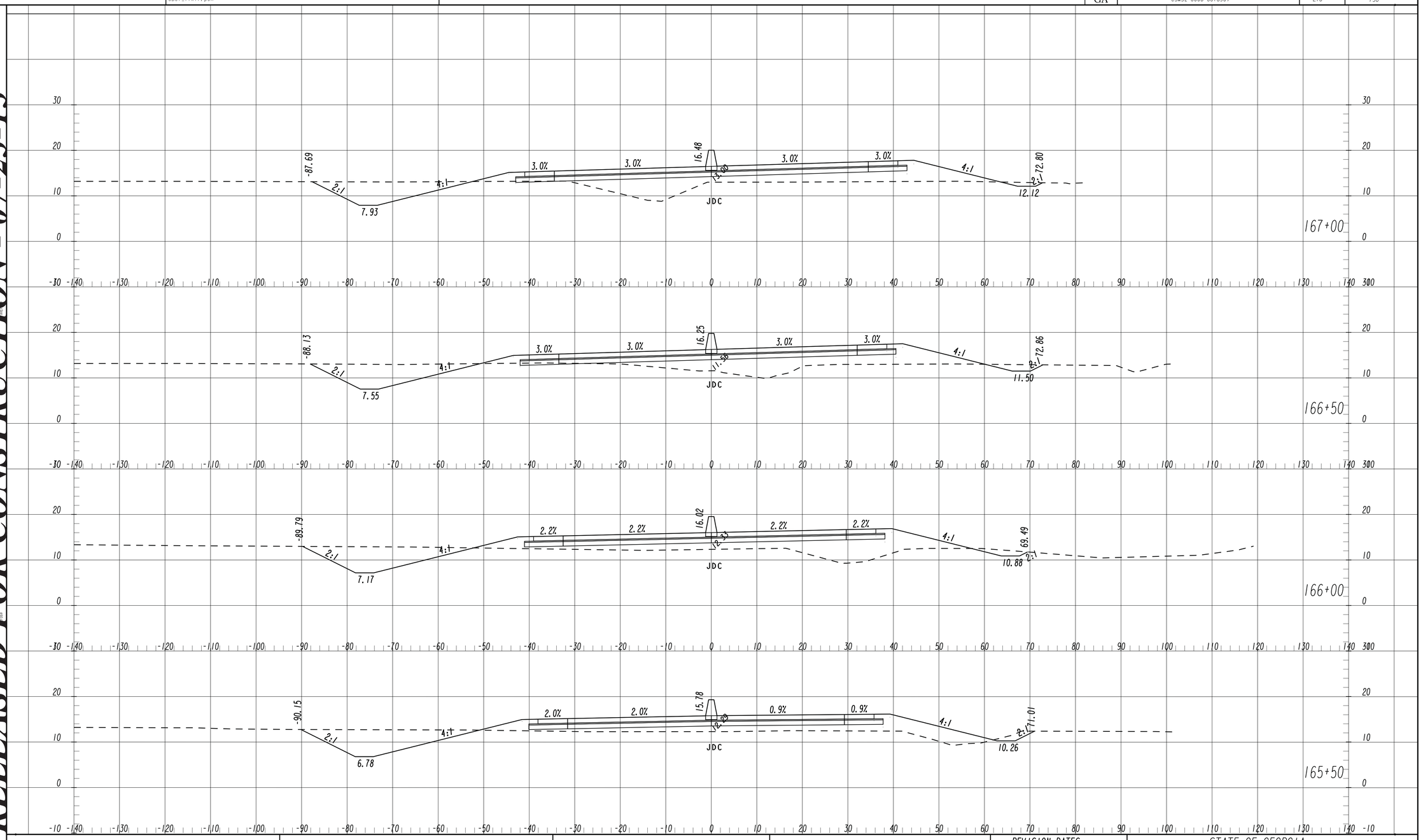
CROSS SECTIONS

JIMMY DELOACH CONNECTOR

DRAWING No. 23-006

3/1/2007 SUXSEW

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

THE LPA GROUP
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A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

JIMMY DELOACH CONNECTOR

DRAWING No. 23-007

RELEASED FOR CONSTRUCTION - 07-23-13

3/1/2007 SUXSEW

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

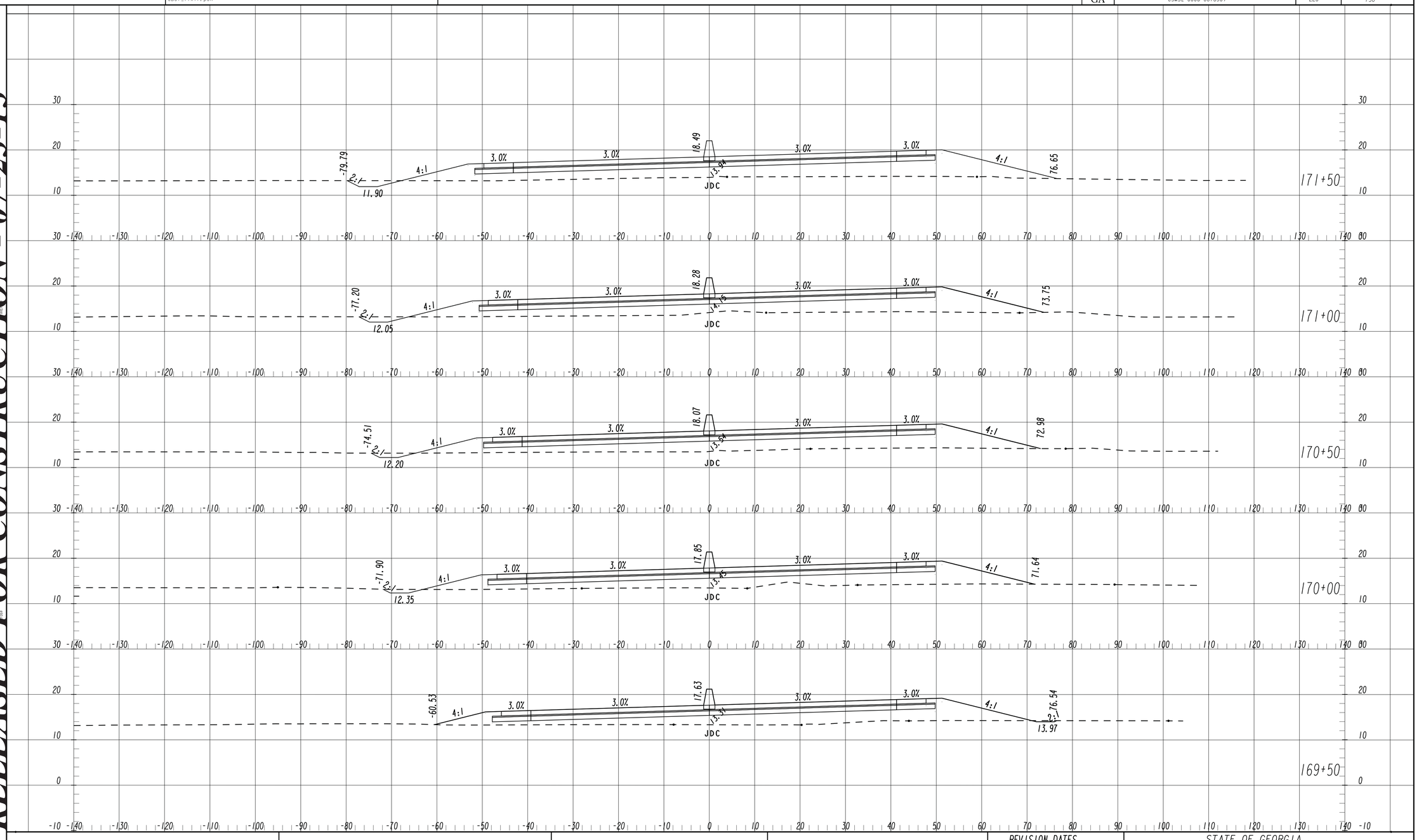
CROSS SECTIONS

JIMMY DELOACH CONNECTOR

DRAWING No. 23-008

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	220	730

RELEASED FOR CONSTRUCTION - 07-23-13



THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

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1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

JIMMY DELOACH CONNECTOR

DRAWING No. 23-009

3/1/2007 SUXSEW

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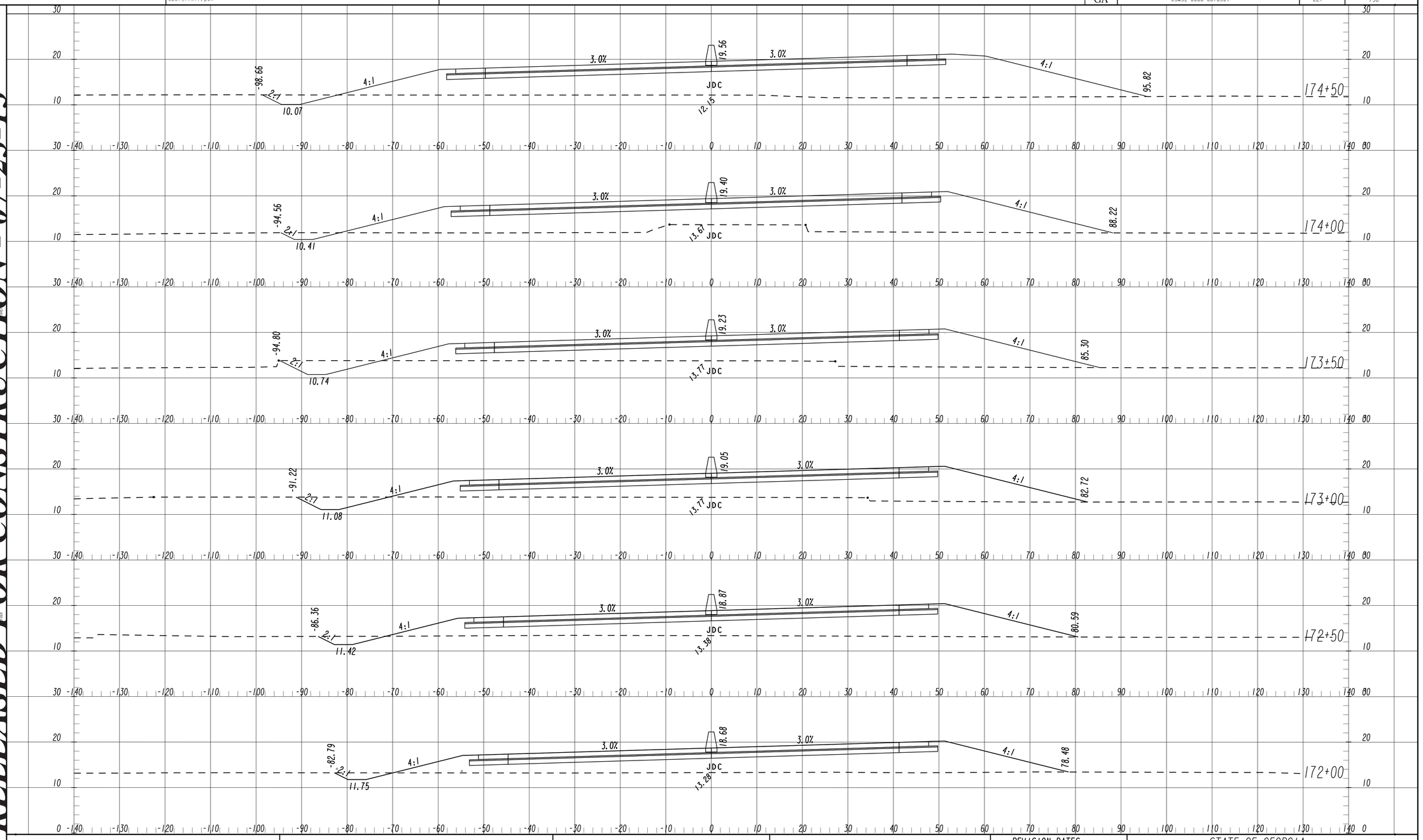
JParks | GDOT_11x17.pen

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	221	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

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1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

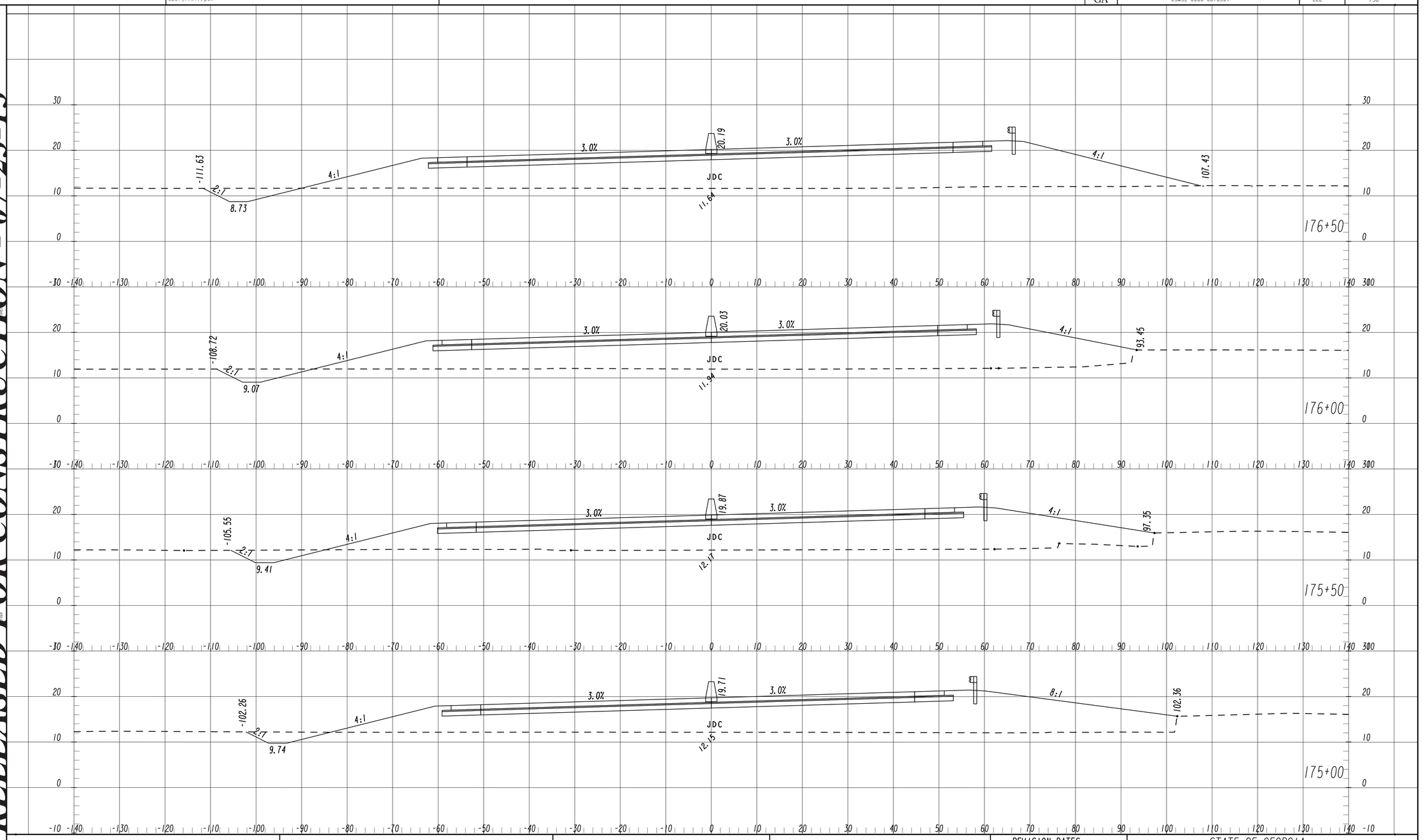
CROSS SECTIONS

JIMMY DELOACH CONNECTOR

DRAWING No. 23-010

23-JUL-2013 14:32	2:32:37 PM	0008690_23-00110	Y:\Roadways\126379\0008690\Dgn\0008690_23-001.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	222	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

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1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

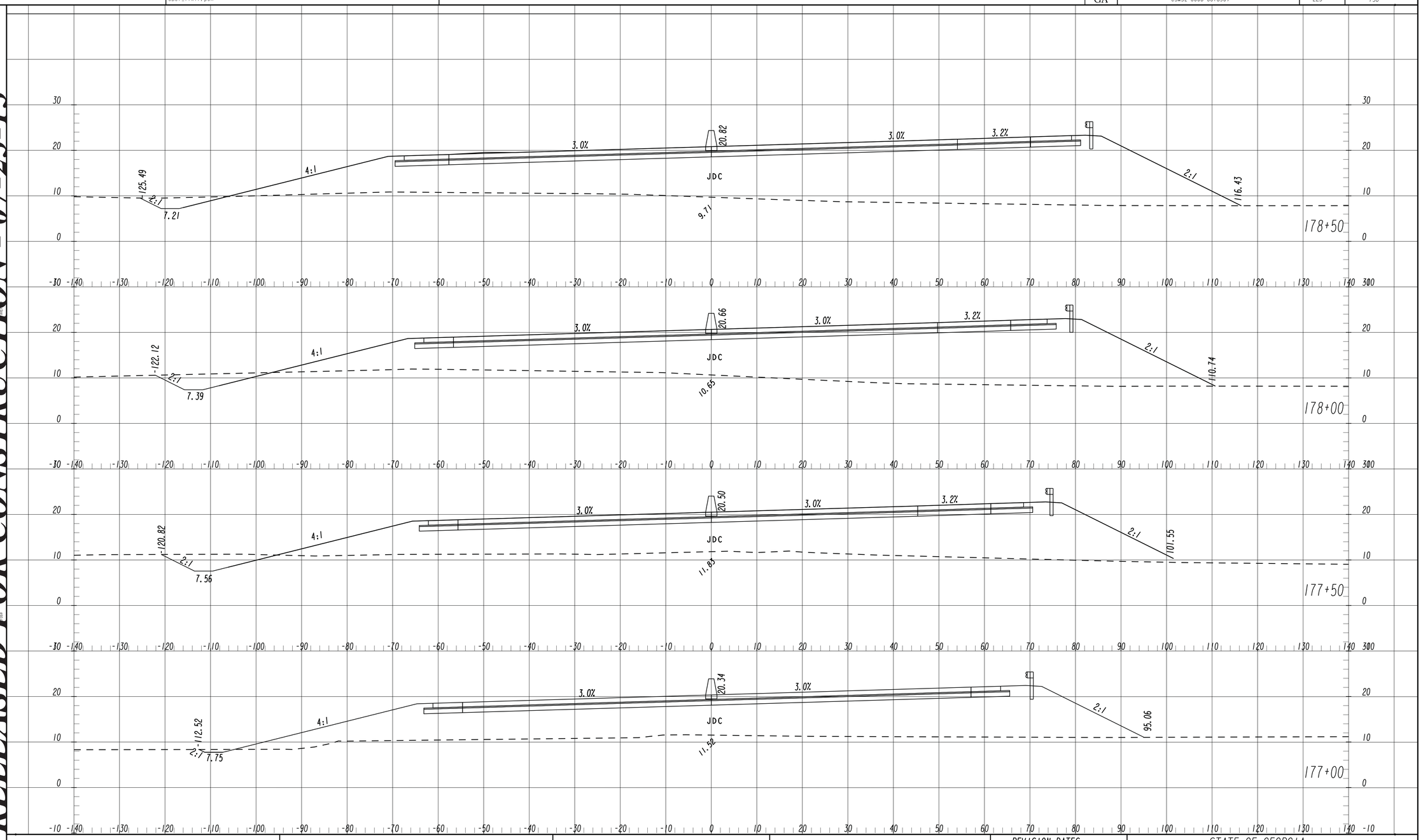
CROSS SECTIONS

JIMMY DELOACH CONNECTOR

DRAWING No. 23-011

23-JUL-2013 14:32	2:32:39 PM	0008690_23-001.tt	Y:\Roadways\126379\0008690\Dgn\0008690_23-001.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	223	730

RELEASED FOR CONSTRUCTION - 07-23-13



		THE LPA GROUP TRANSPORTATION CONSULTANTS A UNIT OF MICHAEL BAKER CORPORATION 3595 ENGINEERING DRIVE NORCROSS, GEORGIA 30092 (770) 263-9118	1 INCH = 10 FT VERT. 1 INCH = 10 FT HORIZ.	REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION

OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

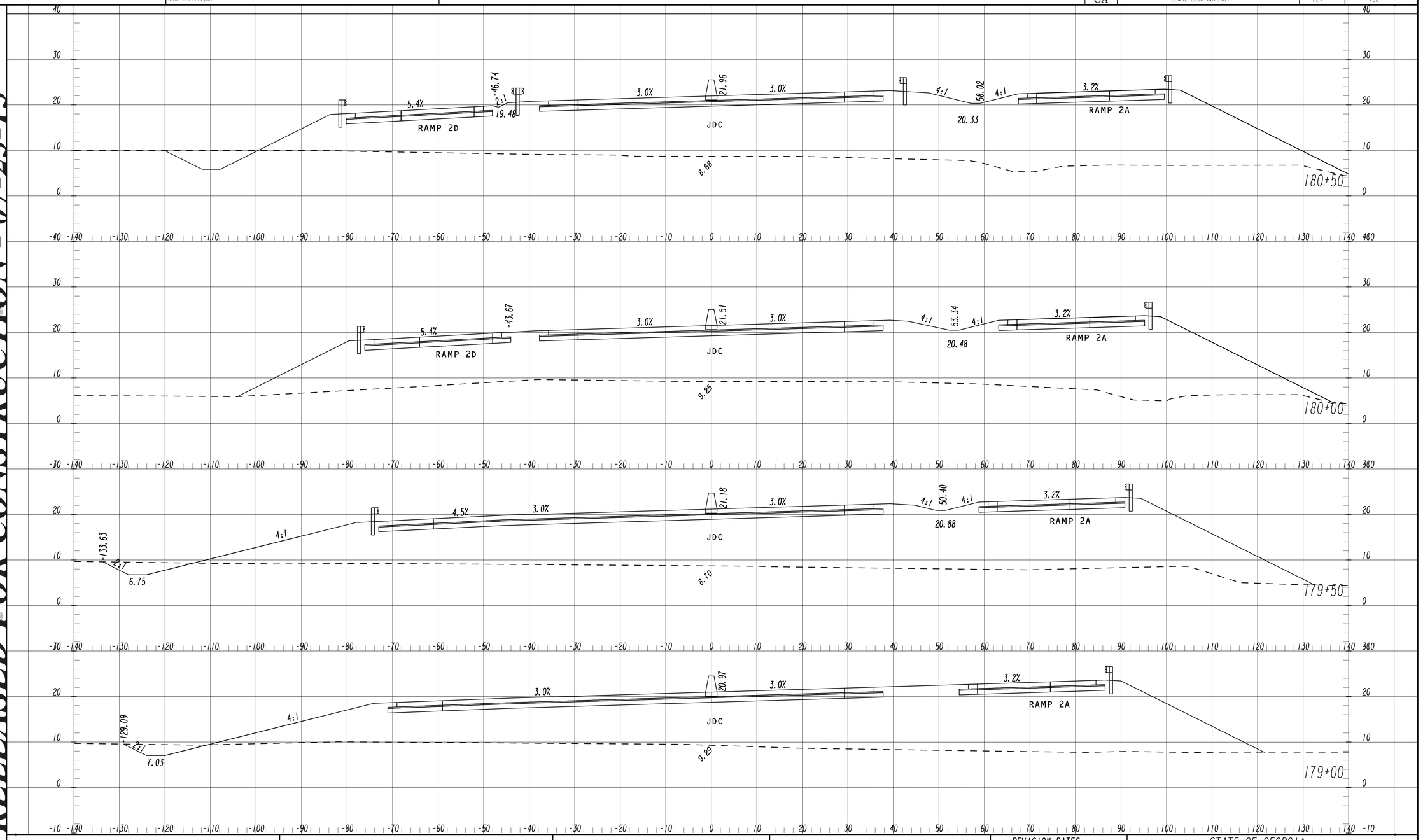
JIMMY DELOACH CONNECTOR

DRAWING No. 23-012

3/1/2007 SUXSEW

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	224	730

RELEASED FOR CONSTRUCTION - 07-23-13



THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

JIMMY DELOACH CONNECTOR

DRAWING No. 23-013

3/1/2007 SUXSEW

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JParks
0008690_23-00113
GDOT_11x17.pen
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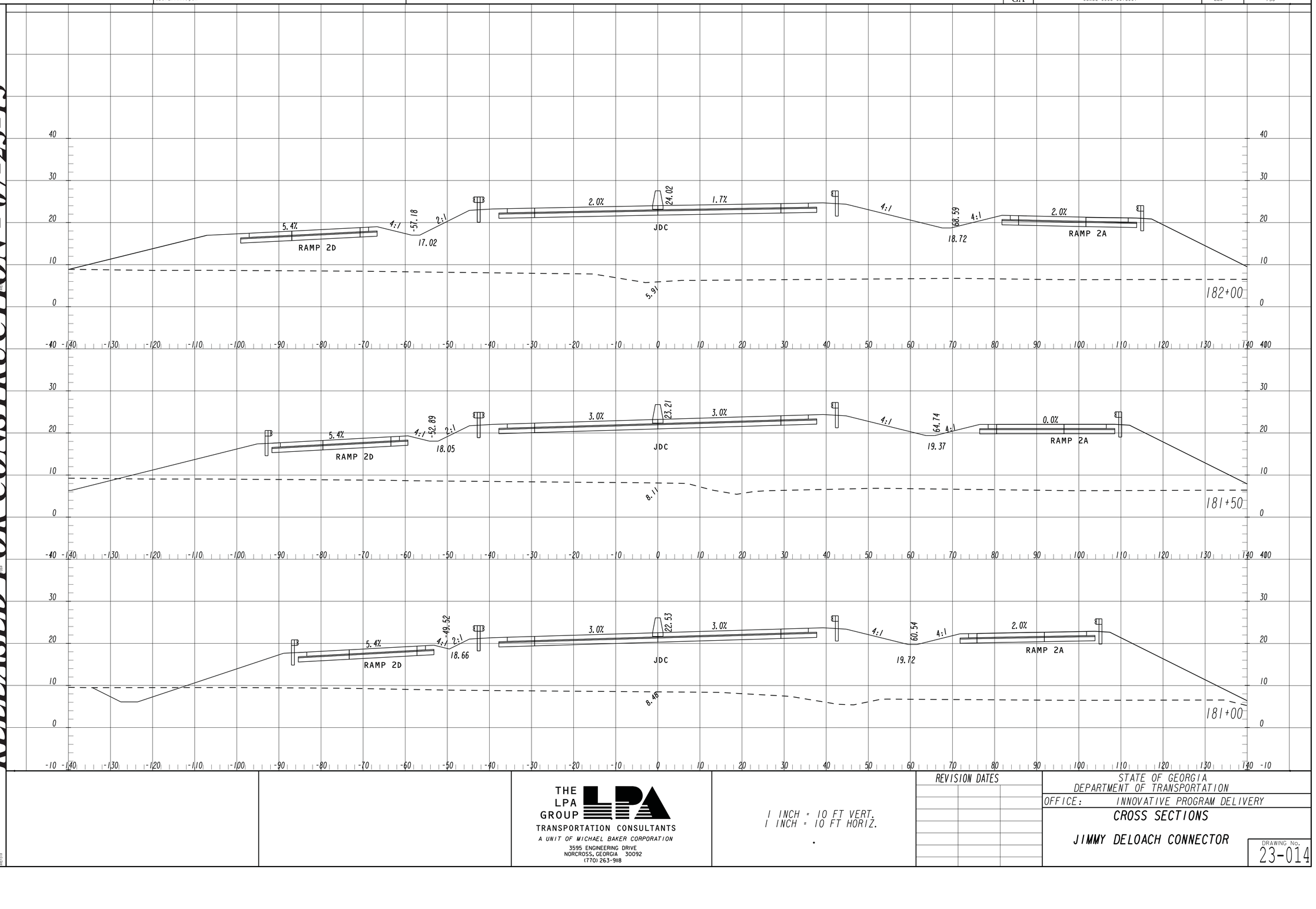
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	225	730

RELEASED FOR CONSTRUCTION - 07-23-13



THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

JIMMY DELOACH CONNECTOR

DRAWING No. 23-014

3/1/2007 SUXSEW

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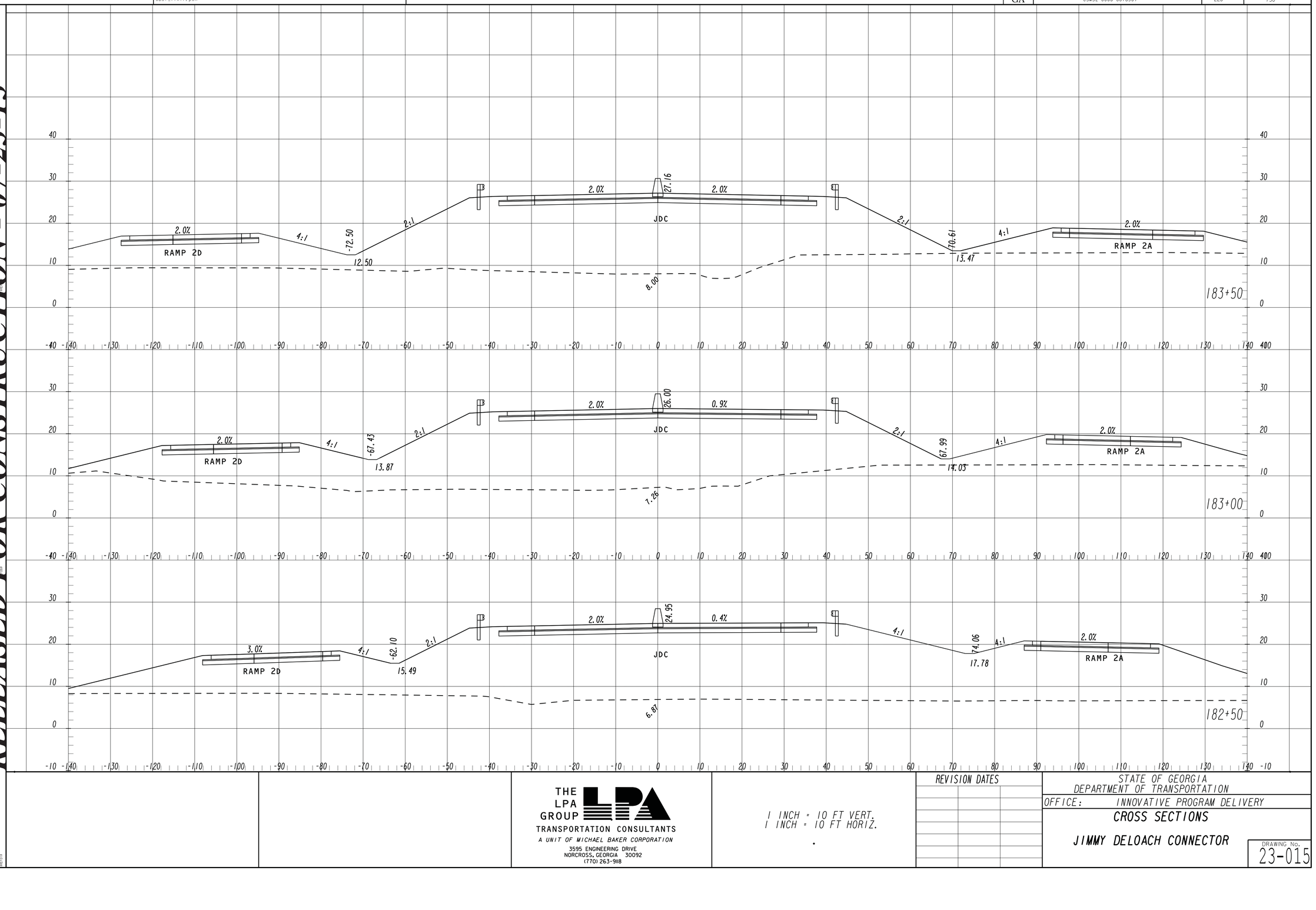
JParks | GDOT_11x17.pen

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	226	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

JIMMY DELOACH CONNECTOR

DRAWING No. 23-015

23-JUL-2013 14:32 2:32:44 PM
JParks
0008690_23-00115
GDOT_11x17.pen
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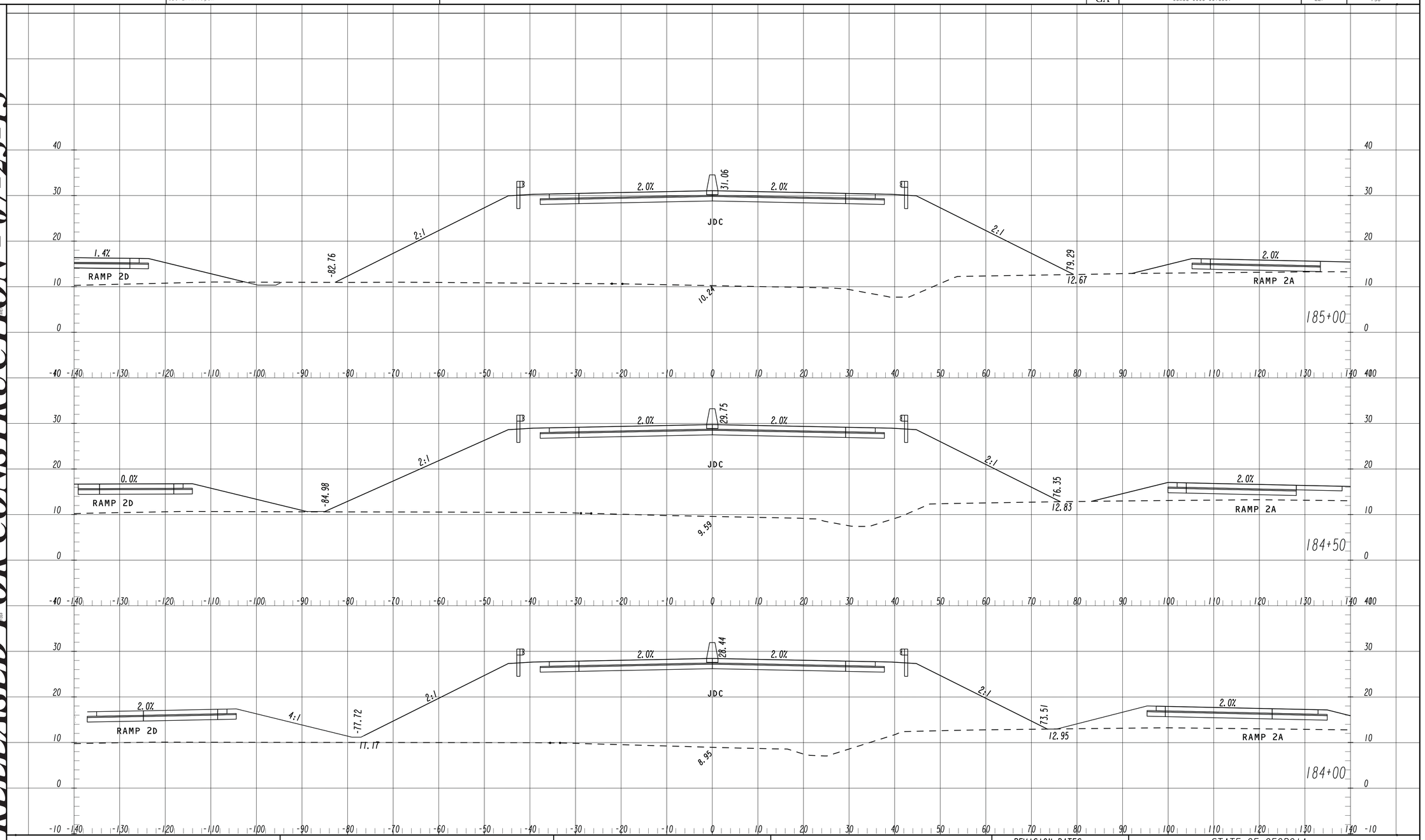
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	227	730

RELEASED FOR CONSTRUCTION - 07-23-13



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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

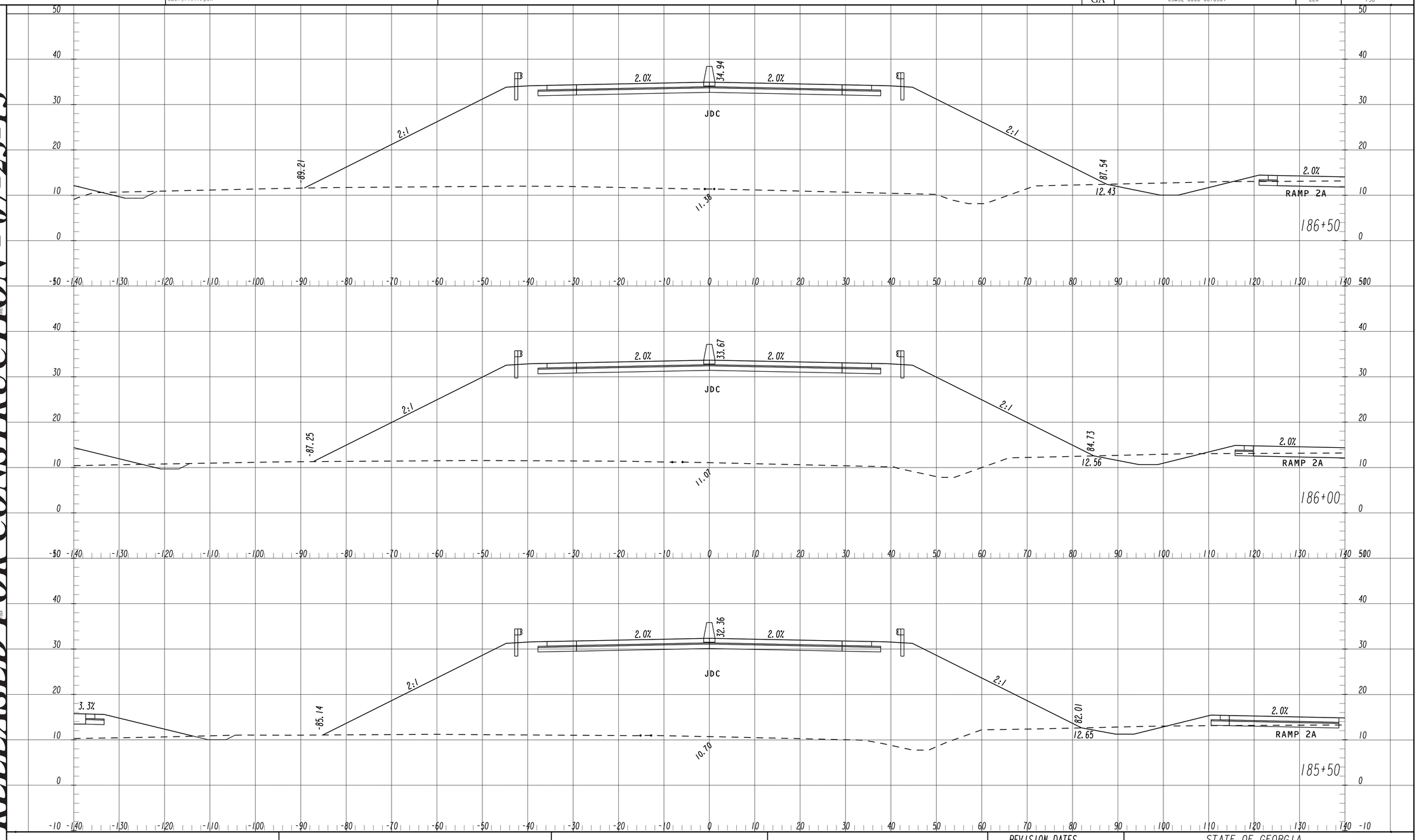
JIMMY DELOACH CONNECTOR

DRAWING No. 23-016

3/1/2007 SUYSEW

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	228	730

RELEASED FOR CONSTRUCTION - 07-23-13



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NORCROSS, GEORGIA 30092
(770) 263-9118

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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

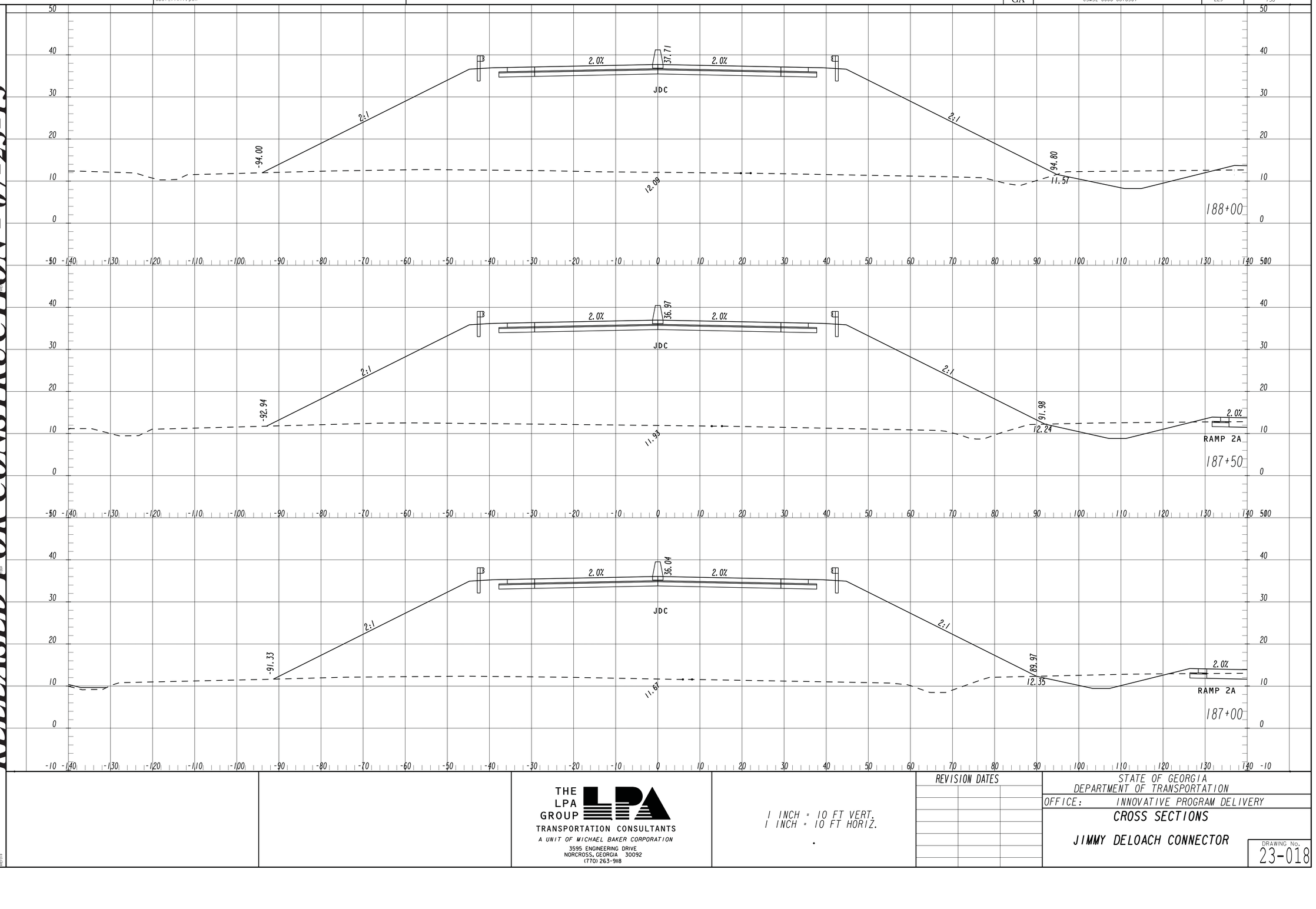
JIMMY DELOACH CONNECTOR

DRAWING No. 23-017

3/1/2007 SUXSEW

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	229	730

RELEASED FOR CONSTRUCTION - 07-23-13

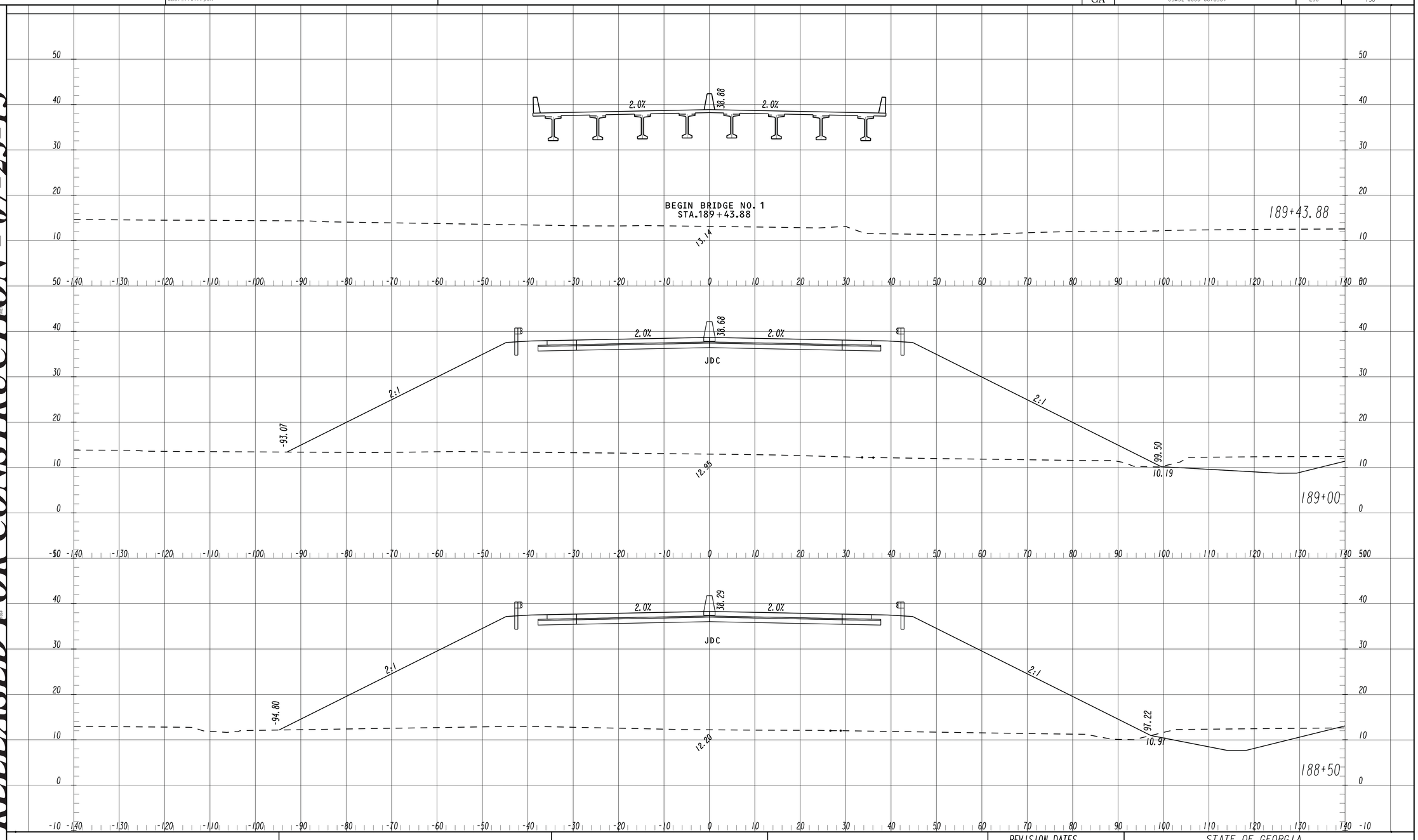


				REVISION DATES	
		THE LPA GROUP TRANSPORTATION CONSULTANTS A UNIT OF MICHAEL BAKER CORPORATION 3595 ENGINEERING DRIVE NORCROSS, GEORGIA 30092 (770) 263-9118	1 INCH = 10 FT VERT. 1 INCH = 10 FT HORIZ.		STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION OFFICE: INNOVATIVE PROGRAM DELIVERY CROSS SECTIONS JIMMY DELOACH CONNECTOR DRAWING No. 23-018

3/1/2007 SUXSEW

23-JUL-2013 14:32	2:32:47 PM	0008690_23-00118	Y:\Roadways\126379\0008690\Dgn\0008690_23-001.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	230	730

RELEASED FOR CONSTRUCTION - 07-23-13

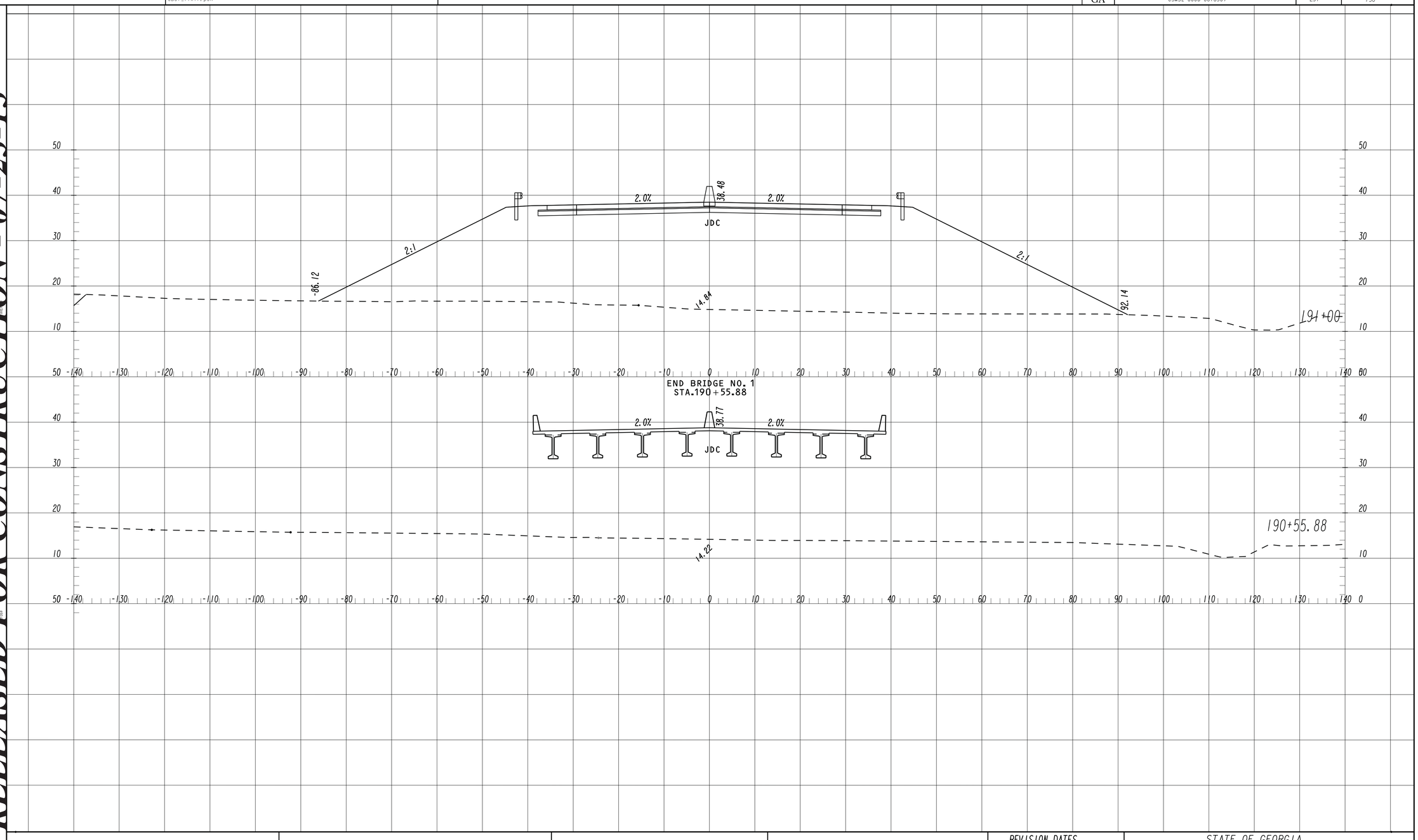


				REVISION DATES	STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION
		THE LPA GROUP TRANSPORTATION CONSULTANTS A UNIT OF MICHAEL BAKER CORPORATION 3595 ENGINEERING DRIVE NORCROSS, GEORGIA 30092 (770) 263-9118	1 INCH = 10 FT VERT. 1 INCH = 10 FT HORIZ.		OFFICE: INNOVATIVE PROGRAM DELIVERY CROSS SECTIONS JIMMY DELOACH CONNECTOR DRAWING No. 23-019

3/1/2007 SUKSEW

23-JUL-2013 14:32	2:32:49 PM	0008690_23-00119	Y:\Roadways\126379\0008690\Dgn\0008690_23-001.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	231	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

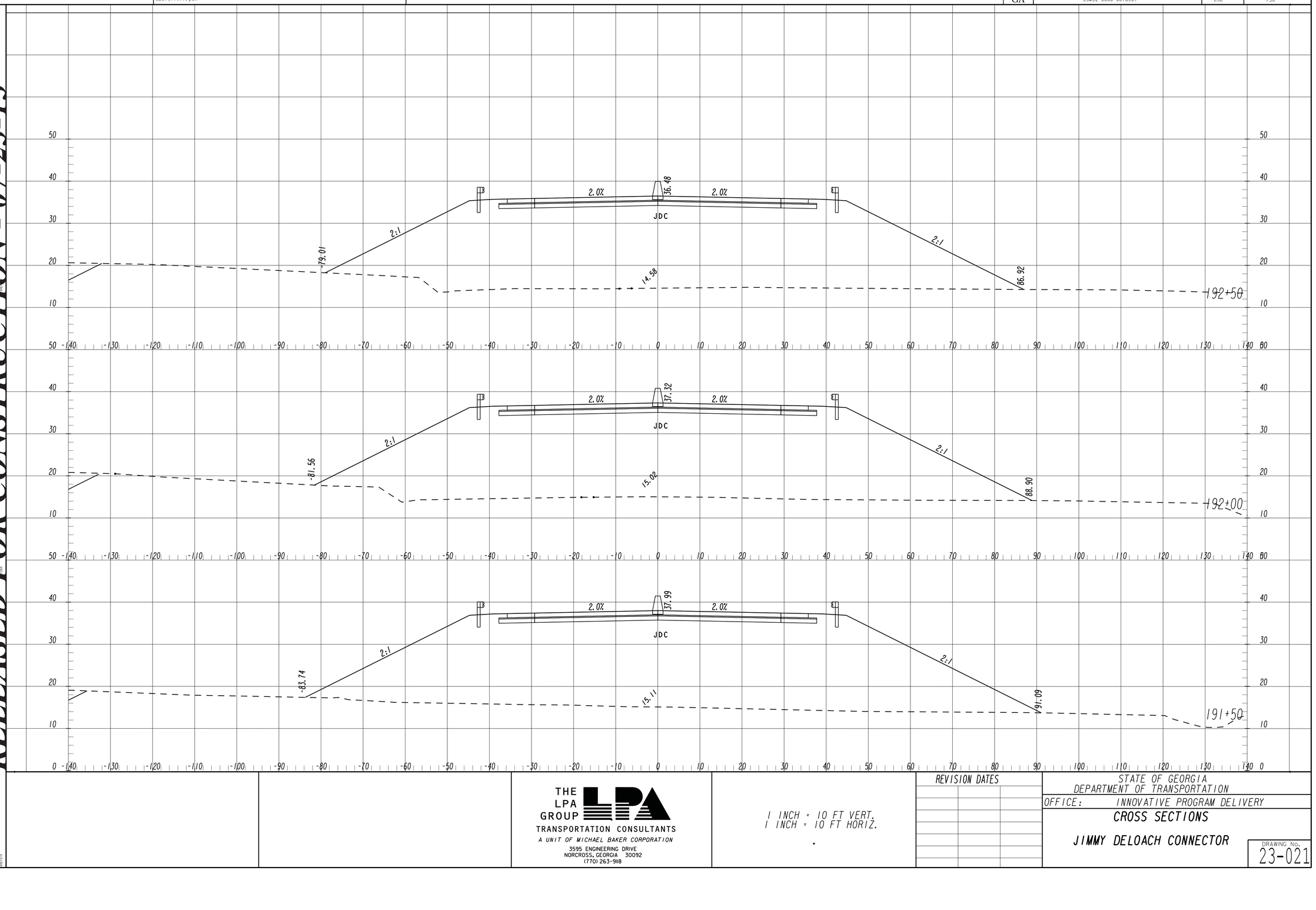
CROSS SECTIONS

JIMMY DELOACH CONNECTOR

DRAWING No. 23-020

23-JUL-2013 14:32	2:32:50 PM	0008690_23-00120	Y:\Roadways\126379\0008690\Dgn\0008690_23-001.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	232	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

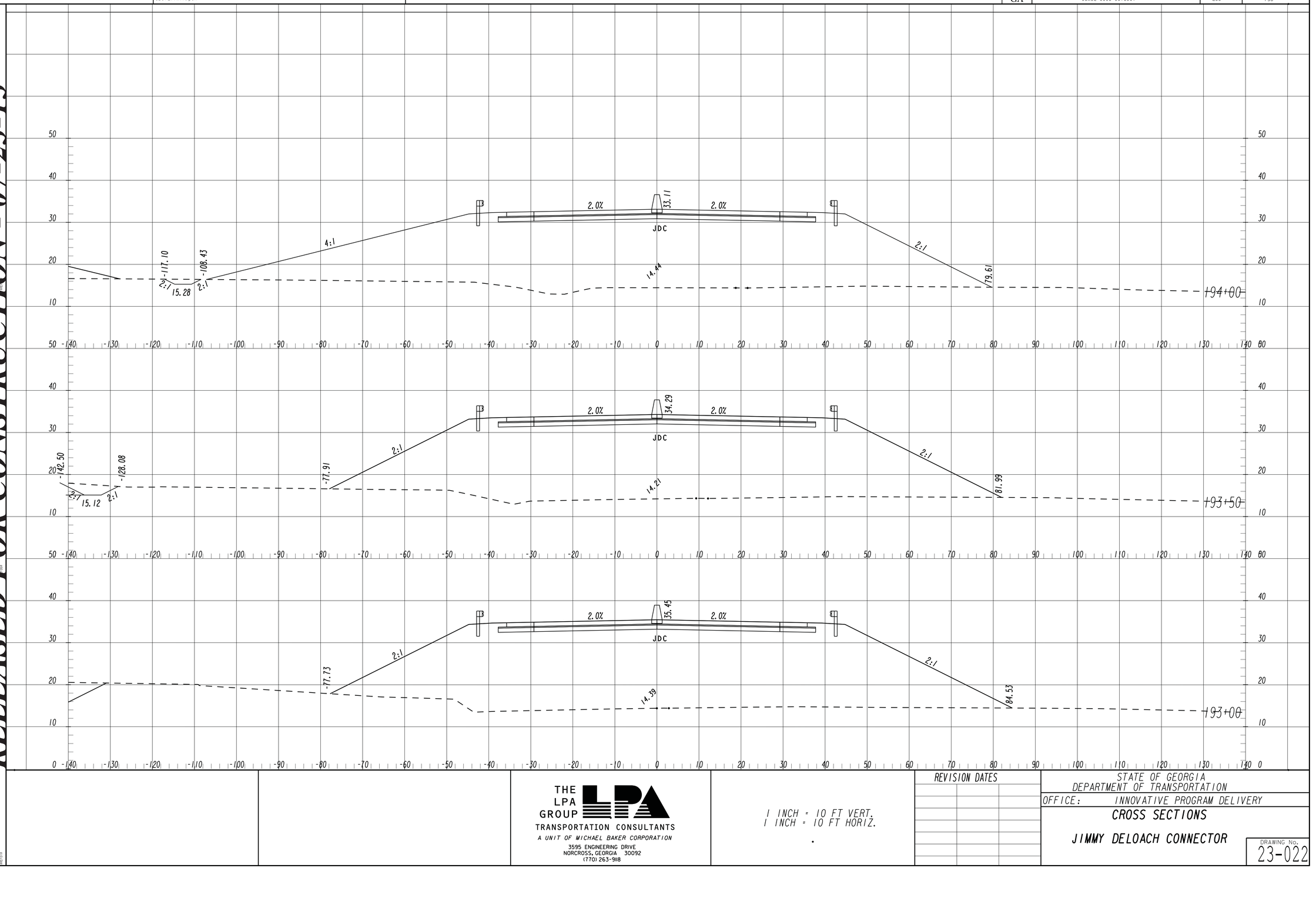
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

JIMMY DELOACH CONNECTOR

DRAWING No. 23-021

RELEASED FOR CONSTRUCTION - 07-23-13



THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

JIMMY DELOACH CONNECTOR

DRAWING No. 23-022

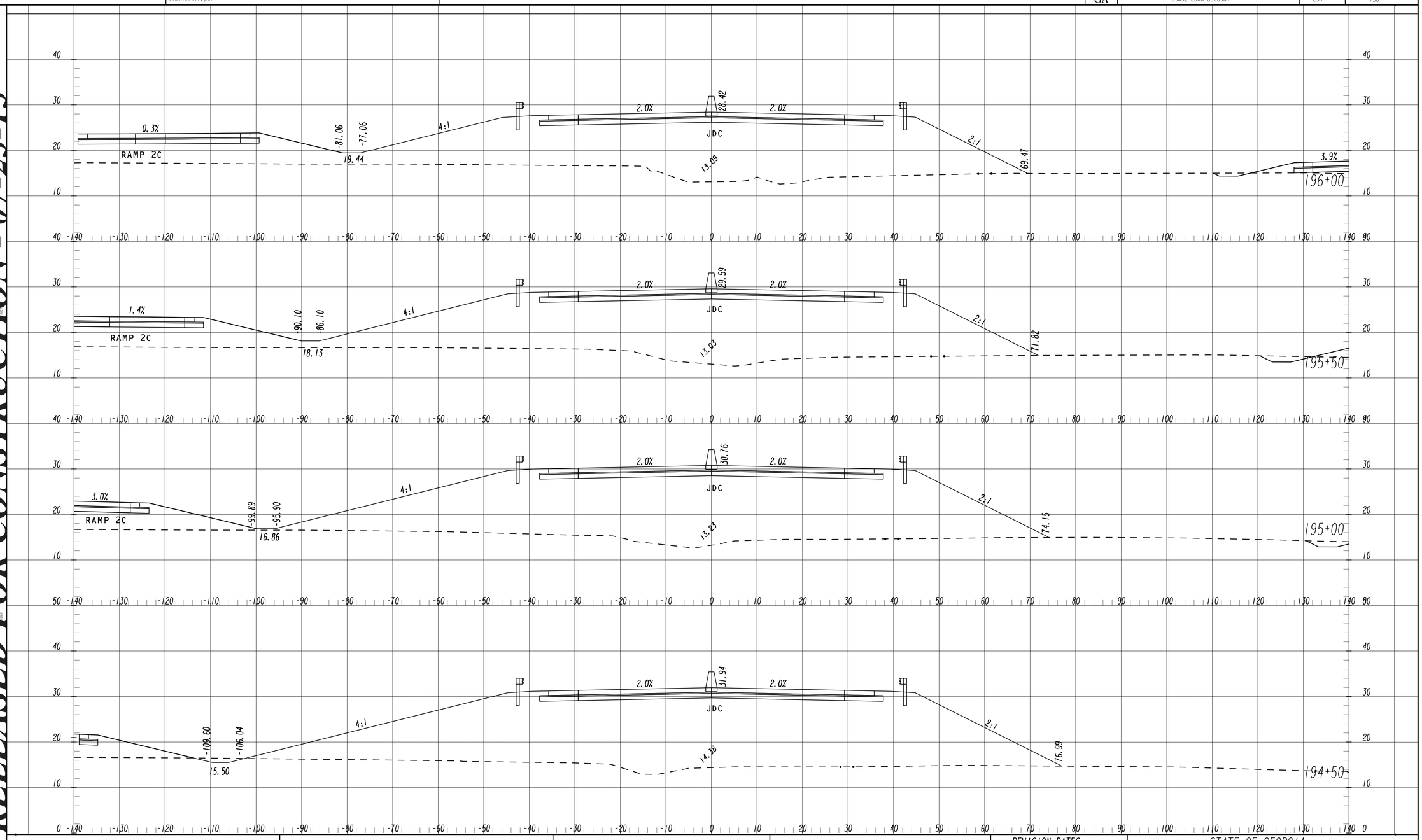
3/1/2007 SUXSEW

23-JUL-2013 14:32 2:32:52 PM | 0008690_23-00122 | Y:\Roadways\126379\0008690\Dgn\0008690_23-001.dgn

JParks | GDOT_11x17.pen

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	234	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

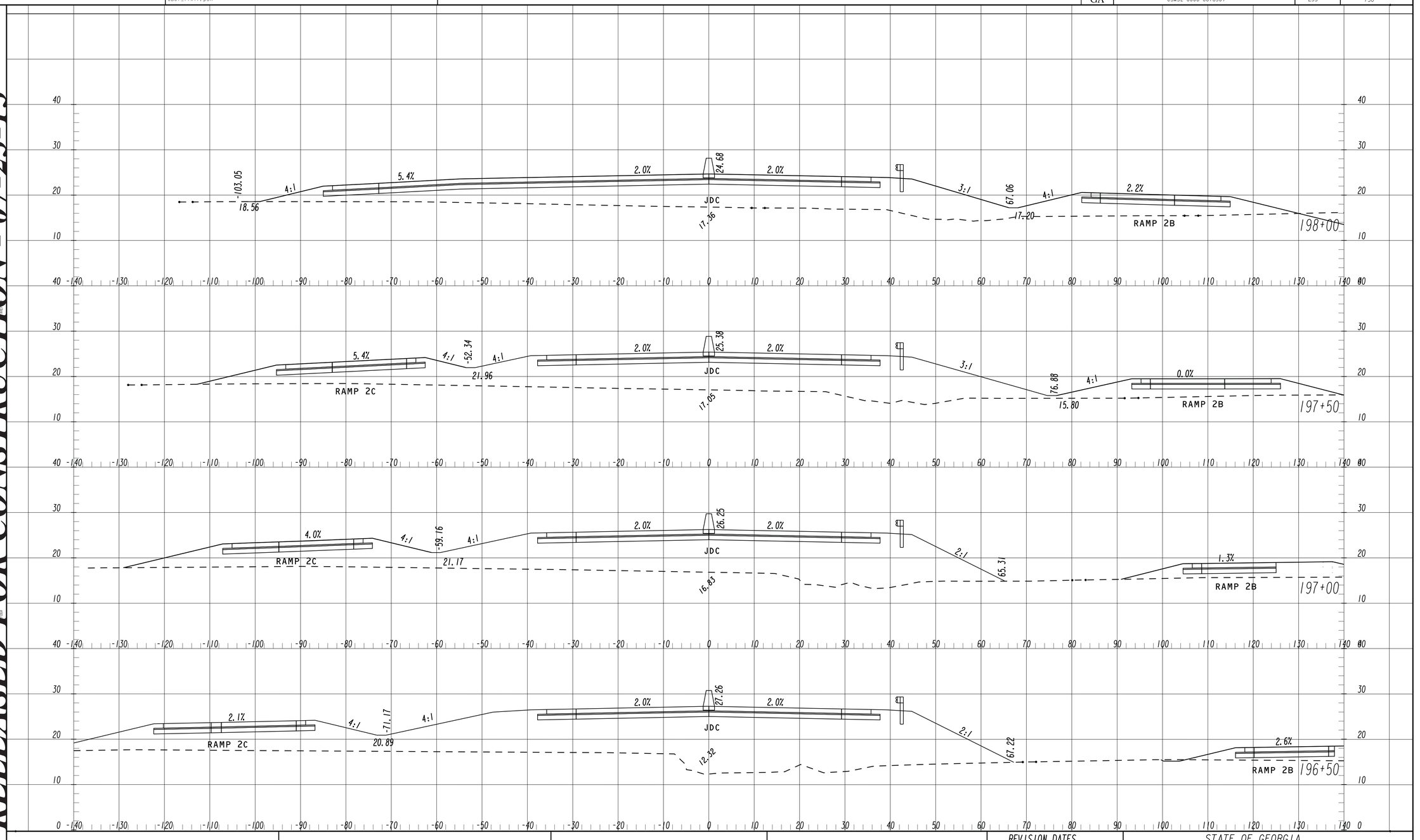
CROSS SECTIONS

JIMMY DELOACH CONNECTOR

DRAWING No. 23-023

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	235	730

RELEASED FOR CONSTRUCTION - 07-23-13



THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

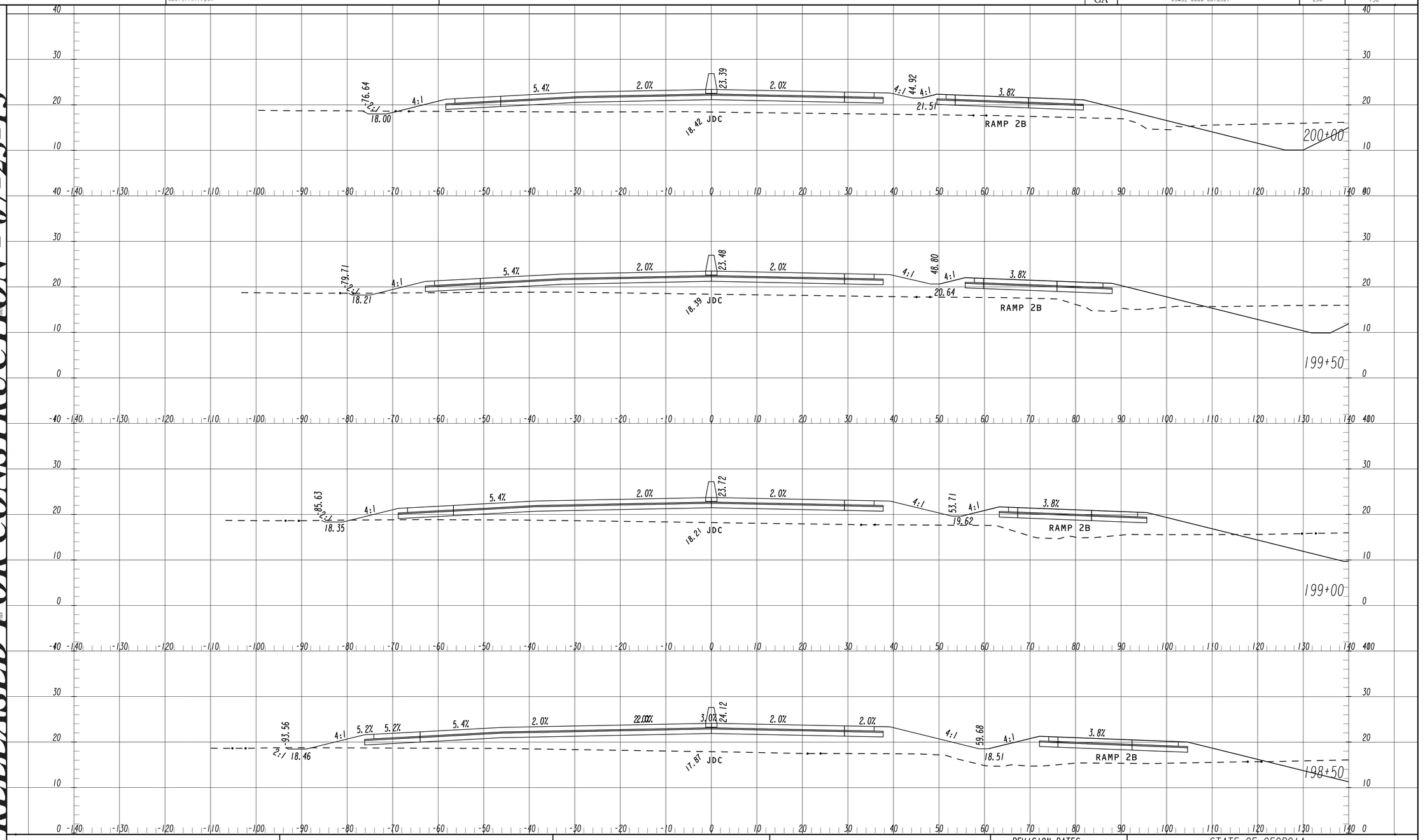
JIMMY DELOACH CONNECTOR

DRAWING No. 23-024

3/1/2007 SUXSEW

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	236	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

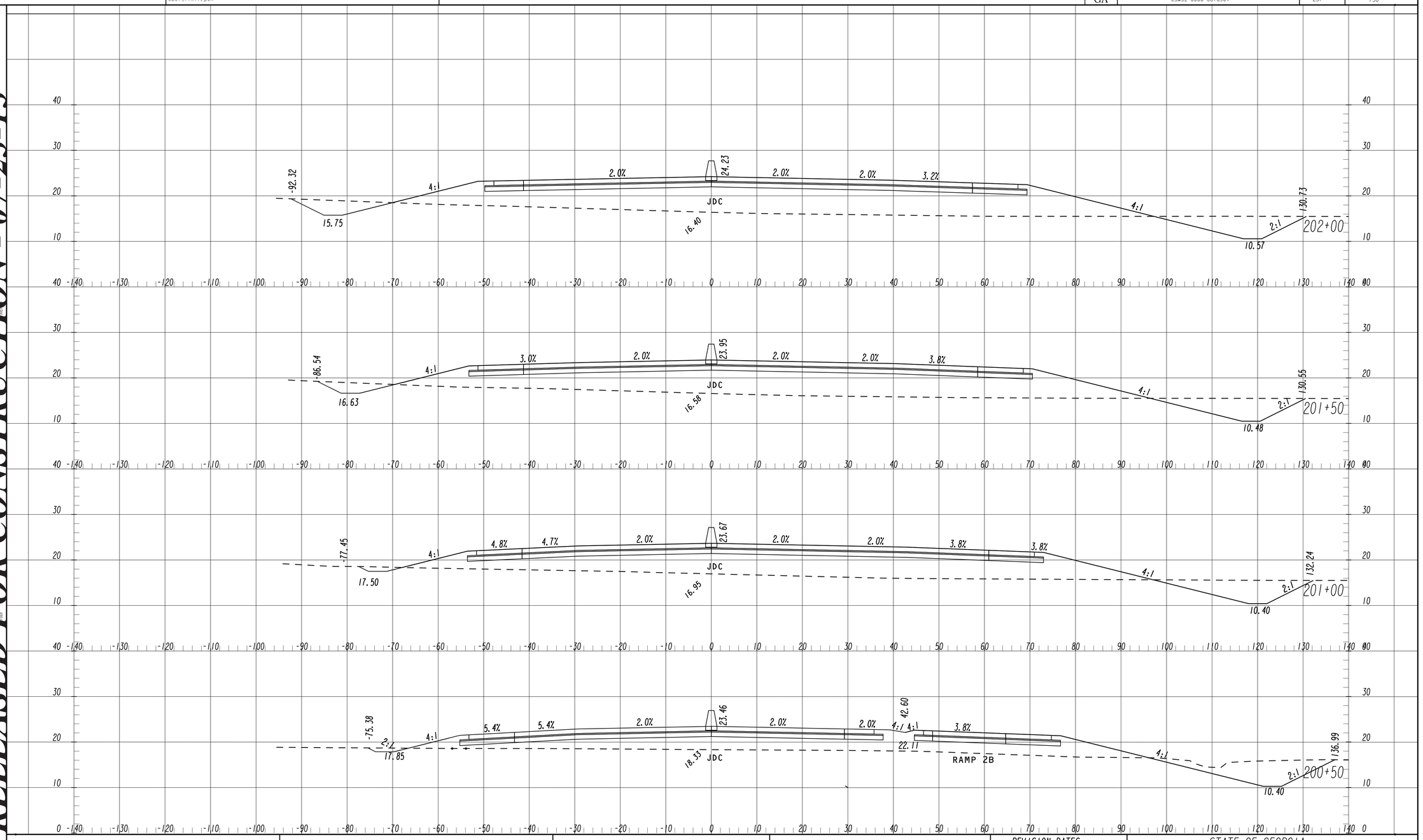
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

JIMMY DELOACH CONNECTOR

DRAWING No. 23-025

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

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TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

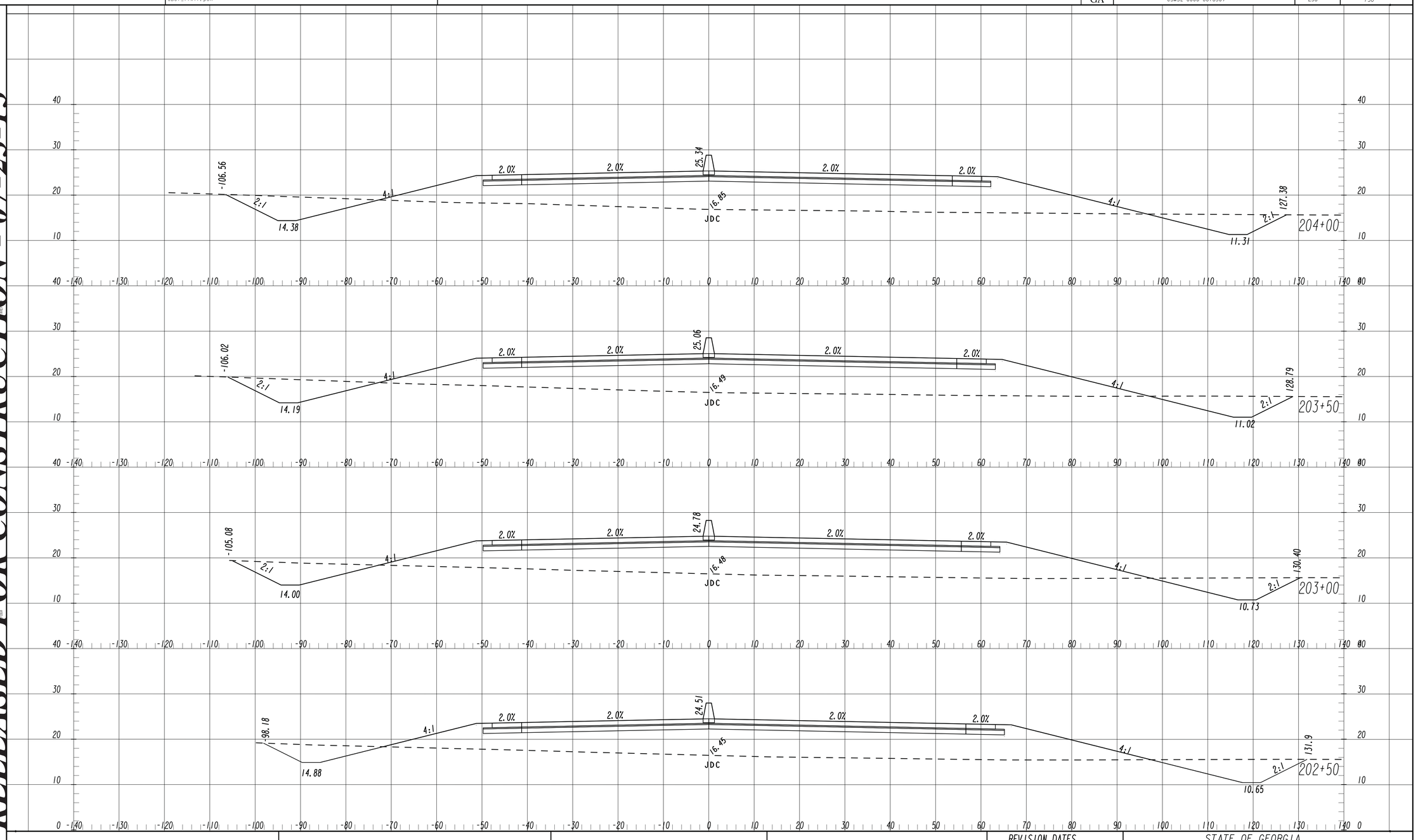
CROSS SECTIONS

JIMMY DELOACH CONNECTOR

DRAWING No. 23-026

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	238	730

RELEASED FOR CONSTRUCTION - 07-23-13



THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

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1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

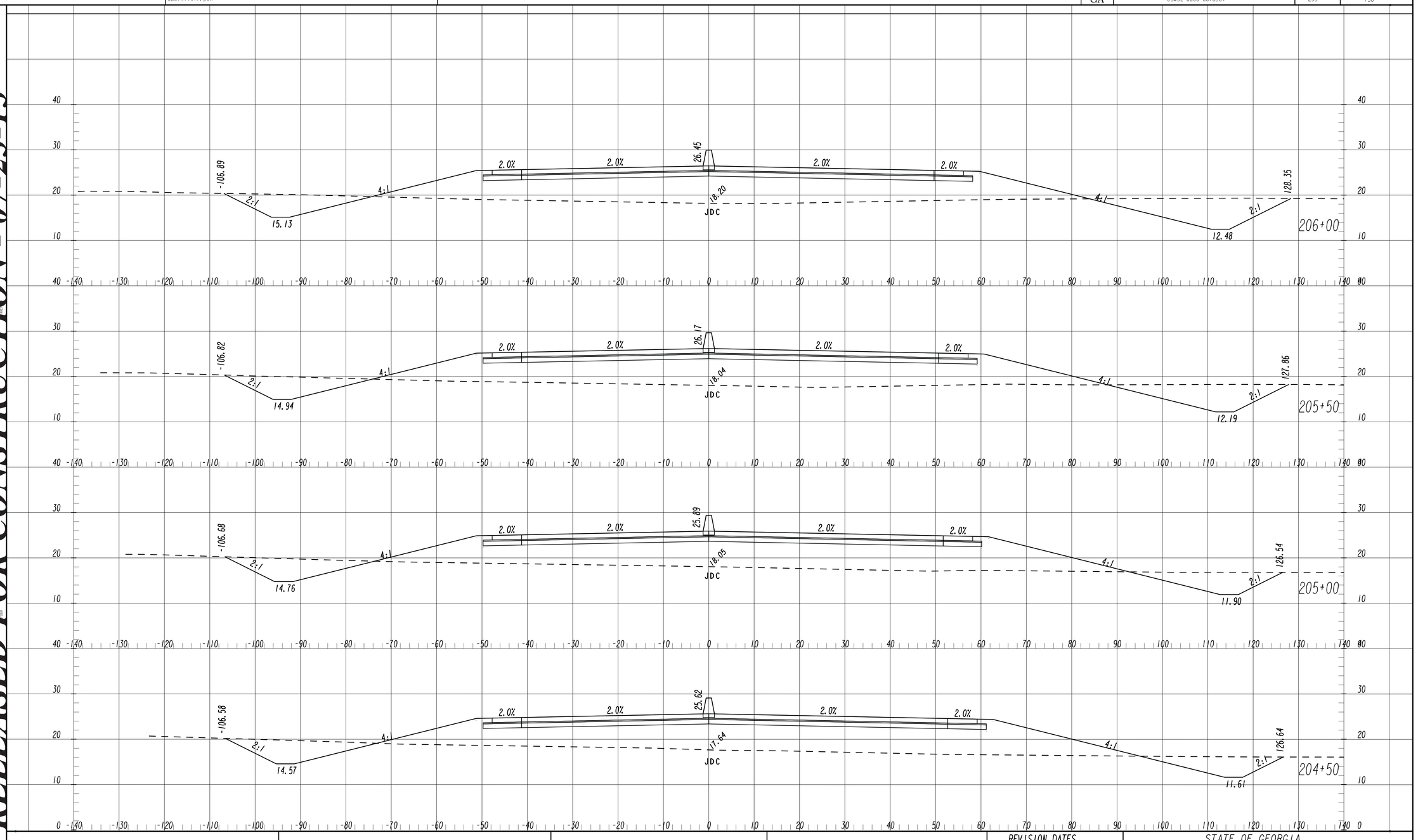
JIMMY DELOACH CONNECTOR

DRAWING No. 23-027

3/1/2007 SUXSEW

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	239	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

JIMMY DELOACH CONNECTOR

DRAWING No. 23-028

23-JUL-2013 14:33 2:33:00 PM
JParks

0008690_23-00128
GDOT_11x17.pen

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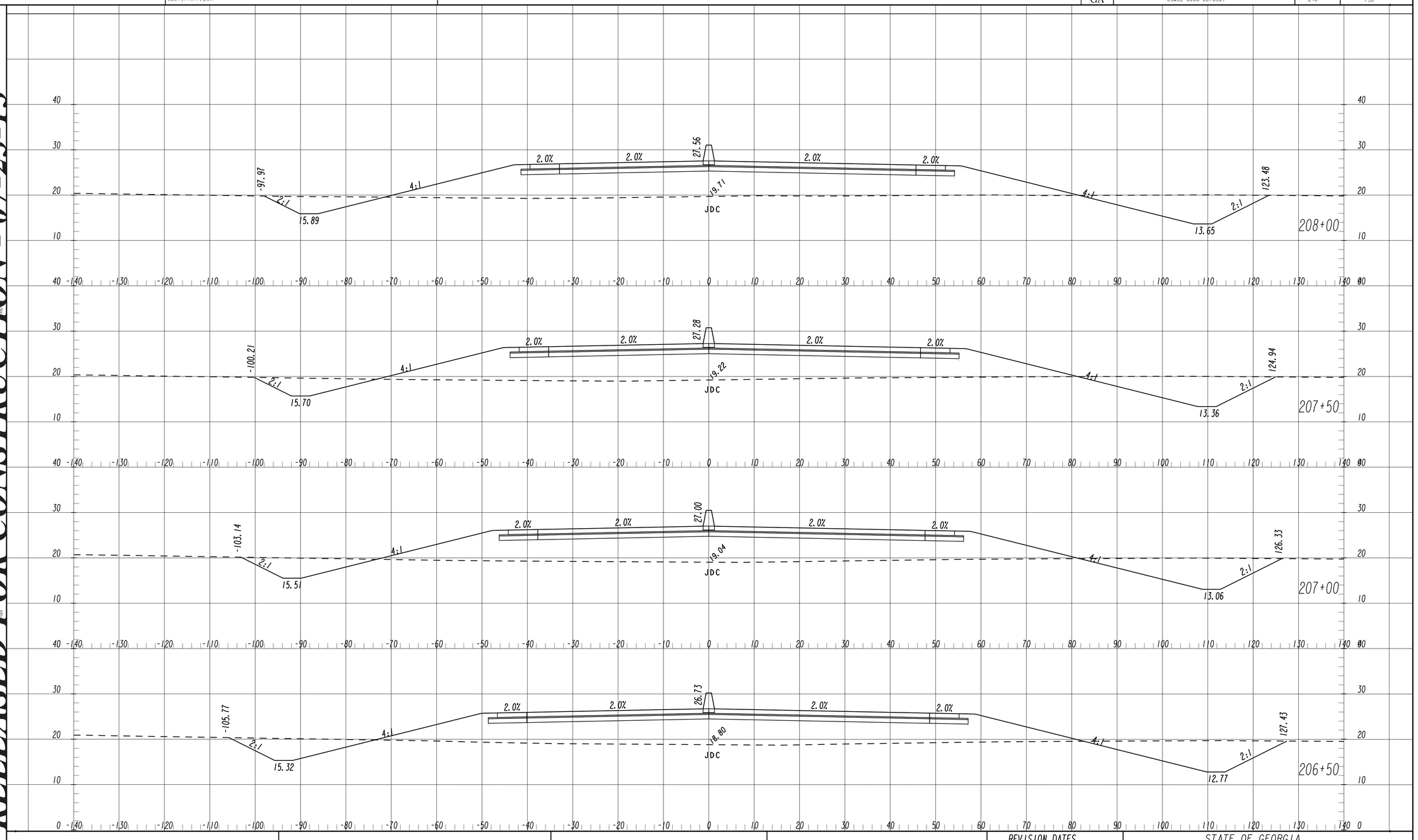
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	240	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

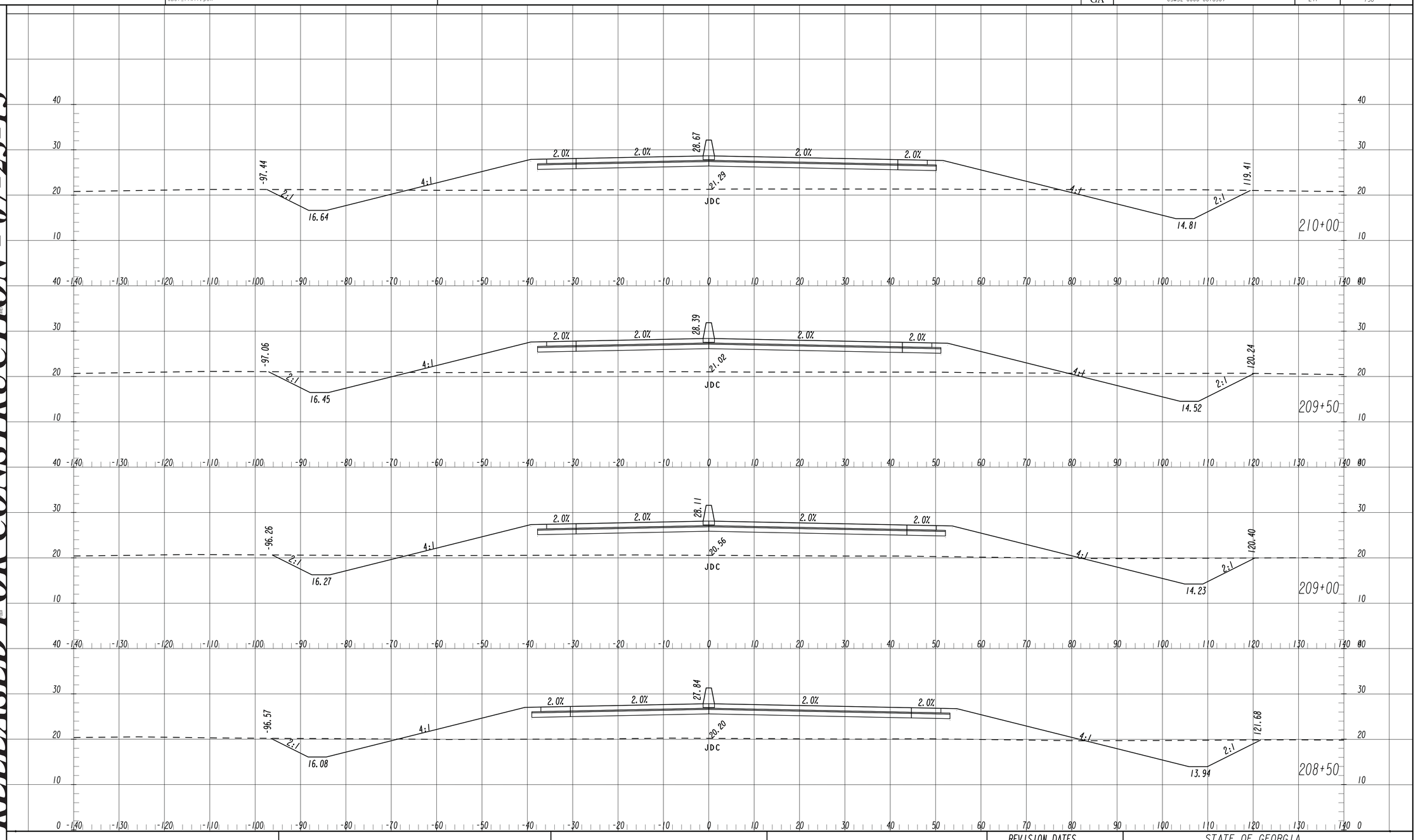
CROSS SECTIONS

JIMMY DELOACH CONNECTOR

DRAWING No. 23-029

23-JUL-2013 14:33	2:33:01 PM	0008690_23-00129	Y:\Roadways\126379\0008690\Dgn\0008690_23-001.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	241	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

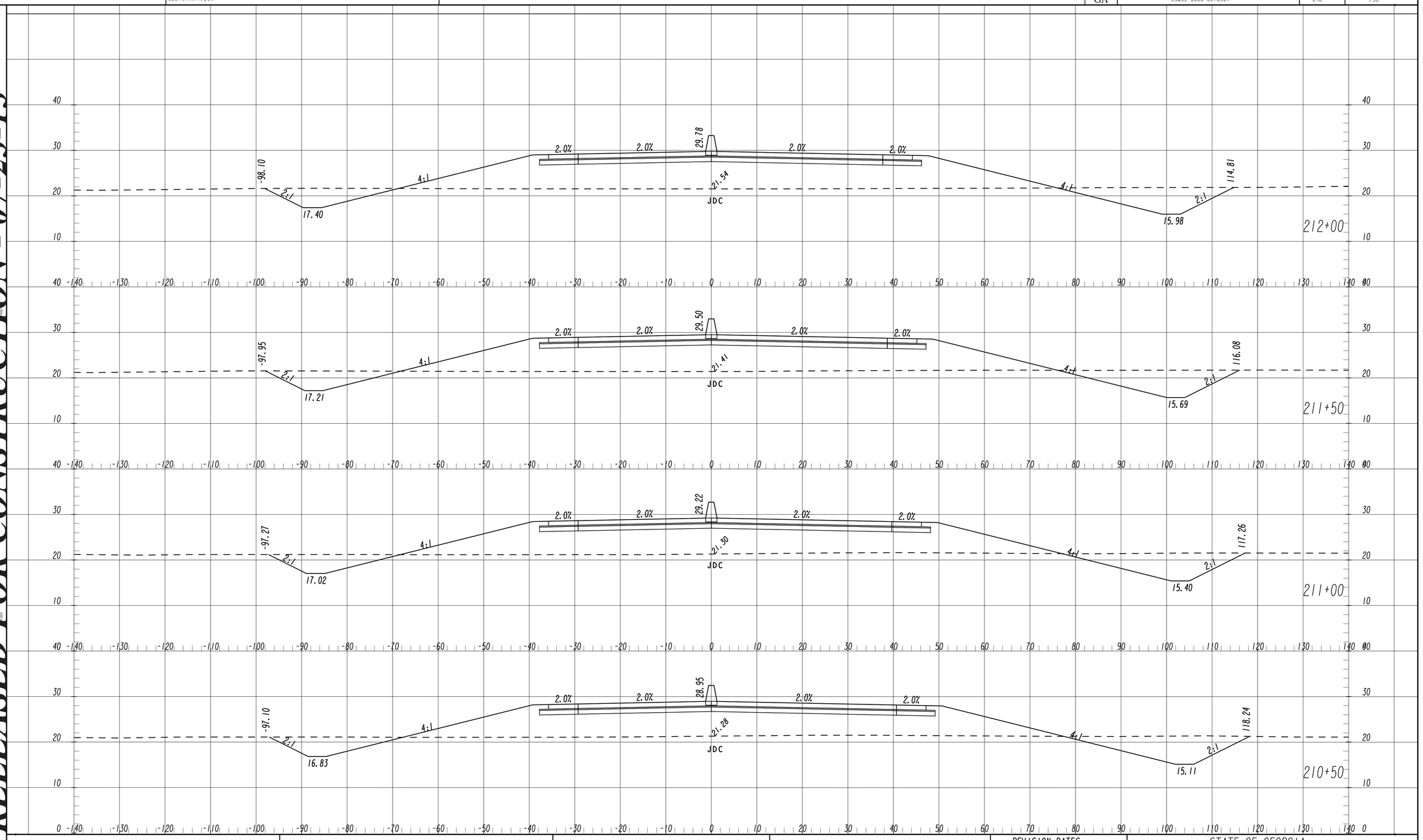
CROSS SECTIONS

JIMMY DELOACH CONNECTOR

DRAWING No. 23-030

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	242	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

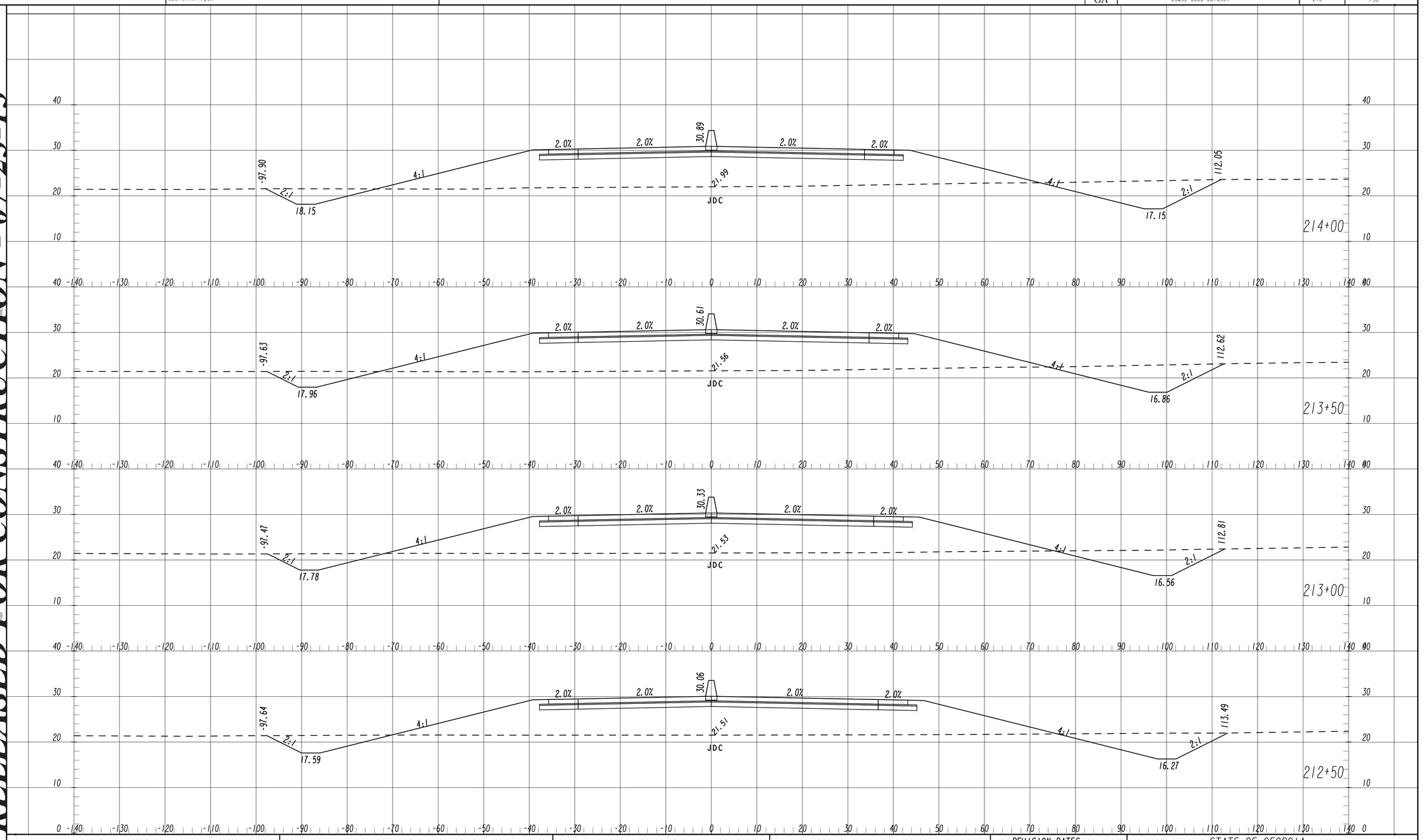
CROSS SECTIONS

JIMMY DELOACH CONNECTOR

DRAWING No. 23-031

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	243	730

RELEASED FOR CONSTRUCTION - 07-23-13



THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

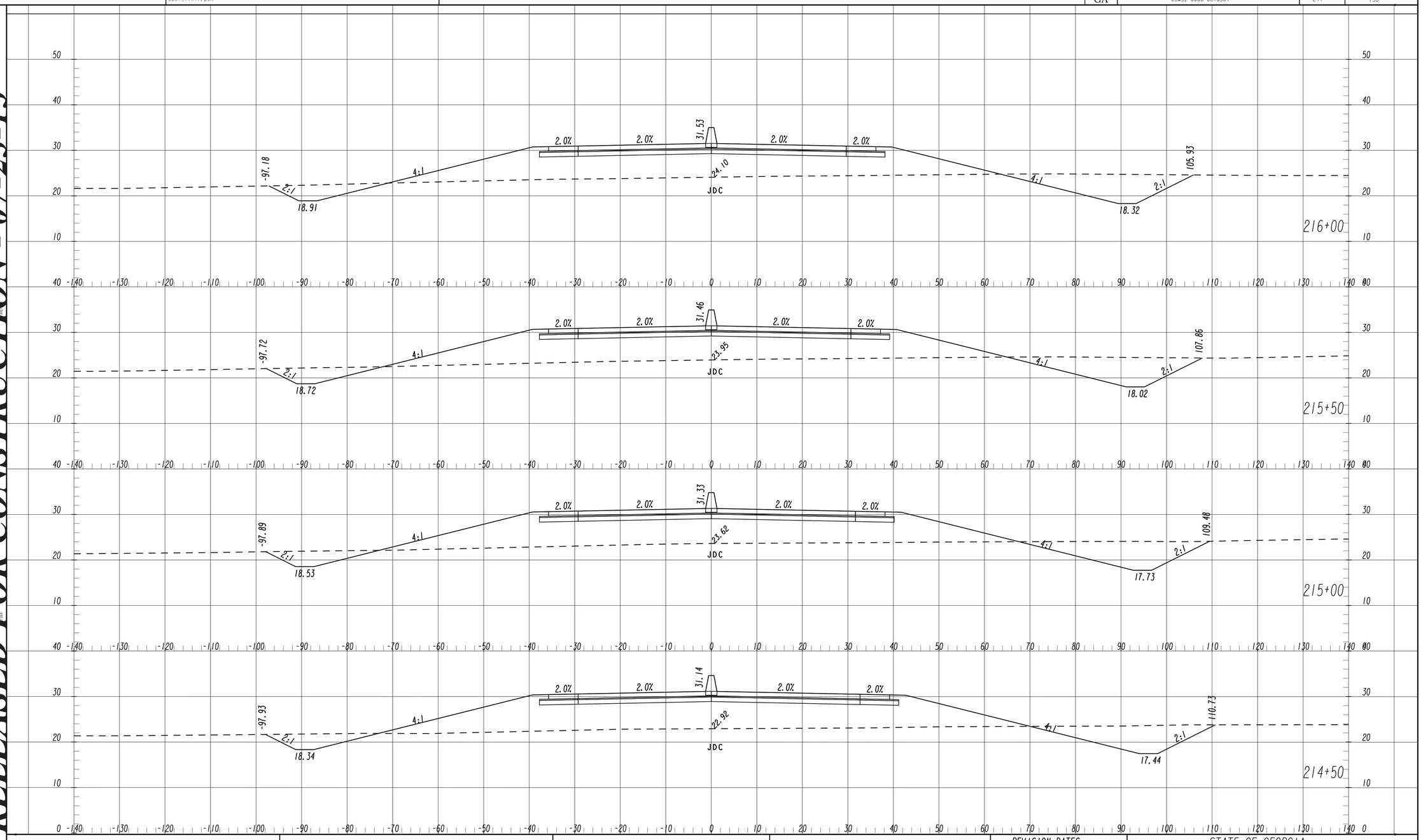
JIMMY DELOACH CONNECTOR

DRAWING No. 23-032

3/1/2007 SUXSEW

23-JUL-2013 14:33	2:33:05 PM	0008690_23-00132	Y:\Roadways\126379\0008690\Dgn\0008690_23-001.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	244	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

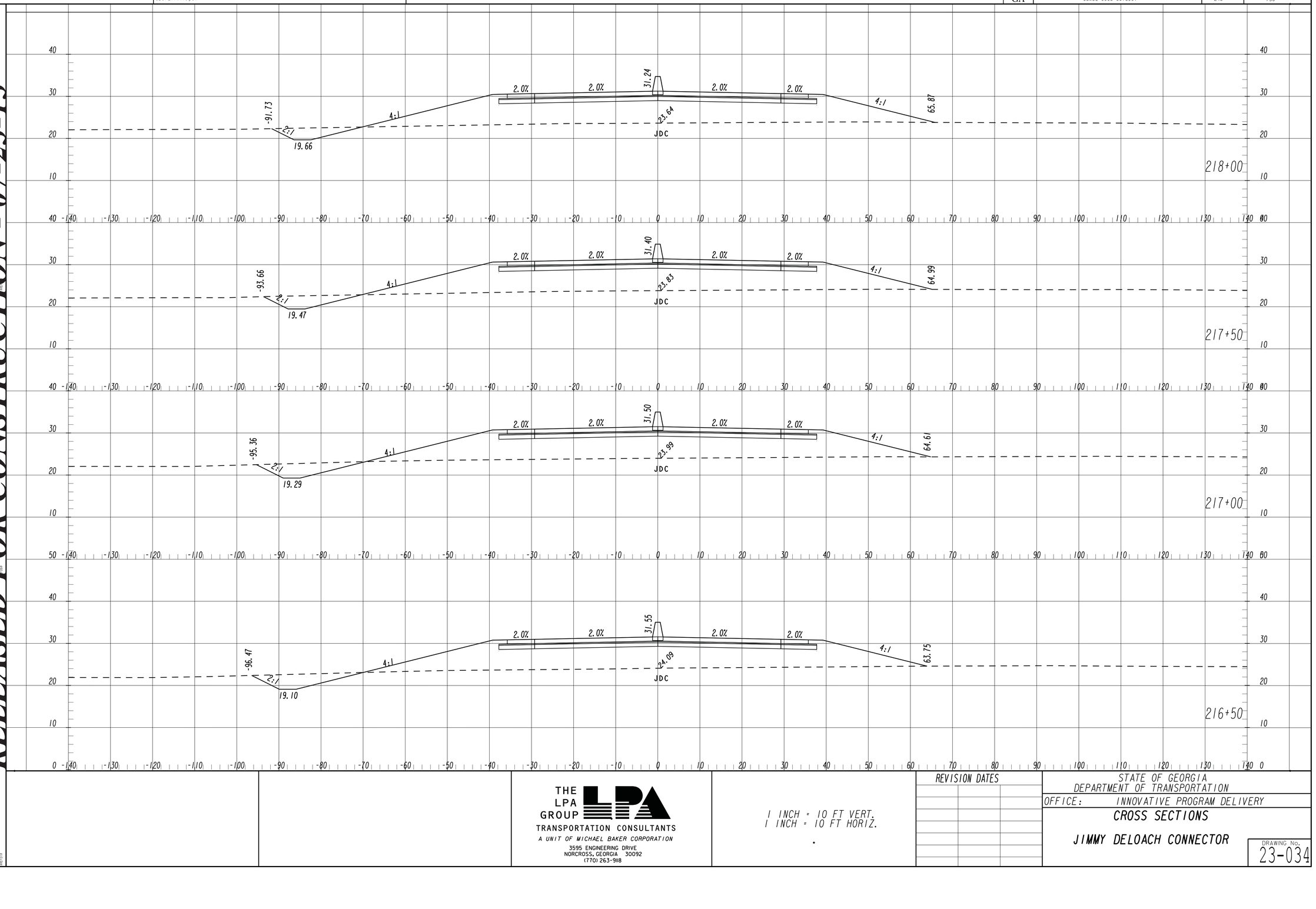
CROSS SECTIONS

JIMMY DELOACH CONNECTOR

DRAWING No. 23-033

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	245	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUYSEW

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

JIMMY DELOACH CONNECTOR

DRAWING No. 23-034

23-JUL-2013 14:33 2:33:07 PM
JParks
0008690_23-00134
GDOT_11x17.pen
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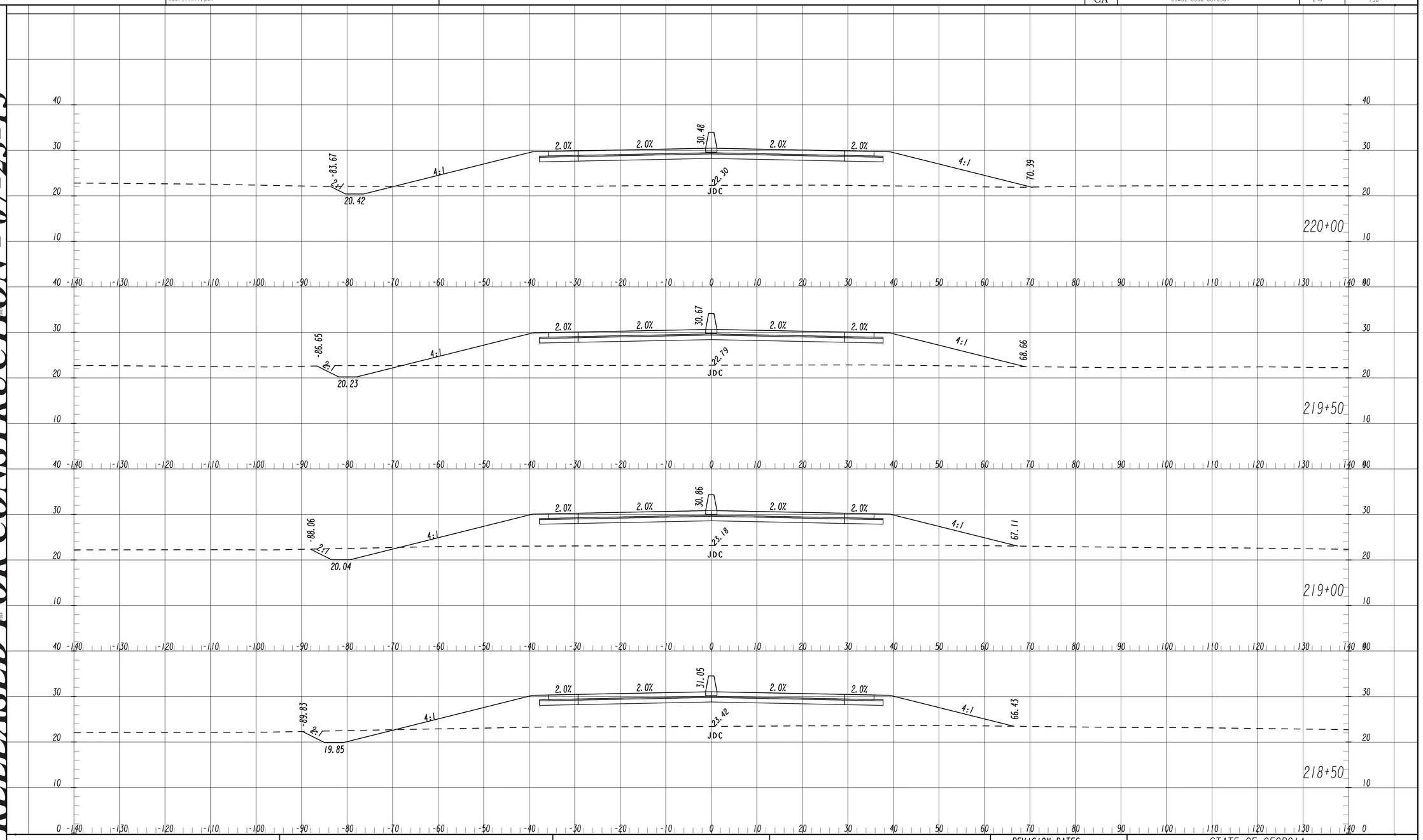
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	246	730

RELEASED FOR CONSTRUCTION - 07-23-13



THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

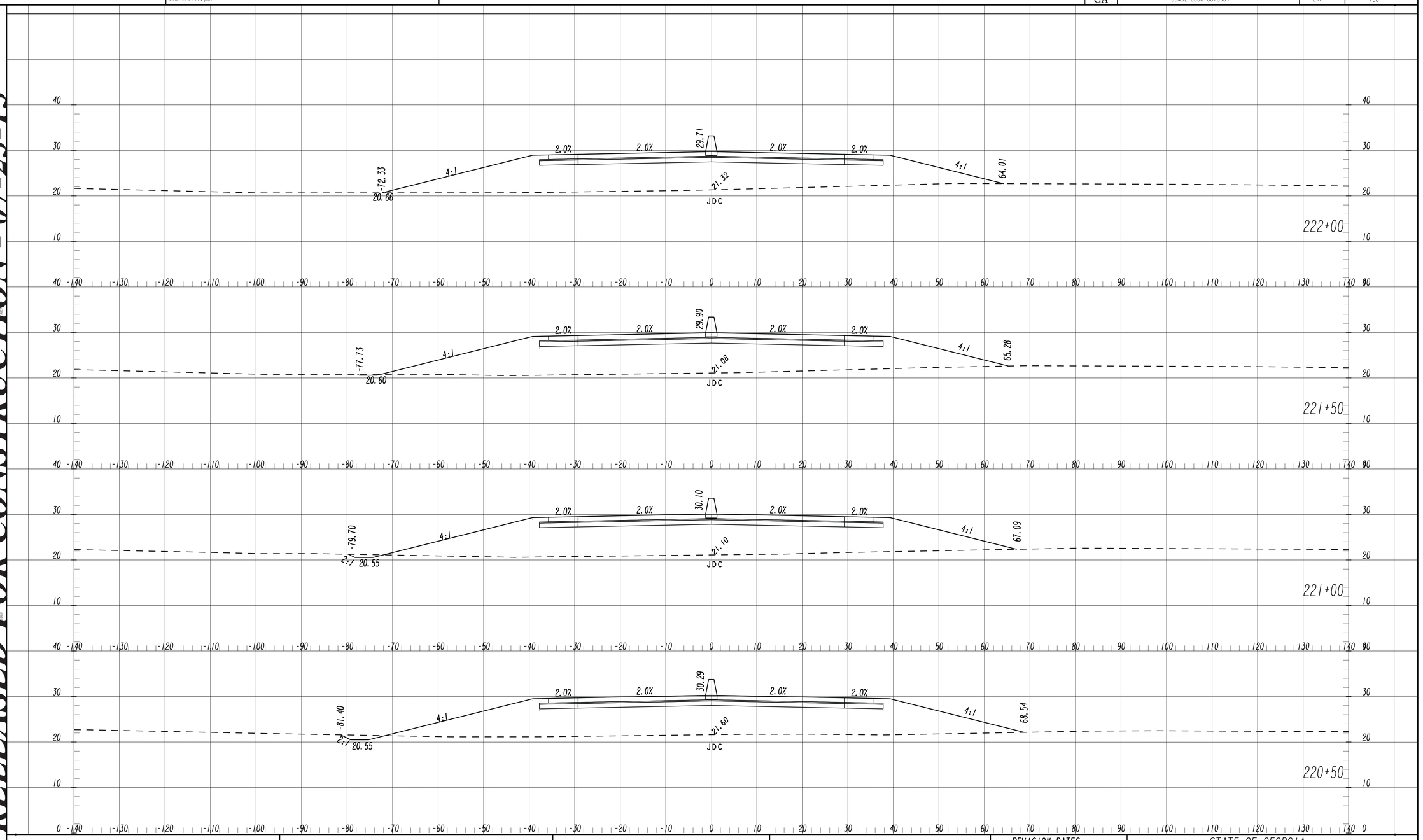
JIMMY DELOACH CONNECTOR

DRAWING No. 23-035

3/1/2007 SUXSEW

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	247	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

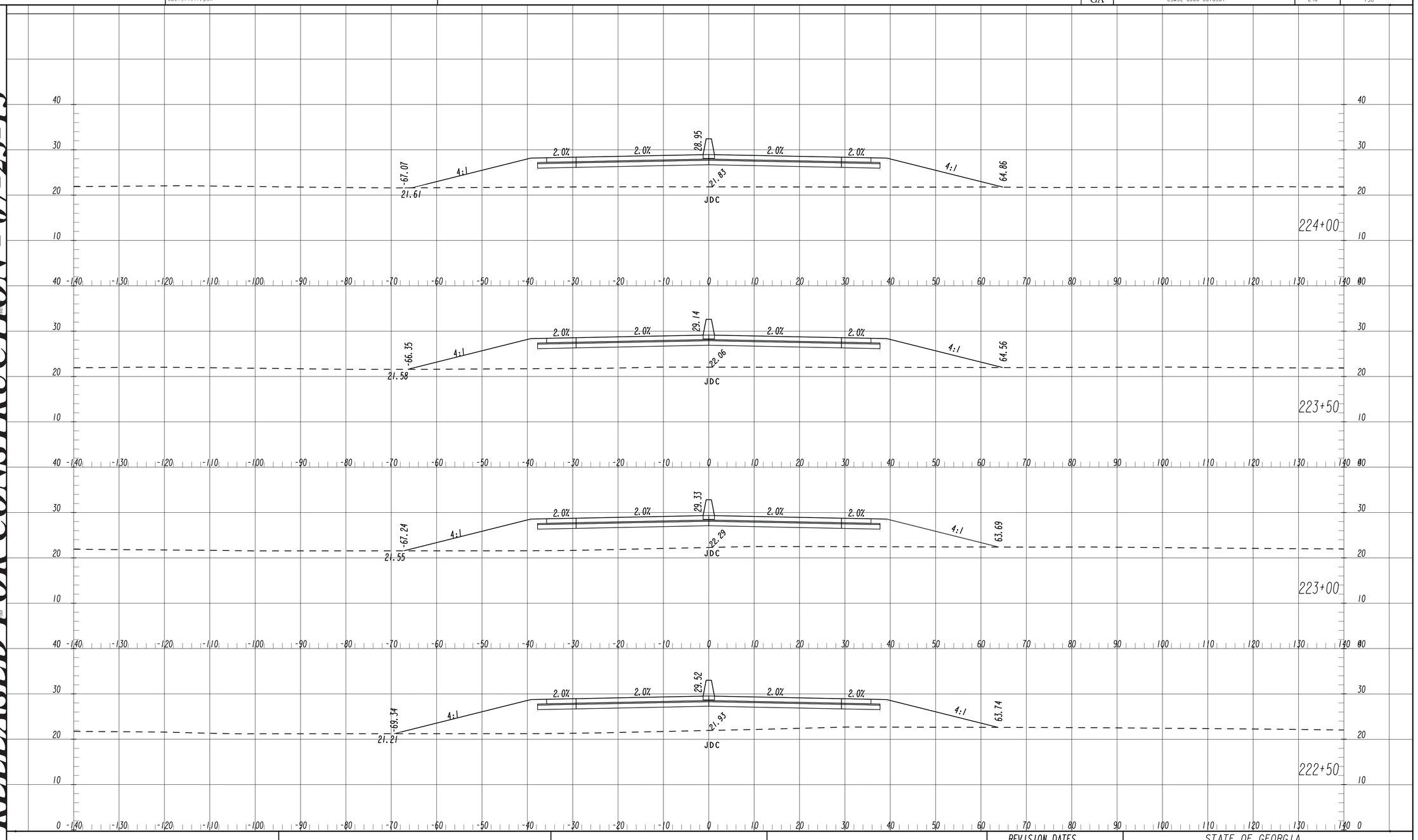
CROSS SECTIONS

JIMMY DELOACH CONNECTOR

DRAWING No. 23-036

23-JUL-2013 14:33	2:33:10 PM	0008690_23-00136	Y:\Roadways\126379\0008690\Dgn\0008690_23-001.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	248	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

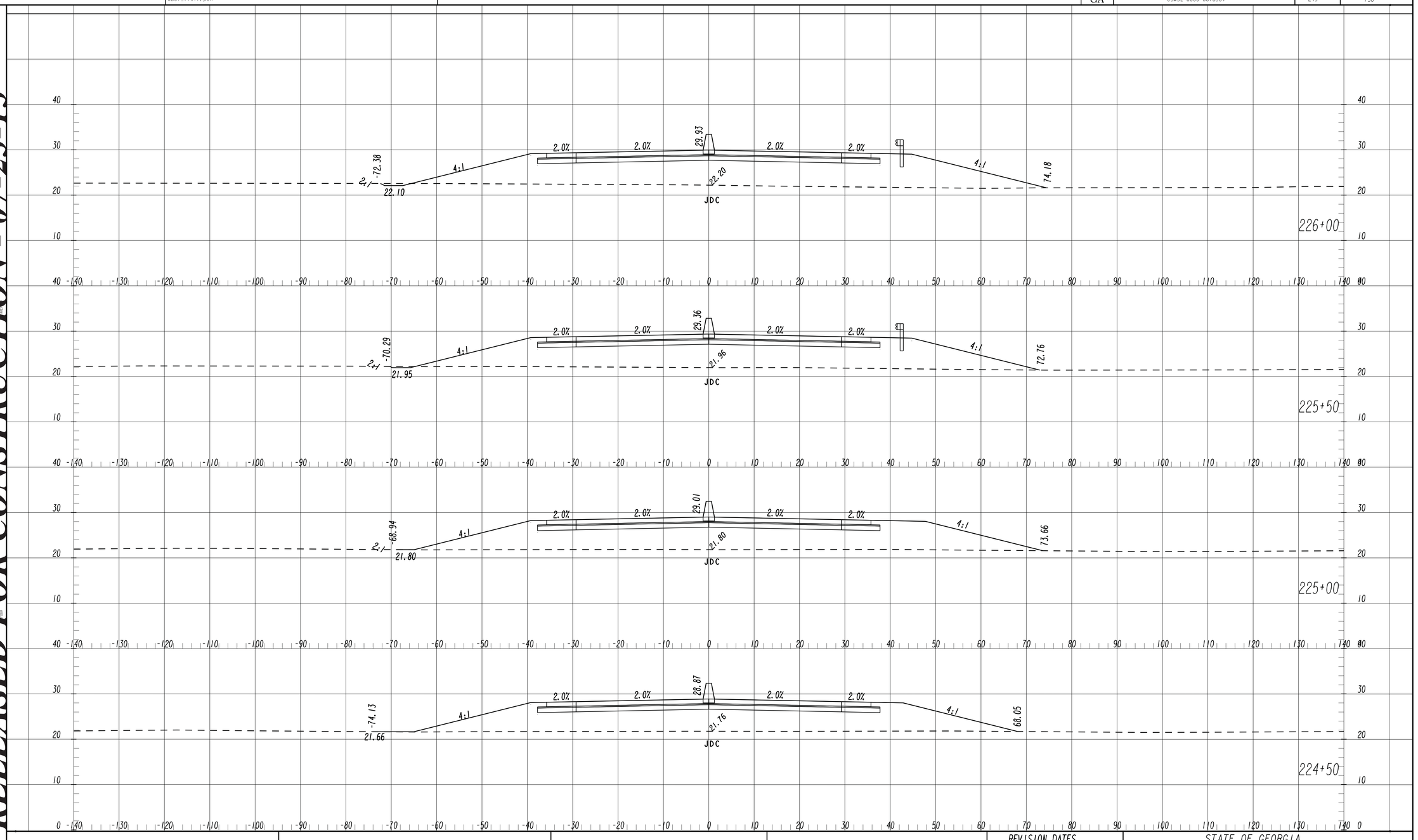
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

JIMMY DELOACH CONNECTOR

DRAWING No. 23-037

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

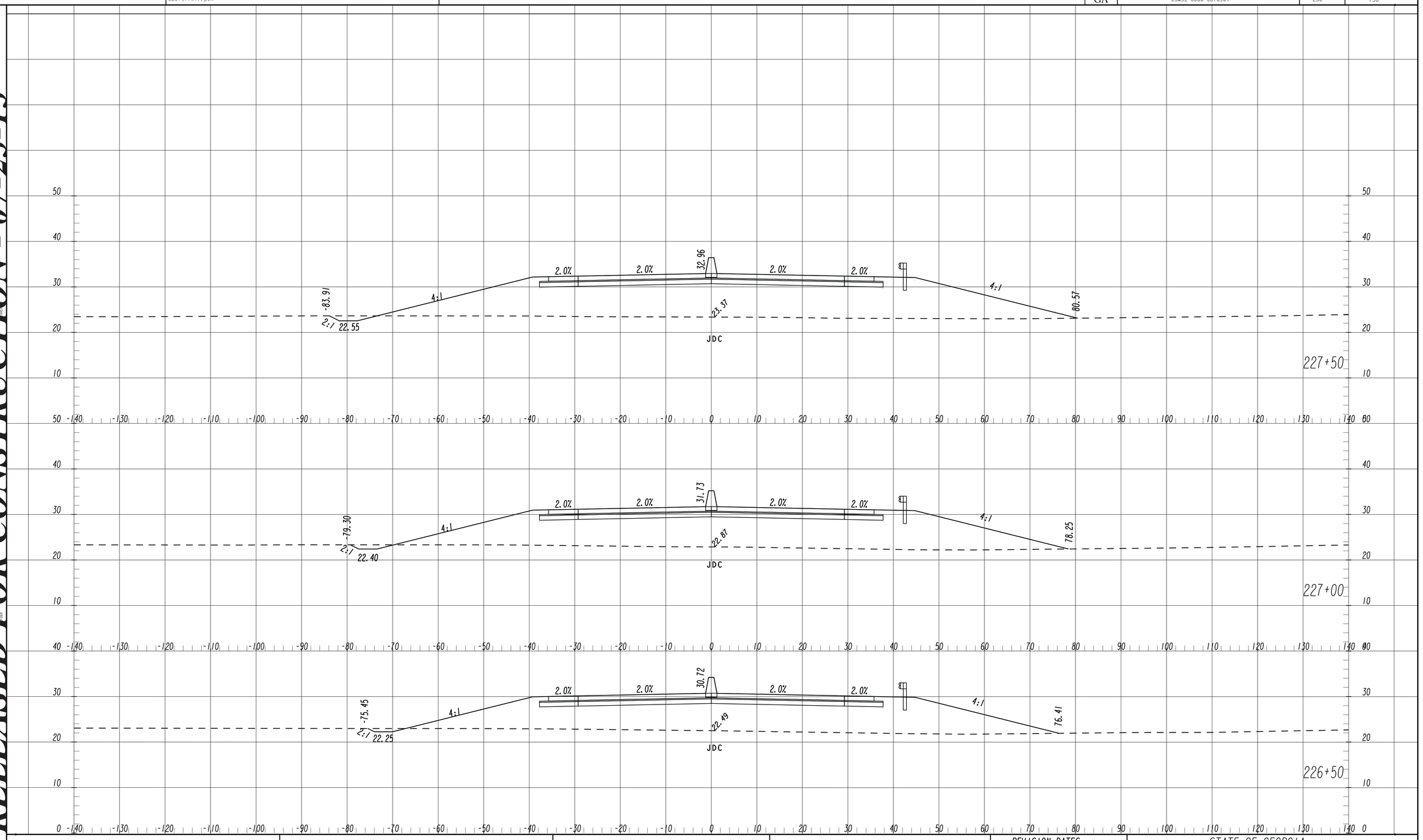
CROSS SECTIONS

JIMMY DELOACH CONNECTOR

DRAWING No. 23-038

23-JUL-2013 14:33	2:33:13 PM	0008690_23-00138	Y:\Roadways\126379\0008690\Dgn\0008690_23-001.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	250	730

RELEASED FOR CONSTRUCTION - 07-23-13



THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

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1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

JIMMY DELOACH CONNECTOR

DRAWING No. 23-039

3/1/2007 SUXSEW

RELEASED FOR CONSTRUCTION - 07-23-13

THE LPA GROUP
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A UNIT OF MICHAEL BAKER CORPORATION
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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION

OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

JIMMY DELOACH CONNECTOR

DRAWING No. 23-040

3/1/2007 SUXSEW

23-JUL-2013 14:33 2:33:15 PM
JParks
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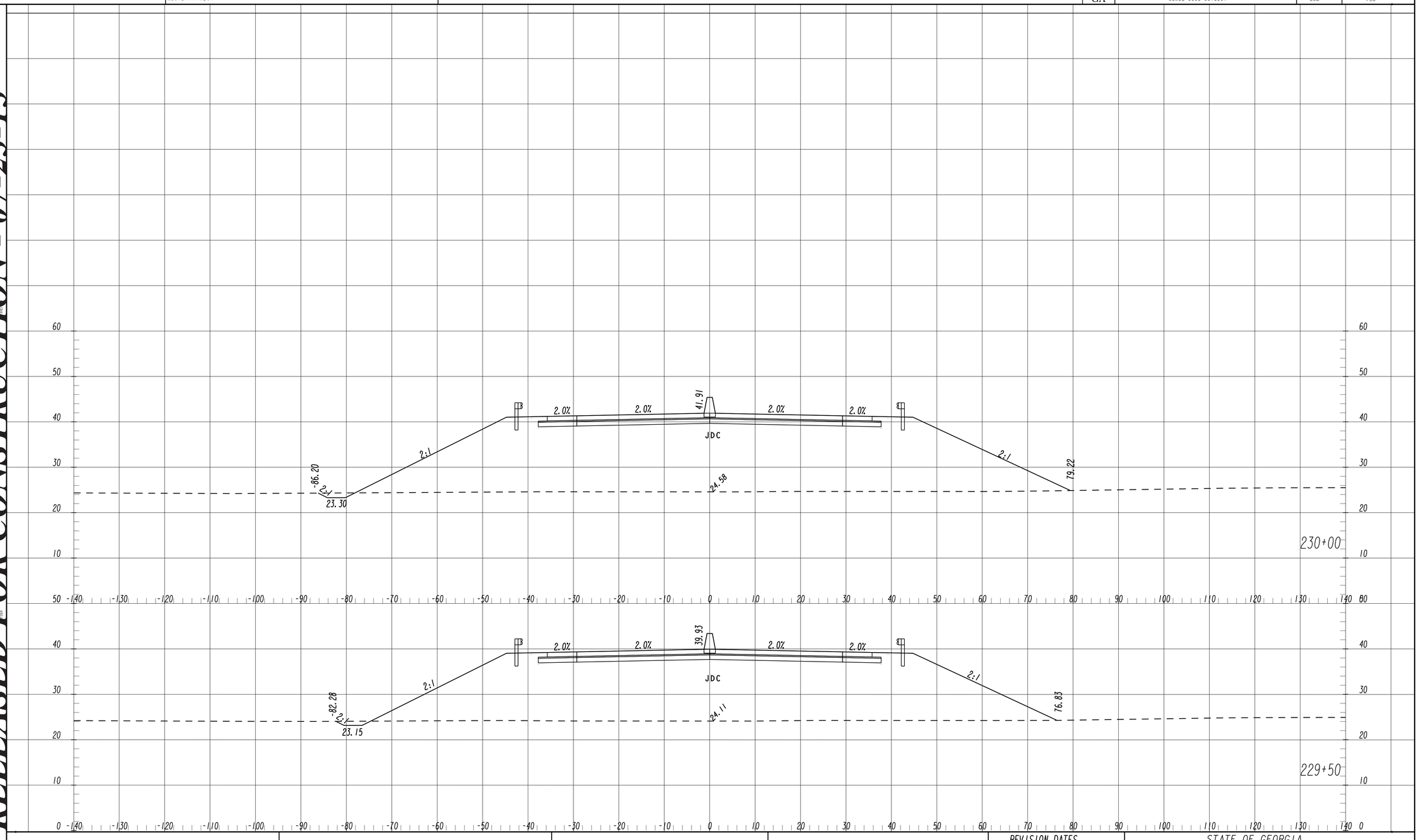
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	252	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

JIMMY DELOACH CONNECTOR

DRAWING No. 23-041

23-JUL-2013 14:33 2:33:16 PM
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STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	253	730

RELEASED FOR CONSTRUCTION - 07-23-13

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

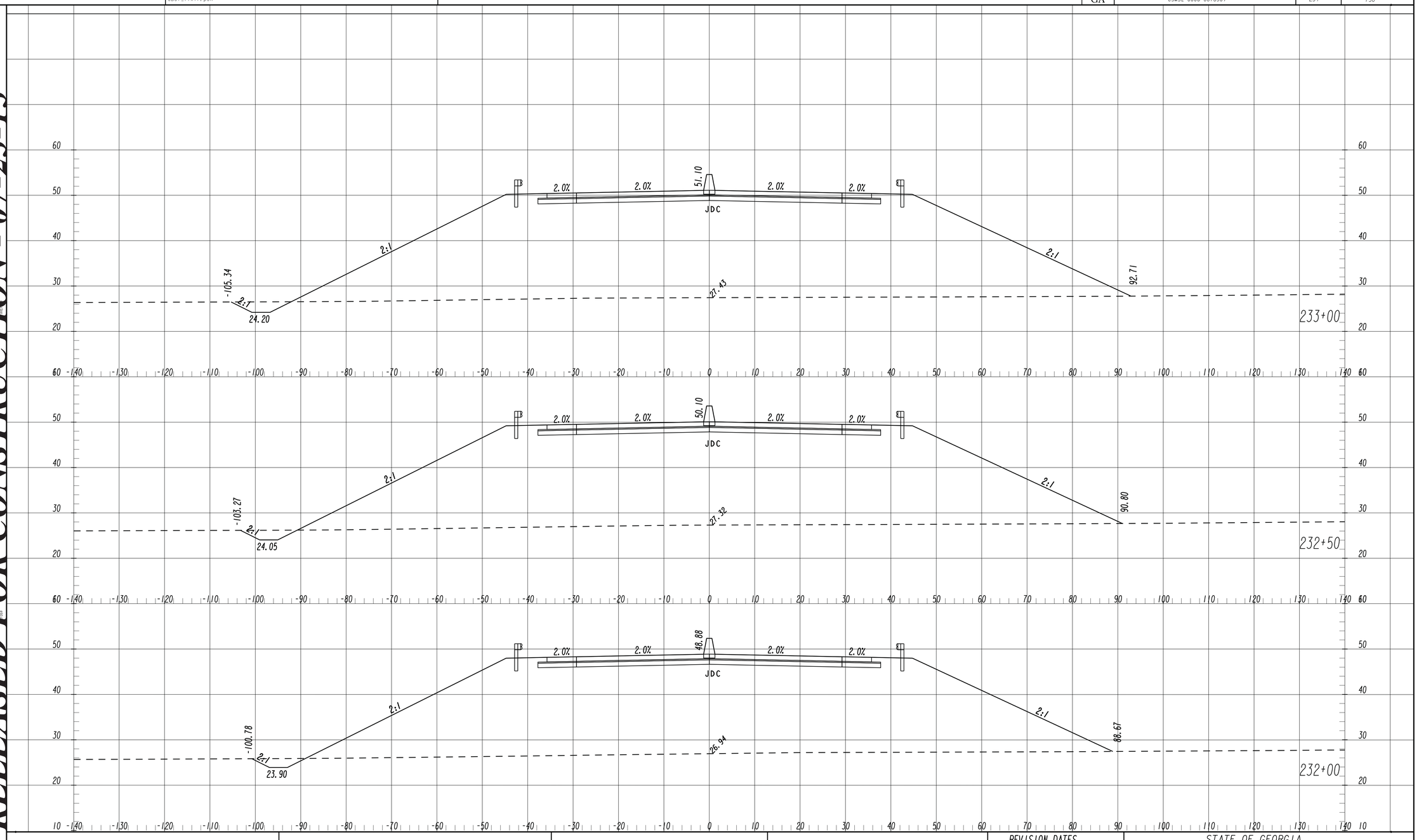
CROSS SECTIONS

JIMMY DELOACH CONNECTOR

DRAWING No. 23-042

3/1/2007 SUXSEW

RELEASED FOR CONSTRUCTION - 07-23-13



THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

JIMMY DELOACH CONNECTOR

DRAWING No. 23-043

3/1/2007 SUKSEW

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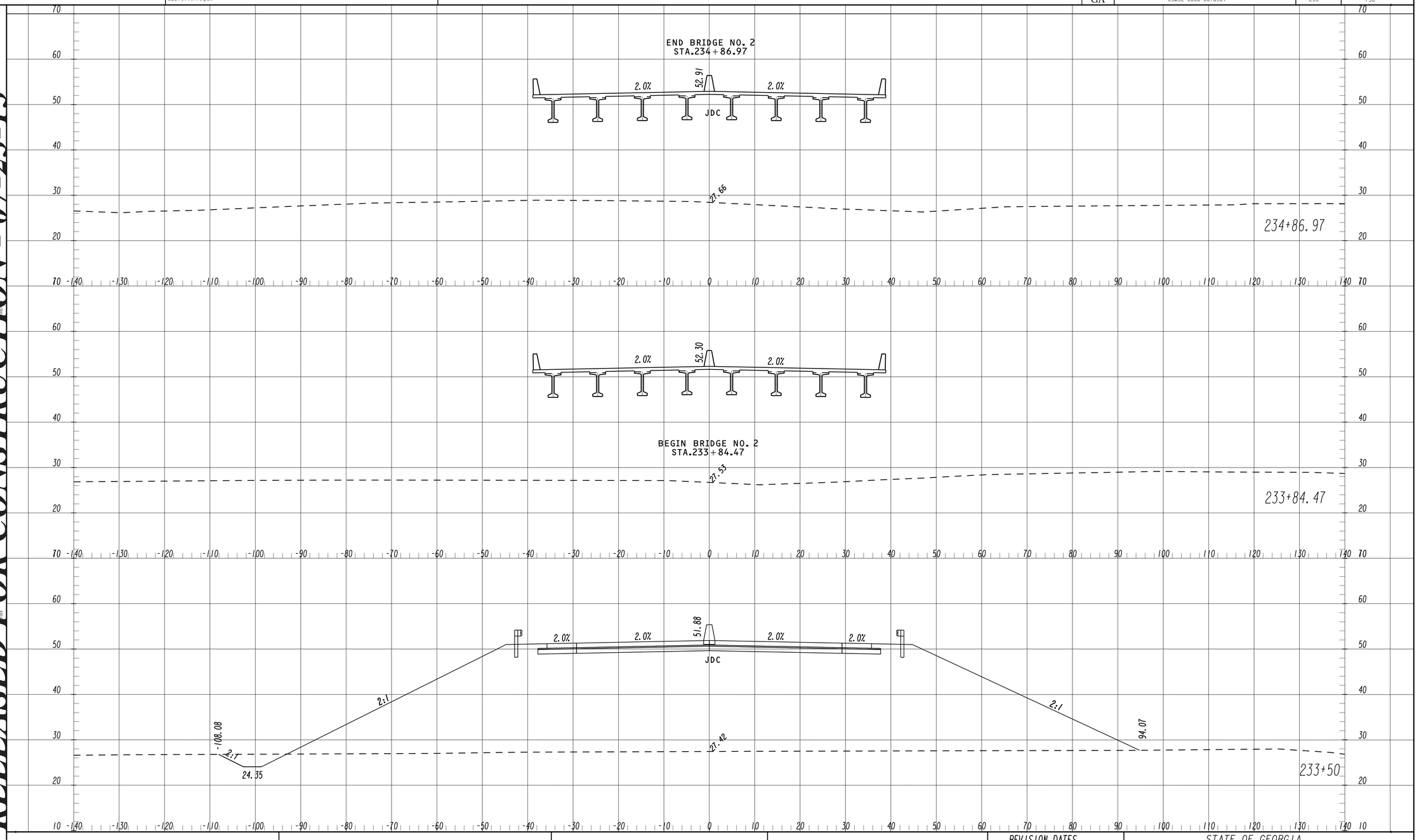
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	255	730

RELEASED FOR CONSTRUCTION - 07-23-13



THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

JIMMY DELOACH CONNECTOR

DRAWING No. 23-044

3/1/2007 SUKSEW

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JParks

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GDOT_11x17.pen

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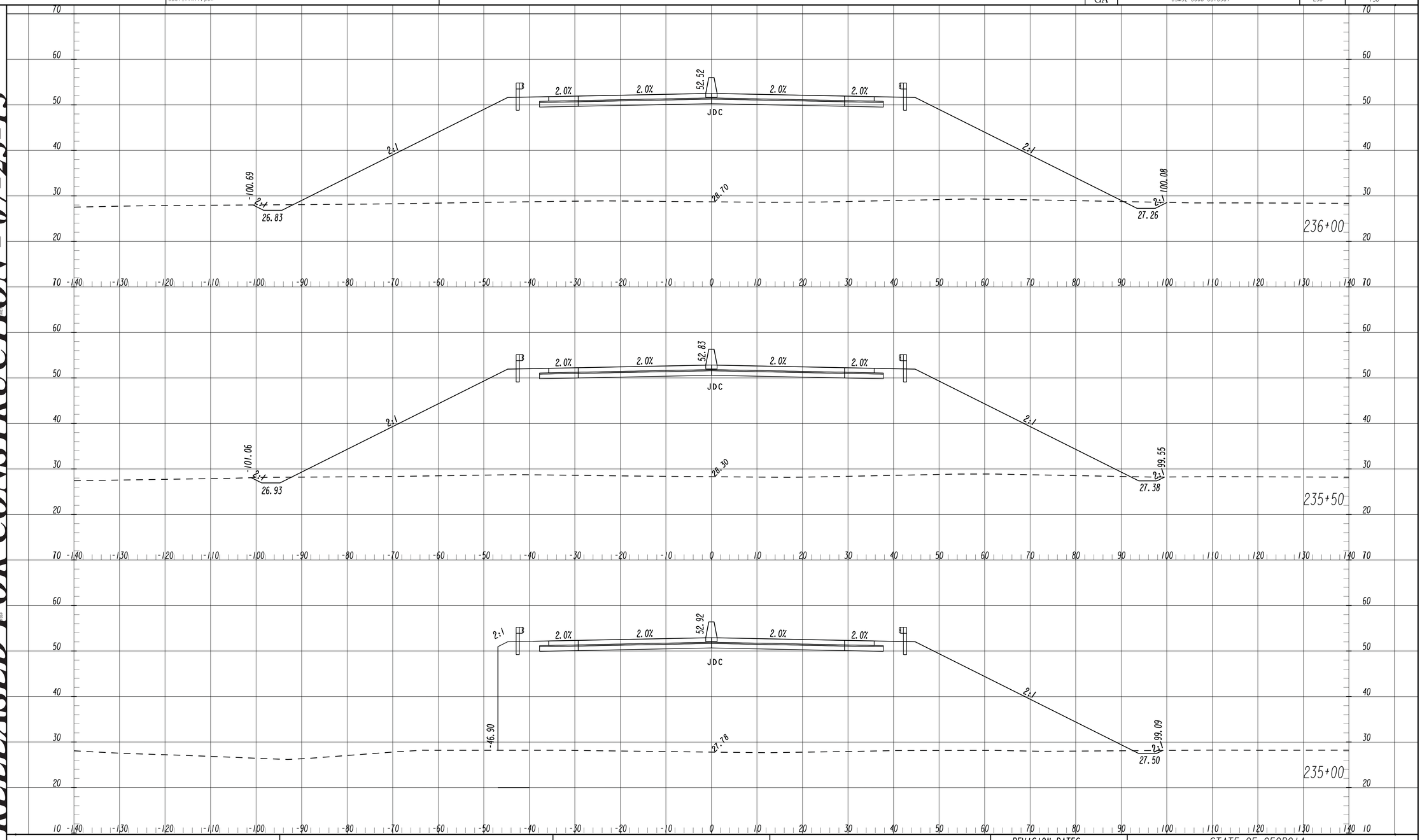
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	256	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

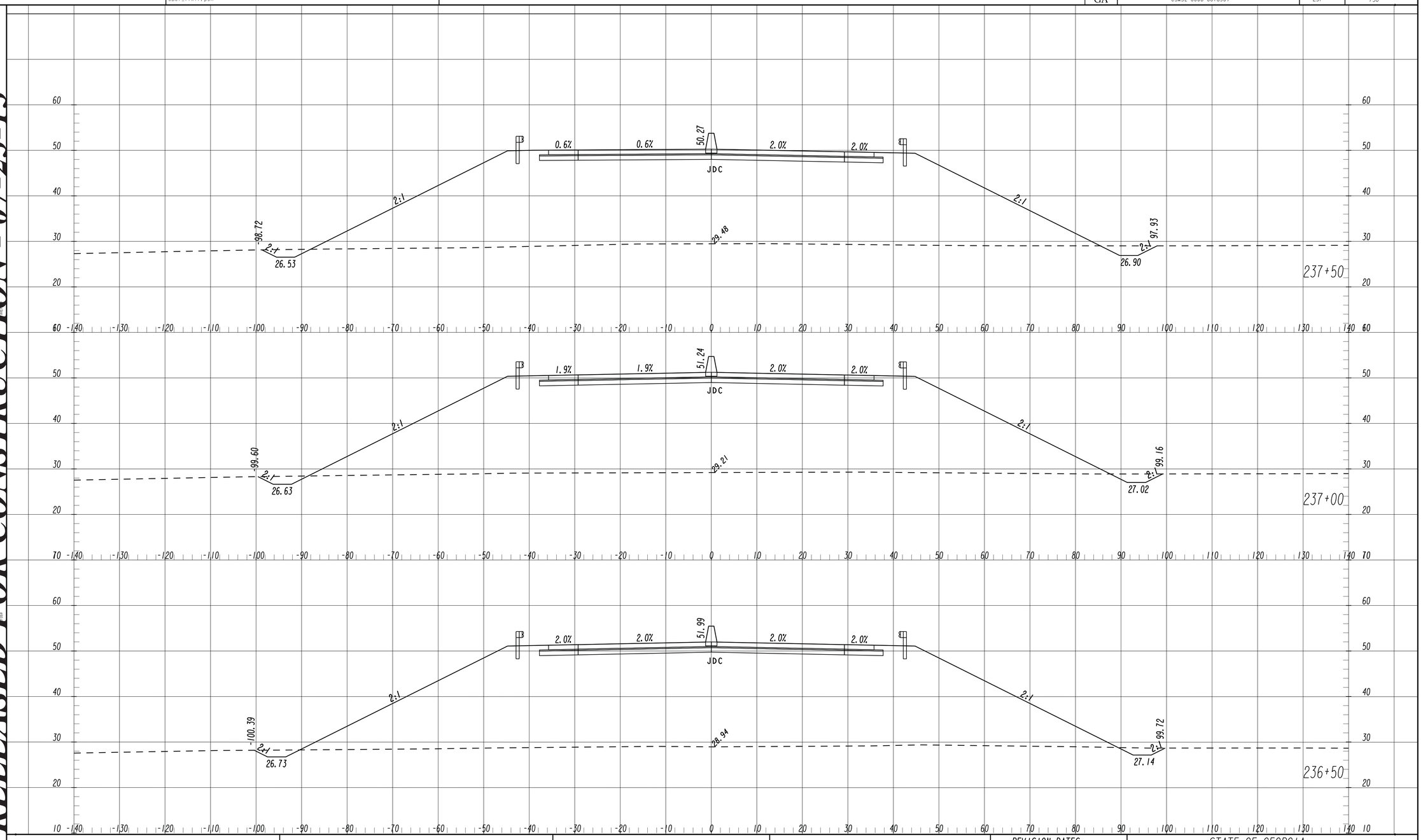
CROSS SECTIONS

JIMMY DELOACH CONNECTOR

DRAWING No. 23-045

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	257	730

RELEASED FOR CONSTRUCTION - 07-23-13



THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

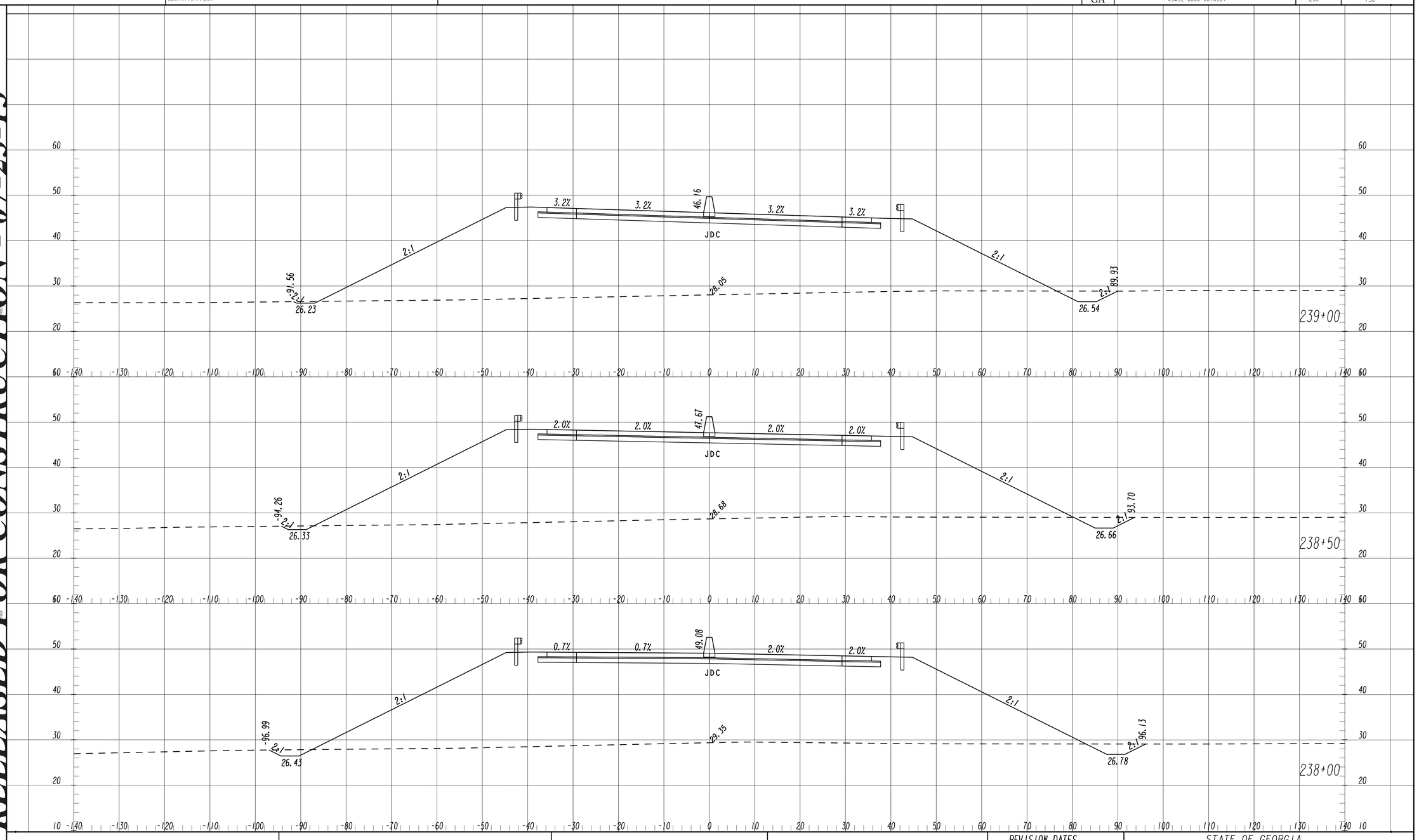
JIMMY DELOACH CONNECTOR

DRAWING No. 23-046

3/1/2007 SUXSEW

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	258	730

RELEASED FOR CONSTRUCTION - 07-23-13



THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

JIMMY DELOACH CONNECTOR

DRAWING No. 23-047

3/1/2007 SUXSEW

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	259	730

RELEASED FOR CONSTRUCTION - 07-23-13

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

JIMMY DELOACH CONNECTOR

DRAWING No. 23-048

3/1/2007 SUXSEW

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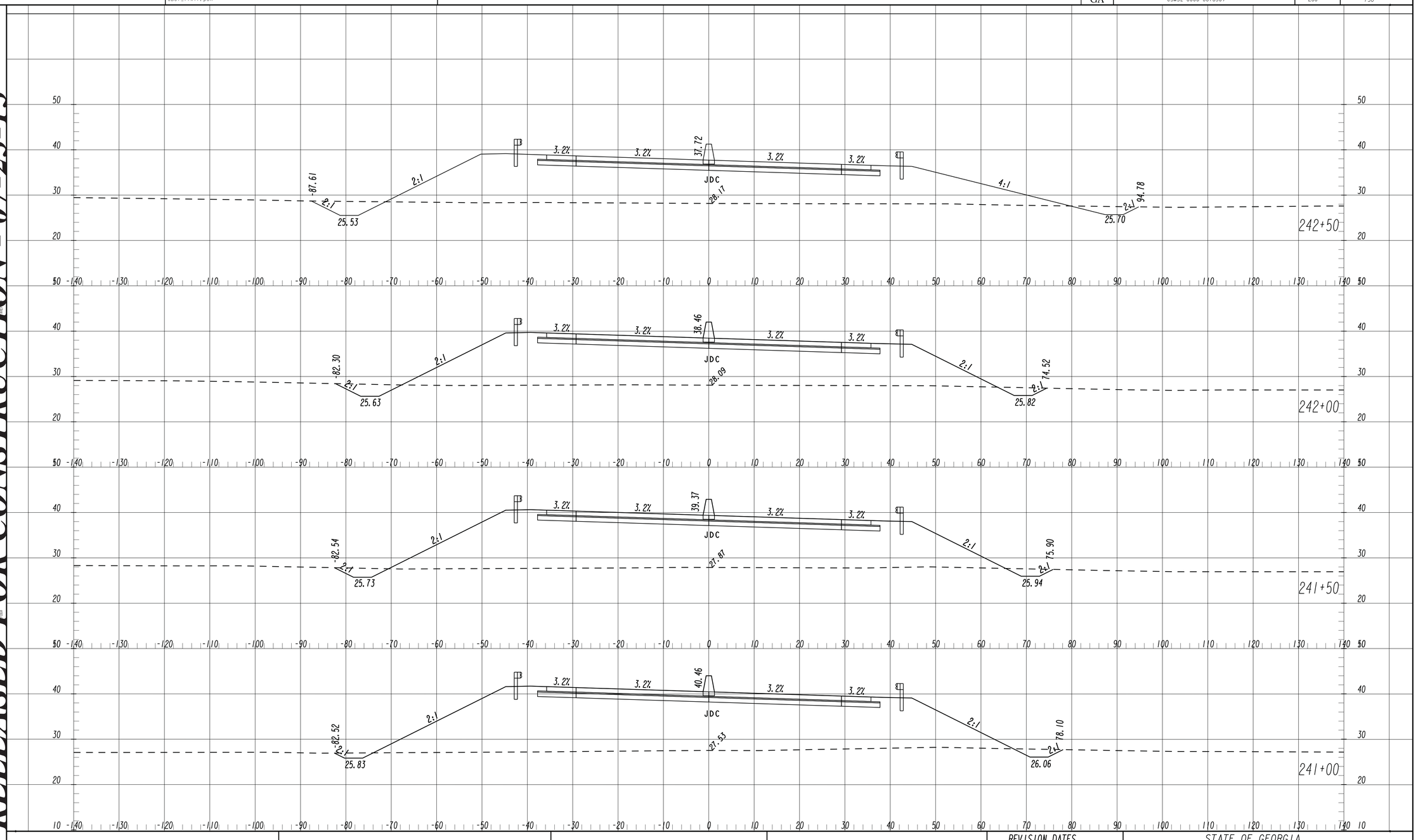
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	260	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

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1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

JIMMY DELOACH CONNECTOR

DRAWING No. 23-049

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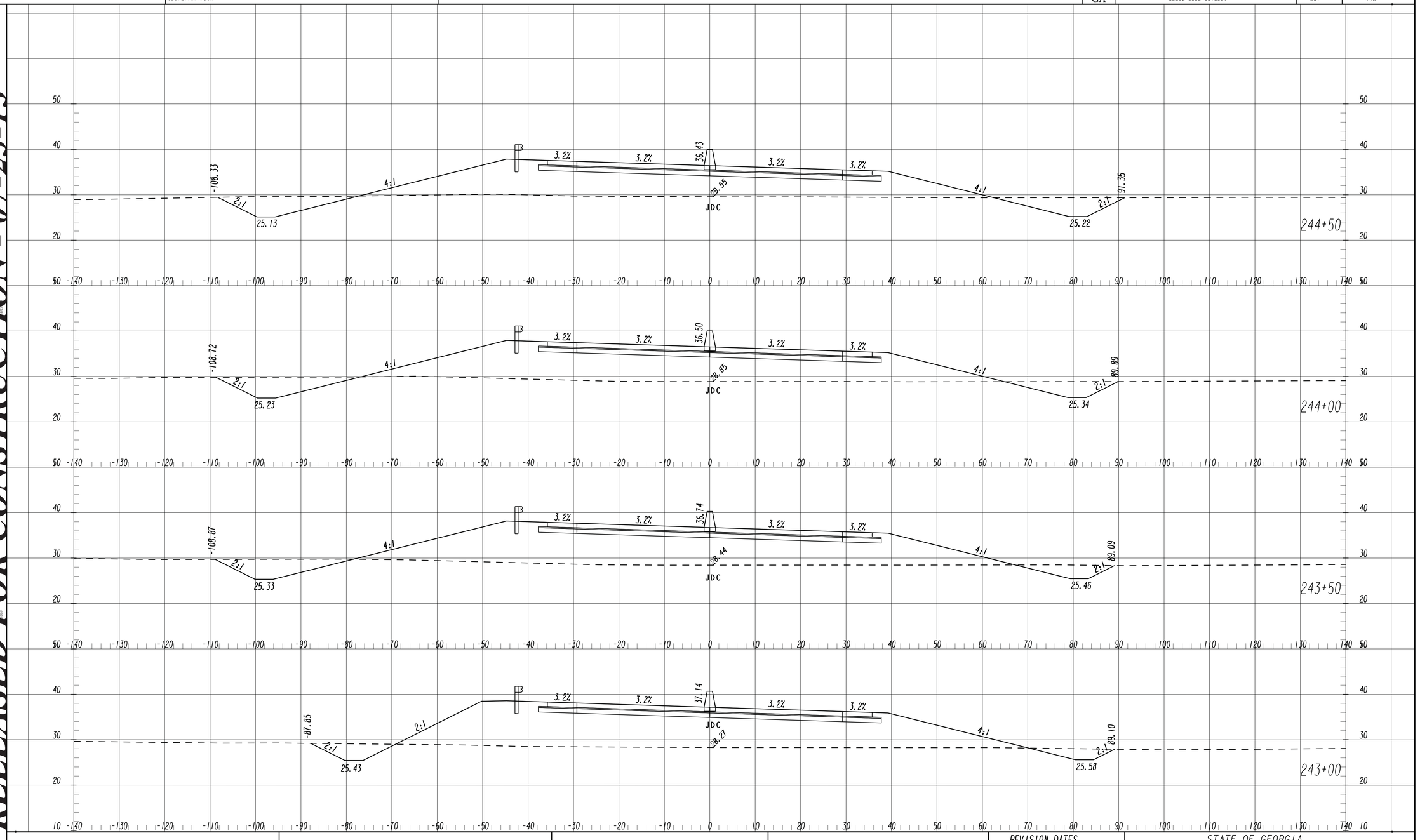
JParks | GDOT_11x17.pen

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	261	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

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TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

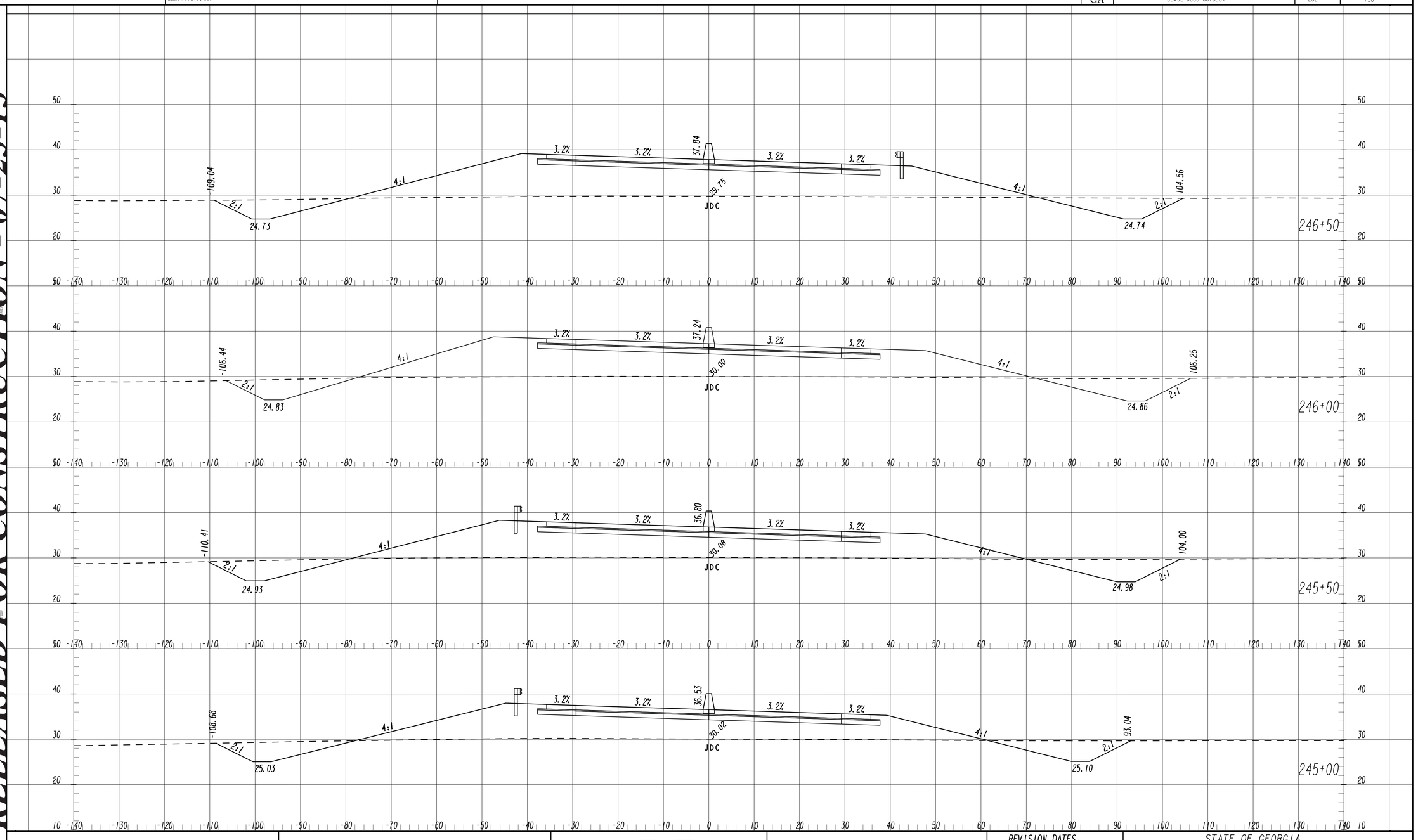
CROSS SECTIONS

JIMMY DELOACH CONNECTOR

DRAWING No. 23-050

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	262	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

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TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

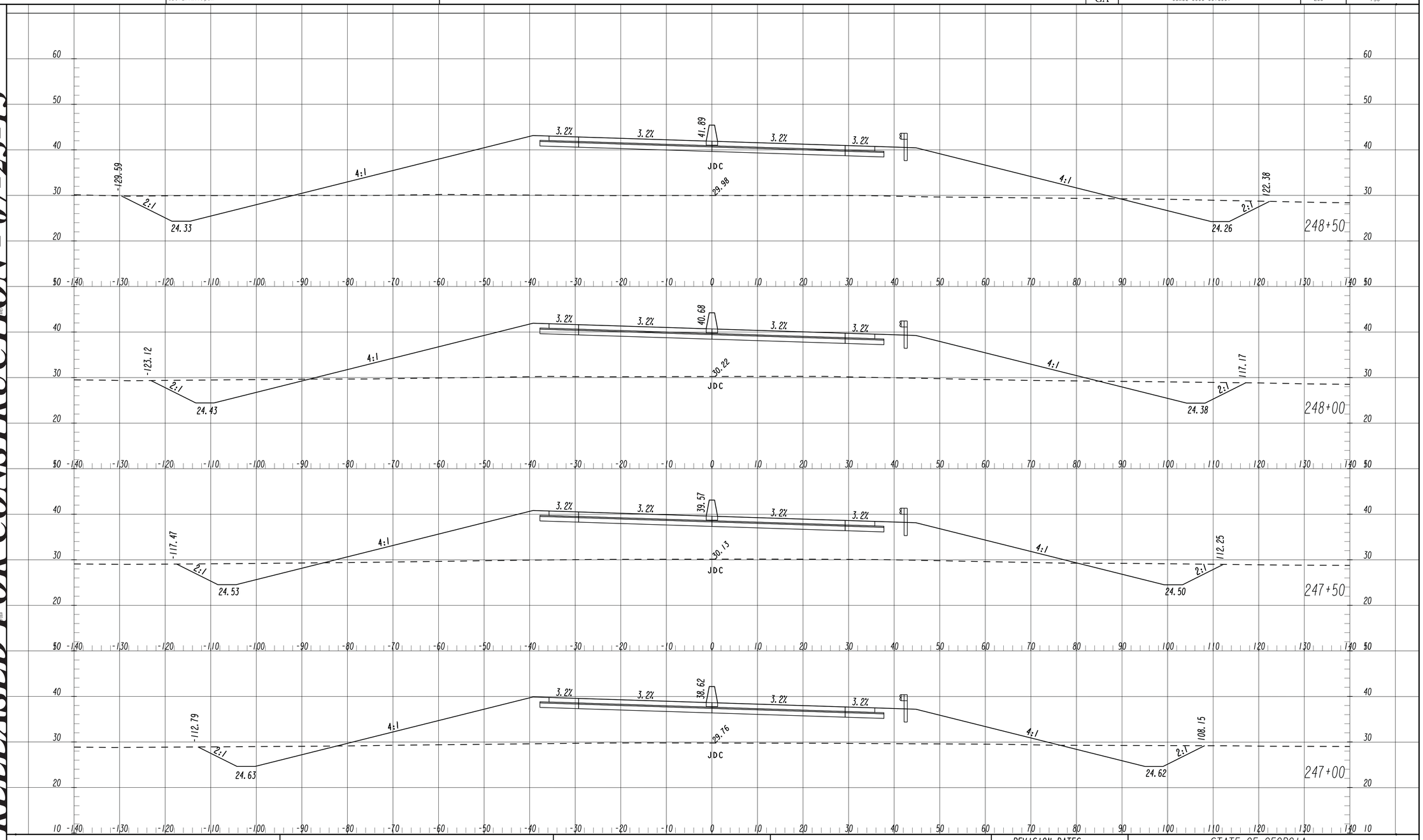
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

JIMMY DELOACH CONNECTOR

DRAWING No. 23-051

RELEASED FOR CONSTRUCTION - 07-23-13



THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

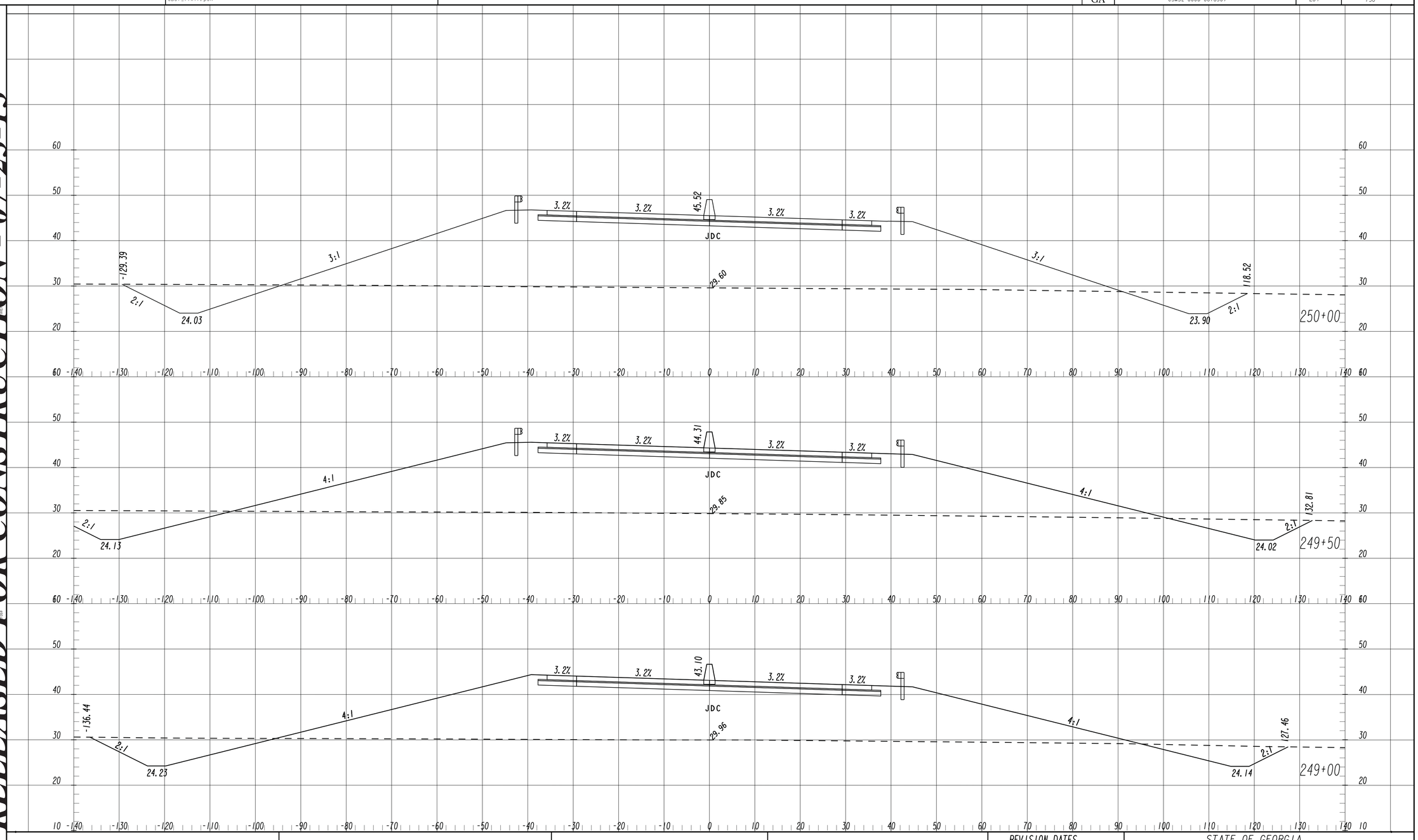
JIMMY DELOACH CONNECTOR

DRAWING No. 23-052

3/1/2007 SUXSEW

23-JUL-2013 14:33	2:33:37 PM	0008690_23-00152	Y:\Roadways\126379\0008690\Dgn\0008690_23-001.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	264	730

RELEASED FOR CONSTRUCTION - 07-23-13



THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

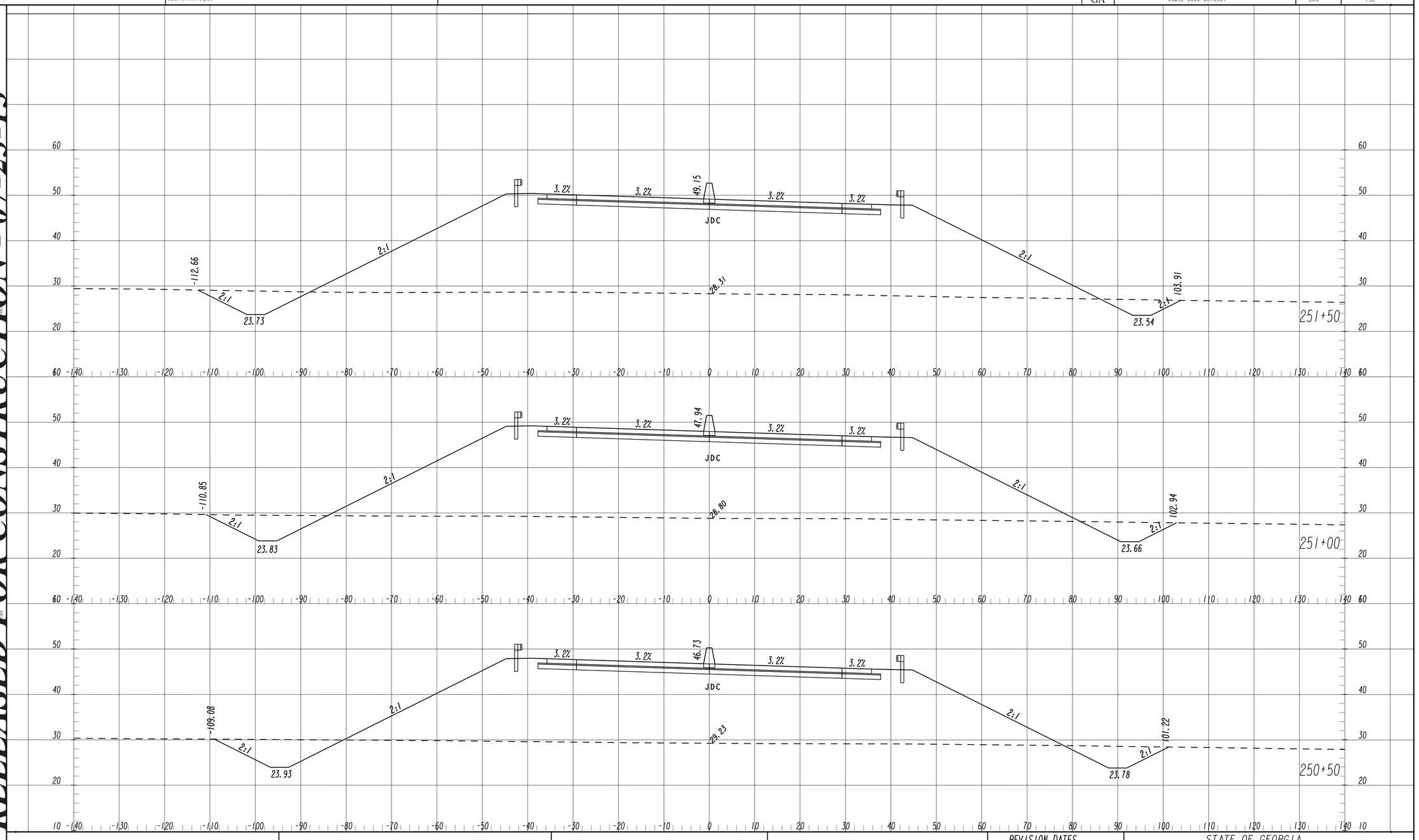
JIMMY DELOACH CONNECTOR

DRAWING No. 23-053

3/1/2007 SUXSEW

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	265	730

RELEASED FOR CONSTRUCTION - 07-23-13



THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

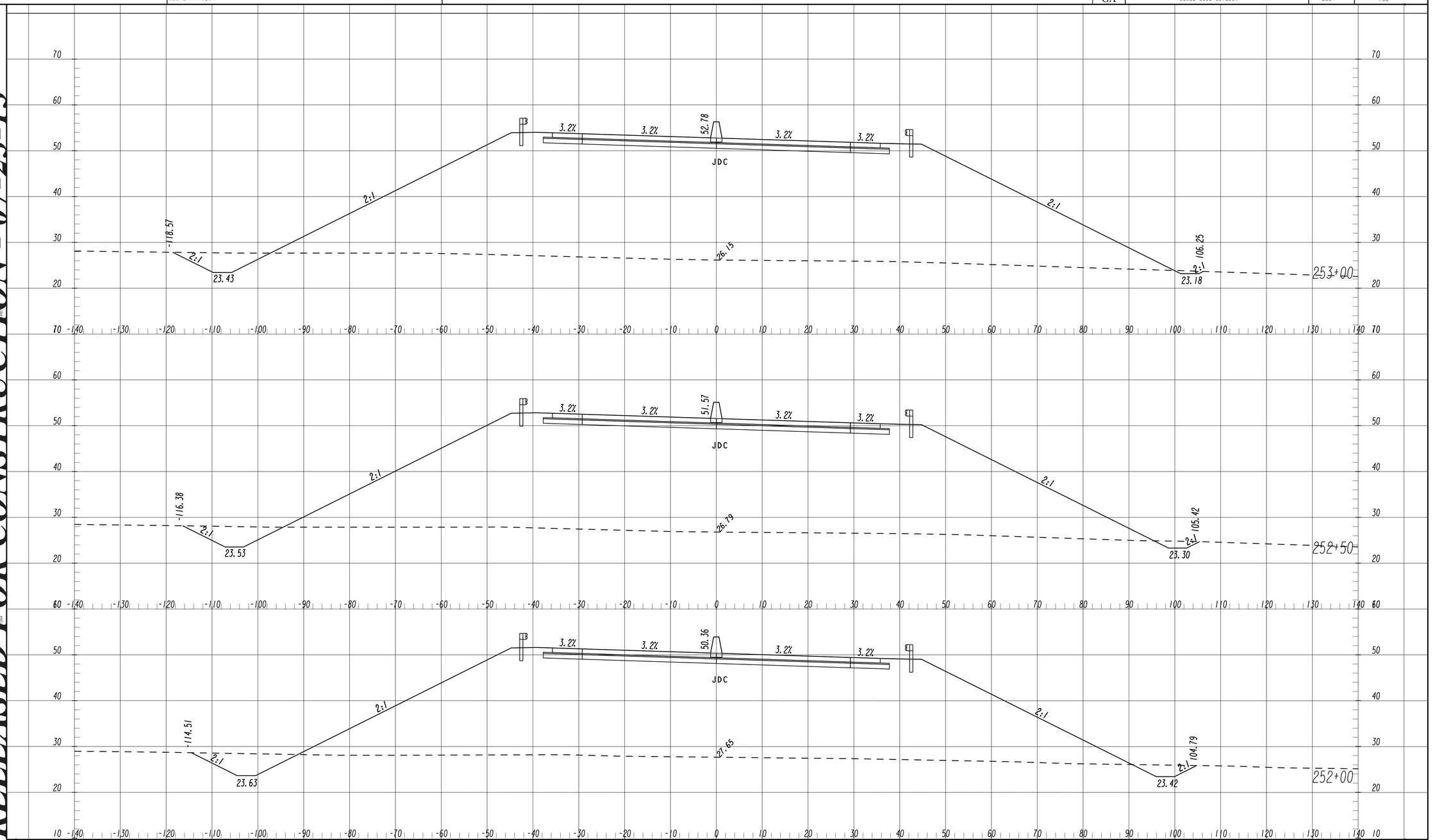
JIMMY DELOACH CONNECTOR

DRAWING No. 23-054

3/1/2007 SUXSEW

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	266	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

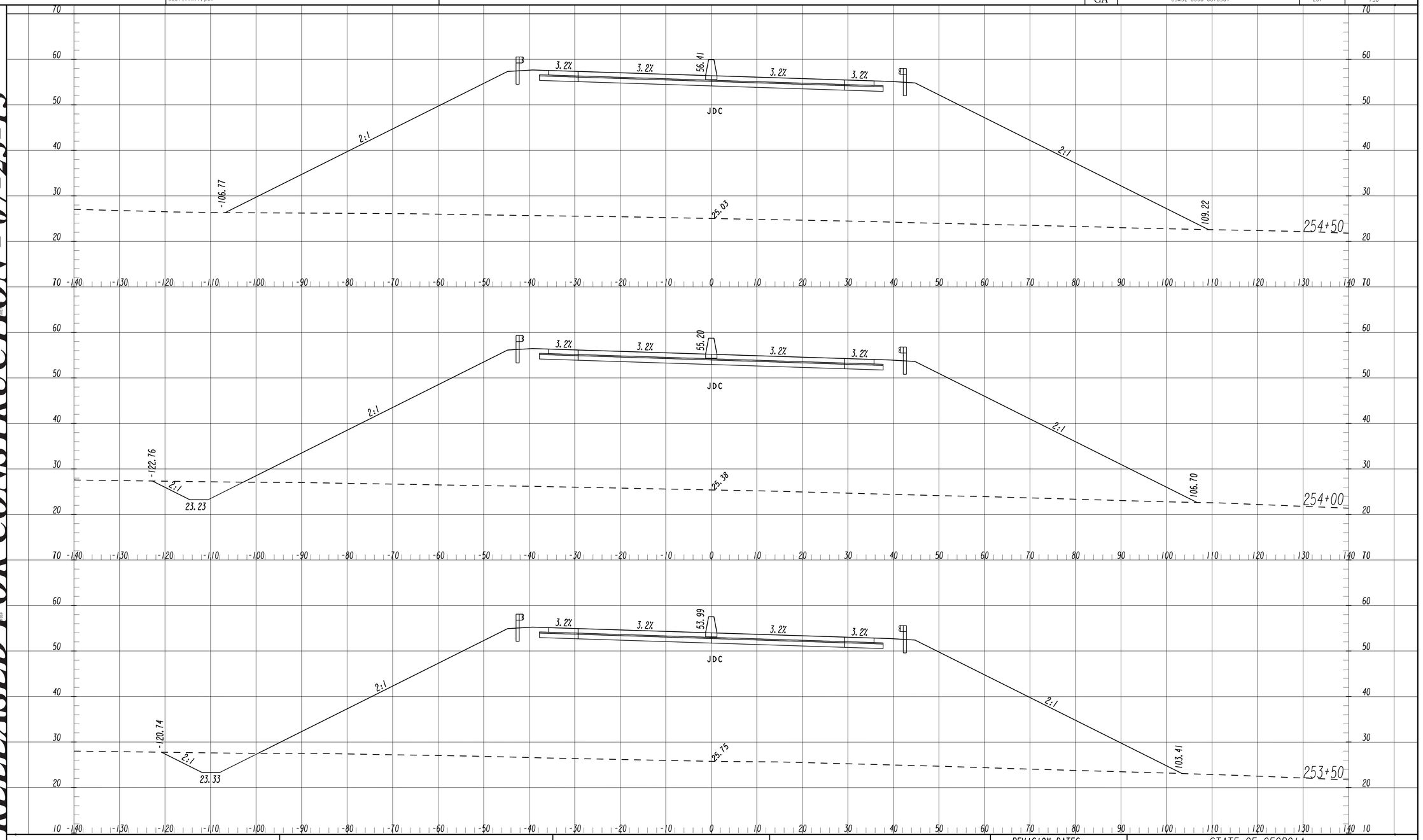
CROSS SECTIONS

JIMMY DELOACH CONNECTOR

DRAWING No. 23-055

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	267	730

RELEASED FOR CONSTRUCTION - 07-23-13



THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

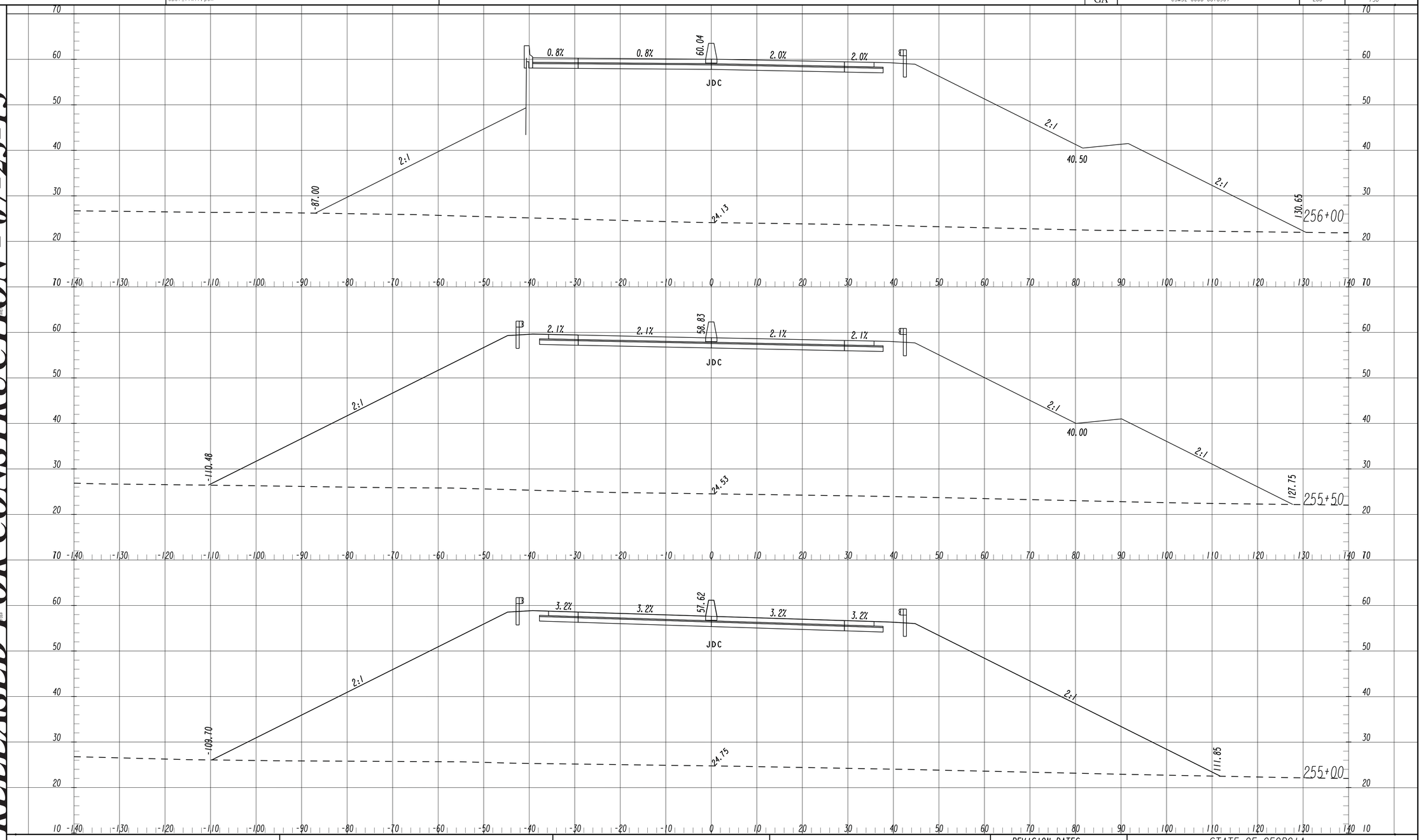
JIMMY DELOACH CONNECTOR

DRAWING No. 23-056

3/1/2007 SUXSEW

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	268	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

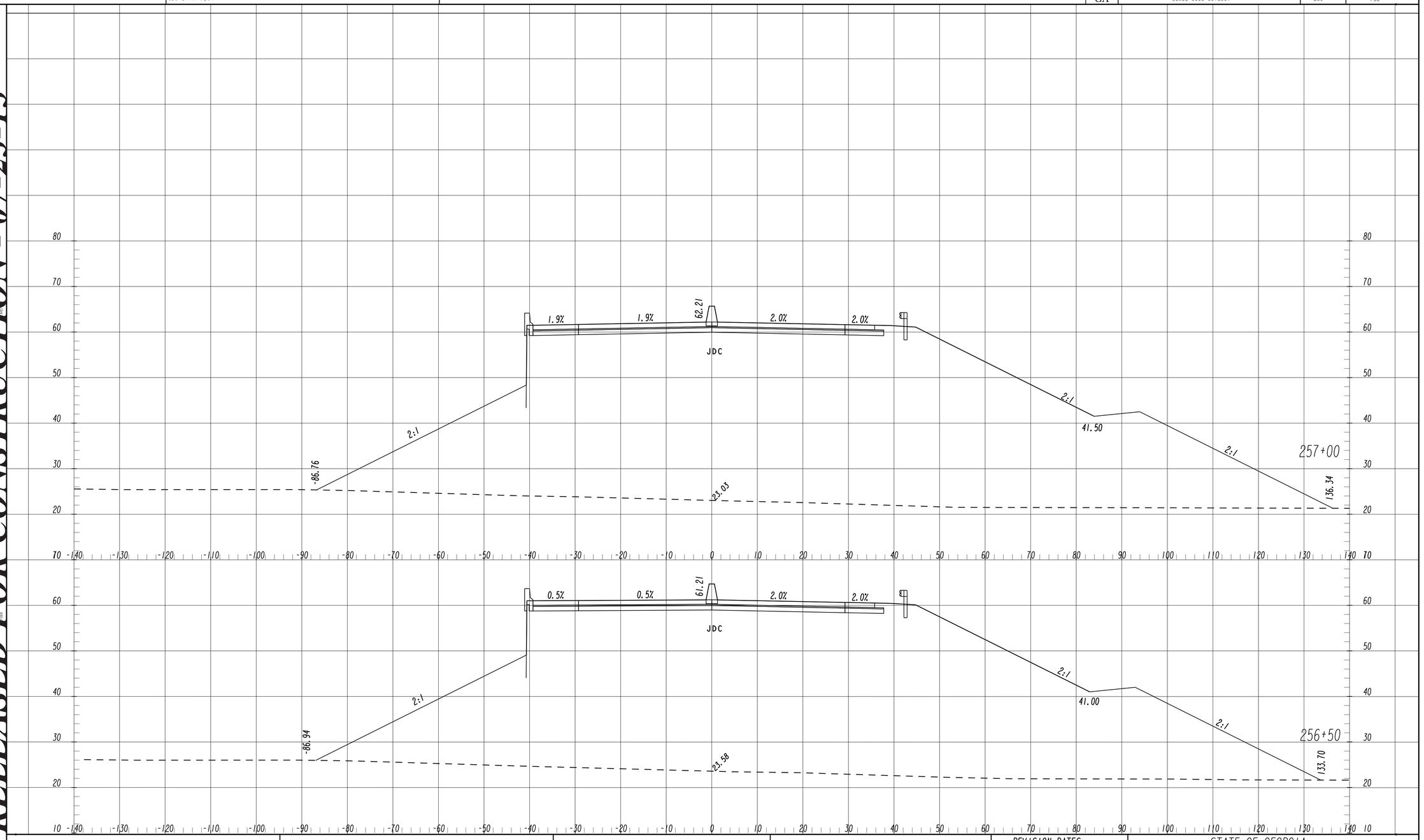
CROSS SECTIONS

JIMMY DELOACH CONNECTOR

DRAWING No. 23-057

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	269	730

RELEASED FOR CONSTRUCTION - 07-23-13



THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

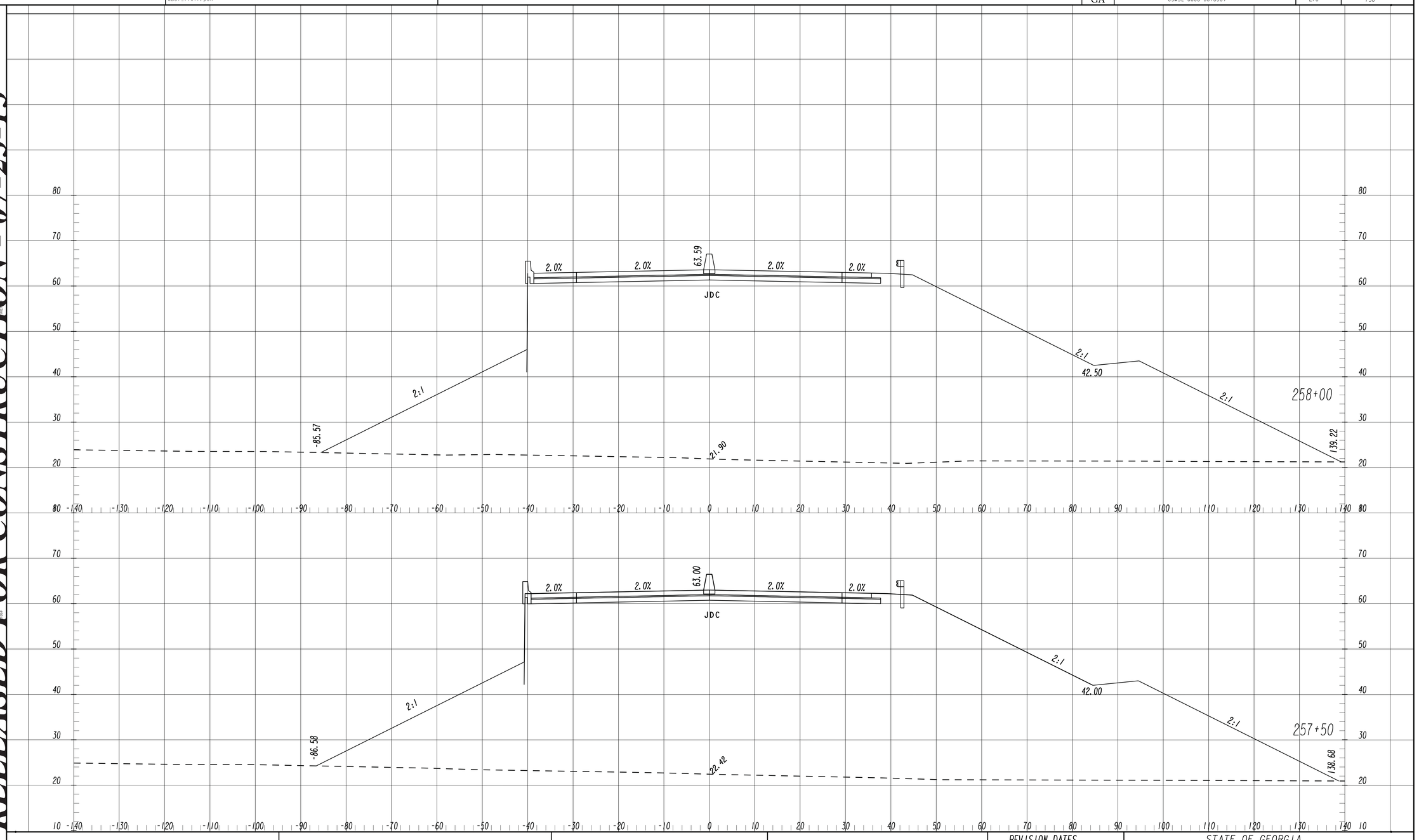
JIMMY DELOACH CONNECTOR

DRAWING No. 23-058

3/1/2007 SUXSEW

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	270	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

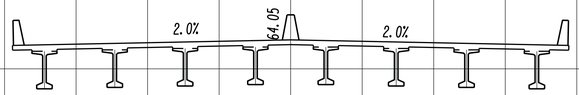
CROSS SECTIONS

JIMMY DELOACH CONNECTOR

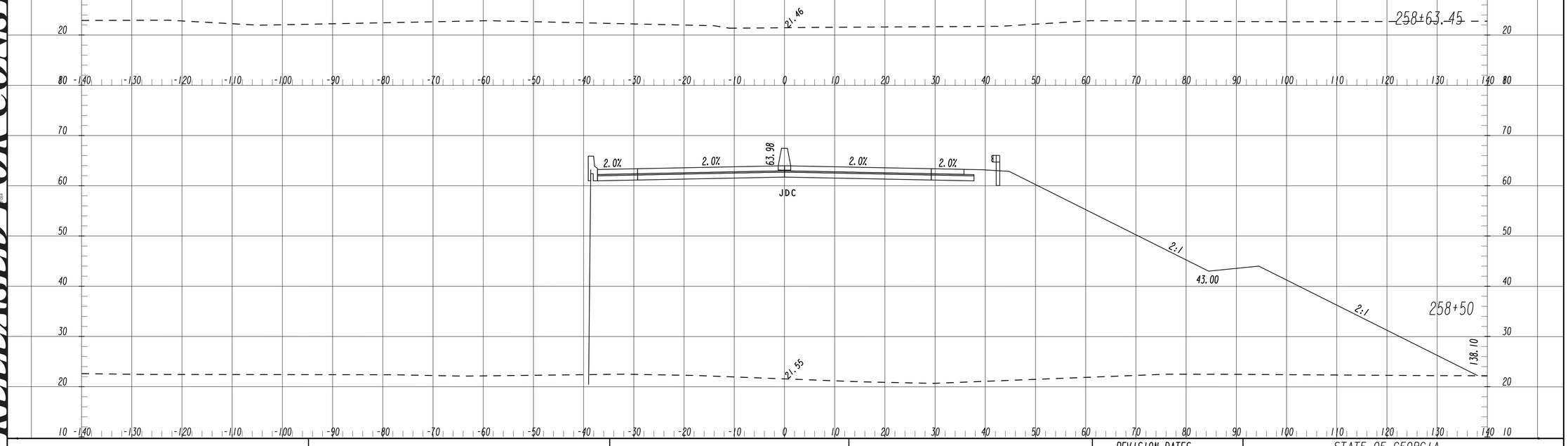
DRAWING No. 23-059

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	271	730

RELEASED FOR CONSTRUCTION - 07-23-13



BEGIN BRIDGE NO. 3
STA 258+63.45



THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

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1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

JIMMY DELOACH CONNECTOR

DRAWING No. 23-060

3/1/2007 SUXSEW

23-JUL-2013 14:33 2:33:48 PM
JParks

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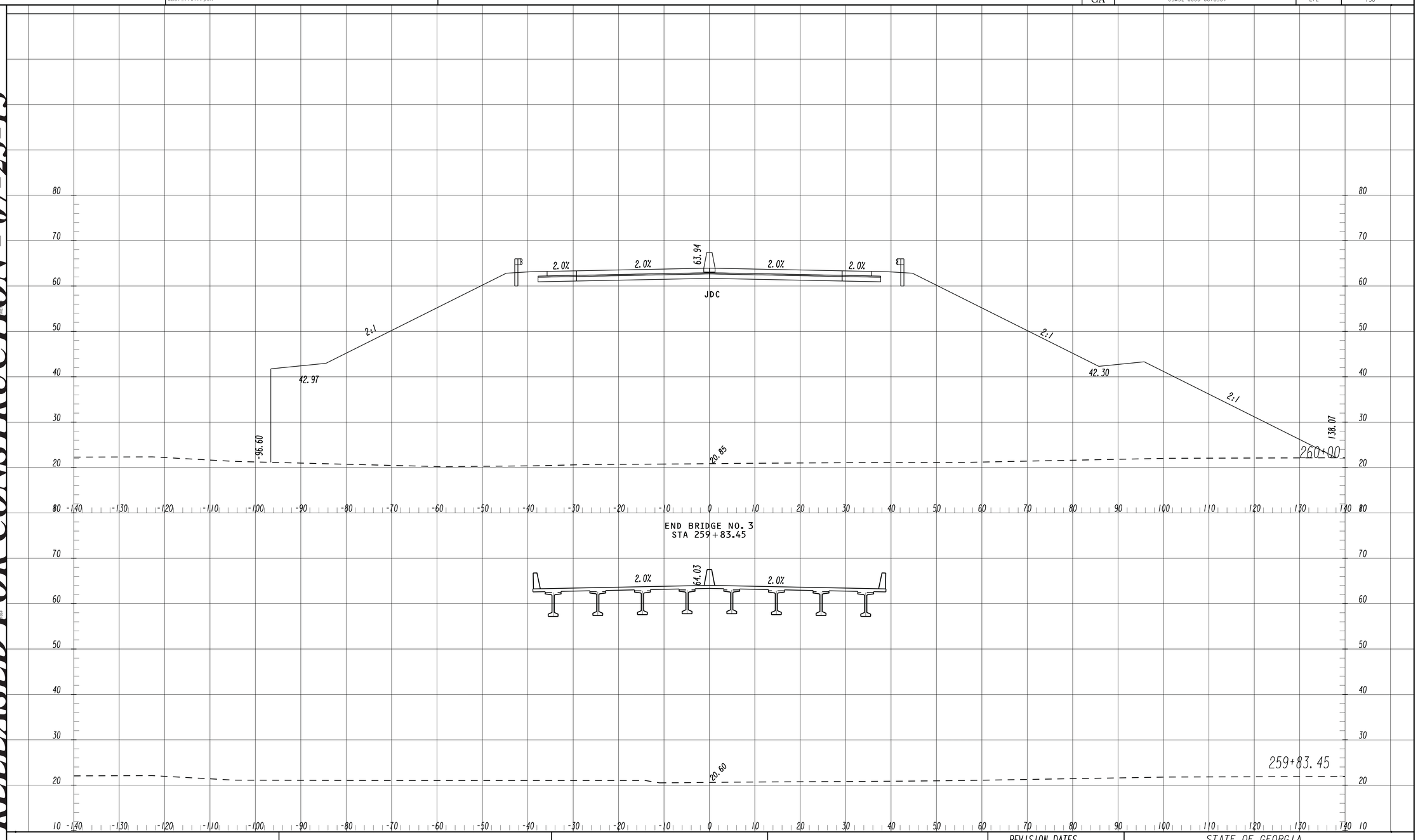
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	272	730

RELEASED FOR CONSTRUCTION - 07-23-13



THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

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1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

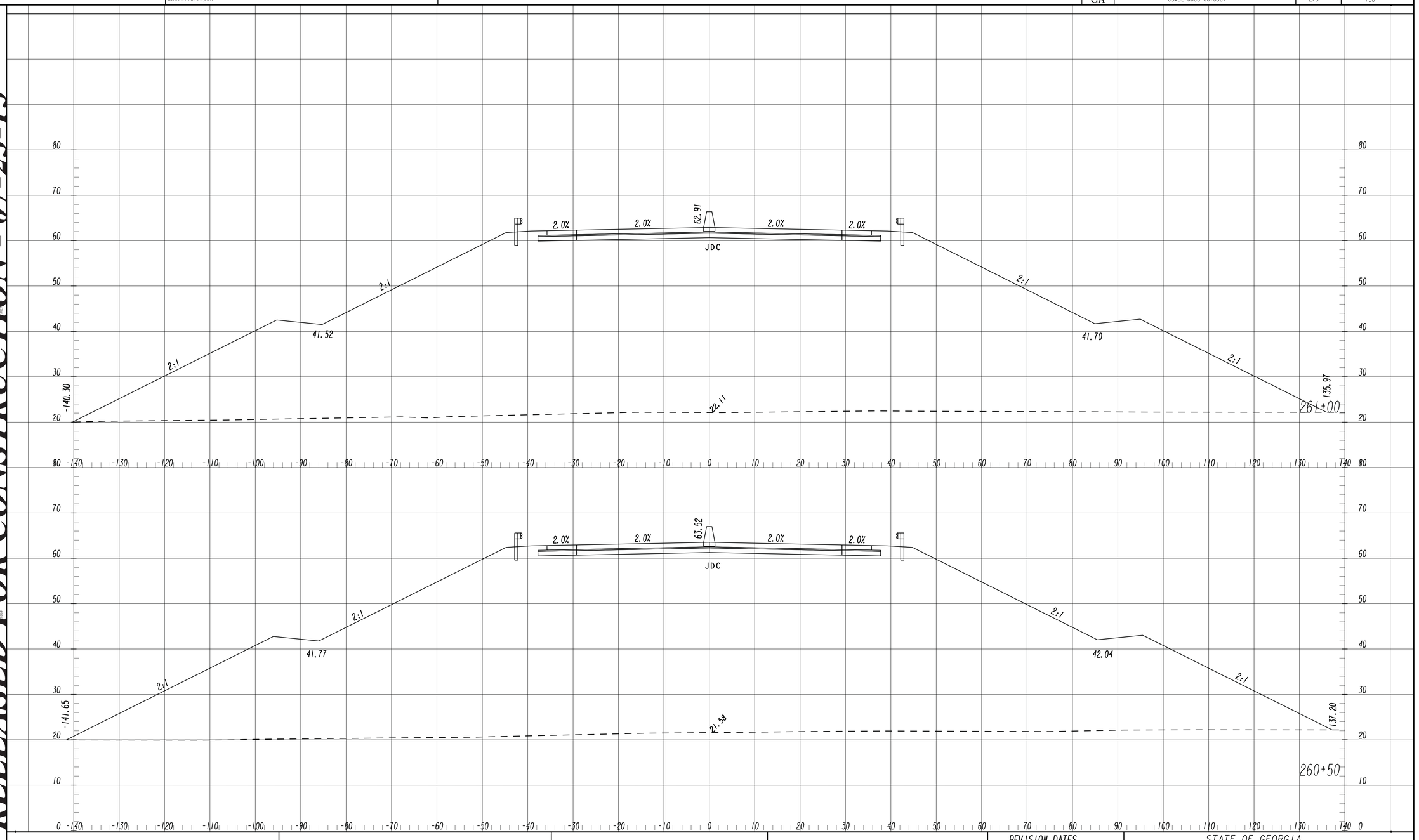
JIMMY DELOACH CONNECTOR

DRAWING No. 23-061

3/1/2007 SUXSEW

23-JUL-2013 14:33	2:33:49 PM	0008690_23-00161	Y:\Roadways\126379\0008690\Dgn\0008690_23-001.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	273	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

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A UNIT OF MICHAEL BAKER CORPORATION
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NORCROSS, GEORGIA 30092
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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

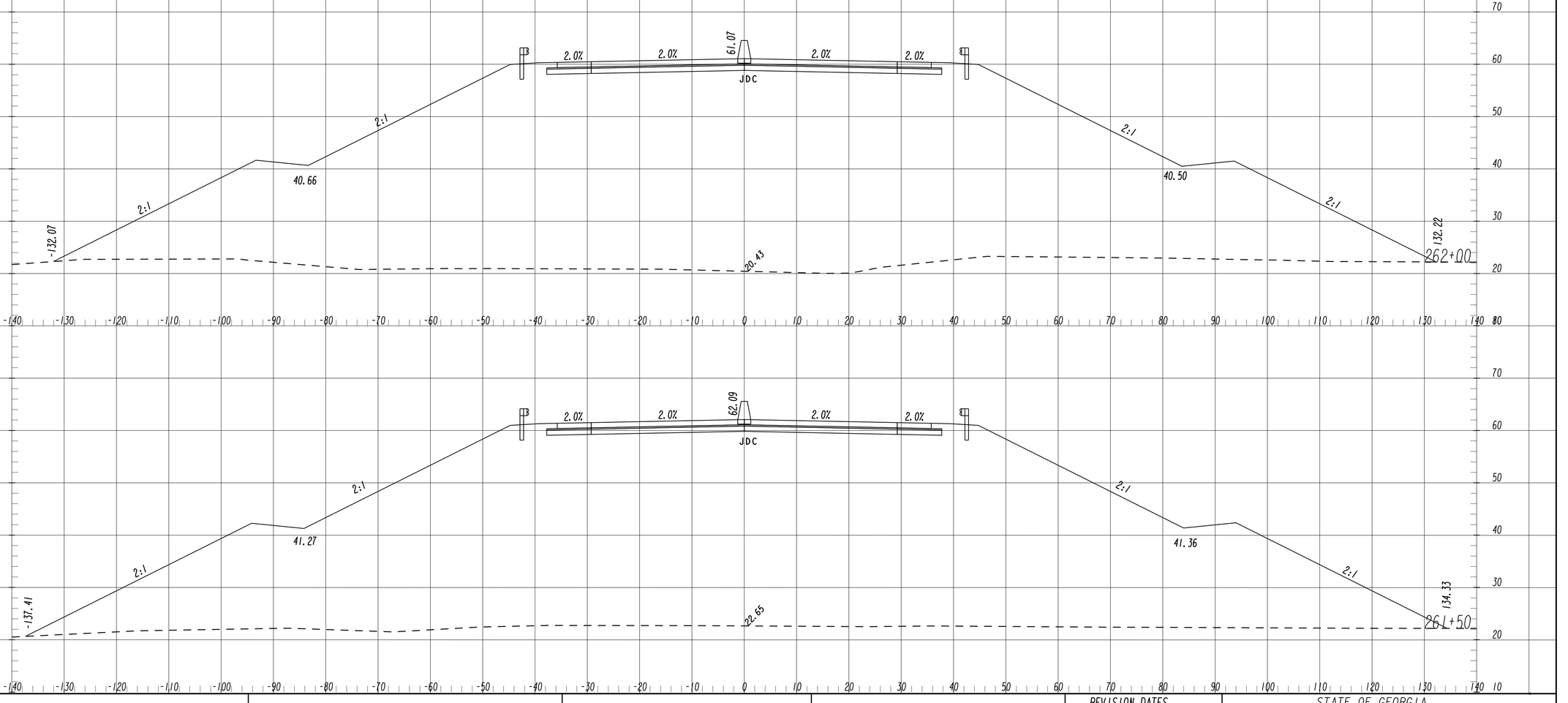
CROSS SECTIONS

JIMMY DELOACH CONNECTOR

DRAWING No. 23-062

23-JUL-2013 14:33	2:33:50 PM	0008690_23-00162	Y:\Roadways\126379\0008690\Dgn\0008690_23-001.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	274	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

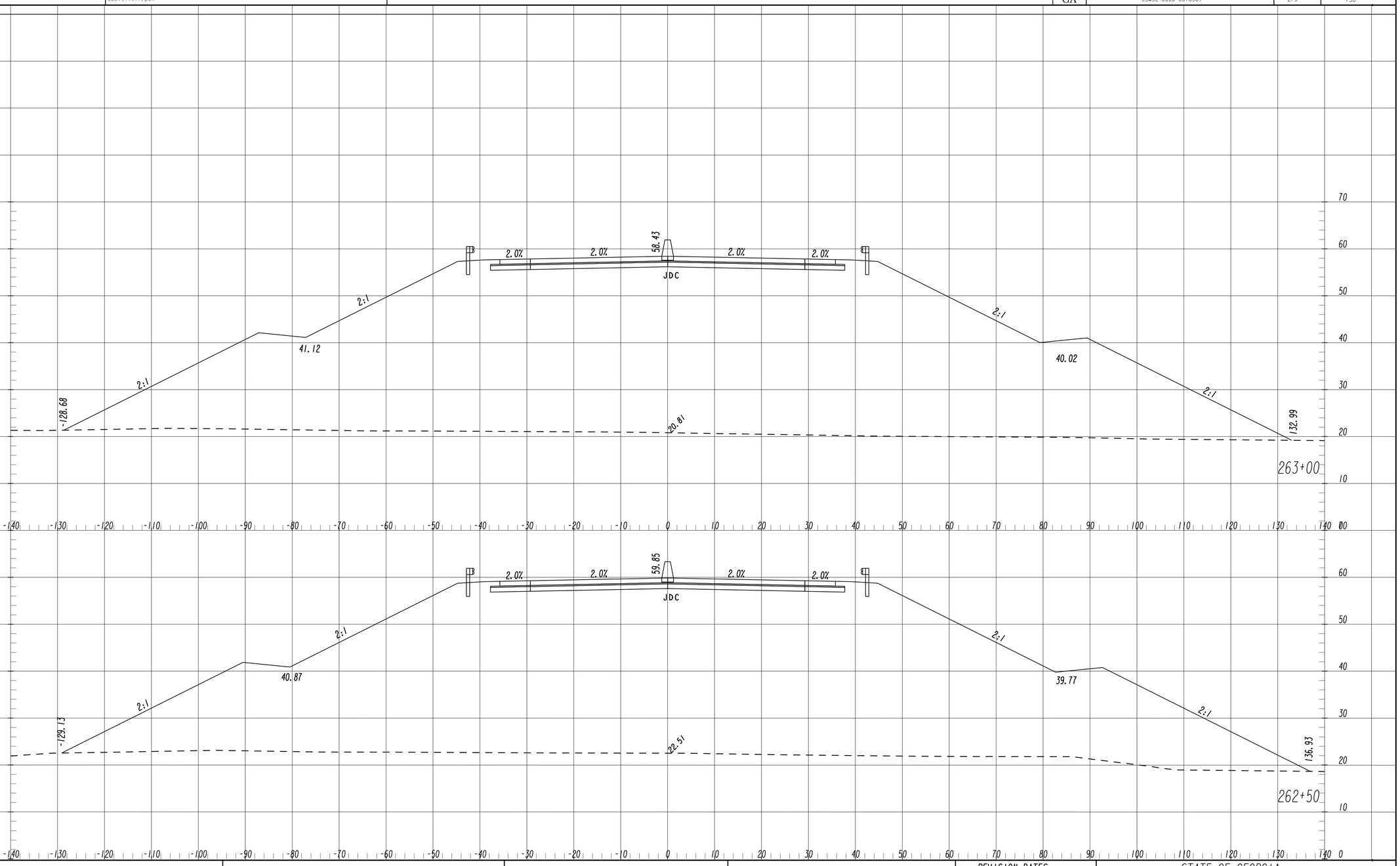
CROSS SECTIONS

JIMMY DELOACH CONNECTOR

DRAWING No. 23-063

23-JUL-2013 14:33	2:33:51 PM	0008690_23-00163	Y:\Roadways\126379\0008690\Dgn\0008690_23-001.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	275	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

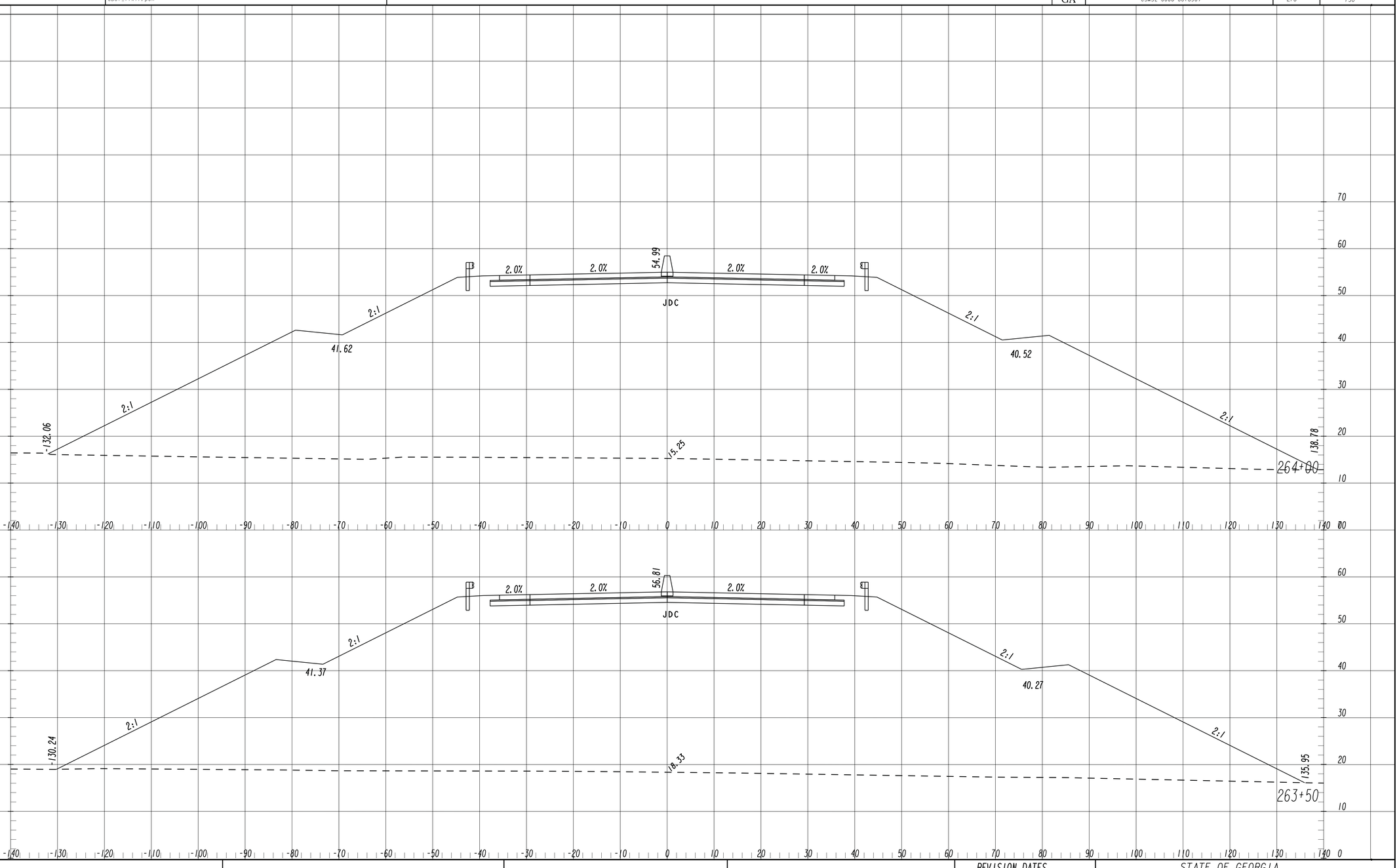
CROSS SECTIONS

JIMMY DELOACH CONNECTOR

DRAWING No. 23-064

23-JUL-2013 14:33	2:33:52 PM	0008690_23-00164	Y:\Roadways\126379\0008690\Dgn\0008690_23-001.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	276	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

THE LPA GROUP
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A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

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1 INCH = 10 FT HORIZ.

REVISION DATES

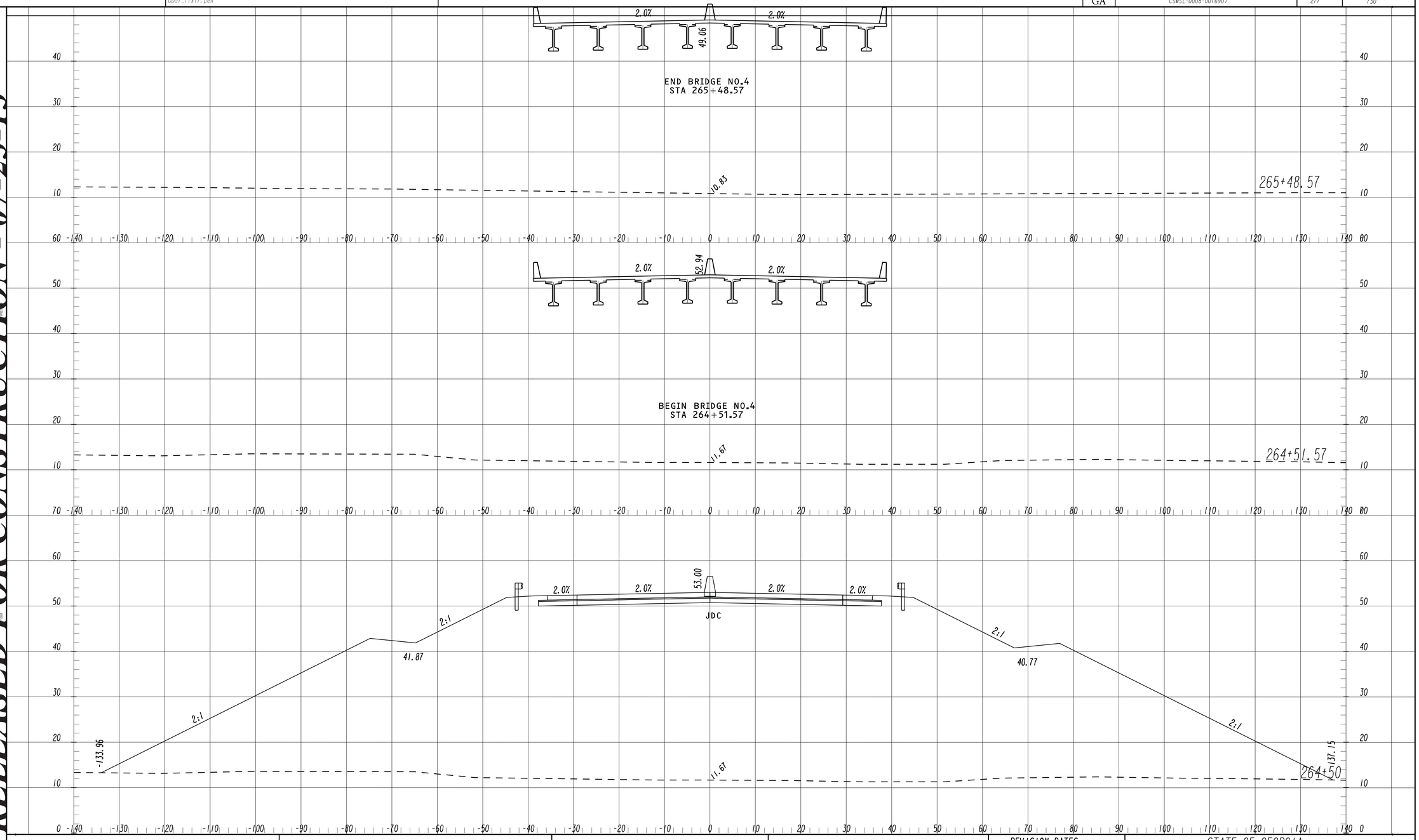
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

JIMMY DELOACH CONNECTOR

DRAWING No. 23-065

RELEASED FOR CONSTRUCTION - 07-23-13



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3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

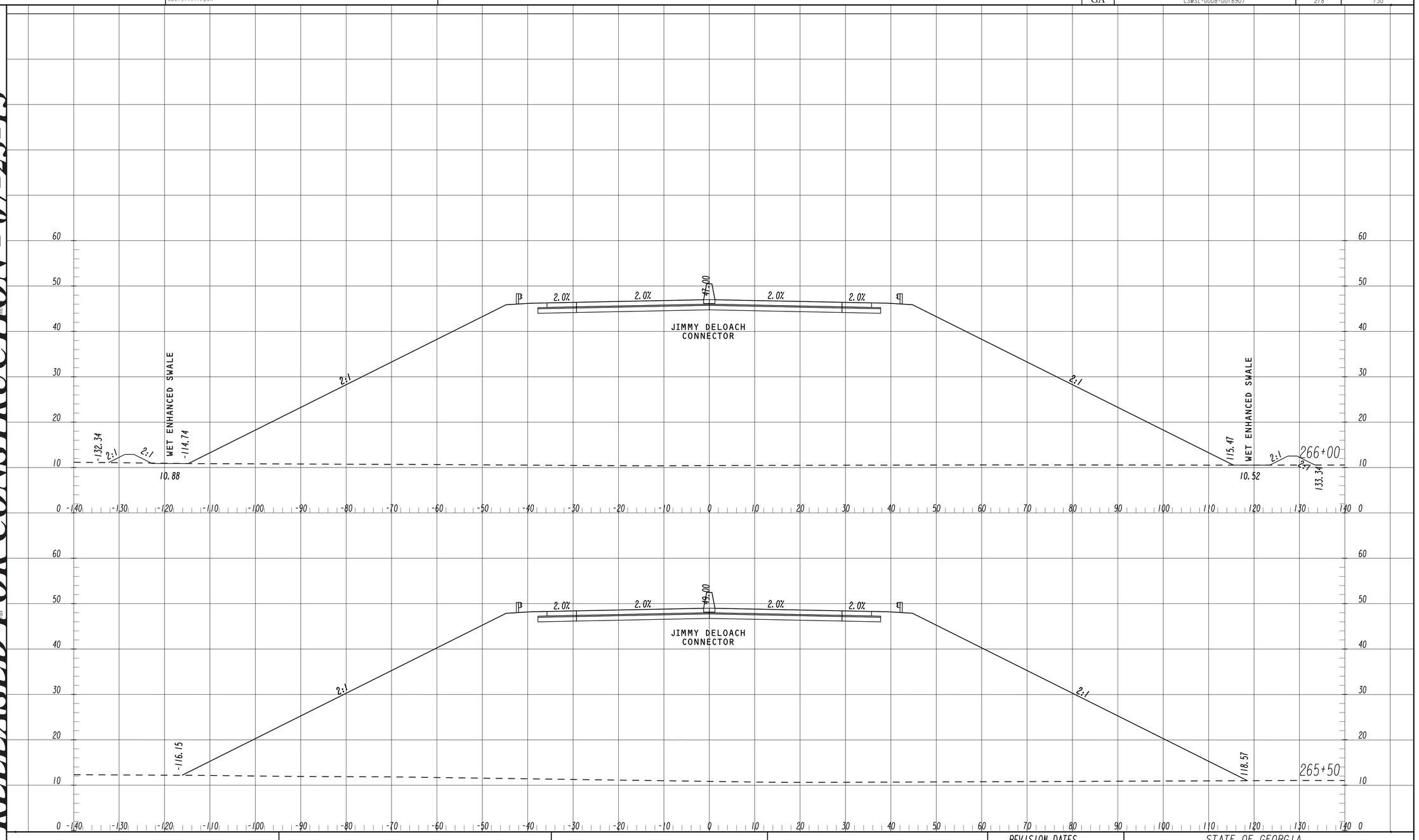
CROSS SECTIONS

JIMMY DELOACH CONNECTOR

DRAWING No. 23-066

3/1/2007 SUXSEW

RELEASED FOR CONSTRUCTION - 07-23-13



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A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

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1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

JIMMY DELOACH CONNECTOR

DRAWING No. 23-067

3/1/2007 SUXSEW

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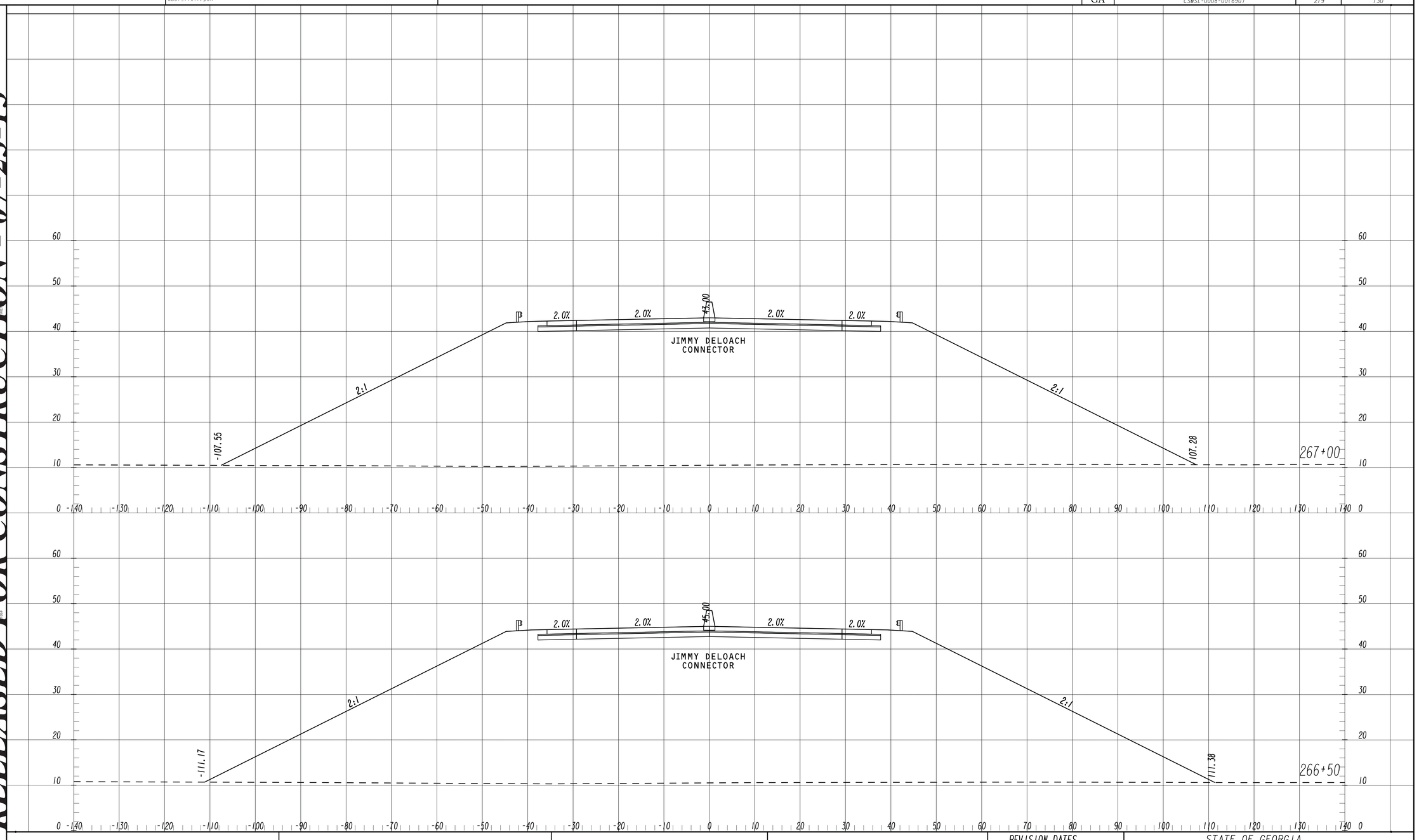
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	279	730

RELEASED FOR CONSTRUCTION - 07-23-13



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A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

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1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

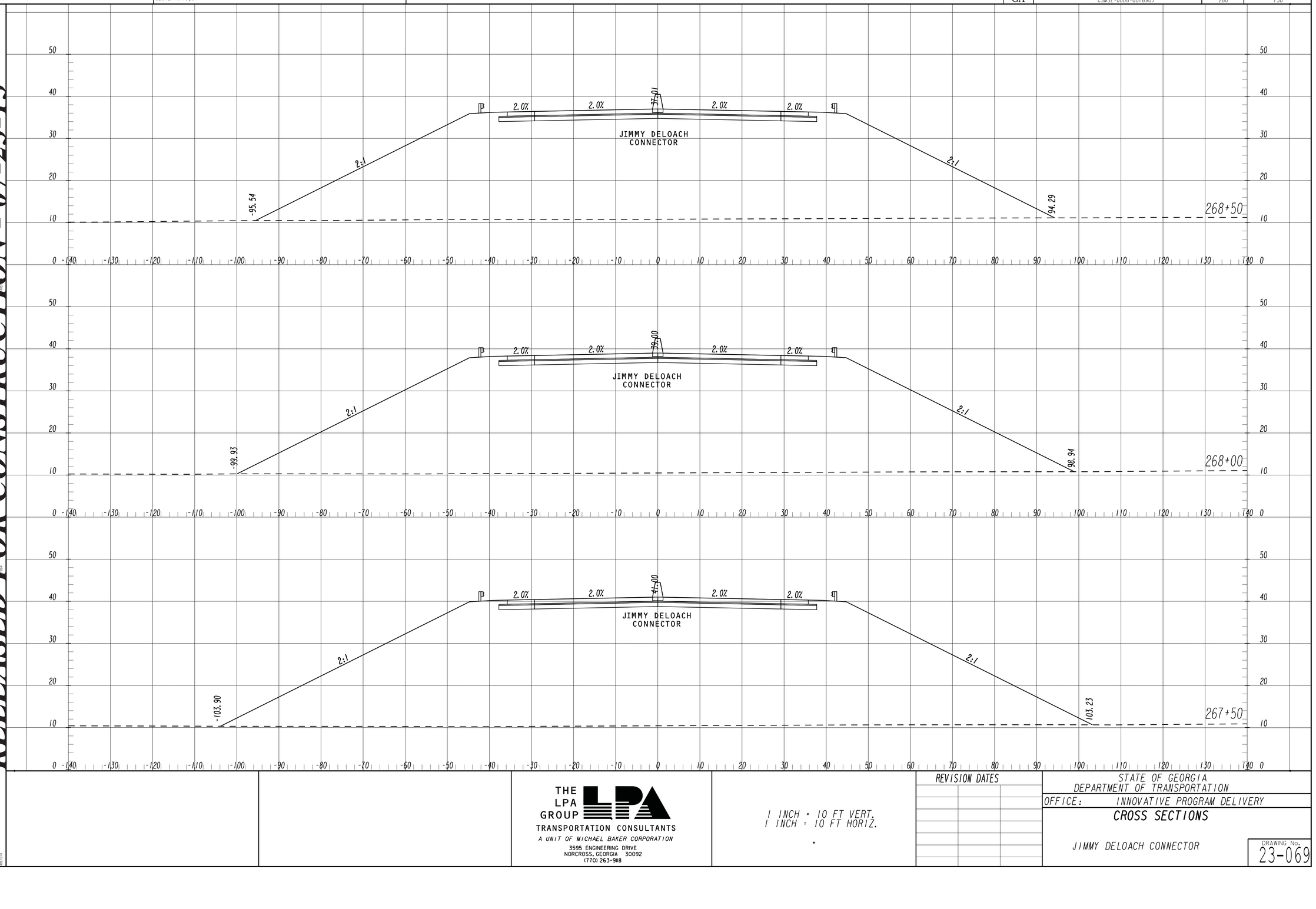
JIMMY DELOACH CONNECTOR

DRAWING No. 23-068

3/1/2007 SUXSEW

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	280	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUYSEW

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A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

JIMMY DELOACH CONNECTOR

DRAWING No. 23-069

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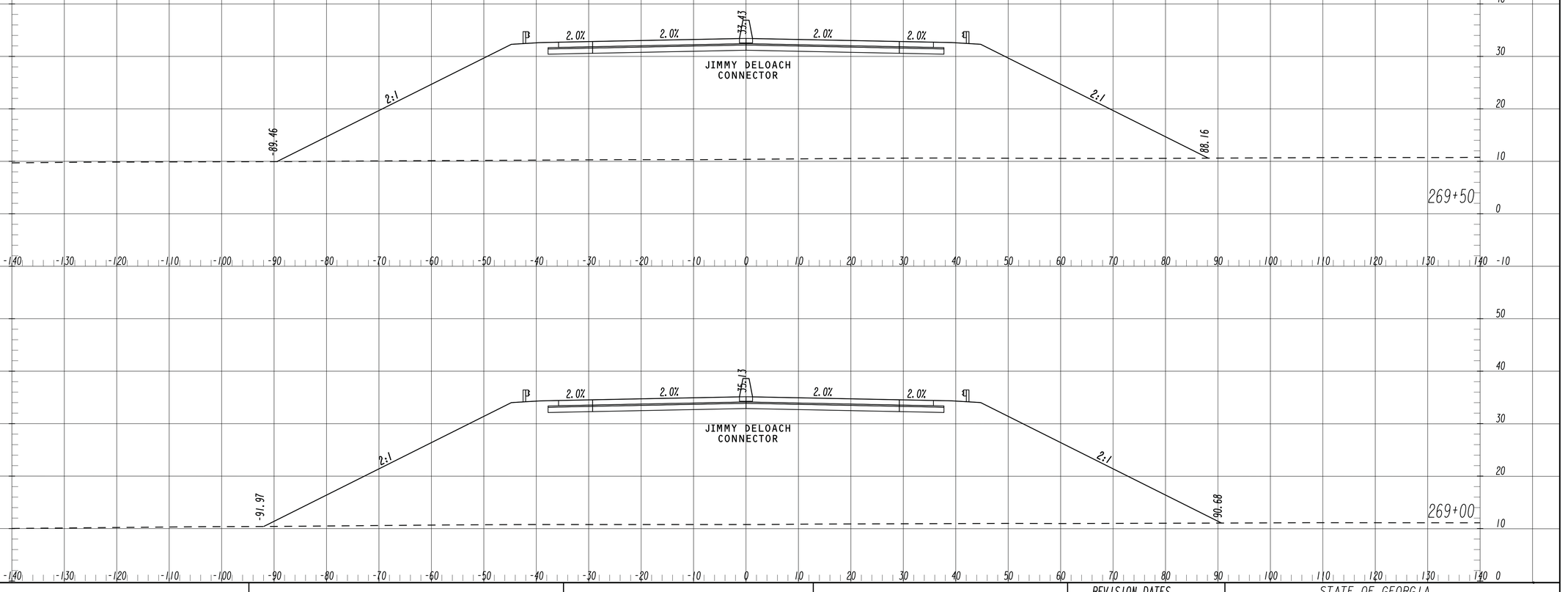
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	281	730

RELEASED FOR CONSTRUCTION - 07-23-13



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3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

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1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

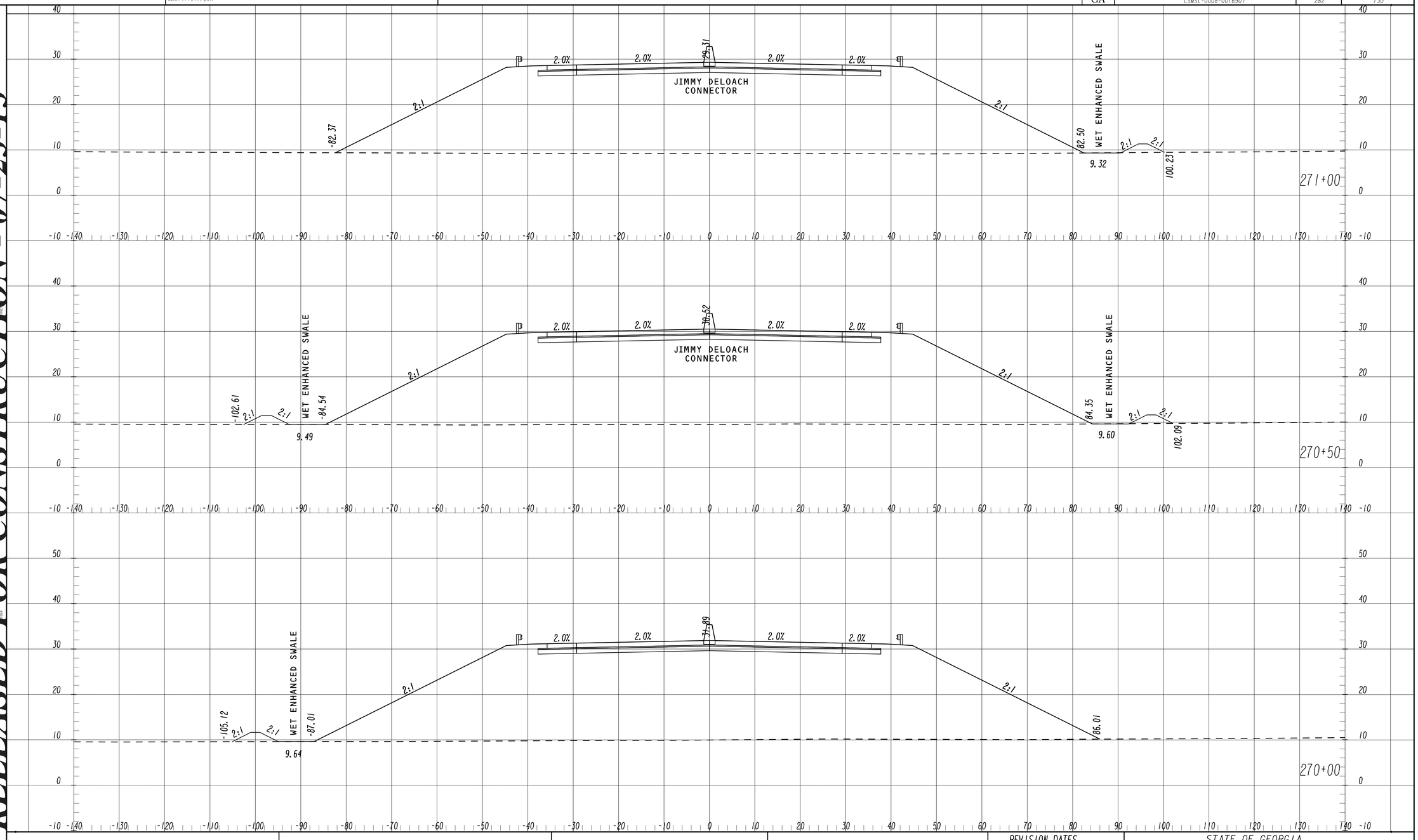
JIMMY DELOACH CONNECTOR

DRAWING No. 23-070

3/1/2007 SUKSEW

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	282	730

RELEASED FOR CONSTRUCTION - 07-23-13



THE LPA GROUP
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A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

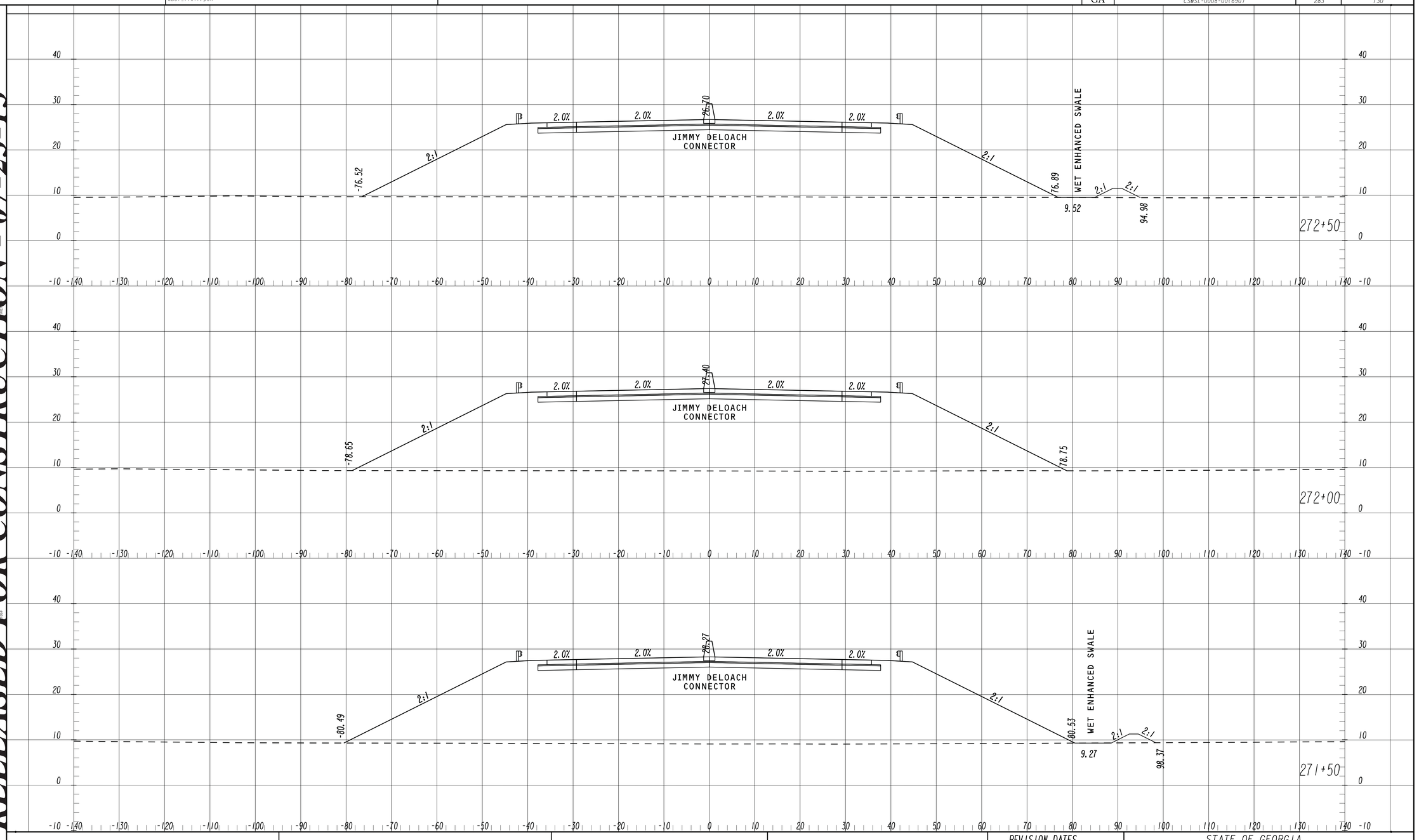
JIMMY DELOACH CONNECTOR

DRAWING No. 23-071

3/1/2007 SUXSEW

23-JUL-2013 14:34	2:34:03 PM	0008690_23-0025	Y:\Roadways\126379\0008690\Dgn\0008690_23-002.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	283	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUKSEW

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

JIMMY DELOACH CONNECTOR

DRAWING No. 23-072

23-JUL-2013 14:34 2:34:04 PM
JParks
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GDOT_11x17.pen
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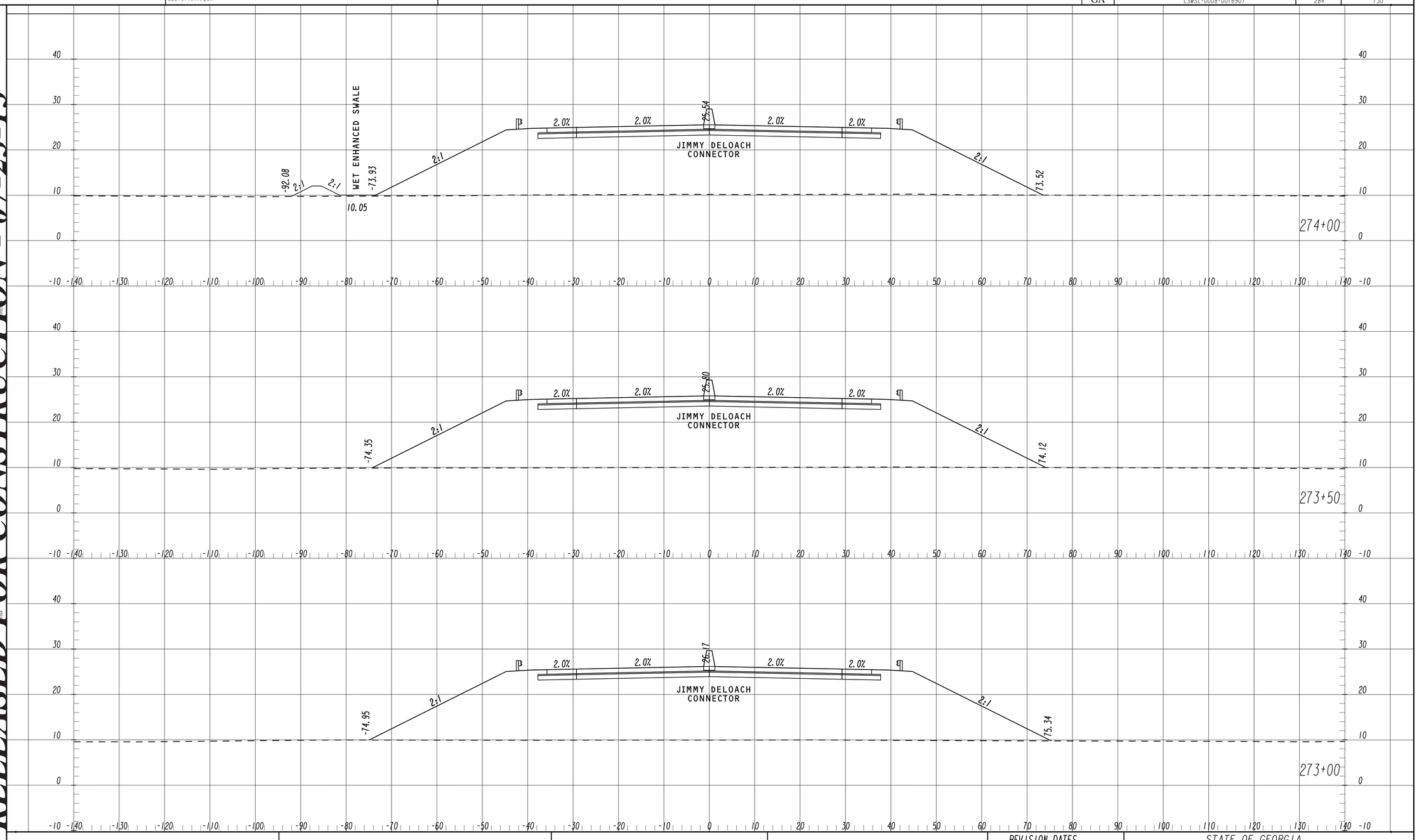
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	284	730

RELEASED FOR CONSTRUCTION - 07-23-13



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NORCROSS, GEORGIA 30092
(770) 263-9118

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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

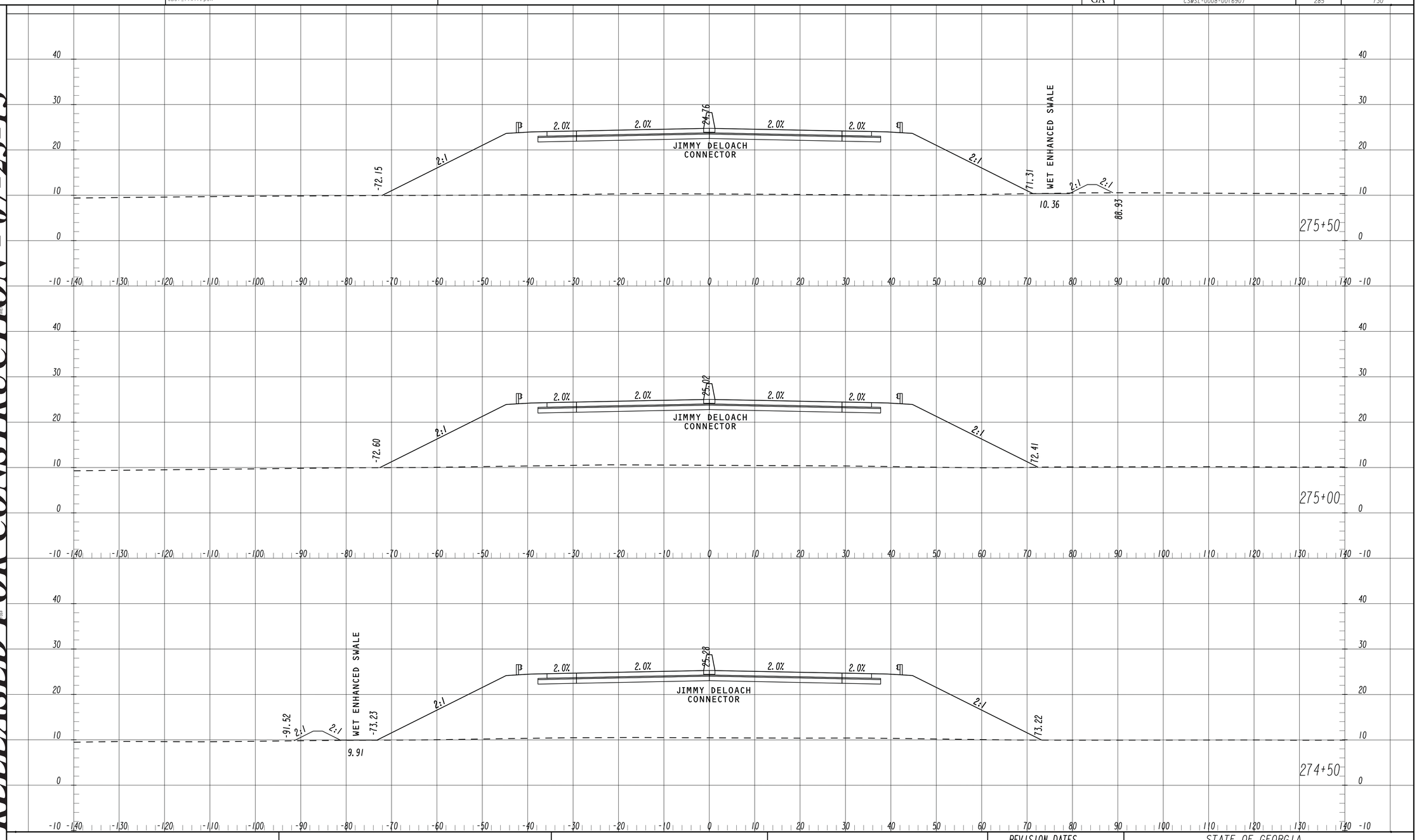
JIMMY DELOACH CONNECTOR

DRAWING No. 23-073

3/1/2007 SUXSEW

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	285	730

RELEASED FOR CONSTRUCTION - 07-23-13



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A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

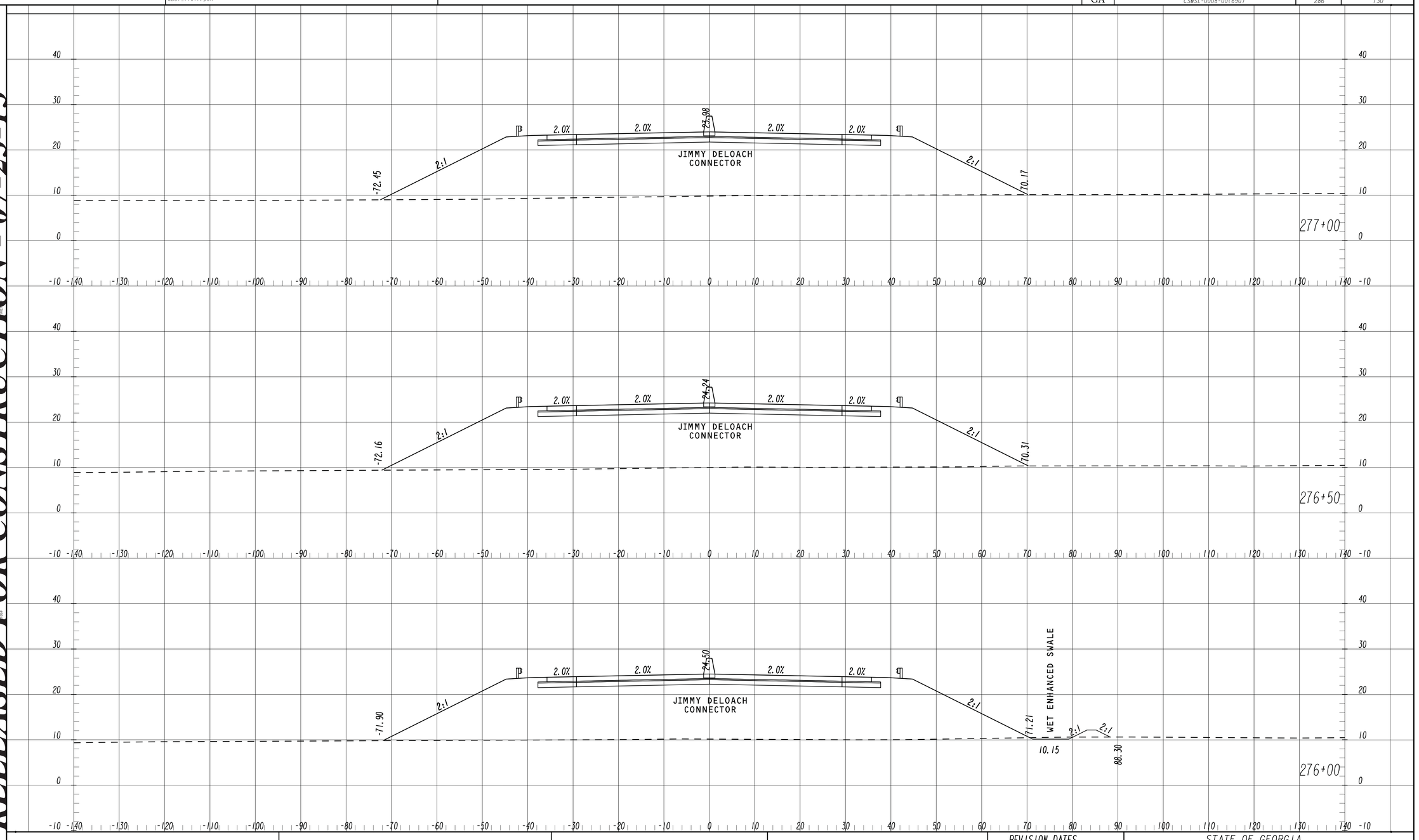
JIMMY DELOACH CONNECTOR

DRAWING No. 23-074

3/1/2007 SUXSEW

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	286	730

RELEASED FOR CONSTRUCTION - 07-23-13



THE LPA GROUP
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A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

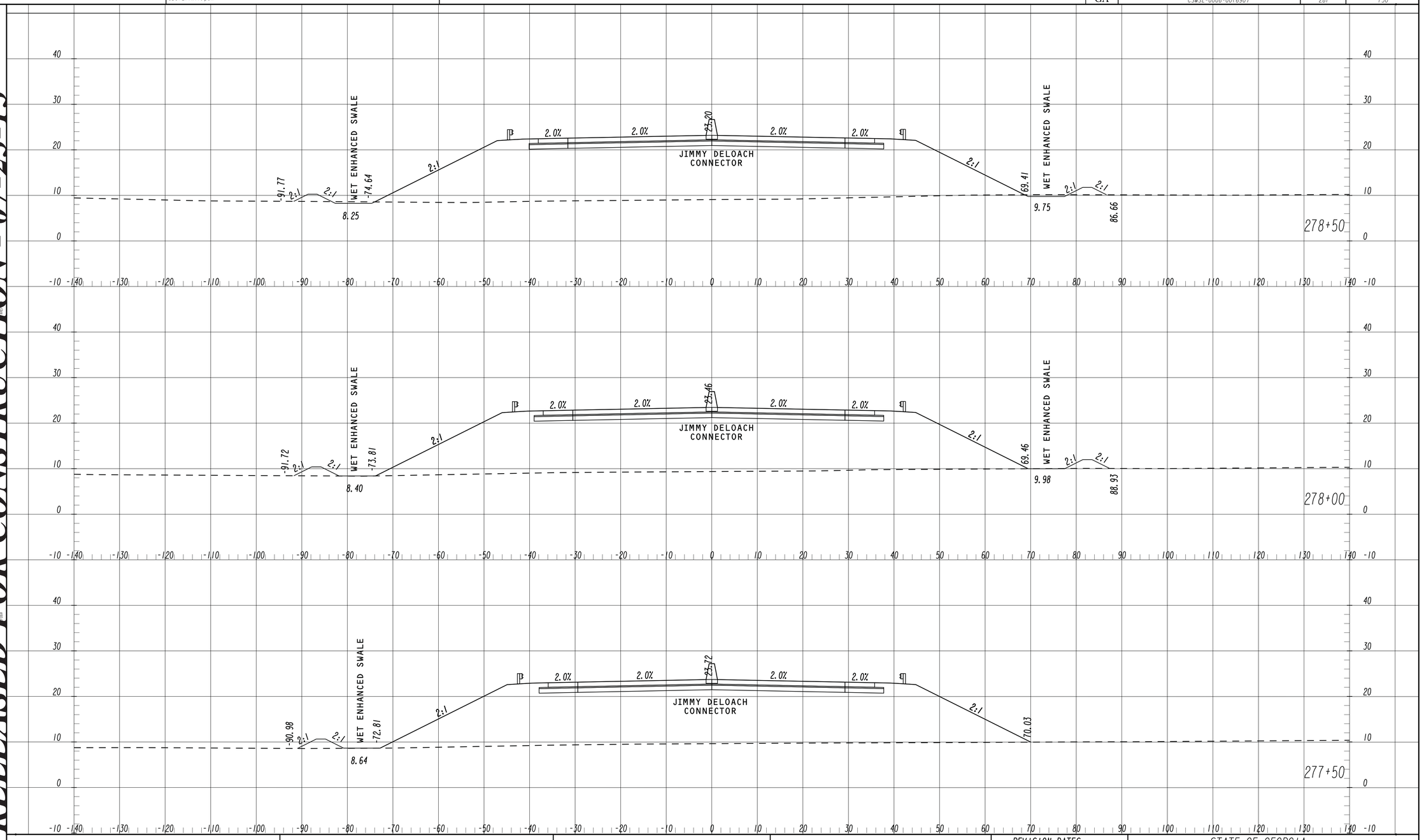
JIMMY DELOACH CONNECTOR

DRAWING No. 23-075

3/1/2007 SUKSEW

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	287	730

RELEASED FOR CONSTRUCTION - 07-23-13



THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

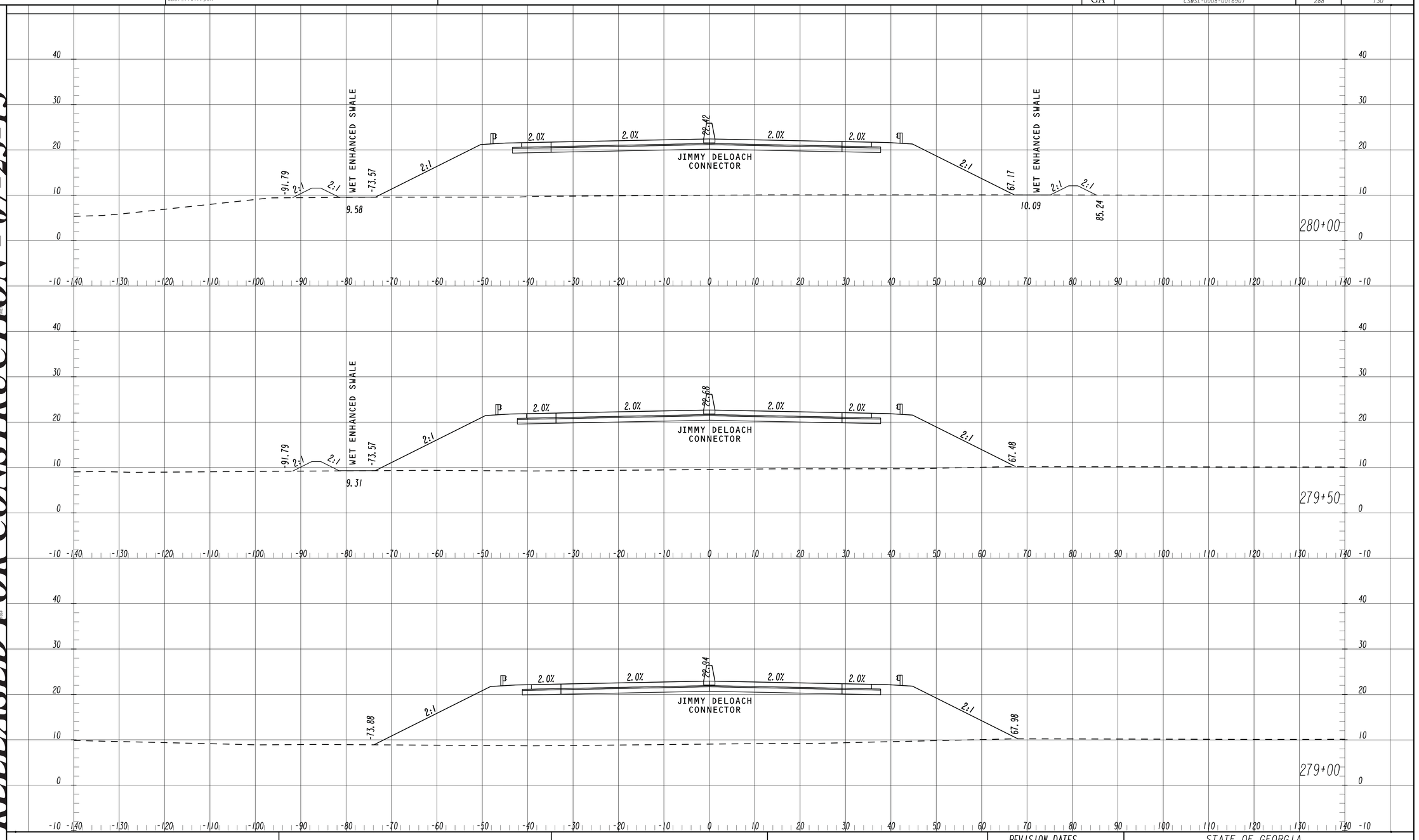
JIMMY DELOACH CONNECTOR

DRAWING No. 23-076

3/1/2007 SUXSEW

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	288	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

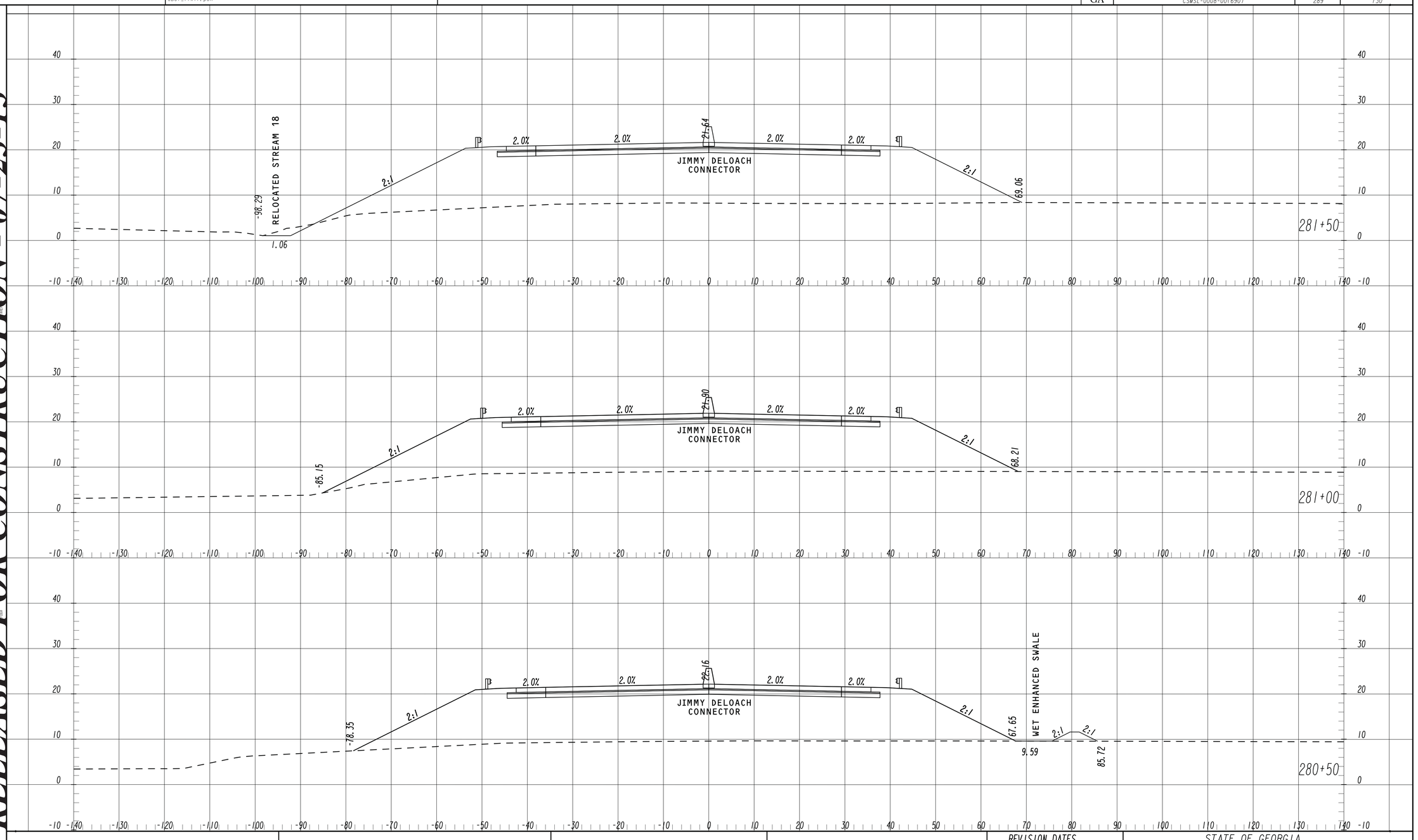
CROSS SECTIONS

JIMMY DELOACH CONNECTOR

DRAWING No. 23-077

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	289	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

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A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

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REVISION DATES

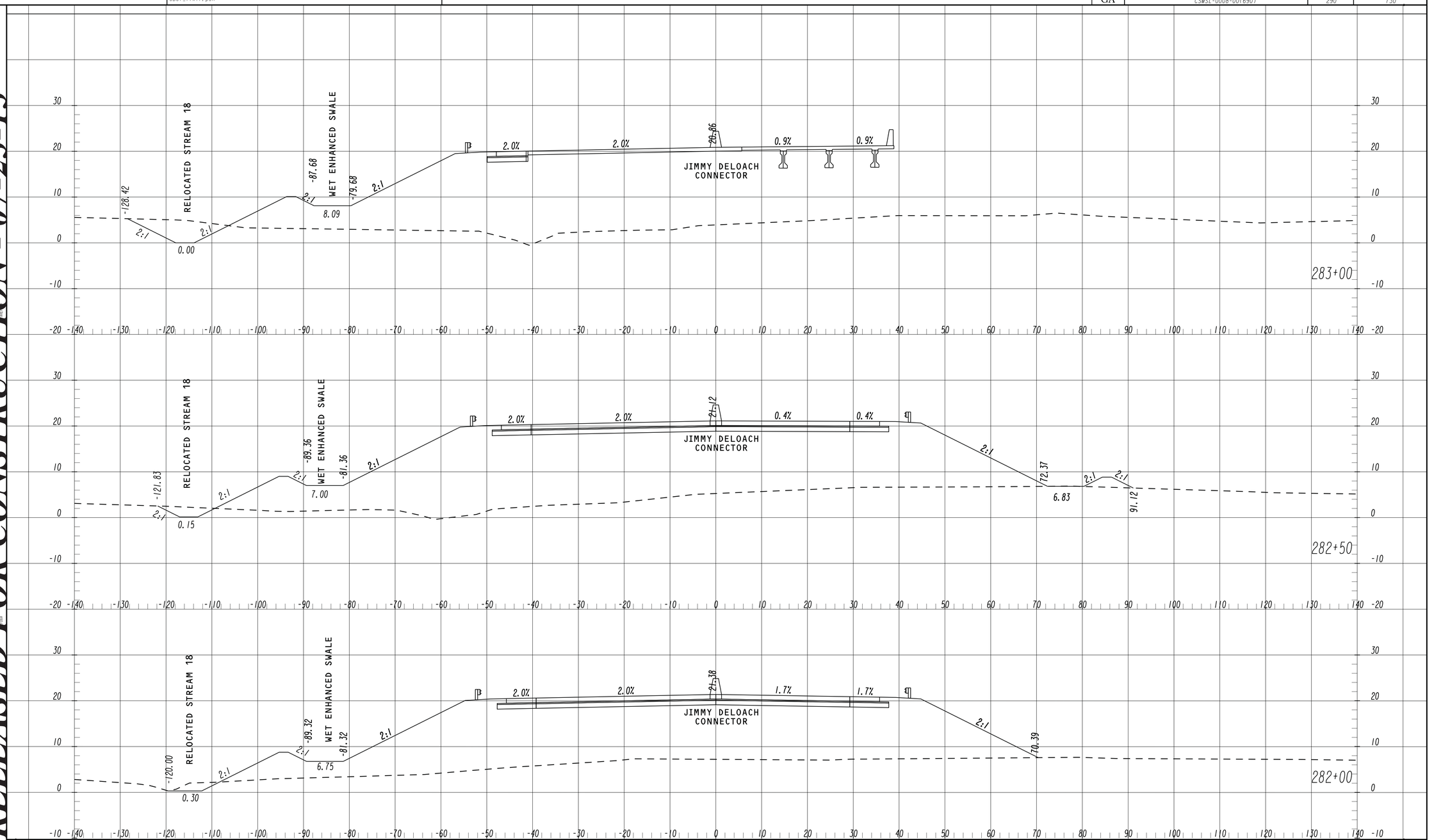
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

JIMMY DELOACH CONNECTOR

DRAWING No. 23-078

RELEASED FOR CONSTRUCTION - 07-23-13



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NORCROSS, GEORGIA 30092
(770) 263-9118

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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

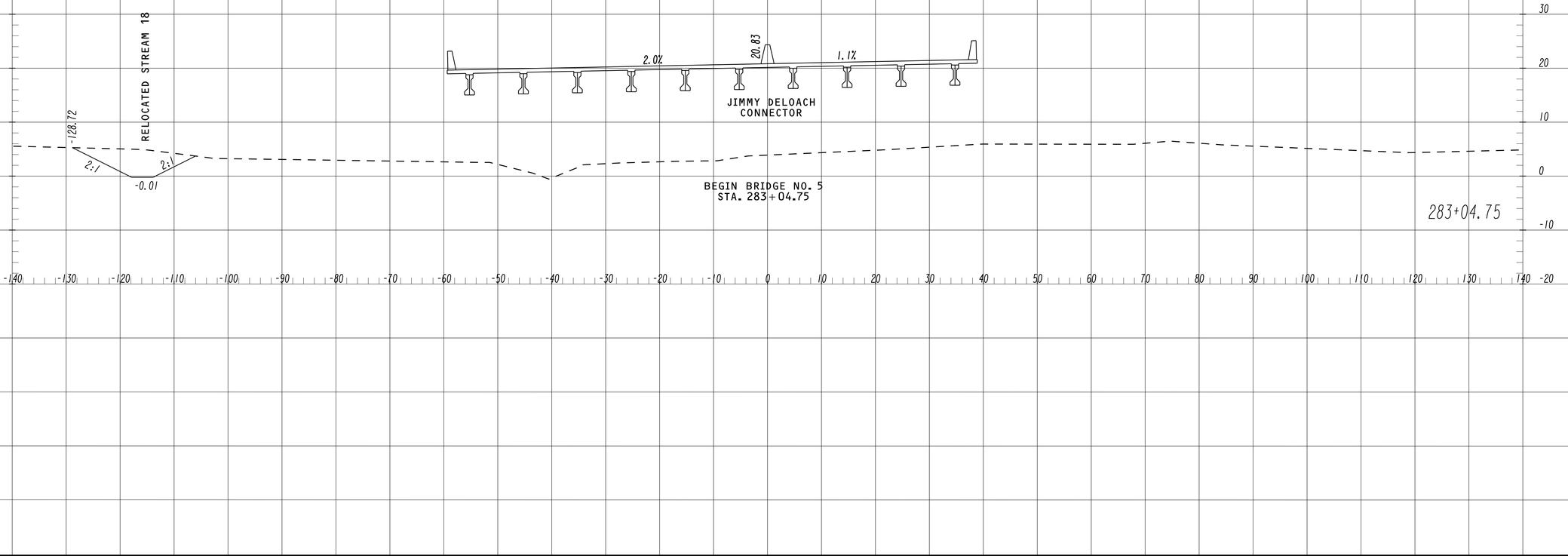
JIMMY DELOACH CONNECTOR

DRAWING No. 23-079

3/1/2007 SUXSEW

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	291	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

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A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

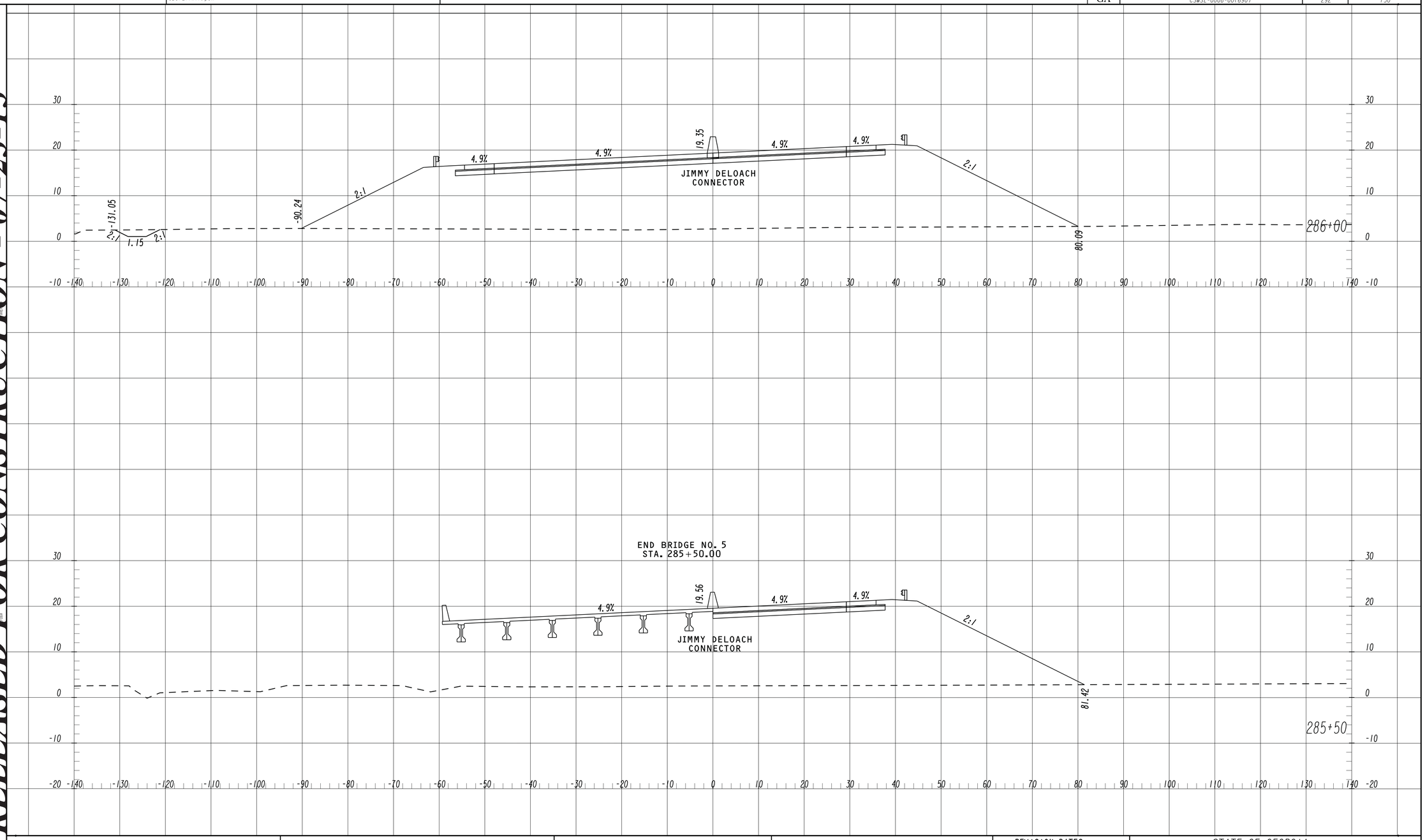
CROSS SECTIONS

JIMMY DELOACH CONNECTOR

DRAWING No. 23-080

23-JUL-2013 14:34	2:34:15 PM	0008690_23-00214	Y:\Roadways\126379\0008690\Dgn\0008690_23-002.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	292	730

RELEASED FOR CONSTRUCTION - 07-23-13



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A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

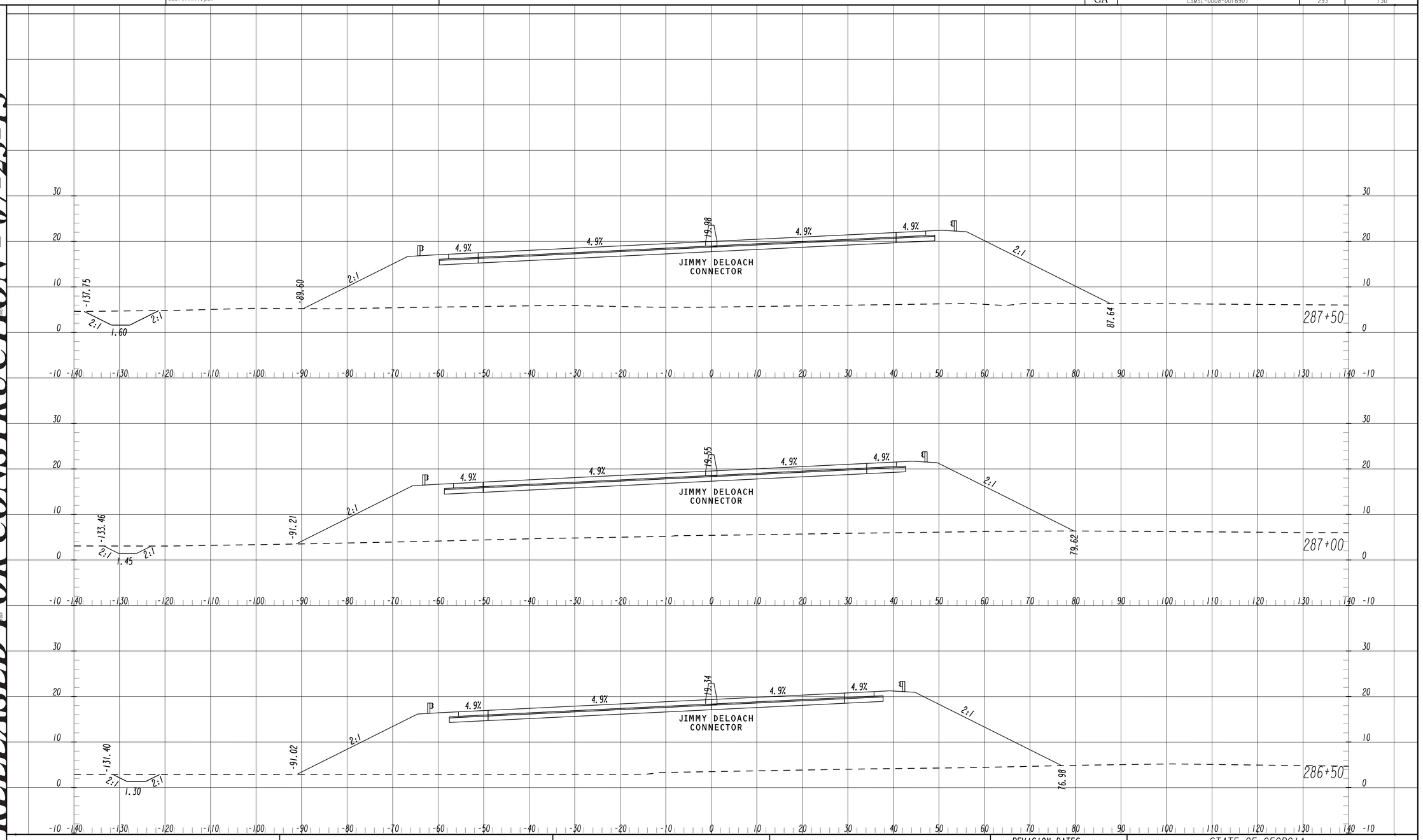
CROSS SECTIONS

JIMMY DELOACH CONNECTOR

DRAWING No. 23-081

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	293	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

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3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

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REVISION DATES

STATE OF GEORGIA
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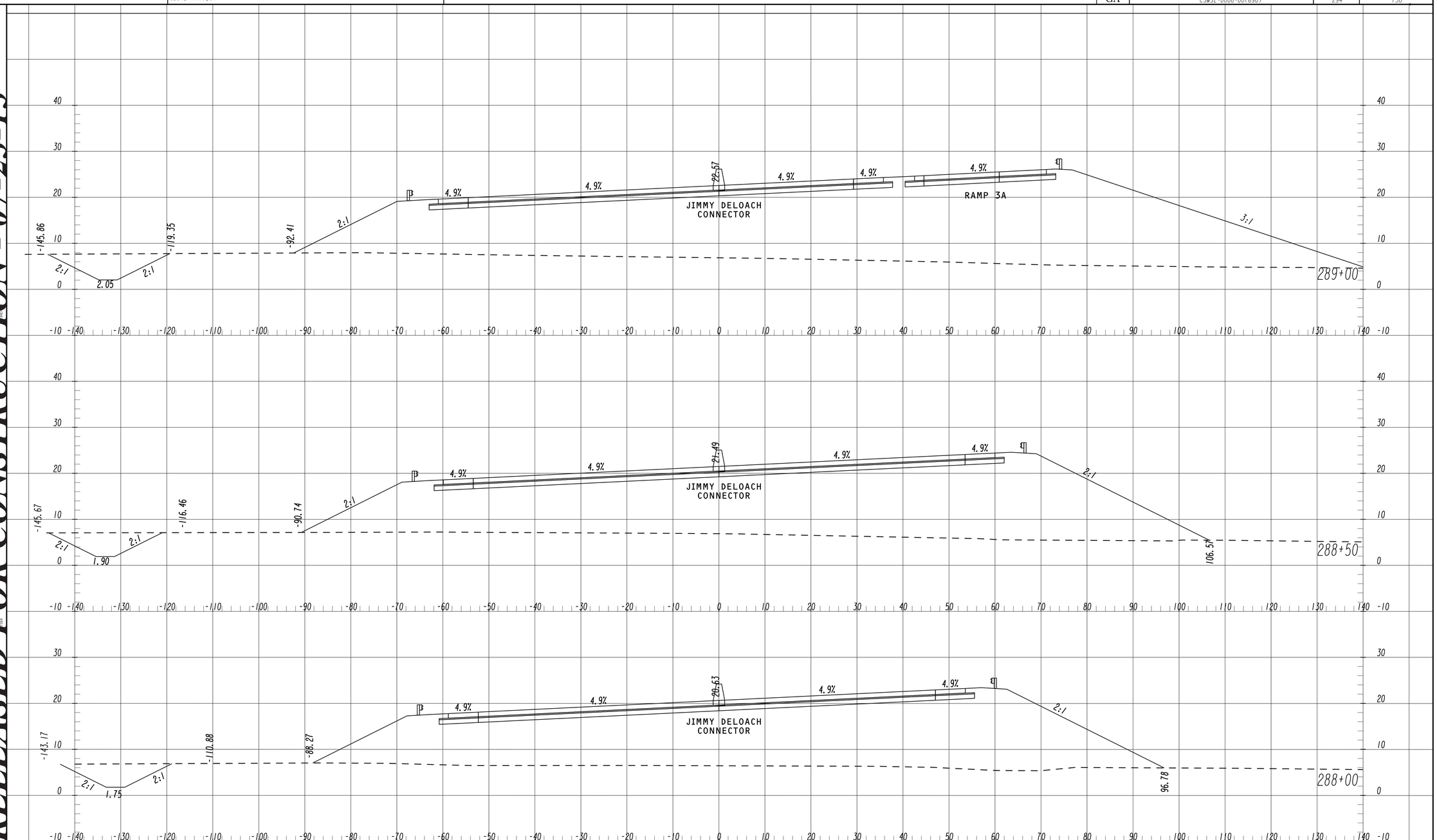
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

JIMMY DELOACH CONNECTOR

DRAWING No. 23-082

RELEASED FOR CONSTRUCTION - 07-23-13



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NORCROSS, GEORGIA 30092
(770) 263-9118

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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

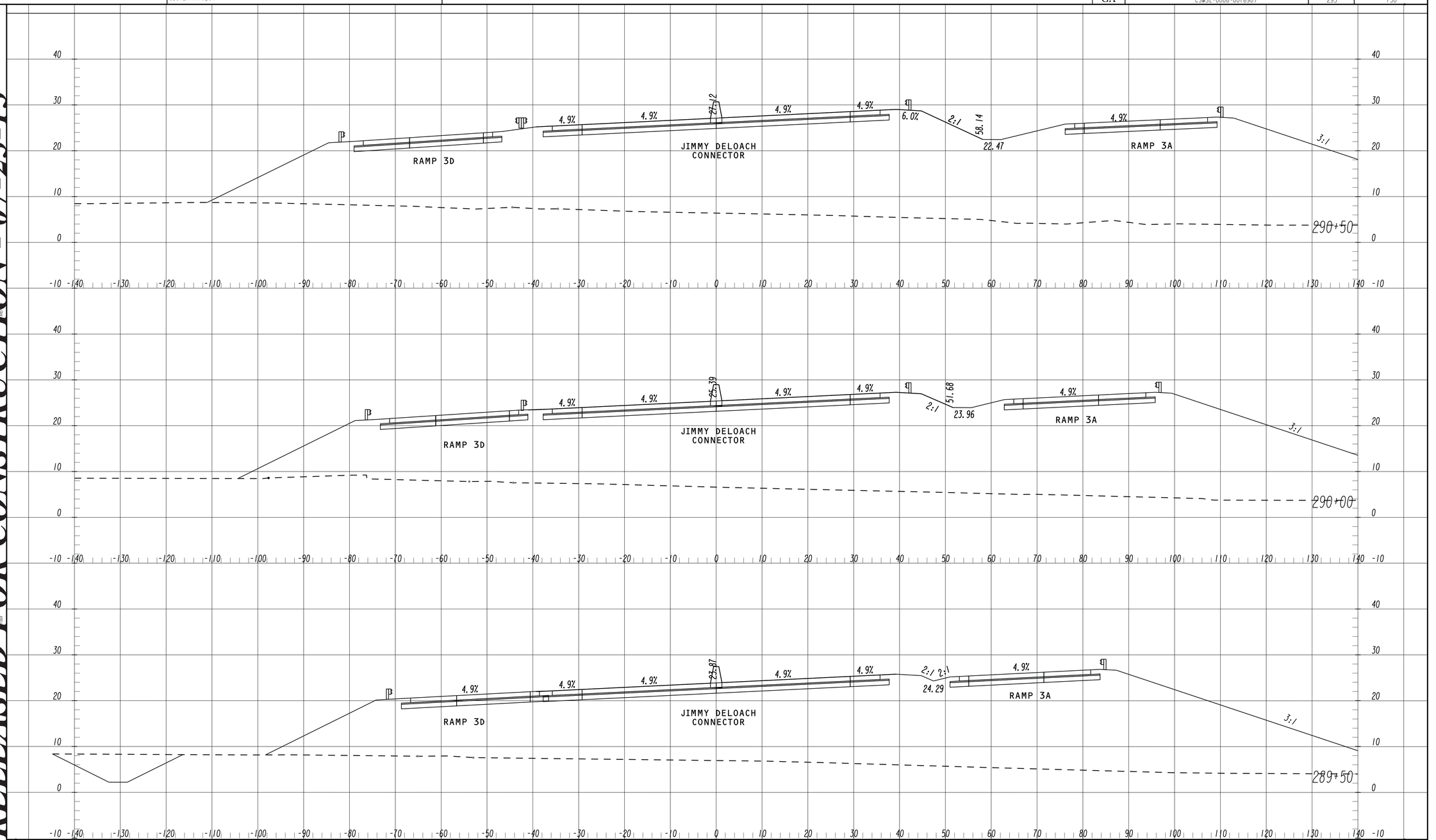
JIMMY DELOACH CONNECTOR

DRAWING No. 23-083

3/1/2007 SUXSEW

23-JUL-2013 14:34 JParks	2:34:19 PM	0008690_23-002I7 GDOT_11x17.pen	Y:\Roadways\126379\0008690\Dgn\0008690_23-002.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
				GA	CSMSL-0008-00(690)	295	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

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A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

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1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

JIMMY DELOACH CONNECTOR

DRAWING No. 23-084

23-JUL-2013 14:34 2:34:20 PM
JParks

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GDOT_11x17.pen

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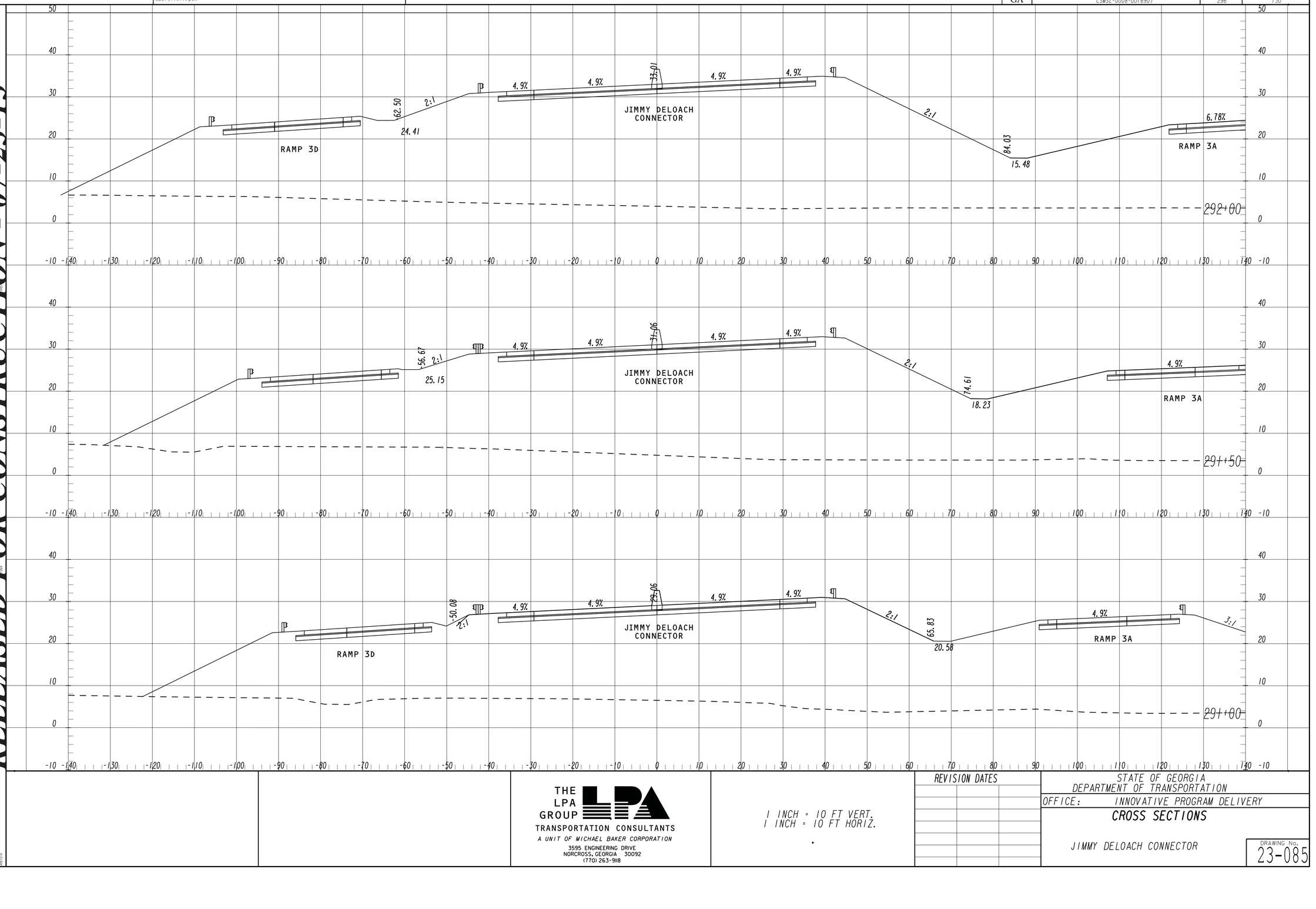
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	296	730

RELEASED FOR CONSTRUCTION - 07-23-13



THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

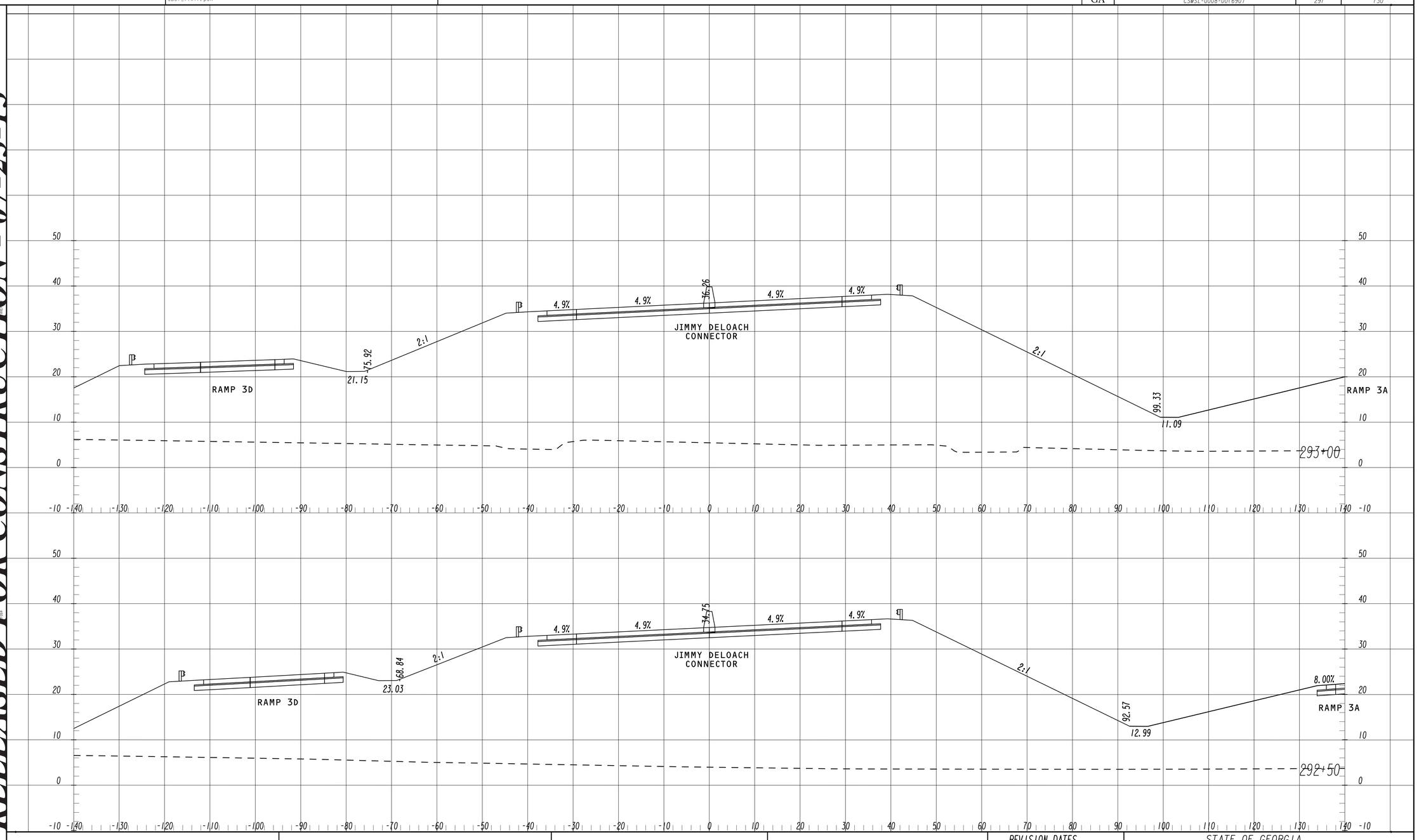
JIMMY DELOACH CONNECTOR

DRAWING No. 23-085

3/1/2007 SUXSEW

23-JUL-2013 14:34	2:34:21 PM	0008690_23-00219	Y:\Roadways\126379\0008690\Dgn\0008690_23-002.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	297	730

RELEASED FOR CONSTRUCTION - 07-23-13



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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

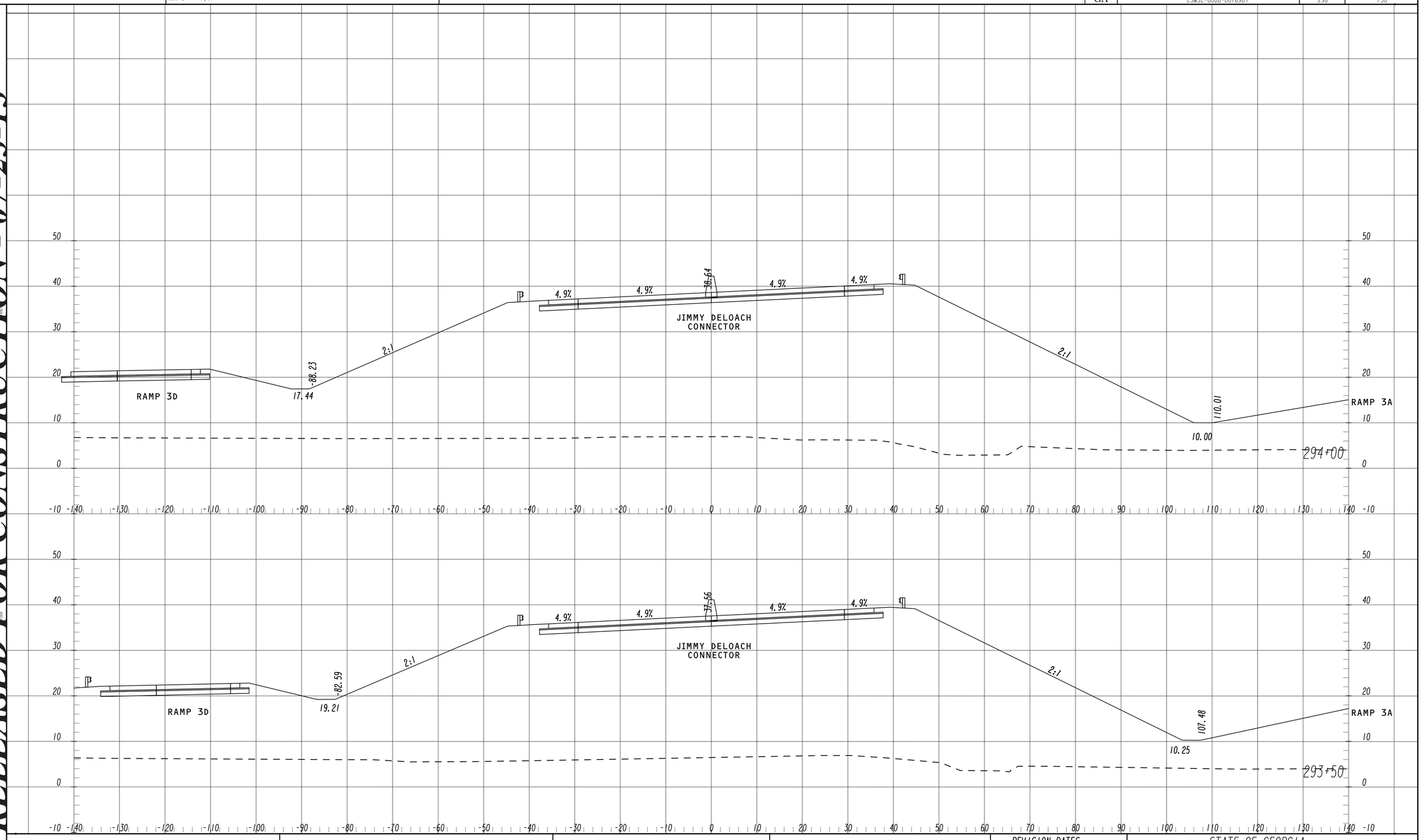
JIMMY DELOACH CONNECTOR

DRAWING No. 23-086

3/1/2007 SUXSEW

23-JUL-2013 14:34	2:34:23 PM	0008690_23-00220	Y:\Roadways\126379\0008690\Dgn\0008690_23-002.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	298	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

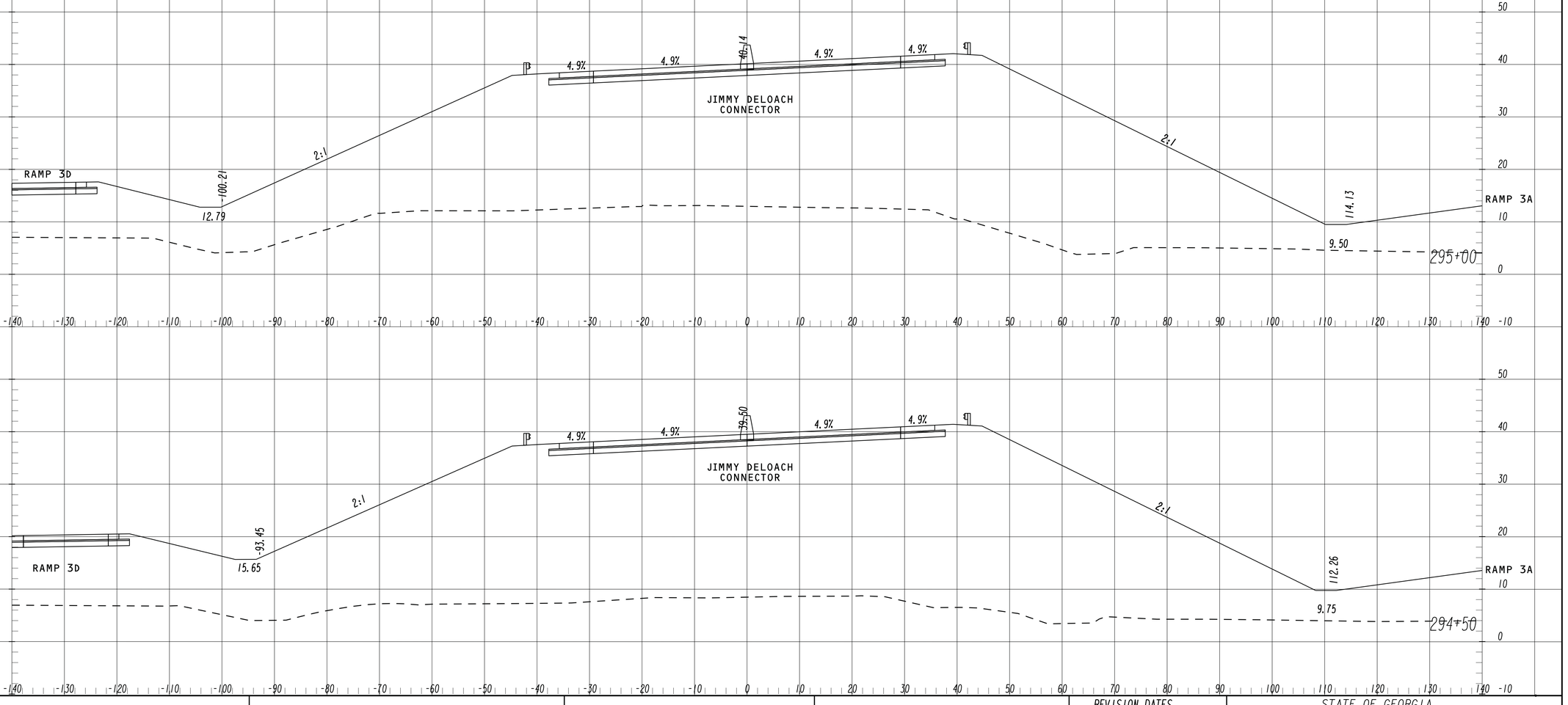
CROSS SECTIONS

JIMMY DELOACH CONNECTOR

DRAWING No. 23-087

23-JUL-2013 14:34	2:34:24 PM	0008690_23-00221	Y:\Roadways\126379\0008690\Dgn\0008690_23-002.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	299	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

JIMMY DELOACH CONNECTOR

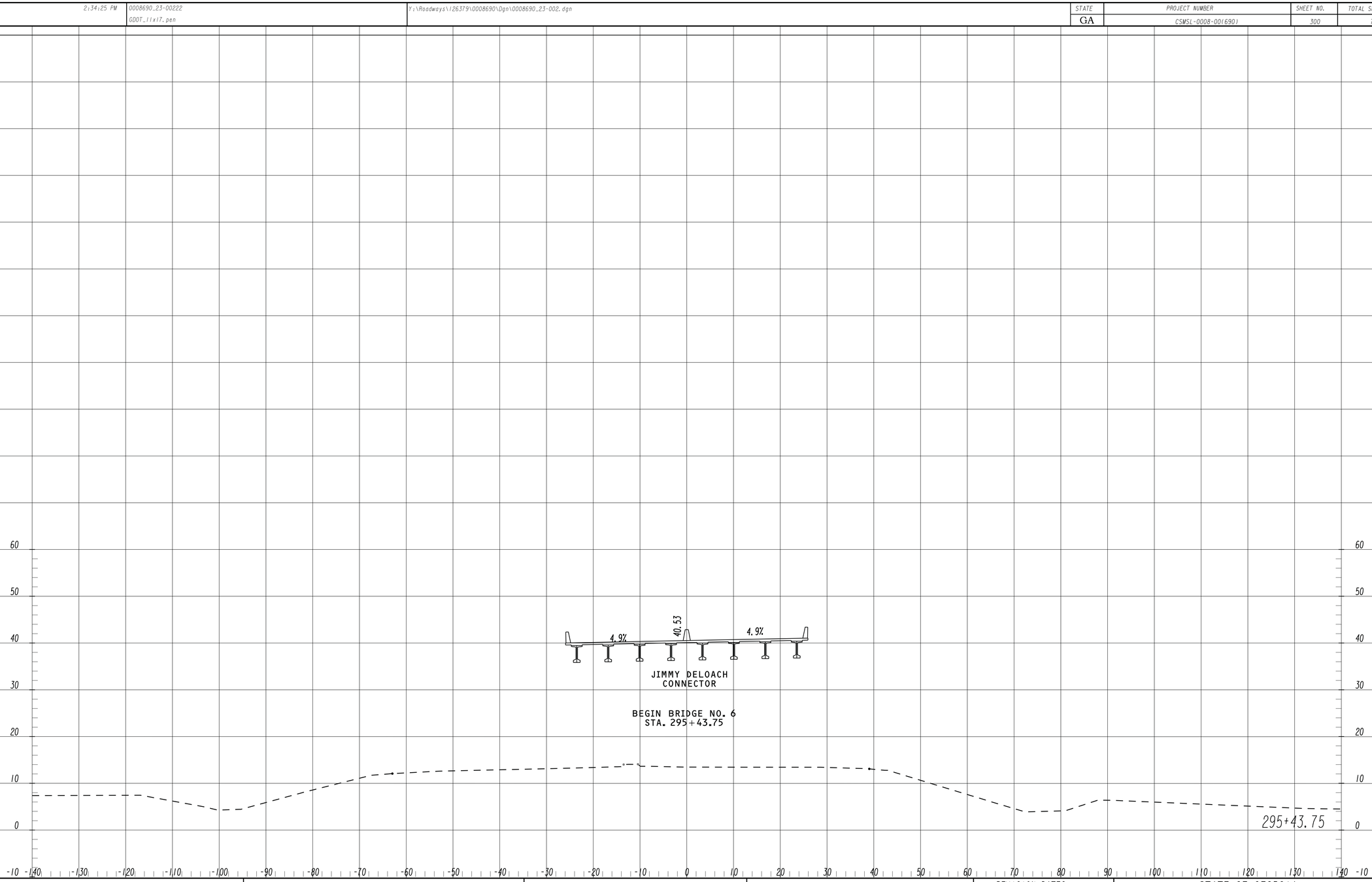
DRAWING No. 23-088

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	300	730

RELEASED FOR CONSTRUCTION - 07-23-13

JIMMY DELOACH
CONNECTOR

BEGIN BRIDGE NO. 6
STA. 295+43.75



3/1/2007 SUYSEW

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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

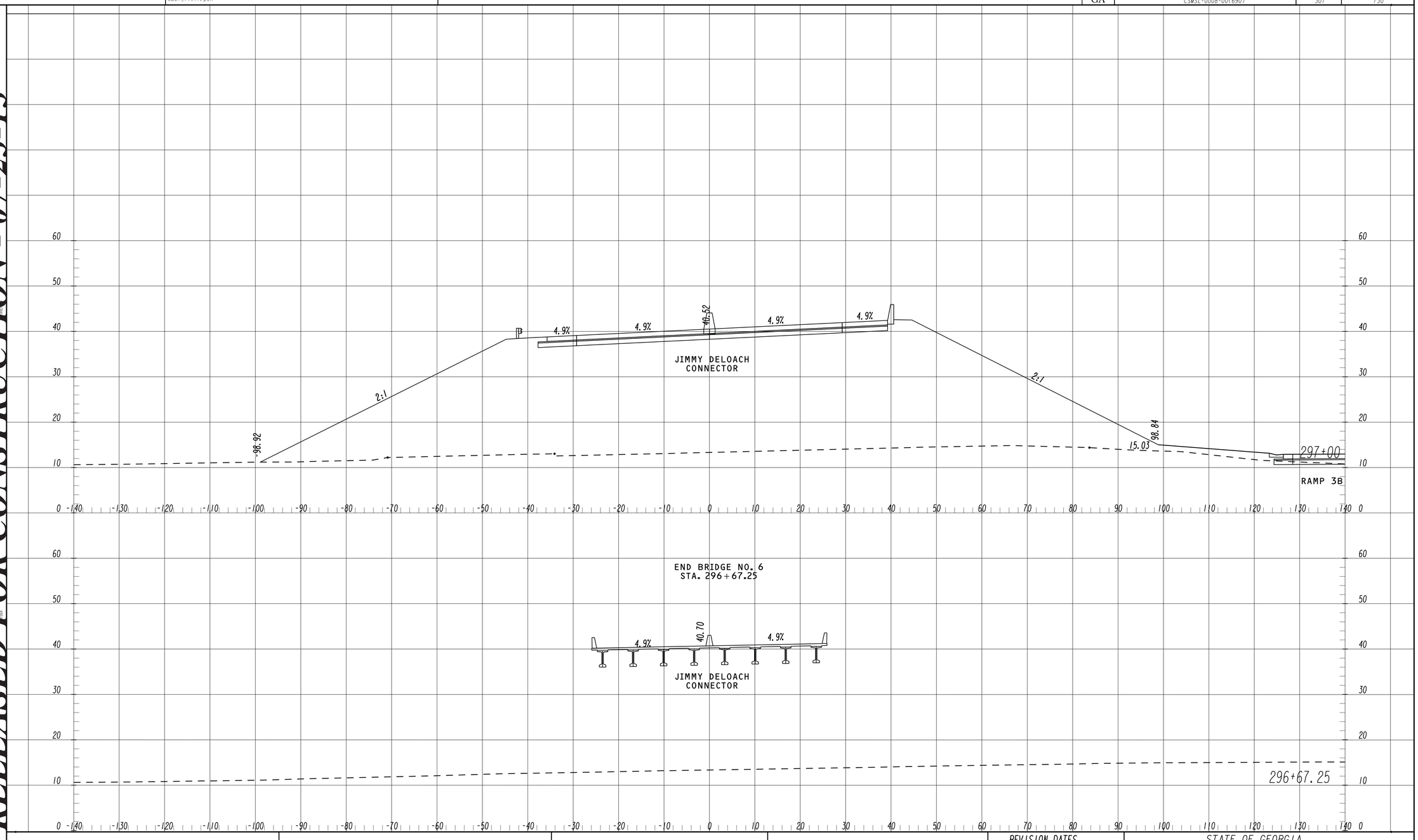
CROSS SECTIONS

JIMMY DELOACH CONNECTOR

DRAWING No. 23-089

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	301	730

RELEASED FOR CONSTRUCTION - 07-23-13



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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

JIMMY DELOACH CONNECTOR

DRAWING No. 23-090

3/1/2007 SUXSEW

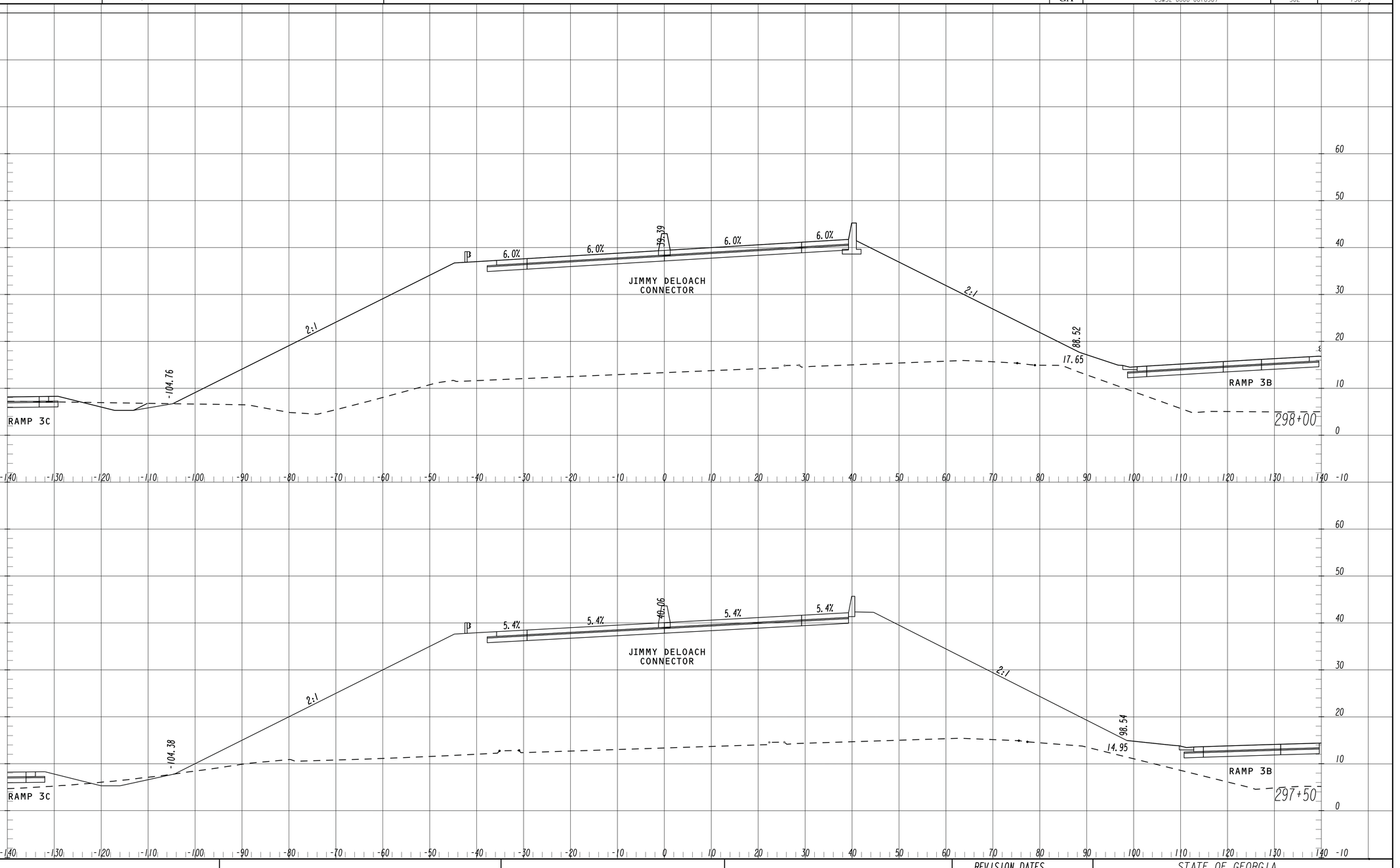
23-JUL-2013 14:34 2:34:28 PM
JParks

0008690_23-00224
GDOT_11x17.pen

Y:\Roadways\126379\0008690\Dgn\0008690_23-002.dgn

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	302	730

RELEASED FOR CONSTRUCTION - 07-23-13



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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

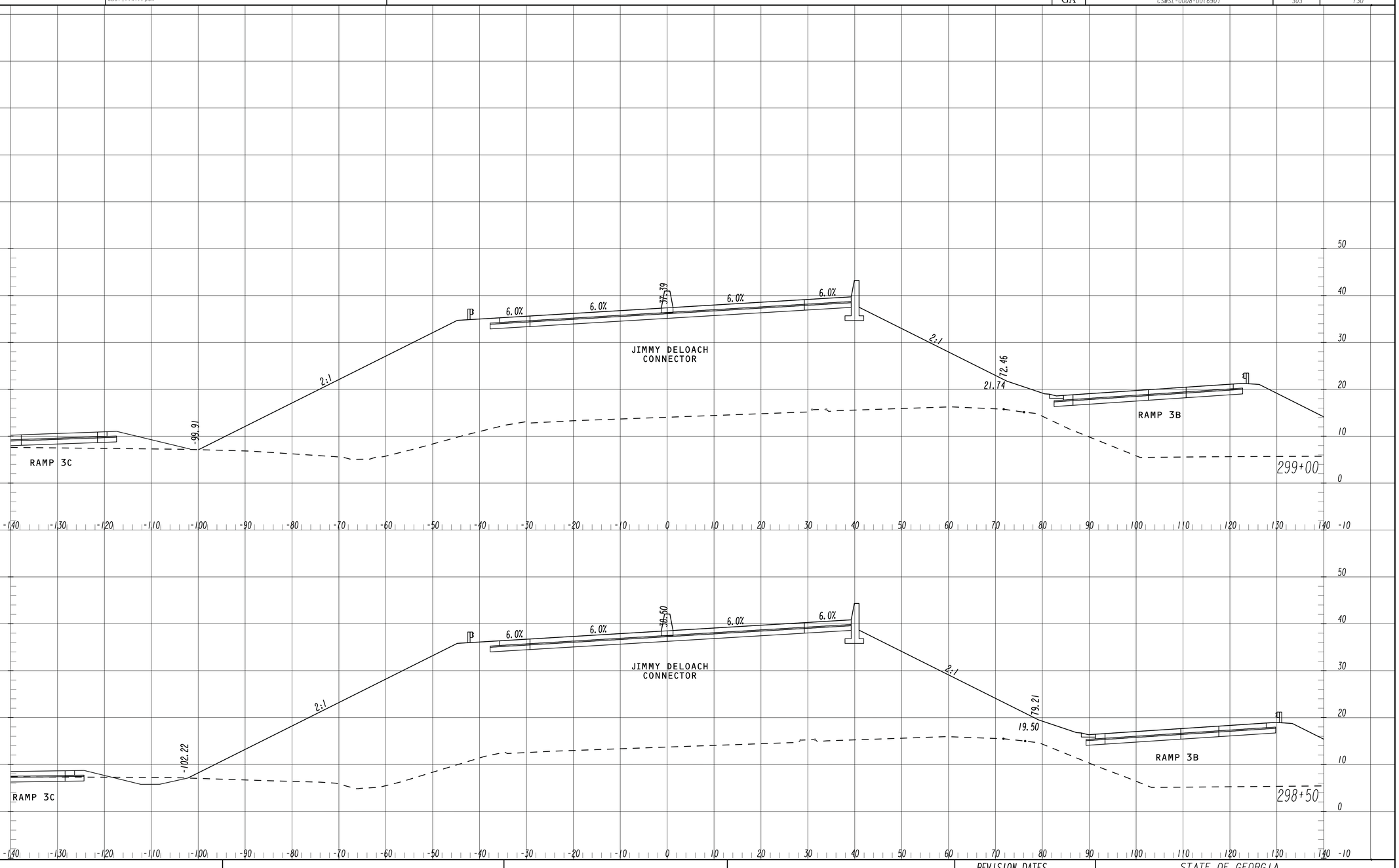
JIMMY DELOACH CONNECTOR

DRAWING No. 23-091

3/1/2007 SUXSEW

23-JUL-2013 14:34 JParks	2:34:29 PM	0008690_23-00225 GDOT_11x17.pen	Y:\Roadways\126379\0008690\Dgn\0008690_23-002.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
				GA	CSMSL-0008-00(690)	303	730

RELEASED FOR CONSTRUCTION - 07-23-13



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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

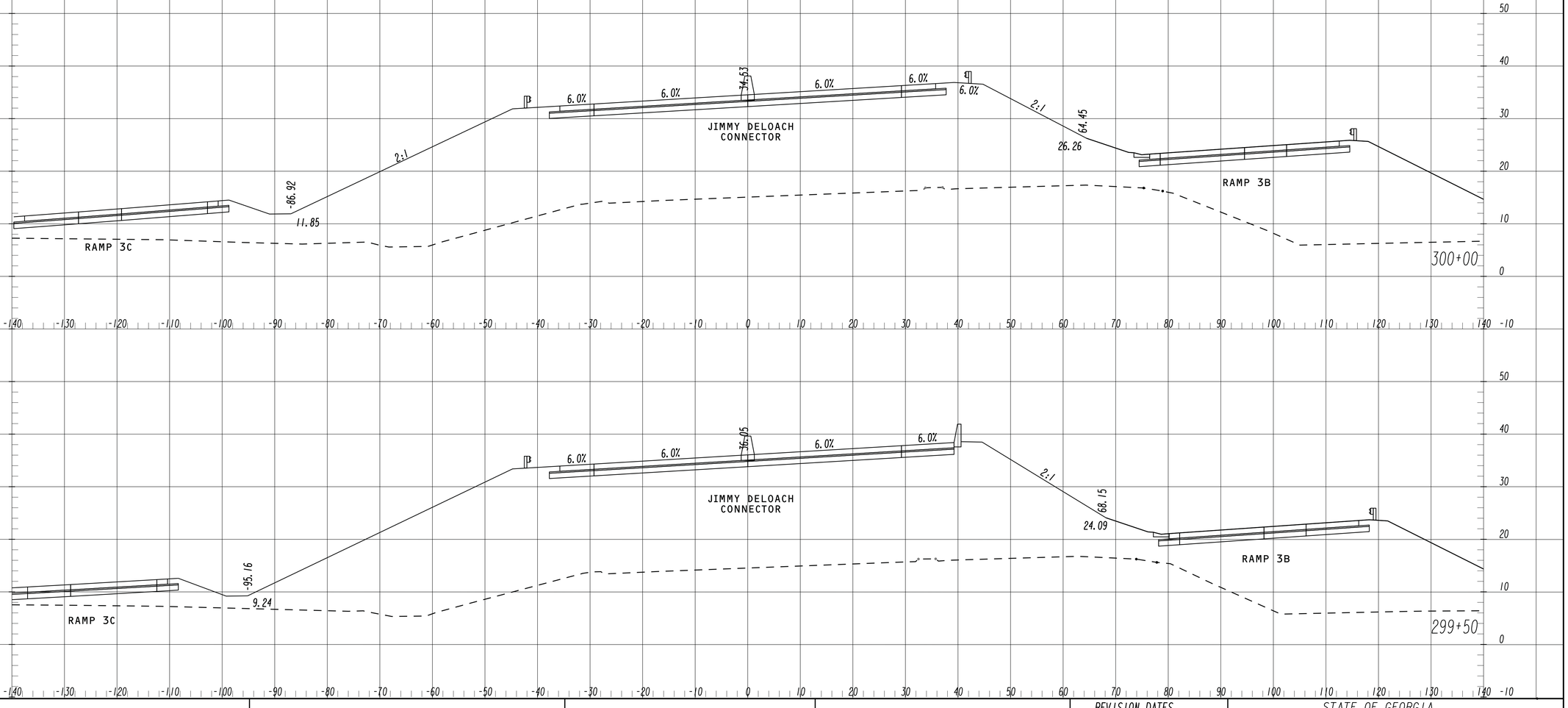
JIMMY DELOACH CONNECTOR

DRAWING No. 23-092

3/1/2007 SUXSEW

23-JUL-2013 14:34	2:34:30 PM	0008690_23-00226	Y:\Roadways\126379\0008690\Dgn\0008690_23-002.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	304	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

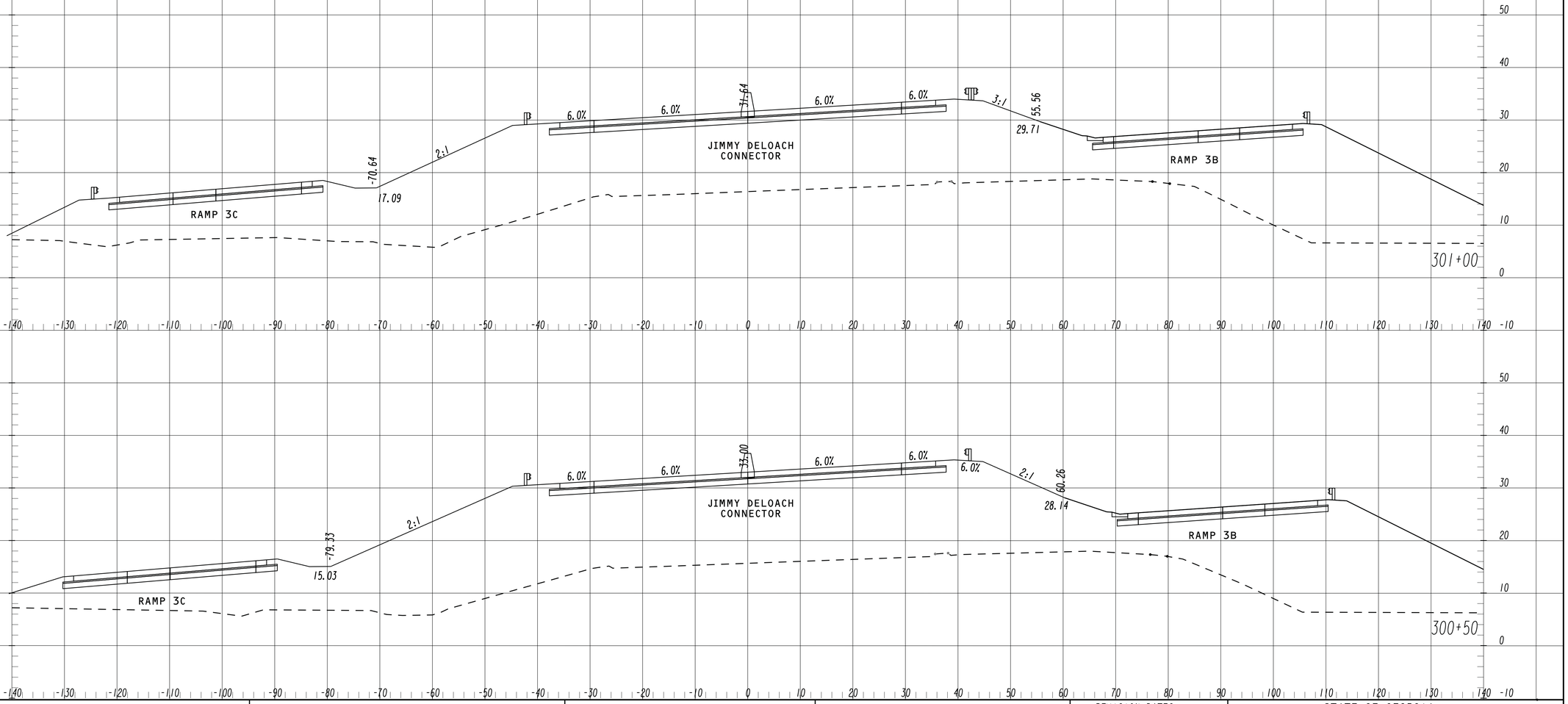
CROSS SECTIONS

JIMMY DELOACH CONNECTOR

DRAWING No. 23-093

23-JUL-2013 14:34	2:34:31 PM	0008690_23-00227	Y:\Roadways\126379\0008690\Dgn\0008690_23-002.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	305	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUYSEW

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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION

OFFICE: INNOVATIVE PROGRAM DELIVERY

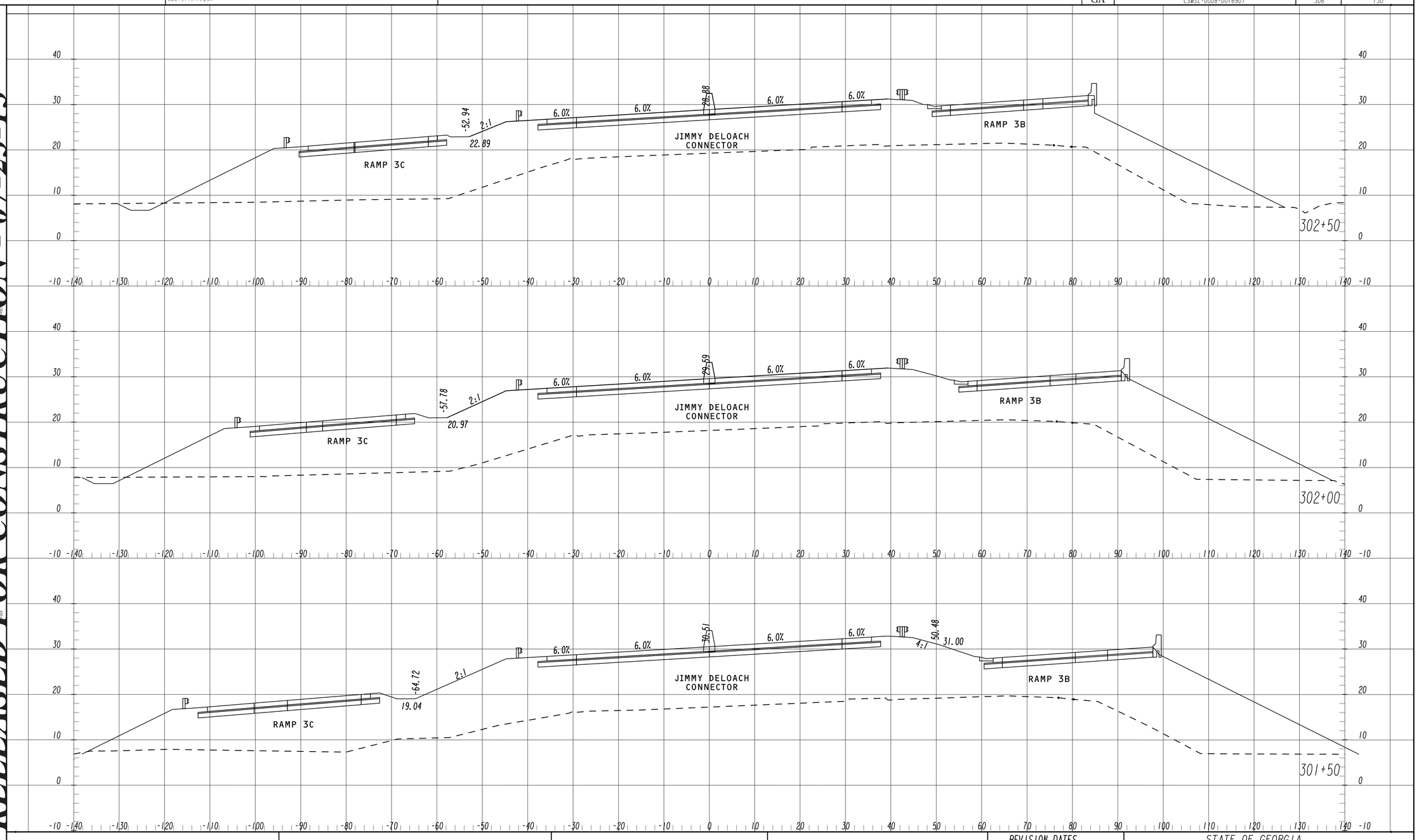
CROSS SECTIONS

JIMMY DELOACH CONNECTOR

DRAWING No. 23-094

23-JUL-2013 14:34	2:34:33 PM	0008690_23-00228	Y:\Roadways\126379\0008690\Dgn\0008690_23-002.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	306	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUKSEW

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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

JIMMY DELOACH CONNECTOR

DRAWING No. 23-095

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JParks

0008690_23-00229
GDOT_11x17.pen

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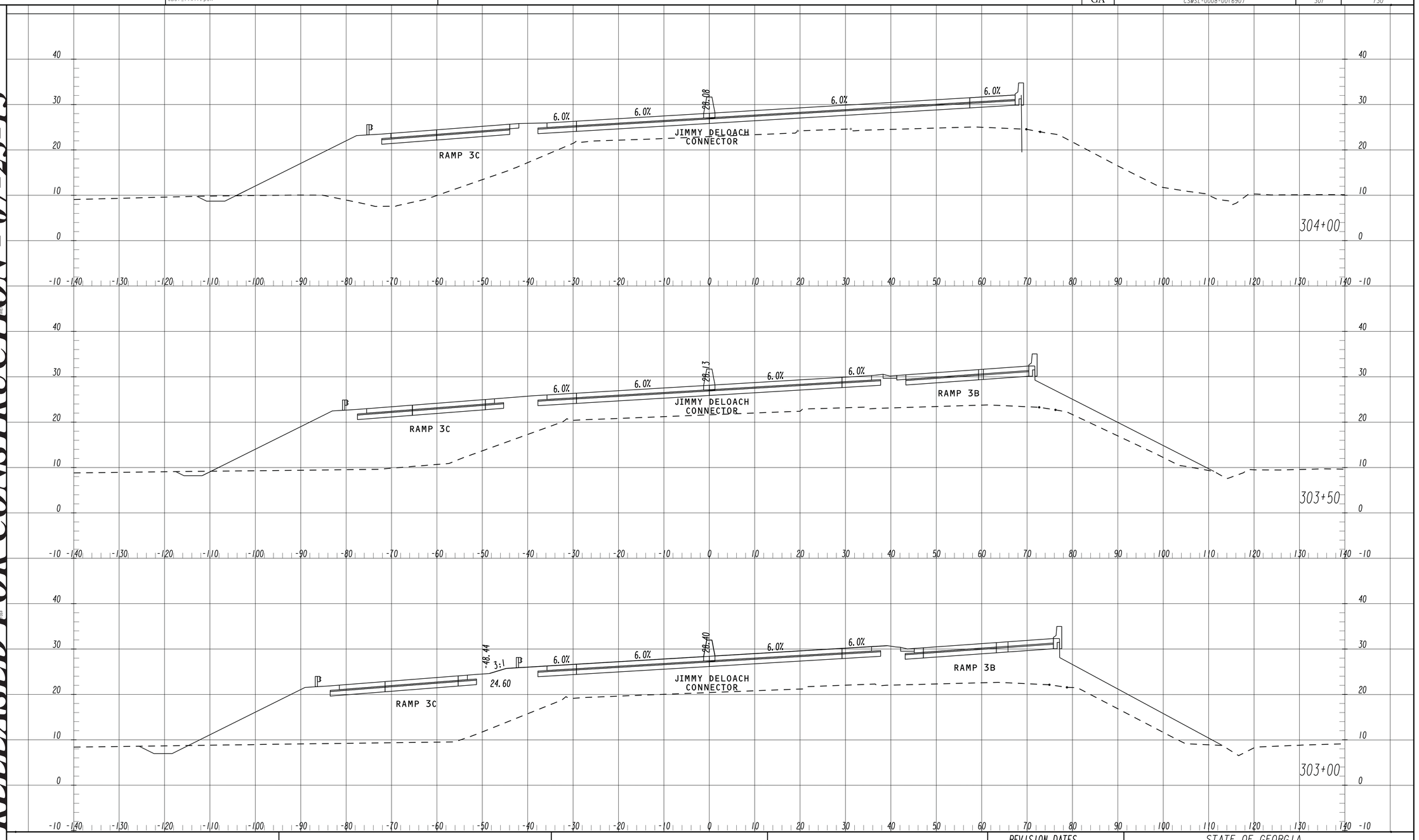
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	307	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

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REVISION DATES

STATE OF GEORGIA
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OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

JIMMY DELOACH CONNECTOR

DRAWING No. 23-096

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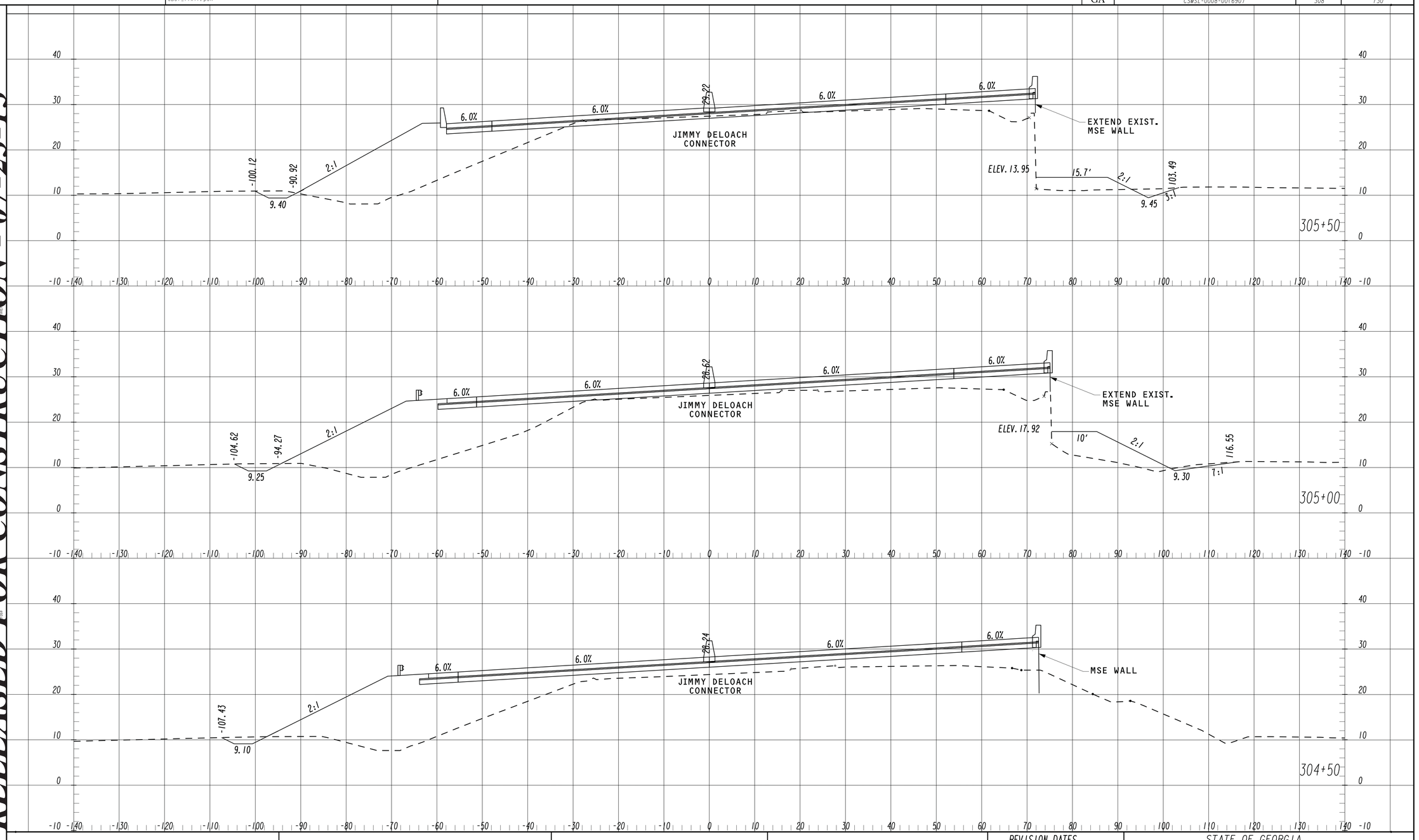
GA	CSMSL-0008-00(690)	308	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUKSEW

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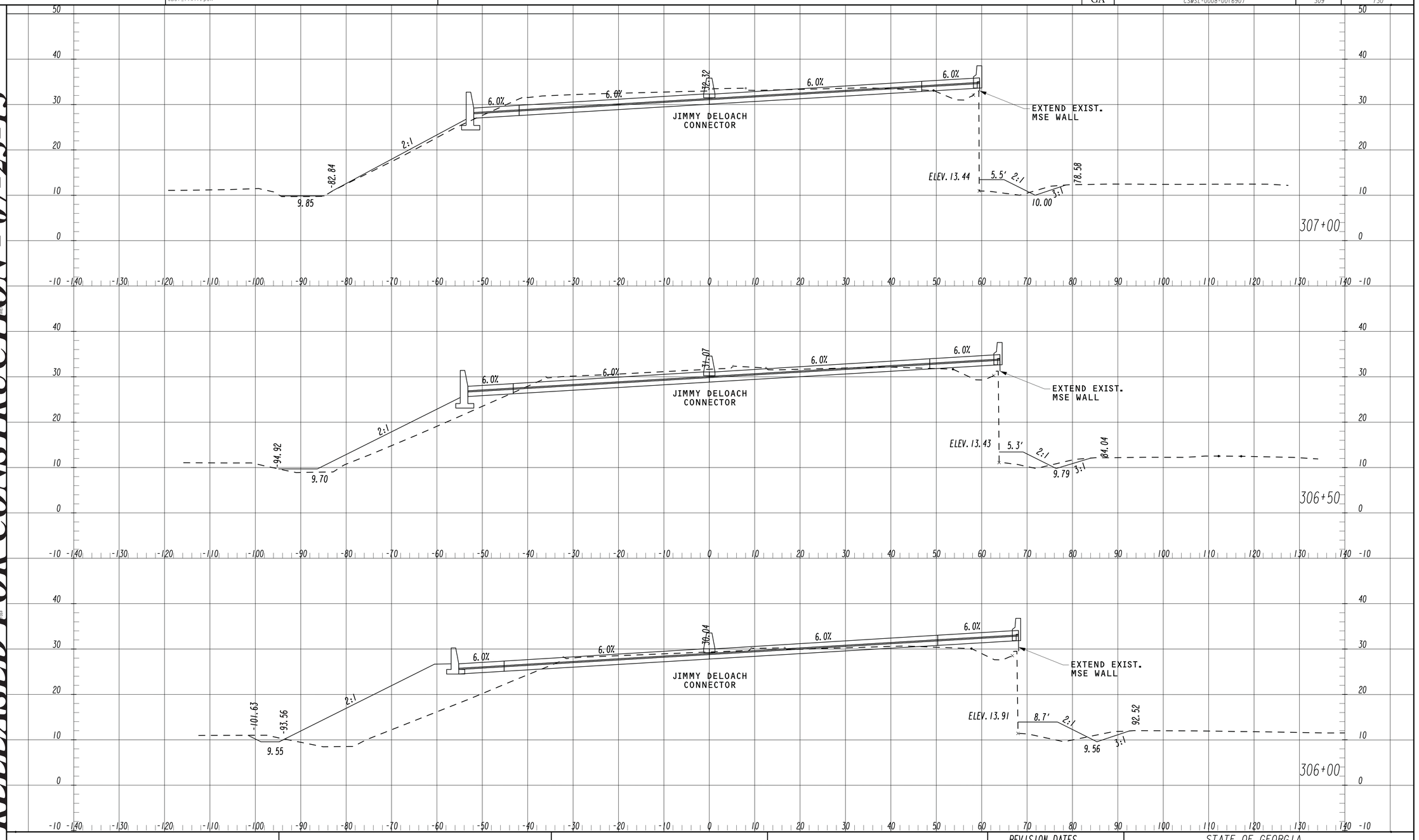
CROSS SECTIONS

JIMMY DELOACH CONNECTOR

DRAWING No. 23-097

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	309	730

RELEASED FOR CONSTRUCTION - 07-23-13



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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

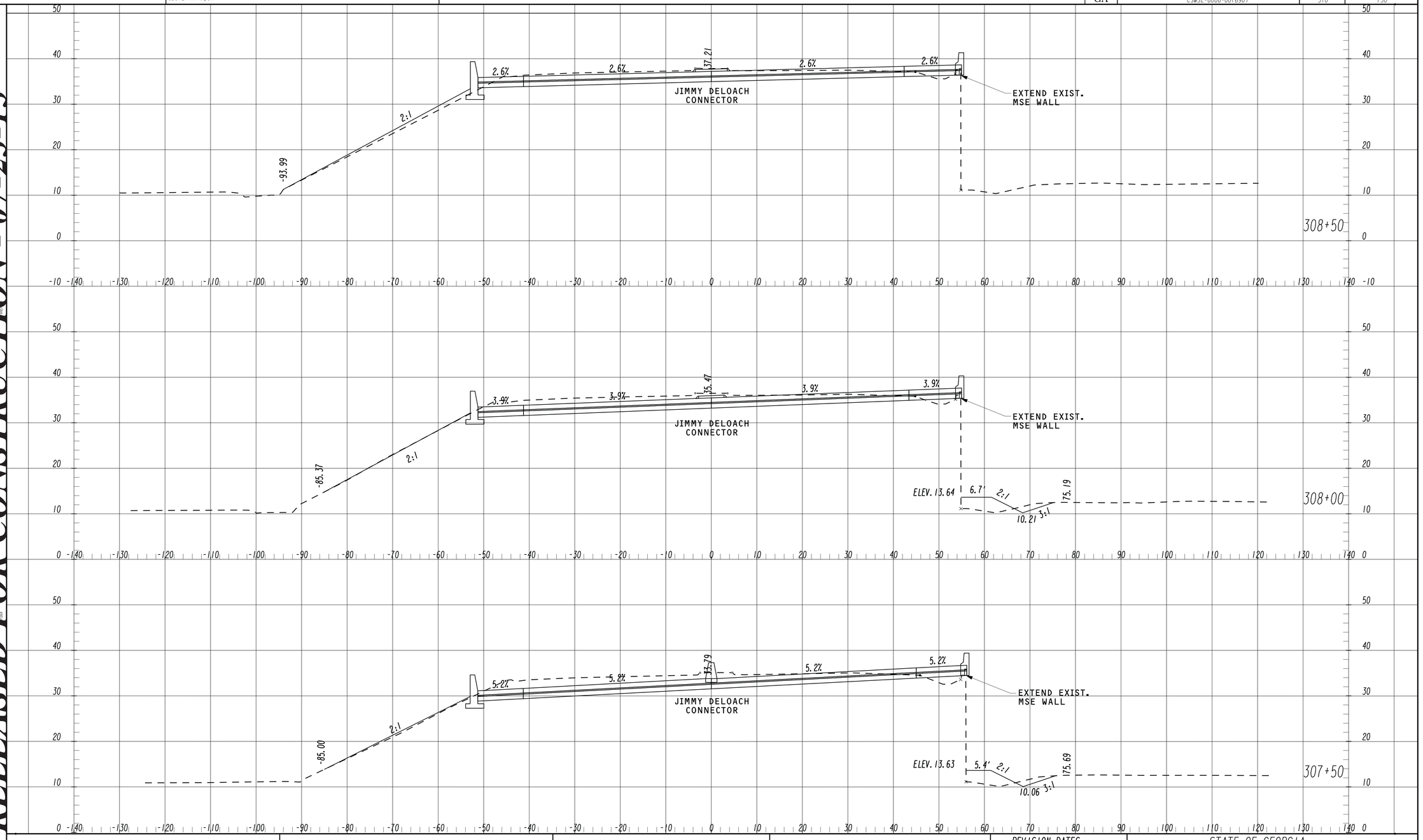
JIMMY DELOACH CONNECTOR

DRAWING No. 23-098

3/1/2007 SUXSEW

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	310	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUYSEW

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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

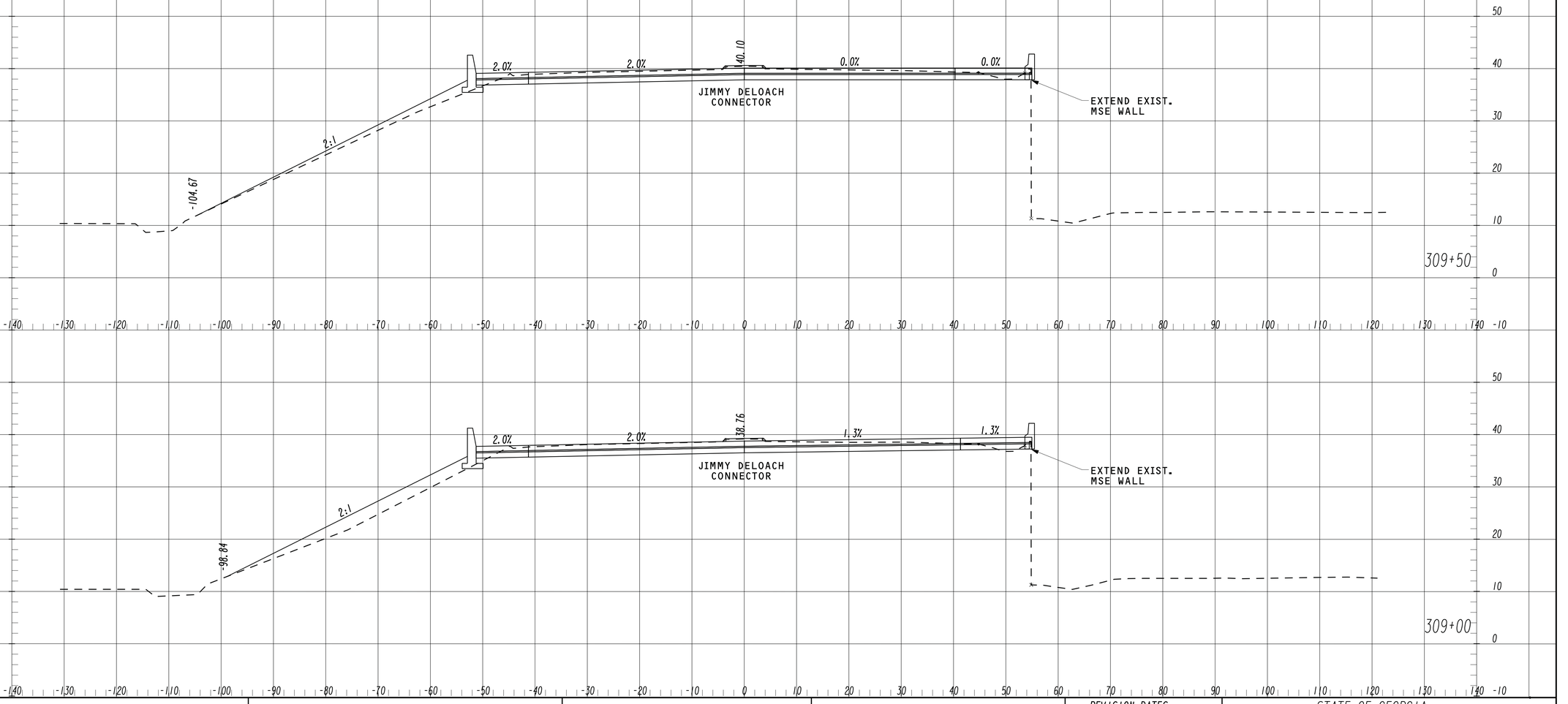
CROSS SECTIONS

JIMMY DELOACH CONNECTOR

DRAWING No. 23-099

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	311	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

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REVISION DATES

STATE OF GEORGIA
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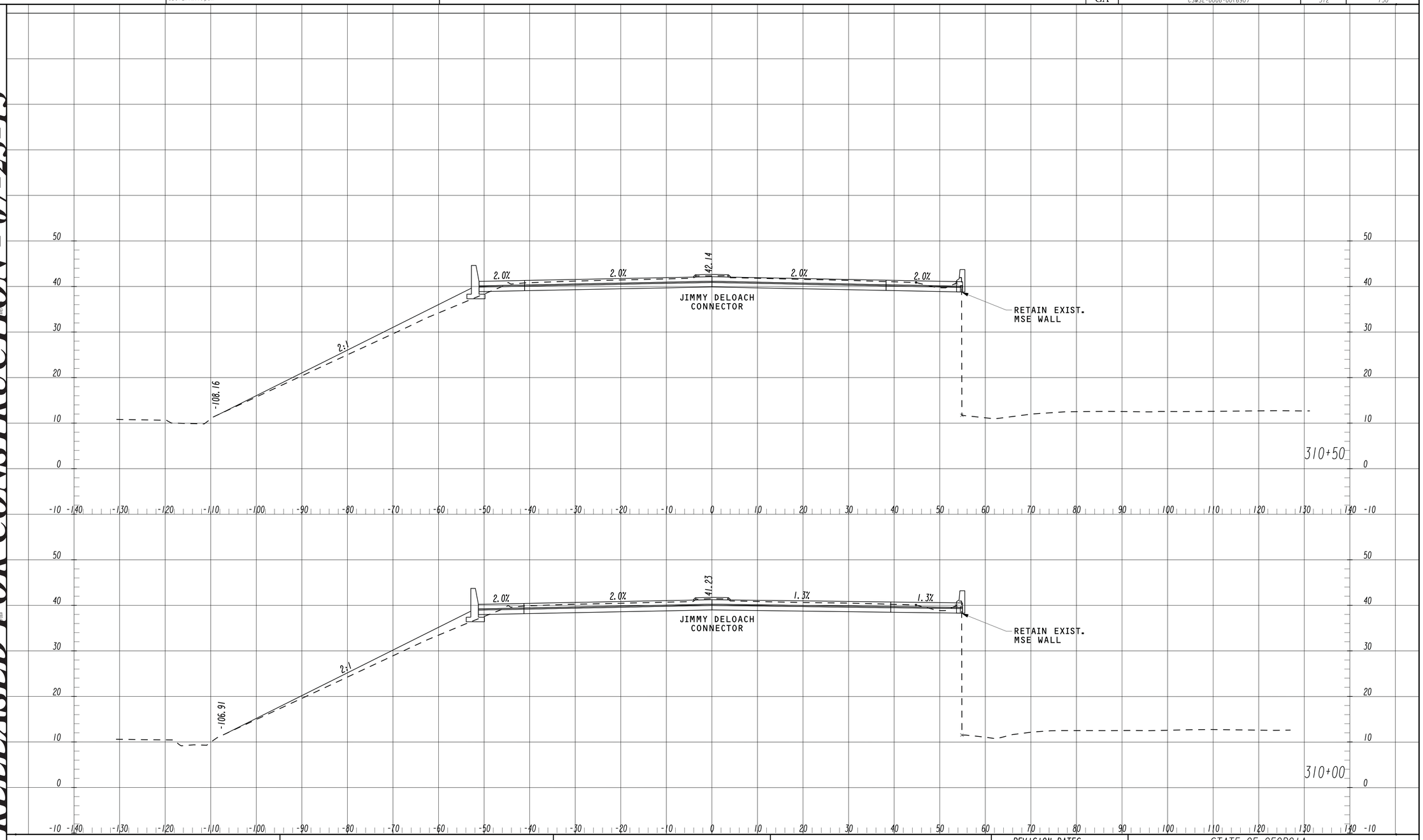
CROSS SECTIONS

JIMMY DELOACH CONNECTOR

DRAWING No. 23-100

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	312	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

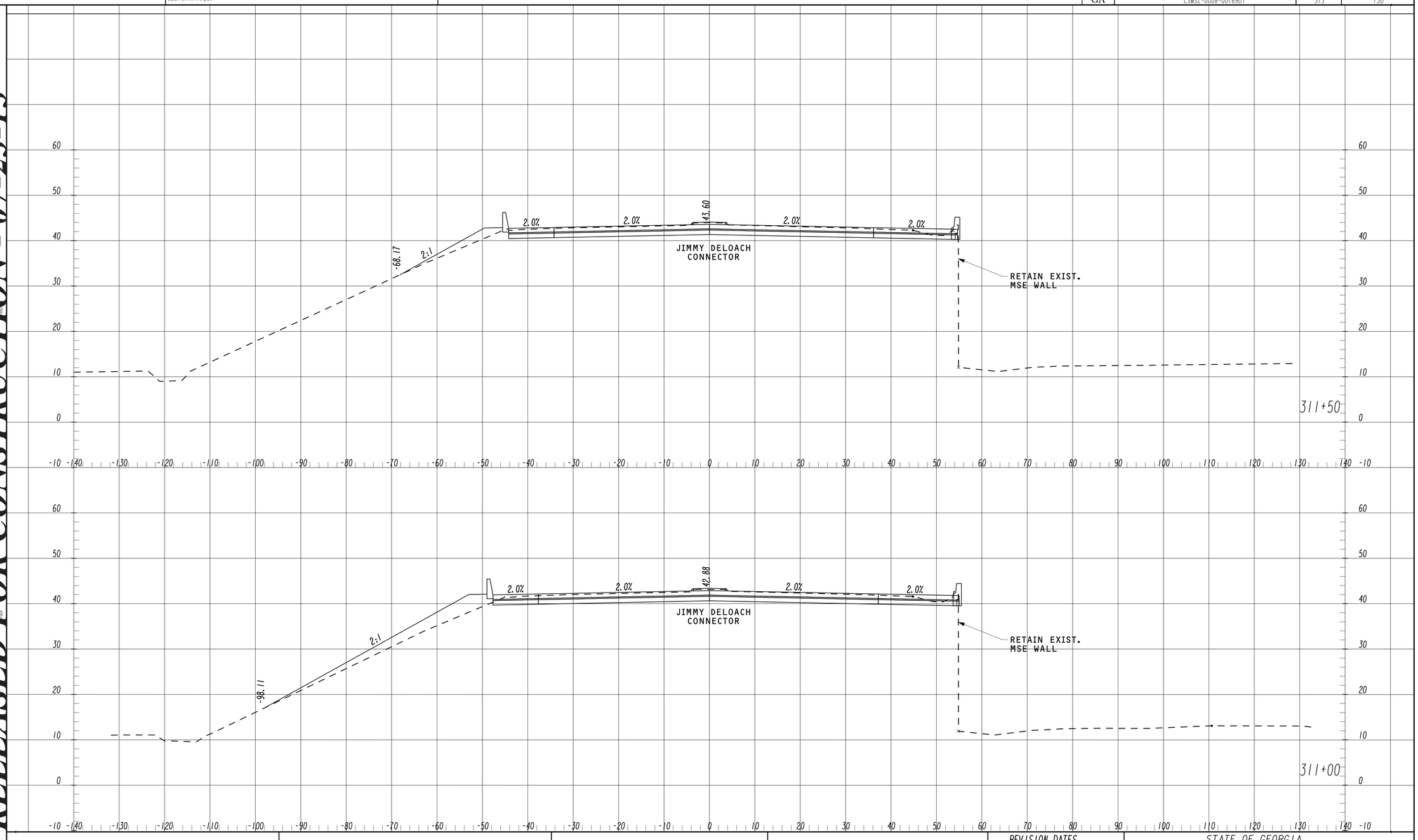
CROSS SECTIONS

JIMMY DELOACH CONNECTOR

DRAWING No. 23-101

23-JUL-2013 14:34	2:34:47 PM	0008690_23-00235	Y:\Roadways\126379\0008690\Dgn\0008690_23-002.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	313	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

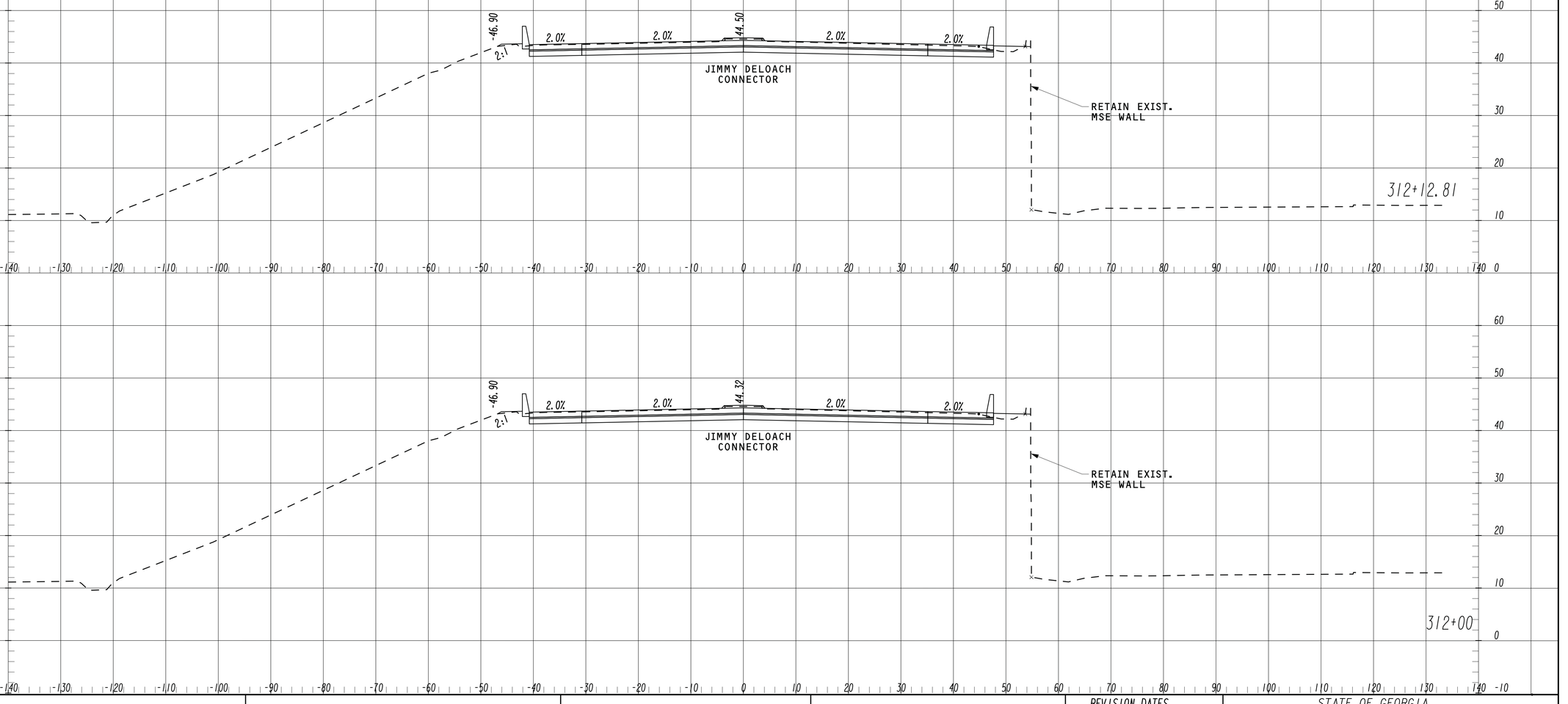
CROSS SECTIONS

JIMMY DELOACH CONNECTOR

DRAWING No. 23-102

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	314	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

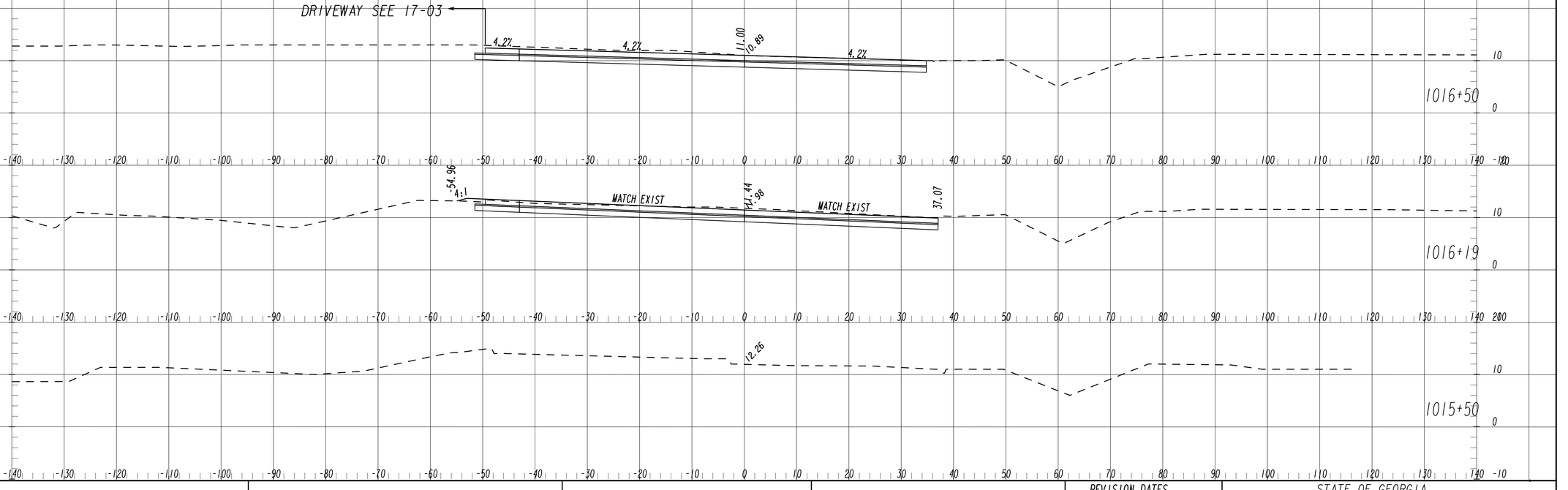
CROSS SECTIONS

JIMMY DELOACH CONNECTOR

DRAWING No. 23-103

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	315	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUKSEW

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REVISION DATES

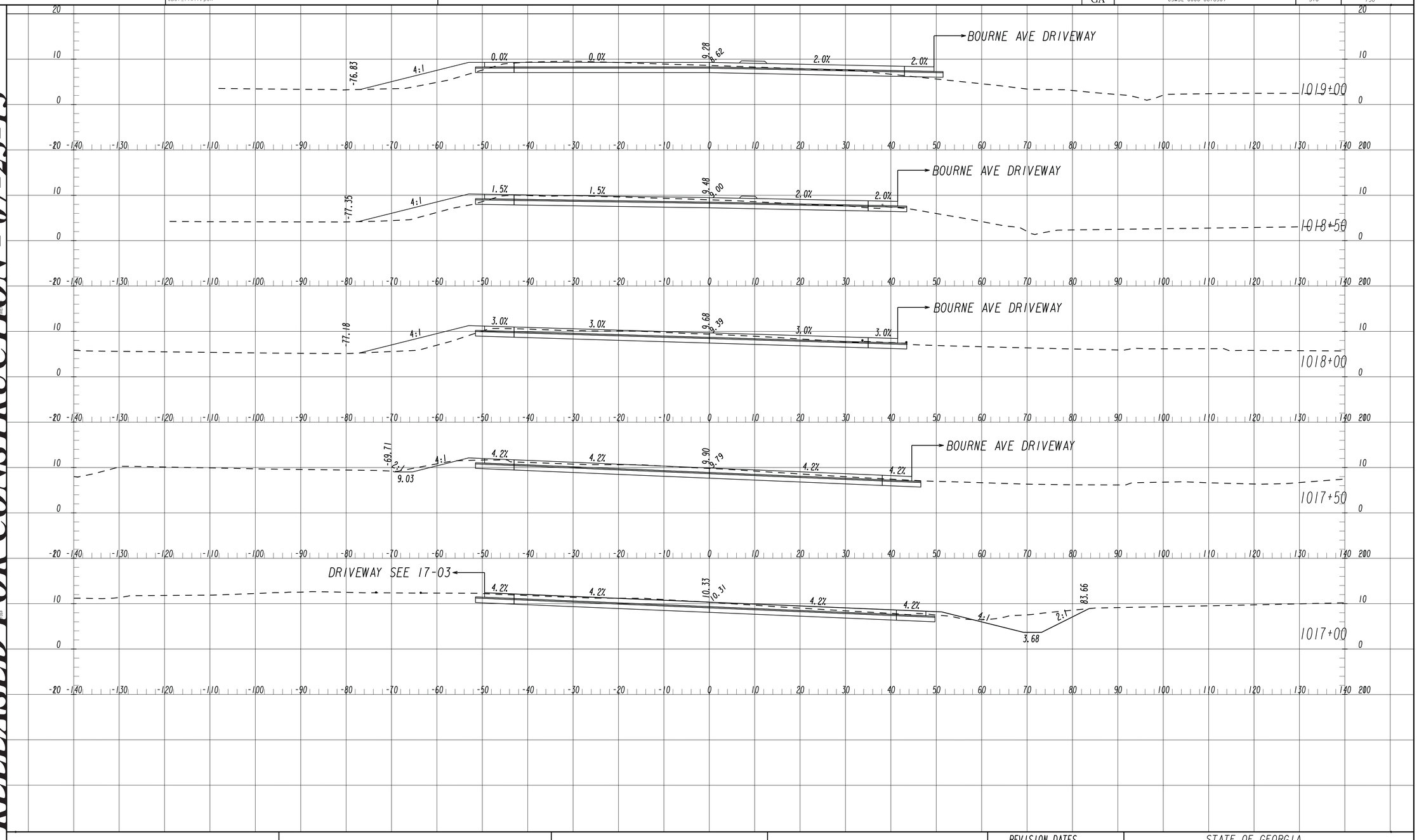
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS
SR 307/ BOURNE AVENUE

DRAWING No. 23-104

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	316	730

RELEASED FOR CONSTRUCTION - 07-23-13



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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

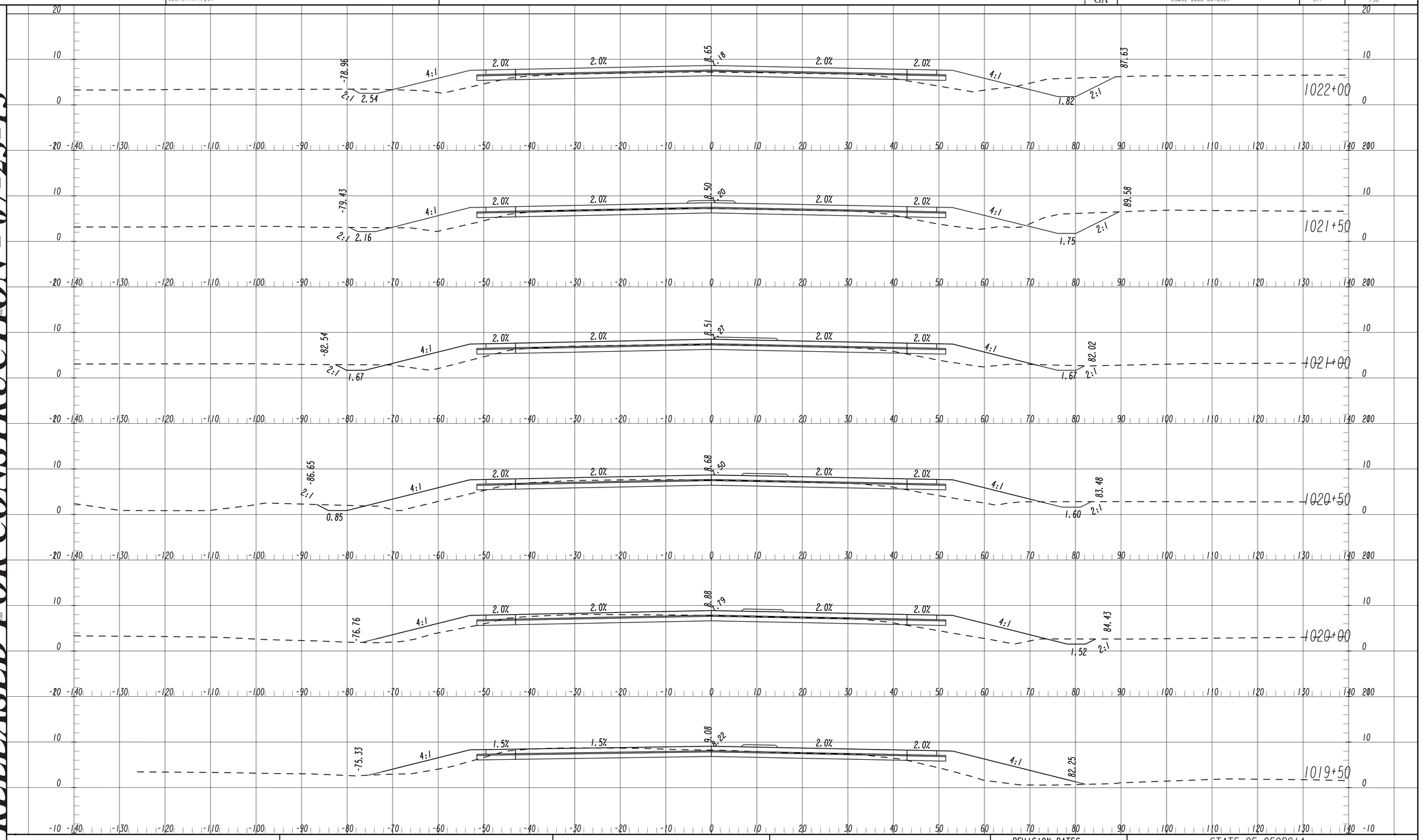
CROSS SECTIONS
SR 307/ BOURNE AVENUE

DRAWING No. 23-105

3/1/2007 SUKSEW

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	317	730

RELEASED FOR CONSTRUCTION - 07-23-13



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REVISION DATES

STATE OF GEORGIA
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OFFICE: INNOVATIVE PROGRAM DELIVERY

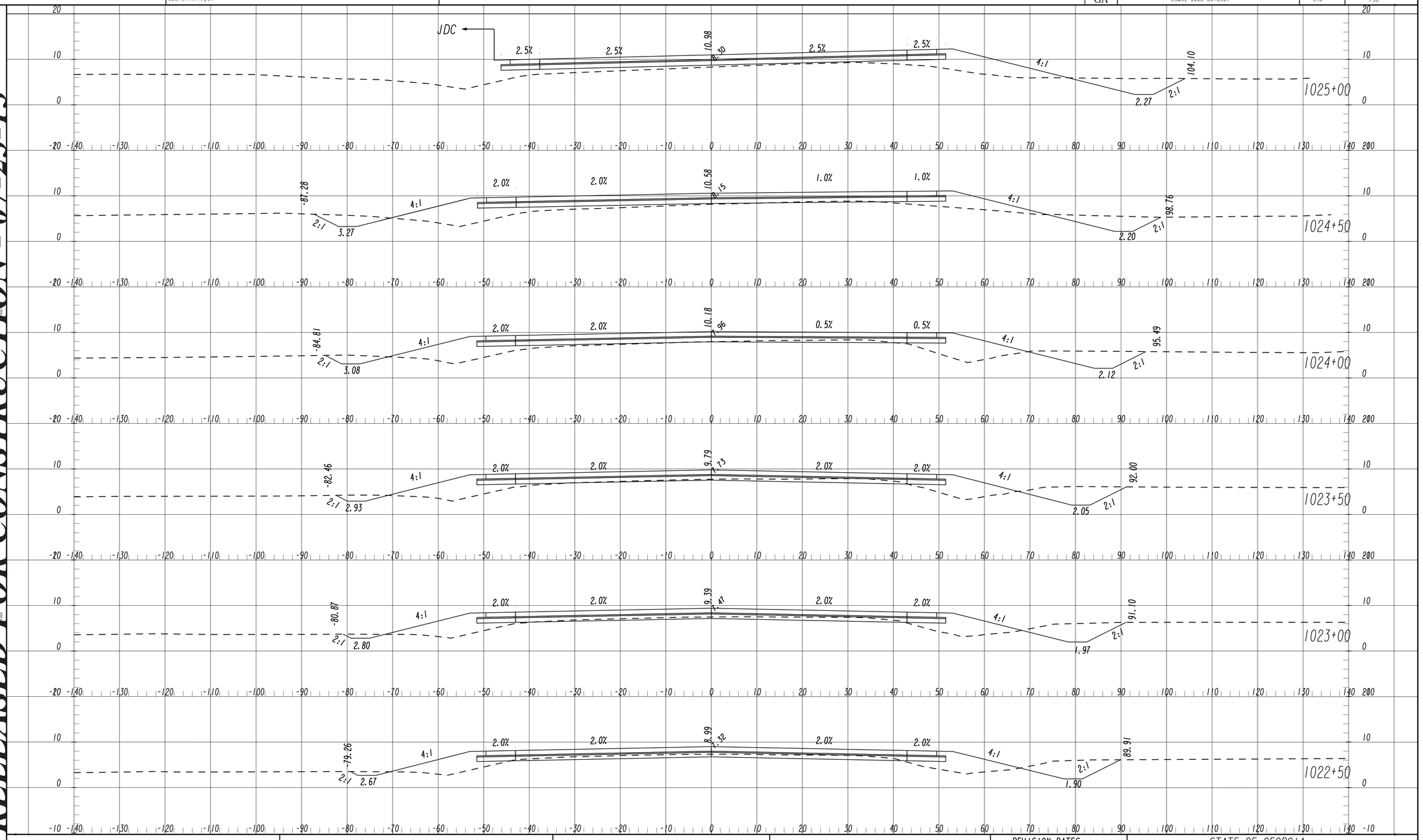
CROSS SECTIONS
SR 307/ BOURNE AVENUE

DRAWING No. 23-106

3/1/2007 SUXSEW

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	318	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

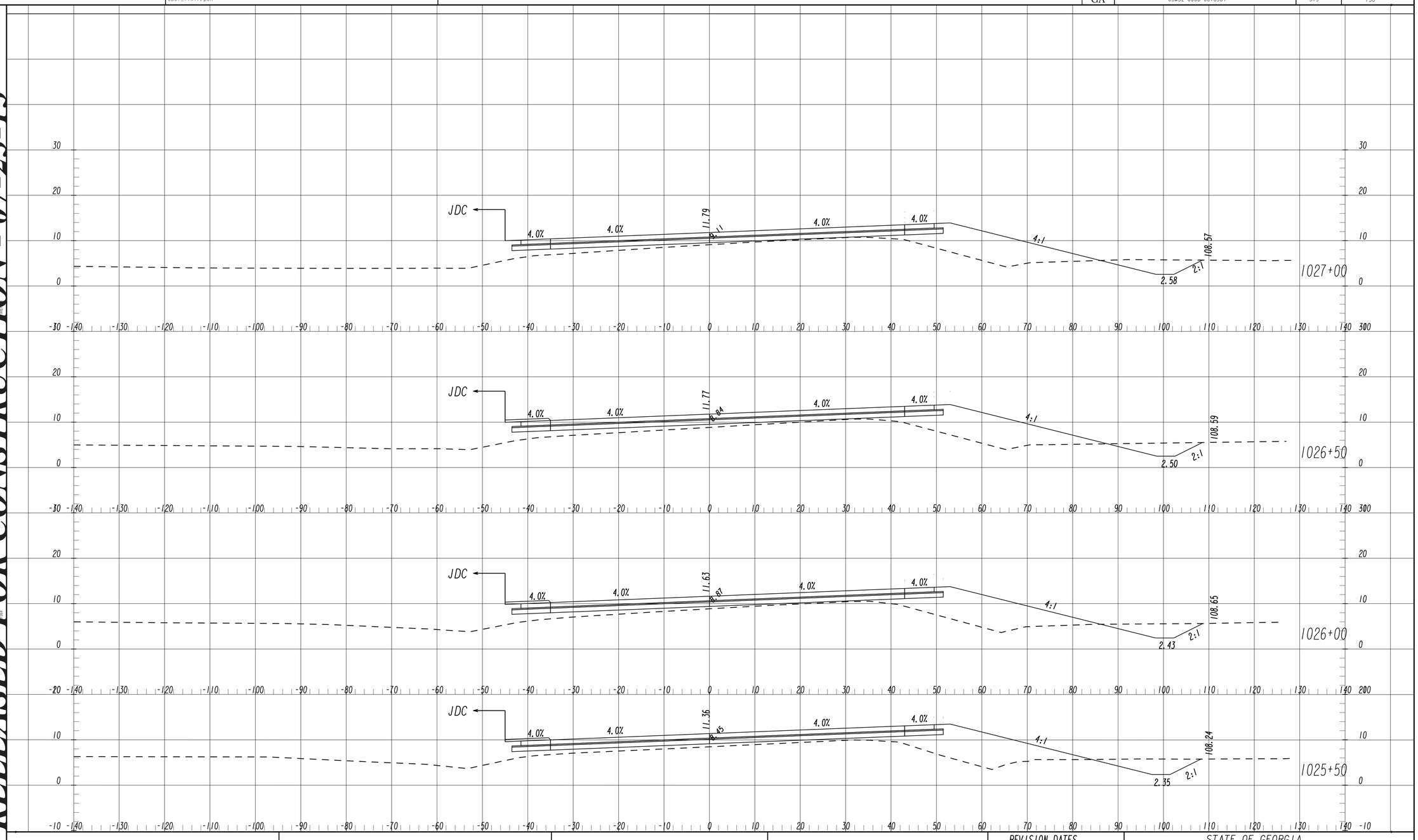
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS
SR 307/ BOURNE AVENUE

DRAWING No. 23-107

23-JUL-2013 14:35	2:35:00 PM	0008690_23-0034	Y:\Roadways\126379\0008690\Dgn\0008690_23-003.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	319	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUKSEW

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS
SR 307/ BOURNE AVENUE

DRAWING No. 23-108

23-JUL-2013 14:35 2:35:01 PM
JParks

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GDOT_11x17.pen

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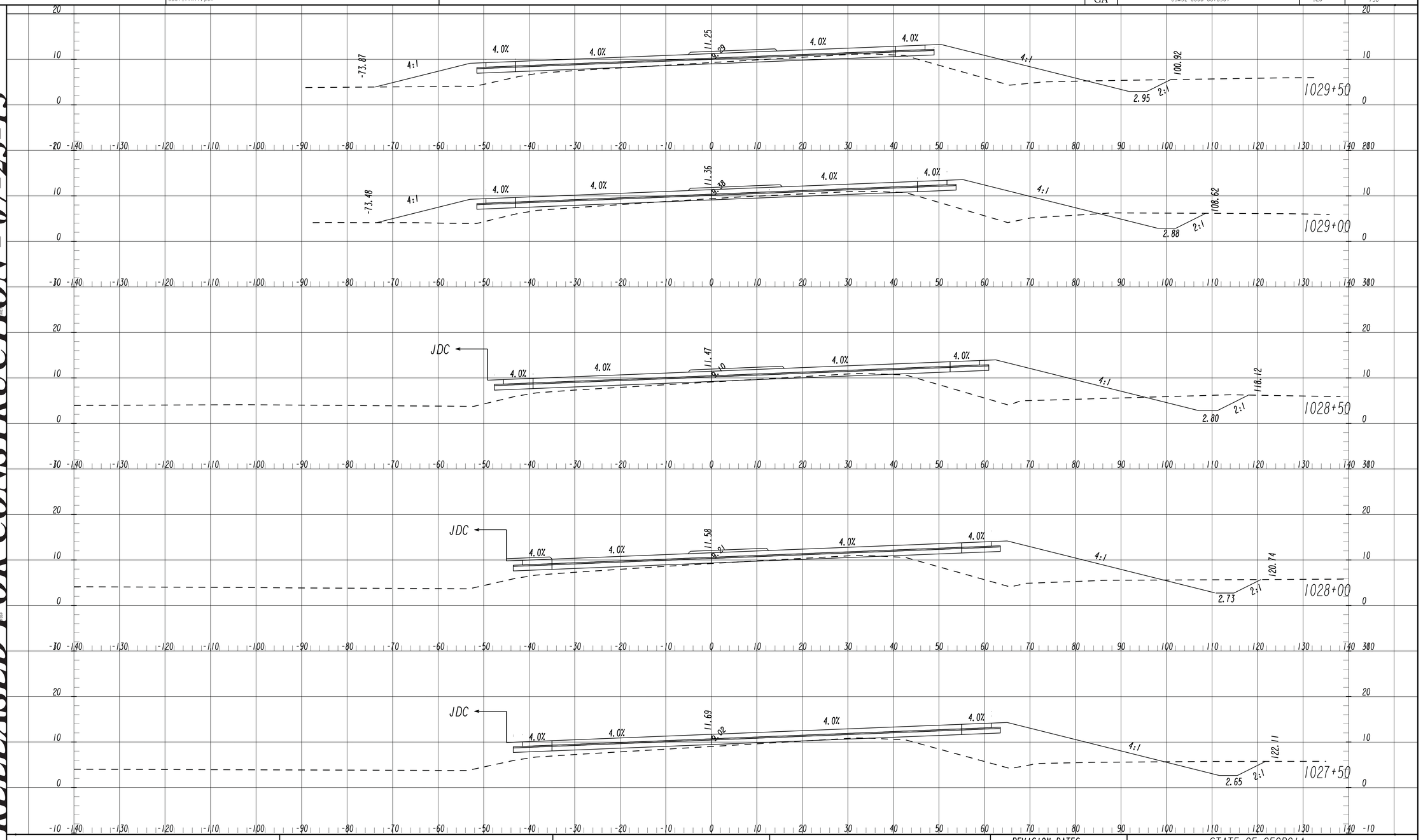
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	320	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

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1 INCH = 10 FT HORIZ.

REVISION DATES

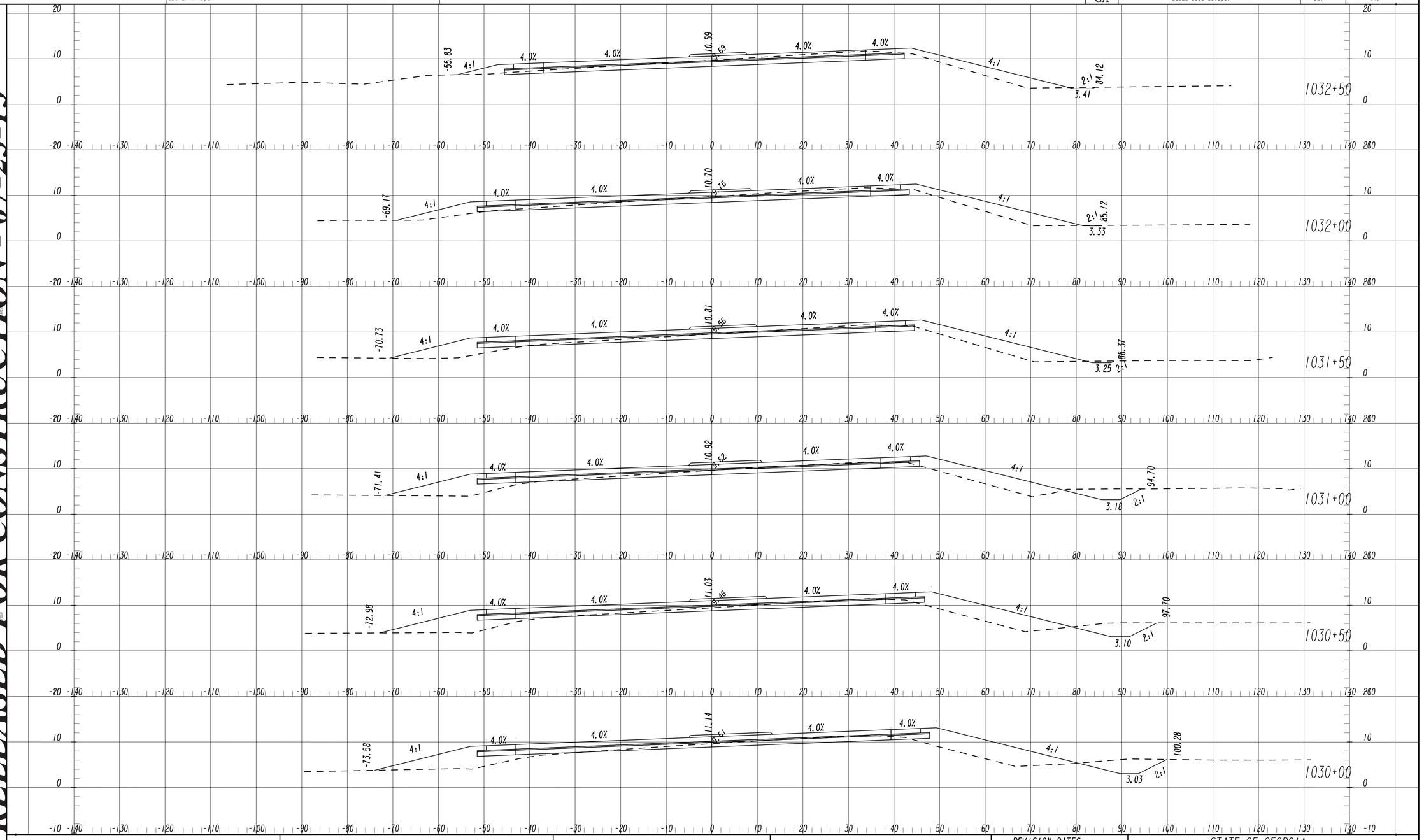
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS
SR 307/ BOURNE AVENUE

DRAWING No. 23-109

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	321	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

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1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS
SR 307/ BOURNE AVENUE

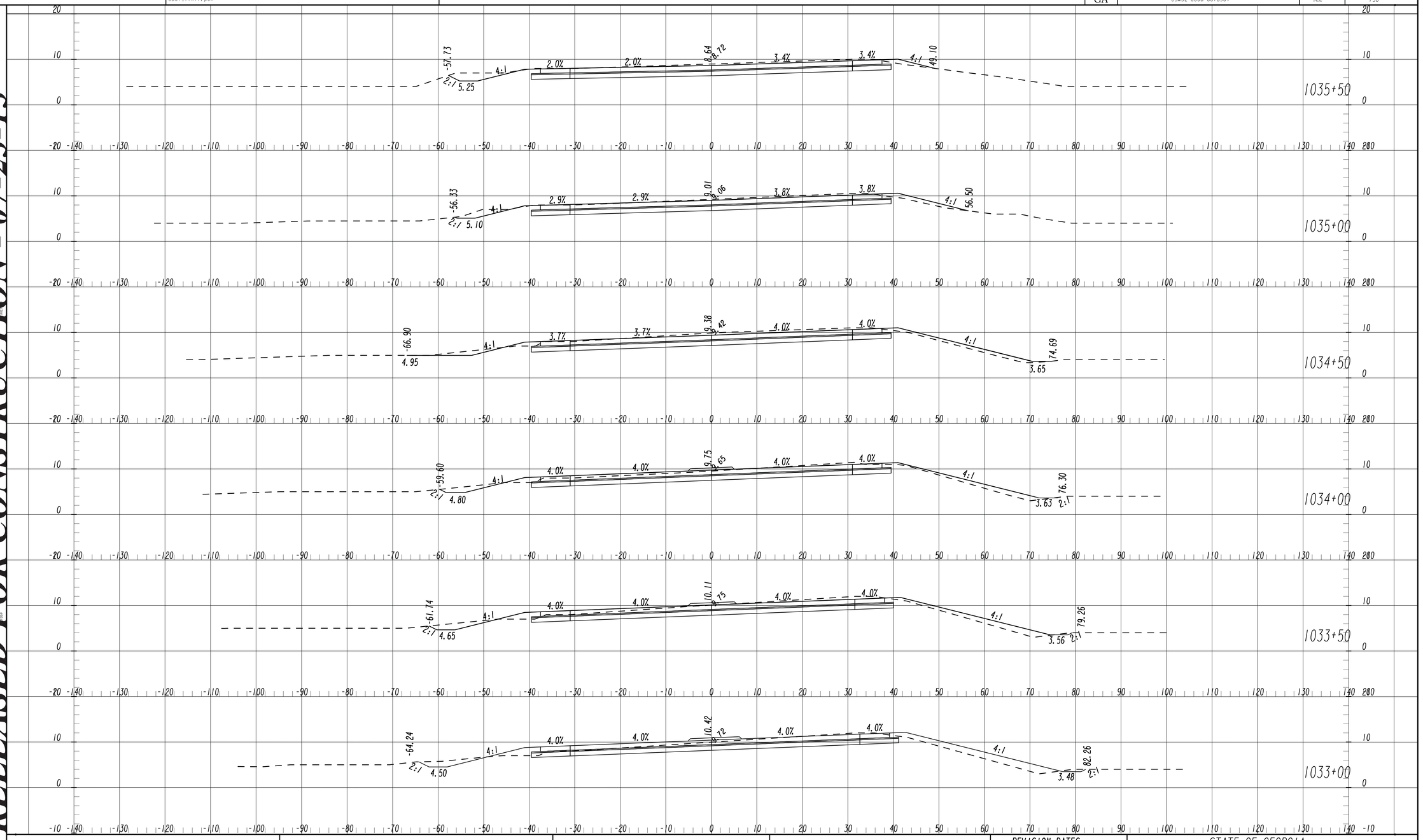
DRAWING No. 23-110

23-JUL-2013 14:35 2:35:04 PM | 0008690_23-0037 | GDOT_11x17.pen | Y:\Roadways\126379\0008690\Dgn\0008690_23-003.dgn

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	322	730

JParks

RELEASED FOR CONSTRUCTION - 07-23-13



THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

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1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS
SR 307/ BOURNE AVENUE

DRAWING No. 23-111

3/1/2007 SUXSEW

23-JUL-2013 14:35 2:35:05 PM
JParks

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GDOT_11x17.pen

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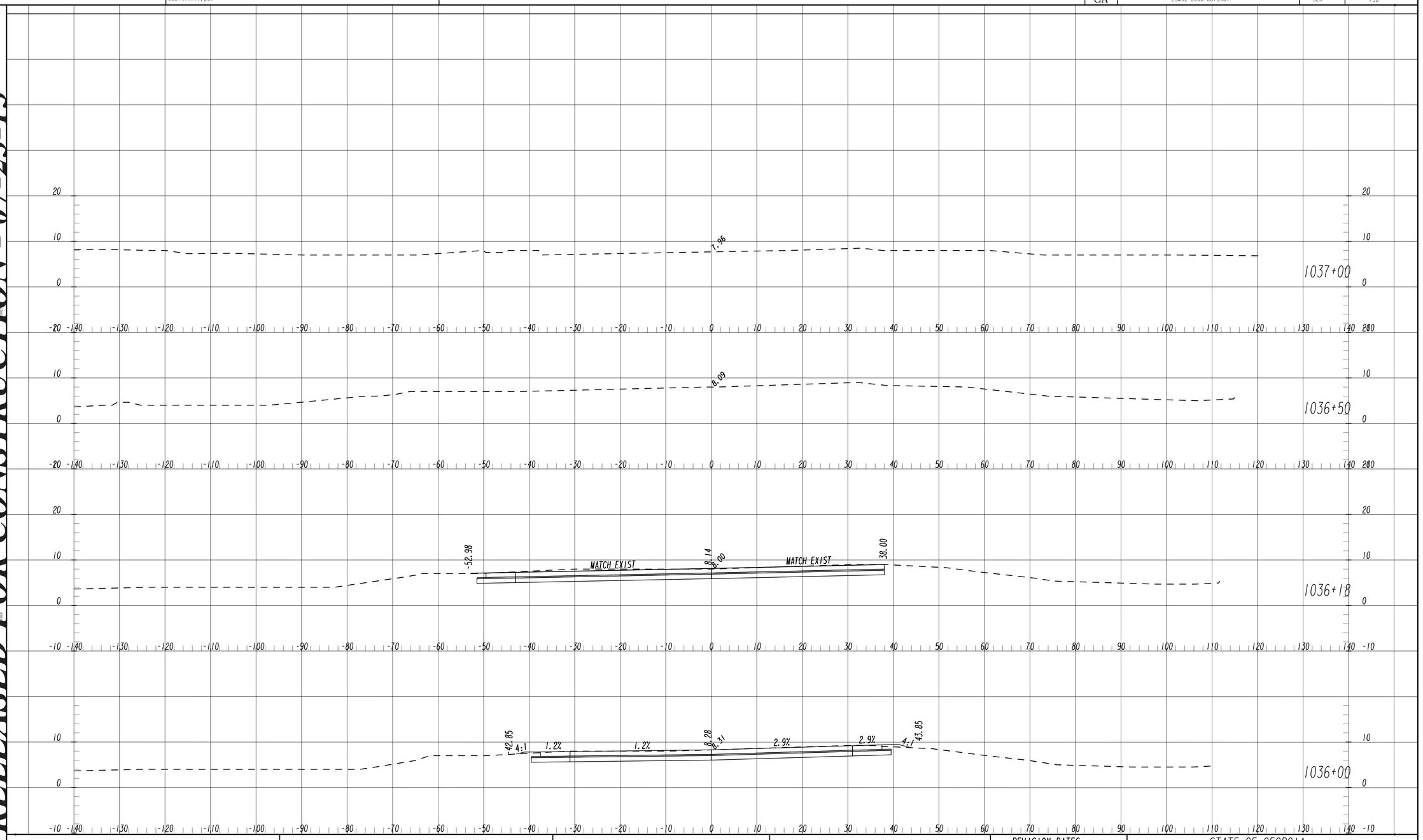
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	323	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS
SR 307/ BOURNE AVENUE

DRAWING No. 23-112

23-JUL-2013 14:35 2:35:06 PM
JParks

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GDOT_11x17.pen

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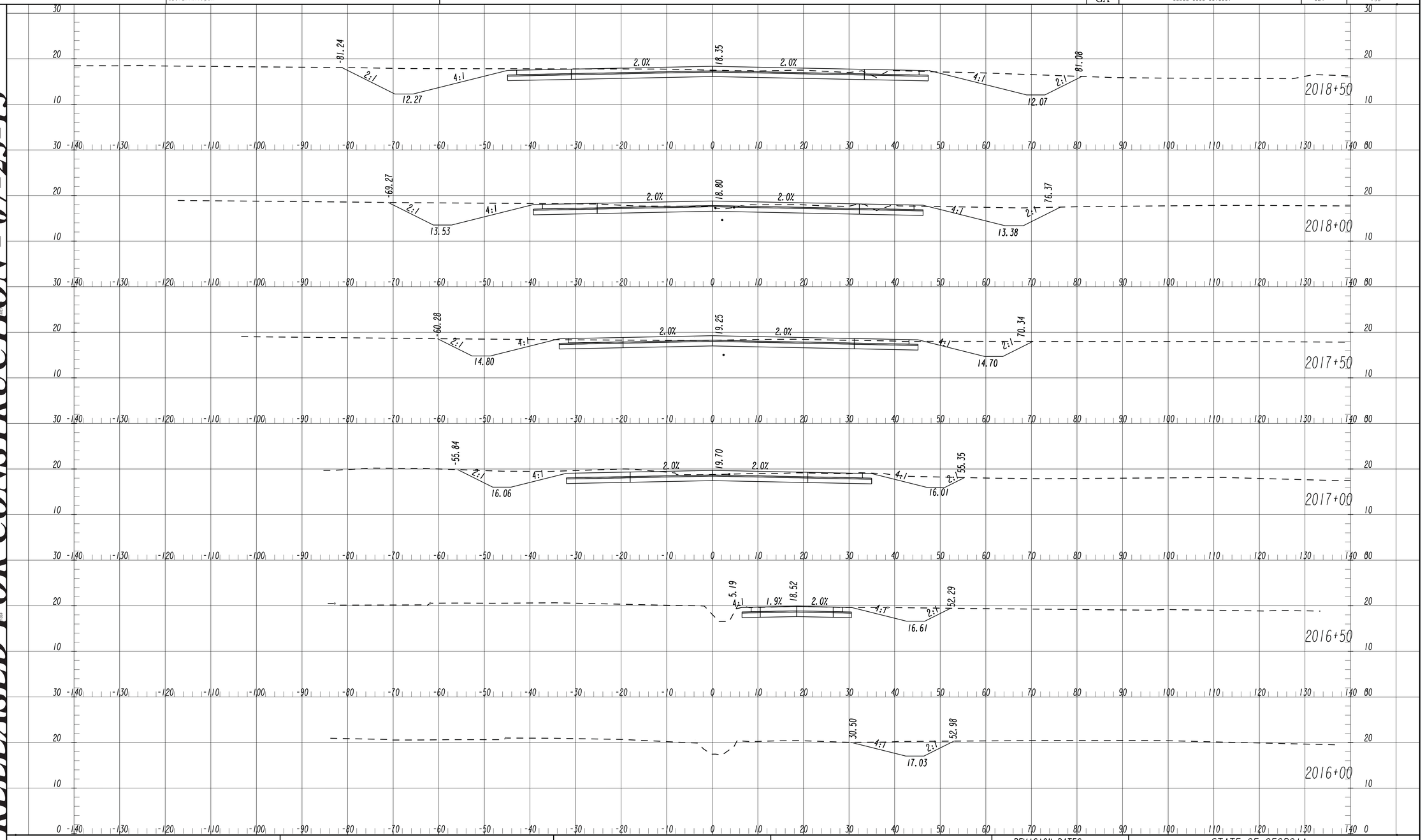
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	324	730

RELEASED FOR CONSTRUCTION - 07-23-13



THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

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1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

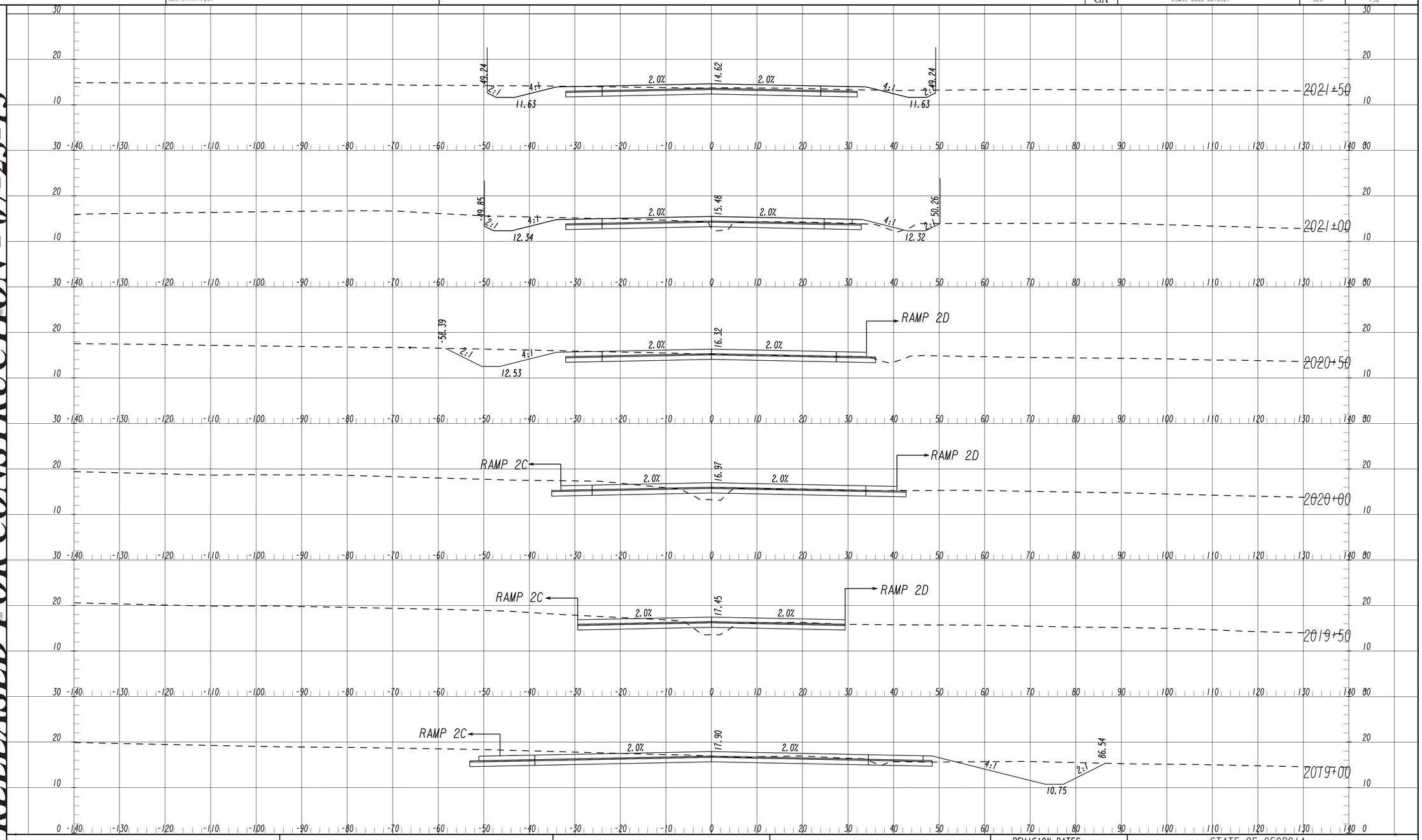
GRANGE ROAD

DRAWING No. 23-113

3/1/2007 SUXSEW

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	325	730

RELEASED FOR CONSTRUCTION - 07-23-13



THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

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1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

GRANGE ROAD

DRAWING No. 23-114

3/1/2007 SUXSEW

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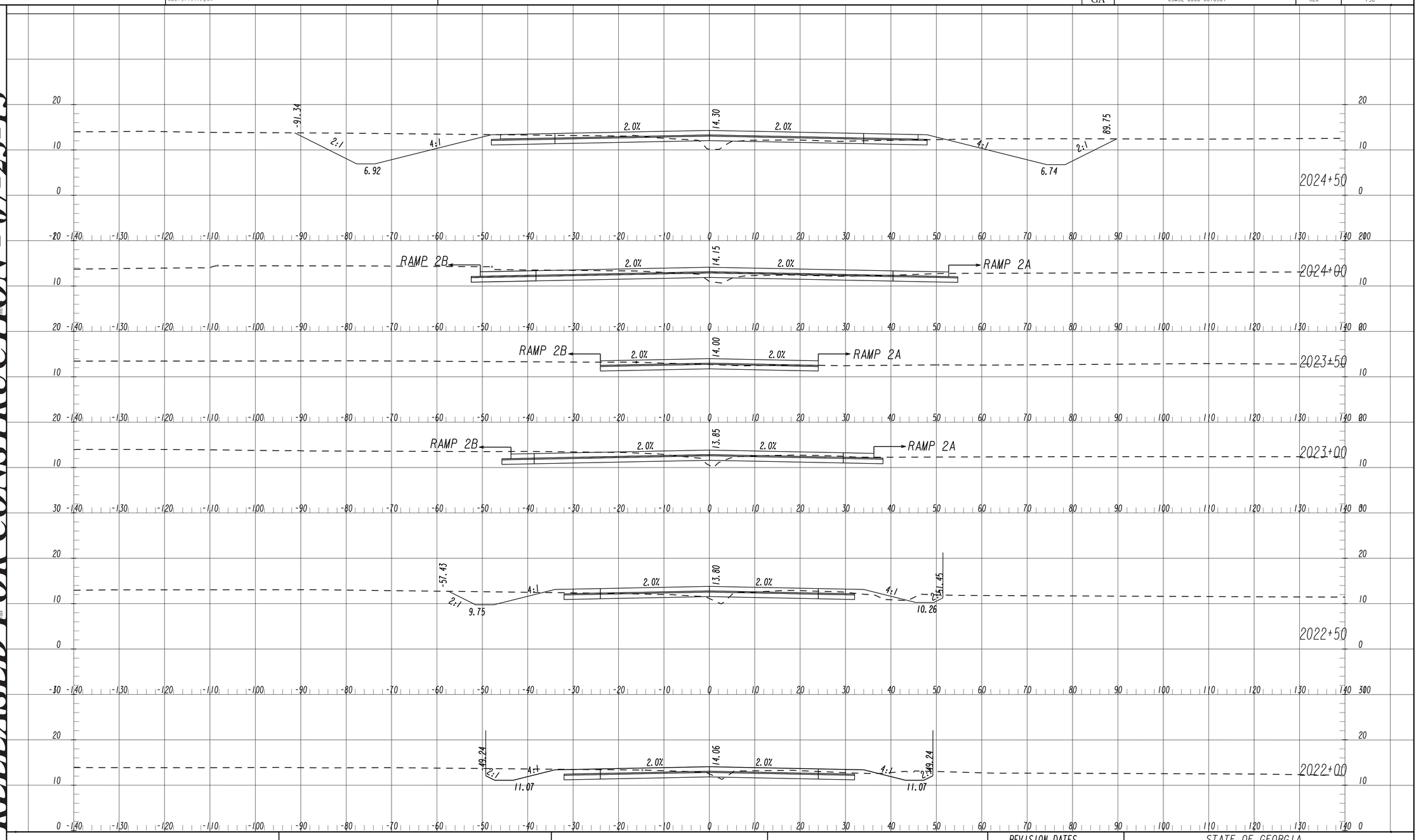
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	326	730

RELEASED FOR CONSTRUCTION - 07-23-13



THE LPA GROUP
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A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

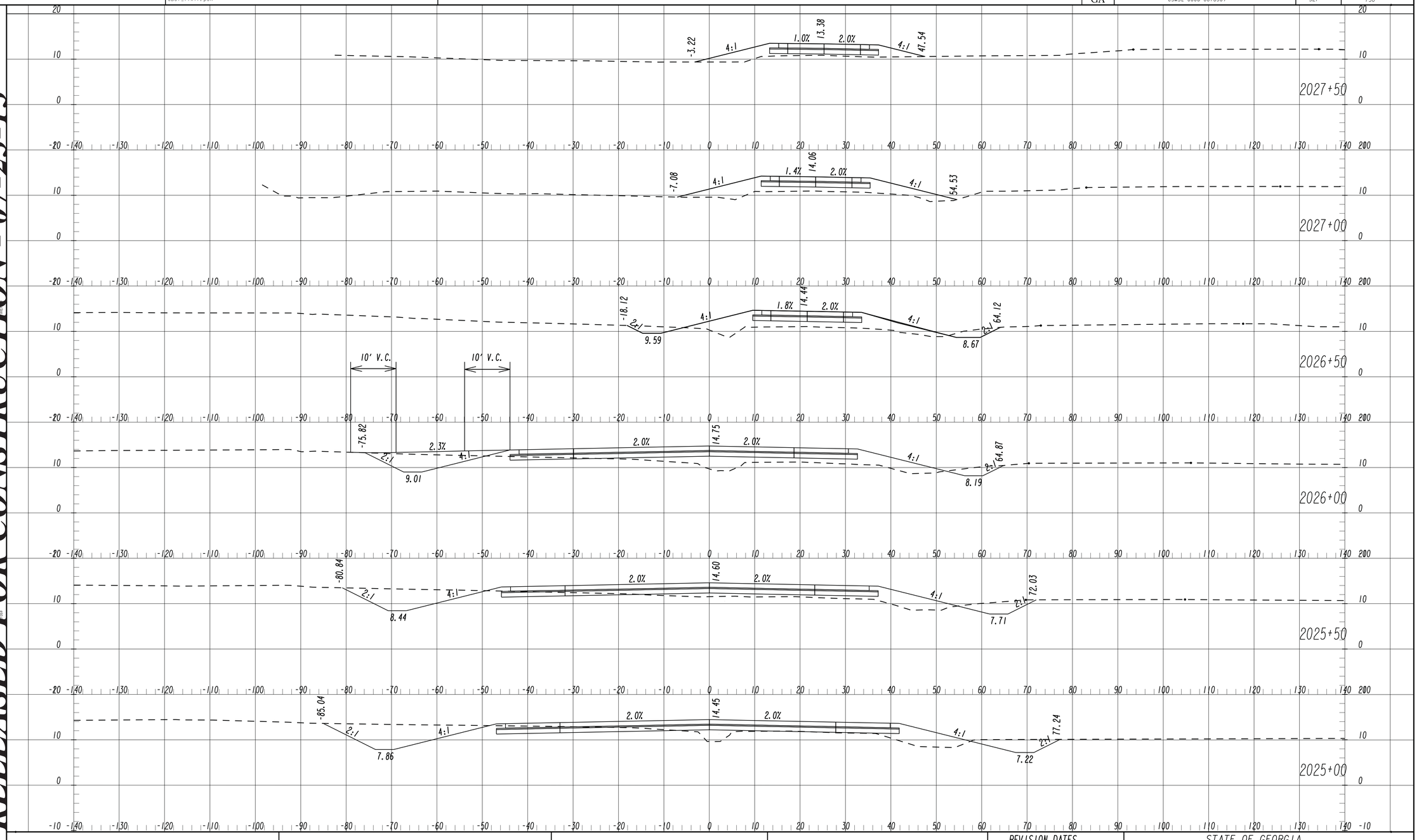
GRANGE ROAD

DRAWING No. 23-115

3/1/2007 SUXSEW

JParks

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUKSEW

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A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

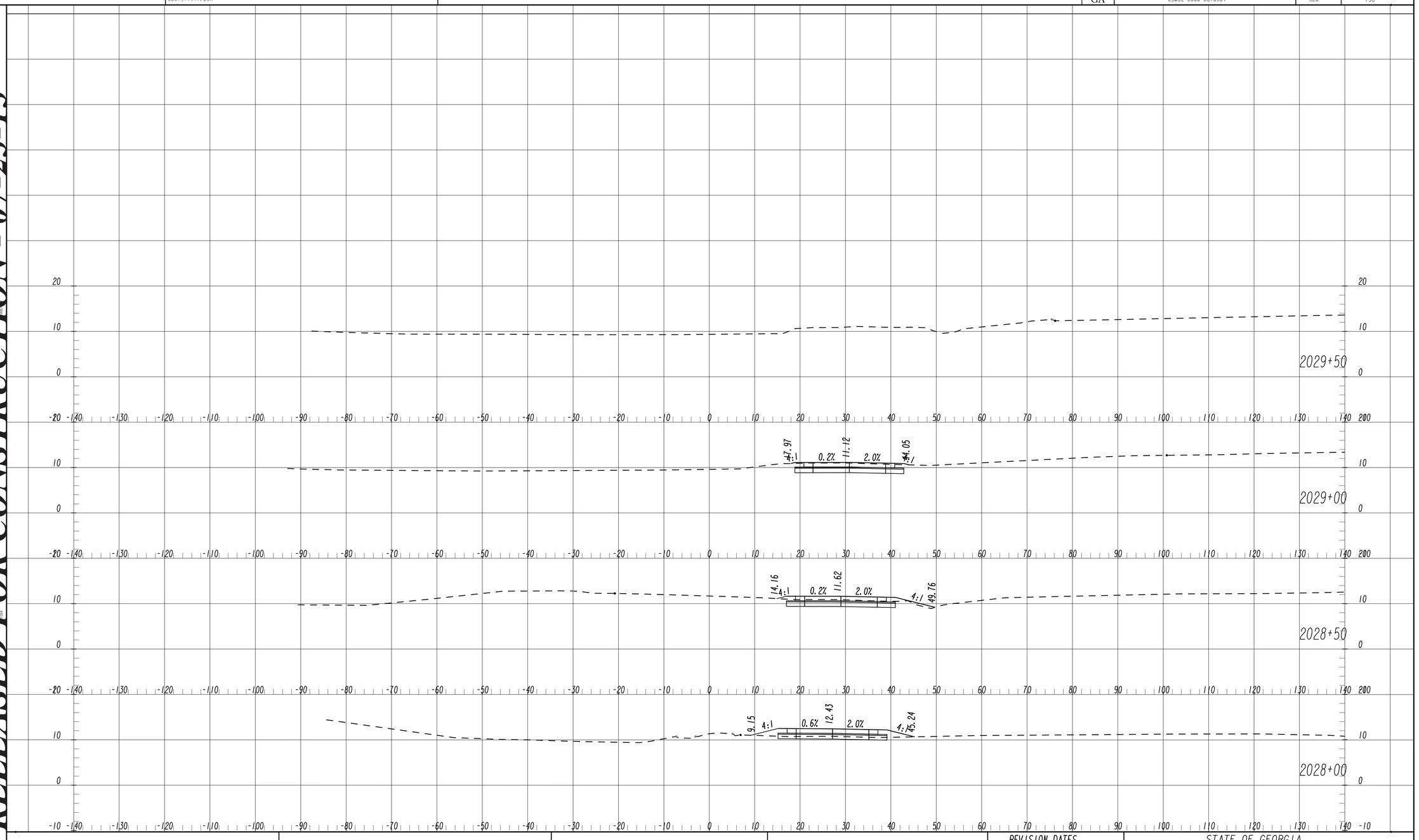
CROSS SECTIONS

GRANGE ROAD

DRAWING No. 23-116

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	328	730

RELEASED FOR CONSTRUCTION - 07-23-13



THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

GRANGE ROAD

DRAWING No. 23-117

3/1/2007 SUKSEW

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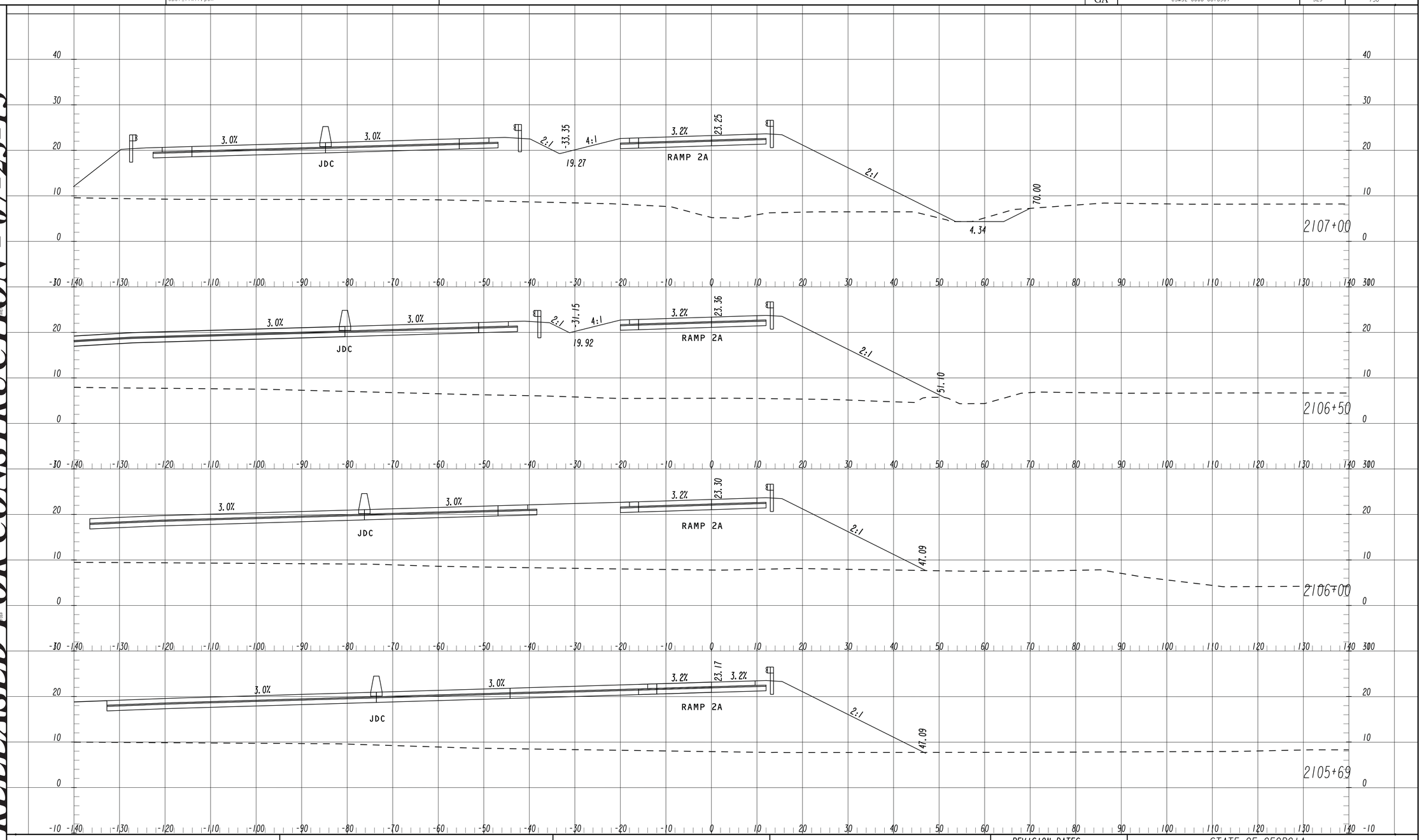
JParks | GDOT_11x17.pen

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	329	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

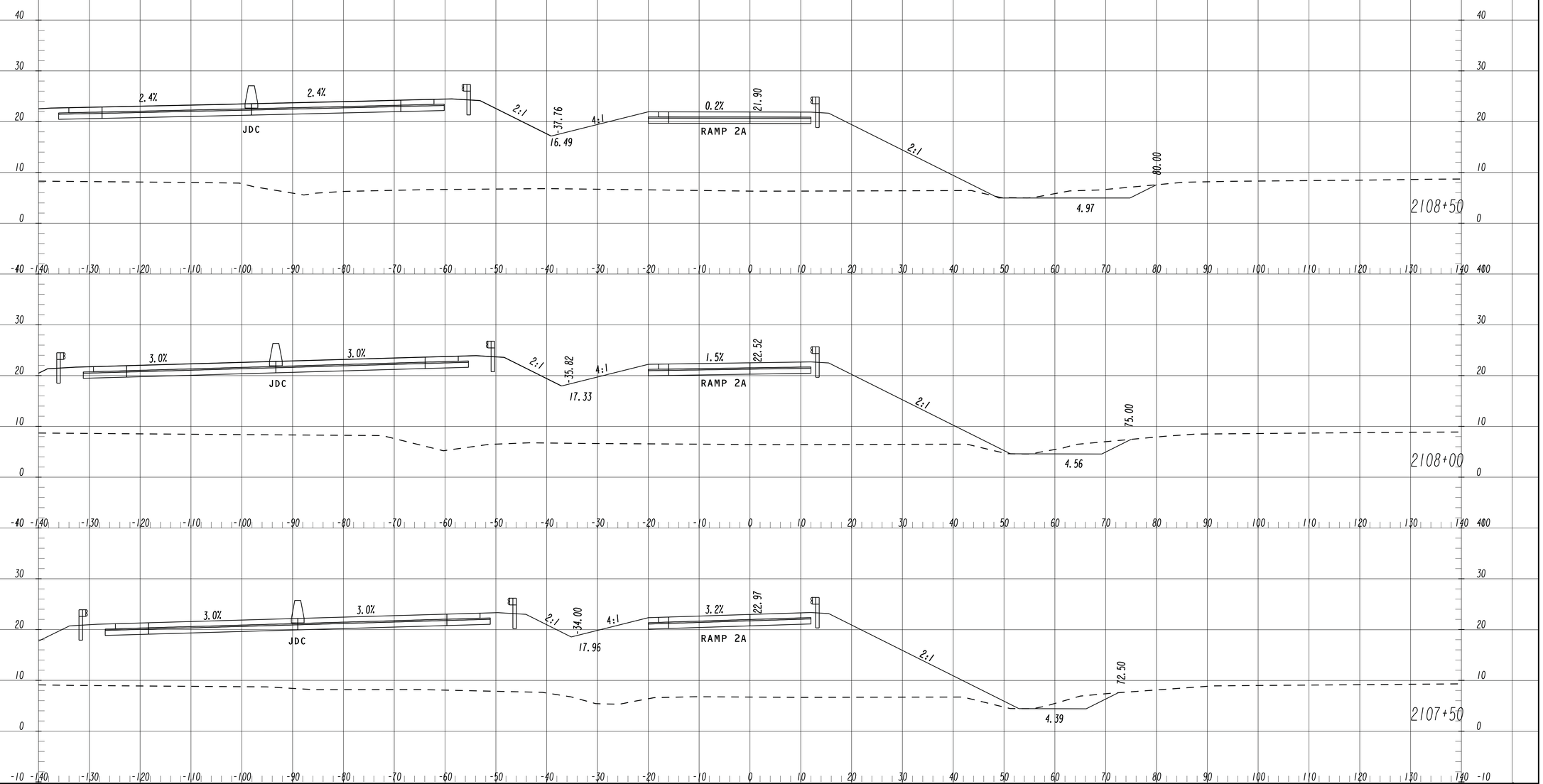
CROSS SECTIONS

RAMP 2A

DRAWING No. 23-118

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	330	730

RELEASED FOR CONSTRUCTION - 07-23-13



THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

RAMP 2A

DRAWING No. 23-119

3/1/2007 SUXSEW

RELEASED FOR CONSTRUCTION - 07-23-13

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

RAMP 2A

DRAWING No. 23-120

3/1/2007 SUYSEW

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STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	332	730

JParks

RELEASED FOR CONSTRUCTION - 07-23-13

3/1/2007 SUXSEW

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

RAMP 2A

DRAWING No. 23-121

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	333	730

RELEASED FOR CONSTRUCTION - 07-23-13

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

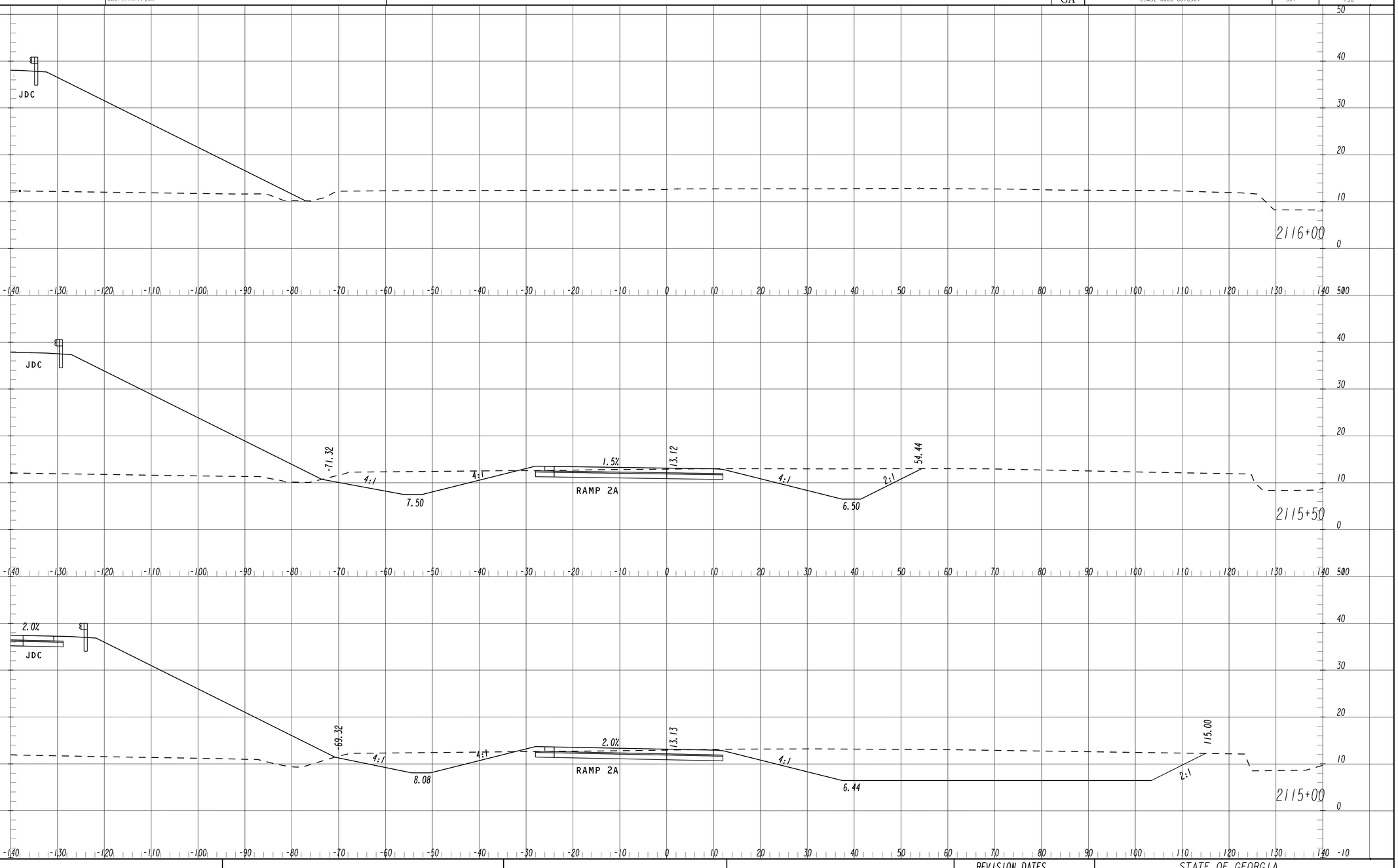
RAMP 2A

DRAWING No. 23-122

3/1/2007 SUXSEW

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	334	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

THE LPA GROUP
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A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

RAMP 2A

DRAWING No. 23-124

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	335	730

RELEASED FOR CONSTRUCTION - 07-23-13

3/1/2007 SUXSEW

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

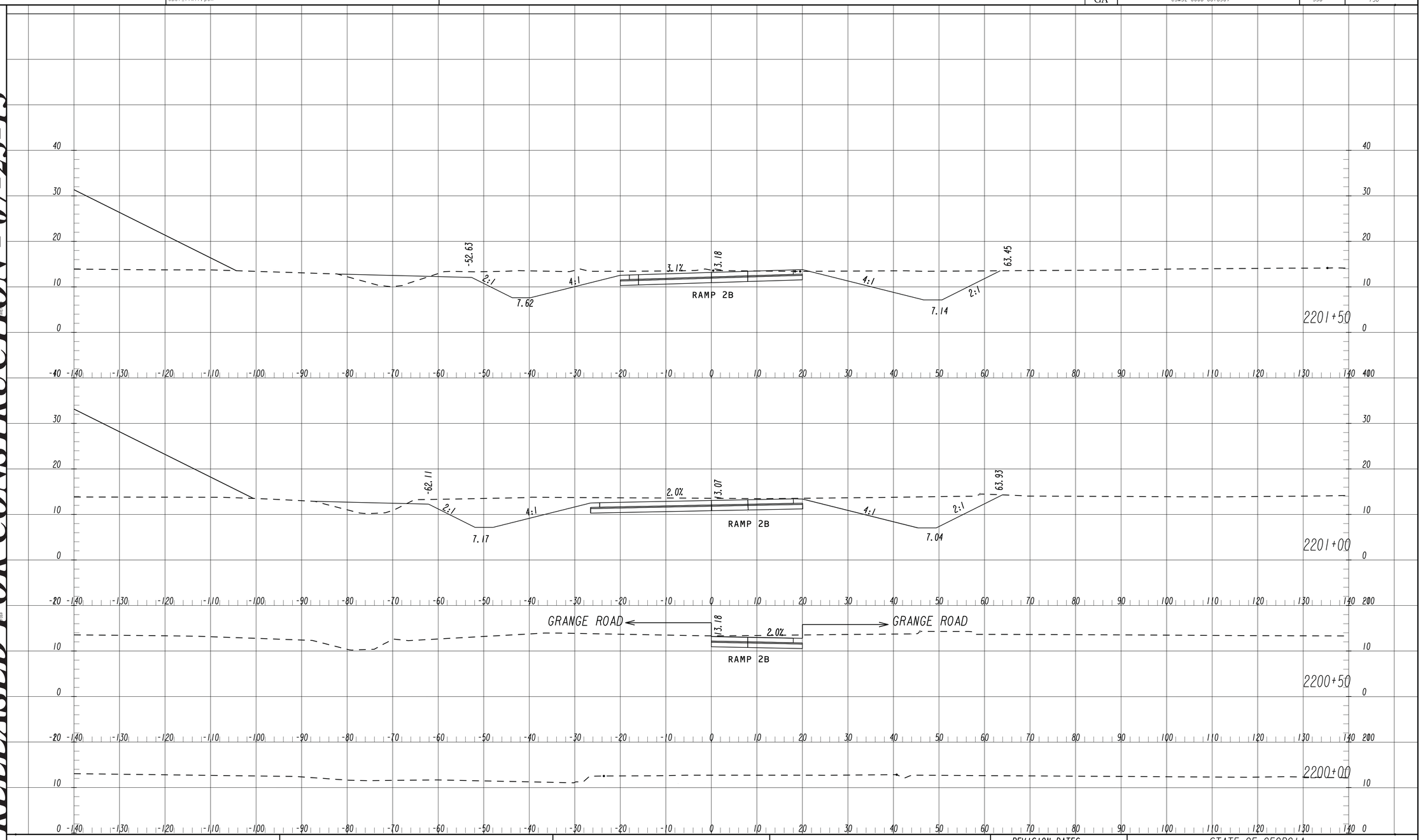
CROSS SECTIONS

RAMP 2A

DRAWING No. 23-123

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	336	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

THE LPA GROUP
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A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

RAMP 2B

DRAWING No. 23-125

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	337	730

RELEASED FOR CONSTRUCTION - 07-23-13

3/1/2007 SUXSEW

THE LPA GROUP
TRANSPORTATION CONSULTANTS
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3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

RAMP 2B

DRAWING No. 23-126

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	338	730

RELEASED FOR CONSTRUCTION - 07-23-13

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

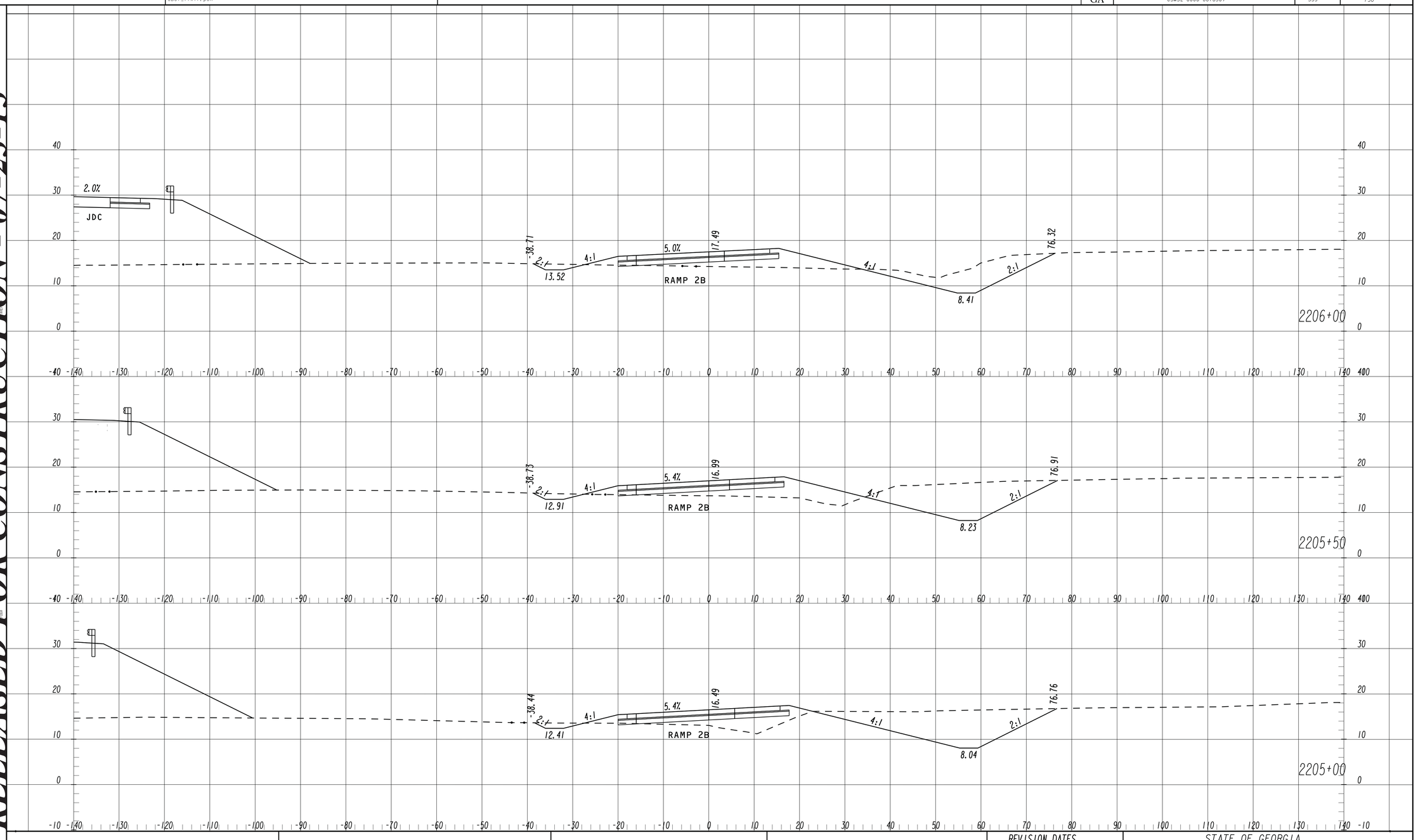
RAMP 2B

DRAWING No. 23-127

3/1/2007 SUXSEW

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	339	730

RELEASED FOR CONSTRUCTION - 07-23-13



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A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

RAMP 2B

DRAWING No. 23-128

3/1/2007 SUXSEW

RELEASED FOR CONSTRUCTION - 07-23-13

THE LPA GROUP
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A UNIT OF MICHAEL BAKER CORPORATION
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NORCROSS, GEORGIA 30092
(770) 263-9118

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1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

RAMP 2B

DRAWING No. 23-129

3/1/2007 SUXSEW

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	341	730

RELEASED FOR CONSTRUCTION - 07-23-13

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

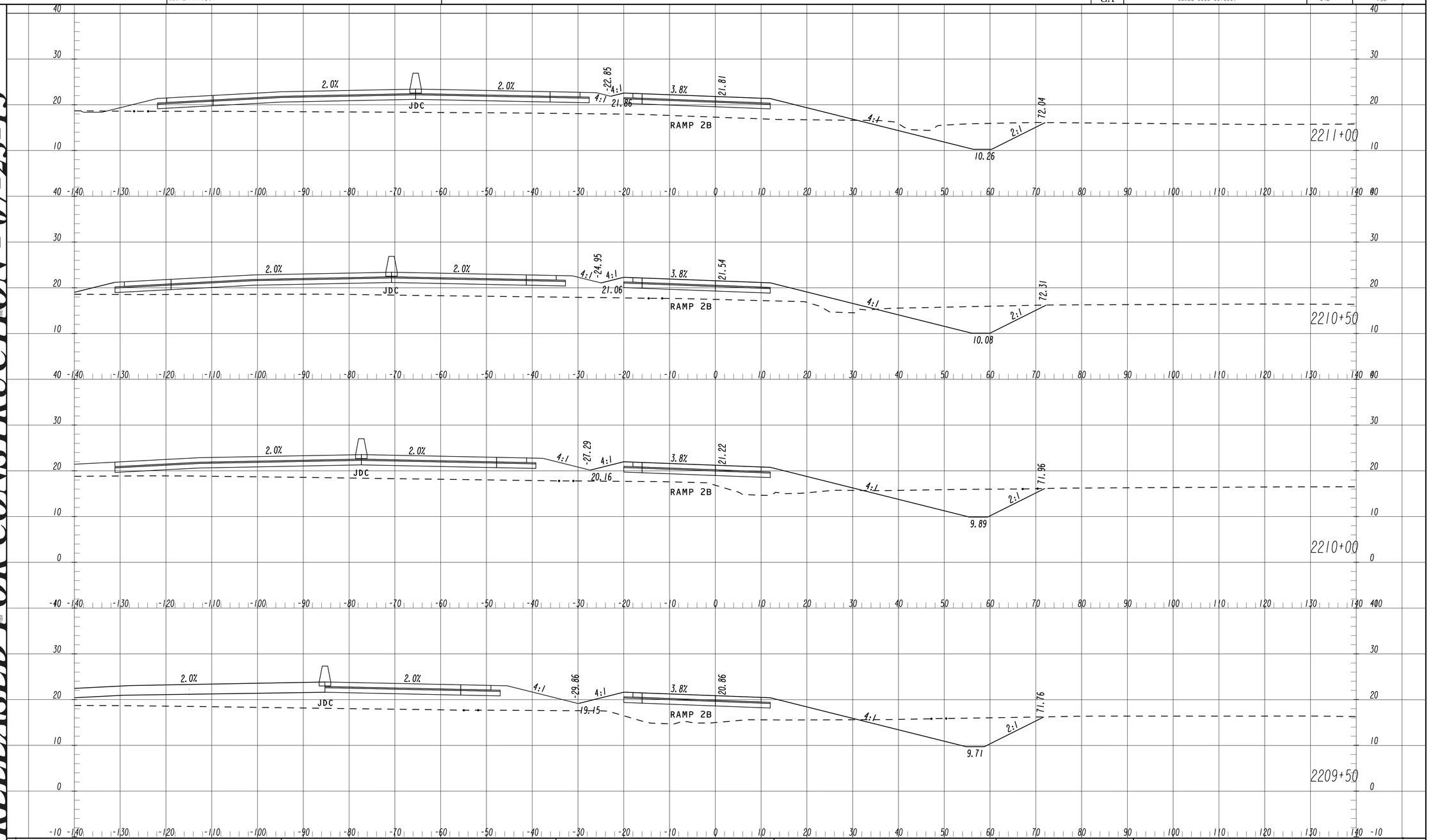
RAMP 2B

DRAWING No. 23-130

3/1/2007 SUXSEW

23-JUL-2013 14:35	2:35:29 PM	0008690_23-00327	Y:\Roadways\126379\0008690\Dgn\0008690_23-003.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	342	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

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1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION

OFFICE: INNOVATIVE PROGRAM DELIVERY

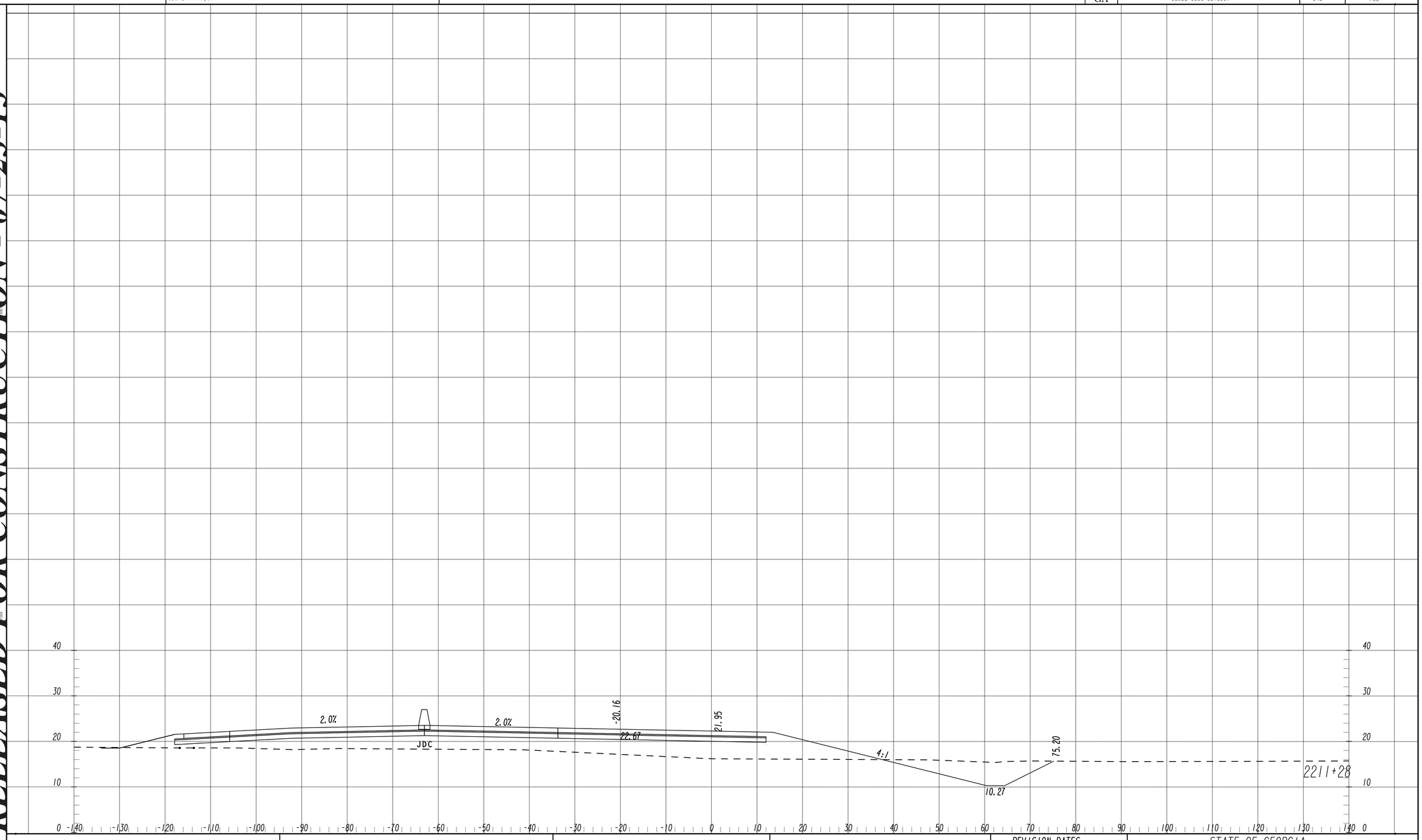
CROSS SECTIONS

RAMP 2B

DRAWING No. 23-131

23-JUL-2013 14:35	2:35:30 PM	0008690_23-00328	Y:\Roadways\126379\0008690\Dgn\0008690_23-003.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	343	730

RELEASED FOR CONSTRUCTION - 07-23-13



THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION

OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

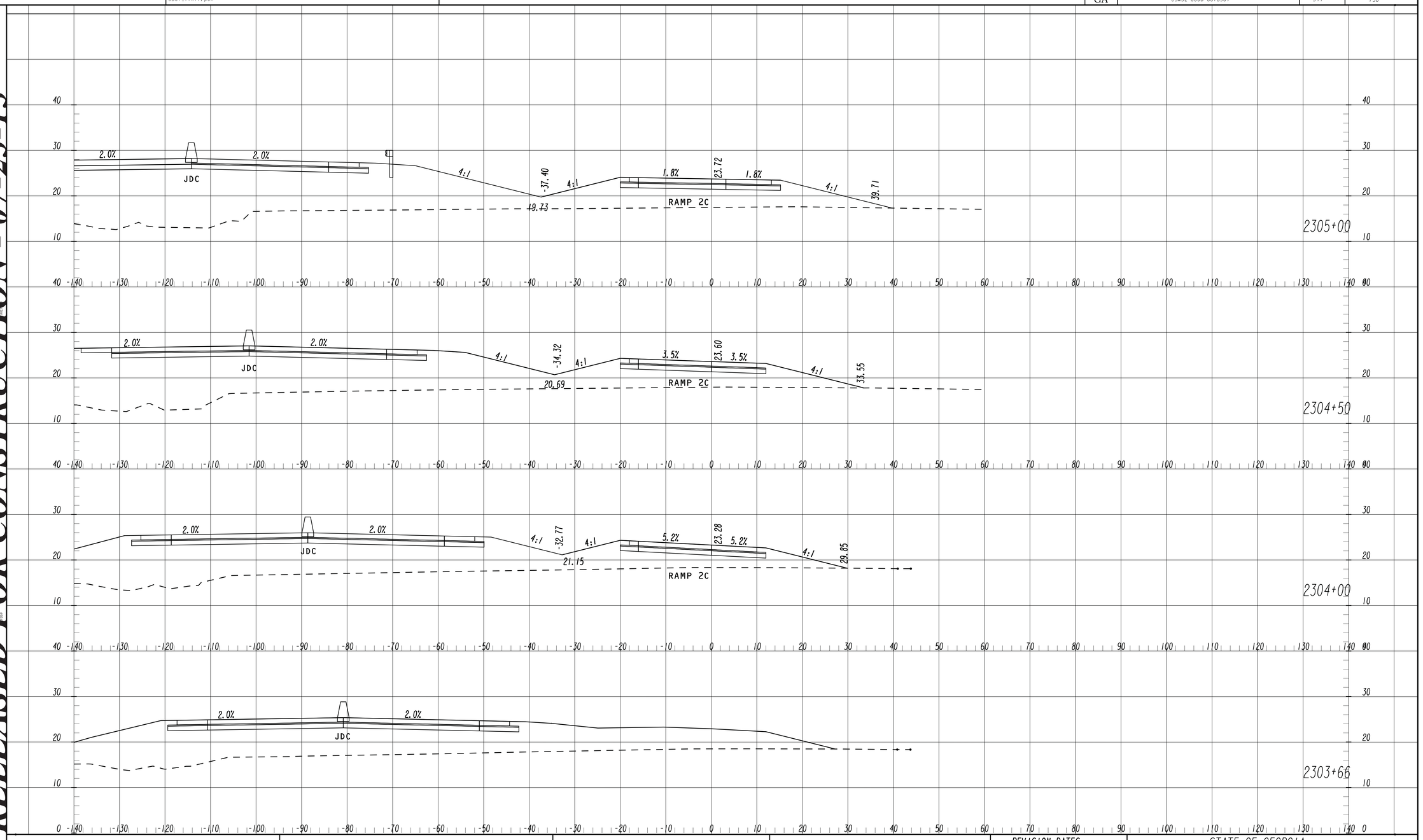
RAMP 2B

DRAWING No. 23-132

3/1/2007 SUYSEW

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	344	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

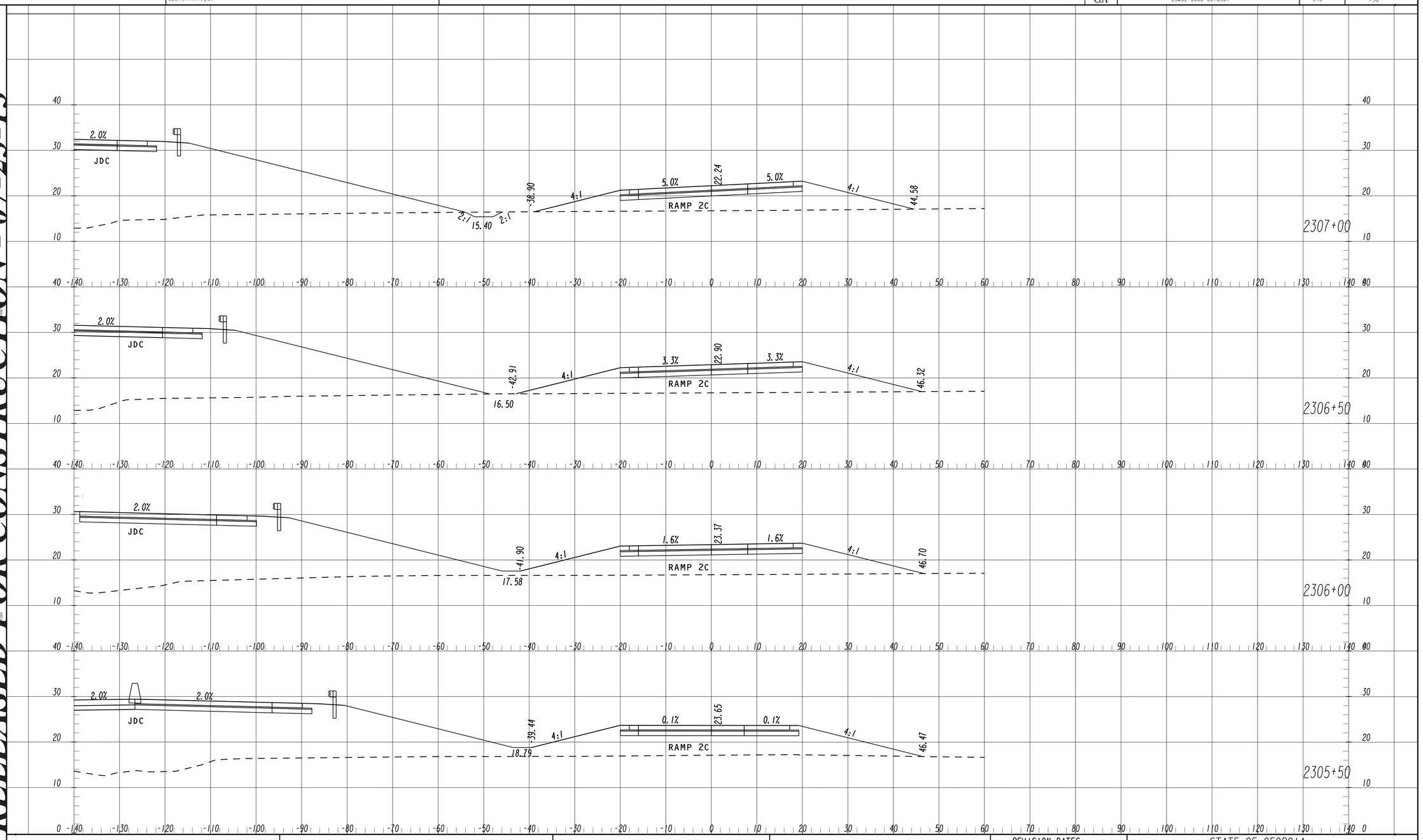
CROSS SECTIONS

RAMP 2C

DRAWING No. 23-133

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	345	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

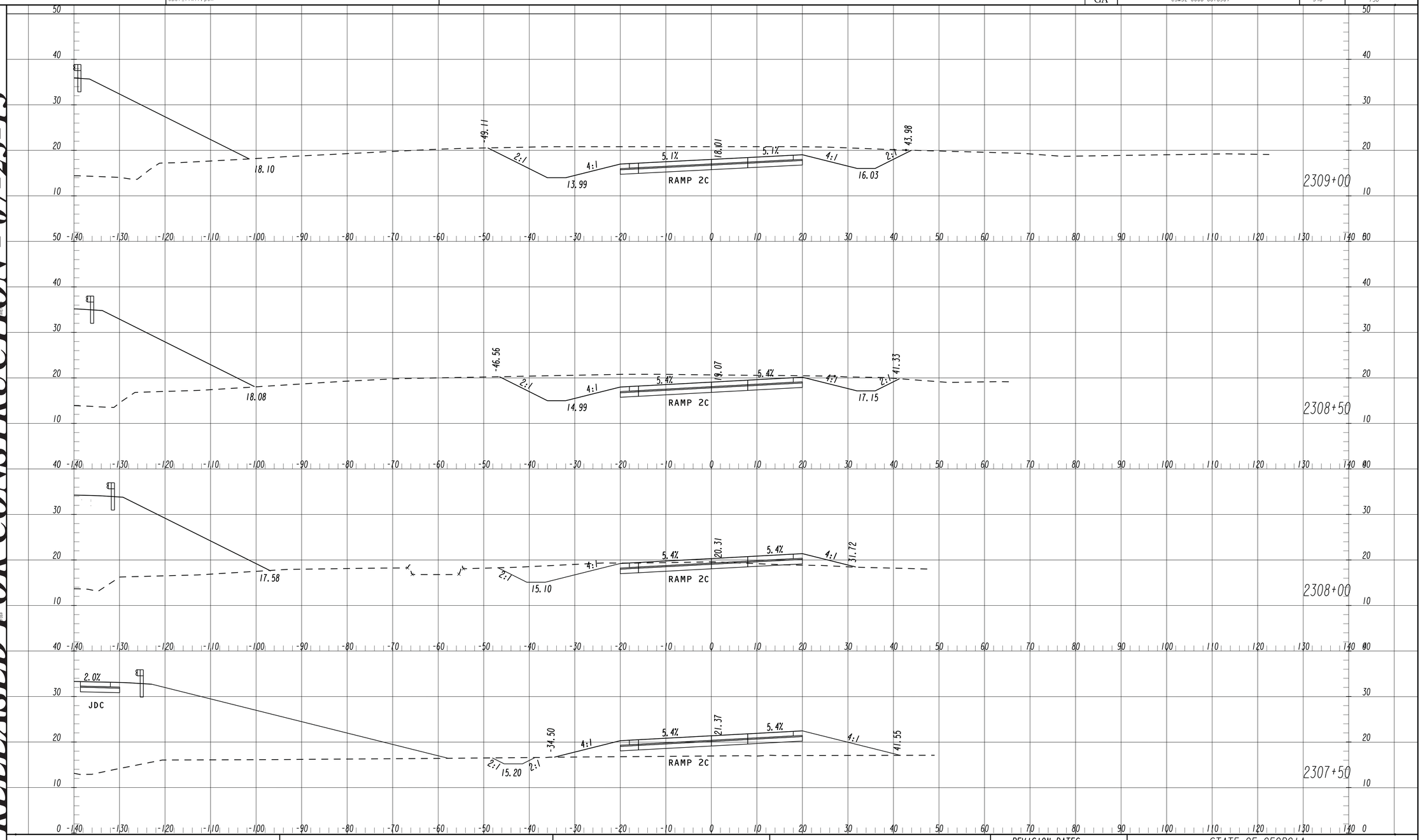
RAMP 2C

DRAWING No. 23-134

23-JUL-2013 14:35 2:35:34 PM
JParks
0008690_23-00331
GDOT_11x17.pen
Y:\Roadways\126379\0008690\Dgn\0008690_23-003.dgn

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	346	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

RAMP 2C

DRAWING No. 23-135

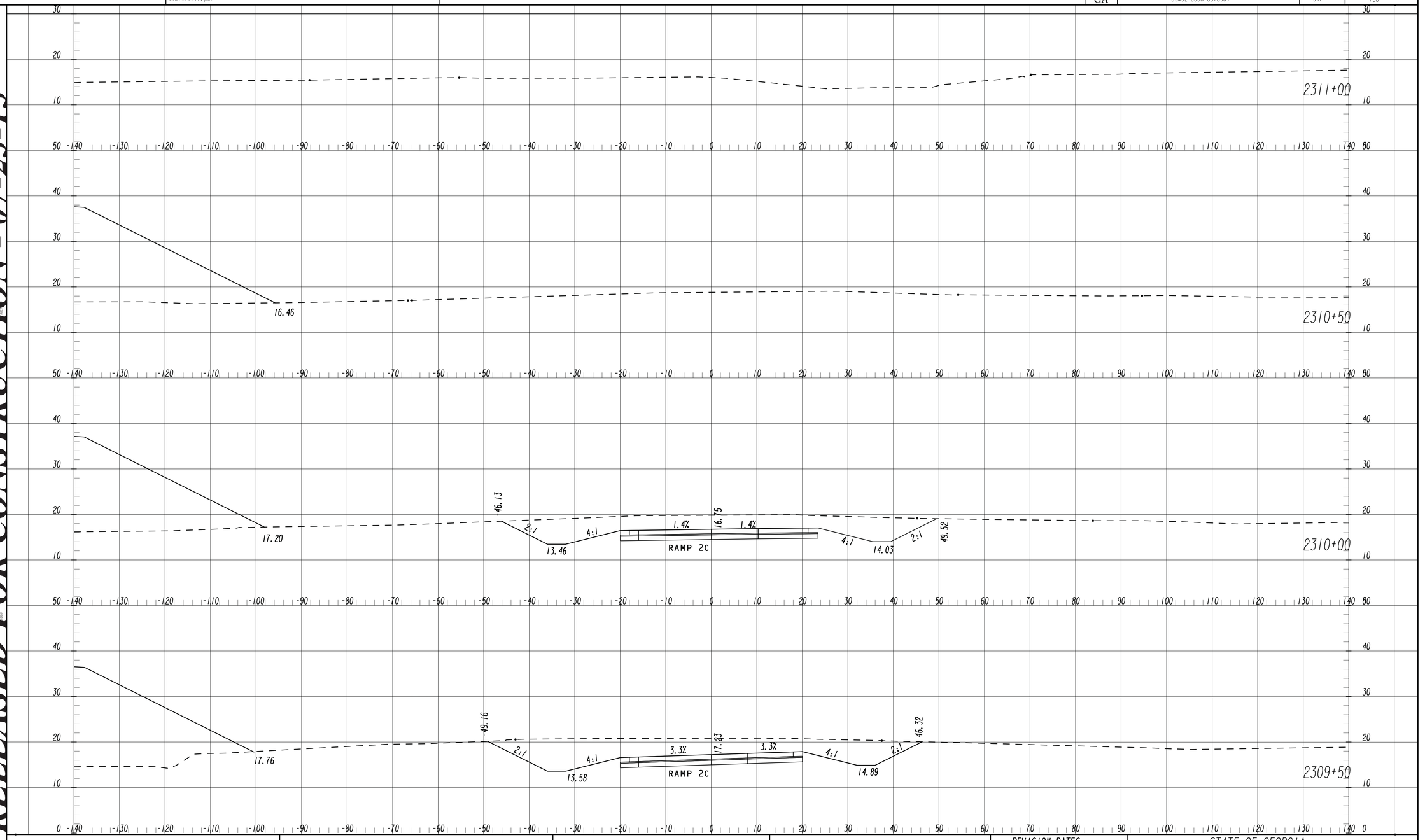
23-JUL-2013 14:35 2:35:35 PM
JParks

0008690_23-00332
GDOT_11x17.pen

Y:\Roadways\126379\0008690\Dgn\0008690_23-003.dgn

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	347	730

RELEASED FOR CONSTRUCTION - 07-23-13



THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

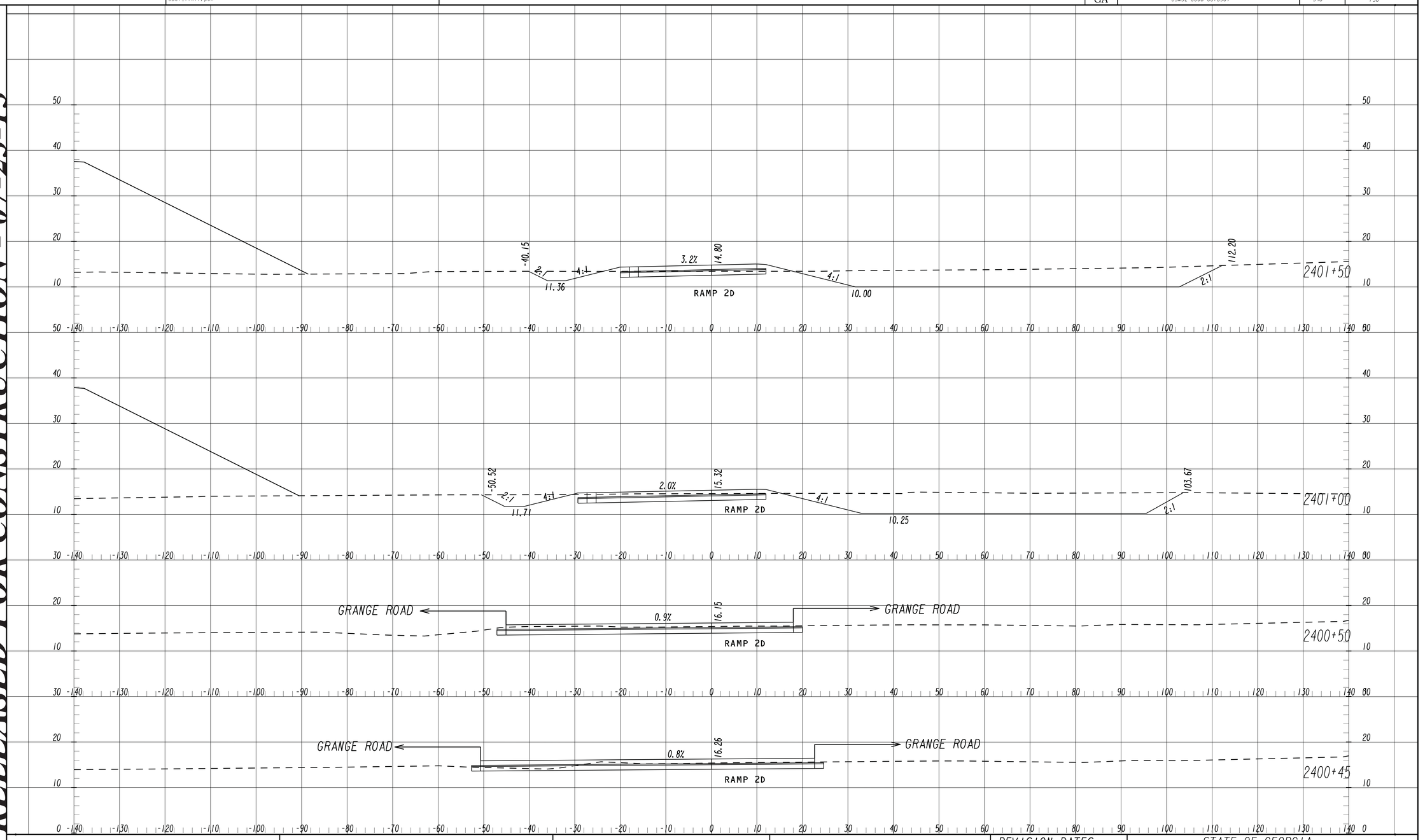
RAMP 2C

DRAWING No. 23-136

3/1/2007 SUXSEW

23-JUL-2013 14:35	2:35:36 PM	0008690_23-00333	Y:\Roadways\126379\0008690\Dgn\0008690_23-003.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	348	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

RAMP 2D

DRAWING No. 23-137

23-JUL-2013 14:35 2:35:38 PM
JParks

0008690_23-00334
GDOT_11x17.pen

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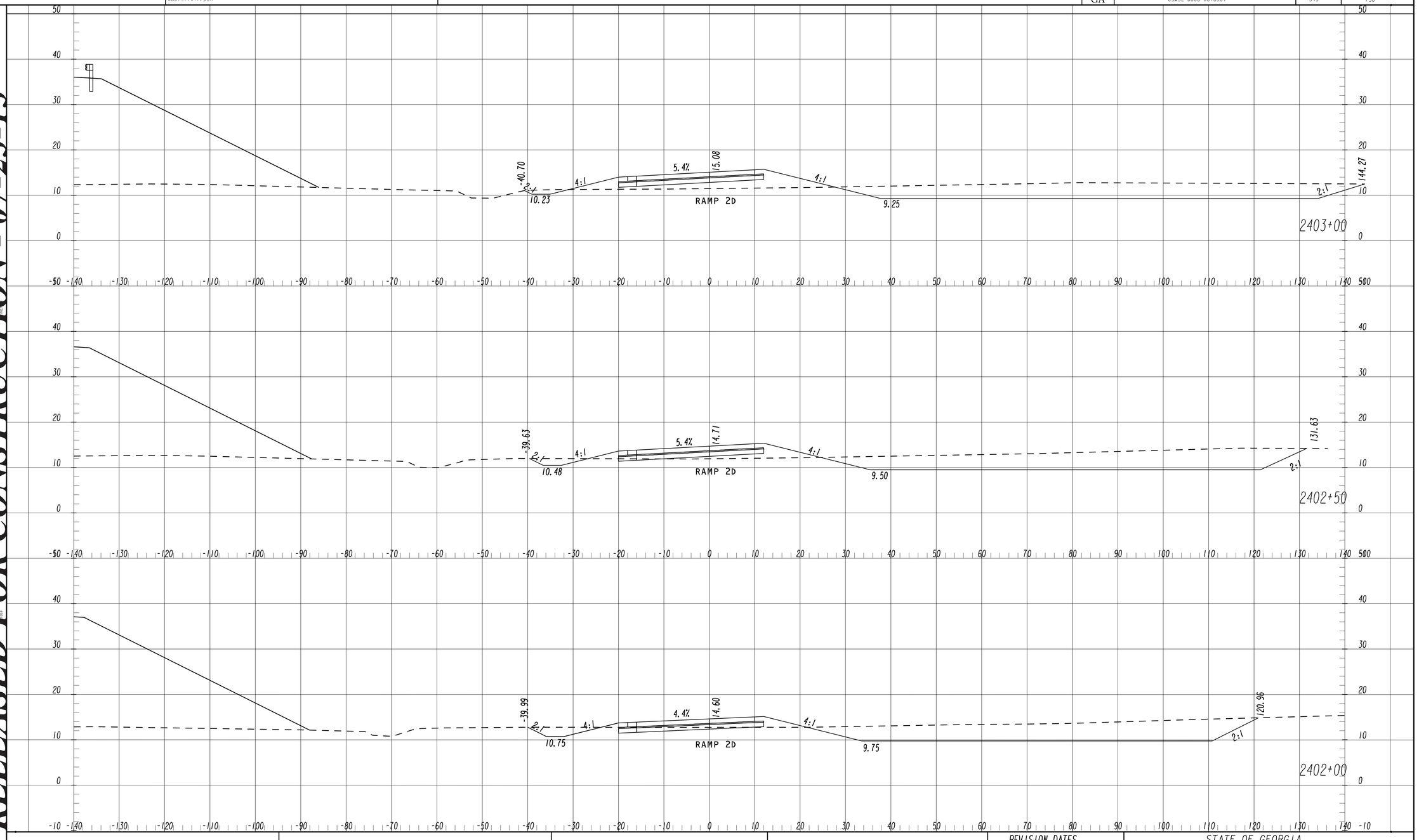
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	349	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/11/2007 SUXSEW

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

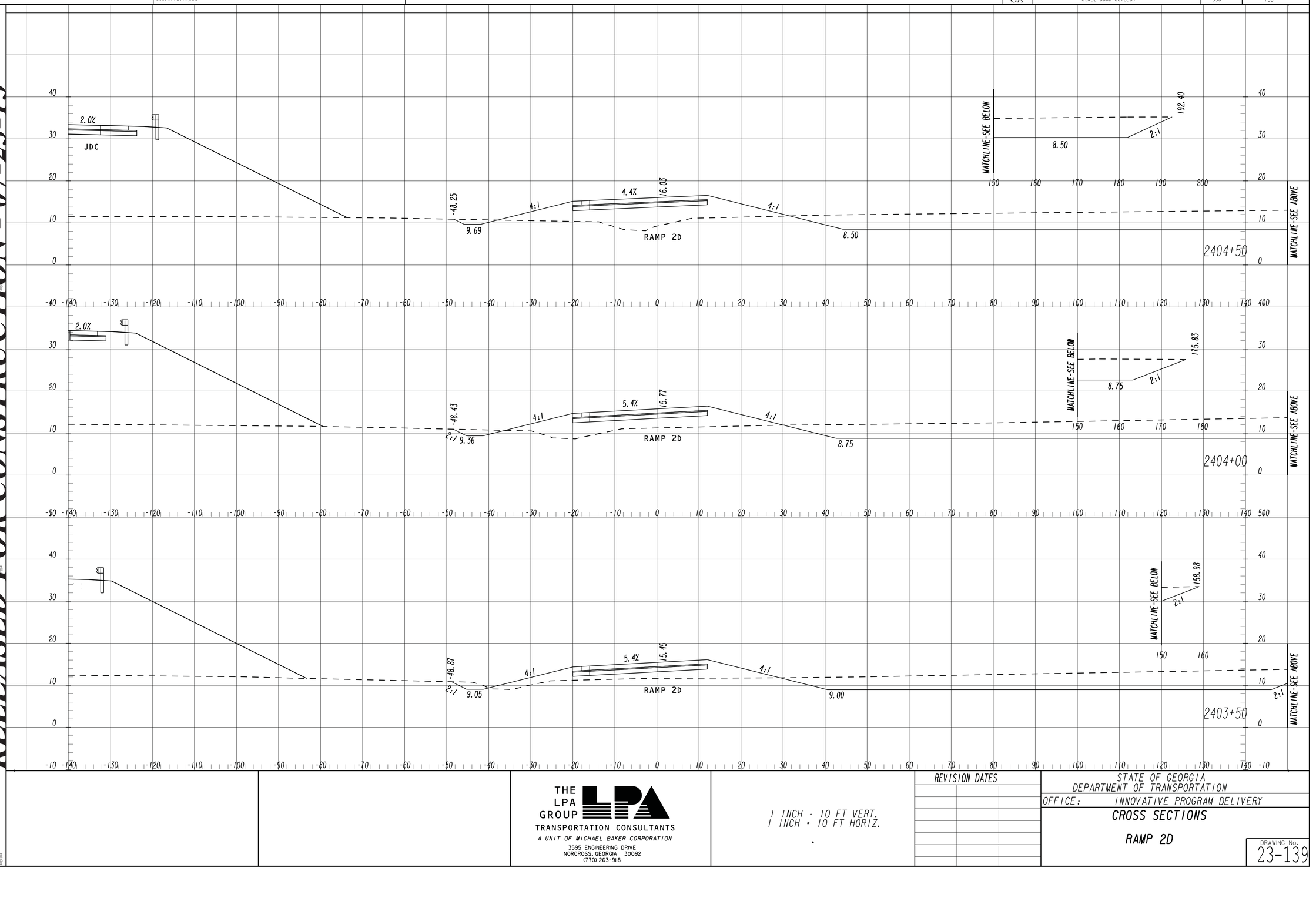
CROSS SECTIONS

RAMP 2D

DRAWING No. 23-138

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	350	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/11/2007 SUXSEW

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

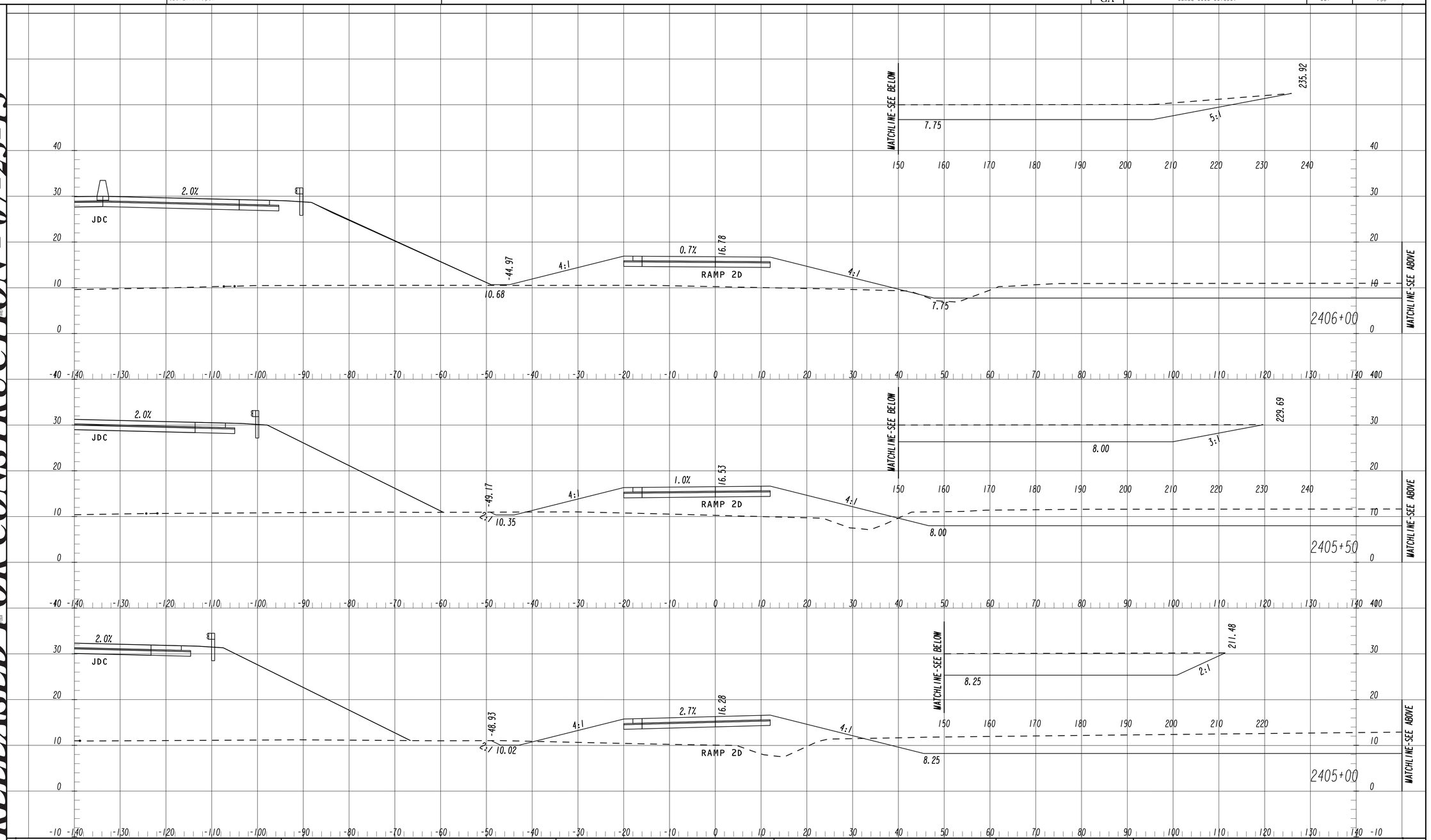
CROSS SECTIONS

RAMP 2D

DRAWING No. 23-139

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	351	730

RELEASED FOR CONSTRUCTION - 07-23-13



THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

RAMP 2D

DRAWING No. 23-140

3/1/2007 SUYSEW

23-JUL-2013 14:35 2:35:41 PM
JParks
0008690_23-00337
GDOT_11x17.pen
Y:\Roadways\126379\0008690\Dgn\0008690_23-003.dgn

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	352	730

RELEASED FOR CONSTRUCTION - 07-23-13

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

RAMP 2D

DRAWING No. 23-141

3/1/2007 SUXSEW

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	353	730

RELEASED FOR CONSTRUCTION - 07-23-13

3/1/2007 SUYSEW

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

RAMP 2D

DRAWING No. 23-142

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	354	730

RELEASED FOR CONSTRUCTION - 07-23-13

3/1/2007 SUXSEW

THE LPA GROUP
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A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

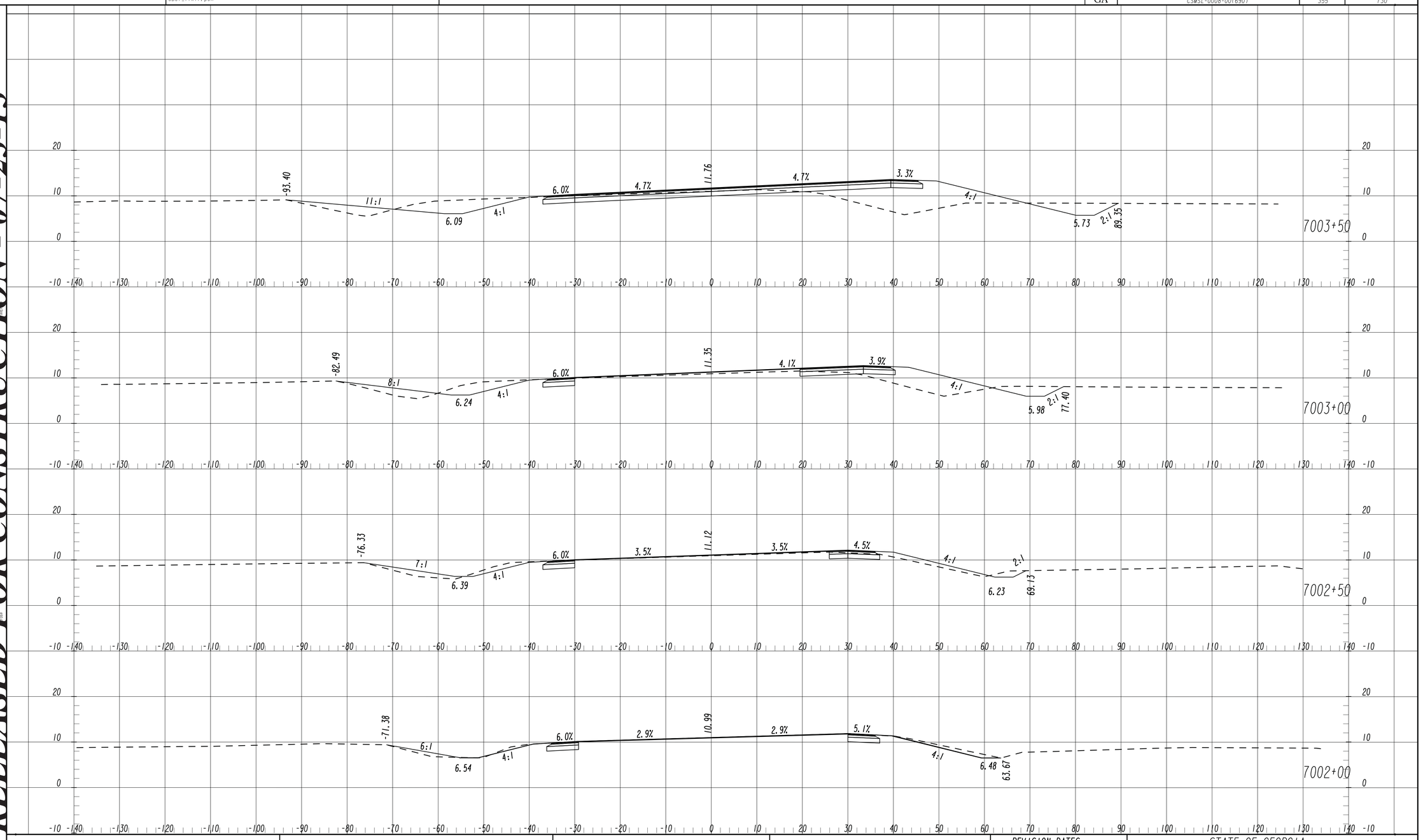
CROSS SECTIONS

RAMP 2D

DRAWING No. 23-143

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	355	730

RELEASED FOR CONSTRUCTION - 07-23-13



THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

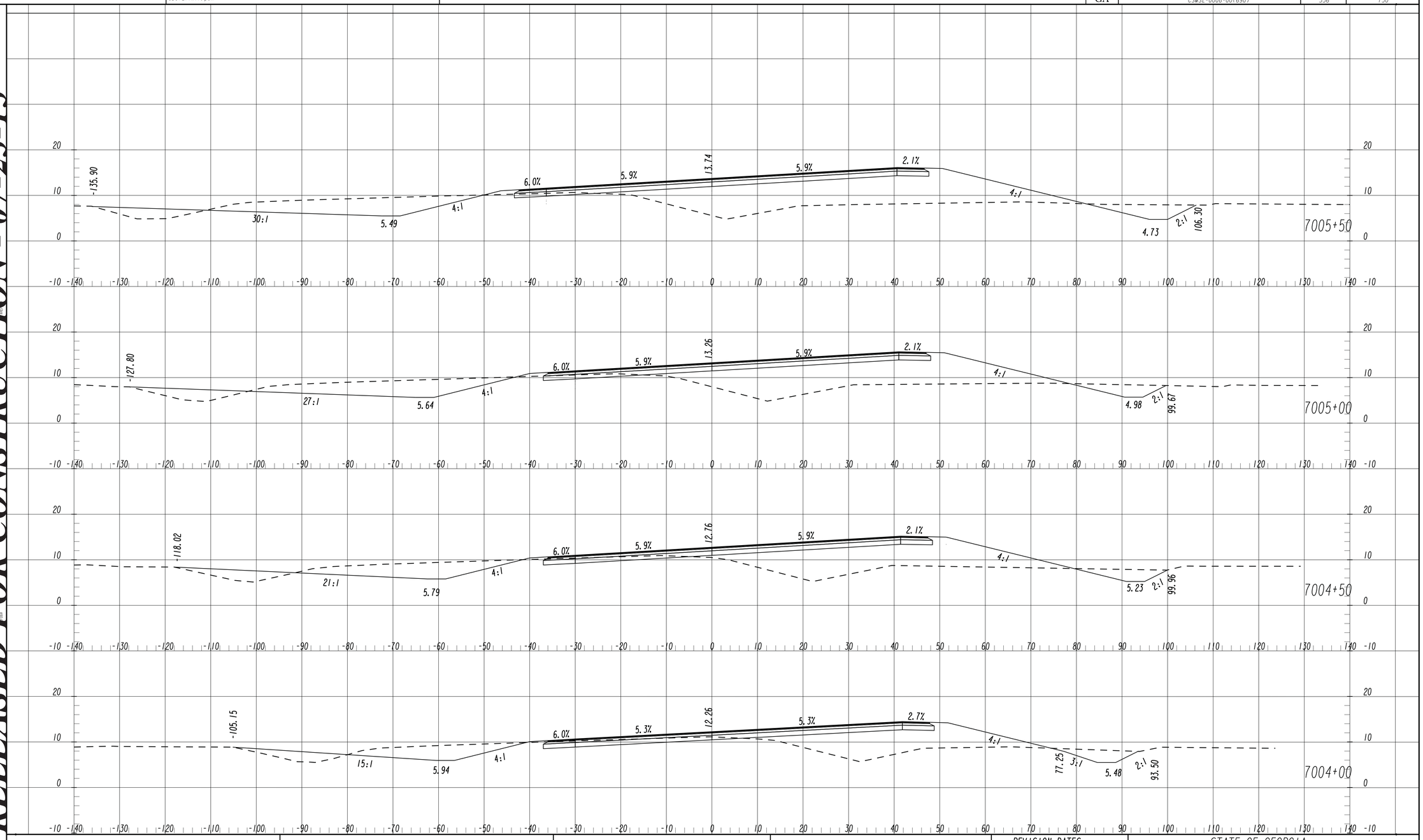
SONNY DIXON INTERCHANGE

DRAWING No. 23-144

3/1/2007 SUXSEW

23-JUL-2013 14:35	2:35:48 PM	0008690_23-004I	Y:\Roadways\126379\0008690\Dgn\0008690_23-004.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	356	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

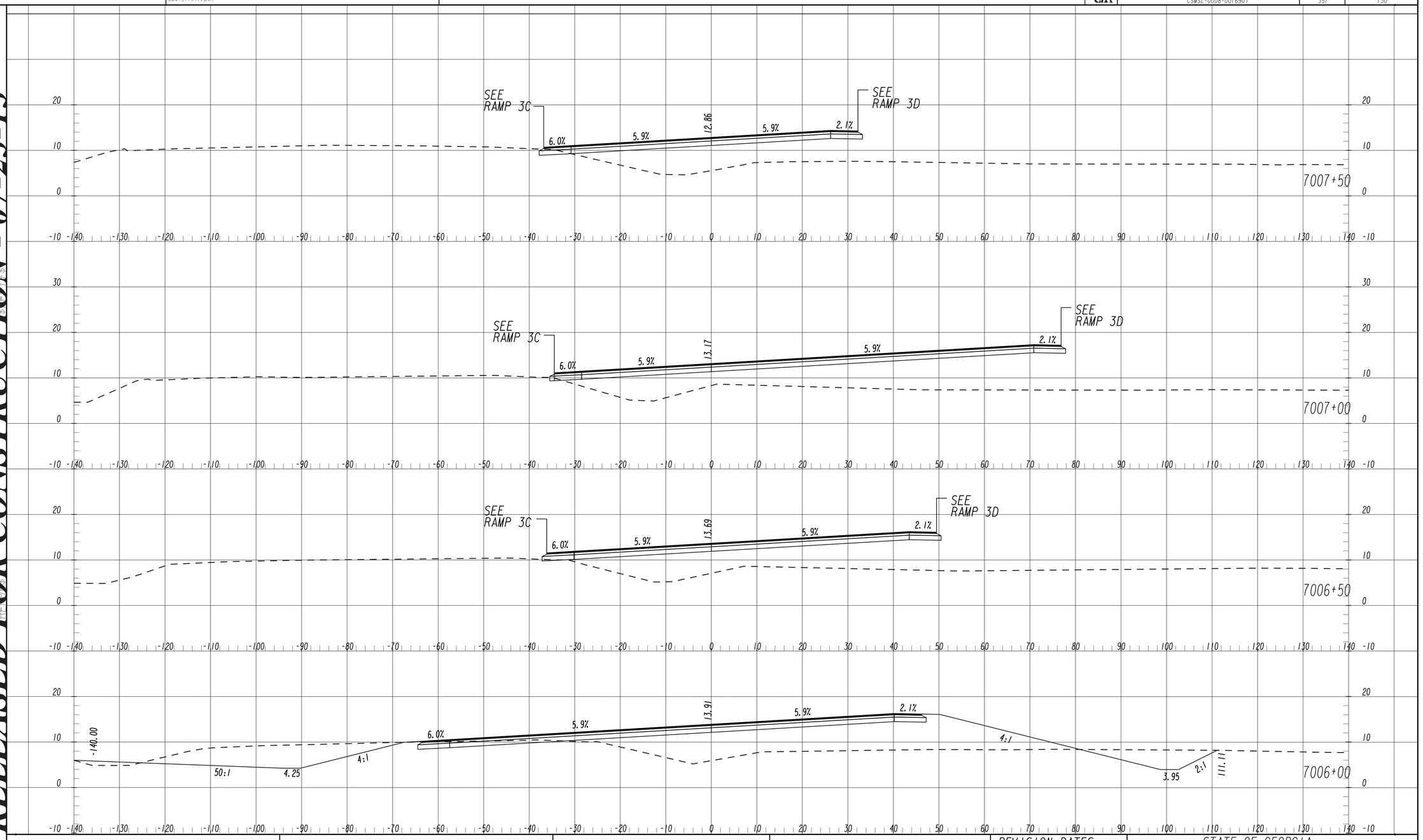
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

SONNY DIXON INTERCHANGE

DRAWING No. 23-145

RELEASED FOR CONSTRUCTION - 07-23-13



THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

SONNY DIXON INTERCHANGE

DRAWING No. 23-146

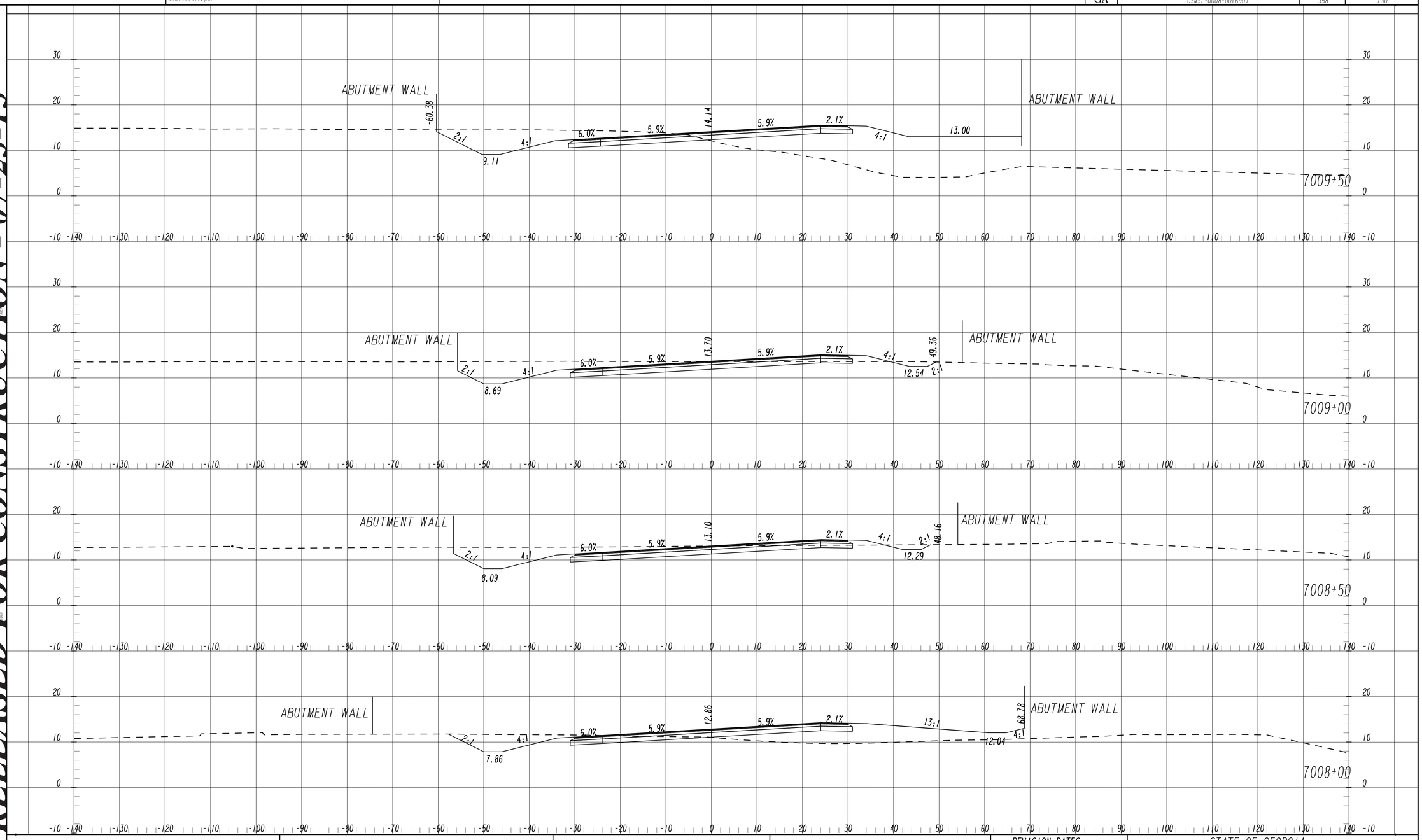
3/1/2013 07:55:11

23-JUL-2013 14:35 2:35:51 PM | 0008690_23-0043 | Y:\Roadways\126379\0008690\Dgn\0008690_23-004.dgn

JParks | GDOT_11x17.pen

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	358	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

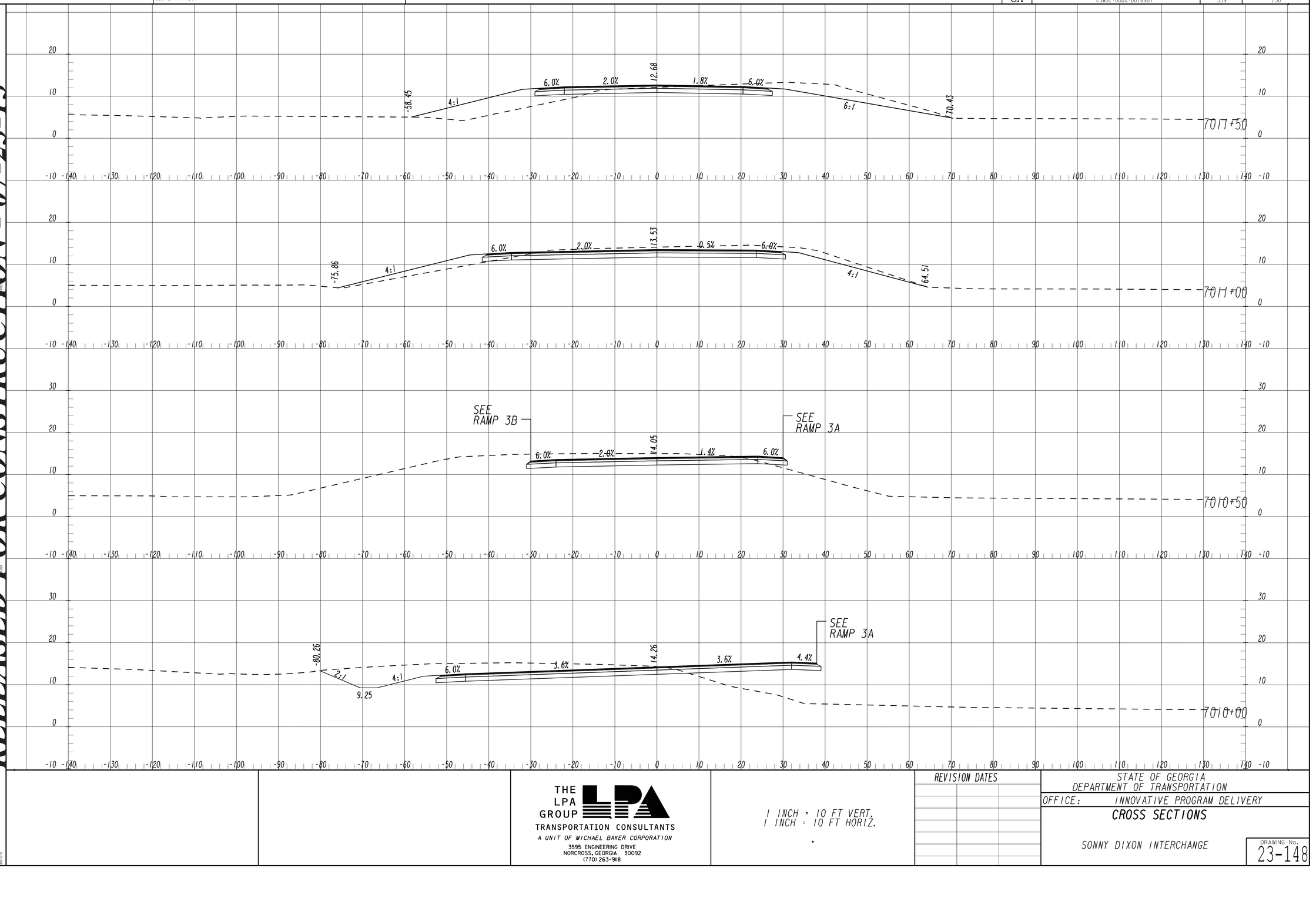
CROSS SECTIONS

SONNY DIXON INTERCHANGE

DRAWING No. 23-147

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	359	730

RELEASED FOR CONSTRUCTION - 07-23-13



THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

SONNY DIXON INTERCHANGE

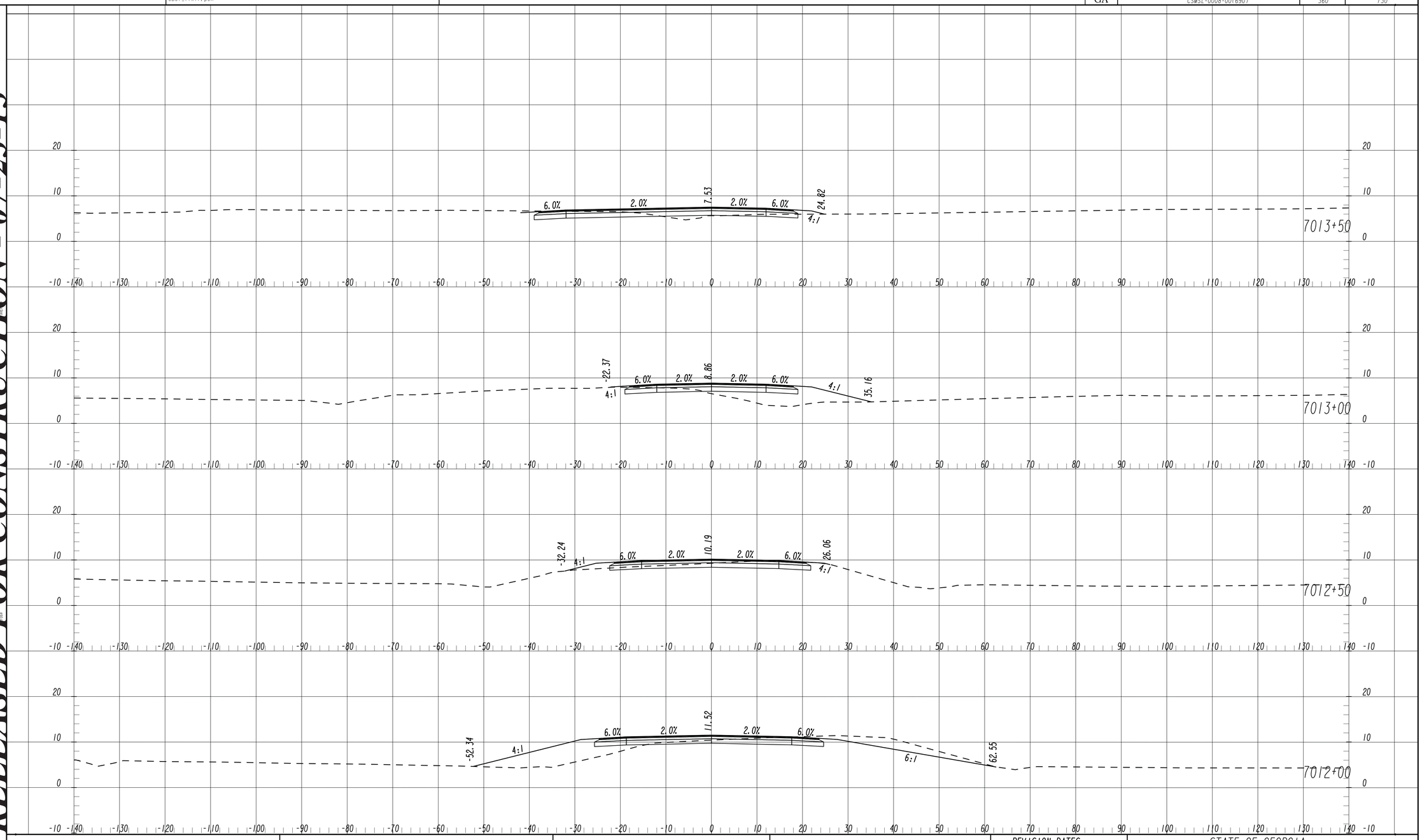
DRAWING No. 23-148

3/1/2007 SUYSEW

23-JUL-2013 14:35 2:35:54 PM | 0008690_23-0045 | GDOT_11x17.pen | Y:\Roadways\126379\0008690\Dgn\0008690_23-004.dgn

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	360	730

RELEASED FOR CONSTRUCTION - 07-23-13



THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

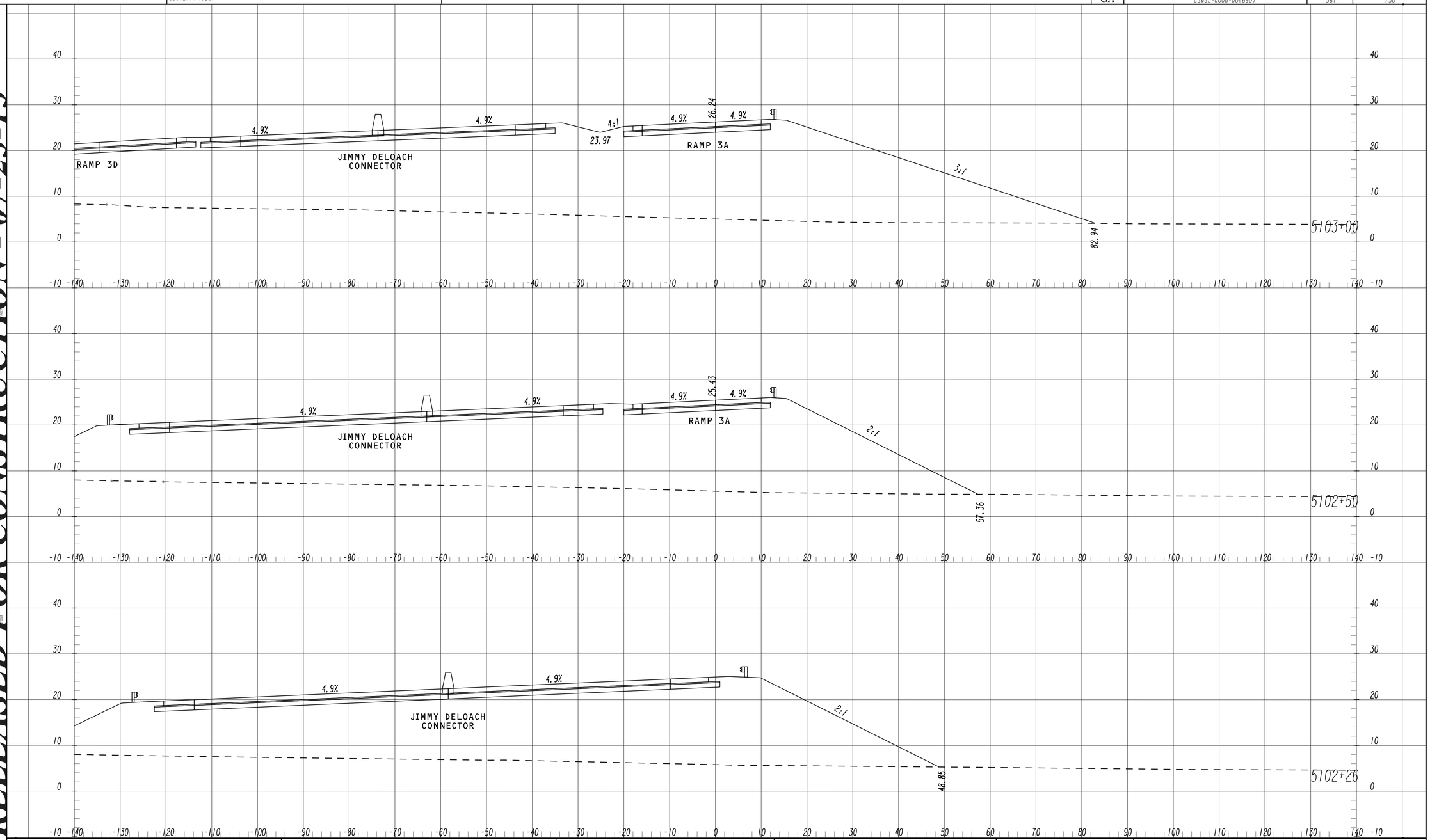
SONNY DIXON INTERCHANGE

DRAWING No. 23-149

3/1/2007 SUXSEW

23-JUL-2013 14:35	2:35:55 PM	0008690_23-0046	Y:\Roadways\126379\0008690\Dgn\0008690_23-004.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	361	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

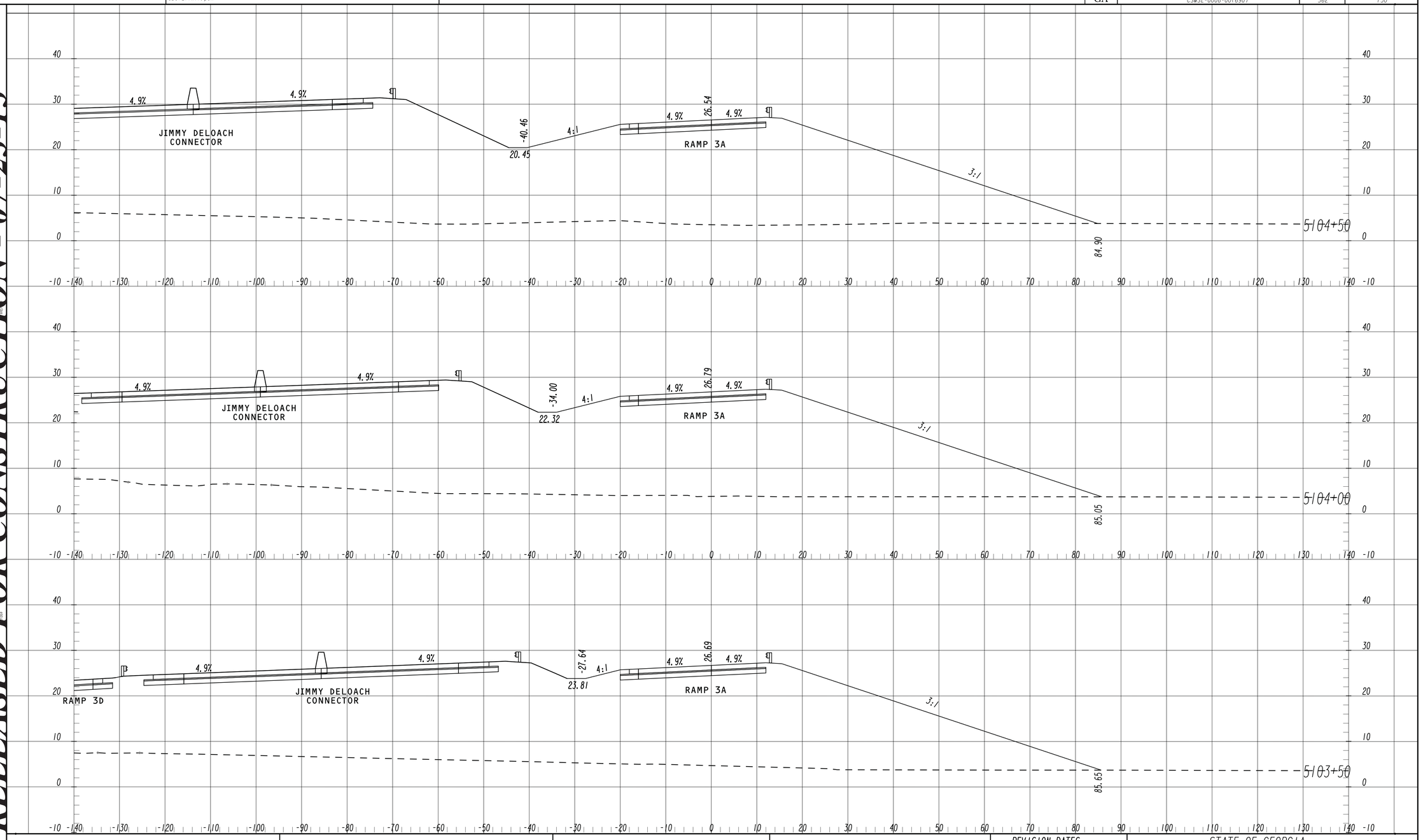
CROSS SECTIONS

RAMP 3A

DRAWING No. 23-150

23-JUL-2013 14:36	2:36:02 PM	0008690_23-0047	Y:\Roadways\126379\0008690\Dgn\0008690_23-004.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	362	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

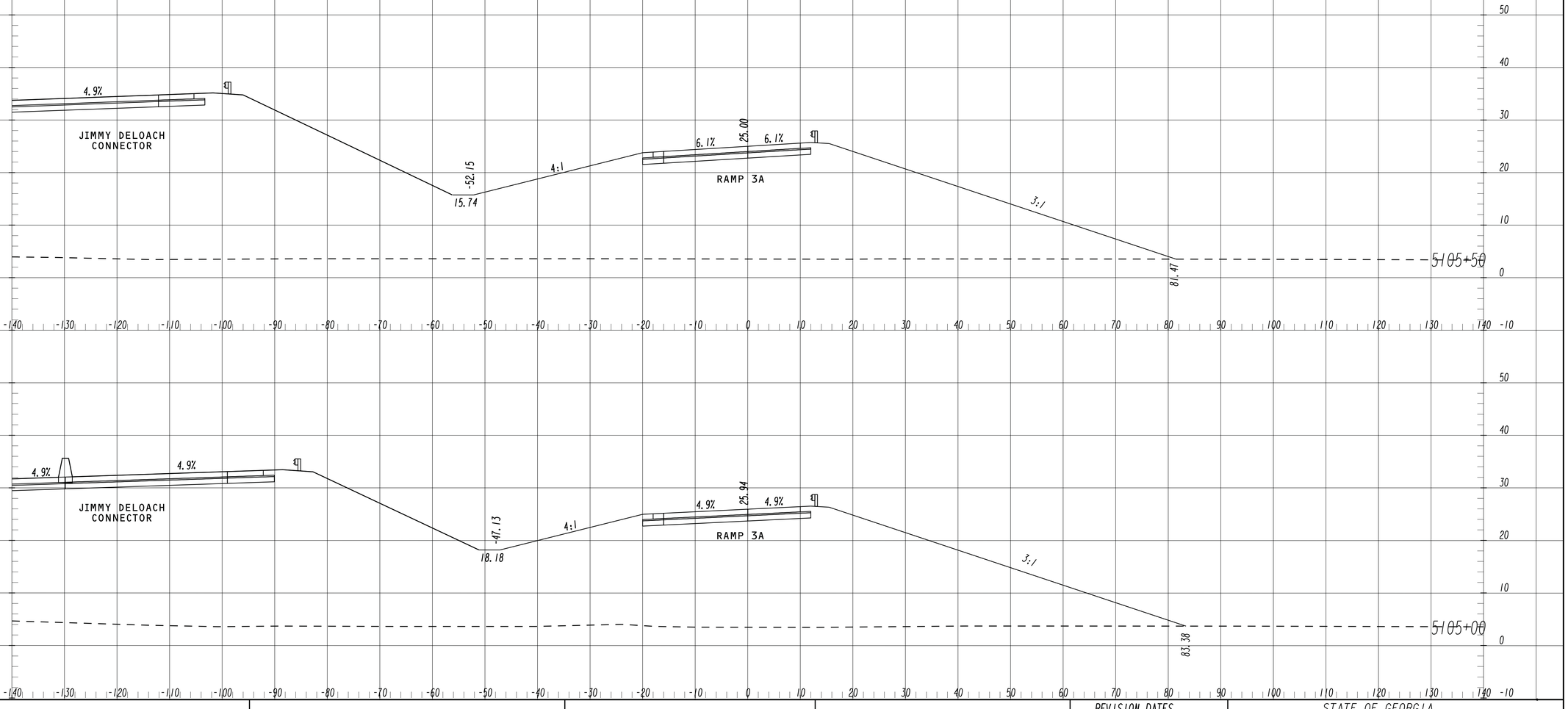
CROSS SECTIONS

RAMP 3A

DRAWING No. 23-151

23-JUL-2013 14:36	2:36:03 PM	0008690_23-0048	Y:\Roadways\126379\0008690\Dgn\0008690_23-004.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	363	730

RELEASED FOR CONSTRUCTION - 07-23-13

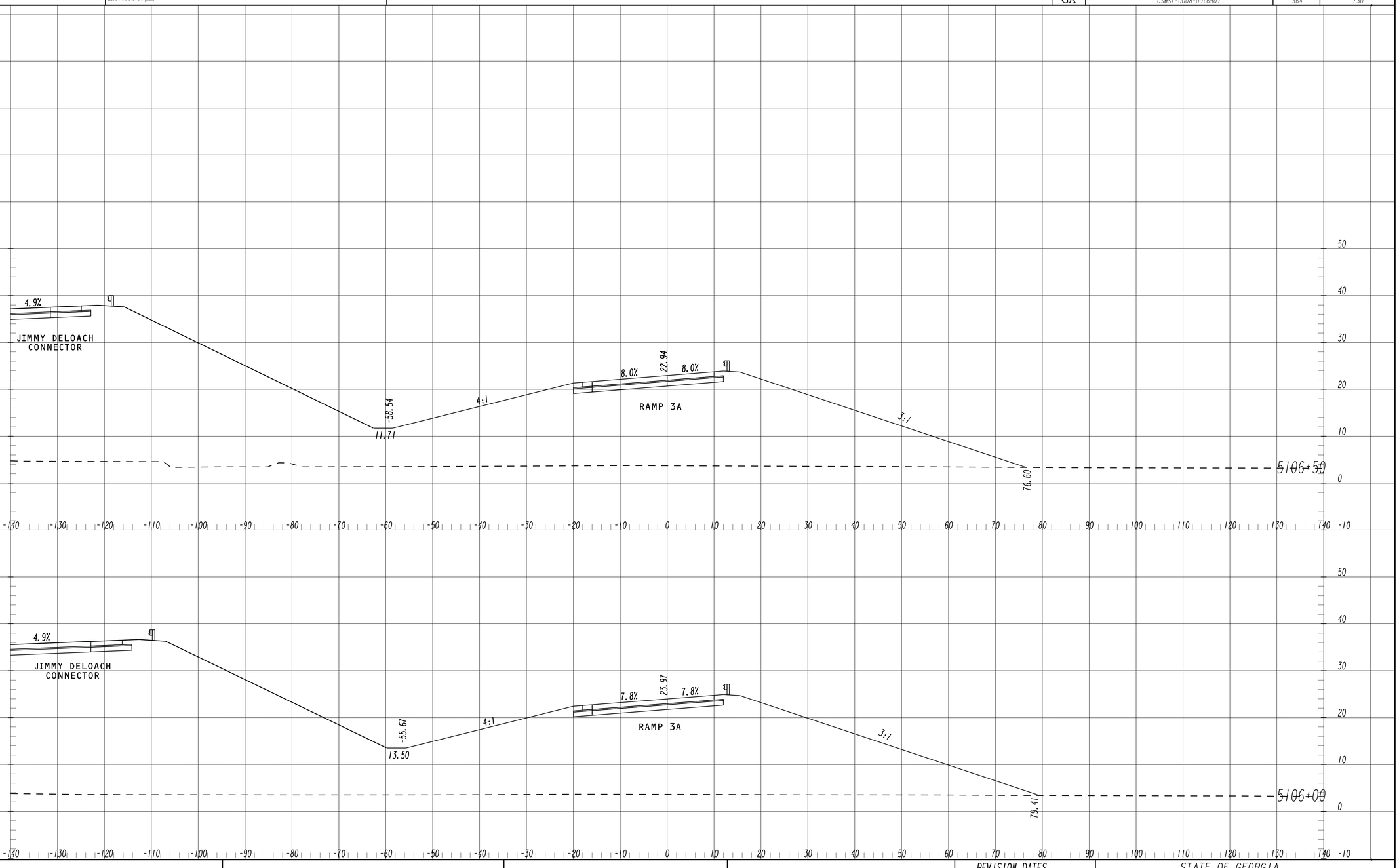


		THE LPA GROUP TRANSPORTATION CONSULTANTS	1 INCH = 10 FT VERT. 1 INCH = 10 FT HORIZ.	REVISION DATES	STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION
		A UNIT OF MICHAEL BAKER CORPORATION 3595 ENGINEERING DRIVE NORCROSS, GEORGIA 30092 (770) 263-9118			OFFICE: INNOVATIVE PROGRAM DELIVERY
					CROSS SECTIONS
					RAMP 3A
					DRAWING No. 23-152

3/1/2007 SUXSEW

23-JUL-2013 14:36	2:36:04 PM	0008690_23-0049	Y:\Roadways\126379\0008690\Dgn\0008690_23-004.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	364	730

RELEASED FOR CONSTRUCTION - 07-23-13



THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

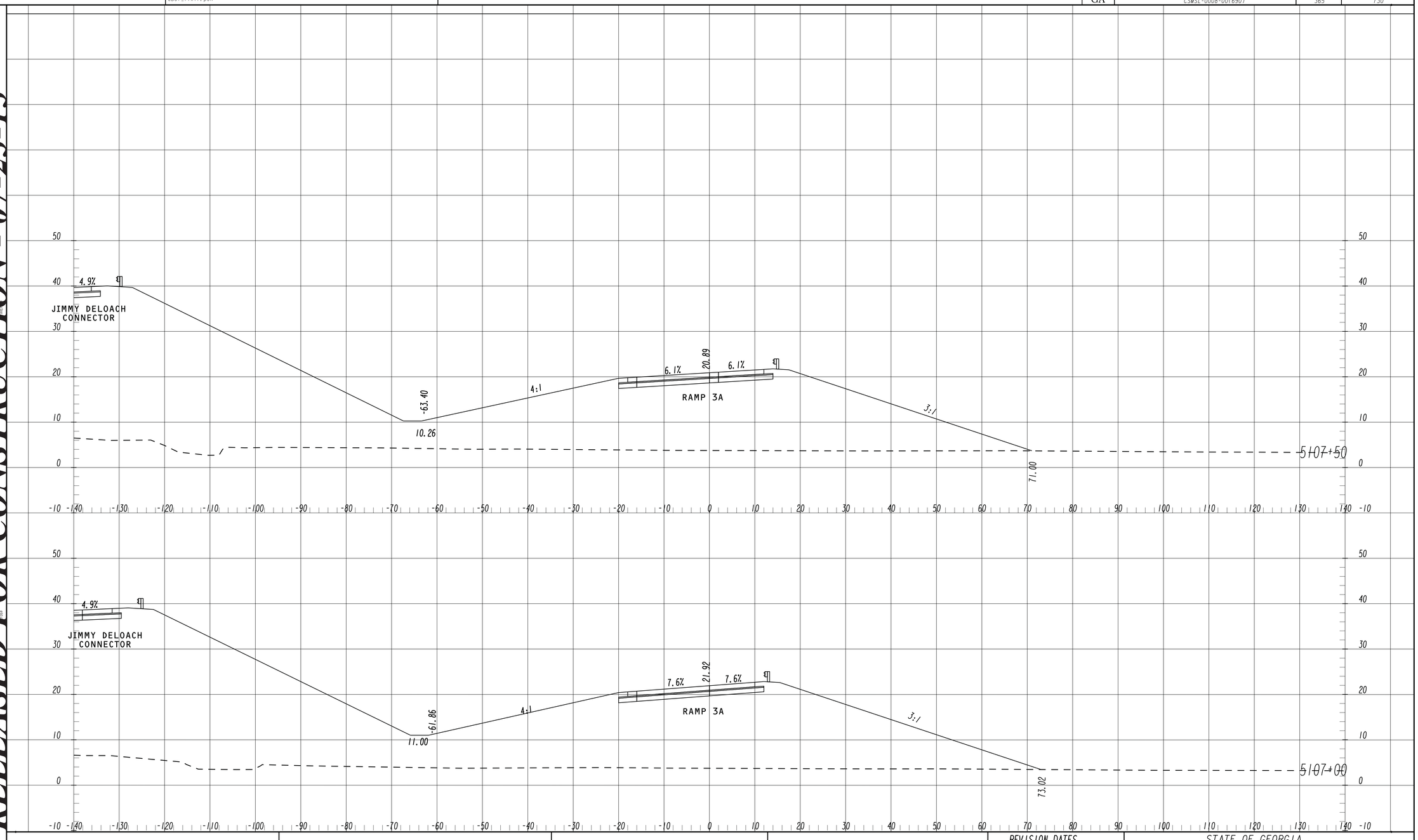
RAMP 3A

DRAWING No. 23-153

3/1/2007 SUXSEW

23-JUL-2013 14:36	2:36:06 PM	0008690_23-004I0	Y:\Roadways\126379\0008690\Dgn\0008690_23-004.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	365	730

RELEASED FOR CONSTRUCTION - 07-23-13



THE LPA GROUP
TRANSPORTATION CONSULTANTS
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3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

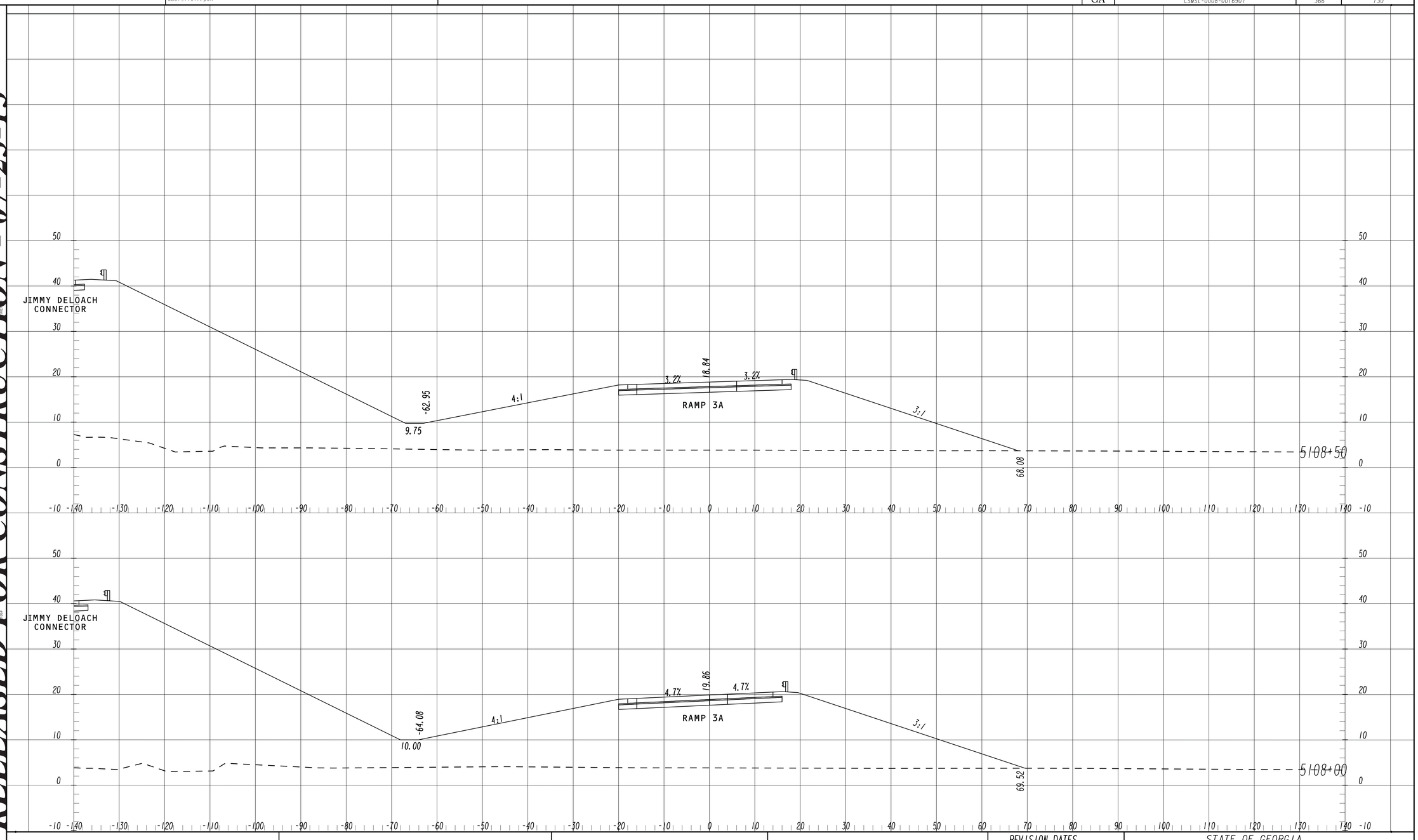
RAMP 3A

DRAWING No. 23-154

3/1/2007 SUXSEW

23-JUL-2013 14:36	2:36:07 PM	0008690_23-004.tt	Y:\Roadways\126379\0008690\Dgn\0008690_23-004.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	366	730

RELEASED FOR CONSTRUCTION - 07-23-13



THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

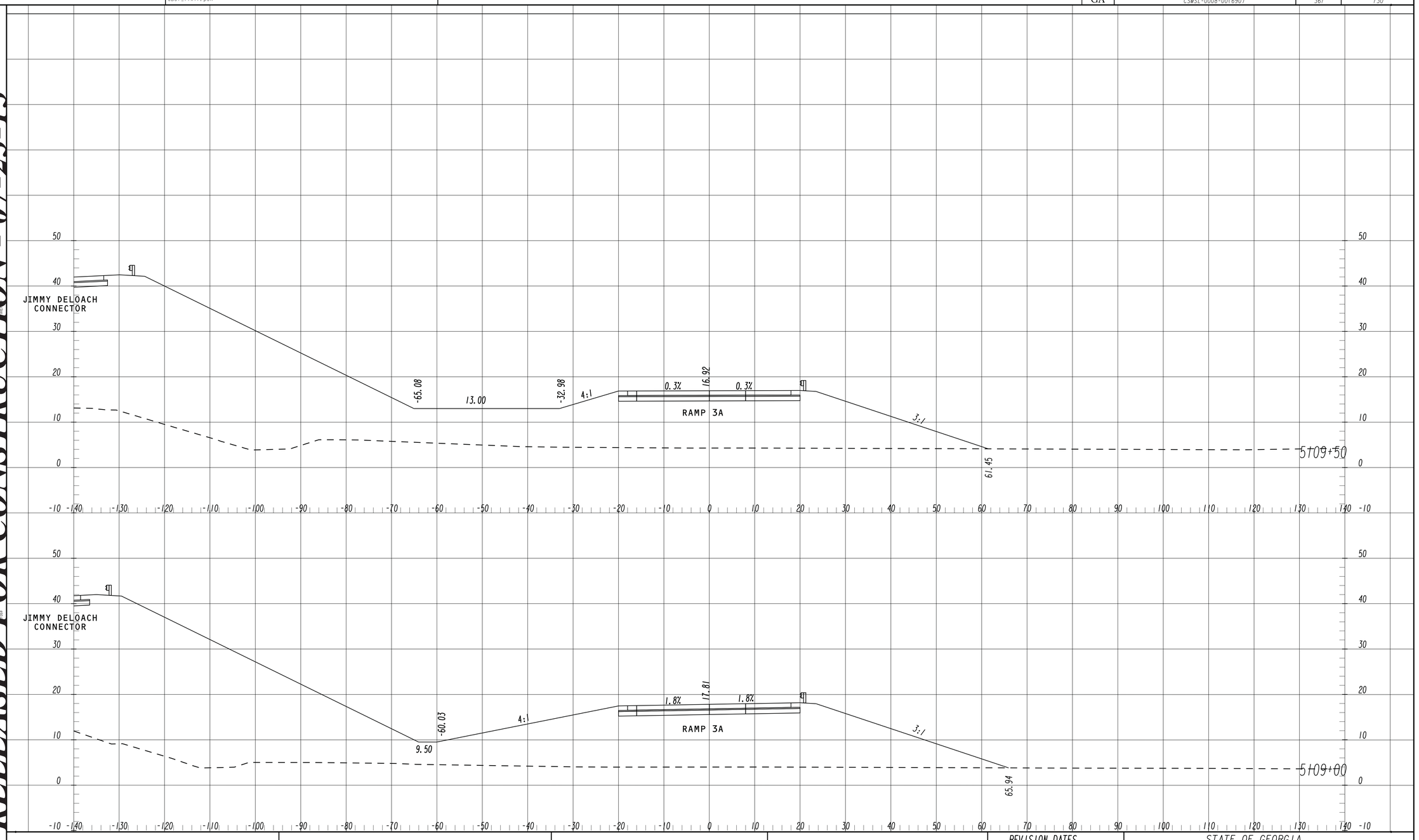
RAMP 3A

DRAWING No. 23-155

3/1/2007 SUXSEW

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	367	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

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A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

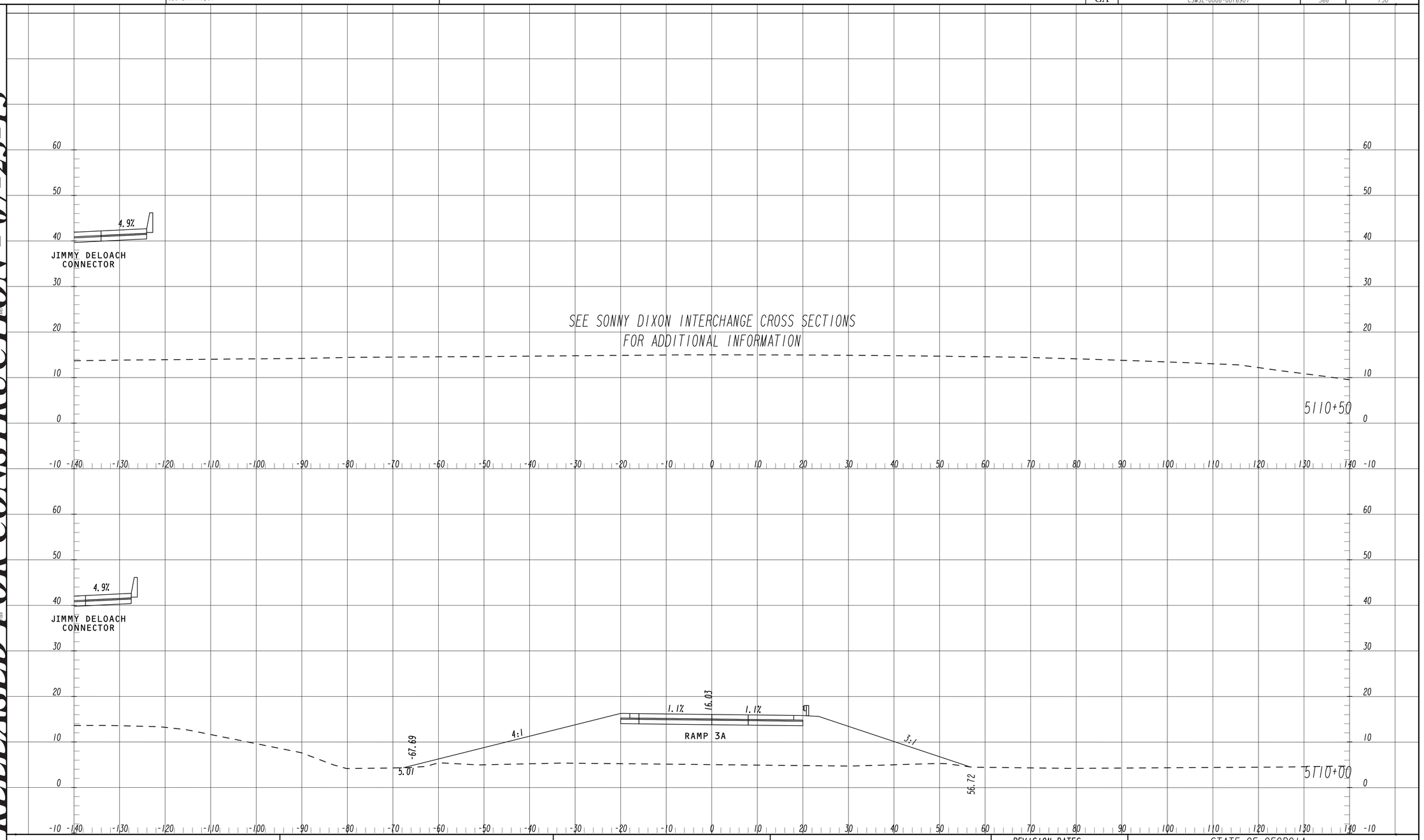
CROSS SECTIONS

RAMP 3A

DRAWING No. 23-156

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	368	730

RELEASED FOR CONSTRUCTION - 07-23-13



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3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

RAMP 3A

DRAWING No. 23-157

3/1/2007 SUXSEW

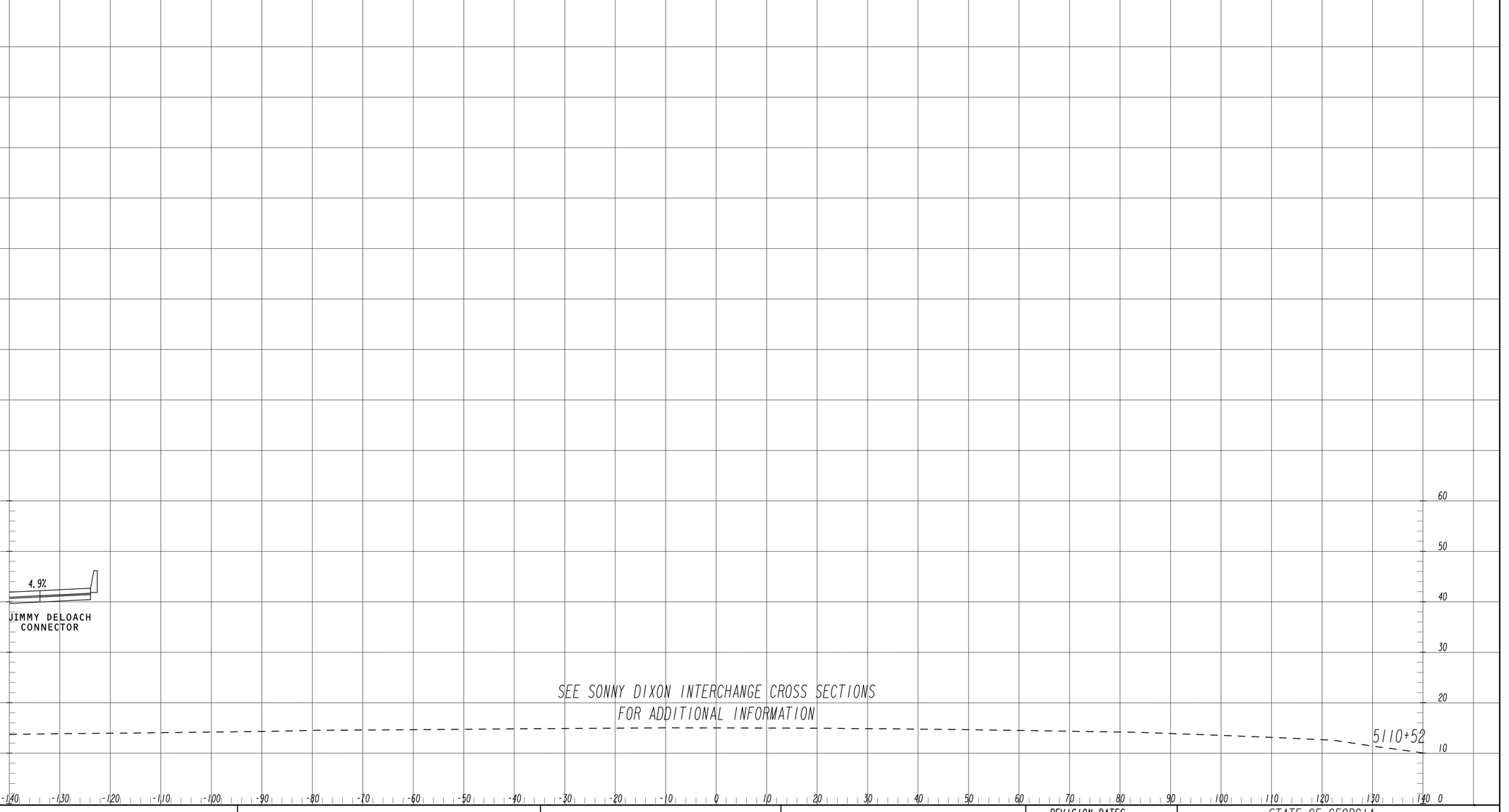
23-JUL-2013 14:36 2:36:10 PM
JParks

0008690_23-00414
GDOT_11x17.pen

Y:\Roadways\126379\0008690\Dgn\0008690_23-004.dgn

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	369	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

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A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

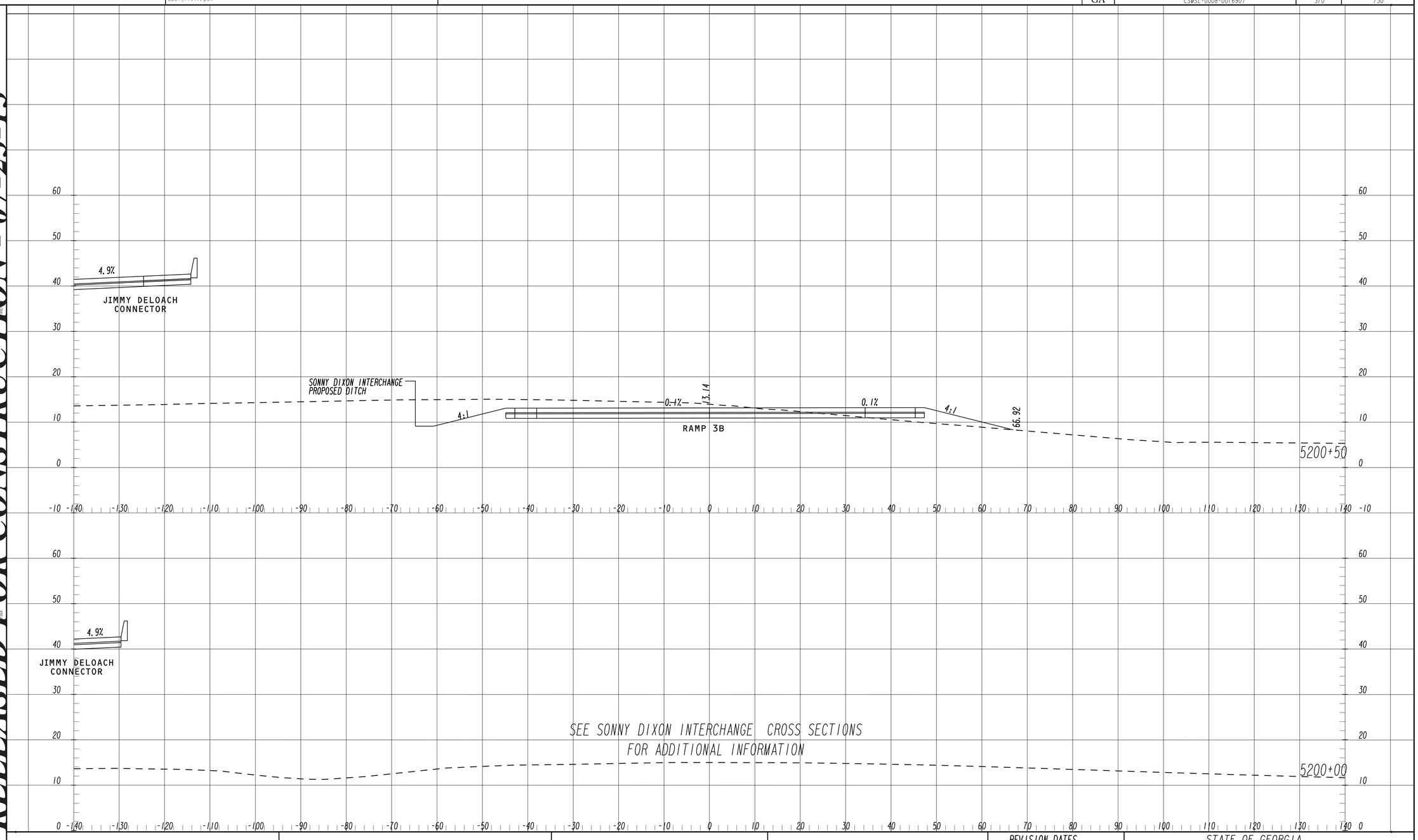
CROSS SECTIONS

RAMP 3A

DRAWING No. 23-158

23-JUL-2013 14:36	2:36:12 PM	0008690_23-00415	Y:\Roadways\126379\0008690\Dgn\0008690_23-004.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	370	730

RELEASED FOR CONSTRUCTION - 07-23-13



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A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

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1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

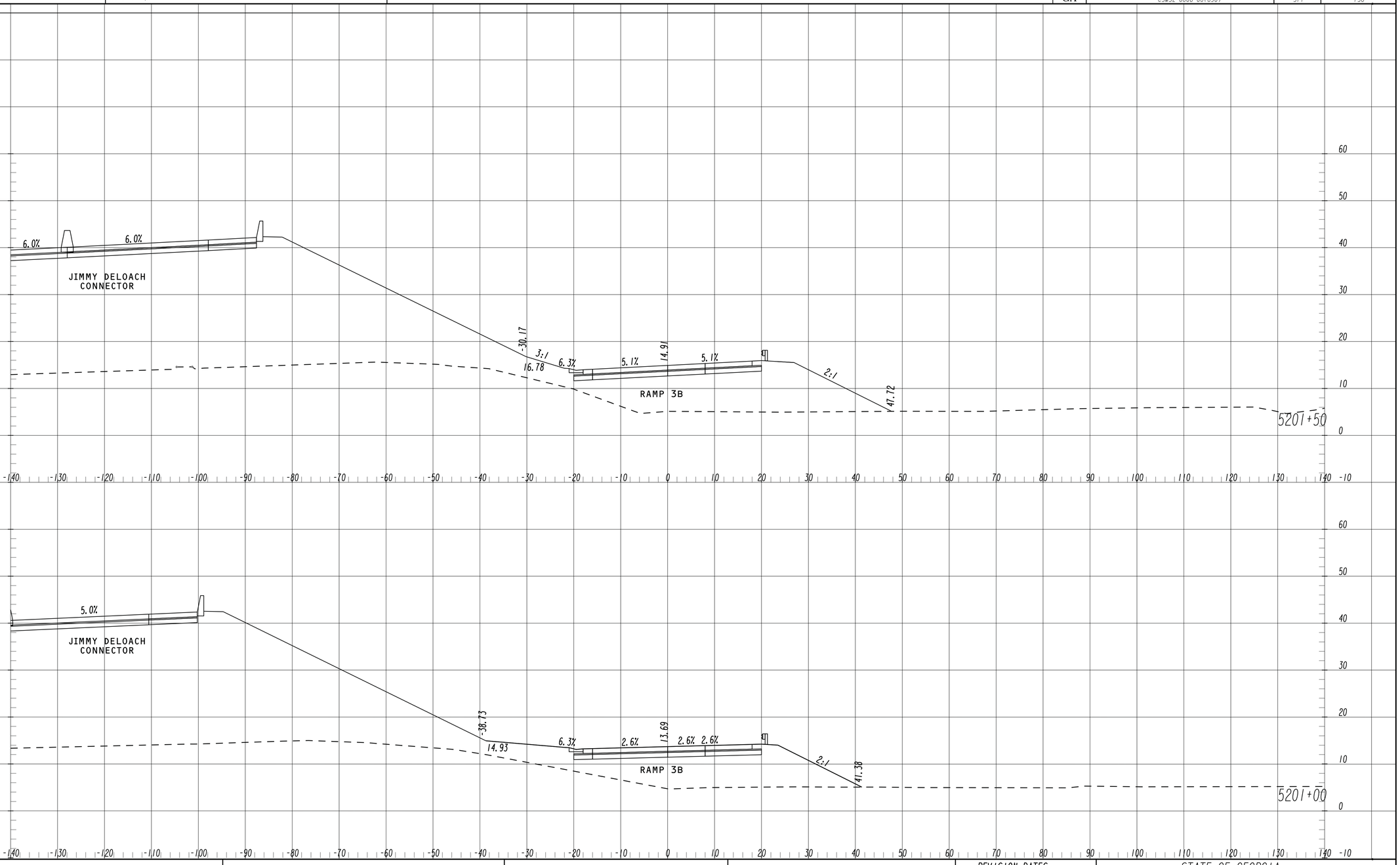
RAMP 3B

DRAWING No. 23-159

3/1/2007 SUXSEW

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	371	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

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A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

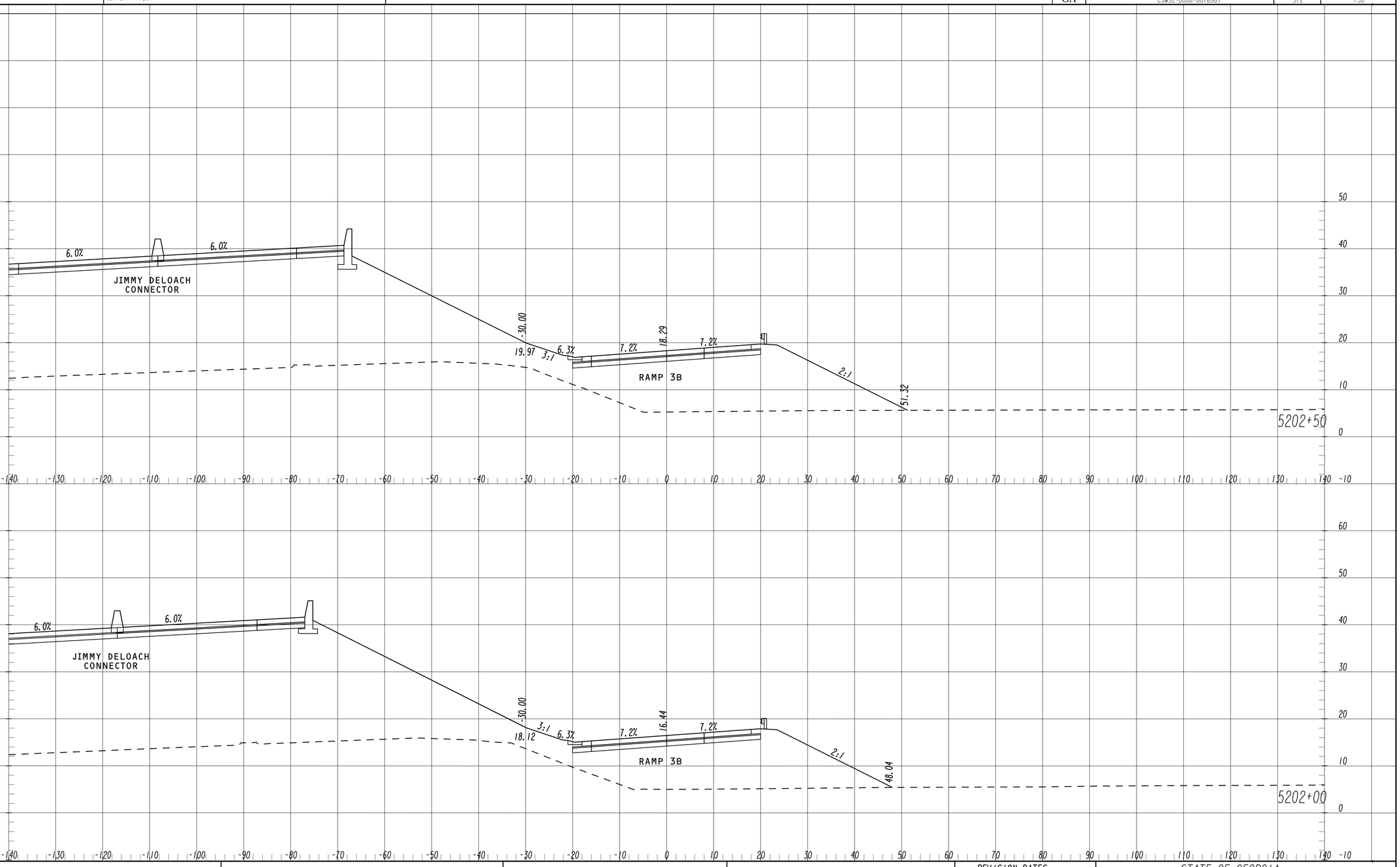
CROSS SECTIONS

RAMP 3B

DRAWING No. 23-160

23-JUL-2013 14:36	2:36:14 PM	0008690_23-004I7	Y:\Roadways\126379\0008690\Dgn\0008690_23-004.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	372	730

RELEASED FOR CONSTRUCTION - 07-23-13



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A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

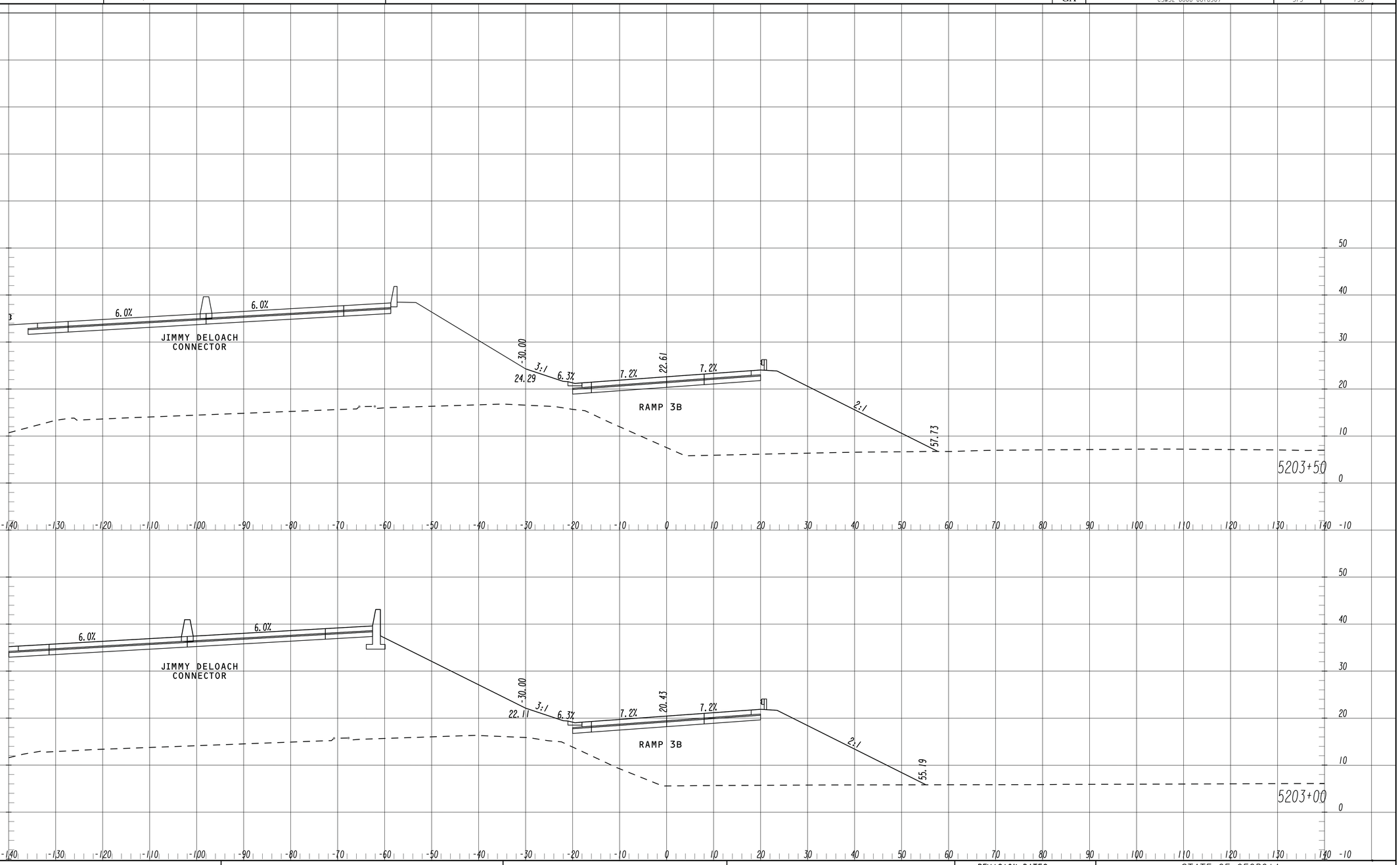
CROSS SECTIONS

RAMP 3B

DRAWING No. 23-161

23-JUL-2013 14:36	2:36:15 PM	0008690_23-00418	Y:\Roadways\126379\0008690\Dgn\0008690_23-004.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	373	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUYSEW

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NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

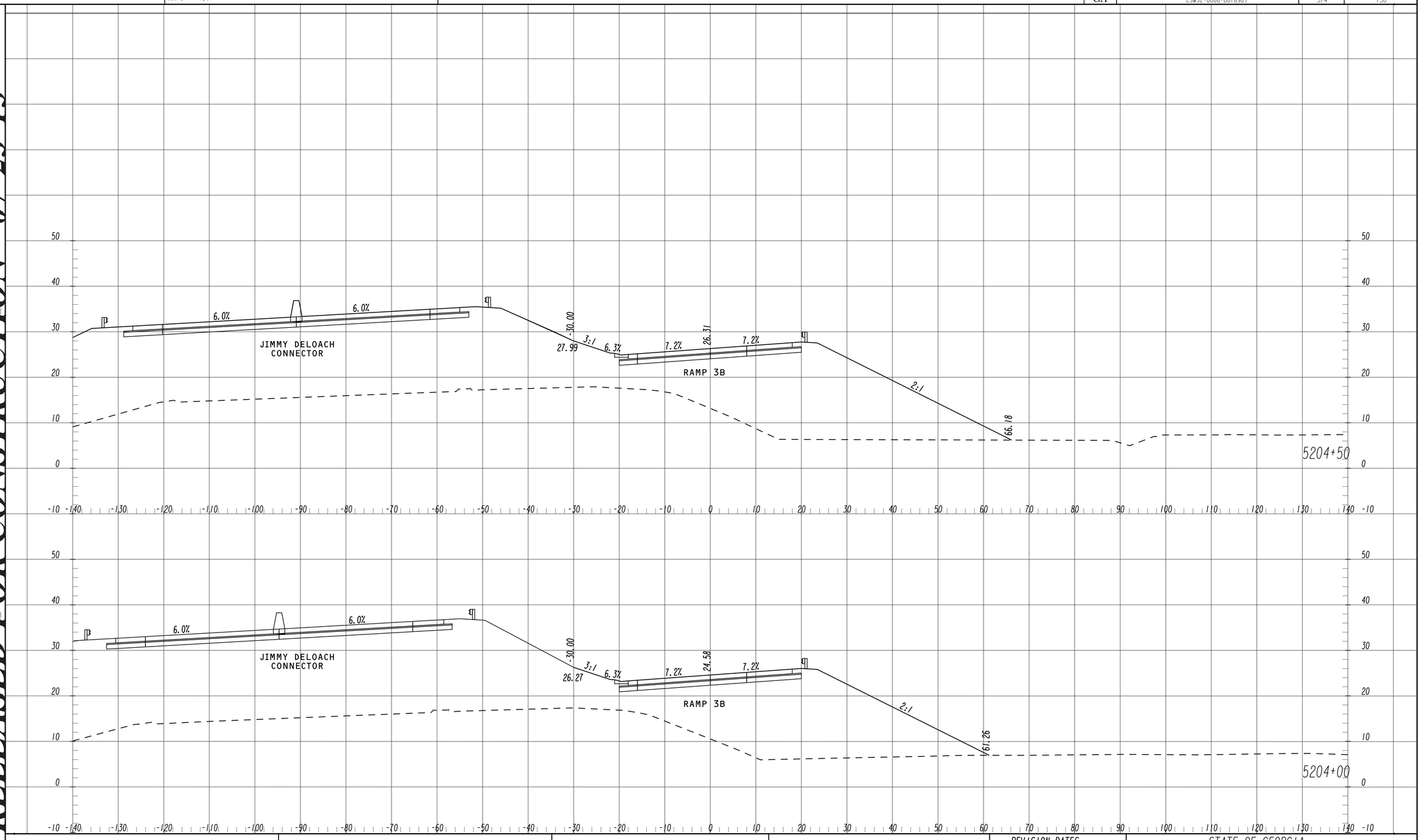
RAMP 3B

DRAWING No. 23-162

23-JUL-2013 14:36 2:36:16 PM
JParks
0008690_23-00419
GDOT_11x17.pen
Y:\Roadways\126379\0008690\Dgn\0008690_23-004.dgn

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	374	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUYSEW

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A UNIT OF MICHAEL BAKER CORPORATION
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NORCROSS, GEORGIA 30092
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1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

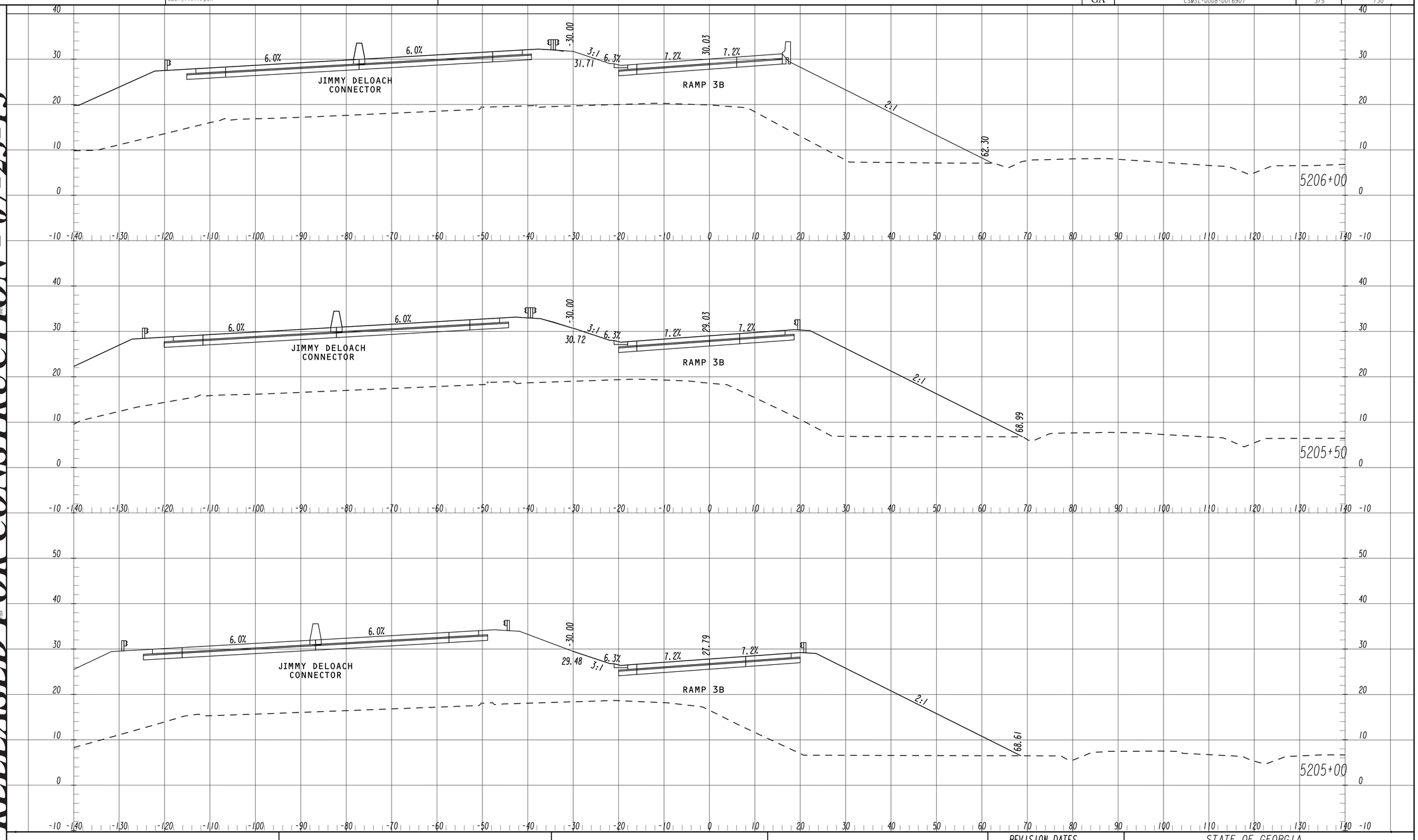
CROSS SECTIONS

RAMP 3B

DRAWING No. 23-163

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	375	730

RELEASED FOR CONSTRUCTION - 07-23-13



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NORCROSS, GEORGIA 30092
(770) 263-9118

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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

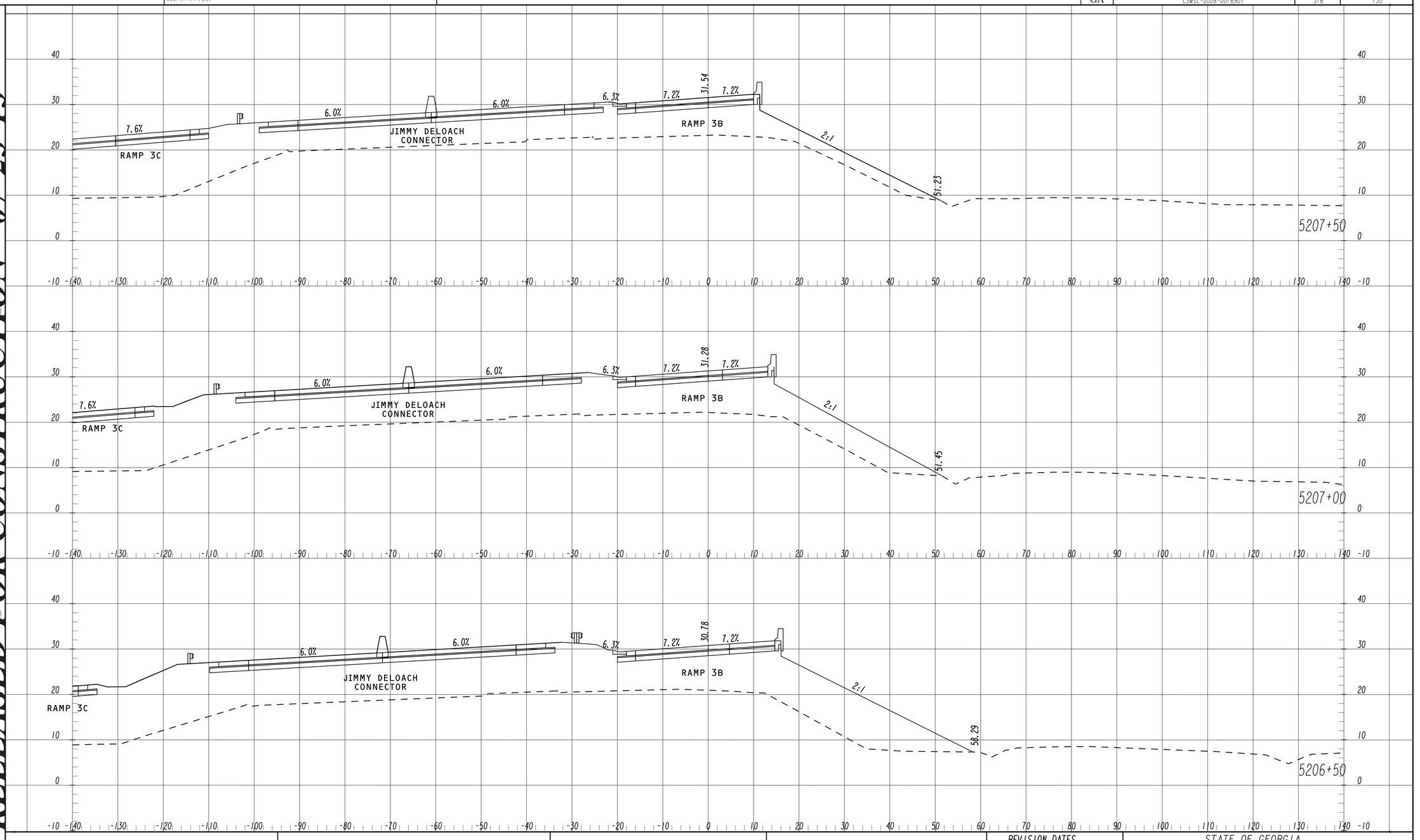
CROSS SECTIONS

RAMP 3B

DRAWING No. 23-164

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	376	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUKSEW

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A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

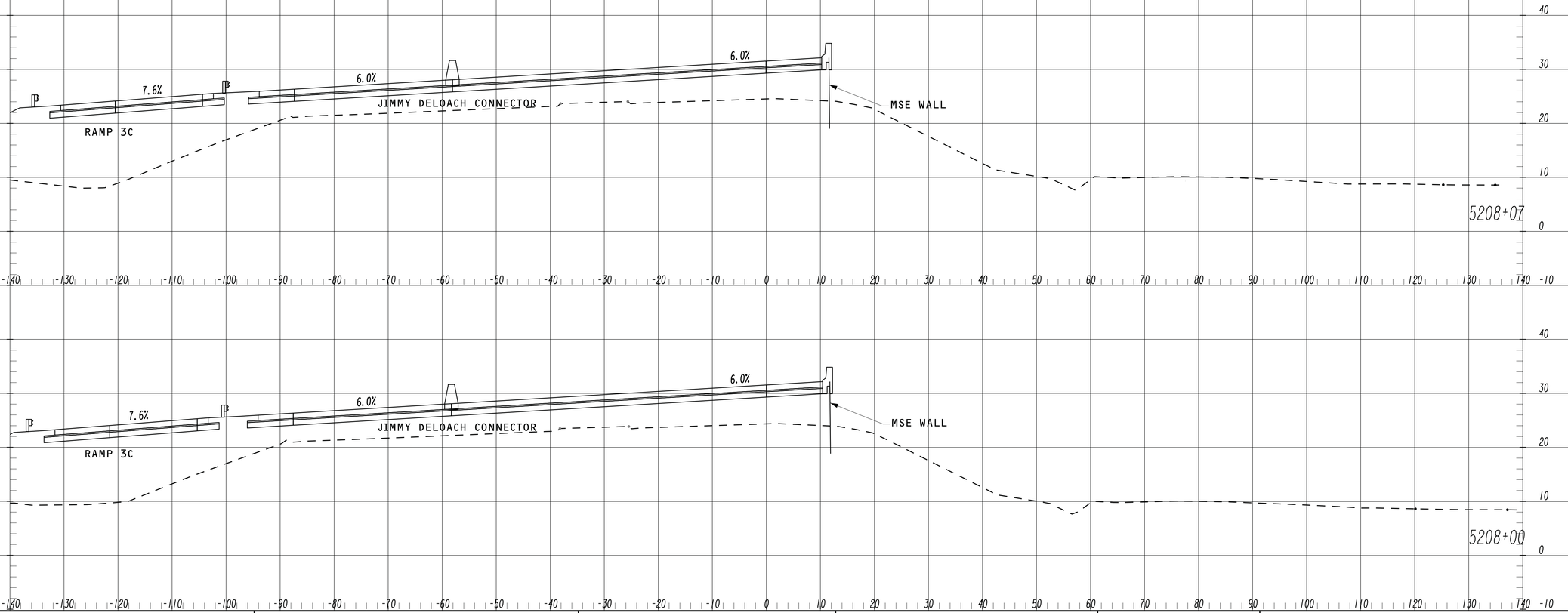
CROSS SECTIONS

RAMP 3B

DRAWING No. 23-165

23-JUL-2013 14:36	2:36:21 PM	0008690_23-00422	Y:\Roadways\126379\0008690\Dgn\0008690_23-004.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	377	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUYSEW

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A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

RAMP 3B

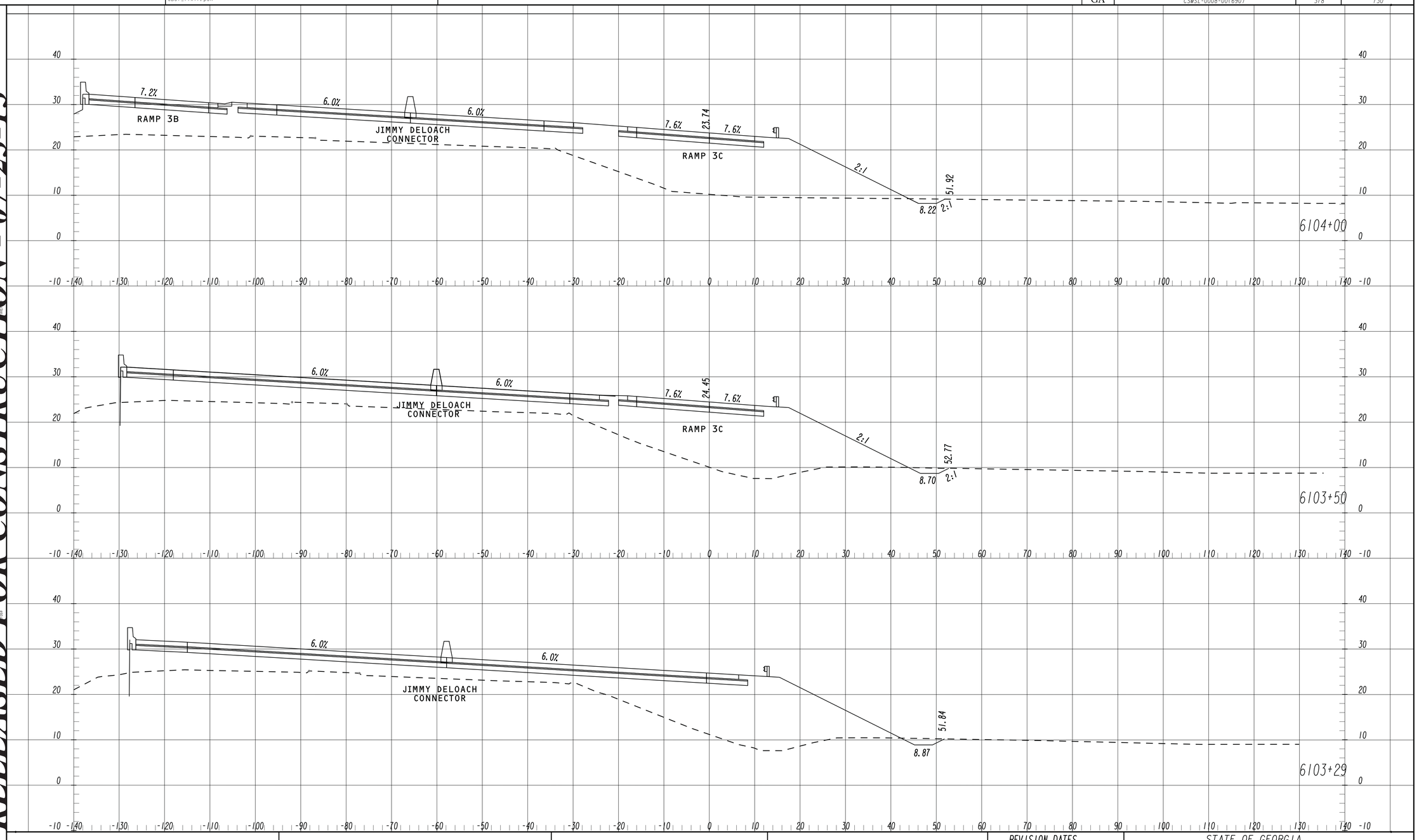
DRAWING No. 23-166

23-JUL-2013 14:36 2:36:22 PM | 0008690_23-00423 | GDOT_11x17.pen | Y:\Roadways\126379\0008690\Dgn\0008690_23-004.dgn

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	378	730

JParks

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUKSEW

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A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

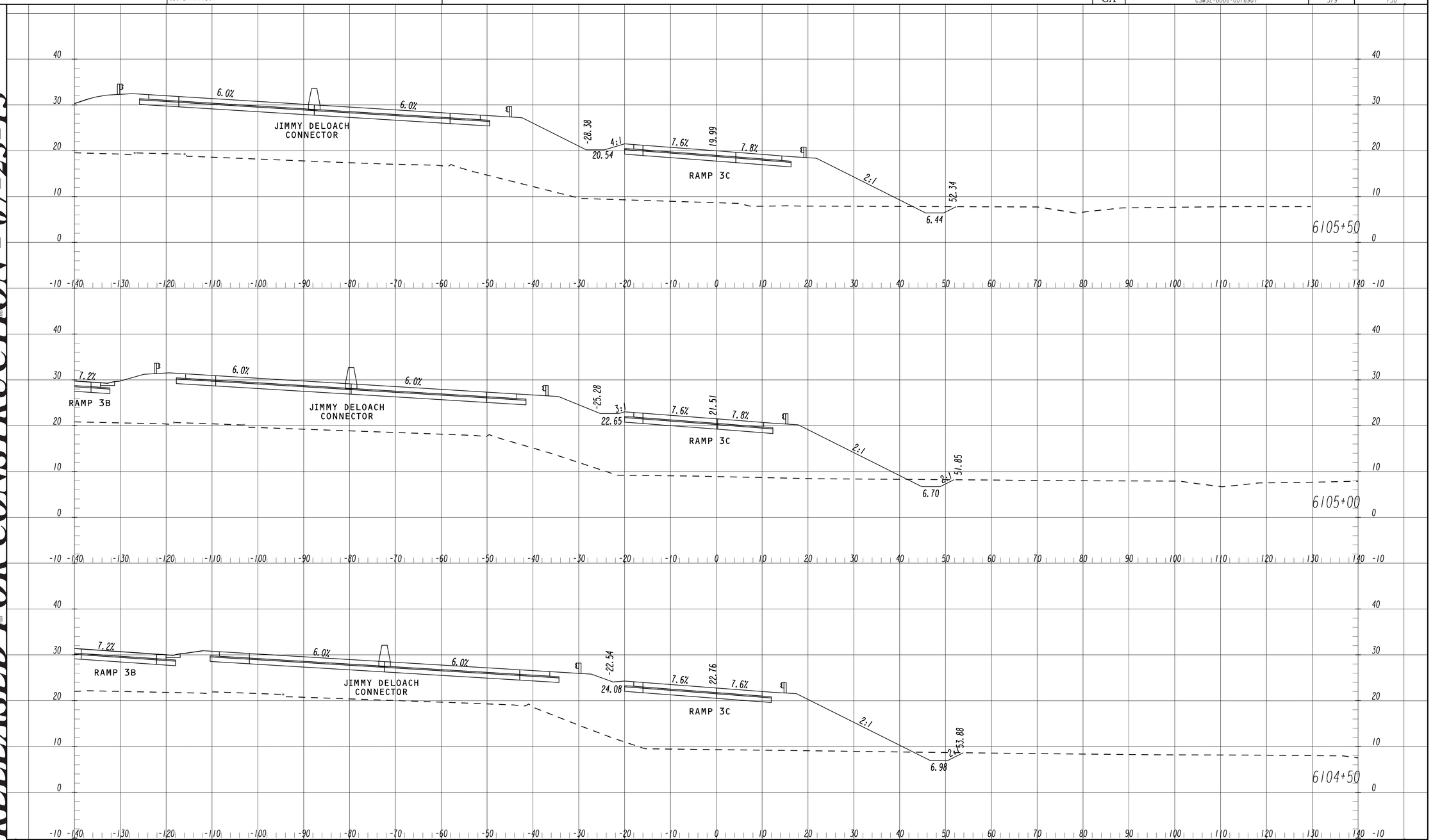
CROSS SECTIONS

RAMP 3C

DRAWING No. 23-167

23-JUL-2013 14:36	2:36:24 PM	0008690_23-00424	Y:\Roadways\126379\0008690\Dgn\0008690_23-004.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	379	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

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A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

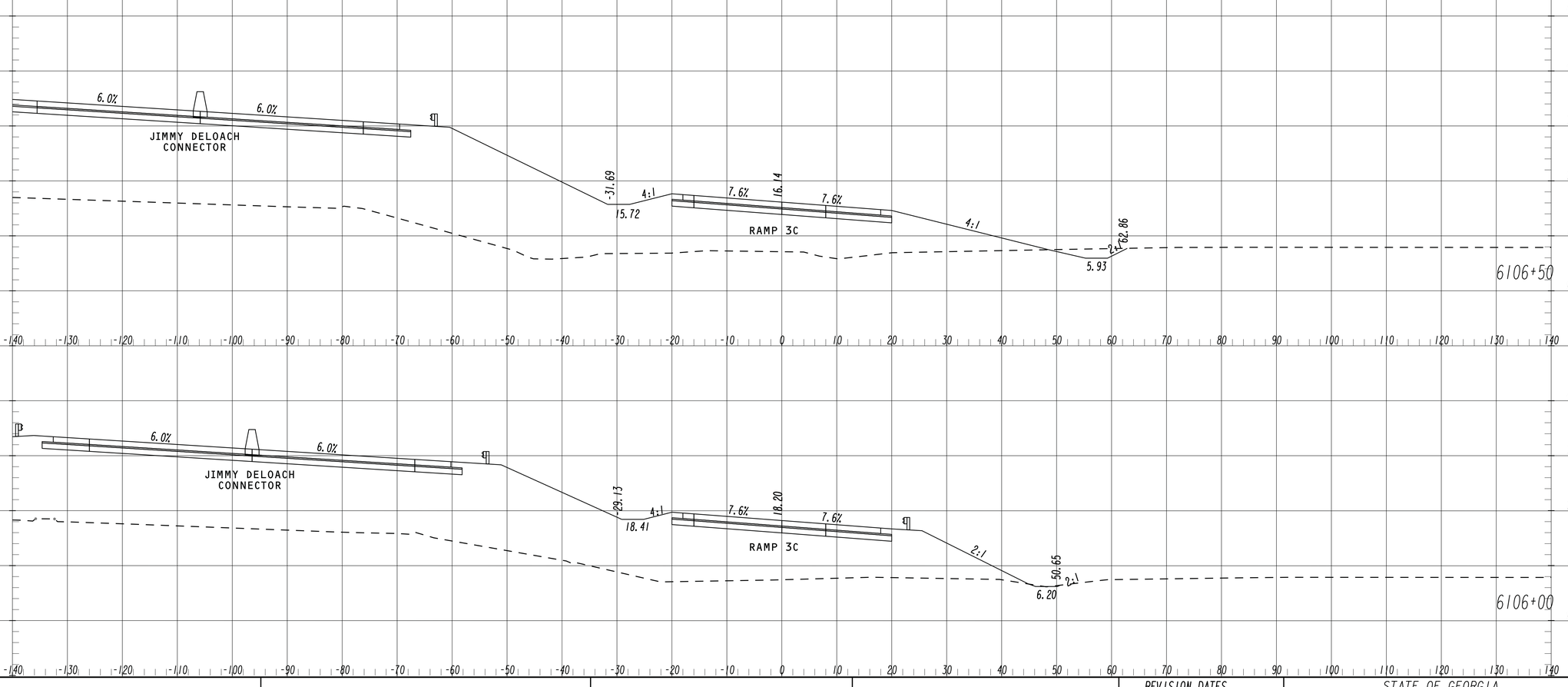
CROSS SECTIONS

RAMP 3C

DRAWING No. 23-168

23-JUL-2013 14:36	2:36:25 PM	0008690_23-00425	Y:\Roadways\126379\0008690\Dgn\0008690_23-004.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	380	730

RELEASED FOR CONSTRUCTION - 07-23-13



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NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

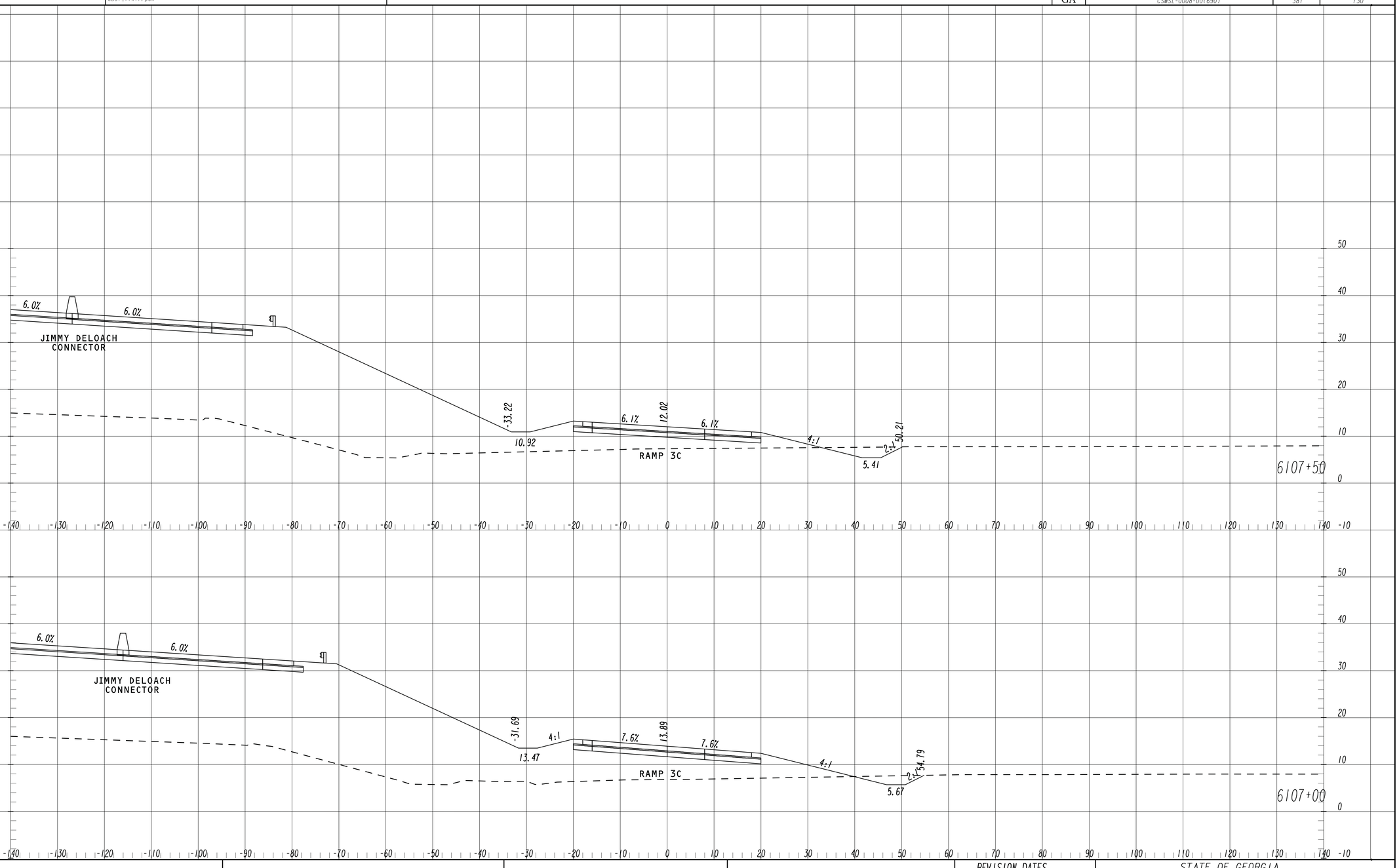
RAMP 3C

DRAWING No. 23-169

3/1/2007 SUXSEW

23-JUL-2013 14:36	2:36:26 PM	0008690_23-00426	Y:\Roadways\126379\0008690\Dgn\0008690_23-004.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	381	730

RELEASED FOR CONSTRUCTION - 07-23-13



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NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

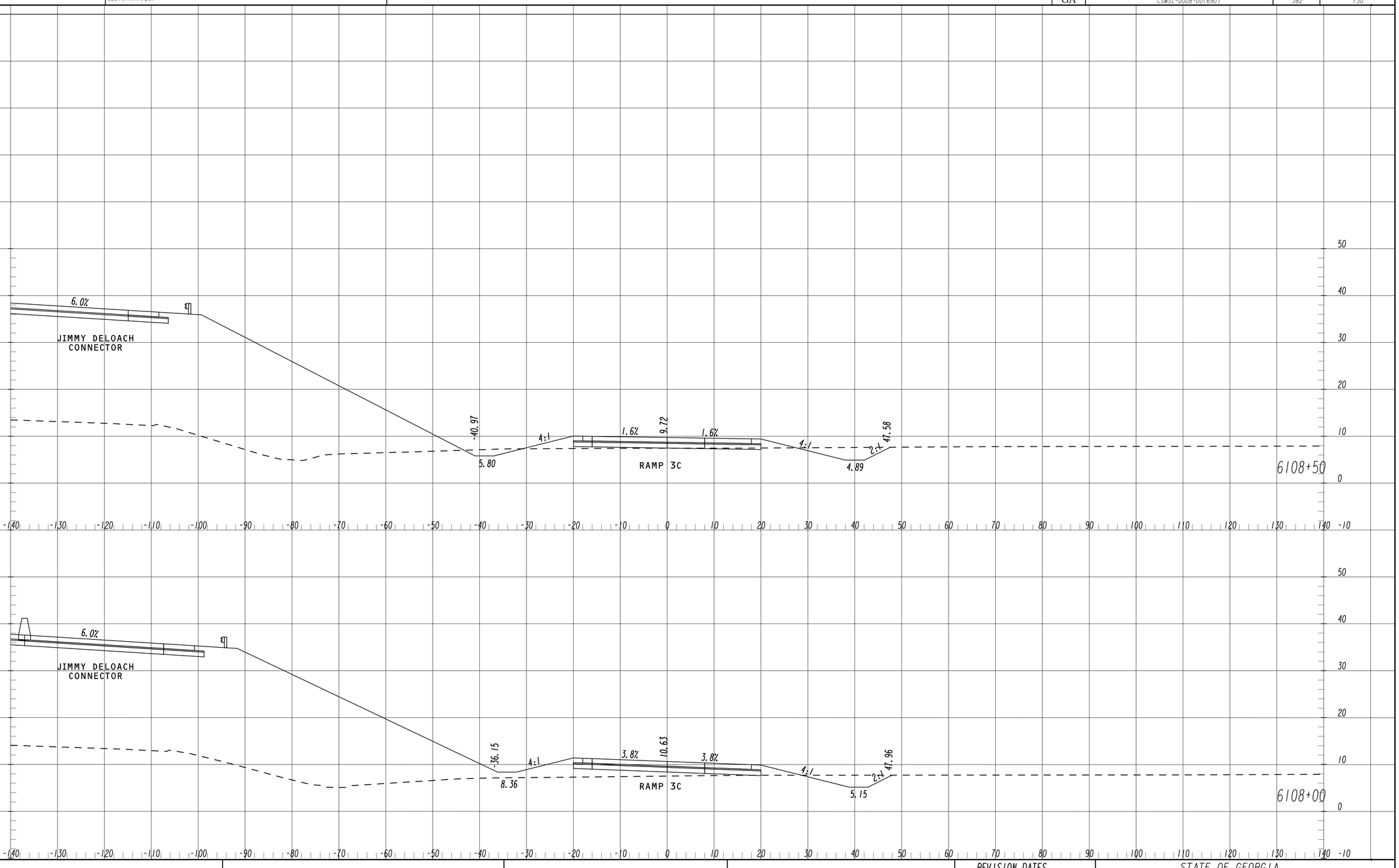
RAMP 3C

DRAWING No. 23-170

3/1/2007 SUXSEW

23-JUL-2013 14:36	2:36:27 PM	0008690_23-00427	Y:\Roadways\126379\0008690\Dgn\0008690_23-004.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	382	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

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A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

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1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

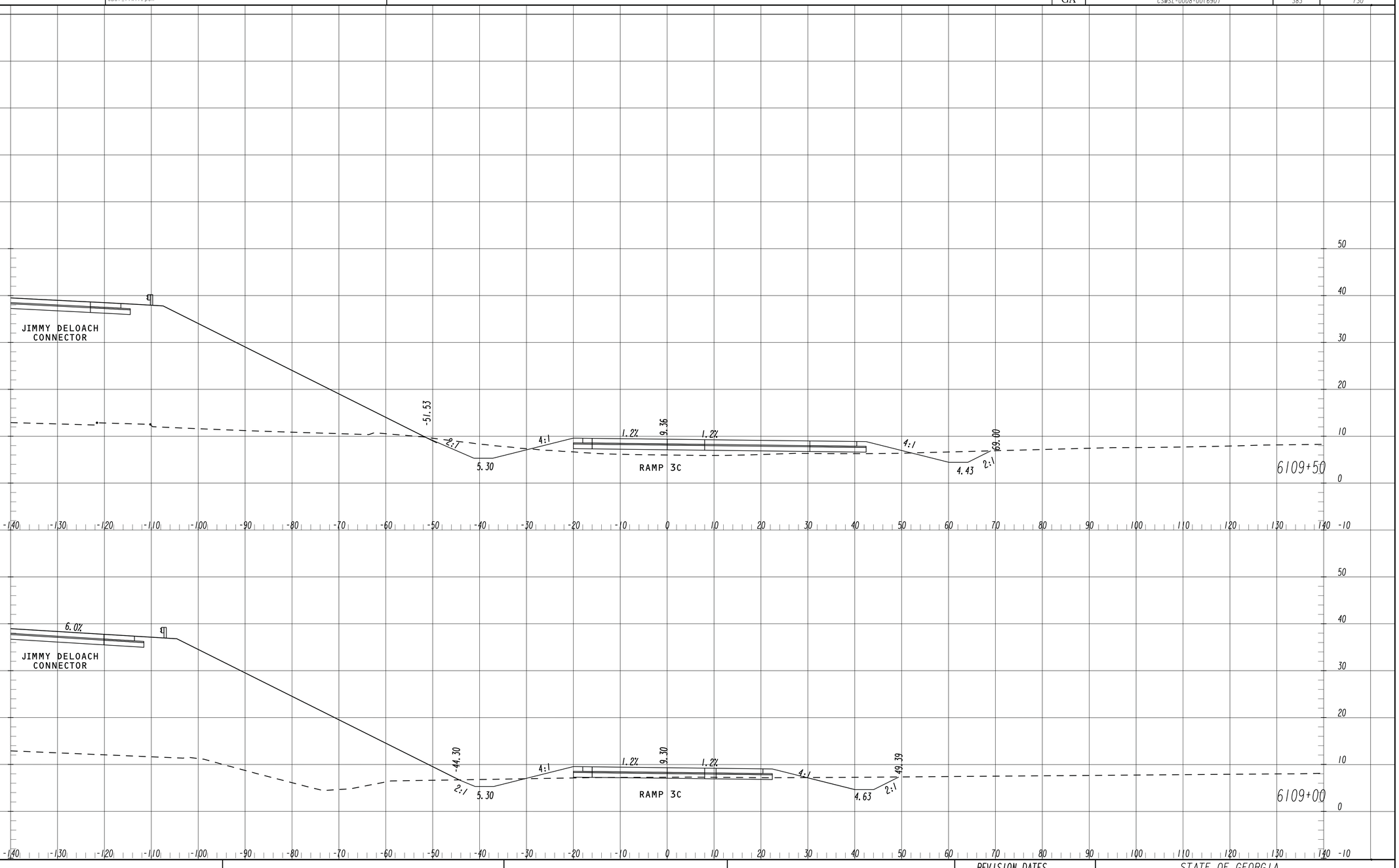
CROSS SECTIONS

RAMP 3C

DRAWING No. 23-171

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	383	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

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A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

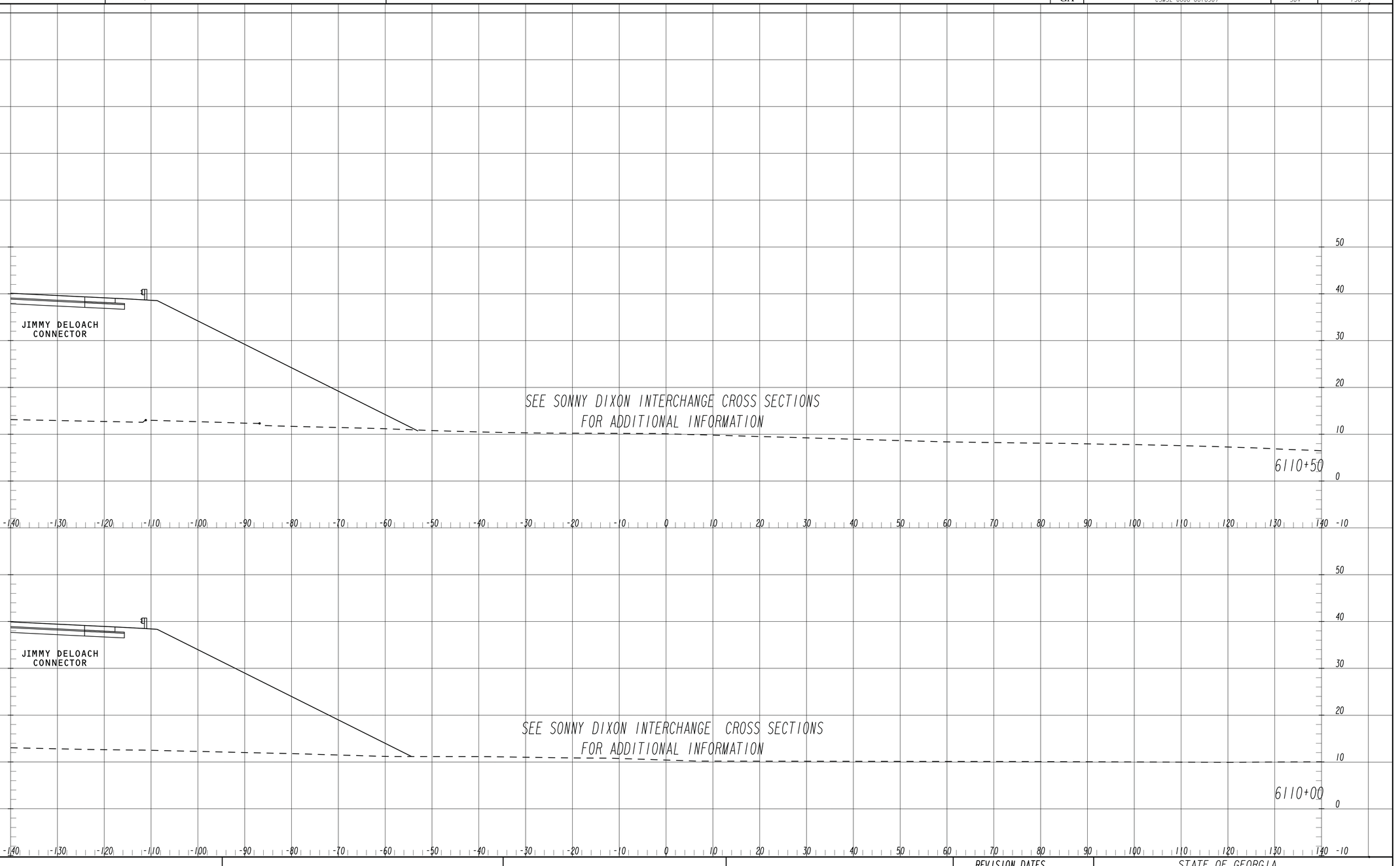
CROSS SECTIONS

RAMP 3C

DRAWING No. 23-172

23-JUL-2013 14:36	2:36:30 PM	0008690_23-00429	Y:\Roadways\126379\0008690\Dgn\0008690_23-004.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	384	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

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A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

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1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION

OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

RAMP 3C

DRAWING No. 23-173

23-JUL-2013 14:36 2:36:31 PM
JParks

0008690_23-00430
GDOT_11x17.pen

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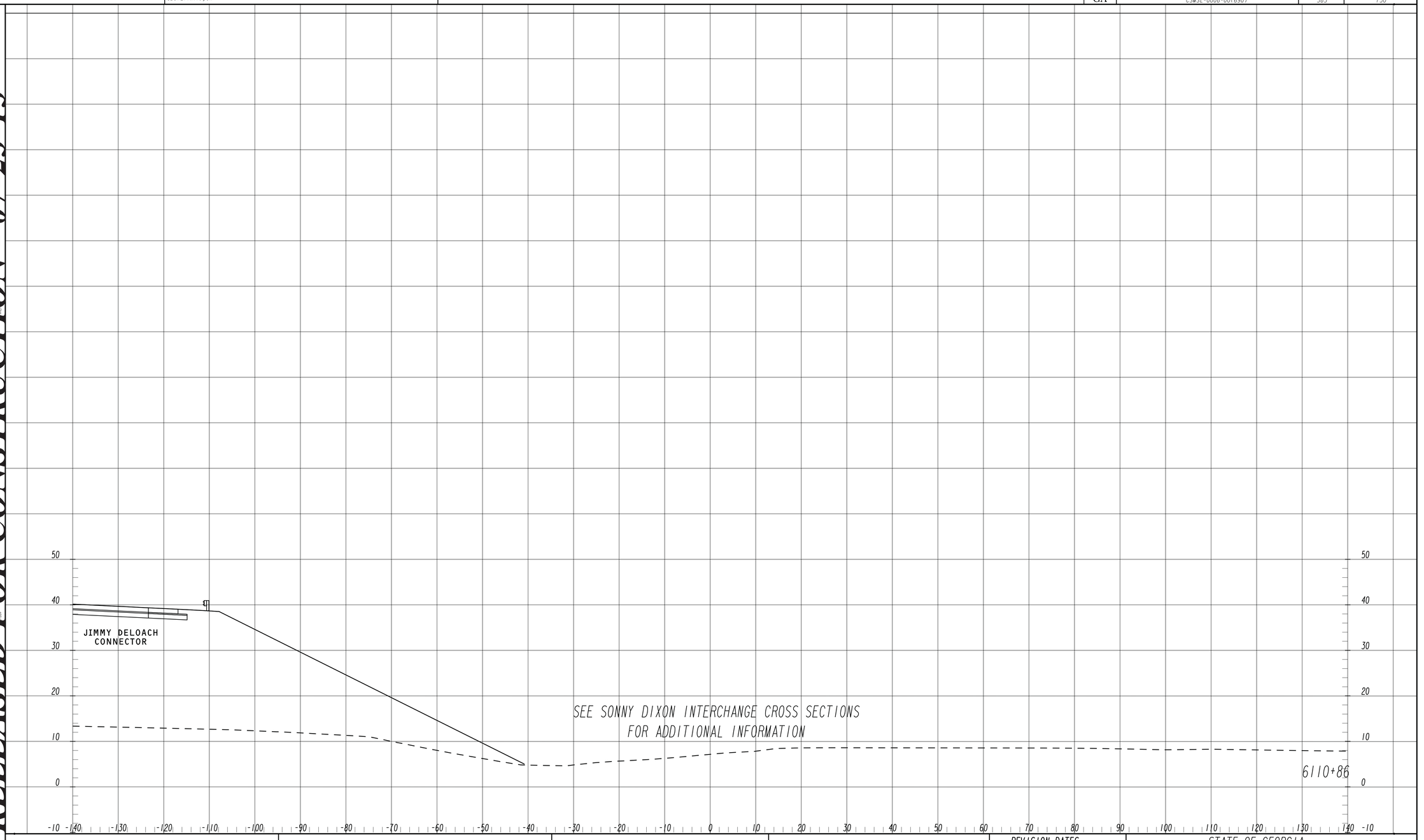
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	385	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

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A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
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(770) 263-9118

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1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

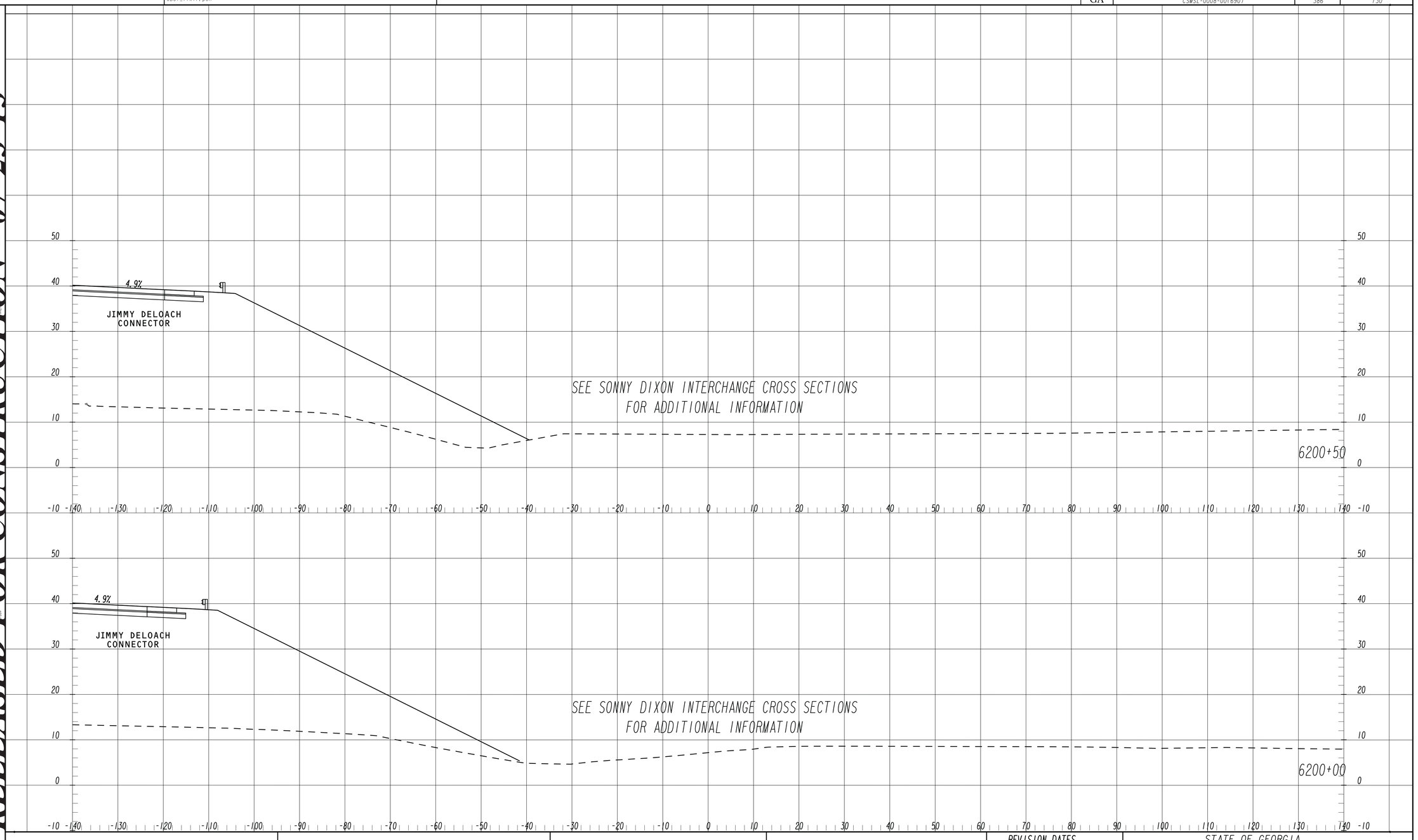
CROSS SECTIONS

RAMP 3C

DRAWING No. 23-174

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	386	730

RELEASED FOR CONSTRUCTION - 07-23-13



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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

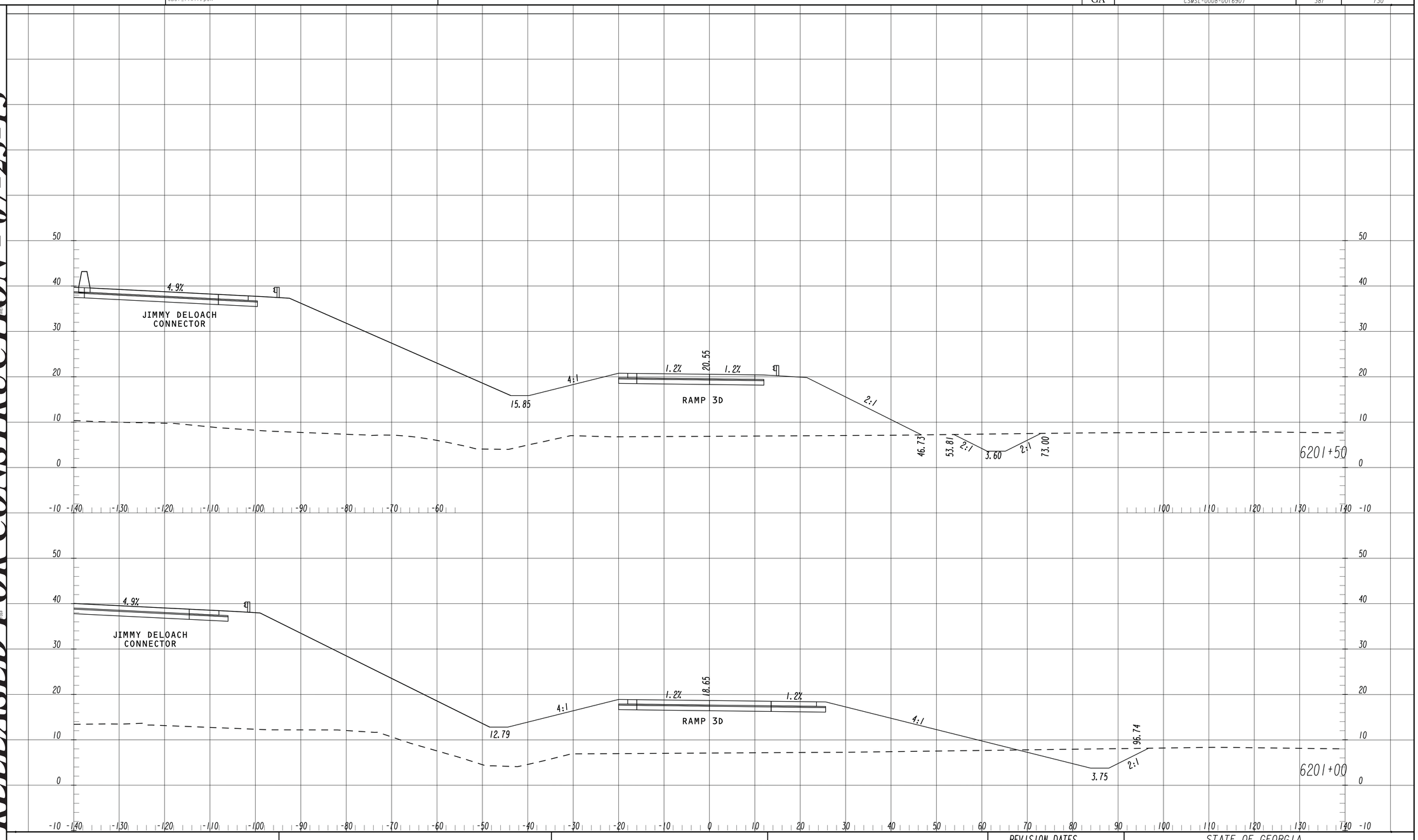
RAMP 3D

DRAWING No. 23-175

3/1/2007 SUXSEW

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	387	730

RELEASED FOR CONSTRUCTION - 07-23-13



THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

1 INCH = 10 FT VERT.
1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

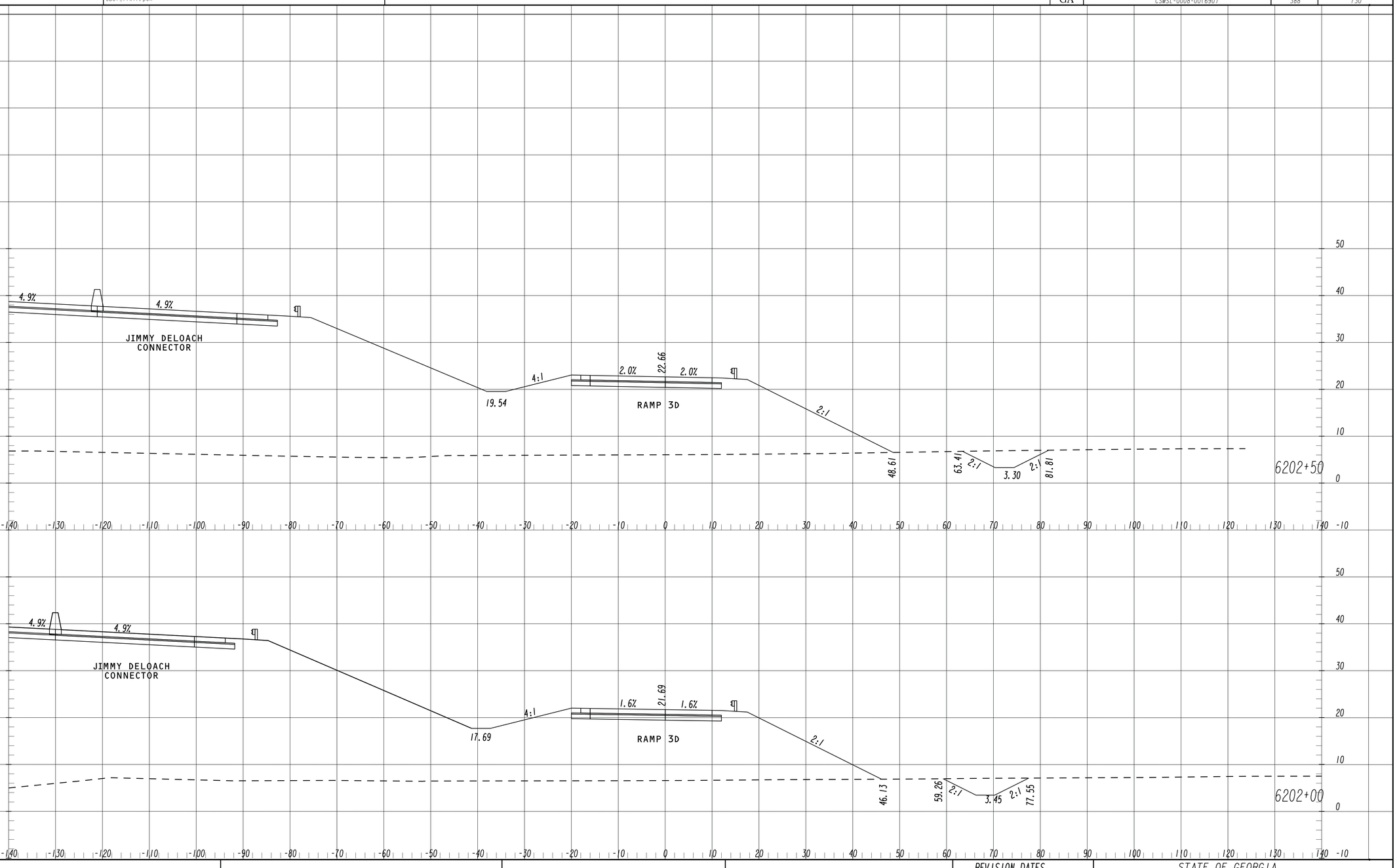
RAMP 3D

DRAWING No. 23-176

3/1/2007 SUXSEW

23-JUL-2013 14:36	2:36:35 PM	0008690_23-00433	Y:\Roadways\126379\0008690\Dgn\0008690_23-004.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	388	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

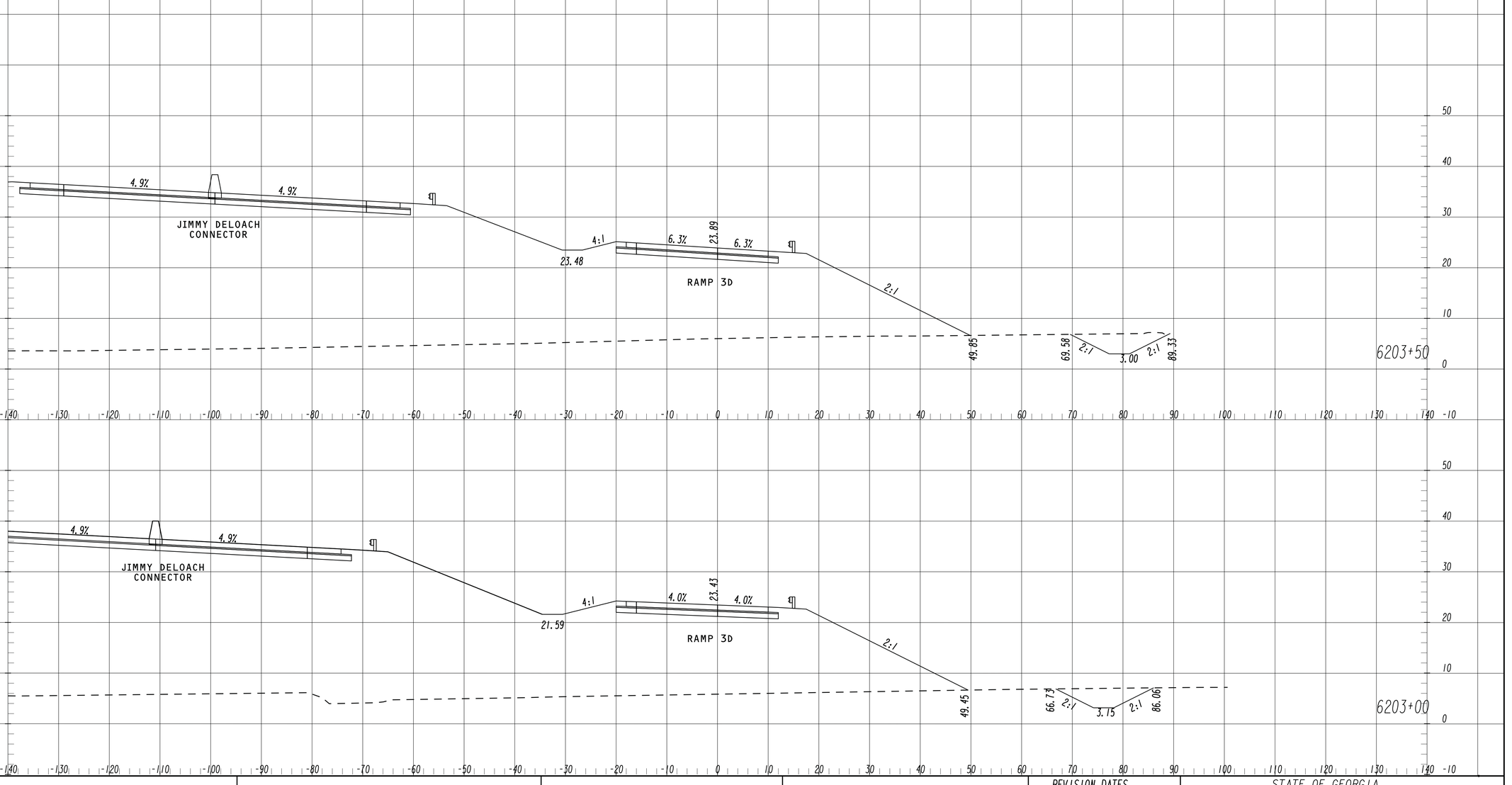
CROSS SECTIONS

RAMP 3D

DRAWING No. 23-177

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	389	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

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A UNIT OF MICHAEL BAKER CORPORATION
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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS

RAMP 3D

DRAWING No. 23-178

23-JUL-2013 14:36	2:36:37 PM	0008690_23-00435	Y:\Roadways\126379\0008690\Dgn\0008690_23-004.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
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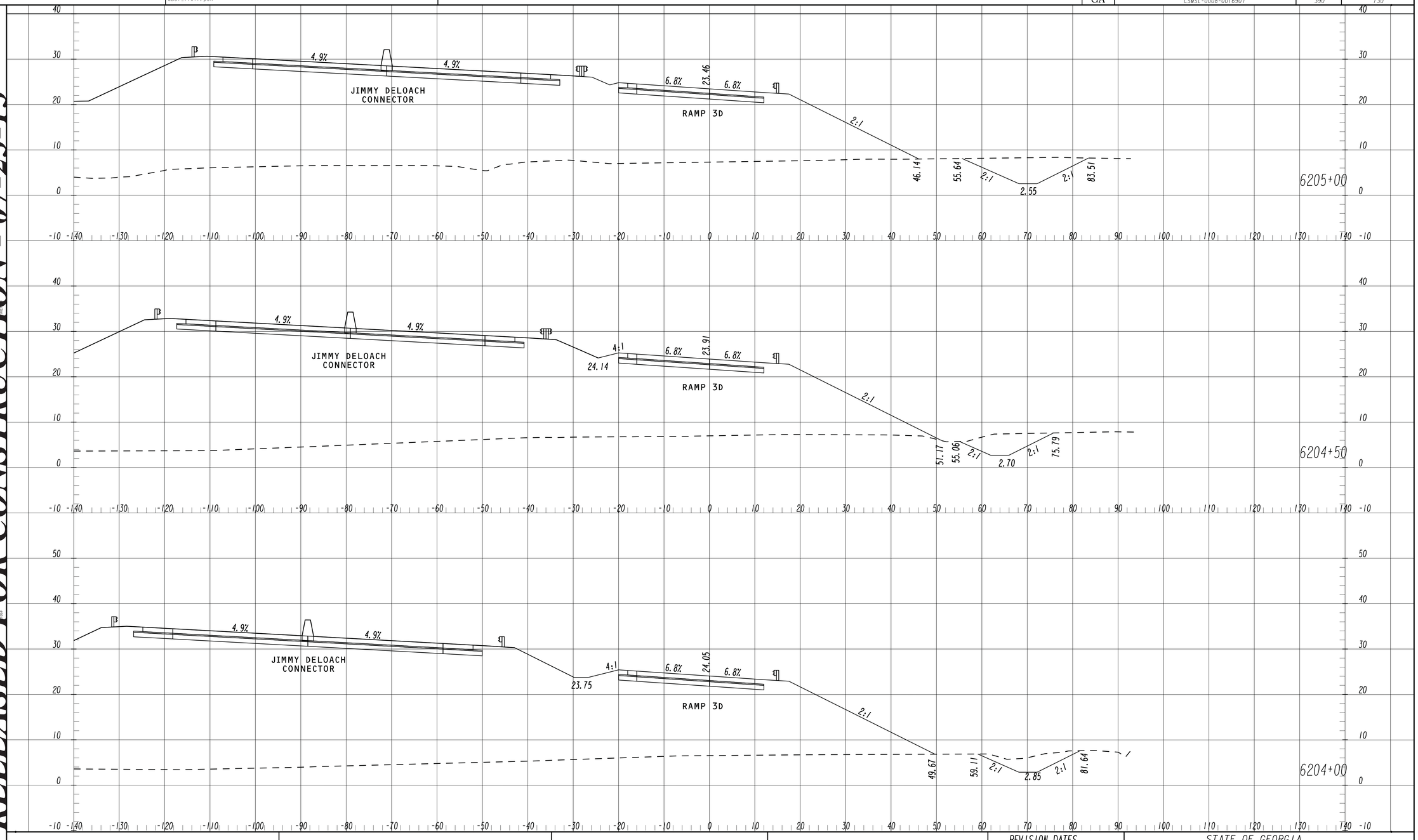
RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

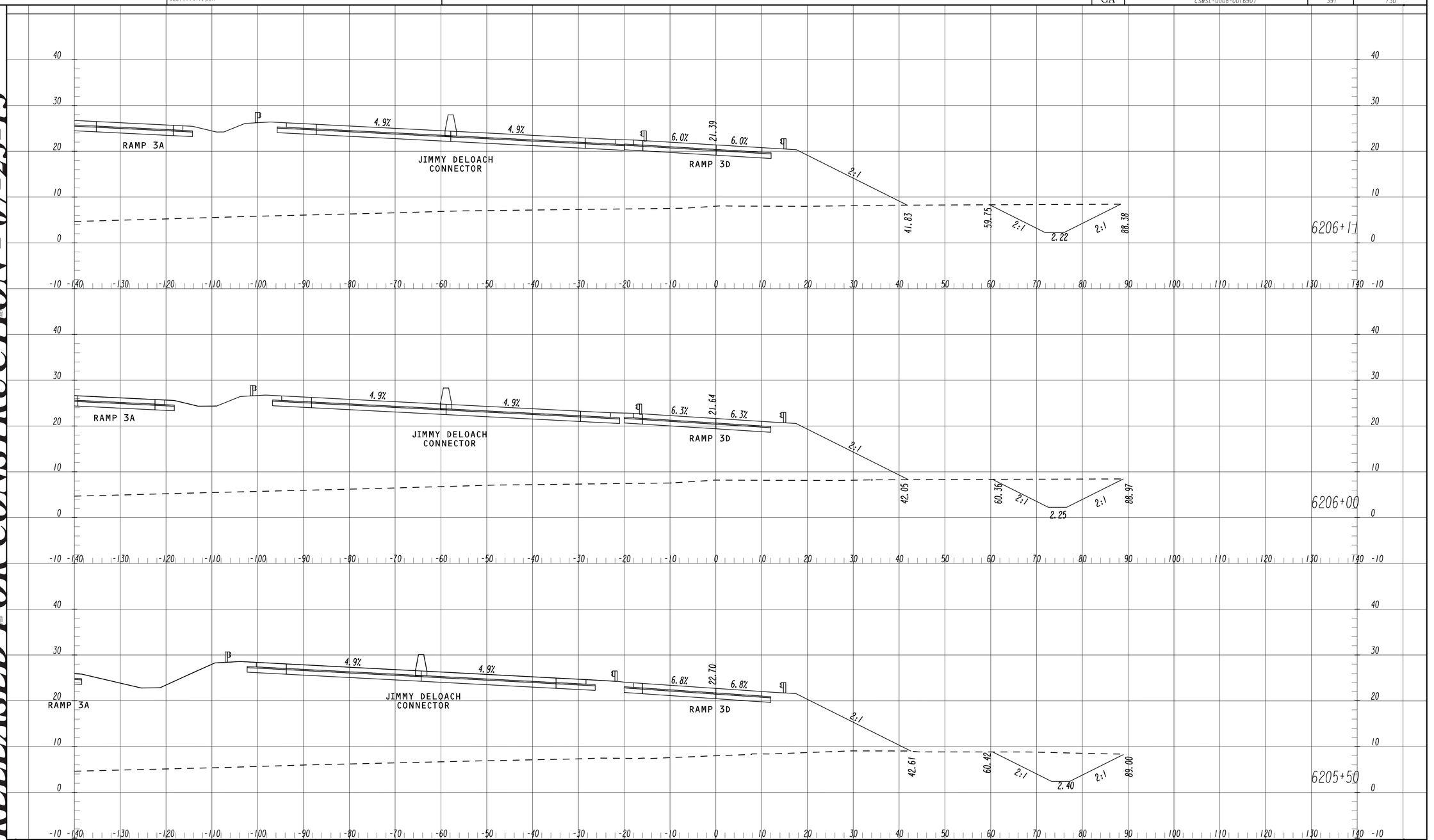
CROSS SECTIONS

RAMP 3D

DRAWING No. 23-179

23-JUL-2013 14:36	2:36:39 PM	0008690_23-00436	Y:\Roadways\126379\0008690\Dgn\0008690_23-004.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	391	730

RELEASED FOR CONSTRUCTION - 07-23-13



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1 INCH = 10 FT VERT.
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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

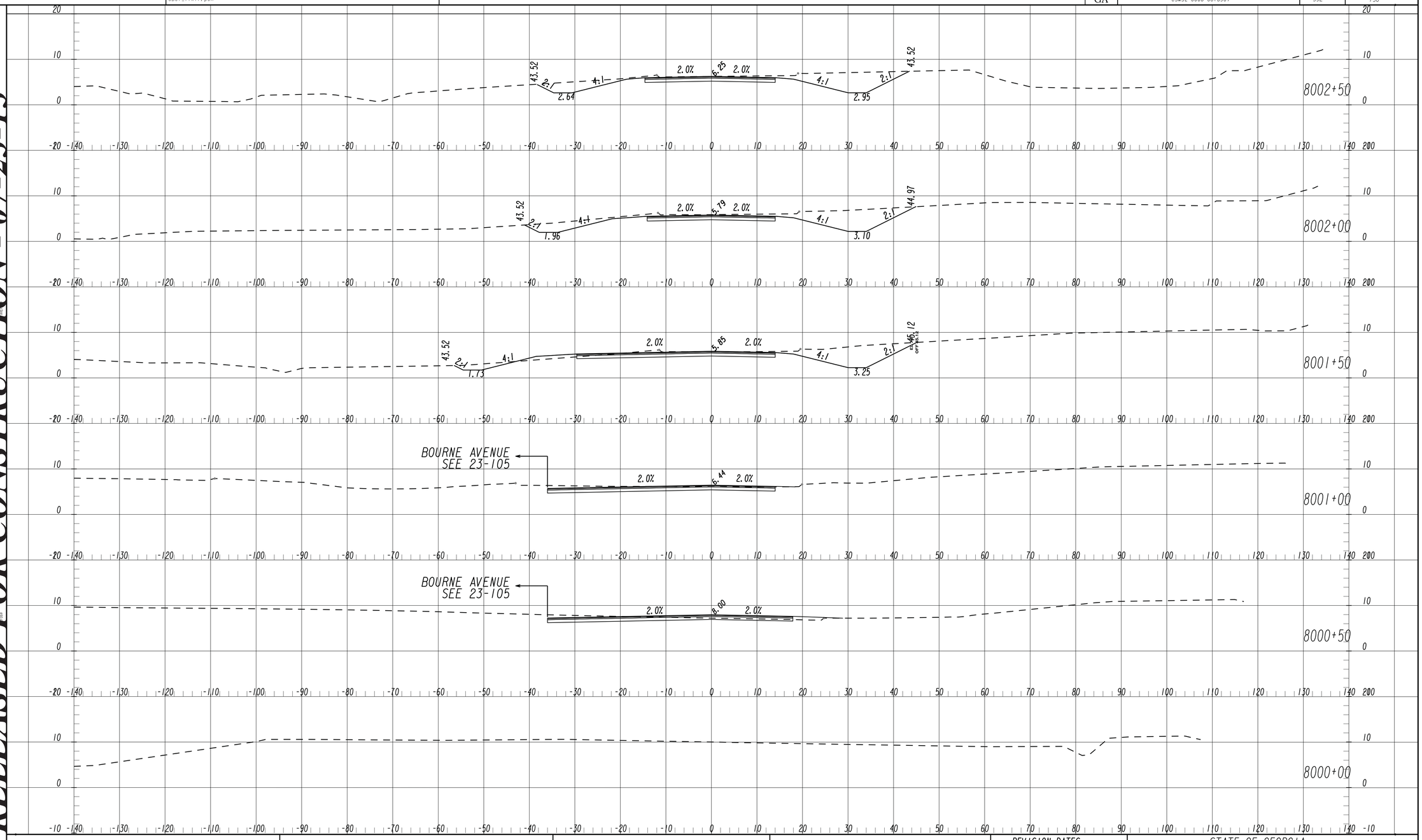
CROSS SECTIONS

RAMP 3D

DRAWING No. 23-180

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	392	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

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1 INCH = 10 FT HORIZ.

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS
BOURNE AVENUE
LOCAL ACCESS ROAD

DRAWING No. 23-181

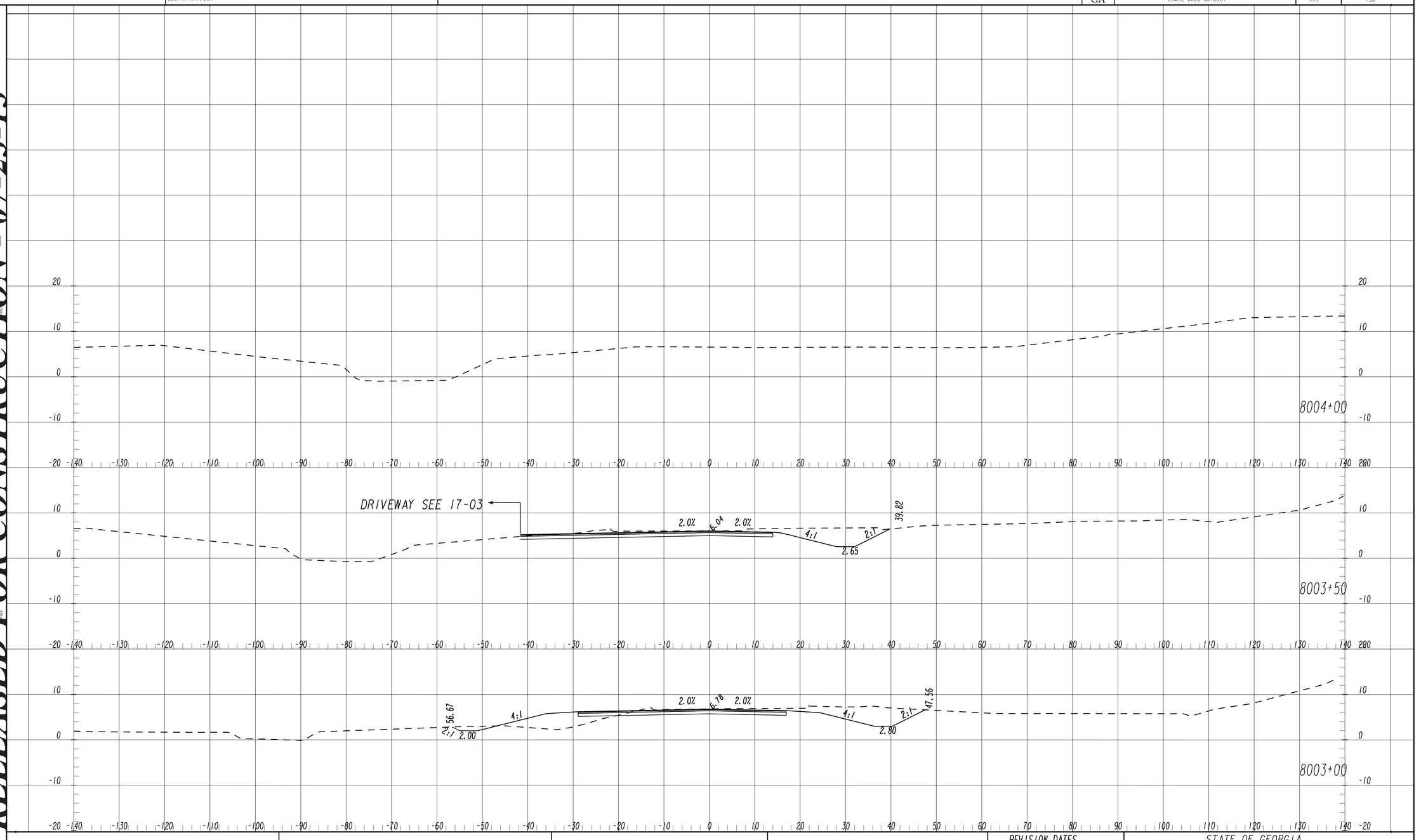
23-JUL-2013 14:36 2:36:46 PM
JParks

0008690_23-005I
GDOT_11x17.pen

Y:\Roadways\126379\0008690\Dgn\0008690_23-005.dgn

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	393	730

RELEASED FOR CONSTRUCTION - 07-23-13



3/1/2007 SUXSEW

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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CROSS SECTIONS
BOURNE AVENUE
LOCAL ACCESS ROAD

DRAWING No. 23-182

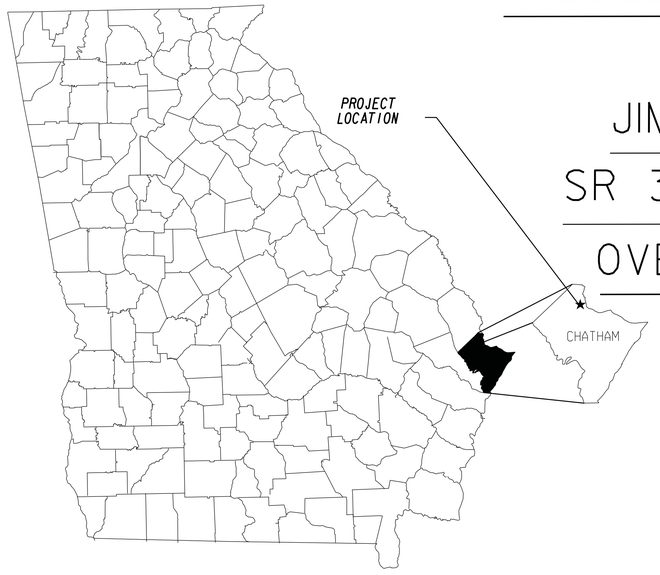
23-JUL-2013 15:01 JParks	3:01:18 PM	0008690_24-00A GDOT_11x17.pen	Y:\Roadways\126379\0008690\Dgn\0008690_24-00A.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
				GA	CSMSL-0008-00(690)	394	730

RELEASED FOR CONSTRUCTION - 07-23-13

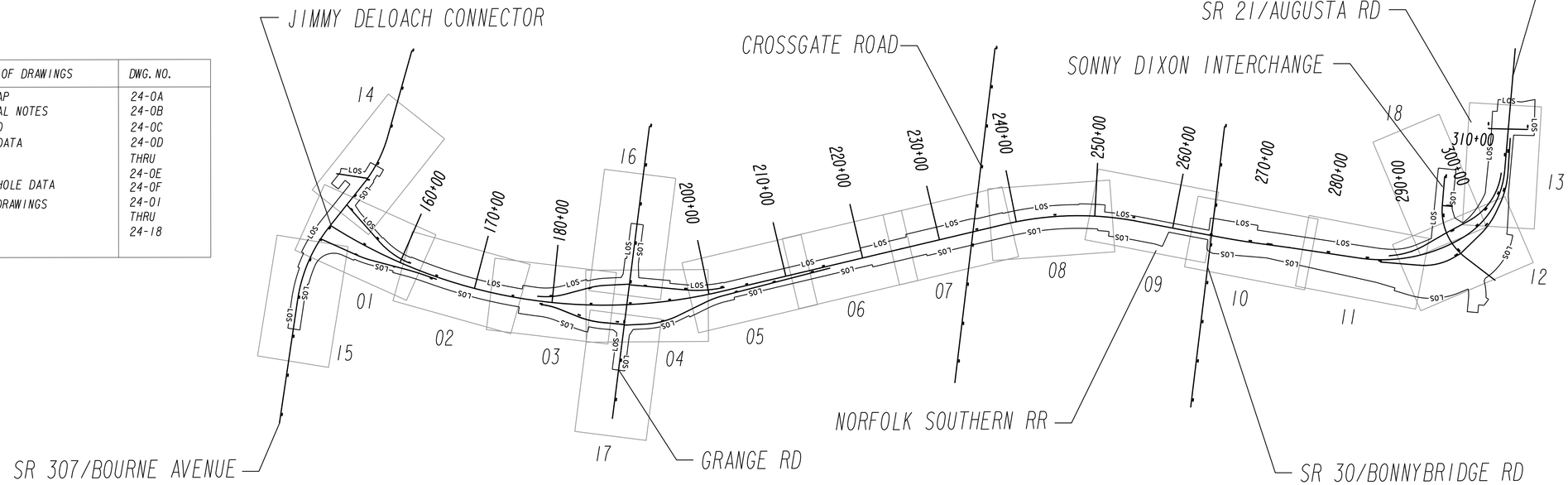
DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

JIMMY DELOACH PARKWAY EXTENSION FROM
SR 307/BOURNE AVE TO SR 21/AUGUSTA ROAD
OVERHEAD/SUBSURFACE UTILITY ENGINEERING
CHATHAM COUNTY

Proj. No. CSMSL-0008-00(690)
P. I. No. 0008690



INDEX OF DRAWINGS	DWG. NO.
KEY MAP	24-0A
GENERAL NOTES	24-0B
LEGEND	24-0C
POLE DATA	24-0D THRU 24-0E
TEST HOLE DATA	24-0F
PLAN DRAWINGS	24-01 THRU 24-18



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REVISION DATES		

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

UTILITY PLANS

OVERHEAD/SUBSURFACE UTILITY ENGINEERING

DRAWING No. 24-00A

1/5/2009 GPLN

RELEASED FOR CONSTRUCTION - 07-23-13

PROJECT DESCRIPTION:

A QL-B OVERHEAD/SUBSURFACE UTILITY ENGINEERING INVESTIGATION (SUE) WAS PERFORMED AND COMPLETED BY TBE GROUP, INC. ON 11/23/10 FOR THIS PROJECT. THE EXISTING OVERHEAD AND UNDERGROUND FACILITIES SHOWN HEREON WERE INCLUDED IN THIS SUE INVESTIGATION. THE PRESENCE OF THESE UTILITIES HAVE BEEN THOROUGHLY INVESTIGATED AND THE METHOD OF DETERMINING THEIR LOCATION IS INDICATED AS SHOWN IN THE PLANS. UTILITIES THAT HAVE BEEN INSTALLED AFTER THE DATE ABOVE HAVE NOT BEEN INCLUDED IN THIS INVESTIGATION AND SHOULD BE CONSIDERED AS FROM RECORD DRAWING ONLY. ALL OTHER EXISTING TOPOGRAPHIC FEATURES DEPICTED HEREON HAVE BEEN REFERENCED FROM TOPOGRAPHIC/MAPPING PROVIDED BY PARSONS AND SURVEY PACKAGE PROVIDED BY ARCADIS WITH A DATE OF 10/27/09.

GENERAL NOTES:

1. SIZES AND MATERIAL TYPES ARE FROM FIELD VERIFICATION. WHEN NOT ATTAINABLE, THEY ARE NOTED PER RECORD PLANS.
2. PRIVATE LIGHT POLES MAY NOT SHOW CONNECTIVITY.
3. SOME SERVICES STOP SHORT OF THE LOS DUE TO PRIVATE PROPERTY.
4. PREVIOUSLY OWNED SEPCO FACILITIES NOW OWNED BY GEORGIA POWER.

UTILITY SUMMARY:

ALL OF THE FOLLOWING UTILITY OWNERS WERE REPORTED TO HAVE FACILITIES WITHIN THE VICINITY OF THIS PROJECT AT THE TIME OF THE SUE INVESTIGATION. UTILITIES FOUND WITHIN THE LOS AT THE TIME OF THE INVESTIGATION ARE NOTED FOR EACH OWNER LISTED AND ARE SHOWN ON THE PLANS HEREON.

(ROF) = RECORDS ON FILE (RNA) = RECORDS NOT AVAILABLE

1. AGL RESOURCES (AGL) - GAS
   CONTACT: PAUL TEAGUE
   1668 CHATHAM PARKWAY
   SAVANNAH, GEORGIA 31405
   TEL.NO.: (912) 239-6526
   NOTE: ALL GAS IS OWNED BY AGL UNLESS OTHERWISE NOTED (ROF)

2. AT&T (ATT) - TELEPHONE
   CONTACT: STACEY SCARBORO
   126 CHATHAM PARKWAY, ROOM 111
   GARDEN CITY, GEORGIA 31408
   TEL.NO.: (912) 964-7305
   NOTE: ALL TELEPHONE IS OWNED BY ATT UNLESS OTHERWISE NOTED (ROF)

3. CITY OF PORT WENTWORTH (COPW) - WATER & SEWER
   CONTACT: PAT BURK
   7393 HODGSON MEMORIAL DRIVE
   SUITE 200
   SAVANNAH, GEORGIA 31406
   TEL.NO.: (912) 927-1485
   NOTE: AS NOTED ON PLANS (ROF)

4. CITY OF SAVANNAH (COS) - WATER & SEWER
   CONTACT: JOHN SAWYER
   CITY OF SAVANNAH
   P.O. BOX 1027
   SAVANNAH, GA 31402
   TEL.NO.: (912) 651-6573
   NOTE: AS NOTED ON PLANS (ROF)

5. COMCAST (CC) - CABLE TV
   CONTACT: DONNIE LITTLE
   145 PARK OF COMMERCE DRIVE
   SAVANNAH, GA 31405
   TEL.NO.: (912) 658-7466
   NOTE: LOCATED THROUGHOUT (ROF)

6. SOUTHERN NATURAL GAS (SNG) - GAS
   CONTACT: DON COCHRAN
   202 BOURNE AVENUE
   SUITE 150
   SAVANNAH, GEORGIA 31408
   TEL.NO.: (205) 678-6210
   NOTE: AS NOTED ON PLANS (ROF)

7. GEORGIA POWER (GP) - DISTRIBUTION
   CONTACT: RICK LONG
   COSTAL REGION-SAVANNAH
   TEL.NO.: (912) 547-0660
   NOTE: LOCATED THROUGHOUT (ROF)

8. GEORGIA POWER TRANSMISSION (GPT) - TRANSMISSION
   CONTACT: DAN EVERIT
   241 RALPH MCGILL BLVD
   ATLANTA, GA 30396
   TEL.NO.: (404) 506-2889
   NOTE: LOCATED ALONG BOURNE AVE, AUGUSTA RD, AND APPROXIMATELY 150 SOUTH OF NORFOLK SOUTHERN RAILROAD (ROF)

9. LEVEL 3 COMMUNICATIONS (L3) - TELECOMMUNICATION
   CONTACT: JEREMY COOPER
   81 ROSS ROAD
   SAVANNAH, GEORGIA 31405
   TEL.NO.: (912) 655-9688
   NOTE: AS NOTED ON PLANS (ROF)

10. HARGRAY COMMUNICATIONS (HC) - TELECOMMUNICAITON
    CONTACT: DEAN PITTINGER
    5 STATE ROAD S-7-29
    BLUFFTON, SC 29910
    TEL.NO.: (877) 420-7729
    NOTE: LOCATED ALONG CROSSGATE DRIVE (RNA)

11. NORFOLK SOUTHERN RAILROAD (NSRR) - TRACKS
    CONTACT: JAMES SPILLIARDS
    3 NORTH MAIN STREET
    GARDEN CITY, GA 31408
    TEL.NO.: (912) 963-6925
    NOTE: NO UTILITIES FOUND, ONLY TRACKS (RNA)

1/5/2009 GPLN

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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

UTILITY PLANS

UTILITY GENERAL NOTES

DRAWING No. 24-00B

23-JUL-2013 15:01	3:01:22 PM	0008690_24-00C	Y:\Roadways\126379\0008690\Dgn\0008690_24-00C.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	396	730

RELEASED FOR CONSTRUCTION - 07-23-13

OVERHEAD

UNDERGROUND

UTILITY LINECODES

EXISTING	TO BE REMOVED	PROPOSED	TYPE OF UTILITY
-E-	-E-	E	ELECTRIC
-E-T-	-E-T-	E-T	ELECTRIC/TELECOMMUNICATIONS
-E-TV-	-E-TV-	E-TV	ELECTRIC/CABLE TV
-E-TC-	-E-TC-	E-TC	ELECTRIC/TRAFFIC CONTROL
-E-T-TV-	-E-T-TV-	E-T-TV	ELECTRIC/TELECOMMUNICATIONS/CABLE TV
-E-T-TV-TC-	-E-T-TV-TC-	E-T-TV-TC	ELECTRIC/TELECOMMUNICATIONS/CABLE TV/TRAFFIC CONTROL
-E-TV-TC-	-E-TV-TC-	E-TV-TC	ELECTRIC/CABLE TV/TRAFFIC CONTROL
-E-T-TC-	-E-T-TC-	T-TV-TC	ELECTRIC/TELECOMMUNICATIONS/TRAFFIC CONTROL
-GW-	-GW-	GW	GUY WIRE
-T-	-T-	T	TELECOMMUNICATIONS
-T-TC-	-T-	T-TC	TELECOMMUNICATIONS/TRAFFIC CONTROL
-T-TV-TC-	-T-TV-TC-	T-TV-TC	TELECOMMUNICATIONS/CABLE TV/TRAFFIC CONTROL
-T-TV-	-T-	T-TV	TELECOMUNICATIONS/CABLE TV
-TV-	-TV-	TV	CABLE TV
-TV-TC-	-TV-TC-	TV-TC	CABLE TV/TRAFFIC CONTROL
-TC-	-TC-	TC	TRAFFIC CONTROL
-----E-----	--E---	E	ELECTRIC (QL-D)
-----E(C)-----	--E(C)--		ELECTRIC (QL-C)
-----E(B)-----	--E(B)--		ELECTRIC (QL-B)
-----T-----	--T---	T	TELECOMMUNICATIONS (QL-D)
-----T(C)-----	--T(C)--		TELECOMMUNICATIONS (QL-C)
-----T(B)-----	--T(B)--		TELECOMMUNICATIONS (QL-B)
-----TV-----	--TV---	TV	CABLE TV (QL-D)
-----TV(C)-----	--TV(C)--		CABLE TV (QL-C)
-----TV(B)-----	--TV(B)--		CABLE TV (QL-B)
-----W-----	--W---	W	WATER (QL-D)
-----W(C)-----	--W(C)--		WATER (QL-C)
-----W(B)-----	--W(B)--		WATER (QL-B)
=====**W=====	=====**W=====	**W	WATER FOR LABELED PIPE SIZES (QL-D)
=====**W(C)=====	=====**W(C)=====		WATER FOR LABELED PIPE SIZES (QL-C)
=====**W(B)=====	=====**W(B)=====		WATER FOR LABELED PIPE SIZES (QL-B)
-----NW-----	--NW---	NW	NON-POTABLE WATER (QL-D)
-----NW(C)-----	--NW(C)--		NON-POTABLE WATER (QL-C)
-----NW(B)-----	--NW(B)--		NON-POTABLE WATER (QL-B)
=====**NW=====	=====**NW=====	**NW	NON-POTABLE WATER FOR LABELED PIPE SIZES (QL-D)
=====**NW(C)=====	=====**NW(C)=====		NON-POTABLE WATER FOR LABELED PIPE SIZES (QL-C)
=====**NW(B)=====	=====**NW(B)=====		NON-POTABLE WATER FOR LABELED PIPE SIZES (QL-B)
-----STM-----	--STM---	STM	STEAM (QL-D)
-----STM(C)-----	--STM(C)--		STEAM (QL-C)
-----STM(B)-----	--STM(B)--		STEAM (QL-B)
=====**STM=====	=====**STM=====	**STM	STEAM FOR LABELED PIPE SIZES (QL-D)
=====**STM(C)=====	=====**STM(C)=====		STEAM FOR LABELED PIPE SIZES (QL-C)
=====**STM(B)=====	=====**STM(B)=====		STEAM FOR LABELED PIPE SIZES (QL-B)
----->SS-----	--->SS---	>SS	SANITARY SEWER WITH FLOW DIRECTION (QL-D)
----->SS(C)-----	--->SS(C)--		SANITARY SEWER WITH FLOW DIRECTION (QL-C)
----->SS(B)-----	--->SS(B)--		SANITARY SEWER WITH FLOW DIRECTION (QL-B)
=====Σ**SS=====	=====Σ**SS=====	>**SS	SANITARY SEWER WITH FLOW DIRECTION FOR LABELED PIPE SIZES (QL-D)
=====Σ**SS(C)=====	=====Σ**SS(C)=====		SANITARY SEWER WITH FLOW DIRECTION FOR LABELED PIPE SIZES (QL-C)
=====Σ**SS(B)=====	=====Σ**SS(B)=====		SANITARY SEWER WITH FLOW DIRECTION FOR LABELED PIPE SIZES (QL-B)
---->SFM-----	--->SFM---	>SFM	SANITARY SEWER FORCE MAIN WITH FLOW DIRECTION (QL-D)
---->SFM(C)-----	--->SFM(C)--		SANITARY SEWER FORCE MAIN WITH FLOW DIRECTION (QL-C)
---->SFM(B)-----	--->SFM(B)--		SANITARY SEWER FORCE MAIN WITH FLOW DIRECTION (QL-B)
-----G-----	--G---	G	GAS (QL-D)
-----G(C)-----	--G(C)--		GAS (QL-C)
-----G(B)-----	--G(B)--		GAS (QL-B)
=====**G=====	=====**G=====	**G	GAS FOR LABELED PIPE SIZES (QL-D)
=====**G(C)=====	=====**G(C)=====		GAS FOR LABELED PIPE SIZES (QL-C)
=====**G(B)=====	=====**G(B)=====		GAS FOR LABELED PIPE SIZES (QL-B)
-----P-----	--P---	P	PETROLEUM (QL-D)
-----P(C)-----	--P(C)--		PETROLEUM (QL-C)
-----P(B)-----	--P(B)--		PETROLEUM (QL-B)
=====**P=====	=====**P=====	**P	PETROLEUM FOR LABELED PIPE SIZES (QL-D)
=====**P(C)=====	=====**P(C)=====		PETROLEUM FOR LABELED PIPE SIZES (QL-C)
=====**P(B)=====	=====**P(B)=====		PETROLEUM FOR LABELED PIPE SIZES (QL-B)
-----TC-----			TRAFFIC CONTROL (QL-D)
-----TC(C)-----	FOR PROPOSED/TEMPORARY TRAFFIC CONTROL INFORMATION REFER TO TRAFFIC SIGNAL PLANS		TRAFFIC CONTROL (QL-C)
-----TC(B)-----			TRAFFIC CONTROL (QL-B)
-----UNK(B)-----	--UNK(B)--		UNKNOWN UTILITY FOUND IN SUE INVESTIGATION (QL-B)

UTILITY SYMBOLS

EXISTING	PROPOSED	TEMPORARY	
			UTILITY POLE/GUY POLE
			LIGHT POLE
			GUY ANCHOR
M	M	M	MARKER
X	X	X	SPLICE BOX
			CABINET
			VENT
E	E	E	ELECTRIC MANHOLE
H	H	H	HAND HOLE
E	E	E	TRANSFORMER
E	E	E	ELECTRIC METER
E	E	E	ELECTRIC BOX
T	T	T	TELECOMMUNICATIONS MANHOLE
T	T	T	TELECOMMUNICATIONS PEDESTAL
SLC	SLC	SLC	SUBCRIBER LOOP CARRIER (aka a "SLICK")
			PHONE BOOTH
			CABLE TV PEDESTAL
TV	TV	TV	CABLE TV MANHOLE
W	W	W	WATER VALVE
W	W	W	WATER METER
W	W	W	WATER MANHOLE
			FIRE HYDRANT ASSEMBLY (INCLUDES ASSOCIATED VALVE)
BFP	BFP	BFP	BACKFLOW PREVENTER
PIV	PIV	PIV	PRESSURE INDICATOR VALVE
ARV	ARV	ARV	AIR RELEASE VALVE
W	W	W	WELL
W	W	W	WATER VAULT
W	W	W	WATER VALVE MARKER
			STAND PIPE

EXISTING	PROPOSED	TEMPORARY	
			CLEANOUT
SS	SS	SS	SANITARY SEWER MANHOLE
ARV	ARV	ARV	AIR RELEASE VALVE
GT	GT	GT	GREASE TRAP
S	S	S	SANITARY SEWER FORCE MAIN VALVE
G	G	G	GAS VALVE
G	G	G	GAS METER
G	G	G	GAS MANHOLE
GPR	GPR	GPR	GAS PRESSURE REGULATOR
G	G	G	GAS VAULT
GTS	GTS	GTS	GAS TEST STATION
P	P	P	PETROLEUM VALVE
P			PETROLEUM MANHOLE
TC	FOR PROPOSED/TEMPORARY TRAFFIC CONTROL INFORMATION REFER TO TRAFFIC SIGNAL PLANS		TRAFFIC CONTROL MANHOLE/ ELECTRIC COMMUNICATIONS BOX
			TRAFFIC CONTROL PEDESTRIAN SIGNAL/BUTTON POST

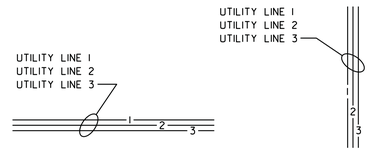
MISCELLANEOUS

LOS	LIMITS OF OVERHEAD AND SUBSURFACE UTILITY INVESTIGATION
TH	TEST HOLE (QL-A ONLY)
EOI	END OF INFORMATION
	QUALITY LEVEL (QL) DELINEATION
123	POLE ID
A01	SANITARY SEWER MANHOLE (SSMH) ID
C123	CONFLICT LOCATION (UTILITY IMPACT ANALYSIS (UIA) ONLY)
	END OF UTILITY

ABBREVIATIONS

MANHOLE = LENGTH x WIDTH x DEPTH		PVC	POLY VINYL CHLORIDE
PR	TELEPHONE PAIR SIZE	STR	FIBER STRAND SIZE
UNK	UNKNOWN SIZE/TYPE	TCP	TERRA COTTA PIPE
MTD	MULTIPLE TILE DUCT	ACP	ASBESTOS CONCRETE PIPE
MCD	MULTIPLE CONCRETE DUCT	VCP	VITRIFIED CLAY PIPE
DIP	DUCTILE IRON PIPE	STD	SINGLE TILE DUCT
TRD	TRANSITE (ASBESTOS) DUCT	SCPD	SINGLE CREOSOTE PINE DUCT
FOC	FIBER OPTIC CABLE	SD	SPLIT DUCT
CIP	CAST IRON PIPE		

MULTI-UTILITY IDENTIFICATION



QUALITY LEVELS AND DEFINITIONS

QL-D DEPICTED ACCORDING TO UTILITY RECORD INFORMATION AND IN-FIELD VISUAL INSPECTION. NO ELECTRONIC DESIGNATING INFORMATION WAS OBTAINED.

QL-C EXISTING UTILITY STRUCTURES HAVE BEEN FIELD LOCATED AND SURVEYED TO ASSIST IN DEPICTING THE UTILITIES SHOWN ON RECORDS. NO ELECTRONIC DESIGNATING INFORMATION WAS OBTAINED.

QL-B INFORMATION WAS OBTAINED THROUGH THE APPLICATION OF APPROPRIATE SURFACE GEOPHYSICAL METHODS TO DETERMINE THE EXISTENCE AND APPROPRIATE HORIZONTAL POSITION OF THE SUBSURFACE UTILITIES. QL-B DATA SHOULD BE REPRODUCIBLE BY SURFACE GEOPHYSICS AT ANY POINT OF THEIR DEPICTION. THIS INFORMATION IS SURVEYED TO APPLICABLE TOLERANCES DEFINED BY THE PROJECT AND REDUCED ONTO PLAN DOCUMENTS.

QL-A OBTAIN PRECISE HORIZONTAL AND VERTICAL POSITION OF THE UTILITY LINE BY EXCAVATING A TEST HOLE. THE TEST HOLE SHALL BE DONE USING VACUUM EXCAVATION OR COMPARABLE NONDESTRUCTIVE EQUIPMENT IN A MANNER AS TO CAUSE NO DAMAGE TO THE UTILITY LINE. AFTER EXCAVATING A TEST HOLE, A FIELD SURVEY SHALL BE PERFORMED TO DETERMINE THE EXACT LOCATION AND POSITION OF THE UTILITY LINE.

TELEPHONE PAIR SIZE TABLE

TELEPHONE PAIR SIZE	TELEPHONE CABLE DIAMETER
5 - 100	0.50 TO 2.00 IN
101 - 2400	UP TO 3.50 IN

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NORCROSS, GEORGIA 30092
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REVISION DATES		

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION

OFFICE: INNOVATIVE PROGRAM DELIVERY

UTILITY PLANS

UTILITY LEGEND

DRAWING No. 24-00C

1/5/2009 GPLN

RELEASED FOR CONSTRUCTION - 07-23-13

Pole #	Pole ID	POLE OWNER	UTILITY OWNERS ATTACHED					Northing	Easting	Height	Dia.	Material	Miscellaneous
			ELECTRIC	TELECOM	CABLE TV	TRAFFIC	OTHER	FEET	FEET	FEET	INCHES		
1		GP	GP	ATT				774609.4	965688.8	43.3	11	WOOD	
2		GP	GP	ATT				774577.0	965511.1	31.7	10	WOOD	W/ LIGHT
3		GP	GP	ATT				774666.3	965918.8	33.2	11	WOOD	
4	3	GP	GP	ATT				774630.9	966120.9	31.4	10	WOOD	W/ LIGHT
5	2 / FWB154	GP	GP	ATT				774583.2	966378.2	33.8	12	WOOD	W/ LIGHT
6		PRIVATE	GP					774605.9	966333.2	20.3	7	WOOD	AGL METER BOX
7	1	GP	GP	ATT				774425.2	966410.4	32.7	12	WOOD	W/ LIGHT, XFMR
8		GP	GP					774522.5	966703.4	29.7	9	WOOD	
9	18	GPT	GPT					774398.0	966785.1	122.2	N/A	METAL	TRANSMISSION TOWER
10		PRIVATE	GP					774481.9	966921.7	26.9	9	WOOD	XFMR, ABANDONED
11	17	GPT	GPT					774596.4	967765.2	102.0	N/A	METAL	TRANSMISSION TOWER
12		PRIVATE						775025.7	965605.6	27.4	8	METAL	LIGHT POLE
13	24 / FWB055	GP	GP					778337.8	965089.0	58.4	14	WOOD	POLE 24
14		ATT		ATT				778379.4	965106.9	30.3	9	WOOD	
15	23/FWB054	GP	GP	ATT				778369.1	965228.9	58.0	15	WOOD	LIGHT
16		PRIVATE	GP	ATT				778328.0	965264.9	16.5	6	WOOD	
17		ATT		ATT				778399.2	965186.7	25.4	8	WOOD	
18		ATT		ATT				778409.0	965228.4	30.2	8	WOOD	
19		GP	GP	ATT				778570.1	965150.1	32.7	10	WOOD	3 XFMR'S
20		ATT		ATT				778442.4	965378.1	29.4	8	WOOD	
21		ATT		ATT				778469.4	965499.7	29.4	8	WOOD	
22		GP	GP				GUY	778487.1	965563.3	38.1	11	WOOD	XFMR
23	22	GP	GP					778391.3	965331.0	57.7	15	WOOD	
24	FSA1139	GP	GP	ATT			GUY	778444.5	965571.5	60.4	14	WOOD	
25		GP	GP					778420.6	965577.8	32.2	12	WOOD	2 XFMR'S
26		GP	GP	ATT				778369.5	965589.4	34.3	11	WOOD	
27		GP	GP	ATT				778232.6	965620.5	30.3	10	WOOD	3 XFMR'S
28		ATT		ATT				778500.5	965626.8	34.2	8	WOOD	
29		PRIVATE	GP					778344.6	965330.4	16.2	8	WOOD	
30		GP	GP					778173.7	965436.4	33.6	8	WOOD	W/ LIGHT, CAMERA
31	8	GP	GP					778434.3	965622.0	28.9	8	WOOD	W/ LIGHT
32	20/FWB051	GP	GP	ATT				778501.1	965823.8	55.1	15	WOOD	W/ LIGHT
33		GP	GP	ATT				778425.3	965810.9	16.2	6	WOOD	
34		GP	GP	ATT				778419.5	965853.4	14.5	7	WOOD	
35	4	GP	GP					778327.1	965848.7	32.5	11	WOOD	W/ LIGHT
36	3	GP	GP					778190.6	965879.2	29.8	11	WOOD	W/ LIGHT
37	2	GP	GP					778239.5	966049.6	31.7	10	WOOD	W/ LIGHT
38	1	GP	GP					778374.3	966015.4	32.7	11	WOOD	W/ LIGHT
39	3	GP	GP					777990.0	965903.0	27.9	9	WOOD	
40	4	GP	GP					777845.4	965833.1	29.2	9	WOOD	W/ LIGHT
41		GP	GP					778316.3	965078.8	33.7	9	WOOD	W/ LIGHT, XMFR
42	FWB056	GP	GP					778301.3	964920.3	32.8	12	WOOD	
43		ATT		ATT				778338.1	964934.2	33.6	9	WOOD	
44		GP	GP					778307.6	965097.6	16.7	6	WOOD	
45		GP	GP					778049.4	965138.8	30.9	9	WOOD	2 XFMR'S
46		GP	GP					778245.3	965144.7	29.1	6	WOOD	W/ LIGHT
47		GP	GP					778126.7	965241.6	32.1	11	WOOD	W/ LIGHT, CAMERA
48	19/FWB050	GP	GP	ATT				778569.1	966130.9	56.0	15	WOOD	
49		GP	GP					778524.3	966010.0	29.1	8	WOOD	W/ LIGHT
50	1	GP	GP					778540.0	966136.1	32.4	9	WOOD	W/ LIGHT, 3 XFMR'S
51	8	GP	GP					778472.2	966161.7	26.3	9	WOOD	W/ LIGHT, 2 CAMERAS
52		GP	GP					778374.7	966228.4	22.0	10	WOOD	W/ LIGHT
53		GP	GP					778337.7	966236.3	28.7	10	WOOD	W/ LIGHT
54	6	GP	GP					778215.9	966264.7	28.0	10	WOOD	W/ LIGHT
55	5	GP	GP					778096.9	966282.9	29.3	10	WOOD	W/ LIGHT
56		GP	GP					778063.3	966294.8	24.2	7	WOOD	
57	4	GP	GP					777950.8	966251.4	29.8	7	WOOD	W/ LIGHT
58		GP	GP					778024.0	966134.4	29.8	9	WOOD	W/ LIGHT

Pole #	Pole ID	POLE OWNER	UTILITY OWNERS ATTACHED					Northing	Easting	Height	Dia.	Material	Miscellaneous
			ELECTRIC	TELECOM	CABLE TV	TRAFFIC	OTHER	FEET	FEET	FEET	INCHES		
58		GP	GP					778024.0	966134.4	29.8	9	WOOD	W/ LIGHT
59	3	GP	GP					778070.0	966122.9	29.5	9	WOOD	W/ LIGHT
60	2	GP	GP					778175.8	966093.6	22.9	7	WOOD	W/ LIGHT
61		GP	GP					778357.6	966053.1	27.9	10	WOOD	W/ LIGHT
62		GP	GP	ATT				778555.9	966191.4	17.0	9	WOOD	
63	1	GP	GP					778559.2	966220.4	29.0	8	WOOD	W/ LIGHT
64		GP	GP	ATT				776819.4	966296.2	38.4	13	WOOD	ABANDONED
65		GP	GP	ATT				776809.7	966268.1	38.2	11	WOOD	
66		GP	GP	ATT				776860.5	966415.2	38.1	12	WOOD	
67		GP	GP	ATT				776901.8	966534.3	38.4	13	WOOD	
68		GP	GP	ATT				776943.6	966655.2	42.2	13	WOOD	
69		PRIVATE						777302.8	966458.3	30.1	7	WOOD	W/ LIGHT
70		PRIVATE						777234.4	966260.2	30.3	6	WOOD	W/ LIGHT
71		GP	GP					778599.7	966373.2	22.7	6	WOOD	
72		PRIVATE	GP					778606.5	966432.4	16.2	11	WOOD	
73		PRIVATE	GP					778606.6	966438.7	33.6	11	WOOD	W/ LIGHT
74	96960	GP	GP					778611.7	966428.1	36.9	12	WOOD	3 XMFR'S
75	18/FWB187	GP	GP	ATT				778634.5	966431.1	56.7	15	WOOD	
76		ATT		ATT				778670.4	966428.9	32.2	10	WOOD	
77		GP	GP	ATT				778683.5	966368.3	30.7	11	WOOD	
78		GP	GP	ATT				778608.5	966532.8	33.3	10	WOOD	W/ LIGHT, XFMR
79	17 / FWB049	GP	GP	ATT				778654.6	966523.5	55.9	15	WOOD	
80	16	GP	GP					778705.1	966747.6	58.2	13	WOOD	
81		PRIVATE	GP					778690.6	966818.7	23.2	7	WOOD	W/ LIGHT
82		GP	GP					778748.0	966943.9	36.0	10	WOOD	XFMR
83		GP	GP					778803.3	966963.5	27.3	9	WOOD	W/ LIGHT
84		ATT		ATT				778760.2	966817.4	34.3	10	WOOD	
85		ATT		ATT				778814.2	967045.9	39.3	11	WOOD	
86		ATT		ATT				778712.5	966611.4	34.3	9	WOOD	
87		GP	GP	ATT				778782.4	966350.1	34.8	12	WOOD	
88		GP						778695.7	966348.6	37.9	12	WOOD	W/ LIGHT
89		ATT		ATT				778636.0	966279.5	28.5	10	WOOD	
90	13	ATT		ATT				778620.1	966203.4	33.2	10	WOOD	
91		ATT		ATT				778602.1	966124.5	33.9	10	WOOD	
92		ATT		ATT				778571.4	965967.8	29.2	8	WOOD	
93		ATT	GP	ATT				778556.1	965895.1	30.2	9	WOOD	
94		GP	GP	ATT				778533.0	965780.0	33.2	12	WOOD	
95		GP	GP					778712.4	965741.3	34.2	11	WOOD	3 XFMR'S
96		GP	GP					778780.8	965726.6	29.3	9	WOOD	W/ LIGHT
97		PRIVATE						778650.4	966019.4	26.6	6	METAL	LIGHT POLE
98		ATT	GP	ATT			GUY	778541.0	965821.3	29.0	10	WOOD	
99		GP	GP					778900.7	965693.8	32.8	11	WOOD	W/ LIGHT
100		GP	GP					779050.0	965653.8	33.0	11	WOOD	W/ LIGHT
101		GP	GP					779196.8	965618.7	33.5	11	WOOD	W/ LIGHT
102		GP	GP					779339.3	965592.3	32.9	11	WOOD	W/ LIGHT
103		GP	GP					779483.5	965556.9	30.1	11	WOOD	W/ LIGHT
104		GP	GP	ATT				778607.5	965958.3	31.5	11	WOOD	W/ LIGHT
105		PRIVATE	GP					778702.2	965929.3	33.0	10	WOOD	W/ LIGHT
106		GP	GP					778790.8	965916.9	33.7	11	WOOD	W/ LIGHT, XFMR
107		PRIVATE		ATT				778791.8	965915.9	21.5	11	WOOD	SHORT POLE
108		PRIVATE	GP	ATT				778829.6	965897.0	16.5	6	WOOD	
109		PRIVATE	GP					778886.1	965885.6	14.5	6	WOOD	W/ LIGHT
110		PRIVATE		ATT				778887.3	965890.0	15.1	6	WOOD	
111	/005029	ATT	GP	ATT	CC			782453.5	963844.2	34.3	11	WOOD	W/ LIGHT
112	8	ATT	GP	ATT	CC			782408.4	963651.1	34.2	7	WOOD	
113	7/ 005028	ATT	GP	ATT	CC			782364.0	963459.0	34.5	8	WOOD	
114	6	ATT	GP	ATT	CC			782319.4	963267.2	30.3	8	WOOD	
115	/005015	GP	GP					785242.2	962843.5	28.2	11	WOOD	W/ LIGHT
116	/005014	GP	GP					785047.1	962941.9	27.8	11	WOOD	
117	69	GPT	GPT					784448.7	963245.5	136.9	N/A	METAL	TRANSMISSION TOWER, TNS
118	POLE NUMBER NOT USED												

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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

UTILITY PLANS

UTILITY POLE DATA

DRAWING No. 24-00D

1/5/2009 GPLN

RELEASED FOR CONSTRUCTION - 07-23-13

Pole #	Pole ID	POLE OWNER	UTILITY OWNERS ATTACHED					Northing	Easting	Height	Dia.	Material	Miscellaneous
			ELECTRIC	TELECOM	CABLE TV	TRAFFIC	OTHER	FEET	FEET	FEET	INCHES		
118	POLE NUMBER NOT USED												
119	POLE NUMBER NOT USED												
120	86	GPT	GPT					784366.6	963519.3	76.0	36	CONCRETE	TRANSMISSION, PNS
121	85	GPT	GPT					784415.8	962876.6	75.2	36	CONCRETE	TRANSMISSION
122	84	GPT	GPT					784459.2	962306.3	83.2	36	CONCRETE	TRANSMISSION
123	68	GPT	GPT					784508.6	962448.7	137.0	N/A	METAL	TRANSMISSION TOWER
124-133	POLE NUMBER NOT USED												
134		GP	GP	ATT				787975.5	960858.8	33.1	10	WOOD	
135		GP	GP	ATT				787881.0	960930.0	33.2	10	WOOD	
136		GP	GP	ATT				787870.9	960890.7	33.2	11	WOOD	2 XFMR'S
137		GP	GP					787847.4	960791.8	28.1	10	WOOD	
138		PRIVATE						787837.9	960873.4	44.6	11	WOOD	RADIO MAST
139		PRIVATE						787831.3	960905.3	27.6	10	WOOD	LIGHT POLE
140		GP	GP					788623.6	962245.3	40.6	11	WOOD	W/ LIGHT, XFMR
141		GP	GP					788502.7	962143.8	22.3	10	WOOD	SERVICE POLE
142		GP	GP					788968.5	962346.9	36.2	10	WOOD	W/ LIGHT, XFMR
143		GP	GP					788598.5	961555.2	24.0	6	WOOD	W/ LIGHT
144		GP	GP		CC			788585.0	961402.9	34.9	11	WOOD	W/ LIGHT, XFMR
145	FSA1221	GP	GP		CC			788615.4	961110.9	33.9	11	WOOD	2 XFMR'S
146		GP	GP	ATT	CC			788597.8	960915.5	35.1	11	WOOD	
147		GP	GP	ATT	CC			788632.3	960898.3	34.2	11	WOOD	W/ LIGHT
148	POLE NUMBER NOT USED												
149		GP	GP					788679.6	961108.3	18.0	10	WOOD	PRIVATE SERVICE
150	POLE NUMBER NOT USED												
151		GP	GP	ATT	CC			788576.4	960834.1	35.0	11	WOOD	W/ LIGHT, XFMR
152		GP	GP	ATT	CC			788547.8	960731.3	35.4	11	WOOD	
153	FSA1220 / 30KS	GP	GP	ATT	CC			788600.3	960714.3	34.1	10	WOOD	W/ LIGHT, XFMR
154		GP	GP	ATT	CC			788502.9	960554.4	38.3	10	WOOD	W/ LIGHT
155		GP	GP	ATT	CC			788571.7	960530.8	36.3	10	WOOD	W/ LIGHT, XFMR
156		GP	GP	ATT	CC			788456.3	960378.8	34.6	12	WOOD	
157		GP	GP	ATT	CC			788537.7	960350.1	34.0	12	WOOD	W/ LIGHT, XFMR
158		GP	GP	ATT	CC			788424.4	960259.8	43.2	11	WOOD	W/ LIGHT
159		ATT	GP	ATT	CC		GUY	788402.0	960161.5	42.8	13	WOOD	W/ LIGHT
160		GP	GP	ATT	CC			788529.3	960118.0	42.8	12	WOOD	3 XFMR'S
161		ATT		ATT	CC			788578.5	960099.8	29.0	9	WOOD	
162		ATT		ATT	CC			788683.8	960062.8	35.2	10	WOOD	
163	16 / FWB024-35KS	GP	GP	ATT	CC			788889.7	959846.6	60.7	13	WOOD	
164		GP	GP	ATT	CC		GUY	788592.1	959945.5	48.2	13	WOOD	
165	15 / W117	GP	GP		CC		GUY	788461.2	959987.8	92.9	42	CONCRETE	
166	W118	GP	GP		CC		GUY	788151.2	960090.8	47.6	28	CONCRETE	
167	14	GP	GP		CC		GUY	787975.0	960150.3	91.8	42	CONCRETE	
168		GP	GP					778355.9	964968.2	29.2	10	WOOD	W/ LIGHT
169		GP	GP					778386.8	965104.2	28.5	10	WOOD	W/ LIGHT
170		GP	GP					778548.4	965131.4	29.6	10	WOOD	W/ LIGHT
171		PRIVATE						778798.8	965940.9	23.2	6	FIBER	W/ LIGHT
172		PRIVATE						778921.6	965911.2	25.2	6	FIBER	W/ LIGHT
173		PRIVATE						779045.3	965884.4	25.6	10	WOOD	W/ LIGHT
174		PRIVATE						778721.9	966046.3	14.0	3x3	METAL	W/ LIGHT
175		PRIVATE	GP					788405.9	962182.4	26.5	10	WOOD	CATHODIC PROTECTION
176		GP	GP	GP				782922.6	962993.1	56.5	13	WOOD	OH FIBER LABELED SEPCO / SEE GEN. NOTE #4
177		GP	GP	GP				782987.8	963275.5	58.7	13	WOOD	OH FIBER LABELED SEPCO / SEE GEN. NOTE #4
178		GP	GP	GP				783055.9	963567.9	57.0	13	WOOD	OH FIBER LABELED SEPCO / SEE GEN. NOTE #4
179	20	GPT	GPT					788398.6	959792.9	97.3	36	CONCRETE	TRANSMISSION
180	21	GPT	GPT					788548.2	959742.7	56.4	24	CONCRETE	TRANSMISSION
181		ATT		ATT				788552.3	959741.2	27.4	12	WOOD	
182	19	GPT	GPT					788100.1	959891.4	98.6	36	CONCRETE	TRANSMISSION
183	18	GPT	GPT					787837.8	959978.3	56.5	24	CONCRETE	TRANSMISSION
184-188	POLE NUMBERS NOT USED												
189		GP	GP					778771.4	967049.1	60.9	12	WOOD	

Pole Owner Totals and Abbreviations

Total Georgia Power (GP) Poles	111
Total Georgia Power Transmission (GPT) Poles/Towers	11
Total AT&T (ATT) Poles	25
Total Private Poles	23
Total Pole Count	170

XFMR - Transformer

PNS - Pole Not Shown on Plans

TNS - Tower Not Shown on Plans

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UTILITY PLANS

UTILITY POLE DATA

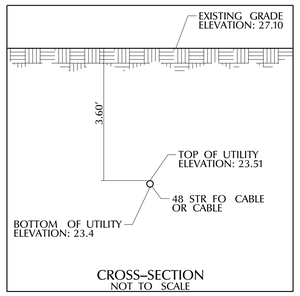
DRAWING No. 24-00E

1/5/2009 GPLN

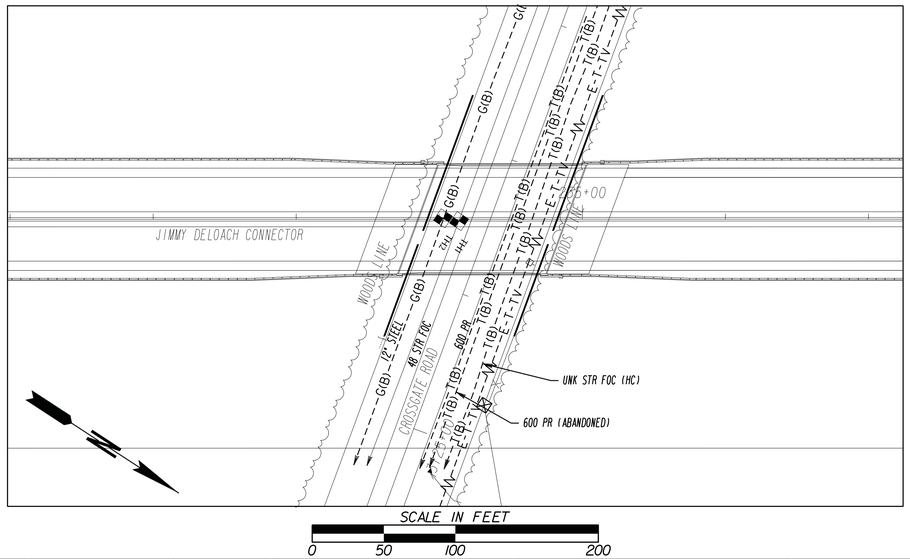
RELEASED FOR CONSTRUCTION - 07-23-13

PROJECT NAME: JIMMY DELOACH EXTENSION FROM SR 307/BOURNE AVENUE TO SR 21/AUGUSTA ROAD	TEST HOLE NO.: 1
PROJECT NUMBER: CSMSL-0008-00(690)	DATE: 5-23-12
P.I. NUMBER: 0008690	RECOREDED BY: JLN
CITY, COUNTY, STATE: PORT WENTWORTH, CHATHAM COUNTY, GEORGIA	PLAN REFERENCE: 24-007

UTILITY OWNER: AT&T
UTILITY SIZE/TYPE: 48 STR FO CABLE OR CABLE
UTILITY COMPOSITION/COLOR: BLACK
UTILITY CONDITION: GOOD
NOTES: SHOWN AS GAS LINE ON ORIGINAL SUE PLANS
PAVING TYPE/THICKNESS: N/A
PAVING CONDITION: N/A
SOIL TYPE: MOIST SAND, TRACE SILT
SITE CONDITION: GOOD
BENCHMARK/SURVEY DATA USED:
HGBD SURVEY CONTROL, STATE PLANE: GA EAST ZONE/NAVD 88 DATUM



CROSS-SECTION
NOT TO SCALE



TH#	UTILITY LOCATED	NORTHING	EASTING	STATION/OFFSET	GROUND ELEVATION (FEET)	TOP OF UTILITY ELEVATION (FEET)	ACTUAL DEPTH (FEET)
1	48 STR FO CABLE OR CABLE	782352.1058	963654.1876	234+13.89/1.24' LT	27.10	23.51 (TOP) 23.40 (BOTTOM)	3.60' (TOP) 3.71' (BOTTOM)

NOTES:
UTILITY DIMENSIONS OBTAINED FROM TEST HOLES ARE OUTSIDE DIAMETERS UNLESS OTHERWISE NOTED.
THE ACTUAL DEPTHS OBTAINED FROM TEST HOLES ARE MEASURED, NOT CALCULATED.

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770-209-0029 Fax 582-2900
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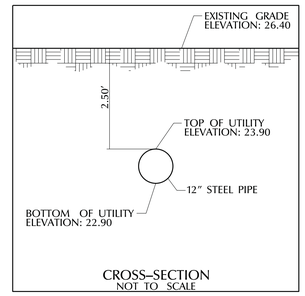
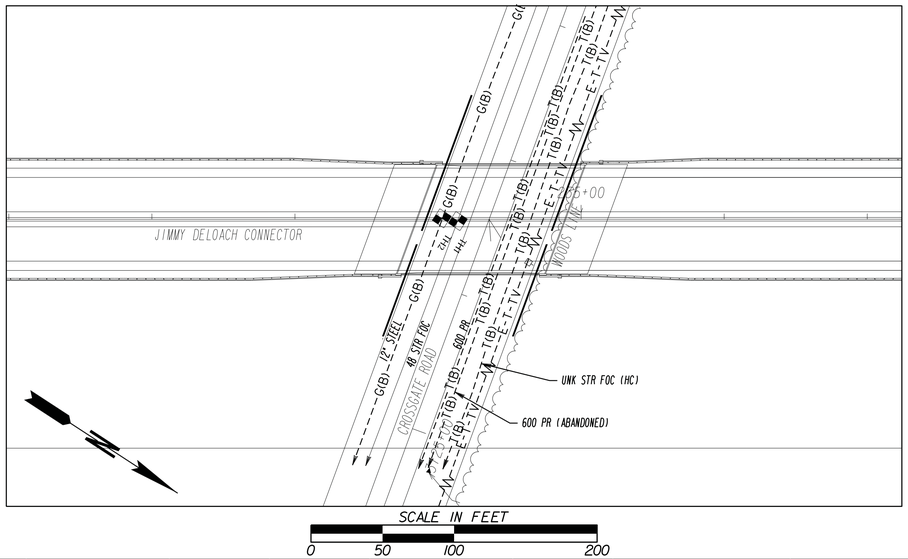
PROJECT NAME: JIMMY DELOACH EXTENSION FROM SR 307/BOURNE AVENUE TO SR 21/AUGUSTA ROAD	TEST HOLE NO.: 2
PROJECT NUMBER: CSMSL-0008-00(690)	DATE: 5-23-12
P.I. NUMBER: 0008690	RECOREDED BY: JLN
CITY, COUNTY, STATE: PORT WENTWORTH, CHATHAM COUNTY, GEORGIA	PLAN REFERENCE: 24-007

UTILITY OWNER: AGL
UTILITY SIZE/TYPE: 12" STEEL PIPE
UTILITY COMPOSITION/COLOR: COATED
UTILITY CONDITION: GOOD
NOTES: SHOWN AS TELEPHONE LINE ON ORIGINAL SUE PLANS
PAVING TYPE/THICKNESS: N/A
PAVING CONDITION: N/A
SOIL TYPE: MOIST SAND, TRACE SILT
SITE CONDITION: GOOD
BENCHMARK/SURVEY DATA USED:
HGBD SURVEY CONTROL, STATE PLANE: GA EAST ZONE/NAVD 88 DATUM



CROSS-SECTION
NOT TO SCALE



TH#	UTILITY LOCATED	NORTHING	EASTING	STATION/OFFSET	GROUND ELEVATION (FEET)	TOP OF UTILITY ELEVATION (FEET)	ACTUAL DEPTH (FEET)
2	12" STEEL PIPE	782341.6721	963658.7308	234+03.27/0.65' RT	26.40	23.90 (TOP) 22.90 (BOTTOM)	2.50' (TOP) 3.50' (BOTTOM)

NOTES:
UTILITY DIMENSIONS OBTAINED FROM TEST HOLES ARE OUTSIDE DIAMETERS UNLESS OTHERWISE NOTED.
THE ACTUAL DEPTHS OBTAINED FROM TEST HOLES ARE MEASURED, NOT CALCULATED.

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PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

BEGIN LIMIT OF ACCESS.....BLA
END LIMIT OF ACCESS.....ELA
LIMIT OF ACCESS
REQ'D R/W & LIMIT OF ACCESS

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

UTILITY PLANS

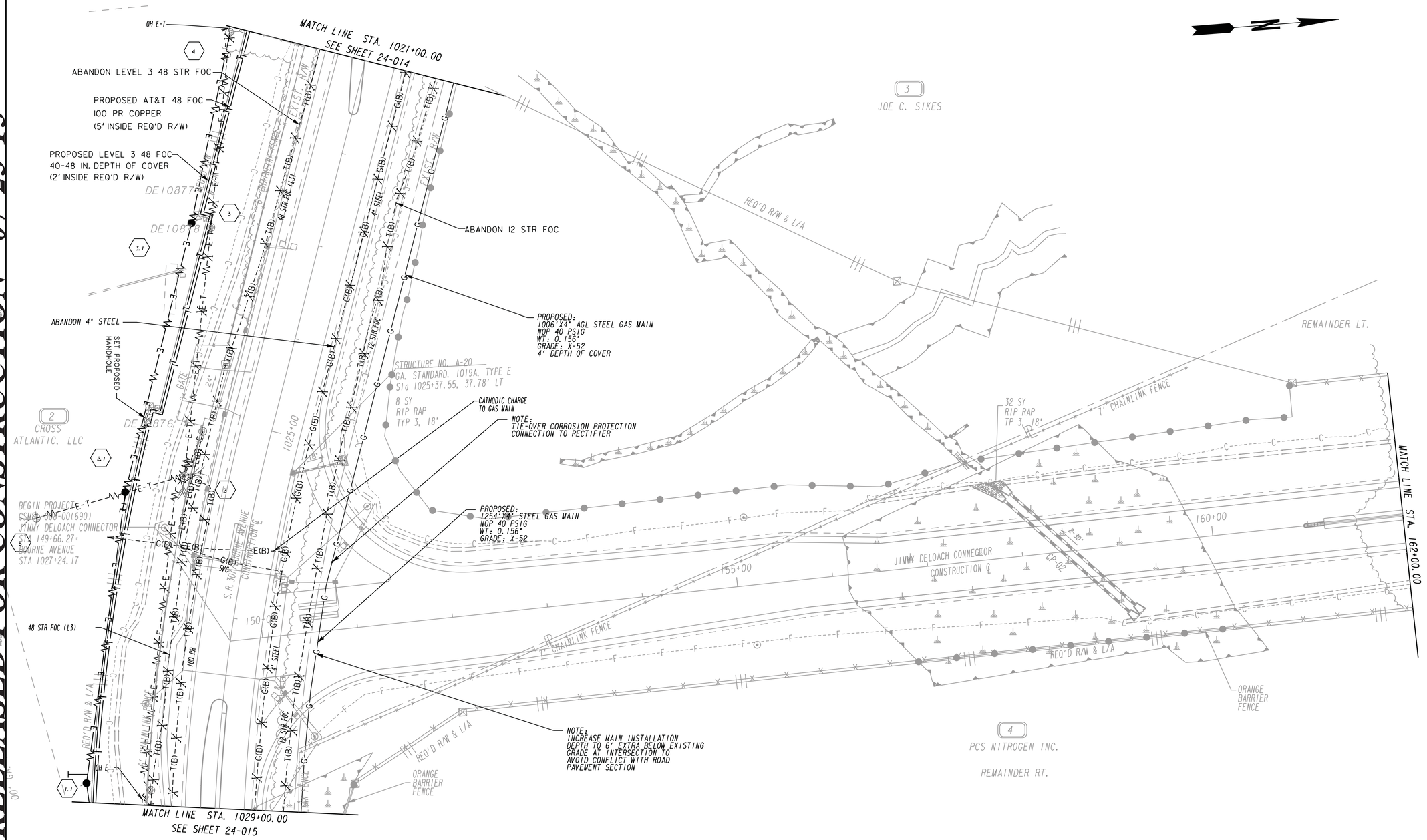
JIMMY DELOACH CONNECTOR
STA. 225+00 TO STA. 238+00

DRAWING No. 24-00F

3/1/2007 GPLN

23-JUL-2013 15:02	3:02:13 PM	0008690_24-001	Y:\Roadways\126379\0008690\Dgn\0008690_24-001.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	400	730

RELEASED FOR CONSTRUCTION - 07-23-13



PROPERTY AND EXISTING R/W LINE	——℄——
REQUIRED R/W LINE	———
CONSTRUCTION LIMITS	—C—F—
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES	
EASEMENT FOR CONSTR OF SLOPES	
EASEMENT FOR CONSTR OF DRIVES	

BEGIN LIMIT OF ACCESS	BLA
END LIMIT OF ACCESS	ELA
LIMIT OF ACCESS	
REQ'D R/W & LIMIT OF ACCESS	

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(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

UTILITY PLANS

JIMMY DELOACH CONNECTOR
BEGIN TO STA. 162+00

DRAWING No. 24-001

3/1/2007 GPLN

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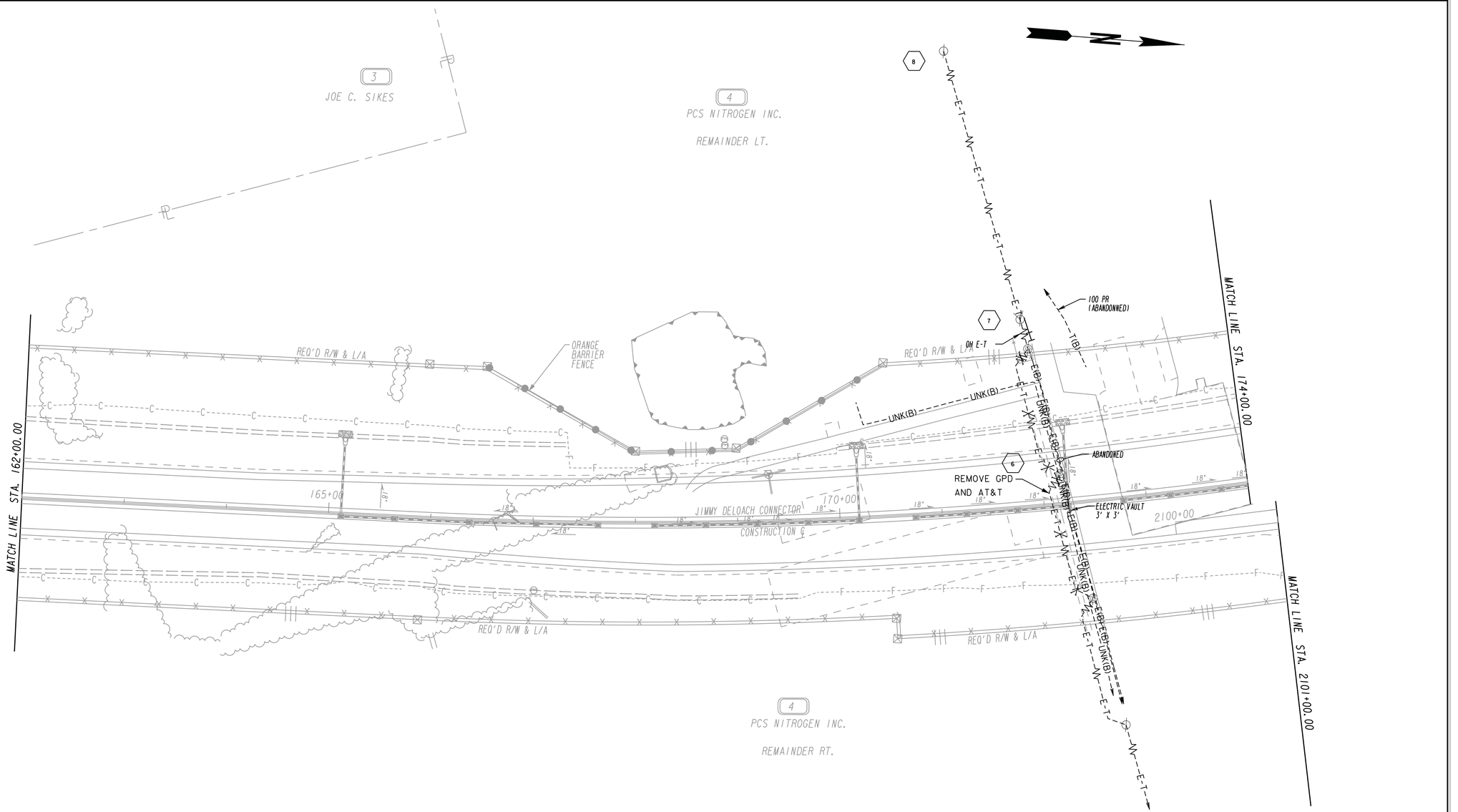
RELEASED FOR CONSTRUCTION - 07-23-13



PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

BEGIN LIMIT OF ACCESS.....BLA
END LIMIT OF ACCESS.....ELA
LIMIT OF ACCESS
REQ'D R/W & LIMIT OF ACCESS

THE LPA GROUP
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SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

UTILITY PLANS

JIMMY DELOACH CONNECTOR
STA. 162+00 TO STA. 174+00

DRAWING No. 24-002

3/11/2007 GPLN

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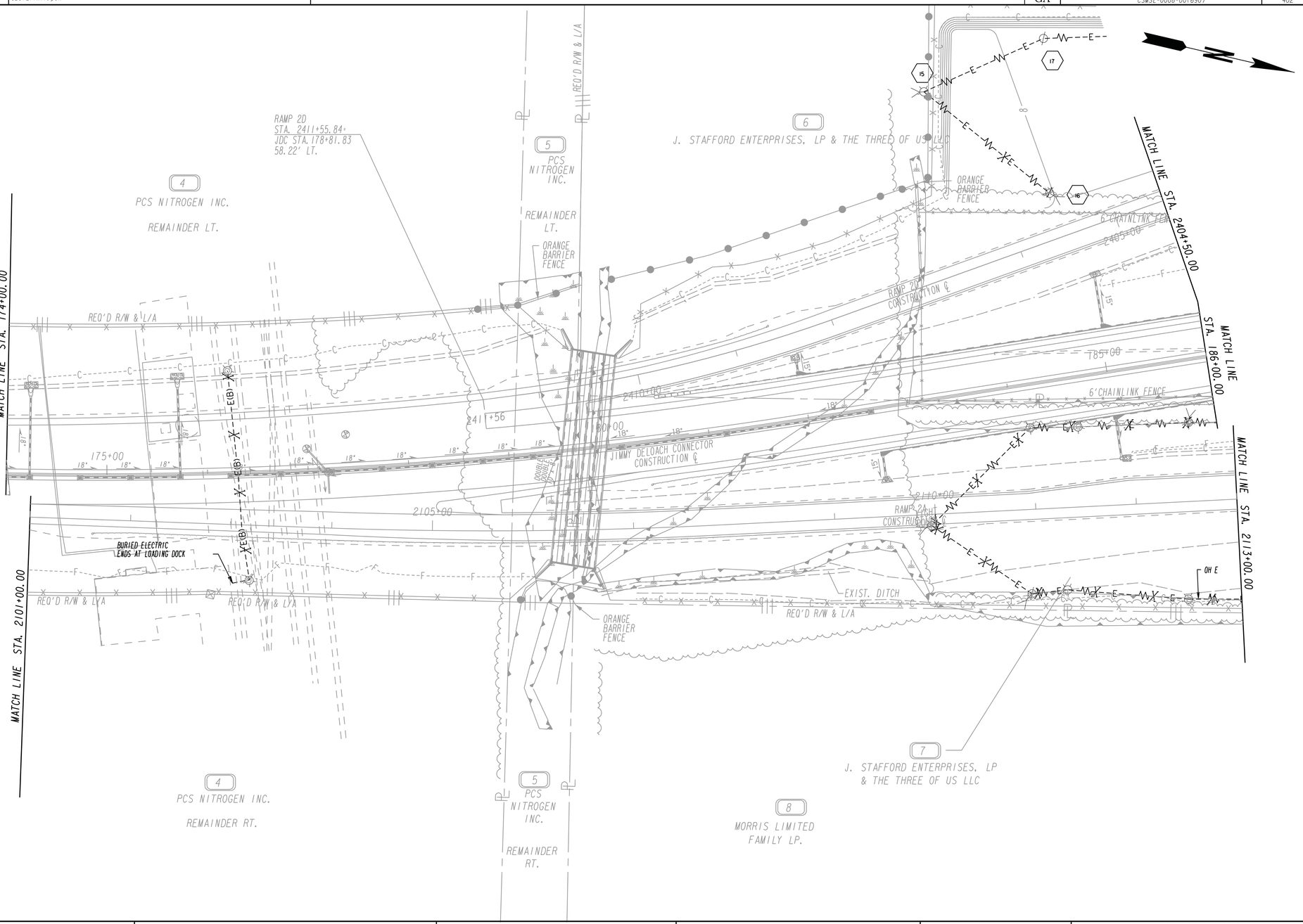
RELEASED FOR CONSTRUCTION - 07-23-13



PROPERTY AND EXISTING R/W LINE	℄
REQUIRED R/W LINE	
CONSTRUCTION LIMITS	C F
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES	
EASEMENT FOR CONSTR OF SLOPES	
EASEMENT FOR CONSTR OF DRIVES	

BEGIN LIMIT OF ACCESS	BLA
END LIMIT OF ACCESS	ELA
LIMIT OF ACCESS	
REQ'D R/W & LIMIT OF ACCESS	

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SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

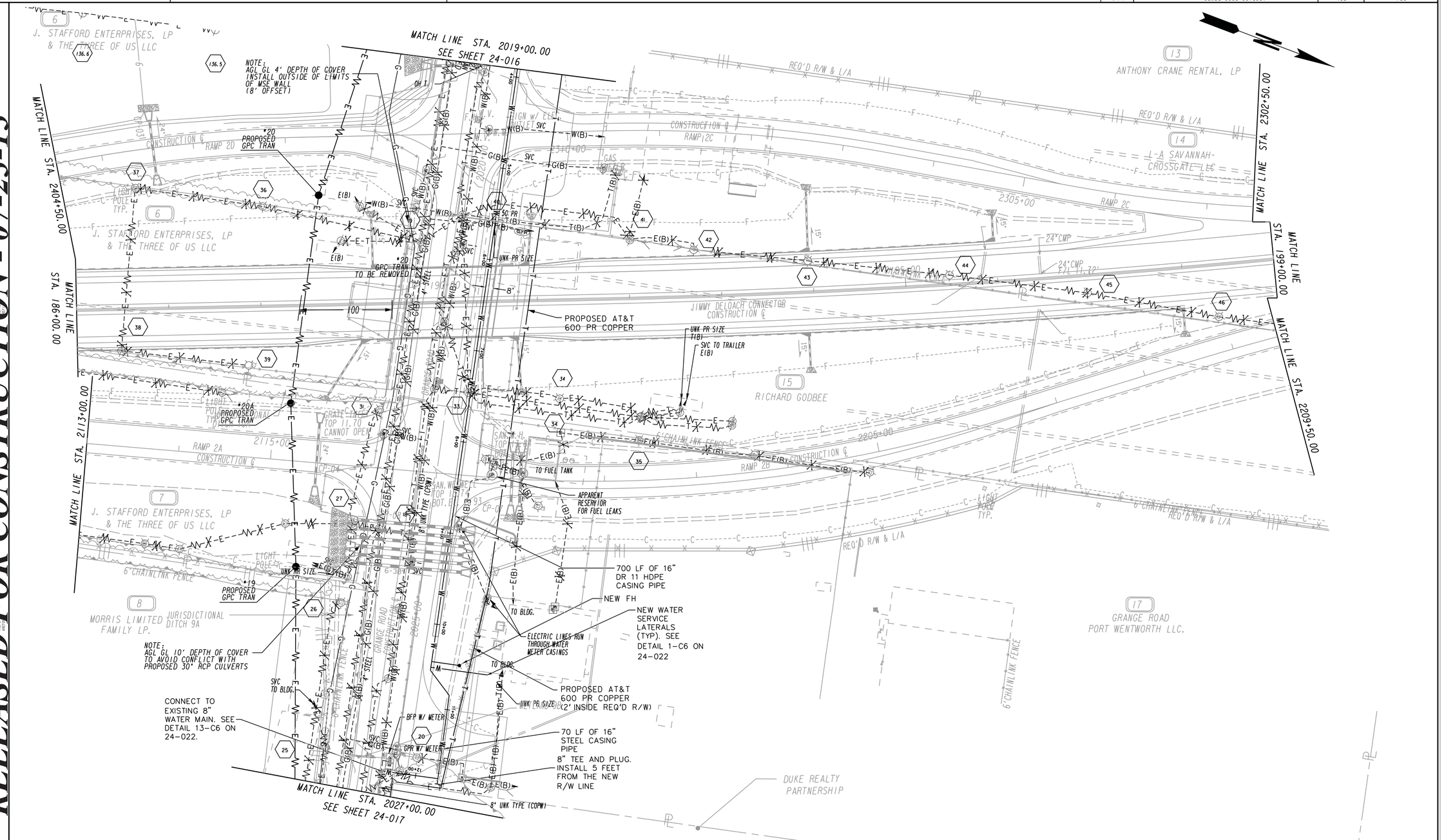
UTILITY PLANS

JIMMY DELOACH CONNECTOR
STA. 174+00 TO STA. 186+00

DRAWING No. 24-003

3/11/2007 GPLN

RELEASED FOR CONSTRUCTION - 07-23-13



PROPERTY AND EXISTING R/W LINE	℄
REQUIRED R/W LINE	
CONSTRUCTION LIMITS	C F
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES	
EASEMENT FOR CONSTR OF SLOPES	
EASEMENT FOR CONSTR OF DRIVES	

BEGIN LIMIT OF ACCESS	BLA
END LIMIT OF ACCESS	ELA
LIMIT OF ACCESS	
REQ'D R/W & LIMIT OF ACCESS	

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SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

UTILITY PLANS

JIMMY DELOACH CONNECTOR
STA. 186+00 TO STA. 199+00

DRAWING No. 24-004

3/1/2007 GPLN

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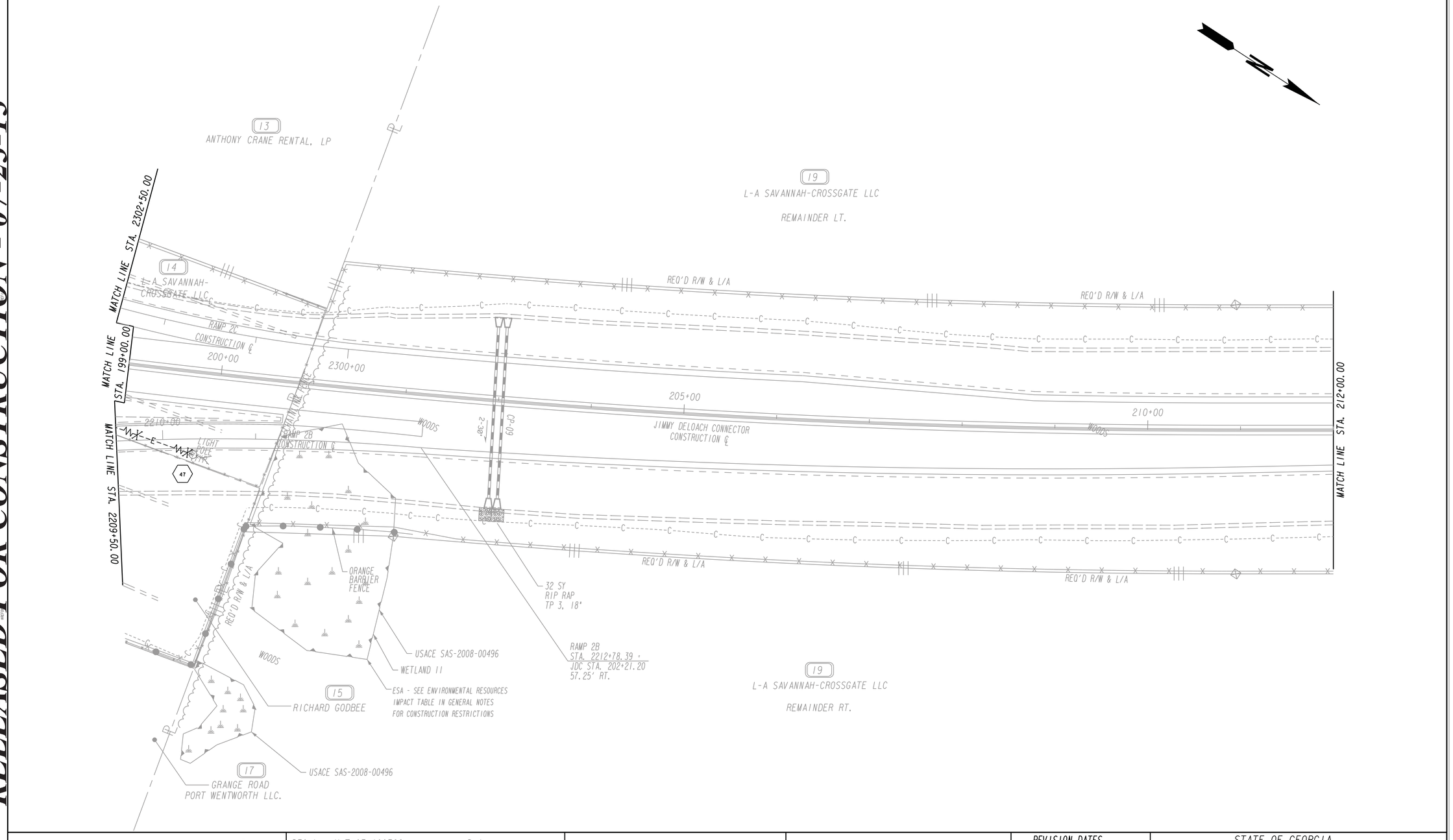
RELEASED FOR CONSTRUCTION - 07-23-13



PROPERTY AND EXISTING R/W LINE ——℄——
REQUIRED R/W LINE ————————
CONSTRUCTION LIMITS — C — F —
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

BEGIN LIMIT OF ACCESS.....BLA
END LIMIT OF ACCESS.....ELA
LIMIT OF ACCESS
REQ'D R/W & LIMIT OF ACCESS

THE LPA GROUP
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SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

UTILITY PLANS

JIMMY DELOACH CONNECTOR
STA. 199+00 TO STA. 212+00

DRAWING No. 24-005

3/1/2007 GPLN

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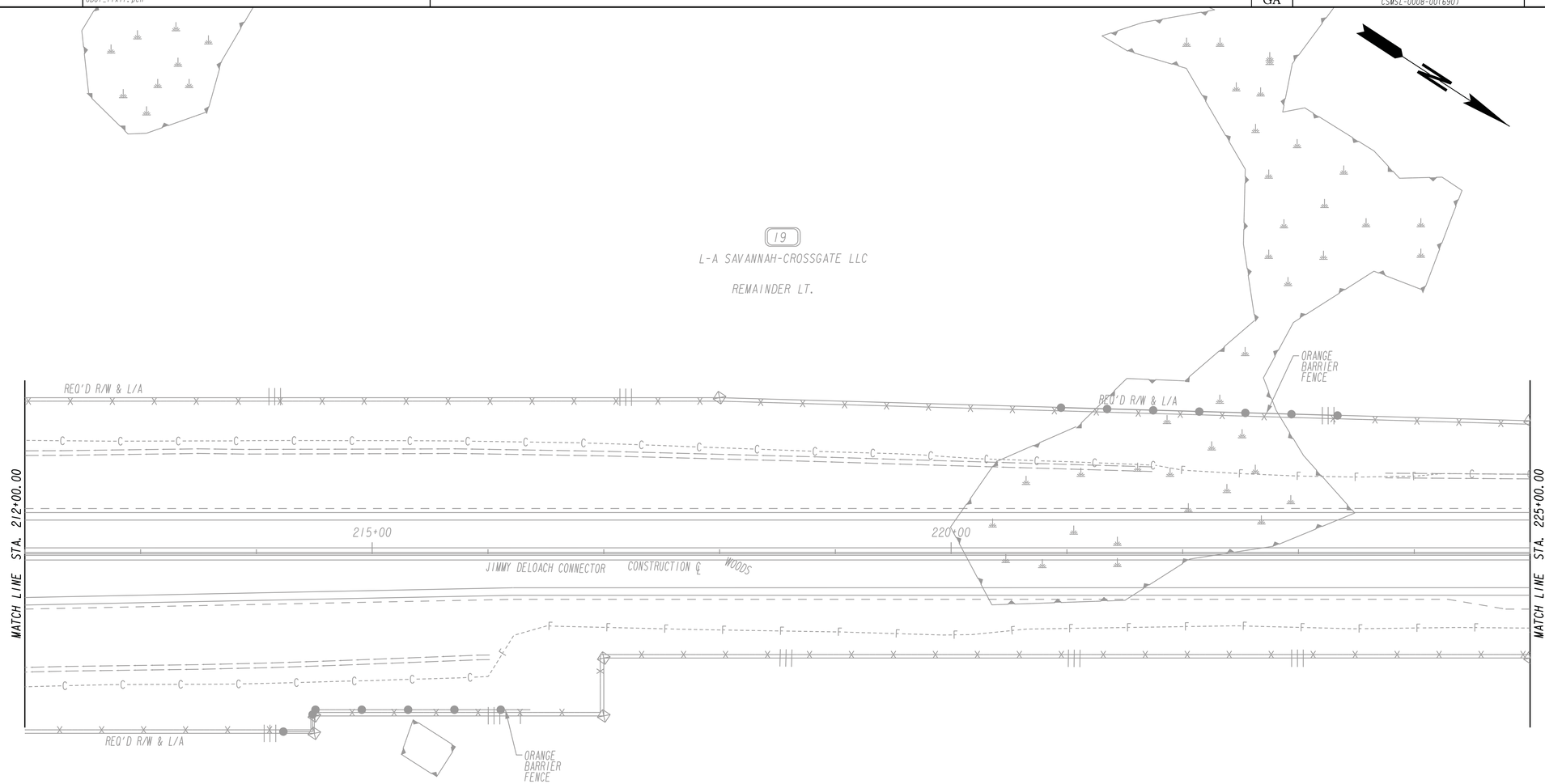
RELEASED FOR CONSTRUCTION - 07-23-13



PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

BEGIN LIMIT OF ACCESS.....BLA
END LIMIT OF ACCESS.....ELA
LIMIT OF ACCESS
REQ'D R/W & LIMIT OF ACCESS

THE LPA GROUP
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SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

UTILITY PLANS

JIMMY DELOACH CONNECTOR
STA. 212+00 TO STA. 225+00

DRAWING No. 24-006

3/1/2007 GPLN

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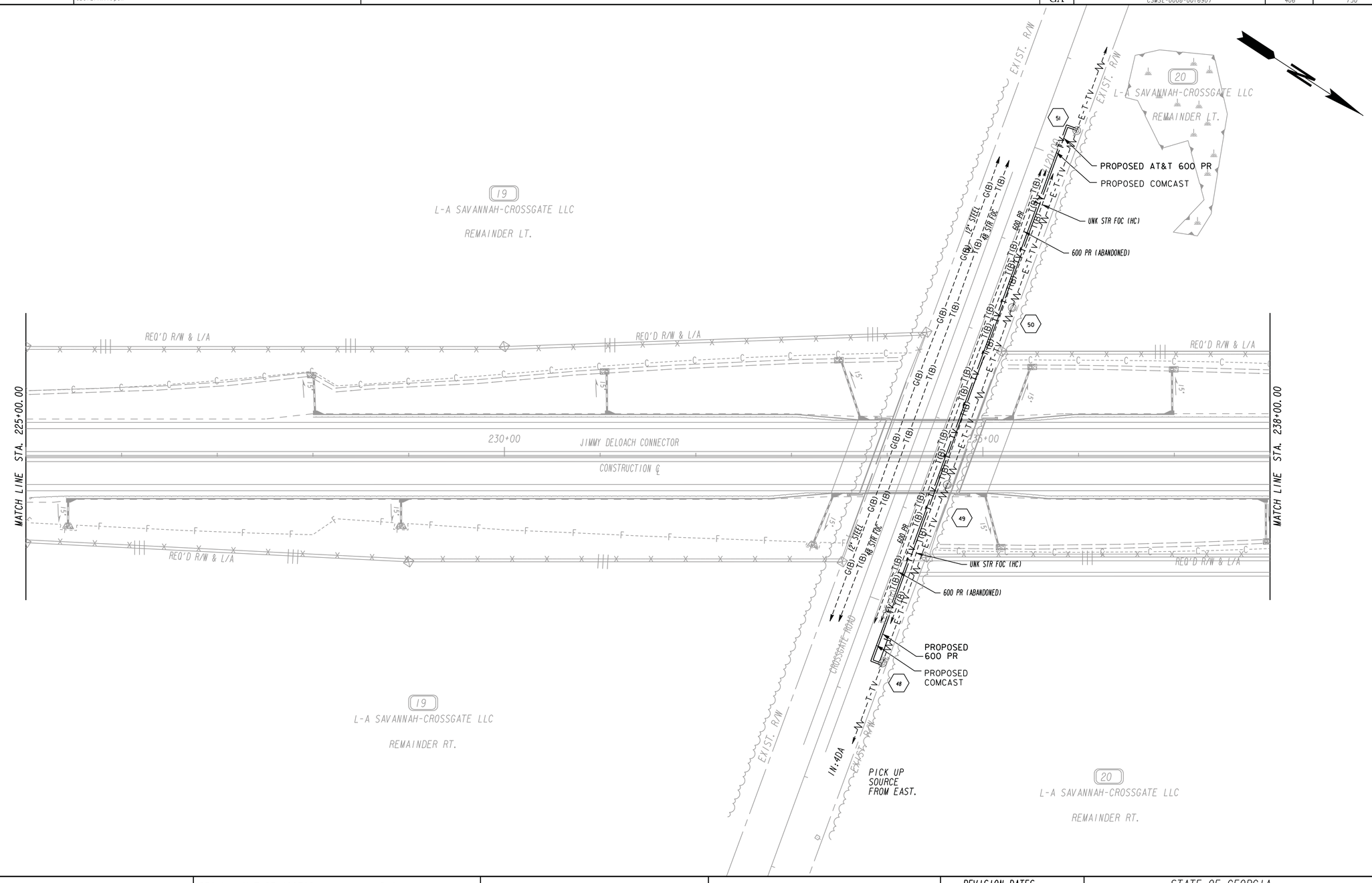
RELEASED FOR CONSTRUCTION - 07-23-13



PROPERTY AND EXISTING R/W LINE	℄
REQUIRED R/W LINE	
CONSTRUCTION LIMITS	C
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES	
EASEMENT FOR CONSTR OF SLOPES	
EASEMENT FOR CONSTR OF DRIVES	

BEGIN LIMIT OF ACCESS	BLA
END LIMIT OF ACCESS	ELA
LIMIT OF ACCESS	
REQ'D R/W & LIMIT OF ACCESS	

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
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SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

UTILITY PLANS

JIMMY DELOACH CONNECTOR
STA. 225+00 TO STA. 238+00

DRAWING No. 24-007

3/1/2007 GPLN

25-JUL-2013 08:19	8:19:47 AM	0008690_24-008	Y:\Roadways\126379\0008690\Dgn\0008690_24-008.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
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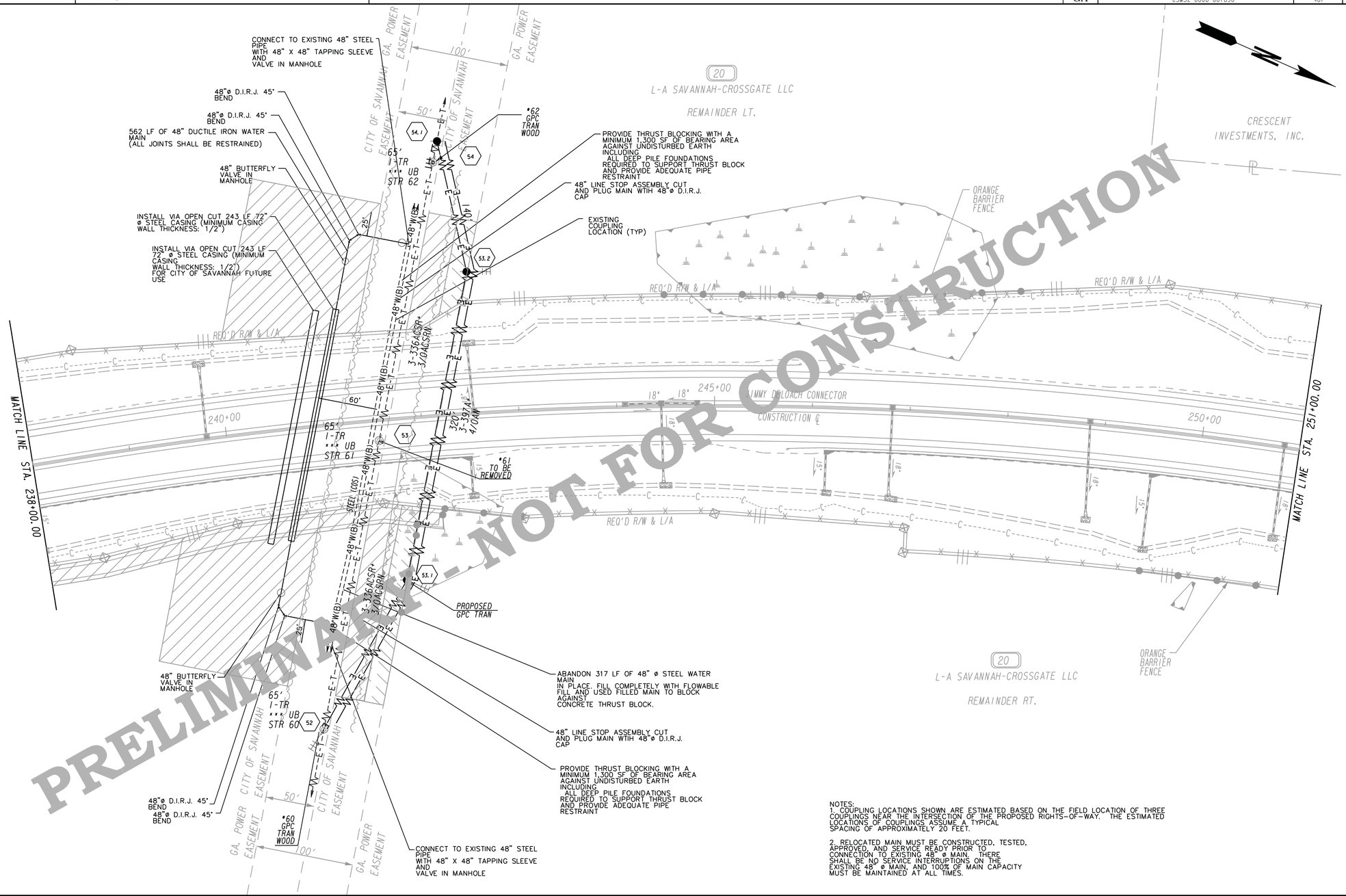

PRELIMINARY - NOT FOR CONSTRUCTION

NOTES:
1. COUPLING LOCATIONS SHOWN ARE ESTIMATED BASED ON THE FIELD LOCATION OF THREE COUPLINGS NEAR THE INTERSECTION OF THE PROPOSED RIGHTS-OF-WAY. THE ESTIMATED LOCATIONS OF COUPLINGS ASSUME A TYPICAL SPACING OF APPROXIMATELY 20 FEET.

2. RELOCATED MAIN MUST BE CONSTRUCTED, TESTED, APPROVED, AND SERVICE READY PRIOR TO CONNECTION TO EXISTING 48" ø MAIN. THERE SHALL BE NO SERVICE INTERRUPTIONS ON THE EXISTING 48" ø MAIN, AND 100% OF MAIN CAPACITY MUST BE MAINTAINED AT ALL TIMES.

PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

BEGIN LIMIT OF ACCESS.....BLA
END LIMIT OF ACCESS.....ELA
LIMIT OF ACCESS
REQ'D R/W & LIMIT OF ACCESS

THE LPA GROUP
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SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

UTILITY PLANS

JIMMY DELOACH CONNECTOR
STA. 238+00 TO STA. 251+00

DRAWING No. 24-008

3/1/2007 GPLN

23-JUL-2013 15:03	3:03:22 PM	0008690_24-009	Y:\Roadways\126379\0008690\Dgn\0008690_24-009.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
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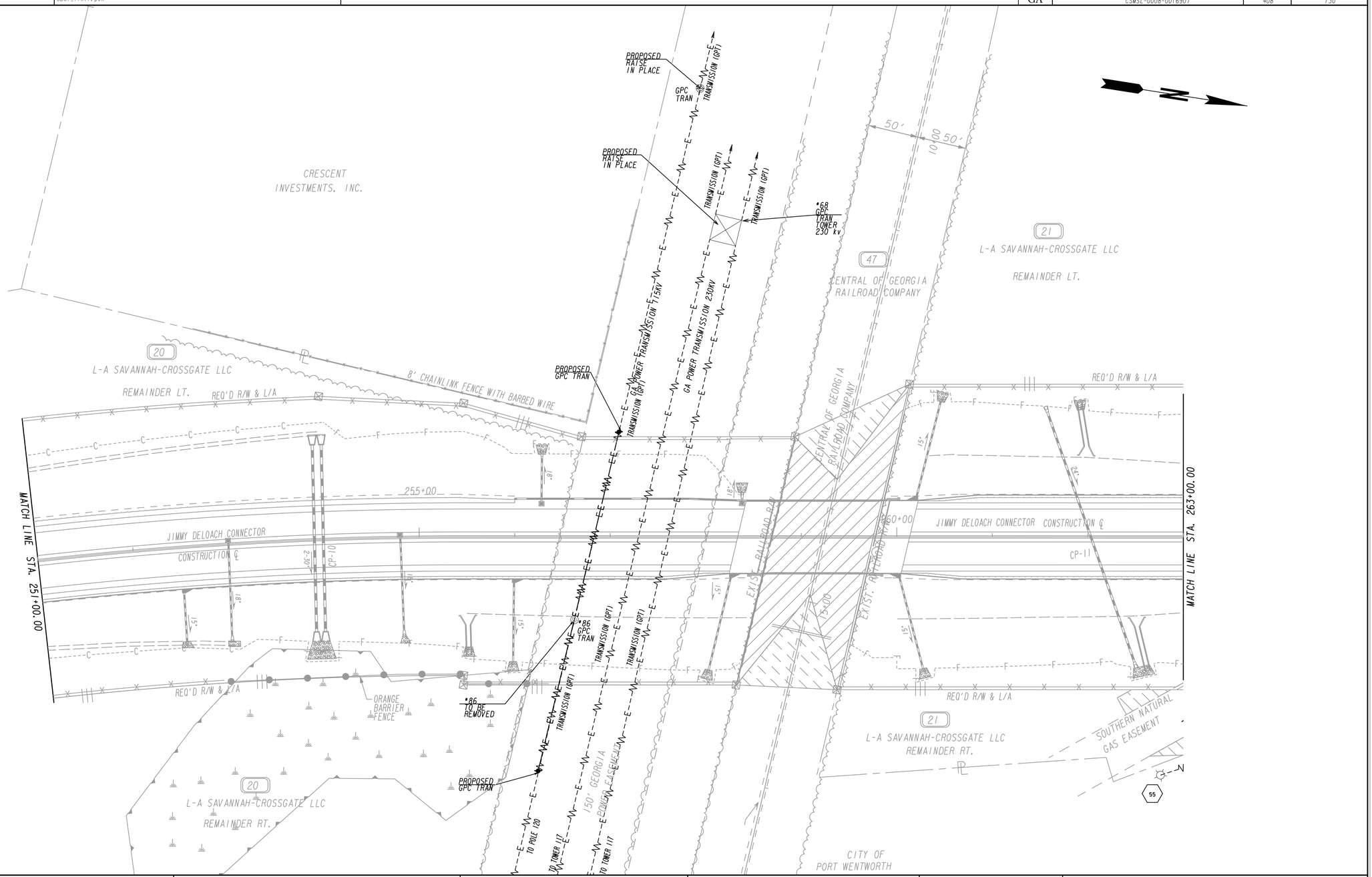
RELEASED FOR CONSTRUCTION - 07-23-13



PROPERTY AND EXISTING R/W LINE	BEGIN LIMIT OF ACCESS.....BLA
REQUIRED R/W LINE	END LIMIT OF ACCESS.....ELA
CONSTRUCTION LIMITS	LIMIT OF ACCESS
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES	REQ'D R/W & LIMIT OF ACCESS
EASEMENT FOR CONSTR OF SLOPES	
EASEMENT FOR CONSTR OF DRIVES	

THE LPA GROUP
TRANSPORTATION CONSULTANTS
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(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES		

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
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UTILITY PLANS

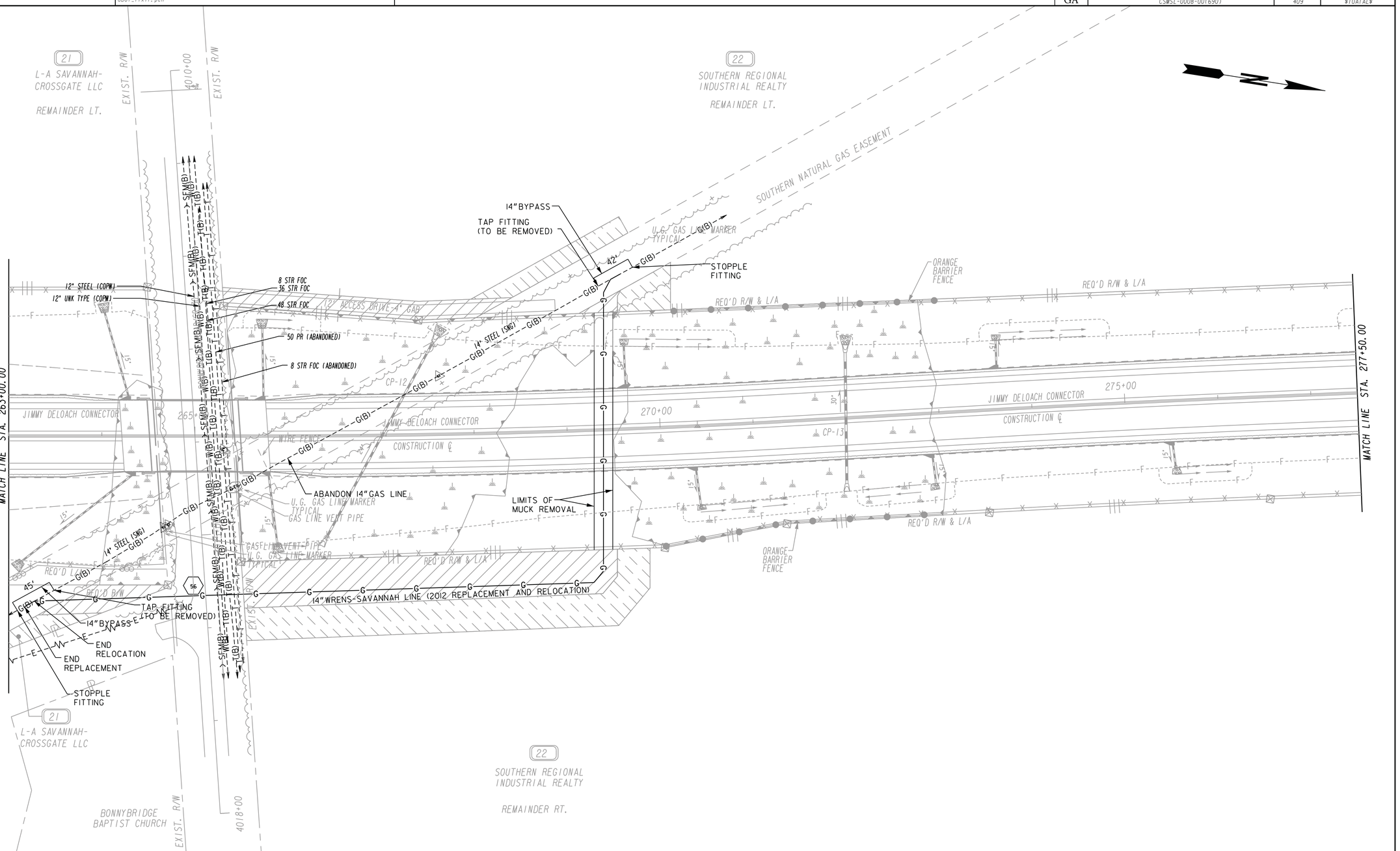
JIMMY DELOACH CONNECTOR
STA. 251+00 TO STA. 263+00

DRAWING No. 24-009

3/11/2007 GPLN

23-JUL-2013 15:03	3:03:31 PM	0008690_24-010	Y:\Roadways\126379\0008690\Dgn\0008690_24-010.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	409	#TOATAL#

RELEASED FOR CONSTRUCTION - 07-23-13



PROPERTY AND EXISTING R/W LINE	
REQUIRED R/W LINE	
CONSTRUCTION LIMITS	— G — F —
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES	
EASEMENT FOR CONSTR OF SLOPES	
EASEMENT FOR CONSTR OF DRIVES	

BEGIN LIMIT OF ACCESS	BLA
END LIMIT OF ACCESS	ELA
LIMIT OF ACCESS	
REQ'D R/W & LIMIT OF ACCESS	

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
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SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

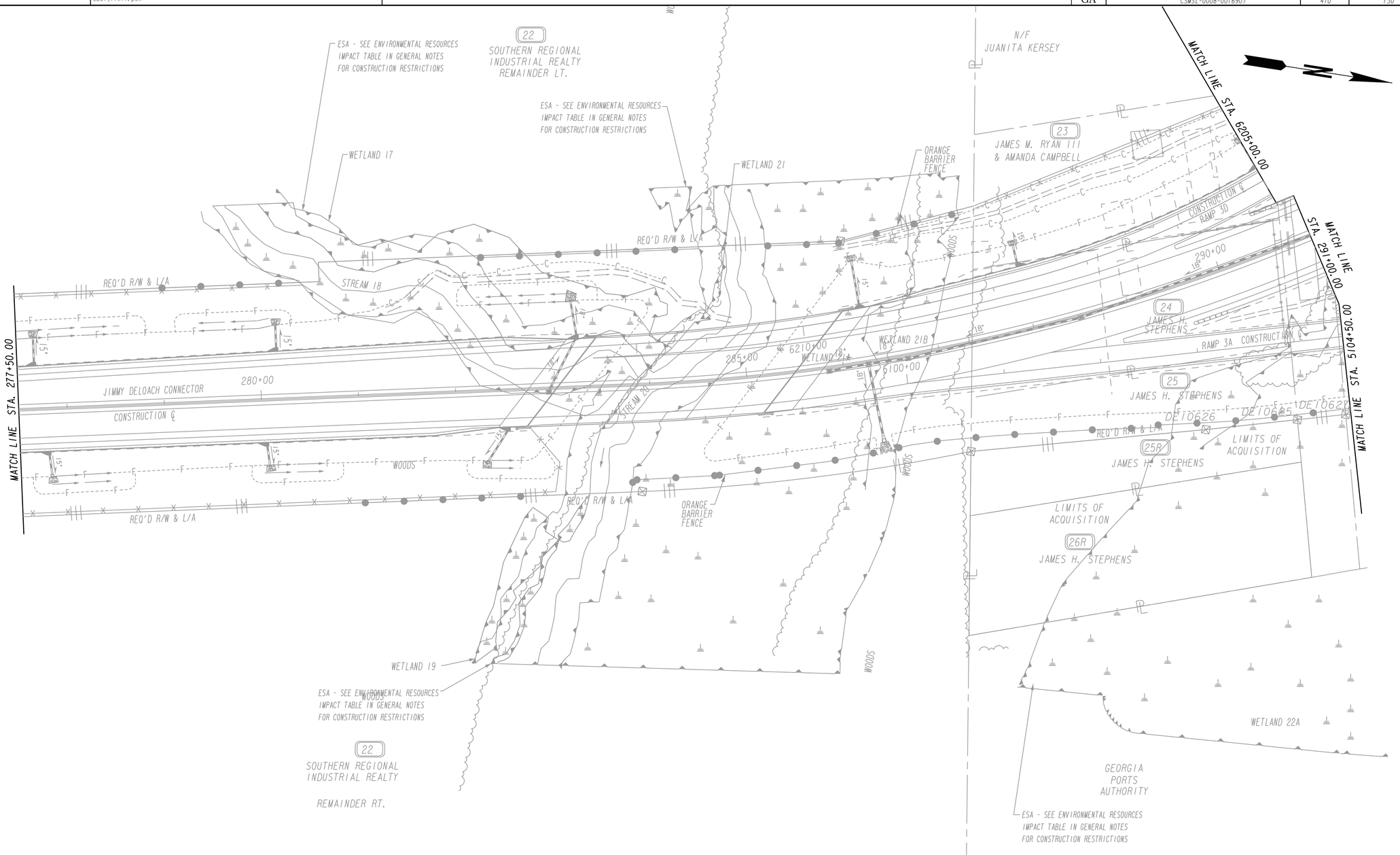
UTILITY PLANS

JDC STA. 263+00 TO STA. 277+50

DRAWING No. 24-010

3/1/2007 GPLN

RELEASED FOR CONSTRUCTION - 07-23-13



PROPERTY AND EXISTING R/W LINE	℄
REQUIRED R/W LINE	
CONSTRUCTION LIMITS	C
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES	F
EASEMENT FOR CONSTR OF SLOPES	
EASEMENT FOR CONSTR OF DRIVES	

BEGIN LIMIT OF ACCESS	BLA
END LIMIT OF ACCESS	ELA
LIMIT OF ACCESS	
REQ'D R/W & LIMIT OF ACCESS	

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
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(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

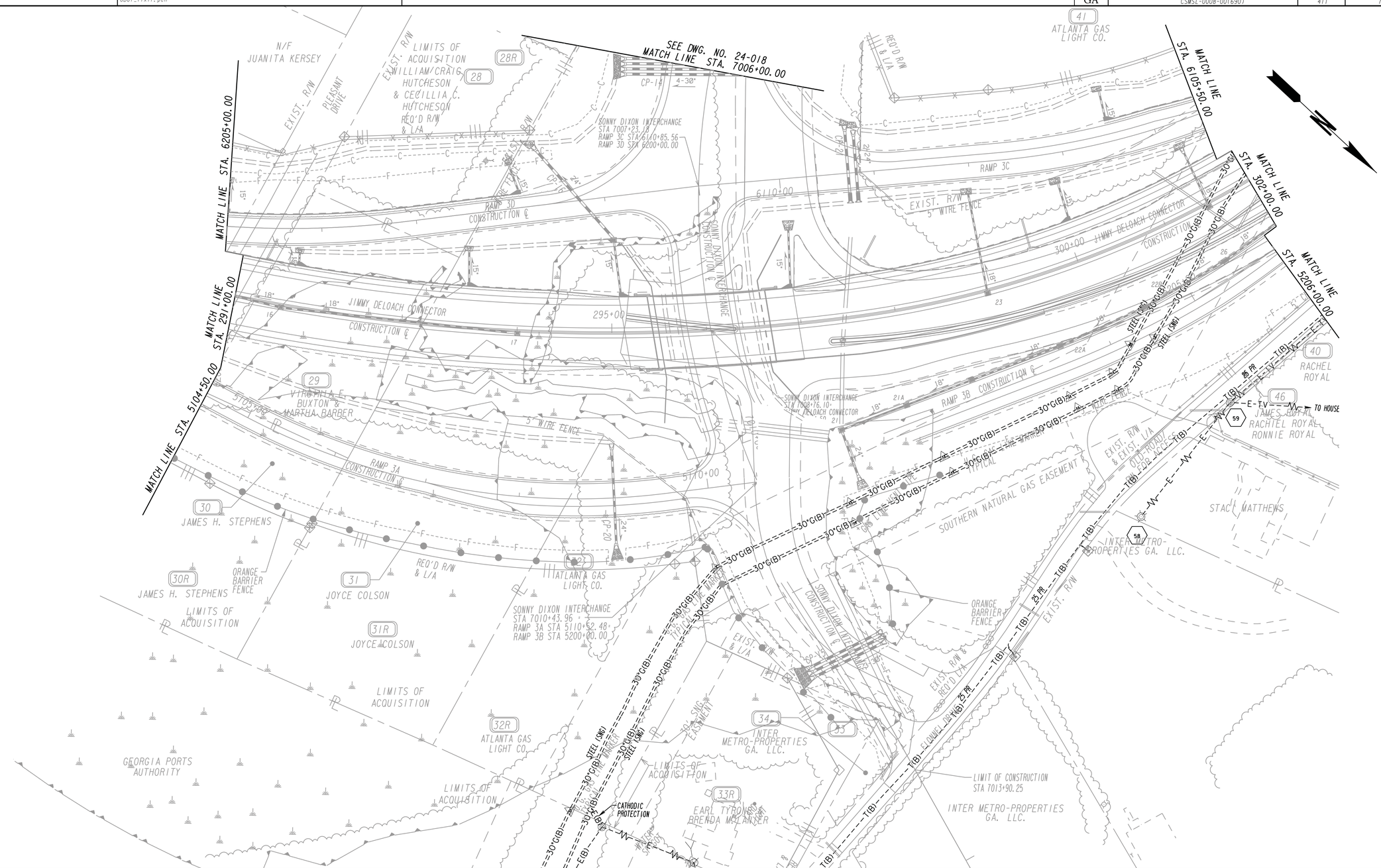
UTILITY PLANS

JDC STA. 277+50 TO STA. 291+00

DRAWING No. 24-011

3/1/2007 GPLN

RELEASED FOR CONSTRUCTION - 07-23-13



PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

BEGIN LIMIT OF ACCESS.....BLA
END LIMIT OF ACCESS.....ELA
LIMIT OF ACCESS
REQ'D R/W & LIMIT OF ACCESS

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

UTILITY PLANS

JDC STA. 291+00 TO STA. 302+00

DRAWING No. 24-012

3/1/2007 GPLN

RELEASED FOR CONSTRUCTION - 07-23-13

PROPERTY AND EXISTING R/W LINE	℄
REQUIRED R/W LINE	
CONSTRUCTION LIMITS	— G — F —
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES	
EASEMENT FOR CONSTR OF SLOPES	
EASEMENT FOR CONSTR OF DRIVES	

BEGIN LIMIT OF ACCESS	BLA
END LIMIT OF ACCESS	ELA
LIMIT OF ACCESS	
REQ'D R/W & LIMIT OF ACCESS	

THE LPA GROUP
TRANSPORTATION CONSULTANTS
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(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

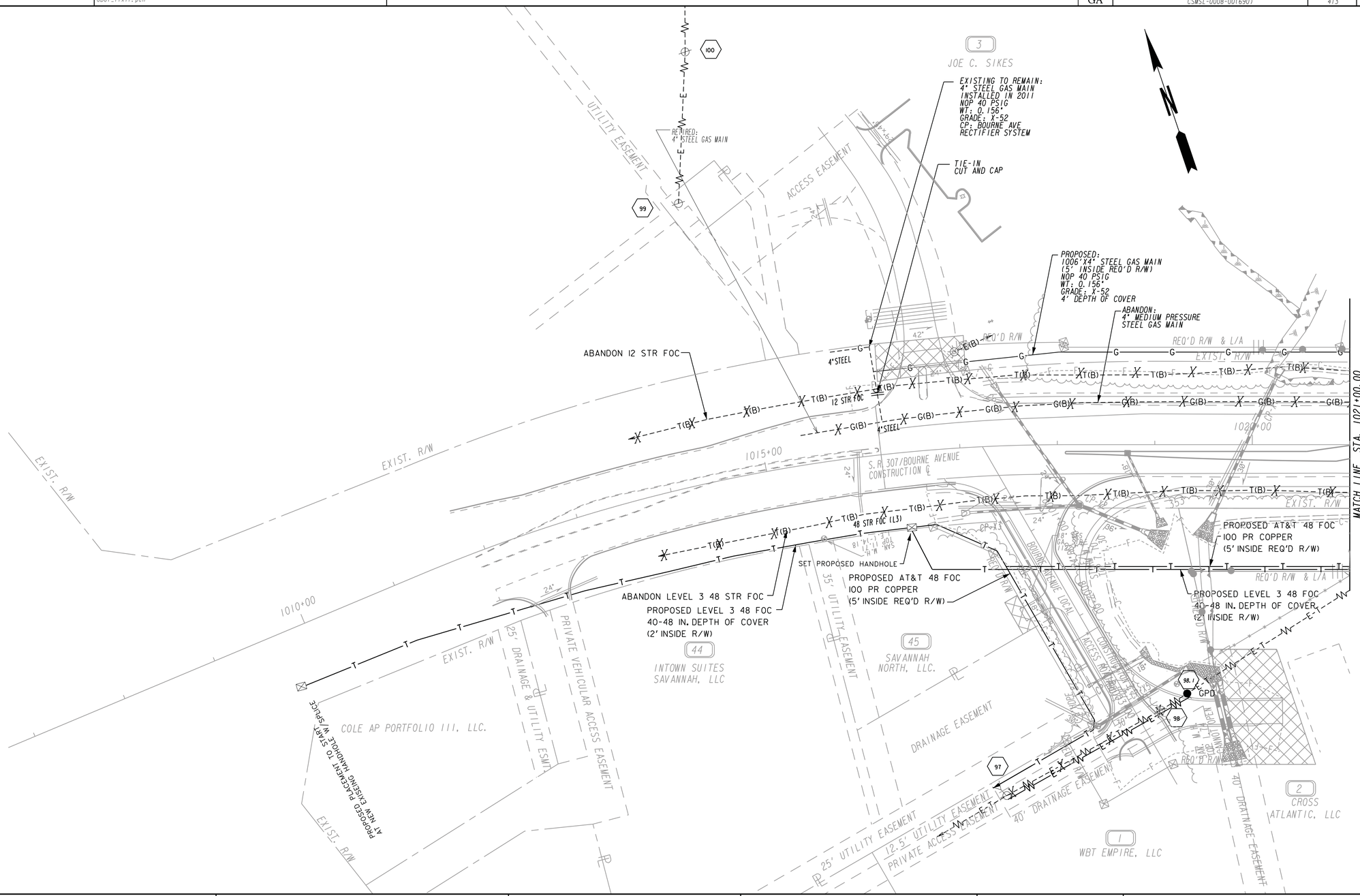
UTILITY PLANS

JDC STA. 302+00 TO END PROJECT

DRAWING No. 24-013

3/1/2007 GPLN

RELEASED FOR CONSTRUCTION - 07-23-13



PROPERTY AND EXISTING R/W LINE	
REQUIRED R/W LINE	
CONSTRUCTION LIMITS	
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES	
EASEMENT FOR CONSTR OF SLOPES	
EASEMENT FOR CONSTR OF DRIVES	

BEGIN LIMIT OF ACCESS.....BLA	
END LIMIT OF ACCESS.....ELA	
LIMIT OF ACCESS	
REQ'D R/W & LIMIT OF ACCESS	

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

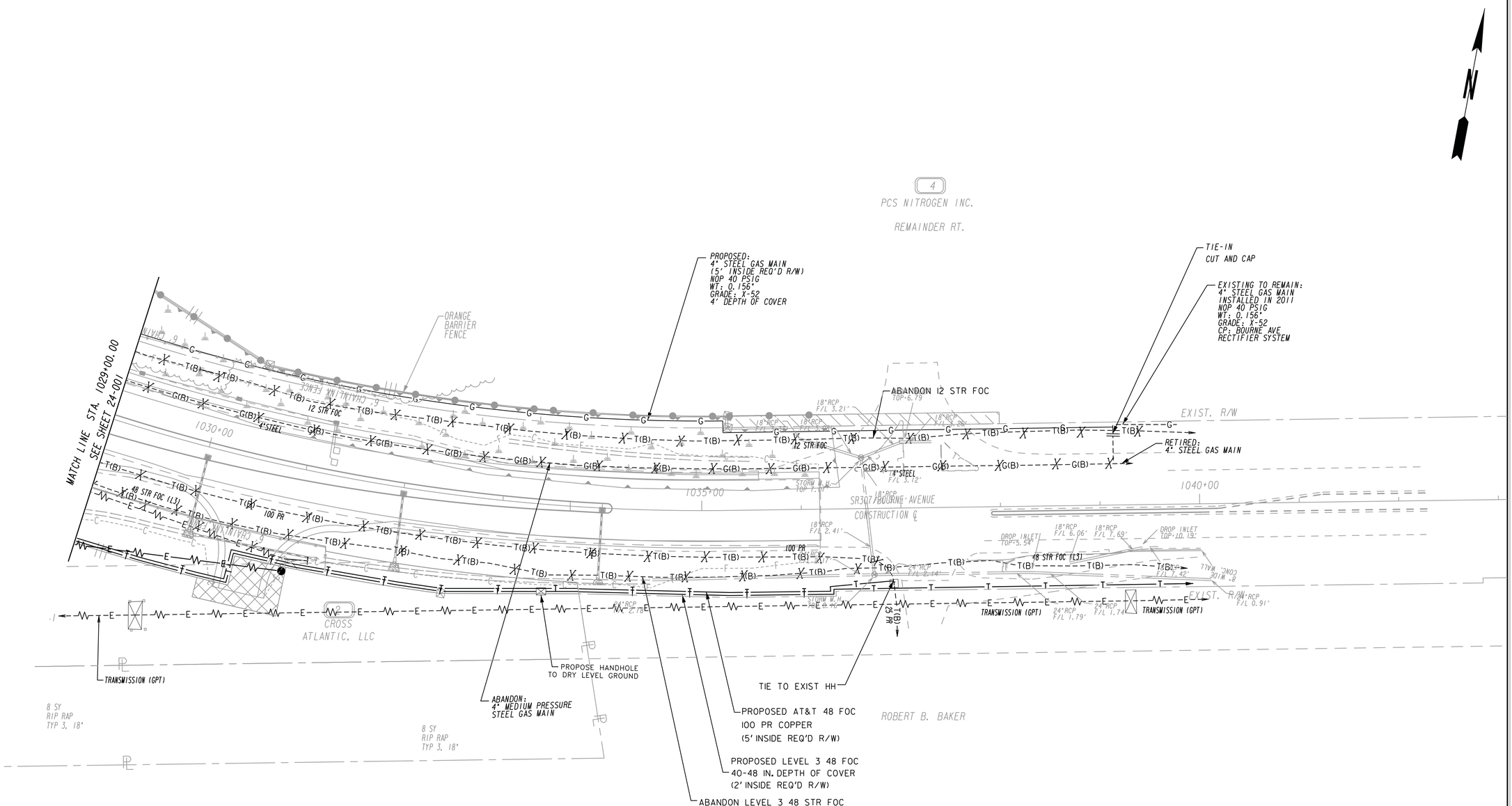
UTILITY PLANS

BEGIN CONSTRUCTION TO STA. 1021+00

DRAWING No. 24-014

3/1/2007 GPLN

RELEASED FOR CONSTRUCTION - 07-23-13



PROPERTY AND EXISTING R/W LINE	℄
REQUIRED R/W LINE	
CONSTRUCTION LIMITS	— C — F —
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES	
EASEMENT FOR CONSTR OF SLOPES	
EASEMENT FOR CONSTR OF DRIVES	

BEGIN LIMIT OF ACCESS	BLA
END LIMIT OF ACCESS	ELA
LIMIT OF ACCESS	
REQ'D R/W & LIMIT OF ACCESS	

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

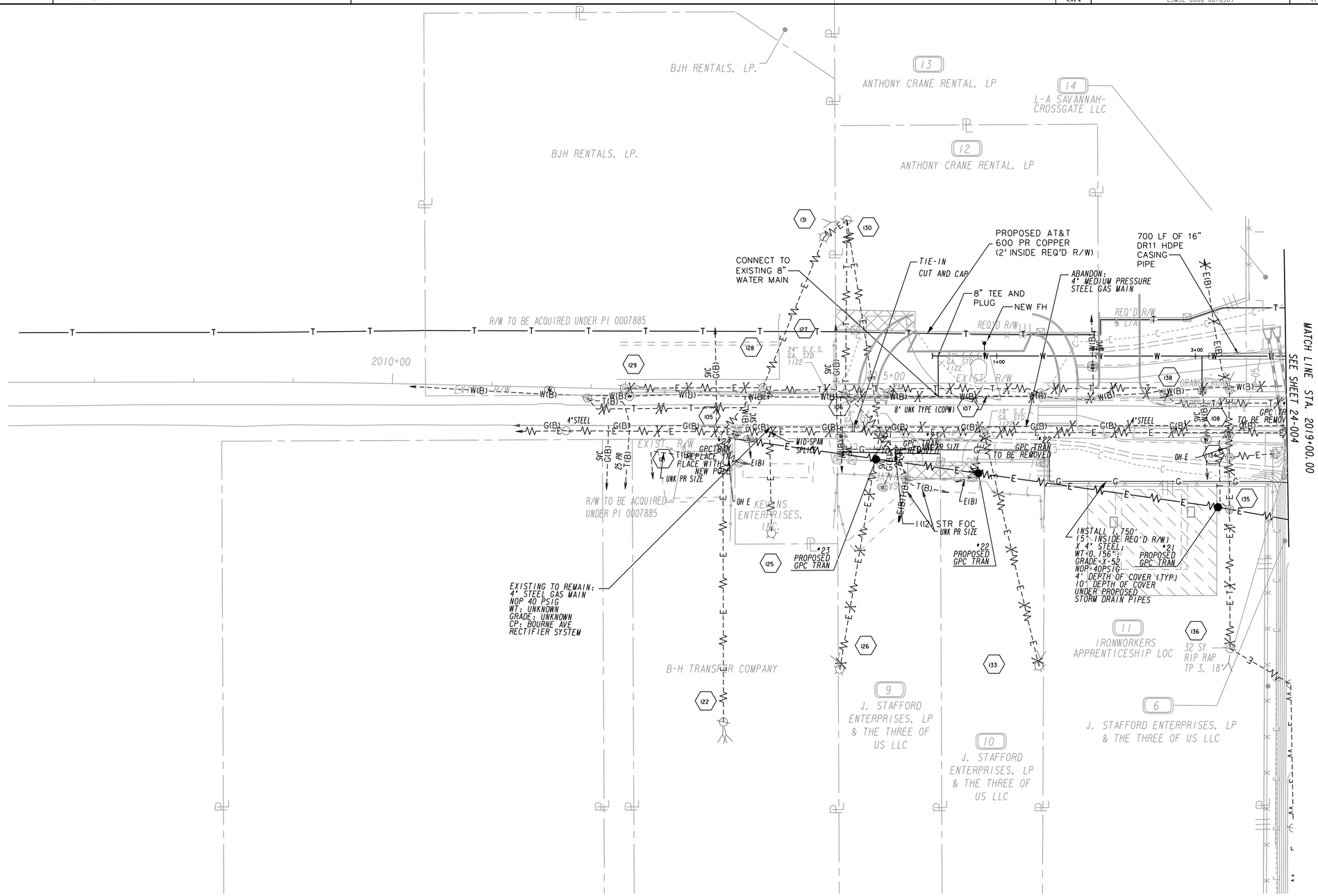
UTILITY PLANS

STA. 1029+00 TO
END CONSTRUCTION

DRAWING No. 24-015

3/1/2007 GPLN

RELEASED FOR CONSTRUCTION - 07-23-13



PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

BEGIN LIMIT OF ACCESS.....BLA
END LIMIT OF ACCESS.....ELA
LIMIT OF ACCESS
REQ'D R/W & LIMIT OF ACCESS

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
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(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

UTILITY PLANS

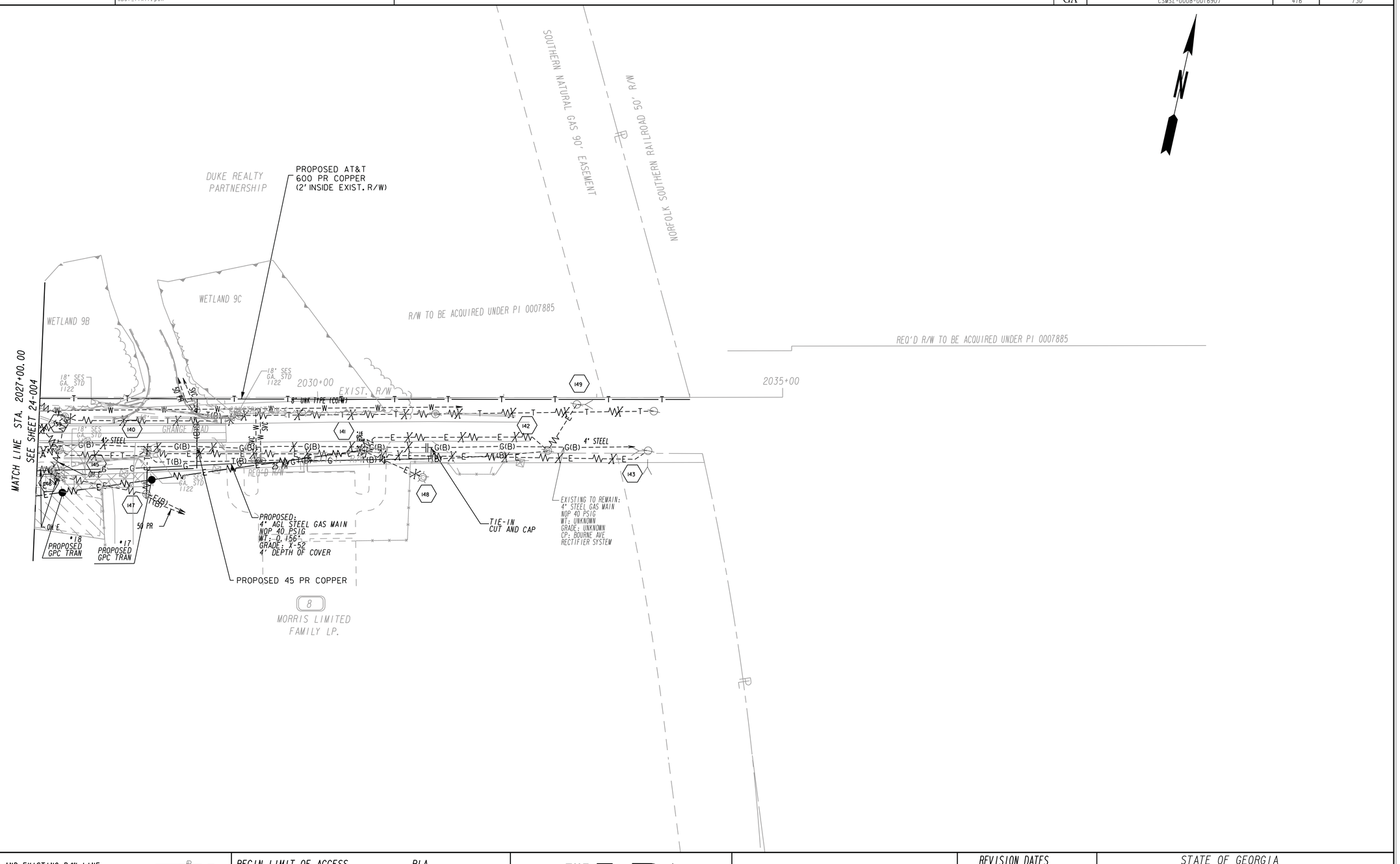
BEGIN CONSTRUCTION TO STA. 2009+00

DRAWING No. 24-016

3/1/2007 GPLN

23-JUL-2013 15:05	3:05:29 PM	0008690_24-017	Y:\Roadways\126379\0008690\Dgn\0008690_24-017.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	416	730

RELEASED FOR CONSTRUCTION - 07-23-13



PROPERTY AND EXISTING R/W LINE	℄
REQUIRED R/W LINE	
CONSTRUCTION LIMITS	
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES	G F
EASEMENT FOR CONSTR OF SLOPES	
EASEMENT FOR CONSTR OF DRIVES	

BEGIN LIMIT OF ACCESS	BLA
END LIMIT OF ACCESS	ELA
LIMIT OF ACCESS	
REQ'D R/W & LIMIT OF ACCESS	

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

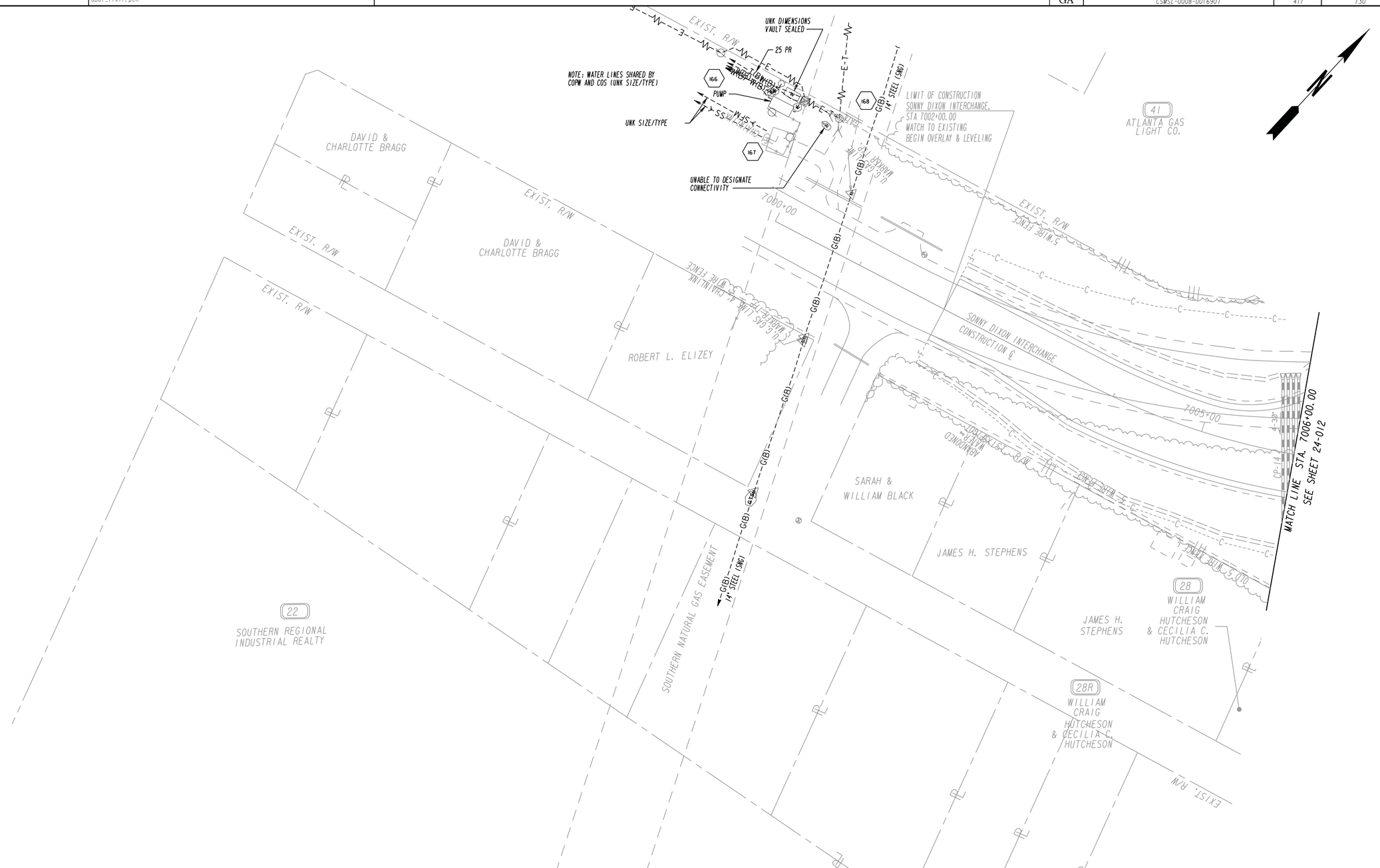
UTILITY PLANS

STA. 2017+00 TO
END CONSTRUCTION

DRAWING No. 24-017

3/1/2007 GPLN

RELEASED FOR CONSTRUCTION - 07-23-13



PROPERTY AND EXISTING R/W LINE	℄
REQUIRED R/W LINE	
CONSTRUCTION LIMITS	C
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES	F
EASEMENT FOR CONSTR OF SLOPES	
EASEMENT FOR CONSTR OF DRIVES	

BEGIN LIMIT OF ACCESS	BLA
END LIMIT OF ACCESS	ELA
LIMIT OF ACCESS	
REQ'D R/W & LIMIT OF ACCESS	

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

UTILITY PLANS

BEGIN CONSTRUCTION TO STA. 7006+00

DRAWING No. 24-018

3/1/2007 GPLN

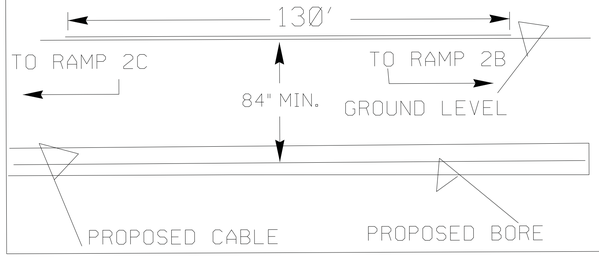
23-JUL-2013 15:05 3:05:41 PM
JParks
0008690_24-020
GDOT_11x17.pen
Y:\Roadways\126379\0008690\Dgn\0008690_24-020.dgn

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	418	730

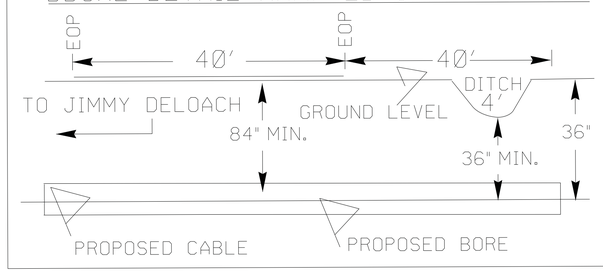
RELEASED FOR CONSTRUCTION - 07-23-13

AT&T BORE RELOCATION DETAILS

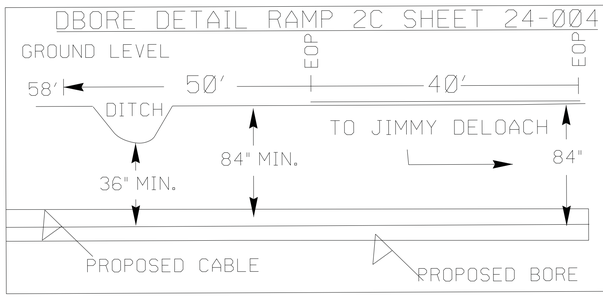
DBORE DETAIL JIMMY DELOACH SHEET 24-004



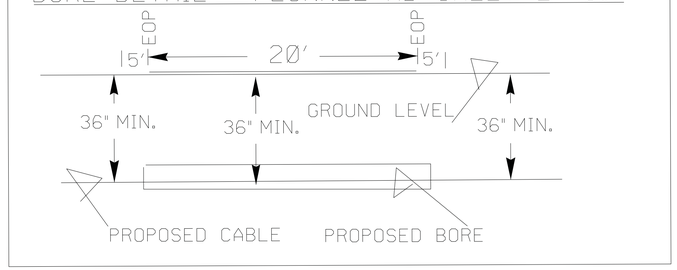
DBORE DETAIL RAMP 2B SHEET 24-004



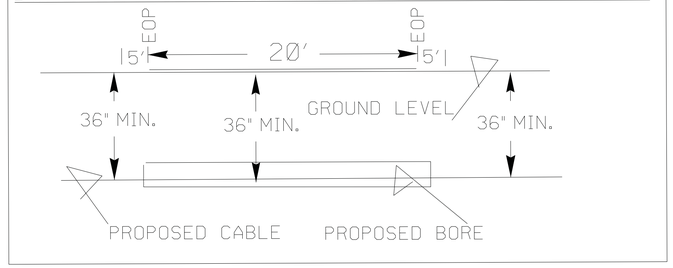
DBORE DETAIL RAMP 2C SHEET 24-004



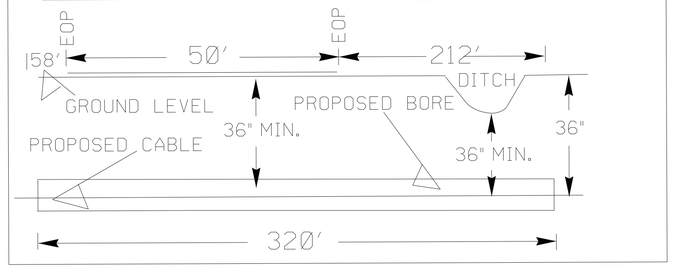
BORE DETAIL - FLONNEL RD SHEET 24-013



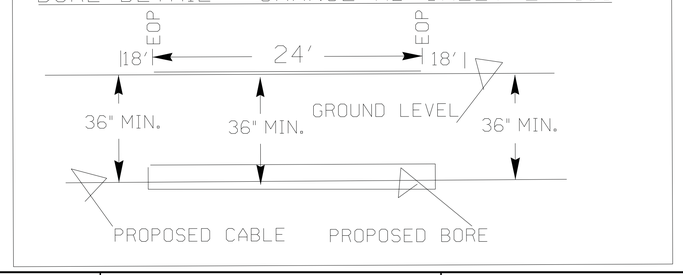
BORE DETAIL - ASPH. DRIVEWAY SHEET 24-013



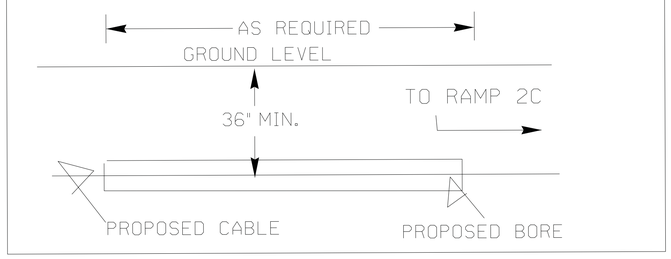
DIRECTIONAL BORE DETAIL SHEET 24-014



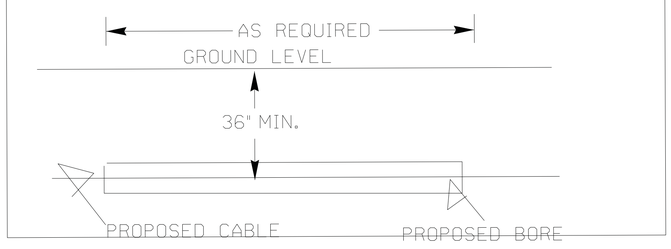
BORE DETAIL - GRANGE RD SHEET 24-016



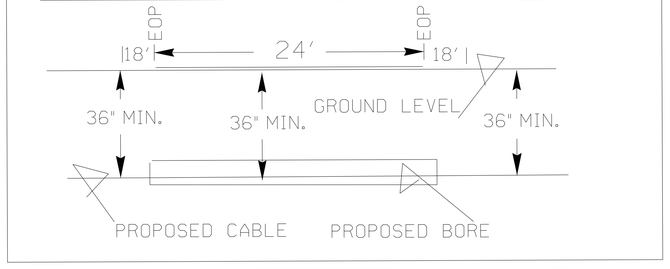
DIRECTIONAL BORE DETAIL SHEET 24-016



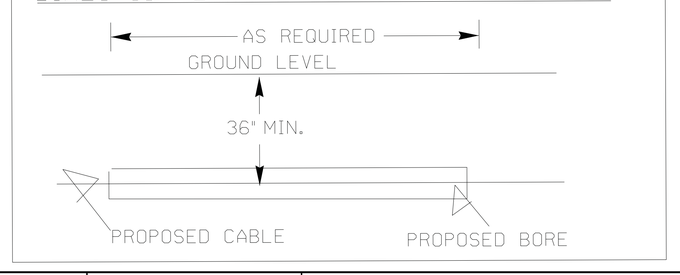
DIRECTIONAL BORE DETAIL SHEET 24-017



BORE DETAIL - GRANGE RD SHEET 24-017



DIRECTIONAL BORE DETAIL SHEET 24-017



PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

BEGIN LIMIT OF ACCESS.....BLA
END LIMIT OF ACCESS.....ELA
LIMIT OF ACCESS
REQ'D R/W & LIMIT OF ACCESS

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

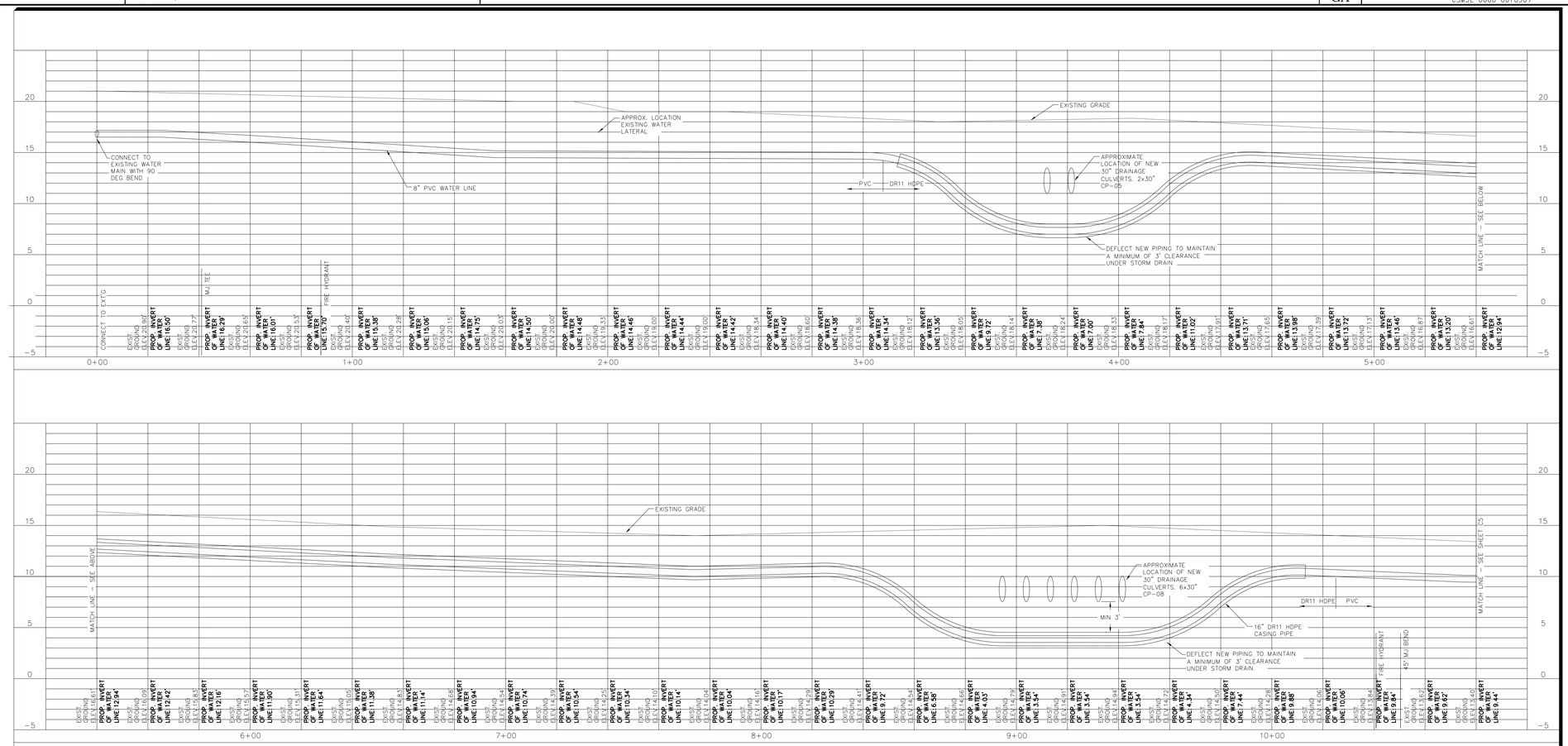
UTILITY PLANS

DRAWING No. 24-019

3/1/2007 GPLN

23-JUL-2013 15:05 JParks	3:05:44 PM	0008690_24-021 GDOT_11x17.pen	Y:\Roadways\126379\0008690\Dgn\0008690_24-021.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
				GA	CSMSL-0008-00(690)	419	730

RELEASED FOR CONSTRUCTION - 07-23-13



GRAPHIC SCALE: 1" = 20'

GRAPHIC SCALE: 1" = 5'

GRANGE ROAD WATER LINE PROFILE

SCALE: 1" = 20' H
1" = 5' V

PC PORT CITY DESIGN GROUP LLC
DG CONSULTING ENGINEERS
7393 Hodgson Memorial Drive
Savannah, Georgia 31406
912.355.9603 912.355.9537 (fax)
www.PCDG-Savannah.com

REVISIONS		
NO.	DATE	DESCRIPTION
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-

JIMMY DELOACH CONNECTOR WATER LINE PROFILE

FROM BOURNE AVE / SR 307 TO JIMMY DELOACH PKWY

JOB NO.	V221 12 05
SCALE	AS SHOWN
DESIGN BY	PLB
DRAWN BY	AJW
CHECKED BY	JCV

PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

BEGIN LIMIT OF ACCESS.....BLA
END LIMIT OF ACCESS.....ELA
LIMIT OF ACCESS
REQ'D R/W & LIMIT OF ACCESS

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION

OFFICE: INNOVATIVE PROGRAM DELIVERY

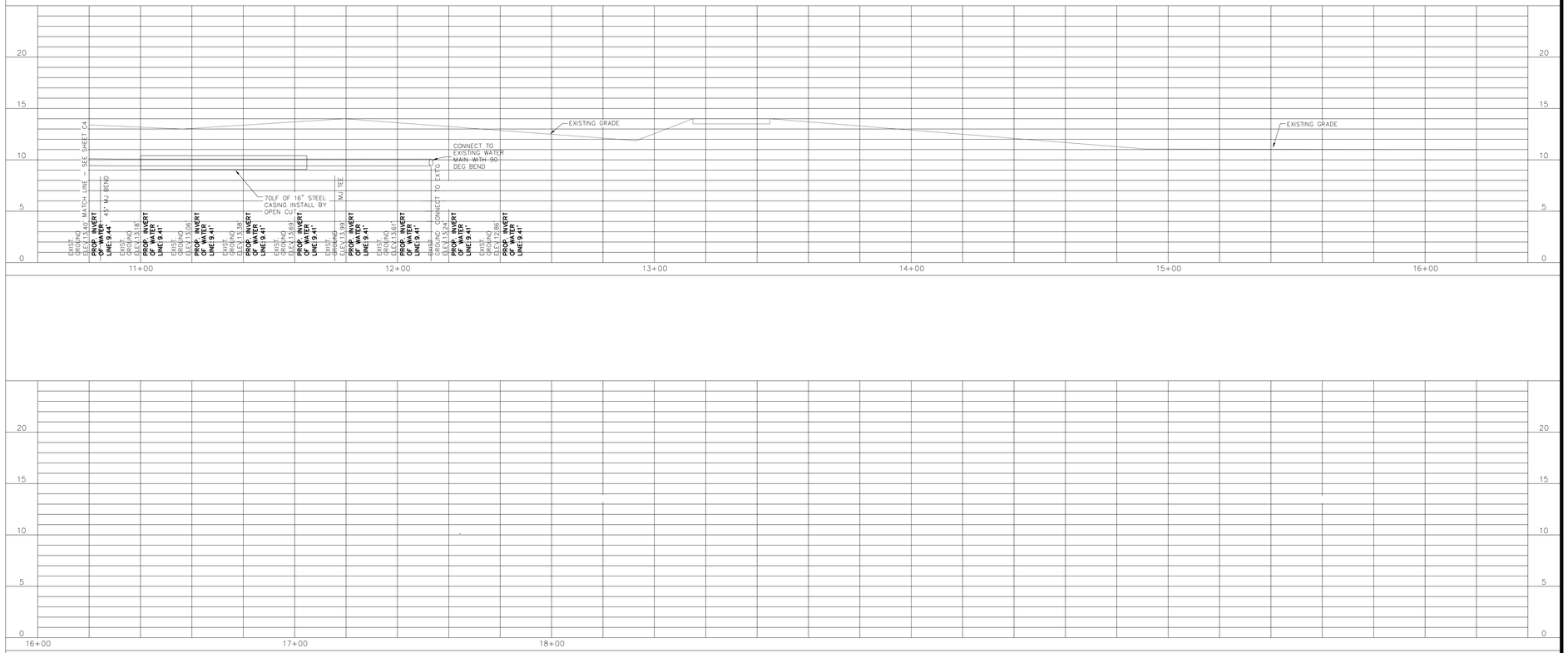
UTILITY PLANS

DRAWING No. 24-020

3/1/2007 GPLN

23-JUL-2013 15:05	3:05:48 PM	0008690_24-022	Y:\Roadways\126379\0008690\Dgn\0008690_24-022.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	420	730

RELEASED FOR CONSTRUCTION - 07-23-13



GRAPHIC SCALE: 1" = 20'

GRAPHIC SCALE: 1" = 5'

GRANGE ROAD WATER LINE PROFILE

SCALE: 1" = 20' H
1" = 5' V

PC DG PORT CITY DESIGN GROUP LLC
CONSULTING ENGINEERS
7393 Hodgson Memorial Drive
Savannah, Georgia 31406
912.355.9603 912.355.9537 (fax)
www.PCDG-Savannah.com

REVISIONS		
NO.	DATE	DESCRIPTION
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-

JIMMY DELOACH CONNECTOR
WATER LINE PROFILE

FROM BOURNE AVE / SR 307
TO JIMMY DELOACH PKWY

JOB NO.	V221 12 05
SCALE	AS SHOWN
DESIGN BY	PLB
DRAWN BY	AJW
CHECKED BY	JCV

PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

BEGIN LIMIT OF ACCESS.....BLA
END LIMIT OF ACCESS.....ELA
LIMIT OF ACCESS
REQ'D R/W & LIMIT OF ACCESS

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

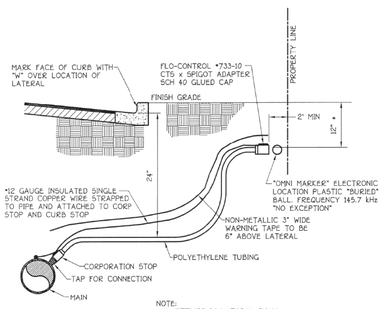
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

UTILITY PLANS

DRAWING No. 24-021

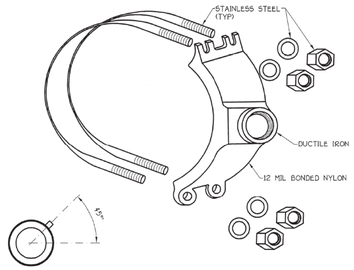
3/1/2007 GPLN

RELEASED FOR CONSTRUCTION - 07-23-13



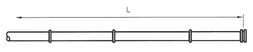
NOTE:
ALL FITTINGS IN LATERAL SHALL BE COMPRESSION TYPE

1" AND 2" WATER SERVICE LATERAL DETAIL (1 / C4)
NOT TO SCALE



NOTES:
1. TAPPING SADDLE TO BE DUCTILE IRON WITH TYPE 304 STAINLESS STEEL FORGED DOUBLE STRAPS, STAINLESS STEEL BOLTS, NUTS AND WASHERS. FINISH IS FUSION-BONDED NYLON TO AVERAGE THICKNESS OF 12 MILS.
2. ALL TAPS ON WATER MAIN WILL REQUIRE A TAPPING SADDLE.

1" AND 2" TAPPING SADDLE DETAIL (2 / C4)
NOT TO SCALE



DUCTILE IRON LINE

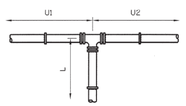
PIPE DIA	L
4	28
6	40
8	52
10	62

PVC LINE

PIPE DIA	L
4	52
6	74
8	96
10	115

NOTES:
1. LENGTH OF RESTRAINT SHOWN IS IN FEET.
2. WHERE LIMITS CONSIST OF BOTH DUCTILE IRON AND PVC WITHIN THE LIMITS OF REQUIRED RESTRAINT, LIMITS FOR PVC SHALL APPLY.
3. FOR LINE STUBS, THE LENGTH OF RESTRAINT (L) SHALL BE FROM THE VALVE AND NOT THE CAP.

STANDARD DEAD END RESTRAINT DETAIL (5 / C4)
NOT TO SCALE

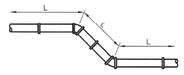


TEE—Ur	5°-10°	11°-20°	21°-35°	> 35°
4x4	43	28	4	*
6x4	38	17	*	*
6x6	64	49	25	*
8x4	34	6	*	*
8x6	61	42	10	*
8x8	87	72	40	12
10x4	29	*	*	*
10x6	58	34	*	*
10x8	84	66	35	*
10x10	106	91	67	31

MINIMUM RESTRAINED LENGTH (L)
* RESTRAIN AT TEE ONLY

NOTES:
1. LENGTH OF RESTRAINT SHOWN IS IN FEET
2. WHERE LIMITS CONSIST OF BOTH DUCTILE IRON AND PVC WITHIN THE LIMITS OF REQUIRED RESTRAINT, LIMITS FOR PVC SHALL APPLY.
3. U1 AND U2 = UNINTERUPTED STRAIGHT RUNS OF PIPE IN EACH DIRECTION.
4. Ur = THE SMALLER OF U1 OR U2.
5. L = MINIMUM RESTRAINED LENGTH ALONG THE BRANCH
6. WHERE Ur IS LESS THAN 5', RESTRAIN TEE AS A 90° HORIZONTAL BEND.

STANDARD PVC TEE RESTRAINT DETAIL (6 / C4)
NOT TO SCALE



PVC LINE

PIPE DIA	BEND ANGLE 11 1/4°	22 1/2°	45°	90°
4	5	10	22	52
6	7	15	30	74
8	9	19	40	96
10	11	23	48	115
12	13	27	56	136

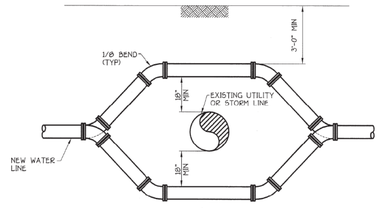
DUCTILE IRON LINE

PIPE DIA	BEND ANGLE 11 1/4°	22 1/2°	45°	90°
4	3	6	12	28
6	4	8	17	40
8	4	10	22	52
10	5	12	26	62
12	6	15	30	73

MINIMUM RESTRAINED LENGTH (L)

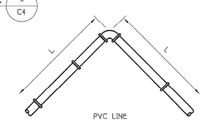
NOTES:
1. LENGTH OF RESTRAINT SHOWN IS IN FEET.
2. WHERE LINES CONSIST OF BOTH DUCTILE IRON AND PVC WITHIN THE LIMITS OF REQUIRED RESTRAINT, LIMITS FOR PVC SHALL APPLY.

STANDARD VERTICAL BEND RESTRAINT DETAIL (7 / C4)
NOT TO SCALE



NOTES:
1. WATER LINE SHALL BE INSTALLED ABOVE SANITARY OR STORM LINE IF POSSIBLE.
2. STRAIGHT RUN OF WATER LINE DIRECTLY ABOVE OR BELOW EXISTING UTILITY LINE MUST BE 10' MINIMUM WITH NO JOINT.
3. IF WATER LINE IS INSTALLED BELOW SANITARY LINE WATER LINE SHALL BE DUCTILE IRON PIPE.
4. JOINTS SHALL BE RESTRAINED IN ACCORDANCE WITH CITY OF PORT WENTWORTH STANDARD DETAILS.

STANDARD UTILITY CROSSING DETAIL (3 / C4)
NOT TO SCALE



PVC LINE

PIPE DIA	BEND ANGLE 11 1/4°	22 1/2°	45°	90°
4	3	6	12	29
6	4	8	17	41
8	5	11	22	53
10	6	13	26	64
12	7	15	31	75

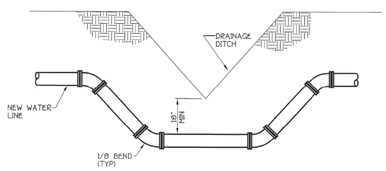
DUCTILE IRON LINE

PIPE DIA	BEND ANGLE 11 1/4°	22 1/2°	45°	90°
4	2	4	8	20
6	3	6	12	28
8	4	7	15	36
10	4	9	18	43
12	5	10	21	51

MINIMUM RESTRAINED LENGTH (L)

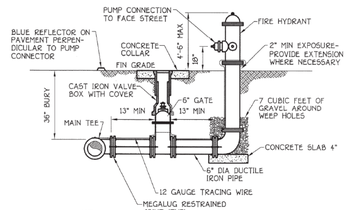
NOTES:
1. LENGTH OF RESTRAINT SHOWN IS IN FEET.
2. WHERE LINES CONSIST OF BOTH DUCTILE IRON AND PVC WITHIN THE LIMITS OF REQUIRED RESTRAINT, LIMITS FOR PVC SHALL APPLY.

STANDARD HORIZONTAL BEND RESTRAINT DETAIL (8 / C4)
NOT TO SCALE



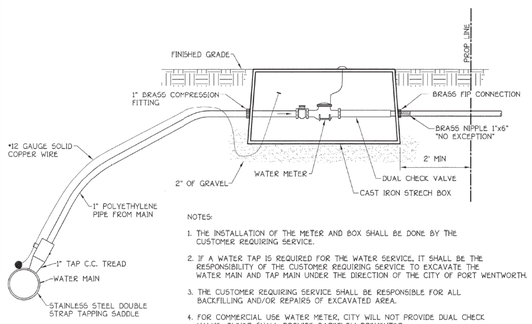
NOTES:
1. WATER LINE SHALL BE DUCTILE IRON BELOW STORM DRAINAGE DITCH.
2. STRAIGHT RUN OF WATER LINE DIRECTLY BELOW NEW OR EXISTING DRAINAGE DITCH MUST BE 10' MINIMUM WITH NO JOINT.
3. JOINTS SHALL BE RESTRAINED IN ACCORDANCE WITH CITY OF PORT WENTWORTH STANDARD DETAILS.

UTILITY CROSSING DRAINAGE DETAIL (4 / C4)
NOT TO SCALE



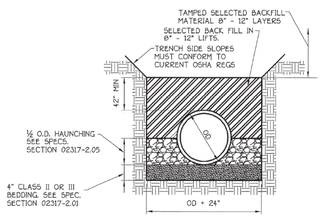
NOTE:
1. ALL JOINTS FROM MAIN TO HYDRANT SHALL BE RESTRAINED.
2. PROTECT BOLTS AND THREADS FROM CONCRETE.

STANDARD FIRE HYDRANT DETAIL (9 / C4)
NOT TO SCALE

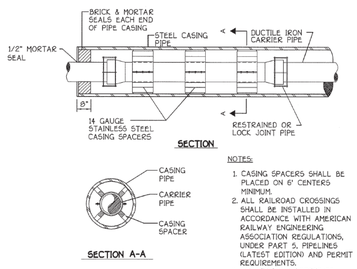


NOTES:
1. THE INSTALLATION OF THE METER AND BOX SHALL BE DONE BY THE CUSTOMER REQUIRING SERVICE.
2. IF A WATER TAP IS REQUIRED FOR THE WATER SERVICE, IT SHALL BE THE RESPONSIBILITY OF THE CUSTOMER REQUIRING SERVICE TO EXCAVATE THE WATER MAIN AND TAP MAIN UNDER THE DIRECTION OF THE CITY OF PORT WENTWORTH.
3. THE CUSTOMER REQUIRING SERVICE SHALL BE RESPONSIBLE FOR ALL BACKFILLING AND/OR REPAIRS OF EXCAVATED AREA.
4. FOR COMMERCIAL USE WATER METER, CITY WILL NOT PROVIDE DUAL CHECK VALVE. OWNER SHALL PROVIDE BACKFLOW PREVENTER.

3/4" AND 1" WATER METER DETAIL (10 / C4)
NOT TO SCALE

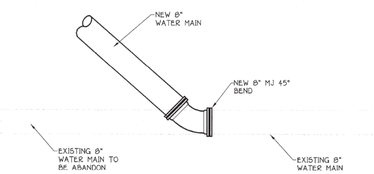


PIPE BEDDING DETAIL (11 / C4)
NOT TO SCALE



NOTES:
1. CASING SPACERS SHALL BE PLACED ON 6' CENTERS MINIMUM.
2. ALL RAILROAD CROSSINGS SHALL BE INSTALLED IN ACCORDANCE WITH AMERICAN RAILWAY ENGINEERING ASSOCIATION REGULATIONS, UNDER PART 5, PIPELINES (LATEST EDITION) AND PERMIT REQUIREMENTS.
3. ALL HIGHWAY CROSSINGS SHALL BE INSTALLED IN ACCORDANCE WITH GA. D.O.T. REGULATIONS & PERMIT REQUIREMENTS.

CASING INSTALLATION DETAIL (12 / C4)
NOT TO SCALE



WATER MAIN CONNECTION (13 / C4)
NOT TO SCALE

PC PORT CITY DESIGN GROUP LLC
CONSULTING ENGINEERS
7393 Hodgson Memorial Drive
Savannah, Georgia 31406
912.355.9603 912.355.9537 (fax)
www.PCDG-Savannah.com

GEORGIA REGISTERED PROFESSIONAL ENGINEER PATRICK L. BLANK No. 24406

REVISIONS NO.	DATE	DESCRIPTION

JIMMY DELOACH CONNECTOR FROM BOURNE AVE / SR 307 TO JIMMY DELOACH PKWY

WATER SYSTEM DETAILS

JOB NO.	V221 12 05
SCALE	AS SHOWN
DESIGN BY	PLB
DRAWN BY	AJW
CHECKED BY	JCV

SHEET C4

PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

BEGIN LIMIT OF ACCESS.....BLA
END LIMIT OF ACCESS.....ELA
LIMIT OF ACCESS
REQ'D R/W & LIMIT OF ACCESS

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
UTILITY PLANS

DRAWING No. 24-022

3/1/2007 GPLN

RELEASED FOR CONSTRUCTION - 07-23-13

MATCH LINE STA. 1021+00.00
SEE SHEET 26-014

8" SKIP WHITE CONTRAST PREFORMED TRAFFIC STRIPE (TYP) (2' SEG. 6' GAP)

TYPE 1 (YELLOW) RAISED PAVEMENT MARKERS (TYP)

STA. 1022+50
W6-1L(21)
W1-1(24)(95)
M4-5(24)
DE 10877

REQ'D R/W & L/A

TYPE 1 PREFORMED WORD (TYP) DE 10878

TYPE 2 PREFORMED ARROW (TYP)

SINGLE WIDE TRAILER HOLDING TANK

8" SOLID WHITE CONTRAST PREFORMED TRAFFIC STRIPE (TYP)

DE 10876

24" SOLID WHITE PREFORMED TRAFFIC STRIPE (TYP)

8" SKIP WHITE CONTRAST PREFORMED TRAFFIC STRIPE (TYP) (2' SEG. 6' GAP)

BEGIN PROJECT CSMSL-008-00(690) JIMMY DELOACH CONNECTOR STA 149+66.27 BOURNE AVENUE STA 1027+24.17

11" SOLID WHITE CONTRAST PREFORMED TRAFFIC STRIPE (TYP)

STA. 1027+90
R8-3a (24"x24")
STA. 1028+00
R4-7 (24"x30")

REQ'D R/W & L/A

8" SOLID YELLOW CONTRAST PREFORMED TRAFFIC STRIPE (TYP)

TYPE 3 (CLEAR/RED) RAISED PAVEMENT MARKERS (TYP)

MATCH LINE STA. 1029+00.00
SEE SHEET 26-015

1025+00

R-SPEC *1 (30"x24") STA. 1025+07

R560-5 (24"x36") STA. 151+45

8" SOLID YELLOW CONTRAST PREFORMED TRAFFIC STRIPE (TYP)

REQ'D. 51 SQ YDS DETAIL "A" (YELLOW) TRAFFIC MARKING

TYPE 3 (CLEAR/RED) RAISED PAVEMENT MARKERS (TYP)

8" SOLID DOUBLE YELLOW CONTRAST PREFORMED TRAFFIC STRIPE (TYP)

8" SKIP WHITE CONTRAST PREFORMED TRAFFIC STRIPE (TYP) (10' SEG. 30' GAP)

8" SOLID WHITE CONTRAST PREFORMED TRAFFIC STRIPE (TYP)

REQ'D. 365 SQ YDS DETAIL "A" (WHITE) PREFORMED TRAFFIC MARKING

STA. 155+10

WEST 20 — W-SPEC *3 (36"x36")
ONLY — R3-5R (30"x36")
ONLY — R3-5L (30"x36")
EAST 20 — W-SPEC *2 (36"x36")
ONLY — R3-5L (30"x36")

R5-10 (30"x36") STA. 152+50

W4-2R (36"x36") STA. 151+25

R560-5 (24"x36") STA. 1028+26

ORANGE BARRIER FENCE

TYPE 2 PREFORMED ARROW (TYP)

TYPE 3 (CLEAR/RED) RAISED PAVEMENT MARKERS (TYP)

150+00

WETLAND 2 (PCS "D") USACE SAS-2011-00688

TYPE I PREFORMED WORD (TYP)

REQ'D. 196 SQ YDS DETAIL "A" (WHITE) PREFORMED TRAFFIC MARKING

TYPE IV STRAIN POLE STA. 155+10. 63.0 RT

R4-7 (24"x30") STA. 1021+49

R5-10 (42"x30") STA. 1021+17

REQ'D R/W & L/A

W4-5(30)
W1-5(36)(21) STA. 156+64
W6-1R(21)

ESA - SEE ENVIRONMENTAL RESOURCES IMPACT TABLE IN GENERAL NOTES FOR CONSTRUCTION RESTRICTIONS

STREAM 4

W3-3 (48" x 48")
Bourne Ave W16-8P (48"x12") STA. 160+35

8" SOLID WHITE CONTRAST PREFORMED TRAFFIC STRIPE (TYP)

STREAM 4

ESA - SEE ENVIRONMENTAL RESOURCES IMPACT TABLE IN GENERAL NOTES FOR CONSTRUCTION RESTRICTIONS

WETLAND 1

TYPE IV STRAIN POLE STA. 155+10. 72.0 LT

8" SKIP WHITE CONTRAST PREFORMED TRAFFIC STRIPE (TYP) (2' SEG. 6' GAP)

TYPE 3 (CLEAR/RED) RAISED PAVEMENT MARKERS (TYP)

160+00

155+00

JIMMY DELOACH CONNECTOR CONSTRUCTION

REQ'D. 1625 SQ YDS DETAIL "B" (YELLOW) PREFORMED TRAFFIC MARKING

REQ'D R/W & L/A

8" SKIP WHITE CONTRAST PREFORMED TRAFFIC STRIPE (TYP) (10' SEG. 30' GAP)

WETLAND 3 (PCS "E") USACE SAS-2011-00688

E-SPEC *1 (68"x12") STA. 160+05

Grange Rd EXIT 1/4 MILE

ORANGE BARRIER FENCE

8" SOLID YELLOW CONTRAST PREFORMED TRAFFIC STRIPE (TYP)

MATCH LINE STA. 162+00.00

PROPERTY AND EXISTING R/W LINE	—℄— —
REQUIRED R/W LINE	———
CONSTRUCTION LIMITS	— C — F —
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES	
EASEMENT FOR CONSTR OF SLOPES	
EASEMENT FOR CONSTR OF DRIVES	

BEGIN LIMIT OF ACCESS	BLA
END LIMIT OF ACCESS	ELA
LIMIT OF ACCESS	
REQ'D R/W & LIMIT OF ACCESS	

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

SIGNING AND MARKING PLANS

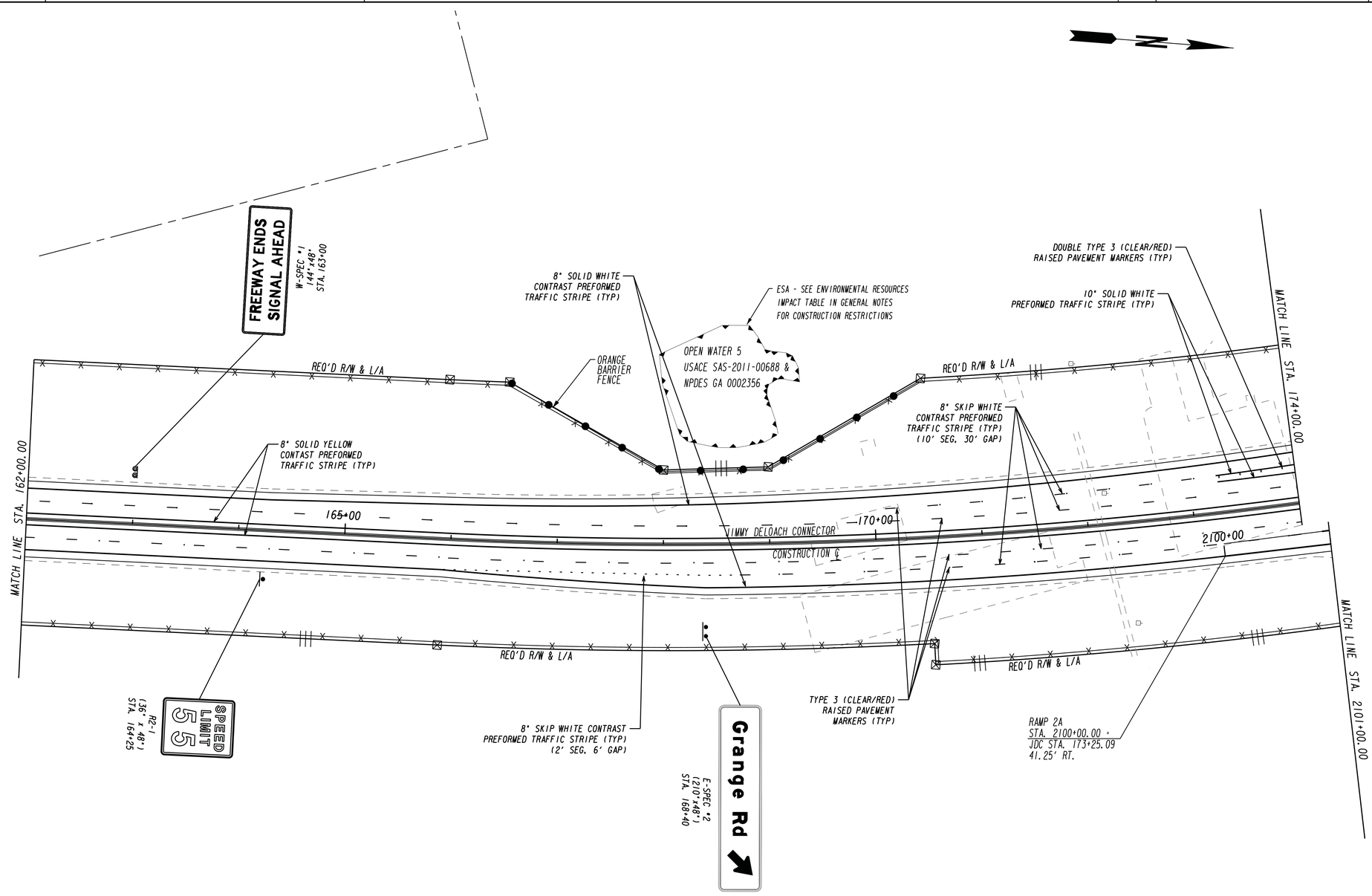
JIMMY DELOACH CONNECTOR
BEGIN TO STA. 162+00

DRAWING No. 26-001

3/1/2007 GPLN

23-JUL-2013 15:14	3:14:31 PM	0008690_26-002	Y:\Roadways\126379\0008690\Dgn\0008690_26-002.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	423	730

RELEASED FOR CONSTRUCTION - 07-23-13



PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

BEGIN LIMIT OF ACCESS.....BLA
END LIMIT OF ACCESS.....ELA
LIMIT OF ACCESS
REQ'D R/W & LIMIT OF ACCESS

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

SIGNING AND MARKING PLANS

JIMMY DELOACH CONNECTOR
STA. 162+00 TO STA. 174+00

DRAWING No. 26-002

3/1/2007 GPLN

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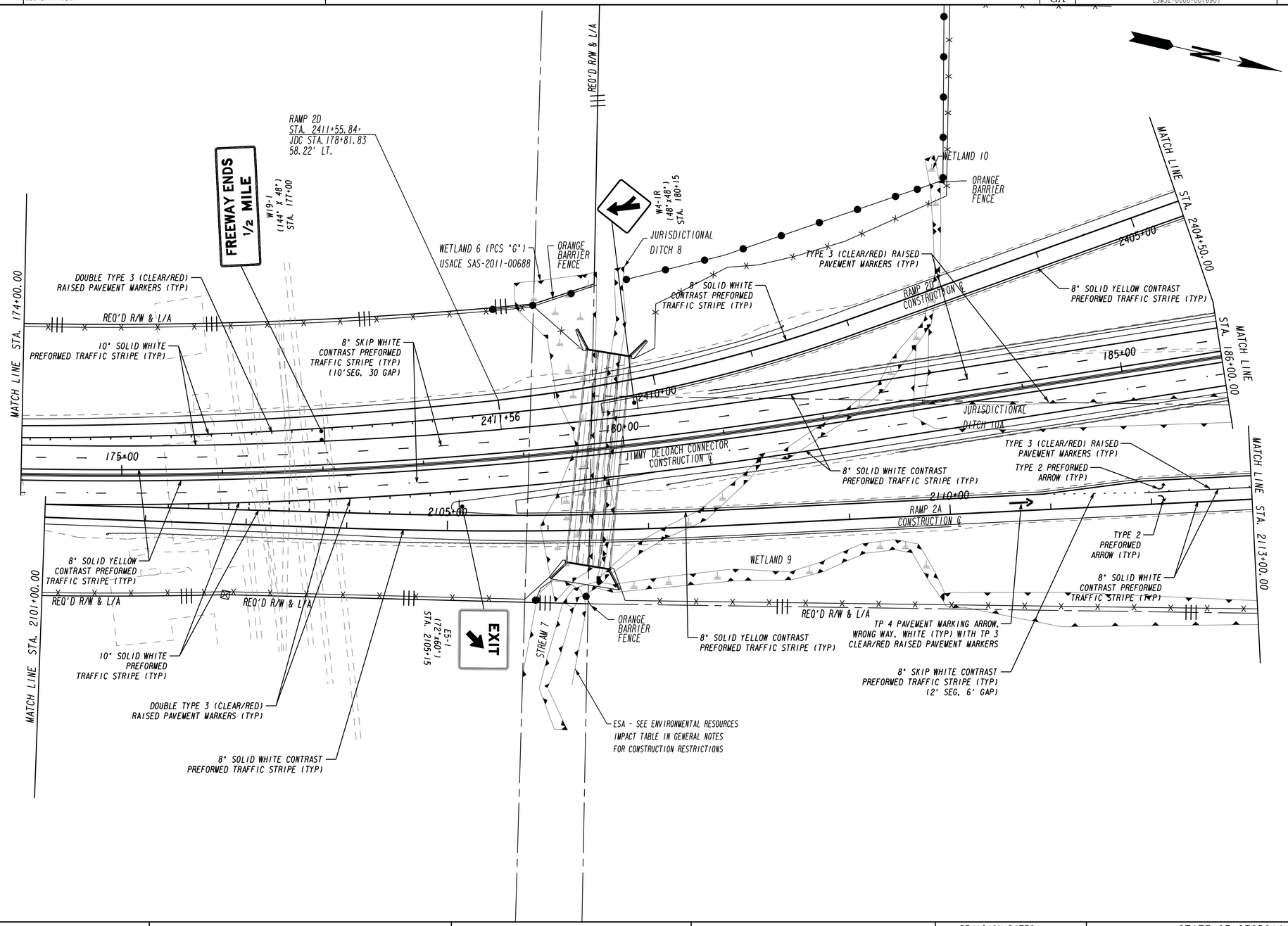
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	424	730

RELEASED FOR CONSTRUCTION - 07-23-13



PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

BEGIN LIMIT OF ACCESS.....BLA
END LIMIT OF ACCESS.....ELA
LIMIT OF ACCESS
REQ'D R/W & LIMIT OF ACCESS

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

SIGNING AND MARKING PLANS

JIMMY DELOACH CONNECTOR
STA. 174+00 TO STA. 186+00

DRAWING No. 26-003

3/11/2007 GPLN

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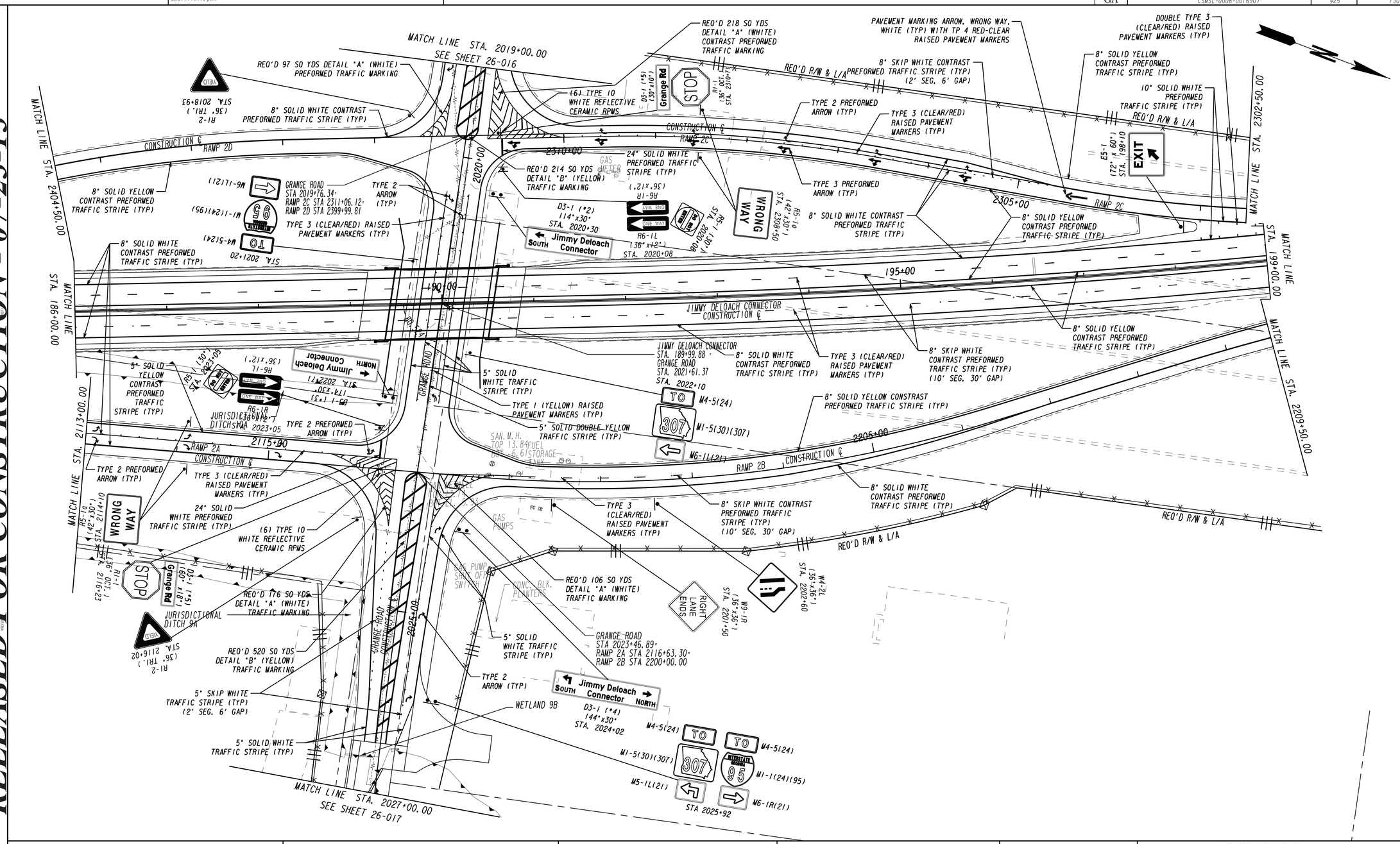
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	425	730

RELEASED FOR CONSTRUCTION - 07-23-13



PROPERTY AND EXISTING R/W LINE ——℄——
REQUIRED R/W LINE ————
CONSTRUCTION LIMITS — C — F —
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

BEGIN LIMIT OF ACCESS.....BLA
END LIMIT OF ACCESS.....ELA
LIMIT OF ACCESS
REQ'D R/W & LIMIT OF ACCESS

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

SIGNING AND MARKING PLANS

JIMMY DELOACH CONNECTOR
STA. 186+00 TO STA. 199+00

DRAWING No. 26-004

3/1/2007 GPLN

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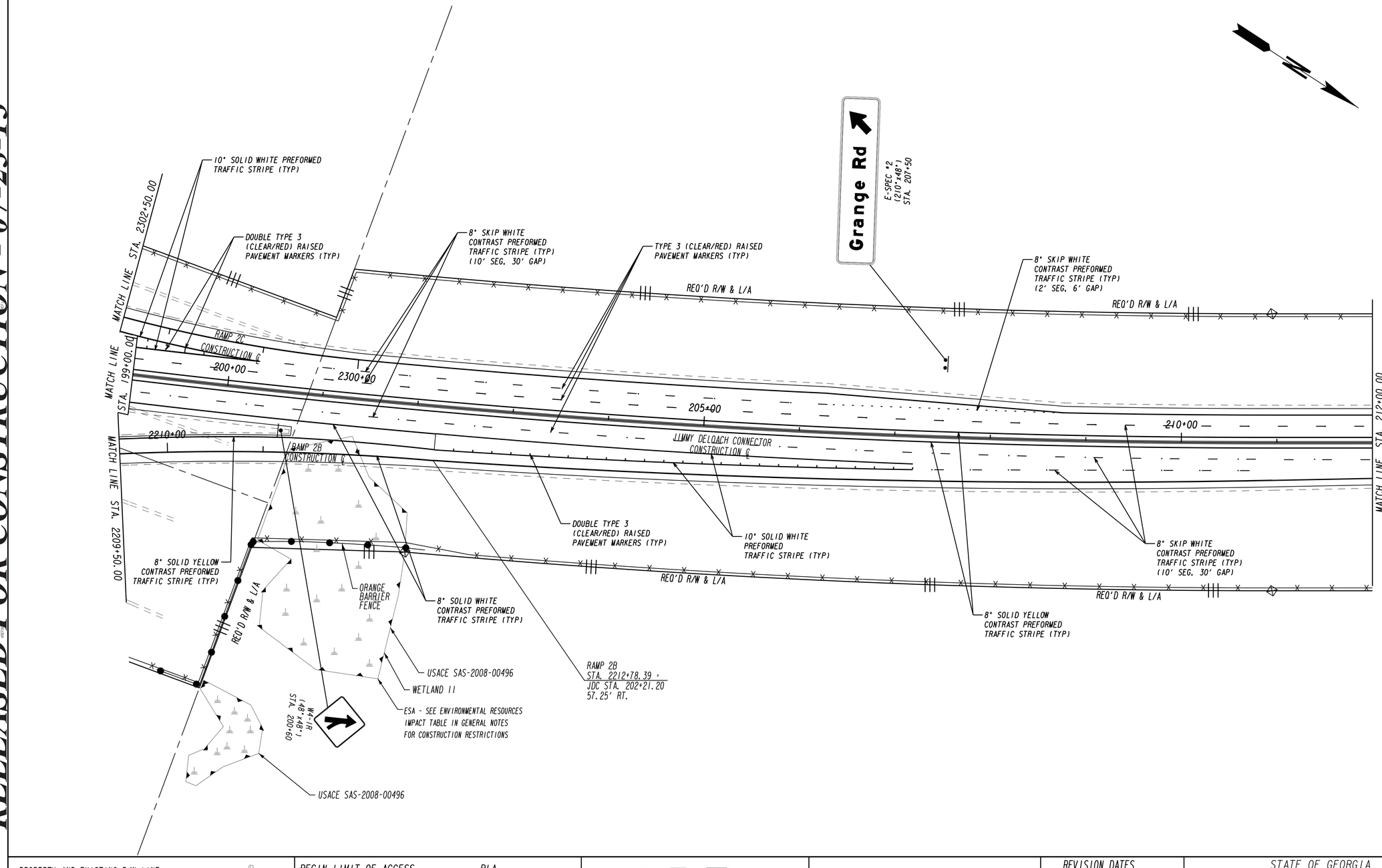
RELEASED FOR CONSTRUCTION - 07-23-13



PROPERTY AND EXISTING R/W LINE	℄
REQUIRED R/W LINE	
CONSTRUCTION LIMITS	— C — F —
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES	
EASEMENT FOR CONSTR OF SLOPES	
EASEMENT FOR CONSTR OF DRIVES	

BEGIN LIMIT OF ACCESS	BLA
END LIMIT OF ACCESS	ELA
LIMIT OF ACCESS	
REQ'D R/W & LIMIT OF ACCESS	

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

SIGNING AND MARKING PLANS

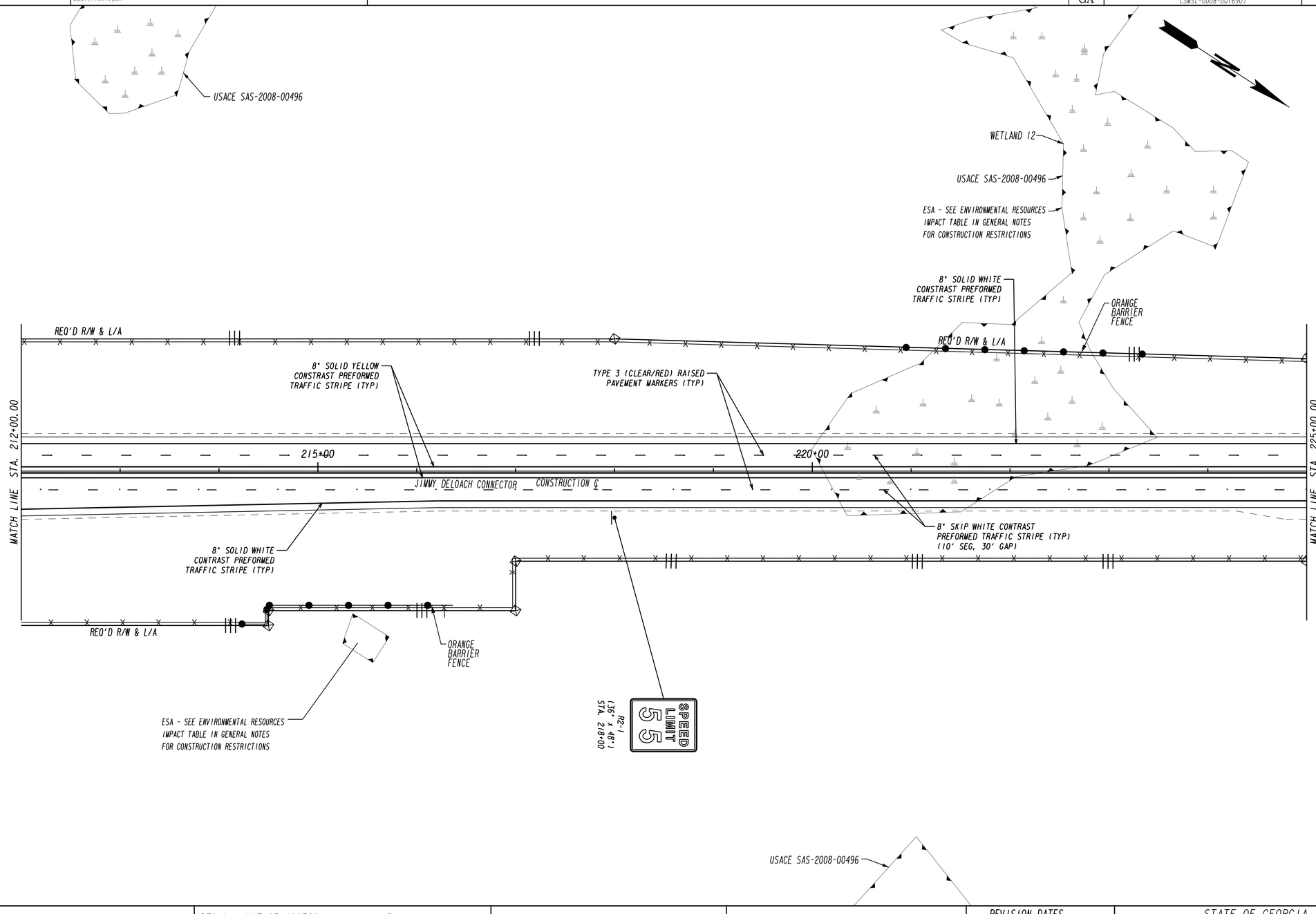
JIMMY DELOACH CONNECTOR
STA. 199+00 TO STA. 212+00

DRAWING No. 26-005

3/1/2007 GPLN

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	427	730

RELEASED FOR CONSTRUCTION - 07-23-13



PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

BEGIN LIMIT OF ACCESS.....BLA
END LIMIT OF ACCESS.....ELA
LIMIT OF ACCESS
REQ'D R/W & LIMIT OF ACCESS

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

SIGNING AND MARKING PLANS

JIMMY DELOACH CONNECTOR
STA. 212+00 TO STA. 225+00

DRAWING No. 26-006

3/1/2007 GPLN

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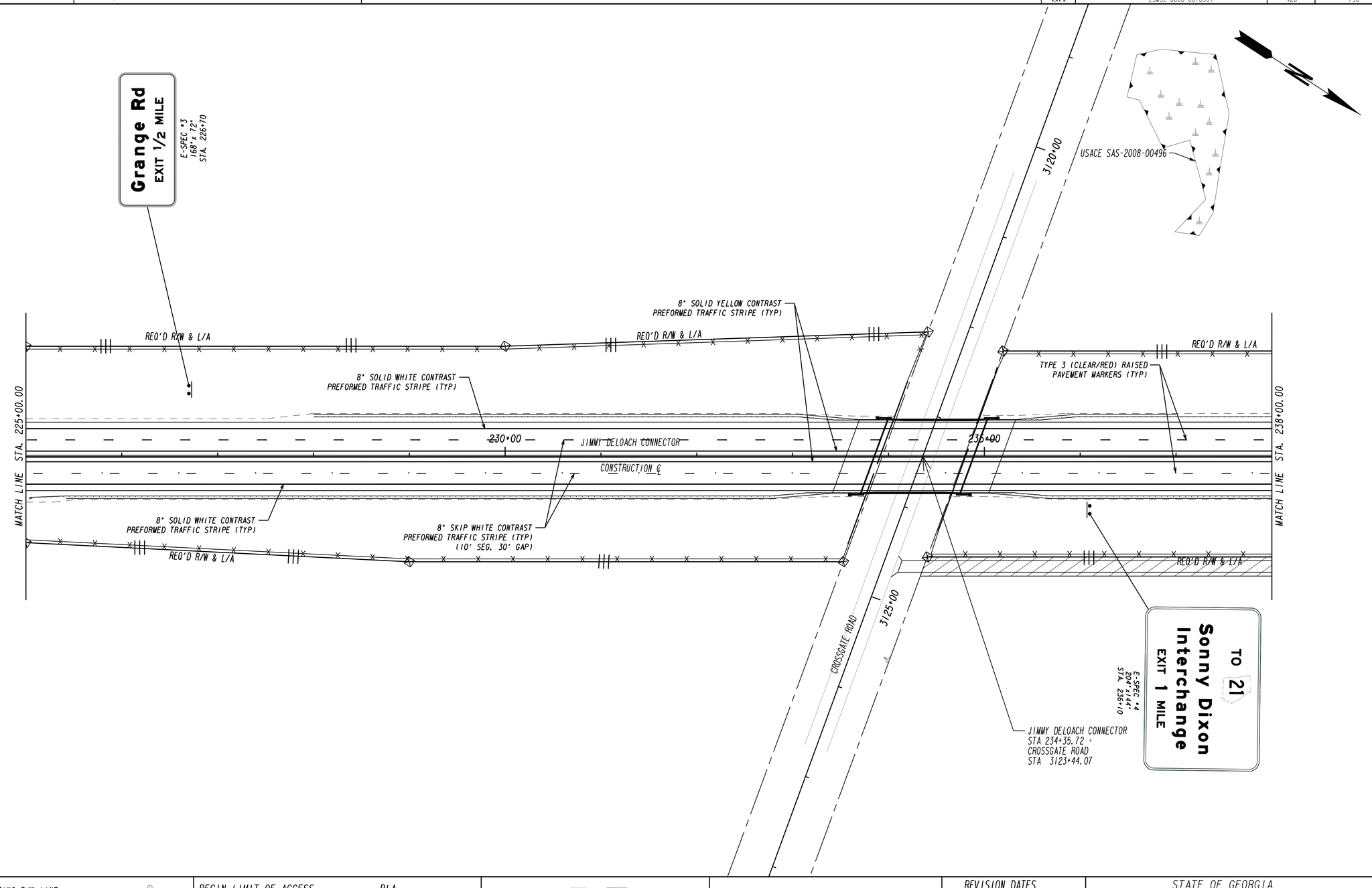
RELEASED FOR CONSTRUCTION - 07-23-13



PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

BEGIN LIMIT OF ACCESS.....BLA
END LIMIT OF ACCESS.....ELA
LIMIT OF ACCESS
REQ'D R/W & LIMIT OF ACCESS

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

SIGNING AND MARKING PLANS

JIMMY DELOACH CONNECTOR
STA. 225+00 TO STA. 238+00

DRAWING No. 26-007

3/11/2007 GPLN

23-JUL-2013 15:15	3:15:08 PM	0008690_26-008	Y:\Roadways\126379\0008690\Dgn\0008690_26-008.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
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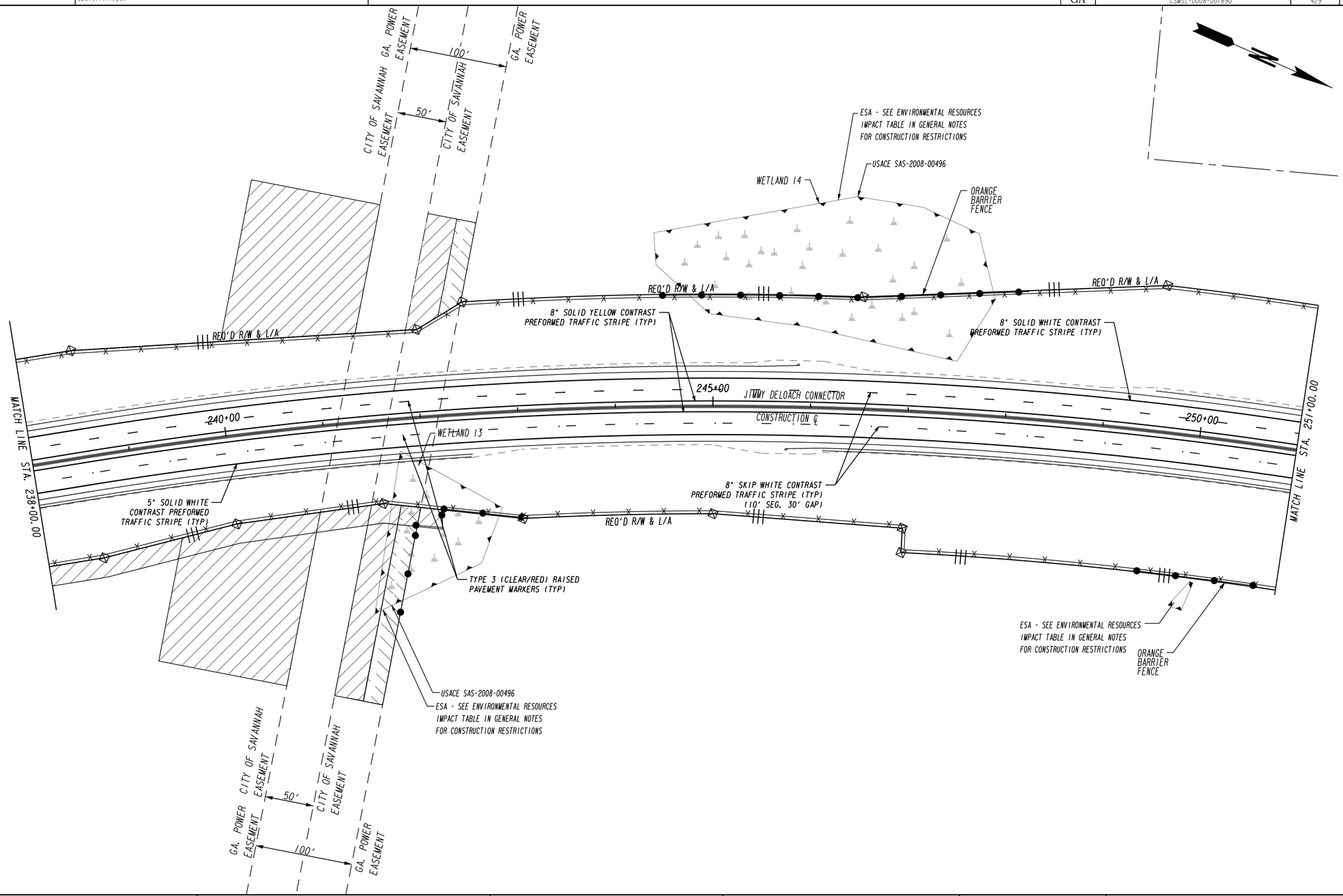
RELEASED FOR CONSTRUCTION - 07-23-13



PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

BEGIN LIMIT OF ACCESS.....BLA
END LIMIT OF ACCESS.....ELA
LIMIT OF ACCESS
REQ'D R/W & LIMIT OF ACCESS

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

SIGNING AND MARKING PLANS

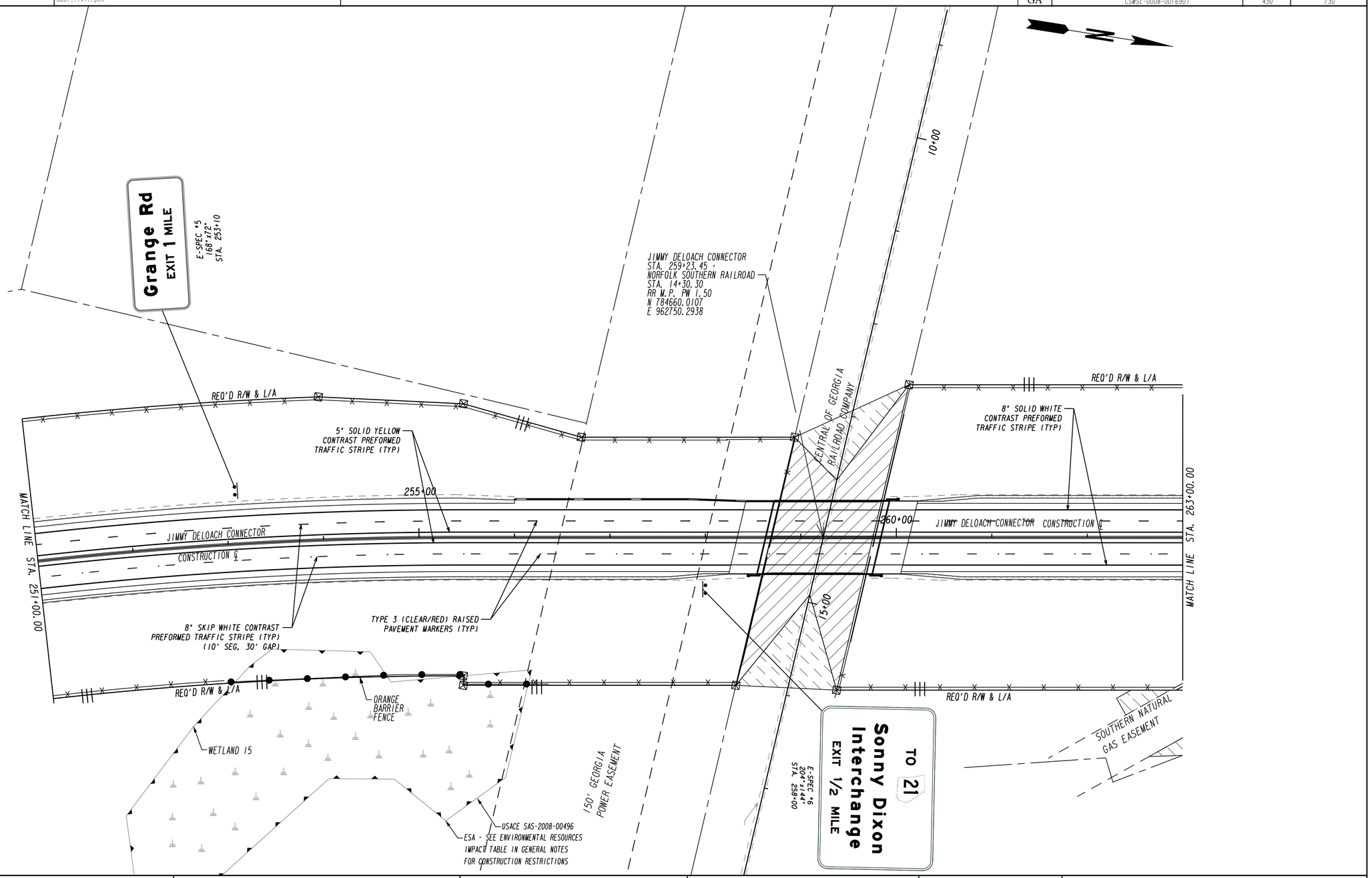
JIMMY DELOACH CONNECTOR
STA. 238+00 TO STA. 251+00

DRAWING No. 26-008

3/11/2007 GPLN

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	430	730

RELEASED FOR CONSTRUCTION - 07-23-13



PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

BEGIN LIMIT OF ACCESS.....BLA
END LIMIT OF ACCESS.....ELA
LIMIT OF ACCESS
REQ'D R/W & LIMIT OF ACCESS

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

SIGNING AND MARKING PLANS

JIMMY DELOACH CONNECTOR
STA. 251+00 TO STA. 263+00

DRAWING No. 26-009

3/11/2007 GPLN

23-JUL-2013 15:15	3:15:21 PM	0008690_26-010	Y:\Roadways\126379\0008690\Dgn\0008690_26-010.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
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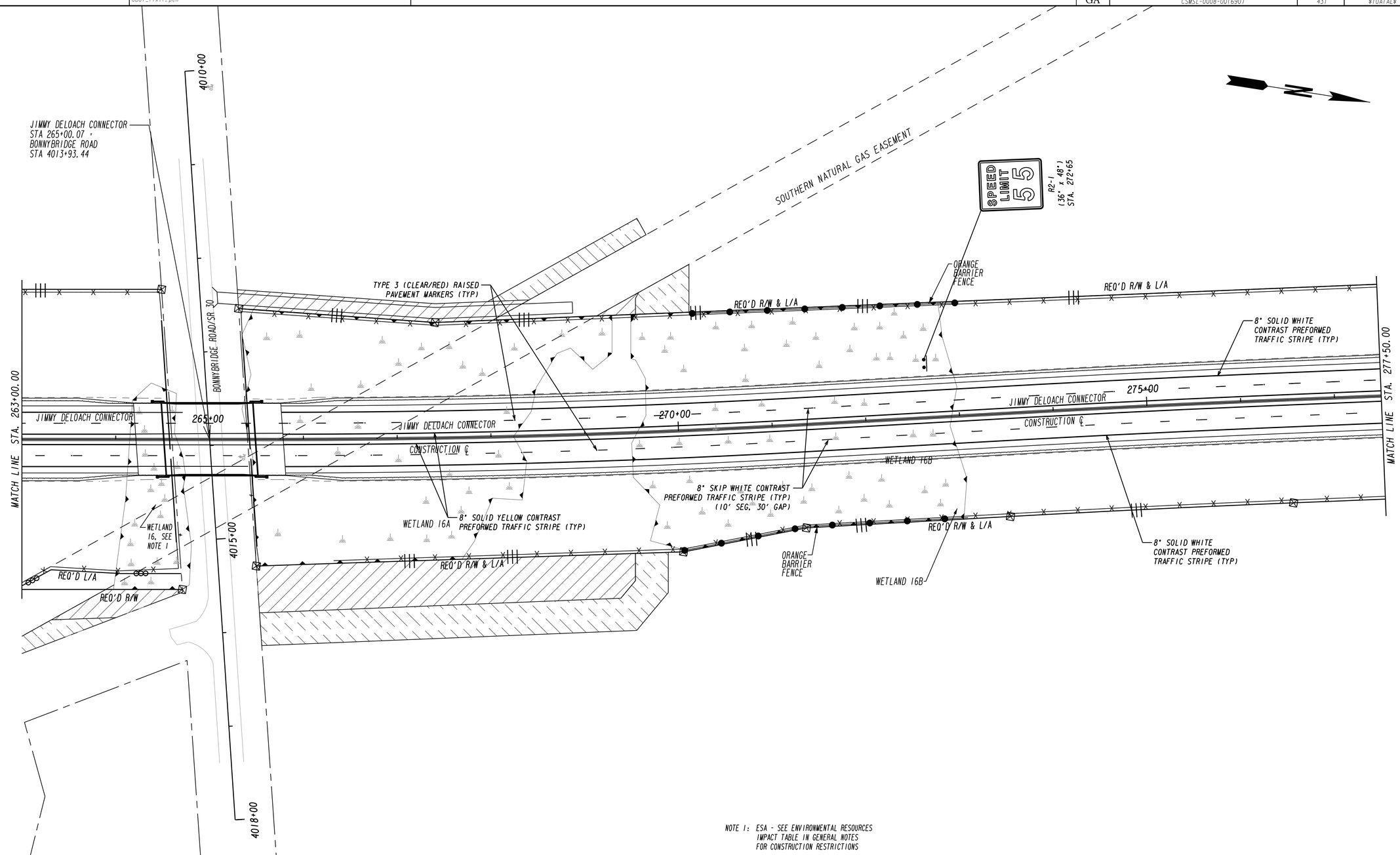
RELEASED FOR CONSTRUCTION - 07-23-13



NOTE 1: ESA - SEE ENVIRONMENTAL RESOURCES IMPACT TABLE IN GENERAL NOTES FOR CONSTRUCTION RESTRICTIONS

PROPERTY AND EXISTING R/W LINE ——℄——
REQUIRED R/W LINE ————
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES — G — F —
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

BEGIN LIMIT OF ACCESS.....BLA
END LIMIT OF ACCESS.....ELA
LIMIT OF ACCESS
REQ'D R/W & LIMIT OF ACCESS

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

SIGNING AND MARKING PLANS

JIMMY DELOACH CONNECTOR
JDC STA. 263+00 TO STA. 277+00

DRAWING No. 26-010

3/1/2007 GPLN

23-JUL-2013 15:15	3:15:28 PM	0008690_26-011	Y:\Roadways\126379\0008690\Dgn\0008690_26-011.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	432	730

RELEASED FOR CONSTRUCTION - 07-23-13

ESA - SEE ENVIRONMENTAL RESOURCES IMPACT TABLE IN GENERAL NOTES FOR CONSTRUCTION RESTRICTIONS

WETLAND 17

STREAM 18

8" SKIP WHITE CONTRAST PREFORMED TRAFFIC STRIPE (TYP) (10' SEG. 30' GAP)

REQ'D R/W & L/A

8" SOLID WHITE CONTRAST PREFORMED TRAFFIC STRIPE (TYP)

MATCH LINE STA. 277+50.00

280+00

JIMMY DELOACH CONNECTOR

CONSTRUCTION ℄

285+00

6210+00

WETLAND 21A

STREAM 21

TYPE 3 (CLEAR/RED) RAISED PAVEMENT MARKERS (TYP)

DOUBLE TYPE 3 (CLEAR/RED) RAISED PAVEMENT MARKERS (TYP)

10" SOLID WHITE PREFORMED TRAFFIC STRIPE (TYP)

ORANGE BARRIER FENCE

8" SOLID YELLOW CONTRAST PREFORMED TRAFFIC STRIPE (TYP)

8" SOLID WHITE CONTRAST PREFORMED TRAFFIC STRIPE (TYP)

CONSTRUCTION ℄ RAMP 3D

290+00

MATCH LINE STA. 6205+00.00

MATCH LINE STA. 291+00.00

5100+00

WETLAND 21B

RAMP 3A CONSTRUCTION ℄

MATCH LINE STA. 5104+50.00

DE10626

DE10625

DE10622

EXIT

E5-1 (72" x 60") STA. 289+70

8" SOLID YELLOW CONTRAST PREFORMED TRAFFIC STRIPE (TYP)

8" SKIP WHITE CONTRAST PREFORMED TRAFFIC STRIPE (TYP) (2' SEG. 6' GAP)

WETLAND 19

ESA - SEE ENVIRONMENTAL RESOURCES IMPACT TABLE IN GENERAL NOTES FOR CONSTRUCTION RESTRICTIONS

WETLAND 22A

ESA - SEE ENVIRONMENTAL RESOURCES IMPACT TABLE IN GENERAL NOTES FOR CONSTRUCTION RESTRICTIONS

Sonny Dixon Interchange TO 21

E-SPEC 17 240' x 20' STA. 286+60

W4-1R (48" x 48") STA. 290+45

PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

BEGIN LIMIT OF ACCESS.....BLA
END LIMIT OF ACCESS.....ELA
LIMIT OF ACCESS
REQ'D R/W & LIMIT OF ACCESS

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

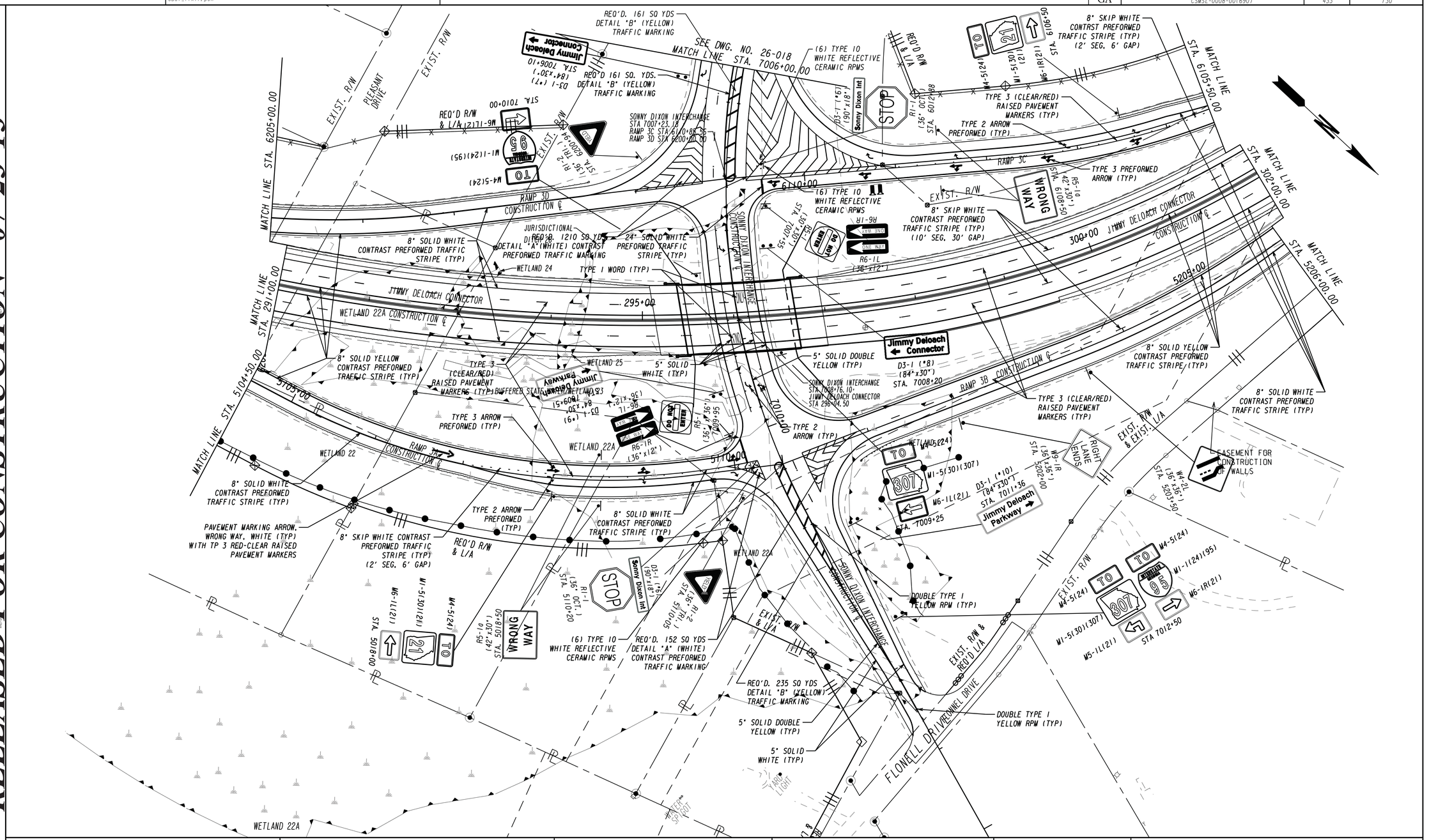
SIGNING AND MARKING PLANS

JDC STA. 277+50 TO STA. 291+00

DRAWING No. 26-011

3/11/2007 GPLN

RELEASED FOR CONSTRUCTION - 07-23-13



PROPERTY AND EXISTING R/W LINE	BEGIN LIMIT OF ACCESS.....BLA
REQUIRED R/W LINE	END LIMIT OF ACCESS.....ELA
CONSTRUCTION LIMITS	LIMIT OF ACCESS
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES	REQ'D R/W & LIMIT OF ACCESS
EASEMENT FOR CONSTR OF SLOPES	
EASEMENT FOR CONSTR OF DRIVES	

THE LPA GROUP
TRANSPORTATION CONSULTANTS
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SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

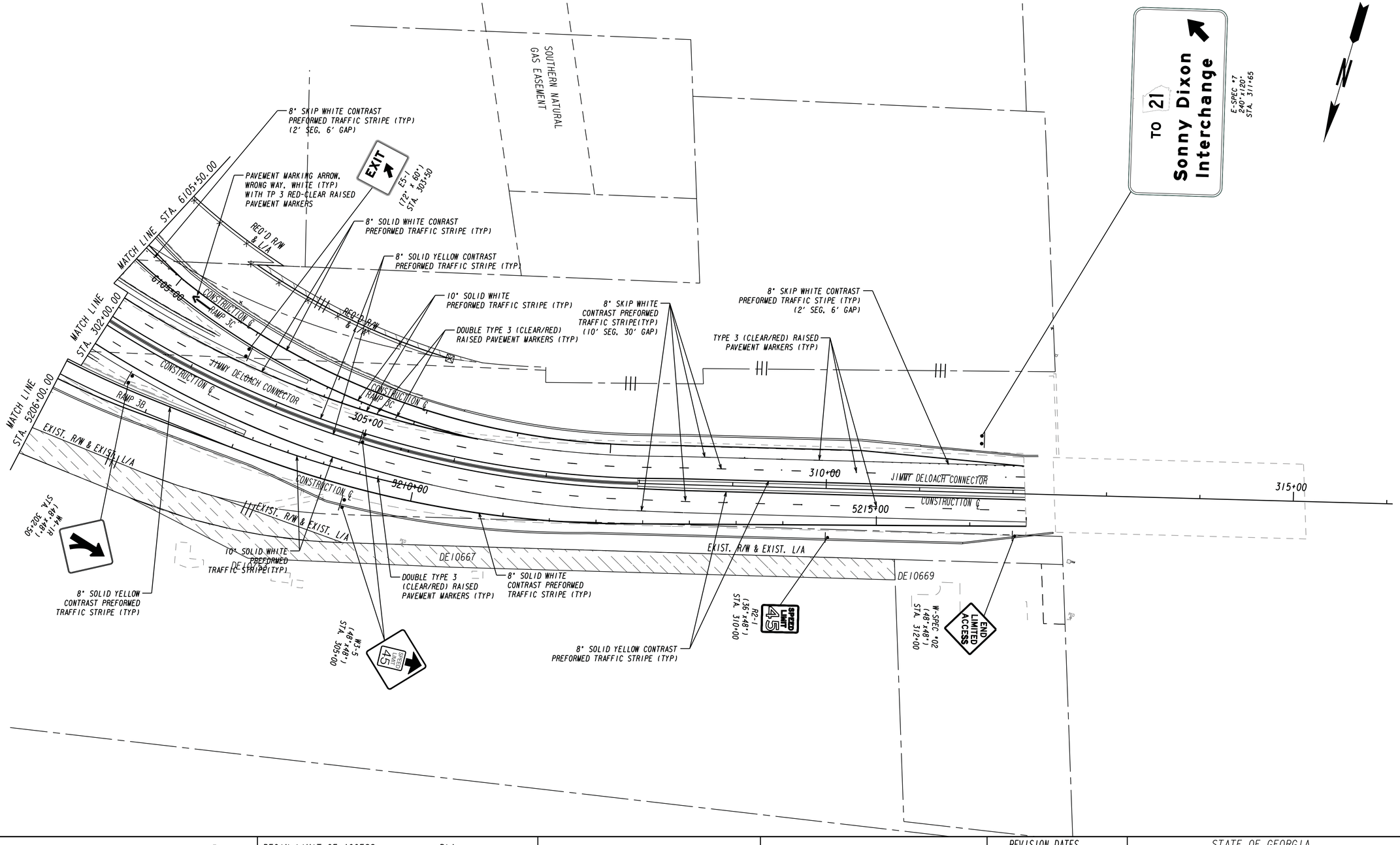
SIGNING AND MARKING PLANS

JDC STA. 291+00 TO STA. 302+00

DRAWING No. 26-012

3/11/2007 GPLN

RELEASED FOR CONSTRUCTION - 07-23-13



PROPERTY AND EXISTING R/W LINE	℄
REQUIRED R/W LINE	
CONSTRUCTION LIMITS	— C —
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES	
EASEMENT FOR CONSTR OF SLOPES	
EASEMENT FOR CONSTR OF DRIVES	

BEGIN LIMIT OF ACCESS	BLA
END LIMIT OF ACCESS	ELA
LIMIT OF ACCESS	
REQ'D R/W & LIMIT OF ACCESS	

THE LPA GROUP
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SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

SIGNING AND MARKING PLANS

JDC STA. 302+00 TO END PROJECT

DRAWING No. 26-013

3/1/2007 GPLN

23-JUL-2013 15:15	3:15:50 PM	0008690_26-014	Y:\Roadways\126379\0008690\Dgn\0008690_26-014.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	435	730

RELEASED FOR CONSTRUCTION - 07-23-13

UTILITY EASEMENT
ACCESS EASEMENT
STA. 1018+96
(18'x30')
R4-2
Jimmy Deloach Connector
NEXT SIGNAL
D3-2 (*)
84"x42"
STA. 1020+00
8" SKIP WHITE CONTRAST PREFORMED TRAFFIC STRIPE (TYP) (10' SEG. 30' GAP)
ESA - SEE ENVIRONMENTAL RESOURCES IMPACT TABLE IN GENERAL NOTES FOR CONSTRUCTION RESTRICTIONS
TYPE I PREFORMED WORD (TYP)
TYPE 3 (CLEAR/RED) RAISED PAVEMENT MARKERS (TYP)
8" SOLID WHITE CONTRAST PREFORMED TRAFFIC STRIPE (TYP)
R5-1 (30"x30") STA. 1019+17
DO NOT ENTER
WETLAND 1
R3-7 (30"x30") STA. 1020+37
RIGHT LANE MUST TURN RIGHT
R3-7 (30"x30") STA. 1018+37
RIGHT LANE MUST TURN RIGHT
ORANGE BARRIER FENCE
TYPE 3 PREFORMED ARROW (TYP)
REQ'D R/W
REQ'D R/W & L/A
1020+00
MATCH EXISTING STRIPING
1015+00
S.R. 307/BOURNE AVENUE CONSTRUCTION ℄
MATCH LINE STA. 1021+00.00
SEE SHEET 26-001
8" SOLID WHITE CONTRAST PREFORMED TRAFFIC STRIPE (TYP)
SAN. MH. RIM=114.5 INV=104.5
R4-7b (24"x30") STA. 1017+75
KEEP RIGHT
(6) TYPE 10 WHITE REFLECTIVE CERAMIC RPMS
R1-2 (36" DIA.) STA. 1016+77
8" SKIP WHITE CONTRAST PREFORMED TRAFFIC STRIPE (TYP) (2' SEG. 6' GAP)
REQ'D R/W & L/A
ORANGE BARRIER FENCE
8" SOLID YELLOW CONTRAST PREFORMED TRAFFIC STRIPE (TYP)
WETLAND 1
REQ'D R/W
(6) TYPE 10 YELLOW REFLECTIVE CERAMIC RPMS
W3-3 (36"x36") STA. 1016+36
35' UTILITY EASEMENT
REQ'D R/W
BOURNE AVENUE LOCAL ACCESS RD.
8002+00
CONSTRUCTION ℄
8003+00
STOP
R1-1 (36" OCT.) STA. 1018+11
5" SOLID WHITE TRAFFIC STRIPE (TYP)
REQ'D. 165 SQ YDS DETAIL "B" (YELLOW) TRAFFIC MARKING (6) TYPE 10 YELLOW REFLECTIVE CERAMIC RPMS
DRAINAGE EASEMENT
REQ'D. 255 SQ YDS DETAIL "A" (WHITE) TRAFFIC MARKING
ESA - SEE ENVIRONMENTAL RESOURCES IMPACT TABLE IN GENERAL NOTES FOR CONSTRUCTION RESTRICTIONS
REQ'D R/W
REQ'D R/W
1010+00
25' DRAINAGE & UTILITY ESMT.
PRIVATE VEHICULAR ACCESS EASEMENT
25' UTILITY EASEMENT
12.5' UTILITY EASEMENT
PRIVATE ACCESS EASEMENT
40' DRAINAGE EASEMENT
5" SOLID DOUBLE YELLOW TRAFFIC STRIPE (TYP)
TYPE I (YELLOW) RAISED PAVEMENT MARKERS (TYP)
40' DRAINAGE EASEMENT
REQ'D R/W

PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

BEGIN LIMIT OF ACCESS.....BLA
END LIMIT OF ACCESS.....ELA
LIMIT OF ACCESS
REQ'D R/W & LIMIT OF ACCESS

THE LPA GROUP
TRANSPORTATION CONSULTANTS
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(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

SIGNING AND MARKING PLANS

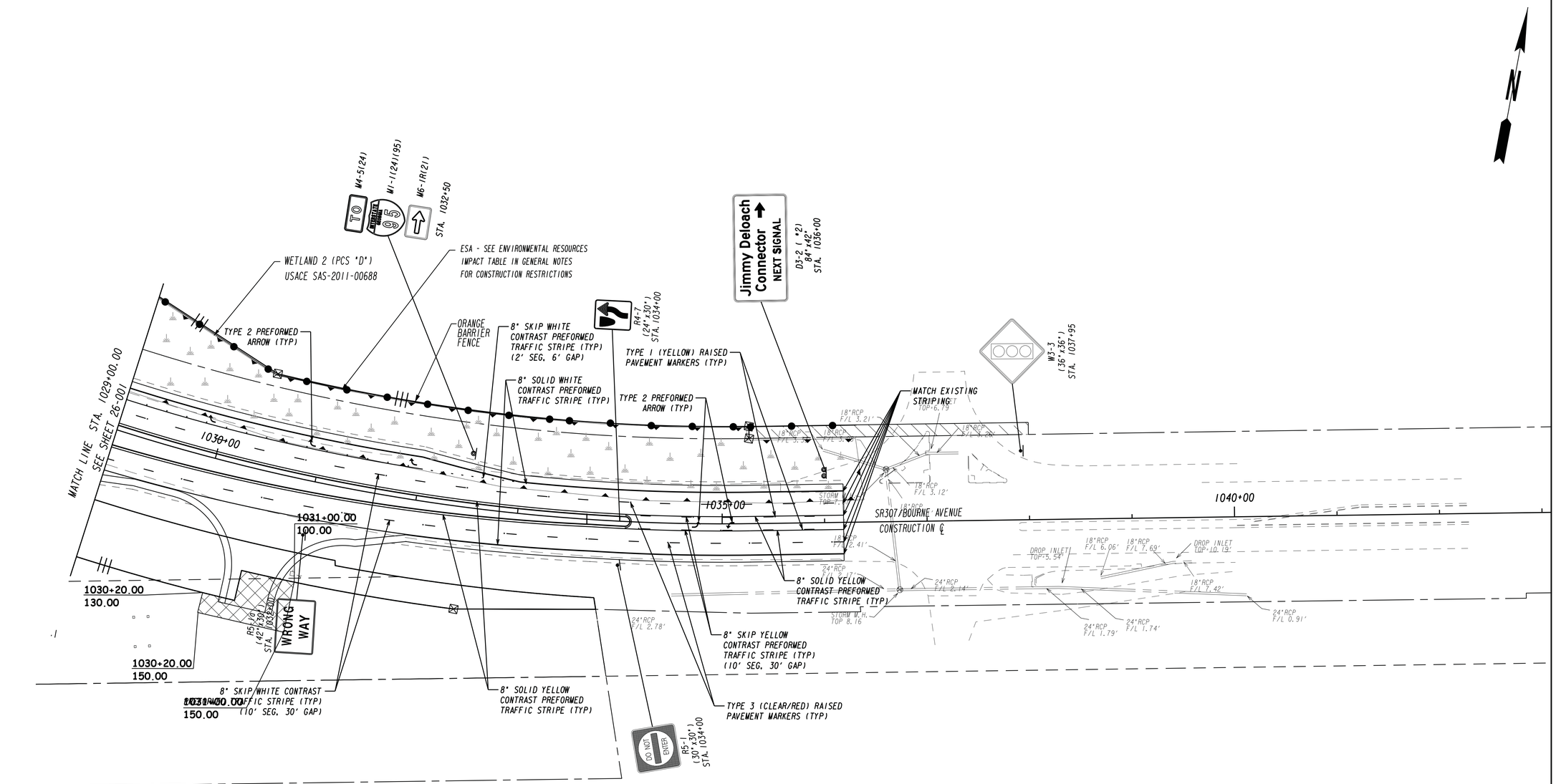
BEGIN CONSTRUCTION TO STA. 1021+00

DRAWING No. 26-014

3/1/2007 GPLN

23-JUL-2013 15:15	3:15:56 PM	0008690_26-015	Y:\Roadways\126379\0008690\Dgn\0008690_26-015.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	436	730

RELEASED FOR CONSTRUCTION - 07-23-13



PROPERTY AND EXISTING R/W LINE	℄
REQUIRED R/W LINE	
CONSTRUCTION LIMITS	— C — F —
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES	
EASEMENT FOR CONSTR OF SLOPES	
EASEMENT FOR CONSTR OF DRIVES	

BEGIN LIMIT OF ACCESS	BLA
END LIMIT OF ACCESS	ELA
LIMIT OF ACCESS	
REQ'D R/W & LIMIT OF ACCESS	

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SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

SIGNING AND MARKING PLANS

STA. 1029+00 TO
END CONSTRUCTION

DRAWING No. 26-015

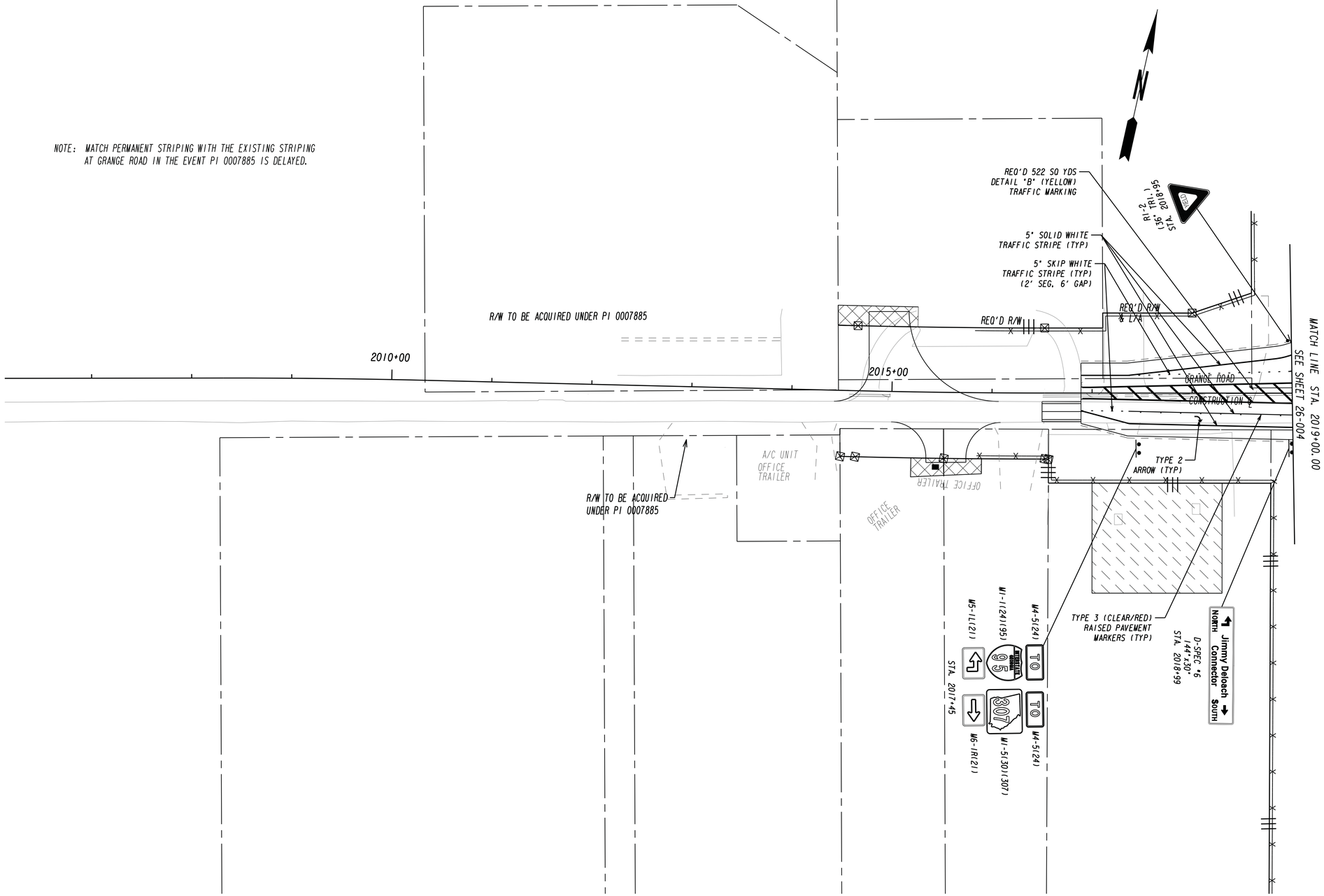
3/11/2007 GPLN

23-JUL-2013 15:16 3:16:02 PM
JParks
0008690_26-016
GDOT_11x17.pen
Y:\Roadways\126379\0008690\Dgn\0008690_26-016.dgn

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	437	730

RELEASED FOR CONSTRUCTION - 07-23-13

NOTE: MATCH PERMANENT STRIPING WITH THE EXISTING STRIPING AT GRANGE ROAD IN THE EVENT PI 0007885 IS DELAYED.



PROPERTY AND EXISTING R/W LINE	℄
REQUIRED R/W LINE	
CONSTRUCTION LIMITS	C
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES	F
EASEMENT FOR CONSTR OF SLOPES	
EASEMENT FOR CONSTR OF DRIVES	

BEGIN LIMIT OF ACCESS	BLA
END LIMIT OF ACCESS	ELA
LIMIT OF ACCESS	
REQ'D R/W & LIMIT OF ACCESS	

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SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

SIGNING AND MARKING PLANS

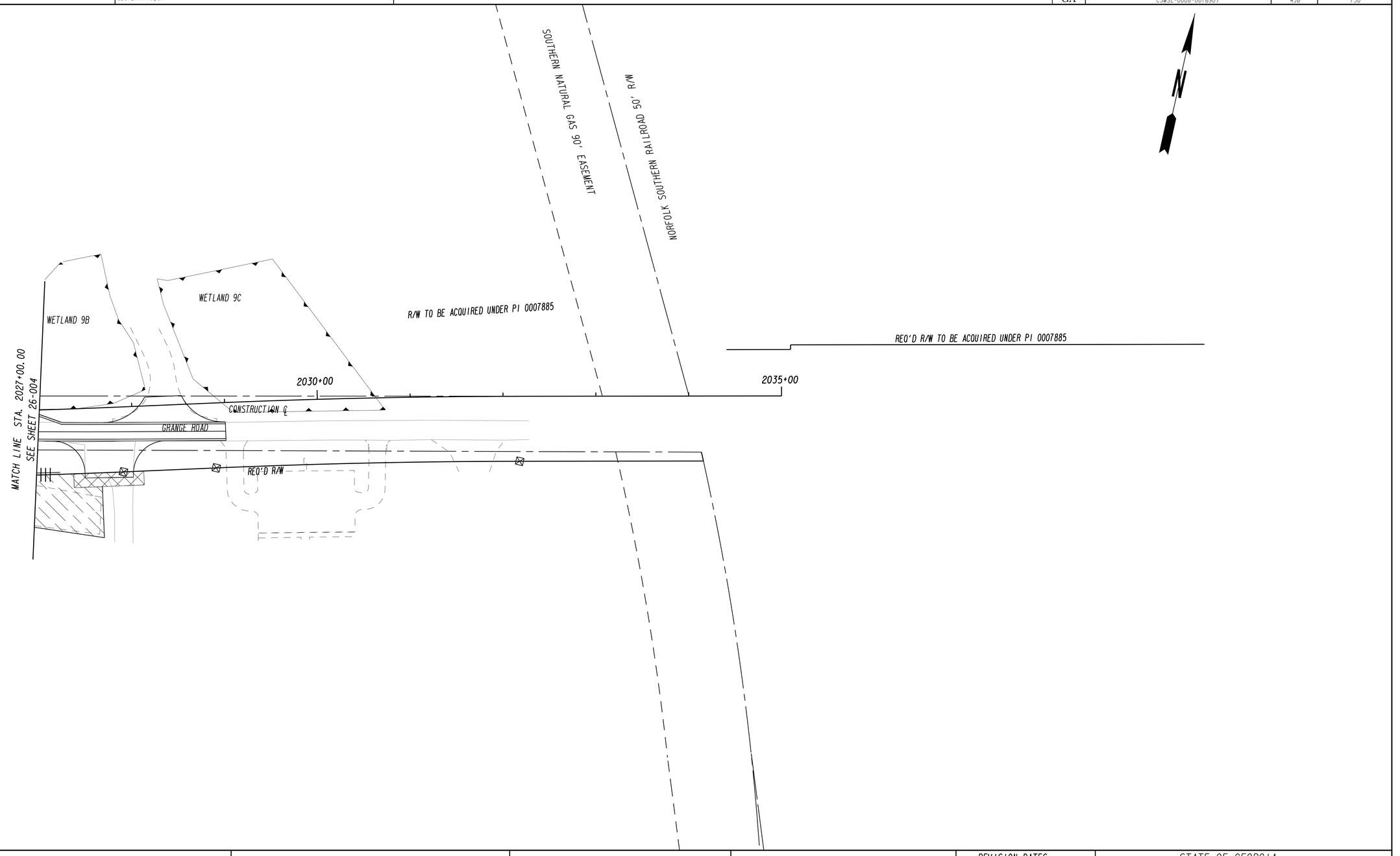
BEGIN CONSTRUCTION TO STA. 2009+00

DRAWING No. 26-016

3/1/2007 GPLN

23-JUL-2013 15:16	3:16:08 PM	0008690_26-017	Y:\Roadways\126379\0008690\Dgn\0008690_26-017.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	438	730

RELEASED FOR CONSTRUCTION - 07-23-13



PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

BEGIN LIMIT OF ACCESS.....BLA
END LIMIT OF ACCESS.....ELA
LIMIT OF ACCESS
REQ'D R/W & LIMIT OF ACCESS

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SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

SIGNING AND MARKING PLANS

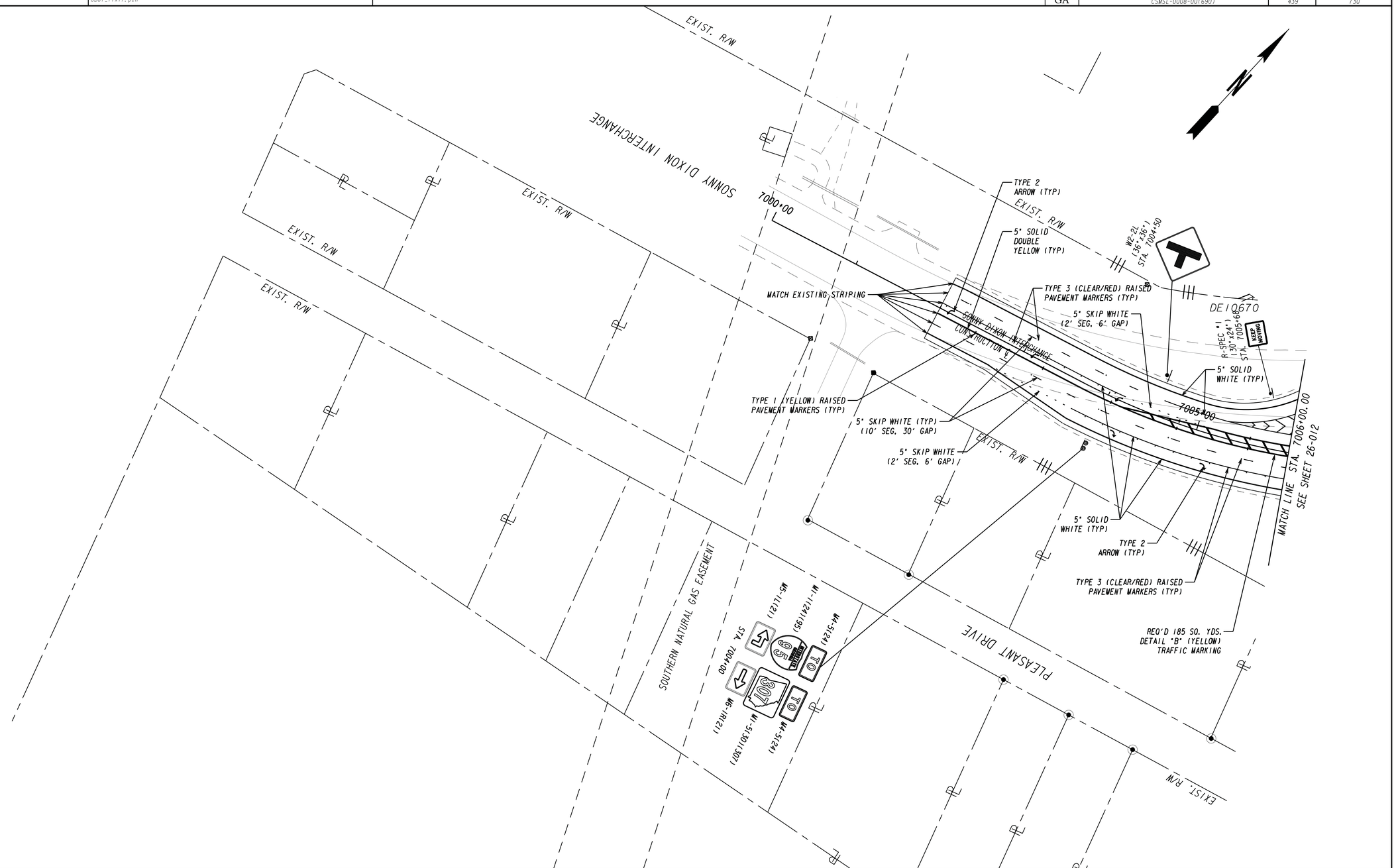
STA. 2017+00 TO
END CONSTRUCTION

DRAWING No. 26-017

3/1/2007 GPLN

23-JUL-2013 15:16	3:16:14 PM	0008690_26-018	Y:\Roadways\126379\0008690\Dgn\0008690_26-018.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	439	730

RELEASED FOR CONSTRUCTION - 07-23-13



PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

BEGIN LIMIT OF ACCESS.....BLA
END LIMIT OF ACCESS.....ELA
LIMIT OF ACCESS
REQ'D R/W & LIMIT OF ACCESS

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
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NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

SIGNING AND MARKING PLANS

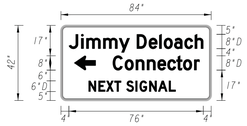
BEGIN CONSTRUCTION TO STA. 7006+00

DRAWING No. 26-018

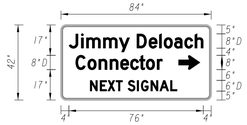
3/11/2007 GPLN

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	440	730

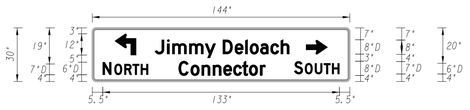
RELEASED FOR CONSTRUCTION - 07-23-13



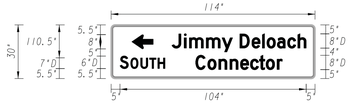
D3-2 (*1)
STA. 1020+00
3" Radius, 1.125" Border, White on Green;
[Jimmy] D; [Deloach] D;
Standard Arrow 12" x 8" 180°; [Connector] D;
[NEXT SIGNAL] D



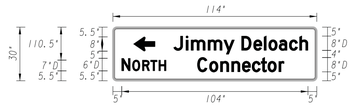
D3-2 (*2)
STA. 1036+00
3" Radius, 1.125" Border, White on Green;
[Jimmy] D; [Deloach] D;
[Connector] D; Standard Arrow 12" x 8" 0°;
[NEXT SIGNAL] D



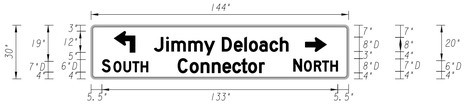
D3-1 (*1)
STA. 2018+90
3" Radius, 1.125" Border, White on Green;
Left Arrow 12" x 12"; [Jimmy] D; [Deloach] D; Standard Arrow 12" x 8" 0°;
[NORTH] D; [Connector] D; [SOUTH]



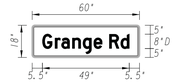
D3-1 (*2)
STA. 2020+30
3" Radius, 1.125" Border, White on Green;
Standard Arrow 12" x 8" 180°; [Jimmy] D; [Deloach] D;
[SOUTH] D; [Connector] D



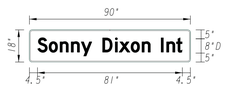
D3-1 (*3)
STA. 2022+71
3" Radius, 1.125" Border, White on Green;
Standard Arrow 12" x 8" 180°; [Jimmy] D; [Deloach] D;
[NORTH] D; [Connector] D



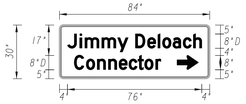
D3-1 (*4)
STA. 2024+02
3" Radius, 1.125" Border, White on Green;
Left Arrow 12" x 12"; [Jimmy] D; [Deloach] D; Standard Arrow 12" x 8" 0°;
[SOUTH] D; [Connector] D; [NORTH]



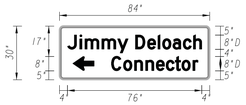
D3-1 (*5)
STA. 2116+23 & STA. 2310+71
3" Radius, 1.125" Border, White on Green;
[Grange] D; [Rd] D



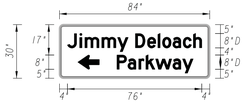
D3-1 (*6)
STA. 5110+20 & STA. 6102+88
3" Radius, 1.125" Border, White on Green;
[Sonny] D; [Dixon] D; [Int] D



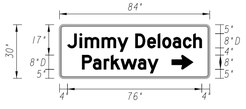
D3-1 (*7)
STA. 7006+10
3" Radius, 1.125" Border, White on Green;
[Jimmy] D; [Deloach] D;
[Connector] D; Standard Arrow 12" x 8" 180°



D3-1 (*8)
STA. 7008+20
3" Radius, 1.125" Border, White on Green;
[Jimmy] D; [Deloach] D;
Standard Arrow 12" x 8" 0°; [Connector] D



D3-1 (*9)
STA. 7012+75
3" Radius, 1.125" Border, White on Green;
[Jimmy] D; [Deloach] D;
Standard Arrow 12" x 8" 180°; [Parkway] D



D3-1 (*10)
STA. 7013+90
3" Radius, 1.125" Border, White on Green;
[Jimmy] D; [Deloach] D;
[Parkway] D; Standard Arrow 12" x 8" 180°

THE LPA GROUP
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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

SIGNING AND MARKING PLANS

SIGN DETAILS

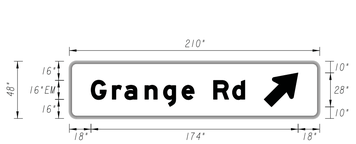
DRAWING No. 26-019

3/1/2007 GPLN

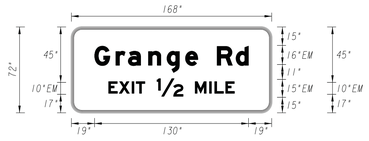
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	441	730

RELEASED FOR CONSTRUCTION - 07-23-13

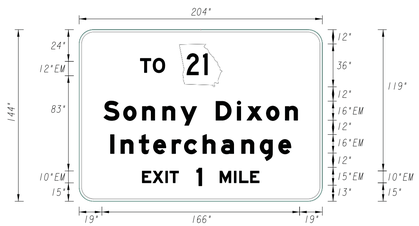
Template 46 (*1)
STA. 160+05
9" Radius, 2" Border, White on Green;
[Grange] EM; [Rd] EM;
[EXIT] EM; [1/4] EM; [MILE] EM



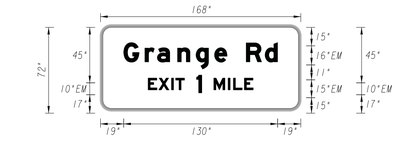
Template 51 (*1)
STA. 168+40 & STA. 207+50
6" Radius, 1" Border, White on Green;
[Grange] EM; [Rd] EM; Standard Arrow 36" x 24" 45°



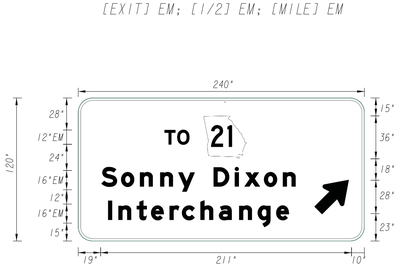
Template 46 (*2)
STA. 226+70
9" Radius, 2" Border, White on Green;
[Grange] EM; [Rd] EM;
[EXIT] EM; [1/2] EM; [MILE] EM



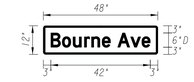
Template 49 (*1)
STA. 236+10
12" Radius, 2" Border, White on Green;
[TO] EM;
[Sonny] EM; [Dixon] EM;
[Interchange] EM;
[EXIT] EM; [1] EM; [MILE] EM



Template 46 (*3)
STA. 253+10
9" Radius, 2" Border, White on Green;
[Grange] EM; [Rd] EM;
[EXIT] EM; [1] EM; [MILE] EM

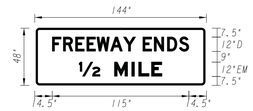


Template 52 (*1)
STA. 286+60 & STA. 311+65
12" Radius, 2" Border, White on Green;
[TO] EM;
[Sonny] EM; [Dixon] EM;
Standard Arrow 36" x 24" 45°
[Interchange] EM



W16-8 (*1)
STA. 153+60
3" Radius, 1" Border, Black on Yellow;
[Bourne] D; [Ave] D

Warning Special (*1)
STA. 163+00
6" Radius, 1" Border, Black on Yellow;
[FREEWAY] D; [ENDS] D;
[SIGNAL] D; [AHEAD]



W19-1 (*1)
STA. 177+00
6" Radius, 1" Border, Black on Yellow;
[FREEWAY] D; [ENDS] D;
[1/2] D; [MILE]

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

SIGNING AND MARKING PLANS

SIGN DETAILS

DRAWING No. 26-020

3/1/2007 GPLN

RELEASED FOR CONSTRUCTION - 07-23-13

SIGNAL NOTES

1. THE COMPLETE SIGNAL INSTALLATION SHALL CONFORM TO ALL APPROPRIATE PARTS OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, CURRENT EDITION.

2. THE CONTRACTOR SHALL LOCATE UNDERGROUND UTILITIES IN THE VICINITY OF NEW TRAFFIC SIGNAL POLES BEFORE INSTALLATION. AT THE DISCRETION OF THE ENGINEER, MINOR SHIFTS, (UP TO A MAXIMUM OF 5 FEET), IN LOCATION OF NEW SIGNAL POLES, ARE ACCEPTABLE TO AVIOD UNDERGROUND UTILITIES. MINIMUM CLEARANCES FROM EDGE OF PAVEMENT SHALL BE MAINTAINED. PLACEMENT OF SIGNAL HEADS SHALL BE RETAINED AS SHOWN ON THE PLANS.

3. THE CONTRACTOR SHALL MAINTAIN EXISTING TRAFFIC SIGNALS FROM NOTICE TO PROCEED UNTIL FINAL ACCEPTANCE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAFFIC SIGNALS AND/OR CONTROL SYSTEM ADJUSTMENTS, INCLUDING TEMPORARY SUPPORT POLE LOCATIONS REQUIRED BY THE PROJECT DURING THE INTERIM THROUGH INSTALLATION OF NEW SIGNAL EQUIPMENT. AT NO TIME SHALL THE CONTRACTOR CAUSE ANY PART OF THE SIGNAL OPERATION TO BE INOPERABLE.

4. THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL NEW GUYS ON EXISTING UTILITY TIMBER POLES WHEN ATTACHING SPAN WIRE OR LOOP LEAD-IN CABLE TO THE POLES UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

5. INSTALLATION IS TO BE CHECKED AND ACCEPTED BY THE DISTRICT TRAFFIC ENGINEER PRIOR TO FINAL ACCEPTANCE.

6. WHEN REMOVED, EXISTING EQUIPMENT SHALL BE DELIVERED AND UNLOADED BY THE CONTRACTOR TO THE DEPARTMENT OF TRANSPORTATION OFFICE DISTRICT SIGNAL SHOP. THE CONTRACTOR IS TO CONTACT THE DISTRICT SIGNAL ENGINEER TO SCHEDULE DELIVERY OF EXISTING TRAFFIC SIGNAL EQUIPMENT (912) 427-5703.

7. FOR STRAIN POLE FOUNDATION SIZE AND REINFORCEMENT, SEE STRAIN POLE AND MAST ARM POLE FOUNDATION SHEET.

8. MATERIAL CERTIFICATION IS REQUIRED PRIOR TO BEGINNING ANY SIGNAL INSTALLATION WORK. THE CONTRACTOR SHALL FOLLOW PROCEDURES OUTLINED IN THE DOT SPECIFICATIONS.

9. PROPOSED SIGNAL SUPPORT WIRE ATTACHMENT HEIGHTS ON POLE ARE PROVIDED AS A GENERAL GUIDELINE TO INSTALLER. ACTUAL ATTACHMENT HEIGHTS SHALL BE FIELD DETERMINED BY INSTALLER TO PROVIDE REQUIRED SIGNAL HEAD MOUNTING HEIGHTS AND CLEARANCE FROM EXISTING UTILITIES.

10. SAWCUTS AND REMOVAL OF ALL CONCRETE ASSOCIATED WITH CURB CUT RAMPS SHALL BE INCLUDED IN CONSTRUCTION COMPLETE.

11. THE CONTRACTOR SHALL REPLACE IN KIND AND SIZE, AT NO SEPARATE EXPENSE TO THE DEPARTMENT, ANY BARRIER WALL, FENCE, DITCH PAVING, CURBING, SIDEWALK, GUTTER, SLOPE PAVEMENT, SIGNS, GUARDRAILS. LANDSCAPING, GRASSING, UTILITY SERVICE LINES, STORM DRAIN PIPES, MASONRY WALLS AND PAVING THAT IS REMOVED, DAMAGED OR DESTROYED.

12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL PERTINENT EROSION CONTROL. THESE MEASURES SHALL BE IMPLEMENTED AND MAINTAINED FOR THE DURATION OF THE WORK.

13. LOOP HOME RUNS, DO NOT USE LOOP SEALANT IN SIDEWALKS OR CURB AND GUTTER LOCATIONS, INSTALL A CONTINUOUS RUN OF SOFTROD/BACKER ROD.

14. TYPE III (ENCAPSULATED LENS) REFLETIVE SHEETING SHALL BE USED FOR ALL STANDARD HIGHWAY SIGNS REQUIRING REFLECTORIZED BACKGROUNDS EXCEPT AS SPECIFIED BELOW OR SPECIFIED OTHERWISE IN THE PLANS. EITHER CLASS I OR CLASS 2 ADHESIVE BACKING IS PERMISSIBLE.

15. TYPE VI (WIDE ANGLE PRISMATIC) REFLETIVE SHEETING SHALL BE USED FOR ALL RED SERIES SIGNS (RI-I, RI-2, RI-3A, RI-4A, R5-I), WARNING SIGNS AND OVERHEAD SIGNS.

TRAFFIC SIGNAL LEGEND

PROPOSED SIGNAL

- CONTROLLER CABINET
- STRAIN POLE
- TIMBER POLE
- DOWN GUY
- MAST ARM
- STREET LIGHT
- 3 SECTION HEAD
- 3 SECTION HEAD W/ BACKPLATE
- 5 SECTION HEAD
- 5 SECTION HEAD W/ BACKPLATE
- OVERHEAD SIGN
- PEDESTAL POLE
- PED SIGNAL HEAD
- CURB CUT RAMP
- PULLBOX,TP 1
- PULLBOX,TP 2
- PULLBOX,TP 3
- PULLBOX,TP 4
- PULLBOX,TP 5
- 6x6 PULSE LOOP
- 6x18 CALL LOOP
- 6x40 PRESENCE LOOP (DIPOLE)
- 6x40 PRESENCE LOOP (QUADRUPOLE)
- CONDUIT
- RAILROAD CONTROLLER
- SIGN POST

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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

SIGNAL PLANS

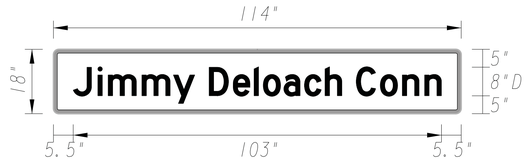
SR 307 (BOURNE AVE) AT
JIMMY DELOACH CONNECTOR

DRAWING No. 27-01

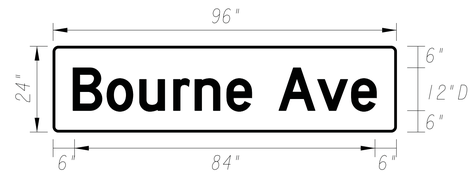
3/1/2007 GPLN

RELEASED FOR CONSTRUCTION - 07-23-13

DETAILS OF OVERHEAD STREET NAME SIGNS



D-Spec #1

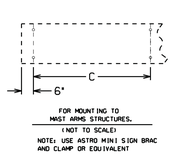


D-Spec #2

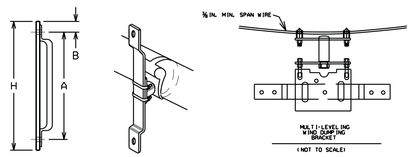
GENERAL NOTES:

1. EACH SIGN SHALL CONTAIN A MINIMUM OF TWO (2) HANGERS OR BRACKETS.
2. FOR SIGNS THAT ARE 72" IN LENGTH OR GREATER, THREE (3) HANGERS OR BRACKETS SHALL BE USED.
3. SIGN LEGEND SHALL BE SERIES "D" LETTERS, ALL ARROWS SHALL BE 6" TALL & 9" LONG.
4. EACH SIGN SHALL CONTAIN 0.5" BORDERS AND 1.5" RADII.
5. EACH SIGN SHALL BE MADE OF ONE CONTINUOUS PIECE OF ALUMINUM.
6. SIGNS SHALL HAVE STANDARD REFLECTORIZED INTERSTATE GREEN BACKGROUND WITH WHITE REFLECTORIZED LEGENDS, BORDERS AND ARROWS.

MOUNTING DIMENSIONS			
H	A	B	C
12"	9"	1½"	36"
18"	15"	1½"	24"
24"	18"	1½"	18"
30"	24"	3"	12"



FOR MOUNTING TO MAST ARMS STRUCTURES.
(NOT TO SCALE)
NOTE: USE ASTRO MINI SIGN BRAC AND CLAMP OR EQUIVALENT



MULTI-LEVELING WING CLAMPING BRACKET
(NOT TO SCALE)

SUMMARY OF QUANTITIES FOR OVERHEAD STREET NAME SIGNS

SIGNS - TYPE 2 MAT'L, REFL SHEETING TYPE 9

LOCATION	CODE	SIZE	QUANTITY	SQUARE FEET
SR 307 (BOURNE AVE) AT	D-SPEC #1	114"x18"	2	28.50
JIMMY DELOACH CONNECTOR	D-SPEC #2	96"x24"	1	16.00
TOTAL			3	44.50

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STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

SIGNAL PLANS

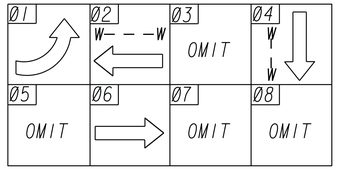
SR 307 (BOURNE AVE) AT
JIMMY DELOACH CONNECTOR

DRAWING No. 27-02

3/1/2007 GPLN

RELEASED FOR CONSTRUCTION - 07-23-13

PHASING DIAGRAM



PEDESTRIAN SIGNS

R1Ø-3E(L)
9" X 15"

R1Ø-3E(R)
9" X 15"

R9-3bPL
12" X 18"

R9-3bPR
12" X 18"

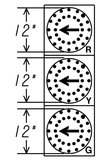
R9-3
18" X 18"

STREET NAME SIGNS

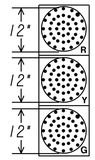
D-Spec #1

D-Spec #2

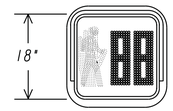
LED SIGNAL HEADS



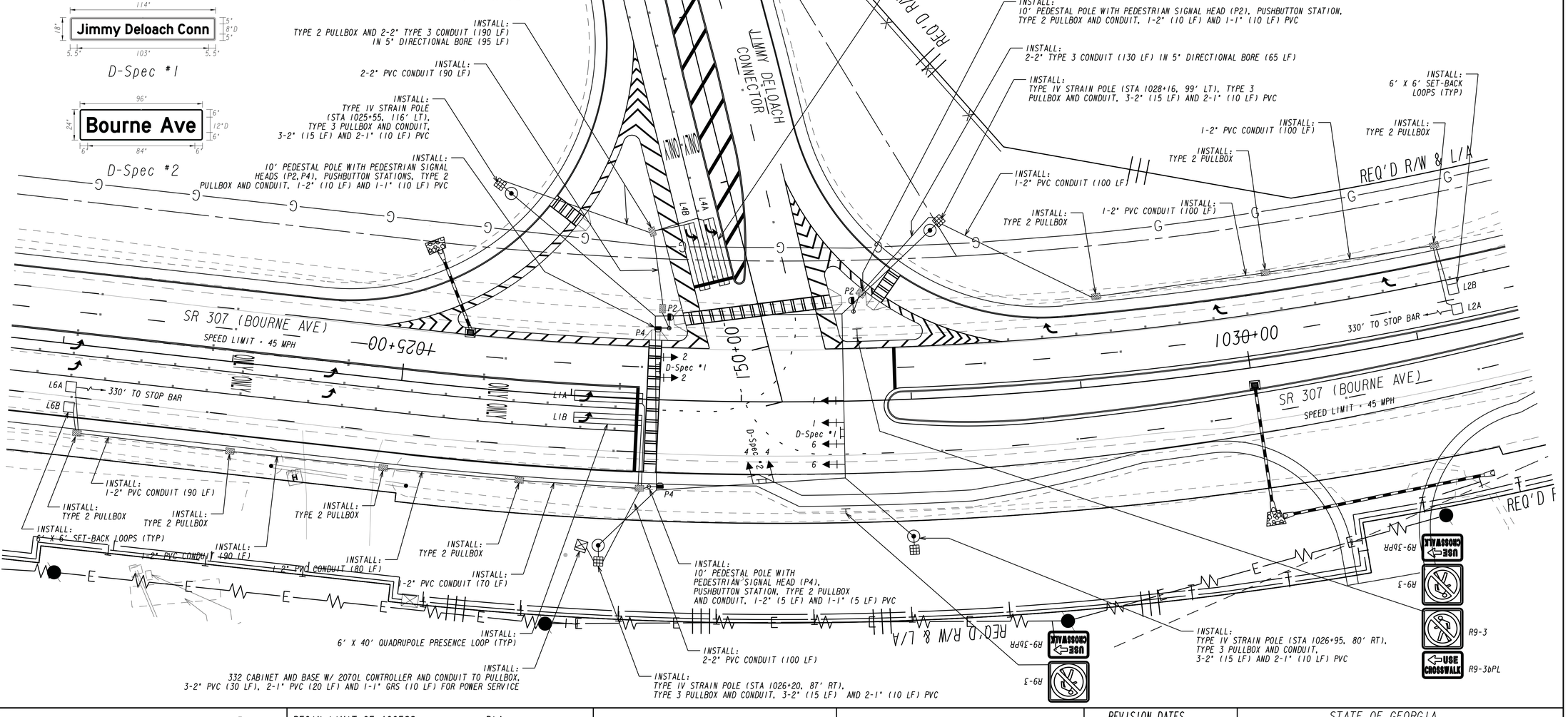
1, 4



2, 6



P2, P4



PROPERTY AND EXISTING R/W LINE	—℄—
REQUIRED R/W LINE	
CONSTRUCTION LIMITS	— C — F —
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES	
EASEMENT FOR CONSTR OF SLOPES	
EASEMENT FOR CONSTR OF DRIVES	

BEGIN LIMIT OF ACCESS	BLA
END LIMIT OF ACCESS	ELA
LIMIT OF ACCESS	
REQ'D R/W & LIMIT OF ACCESS	

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SCALE IN FEET
0 30 60 120

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

SIGNAL PLANS

SR 307 (BOURNE AVE) AT
JIMMY DELOACH CONNECTOR

DRAWING No. 27-03

3/1/2007 GPLN

RELEASED FOR CONSTRUCTION - 07-23-13

LIST OF MATERIALS

ITEM	UNIT	QUAN.
CONTROL CABINET ASSEMBLIES		
A. CONTROLLER UNIT, MODEL 2070L	EA	1
D. CABINET ASSEMBLY, MODEL 332	EA	1
E. SWITCH PACK	EA	6
F. DC ISOLATOR	EA	2
G. LOOP DETECTOR, 2 CHANNEL	EA	4
J. CONFLICT MONITOR W/ EXTENDED FEATURES	EA	1
K. BATTERY BACKUP SYSTEM 1. EXTERNAL MOUNTED (PER GDOT SPECS)	EA	1
PC 642-200 (OR EQUIVALENT), SURGE PROTECTOR	EA	1
LOOP/PED LEAD-IN WIRE (SHIELDED, TWISTED(1000 FT) A. 3 PAIR, 18AWG	REEL	3
SIGNAL CABLE (14 AWG) B. 7 CONDUCTOR PER 1000 FT.	REEL	2
LOOP DETECTION WIRE (14 AWG, STRANDED/1000FT)	REEL	3
ONE WAY, 3 SECTION, 12" LED SIGNAL HEAD	EA	8
18" LED (5mm) COUNTDOWN PEDESTRIAN SIGNAL HEAD, HAND/MAN OVERLAP	EA	4
PEDESTRIAN PUSH BUTTON AND SIGN	EA	4
BACK PLATE FOR ONE-WAY, 3-SECTION, 12" SIGNAL HEAD	EA	8
HARDWARE FOR SPANWIRE ERECTION	EA	8
HARDWARE FOR PEDESTAL ERECTION, 18" PEDESTRIAN SIGNAL HEADS, ONE-WAY MOUNTING	EA	2
HARDWARE FOR PEDESTAL ERECTION, 18" PEDESTRIAN SIGNAL HEADS, TWO-WAY MOUNTING	EA	1
PULL BOX, TP 2	EA	11
PULL BOX, TP 3	EA	4
PEDESTAL POLE 10'	EA	3
LOOP SAW CUT	LF	875
CONDUIT, 1", GRS	LF	10
CONDUIT, 1", PVC	LF	85
CONDUIT, 2", PVC	LF	835
R9-3, NO PEDESTRIAN CROSSING SYMBOL SIGN	EA	3
R9-3bPL, USE CROSSWALK SIGN	EA	1
R9-3bPR, USE CROSSWALK SIGN	EA	2
MISC MATL TO COMPLETE INSTALLATION	LS	1

PAY ITEMS

PAY ITEM	DESCRIPTION	UNIT	QUAN.
615-1200	DIRECTIONAL BORE, 5 IN	LF	160
636-1041	HIGHWAY SIGNS, TP 2 MATL, REFL SHEETING, TP 9	SF	45
639-4004	STRAIN POLE, TP IV	EA	4
647-1000	TRAFFIC SIGNAL INSTALLATION NO. 1	LS	1
682-6233	CONDUIT, NONMETAL, TYPE 3, 2 IN	LF	320

332 CABINET INPUT ASSIGNMENT

UPPER INPUT FILE

	TYPE	DET	DET	DET	DET	DET	DET	DET	DET	DET	TBA	TBA	DC	DC	DC
	CARD		2-CH				2-CH						DC ISO		DC ISO
CHANNEL 1	C1 PIN	56	39	63	47	58	41	65	49	60		80	67	68	81
	FUNCTION		L2A				L4A					ADVANCE	ø2 PED		FLASH
	FIELD TERM	TB2 1,2	TB2 5,6	TB2 9,10	TB4 1,2	TB4 5,6	TB4 9,10	TB6 1,2	TB6 5,6	TB6 9,10			TB8 4,6	TB8 7,9	N/C
ACTRA/Sepac	Detector	1	3	5	7	9	11	13	15	17			PED 2	PED 6	
ACTRA/Sepac	Assigned ø	ø1	ø2	ø2	ø2	ø3	ø4	ø4	ø4	ø1			ø2	ø6	

CHANNEL 2	C1 PIN	56	43	76	47	58	45	78	49	62		53	69	70	82
	FUNCTION		L2B				L4B					ENABLE	ø4 PED		STOP TIME
	FIELD TERM	TB2 3,4	TB2 7,8	TB2 11,12	TB4 3,4	TB4 7,8	TB4 11,12	TB6 3,4	TB6 7,8	TB6 11,12			TB8 5,6	TB8 8,9	N/C
ACTRA/Sepac	Detector	1	4	6	7	9	12	14	15	18			PED 4	PED 8	
ACTRA/Sepac	Assigned ø	ø1	ø2	ø2	ø2	ø3	ø4	ø4	ø4	ø3			ø4	ø8	

LOWER INPUT FILE

	TYPE	DET	DET	DET	DET	DET	DET	DET	DET	DET	TBA	TBA	DC	DC	DC
	CARD	2-CH	2-CH												
CHANNEL 1	C1 PIN	55	40	64	48	57	42	66	50	59		54	71	72	51
	FUNCTION	L1A	L6A												
	FIELD TERM	TB3 1,2	TB3 5,6	TB3 9,10	TB5 1,2	TB5 5,6	TB5 9,10	TB7 1,2	TB7 5,6	TB7 9,10			TB9 4,6	TB9 7,9	TB9 10,12
ACTRA/Sepac	Detector	19	21	23	25	29	31	33	35	37					
ACTRA/Sepac	Assigned ø	ø5	ø6	ø6	ø6	ø7	ø8	ø8	ø8	ø5					

CHANNEL 2	C1 PIN	55	44	77	48	57	46	79	50	61		75	73	74	52
	FUNCTION	L1B	L6B												
	FIELD TERM	TB3 3,4	TB3 7,8	TB3 11,12	TB5 3,4	TB5 7,8	TB5 11,12	TB7 3,4	TB7 7,8	TB7 11,12			TB9 5,6	TB9 8,9	TB9 11,12
ACTRA/Sepac	Detector	19	22	24	25	29	32	34	35	38					
ACTRA/Sepac	Assigned ø	ø5	ø6	ø6	ø6	ø7	ø8	ø8	ø8	ø7					

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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

SIGNAL PLANS

SR 307 (BOURNE AVE) AT
JIMMY DELOACH CONNECTOR

DRAWING No. 27-04

3/1/2007 GPLN

23-JUL-2013 15:17	3:17:02 PM	0008690_29-001	Y:\Roadways\126379\0008690\Dgn\0008690_29-001.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	446	730

RELEASED FOR CONSTRUCTION - 07-23-13

ESA - SEE ENVIRONMENTAL RESOURCES IMPACT TABLE IN GENERAL NOTES FOR CONSTRUCTION RESTRICTIONS

NOTE:
1. SEE DRAWING 38-01 AND 38-02 FOR ADDITIONAL DETAILS FOR WET ENHANCED SWALES

WET ENHANCED SWALE

WETLAND 17

SEE DRAWING NO. 38-002 FOR SPACING AND SPECIES TYPE

PT 6211+72.35

WET ENHANCED SWALE

REQ'D R/W & L/A

WETLAND 21

ORANGE BARRIER FENCE

JAMES M. & AMANDA

PC 283+87.80

R/W & L/A

STREAM 18

CURVE 21A

WETLAND 21B

6210+00

285+00

WETLAND 18

5100+00

280+00 N 11°16'15.5" W JIMMY DELOACH CONNECTOR

CURVE 15

STREAM 20

CONSTRUCTION ℄

REQ'D R/W & L/A

WET ENHANCED SWALE

REQ'D R/W & L/A

ORANGE BARRIER FENCE

WET ENHANCED SWALE (TYP)

WET ENHANCED SWALE

DESIGN SPEED: 55 MPH

PROPERTY AND EXISTING R/W LINE	BEGIN LIMIT OF ACCESS.....BLA
REQUIRED R/W LINE	END LIMIT OF ACCESS.....ELA
CONSTRUCTION LIMITS	LIMIT OF ACCESS
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES	REQ'D R/W & LIMIT OF ACCESS
EASEMENT FOR CONSTR OF SLOPES	
EASEMENT FOR CONSTR OF DRIVES	

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SCALE IN FEET
0 30 60 120

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

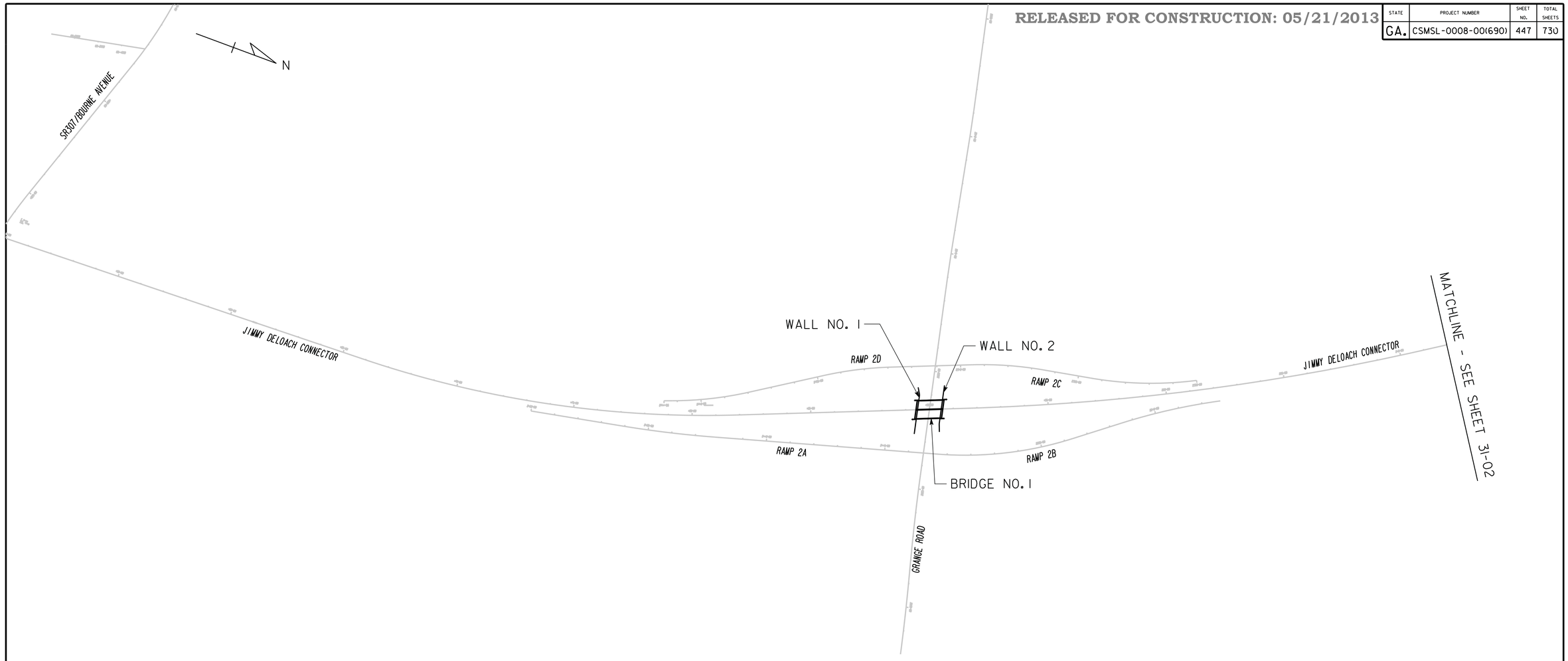
LANDSCAPING PLAN

DRAWING No. 29-001

3/11/2007 GPLN

RELEASED FOR CONSTRUCTION: 05/21/2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	447	730



P.I. NO. 0008690

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3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

STRUCTURE LOCATIONS
JIMMY DELOACH CONNECTOR
CHATHAM COUNTY CSMSL-0008-00(690)

5.21.13
GEORGIA REGISTERED NO. 24732 PROFESSIONAL ENGINEER ALBERT W. BOWMAN

DRAWING NO. 31-01
WALL SHEET 1 OF 3

SCALE: 1" = 200'-0" JULY 2013

DESIGNED	BSB	CHECKED	ANZ	REVIEWED	WMD/DLC
DRAWN	BSB	DESIGN GROUP	AWB/SKG	APPROVED	BFR

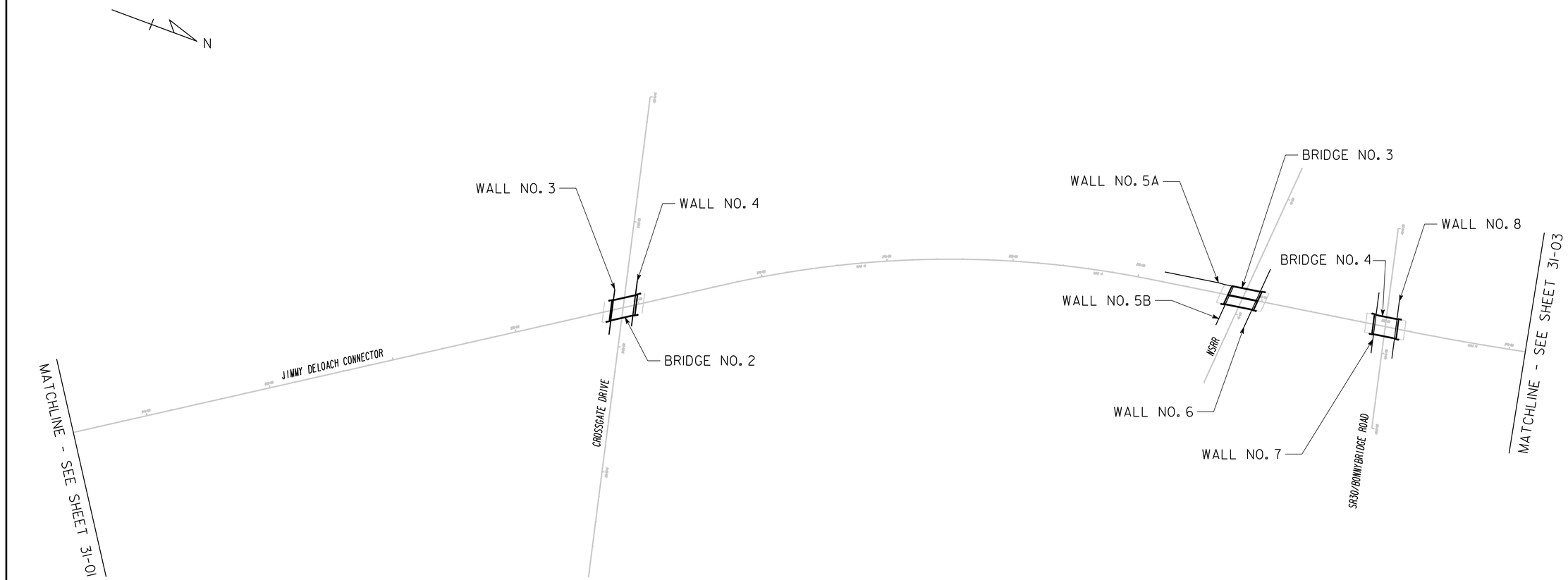
DATE | REVISIONS | BY

1 INCH WHEN PRINTED FULL SIZE

8/7/2013 11:01:13 AM R:\126379\Walls\v8\final\SL-01.dgn

RELEASED FOR CONSTRUCTION: 05/21/2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	449	730



THE LPA GROUP
A UNIT OF MICHAEL BAKER CORPORATION

THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

STRUCTURE LOCATIONS

JIMMY DELOACH CONNECTOR

CHATHAM COUNTY CSMSL-0008-00(690)

SCALE: 1" = 200'-0" JULY 2013

DESIGNED BSB | CHECKED ANZ | REVIEWED WMD/DLC
DRAWN BSB | DESIGN GROUP AWB/SKG | APPROVED BFR

REVISIONS | DATE | BY

DRAWING NO. 31-02

WALL SHEET 2 OF 3

1 INCH WHEN PRINTED FULL SIZE

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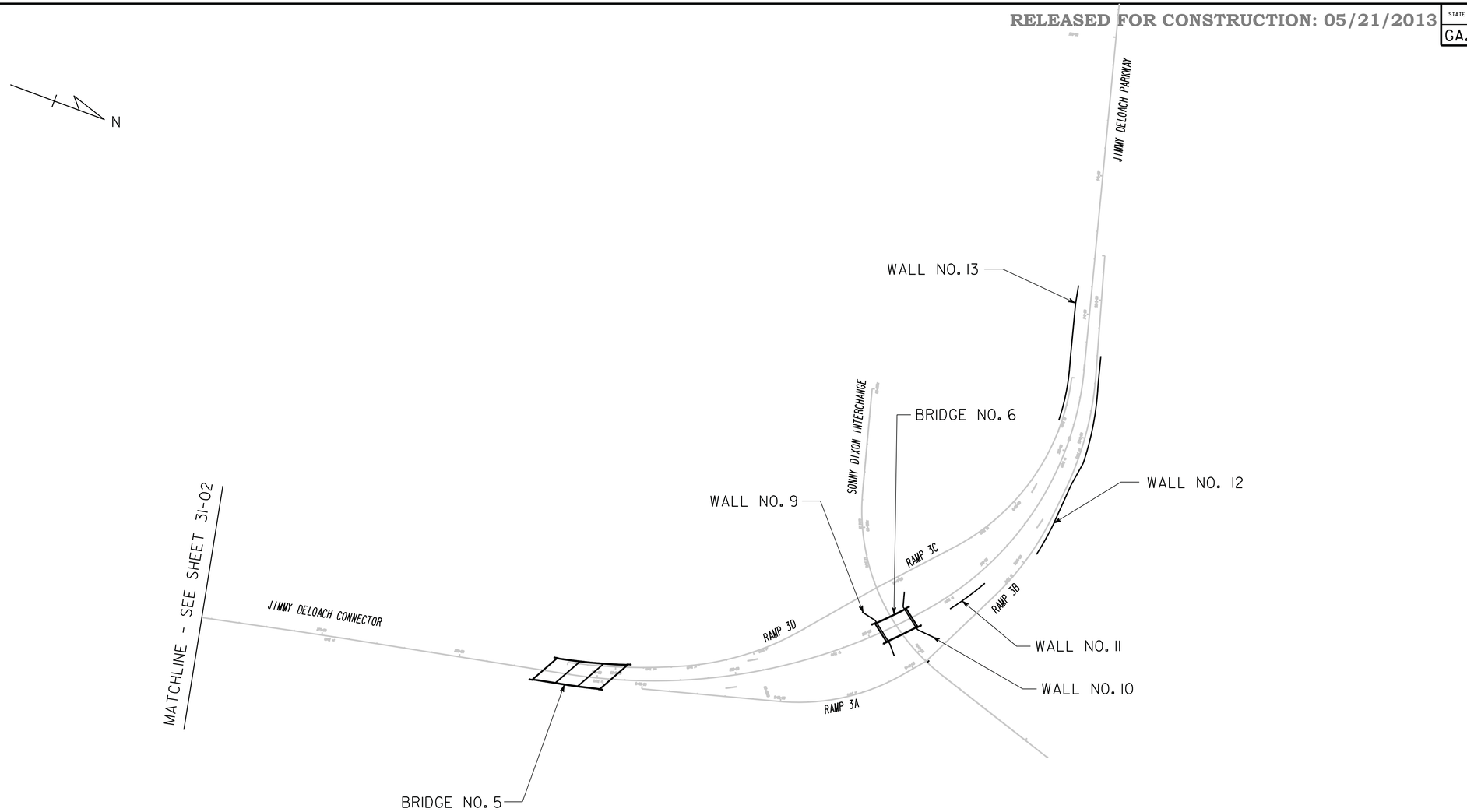
RELEASED FOR CONSTRUCTION: 05/21/2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	449	730



THE LPA GROUP
A UNIT OF GOSSELIN DICKEY CORPORATION

THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

STRUCTURE LOCATIONS
JIMMY DELOACH CONNECTOR
CHATHAM COUNTY CSMSL-0008-00(690)

REVISIONS | DATE | BY

DRAWING NO. 31-03

WALL SHEET 3 OF 3

SCALE: 1" = 200'-0" JULY 2013

DESIGNED BSB | DRAWN BSB | CHECKED ANZ | DESIGN GROUP AWB/SKG | REVIEWED WMD/DLC | APPROVED BFR

1 INCH WHEN PRINTED FULL SIZE

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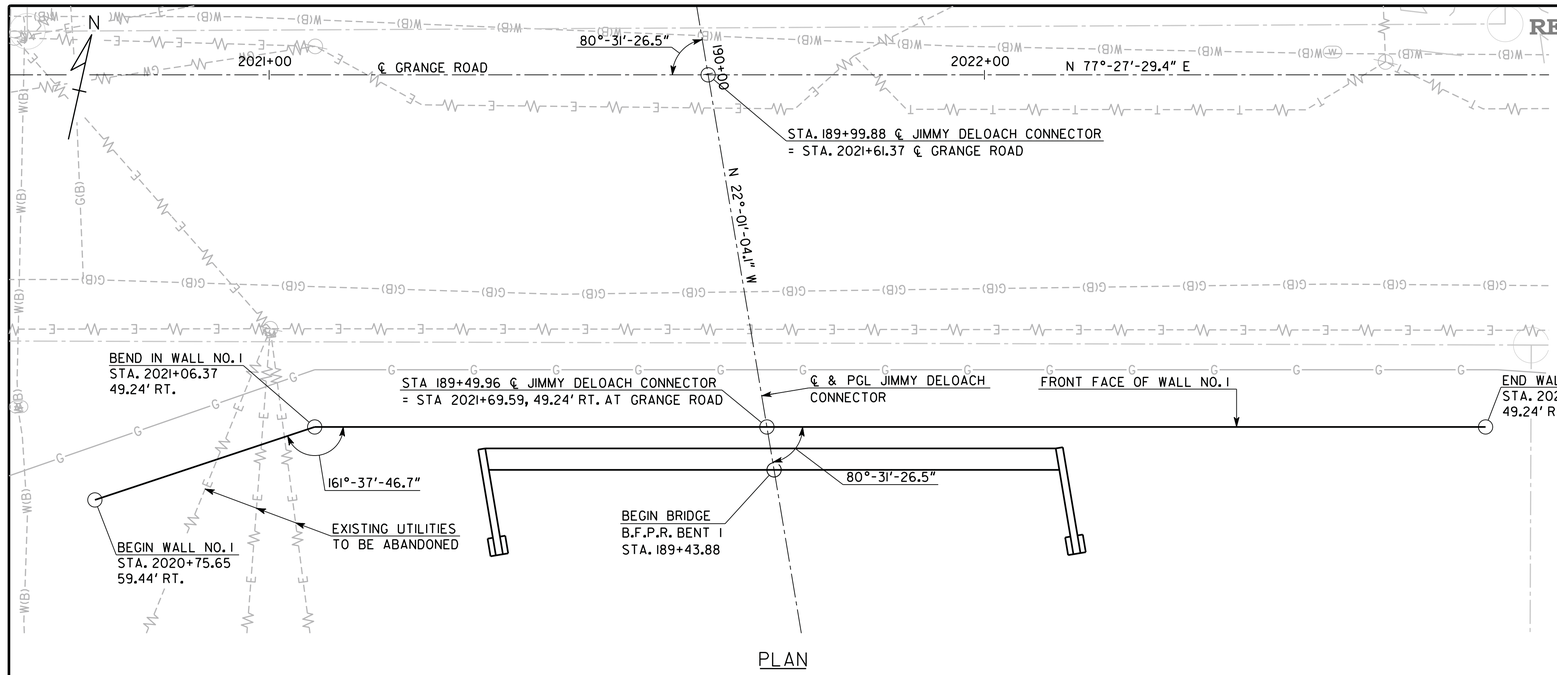
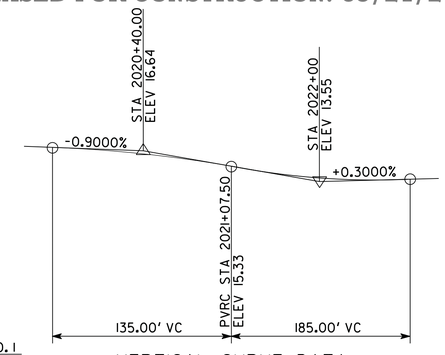
RELEASED FOR CONSTRUCTION: 05/21/2013

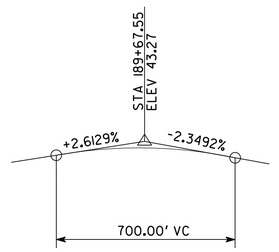
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	450	730



PLAN



VERTICAL CURVE DATA
GRANGE ROAD
NOT TO SCALE

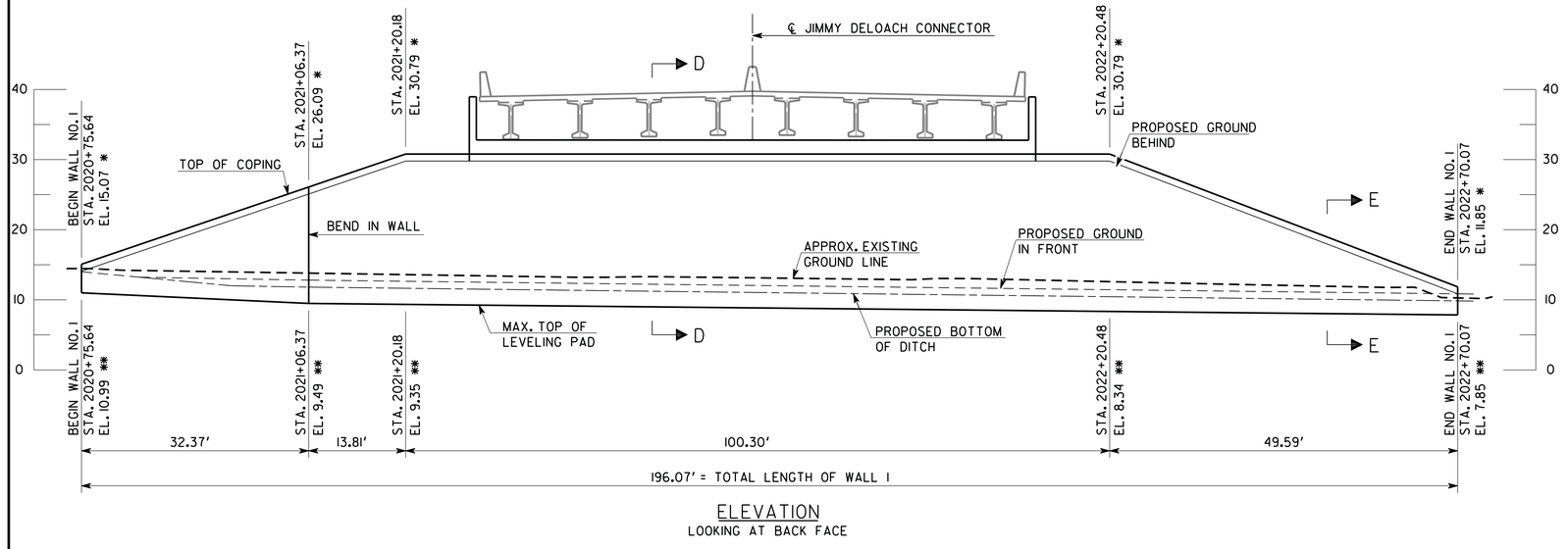


VERTICAL CURVE DATA
JIMMY DELOACH CONNECTOR
NOT TO SCALE

SUMMARY OF QUANTITIES

PAY ITEM NUMBER	QUANTITY	UNIT	PAY ITEM
627-1000	221	SF	MSE WALL FACE, 0 - 10 FT HT, WALL NO - 1
627-1010	888	SF	MSE WALL FACE, 10 - 20 FT HT, WALL NO - 1
627-1020	2187	SF	MSE WALL FACE, 20 - 30 FT HT, WALL NO - 1
627-1100	202	LF	COPING A, WALL NO - 1

THIS IS A DESIGN BUILD PROJECT AND QUANTITIES ARE PROVIDED FOR INFORMATION ONLY.



ELEVATION
LOOKING AT BACK FACE

NOTES:
1. STATIONS AND OFFSETS ARE MEASURED ALONG ℄ GRANGE ROAD.
2. * ELEVATION OF TOP OF COPING AT FRONT FACE OF WALL TYP.
3. ** MAXIMUM ELEVATION AT TOP OF LEVELING PAD, TYP.
4. FOR MSE WALL NOTES AND SECTIONS SEE 31-25.

WALL NO. 1 DESIGN DATA - FOUNDATION SOIL

COHESION ---------- 25 PSF

ANGLE OF INTERNAL FRICTION ---------- 29°

UNIT WEIGHT ---------- 115 PCF

WALL NO. 1

THE LPA GROUP
A UNIT OF MICHAEL BAKER CORPORATION
THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

5.21.13
GEORGIA REGISTERED NO. 24732 PROFESSIONAL ENGINEER
ROBERT W. BOWMAN

WALL PLAN AND ELEVATION - MSE
JIMMY DELOACH CONNECTOR
CHATHAM COUNTY CSMSL-0008-00(690)

DRAWING NO. 31-04
WALL SHEET 1 OF 1
SCALE: 1"= 10'-0"
JULY 2013

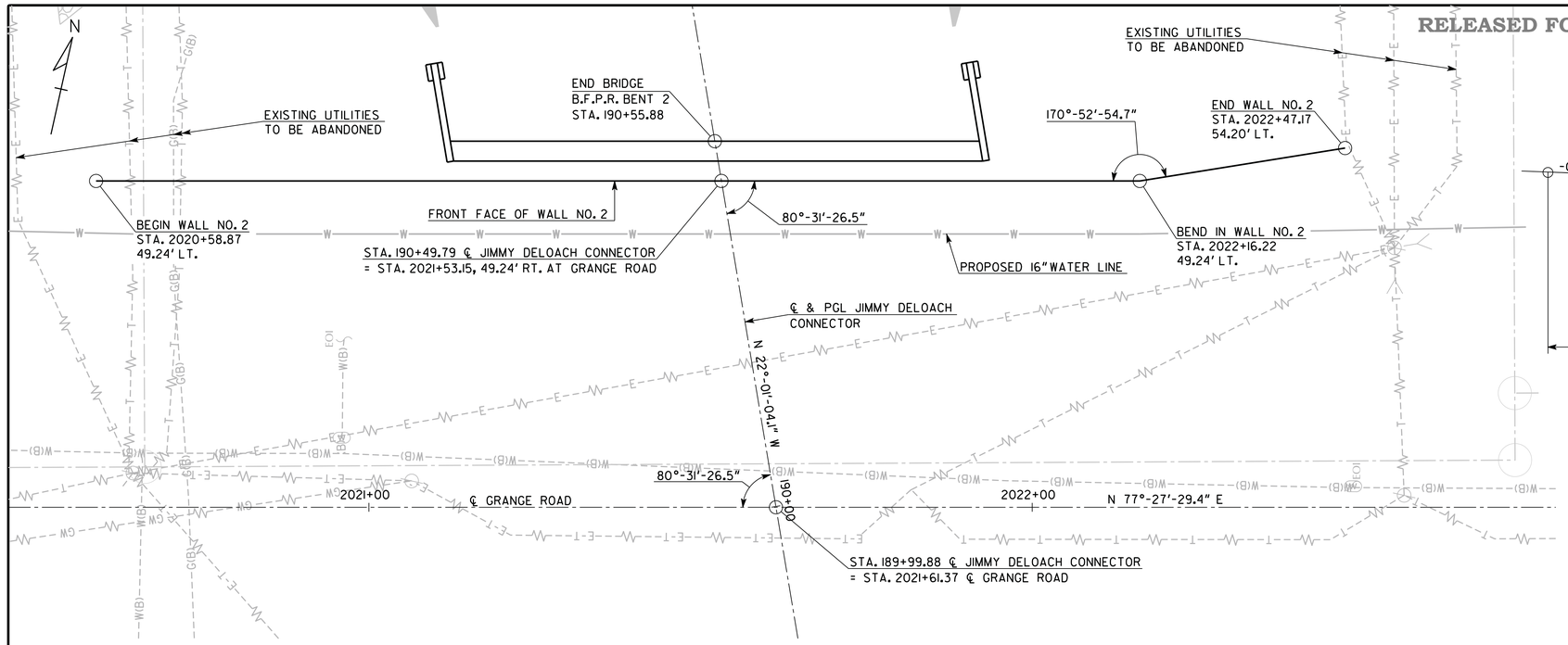
DESIGNED	BSB	CHECKED	ANZ	REVIEWED	WMD/DLC
DRAWN	BSB	DESIGN GROUP	AWB/SKG	APPROVED	BFR

DATE / REVISIONS / BY

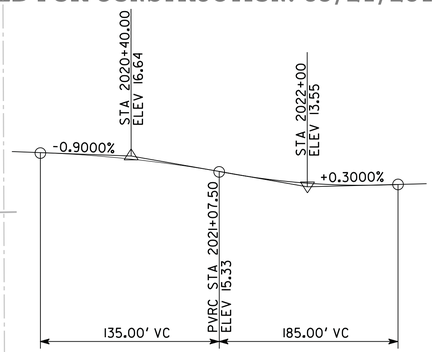
1 INCH WHEN PRINTED FULL SIZE

RELEASED FOR CONSTRUCTION: 05/21/2013

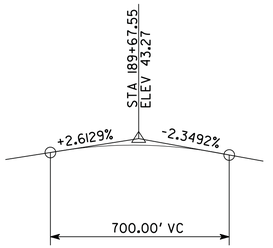
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	451	730



PLAN



VERTICAL CURVE DATA
GRANGE ROAD
NOT TO SCALE

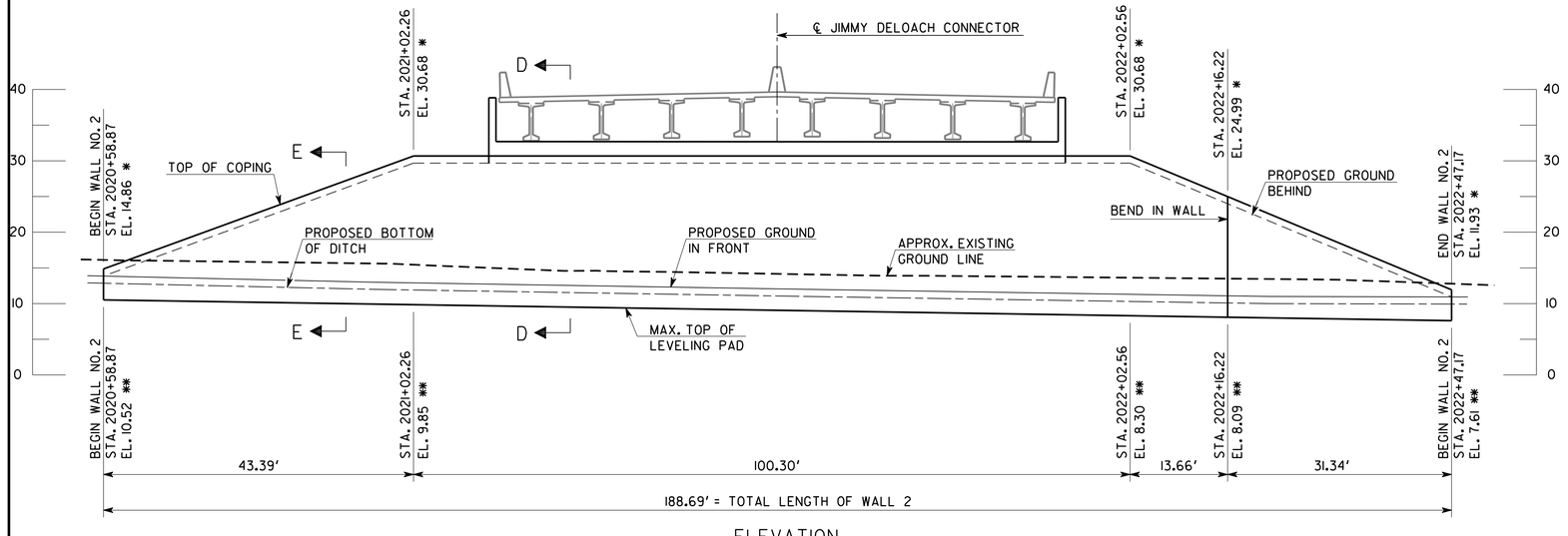


VERTICAL CURVE DATA
JIMMY DELOACH CONNECTOR
NOT TO SCALE

SUMMARY OF QUANTITIES

PAY ITEM NUMBER	QUANTITY	UNIT	PAY ITEM
627-1000	213	SF	MSE WALL FACE, 0 - 10 FT HT, WALL NO - 2
627-1010	1015	SF	MSE WALL FACE, 10 - 20 FT HT, WALL NO - 2
627-1020	1918	SF	MSE WALL FACE, 20 - 30 FT HT, WALL NO - 2
627-1100	195	LF	COPING A, WALL NO - 2

THIS IS A DESIGN BUILD PROJECT AND QUANTITIES ARE PROVIDED FOR INFORMATION ONLY.



ELEVATION
LOOKING AT FRONT FACE

NOTES:
1. STATIONS AND OFFSETS ARE MEASURED ALONG ℄ GRANGE ROAD.
2. * ELEVATION OF TOP OF COPING AT FRONT FACE OF WALL TYP.
3. ** MAXIMUM ELEVATION AT TOP OF LEVELING PAD, TYP.
4. FOR MSE WALL NOTES AND SECTIONS SEE 31-25.

WALL NO. 2 DESIGN DATA - FOUNDATION SOIL

COHESION ---------- 25 PSF
ANGLE OF INTERNAL FRICTION ---------- 29°
UNIT WEIGHT ---------- 115 PCF

WALL NO. 2

5.21.13
GEORGIA REGISTERED NO. 24732 PROFESSIONAL ENGINEER ROBERT W. BOWMAN

DRAWING NO. 31-05
WALL SHEET 1 OF 1

THE LPA GROUP
A UNIT OF GENERAL DATA CORPORATION
THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

WALL PLAN AND ELEVATION - MSE
JIMMY DELOACH CONNECTOR
CHATHAM COUNTY CSMSL-0008-00(690)

SCALE: 1"= 10'-0" JULY 2013

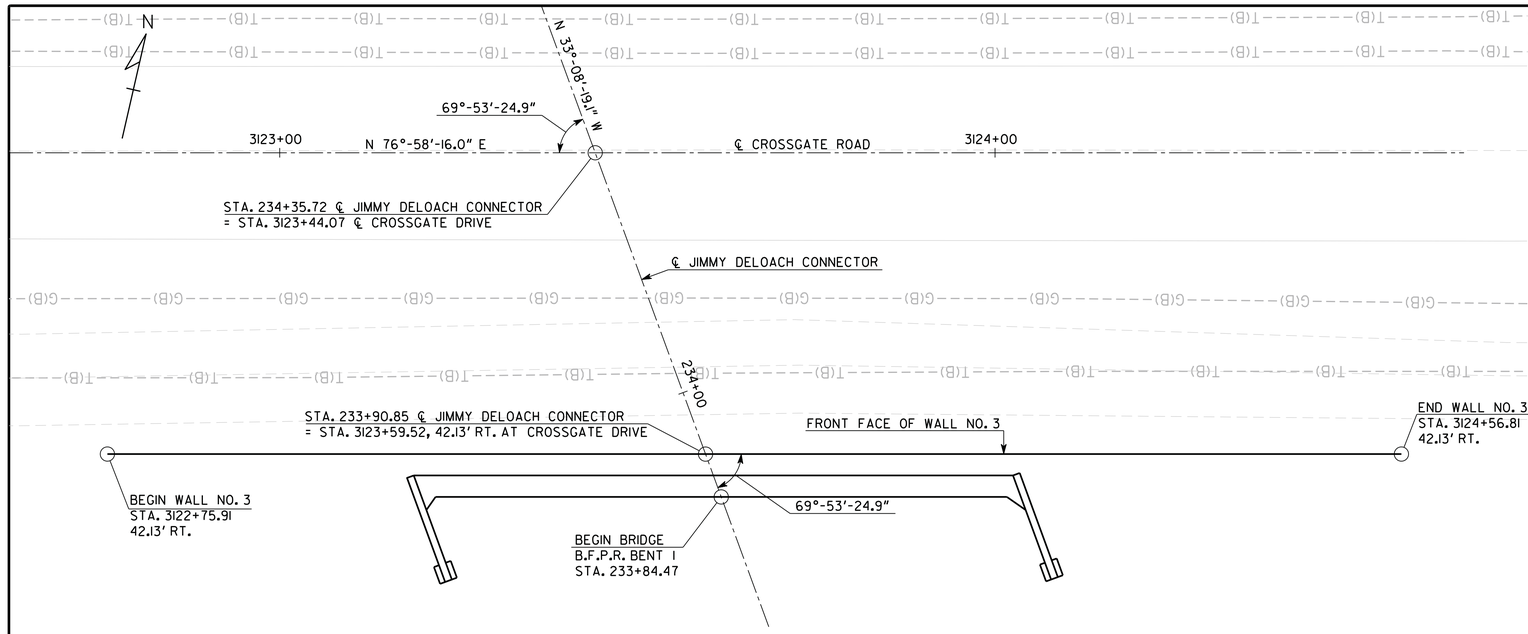
DESIGNED	BSB	CHECKED	ANZ	REVIEWED	WMD/DLC
DRAWN	BSB	DESIGN GROUP	AWB/SKG	APPROVED	BFR

BY	REVISIONS	DATE

1 INCH WHEN PRINTED FULL SIZE

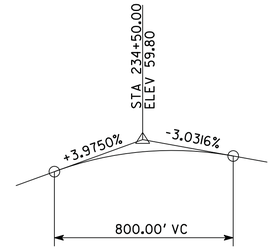
RELEASED FOR CONSTRUCTION: 05/21/2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	452	730



PLAN

EXISTING GRADE DATA (℄ CROSSGATE ROAD)	
STATION	ELEVATION
3122+50	28.71
3123+00	28.87
3123+50	28.93
3124+00	28.86
3124+50	29.02

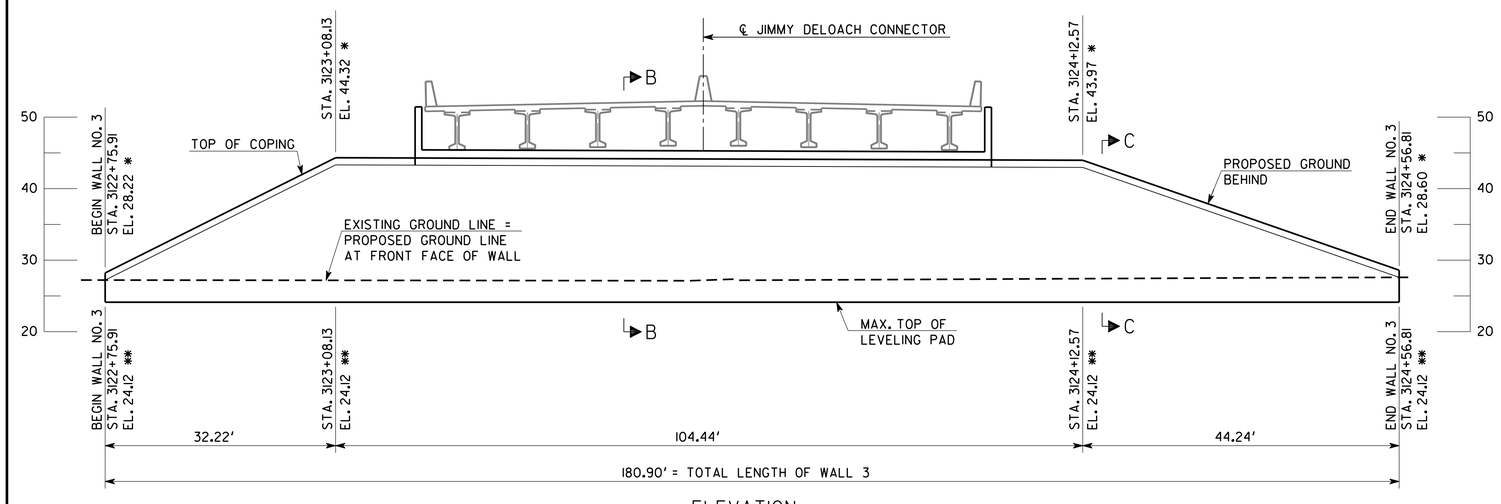


VERTICAL CURVE DATA
JIMMY DELOACH CONNECTOR
NOT TO SCALE

SUMMARY OF QUANTITIES

PAY ITEM NUMBER	QUANTITY	UNIT	PAY ITEM
627-1000	172	SF	MSE WALL FACE, 0 - 10 FT HT, WALL NO - 3
627-1010	1426	SF	MSE WALL FACE, 10 - 20 FT HT, WALL NO - 3
627-1020	1491	SF	MSE WALL FACE, 20 - 30 FT HT, WALL NO - 3
627-1100	188	LF	COPING A, WALL NO - 3

THIS IS A DESIGN BUILD PROJECT AND QUANTITIES PROVIDED ARE FOR INFORMATION ONLY.



ELEVATION
LOOKING AT BACK FACE

NOTES:
1. STATIONS AND OFFSETS ARE MEASURED ALONG ℄ CROSSGATE DRIVE.
2.* ELEVATION OF TOP OF COPING AT FRONT FACE OF WALL TYP.
3.** MAXIMUM ELEVATION AT TOP OF LEVELING PAD, TYP.
4. FOR MSE WALL NOTES AND SECTIONS SEE 31-25.

WALL NO. 3 DESIGN DATA - FOUNDATION SOIL

COHESION ---------- 25 PSF
ANGLE OF INTERNAL FRICTION ---------- 30°
UNIT WEIGHT ---------- 120 PCF

WALL NO. 3

THE LPA GROUP
A UNIT OF MICHAEL BAKER CORPORATION
THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

5-21-13
GEORGIA REGISTERED PROFESSIONAL ENGINEER NO. 24732 ALBERT W. BOWMAN

DATE
REVISIONS
BY

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

WALL PLAN AND ELEVATION - MSE
JIMMY DELOACH CONNECTOR
CHATHAM COUNTY CSMSL-0008-00(690)

DRAWING NO. 31-06
WALL SHEET 1 OF 1

SCALE: 1" = 10'-0"
JULY 2013

DESIGNED BSB
DRAWN BSB
CHECKED ANZ
DESIGN GROUP AWB/SKG
REVIEWED WMD/DLC
APPROVED BFR

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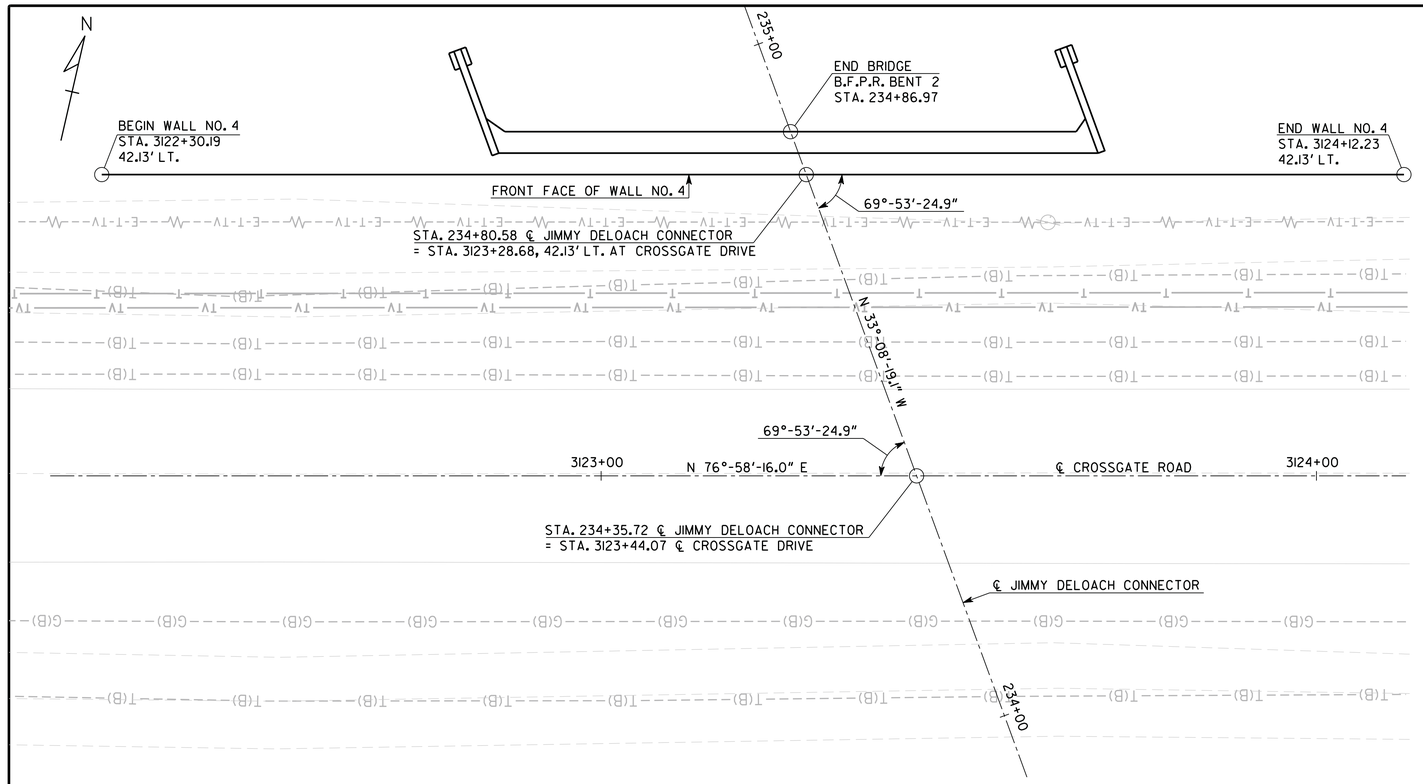
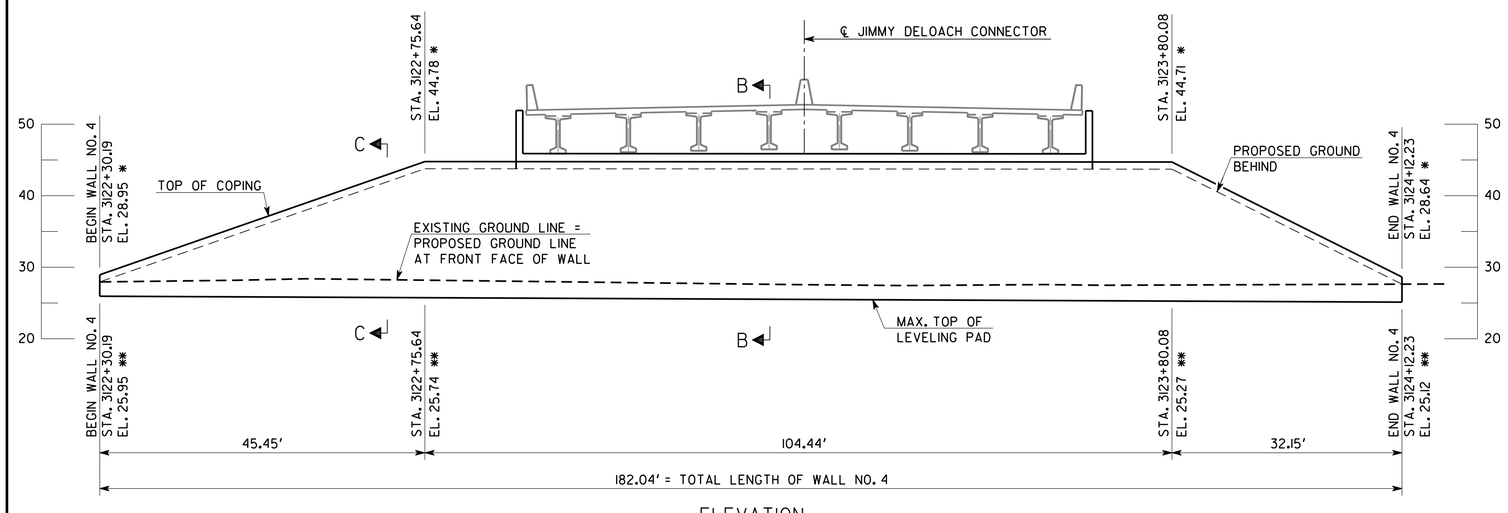
RELEASED FOR CONSTRUCTION: 05/21/2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	453	730

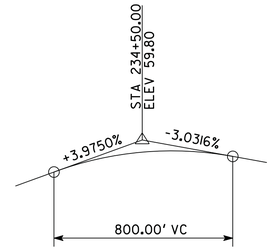


PLAN



ELEVATION
LOOKING AT FRONT FACE

EXISTING GRADE DATA (℄ CROSSGATE ROAD)	
STATION	ELEVATION
3122+50	28.71
3123+00	28.87
3123+50	28.93
3124+00	28.86
3124+50	29.02



VERTICAL CURVE DATA
JIMMY DELOACH CONNECTOR
NOT TO SCALE

SUMMARY OF QUANTITIES

PAY ITEM NUMBER	QUANTITY	UNIT	PAY ITEM
627-1000	195	SF	MSE WALL FACE, 0 - 10 FT HT, WALL NO - 4
627-1010	2733	SF	MSE WALL FACE, 10 - 20 FT HT, WALL NO - 4
627-1100	189	LF	COPING A, WALL NO - 4

THIS IS A DESIGN BUILD PROJECT AND QUANTITIES PROVIDED ARE FOR INFORMATION ONLY.

WALL NO. 4 DESIGN DATA - FOUNDATION SOIL

COHESION ---------- 25 PSF
ANGLE OF INTERNAL FRICTION ---------- 30°
UNIT WEIGHT ---------- 120 PCF

WALL NO. 4

NOTES:
1. STATIONS AND OFFSETS ARE MEASURED ALONG ℄ CROSSGATE DRIVE.
2. * ELEVATION OF TOP OF COPING AT FRONT FACE OF WALL TYP.
3. ** MAXIMUM ELEVATION AT TOP OF LEVELING PAD, TYP.
4. FOR MSE WALL NOTES AND SECTIONS SEE 31-25.

5.21.13
GEORGIA REGISTERED NO. 24732 PROFESSIONAL ENGINEER ALBERT W. BOWMAN

THE LPA GROUP
A UNIT OF MICHAEL BAKER CORPORATION
THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

WALL PLAN AND ELEVATION - MSE
JIMMY DELOACH CONNECTOR
CHATHAM COUNTY CSMSL-0008-00(690)

SCALE: 1" = 10'-0" JULY 2013

DRAWING NO. 31-07
WALL SHEET 1 OF 1

BY	REVISIONS	DATE

DESIGNED BSB | CHECKED ANZ | REVIEWED WMD/DLC
DRAWN BSB | DESIGN GROUP AWB/SKG | APPROVED BFR

1 INCH WHEN PRINTED FULL SIZE

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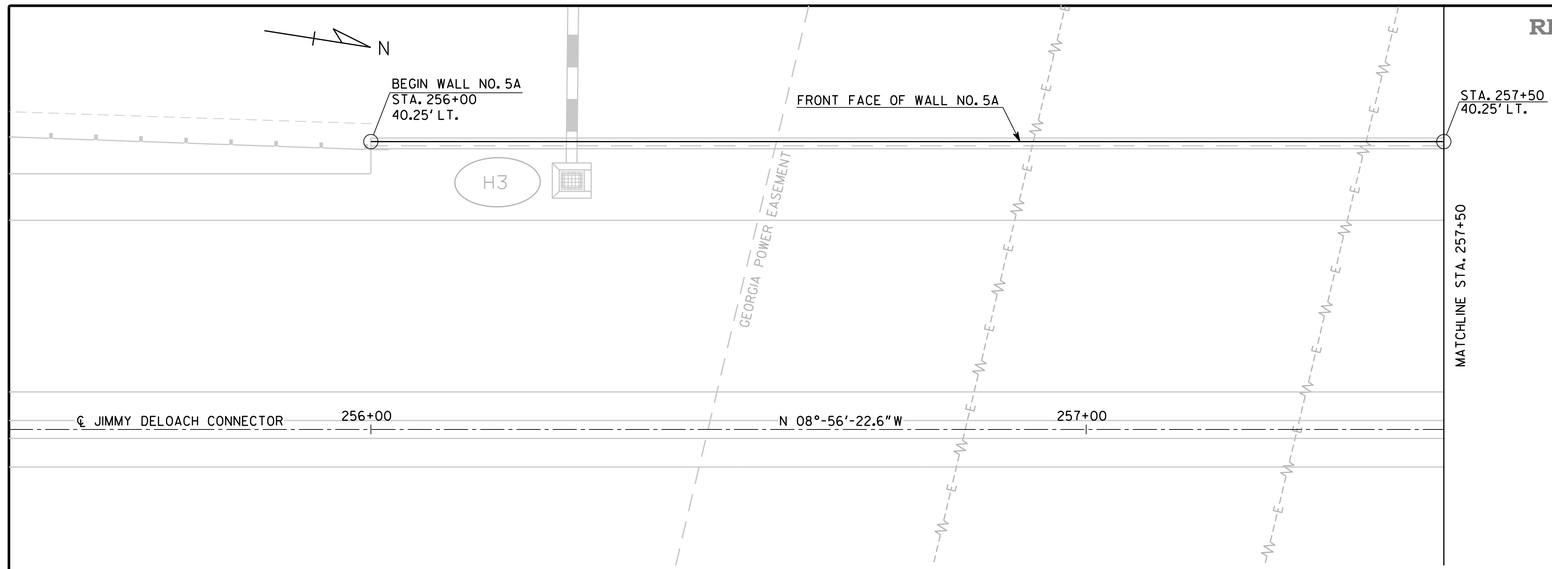
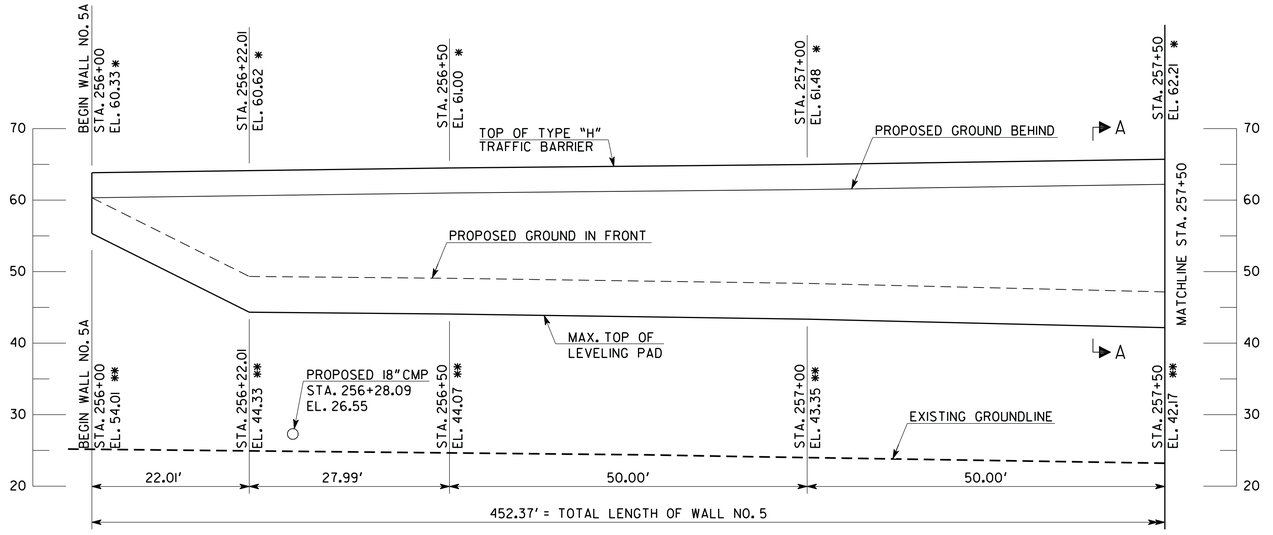
RELEASED FOR CONSTRUCTION: 05/21/2013

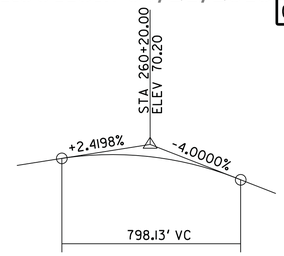
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	454	730



PLAN



ELEVATION
LOOKING AT BACK FACE



VERTICAL CURVE DATA
JIMMY DELOACH CONNECTOR
NOT TO SCALE

SUMMARY OF QUANTITIES

PAY ITEM NUMBER	QUANTITY	UNIT	PAY ITEM
627-1000	193	SF	MSE WALL FACE, 0 - 10 FT HT, WALL NO - 5
627-1010	2756	SF	MSE WALL FACE, 10 - 20 FT HT, WALL NO - 5
627-1020	2577	SF	MSE WALL FACE, 20 - 30 FT HT, WALL NO - 5
627-1030	5602	SF	MSE WALL FACE, GTR THAN 30 FT HT, WALL NO - 5
627-1100	180	LF	COPING A, WALL NO - 5
627-1160	272	LF	TRAFFIC BARRIER H, WALL NO - 5

THIS IS A DESIGN BUILD PROJECT AND QUANTITIES PROVIDED ARE FOR INFORMATION ONLY.

WALL NO. 5 DESIGN DATA - FOUNDATION SOIL

COHESION ---------- 25 PSF

ANGLE OF INTERNAL FRICTION ---------- 30°

UNIT WEIGHT ---------- 120 PCF

WALL NO. 5A

NOTES:
1. STATIONS AND OFFSETS ARE MEASURED ALONG ℄ JIMMY DELOACH CONNECTOR.
2. * ELEVATION AT FINISHED GRADE ALONG FACE OF BARRIER
3. ** MAXIMUM ELEVATION AT TOP OF LEVELING PAD, TYP.
4. FOR MSE WALL NOTES AND SECTIONS SEE 31-25.

5.21.13

GEORGIA REGISTERED NO. 24722 PROFESSIONAL ENGINEER ALBERT W. BOWMAN

THE LPA GROUP
A UNIT OF MICHAEL BAKER CORPORATION

THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

WALL PLAN AND ELEVATION - MSE
JIMMY DELOACH CONNECTOR
CHATHAM COUNTY CSMSL-0008-00(690)

SCALE: 1" = 10'-0" JULY 2013

DRAWING NO. 31-08
WALL SHEET 1 OF 3

DATE	REVISIONS	BY

DESIGNED BSB | CHECKED ANZ | REVIEWED WMD/DLC
DRAWN BSB | DESIGN GROUP AWB/SKG | APPROVED BFR

1 INCH WHEN PRINTED FULL SIZE

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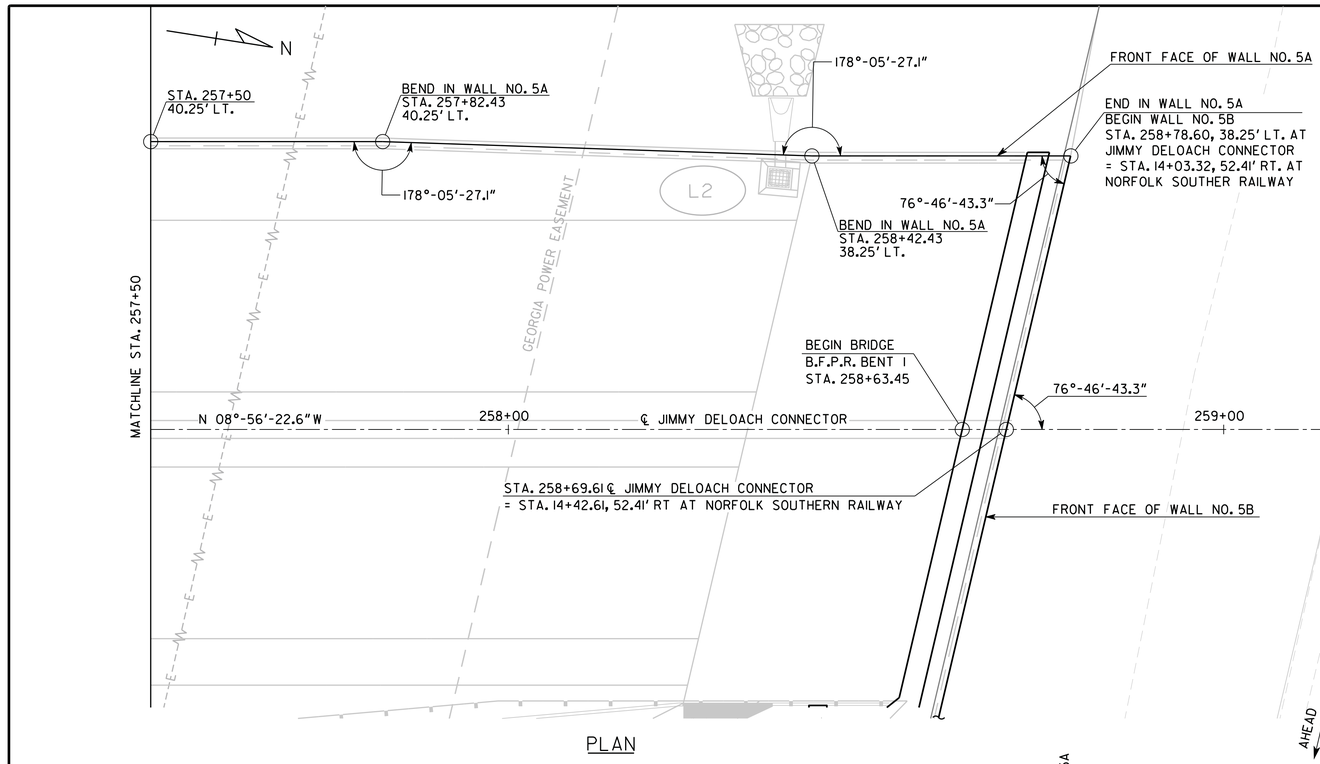
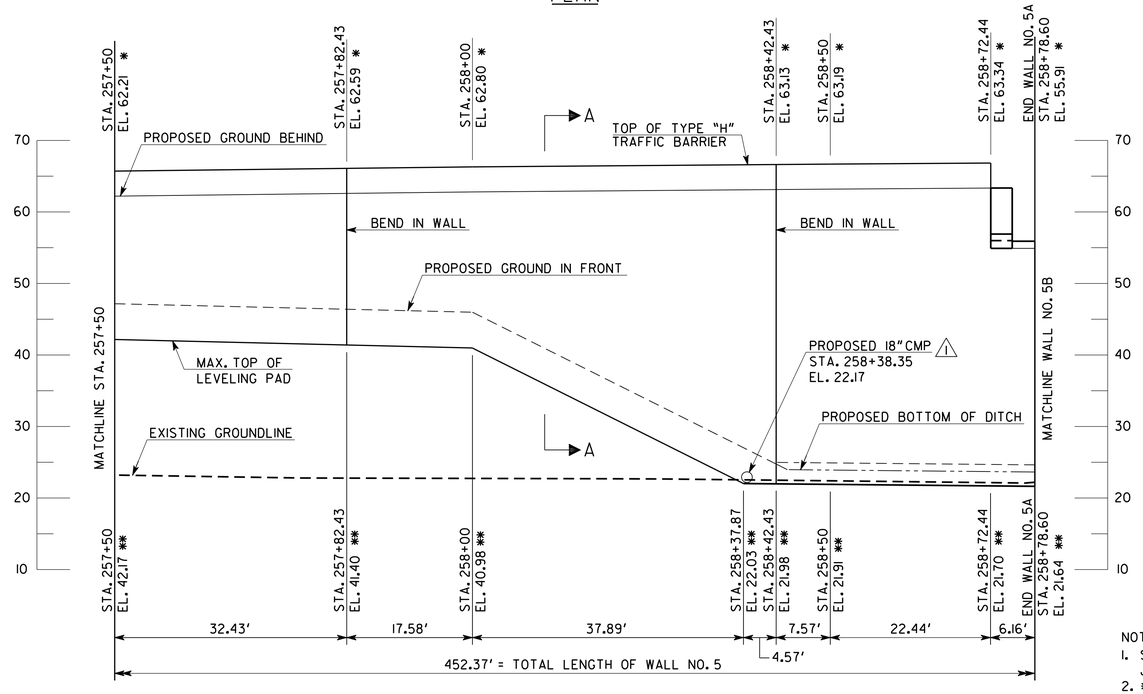
RELEASED FOR CONSTRUCTION: 05/21/2013
USE ON CONSTRUCTION: 08/02/2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	455	730

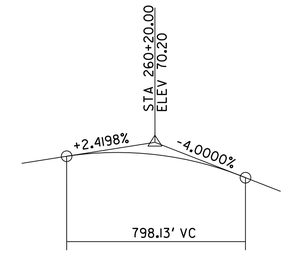


PLAN

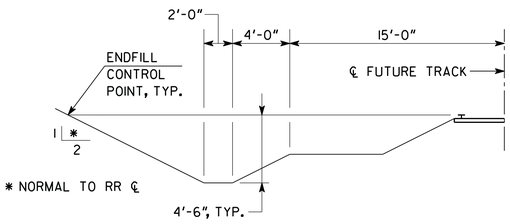


ELEVATION
LOOKING AT BACK FACE

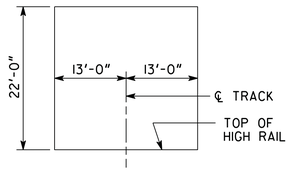
TOP OF EXISTING RAIL PROFILE		
STATION	LEFT RAIL	RIGHT RAIL
9+00	42.65	42.64
9+50	41.56	41.56
10+00	40.47	40.48
10+50	39.44	39.44
11+00	38.42	38.41
11+50	37.43	37.44
12+00	36.48	36.50
12+50	35.62	35.61
13+00	34.75	34.73
13+50	33.94	33.93
14+00	33.18	33.19
14+50	32.49	32.49
15+00	31.79	31.79
15+50	31.15	31.15
16+00	30.52	30.52
16+50	29.93	29.94
17+00	29.38	29.39
17+50	28.87	28.87
18+00	28.32	28.29
18+50	27.66	27.67
19+00	27.25	27.28
19+50	26.99	27.00



VERTICAL CURVE DATA
JIMMY DELOACH CONNECTOR
NOT TO SCALE



END CONTROL DIAGRAM
NOT TO SCALE



CONSTRUCTION CLEARANCE DIAGRAM
NOT TO SCALE

NOTES:
1. STATIONS AND OFFSETS ARE MEASURED ALONG ℄ OF JIMMY DELOACH CONNECTOR.
2. * ELEVATION AT FINISHED GRADE ALONG FACE OF BARRIER, OR TOP OF COPING.
3. ** MAXIMUM ELEVATION AT TOP OF LEVELING PAD, TYP.
4. FOR MSE WALL NOTES AND SECTIONS SEE 31-25.

WALL NO. 5A

THE LPA GROUP
A UNIT OF GENSLER DESIGN CORPORATION
THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

WALL PLAN AND ELEVATION - MSE
JIMMY DELOACH CONNECTOR
CHATHAM COUNTY CSMSL-0008-00(690)

REVISIONS		DATE
BY		
BSB	REVISED DRAINAGE INV. EL.	08/02/2013

SCALE: 1"= 10'-0" JULY 2013

DESIGNED BSB | CHECKED ANZ | REVIEWED WMD/DLC
DRAWN BSB | DESIGN GROUP AWB/SKG | APPROVED BFR

DRAWING NO. 31-09
WALL SHEET 2 OF 3

1 INCH WHEN PRINTED FULL SIZE

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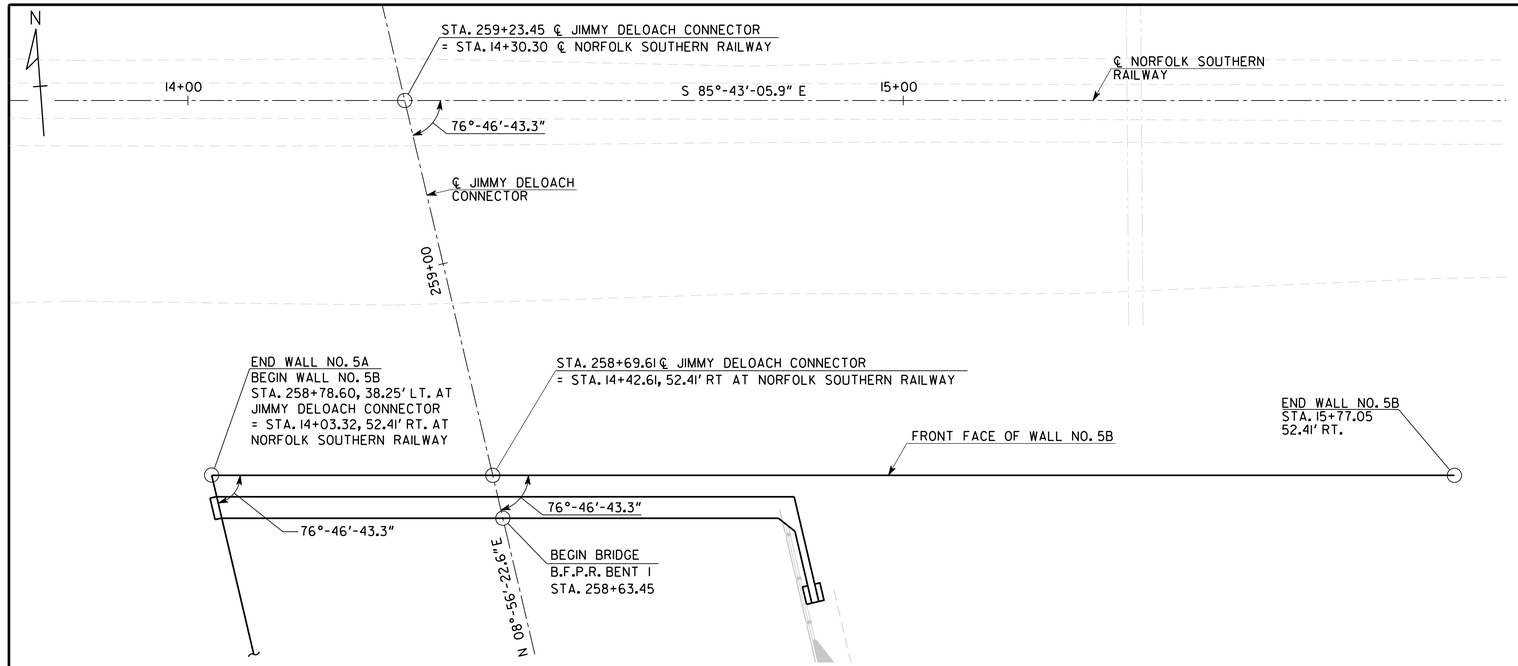
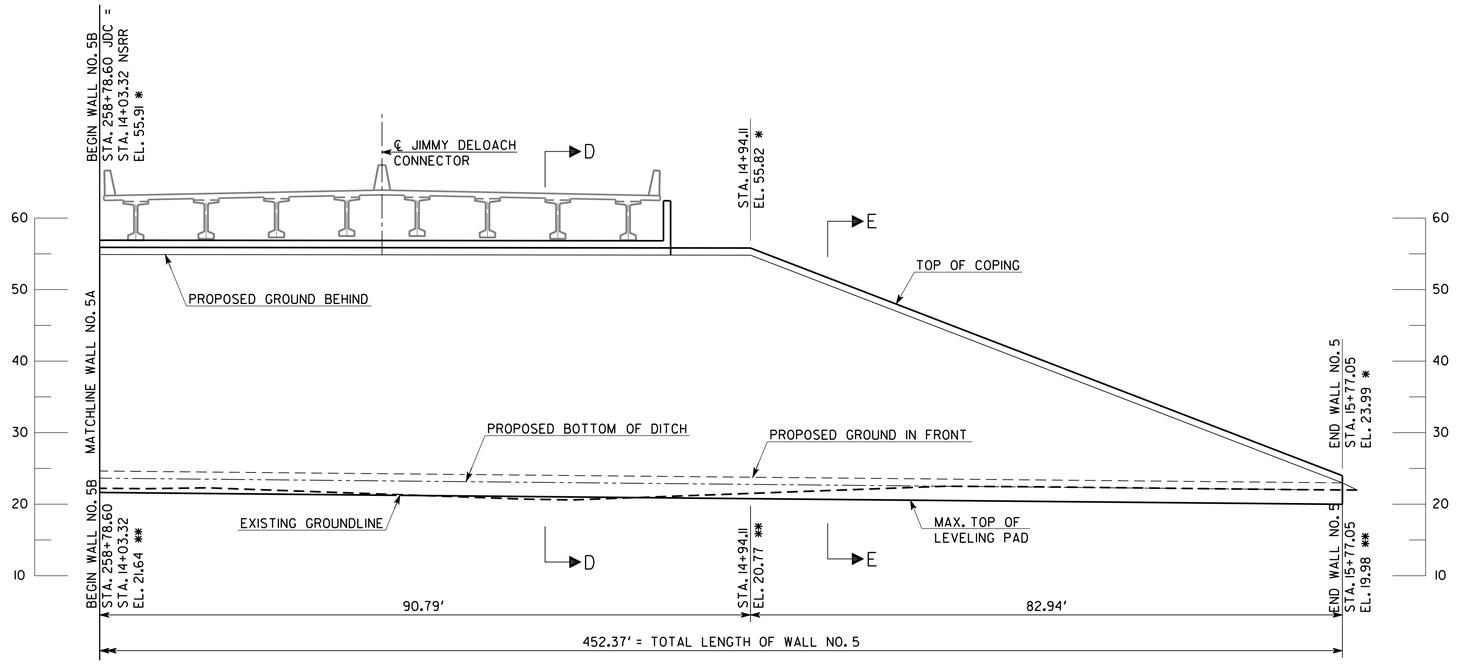
RELEASED FOR CONSTRUCTION: 05/21/2013

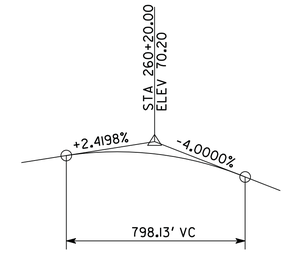
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	45G	730





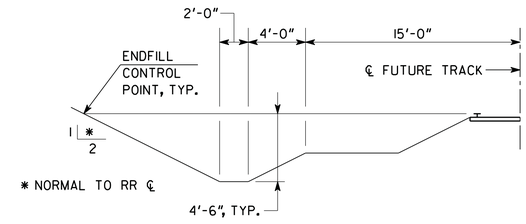
ELEVATION
LOOKING AT BACK FACE

NOTES:
1. STATIONS AND OFFSETS MEASURED ALONG ℄ NORFOLK SOUTHERN RAILWAY.
2. * ELEVATION OF TOP OF COPING AT FRONT FACE OF WALL TYP.
3. ** MAXIMUM ELEVATION AT TOP OF LEVELING PAD, TYP.
4. FOR MSE WALL NOTES AND SECTIONS SEE 31-25.

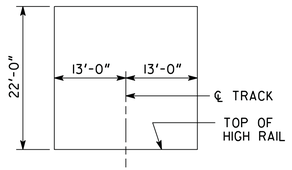


VERTICAL CURVE DATA
JIMMY DELOACH CONNECTOR
NOT TO SCALE

TOP OF EXISTING RAIL PROFILE		
STATION	LEFT RAIL	RIGHT RAIL
9+00	42.65	42.64
9+50	41.56	41.56
10+00	40.47	40.48
10+50	39.44	39.44
11+00	38.42	38.41
11+50	37.43	37.44
12+00	36.48	36.50
12+50	35.62	35.61
13+00	34.75	34.73
13+50	33.94	33.93
14+00	33.18	33.19
14+50	32.49	32.49
15+00	31.79	31.79
15+50	31.15	31.15
16+00	30.52	30.52
16+50	29.93	29.94
17+00	29.38	29.39
17+50	28.87	28.87
18+00	28.32	28.29
18+50	27.66	27.67
19+00	27.25	27.28
19+50	26.99	27.00



END CONTROL DIAGRAM
NOT TO SCALE



CONSTRUCTION CLEARANCE DIAGRAM
NOT TO SCALE

WALL NO. 5B

THE LPA GROUP
THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

WALL PLAN AND ELEVATION - MSE
JIMMY DELOACH CONNECTOR
CHATHAM COUNTY CSMSL-0008-00(690)

SCALE: 1"= 10'-0" JULY 2013

DRAWING NO.	REVISIONS	BY	DATE
31-10			
WALL SHEET 3 OF 3			

DESIGNED BSB | CHECKED ANZ | REVIEWED WMD/DLC
DRAWN BSB | DESIGN GROUP AWB/SKG | APPROVED BFR

1 INCH WHEN PRINTED FULL SIZE

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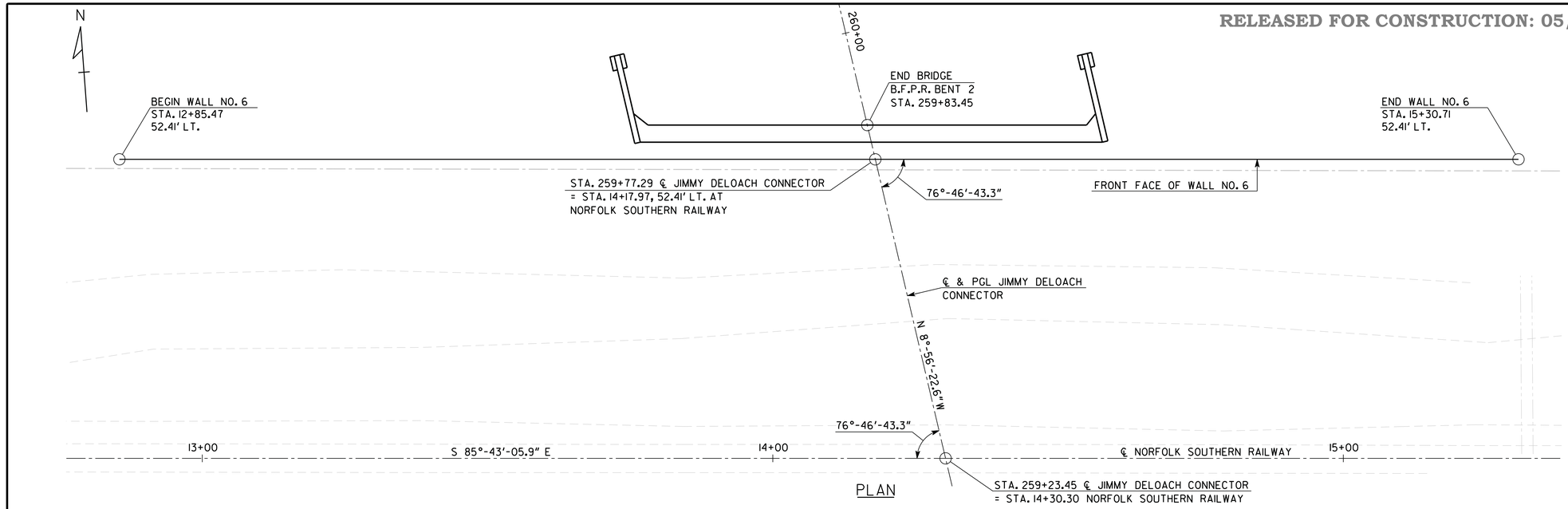
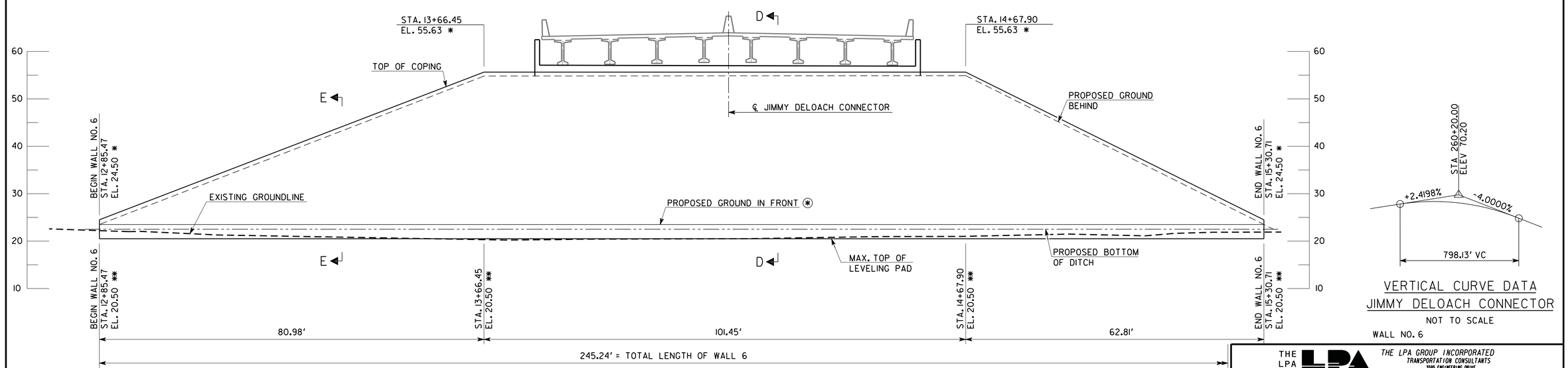
RELEASED FOR CONSTRUCTION: 05/21/2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	457	730



PLAN



ELEVATION
LOOKING AT FRONT FACE

TOP OF EXISTING RAIL PROFILE		
STATION	LEFT RAIL	RIGHT RAIL
9+00	42.65	42.64
9+50	41.56	41.56
10+00	40.47	40.48
10+50	39.44	39.44
11+00	38.42	38.41
11+50	37.43	37.44
12+00	36.48	36.50
12+50	35.62	35.61
13+00	34.75	34.73
13+50	33.94	33.93
14+00	33.18	33.19
14+50	32.49	32.49
15+00	31.79	31.79
15+50	31.15	31.15
16+00	30.52	30.52
16+50	29.93	29.94
17+00	29.38	29.39
17+50	28.87	28.87
18+00	28.32	28.29
18+50	27.66	27.67
19+00	27.25	27.28
19+50	26.99	27.00

VERTICAL CURVE DATA
JIMMY DELOACH CONNECTOR
NOT TO SCALE
WALL NO. 6

SUMMARY OF QUANTITIES

PAY ITEM NUMBER	QUANTITY	UNIT	PAY ITEM
627-1000	110	SF	MSE WALL FACE, 0 - 10 FT HT, WALL NO - 6
627-1010	526	SF	MSE WALL FACE, 10 - 20 FT HT, WALL NO - 6
627-1020	1169	SF	MSE WALL FACE, 20 - 30 FT HT, WALL NO - 6
627-1030	4467	SF	MSE WALL FACE, GTR THAN 30 FT HT, WALL NO - 6
627-1100	259	LF	COPING A, WALL NO - 6

THIS IS A DESIGN BUILD PROJECT AND QUANTITIES PROVIDED ARE FOR INFORMATION ONLY.

WALL NO. 6 DESIGN DATA - FOUNDATION SOIL

COHESION	25 PSF
ANGLE OF INTERNAL FRICTION	28°
UNIT WEIGHT	115 PCF

NOTES:
1. STATIONS AND OFFSETS MEASURED ALONG ℄ NORFOLK SOUTHER RAILROAD.
2. * ELEVATION OF TOP OF COPING AT FRONT FACE OF WALL TYP.
3. ** MAXIMUM ELEVATION AT TOP OF LEVELING PAD, TYP.
4. FOR MSE WALL NOTES AND SECTIONS SEE 31-25.
5. (*) GRADE TO DRAIN AWAY FROM BRIDGE. DITCH HIGH POINT EL. 22.50. DITCH EL. 22.00 @ END OF WALL

5.21.13
GEORGIA REGISTERED NO. 24702 PROFESSIONAL ENGINEER ALBERT W. BOWMAN

THE LPA GROUP
A WOLF OF CHICAGO BASED CORPORATION
THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

WALL PLAN AND ELEVATION - MSE
JIMMY DELOACH CONNECTOR
CHATHAM COUNTY CSMSL-0008-00(690)

DRAWING NO. 31-11
WALL SHEET 1 OF 1
SCALE: 1"= 10'-0"
JULY 2013

DESIGNED	BSB	CHECKED	ANZ	REVIEWED	WMD/DLC
DRAWN	BSB	DESIGN GROUP	AWB/SKG	APPROVED	BFR

DATE | REVISIONS | BY

1 INCH WHEN PRINTED FULL SIZE

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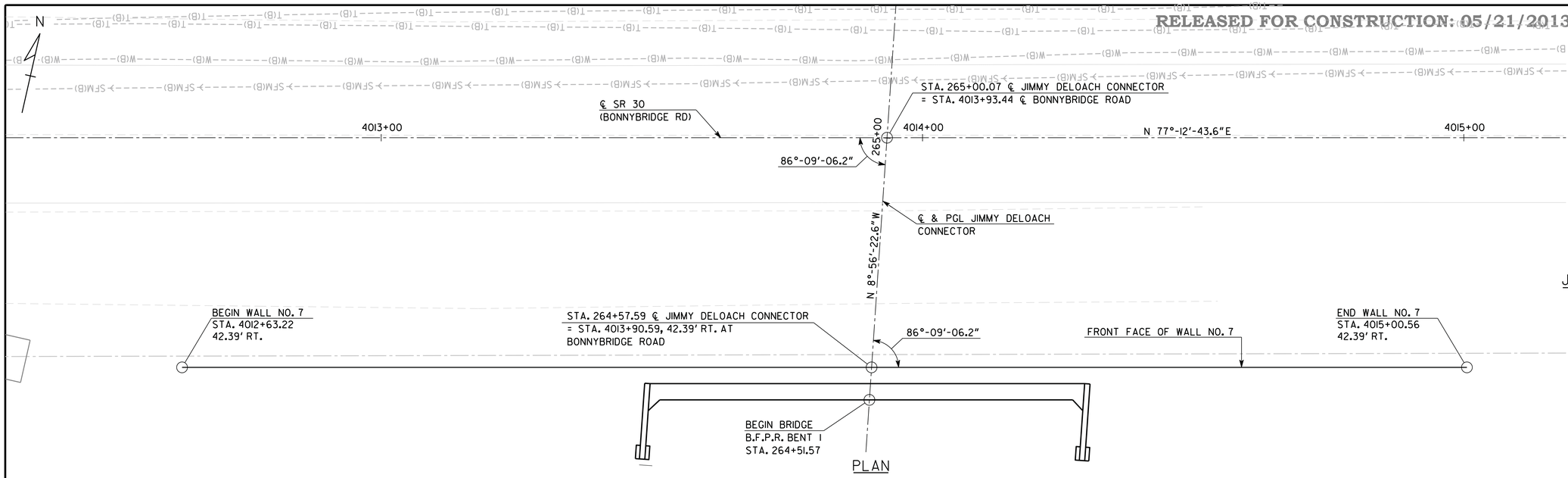
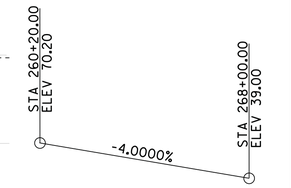
RELEASED FOR CONSTRUCTION: 05/21/2013

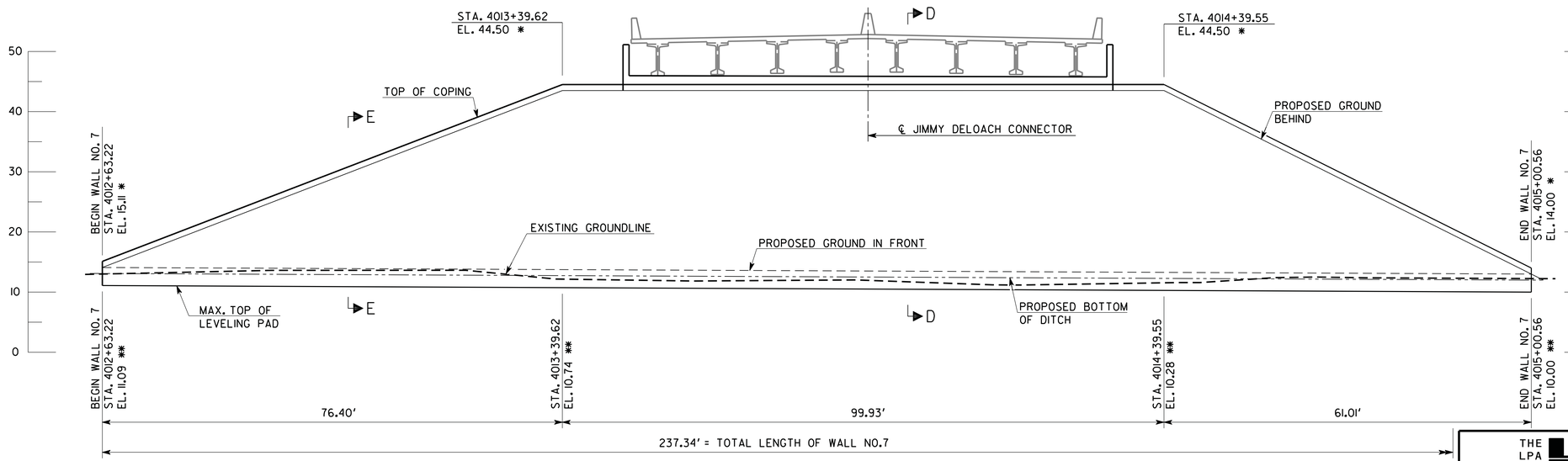
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	459	730



PLAN



VERTICAL CURVE DATA
JIMMY DELOACH CONNECTOR
NOT TO SCALE



ELEVATION
LOOKING AT BACK FACE

EXISTING GRADE DATA
(℄ BONNYBRIDGE ROAD)

STATION	ELEVATION
4013+00	17.86
4013+50	17.67
4014+00	17.51
4014+50	17.32
4015+00	17.11

WALL NO. 7

SUMMARY OF QUANTITIES

PAY ITEM NUMBER	QUANTITY	UNIT	PAY ITEM
627-1000	149	SF	MSE WALL FACE, 0 - 10 FT HT, WALL NO - 7
627-1010	570	SF	MSE WALL FACE, 10 - 20 FT HT, WALL NO - 7
627-1020	1287	SF	MSE WALL FACE, 20 - 30 FT HT, WALL NO - 7
627-1030	3895	SF	MSE WALL FACE, GTR THAN 30 FT HT, WALL NO - 7
627-1100	250	LF	COPING A, WALL NO - 7

THIS IS A DESIGN BUILD PROJECT AND QUANTITIES PROVIDED ARE FOR INFORMATION ONLY.

WALL NO. 7 DESIGN DATA - FOUNDATION SOIL

COHESION ---------- 25 PSF
ANGLE OF INTERNAL FRICTION ---------- 28°
UNIT WEIGHT ---------- 115 PCF

NOTES:
1. STATIONS AND OFFSETS MEASURED ALONG ℄ BONNYBRIDGE RD.
2. * ELEVATION OF TOP OF COPING AT FRONT FACE OF WALL TYP.
3. ** MAXIMUM ELEVATION AT TOP OF LEVELING PAD, TYP.
4. FOR MSE WALL NOTES AND SECTIONS SEE 31-25.

5-21-13
GEORGIA REGISTERED NO. 24732 PROFESSIONAL ENGINEER ALBERT W. BOWMAN

THE LPA GROUP
A UNIT OF MICHAEL BAKER CORPORATION
THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

WALL PLAN AND ELEVATION - MSE
JIMMY DELOACH CONNECTOR
CHATHAM COUNTY CSMSL-0008-00(690)

SCALE: 1" = 10'-0" JULY 2013

DRAWING NO. 31-12
WALL SHEET 1 OF 1

DATE | REVISIONS | BY

DESIGNED BSB | CHECKED ANZ | REVIEWED WMD/DLC
DRAWN BSB | DESIGN GROUP AWB/SKG | APPROVED BFR

1 INCH WHEN PRINTED FULL SIZE

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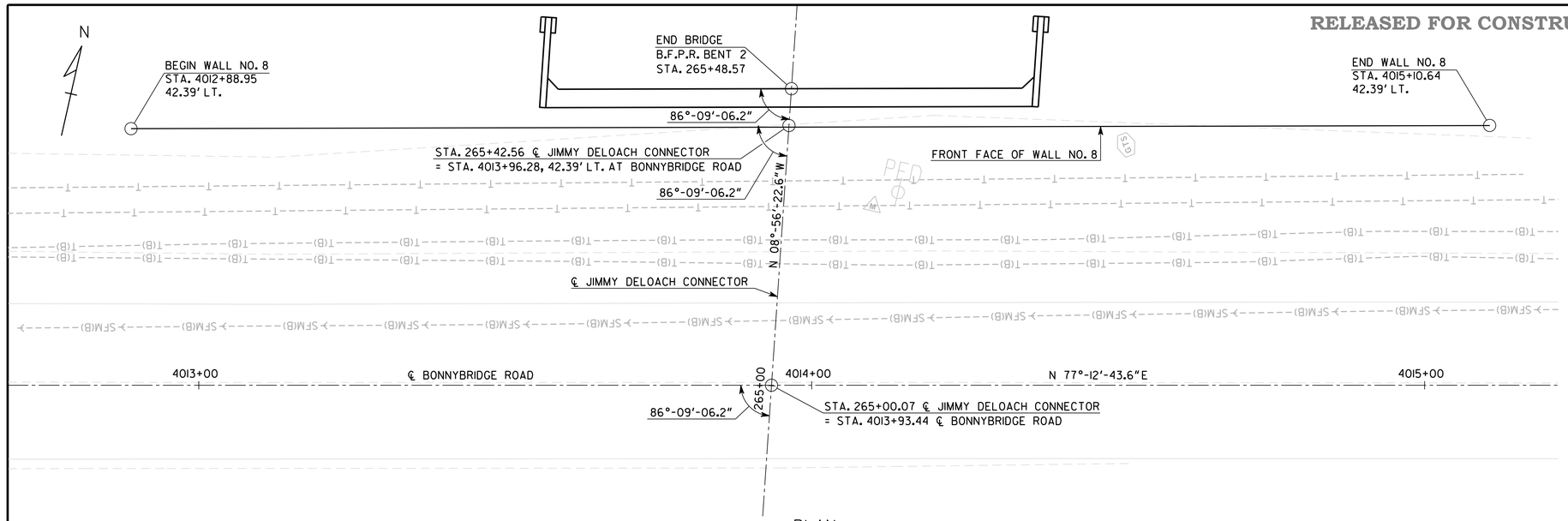
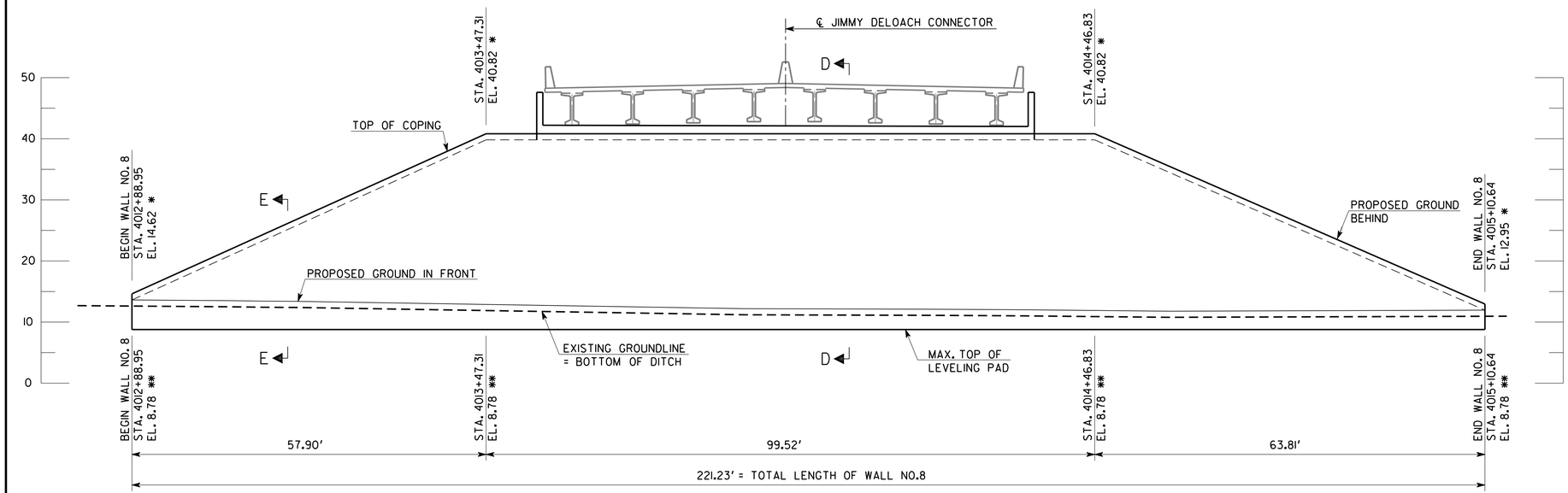
RELEASED FOR CONSTRUCTION: 05/21/2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	459	730



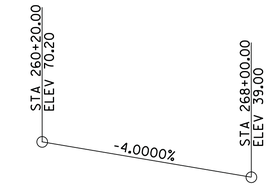
PLAN



ELEVATION
LOOKING AT FRONT FACE

EXISTING GRADE DATA
(℄ BONNYBRIDGE ROAD)

STATION	ELEVATION
4013+00	17.86
4013+50	17.67
4014+00	17.51
4014+50	17.32
4015+00	17.11



VERTICAL CURVE DATA
JIMMY DELOACH CONNECTOR
NOT TO SCALE

SUMMARY OF QUANTITIES

PAY ITEM NUMBER	QUANTITY	UNIT	PAY ITEM
627-1000	178	SF	MSE WALL FACE, 0 - 10 FT HT, WALL NO - 8
627-1010	643	SF	MSE WALL FACE, 10 - 20 FT HT, WALL NO - 8
627-1020	1242	SF	MSE WALL FACE, 20 - 30 FT HT, WALL NO - 8
627-1030	3198	SF	MSE WALL FACE, GTR THAN 30 FT HT, WALL NO - 8
627-1100	233	LF	COPING A, WALL NO - 8

THIS IS A DESIGN BUILD PROJECT AND QUANTITIES PROVIDED ARE FOR INFORMATION ONLY.

WALL NO. 8 DESIGN DATA - FOUNDATION SOIL

COHESION ---------- 25 PSF
ANGLE OF INTERNAL FRICTION ---------- 30°
UNIT WEIGHT ---------- 120 PCF

NOTES:
1. STATIONS AND OFFSETS MEASURED ALONG ℄ BONNYBRIDGE RD.
2. * ELEVATION OF TOP OF COPING AT FRONT FACE OF WALL TYP.
3. ** MAXIMUM ELEVATION AT TOP OF LEVELING PAD, TYP.
4. FOR MSE WALL NOTES AND SECTIONS SEE 31-25.

5-21-13
GEORGIA REGISTERED NO. 24732 PROFESSIONAL ENGINEER ALBERT W. BOWMAN

WALL NO. 8

THE LPA GROUP
A UNIT OF MICHAEL BAKER CORPORATION
THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

WALL PLAN AND ELEVATION - MSE
JIMMY DELOACH CONNECTOR
CHATHAM COUNTY CSMSL-0008-00(690)

SCALE: 1" = 10'-0" JULY 2013

DRAWING NO. 31-13
WALL SHEET 1 OF 1

BY	REVISIONS	DATE

DESIGNED BSB | CHECKED ANZ | REVIEWED WMD/DLC
DRAWN BSB | DESIGN GROUP AWB/SKG | APPROVED BFR

1 INCH WHEN PRINTED FULL SIZE

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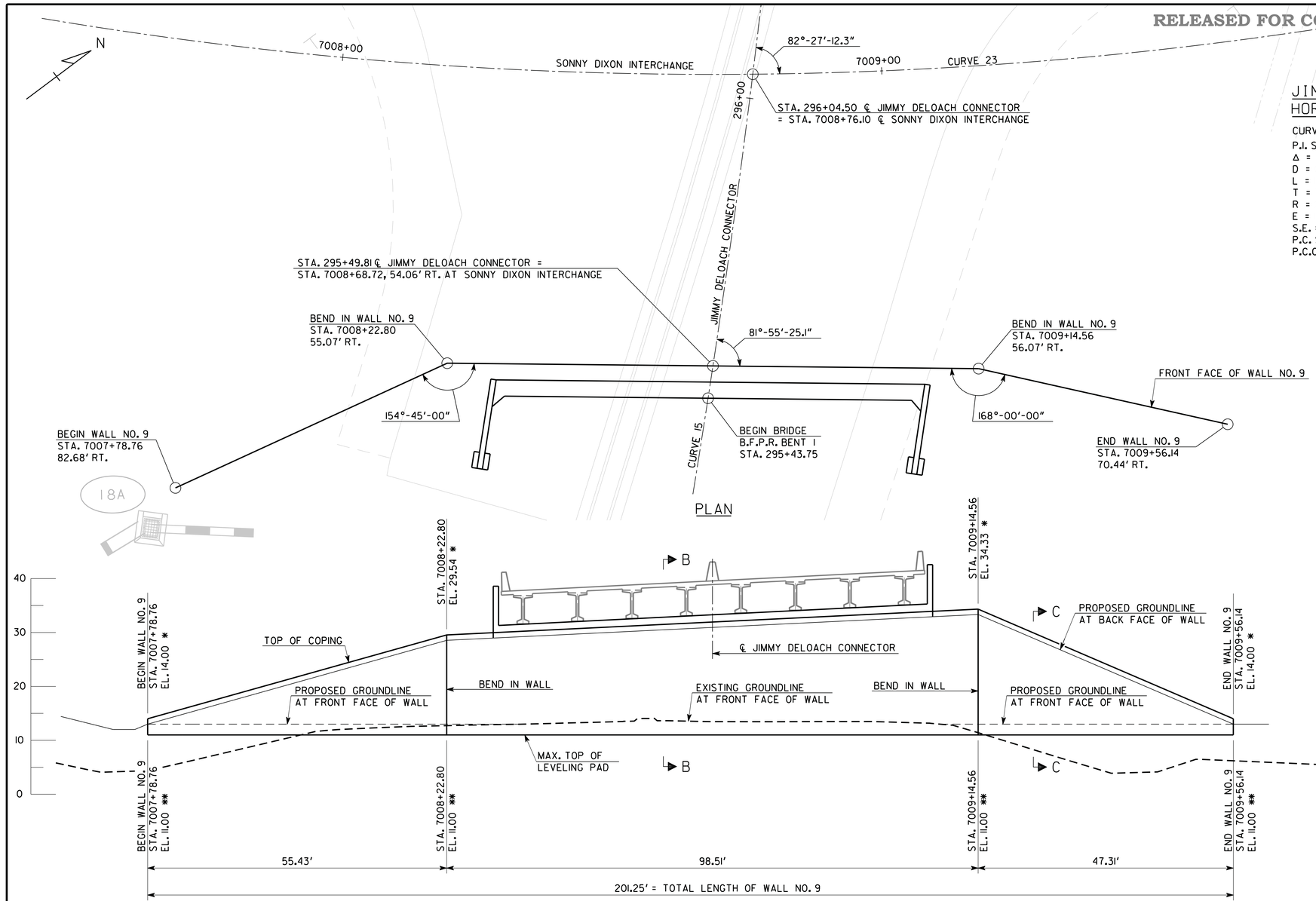
RELEASED FOR CONSTRUCTION: 08/02/2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	460	730



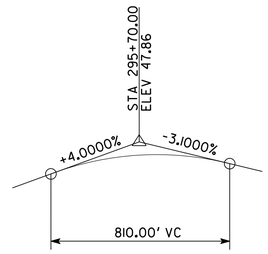
ELEVATION
LOOKING AT BACK FACE OF WALL

JIMMY DELOACH CONNECTOR HORIZONTAL CURVE DATA

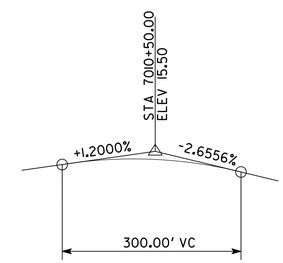
CURVE 15
P.I. STA. 290+97.21
Δ = 39°-03'-35.5", LT.
D = 02°-51'-53.2"
L = 1363.45'
T = 709.41'
R = 2000.00'
E = 122.09'
S.E. = 4.86%
P.C. STA. = 283+87.80
P.C.C. STA. = 297+51.25

SONNY DIXON INTERCHANGE HORIZONTAL CURVE DATA

CURVE 23
P.I. STA. 7007+80.37
Δ = 57°-13'-46.2", LT.
D = 07°-38'-22.0"
L = 749.13'
T = 409.16'
R = 750.00'
E = 104.35'
S.E. = 5.87%
P.C. STA. = 7003+71.20
P.T. STA. = 7011+20.33



VERTICAL CURVE DATA
JIMMY DELOACH CONNECTOR
NOT TO SCALE



VERTICAL CURVE DATA
SONNY DIXON INTERCHANGE
NOT TO SCALE

SUMMARY OF QUANTITIES

PAY ITEM NUMBER	QUANTITY	UNIT	PAY ITEM
627-1000	215	SF	MSE WALL FACE, 0 - 10 FT HT, WALL NO - 9
627-1010	1549	SF	MSE WALL FACE, 10 - 20 FT HT, WALL NO - 9
627-1020	1653	SF	MSE WALL FACE, 20 - 30 FT HT, WALL NO - 9
627-1100	209	LF	COPING A, WALL NO - 9

THIS IS A DESIGN BUILD PROJECT AND QUANTITIES PROVIDED ARE FOR INFORMATION ONLY.

WALL NO. 9 DESIGN DATA - FOUNDATION SOIL

COHESION ---------- 25 PSF
ANGLE OF INTERNAL FRICTION ---------- 26°
UNIT WEIGHT ---------- 110 PCF

NOTES:
1. STATIONS AND OFFSETS MEASURED ALONG ℄ SONNY DIXON INTERCHANGE.
2. * ELEVATION OF TOP OF COPING AT FRONT FACE OF WALL TYP.
3. ** MAXIMUM ELEVATION AT TOP OF LEVELING PAD, TYP.
4. FOR MSE WALL NOTES AND SECTIONS SEE 31-25.

8.2.13
GEORGIA REGISTERED NO. 24737 PROFESSIONAL ENGINEER
J. W. BOWMAN
ROBERT W. BOWMAN

DRAWING NO. 31-014
WALL SHEET 1 OF 1

WALL NO. 9

THE LPA GROUP
A UNIT OF GENERAL DATA CORPORATION
THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

DATE | REVISIONS | BY

WALL PLAN AND ELEVATION - MSE
JIMMY DELOACH CONNECTOR
CHATHAM COUNTY CSMSL-0008-00(690)

SCALE: 1"= 10'-0" JULY 2013

DESIGNED	BSB	CHECKED	ANZ	REVIEWED	WMD/DLC
DRAWN	BSB	DESIGN GROUP	SKG	APPROVED	BFR

1 INCH WHEN PRINTED FULL SIZE

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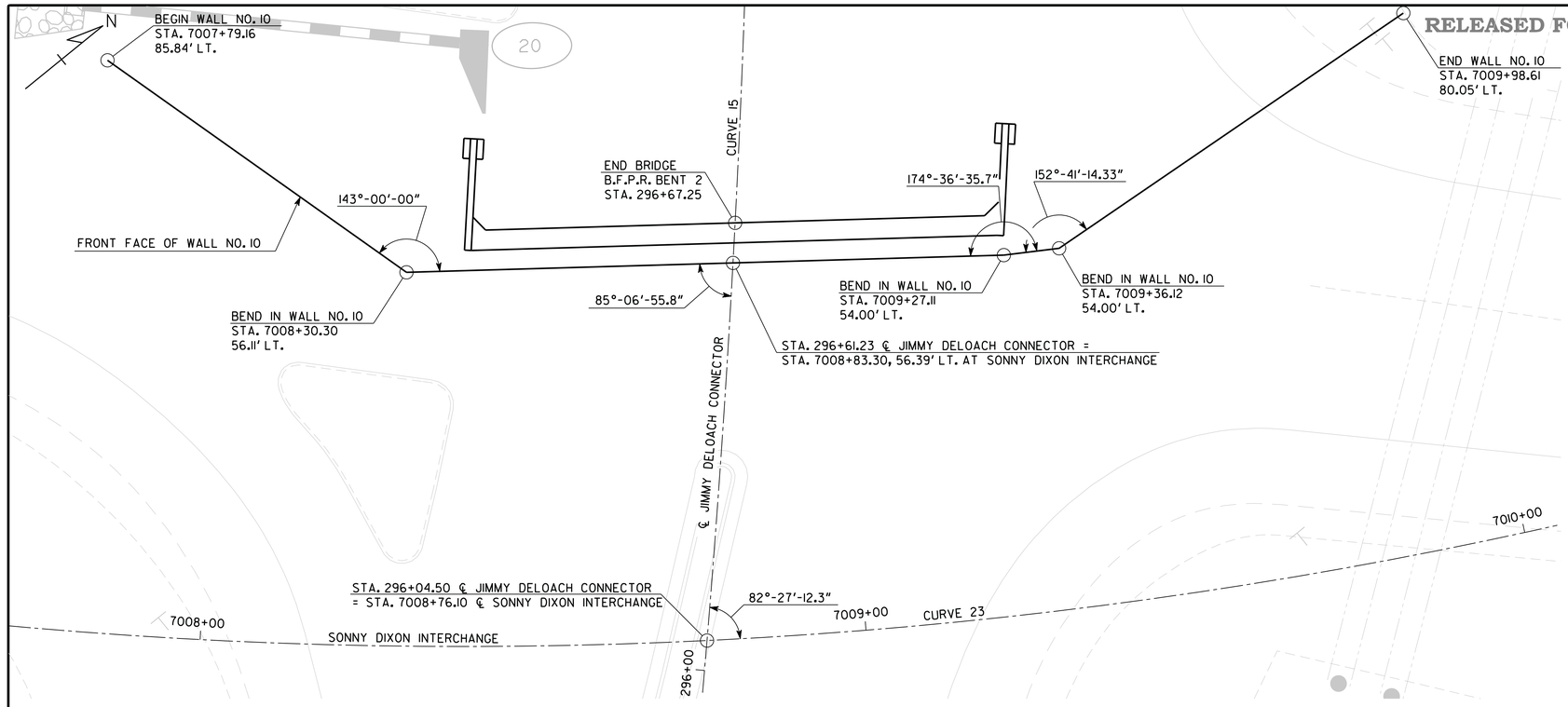
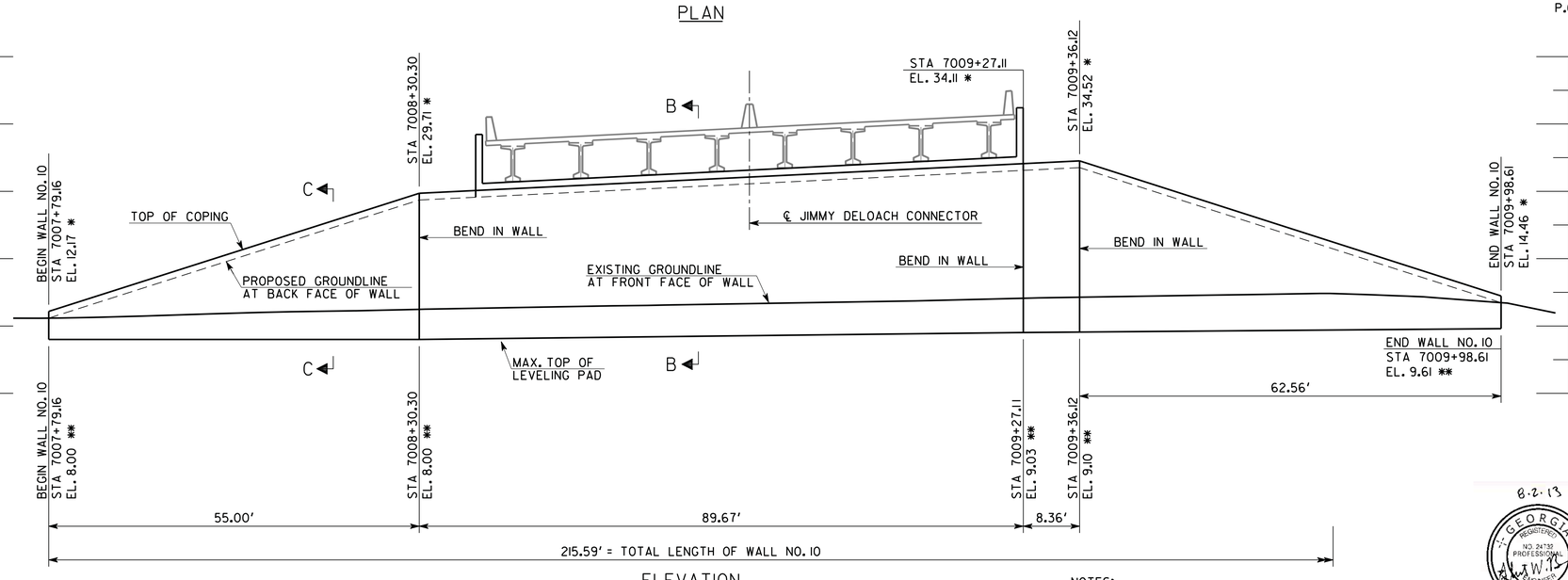
RELEASED FOR CONSTRUCTION: 08/02/2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	461	730



PLAN



ELEVATION
LOOKING AT FRONT FACE OF WALL

NOTES:
1. STATIONS AND OFFSETS MEASURED ALONG ℄ SONNY DIXON INTERCHANGE.
2. * ELEVATION OF TOP OF COPING AT FRONT FACE OF WALL TYP.
3. ** MAXIMUM ELEVATION AT TOP OF LEVELING PAD, TYP.
4. FOR MSE WALL NOTES AND SECTIONS SEE 31-25.

SUMMARY OF QUANTITIES

PAY ITEM NUMBER	QUANTITY	UNIT	PAY ITEM
627-1000	192	SF	MSE WALL FACE, 0 - 10 FT HT, WALL NO - 10
627-1010	880	SF	MSE WALL FACE, 10 - 20 FT HT, WALL NO - 10
627-1020	3083	SF	MSE WALL FACE, 20 - 30 FT HT, WALL NO - 10
627-1100	223	LF	COPING A, WALL NO - 10

THIS IS A DESIGN BUILD PROJECT AND QUANTITIES PROVIDED ARE FOR INFORMATION ONLY.

WALL NO. 10 DESIGN DATA

COHESION ---------- 25 PSF

ANGLE OF INTERNAL FRICTION ---------- 28°

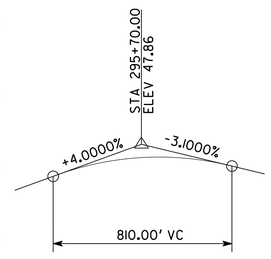
UNIT WEIGHT ---------- 115 PCF

JIMMY DELOACH CONNECTOR HORIZONTAL CURVE DATA

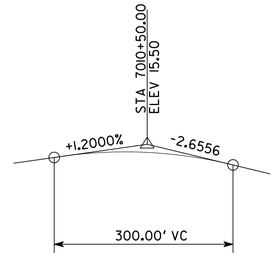
CURVE 15
P.I. STA. 290+97.21
Δ = 39°-03'-35.5", LT.
D = 02°-51'-53.2"
L = 1363.45'
T = 709.41'
R = 2000.00'
E = 122.09'
S.E. = 4.86%
P.C. STA. = 283+87.80
P.C.C. STA. = 297+51.25

SONNY DIXON INTERCHANGE HORIZONTAL CURVE DATA

CURVE 23
P.I. STA. 7007+80.37
Δ = 57°-13'-46.2", LT.
D = 07°-38'-22.0"
L = 749.13'
T = 409.16'
R = 750.00'
E = 104.35'
S.E. = 5.87%
P.C. STA. = 7003+71.20
P.T. STA. = 7011+20.33



VERTICAL CURVE DATA
JIMMY DELOACH CONNECTOR
NOT TO SCALE



VERTICAL CURVE DATA
SONNY DIXON INTERCHANGE
NOT TO SCALE
WALL NO. 10

THE LPA GROUP
A UNIT OF GENERAL DATA CORPORATION
THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9148

8-2-13
GEORGIA REGISTERED NO. 24735 PROFESSIONAL ENGINEER ROBERT W. BOWMAN

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

WALL PLAN AND ELEVATION - MSE
JIMMY DELOACH CONNECTOR
CHATHAM COUNTY CSMSL-0008-00(690)

SCALE: 1"= 10'-0" JULY 2013

DRAWING NO. 31-015
WALL SHEET 1 OF 1

BY	REVISIONS	DATE

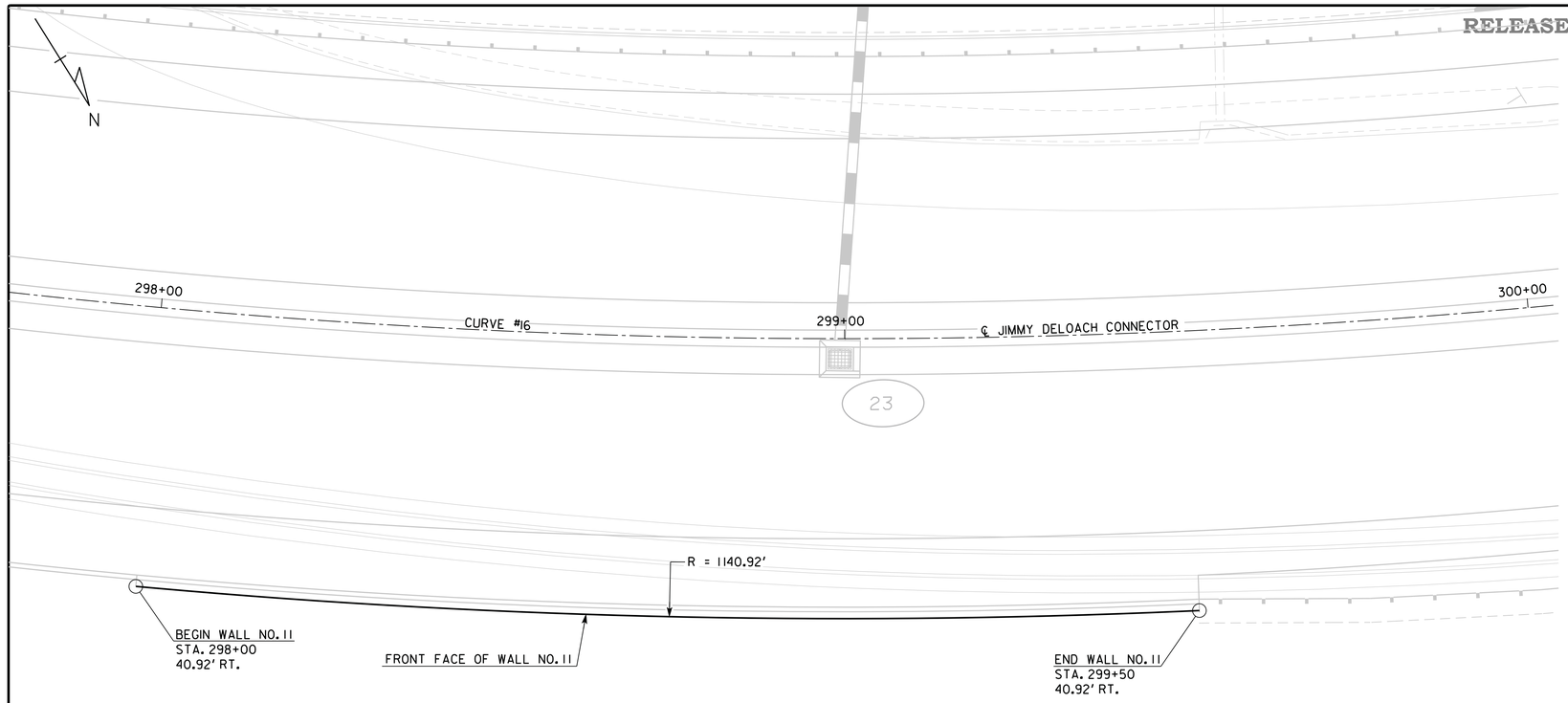
DESIGNED BSB | CHECKED ANZ | REVIEWED WMD/DLC
DRAWN BSB | DESIGN GROUP SKG | APPROVED BFR

1 INCH WHEN PRINTED FULL SIZE

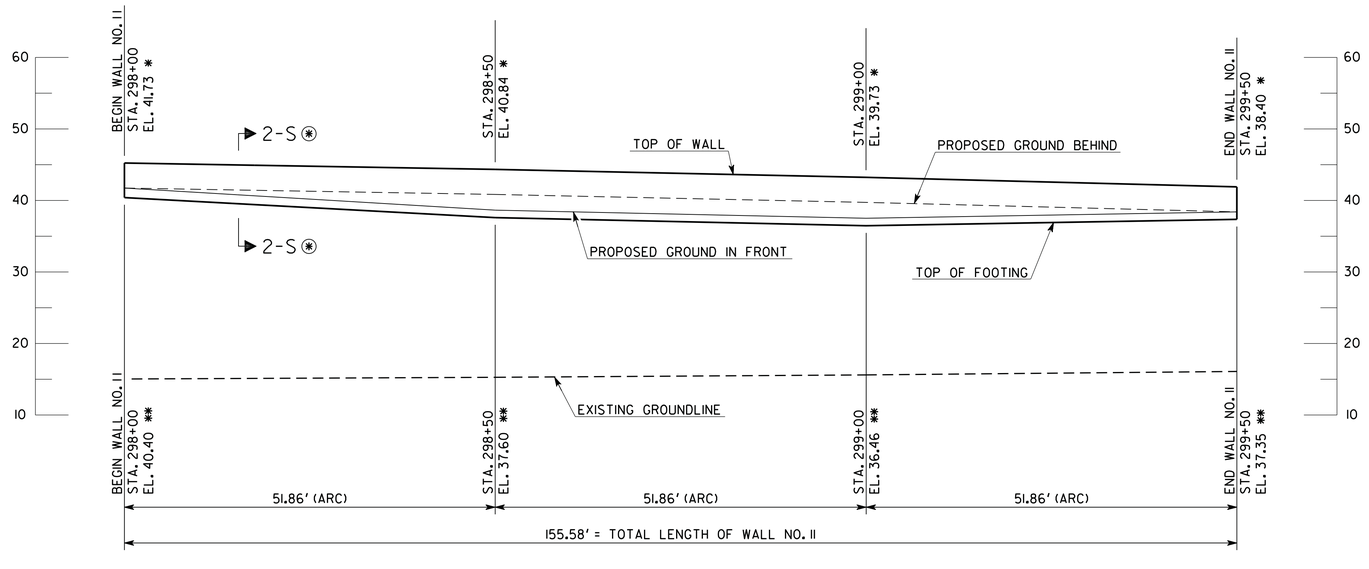
8/7/2013 10:52:31 AM R:\126379\Walls\v8\final\W10-01.dgn

RELEASED FOR CONSTRUCTION: 08/02/2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	462	730



PLAN



ELEVATION
LOOKING AT FRONT FACE OF WALL

NOTES:
1. STATIONS AND OFFSETS MEASURED ALONG ℄ JIMMY DELOACH CONNECTOR.
2. * ELEVATION AT FINISHED GRADE ALONG FACE OF BARRIER.
3. ** MAXIMUM ELEVATION AT TOP OF FOOTING, TYP.
4. ⊛ TYPE 2-S, SEE MODIFIED STD. 4948.

WALL NO. 11 DESIGN DATA

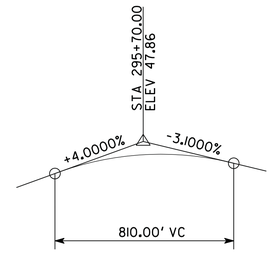
COHESION ---------- 0 PSF
ANGLE OF INTERNAL FRICTION ---------- 30°
UNIT WEIGHT ---------- 120 PCF
COEFFICIENT OF SLIDING FRICTION ---------- 0.40

SUMMARY OF QUANTITIES

PAY ITEM NUMBER	QUANTITY	UNIT	PAY ITEM
621-6200	156	LF	CONCRETE SIDE BARRIER, TP 2-S

JIMMY DELOACH CONNECTOR HORIZONTAL CURVE DATA

CURVE #16
P.I. STA. 303+18.24
Δ = 54°-32'-15.2", LT.
D = 05°-12'-31.3"
L = 1047.05'
T = 566.99'
R = 1100.00'
E = 137.53'
S.E. = 5.97%
P.C.C. STA. = 297+51.25
P.T. STA. = 307+98.29



VERTICAL CURVE DATA
JIMMY DELOACH CONNECTOR

WALL NO. 11

8.2.13
GEORGIA REGISTERED NO. 24732 PROFESSIONAL ENGINEER ROBERT W. BOWMAN

DRAWING NO.	WALL SHEET
31-016	1 OF 1

1 INCH WHEN PRINTED FULL SIZE

THE LPA GROUP LPA
A UNIT OF GENERAL DATA CORPORATION
THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

WALL PLAN AND ELEVATION - TYPE 2-S CIP
JIMMY DELOACH CONNECTOR
CHATHAM COUNTY CSMSL-0008-00(690)

SCALE: 1"= 10'-0" JULY 2013

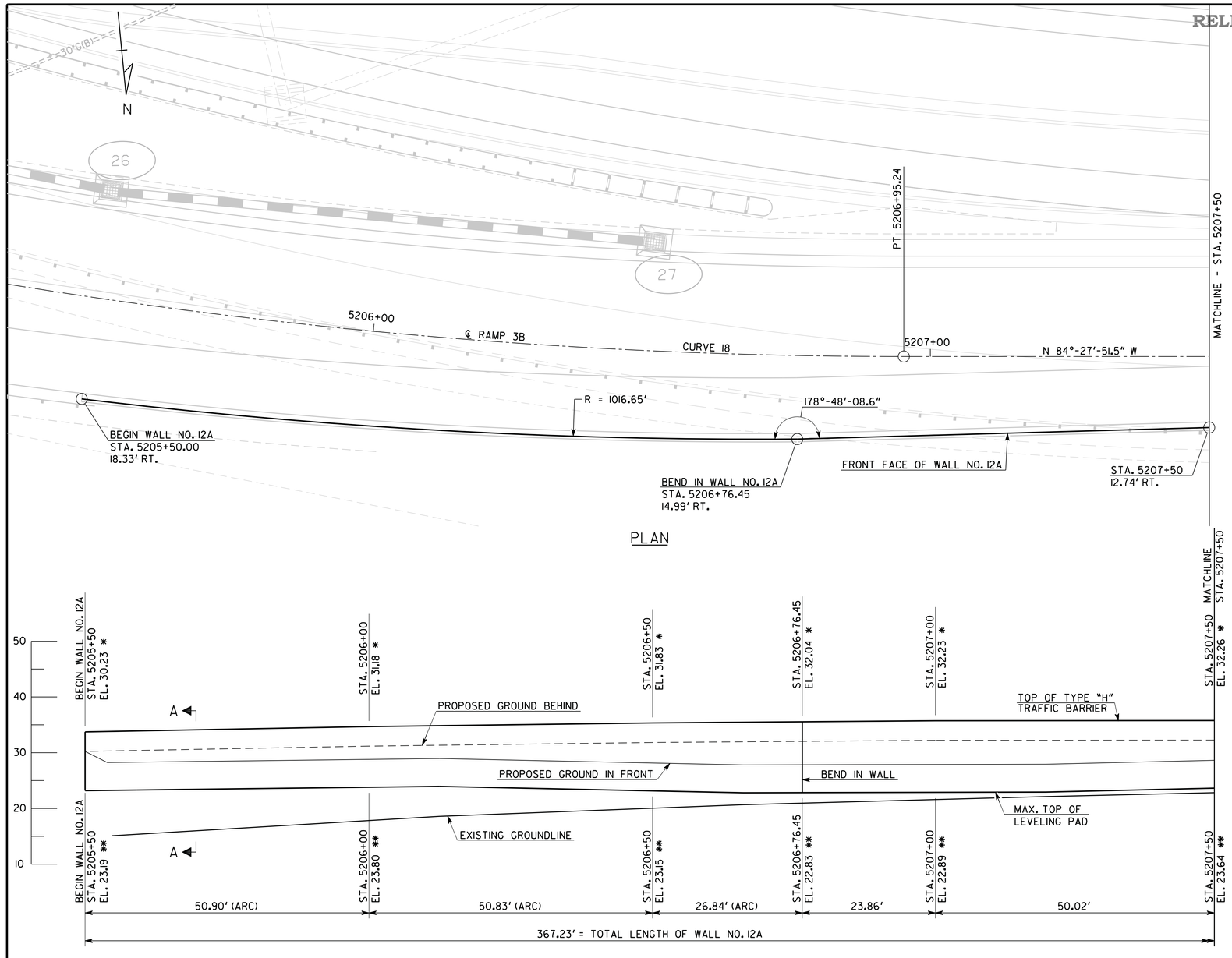
DESIGNED	BSB	CHECKED	ANZ	REVIEWED	WMD/DLC
DRAWN	BSB	DESIGN GROUP	SKG	APPROVED	BFR

REVISIONS	DATE	BY

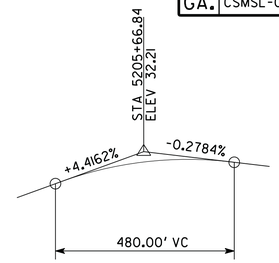
8/7/2013 10:52:35 AM R:\126379\Walls\v8\final\W11-01.dgn

RELEASED FOR CONSTRUCTION: 08/02/2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	463	730



ELEVATION
LOOKING AT FRONT FACE OF WALL



PROFILE GRADE DATA
RAMP 3B

RAMP 3B
HORIZONTAL CURVE DATA

CURVE 18
P.I. STA. 5205+18.41
Δ = 20°-29'-04.9", LT.
D = 05°-43'-46.5"
L = 357.53'
T = 180.69'
R = 1000.00'
E = 16.19'
S.E. = 7.20%
P.C. STA. = 5203+37.71
P.T. STA. = 5206+95.24

SUMMARY OF QUANTITIES

PAY ITEM NUMBER	QUANTITY	UNIT	PAY ITEM
627-1000	2096	SF	MSE WALL FACE, 0 - 10 FT HT, WALL NO - 12A
627-1010	1426	SF	MSE WALL FACE, 10 - 20 FT HT, WALL NO - 12A
627-1160	368	LF	TRAFFIC BARRIER H, WALL NO - 12A

THIS IS A DESIGN BUILD PROJECT AND QUANTITIES PROVIDED ARE FOR INFORMATION ONLY.

WALL NO. 12A DESIGN DATA

COHESION ---------- 25 PSF
ANGLE OF INTERNAL FRICTION ---------- 29°
UNIT WEIGHT ---------- 115 PCF

NOTES:
1. STATIONS AND OFFSETS MEASURED ALONG ℄ RAMP 3B.
2. * ELEVATION AT FINISHED GRADE ALONG FACE OF BARRIER.
3. ** MAXIMUM ELEVATION AT TOP OF LEVELING PAD, TYP.
4. FOR MSE WALL NOTES AND SECTIONS SEE 31-25.

8.2.13
GEORGIA REGISTERED NO. 24732 PROFESSIONAL ENGINEER ROBERT W. BOWMAN

DRAWING NO. 31-017
WALL SHEET 1 OF 2

WALL NO. 12A

THE LPA GROUP
A UNIT OF MICHAEL BAKER CORPORATION
THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

WALL PLAN AND ELEVATION - MSE
JIMMY DELOACH CONNECTOR
CHATHAM COUNTY CSMSL-0008-00(690)

SCALE: 1"= 10'-0" JULY 2013

DESIGNED	BSB	CHECKED	ANZ	REVIEWED	WMD/DLC
DRAWN	BSB	DESIGN GROUP	SKG	APPROVED	BFR

REVISIONS | DATE | BY

1 INCH WHEN PRINTED FULL SIZE

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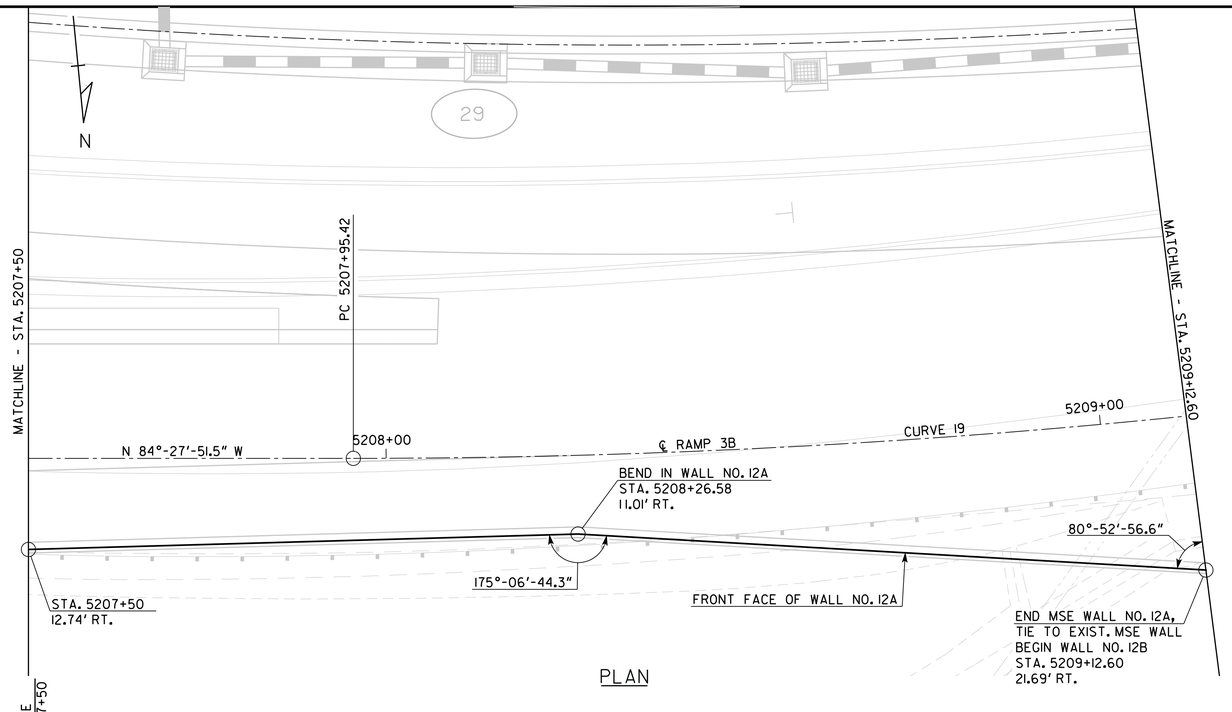
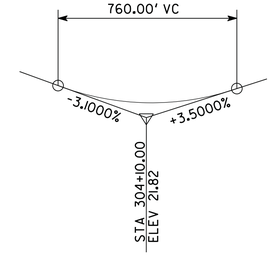
RELEASED FOR CONSTRUCTION: 08/02/2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	464	730



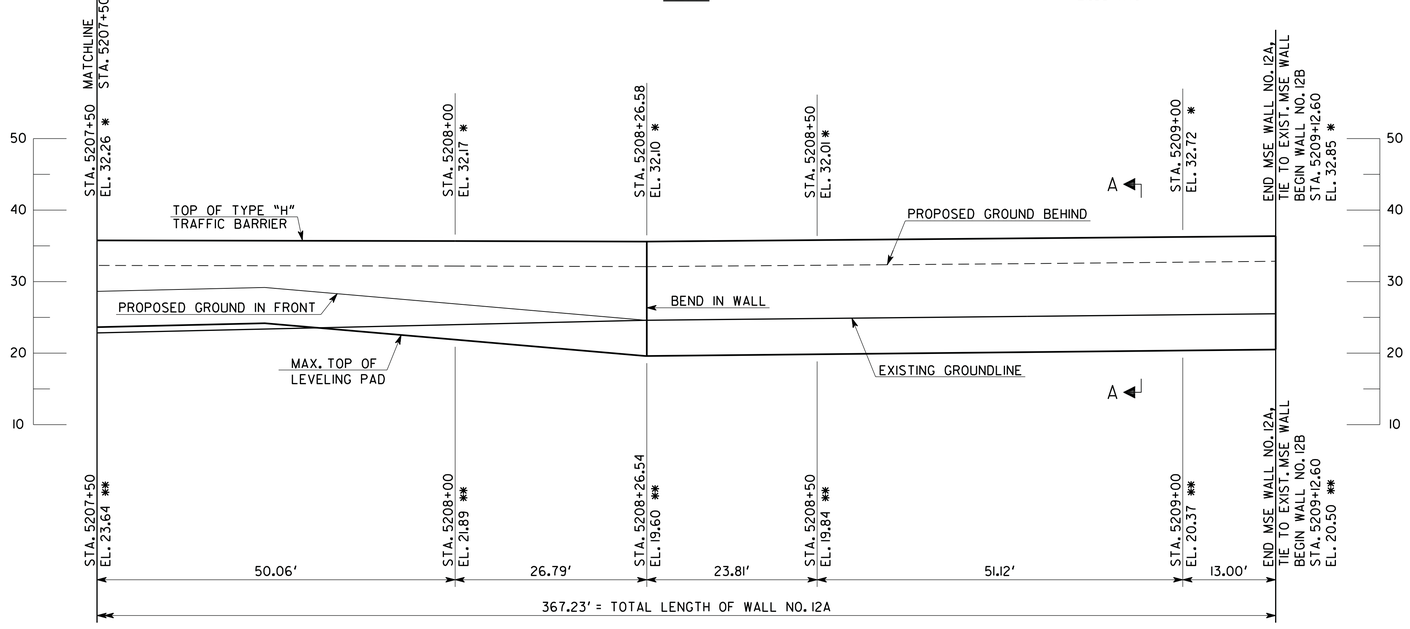
PLAN



VERTICAL CURVE DATA
JIMMY DELOACH CONNECTOR

RAMP 3B
HORIZONTAL CURVE DATA

CURVE 19
P.I. STA. 5210+14.75
Δ = 21°-35'-27.4", LT.
D = 04°-58'-51.6"
L = 433.47'
T = 219.33'
R = 1150.29'
E = 20.72'
S.E. = 5.97%
P.C. STA. = 5207+95.42
P.T. STA. = 5212+28.88



ELEVATION
LOOKING AT FRONT FACE OF WALL

NOTES:
1. STATIONS AND OFFSETS MEASURED ALONG ℄ RAMP 3B.
2. * ELEVATION AT FINISHED GRADE ALONG FACE OF BARRIER.
3. ** MAXIMUM ELEVATION AT TOP OF LEVELING PAD, TYP.
4. FOR MSE WALL NOTES AND SECTIONS SEE 31-25.

WALL NO. 12A

THE LPA GROUP
A UNIT OF MICHAEL BAKER CORPORATION

THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

WALL PLAN AND ELEVATION - MSE
JIMMY DELOACH CONNECTOR
CHATHAM COUNTY CSMSL-0008-00(690)

SCALE: 1" = 10'-0" JULY 2013

DRAWING NO. 31-018
WALL SHEET 2 OF 2

BY	REVISIONS	DATE

DESIGNED BSB | CHECKED ANZ | REVIEWED WMD/DLC
DRAWN BSB | DESIGN GROUP SKG | APPROVED BFR

1 INCH WHEN PRINTED FULL SIZE

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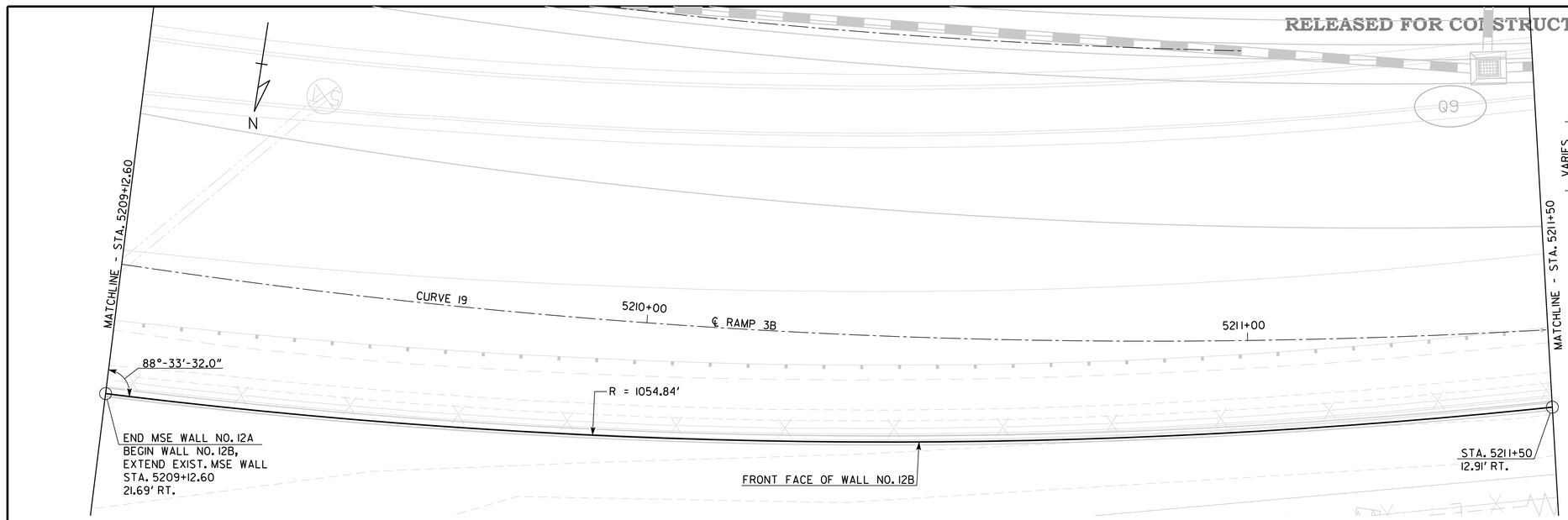
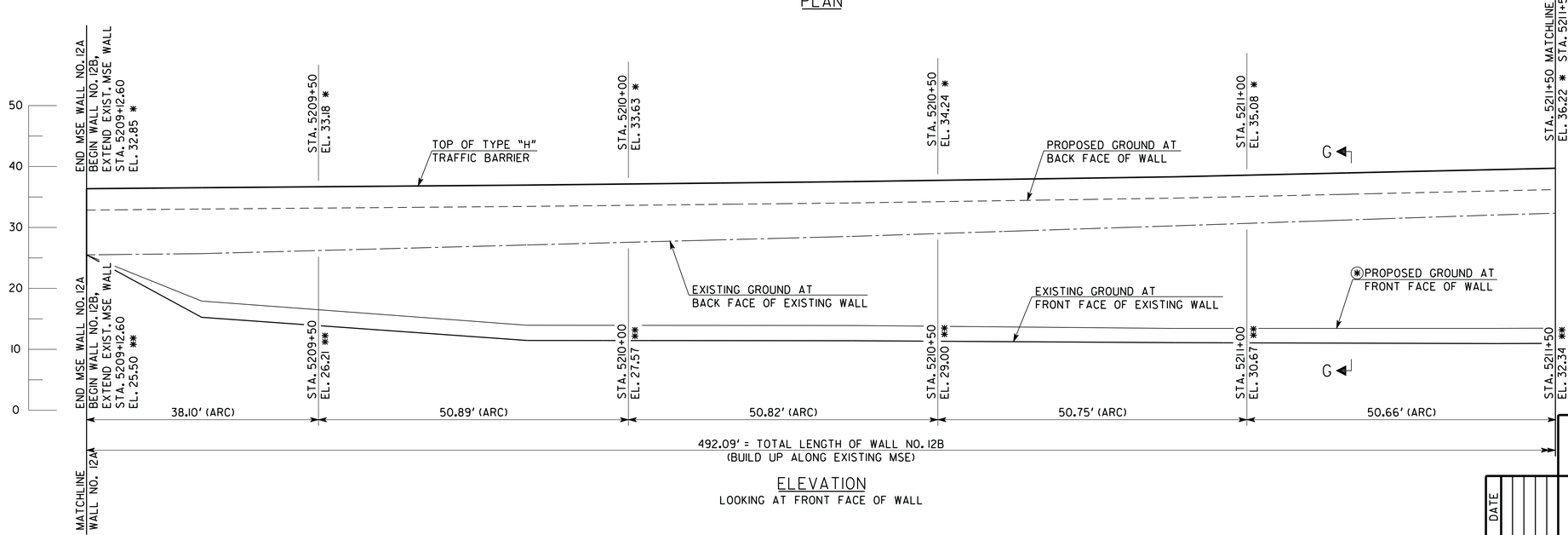
RELEASED FOR CONSTRUCTION: 08/02/2013

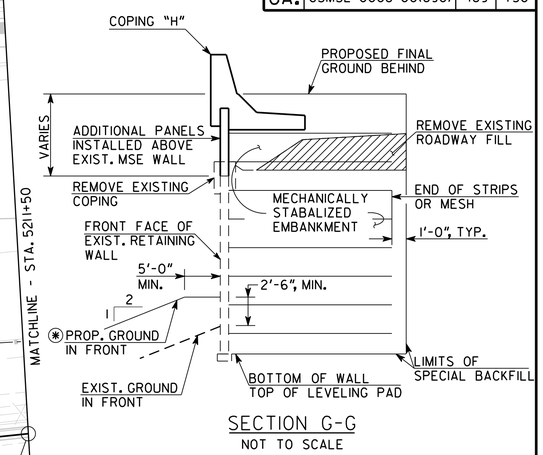
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	465	730



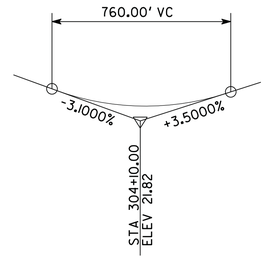
PLAN



ELEVATION
LOOKING AT FRONT FACE OF WALL



SECTION G-G
NOT TO SCALE



VERTICAL CURVE DATA
JIMMY DELOACH CONNECTOR

RAMP 3B
HORIZONTAL CURVE DATA

CURVE 19
P.I. STA. 5210+14.75
Δ = 21°-35'-27.4", LT.
D = 04°-58'-51.6"
L = 433.47'
T = 219.33'
R = 1150.29'
E = 20.72'
S.E. = 5.97%
P.C. STA. = 5207+95.42
P.T. STA. = 5212+28.88

WALL NO. 12B

SUMMARY OF QUANTITIES

PAY ITEM NUMBER	QUANTITY	UNIT	PAY ITEM
627-1000	1903	SF	MSE WALL FACE, 0 - 10 FT HT, WALL NO - 12B
627-1160	493	LF	TRAFFIC BARRIER H, WALL NO - 12B

THIS IS A DESIGN BUILD PROJECT AND QUANTITIES PROVIDED ARE FOR INFORMATION ONLY.

WALL NO. 12B DESIGN DATA

COHESION	25 PSF
ANGLE OF INTERNAL FRICTION	30°
UNIT WEIGHT	120 PCF

NOTES:
1. STATION AND OFFSETS MEASURED ALONG ℄ RAMP 3B.
2. * ELEVATION AT FINISHED GRADE ALONG FACE OF BARRIER.
3. ** ELEVATION AT EXISTING GROUND AT BACK FACE OF EXISTING MSE WALL.
4. FOR MSE WALL NOTES SEE 31-25.
5. ℗ REQUIRED BERM AT FRONT FACE OF EXISTING WALL.

THE LPA GROUP
A WOLF AP ENGINEERING COMPANY
THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

WALL PLAN AND ELEVATION - MSE
JIMMY DELOACH CONNECTOR
CHATHAM COUNTY CSMSL-0008-00(690)

SCALE: 1"= 10'-0" JULY 2013

DESIGNED	BSB	CHECKED	ANZ	REVIEWED	WMD/DLC
DRAWN	BSB	DESIGN GROUP	SKG	APPROVED	BFR

DRAWING NO. 31-019
WALL SHEET 1 OF 2

DATE | REVISIONS | BY

1 INCH WHEN PRINTED FULL SIZE

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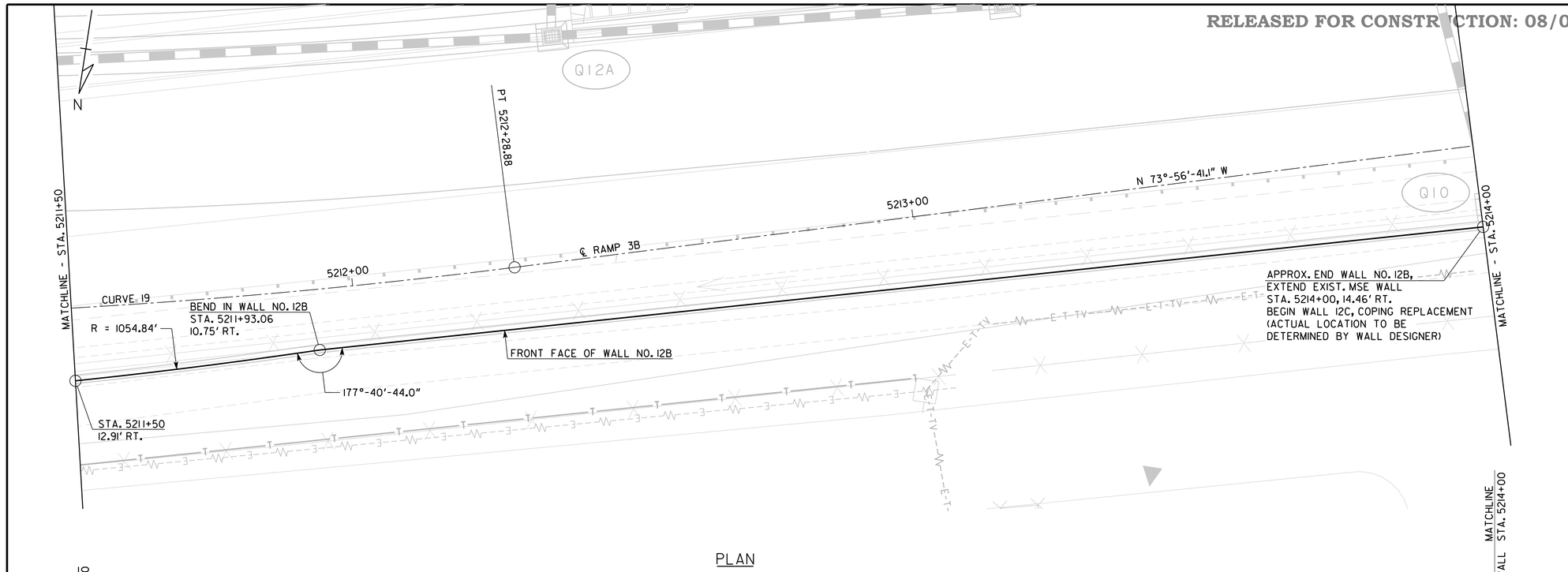
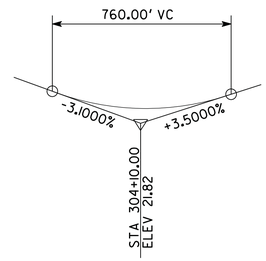
RELEASED FOR CONSTRUCTION: 08/02/2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	466	730



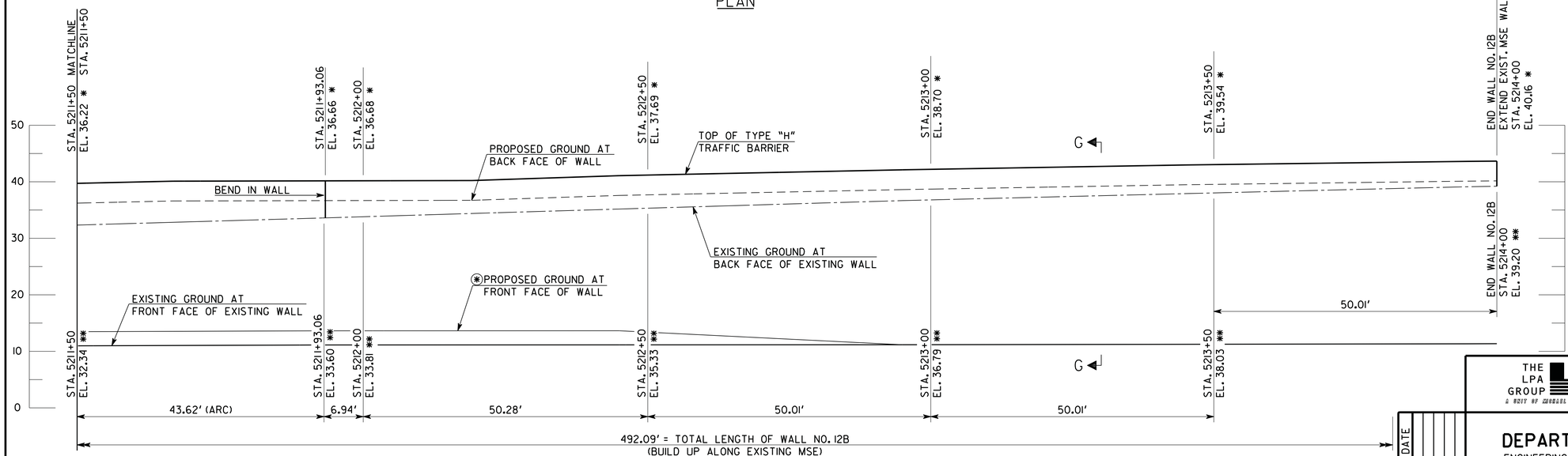
PLAN



VERTICAL CURVE DATA
JIMMY DELOACH CONNECTOR

RAMP 3B
HORIZONTAL CURVE DATA

CURVE 19
P.I. STA. 5210+14.75
Δ = 21°-35'-27.4", LT.
D = 04°-58'-51.6"
L = 433.47'
T = 219.33'
R = 1150.29'
E = 20.72'
S.E. = 5.97%
P.C. STA. = 5207+95.42
P.T. STA. = 5212+28.88



ELEVATION
LOOKING AT FRONT FACE OF WALL

NOTES:
1. STATION AND OFFSETS MEASURED ALONG ℄ RAMP 3B.
2. * ELEVATION AT FINISHED GRADE ALONG FACE OF BARRIER.
3. ** ELEVATION AT EXISTING GROUND AT BACK FACE OF EXISTING MSE WALL.
4. FOR MSE WALL NOTES SEE 31-25.
5. FOR MSE WALL SECTION SEE 31-19.
6. (*) REQUIRED BERM AT FRONT FACE OF EXISTING WALL.

THE LPA GROUP
A UNIT OF MICHAEL BAKER CORPORATION
THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

WALL PLAN AND ELEVATION - MSE
JIMMY DELOACH CONNECTOR
CHATHAM COUNTY CSMSL-0008-00(690)

SCALE: 1" = 10'-0" JULY 2013

DRAWING NO. 31-020
WALL SHEET 2 OF 2

BY	REVISIONS	DATE

DESIGNED BSB | CHECKED ANZ | REVIEWED WMD/DLC
DRAWN BSB | DESIGN GROUP SKG | APPROVED BFR

1 INCH WHEN PRINTED FULL SIZE

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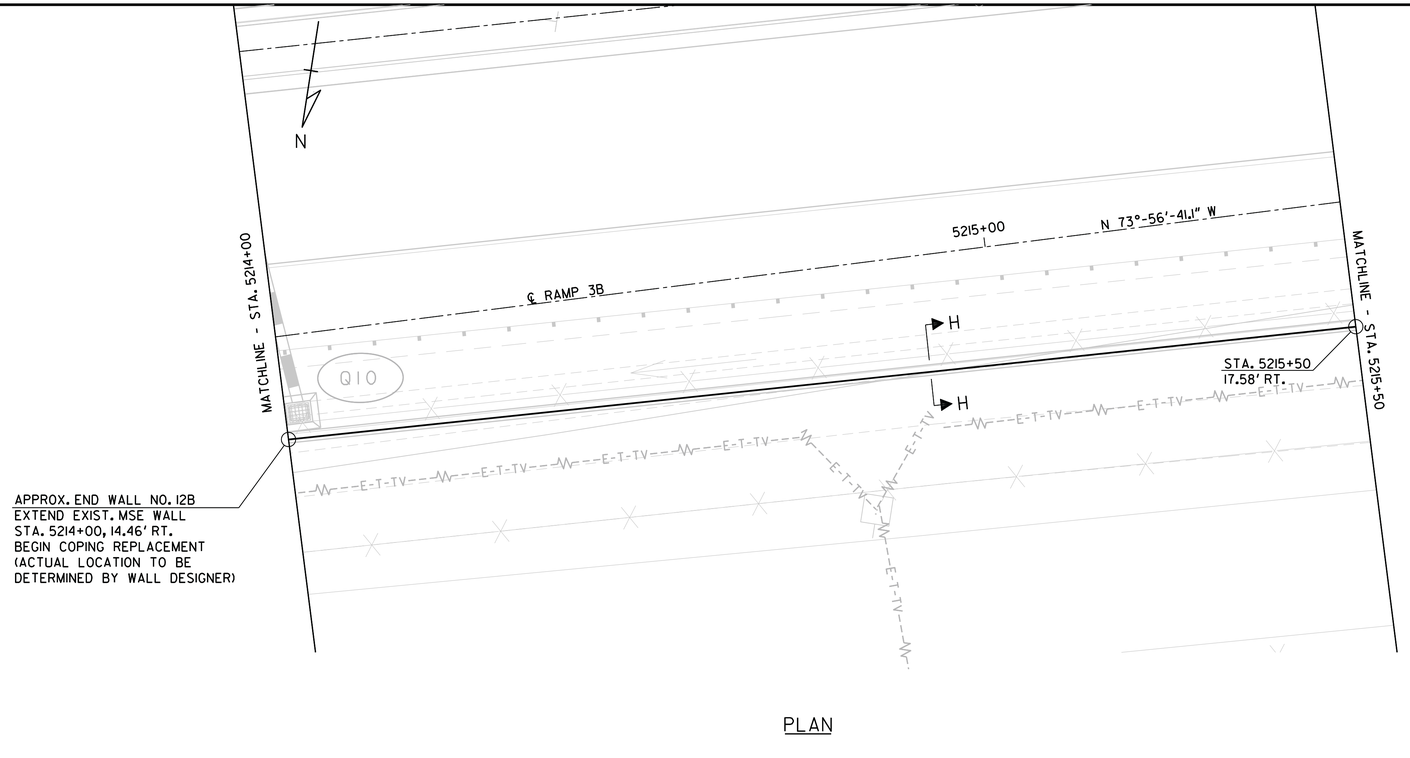
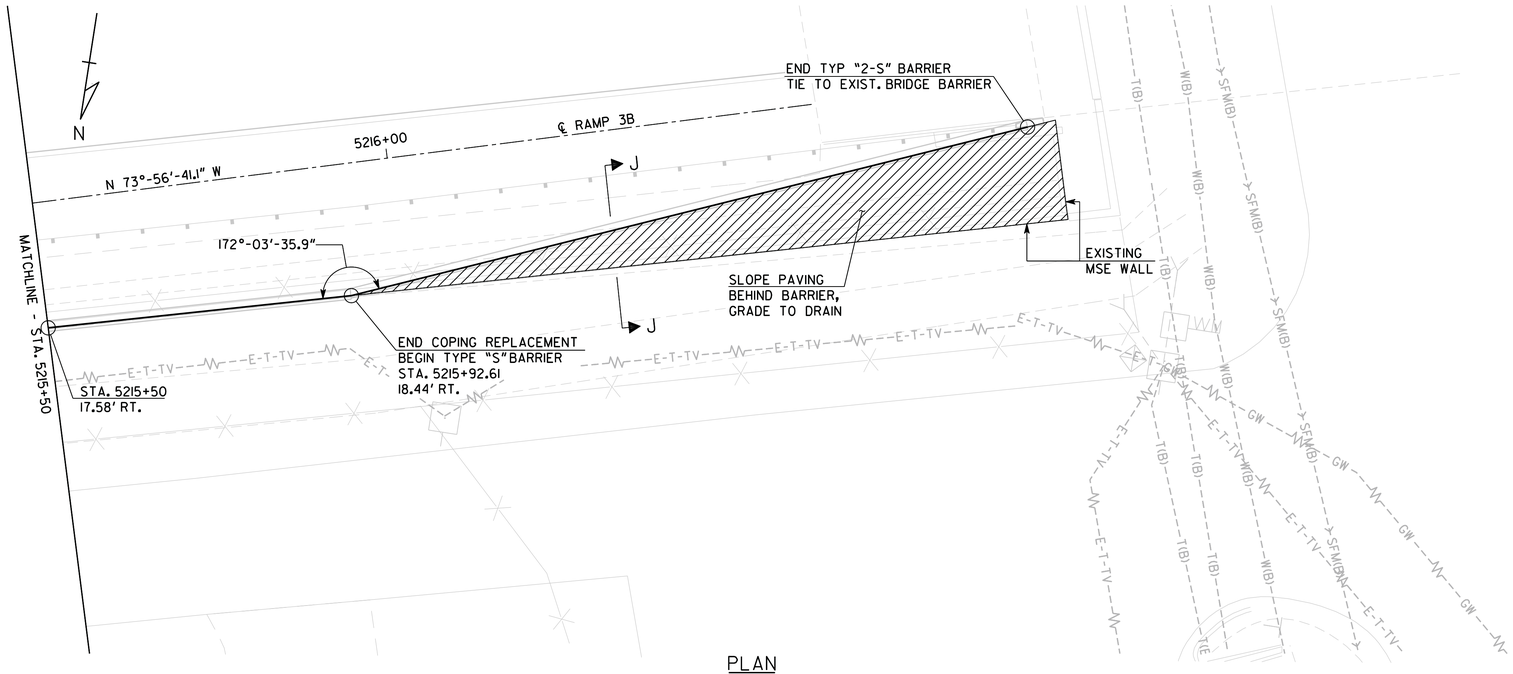
RELEASED FOR CONSTRUCTION: 08/02/2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	467	730



PLAN



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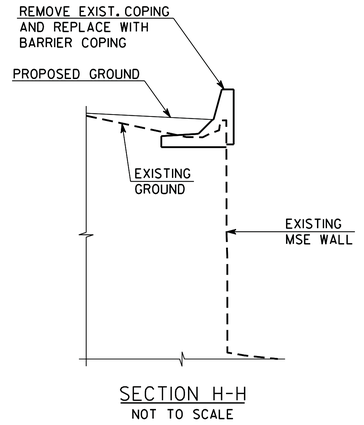
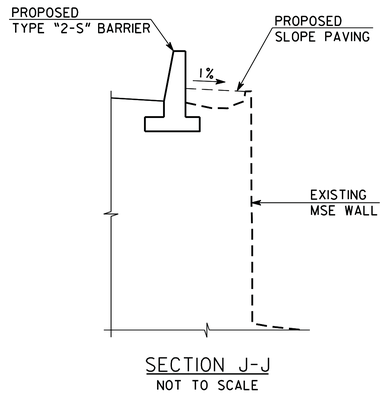


SECTION H-H
NOT TO SCALE



SECTION J-J
NOT TO SCALE

SUMMARY OF QUANTITIES

PAY ITEM NUMBER	QUANTITY	UNIT	PAY ITEM
627-1160	193	LF	TRAFFIC BARRIER H, WALL NO - 12C
621-6200	98	LF	CONCRETE SIDE BARRIER, TP 2-S

THIS IS A DESIGN BUILD PROJECT AND QUANTITIES PROVIDED ARE FOR INFORMATION ONLY.

WALL NO. 12C

THE LPA GROUP
A UNIT OF GENERAL DATA CORPORATION
THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

WALL PLAN - MSE COPING & BARRIER
JIMMY DELOACH CONNECTOR
CHATHAM COUNTY CSMSL-0008-00(690)

SCALE: 1"= 10'-0" JULY 2013

DRAWING NO.	REVISIONS	DATE	BY
31-021			
WALL SHEET 1 OF 1			

DESIGNED BSB | CHECKED ANZ | REVIEWED WMD/DLC
DRAWN BSB | DESIGN GROUP SKG | APPROVED BFR

1 INCH WHEN PRINTED FULL SIZE

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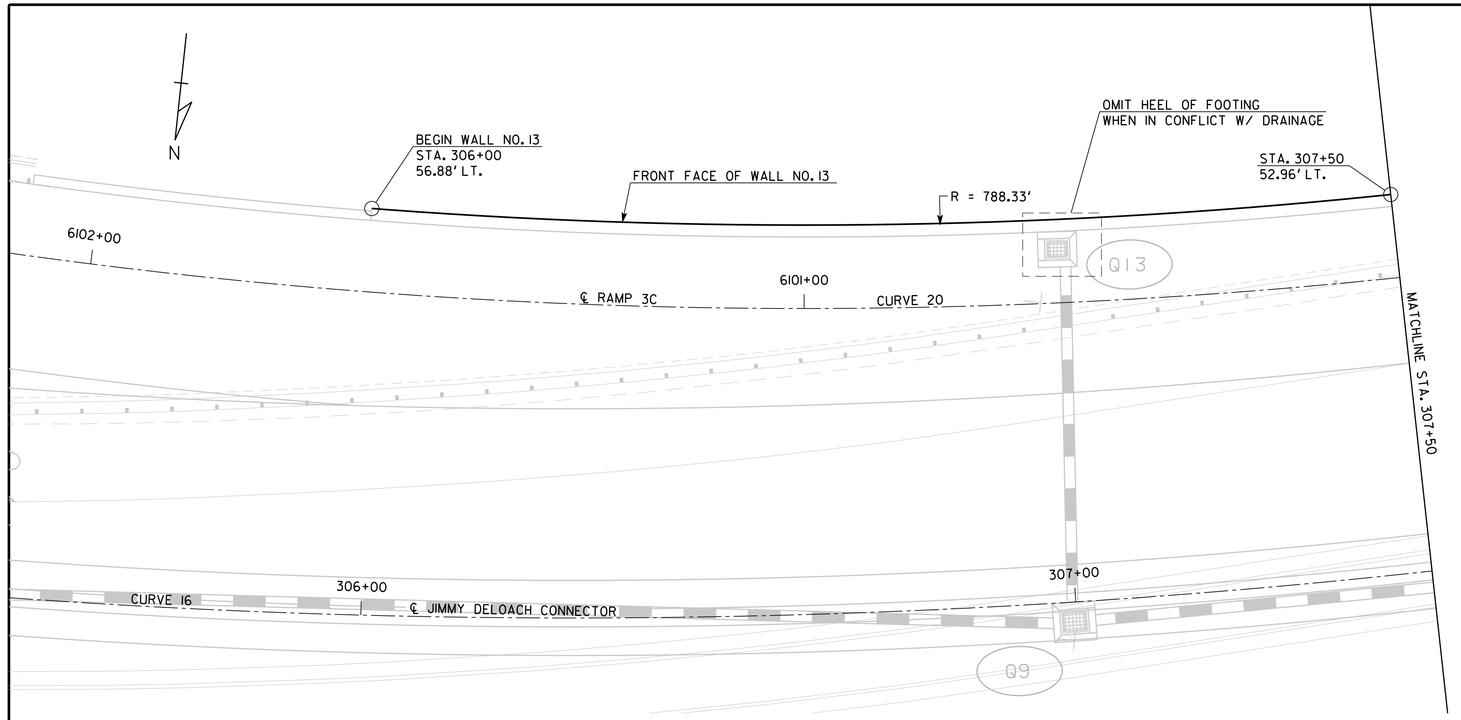
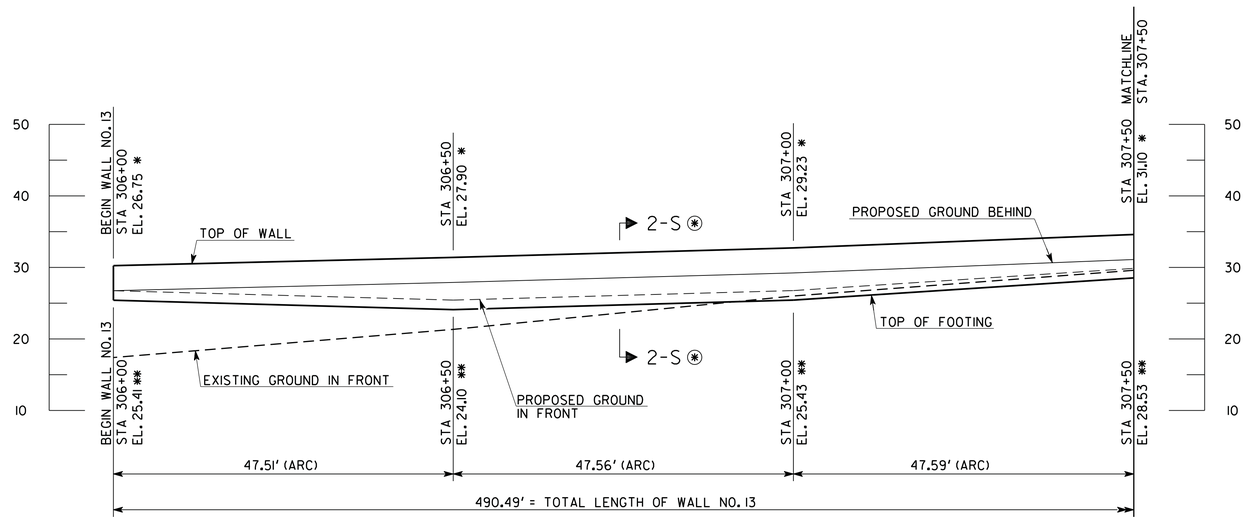
RELEASED FOR CONSTRUCTION: 08/02/2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	469	730



PLAN



ELEVATION
LOOKING AT BACK FACE OF WALL

WALL NO.13 DESIGN DATA

COHESION ---------- 0 PSF

ANGLE OF INTERNAL FRICTION ---------- 30°

UNIT WEIGHT ---------- 120 PCF

COEFFICIENT OF SLIDING FRICTION ---------- 0.40

SUMMARY OF QUANTITIES

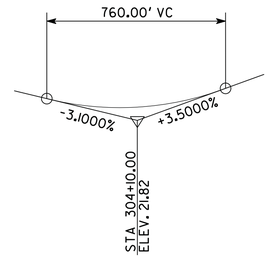
PAY ITEM NUMBER	QUANTITY	UNIT	PAY ITEM
621-6200	491	LF	CONCRETE SIDE BARRIER, TP 2-S

JIMMY DELOACH CONNECTOR HORIZONTAL CURVE DATA

CURVE 16
P.I. STA. 303+18.24
Δ = 54°-32'-15.2", LT.
D = 05°-12'-31.3"
L = 1047.05'
T = 566.99'
R = 1100.00'
E = 137.53'
S.E. = 5.97%
P.C. STA. = 297+51.25
P.T. STA. = 307+98.29

RAMP 3C HORIZONTAL CURVE DATA

CURVE 20
P.I. STA. 6104+19.42
Δ = 55°-20'-01.8", RT.
D = 07°-09'-43.2"
L = 772.60'
T = 419.42'
R = 800.00'
E = 103.28'
S.E. = 7.60%
P.C. STA. = 6100+00
P.T. STA. = 6107+72.60



VERTICAL CURVE DATA JIMMY DELOACH CONNECTOR

NOTES:
1. STATIONS AND OFFSETS MEASURED ALONG ℄ JIMMY DELOACH CONNECTOR.
2. * ELEVATION AT FINISHED GRADE ALONG FACE OF BARRIER.
3. ** MAXIMUM ELEVATION AT TOP OF FOOTING, TYP.
4. ⊛ TYPE 2-S, SEE MODIFIED STD. 4948.

8.2.13
GEORGIA REGISTERED NO. 24732 PROFESSIONAL ENGINEER ROBERT W. BOWMAN

DRAWING NO. 31-022
WALL SHEET 1 OF 3

WALL NO. 13

THE LPA GROUP LPA
A UNIT OF MICHAEL BAKER CORPORATION
THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

WALL PLAN AND ELEVATION - TYPE 2-S CIP
JIMMY DELOACH CONNECTOR
CHATHAM COUNTY CSMSL-0008-00(690)

SCALE: 1"= 10'-0" JULY 2013

DESIGNED	BSB	CHECKED	ANZ	REVIEWED	WMD/DLC
DRAWN	BSB	DESIGN GROUP	SKG	APPROVED	BFR

REVISIONS | DATE | BY

1 INCH WHEN PRINTED FULL SIZE

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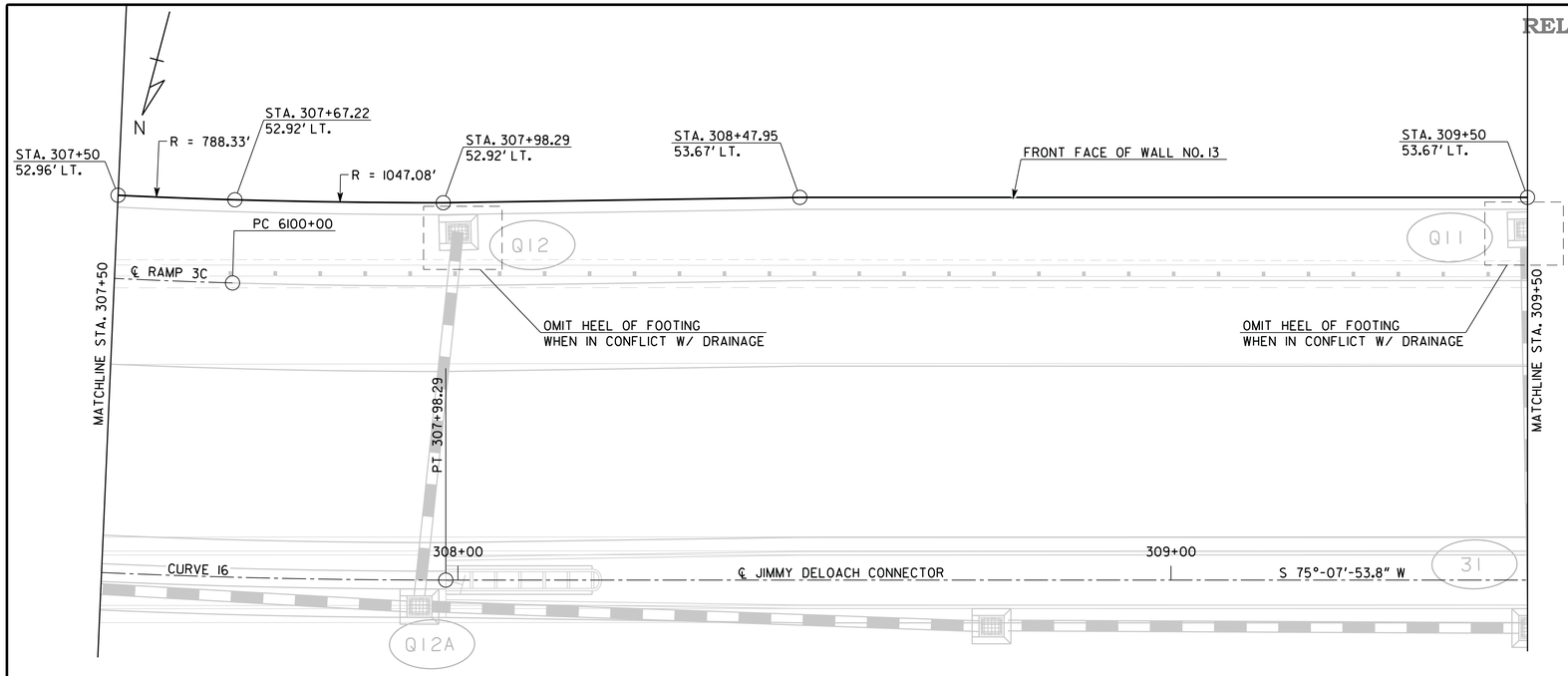
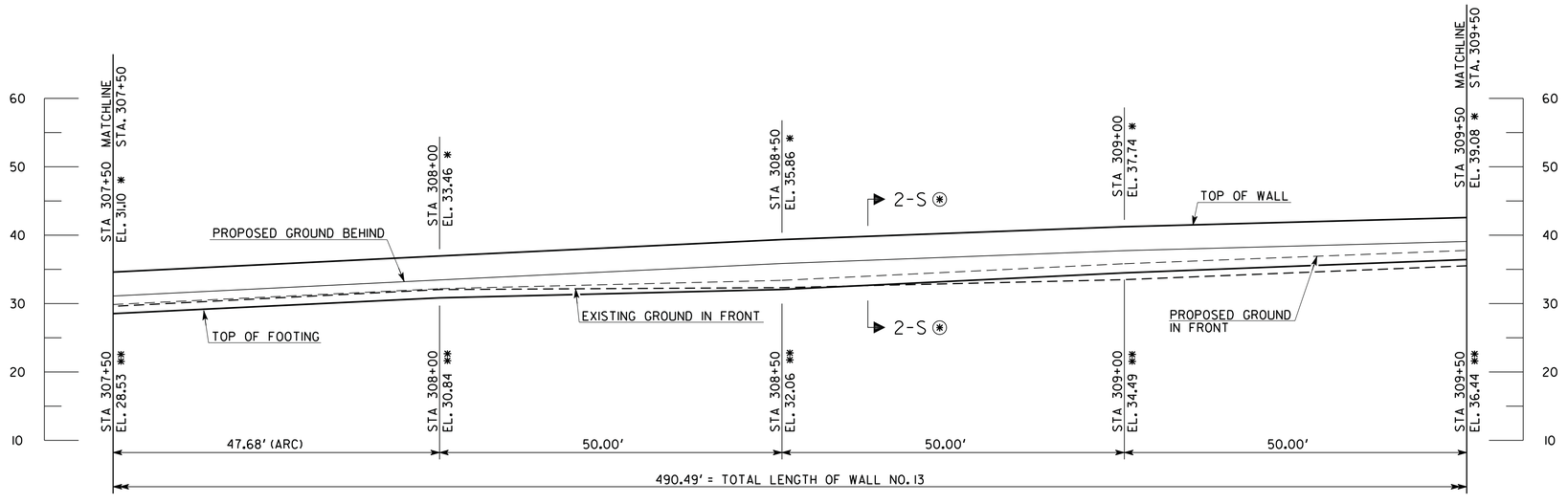
RELEASED FOR CONSTRUCTION: 08/02/2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	469	730



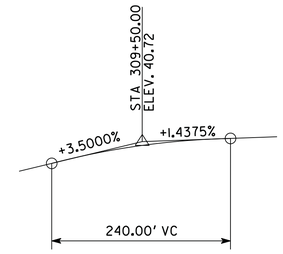
PLAN



ELEVATION
LOOKING AT BACK FACE OF WALL

JIMMY DELOACH CONNECTOR HORIZONTAL CURVE DATA

CURVE 16
P.I. STA. 303+18.24
Δ = 54°-32'-15.2", LT.
D = 05°-12'-31.3"
L = 1047.05'
T = 566.99'
R = 1100.00'
E = 137.53'
S.E. = 5.97%
P.C.C. STA. = 297+51.25
P.T. STA. = 307+98.29



VERTICAL CURVE DATA
JIMMY DELOACH CONNECTOR

NOTES:
1. STATIONS AND OFFSETS MEASURED ALONG ℄ JIMMY DELOACH CONNECTOR.
2.* ELEVATION AT FINISHED GRADE ALONG FACE OF BARRIER.
3.** MAXIMUM ELEVATION AT TOP OF FOOTING, TYP.
4.⊛ TYPE 2-S, SEE MODIFIED STD. 4948.

WALL NO. 13

THE LPA GROUP
A UNIT OF MICHAEL BAKER CORPORATION
THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

WALL PLAN AND ELEVATION - TYPE 2-S CIP
JIMMY DELOACH CONNECTOR
CHATHAM COUNTY CSMSL-0008-00(690)

SCALE: 1"= 10'-0" JULY 2013

DESIGNED	BSB	CHECKED	ANZ	REVIEWED	WMD/DLC
DRAWN	BSB	DESIGN GROUP	SKG	APPROVED	BFR

DRAWING NO.	REVISIONS	DATE	BY
31-023			
WALL SHEET 2 OF 3			

1 INCH WHEN PRINTED FULL SIZE

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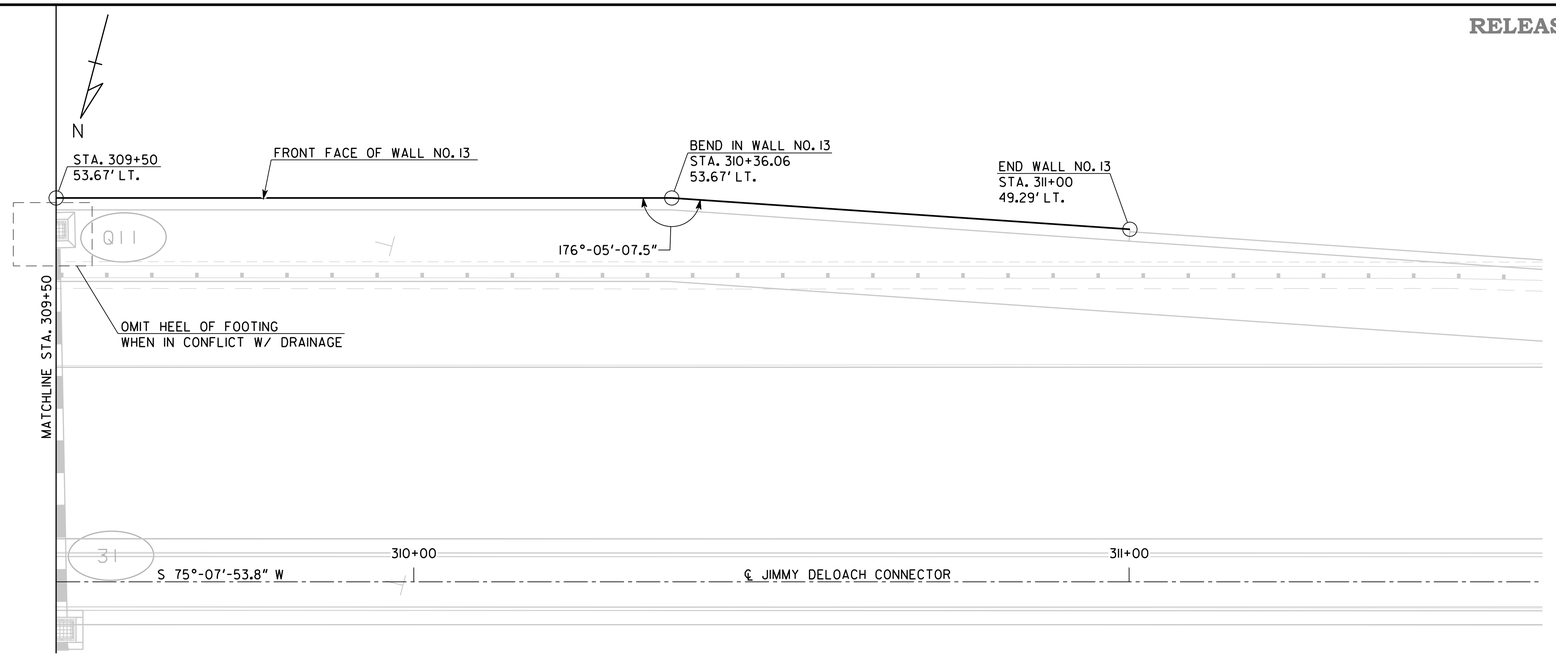
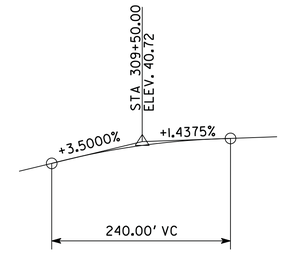
RELEASED FOR CONSTRUCTION: 08/02/2013

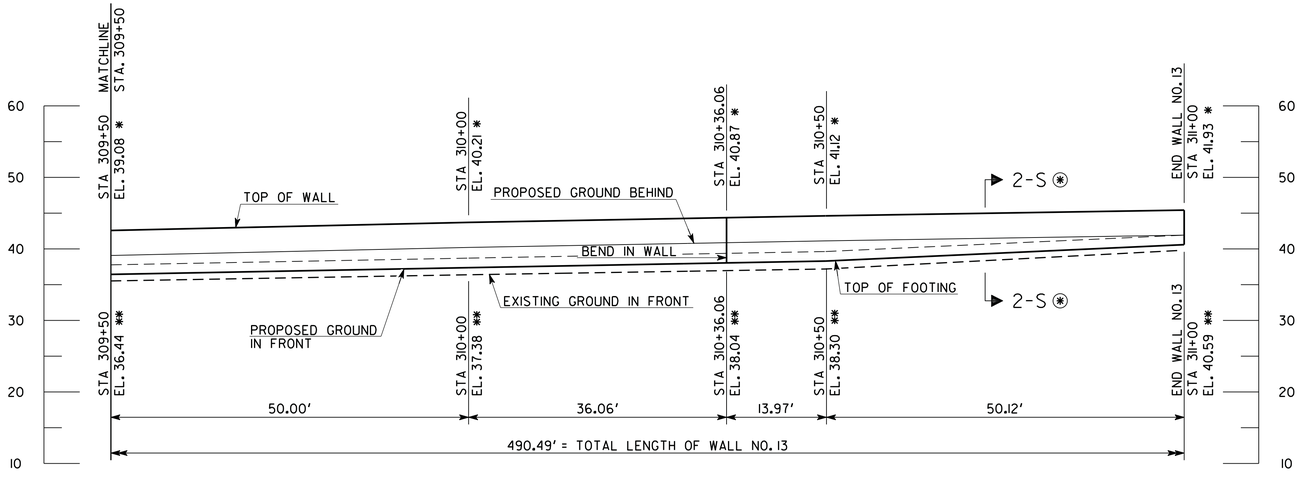
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	470	730



PLAN



VERTICAL CURVE DATA
JIMMY DELOACH CONNECTOR



ELEVATION
LOOKING AT BACK FACE OF WALL

NOTES:
1. STATIONS AND OFFSETS MEASURED ALONG ℄ JIMMY DELOACH CONNECTOR.
2.* ELEVATION AT FINISHED GRADE ALONG FACE OF BARRIER.
3.** MAXIMUM ELEVATION AT TOP OF FOOTING, TYP.
4.⊛ TYPE 2-S, SEE MODIFIED STD. 4948.

WALL NO. 13

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GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

WALL PLAN AND ELEVATION - TYPE 2-S CIP
JIMMY DELOACH CONNECTOR
CHATHAM COUNTY CSMSL-0008-00(690)

DRAWING NO.	REVISIONS	BY	DATE
31-024			
WALL SHEET 3 OF 3			

SCALE: 1"= 10'-0" JULY 2013

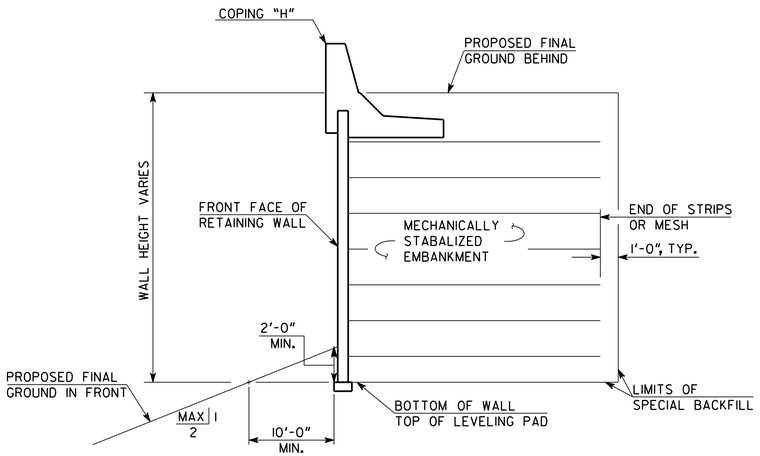
DESIGNED	BSB	CHECKED	ANZ	REVIEWED	WMD/DLC
DRAWN	BSB	DESIGN GROUP	SKG	APPROVED	BFR

1 INCH WHEN PRINTED FULL SIZE

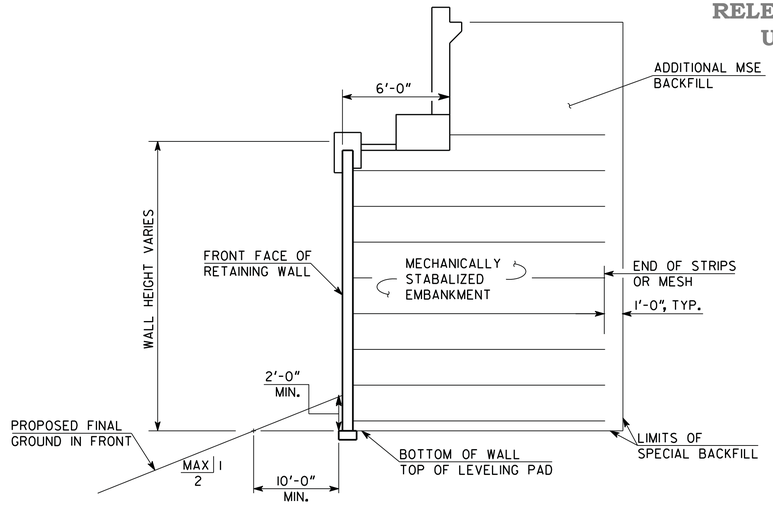
8/6/2013 1:38:32 PM R:\126379\Walls\v8\final\W13-03.dgn

RELEASED FOR CONSTRUCTION: 05/21/2013
USE ON CONSTRUCTION: 08/02/2013

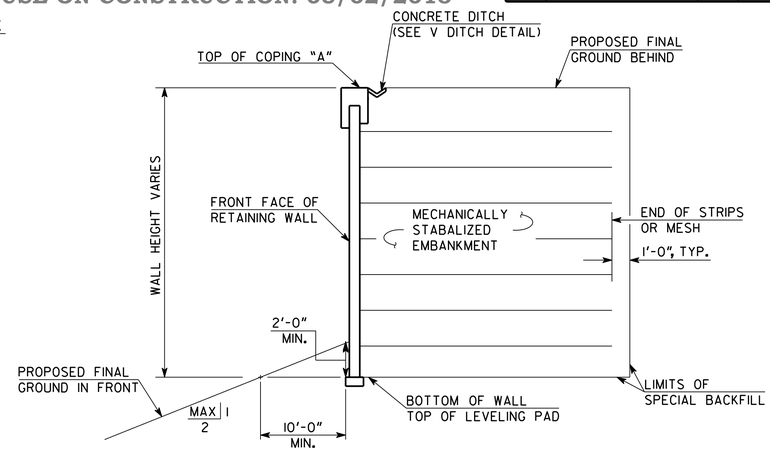
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	471	730



SECTION A-A
NOT TO SCALE



SECTION B-B
NOT TO SCALE



SECTION C-C
NOT TO SCALE

NOTES

SPECIFICATIONS - GEORGIA STANDARD SPECIFICATIONS, 2001 EDITION AND 2008 SUPPLEMENTAL SPECIFICATIONS, AS MODIFIED BY CONTRACT DOCUMENTS.

REINFORCING STEEL - PLACE AND TIE ALL REINFORCING STEEL IN ACCORDANCE WITH THE GEORGIA DOT SPECIFICATIONS. DO NOT WELD REINFORCING STEEL.

FINISH - PROVIDE PLAIN CONCRETE FINISH.

GRAFFITI PROOF COATING - ALL MSE WALL PANELS SHALL HAVE A GRAFFITI PROOF COATING AS PER SECTION 838 OF THE GEORGIA DOT SPECIFICATIONS.

CONCRETE COVER - MAINTAIN 2 INCHES COVER MINIMUM ON ALL REINFORCING STEEL.

STAGE CONSTRUCTION - THE WALLS MAY BE CONSTRUCTED IN STAGES TO IMPROVE THE UNDERLYING SOIL BEARING CAPACITY.

JOINTS - PROVIDE ONE INCH EXPANSION JOINT IN COPING OR BARRIER AT EVERY FOURTH PANEL.

WELDING - ALL WELDING ON GEORGIA DOT PROJECTS SHALL BE PERFORMED BY CERTIFIED WELDERS THAT HAVE IN THEIR POSSESSION A CURRENT WELDING CERTIFICATION CARD ISSUED BY THE OFFICE OF MATERIALS. USE ONLY E70XX (EXCLUDING E7014 AND E7024) LOW HYDROGEN ELECTRODES FOR MANUAL SHIELDED METAL ARC WELDING.

SERVICE STATE LIMITS - SHORT TERM LIMIT IS DEFINED AS SETTLEMENT TO TAKE PLACE DURING CONSTRUCTION. LONG TERM LIMIT IS DEFINED AS SETTLEMENT TO TAKE PLACE AFTER WALL CONSTRUCTION. TOTAL ESTIMATED SETTLEMENT IS DEFINED AS THE SUM OF SHORT TERM LIMIT AND LONG TERM LIMIT SETTLEMENTS. DESIGN WALL FOR TOTAL ESTIMATED SETTLEMENT TO OCCUR DURING WALL CONSTRUCTION. ALL THREE SETTLEMENT LIMITS ARE SHOWN BELOW:

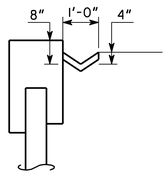
WALL	SHORT TERM LIMIT, IN	LONG TERM LIMIT, IN	ESTIMATED TOTAL SETTLEMENT, IN
1	6	2	8
2	6	2	8
3	7	2	9
4	7	2	9
5	13	4	17
6	16	4	20
7	9	3	12
8	8	2	10
9	24	6	30
10	22	6	28
12A	3	1	4
12B	2	0.5	2.5

DESIGN CALCULATIONS - CONTRACTOR TO PROVIDE WALL DESIGN CALCULATIONS FOR REVIEW AND APPROVAL BY THE DEPARTMENT. CALCULATIONS FOR EACH WALL DESIGN SECTION SHALL INCLUDE THE VERIFICATION OF INTERNAL STABILITY AND EXTERNAL STABILITY, AS WELL AS A DETERMINATION OF THE BEARING CAPACITY AND ESTIMATED SETTLEMENT FOR THE APPROPRIATE LRFD LIMIT STATE.

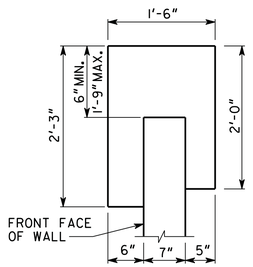
GROUNDWATER - A MINIMUM OF 18" OF MSE BACKFILL MAY BE REQUIRED DUE TO GROUNDWATER LEVELS AT TIME OF CONSTRUCTION, AT THE DIRECTION OF THE ENGINEER.

WICK DRAINS - WICK DRAINS MAY BE USED AT THE CONTRACTORS OPTION TO REDUCE SETTLEMENT TIME. SEE ROADWAY PLANS, GENERAL NOTES, FOR INSTALLATION DETAILS.

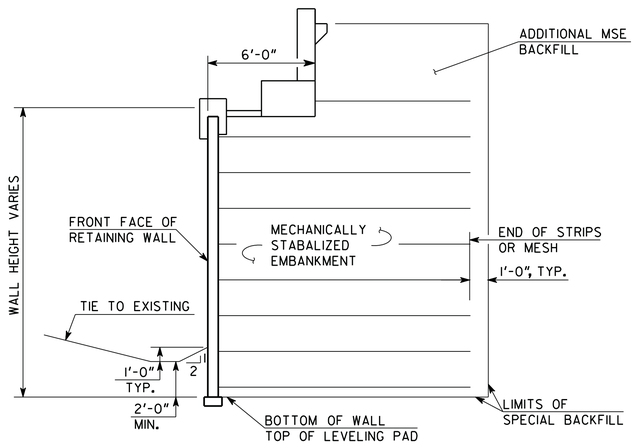
SOIL REMOVAL/STABILIZATION - SOIL REMOVAL/STABILIZATION IS REQUIRED AT WALLS 9, 10, 11, AND 12A, SEE ROADWAY PLANS, GENERAL NOTES FOR DETAILS. TREATMENT SHALL EXTEND A MINIMUM OF 5 FT BEYOND LIMITS OF MSE GEOGRID REINFORCING.



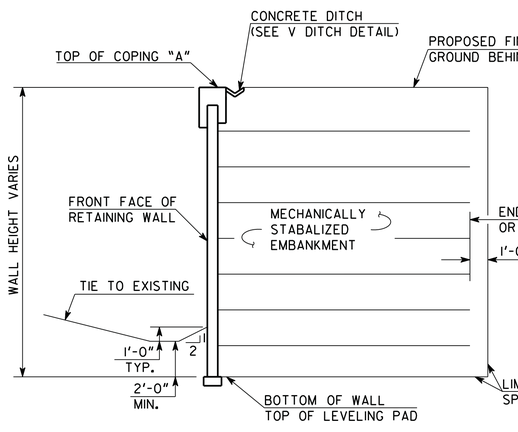
V DITCH DETAIL



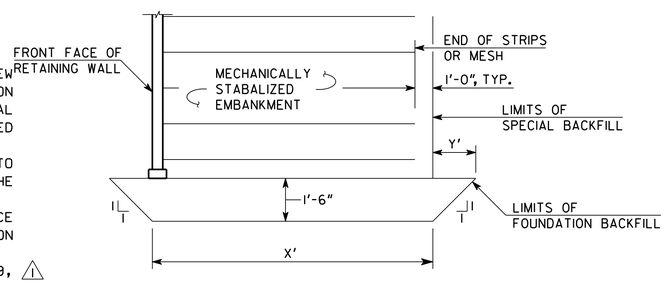
C.I.P. COPING, A



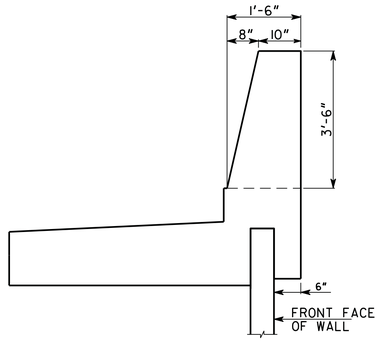
SECTION D-D
NOT TO SCALE



SECTION E-E
NOT TO SCALE



FOUNDATION BACKFILL DETAIL



C.I.P. TRAFFIC BARRIER, TYPE H

WALLS 1- 13

THE LPA GROUP
A UNIT OF GOSSAGE REGER CORPORATION

THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

WALL SECTIONS AND DETAILS - MSE

JIMMY DELOACH CONNECTOR

CHATHAM COUNTY CSMSL-0008-00(690)

BY	REVISIONS	DATE
BSB	REVISED WALL NOTES	08/02/2013

SCALE: NONE JULY 2013

DRAWING NO. 31-025
WALL SHEET 1 OF 1

DESIGNED BSB | DRAWN BSB | CHECKED ANZ | DESIGN GROUP AWB/SKG | REVIEWED WMD/DLC | APPROVED BFR

1 INCH WHEN PRINTED FULL SIZE

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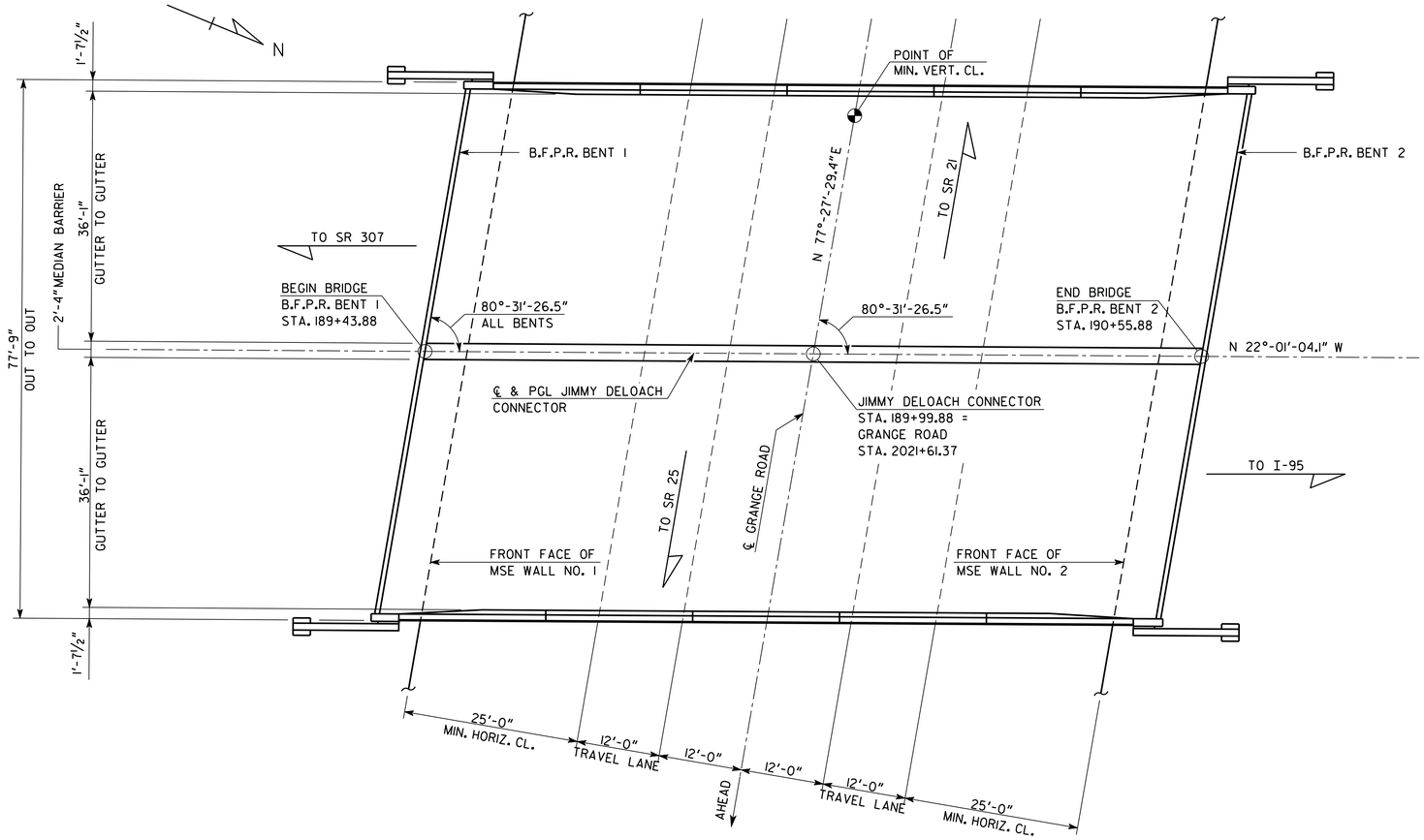
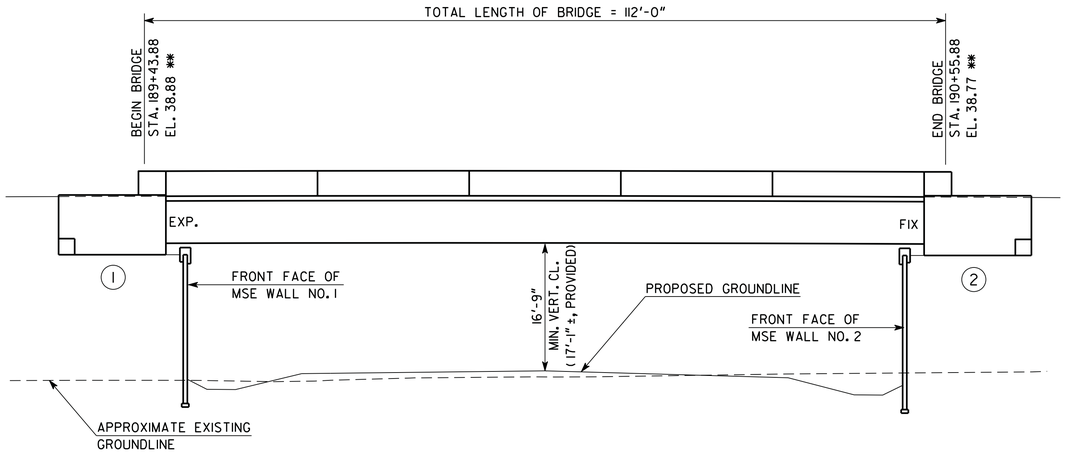
RELEASED FOR CONSTRUCTION: 05/21/2013

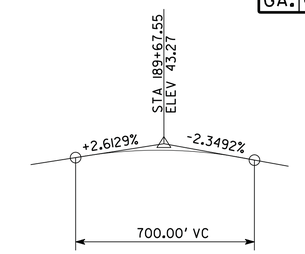
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	472	730



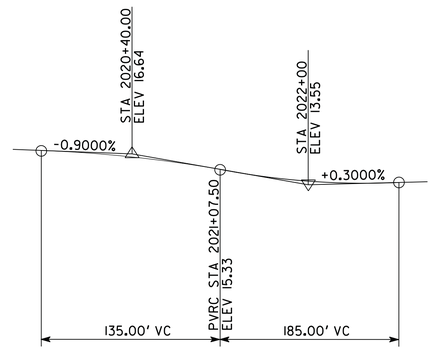
PLAN



ELEVATION



VERTICAL CURVE DATA
JIMMY DELOACH CONNECTOR
NOT TO SCALE



VERTICAL CURVE DATA
GRANGE ROAD
NOT TO SCALE

NOTES

1. ** ALL STATIONS AND ELEVATIONS MEASURED AT INTERSECTION OF PROFILE GRADE LINE AND BFPR.
2. END BENT PILES NOT SHOWN.
3. ALL BENTS PARALLEL TO ℄ OF GRANGE ROAD.

P.I. NO. 0008690

BRIDGE NO. 1

THE LPA GROUP
A UNIT OF MICHAEL BAKER CORPORATION

THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

PLAN AND ELEVATION
JIMMY DELOACH CONNECTOR
OVER GRANGE ROAD
CHATHAM COUNTY CSMSL-0008-00(690)

5-21-13
GEORGIA REGISTERED NO. 24732 PROFESSIONAL ENGINEER ALBERT W. BOWMAN

DATE	REVISIONS	BY

DRAWING NO. 35-01

BRIDGE SHEET 1 OF 9

SCALE: 1" = 10'-0"

JULY 2013

DESIGNED BSB	CHECKED ANZ	REVIEWED DLC/WMD
DRAWN BSB	DESIGN GROUP AWB/SKG	APPROVED BFR

1 INCH WHEN PRINTED FULL SIZE

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BRIDGE CONSISTS OF

1 - 112'-0" BULB TEE, 63 IN, PSC BEAM SPAN ---------- SPECIAL DESIGN

2 - PSC PILE END BENTS ---------- SPECIAL DESIGN

4 - END POST AND GUARDRAIL ATTACHMENT DETAIL ------- GA. STD. 3054 (9-30-02)
2 - (L = 4'-0"; W = 1'-1"; H = 3'-6")
2 - (L = 4'-3"; W = 1'-1"; H = 3'-6")

SQUARE PRESTRESSED CONCRETE PILES ---------- SPECIAL DESIGN
SEE DRAWING NO. 37-01 TO 37-05

BAR BENDING DETAILS ---------- GA. STD. 3901 (8-69)

TYPICAL FILL DETAIL AT END OF BRIDGE ---------- GA. STD. 9037 (9-99)

TRAFFIC DATA - JIMMY DELOACH CONNECTOR

TRAFFIC ---------- ADT = 23,360 (2012)
ADT = 30,880 (2032)

DESIGN SPEED ---------- 55 MPH

TRUCKS ---------- 60 %

24 HR TRUCKS ---------- 55 %

DIRECTIONAL ---------- 54 %

UTILITIES

NO UTILITIES ON BRIDGE

GENERAL NOTES

SPECIFICATIONS - GEORGIA STANDARD SPECIFICATIONS, 2001 EDITION, AND 2008 SUPPLEMENTAL SPECIFICATIONS AS MODIFIED BY CONTRACT DOCUMENTS.

SHOP DRAWINGS - SUBMIT SHOP DRAWINGS TO ENGINEER OF RECORD (EOR) FOR INITIAL REVIEW AND APPROVAL. ONCE APPROVED AND STAMPED BY EOR, EOR SHALL SUBMIT 6 STAMPED SETS TO THE GEORGIA DOT OFFICE OF BRIDGES AND STRUCTURES FOR REVIEW AND APPROVAL.

REINFORCING STEEL - PLACE AND TIE ALL REINFORCING STEEL IN ACCORDANCE WITH THE GEORGIA DOT SPECIFICATIONS. DO NOT WELD REINFORCING STEEL.

CHAMFER - CHAMFER ALL EXPOSED CONCRETE EDGES 3/4" UNLESS OTHERWISE NOTED.

PROTECTIVE PLATFORMS - PROVIDE PROTECTIVE PLATFORMS AT THIS SITE, SEE SECTION 510 OF THE GEORGIA DOT SPECIFICATIONS. MAINTAIN A MINIMUM VERTICAL CLEARANCE OF 16'-9" ABOVE GRANGE ROAD.

TRAFFIC CONTROLS - SEE ROADWAY PLANS FOR TRAFFIC CONTROLS AND TRAFFIC CONTROL PAYMENT.

WAITING PERIOD - DO NOT BEGIN WORK AT BENTS 1 AND 2 UNTIL THE COMPLETED END FILLS ARE IN PLACE AND SETTLEMENT IS COMPLETE. ESTABLISH SETTLEMENT MONITORING POINTS AT EACH BRIDGE BENT LOCATION. SETTLEMENTS ARE TO BE READ BY A SURVEYOR AT LEAST TWICE WEEKLY. ONCE THE CUMULATIVE SETTLEMENT, OVER A PERIOD OF 3 WEEKS, DOES NOT EXCEED ¼ OF AN INCH, THE SETTLEMENT IS CONSIDERED TO HAVE CEASED.

PLAN DRIVING OBJECTIVE - SEE SUBSTRUCTURE DETAILS.

PDA TESTING - PERFORM PILE TESTING USING THE PILE DRIVING ANALYZER (PDA) IN ACCORDANCE WITH SPECIAL PROVISION SECTION 523. NOTIFY THE GEOTECHNICAL BUREAU OF THE GEORGIA DOT OFFICE OF MATERIALS AT 404-608-4720 TWO WEEKS PRIOR TO DRIVING PILES.

WAVE EQUATION - PERFORM WAVE EQUATION ANALYSIS (WEAP) IN ACCORDANCE WITH SPECIAL PROVISION 520. PROVIDE RESULTS OF THE WEAP TO THE GEOTECHNICAL BUREAU OF THE GEORGIA DOT FOR REVIEW AND APPROVAL TWO WEEKS PRIOR TO DRIVING PILES.

GENERAL NOTES (CONTINUED)

⚠ PILING - PREDRILLING MAY BE NECESSARY AT BENT 2 TO ACHIEVE THE INDICATED PLAN DRIVING OBJECTIVE. THE EXTENT OF PREDRILLING SHALL BE TO ELEVATION -2. SEE SECTION 520 OF THE GEORGIA DOT SPECIFICATIONS.

TEST PILES - DRIVE TEST PILES AT THE FOLLOWING LOCATIONS:

ONE 18 IN SQ PSC X 66 FT AT BENT 1
ONE 18 IN SQ PSC X 52 FT AT BENT 2

SMOOTH DOWEL BARS - PLACE SMOOTH DOWEL BARS IN FORMED 3" DIAMETER X 12" DEEP HOLES AND GROUT IN PLACE SIMILAR TO ANCHOR BOLTS, SEE SUB-SECTION 501.3.05.B.3 OF THE GEORGIA DOT SPECIFICATIONS. STIRRUPS MAY BE SHIFTED SLIGHTLY TO CLEAR FORMED HOLES.

ABUTMENT SOIL REINFORCING DEVICE INSERTS - INCLUDE THE COST OF FURNISHING AND INSTALLING INSERTS FOR SOIL REINFORCING DEVICES AT ABUTMENT IN THE OVERALL BID SUBMITTED.

FILL SETTLEMENT - PROTECT PILES DRIVEN AT BENTS 1 AND 2 FROM NEGATIVE SKIN FRICTION WHEN USED IN CONJUNCTION WITH MECHANICALLY STABILIZED EARTH WALLS, SEE SECTION 551 OF THE GEORGIA DOT SPECIFICATIONS. DRIVE PILES AT END BENTS BEFORE WALL LEVELING PADS ARE CONSTRUCTED.

GROOVED CONCRETE - GROOVE THE ENTIRE LENGTH OF THE BRIDGE TRANSVERSELY AS PER SUB-SECTION 500.3.05.T.9.C OF THE GEORGIA DOT SPECIFICATIONS.

RIDING QUALITY - THE FINISHED BRIDGE DECK AND APPROACH SLABS SHALL MEET THE RIDE QUALITY REQUIREMENTS AS SPECIFIED IN SUB-SECTION 500.3.06.E OF THE GEORGIA DOT SPECIFICATIONS FOR STATE ROUTES WITH FOUR LANES OR MORE.

WELDING - ALL WELDING ON GEORGIA DOT PROJECTS SHALL BE PERFORMED BY CERTIFIED WELDERS THAT HAVE IN THEIR POSSESSION A CURRENT WELDING CERTIFICATION CARD ISSUED BY THE OFFICE OF MATERIALS AND RESEARCH. USE ONLY E70XX (EXCLUDING E7014 AND E7024) LOW HYDROGEN ELECTRODES FOR MANUAL SHIELDED METAL ARC WELDING.

INCIDENTAL ITEMS - INCLUDE THE COST INCIDENTAL TO THE WORK THAT IS NOT SPECIFICALLY COVERED BY THE GEORGIA STANDARD SPECIFICATIONS, SUPPLEMENTAL SPECIFICATIONS AND/OR SPECIAL PROVISIONS IN THE OVERALL BID SUBMITTED. THIS INCLUDES THE COST OF WATERPROOFING, JOINT FILLERS, AND OTHER INCIDENTAL ITEMS NECESSARY TO COMPLETE THE WORK.

DESIGN BUILD PROJECT - THIS IS A DESIGN BUILD PROJECT AND QUANTITIES ARE PROVIDED FOR INFORMATION ONLY.

RELEASED FOR CONSTRUCTION: 05/21/2013
USE ON CONSTRUCTION: 08/02/2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	473	730

DESIGN DATA

SPECIFICATIONS ---------- AASHTO LRFD 5TH EDITION, 2010
(DESIGNED FOR SEISMIC PERFORMANCE ZONE 2)

TYPICAL HL-93 LOADING ---------- IMPACT ALLOWED

FUTURE PAVING ALLOWANCE ---------- 30 LBS PER SQ FT

CONCRETE: SUPERSTRUCTURE ---------- CLASS D, f'_c = 4,000 PSI
BARRIER ---------- CLASS D, f'_c = 4,000 PSI
PSC BEAMS ---------- CLASS AAA, f'_c = 8,500 PSI
PSC BEAM ALLOWABLE TENSION ---------- 277 PSI
SUBSTRUCTURE ---------- CLASS A, f'_c = 3,000 PSI

REINFORCEMENT STEEL: ---------- GRADE 60, f_y = 60,000 PSI

PRETENSIONING STRANDS: ---------- f'_s = 270,000 PSI

SUMMARY OF QUANTITIES

PAY ITEM NUMBER	QUANTITY	UNIT	PAY ITEM
500-0100	848	SY	GROOVED CONCRETE 343
500-1011	LUMP	LS	SUPERSTR CONCRETE, CL D, BR NO - 1 ( )
500-2100	212	LF	CONCRETE BARRIER
500-3101	62	CY	CLASS A CONCRETE
507-9031	881	LF	PSC BEAMS, AASHTO, BULB TEE, 63 IN, BR NO - 1
511-1000	7426	LB	BAR REINF STEEL
511-3000	LUMP	LS	SUPERSTR REINF STEEL, BR NO - 1 (70459)
520-2218	995	LF	PILING, PSC, 18 IN SQ
520-3218	2	EA	TEST PILE, PSC, 18 IN SQ
520-4218	1	EA	LOAD TEST, PSC, 18 IN SQ (IF REQD)

BRIDGE NO.1

THE LPA GROUP
A UNIT OF MICHAEL BAKER CORPORATION

THE LPA GROUP INCORPORATED
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3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISIONS	BY	DATE
⚠ REVISED PILING NOTE	BSB	08/02/2013

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

GENERAL NOTES
JIMMY DELOACH CONNECTOR
OVER GRANGE ROAD
CHATHAM COUNTY CSMSL-0008-00(690)

DRAWING NO. 35-02
BRIDGE SHEET 2 OF 9

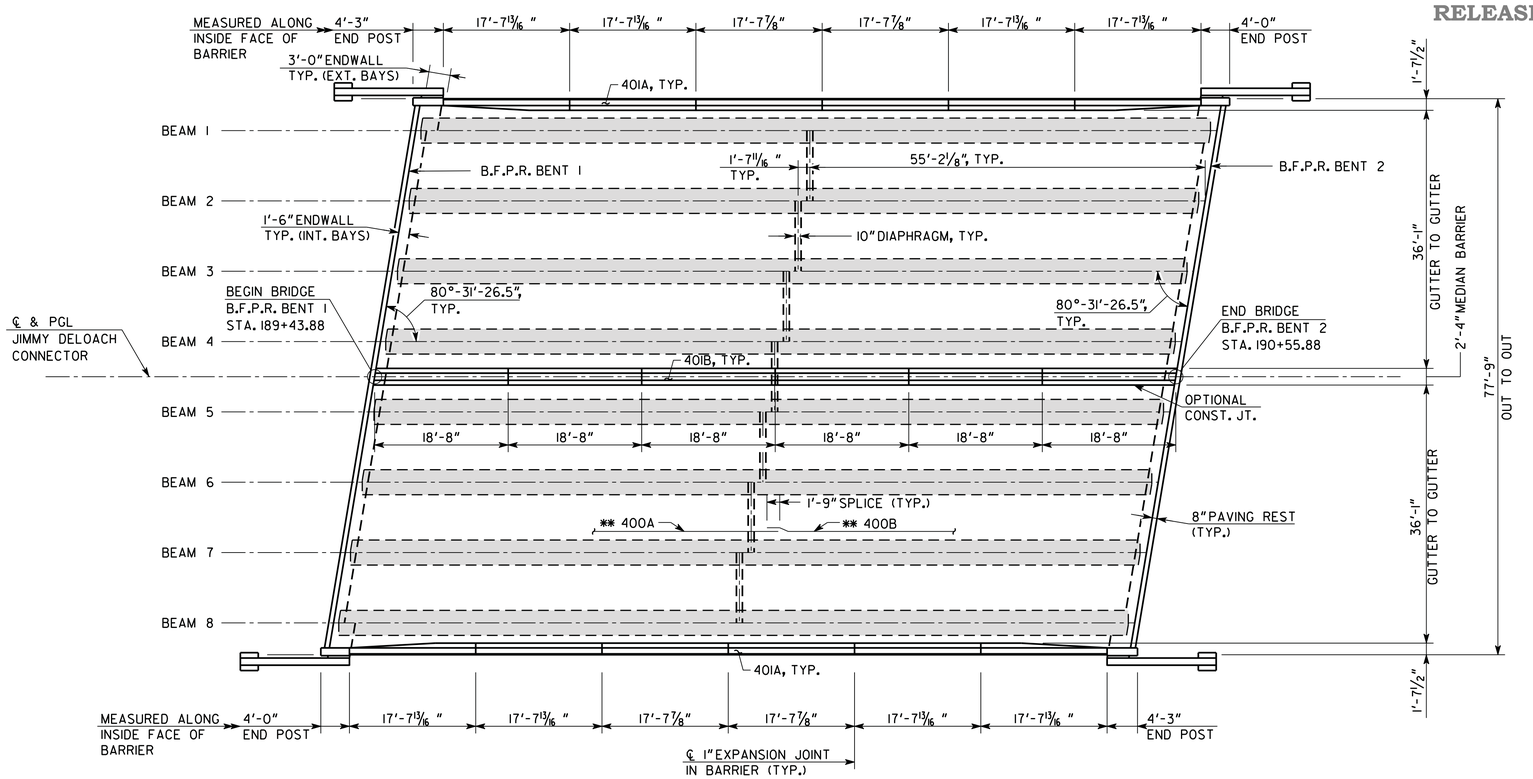
SCALE: NO SCALE JULY 2013

DESIGNED BSB | CHECKED ANZ | REVIEWED DLC/WMD
DRAWN BSB | DESIGN GROUP AWB/SKG | APPROVED BFR

1 INCH WHEN PRINTED FULL SIZE

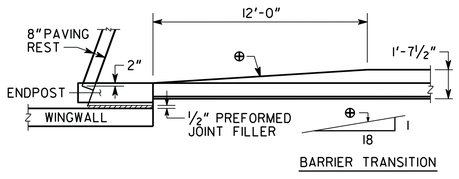
RELEASED FOR CONSTRUCTION: 05/21/2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	474	730



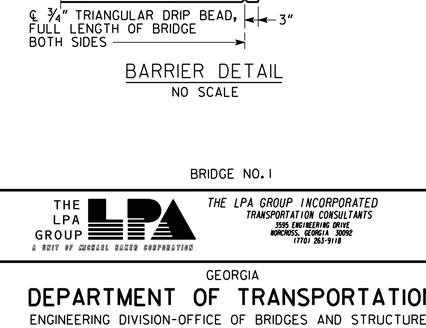
PLAN

SCALE: 1" = 10'-0"



BARRIER TRANSITION DETAIL

NO SCALE



MEDIAN BARRIER DETAIL

NO SCALE

BARRIER DETAIL

NO SCALE

BARS ARE DETAILED IN BAR DETAILS AS EQUIVALENT FULL LENGTH BARS.

BAR BENDING DETAILS AT SKEWED JOINTS

NO SCALE

DETAILS OF 1" EXPANSION JOINT IN BARRIER

NO SCALE

SUPERSTRUCTURE QUANTITIES	
ITEM	TOTAL
LUMP - SUPERSTR. CONCRETE, CU YDS., CLASS D	342.8
LUMP - SUPERSTR. REINF. STEEL, LBS.	70,459

NOTE: MAINTAIN 2" CLEARANCE ON ALL REINFORCEMENT UNLESS OTHERWISE NOTED.

** ALTERNATE 400A AND 400B BARS ACROSS DECK TO STAGGER LAP LOCATION.

BRIDGE NO. 1

THE LPA GROUP
A UNIT OF GENERAL DATA CORPORATION
THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA

DEPARTMENT OF TRANSPORTATION

ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

DECK PLAN
JIMMY DELOACH CONNECTOR
OVER GRANGE ROAD
CHATHAM COUNTY CSMSL-0008-00(690)

SCALE: AS SHOWN JULY 2013

DRAWING NO.	REVISIONS	DATE	BY
35-03			
BRIDGE SHEET 3 OF 9			

DESIGNED BSB | CHECKED ANZ | REVIEWED DLC/WMD
DRAWN BSB | DESIGN GROUP AWB/SKG | APPROVED BFR

1 INCH WHEN PRINTED FULL SIZE

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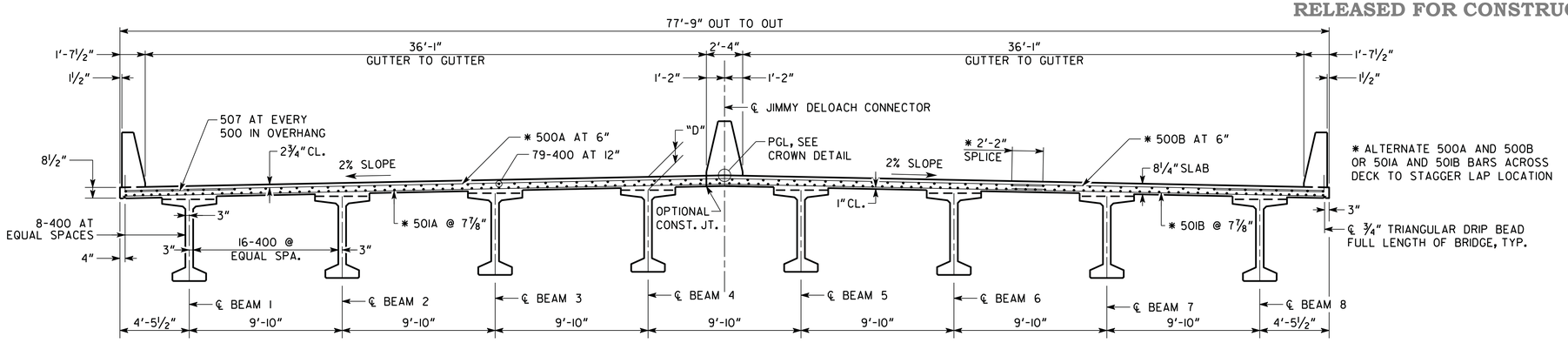
RELEASED FOR CONSTRUCTION: 05/21/2013

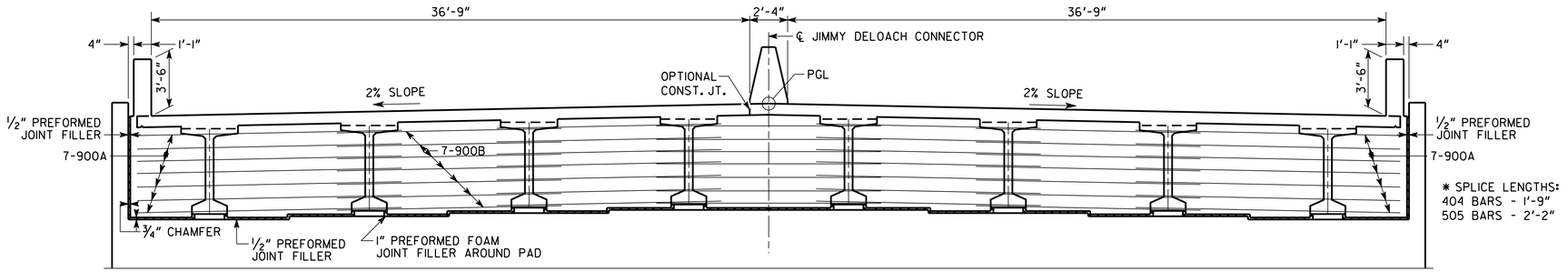
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	475	730



* ALTERNATE 500A AND 500B OR 501A AND 501B BARS ACROSS DECK TO STAGGER LAP LOCATION

SECTION THRU SLAB

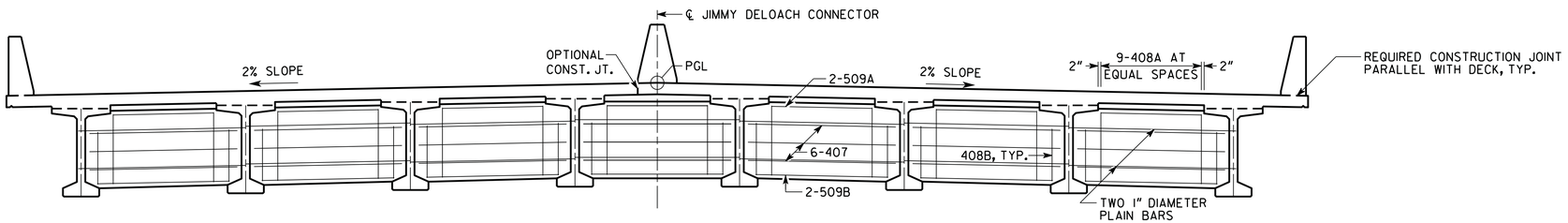
SCALE: ¼" = 1'-0"



* SPLICE LENGTHS:
404 BARS - 1'-9"
505 BARS - 2'-2"

SECTION THRU ENDWALL

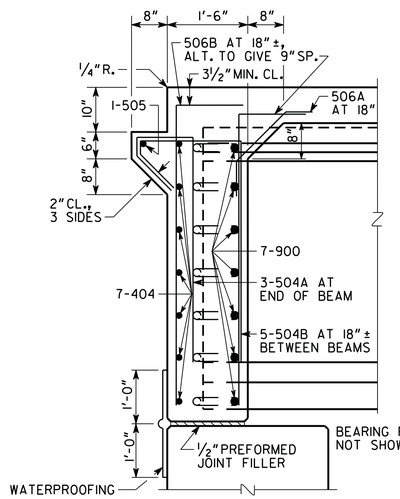
SCALE: ¼" = 1'-0"
* 404, 504 SERIES, 505, 506 SERIES BARS NOT SHOWN



REQUIRED CONSTRUCTION JOINT PARALLEL WITH DECK, TYP.

SECTION THRU DIAPHRAGM

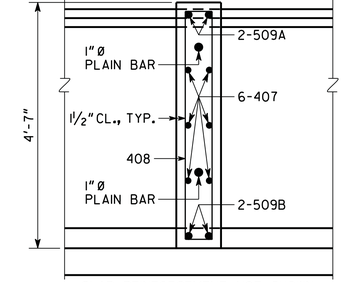
SCALE: ¼" = 1'-0"



SLAB REINFORCEMENT NOT SHOWN.

SECTION AT ENDWALL

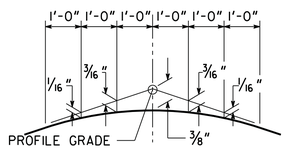
NO SCALE



SLAB REINFORCEMENT NOT SHOWN.

SECTION THRU DIAPHRAGM

NO SCALE



CROWN DETAIL

2% CROSS SLOPE
NO SCALE

NOTES:
1. MAINTAIN 2" CLEARANCE ON ALL REINFORCEMENT UNLESS OTHERWISE NOTED.
2. DIMENSION "D" IS MEASURED FROM TOP OF SLAB TO TOP OF BEAMS AT CENTERLINE BEARING. VARY "D" BETWEEN BEARINGS TO COMPENSATE FOR DEAD LOAD DEFLECTION AND VERTICAL CURVE. MAINTAIN A CONSTANT SLAB THICKNESS OF 8¼" BETWEEN BEAMS AND 8½" AT OVERHANGS. "D" = 10⅞"

BRIDGE NO. 1

THE LPA GROUP
A UNIT OF MICHAEL BAKER CORPORATION
THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3995 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

DECK SECTIONS
JIMMY DELOACH CONNECTOR
OVER GRANGE ROAD
CHATHAM COUNTY CSMSL-0008-00(690)

DRAWING NO.	BRIDGE SHEET
35-04	4 OF 9

SCALE: AS SHOWN — JULY 2013

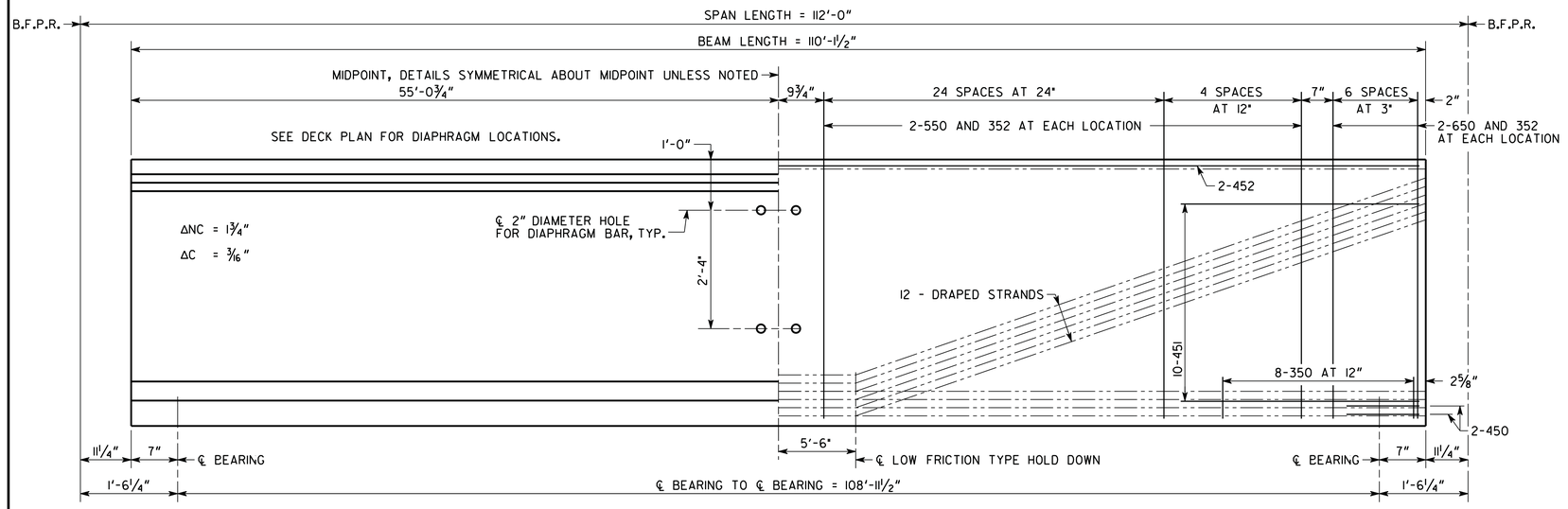
DESIGNED	CHECKED	REVIEWED
BSB	ANZ	DLC/WMD
DRAWN	DESIGN GROUP	APPROVED
BSB	AWB/SKG	BFR

REVISIONS: BY / DATE

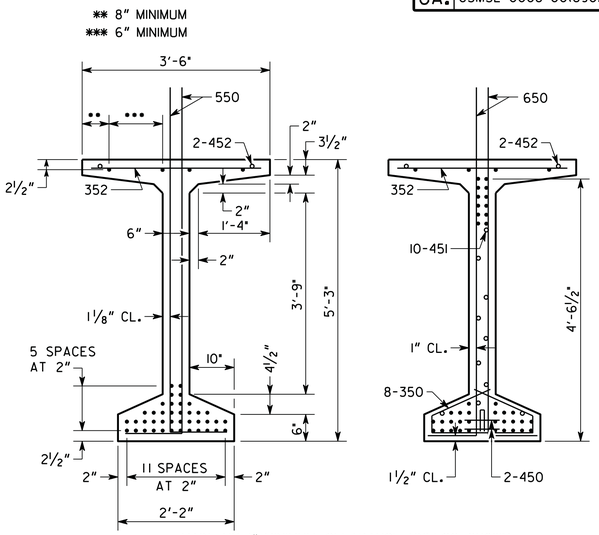
1 INCH WHEN PRINTED FULL SIZE

RELEASED FOR CONSTRUCTION: 05/21/2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	47G	730



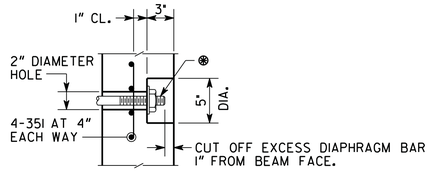
ELEVATION



MAINTAIN 1" MINIMUM CLEARANCE UNLESS SHOWN.
• INDICATES 0.6" DIAMETER PRESTRESSED STRANDS.

SECTION AT MIDPOINT

SECTION AT END



⊛ DIAPHRAGM BAR SHALL BE A 1" DIAMETER PLAIN BAR, THREADED 5" ON EACH END, WITH ¼" X 3½" DIAMETER WASHERS AND HEX NUTS (ASTM A 709 GRADE 36).

TIGHTEN DIAPHRAGM BAR AS PER SUB-SECTION 507.3.05.C OF THE GEORGIA DOT SPECIFICATIONS.

AFTER EXCESS DIAPHRAGM BAR HAS BEEN CUT OFF, PAINT DIAPHRAGM BAR, WASHER, AND NUT EXPOSED IN RECESS WITH SPECIAL PROTECTIVE COATING NO. 2 P AS PER SECTION 535 OF THE GEORGIA DOT SPECIFICATIONS. AFTER PAINTING, FILL THE RECESS WITH AN APPROVED EPOXY GROUT.

GALVANIZING OF THE DIAPHRAGM BAR AS PER SUB-SECTION 865.2.01.B.12 OF THE GEORGIA DOT SPECIFICATIONS IS NOT REQUIRED.

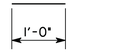
RECESS DETAIL FOR DIAPHRAGM BAR ENDS

NOTES

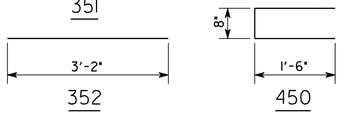
1. BEAMS SHALL BE MAINTAINED IN AN UPRIGHT POSITION AT ALL TIMES AND SHALL BE PICKED UP WITHIN 7'-9" FROM THEIR ENDS. DISREGARDING THIS REQUIREMENT COULD LEAD TO COLLAPSE OF THE BEAM. PICK-UPS SHALL BE EMBEDDED TO WITHIN 4" OF THE BOTTOM OF THE BEAM. DETAILS OF PICK-UPS SHALL BE INCLUDED IN THE SHOP DRAWINGS.
2. CHAMFER EDGES OF BEAMS ½", ¾" OR 1".
3. HORIZONTAL DIMENSIONS ARE IN PLACE DIMENSIONS. THE BEAM LENGTH INCLUDES THE ⅛" EPOXY MORTAR AT EACH END. SHOP DRAWINGS SHALL ADJUST HORIZONTAL DIMENSIONS FOR GRADE AND FABRICATION EFFECTS SUCH AS SHRINKAGE AND ELASTIC SHORTENING.
4. AT ℄ BEARING, FORM A 1½" DIAMETER X 7" DEEP HOLE AT THE FIXED ENDS AND A 6" X 1½" X 7" DEEP SLOT AT THE EXPANSION ENDS FOR A 1¼" DIAMETER SMOOTH DOWEL. SEE PLAN AND ELEVATION SHEET FOR LOCATION OF FIXED AND EXPANSION ENDS.
5. TOPS OF BEAMS SHALL BE ROUGH FLOATED AT APPROXIMATELY THE TIME OF INITIAL SET. ENTIRE TOP SHALL BE SCRUBBED TRANSVERSELY WITH A COARSE BRUSH TO REMOVE ALL LAITANCE AND TO PRODUCE A ROUGHENED SURFACE FOR BONDING TO THE SLAB. ROUGHENED SURFACE SHALL HAVE AN AMPLITUDE OF APPROXIMATELY ¼". CONCRETE FINS OR PROJECTIONS SHALL BE REMOVED TO PRODUCE A VERTICAL FACE AT THE EDGE OF THE BEAM.
6. NON-COMPOSITE DEAD LOAD DEFLECTION (ΔNC) AT THE MIDPOINT IS DUE TO THE WEIGHT OF THE SLAB AND COPING.
7. COMPOSITE DEAD LOAD DEFLECTION (ΔC) AT THE MIDPOINT IS DUE TO THE WEIGHT OF BARRIER AND MEDIAN BARRIER.
8. STRANDS SHALL MEET ALL REQUIREMENTS OF ASTM A 416 GRADE 270.
9. PRESTRESSING DATA IS AS FOLLOWS:
   A. USE 44 - 0.6" DIAMETER LOW RELAXATION (A = 0.217 SQ IN) STRANDS. PRETENSION TOP FOUR (4) STRANDS TO 43,943 LBS EACH. PRETENSION BOTTOM STRANDS TO 43,943 LBS EACH.
   B. PRETENSIONED STRANDS SHALL BE RELEASED AFTER THE CONCRETE HAS REACHED A MINIMUM STRENGTH (f'_{ci}) OF 7,400 PSI.
   C. INCLUDING THE TOP STRANDS, THE TOTAL JACKING FORCE OF PRETENSIONING IS 1,933,492 LBS.
   D. INCLUDING THE TOP STRANDS, THE NET PRESTRESSING FORCE OF THE STRANDS AFTER ALL LOSSES IS 1,502,495 LBS.
10. CONCRETE STRENGTH (f'_c) = 8,500 PSI.
11. ALLOWABLE PSC BEAM TENSION = 277 PSI.

REINFORCEMENT

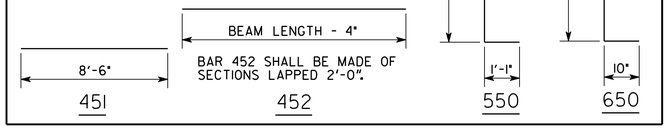
350



351



352 450



451 452 550 650

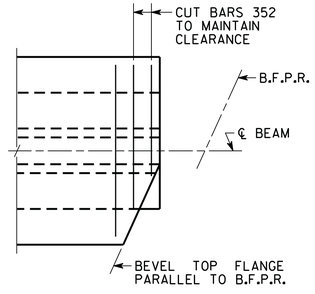
ALL BAR DIMENSIONS ARE OUT TO OUT.

AT THE TOP OF THE BEAM, BARS 550 AND 650 SHALL BE FIELD BENT OR SHOP BENT 90°, SUCH THAT THE HORIZONTAL LEG EXTENDS BETWEEN TOP AND BOTTOM MATS OF SLAB REINFORCEMENT.

SLIGHTLY SHIFT OR SLOPE BARS 451 TO AVOID CONFLICT WITH STRANDS.

BARS 350 MAY BE FABRICATED IN TWO PARTS BY LAPPING HORIZONTAL SECTION BY 1'-0" MINIMUM.

PLACE BARS 450 WITH OPEN ENDS AWAY FROM BEAM ENDS.



BEVEL DETAILS

BRIDGE NO. 1

THE LPA GROUP — A UNIT OF GOSSELL DAVIS CORPORATION

THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

BULB TEE, 63 IN PSC BEAM
JIMMY DELOACH CONNECTOR
OVER GRANGE ROAD
CHATHAM COUNTY CSMSL-0008-00(690)

DRAWING NO.	SCALE: NO SCALE	JULY 2013
35-05		
BRIDGE SHEET 5 OF 9	DESIGNED BSB / DRAWN BSB	CHECKED ANZ / DESIGN GROUP AWB/SKG / REVIEWED DLC/WMD / APPROVED BFR

REVISIONS — DATE — BY

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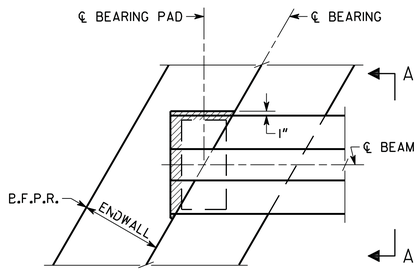
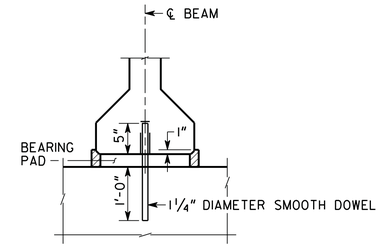
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	477	730



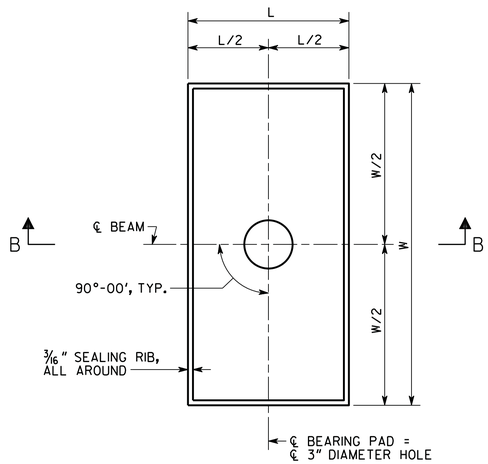
PLAN
BENT 1 SHOWN
BENT 2 SIMILAR



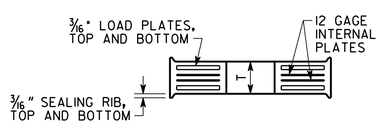
PREFORMED FOAM JOINT FILLER SHALL BE FURNISHED IN ACCORDANCE WITH SUB-SECTION 833.2.10 OF THE GEORGIA DOT SPECIFICATIONS.

ENDWALL NOT SHOWN

SECTION A-A



PLAN



SECTION B-B

BEARING PAD

NOTES

1) BEARING PADS HAVE BEEN DESIGNED ACCORDING TO AASHTO LRFD BRIDGE SPECIFICATIONS, SECTION 14.7.6 AND SHALL BE FURNISHED IN ACCORDANCE WITH AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS, SECTION 18.2, ELASTOMERIC BEARINGS, AND AASHTO M 251.

2) 1¼" DIAMETER SMOOTH DOWELS SHALL BE ASTM A 709 GRADE 50.

3) BEARING PADS SHALL BE MADE OF 60 DUROMETER HARDNESS NEOPRENE, GRADE 2 OR HIGHER.

4) 3" DIAMETER HOLE IN BEARING PADS MAY BE FORMED OR DRILLED.

5) BEARING PADS SHALL HAVE ¼" COVER ON THE TOP, BOTTOM, AND SIDES AND AROUND THE HOLE.

6) 3/16" LOAD PLATES AND 12 GAGE INTERNAL PLATE(S) (IF REQUIRED) SHALL BE ASTM A 709 GRADE 36 OR ASTM A 1011 GRADE 36.

7) NUMBER OF INTERNAL PLATES SHOWN FOR ILLUSTRATION PURPOSES ONLY. THE NUMBER OF INTERNAL PLATE(S) SPECIFIED SHALL BE EQUALLY SPACED BETWEEN LOAD PLATES.

8) USE OF 1½° MOLD DRAFT IS OPTIONAL.

BENT	BEARING PADS							
						DESIGN LOADS (KIPS)		
	W	L	T	NUMBER OF INTERNAL PLATE(S)	DESIGN SHEAR DEFLECTION	DEAD LOAD	LIVE LOAD (NO IMPACT)	DEAD LOAD + LIVE LOAD
1	22"	10"	2.75"	3	0.36"	146	98	244
2	22"	10"	2.75"	3	0"	146	98	244

BRIDGE NO. 1

THE LPA GROUP
A UNIT OF MICHAEL BAKER CORPORATION

THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

BEARING PAD DETAILS
JIMMY DELOACH CONNECTOR
OVER GRANGE ROAD
CHATHAM COUNTY CSMSL-0008-00(690)

SCALE: 1" = NO SCALE JULY 2013

DRAWING NO. 35-06
BRIDGE SHEET 6 OF 9

DATE
REVISIONS
BY

DESIGNED BSB
DRAWN BSB
CHECKED ANZ
DESIGN GROUP AWB/SKG
REVIEWED DLC/WMD
APPROVED BFR

1 INCH WHEN PRINTED FULL SIZE

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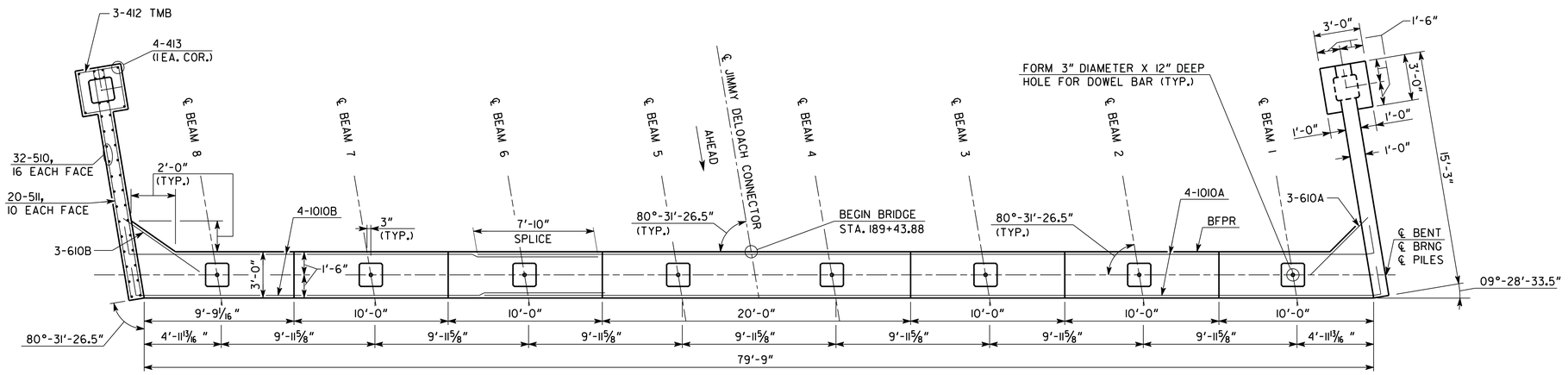
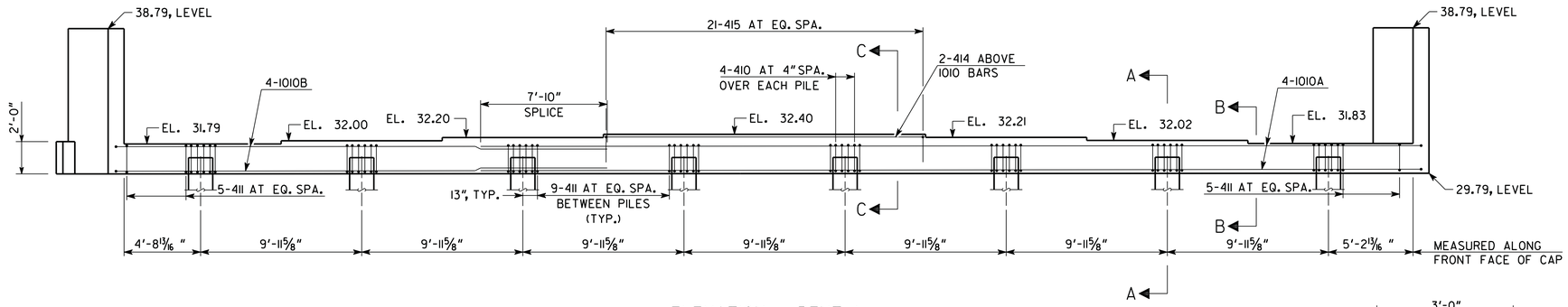
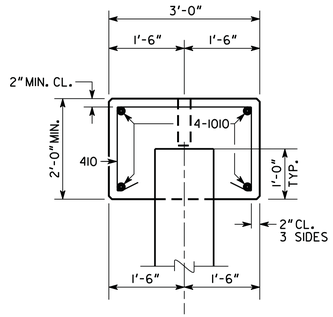
RELEASED FOR CONSTRUCTION: 05/21/2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	479	730

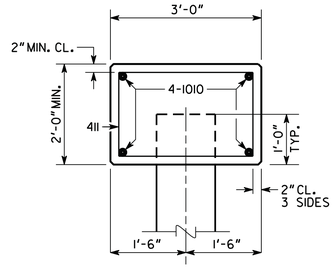


PLAN - BENT 1
SCALE: 1/4" = 1'-0"



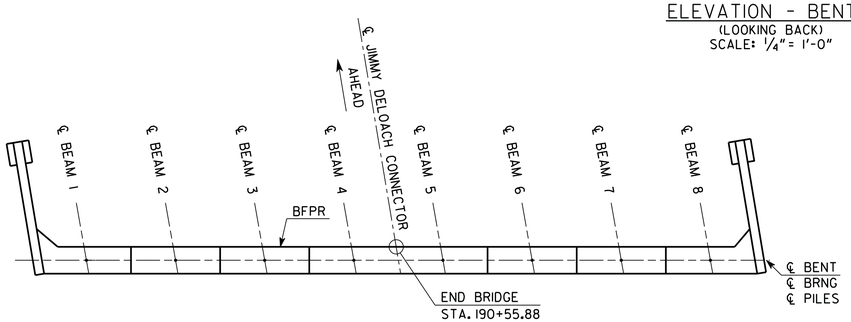


SECTION A-A
SCALE: 3/4" = 1'-0"

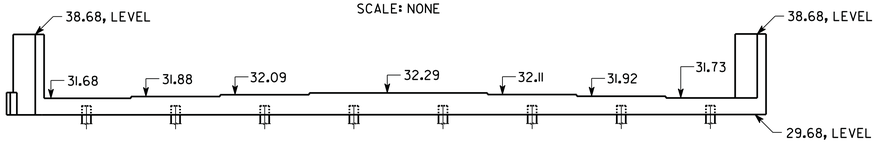


SECTION B-B
SCALE: 3/4" = 1'-0"

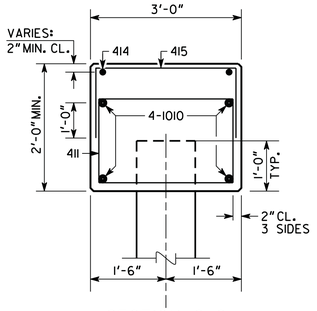
ELEVATION - BENT 1
(LOOKING BACK)
SCALE: 1/4" = 1'-0"



PLAN - BENT 2
SCALE: NONE



ELEVATION - BENT 2
(LOOKING AHEAD)
SCALE: NONE



SECTION C-C
SCALE: 3/4" = 1'-0"

PLAN DRIVING OBJECTIVE

ALL PILES SHALL BE DRIVEN TO A DRIVING RESISTANCE OF 454 TONS AT BENT 1 AND 363 TONS AT BENT 2 AFTER MINIMUM TIP ELEVATIONS ARE ACHEIVED AS FOLLOWS:
BENT 1 _____ ELEV. -20.00
BENT 2 _____ ELEV. -5.00

ALL PILES SHALL BE 18" SQ. PSC

NOTES:

1. MAINTAIN 2" CLEARANCE ON ALL REINFORCEMENT UNLESS OTHERWISE NOTED.
2. POUR WINGWALLS MONOLITHICALLY WITH THE CAP.
3. SEE GEORGIA STANDARD 9037 FOR DRAINAGE DETAILS AT END BENT.
4. WINGWALL PILES NOT SHOWN IN ELEVATION.
5. BOTTOM OF WINGWALLS ARE LEVEL.

SUBSTRUCTURE QUANTITIES		
ITEM	BENT 1	BENT 2
CY CLASS "A" CONCRETE	31.1	31.1
LB BAR REINF STEEL	3,713	3,713

BRIDGE NO. 1

THE LPA GROUP
A UNIT OF GENSLER DESIGN CORPORATION
THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3995 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

END BENT 1 AND 2 DETAILS
JIMMY DELOACH CONNECTOR
OVER GRANGE ROAD
CHATHAM COUNTY CSMSL-0008-00(690)

DATE | REVISIONS | BY

SCALE: AS SHOWN JULY 2013

DESIGNED BSB | CHECKED ANZ | REVIEWED DLC/WMD
DRAWN BSB | DESIGN GROUP AWB/SKG | APPROVED BFR

DRAWING NO. 35-07
BRIDGE SHEET 7 OF 9

1 INCH WHEN PRINTED FULL SIZE

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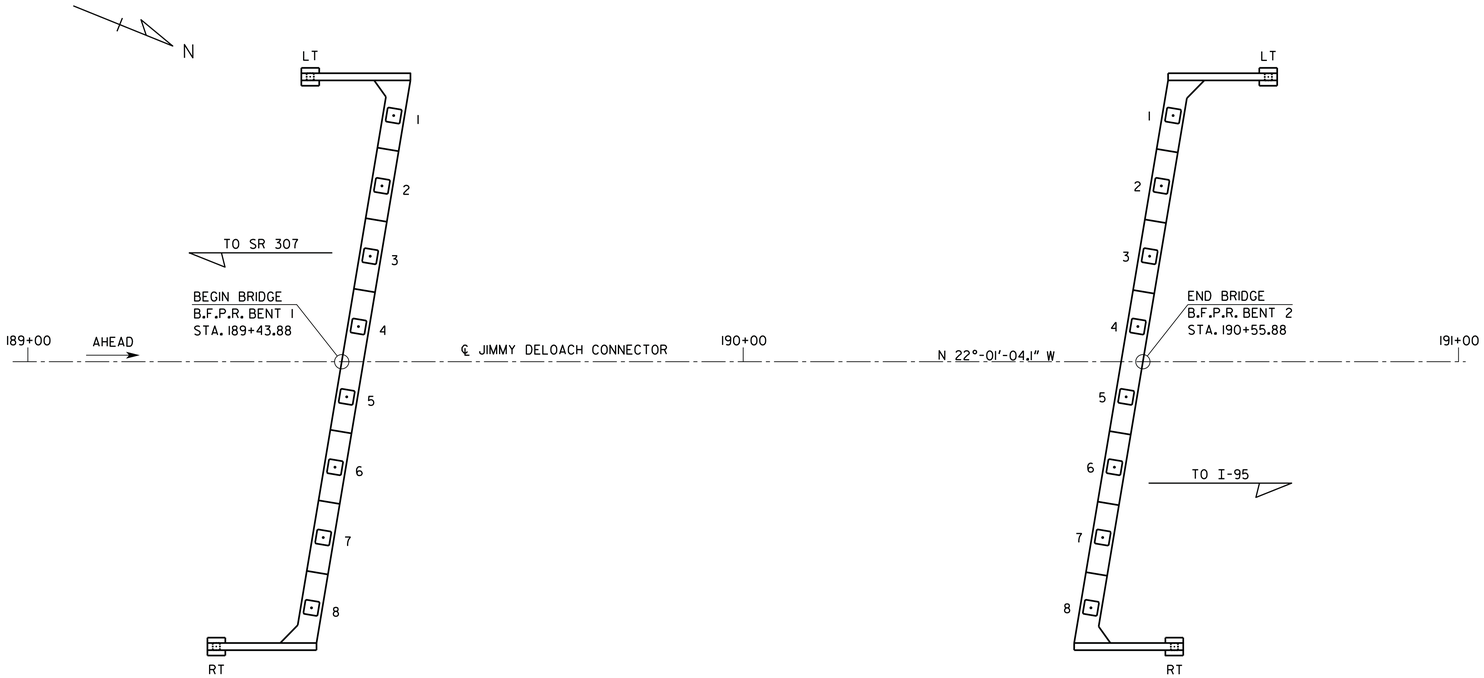
RELEASED FOR CONSTRUCTION: 05/21/2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	479	730



PLAN
SCALE: 1" = 1'-0"

AS-BUILT FOUNDATION DATA		
BENT	PILE NO.	PILE TIP ELEVATION
1	LT	
	1	
	2	
	3	
	4	
	5	
	6	
	7	
	8	
	RT	

AS-BUILT FOUNDATION DATA		
BENT	PILE NO.	PILE TIP ELEVATION
2	LT	
	1	
	2	
	3	
	4	
	5	
	6	
	7	
	8	
	RT	

NOTE: THIS "AS-BUILT FOUNDATION" INFORMATION SHEET IS TO BE FILLED IN BY THE PROJECT ENGINEER AND THE ENTIRE SHEET FORWARDED TO THE BRIDGE OFFICE UPON COMPLETION OF PILE DRIVING FOR POSTING TO THE PLANS AS A PERMANENT RECORD OF THE BRIDGE CONSTRUCTION.

PROJECT ENGINEER DATE

( ) AREA CODE TELEPHONE NUMBER

BRIDGE NO. 1

THE LPA GROUP
A UNIT OF GENERAL DATA CORPORATION
THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

AS BUILT FOUNDATION DETAILS
JIMMY DELOACH CONNECTOR
OVER GRANGE ROAD
CHATHAM COUNTY CSMSL-0008-00(690)

SCALE: AS SHOWN JULY 2013

DESIGNED BSB CHECKED ANZ REVIEWED DLC/WMD
DRAWN BSB DESIGN GROUP AWB/SKG APPROVED BFR

REVISIONS BY DATE

DRAWING NO. 35-08
BRIDGE SHEET 8 OF 9

1 INCH WHEN PRINTED FULL SIZE

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LOCATION	NO. OF LOC.	MARK	LENGTH FT.	LENGTH IN.	NO. BARS REQ'D.	TYPE	A	G	B FT.	B IN.	C FT.	C IN.	D FT.	D IN.	E FT.	E IN.	F FT.	F IN.	H FT.	H IN.	J FT.	J IN.	K FT.	K IN.	N	θ
SUPERSTRUCTURE																										
SPAN 1	1	400A	60- 0		207	1																				
		400B	53- 5		207	1																				
		401A	17- 2		96	1																				
		401B	18- 3		48	1																				
		404A	60- 0		14	1																				
		404B	21- 2		14	1																				
		407	9- 0		42	1																				
		408A	10- 7		63	25	4	4	0- 7		4- 4															
		408B	8- 5		14	25	4	4	0- 7		3- 3															
		500A	60- 0		225	3			59- 0		1- 0															
		500B	21- 1		225	3			20- 1		1- 0															
		501A	59- 0		172	1																				
		501B	20- 1		172	1																				
		502A	7- 9		240	23			1- 3		3- 3		3- 3													101
		502B	8- 9		125	7			2- 3		3- 3		3- 3												79	101
		503A	6- 8		240	23			0- 6		3- 1		3- 1													79
		503B	6- 10		125	7			0- 8		3- 1		3- 1												101	79
		504A	6- 6		48	46			4- 5		0- 10		0- 3		0- 8		0- 8									
		504B	7- 6		68	46			4- 5		1- 10		0- 3		0- 8		0- 8									
		505A	60- 0		2	1																				
		505B	19- 0		2	1																				
		506	7- 2		214	3			5- 11		1- 3															
		506A	3- 10		84	6			1- 4		1- 3		0- 0		1- 3										45	45
		507	8- 1		450	3			7- 1		1- 0															
		509A	6- 4		14	1																				
		509B	7- 8		14	1																				
		900A	17- 4		28	16	0	0	4- 6		0- 9		0- 9		4- 0		6- 9									
		900B	14- 7		70	16	0	0	4- 6		0- 9		0- 9		4- 0		4- 0									
SUBSTRUCTURE																										
END BENTS	2	410	6- 9		32	32	5	5	2- 8		1- 8		1- 8													
		411	9- 5		73	25	4	4	2- 8		1- 8															
		412	11- 5		6	25	4	4	2- 8		2- 8															
		413	1- 8		8	1																				
		414	19- 8		4	1																				
		415	5- 8		42	2			2- 8		1- 6		1- 6													
		510	8- 8		64	1																				
		511	14- 11		40	1																				
		610A	5- 8		3	1																				
		610B	6- 6		3	1																				
		1010A	60- 0		4	6			57- 8		0- 6		1- 10		0- 0										0	9
		1010B	32- 3		4	4			30- 5		1- 10															81

RELEASED FOR CONSTRUCTION: 05/21/2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	490	730

BRIDGE NO. 1

THE LPA GROUP
A UNIT OF GMBELL LAIRD CORPORATION

THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

REINFORCEMENT SCHEDULE
JIMMY DELOACH CONNECTOR
OVER GRANGE ROAD
CHATHAM COUNTY CSMSL-0008-00(690)

DRAWING NO. 35-09
BRIDGE SHEET 9 OF 9

SCALE: NONE JULY 2013

DESIGNED BSB CHECKED ANZ REVIEWED DLC/WMD
DRAWN BSB DESIGN GROUP AWB/SKG APPROVED BFR

DATE | REVISIONS | BY

1 INCH WHEN PRINTED FULL SIZE

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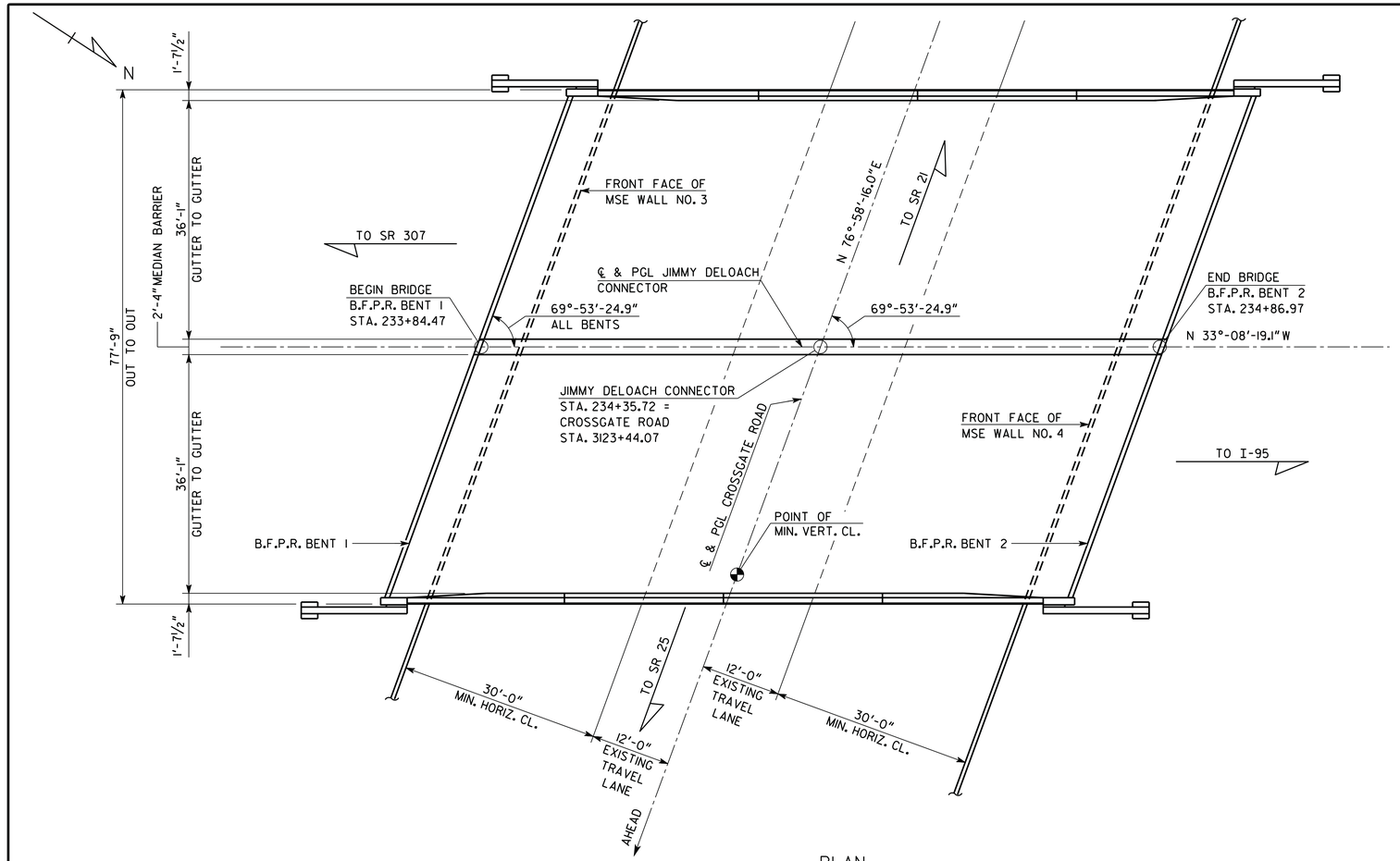
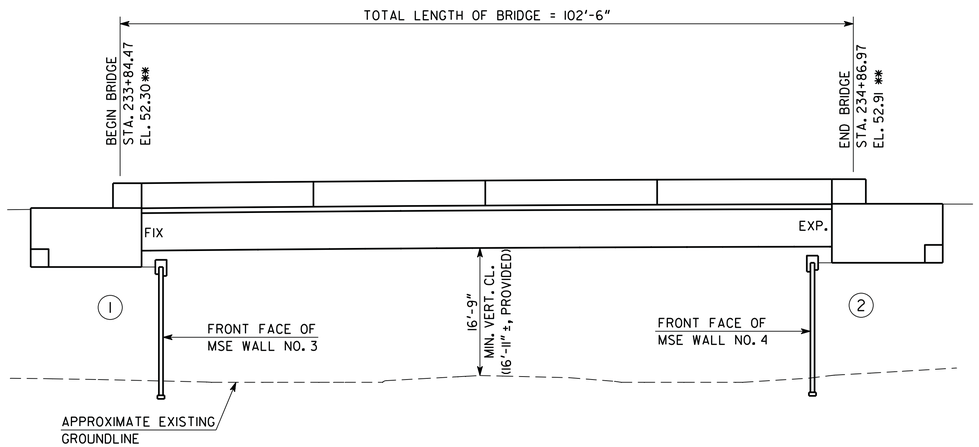
RELEASED FOR CONSTRUCTION: 05/21/2013

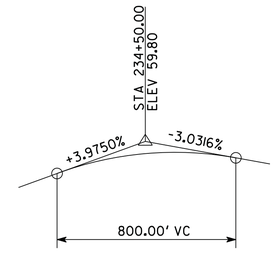
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	491	730



PLAN



ELEVATION



VERTICAL CURVE DATA
JIMMY DELOACH CONNECTOR
NOT TO SCALE

EXISTING GRADE DATA (℄ CROSSGATE ROAD)	
STATION	ELEVATION
3122+50	28.71
3123+00	28.87
3123+50	28.93
3124+00	28.86
3124+50	29.02

NOTES

1. ** ALL STATIONS AND ELEVATIONS MEASURED AT INTERSECTION OF PROFILE GRADE LINE AND BFPR.
2. END BENT PILES NOT SHOWN.
3. ALL BENTS PARALLEL TO ℄ OF CROSSGATE DRIVE.

P.I. NO. 0008690

BRIDGE NO. 2

THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

PLAN AND ELEVATION
JIMMY DELOACH CONNECTOR
OVER CROSSGATE ROAD
CHATHAM COUNTY CSMSL-0008-00(690)

5.21.13
GEORGIA REGISTERED NO. 24732 PROFESSIONAL ENGINEER ALBERT W. BOWMAN

DATE
REVISIONS
BY

DRAWING NO. 35-10
BRIDGE SHEET 1 OF 9

SCALE: 1" = 10'-0" JULY 2013

DESIGNED BSB CHECKED ANZ REVIEWED DLC/WMD
DRAWN BSB DESIGN GROUP AWB/SKG APPROVED BFR

1 INCH WHEN PRINTED FULL SIZE

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BRIDGE CONSISTS OF

1 - 102'-6" BULB TEE, 63 IN, PSC BEAM SPAN ---------- SPECIAL DESIGN

2 - PSC PILE END BENTS ---------- SPECIAL DESIGN

4 - END POST AND GUARDRAIL ATTACHMENT DETAIL ------- GA. STD. 3054 (9-30-02)
2 - (L = 4'-0"; W = 1'-1"; H = 3'-6")
2 - (L = 4'-9"; W = 1'-1"; H = 3'-6")

SQUARE PRESTRESSED CONCRETE PILES ---------- SPECIAL DESIGN
SEE DRAWING NO. 37-01 TO 37-05

BAR BENDING DETAILS ---------- GA. STD. 3901 (8-69)

TYPICAL FILL DETAIL AT END OF BRIDGE ---------- GA. STD. 9037 (9-99)

TRAFFIC DATA

TRAFFIC ---------- ADT = 23,360 (2012)
ADT = 30,880 (2032)

DESIGN SPEED ---------- 55 MPH

TRUCKS ---------- 60 %

24 HR TRUCKS ---------- 55 %

DIRECTIONAL ---------- 54 %

UTILITIES

NO UTILITIES ON BRIDGE

GENERAL NOTES

SPECIFICATIONS - GEORGIA STANDARD SPECIFICATIONS, 2001 EDITION, AND 2008 SUPPLEMENTAL SPECIFICATIONS AS MODIFIED BY CONTRACT DOCUMENTS.

SHOP DRAWINGS - SUBMIT SHOP DRAWINGS TO ENGINEER OF RECORD (EOR) FOR INITIAL REVIEW AND APPROVAL. ONCE APPROVED AND STAMPED BY EOR, EOR SHALL SUBMIT 6 STAMPED SETS TO THE GEORGIA DOT OFFICE OF BRIDGES AND STRUCTURES FOR REVIEW AND APPROVAL.

REINFORCING STEEL - PLACE AND TIE ALL REINFORCING STEEL IN ACCORDANCE WITH THE GEORGIA DOT SPECIFICATIONS. DO NOT WELD REINFORCING STEEL.

CHAMFER - CHAMFER ALL EXPOSED CONCRETE EDGES 3/4" UNLESS OTHERWISE NOTED.

PROTECTIVE PLATFORMS - PROVIDE PROTECTIVE PLATFORMS AT THIS SITE, SEE SECTION 510 OF THE GEORGIA DOT SPECIFICATIONS. MAINTAIN A MINIMUM VERTICAL CLEARANCE OF 16'-9" ABOVE CROSSGATE ROAD.

TRAFFIC CONTROLS - SEE ROADWAY PLANS FOR TRAFFIC CONTROLS AND TRAFFIC CONTROL PAYMENT.

WAITING PERIOD - DO NOT BEGIN WORK AT BENTS 1 AND 2 UNTIL THE COMPLETED END FILLS ARE IN PLACE AND SETTLEMENT IS COMPLETE. ESTABLISH SETTLEMENT MONITORING POINTS AT EACH BRIDGE BENT LOCATION. SETTLEMENTS ARE TO BE READ BY A SURVEYOR AT LEAST TWICE WEEKLY. ONCE THE CUMULATIVE SETTLEMENT, OVER A PERIOD OF 3 WEEKS, DOES NOT EXCEED ¼ OF AN INCH, THE SETTLEMENT IS CONSIDERED TO HAVE CEASED.

PLAN DRIVING OBJECTIVE - SEE SUBSTRUCTURE DETAILS.

PDA TESTING - PERFORM PILE TESTING USING THE PILE DRIVING ALAYZER (PDA) IN ACCORDANCE WITH SPECIAL PROVISION SECTION 523. NOTIFY THE GEOTECHNICAL BUREAU OF THE GEORGIA DOT OFFICE OF MATERIALS AT 404-608-4720 TWO WEEKS PRIOR TO DRIVING PILES.

WAVE EQUATION - PERFORM WAVE EQUATION ANALYSIS (WEAP) IN ACCORDANCE WITH SPECIAL PROVISION 520. PROVIDE RESULTS OF THE WEAP TO THE GEOTECHNICAL BUREAU OF THE GEORGIA DOT FOR REVIEW AND APPROVAL TWO WEEKS PRIOR TO DRIVING PILES.

GENERAL NOTES (CONTINUED)

TEST PILES - DRIVE TEST PILES AT THE FOLLOWING LOCATIONS:

ONE 18 IN SQ PSC X 87 FT AT BENT 1
ONE 18 IN SQ PSC X 58 FT AT BENT 2

SMOOTH DOWEL BARS - PLACE SMOOTH DOWEL BARS IN FORMED 3" DIAMETER X 12" DEEP HOLES AND GROUT IN PLACE SIMILAR TO ANCHOR BOLTS, SEE SUB-SECTION 501.3.05.B.3 OF THE GEORGIA DOT SPECIFICATIONS. STIRRUPS MAY BE SHIFTED SLIGHTLY TO CLEAR FORMED HOLES.

ABUTMENT SOIL REINFORCING DEVICE INSERTS - INCLUDE THE COST OF FURNISHING AND INSTALLING INSERTS FOR SOIL REINFORCING DEVICES AT ABUTMENT IN THE OVERALL BID SUBMITTED.

FILL SETTLEMENT - PROTECT PILES DRIVEN AT BENTS 1 AND 2 FROM NEGATIVE SKIN FRICTION WHEN USED IN CONJUNCTION WITH MECHANICALLY STABILIZED EARTH WALLS, SEE SECTION 551 OF THE GEORGIA DOT SPECIFICATIONS. DRIVE PILES AT END BENTS BEFORE WALL LEVELING PADS ARE CONSTRUCTED.

GROOVED CONCRETE - GROOVE THE ENTIRE LENGTH OF THE BRIDGE TRANSVERSELY AS PER SUB-SECTION 500.3.05.T.9.C OF THE GEORGIA DOT SPECIFICATIONS.

RIDING QUALITY - THE FINISHED BRIDGE DECK AND APPROACH SLABS SHALL MEET THE RIDE QUALITY REQUIREMENTS AS SPECIFIED IN SUB-SECTION 500.3.06.E OF THE GEORGIA DOT SPECIFICATIONS FOR STATE ROUTES WITH FOUR LANES OR MORE.

WELDING - ALL WELDING ON GEORGIA DOT PROJECTS SHALL BE PERFORMED BY CERTIFIED WELDERS THAT HAVE IN THEIR POSSESSION A CURRENT WELDING CERTIFICATION CARD ISSUED BY THE OFFICE OF MATERIALS AND RESEARCH. USE ONLY E70XX (EXCLUDING E7014 AND E7024) LOW HYDROGEN ELECTRODES FOR MANUAL SHIELDED METAL ARC WELDING.

INCIDENTAL ITEMS - INCLUDE THE COST INCIDENTAL TO THE WORK THAT IS NOT SPECIFICALLY COVERED BY THE GEORGIA STANDARD SPECIFICATIONS, SUPPLEMENTAL SPECIFICATIONS AND/OR SPECIAL PROVISIONS IN THE OVERALL BID SUBMITTED. THIS INCLUDES THE COST OF WATERPROOFING, JOINT FILLERS, AND OTHER INCIDENTAL ITEMS NECESSARY TO COMPLETE THE WORK.

DESIGN BUILD PROJECT - THIS IS A DESIGN BUILD PROJECT AND QUANTITIES ARE PROVIDED FOR INFORMATION ONLY.

RELEASED FOR CONSTRUCTION: 05/21/2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	492	730

DESIGN DATA

SPECIFICATIONS ---------- AASHTO LRFD 5TH EDITION, 2010
(DESIGNED FOR SEISMIC PERFORMANCE ZONE 2)

TYPICAL HL-93 LOADING ---------- IMPACT ALLOWED

FUTURE PAVING ALLOWANCE ---------- 30 LBS PER SQ FT

CONCRETE: SUPERSTRUCTURE ---------- CLASS D, f'_c = 4,000 PSI
BARRIER ---------- CLASS D, f'_c = 4,000 PSI
PSC BEAMS ---------- CLASS AAA, f'_c = 7,800 PSI
PSC BEAM ALLOWABLE TENSION ---------- 265 PSI
SUBSTRUCTURE ---------- CLASS A, f'_c = 3,000 PSI

REINFORCEMENT STEEL: ---------- GRADE 60, f_y = 60,000 PSI

PRETENSIONING STRANDS: ---------- f_s = 270,000 PSI

SUMMARY OF QUANTITIES

PAY ITEM NUMBER	QUANTITY	UNIT	PAY ITEM
500-0100	776	SY	GROOVED CONCRETE
500-1011	LUMP	LS	SUPERSTR CONCRETE, CL D, BR NO - 1 (322)
500-2100	193	LF	CONCRETE BARRIER
500-3101	66	CY	CLASS A CONCRETE
507-9031	804	LF	PSC BEAMS, AASHTO, BULB TEE, 63 IN, BR NO - 1
511-1000	7810	LB	BAR REINF STEEL
511-3000	LUMP	LS	SUPERSTR REINF STEEL, BR NO - 1 (68444)
520-2218	1235	LF	PILING, PSC, 18 IN SQ
520-3218	2	EA	TEST PILE, PSC, 18 IN SQ
520-4218	1	EA	LOAD TEST, PSC, 18 IN SQ (IF REQD)

BRIDGE NO. 2

THE LPA GROUP
A UNIT OF GENERAL ELECTRIC CORPORATION
THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

GENERAL NOTES
JIMMY DELOACH CONNECTOR
OVER CROSSGATE ROAD
CHATHAM COUNTY CSMSL-0008-00(690)

DRAWING NO. 35-11
BRIDGE SHEET 2 OF 9

DATE | REVISIONS | BY

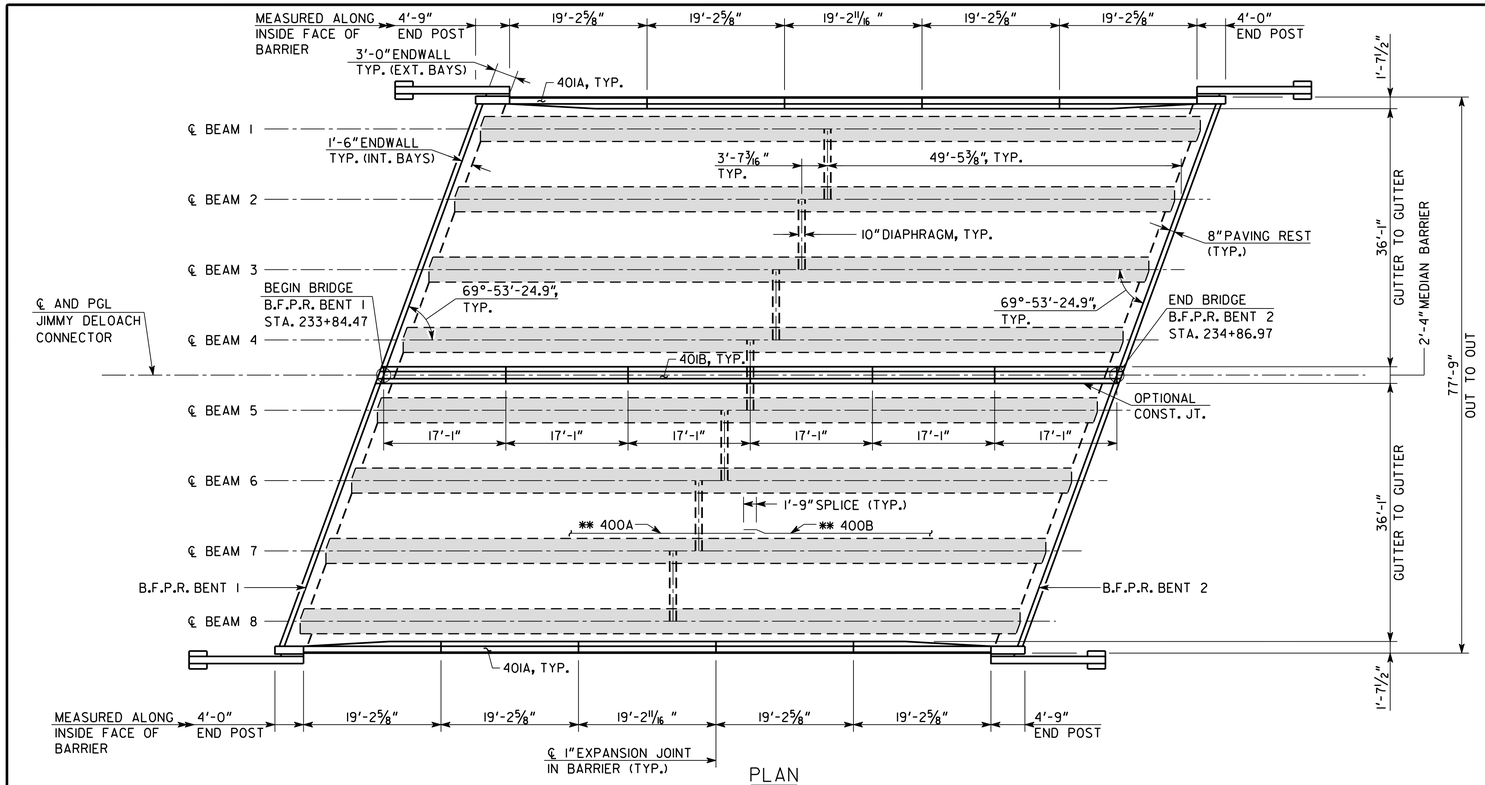
SCALE: NONE JULY 2013

DESIGNED BSB | CHECKED ANZ | REVIEWED DLC/WMD
DRAWN BSB | DESIGN GROUP AWB/SKG | APPROVED BFR

1 INCH WHEN PRINTED FULL SIZE

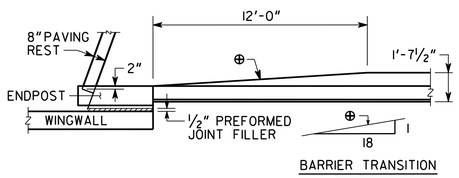
RELEASED FOR CONSTRUCTION: 05/21/2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	493	730



PLAN

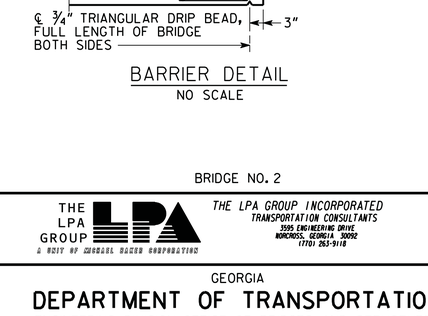
SCALE: 1" = 1'-10"



BARRIER TRANSITION

BARRIER TRANSITION DETAIL

NO SCALE

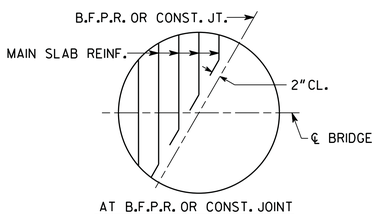


MEDIAN BARRIER DETAIL

NO SCALE

BARRIER DETAIL

NO SCALE

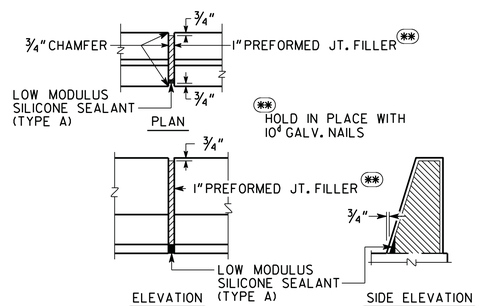


AT B.F.P.R. OR CONST. JOINT

BARS ARE DETAILED IN BAR DETAILS AS EQUIVALENT FULL LENGTH BARS.

BAR BENDING DETAILS AT SKEWED JOINTS

NO SCALE



DETAILS OF 1" EXPANSION JOINT IN BARRIER

NO SCALE

SUPERSTRUCTURE QUANTITIES	
ITEM	TOTAL
LUMP - SUPERSTR. CONCRETE, CU YDS., CLASS D	322.4
LUMP - SUPERSTR. REINF. STEEL, LBS.	68,444

NOTE: MAINTAIN 2" CLEARANCE ON ALL REINFORCEMENT UNLESS OTHERWISE NOTED.

** ALTERNATE 400A AND 400B BARS ACROSS DECK TO STAGGER LAP LOCATION.

BRIDGE NO. 2

THE LPA GROUP
THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA

DEPARTMENT OF TRANSPORTATION

ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

DECK PLAN
JIMMY DELOACH CONNECTOR
OVER CROSSGATE ROAD
CHATHAM COUNTY CSMSL-0008-00(690)

SCALE: AS SHOWN JULY 2013

DESIGNED BSB | CHECKED ANZ | REVIEWED DLC/WMD
DRAWN BSB | DESIGN GROUP AWB/SKG | APPROVED BFR

DRAWING NO. 35-12

BRIDGE SHEET 3 OF 9

REVISIONS | DATE | BY

1 INCH WHEN PRINTED FULL SIZE

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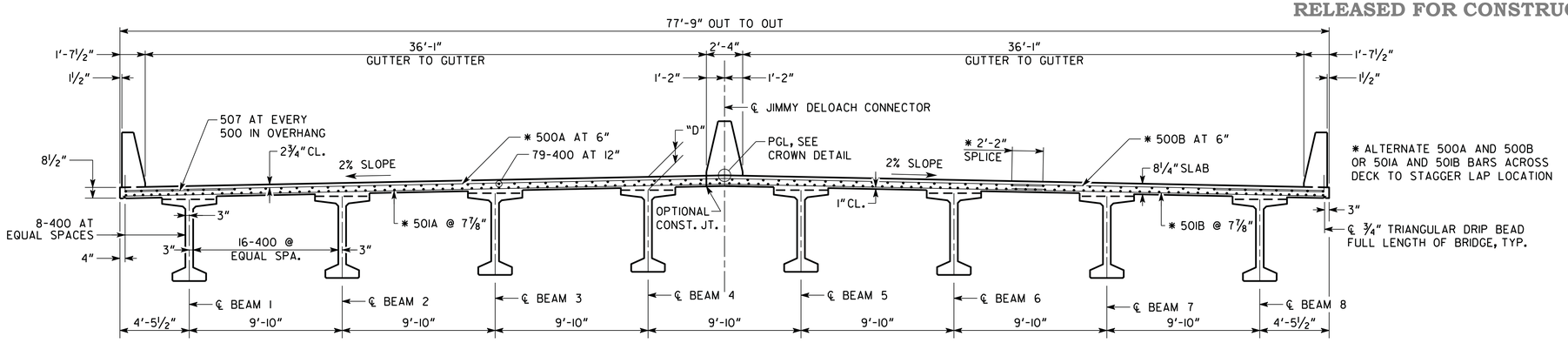
RELEASED FOR CONSTRUCTION: 05/21/2013

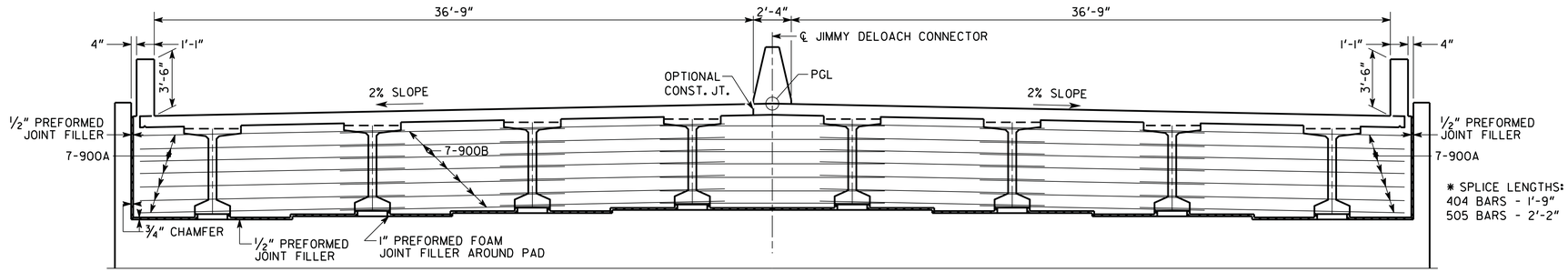
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	494	730



* ALTERNATE 500A AND 500B OR 501A AND 501B BARS ACROSS DECK TO STAGGER LAP LOCATION

SECTION THRU SLAB

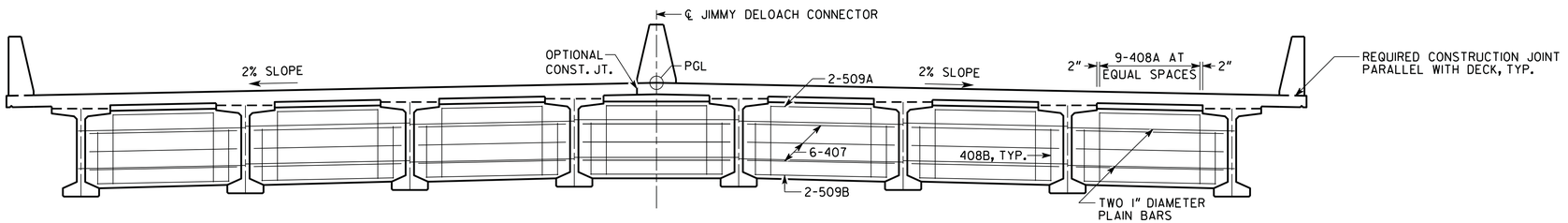
SCALE: ¼" = 1'-0"



* SPLICE LENGTHS:
404 BARS - 1'-9"
505 BARS - 2'-2"

SECTION THRU ENDWALL

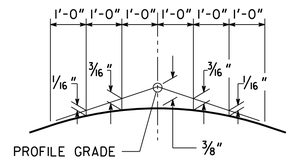
SCALE: ¼" = 1'-0"
* 404, 504 SERIES, 505, 506 SERIES BARS NOT SHOWN



REQUIRED CONSTRUCTION JOINT PARALLEL WITH DECK, TYP.

SECTION THRU DIAPHRAGM

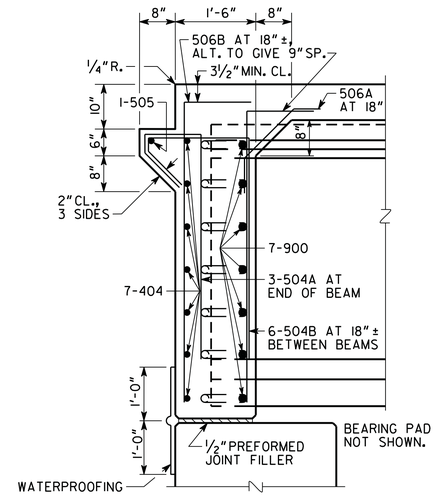
SCALE: ¼" = 1'-0"



CROWN DETAIL

2% CROSS SLOPE
NO SCALE

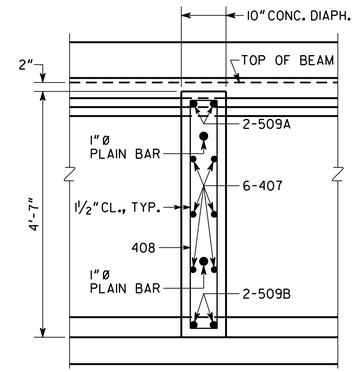
NOTES:
1. MAINTAIN 2" CLEARANCE ON ALL REINFORCEMENT UNLESS OTHERWISE NOTED.
2. DIMENSION "D" IS MEASURED FROM TOP OF SLAB TO TOP OF BEAMS AT CENTERLINE BEARING. VARY "D" BETWEEN BEARINGS TO COMPENSATE FOR DEAD LOAD DEFLECTION AND VERTICAL CURVE. MAINTAIN A CONSTANT SLAB THICKNESS OF 8¼" BETWEEN BEAMS AND 8½" AT OVERHANGS. "D" = 10⅞"



SLAB REINFORCEMENT NOT SHOWN.

SECTION AT ENDWALL

NO SCALE



SLAB REINFORCEMENT NOT SHOWN.

SECTION THRU DIAPHRAGM

NO SCALE

BRIDGE NO. 2

THE LPA GROUP
A UNIT OF MICHAEL BAKER CORPORATION
THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3995 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

DECK SECTIONS
JIMMY DELOACH CONNECTOR
OVER CROSSGATE ROAD
CHATHAM COUNTY CSMSL-0008-00(690)

DRAWING NO.	REVISIONS	BY	DATE
35-13			
BRIDGE SHEET 4 OF 9			

SCALE: AS SHOWN — JULY 2013

DESIGNED	BSB	CHECKED	ANZ	REVIEWED	DLC/WMD
DRAWN	BSB	DESIGN GROUP	AWB/SKG	APPROVED	BFR

1 INCH WHEN PRINTED FULL SIZE

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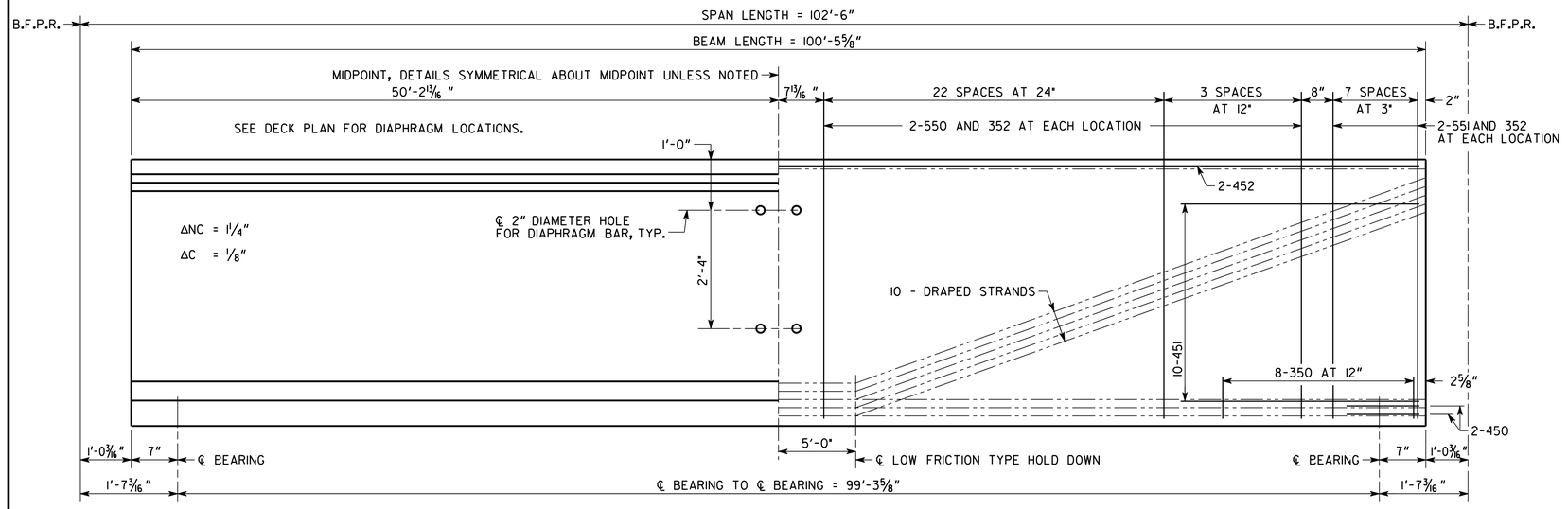
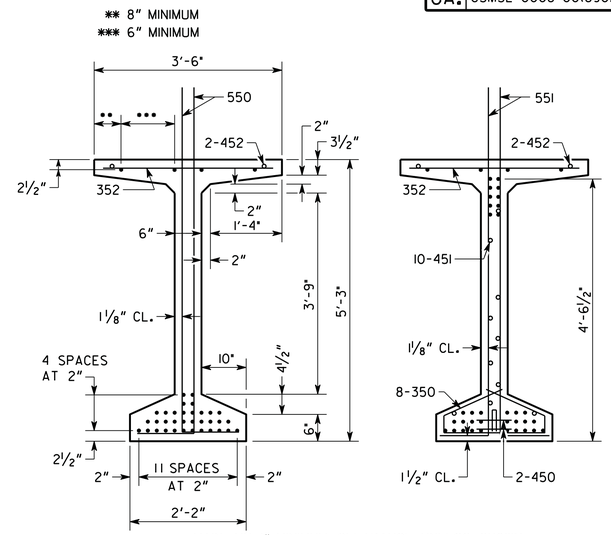
RELEASED FOR CONSTRUCTION: 05/21/2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	495	730



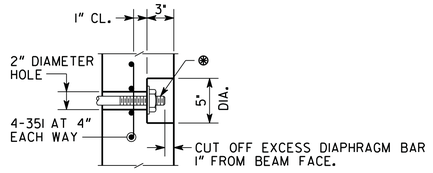
ELEVATION



MAINTAIN 1" MINIMUM CLEARANCE UNLESS SHOWN.
• INDICATES 0.6" DIAMETER PRESTRESSED STRANDS.

SECTION AT MIDPOINT

SECTION AT END



⊛ DIAPHRAGM BAR SHALL BE A 1" DIAMETER PLAIN BAR, THREADED 5" ON EACH END, WITH ¼" X 3½" DIAMETER WASHERS AND HEX NUTS (ASTM A 709 GRADE 36).

TIGHTEN DIAPHRAGM BAR AS PER SUB-SECTION 507.3.05.C OF THE GEORGIA DOT SPECIFICATIONS.

AFTER EXCESS DIAPHRAGM BAR HAS BEEN CUT OFF, PAINT DIAPHRAGM BAR, WASHER, AND NUT EXPOSED IN RECESS WITH SPECIAL PROTECTIVE COATING NO. 2 P AS PER SECTION 535 OF THE GEORGIA DOT SPECIFICATIONS. AFTER PAINTING, FILL THE RECESS WITH AN APPROVED EPOXY GROUT.

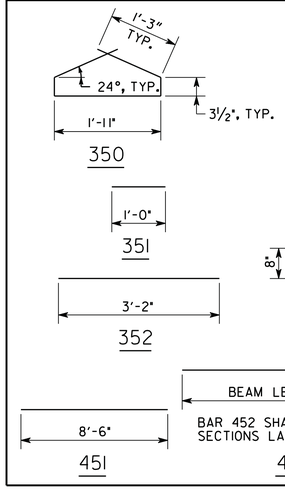
GALVANIZING OF THE DIAPHRAGM BAR AS PER SUB-SECTION 865.2.01.B.12 OF THE GEORGIA DOT SPECIFICATIONS IS NOT REQUIRED.

RECESS DETAIL FOR DIAPHRAGM BAR ENDS

NOTES

1. BEAMS SHALL BE MAINTAINED IN AN UPRIGHT POSITION AT ALL TIMES AND SHALL BE PICKED UP WITHIN 7'-9" FROM THEIR ENDS. DISREGARDING THIS REQUIREMENT COULD LEAD TO COLLAPSE OF THE BEAM. PICK-UPS SHALL BE EMBEDDED TO WITHIN 4" OF THE BOTTOM OF THE BEAM. DETAILS OF PICK-UPS SHALL BE INCLUDED IN THE SHOP DRAWINGS.
2. CHAMFER EDGES OF BEAMS ½", ¾" OR 1".
3. HORIZONTAL DIMENSIONS ARE IN PLACE DIMENSIONS. THE BEAM LENGTH INCLUDES THE ⅛" EPOXY MORTAR AT EACH END. SHOP DRAWINGS SHALL ADJUST HORIZONTAL DIMENSIONS FOR GRADE AND FABRICATION EFFECTS SUCH AS SHRINKAGE AND ELASTIC SHORTENING.
4. AT ℄ BEARING, FORM A 1½" DIAMETER X 7" DEEP HOLE AT THE FIXED ENDS AND A 6" X 1½" X 7" DEEP SLOT AT THE EXPANSION ENDS FOR A 1¼" DIAMETER SMOOTH DOWEL. SEE PLAN AND ELEVATION SHEET FOR LOCATION OF FIXED AND EXPANSION ENDS.
5. TOPS OF BEAMS SHALL BE ROUGH FLOATED AT APPROXIMATELY THE TIME OF INITIAL SET. ENTIRE TOP SHALL BE SCRUBBED TRANSVERSELY WITH A COARSE BRUSH TO REMOVE ALL LAITANCE AND TO PRODUCE A ROUGHENED SURFACE FOR BONDING TO THE SLAB. ROUGHENED SURFACE SHALL HAVE AN AMPLITUDE OF APPROXIMATELY ¼". CONCRETE FINS OR PROJECTIONS SHALL BE REMOVED TO PRODUCE A VERTICAL FACE AT THE EDGE OF THE BEAM.
6. NON-COMPOSITE DEAD LOAD DEFLECTION (ΔNC) AT THE MIDPOINT IS DUE TO THE WEIGHT OF THE SLAB AND COPING.
7. COMPOSITE DEAD LOAD DEFLECTION (ΔC) AT THE MIDPOINT IS DUE TO THE WEIGHT OF BARRIER AND MEDIAN BARRIER.
8. STRANDS SHALL MEET ALL REQUIREMENTS OF ASTM A 416 GRADE 270.
9. PRESTRESSING DATA IS AS FOLLOWS:
   A. USE 38 - 0.6" DIAMETER LOW RELAXATION (A = 0.217 SQ IN) STRANDS. PRETENSION TOP FOUR (4) STRANDS TO 10,000 LBS EACH. PRETENSION BOTTOM STRANDS TO 43,943 LBS EACH.
   B. PRETENSIONED STRANDS SHALL BE RELEASED AFTER THE CONCRETE HAS REACHED A MINIMUM STRENGTH (f'_{ci}) OF 6,400 PSI.
   C. INCLUDING THE TOP STRANDS, THE TOTAL JACKING FORCE OF PRETENSIONING IS 1,534,045 LBS.
   D. INCLUDING THE TOP STRANDS, THE NET PRESTRESSING FORCE OF THE STRANDS AFTER ALL LOSSES IS 1,149,946 LBS.
10. CONCRETE STRENGTH (f'_c) = 7,800 PSI.
11. ALLOWABLE PSC BEAM TENSION = 265 PSI.

REINFORCEMENT



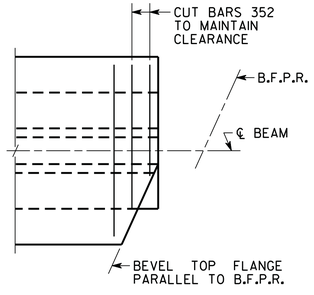
ALL BAR DIMENSIONS ARE OUT TO OUT.

AT THE TOP OF THE BEAM, BARS 550 AND 551 SHALL BE FIELD BENT OR SHOP BENT 90°, SUCH THAT THE HORIZONTAL LEG EXTENDS BETWEEN TOP AND BOTTOM MATS OF SLAB REINFORCEMENT.

SLIGHTLY SHIFT OR SLOPE BARS 451 TO AVOID CONFLICT WITH STRANDS.

BARS 350 MAY BE FABRICATED IN TWO PARTS BY LAPPING HORIZONTAL SECTION BY 1'-0" MINIMUM.

PLACE BARS 450 WITH OPEN ENDS AWAY FROM BEAM ENDS.



BEVEL DETAILS

BRIDGE NO. 2

THE LPA GROUP — A UNIT OF GOSSELL DAVIS CORPORATION

THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

BULB TEE, 63 IN PSC BEAM
JIMMY DELOACH CONNECTOR
OVER CROSSGATE ROAD
CHATHAM COUNTY CSMSL-0008-00(690)

DRAWING NO.	SCALE: NONE	JULY 2013
35-14		
BRIDGE SHEET 5 OF 9	DESIGNED BSB / CHECKED ANZ / REVIEWED DLC/WMD	
	DRAWN BSB / DESIGN GROUP AWB/SKG / APPROVED BFR	

REVISIONS — DATE — BY

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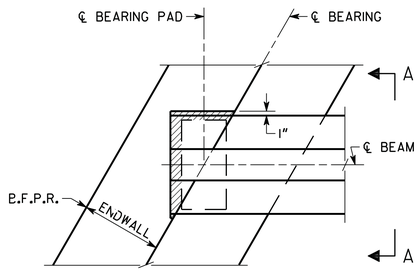
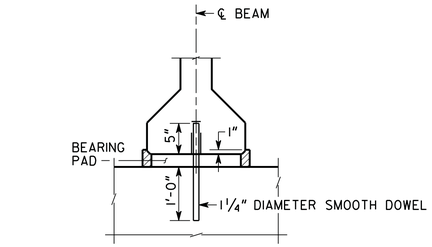
1 INCH WHEN PRINTED FULL SIZE

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	496	730



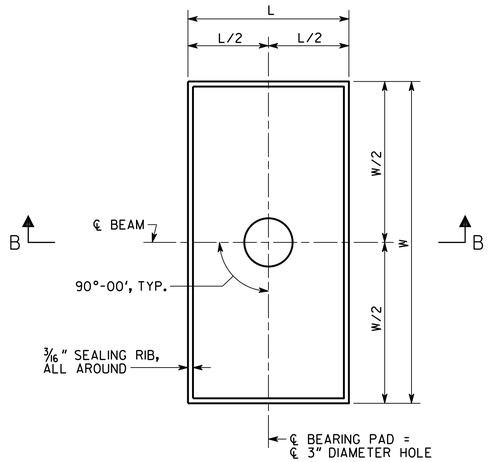
PLAN
BENT 1 SHOWN
BENT 2 SIMILAR



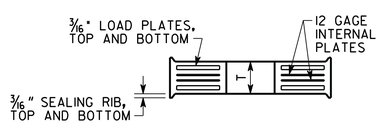
▨ PREFORMED FOAM JOINT FILLER SHALL BE FURNISHED IN ACCORDANCE WITH SUB-SECTION 833.2.10 OF THE GEORGIA DOT SPECIFICATIONS.

ENDWALL NOT SHOWN

SECTION A-A



PLAN



SECTION B-B

BEARING PAD

NOTES

1) BEARING PADS HAVE BEEN DESIGNED ACCORDING TO AASHTO LRFD BRIDGE SPECIFICATIONS, SECTION 14.7.6 AND SHALL BE FURNISHED IN ACCORDANCE WITH AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS, SECTION 18.2, ELASTOMERIC BEARINGS, AND AASHTO M 251.

2) 1¼" DIAMETER SMOOTH DOWELS SHALL BE ASTM A 709 GRADE 50.

3) BEARING PADS SHALL BE MADE OF 60 DUROMETER HARDNESS NEOPRENE, GRADE 2 OR HIGHER.

4) 3" DIAMETER HOLE IN BEARING PADS MAY BE FORMED OR DRILLED.

5) BEARING PADS SHALL HAVE ¼" COVER ON THE TOP, BOTTOM, AND SIDES AND AROUND THE HOLE.

6) 3/16" LOAD PLATES AND 12 GAGE INTERNAL PLATE(S) (IF REQUIRED) SHALL BE ASTM A 709 GRADE 36 OR ASTM A 1011 GRADE 36.

7) NUMBER OF INTERNAL PLATES SHOWN FOR ILLUSTRATION PURPOSES ONLY. THE NUMBER OF INTERNAL PLATE(S) SPECIFIED SHALL BE EQUALLY SPACED BETWEEN LOAD PLATES.

8) USE OF 1½° MOLD DRAFT IS OPTIONAL.

BENT	BEARING PADS							
						DESIGN LOADS (KIPS)		
	W	L	T	NUMBER OF INTERNAL PLATE(S)	DESIGN SHEAR DEFLECTION	DEAD LOAD	LIVE LOAD (NO IMPACT)	DEAD LOAD + LIVE LOAD
1	22"	10"	2.75"	3	0"	134	98	232
2	22"	10"	2.75"	3	0.33"	134	98	232

BRIDGE NO. 2

THE LPA GROUP
A UNIT OF GOSSAIL BAKER CORPORATION
THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3599 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

BEARING PAD DETAILS
JIMMY DELOACH CONNECTOR
OVER CROSSGATE ROAD
CHATHAM COUNTY CSMSL-0008-00(690)

DATE | REVISIONS | BY

DRAWING NO. 35-15
BRIDGE SHEET 6 OF 9

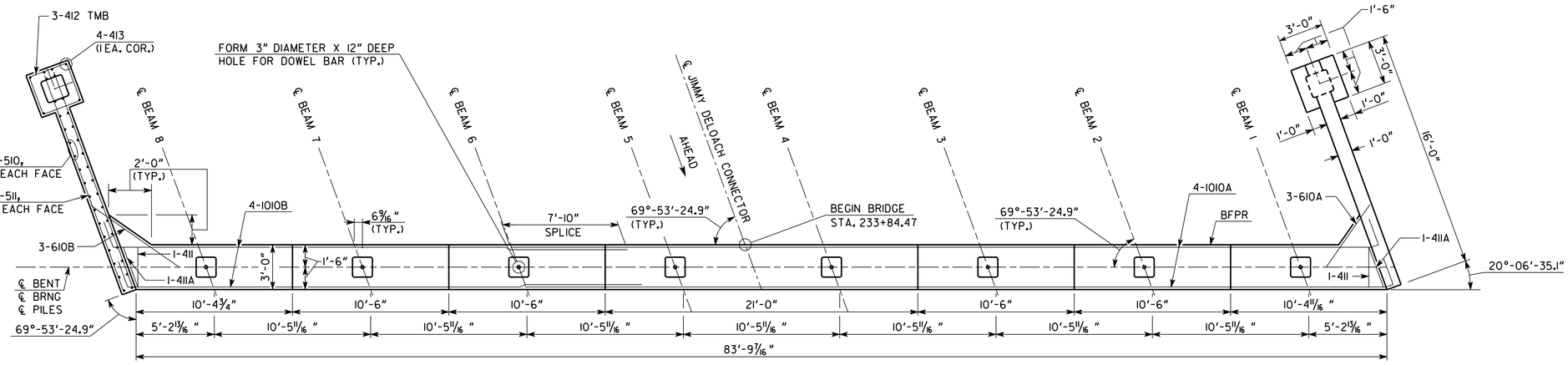
SCALE: NONE JULY 2013

DESIGNED BSB DRAWN BSB CHECKED ANZ DESIGN GROUP AWB/SKG REVIEWED DLC/WMD APPROVED BFR

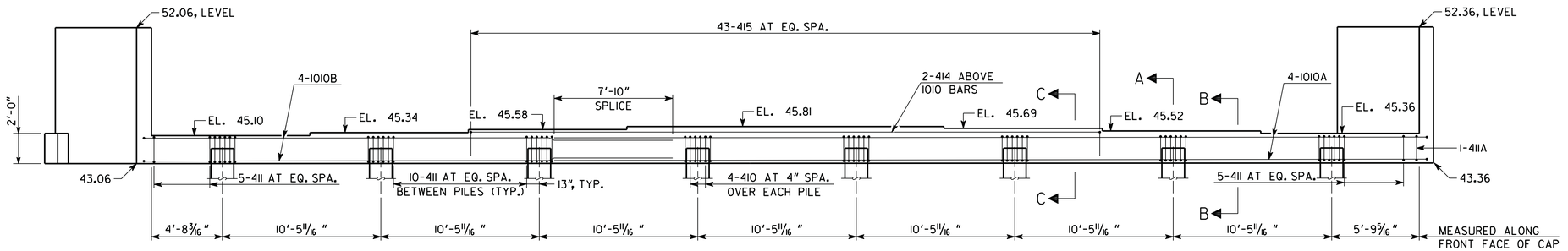
1 INCH WHEN PRINTED FULL SIZE

RELEASED FOR CONSTRUCTION: 05/21/2013

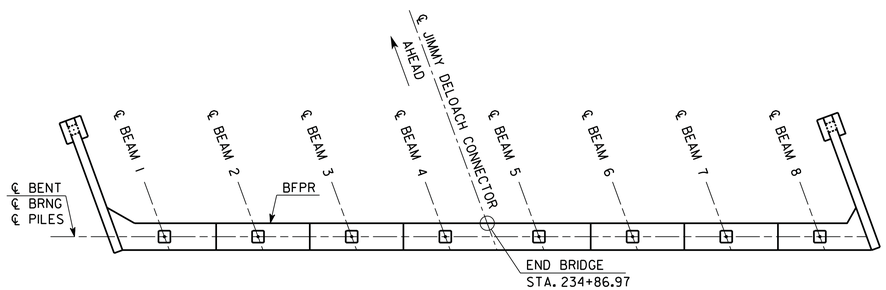
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	497	730



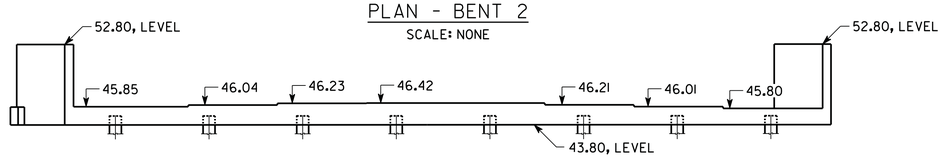
PLAN - BENT 1
SCALE: 1/4" = 1'-0"



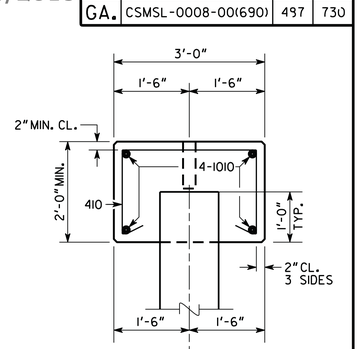
ELEVATION - BENT 1
(LOOKING BACK)
SCALE: 1/4" = 1'-0"



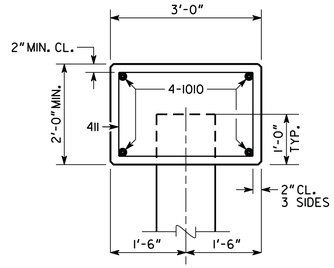
PLAN - BENT 2
SCALE: NONE



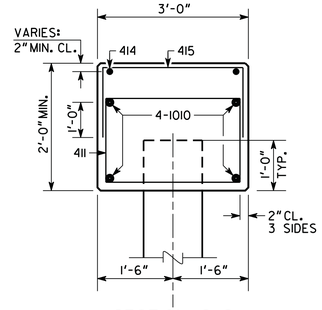
ELEVATION - BENT 2
(LOOKING AHEAD)
SCALE: NONE



SECTION A-A
SCALE: 3/4" = 1'-0"



SECTION B-B
SCALE: 3/4" = 1'-0"



SECTION C-C
SCALE: 3/4" = 1'-0"

NOTES:

1. MAINTAIN 2" CLEARANCE ON ALL REINFORCEMENT UNLESS OTHERWISE NOTED.
2. POUR WINGWALLS MONOLITHICALLY WITH THE CAP.
3. SEE GEORGIA STANDARD 9037 FOR DRAINAGE DETAILS AT END BENT.
4. WINGWALL PILES NOT SHOWN IN ELEVATION.
5. BOTTOM OF WINGWALLS ARE LEVEL.

SUBSTRUCTURE QUANTITIES		
ITEM	BENT 1	BENT 2
CY CLASS "A" CONCRETE	33.7	32.6
LB BAR REINF STEEL	3,902	3,902

PLAN DRIVING OBJECTIVE

ALL PILES SHALL BE DRIVEN TO A DRIVING RESISTANCE OF 428 TONS AT BENT 1 AND 490 TONS AT BENT 2 AFTER MINIMUM TIP ELEVATIONS ARE ACHEIVED AS FOLLOWS:
BENT 1 _____ ELEV. -17.00
BENT 2 _____ ELEV. 1.00

ALL PILES SHALL BE 18" SQ. PSC

BRIDGE NO. 2

THE LPA GROUP
A UNIT OF MICHAEL BAKER CORPORATION
THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

END BENT 1 AND 2 DETAILS
JIMMY DELOACH CONNECTOR
OVER CROSSGATE ROAD
CHATHAM COUNTY CSMSL-0008-00(690)

SCALE: AS SHOWN JULY 2013

DRAWING NO. 35-16
BRIDGE SHEET 7 OF 9

BY	DATE	REVISIONS

DESIGNED BSB | CHECKED ANZ | REVIEWED DLC/WMD
DRAWN BSB | DESIGN GROUP AWB/SKG | APPROVED BFR

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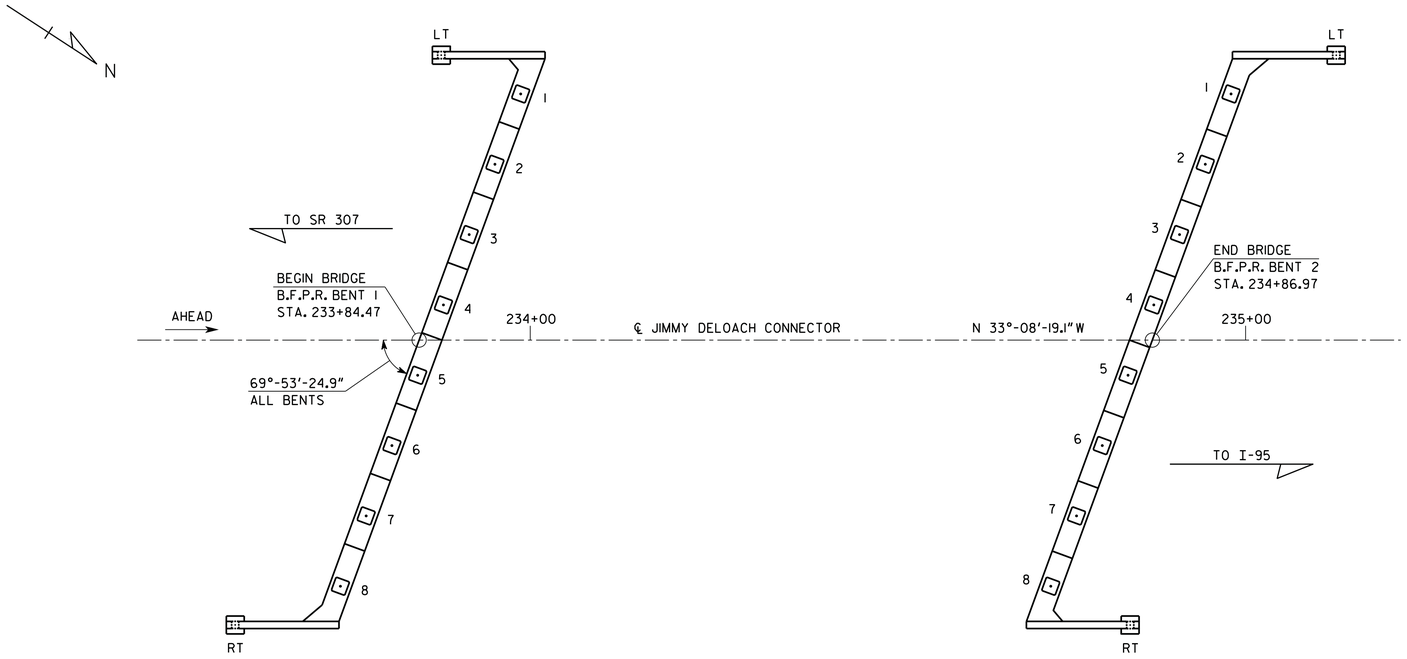
RELEASED FOR CONSTRUCTION: 05/21/2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	499	730



PLAN
SCALE: 1" = 1'-0"

AS-BUILT FOUNDATION DATA		
BENT	PILE NO.	PILE TIP ELEVATION
1	LT	
	1	
	2	
	3	
	4	
	5	
	6	
	7	
	8	
	RT	

AS-BUILT FOUNDATION DATA		
BENT	PILE NO.	PILE TIP ELEVATION
2	LT	
	1	
	2	
	3	
	4	
	5	
	6	
	7	
	8	
	RT	

NOTE: THIS "AS-BUILT FOUNDATION" INFORMATION SHEET IS TO BE FILLED IN BY THE PROJECT ENGINEER AND THE ENTIRE SHEET FORWARDED TO THE BRIDGE OFFICE UPON COMPLETION OF PILE DRIVING FOR POSTING TO THE PLANS AS A PERMANENT RECORD OF THE BRIDGE CONSTRUCTION.

PROJECT ENGINEER DATE

( ) AREA CODE TELEPHONE NUMBER

BRIDGE NO. 2

THE LPA GROUP
A UNIT OF GENERAL DATA CORPORATION
THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

AS BUILT FOUNDATION DETAILS
JIMMY DELOACH CONNECTOR
OVER CROSSGATE ROAD
CHATHAM COUNTY CSMSL-0008-00(690)

SCALE: AS SHOWN JULY 2013

DRAWING NO. 35-17
BRIDGE SHEET 8 OF 9

REVISIONS | DATE | BY

DESIGNED BSB | CHECKED ANZ | REVIEWED DLC/WMD
DRAWN BSB | DESIGN GROUP AWB/SKG | APPROVED BFR

1 INCH WHEN PRINTED FULL SIZE

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LOCATION	NO. OF LOC.	MARK	LENGTH FT.	LENGTH IN.	NO. BARS REQ'D.	TYPE	A	G	B FT.	B IN.	C FT.	C IN.	D FT.	D IN.	E FT.	E IN.	F FT.	F IN.	H FT.	H IN.	J FT.	J IN.	K FT.	K IN.	N	θ
SUPERSTRUCTURE	1	400A	60- 0		207	1																				
SPAN 1		400B	43- 11		207	1																				
		401A	18- 9		80	1																				
		401B	16- 8		48	1																				
		404A	60- 0		14	1																				
		404B	25- 2		14	1																				
		407	8- 10		42	1																				
		408A	10- 7		63	25	4	4	0- 7		4- 4															
		408B	8- 5		14	25	4	4	0- 7		3- 3															
		500A	60- 0		206	3			59- 0		1- 0															
		500B	21- 1		206	3			20- 1		1- 0															
		507	8- 1		412	3			7- 1		1- 0															
		501A	59- 0		206	1																				
		501B	19- 1		157	1																				
		502A	7- 9		218	23			1- 3		3- 3		3- 3													101
		502B	8- 9		116	7			2- 3		3- 3		3- 3												79	101
		503A	6- 8		218	23			0- 6		3- 1		3- 1													79
		503B	6- 10		116	7			0- 8		3- 1		3- 1												101	79
		504A	6- 4		48	46			4- 4		0- 10		0- 3		0- 8		0- 8									
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		505A	60- 0		2	1																				
		505B	22- 7		2	1																				
		506	7- 2		218	3			5- 11		1- 3															
		506A	3- 10		96	6			1- 4		1- 3		0- 0		1- 3										45	45
		509A	6- 4		14	1																				
		509B	7- 8		14	1																				
		900A	18- 1		28	16	0	0	4- 11		0- 9		0- 9		7- 0		4- 0									
		900B	15- 0		70	16	0	0	4- 11		0- 9		0- 9		4- 0		4- 0									
SUBSTRUCTURE	2	410	6- 9		32	32	5	5	2- 8		1- 8		1- 8													
END BENTS		411	9- 5		80	25	4	4	2- 8		1- 8															
		411A	9- 9		2	25	4	4	2- 10		1- 8															
		412	11- 5		6	25	4	4	2- 8		2- 8															
		413	1- 8		8	1																				
		414	41- 8		2	1																				
		415	5- 4		43	2			2- 8		1- 4		1- 4													
		510	8- 8		68	1																				
		511	15- 8		40	1																				
		610A	5- 1		3	1																				
		610B	7- 3		3	1																				
		1010A	60- 0		4	6			57- 8		0- 6		1- 10		0- 0										0	20
		1010B	36- 3		4	4			34- 5		1- 10															70

RELEASED FOR CONSTRUCTION: 05/21/2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	489	730

BRIDGE NO. 2

THE LPA GROUP
A UNIT OF GOSSETT HAHN CORPORATION

THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3995 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

REINFORCEMENT SCHEDULE
JIMMY DELOACH CONNECTOR
OVER CROSSGATE ROAD
CHATHAM COUNTY CSMSL-0008-00(690)

DRAWING NO.	REVISIONS	DATE	BY
35-18			
BRIDGE SHEET 9 OF 9			

SCALE: NONE JULY 2013

DESIGNED BSB CHECKED ANZ REVIEWED DLC/WMD
DRAWN BSB DESIGN GROUP AWB/SKG APPROVED BFR

1 INCH WHEN PRINTED FULL SIZE

RELEASED FOR CONSTRUCTION: 05/21/2013

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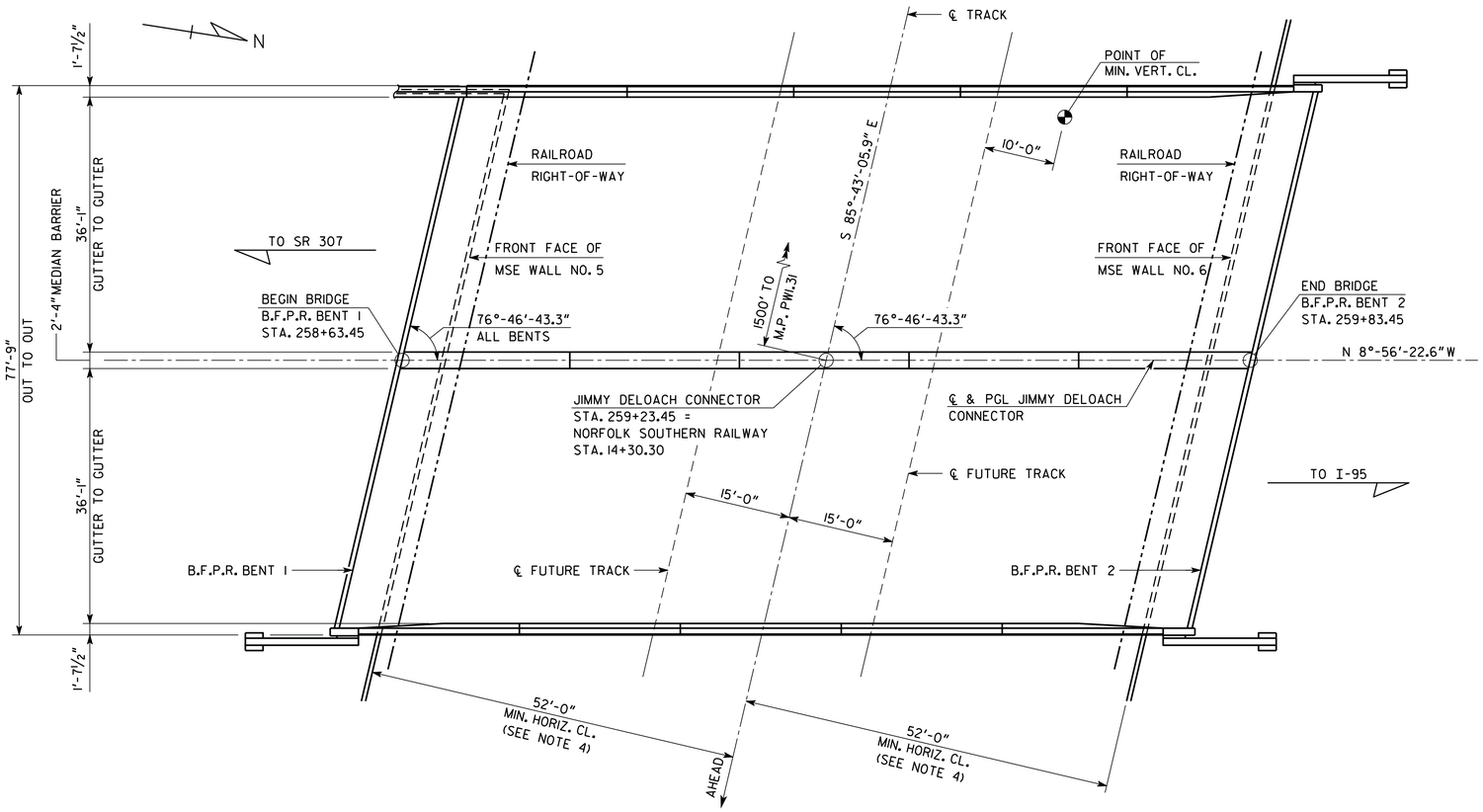
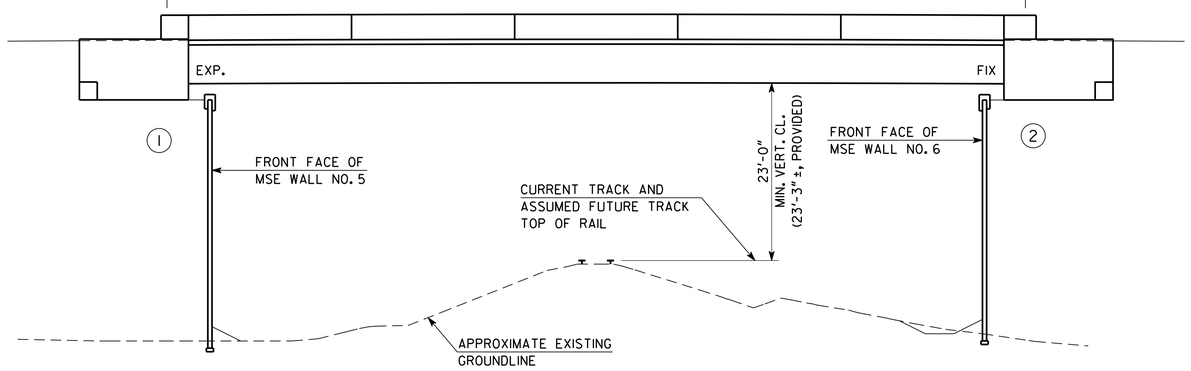
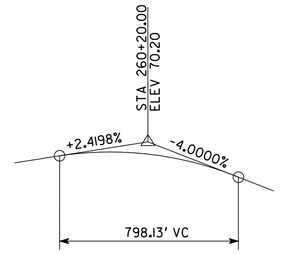


PLAN



ELEVATION

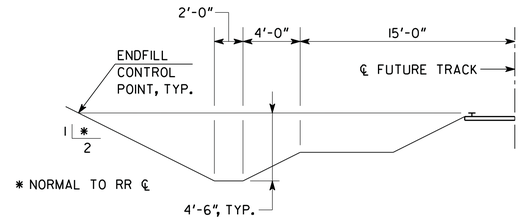


VERTICAL CURVE DATA
JIMMY DELOACH CONNECTOR
NOT TO SCALE

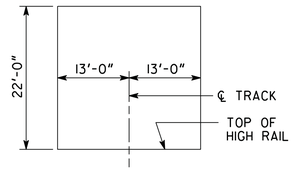
TOP OF EXISTING RAIL PROFILE		
STATION	LEFT RAIL	RIGHT RAIL
9+00	42.65	42.64
9+50	41.56	41.56
10+00	40.47	40.48
10+50	39.44	39.44
11+00	38.42	38.41
11+50	37.43	37.44
12+00	36.48	36.50
12+50	35.62	35.61
13+00	34.75	34.73
13+50	33.94	33.93
14+00	33.18	33.19
14+50	32.49	32.49
15+00	31.79	31.79
15+50	31.15	31.15
16+00	30.52	30.52
16+50	29.93	29.94
17+00	29.38	29.39
17+50	28.87	28.87
18+00	28.32	28.29
18+50	27.66	27.67
19+00	27.25	27.28
19+50	26.99	27.00

NOTES

1. ** ALL STATIONS AND ELEVATIONS MEASURED AT INTERSECTION OF PROFILE GRADE LINE AND BFPR.
2. END BENT PILES NOT SHOWN.
3. ALL BENTS PARALLEL TO ℄ OF NORFOLK SOUTHERN RAILWAY.
4. OFFSETS ARE SET TO ACCOMMODATE A FUTURE TRACK ON EITHER SIDE OF EXISTING TRACK AND RAILROAD RIGHT OF WAY.



END CONTROL DIAGRAM
NOT TO SCALE



CONSTRUCTION CLEARANCE DIAGRAM
NOT TO SCALE

P.I. NO. 0008690

BRIDGE NO. 3

THE LPA GROUP
A UNIT OF GENSLER DESIGN CORPORATION
THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

5.21.13
GEORGIA REGISTERED NO. 24732 PROFESSIONAL ENGINEER ROBERT W. BOWMAN

DATE	REVISIONS	BY

PLAN AND ELEVATION
JIMMY DELOACH CONNECTOR
OVER NORFOLK SOUTHERN RAILWAY
CHATHAM COUNTY CSMSL-0008-00(690)

SCALE: 1" = 10'-0" JULY 2013

DRAWING NO. 35-19
BRIDGE SHEET 1 OF 10

DESIGNED JCR | CHECKED ANZ/AWB | REVIEWED DLC/WMD
DRAWN JCR | DESIGN GROUP SKG | APPROVED BFR

1 INCH WHEN PRINTED FULL SIZE

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RELEASED FOR CONSTRUCTION: 05/21/2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	491	730

BRIDGE CONSISTS OF

1 - 120'-0" BULB TEE, 65 IN, PSC BEAM SPAN ---------- SPECIAL DESIGN

2 - PSC PILE END BENTS ---------- SPECIAL DESIGN

3 - END POST AND GUARDRAIL ATTACHMENT DETAIL ------- GA. STD. 3054 (9-30-02)
2 - (L = 4'-0"; W = 1'-1"; H = 3'-6")
1 - (L = 4'-6"; W = 1'-1"; H = 3'-6")

SQUARE PRESTRESSED CONCRETE PILES ---------- SPECIAL DESIGN
SEE DRAWING NO. 37-01 TO 37-05

BAR BENDING DETAILS ---------- GA. STD. 3901 (8-69)

TYPICAL FILL DETAIL AT END OF BRIDGE ---------- GA. STD. 9037 (9-99)

TRAFFIC DATA

TRAFFIC ---------- ADT = 23,360 (2012)
ADT = 30,880 (2032)

DESIGN SPEED ---------- 55 MPH

TRUCKS ---------- 60 %

24 HR TRUCKS ---------- 55 %

DIRECTIONAL ---------- 54 %

UTILITIES

NO UTILITIES ON BRIDGE

GENERAL NOTES

SPECIFICATIONS - GEORGIA STANDARD SPECIFICATIONS, 2001 EDITION, AND 2008 SUPPLEMENTAL SPECIFICATIONS AS MODIFIED BY CONTRACT DOCUMENTS.

SHOP DRAWINGS - SUBMIT SHOP DRAWINGS TO ENGINEER OF RECORD (EOR) FOR INITIAL REVIEW AND APPROVAL. ONCE APPROVED AND STAMPED BY EOR, EOR SHALL SUBMIT 6 STAMPED SETS TO THE GEORGIA DOT OFFICE OF BRIDGES AND STRUCTURES FOR REVIEW AND APPROVAL.

REINFORCING STEEL - PLACE AND TIE ALL REINFORCING STEEL IN ACCORDANCE WITH THE GEORGIA DOT SPECIFICATIONS. DO NOT WELD REINFORCING STEEL.

CHAMFER - CHAMFER ALL EXPOSED CONCRETE EDGES 3/4" UNLESS OTHERWISE NOTED.

RAILROAD SIDE DITCHES - PRIOR TO THE BEGINNING OF CONSTRUCTION, CLEAN THE RAILROAD SIDE DITCHES IN THE CONSTRUCTION AREA IN SUCH A MANNER AS TO PROVIDE POSITIVE DRAINAGE. MAINTAIN THE RAILROAD SIDE DITCHES FREE OF SILT AND DEBRIS UNTIL FINAL ACCEPTANCE. SEE ROADWAY PLANS FOR EROSION CONTROL AND PAYMENT.

PROTECTIVE PLATFORMS - PROVIDE PROTECTIVE PLATFORMS AT THIS SITE, SEE SECTION 510 OF THE GEORGIA DOT SPECIFICATIONS. MAINTAIN A MINIMUM VERTICAL CLEARANCE OF 22'-0" ABOVE NORFOLK SOUTHERN RAILWAY.

TRAFFIC CONTROLS - SEE ROADWAY PLANS FOR TRAFFIC CONTROLS AND TRAFFIC CONTROL PAYMENT.

WAITING PERIOD - DO NOT BEGIN WORK AT BENTS 1 AND 2 UNTIL THE COMPLETED END FILLS ARE IN PLACE AND SETTLEMENT IS COMPLETE. ESTABLISH SETTLEMENT MONITORING POINTS AT EACH BRIDGE BENT LOCATION. SETTLEMENTS ARE TO BE READ BY A SURVEYOR AT LEAST TWICE WEEKLY. ONCE THE CUMULATIVE SETTLEMENT, OVER A PERIOD OF 3 WEEKS, DOES NOT EXCEED ¼ OF AN INCH, THE SETTLEMENT IS CONSIDERED TO HAVE CEASED.

PLAN DRIVING OBJECTIVE - SEE SUBSTRUCTURE DETAILS.

PDA TESTING - PERFORM PILE TESTING USING THE PILE DRIVING ALAYZER (PDA) IN ACCORDANCE WITH SPECIAL PROVISION SECTION 523. NOTIFY THE GEOTECHNICAL BUREAU OF THE GEORGIA DOT OFFICE OF MATERIALS AT 404-608-4720 TWO WEEKS PRIOR TO DRIVING PILES.

GENERAL NOTES (CONTINUED)

WAVE EQUATION - PERFORM WAVE EQUATION ANALYSIS (WEAP) IN ACCORDANCE WITH SPECIAL PROVISION 520. PROVIDE RESULTS OF THE WEAP TO THE GEOTECHNICAL BUREAU OF THE GEORGIA DOT FOR REVIEW AND APPROVAL TWO WEEKS PRIOR TO DRIVING PILES.

TEST PILES - DRIVE TEST PILES AT THE FOLLOWING LOCATIONS:

ONE 18 IN SQ PSC X 104 FT AT BENT 1
ONE 18 IN SQ PSC X 95 FT AT BENT 2

SMOOTH DOWEL BARS - PLACE SMOOTH DOWEL BARS IN FORMED 3" DIAMETER X 12" DEEP HOLES AND GROUT IN PLACE SIMILAR TO ANCHOR BOLTS, SEE SUB-SECTION 501.3.05.B.3 OF THE GEORGIA DOT SPECIFICATIONS. STIRRUPS MAY BE SHIFTED SLIGHTLY TO CLEAR FORMED HOLES.

ABUTMENT SOIL REINFORCING DEVICE INSERTS - INCLUDE THE COST OF FURNISHING AND INSTALLING INSERTS FOR SOIL REINFORCING DEVICES AT ABUTMENT IN THE OVERALL BID SUBMITTED.

FILL SETTLEMENT - PROTECT PILES DRIVEN AT BENTS 1 AND 2 FROM NEGATIVE SKIN FRICTION WHEN USED IN CONJUNCTION WITH MECHANICALLY STABILIZED EARTH WALLS, SEE SECTION 551 OF THE GEORGIA DOT SPECIFICATIONS. DRIVE PILES AT END BENTS BEFORE WALL LEVELING PADS ARE CONSTRUCTED.

GROOVED CONCRETE - GROOVE THE ENTIRE LENGTH OF THE BRIDGE TRANSVERSELY AS PER SUB-SECTION 500.3.05.T.9.C OF THE GEORGIA DOT SPECIFICATIONS.

RIDING QUALITY - THE FINISHED BRIDGE DECK AND APPROACH SLABS SHALL MEET THE RIDE QUALITY REQUIREMENTS AS SPECIFIED IN SUB-SECTION 500.3.06.E OF THE GEORGIA DOT SPECIFICATIONS FOR STATE ROUTES WITH FOUR LANES OR MORE.

WELDING - ALL WELDING ON GEORGIA DOT PROJECTS SHALL BE PERFORMED BY CERTIFIED WELDERS THAT HAVE IN THEIR POSSESSION A CURRENT WELDING CERTIFICATION CARD ISSUED BY THE OFFICE OF MATERIALS AND RESEARCH. USE ONLY E70XX (EXCLUDING E7014 AND E7024) LOW HYDROGEN ELECTRODES FOR MANUAL SHIELDED METAL ARC WELDING.

INCIDENTAL ITEMS - INCLUDE THE COST INCIDENTAL TO THE WORK THAT IS NOT SPECIFICALLY COVERED BY THE GEORGIA STANDARD SPECIFICATIONS, SUPPLEMENTAL SPECIFICATIONS AND/OR SPECIAL PROVISIONS IN THE OVERALL BID SUBMITTED. THIS INCLUDES THE COST OF WATERPROOFING, JOINT FILLERS, AND OTHER INCIDENTAL ITEMS NECESSARY TO COMPLETE THE WORK.

DESIGN BUILD PROJECT - THIS IS A DESIGN BUILD PROJECT AND QUANTITIES ARE PROVIDED FOR INFORMATION ONLY.

DESIGN DATA

SPECIFICATIONS ---------- AASHTO LRFD 5TH EDITION, 2010
(DESIGNED FOR SEISMIC PERFORMANCE ZONE 2)

TYPICAL HL-93 LOADING ---------- IMPACT ALLOWED

FUTURE PAVING ALLOWANCE ---------- 30 LBS PER SQ FT

CONCRETE: SUPERSTRUCTURE ---------- CLASS D, f'_c = 4,000 PSI
BARRIER ---------- CLASS D, f'_c = 4,000 PSI
PSC BEAMS ---------- CLASS AAA, f'_c = 8,500 PSI
PSC BEAM ALLOWABLE TENSION ---------- 277 PSI
SUBSTRUCTURE ---------- CLASS A, f'_c = 3,000 PSI

REINFORCEMENT STEEL: ---------- GRADE 60, f_y = 60,000 PSI

PRETENSIONING STRANDS: ---------- f_s = 270,000 PSI

SUMMARY OF QUANTITIES

PAY ITEM NUMBER	QUANTITY	UNIT	PAY ITEM
500-0100	909	SY	GROOVED CONCRETE
500-1011	LUMP	LS	SUPERSTR CONCRETE, CL D, BR NO - 3 (368)
500-2100	231	LF	CONCRETE BARRIER
500-3101	59	CY	CLASS A CONCRETE
507-9034	946	LF	PSC BEAMS, AASHTO, BULB TEE, 65 IN, BR NO - 3
511-1000	7031	LB	BAR REINF STEEL
511-3000	LUMP	LS	SUPERSTR REINF STEEL, BR NO - 3 (74465)
520-2218	1625	LF	PILING, PSC, 18 IN SQ
520-3218	2	EA	TEST PILE, PSC, 18 IN SQ
520-4218	1	EA	LOAD TEST, PSC, 18 IN SQ (IF REQD)

BRIDGE NO. 3

THE LPA GROUP
A UNIT OF GARGUL BUCKO CORPORATION
THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

GENERAL NOTES
JIMMY DELOACH CONNECTOR
OVER NORFOLK SOUTHERN RAILWAY
CHATHAM COUNTY CSMSL-0008-00(690)

SCALE: 1"= 10'-0" JULY 2013

DESIGNED JCR | CHECKED ANZ/AWB | REVIEWED DLC/WMD
DRAWN JCR | DESIGN GROUP SKG | APPROVED BFR

DRAWING NO. 35-20
BRIDGE SHEET 2 OF 10

REVISIONS | DATE | BY

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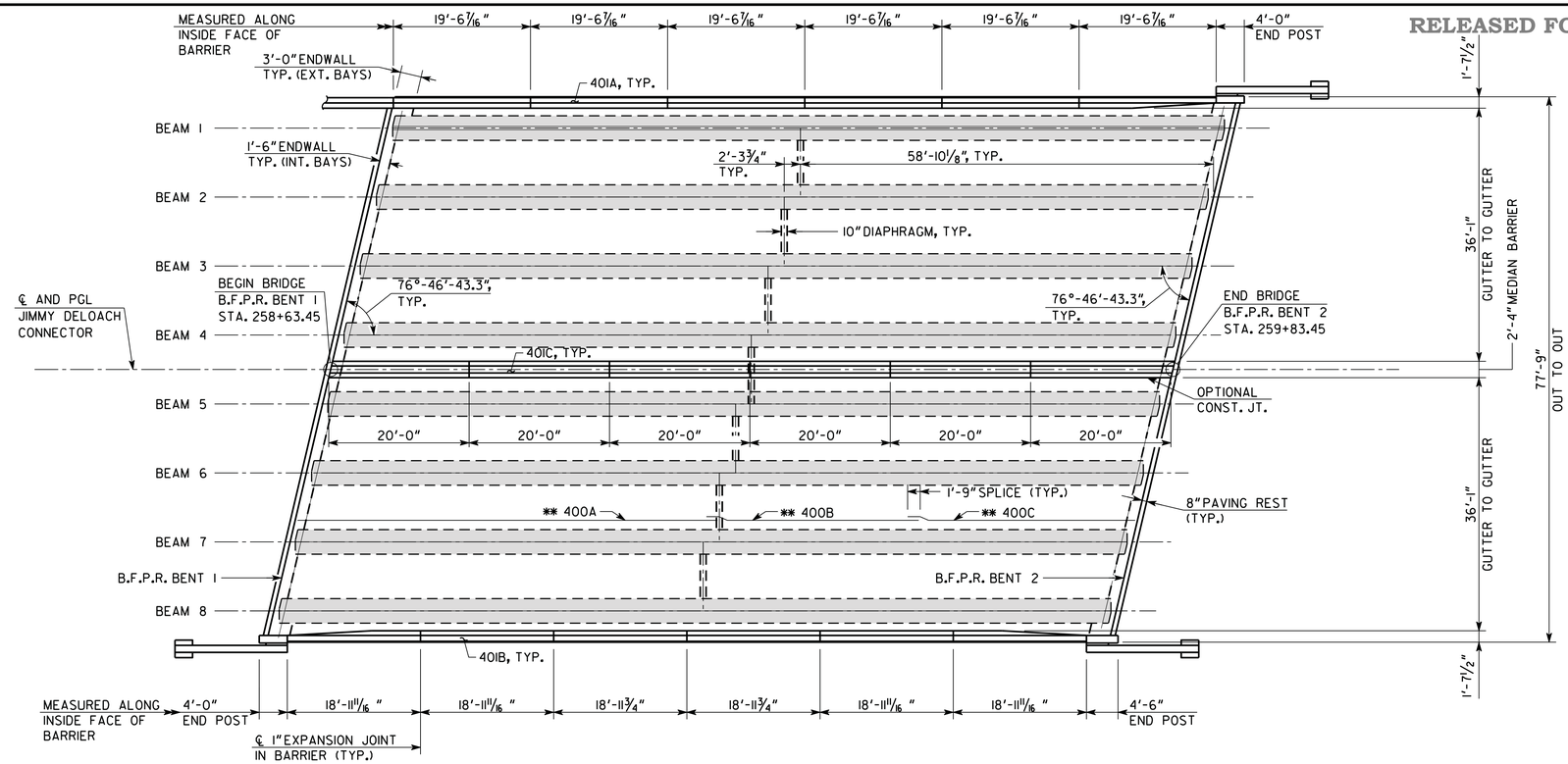
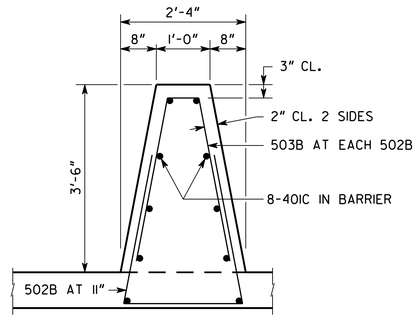
RELEASED FOR CONSTRUCTION: 05/21/2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	492	730



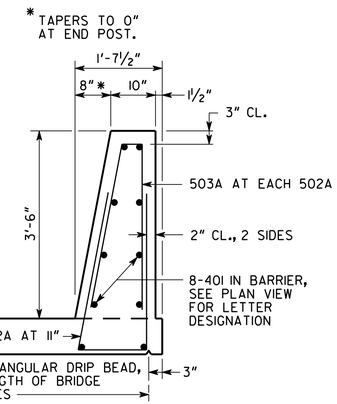
PLAN

SCALE: 1" = 10'-0"



MEDIAN BARRIER DETAIL

NO SCALE



BARRIER DETAIL

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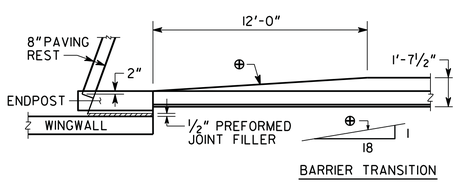
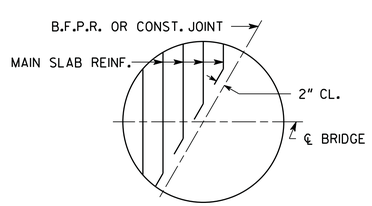


BARRIER TRANSITION DETAIL

NO SCALE

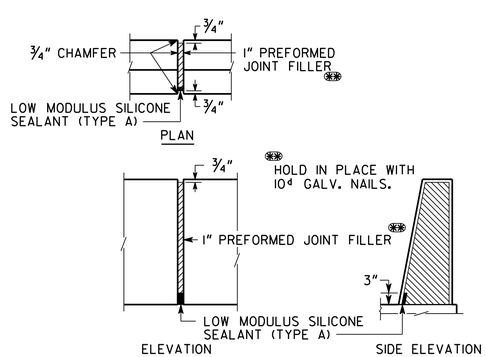


AT B.F.P.R. OR CONST. JOINT

BARS ARE DETAILED IN BAR DETAILS AS EQUIVALENT FULL LENGTH BARS.

BAR BENDING DETAILS AT SKEWED JOINTS

NO SCALE



DETAILS OF 1" EXPANSION JOINT IN BARRIER

NO SCALE

SUPERSTRUCTURE QUANTITIES

ITEM	TOTAL
LUMP - SUPERSTR. CONCRETE, CU YDS., CLASS D	368.2
LUMP - SUPERSTR. REINF. STEEL, LBS.	74,465

NOTE: MAINTAIN 2" CLEARANCE ON ALL REINFORCEMENT UNLESS OTHERWISE NOTED.

** ALTERNATE 400A, 400B, AND 400C BARS ACROSS DECK TO STAGGER LAP LOCATION.

BRIDGE NO. 3

THE LPA GROUP

THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
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GEORGIA

DEPARTMENT OF TRANSPORTATION

ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

DECK PLAN
JIMMY DELOACH CONNECTOR
OVER NORFOLK SOUTHERN RAILWAY
CHATHAM COUNTY CSMSL-0008-00(690)

SCALE: AS SHOWN JULY 2013

DRAWING NO. 35-21

BRIDGE SHEET 3 OF 10

BY	REVISIONS	DATE

DESIGNED JCR | CHECKED ANZ/AWB | REVIEWED DLC/WMD
DRAWN JCR | DESIGN GROUP SKG | APPROVED BFR

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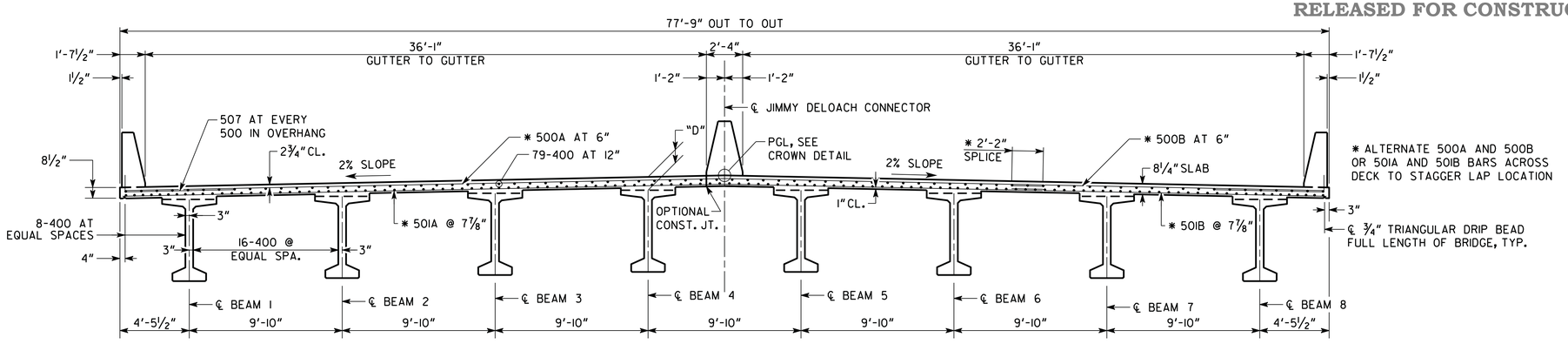
RELEASED FOR CONSTRUCTION: 05/21/2013

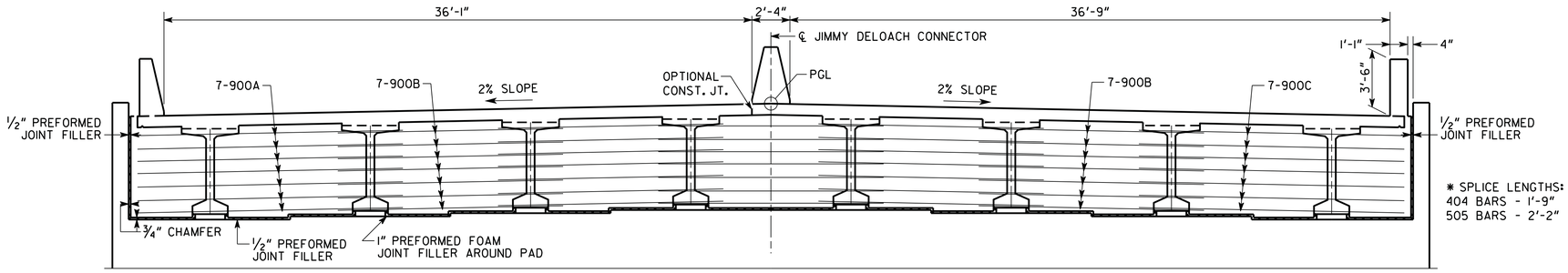
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	493	730



* ALTERNATE 500A AND 500B OR 501A AND 501B BARS ACROSS DECK TO STAGGER LAP LOCATION

SECTION THRU SLAB

SCALE: ¼" = 1'-0"



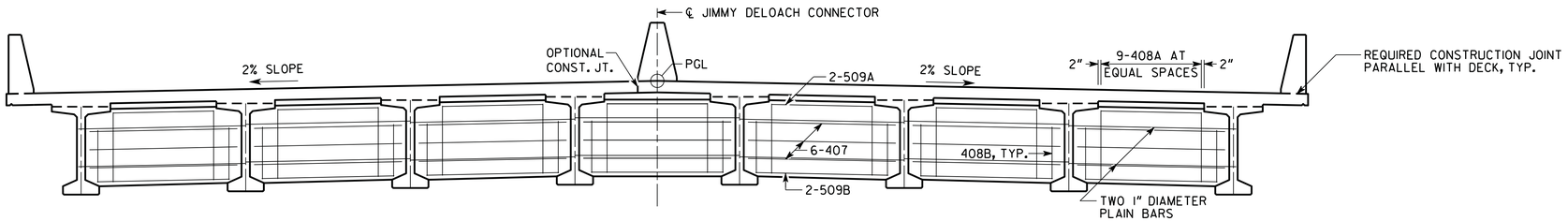
* SPLICE LENGTHS:
404 BARS - 1'-9"
505 BARS - 2'-2"

SECTION THRU ENDWALL WITH BARRIER

SCALE: ¼" = 1'-0"
* 404, 504 SERIES, 505, 506 SERIES BARS NOT SHOWN

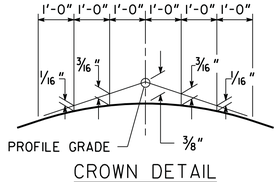
SECTION THRU ENDWALL WITH END POST

SCALE: ¼" = 1'-0"
* 404, 504 SERIES, 505, 506 SERIES BARS NOT SHOWN



SECTION THRU DIAPHRAGM

SCALE: ¼" = 1'-0"

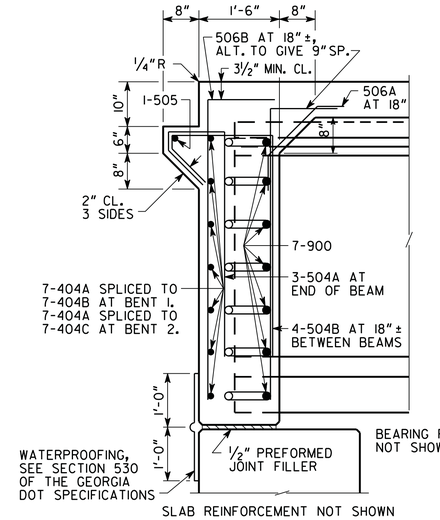


CROWN DETAIL

2% CROSS SLOPE
NO SCALE

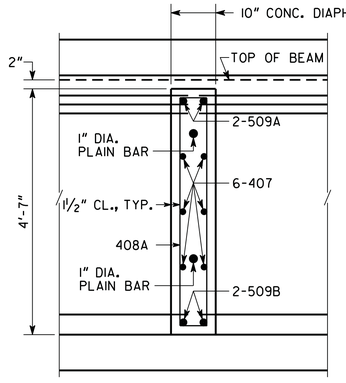
NOTES

1. MAINTAIN 2" CLEARANCE ON ALL REINFORCEMENT UNLESS OTHERWISE NOTED.
2. DIMENSION "D" IS MEASURED FROM TOP OF SLAB TO TOP OF BEAMS AT CENTERLINE BEARING. VARY "D" BETWEEN BEARINGS TO COMPENSATE FOR DEAD LOAD DEFLECTION AND VERTICAL CURVE. MAINTAIN A CONSTANT SLAB THICKNESS OF 8¼" BETWEEN BEAMS AND 8½" AT OVERHANGS. "D" = 11⅛"



SECTION AT ENDWALL

NO SCALE



SLAB REINFORCEMENT NOT SHOWN

SECTION THRU DIAPHRAGM

NO SCALE

BRIDGE NO. 3

THE LPA GROUP
A UNIT OF MICHAEL BAKER CORPORATION

THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

DECK SECTIONS
JIMMY DELOACH CONNECTOR
OVER NORFOLK SOUTHERN RAILWAY
CHATHAM COUNTY CSMSL-0008-00(690)

DRAWING NO.	SCALE: AS SHOWN	JULY 2013
35-22		
BRIDGE SHEET 4 OF 10	DESIGNED JCR / DRAWN JCR	CHECKED ANZ/AWB / DESIGN GROUP SKG / REVIEWED DLC/WMD / APPROVED BFR

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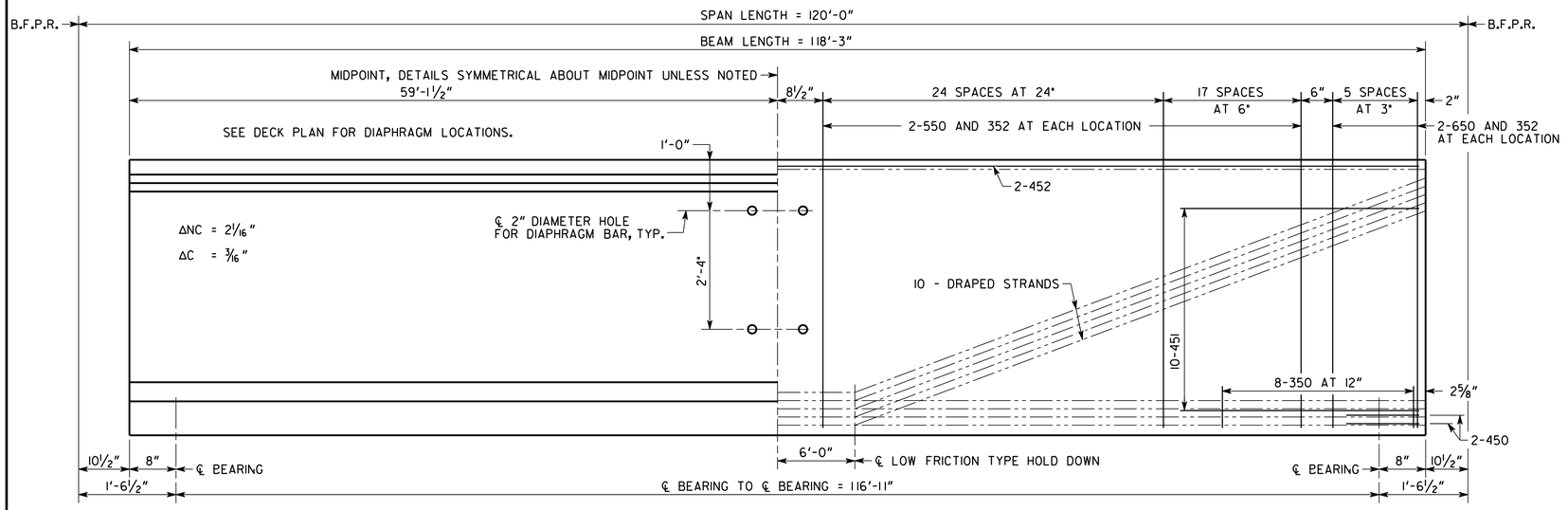
RELEASED FOR CONSTRUCTION: 05/21/2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	494	730

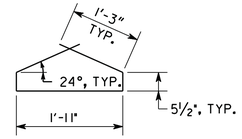


ELEVATION

NOTES

1. BEAMS SHALL BE MAINTAINED IN AN UPRIGHT POSITION AT ALL TIMES AND SHALL BE PICKED UP WITHIN 7'-9" FROM THEIR ENDS. DISREGARDING THIS REQUIREMENT COULD LEAD TO COLLAPSE OF THE BEAM. PICK-UPS SHALL BE EMBEDDED TO WITHIN 4" OF THE BOTTOM OF THE BEAM. DETAILS OF PICK-UPS SHALL BE INCLUDED IN THE SHOP DRAWINGS.
2. CHAMFER EDGES OF BEAMS 1/2", 3/4" OR 1".
3. HORIZONTAL DIMENSIONS ARE IN PLACE DIMENSIONS. THE BEAM LENGTH INCLUDES THE 1/8" EPOXY MORTAR AT EACH END. SHOP DRAWINGS SHALL ADJUST HORIZONTAL DIMENSIONS FOR GRADE AND FABRICATION EFFECTS SUCH AS SHRINKAGE AND ELASTIC SHORTENING.
4. AT ℄ BEARING, FORM A 1 1/2" DIAMETER X 7" DEEP HOLE AT THE FIXED ENDS AND A 6" X 1 1/2" X 7" DEEP SLOT AT THE EXPANSION ENDS FOR A 1 1/4" DIAMETER SMOOTH DOWEL. SEE PLAN AND ELEVATION SHEET FOR LOCATION OF FIXED AND EXPANSION ENDS.
5. TOPS OF BEAMS SHALL BE ROUGH FLOATED AT APPROXIMATELY THE TIME OF INITIAL SET. ENTIRE TOP SHALL BE SCRUBBED TRANSVERSELY WITH A COARSE BRUSH TO REMOVE ALL LAITANCE AND TO PRODUCE A ROUGHENED SURFACE FOR BONDING TO THE SLAB. ROUGHENED SURFACE SHALL HAVE AN AMPLITUDE OF APPROXIMATELY 1/4". CONCRETE FINS OR PROJECTIONS SHALL BE REMOVED TO PRODUCE A VERTICAL FACE AT THE EDGE OF THE BEAM.
6. NON-COMPOSITE DEAD LOAD DEFLECTION (ΔNC) AT THE MIDPOINT IS DUE TO THE WEIGHT OF THE SLAB AND COPING.
7. COMPOSITE DEAD LOAD DEFLECTION (ΔC) AT THE MIDPOINT IS DUE TO THE WEIGHT OF BARRIER AND MEDIAN BARRIER.
8. STRANDS SHALL MEET ALL REQUIREMENTS OF ASTM A 416 GRADE 270.
9. PRESTRESSING DATA IS AS FOLLOWS:
   - A. USE 50 - 0.6" DIAMETER LOW RELAXATION (A = 0.217 SQ IN) STRANDS. PRETENSION TOP FOUR (4) STRANDS TO 19,921 LBS EACH. PRETENSION BOTTOM STRANDS TO 43,943 LBS EACH.
   - B. PRETENSIONED STRANDS SHALL BE RELEASED AFTER THE CONCRETE HAS REACHED A MINIMUM STRENGTH (f'_{ci}) OF 7,500 PSI.
   - C. INCLUDING THE TOP STRANDS, THE TOTAL JACKING FORCE OF PRETENSIONING IS 2,101,062 LBS.
   - D. INCLUDING THE TOP STRANDS, THE NET PRESTRESSING FORCE OF THE STRANDS AFTER ALL LOSSES IS 1,587,749 LBS.
10. CONCRETE STRENGTH (f'_c) = 8,500 PSI.
11. ALLOWABLE PSC BEAM TENSION = 277 PSI.

REINFORCEMENT



350

1'-0"

351

3'-2"

352

8"

1'-6"

450

7'-4"

7'-4"

BEAM LENGTH - 4"

BAR 452 SHALL BE MADE OF SECTIONS LAPPED 2'-0".

8'-6"

451

452

1'-1"

550

10"

650

ALL BAR DIMENSIONS ARE OUT TO OUT.

AT THE TOP OF THE BEAM, BARS 550 AND 650 SHALL BE FIELD BENT OR SHOP BENT 90°, SUCH THAT THE HORIZONTAL LEG EXTENDS BETWEEN TOP AND BOTTOM MATS OF SLAB REINFORCEMENT.

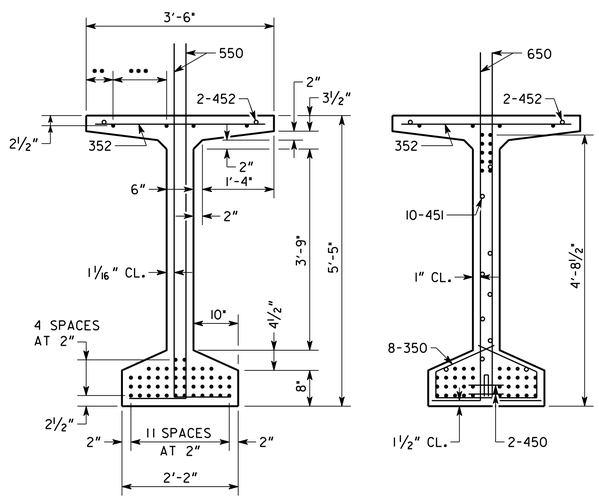
SLIGHTLY SHIFT OR SLOPE BARS 451 TO AVOID CONFLICT WITH STRANDS.

BARS 350 MAY BE FABRICATED IN TWO PARTS BY LAPPING HORIZONTAL SECTION BY 1'-0" MINIMUM.

PLACE BARS 450 WITH OPEN ENDS AWAY FROM BEAM ENDS.

BEVEL DETAILS

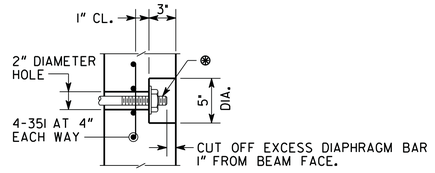
** 8" MINIMUM
*** 6" MINIMUM



MAINTAIN 1" MINIMUM CLEARANCE UNLESS SHOWN.
• INDICATES 0.6" DIAMETER PRESTRESSED STRANDS.

SECTION AT MIDPOINT

SECTION AT END



⊛ DIAPHRAGM BAR SHALL BE A 1" DIAMETER PLAIN BAR, THREADED 5" ON EACH END, WITH 1/4" X 3 1/2" DIAMETER WASHERS AND HEX NUTS (ASTM A 709 GRADE 36).

TIGHTEN DIAPHRAGM BAR AS PER SUB-SECTION 507.3.05.C OF THE GEORGIA DOT SPECIFICATIONS.

AFTER EXCESS DIAPHRAGM BAR HAS BEEN CUT OFF, PAINT DIAPHRAGM BAR, WASHER, AND NUT EXPOSED IN RECESS WITH SPECIAL PROTECTIVE COATING NO. 2 P AS PER SECTION 535 OF THE GEORGIA DOT SPECIFICATIONS. AFTER PAINTING, FILL THE RECESS WITH AN APPROVED EPOXY GROUT.

GALVANIZING OF THE DIAPHRAGM BAR AS PER SUB-SECTION 865.2.01.B.12 OF THE GEORGIA DOT SPECIFICATIONS IS NOT REQUIRED.

RECESS DETAIL FOR DIAPHRAGM BAR ENDS

BRIDGE NO. 3

THE LPA GROUP
A UNIT OF GENERAL DATA CORPORATION
THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

BULB TEE, 65 IN PSC BEAM
JIMMY DELOACH CONNECTOR
OVER NORFOLK SOUTHERN RAILWAY
CHATHAM COUNTY CSMSL-0008-00(690)

DATE	REVISIONS	BY

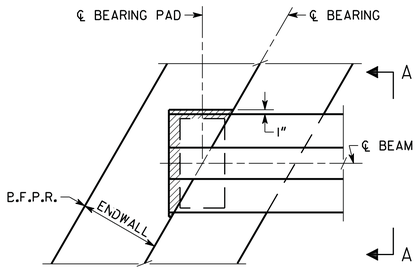
DRAWING NO. 35-23
BRIDGE SHEET 5 OF 10

SCALE: NONE JULY 2013

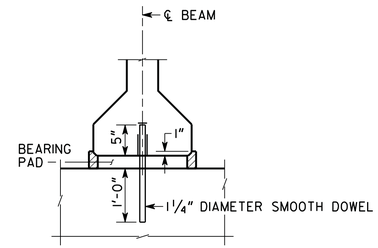
DESIGNED JCR | CHECKED ANZ/AWB | REVIEWED DLC/WMD
DRAWN JCR | DESIGN GROUP SKG | APPROVED BFR

1 INCH WHEN PRINTED FULL SIZE

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	495	730



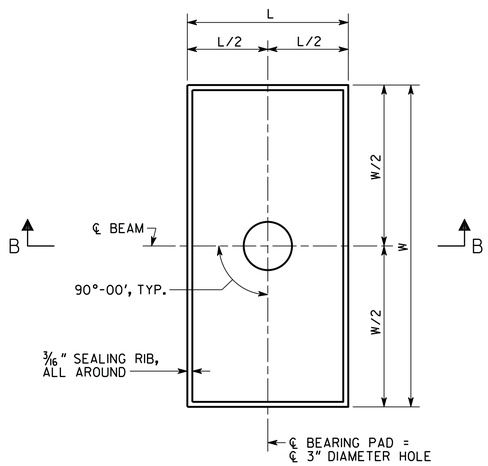
PLAN
BENT 1 SHOWN
BENT 2 SIMILAR



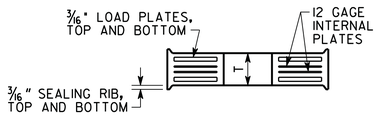
PREFORMED FOAM JOINT FILLER SHALL BE FURNISHED IN ACCORDANCE WITH SUB-SECTION 833.2.10 OF THE GEORGIA DOT SPECIFICATIONS.

ENDWALL NOT SHOWN

SECTION A-A



PLAN



SECTION B-B

BEARING PAD

NOTES

1) BEARING PADS HAVE BEEN DESIGNED ACCORDING TO AASHTO LRFD BRIDGE SPECIFICATIONS, SECTION 14.7.6 AND SHALL BE FURNISHED IN ACCORDANCE WITH AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS, SECTION 18.2, ELASTOMERIC BEARINGS, AND AASHTO M 251.

2) 1 1/4" DIAMETER SMOOTH DOWELS SHALL BE ASTM A 709 GRADE 50.

3) BEARING PADS SHALL BE MADE OF 60 DUROMETER HARDNESS NEOPRENE, GRADE 2 OR HIGHER.

4) 3" DIAMETER HOLE IN BEARING PADS MAY BE FORMED OR DRILLED.

5) BEARING PADS SHALL HAVE 1/4" COVER ON THE TOP, BOTTOM, AND SIDES AND AROUND THE HOLE.

6) 3/16" LOAD PLATES AND 12 GAGE INTERNAL PLATE(S) (IF REQUIRED) SHALL BE ASTM A 709 GRADE 36 OR ASTM A 1011 GRADE 36.

7) NUMBER OF INTERNAL PLATES SHOWN FOR ILLUSTRATION PURPOSES ONLY. THE NUMBER OF INTERNAL PLATE(S) SPECIFIED SHALL BE EQUALLY SPACED BETWEEN LOAD PLATES.

8) USE OF 1 1/2° MOLD DRAFT IS OPTIONAL.

BENT	BEARING PADS							
						DESIGN LOADS (KIPS)		
	W	L	T	NUMBER OF INTERNAL PLATE(S)	DESIGN SHEAR DEFLECTION	DEAD LOAD	LIVE LOAD (NO IMPACT)	DEAD LOAD + LIVE LOAD
1	22"	12"	4"	5	0.38"	160	102	262
2	22"	12"	4"	5	0	160	102	262

BRIDGE NO. 3

THE LPA GROUP
A UNIT OF MICHAEL BAKER CORPORATION

THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

BEARING PAD DETAILS
JIMMY DELOACH CONNECTOR
OVER NORFOLK SOUTHERN RAILWAY
CHATHAM COUNTY CSMSL-0008-00(690)

DATE
REVISIONS
BY

DRAWING NO. 35-24
BRIDGE SHEET 6 OF 10

SCALE: NONE JULY 2013

DESIGNED JCR | CHECKED ANZ/AWB | REVIEWED DLC/WMD
DRAWN JCR | DESIGN GROUP SKG | APPROVED BFR

1 INCH WHEN PRINTED FULL SIZE

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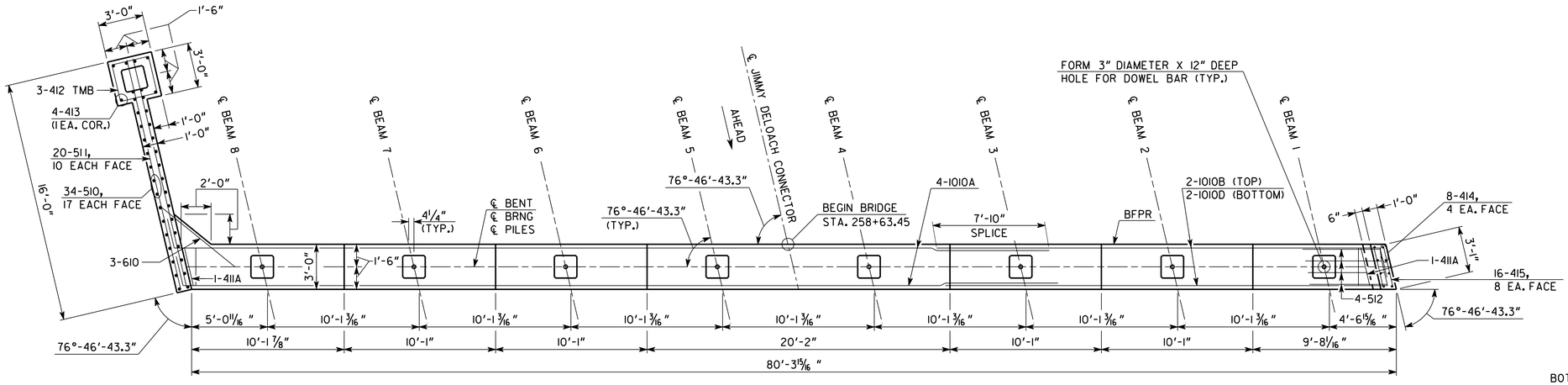
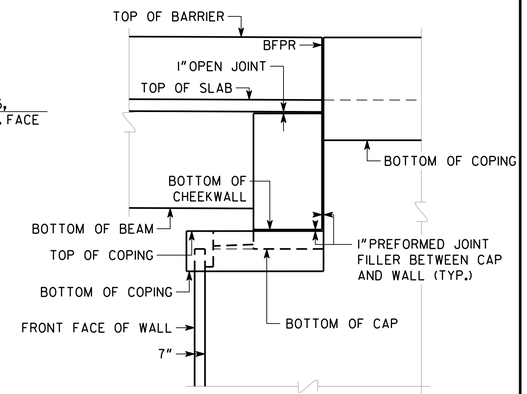
RELEASED FOR CONSTRUCTION: 05/21/2013

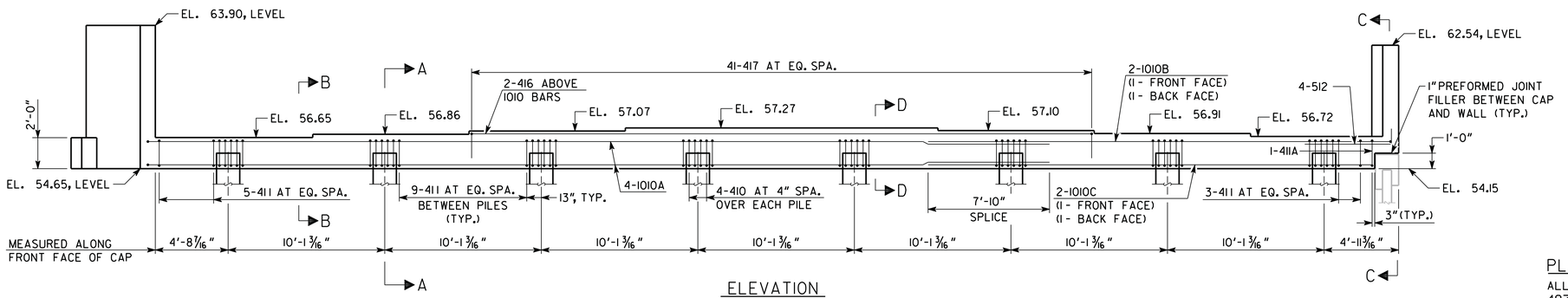
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	496	730



PLAN
SCALE: 1/4" = 1'-0"



SECTION C-C
NO SCALE

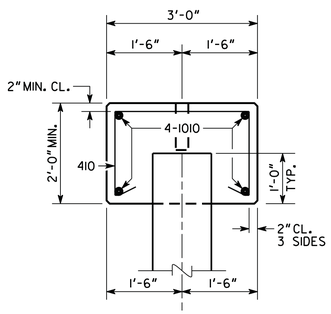


ELEVATION
(LOOKING BACK)
SCALE: 1/4" = 1'-0"

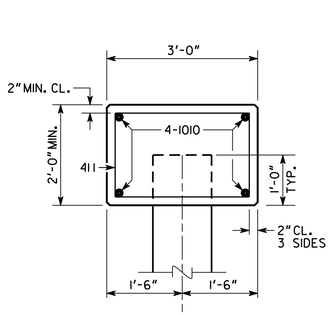
PLAN DRIVING OBJECTIVE

ALL PILES SHALL BE DRIVEN TO A DRIVING RESISTANCE OF 493 TONS AFTER A MINIMUM TIP ELEVATION OF -27.00 IS ACHIEVED.

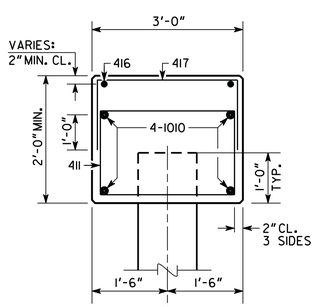
ALL PILES SHALL BE 18" SQ. PSC



SECTION A-A
SCALE: 3/4" = 1'-0"



SECTION B-B
SCALE: 3/4" = 1'-0"



SECTION D-D
SCALE: 3/4" = 1'-0"

NOTES:

1. MAINTAIN 2" CLEARANCE ON ALL REINFORCEMENT UNLESS OTHERWISE NOTED.
2. POUR WINGWALL AND CHEEKWALL MONOLITHICALLY WITH THE CAP.
3. SEE GEORGIA STANDARD 9037 FOR DRAINAGE DETAILS AT END BENT.
4. WINGWALL PILE NOT SHOWN IN ELEVATION.
5. BOTTOM OF WINGWALL AND CHEEKWALL ARE LEVEL.

SUBSTRUCTURE QUANTITIES	
ITEM	BENT 1
CY CLASS "A" CONCRETE	26.8
LB BAR REINF STEEL	3,161

BRIDGE NO. 3

THE LPA GROUP
A UNIT OF GENSLER DESIGN CORPORATION
THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

END BENT 1 DETAILS
JIMMY DELOACH CONNECTOR
OVER NORFOLK SOUTHERN RAILWAY
CHATHAM COUNTY CSMSL-0008-00(690)

DATE	REVISIONS	BY

DRAWING NO. 35-25
BRIDGE SHEET 7 OF 10

SCALE: AS SHOWN JULY 2013

DESIGNED	JCR	CHECKED	ANZ/AWB	REVIEWED	DLC/WMD
DRAWN	JCR	DESIGN GROUP	SKG	APPROVED	BFR

1 INCH WHEN PRINTED FULL SIZE

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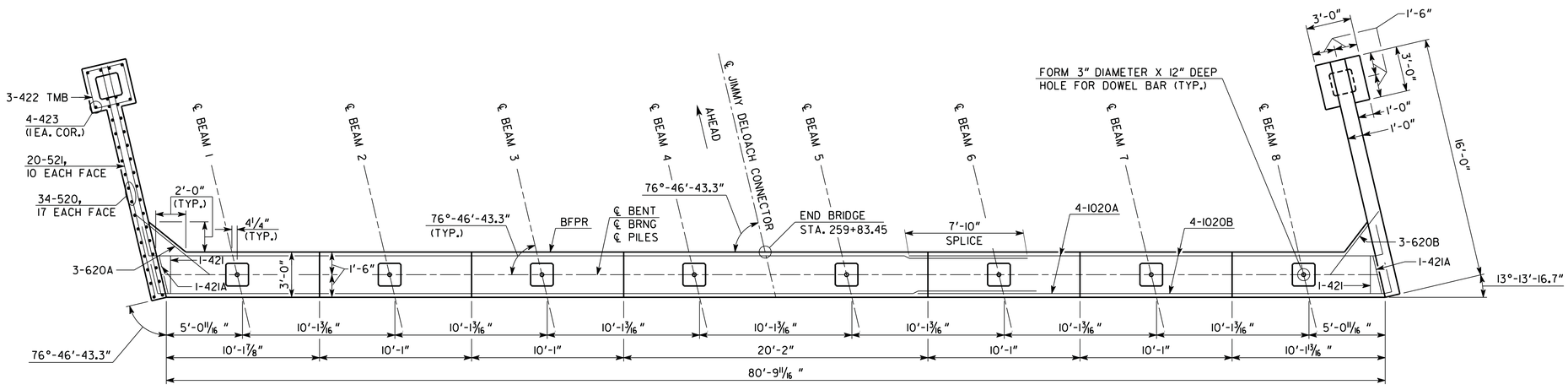
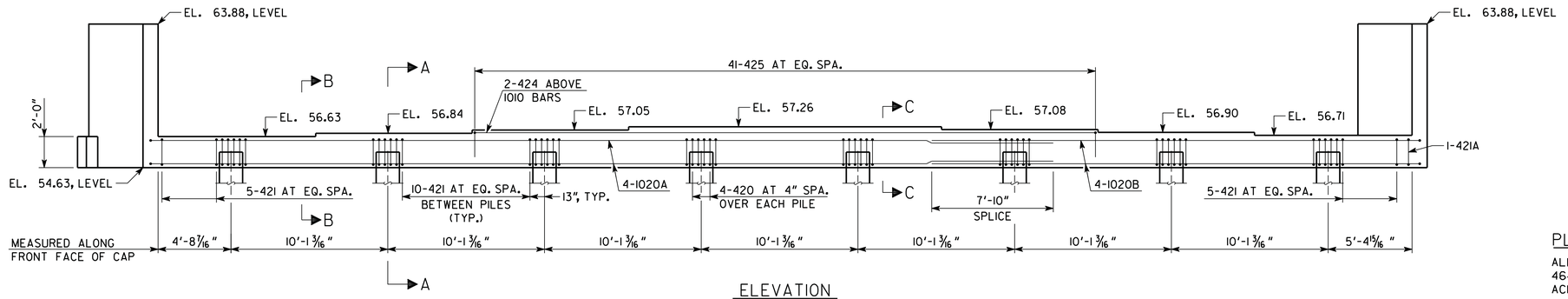
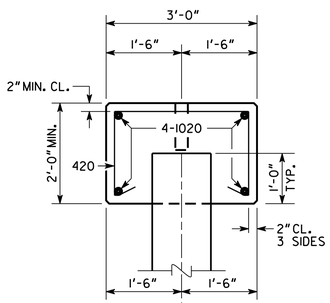
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	497	730



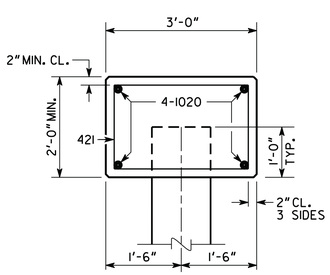
PLAN
SCALE: ¼" = 1'-0"



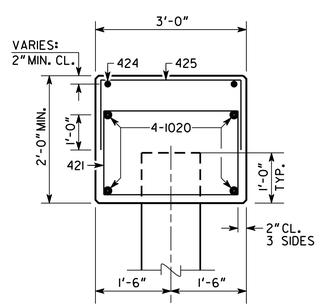
ELEVATION
(LOOKING AHEAD)
SCALE: ¼" = 1'-0"



SECTION A-A
SCALE: ¾" = 1'-0"



SECTION B-B
SCALE: ¾" = 1'-0"



SECTION C-C
SCALE: ¾" = 1'-0"

NOTES:

1. MAINTAIN 2" CLEARANCE ON ALL REINFORCEMENT UNLESS OTHERWISE NOTED.
2. POUR WINGWALLS MONOLITHICALLY WITH THE CAP.
3. SEE GEORGIA STANDARD 9037 FOR DRAINAGE DETAILS AT END BENT.
4. WINGWALL PILES NOT SHOWN IN ELEVATION.
5. BOTTOM OF WINGWALLS ARE LEVEL.

SUBSTRUCTURE QUANTITIES	
ITEM	BENT 2
CY CLASS "A" CONCRETE	32.3
LB BAR REINF STEEL	3,870

PLAN DRIVING OBJECTIVE

ALL PILES SHALL BE DRIVEN TO A DRIVING RESISTANCE OF 464 TONS AFTER A MINIMUM TIP ELEVATION OF -19.00 IS ACHIEVED.

ALL PILES SHALL BE 18" SQ. PSC

BRIDGE NO. 3

THE LPA GROUP
A UNIT OF GENERAL DATA CORPORATION
THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

DATE | REVISIONS | BY

END BENT 2 DETAILS
JIMMY DELOACH CONNECTOR
OVER NORFOLK SOUTHERN RAILWAY
CHATHAM COUNTY CSMSL-0008-00(690)

SCALE: AS SHOWN JULY 2013

DESIGNED JCR | CHECKED ANZ/AWB | REVIEWED DLC/WMD
DRAWN JCR | DESIGN GROUP SKG | APPROVED BFR

DRAWING NO. 35-26
BRIDGE SHEET 8 OF 10

1 INCH WHEN PRINTED FULL SIZE

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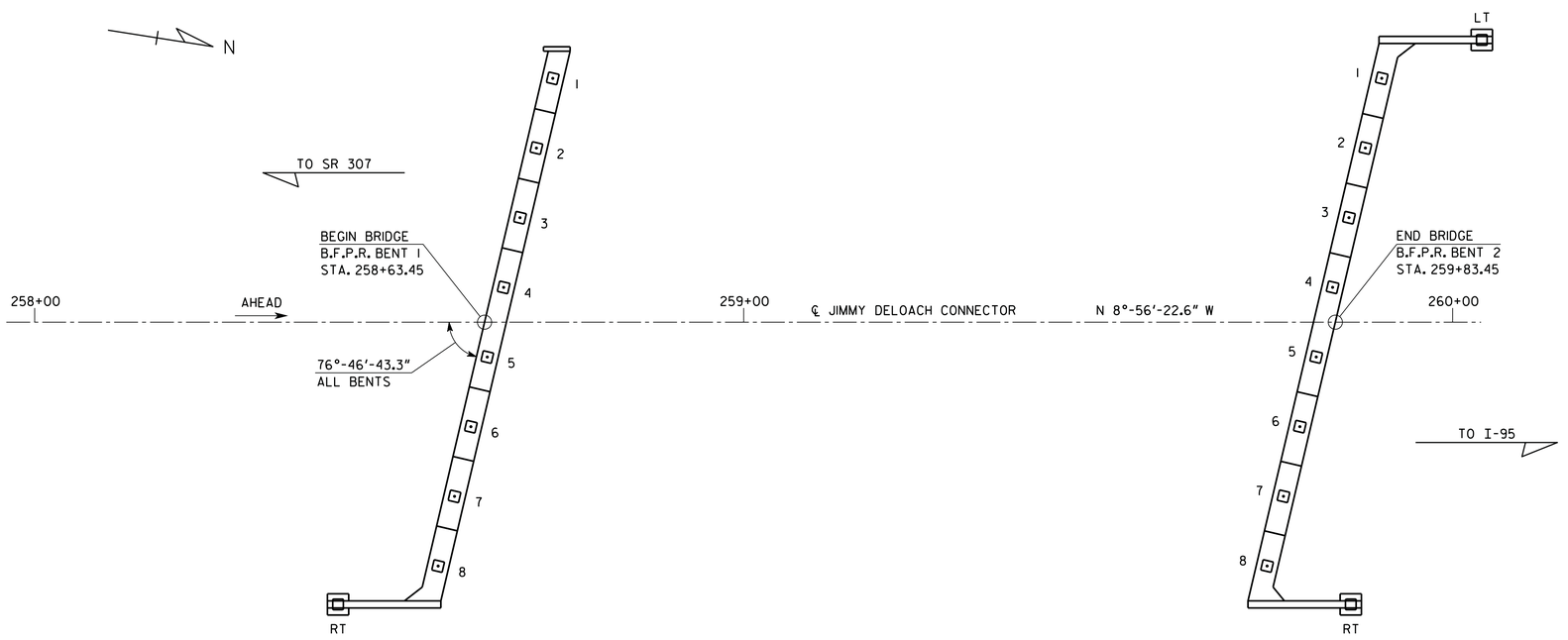
RELEASED FOR CONSTRUCTION: 05/21/2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	498	730



PLAN
SCALE: 1" = 1'-0"

AS-BUILT FOUNDATION DATA		
BENT	PILE NO.	PILE TIP ELEVATION
1	1	
	2	
	3	
	4	
	5	
	6	
	7	
	8	
	RT	

AS-BUILT FOUNDATION DATA		
BENT	PILE NO.	PILE TIP ELEVATION
2	LT	
	1	
	2	
	3	
	4	
	5	
	6	
	7	
	8	
	RT	

NOTE: THIS "AS-BUILT FOUNDATION" INFORMATION SHEET IS TO BE FILLED IN BY THE PROJECT ENGINEER AND THE ENTIRE SHEET FORWARDED TO THE BRIDGE OFFICE UPON COMPLETION OF PILE DRIVING FOR POSTING TO THE PLANS AS A PERMANENT RECORD OF THE BRIDGE CONSTRUCTION.

PROJECT ENGINEER DATE

( ) AREA CODE TELEPHONE NUMBER

BRIDGE NO. 3

THE LPA GROUP
A UNIT OF GENERAL DATA CORPORATION
THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
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GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

AS BUILT FOUNDATION DETAILS
JIMMY DELOACH CONNECTOR
OVER NORFOLK SOUTHERN RAILWAY
CHATHAM COUNTY CSMSL-0008-00(690)

SCALE: AS SHOWN JULY 2013

DESIGNED JCR | CHECKED ANZ/AWB | REVIEWED DLC/WMD
DRAWN JCR | DESIGN GROUP SKG | APPROVED BFR

REVISIONS: DATE | BY

DRAWING NO. 35-27
BRIDGE SHEET 9 OF 10

1 INCH WHEN PRINTED FULL SIZE

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LOCATION	NO. OF LOC.	MARK	LENGTH FT.	LENGTH IN.	NO. BARS REQ'D.	TYP	A	G	B FT.	B IN.	C FT.	C IN.	D FT.	D IN.	E FT.	E IN.	F FT.	F IN.	H FT.	H IN.	J FT.	J IN.	K FT.	K IN.	N	θ
SUPERSTRUCTURE	1	400A	60- 0		207	1																				
SPAN 1		400B	30- 5		207	1																				
		400C	32- 9		207	1																				
		401A	19- 1		48	1																				
		401B	18- 6		48	1																				
		401C	19- 7		48	1																				
		404A	60- 0		14	1																				
		404B	21- 2		7	1																				
		404C	22- 3		7	1																				
		407	9- 0		42	1																				
		408A	10- 7		63	25	4	4	0- 7		4- 4															
		408B	8- 5		14	25	4	4	0- 7		3- 3															
		500A	60- 0		241	3			59- 0		1- 0															
		500B	21- 1		241	3			20- 1		1- 0															
		501A	59- 0		184	1																				
		501B	20- 1		184	1																				
		502A	7- 9		265	23			1- 3		3- 3		3- 3													101
		502B	8- 9		140	7			2- 3		3- 3		3- 3												79	101
		503A	6- 8		265	23			0- 6		3- 1		3- 1													79
		503B	6- 10		140	7			0- 8		3- 1		3- 1												101	79
		504A	6- 4		48	46			4- 4		0- 10		0- 3		0- 8		0- 8									
		504B	7- 4		68	46			4- 4		1- 10		0- 3		0- 8		0- 8									
		505A	60- 0		2	1																				
		505B	20- 1		2	1																				
		506A	3- 10		84	6			1- 4		1- 3		0- 0		1- 3										45	45
		506B	7- 4		217	3			6- 1		1- 3															
		507	8- 1		414	3			7- 1		1- 0															
		509A	6- 4		14	1																				
		509B	7- 8		14	1																				
		900A	16- 3		7	16	6	6	4- 4		0- 9		0- 9		4- 0		5- 10									
		900B	14- 6		70	16	6	6	4- 4		0- 9		0- 9		4- 0		4- 0									
		900C	17- 5		21	16	6	6	4- 4		0- 9		0- 9		4- 0		7- 0									

RELEASED FOR CONSTRUCTION: 05/21/2013

LOCATION	NO. OF LOC.	MARK	LENGTH FT.	LENGTH IN.	NO. BARS REQ'D.	TYP	A	G	B FT.	B IN.	C FT.	C IN.	D FT.	D IN.	E FT.	E IN.	F FT.	F IN.	H FT.	H IN.	J FT.	J IN.	K FT.	K IN.	N	θ
SUBSTRUCTURE	1	410	6- 9		32	32	5	5	2- 8		1- 8		1- 8													
END BENT 1		411	9- 5		71	25	4	4	2- 8		1- 8															
		411A	9- 7		2	25	4	4	2- 9		1- 8															
		412	11- 5		3	25	4	4	2- 8		2- 8															
		413	1- 8		4	1																				
		414	6- 11		8	1																				
		415	2- 9		16	1																				
		416	40- 0		2	1																				
		417	5- 8		41	2			2- 8		1- 6		1- 6													
		510	8- 11		34	1																				
		511	15- 8		20	1																				
		512	5- 3		4	1																				
		610	6- 6		3	1																				
		1010A	60- 0		4	4			58- 2		1- 10															77
		1010B	32- 8		2	4			30- 10		1- 10															77
		1010C	28- 8		2	1			30- 3																	
SUBSTRUCTURE	1	420	6- 9		32	32	5	5	2- 8		1- 8		1- 8													
END BENT 2		421	9- 5		80	25	4	4	2- 8		1- 8															
		421A	9- 7		2	25	4	4	2- 9		1- 8															
		422	11- 5		6	25	4	4	2- 8		2- 8															
		423	1- 8		8	1																				
		424	40- 0		2	1																				
		425	5- 8		41	2			2- 8		1- 6		1- 6													
		520	8- 11		68	1																				
		521	15- 8		40	1																				
		620A	6- 6		3	1																				
		620B	5- 6		3	1																				
		1020A	60- 0		4	4			58- 2		1- 10															77
		1020B	33- 4		4	6			31- 0		0- 6		1- 10		0- 0										0	13

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	499	730

BRIDGE NO. 3

THE LPA GROUP
A UNIT OF GENSLER GLOBAL CORPORATION

THE LPA GROUP INCORPORATED
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NORCROSS, GEORGIA 30092
(770) 263-9148

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

REINFORCEMENT SCHEDULE
JIMMY DELOACH CONNECTOR
OVER NORFOLK SOUTHERN RAILWAY
CHATHAM COUNTY CSMSL-0008-00(690)

DATE | REVISIONS | BY

SCALE: NONE JULY 2013

DRAWING NO. 35-28
BRIDGE SHEET 10 OF 10

DESIGNED JCR | CHECKED ANZ/AWB | REVIEWED DLC/WMD
DRAWN JCR | DESIGN GROUP SKG | APPROVED BFR

1 INCH WHEN PRINTED FULL SIZE

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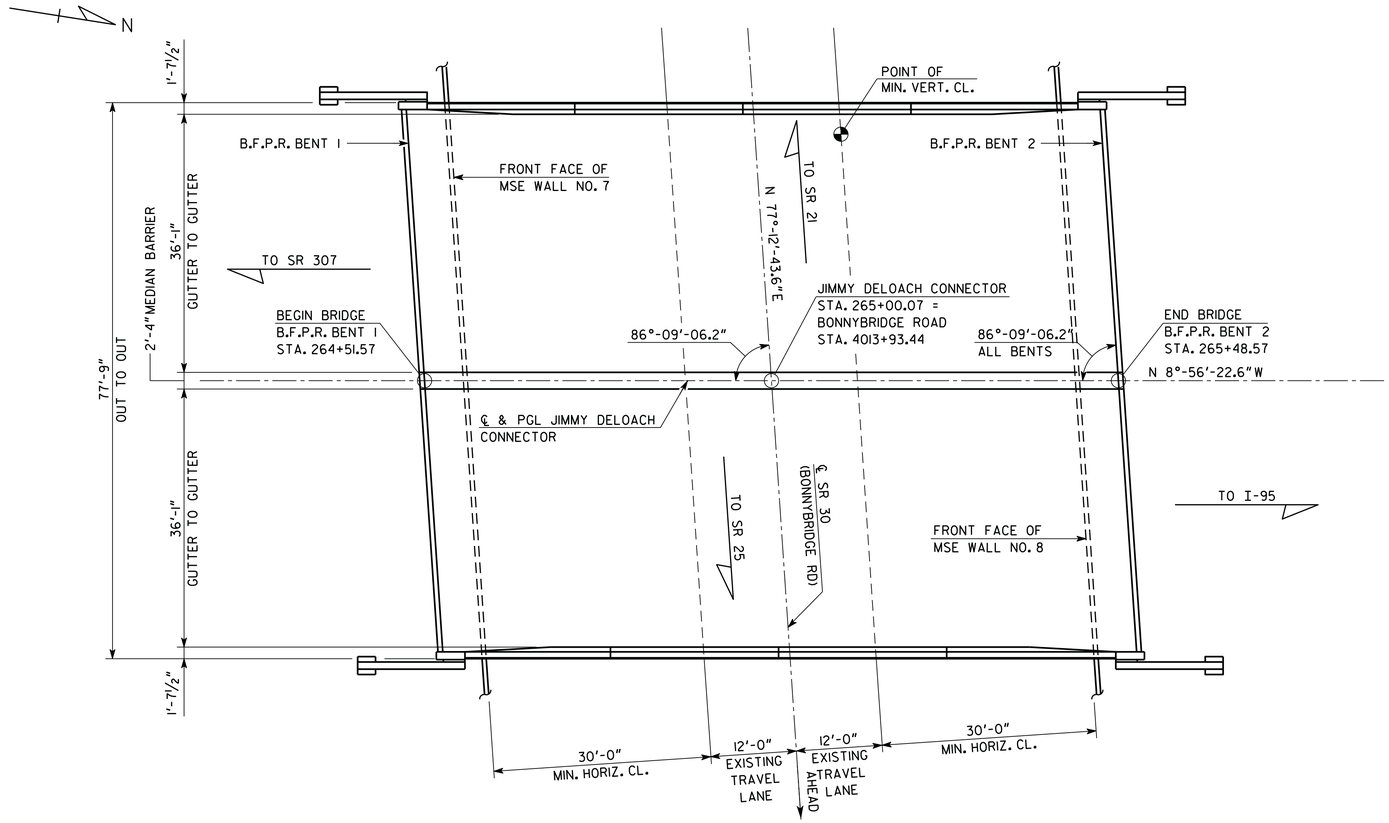
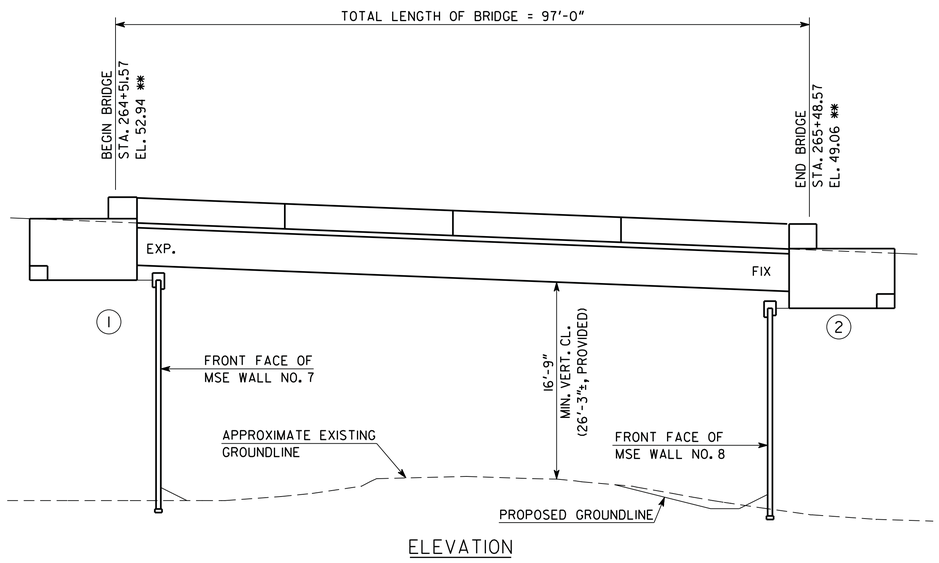
RELEASED FOR CONSTRUCTION: 05/21/2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	500	730

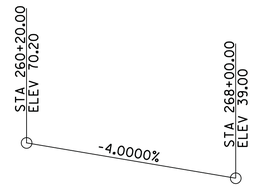


PLAN



ELEVATION

EXISTING GRADE DATA (℄ BONNYBRIDGE ROAD)	
STATION	ELEVATION
4013+00	17.86
4013+50	17.67
4014+00	17.51
4014+50	17.32
4015+00	17.11



VERTICAL CURVE DATA
JIMMY DELOACH CONNECTOR
NOT TO SCALE

NOTES

1. ** ALL STATIONS AND ELEVATIONS MEASURED AT INTERSECTION OF PROFILE GRADE LINE AND BFPR.
2. END BENT PILES NOT SHOWN.
3. ALL BENTS PARALLEL TO ℄ OF BONNYBRIDGE RD.

P.I. NO. 0008690

BRIDGE NO. 4

THE LPA GROUP A UNIT OF MICHAEL BAKER CORPORATION
THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

5.21.13
GEORGIA REGISTERED NO. 24739 PROFESSIONAL ENGINEER ROBERT W. BOWMAN

PLAN AND ELEVATION
JIMMY DELOACH CONNECTOR
OVER SR 30 (BONNYBRIDGE ROAD)
CHATHAM COUNTY CSMSL-0008-00(690)

DRAWING NO. 35-29
BRIDGE SHEET 1 OF 9
SCALE: 1" = 10'-0"
JULY 2013

DATE	REVISIONS	BY

DESIGNED BSB | CHECKED ANZ | REVIEWED DLC/WMD
DRAWN BSB | DESIGN GROUP AWB/SKG | APPROVED BFR

1 INCH WHEN PRINTED FULL SIZE

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BRIDGE CONSISTS OF

1 - 97'-0" BULB TEE, 63 IN, PSC BEAM SPAN ---------- SPECIAL DESIGN

2 - PSC PILE END BENTS ---------- SPECIAL DESIGN

4 - END POST AND GUARDRAIL ATTACHMENT DETAIL ------- GA. STD. 3054 (9-30-02)
(L = 4'-0"; W = 1'-1"; H = 3'-6")

SQUARE PRESTRESSED CONCRETE PILES ---------- SPECIAL DESIGN
SEE DRAWING NO. 37-01 TO 37-05

BAR BENDING DETAILS ---------- GA. STD. 3901 (8-69)

TYPICAL FILL DETAIL AT END OF BRIDGE ---------- GA. STD. 9037 (9-99)

TRAFFIC DATA

TRAFFIC ---------- ADT = 23,360 (2012)
ADT = 30,880 (2032)

DESIGN SPEED ---------- 55 MPH

TRUCKS ---------- 60 %

24 HR TRUCKS ---------- 55 %

DIRECTIONAL ---------- 54 %

UTILITIES

NO UTILITIES ON BRIDGE

GENERAL NOTES

SPECIFICATIONS - GEORGIA STANDARD SPECIFICATIONS, 2001 EDITION, AND 2008 SUPPLEMENTAL SPECIFICATIONS AS MODIFIED BY CONTRACT DOCUMENTS.

SHOP DRAWINGS - SUBMIT SHOP DRAWINGS TO ENGINEER OF RECORD (EOR) FOR INITIAL REVIEW AND APPROVAL. ONCE APPROVED AND STAMPED BY EOR, EOR SHALL SUBMIT 6 STAMPED SETS TO THE GEORGIA DOT OFFICE OF BRIDGES AND STRUCTURES FOR REVIEW AND APPROVAL.

REINFORCING STEEL - PLACE AND TIE ALL REINFORCING STEEL IN ACCORDANCE WITH THE GEORGIA DOT SPECIFICATIONS. DO NOT WELD REINFORCING STEEL.

CHAMFER - CHAMFER ALL EXPOSED CONCRETE EDGES 3/4" UNLESS OTHERWISE NOTED.

PROTECTIVE PLATFORMS - PROVIDE PROTECTIVE PLATFORMS AT THIS SITE, SEE SECTION 510 OF THE GEORGIA DOT SPECIFICATIONS. MAINTAIN A MINIMUM VERTICAL CLEARANCE OF 16'-9" ABOVE BONNYBRIDGE ROAD.

TRAFFIC CONTROLS - SEE ROADWAY PLANS FOR TRAFFIC CONTROLS AND TRAFFIC CONTROL PAYMENT.

WAITING PERIOD - DO NOT BEGIN WORK AT BENTS 1 AND 2 UNTIL THE COMPLETED END FILLS ARE IN PLACE AND SETTLEMENT IS COMPLETE. ESTABLISH SETTLEMENT MONITORING POINTS AT EACH BRIDGE BENT LOCATION. SETTLEMENTS ARE TO BE READ BY A SURVEYOR AT LEAST TWICE WEEKLY. ONCE THE CUMULATIVE SETTLEMENT, OVER A PERIOD OF 3 WEEKS, DOES NOT EXCEED ¼ OF AN INCH, THE SETTLEMENT IS CONSIDERED TO HAVE CEASED.

PLAN DRIVING OBJECTIVE - SEE SUBSTRUCTURE DETAILS.

PDA TESTING - PERFORM PILE TESTING USING THE PILE DRIVING ALAYZER (PDA) IN ACCORDANCE WITH SPECIAL PROVISION SECTION 523. NOTIFY THE GEOTECHNICAL BUREAU OF THE GEORGIA DOT OFFICE OF MATERIALS AT 404-608-4720 TWO WEEKS PRIOR TO DRIVING PILES.

WAVE EQUATION - PERFORM WAVE EQUATION ANALYSIS (WEAP) IN ACCORDANCE WITH SPECIAL PROVISION 520. PROVIDE RESULTS OF THE WEAP TO THE GEOTECHNICAL BUREAU OF THE GEORGIA DOT FOR REVIEW AND APPROVAL TWO WEEKS PRIOR TO DRIVING PILES.

GENERAL NOTES (CONTINUED)

TEST PILES - DRIVE TEST PILES AT THE FOLLOWING LOCATIONS:

ONE 16 IN SQ PSC X 74 FT AT BENT 1
ONE 16 IN SQ PSC X 64 FT AT BENT 2

SMOOTH DOWEL BARS - PLACE SMOOTH DOWEL BARS IN FORMED 3" DIAMETER X 12" DEEP HOLES AND GROUT IN PLACE SIMILAR TO ANCHOR BOLTS, SEE SUB-SECTION 501.3.05.B.3 OF THE GEORGIA DOT SPECIFICATIONS. STIRRUPS MAY BE SHIFTED SLIGHTLY TO CLEAR FORMED HOLES.

ABUTMENT SOIL REINFORCING DEVICE INSERTS - INCLUDE THE COST OF FURNISHING AND INSTALLING INSERTS FOR SOIL REINFORCING DEVICES AT ABUTMENT IN THE OVERALL BID SUBMITTED.

FILL SETTLEMENT - PROTECT PILES DRIVEN AT BENTS 1 AND 2 FROM NEGATIVE SKIN FRICTION WHEN USED IN CONJUNCTION WITH MECHANICALLY STABILIZED EARTH WALLS, SEE SECTION 551 OF THE GEORGIA DOT SPECIFICATIONS. DRIVE PILES AT END BENTS BEFORE WALL LEVELING PADS ARE CONSTRUCTED.

GROOVED CONCRETE - GROOVE THE ENTIRE LENGTH OF THE BRIDGE TRANSVERSELY AS PER SUB-SECTION 500.3.05.T.9.C OF THE GEORGIA DOT SPECIFICATIONS.

RIDING QUALITY - THE FINISHED BRIDGE DECK AND APPROACH SLABS SHALL MEET THE RIDE QUALITY REQUIREMENTS AS SPECIFIED IN SUB-SECTION 500.3.06.E OF THE GEORGIA DOT SPECIFICATIONS FOR STATE ROUTES WITH FOUR LANES OR MORE.

WELDING - ALL WELDING ON GEORGIA DOT PROJECTS SHALL BE PERFORMED BY CERTIFIED WELDERS THAT HAVE IN THEIR POSSESSION A CURRENT WELDING CERTIFICATION CARD ISSUED BY THE OFFICE OF MATERIALS AND RESEARCH. USE ONLY E70XX (EXCLUDING E7014 AND E7024) LOW HYDROGEN ELECTRODES FOR MANUAL SHIELDED METAL ARC WELDING.

INCIDENTAL ITEMS - INCLUDE THE COST INCIDENTAL TO THE WORK THAT IS NOT SPECIFICALLY COVERED BY THE GEORGIA STANDARD SPECIFICATIONS, SUPPLEMENTAL SPECIFICATIONS AND/OR SPECIAL PROVISIONS IN THE OVERALL BID SUBMITTED. THIS INCLUDES THE COST OF WATERPROFFING, JOINT FILLERS, AND OTHER INCIDENTAL ITEMS NECESSARY TO COMPLETE THE WORK.

DESIGN BUILD PROJECT - THIS IS A DESIGN BUILD PROJECT AND QUANTITIES ARE PROVIDED FOR INFORMATION ONLY.

RELEASED FOR CONSTRUCTION: 05/21/2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	501	730

DESIGN DATA

SPECIFICATIONS ---------- AASHTO LRFD 5TH EDITION, 2010
(DESIGNED FOR SEISMIC PERFORMANCE ZONE 2)

TYPICAL HL-93 LOADING ---------- IMPACT ALLOWED

FUTURE PAVING ALLOWANCE ---------- 30 LBS PER SQ FT

CONCRETE: SUPERSTRUCTURE ---------- CLASS D, f'_c = 4,000 PSI
BARRIER ---------- CLASS D, f'_c = 4,000 PSI
PSC BEAMS ---------- CLASS AAA, f'_c = 7,000 PSI
PSC BEAM ALLOWABLE TENSION ---------- 251 PSI
SUBSTRUCTURE ---------- CLASS A, f'_c = 3,000 PSI

REINFORCEMENT STEEL: ---------- GRADE 60, f_y = 60,000 PSI

PRETENSIONING STRANDS: ---------- f'_s = 270,000 PSI

SUMMARY OF QUANTITIES

PAY ITEM NUMBER	QUANTITY	UNIT	PAY ITEM
500-0100	735	SY	GROOVED CONCRETE
500-1011	LUMP	LS	SUPERSTR CONCRETE, CL D, BR NO - 4 (315)
500-2100	182	LF	CONCRETE BARRIER
500-3101	63	CY	CLASS A CONCRETE
507-9031	761	LF	PSC BEAMS, AASHTO, BULB TEE, 63 IN, BR NO - 4
511-1000	6631	LB	BAR REINF STEEL
511-3000	LUMP	LS	SUPERSTR REINF STEEL, BR NO - 4 (61887)
520-2216	1175	LF	PILING, PSC, 16 IN SQ
520-3216	2	EA	TEST PILE, PSC, 16 IN SQ
520-4216	1	EA	LOAD TEST, PSC, 16 IN SQ (IF REQD)

BRIDGE NO. 4

THE LPA GROUP
A UNIT OF MACGILL SHEED CORPORATION
THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

GENERAL NOTES
JIMMY DELOACH CONNECTOR
OVER SR 30 (BONNYBRIDGE ROAD)
CHATHAM COUNTY CSMSL-0008-00(690)

SCALE: NONE JULY 2013

DESIGNED BSB | CHECKED ANZ | REVIEWED DLC/WMD
DRAWN BSB | DESIGN GROUP AWB/SKG | APPROVED BFR

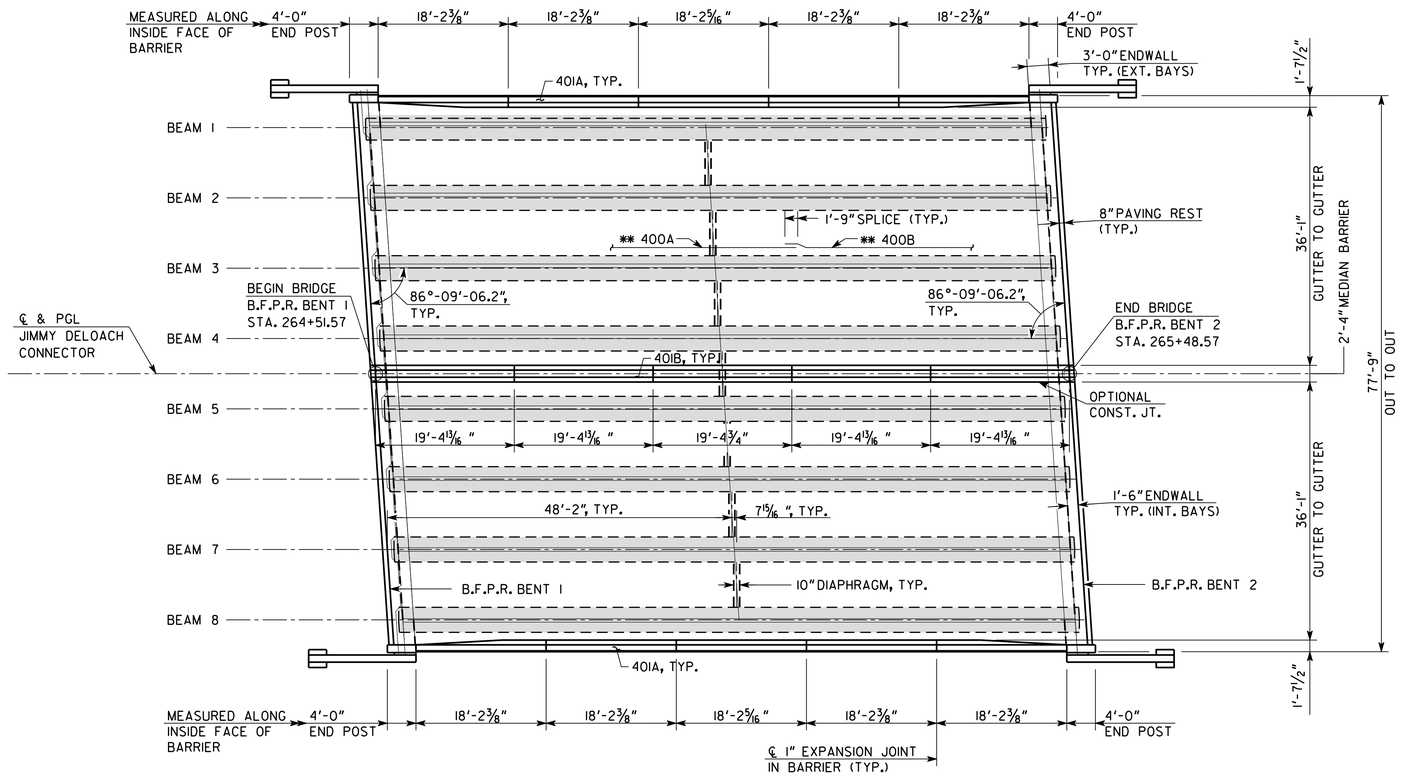
REVISIONS | DATE | BY

DRAWING NO. 35-30
BRIDGE SHEET 2 OF 9

1 INCH WHEN PRINTED FULL SIZE

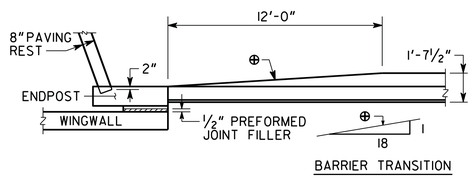
RELEASED FOR CONSTRUCTION: 05/21/2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	502	730



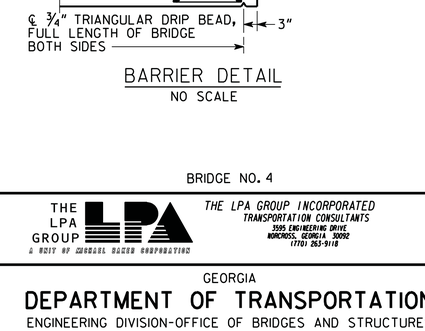
PLAN

SCALE: 1" = 10'-0"



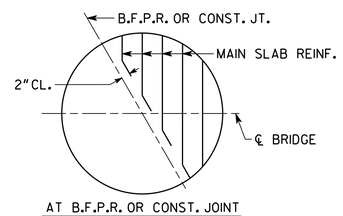
BARRIER TRANSITION DETAIL

NO SCALE



MEDIAN BARRIER DETAIL

NO SCALE

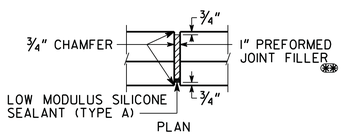


AT B.F.P.R. OR CONST. JOINT

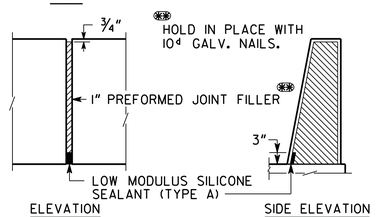
BARS ARE DETAILED IN BAR DETAILS AS EQUIVALENT FULL LENGTH BARS.

BAR BENDING DETAILS AT SKEWED JOINTS

NO SCALE



PLAN



ELEVATION SIDE ELEVATION

DETAILS OF 1" EXPANSION JOINT IN BARRIER

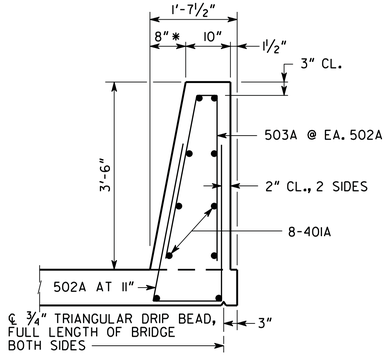
NO SCALE

SUPERSTRUCTURE QUANTITIES	
ITEM	TOTAL
LUMP - SUPERSTR. CONCRETE, CU YDS., CLASS D	315.3
LUMP - SUPERSTR. REINF. STEEL, LBS.	61,887

NOTE: MAINTAIN 2" CLEARANCE ON ALL REINFORCEMENT UNLESS OTHERWISE NOTED.

** ALTERNATE 400A AND 400B BARS ACROSS DECK TO STAGGER LAP LOCATION.

* TAPERS TO 0" AT END POST.



BARRIER DETAIL

NO SCALE

BRIDGE NO. 4

THE LPA GROUP — A UNIT OF GENSLER DESIGN CORPORATION

THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

DECK PLAN
JIMMY DELOACH CONNECTOR
OVER SR 30 (BONNYBRIDGE ROAD)
CHATHAM COUNTY CSMSL-0008-00(690)

SCALE: AS SHOWN JULY 2013

DESIGNED BSB | CHECKED ANZ | REVIEWED DLC/WMD
DRAWN BSB | DESIGN GROUP AWB/SKG | APPROVED BFR

DRAWING NO. 35-31

BRIDGE SHEET 3 OF 9

DATE | REVISIONS | BY

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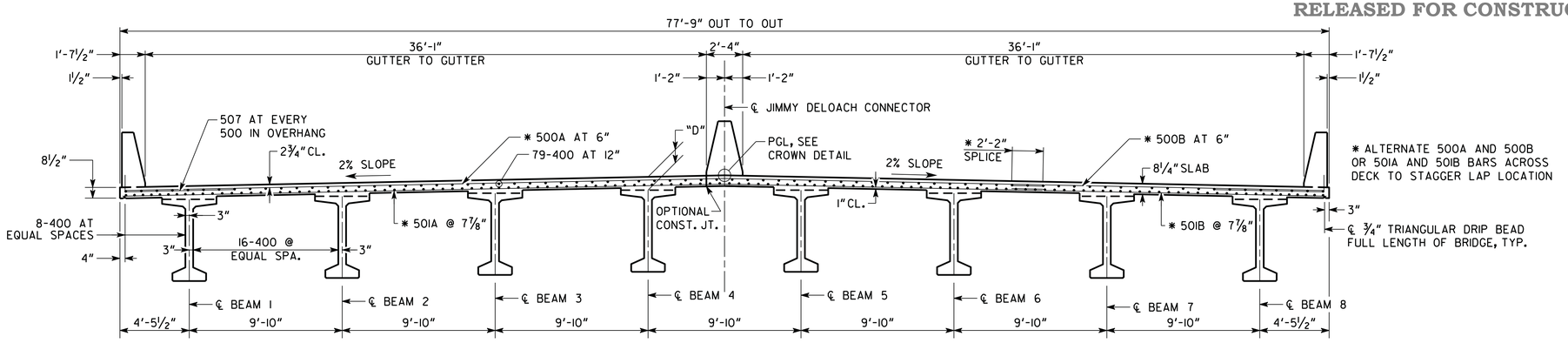
RELEASED FOR CONSTRUCTION: 05/21/2013

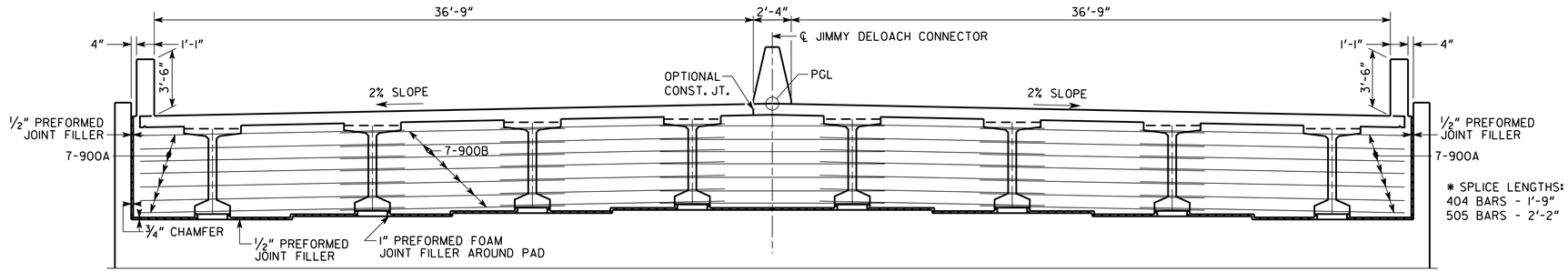
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	503	730



* ALTERNATE 500A AND 500B OR 501A AND 501B BARS ACROSS DECK TO STAGGER LAP LOCATION

SECTION THRU SLAB

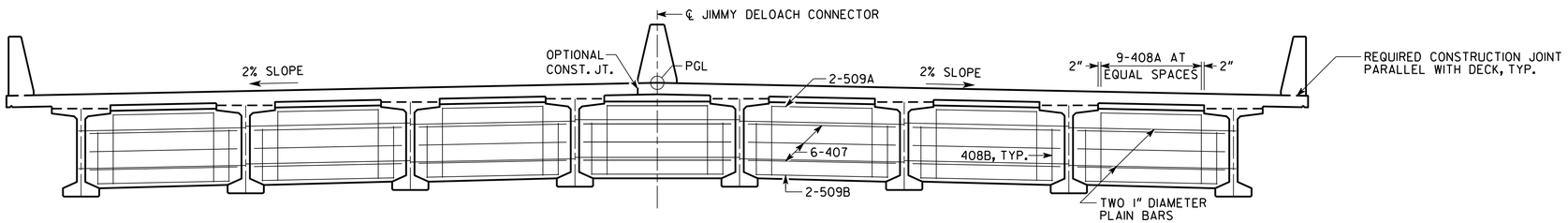
SCALE: ¼" = 1'-0"



* SPLICE LENGTHS:
404 BARS - 1'-9"
505 BARS - 2'-2"

SECTION THRU ENDWALL

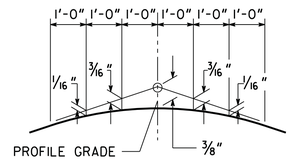
SCALE: ¼" = 1'-0"
* 404, 504 SERIES, 505, 506 SERIES BARS NOT SHOWN



REQUIRED CONSTRUCTION JOINT PARALLEL WITH DECK, TYP.

SECTION THRU DIAPHRAGM

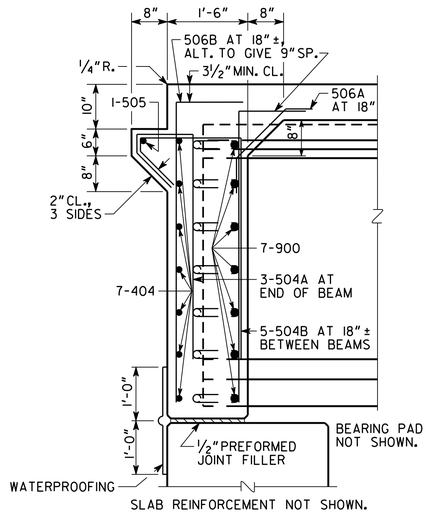
SCALE: ¼" = 1'-0"



CROWN DETAIL

2% CROSS SLOPE
NO SCALE

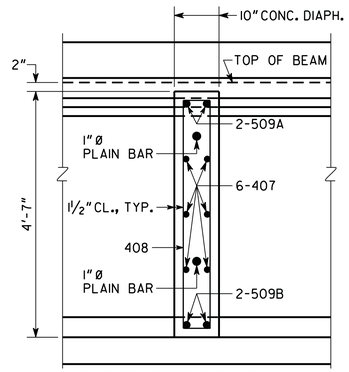
NOTES:
1. MAINTAIN 2" CLEARANCE ON ALL REINFORCEMENT UNLESS OTHERWISE NOTED.
2. DIMENSION "D" IS MEASURED FROM TOP OF SLAB TO TOP OF BEAMS AT CENTERLINE BEARING. VARY "D" BETWEEN BEARINGS TO COMPENSATE FOR DEAD LOAD DEFLECTION. MAINTAIN A CONSTANT SLAB THICKNESS OF 8¼" BETWEEN BEAMS AND 8½" AT OVERHANGS. "D" = 12"



SLAB REINFORCEMENT NOT SHOWN.

SECTION AT ENDWALL

NO SCALE



SLAB REINFORCEMENT NOT SHOWN.

SECTION THRU DIAPHRAGM

NO SCALE

BRIDGE NO. 4

THE LPA GROUP
A UNIT OF MICHAEL BAKER CORPORATION

THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3995 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

DECK SECTIONS
JIMMY DELOACH CONNECTOR
OVER SR 30 (BONNYBRIDGE ROAD)
CHATHAM COUNTY CSMSL-0008-00(690)

DRAWING NO.	REVISIONS	DATE	BY
35-32			
BRIDGE SHEET 4 OF 9			

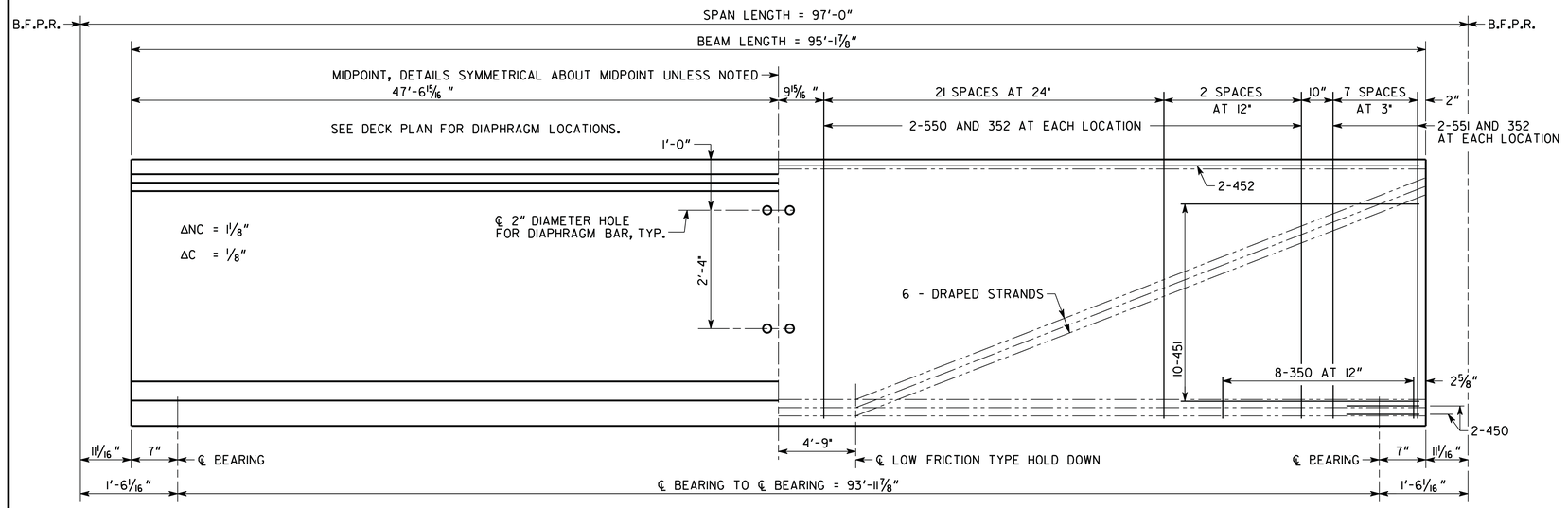
SCALE: AS SHOWN — JULY 2013

DESIGNED BSB	CHECKED ANZ	REVIEWED DLC/WMD
DRAWN BSB	DESIGN GROUP AWB/SKG	APPROVED BFR

1 INCH WHEN PRINTED FULL SIZE

RELEASED FOR CONSTRUCTION: 05/21/2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	504	730

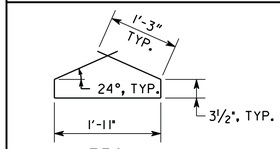


ELEVATION

NOTES

1. BEAMS SHALL BE MAINTAINED IN AN UPRIGHT POSITION AT ALL TIMES AND SHALL BE PICKED UP WITHIN 7'-9" FROM THEIR ENDS. DISREGARDING THIS REQUIREMENT COULD LEAD TO COLLAPSE OF THE BEAM. PICK-UPS SHALL BE EMBEDDED TO WITHIN 4" OF THE BOTTOM OF THE BEAM. DETAILS OF PICK-UPS SHALL BE INCLUDED IN THE SHOP DRAWINGS.
2. CHAMFER EDGES OF BEAMS ½", ¾" OR 1".
3. HORIZONTAL DIMENSIONS ARE IN PLACE DIMENSIONS. THE BEAM LENGTH INCLUDES THE ⅛" EPOXY MORTAR AT EACH END. SHOP DRAWINGS SHALL ADJUST HORIZONTAL DIMENSIONS FOR GRADE AND FABRICATION EFFECTS SUCH AS SHRINKAGE AND ELASTIC SHORTENING.
4. AT ℄ BEARING, FORM A 1½" DIAMETER X 7" DEEP HOLE AT THE FIXED ENDS AND A 6" X 1½" X 7" DEEP SLOT AT THE EXPANSION ENDS FOR A 1¼" DIAMETER SMOOTH DOWEL. SEE PLAN AND ELEVATION SHEET FOR LOCATION OF FIXED AND EXPANSION ENDS.
5. TOPS OF BEAMS SHALL BE ROUGH FLOATED AT APPROXIMATELY THE TIME OF INITIAL SET. ENTIRE TOP SHALL BE SCRUBBED TRANSVERSELY WITH A COARSE BRUSH TO REMOVE ALL LAITANCE AND TO PRODUCE A ROUGHENED SURFACE FOR BONDING TO THE SLAB. ROUGHENED SURFACE SHALL HAVE AN AMPLITUDE OF APPROXIMATELY ¼". CONCRETE FINS OR PROJECTIONS SHALL BE REMOVED TO PRODUCE A VERTICAL FACE AT THE EDGE OF THE BEAM.
6. NON-COMPOSITE DEAD LOAD DEFLECTION (ΔNC) AT THE MIDPOINT IS DUE TO THE WEIGHT OF THE SLAB AND COPING.
7. COMPOSITE DEAD LOAD DEFLECTION (ΔC) AT THE MIDPOINT IS DUE TO THE WEIGHT OF BARRIER AND MEDIAN.
8. STRANDS SHALL MEET ALL REQUIREMENTS OF ASTM A 416 GRADE 270.
9. PRESTRESSING DATA IS AS FOLLOWS:
   A. USE 34 - 0.6" DIAMETER LOW RELAXATION (A = 0.217 SQ IN) STRANDS. PRETENSION TOP FOUR (4) STRANDS TO 10,000 LBS EACH. PRETENSION BOTTOM STRANDS TO 43,943 LBS EACH.
   B. PRETENSIONED STRANDS SHALL BE RELEASED AFTER THE CONCRETE HAS REACHED A MINIMUM STRENGTH (f'_{ci}) OF 6,000 PSI.
   C. INCLUDING THE TOP STRANDS, THE TOTAL JACKING FORCE OF PRETENSIONING IS 1,358,290 LBS.
   D. INCLUDING THE TOP STRANDS, THE NET PRESTRESSING FORCE OF THE STRANDS AFTER ALL LOSSES IS 1,026,575 LBS.
10. CONCRETE STRENGTH (f'_c) = 7,000 PSI.
11. ALLOWABLE PSC BEAM TENSION = 251 PSI.

REINFORCEMENT



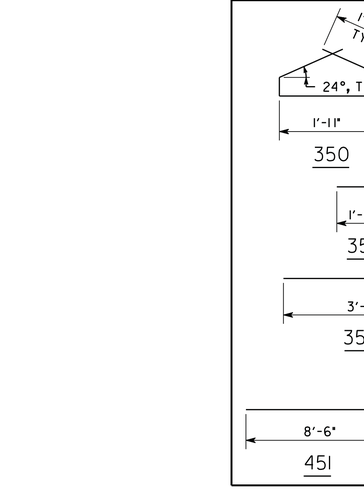
ALL BAR DIMENSIONS ARE OUT TO OUT.

AT THE TOP OF THE BEAM, BARS 550 AND 551 SHALL BE FIELD BENT OR SHOP BENT 90°, SUCH THAT THE HORIZONTAL LEG EXTENDS BETWEEN TOP AND BOTTOM MATS OF SLAB REINFORCEMENT.

SLIGHTLY SHIFT OR SLOPE BARS 451 TO AVOID CONFLICT WITH STRANDS.

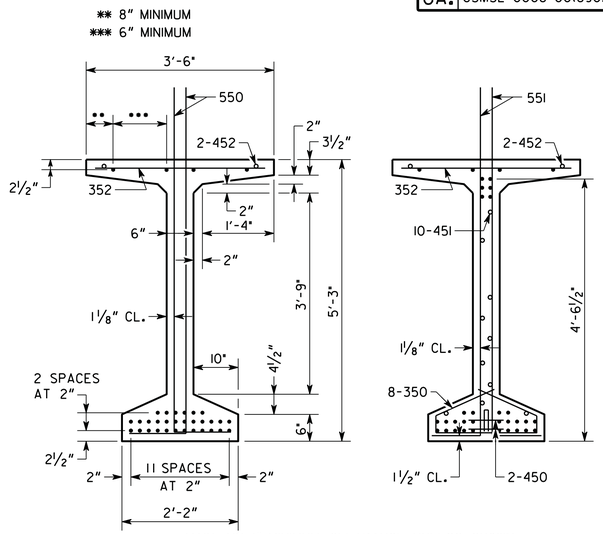
BARS 350 MAY BE FABRICATED IN TWO PARTS BY LAPPING HORIZONTAL SECTION BY 1'-0" MINIMUM.

PLACE BARS 450 WITH OPEN ENDS AWAY FROM BEAM ENDS.



BEVEL DETAILS

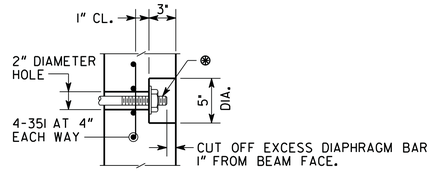
** 8" MINIMUM
*** 6" MINIMUM



MAINTAIN 1" MINIMUM CLEARANCE UNLESS SHOWN.
• INDICATES 0.6" DIAMETER PRESTRESSED STRANDS.

SECTION AT MIDPOINT

SECTION AT END



⊛ DIAPHRAGM BAR SHALL BE A 1" DIAMETER PLAIN BAR, THREADED 5" ON EACH END, WITH ¼" X 3½" DIAMETER WASHERS AND HEX NUTS (ASTM A 709 GRADE 36).

TIGHTEN DIAPHRAGM BAR AS PER SUB-SECTION 507.3.05.C OF THE GEORGIA DOT SPECIFICATIONS.

AFTER EXCESS DIAPHRAGM BAR HAS BEEN CUT OFF, PAINT DIAPHRAGM BAR, WASHER, AND NUT EXPOSED IN RECESS WITH SPECIAL PROTECTIVE COATING NO. 2 P AS PER SECTION 535 OF THE GEORGIA DOT SPECIFICATIONS. AFTER PAINTING, FILL THE RECESS WITH AN APPROVED EPOXY GROUT.

GALVANIZING OF THE DIAPHRAGM BAR AS PER SUB-SECTION 865.2.01.B.12 OF THE GEORGIA DOT SPECIFICATIONS IS NOT REQUIRED.

RECESS DETAIL FOR DIAPHRAGM BAR ENDS

BRIDGE NO. 4

THE LPA GROUP
A UNIT OF GENERAL DATA CORPORATION
THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

BULB TEE, 63 IN PSC BEAM
JIMMY DELOACH CONNECTOR
OVER SR 30 (BONNYBRIDGE ROAD)
CHATHAM COUNTY CSMSL-0008-00(690)

DATE	REVISIONS	BY

DRAWING NO. 35-33
BRIDGE SHEET 5 OF 9

SCALE: NONE JULY 2013

DESIGNED BSB	CHECKED ANZ	REVIEWED DLC/WMD
DRAWN BSB	DESIGN GROUP AWB/SKG	APPROVED BFR

1 INCH WHEN PRINTED FULL SIZE

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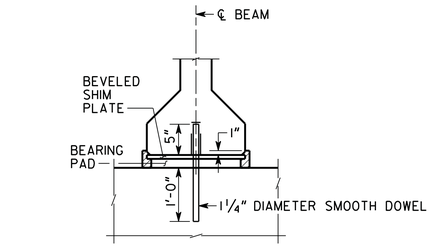
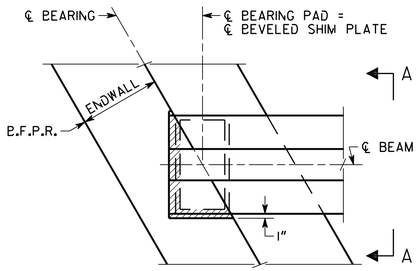
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	505	730



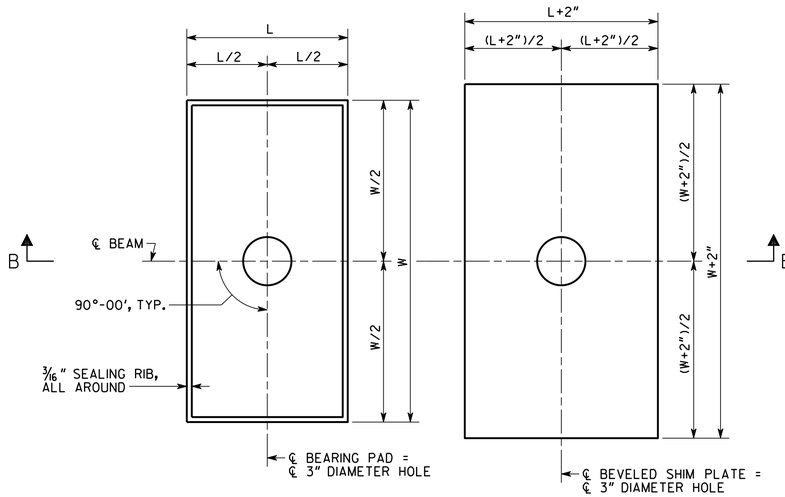
▨ PREFORMED FOAM JOINT FILLER SHALL BE IN ACCORDANCE WITH SUB-SECTION 833.2.10 OF THE GEORGIA DOT SPECIFICATIONS.

ENDWALL NOT SHOWN

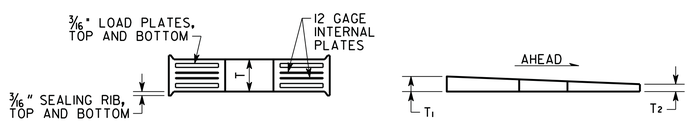
SECTION A-A



PLAN
BENT 1 SHOWN
BENT 2 SIMILAR



PLAN



SECTION B-B

BEARING PAD

BEVELED SHIM PLATE

NOTES

1) BEARING PADS HAVE BEEN DESIGNED ACCORDING TO AASHTO LRFD BRIDGE SPECIFICATIONS, SECTION 14.7.6 AND SHALL BE FURNISHED IN ACCORDANCE WITH AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS, SECTION 18.2, ELASTOMERIC BEARINGS, AND AASHTO M 251.

2) 1¼" DIAMETER SMOOTH DOWELS SHALL BE ASTM A 709 GRADE 50.

3) BEARING PADS SHALL BE MADE OF 60 DUROMETER HARDNESS NEOPRENE, GRADE 2 OR HIGHER.

4) 3" DIAMETER HOLE IN BEARING PADS MAY BE FORMED OR DRILLED.

5) BEARING PADS SHALL HAVE ¼" COVER ON THE TOP, BOTTOM, AND SIDES AND AROUND THE HOLE.

6) 3/16" LOAD PLATES AND 12 GAGE INTERNAL PLATE(S) (IF REQUIRED) SHALL BE ASTM A 709 GRADE 36 OR ASTM A 1011 GRADE 36.

7) NUMBER OF INTERNAL PLATES SHOWN FOR ILLUSTRATION PURPOSES ONLY. THE NUMBER OF INTERNAL PLATE(S) SPECIFIED SHALL BE EQUALLY SPACED BETWEEN LOAD PLATES.

8) USE OF 1½° MOLD DRAFT IS OPTIONAL.

9) BEVELED SHIM PLATES SHALL BE ASTM A 709 GRADE 36 AND SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A 123.

BENT	BEARING PADS								BEVELED SHIM PLATES	
						DESIGN LOADS (KIPS)				
	W	L	T	NUMBER OF INTERNAL PLATE(S)	DESIGN SHEAR DEFLECTION	DEAD LOAD	LIVE LOAD (NO IMPACT)	DEAD LOAD + LIVE LOAD	T1	T2
1	22"	10"	2.375"	2	0.31"	129	91	220	¾"	¼"
2	22"	10"	2.375"	2	0"	129	91	220	¾"	¼"

BRIDGE NO. 4

THE LPA GROUP
A UNIT OF GOSSELL DAVIS CORPORATION
THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3599 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

BEARING PAD DETAILS
JIMMY DELOACH CONNECTOR
OVER SR 30 (BONNYBRIDGE ROAD)
CHATHAM COUNTY CSMSL-0008-00(690)

BY	REVISIONS	DATE

DRAWING NO. 35-34
BRIDGE SHEET 6 OF 9

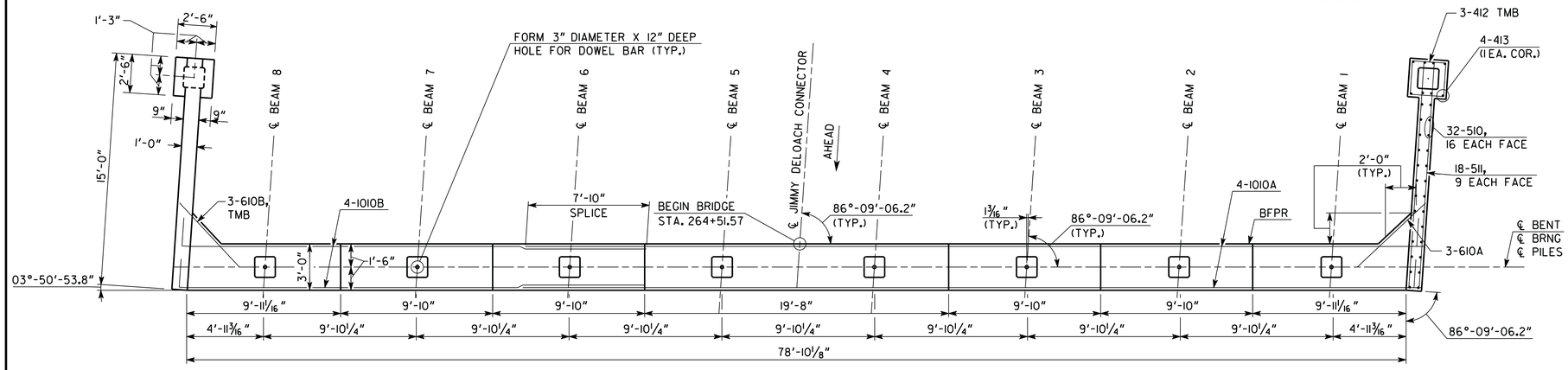
SCALE: NONE JULY 2013

DESIGNED BSB | DRAWN BSB | CHECKED ANZ | DESIGN GROUP AWB/SKG | REVIEWED DLC/WMD | APPROVED BFR

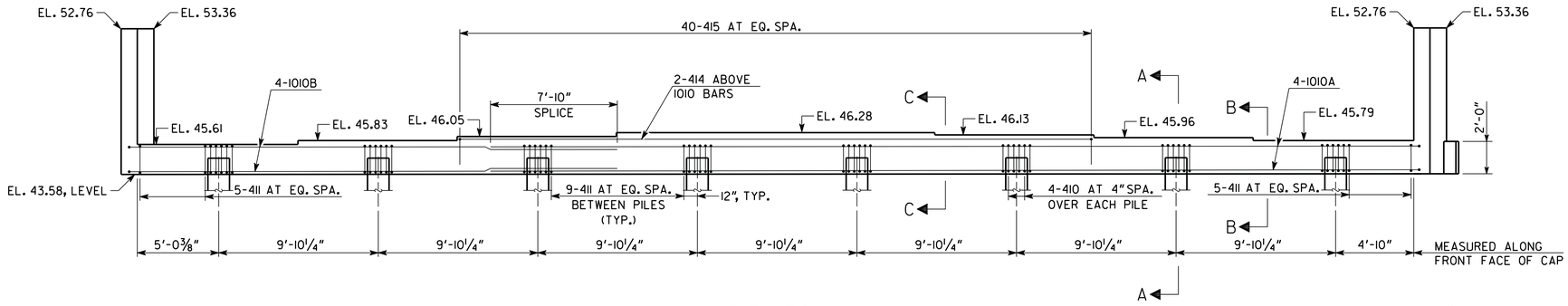
1 INCH WHEN PRINTED FULL SIZE

RELEASED FOR CONSTRUCTION: 05/21/2013

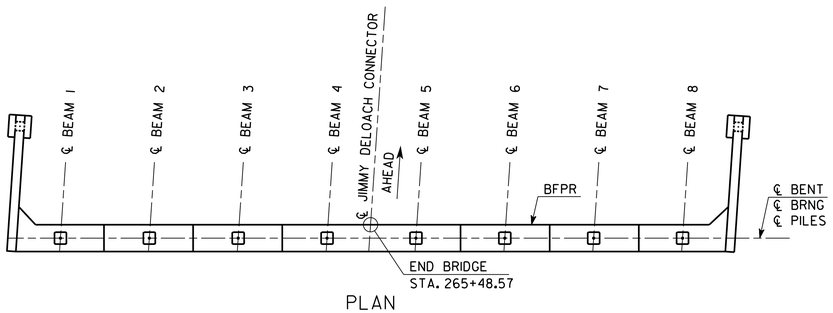
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	506	730



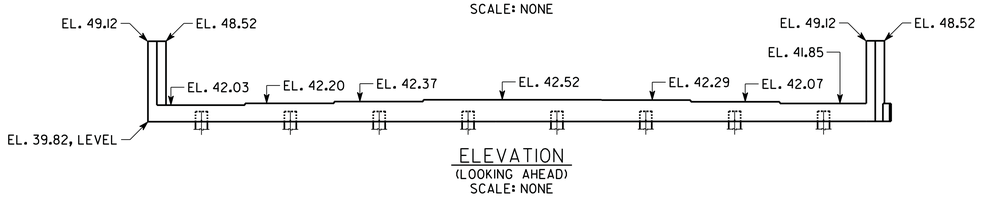
PLAN
SCALE: 1/4" = 1'-0"



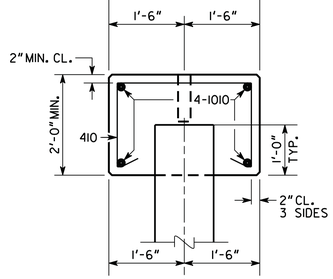
ELEVATION
(LOOKING BACK)
SCALE: 1/4" = 1'-0"



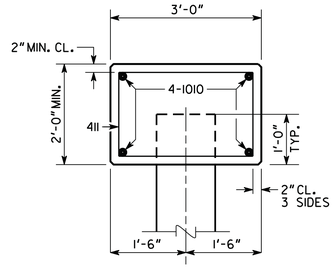
PLAN
SCALE: NONE



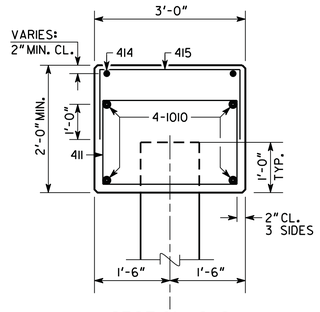
ELEVATION
(LOOKING AHEAD)
SCALE: NONE



SECTION A-A
SCALE: 3/4" = 1'-0"



SECTION B-B
SCALE: 3/4" = 1'-0"



SECTION C-C
SCALE: 3/4" = 1'-0"

NOTES:

1. MAINTAIN 2" CLEARANCE ON ALL REINFORCEMENT UNLESS OTHERWISE NOTED.
2. POUR WINGWALLS MONOLITHICALLY WITH THE CAP.
3. SEE GEORGIA STANDARD 9037 FOR DRAINAGE DETAILS AT END BENT.
4. WINGWALL PILES NOT SHOWN IN ELEVATION.
5. BOTTOM OF WINGWALLS ARE LEVEL.

SUBSTRUCTURE QUANTITIES		
ITEM	BENT 1	BENT 2
CY CLASS "A" CONCRETE	31.8	31.3
LB BAR REINF STEEL	3,324	3,307

PLAN DRIVING OBJECTIVE

ALL PILES SHALL BE DRIVEN TO A DRIVING RESISTANCE OF 351 TONS AT BENT 1 AND 362 TONS AT BENT 2 AFTER MINIMUM TIP ELEVATIONS ARE ACHEIVED AS FOLLOWS:
BENT 1 _____ ELEV. -9.00
BENT 2 _____ ELEV. -8.00

ALL PILES SHALL BE 16" SQ. PSC

BRIDGE NO. 4

THE LPA GROUP
A UNIT OF GENERAL ENGINEERING CORPORATION
THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

END BENT 1 AND 2 DETAILS
JIMMY DELOACH CONNECTOR
OVER SR 30 (BONNYBRIDGE ROAD)
CHATHAM COUNTY CSMSL-0008-00(690)

SCALE: AS SHOWN JULY 2013

DRAWING NO. 35-35
BRIDGE SHEET 7 OF 9

BY	DATE	REVISIONS

DESIGNED BSB | CHECKED ANZ | REVIEWED DLC/WMD
DRAWN BSB | DESIGN GROUP AWB/SKG | APPROVED BFR

1 INCH WHEN PRINTED FULL SIZE

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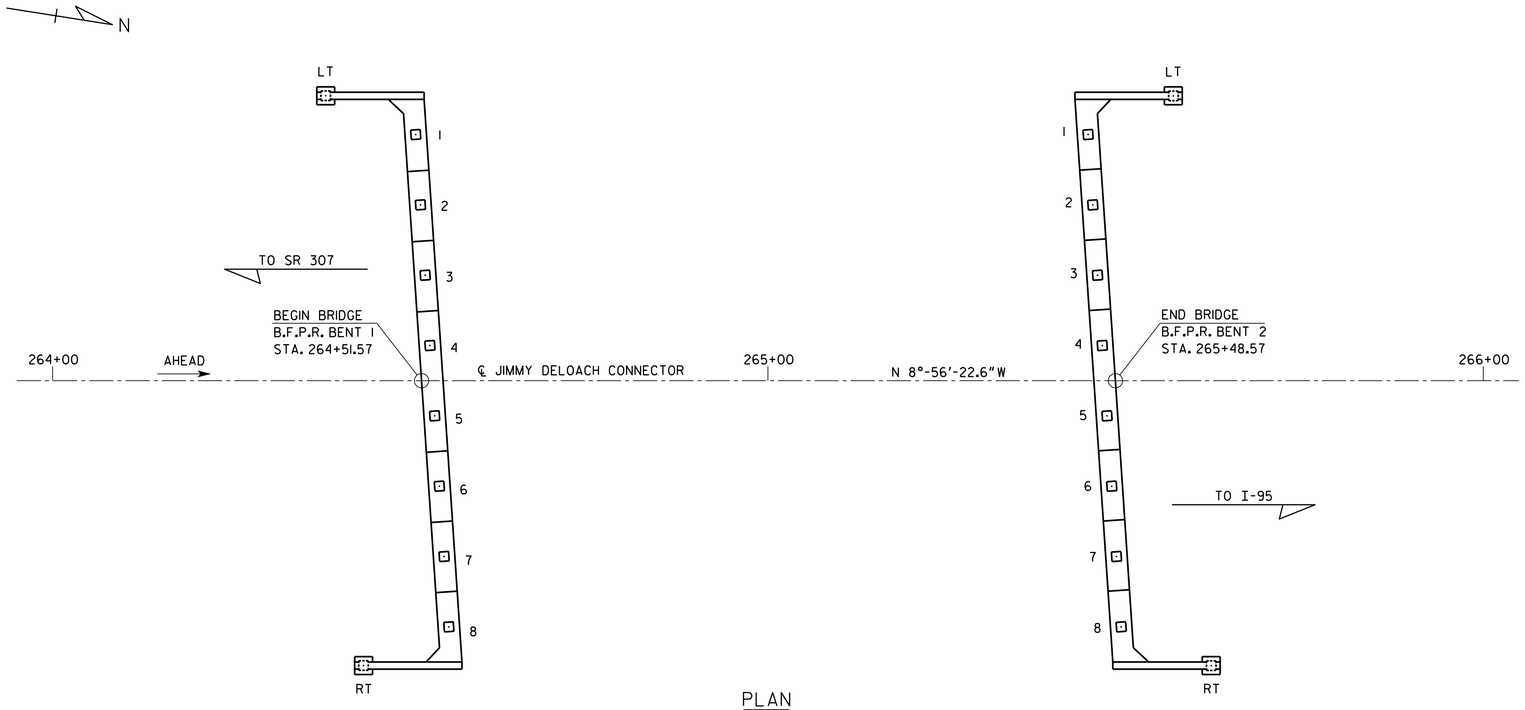
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	507	730



PLAN
SCALE: 1" = 1'-0"

AS-BUILT FOUNDATION DATA		
BENT	PILE NO.	PILE TIP ELEVATION
1	LT	
	1	
	2	
	3	
	4	
	5	
	6	
	7	
	8	
	RT	

AS-BUILT FOUNDATION DATA		
BENT	PILE NO.	PILE TIP ELEVATION
2	LT	
	1	
	2	
	3	
	4	
	5	
	6	
	7	
	8	
	RT	

NOTE: THIS "AS-BUILT FOUNDATION" INFORMATION SHEET IS TO BE FILLED IN BY THE PROJECT ENGINEER AND THE ENTIRE SHEET FORWARDED TO THE BRIDGE OFFICE UPON COMPLETION OF PILE DRIVING FOR POSTING TO THE PLANS AS A PERMANENT RECORD OF THE BRIDGE CONSTRUCTION.

PROJECT ENGINEER DATE

( )
AREA CODE TELEPHONE NUMBER

BRIDGE NO. 4

THE LPA GROUP
A UNIT OF MICHAEL BAKER CORPORATION

THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

AS BUILT FOUNDATION DETAILS
JIMMY DELOACH CONNECTOR
OVER SR 30 (BONNYBRIDGE ROAD)
CHATHAM COUNTY CSMSL-0008-00(690)

SCALE: AS SHOWN JULY 2013

DESIGNED BSB | CHECKED ANZ | REVIEWED DLC/WMD
DRAWN BSB | DESIGN GROUP AWB/SKG | APPROVED BFR

DATE | REVISIONS | BY

DRAWING NO. 35-36
BRIDGE SHEET 8 OF 9

1 INCH WHEN PRINTED FULL SIZE

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LOCATION	NO. OF LOC.	MARK	LENGTH FT.	LENGTH IN.	NO. BARS REQ'D.	TYPE	A	G	B FT.	B IN.	C FT.	C IN.	D FT.	D IN.	E FT.	E IN.	F FT.	F IN.	H FT.	H IN.	J FT.	J IN.	K FT.	K IN.	N	θ
SUPERSTRUCTURE																										
SPAN 1	1	400A	60- 0		207	1																				
		400B	38- 5		207	1																				
		401A	17- 9		80	1																				
		401B	18- 11		40	1																				
		404A	60- 0		14	1																				
		404B	20- 3		14	1																				
		407	9- 0		42	1																				
		408A	10- 7		63	25	4	4	0- 7		4- 4															
		408B	8- 5		14	25	4	4	0- 7		3- 3															
		500A	60- 0		195	3			59- 0		1- 0															
		500B	21- 1		195	3			20- 1		1- 0															
		501A	59- 0		149	1																				
		501B	20- 1		149	1																				
		502A	7- 9		208	23			1- 3		3- 3		3- 3													101
		502B	8- 9		108	7			2- 3		3- 3		3- 3												79	101
		503A	6- 8		208	23			0- 6		3- 1		3- 1													79
		503B	6- 10		108	7			0- 8		3- 1		3- 1												101	79
		504A	6- 5		48	46			4- 5		0- 10		0- 3		0- 8		0- 8									
		504B	7- 5		64	46			4- 5		1- 10		0- 3		0- 8		0- 8									
		505A	60- 0		2	1																				
		505B	17- 10		2	1																				
		506	7- 2		214	3			5- 11		1- 3															
		506A	3- 10		82	6			1- 4		1- 3		0- 0		1- 3										45	45
		507	8- 1		334	3			7- 1		1- 0															
		509A	6- 4		14	1																				
		509B	7- 8		14	1																				
		900A	17- 2		28	16	0	0	4- 5		0- 9		0- 9		4- 0		6- 8									
		900B	14- 6		70	16	0	0	4- 5		0- 9		0- 9		4- 0		4- 0									
SUBSTRUCTURE	1	410	6- 9		32	32	5	5	2- 8		1- 8		1- 8													
BENT 1		411	9- 5		73	25	4	4	2- 8		1- 8															
		412	9- 5		6	25	4	4	2- 2		2- 2															
		413	1- 8		8	1																				
		414	39- 0		2	1																				
		415	5- 8		40	2			2- 8		1- 6		1- 6													
		510A	8- 10		32	1																				
		511	14- 8		36	1																				
		610A	6- 0		3	1																				
		610B	5- 8		3	1																				
		1010A	60- 0		4	4			58- 2		1- 10															86
		1010B	31- 4		4	6			29- 0		0- 6		1- 10		0										0	4
SUBSTRUCTURE	1	410	6- 9		32	32	5	5	2- 8		1- 8		1- 8													
BENT 2		411	9- 5		73	25	4	4	2- 8		1- 8															
		412	9- 5		6	25	4	4	2- 2		2- 2															
		413	1- 8		8	1																				
		414	39- 0		2	1																				
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		511	14- 8		36	1																				
		610A	6- 0		3	1																				
		610B	5- 8		3	1																				
		1010A	60- 0		4	4			58- 2		1- 10															86
		1010B	31- 4		4	6			29- 0		0- 6		1- 10		0										0	4

RELEASED FOR CONSTRUCTION: 05/21/2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	509	730

BRIDGE NO. 4

THE LPA GROUP
A UNIT OF GMDAIL DAVIS CORPORATION

THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

REINFORCEMENT SCHEDULE
JIMMY DELOACH CONNECTOR
OVER SR 30 (BONNYBRIDGE ROAD)
CHATHAM COUNTY CSMSL-0008-00(690)

DRAWING NO. 35-37
BRIDGE SHEET 9 OF 9

SCALE: NONE JULY 2013

DESIGNED BSB CHECKED ANZ REVIEWED DLC/WMD
DRAWN BSB DESIGN GROUP AWB/SKG APPROVED BFR

REVISIONS BY DATE

1 INCH WHEN PRINTED FULL SIZE

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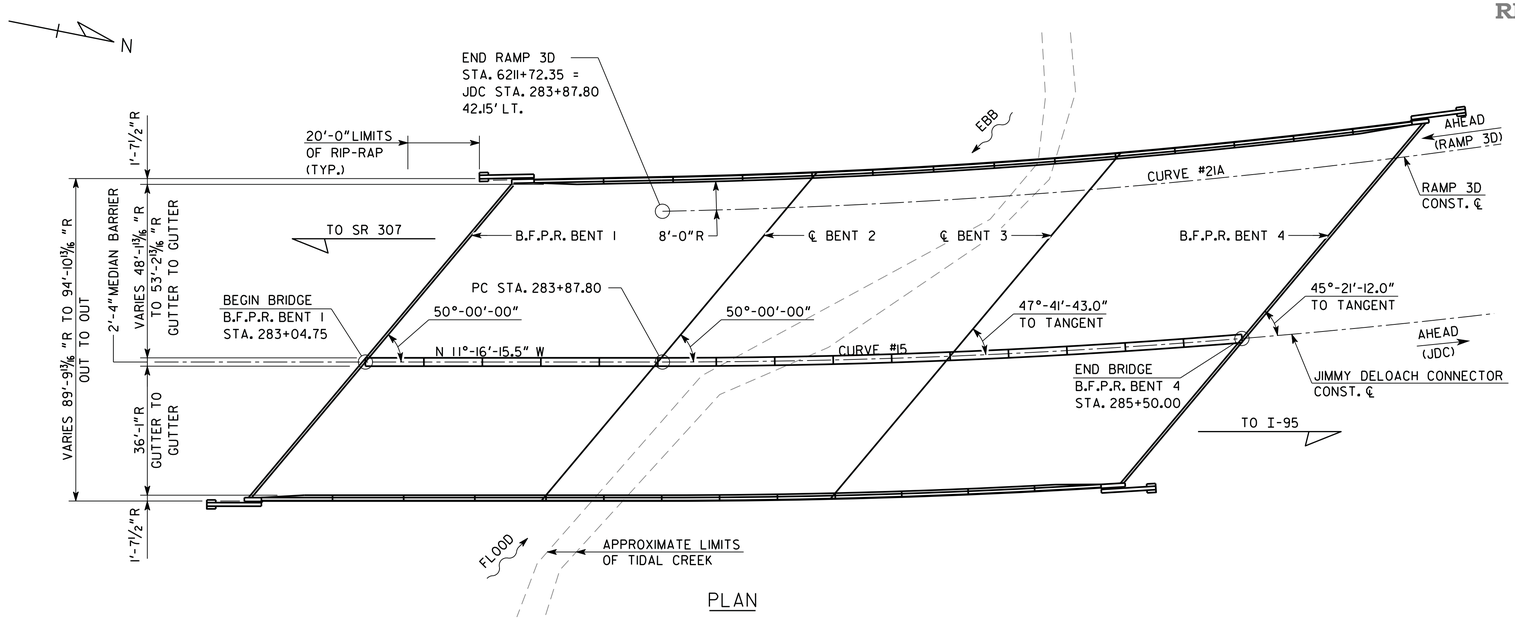
RELEASED FOR CONSTRUCTION: 08/02/2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	509	730



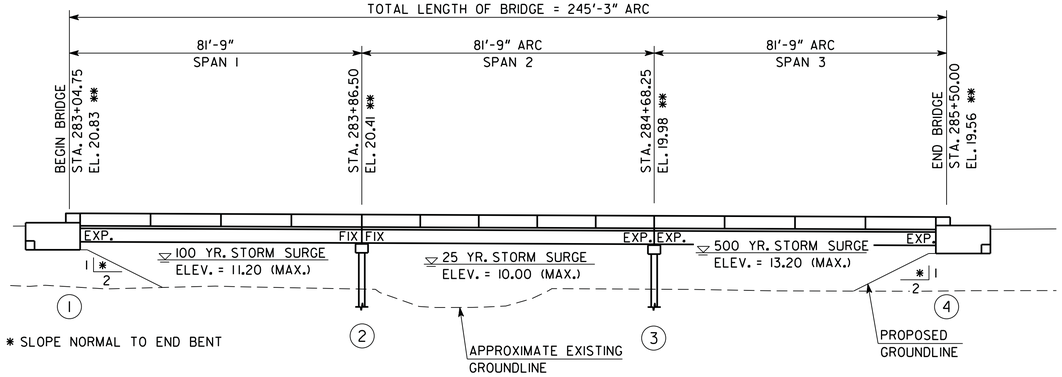
PLAN

HORIZONTAL CURVE DATA

CURVE #15 (JDC)	CURVE #21A (RAMP 3D)
P.I. STA. 290+97.21	P.I. STA. 6209+82.42
Δ = 39°-03'-35.5", LT.	Δ = 11°-10'-43.5", RT.
D = 02°-51'-53.2"	D = 02°-56'-00.68"
L = 1363.45'	L = 381.07'
T = 709.41'	T = 191.14'
R = 2000.00'	R = 1953.14'
E = 122.09	E = 9.33
S.E. = 4.86%	S.E. = 4.86%
P.C. STA. = 283+87.80	P.C.C STA. = 6207+91.28
P.C.C. STA. = 297+51.25	P.T. STA. = 621I+72.35

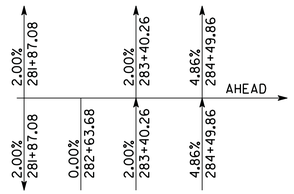
NOTES

1. ** ALL STATIONS AND ELEVATIONS MEASURED AT INTERSECTION OF PROFILE GRADE LINE AND BFPR OR CENTERLINE OF BENT.
2. END BENT PILES NOT SHOWN.
3. ALL BENTS ARE PARALLEL.
4. R = RADIAL DIMENSION.
5. ARC = ARC DIMENSION.

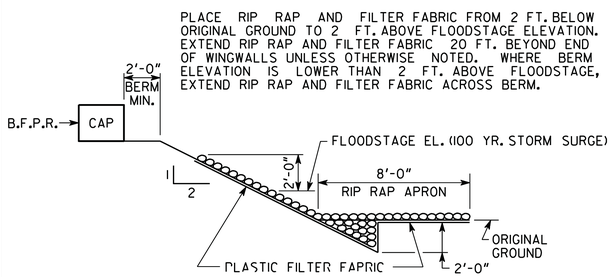


ELEVATION

PROFILE GRADE DATA
JIMMY DELOACH CONNECTOR
NOT TO SCALE



SUPERELEVATION DATA
NOT TO SCALE



RIP RAP DETAIL
NOT TO SCALE

P.I. NO. 0008690

BRIDGE NO. 5

THE LPA GROUP
A UNIT OF GENSLER GEORGIA CORPORATION

THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

8.2.13

GEORGIA REGISTERED NO. 24732 PROFESSIONAL ENGINEER ROBERT W. BOWMAN

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

PLAN AND ELEVATION
JIMMY DELOACH CONNECTOR
OVER TRIBUTARY TO ST. AUGUSTINE CREEK
CHATHAM COUNTY CSMSL-0008-00(690)

DRAWING NO. 35-038
BRIDGE SHEET 1 OF 16
SCALE: 1" = 20'-0"
JULY 2013

BY	REVISIONS	DATE

DESIGNED JCW | CHECKED JPS/ANZ | REVIEWED DLC/WMD
DRAWN JCW/BSB | DESIGN GROUP SKG | APPROVED BFR

1 INCH WHEN PRINTED FULL SIZE

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RELEASED FOR CONSTRUCTION: 08/02/2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	510	730

BRIDGE CONSISTS OF

3 - 81'-9" TYPE III PSC BEAM SPANS ---------- SPECIAL DESIGN

2 - PSC PILE END BENTS ---------- SPECIAL DESIGN

2 - PSC PILE INTERMEDIATE BENTS ---------- SPECIAL DESIGN

4 - END POST AND GUARDRAIL ATTACHMENT DETAIL ------- GA. STD. 3054 (9-30-02)
2 - (L = 4'-0"; W = 1'-1"; H = 3'-6")
1 - (L = 6'-3"; W = 1'-1"; H = 3'-6")
1 - (L = 6'-9"; W = 1'-1"; H = 3'-6")

SQUARE PRESTRESSED CONCRETE PILES ---------- SPECIAL DESIGN
SEE DRAWING NO. 37-01 TO 37-05

BAR BENDING DETAILS ---------- GA. STD. 3901 (8-69)

TYPICAL FILL DETAIL AT END OF BRIDGE ---------- GA. STD. 9037 (10-20-97)

TRAFFIC DATA

TRAFFIC ---------- ADT = 23,360 (2012)
ADT = 30,880 (2032)

DESIGN SPEED ---------- 55 MPH

TRUCKS ---------- 60 %

24 HR TRUCKS ---------- 55 %

DIRECTIONAL ---------- 54 %

UTILITIES

NO UTILITIES ON BRIDGE

DRAINAGE DATA

DRAINAGE AREA ---------- 1.02 SQ MILES

FLOOD FREQUENCY	TOTAL DISCHARGE	MEAN VELOCITY	AREA OF OPENING UNDER FLOODSTAGE	BACKWATER
25 YEAR	581.0 CFS	1.76 FPS	1,441 SQ FT	0.00 FT
100 YEAR	788.0 CFS	2.00 FPS	1,710 SQ FT	0.00 FT
500 YEAR	1,116.0 CFS	1.99 FPS	2,060 SQ FT	0.00 FT

GENERAL NOTES

SPECIFICATIONS - GEORGIA STANDARD SPECIFICATIONS, 2001 EDITION, AND 2008 SUPPLEMENTAL SPECIFICATIONS AS MODIFIED BY CONTRACT DOCUMENTS.

SHOP DRAWINGS - SUBMIT SHOP DRAWINGS TO ENGINEER OF RECORD (EOR) FOR INITIAL REVIEW AND APPROVAL. ONCE APPROVED AND STAMPED BY EOR, EOR SHALL SUBMIT 6 STAMPED SETS TO THE GEORGIA DOT OFFICE OF BRIDGES AND STRUCTURES FOR REVIEW AND APPROVAL.

REINFORCING STEEL - PLACE AND TIE ALL REINFORCING STEEL IN ACCORDANCE WITH THE GEORGIA DOT SPECIFICATIONS. DO NOT WELD REINFORCING STEEL.

CHAMFER - CHAMFER ALL EXPOSED CONCRETE EDGES 3/4" UNLESS OTHERWISE NOTED.

TRAFFIC CONTROLS - SEE ROADWAY PLANS FOR TRAFFIC CONTROLS AND TRAFFIC CONTROL PAYMENT.

WAITING PERIOD - DO NOT BEGIN WORK AT BENTS 1 AND 4 UNTIL THE COMPLETED END FILLS ARE IN PLACE AND SETTLEMENT IS COMPLETE. ESTABLISH SETTLEMENT MONITORING POINTS AT EACH BRIDGE BENT LOCATION. SETTLEMENTS ARE TO BE READ BY A SURVEYOR AT LEAST TWICE WEEKLY. ONCE THE CUMULATIVE SETTLEMENT, OVER A PERIOD OF 3 WEEKS, DOES NOT EXCEED ¼ OF AN INCH, THE SETTLEMENT IS CONSIDERED TO HAVE CEASED.

PLAN DRIVING OBJECTIVE - SEE SUBSTRUCTURE DETAILS.

GENERAL NOTES (CONTINUED)

DYNAMIC PILE TESTING - PERFORM PILE TESTING USING THE PILE DRIVING ANALYZER (PDA) IN ACCORDANCE WITH SPECIAL PROVISION SECTION 523 ON EACH TEST PILE. NOTIFY THE GEOTECHNICAL BUREAU OF THE GEORGIA DOT OFFICE OF MATERIALS AT 404-608-4720 TWO WEEKS PRIOR TO DRIVING PILES.

WAVE EQUATION - PERFORM WAVE EQUATION ANALYSIS (WEAP) IN ACCORDANCE WITH SPECIAL PROVISION 520. PROVIDE RESULTS OF THE WEAP TO THE GEOTECHNICAL BUREAU OF THE GEORGIA DOT FOR REVIEW AND APPROVAL TWO WEEKS PRIOR TO DRIVING PILES.

PILING - PREDRILLING MAY BE NECESSARY AT BENT 1 TO ACHIEVE THE INDICATED PLAN DRIVING OBJECTIVE. THE EXTENT OF PREDRILLING SHALL BE TO ELEVATION -2. SEE SECTION 520 OF THE GEORGIA DOT SPECIFICATIONS.

TEST PILES - DRIVE TEST PILES AT THE FOLLOWING LOCATIONS:

ONE 16 IN SQ PSC X 54 FT AT BENT 1
ONE 20 IN SQ PSC X 57 FT AT BENT 3
ONE 16 IN SQ PSC X 65 FT AT BENT 4

DRIVING RESISTANCE - DETERMINE DRIVING RESISTANCE FOR PILES USING DYNAMIC PILE TESTING IN ACCORDANCE WITH SPECIAL PROVISION 520.

SMOOTH DOWEL BARS - PLACE SMOOTH DOWEL BARS IN FORMED 3" DIAMETER X 12" DEEP HOLES AND GROUT IN PLACE SIMILAR TO ANCHOR BOLTS, SEE SUB-SECTION 501.3.05.B.3 OF THE GEORGIA DOT SPECIFICATIONS. STIRRUPS MAY BE SHIFTED SLIGHTLY TO CLEAR FORMED HOLES.

STANDARD PLAN MODIFICATION - MODIFY THE ENDPOST STANDARD TO INCREASE THE NUMBER OF P401 AND P701 BARS TO PROVIDE 8 OF EACH BAR IN THE 6'-9" ENDPOST.

GROOVED CONCRETE - GROOVE THE ENTIRE LENGTH OF THE BRIDGE TRANSVERSELY AS PER SUB-SECTION 500.3.05.T.9.C OF THE GEORGIA DOT SPECIFICATIONS.

RIDING QUALITY - THE FINISHED BRIDGE DECK AND APPROACH SLABS SHALL MEET THE RIDE QUALITY REQUIREMENTS AS SPECIFIED IN SUB-SECTION 500.3.06.E OF THE GEORGIA DOT SPECIFICATIONS FOR STATE ROUTES WITH FOUR LANES OR MORE.

WELDING - ALL WELDING ON GEORGIA DOT PROJECTS SHALL BE PERFORMED BY CERTIFIED WELDERS THAT HAVE IN THEIR POSSESSION A CURRENT WELDING CERTIFICATION CARD ISSUED BY THE OFFICE OF MATERIALS. USE ONLY E70XX (EXCLUDING E7014 AND E7024) LOW HYDROGEN ELECTRODES FOR MANUAL SHIELDED METAL ARC WELDING.

INCIDENTAL ITEMS - INCLUDE THE COST INCIDENTAL TO THE WORK THAT IS NOT SPECIFICALLY COVERED BY THE GEORGIA STANDARD SPECIFICATIONS, SUPPLEMENTAL SPECIFICATIONS AND/OR SPECIAL PROVISIONS IN THE OVERALL BID SUBMITTED. THIS INCLUDES THE COST OF WATERPROFFING, JOINT FILLERS, AND OTHER INCIDENTAL ITEMS NECESSARY TO COMPLETE THE WORK.

DESIGN BUILD PROJECT - THIS IS A DESIGN BUILD PROJECT AND QUANTITIES ARE PROVIDED FOR INFORMATION ONLY.

DESIGN DATA

SPECIFICATIONS ---------- AASHTO LRFD 5TH EDITING, 2010
(DESIGNED FOR SEISMIC PERFORMANCE ZONE 2)

TYPICAL HL-93 LOADING ---------- IMPACT ALLOWED

FUTURE PAVING ALLOWANCE ---------- 30 LBS PER SQ FT

CONCRETE: SUPERSTRUCTURE ---------- CLASS D, f'_c = 4,000 PSI
BARRIER ---------- CLASS D, f'_c = 4,000 PSI
PSC BEAMS ---------- CLASS AAA, f'_c = 9,000 PSI
PSC BEAM ALLOWABLE TENSION ---------- 285 PSI
SUBSTRUCTURE ---------- CLASS AA, f'_c = 3,500 PSI

REINFORCEMENT STEEL: ---------- GRADE 60, f_y = 60,000 PSI

PRETENSIONING STRANDS: ---------- f'_s = 270,000 PSI

SUMMARY OF QUANTITIES

PAY ITEM NUMBER	QUANTITY	UNIT	PAY ITEM
500-0100	2375	SY	GROOVED CONCRETE
500-1011	LUMP	LS	SUPERSTR CONCRETE, CL D, BR NO - 5 (814)
500-2100	481	LF	CONCRETE BARRIER
500-3002	215	CY	CLASS AA CONCRETE
507-9003	2412	LF	PSC BEAMS, AASHTO TYPE III, BR NO - 5
511-1000	29566	LB	BAR REINF STEEL
511-3000	LUMP	LS	SUPERSTR REINF STEEL, BR NO - 5 (194068)
520-2216	1,285	LF	PILING, PSC, 16 IN SQ
520-2220	1,725	LF	PILING, PSC, 20 IN SQ
520-3216	2	EA	TEST PILE, PSC, 16 IN SQ
520-3220	1	EA	TEST PILE, PSC, 20 IN SQ
520-4216	1	EA	LOAD TEST, PSC, 16 IN SQ (IF REQD)
520-4220	1	EA	LOAD TEST, PSC, 20 IN SQ (IF REQD)
603-2024	1712	SY	STN DUMPED RIP RAP, TP 1, 24 IN
603-7000	1712	SY	PLASTIC FILTER FABRIC

BRIDGE NO. 5

THE LPA GROUP
A UNIT OF GORDIAN GROUP CORPORATION
THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

GENERAL NOTES
JIMMY DELOACH CONNECTOR
OVER TRIBUTARY TO ST. AUGUSTINE CREEK
CHATHAM COUNTY CSMSL-0008-00(690)

DATE | REVISIONS | BY

DRAWING NO. 35-039
BRIDGE SHEET 2 OF 16

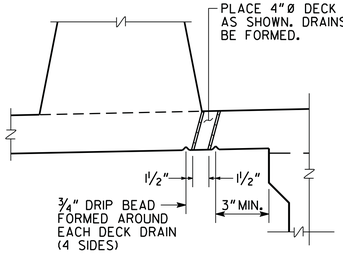
SCALE: NONE JULY 2013

DESIGNED JCW | CHECKED JPS/ANZ | REVIEWED DLC/WMD
DRAWN JCW/BSB | DESIGN GROUP SKG | APPROVED BFR

1 INCH WHEN PRINTED FULL SIZE

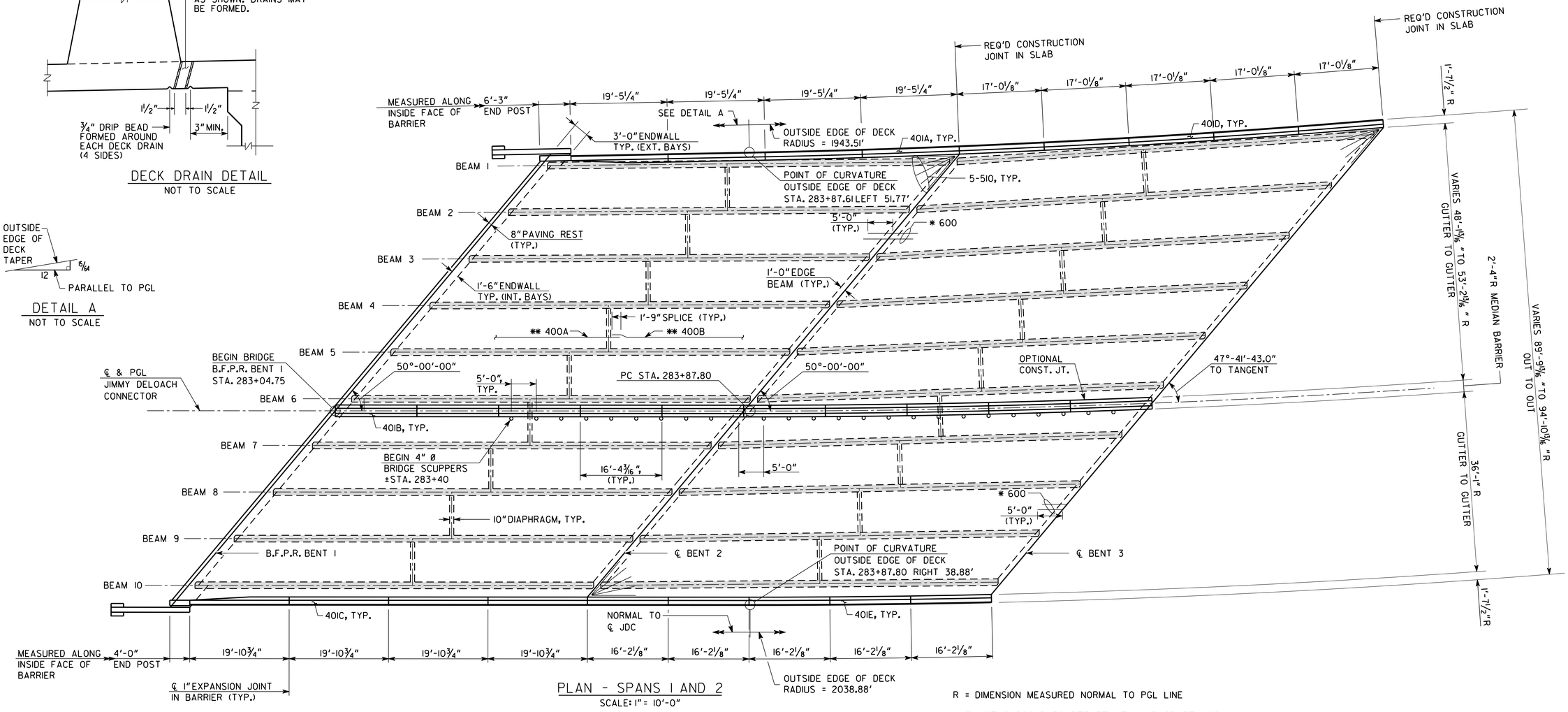
RELEASED FOR CONSTRUCTION: 08/02/2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	511	730



DECK DRAIN DETAIL
NOT TO SCALE

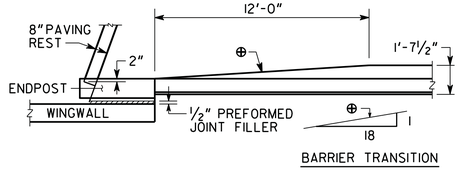
DETAIL A
NOT TO SCALE



PLAN - SPANS 1 AND 2
SCALE: 1" = 10'-0"

R = DIMENSION MEASURED NORMAL TO PGL LINE

* PLACE 2 600 BARS BETWEEN EACH PAIR OF 400 BARS IN TOP OF SLAB OVER INTERMEDIATE BENTS.
** ALTERNATE 400A AND 400B BARS ACROSS DECK TO STAGGER LAP LOCATION.



BARRIER TRANSITION DETAIL
NOT TO SCALE

SUPERSTRUCTURE QUANTITIES				
ITEM	SPAN 1	SPAN 2	SPAN 3	TOTAL
LUMP - SUPERSTR. CONCRETE, CU YDS., CLASS D	276.8	254.1	283.0	813.9
LUMP - SUPERSTR. REINF. STEEL, LBS.	62,943	66,379	64,746	194,068

NOTES: 1. MAINTAIN 2" CLEARANCE ON ALL REINFORCEMENT UNLESS OTHERWISE NOTED.
2. 600 BAR QUANTITY INCLUDED IN SPAN 2.
3. SEE FRAMING PLAN FOR DIAPHRAGM LOCATION.
4. OMIT DECK DRAINS OVER END FILL.

BRIDGE NO. 5

THE LPA GROUP
A UNIT OF GENERAL DATA CORPORATION
THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
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GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

DECK PLAN - SPANS 1 AND 2
JIMMY DELOACH CONNECTOR
OVER TRIBUTARY TO ST. AUGUSTINE CREEK
CHATHAM COUNTY CSMSL-0008-00(690)

DRAWING NO. 35-040
BRIDGE SHEET 3 OF 16

SCALE: AS SHOWN JULY 2013

DESIGNED JCW | CHECKED JPS/ANZ | REVIEWED DLC/WMD
DRAWN JCW/BSB | DESIGN GROUP SKG | APPROVED BFR

DATE | REVISIONS | BY

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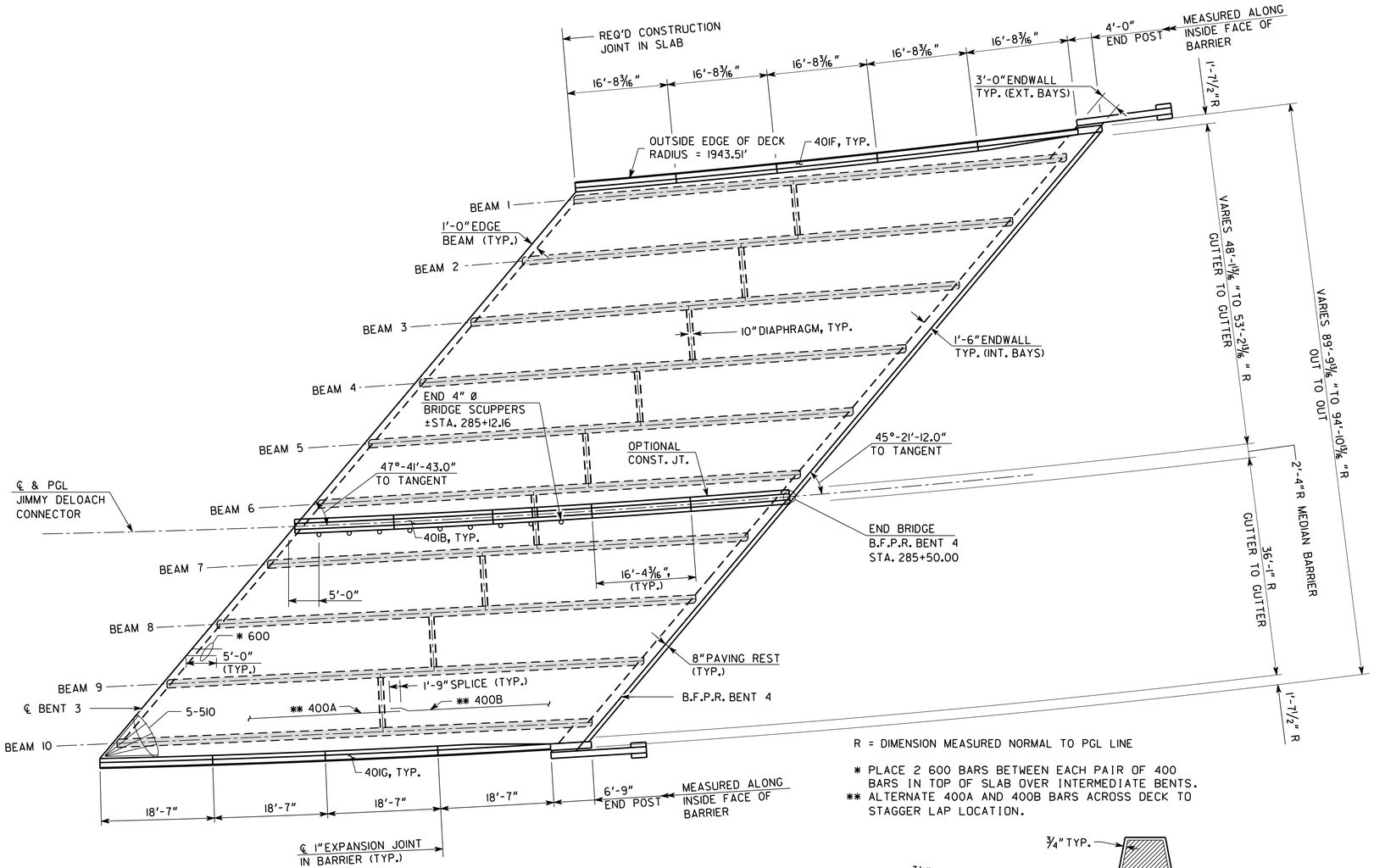
RELEASED FOR CONSTRUCTION: 08/02/2013

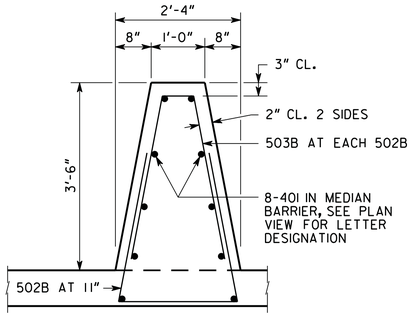
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	512	730



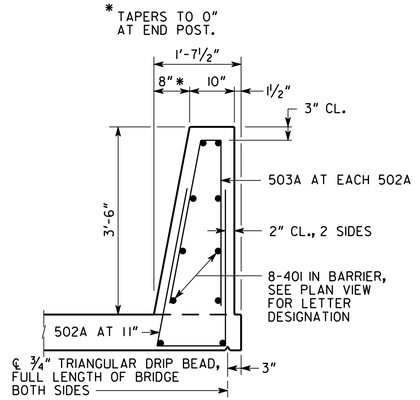
PLAN - SPAN 3
SCALE: 1" = 10'-0"

R = DIMENSION MEASURED NORMAL TO PGL LINE

* PLACE 2 600 BARS BETWEEN EACH PAIR OF 400 BARS IN TOP OF SLAB OVER INTERMEDIATE BENTS.
** ALTERNATE 400A AND 400B BARS ACROSS DECK TO STAGGER LAP LOCATION.

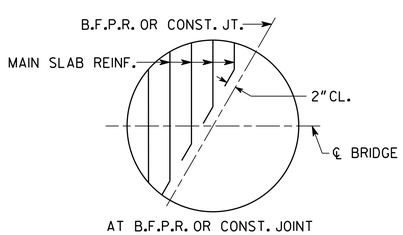


MEDIAN BARRIER DETAIL
NOT TO SCALE



BARRIER DETAIL
NOT TO SCALE

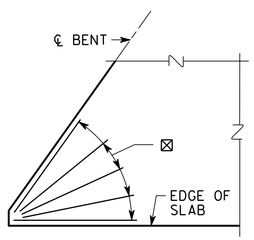
NOTE: SEE FRAMING PLAN FOR DIAPHRAGM LOCATION.



AT B.F.P.R. OR CONST. JOINT

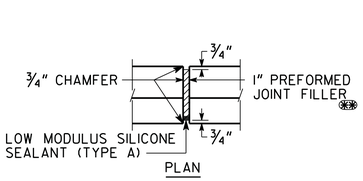
BARS ARE DETAILED IN BAR DETAILS AS EQUIVALENT FULL LENGTH BARS.

BAR BENDING DETAILS AT SKEWED JOINTS
NOT TO SCALE



☒ 5-510 IN EACH ACUTE CORNER ADJACENT TO INTERMEDIATE BENTS, TYP.

SKEWED CORNER DETAIL
NOT TO SCALE



DETAILS OF 1" EXPANSION JOINT IN MEDIAN & BARRIER
NOT TO SCALE

BRIDGE NO. 5

THE LPA GROUP
A UNIT OF GENSLER DESIGN CORPORATION
THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
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GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

DECK PLAN - SPAN 3
JIMMY DELOACH CONNECTOR
OVER TRIBUTARY TO ST. AUGUSTINE CREEK
CHATHAM COUNTY CSMSL-0008-00(690)

DRAWING NO. 35-041
BRIDGE SHEET 4 OF 16

REVISIONS | BY | DATE

SCALE: AS SHOWN
JULY 2013

DESIGNED JCW | CHECKED JPS/ANZ | REVIEWED DLC/WMD
DRAWN JCW/BSB | DESIGN GROUP SKG | APPROVED BFR

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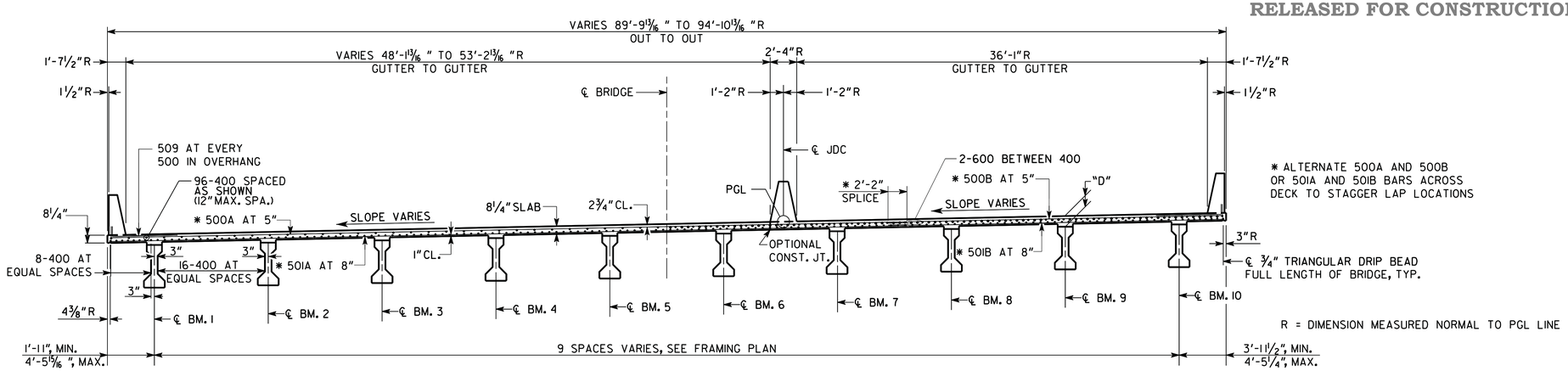
RELEASED FOR CONSTRUCTION: 08/02/2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	513	730



* ALTERNATE 500A AND 500B OR 501A AND 501B BARS ACROSS DECK TO STAGGER LAP LOCATIONS

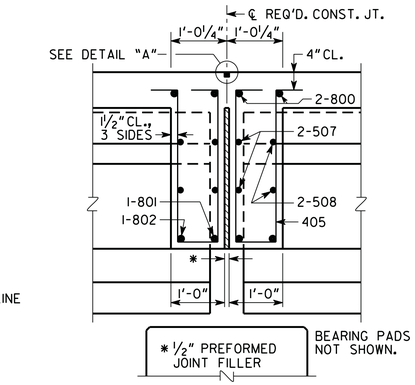
R = DIMENSION MEASURED NORMAL TO PGL LINE

HALF SECTION THRU SLAB

SCALE: 3/16" = 1'-0"

HALF SECTION THRU SLAB AT INTERMEDIATE BENT

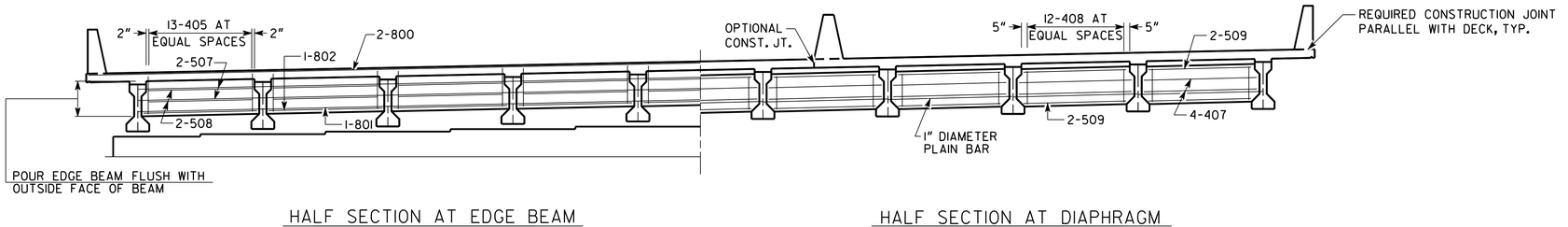
SCALE: 3/16" = 1'-0"



SLAB REINFORCEMENT NOT SHOWN.

SECTION THRU EDGE BEAM

NOT TO SCALE

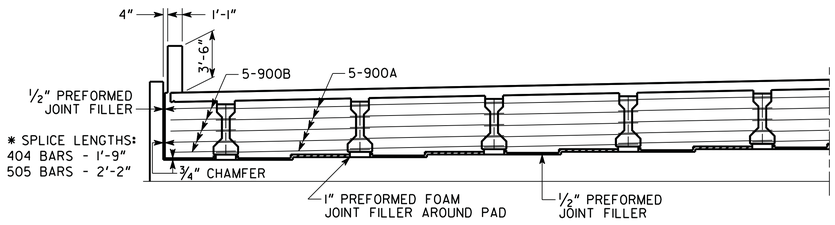


HALF SECTION AT EDGE BEAM

SCALE: 3/16" = 1'-0"

HALF SECTION AT DIAPHRAGM

SCALE: 3/16" = 1'-0"



HALF SECTION AT ENDWALL

SCALE: 3/16" = 1'-0"

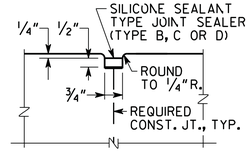
* 404, 504, 505, 506 SERIES BARS NOT SHOWN

NOTES

1. DIMENSION "D" IS MEASURED FROM TOP OF SLAB TO TOP OF BEAMS AT CENTERLINE BEARING. VARY "D" BETWEEN BEARINGS TO COMPENSATE FOR DEAD LOAD DEFLECTION AND HORIZONTAL THROW. MAINTAIN A CONSTANT SLAB THICKNESS OF 8 1/4" BETWEEN BEAMS AND AT THE OVERHANGS.

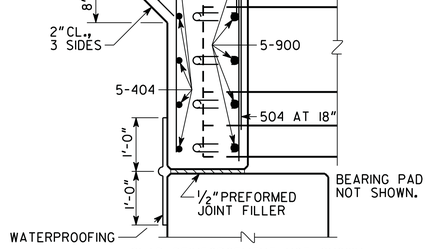
   "D" = 13" (BEAMS 1-6)
   "D" = 11 1/4" (BEAMS 7-10)

2. CLEARANCE OF REINFORCEMENT IS 2" UNLESS OTHERWISE NOTED.



DETAIL "A"

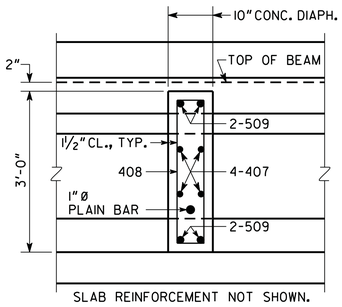
NOT TO SCALE



SLAB REINFORCEMENT NOT SHOWN.

SECTION AT ENDWALL

NOT TO SCALE



SLAB REINFORCEMENT NOT SHOWN.

SECTION THRU DIAPHRAGM

NOT TO SCALE

BRIDGE NO. 5

THE LPA GROUP — A UNIT OF GOSSELIN BAKER CORPORATION

THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

DECK SECTIONS
JIMMY DELOACH CONNECTOR
OVER TRIBUTARY TO ST. AUGUSTINE CREEK
CHATHAM COUNTY CSMSL-0008-00(690)

SCALE: AS SHOWN JULY 2013

DESIGNED	JCW	CHECKED	JPS/ANZ	REVIEWED	DLC/WMD
DRAWN	JCW/BSB	DESIGN GROUP	SKG	APPROVED	BFR

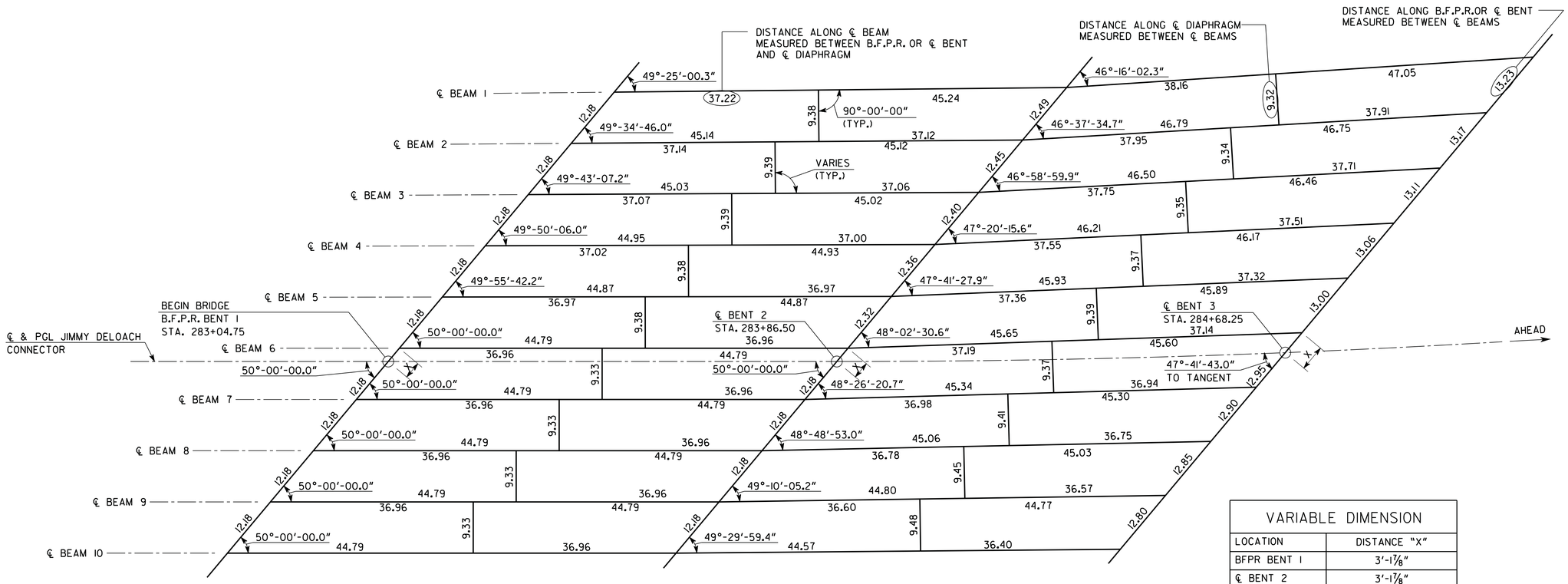
REVISIONS	DATE	BY

DRAWING NO. 35-042
BRIDGE SHEET 5 OF 16

1 INCH WHEN PRINTED FULL SIZE

RELEASED FOR CONSTRUCTION: 08/02/2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	514	730



VARIABLE DIMENSION	
LOCATION	DISTANCE "X"
BFPR BENT 1	3'-1 7/8"
℄ BENT 2	3'-1 7/8"
℄ BENT 3	4'-8 13/16"

SPANS 1 AND 2
SCALE: 1" = 10'-0"

NOTES:

1. ALL BENTS ARE PARALLEL.
2. SPAN 3 BEAMS ARE PARALLEL TO A CHORD OF ℄ JIMMY DELOACH CONNECTOR BETWEEN ℄ BENT 3 AND BFPR BENT 4.
3. SPAN 2 BEAMS, AS WELL AS SPAN 1 BEAMS, ARE SET SUCH THAT THE ℄ BEAM FOR THE BACK SPAN WILL INTERSECT THE ℄ BEAM OF THE AHEAD SPAN AT ℄ BENT.
4. DIMENSIONS ARE IN FEET.

BRIDGE NO. 5

THE LPA GROUP
THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

FRAMING PLAN - SPANS 1 AND 2
JIMMY DELOACH CONNECTOR
OVER TRIBUTARY TO ST. AUGUSTINE CREEK
CHATHAM COUNTY CSMSL-0008-00(690)

SCALE: AS SHOWN JULY 2013

DRAWING NO. 35-043
BRIDGE SHEET 6 OF 16

REVISIONS | DATE | BY

DESIGNED JCW | CHECKED JPS/ANZ | REVIEWED DLC/WMD
DRAWN JCW/BSB | DESIGN GROUP SKG | APPROVED BFR

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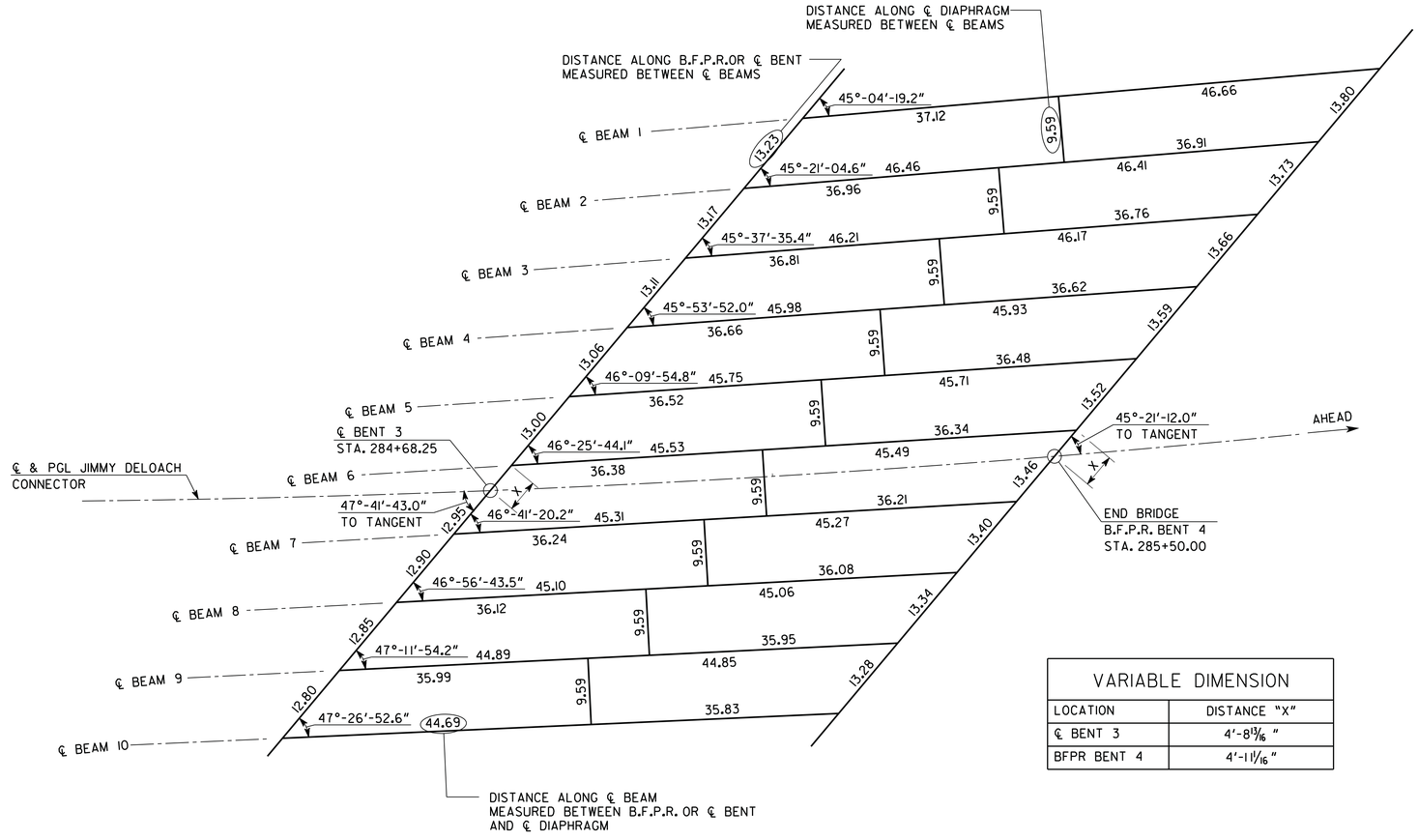
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	515	730



VARIABLE DIMENSION	
LOCATION	DISTANCE "X"
℄ BENT 3	4'-8 13/16 "
BFPR BENT 4	4'-11 1/16 "

SPAN 3
SCALE: 1" = 10'-0"

NOTES:

1. ALL BENTS ARE PARALLEL.
2. SPAN 3 BEAMS ARE PARALLEL TO A CHORD OF ℄ JIMMY DELOACH CONNECTOR BETWEEN ℄ BENT 3 AND BFPR BENT 4.
3. SPAN 2 BEAMS, AS WELL AS SPAN 1 BEAMS, ARE SET SUCH THAT THE ℄ BEAM FOR THE BACK SPAN WILL INTERSECT THE ℄ BEAM OF THE AHEAD SPAN AT ℄ BENT.
4. DIMENSIONS ARE IN FEET.

BRIDGE NO. 5

THE LPA GROUP
A UNIT OF GENERAL MAINS CORPORATION
THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
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GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

FRAMING PLAN - SPAN 3
JIMMY DELOACH CONNECTOR
OVER TRIBUTARY TO ST. AUGUSTINE CREEK
CHATHAM COUNTY CSMSL-0008-00(690)

DRAWING NO. 35-044
BRIDGE SHEET 7 OF 16

SCALE: AS SHOWN JULY 2013

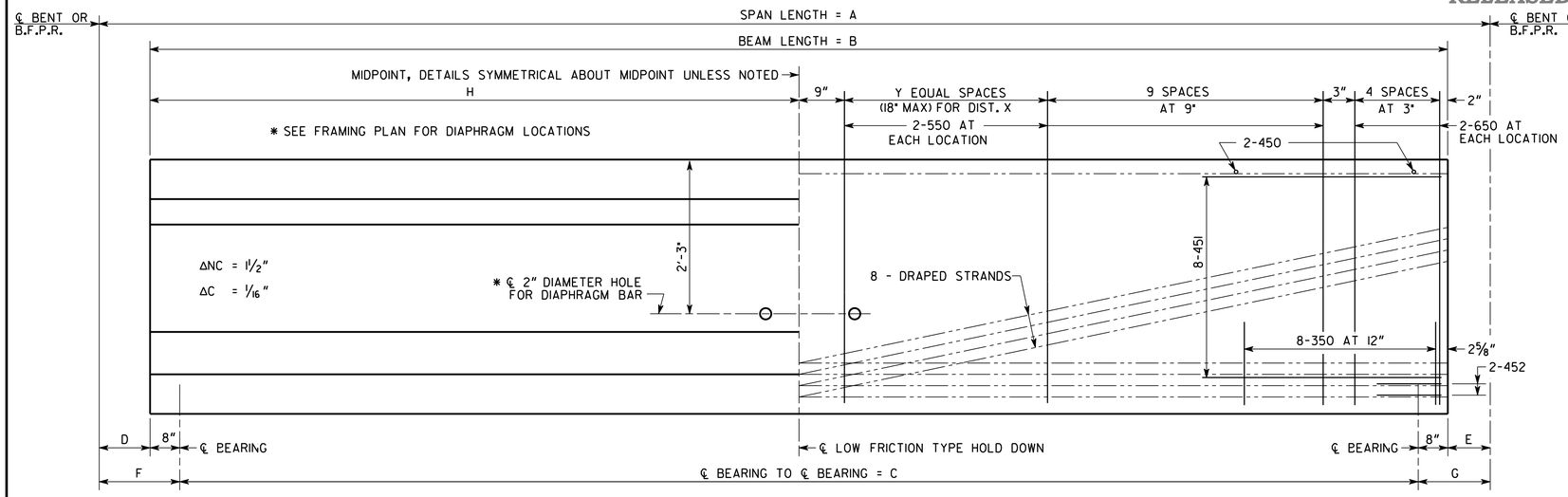
DESIGNED JCW	CHECKED JPS/ANZ	REVIEWED DLC/WMD
DRAWN JCW/BSB	DESIGN GROUP SKG	APPROVED BFR

DATE
REVISIONS
BY

1 INCH WHEN PRINTED FULL SIZE

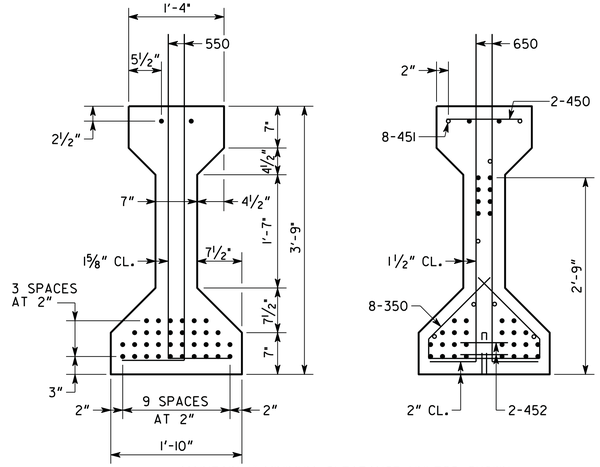
RELEASED FOR CONSTRUCTION: 08/02/2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	516	730



ELEVATION

NOTE: SEE BRIDGE SHEET 8 FOR BEAM DIMENSIONS

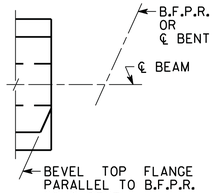


MAINTAIN 1" MINIMUM CLEARANCE UNLESS SHOWN.
• INDICATES 0.6" DIAMETER PRESTRESSED STRANDS.

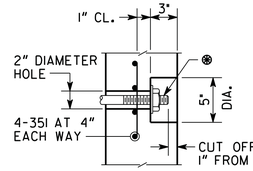
SECTION AT MIDPOINT SECTION AT END

NOTES

1. BEAMS SHALL BE MAINTAINED IN AN UPRIGHT POSITION AT ALL TIMES AND SHALL BE PICKED UP WITHIN 5'-6" FROM THEIR ENDS. DISREGARDING THIS REQUIREMENT COULD LEAD TO COLLAPSE OF THE BEAM. PICK-UPS SHALL BE EMBEDDED TO WITHIN 4" OF THE BOTTOM OF THE BEAM. DETAILS OF PICK-UPS SHALL BE INCLUDED IN THE SHOP DRAWINGS.
2. CHAMFER EDGES OF BEAMS ½" OR ¾".
3. HORIZONTAL DIMENSIONS ARE IN PLACE DIMENSIONS. THE BEAM LENGTH INCLUDES THE ⅛" EPOXY MORTAR AT EACH END. SHOP DRAWINGS SHALL ADJUST HORIZONTAL DIMENSIONS FOR GRADE AND FABRICATION EFFECTS SUCH AS SHRINKAGE AND ELASTIC SHORTENING.
4. AT ℄ BEARING, FORM A 1½" DIAMETER X 7" DEEP HOLE AT THE FIXED ENDS AND A 4" X 1½" X 7" DEEP SLOT AT THE EXPANSION ENDS FOR A 1¼" DIAMETER SMOOTH DOWEL. SEE PLAN AND ELEVATION SHEET FOR LOCATION OF FIXED AND EXPANSION ENDS.
5. TOPS OF BEAMS SHALL BE ROUGH FLOATED AT APPROXIMATELY THE TIME OF INITIAL SET. ENTIRE TOP SHALL BE SCRUBBED TRANSVERSELY WITH A COARSE BRUSH TO REMOVE ALL LAITANCE AND TO PRODUCE A ROUGHENED SURFACE FOR BONDING TO THE SLAB. ROUGHENED SURFACE SHALL HAVE AN AMPLITUDE OF APPROXIMATELY ¼". CONCRETE FINS OR PROJECTIONS SHALL BE REMOVED TO PRODUCE A VERTICAL FACE AT THE EDGE OF THE BEAM.
6. NON-COMPOSITE DEAD LOAD DEFLECTION (ΔNC) AT THE MIDPOINT IS DUE TO THE WEIGHT OF THE SLAB, COPING, STAY-IN-PLACE FORMS.
7. COMPOSITE DEAD LOAD DEFLECTION (ΔC) AT THE MIDPOINT IS DUE TO THE WEIGHT OF BARRIER AND MEDIAN BARRIER.
8. STRANDS SHALL MEET ALL REQUIREMENTS OF ASTM A 416 GRADE 270.
9. PRESTRESSING DATA IS AS FOLLOWS:
   A. USE 36 - 0.6" DIAMETER LOW RELAXATION (A = 0.217 SQ IN) STRANDS. PRETENSION ALL STRANDS TO 43,943 LBS EACH.
   B. PRETENSIONED STRANDS SHALL BE RELEASED AFTER THE CONCRETE HAS REACHED A MINIMUM STRENGTH (f'_{ci}) OF 7,500 PSI.
   C. INCLUDING THE TOP STRANDS, THE TOTAL JACKING FORCE OF PRETENSIONING IS 1,581,948 LBS.
   D. INCLUDING THE TOP STRANDS, THE NET PRESTRESSING FORCE OF THE STRANDS AFTER ALL LOSSES IS 1,231,111 LBS.
10. CONCRETE STRENGTH (f'_c) = 9,000 PSI.
11. ALLOWABLE PSC BEAM TENSION = 285 PSI.



BEVEL DETAILS



⊛ DIAPHRAGM BAR SHALL BE A 1" DIAMETER PLAIN BAR, THREADED 5" ON EACH END, WITH ¼" X 3½" DIAMETER WASHERS AND HEX NUTS (ASTM A 709 GRADE 36).

TIGHTEN DIAPHRAGM BAR AS PER SUB-SECTION 507.3.05.C OF THE GEORGIA DOT SPECIFICATIONS.

AFTER EXCESS DIAPHRAGM BAR HAS BEEN CUT OFF, PAINT DIAPHRAGM BAR, WASHER, AND NUT EXPOSED IN RECESS WITH SPECIAL PROTECTIVE COATING NO. 2 P AS PER SECTION 535 OF THE GEORGIA DOT SPECIFICATIONS. AFTER PAINTING, FILL THE RECESS WITH AN APPROVED EPOXY GROUT.

GALVANIZING OF THE DIAPHRAGM BAR AS PER SUB-SECTION 865.2.01.B.12 OF THE GEORGIA DOT SPECIFICATIONS IS NOT REQUIRED.

RECESS DETAIL FOR DIAPHRAGM BAR ENDS

REINFORCEMENT

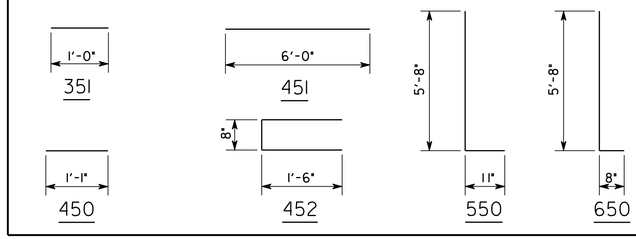
ALL BAR DIMENSIONS ARE OUT TO OUT.

AT THE TOP OF THE BEAM, BARS 550 AND 650 SHALL BE FIELD BENT OR SHOP BENT 90°, SUCH THAT THE HORIZONTAL LEG EXTENDS BETWEEN TOP AND BOTTOM MATS OF SLAB REINFORCEMENT.

SLIGHTLY SHIFT OR SLOPE BARS 451 TO AVOID CONFLICT WITH STRANDS.

BARS 350 MAY BE FABRICATED IN TWO PARTS BY LAPPING HORIZONTAL SECTION BY 1'-0" MINIMUM.

PLACE BARS 452 WITH OPEN ENDS AWAY FROM BEAM ENDS.



BRIDGE NO. 5

THE LPA GROUP
A UNIT OF GOSSELL DAVIS CORPORATION

THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

TYPE III PSC BEAM DETAILS
JIMMY DELOACH CONNECTOR N.B.
OVER TRIBUTARY TO ST. AUGUSTINE CREEK
CHATHAM COUNTY CSMSL-0008-00(690)

SCALE: NONE JULY 2013

DESIGNED JCW | CHECKED JPS/ANZ | REVIEWED DLC/WMD
DRAWN JCW/BSB | DESIGN GROUP SKG | APPROVED BFR

DRAWING NO. 35-045
BRIDGE SHEET 8 OF 16

REVISIONS | BY | DATE

1 INCH WHEN PRINTED FULL SIZE

RELEASED FOR CONSTRUCTION: 08/02/2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	517	730

TABLE OF DIMENSIONS

SPAN NO.	BEAM NO.	A	B	C	D	E	F	G	H	X	Y
1	1	82'-5 1/2"	80'-4 3/4"	79'-0 3/4"	1'-3 3/4"	9 1/8"	1'-11 3/4"	1'-5 1/8"	40'-2 3/8"	31'-3 3/8"	21
	2	82'-3 1/8"	80'-2 3/8"	78'-10 3/8"	1'-3 5/8"	9 1/8"	1'-11 5/8"	1'-5 1/8"	40'-1 1/4"	31'-2 1/4"	21
	3	82'-1 1/8"	80'-0 1/2"	78'-8 1/2"	1'-3 5/8"	9"	1'-11 5/8"	1'-5"	40'-0 1/4"	31'-1 1/4"	21
	4	81'-11 3/8"	79'-10 7/8"	78'-6 7/8"	1'-3 1/2"	9"	1'-11 1/2"	1'-5"	39'-11 3/8"	31'-0 3/8"	21
	5	81'-10"	79'-9 1/2"	78'-5 1/2"	1'-3 1/2"	9"	1'-11 1/2"	1'-5"	39'-10 3/4"	30'-11 3/4"	21
	6	81'-9"	79'-8 1/2"	78'-4 1/2"	1'-3 1/2"	9"	1'-11 1/2"	1'-5"	39'-10 1/4"	30'-11 1/4"	21
	7	81'-9"	79'-8 1/2"	78'-4 1/2"	1'-3 1/2"	9"	1'-11 1/2"	1'-5"	39'-10 1/4"	30'-11 1/4"	21
	8	81'-9"	79'-8 1/2"	78'-4 1/2"	1'-3 1/2"	9"	1'-11 1/2"	1'-5"	39'-10 1/4"	30'-11 1/4"	21
	9	81'-9"	79'-8 1/2"	78'-4 1/2"	1'-3 1/2"	9"	1'-11 1/2"	1'-5"	39'-10 1/4"	30'-11 1/4"	21
	10	81'-9"	79'-8 1/2"	78'-4 1/2"	1'-3 1/2"	9"	1'-11 1/2"	1'-5"	39'-10 1/4"	30'-11 1/4"	21
2	1	85'-2 1/2"	83'-6 1/2"	82'-2 1/2"	10"	10"	1'-6"	1'-6"	41'-9 1/4"	32'-10 1/4"	22
	2	84'-8 3/8"	83'-0 5/8"	81'-8 5/8"	9 7/8"	9 7/8"	1'-5 7/8"	1'-5 7/8"	41'-6 3/8"	32'-7 3/8"	22
	3	84'-2 1/2"	82'-6 7/8"	81'-2 7/8"	9 3/4"	9 3/4"	1'-5 3/4"	1'-5 3/4"	41'-3 1/2"	32'-4 1/2"	22
	4	83'-8 3/4"	82'-1 3/8"	80'-9 3/8"	9 5/8"	9 5/8"	1'-5 5/8"	1'-5 5/8"	41'-0 5/8"	32'-1 5/8"	22
	5	83'-3"	81'-7 7/8"	80'-3 7/8"	9 5/8"	9 5/8"	1'-5 5/8"	1'-5 5/8"	40'-10"	31'-11"	22
	6	82'-9 1/2"	81'-2 1/2"	79'-10 1/2"	9 1/2"	9 1/2"	1'-5 1/2"	1'-5 1/2"	40'-7 1/4"	31'-8 1/4"	22
	7	82'-3 3/8"	80'-8 5/8"	79'-4 5/8"	9 3/8"	9 3/8"	1'-5 3/8"	1'-5 3/8"	40'-4 3/8"	31'-5 3/8"	21
	8	81'-9 3/4"	80'-3 1/8"	78'-11 1/8"	9 1/4"	9 1/4"	1'-5 1/4"	1'-5 1/4"	40'-1 5/8"	31'-2 5/8"	21
	9	81'-4 1/2"	79'-10 1/8"	78'-6 1/8"	9 1/8"	9 1/8"	1'-5 1/8"	1'-5 1/8"	39'-11"	31'-0"	21
	10	80'-11 5/8"	79'-5 3/8"	78'-1 3/8"	9 1/8"	9 1/8"	1'-5 1/8"	1'-5 1/8"	39'-8 3/4"	30'-9 3/4"	21
3	1	83'-9 3/8"	81'-5 5/8"	80'-1 5/8"	10 3/8"	1'-5 3/8"	1'-6 3/8"	2'-1 3/8"	40'-8 7/8"	31'-9 7/8"	22
	2	83'-4 1/2"	81'-1"	79'-9"	10 1/4"	1'-5 1/4"	1'-6 1/4"	2'-1 1/4"	40'-6 1/2"	31'-7 1/2"	22
	3	82'-11 7/8"	80'-8 1/2"	79'-4 1/2"	10 1/8"	1'-5 1/8"	1'-6 1/8"	2'-1 1/8"	40'-4 1/4"	31'-5 1/4"	21
	4	82'-7 1/4"	80'-4 1/8"	79'-0 1/8"	10 1/8"	1'-5 1/8"	1'-6 1/8"	2'-1 1/8"	40'-2"	31'-3"	21
	5	82'-2 7/8"	79'-11 7/8"	78'-7 7/8"	10"	1'-5"	1'-6"	2'-1"	39'-11 7/8"	31'-0 7/8"	21
	6	81'-10 1/2"	79'-7 3/4"	78'-3 3/4"	10"	1'-4 7/8"	1'-6"	2'-0 7/8"	39'-9 7/8"	30'-10 7/8"	21
	7	81'-6 1/4"	79'-3 5/8"	77'-11 5/8"	9 7/8"	1'-4 3/4"	1'-5 7/8"	2'-0 3/4"	39'-7 7/8"	30'-8 7/8"	21
	8	81'-2 1/8"	78'-11 3/4"	77'-7 3/4"	9 3/4"	1'-4 5/8"	1'-5 3/4"	2'-0 5/8"	39'-5 7/8"	30'-6 7/8"	21
	9	80'-10 1/8"	78'-7 7/8"	77'-3 7/8"	9 3/4"	1'-4 1/2"	1'-5 3/4"	2'-0 1/2"	39'-4"	30'-5"	21
	10	80'-6 1/4"	78'-4 1/4"	77'-0 1/4"	9 5/8"	1'-4 3/8"	1'-5 5/8"	2'-0 3/8"	39'-2 1/8"	30'-3 1/8"	21

BRIDGE NO. 5

THE LPA GROUP
A UNIT OF MICHAEL BAKER CORPORATION

THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

TYPE III PSC BEAM DETAILS
JIMMY DELOACH CONNECTOR N.B.
OVER TRIBUTARY TO ST. AUGUSTINE CREEK
CHATHAM COUNTY CSMSL-0008-00(690)

DRAWING NO. 35-046
BRIDGE SHEET 9 OF 16

REVISIONS | DATE | BY

SCALE: NONE JULY 2013

DESIGNED JCW | CHECKED JPS/ANZ | REVIEWED DLC/WMD
DRAWN JCW/BSB | DESIGN GROUP SKG | APPROVED BFR

1 INCH WHEN PRINTED FULL SIZE

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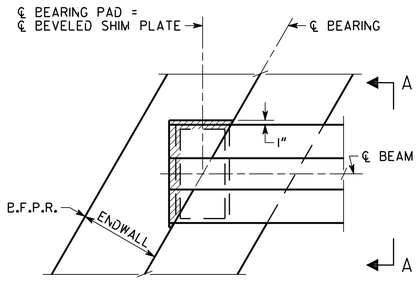
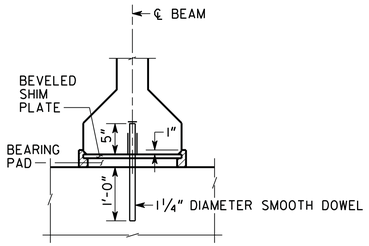
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	519	730



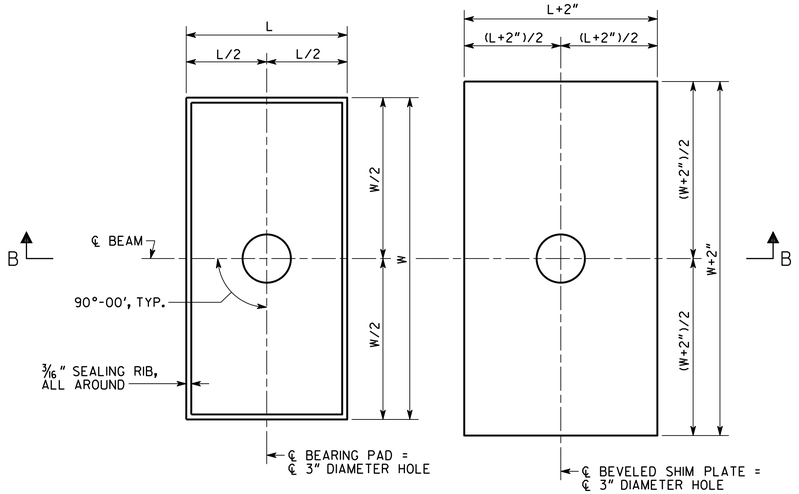
PLAN
BENT 1 SHOWN
BENT 4 SIMILAR



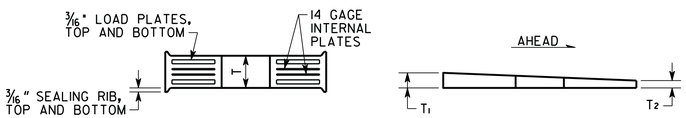
▨ PREFORMED FOAM JOINT FILLER SHALL BE IN ACCORDANCE WITH SUB-SECTION 833.2.10 OF THE GEORGIA DOT SPECIFICATIONS.

ENDWALL NOT SHOWN

SECTION A-A



PLAN



SECTION B-B

BEARING PAD BEVELED SHIM PLATE

NOTES

1) BEARING PADS HAVE BEEN DESIGNED ACCORDING TO AASHTO LRFD BRIDGE SPECIFICATIONS, SECTION 14.7.6 AND SHALL BE FURNISHED IN ACCORDANCE WITH AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS, SECTION 18.2, ELASTOMERIC BEARINGS, AND AASHTO M 251.

2) 1¼" DIAMETER SMOOTH DOWELS SHALL BE ASTM A 709 GRADE 50.

3) BEARING PADS SHALL BE MADE OF 60 DUROMETER HARDNESS NEOPRENE, GRADE 2 OR HIGHER.

4) 3" DIAMETER HOLE IN BEARING PADS MAY BE FORMED OR DRILLED.

5) BEARING PADS SHALL HAVE ¼" COVER ON THE TOP, BOTTOM, AND SIDES AND AROUND THE HOLE.

6) 3/16" LOAD PLATES AND 12 GAGE INTERNAL PLATE(S) (IF REQUIRED) SHALL BE ASTM A 709 GRADE 36 OR ASTM A 1011 GRADE 36.

7) NUMBER OF INTERNAL PLATES SHOWN FOR ILLUSTRATION PURPOSES ONLY. THE NUMBER OF INTERNAL PLATE(S) SPECIFIED SHALL BE EQUALLY SPACED BETWEEN LOAD PLATES.

8) USE OF 1½° MOLD DRAFT IS OPTIONAL.

9) BEVELED SHIM PLATES SHALL BE ASTM A 709 GRADE 36 AND SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A 123.

BENT	BEAM	BEARING PADS								BEVELED SHIM PLATES	
							DESIGN LOADS (KIPS)				
		W	L	T	NUMBER OF INTERNAL PLATE(S)	DESIGN SHEAR DEFLECTION	DEAD LOAD	LIVE LOAD (NO IMPACT)	DEAD LOAD + LIVE LOAD	T1	T2
1	1	18"	11"	2 7/8"	3	0.56"	101	97	198	½"	¼"
	2	18"	11"	2 7/8"	3	0.56"	101	97	198	½"	¼"
	3	18"	11"	2 7/8"	3	0.56"	101	97	198	3/8"	¼"
	4-10	18"	11"	2 7/8"	3	0.56"	101	97	198	NA	NA
2 BK	1	18"	11"	2 7/8"	3	0.56"	101	97	198	½"	¼"
	2	18"	11"	2 7/8"	3	0.56"	101	97	198	½"	¼"
	3	18"	11"	2 7/8"	3	0.56"	101	97	198	3/8"	¼"
	4-10	18"	11"	2 7/8"	3	0.56"	101	97	198	NA	NA
2 AH - 4	1-10	18"	11"	2 7/8"	3	0.56"	101	97	198	NA	NA

BRIDGE NO. 5

THE LPA GROUP
A UNIT OF MICHAEL BAKER CORPORATION
THE LPA GROUP INCORPORATED
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3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

DATE | REVISIONS | BY

BEARING PAD DETAILS
JIMMY DELOACH CONNECTOR
OVER TRIBUTARY TO ST. AUGUSTINE CREEK
CHATHAM COUNTY CSMSL-0008-00(690)

DRAWING NO. 35-047
BRIDGE SHEET 10 OF 16

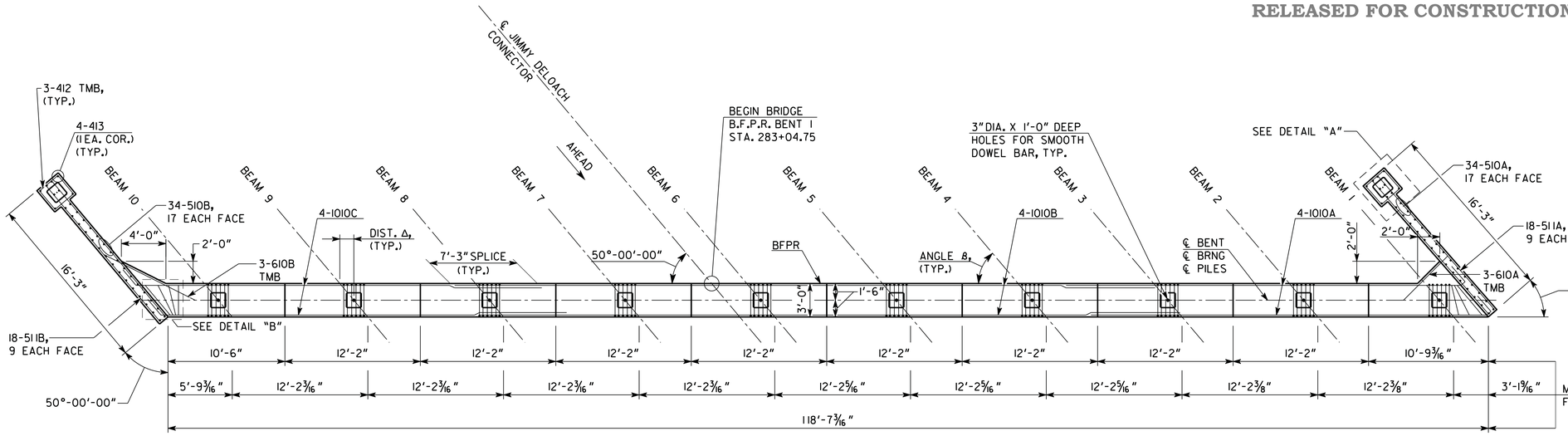
SCALE: NONE JULY 2013

DESIGNED JCW | CHECKED JPS/ANZ | REVIEWED DLC/WMD
DRAWN JCW/BSB | DESIGN GROUP SKG | APPROVED BFR

1 INCH WHEN PRINTED FULL SIZE

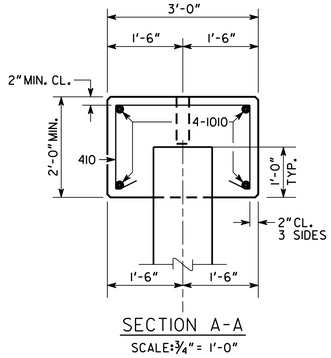
RELEASED FOR CONSTRUCTION: 08/02/2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	519	730

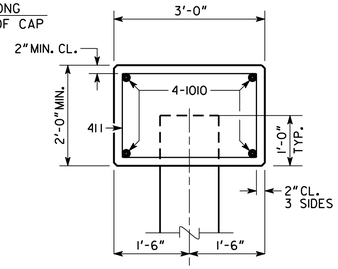


	BEAM 1	BEAM 2	BEAM 3	BEAM 4	BEAM 5	BEAM 6-10
Δ	1'-3 7/16"	1'-3 5/16"	1'-3 1/4"	1'-3 3/16"	1'-3 1/8"	1'-3 1/8"
ß	49°-25'-00.3"	49°-34'-46.0"	49°-43'-07.2"	49°-50'-06.0"	49°-55'-42.2"	50°-00'-00"

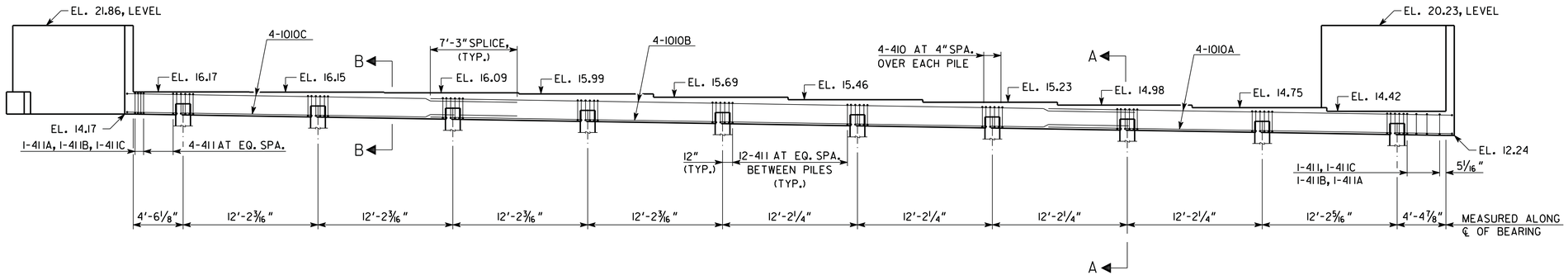
PLAN - BENT 1
SCALE: 3/16" = 1'-0"



SECTION A-A
SCALE: 3/4" = 1'-0"



SECTION B-B
SCALE: 3/4" = 1'-0"

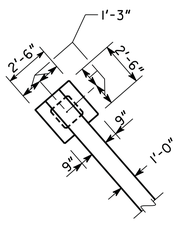


ELEVATION - BENT 1
(LOOKING BACK)
SCALE: 3/16" = 1'-0"

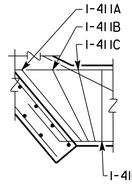
PLAN DRIVING OBJECTIVE

ALL PILES SHALL BE DRIVEN TO A DRIVING RESISTANCE OF 326 TONS AFTER A MINIMUM TIP ELEVATION OF -23.00 IS ACHIEVED.

ALL PILES SHALL BE 16" SQ. PSC



DETAIL "A"
NOT TO SCALE



NOTE: MIRROR DETAIL FOR OPPOSITE END OF BENT

DETAIL "B"
NOT TO SCALE

NOTES:

1. MAINTAIN 2" CLEARANCE ON ALL REINFORCEMENT UNLESS OTHERWISE NOTED.
2. POUR WINGWALLS MONOLITHICALLY WITH THE CAP.
3. SEE GEORGIA STANDARD 9037 FOR DRAINAGE DETAILS AT END BENT.
4. WINGWALL PILES NOT SHOWN IN ELEVATION.
5. BOTTOM OF WINGWALLS ARE LEVEL.
6. PILES DESIGNED FOR A MAXIMUM FACTORED AXIAL LOAD OF 173 TONS.

SUBSTRUCTURE QUANTITIES	
ITEM	BENT 1
CY CLASS AA CONCRETE	39.4
LB BAR REINF STEEL	4,271

BRIDGE NO. 5

THE LPA GROUP
A UNIT OF GENERAL DATA CORPORATION

THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

END BENT 1 DETAILS
JIMMY DELOACH CONNECTOR
OVER TRIBUTARY TO ST. AUGUSTINE CREEK
CHATHAM COUNTY CSMSL-0008-00(690)

SCALE: AS SHOWN JULY 2013

DRAWING NO. 35-048
BRIDGE SHEET 11 OF 16

REVISIONS | DATE | BY

DESIGNED JCW | CHECKED JPS/ANZ | REVIEWED DLC/WMD
DRAWN JCW/BSB | DESIGN GROUP SKG | APPROVED BFR

1 INCH WHEN PRINTED FULL SIZE

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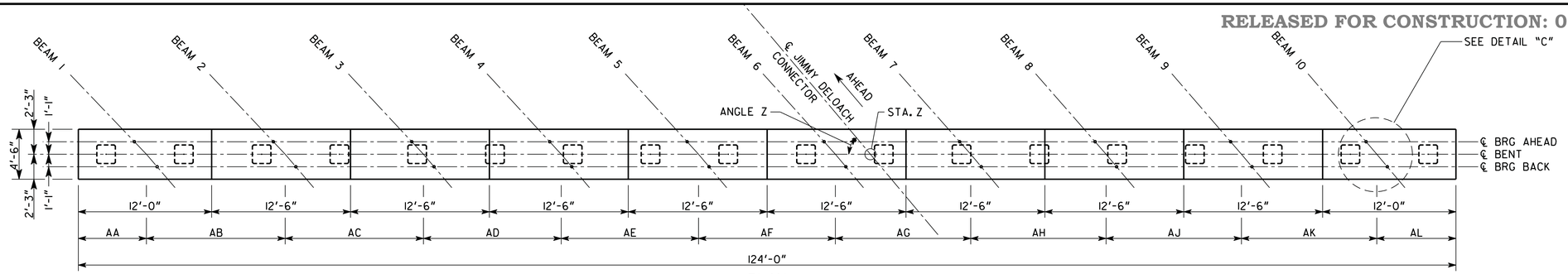
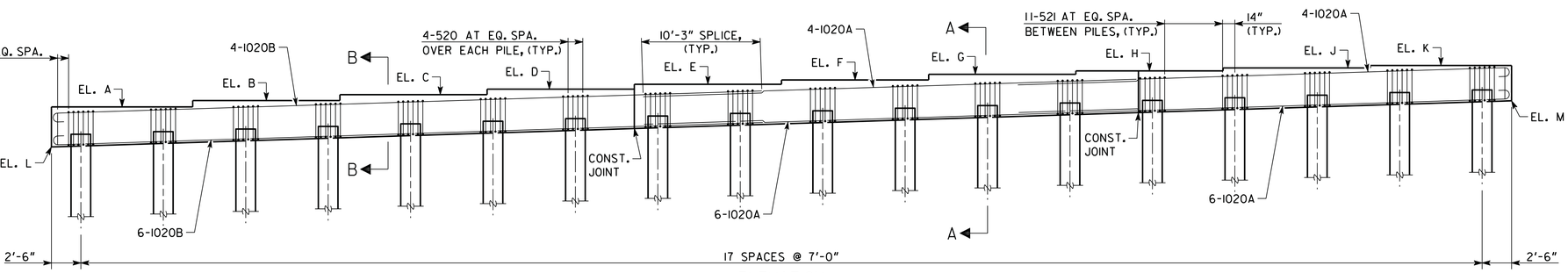
RELEASED FOR CONSTRUCTION: 08/02/2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	520	730



PLAN

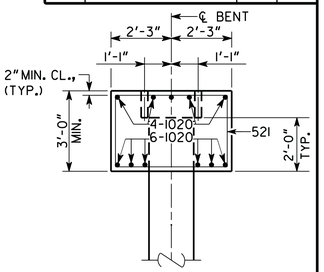
SCALE: 3/16" = 1'-0"



ELEVATION

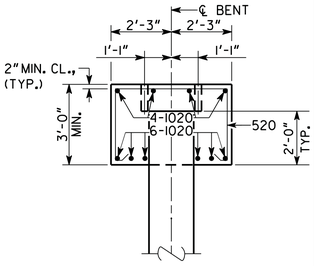
LOOKING AHEAD

SCALE: 3/16" = 1'-0"



SECTION A-A

SCALE: 3/4" = 1'-0"



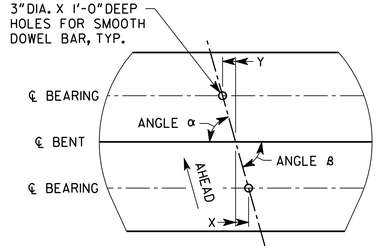
SECTION B-B

SCALE: 3/4" = 1'-0"

	TABLE OF ELEVATIONS													
	STA. Z	ANGLE Z	A	B	C	D	E	F	G	H	J	K	L	M
BENT 2	283+86.50	50°-00'-00"	12.94	13.48	13.98	14.44	14.86	15.23	15.71	16.01	16.27	16.48	9.56	13.48
BENT 3	284+68.25	47°-41'-43.0"	12.14	12.66	13.17	13.69	14.20	14.71	15.37	15.88	16.37	16.79	8.64	13.79

	TABLE OF BEAM SPACING										
	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AK	AL
BENT 2	6'-1 9/16"	12'-5 7/8"	12'-5 3/8"	12'-4 13/16"	12'-4 5/16"	12'-3 13/16"	12'-2 3/16"	12'-2 3/16"	12'-2 3/16"	12'-2 3/16"	7'-1 1/2"
BENT 3	3'-5 5/8"	13'-2 3/4"	13'-2"	13'-1 5/16"	13'-0 11/16"	13'-0"	12'-11 7/16"	12'-10 13/16"	12'-10 3/16"	12'-9 5/8"	3'-5 9/16"

	TABLE OF VARIABLES FOR DETAIL "A"							
	BENT 2				BENT 3			
	ß	X	α	Y	ß	X	α	Y
BEAM 1	49°-25'-00.3"	11 1/8"	46°-16'-02.3"	1'-0 7/16"	46°-16'-02.3"	1'-0 7/16"	45°-04'-19.2"	1'-0 15/16"
BEAM 2	49°-34'-46.0"	11 1/16"	46°-37'-34.7"	1'-0 5/16"	46°-37'-34.7"	1'-0 5/16"	45°-21'-04.6"	1'-0 13/16"
BEAM 3	49°-43'-07.2"	11"	46°-58'-59.9"	1'-0 1/8"	46°-58'-59.9"	1'-0 1/8"	45°-37'-35.4"	1'-0 3/4"
BEAM 4	49°-50'-06.0"	11"	47°-20'-15.6"	1'-0"	47°-20'-15.6"	1'-0"	45°-53'-52.0"	1'-0 5/8"
BEAM 5	49°-55'-42.2"	10 15/16"	47°-41'-27.9"	11 13/16"	47°-41'-27.9"	11 13/16"	46°-09'-54.8"	1'-0 1/2"
BEAM 6	50°-00'-00"	10 15/16"	48°-02'-30.6"	11 11/16"	48°-02'-30.6"	11 11/16"	46°-25'-44.1"	1'-0 3/8"
BEAM 7	50°-00'-00"	10 15/16"	48°-26'-20.7"	11 1/2"	48°-26'-20.7"	11 1/2"	46°-41'-20.2"	1'-0 1/4"
BEAM 8	50°-00'-00"	10 15/16"	48°-48'-53.0"	11 3/8"	48°-48'-53.0"	11 3/8"	46°-56'-43.5"	1'-0 1/8"
BEAM 9	50°-00'-00"	10 15/16"	49°-10'-05.2"	11 1/4"	49°-10'-05.2"	11 1/4"	47°-11'-54.2"	1'-0 1/16"
BEAM 10	50°-00'-00"	10 15/16"	49°-29'-59.4"	11 1/8"	49°-29'-59.4"	11 1/8"	47°-26'-52.6"	11 15/16"



DETAIL "C"

NOT TO SCALE

SUBSTRUCTURE QUANTITIES		
ITEM	BENT 2	BENT 3
CY CLASS AA CONCRETE	67.0	64.1
LB BAR REINF. STEEL	10,105	10,105

NOTES:

1. MAINTAIN 2" CLEARANCE ON ALL REINFORCEMENT UNLESS OTHERWISE NOTED.
2. PILES ARE DESIGNED FOR A MAXIMUM FACTORED AXIAL LOAD OF 149 TONS.

PLAN DRIVING OBJECTIVE

ALL PILES SHALL BE DRIVEN TO A DRIVING RESISTANCE OF 230 TONS AFTER A MINIMUM TIP ELEVATION OF -27.00 IS ACHEIVED.

ALL PILES SHALL BE 20" SQ. PSC.

BRIDGE NO. 5

THE LPA GROUP
A UNIT OF GENERAL DATA CORPORATION
THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA

DEPARTMENT OF TRANSPORTATION

ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

INTERMEDIATE BENT DETAILS
JIMMY DELOACH CONNECTOR
OVER TRIBUTARY TO ST. AUGUSTINE CREEK
CHATHAM COUNTY CSMSL-0008-00(690)

DRAWING NO.	SCALE: AS SHOWN	JULY 2013
35-049		
BRIDGE SHEET 12 OF 16	DESIGNED JCW / DRAWN JCW/BSB	CHECKED JPS/ANZ / DESIGN GROUP SKG / REVIEWED DLC/WMD / APPROVED BFR

REVISIONS | DATE | BY

1 INCH WHEN PRINTED FULL SIZE

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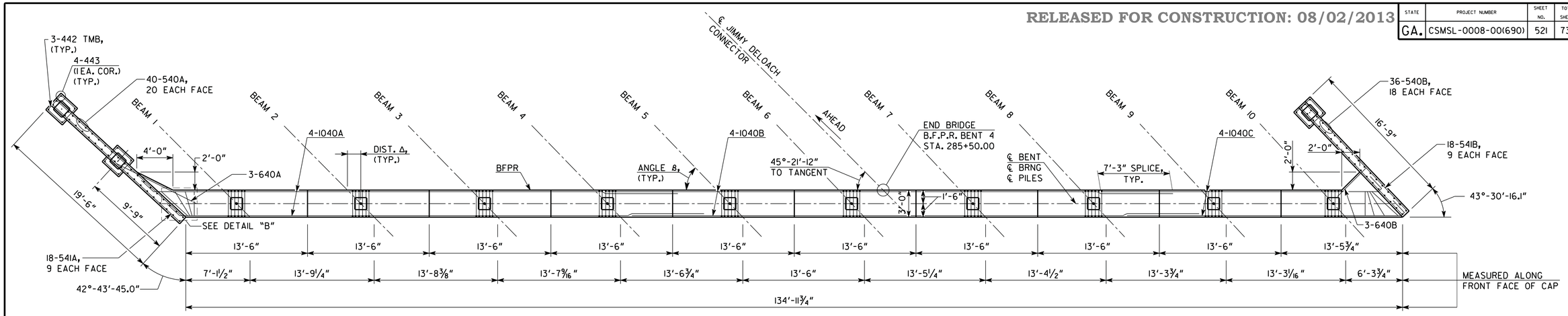
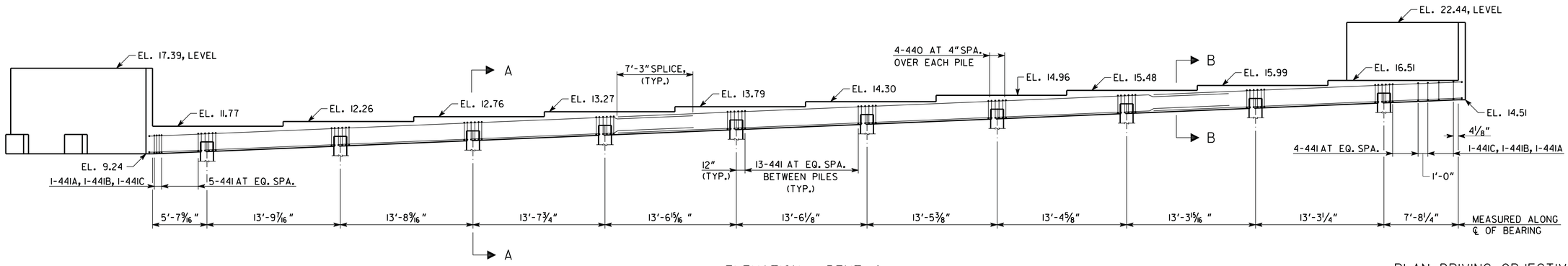
RELEASED FOR CONSTRUCTION: 08/02/2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	521	730

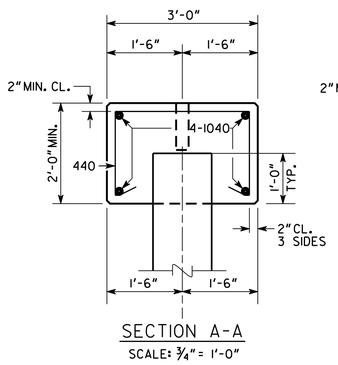


	BEAM 1	BEAM 2	BEAM 3	BEAM 4	BEAM 5	BEAM 6	BEAM 7	BEAM 8	BEAM 9	BEAM 10
Δ	1'-5¹⁵⁄₁₆"	1'-5¾"	1'-5⅝"	1'-5⁷⁄₁₆"	1'-5⅜"	1'-5⅛"	1'-5"	1'-4¹³⁄₁₆"	1'-4¹¹⁄₁₆"	1'-4½"
β	45°-04'-19.2"	45°-21'-04.6"	45°-37'-35.4"	45°-53'-52.0"	46°-09'-54.8"	46°-25'-44.1"	46°-41'-20.2"	46°-56'-43.5"	47°-11'-54.2"	47°-26'-52.6"

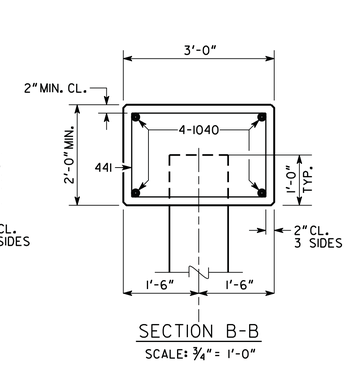
PLAN - BENT 4
SCALE: 3⁄16" = 1'-0"



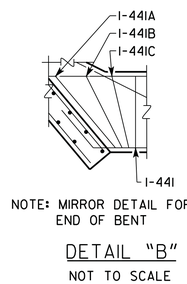
ELEVATION - BENT 4
(LOOKING AHEAD)
SCALE: 3⁄16" = 1'-0"



SECTION A-A
SCALE: ¾" = 1'-0"

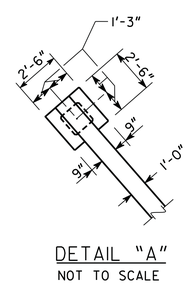


SECTION B-B
SCALE: ¾" = 1'-0"



NOTE: MIRROR DETAIL FOR OPPOSITE END OF BENT

DETAIL "B"
NOT TO SCALE



DETAIL "A"
NOT TO SCALE

PLAN DRIVING OBJECTIVE

ALL PILES SHALL BE DRIVEN TO A DRIVING RESISTANCE OF 300 TONS AFTER A MINIMUM TIP ELEVATION OF -32.00 IS ACHIEVED.

ALL PILES SHALL BE 16" SQ. PSC

BRIDGE NO. 5

NOTES:

1. MAINTAIN 2" CLEARANCE ON ALL REINFORCEMENT UNLESS OTHERWISE NOTED.
2. POUR WINGWALLS MONOLITHICALLY WITH THE CAP.
3. SEE GEORGIA STANDARD 9037 FOR DRAINAGE DETAILS AT END BENT.
4. WINGWALL PILES NOT SHOWN IN ELEVATION.
5. BOTTOM OF WINGWALLS ARE LEVEL.
6. PILES DESIGNED FOR A MAXIMUM FACTORED AXIAL LOAD OF 173 TONS.

SUBSTRUCTURE QUANTITIES	
ITEM	BENT 4
CY CLASS AA CONCRETE	44.7
LB BAR REINF STEEL	5,122

THE LPA GROUP
A UNIT OF GENSLER DESIGN CORPORATION
THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
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GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

END BENT 4 DETAILS
JIMMY DELOACH CONNECTOR
OVER TRIBUTARY TO ST. AUGUSTINE CREEK
CHATHAM COUNTY CSMSL-0008-00(690)

DRAWING NO. 35-050
BRIDGE SHEET 13 OF 16

REVISIONS | BY | DATE

SCALE: AS SHOWN JULY 2013

DESIGNED JCW | CHECKED JPS/ANZ | REVIEWED DLC/WMD
DRAWN JCW/BSB | DESIGN GROUP SKG | APPROVED BFR

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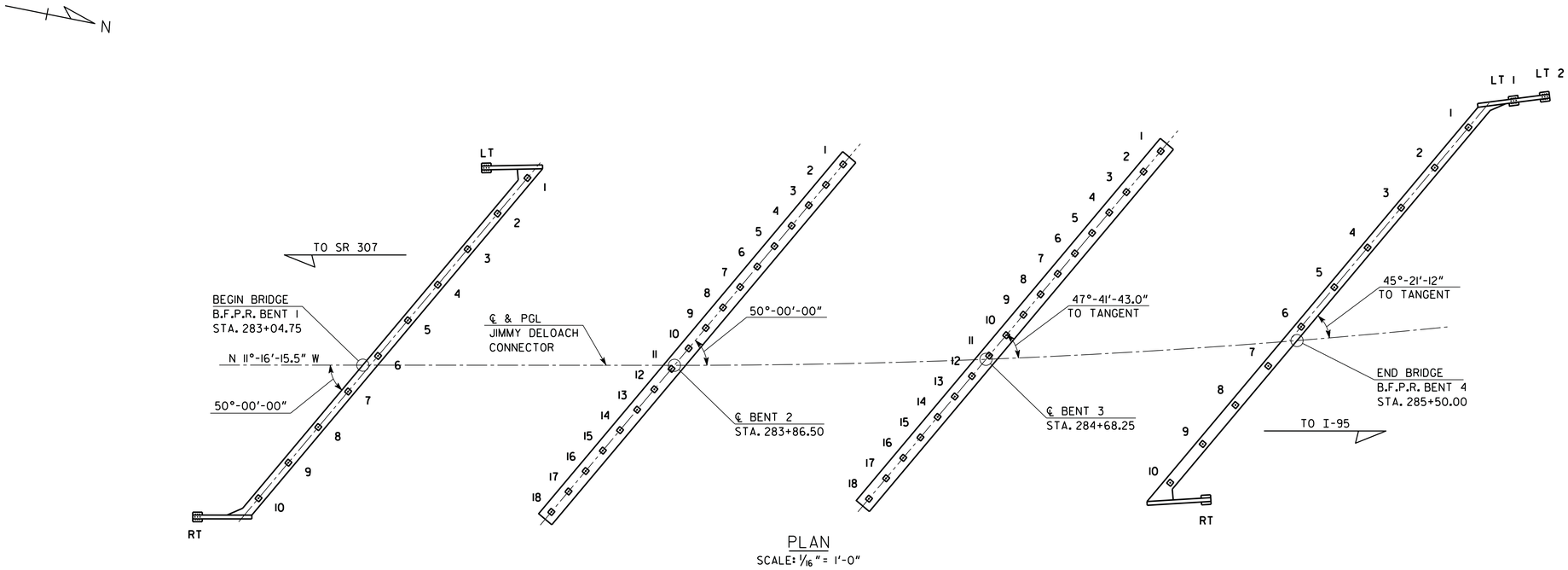
RELEASED FOR CONSTRUCTION: 08/02/2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	522	730



PLAN
SCALE: 1/16" = 1'-0"

AS-BUILT FOUNDATION DATA		
BENT	PILE NO.	PILE TIP ELEVATION
1	LT	
	1	
	2	
	3	
	4	
	5	
	6	
	7	
	8	
	9	
	10	
	RT	

AS-BUILT FOUNDATION DATA		
BENT	PILE NO.	PILE TIP ELEVATION
2	1	
	2	
	3	
	4	
	5	
	6	
	7	
	8	
	9	
	10	
	11	
	12	
	13	
	14	
	15	
	16	
	17	
	18	

AS-BUILT FOUNDATION DATA		
BENT	PILE NO.	PILE TIP ELEVATION
3	1	
	2	
	3	
	4	
	5	
	6	
	7	
	8	
	9	
	10	
	11	
	12	
	13	
	14	
	15	
	16	
	17	
	18	

AS-BUILT FOUNDATION DATA		
BENT	PILE NO.	PILE TIP ELEVATION
4	LT 1	
	LT 2	
	1	
	2	
	3	
	4	
	5	
	6	
	7	
	8	
	9	
	10	
	RT	

NOTE: THIS "AS-BUILT FOUNDATION" INFORMATION SHEET IS TO BE FILLED IN BY THE PROJECT ENGINEER AND THE ENTIRE SHEET FORWARDED TO THE BRIDGE OFFICE UPON COMPLETION OF PILE DRIVING FOR POSTING TO THE PLANS AS A PERMANENT RECORD OF THE BRIDGE CONSTRUCTION.

PROJECT ENGINEER DATE

( )
AREA CODE TELEPHONE NUMBER

BRIDGE NO. 5

THE LPA GROUP
A UNIT OF GENERAL DATA CORPORATION
THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
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GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

AS BUILT FOUNDATION DETAILS
JIMMY DELOACH CONNECTOR
OVER TRIBUTARY TO ST. AUGUSTINE CREEK
CHATHAM COUNTY CSMSL-0008-00(690)

DRAWING NO. 35-051
BRIDGE SHEET 14 OF 16

SCALE: AS SHOWN JULY 2013

DESIGNED	CHECKED	REVIEWED
JCW	JPS/ANZ	DLC/WMD
DRAWN	DESIGN GROUP	APPROVED
JCW/BSB	SKG	BFR

REVISIONS BY DATE

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RELEASED FOR CONSTRUCTION: 08/02/2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	523	730

LOCATION	NO. OF LOC.	MARK	LENGTH FT.	LENGTH IN.	NO. BARS REQ'D.	TYPE	A	G	B FT.	B IN.	C FT.	C IN.	D FT.	D IN.	E FT.	E IN.	F FT.	F IN.	H FT.	H IN.	J FT.	J IN.	K FT.	K IN.	N	θ
SUPERSTRUCTURE	1	400A	60- 0		256	1																				
SPAN 1		400B	23- 2		256	1																				
		400C	1- 2		15	1																				
		401A	19- 0		32	1																				
		401B	15- 11		40	1																				
		401C	19- 5		32	1																				
		404A	60- 0		10	1																				
		405	7- 6		117	31	4	4	0- 9		3- 0		3- 0													
		407	8- 5		36	1																				
		408	7- 5		108	25	4	4	0- 7		2- 9															
		500A	60- 0		197	3			59- 0		1- 0															
		500B	VARIES		197	3			VARIES		1- 0															
		500C	10- 1		2	16			3- 9		0- 8		0- 8		2- 2		2- 2									
		501A	59- 0		124	1																				
		501B	VARIES		124	1																				
		502A	7- 9		180	23			1- 3		3- 3		3- 3													101
		502B	8- 9		92	7			2- 3		3- 3		3- 3												79	101
		503A	6- 8		180	23			0- 6		3- 1		3- 1													79
		503B	6- 10		92	7			0- 8		3- 1		3- 1												101	79
		504	4- 6		78	46			2- 6		0- 10		0- 3		0- 8		0- 8									
		505A	60- 0		1	1																				
		505B	56- 11		1	1																				
		506	5- 8		160	3			4- 5		1- 3															
		506A	3- 10		72	6			1- 4		1- 3		0- 0		1- 3										45	45
		507A	56- 6		4	1																				
		508A	10- 2		18	1																				
		509	7- 9		36	1																				
		509B	8- 1		394	3			7- 1		1- 0															
		510	5- 0		5	1																				
		800A	42- 11		6	1																				
		801A	57- 6		2	1																				
		802A	11- 2		9	1																				
		900A	18- 7		40	16	6	6	4- 9		1- 0		1- 0		5- 6		5- 6									
		900B	21- 4		5	16	6	6	4- 9		1- 0		1- 0		5- 6		8- 3									
SUPERSTRUCTURE	1	400A	60- 0		256	1																				
SPAN 2		400B	23- 2		256	1																				
		401B	15- 11		40	1																				
		401D	16- 7		40	1																				
		401E	15- 9		40	1																				
		405	7- 6		234	31	4	4	0- 9		3- 0		3- 0													
		407	8- 5		36	1																				
		408	7- 5		108	25	4	4	0- 7		2- 9															
		500A	60- 0		197	3			59- 0		1- 0															
		500B	VARIES		197	3			VARIES		1- 0															
		501A	59- 0		124	1																				
		501B	VARIES		124	1																				
		502A	7- 9		188	23			1- 3		3- 3		3- 3													101
		502B	8- 9		92	7			2- 3		3- 3		3- 3												79	101
		503A	6- 8		188	23			0- 6		3- 1		3- 1													79
		503B	6- 10		92	7			0- 8		3- 1		3- 1												101	79
		507A	56- 6		4	1																				
		507B	59- 8		4	1																				
		508A	10- 2		18	1																				
		508B	10- 10		18	1																				
		509	7- 9		36	1																				
		509B	8- 1		394	3			7- 1		1- 0															
		510	5- 0		10	1																				

LOCATION	NO. OF LOC.	MARK	LENGTH FT.	LENGTH IN.	NO. BARS REQ'D.	TYP	A	G	B FT.	B IN.	C FT.	C IN.	D FT.	D IN.	E FT.	E IN.	F FT.	F IN.	H FT.	H IN.	J FT.	J IN.	K FT.	K IN.	N	θ
SUPERSTRUCTURE	1																									
SPAN 2 (CONT'D)		800A	42- 11		6	1																				
		800B	45- 0		6	1																				
		801A	57- 6		2	1																				
		801B	41- 11		2	1																				
		802A	11- 2		9	1																				
		802B	11- 10		9	1																				
SUPERSTRUCTURE	1																									
SPAN 3		400A	60- 0		256	1																				
		400B	23- 2		256	1																				
		401B	15- 11		40	1																				
		401F	16- 3		40	1																				
		401G	18- 2		32	1																				
		404A	60- 0		10	1																				
		404B	18- 2		5	1																				
		405	7- 6		117	31	4	4	0- 9		3- 0		3- 0													
		407	8- 5		36	1																				
		408	7- 5		108	25	4	4	0- 7		2- 9															
		500A	60- 0		197	3			59- 0		1- 0															
		500B	VARIES		197	3			VARIES		1- 0															
		501A	59- 0		124	1																				
		501B	VARIES		124	1																				
		502A	7- 9		180	23			1- 3		3- 3		3- 3													101
		502B	8- 9		92	7			2- 3		3- 3		3- 3												79	101
		503A	6- 8		180	23			0- 6		3- 1		3- 1													79
		503B	6- 10		92	7			0- 8		3- 1		3- 1												101	79
		504	4- 6		82	46			2- 6		0- 10		0- 3		0- 8		0- 8									
		505A	60- 0		1	1																				
		505C	32- 10		2	1																				
		506	5- 8		181	3			4- 5		1- 3															
		506A	3- 10		90	6			1- 4		1- 3		0- 0		1- 3										45	45
		507B	59- 8		4	1																				
		508B	10- 10		18	1																				
		509	7- 9		36	1																				
		509B	8- 1		394	3			7- 1		1- 0															
		510	5- 0		5	1																				
		800B	45- 0		6	1																				
		801B	41- 11		2	1																				
		802B	11- 10		9	1																				
		900C	24- 4		5	16	6	6	6- 3		1- 0		1- 0		5- 6		9- 9									
		900D	20- 1		35	16	6	6	6- 3		1- 0		1- 0		5- 6		5- 6									

BRIDGE NO. 5

THE LPA GROUP — A UNIT OF GENSLER DESIGN CORPORATION

THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
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GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

REINFORCEMENT SCHEDULE
JIMMY DELOACH CONNECTOR
OVER TRIBUTARY TO ST. AUGUSTINE CREEK
CHATHAM COUNTY CSMSL-0008-00(690)

DATE | REVISIONS | BY

SCALE: NONE — JULY 2013

DRAWING NO. 35-052
BRIDGE SHEET 15 OF 16

DESIGNED JCW | CHECKED JPS/ANZ | REVIEWED DLC/WMD
DRAWN JCW/BSB | DESIGN GROUP SKG | APPROVED BFR

1 INCH WHEN PRINTED FULL SIZE

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RELEASED FOR CONSTRUCTION: 08/02/2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	524	730

LOCATION	NO. OF LOC.	MARK	LENGTH FT.	LENGTH IN.	NO. BARS REQ'D.	TYPE	A	G	B FT.	B IN.	C FT.	C IN.	D FT.	D IN.	E FT.	E IN.	F FT.	F IN.	H FT.	H IN.	J FT.	J IN.	K FT.	K IN.	N	θ
SUBSTRUCTURE	1	410	6-	9	40	32	5	5	2-	8	1-	8	1-	8												
BENT 1		411	9-	5	113	25	4	4	2-	8	1-	8														
		411A	11-	1	2	25	4	4	3-	6	1-	8														
		411B	10-	7	2	25	4	4	3-	3	1-	8														
		411C	10-	1	2	25	4	4	3-	0	1-	8														
		412	9-	5	6	25	4	4	2-	2	2-	2														
		413	1-	8	8	1																				
		510A	7-	7	34	1																				
		510B	7-	4	34	1																				
		511A	15-	11	18	1																				
		610A	5-	8	3	1																				
		610B	9-	3	3	1																				
		1010A	39-	3	4	6			36-	11	0-	6	1-	10	0-	0									0	41
		1010B	60-	0	4	1																				
		1010C	38-	9	4	4			36-	11	1-	10														50
SUBSTRUCTURE	2	520	10-	5	72	32	5	5	4-	2	2-	8	2-	8												
BENTS 2 & 3		521	14-	8	195	25	4	4	4-	2	2-	8														
		1020A	43-	8	20	9	1		42-	1																
		1020B	60-	0	10	1																				
SUBSTRUCTURE	1	440	6-	9	40	32	5	5	2-	8	1-	8	1-	8												
BENT 4		441	9-	5	126	25	4	4	2-	8	1-	8														
		441A	11-	11	2	25	4	4	3-	11	1-	8														
		441B	11-	1	2	25	4	4	3-	6	1-	8														
		441C	10-	3	2	25	4	4	3-	1	1-	8														
		442	9-	5	9	25	4	4	2-	2	2-	2														
		443	1-	8	12	1																				
		540A	8-	1	40	1																				
		540B	7-	7	36	1																				
		541A	19-	2	18	1																				
		541B	16-	5	18	1																				
		640A	9-	11	3	1																				
		640B	4-	6	3	1																				
		1040A	47-	0	4	4			45-	2	1-	10														43
		1040B	60-	0	4	1																				
		1040C	47-	9	4	6			45-	2	0-	6	1-	10	0-	0									0	44

BRIDGE NO. 5

THE LPA GROUP
A UNIT OF GOSSELL DAVIS CORPORATION

THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

REINFORCEMENT SCHEDULE
JIMMY DELOACH CONNECTOR
OVER TRIBUTARY TO ST. AUGUSTINE CREEK
CHATHAM COUNTY CSMSL-0008-00(690)

DATE | REVISIONS | BY

DRAWING NO. 35-053
BRIDGE SHEET 16 OF 16

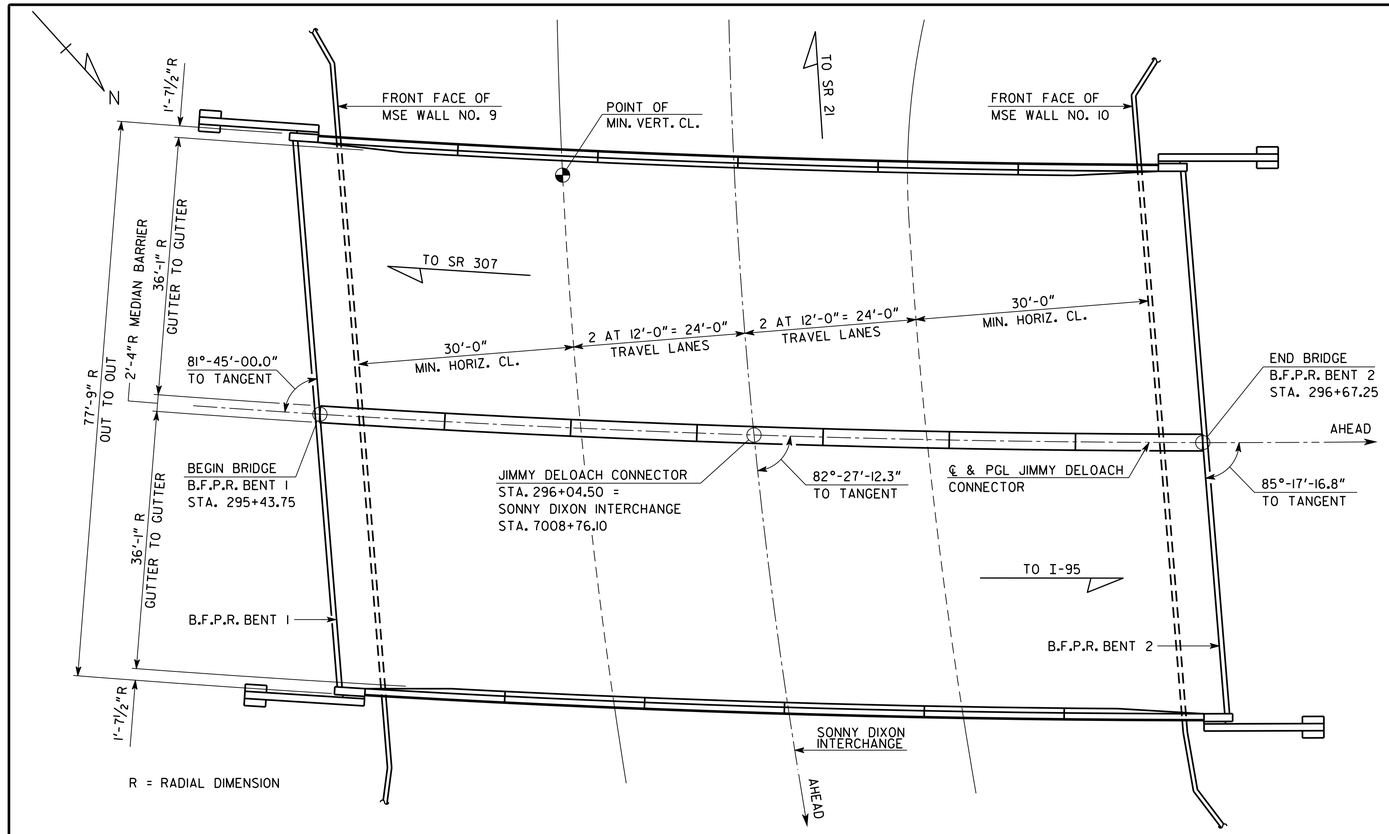
SCALE: NONE JULY 2013

DESIGNED JCW | CHECKED JPS/ANZ | REVIEWED DLC/WMD
DRAWN JCW/BSB | DESIGN GROUP SKG | APPROVED BFR

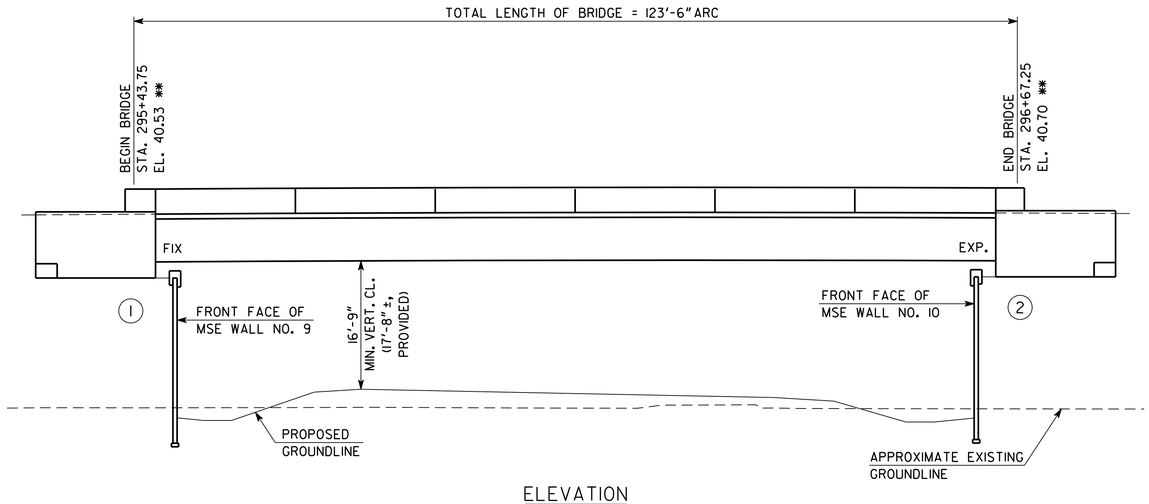
1 INCH WHEN PRINTED FULL SIZE

RELEASED FOR CONSTRUCTION: 08/02/2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	525	730



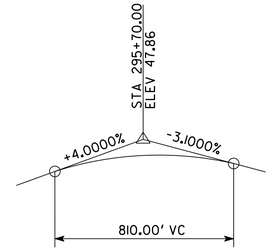
PLAN



ELEVATION

HORIZONTAL CURVE DATA
JIMMY DELOACH CONNECTOR

P.I. STA. 290+97.21
Δ = 39°-03'-35.5", LT.
D = 2°-51'-53.2"
L = 1363.45'
T = 709.41'
R = 2000.00'
E = 122.09'
S.E. = 4.86%
P.C. STA. = 283+87.80
P.C.C. STA. = 297+51.25

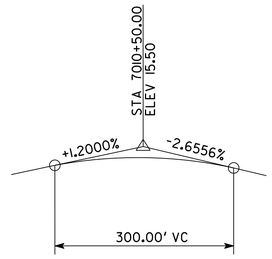


VERTICAL CURVE DATA
JIMMY DELOACH CONNECTOR

NOT TO SCALE

HORIZONTAL CURVE DATA
SONNY DIXON INTERCHANGE

P.I. STA. 7007+80.37
Δ = 57°-13'-46.2", LT.
D = 7°-38'-22.0"
L = 749.13'
T = 409.16'
R = 750.00'
E = 104.35'
S.E. = 5.87%
P.C. STA. = 7003+71.20
P.T. STA. = 7011+20.33



VERTICAL CURVE DATA
SONNY DIXON INTERCHANGE

NOT TO SCALE

NOTES

1. ** ALL STATIONS AND ELEVATIONS MEASURED AT INTERSECTION OF PROFILE GRADE LINE AND BFPR.
2. END BENT PILES NOT SHOWN.
3. ALL BENTS ARE PARALLEL.

P.I. NO. 0008690

BRIDGE NO. 6

THE LPA GROUP — THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

PLAN AND ELEVATION
JIMMY DELOACH CONNECTOR
OVER SONNY DIXON INTERCHANGE
CHATHAM COUNTY CSMSL-0008-00(690)

8.2.13
GEORGIA REGISTERED NO. 24722 PROFESSIONAL ENGINEER ROBERT W. BOWMAN

DRAWING NO.	BRIDGE SHEET
35-054	1 OF 11

SCALE: 1" = 10'-0" JULY 2013

DESIGNED	JCR	CHECKED	ANZ/AWB	REVIEWED	DLC/WMD
DRAWN	JCR	DESIGN GROUP	SKG	APPROVED	BFR

1 INCH WHEN PRINTED FULL SIZE

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RELEASED FOR CONSTRUCTION: 08/02/2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	526	730

BRIDGE CONSISTS OF

1 - 123'-6" BULB TEE, 72 IN, PSC BEAM SPAN ---------- SPECIAL DESIGN

2 - PSC PILE END BENTS ---------- SPECIAL DESIGN

4 - END POST AND GUARDRAIL ATTACHMENT DETAIL ------- GA. STD. 3054 (9-30-02)
3 - (L = 4'-0"; W = 1'-1"; H = 3'-6")
1 - (L = 4'-3"; W = 1'-1"; H = 3'-6")

SQUARE PRESTRESSED CONCRETE PILES ---------- SPECIAL DESIGN

BAR BENDING DETAILS ---------- GA. STD. 3901 (8-69)

TYPICAL FILL DETAIL AT END OF BRIDGE ---------- GA. STD. 9037 (9-99)

TRAFFIC DATA - JIMMY DELOACH CONNCETOR

TRAFFIC ---------- ADT = 23,360 (2012)
ADT = 30,880 (2032)

DESIGN SPEED ---------- 55 MPH

TRUCKS ---------- 60 %

24 HR TRUCKS ---------- 55 %

DIRECTIONAL ---------- 54 %

UTILITIES

NO UTILITIES ON BRIDGE

GENERAL NOTES

SPECIFICATIONS - GEORGIA STANDARD SPECIFICATIONS, 2001 EDITION, AND 2008 SUPPLEMENTAL SPECIFICATIONS AS MODIFIED BY CONTRACT DOCUMENTS.

SHOP DRAWINGS - SUBMIT SHOP DRAWINGS TO ENGINEER OF RECORD (EOR) FOR INITIAL REVIEW AND APPROVAL. ONCE APPROVED AND STAMPED BY EOR, EOR SHALL SUBMIT 6 STAMPED SETS TO THE GEORGIA DOT OFFICE OF BRIDGES AND STRUCTURES FOR REVIEW AND APPROVAL.

REINFORCING STEEL - PLACE AND TIE ALL REINFORCING STEEL IN ACCORDANCE WITH THE GEORGIA DOT SPECIFICATIONS. DO NOT WELD REINFORCING STEEL.

CHAMFER - CHAMFER ALL EXPOSED CONCRETE EDGES 3/4" UNLESS OTHERWISE NOTED.

PROTECTIVE PLATFORMS - PROVIDE PROTECTIVE PLATFORMS AT THIS SITE, SEE SECTION 510 OF THE GEORGIA DOT SPECIFICATIONS. MAINTAIN A MINIMUM VERTICAL CLEARANCE OF 16'-9" ABOVE SONNY DIXON INTERCHANGE.

TRAFFIC CONTROLS - SEE ROADWAY PLANS FOR TRAFFIC CONTROLS AND TRAFFIC CONTROL PAYMENT.

WAITING PERIOD - DO NOT BEGIN WORK AT BENTS 1 AND 2 UNTIL THE COMPLETED END FILLS ARE IN PLACE AND SETTLEMENT IS COMPLETE. ESTABLISH SETTLEMENT MONITORING POINTS AT EACH BRIDGE BENT LOCATION. SETTLEMENTS ARE TO BE READ BY A SURVEYOR AT LEAST TWICE WEEKLY. ONCE THE CUMULATIVE SETTLEMENT, OVER A PERIOD OF 3 WEEKS, DOES NOT EXCEED ¼ OF AN INCH, THE SETTLEMENT IS CONSIDERED TO HAVE CEASED.

GENERAL NOTES

PLAN DRIVING OBJECTIVE - SEE SUBSTRUCTURE DETAILS.

DYNAMIC PILE TESTING - PERFORM PILE TESTING USING THE PILE DRIVING ANALYZER (PDA) IN ACCORDANCE WITH SPECIAL PROVISION SECTION 523 ON EACH TEST PILE. NOTIFY THE GEOTECHNICAL BUREAU OF THE GEORGIA DOT OFFICE OF MATERIALS AT 404-608-4720 TWO WEEKS PRIOR TO DRIVING PILES.

WAVE EQUATION - PERFORM WAVE EQUATION ANALYSIS (WEAP) IN ACCORDANCE WITH SPECIAL PROVISION 520. PROVIDE RESULTS OF THE WEAP TO THE GEOTECHNICAL BUREAU OF THE GEORGIA DOT FOR REVIEW AND APPROVAL TWO WEEKS PRIOR TO DRIVING PILES.

PILING - PREDRILLING MAY BE NECESSARY AT BENT 2 TO ACHIEVE THE INDICATED PLAN DRIVING OBJECTIVE. THE EXTENT OF PREDRILLING SHALL BE TO ELEVATION 6. SEE SECTION 520 OF THE GEORGIA DOT SPECIFICATIONS.

TEST PILES - DRIVE TEST PILES AT THE FOLLOWING LOCATIONS:

ONE 18 IN SQ PSC X 83 FT AT BENT 1
ONE 18 IN SQ PSC X 83 FT AT BENT 2

DRIVING RESISTANCE - DETERMINE DRIVING RESISTANCE FOR PILES USING DYNAMIC PILE TESTING IN ACCORDANCE WITH SPECIAL PROVISION 520.

SMOOTH DOWEL BARS - PLACE SMOOTH DOWEL BARS IN FORMED 3" DIAMETER X 12" DEEP HOLES AND GROUT IN PLACE SIMILAR TO ANCHOR BOLTS, SEE SUB-SECTION 501.3.05.B.3 OF THE GEORGIA DOT SPECIFICATIONS. STIRRUPS MAY BE SHIFTED SLIGHTLY TO CLEAR FORMED HOLES.

ABUTMENT SOIL REINFORCING DEVICE INSERTS - INCLUDE THE COST OF FURNISHING AND INSTALLING INSERTS FOR SOIL REINFORCING DEVICES AT ABUTMENT IN THE OVERALL BID SUBMITTED.

FILL SETTLEMENT - PROTECT PILES DRIVEN AT BENTS 1 AND 2 FROM NEGATIVE SKIN FRICTION WHEN USED IN CONJUNCTION WITH MECHANICALLY STABILIZED EARTH WALLS, SEE SECTION 551 OF THE GEORGIA DOT SPECIFICATIONS. DRIVE PILES AT END BENTS BEFORE WALL LEVELING PADS ARE CONSTRUCTED.

GROOVED CONCRETE - GROOVE THE ENTIRE LENGTH OF THE BRIDGE TRANSVERSELY AS PER SUB-SECTION 500.3.05.T.9.C OF THE GEORGIA DOT SPECIFICATIONS.

RIDING QUALITY - THE FINISHED BRIDGE DECK AND APPROACH SLABS SHALL MEET THE RIDE QUALITY REQUIREMENTS AS SPECIFIED IN SUB-SECTION 500.3.06.E OF THE GEORGIA DOT SPECIFICATIONS FOR STATE ROUTES WITH FOUR LANES OR MORE.

WELDING - ALL WELDING ON GEORGIA DOT PROJECTS SHALL BE PERFORMED BY CERTIFIED WELDERS THAT HAVE IN THEIR POSSESSION A CURRENT WELDING CERTIFICATION CARD ISSUED BY THE OFFICE OF MATERIALS AND RESEARCH. USE ONLY E70XX (EXCLUDING E7014 AND E7024) LOW HYDROGEN ELECTRODES FOR MANUAL SHIELDED METAL ARC WELDING.

INCIDENTAL ITEMS - INCLUDE THE COST INCIDENTAL TO THE WORK THAT IS NOT SPECIFICALLY COVERED BY THE GEORGIA STANDARD SPECIFICATIONS, SUPPLEMENTAL SPECIFICATIONS AND/OR SPECIAL PROVISIONS IN THE OVERALL BID SUBMITTED. THIS INCLUDES THE COST OF WATERPROOFING, JOINT FILLERS, AND OTHER INCIDENTAL ITEMS NECESSARY TO COMPLETE THE WORK.

DESIGN BUILD PROJECT - THIS IS A DESIGN BUILD PROJECT AND QUANTITIES ARE PROVIDED FOR INFORMATION ONLY.

DESIGN DATA

SPECIFICATIONS ---------- AASHTO LRFD 5TH EDITION, 2010
(DESIGNED FOR SEISMIC PERFORMANCE ZONE 2)

TYPICAL HL-93 LOADING ---------- IMPACT ALLOWED

FUTURE PAVING ALLOWANCE ---------- 30 LBS PER SQ FT

CONCRETE: SUPERSTRUCTURE ---------- CLASS D, f'_c = 4,000 PSI
BARRIER ---------- CLASS D, f'_c = 4,000 PSI
PSC BEAMS ---------- CLASS AAA, f'_c = 8,500 PSI
PSC BEAM ALLOWABLE TENSION ---------- 277 PSI
SUBSTRUCTURE ---------- CLASS A, f'_c = 3,000 PSI

REINFORCEMENT STEEL: ---------- GRADE 60, f_y = 60,000 PSI

PRETENSIONING STRANDS: ---------- f_s = 270,000 PSI

SUMMARY OF QUANTITIES

PAY ITEM NUMBER	QUANTITY	UNIT	PAY ITEM
500-0100	935	SY	GROOVED CONCRETE
500-1011	LUMP	LS	SUPERSTR CONCRETE, CL D, BR NO - 6 (390)
500-2100	235	LF	CONCRETE BARRIER
500-3101	66	CY	CLASS A CONCRETE
507-9032	974	LF	PSC BEAMS, AASHTO, BULB TEE, 72 IN, BR NO - 6
511-1000	8115	LB	BAR REINF STEEL
511-3000	LUMP	LS	SUPERSTR REINF STEEL, BR NO - 6 (79924)
520-2218	1425	LF	PILING, PSC, 18 IN SQ
520-3218	2	EA	TEST PILE, PSC, 18 IN SQ
520-4218	1	EA	LOAD TEST, PSC, 18 IN SQ (IF REQD)

BRIDGE NO. 6

THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

GENERAL NOTES
JIMMY DELOACH CONNECTOR
OVER SONNY DIXON INTERCHANGE
CHATHAM COUNTY CSMSL-0008-00(690)

DRAWING NO. 35-055
BRIDGE SHEET 2 OF 11

SCALE: NONE JULY 2013

DESIGNED JCR | CHECKED ANZ/AWB | REVIEWED DLC/WMD
DRAWN JCR | DESIGN GROUP SKG | APPROVED BFR

DATE | REVISIONS | BY

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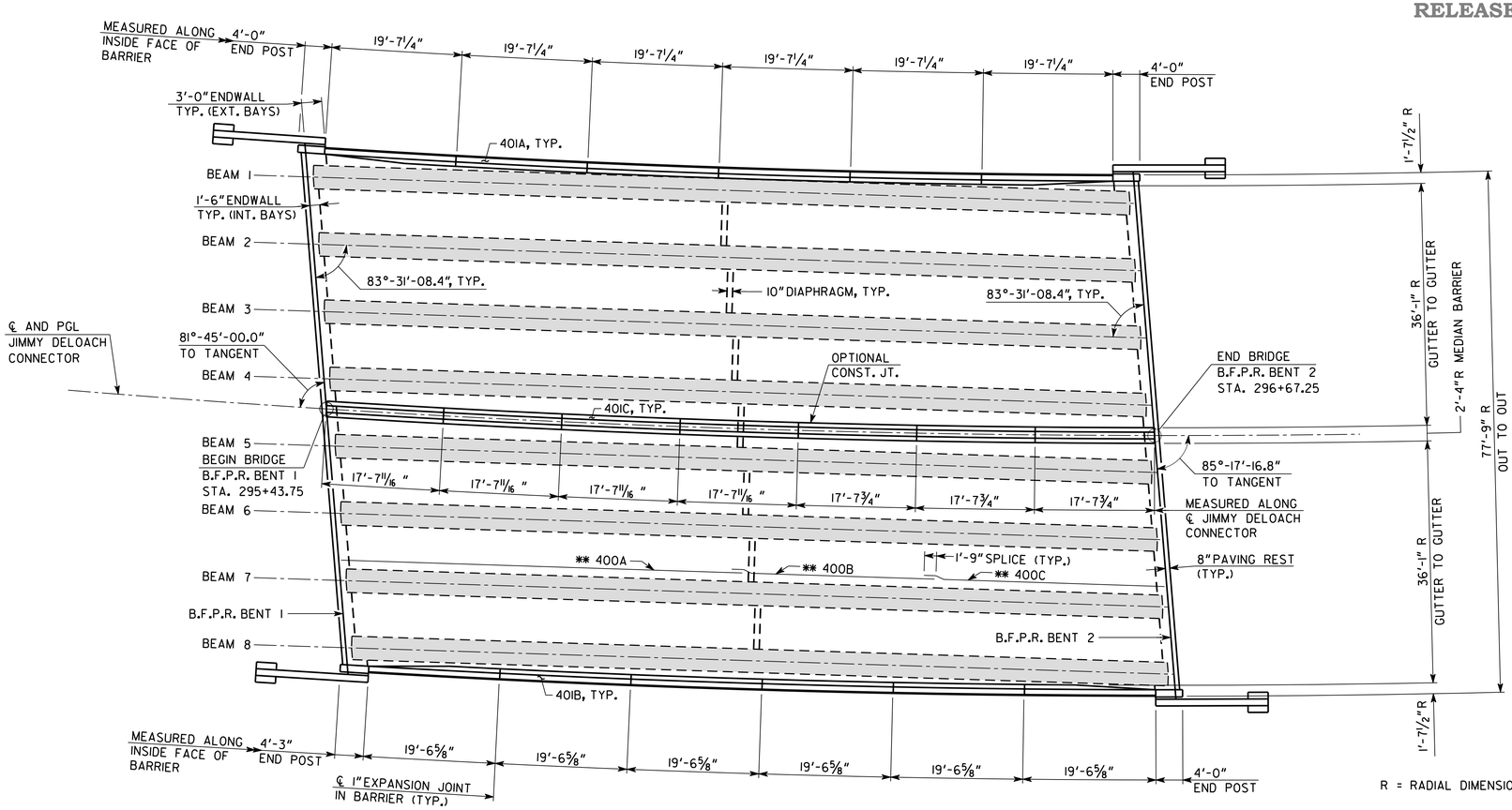
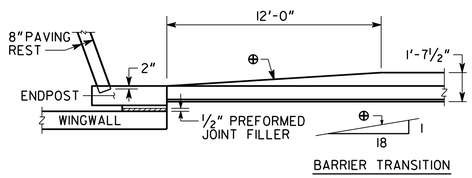
RELEASED FOR CONSTRUCTION: 08/02/2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	527	730



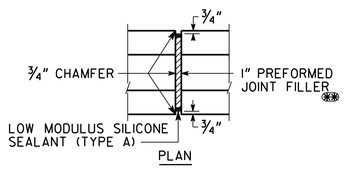
PLAN
SCALE: 1" = 10'-0"

R = RADIAL DIMENSION

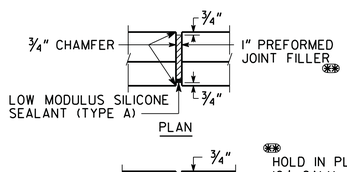


BARRIER TRANSITION

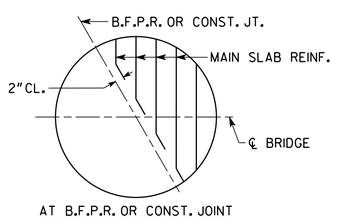
BARRIER TRANSITION DETAIL
NO SCALE



PLAN



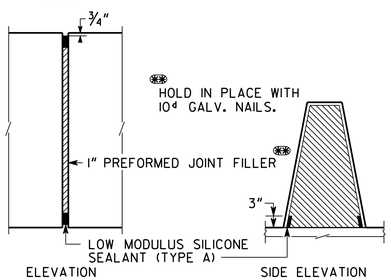
PLAN



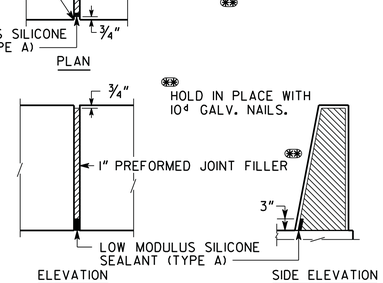
AT B.F.P.R. OR CONST. JOINT

BARS ARE DETAILED IN BAR DETAILS AS EQUIVALENT FULL LENGTH BARS.

BAR BENDING DETAILS AT SKEWED JOINTS
NO SCALE



DETAILS OF 1" EXPANSION JOINT IN MEDIAN
NO SCALE

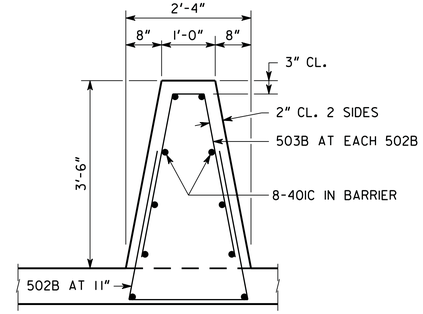


DETAILS OF 1" EXPANSION JOINT IN BARRIER
NO SCALE

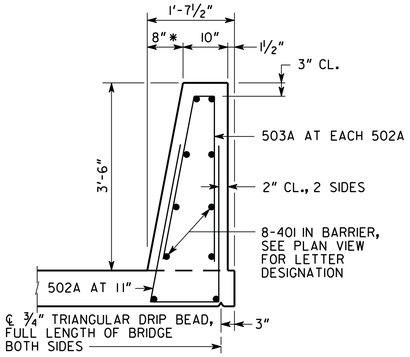
SUPERSTRUCTURE QUANTITIES	
ITEM	TOTAL
LUMP - SUPERSTR. CONCRETE, CU YDS., CLASS D	389.7
LUMP - SUPERSTR. REINF. STEEL, LBS.	79,924

NOTE: MAINTAIN 2" CLEARANCE ON ALL REINFORCEMENT UNLESS OTHERWISE NOTED.

** ALTERNATE 400A, 400B, AND 400C BARS ACROSS DECK TO STAGGER LAP LOCATION.



MEDIAN BARRIER DETAIL
NO SCALE



BARRIER DETAIL
NO SCALE

BRIDGE NO. 6

THE LPA GROUP
A UNIT OF CARDNO GRAY COMPANIES
THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

DECK PLAN
JIMMY DELOACH CONNECTOR
OVER SONNY DIXON INTERCHANGE
CHATHAM COUNTY CSMSL-0008-00(690)

SCALE: AS SHOWN JULY 2013

DESIGNED JCR | CHECKED ANZ/AWB | REVIEWED DLC/WMD
DRAWN JCR | DESIGN GROUP SKG | APPROVED BFR

DRAWING NO. 35-056
BRIDGE SHEET 3 OF 11

DATE | REVISIONS | BY

1 INCH WHEN PRINTED FULL SIZE

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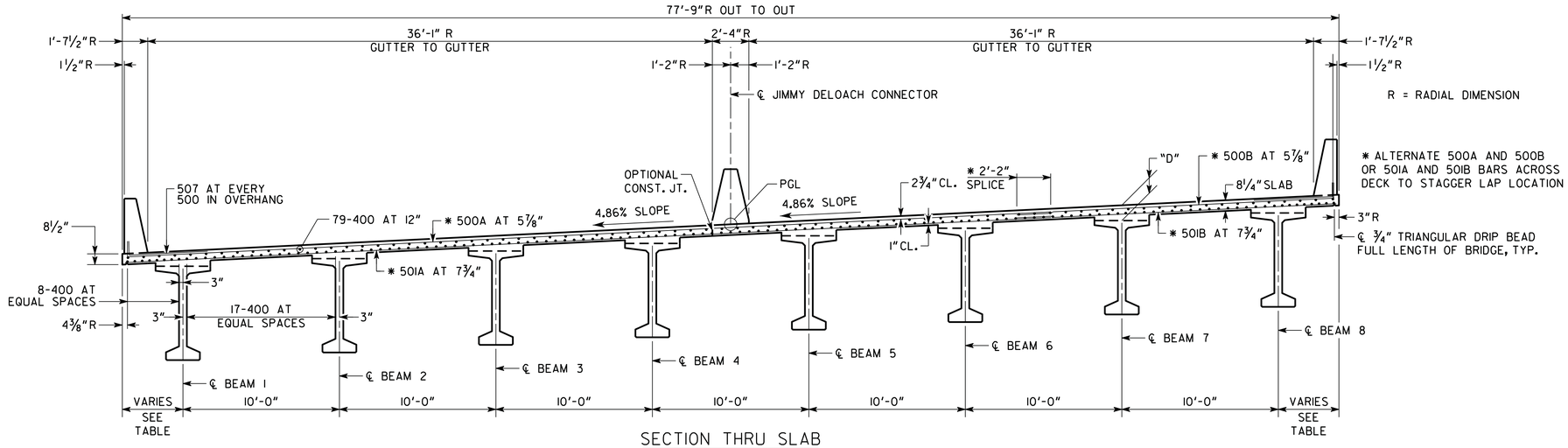
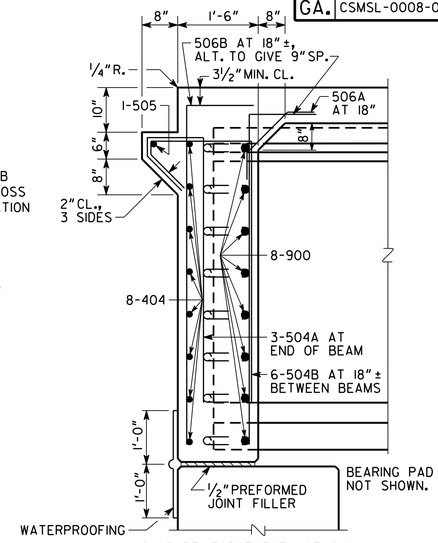
RELEASED FOR CONSTRUCTION: 08/02/2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	529	730



SECTION THRU SLAB

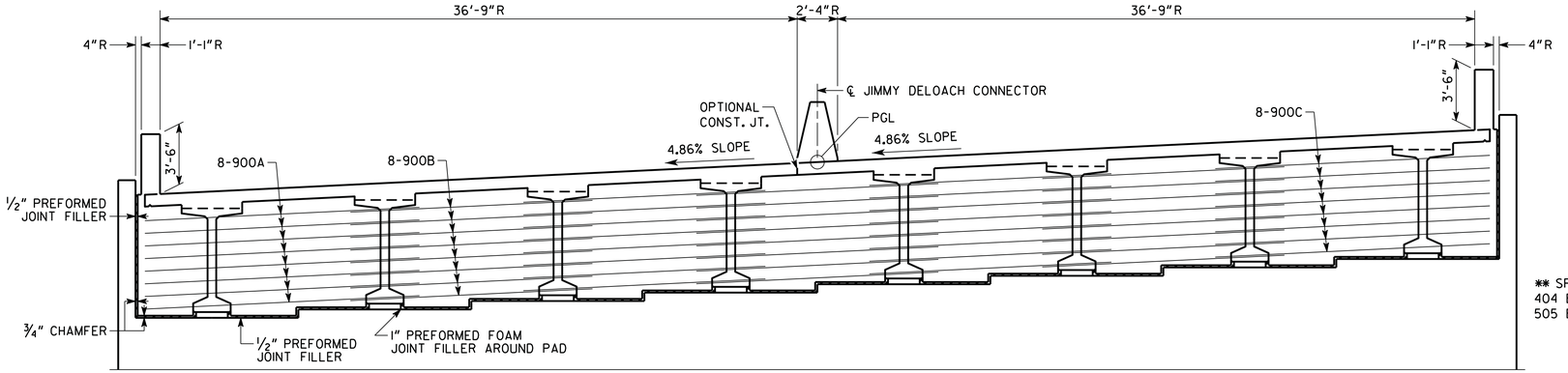
SCALE: ¼" = 1'-0"



SLAB REINFORCEMENT NOT SHOWN.

SECTION AT ENDWALL

NO SCALE

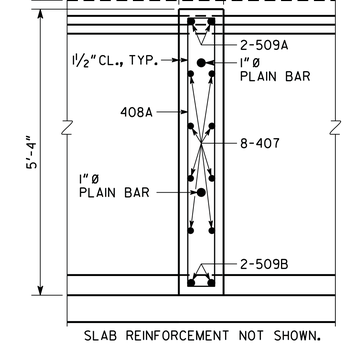


SECTION THRU ENDWALL

SCALE: ¼" = 1'-0"

** 404, 504 SERIES, ** 505, AND 506 SERIES BARS NOT SHOWN

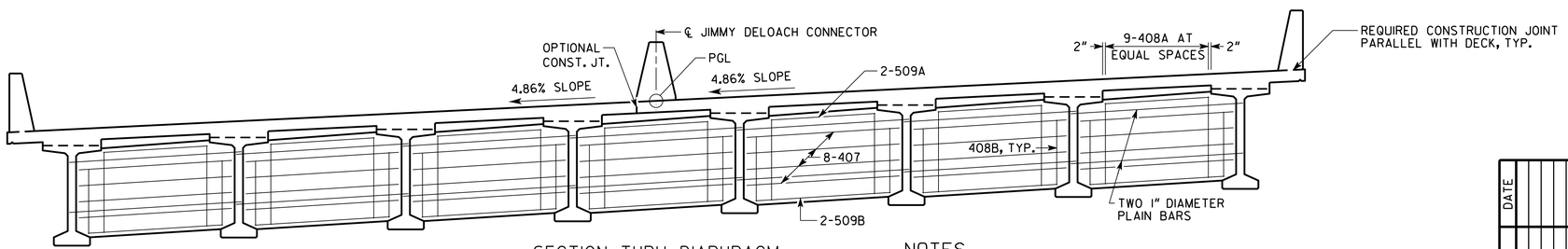
** SPLICE LENGTHS:
404 BARS - 1'-9"
505 BARS - 2'-2"



SLAB REINFORCEMENT NOT SHOWN.

SECTION THRU DIAPHRAGM

NO SCALE



SECTION THRU DIAPHRAGM

SCALE: ¼" = 1'-0"

TABLE OF OVERHANG DIMENSIONS					
LEFT OVERHANG AT B.F.P.R. BENT 1	LEFT OVERHANG AT MIDSPAN	LEFT OVERHANG AT B.F.P.R. BENT 2	RIGHT OVERHANG AT B.F.P.R. BENT 1	RIGHT OVERHANG AT MIDSPAN	RIGHT OVERHANG AT B.F.P.R. BENT 2
4'-6¼"	3'-5⅛"	4'-3¼"	3'-6⅛"	4'-3⅞"	3'-3⅜"

NOTES

1. MAINTAIN 2" CLEARANCE ON ALL REINFORCEMENT UNLESS OTHERWISE NOTED.
2. DIMENSION "D" IS MEASURED FROM TOP OF SLAB TO TOP OF BEAMS AT CENTERLINE BEARING. VARY "D" BETWEEN BEARINGS TO COMPENSATE FOR DEAD LOAD DEFLECTION, HORIZONTAL THROW, AND VERTICAL CURVE. MAINTAIN A CONSTANT SLAB THICKNESS OF 8¼" BETWEEN BEAMS, AND 8½" IN THE OVERHANGS.
   "D" = 11¾" FOR INTERIOR BEAMS
   "D" = 12" FOR EXTERIOR BEAMS

BRIDGE NO. 6

THE LPA GROUP — A UNIT OF GOSSELIN DICKEN CORPORATION
THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

DECK SECTIONS
JIMMY DELOACH CONNECTOR
OVER SONNY DIXON INTERCHANGE
CHATHAM COUNTY CSMSL-0008-00(690)

SCALE: AS SHOWN JULY 2013

DRAWING NO. 35-057
BRIDGE SHEET 4 OF 11

REVISIONS | DATE | BY

DESIGNED JCR | DRAWN JCR | CHECKED ANZ/AWB | DESIGN GROUP SKG | REVIEWED DLC/WMD | APPROVED BFR

1 INCH WHEN PRINTED FULL SIZE

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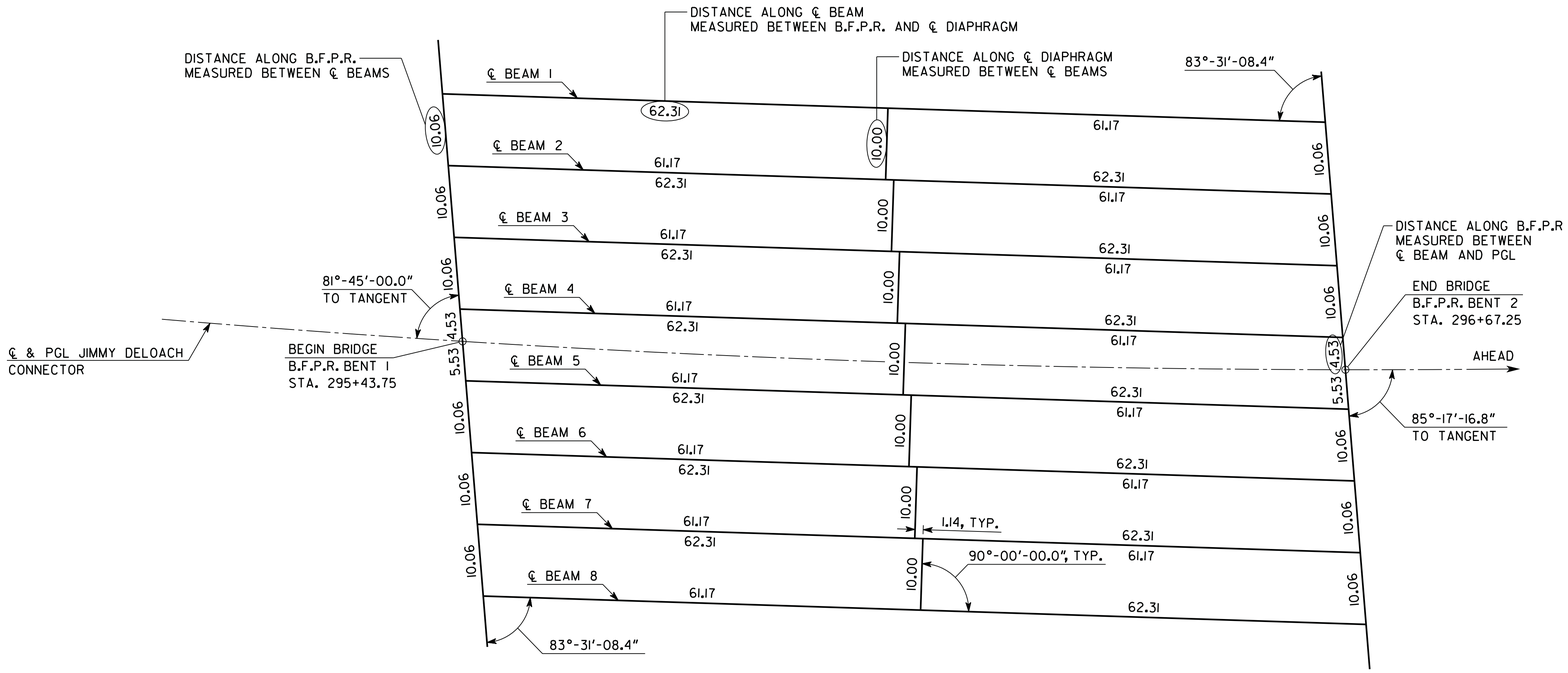
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	529	730



FRAMING PLAN
SCALE: 1" = 10'-0"

NOTES

1. ALL BENTS ARE PARALLEL.
2. BEAMS ARE PARALLEL OFFSETS FROM CHORD ALONG ℄ BRIDGE.
3. DIAPHRAGMS ARE PERPENDICULAR TO BEAMS.
4. DIMENSIONS ARE IN FEET.

BRIDGE NO. 6

THE LPA GROUP
A UNIT OF MICHAEL BAKER CORPORATION

THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

FRAMING PLAN
JIMMY DELOACH CONNECTOR
OVER SONNY DIXON INTERCHANGE
CHATHAM COUNTY CSMSL-0008-00(690)

SCALE: AS SHOWN JULY 2013

DRAWING NO. 35-058
BRIDGE SHEET 5 OF 11

BY	REVISIONS	DATE

DESIGNED JCR | CHECKED ANZ/AWB | REVIEWED DLC/WMD
DRAWN JCR | DESIGN GROUP SKG | APPROVED BFR

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RELEASED FOR CONSTRUCTION: 08/02/2013

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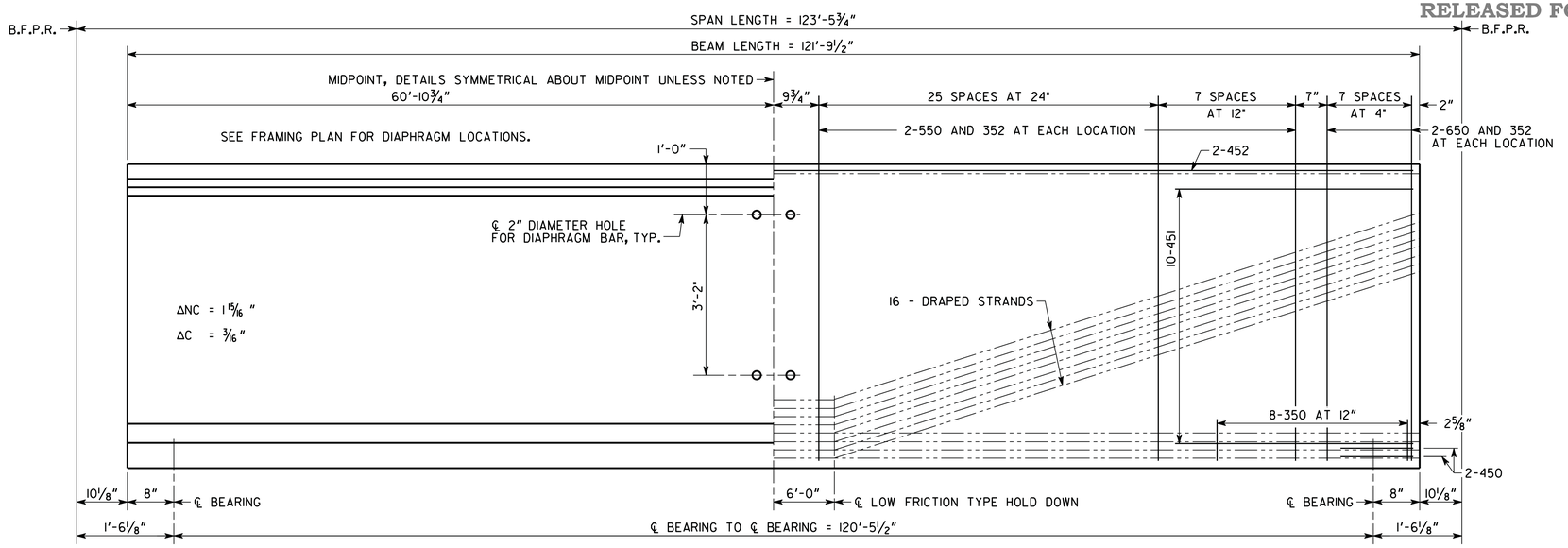
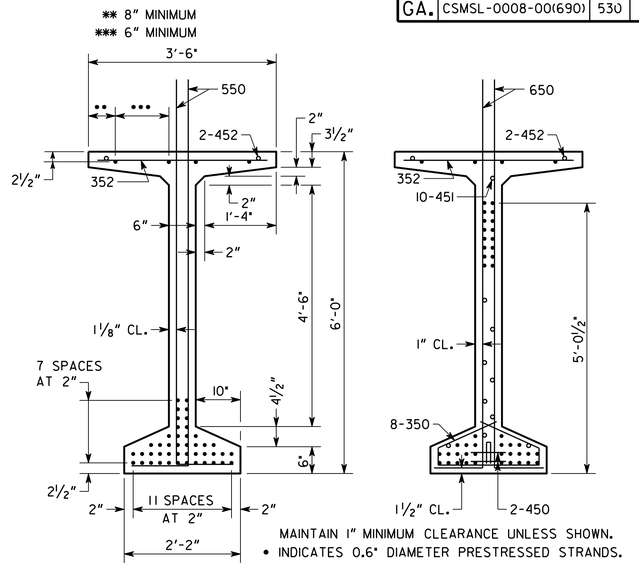


ELEVATION



MAINTAIN 1" MINIMUM CLEARANCE UNLESS SHOWN.
• INDICATES 0.6" DIAMETER PRESTRESSED STRANDS.

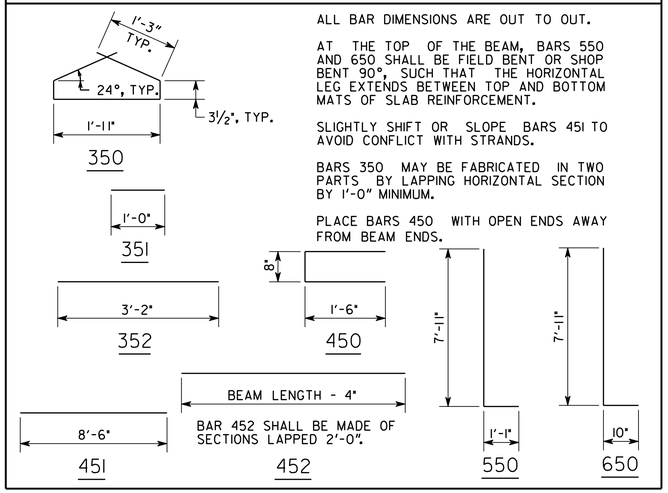
SECTION AT MIDPOINT

SECTION AT END

NOTES

1. BEAMS SHALL BE MAINTAINED IN AN UPRIGHT POSITION AT ALL TIMES AND SHALL BE PICKED UP WITHIN 9'-0" FROM THEIR ENDS. DISREGARDING THIS REQUIREMENT COULD LEAD TO COLLAPSE OF THE BEAM. PICK-UPS SHALL BE EMBEDDED TO WITHIN 4" OF THE BOTTOM OF THE BEAM. DETAILS OF PICK-UPS SHALL BE INCLUDED IN THE SHOP DRAWINGS.
2. CHAMFER EDGES OF BEAMS ½", ¾" OR 1".
3. HORIZONTAL DIMENSIONS ARE IN PLACE DIMENSIONS. THE BEAM LENGTH INCLUDES THE ⅛" EPOXY MORTAR AT EACH END. SHOP DRAWINGS SHALL ADJUST HORIZONTAL DIMENSIONS FOR GRADE AND FABRICATION EFFECTS SUCH AS SHRINKAGE AND ELASTIC SHORTENING.
4. AT ℄ BEARING, FORM A 1¾" DIAMETER X 7" DEEP HOLE AT THE FIXED ENDS AND A 6" X 1¾" X 7" DEEP SLOT AT THE EXPANSION ENDS FOR A 1½" DIAMETER SMOOTH DOWEL. SEE PLAN AND ELEVATION SHEET FOR LOCATION OF FIXED AND EXPANSION ENDS.
5. TOPS OF BEAMS SHALL BE ROUGH FLOATED AT APPROXIMATELY THE TIME OF INITIAL SET. ENTIRE TOP SHALL BE SCRUBBED TRANSVERSELY WITH A COARSE BRUSH TO REMOVE ALL LAITANCE AND TO PRODUCE A ROUGHENED SURFACE FOR BONDING TO THE SLAB. ROUGHENED SURFACE SHALL HAVE AN AMPLITUDE OF APPROXIMATELY ¼". CONCRETE FINS OR PROJECTIONS SHALL BE REMOVED TO PRODUCE A VERTICAL FACE AT THE EDGE OF THE BEAM.
6. NON-COMPOSITE DEAD LOAD DEFLECTION (ΔNC) AT THE MIDPOINT IS DUE TO THE WEIGHT OF THE SLAB AND COPING.
7. COMPOSITE DEAD LOAD DEFLECTION (ΔC) AT THE MIDPOINT IS DUE TO THE WEIGHT OF BARRIER AND MEDIAN BARRIER.
8. STRANDS SHALL MEET ALL REQUIREMENTS OF ASTM A 416 GRADE 270.
9. PRESTRESSING DATA IS AS FOLLOWS:
   - A. USE 48 - 0.6" DIAMETER LOW-RELAXATION (A = 0.217 SQ IN) STRANDS. PRETENSION TOP FOUR (4) STRANDS TO 10,000 LBS EACH. PRETENSION BOTTOM STRANDS TO 43,943 LBS EACH.
   - B. PRETENSIONED STRANDS SHALL BE RELEASED AFTER THE CONCRETE HAS REACHED A MINIMUM STRENGTH (f'_{ci}) OF 7,500 PSI.
   - C. INCLUDING THE TOP STRANDS, THE TOTAL JACKING FORCE OF PRETENSIONING IS 1,973,492 LBS.
   - D. INCLUDING THE TOP STRANDS, THE NET PRESTRESSING FORCE OF THE STRANDS AFTER ALL LOSSES IS 1,482,564 LBS.
10. CONCRETE STRENGTH (f'_c) = 8,500 PSI.
11. ALLOWABLE PSC BEAM TENSION = 277 PSI.

REINFORCEMENT



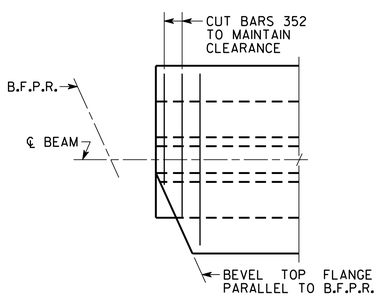
ALL BAR DIMENSIONS ARE OUT TO OUT.

AT THE TOP OF THE BEAM, BARS 550 AND 650 SHALL BE FIELD BENT OR SHOP BENT 90°, SUCH THAT THE HORIZONTAL LEG EXTENDS BETWEEN TOP AND BOTTOM MATS OF SLAB REINFORCEMENT.

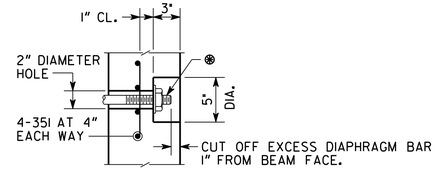
SLIGHTLY SHIFT OR SLOPE BARS 451 TO AVOID CONFLICT WITH STRANDS.

BARS 350 MAY BE FABRICATED IN TWO PARTS BY LAPPING HORIZONTAL SECTION BY 1'-0" MINIMUM.

PLACE BARS 450 WITH OPEN ENDS AWAY FROM BEAM ENDS.



BEVEL DETAILS



⊛ DIAPHRAGM BAR SHALL BE A 1" DIAMETER PLAIN BAR, THREADED 5" ON EACH END, WITH ¼" X 3½" DIAMETER WASHERS AND HEX NUTS (ASTM A 709 GRADE 36).

TIGHTEN DIAPHRAGM BAR AS PER SUB-SECTION 507.3.05.C OF THE GEORGIA DOT SPECIFICATIONS.

AFTER EXCESS DIAPHRAGM BAR HAS BEEN CUT OFF, PAINT DIAPHRAGM BAR, WASHER, AND NUT EXPOSED IN RECESS WITH SPECIAL PROTECTIVE COATING NO. 2 P AS PER SECTION 535 OF THE GEORGIA DOT SPECIFICATIONS. AFTER PAINTING, FILL THE RECESS WITH AN APPROVED EPOXY GROUT.

GALVANIZING OF THE DIAPHRAGM BAR AS PER SUB-SECTION 865.2.01.B.12 OF THE GEORGIA DOT SPECIFICATIONS IS NOT REQUIRED.

RECESS DETAIL FOR DIAPHRAGM BAR ENDS

BRIDGE NO. 6

THE LPA GROUP
A UNIT OF GENSLER DESIGN CORPORATION

THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

BULB TEE, 72 IN PSC BEAM
JIMMY DELOACH CONNECTOR
OVER SONNY DIXON INTERCHANGE
CHATHAM COUNTY CSMSL-0008-00(690)

DATE	REVISIONS	BY

DRAWING NO. 35-059
BRIDGE SHEET 6 OF 11

SCALE: NONE JULY 2013

DESIGNED JCR	CHECKED ANZ/AWB	REVIEWED DLC/WMD
DRAWN JCR	DESIGN GROUP SKG	APPROVED BFR

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STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
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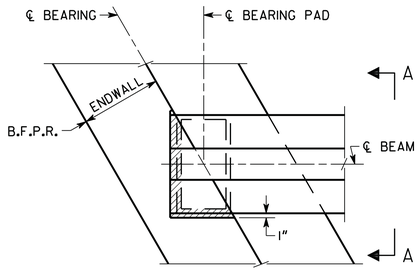
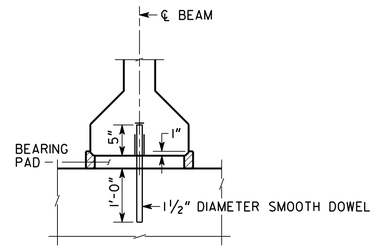


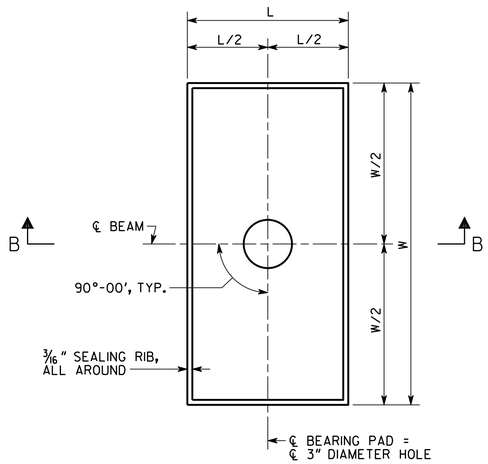
PLAN
BENT 1 SHOWN
BENT 2 SIMILAR



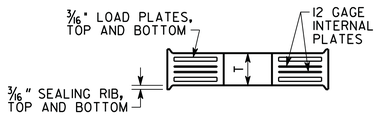
PREFORMED FOAM JOINT FILLER SHALL BE FURNISHED IN ACCORDANCE WITH SUB-SECTION 833.2.10 OF THE GEORGIA DOT SPECIFICATIONS.

ENDWALL NOT SHOWN

SECTION A-A



PLAN



SECTION B-B

BEARING PAD

NOTES

1) BEARING PADS HAVE BEEN DESIGNED ACCORDING TO AASHTO LRFD BRIDGE SPECIFICATIONS, SECTION 14.7.6 AND SHALL BE FURNISHED IN ACCORDANCE WITH AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS, SECTION 18.2, ELASTOMERIC BEARINGS, AND AASHTO M 251.

2) 1½" DIAMETER SMOOTH DOWELS SHALL BE ASTM A 709 GRADE 50.

3) BEARING PADS SHALL BE MADE OF 60 DUROMETER HARDNESS NEOPRENE, GRADE 2 OR HIGHER.

4) 3" DIAMETER HOLE IN BEARING PADS MAY BE FORMED OR DRILLED.

5) BEARING PADS SHALL HAVE ¼" COVER ON THE TOP, BOTTOM, AND SIDES AND AROUND THE HOLE.

6) 3/16" LOAD PLATES AND 12 GAGE INTERNAL PLATE(S) (IF REQUIRED) SHALL BE ASTM A 709 GRADE 36 OR ASTM A 1011 GRADE 36.

7) NUMBER OF INTERNAL PLATES SHOWN FOR ILLUSTRATION PURPOSES ONLY. THE NUMBER OF INTERNAL PLATE(S) SPECIFIED SHALL BE EQUALLY SPACED BETWEEN LOAD PLATES.

8) USE OF 1½° MOLD DRAFT IS OPTIONAL.

BENT	BEARING PADS							
						DESIGN LOADS (KIPS)		
	W	L	T	NUMBER OF INTERNAL PLATE(S)	DESIGN SHEAR DEFLECTION	DEAD LOAD	LIVE LOAD (NO IMPACT)	DEAD LOAD + LIVE LOAD
1	22"	12"	4"	5	0	168	105	273
2	22"	12"	4"	5	0.39"	168	105	273

BRIDGE NO. 6

THE LPA GROUP
A UNIT OF MICHAEL BAKER CORPORATION

THE LPA GROUP INCORPORATED
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3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

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DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

BEARING PAD DETAILS
JIMMY DELOACH CONNECTOR
OVER SONNY DIXON INTERCHANGE
CHATHAM COUNTY CSMSL-0008-00(690)

DATE
REVISIONS
BY

DRAWING NO. 35-060
BRIDGE SHEET 7 OF 11

SCALE: NONE JULY 2013

DESIGNED JCR | CHECKED ANZ/AWB | REVIEWED DLC/WMD
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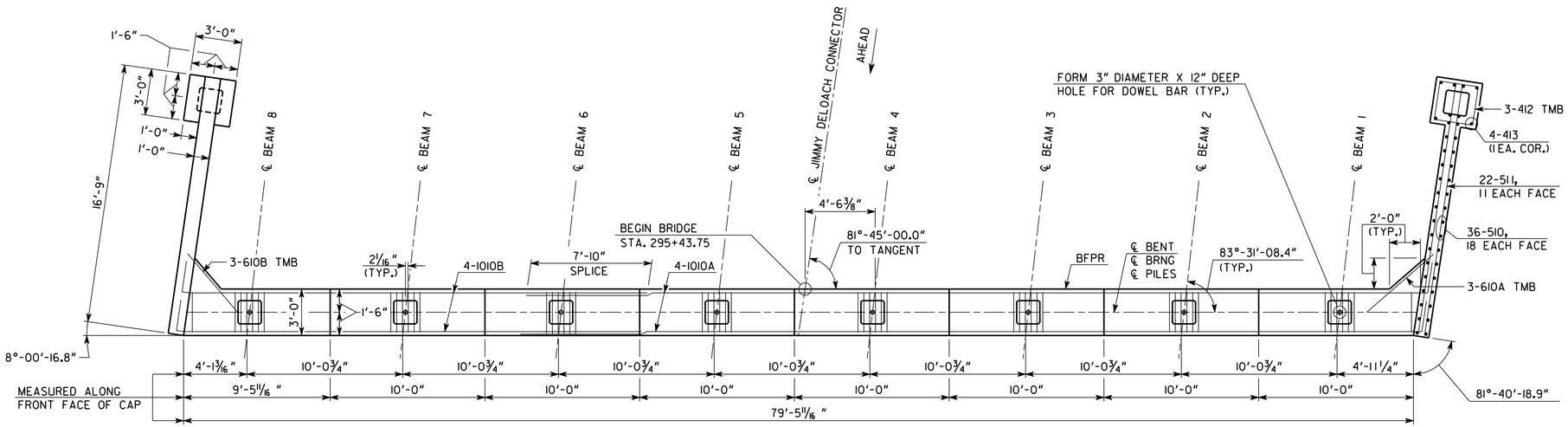
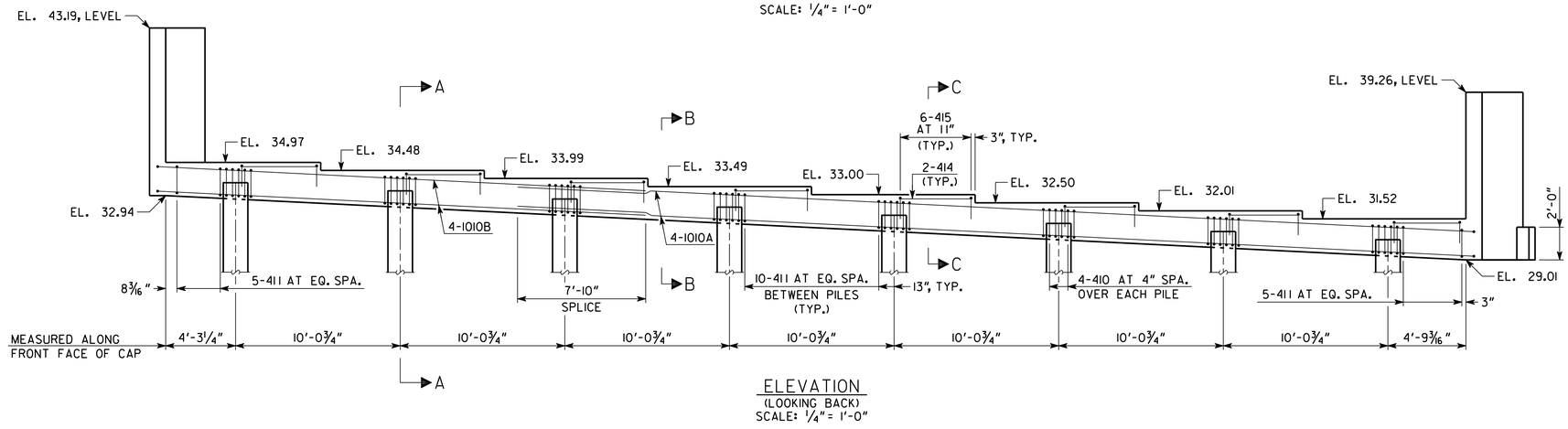
RELEASED FOR CONSTRUCTION: 08/02/2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	532	730



PLAN
SCALE: 1/4" = 1'-0"

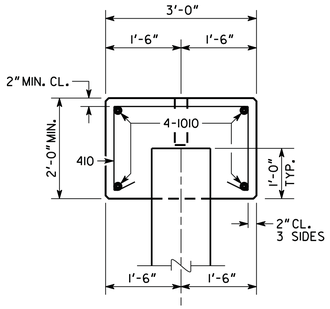


ELEVATION
(LOOKING BACK)
SCALE: 1/4" = 1'-0"

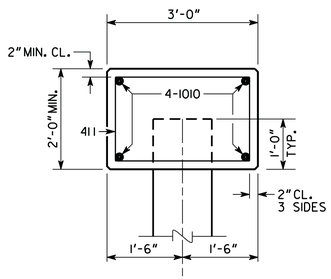
PLAN DRIVING OBJECTIVE

ALL PILES SHALL BE DRIVEN TO A DRIVING RESISTANCE OF 513 TONS AFTER A MINIMUM TIP ELEVATION OF -35 IS ACHIEVED.

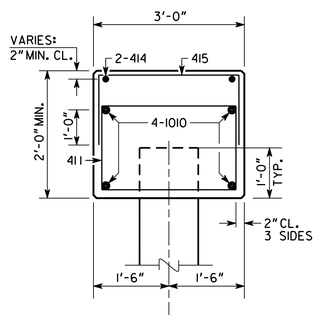
ALL PILES SHALL BE 18" SQ. PSC



SECTION A-A
SCALE: 3/4" = 1'-0"



SECTION B-B
SCALE: 3/4" = 1'-0"



SECTION C-C
SCALE: 3/4" = 1'-0"

NOTES:

1. MAINTAIN 2" CLEARANCE ON ALL REINFORCEMENT UNLESS OTHERWISE NOTED.
2. POUR WINGWALLS MONOLITHICALLY WITH THE CAP.
3. SEE GEORGIA STANDARD 9037 FOR DRAINAGE DETAILS AT END BENT.
4. WINGWALL PILES NOT SHOWN IN ELEVATION.
5. BOTTOM OF WINGWALLS ARE LEVEL.
6. PILES ARE DESIGNED FOR A MAXIMUM FACTORED AXIAL LOAD OF 221 TONS.

SUBSTRUCTURE QUANTITIES	
ITEM	BENT 1
CY CLASS "A" CONCRETE	33.0
LB BAR REINF STEEL	4,065

BRIDGE NO. 6

THE LPA GROUP
A UNIT OF GOSSELL DAVIS CORPORATION

THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

END BENT 1 DETAILS
JIMMY DELOACH CONNECTOR
OVER SONNY DIXON INTERCHANGE
CHATHAM COUNTY CSMSL-0008-00(690)

DATE | REVISIONS | BY

SCALE: AS SHOWN JULY 2013

DESIGNED JCR | CHECKED ANZ/AWB | REVIEWED DLC/WMD
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DRAWING NO. 35-061
BRIDGE SHEET 8 OF 11

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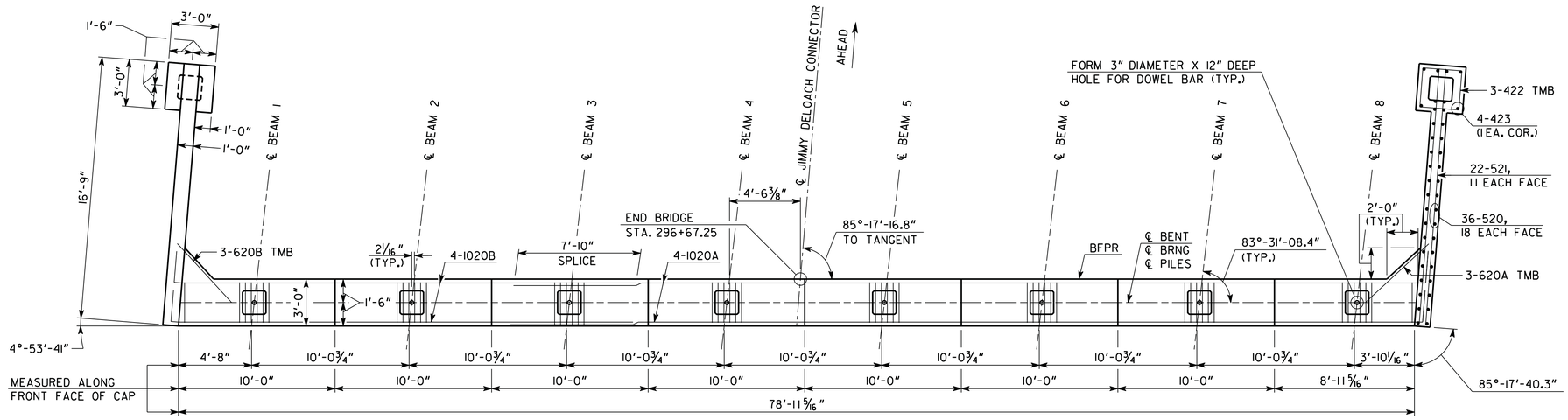
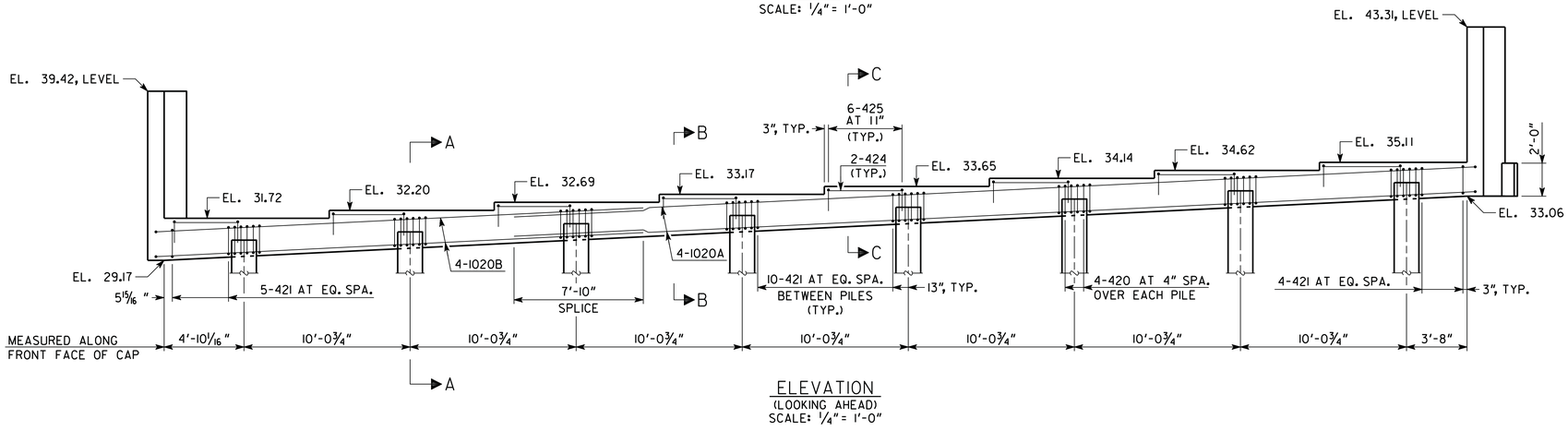
RELEASED FOR CONSTRUCTION: 08/02/2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	533	730



PLAN

SCALE: 1/4" = 1'-0"



ELEVATION

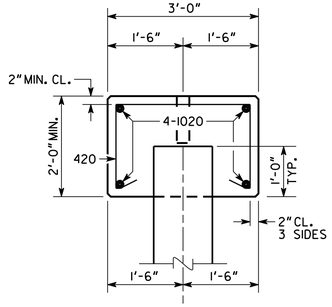
(LOOKING AHEAD)

SCALE: 1/4" = 1'-0"

PLAN DRIVING OBJECTIVE

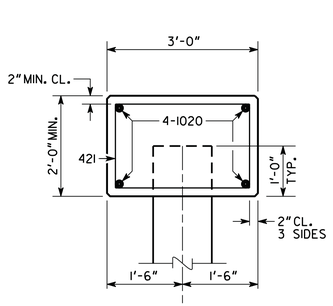
ALL PILES SHALL BE DRIVEN TO A DRIVING RESISTANCE OF 424 TONS AFTER A MINIMUM TIP ELEVATION OF -30 IS ACHIEVED.

ALL PILES SHALL BE 18" SQ. PSC



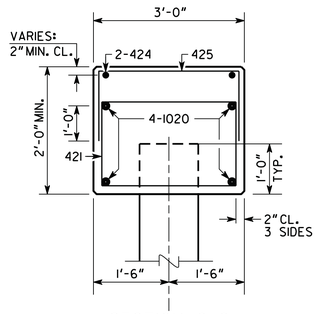
SECTION A-A

SCALE: 3/4" = 1'-0"



SECTION B-B

SCALE: 3/4" = 1'-0"



SECTION C-C

SCALE: 3/4" = 1'-0"

NOTES:

1. MAINTAIN 2" CLEARANCE ON ALL REINFORCEMENT UNLESS OTHERWISE NOTED.
2. POUR WINGWALLS MONOLITHICALLY WITH THE CAP.
3. SEE GEORGIA STANDARD 9037 FOR DRAINAGE DETAILS AT END BENT.
4. WINGWALL PILES NOT SHOWN IN ELEVATION.
5. BOTTOM OF WINGWALLS ARE LEVEL.
6. PILES ARE DESIGNED FOR A FACTORED AXIAL LOAD OF 221 TONS.

SUBSTRUCTURE QUANTITIES	
ITEM	BENT 2
CY CLASS "A" CONCRETE	33.0
LB BAR REINF STEEL	4,050

BRIDGE NO. 6

THE LPA GROUP

THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9148

A UNIT OF GENERAL DATA CORPORATION

GEORGIA

DEPARTMENT OF TRANSPORTATION

ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

END BENT 2 DETAILS
JIMMY DELOACH CONNECTOR
OVER SONNY DIXON INTERCHANGE
CHATHAM COUNTY CSMSL-0008-00(690)

SCALE: AS SHOWN JULY 2013

DRAWING NO. 35-062

BRIDGE SHEET 9 OF 11

REVISIONS	DATE	BY

DESIGNED JCR | CHECKED ANZ/AWB | REVIEWED DLC/WMD

DRAWN JCR | DESIGN GROUP SKG | APPROVED BFR

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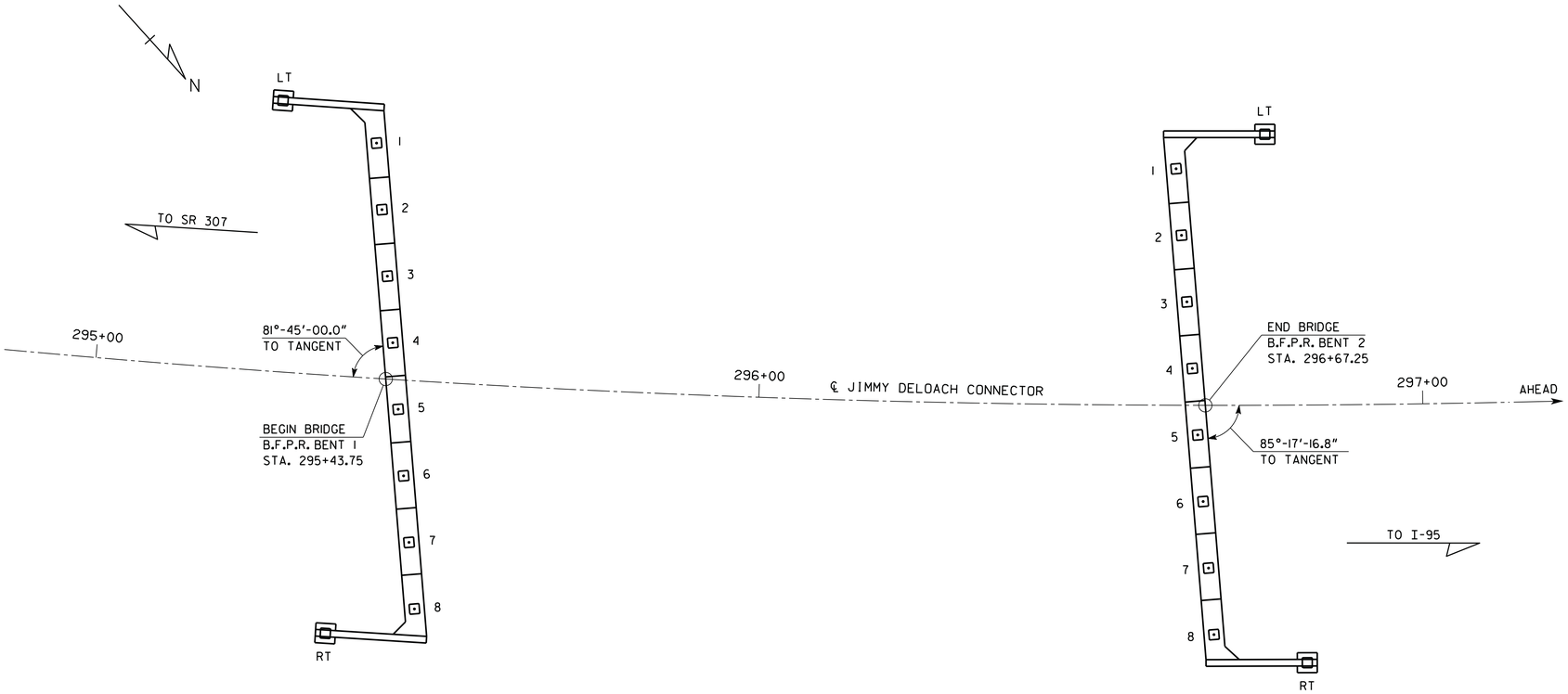
RELEASED FOR CONSTRUCTION: 08/02/2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	534	730



PLAN
SCALE: 1" = 10'-0"

AS-BUILT FOUNDATION DATA		
BENT	PILE NO.	PILE TIP ELEVATION
1	LT	
	1	
	2	
	3	
	4	
	5	
	6	
	7	
	8	
	RT	

AS-BUILT FOUNDATION DATA		
BENT	PILE NO.	PILE TIP ELEVATION
2	LT	
	1	
	2	
	3	
	4	
	5	
	6	
	7	
	8	
	RT	

NOTE: THIS "AS-BUILT FOUNDATION" INFORMATION SHEET IS TO BE FILLED IN BY THE PROJECT ENGINEER AND THE ENTIRE SHEET FORWARDED TO THE BRIDGE OFFICE UPON COMPLETION OF PILE DRIVING FOR POSTING TO THE PLANS AS A PERMANENT RECORD OF THE BRIDGE CONSTRUCTION.

PROJECT ENGINEER DATE

( )
AREA CODE TELEPHONE NUMBER

BRIDGE NO. 6

THE LPA GROUP
A UNIT OF GEORGE BUSH CORPORATION
THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

AS BUILT FOUNDATION DETAILS
JIMMY DELOACH CONNECTOR
OVER SONNY DIXON INTERCHANGE
CHATHAM COUNTY CSMSL-0008-00(690)

SCALE: AS SHOWN JULY 2013

DRAWING NO. 35-063
BRIDGE SHEET 10 OF 11

DESIGNED JCR | CHECKED ANZ/AWB | REVIEWED DLC/WMD
DRAWN JCR | DESIGN GROUP SKG | APPROVED BFR

REVISIONS | BY | DATE

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RELEASED FOR CONSTRUCTION: 08/02/2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	535	730

LOCATION	NO. OF LOC.	MARK	LENGTH FT.	LENGTH IN.	NO. BARS REQ'D.	TYP	A	G	B FT.	B IN.	C FT.	C IN.	D FT.	D IN.	E FT.	E IN.	F FT.	F IN.	H FT.	H IN.	J FT.	J IN.	K FT.	K IN.	N	θ
SUPERSTRUCTURE																										
SPAN 1	1																									
		400A	60- 0	214	1																					
		400B	30- 0	214	1																					
		400C	36- 8	214	1																					
		401A	19- 2	48	1																					
		401B	19- 1	48	1																					
		401C	17- 2	56	1																					
		404A	60- 0	16	1																					
		404B	20-11	16	1																					
		407	9- 2	56	1																					
		408A	12- 1	63	25	4	4	0- 7		5- 1																
		408B	9-11	14	25	4	4	0- 7		4- 0																
		500A	60- 0	253	3			59- 0		1- 0																
		500B	21- 1	253	3			20- 1		1- 0																
		501A	59- 0	192	1																					
		501B	20- 1	192	1																					
		502A	7- 9	276	23			1- 3		3- 3		3- 3													101	
		502B	8- 9	140	7			2- 3		3- 3		3- 3													79	101
		503A	6- 8	276	23			0- 6		3- 1		3- 1														79
		503B	6-10	140	7			0- 8		3- 1		3- 1													101	79
		504A	7- 2	48	46			5- 2		0-10		0- 3		0- 8		0- 8										
		504B	8- 2	90	46			5- 2		1-10		0- 3		0- 8		0- 8										
		505A	60- 0	2	1																					
		505B	18-10	2	1																					
		506A	3-10	112	6			1- 4		1- 3		0- 0		1- 3											45	45
		506B	7-11	214	3			6- 8		1- 3																
		507	8- 2	506	3			7- 2		1- 0																
		509A	6- 6	14	1																					
		509B	7-10	14	1																					
		900A	17- 3	16	16	6	6	4- 7		0- 9		0- 9		4- 0		6- 6										
		900B	14- 9	80	16	6	6	4- 7		0- 9		0- 9		4- 0		4- 0										
		900C	16- 3	16	16	6	6	4- 7		0- 9		0- 9		4- 0		5- 6										

LOCATION	NO. OF LOC.	MARK	LENGTH FT.	LENGTH IN.	NO. BARS REQ'D.	TYP	A	G	B FT.	B IN.	C FT.	C IN.	D FT.	D IN.	E FT.	E IN.	F FT.	F IN.	H FT.	H IN.	J FT.	J IN.	K FT.	K IN.	N	θ
SUBSTRUCTURE																										
END BENT 1	1																									
		410	6- 9	32	32	5	5	2- 8		1- 8		1- 8														
		411	9- 5	80	25	4	4	2- 8		1- 8																
		412	11- 5	6	25	4	4	2- 8		2- 8																
		413	1- 8	8	1																					
		414	4- 9	16	1																					
		415	5- 8	48	2			2- 8		1- 6		1- 6														
		510	9-11	72	1																					
		511	16- 5	44	1																					
		610A	5- 9	3	1																					
		610B	5- 0	3	1																					
		1010A	60- 0	4	4			58- 2		1-10																81
		1010B	32- 0	4	6			29- 8		0- 6		1-10		0- 0											0	8
SUBSTRUCTURE																										
END BENT 2	1																									
		420	6- 9	32	32	5	5	2- 8		1- 8		1- 8														
		421	9- 5	79	25	4	4	2- 8		1- 8																
		422	11- 5	6	25	4	4	2- 8		2- 8																
		423	1- 8	8	1																					
		424	4- 9	16	1																					
		425	5- 8	48	2			2- 8		1- 6		1- 6														
		520	9-11	72	1																					
		521	16- 5	44	1																					
		620A	5- 9	3	1																					
		620B	5- 0	3	1																					
		1020A	60- 0	4	4			58- 2		1-10																85
		1020B	31- 6	4	6			29- 2		0- 6		1-10		0- 0											0	4

BRIDGE NO. 6

THE LPA GROUP — A UNIT OF GENSLER DESIGN CORPORATION

THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

REVISIONS | DATE | BY

REINFORCEMENT SCHEDULE
JIMMY DELOACH CONNECTOR
OVER SONNY DIXON INTERCHANGE
CHATHAM COUNTY CSMSL-0008-00(690)

SCALE: NONE JULY 2013

DRAWING NO. 35-064
BRIDGE SHEET 11 OF 11

DESIGNED JCR | DRAWN JCR | CHECKED ANZ/AWB | DESIGN GROUP SKG | REVIEWED DLC/WMD | APPROVED BFR

1 INCH WHEN PRINTED FULL SIZE

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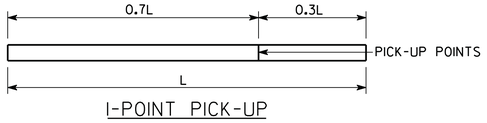
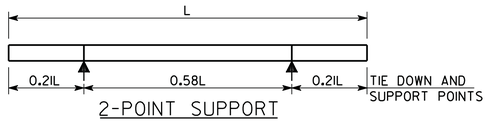
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	536	730

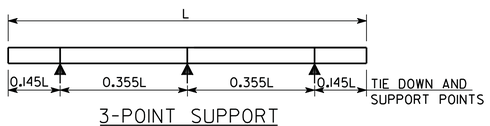


1-POINT PICK-UP

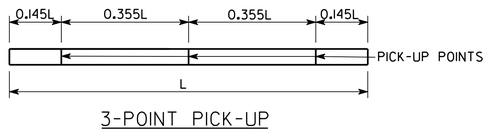


2-POINT SUPPORT

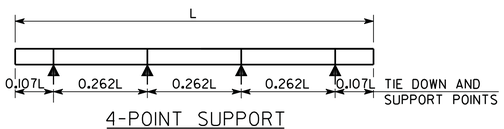
2-POINT PICK-UP



3-POINT SUPPORT

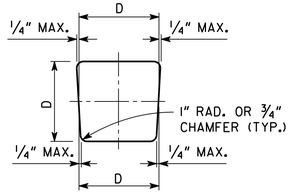


3-POINT PICK-UP

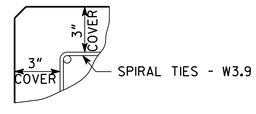


4-POINT SUPPORT

TABLE OF MAXIMUM PILE PICK-UP AND SUPPORT LENGTHS					
	D = SQUARE PILE SIZE (INCHES)			REQUIRED STORAGE AND TRANSPORTATION DETAIL	PICK-UP DETAIL
	16	18	20		
MAXIMUM PILE LENGTH (FEET)	55	59	62	2, 3, OR 4 POINT	1 POINT
	79	85	89	2, 3, OR 4 POINT	2 POINT
	114	121	128	3 OR 4 POINT	3 POINT



TYPICAL PILE SHAPE FOR MOLD FORMS



DETAIL SHOWING TYPICAL COVER

PRESTRESSED CONCRETE PILE NOTES:

DESIGN SPECIFICATIONS:
GEORGIA STANDARD SPECIFICATIONS, 2001 EDITION, AND 2008 SUPPLEMENTAL SPECIFICATIONS AS MODIFIED BY THE CONTRACT DOCUMENTS.

AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) "LRFD BRIDGE DESIGN SPECIFICATIONS" 5TH EDITION, 2010.

DESIGN PARAMETERS:
SQUARE PRESTRESSED CONCRETE SECTION: DESIGNED FOR 1,000 PSI UNIFORM COMPRESSION AFTER PRESTRESS LOSSES WITHOUT LOADS.

PICK-UP, STORAGE, AND TRANSPORTATION: 0.0 PSI TENSION USING A FACTOR OF 1.5 TIMES PILE SELF WEIGHT.

TOTAL LOSSES: 20% OF INITIAL PRETENSION FORCE.

SPIRAL TIES:
EACH WRAP OF SPIRALS SHALL BE TIED TO AT LEAST TWO CORNER STRANDS. ONE TURN REQUIRED FOR SPIRAL SPLICES.

CONCRETE:
CONCRETE FOR ALL PILES SHALL BE CLASS AAA.

PRESTRESSED CONCRETE PILES FOR THIS PROJECT UTILIZE HIGH PERFORMANCE CONCRETE. SPECIAL REQUIREMENTS ARE REQUIRED AS DETAILED IN SPECIAL PROVISIONS SECTIONS 500 AND 865.

THE PILE CYLINDER STRENGTH SHALL BE 6,500 PSI MINIMUM AT 28 DAYS AND 4,000 PSI MINIMUM AT TIME OF TRANSFER OF THE PRESTRESSING FORCE.

SPLICE BONDING MATERIAL:
THE MATERIAL TO FILL DOWEL HOLES SHALL BE A TYPE VIII EPOXY COMPOUND. THE MATERIAL TO FORM THE JOINT BETWEEN PILE SECTIONS SHALL BE A TYPE III EPOXY COMPOUND. EPOXY COMPOUNDS SHALL BE IN ACCORDANCE WITH SECTION 886 OF THE GEORGIA STANDARD SPECIFICATIONS AND SHALL BE CONTAINED ON THE QUALIFIED PRODUCTS LIST (QPL-15). USE EPOXY BONDING COMPOUND OR EPOXY MORTAR AS RECOMMENDED BY THE MANUFACTURER. FOR EPOXY MORTAR ONLY USE SAND OR OTHER FILLER MATERIAL SUPPLIED BY THE MANUFACTURER AND IN THE PROPORTIONS RECOMMENDED. IF PILES ARE NOT SPLICED, DOWEL HOLES SHALL BE FILLED WITH EPOXY MORTAR.

PICK-UP POINTS:
PILES SHALL BE MARKED AT THE PICK-UP POINTS TO INDICATE PROPER POINTS FOR ATTACHING HANDLING LINES.

REINFORCING STEEL:
ALL REINFORCING STEEL SHALL BE GRADE 60, EXCEPT THAT SPIRAL TIES SHALL BE MANUFACTURED FROM COLD-DRAWN STEEL WIRE MEETING THE REQUIREMENTS OF ASTM A82.

PRESTRESSING STEEL:
PRESTRESSING STEEL SHALL BE SEVEN-WIRE STRAND, GRADE 270 LOW-RELAXATION STRANDS (LRS).

PSC PILE - SPECIAL DESIGN

THE LPA GROUP
A UNIT OF GENERAL ELECTRIC CORPORATION
THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

7-23-13
GEORGIA REGISTERED NO. 24732 PROFESSIONAL ENGINEER ALBERT W. BOWMAIN

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

NOTES AND DETAILS FOR SQUARE PRESTRESSED CONCRETE PILES

CHATHAM COUNTY CSMSL-0008-00(690)

NO SCALE JULY 2013

DRAWING NO. 37-01

PSC PILE SHEET 1 OF 5

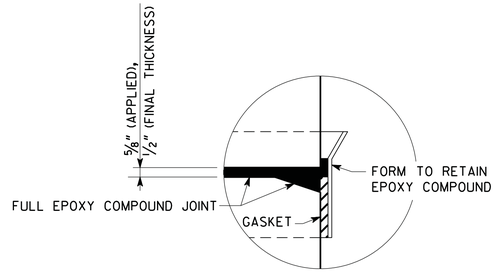
DATE	REVISIONS	BY

DESIGNED JCR | CHECKED ANZ/AWB | REVIEWED DLC/WMD
DRAWN JCR | DESIGN GROUP SKG | APPROVED BFR

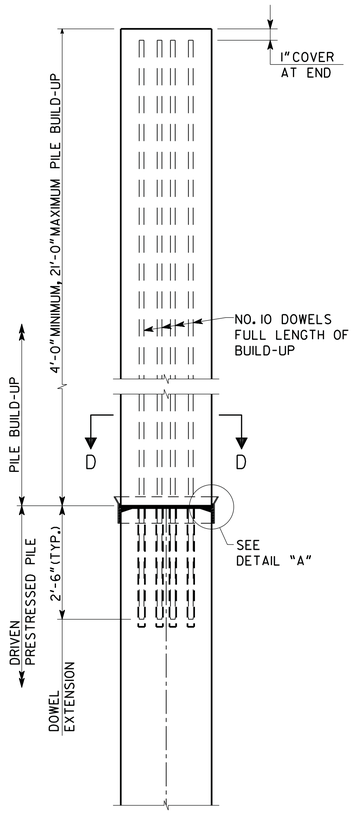
1 INCH WHEN PRINTED FULL SIZE

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	537	730

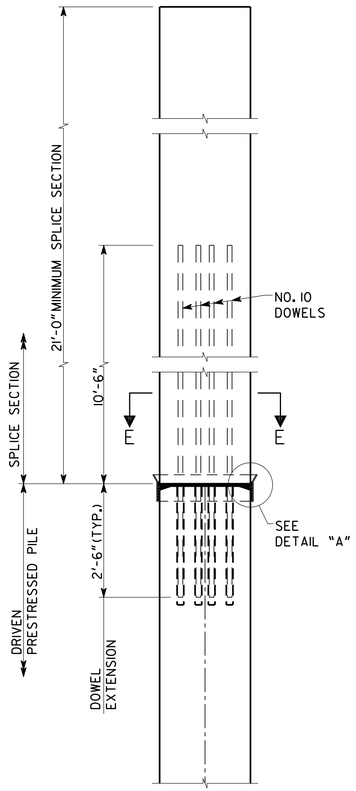
NOTES:
1. FOR SECTIONS D-D, E-E, & F-F SEE PSC PILE SHEETS 3, 4, AND 5 FOR APPLICABLE CONCRETE PILE SIZE.
2. PRESTRESSING STRANDS, SPIRAL TIES AND/OR REINFORCEMENT ARE NOT SHOWN FOR CLARITY.
3. IN CASES WHERE PILE SPLICES ARE DESIRED DUE TO LENGTH LIMITATIONS IN SHIPPING AND/OR HANDLING, THE "DRIVABLE PREPLANNED PRESTRESSED PRECAST SPLICE DETAIL" SHALL BE USED.
4. WHEN PREFORMED DOWEL HOLES ARE UTILIZED, THE 1" SPIRAL TIE PITCH SHALL BE CONTINUED TO 4'-0" BELOW THE HEAD OF THE PILE, SEE PSC PILE SHEETS 3, 4, AND 5. PREFORMED HOLES SHALL UTILIZE EITHER REMOVABLE PREFORMING MATERIAL OR STAY-IN-PLACE CORRUGATED GALVANIZED STEEL DUCTS. STAY-IN-PLACE SHALL BE FABRICATED FROM GALVANIZED SHEET STEEL MEETING THE REQUIREMENTS OF ASTM A653, COATING DESIGNATION G90, 26 GAUGE. DUCTS SHALL BE 2" DIAMETER WITH A MINIMUM CORRUGATION (RIB) HEIGHT OF 0.12". DUCTS SHALL BE FABRICATED WITH EITHER WELDED OR INTERLOCKED SEAMS. GALVANIZING OF WELDED SEAMS WILL NOT BE REQUIRED.



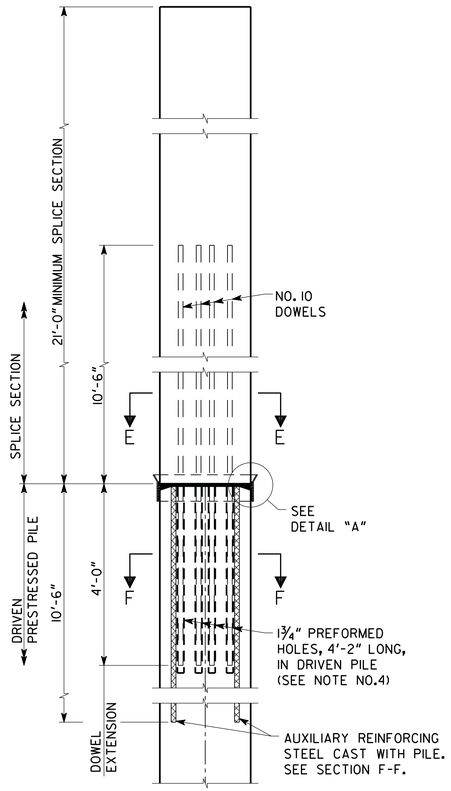
DETAIL A



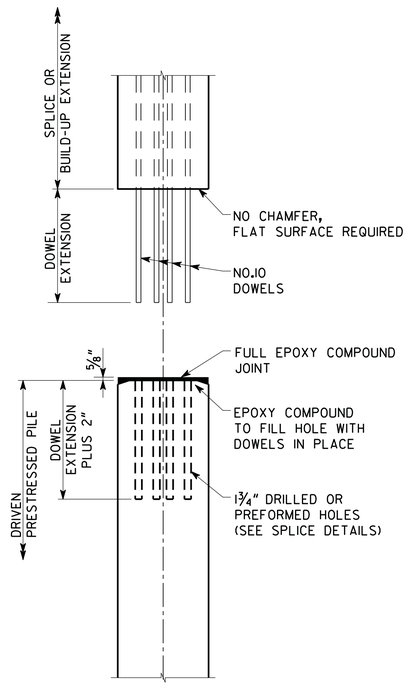
NONDRIVABLE UNFORESEEN REINFORCED PRECAST PILE BUILD-UP DETAIL



DRIVABLE UNFORESEEN PRESTRESSED PRECAST PILE SPLICE DETAIL



DRIVABLE PREPLANNED PRESTRESSED PRECAST PILE SPLICE DETAIL



TYPICAL SPLICE BEFORE BONDING

PSC PILE - SPECIAL DESIGN

THE LPA GROUP
A UNIT OF MICHAEL BAKER CORPORATION

THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

SQUARE PRESTRESSED
CONCRETE PILE SPLICES
CHATHAM COUNTY CSMSL-0008-00(690)

NO SCALE JULY 2013

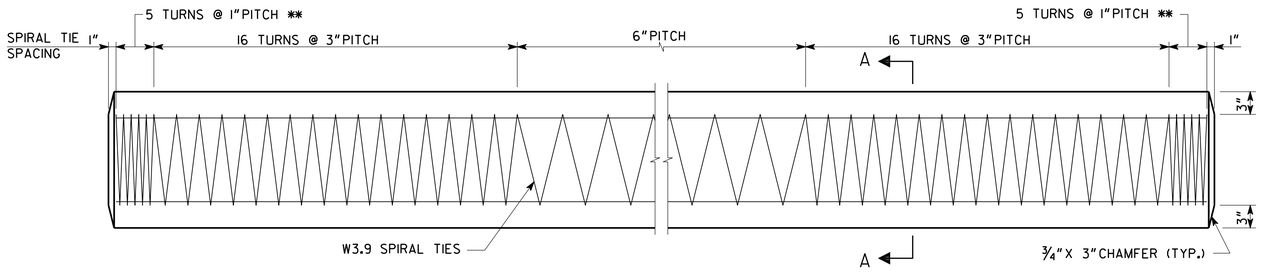
DRAWING NO.	DATE	REVISIONS	BY
37-02			
PSC PILE SHEET 2 OF 5			

DESIGNED JCR | CHECKED ANZ/AWB | REVIEWED DLC/WMD
DRAWN JCR | DESIGN GROUP SKG | APPROVED BFR

1 INCH WHEN PRINTED FULL SIZE

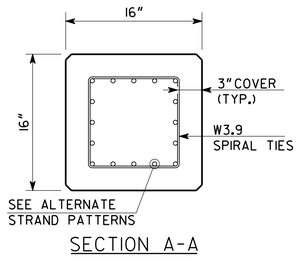
RELEASED FOR CONSTRUCTION: 07/23/2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	539	730



ELEVATION

** SEE NOTE NO. 4 ON PSC PILE SHEET 2



SECTION A-A

ALTERNATE STRAND PATTERNS

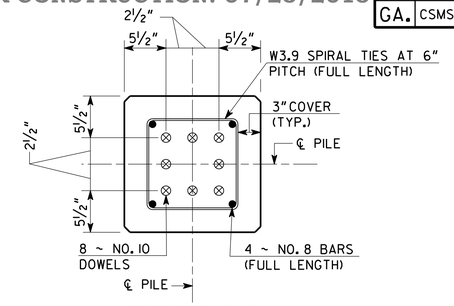
8 ~ 0.6"Ø, GRADE 270 LRS, AT 41 KIPS
12 ~ ½"Ø (SPECIAL), GRADE 270 LRS, AT 27 KIPS
12 ~ ½"Ø, GRADE 270 LRS, AT 27 KIPS
16 ~ 7/16"Ø, GRADE 270 LRS, AT 21 KIPS
20 ~ ⅜"Ø, GRADE 270 LRS, AT 16 KIPS

NOTE:
ANY OF THE GIVEN ATLERNATE STRAND PATTERNS MAY BE UTILIZED. THE STRANDS SHALL BE LOCATED AS FOLLOWS:

PLACE ONE STRAND AT EACH CORNER AND PLACE THE REMAINING STRANDS EQUALLY SPACED BETWEEN THE CORNER STRANDS.

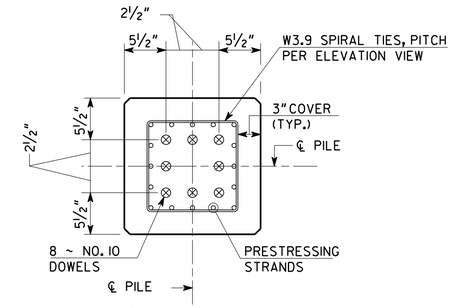
THE TOTAL STRAND PATTERN SHALL BE CONCENTRIC WITH THE NOMINAL CONCRETE SECTION OF THE PILE.

NOTE:
USE THIS SHEET WITH PSC PILE SHEET 1 - NOTES AND DETAILS FOR SQUARE PRESTRESSED CONCRETE PILES AND PSC PILE SHEET 2 - SQUARE PRESTRESSED CONCRETE PILE SPLICES.



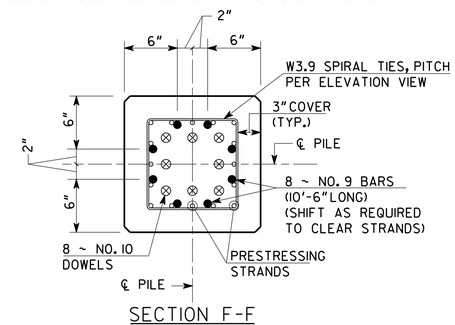
SECTION D-D

(SEE NONDRIVABLE UNFORESEEN REINFORCED PRECAST SPLICE DETAIL)



SECTION E-E

(SEE DRIVABLE PRESTRESSED PRECAST SPLICE DETAIL)



SECTION F-F

(SEE DRIVABLE PREPLANNED SPLICE DETAIL)

16" PILE SPLICE REINFORCEMENT DETAILS

PSC PILE - SPECIAL DESIGN

THE LPA GROUP — A UNIT OF GENERAL DATA CORPORATION

THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

16" SQUARE
PRESTRESSED CONCRETE PILES
CHATHAM COUNTY CSMSL-0008-00(690)

DRAWING NO. 37-03
PSC PILE SHEET 3 OF 5

NO SCALE JULY 2013

BY	DATE	REVISIONS

DESIGNED JCR | CHECKED ANZ/AWB | REVIEWED DLC/WMD
DRAWN JCR | DESIGN GROUP SKG | APPROVED BFR

1 INCH WHEN PRINTED FULL SIZE

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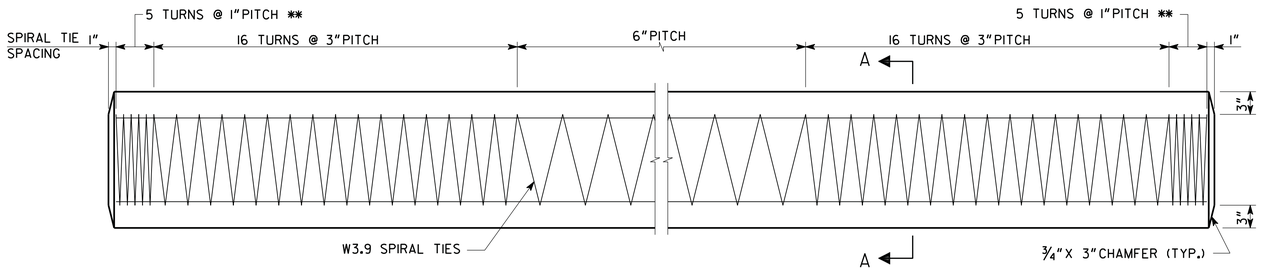
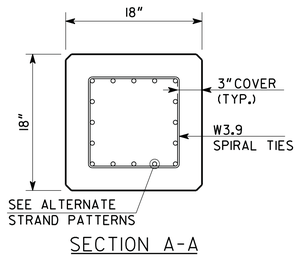
RELEASED FOR CONSTRUCTION: 07/23/2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	539	730



ELEVATION

** SEE NOTE NO. 4 ON PSC PILE SHEET 2



SECTION A-A

ALTERNATE STRAND PATTERNS

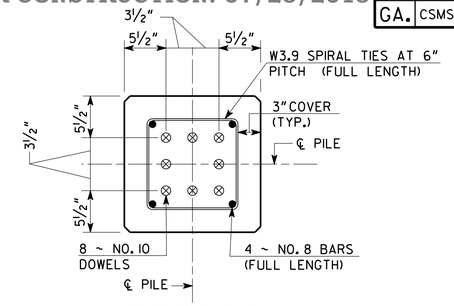
12 ~ 0.6"Ø, GRADE 270 LRS, AT 35 KIPS
12 ~ ½"Ø (SPECIAL), GRADE 270 LRS, AT 34 KIPS
16 ~ ½"Ø, GRADE 270 LRS, AT 26 KIPS
20 ~ 7/16"Ø, GRADE 270 LRS, AT 21 KIPS
24 ~ 3/8"Ø, GRADE 270 LRS, AT 17 KIPS

NOTE:
ANY OF THE GIVEN ATLERNATE STRAND PATTERNS MAY BE UTILIZED. THE STRANDS SHALL BE LOCATED AS FOLLOWS:

PLACE ONE STRAND AT EACH CORNER AND PLACE THE REMAINING STRANDS EQUALLY SPACED BETWEEN THE CORNER STRANDS.

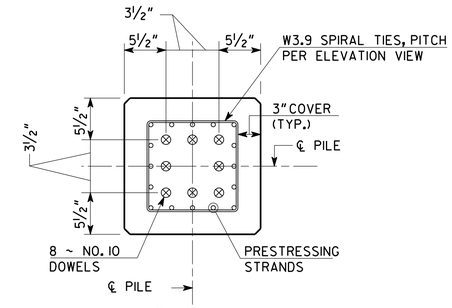
THE TOTAL STRAND PATTERN SHALL BE CONCENTRIC WITH THE NOMINAL CONCRETE SECTION OF THE PILE.

NOTE:
USE THIS SHEET WITH PSC PILE SHEET 1 - NOTES AND DETAILS FOR SQUARE PRESTRESSED CONCRETE PILES AND PSC PILE SHEET 2 - SQUARE PRESTRESSED CONCRETE PILE SPLICES.



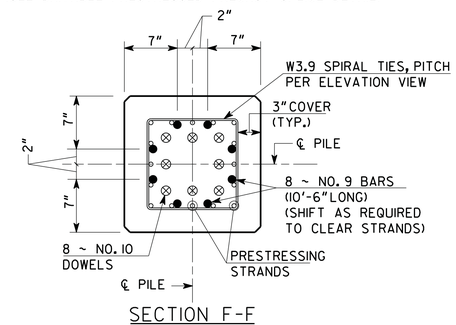
SECTION D-D

(SEE NONDRIVABLE UNFORESEEN REINFORCED PRECAST SPLICE DETAIL)



SECTION E-E

(SEE DRIVABLE PRESTRESSED PRECAST SPLICE DETAIL)



SECTION F-F

(SEE DRIVABLE PREPLANNED SPLICE DETAIL)

18" PILE SPLICE REINFORCEMENT DETAILS

PSC PILE - SPECIAL DESIGN

THE LPA GROUP
A UNIT OF GENERAL DATA CORPORATION
THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

18" SQUARE
PRESTRESSED CONCRETE PILES
CHATHAM COUNTY CSMSL-0008-00(690)

DRAWING NO. 37-04
PSC PILE SHEET 4 OF 5

DATE | REVISIONS | BY

NO SCALE JULY 2013

DESIGNED JCR | CHECKED ANZ/AWB | REVIEWED DLC/WMD
DRAWN JCR | DESIGN GROUP SKG | APPROVED BFR

1 INCH WHEN PRINTED FULL SIZE

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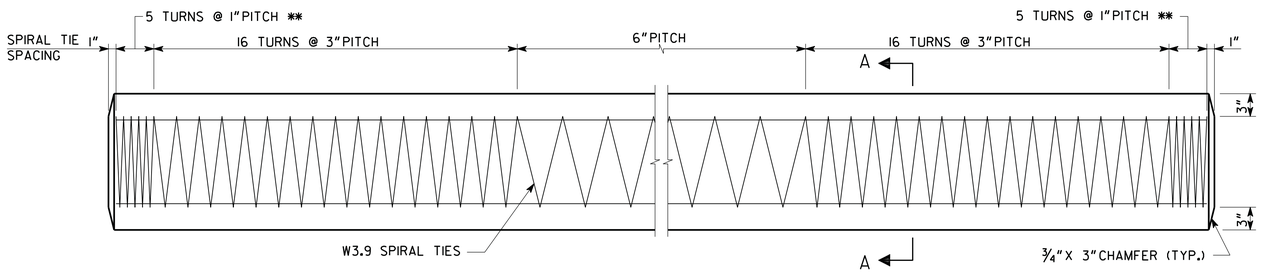
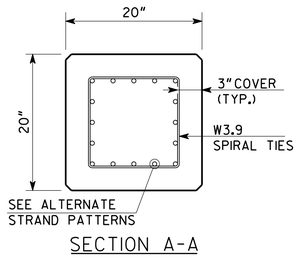
RELEASED FOR CONSTRUCTION: 07/23/2013

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSMSL-0008-00(690)	540	730



ELEVATION

** SEE NOTE NO. 4 ON PSC PILE SHEET 2



SECTION A-A

ALTERNATE STRAND PATTERNS

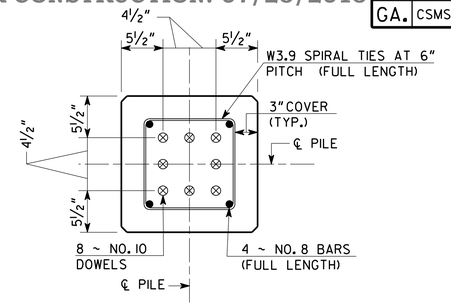
12 ~ 0.6"Ø, GRADE 270 LRS, AT 42 KIPS
16 ~ ½"Ø (SPECIAL), GRADE 270 LRS, AT 31 KIPS
16 ~ ½"Ø, GRADE 270 LRS, AT 31 KIPS
24 ~ 7/16"Ø, GRADE 270 LRS, AT 21 KIPS

NOTE:
ANY OF THE GIVEN ATLERNATE STRAND PATTERNS MAY BE UTILIZED. THE STRANDS SHALL BE LOCATED AS FOLLOWS:

PLACE ONE STRAND AT EACH CORNER AND PLACE THE REMAINING STRANDS EQUALLY SPACED BETWEEN THE CORNER STRANDS.

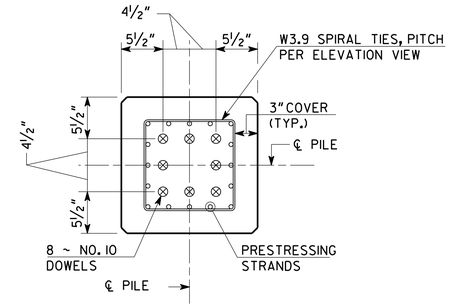
THE TOTAL STRAND PATTERN SHALL BE CONCENTRIC WITH THE NOMINAL CONCRETE SECTION OF THE PILE.

NOTE:
USE THIS SHEET WITH PSC PILE SHEET 1 - NOTES AND DETAILS FOR SQUARE PRESTRESSED CONCRETE PILES AND PSC PILE SHEET 2 - SQUARE PRESTRESSED CONCRETE PILE SPLICES.



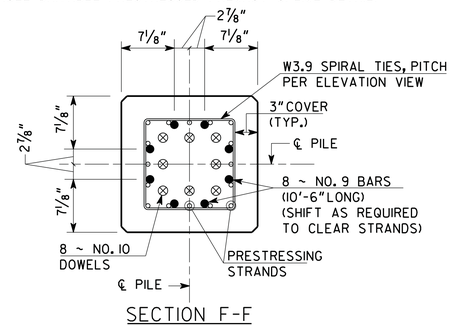
SECTION D-D

(SEE NONDRIVABLE UNFORESEEN REINFORCED PRECAST SPLICE DETAIL)



SECTION E-E

(SEE DRIVABLE PRESTRESSED PRECAST SPLICE DETAIL)



SECTION F-F

(SEE DRIVABLE PREPLANNED SPLICE DETAIL)

20" PILE SPLICE REINFORCEMENT DETAILS

PSC PILE - SPECIAL DESIGN

THE LPA GROUP
A UNIT OF GENSLER DESIGN CORPORATION
THE LPA GROUP INCORPORATED
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

20" SQUARE
PRESTRESSED CONCRETE PILES
CHATHAM COUNTY CSMSL-0008-00(690)

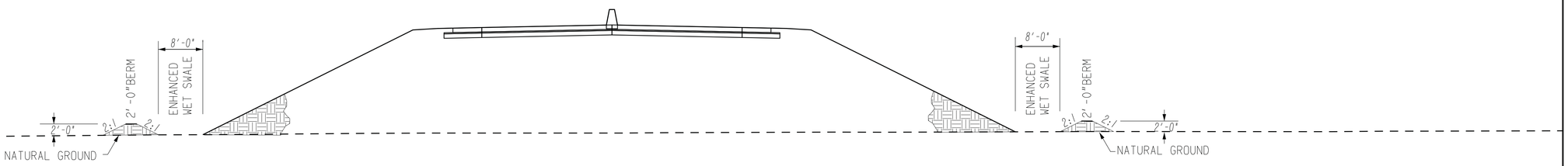
DRAWING NO.	NO SCALE	JULY 2013
37-05		
PSC PILE SHEET 5 OF 5	DESIGNED JCR / DRAWN JCR	CHECKED ANZ/AWB / DESIGN GROUP SKG / REVIEWED DLC/WMD / APPROVED BFR

DATE | REVISIONS | BY

1 INCH WHEN PRINTED FULL SIZE

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	541	730

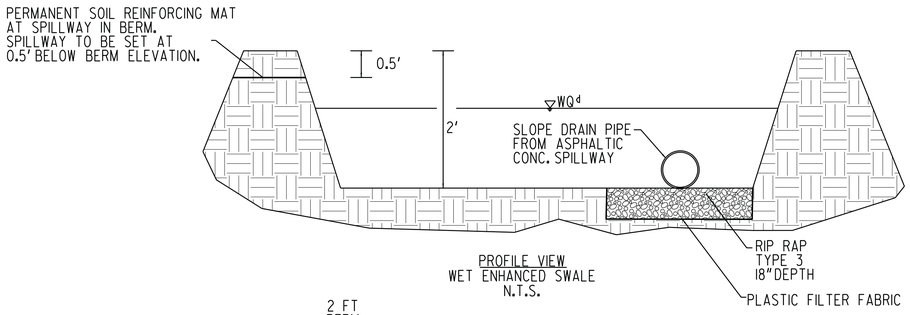
RELEASED FOR CONSTRUCTION - 07-23-13



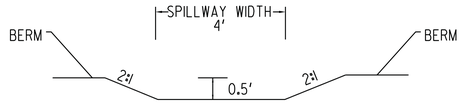
NOTE: GROUNDWATER LEVELS ARE EXPECTED TO BE NEAR THE EXISTING GRADE IN AREAS OF WET ENHANCED SWALES

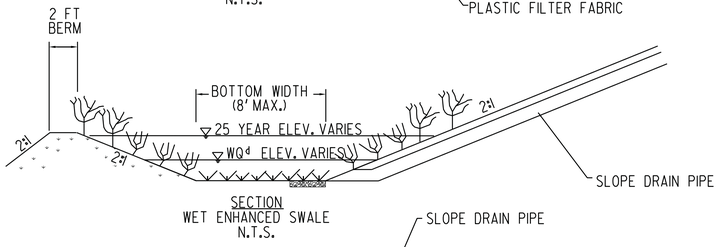
ENHANCED WET SWALE DETAIL #1

APPLIES TO STA. 265+64 LT. TO STA. 266+16 LT.
APPLIES TO STA. 269+65 LT. TO STA. 270+65 LT.
APPLIES TO STA. 273+68 LT. TO STA. 274+68 LT.
APPLIES TO STA. 277+50 LT. TO STA. 278+64 LT.
APPLIES TO STA. 279+33 LT. TO STA. 280+13 LT.
APPLIES TO STA. 282+25 LT. TO STA. 283+30 LT.
APPLIES TO STA. 265+89 RT. TO STA. 266+24 RT.
APPLIES TO STA. 270+39 RT. TO STA. 271+54 RT.
APPLIES TO STA. 272+27 RT. TO STA. 272+92 RT.
APPLIES TO STA. 275+50 RT. TO STA. 276+13 RT.
APPLIES TO STA. 277+82 RT. TO STA. 278+57 RT.
APPLIES TO STA. 280+00 RT. TO STA. 280+62 RT.
APPLIES TO STA. 282+29 RT. TO STA. 282+79 RT.

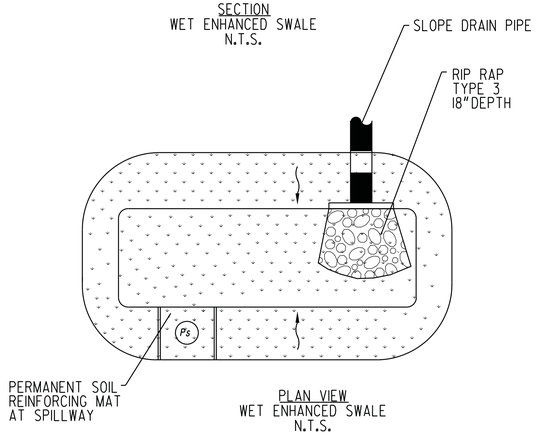


PROFILE VIEW
WET ENHANCED SWALE
N.T.S.





SECTION
WET ENHANCED SWALE
N.T.S.



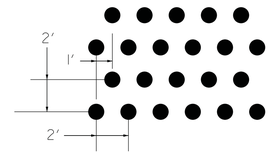
PLAN VIEW
WET ENHANCED SWALE
N.T.S.

NOTES:
1. THE BERM WILL WRAP AROUND THE BEGINNING AND END OF THE ENHANCED WET SWALES FOR DETAIL # 1, THUS RETAINING THE RUNOFF. THIS WILL ALLOW INFILTRATION INTO THE EXISTING SOIL.

VEGETATION SPECIES TABLE

	SHRUB STRATUM	
	COMMON NAME	LATIN NAME
PLANT ON 2:1 SLOPE OF SWALE (± 25 % EACH SPECIES)	WAX MYRTLE	MYRICA CERIFERA
	BUTTON BUSH	CEPHALANTHUS OCCIDENTALIS
	SWEET PEPPERBUSH	CLETHERA ALNIFOLIA
	ELDERBERRY	SAMBUCUS CANADENSIS
	HERB STRATUM	
	COMMON NAME	LATIN NAME
PLANT ON 2:1 SLOPE OF SWALE (± 50 % EACH SPECIES)	VIRGINIA CHAIN FERN	WOODWARDIA VIGINICA
	NETTED CHAIN FERN	WOODWARDIA AREOLATA
PLANT IN BOTTOM OF SWALE (± 33 % EACH SPECIES)	COMMON RUSH	JUNCUS EFFUSUS
	LIZARDS TAIL	SAURURUS CERNUUS
	MARSH BULRUSH (WOOL GRASS)	SCIRPUS CYPERINUS

MULTI-TROPHIC REVEGETATION PLAN:
1. FOLLOW THE STREAM RESTORATION DESIGN AS SHOWN ABOVE.
2. AFTER HERBACEOUS PLANTS AND SHRUBS ARE PLANTED, SPREAD UPLAND SEED MIX AND SALT-TOLERANT WETLAND SEED MIX WITHIN THE BUFFER.
3. NO TREES PLANTED DUE TO INACCESSIBILITY AND MAINTENANCE.



PLANT SPACING DETAIL
TRIANGULAR SPACING

(4 INCH PLUGS OR POTS ; 1-GAL POTS; AND/OR LIVE STAKE SPECIMENS)

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

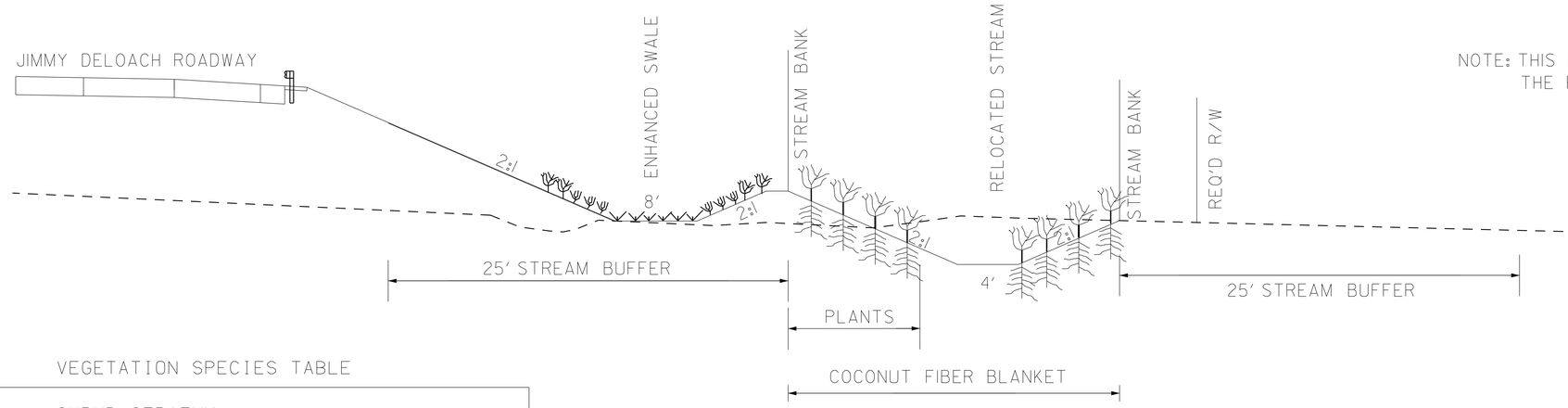
REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

SPECIAL CONSTRUCTION DETAILS

DRAWING No. 38-001

3/1/2007 GPLN



NOTE: THIS PLANTING DETAIL IS TYPICAL FOR THE RIGHT AND LEFT SIDE

VEGETATION SPECIES TABLE

SHRUB STRATUM	
COMMON NAME	LATIN NAME
WAX MYRTLE	MYRICA CERIFERA
BUTTON BUSH	CEPHALANTHUS OCCIDENTALIS
SWEET PEPPERBUSH	CLETHERA ALNIFOLIA
ELDERBERRY	SAMBUCUS CANADENSIS

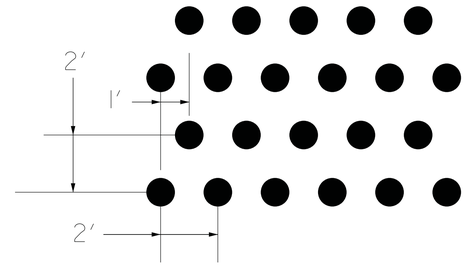
PLANT ON 2:1 SLOPE OF SWALE (± 25 % EACH SPECIES)

HERB STRATUM	
COMMON NAME	LATIN NAME
VIRGINIA CHAIN FERN	WOODWARDIA VIGINICA
NETTED CHAIN FERN	WOODWARDIA AREOLATA
COMMON RUSH	JUNCUS EFFUSUS
LIZARDS TAIL	SAURURUS CERNUUS
MARSH BULRUSH (WOOL GRASS)	SCIRPUS CYPERINUS

PLANT ON 2:1 SLOPE OF SWALE (± 50 % EACH SPECIES)

PLANT IN BOTTOM OF SWALE (± 33 % EACH SPECIES)

MULTI-TROPHIC REVEGETATION PLAN:
1. FOLLOW THE STREAM RESTORATION DESIGN AS SHOWN ABOVE.
2. AFTER HERBACEOUS PLANTS AND SHRUBS ARE PLANTED, SPREAD UPLAND SEED MIX AND SALT-TOLERANT WETLAND SEED MIX WITHIN THE BUFFER.
3. NO TREES PLANTED DUE TO INACCESSIBILITY AND MAINTENANCE.



PLANT SPACING DETAIL
TRIANGULAR SPACING

(4 INCH PLUGS OR POTS ; 1-GAL POTS; AND/OR LIVE STAKE SPECIMENS)

RELEASED FOR CONSTRUCTION - 07-23-13

3/11/2007 GPLN

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

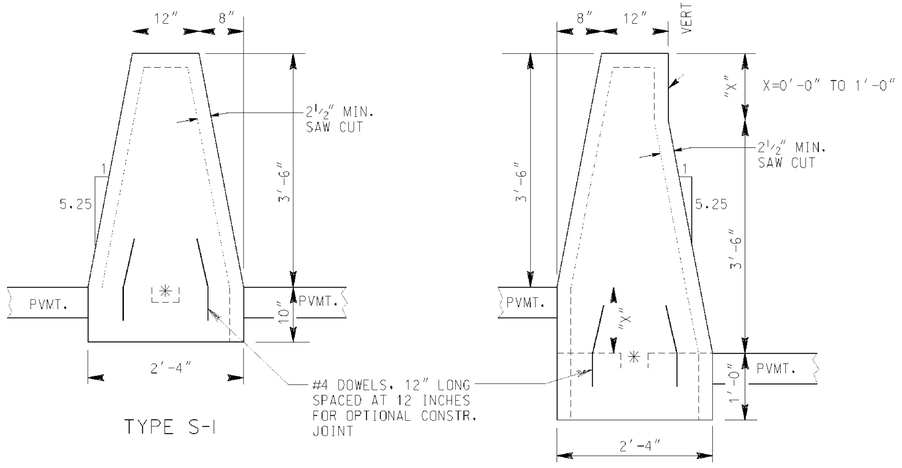
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

SPECIAL CONSTRUCTION DETAILS

DRAWING NO. 38-002

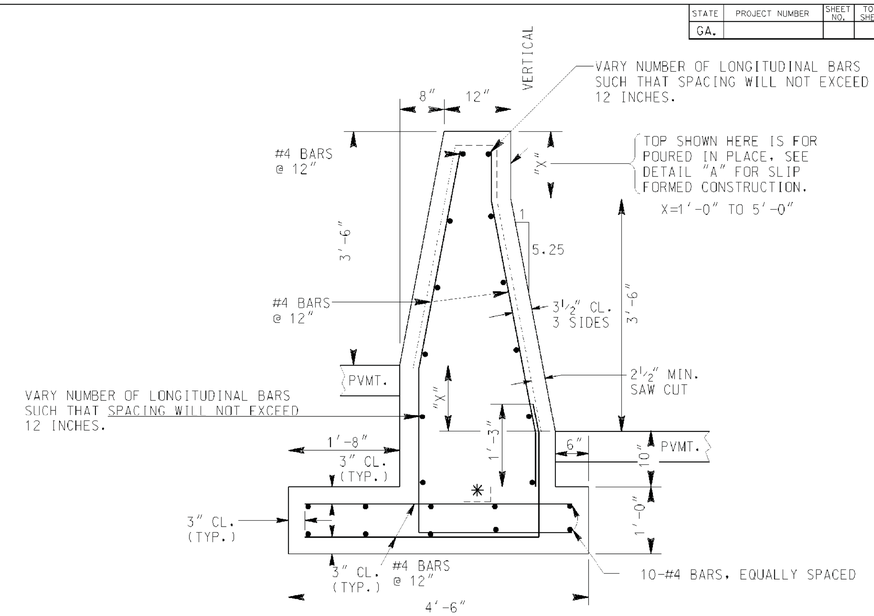
RELEASED FOR CONSTRUCTION - 07-23-13

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			



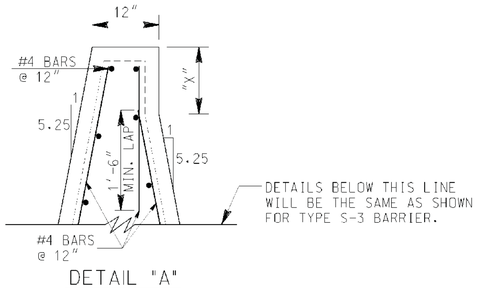
TYPE S-1

TYPE S-2



TYPE S-3

*KEYED CONSTRUCTION JOINT (OPTIONAL) TO BE THE SIZE OF A NOMINAL 2"x4".



DETAIL "A"

TYPE S-3 (TOP SLIP FORMED)

GENERAL NOTES

1. SPECIFICATIONS: GEORGIA STANDARD, CURRENT EDITION, AND SUPPLEMENTS THERETO.
2. ALL CONCRETE SHALL BE CLASS "A".
3. EXPANSION JOINTS ARE REQUIRED IN ALL BARRIER TYPES AT A MINIMUM SPACING OF 300 FEET WITH A 1" PREFORMED JOINT FILLER. CONTRACTION JOINTS SHALL BE SPACED AT 20 FEET AND MAY BE SAWED.
4. CONSTRUCTION METHODS FOR CONCRETE BARRIERS TP. S-1, S-2 & S-3 SHALL BE THE SAME AS SPECIFIED FOR TYPE 20, TYPE 21 & TYPE 22 (STD. NO. 4940).

BY	DATE	REVISION
GLO	3-20-08	REV. BAR & NOTE FOR TYPE S-3.

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

SPECIAL DESIGN
CONCRETE MEDIAN BARRIERS
TYPES S-1, S-2 & S-3

NO SCALE — REV. & REDR. MAR., 2001

DESIGNED
TRACED
CHECKED
REVISED

NUMBER

7

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THE LPA GROUP
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
CONSTRUCTION DETAILS

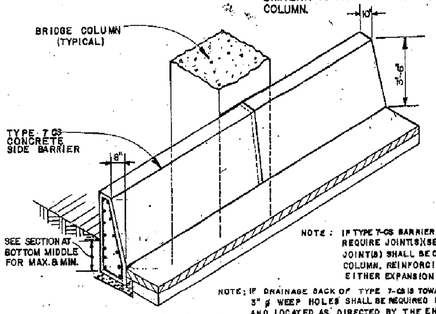
DRAWING No. 40-001

3/1/2007 GPLN

RELEASED FOR CONSTRUCTION - 07-23-13

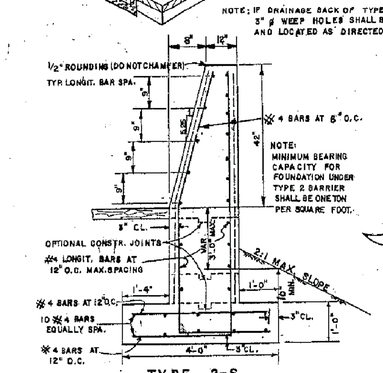
PICTORIAL VIEW (TYPE 7-CS)

PICTORIAL VIEW FOR TR 7-RS SHALL BE SIMILAR TO VIEW SHOWN, BUT WITHOUT COLUMN.

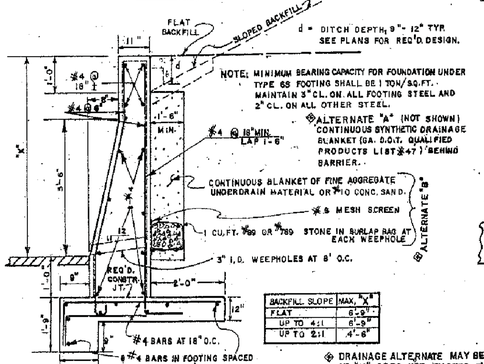


NOTE: IF TYPE 7-CS BARRIER IS LONG ENOUGH TO REQUIRE JOINTS (SEE GENERAL NOTE NO. 6) THE JOINT(S) SHALL BE CENTERED IN FRONT OF A COLUMN. REINFORCING WILL NOT EXTEND THRU EITHER EXPANSION OR CONTRACTION JOINTS.

NOTE: IF DRAINAGE BACK OF TYPE 7-CS IS TOWARD BARRIER BACK, 3" ϕ WEEP HOLES SHALL BE REQUIRED BETWEEN COLUMNS AND LOCATED AS DIRECTED BY THE ENGINEER.



TYPE 2-S



BACKFILL SLOPE	MAX. "X"
FLAT	6'-9"
UP TO 4:1	6'-9"
UP TO 2:1	4'-6"

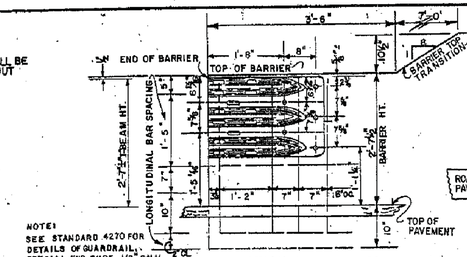
NOTE: MINIMUM BEARING CAPACITY FOR FOUNDATION UNDER TYPE 6S FOOTING SHALL BE 1 TON/SQ.FT. MAINTAIN 3" CL. ON ALL FOOTING STEEL AND 2" CL. ON ALL OTHER STEEL.

◈ ALTERNATE "A" (NOT SHOWN) CONTINUOUS SYNTHETIC DRAINAGE BLANKET (GA. D.O.T. QUALIFIED PRODUCTS LIST #47) BEHIND BARRIER.

◈ DRAINAGE ALTERNATE MAY BE OMITTED IF "X" DOES NOT EXCEED 5'-0".

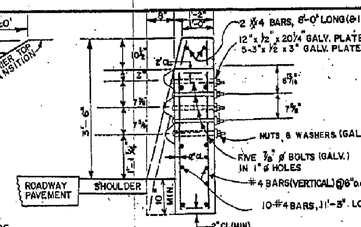
TYPE 6-S

(SEE STANDARD 9031 IF GRAVITY WALL WITH BARRIER FACE IS DESIRED)

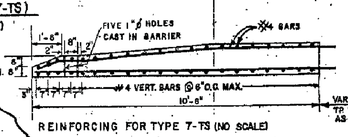


NOTE: SEE STANDARD 4270 FOR DETAILS OF GUARDRAIL, SPECIAL END SHOE, 1/2" GALV. PLATE AND RELATED ITEMS.

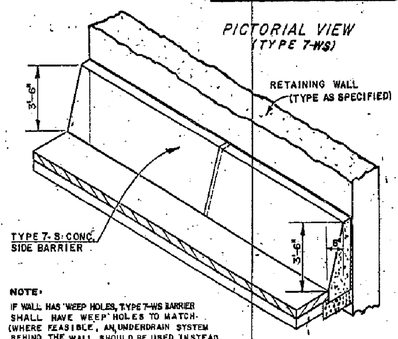
ELEVATION (TYPE 7-TS)
(GUARDRAIL ATTACHMENT)



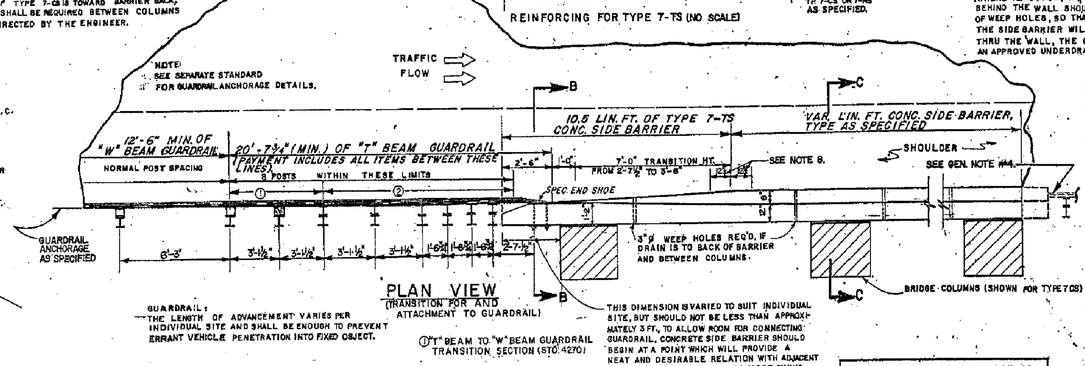
SECTION B-B (TYPE 7-TS)



REINFORCING FOR TYPE 7-TS (NO SCALE)



NOTE: IF WALL HAS "WEEP HOLES, TYPE 7-WS BARRIER SHALL HAVE "WEEP" HOLES TO MATCH. (WHERE FEASIBLE, AN UNDERDRAIN SYSTEM BEHIND THE WALL SHOULD BE USED INSTEAD OF WEEP HOLES, SO THAT CONSTRUCTION OF THE SIDE BARRIER WILL BE EASIER. IF PLANS SPECIFY WEEPHOLES THRU THE WALL, THE CONTRACTOR, AT HIS OPTION, MAY SUBSTITUTE AN APPROVED UNDERDRAIN SYSTEM FOR NO ADDITIONAL PAYMENT.)



PLAN VIEW
(TRANSITION FOR AND ATTACHMENT TO GUARDRAIL)

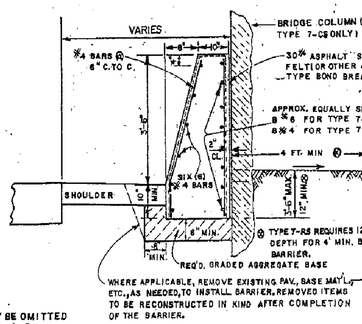
GUARDRAIL: THE LENGTH OF ADVANCEMENT VARIES PER INDIVIDUAL SITE AND SHALL BE ENOUGH TO PREVENT ERRANT VEHICLE PENETRATION INTO FIXED OBJECT.

— POSTS & OFFSET BLOCKS DEPICTED FOR GUARDRAIL ARE TYPICAL, SEE APPLICABLE STANDARD.

① "T" BEAM TO "W" BEAM GUARDRAIL TRANSITION SECTION (STD. 4270)

② DOUBLE THICKNESS (ONE RAIL SECTION INSET IN ANOTHER) "T" BEAM GUARDRAIL (STD. 4012-C)

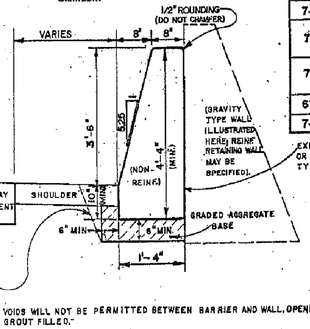
THIS DIMENSION IS VARIED TO SUIT INDIVIDUAL SITE, BUT SHOULD NOT BE LESS THAN APPROXIMATELY 3 FT., TO ALLOW ROOM FOR CONNECTING GUARDRAIL. CONCRETE SIDE BARRIER SHOULD BEGIN AT A POINT WHICH WILL PROVIDE A NEAT AND DESIRABLE RELATION WITH ADJACENT ELEMENTS, SUCH AS CONCRETE SLOPE PAVING, SHOULDER PAVING, BACK SLOPE, DITCH, GUTTER, ETC. EXACT LOCATION WILL BE AS SHOWN IN THE PLANS AND/OR AS DIRECTED BY THE ENGINEER.



③ TYPE 7-RS REQUIRES 12" MIN. DEPTH FOR 4' MIN. BEHIND BARRIER.

WHERE APPLICABLE, REMOVE EXISTING PAV., BASE MAT'L, ETC., AS NEEDED, TO INSTALL BARRIER. REMOVED ITEMS TO BE RECONSTRUCTED IN KIND AFTER COMPLETION OF THE BARRIER.

SECTION C-C (FOR TYPE 7-CS or 7-RS)



— VOIDS WILL NOT BE PERMITTED BETWEEN BARRIER AND WALL. OPENINGS WILL BE GROUT FILLED.

TYPE 7-WS

GENERAL NOTES:

1. SPECIFICATIONS: GEORGIA STANDARD, CURRENT EDITION, & SUPPLEMENTS THERETO. ALL CONCRETE SHALL BE CLASS "AA". SURFACE FINISHES REQUIRED ONLY WHERE SPECIFIED) SEE SECTION 500.
2. GRADE AND ALIGNMENT OF BARRIER TOP SURFACE SHALL NOT VARY FROM THE ESTABLISHED LINE AND GRADE MORE THAN 1/4" IN 10'-0" WHEN CHECKED WITH A STRAIGHT EDGE OF NOT LESS THAN 10'-0" IN LENGTH.
3. WHERE GUARDRAIL ATTACHMENT IS REQUIRED, PAYMENT FOR CONCRETE SIDE BARRIER, TYPE 7-TS, SHALL INCLUDE THE TRANSITION, TAPER, AND THE FIVE 1" ϕ HOLES PROPERLY LOCATED FOR CONNECTING THE SPECIAL END SHOE. PAYMENT FOR GUARDRAIL INCLUDES THE SPECIAL END SHOE, ALL CONNECTING HARDWARE, ADD'L. POSTS & DOUBLE (INSET) "T" BEAM.
4. IF GUARDRAIL IS WARRANTED ON THE TRAILING END OF SIDE BARRIER WITH ONE-WAY TRAFFIC, BARRIER FACE TRANSITION AND ADDITIONAL GUARDRAIL POSTS ARE NOT REQUIRED.
5. IF THE EDGE OF THE TRAVEL LANE TO THE FACE OF THE CONCRETE BARRIER IS MORE THAN APPROXIMATELY 18 FT., CONSIDERATION SHOULD BE GIVEN TO CONTINUING GUARDRAIL RATHER THAN USING CONCRETE SIDE BARRIER.
6. ALL CONCRETE SIDE BARRIERS OVER 20 FT. IN LENGTH SHALL HAVE CONTRACTION JOINTS AT 20 FT. MAXIMUM SPACINGS. IF SAWED, CONTRACTION JOINT CUT SHALL BE ¼" WIDE AND 2" DEEP. ALL CONCRETE SIDE BARRIERS OVER 200 FT. IN LENGTH SHALL HAVE EXPANSION JOINTS AT 200 FT MAXIMUM SPACINGS. A 1 IN. PREFORMED JOINT FILLER SHALL BE USED AT THE EXPANSION JOINTS. DISTANCE BETWEEN JOINTS SHOULD BE EQUAL (APPROXIMATELY).
7. LOCATE OVERHEAD SIGN SUPPORTS BACK OF SIDE BARRIER IF FEASIBLE; WHERE CONDITIONS NECESSITATE LOCATION ON BARRIER TOP, SUPPORT FOOTING FOR SIGN SHALL BE DESIGNED BY CONTRACTOR, APPROVED BY THE G.D.O.T. PRIOR TO CONSTRUCTION. SEE SEPARATE DETAILS FOR TYPE 9-SS SIDE BARRIER, IF REQUIRED.
8. LONGITUDINAL REINFORCING OF TYPE 7-TS AND TYPE 7-CS (or RS) SHALL EXTEND INTO EACH OTHER 12'-9" EACH SIDE AT THEIR JUNCTION.

BARRIER TYPE LOCATIONS	
TYPE	LOCATION
2-S	FILLS SECTION
7-CS	AT BRIDGE COLUMNS
7-RS	ALONG ROADSIDE — FREESTANDING, MIN. 12" DEPTH BEHIND BARRIER FOR 4 FT. MIN.
7-WS	ALONG RETAINING WALL (TYPE AS SPECIFIED), BUT NOT ALONG SOUND BARRIER.
6-S	AT EMBANKMENT TO BE RETAINED (CUT SECTION)
7-TS	AT GUARDRAIL ATTACHMENT

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	HPP 1M 95-2 (146)	1917	1418

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

MODIFIED STANDARD NO 4948
SPECIAL DESIGN
CONCRETE SIDE BARRIER
TP'S. 2-S, 6-S, 7-CS, 7-RS, 7-WS, & 7-TS

NO. SCALE — MAY, 1993

BY	DATE	REVISION
DES.		(SUBMITTED) STATE ROAD & AIRPORT DESIGN ENGR.
DRW.		
TRA.		(APPROVED) STATE HIGHWAY ENGINEER
CHK.		

FORM EF5

3/1/2007 GPLN

THE LPA GROUP
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
CONSTRUCTION DETAILS

DRAWING No. 40-002

23-JUL-2013 15:28 JParks	3:28:53 PM	A-3 GDOT_11x17.pen	Y:\Roadways\126379\0008690\Dgn\Const Details\A-3.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
				GA	CSMSL-0008-00(690)	545	730

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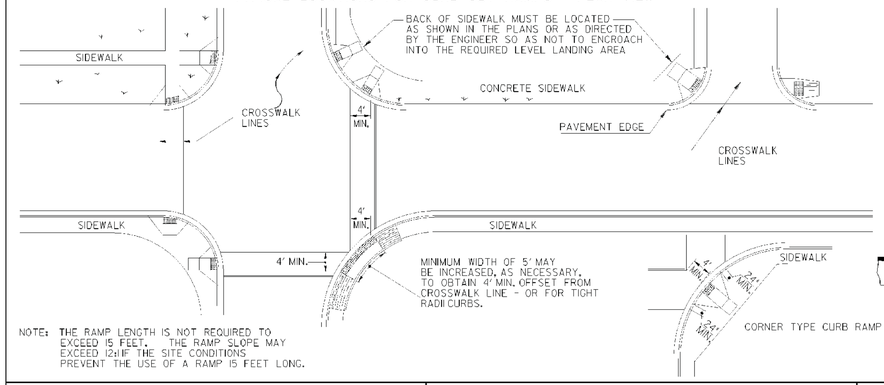
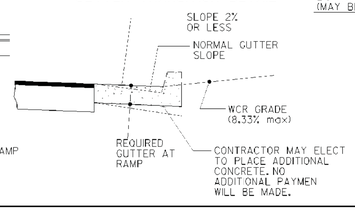
RELEASED FOR CONSTRUCTION - 07-23-13

TYPICAL LOCATIONS FOR CURB CUT RAMPS - PLAN VIEW



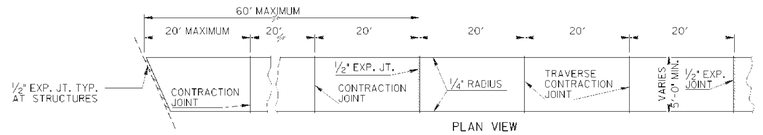
NOTE: THE RAMP LENGTH IS NOT REQUIRED TO EXCEED 15 FEET. THE RAMP SLOPE MAY EXCEED 12:1 IF THE SITE CONDITIONS PREVENT THE USE OF A RAMP 15 FEET LONG.

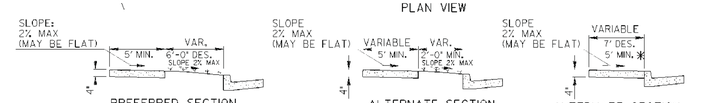
GUTTER TRANSITION DETAIL



CONCRETE SIDEWALK DETAILS

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			





NOTES FOR CONCRETE SIDEWALK:

A. CONCRETE TO BE PLACED 4" THICK AND FINISHED WITH TAMPS, WOOD FLOATS AND STIFF-BRISTLE BROOMS.
B. TRANSVERSE CONTRACTION JOINTS SHALL BE PLACED AT 20 FT. INTERVALS. ALL EDGES TO BE ROUNDED TO ¼" RADIUS.
C. ½" EXPANSION JOINTS SHALL BE PLACED, WHERE SIDEWALK TIE INTO A STRUCTURE OR TERMINATE AT CURB, RAMPS OR DRIVEWAYS AND AT 60' INTERVALS.

NOTES FOR CURB CUT RAMPS:

1. CURB CUT RAMPS WILL BE LOCATED AS FOLLOWS UNLESS PLANS OR CONTRACT SPECIFY OTHERWISE.
   a) AT ALL PEDESTRIAN CROSSWALKS WHERE CURB IS CONSTRUCTED OR REPLACED.
   b) WHERE THE SIDEWALK, CONCRETE OR UNPAVED, IS INTERRUPTED BY THE CURB AT TURNOUTS OR AT INTERSECTIONS.
   c) AT OTHER LOCATIONS SUCH AS HOSPITALS, NURSING HOMES, REST AREAS, ETC., WHERE THE CURB WOULD OTHERWISE BE AN OBSTRUCTION TO THE PHYSICALLY DISABLED.
2. RAMPS WILL BE CONSTRUCTED FROM CONCRETE. SPECIFICATIONS FOR RAMPS WILL BE THE SAME AS FOR CONCRETE SIDEWALK. RAMPS SHALL HAVE EITHER A ROUGH OR A TEXTURED FINISH.
3. DROP INLETS ARE NOT TO BE LOCATED DIRECTLY IN FRONT OF RAMPS. CATCH BASINS SHOULD BE LOCATED AT LEAST 10 FT. FROM RAMPS WHEN FEASIBLE.
4. WHERE RAMPS ARE LOCATED IN RADII, THE DIMENSIONS SHOWN FOR RAMP WIDTHS AND TAPERS ARE MEASURED PERPENDICULAR TO THE RAMP AND NOT ALONG THE CURVE.
5. WHERE UTILITY STRUCTURES CONFLICT, WHERE SIDEWALK GEOMETRY VARIES, AT SKEWED INTERSECTIONS, OR IN OTHER SPECIAL CASES, THE RAMP DESIGNS MAY BE MODIFIED BY THE DESIGNER OR ENGINEER, PROVIDED THAT THE WIDTH REMAINS A MINIMUM OF 48 INCHES, AND NO SLOPE ON THE ACCESSIBLE PART OF THE RAMP IS STEEPER THAN 12:1.
6. LIN. FT. OF CURB AND GUTTER WILL INCLUDE THE TRANSITIONED CURB IN FRONT OF RAMPS. SQ. YDS. OF CONCRETE SIDEWALK AND CONCRETE MEDIAN PAVING WILL INCLUDE RAMPS. NO ADDITIONAL PAYMENT WILL BE MADE FOR CURB RAMPS. NO ADDITIONAL PAYMENT WILL BE MADE FOR SAWING AND REMOVING EXISTING SIDEWALK OR CURB WHERE NECESSARY FOR RAMP CONSTRUCTION.
7. WHEN A CURB RAMP IS PLACED ON EXISTING PAVEMENT, THE PAVEMENT SHALL BE REMOVED TO PROVIDE A MINIMUM THICKNESS OF 3 INCHES OF CONCRETE AT ALL LOCATIONS. NO SEPARATE PAYMENT WILL BE MADE FOR REMOVAL OF THE PAVEMENT.
8. DETECTABLE WARNING SURFACES ARE REQUIRED ON ALL INTERSECTIONS WITH PUBLIC STREETS, SIGNALIZED COMMERCIAL DRIVEWAYS, AND COMMERCIAL DRIVEWAYS WITH AN AADT OF 25 VPD.

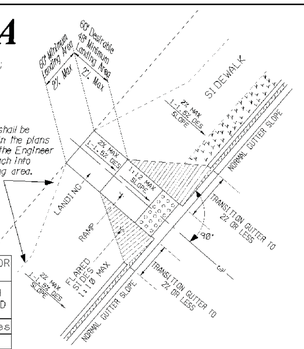
This Detail Replaces Ga Standard 9031W

Guidelines For Usage On Metric Projects

When these details are incorporated into plans and or projects that are being prepared or constructed in metric units, exact or precise conversion to metric units is not required. The dimensions shown that are in feet and inches may be converted to corresponding metric units using the following "Rounded-Off" conversion factors: 1" =25mm, 4"=100mm, and 12" or 1'=300mm. All measurement notes that refer to linear feet and square yards shall be interpreted to mean linear meters and square meters.

Type A

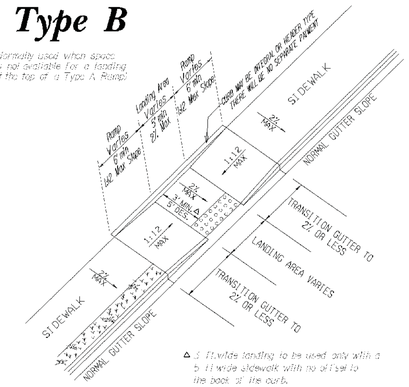
(The Preferred Ramp)



LENGHT REQUIRED FOR A 1:10 SLOPE	
DIFFERENCE IN HEIGHT	LENGTH REQUIRED
1 Inch	10 Inches
2 Inches	1'-8"
3 Inches	2'-6"
4 Inches	3'-4"
5 Inches	4'-2"
6 Inches	5 feet

Type B

(Normally used when space is not available for a landing at the top of a Type A Ramp)

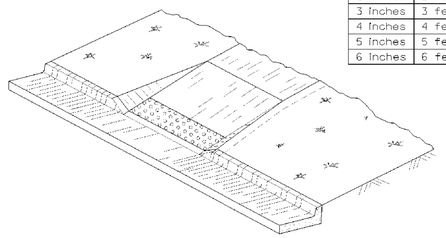


△ 5' flat wide landing to be used only with a 5' flat wide sidewalk with no offset to the back of the curb.

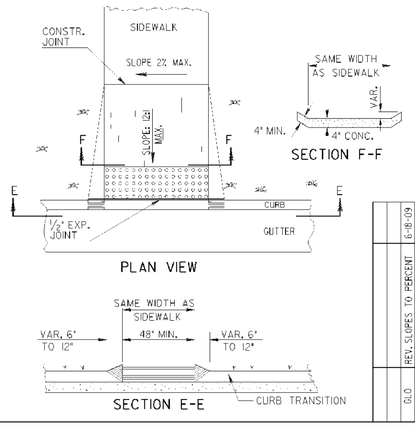
LENGHT REQUIRED FOR A 1:12 SLOPE	
DIFFERENCE IN HEIGHT	LENGTH REQUIRED
1 Inch	1 foot
2 Inches	2 feet
3 Inches	3 feet
4 Inches	4 feet
5 Inches	5 feet
6 Inches	6 feet

Type D

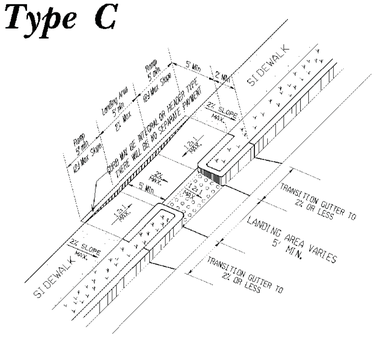
(Normally used when the sidewalk ties directly into the crosswalk)



IN AREAS WHERE THE GUTTER HAS A SLOPE 1" IN 1' AND NORMAL GUTTER SLOPE AT A DISTANCE OF 6 TO 10 FEET FROM THE RAMP AND BEGIN TRANSITION TO A FLAT GUTTER SLOPE. NORMAL GUTTER SLOPE SHALL BE RESUMED AT A SIMILAR DISTANCE BEYOND THE RAMP.



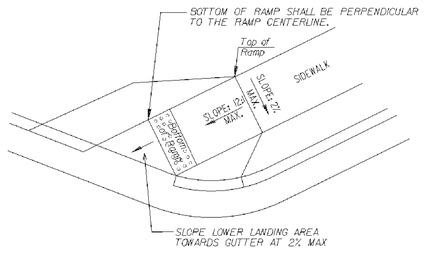
Type C



Skewed Ramp Details

(Applies to Type A & Type D Ramps Only)

WHEN THE RAMP CENTERLINE IS NOT PERPENDICULAR TO THE CURB A LEVEL LANDING AREA WITH SLOPES LESS THAN 2% MUST BE PROVIDED AT THE BOTTOM OF THE RAMP.



REVISION	DATE
GLO 6/18/09	
GLO REV. SLOPES TO PERCENT AND ADDED 12:1 & 10:1 CHART.	5-10-06
ADDED GEN. NOTE NO. 8.	2-21-03
REV. TRUNCATED DOMES	2-10-03
REVISED	7-29-02
REVISED	5-29-02
REVISED	5-23-02
REVISED	5-13-02
REVISED	4-29-02
REVISED	4-11-02
REVISED	4-3-02
REVISED	3-28-02

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

SPECIAL DETAIL
CONCRETE SIDEWALK DETAILS
CURB CUT (WHEELCHAIR) RAMPS

NO SCALE — MARCH 12, 2002

NUMBER A3

3/1/2007 GPLN

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(770) 263-9118

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
CONSTRUCTION DETAILS

DRAWING No. 40-003

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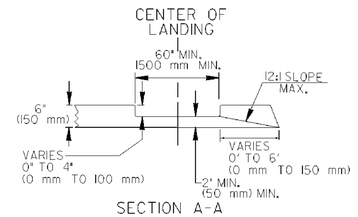
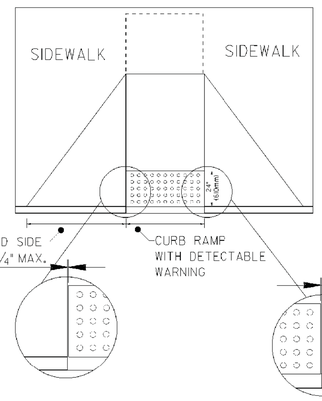
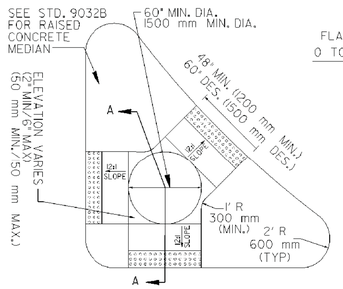
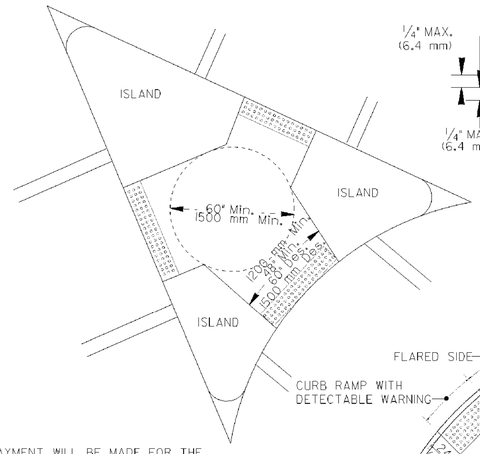






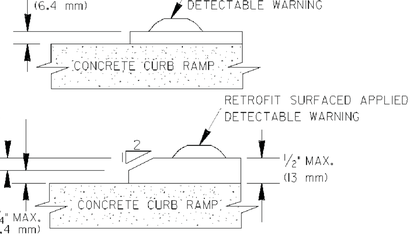
CONCRETE ISLAND WITH ELEVATED CUT THROUGH



DETAIL FOR DETECTABLE WARNING AT CUT-THRU CONCRETE ISLAND

NO SEPARATE PAYMENT WILL BE MADE FOR THE DETECTABLE WARNINGS. THE COST SHALL BE INCLUDED IN THE PRICE BID FOR SIDEWALK (OR CURB CUT RAMP IF THE ITEM IS INCLUDED IN THE PROPOSAL).

FOR CUT-THRU ISLANDS AND EXISTING RAMPS. WHERE NO SIDEWALK OR CURB CUT RAMPS ARE IN THE PROPOSAL. THE COST OF THE DETECTABLE WARINGS SHALL BE INCLUDED IN THE OVERALL BID PRICE SUBMITTED.

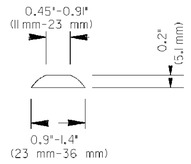


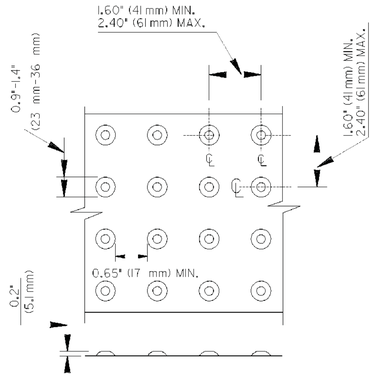
SIZE: DETECTABLE WARNINGS SHALL BE 24 INCHES (610 mm) IN THE DIRECTION OF PEDESTRAIN TRAVEL AND EXTEND THE FULL WIDTH OF THE CURB RAMP OR FLUSH SURFACE.

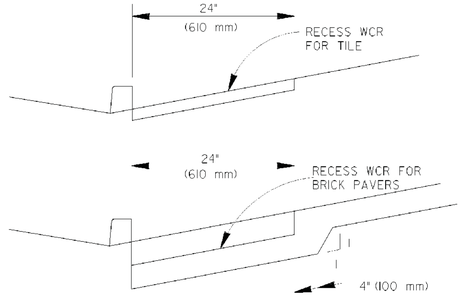
LOCATION: THE DETECTABLE WARNING SHALL BE LOCATED SO THAT THE EDGE NEAREST THE CURB LINE OR OTHER POTENTIAL HAZARD IS 6 TO 8 INCHES (150 mm to 180mm) FROM THE CURB LINE OR OTHER POTENTIAL HAZARD, SUSH AS A REFLECTIVE POOL EDGE OR THE DYNAMIC ENVELOPE OF RAIL OPERATIONS.

DOME SIZE AND SPACING: TRUNCATED DOMES SHALL HAVE A BASE DIAMETER OF 0.9 INCH TO 1.4 INCH (23mm-36mm) AT THE BOTTOM, A DIAMETER OF 0.45 INCH TO 0.91INCH (11mm-23mm) AT THE TOP, THE TOP DIAMETER SHALL BE A MINIMUM OF 50% AND A MAXIMUM OF 65% OF THE BASE DIAMENTER, A HEIGHT OF 0.2 INCH (5.1mm) AND A CENTER-TO-CENTER SPACING OF 2.40 INCHES (61mm) DESIRABLE 1.60 INCHES (41mm) MINIMUM MEASURED ALONG ONE SIDE OF A SQUARE ARRANGEMENT. DOMES SHALL HAVE A SQUARE ARRANGEMENT. DOMES SHALL BE ALIGNED ON A SQUARE GRID IN THE PREDOMINANT DIRECTION OF TRAVEL TO PERMIT WHEELS TO ROLL BETWEEN DOMES.

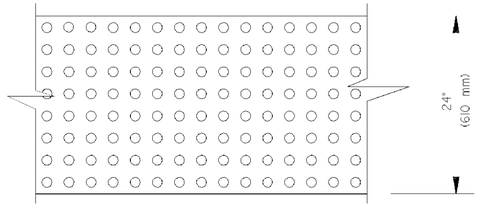
VISUAL CONTRAST: DETECTABLE WARNING SURFACES SHALL CONTRAST VISUALLY WITH THE ADJACENT WALKING SURFACE EITHER LIGHT-ON-DARK OR DARK-ON-LIGHT. THE MATERIAL USED TO PROVIDE VISUAL CONTRACT SHALL BE AN INTEGRAL PART OF THE DETECTABLE WARNING SURFACE.







FOR TILE OR BRICK PAVERS NO VERTICAL LIP OVER 1/8" (3 mm) IS ALLOWED



MATERIALS:

NEW CONSTRUCTION

THE DETECTABLE WARNINGS SHALL BE MADE OF MATERIALS SPECIFIED ON QPL 87.

RETROFIT OF EXISTING RAMPS

SURFACED APPLIED MATERIALS WILL ONLY BE APPROVED TO BE USED ON EXISTING WHEELCHAIR RAMPS.

INSTALLATION:

BRICK PAVERS SHALL BE SET IN A WET MORTAR BED. THE BED SHALL BE PLACED ON CONCRETE. THE CONCRETE SHALL BE A MINIMUM OF 4" THICK.

CERAMIC TILE SHALL BE EPOXIED IN PLACE OR SET IN A WET MORTAR BED. MANUFACTURER RECOMMEND ADHESIVE OR FASTENER SHALL BE USED IN THE INSTALLATION.

ALL OTHER MATERIALS SHALL BE INSTALLED ACCORDING TO MANUFACTURES DETAILS OR INSTRUCTION.

GENERAL NOTES:

RETROFIT SURFACED APPLIED MATERIALS ONLY:

1. CHANGES IN LEVEL OF 1/4" (6.4 mm) HIGH MAXIMUM SHALL BE PERMITTED VERTICALLY ON SURFACED APPLIED MATERIALS.
2. CHANGES IN LEVEL BETWEEN 1/4" (6.4 mm) HIGH MINIMUM AND 1/2" (13mm) HIGH MAXIMUM SHALL BE BELEVELED WITH A SLOPE NOT STEEPER THAN 2:1.

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

BY	REVISION	DATE
GLO	ADDED RETROFIT DETAIL AND ADDED ALT. RAMP	6-18-09
GLO	DETAIL AND GEN. NOTES	10-2-06
GLO	ADDED TOLERANCE TO DTL. REVISED TRUNCATED DOMES AND NOTES.	5-10-06
	REVISED	11-14-02
	REVISED	7-29-02

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

SPECIAL DETAIL

DETECTABLE WARNING SURFACE TRUNCATED DOME SIZE, SPACING AND ALIGNMENT REQUIREMENTS

NO SCALE — MARCH 12, 2002

NUMBER A4

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3/1/2007 GPLN

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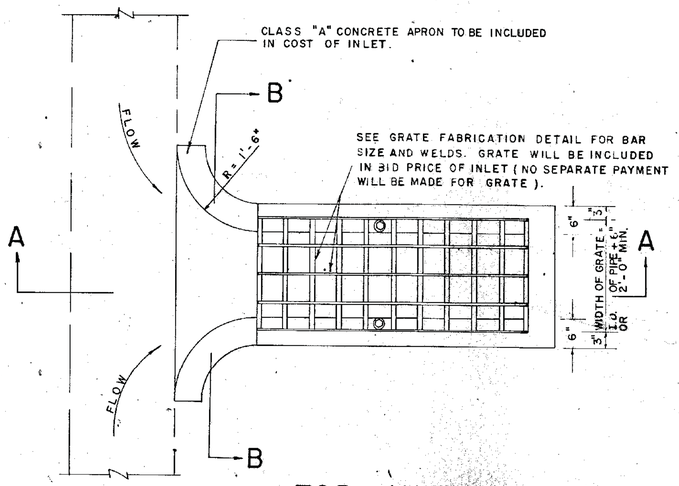
REVISION DATES

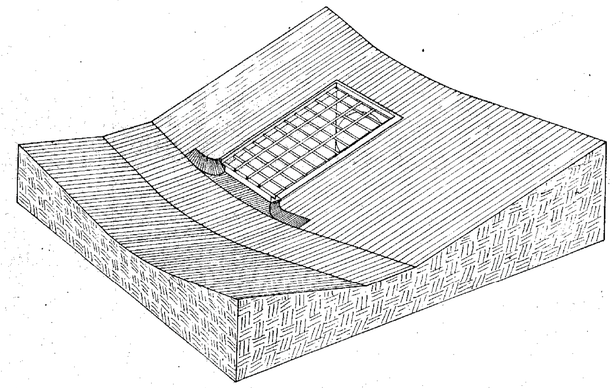
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
CONSTRUCTION DETAILS

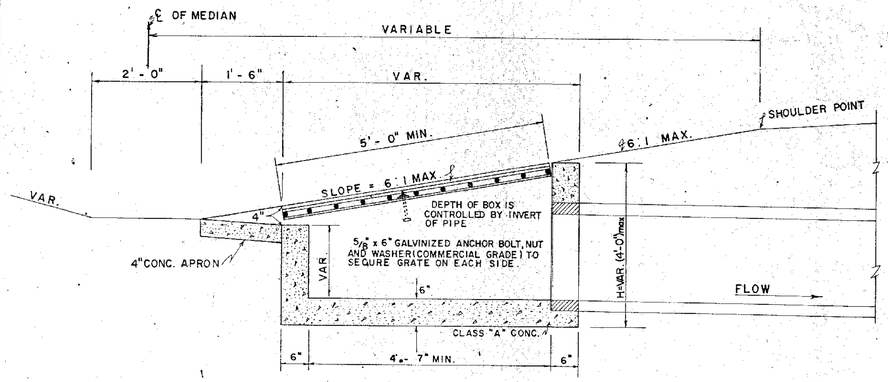
DRAWING No. 40-004

RELEASED FOR CONSTRUCTION - 07-23-13

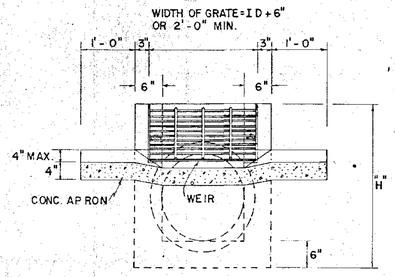


TOP VIEW





SECTION A-A



SECTION B-B

STATE		SHEET NO.	TOTAL SHEETS
GA.			

STATE HIGHWAY DEPARTMENT OF GEORGIA
ENGINEERING DEPARTMENT

NOTE ADDED 2-12-74

STANDARD
CONSTRUCTION DETAIL
MEDIAN DROP INLET SPECIAL DESIGN
(FOR USE IN LOW POINT IN MEDIAN WHERE OUTFALL IS NOT SUFFICIENT TO USE NORMAL DROP INLET)

SCALE: 1" = 1'-0" 3-1-71

WEB
DESIGNED J.L.P.
DRAWN J.M.W.
TRACED A.V.S.
CHECKED H.R.
SUBMITTED
APPROVED

D-3

THE LPA GROUP
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
CONSTRUCTION DETAILS

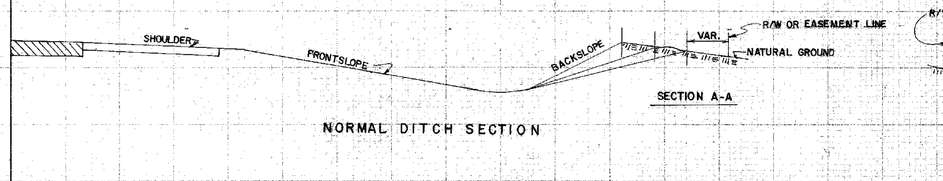
DRAWING No.
40-005

3/1/2007 GPLN

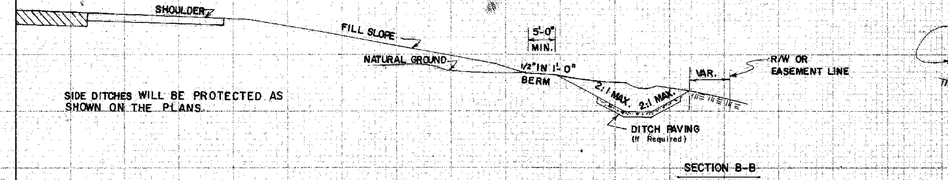
RELEASED FOR CONSTRUCTION - 07-23-13

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

NORMAL DITCH SECTION

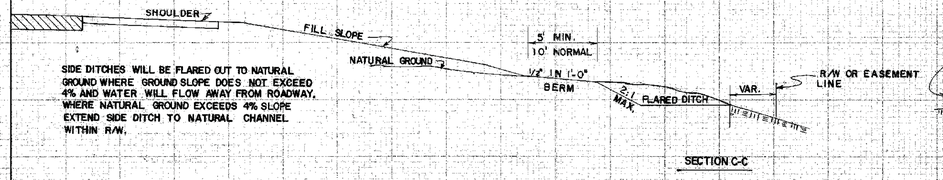


SECTION A-A



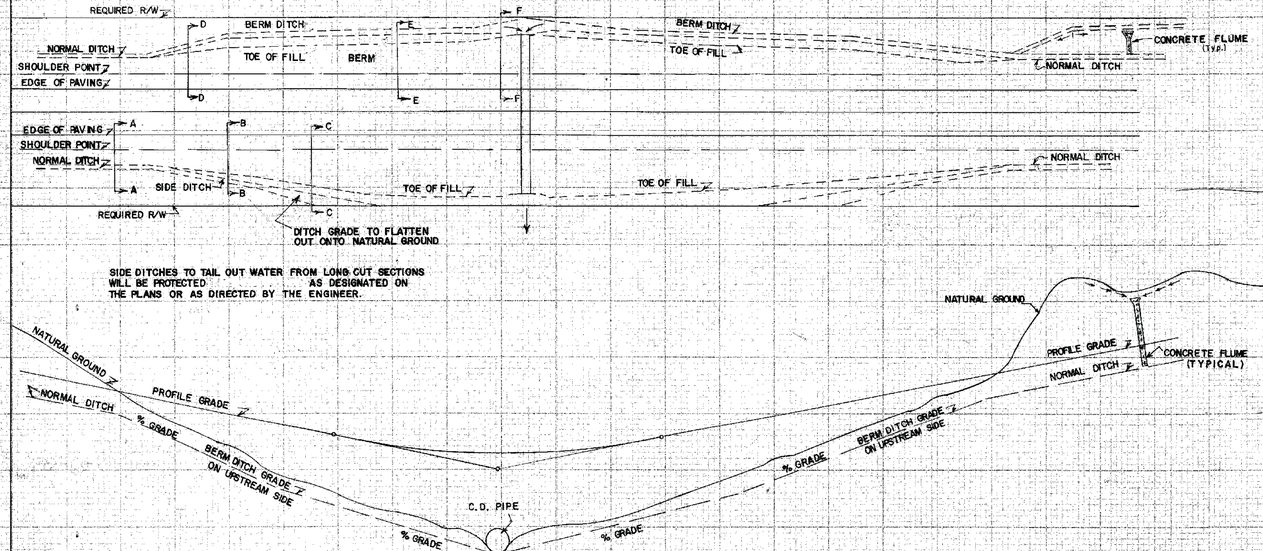
SIDE DITCHES WILL BE PROTECTED AS SHOWN ON THE PLANS.

SECTION B-B

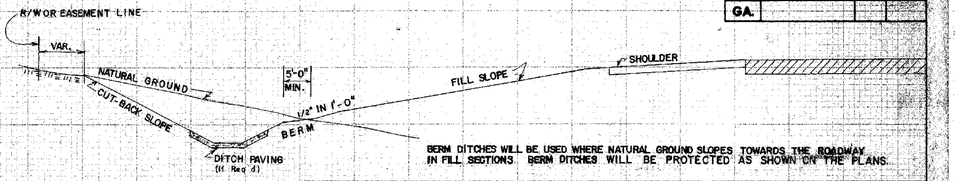


SIDE DITCHES WILL BE FLARED OUT TO NATURAL GROUND WHERE GROUND SLOPE DOES NOT EXCEED 4% AND WATER WILL FLOW AWAY FROM ROADWAY. WHERE NATURAL GROUND EXCEEDS 4% SLOPE EXTEND SIDE DITCH TO NATURAL CHANNEL WITHIN R/W.

SECTION C-C

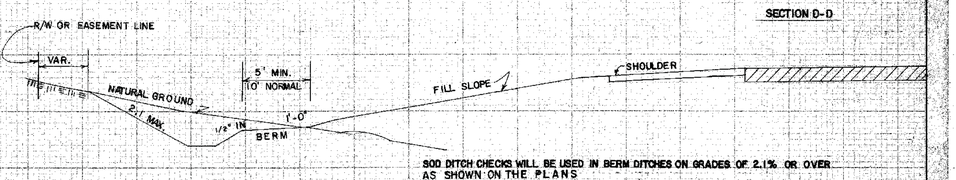


SIDE DITCHES TO TAIL OUT WATER FROM LONG CUT SECTIONS WILL BE PROTECTED AS DESIGNATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.



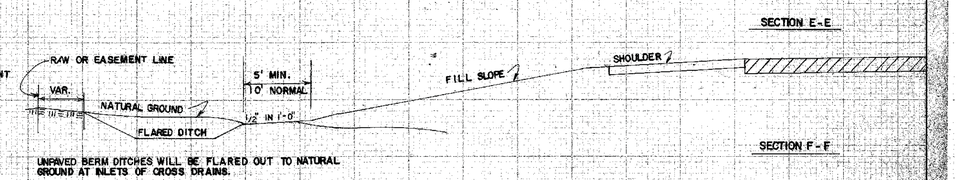
BERM DITCHES WILL BE USED WHERE NATURAL GROUND SLOPES TOWARDS THE ROADWAY IN FILL SECTIONS. BERM DITCHES WILL BE PROTECTED AS SHOWN ON THE PLANS.

SECTION D-D



SOD DITCH CHECKS WILL BE USED IN BERM DITCHES ON GRADES OF 2.1% OR OVER AS SHOWN ON THE PLANS

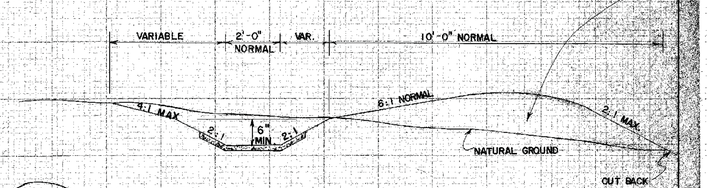
SECTION E-E



UNPAVED BERM DITCHES WILL BE FLARED OUT TO NATURAL GROUND AT INLETS OF CROSS DRAINS.

SECTION F-F

SPOIL AREA FOR UNCLASSIFIED EXCAVATION FROM SURFACE DITCH



DETAIL OF SURFACE DITCHES

NOTE: SURFACE DITCHES WILL BE REQUIRED AT THE TOP OF CUT SLOPES WHERE SHOWN ON THE PLANS OR WHERE IT IS DETERMINED BY THE ENGINEER ON CONSTRUCTION THAT THEIR USE IS ESSENTIAL. IN GENERAL, SURFACE DITCHES WILL BE REQUIRED WHERE THE SLOPE OF THE NATURAL GROUND AT THE TOP OF THE CUT DRAINS TOWARDS THE ROADWAY AND THE MATERIAL IN THE BACK SLOPE IS SUBJECT TO EROSION. SURFACE DITCHES ARE TO BE PROTECTED AS SHOWN ON THE PLANS.

CONSTRUCTION DETAILS

BERM DITCHES
SIDE DITCHES
SURFACE DITCHES

REV. & REDR. JULY, 1980

NO SCALE

D-7

FORM EF3

3/1/2007 GPLN

THE LPA GROUP
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
CONSTRUCTION DETAILS

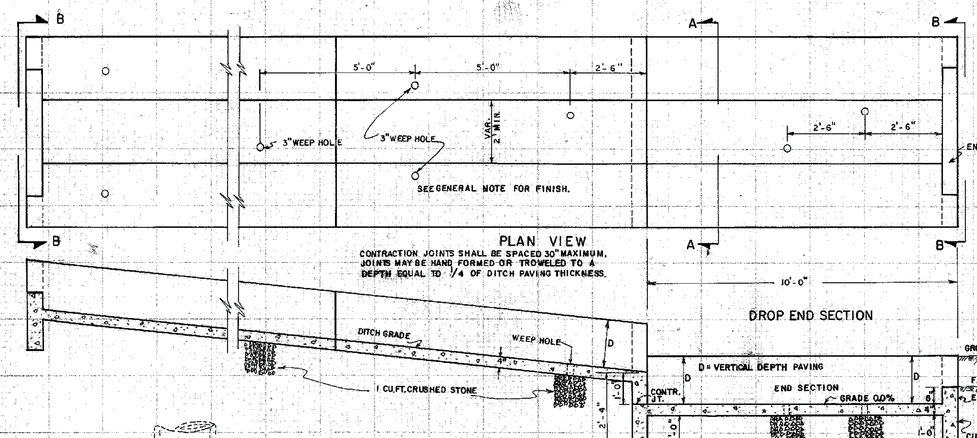
DRAWING No. 40-006

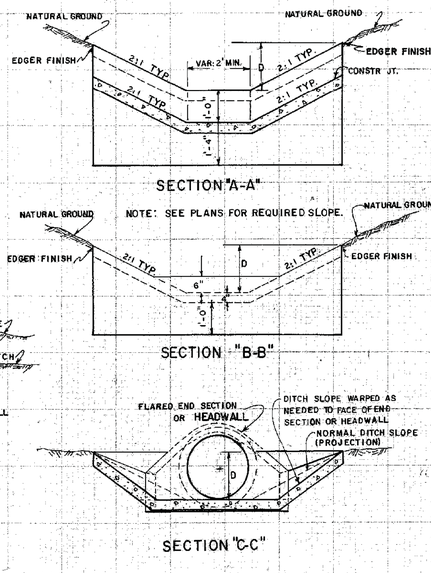
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-001690)	549	730

RELEASED FOR CONSTRUCTION - 07-23-13

TYPICAL QUANTITIES FOR 4" CONCRETE DITCH PAVING — SQ. YDS./LIN. FT.

DEPTH (feet)	8:1 FR.SL. V BOTTOM 8:1 BK.SL.	8:1 FR.SL. 2' BOTTOM 8:1 BK.SL.	8:1 FR.SL. 2' BOTTOM 4:1 BK.SL.	8:1 FR.SL. 3' BOTTOM 3:1 BK.SL.	8:1 FR.SL. 2' BOTTOM 2:1 BK.SL.	6:1 FR.SL. 2' BOTTOM 6:1 BK.SL.	6:1 FR.SL. 2' BOTTOM 4:1 BK.SL.	6:1 FR.SL. 2' BOTTOM 3:1 BK.SL.	6:1 FR.SL. 2' BOTTOM 2:1 BK.SL.	4:1 FR.SL. 2' BOTTOM 4:1 BK.SL.	4:1 FR.SL. 3' BOTTOM 2:1 BK.SL.	2:1 FR.SL. 2' BOTTOM 2:1 BK.SL.	2:1 FR.SL. 3' BOTTOM 2:1 BK.SL.	4:1 FR.SL. 4' BOTTOM 4:1 BK.SL.	4:1 FR.SL. 4' BOTTOM 2:1 BK.SL.	2:1 FR.SL. 4' BOTTOM 2:1 BK.SL.	2:1 FR.SL. 5' BOTTOM 2:1 BK.SL.	2:1 FR.SL. 6' BOTTOM 2:1 BK.SL.	2:1 FR.SL. 7' BOTTOM 2:1 BK.SL.	2:1 FR.SL. 8' BOTTOM 2:1 BK.SL.	2:1 FR.SL. 9' BOTTOM 2:1 BK.SL.	2:1 FR.SL. 10' BOTTOM 2:1 BK.SL.	2:1 FR.SL. 12' BOTTOM 2:1 BK.SL.	2:1 FR.SL. 14' BOTTOM 2:1 BK.SL.	2:1 FR.SL. 16' BOTTOM 2:1 BK.SL.	2:1 FR.SL. 18' BOTTOM 2:1 BK.SL.	2:1 FR.SL. 20' BOTTOM 2:1 BK.SL.	2:1 FR.SL. 25' BOTTOM 2:1 BK.SL.	2:1 FR.SL. 30' BOTTOM 2:1 BK.SL.	DEPTH (feet)
0.50	0.895	1.118	0.899	0.846	0.794	0.898	0.789	0.735	0.684	0.680	0.575	0.470	0.581	0.902	0.797	0.892	0.604	0.915	1.026	1.137	1.248	1.359	1.581	1.804	2.026	2.248	2.470	3.026	3.581	0.50
0.75	1.340	1.865	1.238	1.158	1.081	1.236	1.072	0.982	0.915	0.909	0.752	0.594	0.705	1.131	0.978	0.877	0.826	1.039	1.150	1.261	1.372	1.483	1.705	1.928	2.150	2.372	2.594	3.150	3.706	0.75
1.00	1.791	2.031	1.578	1.469	1.367	1.573	1.356	1.249	1.146	1.138	0.928	0.719	0.830	1.360	1.151	0.941	1.052	1.163	1.274	1.385	1.496	1.608	1.830	2.052	2.274	2.496	2.719	3.274	3.830	1.00
1.25	2.239	2.461	1.915	1.781	1.652	1.911	1.639	1.506	1.377	1.367	1.105	0.843	0.954	1.589	1.327	1.065	1.176	1.287	1.398	1.510	1.621	1.732	1.954	2.176	2.398	2.621	2.843	3.398	3.954	1.25
1.50	2.687	2.909	2.253	2.093	1.939	2.249	1.923	1.763	1.608	1.596	1.282	0.967	1.078	1.818	1.504	1.189	1.300	1.412	1.523	1.634	1.745	1.856	2.078	2.300	2.523	2.745	2.967	3.523	4.078	1.50
1.75	3.135	3.357				2.587	2.206	2.019	1.839	1.825	1.458	1.091	1.202	2.047	1.680	1.314	1.425	1.536	1.647	1.758	1.869	1.980	2.202	2.425	2.647	2.869	3.091	3.647	4.202	1.75
2.00	3.583	3.805				2.925	2.490	2.276	2.070	2.054	1.635	1.216	1.327	2.275	1.857	1.438	1.549	1.660	1.771	1.882	1.993	2.104	2.327	2.549	2.771	2.993	3.216	3.771	4.327	2.00
2.25	4.031	4.253				3.263	2.773	2.533	2.301	2.283	1.812	1.340	1.451	2.504	2.034	1.562	1.673	1.784	1.895	2.006	2.118	2.229	2.451	2.673	2.895	3.118	3.340	3.895	4.451	2.25
2.50	4.479	4.701				3.601	3.057	2.790	2.533	2.512	1.988	1.464	1.575	2.735	2.210	1.686	1.797	1.908	2.020	2.131	2.242	2.353	2.575	2.797	3.020	3.242	3.464	4.020	4.575	2.50
2.75	4.926	5.149				3.939	3.340	3.047	2.764	2.741	2.165	1.588	1.699	2.964	2.387	1.810	1.922	2.033	2.144	2.255	2.366	2.477	2.699	2.922	3.144	3.366	3.588	4.144	4.699	2.75
3.00	5.374	5.597				4.277	3.624	3.303	2.995	2.970	2.341	1.712	1.824	3.193	2.564	1.935	2.046	2.157	2.268	2.379	2.490	2.601	2.824	3.046	3.268	3.490	3.712	4.268	4.824	3.00
3.25	5.822	6.044				4.615	3.907	3.560	3.226	3.200	2.518	1.837	1.948	3.422	2.740	2.059	2.170	2.281	2.392	2.503	2.614	2.726	2.948	3.170	3.392	3.614	3.837	4.392	4.948	3.25
3.50	6.270	6.492				4.953	4.191	3.817	3.457	3.429	2.695	1.961	2.072	3.651	2.917	2.183	2.294	2.405	2.516	2.628	2.739	2.850	3.072	3.294	3.516	3.739	3.961	4.516	5.072	3.50
3.75	6.718	6.940				5.291	4.474	4.074	3.688	3.658	2.871	2.085	2.196	3.880	3.094	2.307	2.418	2.530	2.641	2.752	2.863	2.974	3.196	3.418	3.641	3.863	4.085	4.641	5.196	3.75
4.00	7.166	7.388				5.629	4.758	4.331	3.919	3.887	3.048	2.209	2.320	4.109	3.270	2.432	2.543	2.654	2.765	2.876	2.987	3.098	3.320	3.543	3.765	3.987	4.209	4.765	5.320	4.00





GENERAL NOTES:

1. SPECIFICATIONS: GEORGIA STANDARD, CURRENT EDITION, & SUPPLEMENTS THERETO.
2. CONCRETE DITCH PAVING IS TO BE CONSTRUCTED TO LINES AND GRADES SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
3. PAYMENT FOR CONCRETE DITCH PAVING INCLUDES THE CUT-OFF WALL & END SILL AT INLET AND OUTLET END OF DITCH, THE CRUSHED STONE FOR WEEP HOLES, AND EXPANSION JOINT MATERIAL.
4. A DROP END SECTION WILL BE CONSTRUCTED AT 4" CONCRETE DITCH PAVING ON THE DOWNSTREAM END OF ALL PAVED DITCHES.
5. SIDE SLOPES ON PAVED BERM AND SURFACE DITCHES SHALL BE 2:1, UNLESS MODIFIED ON CONSTRUCTION TO MEET FIELD CONDITIONS. WHEN PAVING IS PLACED IN A NORMAL ROADWAY DITCH, THE SIDE SLOPES AND BOTTOM WILL CONFORM TO THOSE SHOWN ON THE ROADWAY TYPICAL SECTION.
6. WEEP HOLES SHALL BE OMITTED IN ALL SURFACE DITCHES OF THE TOP OF CUT SLOPES. WEEP HOLES SHALL BE REQUIRED IN BERM DITCHES AND ROADWAY DITCHES WHEN PAVED.
7. SURFACE FINISH SHALL BE FLOATED SUFFICIENTLY TO COVER AGGREGATE WITH MORTAR.
8. EXPANSION JOINTS ARE REQUIRED WHERE PAVED DITCH CONNECTS TO OTHER CONCRETE STRUCTURES.
9. QUANTITIES APPLY TO ANY TYPE OF DITCH REQUIRING PROTECTION. QUANTITIES MAY ALSO BE USED FOR PERMANENT SOIL REINFORCING MAT OR OTHER KINDS OF DITCH PROTECTION ITEMIZED AS SQUARE YARDS.

CONSTRUCTION DETAILS

4" CONCRETE DITCH PAVING

DETAILS & QUANTITIES

NO SCALE — JAN. 1968 — D-10

FORM BF00003

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

THE LPA GROUP
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
CONSTRUCTION DETAILS

DRAWING No. 40-007

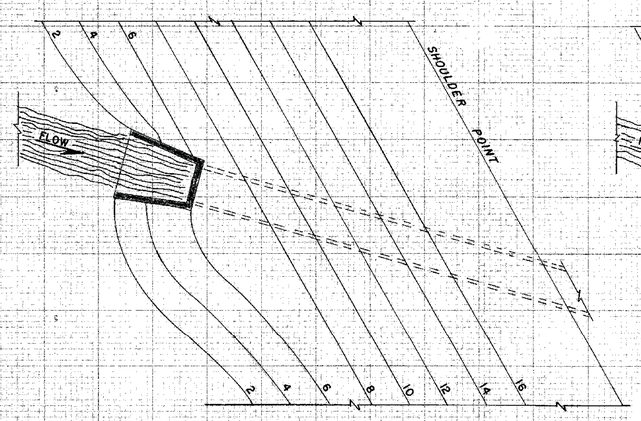
3/1/2007 GPLN

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	550	730

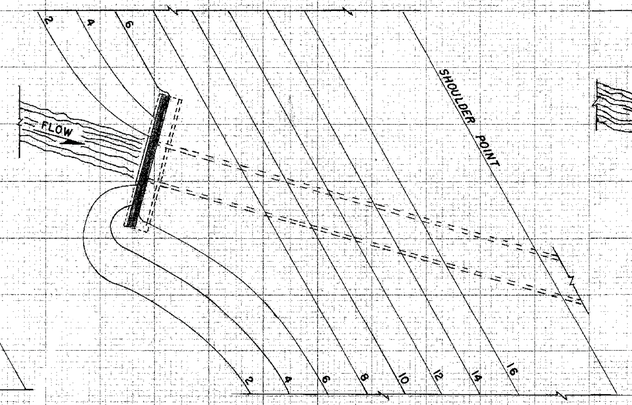
RELEASED FOR CONSTRUCTION - 07-23-13

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

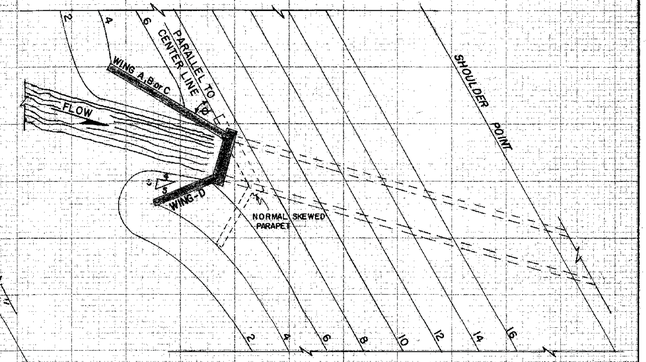
LOCATION OF STANDARD 1125 HEADWALL FOR SKEWED PIPES



LOCATION OF STRAIGHT HEADWALL FOR SKEWED PIPES

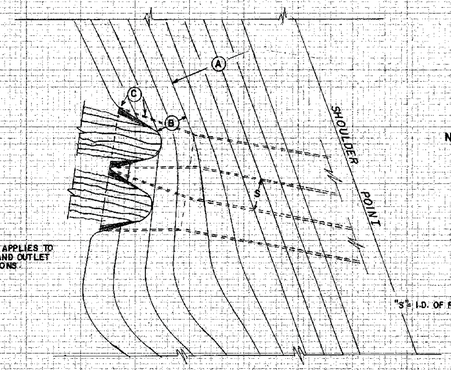


LOCATION OF WINGWALLS & PARAPET FOR SKEWED BOX CULVERTS



BOX CULVERT WING WALLS		
75° SKEW	WING-A	ϕ = 45°
60° SKEW	WING-B	ϕ = 45°
45° SKEW	WING-C	ϕ = 30°
ALL SKEWS	WING-D	5 1/4 : 1

LOCATION OF FLARED END SECTIONS FOR MULTIPLE LINE SKEWED PIPES



DETAIL APPLIES TO INLET AND OUTLET LOCATIONS.

Ⓐ = NORMAL FILL SLOPES

Ⓑ = SLOPE 4:1 OR FLATTER TO BACK OF END SECTION (FOR CONC. END SECTION).

Ⓒ = SLOPE WARPED TO MATCH END SECTION.

NOTE: FOR METAL FLARED END SECTION

ON MULTIPLE PIPE LINES WHERE WINGTIPS OF ADJACENT METAL END SECTIONS OVERLAP, THE OVERLAPPING PORTIONS MAY BE FIELD CUT TO FIT AND THE ADJACENT END SECTIONS WELDED TOGETHER ALONG THE LINE OF CUT, WITH ALL DAMAGE TO THE GALVANIZING BEING REPAIRED TO THE EQUAL OF ORIGINAL CONDITION, OR THE DIMENSION "S" AT THE DIRECTION OF THE ENGINEER OR AS SHOWN ON THE PLANS) MAY BE ADJUSTED IN ORDER TO ACCOMODATE THE END SECTIONS.

"S" I.D. OF PIPE OR 3 FT., WHICHEVER IS SMALLER. SEE STD. 1030-D.

CONSTRUCTION DETAILS

TYPICAL SKEWED CULVERT ENDS

NO SCALE

REV. & REDR. DEC., 1983

FORM E-PD0003

3/1/2007 GPLN

THE LPA GROUP
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
CONSTRUCTION DETAILS

DRAWING No. 40-008

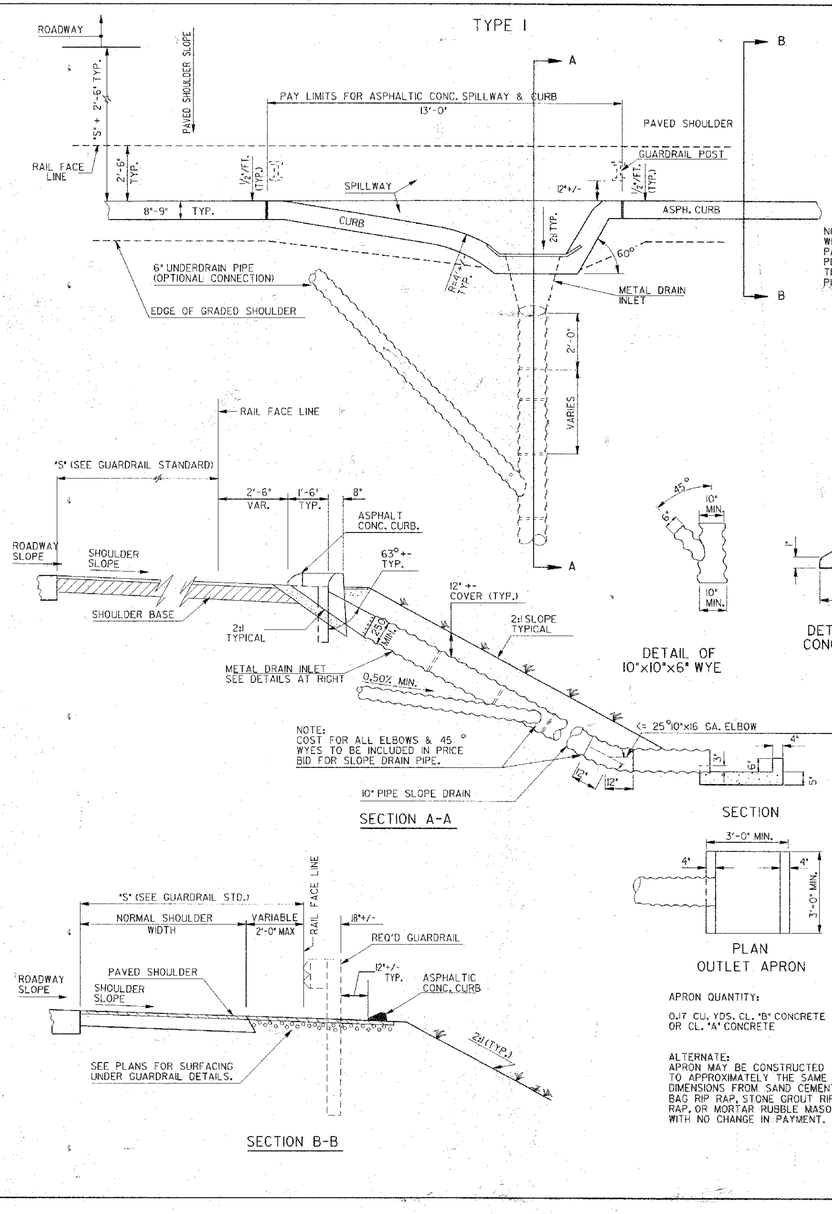
23-JUL-2013 15:29	3:29:20 PM	D-26	Y:\Roadways\126379\0008690\Dgn\Const Details\D-26.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-001(690)	551	730

RELEASED FOR CONSTRUCTION - 07-23-13

Wed Apr 28 15:52:11 1999 \\GDOT_CO_SV20\OCF\OSD_Mylar.ocf default Y:\Data\tobeapproved\d-26.dgn

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

TYPE 1

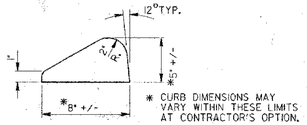


SPECIAL NOTE:
GENERAL USE OF THESE DETAILS WILL BE WHERE FILL EMBANKMENT WARRANTS GUARDRAIL AND PAVED SHOULDER WILL BE ADJACENT TO THE ROADWAY. OMIT ON HIGH SIDE OF S.E.

NOTE:
WHEN THE 10"x10"x6" 45 WYE IS A REQUIRED PART OF STAGE I CONSTRUCTION, A TEMPORARY PLUG WILL BE REQUIRED FOR THE 6" BRANCH OF THE WYE UNTIL THE CONNECTION OF THE PERFORATED PIPE IS MADE ON STAGE 2 CONSTRUCTION. SEE SECTION 577

SECTION A-A

DETAIL OF 10"x10"x6" WYE



DETAIL OF ASPHALTIC CONCRETE CURB (TYP.)

* CURB DIMENSIONS MAY VARY WITHIN THESE LIMITS AT CONTRACTOR'S OPTION.

SECTION B-B

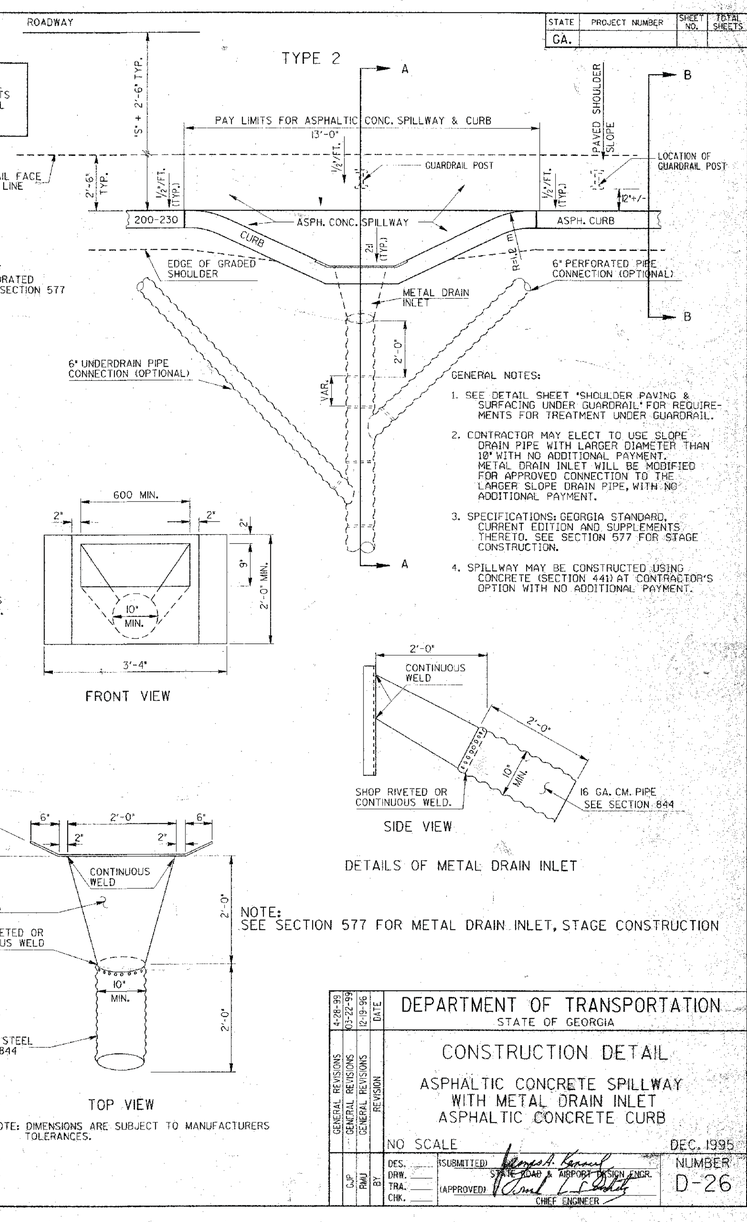
PLAN
OUTLET APRON

APRON QUANTITY:

0.17 CU. YDS. CL. "B" CONCRETE OR CL. "A" CONCRETE

ALTERNATE:
APRON MAY BE CONSTRUCTED TO APPROXIMATELY THE SAME MIN. DIMENSIONS FROM SAND CEMENT BAG RIP RAP, STONE GROUT RIP RAP, OR MORTAR RUBBLE MASONRY WITH NO CHANGE IN PAYMENT.

TYPE 2



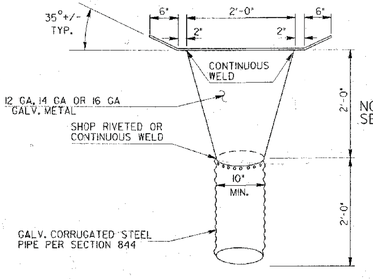
GENERAL NOTES:

1. SEE DETAIL SHEET 'SHOULDER PAVING & SURFACING UNDER GUARDRAIL' FOR REQUIREMENTS FOR TREATMENT UNDER GUARDRAIL.
2. CONTRACTOR MAY ELECT TO USE SLOPE DRAIN PIPE WITH LARGER DIAMETER THAN 10" WITH NO ADDITIONAL PAYMENT. METAL DRAIN INLET WILL BE MODIFIED FOR APPROVED CONNECTION TO THE LARGER SLOPE DRAIN PIPE, WITH NO ADDITIONAL PAYMENT.
3. SPECIFICATIONS: GEORGIA STANDARD, CURRENT EDITION AND SUPPLEMENTS THERETO. SEE SECTION 577 FOR STAGE CONSTRUCTION.
4. SPILLWAY MAY BE CONSTRUCTED USING CONCRETE (SECTION 441) AT CONTRACTOR'S OPTION WITH NO ADDITIONAL PAYMENT.

FRONT VIEW

SIDE VIEW

DETAILS OF METAL DRAIN INLET



TOP VIEW

NOTE: DIMENSIONS ARE SUBJECT TO MANUFACTURERS TOLERANCES.

NOTE:
SEE SECTION 577 FOR METAL DRAIN INLET, STAGE CONSTRUCTION

GENERAL REVISIONS	4-28-99
GENERAL REVISIONS	03-22-99
GENERAL REVISIONS	12-19-96
REVISION	DATE

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

CONSTRUCTION DETAIL

ASPHALTIC CONCRETE SPILLWAY WITH METAL DRAIN INLET ASPHALTIC CONCRETE CURB

NO SCALE — DEC. 1995

CJP RWD BT

DES. ____ DRW. ____ TRA. ____ CHK. ____

(SUBMITTED) STATE ROAD & AIRPORT DESIGN ENGR.

(APPROVED) CHIEF ENGINEER

NUMBER D-26

THE LPA GROUP
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

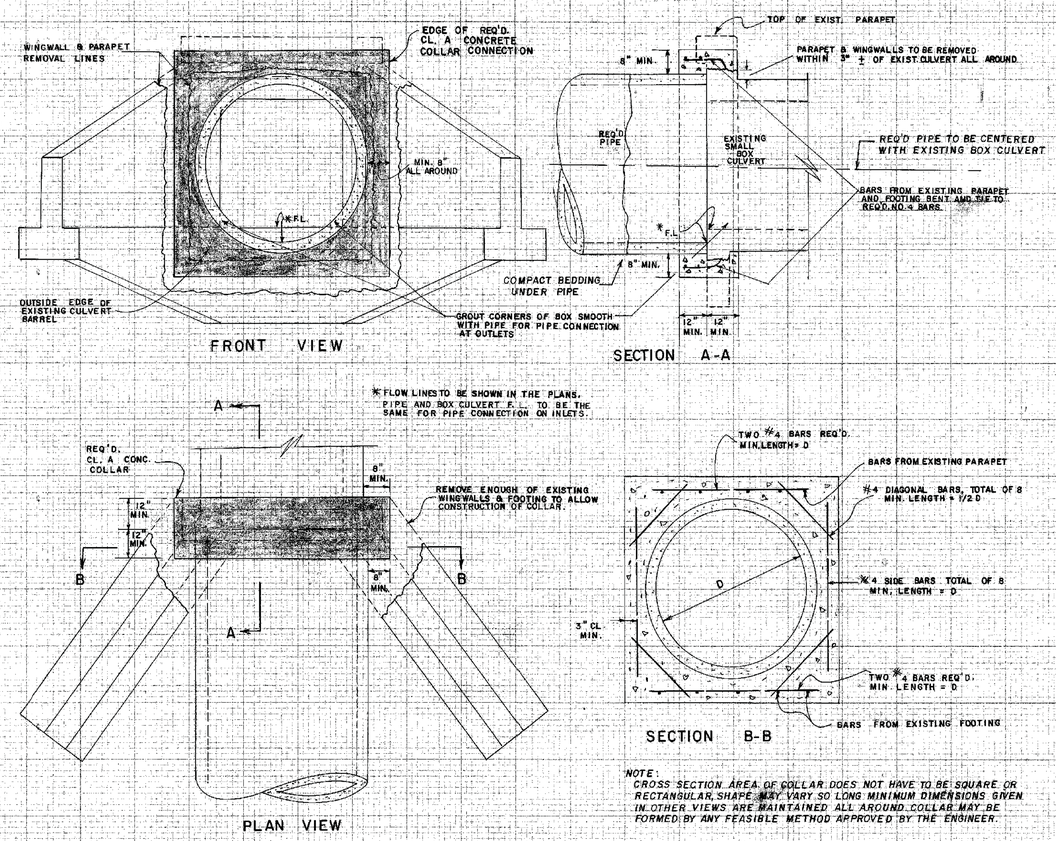
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
CONSTRUCTION DETAILS

DRAWING No. 40-009

3/11/2007 GPLN

RELEASED FOR CONSTRUCTION - 07-23-13

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			



NOTE:
CROSS SECTION AREA OF COLLAR DOES NOT HAVE TO BE SQUARE OR RECTANGULAR, SHAPE MAY VARY SO LONG MINIMUM DIMENSIONS GIVEN IN OTHER VIEWS ARE MAINTAINED ALL AROUND COLLAR MAY BE FORMED BY ANY FEASIBLE METHOD APPROVED BY THE ENGINEER.

NOTES:

1. PAYMENT FOR PIPE CULVERT SHALL INCLUDE REMOVING PORTIONS OF WINGWALLS & PARAPET AS SHOWN AND THE CONCRETE AND STEEL REQUIRED FOR COLLAR CONNECTION.
2. COLLAR DIMENSIONS SHOWN ARE MINIMUM. COLLAR MAY BE FORMED AGAINST COMPACTED OR UNDISTURBED SOIL OR AGAINST EDGES OF EXISTING STRUCTURE. EXTERIOR OF COLLAR DOES NOT HAVE TO BE SMOOTH LINES.
3. THESE DETAILS ARE FOR USE WHERE IT IS NOT FEASIBLE TO EXTEND BOX CULVERT WITH SAME. WHERE PLANS SHOW BOX CULVERT EXTENDED WITH PIPE, THE CONTRACTOR MAY ELECT TO EXTEND WITH PRECAST BOX OR CAST-IN-PLACE BOX OF SAME SIZE WHERE FILL HEIGHT PERMITS AND AT NO ADDITIONAL COST TO THE DEPARTMENT.
4. ADJUSTMENTS TO DETAILS SHOWN MAY BE MADE IN THE FIELD AT THE DIRECTION OF THE ENGINEER TO SUIT INDIVIDUAL SITE.

CONSTRUCTION DETAILS

PIPE-BOX CULVERT COLLAR CONNECTIONS DETAILS

MARCH, 1994

FORM EF00003

THE LPA GROUP
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
CONSTRUCTION DETAILS

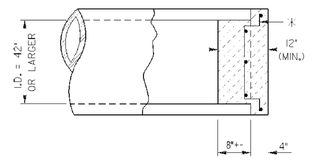
DRAWING No. 40-010

3/1/2007 GPLN

RELEASED FOR CONSTRUCTION - 07-23-13

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

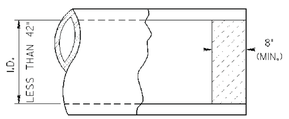
PLUGS FOR PIPE CULVERTS



SECTION
(FOR PIPE I.D. 42" TO 72")

(NOM. - MIN.) DIAMETER (IN.)	CU. YARDS CL."A" CONCRETE (INCL. REINF.) *
42"	0.41
48"	0.53
54"	0.67
60"	0.83
66"	1.00
72"	1.19

* REINFORCING SHALL BE SIMILAR TO THAT SHOWN FOR BOX CULVERTS AT RIGHT.

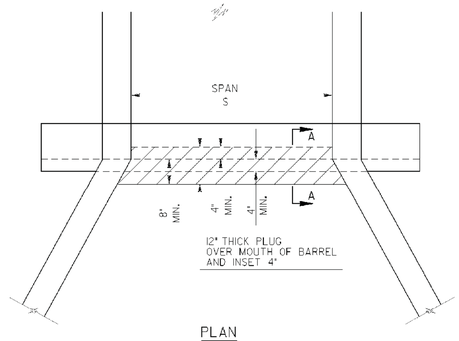


SECTION
(FOR PIPE I.D. TO 36")

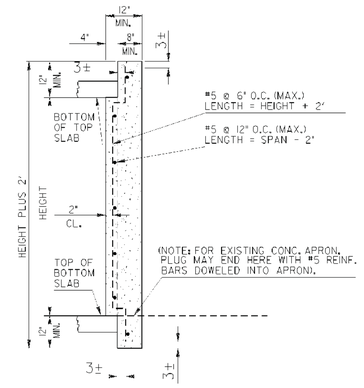
(NOM. - MIN.) DIAMETER (IN.)	CU. YARDS CL."A" OR CL."B" CONCRETE **
12"	0.02
15"	0.03
18"	0.04
24"	0.08
30"	0.12
36"	0.18

** BRICK MASONRY OR RUBBLE MASONRY (MIN. 8" THICK) MAY BE SUBSTITUTED FOR NON-REINFORCED CONCRETE WITH NO CHANGE IN PAYMENT.

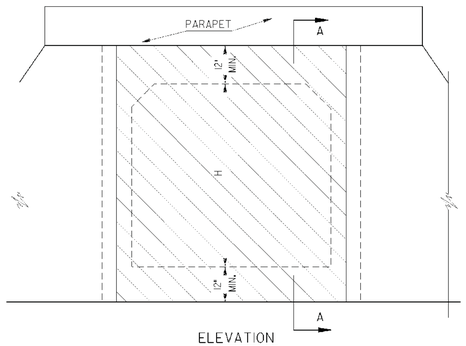
PLUGS FOR BOX CULVERTS



PLAN



SECTION A-A



ELEVATION

PAY ITEM: CU. YARDS CL. "A" CONC. INCL. REINF. STEEL.

CU. YARDS = (H + 2') (S) (1')

		DATE	DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA
		REVISION	CONSTRUCTION DETAILS
			CULVERT PLUGS
			MARCH 17, 2008
		BY	NUMBER D-40

THE LPA GROUP
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES		

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
CONSTRUCTION DETAILS

DRAWING No. 40-011

3/11/2007 GPLN

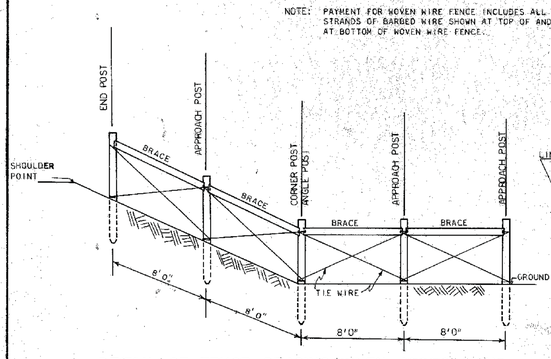
RELEASED FOR CONSTRUCTION - 07-23-13

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
GA.			

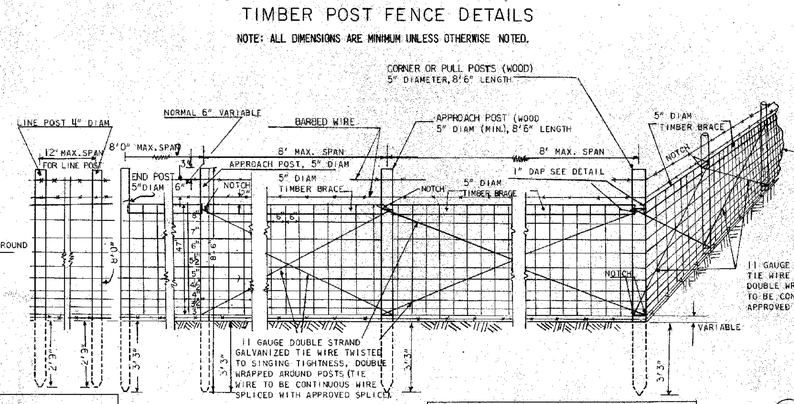
NOTE: PAYMENT FOR WOVEN WIRE FENCE INCLUDES ALL STRANDS OF BARBED WIRE SHOWN AT TOP OF AND AT BOTTOM OF WOVEN WIRE FENCE.

TIMBER POST FENCE DETAILS

NOTE: ALL DIMENSIONS ARE MINIMUM UNLESS OTHERWISE NOTED.

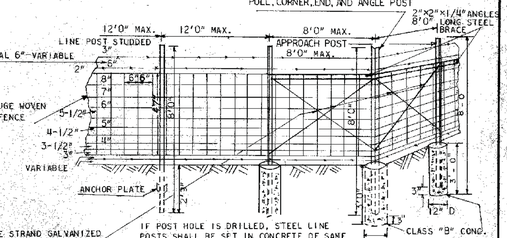


DETAIL OF FENCE BRACING WHEN APPROACHING FILL SLOPE OR ON ANGLE GREATER THAN 15°



STEEL POST FENCE DETAILS

PULL, CORNER, END, AND ANGLE POST



11 GAUGE DOUBLE STRAND GALVANIZED TIE WIRE TWISTED TO SINGING TIGHTNESS DOUBLE WRAPPED AROUND POSTS TIE WIRE TO BE CONTINUOUS WIRE SPLICED WITH APPROVED SPLICE.

IF POST HOLE IS DRILLED, STEEL LINE POSTS SHALL BE SET IN CONCRETE OF SAME DIMENSIONS AS PULL, CORNER, END, APPROACH AND ANGLE POSTS.

GENERAL NOTES:

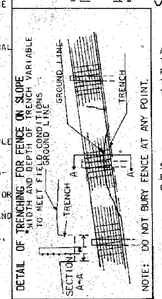
1. FENCE MAY BE ANGLED TO EDGE OF CULVERTS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. THE DESIGNATION OF THIS DETAIL ON THE PLANS WILL BE ON THE BASIS OF A SAFETY EVALUATION.
2. A CHANGE IN TYPE MATERIAL FOR LINE POST CONSTRUCTION WILL ONLY BE ALLOWED AT NATURAL BREAKS IN THE FENCE LINE SUCH AS GRADE SEPARATIONS, INTERCHANGES, AND BRIDGES.

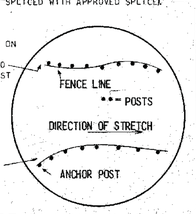
TIMBER POST NOTES:

1. DIMENSIONS SHOWN AS DIAMETERS OF ROUND POSTS ALSO APPLY TO EDGE WIDTH OF SQUARE POSTS.
2. AT ABRUPT CHANGES IN GRADE, STAPLE EVERY LINE WIRE.
3. TIMBER POSTS TO BE SET BY DRIVING OR DRILLING POST HOLES.
4. USE 9 GAUGE GALVANIZED STAPLES 1-1/2" LONG FOR TIMBER POSTS AT APPROACH POST, STAPLE EVERY LINE WIRE IN TOP HALF AND ALTERNATE LINE WIRES IN BOTTOM HALF, SEE STAPLING DETAIL.
5. ALL TIMBER POSTS AND BRACING ARE TO BE SEASONED AND PRESERVATIVE TREATED IN ACCORDANCE WITH SECTION 863 OF THE STANDARD SPECIFICATIONS.
6. THE CONTRACTOR WILL BE ALLOWED TO SUBSTITUTE 4 INCH NOMINAL DIMENSION LINE POSTS FOR THE DETAILS.
7. STUDDED STEEL "T" LINE POSTS MAY BE USED WITH WOODEN PULL, CORNER, END, APPROACH, AND ANGLE POSTS.
8. SQUARE WOODEN LINE POSTS CAN BE USED IN COMBINATION WITH ROUND WOODEN PULL, CORNER, END APPROACH, AND ANGLE POSTS.

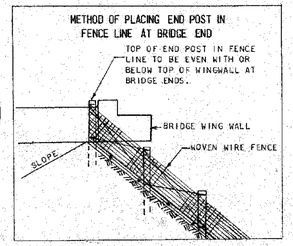
STEEL POST NOTES:

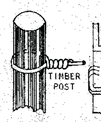
1. SET PULL, CORNER, END AND APPROACH POST IN CONCRETE.
2. SECURE EVERY LINE WIRE AT STEEL CORNER, END, ANGLE AND PULL POSTS AT STEEL LINE POSTS FASTEN EVERY LINE WIRE IN TOP HALF OF FENCE, ALTERNATE LINE WIRES IN BOTTOM HALF.



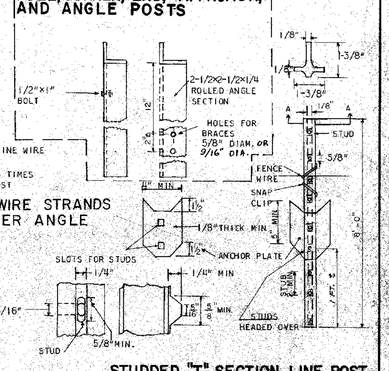


DETAIL OF CONTOUR FENCING

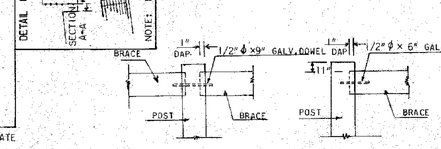




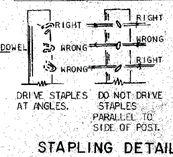
METHOD OF SECURING WIRE STRANDS OF FENCE AT END CORNER ANGLE AND PULL POST



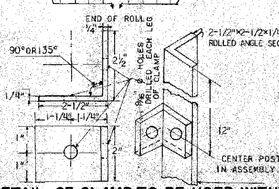
STUDDED "T" SECTION LINE POST



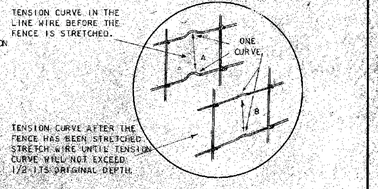
TIMBER BRACING DETAILS



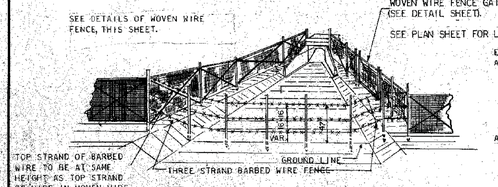
STAPLING DETAILS



DETAIL OF CLAMP TO BE USED WITH ANGLE & PULL ASSEMBLIES WHERE STEEL POSTS ARE USED



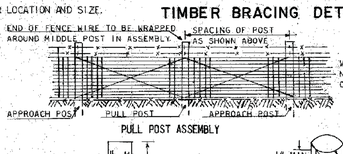
DETAIL OF TENSION CURVE



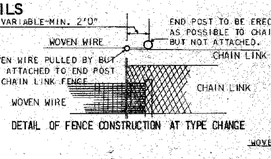
NOTE: THIS FENCE IS TO BE USED AT LARGE PIPES AND CULVERTS WHERE A DISTINCT CHANNEL IS ENCOUNTERED EXCEPT WHERE THE CULVERT HAS BEEN APPROVED AS A CATTLE PASS.

DETAIL SHOWING PLACEMENT OF THREE STRAND BARBED WIRE FENCE

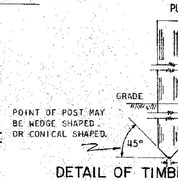
NOTE: THREE STRAND BARBED WIRE FENCE IS NOT INTENDED FOR GENERAL USE AS PASTURE FENCING. SEE CONSTRUCTION DETAILS FOR FOUR AND FIVE STRAND BARBED WIRE FENCE WHERE NEEDED.



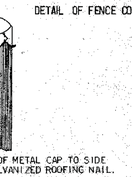
PULL POST ASSEMBLY



DETAIL OF FENCE CONSTRUCTION AT TYPE CHANGE

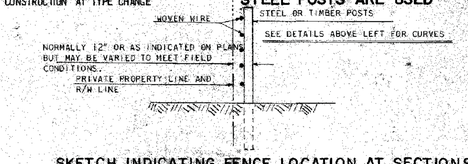


DETAIL OF TIMBER POST



FASTEN EACH CORNER OF METAL CAP TO SIDE OF POST WITH A 1" GALVANIZED ROOFING NAIL.

METHOD OF PLACING METAL CAP ON WOODEN FENCE POSTS



SKETCH INDICATING FENCE LOCATION AT SECTIONS OF NO FRONTAGE ROADS (REFER TO DETAIL PLANS FOR LOCATION OF FENCING FOR PROJECTS WITH FRONTAGE ROADS).

3-10-88 REV. TO SHOW NOTE FOR PAYMENT
1-12-77 REVISED

CONSTRUCTION DETAILS
WOVEN WIRE FENCE

REVISED AND REDRAWN 9-29-76

F-1

3/1/2007 GPLN

THE LPA GROUP
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES		

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
CONSTRUCTION DETAILS

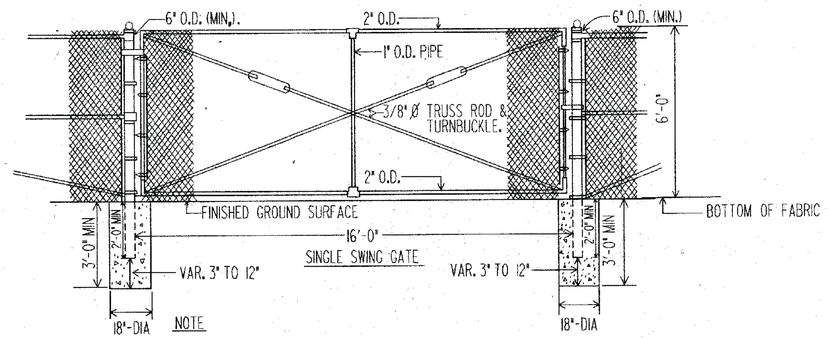
DRAWING No. 40-012

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-001690J	555	730

RELEASED FOR CONSTRUCTION - 07-23-13

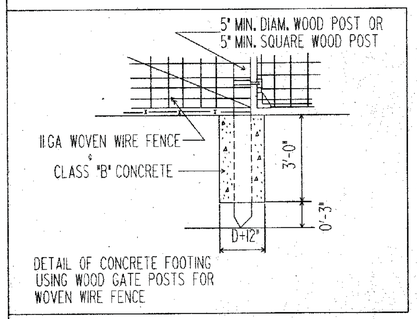
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

NOTE:
WHERE CHAIN LINK WIRE FENCE HAS BARBED WIRE, GATE SHALL ALSO REQUIRE BARBED WIRE BUT WITH VERTICAL EXTENSION ARMS ON THE GATE AND GATE POST UNLESS SPECIFIED OTHERWISE.

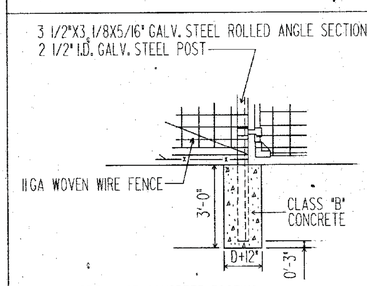


GATE FOR CHAIN LINK FENCE

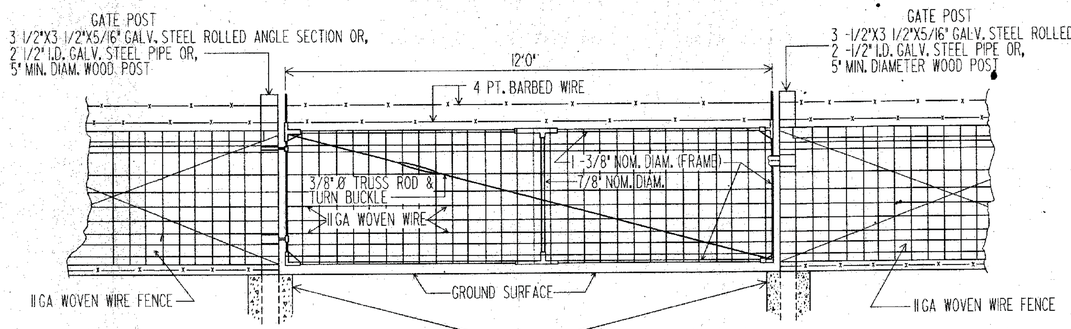
NOTE
FITTINGS INCLUDING HINGES AND LATCHES, FOR GATES SHALL MEET THE APPROVAL OF THE ENGINEER AND THE REQUIREMENTS OF THE SPECIFICATIONS.



DETAIL OF CONCRETE FOOTING USING WOOD GATE POSTS FOR WOVEN WIRE FENCE



DETAIL OF CONCRETE FOOTING USING METAL GATE POSTS FOR WOVEN WIRE FENCE



GATE FOR WOVEN WIRE FENCE

FOR DETAIL OF CONCRETE FOOTINGS SEE DETAILS LEFT

12 FT. SINGLE SWING GATE TO BE USED WITH WOOD POSTS OR METAL POSTS

GATE: (WOVEN WIRE FENCE)

1- 1 -3/8" NOM. DIAMETER GALV. STEEL FRAME (12' X 47")
2- 7/8" NOM. DIAMETER GALV. STEEL CENTER BRACE
3- 3/8"Ø GALV. TRUSS-ROD & TURNBUCKLE
4- FABRIC IS TO BE WRAPPED AND TIED AROUND ENDS OF FRAME AND ATTACHED TOP AND BOTTOM WITH APPROVED FABRIC FASTENERS.
5- FITTINGS INCLUDING HINGES AND LATCHES, FORGATES SHALL MEET THE APPROVAL OF THE ENGINEER AND THE REQUIREMENTS OF THE MATERIAL SPECIFICATIONS.

GATE POSTS: (WOVEN WIRE FENCE)

1- 3 -1/2"X3 1/2"X5/16" GALV. STEEL ROLLED ANGLE SECTION OR 2 -1/2" I.D. GALV. STEEL PIPE OR 5" MIN. DIAMETER (WOOD) OR 5" MIN. SQUARE (WOOD)
2- TYPE OF GATE POSTS TO BE USED IS SELECTED BY CONTRACTOR. WOOD GATE POSTS ARE TO BE USED IF CONTRACTOR ELECTS TO USE WOOD FENCE POSTS. METAL GATE POSTS IF CONTRACTOR ELECTS TO USE METAL FENCE POSTS.
3- GATE REMAINS AS SHOWN ON DETAIL FOR FENCE WITH WOOD POST OR FENCE WITH METAL POSTS.

REVISION	DATE	BY
		REV. RMU
		DRW. AS
		TRA.
		CHK: RMU

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

GATE DETAILS FOR
CHAIN LINK & WOVEN WIRE FENCE

NO SCALE JAN. 1988

F-2

3/1/2007 GPLN

THE LPA GROUP
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

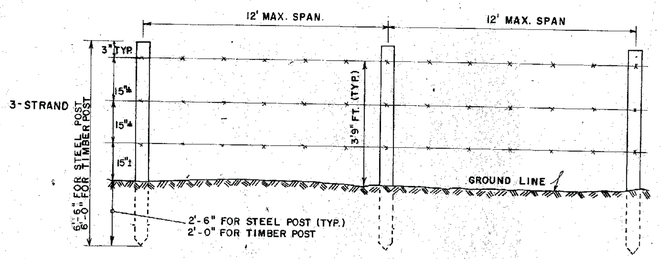
REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
CONSTRUCTION DETAILS

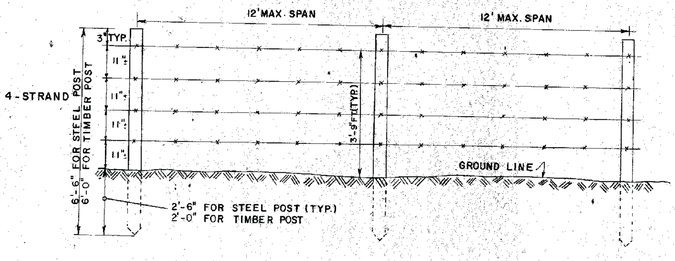
DRAWING No.
40-013

RELEASED FOR CONSTRUCTION - 07-23-13

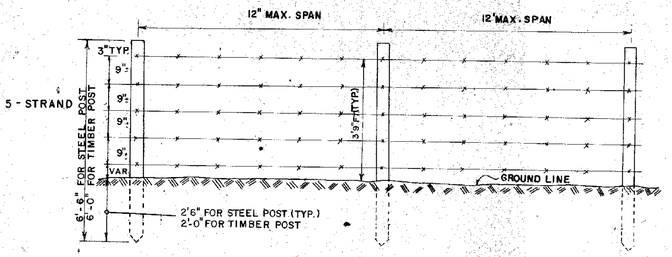
FIELD FENCE BARBED WIRE — TYPICAL DETAILS



NOTE: 3,4,5 STRAND BARBED WIRE SHOWN. OTHER COMBINATIONS MAY BE SPECIFIED.

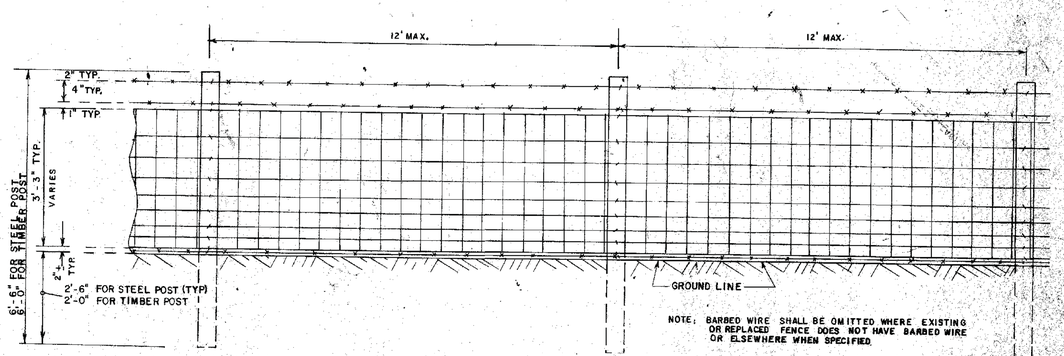


NOTE: WIRE HEIGHTS AND/OR SPACINGS VARIED WHERE SPECIFIED.



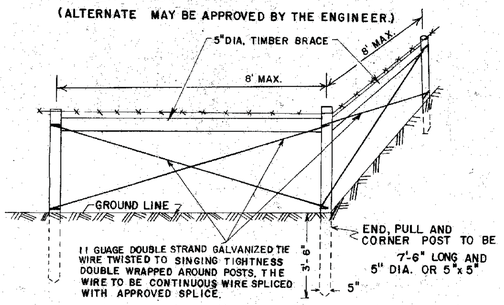
FIELD FENCE WOVEN WIRE — TYPICAL DETAILS

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			



NOTE: BARBED WIRE SHALL BE OMITTED WHERE EXISTING OR REPLACED FENCE DOES NOT HAVE BARBED WIRE OR ELSEWHERE WHEN SPECIFIED.

CORNER POST DETAIL
(ALTERNATE MAY BE APPROVED BY THE ENGINEER.)



NOTE: BRACING FOR END AND PULL POST SHALL BE SAME AS ABOVE.

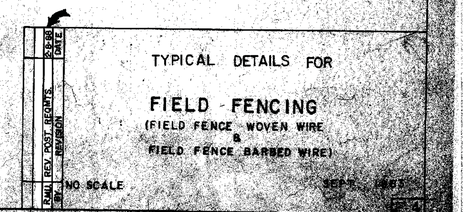
GENERAL NOTES:

1. FENCE DESIGN NUMBERS (ASTM-A116 ARE DESIGNATED IN THE FILL-OUT BOX TO APPROXIMATE EXISTING OR REPLACED FENCING. ASTM-A116, DESIGN NO. 939-6-12½ GA. 9 HORIZONTAL WIRES, 39" HEIGHT, 6" STAY WIRE SPACING, (12½ GAGE WIRE FABRIC) SHALL BE USED WITH 3 STRANDS OF BARBED WIRE WHERE OTHER DESIGNS ARE NOT SPECIFIED.
2. CORNER AND PULL POST SHALL BE TREATED TIMBER 5" DIA. OR NOMINAL 5"x5". LINE POST MAY BE EITHER TREATED TIMBER 3" DIA. OR NOMINAL 4"x 4" OR STEEL. IF STEEL POSTS ARE USED, THEY WILL BE 1.3 LBS./FT. STUDDED "T" POST, EITHER GALVANIZED OR PAINTED, WITH AN APPROVED ANCHOR PLATE. (4"x 4½" TYP.).
3. MATERIALS SHALL BE THE KIND THAT CAN BE PURCHASED AT A HARDWARE OR FARM SUPPLY STORE AND SHALL MEET THE APPROVAL OF THE ENGINEER. MATERIALS DO NOT HAVE TO BE INSPECTED OR APPROVED BY G.D.O.T. OFFICE OF MATERIALS & RESEARCH, UNLESS THE ENGINEER REQUEST. CONCRETE FOOTINGS ARE NOT REQUIRED.
4. DETAILS MAY DIFFER FROM THAT SHOWN IN ORDER TO MATCH EXISTING OR REPLACED FIELD FENCING OR WHEN SO SPECIFIED.

SPECIAL NOTE:
THESE DETAILS ARE FOR USE IN REPLACEMENT FENCING OUTSIDE THE R/W OR FOR TEMPORARY FENCING (PROVIDED THE MATERIALS ARE NOT REUSED FOR PERMANENT FENCING INSIDE THE R/W.)

FENCE LOCATION	FIELD FENCE WOVEN WIRE*								FIELD FENCE BARBED WIRE	
	FENCE FABRIC ASTM A116 DESIGN NO.	FENCE FABRIC: NO. OF HORIZONTAL WIRES	FENCE FABRIC: FABRIC HEIGHT (INCHES)	FENCE FABRIC: SPACINGS STAY WIRES (INCHES)	FENCE FABRIC: WIRE GAGES: INTERMED. LINE & STAY WIRES	FENCE FABRIC: WIRE GAGES: TOP & BOTTOM	STRANDS OF BARBED WIRE WITH FENCE: TOP	STRANDS OF BARBED WIRE WITH FENCE: BOTTOM	NO. OF STRANDS	LINEAR FT. OF FENCE

*SEE GENERAL NOTE NO. 1.



TYPICAL DETAILS FOR
FIELD - FENCING
(FIELD FENCE WOVEN WIRE & FIELD FENCE BARBED WIRE)

NO SCALE

SEPT., 1993
REV. POST HEIGHTS
REVISION
FORM EF6
MB2T01

3/1/2007 GPLN

THE LPA GROUP
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

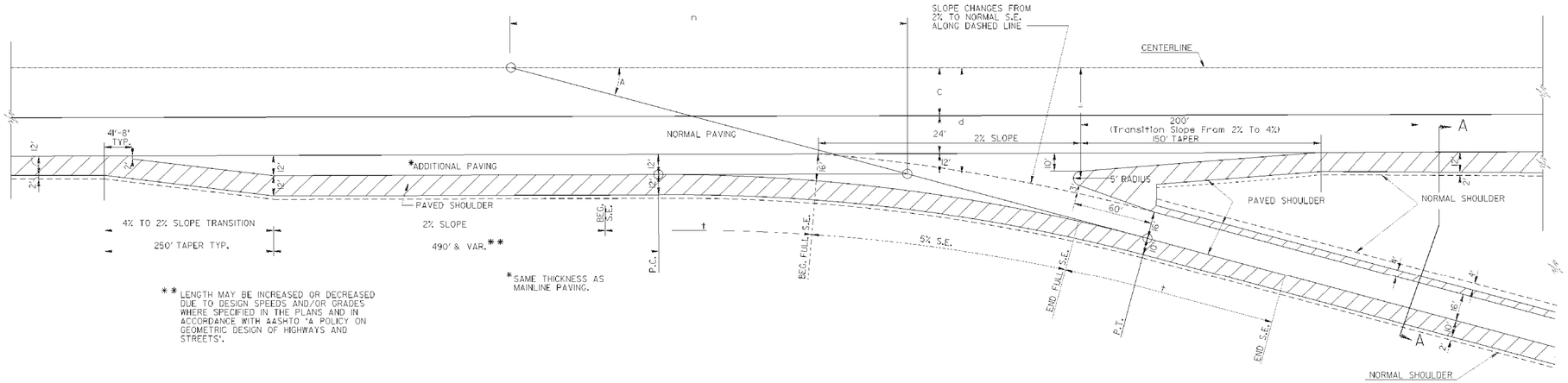
REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
CONSTRUCTION DETAILS

DRAWING No. 40-014

RELEASED FOR CONSTRUCTION - 07-23-13

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

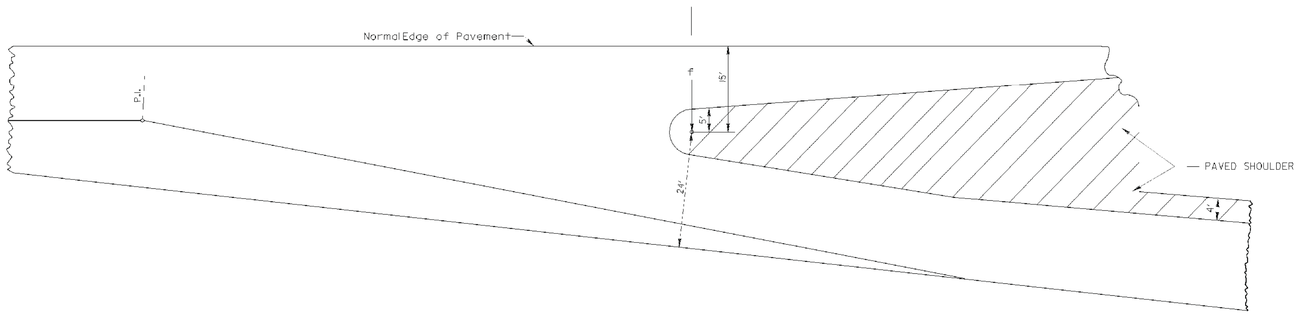


** LENGTH MAY BE INCREASED OR DECREASED DUE TO DESIGN SPEEDS AND/OR GRADES WHERE SPECIFIED IN THE PLANS AND IN ACCORDANCE WITH AASHTO 'A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS'.

*SAME THICKNESS AS MAINLINE PAVING.

C = ½MEDIAN WIDTH
d = C+24'+12'
f = C+24'+15'
$n = \frac{d}{\text{Tan. A}}$
D = 5°-00' (For Diamond Interchanges)
S.E. = 5%
t = 125'

SECTION A-A



DATE	DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA		
REVISION	CONSTRUCTION DETAIL DETAIL OF EXIT RAMPS FOR INTERCHANGES		
	NO SCALE	REDRAWN APRIL 2011	
BY			NUMBER R-1

THE LPA GROUP
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3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

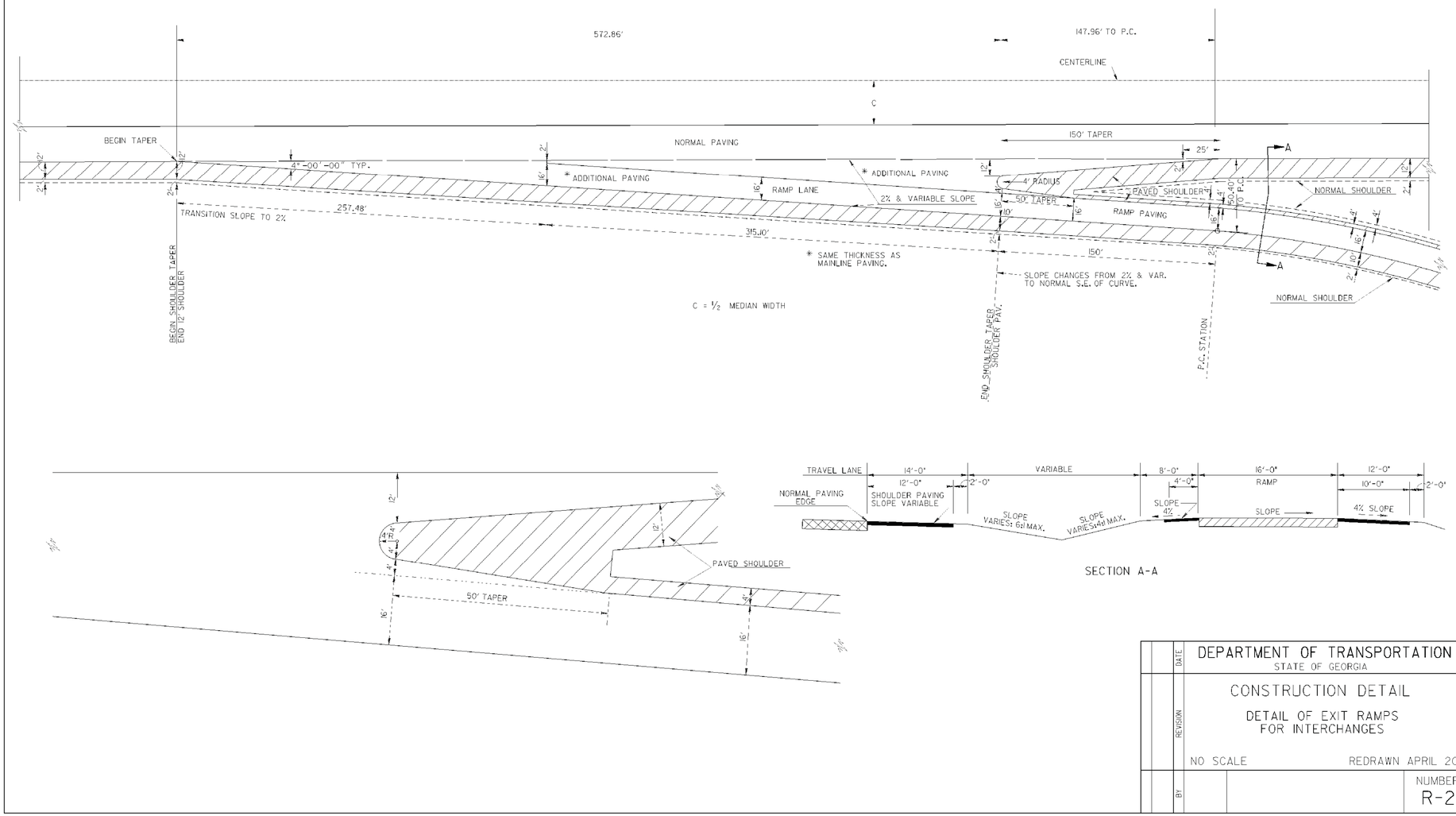
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
CONSTRUCTION DETAILS

DRAWING No. 40-015

3/1/2007 GPLN

RELEASED FOR CONSTRUCTION - 07-23-13

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			



SECTION A-A

DATE	DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA		
REVISION	CONSTRUCTION DETAIL DETAIL OF EXIT RAMPS FOR INTERCHANGES		
	NO SCALE	REDRAWN APRIL 2011	
BY			NUMBER R-2

THE LPA GROUP
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NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

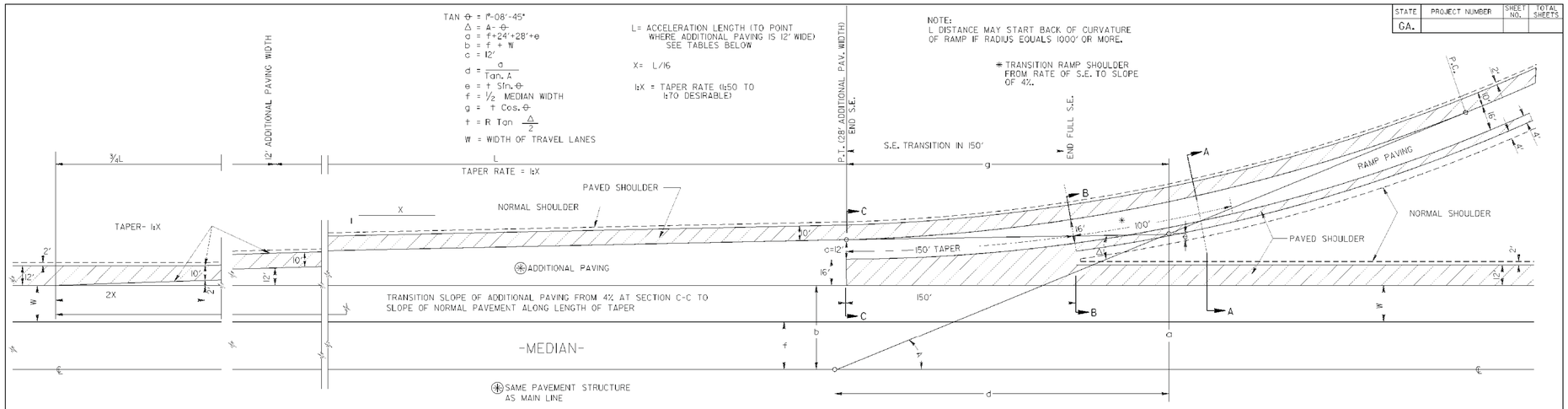
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

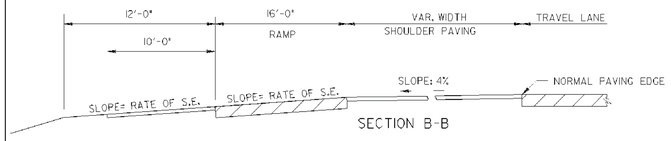
CONSTRUCTION DETAILS

DRAWING No. 40-016

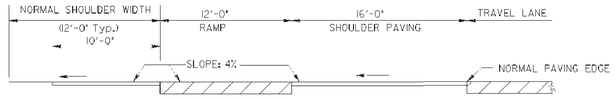
3/1/2007 GPLN

RELEASED FOR CONSTRUCTION - 07-23-13

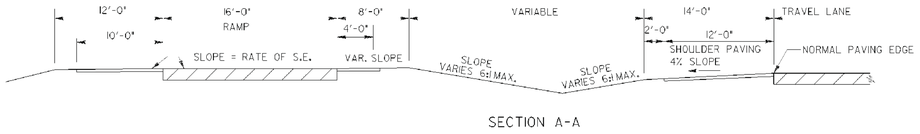




SECTION B-B



SECTION C-C

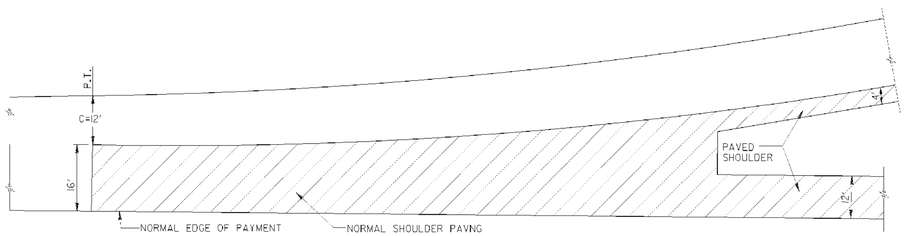


SECTION A-A

MAINLINE DESIGN SPEED (M.P.H.)	MIN. ACCEL LENGTH,L(FT.) FOR RAMP CURVE DESIGN (SPEED-MPH)				
	0	20	30	40	50
40	380	250	140	-	-
50	760	630	500	160	-
60	1170	1070	910	590	170
70	1590	1500	1330	1010	580

(FOR ENTRANCE TERMINAL GRADES, 2% OR LESS)

NOTE:
"L" VALUES LESS THAN 800' SHOULD BE INCREASED TO 800 FEET TO PROVIDE A TAPER OF 1:50.



	MAINLINE DESIGN SPEED (MPH)	ADJUSTMENT FACTORS FOR MINIMUM ACCELERATION LENGTHS (L)				
		RAMP CURVE DESIGN IN MPH				
		20	30	40	50	ALL SPEEDS
3% TO 4%	40	1.3	1.3	—	—	0.7
	50	1.3	1.4	1.4	—	0.65
	60	1.4	1.5	1.5	1.6	0.6
	70	1.5	1.6	1.7	1.8	0.6
5% TO 6%	40	1.5	1.5	—	—	0.6
	50	1.5	1.7	1.9	—	0.55
	60	1.7	1.9	2.2	2.5	0.5
	70	2.0	2.2	2.6	3.0	0.5
		UPGRADE				DOWNGRADE

(FOR ENTRANCE TERMINAL GRADES, OVER 2%)

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

CONSTRUCTION DETAIL

DETAIL OF ENTRANCE RAMPS FOR INTERCHANGES

NO SCALE — REDRAWN APRIL 2011

NUMBER R-3

DATE | REVISION | BY

3/1/2007 GPLN

THE LPA GROUP
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

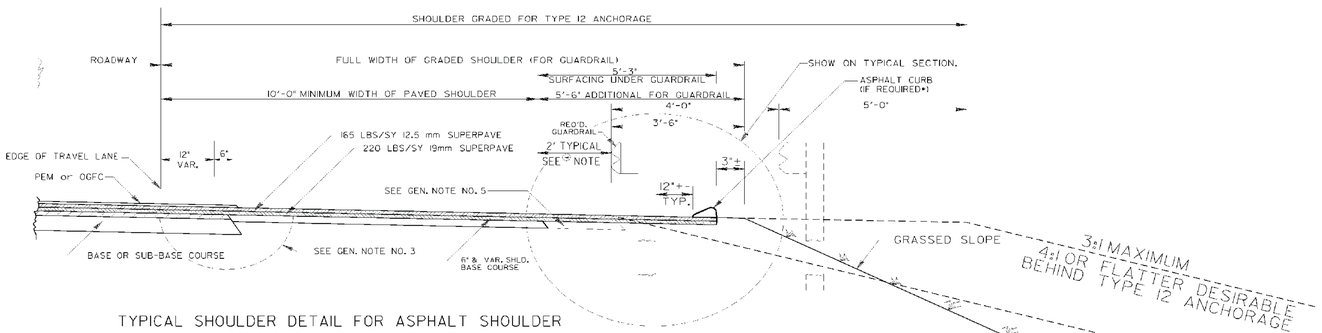
REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
CONSTRUCTION DETAILS

DRAWING No. 40-017

RELEASED FOR CONSTRUCTION - 07-23-13

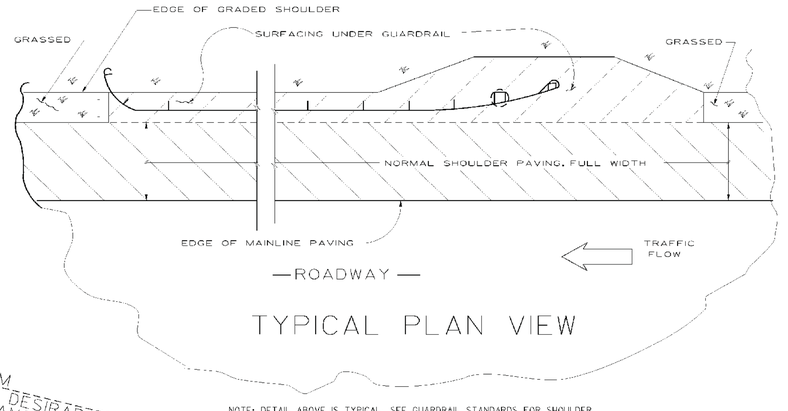
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			



TYPICAL SHOULDER DETAIL FOR ASPHALT SHOULDER
(FOR GUARDRAIL REQUIRED ON SHOULDER)

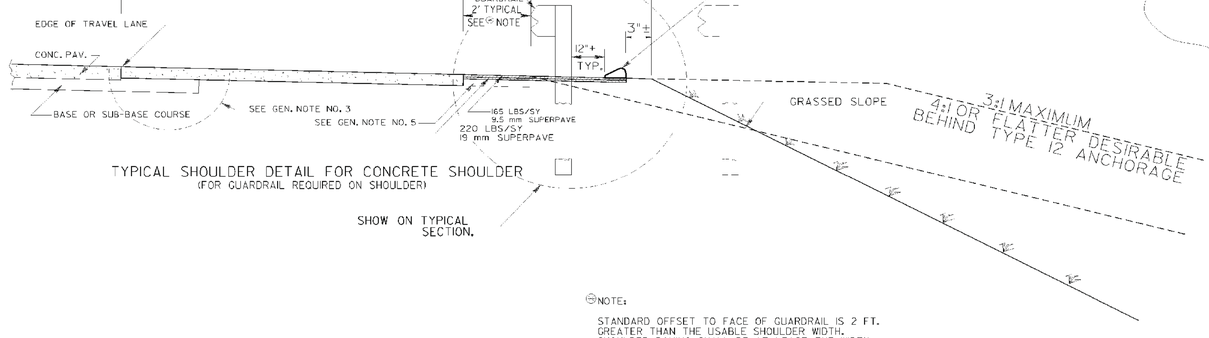
GENERAL NOTES:

1. SPECIFICATIONS: GEORGIA STANDARD, CURRENT EDITION, & SUPPLEMENTS THERETO.
2. THE TREATMENT SHOWN FOR THE OUTER PORTION OF THE SHOULDER APPLIES ONLY WHERE GUARDRAIL IS TO BE LOCATED ALONG PAVED SHOULDER.
3. PAYMENT DESIGN AND NORMAL SHOULDER PAVING ARE ILLUSTRATED AS TYPICAL, OTHER MATERIALS SUCH AS SELECT BORROW, DRAINAGE COURSE, 12.5 MM SUPERPAVE, ETC. SHALL BE AS SPECIFIED ON THE PROJECT, WHERE REQUIRED.
4. AFTER GUARDRAIL POSTS HAVE BEEN INSTALLED, THE SURFACE AREA AROUND THE POSTS SHALL BE SEALED WITH THE APPROPRIATE ASPHALT OR OTHER APPROVED MATERIAL AT NO ADDITIONAL PAYMENT, IF THE ENGINEER DETERMINES IT IS NECESSARY.
5. THE PAVED SHOULDER WIDTH MAY BE EXTENDED TO THE FACE OF THE GUARDRAIL, WHERE SPECIFIED.
6. NORMAL USE OF ASPHALTIC CURB SHALL BE WHERE 2H FILL SLOPES WARRANT GUARDRAIL, EXCEPT ON THE HIGH SIDE OF SUPERELEVATION. SEE SEPARATE DETAILS.



TYPICAL PLAN VIEW

NOTE: DETAIL ABOVE IS TYPICAL. SEE GUARDRAIL STANDARDS FOR SHOULDER WIDENING AT ANCHORAGES, WHERE REQUIRED.



TYPICAL SHOULDER DETAIL FOR CONCRETE SHOULDER
(FOR GUARDRAIL REQUIRED ON SHOULDER)

SHOW ON TYPICAL SECTION.

NOTE: NORMAL USE OF THESE DETAILS IS WHERE FULL WIDTH SHOULDER PAVING IS SPECIFIED AND GUARDRAIL IS REQUIRED.

⊖NOTE:

STANDARD OFFSET TO FACE OF GUARDRAIL IS 2 FT. GREATER THAN THE USABLE SHOULDER WIDTH. SHOULDER PAVING SHALL BE AT LEAST THE WIDTH OF THE USABLE SHOULDER FOR USE OF THESE DETAILS. (SHOULDER PAVING WIDTH MAY BE ADDITIONALLY INCREASED AT GUARDRAIL RUNS TO REDUCE AREA REQUIRING WEED CONTROL). GRADED SHOULDERS SHALL HAVE ADDITIONAL WIDTH FOR GUARDRAIL LOCATION PER STANDARD DETAILS.

× ASPHALTIC CONCRETE CURB PER SECTION 436 SHALL BE REQUIRED WHERE SPECIFIED. TYPICAL USE IS FOR EROSION PREVENTION OF HIGH FILL SLOPES. THE SHAPE OF ASPHALTIC CURB BEHIND GUARDRAIL MAY VARY AS APPROVED BY THE ENGINEER.

REVISED	9-30-02
REVISED	4-23-02
REVISION	DATE

CONSTRUCTION DETAILS

SHOULDER PAVING AND SURFACING UNDER GUARDRAIL

Interstates & Freeways

NO SCALE — RE-DRAWN OCT. 1999

BY: DES. & REV. MGR. ____ REDR. ADS ____ CHK. ____

(SUBMITTED) STATE ROAD & AIRPORT DESIGN ENGR.

(APPROVED) CHIEF ENGINEER

Sheet 2 of 2

S-4

THE LPA GROUP
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
CONSTRUCTION DETAILS

DRAWING No. 40-018

3/11/2007 GPLN

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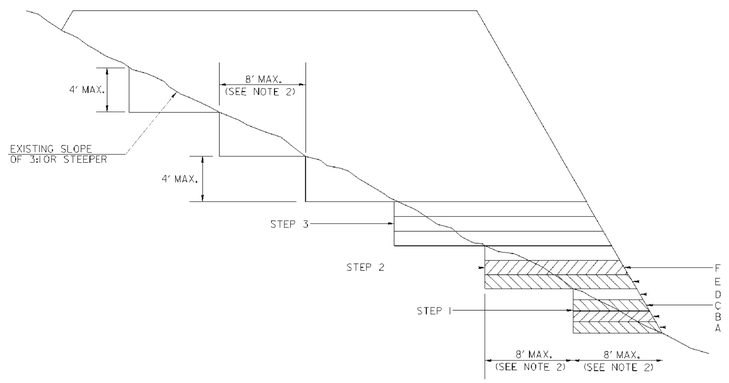
RELEASED FOR CONSTRUCTION - 07-23-13

BENCHING DETAIL



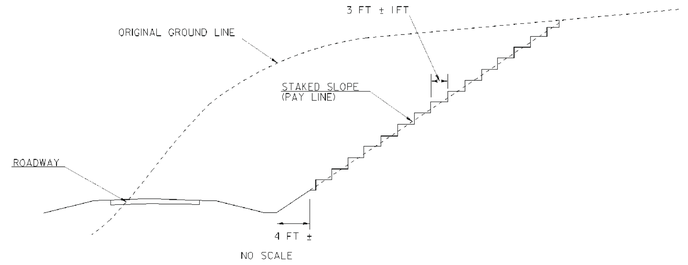
NOTES :

1. WHERE THE EMBANKMENT IS TO BE PLACED ON A HILLSIDE OR ANOTHER EXISTING EMBANKMENT HAVING A SLOPE OF 3 TO 1 OR STEEPER, THE FOUNDATION MUST BE BENCHED WHILE THE EMBANKMENT IS BEING MADE.(SEE DIAGRAM ABOVE)

2. THE DIAGRAM SHOWS THAT BEFORE LAYER 'A' IS PLACED THE FIRST STEP (I) IS CUT INTO THE SLOPE A MAXIMUM DISTANCE OF ABOUT 8 FEET (ABOUT ¾ THE WIDTH OF THE TYPICAL D-8 BULLDOZER BLADE). SUCCESSIVE LAYERS B, C, AND D ARE THEN PLACED BEFORE LAYER 'E' IS PLACED, THE SECOND STEP IS CUT 8 FEET INTO THE SLOPE AND SUCCESSIVE LAYERS ARE AGAIN PLACED. IF IT IS ANTICIPATED THAT THE VERTICAL PART OF THE STEP WILL EXCEED 4 FEET IF A 8 FEET HORIZONTAL CUT IS MADE, THEN THE ACTUAL CUT STOPS WHEN THE VERTICAL PART REACHES A MAXIMUM OF 4 FEET ALLOWING THE HORIZONTAL DISTANCE TO VARY.

3. THE PROCESS OF BENCHING IS CONSIDERED INCIDENTAL TO THE ITEM OF UNCLASSIFIED EXCAVATION AND BORROW OR GRADING COMPLETE IN CONSTRUCTION OF THE EMBANKMENT AND NO ADDITIONAL MEASUREMENT OF QUANTITY OR PAYMENT WILL BE MADE FOR BENCHING.

SERRATED SLOPE DETAIL



NO SCALE

NOTES :

1. SLOPES STEEPER THAN 3:1 SHALL BE SERRATED.

2. WIDTH OF STEP SHALL BE 3 FT \ 1FT.

3. HEIGHT OF STEP IS A FUNCTION OF WIDTH AND STAKED SLOPE.

4. TREAD OF STEP SHALL BE APPROXIMATELY HORIZONTAL.

5. SERRATED SLOPES SHALL BE USED ON ALL PROJECTS IN DISTRICTS 1, 6, AND 7, EXCEPT WHERE SPECIFICALLY EXCEPTED BY THE GEOTECHNICAL BUREAU IN THE SOIL SURVEY REPORT. SERRATED SLOPES SHALL NOT BE USED IN DISTRICTS 2, 3, 4, AND 5, UNLESS REQUIRED BY THE SOIL SURVEY.

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

6-18-09	1-28-82	DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA
REVISED BENCHING DETAIL & REVISED TITLE BLOCK.	GEN. REVISION	CONSTRUCTION DETAIL SERRATED SLOPE DETAIL BENCHING DETAIL NO SCALE — JULY, 1981
G.L.D.	R.M.H.	NUMBER S-7
BY	BY	

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3/1/2007 GPLN

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REVISION DATES

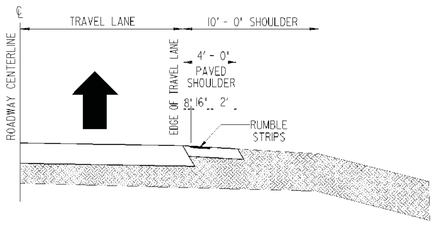
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
CONSTRUCTION DETAILS

DRAWING No. 40-019

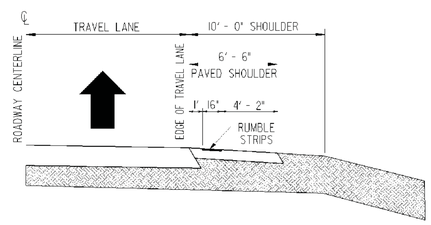
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	562	730

RELEASED FOR CONSTRUCTION - 07-23-13

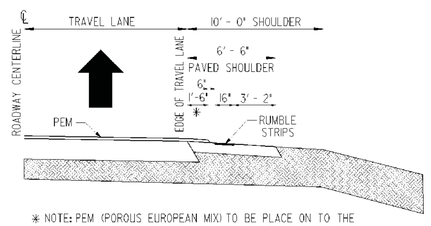
4' PAVED SHOULDER WITH 16" MILLED RUMBLE STRIPS



6' - 6" PAVED SHOULDER WITH 16" MILLED RUMBLE STRIPS



PEM, 6' - 6" PAVED SHOULDER WITH 16" MILLED RUMBLE STRIPS

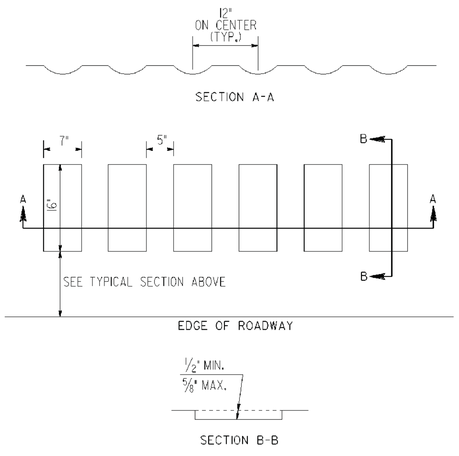


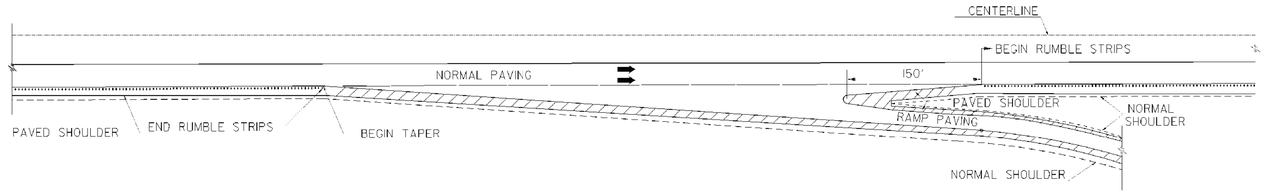
* NOTE: PEM (POROUS EUROPEAN MIX) TO BE PLACE ON TO THE SHOULDER PAVING A DISTANCE OF 12" ON THE LEFT SHOULDER AND 18" ON THE RIGHT SHOULDER.

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

ENTRANCE RAMP

MILLED RUMBLE STRIP DETAILS





EXIT RAMP

BASIS OF PAYMENT:
INDENTATION RUMBLE STRIPS - GROUND-IN-PLACE (CONTINUOUS) ___GLM

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

CONSTRUCTION DETAIL
CONTINUOUS INDENTATION RUMBLE STRIPS - GROUND-IN-PLACE INTERSTATE

NO SCALE | MARCH, 2010

DATE | REVISION | BY

NUMBER S-9

THE LPA GROUP
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REVISION DATES

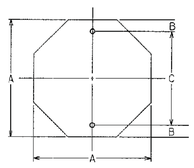
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
CONSTRUCTION DETAILS

DRAWING No. 40-020

3/1/2007 GPLN

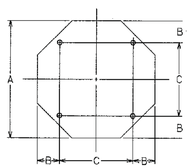
RELEASED FOR CONSTRUCTION - 07-23-13

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

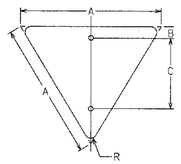


OCTAGON

A	B	C
24	3	18
30	3	24
36	3	30

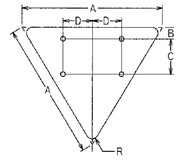


A	B	C
48	9	30

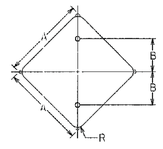


EQUILATERAL TRIANGLE

A	B	C	R
30	3	18	1 1/2
36	3	21	2
48	3	27	3

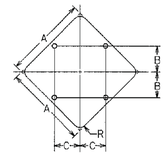


A	B	C	D	R
60	3	18	15	3



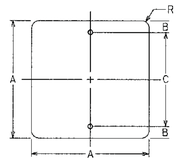
DIAMOND

A	B	R
24	12	1 1/2
30	15	1 7/8
36	18	2 1/4



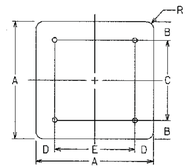
A	B	C	R
*36	10	10	2 1/4
48	15	15	3
60	18	18	3 3/4

*FOR TWO POST ERECTION

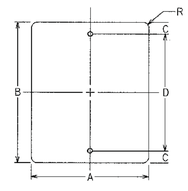


SQUARE

A	B	C	R
18	3	12	1 1/2
24	3	18	1 1/2
30	3	24	1 7/8

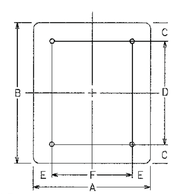


A	B	C	D	E	R
36	6	24	6	24	2 1/4
48	6	36	6	36	3

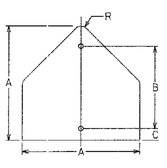


VERTICAL RECTANGLE

A	B	C	D	R
12	18	1 1/2	15	1 1/2
18	24	3	18	1 1/2
24	30	3	24	1 1/2
30	36	3	30	1 7/8

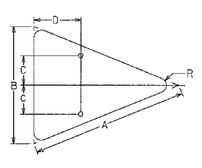


A	B	C	D	E	F	R
36	48	6	36	6	24	2 1/4
48	60	6	48	9	30	3



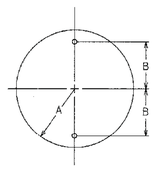
PENTAGON

A	B	C	R
30	21	3	1 7/8
36	24	3	2 1/4



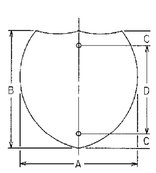
ISOSCELES TRIANGLE

A	B	C	D	R
40	30	7 1/2	12	1 7/8
48	36	9	15	2 1/4



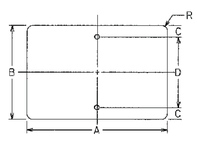
CIRCLE

A	B
15	12
18	15



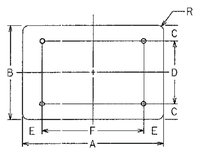
INTERSTATE SHIELD

A	B	C	D
24	24	3	18
30	24	3	18
36	36	6	24
45	36	6	24



HORIZONTAL RECTANGLE

A	B	C	D	R
21	15	1 1/2	12	1 1/2
24	12	1 1/2	9	1 1/2
24	18	3	12	1 1/2
30	15	1 1/2	12	1 1/2
30	24	3	18	1 1/2
36	12	1 1/2	9	1 1/2
36	24	3	18	1 1/2
48	12	1 1/2	9	1 1/2
48	24	3	18	1 7/8



A	B	C	D	E	F	R
48	36	6	24	9	30	2 1/4
60	24	3	18	12	36	1 1/2
60	36	6	24	12	36	2 1/4

DATE	REVISIONS

GEORGIA DEPARTMENT OF TRANSPORTATION
OFFICE OF TRAFFIC SAFETY & DESIGN

DETAILS OF SIGN PLATES

NO SCALE JANUARY 2000

T-1

FCSGTS

3/11/2007 GPLN

THE LPA GROUP
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

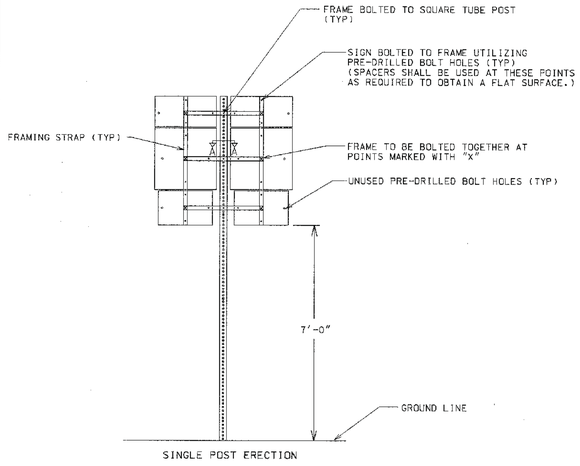
REVISION DATES

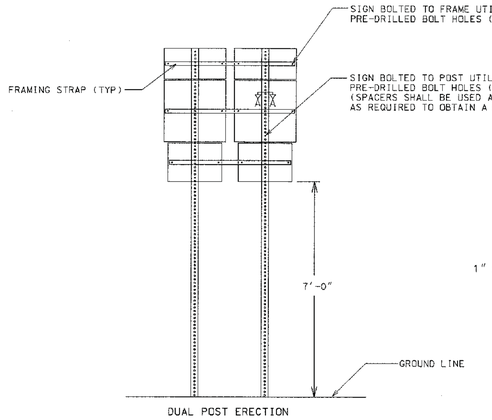
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
CONSTRUCTION DETAILS

DRAWING No. 40-021

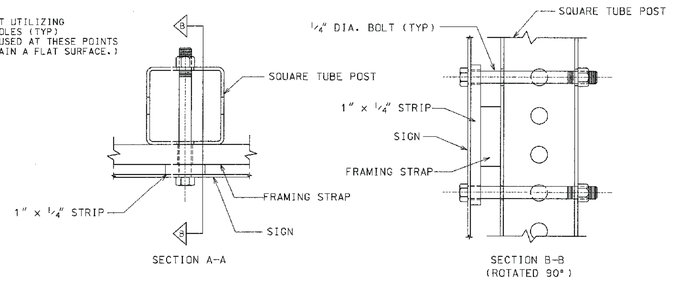
RELEASED FOR CONSTRUCTION - 07-23-13

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

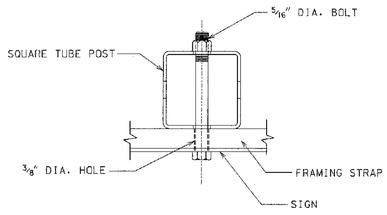




TYPICAL ASSEMBLY UNIT (BACK VIEW)



OPTION #1 - FRAMING STRAP WITHOUT MOUNTING HOLE
(ALL FRAMING STRAPS SHALL BE 1½" x ½" x REQUIRED LENGTH)



OPTION #2 - FRAMING STRAP WITH MOUNTING HOLE
(ALL FRAMING STRAPS SHALL BE 2" x ½" x REQUIRED LENGTH)

GENERAL NOTES:

1. STYLE OF FRAMING IS OPTIONAL. ALTERNATE DESIGNS ARE ACCEPTABLE UPON APPROVAL OF THE ENGINEER. FRAME SHALL BE DESIGNED SO AS TO HOLD THE ASSEMBLY IN A FIXED, RIGID POSITION.
2. FRAMING STRAPS SHALL BE GALVANIZED STEEL OR ALUMINUM.
3. STEEL SHALL BE A.S.T.M. DESIGNATION A-283, GRADE D, GALVANIZED IN ACCORDANCE WITH A.S.T.M. DESIGNATION A-123.
4. ALUMINUM SHALL BE ALLOY 6061-T6.
5. BOLTS, NUTS, WASHERS, AND SPACERS SHALL CONFORM TO THE STANDARD SPECIFICATIONS AND/OR SPECIAL PROVISIONS.
6. FRAMING STRAPS ON A DUAL POST ERECTION SHALL NOT BE BOLTED TO THE POST.

DATE	REVISIONS
1/31/00	CHANGED U-CHANNEL POST TO SQUARE TUBE POST

GEORGIA DEPARTMENT OF TRANSPORTATION
OFFICE OF TRAFFIC OPERATIONS

DETAILS FOR TYPICAL FRAMING

NO SCALE JANUARY 2000

T-2

THE LPA GROUP
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

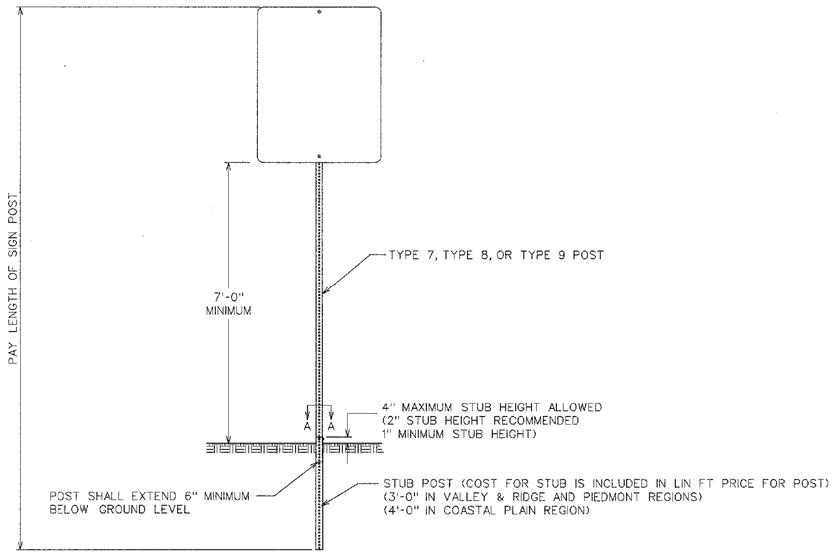
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
CONSTRUCTION DETAILS

DRAWING No. 40-022

3/11/2007 GPLN

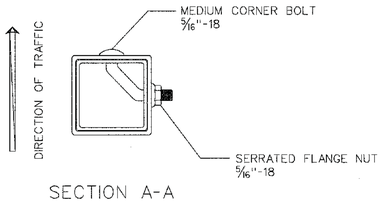
RELEASED FOR CONSTRUCTION - 07-23-13

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			



FRONT VIEW

POST	STUB SIZE
TYPE 7	2¼" x 2¼"
TYPE 8	2¾" x 2¾"
TYPE 9	2½" x 2½"



SECTION A-A

SIGN POST SELECTION CHART

70 MPH Wind Load Chart + 15% Gust Factor

	SLIP BASE NOT REQUIRED				GROUND MOUNTED BREAKAWAY SIGN SUPPORT REQUIRED				
	TYPE 7 2"14 ga.		TYPE 9 2-1/4"14 ga.	TYPE 8 2-1/2"12 ga.	TYPE 8 2-1/2"12 ga.		TYPE 8 w/TYPE 9 Insert• 2-1/2"12 ga. W/2-1/4"14 ga.		
Sign Centroid	1 Post	2 Post	1 Post	1 Post	2 Post	3 Post	1 Post	2 Post	3 Post
	SQUARE FOOTAGE				SQUARE FOOTAGE				
6'	13.50	27.00	19.25	30.00	60.00	90.00	49.25	98.50	147.75
7'	11.60	23.20	16.50	25.75	51.50	77.25	42.25	84.50	126.75
8'	10.15	20.30	14.45	22.55	45.10	67.65	37.00	74.00	111.00
9'	9.00	18.00	12.85	20.00	40.00	60.00	32.85	65.70	98.55
10'	8.10	16.20	11.55	18.00	36.00	54.00	29.55	59.10	88.65
11'	7.40	14.80	10.50	16.40	32.80	49.20	26.90	53.80	80.70
12'	6.80	13.60	9.65	15.00	30.00	45.00	24.65	49.30	73.95
13'	6.25	12.50	8.90	13.85	27.70	41.55	22.75	45.50	68.25
14'	5.80	11.60	8.25	12.90	25.80	38.70	21.15	42.30	63.45
15'	5.00	10.00	6.45	10.10	20.20	30.30	16.55	33.10	49.65
16'	4.70	9.40	6.05	9.45	18.90	28.35	15.50	31.00	46.50
17'	4.40	8.80	5.70	8.90	17.80	26.70	14.60	29.20	43.80
18'	4.15	8.30	5.40	8.40	16.80	25.20	13.80	27.60	41.40
19'	3.95	7.90	5.10	7.95	15.90	23.85	13.05	26.10	39.15
20'	3.75	7.50	4.85	7.55	15.10	22.65	12.40	24.80	37.20

SIGN CENTROID IS DISTANCE FROM GROUND LEVEL TO BOTTOM OF SIGN *PLUS* HALF THE HEIGHT OF SIGN.
EXAMPLE: 24" X 48" SIGN THAT IS 7 FEET FROM GROUND TO BOTTOM OF SIGN. ADD HALF OF 48" (24" OR 2 FT) *PLUS* 7 FT. = 9' CENTROID.

SIGN PLATE SHALL NOT EXCEED 48" IN WIDTH ON A SINGLE POST.

• TYPE 9 INSERT SHALL BE A CONTINOUS POST INSERTED INTO THE TYPE 8 POST WHERE REQUIRED. THE INSERT POST SHALL EXTEND FROM THE BOTTOM OF THE SLIP BASE UPPER ASSEMBLY TO 4" BELOW THE BOTTOM OF THE SIGN. THE INSERT POST SHALL NOT EXTEND ABOVE THE BOTTOM OF THE SIGN. PAYMENT FOR THE INSERT POST SHALL BE PER LINEAR FOOT OF TYPE 9 POST.

GROUND MOUNTED BREAKAWAY SIGN SUPPORT WILL BE MEASURED AND PAID FOR SEPARATELY. THE COST FOR THIS WORK SHALL INCLUDE THE UPPER AND LOWER ASSEMBLY, STUB POST, CLASS "A" CONCRETE, ALL HARDWARE NECESSARY TO COMPLETE THE INSTALLATION, AND BE INCLUDED IN THE BID PRICE SUBMITTED FOR ITEM 636-3010.

DATE	REVISIONS

GEORGIA DEPARTMENT OF TRANSPORTATION
OFFICE OF TRAFFIC SAFETY & DESIGN

TYPE 7, 8, AND 9
SQUARE TUBE POST
INSTALLATION DETAIL

NO SCALE JULY 2002

T-3A

#GDOT B

C:\Workspace\T3A.dgn 24-JUL-2013 15:30:16 JParks

3/11/2007 GPLN

THE LPA GROUP
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

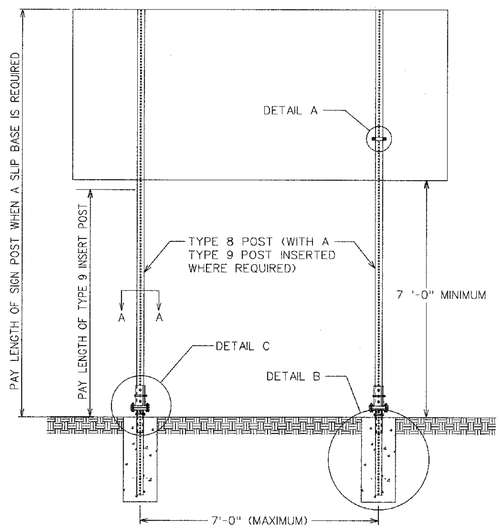
REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

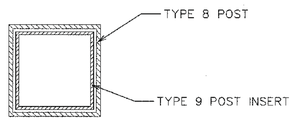
CONSTRUCTION DETAILS

DRAWING No. 40-023

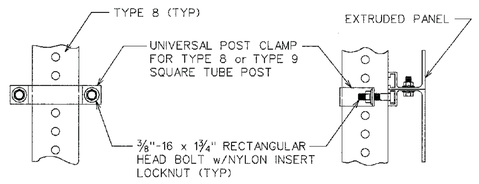
RELEASED FOR CONSTRUCTION - 07-23-13



BACK VIEW



SECTION A-A



BACK VIEW SIDE VIEW

DETAIL A

SIGN POST SELECTION CHART

70 MPH Wind Load Chart • 15% Gust Factor

Sign Centroid	SLIP BASE NOT REQUIRED: TYPE 7 2"14 ga. 1 Post	TYPE 7 2"14 ga. 2 Post	TYPE 9 2-1/4"14 ga. 1 Post	TYPE 8 2-1/2"12 ga. 1 Post	GROUND MOUNTED BREAKAWAY SIGN SUPPORT REQUIRED: TYPE 8 2-1/2"12 ga. 2 Post	TYPE 8 2-1/2"12 ga. 3 Post	TYPE 8 w/TYPE 9 Insert* 2-1/2"12 ga. W/2-1/4"14 ga. 1 Post	TYPE 8 w/TYPE 9 Insert* 2-1/2"12 ga. W/2-1/4"14 ga. 2 Post	TYPE 8 w/TYPE 9 Insert* 2-1/2"12 ga. W/2-1/4"14 ga. 3 Post
	SQUARE FOOTAGE				SQUARE FOOTAGE				
6'	13.50	27.00	19.25	30.00	60.00	90.00	49.25	98.50	147.75
7'	11.60	23.20	16.50	25.75	51.50	77.25	42.25	84.50	126.75
8'	10.15	20.30	14.45	22.55	45.10	67.65	37.00	74.00	111.00
9'	9.00	18.00	12.85	20.00	40.00	60.00	32.85	65.70	98.55
10'	8.10	16.20	11.55	18.00	36.00	54.00	29.55	59.10	88.65
11'	7.40	14.80	10.50	16.40	32.80	49.20	26.90	53.80	80.70
12'	6.80	13.60	9.65	15.00	30.00	45.00	24.65	49.30	73.95
13'	6.25	12.50	8.90	13.85	27.70	41.55	22.75	45.50	68.25
14'	5.80	11.60	8.25	12.90	25.80	38.70	21.15	42.30	63.45
15'	5.00	10.00	6.45	10.10	20.20	30.30	16.55	33.10	49.65
16'	4.70	9.40	6.05	9.45	18.90	28.35	15.50	31.00	46.50
17'	4.40	8.80	5.70	8.90	17.80	26.70	14.60	29.20	43.80
18'	4.15	8.30	5.40	8.40	16.80	25.20	13.80	27.60	41.40
19'	3.95	7.90	5.10	7.95	15.90	23.85	13.05	26.10	39.15
20'	3.75	7.50	4.85	7.55	15.10	22.65	12.40	24.80	37.20

SIGN CENTROID IS DISTANCE FROM GROUND LEVEL TO BOTTOM OF SIGN *PLUS* HALF THE HEIGHT OF SIGN.
EXAMPLE: 24" X 48" SIGN THAT IS 7 FEET FROM GROUND TO BOTTOM OF SIGN. ADD HALF OF 48"(24" OR 2 FT) *PLUS* 7 FT. = 9' CENTROID.

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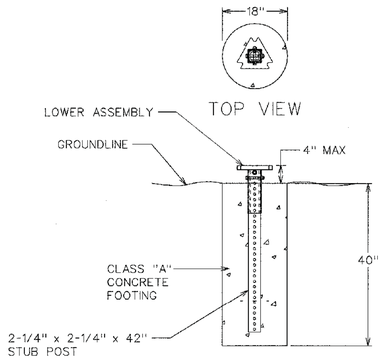
* TYPE 9 INSERT SHALL BE A CONTINOUS POST INSERTED INTO THE TYPE 8 POST WHERE REQUIRED. THE INSERT POST SHALL EXTEND FROM THE BOTTOM OF THE SLIP BASE UPPER ASSEMBLY TO 4" BELOW THE BOTTOM OF THE SIGN. THE INSERT POST SHALL NOT EXTEND ABOVE THE BOTTOM OF THE SIGN. PAYMENT FOR THE INSERT POST SHALL BE PER LINEAR FOOT OF TYPE 9 POST.

GROUND MOUNTED BREAKAWAY SIGN SUPPORT WILL BE MEASURED AND PAID FOR SEPARATELY. THE COST FOR THIS WORK SHALL INCLUDE THE UPPER AND LOWER ASSEMBLY, STUB POST, CLASS "A" CONCRETE, ALL HARDWARE NECESSARY TO COMPLETE THE INSTALLATION, AND BE INCLUDED IN THE BID PRICE SUBMITTED FOR ITEM 636-3010.

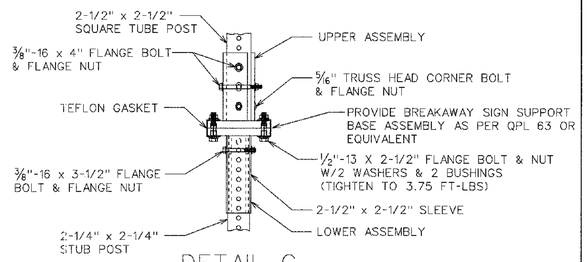
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			



DETAIL B

GROUND MOUNTED BREAKAWAY SIGN SUPPORT

TOP VIEW



DETAIL C

(CONCRETE NOT SHOWN)

DATE	REVISIONS

GEORGIA DEPARTMENT OF TRANSPORTATION
OFFICE OF TRAFFIC SAFETY & DESIGN

DETAILS OF
SQUARE TUBE POST
(BREAKAWAY SIGN SUPPORT)

NO SCALE July 2002

T-3B

PCSOT8

3/11/2007 GPLN

THE LPA GROUP
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

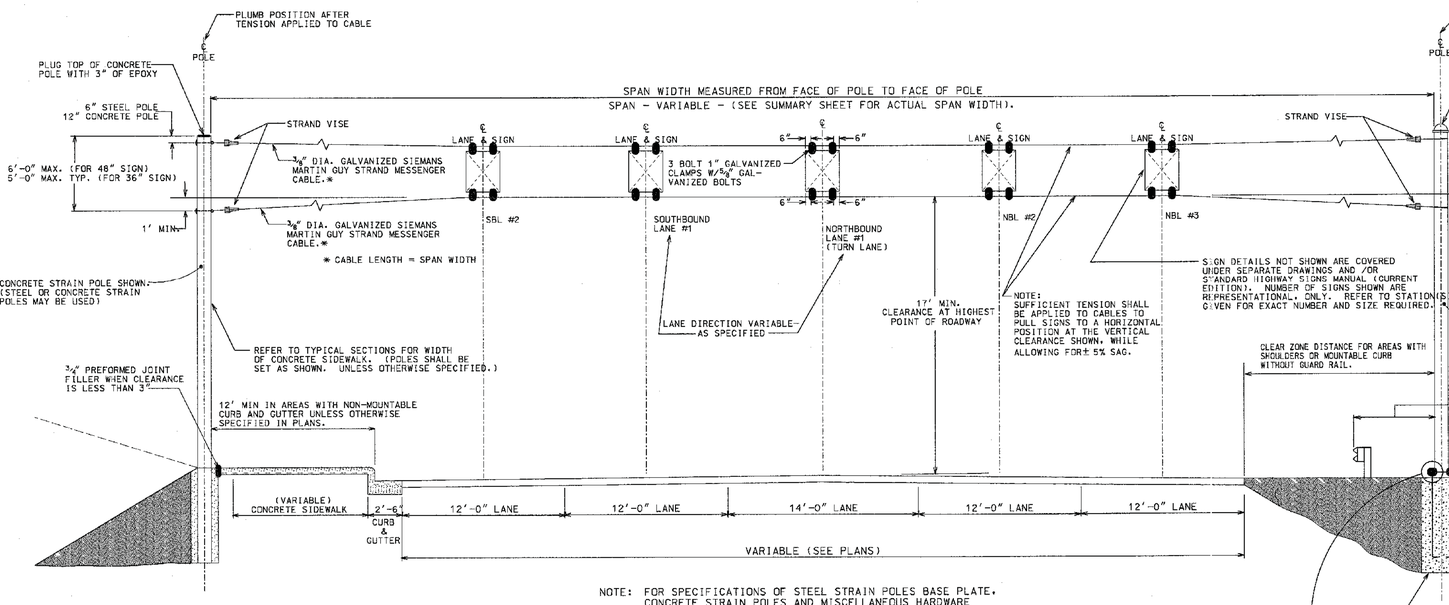
REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
CONSTRUCTION DETAILS

DRAWING No. 40-024

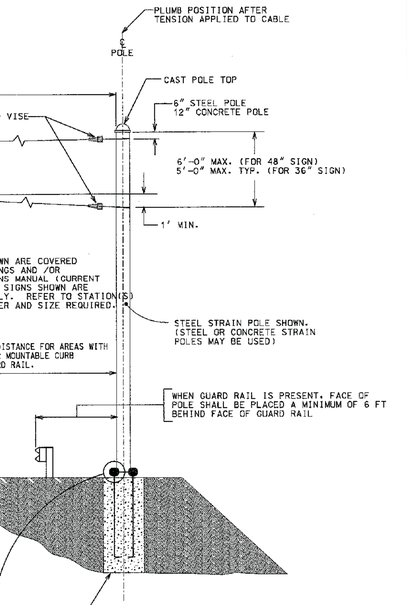
RELEASED FOR CONSTRUCTION - 07-23-13

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			



ROADWAY SECTION WITH NON-MOUNTABLE CURB

NOTE: FOR SPECIFICATIONS OF STEEL STRAIN POLES BASE PLATE, CONCRETE STRAIN POLES AND MISCELLANEOUS HARDWARE SEE GEORGIA STANDARD SPECIFICATIONS, SECTION 639 AND SPECIAL PROVISION.

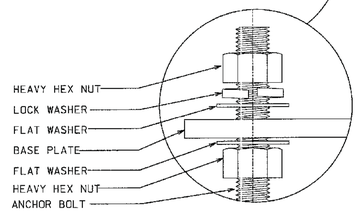


ROADWAY SECTION WITHOUT CURB

CLEAR ZONE DISTANCES (IN FEET FROM EDGE OF DRIVING LANE)

DESIGN SPEED	DESIGN ADT	FILL SLOPES			CUT SLOPES		
		6:1 OR FLATTER	5:1 TO 4:1	3:1	3:1	4:1 TO 5:1	6:1 OR FLATTER
40 MPH OR LESS	UNDER 750	7-10	7-10	**	7-10	7-10	7-10
	750-1500	10-12	12-14	**	10-12	10-12	10-12
	1500-6000	12-14	14-16	**	12-14	12-14	12-14
	OVER 6000	14-16	16-18	**	14-16	14-16	14-16
45-50 MPH	UNDER 750	10-12	12-14	**	8-10	8-10	10-12
	750-1500	12-14	16-20	**	10-12	12-14	14-16
	1500-6000	16-18	20-26	**	12-14	14-16	16-18
	OVER 6000	18-20	24-28	**	14-16	16-20	20-22
55 MPH	UNDER 750	12-14	14-18	**	8-10	10-12	10-12
	750-1500	16-18	20-24	**	10-12	14-16	16-18
	1500-6000	20-22	24-30	**	14-16	16-19	20-22
	OVER 6000	22-24	26-32	**	16-19	20-22	22-24

** POLES SHOULD NOT BE PLACED IN THE VICINITY OF THE TOP OF THESE SLOPES.



DETAIL OF ANCHOR BOLT AND HARDWARE

DATE	REVISIONS

GEORGIA DEPARTMENT OF TRANSPORTATION
OFFICE OF TRAFFIC SAFETY & DESIGN

DETAILS OF STRAIN POLE ERECTION FOR OVERHEAD SIGNS

NO SCALE JANUARY 2000

T-3C

P0907B

THE LPA GROUP
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

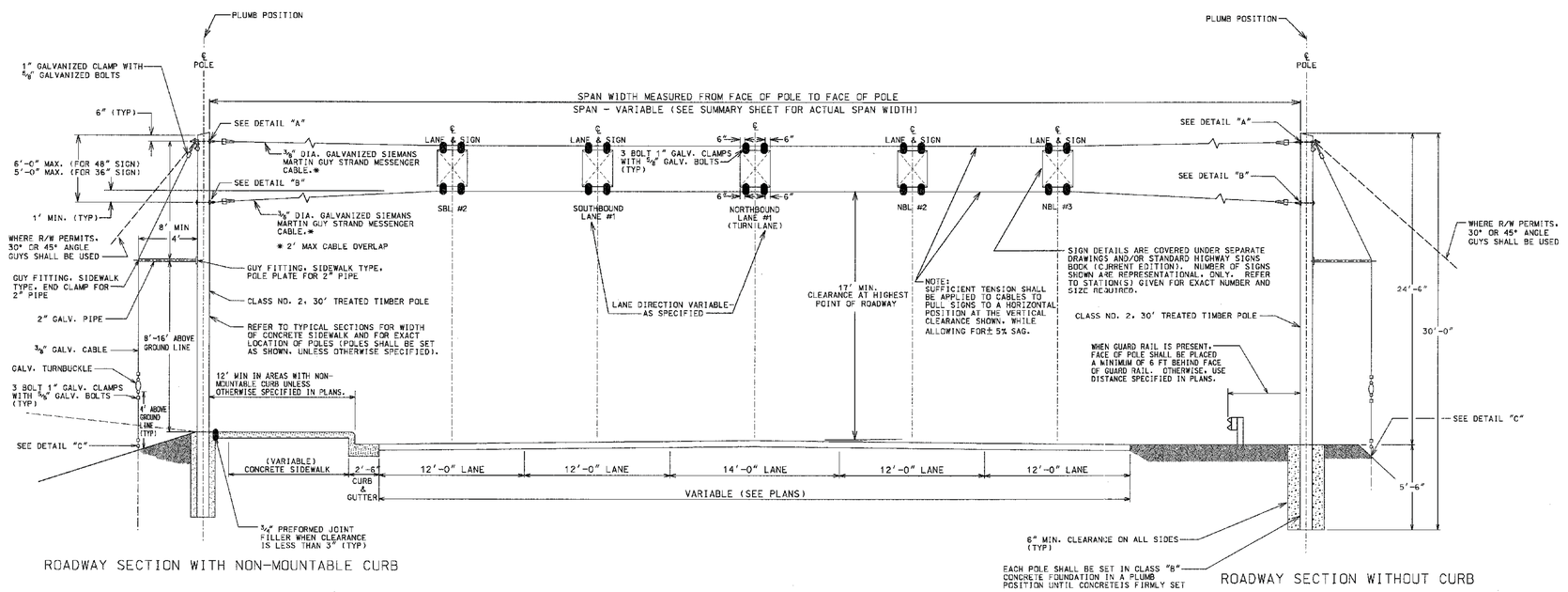
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
CONSTRUCTION DETAILS

DRAWING No. 40-025

3/1/2007 GPLN

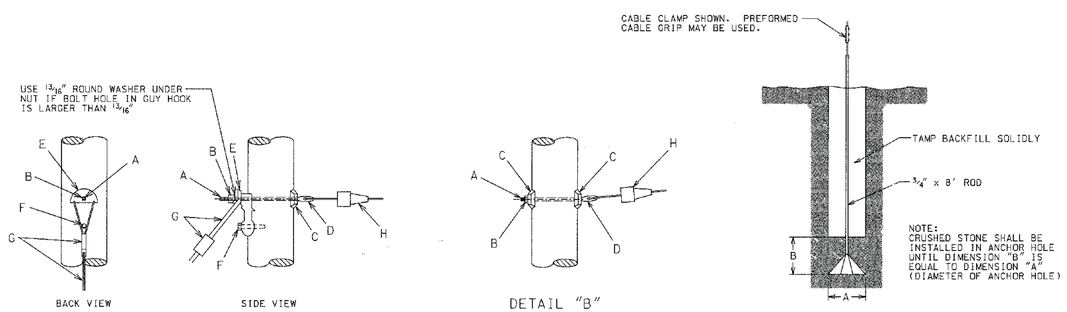
RELEASED FOR CONSTRUCTION - 07-23-13

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			



ROADWAY SECTION WITH NON-MOUNTABLE CURB

ROADWAY SECTION WITHOUT CURB



DETAIL "A"
(SEE PARTS LIST)

DETAIL "B"
(SEE PARTS LIST)

DETAIL "C"
(INSTALLATION SHOWN FOR 8" CONE TYPE GUY ANCHOR (6M). COMPARABLE SCREW TYPE (6M) MAY BE USED)

A	3/4" SPACE BOLTS
B	3/4" M F LOCKNUTS
C	4" x 4" CURVED WASHERS, 13/16" HOLE
D	3/4" THIMBLE EYE NUT
E	HEAVY DUTY GUY HOOK
F	1/2" x 4" LAG SCREW
G	3/8" GLAV. CABLE AND CLAMPS
H	STRANDVISE

NOTE: PREFORMED CABLE GRIPS MAY BE USED IN LIEU OF CABLE CLAMPS.

PARTS LIST

DATE	REVISIONS

GEORGIA DEPARTMENT OF TRANSPORTATION
OFFICE OF TRAFFIC SAFETY & DESIGN

DETAILS OF TIMBER POLE ERECTION FOR OVERHEAD SIGNS

NO SCALE JANUARY 2000

T-3D

3/1/2007 GPLN

THE LPA GROUP
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

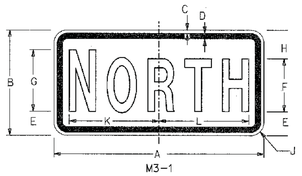
REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
CONSTRUCTION DETAILS

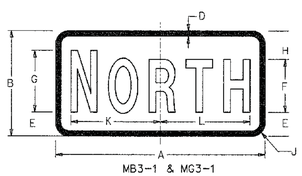
DRAWING No. 40-026

RELEASED FOR CONSTRUCTION - 07-23-13

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

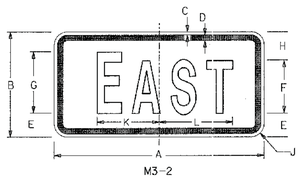


M3-1

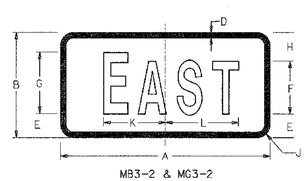


MB3-1 & MG3-1

DIMENSIONS (INCHES)											
SIGN	A	B	C	D	E	F	G	H	J	K	L
BIKE	12	4	-	1/4	1	2D	2 1/4 D	1	3/4	4 1/4	4 1/4
MIN & STD	24	12	3/8	3/8	2 3/4	6C	7C	3 1/4	1 1/2	10 1/4	12 1/4
SPECIAL	30	15	3/8	5/8	3 1/4	8C	9C	3 3/4	1 1/2	12 5/8	12 5/8

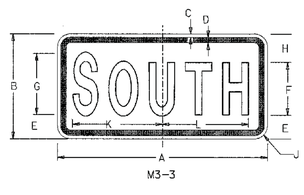


M3-2

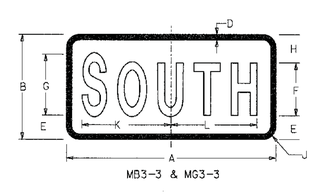


MB3-2 & MG3-2

DIMENSIONS (INCHES)											
SIGN	A	B	C	D	E	F	G	H	J	K	L
BIKE	12	4	-	1/4	1	2D	2 1/4 D	1	3/4	3 3/8	3 3/8
MIN & STD	24	12	3/8	5/8	2 3/4	6C	7C	3 1/4	1 1/2	7 7/8	8 3/4
SPECIAL	30	15	3/8	5/8	3 1/4	8C	9C	3 3/4	1 1/2	10 3/8	11 1/8

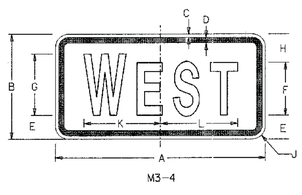


M3-3

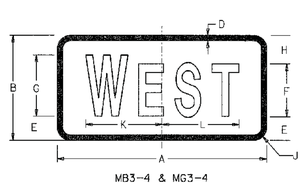


MB3-3 & MG3-3

DIMENSIONS (INCHES)											
SIGN	A	B	C	D	E	F	G	H	J	K	L
BIKE	12	4	-	1/4	1	2D	2 1/4 D	1	3/4	4 1/4	4 1/4
MIN & STD	24	12	3/8	5/8	2 3/4	6C	7C	3 1/4	1 1/2	10 1/4	9 5/8
SPECIAL	30	15	3/8	5/8	3 1/4	8C	9C	3 3/4	1 1/2	12 7/8	12 1/2



M3-4



MB3-4 & MG3-4

DIMENSIONS (INCHES)											
SIGN	A	B	C	D	E	F	G	H	J	K	L
BIKE	12	4	-	1/4	1	2D	2 1/4 D	1	3/4	3 1/2	3 1/2
MIN & STD	24	12	3/8	5/8	2 3/4	6C	7C	3 1/4	1 1/2	8 3/4	8 3/4
SPECIAL	30	15	3/8	5/8	3 1/4	8C	9C	3 3/4	1 1/2	12 3/8	11 1/8

GENERAL NOTES:

1. M3 (CONVENTIONAL ROADWAYS) SIGNS SHALL HAVE BLACK LEGENDS AND BORDERS ON WHITE REFLECTORIZED BACKGROUNDS.
2. MB3 (INTERSTATE HIGHWAYS) SIGNS SHALL HAVE WHITE REFLECTORIZED LEGENDS AND BORDERS ON BLUE REFLECTORIZED BACKGROUNDS.
3. MG3 (BIKE LANES) SIGNS SHALL HAVE WHITE REFLECTORIZED LEGENDS AND BORDERS ON GREEN REFLECTORIZED BACKGROUNDS.

DATE	REVISIONS

GEORGIA DEPARTMENT OF TRANSPORTATION
OFFICE OF TRAFFIC SAFETY & DESIGN

DETAILS OF CARDINAL DIRECTION SIGNS

NO SCALE JANUARY 2000

T-4

Standard version sign 4g, Jan 25, 2000 10:15:2

3/11/2007 GPLN
REVISED 08/27/04 08/27/09 08/27/10 08/27/13 08/27/14

THE LPA GROUP
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

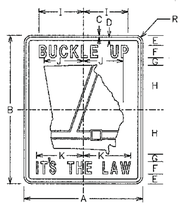
REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
CONSTRUCTION DETAILS

DRAWING No. 40-027

RELEASED FOR CONSTRUCTION - 07-23-13

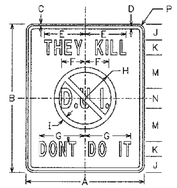
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			



R560-1

SIGN	DIMENSIONS (INCHES)												
	A	B	C	D	E	F	G	H	I	J	K	L	R
MIN & STD	30	36	1/2	3/4	2 1/2	3C	1 1/2	11	8 1/2	10	11	1 1/8	
FWY	48	60	3/4	1 1/4	4	5C	3	16	15 1/2	16	18	3	

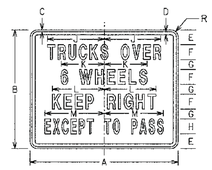
COLORS
STATE SHIELD & BORDER -RED (REFL)
LEGEND & BELT - BLACK (NON-REFL)
BACKGROUND - WHITE (REFL)



R560-2

SIGN	DIMENSIONS (INCHES)															
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	P	
MIN & STD	30	36	1/2	3/4	11	5	12 1/2	7 1/2	1 1/4	4C	3	4 1/2	5C	1 7/8		
FWY	48	60	3/4	1 1/4	16 1/2	9 1/2	18 1/2	12 1/2	2	6 1/2	6C	5	8 1/2	8C	3	

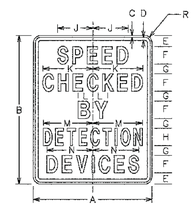
COLORS
CIRCLE & DIAGONAL - RED (REFL)
LEGEND & BORDER-BLACK (NON-REFL)
BACKGROUND - WHITE (REFL)



R560-3

SIGN	DIMENSIONS (INCHES)													
	A	B	C	D	E	F	G	H	J	K	L	M	R	
MIN & STD	36	30	1/2	3/4	1 1/4	3 1/2	3 1/2	3C	3	3 1/2	14	10	11 1/2	4 1/2	1 7/8	
FWY	60	48	3/4	1 1/4	6	6C	4	6B	23	17 1/2	21	24	3			

COLORS
LEGEND & BORDER - BLACK (NON-REFL)
BACKGROUND - WHITE (REFL)



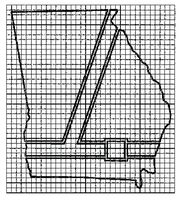
I550-1

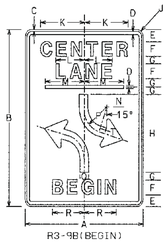
SIGN	DIMENSIONS (INCHES)													
	A	B	C	D	E	F	G	H	J	K	L	M	N	R
MIN & STD	30	36	1/2	3/4	4	4D	2	4C	8 3/16	15 5/8	3 5/8	11 5/16	10 3/8	1 7/8
FWY	48	60	3/4	1 1/4	4 1/2	7D	4	7C	14 5/8	20 5/8	6	20	18 5/16	3

COLORS
LEGEND & BORDER - BLACK (NON-REFL)
BACKGROUND -WHITE (REFL)

THE I550-1 SIGN SHALL BE ERECTED:

1. ON EVERY HIGHWAY THAT COMPRISES A PART OF THE STATE HIGHWAY SYSTEM AT THAT POINT ON THE HIGHWAY WHICH INTERSECTS THE STATE LINE.
2. AT THE TERMINI OF EVERY HIGHWAY THAT COMPRISES A PART OF THE STATE HIGHWAY SYSTEM WHICH BEGINS OR ENDS WITHIN THE STATE BOUNDARIES.
3. ON EVERY HIGHWAY THAT COMPRISES A PART OF THE STATE HIGHWAY SYSTEM AT THAT POINT ON THE HIGHWAY WHERE TRAFFIC FROM OUTSIDE THE COUNTY FIRST ENTERS A COUNTY THAT HAS A PERMIT TO OPERATE SPEED DETERCTION DEVICES, AND
4. ON EVERY HIGHWAY THAT COMPRISES A PART OF THE STATE HIGHWAY SYSTEM AT THAT POINT ON THE HIGHWAY WHERE TRAFFIC FIRST ENTERS THE CORPORATE LIMITS OF ANY MUNICIPALITY THAT HAS A PERMIT TO OPERATE SPEED DETECTION DEVICES.

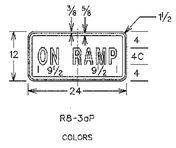




R3-9B(BEGIN)

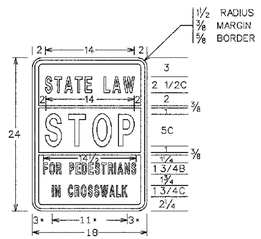
END
I S I S

R3-9B(END)



R8-3aP

COLORS
LEGEND & BORDER - RED (REFL)
BACKGROUND - WHITE (REFL)

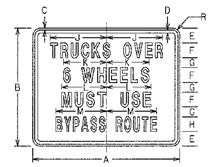


R560-5

COLORS
LEGEND & BORDER-BLACK (NON-REFL)
WORD "STOP" -RED (REFL)
BACKGROUND -WHITE (REFL)

SIGN	DIMENSIONS (INCHES)																		
	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	
STD & MIN	24	36	3/8	5/8	2 1/2	3E	1 1/2	16	1 1/2	5 1/8	5 3/4	8	2 1/2	6	2	5/8	4 5/16	1 1/2	
SPECIAL	36	48	5/8	7/8	3 1/2	5E	1 1/2	20	2 1/4	7 1/16	9 1/2	12	3	8	3	7/16	4 5/16	2	

COLORS
LEGEND & BORDER - BLACK (NON-REFL)
BACKGROUND -WHITE (REFL)



R560-4

SIGN	DIMENSIONS (INCHES)													
	A	B	C	D	E	F	G	H	J	K	L	M	R	
MIN & STD	36	30	1/2	3/4	3 1/2	3 1/2	3C	3	3 1/8	14	10	10	12 1/2	1 7/8
FWY	60	48	3/4	1 1/4	6	6C	4	6C	23	17 1/2	17 1/2	25 1/2	3	

COLORS
LEGEND & BORDER - BLACK (NON-REFL)
BACKGROUND -WHITE (REFL)

DATE	REVISIONS
9-24-00	ADDED R9-8 DETAIL
1-21-03	DELETED R1-4 SIGNS
1-21-05	REV SIGN CODES FOR R3-9 SIGNS

GEORGIA DEPARTMENT OF TRANSPORTATION
OFFICE OF TRAFFIC SAFETY & DESIGN

DETAILS OF
REGULATORY SIGNS
SHEET 1 OF 2

NO SCALE JANUARY 2000

T-5A

3/1/2007 GPLN

THE LPA GROUP
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

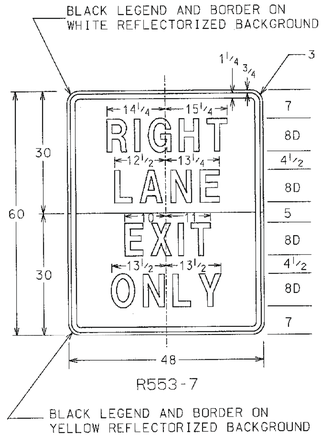
REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
CONSTRUCTION DETAILS

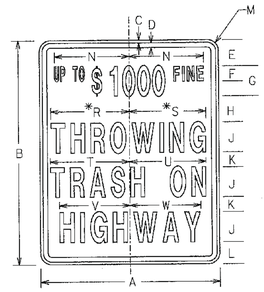
DRAWING No.
40-028

RELEASED FOR CONSTRUCTION - 07-23-13

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			



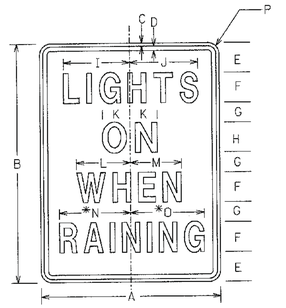
R553-7



R553-1

* REDUCE SPACING 20%

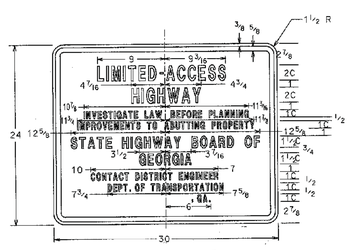
SIGN	DIMENSIONS (INCHES)																			
	A	B	C	D	E	F	G	H	J	K	L	M	N	R	S	T	U	V	W	
STD & MIN	24	30	3/8	5/8	3 1/2	2B	4C	3 1/2	4C	2	3	1 1/2	10	10 1/2	10 1/4	10 3/4	10 1/8	9 3/8	9 1/2	
EXPWY	36	48	5/8	3/8	6	3B	6C	6	6C	3	6	2 1/4	15	15 3/4	15 3/8	16 1/8	15 3/8	14 7/8	14 1/4	
FWY	48	60	3/4	1 1/4	7	4B	7C	8	8C	4	6	3	20	21	20 1/2	21 1/2	20 1/4	18 3/4	19	



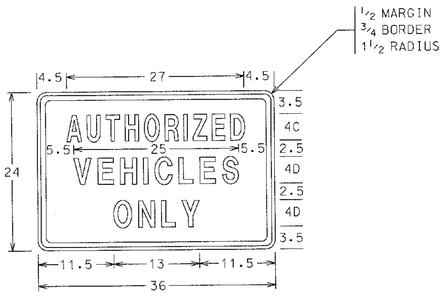
R554-1

* REDUCE SPACING 30%

SIGN	DIMENSIONS (INCHES)														
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
STD & MIN	24	30	3/8	5/8	3 5/8	4D	2 1/4	4E	8 3/4	9 1/4	4	6 3/4	7 1/4	9 1/4	9 3/4	1 1/2
EXPWY	36	48	5/8	1/8	6	6D	4	6E	13 1/4	13 3/4	5 1/2	10 3/4	10 1/4	14 1/4	14 3/4	2 1/4
FWY	48	60	3/4	1 1/4	7 1/4	8D	4 1/2	8E	17 1/8	17 7/8	7	14 3/8	13 5/8	18 5/8	19 3/8	3



R552-1



R552-2

DATE	REVISIONS

GEORGIA DEPARTMENT OF TRANSPORTATION
OFFICE OF TRAFFIC SAFETY & DESIGN

DETAILS OF REGULATORY SIGNS
SHEET 2 OF 2

NO SCALE JANUARY 2000

T-5B

PDBOT8

3/1/2007 GPLN

THE LPA GROUP
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES		

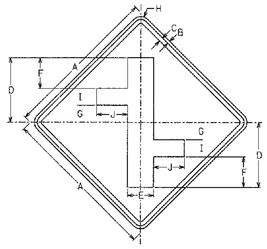
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CONSTRUCTION DETAILS

DRAWING No. 40-029

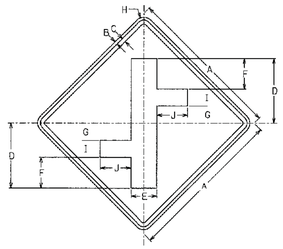
RELEASED FOR CONSTRUCTION - 07-23-13

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			



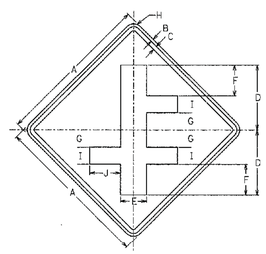
W552-1

SIGN	DIMENSIONS (INCHES)									
	A	B	C	D	E	F	G	H	I	J
STD & MIN	30	1/2	3/4	12 1/2	5	6	3 1/4	1 7/8	3 1/4	6
EXPWY	36	5/8	7/8	15	6	7	4	2 1/4	4	7
FWY	48	7/8	1 1/4	20	8	9 1/2	5 1/4	3	5 1/4	9 1/2



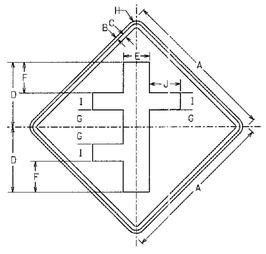
W552-2

SIGN	DIMENSIONS (INCHES)									
	A	B	C	D	E	F	G	H	I	J
STD & MIN	30	1/2	3/4	12 1/2	5	6	3 1/4	1 7/8	3 1/4	6
EXPWY	36	5/8	7/8	15	6	7	4	2 1/4	4	7
FWY	48	7/8	1 1/4	20	8	9 1/2	5 1/4	3	5 1/4	9 1/2



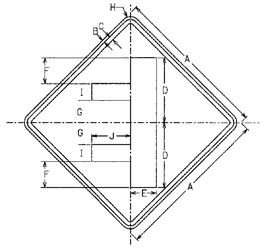
W552-3

SIGN	DIMENSIONS (INCHES)									
	A	B	C	D	E	F	G	H	I	J
STD & MIN	30	1/2	3/4	12 1/2	5	6	3 1/4	1 7/8	3 1/4	6
EXPWY	36	5/8	7/8	15	6	7	4	2 1/4	4	7
FWY	48	7/8	1 1/4	20	8	9 1/2	5 1/4	3	5 1/4	9 1/2



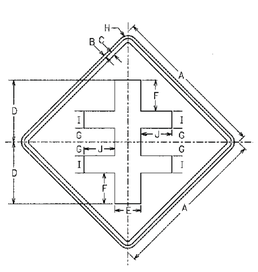
W552-4

SIGN	DIMENSIONS (INCHES)									
	A	B	C	D	E	F	G	H	I	J
STD & MIN	30	1/2	3/4	12 1/2	5	6	3 1/4	1 7/8	3 1/4	6
EXPWY	36	5/8	7/8	15	6	7	4	2 1/4	4	7
FWY	48	7/8	1 1/4	20	8	9 1/2	5 1/4	3	5 1/4	9 1/2



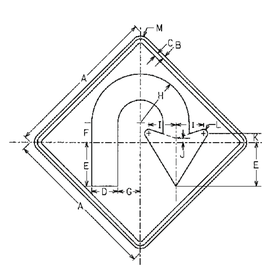
W552-5

SIGN	DIMENSIONS (INCHES)									
	A	B	C	D	E	F	G	H	I	J
STD & MIN	30	1/2	3/4	12 1/2	5	5	4 1/4	1 7/8	3 1/4	8
EXPWY	36	5/8	7/8	15	6	6	5	2 1/4	4	10
FWY	48	7/8	1 1/4	20	8	8	6 3/4	3	5 1/4	12



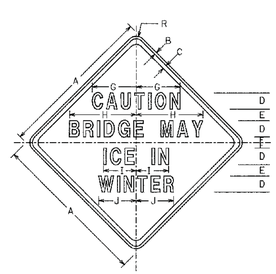
W552-6

SIGN	DIMENSIONS (INCHES)									
	A	B	C	D	E	F	G	H	I	J
STD & MIN	30	1/2	3/4	12 1/2	5	5	3 1/4	1 7/8	3 1/4	6
EXPWY	36	5/8	7/8	15	6	7	4	2 1/4	4	7
FWY	48	7/8	1 1/4	20	8	9 1/2	5 1/4	3	5 1/4	9 1/2



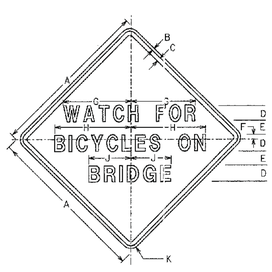
W551-1

SIGN	DIMENSIONS (INCHES)												
	A	B	C	D	E	F	G	H	I	J	K	L	M
STD & MIN	30	1/2	3/4	5	8 1/2	3 3/4	4 7/8	9 5/8	5 3/4	3/4	1 5/8	3/4	1 7/8
EXPWY	36	5/8	7/8	6	10	4 1/2	5 1/4	11 1/4	6 7/8	15/16	2 3/16	15/16	2 1/4
FWY	48	7/8	1 1/4	8	13 1/2	6	7	15	8 15/16	1 1/4	2 3/4	1 1/4	3



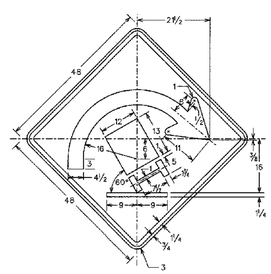
W560-1

SIGN	DIMENSIONS (INCHES)									
	A	B	C	D	E	F	G	H	I	J	R
MIN & STD	30	1/2	3/4	3D	2 5/16	1 3/32	8	12 1/2	6	7	1 7/8
EXPWY	36	5/8	7/8	4D	2 5/8	1 5/16	11	16 1/2	8	9	2 1/4
FWY	48	3/4	1 1/4	5D	3 1/2	1 3/4	13 1/2	20 1/2	10	11 1/2	3



W560-2

SIGN	DIMENSIONS (INCHES)								
	A	B	C	D	E	F	G	H	J	K
MIN & STD	30	1/2	3/4	3C	1 1/2	1 3/32	9 1/2	11 1/2	6	1 7/8
EXPWY	36	5/8	7/8	4C	3 1/4	2	13	15	7 1/2	2 1/4



W560-3

SIGNS SHALL HAVE YELLOW REFLECTORIZED BACKGROUNDS WITH BLACK LEGENDS, BORDERS, AND SYMBOLS.

DATE	REVISIONS

GEORGIA DEPARTMENT OF TRANSPORTATION
OFFICE OF TRAFFIC SAFETY & DESIGN

DETAILS OF
WARNING SIGNS

NO SCALE JANUARY 2000

FC207B

T-5C

THE LPA GROUP
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

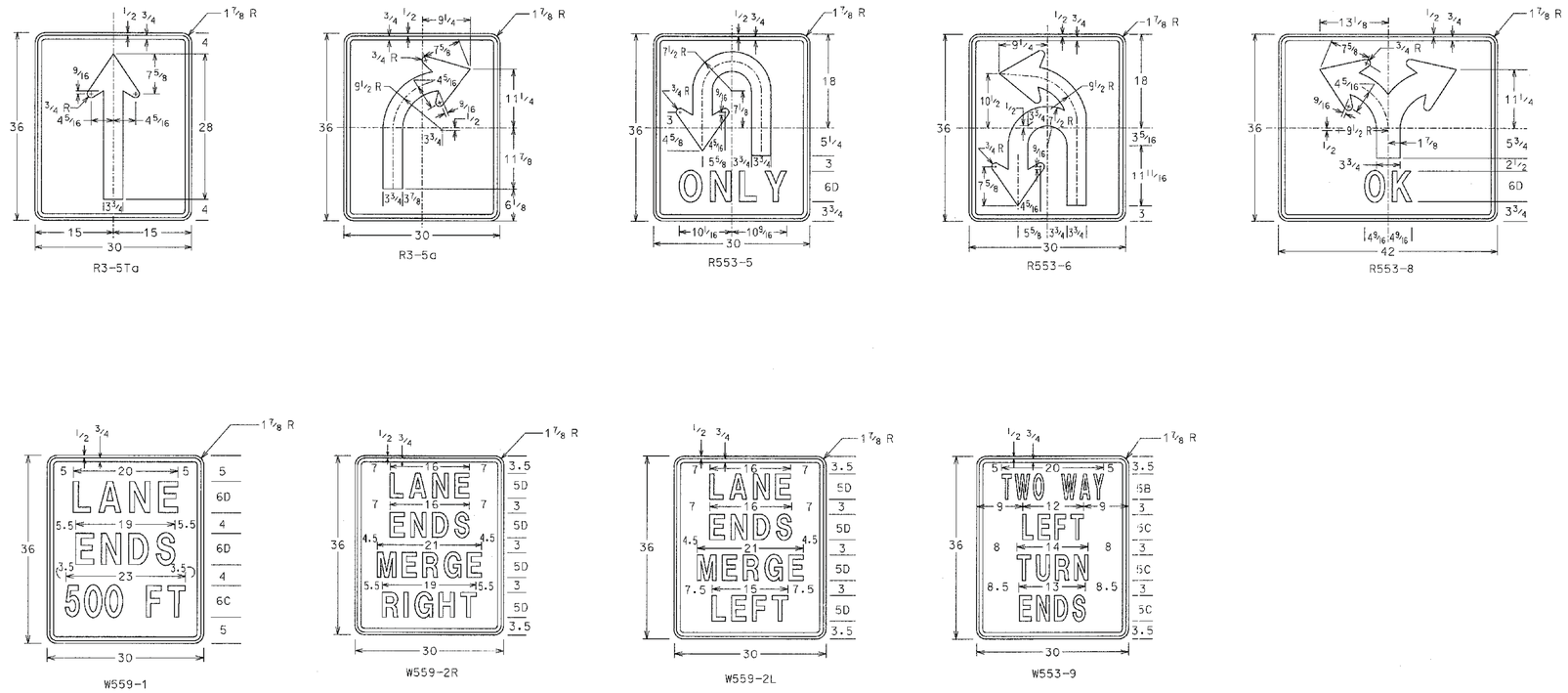
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
CONSTRUCTION DETAILS

DRAWING No. 40-030

3/1/2007 GPLN

RELEASED FOR CONSTRUCTION - 07-23-13

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			



GENERAL NOTES:
1. R SIGNS SHALL HAVE WHITE REFLECTORIZED BACKGROUNDS WITH BLACK LEGENDS, BORDERS, AND SYMBOLS.
2. W SIGNS SHALL HAVE YELLOW REFLECTORIZED BACKGROUNDS WITH BLACK LEGENDS AND BORDERS.
3. ALL DIMENSIONS ARE IN INCHES.

DATE	REVISIONS

GEORGIA DEPARTMENT OF TRANSPORTATION
OFFICE OF TRAFFIC SAFETY & DESIGN

DETAILS OF OVERHEAD SIGNS

NO SCALE JANUARY 2000

T-6

THE LPA GROUP
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
CONSTRUCTION DETAILS

DRAWING No. 40-031

3/1/2007 GPLN

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	574	730

RELEASED FOR CONSTRUCTION - 07-23-13

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

DECK OVERHANG ATTACHMENT DETAIL

PARAPET ATTACHMENT DETAIL

R554-5

R554-10

SIGN CODE	X
R554-6	2
R554-7	3
R554-8	4
R554-9	5

BOTTOM SUPPORT BRACKET DETAIL

MOUNTING PLATE DETAIL

"Z" BAR DETAIL

CLIP DETAIL

SIGN ASSEMBLY DETAIL
(BACK VIEW)

GENERAL NOTES

1. ALL MATERIALS SHALL BE A709 GRADE 36 GALVANIZED STEEL UNLESS SPECIFIED OTHERWISE.
2. ALL CONNECTIONS SHALL BE MADE WITH SELF LOCKING NUTS OR SPOT WELDED. THE THREADED PORTION OF BOLTS SHALL EXTEND A MINIMUM OF 1/2 INCH BEYOND NUT.
3. THE R554-5 SIGN SHALL BE USED ON ROADWAYS WITH 3 LANES OF TRAVEL IN ONE DIRECTION. THE R554-6, 7, OR 8 SIGNS SHALL BE USED ON ROADWAYS OF 4, 5, OR 6 LANES, RESPECTIVELY, OF TRAVEL IN ONE DIRECTION.
4. WHEN USED, SHIMS SHALL BE ATTACHED TO THE "Z" BARS SUPPORTING THE SIGN. ON BRIDGES WITH A DECK OVERHANG, THE LENGTH OF THE MOUNTING PLATE SHALL BE INCREASED IN PROPORTION TO THE NUMBER OF SHIMS USED. ON BRIDGES WITH A PAPAPET, THE LENGTH OF THE BOLTS SHALL BE INCREASED IN PROPORTION TO THE NUMBER OF SHIMS USED.
5. ON BRIDGES WITH A SLOPE OTHER THAN ZERO, SHIMS SHALL BE USED TO ADJUST THE SIGN SO THAT THE BOTTOM OF THE SIGN IS LEVEL. WHEN USED, SHIMS SHALL BE ATTACHED TO THE BOTTOM OF THE MOUNTING PLATE.

   ON BRIDGES WITH A DECK OVERHANG, THE LENGTHS OF THE BOLTS SHALL BE INCREASED IN PROPORTION TO THE NUMBER OF SHIMS USED. ON BRIDGES WITH A PARAPET, THE HOLES FOR BOLTS SHALL BE DRILLED SO THAT THE SIGN IS LEVEL.
6. THE BOTTOM OF THE SIGN SHALL NOT EXTEND BELOW THE BOTTOM OF THE BRIDGE BEAM.
7. FOR DETAILS OF ALUMINUM EXTRUDED SIGN PANELS, POST CLIPS, AND BOLTS, SEE THE CURRENT VERSION OF GEORGIA STANDARD 9042.
8. THE LENGTH (L) OF THE BOTTOM SUPPORT BRACKET DEPENDS UPON THE BRIDGE BEAM SETBACK, AND SHALL BE DETERMINED IN THE FIELD.

DATE	REVISIONS
9/11/01	REV DETAILS FOR R554 SERIES; ADDED DETAIL FOR R554-10

GEORGIA DEPARTMENT OF TRANSPORTATION
OFFICE OF TRAFFIC SAFETY & DESIGN

DETAILS OF
BRIDGE ATTACHMENT

NO SCALE JANUARY 2000

PCBOTB

T-7

THE LPA GROUP
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

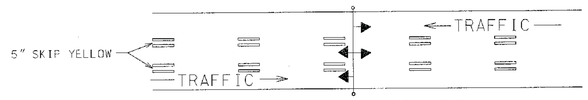
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
CONSTRUCTION DETAILS

DRAWING No. 40-032

3/1/2007 GPLN

RELEASED FOR CONSTRUCTION - 07-23-13

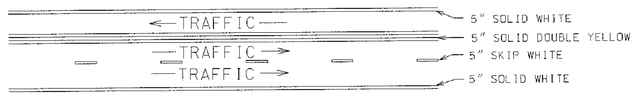
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			



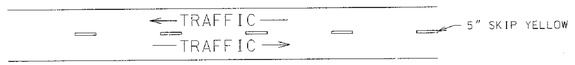
REVERSIBLE LANE SIGN OR SIGNAL SYSTEM REQUIRED

TWO-WAY TRAFFIC WITH A REVERSIBLE CENTER LANE

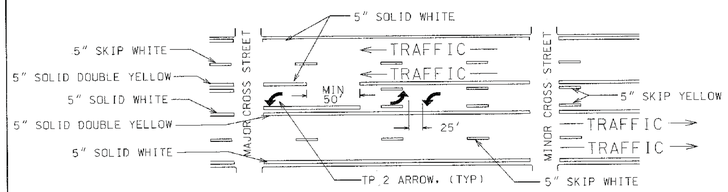
TWO-WAY TRAFFIC WHERE MOTORISTS IN A SINGLE LANE ARE PERMITTED TO PASS



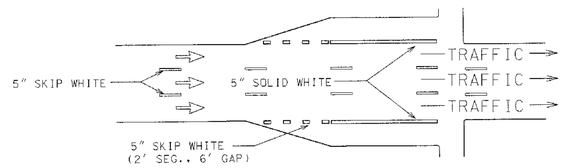
TWO-WAY TRAFFIC WHERE MOTORISTS IN A SINGLE LANE ARE NOT PERMITTED TO PASS



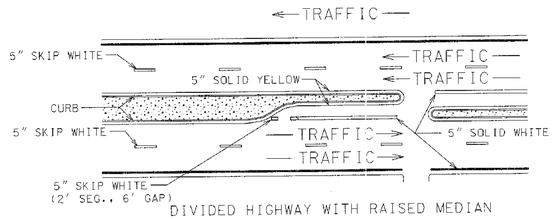
TWO-LANE, TWO-WAY TRAFFIC WITH PASSING PERMITTED



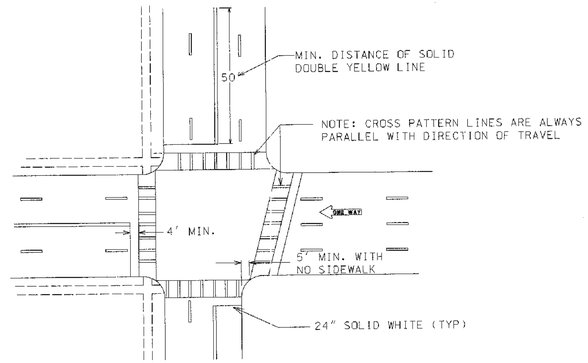
MULTI-LANE, TWO-WAY TRAFFIC WITH SINGLE LANE, TWO-WAY LEFT TURN CHANNELIZATION



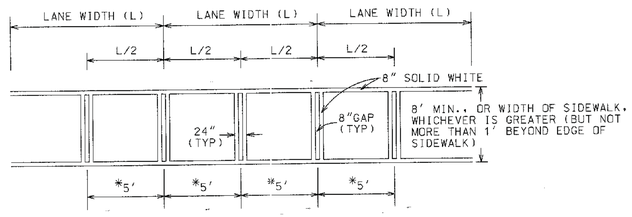
ONE-WAY TRAFFIC WITH ADDED TURN LANES



DIVIDED HIGHWAY WITH RAISED MEDIAN



TYPICAL LOCATION OF CROSSWALKS AND STOP BARS



*USE WHERE THE LANE WIDTH EXCEEDS 12' OR WHERE LANE LINES HAVE BEEN OMITTED

CROSSWALK DETAIL

GENERAL NOTES:

1. SPACING BETWEEEN DOUBLE LINES SHALL BE EQUAL TO THE LINE WIDTH.
2. EDGE LINES SHALL BE PLACED A MINIMUM OF 4 INCHES FROM THE NORMAL EDGE OF PAVEMENT.

DATE	REVISIONS

GEORGIA DEPARTMENT OF TRANSPORTATION
OFFICE OF TRAFFIC SAFETY & DESIGN

DETAILS OF PAVEMENT MARKING PLACEMENT NON-LIMITED ACCESS ROADWAY

NO SCALE JANUARY 2000

T-11A

PC907B

THE LPA GROUP
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
CONSTRUCTION DETAILS

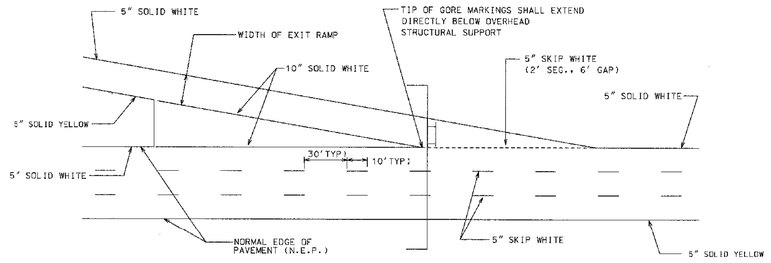
DRAWING No. 40-033

3/1/2007 GPLN

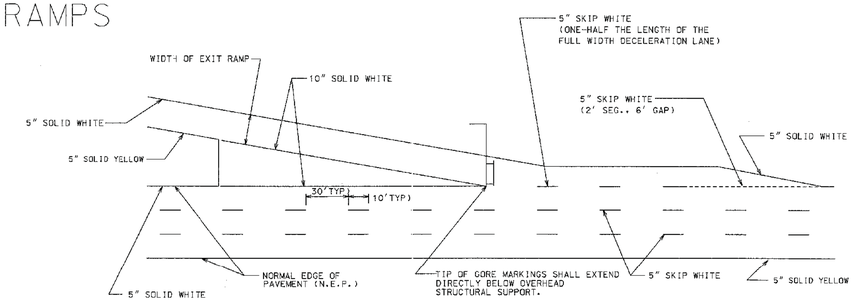
RELEASED FOR CONSTRUCTION - 07-23-13

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

EXIT RAMPS

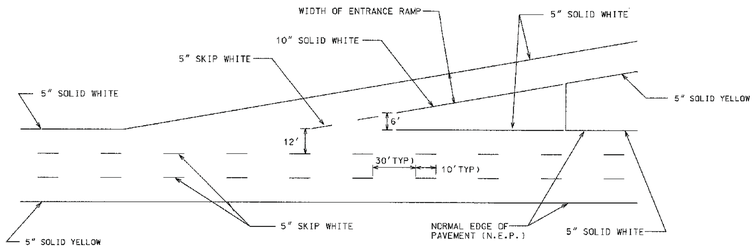


TAPERED DECELERATION LANE

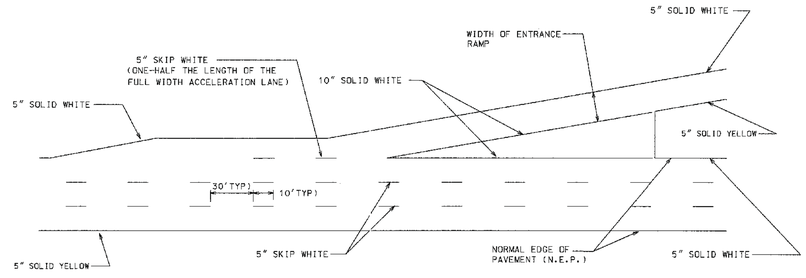


PARALLEL DECELERATION LANE

ENTRANCE RAMPS



TAPERED ACCELERATION LANE



PARALLEL ACCELERATION LANE

GENERAL NOTES:

1. ALL PAVEMENT MARKINGS SHALL BE REFLECTORIZED.
2. EDGE LINES SHALL BE OFFSET 4 INCHES FROM THE NORMAL EDGE OF PAVEMENT.
3. EXISTING PAVEMENT MARKINGS THAT CONFLICT WITH NEW PAVEMENT MARKINGS SHALL BE OBLITERATED OR REMOVED PRIOR TO THE INSTALLTION OF NEW PAVEMENT MARKINGS AS DIRECTED BY THE ENGINEER. NO SEPARATE PAYMENT SHALL BE MADE FOR THIS WORK BUT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE NEW PAVEMENT MARKINGS.

DATE	REVISIONS

GEORGIA DEPARTMENT OF TRANSPORTATION
OFFICE OF TRAFFIC SAFETY & DESIGN

DETAILS OF PAVEMENT MARKING PLACEMENT LIMITED ACCESS ROADWAY

NO SCALE JANUARY 2000

PCBDTD

T-11B

THE LPA GROUP
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES		

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
CONSTRUCTION DETAILS

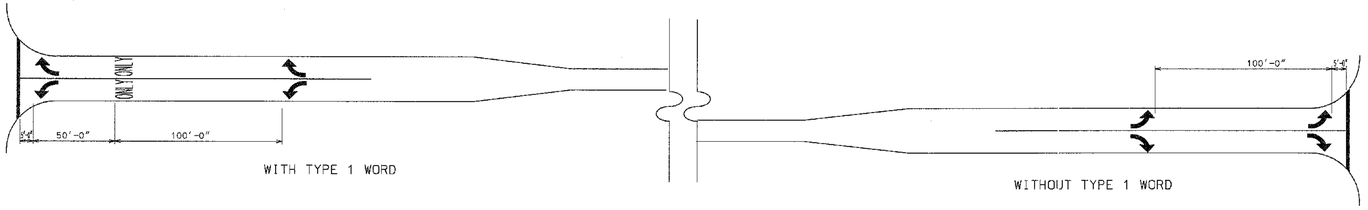
DRAWING No. 40-034

3/1/2007 GPLN

RELEASED FOR CONSTRUCTION - 07-23-13

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

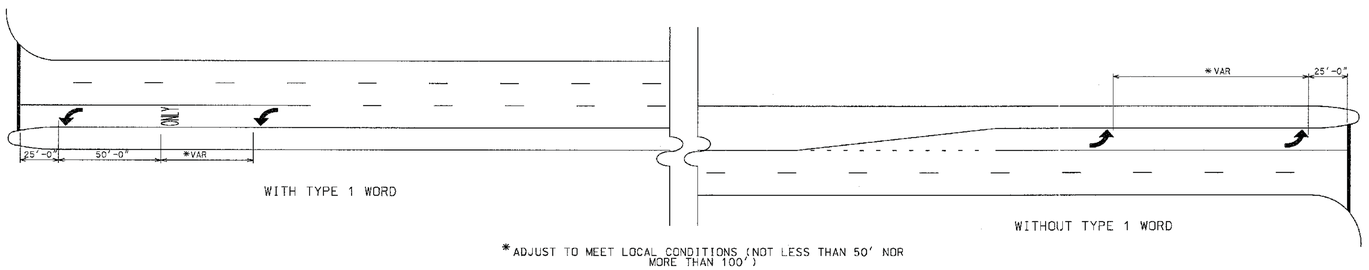
EXIT RAMPS



WITH TYPE 1 WORD

WITHOUT TYPE 1 WORD

SHORT TURN LANES

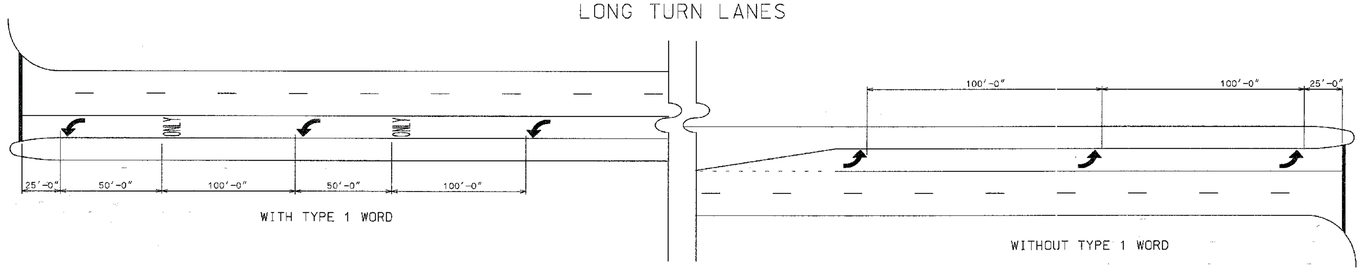


WITH TYPE 1 WORD

WITHOUT TYPE 1 WORD

*ADJUST TO MEET LOCAL CONDITIONS (NOT LESS THAN 50' NOR MORE THAN 100')

LONG TURN LANES



WITH TYPE 1 WORD

WITHOUT TYPE 1 WORD

GENERAL NOTES:

1. SPACING OF TYPE 2 ARROW IS REPRESENTATIVE OF SPACING FOR TYPE 1, TYPE 3, TYPE 4, & TYPE 5 ARROWS.
2. ALL TURNING LANES SHALL HAVE A MINIMUM OF 2 ARROWS.
3. GROUND MOUNTED OR OVERHEAD SIGNING SHALL BE SUPPLEMENTED BY TYPE 1 WORD.

DATE	REVISIONS

GEORGIA DEPARTMENT OF TRANSPORTATION
OFFICE OF TRAFFIC SAFETY & DESIGN

DETAILS OF PAVEMENT MARKING ARROW LOCATION

NO SCALE JANUARY 2000

T-12A

THE LPA GROUP
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
CONSTRUCTION DETAILS

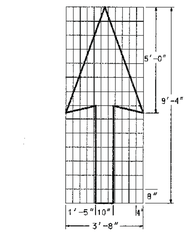
DRAWING No. 40-035

3/1/2007 GPLN

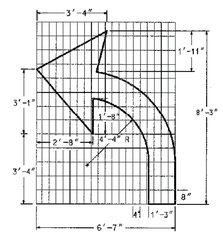
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	578	730

RELEASED FOR CONSTRUCTION - 07-23-13

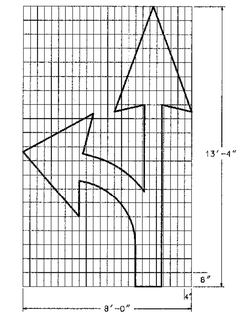
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			



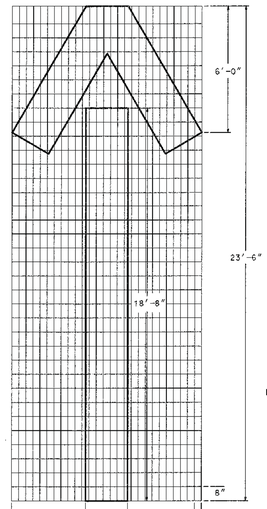
PAVEMENT MARKING, ARROW, TYPE 1
WHITE
(12.0 SQ. FT.)



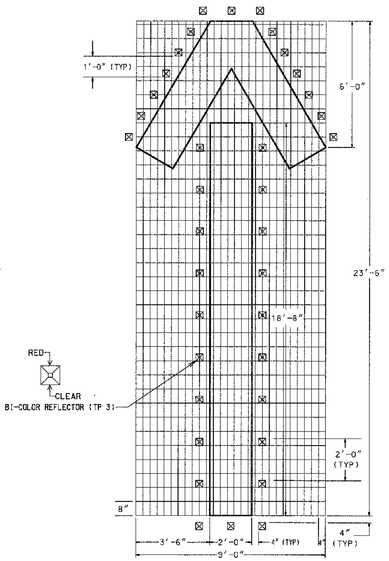
PAVEMENT MARKING, ARROW, TYPE 2
WHITE
(16.0 SQ. FT.)



PAVEMENT MARKING, ARROW, TYPE 3
WHITE
(28.5 SQ. FT.)

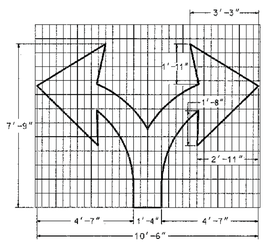


PAVEMENT MARKING, ARROW, TYPE 4
WHITE
(64.5 SQ. FT.)

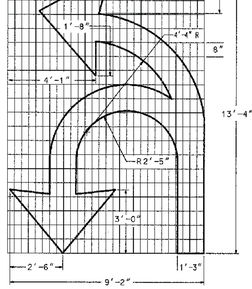


PAVEMENT MARKING, ARROW, WRONG WAY
WHITE
(64.5 SQ. FT.)

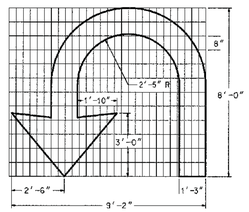
ARROW- WHITE REFLECTORIZED PAINT THERMOPLASTIC, AS SPECIFIED BY GEORGIA STANDARD SPECIFICATIONS, SECTION 655.



PAVEMENT MARKING, ARROW, TYPE 5
WHITE
(25.5 SQ. FT.)



PAVEMENT MARKING, ARROW, TYPE 6
WHITE
(42.0 SQ. FT.)



PAVEMENT MARKING, ARROW, TYPE 7
WHITE
(26.0 SQ. FT.)

DATE	REVISIONS
4-11-00	CHANGED LOCATION OF RPMs ON WRONG WAY ARROW

GEORGIA DEPARTMENT OF TRANSPORTATION
OFFICE OF TRAFFIC SAFETY & DESIGN

DETAILS OF
PAVEMENT MARKINGS-ARROWS

NO SCALE JANUARY 2000

T-12B

PCBOT8

3/1/2007 GPLN

THE LPA GROUP
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

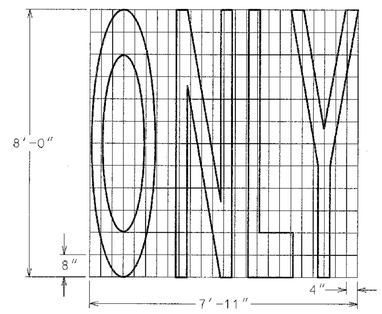
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
CONSTRUCTION DETAILS

DRAWING No.
40-036

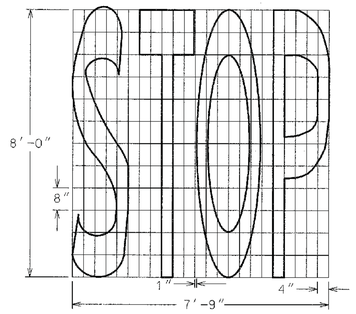
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-001690	579	730

RELEASED FOR CONSTRUCTION - 07-23-13

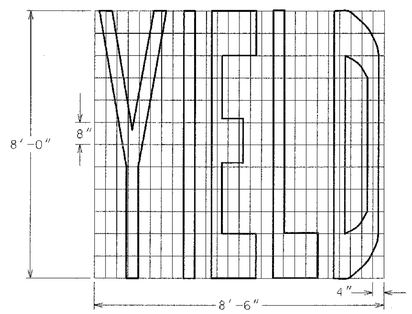
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			



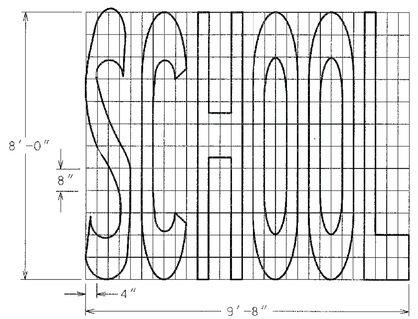
TYPE 1
AREA = 20.8 FT^2



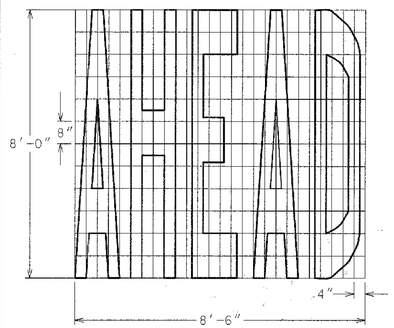
TYPE 2
AREA = 25.4 FT^2



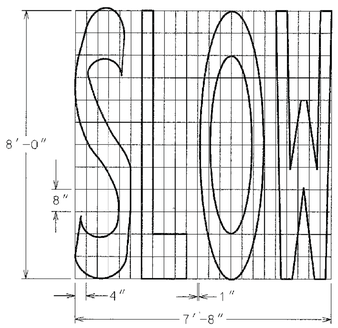
TYPE 15
AREA = 25.4 FT^2



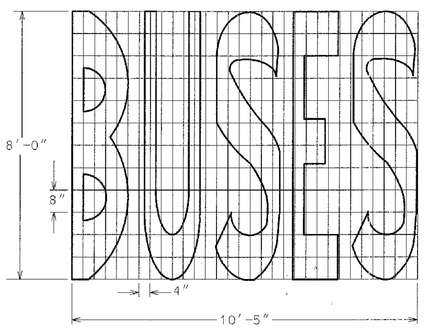
TYPE 3A
(SINGLE LANE)
AREA = 33.5 FT^2



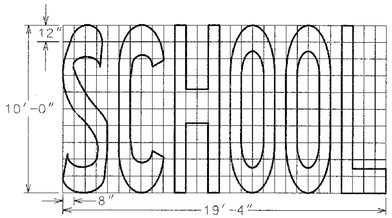
TYPE 4
AREA = 29.1 FT^2



TYPE 5
AREA = 25.4 FT^2



TYPE 6
AREA = 38.1 FT^2



TYPE 3B
(TWO LANES)
AREA = 85.0 FT^2

DATE	REVISIONS

GEORGIA DEPARTMENT OF TRANSPORTATION
OFFICE OF TRAFFIC SAFETY & DESIGN

DETAILS OF
PAVEMENT MARKING WORDS
SHEET 1 OF 2
NO SCALE JANUARY 2000

T-13A

PCBOTB

3/1/2007 GPLN

THE LPA GROUP
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

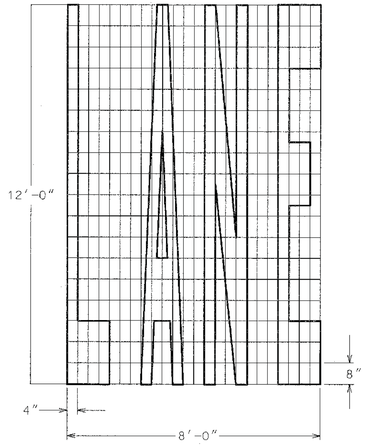
REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
CONSTRUCTION DETAILS

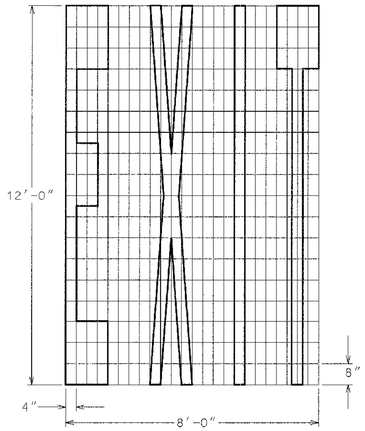
DRAWING No.
40-037

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-001690)	580	730

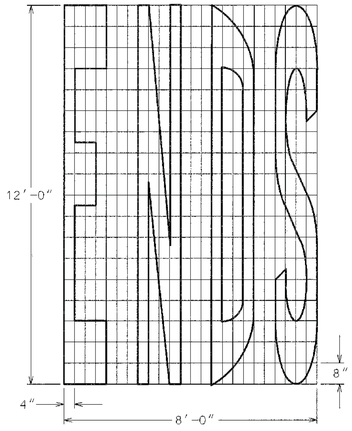
RELEASED FOR CONSTRUCTION - 07-23-13



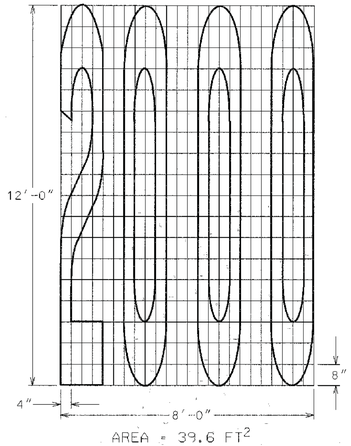
AREA = 35.9 FT^2



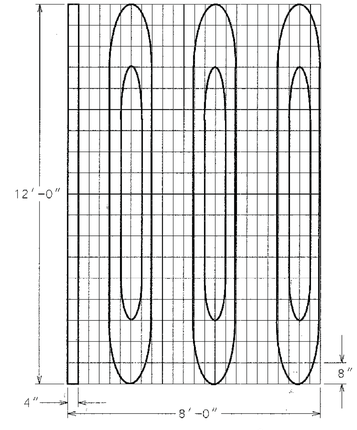
AREA = 27.7 FT^2



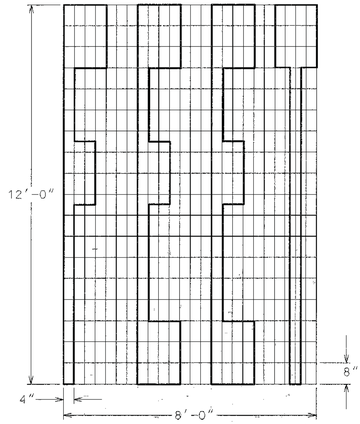
AREA = 40.1 FT^2



AREA = 39.6 FT^2



AREA = 34.3 FT^2



AREA = 40.1 FT^2

DATE	REVISIONS

GEORGIA DEPARTMENT OF TRANSPORTATION
OFFICE OF TRAFFIC SAFETY & DESIGN

DETAILS OF
PAVEMENT MARKING WORDS
SHEET 2 OF 2

NO SCALE JANUARY 2000

T-13B

THE LPA GROUP
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

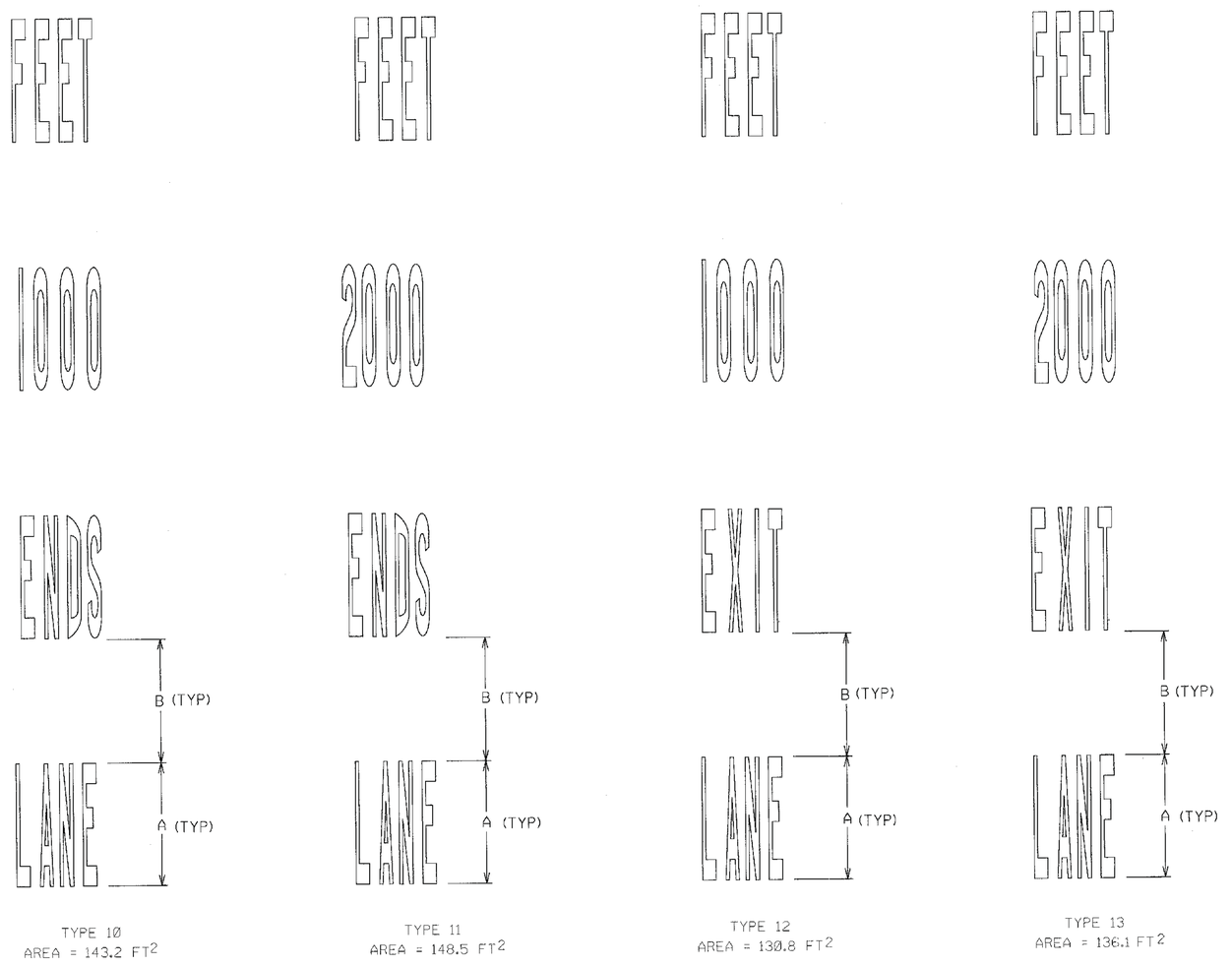
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
CONSTRUCTION DETAILS

DRAWING No.
40-038

3/1/2007 GPLN

RELEASED FOR CONSTRUCTION - 07-23-13

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			



TYPE 10
AREA = 143.2 FT²

TYPE 11
AREA = 148.5 FT²

TYPE 12
AREA = 130.8 FT²

TYPE 13
AREA = 136.1 FT²

SPEED LIMIT	DISTANCE (FEET)	
	A	B
35	8	80
45	8	80
55	12	120
65	12	120

DATE	REVISIONS

GEORGIA DEPARTMENT OF TRANSPORTATION
OFFICE OF TRAFFIC SAFETY & DESIGN

DETAILS OF
PAVEMENT MARKING WORDS
PLACEMENT

NO SCALE JANUARY 2000

T-13C

pcaore

3/11/2007 GPLN

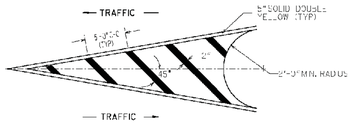
THE LPA GROUP
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

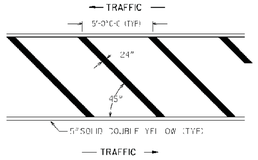
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
CONSTRUCTION DETAILS

DRAWING No.
40-039

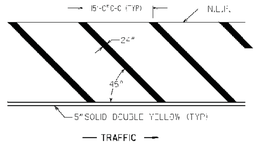
DETAIL "A" (YELLOW)



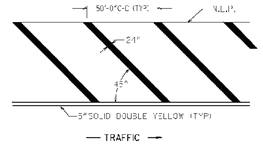
DETAIL "B" (YELLOW)



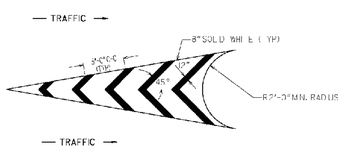
DETAIL "C" (YELLOW)



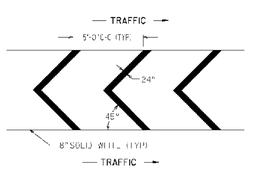
DETAIL "D" (YELLOW)



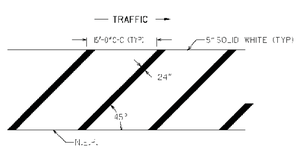
DETAIL "A" (WHITE)



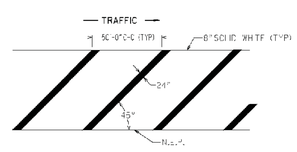
DETAIL "B" (WHITE)



DETAIL "C" (WHITE)



DETAIL "D" (WHITE)



GENERAL NOTES:

1. FOR YELLOW STRIPING. THE SQUARE YARDS SHOWN ON PLAN. SUMMARY AND DETAILED ESTIMATE SHEETS INCLUDE THE AREA WITHIN THE BORDERS AND THE 5" SOLID DOUBLE YELLOW BORDER.
2. FOR WHITE STRIPING. THE SQUARE YARDS SHOWN ON PLAN. SUMMARY AND DETAILED ESTIMATE SHEETS INCLUDES THE AREA WITHIN THE BORDERS AS WELL AS THE 8" SOLID WHITE BORDER.

GEORGIA
DEPARTMENT OF TRANSPORTATION

- NO SCALE -

DATE	REVISIONS
6/25/04	Modified general note 1
1/18/05	CHANGED BORDER
11/21/08	Modified general note 1

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: TRAFFIC OPERATIONS
SIGNING AND MARKING PLANS
DETAIL OF PAVEMENT MARKING MATCHING
JANUARY 2000
NUMBER T-14

RELEASED FOR CONSTRUCTION - 07-23-13

3/1/2007 GPLN

THE LPA GROUP
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

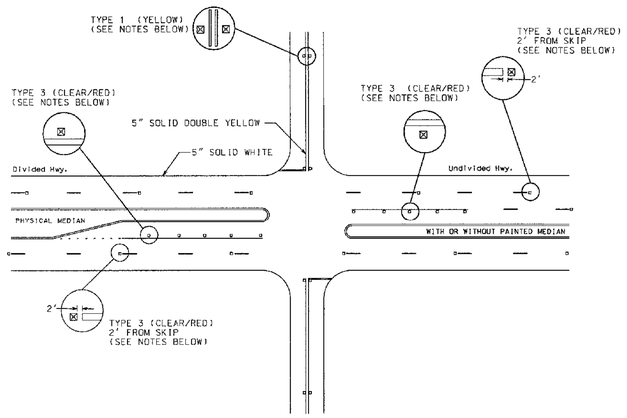
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
CONSTRUCTION DETAILS

DRAWING No. 40-040

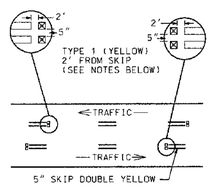
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-001690	583	730

RELEASED FOR CONSTRUCTION - 07-23-13

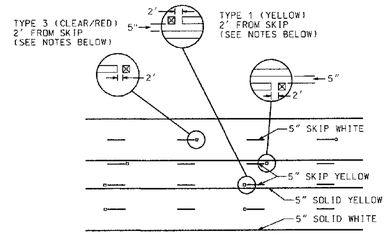
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			



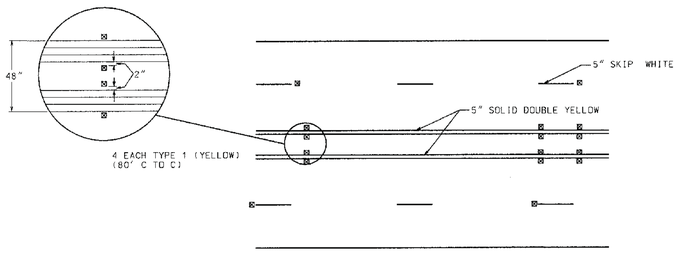
DIVIDED / UNDIVIDED HIGHWAY



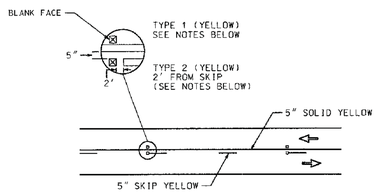
REVERSIBLE LANE



TWO WAY LEFT TURN LANE



4'-0" STRIPED FLUSH MEDIAN



NO PASSING ZONE

GENERAL NOTES:

1. RAISED PAVEMENT MARKERS SHALL BE SPACED EVERY 80 FT UNLESS OTHERWISE SPECIFIED.
2. ON SOLID WHITE TURN BAY LINES, SPACING SHALL BE 20 FT.
3. RAISED PAVEMENT MARKERS SHALL BE OFFSET 5 INCHES FROM SOLID LANE LINES.
4. CLEAR FACE OF TYPE 3 RAISED PAVEMENT MARKERS SHALL BE ORIENTED TOWARD ONCOMING TRAFFIC.
5. ON HORIZONTAL CURVES WHERE AT LEAST 3 MARKERS CANNOT BE SEEN AT ONE TIME USING NORMAL SPACING, MARKERS SHALL BE PLACED 40 FT.

DATE	REVISIONS
9-4-03	NO PASSING ZONE RPM's
1-13-04	NO PASSING ZONE RPM's

GEORGIA DEPARTMENT OF TRANSPORTATION
OFFICE OF TRAFFIC SAFETY & DESIGN

DETAILS OF
RAISED PAVEMENT MARKER LOCATION
NON-LIMITED ACCESS ROADWAY
NO SCALE JANUARY 2000

T-15A

3/1/2007 GPLN
HE/1/06 HE/2/06 HE/3/06 HE/4/06 HE/5/06 HE/6/06 HE/7/06

THE LPA GROUP
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

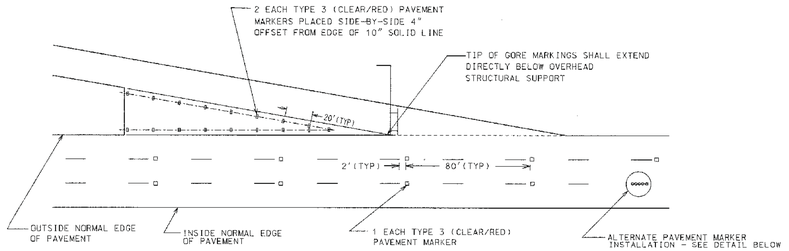
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
CONSTRUCTION DETAILS

DRAWING No.
40-041

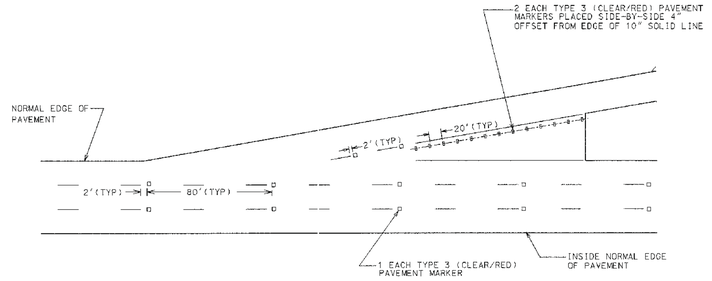
RELEASED FOR CONSTRUCTION - 07-23-13

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

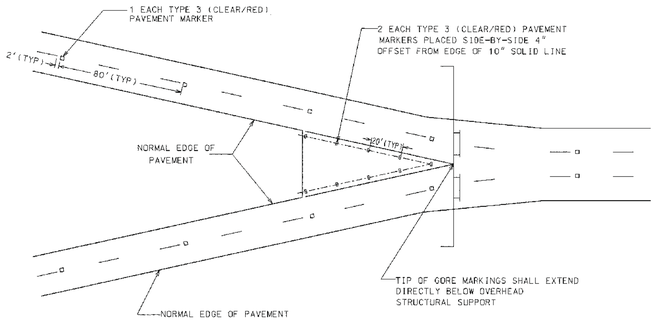
EXIT RAMP



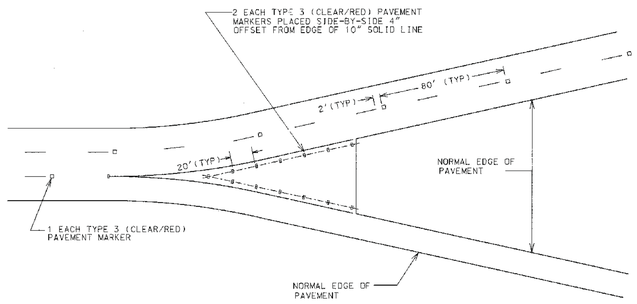
ENTRANCE RAMP

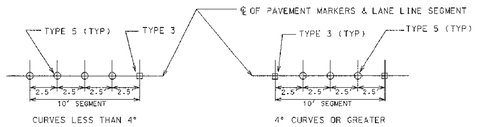


DIVERGING RAMPS



CONVERGING RAMPS





ALTERNATE PAVEMENT MARKER INSTALLATION

(USE ON ALL LANE LINES WHEN LANE LINES CROSS LONGITUDINAL CONCRETE PAVEMENT JOINTS)

GENERAL NOTES:

1. FOR SPECIFICATIONS REFER TO STANDARD SPECIFICATIONS; SECTION 654-RAISED PAVEMENT MARKERS.
2. CENTERLINE OF TYPE 3 RAISED PAVEMENT MARKERS SHALL COINCIDE WITH CENTERLINE OF LANES.
3. CLEAR FACE OF TYPE 3 RAISED PAVEMENT MARKERS SHALL BE ORIENTED TOWARD APPROACHING TRAFFIC.

DATE	REVISIONS

GEORGIA DEPARTMENT OF TRANSPORTATION
OFFICE OF TRAFFIC SAFETY & DESIGN

DETAILS OF
RAISED PAVEMENT
MARKER LOCATION
LIMITED ACCESS ROADWAY

NO SCALE JANUARY 2000

T-15B

PGBOTB

THE LPA GROUP
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES		

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
CONSTRUCTION DETAILS

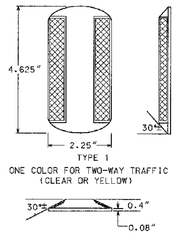
DRAWING No. 40-042

3/1/2007 GPLN

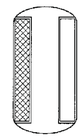
RELEASED FOR CONSTRUCTION - 07-23-13

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

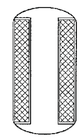
RAISED REFLECTIVE MARKERS



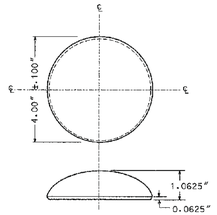
TYPE 1
ONE COLOR FOR TWO-WAY TRAFFIC
(CLEAR OR YELLOW)



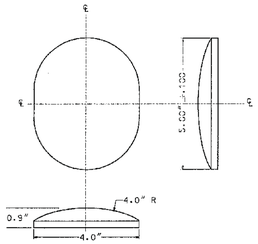
TYPE 2
ONE COLOR FOR ONE-WAY TRAFFIC
(CLEAR, YELLOW OR RED)



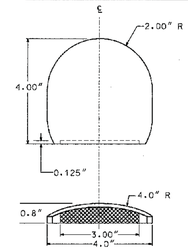
TYPE 3
TWO COLOR FOR ONE-WAY TRAFFIC
(ANY COMBINATION OF CLEAR, YELLOW OR RED)



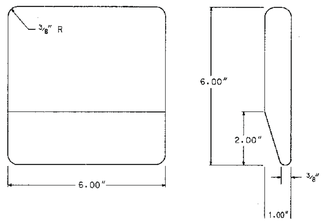
TYPE 4
OPAQUE CERAMIC MARKER
(WHITE, YELLOW OR BLACK)



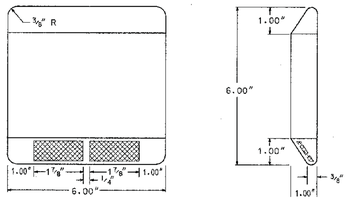
TYPE 5
OVAL CERAMIC MARKER
(NON-REFLECTIVE WHITE, YELLOW OR BLACK)



TYPE 6
REFLECTIVE CERAMIC MARKER
(REFLECTIVE WHITE, YELLOW OR BLACK)

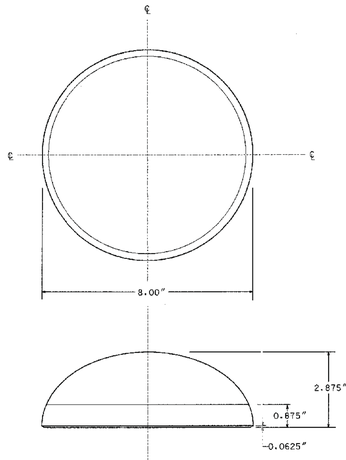


TYPE 7
NON-REFLECTIVE MARKER
(WHITE OR YELLOW)

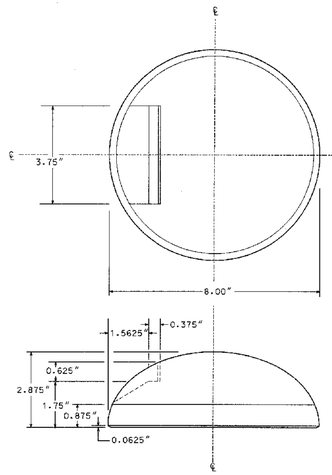


TYPE 8
REFLECTIVE MARKER
(WHITE OR YELLOW)

CERAMIC JIGGLE BAR MARKER

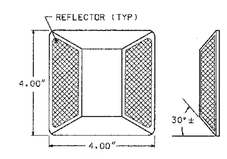


TYPE 9
NON-REFLECTIVE
(WHITE OR YELLOW)

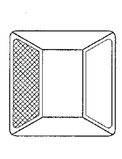


TYPE 10
REFLECTIVE
(WHITE OR YELLOW)

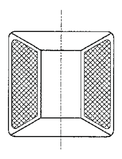
CERAMIC CHANNEL MARKER



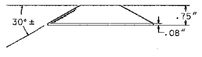
TYPE 11
ONE COLOR FOR TWO-WAY TRAFFIC
(CLEAR OR YELLOW)



TYPE 12
ONE COLOR FOR ONE-WAY TRAFFIC
(CLEAR, YELLOW, OR RED)



TYPE 13
TWO COLOR FOR ONE-WAY TRAFFIC
(ANY COMBINATION OF CLEAR, YELLOW, OR RED)



ALTERNATE RAISED REFLECTIVE MARKERS

GENERAL NOTES:

1. SPECIFICATIONS SHALL BE PER THE SPECIAL PROVISIONS, OR AS SPECIFIED BELOW.
2. COLORS FOR REFLECTIVE ELEMENTS SHALL BE EITHER CLEAR, YELLOW, OR RED AS SPECIFIED.
3. THE SHELL OF THE REFLECTIVE MARKERS SHALL BE OF ONE COLOR OR OF A COMBINATION OF TWO COLORS, WHICH SHALL BE THE SAME AS THE REFLECTIVE ELEMENT.
4. THE SURFACE OF OPAQUE CERAMIC MARKERS SHALL BE GLAZED AND OF THE COLOR SPECIFIED IN THE PLANS WITH A WHITE, VITREOUS, CERAMIC BASE.
5. RAISED REFLECTIVE MARKERS TYPES 1, 2, AND 3 SHALL BE STIMSONITE SERIES 948, OR EQUAL.
6. CERAMIC JIGGLE BARS SHALL BE FERRO CORPORATION PENMARK P-6, OR EQUAL. ADHESIVE SHALL BE PER MANUFACTUROR'S SPECIFICATIONS.
7. CERAMIC CHANNEL MARKERS SHALL BE FERRO CORPORATION PENMARK P-18, OR EQUAL. ADHESIVE SHALL BE PER MANUFACTUROR'S SPECIFICATIONS.
8. COLORS FOR ALL RAISED PAVEMENT MARKERS SHALL BE AS SPECIFIED IN THE PLANS.

DATE	REVISIONS

GEORGIA DEPARTMENT OF TRANSPORTATION
OFFICE OF TRAFFIC SAFETY & DESIGN

DETAILS OF
RAISED PAVEMENT MARKERS

NO SCALE JANUARY 2000

T-15C

THE LPA GROUP
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

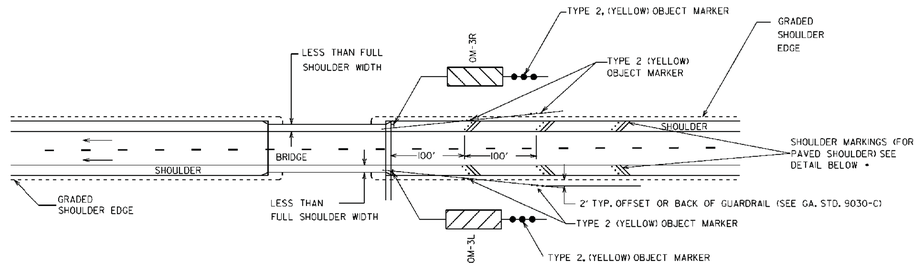
CONSTRUCTION DETAILS

DRAWING No.
40-043

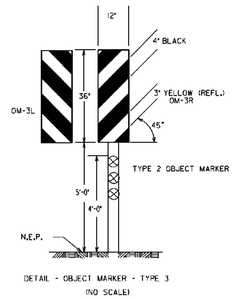
3/11/2007 GPLN

RELEASED FOR CONSTRUCTION - 07-23-13

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

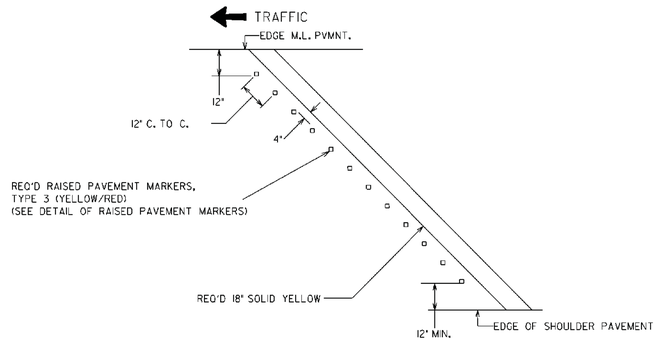


BRIDGE WITH LESS THAN STANDARD WIDTH

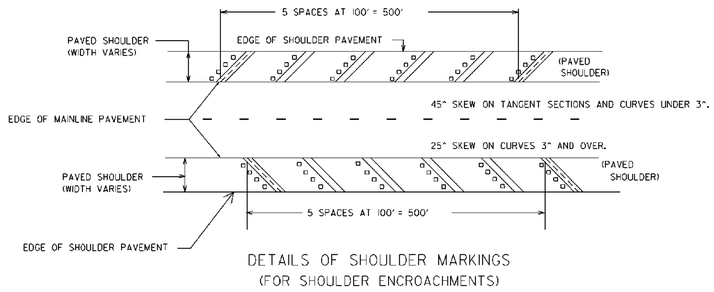


DETAIL - OBJECT MARKER - TYPE 3
(NO SCALE)

SUMMARY OF MATERIALS		
DESCRIPTION	UNIT	QUAN.
OBJECT MARKERS, TYPE IX SIGN MATERIAL 12" x 36" (BLACK ON YELLOW)	SQ. FT.	6.00
GALVANIZED STEEL POSTS, TYPE 2, 11 LIN. FT. EACH	LIN.FT.	22
OBJECT MARKERS, TYPE 2, (YELLOW) (INCL POST)	EACH	4
OBJECT MARKERS, TYPE 2, (YELLOW) (MOUNT ON OBJECT MARKER POSTS)	EACH	2
THERMOPLASTIC SOLID TRAFFIC STRIPE, 18" WHITE	LIN.FT.	VARIES
RAISED PAVEMENT MARKERS, TYPE 3	EACH	VARIES



TYPICAL MARKING FOR 10' PAVED INSIDE SHOULDER



DETAILS OF SHOULDER MARKINGS
(FOR SHOULDER ENCROACHMENTS)

LENGTH OF STRIPE		
SHOULDER WIDTH	45° SKEW	25° SKEW
10' PAVED SHOULDER	14.14'	18.11'
8' PAVED SHOULDER	11.31'	14.63'
4' PAVED SHOULDER	5.66'	7.35'

NO. OF RAISED PAVEMENT MARKERS		
SHOULDER WIDTH	45° SKEW	25° SKEW
10' PAVED SHOULDER	12 ea.	15 ea.
8' PAVED SHOULDER	9 ea.	11 ea.
4' PAVED SHOULDER	4 ea.	4 ea.

GENERAL NOTES:

1. OBJECT MARKERS SHALL BE PLACED IN A STRAIGHT LINE FLARE WITH THE FIRST UNIT OFFSET AS SHOWN.
2. ALL OBJECT MARKERS SHALL CONFORM TO GEORGIA STANDARD 9030-C AND SECTION 3D OF THE M.U.T.C.D. OBJECT MARKERS SHALL BE PER SECTION 3C OF THE M.U.T.C.D.
3. REFLECTIVE SHEETING FOR OBJECT MARKERS SHALL BE TYPE IX.
4. TREATMENT SHOWN IS MINIMAL. ADDITIONAL DELINEATION MAY BE ADDED AT THE ENGINEER'S DISCRETION.
5. DELINEATION DETAILS APPLY WHERE BRIDGE WIDTH ON DIVIDED HIGHWAYS IS LESS THAN IS REQUIRED BY M.O.G. DIRECTIVE #4265. SHOULDER MARKINGS APPLY TO SAME IF SHOULDERS ARE PAVED.
6. SEE GEORGIA STANDARD 9030-C FOR DELINEATION AT FULL WIDTH BRIDGES.
7. DIAGONAL STRIPES SHALL BE WHITE ON OUTSIDE SHOULDER AND YELLOW ON INSIDE SHOULDER.
8. TYPE 3 RAISED PAVEMENT MARKERS SHALL BE CLEAR/RED ON OUTSIDE SHOULDER AND YELLOW/RED ON INSIDE SHOULDER.
9. CLEAR AND YELLOW FACE OF TYPE 3 RAISED PAVEMENT MARKERS SHALL BE ORIENTED TOWARD APPROACHING TRAFFIC.

DATE	REVISIONS
9-7-06	REVISED TITLE BLOCK AND
	REV. TYP. MARKING DETAIL

GEORGIA DEPARTMENT OF TRANSPORTATION
OFFICE OF TRAFFIC SAFETY & DESIGN

DETAILS FOR BRIDGE DELINEATION ON DIVIDED HIGHWAYS

NO SCALE JANUARY 2000

T-22A

3/1/2007 GPLN

THE LPA GROUP
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
CONSTRUCTION DETAILS

DRAWING No.
40-044

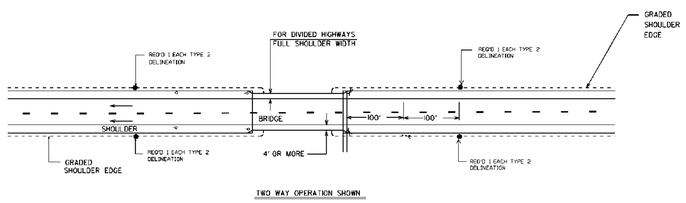
RELEASED FOR CONSTRUCTION - 07-23-13

BRIDGE DELINEATION DETAILS

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

TYPE 1 - NORMAL BRIDGE

BRIDGES THAT ARE 4 FEET OR MORE WIDER THAN THE APPROACH PAVEMENT, EACH SIDE



TWO WAY OPERATION SHOWN

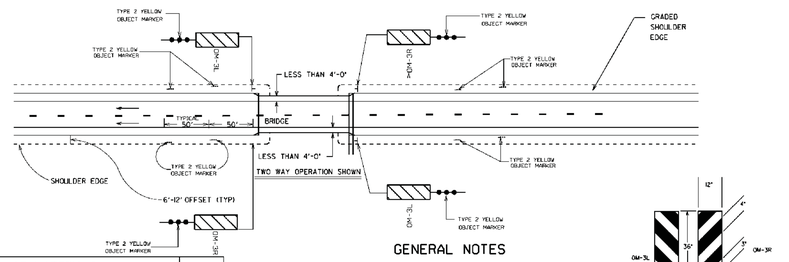
SUMMARY OF MATERIALS		
DESCRIPTION	UNIT	QUAN.
TWO WAY OPERATION		
DELINEATORS, TYPE 2, WHITE	EACH	12
ONE WAY OPERATION		
DELINEATORS, TYPE 1, WHITE	EACH	3
DELINEATORS, TYPE 1, YELLOW	EACH	3

GENERAL NOTES

1. PLACE DELINEATORS IN A STRAIGHT LINE FLARE WITH THE FIRST ONE OFFSET AS SHOWN.
2. THE INSIDE EDGE OF THE DELINEATOR NEAREST THE BRIDGE SHALL BE IN LINE WITH THE INNER EDGE OF RAIL OR ABUTMENT OR FACE OF BRIDGE CURB (IF PRESENT).
3. ALL DELINEATORS SHALL CONFORM TO GEORGIA STANDARD 9032-C AND SECT 3-D OF THE M.U.T.C.D.
4. TREATMENT SHOWN IS MINIMAL. ADDITIONAL DELINEATION MAY BE ADDED AT THE ENGINEER'S DISCRETION.

TYPE 2 - INTERMEDIATE BRIDGE

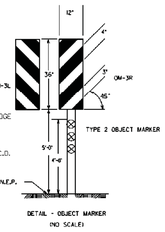
2 OR MORE LANE OPERATION - WIDTH GREATER THAN ROADWAY WIDTH, BUT LESS THAN 4' IN EXCESS OF APPROACH PAVEMENT WIDTH, EACH SIDE



SUMMARY OF MATERIALS			
DESCRIPTION	UNIT	QUAN.	QUAN. TWO WAY
OBJECT MARKERS, TYPE IX SIGN MATERIAL 12" x 36" (BLACK ON YELLOW)	SQ FT	216.00	432.00
GALVANIZED STEEL POSTS, TYPE I (2 LIN FT EACH (2#)	LIN FT	2x24	4x48
OBJECT MARKER, TYPE 2 YELLOW (MOUNT ON OBJECT MARKER POSTS)	EACH	4	8
SOLID TRAFFIC STRIPE, 4" WHITE (EDGELINE)	LIN FT	800	2200
SOLID TRAFFIC STRIPE, 4" YELLOW (EDGELINE)	LIN FT	800	

GENERAL NOTES

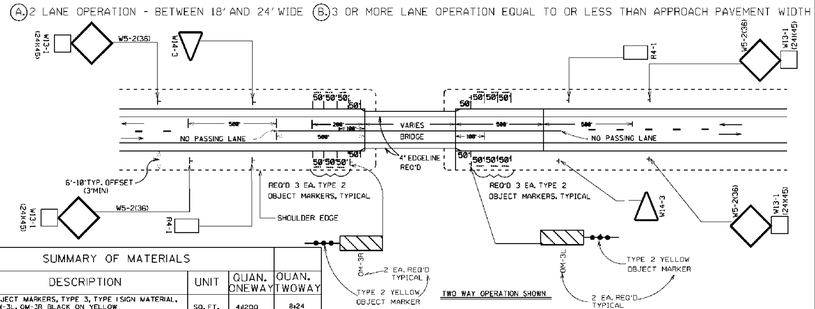
1. ON BRIDGES WITH ONE WAY OPERATION, BRIDGE APPROACH DELINEATION (INCL. SIGNS AND MARKINGS) SHALL BE INSTALLED ON THE APPROACH END ONLY.
2. THE INSIDE EDGE OF THE OBJECT MARKER NEAREST THE BRIDGE SHALL BE IN LINE WITH THE INNER EDGE OF THE ABUTMENT OR RAIL, OR FACE OF BRIDGE CURB IF PRESENT.
3. OBJECT MARKERS SHALL BE PLACED IN A STRAIGHT LINE FLARE WITH THE FIRST UNIT OFFSET AS SHOWN.
4. ALL OBJECT MARKERS SHALL CONFORM TO GEORGIA STANDARD 9032-C AND SECT 3-D.02 OF THE M.U.T.C.D. OBJECT MARKERS SHALL BE PER SECT. 3-6 OF THE M.U.T.C.D.
5. REFLECTIVE SHEETING FOR OBJECT MARKERS SHALL BE TYPE IX, LEVEL A.
6. TREATMENT SHOWN IS MINIMAL. ADDITIONAL DELINEATION MAY BE ADDED AT THE ENGINEER DISCRETION. N.E.P.



DETAIL - OBJECT MARKER
(NO SCALE)

TYPE 3 - NARROW BRIDGE

(A) 2 LANE OPERATION - BETWEEN 18' AND 24' WIDE (B) 3 OR MORE LANE OPERATION EQUAL TO OR LESS THAN APPROACH PAVEMENT WIDTH

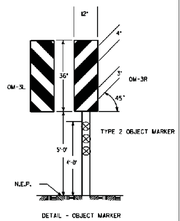


TWO WAY OPERATION SHOWN

SUMMARY OF MATERIALS				
DESCRIPTION	UNIT	QUAN. ONEWAY	QUAN. TWOWAY	
OBJECT MARKERS, TYPE 3, TYPE IX SIGN MATERIAL, OM-3L, OM-3R BLACK ON YELLOW	SQ. FT.	4x200	8x24	
GALVANIZED STEEL POSTS, TYPE I, 12 LIN FT EACH FOR OBJECT MARKERS	LIN.FT.	4x48	8x96	
OBJECT MARKER, TYPE 2, (YELLOW)	EACH	8	16	
W5-2(36)SIGNS, TYPE IX SIGN MATL.	SQ. FT.	2x18.00	4x36	
W13-1(24"x48") SIGNS, TYPE IX SIGN MATL. - MOUNT W/W5-2	SQ. FT.	2x18.00	4x36	
GALV. STEEL POSTS, TYPE 1, PB, (4#) 16 LIN FT EA FOR W5-2	LIN.FT.	2x64	4x128	
R4-1(24) SIGNS, TYPE I SIGN MATL	SQ. FT.		2x10.00	
GALV. STEEL POSTS, TYPE III (2#) 13 LIN FT EA FOR R4-1	LIN.FT.		2x26	
W14-3(48)SIGNS, TYPE IX SIGN MATL.	SQ. FT.		2x11	
GALV. STEEL POSTS, TYPE 2 (3#) 12 LIN FT EA FOR W14-3	LIN.FT.		2x24	
RAISED PAVEMENT MARKERS TYPE I FOR CENTERLINES SPACING 40'-0"	EACH	CLEAR 16	YELLOW 36	
4" SOLID TRAF. STRIPE FOR EDGELINES	LIN.FT.	100 WHITE 100 YELLOW	YELLOW 2x200	
4" SOLID YELLOW - PASSING LINES	LIN.FT.		1400	
4" SKIP WHITE - CENTERLINE (ONEWAY)	GR LIN.FT.	700		

GENERAL NOTES

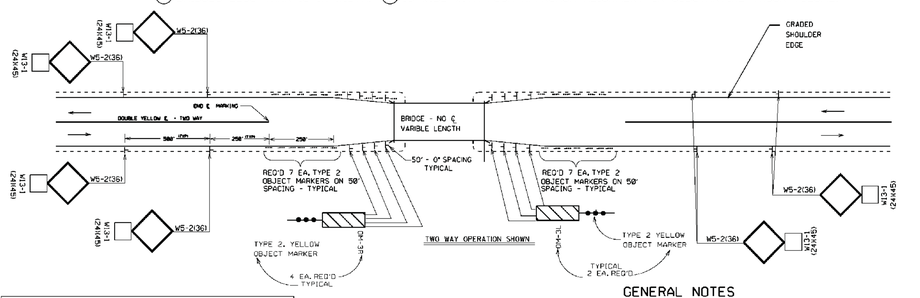
1. ON BRIDGES WITH ONE WAY OPERATION, BRIDGE APPROACH SIGNS AND MARKINGS SHALL BE INSTALLED ON THE APPROACH END OF THE BRIDGE ONLY. SIGNS AND MARKINGS FOR NO PASSING ZONES ARE NOT REQUIRED. LEFT EDGE LINES AND RAISED PAVEMENT MARKERS SHALL BE YELLOW. RIGHT EDGE LINES AND PAVEMENT MARKERS SHALL BE WHITE. LANE LINE SHALL BE SKIP WHITE.
2. PAVEMENT MARKERS FOR THE CENTERLINE/LANELINE SHALL BE RAISED IN APPLICABLE AREA IN ACCORDANCE WITH DEPARTMENT POLICY.
3. THE INSIDE EDGE OF THE OBJECT MARKER NEAREST THE BRIDGE SHALL BE IN LINE WITH THE INNER EDGE OF THE ABUTEMENT OR RAIL, OR FACE OF BRIDGE CURB IF PRESENT.
4. PLACE OBJECT MARKER AND DELINEATORS IN A STRAIGHT LINE FLARE WITH THE FIRST ONE OFFSET AS SHOWN.
5. ALL REFLECTIVE SHEETING SHALL BE TYPE IX.
6. ALL OBJECT MARKERS SHALL CONFORM TO GA STD. 9032B-C AND SECT 3B OF THE M.U.T.C.D.. ALL OBJECT MARKERS SHALL CONFORM TO SECT. 3B.01 OF THE M.U.T.C.D.
7. TREATMENT SHOWN IS MINIMAL. ADDITIONAL DELINEATION MAY BE ADDED AT THE ENGINEER DISCRETION.



DETAIL - OBJECT MARKER
(NO SCALE)

TYPE 4 - ONE LANE BRIDGE

(A) BRIDGES LESS THAN 18' IN WIDTH. (B) 18' WIDE WITH POOR APPROACH ALIGNMENT OR SUBSTANTIAL TRUCK VOLUME.

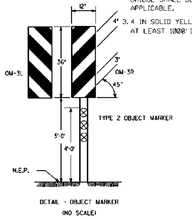


TWO WAY OPERATION SHOWN

SUMMARY OF MATERIALS		
DESCRIPTION	UNIT	QUAN.
OBJECT MARKERS, TYPE 3, TYPE IX SIGN MATL 8 EACH OM-3R, OM-3L.	SQ FT	16x48.00
GALV. STEEL POSTS, TYPE 1, 12' (2#) FOR OBJECT MARKERS	LIN FT	16x12
OBJECT MARKER, TYPE 2, YELLOW MOUNTED ON OBJECT MARKERS POST	EACH	16
OBJECT MARKER, TYPE 2 YELLOW INCL. POSTS	EACH	28
W5-2(36) SIGNS, TYPE IX SIGN MATL.	SQ FT	8x72.00
W13-1(24"x36") SIGNS, TYPE IX SIGN MATL. MOUNTED WITH W5-2	SQ FT	4x16.00
W13-1(24"x48") SIGNS, TYPE IX SIGN MATL. MOUNTED WITH W5-3	SQ FT	4x16.00
GALV. STEEL POSTS, TYPE 1 (#8-4#) 16'L FOR W5-2 SIGNS	LIN FT	8x256
SOLID TRAFFIC STRIPE-8" WHITE FOR EDGELINE	LIN FT	2200
SOLID TRAFFIC STRIPE-4" YELLOW FOR APPROACH CENTERLINE (1000 MIN EA END)	LIN FT	4000
RAISED/RECESSED MARKERS, TYPE 1 YELLOW FOR CENTERLINE - 40'-0" SPACING	EACH	100

GENERAL NOTES

1. OBJECT MARKER NEAREST THE BRIDGE SHALL BE IN LINE WITH THE INNER EDGE OF THE ABUTEMENT OR RAIL, OR THE FACE OF BRIDGE CURB IF PRESENT. OBJECT MARKERS AND DELINEATORS SHALL FOLLOW THE TAPER OF THE ROADWAY TO FULL WIDTH OF ROADWAY THEN PARALLEL FOR DISTANCE SHOWN.
2. PAVEMENT MARKERS USED ON NO PASSING LANES APPROACHING THE BRIDGE SHALL BE ON 40'-0" SPACING AND SHALL BE RAISED WHERE APPLICABLE.
3. 4" IN SOLID YELLOW NO PASSING LINES SHALL BE INSTALLED FOR AT LEAST 1000' IN ADVANCE OF THE BRIDGE.
4. REFLECTIVE SHEETING TYPE IX, LEVEL A SHALL BE USED FOR ALL SIGNS AND OBJECT MARKERS.
5. ALL DELINEATORS SHALL CONFORM TO GA. STD. 9032-C AND SECT. 3D.02 OF THE M.U.T.C.D. OBJECT MARKERS SHALL CONFORM TO SECT. 3D.01 OF THE M.U.T.C.D.
6. DELINEATION SHOWN IS MINIMAL. ADDITIONAL DELINEATION MAY BE ADDED AT THE ENGINEERS DISCRETION.
7. IN THE EVENT THE ROADWAY IS A ONE WAY OPERATION, CONTACT THE DISTRICT TRAFFIC AND SAFETY ENGINEER FOR DELINEATION DETAILS.



DETAIL - OBJECT MARKER
(NO SCALE)

DATE	REVISIONS
9-7-06	ADDED TITLE BLOCK AND
	REV. REFLECTIVE SHEET.

GEORGIA DEPARTMENT OF TRANSPORTATION
OFFICE OF TRAFFIC SAFETY & DESIGN

DETAILS FOR
BRIDGE DELINEATION
ON DIVIDED HIGHWAYS
TWO WAY OPERATION

NO SCALE REV 5/23/05

T-22B

THE LPA GROUP
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

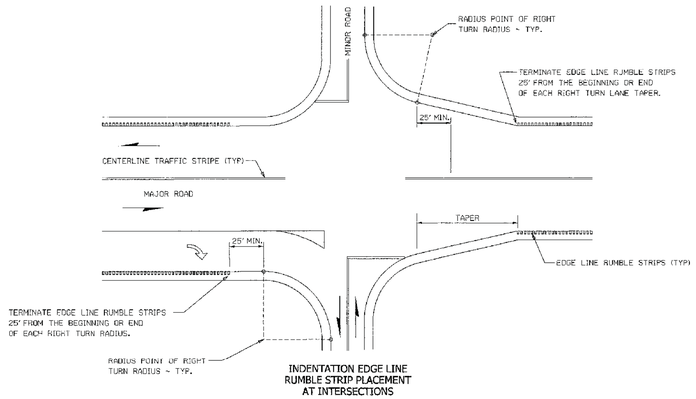
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
CONSTRUCTION DETAILS

DRAWING No. 40-045

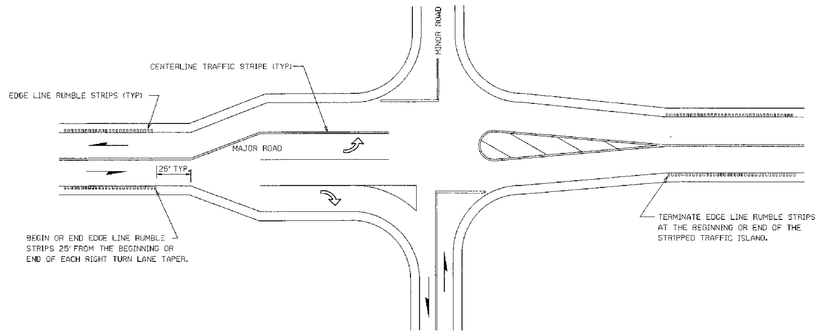
3/1/2007 GPLN

RELEASED FOR CONSTRUCTION - 07-23-13

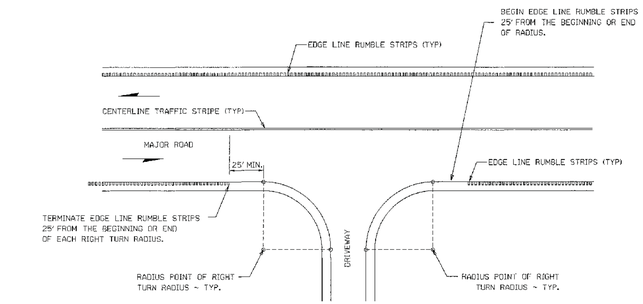
COUNTY	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS



INDENTATION EDGE LINE RUMBLE STRIP PLACEMENT AT INTERSECTIONS

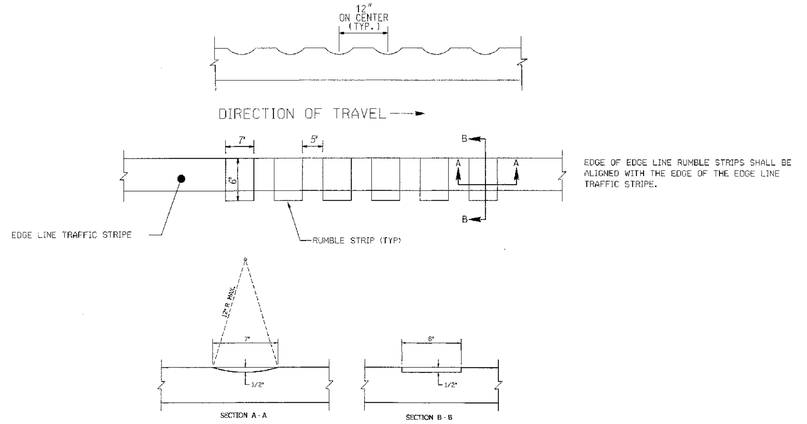


INDENTATION EDGE LINE RUMBLE STRIP PLACEMENT AT INTERSECTIONS



INDENTATION EDGE LINE RUMBLE STRIP PLACEMENT AT DRIVEWAYS

INDENTATION EDGE LINE RUMBLE STRIPS ARE MEASURED PER LINEAR FEET. THE PLAN QUANTITY IS THE PAY QUANTITY UNLESS THE ENGINEER MAKES AUTHORIZED CHANGES. PAYMENT WILL BE MADE AT THE CONTRACT UNIT PRICE BID PER LINEAR FOOT. PAYMENT IS FULL COMPENSATION FOR FURNISHING EQUIPMENT, LABOR, AND FOR PERFORMING THE WORK IN ACCORDANCE WITH THE DETAILS AND SECTION 456 OF THE SPECIFICATIONS.



MILLED EDGE LINE RUMBLE STRIP DETAILS

REVISION DATES		

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: TRAFFIC SAFETY AND DESIGN

CONSTRUCTION DETAIL
EDGE LINE RUMBLE STRIP

DRAWING No. T-23

THE LPA GROUP
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES		

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CONSTRUCTION DETAILS

DRAWING No. 40-046

3/1/2007 GPLN

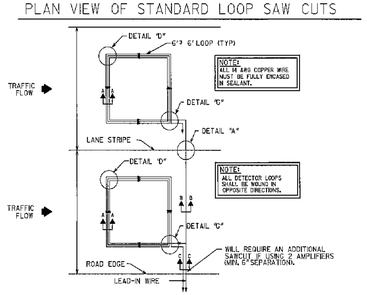
23-JUL-2013 15:31	3:31:51 PM	TS-01	Y:\Roadways\126379\0008690\Dgn\Const Details\TS-01.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-001(690)	589	730

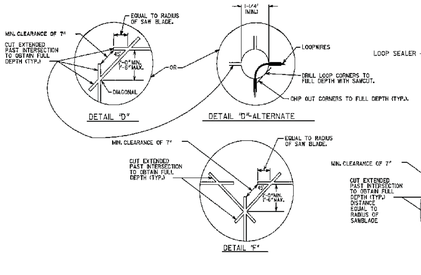
RELEASED FOR CONSTRUCTION - 07-23-13

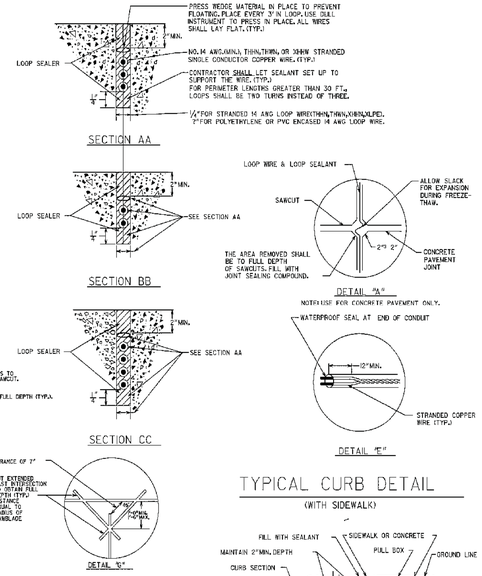
DATE###	TIME###	#PRF#	#DGN#	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
#USER#	##PENTABLE##			GA			

INDUCTIVE LOOP VEHICLE DETECTOR DETAILS
USING STRANDED COPPER WIRE

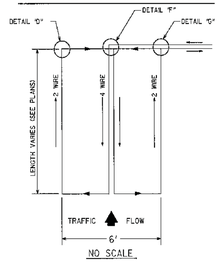
PLAN VIEW OF STANDARD LOOP SAW CUTS







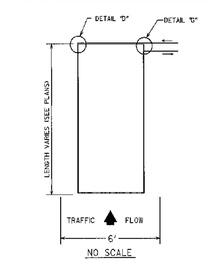
PLAN VIEW OF QUADRUPOLE



LOOP WIRE CONFIGURATION

THE DOUBLE LAYER CONFIGURATION (2-4-2) SHOWN IS A MINIMUM DESIGN FOR NORMAL INSTALLATIONS WHEN REQUIRED BY THE PLANS.

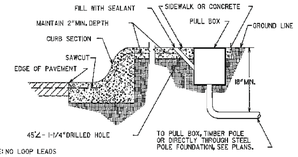
PLAN VIEW OF STANDARD LOOP



LOOP WIRE CONFIGURATION

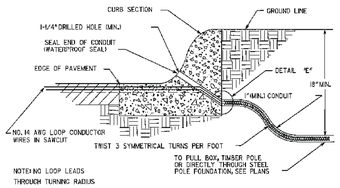
THE DOUBLE LAYER CONFIGURATION (2-2) SHOWN IS A MINIMUM DESIGN FOR NORMAL INSTALLATIONS WHEN REQUIRED BY THE PLANS.

TYPICAL CURB DETAIL
(WITH SIDEWALK)



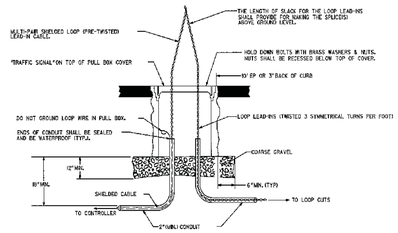
NOTE: NO LOOP LEADS THROUGH TURNING RADIUS

TYPICAL CURB DETAIL
(WITHOUT SIDEWALK)

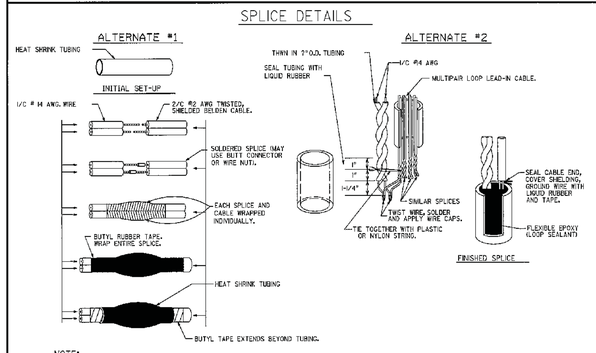


NOTE: NO LOOP LEADS THROUGH TURNING RADIUS

PULL BOX-SPLICE DETAILS

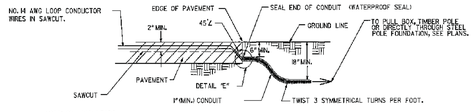


SPLICE DETAILS



NOTE:
FINISHED SPLICE MUST BE WATERPROOF.

DETAIL WHERE NO CURB EXISTS



NOTE: NO LOOP LEADS THROUGH TURNING RADIUS

Guidelines For Usage On Metric Projects

When these details are incorporated into plans and or projects that are being prepared or constructed in metric units, exact or precise conversion to metric units is not required. The dimensions shown that are to feet and inches may be converted to corresponding metric units using the following: "Rounded Off" conversion factors 1"=25mm, 4'=0.90m, and 12'=1.250m. All measurement notes that refer to linear feet and square yards shall be interpreted to mean linear meters and square meters.

				REVISION DATES			
		GEORGIA DEPARTMENT OF TRANSPORTATION	-NO SCALE-	1/13/04			STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION
				4/12/04			OFFICE: TRAFFIC OPERATIONS
				7/21/04			SIGNAL PLANS
							TS-01
							LOOP DETECTOR INSTALLATION DETAIL — DECEMBER 1998 — DRAWING No.

3/1/2007 GPLN

THE LPA GROUP
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

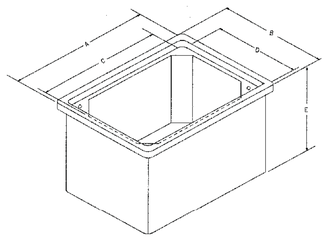
				REVISION DATES			
							STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION
							OFFICE: INNOVATIVE PROGRAM DELIVERY
							CONSTRUCTION DETAILS
							DRAWING No. 40-047

3/1/2007 GPLN

RELEASED FOR CONSTRUCTION - 07-23-13

COUNTY	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS

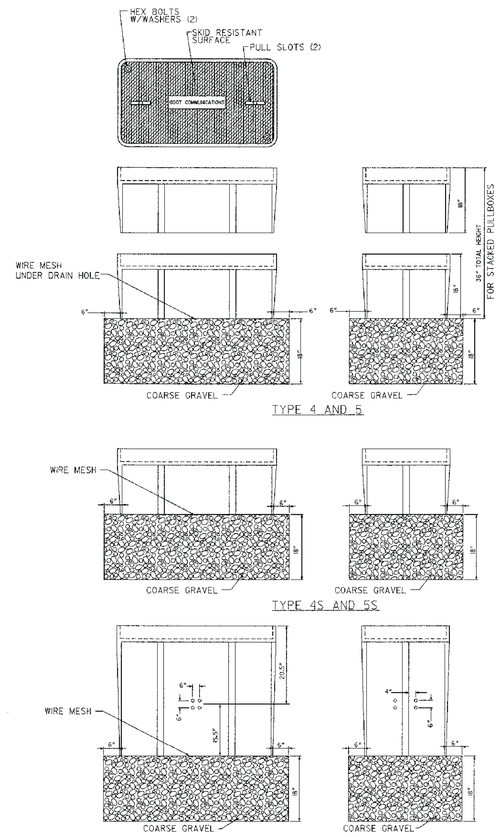
PULLBOX DIMENSIONS



PULL BOX TYPE	* SIZE (IN.)				
	A	B	C	D	E
1	14	14	12	12	12
2	21	14	18	11	12
3	33	20	30	17	12
4S	38	26	36	24	18
4	38	26	36	24	36
5S	50	32	48	30	18
5	50	32	48	30	36
6	38	26	36	24	36
7	50	32	48	30	36

* SIZES SHOWN ARE MINIMUM TRADE SIZES. DIMENSIONS C AND D ARE MINIMUM REQUIREMENTS WITH A TOLERANCE OF NO MORE THAN - 0.50 IN/+2.0 IN.

TYPE 4, 5, 4S, 5S, 6, AND 7 PULLBOX ASSEMBLIES

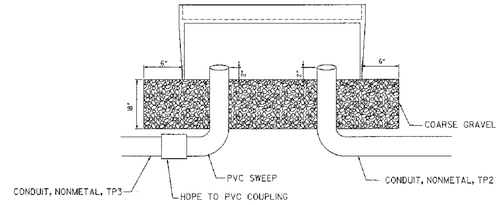


TYPE 4 AND 5

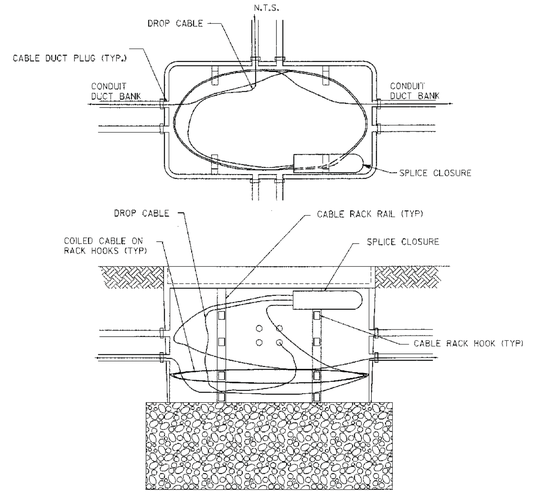
TYPE 4S AND 5S

TYPE 6 AND 7

TYPICAL CONDUIT ENTRANCE DETAILS
TYPE 1,2,3,4S & 5S



FIBER OPTIC CABLE MANAGEMENT IN TYPE 4,5,6 & 7 PULL BOX



FIBER TRUNK AND DROP CABLE IN CLOSURE SHALL BE COILED TOGETHER. SEPARATE FIBER CABLES SHALL BE COILED SEPARATELY AND SUPPORTED ON SEPARATE RACK HOOKS.

Guidelines For Usage On Metric Projects

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GEORGIA
DEPARTMENT OF TRANSPORTATION

NOT TO SCALE

REVISION DATES		
11/02/2000		
07/27/2004		
08/11/2006		

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: TRAFFIC SAFETY & DESIGN
SIGNAL DETAILS
PULL BOX ASSEMBLY AND INSTALLATION
DRAWING No. TS-02

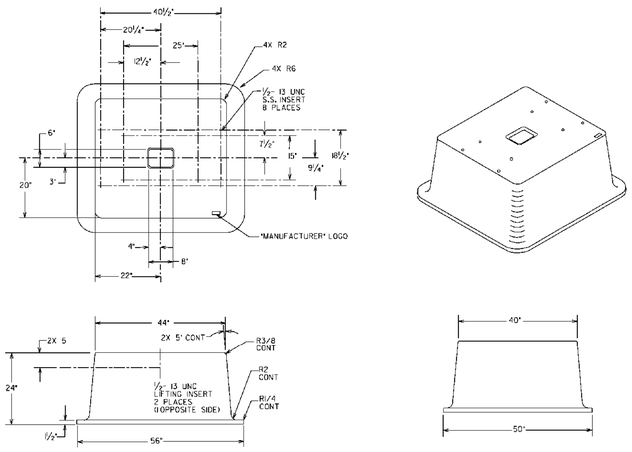
THE LPA GROUP
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES		

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
CONSTRUCTION DETAILS
DRAWING No. 40-048

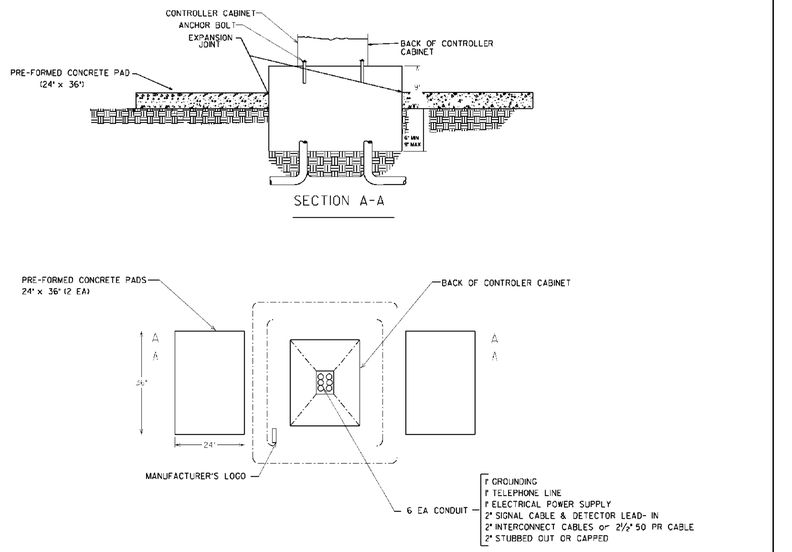
3/1/2007 GPLN

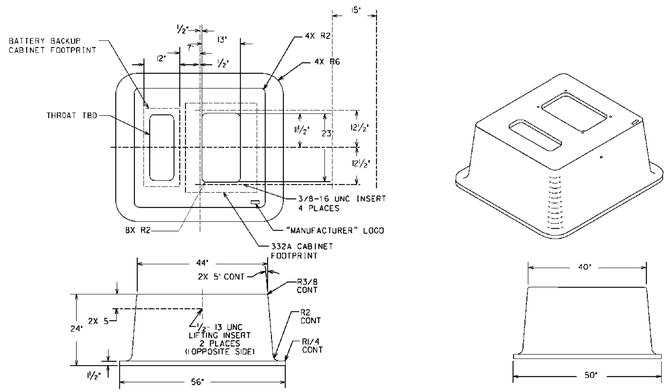
RELEASED FOR CONSTRUCTION - 07-23-13



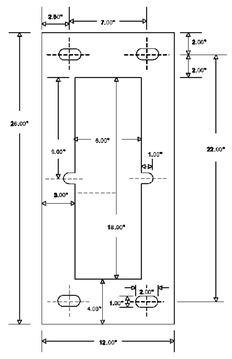
PREFABRICATED 332 CONTROLLER BASE

STATE	COUNTY	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.				



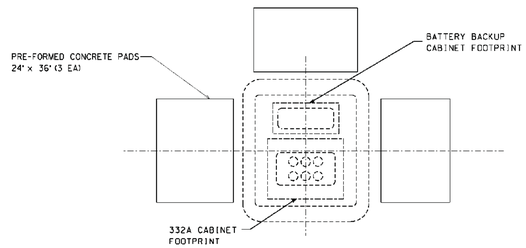


PREFABRICATED CONTROLLER BASE
WITH BATTERY BACKUP BASE MOUNT EXTENSION



BATTERY BACKUP BASE MOUNT
CABINET ANCHOR BOLT PATTERN

NOTE: MODEL 332 CONTROLLER CABINETS
WITH BATTERY BACKUPS REQUIRES THREE PADS



Guidelines For Usage On Metric Projects

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REVISION DESCRIPTION	DATE

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

TRAFFIC SIGNAL DETAIL

CABINET BASE DETAIL

REV. BY:

APRIL 2010
NOT TO SCALE - REPORT ERRORS

DETAIL NUMBER
TS-03

THE LPA GROUP
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

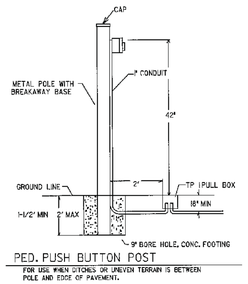
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
CONSTRUCTION DETAILS

DRAWING No.
40-049

3/1/2007 GPLN

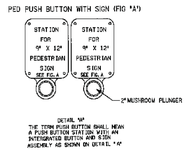
RELEASED FOR CONSTRUCTION - 07-23-13

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA			

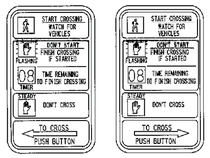


PED. PUSH BUTTON POST

FOR USE WHEN DITCHES OR UNEVEN TERRAIN IS BETWEEN POLE AND EDGE OF PAVEMENT.



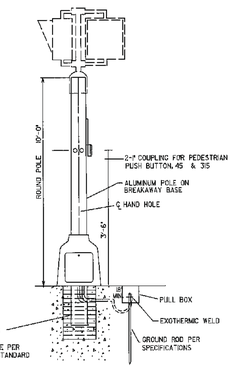
PEDESTRIAN SIGNS



R1Ø-3E(L) 9" X 12"

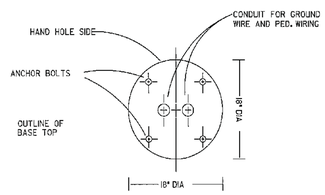
R1Ø-3E(R) 9" X 12"

FIG. A

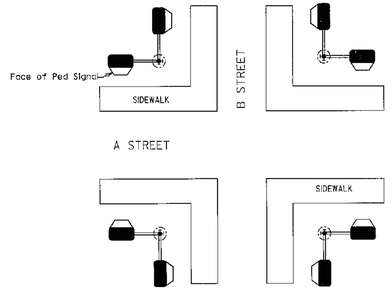


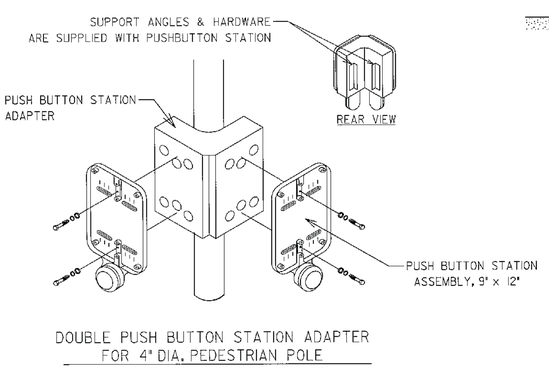
TYPICAL DETAIL FOR PEDESTRIAN SIGNAL POLES

PEDESTRIAN SIGNAL HEAD ORIENTATION

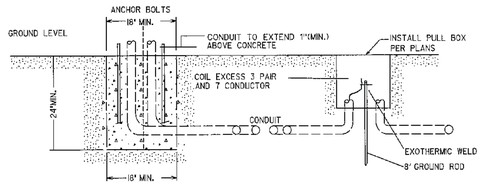


PED POLE BASE
(TOP VIEW)





DOUBLE PUSH BUTTON STATION ADAPTER FOR 4" DIA. PEDESTRIAN POLE



PED. POLE BASE

Guidelines For Usage On Metric Projects

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3/1/2007 GPLN

GEORGIA
DEPARTMENT OF TRANSPORTATION

-NO SCALE-

REVISION DATES		
3/31/2002	3/5/2007	
10/31/2002		
2/15/2003		
7/27/2004		
3/04/2005		
8/9/2006		

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: TRAFFIC OPERATIONS

SIGNAL PLANS

DETAILS OF PEDESTRIAN FACILITIES

DECEMBER 1998

DRAWING No. TS-03a

3/1/2007 GPLN

THE LPA GROUP
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES		

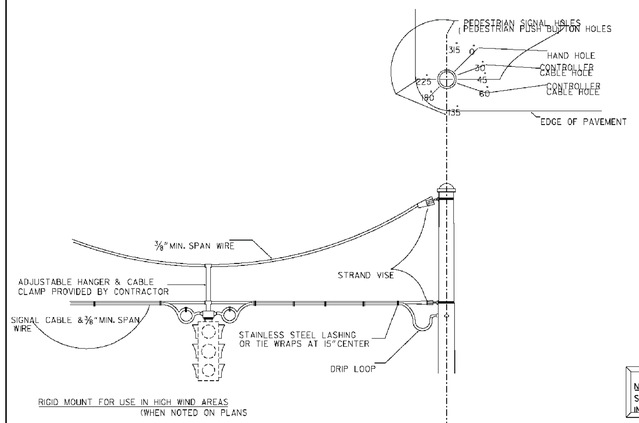
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

CONSTRUCTION DETAILS

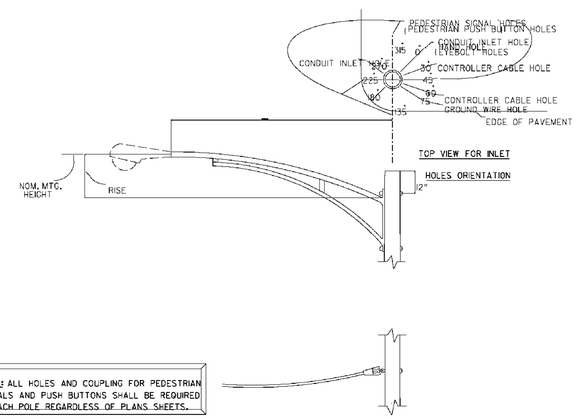
DRAWING No. 40-050

RELEASED FOR CONSTRUCTION - 07-23-13

STATE		SHEET NO.	TOTAL SHEETS
GA.			



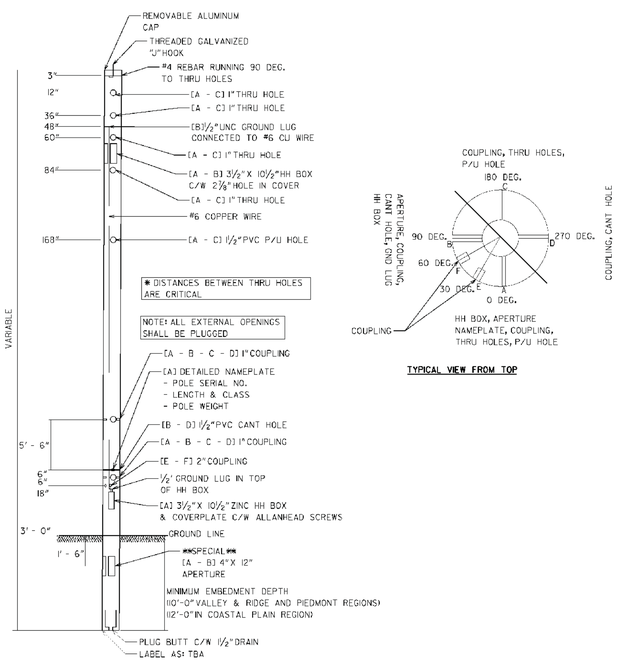
STEEL STRAIN POLE



CONCRETE STRAIN POLE

NOTE:
CONCRETE STRAIN POLE FOOTING WILL INCLUDE THE SAME FOOTING DESIGN AS A "SIMILAR" DESIGN STEEL POLE. THE STEEL REINFORCEMENT FROM STRAIN POLE AND MAST ARM POLE FOUNDATION DESIGN SHEET WILL BE INSTALLED AROUND THE CONCRETE STRAIN POLE. BACK FILL THE POLE AS DESCRIBED IN THE "CAISSON DETAIL" UP TO THE LEVEL OF THE CONDUIT ENTRANCE/ HAND HOLE DEPTH. ONCE THE CONDUIT AND WIRE CONNECTING ARE MADE INSIDE THE POLE, FINISH BACK FILLING ACCORDING TO "CAISSON DETAIL."

ALL POLES SHALL HAVE ATTACHMENT POINTS 2' (MIN.) ABOVE ACTUAL ATTACHMENT POINT FOR FUTURE USE.



TYPICAL POLE SECTION
FOR CONCRETE STRAIN POLE

TYPICAL VIEW FROM TOP

Guidelines for Usage On Metric Projects

When these details are incorporated into plans and/or projects that are being prepared or constructed in reference to this sheet or provides conversion to metric units is not required. The dimensions shown that are in feet are inches may be converted to corresponding metric units using the following "Rounded-Off" conversion factors: 1"=25mm, 4'=1200mm, arc 2' or 1'-3.2mm. All measurement notes that refer to linear feet and square yards and/or 1" shall be to mean linear meters and square meters.

DATE	REVISIONS
7-27-04	ADDED METRIC USAGE NOTE
9-5-08	TYPICAL POLE SECTION

GEORGIA DEPARTMENT OF TRANSPORTATION
OFFICE OF TRAFFIC SAFETY & DESIGN

DETAILS OF CONCRETE TRAFFIC SIGNAL STRAIN POLES

NO SCALE — DECEMBER 1998

TS-05

THE LPA GROUP
TRANSPORTATION CONSULTANTS
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(770) 263-9118

REVISION DATES		

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
CONSTRUCTION DETAILS

DRAWING No. 40-051

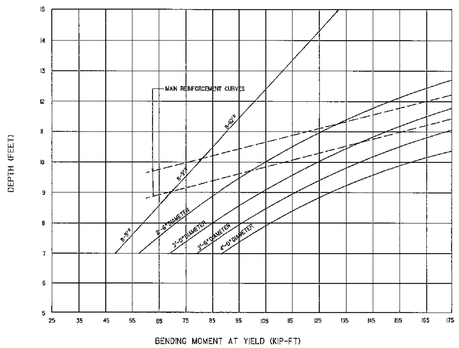
3/1/2007 GPLN

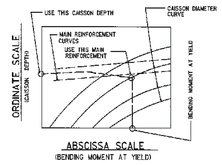
23-JUL-2013 15:32	3:32:15 PM	TS-06	Y:\Roadways\126379\0008690\Dgn\Const Details\TS-06.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	594	730

RELEASED FOR CONSTRUCTION - 07-23-13

DATE###	TIME###	#PRF#	#DGN#	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
#USER#		##PENTABLE##		GA			

PIEDMONT
ϒ= 120 PCF
Φ= 25 DEGREES
C= 300 PCF

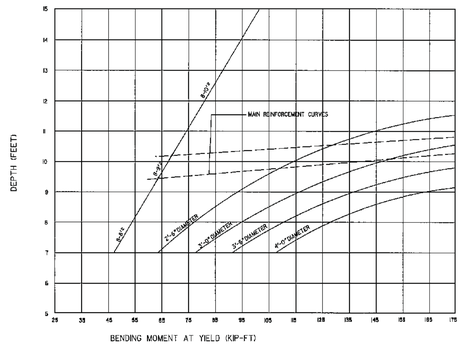




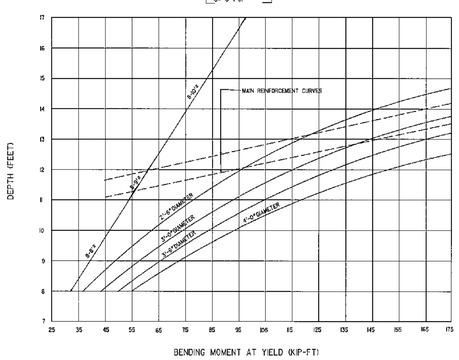
PROCEDURE TO FIND FOOTING SIZE

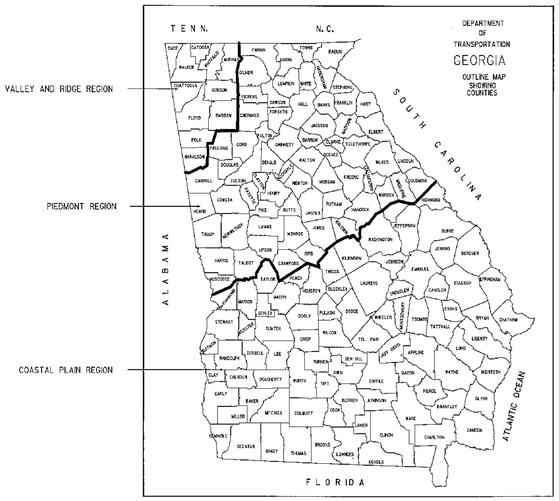
1. DETERMINE "BENDING MOMENT AT YIELD" FROM APPROVED SHOP DRAWINGS
2. SELECT DIAMETER OF CAISSON.
3. READ "BENDING MOMENT AT YIELD" ON ABSCISSA SCALE, PROJECT A VERTICAL LINE UPWARD UNTIL THE DESIRED "CAISSON DIAMETER CURVE" IS INTERSECTED, TURN 90 DEGREES AND PROJECT A HORIZONTAL LINE UNTIL THE ORDINATE SCALE IS INTERSECTED.
4. READ THE REQUIRED "CAISSON DEPTH" FROM THE INTERSECTION POINT ON THE ORDINATE SCALE DEPTH SHALL BE INTERPOLATED TO THE NEAREST 3 INCH INCREMENT.
5. READ THE REQUIRED "MAIN REINFOREMENT" SIZE" FROM THE INTERSECTION POINT ON THE CAISSON DIAMETER CURVE.

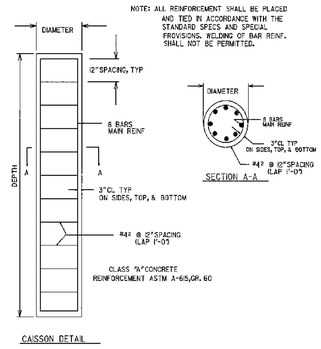
VALLEY & RIDGE
ϒ= 15 PCF
Φ= 18 DEGREES
C= 750 PSF



COASTAL PLAIN
ϒ= 100 PCF
Φ= 32 DEGREES
C= 0 PCF







NOTE: ALL REINFORCEMENT SHALL BE PLACED AND TIED IN ACCORDANCE WITH THE STANDARD SPECS AND SPECIAL PROVISIONS. WELDING OF BAR REINF. SHALL NOT BE PERMITTED.

3/1/2007 GPLN

GEORGIA
DEPARTMENT OF TRANSPORTATION

-NO SCALE-

REVISION DATES
7-09-2004

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: TRAFFIC OPERATIONS

SIGNAL PLANS

DETAILS OF STRAIN POLE AND MAST ARM POLE FOUNDATIONS

TS-06

DECEMBER 1998

DRAWING No.

THE LPA GROUP
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

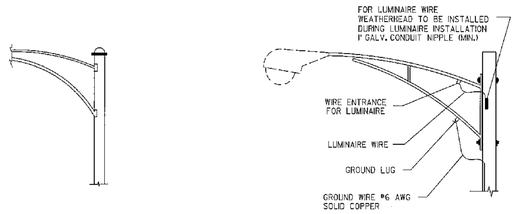
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

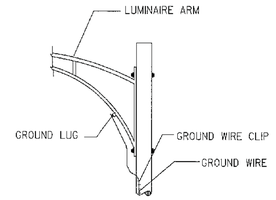
CONSTRUCTION DETAILS

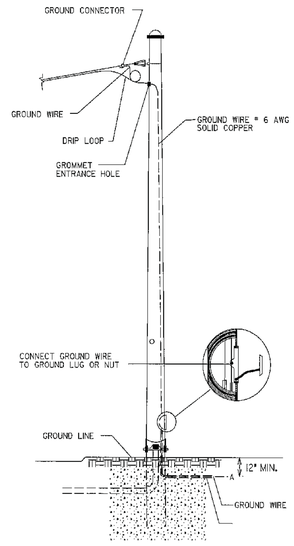
DRAWING No.
40-052

3/1/2007 GPLN

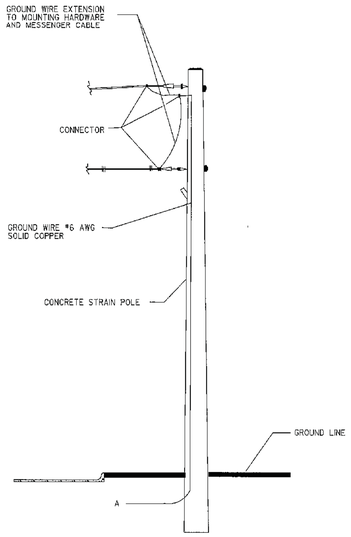
RELEASED FOR CONSTRUCTION - 07-23-13





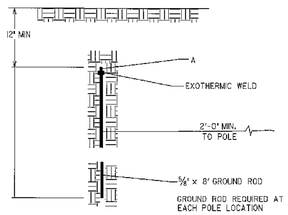


STEEL STRAIN POLE

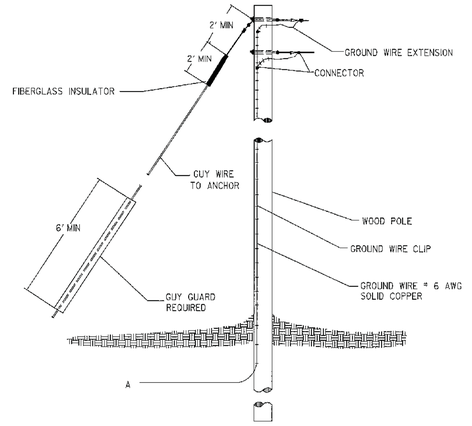


CONCRETE STRAIN POLE

OVERHEAD SIGN GROUNDING SYSTEM SHALL CONFORM TO SECTION 647



GROUNDING DETAIL



TIMBER POLE

Guidelines For Usage On Metric Projects

When these details are incorporated into plans and or projects that are being prepared or constructed in metric units, exact or precise conversion to metric units is not required. Tile dimensions shown that are in feet and inches may be converted to corresponding metric units using the following "Rounded-Off" conversion factors: 1"=25mm, 4"=100mm, and 12" or 1'=300mm. All measurement notes that refer to linear feet and square yards shall be interpreted to mean linear meters and square meters.

		GEORGIA DEPARTMENT OF TRANSPORTATION	-NO SCALE-	REVISION DATES	STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION
				7/27/2004	OFFICE: TRAFFIC OPERATIONS
					SIGNAL PLANS
					GROUNDING DETAILS FOR OVERHEAD SPAN WIRE SIGNS AND TRAFFIC SIGNALS TS-07
					DECEMBER 1998 DRAWING No.

3/1/2007 GPLN

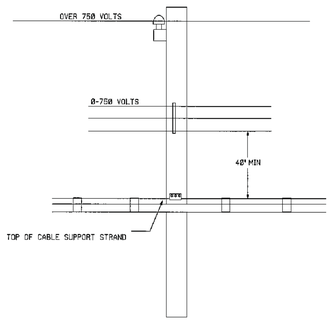
		THE LPA GROUP TRANSPORTATION CONSULTANTS 3595 ENGINEERING DRIVE NORCROSS, GEORGIA 30092 (770) 263-9118	REVISION DATES	STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION
				OFFICE: INNOVATIVE PROGRAM DELIVERY
				CONSTRUCTION DETAILS
				DRAWING No. 40-053

3/1/2007 GPLN

RELEASED FOR CONSTRUCTION - 07-23-13

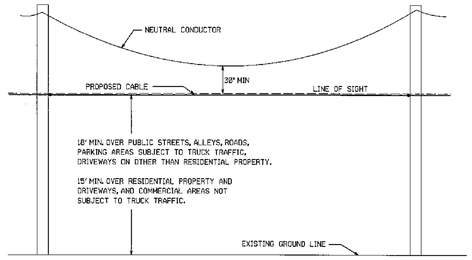
TYPICAL DETAIL 'A'

TYPICAL POWER SEPARATION AT POLE



TYPICAL DETAIL 'B'

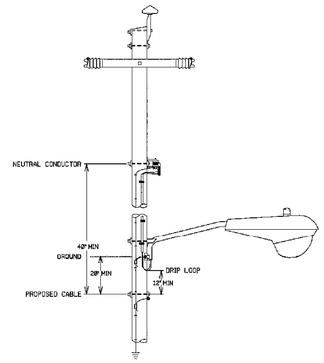
SEPARATION REQUIREMENTS FOR MID-SPAN AND AT CROSSINGS



THE VERTICAL SEPARATION FROM NEUTRAL CONDUCTORS SHALL BE INCREASED SO THAT THE LOWEST POINT OF THE NEUTRAL CONDUCTOR (IN THE SPAN OR AT THE CROSSING) WILL BE AT LEAST 30 INCHES ABOVE THE COMMUNICATION CABLE ATTACHMENT LEVEL (LINE OF SIGHT) AS ILLUSTRATED ABOVE.

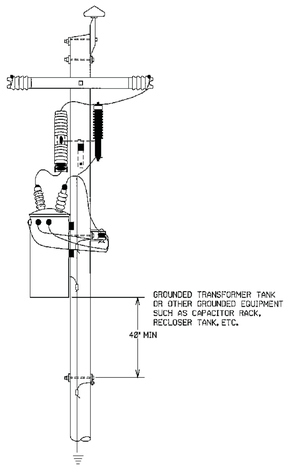
TYPICAL DETAIL 'C'

STREET LIGHT BRACKET SEPARATION
NOTE: SEE TABLE BELOW



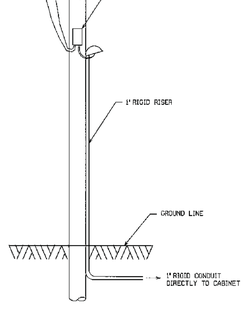
TYPICAL DETAIL 'D'

TYPICAL TRANSFORMER AND POWER RISER SEPARATION WITHOUT GUARD ARM



TYPICAL DETAIL 'E'

TYPICAL DISCONNECT BOX INSTALLATION



VERTICAL CLEARANCES AT THE POLE FOR SPAN WIRES AND BRACKETS FOR STREET LIGHTS (RULE 238C)

TYPE OF CLEARANCE	CLEARANCE (IN.) IF EFFECTIVELY GROUNDED	IF NOT EFFECTIVELY GROUNDED FOR LUMINAIRES UP TO 150V	IF NOT EFFECTIVELY GROUNDED FOR LUMINAIRES OVER 150V	IF NOT EFFECTIVELY GROUNDED FOR TROLLEY CONDUCTORS
ABOVE COMMUNICATION CROSSARMS	28 (A)	28 (A)	28 (A)	28 (A)
BELOW COMMUNICATION CROSSARMS	24	24	40	24
ABOVE COMMUNICATION CABLES	4	28 (A)	28 (A)	12
BELOW COMMUNICATION CABLES	4	28	40	12
FROM COMMUNICATION TERMINAL BOXES	4	28 (A)	28 (A)	12 (B)
FROM COMMUNICATION BRACKETS BRACE WIRE RINGS, AND DRIVE HOOKS	4	16 (A)	16 (A)	4

NOTES A. MAY BE REDUCED TO 12 IN. FOR WIRES OR PARTS OF BRACKETS 40 IN. OR MORE FROM SURFACE OF POLE
B. IF OBTAINABLE IF NOT, MAXIMUM OBTAINABLE

Guidelines For Usage On Metric Projects

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3/1/2007 GPLN

GEORGIA
DEPARTMENT OF TRANSPORTATION

-NO SCALE-

REVISION DATES		
06/2000		

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: TRAFFIC OPERATIONS
SIGNAL PLANS
UTILITY CLEARANCE DETAILS
DECEMBER 1998
DRAWING No. TS-08

THE LPA GROUP
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES		

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
CONSTRUCTION DETAILS
DRAWING No. 40-054

3/1/2007 GPLN

23-JUL-2013 15:32 3:32:26 PM | 1030D1 | Y:\Roadways\126379\0008690\Dgn\Const Standards\1030D1.dgn | STATE: GA | PROJECT NUMBER: CSMSL-0008-00(690) | SHEET NO.: 597 | TOTAL SHEETS: 730
JParks | GDOT_11x17.pen

RELEASED FOR CONSTRUCTION - 07-23-13

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

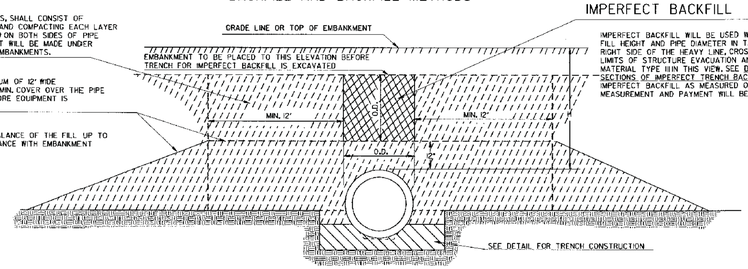
NORMAL BACKFILL

BACKFILL, AS SHOWN BY THE BROKEN LINE SECTIONS, SHALL CONSIST OF PLACING COMPACTABLE SOIL IN 6" LOOSE LAYERS AND COMPACTING EACH LAYER ACCORDING TO GEORGIA STANDARD SPECIFICATIONS ON BOTH SIDES OF PIPE FOR ITS FULL LENGTH. MEASUREMENT AND PAYMENT WILL BE MADE UNDER ROADWAY EXCAVATION ITEMS FOR FORMATION OF EMBANKMENTS.

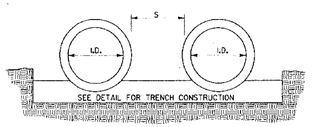
NORMAL EMBANKMENT SHALL BE PLACED A MINIMUM OF 12' WIDE ON EACH SIDE OF THE PIPE AND AT LEAST THE MIN. COVER OVER THE PIPE AND COMPACTED TO THE REQUIRED DENSITY BEFORE EQUIPMENT IS ALLOWED TO CROSS.

AFTER BACKFILL HAS BEEN COMPACTED, THE BALANCE OF THE FILL UP TO GRADE LINE SHALL BE CONSTUCTED IN ACCORDANCE WITH EMBANKMENT SPECIFICATIONS

LONGITUDINAL SECTION OF IMPERFECT TRENCH BACKFILL AND BACKFILL METHODS



MULTIPLE PIPE CULVERT SPACING

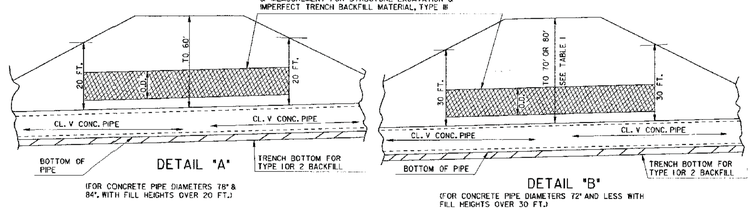


S NONE INSIDE DIAMETER OF PIPE, OR 3 FEET, WHICHEVER IS SMALLER.
FOR PIPE ARCH CULVERTS, SUBSTITUTE SPAN FOR INSIDE DIAMETER.

NOTE:
FOR MULTIPLE LINES OF C.M. PIPE WITH METAL FLARED END SECTIONS, S MAY BE INCREASED ENOUGH TO AVOID OVERLAP OF END SECTION WINGTIPS. LOCATION OF METAL END SECTION SHOULD BE DETERMINED BEFORE PLACEMENT OF PIPE.

CROSS SECTIONS OF IMPERFECT TRENCH BACKFILL

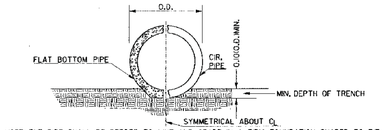
CROSS HATCHED AREAS SHOW LIMITS OF CONSTRUCTION & MEASUREMENT FOR STRUCTURE EXCAVATION & IMPERFECT TRENCH BACKFILL MATERIAL, TYPE III



DETAIL "A"
(FOR CONCRETE PIPE DIAMETERS 78" & 84", WITH FILL HEIGHTS OVER 20 FT.)

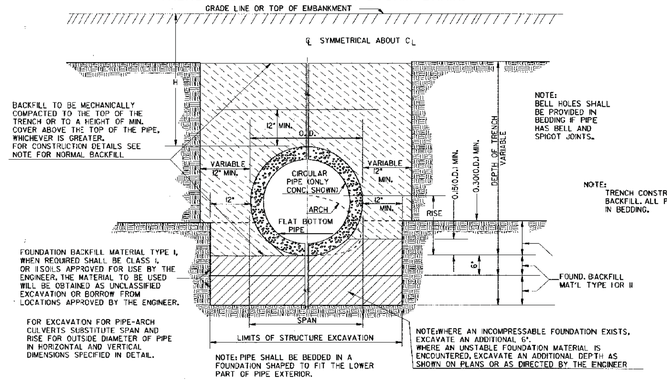
DETAIL "B"
(FOR CONCRETE PIPE DIAMETERS 72" AND LESS WITH FILL HEIGHTS OVER 30 FT.)

TRENCH CONSTRUCTION FOR SIDE DRAIN



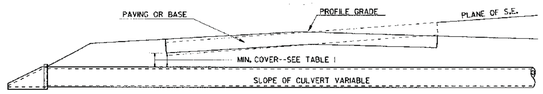
NOTE: THE PIPE SHALL BE BEDDED TO LINE AND GRADE IN A FIRM FOUNDATION SHAPED TO FIT THE LOWER PART OF THE PIPE EXTERIOR. WHERE ROCK EXISTS, EXCAVATE AND BACKFILL WITH COMPRESSABLE MATERIAL (UNCLASSIFIED EXCAVATION) A MINIMUM OF 6" BELOW THE PIPE.

TRENCH CONSTRUCTION FOR STORM DRAIN.



NOTE:
TRENCH CONSTRUCTION IS REQUIRED FOR BOTH NORMAL OR IMPERFECT BACKFILL. ALL PIPES WITH BELL & SPIGOT JOINTS SHALL HAVE BELL HOLES IN BEDDING.

DETAIL SHOWING MINIMUM COVER FOR PIPE CULVERTS



NOTE:

1. FOR FILL HEIGHT TABLES SEE SHEET 2 OF 3 AND SHEET 3 OF 3.
2. ONLY ONE CLASS OR THICKNESS OF PIPE WILL BE SPECIFIED FOR EACH INDIVIDUAL LOCATION. THE CLASS OR THICKNESS WILL BE DETERMINED BY THE MAXIMUM HEIGHT OF FILL.

REVISION	DATE	BY

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

STANDARD
CONCRETE & METAL PIPE CULVERTS
SHEET 1 OF 3
(TRENCH CONSTRUCTION, BEDDING, BACKFILLING)

NO SCALE — REV. & REDR.: SEPT., 2001

DES. ____ DRW. ____ TRA. ____ CHK. ____

(SUBMITTED) STATE ROAD & AIRPORT DESIGN ENGR.

(APPROVED) CHIEF ENGINEER

NUMBER 1030D

3/11/2007 GPLN

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
GEORGIA STANDARDS

DRAWING No. 41-001

RELEASED FOR CONSTRUCTION - 07-23-13

TABLE NO.1 ROUND PIPE - CONCRETE - CORRUGATED STEEL - CORRUGATED ALUMINUM
MINIMUM CLASS OF CONCRETE OR MINIMUM THICKNESS OF STEEL AND ALUMINUM

PIPE DIAMETER (INCHES)	TYPE	MIN/JM COVER (INCHES)	HEIGHT OF FILL IN FEET ABOVE TOP OF PIPE 1 - 10	10 - 5	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 50	50 - 60	60 - 70	70 - 80	80 - 90	PIPE DIAMETER (INCHES)
12	CONCRETE	12	III	II	IV	V	V	V	V	V	V	V	V	V	12
	STEEL 1	12	.064	.064	.064	.064	.064	.064	.064	.064	.064	.064	.064	.064	
	ALUM 1	12	.060	.060	.060	.060	.075	.075	.075	.075	.075	.075	.075	.075	
15	CONCRETE	12	III	III	IV	V	V	V	V	V	V	V	V	V	15
	STEEL 1	12	.064	.064	.064	.064	.064	.064	.064	.064	.064	.064	.064	.064	
	ALUM 1	12	.060	.060	.060	.060	.075	.075	.075	.075	.075	.075	.075	.105	
18	CONCRETE	12	III	III	IV	V	V	V	V	V	V	V	V	V	18
	STEEL 1	12	.064	.064	.064	.064	.064	.064	.064	.064	.064	.064	.064	.064	
	ALUM 1	12	.060	.060	.060	.060	.075	.075	.075	.075	.105	.105	.105	.105	
24	CONCRETE	12	III	III	IV	V	V	V	V	V	V	V	V	V	24
	STEEL 1	12	.064	.064	.064	.064	.064	.064	.064	.064	.064	.064	.079	.079	
	ALUM 1	12	.060	.060	.060	.060	.075	.075	.075	.075	.105	.105	.105	.105	
30	CONCRETE	12	III	III	IV	V	V	V	V	V	V	V	V	V	30
	STEEL 1	12	.064	.064	.064	.064	.064	.064	.064	.064	.079	.079	.109	.109	
	ALUM 1	12	.060	.060	.060	.060	.075	.075	.075	.075	.105	.105	.105	.105	
36	CONCRETE	12	III	III	IV	V	V	V	V	V	V	V	V	V	36
	STEEL 1	12	.064	.064	.064	.064	.064	.064	.064	.079	.079	.079	.109	.138	
	STEEL 2	12	.064	.064	.064	.064	.064	.064	.064	.079	.079	.079	.109	.109	
	ALUM 1	12	.064	.064	.064	.064	.075	.075	.075	.105	.105	.105	.105		
	ALUM 2	12	.060	.060	.060	.060	.075	.075	.075	.105	.105	.105	.105		
42	CONCRETE	12	III	III	IV	V	V	V	V	V	V	V	V	V	42
	STEEL 1	12	.064	.064	.064	.064	.064	.064	.064	.079	.079	.109	.138	.138	
	STEEL 2	12	.064	.064	.064	.064	.064	.064	.064	.079	.079	.109	.109	.138	
	ALUM 1	12	.064	.064	.064	.064	.075	.075	.075	.105	.105	.105	.105		
	ALUM 2	12	.060	.060	.060	.060	.075	.075	.075	.105	.105	.105	.105		
48	CONCRETE	12	III	III	IV	V	V	V	V	V	V	V	V	V	48
	STEEL 1	12	.064	.064	.064	.064	.064	.064	.064	.079	.079	.109	.138	.168	
	STEEL 2	12	.064	.064	.064	.064	.064	.064	.064	.079	.079	.109	.138	.138	
	ALUM 1	12	.064	.064	.064	.064	.075	.075	.075	.105	.105	.105	.105		
	ALUM 2	12	.060	.060	.060	.060	.075	.075	.075	.105	.105	.105	.105		
54	CONCRETE	12	III	III	IV	V	V	V	V	V	V	V	V	V	54
	STEEL 1	12	.079	.079	.079	.079	.079	.079	.079	.109	.109	.138	.168	.168	
	STEEL 2	12	.064	.064	.064	.064	.064	.064	.064	.079	.079	.109	.138	.138	
	ALUM 1	15	.105	.105	.135	.135	.164	.164	.164	.164	.164	.164	.164		
	ALUM 2	15	.060	.060	.060	.060	.075	.075	.075	.105	.105	.105	.105		
60	CONCRETE	12	III	III	IV	V	V	V	V	V	V	V	V	V	60
	STEEL 1	12	.109	.109	.109	.109	.109	.109	.109	.138	.138	.168	.168	.168	
	STEEL 2	12	.064	.064	.064	.064	.064	.064	.064	.079	.079	.109	.138	.138	
	ALUM 1	15	.135	.135	.164	.164	.164	.164	.164	.164	.164	.164	.164		
	ALUM 2	15	.060	.060	.060	.060	.075	.075	.075	.105	.105	.105	.105		
66	CONCRETE	12	III	III	IV	V	V	V	V	V	V	V	V	V	66
	STEEL 1	12	.138	.138	.138	.138	.138	.138	.138	.166	.166	.168	.168	.168	
	STEEL 2	12	.064	.064	.064	.064	.064	.064	.064	.079	.079	.109	.138	.138	
	ALUM 1	18	.164	.164	.164	.164	.164	.164	.164	.164	.164	.164	.164		
	ALUM 2	18	.075	.075	.105	.105	.105	.105	.105	.135	.135	.135	.135		
72	CONCRETE	12	III	II	IV	V	V	V	V	V	V	V	V	V	72
	STEEL 1	12	.138	.138	.138	.138	.138	.138	.138	.168	.168	.168	.168	.168	
	STEEL 2	12	.064	.064	.064	.064	.064	.064	.064	.079	.079	.109	.138	.138	
	ALUM 1	18	.164	.164	.164	.164	.164	.164	.164	.164	.164	.164	.164		
	ALUM 2	18	.075	.075	.105	.105	.105	.105	.105	.135	.135	.135	.135		
78	CONCRETE	12	III	III	IV	V	V	V	V	V	V	V	V	V	78
	STEEL 1	15	.168	.168	.168	.168	.168	.168	.168	.168	.168	.168	.168	.168	
	STEEL 2	15	.064	.064	.064	.064	.064	.064	.064	.079	.079	.109	.138	.138	
	ALUM 2	21	.075	.075	.105	.105	.105	.105	.105	.135	.135	.135	.135		
84	CONCRETE	12	II	III	IV	V	V	V	V	V	V	V	V	V	84
	STEEL 1	15	.168	.168	.168	.168	.168	.168	.168	.168	.168	.168	.168	.168	
	STEEL 2	5	.064	.064	.064	.064	.064	.064	.064	.079	.079	.109	.138	.138	
	ALUM 2	21	.05	.05	.105	.105	.105	.105	.105	.135	.135	.135	.135		
90	CONCRETE	12	III	III	IV	V	V	V	V	V	V	V	V	V	90
	STEEL 2	18	.064	.064	.064	.064	.064	.064	.064	.079	.079	.109	.109	.109	
	ALUM 2	24	.105	.105	.135	.135	.135	.135	.135	.164	.164	.164	.164		
96	CONCRETE	12	III	II	IV	V	V	V	V	V	V	V	V	V	96
	STEEL 2	18	.079	.079	.079	.079	.079	.079	.079	.109	.109	.109	.109	.109	
	ALUM 2	24	.105	.105	.135	.135	.135	.135	.135	.164	.164	.164	.164		
102	CONCRETE	12	III	II	IV	V	V	V	V	V	V	V	V	V	102
	STEEL 2	24	.079	.079	.079	.079	.079	.079	.079	.109	.109	.109	.109	.109	
	ALUM 2	24	.135	.164	.164	.164	.164	.164	.164	.164	.164	.164	.164		
108	CONCRETE	12	III	III	IV	V	V	V	V	V	V	V	V	V	108
	STEEL 2	24	.109	.109	.109	.109	.109	.109	.109	.109	.109	.109	.109	.109	
	ALUM 2	24	.135	.164	.164	.164	.164	.164	.164	.164	.164	.164	.164		
114	CONCRETE	12	III	III	IV	V	V	V	V	V	V	V	V	V	114
	STEEL 2	24	.109	.109	.109	.109	.109	.109	.109	.109	.109	.109	.109	.109	
	ALUM 2	24	.164	.164	.164	.164	.164	.164	.164	.164	.164	.164	.164		
120	CONCRETE	12	III	III	IV	V	V	V	V	V	V	V	V	V	120
	STEEL 2	24	.109	.109	.109	.109	.109	.109	.109	.109	.109	.109	.138	.138	
	ALUM 2	24	.164	.164	.164	.164	.164	.164	.164	.164	.164	.164	.164		

IMPERFECT BACKFILL IS NOT REQUIRED FOR CONDITIONS SHOWN ON THE LEFT SIDE OF THE HEAVY LINE. USE NORMAL BACKFILL.

FOR CONDITIONS TO THE RIGHT OF THE HEAVY LINE, CLASS V CONCRETE PIPE REQUIRES IMPERFECT BACKFILL ACCORDING TO DETAIL "A" OR "B" ON SHEET 1 OF 3.

STEEL 1 OR ALUM 1 DENOTES CORRUGATION PROFILE 2 2/3" X 1/2"

STEEL 2 OR ALUM 2 DENOTES CORRUGATION PROFILE 3" X 1" (OR 5" X 1" FOR STEEL PIPE ONLY)

ALL STEEL AND ALUMINUM PIPE SHALL BE LOCK-SEAM OR WELDED-SEAM (HELICAL) CONSTRUCTION.

MINIMUM COVER VALUES APPLY TO HS-20 LIVE LOAD. MINIMUM COVER NEEDED FOR CONSTRUCTION VEHICLES MAY BE GREATER AND IS THE RESPONSIBILITY OF THE CONTRACTOR.

TRENCH CONSTRUCTION IS REQUIRED FOR CONDITIONS ON BOTH SIDES OF HEAVY LINE. SEE SHEET 1 OF 3.

FOR CONDITIONS TO RIGHT OF HEAVY LINE, CONCRETE PIPE REQUIRES IMPERFECT BACKFILL ACCORDING TO SPECIFICATIONS AND THIS STANDARD.

TABLE VALUES FOR ALUMINUM CORRUGATED PIPE (OR ALUMINUM SPIRAL RIB PIPE) ARE COMPUTED BASED UPON ALCLAD ALLOY 3004-H34 HAVING MINIMUM YIELD STRENGTH, fy=24,000 PSI. IF ALUMINUM PIPE IS OTHERWISE FURNISHED AS 3004-H32 (fy=20,000 PSI), THE TABLE VALUES SHALL BE ADJUSTED AS FOLLOWS:

A. ALL MINIMUM COVER VALUES SHALL BE INCREASED BY 15 PERCENT. (EXAMPLE: 12 INCHES BECOMES 13.8 INCHES)

B. ALL HEIGHT OF FILL VALUES SHALL BE DECREASED BY 15 PERCENT. (EXAMPLE: 35-40 FEET BECOMES 29.7-34.0 FEET)

TABLE NO.3-INFORMATION ONLY)		
COR. METAL THICKNESS	EQUIVALENT GAGE	
STEEL		
.064	16	
0.079	14	
0.109	12	
0.138	10	
0.168	8	
ALUMINUM		
0.060	16	
0.075	14	
0.105	12	
0.135	10	
0.164	8	

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

GFN. REV. NOTES	9-26-06
ADDED SEAM CONST. NOTE	3-9-99
REVISION	DATE

GJP BY

DES. DRW. TRA. CHK.

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

STANDARD
CONCRETE & METAL PIPE CULVERTS
SHEET 2 OF 3
(FILL HEIGHTS FOR CONCRETE & CORRUGATED METAL PIPE)

NO SCALE — OCTOBER 21, 1998

(SUBMITTED) STATE BRIDGE & AIRPORT DESIGN ENGR.
(APPROVED) CHIEF ENGINEER

NUMBER 1030D

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
GEORGIA STANDARDS

DRAWING No. 41-002

3/1/2007 GPLN

RELEASED FOR CONSTRUCTION - 07-23-13

TABLE NO. 1 R ROUND PIPE - SPIRAL RIB STEEL - SPIRAL RIB ALUMINUM
MINIMUM THICKNESS OF STEEL AND ALUMINUM

PIPE DIAMETER (INCHES)	TYPE	MINIMUM COVER (INCHES)	HEIGHT OF FILL (FEET) ABOVE TOP OF PIPE									
			1-10	10-15	15-20	20-25	25-30	30-35	35-40	40-50	50-60	60-70	70-80	80-90
12														
15														
18	STEEL R	12	.064	.064	.064	.064	.064	.064	.064	.064	.064	.075	.075	
	ALUM R	12	.060	.060	.060	.060	.060	.060	.075	.075	.075			
24	STEEL R	12	.064	.064	.064	.064	.064	.064	.064	.079	.079	.09	.109	
	ALUM R	12	.060	.060	.060	.060	.075	.075	.105	.105	.135			
30	STEEL R	12	.064	.064	.064	.064	.064	.064	.079	.079	.09	.09	.09	
	ALUM R	15	.060	.060	.060	.075	.075	.105	.105	.105	.135			
36	STEEL R	12	.064	.064	.064	.064	.064	.079	.079	.09	.102	.09		
	ALUM R	18	.060	.060	.075	.075	.105	.105	.105	.135				
42	STEEL R	12	.064	.064	.064	.064	.079	.079	.08	.09	.09			
	ALUM R	21	.075	.075	.075	.105	.105	.135	.135	.135				
48	STEEL R	12	.064	.064	.064	.079	.079	.09	.09	.09				
	ALUM R	24	.105	.105	.105	.105	.135	.135	.135					
54	STEEL R	15	.064	.064	.064	.079	.079	.09	.09					
	ALUM R	24	.105	.105	.105	.105	.135	.135	.135					
60	STEEL R	15	.079	.079	.079	.079	.09	.09	.103					
	ALUM R	24	.105	.105	.105	.105	.135	.135						
66	STEEL R	18	.079	.079	.079	.09	.09	.09	.109					
	ALUM R	24	.135	.135	.135	.135	.135	.135						
72	STEEL R	18	.109	.109	.109	.109	.109	.109						
	ALUM R	27	.135	.135	.135	.135	.135	.135						
78	STEEL R	21	.109	.109	.109	.109	.109							
84	STEEL R	21	.109	.109	.109	.109	.109							
90														
96														
102														
108														
114														
120														

R DENOTES SPIRAL RIB PROFILE 3/4" X 3/4" X 7-1/2"

TABLE VALUES FOR ALUMINUM SPIRAL RIB PIPE ARE COMPUTED BASED UPON ALCLAD ALLOY 3004-H34 HAVING MINIMUM YIELD STRENGTH, F_y=24,000 PSI.
IF ALUMINUM PIPE IS OTHERWISE FURNISHED AS 3004-H32 (F_y=20,000 PSI), ALLOWABLE FILL HEIGHTS SHALL BE ADJUSTED AS FOLLOWS:
A. ALL MINIMUM COVER VALUES SHALL BE INCREASED BY 15 PERCENT. (EXAMPLE: 12 IN. BECOMES 13.8 IN.)
B. ALL HEIGHT OF FILL VALUES SHALL BE DECREASED BY 15 PERCENT. (EXAMPLE: 35-40 FT. BECOMES 29.7-34.0 FT.)

MINIMUM COVER VALUES APPLY TO HS-20 LIVE LOAD. MINIMUM COVER NEEDED FOR CONSTRUCTION VEHICLES MAY BE GREATER AND IS THE RESPONSIBILITY OF THE CONTRACTOR.

TRENCH CONSTRUCTION IS REQUIRED FOR ALL INSTALLATIONS.

TABLE NO. 2 (PIPE-ARCH)
TABLE SHOWING MINIMUM THICKNESS FOR PRE-APPROVED CORRUGATED STEEL AND CORRUGATED ALUMINUM (PIPE-ARCH) AND MAXIMUM HEIGHTS OF FILL IN FEET ABOVE THE TOP OF THE PIPE-ARCH.

EQUIVALENT DIAMETER OF PIPE (INCHES)	NOM.-MIN. SPAN INCH	NOM.-MIN. RISE INCH	MIN. THICKNESS (INCHES) CORR. STEEL Ø	MIN. THICKNESS (INCHES) CORR. ALUMINUM	MAX. HT. OF FILL (FEET) COVER (INCHES)	MAX. HT. OF FILL (FEET)
15	17	13	.064	.060	15	13
					18	15
18	21	15	.064		15	12
				.060	18	14
21	24	18	.064		15	10
				.060	18	15
24	28	20	.064		15	9
				.075	18	11
30	35	24	.064		15	9
				.075	18	11
36	42	29	.064		15	7
	40	31		.079	18	12
42	49	33	.064		15	7
	46	36	.079	.079	18	12
48	57	38	.064		15	7
	53	41	.109	.079	18	12
54	64	43		.079	15	7
	60	46	.079	.138	18	12
60	71	47	.138	.064	15	7
	66	52	.168	.079	18	12
66	77	55		.138	15	7
	73	58	.168	.079	18	12
72	81	59		.138	15	7
	78	62	.079	.079	18	12
78	84	63	.079	.138	15	7
	90	67	.109	.079	18	12
84	97	71	.109	.138	15	7
	103	75	.138	.079	18	12
90	110	79	.138	.138	15	7
	116	83	.168	.079	18	12
96	123	87		.138	15	7
	129	91	.079	.079	18	12
102	135	95	.079	.138	15	7
	142	99	.109	.079	18	12
108	148	103	.109	.138	15	7
	154	107	.138	.079	18	12
114	161	111	.138	.138	15	7
	167	115	.168	.079	18	12
120	173	119		.138	15	7
	180	123	.079	.079	18	12

NOTE FOR TABLE NO. 2:
ALTERNATE ENDWALLS AND HEADWALLS FOR PRE-APPROVED, HAVING EQUAL PERIPHERY TO THAT SHOWN, MAY BE SUBSTITUTED IF LISTED IN AASHTO SPECIFICATION.

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

STANDARD
CONCRETE & METAL PIPE CULVERTS
SHEET 3 OF 3
(FILL HEIGHTS FOR SPIRAL RIB METAL PIPE & FOR PIPE ARCH)

NO SCALE — SEPT., 2001

BY	REVISION	DATE
DESIGNED		
TRACED		
CHECKED		
REVISED		

(SUBMITTED) STATE ROAD & AIRPORT DESIGN ENGINEER
(APPROVED) CHIEF ENGINEER

NUMBER 1030D

1/15/02 2:43:46 PM \\GDOT-DSN1\GOPLOT\GCF\gdrd_0008690_MVI.gcf gdrd M:\standard\LAQ1130\1030d3.prt

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
GEORGIA STANDARDS

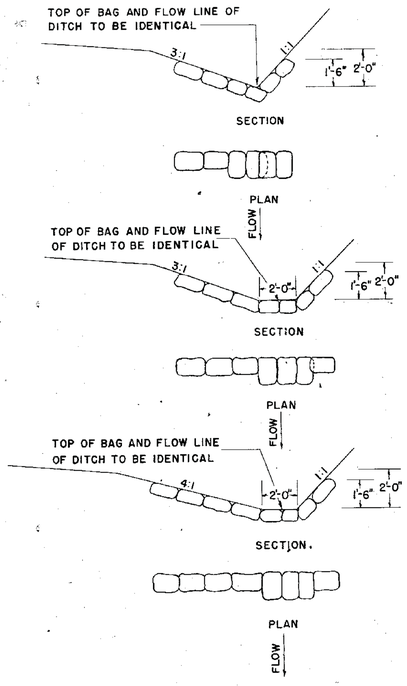
DRAWING No. 41-003

3/1/2007 GPLN

RELEASED FOR CONSTRUCTION - 07-23-13

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

SAND CEMENT BAG DITCH CHECKS



NOTES FOR "SAND CEMENT BAG DITCH CHECKS"

1- NORMAL SIZE OF SAND CEMENT BAGS TO BE ACCORDING TO SECTION 603.

2- SECTIONS SHOWN MAY BE MODIFIED TO FIT OTHER FORESLOPE AND BACKSLOPE RATIOS, DEPTHS AND WIDTH OF DITCHES. DITCH CHECKS TO BE CONSTRUCTED TO AN ELEVATION OF NOT LESS THAN SIX (6) INCHES BELOW NORMAL SHOULDER ELEVATION. TOP OF SAND CEMENT BAGS TO BE IDENTICAL WITH FLOW LINE OF DITCH.

3- ARRANGEMENT OF BAGS MAY BE VARIED IN POSITION SHOWN TO FIT LOCAL CONDITIONS.

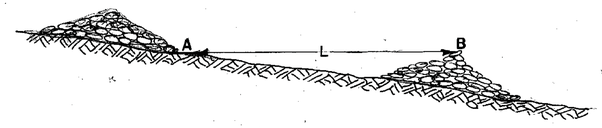
4- DITCH CHECKS TO BE PLACED AT VERTICAL INTERVALS NOT MORE THAN SIX (6) INCHES.

5- DITCH CHECK DIMENSIONS ARE TYPICAL AND MAY BE VARIED BY THE ENGINEER.

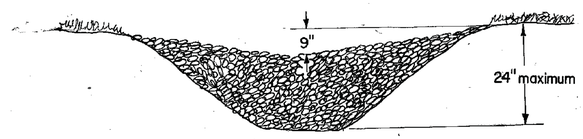
STONE RIP RAP DITCH CHECKS

(TYPICAL FOR TEMPORARY DITCH CHECKS)

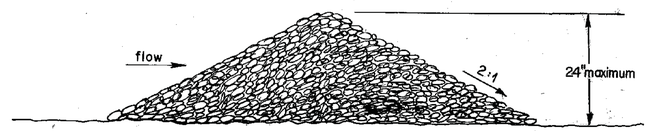
"L" = the distance such that Pt. A & Pt. B are of Equal Elevation.



SPACING BETWEEN DITCH CHECKS



SECTION



LONGITUDINAL VIEW

NOTES FOR "STONE RIP RAP DITCH CHECKS"

1- STONE RIP RAP DITCH CHECKS, AS SHOWN ABOVE, SHALL NOT BE USED INSIDE THE CLEAR ZONE.

2- STONE DUMPED RIP RAP SHALL BE ACCORDING TO SECTION 605, EXCEPT WHEN NOTED OTHERWISE.

3- TEMPORARY DITCH CHECKS SHALL BE ACCORDING TO SECTION 163.

4- THE CONTRACTOR MAY ELECT TO SUBSTITUTE SAND BAG RIP RAP FOR THE STONE SHOWN AND TO THE SAME DIMENSIONS WITH NO CHANGE IN PAYMENT.

REVISIONS	BY	DATE
Delete Basis of Payment & Add Sand Cement Bag Ditch Checks	R.M.U.	12-2-97
Add Stone Ditch Checks	A.V.S.	2-15-66

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

STANDARD
SAND CEMENT BAG
DITCH CHECKS
STONE RIP RAP DITCH CHECKS

NO SCALE — 1-30-50 DATE

DESIGNED WAJ
DRAWN
TRACED H.T.B.
CHECKED WAJ

SUBMITTED _____ ROAD DESIGN ENGINEER
APPROVED _____ STATE HIGHWAY ENGINEER

NUMBER 1031

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

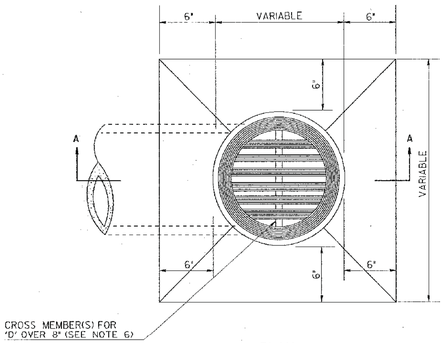
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
GEORGIA STANDARDS

DRAWING No. 41-004

3/1/2007 GPLN

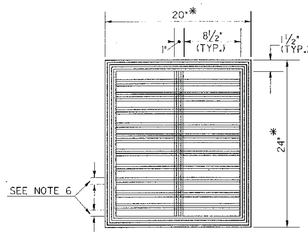
RELEASED FOR CONSTRUCTION - 07-23-13

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			



PLAN

"D" = INSIDE DIAMETER OF PIPE;
6" TO 12" TYPICAL, 24" MAX.

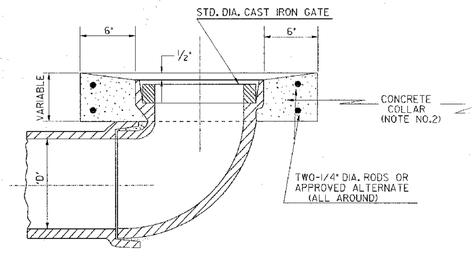


GRATE DETAIL

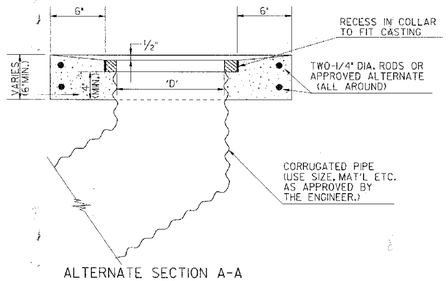
* THE ENGINEER MAY APPROVE REDUCED GRATE & BOX DIMENSIONS FOR THE SMALLER DRAIN PIPES.

GENERAL NOTES:

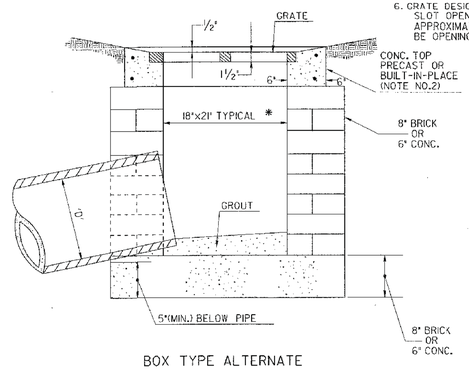
1. SPECIFICATIONS: GEORGIA STANDARD, CURRENT EDITION, & SUPPLEMENTS THERETO.
2. CONCRETE COLLARS AND CONCRETE TOP MAY BE EITHER BUILT-IN PLACE CLASS 'B' CONCRETE OR PRECAST CLASS 'A' CONCRETE.
3. PIPES FROM DRAIN INLET SHALL BE OF THE STRENGTH, SIZE, AND MATERIAL APPROVED BY THE ENGINEER; WHERE ELBOWS ARE USED, THE BEND SHALL BE AS SPECIFIED. CONCRETE PIPE MAY BE CLASS II OR CLASS III, UNLESS OTHERWISE SPECIFIED. CORRUGATED PIPE OR OTHER ALTERNATIVES MAY BE APPROVED BY THE ENGINEER.
4. MINIMUM THICKNESS OF CAST IRON GRATES SHALL BE AS FOLLOWS:
   a) 0.5"THK. FOR PIPE ELBOWS 12" OR LESS;
   b) 1.0"THK. FOR PIPE ELBOWS OF 15";
   C) 1.5"THK. FOR 18" OR 24" PIPE ELBOW;
   -OR- BOX TYPE ALTERNATE.
5. PAYMENT FOR DRAIN INLET PER EACH INCLUDES GRATE, CONCRETE COLLAR OR TOP, AND ELBOW OR BOX ALTERNATE. THE PIPE FROM THE ELBOW OR BOX TO MAINLINE CONNECTION SHALL BE PAID FOR AS LIN. FT. OF SIDE DRAIN PIPE, HOWEVER, THE PIPE MATERIAL MAY VARY FROM OTHER SIDE DRAIN ON PROJECT AS APPROVED BY THE ENGINEER. COSTS FOR ALL CONNECTIONS SHALL BE INCLUDED IN THE PAYMENT FOR THE PIPE.
6. GRATE DESIGNS SHOWN ARE TYPICAL. MAXIMUM SLOT OPENINGS SHALL BE 8 1/2 " LONG; 1" WIDE. APPROXIMATELY 50% OF GRATE AREA SHALL BE OPENINGS.



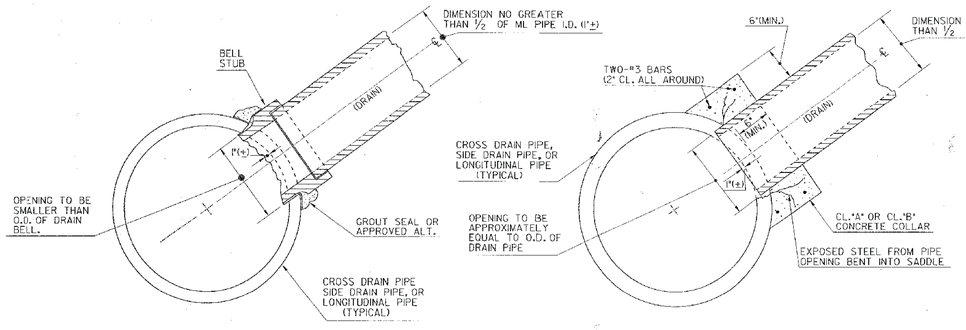
SECTION A-A
(STANDARD ELBOW TYPE)



ALTERNATE SECTION A-A
(WHERE APPROVED)



BOX TYPE ALTERNATE



SECTIONAL VIEWS SHOWING TYPICAL ALTERNATE DRAIN CONNECTIONS

NOTES FOR CONNECTIONS:

AN OPENING IN THE MAINLINE PIPE FOR A CONNECTION SHALL BE NO CLOSER THAN ONE (1) FOOT TO THE NEAREST JOINT IN THE MAINLINE PIPE.

OTHER ATERNATE CONNECTIONS MAY INCLUDE PRE-FABRICATED 'WYE' OR 'TEE' SECTIONS OR BY A CONNECTION TO ANOTHER DRAINAGE STRUCTURE.

COSTS FOR ALL MATERIALS AND LABOR FOR CONNECTIONS OF ANY KIND ARE INCLUDED WITH PAYMENT FOR THE PIPE OR FOR THE INLET

SPECIAL NOTE:
THE INLETS SHOWN ON THIS STANDARD ARE NOT TO BE USED IN TRAVELWAY.

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

STANDARD
DRAIN INLET (ELBOW TYPE AND ALTERNATES) FOR YARD DRAINS

NO SCALE — REV. & REDRN.: NOV., 1999

BY	DATE	REVISION
REV.		
REDRN.		
CHK.		

(SUBMITTED) STATE ROAD & AIRPORT DESIGN ENGR.
(APPROVED) CHIEF ENGINEER

NUMBER 1035

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
GEORGIA STANDARDS

DRAWING No. 41-005

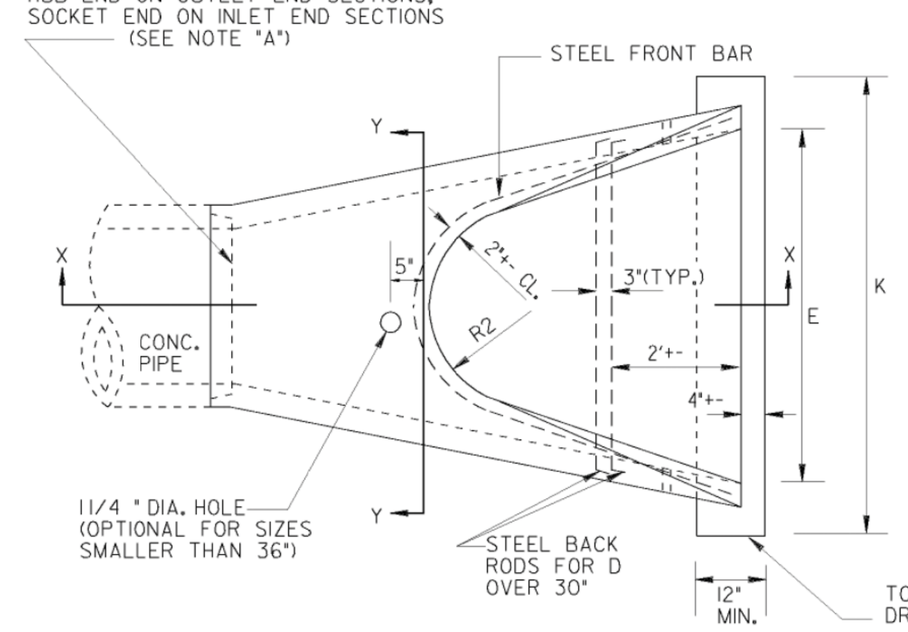
3/1/2007 GPLN

RELEASED FOR CONSTRUCTION - 07-23-13

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

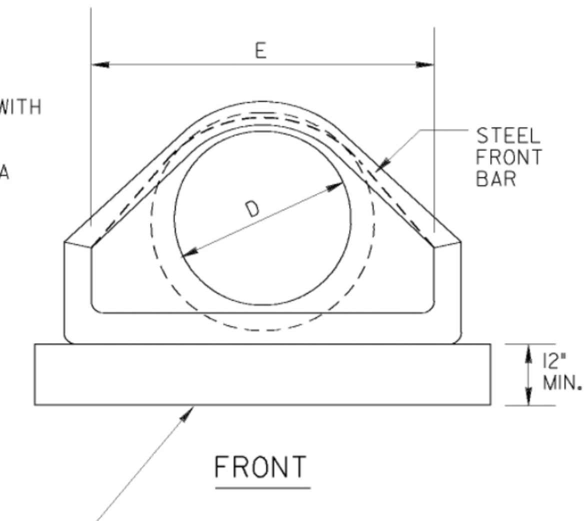
CONCRETE FLARED END SECTION

END SECTION TO PIPE JOINT SHOWN AS TYPICAL:
HUB END ON OUTLET END SECTIONS;
SOCKET END ON INLET END SECTIONS
(SEE NOTE "A")



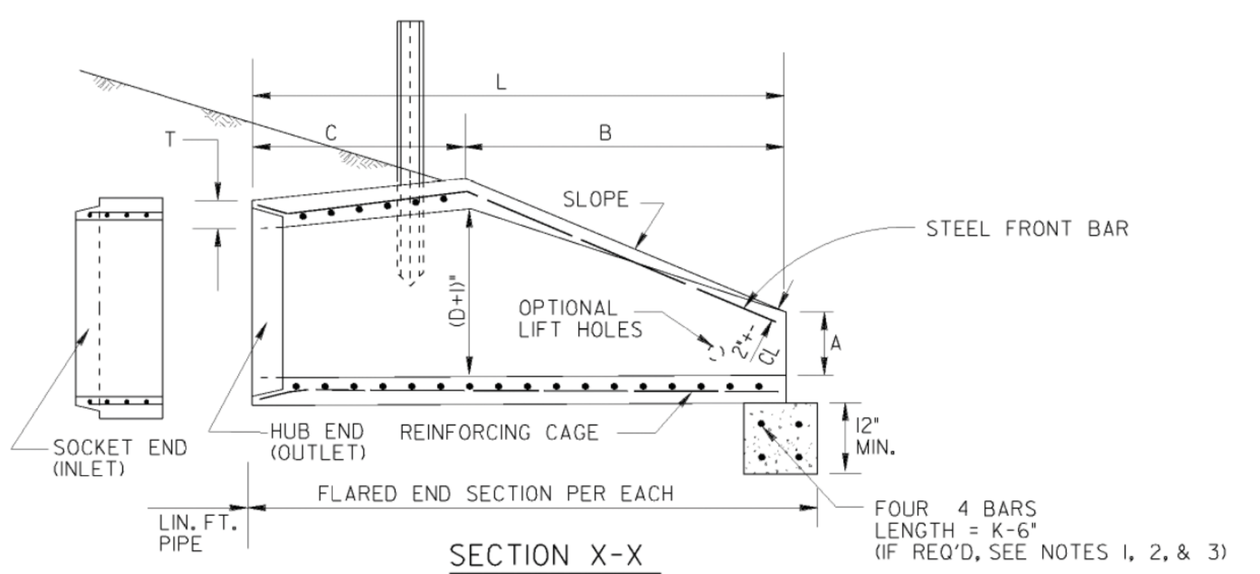
PLAN

INSTALLATION: (D OVER 30")
CABLE, CHAIN, OR LIFTING PIN WILL EXTEND THRU 1 1/4 " HOLE WITH A PLATE OR REBAR CONNECTED INSIDE THE CONC. SECTION TO PROVIDE ADEQUATE BEARING AREA OR A LIFTING ASSEMBLY DEVICE MAY BE USED TO GIVE 3 LIFT POINTS. HOOKS CONNECTED DIRECTLY TO CONCRETE IS NOT PERMITTED. DAMAGE FROM IMPROPER HANDLING SHALL BE CAUSE FOR REJECTION.

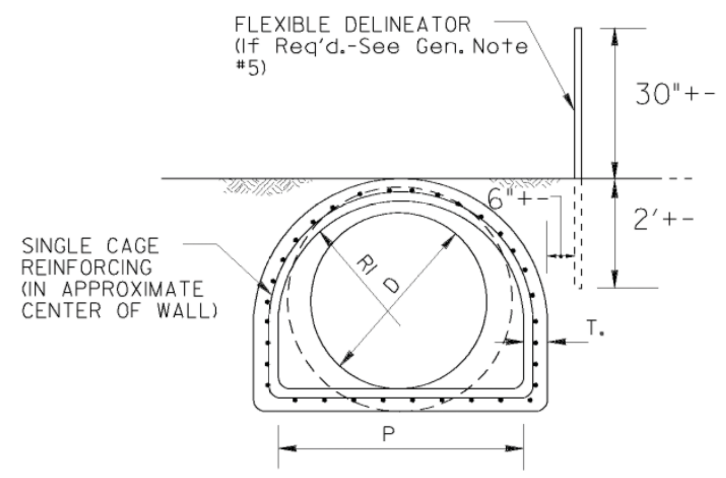


FRONT

NOTE: DO NOT CUT CONCRETE PIPE. USE FULL LENGTH SECTIONS ONLY. WARP SLOPE TO CONFORM WITH PIPE LENGTH AND END SECTION.



SECTION X-X



SECTION Y-Y

REINFORCING CAGE:

(1.) WIRE FABRIC HAVING EQUAL STEEL AREA AS INNER CAGE FOR CLASS II PIPE, AASHTO M-170.
(2.) ALTERNATE: # 3 BARS SPACED 12"+- LONGITUDINALLY WITH # 2 BARS TRANVERSELY AT 6" O.C. MAX. SPACING, SPOT WELDED OR TIED TO FORM CAGE. (BACK RODS MAY BE OMITTED.)

NOTE "A":
CONTRACTOR WILL INFORM PRODUCER IF CONCRETE FLARED END SECTION IS FOR INLET OR FOR OUTLET END. SOCKET (TONGUE OR SPIGOT) END IS REQUIRED FOR INLETS. HUB (GROOVE OR BELL) END IS REQUIRED FOR OUTLETS. SOCKET TO SOCKET OR HUB TO HUB JOINT WILL NOT BE ACCEPTED UNLESS A REINFORCED CONCRETE COLLAR IS BUILT AROUND THE JOINT WITH NO PAYMENT BEING MADE FOR THE COLLAR.
FLARED END SECTIONS SHALL BE JOINTED TO PIPE WITH ALL SPACE IN THE JOINT FILLED WITH EITHER BITUMINOUS PLASTIC CEMENT OR PREFORMED PLASTIC GASKET (SEC. 848).

WALL THICKNESS (T) IS SHOWN AS NOMINAL AND MAY BE INCREASED AT PRODUCER'S OPTION FOR DESIRED JOINT DESIGN OR TO ALLOW A FLAT OUTSIDE BOTTOM ON THE FLARE, WITH INSIDE DIMENSIONS OF FLARE RETAINED AS SHOWN.

T = PIPE WALL THICKNESS (0.0833D + 1"+- TYPICAL)

DIMENSIONS AND REINFORCING FOR CONCRETE FLARED END SECTIONS (+- 1" TOLERANCE)

PIPE DIA	FRONT BAR	BACK RODS	SLOPE +-	A	B	C *	L *	E	P	R1	R2	OUTLET TOEWALL (IF REQ'D) K= E + 2'	OUTLET TOEWALL (IF REQ'D) CU.YDS. CONC.
12"	1-#3 x 5' 4"	NOT REQ'D.	2.2:1	4"	2'0"	4' 1"	6'1"	2'0"	1'8"	10"	9"	4'-0"	.148
15"	1-#3 x 6' 0"	NOT REQ'D.	2.2:1	6"	2'3"	3'10"	6'1"	2'6"	2'0"	1'0"	11"	4'-6"	.167
18"	1-#3 x 7' 2"	NOT REQ'D.	2.2:1	9"	2'3"	3'10"	6'1"	3'0"	2'5"	1'4"	1'0"	5'-0"	.185
24"	1-#3 x 9' 10"	NOT REQ'D.	2.4:1	10"	3'8"	2' 6"	6'2"	4'0"	2'9"	1'5"	1'2"	6'-0"	.222
30"	1-#4 x 11' 8"	NOT REQ'D.	2.4:1	12"	4'6"	1' 8"	6'2"	5'0"	3'1"	1'6"	1'3"	7'-0"	.259
36"	1-#4 x 13' 10"	2-#4 x 6'3"	2.4:1	15"	5'3"	2'11"	8'2"	6'0"	4'0"	2'0"	1'8"	8'-0"	.296
42"	1-#4 x 13' 10"	2-#4 x 7'4"	2.4:1	21"	5'3"	2'11"	8'2"	6'6"	4'6"	2'4"	1'10"	8'-6"	.315

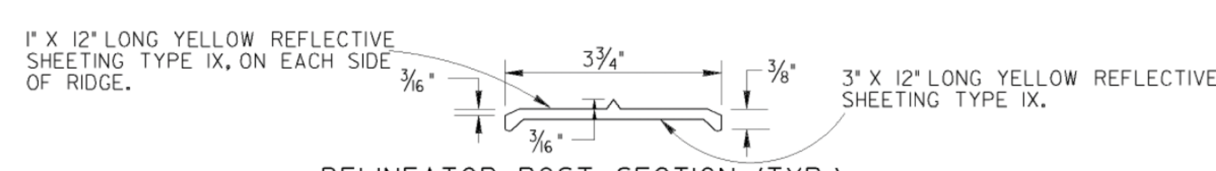
NOTE: SPECIFIED REINFORCING IS MINIMAL AND MAY BE INCREASED AT PRODUCERS OPTION TO AID CASTING & HANDLING. ALTERNATE REINFORCEMENT PERMITTED IF APPROVED.

* NOTE: "C" AND "L" DIMENSION MAY BE MEASURED TO EITHER END OF JOINT CONNECTION AT PIPE.

SPECIAL NOTE:
FLARED END SECTIONS ARE NORMALLY LIMITED TO USE OUTSIDE THE CLEAR ZONE OR BEHIND BARRIER AND WHERE HYDRAULICS PERMIT. SEE OTHER STANDARDS OR DETAILS FOR TAPERED HEADWALLS, SAFETY SLOPE END SECTIONS OR OTHER PIPE END STRUCTURES.

GENERAL NOTES :

1. TOEWALLS ARE REQ'D. FOR OUTLETS OF CONC. STORM DRAINS, EXCEPT WHERE DITCH PAVING OR OTHER EROSION PROTECTION IS PROVIDED OR WHERE THE OUTLET VELOCITY IS LESS THAN 8 FT/SEC. TOEWALLS ARE NOT REQUIRED FOR SIDE DRAINS, SLOPE DRAINS OR INLETS OF STORM DRAINS THIS CRITERIA MAY BE VARIED WHERE SPECIFIED BY THE DESIGNER OR THE ENGINEER.
2. TOEWALLS WILL BE PAID FOR AS CU. YDS. OF CLASS "A" OR "B" CONCRETE. CONTRACTOR MAY ELECT TO CONSTRUCT TOE WALL WITH SAND CEMENT BAG RIPRAP OR STONE RIPRAP TO SAME MINIMUM DIMENSIONS WITH NO ADDITIONAL PAYMENT.
3. PRECAST TOEWALLS SHALL BE CL. "A" CONCRETE; CAST-IN-PLACE TOEWALLS MAY BE CL "A" OR "B" CONCRETE AND MAY BE TRENCH FORMED. WHERE PLANS ITEMIZE ONE CLASS OF CONCRETE AND CONTRACTOR ELECTS TO USE OTHER CLASS, NO ADDITIONAL PAYMENT IS MADE. NO PAYMENT IS MADE FOR STEEL IN TOEWALL.
4. CENTERLINE OF FLARED END SECTION WILL ALIGN WITH CENTERLINE OF PIPE, IF PIPE IS SKEWED, THE EMBANKMENT SLOPE WILL BE WARPED TO CONFORM WITH END SECTION.
5. FLEXIBLE DELINEATORS SHALL BE REQUIRED AT CROSS DRAIN FLARED END SECTIONS, BOTH INLET AND OUTLET. PAYMENT FOR FLARED END SECTION WILL INCLUDE DELINEATORS, SEE DETAIL AND NOTES BELOW. DELINEATORS NOT REQ'D. FOR SIDE DRAIN, SLOPE DRAIN, OR LONG PIPE.



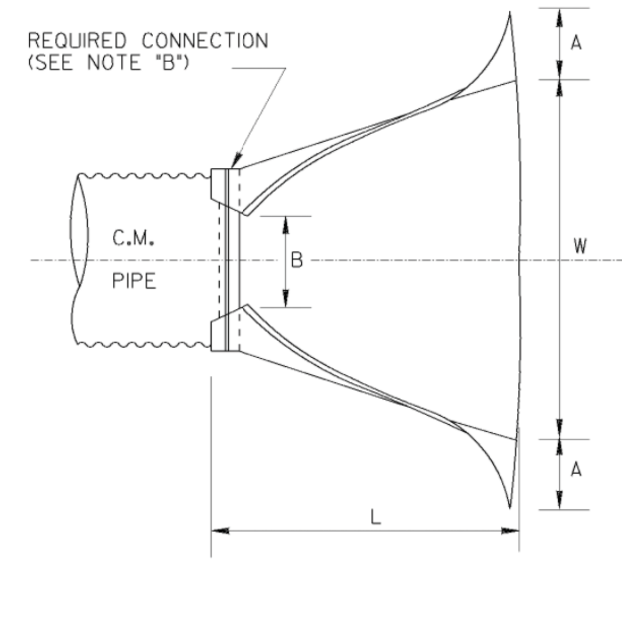
DELINEATOR POST SECTION (TYP.)

NOTE:
DELINEATOR POST SHALL CONFORM TO SEC. 911 FOR FLEXIBLE DELINEATOR POST EXCEPT REFLECTIVE SHEETING IS NOT REQUIRED AND LENGTH IS 4'-6" FROM TOP TO BOTTOM POINT. ALTERNATES PERMITTED IF APPROVED BY D.O.T. LABORATORY.

SPECIAL NOTE :
PIPE SIZES (D) ARE "NOMINAL-MINIMUM" INSIDE DIAMETERS IN ACCORDANCE WITH GEORGIA STANDARD FOR PIPE CULVERTS. "D" DIMENSION FOR FLARED END SECTION SHALL EQUAL THE "D" DIMENSION FOR CONNECTING PIPE CULVERT.

METAL FLARED END SECTION

(USE ONLY WITH COR. METAL PIPE)



PLAN

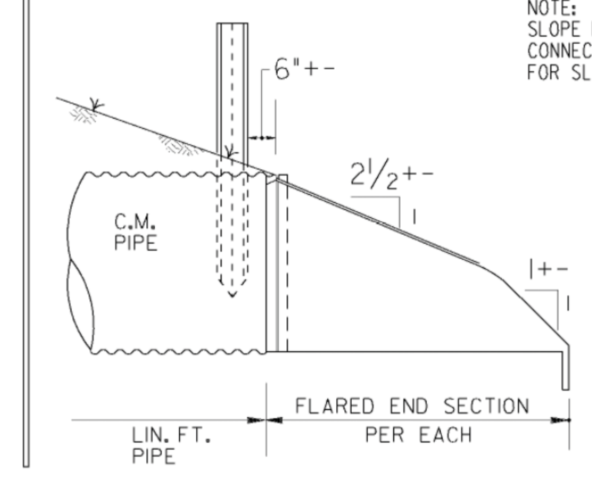
NOTE: GALVANIZED STEEL FLARED END SECTIONS ARE TO BE USED ONLY WITH CORRUGATED STEEL PIPE AND ALUMINUM FLARED END SECTIONS ARE TO BE USED ONLY WITH CORRUGATED ALUMINUM PIPE UNLESS OTHERWISE APPROVED BY D.O.T. OFFICE OF MATERIALS AND TESTS.

FLARED END SECTION DIMENSIONS

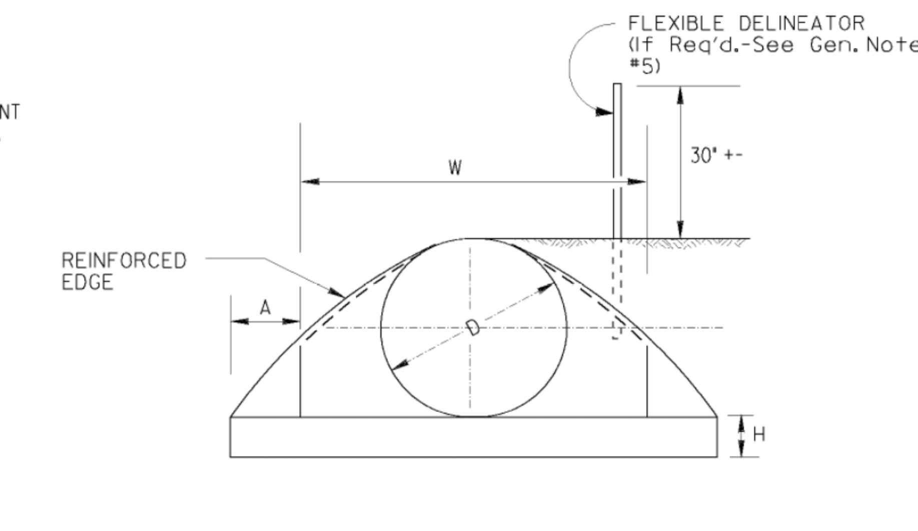
PIPE SIZE "D"	THICKNESS GALV. STEEL	THICKNESS ALUM.	A A= 0.4D +- 1"	B B=0.5 D +- 1"	H H=0.25D +- 1" (MIN.6")	L L=1.67D +- 1½"	W W=2.0D +- 2"
12"	.064"	.060"	5"	6"	6"	1'8"	2'0"
15"	.064"	.060"	6"	7"	6"	2'3"	2'6"
18"	.064"	.060"	7"	9"	6"	2'6"	3'0"
24"	.064"	.060"	9"	1'0"	6"	3'4"	4'0"
30"	.079"	.105"	1'0"	1'3"	7"	4'2"	5'0"
36"	.079"	.105"	1'2"	1'6"	9"	5'0"	6'0"
42"	.109"	.164"	1'5"	1'9"	10"	5'10"	7'0"

NOTE: WHERE METAL FLARED END SECTIONS ARE USED WITH MULTIPLE PIPE LINES, THE STANDARD SPACING BETWEEN PIPES (S=D OR 3 FT.) MAY HAVE TO BE INCREASED (S=1.75 D TYPICAL). TO PREVENT OVERLAP OF END SECTION WINGTIPS. SEE ALSO STD. 1030D.

NOTE:
SLOPE DRAIN PIPES WILL REQUIRE AN ELBOW FOR CONNECTION TO THE FLARED END SECTION. PAYMENT FOR SLOPE DRAIN PIPE WILL INCLUDE THIS ELBOW.



SIDE



FRONT

NOTE "B":
THE CONNECTION BETWEEN METAL FLARED END SECTION AND C.M. PIPE WILL BE ONE OF THE FOLLOWING:

(a) A STRAP BAND OR THREADED ROD PROVIDED BY THE MANUFACTURER WILL LOCK END SECTION ONTO PIPE. A CORRUGATION AT THE PIPE AND WILL BE NON-SPIRALED (PERPENDICULAR TO CL OF PIPE)

(b) A DIMPLE BAND COLLAR WILL BE SHOP BOLTED TO END SECTION. PIPE WILL BE INSERTED INTO BAND COLLAR TO MEET THE END SECTION.

(c) A STUB PIPE WILL BE RIVITED TO THE END SECTION AND THE MAIN PIPE CONNECTED TO THE STUB WITH A NORMAL CONNECTING BAND.

(d) OTHER TYPE CONNECTION IF RECOMMENDED BY MANUFACTURER AND APPROVED BY THE D.O.T.

DATE	REVISION	BY
6-9-06	REV. REFLECTIVE SHEETING	GLO

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

STANDARD
FLARED END SECTIONS
FOR PIPES

NO SCALE — REV. & REDR. SEPT., 1999

DES. ____ REV. ____ RETR. ____ CHK. ____
(SUBMITTED) [signature] STATE ROAD & AIRPORT DESIGN ENGINEER
(APPROVED) [signature] CHIEF ENGINEER

NUMBER 1120

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
GEORGIA STANDARDS

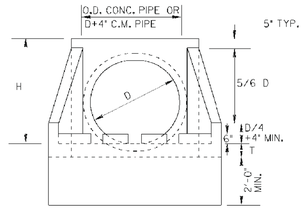
DRAWING No. 41-006

3/1/2007 GPLN

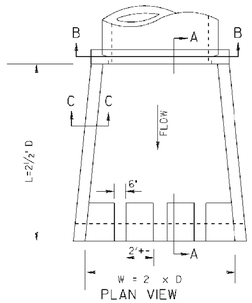
RELEASED FOR CONSTRUCTION - 07-23-13

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

OUTLET HEADWALL

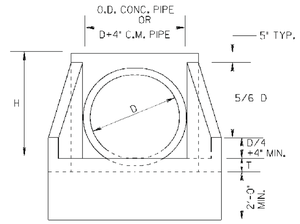


FRONT ELEVATION

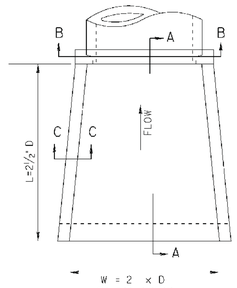


PLAN VIEW

INLET HEADWALL

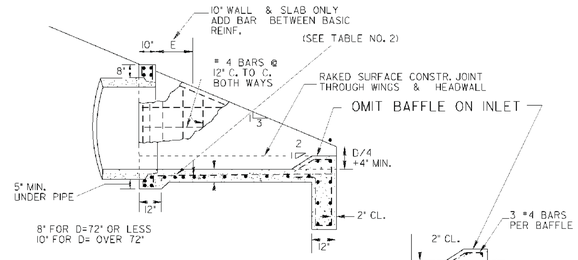


FRONT ELEVATION

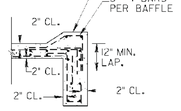


PLAN VIEW

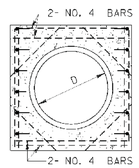
D = INSIDE DIAMETER OF PIPE



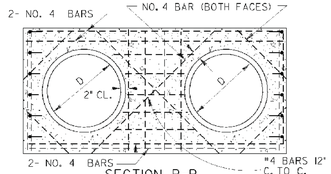
SECTION A-A



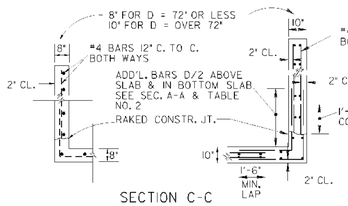
10" SLAB



SECTION B-B
(SINGLE PIPE LINE)

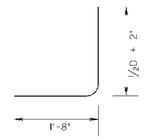


SECTION B-B
(MULTIPLE PIPE LINE)



SECTION C-C

TABLE NO. 2		
D	ADD'L.BAR	E
84"	#4	5"
96"	#4	8"



ADDITIONAL BAR DETAIL

TABLE NO.1- QUANTITIES FOR HEADWALLS

	CU. YDS. CONCRETE (PAY QUANTITIES)					LBS. STEEL (GIVEN FOR INFORMATION ONLY)				
	FOR SINGLE LINE			ADD FOR ADD'L LINE		FOR SINGLE LINE			ADD FOR EACH ADD'L LINE	
D	INLET	OUTLET		INLET	OUTLET	INLET	OUTLET		INLET	OUTLET
15"	0.87	0.93		0.60	0.66	102	113		73	83
18"	1.10	1.16		0.85	0.93	106	117		93	104
24"	1.61	1.69		1.29	1.37	127	138		124	134
30"	2.21	2.32		1.83	1.96	170	180		154	164
36"	2.92	3.05		2.49	2.63	238	254		196	212
42"	3.73	3.87		3.00	3.17	290	306		231	247
48"	4.62	4.80		3.58	3.74	335	351		265	281
54"	5.63	5.83		4.17	4.38	407	428		319	340
60"	6.72	6.95		4.82	5.01	456	477		360	391
72"	9.22	9.48		6.24	6.46	623	649		475	494
84"	14.84	15.19		9.05	9.29	1517	1539		1017	1044
96"	18.88	19.27		11.13	11.41	2118	2150		1323	1350

*NOTE:
QUANTITIES SHOWN WILL BE ACTUAL PAY QUANTITIES FOR CLASS "A" CONCRETE, INCLUDING REINFORCED STEEL. NO ADJUSTMENT WILL BE MADE FOR AS BUILT QUANTITIES.

D = INSIDE DIAMETER OF PIPE CULVERT

H = D + 10" MIN. FOR C.M. PIPE
H = D + PIPE WALL THICKNESS + 8" FOR CONC. PIPE (13/12 D + 9" TYP.)

T = 8" FOR D = 72" OR LESS
T = 10" FOR D = OVER 72"

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

STANDARD TAPERED INLET HEADWALL - OUTLET HEADWALL (BUILT-IN-PLACE)

NO SCALE — REV. & REDR. OCT., 1999

DES. ____ DRW. ____ TRA. ____ CHK. ____

(SUBMITTED) James A. Bennett STATE ROAD & AIRPORT DESIGN ENGR.

(APPROVED) Carol A. Comer CHIEF ENGINEER

NUMBER 1125

3/1/2007 GPLN

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

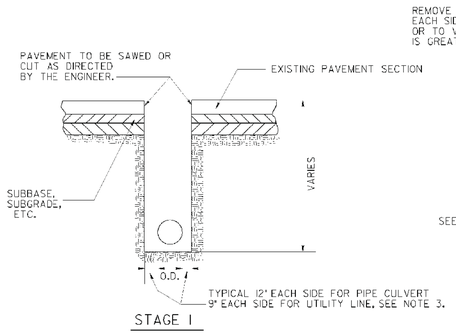
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
GEORGIA STANDARDS

DRAWING No. 41-007

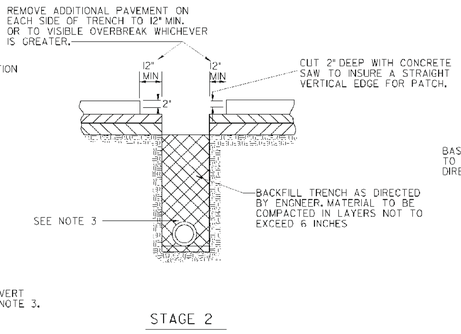
RELEASED FOR CONSTRUCTION - 07-23-13

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

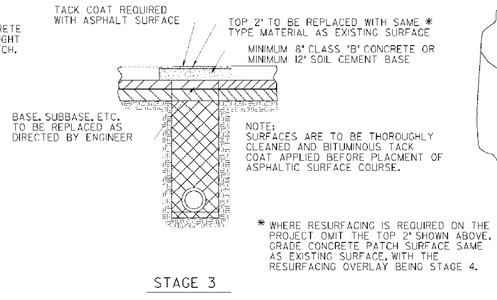
STORM DRAIN AND UTILITY INSTALLATION BY OPEN CUT - GENERAL



STAGE 1

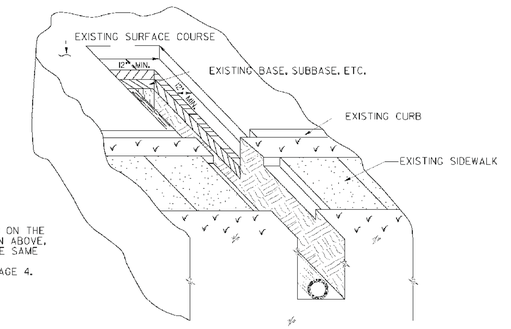


STAGE 2

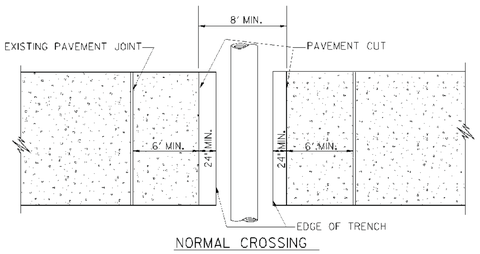


STAGE 3

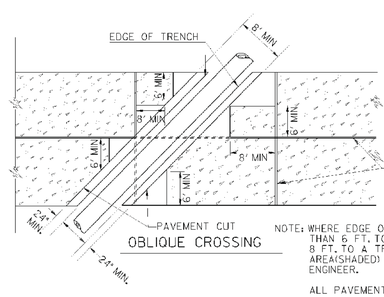
* WHERE RESURFACING IS REQUIRED ON THE PROJECT OMIT THE TOP 2" SHOWN ABOVE, GRADE CONCRETE PATCH SURFACE SAME AS EXISTING SURFACE, WITH THE RESURFACING OVERLAY BEING STAGE 4.



STORM DRAIN AND UTILITY INSTALLATION BY OPEN CUT ACROSS P.C. CONCRETE PAVING



NORMAL CROSSING

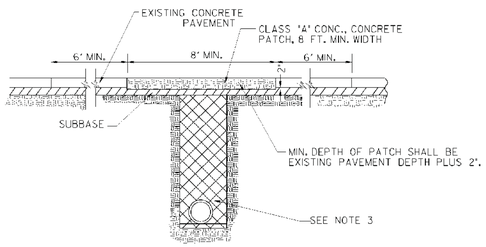


OBLIQUE CROSSING

NOTE: WHERE EDGE OF CUT IN RIGID PAVEMENT IS CLOSER THAN 6 FT. TO A LONGITUDINAL JOINT, OR CLOSER THAN 8 FT. TO A TRANSVERSE JOINT, ALL PAVEMENT IN THAT AREA(SHADED) IS TO BE REPLACED AS DIRECTED BY THE ENGINEER.

ALL PAVEMENT JOINTS ARE TO BE RE-ESTABLISHED.

DOWELS AND TIE-BARS ARE TO BE REPLACED.



NOTE:
WHEN THE CONCRETE IS POURED, IT SHALL BE STRUCK OFF AT AN ELEVATION SLIGHTLY HIGHER THAN THE INTENDED SURFACE AND TAMPED TO OFFSET SHRINKAGE. MECHANICAL VIBRATING EQUIPMENT SHALL BE USED TO CONSOLIDATE THE PLACED CONCRETE, ESPECIALLY AT THE EDGES AND AROUND THE STEEL AT JOINTS. THE CONCRETE SHALL THEN BE TAMPED A SECOND TIME, THEN SCREEDED AND CHECKED WITH A STRAIGHT EDGE TO GIVE THE SAME SURFACE GRADE AS THE EXISTING PAVMENT.

GENERAL NOTES:

1. SPECIFICATIONS: GEORGIA STANDARD, CURRENT EDITION & SUPPLEMENTS THERETO.

2. (a)OTHER PAVEMENT REPLACEMENT MATERIALS, SUCH AS HIGH EARLY STRENGTH CONCRETE, MAY BE SUBSTITUTED FOR MATERIALS SHOWN WHEN CALLED FOR IN THE PLANS OR BY THE ENGINEER.
   (b)PAYMENT FOR PIPE CULVERT OR UTILITY SHALL INCLUDE SAWING AND/OR CUTTING AND REMOVING EXISTING PAVEMENT AND REPLACING THE PAVEMENT AS SPECIFIED. PAYMENT FOR PIPE OR UTILITY INCLUDES THIS PAVEMENT REPLACEMENT MATERIAL REGARDLESS OF WHERE MATERIALS SHOWN ARE USED OR WHERE OTHER MATERIALS SUCH AS HIGH EARLY STRENGTH CONCRETE ARE USED.
   (c)PAYMENT FOR PIPE CULVERT OR UTILITY INSTALLATION SHALL INCLUDE REPLACING IN KIND ANY PORTIONS OF SIDEWALK, CURB, CURB & GUTTER, MEDIAN PAVING, DRIVEWAYS, ETC., WHICH ARE DISTURBED DUE TO THE INSTALLATION.

3. TRENCH DETAIL SHOWN IS GENERAL, SEE STANDARD 1030D FOR DETAILS REQUIRED FOR PIPE CULVERT INSTALLATIONS. SEE THE UTILITIES MANUAL FOR UTILITY INSTALLATION REQUIREMENTS.

4. AFTER REMOVING EXISTING PAVEMENT, THE SUBBASE AND VERTICAL FACE OF EXISTING PAVING SHALL BE DAMPED (BUT NOT WET). ADDITIONALLY, THE VERTICAL FACE OF THE EXISTING PAVEMENT SHALL BE PAINTED WITH A SOLUTION OF PORTLAND CEMENT AND WATER MIXED TO THE CONSISTENCY OF HEAVY PAINT. THE CONCRETE MIX SHALL THEN BE POURED BEFORE THIS SURFACE DRIES OUT. AFTER CONCRETE IS POURED, IT SHALL BE WORKED INTO ALL CORNERS AND INTO ALL ROUGH SURFACES OF THE EXISTING PAVEMENT.

5. WHERE PIPE IS REMOVED, BUT NOT REPLACED, PAYMENT FOR PIPE REMOVAL INCLUDES ALL ITEMS DESCRIBED IN GENERAL NOTE 2., WITH ALL OTHER NOTES AND DETAILS ALSO BEING APPLICABLE.

NOTE:
THIS STANDARD IS FOR USE WHERE PERMANENT PAVEMENT PATCHING IS REQUIRED. TEMPORARY PATCHING, IF REQUIRED, SHALL BE ACCORDING TO OTHER DETAILS, SPECIFICATIONS, AND/OR AS DIRECTED BY THE ENGINEER.

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

STANDARD

PAVEMENT PATCHING DETAILS
(STORM DRAIN OR UTILITY INSTALLATIONS BY OPEN CUT ACROSS EXISTING PAVEMENT)

NO SCALE REV. & REDR., AUG. 1999

DATE	REVISION	BY
		REV.
		TRA.
		CHK.

(SUBMITTED) STATE ROAD & AIRPORT DESIGN ENGR.
(APPROVED) CHIEF ENGINEER

NUMBER 1401

3/1/2007 GPLN

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
GEORGIA STANDARDS

DRAWING No. 41-008

23-JUL-2013 15:33	3:33:12 PM	2327-1	Y:\Roadways\126379\0008690\Dgn\Const Standards\2327-1.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-001(690)	605	730

RELEASED FOR CONSTRUCTION - 07-23-13

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

STEEL REINFORCEMENT BARRELS

BARREL DESIGN NO. 1 — FOR 1.5' TO 12.0' DEPTH OF FILL OVER BBL. INCL. PAVING

TYPE	CLEAR SPAN	CLEAR HEIGHT	A ⅝"DIA. SPACE	A ⅝"DIA. NUMBER	A ⅝"DIA. LENGTH	G ⅞"DIA. SPACE	G ⅞"DIA. NUMBER	G ⅞"DIA. LENGTH	H 1"DIA. SPACE	H 1"DIA. NUMBER	H 1"DIA. LENGTH	B BARS SIZE	B BARS NUMBER	B BARS LENGTH	C ½"DIA. SPACE	C ½"DIA. NUMBER	C ½"DIA. LENGTH	D ½"DIA. SPACE	D ½"DIA. NUMBER	D ½"DIA. LENGTH	P ⅞"DIA. SPACE	P ⅞"DIA. NUMBER	P ⅞"DIA. LENGTH
DOUBLES	10'	4'	12"	23 (L IN INCHES, SPACING) + 2 BARS	23'-10"	12"	23 IL IN INCHES SPACING	24'-3"	12"	SAME AS A BARS	6'-0"	½"DIA.	43 IL IN INCHES SPACING + 3 BARS	5'-8"	12"	44	½ AT L IN FT.+ 6'-6"+ 2'-0"FOR EA.LAP ½ AT L IN FT.+ 8'-0"+ 2'-0"FOR EA.LAP	12"	16	2/3 AT L IN FT.+ 4'-6"+ 2'-0"FOR EA.LAP 1/3 AT L IN FT.+ 1'-8"+ 2'-0"FOR EA.LAP	12"	0	0	0
		5'	12"		23'-10"	12"		24'-3"	12"		6'-0"	⅝"DIA.		6'-8"	12"	44		12"	15		12"	0	0
		6'	12"		23'-10"	12"		24'-3"	12"		6'-0"	⅝"DIA.		7'-8"	12"	44		12"	18		12"	0	0
		7'	12"		23'-10"	12"		24'-3"	12"		6'-0"	⅝"DIA.		8'-9"	10"	44		12"	21		12"	0	0
		8'	12"		24'-4"	12"		24'-9"	12"		6'-0"	¾"DIA.		9'-9"	12"	44		12"	24		12"	0	0
		9'	12"		24'-4"	12"		24'-9"	12"		6'-0"	¾"DIA.		10'-9"	10"	44		12"	27		12"	0	0
		10'	12"		24'-4"	12"		24'-9"	12"		6'-0"	¾"DIA.	SPACING + 3 BARS	11'-10"	10"	44		12"	30	2/3 AT L IN FT.+ 4'-6"+ 2'-0"FOR EA.LAP 1/3 AT L IN FT.+ 1'-8"+ 2'-0"FOR EA.LAP	12"	0	0
		11'	12"		24'-4"	12"		24'-9"	12"		6'-0"	⅞"DIA.		12'-10"	10"	44		12"	33		12"	0	0
		12'	12"		24'-4"	12"		24'-9"	12"		6'-0"	1"DIA.		13'-10"	12"	44		12"	36		12"	0	0
TRIPLES	10'	4'	12"	23 (L IN INCHES, SPACING) + 2 BARS	34'-8"	12"	23 IL IN INCHES SPACING	35'-6"	12"	TWICE NUMBER OF A BARS	6'-0"	½"DIA.	43 IL IN INCHES SPACING + 4 BARS	5'-8"	12"	66	½ AT L IN FT.+ 6'-6"+ 2'-0"FOR EA.LAP ½ AT L IN FT.+ 6'-0"+ 2'-0"FOR EA.LAP	12"	16	½ AT L IN FT.+ 4'-6"+ 2'-0"FOR EA.LAP ½ AT L IN FT.+ 1'-8"+ 2'-0"FOR EA.LAP	12"	0	0	0
		5'	12"		34'-8"	12"		35'-6"	12"		6'-0"	⅝"DIA.		6'-8"	12"	66		12"	20		12"	0	0
		6'	12"		34'-8"	12"		35'-6"	12"		6'-0"	⅝"DIA.		7'-8"	12"	66		12"	24		12"	0	0
		7'	12"		34'-8"	12"		35'-6"	12"		6'-0"	⅝"DIA.		8'-9"	10"	66		12"	28		12"	0	0
		8'	12"		35'-4"	12"		36'-2"	12"		6'-0"	¾"DIA.		9'-9"	12"	66		12"	32		12"	0	0
		9'	12"		35'-4"	12"		36'-2"	12"		6'-0"	¾"DIA.		10'-9"	10"	66		12"	36		12"	0	0
		10'	12"		35'-4"	12"		36'-2"	12"		6'-0"	¾"DIA.		11'-10"	10"	66		12"	40		12"	0	0
		11'	12"		35'-4"	12"		36'-2"	12"		6'-0"	⅞"DIA.		12'-10"	10"	66		12"	44		12"	0	0
		12'	12"		35'-4"	12"		36'-2"	12"		6'-0"	1"DIA.		13'-10"	12"	66		12"	48		12"	0	0

BARREL DESIGN NO. 2 — FOR 12.1' TO 20.0' DEPTH OF FILL

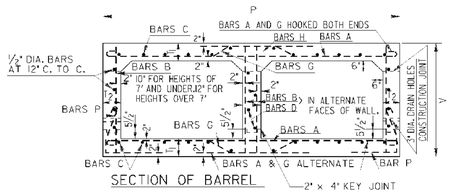
TYPE	CLEAR SPAN	CLEAR HEIGHT	A ¾"DIA. SPACE	A ¾"DIA. NUMBER	A ¾"DIA. LENGTH	G 1"DIA. SPACE	G 1"DIA. NUMBER	G 1"DIA. LENGTH	H 1"DIA. SPACE	H 1"DIA. NUMBER	H 1"DIA. LENGTH	B SIZE, NO. & SPACE	B LENGTH	C ½"DIA SPACE& NO.	C ½"DIA LENGTH	D ½"DIA SPACE& NO.	D ½"DIA LENGTH	P ⅞"DIA. NUMBER	P ⅞"DIA. LENGTH	P ⅞"DIA. SPACE
DOUBLES	10'	4'	11"	23 IL IN INCHES SPACING + 2 BARS	24'-6"	11"	SPACING	25'-0"	11"	SAME AS A BARS	6'-0"	#11 SPACING	6'-1"	SAME AS FOR DESIGN I		SAME AS FOR DESIGN I		0	0	0
		5'	11"		24'-6"	11"		25'-0"	11"		6'-0"		7'-1"					0	0	0
		6'	11"		24'-10"	11"		25'-4"	11"		6'-0"		8'-1"					0	0	0
		7'	11"		24'-10"	11"		25'-4"	11"		6'-0"		9'-2"					0	0	0
		8'	11"		25'-4"	11"		25'-8"	11"		6'-0"		10'-2"					0	0	0
		9'	11"		25'-4"	11"		25'-8"	11"		6'-0"		11'-3"					7'-0"	5½"	6"
		10'	11"		25'-8"	10"		26'-3"	10"		6'-0"		12'-3"					7'-0"	5"	6"
		11'	11"		25'-8"	10"		26'-3"	10"		6'-0"		13'-4"					7'-0"	5"	6"
		12'	11"		25'-10"	10"		26'-3"	10"		6'-0"		14'-4"					7'-0"	5"	6"
TRIPLES	10'	4'	11"	23 IL IN INCHES SPACING + 2 BARS	35'-4"	11"	SPACING	36'-5"	11"	SAME AS A BARS	6'-0"	#11 SPACING	6'-1"	SAME AS FOR DESIGN I		SAME AS FOR DESIGN I		0	0	0
		5'	11"		35'-4"	11"		36'-5"	11"		6'-0"		7'-1"					0	0	0
		6'	11"		35'-8"	11"		36'-9"	11"		6'-0"		8'-1"					0	0	0
		7'	11"		35'-8"	11"		36'-10"	11"		6'-0"		9'-2"					0	0	0
		8'	11"		36'-0"	11"		37'-2"	11"		6'-0"		10'-2"					0	0	0
		9'	11"		36'-4"	11"		37'-7"	11"		6'-0"		11'-3"					7'-0"	5½"	6"
		10'	11"		36'-8"	10"		37'-11"	10"		6'-0"		12'-3"					7'-0"	5"	6"
		11'	11"		36'-8"	10"		38'-0"	10"		6'-0"		13'-4"					7'-0"	5"	6"
		12'	11"		36'-10"	10"		38'-2"	10"		6'-0"		14'-4"					7'-0"	5"	6"

DIMENSIONS

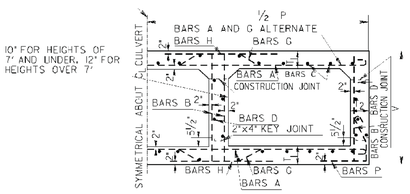
BARREL DESIGN NO. 1 T1	T2	V	P	BARREL DESIGN NO. 2 T1	T2	V	P
12"	10"	6'-0"	22'-6"	14½"	10"	6'-5"	22'-6"
12"	10"	7'-0"	22'-6"	14½"	10"	7'-5"	22'-6"
12"	10"	8'-0"	22'-6"	14½"	12"	8'-5"	22'-10"
12"	10"	8'-0"	22'-6"	14½"	12"	8'-5"	22'-10"
12½"	10"	9'-1"	22'-6"	15"	12"	9'-6"	22'-10"
12½"	12"	10'-1"	23'-0"	15"	12"	10'-6"	23'-0"
12½"	12"	11'-1"	23'-0"	15½"	14"	11'-7"	23'-4"
13"	12"	12'-2"	23'-0"	15½"	16"	12'-7"	23'-8"
13"	12"	13'-2"	23'-0"	16"	16"	13'-8"	23'-8"
13"	12"	14'-2"	23'-0"	16"	17"	14'-8"	23'-10"
12"	10"	6'-0"	33'-4"	14½"	10"	6'-5"	33'-4"
12"	10"	7'-0"	33'-4"	14½"	10"	7'-5"	33'-4"
12"	10"	8'-0"	33'-4"	14½"	12"	8'-5"	33'-8"
12½"	10"	9'-1"	33'-4"	15"	12"	9'-6"	33'-8"
12½"	12"	10'-1"	34'-0"	15"	12"	10'-6"	34'-0"
12½"	12"	11'-1"	34'-0"	15½"	14"	11'-7"	34'-4"
13"	12"	12'-2"	34'-0"	15½"	16"	12'-7"	34'-8"
13"	12"	13'-2"	34'-0"	16"	16"	13'-8"	34'-8"
13"	12"	14'-2"	34'-0"	16"	17"	14'-8"	34'-10"

QUANTITIES

REINF. STEEL LBS. PER LIN. FT. OF BBL. DESIGN NO.1	DESIGN NO.2	WINGWALLS & PARAPETS TOTAL LB.	CONCRETE CU.YDS.PET LIN. FT. OF BBL. DESIGN NO.1	DESIGN NO.2	WINGWALLS & PARAPETS CU.YDS. CONC.	Z	CLEAR HEIGHT	CLEAR SPAN	TYPE
239.2	322.7	809	2.056	2.403	19.11	2'-4"	4'	10'	DOUBLES
243.5	327.1	950	2.148	2.495	21.90	2'-4"	5'		
256.7	343.8	1078	2.241	2.692	24.91	2'-4"	6'		
267.9	355.3	1218	2.403	2.867	27.72	2'-4½"	7'		
284.8	370.9	2394	2.682	3.037	35.85	2'-4½"	8'		
357.9	456.3	2704	2.793	3.362	40.91	2'-4½"	9'		
366.2	497.9	3681	2.975	3.641	47.05	2'-5"	10'		
399.6	532.7	4139	3.086	3.850	52.94	2'-5"	11'		
419.0	554.2	5518	3.198	4.076	59.31	2'-5"	12'		
365.7	487.2	968	2.991	3.505	23.16	2'-4"	4'	10'	TRIPLES
371.4	493.0	1108	3.114	3.629	26.01	2'-4"	5'		
389.0	514.2	1236	3.238	3.856	29.08	2'-4"	6'		
403.9	529.5	1377	3.464	4.096	31.96	2'-4½"	7'		
426.4	551.4	2555	3.836	4.361	40.31	2'-4½"	8'		
505.1	643.0	2865	3.985	4.757	45.44	2'-4½"	9'		
516.0	699.9	3841	4.238	5.073	51.66	2'-5"	10'		
560.5	746.8	4300	4.386	5.353	57.62	2'-5"	11'		
586.4	774.9	5679	4.534	5.616	64.06	2'-5"	12'		

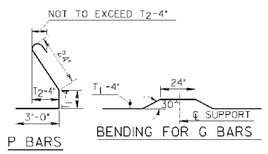


SECTION OF BARREL



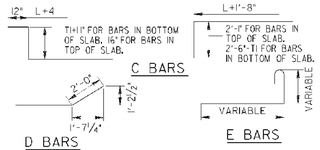
HALF SECTION OF BARREL

10" FOR HEIGHTS OF 7' AND UNDER, 12" FOR HEIGHTS OVER 7'



P BARS

BENDING FOR G BARS

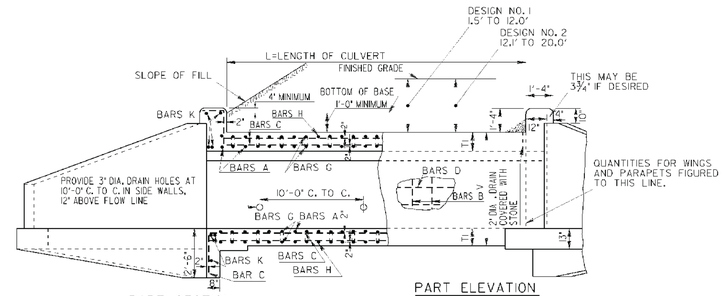


DESIGN DATA

SPECIFICATIONS-A.A.S.H.O 1957;T58
LOADING-H20 SIG-44 AND/OR MILITARY

GENERAL NOTES

1. CHAMFER-CHAMFER ALL EXPOSED EDGES ¾".
2. APRONS WALLS MAY BE OMITTED IF ENGINEER APPROVES. ENGINEER MAY ALSO REQUIRE BOTTOM SLAB TO EXTEND TO ENDS OF WINGS AND APRON PLACED AT THIS POINT.
3. QUANTITIES FOR STEEL SHOWN ARE COMPUTED CONSIDERING ALL A,B,C,D,G AND H BARS AS PART OF BARREL QUANTITIES. STEEL PER LIN. FT. IS AN AVERAGE VALUE FOR A CULVERT OF 40' LENGTH ALLOWING ONE LAP IN LONGITUDINAL BARS.
4. SIZE OF CULVERT - IN DESIGNATING SIZE OF CULVERTS STATE CLEAR SPAN FIRST, FOR CONCRETE APRONS,I.E., A 10'X6' CULVERT HAS A 10' CLEAR SPAN AND A 6' CLEAR HEIGHT L = LENGTH OF CULVERT = DISTANCE BETWEEN BACKS OF PARAPETS.
5. COVER-CULVERT TO HAVE MINIMUM OF 1.0' BELOW BOTTOM OF BASE OR CONCRETE PAVEMENT.



PART SECTION

SIDE VIEW

PART ELEVATION

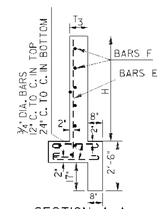
BOX CULVERT REQUIREMENTS:

MINIMUM FILL HEIGHT FROM TOP OF CULVERT TO BOTTOM OF BASE WITHIN TRAVELWAY SHALL BE 12 INCHES.

MAXIMUM POUR LENGTH SHALL NOT EXCEED 30 FEET ALONG THE LENGTH OF THE CULVERT.

TRANSVERSE CONSTRUCTION JOINTS SHALL BE PLACED IN THE BARREL, NORMAL TO THE CENTERLINE OF CULVERT, AT THE OUTSIDE SHOULDER BREAK POINTS. LONGITUDINAL BARREL REINFORCING STEEL SHALL NOT BE CONTINUOUS THROUGH THESE JOINTS, PROVIDED THAT THE JOINTS ARE MORE THAN 15 FEET FROM THE BARREL ENDS.
WHEN TRANSVERSE CONSTRUCTION JOINTS OCCUR WITHIN 15 FEET OF THE BARREL ENDS OR WITHIN THE LIMITS OF THE PAVEMENT, THE LONGITUDINAL BARREL REINFORCING SHALL THEN BE CONTINOUS THROUGH SUCH JOINTS, THE MINIMUM LENGTH OF LAP SPLICE FOR LONGITUDINAL REINFORCING SHALL BE 24 INCHES.

TRANSVERSE CONSTRUCTION JOINTS PLACED AT ANY OTHER LOCATION NOT SPECIFIED ABOVE SHALL BE FORMED WITH NO LONGITUDINAL REINFORCING STEEL PASSING THROUGH THE JOINTS.



SECTION A-A

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

STANDARD
REINFORCED CONCRETE BOX CULVERTS
DOUBLE 10' X 4' TO TRIPLE 10' X 12'
FOR DEPTHS OF FILL UP TO 20 FT.

NO SCALE — REV. & REDR. NOV., 2001

BY	DATE	REVISION
DES.		
DRW.		
TRA.		
CHK.		

(SUBMITTED) STATE ROAD & AIRPORT DESIGN ENGINEER
(APPROVED) CHIEF ENGINEER

NUMBER 2327
SHEET 1 OF 2

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
GEORGIA STANDARDS

DRAWING No. 41-009

3/1/2007 GPLN

RELEASED FOR CONSTRUCTION - 07-23-13

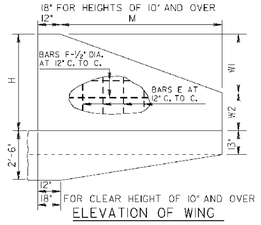
3/1/2007 GPLN

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

WINGWALLS AND PARAPETS

STEEL REINFORCEMENT

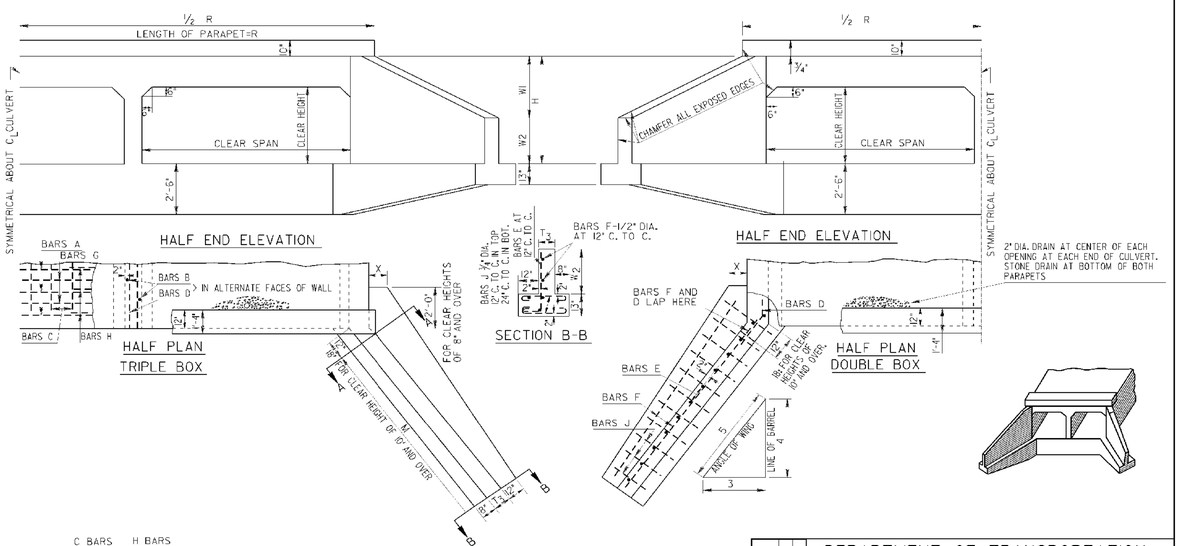
CLEAR SPAN	CLEAR HEIGHT	SIZE	E BARS AT 12"C.C.												½"DIA. F BARS AT 12"C. TO C.										J BARS ¾"DIA. 12"C. TO C. IN TOP OF FOOTING 24"C. TO C. IN BOTTOM OF FOOTING										K ⅝"DIA. DOUBLE	K ⅝"DIA. TRIPLE	CLEAR HEIGHT	CLEAR SPAN
DOUBLES & TRIPLES																																						DOUBLES & TRIPLES
	4'	⅝"DIA.	NUMBER	8	8	8	8	8	4							20	4	4	4																	14	14	4'	
			LENGTH	7'-8"	7'-1"	6'-6"	5'-10"	5'-3"	5'-0"							10'-8"	8'-11"	5'-8"	2'-4"																	22'-8"	33'-6"		
	5'	⅝"DIA.	NUMBER	8	8	8	8	8	8	4						20	4	4	4	4																14	14	5'	
			LENGTH	8'-8"	8'-1"	7'-5"	6'-10"	6'-2"	5'-6"	5'-2"						12'-2"	11'-8"	8'-6"	5'-4"	2'-3"																23'-0"	33'-10"		
	6'	⅝"DIA.	NUMBER	8	8	8	8	8	8	8						24	4	4	4	4																14	14	6'	
			LENGTH	9'-8"	9'-0"	8'-4"	7'-9"	7'-1"	6'-5"	5'-9"						13'-8"	11'-4"	8'-4"	5'-3"	2'-2"																23'-0"	33'-10"		
	7'	⅝"DIA.	NUMBER	8	8	8	8	8	8	8	4					24	4	4	4	4	4															14	14	7'	
			LENGTH	10'-8"	10'-0"	9'-4"	8'-8"	8'-0"	7'-4"	6'-8"	6'-4"					14'-8"	14'-2"	11'-3"	8'-2"	5'-3"	2'-3"															23'-4"	34'-2"		
	8'	¾"DIA.	NUMBER				8	8	8	8	8	4				28	4	4	4	4	4				36	36	36								14	14	8'	
			LENGTH				10'-0"	9'-3"	8'-6"	7'-8"	6'-10"	6'-8"				16'-2"	14'-0"	11'-1"	8'-1"	5'-2"	2'-2"				4'-7"	4'-4"	4'-1"								23'-5"	34'-6"		
	9'	¾"DIA.	NUMBER	8	8	8	8	8	8	8	8	8				28	4	4	4	4	4	4			20	16	24	24	24						14	14	9'	
			LENGTH	3'-11"	13'-1"	12'-3"	11'-4"	10'-7"	9'-9"	8'-11"	8'-1"	7'-3"				17'-8"	16'-7"	13'-9"	10'-10"	7'-11"	5'-1"	2'-2"			5'-1"	4'-10"	4'-7"	4'-4"	4'-0"						23'-8"	34'-8"		
	10'	⅞"DIA.	NUMBER	8	8	8	8	8	8	8	8	8	8			32	4	4	4	4	4	4			24	20	16	20	16	24					14	14	10'	
			LENGTH	15'-6"	14'-9"	13'-11"	13'-0"	12'-2"	11'-4"	10'-5"	9'-7"	8'-8"	7'-10"			19'-2"	17'-0"	14'-1"	11'-3"	8'-5"	5'-7"	2'-8"			5'-4"	5'-1"	4'-10"	4'-7"	4'-4"	4'-0"					24'-0"	35'-0"		
	11'	⅞"DIA.	NUMBER	8	8	8	8	8	8	8	8	8	8	4		32	4	4	4	4	4	4	4		12	24	12	20	12	16	12	20			14	14	11'	
			LENGTH	16'-7"	16'-2"	15'-3"	14'-4"	13'-5"	12'-7"	11'-8"	10'-8"	9'-10"	8'-11"	8'-6"		20'-8"	19'-7"	16'-10"	14'-0"	11'-2"	8'-4"	5'-6"	2'-8"		5'-10"	5'-7"	5'-4"	5'-1"	4'-10"	4'-7"	4'-4"	4'-1"			24'-0"	35'-0"		
	12'	1" DIA.	NUMBER	16	8	8	8	8	8	8	8	8	8	4		36	4	4	4	4	4	4	4		24	32	28	12	12	12	12	8			14	14	12'	
			LENGTH	17'-9"	16'-9"	15'-10"	14'-11"	14'-0"	13'-0"	12'-1"	11'-2"	10'-3"	9'-3"	8'-9"		22'-2"	19'-6"	16'-8"	13'-10"	11'-1"	8'-3"	5'-5"	2'-7"		6'-1"	5'-7"	5'-1"	4'-10"	4'-7"	4'-4"	4'-1"	3'-10"			24'-3"	35'-3"		

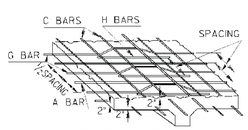


ELEVATION OF WING

DIMENSIONS

CLEAR SPAN	CLEAR HEIGHT	DESIGN 1 H	DESIGN 1 W_1	DESIGN 2 H	DESIGN 2 W_1	FOR ALL DESIGNS M	FOR ALL DESIGNS W_2	FOR ALL DESIGNS R DOUBLE	FOR ALL DESIGNS R TRIPLE	FOR ALL DESIGNS T_3	FOR ALL DESIGNS X	CLEAR HEIGHT	CLEAR SPAN
DOUBLES & TRIPLES													DOUBLES & TRIPLES
10'	4'	5'-6"	3'-4"	5'-8½"	3'-6½"	10'-0"	2'-2"	23'-0"	33'-10"	10"	0	4'	10'
	5'	6'-6"	3'-9½"	6'-8½"	4'-0"	11'-6"	2'-8½"	23'-0"	33'-10"	10"	0	5'	
	6'	7'-6"	4'-4½"	7'-8½"	4'-7"	13'-0"	3'-1½"	23'-4"	34'-2"	10"	0	6'	
	7'	8'-6½"	4'-10"	8'-9"	5'-0½"	14'-0"	3'-8½"	23'-4"	34'-2"	10"	0	7'	
	8'	9'-6½"	5'-5"	9'-9"	5'-7½"	15'-6"	4'-1½"	23'-6"	34'-6"	12"	1'-0"	8'	
	9'	10'-6½"	6'-0½"	10'-9½"	6'-3½"	17'-0"	4'-6"	23'-10"	34'-10"	12"	1'-6"	9'	
	10'	11'-7"	6'-5½"	11'-9½"	6'-8"	18'-0"	5'-1½"	24'-2"	35'-2"	12"	2'-0"	10'	
	11'	12'-7"	7'-1"	12'-10"	7'-4"	19'-6"	5'-6"	24'-2"	35'-2"	12"	2'-6"	11'	
	12'	13'-7"	7'-8"	13'10"	7'-11"	21'-0"	5'-11"	24'-4"	35'-4"	12"	3'-0"	12'	





SECTION OF SLAB
SHOWING REINFORCING

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

STANDARD
REINFORCED CONCRETE BOX CULVERTS
DOUBLE 10' X 4' TO TRIPLE 10' X 12'
FOR DEPTHS OF FILL UP TO 20 FT.

NO SCALE — REV. & REDR. NOV., 2001

DES. DRW. TRA. CHK. ____

(SUBMITTED) STATE ROAD & AIRPORT DESIGN ENGINEER
(APPROVED) CHIEF ENGINEER

NUMBER 2327
SHEET 2 OF 2

REVISION DATE BY

REVISION DATES		

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

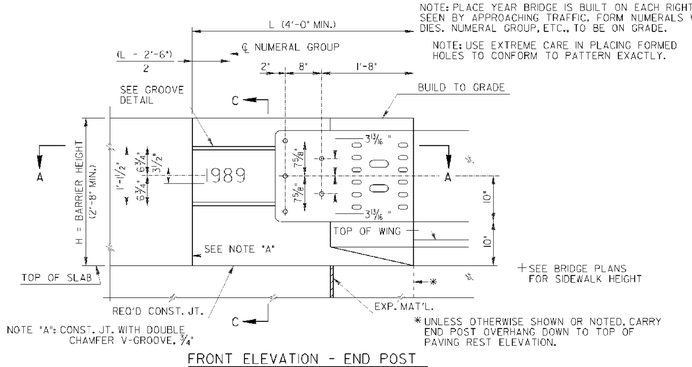
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
GEORGIA STANDARDS

DRAWING No. 41-010

RELEASED FOR CONSTRUCTION - 07-23-13

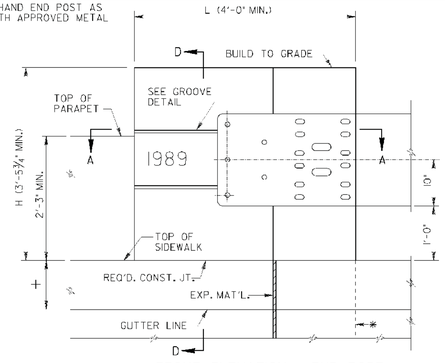
NOTE: PLACE YEAR BRIDGE IS BUILT ON EACH RIGHT-HAND END POST AS SEEN BY APPROACHING TRAFFIC. FORM NUMERALS WITH APPROVED METAL DIES. NUMERAL GROUP, ETC., TO BE ON GRADE.

NOTE: USE EXTREME CARE IN PLACING FORMED HOLES TO CONFORM TO PATTERN EXACTLY.

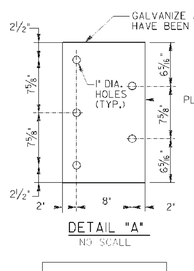


NOTE 'A': CONST. JT. WITH DOUBLE CHAMFER V-GROOVE, ¾'

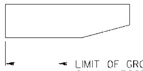
FRONT ELEVATION - END POST
BARRIER
SCALE: 1"=1'-0"



FRONT ELEVATION - END POST
SIDEWALK AND PARAPET
SCALE: 1" = 1'-0"



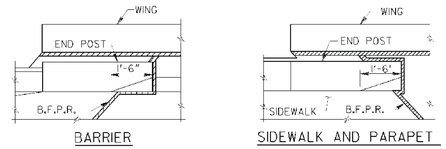
DETAIL "A"
NO SCALE



LIMIT OF GROOVES ON ALL POSTS (L - 2'-6")

DETAIL "B"
NO SCALE

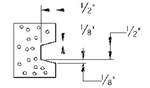
MATERIALS	
ITEM	SPECIFICATIONS
GUARDRAIL	A.A.S.T.H.O. SPECIFICATION M 180
½" PLATE	A.S.T.M. DESIGNATIONS A-36
NUTS & BOLTS	A.S.T.M. DESIGNATION A-307
WASHERS	MEDIUM STEEL
GALVANIZING	A.S.T.M. A-153



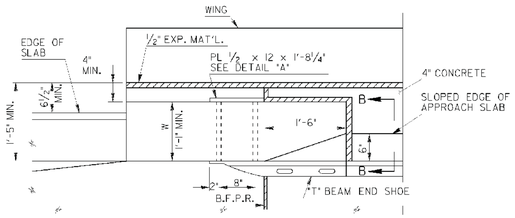
BARRIER

SIDEWALK AND PARAPET

TYPICAL SKEWED END DETAIL
SCALE: ½" = 1'-0"

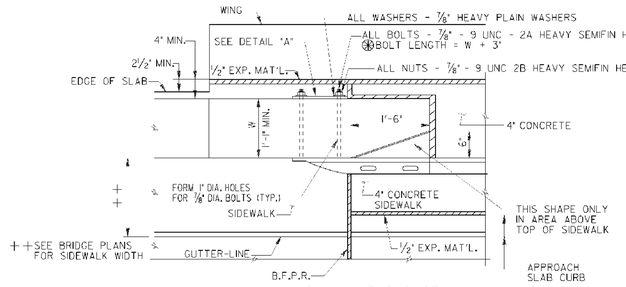


GROOVE DETAIL
HALF SCALE

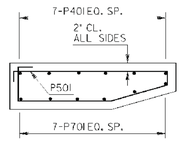


PLAN - END POST
BARRIER
SCALE: 1"=1'-0"

⊛ BOLT LENGTH SHALL BE OF SUFFICIENT LENGTH TO PROVIDE FOR FULL NUT ATTACHMENT. W + 3' DIMENSION SHALL BE FIELD VERIFIED PRIOR TO ORDERING BOLTS TO INSURE PROPER LENGTH.

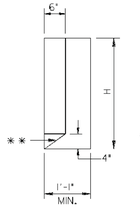


PLAN - END POST
SIDEWALK AND PARAPET
SCALE: 1" = 1'-0"



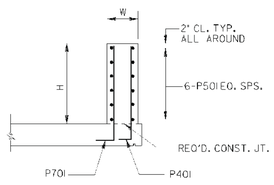
SECTION A-A
SCALE: ¾" = 1'-0"

NOTE: IF END POST IS ON SUBSTRUCTURE, SEE BRIDGE PLANS FOR BARS THAT DOWEL FROM BELOW.

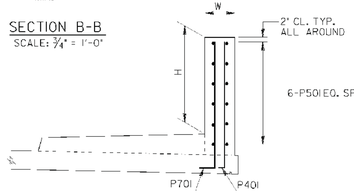


SECTION B-B
SCALE: ¾" = 1'-0"

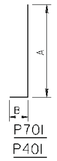
** SLOPED PORTION OF END POST TO BE POURED MONOLITHIC WITH END POST

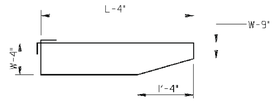


SECTION C-C
SCALE: ½" = 1'-0"



SECTION D-D
SCALE: ½" = 1'-0"





P501

NO. BARS REQ'D		
MARK	BARRIER	SIDEWALK
P401	7	7
P501	6	6
P701	7	7

FOR END POST ON SUPERSTRUCTURE:
A = H - 4" + SLAB DEPTH (FOR BARRIER)
A = H - 4" + SIDEWALK DEPTH + SLAB DEPTH (FOR SIDEWALK AND PARAPET)
B = 1'-0"

FOR END POST ON SUBSTRUCTURE:
A = H - 2"
B = 0"

NOTE: ROTATE P701 AND P401 AS NECESSARY TO MAINTAIN 2" MIN. CL. IN CONCRETE.

GENERAL NOTES

SPECIFICATIONS - GEORGIA STANDARD.

LOCATION - ALL END POSTS UNLESS NOTED ON BRIDGE PLANS.

CHAMFER - CHAMFER ALL EXPOSED EDGES ¾".

GALVANIZING - ALL METAL PARTS SHALL BE GALVANIZED AFTER FABRICATION.

PAYMENT FOR MISCELLANEOUS HARDWARE - COST OF ½" PLATE AND MISCELLANEOUS HARDWARE SHALL BE INCLUDED IN THE PRICES BID FOR CONTRACT ITEMS.

PAYMENT FOR THE END POST - IF END POST IS A PORTION OF THE SUBSTRUCTURE, CONCRETE AND REINFORCEMENT ARE COMPUTED AND INCLUDED IN THE END BENT QUANTITIES.
IF END POST IS A PORTION OF THE SUPERSTRUCTURE, CONCRETE AND REINFORCEMENT ARE COMPUTED AND INCLUDED IN THE END SPAN QUANTITIES.

RESPONSIBILITY - WHEN THE BRIDGE CONTRACT IS SEPARATE FROM THE CONTRACT CONTAINING THE APPROACHING GUARDRAIL, THE BRIDGE CONTRACTOR SHALL ONLY BE RESPONSIBLE FOR THE CONSTRUCTION OF THE END POSTS AND FORMING OF THE 1" DIAMETER BOLT HOLES. THE CONTRACT CONTAINING THE APPROACHING GUARDRAIL SHALL BE RESPONSIBLE FOR FURNISHING AND INSTALLING THE SPECIAL END SHOE, PLATE, NUTS, WASHERS, AND BOLTS.

DIMENSIONS - FOR DIMENSIONS 'L', 'H', AND 'W' AND OTHER DIMENSIONS, SEE BRIDGE PLANS.

END POST - END POST TO BE CONSTRUCTED AFTER HANDRAIL IS IN PLACE. END POST TO BE CONSTRUCTED AFTER BARRIER IS CONSTRUCTED WHEN NO HANDRAIL IS USED.

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

STANDARD

END POST AND
END POST GUARDRAIL ATTACHMENT DETAILS

SCALE: AS SHOWN — MAY 1989

REV.	TRANSITION	9-30-02
BY	REVISION	DATE

DESIGNED H.W.C. (SUBMITTED)
DRAWN E.R.M. STATE ROAD & AIRPORT DESIGN ENGINEER
CHECKED H.W.C. (APPROVED)
CHIEF ENGINEER

NUMBER 3054

3/1/2007 GPLN

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
GEORGIA STANDARDS

DRAWING No. 41-011

23-JUL-2013 15:33 3:33:25 PM | 3215 | Y:\Roadways\126379\0008690\Dgn\Const Standards\3215.dgn
JParks | GDOT_11x17.pen

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	608	730

RELEASED FOR CONSTRUCTION - 07-23-13

FED. ROAD DIV. NO.	STATE	FED. AID PROJ. NO.	STATE AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
3	GA.					

E.S. = EQUAL SPACES
NOTE "A": NO. 5 BIRMINGHAM GAGE WIRE SPIRAL.
NOTE "B": NO. 3 BIRMINGHAM GAGE WIRE SPIRAL.

270 K STRAND PILE CROSS SECTIONS

SCALE: 1"=1'-0"

PILE SIZE	AREA IN²	WEIGHT LBS/FT.	S IN³	N P.S.I.	PICK-UP POINTS MAX. L END	0.293L	0.207L	0.153L	PILE LENGTH (L)/BOLSTER SPACING (B.S.) IN FEET 25	30	35	40	45	50	55	60	65	70	75	80	85	90 *	95	L
12 X 12	144.00	150	288.00	940	28'	49'	70'	95'	13-25	16-28	21-29	26-30	30-33	35	---	---	---	---	---	---	---	---	---	B.S.
14 X 14	196.00	204	457.33	1036	30'	52'	73'	100'	16-25	19-30	22-31	25-32	30-34	35-36	---	---	---	---	---	---	---	---	---	
16 X 16	256.00	287	682.67	793	34'	58'	83'	112'	16-25	19-30	22-34	25-35	29-36	33-38	38-40	---	---	---	---	---	---	---	---	
18 X 18	324.00	338	972.00	627	33'	57'	80'	109'	16-25	19-30	22-33	25-34	29-35	34-37	39	---	---	---	---	---	---	---	---	
20X20	400.00	417	1333.33	677	38'	61'	87'	118'	16-25	19-30	22-35	25-36	29-37	32-39	37-41	42-43	---	---	---	---	---	---	---	
24X24	462.90	483	2219.17	731	44'	76'	107'	146'	16-25	19-30	22-35	25-40	29-44	32-45	35-46	38-47	43-49	48-51	53	---	---	---	---	
**	576.00	600	2304.00	588	37'	64'	91'	123'	16-25	19-30	22-35	25-37	29-38	32-40	37-42	42-44	---	---	---	---	---	---	---	
30X30	679.[illegible]	708	4242.40	697	50'	85'	121'	164'	16-25	19-30	22-35	25-40	29-45	32-50	35-50	38-51	41-53	45-54	50-56	55-58	60	---	---	
36X36	885.03	922	7029.31	689	56'	96'	136'	184'	16-25	19-30	22-35	25-40	29-45	32-50	35-55	38-56	41-57	44-58	47-60	52-61	57-63	62-65	67-68	

N = EFFECTIVE PRESTRESS. VALUES GIVEN IN THIS TABLE APPLY ONLY TO PILE SECTIONS USING 270K STRANDS.
** VALUES GIVEN ARE FOR 24" SQ. SOLID PILE WITH SAME NUMBER OF STRANDS, STRAND ARRANGEMENT AND INITIAL PRETENSION FORCE AS REQ'D. FOR 24" SQ. WITH 12" ϕ VOID PILE.

FOR A GIVEN PILE LENGTH "L", THE MINIMUM AND MAXIMUM BOLSTER SPACINGS ARE TABULATED ASSUMING ONLY ONE OVERHANG. WHEN LONGER PILES ARE INVOLVED, HAULING WILL BE LIMITED AS FOLLOWS:

1. UNEQUAL OVERHANGS
THE MAXIMUM PERMITTED PILE LENGTH SHALL BE EQUAL TO TWICE THE [TABULATED PILE LENGTH MINUS BOLSTER SPACING] PLUS THE BOLSTER SPACING USED IN THIS EQUATION. THE MAXIMUM OVERHANG SHALL BE 0.293 TIMES THE LENGTH TABULATED IN THE COLUMN HEADED "0.293 L".
*EXAMPLE: FOR 36" PILE [90-62] [2] + 62=118', BOLSTER SPACING = 62'
MAXIMUM OVERHANG = 0.293 X 96' = 28.1'

2. EQUAL OVERHANGS
THE MAXIMUM PERMITTED PILE LENGTH SHALL BE BASED UPON THE DOUBLE POINT PICK-UP SYSTEM AND THE BOLSTER SPACING SHALL BE EQUAL TO 0.586L. THE MAXIMUM PILE LENGTH HAULED SHALL BE THAT TABULATED IN THE COLUMN HEADED "0.207 L"
EXAMPLE: FOR 36" PILE 135' LONG
EACH OVERHANG 0.207 X 135' = 27.945'
B.S. 0.586 X 135' = 79.11'
MAXIMUM LENGTH = 136' > 135'

HAULING DIAGRAM

NO SCALE

PICK-UP SKETCHES

NO SCALE

24" SQ. THRU 36" SQ. PILE EXTENSION

NO SCALE

FOR 24" SQ. SOLID PILE, HOLES FOR NO.8 BARS SHALL BE DRILLED 24" INTO PRESTRESSED CONCRETE AND BARS DEVELOPED WITH AN APPROVED EPOXY BONDING COMPOUND.

SECTION A-A

NO SCALE

TO BE USED WHEN REQUIRED BY SPECIAL PLANS. TEST PILE LENGTHS GIVEN ON SPECIAL PLANS DO NOT INCLUDE STEEL H-PILE IN TIP OF COMPOSITE PILES.

COMPOSITE PILE DETAILS

NO SCALE

14" SQ. THRU 20" SQ. PILE EXTENSION

NO SCALE

VOIDS SHALL BE LOCATED WITHIN 1/2" OF POSITION SHOWN.

NOTE C: NO. 5 BARS FOR PILES 12" THRU 24". NO. 6 BARS FOR 30" & 36" PILES. PLACE ONE BAR AT EACH PRETENSIONED STRAND. SEE INDIVIDUAL PILE CROSS SECTION FOR NUMBER OF STRANDS.

NOTE: 1" ϕ HOLES SHALL BE FORMED IN ONE FACE (AT 5 FT. ON CENTER) IN VOID-TYPE PILE. IN PILING CAST FOR A SPECIFIC PROJECT, THESE HOLES WILL BE REQUIRED ONLY FOR THAT PORTION EXPECTED TO REMAIN ABOVE GROUND.

GENERAL DETAILS
250K OR 270K PILING

HOLLOW PILE SHOWN-SOLID PILE SAME EXCEPT FOR VOID

TYPICAL PILE DETAILS

NO SCALE

D=SIZE.
1" CHAMFERS NOT SHOWN.

ALTERNATE PILE CROSS SECTION

NO SCALE

DESIGN DATA

CONCRETE ... 5,000 P.S.I. CLASS AAA
PRETENSIONED STRANDS ... 250K OR 270K
TOTAL LOSSES ... 22 % OF INITIAL PRETENSION FORCE
WIRE SPIRALS ... A.S.T.M. A82 OR A.A.S.H.O. M32

WIRE SPIRALS SHALL BE NO. 5 BIRMINGHAM GAGE.

* 3/8" ϕ 250K STRANDS SHALL BE PRETENSIONED TO 14,000 LBS. EACH, AND 7/16" ϕ 250 K STRANDS TO 18,900 LBS. EACH.

250K STRAND PILE CROSS SECTIONS

SCALE: 1"=1'-0"

MAX. PILE LENGTH	PILE SIZE
30 FT.	14" X 14"
38 FT.	16" X 16"
34 FT.	18" X 18"
39 FT.	20" X 20"
46 FT.	24" X 24"
27 FT.	12 X 12

SINGLE POINT PICKUP

DOUBLE POINT PICKUP

NOTES

1. PILES SHALL BE PLAINLY MARKED TO INDICATE PROPER PICK-UP POINTS FOR ATTACHING HANDLING LINES.
2. THE TWO POINT PICK-UP SHALL BE USED FOR HANDLING AND TRANSPORTING PILES FROM CASTING YARD TO JOB SITE IN ALL CASES, AND FOR UNLOADING AND STORING AT JOB SITE.

REVISIONS	DATE	BY
1. CORRECTED 16" X 16" PILES	12-18-74	J.E.T.
2. 14" SQ. PILES	2-4-81	J.E.T.
3. ADDED 12" SQ. PILES	2-22-84	J.E.T.

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

STANDARD SQUARE PRESTRESSED CONCRETE PILES

SCALE: AS SHOWN
OCTOBER 1974

DESIGNED W.B.L.-J.E.T.
DRAWN J.E.T.
TRACED M.V.W.
CHECKED J.W.P.

SUBMITTED C. L. Chapman Jr. BRIDGE ENGINEER
APPROVED Thomas D. Moreland STATE HIGHWAY ENGINEER

NUMBER 3215

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

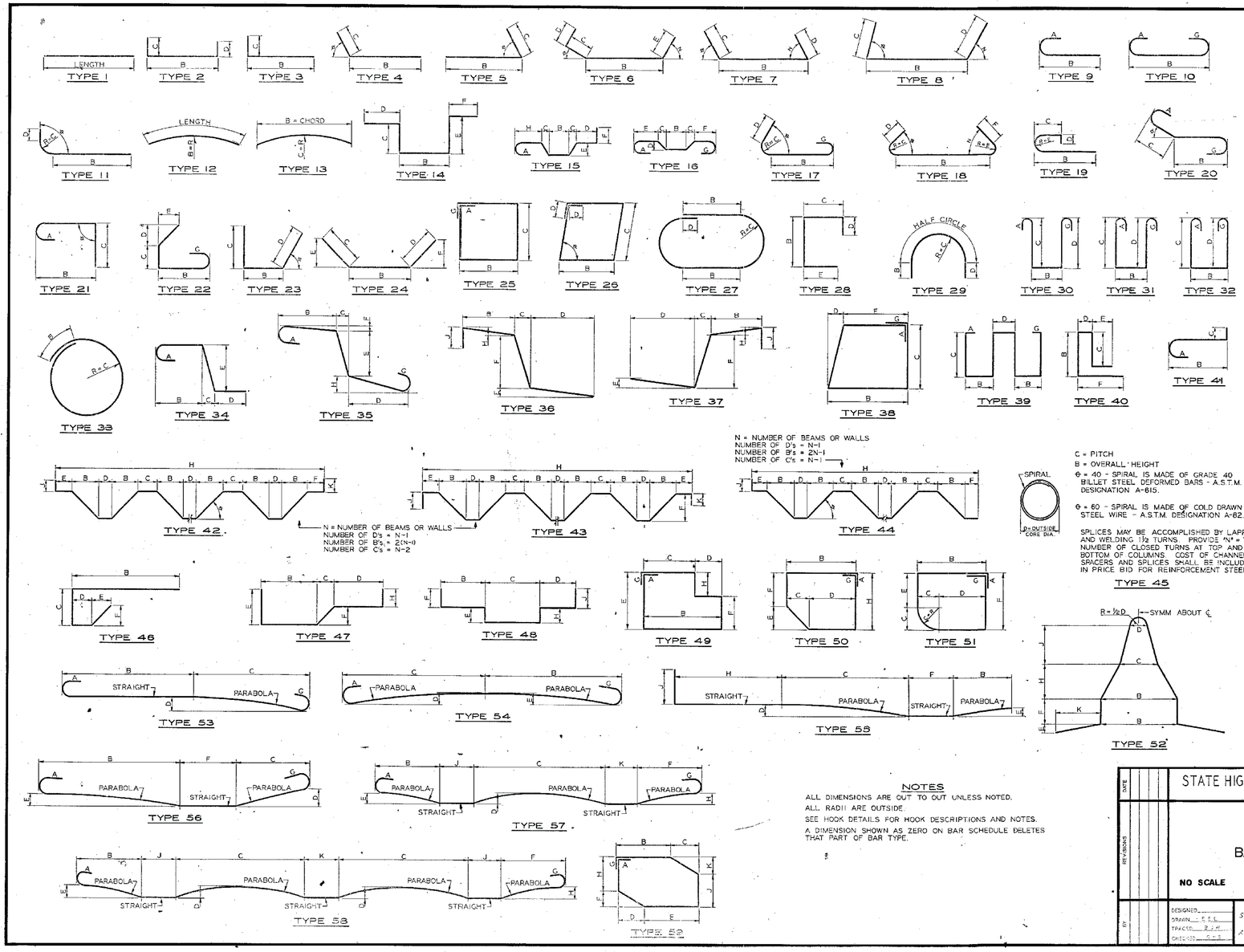
REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
GEORGIA STANDARDS

DRAWING No. 41-012

3/1/2007 GPLN

RELEASED FOR CONSTRUCTION - 07-23-13



N = NUMBER OF BEAMS OR WALLS
NUMBER OF D's = N-1
NUMBER OF B's = 2(N-1)
NUMBER OF C's = N-2

N = NUMBER OF BEAMS OR WALLS
NUMBER OF D's = N-1
NUMBER OF B's = 2N-1
NUMBER OF C's = N-1

C = PITCH
B = OVERALL HEIGHT

Φ = 40 - SPIRAL IS MADE OF GRADE 40 BILLET STEEL DEFORMED BARS - A.S.T.M. DESIGNATION A-615.

Φ = 60 - SPIRAL IS MADE OF COLD DRAWN STEEL WIRE - A.S.T.M. DESIGNATION A-82.

SPLICES MAY BE ACCOMPLISHED BY LAPPING AND WELDING 1½ TURNS. PROVIDE "N" = TOTAL NUMBER OF CLOSED TURNS AT TOP AND BOTTOM OF COLUMNS. COST OF CHANNEL SPACERS AND SPLICES SHALL BE INCLUDED IN PRICE BID FOR REINFORCEMENT STEEL.

D = OUTSIDE CORE DIA.

FED ROAD DIV. NO.	STATE	FED AID PROJ. NO.	STATE AID PROJ NO	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
3	GA.					

HOOK DETAILS

RECOMMENDED 180° HOOKS

GRADE 40 ksi
D = 5d for #3 through #11
D = 10d for #14 and #18

GRADES 50-60-75 ksi
D = 6d for #3 through #8
D = 8d for #9, #10, and #11
D = 10d for #14 and #18

RECOMMENDED 180° END HOOK DIMENSIONS

BAR SIZE	GRADES 50-60-75 ksi		GRADE 40 ksi	
	A or G	J	A or G	J
#3	5	3	5	2¾
#4	6	4	6	3½
#5	7	5	7	4½
#6	8	6	8	5½
#7	10	7	9	6¼
#8	11	8	10	7
#9	1-3	1-1¾	1-0	8
#10	1-5	1-03⁄8	1-1	9
#11	1-7	1-2¾	1-2	10
#14	2-0	1-8½	2-0	1-8½
#18	2-11	2-3	2-11	2-3
STYLE	1		2	

RECOMMENDED 90° END HOOK DIMENSIONS
ALL GRADES
D = 6d for #3 through #8
D = 8d for #9, #10, and #11
D = 10d for #14 and #18

BAR SIZE	HOOK A or G
#3	6
#4	8
#5	10
#6	1-0
#7	1-2
#8	1-4
#9	1-7
#10	1-10
#11	2-0
#14	2-7
#18	3-5
HOOK STYLE 3	

STIRRUP AND TIE HOOK

STIRRUPS (TIES SIMILAR)

STIRRUP AND TIE HOOK DIMENSIONS
GRADES 40-50-60 ksi

BAR SIZE	D (in.)	90° HOOK		135° HOOK	
		HOOK A or G		HOOK A or G	M Approx.
#3	1½	4		4	2¾
#4	2	4½		4½	3
#5	2½	6		5½	3¾
#6	3	6½		6½	4½
STYLE		4		5	

STYLE 6 = NO HOOK

HOOK STYLES DETAILED ON THIS SHEET ARE FOR ILLUSTRATION ONLY. ACTUAL HOOK STYLE FOR ANY PARTICULAR BAR WILL BE SHOWN UNDER A or G HEADING ON BAR SCHEDULE.

NOTES

ALL DIMENSIONS ARE OUT TO OUT UNLESS NOTED.
ALL RADII ARE OUTSIDE.
SEE HOOK DETAILS FOR HOOK DESCRIPTIONS AND NOTES.
A DIMENSION SHOWN AS ZERO ON BAR SCHEDULE DELETES THAT PART OF BAR TYPE.

STATE HIGHWAY DEPARTMENT OF GEORGIA
BRIDGE DIVISION

STANDARD
BAR BENDING DETAILS

NO SCALE — AUGUST 1969

DESIGNED
DRAWN
TRACED
CHECKED

SUBMITTED R. L. Chapman Jr. — BRIDGE ENGINEER
APPROVED — STATE HIGHWAY ENGINEER

NUMBER 3901

3/11/2007 GPLN

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
GEORGIA STANDARDS

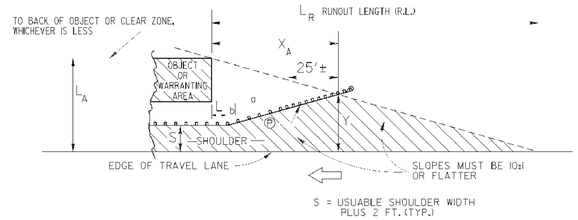
DRAWING No. 41-013

RELEASED FOR CONSTRUCTION - 07-23-13

GUARDRAIL LENGTHS OF ADVANCEMENT AT FIXED OBJECTS OR AT WARRANTING FILL SLOPES TYPICAL

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

(FLARED)

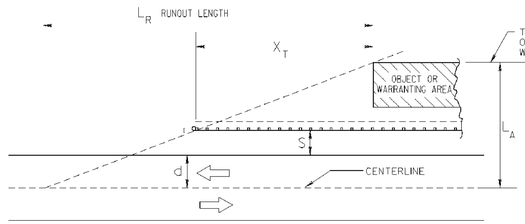


$$X_A = \frac{L_A + (b/a)L - S}{b/a + (L_A/L_R)}$$

$$Y = L_A - \frac{L_A}{L_R}(X_A)$$

DESIGN SPEED (MPH)	FLARE RATE a:b
70	15:1
60	14:1
55	12:1
50	11:1
45	10:1
40	8:1
30	7:1

(STANDARD)

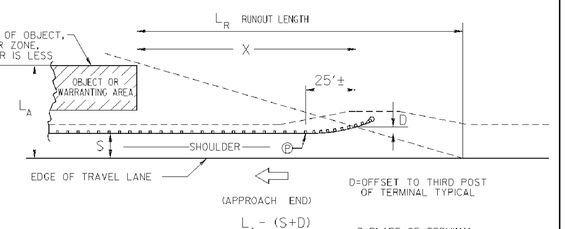


DESIGN SPEED (MPH)	L_R Runout Length in feet			
	OVER 6000 (A.D.T.)	2000-6000 (A.D.T.)	800-2000 (A.D.T.)	UNDER 800 (A.D.T.)
70	475	445	395	360
60	425	400	345	330
55	360	345	315	280
50	330	300	260	245
45	260	245	215	200
40	230	200	180	165
30	165	165	150	130

$$X_T = L_R \times \frac{L_A - (S+d)}{L_A}$$

(TRAILING END)

S = USUABLE SHOULDER WIDTH PLUS 2 FT. (TYP.)

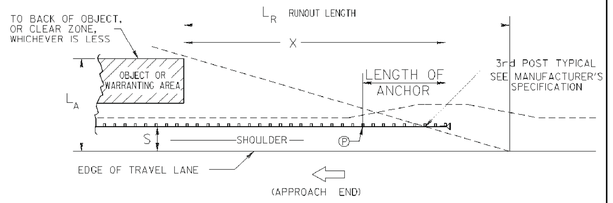


D=OFFSET TO THIRD POST OF TERMINAL TYPICAL

Ⓟ = POINT OF BEGINNING TERMINAL (TYP.)

$$X = L_R \times \frac{L_A - (S+D)}{L_A}$$

D=FLARE OF TERMINAL
D=0 FOR NON-FLARED TERMINALS



CLEAR ZONE DISTANCES

CLEAR ZONE DISTANCES (FT) CHART

DESIGN SPEED	DESIGN ADT	FORESLOPES			BACKSLOPES		
		1V:6H OR FLATTER	1V:5H TO 1V:4H	1V:3H	1V:3H	1V:5H TO 1V:4H	1V:6H OR FLATTER
40 M.P.H. OR LESS	UNDER 750	7-10	7-10	* *	7-10	7-10	7-10
	750-1500	10-12	12-14	* *	10-12	10-12	10-12
	1500-6000	12-14	14-16	* *	12-14	12-14	12-14
	OVER 6000	14-16	16-18	* *	14-16	14-16	14-16
45-50 M.P.H.	UNDER 750	10-12	12-14	* *	8-10	8-10	10-12
	750-1500	14-16	16-20	* *	10-12	12-14	14-16
	1500-6000	16-18	20-26	* *	12-14	14-16	16-18
	OVER 6000	20-22	24-28	* *	14-16	18-20	20-22
55 M.P.H.	UNDER 750	12-14	14-18	* *	8-10	10-12	10-12
	750-1500	16-18	20-24	* *	10-12	14-16	16-18
	1500-6000	20-22	24-30	* *	14-16	16-18	20-22
	OVER 6000	22-24	26-32*	* *	16-18	20-22	22-24
60 M.P.H.	UNDER 750	16-18	20-24	* *	10-12	12-14	14-16
	750-1500	20-24	26-32*	* *	12-14	16-18	20-22
	1500-6000	26-30	32-40*	* *	14-18	18-22	24-26
	OVER 6000	30-32*	36-44*	* *	20-22	24-26	26-28
65-70 M.P.H.	UNDER 750	18-20	20-26	* *	10-12	14-16	14-16
	750-1500	24-26	28-36*	* *	12-16	18-20	20-22
	1500-6000	28-32*	34-42*	* *	16-20	22-24	26-28
	OVER 6000	30-34*	38-46*	* *	22-24	26-30	28-30

* WHERE A SITE SPECIFIC INVESTIGATION INDICATES A HIGH PROBABILITY OF CONTINUING CRASHES, OR SUCH OCCURRENCES ARE INDICATED BY CRASH HISTORY, THE DESIGNER MAY PROVIDE CLEAR-ZONE DISTANCES GREATER THAN THE CLEAR-ZONE SHOWN ABOVE. CLEAR ZONES MAY BE LIMIT TO 30 FT. FOR PRACTICALITY AND TO PROVIDE A CONSISTENT ROADWAY TEMPLETE IF PREVIOUS EXPERIENCE WITH SIMILAR PROJECTS OR DESIGNS INDICATES SATISFACTORY PERFORMANCE.

* * SINCE RECOVERY IS LESS LIKELY ON THE UNSHIELDED, TRAVERSABLE 1V:3H SLOPES, FIXED OBJECTS SHOULD NOT BE PRESENT IN THE VICINITY OF THE TOE OF THESE SLOPES. RECOVERY OF HIGH-SPEED VEHICLES THAT ENCROACH BEYOND THE EDGE OF THE SHOULDER MAY BE EXPECTED TO OCCUR BEYOND THE TOE OF SLOPE. DETERMINATION OF THE WIDTH OF RECOVERY AREA AT THE TOE OF SLOPE SHOULD TAKE INTO CONSIDERATION RIGHT-OF-WAY AVAILABILITY, ENVIRONMENTAL CONCERNS, ECONOMIC FACTORS, SAFETY NEEDS AND CRASH HISTORIES. ALSO, THE DISTANCE BETWEEN THE EDGE OF THE THROUGH TRAVELED LANE AND THE BEGINNING OF THE 1V:3H SLOPE SHOULD INFLUENCE THE RECOVERY AREA PROVIDED AT THE TOE OF THE SLOPE.

HORIZONTAL CURVE ADJUSTMENTS

RADIUS (FEET)	K_{CZ} (CURVE CORRECTION FACTOR) DESIGN SPEED (MPH)						
	40	45	50	55	60	65	70
2860	1.1	1.1	1.1	1.2	1.2	1.2	1.3
2290	1.1	1.1	1.2	1.2	1.2	1.3	1.3
1910	1.1	1.2	1.2	1.2	1.3	1.3	1.4
1640	1.1	1.2	1.2	1.3	1.3	1.4	1.5
1430	1.2	1.2	1.3	1.3	1.4	1.4	
1270	1.2	1.2	1.3	1.3	1.4	1.5	
1150	1.2	1.2	1.3	1.4	1.5		
950	1.2	1.3	1.4	1.5	1.5		
820	1.3	1.3	1.4	1.5			
720	1.3	1.4	1.5				
640	1.3	1.4	1.5				
570	1.4	1.5					
380	1.5						

$CZ_C = (L_C)(K_{CZ})$

Where:

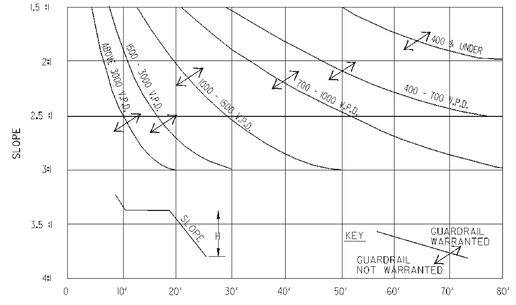
CZ_C = CLEAR ZONE ON OUTSIDE OF CURVATURE, FEET

L_C = CLEAR ZONES ON TANGENTS, FEET (SEE CHART AT LEFT)

K_{CZ} = CURVE CORRECTION FACTOR

NOTE:
THE CURVE CORRECTION FACTOR IS APPLIED TO THE OUTSIDE OF CURVES ONLY. CURVES FLATTER THAN 2860 FEET DO NOT REQUIRE AN ADJUSTED CLEAR ZONE.

FILL HEIGHT / SLOPE WARRANTS



NOTE:
FILL HEIGHT/SLOPE EXTRAPOLATIONS WHICH FALL ABOVE AND TO THE RIGHT OF CURVE INDICATES GUARDRAIL IS WARRANTED FOR THE FILL EMBANKMENT.

REVISED GUARDRAIL AND CLEAR ZONE	DATE	DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA
	9-4-07	STANDARD GUARDRAIL WARRANT GUIDES LENGTHS OF ADVANCEMENT CLEAR ZONE DISTANCES FILL HEIGHT EMBANKMENTS
		NOT TO SCALE — DEC., 1999
G.L.O.	BY DES. DRW. TRA. CHK.	(SUBMITTED) STATE ROAD & AIRPORT DESIGN ENGINEER; (APPROVED) CHIEF ENGINEER — NUMBER 4000W

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

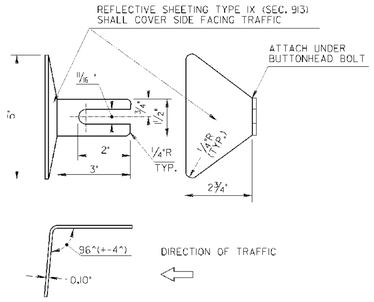
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
GEORGIA STANDARDS

DRAWING No. 41-014

3/1/2007 GPLN

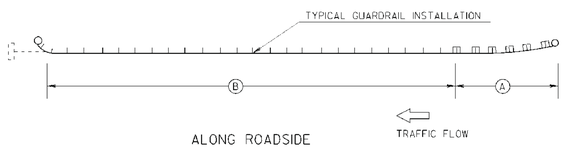
RELEASED FOR CONSTRUCTION - 07-23-13

REFLECTORIZED WASHER DETAILS

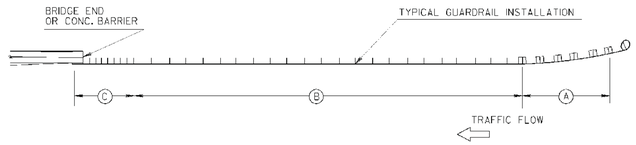


MATERIALS: ALUMINUM (ASTM B 209 ALLOY 5052 H-32 OR 12 GA. STEEL (ASTM A 526 GALV. M-111) WITH REFLECTIVE SHEETING, AS APROVED BY THE DEPT. OF TRANSPORTATION LABORATORY.

COLORS: YELLOW IN MEDIANS AND WHITE ON OUTSIDE SHOULDERS



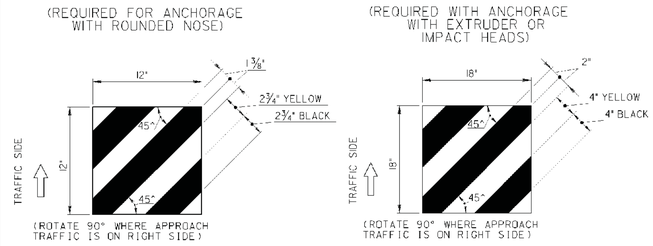
ALONG ROADSIDE



APPROACH END-BRIDGE OR CONCRETE BARRIER

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

NOSE STRIPING DETAILS

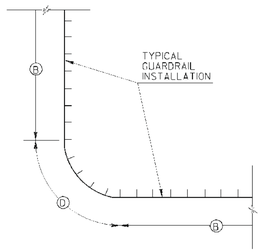


BLACK GLOSS DURABLE INK PRINTED ON TYPE IX REFLECTIVE SHEETING (SEE CURRENT SEC. 913 AND 917)

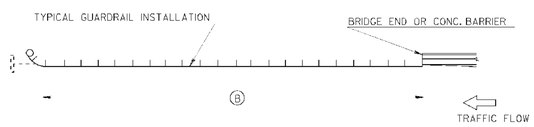
WASHER LOCATION DETAIL

NOTE:
FOR 'T'-BEAM GUARDRAIL, WASHER IS PLACED IN THE TOP INDENTION.

* WHERE BOLT DOES NOT EXTEND THRU RAIL REFLECTORIZED WASHER IS ATTACHED UNDER THE SPLICE BOLT ON THE TOP CORRUGATION, IF REQUIRED.



AT TURNOUTS



TRAILING END-BRIDGE OR CONCRETE BARRIER

SPACING OF REFLECTORIZED WASHERS

(A) AT ANCHORAGES:
-TWO (2) REFLECTORIZES WASHERS ARE REQUIRED ON THE RAIL UNDER SPLICE BOLTS AS DIRECTED BY THE ENGINEER FOR ELLIPTICALLY FLARED ANCHORAGES WITH ROUNDED END PIECES;

-NO REFLECTORIZED WASHERS WILL BE USED FOR TANGENTIALLY ALIGNED OR STRAIGHT TAPERED ANCHORAGE WITH EXTRUDER OR IMPACT HEADS

(B) -AT 75 FT. SPACINGS FOR INTERMEDIATE SECTIONS;

(C) -THREE WASHERS AT 6'-3" SPACING AT CONNECTIONS TO CONCRETE FACE ON THE APPROACH END;

(D) -AT 12'-6" SPACINGS AROUND RADII TURNS.

GENERAL NOTES:

1-SPECIFICATIONS: GEORGIA STANDARD, CURRENT EDITION, & SUPPLEMENTS THERETO.

2-SEE SEPARATE STANDARDS FOR DETAILS OF GUARDRAIL INSTALLATIONS, CONNECTING HARDWARE, AND ANCHORAGES.

3-PAYMENT FOR GUARDRAIL AND ANCHORAGES INCLUDES ALL REFLECTORIZED WASHERS AND NOSE STRIPING REQUIRED.

4-ADJUSTMENTS OF SPACINGS AND/OR REQUIREMENTS FOR REFLECTIVE WASHERS MAY BE DIRECTED BY THE ENGINEER TO SUIT INDIVIDUAL LOCATIONS.

5-WHERE DOUBLE FACED GUARDRAIL IS LOCATED ON THE INSIDE SHOULDER OF MEDIANS, REFLECTORIZED WASHERS SHALL BE REQUIRED ONLY ON THE SIDE WHICH IS NEAREST TO TRAFFIC, UNLESS SPECIFIED OTHERWISE.

DATE	REVISION	BY
4-03-06	REV. REFLECTIVE SH. TYPE.	CLO
2-4-08	REFLEC. SH. SPEC.	RWJ
6-1-99	ADD NOSE STRIPING	RWJ

DES. ____ DRWN. ____ CHK. ____

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

STANDARD
REFLECTORIZED GUARDRAIL WASHERS AND ANCHORAGE NOSE STRIPING

NO SCALE — REV. & REDR. APRIL, 1999

(SUBMITTED) STATE ROAD & AIRPORT DESIGN ENGINEER
(APPROVED) CHIEF ENGINEER

NUMBER 4360

3/1/2007 GPLN

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
GEORGIA STANDARDS

DRAWING No. 41-015

23-JUL-2013 15:33 JParks	3:33:40 PM	4380 GDOT_11x17.pen	Y:\Roadways\126379\0008690\Dgn\Const Standards\4380.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
				GA	CSMSL-0008-001690)	612	730

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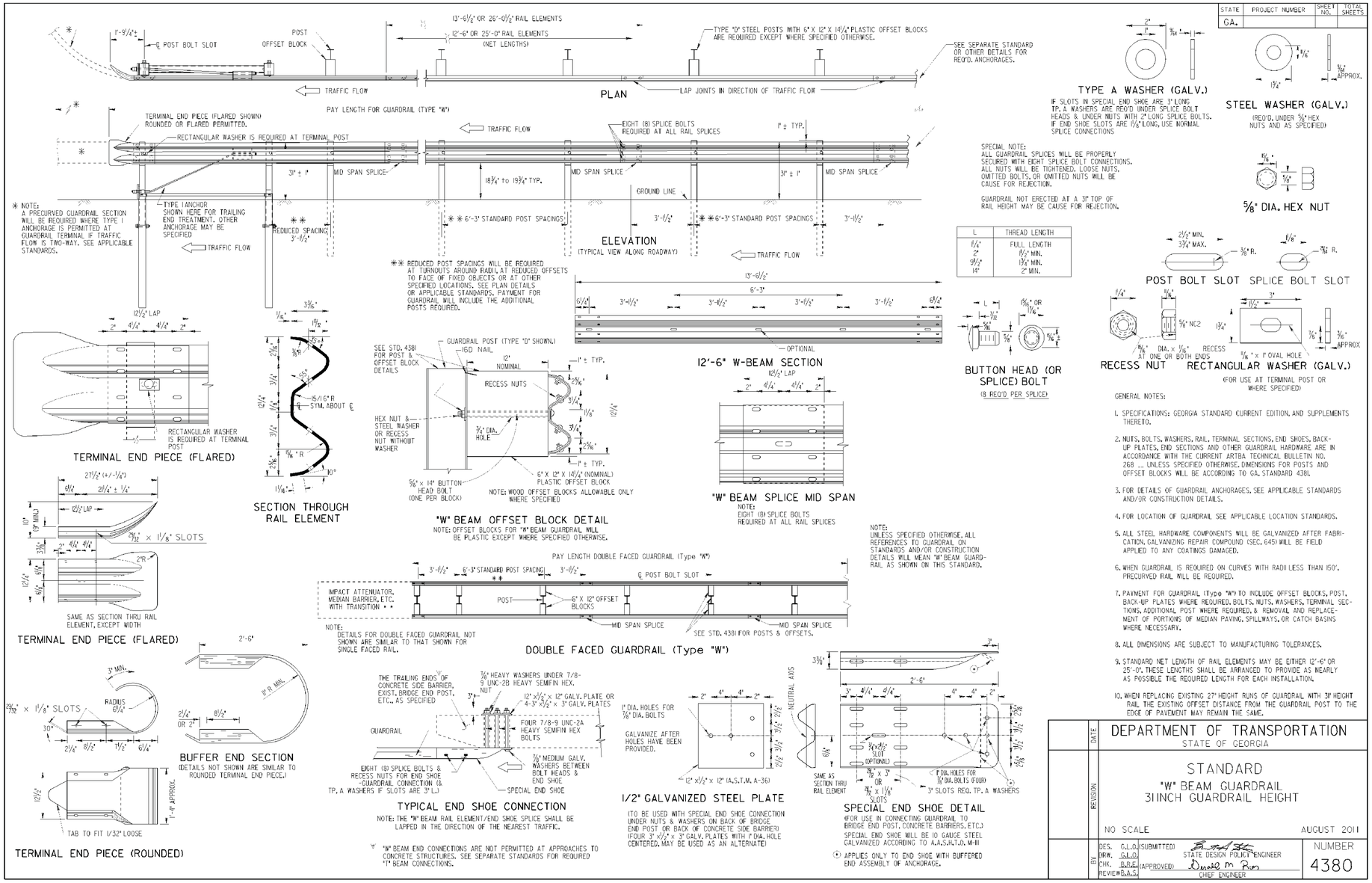
9/21/2011 7:46:57 AM \\GDOT-DSFI\GDPLOT\DGN\GD_A1p2000.pdf gwaves V:\GARY\3i tech guardrail standards\7010 rev 4380.prf

RELEASED FOR CONSTRUCTION - 07-23-13



L	THREAD LENGTH
1¼"	FULL LENGTH
2"	1½" MIN.
9½"	1¾" MIN.
14"	2" MIN.

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

GENERAL NOTES:

1. SPECIFICATIONS: GEORGIA STANDARD CURRENT EDITION, AND SUPPLEMENTS THERETO.
2. NUTS, BOLTS, WASHERS, RAIL, TERMINAL SECTIONS, END SHOES, BACK-UP PLATES, END SECTIONS AND OTHER GUARDRAIL HARDWARE ARE IN ACCORDANCE WITH THE CURRENT ARTBA TECHNICAL BULLETIN NO. 268 ... UNLESS SPECIFIED OTHERWISE, DIMENSIONS FOR POSTS AND OFFSET BLOCKS WILL BE ACCORDING TO GA. STANDARD 438I.
3. FOR DETAILS OF GUARDRAIL ANCHORAGES, SEE APPLICABLE STANDARDS AND/OR CONSTRUCTION DETAILS.
4. FOR LOCATION OF GUARDRAIL SEE APPLICABLE LOCATION STANDARDS.
5. ALL STEEL HARDWARE COMPONENTS WILL BE GALVANIZED AFTER FABRICATION, GALVANIZING REPAIR COMPOUND (SEC. 645) WILL BE FIELD APPLIED TO ANY COATINGS DAMAGED.
6. WHEN GUARDRAIL IS REQUIRED ON CURVES WITH RADII LESS THAN 150', PRECURVED RAIL WILL BE REQUIRED.
7. PAYMENT FOR GUARDRAIL (Type "W") TO INCLUDE OFFSET BLOCKS, POST, BACK-UP PLATES WHERE REQUIRED, BOLTS, NUTS, WASHERS, TERMINAL SECTIONS, ADDITIONAL POST WHERE REQUIRED, & REMOVAL AND REPLACEMENT OF PORTIONS OF MEDIAN PAVING, SPILLWAYS, OR CATCH BASINS WHERE NECESSARY.
8. ALL DIMENSIONS ARE SUBJECT TO MANUFACTURING TOLERANCES.
9. STANDARD NET LENGTH OF RAIL ELEMENTS MAY BE EITHER 12'-6" OR 25'-0". THESE LENGTHS SHALL BE ARRANGED TO PROVIDE AS NEARLY AS POSSIBLE THE REQUIRED LENGTH FOR EACH INSTALLATION.
10. WHEN REPLACING EXISTING 27" HEIGHT RUNS OF GUARDRAIL WITH 31" HEIGHT RAIL THE EXISTING OFFSET DISTANCE FROM THE GUARDRAIL POST TO THE EDGE OF PAVEMENT MAY REMAIN THE SAME.

NOTE: UNLESS SPECIFIED OTHERWISE, ALL REFERENCES TO GUARDRAIL ON STANDARDS AND/OR CONSTRUCTION DETAILS WILL MEAN "W" BEAM GUARDRAIL AS SHOWN ON THIS STANDARD.

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

STANDARD
"W" BEAM GUARDRAIL
31INCH GUARDRAIL HEIGHT

NO SCALE — AUGUST 2011

BY			
DES.	G.L.O.	(SUBMITTED)	STATE DESIGN POLICY ENGINEER
DRW.	G.L.O.		
CHK.	B.R.E.	(APPROVED)	CHIEF ENGINEER
REVIEW	B.A.S.		

NUMBER 4380

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3/1/2007 GPLN

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
GEORGIA STANDARDS

DRAWING No. 41-016

23-JUL-2013 15:33	3:33:44 PM	4381	Y:\Roadways\126379\0008690\Dgn\Const Standards\4381.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-001690)	613	730

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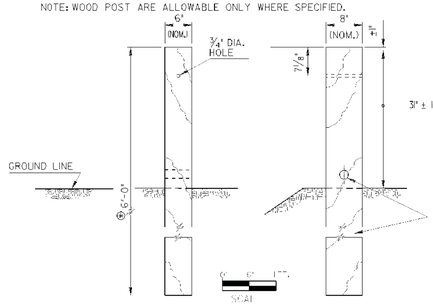
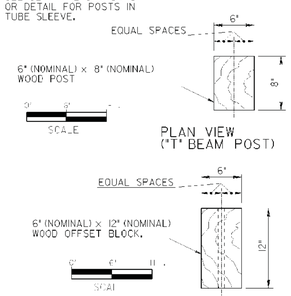
9/21/2011 8:13:15 AM \\GROUP DSN1\GDPLOT\DGN\GD A1p2000.pdf gwaves K:\DARY\31 Inch guardrail standards\701IA rev 4381.prf

TYPE A WOOD POST (FOR "W" BEAM GUARDRAIL)

NOTE: WOOD POST ARE ALLOWABLE ONLY WHERE SPECIFIED.



SEE SEPARATE STANDARD OR DETAIL FOR POSTS IN TUBE SLEEVE.



PLAN VIEW (FOR "W" BEAM OFFSET BLOCK)

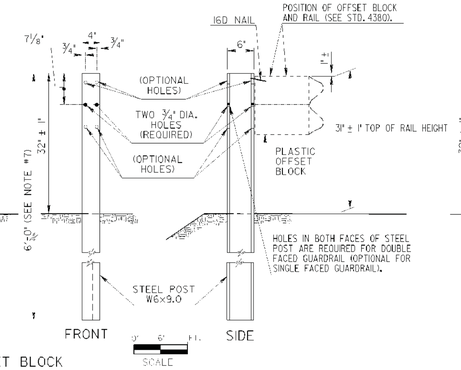
WOOD POSTS AND WOOD OFFSET BLOCKS MAY BE ROUGH OR SURFACED.

DIMENSIONS FOR WOOD POSTS AND WOOD OFFSET BLOCKS ARE NOMINAL IN ACCORDANCE WITH ACCEPTED LUMBER INDUSTRY STANDARDS.

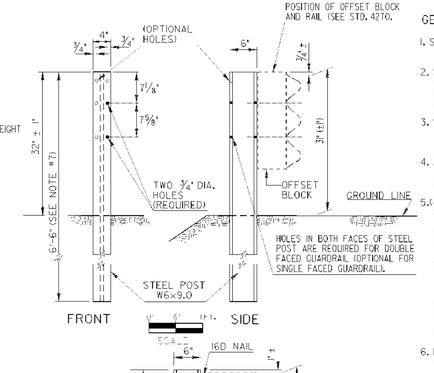
NOTE: BACK-UP PLATES ARE REQUIRED WITH ALL STEEL OFFSET BLOCKS EXCEPT AT RAIL SPLICES OR WHERE ONE RAIL SECTION IS NESTED INSIDE ANOTHER RAIL SECTION. BACK-UP PLATE WILL BE LOCATED BACK OF RAIL ADJACENT TO OFFSET BLOCKS (INSIDE MAIN RAIL).

NOTE: WHERE WOOD OFFSET BLOCK ON STEEL POST IS PERMITTED IN "W" BEAM INSTALLATION, A NAIL OR SCREW FROM POST TO WOOD IS REQUIRED TO PREVENT ROTATION OF THE BLOCK.

TYPE D STEEL POST (FOR "W" BEAM GUARDRAIL)



TYPE D-T STEEL POST (FOR "T" BEAM GUARDRAIL)



GENERAL NOTES:

1. SPECIFICATIONS GEORGIA STANDARD, CURRENT EDITION AND SUPPLEMENTS THERETO.
2. STEEL POSTS MAY BE EITHER ROLLED OR WELDED STRUCTURAL SHAPES. STEEL OFFSET BLOCKS SHALL BE ROLLED. WELDED POSTS SHALL BE SEAL WELDED BETWEEN WEB AND FLANGE BEFORE GALVANIZING.
3. WHERE WOOD POST OR WOOD OFFSET BLOCKS ARE PERMITTED, THE WOOD SHALL BE TREATED IN ACCORDANCE WITH GEORGIA STANDARD SPECIFICATIONS.
4. ALL BOLTS USED FOR FASTENING THE RAIL AND OFFSET BLOCKS TO WOOD POSTS SHALL HAVE SUFFICIENT LENGTH TO EXTEND AT LEAST ¼" BEYOND THE FULL NUT, UP TO 3" BEYOND.
5. (a) "W" BEAM GUARDRAIL: ALL OFFSET BLOCKS SHALL BE 12" DEPTH PLASTIC BLOCKS EXCEPT FOR (d) BELOW.

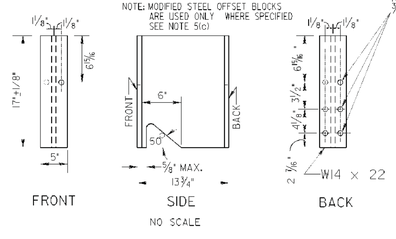
   (b) "T" BEAM GUARDRAIL: STANDARD INSTALLATION WILL USE 8" DEPTH PLASTIC BLOCKS UNLESS OTHERWISE APPROVED.

   (c) 13¾" DEPTH MODIFIED STEEL OFFSETS MAY BE SPECIFIED WHERE JUSTIFIED FOR MORE SEVERE CONDITIONS. PAY ITEM IS --GUARDRAIL, TP T, MODIFIED OFFSET BLOCK---PER LIN. FT.

   (d) WOOD OFFSET BLOCKS MAY BE USED ONLY AT AN ISOLATED LOCATION WITHIN A RUN OF GUARDRAIL. WHERE OTHER BLOCK TYPES WOULD NOT PROVIDE PROPER FIT, AS DETERMINED BY THE ENGINEER OR SHOWN IN THE PLANS.
6. POSTS WILL BE SPACED AT 6'-3" C. TO C., UNLESS OTHERWISE NOTED.
7. ADDITIONAL LENGTH POSTS, WHERE SPECIFIED, SHALL BE 7'-0" AND 7'-6" LONG FOR "W" BEAM AND "T" BEAM GUARDRAILS RESPECTIVELY, WITH HOLES DIMENSIONED FROM THE POST-TOP THE SAME AS SHOWN.
8. 9'-0" POST REQUIRED IF GUARDRAIL INSTALLED ON A 2:1 SLOPE.

MODIFIED STEEL OFFSET BLOCK FOR "T" BEAM GUARDRAIL

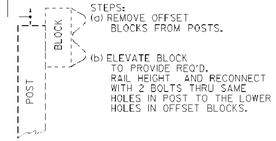
NOTE: MODIFIED STEEL OFFSET BLOCKS ARE USED ONLY WHERE SPECIFIED SEE NOTE 5(c)



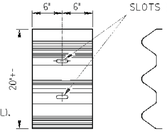
NO SCALE

HEIGHT CORRECTION IF NEEDED FOR RESURFACED PROJECTS

2½" FOR "W" BEAM
3½" FOR "T" BEAM



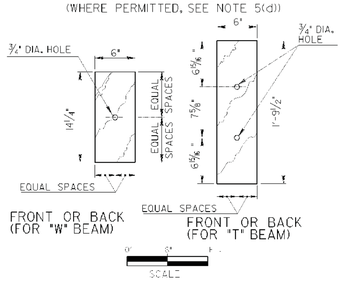
BACK-UP PLATE (FOR "T" BEAM GUARDRAIL)



SAME AS SECTION THROUGH RAIL (STANDARD 4270)

WOOD OFFSET BLOCKS

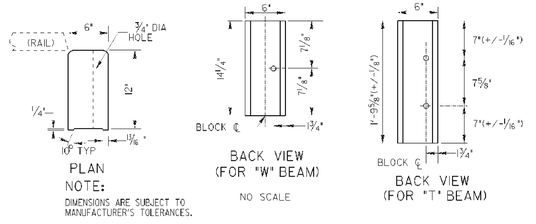
(WHERE PERMITTED, SEE NOTE 5(d))



(PLAN VIEW IS SAME AS SHOWN FOR WOOD POST ABOVE)

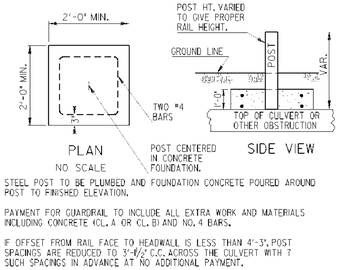
STANDARD PLASTIC OFFSET BLOCKS

NOTE: PLASTIC OFFSET BLOCKS SHALL BE OF TYPE LISTED IN GA. DOT QPL OF APPROVED PRODUCTS OR PER STANDARD SPECIFICATIONS.



CONCRETE FOUNDATION FOR POST IN SHALLOW FILLS OVER CULVERTS OR OTHER OBSTRUCTIONS

(NOTE: PLATE MOUNTED POST MAY BE USED AS AN ALTERNATE, SEE SEPARATE SHEET).



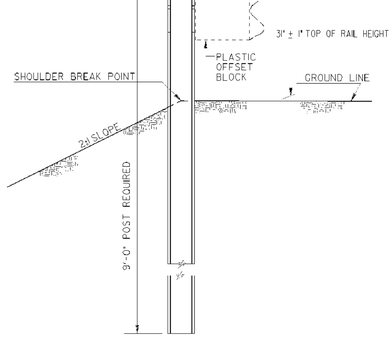
NO SCALE

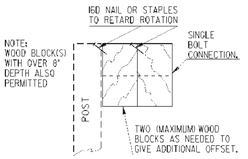
STEEL POST TO BE PLUMBED AND FOUNDATION CONCRETE POURED AROUND POST TO FINISHED ELEVATION.

PAYMENT FOR GUARDRAIL TO INCLUDE ALL EXTRA WORK AND MATERIALS INCLUDING CONCRETE (CL. A OR CL. B) AND NO. 4 BARS.

IF OFFSET FROM RAIL FACE TO HEADWALL IS LESS THAN 4'-3", POST SPACINGS ARE REDUCED TO 3'-¹¹⁄₁₆" C.C. ACROSS THE CULVERT WITH 7 SUCH SPACINGS IN ADVANCE AT NO ADDITIONAL PAYMENT.

2:1 SLOPE DETAIL





ADDITIONAL DEPTH OFFSET BLOCKOUTS

(FOR USE WHERE GREATER THAN STANDARD OFFSET IS SPECIFIED)

NOTE: ADDITIONAL DEPTH OFFSETS BELOW ARE SHOWN FOR "W" BEAM. SIMILAR OFFSETS MAY BE APPLIED FOR "T" BEAM GUARDRAIL.

NOTE: ADDITIONAL DEPTH OFFSETS ARE PERMITTED ONLY WHERE AN ISOLATED POST MUST BE PLACED AT A GREATER THAN NORMAL OFFSET.

NOTE: FOR BLOCK CONNECTION TO POST AND TO RAIL SEE STD. 4380 OR 4385.

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

STANDARD
POSTS AND OFFSET BLOCKS
FOR "W" & "T" BEAM GUARDRAIL
31 INCH GUARDRAIL HEIGHT

SCALE: AS SHOWN — AUGUST 2011

BY	DATE	REVISION
DES. GLG		
DRW. GLG		
CHK. B.R.E.		
REVIEW B.R.E.		

(SUBMITTED) STATE DESIGN POLICY ENGINEER
(APPROVED) CHIEF ENGINEER

NUMBER 4381

RELEASED FOR CONSTRUCTION - 07-23-13

3/1/2007 GPLN

12/7/2011 8:05:17 AM \\GDOT-DSA\GDPLOT\DGN\GD_A1p2000.pdf tess C:\Projects\31inch guardrail\new 3i then guardrail fttes\4381.pdf

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
GEORGIA STANDARDS

DRAWING No. 41-017

23-JUL-2013 15:33	3:33:48 PM	4383	Y:\Roadways\126379\0008690\Dgn\Const Standards\4383.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
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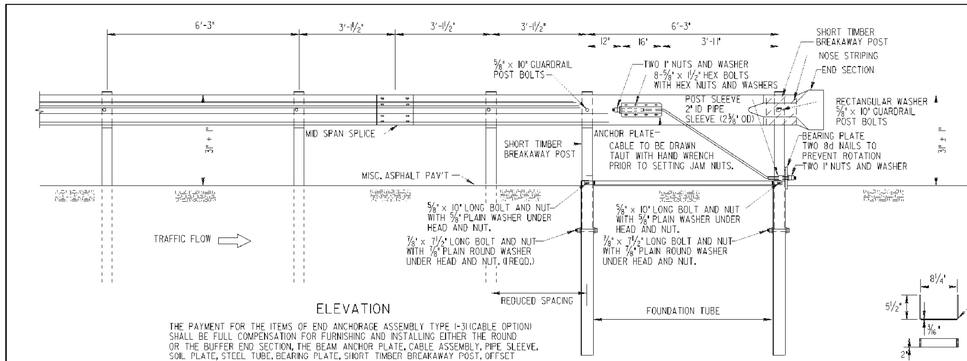
10/7/2011 8:05:15 AM \\GDOT-DSA\GOPLOT\OOF\GO_A1p2000.pdf Tech D:\Apps\3Inch guardrail standards\4383.pdf CO-PDE

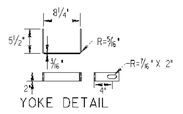
9/21/2011 8:13:55 AM \\GDOT-DSA\GOPLOT\OOF\GO A1p4000.pdf gwaves V:\GARY\31 Inch guardrail standards\4383.prt

RELEASED FOR CONSTRUCTION - 07-23-13

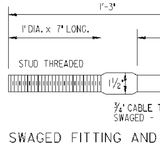


ELEVATION

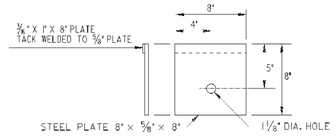
THE PAYMENT FOR THE ITEMS OF END ANCHORAGE ASSEMBLY TYPE 1-31(CABLE OPTION) SHALL BE FULL COMPENSATION FOR FURNISHING AND INSTALLING EITHER THE ROUND OR THE BUFFER END SECTION, THE BEAM ANCHOR PLATE, CABLE ASSEMBLY, PIPE SLEEVE, SOIL PLATE, STEEL TUBE, BEARING PLATE, SHORT TIMBER BREAKAWAY POST, OFFSET BLOCKS AND THE NECESSARY HARDWARE.



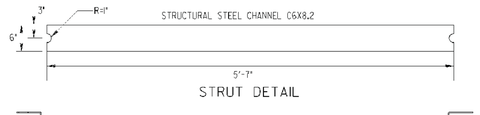
YOKE DETAIL



SWAGED FITTING AND STUD

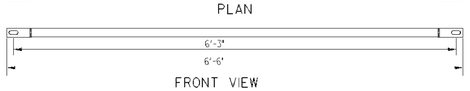


BEARING PLATE

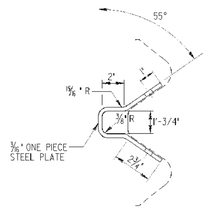


STRUT DETAIL

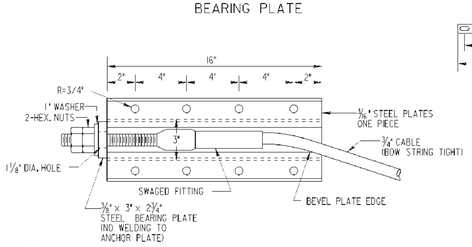
PLAN

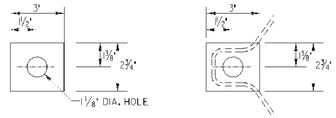


FRONT VIEW



ANCHOR PLATE DETAIL

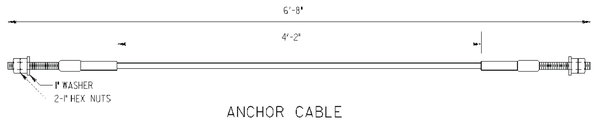




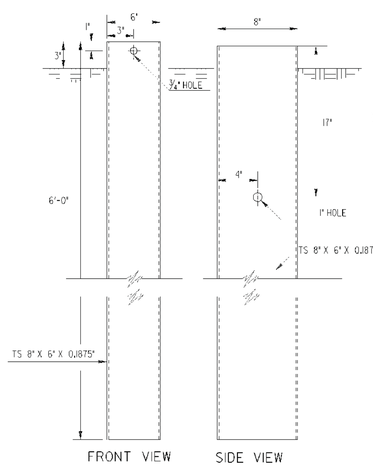
ANCHOR PLATE BEARING PLATE DETAIL

NOTE:
ANCHOR PLATES SHOWN HERE WITH GUARDRAIL (TYPE "W") ATTACHMENT TO GUARDRAIL (TYPE "T") WILL BE THE SAME EXCEPT THAT THE ANCHOR PLATE WILL BE LOCATED BETWEEN THE BOTTOM AND MIDDLE CORRUGATIONS.

STANDARD ANCHOR PLATE DETAILS



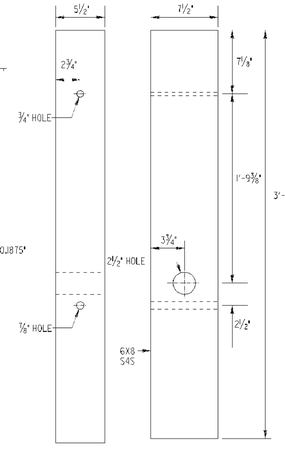
ANCHOR CABLE



FRONT VIEW SIDE VIEW

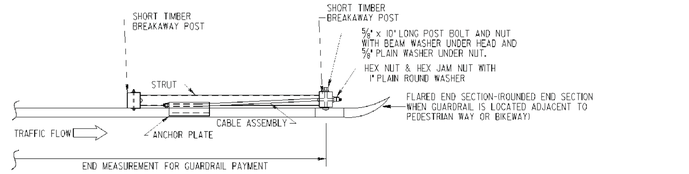
FOUNDATION TUBE

NOTE: SEE STANDARD 4382 FOR GUARDRAIL CONNECTION TO CONCRETE FACE.

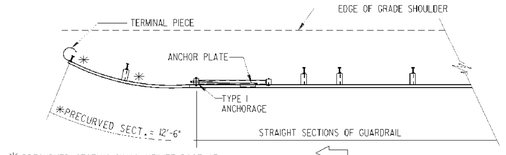


FRONT VIEW SIDE VIEW

SHORT TIMBER BREAKAWAY POST

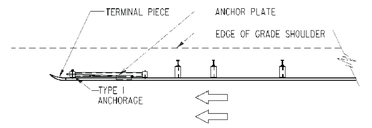


CABLE ANCHOR



* PRECURVED SECTION SHALL UTILIZE POST OF THE SAME LENGTH AS REQUIRED FOR THE ADJOINING STRAIGHT SECTIONS, REGARDLESS OF DISTANCE TO GRADED SHOULDER EDGE.

AT TRAILING END OF TWO-WAY TRAFFIC (WHICH FALLS OUTSIDE CLEAR ZONE OF OPPOSING TRAFFIC)



AT TRAILING END OF ONE-WAY TRAFFIC

NOTE:
SEE STD. 4388 OR OTHER APPLICABLE DETAILS FOR REQUIREMENT FOR TYPE 12 ANCHORAGE ON THE TRAILING END.

GENERAL NOTES:
1. SPECIFICATIONS: GEORGIA STANDARD, CURRENT EDITION & SUPPLEMENTS THERE TO.
2. FOR DETAILS OF GUARDRAIL HARDWARE, POST, OTHER TYPE ANCHORAGE, LOCATION, ETC. SEE SEPARATE STANDARDS AS APPLICABLE.
3. GUARDRAIL INSTALLATIONS, INCLUDING ANCHORAGES AND CONNECTIONS, ARE TO BE COMPLETED BEFORE BEING SUBJECT TO TRAFFIC UNLESS OTHERWISE APPROVED.
4. PAYMENT FOR ANCHORAGE INCLUDES ANCHOR PLATE; ¾" CABLE; BREAKAWAY POSTS; FOUNDATION TUBES; STRUT AND ALL ACCOMPANYING HARDWARE.

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

STANDARD

GUARDRAIL ANCHORAGE TYPE 1
31 INCH GUARDRAIL HEIGHT

NO SCALE — AUGUST 2011

DES. G.L.O. (SUBMITTED) STATE DESIGN POLICY ENGINEER
DRW. G.L.O.
CHK. B.A.S.
REVIEW B.A.S. (APPROVED) CHIEF ENGINEER

NUMBER 4383

DATE / REVISION / BY

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3/1/2007 GPLN

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
GEORGIA STANDARDS

DRAWING No. 41-018

12/7/2011 8:05:14 AM \\GDOT-DSFI\SGPLOT\SOF\SG_K1p8000.qpf locx C:\kpe\3inch guardrail standards\Type 12 4040 rev 4384.prf

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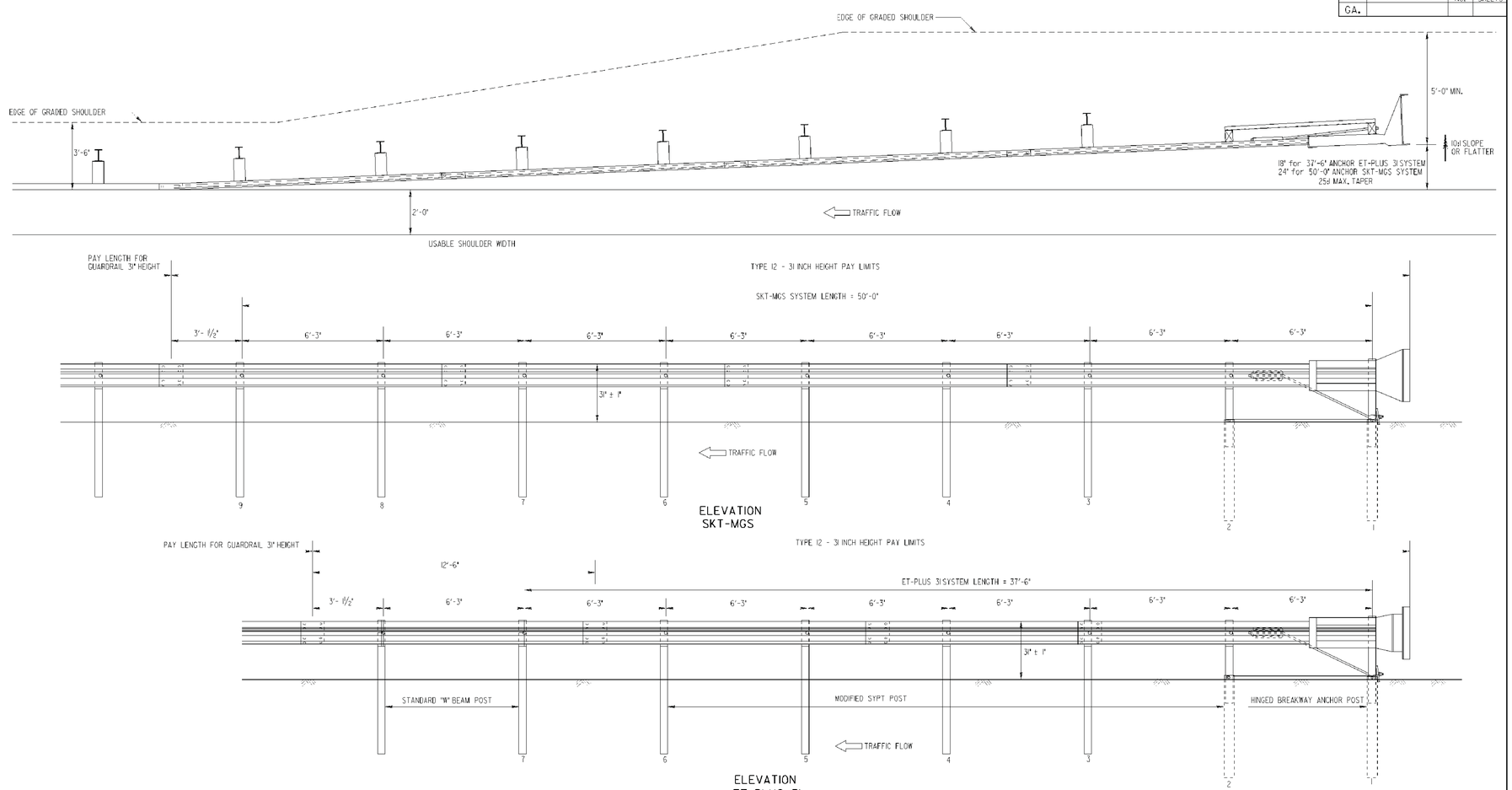
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			



GENERAL NOTES:

1. SPECIFICATIONS: GEORGIA STANDARD CURRENT EDITION, AND SUPPLEMENTS THERETO.
2. GUARDRAIL ANCHORAGE TYPE 12, 31INCH HEIGHT SHALL BE AN ET-PLUS 31 AS MANUFACTURED BY TRINITY INDUSTRIES, INC. OR AN SKT-MGS AS MANUFACTURED BY ROAD SYSTEMS, INC. AND SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
3. A MAXIMUM FLARE OF 25:1 OVER THE SYSTEM LENGTH OF THE TERMINAL IS REQUIRED FOR EITHER THE ET-PLUS 31 OR THE SKT-MGS.

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

STANDARD
TYPE 12
31INCH GUARDRAIL HEIGHT

NO SCALE — AUGUST 2011

BY		DATE	REVISION
DES.	G.L.O.	(SUBMITTED)	STATE DESIGN POLICY ENGINEER
DRW.	G.L.O.		
CHK.	B.R.E.	(APPROVED)	CHIEF ENGINEER
REVIEW	B.A.S.		

NUMBER 4384

RELEASED FOR CONSTRUCTION - 07-23-13

3/1/2007 GPLN

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THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
GEORGIA STANDARDS

DRAWING No. 41-019

23-JUL-2013 15:33	3:33:56 PM	4385	Y:\Roadways\126379\0008690\Dgn\Const Standards\4385.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
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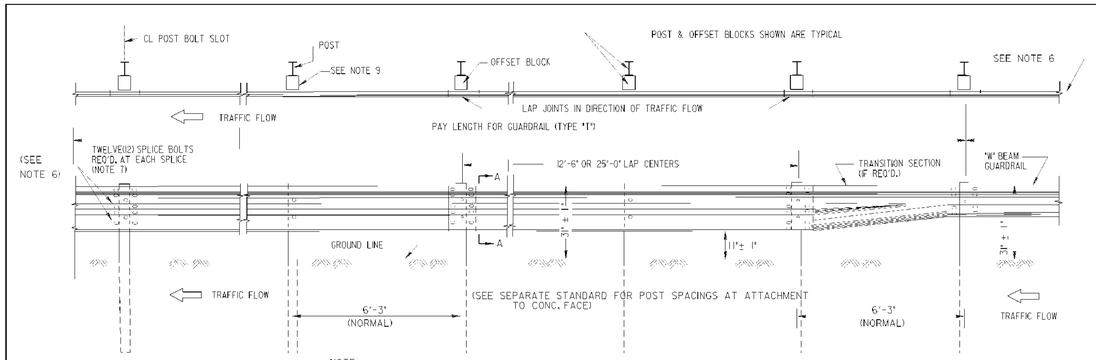
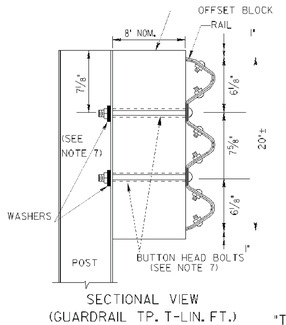
10/7/2011 8:05:13 AM \\GDOT-DSN1\GDPLOT\DGF\DGN_A1p8000.pdf tcox C:\Pipe\Inline postscript\new 3i town guardrail fittes\4385.psf CO-PDF

9/21/2011 8:14:08 AM \\GDOT-DSN1\GDPLOT\DGF\DGN A1p8000.pdf gwaters V:\SAFETY\3i town guardrail standards\GDTD rev 4385.prf

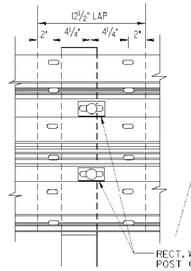
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			



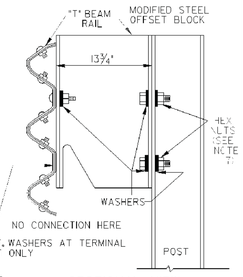
NOTE:
WHERE ATTACHED TO CONCRETE BARRIER, BRIDGE END POST OR OTHER CONCRETE FACE, PAYMENT FOR T BEAM GUARDRAIL SHALL INCLUDE ADDITIONAL POSTS, OFFSET BLOCKS AND DOUBLE THICKNESS (ONE RAIL NESTED INSIDE ANOTHER) SECTION OF T BEAM GUARDRAIL AS SPECIFIED.



SECTIONAL VIEW
(GUARDRAIL TP. T-LIN. FT.)

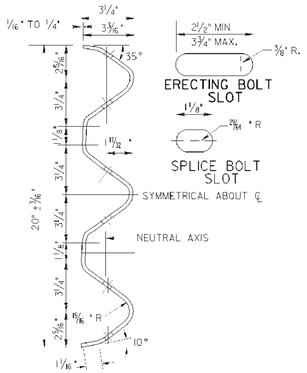


"T" BEAM SPLICE AT POST

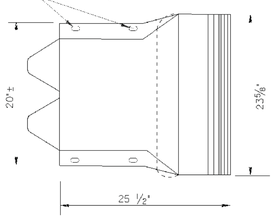


SECTIONAL VIEW
(GUARDRAIL TP. T,
MODIFIED OFFSET BLOCK)

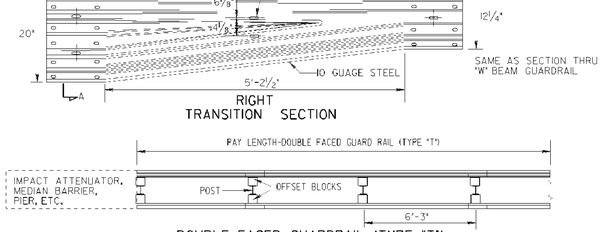
NOTE:
13¾" DEPTH MODIFIED STEEL OFFSETS BLOCKS MAY BE SPECIFIED WHERE JUSTIFIED FOR MORE SEVERE CONDITIONS. PAY ITEM IS --GUARDRAIL, TP T, MODIFIED OFFSET BLOCK---PER LIN. FT.



SECTION THROUGH
RAIL ELEMENT (SEC. A-A)



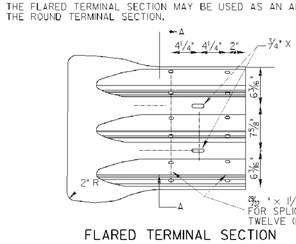
ROUNDED TERMINAL SECTION
TO BE LAPPPED ON TRAFFIC FACE OF RAIL WHERE TYPE I ANCHORAGE IS REQUIRED



DOUBLE FACED GUARDRAIL (TYPE "T")

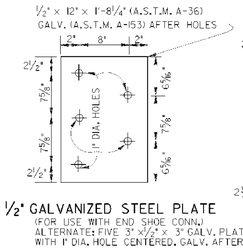
GENERAL NOTES:

1. SPECIFICATIONS: GA. STANDARD CURRENT EDITION & SUPPLEMENTS THERETO
2. DIMENSIONS ARE SUBJECT TO MANUFACTURING TOLERANCES.
3. NET LENGTH OF RAIL ELEMENTS MAY BE EITHER 12'-6" OR 25'-0".
4. RAIL ELEMENTS ON CURVES OF RADII LESS THAN 150' WILL BE PRECURVED.
5. PAYMENT FOR GUARDRAIL (TYPE "T") WILL INCLUDE ALL POSTS, BLOCKS, HARDWARE ACCESSORIES AND WHERE REQUIRED ALL ADDITIONAL POSTS, END SHOES, TERMINAL SECTIONS, TRANSITION SECTIONS, BACK-UP PLATES AND REMOVAL AND REPLACEMENT OF PORTIONS OF MEDIAN PAVING, SPILLWAYS OR CATCH BASINS WHERE NECESSARY.
6. ALL GUARDRAIL TERMINALS SHALL REQUIRE AN APPROVED ANCHORAGE AS SPECIFIED IN IN THE PLANS OR APPROVED BY THE ENGINEER EXCEPT WHERE CONNECTED TO A BRIDGE END OR OTHER CONCRETE FACE.
7. NUTS, BOLTS AND WASHERS WHICH ARE NOT DETAILED ON THIS STANDARD, SHALL BE AS SHOWN FOR W BEAM GUARDRAIL ON STANDARD 4380.
8. SEE SEPARATE STANDARDS AS APPLICABLE FOR ANCHORAGES, POSTS, OFFSET BLOCKS, CONNECTIONS TO CONCRETE FACE, W BEAM GUARDRAIL, ETC.
9. SEE STANDARD 4381 FOR DETAILS AND REQUIREMENTS OF BACK-UP PLATES, WHERE STEEL OFFSET BLOCKS ARE ALLOWED OR SPECIFIED.
10. OFFSET BLOCKS SHALL BE PLASTIC UNLESS OTHERWISE APPROVED OR SPECIFIED.

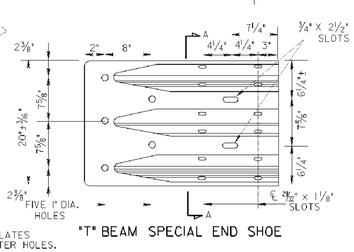


THE FLARED TERMINAL SECTION MAY BE USED AS AN ALTERNATE TO THE ROUND TERMINAL SECTION.

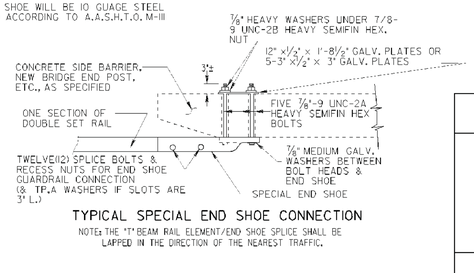
FLARED TERMINAL SECTION



½" GALVANIZED STEEL PLATE
(FOR USE WITH END SHOE CONN.)
ALTERNATE: FIVE 3" x ½" x 3" GALV. PLATES WITH 1" DIA. HOLE CENTERED. GALV. AFTER HOLES.



"T" BEAM SPECIAL END SHOE



TYPICAL SPECIAL END SHOE CONNECTION
NOTE: THE "T" BEAM RAIL ELEMENT/END SHOE SPLICE SHALL BE LAPPED IN THE DIRECTION OF THE NEAREST TRAFFIC.

REVISION / DATE	DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA		
	STANDARD "T" BEAM GUARDRAIL CONNECTION TO 31INCH HEIGHT "W" BEAM		
	NO SCALE	AUGUST 2011	
BY: DES. G.L.O. / DRW. G.L.O. / CHK. B.R.E. / REVIEW B.A.S.	(SUBMITTED) STATE DESIGN POLICY ENGINEER (APPROVED) CHIEF ENGINEER	NUMBER	4385

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3/11/2007 GPLN

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THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES		

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
GEORGIA STANDARDS

DRAWING No. 41-020

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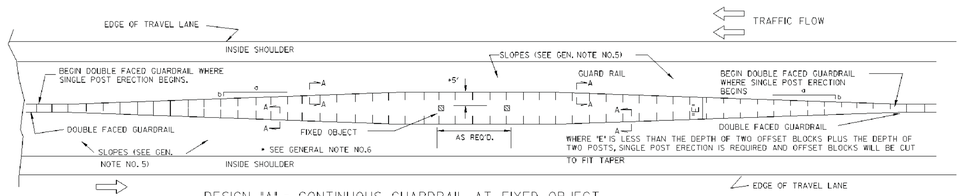
9/21/2011 8:13:57 AM \\GROUP DSN\GDPLOT\DOT\DO Alp8000.pdf gwarex V:\GARY\31 inch guardrail standards\TOPPA rev 4386.prf

GUARDRAIL LOCATIONS IN MEDIANS

20 10 0 20 FT.
SCALE

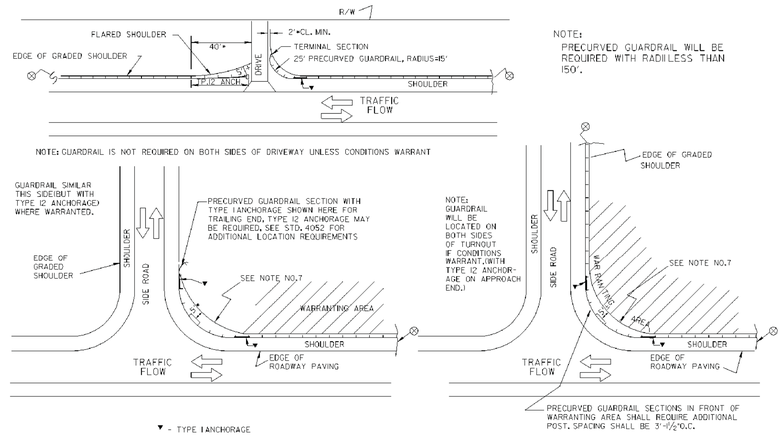


DESIGN "A" - CONTINUOUS GUARDRAIL AT FIXED OBJECT

NOTE: DESIGN "A" IS OF LIMITED APPLICATION. SEE SEPARATE STANDARDS OR DETAILS FOR DOUBLE FACED GUARDRAIL ON INSIDE SHOULDERS OF MEDIANS OR FOR CONCRETE MEDIAN BARRIERS AT FIXED OBJECTS.

GUARDRAIL LOCATIONS AT TURNOUTS

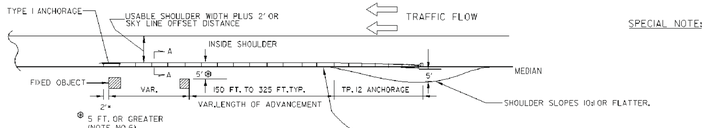
NO SCALE



NOTE:
PRECURVED GUARDRAIL WILL BE REQUIRED WITH RADII LESS THAN 150'.

▼ - TYPE 1 ANCHORAGE

⊗ - EXTENDED GUARDRAIL TO HAVE ANCHORAGE OR ATTACHMENT PER APPLICABLE STANDARD DETAILS.



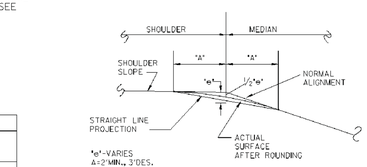
DESIGN "C"-GUARDRAIL ON INSIDE SHOULDERS AT FIXED OBJECTS

NOTE: GUARDRAIL PROTECTION SHALL BE REQUIRED ON BOTH SIDES OF OBJECT FOR DESIGN 'C', UNLESS OTHERWISE SPECIFIED.

SPECIAL NOTE: FOR CONTINUOUS DOUBLE FACED GUARDRAIL ON THE INSIDE SHOULDER OF MEDIAN, SEE SEPARATE DETAILS.

ANY PORTION OF GUARDRAIL WITH THE BACK SIDE OF POST EXPOSED INSIDE THE CLEAR ZONE OF OPPOSING TRAFFIC SHALL BE DOUBLE FACED, EXCEPT FOR BREAK-AWAY POSTS.

FLARE RATE: DESIGN 'A', 'B', & 'D'	
DESIGN SPEED (mph)	MAX. FLARE RATE a/b
70	15
60	13
50	11
40	9
30	7

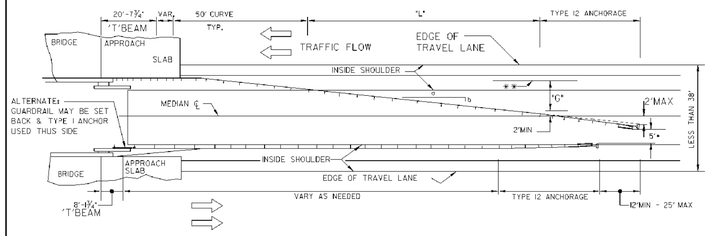


DETAIL OF SHOULDER ROUNDING
(TYPICAL FOR EXISTING GUARDRAIL INSTALLATIONS ON 6:1 OR ON 8:1 SLOPE)

GENERAL NOTES:

1. SPECIFICATIONS: GEORGIA STANDARD, CURRENT EDITION, AND SUPPLEMENTS THERETO.
2. FOR DETAILS OF GUARDRAIL HARDWARE, POST, AND OFFSET BLOCKS, SEE STANDARDS 4381 AND 4382.
3. FOR DETAILS OF GUARDRAIL ANCHORAGES, SEE SEPARATE STANDARDS, OR CONSTRUCTION DETAILS AS APPLICABLE.
4. FOR DETAILS OF DOUBLE FACED GUARDRAIL ATTACHED TO OR TERMINATED AT CONCRETE MEDIAN BARRIER, SEE STANDARD 4940.
5. NEGATIVE SLOPES IN FRONT OF GUARDRAIL AND ALL ANCHORAGES SHALL BE 10:1, OR FLATTER, FOR ALL NEW INSTALLATIONS.
6. OFFSET BETWEEN FACE OF GUARDRAIL AND FACE OF FIXED OBJECT SHALL BE 5FT.+DESIRABLE, 4'-3"MINIMUM, WHERE AN OFFSET OF LEAST 4'-3" CANNOT BE OBTAINED, DOUBLE POST SPACINGS (3'-1½" O.C.) IN FRONT OF OBJECT PLUS A MINIMUM OF 7 SUCH SPACINGS IN ADVANCE OF OBJECT IS REQUIRED WITH A 3 FT. MINIMUM OFFSET.
7. WHERE PRECURVED GUARDRAIL IS INSTALLED AROUND RADII AT INTERSECTING SIDE ROADS, THE SHOULDER AREA BACK OF THE GUARDRAIL IS TO BE WIDENED AS SHOWN ABOVE WITH THE OFFSET BETWEEN THE TRAVEL LANE AND GUARDRAIL REMAINING APPROXIMATELY CONSTANT.

NOTE: SEE SEPARATE STANDARDS FOR GUARDRAIL CONNECTIONS AND POST SPACINGS AT BRIDGE ENDS



DESIGN "D"-GUARDRAIL AT BRIDGE ENDS IN NARROW MEDIAN

DESIGN "D" IS LIMITED FOR USE WHERE THE GRASSED MEDIAN AT BRIDGE APPROACHES IS ALMOST FLUSH (SLOPES NOT STEEPER THAN 20:1) AND MEDIAN IS LESS THAN 38 FT. IN WIDTH FOR OTHER CONDITIONS, SEE STD. 4387 OR CONSTRUCTION DETAILS.

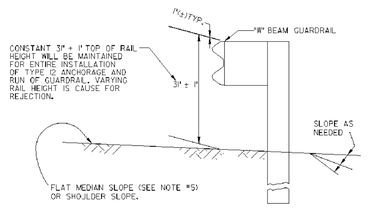
**PROJECTION FROM FACE OF GUARDRAIL AT BRIDGE END

'G'=DISTANCE FROM ** TO WITHIN 2' OF MEDIAN ℄

MIN 'L' = 'G'(a/b)-25'

FOR MINIMUM FLARE a/b SEE CHART AT TOP.

⊗FOR WIDER MEDIANS, SEE STD.4051



SECTION A-A
(SHOWN FOR 'W' BEAM GUARDRAIL)

REVISION	DATE	DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA
		STANDARD GUARDRAIL LOCATIONS IN MEDIANS GUARDRAIL LOCATIONS AT TURNOUTS 31 INCH GUARDRAIL HEIGHT
		SCALE: AS SHOWN — AUGUST 2011
BY	DES. D.L.D. (SUBMITTED) STATE DESIGN POLICY ENGINEER DRW. D.L.D. CHK. B.R.E. (APPROVED) CHIEF ENGINEER REVIEW B.A.S.	NUMBER 4386

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(770) 263-9118

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
GEORGIA STANDARDS

DRAWING No. 41-021

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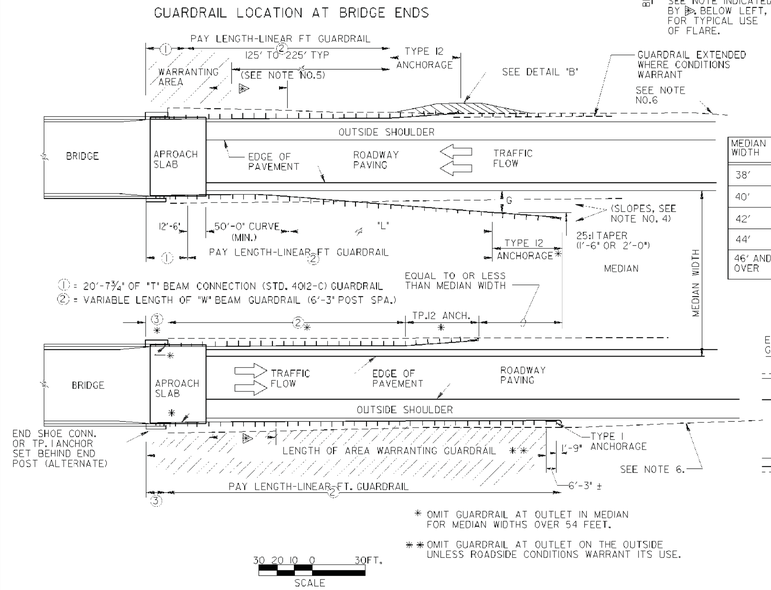
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

GUARDRAIL LOCATION AT BRIDGE ENDS



* OMIT GUARDRAIL AT OUTLET IN MEDIAN FOR MEDIAN WIDTHS OVER 54 FEET.

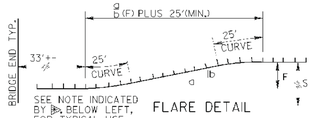
** OMIT GUARDRAIL AT OUTLET ON THE OUTSIDE UNLESS ROADSIDE CONDITIONS WARRANT ITS USE.

▷ WHERE THE OUTSIDE SHOULDER WIDTH IS REDUCED ACROSS BRIDGE:

a) SHORT INSTALATION (LESS THAN 200' TOTAL) OF GUARDRAIL SHALL HAVE STRAIGHT ALIGNMENT;

b) LONGER INSTALLATION SHALL BE TRANSITIONED, STARTING 33' +/- FROM BRIDGE END, TO THE "S" OFFSET PER FLARE DETAIL.

FLARE DETAIL



SEE NOTE INDICATED BY ▷ BELOW LEFT, FOR TYPICAL USE OF FLARE.

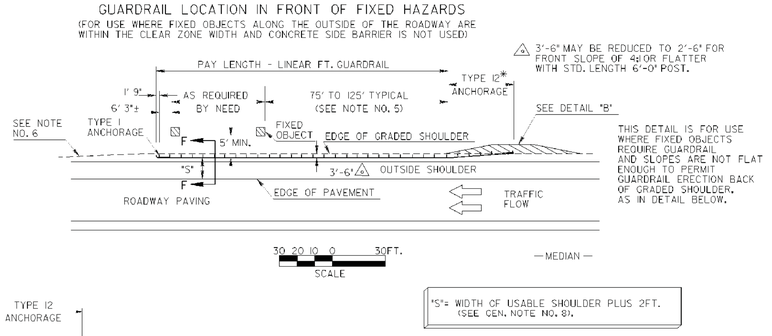
FLARE RATE	
MPH	a/b(MIN.)
70	15:1
60	13:1
50	11:1
40	9:1

MEDIAN WIDTH	G	MIN. L
38'	8'	200'
40'	10'	175'
42'	12'	150'
44'	14'	137.5'
46' AND OVER	16'	125'

NOTE:
FOR DETAILS OF GUARDRAIL PROTECTION OF FIXED OBJECTS IN THE MEDIAN, SEE STANDARD *4055. FOR DETAILS OF CONCRETE BARRIERS, SEE STANDARDS 4940, 4948, OR OTHER APPLICABLE DETAILS.

GUARDRAIL LOCATION IN FRONT OF FIXED HAZARDS

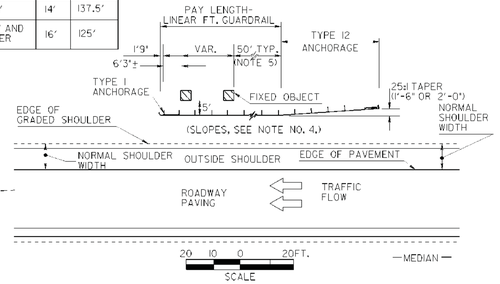
(FOR USE WHERE FIXED OBJECTS ALONG THE OUTSIDE OF THE ROADWAY ARE WITHIN THE CLEAR ZONE WIDTH AND CONCRETE SIDE BARRIER IS NOT USED)



△A 3'-6" MAY BE REDUCED TO 2'-6" FOR FRONT SLOPE OF 4:1 OR FLATTER WITH STD. LENGTH 6'-0" POST.

THIS DETAIL IS FOR USE WHERE FIXED OBJECTS REQUIRE GUARDRAIL AND SLOPES ARE NOT FLAT ENOUGH TO PERMIT GUARDRAIL ERECTION BACK OF GRADED SHOULDER, AS IN DETAIL BELOW.

"S"= WIDTH OF USABLE SHOULDER PLUS 2FT. (SEE GEN. NOTE NO. 8).



NOTE: DETAIL ABOVE APPLIES WHERE OBJECT FALLS WITHIN THE CLEAR ZONE WIDTH AND SLOPES IN FRONT OF THE OBJECT ALLOW GUARDRAIL INSTALLATION BACK OF THE GRADED SHOULDER. SEE GENERAL NOTE NO. 4.

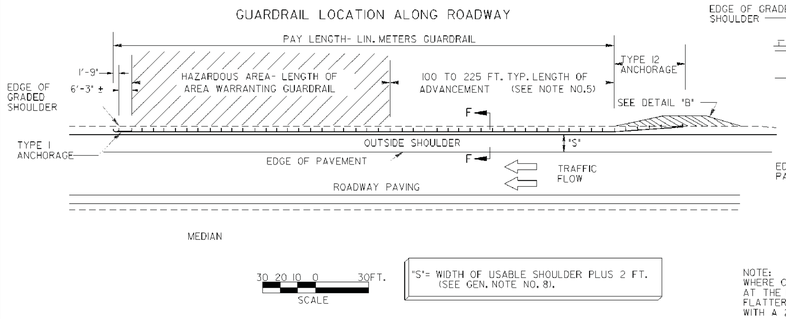
GENERAL NOTES:

1. SPECIFICATIONS: GEORGIA STANDARD, CURRENT EDITION, & SUPPLEMENTS THERETO.
2. POST SPACINGS SHALL BE 6'-3" C. TO C. EXCEPT WHERE REDUCED SPACINGS ARE SPECIFIED AT BRIDGE ENDS OR AT FIXED HAZARDS.
3. FOR DETAILS OF GUARDRAIL, ACCESSORIES, POSTS, OFFSET BLOCKS, ANCHORAGES, ETC., SEE APPLICABLE STANDARD AND/OR CONSTRUCTION DETAILS.
4. NEGATIVE SLOPES IN FRONT OF GUARDRAIL AND TYPE 12 ANCHORAGES SHALL BE 10:1 OR FLATTER.
5. GUARDRAIL SHALL BEGIN IN ADVANCE OF A HAZARD OR HAZARDOUS AREA BY A SUFFICIENT LENGTH TO PREVENT VEHICLE PENETRATION BEHIND THE RAIL INTO PROTECTED AREA. THE TYPICAL LENGTHS OF ADVANCEMENT SHOWN MAY BE INCREASED OR DECREASED WHEN SHOWN IN THE PLANS, OR WHERE DIRECTED BY THE ENGINEER BECAUSE OF SPEED DESIGN, ROADSIDE GEOMETRICS, GRADES, SIZE OF HAZARD, OR OTHER CONDITIONS; IF FURTHER INFORMATION IS DESIRED, SEE AASHTO "ROADSIDE DESIGN GUIDE."
6. WHERE GUARDRAIL IS REQUIRED ON THE SHOULDER, THE SHOULDER WILL BE GRADED WIDER AS SHOWN IN DETAIL "B".
7. GAPS OF LESS THAN 200 FT. BETWEEN GUARDRAIL INSTALLATIONS SHOULD BE AVOIDED EXCEPT WHERE JUSTIFIED BY LOCAL CONDITIONS.
8. "S" IS THE OFFSET TO FACE OF GUARDRAIL. THIS WILL BE TWO FT. GREATER THAN THE NORMAL USABLE SHOULDER WIDTH(WITHOUT GUARDRAIL). HOWEVER, IF THE NORMAL GRADED SHOULDER WIDTH(WITHOUT GUARDRAIL) IS GREATER THAN REQUIRED BY AASHTO, "S" DISTANCE MAY BE ESTABLISHED AS TWO(2) FT. GREATER THAN THE AASHTO SHOULDER WIDTH.
9. OFFSET FROM RAIL FACE TO HAZARD FACE SHALL BE 5'+/- DESIRABLE AND 4'-3" MINIMUM. THIS OFFSET MAY BE REDUCED TO 3'-0" MIN. BY USING 3'- 1½" POST SPACINGS IN FRONT OF HAZARD WITH A MINIMUM OF 7 SUCH SPACINGS IN ADVANCE OF HAZARD.

SPECIAL NOTE:
LOCATION AND QUANTITIES GIVEN IN THE PLANS FOR GUARDRAIL AND ANCHORAGES ARE ESTIMATES MADE FROM OFFICE COMPUTATIONS. A FINAL DETERMINATION AS TO LOCATIONS AND QUANTITIES OF GUARDRAIL AND ANCHORAGES WILL BE MADE BY THE ENGINEER OR A REPRESENTATIVE FROM THE OFFICE OF TRAFFIC AND SAFETY AFTER CONSTRUCTION OF ROADWAY.

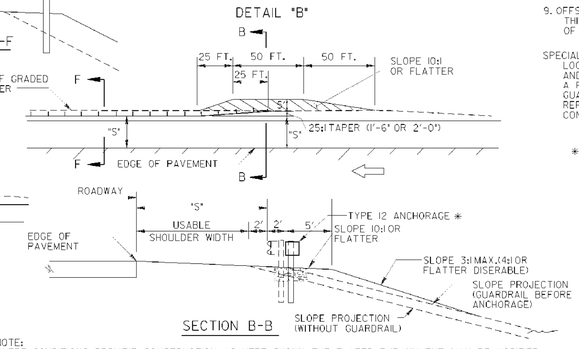
* OR APPROVED ALTERNATE, MEETING MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) REQUIREMENTS

GUARDRAIL LOCATION ALONG ROADWAY

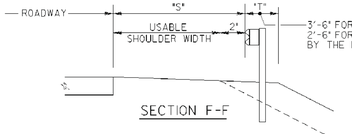


"S"= WIDTH OF USABLE SHOULDER PLUS 2 FT. (SEE GEN. NOTE NO. 8).

DETAIL "B"



SECTION F-F



3'-6" FOR NORMAL LENGTH POST MAY BE REDUCED TO 2'-6" FOR ADDITIONAL LENGTH(7'-0" POST, AS DIRECTED BY THE ENGINEER.

NOTE:
WHERE CONDITIONS PROHIBIT CONSTRUCTION AS HERE SHOWN, THE FLARED EMBANKMENT MAY BE MODIFIED AT THE DIRECTION OF THE ENGINEER OR AS SHOWN ON THE PLANS IN ORDER TO PROVIDE THE 10:1 OR FLATTER SLOPES AROUND THE TY. 12 ANCHORAGE & TO GIVE THE CONSTANT 3' TOP OF RAIL HEIGHT WITH A 2 FT. OFFSET AS SHOWN.

REVISION / DATE	DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA	
	STANDARD GUARDRAIL LOCATION DETAILS FOR MULTI-LANE DIVIDED HIGHWAYS (WITH SHOULDERS ADJACENT TO ROADWAY) 31 INCH GUARDRAIL HEIGHT	
	SCALE: AS SHOWN — AUGUST 2011	
BY: DES. G.L.O. (SUBMITTED) STATE DESIGN POLICY ENGINEER DRN. G.L.O. CHK. B.A.E. REVIEW B.A.E. (APPROVED) CHIEF ENGINEER		NUMBER 4387

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3/1/2007 GPLN

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TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
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(770) 263-9118

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
GEORGIA STANDARDS

DRAWING No. 41-022

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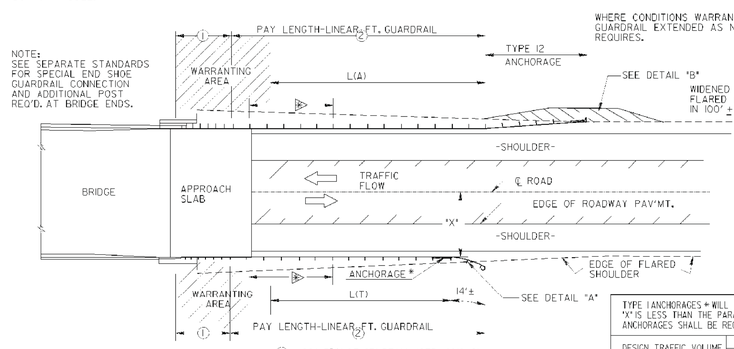
RELEASED FOR CONSTRUCTION - 07-23-13

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

NOTE:
FOR MINIMAL REDUCTION (TO 2') OF SHOULDER ACROSS BRIDGE, ALIGNMENT SHALL BE STRAIGHT FOR SHORT INSTALLATIONS (LESS THAN 200' TOTAL) AS SHOWN HEREON. FOR LONGER INSTALLATIONS, OR GREATER REDUCTION OF SHOULDER WIDTH, GUARDRAIL INSTALLATION SHALL BE AS PER DETAIL AT BOTTOM MIDDLE.

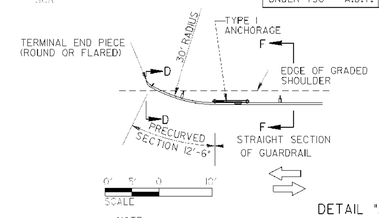


GUARDRAIL LOCATION AT BRIDGE ENDS

SCALE: 20' 10' 0 20'

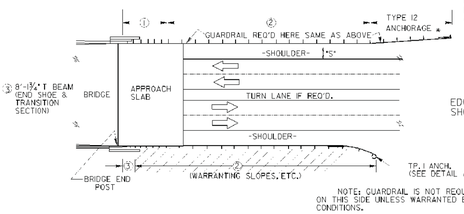
TRAFFIC VOLUME	MIN. L(T)	MIN. L(A)
DHV OVER 400	100'-0"	137'-6"
DHV 200-400	87'-6"	125'-0"
DHV 100-200	75'-0"	112'-6"
ADT 400 & OVER	62'-6"	100'-0"
ADT UNDER 400	50'-0"	87'-6"

NOTE: THESE MINIMUM LENGTHS ARE FOR STRAIGHT ALIGNMENTS IN ADVANCE OF WARRANTING AREA.



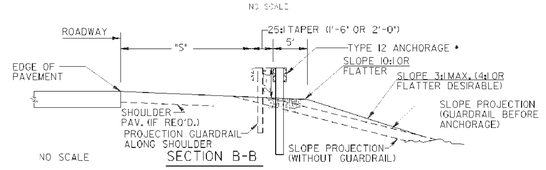
DETAIL "A"

NOTE:
DETAIL "A" IS FOR USE ONLY WHERE TYPE I ANCHORAGES ARE PERMITTED AS SHOWN ABOVE OTHERWISE, SEE DETAIL "B" FOR PROPER INSTALLATION OF TYPE 12 ANCHORAGE.



GUARDRAIL AT BRIDGE END OF MULTI-LANE UNDIVIDED HIGHWAY

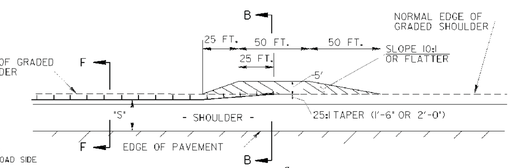
NO SCALE

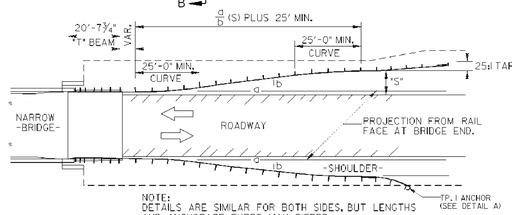


SECTION B-B

DETAIL "B"

WHERE SHOWN ON THE PLANS OR APPROVED BY THE ENGINEER, THE EMBANKMENT FLARE SHOWN ABOVE FOR TYPE I ANCHORAGE MAY BE MODIFIED, PROVIDED 10:1 OR FLATTER SLOPES ARE PROVIDED IN FRONT OF THE RAIL & A CONSTANT 31 INCH RAIL HEIGHT IS MAINTAINED.





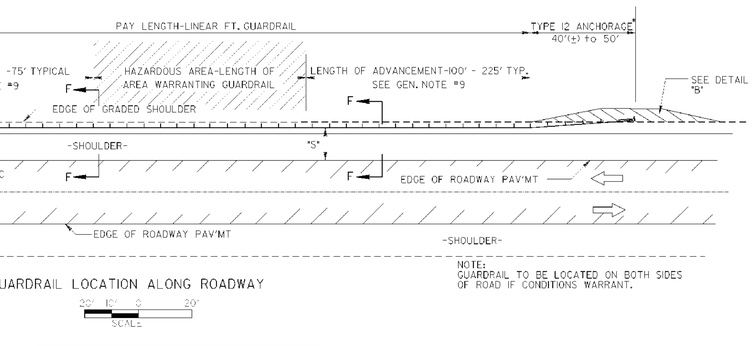
NOTE:
DETAILS ARE SIMILAR FOR BOTH SIDES, BUT LENGTHS AND ANCHORAGE TYPES MAY DIFFER.

GUARDRAIL LOCATION AT END OF NARROW BRIDGE

OPERATING SPEED (MPH)	FLARE RATE a/b
60	13:1 MIN.
55	12:1 MIN.
50	11:1 MIN.
40	9:1 MIN.

TYPE I ANCHORAGES * WILL BE UTILIZED AT THE TRAILING END, UNLESS THE DISTANCE "X" IS LESS THAN THE PARAMETER GIVEN IN THIS TABLE IN WHICH CASE TYPE 12 ANCHORAGES SHALL BE REQUIRED.

DESIGN TRAFFIC VOLUME	DESIGN SPEEDS (AS SHOWN ON COVER SHEET)				
	40 MPH	50 MPH	55 MPH	60 MPH	70 MPH
OVER 6000 A.D.T.	14'	18'	22'	30'	30'
1500 - 6000 A.D.T.	12'	16'	20'	26'	28'
750 - 1500 A.D.T.	10'	12'	16'	20'	24'
UNDER 750 A.D.T.	7'	10'	12'	16'	20'

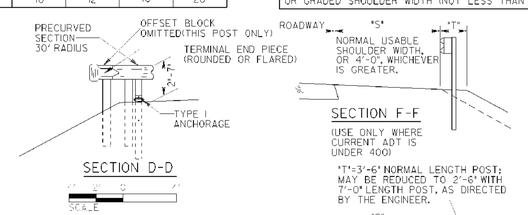


GUARDRAIL LOCATION ALONG ROADWAY

SCALE: 20' 10' 0 20'

NOTE:
GUARDRAIL TO BE LOCATED ON BOTH SIDES OF ROAD IF CONDITIONS WARRANT.

"S" IS THE OFFSET TO THE FACE OF THE GUARDRAIL; THIS WILL BE TWO(2) FEET GREATER THAN THE USABLE SHOULDER WIDTH (PER AASHTO MINIMUM SHOULDER REQUIREMENTS) EXCEPT WHERE THE CURRENT A.D.T. IS UNDER 400, IN WHICH CASE "S" MAY BE EQUAL TO THE USABLE OR GRADED SHOULDER WIDTH (NOT LESS THAN 4).



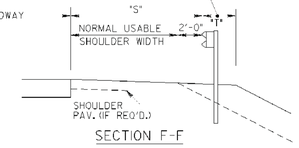
SECTION D-D

SCALE: 0 5' 10'

SECTION F-F

(USE ONLY WHERE CURRENT ADT IS UNDER 400)

"T"=3'-6" NORMAL LENGTH POST; MAY BE REDUCED TO 2'-6" WITH 7'-0" LENGTH POST, AS DIRECTED BY THE ENGINEER.



SECTION F-F

(USE FOR ALL CONDITIONS, EXCEPT WHERE CURRENT ADT IS UNDER 400.)

GENERAL NOTES:

1. GUARDRAIL, ITS FITTINGS, PARTS, ETC. ARE TO BE IN ACCORDANCE WITH GEORGIA STANDARD SPECIFICATIONS AND/OR SPECIAL PROVISIONS.
2. FOR DETAILS OF BEAM TYPE GUARDRAIL, ACCESSORIES, GUARDRAIL POST, OFFSET BLOCKS, GUARDRAIL ANCHORAGES TYPE I AND TYPE 12, & BRIDGE END CONNECTION DETAILS, SEE APPLICABLE GEORGIA STANDARD PLANS AND/OR CONSTRUCTION DETAILS.
3. ALL OFFSET AND LENGTHS HERE SHOWN ARE APPLIED TO FACE OF GUARDRAIL.
4. POST SPACING SHALL BE 6'3" C. TO C., UNLESS OTHERWISE NOTED.
5. TYPE 12 ANCHORAGES SHOULD BE TERMINATED ON SLOPES 10:1 OR FLATTER. WHERE NORMAL SLOPE IS STEEPER, A 10:1 OR FLATTER SLOPE SHOULD BE CONSTRUCTED AT LOCATIONS WHERE TYPE 12 ANCHOR FLARES BACK OF SHOULDER.
6. GUARDRAIL SHALL NOT BE ERECTED ON SLOPES WHICH ARE STEEPER THAN 10:1, EXCEPT FOR THE PORTION OF PRECURVED (SHOP CURVED) SECTION THAT EXTENDS BACK OF THE SHOULDER AS SHOWN IN DETAIL "A" WHICH IS ERECTED ON NORMAL SLOPES OR EXCEPT WHERE SHOWN OTHERWISE IN PLANS.
7. PAY LENGTH SHALL BE MEASURED ALONG FACE OF GUARDRAIL.
8. W BEAM GUARDRAIL WILL HAVE A CONSTANT TOP OF RAIL HT. OF 2'-7" THRU OUT INSTALLATION EXCEPT WHERE A PORTION OF THE PRECURVED SECTION SHOWN IN DETAIL "A" EXTENDS BACK OF THE GRADED SHOULDER.
9. GUARDRAIL WILL EXTEND PAST HAZARD ON BOTH THE APPROACH & TRAILING ENDS TO PREVENT VECHICLE PENETRATION BEHIND THE RAIL INTO THE HAZARDOUS AREA. THE TYPICAL LENGTHS OF ADVANCEMENT SHOWN MAY BE INCREASED OR DECREASED WHEN SHOWN IN THE PLANS, OR WHERE DIRECTED BY THE ENGINEER BECAUSE OF SPEED DESIGN, ROADSIDE GEOMETRY, SIZE OF HAZARD, OR OTHER CONDITIONS. IF FURTHER INFORMATION IS DESIRED; SEE THE AASHTO "ROADSIDE DESIGN GUIDE".

SPECIAL NOTE:
LOCATION AND QUANTITIES GIVEN IN THE PLANS FOR GUARDRAIL AND ANCHORAGES ARE ESTIMATES MADE FROM OFFICE COMPUTATIONS. A FINAL DETERMINATION AS TO LOCATIONS AND QUANTITIES OF GUARDRAIL AND ANCHORAGES WILL BE MADE BY THE ENGINEER OR A REPRESENTATIVE FROM THE OFFICE OF TRAFFIC OPERATIONS AFTER CONSTRUCTION OF ROADWAY.

* OR APPROVED ALTERNATE, MEETING MANUAL FOR ASSESSING SAFETY HARDWARE(MASH) REQUIREMENTS

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

STANDARD GUARDRAIL LOCATION DETAILS FOR UNDIVIDED HIGHWAYS AND ROADS (WITH SHOULDERS ADJACENT TO THE ROADWAY) 31 INCH GUARDRAIL HEIGHT

SCALE AS SHOWN — AUGUST 2011

DATE | REVISION | BY

DES. G.L.O.
DRW. G.L.O.
CHK. B.R.E.
REVIEW B.A.S.

(SUBMITTED) STATE DESIGN POLICY ENGINEER
(APPROVED) CHIEF ENGINEER

NUMBER 4388

3/1/2007 GPLN

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
GEORGIA STANDARDS

DRAWING No. 41-023

23-JUL-2013 15:34	3:34:12 PM	4389	Y:\Roadways\126379\0008690\Dgn\Const Standards\4389.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
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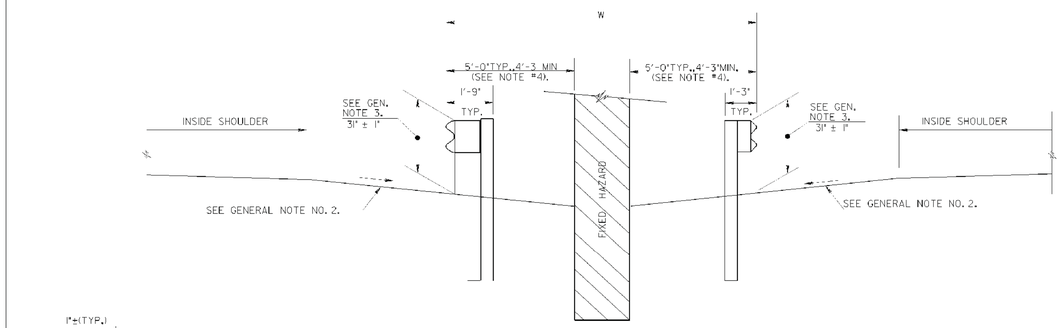
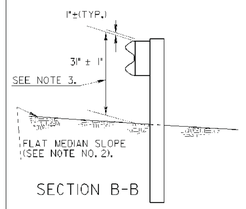
12/7/2011 8:05:08 AM \\GDOT-DSFI\GDPLOT\DGN\GD_A1p3000.gdf tcox D:\Apps\3.1tech guardrail\new 31 inch guardrail fittings\4389.pgf GD-PDF

9/21/2011 8:47:01 AM \\ROOT_DSNI\GDPLOT\DGN\GD_A1p3000.gdf gwaters V:\SAFETY\31 inch guardrail standards\1055 Rev 4389.prf

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			



SECTION A-A
(NO SCALE)



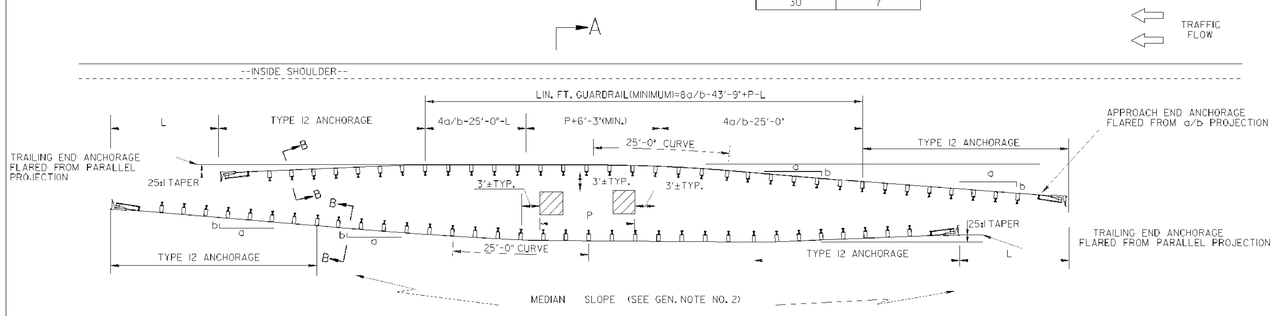
SECTION B-B

NOTE:
SECTION B-B IS APPLICABLE FOR ENTIRE INSTALLATION.

TABLE A	
W	L
12'-0"	14'-0"
13'-0"	16'-0"
14'-0"	18'-0"
15'-0"	20'-0"

TABLE B	
DESIGN SPEED (mph)	MAX.FLARE RATE (a/b)
70	15
60	14
55	12
50	11
40	9
30	7

DO NOT USE THIS STANDARD FOR GORE AREAS.



PLAN VIEW

GENERAL NOTES:

1. SPECIFICATIONS: GEORGIA STANDARD, CURRENT EDITION, AND SUPPLEMENTS THERETO.
2. ALL MEDIAN SLOPES SHALL BE 10:1, OR FLATTER, FOR THE ENTIRE INSTALLATION AND FOR AT LEAST 50 FT. IN ADVANCE ON BOTH SIDES.
3. THE HEIGHT OF "W"-BEAM RAIL TOP SHALL BE 31" ± 1", AS MEASURED TO THE GROUND LINE BELOW THE FACE OF RAIL AT ALL POINTS.
4. WHERE AN OFFSET OF AT LEAST 4'-3" CANNOT BE OBTAINED FROM RAIL FACE TO OBJECT FACE, DOUBLE POST SPACING(3'-11/2" o.c.) IN FRONT OF OBJECT PLUS A MINIMUM OF SEVEN SUCH SPACINGS IN ADVANCE OF OBJECT IS REQUIRED WITH A 3 FOOT (MIN.) OFFSET FROM RAIL FACE TO OBJECT FACE.

USER'S GUIDE:

a) DETERMINE VALUE FOR 'W' FROM DEPTH OF OBJECT AND OFFSETS, THEN SELECT 'L' VALUE FROM TABLE A AT LEFT.

b) FIND a/b FROM TABLE B AT LEFT.

c) ESTABLISH 'P'(OUTSIDE TO OUTSIDE OF OBJECT) AND ROUND TO MULTIPLE OF 6'-3" OR 12'-6".

d) MINIMUM LINEAR FEET OF GUARDRAIL IS THEN EQUAL TO: (16)(a/b)-87'-6"+2P-2L.

ALSO: FOUR TYPE 12 ANCHORAGES IN ADDITION TO THE ABOVE.

SPECIAL NOTE:

STANDARD NO. 4389 IS APPLICABLE AT FIXED OBJECTS WHERE DOUBLE FACED GUARDRAIL IS NOT REQUIRED AND MEDIAN SLOPES ARE 10:1 OR FLATTER. DO NOT USE IN GORES.

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

STANDARD

GUARDRAIL LOCATION AT FIXED OBJECTS IN MEDIAN 31 INCH GUARDRAIL HEIGHT

SCALE AS SHOWN AUGUST 2011

DES. G.L.O. (SUBMITTED) STATE DESIGN POLICY ENGINEER
DRW. G.L.O.
CHK. B.R.C. (APPROVED) CHIEF ENGINEER
REVIEW B.A.S.

NUMBER 4389

DATE / REVISION / BY

RELEASED FOR CONSTRUCTION - 07-23-13

3/1/2007 GPLN

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THE LPA GROUP
TRANSPORTATION CONSULTANTS
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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
GEORGIA STANDARDS

DRAWING No. 41-024

23-JUL-2013 15:34	3:34:16 PM	4391	Y:\Roadways\126379\0008690\Dgn\Const Standards\4391.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
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9/21/2011 8:14:08 AM \\GDOT-DSN1\GDPLOT\DOT\DO_A1p2000.pdf gwaves V:\SAFETY\3i tech committee\ standards\1980 rev 4391.prf

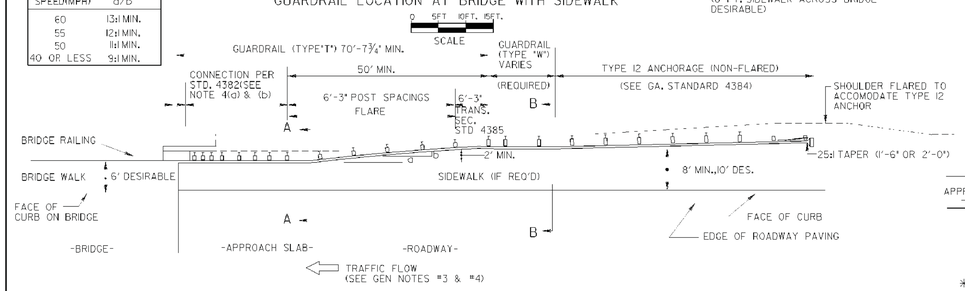
RELEASED FOR CONSTRUCTION - 07-23-13

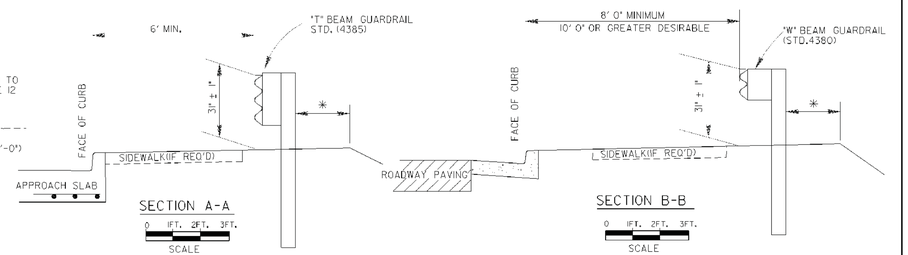
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

DESIGN SPEED(MPH)	FLARE RATE a/b
60	13:1 MIN.
55	12:1 MIN.
50	11:1 MIN.
40 OR LESS	9:1 MIN.

GUARDRAIL LOCATION AT BRIDGE WITH SIDEWALK

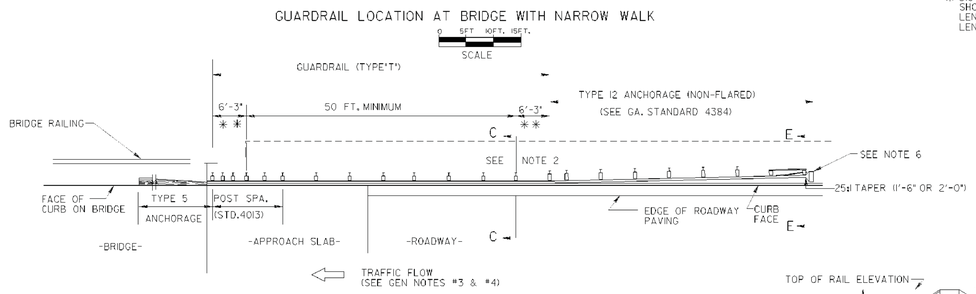
(6 FT. SIDEWALK ACROSS BRIDGE DESIRABLE)

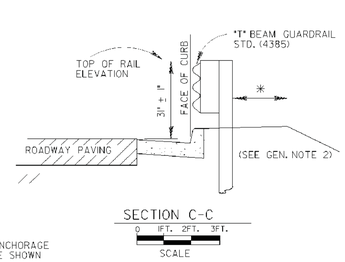




✳ DISTANCE FROM BACK OF POST TO EDGE OF GRADED SHOULDER SHALL NOT BE LESS THAN 2 FEET WITH NORMAL LENGTH POST AND NOT LESS THAN 1 FOOT WITH ADDITIONAL LENGTH POST.(STD. 4380)

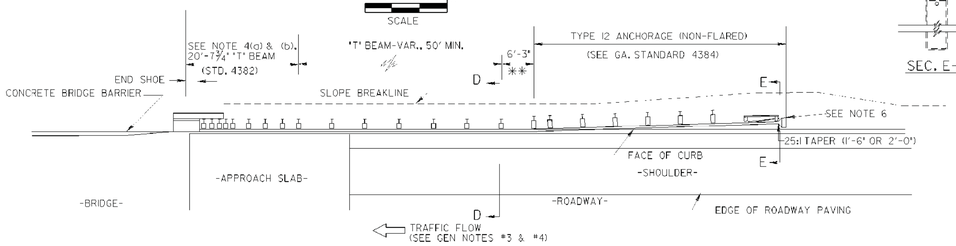
GUARDRAIL LOCATION AT BRIDGE WITH NARROW WALK

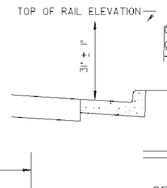


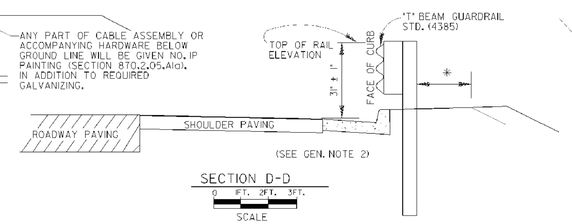


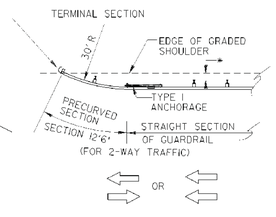
✳SEE STD. 4385 FOR TRANSITION PIECE BETWEEN 'T'-BEAM AND ANCHORAGES,WHERE REQUIRED.

GUARDRAIL LOCATION SHOULDER ACROSS BRIDGE

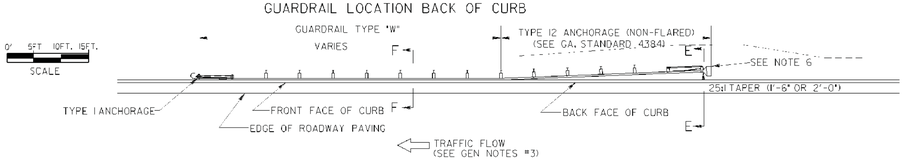


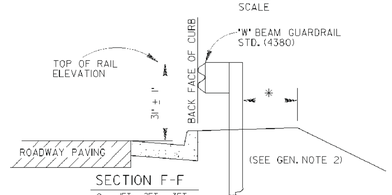






GUARDRAIL LOCATION BACK OF CURB





NOTE: APPLICATION OF ABOVE DETAILS IS TYPICAL FOR URBAN TYPE FACILITIES WITH CONTINOUS CONCRETE CURB & GUTTER ADJACENT TO THE PAVEMENT. SEE SEPARATE DETAILS WHERE SECTIONS OF ASPHALT CURB ARE LOCATED UNDER GUARDRAIL ON SHOULDERS OF RURAL TYPE FACILITIES.

GENERAL NOTES:

1. SPECIFICATIONS: GEORGIA STANDARD,CURRENT EDITION, AND SUPPLEMENTS THERETO.
2. IF GUARDRAIL IS DIRECTLY ABOVE CURB, DO NOT USE STD. 1033D,1033G,1034D, 1034G CATCH BASINS AT SAME LOCATION. EITHER USE OTHER DRAINAGE STRUCTURES OR ADJUST LOCATION OF CATCH BASINS TO MISS GUARDRAIL.
3. (a) TYPE 12 ANCHORAGES ARE REQUIRED AT ALL APPROACH ENDS OF GUARDRAIL AND AT TRAILING ENDS THAT FALL WITHIN THE C.Z.W. OF THE TWO-WAY TRAFFIC. C.Z.W.=CLEAR ZONE WIDTH.
   (b) TYPE 1 ANCHORAGE WITH A 30' R PRECURVED RAIL SECTION MAY BE USED AT TRAILING ENDS THAT FALL OUTSIDE THE C.Z.W. OF THE TWO-WAY TRAFFIC.
   (c) TYPE 1 ANCHORAGES ARE USED AT THE TRAILING ENDS OF ONE-WAY TRAFFIC.
4. (a) GUARDRAIL PER APPLICABLE DETAIL AT LEFT IS REQUIRED AT BOTH APPROACH BRIDGE END POSTS WITH ONE-WAY TRAFFIC AND AT ALL 4 BRIDGE END POSTS WITH 2-LANES & 2-WAY TRAFFIC.
   (b) BRIDGE END POSTS AT THE TRAILING END OF ONE-WAY TRAFFIC OR AT THE TRAILING END OF TWO-WAY TRAFFIC ON MULTI-LANE(FOUR OR MORE) FACILITIES DOES NOT REQUIRE GUARDRAIL UNLESS STEEP SLOPES OR OTHER CONDITION WARRANTS GUARDRAIL FOR TRAFFIC COMING OFF OF BRIDGE. IF REQUIRED FOR THIS CONDITION,GUARDRAIL TYPE SHALL BE AS WARRANTED & WITHOUT ADDITIONAL POST/DOUBLE THICK RAIL.
5. SKETCHES SHOWN HERE FOR GUARDRAIL AND ANCHORAGES ARE REPRESENTATIVE. SEE SEPERATE STANDARDS OR DETAILS FOR SPECIFIC REQUIREMENTS.
6. NON-FLARED ANCHORAGES SHALL HAVE STRAIGHT TAPERS 25:1 SO THAT THE EXTRUDER OR IMPACT HEAD WILL NOT PROTRUDE OVER CURB FACE.

SPECIAL NOTE:
LOCATION AND QUANTITIES GIVEN IN THE PLANS FOR GUARDRAIL AND ANCHORAGES ARE ESTIMATES MADE FROM OFFICE COMPUTATIONS. A FINAL DETERMINATION AS TO LOCATIONS AND QUANTITIES OF GUARDRAIL AND ANCHORAGE WILL BE MADE BY THE ENGINEER OR A REPRESENTATIVE FROM THE OFFICE OF TRAFFIC OPERATIONS AFTER CONSTRUCTION OF ROADWAY AND CURB. THIS APPLIES TO ALL CONDITIONS SHOWN ON THIS STANDARD.

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

STANDARD GUARDRAIL LOCATION

(ON ROADS WITH CURB & GUTTER, HEADER CURB OR INTEGRAL CURB)
31 INCH GUARDRAIL HEIGHT

DATE	REVISION	BY

SCALE AS SHOWN — AUGUST 2011

DES. G.L.O. (SUBMITTED) — STATE DESIGN POLICY ENGINEER
DRW. G.L.O.
CHK. B.P.E. (APPROVED) — CHIEF ENGINEER
REVIEW B.A.S.

NUMBER 4391

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3/1/2007 GPLN

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
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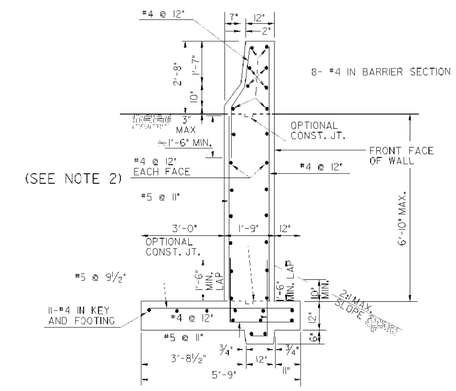
REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
GEORGIA STANDARDS

DRAWING No. 41-025

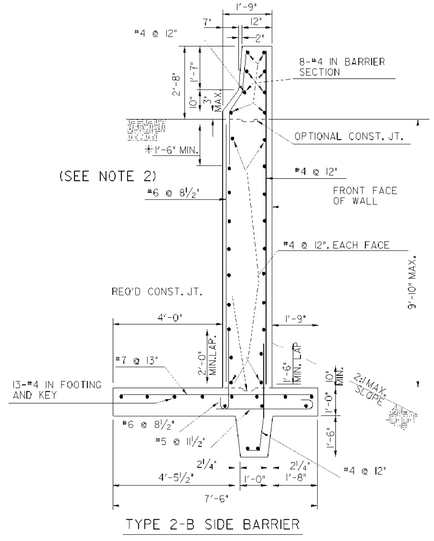
RELEASED FOR CONSTRUCTION - 07-23-13



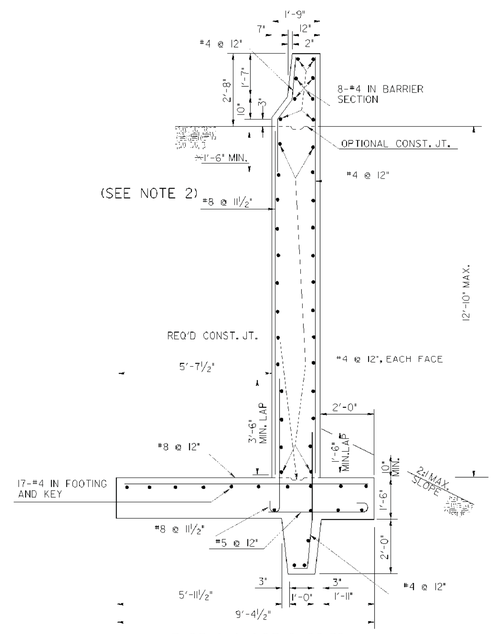
* NON-CONTACT LAPS ARE ACCEPTABLE

TYPE 2-A SIDE BARRIER

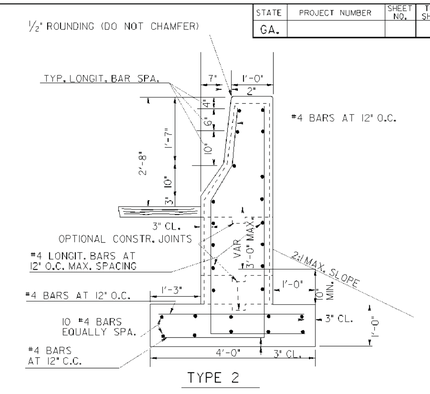
RED'D SOIL BEARING CAPACITY	
TYPE	CAPACITY, TONS/SF
2-A	1.25
2-B	1.25
2-C	1.5
2	1.0



TYPE 2-B SIDE BARRIER



TYPE 2-C SIDE BARRIER



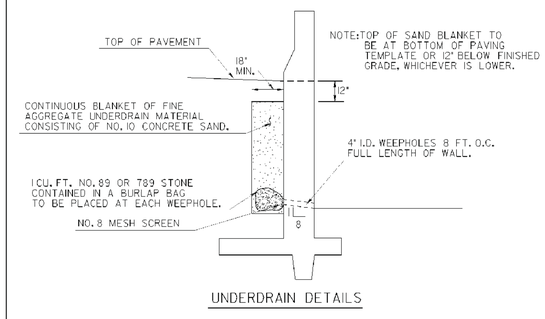
TYPE 2

GENERAL NOTES:

1. AT CONTRACTOR'S OPTION, SIDES OF FOOTING KEY MAY BE VERTICAL. MAINTAIN WIDTH SHOWN AT TOP OF KEY. BACKFILL FRONT FACE OF WALL FIRST.
2. UNDERDRAIN SYSTEM PER DETAILS AT BOTTOM LEFT AND/OR NOTE 9 IS REQUIRED FOR TYPES 2-A, 2-B, AND 2-C.
3. EXPOSED CONCRETE SURFACES SHALL RECEIVE A TYPE III FINISH.
4. 1" EXPANSION JOINTS SHALL BE PROVIDED IN WALL, FOOTING AND KEY AT A MAXIMUM SPACING OF 100 FT. EXPANSION JOINTS SHALL BE SPACED UNIFORMLY.
5. CONTRACTION JOINTS SHALL BE AS SPECIFIED FOR SIDE BARRIER, GA. STD. 4948A.
6. EXPANSION AND CONTRACTION JOINTS IN TYPES 2-A, 2-B, AND 2-C SIDE BARRIER SHALL BE WATERPROOFED ON THE BACK SIDE. WATERPROOFING SHALL BE 3-PLY AND EXTEND FROM TOP OF SAND BLANKET TO TOP OF FOOTING FOR 1'-6" MIN. EACH SIDE OF JOINT.
7. TYPES 2, 2-A, 2-B, AND 2-C SIDE BARRIER SHALL BE PAID FOR PER LIN. FT. AS CONCRETE SIDE BARRIER, TYPE 2, 2A, 2B, OR 2C PRICE BID TO INCLUDE COST OF WATERPROOFING AND ALL INCIDENTALS AS SPECIFIED IN SECTION 621 OF THE STD. SPEC.
8. SIDE BARRIER DESIGNED FOR THE FOLLOWING SOIL PROPERTIES:

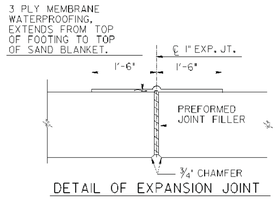
   θ = ANGLE OF INTERNAL FRICTION 28°
   ⅋ = UNIT WEIGHT = 110 PCF
   A = COEFF. OF SLIDING FRICTION = .45

9. A SYNTHETIC DRAINAGE BLANKET SELECTED FROM THE DEPARTMENT'S QUALIFIED PRODUCTS LIST IS AN ACCEPTABLE SUBSTITUTE FOR THE SAND BLANKET, BAG OF STONE, AND MESH SCREEN SHOWN IN THE UNDERDRAIN DETAILS.

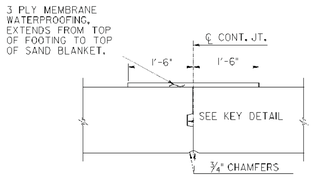


UNDERDRAIN DETAILS

SEE GEN. NOTE 9 FOR ALTERNATE

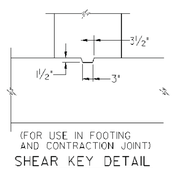


DETAIL OF EXPANSION JOINT



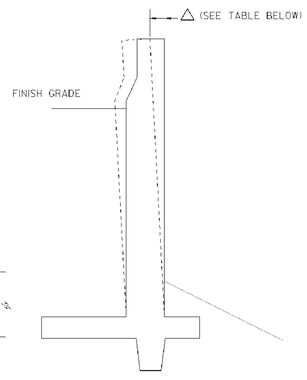
DETAIL OF CONTRACTION JOINT

△ (INCHES)	
WALL TYPE	DIMENSION
2-A	0
2-B	0
2-C	3/16



(FOR USE IN FOOTING AND CONTRACTION JOINT)

SHEAR KEY DETAIL



WALL BATTER DETAIL

DATE	REVISION	BY
1-25-07	ADDED BAR LAP NOTE AND WALL BATTER DETAIL.	GLO

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

STANDARD

CONCRETE SIDE BARRIER
TYPES 2, 2A, 2B & 2C

NO SCALE — DEC., 1999

DES. DRW. TRA. CHK. — (SUBMITTED) STATE ROAD & AIRPORT DESIGN ENGINEER — (APPROVED) CHIEF ENGINEER

NUMBER 4948B

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

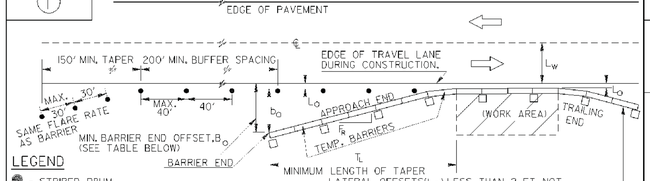
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
GEORGIA STANDARDS

DRAWING No. 41-026

3/1/2007 GPLN

RELEASED FOR CONSTRUCTION - 07-23-13

OPTION ① — BARRIER DELINEATIONS, OFFSETS, & FLARE RATES



LEGEND

- ● - STRIPED DRUM
- □ - 10'x10' YELLOW PANELS WITH TYPE VII SHEETING- MAX. 40' SPACING-LONGITUDINAL SECTION-MAX. 20' SPACING IN TAPER
- T_L - MINIMUM TAPER LENGTH OF TEMPORARY BARRIER MEASURED FROM THE SECTION OF TEMPORARY BARRIER RUNNING PARALLEL WITH THE TRAVEL LANE TO THE BARRIER END IN FEET
- B_O - MINIMUM BARRIER END OFFSET DISTANCE IN FEET
- L_O - DESIRABLE MINIMUM LATERAL OFFSET DISTANCE FROM THE EDGE OF THE TRAVEL LANE TO THE TOE OF THE TEMPORARY BARRIER IN FEET
- b_O - MINIMUM BARRIER END OFFSET(B_O) MINUS THE DESIRABLE MINIMUM LATERAL OFFSET(L_O)
- F_R - MINIMUM FLARE RATE OF THE TEMPORARY BARRIER IN THE TAPER SECTION
- L_W - LANE WIDTH IN FEET

MINIMUM LENGTH OF TAPER REQUIRED

$b_O = B_O - L_O$

$T_L = b_O \times F_R$

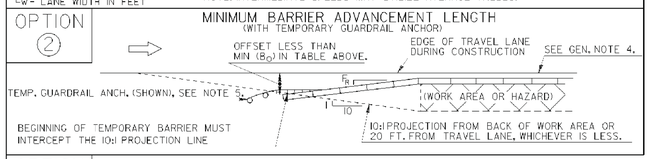
POSTED SPEED ON THE ROADWAY	DESIRABLE MINIMUM LATERAL OFFSET (FT.) L_O	FLARE RATE F_R	B_O MINIMUM OFFSET TO BARRIER END (FEET)
30-40 MPH	2	5:1	13
45-50 MPH	2	6:1	16
55 MPH	2	8:1	23
60-70 MPH	2	8:1	30

NOTE: INTERMEDIATE SPEEDS MAY UTILIZE AVERAGE VALUES.

FOR A TWO-LANE TWO-WAY ROADWAY THE LANE WIDTH(L_W) PLUS THE LATERAL OFFSET(L_O) MUST BE GREATER THAN THE MINIMUM BARRIER END OFFSET(B_O), OR THE TRAILING END SHALL BE TAPERED SAME AS APPROACH.

IF $L_W + L_O$ IS LESS THAN 20 FT. FOR THE WORK AREA OR THE TRAILING END, THEN THE 10'x10' PANELS SHALL BE REFLECTORIZED ON BOTH SIDES.

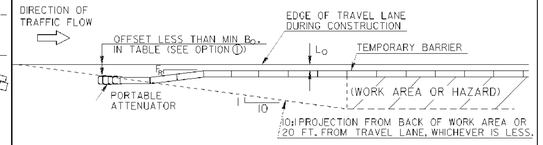
OPTION ② — MINIMUM BARRIER ADVANCEMENT LENGTH (WITH TEMPORARY GUARDRAIL ANCHOR)



BEGINNING OF TEMPORARY BARRIER MUST INTERCEPT THE 10:1 PROJECTION LINE

10:1 PROJECTION FROM BACK OF WORK AREA OR 20 FT. FROM TRAVEL LANE, WHICHEVER IS LESS.

OPTION ③ — PORTABLE ATTENUATOR TERMINAL

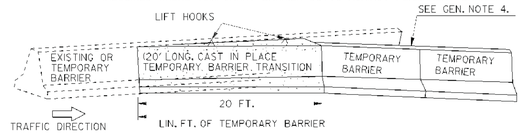


10:1 PROJECTION FROM BACK OF WORK AREA OR 20 FT. FROM TRAVEL LANE, WHICHEVER IS LESS.

NOTES:
1. SEE SPECIFICATION SECTIONS 648 AND 150.
2. SEE CONSTRUCTION DETAIL G-II FOR NON-GATING ATTENUATORS.
3. SEE GENERAL NOTE NO. 4.

OPTION ④ — TEMPORARY BARRIER TRANSITION - CAST - IN - PLACE

(REQUIRED WHERE TEMPORARY BARRIER BUTTS AGAINST PERMANENT BARRIER)



NOTES:
1. COVER PERMANENT BARRIER, PAVEMENT, & PRECAST SECTIONS WITH POLYETHYLENE AS A BOND BREAKER.
2. PLACE BARRIER SIDE FORMS AGAINST PERMANENT & TEMP. BARRIER TO FORM SMOOTH TRANSITION.
3. USE CLASS "A" CONCRETE. A TYPE I FINISH IS SUFFICIENT.
4. TRANSITION SHALL BE COMPLETED BEFORE TEMPORARY BARRIER IS EXPOSED TO ON-COMING TRAFFIC.
5. TRANSITION IS NOT REQ'D. AT TRAILING END OF ONEWAY TRAFFIC FLOW.
6. TRANSITION WILL BE PAID FOR AS TEMPORARY BARRIER. PAYMENT INCLUDES REUSE, REMOVE AND DISPOSAL. TEMPORARY MEDIAN TRANSITION WILL BE PROVIDED BY THE CONTRACTOR WITH PAYMENT MADE AT THE PRICE BID FOR BARRIER AS SPECIFIED IN THE PLANS.

END TREATMENT FOR BARRIER TERMINAL

WHERE BARRIER END OFFSETS REQUIRED IN OPTION ① CAN NOT BE OBTAINED THEN, A TEMPORARY GUARDRAIL ANCHORAGE AT THE BARRIER END WILL BE REQUIRED AS PER OPTION ②. IF INSTALLATION OF GUARDRAIL ANCHORAGE IS NOT PRACTICAL DUE TO LOCAL CONDITIONS, A TEMPORARY PORTABLE IMPACT ATTENUATOR SHOULD BE USED AT THE BARRIER END AS PER OPTION ③.

① = FIRST OPTION, MINIMUM OFFSET IS OBTAINED.

② = SECOND OPTION, TEMPORARY GUARDRAIL ANCHORAGE, AS SPECIFIED.

③ = THIRD OPTION, PORTABLE ATTENUATOR.

④ = FOURTH OPTION, TERMINATE WITH A CAST-IN-PLACE TRANSITION.

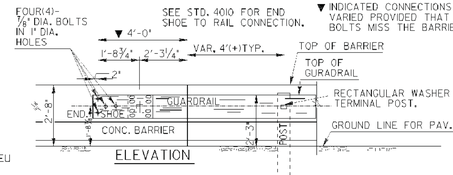
⑤ = FIFTH OPTION, CONNECT TO GUARDRAIL.

OPTION ⑤ — TEMPORARY CONCRETE BARRIER/GUARDRAIL CONNECTIONS & JUNCTIONS

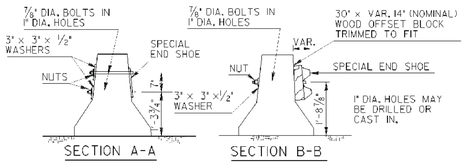
NOTE:
PAYMENT FOR TEMPORARY CONCRETE BARRIER WILL INCLUDE ALL SPECIAL END SHOES, BOLTS, BOLT HOLES, NUTS, WASHERS, ADDITIONAL GUARDRAIL POSTS, ETC., NECESSARY FOR THE CONNECTIONS, AS SHOWN, WHEN REQUIRED.

ALL SPECIAL END SHOES WILL BE CONNECTED TO CONCRETE BARRIER WITH FOUR ⅞" DIA. BOLTS (A.S.T.M. A-307). LOCATION OF THE BOLTS MAY BE VARIED AT THE DIRECTION OF THE ENGINEER. REMOVABLE TYPE ⅞" DIA. CONCRETE ANCHOR BOLTS, INSTALLED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS, MAY BE USED INSTEAD OF THE BOLTS CONNECTION SYSTEM SHOWN. ANY BOLTS BROKEN OR IMPROPERLY INSTALLED WILL BE CAUSE FOR REJECTION.

⅞" THREADED RODS WITH NUTS AND WASHERS MAY BE USED IN LIEU OF ⅞" BOLTS.



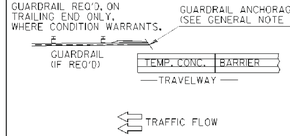
▼ INDICATED CONNECTIONS MAY BE VARIED PROVIDED THAT THE ⅞" DIA. BOLTS MISS THE BARRIER REINFORCING.



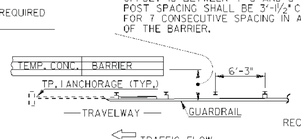
AT LEAST A 5'-0" OFFSET IS DESIRABLE. OFFSET SHALL BE A MIN. OF 4'-3" WITH 6'-3" C. TO C. POST SPACING. WHEN OFFSET IS BETWEEN 4'-3" AND 3' MIN. POST SPACING SHALL BE 3'-1½" C. TO C. FOR 7 CONSECUTIVE SPACING IN ADVANCE OF THE BARRIER.

GUARDRAIL REQ'D. ON TRAILING END ONLY. WHERE CONDITION WARRANTS.

GUARDRAIL ANCHORAGE REQUIRED (SEE GENERAL NOTE 7).

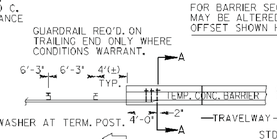


PLAN
ONE-WAY TRAFFIC TRAILING END



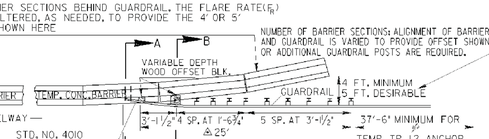
PLAN
ONE-WAY TRAFFIC APPROACH END

GUARDRAIL REQ'D. ON TRAILING END ONLY WHERE CONDITIONS WARRANT.



PLAN
ONE-WAY TRAFFIC TRAILING END

FOR BARRIER SECTIONS BEHIND GUARDRAIL, THE FLARE RATE(F_R) MAY BE ALTERED, AS NEEDED, TO PROVIDE THE 4' OR 5' OFFSET SHOWN HERE



4.2 SECTIONS OF "W"-BEAM, ONE SET INSIDE THE OTHER.

PLAN

NUMBER OF BARRIER SECTIONS; ALIGNMENT OF BARRIER AND GUARDRAIL IS VARIED TO PROVIDE OFFSET SHOWN OR ADDITIONAL GUARDRAIL POSTS ARE REQUIRED.

PAY LIMITS FOR TEMP. TP. 12 ANCHORAGE
62'-6" (±) MINIMUM
(SEE GENERAL NOTE 6).

GENERAL NOTES:

1. BARRIERS SHALL BE PLACED SUCH THAT OPENINGS BETWEEN INDIVIDUAL SECTIONS SHALL BE KEPT TO A MAXIMUM. ALL JOINTS BETWEEN PRECAST SECTIONS SHALL BE CONNECTED AS REQUIRED BY GA. STANDARD 4961 AND/OR MANUFACTURERS RECOMMENDATIONS.
2. THE BARRIER IS NOT TO BE CONNECTED TO THE BRIDGE DECK BY CONNECTING PINS OR REBAR UNLESS AN APPROVED METHOD FOR CONNECTION IS REQUIRED.
3. PRECAST BARRIER SECTIONS SHALL CONFORM TO THE DIMENSIONAL REQUIREMENTS IN GA. STANDARD 4961 AND/OR MANUFACTURERS RECOMMENDATIONS.
4. TRAFFIC CONTROL NOT SHOWN ON THIS STANDARD SHALL BE IN ACCORDANCE WITH CURRENT EDITION OF SECTION 150, STANDARDS, CONSTRUCTION DETAILS AND/OR PLAN SHEETS, DRUMS, ETC. SHOWN FOR OPTION ① SHALL BE APPLICABLE FOR THE OTHER OPTIONS AS WELL. DRUMS SHALL BE PROVIDED IN ADVANCE OF TEMPORARY BARRIERS INSTALLATION AND SHALL BE IN PLACE BEFORE THE BARRIER IS INSTALLED AND REMOVED AFTER THE BARRIER IS REMOVED.
5. WHERE TEMPORARY GUARDRAIL ANCHORAGE IS SPECIFIED, THE FIRST BREAKAWAY SHALL BE 37'-5" MINIMUM IN ADVANCE OF BEGINNING THE TEMPORARY BARRIER INSTALLATION.
6. PAYMENT FOR TEMORARY GUARDRAIL ANCHORS INCLUDES END SHOE, CONNECTING BOLTS, NUTS AND WASHERS, ADDITIONAL POSTS AND OFFSETS BLOCKS, 25 FT. ADDITIONAL "W"-BEAM WITH THE DOUBLE NESTED SECTION PLUS STANDARD ANCHORAGE COMPONENTS. (TOTAL LENGTH=62'-6"(±) MIN.
7. UNACCEPTABLE OR NON-STANDARD END TREATMENT WILL NOT BE LEFT IN PLACE AFTER REMOVAL OF THE TEMPORARY BARRIER, ALL GUARDRAIL AND ALL ANCHORAGES LEFT IN PLACE WILL BE TREATED AS NECESSARY TO CONFORM WITH CURRENT STANDARDS IMMEDIATELY AFTER REMOVAL OF THE TEMPORARY BARRIER.

REVISION	DATE	BY
REVISED ALL OPTIONS AND REV. REFLECTIVE SHEETING TYPE AND GENERAL NOTES. DIM. SH. SPEC.	5-10-07	GLO
	2-1-01	RMU

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

STANDARD

TEMPORARY BARRIER
(END TREATMENT OPTIONS)

NO SCALE REV. & REDR. MAY, 1999

DES. ____ DRW. ____ TRA. ____ CHK. ____

(SUBMITTED) STATE ROAD & AIRPORT DESIGN ENGINEER

(APPROVED) CHIEF ENGINEER

NUMBER 4960

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
GEORGIA STANDARDS

DRAWING No. 41-027

3/1/2007 GPLN

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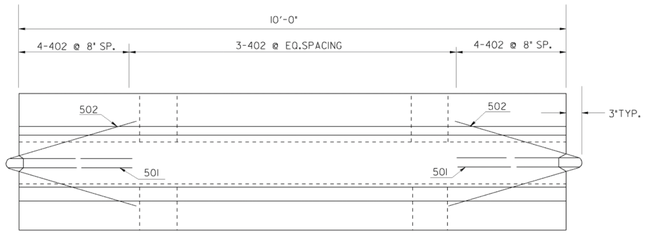
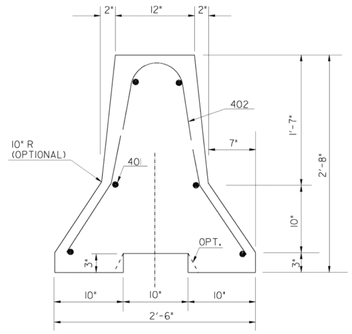
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

PRECAST CONCRETE BARRIER DETAILS

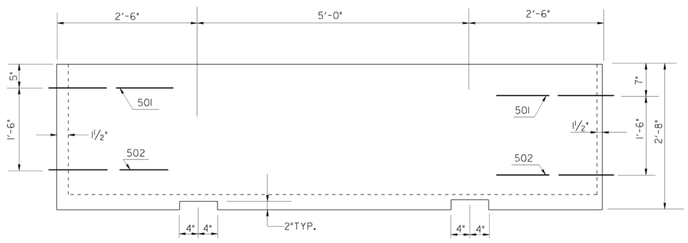


PLAN

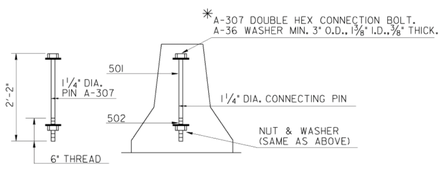
NOTE:
BARRIER SECTIONS SHALL BE CONNECTED TOGETHER WITH THE 1¼" DIA. A-307 DOUBLE HEX CONNECTION BOLT. THE BOTTOM NUT & WASHER SHALL BE MAINTAINED BY THE CONTRACTOR FOR THE DURATION OF THE BARRIER INSTALLATION.



END ELEVATION



SIDE VIEW



PIN CONNECTION

*AN ALTERNATE CONNECTING PIN WITH A FUSED NUT ON THE TOP THREADED PORTION AND NUT AND WASHER AS SPECIFIED ON THE BOTTOM MAY ALSO BE USED.

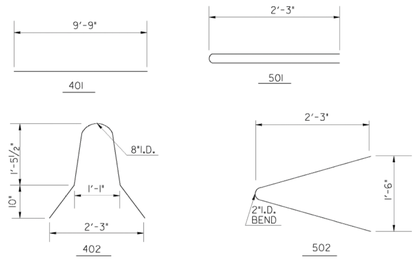
GENERAL NOTES:

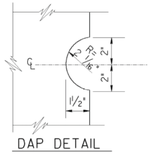
1-MATERIALS: CLASS 'A' CONCRETE AND 40 STEEL.

2-SEE GA. SPECIFICATIONS FOR BASIS OF PAYMENT AND METHOD NO.___.

3-REINFORCEMENT, HAVING AN AREA AT LEAST EQUAL TO REBARS SHOWN, MAY BE USED AS AN ALTERNATE.

4-BARRIERS SHALL BE PLACED SUCH THAT OPENINGS BETWEEN INDIVIDUAL SECTIONS SHALL BE KEPT TO A MAXIMUM.





DAP DETAIL

DATE	REVISION
9-8-06	REV. CONNECTION WASHER AND REV. GEN. NOTE NO. 4.
5-2-01	REV. REBAR & PIN CONN.
5-10-96	COTTER PIN REQUIREMENT

G.L.O. — R.M.U.L. — BY

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

STANDARD
DETAILS OF PRECAST TEMPORARY BARRIERS

NO SCALE — AUG., 1995

DES. ____ DRW. ____ TRA. ____ CHK. ____

(SUBMITTED) STATE ROAD & AIRPORT DESIGN ENGR.

(APPROVED) CHIEF ENGINEER

NUMBER 4961

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RELEASED FOR CONSTRUCTION - 07-23-13

3/1/2007 GPLN

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

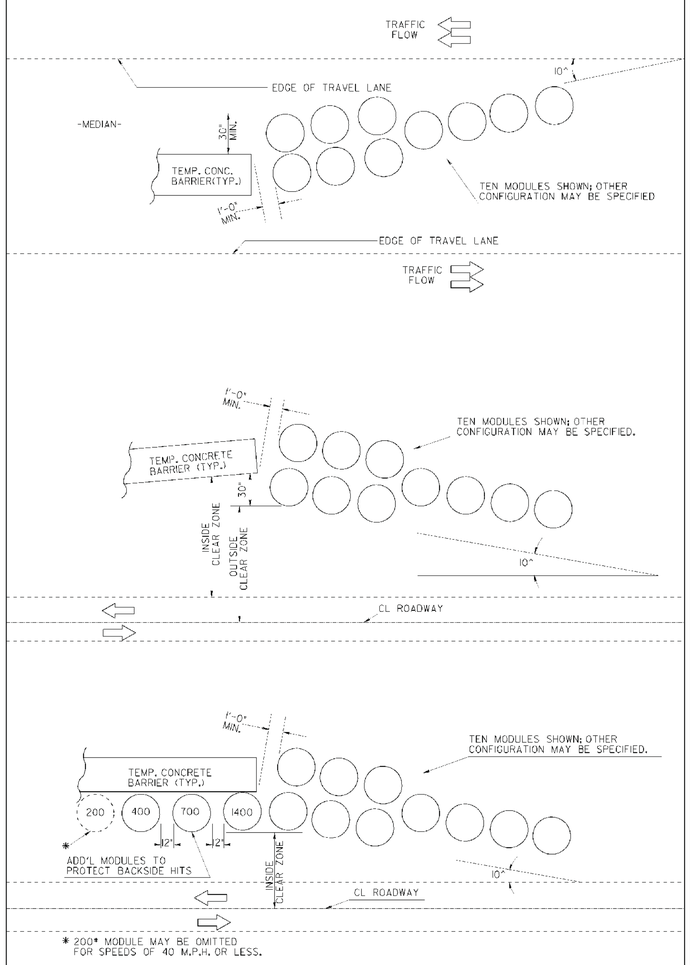
REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
GEORGIA STANDARDS

DRAWING No. 41-028

RELEASED FOR CONSTRUCTION - 07-23-13

LOCATION POSITIONS

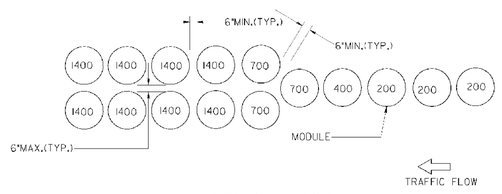


* 200* MODULE MAY BE OMITTED FOR SPEEDS OF 40 M.P.H. OR LESS.

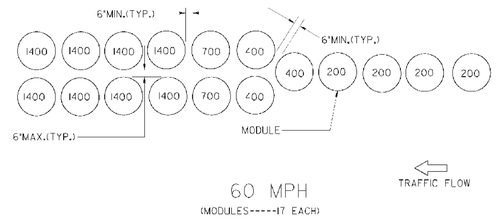
NOTE: WHERE ADDITIONAL MODULES ARE REQUIRED ON THE BACKSIDE, THE TOTALS SUMMARIZED AT THE RIGHT SHALL BE INCREASED ACCORDINGLY.

TYPICAL ARRAY CONFIGURATION

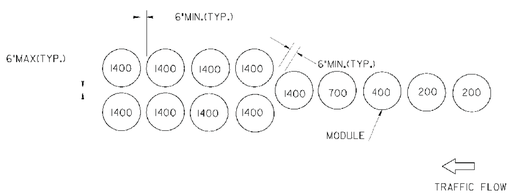
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			



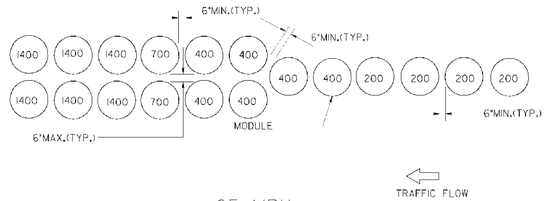
(MODULES-----15 EACH)
55 MPH



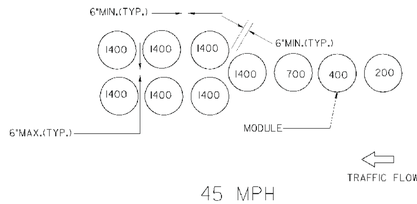
60 MPH
(MODULES-----17 EACH)



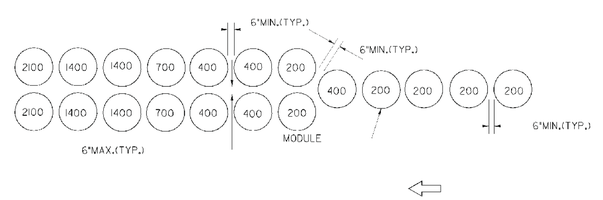
(MODULES---13 EACH)
50 MPH



65 MPH
(MODULES-----18 EACH)



45 MPH
(MODULES-----10 EACH)



70 MPH
(MODULES-----19 EACH)

FOR 40 MPH ARRAY, SEE STD. 4960

GENERAL NOTES:

(1) SPECIFICATIONS: GEORGIA STANDARD, CURRENT EDITION, & SUPPLMENTS THERETO. SEE SECTION 150 FOR PAY ITEM DESIGNATION.

(2) NUMBERS SHOWN INSIDE MODULES REPRESENT POUNDS OF SAND.

(3) IN THE ABSENCE OF EITHER PAVING OR STABLE BASE OR BOTH, THE MODULES SHALL BE SET ON ¾" THICK PLYWOOD SUPPORTS.

(4) ARRAYS SHOWN HERE ARE NOT TO BE USED IN GORE AREAS.

(5) ATTENUATOR SHALL BE AT A 10^ ANGLE TO THE EDGE OF THE TRAVEL LANE.

DATE	REVISION	BY
5-9-99	ADD 70 MPH ARRAY	G.J.P.
6-30-98	REDRAWN	

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

STANDARD
TEMPORARY TRAFFIC IMPACT ATTENUATOR
SAND LOADED MODULES

NO SCALE — AUG., 1993

DES. ____ DWN. ____ CHK. ____

(SUBMITTED) James A. Kaput STATE ROAD & AIRPORT DESIGN ENGR.
(APPROVED) Gerald L. Ewing CHIEF ENGINEER

NUMBER 4962

3/1/2007 GPLN

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
GEORGIA STANDARDS

DRAWING No. 41-029

RELEASED FOR CONSTRUCTION - 07-23-13

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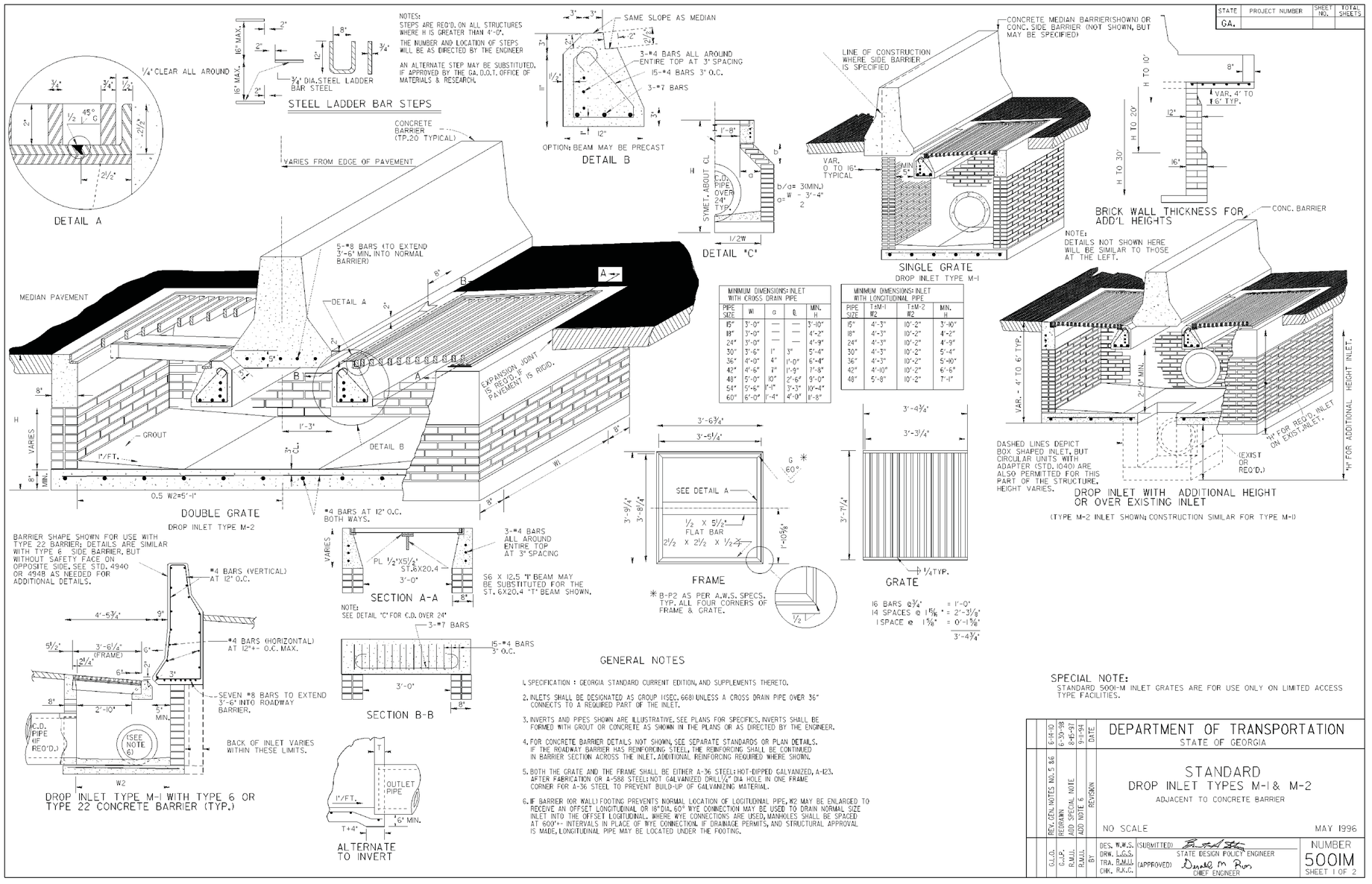
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			



MINIMUM DIMENSIONS: INLET WITH CROSS DRAIN PIPE				
PIPE SIZE	W1	a	℄	MIN. H
15"	3'-0"	—	—	3'-10"
18"	3'-0"	—	—	4'-2"
24"	3'-0"	—	—	4'-9"
30"	3'-6"	1"	3"	5'-4"
36"	4'-0"	4"	1'-0"	6'-4"
42"	4'-6"	7"	1'-9"	7'-8"
48"	5'-0"	10"	2'-6"	9'-0"
54"	5'-6"	1'-1"	3'-3"	10'-4"
60"	6'-0"	1'-4"	4'-0"	11'-8"

MINIMUM DIMENSIONS: INLET WITH LONGITUDINAL PIPE			
PIPE SIZE	T=M-1 W2	T=M-2 W2	MIN. H
15"	4'-3"	10'-2"	3'-10"
18"	4'-3"	10'-2"	4'-2"
24"	4'-3"	10'-2"	4'-9"
30"	4'-3"	10'-2"	5'-4"
36"	4'-3"	10'-2"	5'-10"
42"	4'-10"	10'-2"	6'-6"
48"	5'-8"	10'-2"	7'-1"

GENERAL NOTES

1. SPECIFICATION : GEORGIA STANDARD CURRENT EDITION, AND SUPPLEMENTS THERETO.
2. INLETS SHALL BE DESIGNATED AS GROUP 1(SEC. 668) UNLESS A CROSS DRAIN PIPE OVER 36" CONNECTS TO A REQUIRED PART OF THE INLET.
3. INVERTS AND PIPES SHOWN ARE ILLUSTRATIVE. SEE PLANS FOR SPECIFICS. INVERTS SHALL BE FORMED WITH GROUT OR CONCRETE AS SHOWN IN THE PLANS OR AS DIRECTED BY THE ENGINEER.
4. FOR CONCRETE BARRIER DETAILS NOT SHOWN, SEE SEPARATE STANDARDS OR PLAN DETAILS. IF THE ROADWAY BARRIER HAS REINFORCING STEEL, THE REINFORCING SHALL BE CONTINUED IN BARRIER SECTION ACROSS THE INLET. ADDITIONAL REINFORCING REQUIRED WHERE SHOWN.
5. BOTH THE GRATE AND THE FRAME SHALL BE EITHER A-36 STEEL; HOT-DIPPED GALVANIZED, A-123. AFTER FABRICATION OR A-588 STEEL; NOT GALVANIZED DRILL ¼" DIA HOLE IN ONE FRAME CORNER FOR A-36 STEEL TO PREVENT BUILD-UP OF GALVANIZING MATERIAL.
6. IF BARRIER (OR WALL) FOOTING PREVENTS NORMAL LOCATION OF LOGITUDINAL PIPE, W2 MAY BE ENLARGED TO RECEIVE AN OFFSET LONGITUDINAL OR 18"DIA. 60° WYE CONNECTION MAY BE USED TO DRAIN NORMAL SIZE INLET INTO THE OFFSET LOGITUDINAL. WHERE WYE CONNECTIONS ARE USED, MANHOLES SHALL BE SPACED AT 600'+- INTERVALS IN PLACE OF WYE CONNECTION. IF DRAINAGE PERMITS, AND STRUCTURAL APPROVAL IS MADE, LONGITUDINAL PIPE MAY BE LOCATED UNDER THE FOOTING.

SPECIAL NOTE:
STANDARD 5001-M INLET GRATES ARE FOR USE ONLY ON LIMITED ACCESS TYPE FACILITIES.

DATE	REVISION	BY
6-14-10	REV. GEN. NOTES NO. 5 & 6	G.L.O.
6-30-98	REDRAWN	C.J.P.
8-15-97	ADD SPECIAL NOTE	R.M.U.
9-11-94	ADD NOTE 6	R.M.U.

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

STANDARD
DROP INLET TYPES M-1 & M-2
ADJACENT TO CONCRETE BARRIER

NO SCALE — MAY 1996

DES. W.W.S. DRW. L.G.S. TRA. R.M.U. CHK. R.K.C.

(SUBMITTED) STATE DESIGN POLICY ENGINEER

(APPROVED) CHIEF ENGINEER

NUMBER 5001M
SHEET 1 OF 2

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3/1/2007 GPLN

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
GEORGIA STANDARDS

DRAWING No. 41-030

23-JUL-2013 15:34	3:34:53 PM	500IMP	Y:\Roadways\126379\0008690\Dgn\Const Standards\500IMP.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	627	730

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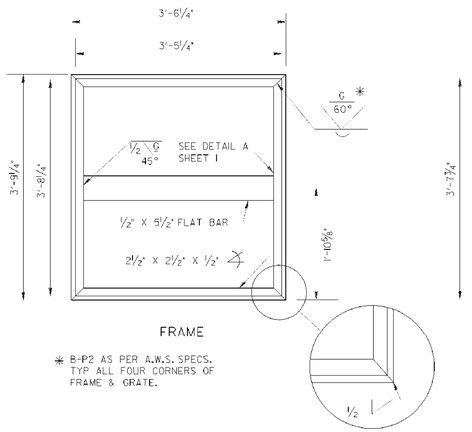
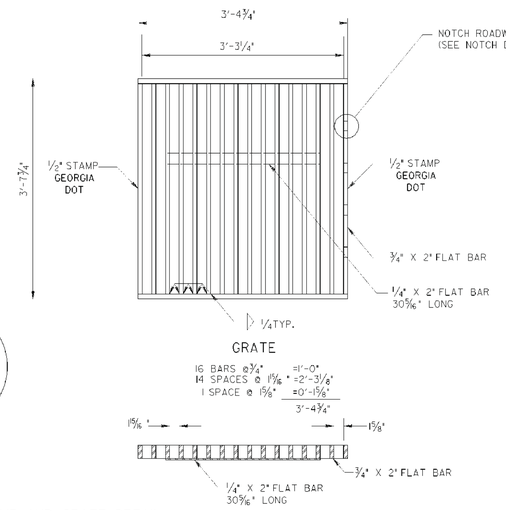
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

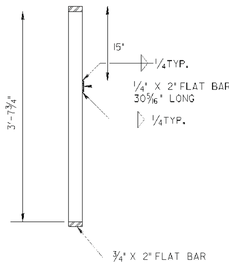


FRAME

* B-P2 AS PER A.W.S. SPECS. TYP ALL FOUR CORNERS OF FRAME & GRATE.

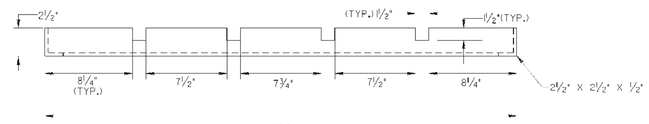


FRAME AND GRATE DETAIL

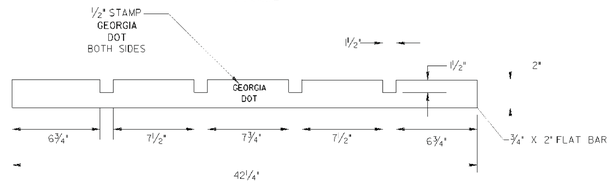


GENERAL NOTES:

1. SPECIFICATION : GEORGIA STANDARD CURRENT EDITION, AND SUPPLEMENTS THERETO.
2. NO SEPERATE MEASUREMENT OR PAYMENT SHALL BE MADE FOR THE FABRICATION AND INSTALLATION OF THE SECURITY CHAIN.

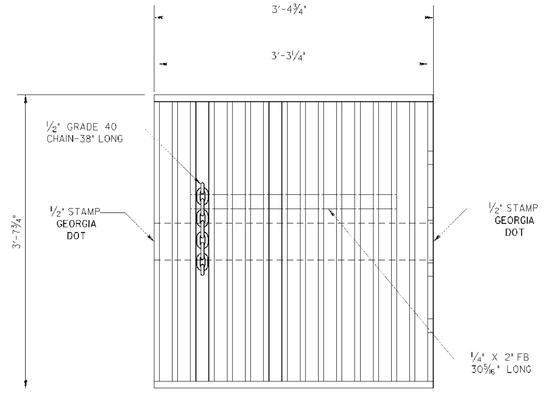


FRAME

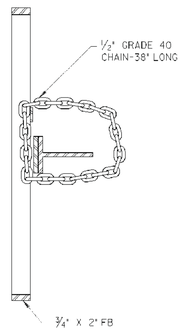


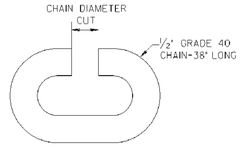
¾" X 2" FLAT BAR (REQ'D)

NOTCH DETAIL

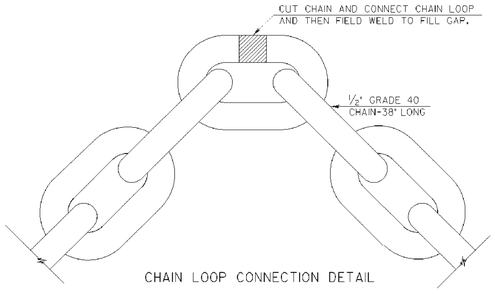


SECURITY CHAIN DETAIL

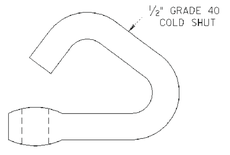




CUT CHAIN LINK DETAIL



CHAIN LOOP CONNECTION DETAIL



ALTERNATE CHAIN LOOP CONNECTION DETAIL

DATE	REVISION	BY
6-14-01	ADDED CHAIN DETAILS	G.L.D.
6-30-98	REDRAWN	G.L.P.
8-6-97	ADD SPECIAL NOTE	R.M.U.
9-8-94	ADD NOTE 6	R.M.U.

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

STANDARD
DROP INLET TYPES M-1 & M-2
ADJACENT TO CONCRETE BARRIER

NO SCALE — MAY 1996

DES. W.W.S.
DRW. L.G.S.
TRA. R.M.U.
CHK. R.A.C.

(SUBMITTED) STATE DESIGN POLICY ENGINEER

(APPROVED) CHIEF ENGINEER

NUMBER 500IM
SHEET 2 OF 2

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RELEASED FOR CONSTRUCTION - 07-23-13

3/1/2007 GPLN

THE LPA GROUP
TRANSPORTATION CONSULTANTS
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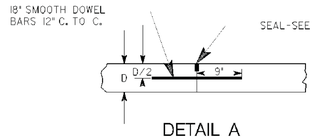
(770) 263-9118

REVISION DATES

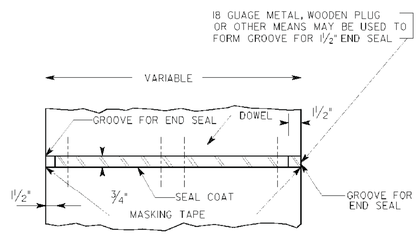
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
GEORGIA STANDARDS

DRAWING No. 41-031

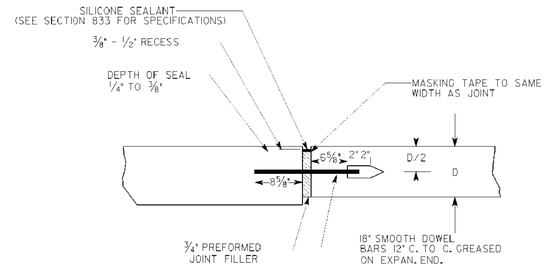
RELEASED FOR CONSTRUCTION - 07-23-13



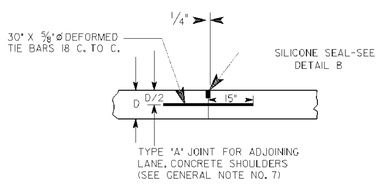
DETAIL A
TRANSVERSE CONSTRUCTION OR SAWED CONTRACTION JOINTS



DETAIL C
PLAN OF TRANSVERSE EXPANSION JOINT BETWEEN PAVEMENT AND BRIDGE APPROACH SLAB

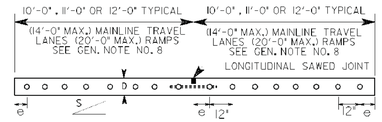


DETAIL D
EXPANSION JOINT



DETAIL E
ADJOINING LANES, CONCRETE SHOULDER, LONGITUDINAL SAWED OR FORMED JOINTS

FOR DETAILS OF SHOULDER SEE PLANS

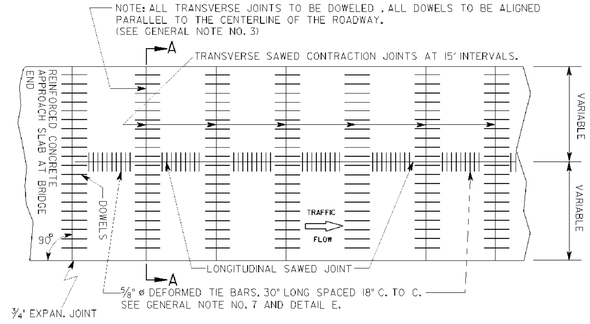


SEE PLANS FOR REQUIRED SLOPE

UNIFORM THICKNESS DOWELED PORTLAND CEMENT CONCRETE PAVING WITH CENTER JOINT AND TIE BARS AND 90° TRANSVERSE CONTRACTION JOINTS AT 15 FT. INTERVALS

e = 6" UNLESS SPECIFIED OTHERWISE

SECTION A-A
SECTION THROUGH TRANSVERSE JOINT

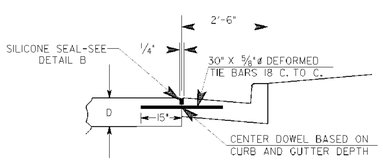


STANDARD JOINT LAYOUT

WHERE A NEW LANE WILL BE ADJOINING AN EXISTING P.C. CONCRETE PAVED LANE, THE SPACING FOR THE TRANSVERSE JOINTS IN THE NEW LANE WILL BE VARIED FROM THAT SHOWN ABOVE WHERE NECESSARY TO MATCH THE TRANSVERSE JOINTS IN THE EXISTING LANE. WHEN EXISTING PAVING JOINTS EXCEED 25 FEET IN LENGTH AN INTERMEDIATE TRANSVERSE JOINT WILL BE ESTABLISHED IN THE NEW LANE AT MID-SLAB.

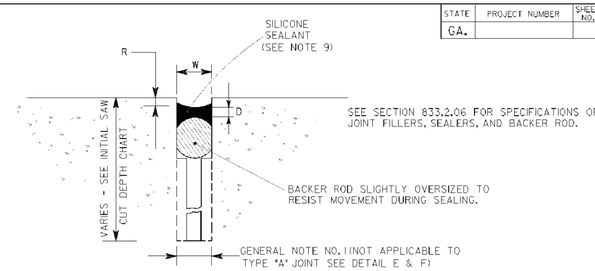
REQUIRED DOWEL BAR DIAMETERS

PAVEMENT THICKNESS (D)	DOWEL BAR DIAMETERS
6"	1¼"
7"	1¼"
8"	1¼"
9"	1¼"
10"	1½"
11"	1½"
12"	1½"



DETAIL F
ADJOINING CURB AND GUTTER

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			



DETAIL B
CONTRACTION OR CONSTRUCTION JOINT

JOINT SCHEDULE			
TYPE	W	D	R
TRANSVERSE JOINT	¼"	¼"-⅜"	⅜" TO ½"
℄ LONGITUDINAL SAWED JOINT	¼"	¼"-⅜"	⅜" TO ½"
JOINT FOR ADJOINING LANE FOR TYPE "A" JOINT	¼"	¼"-⅜"	⅜" TO ½"

REQUIRED MINIMUM DEPTH OF INITIAL SAW CUT FOR LONGITUDINAL AND TRANSVERSE JOINTS. ALL INITIAL CUTS TO BE ⅛" IN WIDTH.

DEPTH OF PAVEMENT D	DEPTH OF CUT
6"	1⅞"
7"	2"
8"	2¼"
8½"	2⅜"
9"	2½"
10"	2¾"
11"	3"
12"	3¼"

GENERAL NOTES:

1. THE LOCATION OF THE INITIAL SAW CUT MAY VARY BETWEEN THESE LINES.
2. CONTRACTION JOINT FOR CONCRETE SHOULDERS SHALL CONFORM WITH TRANSVERSE SAWED CONTRACTION JOINT IN MAINLINE PAVEMENT.
3. TRANSVERSE JOINTS SHALL BE PERPENDICULAR TO THE CENTER LINE OF THE LANE BEING PLACED, EXCEPT WHERE NEW LANES ARE PLACED AGAINST EXISTING LANES WITH SKEWED JOINTS. THE NEW JOINTS WILL MATCH THE SKEW OF THE EXISTING PAVEMENT.
4. JOINTS IN ACCELERATION AND DECELERATION LANES ARE TO COINCIDE WITH MAINLINE JOINTS, BUT MAY BE NORMAL TO ACCELERATION OR DECELERATION EDGE.
5. GA. STD. SPECIFICATIONS (SEC. 430) FOR TOLERANCE ON DOWELS.
6. CASES WHERE CONCRETE CURB AND GUTTER IS PLACED ADJACENT TO A CONCRETE ROADWAY SLAB, THE LONGITUDINAL JOINT SHALL BE SAWED AND SEALED OF FORMED AND SEALED AS A LONGITUDINAL JOINT AS SHOWN BY THE STANDARD.
7. NO TIE BAR SHALL BE LOCATED CLOSER THAN 18" TO A TRANSVERSE JOINT. WHERE NEW CONCRETE WILL BE ADJOINING EXISTING CONCRETE, DO NOT TIE NEW CONCRETE TO EXISTING CONCRETE.
8. SPACING BETWEEN LONGITUDINAL JOINTS SHALL NOT EXCEED 14'-0" FOR MAINLINE TRAVEL LANES. RAMP PAVEMENT SECTIONS OVER 14'-0" WIDE SHALL HAVE A LONGITUDINAL SAWED JOINT ALONG THE CENTERLINE AND THE SPACING BETWEEN LONGITUDAL JOINTS SHALL NOT EXCEED 20'-0".
9. WHEN SELF LEVELING SILICONE SEALANT IS USED, TOOLING OF THE SEALANT TO OBTAIN A CONCAVE SURFACE IS NOT REQUIRED IF SEALENT MEETS DIMENSIONS OF DETAIL B.

DATE	REVISION
1-25-07	REV. DOWELS DIA. AND TRANSVERSE JTS. SPACING
8-9-02	AND REV. GEN. NOTE 8.
4-3-2000	REF. GEN. NOTE 5, 7 & 8. ¼" TRANSVERSE JOINT

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

STANDARD
JOINT DETAILS FOR
PORTLAND CEMENT CONCRETE PAVING

NO SCALE — REV. & REDRAWN MAY, 1996

BY	DES.	DRW.	TRA.	CHK.
GLO		RMC		

(SUBMITTED) STATE ROAD & AIRPORT DESIGN ENGINEER
(APPROVED) CHIEF ENGINEER

NUMBER 5046H

3/1/2007 GPLN

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
GEORGIA STANDARDS

DRAWING No. 41-032

RELEASED FOR CONSTRUCTION - 07-23-13

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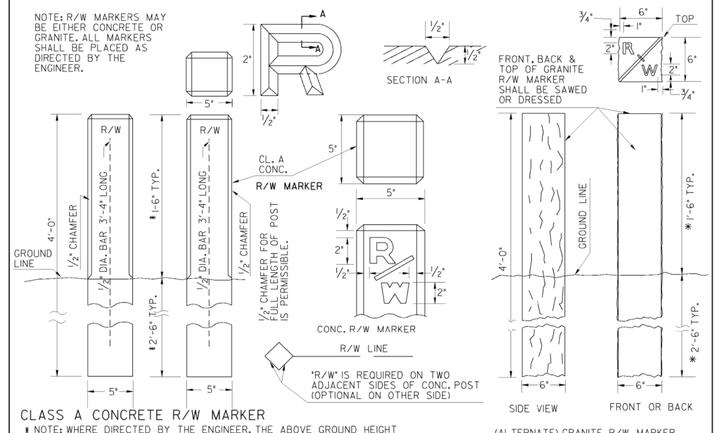
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

DETAILS OF RIGHT OF WAY MARKERS



CLASS A CONCRETE R/W MARKER

* NOTE: WHERE DIRECTED BY THE ENGINEER, THE ABOVE GROUND HEIGHT OF ANY R/W MARKER SHALL BE REDUCED BY INCREASING THE DEPTH AS NEEDED WITH NO ADDITIONAL PAYMENT.

(ALTERNATE) GRANITE R/W MARKER

REVISION	BY	DATE
REDRAWN TO MATCH METRIC GA. STD. 9003	G.L.O.	4-10-06
REDRAWN	G.J.P.	6-30-98
REV. F.A.P. - SP. POST ALT.	R.M.U.	9-28-90
VAR. HT. R/W MARKER	R.M.U.	10-11-88
ADD GRANITE R/W M.	R.M.U.	5-24-85

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

STANDARD
DETAILS OF MARKERS
FEDERAL AID AND STATE
RIGHT OF WAY MARKERS

NO SCALE REV. & REDR. DEC., 1981

DES. DRW. R.M.U. TRA. G.M.E. CHK. R.K.C.
(SUBMITTED) STATE ROAD & AIRPORT DESIGN ENGINEER
(APPROVED) CHIEF ENGINEER

NUMBER 9003

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THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
GEORGIA STANDARDS

DRAWING No. 41-033

3/1/2007 GPLN

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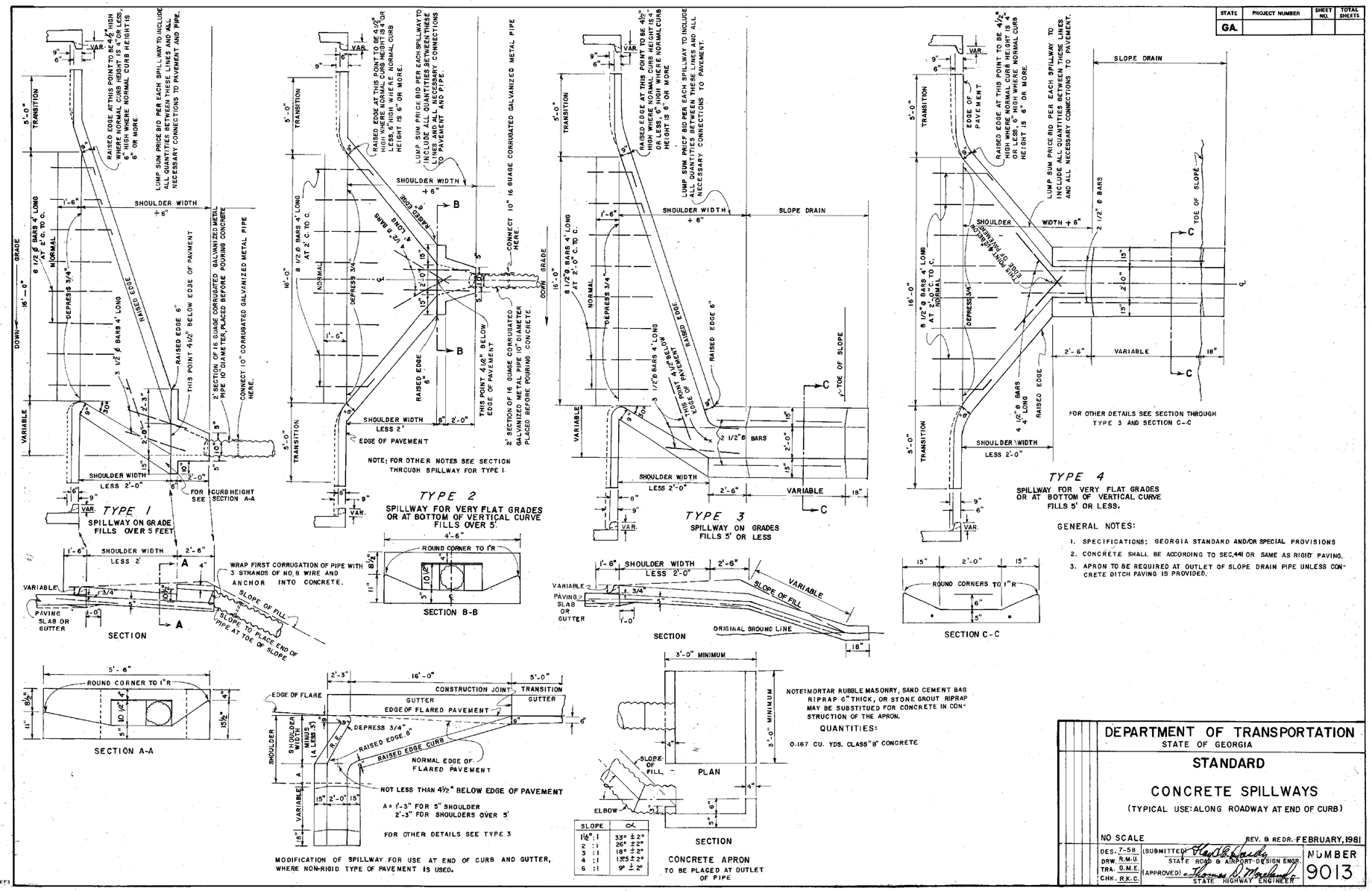
JParks | GDOT_11x17.pen

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	630	730

RELEASED FOR CONSTRUCTION - 07-23-13



SLOPE	α
1½" : 1	33° ± 2°
2 : 1	26° ± 2°
3 : 1	18° ± 2°
4 : 1	13.5° ± 2°
6 : 1	9° ± 2°

GENERAL NOTES:

1. SPECIFICATIONS: GEORGIA STANDARD AND/OR SPECIAL PROVISIONS
2. CONCRETE SHALL BE ACCORDING TO SEC.441 OR SAME AS RIGID PAVING.
3. APRON TO BE REQUIRED AT OUTLET OF SLOPE DRAIN PIPE UNLESS CONCRETE DITCH PAVING IS PROVIDED.

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA			

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

STANDARD

CONCRETE SPILLWAYS

(TYPICAL USE: ALONG ROADWAY AT END OF CURB)

NO SCALE — REV. & REDR. FEBRUARY, 1981

DES. 7-58 | DRW. R.M.U. | TRA. G.M.E. | CHK. R.K.C.

(SUBMITTED) STATE ROAD & AIRPORT DESIGN ENGR.

(APPROVED) STATE HIGHWAY ENGINEER

NUMBER 9013

FORM EF3

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

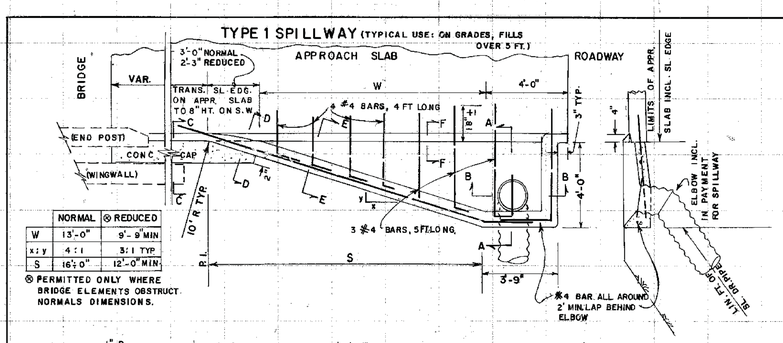
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
GEORGIA STANDARDS

DRAWING No. 41-034

3/1/2007 GPLN

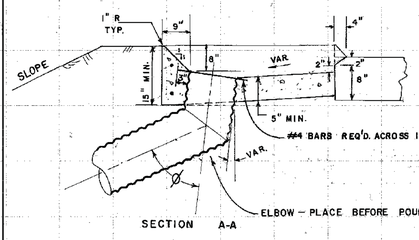
RELEASED FOR CONSTRUCTION - 07-23-13

TYPE 1 SPILLWAY (TYPICAL USE: ON GRADES, FILLS OVER 5 FT.)

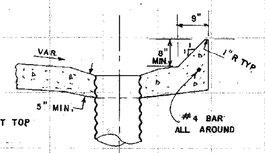


	NORMAL	⊗ REDUCED
W	13'-0"	9'-9" MIN.
x : y	4 : 1	3 : 1 TYP.
S	16'-0"	12'-0" MIN.

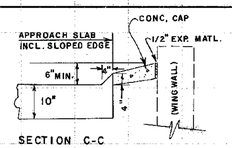
⊗ PERMITTED ONLY WHERE BRIDGE ELEMENTS OBSTRUCT NORMALS DIMENSIONS.



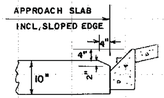
SECTION A-A



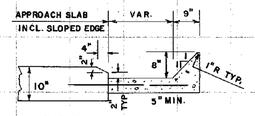
SECTION B-B



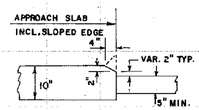
SECTION C-C



SECTION D-D

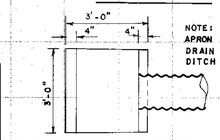


SECTION E-E

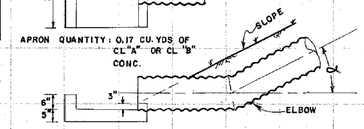


SECTION F-F.

OUTLET APRON



NOTE:
APRON IS REQUIRED AT ALL SLOPE DRAIN PIPE OUTLETS UNLESS CONCRETE DITCH PAVING OR RIP RAP PROTECTION IS PROVIDED.



APRON QUANTITY: 0.17 CU. YDS OF CL "A" OR CL "B" CONC.

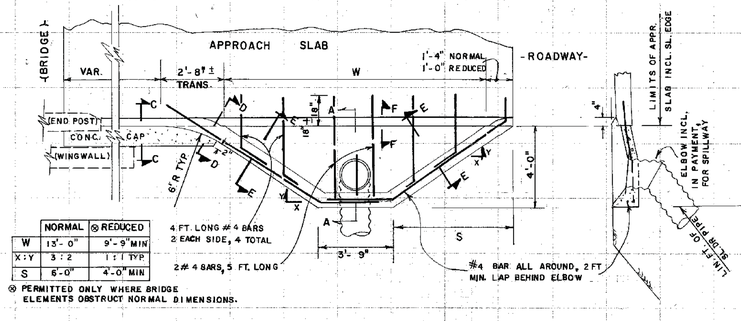
NOTE: APRON CONSTRUCTED FROM SAND CEMENT BAG RIP RAP, MORTAR RUBBLE MASONRY OR STONE GROUT RIP RAP MAY BE SUBSTITUTED FOR CONCRETE APRON.

SLOPE DRAIN PIPE DIAMETERS	
PIPES I.D. (INCHES)	AREA DRAINING INTO SPILLWAY - (SQ. FT.)
15"	TO 24,100
18"	OVER 24,100

SLOPE DRAIN PIPE ELBOW ANGLES		
EMBANKMENT SLOPE	ELBOW IN SPILLWAY	ELBOW AT OUTLET
STEEPER THAN 4:1	$\phi = 60° \pm$	$\alpha = 30° \pm$
4:1 OR FLATTER	$\phi = 75° \pm$	$\alpha = 15° \pm$

TYPE 2 SPILLWAY

(TYPICAL USE: IN SAGS OR LOW AREAS, FILLS OVER 5 FT.)

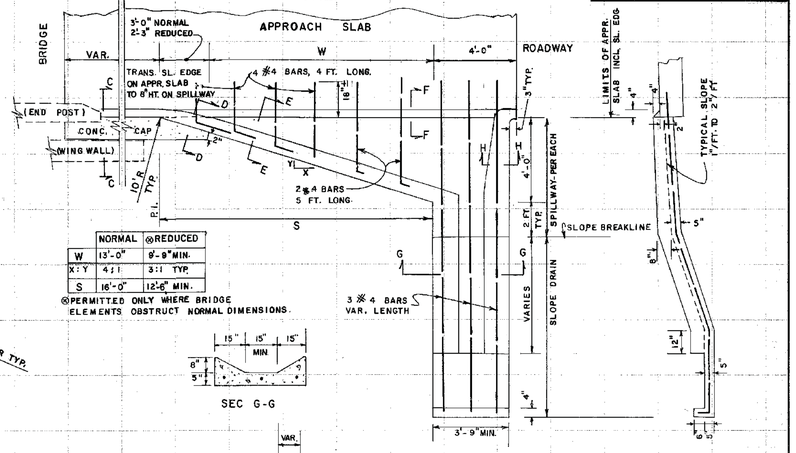


	NORMAL	⊗ REDUCED
W	13'-0"	9'-9" MIN
x : y	3 : 2	1 : 1 TYP
S	6'-0"	4'-0" MIN

⊗ PERMITTED ONLY WHERE BRIDGE ELEMENTS OBSTRUCT NORMAL DIMENSIONS.

TYPE 3 SPILLWAY

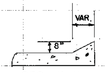
(TYPICAL USE: ON GRADES, FILLS 5 FT. OR LESS)



	NORMAL	⊗ REDUCED
W	13'-0"	9'-9" MIN.
x : y	4 : 1	3 : 1 TYP.
S	16'-0"	12'-0" MIN.

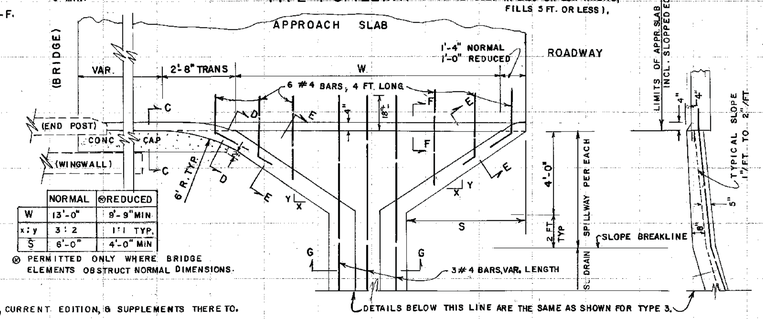
⊗ PERMITTED ONLY WHERE BRIDGE ELEMENTS OBSTRUCT NORMAL DIMENSIONS.

SEC G-G



SEC. H-H

TYPE 4 SPILLWAY (TYPICAL USE: IN SAGS OR LOW AREAS, FILLS 5 FT. OR LESS),



	NORMAL	⊗ REDUCED
W	13'-0"	9'-9" MIN.
x : y	3 : 2	1 : 1 TYP.
S	6'-0"	4'-0" MIN

⊗ PERMITTED ONLY WHERE BRIDGE ELEMENTS OBSTRUCT NORMAL DIMENSIONS.

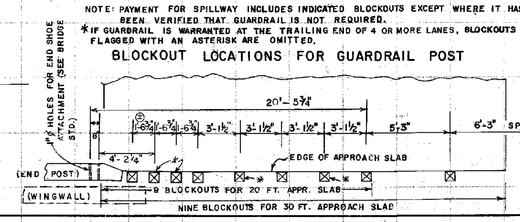
DETAILS BELOW THIS LINE ARE THE SAME AS SHOWN FOR TYPE 3.

GENERAL NOTES:

1. SPECIFICATIONS: GA. STANDARD, CURRENT EDITION, & SUPPLEMENTS THERE TO.
2. PAYMENT FOR SPILLWAY (ANY TYPE) INCLUDES ALL TIE BARS & CONNECTIONS TO APPROACH SLAB.

NOTE: PAYMENT FOR SPILLWAY INCLUDES INDICATED BLOCKOUTS EXCEPT WHERE IT HAS BEEN VERIFIED THAT GUARDRAIL IS NOT REQUIRED.
*IF GUARDRAIL IS WARRANTED AT THE TRAILING END OF 4 OR MORE LANES, BLOCKOUTS FLAGGED WITH AN ASTERISK ARE OMITTED.

BLOCKOUT LOCATIONS FOR GUARDRAIL POST



± VARIED TO MISS BRIDGE PAV. REST

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

REVISION	DES.	DRW	TRA.	CHK.	DATE
GENERAL REVISION	R.M.U.	R.M.U.	G.M.E.	R.K.C.	4-27-88
BLOCKOUT SPA.					2-28-90
RHG					

DEPARTMENT OF TRANSPORTATION

STATE OF GEORGIA

STANDARD CONCRETE SPILLWAYS

(ADJACENT TO APPROACH SLABS)

NO SCALE — REV. & REDR. JUNE, 1985

(SUBMITTED) Floyd E. Hardy — STATE ROAD & AIRPORT DESIGN ENGR.

(APPROVED) Hal Kemp — STATE HIGHWAY ENGINEER

NUMBER 9017J

FORM EP60003

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

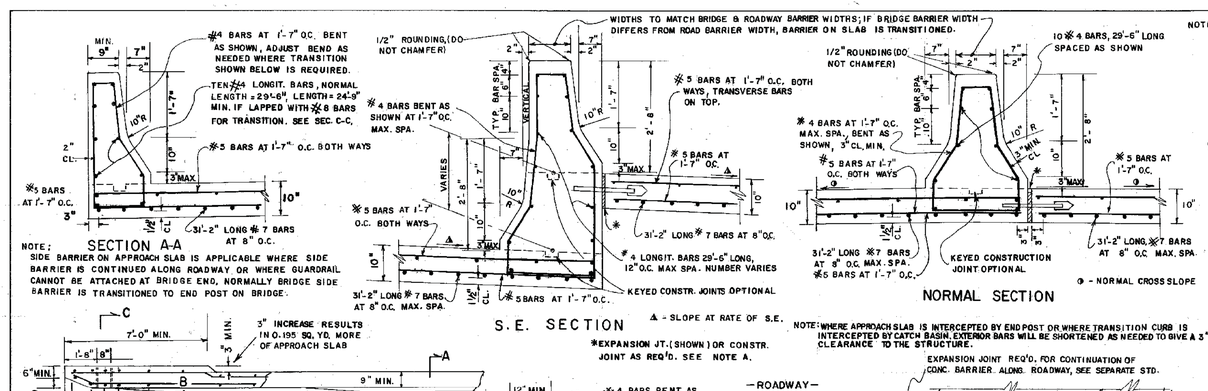
REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
GEORGIA STANDARDS

DRAWING No. 41-035

3/1/2007 GPLN

RELEASED FOR CONSTRUCTION - 07-23-13



STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

DATE	REVISION	BY
3-29-89	T BEAM GUARDRAIL CONN.	R.M.U.
12-4-89	BARRIER REINF. PLACEMENT	R.M.U.
6-28-95	REVISED SEE DD WIDTH	R.M.U.

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

STANDARD

30 FT. LENGTH

REINFORCED CONCRETE APPROACH SLAB
(WITH CONCRETE BARRIER)

NO SCALE — JUNE, 1985

DES. R.M.U. DRW R.M.U. TRA. S.M.E. CHK. R.K.C.

(SUBMITTED) STATE ROADS AIRPORT DESIGN ENGR.

(APPROVED) STATE HIGHWAY ENGINEER

NUMBER 9017M

FORM EF3

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

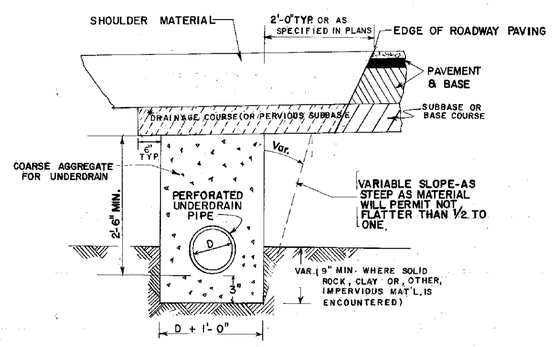
REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
GEORGIA STANDARDS

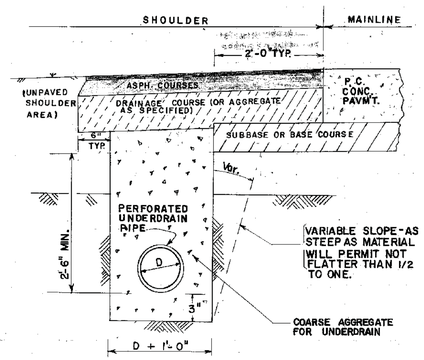
DRAWING No. 41-036

3/1/2007 GPLN

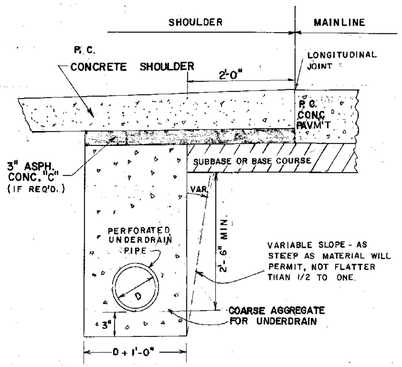
RELEASED FOR CONSTRUCTION - 07-23-13



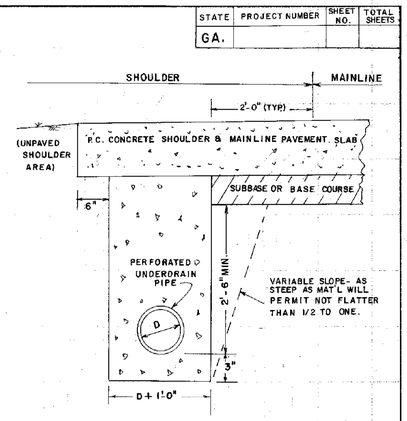
GENERAL DETAIL



ASPHALT SHOULDER - P.C.C. PAVEMENT



UNDER CONCRETE SHOULDER



UNDER CONCRETE SHOULDER*

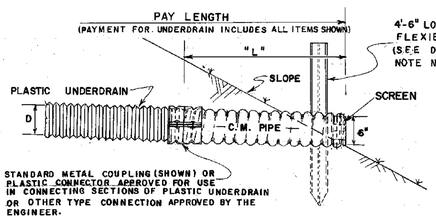
*CONSTRUCTED MONOLITHIC WITH MAINLINE 4'-0" PAVED SHOULDER SHOWN

PERFORATED UNDERDRAIN — TYPICAL INSTALLATIONS

*NOTE: PERFORATED UNDERDRAIN PIPE WILL BE INSTALLED COMPLETE PRIOR TO PLACING PERVIOUS SUB-BASE OR DRAINAGE COURSE.

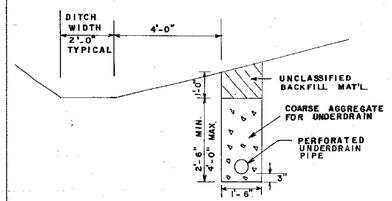
OUTLET DETAIL FOR PLASTIC UNDERDRAIN

(REQUIRED AT ALL OUTLETS WHERE PERFORATED PLASTIC UNDERDRAIN IS TERMINATED ON SLOPES).



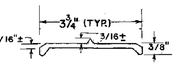
C.M. OUTLET STUB - MINIMUM LENGTHS	
SLOPE	"L"
2:1 OR STEEPER	2'-10" MIN.
2+:1 TO 4:1	5'-0" MIN.
4+:1 TO 6:1	10'-0" MIN.
FLATTER THAN 6:1	14'-0" MIN.

NOTE : "L" = MINIMUM LENGTH OF CORRUGATED METAL PIPE SECTION. THE C.M. OUTLET STUB SECTION MAY BE PERFORATED OR MAY BE NON-PERFORATED.



ADJACENT TO DITCH

NOTE: ALTERNATE FLEXIBLE DELINEATORS PERMITTED IF APPROVED BY THE D.O.T. LABORATORY.



DELINEATOR POST SECTION (TYP.)

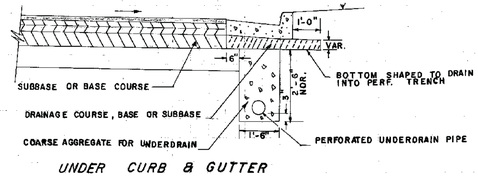
COLOR: WHITE

LENGTH: 4'-6" (from top to bottom point)

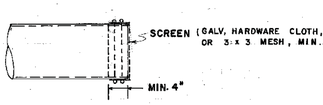
SPECIFICATION: SEC. 911 (EXCEPT REFLECTIVE SHEETING IS NOT REQUIRED)

SPECIAL NOTE:

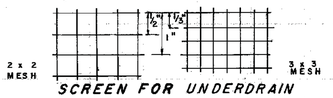
DETAILS SHOWN HERE ARE TYPICAL AND MAY BE USED BY THE DESIGNER AS A GUIDE IN PREPARING TYPICAL SECTIONS. MINIMUM TRENCH DEPTHS & TRENCH WIDTHS SHOULD BE ADHERED TO AS SHOWN HOWEVER. SHOULDER DETAILS, PAVEMENT DESIGNS, DRAINAGE COURSES, ETC., WILL BE AS SHOWN ON THE TYPICAL SECTIONS FOR THE PROJECT AND MAY VARY FROM THE DEPICTIONS ABOVE.
ON CONSTRUCTION, THE TYPICAL SECTIONS IN THE PLANS SHOULD BE USED FOR SPECIFIC DETAILS. IF UNDERDRAIN IS NOT SHOWN ON THE TYPICAL SECTIONS OR ELSEWHERE IN THE PROJECT PLANS, INSTALLATION WILL BE AS SHOWN ABOVE AND AS DIRECTED BY THE ENGINEER.



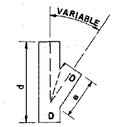
UNDER CURB & GUTTER

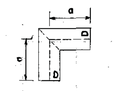


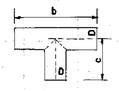
SCREEN TO BE PLACED OVER THE END OF PIPE AS SHOWN AND SECURED FIRMLY IN PLACE BY WRAPPING GALVANIZED WIRE AROUND PIPE AND SCREEN OTHER METHODS FOR SECURING SCREEN FIRMLY OVER END OF PIPE MAY BE USED IF APPROVED BY THE ENGINEER.



SCREEN FOR UNDERDRAIN







GENERAL NOTES.

1. UNDERDRAINS MAY BE PLACED IN SHOULDER AREAS OR AS TRANSVERSE DRAINAGE UNDER PAVEMENT. SEE TYPICAL SECTION AND PLAN AND PROFILE SHEETS FOR SPECIAL CONDITIONS.
2. TRENCH SHALL BE SHAPED WITH SIDES AS NEARLY VERTICAL AS IS PRACTICAL AND WITH A FLAT BOTTOM.
3. MINIMUM GRADIENT FOR UNDERDRAIN PIPE SHALL BE 0.15% .
4. MAXIMUM DISTANCE BETWEEN OUTLETS SHALL BE 400' TO 500' WHERE CONDITIONS PERMIT.
5. DEAD ENDS OF PIPE SHALL BE CLOSED WITH METAL OR PLASTIC CAPS OR CONCRETE PLUGS. OUTFALL ENDS OF PIPE SHALL BE EQUIPPED WITH SCREEN.
6. LATERAL CONNECTIONS SHALL BE MADE WITH SUITABLE STANDARD FITTINGS. (ELLS, WYES OR TEES AS DETAILED)
7. THE DIMENSIONS (a thru g) SHOWN ON THE LATERAL CONNECTIONS FOR THE VARIOUS KINDS AND SIZES OF PERFORATED UNDERDRAIN SHALL BE IN AGREEMENT WITH THE MANUFACTURERS' STANDARD PRACTICE.
8. PLAIN WHITE (NO REFLECTIVE SHEETING) FLEXIBLE DELINEATOR POSTS WILL BE REQUIRED AT ALL OUTLETS EXITING ON SLOPES, BUT NOT REQUIRED IF UNDERDRAIN EXITS IN CONC. DITCH PAVING, DROP INLETS, ETC., POSTS. WILL BE 2 FT.± IN THE GROUND PLACED AS DIRECTED BY THE ENGINEER, SO AS TO BE MOST VISIBLE TO MOWERS, PAYMENT FOR UNDERDRAIN WILL INCLUDE THE DELINEATORS.

R.M.U. ADD C & G DITCH INSTALL 8-7-83
R.M.U. Add Monolithic Conc. Sh. 5-27-81
E.M.U. FLEXIBLE DELINEATOR 12-20-81

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

STANDARD

PERFORATED UNDERDRAIN

NO SCALE

REV. & REDR. JULY 1980

NUMBER 9029B

DES. R.M.U. REV. R.M.U.
DRN. T.R.A. G.M.E.
CHK. R.K.C.

SUBMITTED: STATE ROAD AND SUPPORT DESIGN ENGR.
APPROVED: Thomas D. Moseley
STATE HIGHWAY ENGINEER

FORM EF3

3/1/2007 GPLN

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
GEORGIA STANDARDS

DRAWING No. 41-037

10/3/2006 3:09:52 PM \\GDOT-DSN\GDPLOT\QCF\gs_tiff_output_qcf gowens M:\GARY\Revised 9030C\9030C_prf GO-RD6

RELEASED FOR CONSTRUCTION - 07-23-13

SEE T-22A and T-22B FOR BRIDGE DELINEATION DETAILS

RECOMMENDED SPACING FOR DELINEATORS

DELINEATORS SHOULD NORMALLY BE SPACED 528' APART. WHERE SUCH IS INTERRUPTED BY DRIVEWAYS, CROSSROADS, ETC., AND WHERE UNDER THE NORMAL SPACING, A DELINEATOR WOULD FALL WITHIN SUCH AN AREA, THAT DELINEATOR MAY BE MOVED IN EITHER DIRECTION A DISTANCE NOT EXCEEDING 1/4 (132') OF THE NORMAL SPACING. IF SUCH DELINEATOR STILL FALLS WITHIN THAT AREA, IT SHOULD BE ELIMINATED. SEE TABLE BELOW FOR RECOMMENDED SPACING OF HORIZONTAL CURVES.

TABLE SPACING (1) FOR DELINEATORS ON HORIZONTAL CURVES

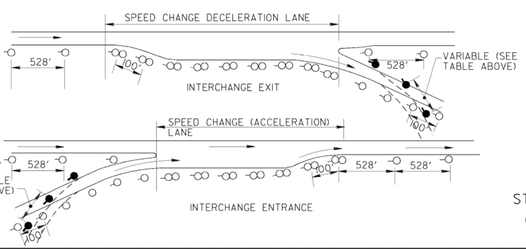
RADIUS OF CURVE (IN FEET)	SPACING ON CURVE (IN FEET)	SPACING IN ADVANCE & BEYOND CURVE (IN FEET) (MAINLINE ONLY)		
		1ST	2ND	3RD
50	20	40	65	125
150	30	60	90	180
200	35	70	110	215
250	40	85	125	250
300	50	95	145	290
400	55	110	170	300
500	65	125	190	300
600	70	140	210	300
700	75	150	230	300
800	80	165	245	300
900	85	175	260	300
1000	90	185	275	300

(1) SPACING, S, FOR SPECIFIC RADII NOT SHOWN MAY BE INTERPOLATED FROM THE TABLE OR COMPUTED FROM THE FORMULA S=3√R/50, WHERE R IS THE RADIUS OF CURVATURE IN FT, AND S IS ROUNDED TO THE NEAREST 5 FT. THE SPACING TO THE FIRST DELINEATOR IN ADVANCE OF THE CURVE IS 2S, TO THE SECOND 3S, AND THE THIRD 6S, BUT NONE TO EXCEED 300 FEET, MINIMUM SPACING IS 20 FEET.

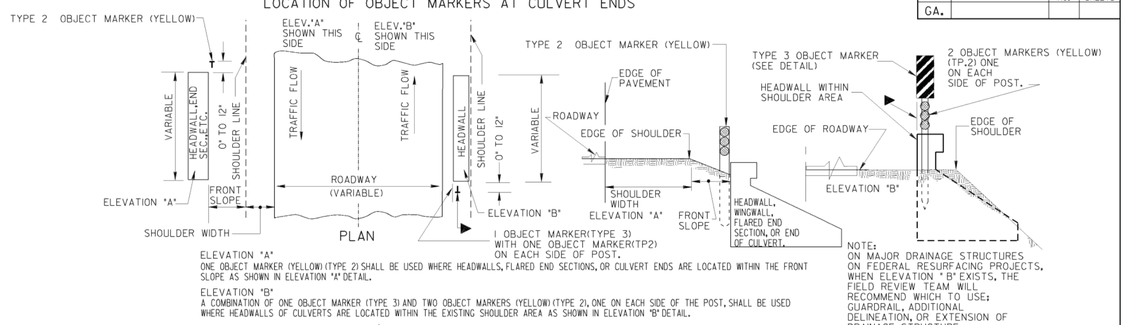
LOCATION OF DELINEATORS ON FREEWAY & EXPRESSWAY TYPE HIGHWAYS

TYPES OF DELINEATORS, ERECTION LOCATION, AND SPACING SHALL BE AS FOLLOWS.

- ○ SINGLE CRYSTAL (WHITE) REFLECTOR UNITS (TYPE 1 DELINEATOR) ON RIGHT SIDE OF MAINLINE AT 528 FOOT SPACING & ON RT. SIDE OF RAMP TGT. SECTIONS AT 100 FOOT SPACING FROM PHYSICAL CORE TO RAMP TERMINUS.
- ○○ DOUBLE CRYSTAL (WHITE) REFLECTOR UNITS (TYPE 2 DELINEATOR) ON RIGHT SIDE OF SPEED CHANGE (ACCELERATION & DECELERATION) LANES THAT ARE ON RIGHT SIDE OF MAINLINE AT 100 FOOT SPACING FROM TAPER TO PHYSICAL CORE.
- ● (YELLOW) SINGLE YELLOW REFLECTOR UNITS (TYPE 1 DELINEATOR) ON LEFT SIDE OF RAMP HORIZONTAL CURVES & ON LEFT SIDE OF MAINLINE HORIZONTAL CURVES GREATER THAN 3° CURVATURE.
- ●● (YELLOW) DOUBLE YELLOW REFLECTOR UNITS (TYPE 2 DELINEATOR) ON LEFT SIDE OF SPEED CHANGE (ACCELERATION & DECELERATION) LANES THAT ARE ON LEFT SIDE OF MAINLINE AT 100 FOOT SPACING FROM TAPER TO PHYSICAL CORE.
- ● (RED) SINGLE REFLECTOR UNITS (TYPE 1 DELINEATOR) ON LEFT SIDE OF EXIT RAMPS AT 100 FOOT SPACING FROM "WRONG WAY" SIGN TO RAMP TERMINUS. USE TYPE 1A RED DELINEATORS ON RIGHT OR LEFT SIDE OF EXIT RAMPS WHERE TYPE 1 WHITE OR YELLOW DELINEATORS ARE USED FACE OF RED DELINEATORS ORIENTED OPPOSITE TO NORMAL TRAFFIC FLOW.



LOCATION OF OBJECT MARKERS AT CULVERT ENDS



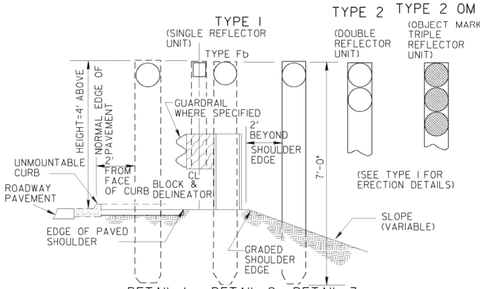
ELEVATION "A"
ONE OBJECT MARKER (YELLOW) (TYPE 2) SHALL BE USED WHERE HEADWALLS, FLARED END SECTIONS, OR CULVERT ENDS ARE LOCATED WITHIN THE FRONT SLOPE AS SHOWN IN ELEVATION "A" DETAIL.

ELEVATION "B"
A COMBINATION OF ONE OBJECT MARKER (TYPE 3) AND TWO OBJECT MARKERS (YELLOW) (TYPE 2), ONE ON EACH SIDE OF THE POST, SHALL BE USED WHERE HEADWALLS OF CULVERTS ARE LOCATED WITHIN THE EXISTING SHOULDER AREA AS SHOWN IN ELEVATION "B" DETAIL.

▶=THE INSIDE EDGE OF THE MARKER SHALL BE IN LINE WITH THE INNER EDGE OF THE OBSTRUCTION

NOTE:
ON MAJOR DRAINAGE STRUCTURES ON FEDERAL RESURFACING PROJECTS, WHEN ELEVATION "B" EXISTS, THE FIELD REVIEW TEAM WILL RECOMMEND WHICH TO USE; GUARDRAIL, ADDITIONAL DELINEATION, OR EXTENSION OF DRAINAGE STRUCTURE.

DELINEATOR ERECTION DETAILS

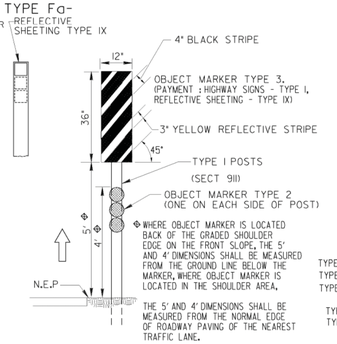


NOTE: ERECTION DETAILS ABOVE ARE TYPICAL FOR ALL TYPES EXCEPT 1A, 2A, 3A, & Fb, WHICH ARE MOUNTED ON THE POST OR STRUCTURE ALREADY IN PLACE.

DETAIL 1: ERECTION FOR ROADWAYS HAVING UNMOUNTABLE CURBS.

DETAIL 2: ERECTION FOR ROADWAY WITH GUARDRAIL, DELINEATOR POST SHALL BE IN THE SAME PLANE AS FACE OF GUARDRAIL POSTS, EXCEPT FOR TYPE Fb, AS SHOWN, AND POSSIBLY AT BRIDGE ENDS AS INDICATED ABOVE.

DETAIL 3: ERECTION FOR ROADWAYS HAVING SHOULDERS (WITHOUT CURBS). WITH MOUNTABLE CURBS, ERECTION SHALL BE SAME AS DETAIL 3.



DETAIL OF OBJECT MARKER

TYPES OF DELINEATORS

TYPE 1- ALUMINUM OR GALVANIZED STEEL FLANGED "U" CHANNEL POST WITH SINGLE REFLECTOR UNIT. REFLECTOR UNIT TO CONSIST OF: (A) ONE 3" DIAMETER SEALED PRISMATIC REFLEX REFLECTOR WITH PLATE AND FRAME, OR, (B) ONE 4" X 5" RECTANGULAR TYPE 1, LEVEL A REFLECTIVE SHEETING REFLECTOR WITH PLATE AND FRAME, OR (C) ONE 3¼" DIAMETER CENTER MOUNT SEALED PRISMATIC REFLEX REFLECTOR HOUSED IN ALUMINUM BACKING WITH SINGLE GROMMETTED HOLE IN CENTER OF REFLECTOR.

TYPE 2 - ALUMINUM OR GALVANIZED STEEL FLANGED "U" CHANNEL POST WITH DOUBLE REFLECTOR UNIT. REFLECTOR UNIT TO CONSIST OF: (A) TWO 3" DIAMETER SEALED PRISMATIC REFLEX REFLECTORS WITH PLATE AND FRAME, OR, (B) TWO 4" X 5" RECTANGULAR TYPE 1, LEVEL A REFLECTIVE SHEETING REFLECTORS WITH PLATE AND FRAME, OR (C) TWO 3¼" DIAMETER CENTER MOUNT SEALED PRISMATIC REFLEX REFLECTOR HOUSED IN ALUMINUM BACKING WITH SINGLE GROMMETTED HOLE IN CENTER OF EACH REFLECTOR.

TYPE 3 - ALUMINUM OR GALVANIZED STEEL FLANGED "U" CHANNEL POST WITH TRIPLE REFLECTOR UNIT. REFLECTOR UNIT TO CONSIST OF: (A) THREE 3" DIAMETER SEALED PRISMATIC REFLEX REFLECTORS WITH PLATE AND FRAME, OR, (B) THREE 4" X 5" RECTANGULAR TYPE 1, LEVEL A REFLECTIVE SHEETING REFLECTORS WITH PLATE AND FRAME, OR (C) THREE 3¼" DIAMETER CENTER MOUNT SEALED PRISMATIC REFLEX REFLECTORS HOUSED IN ALUMINUM BACKING WITH SINGLE GROMMETTED HOLE IN CENTER OF EACH REFLECTOR.

TYPE 1A-SINGLE
TYPE 2A-DOUBLE
TYPE 2 OM-TRIPLE
REFLECTOR UNIT ONLY MOUNTED ON POST OR STRUCTURE ALREADY IN PLACE. REFLECTOR UNIT SAME AS FOR TYPE 1, 2, AND 2 OM, RESPECTIVELY.

TYPE Fa -
TYPE Fb -
FLEXIBLE DELINEATOR POSTS SHALL BE USED AT LOCATIONS WHERE HIGH FREQUENCY OF HITS ARE CONTEMPLATED, SUCH AS GORE AREAS, OUTSIDE OF SHARP CURVES, ETC., AND MAY ALSO BE USED AS ALTERNATIVES TO EITHER TYPE 1, TYPE 2, OR TYPE 3 DELINEATORS WHEN SPECIFIED ON THE PLANS. DIFFERENT DESIGN FLEXIBLE DELINEATORS PERMITTED, IF APPROVED BY THE GA. D.O.T. OFFICE OF MATERIALS AND RESEARCH.

GENERAL NOTES:

A- SPECIFICATIONS: GA. STANDARD, CURRENT EDITION, & SUPPLEMENTS THERETO.

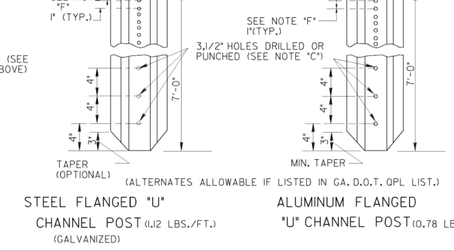
B- REFLECTORS FOR TYPES 1 AND 1A SHALL BE CRYSTAL (WHITE). YELLOW OR RED, AS SPECIFIED ON THE PLANS. REFLECTORS FOR TYPES 2 AND 2A SHALL BE CRYSTAL (WHITE) OR YELLOW AS SPECIFIED ON THE PLANS. REFLECTORS FOR TYPE 3 AND 3A SHALL BE YELLOW ONLY AS SPECIFIED ON THE PLANS.

C- WHEN POSTS ARE SET IN CONCRETE, METAL RODS SHALL BE INSERTED IN 3¼2" DIA. HOLES LOCATED AT BOTTOM OF POST. MIN SIZE OF RODS SHALL BE ¼" DIA. X 3' LONG.

D- MONODIRECTIONAL DELINEATORS SHALL BE USED AND ERECTED AT THE RECOMMENDED SPACING, UNLESS OTHERWISE SPECIFIED ON THE PLANS.

E- FOR ADDITIONAL DATA ON DELINEATORS, REFER TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND ALL SUPPLEMENTS THERETO.

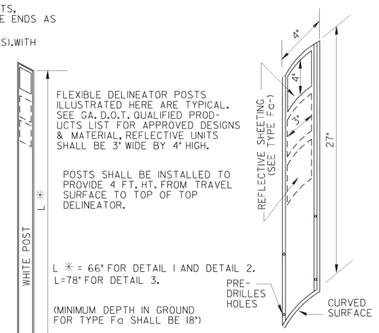
F- DRILL OR PUNCH 17.⅜" DIA. HOLES ON 1" CENTERS FOR A DISTANCE OF 17" MINIMUM FROM TOP POST.



STEEL FLANGED "U" CHANNEL POST (1.12 LBS./FT.) (GALVANIZED)

ALUMINUM FLANGED "U" CHANNEL POST (0.78 LBS./FT.)

(ALTERNATES ALLOWABLE IF LISTED IN GA. D.O.T. QPL LIST.)



ROADSIDE FLEXIBLE (COMPOSITE ALLOY) DELINEATOR POST

TYPE Fa-1 (ONE REFLECT.)
TYPE Fa-2 (TWO REFLECT.)
TYPE Fa-2 OM (THREE REFLECT.)

GUARDRAIL FLEXIBLE (COMPOSITE ALLOY) DELINEATOR POST

TYPE Fb-1 (ONE REFLECT.)
TYPE Fb-2 (TWO REFLECT.)
TYPE Fb-2 OM (THREE REFLECT.)

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

STANDARD
DELINEATORS & MARKERS AND ALTERNATE POSTS

NO SCALE — REV. & REDR. MAR., 2001

BY	REVISION	DATE
GLO	REV. OBJECT MARKER TYPE, DELETED DETAIL AND REV. REFLECTIVE SHEETING TYPE.	4-10-06

DES. ____ REV. ____ TRA. ____ CHK. ____

(SUBMITTED) STATE ROAD & AIRPORT DESIGN ENGINEER
(APPROVED) CHIEF ENGINEER

NUMBER 9030C

3/1/2007 GPLN

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES		

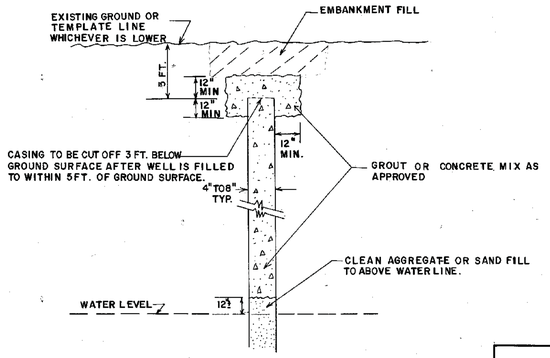
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
GEORGIA STANDARDS

DRAWING No. 41-038

RELEASED FOR CONSTRUCTION - 07-23-13

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

DETAIL FOR PLUGGING DRILLED WELL



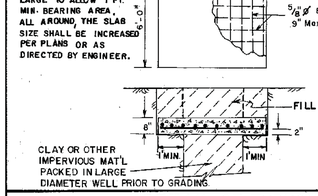
NOTES:

ALL ABANDON WELLS WITHIN THE RIGHT OF WAY OR CONSTRUCTION EASEMENTS SHALL BE PLUGGED BEFORE ANY OTHER ACTIVITY BEGINS.

ALL COSTS FOR FILLING AND PLUGGING WELLS SHALL BE INCLUDED IN PAYMENT FOR OTHER ITEMS.

DETAIL OF CONCRETE SLAB WELL COVER

NOTE: ALL ABANDONED WELLS WITHIN THE R/W AND CONSTRUCTION EASEMENTS SHALL BE FILLED.



NOTE : DETAILS SHOWN ARE APPLICABLE FOR TYPICAL SIZE DUG WELLS, IF WELL OPENING IS TOO LARGE TO ALLOW 1 FT. MIN. BEARING AREA ALL AROUND THE SLAB SIZE SHALL BE INCREASED PER PLANS OR AS DIRECTED BY ENGINEER.

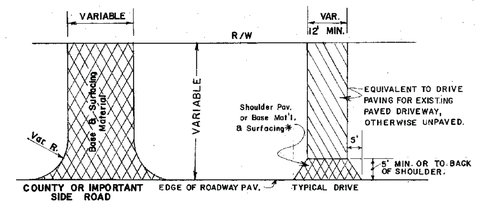
TYPICAL QUANTITIES:
- * CU.YDS. CL.A CONC. - 0.89
- * LBS. BAR REINF. STEEL - 107
- * CU.YDS-EMBANKMENT-(VARIES)

*ALL COSTS FOR FILLING & COVERING WELL SHALL BE INCLUDED IN PAYMENT FOR OTHER ITEMS.

NOTE: CONCRETE SLAB REQ'D OVER WELL SHALL BE PLACED TO A MINIMUM DEPTH OF 2'-6" BELOW SUBGRADE

CONCRETE SLAB SHALL BE CENTERED OVER WELL.

DETAIL OF TURNOUTS - RURAL

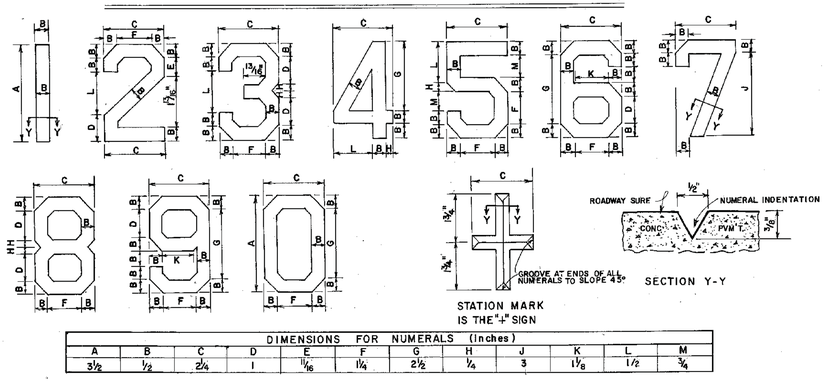


All turnouts are to be constructed as directed by the Engineer.

In general, 30' radii are to be used for County Roads and may be increased up to 50' on important County Roads where necessary to take care of turning movements.

*Driveway Paving may be omitted on lower class Roads.

STATIONING OF CONCRETE PAVEMENT



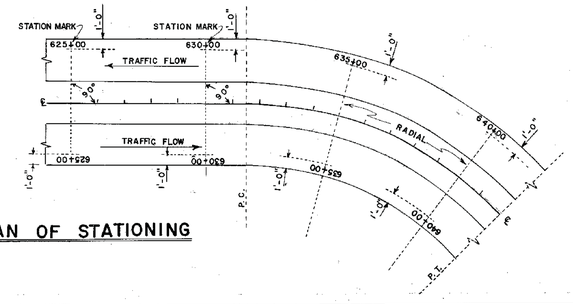
DIMENSIONS FOR NUMERALS (Inches)												
A	B	C	D	E	F	G	H	J	K	L	M
3½	½	2¼	1	11/16	1¼	2½	¼	3	1⅛	½	¾

DETAILS OF NUMERALS AND STATION MARK "+"

NOTE : Every fifth station shall be stamped in concrete pavement with dies just before the initial set.

Undivided Highways – Stationing shall be placed within a one foot strip along the edge of pavement, right of the ℄.

Divided Highways - Stationing shall be placed within a one foot strip along the outer edge of pavement, right and left of the ℄.



PLAN OF STATIONING

FORM EF3

R.M.U.	MIN. NO. OF 5 FOR CO. RD.	11-15-85
R.M.U.	DES. CONCRETE SLAB WELL COVER	8-7-85
R.M.U.	DES. DRILL WELL PLUG	10-2-87

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

STANDARD
DETAIL FOR PLUGGING DRILLED WELL
STATIONING OF CONCRETE PAVEMENT
CONCRETE SLAB WELL COVER
DETAIL OF TURNOUTS-RURAL

NO SCALE — REV. & REDR. NOVEMBER, 1979

DES. DEC'57 RETRACED G.M.E. NOV.'79

SUBMITTED: Harold E. Linder, STATE ROAD & AIRPORT DESIGN ENGR.

APPROVED: Thomas A. Moorhead, STATE HIGHWAY ENGINEER.

NUMBER 9031H

3/1/2007 GPLN

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
GEORGIA STANDARDS

DRAWING No. 41-039

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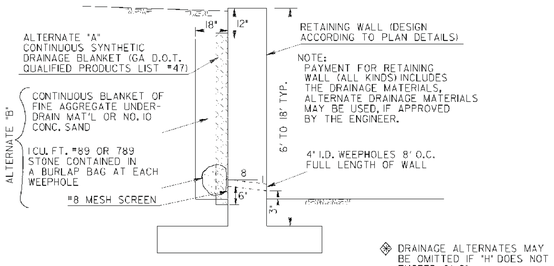
RELEASED FOR CONSTRUCTION - 07-23-13

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

DETAILS OF RETAINING WALL TYPICAL SECTIONS



◈ DRAINAGE ALTERNATES MAY BE OMITTED IF "H" DOES NOT EXCEED 6'-0".

STANDARD DRAINAGE FOR RETAINING WALLS

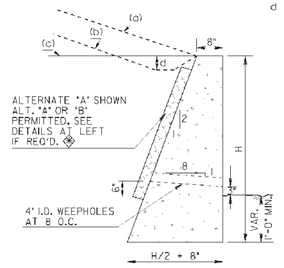
(FOR HEIGHTS FROM 6 FT. TO 18 FT.- SPECIAL DESIGN DRAINAGE REQUIRED FOR RETAINING WALLS OVER 18 FT. IN HEIGHT.)

(a) - SLOPED BACKFILL, NO DITCH

(b) - SLOPED BACKFILL WITH DITCH

(c) - FLAT BACKFILL

d = DITCH DEPTH, 6'-12" TYPICAL SEE PLANS FOR DESIGN



BACKFILL	MAXIMUM "H" * PLAIN WALL	W.BARRIER FACE
FLAT	10'-0" **	10'-0"
SLOPE TO 4:1	6'-3"	7'-0"
SLOPE TO 2:1	4'-6"	4'-9"

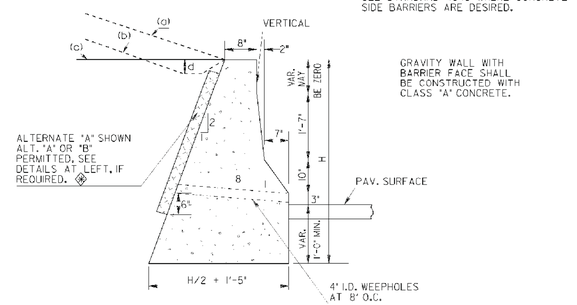
*GREATER "H" PERMITTED IF APPROVED BY BRIDGE DESIGN.

**MAXIMUM "H" OF 7'-3" HERE IF TRAFFIC IS ON BACKFILL.

TYPICAL SECTION FOR GRAVITY TYPE WALL

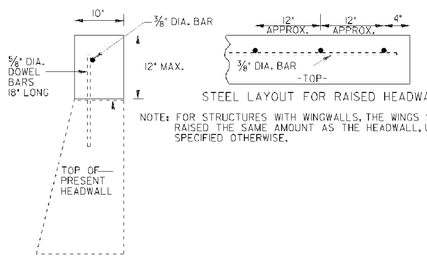
MATERIALS: CLASS "B" CONC. OR MORTAR RUBBLE MASONARY.

NOTE: SEE STANDARD 4948 WHERE CONCRETE SIDE BARRIERS ARE DESIRED.



TYPICAL SECTION FOR GRAVITY WALL WITH BARRIER FACE

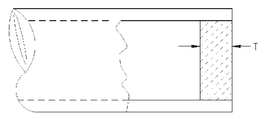
DETAIL FOR RAISING HEADWALL



STEEL LAYOUT FOR RAISED HEADWALL

NOTE: FOR STRUCTURES WITH WINGWALLS, THE WINGS SHALL BE RAISED THE SAME AMOUNT AS THE HEADWALL, UNLESS SPECIFIED OTHERWISE.

TYPICAL PIPE PLUG



SECTION

NOTE: PLAN PAY QUANTITIES ARE TO REFLECT PIPE PLUGS AS CU. YDS. OF CL. A OR CL. B CONCRETE. ON CONSTRUCTION PLUGS MAY BE BUILT WITH BRICK MASONRY, MORTAR RUBBLE MASONRY, CL. A CONC., OR CL. B CONC. WITH NO ADJUSTMENT IN PAYMENT MADE FOR ALTERNATES.

D	T (MIN)	PIPE PLUG (CU. YDS.)
12"	8"	0.0194
15"	8"	0.0303
18"	8"	0.0436
24"	8"	0.0776
30"	8"	0.1212
36"	8"	0.1745
42"	8"	0.2376
48"	8"	0.3103
54"	12"	0.5890
60"	12"	0.7272
66"	12"	0.8799
72"	12"	1.0472

DATE	REVISIONS	BY
6-30-98	REDRAWN	C.J.P.
4-30-84	ADD PIPE PLUG DETAILS	R.M.J.
2-15-83	RET. WALL "H" TABLE ADDED	R.M.J.

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

STANDARD
RETAINING WALL TYPICAL SECTIONS, RAISING HEADWALL, AND TYPICAL PIPE PLUG.

NO SCALE: REV. & REDR. DECEMBER, 1982

REV. & R.M.J. (SUBMITTED)
REDR.
TRA. G.M.E.
CHK. R.E.C.

STATE ROAD & AIRPORT DESIGN ENGR.
(APPROVED)
STATE HIGHWAY ENGINEER

NUMBER 9031L
SHEET 1 OF 2

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THE LPA GROUP
TRANSPORTATION CONSULTANTS
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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
GEORGIA STANDARDS

DRAWING No. 41-040

23-JUL-2013 15:36	3:36:01 PM	9031L2	Y:\Roadways\126379\0008690\Dgn\Const Standards\9031L2.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	637	730

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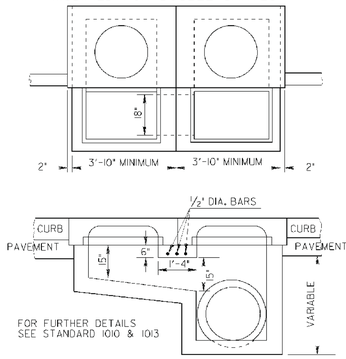
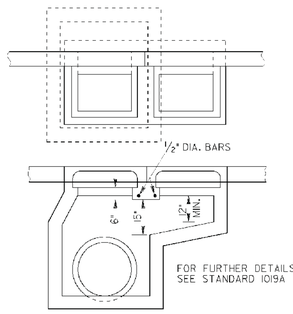
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

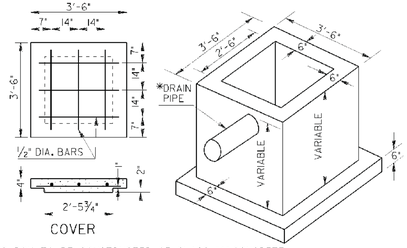
DETAIL OF CATCH BASIN MODIFIED FOR DOUBLE GRATES



DETAIL OF DROP INLET MODIFIED FOR DOUBLE GRATES



DETAIL OF CONCRETE SPRING BOX

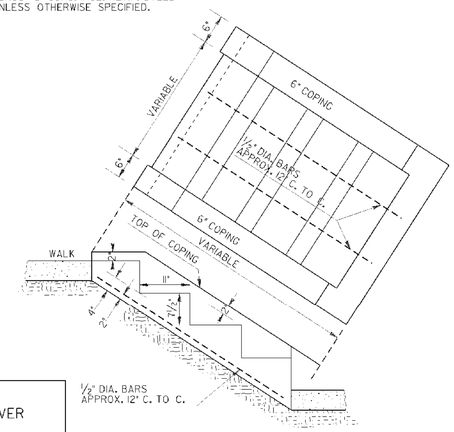


NOTE: SPRING BOX TO BE CONSTRUCTED OF CLASS "A" CONCRETE.

*DRAIN PIPE SHALL BE 6" PERFORATED UNDERDRAIN PIPE. EXCEPT WHERE OTHERWISE SPECIFIED. (2" GALV. PIPE USED ONLY IN SPECIAL CASES.) PAYMENT FOR SPRING BOX INCLUDES 1'-6" MIN. LENGTH OF DRAIN PIPE. ANY ADDITIONAL PIPE REQUIRED SHALL BE PAID FOR SEPARATELY.

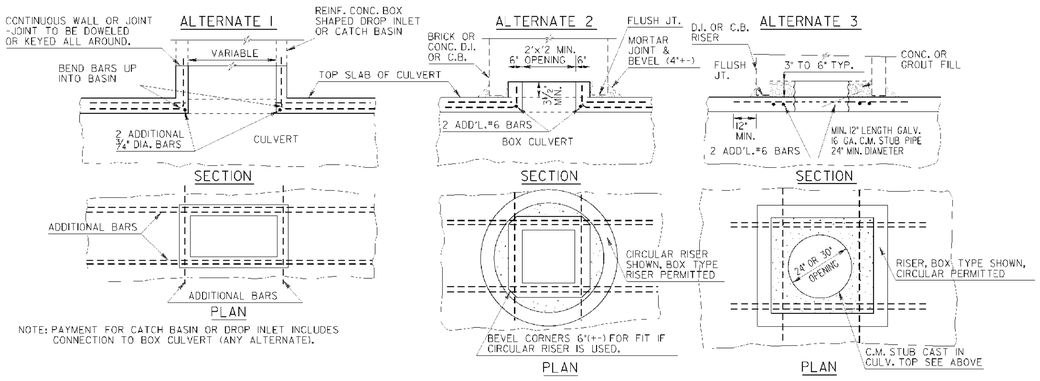
DETAIL OF CONCRETE STEPS

NOTE:
BASIS OF PAYMENT SHALL BE CLASS "B" CONC. INCL. REINF. STEEL UNLESS OTHERWISE SPECIFIED.



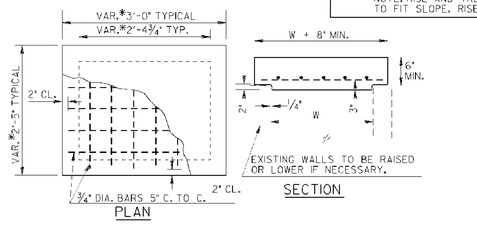
NOTE: RISE AND TREAD ARE TO BE ADJUSTED TO FIT SLOPE. RISE NOT TO EXCEED 8".

DETAILS OF CATCH BASIN OR DROP INLET CONNECTION TO CONCRETE BOX CULVERT



NOTE: PAYMENT FOR CATCH BASIN OR DROP INLET INCLUDES CONNECTION TO BOX CULVERT (ANY ALTERNATE).

DETAILS FOR CAPPING EXISTING DROP INLET WITH CONCRETE COVER



NOTE:
CONCRETE COVER SHOWN IS FOR USE IN CAPPING MINOR STRUCTURE WHERE CONVERSION FROM DROP INLET TO JUNCTION BOX IS DESIRED. SEE STD. 1011A REINFORCED CONCRETE COVER FOR CONVERSION TO MANHOLE.

* DIMENSIONS INDICATED ABOVE ARE TYPICAL FOR APPLICATION WITH STD. 1019A DROP INLET AND WILL VARY ACCORDING TO STRUCTURE; HOWEVER, NO INSIDE DIMENSION SHOULD EXCEED 4'-0" WITHOUT STRUCTURAL REVIEW. INLET DIMENSIONS SHOULD BE DETERMINED PRIOR TO CASTING CONC. COVER.

NOTE: IF STRUCTURE IS TO BE UNDER TRAFFIC AND DOES NOT HAVE ONE FT. MIN. CLEARANCE TO SUBBASE, THE SLAB THICKNESS SHALL BE INCREASED BY 4" AND THE REBARS SIZE INCREASES FROM ¾" DIA. TO 1" DIA.

DATE	REVISION	BY
6-30-98	REDRAWN	C.J.P.
4-30-84	RET. RAIL, MH TABLE ADDED	R.M.J.
2-15-83	ADD PIPE PLUG DETAILS	R.M.J.

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

STANDARD
DETAILS OF: CATCH BASIN MODIFIED FOR DOUBLE GRATE, DROP INLET MODIFIED FOR DOUBLE GRATE, CONCRETE SPRING BOX, CONCRETE STEPS, CATCH BASIN OR DROP INLET CONNECTION TO CONCRETE BOX CULVERT CAPPING EXISTING DROP INLET

NO SCALE: REV. & REDR. DECEMBER, 1982

REV. & R.M.J. (SUBMITTED)
REDR.
TRA. G.M.E.
CHK. R.K.C.

STATE ROAD & AIRPORT DESIGN ENGR.
(APPROVED)
CHIEF ENGINEER

NUMBER 9031L
SHEET 2 OF 2

RELEASED FOR CONSTRUCTION - 07-23-13

3/1/2007 GPLN

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THE LPA GROUP
TRANSPORTATION CONSULTANTS
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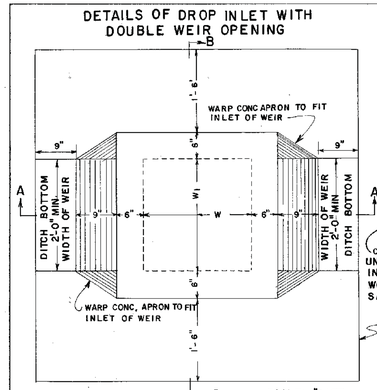
REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
GEORGIA STANDARDS

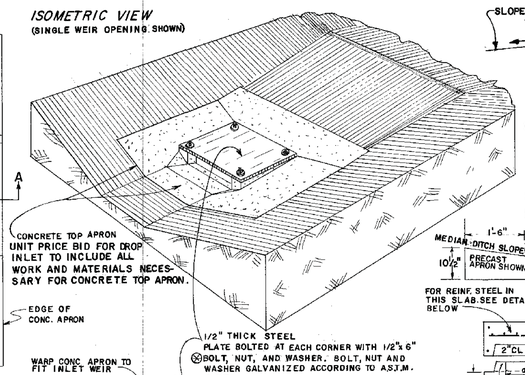
DRAWING No. 41-041

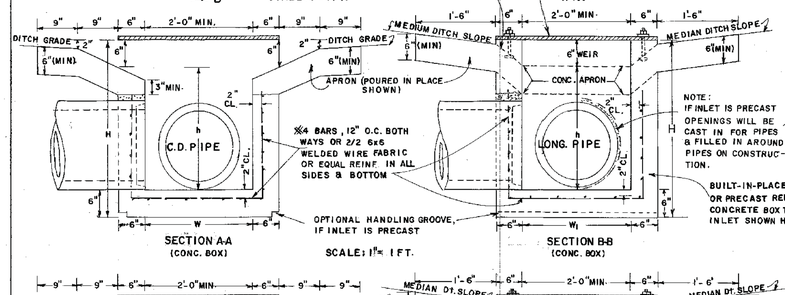
RELEASED FOR CONSTRUCTION - 07-23-13

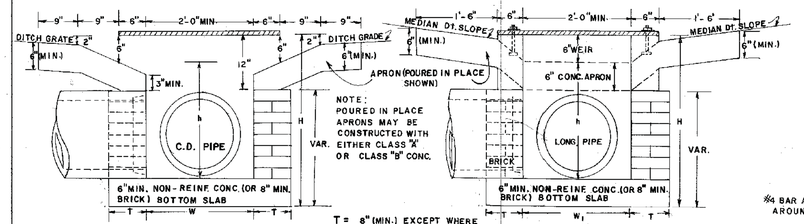
DETAILS OF DROP INLET WITH DOUBLE WEIR OPENING



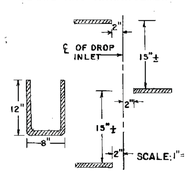
ISOMETRIC VIEW
(SINGLE WEIR OPENING SHOWN)



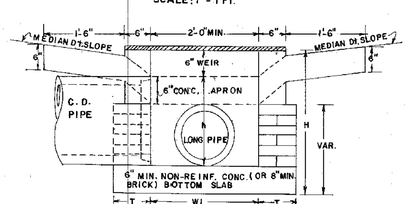


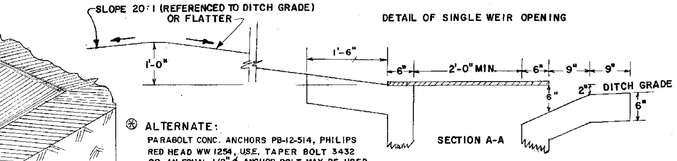


DETAIL AND ARRANGEMENT OF LADDER BARS



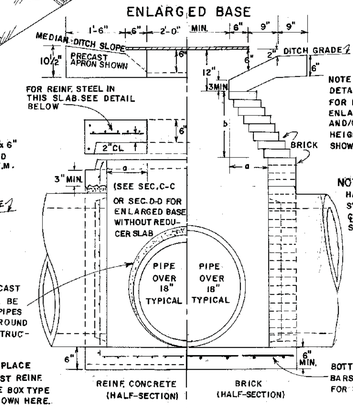
LADDER BARS ARE REQUIRED IN ALL INLETS, WHERE h OVER 4'-0" NUMBER AND LOCATION OF LADDER BARS TO BE AS DIRECTED BY THE ENGINEER. AN ALTERNATE STEP MAY BE SUBSTITUTED, IF APPROVED BY THE LABORATORY.





⊛ ALTERNATE:
PARABOLT CONC. ANCHORS PB-12-514, PHILIPS RED HEAD WW 1254, USE. TAPER BOLT 3432 OR AN EQUAL 1/2"ø ANCHOR BOLT MAY BE USED TO SECURE THE STEEL PLATE.

DROP INLET WITH ENLARGED BASE

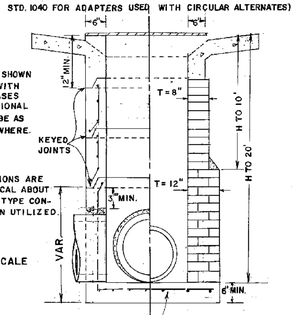


NOTE: DETAILS NOT SHOWN FOR INLETS WITH ENLARGED BASES AND/OR ADDITIONAL HEIGHT WILL BE AS SHOWN ELSEWHERE.

NOTE: HALF-SECTIONS ARE SYMMETRICAL ABOUT ℄ OF THE TYPE CONSTRUCTION UTILIZED.

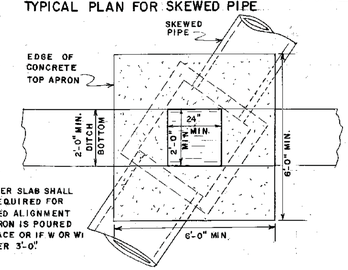
NO SCALE

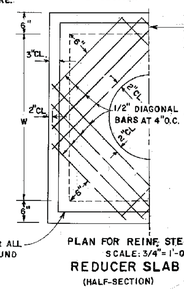
DROP INLET WITH ADDITIONAL HEIGHT
(DETAILS SHOWN ARE TYPICAL BOX ENCLOSURE FOR PIPE MAY BE BRICK MASONRY WITH PRECAST RISERS. ALSO SEE STD. 1040 FOR ADAPTERS USED WITH CIRCULAR ALTERNATES).



BRICK WALL THICKNESS	
H	
to 10'	8"
10 to 20'	12"
20 to 30'	16"

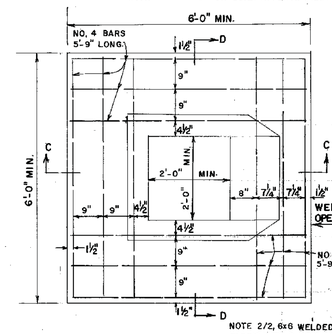
TYPICAL PLAN FOR SKEWED PIPE

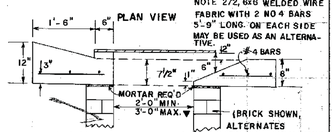




REDUCER SLAB
(HALF-SECTION)

REINFORCING FOR OPTIONAL PRECAST APRON
(MAY BE USED WITH A PRECAST OR BUILT-IN-PLACE INLET)

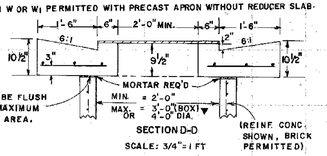




NOTE 2/2, 6x6 WELDED WIRE FABRIC WITH 2 NO 4 BARS 5'-9" LONG ON EACH SIDE MAY BE USED AS AN ALTERNATIVE.

NOTE: WHEN USING PRECAST APRON, THE PLATE, BOLTS & OTHER REQUIREMENTS SHALL CONFORM TO THAT SHOWN FOR POURED IN PLACE APRON.

▼ MAXIMUM W OR W1 PERMITTED WITH PRECAST APRON WITHOUT REDUCER SLAB.



GENERAL NOTES:

1. SPECIFICATIONS: GA. STANDARD, CURRENT EDITION, & SUPPLEMENTS THERETO.
2. SEE STD. 9031-L FOR ADDITIONAL DETAILS WHERE INLET IS CONSTRUCTED ON BOX CULVERT.
3. SEE STD. 1040 FOR CIRCULAR PRECAST ALTERNATES.
4. PRECAST ON BRICK MASONRY: BRICK CONSTRUCTION SHALL EXTEND 6"± ABOVE TOP OF PIPE. JOINTS BETWEEN PRECAST & BRICK SECTIONS SHALL BE FLUSH OR CONC. FILLED TO GIVE MAX. BEARING AREA.
5. TYPICAL TREATMENT FOR SKEWED PIPES:
   (a) WITH PRECAST APRON — CONSTRUCT BOX WITH WALLS PERPENDICULAR TO PIPE AND SET PRECAST APRON PARALLEL TO DITCH AND SKEWED RELATIVE TO PIPE OR USE CIRCULAR SECTIONS (STD. 1040)
   (b) WITH BUILT-IN-PLACE APRON — CONSTRUCT BOX AS DESCRIBED IN (a) AND USE REDUCER SLAB OR INCREASE W OR W1 DIMENSIONS AS NECESSARY OR USE CIRCULAR SECTIONS (STD. 1040)

TYPICAL DROP INLET DIMENSIONS ✻ ✻

PIPE SIZE	BRICK MASONRY MIN. W OR W1	BRICK MASONRY MIN. H	BRICK MASONRY MIN. h	BRICK MASONRY a (MAX.)	BRICK MASONRY b (MIN.)	REINF. CONCRETE ✻ MODIFIED MIN H	REINF. CONCRETE ✻ MODIFIED MIN h	REINF. CONCRETE ✻ MIN. W OR W1	REINF. CONCRETE ✻ MIN. H	REINF. CONCRETE ✻ MIN. h	REINF. CONCRETE ✻ a (MAX)
15"	2'-0"	3'-1"	2'-1"	—	—	2'-7½"	1'-7½"	2'-0"	3'-2"	2'-2"	—
18"	2'-3"	3'-10"	2'-10"	1½"	2⅛"	2'-11"	1'-11"	2'-3"	3'-5"	2'-5"	—
24"	2'-10"	4'-11"	3'-11"	5"	8⅝"	3'-6"	2'-6"	3'-0"	4'-10"	3'-10"	6"
30"	3'-5"	6'-0"	5'-0"	8½"	1'-2⅝"	4'-1"	3'-1"	3'-6"	5'-5"	4'-5"	9"
36"	4'-0"	7'-1"	6'-1"	1'-0"	1'-8⅝"	—	—	4'-0"	6'-0"	5'-0"	1'-0"
42"	4'-7"	8'-6"	7'-2"	1'-3½"	2'-2⅝"	—	—	4'-6"	6'-7"	5'-7"	1'-3"
48"	5'-2"	9'-7"	8'-3	1'-7"	2'-6⅞"	—	—	5'-0"	7'-2"	6'-2"	1'-6"

✻ BUILT-IN-PLACE OR PRECAST BOX

✻ ✻ DIMENSIONS ARE BASED UPON TYPICAL OUTSIDE DIAMETERS OF CONCRETE PIPE AND MAY BE VARIED IF CONDITIONS PERMIT, AND THE VARIED DIMENSIONS ARE SHOWN IN THE PLANS OR SPECIFIED BY THE ENGINEER. DIMENSIONS "a" ARE BASED UPON 2'-0" WEIR OPENING. MINIMUM H AND h ARE BASED UPON LARGEST PIPE INVOLVED. BOX ENCLOSURE FOR PIPE DOES NOT HAVE TO BE SQUARE. W AND W1 DIMENSIONS MAY DIFFER. (DIMENSIONS HAVE BEEN SPECIFIED FOR BOX SHAPED INLETS. SEE STD. 1040 FOR DIMENSIONS OF CIRCULAR ALTERNATES.)

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

STANDARD MEDIAN DROP INLET
(PRECAST OR BUILT-IN-PLACE) & CONCRETE APRON

SCALE AS SHOWN — REV. & REDR. AUGUST 26, 1981

DES. 2-67	(SUBMITTED) Floyd E. Hardy — STATE ROAD & AIRPORT DESIGN ENGR.
REV. R.M.U.	
TRA. G.M.E.	(APPROVED) Thomas D. Moseley — STATE HIGHWAY ENGINEER
CHK. R.K.C.	

NUMBER 9031-S

DATE	REVISION
4-17-96	GEN. REV.
R.M.U.	

FORM EF3

3/1/2007 GPLN

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

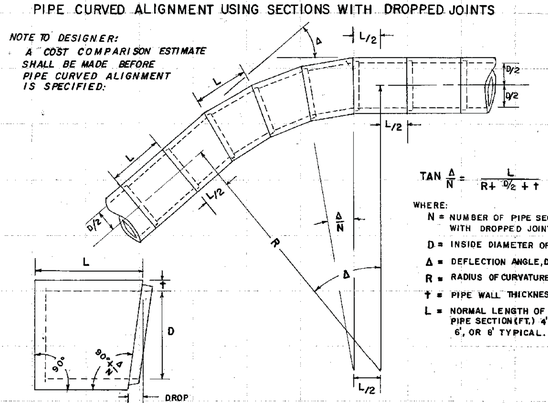
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
GEORGIA STANDARDS

DRAWING No. 41-042

RELEASED FOR CONSTRUCTION - 07-23-13

PIPE CURVED ALIGNMENT USING SECTIONS WITH DROPPED JOINTS

NOTE TO DESIGNER:
A COST COMPARISON ESTIMATE SHALL BE MADE BEFORE PIPE CURVED ALIGNMENT IS SPECIFIED.



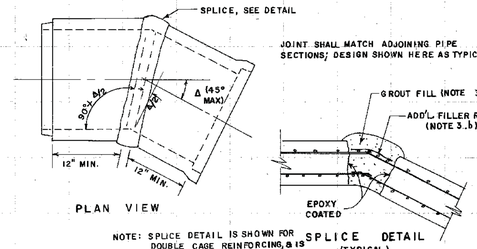
SECTION WITH DROPPED JOINT

$$\text{TAN } \frac{\Delta}{N} = \frac{L}{R + D/2 + t}$$

WHERE:
- N = NUMBER OF PIPE SECTIONS WITH DROPPED JOINTS
- D = INSIDE DIAMETER OF PIPE
- Δ = DEFLECTION ANGLE, DEGREES
- R = RADIUS OF CURVATURE (FT.)
- t = PIPE WALL THICKNESS (FT.)
- L = NORMAL LENGTH OF PIPE SECTION (FT.) 4', 6', OR 8' TYPICAL.

NOTES FOR PIPE CURVED ALIGNMENT:
1. PLANS ARE TO SPECIFY ONLY THE PIPE DIAMETER "D," THE ANGLE "Δ," AND THE TANGENT ALIGNMENT.
2. PIPE WALL THICKNESS "t", PIPE SECTION LENGTHS "L", AND DROP IN PIPE JOINT "Δ/N" VARIES ACCORDING TO PIPE PRODUCER AND IS BASED ON FEASIBILITY.
3. THE RADIUS "R" AND THE NUMBER OF DROPPED JOINT PIPE SECTIONS "N" IS DETERMINED BY (1) & (2) ABOVE. MINOR MODIFICATIONS IN THE RADIUS "R" ARE NORMALLY MADE SO THAT "N" WILL BE A WHOLE NUMBER.
4. PIPE SECTIONS SHALL BE ORIENTED SUCH THAT THE PLANE OF THE DROPPED JOINT IS AT RIGHT ANGLES TO THE THEORETICAL CIRCULAR CURVE. THE TOP OF SECTIONS ARE TO BE MARKED SO THAT THE DEFLECTION ANGLE IS PROPERLY ORIENTED.
5. DETAILS ARE SHOWN FOR CONCRETE PIPE. CURVED ALIGNMENT FOR C.M. PIPE SHALL BE AS RECOMMENDED BY THE MANUFACTURER AND APPROVED BY THE ENGINEER.
6. PAYMENT PER LIN. FT. PIPE INCLUDES PIPE SECTIONS WITH DROPPED JOINTS.

PIPE ELBOW SECTION (PRE-FABRICATED)



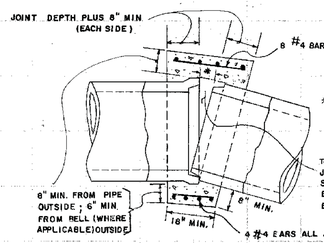
PLAN VIEW

SPLICE DETAIL (TYPICAL)

NOTE: SPLICE DETAIL IS SHOWN FOR DOUBLE CAGE REINFORCING, & IS SIMILAR FOR SINGLE CAGE REINFORCING, BUT WITH SINGLE SPLICE ALL AROUND BEING APPLICABLE.

NOTES FOR PIPE ELBOW:
1. PAYMENT FOR LIN. FT. OF PIPE INCLUDES ELBOWS.
2. ELBOW ANGLE Δ SHALL VARY ACCORDING TO NEED, BUT SHALL NOT BE GREATER THAN 45°. THE CONTRACTOR SHALL INFORM PRODUCER AS TO ANGLE REQUIRED.
3. (a) CONCRETE PIPE SHALL BE CUT BEFORE BEING CURED AND STEEL EXPOSED FROM EACH SIDE OF CUT.
   (b) EXPOSED STEEL SHALL BE REJOINED. FILLER RODS AT LEAST EQUAL TO RODS IN PIPE SHALL BE ADDED AS NEEDED FOR HANDLING STRENGTH & TO HOLD GROUT.
   (c) ALL VOID IN SPLICE SHALL BE PACKED WITH GROUT MORTAR RICH ENOUGH TO GIVE STRENGTH AT LEAST EQUAL TO REMOVED CONCRETE WITH INSIDE SMOOTHED OUT.
4. C.M. PIPE ELBOW NOT SHOWN, BUT MAY BE SPECIFIED. SOLID WELD SHALL BE REQUIRED FOR C.M. ELBOW JOINT WITH GALVANIZING AND/OR COATINGS REPAIRED AS REQ'D.

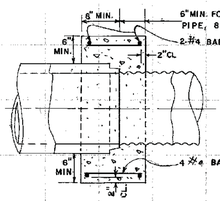
CONCRETE COLLAR FOR DEFLECTING PIPE



PLAN SECTION

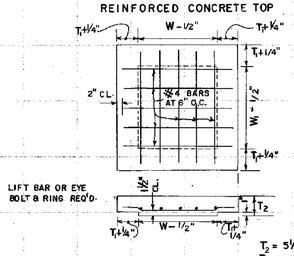
NOTES FOR CONCRETE COLLARS:
1. PERIMETERS OF CONCRETE COLLARS DO NOT HAVE TO BE SMOOTH LINES. COLLARS MAY BE FORMED AGAINST COMPACTED OR UNDISTURBED SOIL. DIMENSIONS ARE MINIMUM. COLLAR MAY BE SQUARE, ROUND OR SHAPE MAY VARY SO LONG AS MINIMUM DIMENSIONS ARE OBTAINED.
2. ALL CONCRETE COLLARS ARE TO BE CONSTRUCTED WITH CLASS A CONCRETE.
3. PAYMENT FOR LIN. FT. OF PIPE INCLUDES COLLARS.

CONCRETE COLLAR FOR JOINTING PIPE



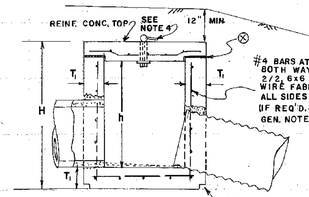
PLAN OR SIDE SECTION

REINFORCED CONCRETE TOP

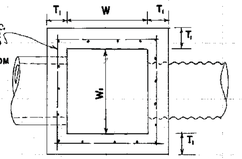


$T_2 = 5\frac{1}{2}$" FOR W OR W_1 TO 3'-0"
$T_2 = 8$" FOR W OR W_1 OVER 3'-0"

DETAILS OF CONCRETE JUNCTION BOX
(PRECAST OR BUILT IN PLACE)



SECTIONAL VIEW



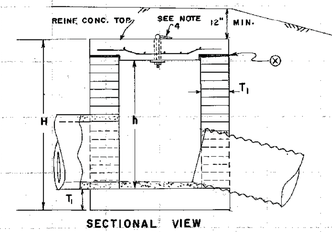
PLAN VIEW
(SHOWN WITHOUT REQ'D. TOP)

T = 6" FOR CONCRETE

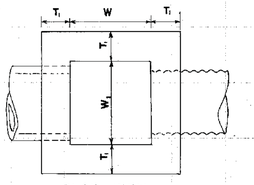
DIMENSIONS FOR BRICK OR REINF. CONC. BOX			
PIPE SIZE	MIN W OR W	MIN h	MIN H
15"	2'-0"	1'-9"	2'-9"
18"	2'-3"	2'-1"	3'-1"
24"	2'-10"	2'-8"	3'-8"
30"	3'-5"	3'-3"	4'-3"
36"	4'-0"	3'-10"	4'-9"
42"	4'-7"	4'-5"	5'-5"
48"	5'-2"	5'-0"	6'-0"

SEE GEN. NOTE NO.3

DETAILS OF BRICK JUNCTION BOX
FOR BRICK T= 8" (MAX. 10 FT. DEPTH)



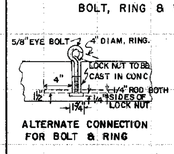
SECTIONAL VIEW



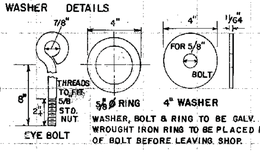
PLAN VIEW
(SHOWN WITHOUT REQ'D. TOP)

⊗ PREVENT BOND WITH EITHER 30 LB. ASPHALT SATURATED FELT OR PREFORMED FOAM JOINT FILLER.

BOLT, RING & WASHER DETAILS

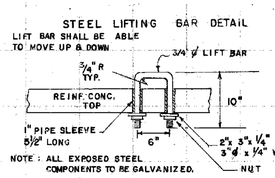


ALTERNATE CONNECTION FOR BOLT & RING



WASHER, BOLT & RING TO BE GALV. STEEL OR WROUGHT IRON RING TO BE PLACED IN EYE OF BOLT BEFORE LEAVING SHOP.

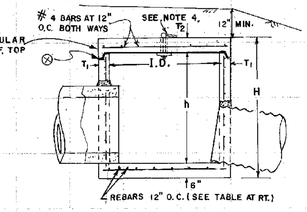
STEEL LIFTING BAR DETAIL



NOTE: ALL EXPOSED STEEL COMPONENTS TO BE GALVANIZED.

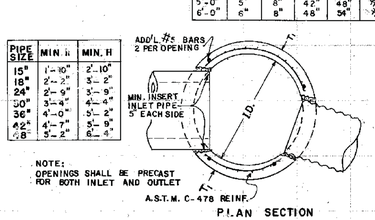
DETAILS OF CIRCULAR PRECAST JUNCTION BOX
(REINFORCING AND DESIGN SHALL COMPLY WITH A.S.T.M. C-478 EXCEPT AS OTHERWISE SHOWN. MATERIALS SHALL COMPLY WITH GA. STD. SPECIFICATIONS FOR PRECAST MANHOLES)

I.D.	T_1 (MIN.)	T_2 (MIN.)	MAX. PIPE CONC.	MAX. PIPE C.M.	REBARS IN BOTTOM
4'-0"	5"	6"	30"	36"	#5
5'-0"	5"	8"	42"	48"	#5
6'-0"	6"	8"	48"	54"	#6



SECTIONAL VIEW

PIPE SIZE	MIN. h	MIN. H
15"	1'-10"	2'-10"
18"	2'-2"	3'-2"
24"	2'-9"	3'-9"
30"	3'-4"	4'-4"
36"	4'-0"	5'-2"
42"	4'-7"	5'-9"
48"	5'-2"	6'-4"



NOTE: OPENINGS SHALL BE PRECAST FOR BOTH INLET AND OUTLET

A.S.T.M. C-478 REINF.

PLAN SECTION

GENERAL NOTES:
1. SPECIFICATIONS: GEORGIA STANDARD, CURRENT EDITION & SUPPLEMENTS THERETO.
2. ILLUSTRATED PIPES, PIPE JOINTS, ALIGNMENT, SIZES, ETC. ARE SHOWN AS REPRESENTATIVE. ACTUAL REQUIREMENTS VARY PER LOCATION AS INDICATED IN THE PLANS.
3. JUNCTION BOXES DO NOT HAVE TO BE CONSTRUCTED SQUARE. W & W1 DIMENSIONS MAY VARY ACCORDING TO PIPE SIZE.
4. ALL JUNCTION BOX TOPS SHALL BE EQUIPPED WITH EITHER AN EYE BOLT & RING (SHOWN) OR A LIFTING BAR (ALTERNATE).
5. REINFORCING IS REQUIRED FOR ALL PRECAST JUNCTION BOXES. REINFORCING MAY BE OMITTED FOR BUILT IN PLACE CONCRETE BOXES NOT OVER 10 FT. DEEP AND NOT LARGER THAN 3' x 3'. CONSTRUCTION JOINTS PERMITTED IF DOWELED OR KEYED. ALL JUNCTION BOX TOPS SHALL BE REINFORCED.

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

STANDARD

PRECAST OR BUILT IN PLACE
JUNCTION BOXES
PIPE COLLARS, PIPE ELBOW
& PIPE CURVED ALIGNMENT

NO SCALE — REV. & REDR. JULY 1985

DES. RMU | DRW. RMU | TRA. GME | CHK. RKC

(SUBMITTED) Lloyd S. Handy — STATE ROAD & AIRPORT DESIGN ENGR.

(APPROVED) Hal Rivers — STATE HIGHWAY ENGINEER

NUMBER 9031U

FORM EF6

3/1/2007 GPLN

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

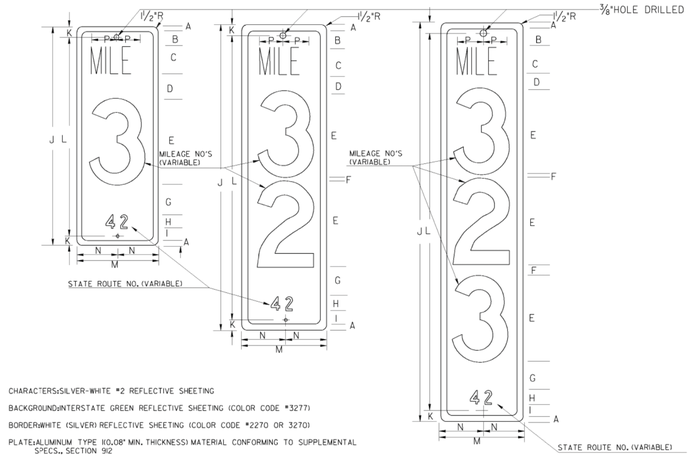
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
GEORGIA STANDARDS

DRAWING No. 41-043

23-JUL-2013 15:36	3:36:16 PM	9033	Y:\Roadways\126379\0008690\Dgn\Const Standards\9033.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	640	730

8/7/2006 3:10:25 PM \\GDOT-DGN\GDPLOT\QCF\qa_1117_output.qcf gowens M:\GARY\Revised 9033\9033.prf GQ-RDG

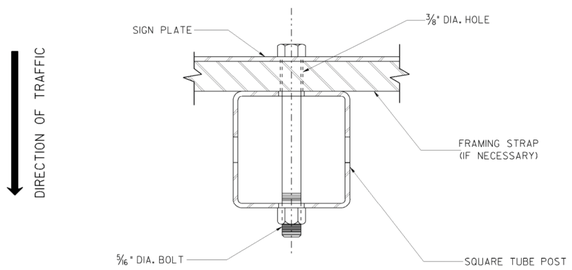
RELEASED FOR CONSTRUCTION - 07-23-13



TYPICAL MILEPOST SIGN DETAILS

NOTE: INSTALLATION OF MILEPOST SHALL BE WITHHELD UNTIL THE GRASS IS ACCEPTED BY THE STATE.

POST	STUB SIZE
TYPE 7	2¼" x 2¼"



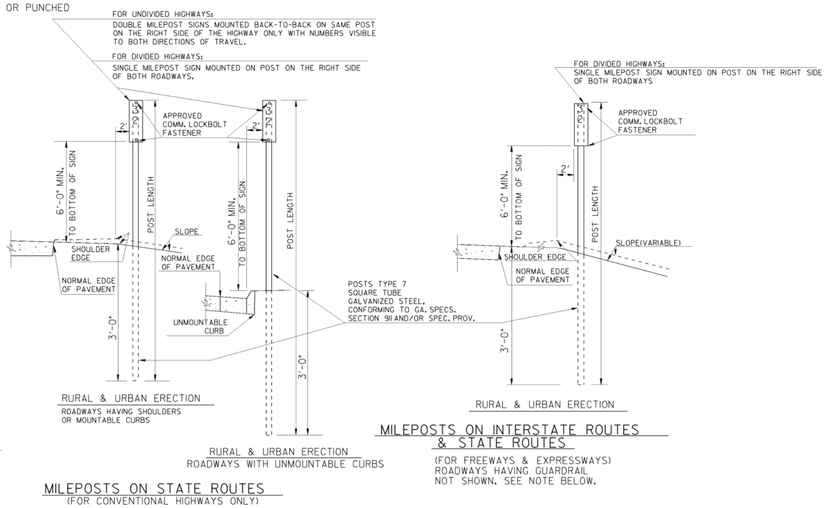
TYPICAL DETAIL

NOTE: SAMPLE OF COMMERCIAL LOCKBOLT FASTENER TO BE USED MUST BE SUBMITTED FOR APPROVAL PRIOR TO INSTALLATION

MILE POST MARKERS
DIMENSIONS (INCHES)

	FREEWAYS AND EXPRESSWAYS			CONVENTIONAL HIGHWAYS		
	1-DIGIT	2-DIGITS	3-DIGITS	1-DIGIT	2-DIGITS	3-DIGITS
A	½	½	½	½	½	½
B	2½	2½	2½	1½	1½	1½
C	4	4	4	4	4	4
D	3	3	3	2	2	2
E	10	10	10	6	6	6
F		3	2½		3	3
G	1¼	¾	¾	1¼	1¼	1¼
H	ID	ID	ID	ID	ID	ID
I	1¼	¾	¾	1¼	1¼	1¼
J	24	36	48	18	27	36
K	1	1	1	1	1	1
L	22	34	46	16	25	34
M	12	12	12	10	10	10
N	6	6	6	5	5	5
P	4¾	4¾	4¾	3¾	3¾	3¾
POST LENGTH (LIN.FT.)	11	12	13	11	12	12

⅜"HOLE DRILLED OR PUNCHED



RURAL & URBAN ERECTION
ROADWAYS HAVING SHOULDERS OR MOUNTABLE CURBS

RURAL & URBAN ERECTION
ROADWAYS WITH UNMOUNTABLE CURBS

RURAL & URBAN ERECTION

MILEPOSTS ON STATE ROUTES
(FOR CONVENTIONAL HIGHWAYS ONLY)

MILEPOSTS ON INTERSTATE ROUTES & STATE ROUTES
(FOR FREEWAYS & EXPRESSWAYS) ROADWAYS HAVING GUARDRAIL NOT SHOWN. SEE NOTE BELOW.

TYPICAL MILEPOST ERECTION DETAILS

NOTE: MILEPOSTS SHALL BE LOCATED IN LINE WITH DELINEATOR POST OR, IF APPROPRIATE, IN THE SAME PLANE AS FACE OF GUARDRAIL POST WITH THE BOTTOM OF THE MARKER AT THE SAME HEIGHT AS THE DELINEATOR AS SHOWN IN THE DETAILS ABOVE.

GENERAL NOTES:

1. MILEPOST ARE TO BE LOCATED AND ERECTED ON ACCURATE MILEAGE MEASUREMENTS MADE ON EITHER THE NORTHBOUND OR EASTBOUND ROADWAY BEGINNING WITH ZERO MILEAGE AT THE SOUTH OR WEST STATE LINES FOR THE INTERSTATE HIGHWAY SYSTEM AND AT THE SOUTH OR WEST COUNTY LINES FOR THE STATE HIGHWAY SYSTEM AND AT JUNCTIONS WHERE ROUTES BEGIN AND RUNNING CONTINUOUS WITHIN THE STATE FOR THE INTERSTATE HIGHWAY SYSTEM AND RUNNING CONTINUOUS WITHIN THE COUNTY FOR THE STATE HIGHWAY SYSTEM. CORRESPONDING MILEPOSTS FOR SB OR WB ROADWAY OF DIVIDED HIGHWAYS ONLY, ARE TO BE LOCATED DIRECTLY OPPOSITE THOSE ON NB OR EB ROADWAYS.
2. WHERE ANY INTERFERENCE PREVENTS INSTALLING THE MILEPOST AT ITS ACCURATE LOCATION, IT MAY BE MOVED IN EITHER DIRECTION A MAXIMUM OF 50'. IF IT CANNOT BE PLACED WITHIN THAT DEGREE OF ACCURACY, IT SHALL BE OMITTED. MEASUREMENT TO THE NEXT MILEPOST LOCATION SHALL BE MADE FROM THE ACCURATELY ESTABLISHED MILE LOCATION AND NOT FROM THE ADJUSTED LOCATION.
3. MILEPOSTS SHALL BE INSTALLED ONLY AFTER IMPROVEMENTS ON EITHER SYSTEM HAVE PROGRESSED SUFFICIENTLY TO PERMIT THE POSTING OF ACCURATE MILEAGE. MILEPOSTS WILL ONLY BE ERECTED ON PAVED ROADS.
4. IT SHALL BE THE RESPONSIBILITY OF THE ENGINEER TO MARK THE LOCATION AND NUMERICAL DESIGNATION OF EACH MILEPOST. DISTANCES WILL BE OBTAINED BY THE USE OF A CERTIFIED ODOMETER IN A VEHICLE TRAVELING IN THE RIGHT HAND LANE IN THE DIRECTION IN WHICH THE MILEAGE INCREASES. NUMERICAL DESIGNATIONS SHALL BE DETERMINED AND COORDINATED FROM OFFICIAL GEORGIA D.O.T. MILEPOST RECORDS. CONTACT THE OFFICE OF TRAFFIC ENGINEERING AND SAFETY FOR CERTIFIED MILEPOST DATA.
5. WHERE TWO ROUTES ARE COMMON, THE MILEAGE WILL ONLY BE CARRIED AS THE LOWER NUMBERED ROUTE, BUT THE CORRECT MILEAGE ON THE OTHER ROUTE WILL BE MEASURED AND AFTER THE ROUTES SEPARATE, MILEPOST SHOWING THE CORRECT MILEAGE WILL BE ERECTED AS USUAL.
6. MATERIALS SHALL CONFORM TO THE FOLLOWING SPECIFICATIONS:
   (A) HIGHWAY SIGNS-SECTION 636
   (B) SIGN FABRICATION-SECTION 910, EXCEPT THAT THE MESSAGE SHALL BE OF REFLECTIVE MATERIAL, PRESSURE SENSITIVE.
   (C) SIGN POST-SECTION 911 AND/OR SPEC. PROV.
   (D) SIGN BLANKS- SECTION 912
   (E) REFLECTORIZING MATERIALS-SECTION 913

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

STANDARD

MILEPOSTS

NO SCALE — RE-DRAWN SEPT. 1999

G.D.O. BY	REVISED POST TO A TYPE 7 REVISION	3-30-06 DATE

DES. ____ DRW. ____ TRA. ____ CHK. ____

(SUBMITTED) STATE ROAD & AIRPORT DESIGN ENGINEER

(APPROVED) CHIEF ENGINEER

NUMBER 9033

3/1/2007 GPLN

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
GEORGIA STANDARDS

DRAWING No. 41-044

RELEASED FOR CONSTRUCTION - 07-23-13

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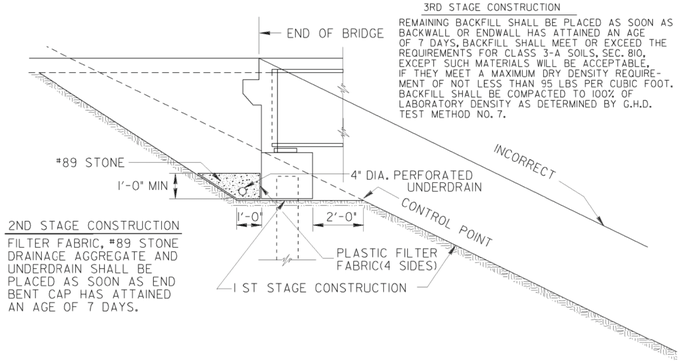
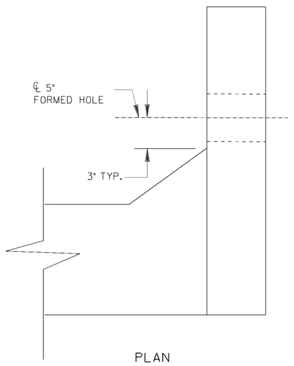
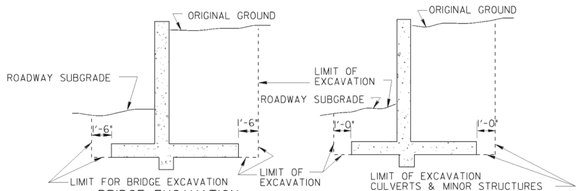


SKETCH SHOWING CONSTRUCTION OF FILLS AT ENDS OF BRIDGES

NO SCALE



PLAN

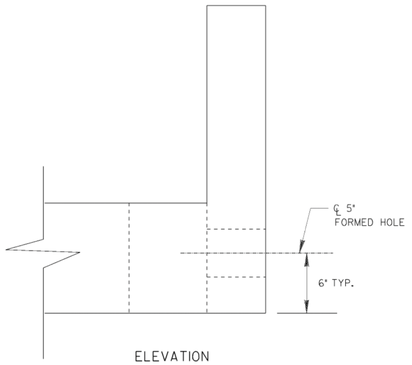


TYPICAL DETAILS OF EXCAVATION AT STRUCTURES

NOTE: WHERE FILL IS PLACED BEFORE CONSTRUCTION OF STRUCTURES THE COST OF EXCAVATION AND BACKFILL WILL BE INCLUDED IN THE COST OF OTHER ITEMS. THERE WILL BE NO PAYMENT FOR EXCAVATION UNDER THIS CONDITION.

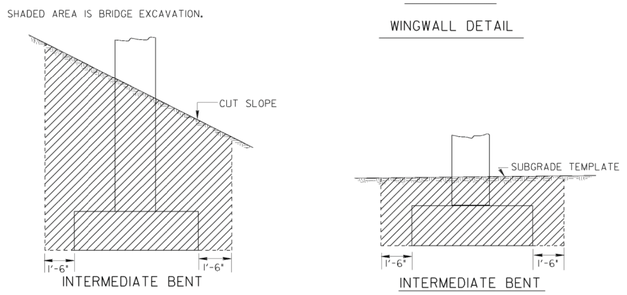
NOTES:

1. PERFORATED UNDERDRAIN SHALL EXTEND TO THE INSIDE FACE OF WING AT THE HIGH END OF THE CAP.
2. AT THE LOW END OF THE CAP, CONNECT PERFORATED UNDERDRAIN TO A COMPATIBLE SOLID PIPE FROM THE INSIDE FACE OF WING UNTIL IT EXITS THE SLOPE. SOLID PIPE SHALL HAVE A MINIMUM SLOPE OF 2%.
3. SOLID PIPE MAY BE PLACED AT EITHER END OF CAPS WITH LEVEL BOTTOM.
4. PERFORATED UNDERDRAIN SHALL BE INSTALLED PARALLEL TO BOTTOM OF CAP. LOW POINTS OR SAGS THAT MAY TRAP WATER WILL NOT BE ALLOWED.
5. FILTER FABRIC SHALL NOT BE ATTACHED TO THE END BENT CAP.
6. COST FOR PROVIDING AND INSTALLING FILTER FABRIC, UNDERDRAIN, AND STONE SHALL BE INCLUDED IN THE PRICE BID FOR CONTRACT ITEMS.



ELEVATION

WINGWALL DETAIL



TYPICAL EXCAVATION DETAILS AT BRIDGE BENTS IN CUT SECTIONS

NO SCALE

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

STANDARD
TYPICAL FILL DETAIL AT END OF BRIDGE

NO SCALE — REDRAWN SEPT., 1999

DES. DRW. TRA. CHK. BY

(SUBMITTED) STATE BRIDGE & AIRPORT DESIGN ENGR.

(APPROVED) CHIEF ENGINEER

DATE REVISION

NUMBER 9037

9/3/2004 8:07:35 AM \\GDOT-DSN1\GOPLOT\GCF\GO_TIFF_OUTPUT.GCF GOWENS,M:\GARY\ENGLISH STANDARDS UPDATED AND UPDATED INDEX\9037.PRF

3/1/2007 GPLN
HEET004 HEET005 HEET006 HEET007 HEET008 HEET009 HEET010 HEET011

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
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(770) 263-9118

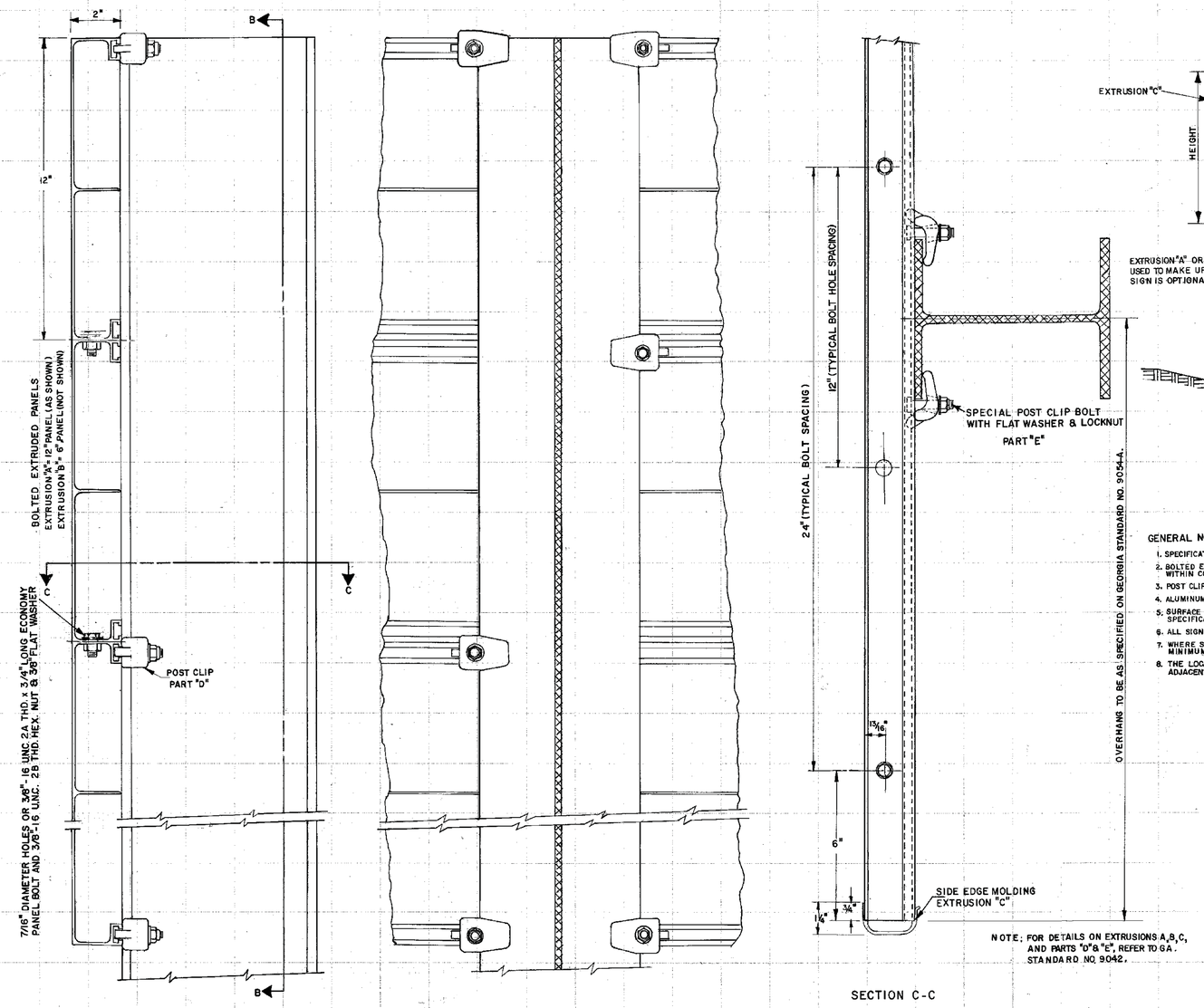
REVISION DATES

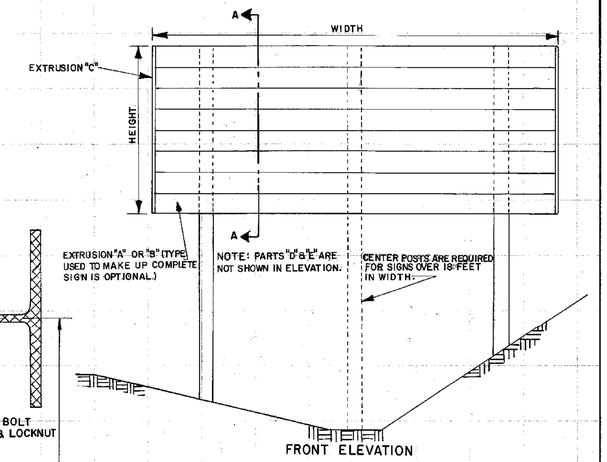
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
GEORGIA STANDARDS

DRAWING No. 41-045

RELEASED FOR CONSTRUCTION - 07-23-13

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			





FOR ERECTION AND FOUNDATION DETAILS ON SPECIAL ROADSIDE SIGNS, REFER TO GEORGIA STANDARDS 9054-A, 9054-B, AND 9054-C.

GENERAL NOTES:

1. SPECIFICATIONS: GEORGIA STANDARD, CURRENT EDITION, AND SUPPLEMENTS THERETO.
2. BOLTED EXTRUDED PANELS SHALL BE HORIZONTAL AND THE PANEL FACES SHALL BE FLUSH WITHIN COMMERCIAL EXTRUSION TOLERANCES AFTER ERECTION OF THE SIGN IS COMPLETE.
3. POST CLIPS SHALL BE PLACED AS SHOWN IN SECTION B-B DETAIL.
4. ALUMINUM LOCK NUTS SHALL BE TORQUED TO A MINIMUM OF 20 FOOT POUNDS.
5. SURFACE PREPARATION AND FABRICATION OF PANELS TO BE IN ACCORDANCE WITH THE SPECIFICATIONS.
6. ALL SIGN PARTS AND ACCESSORIES TO BE MADE OF ALUMINUM ALLOY.
7. WHERE SIGNS ARE TO BE ASSEMBLED AND MOUNTED ONE ABOVE THE OTHER, A TWO INCH MINIMUM AIR SPACE BETWEEN SIGNS IS REQUIRED.
8. THE LOCATION OF THE BOLTS CONNECTING THE EXTRUDED PANELS SHALL BE OFFSET ON ADJACENT PANELS.

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

STANDARD

ASSEMBLY DETAILS ON ALUMINUM BOLTED EXTRUDED PANELS (FOR SPECIAL ROADSIDE SIGNS)

NO SCALE AUG., 1993

DES. 6-60 W.S.D. REV. & REDR. 7-95
(SUBMITTED) Roland Vinson STATE ROAD & AIRPORT DESIGN ENGR.
(APPROVED) Frank L. Danchitz STATE HIGHWAY ENGINEER

NUMBER 9041

FORM EF00003

THE LPA GROUP
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STATE OF GEORGIA
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GEORGIA STANDARDS

DRAWING No. 41-046

RELEASED FOR CONSTRUCTION - 07-23-13

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

SPECIAL POST CLIP BOLT WITH FLAT WASHER & LOCKNUT
Part "E"

POST CLIP
Part "D" (Cast)

VIEW-B
Enlarged View of Serrations

SIDE EDGE MOLDING
Extrusion "C"

GENERAL NOTES

1. Specifications: Georgia Standard and / or Special Provisions.

2. For assembly details on extrusions A, B, C, Parts D & E see Georgia Standard Number 9041.

3. Alternate assembly components of comparable acceptable design may be used upon the approval of the Highway Engineer.

12" PANEL - Extrusion "A"

Wall thickness = .078" unless otherwise specified.
All inside and outside corners = .031" radius unless otherwise specified.

6" PANEL - Extrusion "B"

DATE	REVISIONS	BY
3-27-61	added general note #2	C.K.C.
9-27-66	deleted ASTM designation & revised GEN. NOTES	W.S.

STATE HIGHWAY DEPARTMENT OF GEORGIA
ENGINEERING DEPARTMENT

STANDARD

ALUMINUM BOLTED EXTRUDED PANELS
ASSEMBLY COMPONENTS DETAILS (FOR SPECIAL ROADSIDE SIGNS)

NO SCALE — JUNE, 1960

DESIGNED W.S.D.
DRAWN O.R.A.
TRACED G.C.R.
CHECKED C.E.B. W.C.L.

SUBMITTED [signature] STATE ROAD DESIGN ENGINEER
APPROVED [signature] STATE HIGHWAY ENGINEER

NUMBER 9042

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
GEORGIA STANDARDS

DRAWING No. 41-047

RELEASED FOR CONSTRUCTION - 07-23-13

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

NOTE: PANEL & LEGEND DETAILS NOT SHOWN ON THIS STANDARD. (COVERED UNDER SEPARATE DRAWINGS).

"X" = AVERAGE HEIGHT FROM GROUND LINE TO BOTTOM OF SIGN.

TYPICAL SIGN ERECTION DETAILS

TYPE 1 FOOTING DETAILS
(USE DETAIL "A" IF ROCK IS ENCOUNTERED)

NOTE: STUB POST SIZE SAME AS FOR SIGN POST.

*TYPE 3 FOOTING DETAILS

*FOR TYPE 3 FOOTINGS WITH LESS THAN 4'-6½" EARTH COVER TO ROCK, BUILD FOOTINGS ACCORDING TO DETAIL "A". THE DIAMETER OF THE UPPER CONCRETE PORTION OF THE FOOTING WILL BE 3'-0". SHOULD 4'-6½" OR MORE OF EARTH COVER EXIST BUT LESS THAN "D" SECURELY SOCKET PILE INTO ROCK STRATA 1'-0"±. PILE SHALL BE EXTENDED INTO CONCRETE 1'-6".

IN CASE THE PILE CAN NOT BE SECURELY SOCKETED INTO ROCK 1'-0"±, THE SIGN MAY BE MOVED UP TO 50 FEET UP OR DOWN THE ROAD TO OBTAIN A BETTER FOUNDATION.

TYPICAL SIDE VIEW OF HINGE

NOTE: FLANGE HOLES FOR HINGE SHALL BE DRILLED OR SUB-PUNCHED & REAMED.

NOTE: INSTALL FUSE WITH NOTCHES TOWARD BASE.

DETAIL "B"

FABRICATOR NOTE: IMPORTANT—ALL FRICTION FUSE BOLTS SHALL BE TIGHTENED IN THE SHOP FOLLOWING A METHOD APPROVED BY THE ENGINEER. TIGHTENING SHALL BE TO SUCH A DEGREE AS TO OBTAIN THE FOLLOWING MINIMUM RESIDUAL TENSIONS IN EACH BOLT.

BOLT SIZE	MIN. RESIDUAL BOLT TENSION
½"Φ	12,050 LBS.
⅝"Φ	19,200 LBS.
¾"Φ	28,400 LBS.
⅞"Φ	36,050 LBS.

USE H.S. BOLTS WITH HEX. HD. & HEX. NUT, ONE FLAT WASHER UNDER EACH BOLT HD. & BEVEL OR FLAT WASHER (WHERE REQUIRED) UNDER EACH NUT.

FUSE PLATE DETAIL
(SEE TABLE FOR DIMENSIONS)

DESIGN DATA

ADAPTED FROM THE STATE HIGHWAY DEPARTMENT OF TEXAS, DESIGN WIND VELOCITY AS SHOWN.

POST SIZE (3) \ DIM	BOLT SIZE & TORQUE	a	b	c	d	e	f	g	h	i	j	k	ℓ	m	n	p	q	r	s	BOLT DIA.	STUB LENGTH	STUB PROJECTION
	BASE CONNECTION DATA TABLE										FUSE PLATE DATA TABLE										STUB POST DATA	
S 3×5.7	½"Φ×2½" TORQUE=200" #	SEE DETAIL									3⅛"	1½"	1⅛"	2⅝"	1½"	9/16"	½"	9/16"	¼"	½"Φ	1'-6"	3½"
S 4×7.7											3⅛"	1½"	1⅛"	2⅝"	1½"	9/16"	½"	9/16"	¼"	½"Φ	1'-6"	3½"
W 6×9	⅝"Φ×2¾" TORQUE=450" #	5"	2"	1¼"	2¾"	1⅛"	¾"	½"	¼"	11/32"	3⅝"	2"	1⅛"	4"	2¼"	⅞"	½"	9/16"	¼"	½"Φ	2'-0"	3"
W 6×12											3¾"	2"	1⅛"	4"	2¼"	⅞"	⅝"	11/16"	⅜"	⅝"Φ	2'-0"	3"
W 6×15											4½"	2½"	1¼"	6"	3½"	1¼"	¾"	13/16"	½"	¾"Φ	2'-6"	3"
W 8×18											4½"	2½"	1¼"	5¼"	2¾"	1¼"	¾"	13/16"	½"	¾"Φ	2'-6"	3"
W 8×21	¾"Φ×3½" TORQUE=750" #	6"	2¼"	1⅜"	3½"	1¼"	1"	¾"	5/16"	13/32"	4⅞"	2½"	1½"	5¼"	2¾"	1¼"	⅞"	15/16"	9/16"	⅞"Φ	3'-0"	2½"
W 10×22											5⅜"	3"	1½"	5¾"	2¾"	1½"	⅞"	15/16"	9/16"	⅞"Φ	3'-0"	2½"
W 10×26											5⅜"	3"	1½"	5¾"	2¾"	1½"	⅞"	15/16"	9/16"	⅞"Φ	3'-0"	2½"
W 12×26											5⅜"	3"	1½"	6½"	3½"	1½"	⅞"	15/16"	9/16"	⅞"Φ	3'-0"	2½"

PROCEDURE FOR ASSEMBLY OF BASE CONNECTION

1. ASSEMBLE POST TO STUB WITH BOLTS & WITH ONE FLAT WASHER ON EACH BOLT BETWEEN PLATES.
2. SHIM AS REQUIRED TO PLUMB POST.
3. TIGHTEN ALL BOLTS TO THE MAXIMUM POSSIBLE WITH A 12" TO 15" WRENCH TO BED WASHERS & SHIMS & TO CLEAN BOLT THREADS. THEN LOOSEN EACH BOLT IN TURN & RETIGHTEN IN A SYSTEMATIC ORDER TO THE PRESCRIBED TORQUE. (SEE TABLE)
4. BURR THREADS AT JUNCTION WITH NUT USING A CENTER PUNCH TO PREVENT NUT LOOSENING.

GENERAL NOTES

1. SPECIFICATIONS - GEORGIA STANDARD AND/OR SPECIAL PROVISIONS.
2. ALL CONCRETE SHALL BE CLASS "A".
3. (2) ALL STRUCTURAL STEEL SHALL BE A.S.T.M. DESIGNATION A-36 & SHALL BE GALV. AFTER FABRICATION IN ACCORDANCE WITH A.S.T.M. SPECIFICATION A-123 & A-153 (EXCEPT AS NOTED AT FUSE PLATES). ALL HOLES SHALL BE DRILLED ® & ALL CUTS SHALL PREFERABLY BE SAW CUTS. FLAME CUTTING WILL BE PERMITTED PROVIDED ALL EDGES ARE GROUND FLAT & SMOOTH. STEEL ∠'s SHALL BE A-36.
4. ALL HIGH STRENGTH BOLTS, NUTS, & WASHERS SHALL CONFORM TO A.S.T.M. A-325. TIGHTEN THE HIGH STRENGTH BOLTS IN THE BASE CONNECTION ONLY TO THE TORQUE SHOWN IN THE TABLE. DO NOT OVERTIGHTEN.
5. POSTS MUST BE PLUMB & LOCATED AS SPECIFIED.
6. THE FACE OF ALL FLANGES OF POSTS SHALL BE IN THE SAME PLANE.
7. SIGN FACES SHALL BE ORIENTED TO AVOID SPECULAR REFLECTION ORDINARILY BY A SLIGHT TURNING AWAY FROM THE ROADWAY OF APPROXIMATELY 3 DEGREES. CARE SHALL BE TAKEN TO KEEP THE ADJUSTMENT SMALL SO AS TO MAINTAIN ADEQUATE REFLECTIVE VALUES.
8. EXCAVATION - DURING EXCAVATION, SURROUNDING SOIL SHALL REMAIN UNDISTURBED. ANY BACKFILLING REQUIRED SHALL BE DONE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.
9. FOR FIELD REPAIR OF DAMAGE TO SPELTER COATING DUE TO WELDING OR OTHER CAUSES, SEE THE STANDARD SPECIFICATIONS.
10. OTHER REQUIREMENTS - FOR GENERAL NOTES & CONTRACT REQUIREMENTS, SEE SPECIAL PLANS, SUPPLEMENTAL SPECS. & SPECIAL PROVISIONS.
11. PILES SHALL CONFORM TO THE STANDARD SPECIFICATIONS.

® EXCEPT AS NOTED.

SIGN POST AND STUB POST
ELEVATION FOR S SHAPES (3)

SECTION C-C SECTION D-D

SECTIONS SHOWN ARE FOR INSTALLATIONS ON RIGHT SHOULDER & IN GORE. PLATE SLOT BEVELS ARE OPPOSITE HAND FROM THAT SHOWN FOR INSTALLATIONS ON LEFT SHOULDER.

(2) STEEL ∠ DETAIL
SECTION E-E

FURNISH 2, .012"± THICK & 2, .032"± THICK SHIMS PER POST. SHIMS SHALL BE FABRICATED FROM BRASS SHIM STOCK OR STRIP CONFORMING TO A.S.T.M. - B 36.

SHIM DETAIL

STIFFENER PLATE DETAIL
(SEE TABLE FOR DIMENSIONS)

SECTION F-F

SECTION G-G SECTION H-H
(SEE TABLE FOR DIMENSIONS)

NOTE: SECTIONS SHOWN ARE FOR INSTALLATIONS ON RT. SHOULDER & IN GORE. PLATE SLOT BEVELS ARE OPPOSITE HAND FROM THAT SHOWN FOR INSTALLATION ON LT. SHOULDER.

SIGN POST AND STUB POST
ELEVATION FOR S AND W SHAPES (3)

	DATE	REVISIONS	BY
1	3-10-71	BAR DESIGNATION ADDED	F.W.C.
2	10-7-77	CH. ∠ BARS TO ∠'S & REV. NOTE	H.W.C.
3	10-28-81	UPDATED BEAM SIZE	R.M.U.

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

STANDARD
ERECTION AND FOUNDATION DETAILS FOR SPECIAL ROADSIDE SIGNS BREAKAWAY TYPE POSTS

NO SCALE JULY 1970

DESIGNED HWC DRAWN MGN TRACED CCG CHECKED HJL

SUBMITTED R. L. Chapman Jr. BRIDGE ENGINEER
APPROVED J. O. Bacon Jr. STATE HIGHWAY ENGINEER

NUMBER 9054A

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
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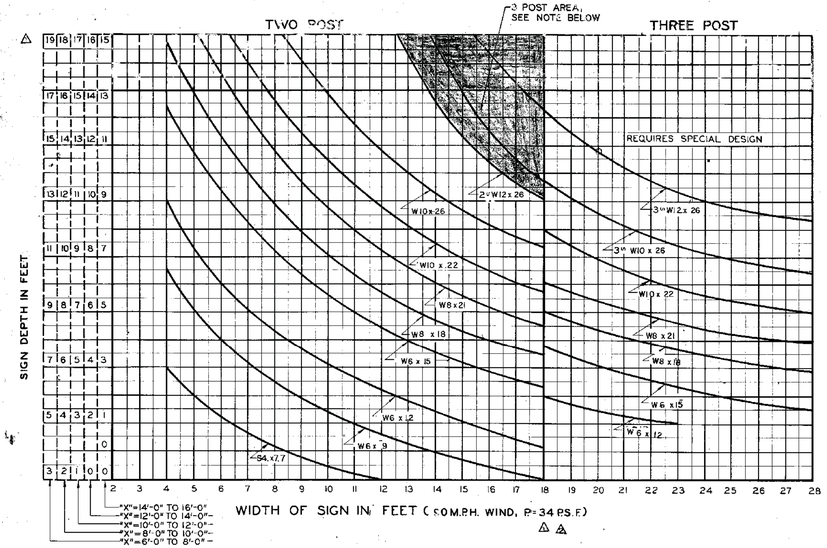
REVISION DATES

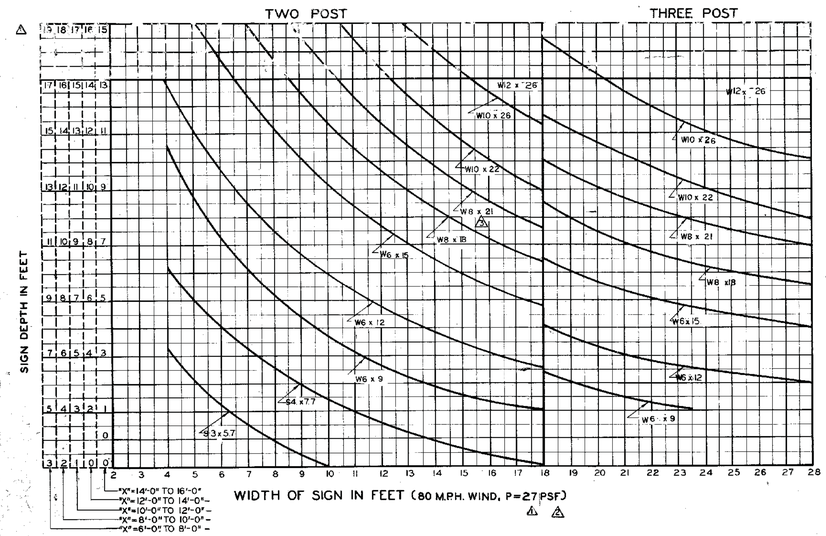
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
GEORGIA STANDARDS

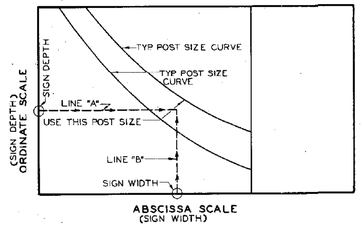
DRAWING No. 41-048

RELEASED FOR CONSTRUCTION - 07-23-13

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA			



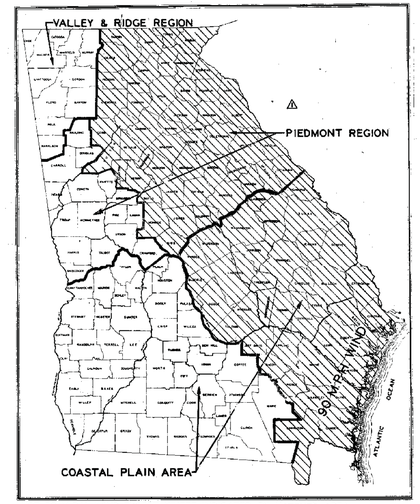




PROCEDURE TO FIND POST SIZE

1. DETERMINE SIGN WIDTH & DEPTH.
2. DETERMINE "X" DIMENSION USING GA. STD. NO. 9054-A
3. DETERMINE PROPER "X" COLUMN & READ UP ORDINATE SCALE UNTIL REACHING CORRECT SIGN DEPTH (STEP 1) IN THAT COLUMN. TURN 90° TO ORDINATE SCALE & PROJECT A LINE PARALLEL TO THE ABSCISSA SCALE. (LINE "A")
4. READ ALONG ABSCISSA SCALE TO CORRECT SIGN WIDTH. TURN 90° TO ABSCISSA SCALE & PROJECT A LINE (LINE "B") TO INTERSECT LINE "A". THE* NO. OF POSTS SHALL BE DETERMINED BY WHICH AREA THE POINT FALLS WITHIN. THE* SIZE SHALL BE THAT OF THE LARGER OF THE TWO POST SIZE CURVES THE INTERSECT POINT FALLS BETWEEN.

*WHEN A SIGN FALLS WITHIN THE TWO POST SECTION OF THE CHART ABOVE THE 2"W.12x26 CURVE, THAT SIGN SHALL REQUIRE THREE POSTS & SHALL BE PLOTTED TO ONE OF THE TWO LINES WHICH HAVE BEEN EXTENDED FROM THE THREE POST SECTION.



USE 80 M.P.H. WIND EXCEPT WHERE INDICATED BY HATCHED AREA.

BY	REVISIONS	DATE
H.W.C.	GENERAL REVISION	10-7-77
R.M.U.	UPDATE BEAM SIZE	10-28-81
R.M.U.	COR. 2 P. to 8 x 21 For 80 MPH	3-26-87

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

STANDARD
ERECTION AND FOUNDATION DETAILS
FOR SPECIAL ROADSIDE SIGNS
BREAKAWAY TYPE POSTS

NO SCALE JULY 1970

DESIGNED HWC
DRAWN MGN
TRACED CCG
CHECKED

SUBMITTED R. L. Chapman Jr. BRIDGE ENGINEER
APPROVED J. P. Bacon Jr. STATE HIGHWAY ENGINEER

NUMBER 9054-B

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

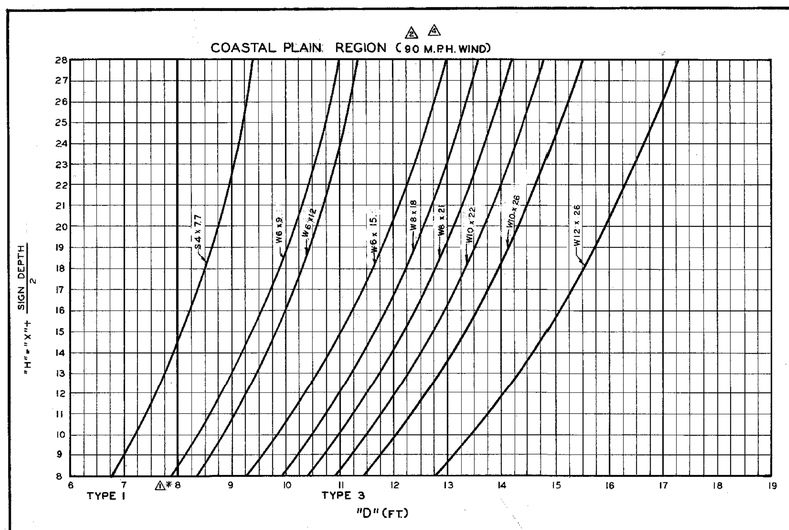
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
GEORGIA STANDARDS

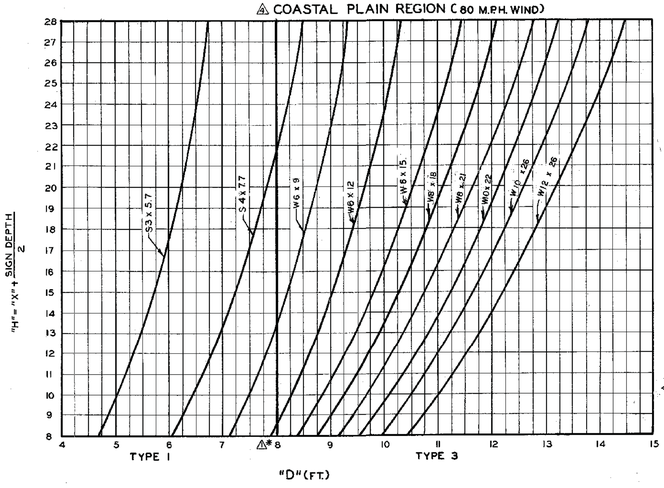
DRAWING No. 41-049

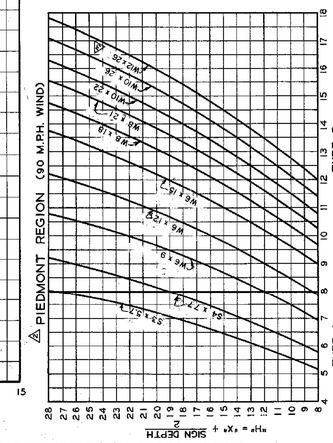
3/1/2007 GPLN

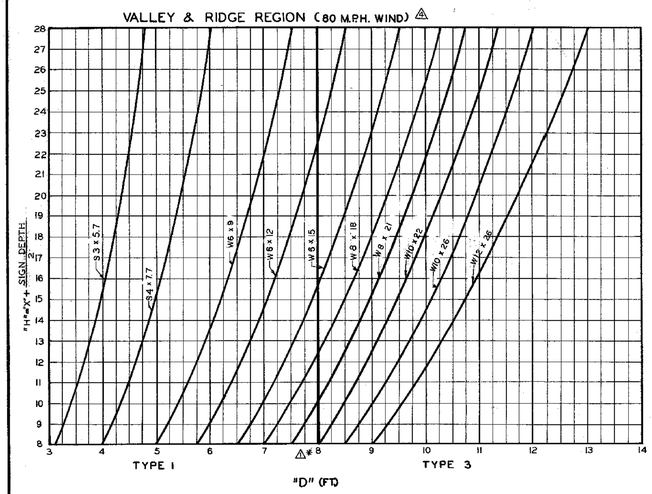
RELEASED FOR CONSTRUCTION - 07-23-13

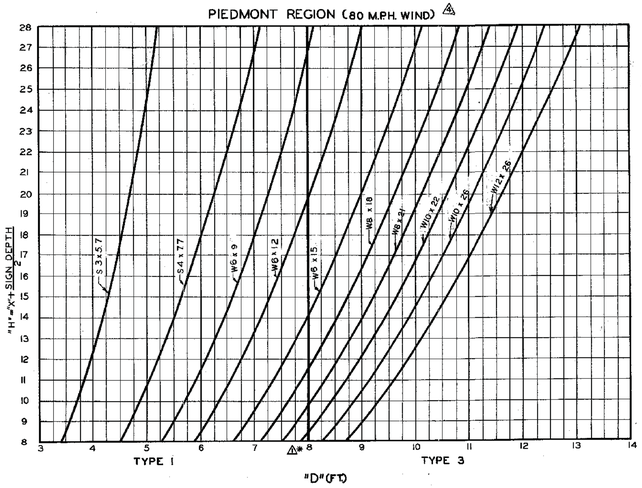
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA			









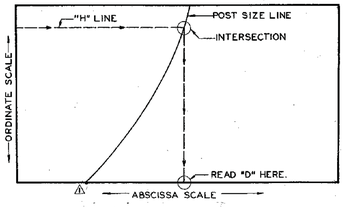


PROCEDURE TO FIND FOOTING DEPTH

1. DETERMINE REGION SIGN IS LOCATED IN FROM GA. STD. NO. 9054-B.
2. DETERMINE "H" ("H" = "X" + ½ SIGN DEPTH) USING GA. STD. NO. 9054-A.
3. DETERMINE POST SIZE FROM GA. STD. NO. 9054-B.
4. ON PROPER CHART (STEP 1) READ UP ORDINATE SCALE TO PROPER "H" (STEP 2). THEN READ ACROSS ABSCISSA SCALE TO CORRECT POST SIZE. "D" (FOOTING DEPTH) CAN BE READ FROM ABSCISSA SCALE DIRECTLY BELOW INTERSECTION OF POST SIZE LINE & "H" ORDINATE.

△1 *5. FOR FOOTING DEPTHS BELOW 8', USE TYPE 1 FOOTING, FOR FOOTING DEPTHS 8' & ABOVE, USE TYPE 3 FOOTING.

△1 6. FOOTING DEPTH "D" SHALL BE READ TO THE NEXT HIGHER 3 INCH INCREMENT, WHEN "D" FALLS BETWEEN 3 INCH INCREMENTS.



EXAMPLE

REVISIONS	DATE
UPDATED BEAM SIZE	10-28-81
NOTE REMOVED & NOTE 4	12-14-70
*ADDED	10-7-77
ADDED TABLE & REV. WIND	11-29-77
CORR. PIED. REG. CHART	

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

STANDARD
ERECTION AND FOUNDATION DETAILS
FOR SPECIAL ROADSIDE SIGNS
BREAKAWAY TYPE POSTS

NO SCALE JULY 1970

DESIGNED HWC
DRAWN MGN
TRACED CCG
CHECKED HJL

SUBMITTED R. L. Chapman, Jr. BRIDGE ENGINEER
APPROVED J. O. Bacon STATE HIGHWAY ENGINEER

NUMBER 9054C

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
GEORGIA STANDARDS

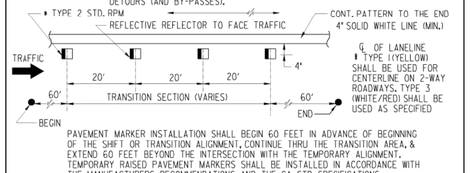
DRAWING No. 41-050

8/3/2006 11:33:34 AM \\GDOT-DSN\GDPLOT\QCF\ge_tiff_output_qcf_gowens M:\GARY\REVISED 9100\9100.prf GO-RD6

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

TEMPORARY RAISED PAVEMENT MARKER DETAIL

INSTALLATION PATTERN FOR LATERAL MAINLINE SHIFTS AND CROSSOVER OPERATIONS. ALSO APPLICABLE FOR DETOURS (AND BY-PASSES).



PAVEMENT MARKER INSTALLATION SHALL BEGIN 60 FEET IN ADVANCE OF BEGINNING OF THE SHIFT OR TRANSITION ALIGNMENT, CONTINUE THRU THE TRANSITION AREA, & EXTEND 60 FEET BEYOND THE INTERSECTION WITH THE TEMPORARY ALIGNMENT. TEMPORARY RAISED PAVEMENT MARKERS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS AND THE GA. STD. SPECIFICATIONS.

STANDARD LEGEND

- STRIPED DRUM
- TYPE III BARRICADES
- SPECIAL BARRICADE WITH BI-DIRECTIONAL, TYPE 'C' STEADY BURNING LIGHT OR HIGHWAY SIGN AS SPECIFIED (SEE DETAIL)
- SEQUENTIAL OR FLASHING ARROW
- PORTABLE CHANGEABLE MESSAGE SIGN
- PERMANENT TYPE POST MOUNTED SIGN
- TEMPORARY POST MOUNTED SIGN
- PORTABLE MOUNTED SIGN - FLAGS NOT REQUIRED
- WORK AREA
- TRAFFIC CONE - 28" MIN. - (DAYTIME USE ONLY)
- FLAGGER WITH STOP-SLOW PADDLE
- TRAFFIC IMPACT ATTENUATOR (CRASH CUSHION)
- TYPE I CLEAR (WHITE) DELINEATOR - SINGLE FACE
- TYPE I YELLOW DELINEATOR - SINGLE FACE
- TYPE I CLEAR (WHITE) DELINEATOR DOUBLE FACE
- TYPE I YELLOW DELINEATOR DOUBLE FACE

GENERAL NOTES :

1. ALL TRAFFIC CONTROL DEVICES SHALL BE MADE AND ERECTED IN ACCORDANCE WITH THE DETAILS SHOWN ON THE PLANS; THE MUTCD; THE GEORGIA STANDARD SPECIFICATIONS, AND/OR SPECIAL PROVISIONS. (SEE SECTION 150)
2. ALL TRAFFIC CONTROL DEVICES SHALL BE AS SHOWN, OR AS DIRECTED BY THE ENGINEER. ADDITIONAL DEVICES MAY BE REQUIRED AS DIRECTED BY THE ENGINEER.
3. ALL PORTABLE SIGNS SHALL BE MOUNTED A MINIMUM OF 1FOOT ABOVE THE LEVEL OF PAVEMENT EDGE FOR DIRECTIONAL TRAFFIC OF TWO (2) LANES OR LESS AND A MINIMUM OF 7 FEET FOR DIRECTIONAL OF THREE (3) OR MORE LANES. ALL PORTABLE SIGNS AND SIGN MOUNTING DEVICES UTILIZED IN THE WORK SHALL BE NCHRP 350 COMPLIANT. PORTABLE SIGNS MAY BE USED WHEN THE DURATION OF THE WORK IS LESS THAN 3 DAYS.
4. WHEN THE CONSTRUCTION AREA HAS ENTRANCE/EXIT RAMPS OR INTERSECTIONS, WORK WILL BE PERFORMED IN SUCH A MANNER TO PERMIT TRAFFIC TO OPERATE WITH THE LEAST AMOUNT OF INCONVENIENCE AS POSSIBLE. ADDITIONAL CHANNELIZATION AND SIGNING SHALL BE INSTALLED, AS REQUIRED, TO ALLOW TRAFFIC TO REMAIN AS OPERATIONAL AS POSSIBLE. WHEN ENTRANCE RAMPS/INTERSECTIONS ARE INOPERABLE, FLAGGERS WILL BE UTILIZED TO CONTROL AND PROHIBIT MOVEMENT INTO THE PROJECT AT THAT POINT UNTIL CONSTRUCTION HAS CLEARED THE RESTRICTION SUFFICIENT TO RETURN TO OPERATIONAL STATUS.
5. FOR NIGHT TIME OPERATIONS, DRUMS SHALL HAVE, FOR THE LENGTH OF THE TAPER ONLY, A SIX (6") INCH ORANGE REFLECTIZED TOP STRIPE ON EACH DRUM IN THE TAPER AS REQUIRED IN SECTION 150, SPACING OF DEVICES SHALL BE AS SHOWN. DURING DAYLIGHT HOURS, CONES (28" MIN.) MAY BE USED IN ADVANCE OF AND THROUGHOUT WORK AREA.
6. SIGN LOCATIONS ARE APPROXIMATE AND MAY BE ADJUSTED TO MEET FIELD CONDITIONS BUT MUST BE WITHIN THE LIMITATIONS SET FORTH IN THE MUTCD.
7. A PORTABLE SELF-SUSTAINED SEQUENTIAL OR FLASHING ARROW SIGN SHALL BE USED AT THE BEGINNING OF EACH LANE CLOSURE ON MULTI-LANE HIGHWAYS. ARROW PANELS SHALL NOT BE USED ON TWO-LANE TWO-WAY HIGHWAYS EXCEPT IN CAUTION MODE.
8. WHEN NOT IN USE, PORTABLE SIGNS SHALL BE REMOVED FROM THE TRAVELWAY SO THAT THE MESSAGE IS NOT VISIBLE TO THE MOTORIST. INTERIM SIGNS THAT ARE PERMANENTLY MOUNTED SHALL BE COVERED WHEN NOT APPLICABLE. SEE SECTION 150.
9. PROJECT SIGNS W20-1, G20-1 & G20-2 FOR THIS PROJECT SHALL BE COORDINATED WITH ADJACENT CONSTRUCTION PROJECTS. ONLY ONE SET OF SIGNS IS REQUIRED IN EACH DIRECTION FOR THE TOTAL LENGTH OF ALL PROJECTS- AT THE BEGINNING OF THE FIRST PROJECT AND AT THE ENDING OF THE LAST PROJECT. ADVANCE CONSTRUCTION SIGNS ARE NOT REQUIRED ON INTERMEDIATE PROJECTS, UNLESS CONSTRUCTION ON THE ADJACENT PROJECTS IS COMPLETED BEFOREHAND. THEN PROJECT CONSTRUCTION SIGNS WILL BE ADDED AS NECESSARY.
10. ALL THE COST OF THE MATERIALS, LABOR AND EQUIPMENT NECESSARY TO COMPLETE THE WORK SHALL BE INCLUDED IN THE PRICE BID FOR TRAFFIC CONTROL SECTION 150, LUMP SUM, WHEN SHOWN AS A PAYMENT ITEM IN THE PROPOSAL. OTHERWISE, ALL THE COST WILL BE INCLUDED IN THE OVER-ALL BID SUBMITTED. EXCEPT ON CERTAIN PROJECTS SOME ITEMS MAY BE PAID FOR SEPARATELY BY THE UNIT WHEN SPECIFIED ON THE PLANS AND IN THE PROPOSAL.
11. FOR FREEWAY CONSTRUCTION THE CONTRACTOR SHALL ARRANGE HIS WORK SO THAT THERE IS AN EXIT GORE SIGN AND AN EXIT DIRECTION SIGN IN PLACE FOR ALL EXIT RAMPS AT ALL TIMES.
12. ALL CROSSROADS, SIDEROADS, RAMPS OR OTHER ENTRANCES TO MAINLINE CONSTRUCTION SHALL REQUIRE W20-1 SIGNS LOCATED AS SHOWN IN THE PLANS, OR AS DIRECTED BY THE ENGINEER.
13. MARKINGS AND/OR SIGNS IN CONFLICT WITH INTERIM TRAFFIC CONTROL SHALL BE REMOVED, RELOCATED OR COVERED: APPLICABLE EXISTING AND INTERIM MARKINGS AND/OR SIGNING SHALL BE MAINTAINED PER SECTION 150.
14. ANY CHANNELIZING DEVICES (DRUMS OR BARRICADES) IN CONFLICT WITH CONCRETE BARRIERS SHALL BE OMITTED.
15. CONTRACTOR SHALL PROVIDE THE NECESSARY TRAFFIC CONTROL DURING THE TIE-IN OPERATION.
16. THE TRAFFIC CONTROL DEVICES SHOWN FOR ANY STAGE CONSTRUCTION SHALL REMAIN IN PLACE AND BE UTILIZED SO LONG AS NECESSARY FOR THE FOLLOWING STAGES AND SHALL BE REMOVED IMMEDIATELY WHEN NO LONGER REQUIRED. THE DEVICES MAY OR MAY NOT BE SHOWN ON THE PLANS FOR THESE FOLLOWING STAGES. REFER TO THE PLAN SHEET FOR THE INITIAL STAGE FOR THESE TRAFFIC CONTROLS.
17. EXISTING GUIDE SIGNS SHALL REMAIN IN PLACE SO LONG AS THEY DO NOT CONFLICT WITH THE CONSTRUCTION OF THIS PROJECT. WHEN IN CONFLICT, THEY SHALL BE RELOCATED ON TEMPORARY POSTS AT THE LOCATION AS DIRECTED BY THE ENGINEER. ANY DISTANCE SHOWN ON THE SIGN SHALL BE ADJUSTED ACCORDINGLY. IF THE SIGNS CANNOT BE RELOCATED, THEN THE SIGN SHALL BE REMOVED AND STORED AT A PLACE DESIGNATED BY THE ENGINEER. IF NEITHER OF THE ABOVE CAN BE DONE, THEN THE CONTRACTOR SHALL PROVIDE INTERIM GUIDE SIGNS AS COVERED IN SECTION 150.
18. (a) ON PROJECTS WITH LOW OR SOFT SHOULDERS, THE CONTRACTOR SHALL ERECT IMMEDIATELY AHEAD OF CONSTRUCTION OPERATIONS "LOW/SOFT SHOULDER" WARNING SIGNS AT THE PROJECT TERMINII, AT INTERVALS NOT TO EXCEED 1 MILE AND IMMEDIATELY PAST EACH CROSSROAD.

    (b) WHERE THE CONTRACTOR IS NOT RESPONSIBLE FOR SHOULDER CONSTRUCTION, THE DEPARTMENT WILL FURNISH THESE SIGNS FOR THE CONTRACTOR TO PICK UP, TRANSPORT, AND ERECT. THE DEPARTMENT WILL LATER REMOVE AND RETAIN THE SIGNS.

REVISION DATES		

BY	REVISION	DATE
GLO	REVISED GENERAL NOTES AND LEGEND, DELETED TWO DETAILS.	3-30-06
	SPEC. BAR. SH. SPEC.	4-24-01

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

STANDARD
TRAFFIC CONTROL
GENERAL NOTES, STANDARD LEGEND, MISCELLANEOUS DETAILS

NO SCALE — AUG., 1999

DES. ____ DRW. ____ TRA. ____ CHK. ____

(SUBMITTED) STATE ROAD & AIRPORT DESIGN ENGINEER

(APPROVED) CHIEF ENGINEER

NUMBER 9100

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RELEASED FOR CONSTRUCTION - 07-23-13

3/11/2007 GPLN

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
GEORGIA STANDARDS

DRAWING No. 41-051

23-JUL-2013 15:37	3:37:30 PM	9102	Y:\Roadways\126379\0008690\Dgn\Const Standards\9102.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	648	730

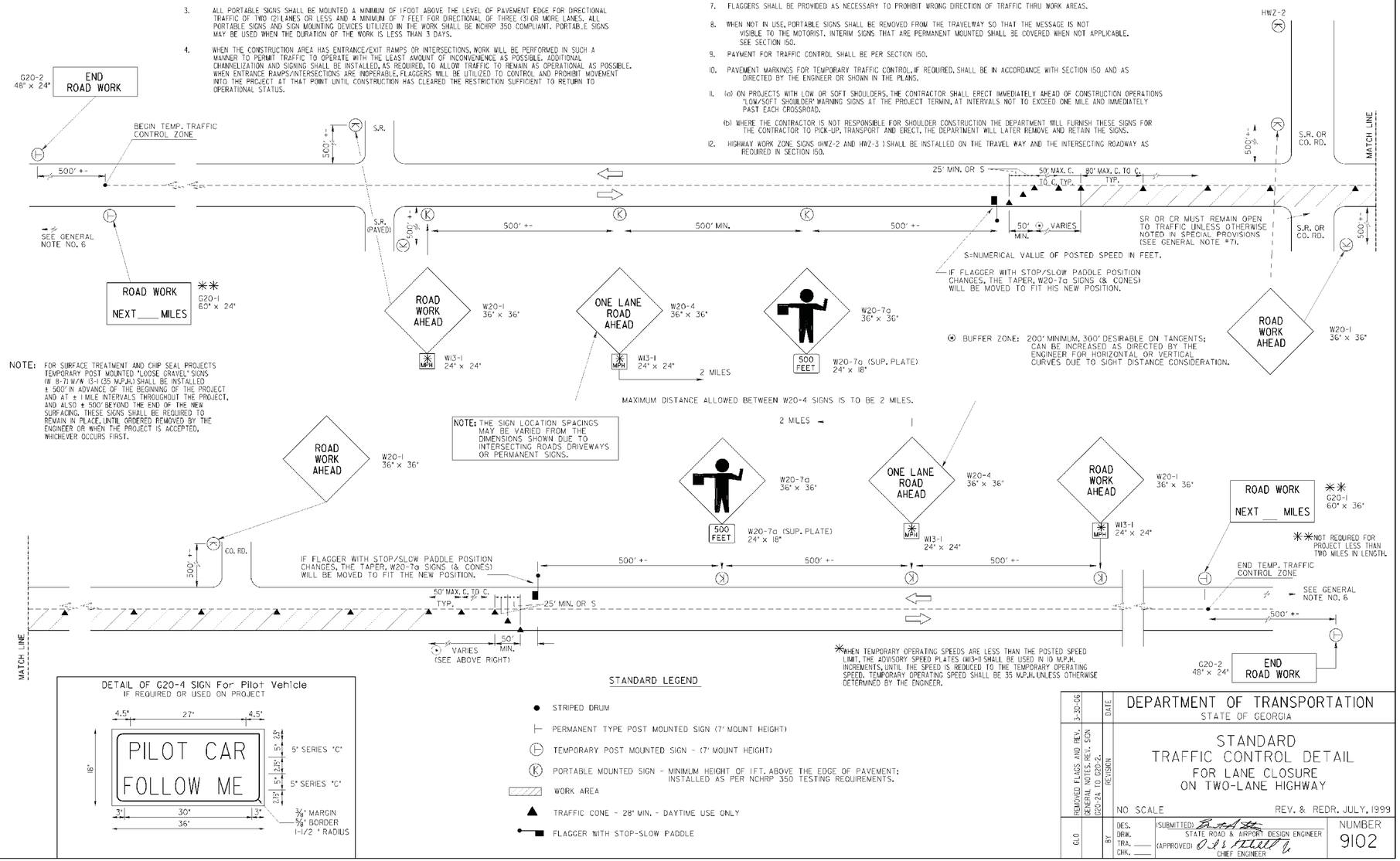
RELEASED FOR CONSTRUCTION - 07-23-13

GENERAL NOTES:

1. ALL TRAFFIC CONTROL DEVICES SHALL BE MADE AND ERECTED IN ACCORDANCE WITH THE DETAILS SHOWN ON THE PLANS; THE MUTCD; THE GEORGIA STANDARD SPECIFICATIONS, AND/OR SPECIAL PROVISIONS. (SEE SECTION 150)
2. ALL TRAFFIC CONTROL DEVICES SHALL BE AS SHOWN, OR AS DIRECTED BY THE ENGINEER. ADDITIONAL DEVICES MAY BE REQUIRED AS DIRECTED BY THE ENGINEER.
3. ALL PORTABLE SIGNS SHALL BE MOUNTED A MINIMUM OF 1 FOOT ABOVE THE LEVEL OF PAVEMENT EDGE FOR DIRECTIONAL TRAFFIC OF TWO (2) LANES OR LESS AND A MINIMUM OF 7 FEET FOR DIRECTIONAL OF THREE (3) OR MORE LANES. ALL PORTABLE SIGNS AND SIGN MOUNTING DEVICES UTILIZED IN THE WORK SHALL BE NCHRP 350 COMPLIANT. PORTABLE SIGNS MAY BE USED WHEN THE DURATION OF THE WORK IS LESS THAN 3 DAYS.
4. WHEN THE CONSTRUCTION AREA HAS ENTRANCE/EXIT RAMPS OR INTERSECTIONS, WORK WILL BE PERFORMED IN SUCH A MANNER TO PERMIT TRAFFIC TO OPERATE WITH THE LEAST AMOUNT OF INCONVENIENCE AS POSSIBLE. ADDITIONAL CHANNELIZATION AND SIGNING SHALL BE INSTALLED, AS REQUIRED, TO ALLOW TRAFFIC TO REMAIN AS OPERATIONAL AS POSSIBLE. WHEN ENTRANCE RAMPS/INTERSECTIONS ARE INOPERABLE, FLAGGERS WILL BE UTILIZED TO CONTROL AND PROHIBIT MOVEMENT INTO THE PROJECT AT THAT POINT UNTIL CONSTRUCTION HAS CLEARED THE RESTRICTION SUFFICIENT TO RETURN TO OPERATIONAL STATUS.
5. FOR NIGHT TIME OPERATIONS, DRUMS SHALL HAVE, FOR THE LENGTH OF THE TAPER ONLY, A SIX (6") INCH ORANGE REFLECTIZED TOP STRIPE ON EACH DRUM IN THE TAPER AS REQUIRED IN SECTION 150. SPACING OF DEVICES SHALL BE AS SHOWN. DURING DAYLIGHT HOURS, CONES (28" MIN.) MAY BE USED IN ADVANCE OF AND THROUGHOUT WORK AREA.
6. SIGNS SHOWN HERE ARE IN ADDITION TO ALL ADVANCE WARNING SIGNS REQUIRED IN SECTION 150.
7. FLAGGERS SHALL BE PROVIDED AS NECESSARY TO PROHIBIT WRONG DIRECTION OF TRAFFIC THRU WORK AREAS.
8. WHEN NOT IN USE, PORTABLE SIGNS SHALL BE REMOVED FROM THE TRAVELWAY SO THAT THE MESSAGE IS NOT VISIBLE TO THE MOTORIST. INTERIM SIGNS THAT ARE PERMANENT MOUNTED SHALL BE COVERED WHEN NOT APPLICABLE. SEE SECTION 150.
9. PAYMENT FOR TRAFFIC CONTROL SHALL BE PER SECTION 150.
10. PAVEMENT MARKINGS FOR TEMPORARY TRAFFIC CONTROL, IF REQUIRED, SHALL BE IN ACCORDANCE WITH SECTION 150 AND AS DIRECTED BY THE ENGINEER OR SHOWN IN THE PLANS.
11. (a) ON PROJECTS WITH LOW OR SOFT SHOULDERS, THE CONTRACTOR SHALL ERECT IMMEDIATELY AHEAD OF CONSTRUCTION OPERATIONS 'LOW/SOFT SHOULDER' WARNING SIGNS AT THE PROJECT TERMINI, AT INTERVALS NOT TO EXCEED ONE MILE AND IMMEDIATELY PAST EACH CROSSROAD.

    (b) WHERE THE CONTRACTOR IS NOT RESPONSIBLE FOR SHOULDER CONSTRUCTION THE DEPARTMENT WILL FURNISH THESE SIGNS FOR THE CONTRACTOR TO PICK-UP, TRANSPORT AND ERECT. THE DEPARTMENT WILL LATER REMOVE AND RETAIN THE SIGNS.
12. HIGHWAY WORK ZONE SIGNS (HWZ-2 AND HWZ-3) SHALL BE INSTALLED ON THE TRAVEL WAY AND THE INTERSECTING ROADWAY AS REQUIRED IN SECTION 150.

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			



NOTE: FOR SURFACE TREATMENT AND CHIP SEAL PROJECTS TEMPORARY POST MOUNTED "LOOSE GRAVEL" SIGNS (W 8-7) W/W (3-1 (3S M.P.H.) SHALL BE INSTALLED ± 500' IN ADVANCE OF THE BEGINNING OF THE PROJECT AND AT ± 1 MILE INTERVALS THROUGHOUT THE PROJECT, AND ALSO ± 500' BEYOND THE END OF THE NEW SURFACING. THESE SIGNS SHALL BE REQUIRED TO REMAIN IN PLACE, UNTIL ORDERED REMOVED BY THE ENGINEER OR WHEN THE PROJECT IS ACCEPTED, WHICHEVER OCCURS FIRST.

DETAIL OF G20-4 SIGN For Pilot Vehicle
IF REQUIRED OR USED ON PROJECT

STANDARD LEGEND

- STRIPED DRUM
- PERMANENT TYPE POST MOUNTED SIGN (7' MOUNT HEIGHT)
- TEMPORARY POST MOUNTED SIGN - (7' MOUNT HEIGHT)
- PORTABLE MOUNTED SIGN - MINIMUM HEIGHT OF 1FT. ABOVE THE EDGE OF PAVEMENT; INSTALLED AS PER NCHRP 350 TESTING REQUIREMENTS.
- WORK AREA
- TRAFFIC CONE - 28" MIN. - DAYTIME USE ONLY
- FLAGGER WITH STOP-SLOW PADDLE

DATE	REVISION	BY
3-30-06	REMOVED FLAGS AND REV. GENERAL NOTES. REV. SIGN G20-2A TO G20-2.	GLO

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

STANDARD
TRAFFIC CONTROL DETAIL
FOR LANE CLOSURE
ON TWO-LANE HIGHWAY

NO SCALE — REV. & REDR. JULY, 1999

DES. ___ DRW. ___ TRA. ___ CHK. ___

(SUBMITTED) STATE ROAD & AIRPORT DESIGN ENGINEER

(APPROVED) CHIEF ENGINEER

NUMBER 9102

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

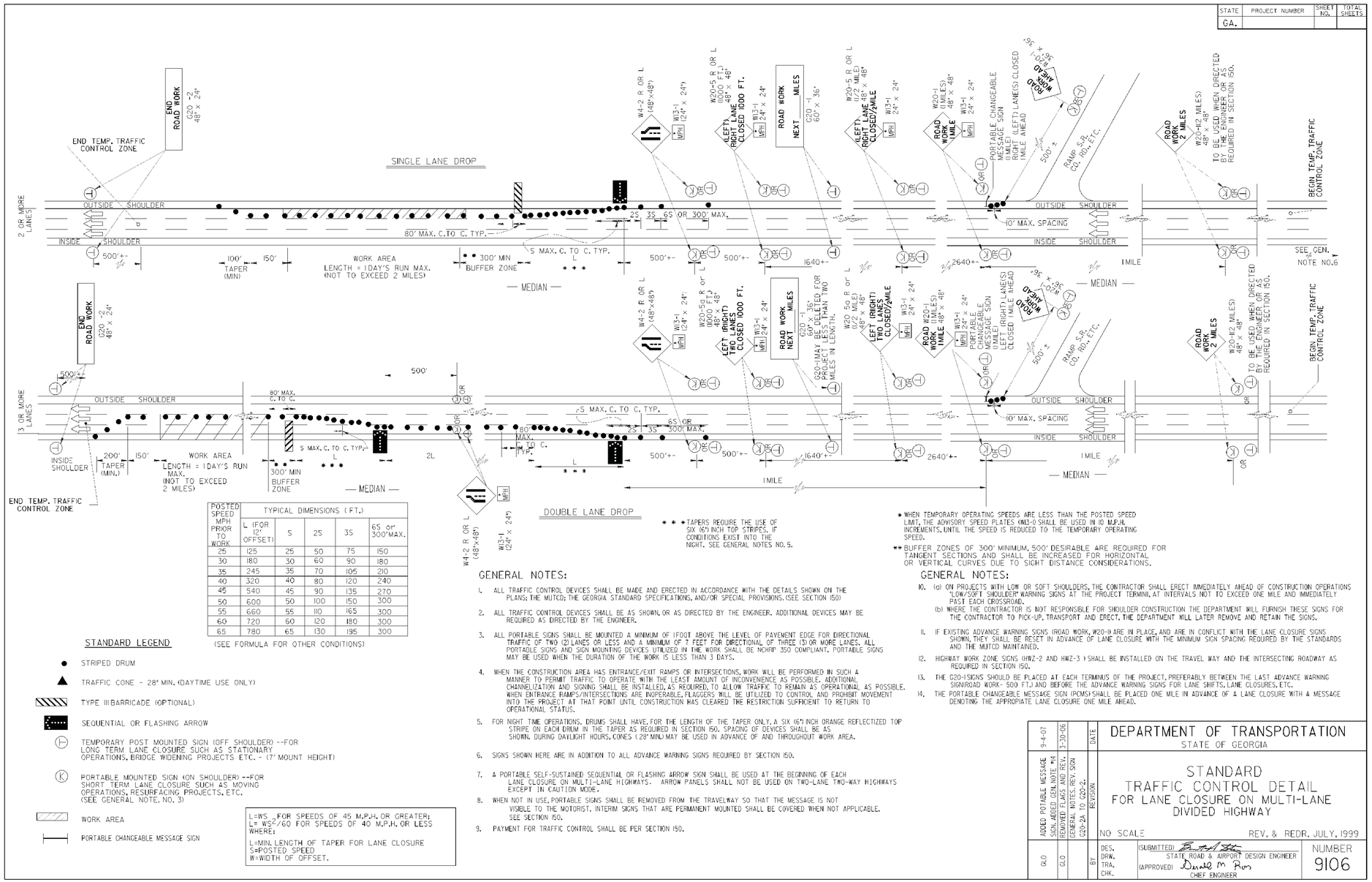
REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
GEORGIA STANDARDS

DRAWING No. 41-052

3/1/2007 GPLN

RELEASED FOR CONSTRUCTION - 07-23-13



POSTED SPEED MPH PRIOR TO WORK	TYPICAL DIMENSIONS (FT.) L (FOR 12' OFFSET)	S	2S	3S	6S or 300' MAX.
25	125	25	50	75	150
30	180	30	60	90	180
35	245	35	70	105	210
40	320	40	80	120	240
45	540	45	90	135	270
50	600	50	100	150	300
55	660	55	110	165	300
60	720	60	120	180	300
65	780	65	130	195	300

(SEE FORMULA FOR OTHER CONDITIONS)

STANDARD LEGEND

- STRIPED DRUM
- TRAFFIC CONE - 28" MIN. (DAYTIME USE ONLY)
- TYPE III BARRICADE (OPTIONAL)
- SEQUENTIAL OR FLASHING ARROW
- TEMPORARY POST MOUNTED SIGN (OFF SHOULDER) --FOR LONG TERM LANE CLOSURE SUCH AS STATIONARY OPERATIONS, BRIDGE WIDENING PROJECTS ETC. - (7' MOUNT HEIGHT)
- (K) PORTABLE MOUNTED SIGN (ON SHOULDER) --FOR SHORT TERM LANE CLOSURE SUCH AS MOVING OPERATIONS, RESURFACING PROJECTS, ETC. (SEE GENERAL NOTE. NO. 3)
- WORK AREA
- PORTABLE CHANGEABLE MESSAGE SIGN

L=WS FOR SPEEDS OF 45 M.P.H. OR GREATER;
L= WS²/60 FOR SPEEDS OF 40 M.P.H. OR LESS
WHERE:
L=MIN. LENGTH OF TAPER FOR LANE CLOSURE
S=POSTED SPEED
W=WIDTH OF OFFSET.

GENERAL NOTES:

1. ALL TRAFFIC CONTROL DEVICES SHALL BE MADE AND ERECTED IN ACCORDANCE WITH THE DETAILS SHOWN ON THE PLANS; THE MUTCD; THE GEORGIA STANDARD SPECIFICATIONS, AND/OR SPECIAL PROVISIONS. (SEE SECTION 150)
2. ALL TRAFFIC CONTROL DEVICES SHALL BE AS SHOWN, OR AS DIRECTED BY THE ENGINEER. ADDITIONAL DEVICES MAY BE REQUIRED AS DIRECTED BY THE ENGINEER.
3. ALL PORTABLE SIGNS SHALL BE MOUNTED A MINIMUM OF 1FOOT ABOVE THE LEVEL OF PAVEMENT EDGE FOR DIRECTIONAL TRAFFIC OF TWO (2) LANES OR LESS AND A MINIMUM OF 7 FEET FOR DIRECTIONAL OF THREE (3) OR MORE LANES. ALL PORTABLE SIGNS AND SIGN MOUNTING DEVICES UTILIZED IN THE WORK SHALL BE NCHRP 350 COMPLIANT. PORTABLE SIGNS MAY BE USED WHEN THE DURATION OF THE WORK IS LESS THAN 3 DAYS.
4. WHEN THE CONSTRUCTION AREA HAS ENTRANCE/EXIT RAMPS OR INTERSECTIONS, WORK WILL BE PERFORMED IN SUCH A MANNER TO PERMIT TRAFFIC TO OPERATE WITH THE LEAST AMOUNT OF INCONVENIENCE AS POSSIBLE. ADDITIONAL CHANNELIZATION AND SIGNING SHALL BE INSTALLED, AS REQUIRED, TO ALLOW TRAFFIC TO REMAIN AS OPERATIONAL AS POSSIBLE. WHEN ENTRANCE RAMPS/INTERSECTIONS ARE INOPERABLE, FLAGGERS WILL BE UTILIZED TO CONTROL AND PROHIBIT MOVEMENT INTO THE PROJECT AT THAT POINT UNTIL CONSTRUCTION HAS CLEARED THE RESTRICTION SUFFICIENT TO RETURN TO OPERATIONAL STATUS.
5. FOR NIGHT TIME OPERATIONS, DRUMS SHALL HAVE, FOR THE LENGTH OF THE TAPER ONLY, A SIX (6") INCH ORANGE REFLECTIZED TOP STRIPE ON EACH DRUM IN THE TAPER AS REQUIRED IN SECTION 150. SPACING OF DEVICES SHALL BE AS SHOWN. DURING DAYLIGHT HOURS, CONES (28" MIN.) MAY BE USED IN ADVANCE OF AND THROUGHOUT WORK AREA.
6. SIGNS SHOWN HERE ARE IN ADDITION TO ALL ADVANCE WARNING SIGNS REQUIRED BY SECTION 150.
7. A PORTABLE SELF-SUSTAINED SEQUENTIAL OR FLASHING ARROW SIGN SHALL BE USED AT THE BEGINNING OF EACH LANE CLOSURE ON MULTI-LANE HIGHWAYS. ARROW PANELS SHALL NOT BE USED ON TWO-LANE TWO-WAY HIGHWAYS EXCEPT IN CAUTION MODE.
8. WHEN NOT IN USE, PORTABLE SIGNS SHALL BE REMOVED FROM THE TRAVELWAY SO THAT THE MESSAGE IS NOT VISIBLE TO THE MOTORIST. INTERIM SIGNS THAT ARE PERMANENT MOUNTED SHALL BE COVERED WHEN NOT APPLICABLE. SEE SECTION 150.
9. PAYMENT FOR TRAFFIC CONTROL SHALL BE PER SECTION 150.

* WHEN TEMPORARY OPERATING SPEEDS ARE LESS THAN THE POSTED SPEED LIMIT, THE ADVISORY SPEED PLATES (W13-1) SHALL BE USED IN 10 M.P.H. INCREMENTS, UNTIL THE SPEED IS REDUCED TO THE TEMPORARY OPERATING SPEED.

** BUFFER ZONES OF 300' MINIMUM, 500' DESIRABLE ARE REQUIRED FOR TANGENT SECTIONS AND SHALL BE INCREASED FOR HORIZONTAL OR VERTICAL CURVES DUE TO SIGHT DISTANCE CONSIDERATIONS.

GENERAL NOTES:

10. (a) ON PROJECTS WITH LOW OR SOFT SHOULDERS, THE CONTRACTOR SHALL ERECT IMMEDIATELY AHEAD OF CONSTRUCTION OPERATIONS "LOW/SOFT SHOULDER" WARNING SIGNS AT THE PROJECT TERMINI, AT INTERVALS NOT TO EXCEED ONE MILE AND IMMEDIATELY PAST EACH CROSSROAD.
    (b) WHERE THE CONTRACTOR IS NOT RESPONSIBLE FOR SHOULDER CONSTRUCTION THE DEPARTMENT WILL FURNISH THESE SIGNS FOR THE CONTRACTOR TO PICK-UP, TRANSPORT AND ERECT, THE DEPARTMENT WILL LATER REMOVE AND RETAIN THE SIGNS.
11. IF EXISTING ADVANCE WARNING SIGNS (ROAD WORK, W20-1) ARE IN PLACE, AND ARE IN CONFLICT WITH THE LANE CLOSURE SIGNS SHOWN, THEY SHALL BE RESET IN ADVANCE OF LANE CLOSURE WITH THE MINIMUM SIGN SPACING REQUIRED BY THE STANDARDS AND THE MUTCD MAINTAINED.
12. HIGHWAY WORK ZONE SIGNS (HWZ-2 AND HWZ-3) SHALL BE INSTALLED ON THE TRAVEL WAY AND THE INTERSECTING ROADWAY AS REQUIRED IN SECTION 150.
13. THE G20-1 SIGNS SHOULD BE PLACED AT EACH TERMINUS OF THE PROJECT, PREFERABLY BETWEEN THE LAST ADVANCE WARNING SIGNROAD WORK- 500 FT.) AND BEFORE THE ADVANCE WARNING SIGNS FOR LANE SHIFTS, LANE CLOSURES, ETC.
14. THE PORTABLE CHANGEABLE MESSAGE SIGN (PCMS) SHALL BE PLACED ONE MILE IN ADVANCE OF A LANE CLOSURE WITH A MESSAGE DENOTING THE APPROPIATE LANE CLOSURE ONE MILE AHEAD.

DATE	REVISION	BY
9-4-07	ADDED POTABLE MESSAGE SIGN, ADDED GEN. NOTE #14	GLO
3-30-06	REMOVED FLAGS AND REV. GENERAL NOTES. REV. SIGN G20-2A TO G20-2.	GLO

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

STANDARD
TRAFFIC CONTROL DETAIL
FOR LANE CLOSURE ON MULTI-LANE
DIVIDED HIGHWAY

NO SCALE — REV. & REDR. JULY, 1999

DES. DRW. TRA. CHK.

(SUBMITTED) STATE ROAD & AIRPORT DESIGN ENGINEER
(APPROVED) CHIEF ENGINEER

NUMBER 9106

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
GEORGIA STANDARDS

DRAWING No. 41-053

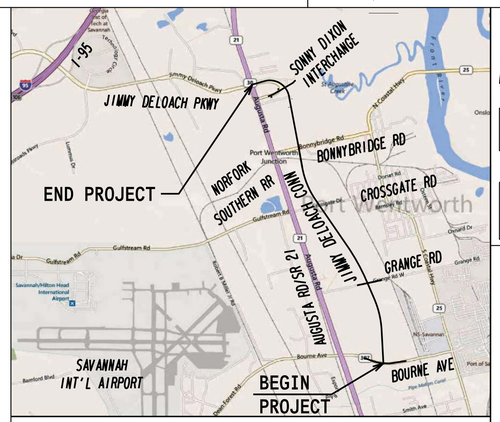
3/1/2007 GPLN

24-JUL-2013 08:49 JParks	0008690_50 GDOT_11x17.pen	Y:\Roadways\126379\0008690\Dgn\0008690_50.dgn GRWCOV	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
			GA	CSMSL-0008-00(690)	650	730

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

EROSION, SEDIMENTATION, & POLLUTION CONTROL PLAN

FROM BOURNE AVENUE/SR 307
TO EXISTING JIMMY DELOACH PARKWAY



LOCATION SKETCH

RELEASED FOR CONSTRUCTION 07/23/13

STATE AID PROJECT
CSMSL-0008-00(690)
CHATHAM

FEDERAL ROUTE * NA
STATE ROUTE * NA
P. I. NO. 0008690

"I certify that this Erosion, Sedimentation and Pollution Control Plan has been prepared in accordance with part IV. of the General NPDES Permit No. GAR 100002."

"I certify that the permittee's Erosion, Sedimentation and Pollution Control Plan provides for an appropriate and comprehensive system of best management practices required by the Georgia Water Quality Control Act and the document "Manual For Erosion and Sediment Control In Georgia" (Manual) published by the State Soil and Water Conservation Commission as of January 1 of the year in which the land disturbing activity was permitted, provides for the sampling of the receiving water(s) or the sampling of the storm water outfalls and that the designed system of best management practices and sampling methods is expected to meet the requirements contained in the General NPDES Permit No. GAR 100002."

"I certify that the permittee's Erosion, Sedimentation and Pollution Control Plan provides for the monitoring of: (a) all perennial and intermittent streams and other water bodies shown on the USGS topographic map and all other field verified perennial and intermittent streams and other water bodies, or (b) where any such specific identified perennial or intermittent stream and other water body is not proposed to be sampled, I have determined in my professional judgment, utilizing the factors required in the General NPDES Permit No. GAR 100002, that the increase in the turbidity of each specific identified sampled receiving water will be representative of the increase in the turbidity of a specific identified un-sampled receiving water."

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that the certified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

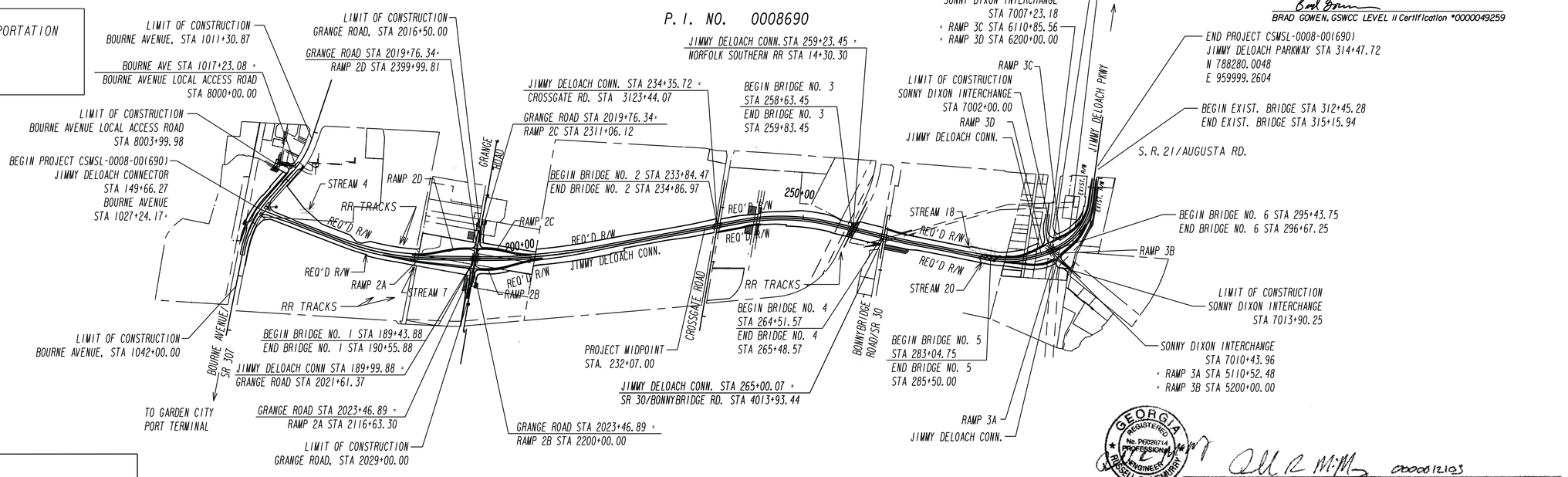
I certify under penalty of law that this plan was prepared after a site visit to the location described herein by myself or my authorized agent under my direct supervision.

Brad Gowen

BRAD GOWEN, GSWCC LEVEL II Certification *0000049259

PRIMARY PERMITTEE:
GEORGIA DEPARTMENT OF TRANSPORTATION
ONE GA CENTER
600 W PEACHTREE ST. NW
ATLANTA, GA 30308
PHONE NUMBER 404-631-1990

MID-POINT COORDINATES
STA 232+07.00
N 782178.1901
E 963766.2423
LAT 32° 08' 47.90"
LONG 81° 10' 22.08"



RUSSELL McMURRY, GSWCC LEVEL II Certification *

24 Hour Contact
NAME: MOSES ALFRED
NUMBER: 912-777-4264 (O)
404-427-4623 (C)

G. M. D. 8

SCALE IN FEET
0 1000 2000 4000

LENGTH OF PROJECT	COUNTY No. 51 Project No. 0008690
COUNTY: CHATHAM	MILES
NET LENGTH OF ROADWAY	2.969
NET LENGTH OF BRIDGES	0.152
NET LENGTH OF PROJECT	3.121
NET LENGTH OF EXCEPTIONS	0.000
GROSS LENGTH OF PROJECT	3.121

GEORGIA REGISTERED 5-28-2013 PE No. 026702 PROFESSIONAL ENGINEER BRADLEY T. GOWEN

GSWCC LEVEL II CERTIFIED DESIGN PROFESSIONAL # 0000049259

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MACKAIL BAILEY CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

P. I. NO. 0008690
CHATHAM COUNTY

PLANS COMPLETED 5-28-2013

REVISIONS

DATE	REQUESTED BY	PAGE NUMBER	SIGNATURE	GSWCC LEVEL II *
6-20-13	EPD	646-648,659-715	Brad Gowen	*0000049259
7-18-13	EPD	650-652,663-672,677,679,684, 686-688,695,697,699,703,705, 706,708,709,712,714,715,717 719	Brad Gowen	*0000049259

DRAWING No. 50-001

RELEASED FOR CONSTRUCTION - 07-23-13

ESPCP GENERAL NOTES

The escape of sediment from the site shall be prevented by the installation of erosion and sedimentation control measures and practices prior to, or concurrent with, land-disturbing activities.

Erosion and sedimentation control measures will be maintained at all times during this project. If full implementation of this approved plan does not provide effective erosion and sedimentation control, additional erosion and sedimentation control measures shall be implemented to control or treat the sediment source.

PLAN ALTERATIONS

The Erosion, Sedimentation, Pollution Control Plan (ESPCP) is provided by the Department. It addresses the the staged construction of the project on the basis of common construction methods and techniques. If the Contractor elects to alter the staged construction from that shown in the plans or utilize construction techniques that render this plan ineffective, the Contractor shall revise the plans in accordance with Special Provision 161 of the contract.

The Contractor, the Certified Design Professional, and the WECS shall carefully evaluate this plan prior to commencing land-disturbing activities. A major modification or deletion of structural BMP's with a hydraulic component requires a formal revision of the ESPCP and the signature of a GSWCC level-II-certified design professional. Additional BMP's may be added per Special Provision 161 - Control of Soil Erosion and Sedimentation.

TEMPORARY MULCHING

EPD Genral Permit GAR100002 states, **"Any disturbed area left exposed for a period greater than 14 days shall be stabilzed with mulch or temporary seeding".** However, the Department typically requires disturbed areas to be stabilized every 7 days. The construction documents, special provisions, or specifications may require mulching more often than every 7 days.

VEGETATION AND PLANTING SCHEDULE

All temporary and permanent vegetative practices including plant species, planting dates, seeding, fertilizing, liming and mulching for this project can be found in section 700 of the current edition of the Department's Standard Specifications (or Special Provisions) and other applicable contract documents, or landscaping plans.

SEQUENCE OF MAJOR ACTIVITIES

The Contractor is responsible for developing the construction schedule for the project. The construction schedule for the project shall be submitted after the project is awarded with the NOI. A copy of the construction schedule shall be maintained at the project site.

The project budget includes sufficient funds for the payment of construction exits. The Contractor is responsible for establishing at least one (1) construction exit per the specifications of the construction exit detail included in this ESPCP. To facilitate project logistics, the Contractor is also responsible for selecting the location(s) of the construction exit(s).

The initial BMP installation is shown in the initial phase and this includes all perimeter silt fence controls and two sediment basins. The silt fence and sediment basins shall be installed concurrent with clearing and grubbing operations.
Stage 1:
Intermediate and final BMPs are shown throughout all stages of the intermediate phase. The BMPs to be installed during these stages are additional silt fence due to construction staging, inlet sediment traps, ditch checks, slope mats, rip rap, construction exits, earth berms, rip rap check dams, sediment barriers, temporary grassing, mulching, permanent grassing, temporary pipe slope drains. These BMPs shall be installed concurrently with mass grading operations with the exception of ditch checks and inlet traps which should be installed prior to mass grading operations. During mass grading operations, runoff from disturbed area must be directed to sediment control BMPs.
Stage 2:
Intermediate and final BMPs are shown throughout all stages of the intermediate phase. The BMPs to be installed during these stages are additional silt fence due to construction staging, inlet sediment traps, ditch checks, slope mats, rip rap, construction exits, earth berms, rip rap check dams, sediment barriers, temporary grassing, mulching, permanent grassing, temporary pipe slope drains. These BMPs shall be installed concurrently with mass grading operations with the exception of ditch checks and inlet traps which should be installed prior to mass grading operations. During mass grading operations, runoff from disturbed area must be directed to sediment control BMPs.

Sediment basins are not used at remaining outfall due to adverse impacts of constructing and removing the basins.

PETROLEUM STORAGE, SPILLS AND LEAKS

These plans expressly delegate the responsibility of on-site hazardous material management to the Contractor. The Contractor shall at a minimum provide an action plan and keep the necessary materials on site for the capture, clean up and disposal of any petroleum product, or other hazardous materials leak or spills associated with the servicing, refueling or operation of any equipment utilized at the site. A copy of the action plan shall be submitted to the Project Engineer and maintained on the project site. All personnel operating or servicing equipment shall be familiar with the action plan. The Contractor shall not park, refuel or maintain equipment within stream buffers.

If the Contractor elects to store petroleum products on site the Contractor shall prepare an ESPCP addendum that addresses the additional BMPs needed for onsite storage and spill prevention for petroleum products. This plan shall be prepared by a Certified Design Professional as required by GAR100002 for inclusion with these plans. The Contractor's attention is specifically directed to Standard Specification 107-Legal Regulations and Responsibility to the public for additional requirements.

SOIL SERIES INFORMATION

A project-specific soil survey and geotechnical investigation was performed for this project and can be made available upon request. Soil characteristics have been given full consideration in the hydrologic analysis, the design of channels and linings, selection of temporary BMP's, design of energy dissipaters, and the selection of permanent vegetation and fertilizers.

POST-CONSTRUCTION BMP'S FOR STORMWATER MANAGEMENT

All permanent, post-construction BMPs are shown in the construction plans and in the ESPCP plan. The post-construction BMPs for this project consist of vegetation, permanent slope drains and/or flumes, rip-rap at pipe outlets for velocity dissipation and outlet stabilization, vegetated swales/ditches where practical, channel/ditch stabilization with Turf Reinforcing Mats, rip-rap and concrete ditch lining where necessary. The post-construction BMPs will provide permanent stabilization of the site and prevent accelerated transportation of sediment and pollutants into receiving waters.

SILT FENCE INSTALLATION WITH J HOOKS AND SPURS

Silt fence should never be run continuously. The silt fence should turn back into the fill or slope to create small pockets that trap silt and force stormwater to flow through the silt fence. This technique is called using J hooks (or spurs). The J hooks shall be utilized on all silt fences that are located around the perimeter of the project and along the toe of embankments or slopes. The J hooks shall be placed in accordance with GDOT Construction Detail D-24C. The maxium J hook spacing is reached when the top of the J hook is at the same elevation as the bottom of the J hook immediately upgradient. J hooks shall be paid for as silt fence items per linear foot. All cost and other incindental items are included in the cost of installing and maintaining the silt fence.

SITE STABLIZATION AND BMP MAINTENANCE MEASURES

See the Department's Standard Specifications (or Special Provisions) 161, 163, 165, 700, 710 and other contract documents for stabilization and maintenance measures.

WASTE DISPOSAL

Where attainable, locate waste collection areas, dumpsters, trash cans and portable toilets at least 50 feet away from streets, gutters, watercourses and storm drains. Secondary containment shall be provided around liquid waste collection areas to minimize the likilhood of contaminated discharges. The Contractor shall comply with all applicable state and local waste storage and disposal regulations and obtain all necessary permits. Solid materials, including building materials, shall not be deposited into Waters of the State, unless authorized by a Section 404 Permit.

INSPECTIONS

All inspections shall be documented on the appropriate Department inspection forms. See Standard Specifications (or Special Provision) 167 and other contract documents for inspection requirements. These inspections shall continue until the Notice of Termination (NOT) is submitted.

Failure to perform inspections as required by the contract documents and the NPDES permit shall result in the cessation of all construction activities with the exception of traffic control and erosion control. Continued failure to perform inspections shall result in non-refundable deductions as specified in the contract documents.

By agreement with Georgia EPD, the Department's Construction Project Engineer will be responsible to inspect the installation of the initial sediment storage requirements and perimeter control BMP's within 7 days after installation.

NONSTORM WATER DISCHARGES

Nonstorm water discharges defined in Part III.A.2 of the NPDES Permit will be identified after construction has commenced. These discharges shall be subject to the same requirements as storm water discharges required by the Georgia Erosion and Sedimentation Control Act, the NPDES Permit, the Clean Water Act, the Manual for Erosion and Sediment Control in Georgia, Department Standards, and other contract documents.

DE-WATERING AND PUMPING ACTIVITIES

Any pumped discharge from an excavation or disturbed area shall be routed through an appropriately sized sediment basin, silt filter bag or shall be treated equivalently with suitable BMP's. The contractor shall ensure the post BMP treated discharge is sheet flowing. Failure to create sheet flow will obligate the contractor to perform water quality sampling of pumped discharges. The contractor shall prepare sampling plans in accordance with the current GAR100002 NPDES permit by utilizing by a Certified Design Professional. No separate payment will be made for water quality sampling of pump discharges.

OTHER CONTROLS

The Contractor shall follow this ESPCP and ensure and demonstrate compliance with applicable State and/or local waste disposal, sanitary sewer or septic system regulations.

The Contractor shall control dust from the site in accordance with Section 161 of the current edition of the Department's Standard Specifications.

RETENTION OF RECORDS

The Department will retain records in accordance with Part IV.F of the General Permit GAR100002.

SEDIMENT STORAGE

The site has a total disturbed area of 129 acres. The following table summarizes the required and available sediment storage for every outfall on this project. The Contractor shall provide and maintain the storage volumes for the BMP's specified in this table.

Location	Total Drainage Area (acres)	Disturbed Area (acres)	Required Sediment Storage Volume (yd³)	Total Storage Volume Provided (yd³)	Sediment Basins		Check Dam (# yd³/each)		Inlet sediment (# yd³/each)		Silt Fence (0.3 yd³/ft)	
					Pond #	Total Volume (yd³)	# of Devices	Total Volume (yd³)	# of Devices	Total Volume (yd³)	Length of Fence (ft)	Total Volume (yd³)
Outfall 1	32.00	3.27	2144	280			2	60	1	10	700	210
Outfall 2	16.60	13.80	1112	946			12	521	5	50	1250	375
Outfall 3	7.80	2.70	523	985			19	485	5	50	1500	450
Outfall 4	6.70	3.90	449	537			9	107	16	160	900	270
Outfall 5	27.50	9.95	1843	2656	1	1675	24	291	3	30	2200	660
Outfall 6	98.67	23.00	6611	6905	1	2680	54	1775	11	110	7800	2340
Outfall 7	27.40	12.50	1836	1862			8	542	18	180	3800	1140
Outfall 9	23.50	15.60	1575	1629			42	459	27	360	2700	810
Outfall 10	1.90	1.90	127	210					6	60	500	150
Outfall 11	2.70	2.70	181	365			14	80			950	285
Outfall 12	4.50	2.70	302	460					7	70	1300	390
Total Sheet Flow	79.60	36.88	5333	5659			2	59	35	350	17500	5250

In order to prevent runoff from bypassing inlet sediment traps, a temporary sump shall be installed around all inlet sediment traps that are not located in a low point or an excavated sump. Construct temporary sumps in accordance with Construction Detail D-24C Temporary sumps shall be installed in a manner that ensures stormwater does not bypass the inlet. The Contractor may submit alternate temporary containment berm designs to the Project Engineer for approval.

** Required storage not met for Outfalls 1 & 2. Area will be stabilized with mats, silt fence, temporary and permanent grassing, and check dams to minimize erosion.

TEMPORARY SEDIMENT BASIN DETAILS:

The table below is provided to show the overall dimensions and significant elevations of each sediment basin. Drainage areas, required sediment storage volumes, and actual sediment basin volumes as measured at the riser crest elevations are shown above. See Construction Detail D-22 and the ESPCP plan sheets for further clarification on the dimensions listed in this table.

Sediment Basin #	Location (Station and Offset)	Top of Dam Elevation and Width (ft)	Principal Spillway Riser Crest Elevation (ft)	Basin Depth and Riser Height (ft)	Bottom Width (ft)	Bottom Length (ft)	Width at Riser Crest (ft)	Length at Riser Crest (ft)	Effective Length (ft)	Clean Out Elevation (ft)	Emergency Spillway Crest Elevation (ft)	Emergency Spillway Bottom Width (ft)	Q_{25} (cfs)
1	2403+50 86 ft R	15.00 105	13	4	62	320	88	315	315	11	14.00	8	34.59
2	2207+00 50 ft R	15.00 52	13	4	180	375	50	360	360	11	13.50	8	55.34

Additional Dimensions: Basin #1

The Inside width at top of dam = 97ft.
The Inside length at top of dam = 350 ft.
The overall footprint width = 120 ft.
The overall footprint length = 375 ft.

Additional Dimensions: Basin #2

The Inside width at top of dam = 56.5 ft.
The Inside length at top of dam = 366.0 ft.
The overall footprint width = 220 ft.
The overall footprint length = 390 ft.

USE OF ALTERNATIVE AND/OR ADDITIONAL BMPS:

Alternative BMPs are not used on this project. Silt Gates are used on this project as additional BMPs at pipe inlets and are not being used in place of or as a substitute for other conventional BMPs. Temporary check dams are used in ditches to provide interim stabilization and flow velocity reduction. The stability of the site is maintained with other conventional BMPs as shown on the plans. This ESPCP would be fully compliant with permit requirements if the silt gates were removed and as a result are not considered alternative BMPs when used on this project. The silt gates help to prevent pipe clogging during construction that can result from the ingestion of sediments and other large debris like riprap, sand bags, roadway debris and other construction materials that when combined with sediments easily clog roadway drainage pipes. Sediment stored by silt gates is not included in the required minimum sediment storage volume or shown in the sediment storage table.

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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

ESPCP GENERAL NOTES

ESPCP GENERAL NOTES SHEET - 1

DRAWING No. 51-001

RELEASED FOR CONSTRUCTION - 07-23-13

DISCHARGES INTO OR WITHIN ONE LINEAR MILE UPSTREAM OF AND WITHIN THE SAME WATERSHED AS, ANY PORTION OF A BIOTA IMPAIRED STREAM SEGMENT

All outfalls are either located further than 1 linear mile upstream or outside of the watershed of an impaired stream segment that has been listed for criteria violated, "Bio F"(impaired fish community) and/or "Bio M"(impaired macro invertebrate community), within Category 4a, 4b or 5, and the potential cause is either "NP"(nonpoint source) or "UR"(urban runoff).

*. If the TMDL Implementation Plan establishes a specific numeric waste load allocation that applies to the project discharge(s) to the impaired Stream Segment, then the Certified Design Professional must incorporate that allocation into the Erosion, Sedimentation and Pollution Control Plan and implement all necessary measures to meet that allocation.

STREAM BUFFER ENCROACHMENT

Stream Buffers are impacted by this project.

The Contractor is not authorized to enter into stream buffers, except as described in the table below:

Name of Stream or Other Water Body Type (From Ecology Report)	Location of Buffered Streams and State Waters**			Stream Type (Warm/Cold Water)*	Buffer Impacted? (Yes/No)	Buffer Variance Required? (Yes/No)
	Stream Alignment	Begin Station and Offset	End Station and Offset			
STREAM 4	JIMMY DELOACH CONN.	156+27,250' LT	158+00, 258' LT	WARM	NO	NO
STREAM 7	JIMMY DELOACH CONN.	179+00, 140' RT	179+46, 152' RT	WARM	NO	NO
STREAM 18	JIMMY DELOACH CONN.	280+46,119' LT	284+08, 44' LT	WARM	YES	YES
STREAM 20	JIMMY DELOACH CONN.	283+07, 110' RT	285+39, 134' LT	WARM	YES	NO
BUFFERED STATE WATER/WETLAND 23	JIMMY DELOACH CONN.	292+60, 85' RT	296+34, 111' RT	WARM	YES	YES
(Construction activities within the stream buffer consist of roadway and bridge construction.)						

Unless noted otherwise, utility companies will be submitting the required permits/variances in conjunction with the impacts caused by their activities. If utility impacts are covered by the Department's stream buffer variance, this shall be noted in the buffer-variance-required column.

* Warm water streams have a 25-foot minimum buffer as measured from the wrested vegetation. Cold Water streams have a 50-foot buffer as measured from the wrested vegetation.

**Locations are approximate, a detailed location of stream buffers and authorized work areas are shown on the individual BMP sheets

READY MIX CHUTE WASH DOWN

The washing of ready-mix concrete drums and dump truck bodies used in the delivery of Portland cement concrete is prohibited on this site.

In accordance with Standard Specification 107: Legal Regulations and Responsibility to the Public, only the discharge chute utilized in the delivery of Portland cement concrete may be rinsed free of fresh concrete remains. The Contractor shall excavate a pit outside of State water buffers, at least 25 feet from any storm drain and outside of the travelled way, including shoulders, for a wash-down pit. The pit shall be large enough to store all wash-down water without overtopping. Immediately after the wash-down operations are completed and after the wash-down water has soaked into the ground, the pit shall be filled in, and the ground above it shall be graded to match the elevation of the surrounding areas. Alternate wash-down plans must be approved by the Project Engineer.

Wash-down plans describe procedures that prevent wash-down water from entering streams and rivers. Never dispose of wash-down water down a storm drain. Establish a wash-down pit that includes the following: (1) a location away from any storm drain, stream, or river, (2) access to the vehicle being used for wash down, (3) sufficient volume for wash-down water, and (4) permission to use the area for wash down.

On sites where permission or access to excavate a wash-down pit is unavailable, the Contractor may have to wash-down into a sealable 55-gallon drum or other suitable container and then transport the container to a proper disposal site. For additional information, refer to the Georgia Small Business Environmental Assistance Program's "A Guide for Ready Mix Chute/Hopper Wash-down".

MONITORING GENERAL NOTES:

The total site size is 136 acres. Representative sampling may be utilized on this project. The individual outfall drainage basins along the project corridor have been carefully evaluated and compared on the basis of four characteristics: the type of construction activity, the disturbed acreage, the average slope about the outfall, and the soil erosion index 0-10, 10 being the most erodible soil. The construction activity types are new road on fill, new road in cut, road widening, and maintenance/safety. The disturbed area are less than or equal to 1 acre, greater than 1 acre to less than 2 acres, and equal to or greater than 2 acres. The average outfall slope is mild if it is equal if it is less than or equal to 0.03 and steep if it is greater than 0.03. The soil erosion index is low if it is less than or equal to 5 and high if it is greater than 5. After evaluation of these characteristics as presented in the project's drainage area map, hydrology and hydraulic studies, construction plans, geotechnical soil survey, and ESPCP, the Department has determined that representative sampling is valid valid for the duration of the project. The table below shows the groups of similar outfall drainage basins. The increase in turbidity at the specified locations will be representative of the alternate outfall drainage basins when similar outfall drainage basins exist. Approved primary and alternate representative monitored feature are identified in the table below.

SAMPLING INFORMATION											OUTFALL CHARACTERISTICS				
Primary Monitored Feature	Location (Station and Offset)	Name of Receiving Water	Applicable Construction Stage for Monitoring	Sampling Type (Outfall or Receiving water)	Drainage Area for receiving water (mi^2)	Total Project Area (acres)	Warm or Cold Water Stream	Appendix B NTU Value (Outfall monitoring only)	Allowable NTU Increase (Receiving water monitoring only)	Location Description	Construction Activity	Disturbed Area (acres)	Average Outfall Slope (Rise/Run)	Soil Erosion Index	Alternate Outfall Drainage Basins
1	8003+95, 68' LT	Wetland 1	Stages 2 & 3	Outfall	0.26	136	Warm	50	N/A	30" pipe	Reconstructing Exist.Road	3.3	0.003	2.31	-
2	7919+40, 110' RT	Wetland 1	Stages2 & 3	Outfall	0.26	136	Warm	50	N/A	Wetland 1	Reconstructing Exist.Road	13.8	0.0005	2.31	-
3	157+60, 90' LT	Wetland 1	Stage 1	Outfall	0.26	136	Warm	50	N/A	Wetland 1	New Road on Fill	2.7	0.001	0.25	-
4	179+45, 121' LT	Wetland 8,10 & Stream 7	Stage 1	Outfall	0.24	136	Warm	50	N/A	Ditch	New Road on Fill	3.9	0.003	7.38	5
6	182+19, 153' RT	Wetland 9 & Stream 7	Stage 1	Outfall	0.28	136	Warm	50	N/A	Ditch	New Road on Fill	23	0.003	7.38	-
7	253+99, 143' RT	Wetland 15	Stage 1	Outfall	0.07	136	Warm	50	N/A	Wetland 15	New Road on Fill	12.5	0.04	7.74	-
9	286+00, 120' LT	Stream 18,20	Stages 1,1A	Outfall	1.02	136	Warm	50	N/A	Ditch	New Road on Fill	13.6	0.003	0.72	-
10	286+30, 105' RT	Stream 20	Stage 1	Outfall	1.02	136	Warm	50	N/A	18" pipe	New Road on Fill	1.9	0.0033	0.25	-
11	3109+00, 70' RT	Wetland 22A	Stage 1	Outfall	0.04	136	Warm	50	N/A	24" pipe	New Road on Fill	2.7	0.0041	5.5	12

The primary monitored features specified should be used as the initial sampling locations. An alternate monitored feature may be used if additional sampling is required or to replace a primary monitored feature that is no longer located within an active phase of construction.

MONITORING SAMPLING METHODS AND PROCEDURES

See Special Provision 167 and other contract documents for Monitoring Sampling Methods and Procedures.

VEGETATION AND PLANTING SCHEDULE

ALL TEMPORARY AND PERMANENT VEGETATIVE PRACTICES INCLUDING PLANT SPECIES, PLANTING DATES, SEEDING FERTILIZER, LIME AND MULCHING RATES FOR THIS PROJECT CAN BE FOUND IN SECTION 700 OF THE CURRENT EDITION OF THE DEPARTMENT'S SPECIFICATIONS AND OTHER APPLICABLE CONTRACT DOCUMENTS, SPECIAL PROVISIONS, OR LANDSCAPING PLANS.

THE SEEDING TABLE BELOW SHOULD BE USED IN DETERMINING GRASS SPECIES DEPENDENT ON PLANTING DATES.
CHATHAM COUNTY IS IN PLANTING ZONE 4.

APPLY FERTILIZER AS FOLLOWS:

AGRICULTURAL LIME-UNIFORMLY SPREAD AGRICULTURAL LIME ON THE GROUND AT APPROXIMATE RATE DETERMINED BY THE LABORATORY SOIL TEST.

FERTILIZER MIXED GRADE-UNIFORMERLY SPREAD THE FERTILIZER SELECTED OVER THE GROUND AT APPROXIMATELY 1,200 LBS/ACRE. IF USING HIGHER ANALYSIS FERTILIZER WITH HYDROSEEDING, APPLY IT AT THE SAME RATE PER ACRE AS THE STANDARD FERTILIZER.

SELECT FERTILIZER MIXED GRADE SUCH AS 10-10-10, 6-12-12, 5-10-15, OR OTHER ANALYSIS WITHIN THE FOLLOWING LIMITS:
NITROGEN 5 TO 10 PERCENT
PHOSPHORUS 10 TO 15 PERCENT
POTASSIUM 10 TO 15 PERCENT
IF USING MIXED GRADE FERTILIZER FOR HYDROSEEDING, ENSURE IT HAS THE FOLLOWING ANAYSIS:
NITROGEN 5 TO 19 PERCENT
PHOSPHORUS 10 TO 19 PERCENT
POTASSIUM 10 TO 19 PERCENT

MULCHING SCHEDULE

MULCHING MATERIAL	RATE/ACRE
DRY STRAW OR HAY	2.5 TONS
WOOD WASTE, CHIPS	6 TO 9 TONS
SAWDUST, OR BARK	(2 TO 3" DEEP)

SEEDING TABLE

PLANTING ZONES	PLANTING DATES	POUNDS (KG) OF SEED PER ACRE (HECTACRE)										REQUIRED PERMANENT PLANTING
		RYE GRASS WILLET, CEREAL GRASS (OATS)	COMMON BERMUDA GRASS (HULLED)	COMMON BERMUDA GRASS (UNHULLED)	TALL FESCUE	WEEPING LOVE GRASS	WHITE OR CRIMSON CLOVER	COMMON VETCH	SCARIFIED INTERSTATE LESPEDEZA	UNSCARIFIED INTERSTATE LESPEDEZA	
1	MARCH 1- MAY 15		10 (11)	10 (11)	50 (56)						COMMON BERMUDA GRASS
1	MAY 1- JULY 31		10 (11)	10 (11)							
1	AUGUST 1 - FEBRUARY 28	15 (17)									
1	NOVEMBER 15 - JANUARY 31						6 (7)				
2,3,4	FEBRUARY 25 - AUGUST 31		10 (11)	10 (11)							
2,3,4	SEPTEMBER 1 - FEBRUARY 14	15 (17)									COMMON BERMUDA GRASS
2,3,4	NOVEMBER 15 - JANUARY 31						6 (7)				

	PLANT THESE COMBINATIONS ON BACK SLOPES, FILL SLOPES AND AREAS WHICH WILL NOT BE SUBJECT TO FREQUENT MOWING										
1,2	MARCH 1 - JULY 31					4 (5)			50 (56)		INTERSTATE LESPEDEZA OF CROWN VETCH
1,2	AUGUST 1 - FEBRUARY 28				30 (34)			15 (17)		75 (84)	
3,4	FEBRUARY 15 - AUGUST 31					4 (5)			50 (56)		INTERSTATE LESPEDEZA
3,4	SEPTEMBER 1 - FEBRUARY 14	50 (56)								75 (84)	

EROSION/SEDIMENTATION CONTROL OPERATION TIME SCHEDULE

CONTRACTOR TO COMPLETE TABLE WITH THEIR SPECIFIC PROJECT SCHEDULE

	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
INSTALLATION OF CONSTRUCTION EXIT,PERIMETER SILT FENCE & TREE PROTECTION FENCE																													
BRIDGE SUBSTRUCTURE																													
CLEARING & GRUBBING																													
ROUGH GRADING & DRAINAGE																													
INSTALLATION OF STORM DRAIN																													
INSTALL INTERMEDIATE EROSION MEASURES																													
BASE AND PAVEMENT																													
FINAL GRADING																													
FINAL GRADE & GRASSING																													
REMOVE TEMPORARY EROSION MEASURES AND ORANGE BARRIER FENCE																													

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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

ESPCP GENERAL NOTES

ESPCP GENERAL NOTES SHEET - 2

DRAWING No. 51-002

12/15/2011 GPLN

RELEASED FOR CONSTRUCTION - 07-23-13

MONITORING SAMPLING METHODS & PROCEDURES
OUTFALL SAMPLING:

MANUAL SAMPLING:
SAMPLES WILL BE TAKEN AT THE APPROPRIATE TIME AS STATED IN PART IV.D.5.D.OF THE PERMIT. SAMPLING WILL OCCUR AT THE DESIGNATED REPRESENTATIVE OUTFALL. THE SAMPLE WILL BE TAKEN IN THE CENTER OF THE OUTFALL CHANNEL.A LARGE MOUTH. CLEAN.GLASS OR PLASTIC JAR/BOTTLE.LABELED WITH PROJECT NUMBER AND LOCATION WILL BE USED TO COLLECT SAMPLE.THE SAMPLE CONTAINER WILL BE HELD SUCH THAT THE OPENING FACES UPSTREAM. ONCE THE SAMPLE JAR/BOTTLE IS FULL AND CAPPED,IT WILL BE TRANSPORTED. TO THE LOCATION WHERE THE TURBIDITY TESTING WILL BE CONDUCTED. SAMPLES MAY BE ANALYZED AT THE SITE WITH PROPERLY CALIBRATED PORTABLE TURBIDIMETERS. ALL TURBIDITY TESTS WILL BE CONDUCTED IMMEDIATELY BUT IN NO CASE,LATER THAN 48 HOURS AFTER THE TIME THE SAMPLE WAS OBTAINED.

AUTOMATIC SAMPLING:

SAMPLES WILL BE TAKEN AT THE APPROPRIATE TIMES AS SPECIFIED IN PART IV.D.5.D.OF THE PERMIT. AUTOMATIC SAMPLING CAN BE ACCOMPLISHED BY USING A SAMPLING DEVICE SIMILIAR TO THE ISCO MODEL 3700 OR 6700.THESE DEVICES CAN BE TRIGGERED BY FLOW METERS OR RAIN GAUGES TO COLLECT THE REQUIRED SAMPLES. THIS DETERMINATION WILL BE MADE ON A PROJECTBY PROJECT BASIS. THE PROBE FOR THE AUTOMATIC SAMPLER WILL BE PLACED IN THE CENTER OF THE OUTFALL CHANNEL. SAMPLES WILL REMAIN IN THE AUTOMATIC SAMPLER UNTIL THE NEXT BUSINESS DAY. WHEN THEY WILL BE COLLECTED AND TESTED.

TESTING:
ALL TURBIDITY TESTS SHALL BE DONE IN ACCORDANCE WITH 40 CFR PART 136 (UNLESS OTHER TEST PROCEDURES HAVE BEEN APPROVED); THE GUIDANCE DOCUMENT TITLED "NPDES STORM WATER SAMPLING GUIDANCE DOCUMENT.EPA 833-B-92-001" AND GUIDANCE DOCUMENTS THAT MAY BE PREPARED BY THE EPD.TURBIDITY RESULTS WILL BE RECORED AND REPORTED TO EPD IN ACCORDANCE WITH PART IV.E OF THE PERMIT.

4. Inspections.
a. Permittee requirements.
(1). Each day when any type of construction activity has taken place at a primary permittee's site, certified personnel provided by the primary permittee shall inspect: (a) all areas at the primary permittee's site where petroleum products are stored,used,or handled for spills and leaks from vehicles and equipment; (b) all locations at the primary permittee's site where vehicles enter or exit the site for evidence of off-site sediment tracking; and (c) measure rainfall once each 24 hour period at the site.These inspections must be conducted until a Notice of Termination is submitted.
(2). Certified personnel (provided by the primary permittee) shall inspect the following at least once every fourteen (14) calendar days and within 24 hours of the end of a storm that is 0.5 inches rainfall or greater (unless such storm ends after 5:00 PM on any Friday or on any nonworking Saturday, non-working Sunday or any non-working Federal holiday in which case the inspection shall be completed by the end of the next business day and/or working day,whichever occurs first): (a) disturbed areas of the primary permittee's construction site that have not undergone final stabilization; (b) areas used by the primary permittee for storage of materials that are exposed to precipitation that have not undergone final stabilization; and (c) structural control measures. Erosion and sediment control measures identified in the Plan applicable to the primary permittee's site shall be observed to ensure that they are operating correctly.Where discharge locations or points are accessible,they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving water(s).For areas of a site that have undergone final stabilization,the permittee must comply with Part IV.D.4.a.(3).These inspections must be conducted until a Notice of Termination is submitted.
(3). Certified personnel (provided by the primary permittee) shall inspect at least once per month during the term of this permit (i.e., until a Notice of Termination is received by EPD) the areas of the site that have undergone final stabilization.These areas shall be inspected for evidence of,or the potential for,pollutants entering the drainage system and the receiving water(s).Erosion and sediment control measures identified in the Plan shall be observed to ensure that they are operating correctly.Where discharge locations or points are accessible,they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving water(s).
(4). Based on the results of each inspection,the site description and the pollution prevention and control measures identified in the Erosion, Sedimentation and Pollution Control Plan,the Plan shall be revised as appropriate not later than seven (7) calendar days following each inspection. Implementation of such changes shall be made as soon as practical but in no case later than seven (7) calendar days following each inspection.
(5). A report of each inspection that includes the name(s) of personnel making each inspection, the date(s) of each inspection,major observations relating to the implementation of the Erosion, Sedimentation and Pollution Control Plan,and actions taken in accordance with Part IV.D.4.a.(4). of the permit shall be made and retained at the site or be readily available at a designated alternate location until the entire site or that portion of a construction project that has been phased has undergone final stabilization and a Notice of Termination is submitted to EPD. Such reports shall identify any incidents of non-compliance.Where the report does not identify any incidents of non-compliance,the report shall contain a certification that the construction site is in compliance with the Erosion, Sedimentation and Pollution Control Plan and this permit.The report shall be signed in accordance with Part V.G.of this permit.

E. Reporting.
1. The applicable permittees are required to submit a summary of the monitoring results to the EPD at the address shown in Part II.C. by the fifteenth day of the month following the reporting period. Reporting periods are months during which samples are taken in accordance with this permit. Sampling results shall be in a clearly legible format.Upon written notification,EPD may require the applicable permittee to submit the sampling results on a more frequent basis. Sampling and analysis of any storm water discharge(s) or the receiving water(s) beyond the minimum frequency stated in this permit must be reported in a similar manner to the EPD.The sampling reports must be signed in accordance with Part V.G. Sampling reports must be submitted to EPD until such time as a NOT is submitted in accordance with Part VI.
2. All written correspondence required by this permit shall be submitted by return receipt certified mail (or similar service) to the appropriate District Office of the EPD according to the schedule in Appendix A of this permit.The permittee shall retain a copy of the proof of submittal at the construction site or the proof of submittal shall be readily available at a designated location from commencement of construction until such time as a NOT is submitted in accordance with Part VI.
3. All monitoring results shall include the following information:
a. The date,exact place,and time of sampling or measurements;
b. The name(s) of the individual(s) who performed the sampling and measurements;
c. The date(s) analyses were performed;
d. The time(s) analyses were initiated;
e. The name(s) of the individual(s) who performed the analyses;
f. References and written procedures,when available,for the analytical techniques or methods used;
g. The results of such analyses,including the bench sheets,instrument readouts,computer disks or tapes,etc.,used to determine these results; and
h. Results which exceed 1000 NTU shall be reported as "exceeds 1000 NTU."

F. Retention of Records
1. The primary permittee shall retain the following records at the construction site or the records shall be readily available at a designated alternate location from commencement of construction until such time as a NOT is submitted in accordance with Part VI:
a. A copy of all Notices of Intent submitted to EPD;
b. A copy of the Erosion, Sedimentation and Pollution Control Plan required by this permit;
c. The design professional's report of the results of the inspection conducted in accordance with Part IV.A.5. of this permit;
d. A copy of all monitoring information,results,and reports required by this permit;
e. A copy of all inspection reports generated in accordance with Part IV.D.4.a. of this permit;
f. A copy of all violation summaries and violation summary reports generated in accordance with Part III.D.2. of this permit; and
g. Daily rainfall information collected in accordance with Part IV.D.4.a.(1)(c) of this permit.
2. Copies of all Notices of Intent,Notices of Termination,reports,plans,monitoring reports,monitoring information,including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation,Erosion, Sedimentation and Pollution Control Plans,records of all data used to complete the Notice of Intent to be covered by this permit and all other records required by this permit shall be retained by the permittee who either produced or used it for a period of at least three years from the date that the the NOT is submitted in accordance with Part VI of this permit.These records must be maintained at the permittee's primary place of business or at a designated alternative location once the construction activity has ceased at the permitted site. This period may be extended by request of the EPD at any time upon written notification to the permittee.

RETENTION OF RECORDS:
The Department will retain records in accordance with Part IV.F of the General Permit GAR 100002

d. Sampling Frequency.
(1). The primary permittee must sample in accordance with the Plan at least once for each rainfall event described below.For a qualifying event,samples must be taken within forty-five (45) minutes of:
(a) the accumulation of the minimum amount of rainfall for the qualifying event,if the storm water discharge to a monitored receiving water or from a monitored outfall has begun at or prior to the accumulation,or
(b) the beginning of any storm water discharge to a monitored receiving water or from a monitored outfall,if the discharge begins after the accumulation of the minimum amount of rainfall for the qualifying event.
(2). However,where manual and automatic sampling are impossible (as defined in this permit),or are beyond the permittee's control,the permittee shall take samples as soon as possible,but in no case more than twelve (12) hours after the beginning of the storm water discharge.
(3). Sampling by the permittee shall occur for the following events:
(a). For each area of the site that discharges to a receiving stream,the first rain event that reaches or exceeds 0.5 inch and allows for monitoring during normal business hours* (Monday thru Friday,8:00 AM to 5:00 PM and Saturday 8:00 AM to 5:00 P.M. excluding all non-working Federal holidays,when construction activity is being conducted by the Primary permittee) that occurs after all clearing and grubbing operations have been completed in the drainage area of the location selected as the representative sampling location;
(b). In addition to (a) above,for each area of the site that discharges to a receiving stream,the first rain event that reaches or exceeds 0.5 inch and allows for monitoring during normal business hours* that occurs either 90 days after the first sampling event or after all mass grading operations have been completed in the drainage area of the location selected as the representative sampling location,whichever comes first;
(c). At the time of sampling performed pursuant to (a) and (b) above,if BMPs are found to be properly designed,installed and maintained,no further action is required.If BMPs in any area of the site that discharges to a receiving stream are not properly designed, installed and maintained,corrective action shall be defined and implemented within two (2) business days,and turbidity samples shall be taken from discharges from that area of the site for each subsequent rain event that reaches or exceeds 0.5 inch during normal business hours* until the selected turbidity standard is attained,or until post-storm event inspections determine that BMPs are properly designed,installed and maintained; and
(d). Existing construction activities,i.e.,those that are occurring on or before the effective date of this permit,that have met the sampling required by (a) above shall sample in accordance with (b).Those existing construction activities that have met the sampling required by (b) above shall not be required to conduct additional sampling other than as required by (c) above.

*Note that the Permittee may choose to meet the requirements of (a) and (b) above by collecting turbidity samples from any rain event that reaches or exceeds 0.5 inch and allows for monitoring at any time of the day or week.

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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
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ESPCP GENERAL NOTES

ESPCP GENERAL NOTES SHEET - 3

DRAWING No. 51-003

12/15/2011 GPLN

RELEASED FOR CONSTRUCTION - 07-23-13

ENVIRONMENTAL RESOURCES IMPACT TABLE

RESOURCE NAME/TYPE	LOCATION BEGINNING STA.	LOCATION ENDING STA.	SIDE	CONSTRUCTION ACTIVITY	PERMITTED ACTIVITY	CONTROLLING CRITERIA	SPECIAL PROVISIONS	COMMENTS INCLUDING ANY PERMIT EXPIRATION DATES
WETLAND 1	1020+12 BOURNE AVENUE	1020+84 BOURNE AVENUE	LT.	ROADWAY CONSTRUCTION	0.01 AC PERM.	SECTION 404 IP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	NONE	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
	157+49 JDC	157+72 JDC	LT.		0.01 AC TEMP. SEE C-2 AND D-2	SECTION 404 IP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	NONE	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
	153+28 JDC	157+49 BOURNE AVENUE	LT.	ROADWAY CONSTRUCTION	0.01 AC PERM. 0.02 AC TEMP. SEE C-2 AND D-2	SECTION 404 IP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	NONE	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
WETLAND 2	1028+28 BOURNE AVENUE	1033+41 BOURNE AVENUE	LT.	ROADWAY CONSTRUCTION	0.61 AC PERM. 0.50 AC TEMP. SEE C-2 AND D-2	SECTION 404 IP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	NONE	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
WETLAND 3	156+14 JDC	160+30 JDC	RT. & LT.	ROADWAY CONSTRUCTION	1.20 AC PERM. 0.30 AC TEMP. SEE C-2 AND D-2	SECTION 404 IP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	NONE	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
STREAM 4	156+27 JDC	158+00 JDC	LT.	NONE	NO IMPACT	SECTION 404 IP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	NONE	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
OPEN WATER 5	168+00 JDC	169+33 JDC	LT.	NONE	NO IMPACT (OUTSIDE ROW)	SECTION 404 IP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	NONE	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
WETLAND 6	179+05 JDC	179+93 JDC	LT. & RT.	ROADWAY CONSTRUCTION	0.22 AC PERM. 0.05 AC TEMP. SEE C-2 AND D-2	SECTION 404 IP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	NONE	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
STREAM 7	179+00 JDC	179+46 JDC	RT.	NONE	NO IMPACT	SECTION 404 IP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	NONE	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
JURISDICTIONAL DITCH 8	179+58 JDC	180+22 JDC	LT. & RT.	ROADWAY CONSTRUCTION	0.04 AC PERM. 0.01 AC TEMP. SEE C-2 AND D-2	SECTION 404 IP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	NONE	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
WETLAND 9	179+40 JDC	182+92 JDC	RT.	ROADWAY CONSTRUCTION	0.03 AC PERM. 0.06 AC TEMP. SEE C-2 AND D-2	SECTION 404 IP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	NONE	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
JURISDICTIONAL DITCH 9A	183+89 JDC	2206+65 GRANGE RD.	RT.	ROADWAY CONSTRUCTION	0.10 AC PERM. 0.18 AC TEMP. SEE C-2 AND D-2	SECTION 404 IP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	NONE	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
WETLAND 9B	2026+50 GRANGE RD.	2028+15 GRANGE RD.	LT.	ROADWAY CONSTRUCTION	0.06 AC PERM. 0.04 AC TEMP. SEE C-2 AND D-2	SECTION 404 IP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	NONE	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
WETLAND 10	179+58 JDC	183+50 JDC	LT. & RT.	ROADWAY CONSTRUCTION	0.11 AC PERM. 0.01 AC TEMP. SEE C-2 AND D-2	SECTION 404 IP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	NONE	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
JURISDICTIONAL DITCH 10A	183+88 JDC	189+50 JDC	LT. & RT.	ROADWAY CONSTRUCTION	0.35 AC PERM. 0.00 AC TEMP. SEE C-2 AND D-2	SECTION 404 IP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	NONE	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
WETLAND 11	200+47 JDC	202+05 JDC	RT.	ROADWAY CONSTRUCTION	0.20 AC PERM. 0.07 AC TEMP. SEE C-2 AND D-2	SECTION 404 IP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	NONE	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
WETLAND 12	220+00 JDC	223+50 JDC	LT. & RT.	ROADWAY CONSTRUCTION	0.00 AC PERM. 0.00 AC TEMP. (NON-JURISDICTIONAL)	SECTION 404 IP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	NONE	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
WETLAND 13	241+64 JDC	242+79 JDC	RT.	ROADWAY CONSTRUCTION	0.00 AC PERM. 0.00 AC TEMP. (NON-JURISDICTIONAL)	SECTION 404 IP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	NONE	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
WETLAND 14	244+75 JDC	247+82 JDC	LT.	ROADWAY CONSTRUCTION	0.00 AC PERM. 0.00 AC TEMP. (NON-JURISDICTIONAL)	SECTION 404 IP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	NONE	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
WETLAND 15	253+00 JDC	256+19 JDC	RT.	ROADWAY CONSTRUCTION	0.00 AC PERM. 0.00 AC TEMP. (NON-JURISDICTIONAL)	SECTION 404 IP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	NONE	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY

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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

ESPCP GENERAL NOTES
ENVIRONMENTAL RESOURCES IMPACT TABLE

DRAWING No. 51-004

12/15/2011 GPLN

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	655	730

RELEASED FOR CONSTRUCTION - 07-23-13

ENVIRONMENTAL RESOURCES IMPACT TABLE

RESOURCE NAME/TYPE	LOCATION BEGINNING STA.	LOCATION ENDING STA.	SIDE	CONSTRUCTION ACTIVITY	PERMITTED ACTIVITY	CONTROLLING CRITERIA	SPECIAL PROVISIONS	COMMENTS INCLUDING ANY PERMIT EXPIRATION DATES
WETLAND 16	263+98 JDC	264+81 JDC	LT.& RT.	ROADWAY & BRIDGE CONSTRUCTION	0.22 AC PERM. 0.09 AC TEMP. SEE C-2 AND D-2	SECTION 404 IP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	NONE	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
WETLAND 16A	265+34 JDC	269+32 JDC	LT.& RT.	ROADWAY & BRIDGE CONSTRUCTION	1.68 AC PERM. 0.27 AC TEMP. SEE C-2 AND D-2	SECTION 404 IP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	NONE	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
WETLAND 16B	269+50 JDC	273+04 JDC	LT.& RT.	ROADWAY CONSTRUCTION	1.41 AC PERM. 0.42 AC TEMP. SEE C-2 AND D-2	SECTION 404 IP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	NONE	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
WETLAND 17	280+81 JDC	284+25 JDC	LT.	ROADWAY & BRIDGE CONSTRUCTION	0.44 AC PERM. 0.16 AC TEMP. SEE C-2 AND D-2	SECTION 404 IP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	NONE	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
STREAM 18	280+46 JDC	284+08 JDC	LT.	ROADWAY & BRIDGE CONSTRUCTION	230 LF PERM. (0.04 AC EFH) SEE C-2 AND D-2	SECTION 404 IP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	700.702	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
STREAM 18 BUFFER	280+46 JDC	284+08 JDC	LT.	ROADWAY & BRIDGE CONSTRUCTION	6,598 SF (365 LF NON-EXEMPT BUFFER IMPACT (6,335 SF (215 LF) CRITERION (h) + 263 SF (50 LF) CRITERION (k)(2)); SEE D-4	SECTION 404 IP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	700.702	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
WETLAND 19	282+05 JDC	283+03 JDC	RT.	NONE (OUTSIDE ROW)	NO IMPACT	SECTION 404 IP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	NONE	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
STREAM 20	283+07 JDC	285+39 JDC	LT.& RT.	ROADWAY & BRIDGE CONSTRUCTION	70.00 LF TEMP. (0.03 AC EFH)	SECTION 404 IP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	700.702	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
STREAM 20 BUFFER	283+07 JDC	285+39 JDC	LT.& RT.	ROADWAY & BRIDGE CONSTRUCTION	EXEMPT	SECTION 404 IP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	700.702	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
WETLAND 21	283+48 JDC	284+90 JDC	RT.& LT.	BRIDGE CONSTRUCTION	0.00 AC PERM. 0.05 AC TEMP.	SECTION 404 IP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	NONE	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
WETLAND 21A	283+07 JDC	286+88 JDC	RT.& LT.	ROADWAY & BRIDGE CONSTRUCTION	0.60 AC PERM. 0.69 AC TEMP. SEE C-2 AND D-2	SECTION 404 IP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	NONE	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
WETLAND 21B	286+25 JDC	287+50 JDC	RT.& LT.	ROADWAY CONSTRUCTION	0.26 AC PERM. 0.03 AC TEMP. SEE C-2 AND D-2	SECTION 404 IP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	NONE	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
WETLAND 22	289+59 JDC	7013+39 SONNY DIXON INTERCHANGE	LT.& RT.	ROADWAY CONSTRUCTION	1.37 AC PERM. 0.13 AC TEMP. SEE C-2 AND D-2	SECTION 404 IP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	NONE	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
WETLAND 22A	289+03 JDC	7011+43 SONNY DIXON INTERCHANGE	LT.& RT.	ROADWAY CONSTRUCTION	1.35 AC PERM. 0.22 AC TEMP. SEE C-2 AND D-2	SECTION 404 IP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	NONE	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
WETLAND 23	292+60 JDC	296+34 JDC	RT.	ROADWAY & BRIDGE CONSTRUCTION	0.09 AC PERM. 0.00 AC TEMP. SEE C-2 AND D-2	SECTION 404 IP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	700.702	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
STATE WATER 23 BUFFER	292+60 JDC	296+34 JDC	RT.	ROADWAY & BRIDGE CONSTRUCTION	10,454 SF (158 LF) NON-EXEMPT CRITERION (h) BUFFER IMPACT;SEE D-4	SECTION 404 IP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	700.702	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
WETLAND 24	292+78 JDC	293+43 JDC	LT.	ROADWAY CONSTRUCTION	0.02 AC PERM. 0.00 AC TEMP. SEE C-2 AND D-2	SECTION 404 IP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	NONE	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
WETLAND 25	294+08 JDC	294+58 JDC	RT.& LT.	ROADWAY CONSTRUCTION	0.05 AC PERM. 0.00 AC TEMP. SEE C-2 AND D-2	SECTION 404 IP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	NONE	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
JURISDICTIONAL DITCH 26	294+58 JDC	296+21 JDC	LT.	ROADWAY CONSTRUCTION	0.03 AC PERM. 0.00 AC TEMP. SEE C-2 AND D-2	SECTION 404 IP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	NONE	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
WETLAND 27	7010+19 SONNY DIXON INTERCHANGE 297+17 JDC	7012+67 SONNY DIXON INTERCHANGE 298+20 JDC	LT. RT.	ROADWAY CONSTRUCTION	0.23 AC PERM. 0.09 AC TEMP. SEE C-2 AND D-2	SECTION 404 IP & GEORGIA EROSION SEDIMENTATION CONTROL ACT	NONE	ANY ADDITIONAL FILL OTHER THAN WHAT IS SHOWN ON THE PLANS WILL REQUIRE PERMIT MODIFICATION OR A NEW PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY
ESA-THE OHIO REDOUBT	215+25 JDC	215+72 JDC	RT.	NONE	NO IMPACT REFER TO PLAN NOTE C-1	NATIONAL HISTORIC PRESERVATION ACT	NONE	CONTRACTOR SHALL DIRECT QUESTIONS TO THE ENGINEER, AND THE ENGINEER SHALL CONTACT ENVIRONMENTAL SERVICES IF NECESSARY FOR RESOLUTION
ESA	249+89 JDC	250+12 JDC	RT.	NONE	NO IMPACT REFER TO PLAN NOTE C-1	NATIONAL HISTORIC PRESERVATION ACT	NONE	CONTRACTOR SHALL DIRECT QUESTIONS TO THE ENGINEER, AND THE ENGINEER SHALL CONTACT ENVIRONMENTAL SERVICES IF NECESSARY FOR RESOLUTION
ESA-FORMER CHARLESTON & SAVANNAH RAILROAD	314+30 JDC	315+30 JDC	LT. & RT.	NONE	NO IMPACT REFER TO PLAN NOTE C-1	NATIONAL HISTORIC PRESERVATION ACT	NONE	CONTRACTOR SHALL DIRECT QUESTIONS TO THE ENGINEER, AND THE ENGINEER SHALL CONTACT ENVIRONMENTAL SERVICES IF NECESSARY FOR RESOLUTION
ESA-FORMER SAVANNAH & ATLANTA RAILROAD	258+00 JDC	259+78 JDC	LT. & RT.	BRIDGE CONSTRUCTION	TEMP. IMPACT REFER TO PLAN NOTE C-1	NATIONAL HISTORIC PRESERVATION ACT	NONE	CONTRACTOR SHALL DIRECT QUESTIONS TO THE ENGINEER, AND THE ENGINEER SHALL CONTACT ENVIRONMENTAL SERVICES IF NECESSARY FOR RESOLUTION
UST/HAZARDOUS WASTE SITE NO.1 (GLENN LEE TRUCKING, PARCEL 3)	1016+23 BOURNE AVENUE	160+00 JDC	LT.	NONE	NO IMPACT REFER TO PLAN NOTE C-1	EPD, LAND PROTECTION BRANCH, SOLID WASTE MANAGEMENT PROGRAM RULES AND REGULATIONS	NONE	CONTRACTOR SHALL DIRECT QUESTIONS TO THE ENGINEER, AND THE ENGINEER SHALL CONTACT ENVIRONMENTAL SERVICES IF NECESSARY FOR RESOLUTION
UST/HAZARDOUS WASTE SITE NO.2 (PCS NITROGEN FERTILIZER ARCADIAN, PARCEL 4)	1038+00 BOURNE AVENUE	178+88 JDC	LT. & RT.	ROADWAY CONSTRUCTION	REFER TO PLAN NOTES C-3 AND C-4 AND COMMITMENTS E-2 AND E-3	EPD, LAND PROTECTION BRANCH, SOLID WASTE MANAGEMENT PROGRAM RULES AND REGULATIONS	NONE	CONTRACTOR SHALL DIRECT QUESTIONS TO THE ENGINEER, AND THE ENGINEER SHALL CONTACT ENVIRONMENTAL SERVICES IF NECESSARY FOR RESOLUTION
UST/HAZARDOUS WASTE SITE NO.3 (MIT TANK WASH, PARCEL 7)	179+48 JDC	189+44 JDC	RT.	ROADWAY CONSTRUCTION	REFER TO PLAN NOTES C-4	EPD, LAND PROTECTION BRANCH, SOLID WASTE MANAGEMENT PROGRAM RULES AND REGULATIONS	NONE	CONTRACTOR SHALL DIRECT QUESTIONS TO THE ENGINEER, AND THE ENGINEER SHALL CONTACT ENVIRONMENTAL SERVICES IF NECESSARY FOR RESOLUTION
UST/HAZARDOUS WASTE SITE NO.4 (MAXIM CRANE AKA ANTHONY CRANE, PARCEL 13)	2017+11 GRANGE ROAD	201+06 JDC	LT.	ROADWAY CONSTRUCTION	REFER TO PLAN NOTES C-3 AND C-4 AND COMMITMENTS E-2 AND E-3	EPD, LAND PROTECTION BRANCH, SOLID WASTE MANAGEMENT PROGRAM RULES AND REGULATIONS	NONE	CONTRACTOR SHALL DIRECT QUESTIONS TO THE ENGINEER, AND THE ENGINEER SHALL CONTACT ENVIRONMENTAL SERVICES IF NECESSARY FOR RESOLUTION
UST/HAZARDOUS WASTE SITE NO.5 (INTERSTATE NATIONAL LEASE, INC., PARCEL 14)	190+54 JDC	201+06 JDC	LT.	ROADWAY CONSTRUCTION	REFER TO PLAN NOTES C-3 AND C-4 AND COMMITMENTS E-2 AND E-3	EPD, LAND PROTECTION BRANCH, SOLID WASTE MANAGEMENT PROGRAM RULES AND REGULATIONS	NONE	CONTRACTOR SHALL DIRECT QUESTIONS TO THE ENGINEER, AND THE ENGINEER SHALL CONTACT ENVIRONMENTAL SERVICES IF NECESSARY FOR RESOLUTION
UST/HAZARDOUS WASTE SITE NO.6 (COASTAL TRANSPORT PARCEL 17)	2026+89 GRANGE ROAD	196+12 JDC	LT. & RT.	ROADWAY CONSTRUCTION	REFER TO PLAN NOTES C-3 AND C-4 AND COMMITMENTS E-2 AND E-3 AND E-4	EPD, LAND PROTECTION BRANCH, SOLID WASTE MANAGEMENT PROGRAM RULES AND REGULATIONS	NONE	CONTRACTOR SHALL DIRECT QUESTIONS TO THE ENGINEER, AND THE ENGINEER SHALL CONTACT ENVIRONMENTAL SERVICES IF NECESSARY FOR RESOLUTION
UST/HAZARDOUS WASTE SITE (RICHARD GODBEE PARCEL 15)	189+89 JDC	200+54 JDC	RT.	ROADWAY CONSTRUCTION	REFER TO PLAN NOTES C-3 AND C-4 AND COMMITMENTS E-2 AND E-3 AND E-4	EPD, LAND PROTECTION BRANCH, SOLID WASTE MANAGEMENT PROGRAM RULES AND REGULATIONS	NONE	CONTRACTOR SHALL DIRECT QUESTIONS TO THE ENGINEER, AND THE ENGINEER SHALL CONTACT ENVIRONMENTAL SERVICES IF NECESSARY FOR RESOLUTION

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STATE OF GEORGIA
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ESPCP GENERAL NOTES
ENVIRONMENTAL RESOURCES IMPACT TABLE

DRAWING No. 51-005

12/15/2011 GPLN

RELEASED FOR CONSTRUCTION - 07-23-13

GSWCC

Georgia Soil and Water Conservation Commission

EROSION, SEDIMENTATION & POLLUTION CONTROL PLAN CHECKLIST
INFRASTRUCTURE CONSTRUCTION PROJECTS

SWCD: Coastal SWCD

Project Name: Jimmy Deloach Connector **Address:**

City/County: Port Wentworth/Chatham **Date on Plans:** 5-28-2013

Plan Page #	Included Y/N	TO BE SHOWN ON ES&PC PLAN
51-06	Y	1. The applicable Erosion, Sedimentation and Pollution Control Plan Checklist established by the Commission as of January 1 of the year in which the land-disturbing activity was permitted. **(The completed Checklist must be submitted with the ES&PC Plan or the Plan will not be reviewed)**
50-01	Y	2. Level II certification number issued by the Commission, signature and seal of the certified design professional. **(Signature, seal and Level II number must be on each sheet pertaining to ES&PC plan or the Plan will not be reviewed)**
50-01	Y	3. The name and phone number of the 24-hour local contact responsible for erosion, sedimentation and pollution controls.
50-01	Y	4. Provide name, address and phone number of primary permittee.
53-01	Y	5. Note total and disturbed acreage of the project or phase under construction.
50-01	Y	6. Provide land lot and district numbers for site location. Describe critical areas and any additional measures that will be utilized for these areas.
50-01	Y	7. Provide vicinity map showing site's relation to surrounding areas. Include designation of specific phase, if necessary.
50-01&53-01 TO 55-01	Y	8. Graphic scale and north arrow.
53-01 TO 53-03 & 55-01	Y*	9. Existing and proposed contour lines with contour lines drawn at an interval in accordance with the following:

Existing Contours:	USGS 1":2000' Topographical Sheets
Proposed Contours:	1" : 400' Centerline Profile

53-01 To 53-03	Y	10. Delineation and acreage of contributing drainage basins on the project site.
53-01 To 53-03	Y	11. Delineation of on-site wetlands and all state waters located on and within 200 feet of the project site.
53-01 TO 53-03 & 55-01	Y	12. Delineation of the applicable 25-foot or 50-foot undisturbed buffers adjacent to state waters and any additional buffers required by the Local Issuing Authority. Clearly note and delineate all areas of impact.
55-01	Y	13. Delineate all sampling locations, perennial and intermittent streams and other water bodies into which storm water is discharged.*
53-01 TO 53-03	Y	14. Storm-drain pipe and weir velocities with appropriate outlet protection to accommodate discharges without erosion. Identify/Delineate all storm water discharge points.
51-01	Y	15. Soil series for the project site and their delineation.
51-02	Y	16. Identify the project receiving waters and describe all adjacent areas including streams, lakes, residential areas, wetlands, etc. which may be affected.
N/A	N/A	17. Any construction activity which discharges storm water into an Impaired Stream Segment, or within 1 linear mile upstream of and within the same watershed as, any portion of an Biota Impaired Stream Segment must comply with Part III. C. of the Permit. Include the completed Appendix 1 listing all the BMPs that will be used for those areas of the site which discharge to the Impaired Stream Segment.*
N/A	N/A	18. If a TMDL Implementation Plan for sediment has been finalized for the Impaired Stream Segment (identified in item 18 above) at least six months prior to submittal of NOI, the ES&PC Plan must address any site-specific conditions or requirements included in the TMDL Implementation Plan.*
55-01	Y	19. Delineate on-site drainage and off-site watersheds using USGS 1" : 2000' topographical sheets.
50-01	Y	20. Initial date of the Plan and the dates of any revisions made to the Plan including the entity who requested the revisions.
54-ALL	Y	21. The limits of disturbance for each phase of construction.
51-01	Y	22. Provide a minimum of 67 cubic yards of sediment storage per acre drained using a temporary sediment basin, retrofitted detention pond, and/or excavated inlet sediment traps for each common drainage location. Sediment storage volume must be in place prior to and during all land disturbance activities until final stabilization of the site has been achieved. A written rationale explaining the decision to use equivalent controls when a sediment basin is not attainable must be included in the plan for each common drainage location in which a sediment basin is not provided. Worksheets from the Manual must be included for structural BMPs and all calculations used by the design professional to obtain the required sediment storage when using equivalent controls.
51-01	Y	23. Use of alternative BMPs whose performance has been documented to be equivalent to or superior to conventional BMPs as certified by a Design Professional (unless disapproved by EPD or the Georgia Soil and Water Conservation Commission). Please refer to the Alternative BMP Guidance Document found at www.gaswcc.org.
51-01	Y	24. Best Management Practices to minimize off-site vehicle tracking of sediments and the generation of dust.
51-02	Y	25. BMPs for concrete washdown of tools, concrete mixer chutes, hoppers and the rear of the vehicles. Washout of the drum at the construction site is prohibited.*
51-01	Y	26. Provide BMPs for the remediation of all petroleum spills and leaks.*

Plan Page #	Included Y/N	TO BE SHOWN ON ES&PC PLAN
54-ALL	Y	27. Location of Best Management Practices that are consistent with and no less stringent than the Manual for Erosion and Sediment Control in Georgia. Use uniform coding symbols from the Manual, Chapter 6, with legend.
53-01	Y	28. Description of the nature of construction activity.
51-01	Y	29. A description of appropriate controls and measures that will be implemented at the construction site including: (1) initial sediment storage requirements and perimeter control BMPs, (2) intermediate grading and drainage BMPs, and (3) final BMPs. *
51-02	Y	30. Description and chart or timeline of the intended sequence of major activities which disturb soils for the major portions of the site (i.e., initial perimeter and sediment storage BMPs, clearing and grubbing activities, excavation activities, utility activities, temporary and final stabilization).
51-01	Y	31. Description of the practices that will be used to reduce the pollutants in storm water discharges.*
51-01	Y	32. Description of the measures that will be installed during the construction process to control pollutants in storm water that will occur after construction operations have been completed.*
50-01	Y	33. Design professional's certification statement and signature that the site was visited prior to development of the ES&PC Plan as stated on page 15 of the permit.
50-01	Y	34. Design professional's certification statement and signature that the permittee's ES&PC Plan provides for an appropriate and comprehensive system of BMPs and sampling to meet permit requirements as stated on page 14 of the permit.*
50-01	Y	35. Certification statement and signature of the permittee or the duly authorized representative as stated in section V.G.2.d. of the state general permit.*
53-01 TO 53-03	Y	36. An estimate of the runoff coefficient or peak discharge flow of the site prior to and after construction activities are completed.
51-02	Y	37. Indication that non-exempt activities shall not be conducted within the 25 or 50-foot undisturbed stream buffers as measured from the point of wrested vegetation without first acquiring the necessary variances and permits.
51-01	Y	38. Indication that the design professional who prepared the ES&PC Plan is to inspect the installation of the initial sediment storage requirements and perimeter control BMPs within 7 days after installation.*
51-01	Y	39. Indication that amendments/revisions to the ES&PC Plan which have a significant effect on BMPs with a hydraulic component must be certified by the design professional.*
51-01	Y	40. Indication that waste materials shall not be discharged to waters of the State, except as authorized by a Section 404 permit.*
51-01	Y	41. Documentation that the ES&PC Plan is in compliance with waste disposal, sanitary sewer, or septic tank regulations during and after construction activities have been completed.*
51-01 & 51-03	Y	42. Provide complete requirements of inspections and record keeping by the primary permittee.*
51-01 & 51-03	Y	43. Provide complete requirements of sampling frequency and reporting of sampling results.*
51-01	Y	44. Provide complete details for retention of records as per Part IV.F. of the permit.*
51-03	Y	45. Description of analytical methods to be used to collect and analyze the samples from each location.*
51-02	Y	46. Appendix B rationale for outfall sampling points where applicable.*
51-01	Y	47. Clearly note statement in bold letters- **"The escape of sediment from the site shall be prevented by the installation of erosion and sediment control measures and practices prior to, or concurrent with, land disturbing activities."**
51-01	Y	48. Clearly note maintenance statement in bold letters - **"Erosion control measures will be maintained at all times. If full implementation of the approved plan does not provide for effective erosion control, additional erosion and sediment control measures shall be implemented to control or treat the sediment source."**
51-01	Y	49. Clearly note the statement in bold letters - **"Any disturbed area left exposed for a period greater than 14 days shall be stabilized with mulch or temporary seeding."**
52-01 TO 52-06	Y	50. Provide detailed drawings for all structural practices. Specifications must, at a minimum, meet the guidelines set forth in the Manual for Erosion and Sediment Control in Georgia.
51-01 & 51-02	Y	51. Provide vegetative plan, noting all temporary and permanent vegetative practices. Include species, planting dates and seeding, fertilizer, lime and mulching rates. Vegetative plan shall be site specific for appropriate time of year that seeding will take place and for the appropriate geographic region of Georgia.

Effective January 1, 2013

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REVISION DATES

STATE OF GEORGIA
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ESPCP GENERAL NOTES

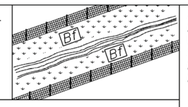
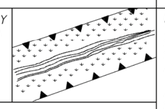
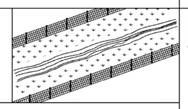
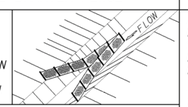
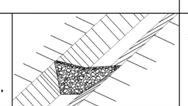
CHECKLIST 2013

DRAWING No. 51-006

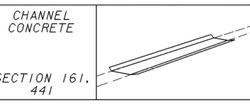
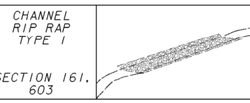
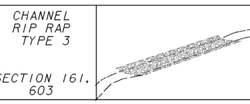
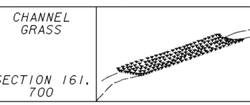
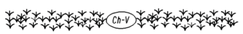
12/15/2011 GPLN

RELEASED FOR CONSTRUCTION - 07-23-13

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

CODE	PRACTICE STD :SPC's :SECTION	DETAIL	DESCRIPTION
Bf	BUFFER ZONE	 SYMBOL Bf	A STRIP OF UNDISTURBED ORIGINAL VEGETATION. ENHANCED OR RESTORED EXISTING VEGETATION. OR THE RE-ESTABLISHMENT OF VEGETATION SURROUNDING AN AREA OF DISTURBANCE OR BORDERING STREAMS. PONDS. WETLANDS. LAKES. AND COASTAL WATERS. THE BOUNDARIES OF THESE AREAS ARE BE DELINEATED BY ORANGE BARRIER FENCE.
ESA	ENVIRONMENTALLY SENSITIVE AREA	 LINE CODE ESA-25'(OR 50')STREAM BUFFER. ETC.	ENVIRONMENTALLY SENSITIVE AREA (ESA) CONTAINS RESOURCES THAT ARE ENVIRONMENTALLY. CULTURALLY. OR HISTORICALLY SENSITIVE. ESA AREAS INCLUDE. BUT ARE NOT LIMITED TO: STATE WATER BUFFERS. ARCHAEOLOGICAL SITES. HISTORIC SITES. AND PROTECTED ANIMAL AND PLANT SPECIES HABITATS. IF WORK IS AUTHORIZED IN THIS AREA. THE WORK MUST BE PERFORMED IN ACCORDANCE WITH SECTION 107 AND ANY OTHER APPLICABLE SPECIAL PROVISIONS AND APPLICABLE PLAN NOTES.
	ORANGE BARRIER FENCE	 LINE CODE ORANGE BARRIER FENCE	ORANGE BARRIER FENCE DELINEATES ESA AREAS WHERE THE CONTRACTOR SHALL NOT CLEAR. GRUB. PLACE CONSTRUCTION MATERIALS OR EQUIPMENT WITHIN THIS AREA.
Cd-F	FABRIC CHECK DAM CONSTRUCTION DETAIL SECTION 171	 LINE CODE Cd-F	A CHECK DAM COMPOSED OF SYNTHETIC FIBER FABRIC. WIRE REINFORCED. POST. AND BRACING PLACED IN DITCHES IN A SPECIAL CONFIGURATION WHICH CONTROLS ENERGY DISSIPATION AND FILTRATION OF STORM WATER. SEE CONSTRUCTION DETAIL D-24b FOR SPACING REQUIREMENT. THIS ITEM IS SUITABLE FOR USE IN ROADSIDE DITCHES THAT ARE PART OF INFRASTRUCTURE CONSTRUCTION PROJECTS. IF THIS ITEM IS USED IN AN AREA WITHOUT A SEDIMENT BASIN CONSIDERATION SHOULD BE GIVEN TO USING TWO OR MORE ROCK FILTER DAMS NEAR THE DISCHARGE POINT.
Cd-S	STONE OR SANDBAG CHECK DAM SECTION 163. 603	 LINE CODE Cd-S	STONE CHECK DAMS ARE USED IN ROADWAY DITCHES. GEOTEXITLE UNDERLINER SHALL BE USED WHEN PLACING STONE CHECK DAMS. CONTRACTOR MAY USE SANDBAG CHECK DAMS IN LIEU OF STONE CHECK DAMS. SANDBAG CHECK DAMS MUST BE USED IN CONCRETE LINED CHANNELS.

NOTE:
1. DO NOT USE EROSION CONTROL ITEMS IN A FLOWING STREAM OR IN A TIDAL AREA BELOW HIGH TIDE.
2. FOR ADDITIONAL INFORMATION ON THE DESIGN AND APPLICATION OF EROSION CONTROL MEASURES SEE THE GEORGIA SOIL AND WATER CONSERVATION COMMISSION. "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA".

CODE	PRACTICE STD :SPC's :SECTION	DETAIL	DESCRIPTION
Ch-C	CHANNEL CONCRETE SECTION 161. 441		THIS ITEM CONSISTS OF CONSTRUCTING A 4" THICK CONCRETE CHANNEL. THE CONCRETE SHALL PROTECT THE DITCH FLOWING TO A DEPTH "Dp" RECOMMENDED BY THE GDOT DITCH PROTECTION PROGRAM "Dp" SHALL BE IDENTIFIED IN A TABLE LOCATED ON THE SUMMARY OF QUANTITIES SHEETS
Ch-Rp1	CHANNEL RIP RAP TYPE 1 SECTION 161. 603	 LINE CODE	THIS ITEM CONSISTS OF LINING A CHANNEL WITH TYPE 1 RIP RAP 24" THICK (UNLESS SPECIFIED OTHERWISE) PLACED ON TOP OF A GEOTEXTILE UNDERLINER. THE RIP RAP SHALL PROTECT THE DITCH FLOWING TO A DEPTH "Dp" RECOMMENDED BY THE GDOT DITCH PROTECTION PROGRAM. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED ALONG THIS CHANNEL SUCH AS Sd1-C. Rdc OR Sg. "Dp" SHALL BE IDENTIFIED IN A TABLE LOCATED ON THE SUMMARY OF QUANTITIES SHEETS
Ch-Rp3	CHANNEL RIP RAP TYPE 3 SECTION 161. 603	 LINE CODE	THIS ITEM CONSISTS OF LINING A CHANNEL WITH TYPE 3 RIP RAP 24" THICK (UNLESS SPECIFIED OTHERWISE) PLACED ON TOP OF A GEOTEXTILE UNDERLINER. THE RIP RAP SHALL PROTECT THE DITCH FLOWING TO A DEPTH "Dp" RECOMMENDED BY THE GDOT DITCH PROTECTION PROGRAM. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED ALONG THIS CHANNEL SUCH AS Sd1-C. Rdc OR Sg. "Dp" SHALL BE IDENTIFIED IN A TABLE LOCATED ON THE SUMMARY OF QUANTITIES SHEETS
Ch-V	CHANNEL GRASS SECTION 161. 700	 LINE CODE 	USED TO IMPROVE OR STABILIZE A NEW OR EXISTING CHANNEL. IT IS CONSTRUCTED IN STORMWATER DRAINAGE DITCHES. THIS MEASURE SHALL BE DESIGNED IN ACCORDANCE WITH THE GDOT DITCH PROTECTION PROGRAM ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED. TYPICALLY NOT SHOWN IN PLANS.

BY	REVISION	DATE
TC	UDATED DRAWING NO.	1-24-13
TC	REVISED Cd-S DESCRIPTION,	10-2-12
	REMOVED Be & Ch-Br, AND	
	RELOCATED Ch-Rp4 Ch-RP3	
	AND Ch-V CODES FROM	
	EC&UC SHEET 2 OF 6.	11-13-07
GLO	REV. Be, ADDED Bf, ES4,	
	OBF AND Ch-F	11-9-07
GLO	REVISED TITLE BLOCK	

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

EROSION CONTROL LEGEND
AND UNIFORM CODE SHEET
SHEET 1OF 6

NO SCALE JANUARY 2007

NUMBER EC-LI

DRAWING No. 52-001

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

EROSION CONTROL LEGEND

DRAWING No. 52-001

3/1/2007 GPLN

1/30/2013 1:53:38 PM \\GDOT-DSN1\GDPLOT\GCF\GDOT_gcf_tcox_M:\TPC\EP65918_GDPLOT_Update_shxfs\EV13TON_16_bit_shx_GDOT_ECL52-002.gcf

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

	CODE	PRACTICE STD :SPC's :SECTION	DETAIL	DESCRIPTION
	Co	CONSTRUCTION EXIT CONSTRUCTION DETAIL	LINE CODE Co	A STONE STABILIZED PAD LOCATED AT ANY POINT WHERE TRAFFIC WILL BE EXITING A CONSTRUCTION SITE TO A PUBLIC ROAD. BEST USED AT ACCESS POINTS. I.e. NEW LOCATION PROJECTS. BORROW PITS. WASTE PITS. ACCESS ROADS. ETC. SHOULD BE MIN. 20' WIDE AND 50' LONG. AND 6" THICK. REQUIRES A GEOTEXTILE UNDERLINER. INCLUDED IN THE PRICE FOR THE CONSTRUCTION EXIT.
	Dc-A	DIVERSION CHANNEL GEOTEXTILE, POLYETHYLENE FILM SECTION 163	LINE CODE —D—D—D—Dc-A—D—D—D—	A DIVERSION CHANNEL IS A TEMPORARY CHANNEL CONSTRUCTED TO CONVEY FLOW AROUND A CONSTRUCTION SITE WHILE A PERMANENT DRAINAGE STRUCTURE IS BEING CONSTRUCTED IN A NATURAL STREAM. THIS IS A MEASURE USED TO PROTECT STREAM BEDS FROM EROSION. LINE THE CHANNEL WITH GEOTEXTILE OR POLYETHYLENE FILM. INSTALL TWO ROWS OF Sdl-C PARALLEL TO THE CHANNEL TO PREVENT SEDIMENT LADEN RUNOFF FROM ENTERING THE STREAM. THE SIZE OF THE CHANNEL WILL DEPEND ON THE DISCHARGE. CHANNEL GEOMETRY. CHANNEL SLOPE AND ROUGHNESS. IT IS DESIGNED FOR A TWO YEAR STORM FREQUENCY WITH A FLOW RATE BETWEEN 0-2.5 fps. CONSTRUCTION OF THE DIVERSION CHANNEL IS INCLUDED IN THE COST OF THE STRUCTURE.
	Dc-B	DIVERSION CHANNEL GEOTEXTILE ONLY SECTION163	LINE CODE —D—D—D—Dc-B—D—D—D—	A DIVERSION CHANNEL IS A TEMPORARY CHANNEL CONSTRUCTED TO CONVEY FLOW AROUND A CONSTRUCTION SITE WHILE A PERMANENT DRAINAGE STRUCTURE IS BEING CONSTRUCTED IN A NATURAL STREAM. THIS IS A MEASURE USED TO PROTECT STREAM BEDS FROM EROSION. LINE THE CHANNEL WITH GEOTEXTILE ONLY. INSTALL TWO ROWS OF Sdl-C PARALLEL TO THE CHANNEL TO PREVENT SEDIMENT LADEN RUNOFF FROM ENTERING THE STREAM. THE SIZE OF THE CHANNEL WILL DEPEND ON THE DISCHARGE. CHANNEL GEOMETRY. CHANNEL SLOPE AND ROUGHNESS. IT IS DESIGNED FOR A TWO YEAR STORM FREQUENCY WITH A FLOW RATE BETWEEN 2.5-9.0 fps. CONSTRUCTION OF THE DIVERSION CHANNEL IS INCLUDED IN THE COST OF THE STRUCTURE.
	Dc-C	DIVERSION CHANNEL RIPRAP AND GEOTEXTILE SECTION 163	LINE CODE —D—D—D—Dc-C—D—D—D—	A DIVERSION CHANNEL IS A TEMPORARY CHANNEL CONSTRUCTED TO CONVEY FLOW AROUND A CONSTRUCTION SITE WHILE A PERMANENT DRAINAGE STRUCTURE IS BEING CONSTRUCTED IN A NATURAL STREAM. THIS IS A MEASURE USED TO PROTECT STREAM BEDS FROM EROSION. LINE THE CHANNEL WITH RIPRAP AND GEOTEXTILE. INSTALL TWO ROWS OF Sdl-C PARALLEL TO THE CHANNEL TO PREVENT SEDIMENT LADEN RUNOFF FROM ENTERING THE STREAM. THE SIZE OF THE CHANNEL WILL DEPEND ON THE DISCHARGE. CHANNEL GEOMETRY. CHANNEL SLOPE AND ROUGHNESS. IT IS DESIGNED FOR A TWO YEAR STORM FREQUENCY WITH A FLOW RATE BETWEEN 9.0-13.0 fps. CONSTRUCTION OF THE DIVERSION CHANNEL IS INCLUDED IN THE COST OF THE STRUCTURE.
	Dl	DIVERSION BERM CONSTRUCTION DETAIL SECTION 161, 205	LINE CODE Dl	THIS IS A TEMPORARY EARTHEN BERM WITH A COMPACTED SUPPORTING RIDGE ON THE LOWER SIDE TO BE USED AT AT THE EDGE OF EMBANKMENT DURING THE GRADING OPERATION. THE BERMS ARE ALSO CONSTRUCTED ABOVE. ACROSS OR BELOW A SLOPE TO REDUCE THE LENGTH OF A SLOPE. THEY ARE USED TO INTERCEPT RUNOFF. PREVENTING SLOPE EROSION AND TO DIRECT THE RUNOFF TO A STABLE OUTLET. DOWN DRAINS "Dnl"OR CATCHMENT AREAS AND ON ALL GRADING PROJECTS. SEE CHAPTER 6 OF THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA FOR DESIGN CRITERIA AND DETAILS.

	CODE	PRACTICE STD :SPC's :SECTION	DETAIL	DESCRIPTION
	Dnl	DOWN DRAIN STRUCTURE FLEXIBLE CONSTRUCTION DETAIL SECTION 163	LINE CODE —T—T—T—Dnl—T—T—T—	A TEMPORARY PIPE SLOPE DRAIN IS A PLASTIC FLEXIBLE PIPE TO CARRY WATER FROM THE WORK AREA TO A LOWER ELEVATION. TEMPORARY SLOPE DRAINS SHOULD BE PLACED A INTERVALS OF 500 FEET ON A 0 TO 2 PERCENT GRADE. 200 FEET ON STEEPER GRADES AND MORE FREQUENTLY AS DICTATED BY FIELD CONDITIONS. THE USUAL PIPE SIZE IS 10 INCH CORRUGATED. THE OUTLET AREA SHOULD BE STABILIZED WITH SILT FENCE. SUMP HOLE. HAYBALES. ANGLING OUTLET IN UPHILL DIRECTION OR OTHER APPROPRIATE MEANS FOR VELOCITY DISSIPATION AND EROSION CONTROL. THE PIPE WILL BE ANCHORED WITH STAKES AT INTERVALS NOT TO EXCEED 10'.
	Dn2-A	PERMANENT DOWN DRAIN STRUCTURE CONCRETE CONSTRUCTION DETAIL SECTION 441	LINE CODE Dn2-A	A CONCRETE FLUME TYPE "A" IS USED TO DIRECT SURFACE RUNOFF DOWN A ROADWAY SLOPE INTO ANOTHER FORM OF CONTROL. IT IS USED IN ALL DEPRESSED AREAS WHERE WATER WILL FLOW DOWN THE SLOPE. IT IS DESIGNED FOR A 25 YEAR STORM AND MUST HAVE SOME FORM OF OUTLET PROTECTION. ADDITIONAL LABELING IS NOT REQUIRED IF SHOWN AS A PERMANENT DRAINAGE STRUCTURE ON THE CONSTRUCTION PLANS. INLETS SHALL BE SPACED ACCORDING TO GDOT GUIDELINES (REGARDING GUTTER SPREAD AND OR OTHER CRITERIA).
	Dn2-B	PERMANENT DOWN DRAIN STRUCTURE CONCRETE CONSTRUCTION DETAIL SECTION 441	LINE CODE Dn2-B	A CONCRETE FLUME TYPE "B" IS USED TO DIRECT SURFACE DITCH RUNOFF DOWN A BACK SLOPE INTO ANOTHER FORM OF CONTROL. IT IS USED IN DEPRESSED AREAS WHERE CONCENTRATED OFFSITE WATER REACHES THE CUT SLOPE. IT IS DESIGNED TO SAFETLY CONVEY WATER DOWN THE CUT SLOPE. IT IS DESIGNED FOR A 25 YEAR STORM AND MUST HAVE SOME FORM OF OUTLET PROTECTION. ADDITIONAL LABELING IS NOT REQUIRED IF SHOWN AS A PERMANENT DRAINAGE STRUCTURE ON THE CONSTRUCTION PLANS. INLETS SHALL BE SPACED ACCORDING TO GDOT GUIDELINES (REGARDING GUTTER SPREAD AND OR OTHER CRITERIA).
	Dn2-1	PERMANENT DOWNDRAIN STRUCTURE GA. STD. 9017J TPI, D-26 TPI SECTION 576, 577.	LINE CODE Dn2-1	CONCRETE DRAIN INLET WITH METAL PIPE IS USED TO DRAIN CURBS. ON A GRADE. DOWN TO A LOWER ELEVATION. THIS IS A PERMANENT STRUCTURE. REQUIRING OUTLET PROTECTION. TEMPORARY AND PERMANENT. INLETS SHALL BE SPACED ACCORDING TO GDOT GUIDELINES (REGARDING GUTTER SPREAD AND OR OTHER CRITERIA).

NOTE:
1. DO NOT USE EROSION CONTROL ITEMS IN A FLOWING STREAM OR IN A TIDAL AREA BELOW HIGH TIDE.
2. FOR ADDITIONAL INFORMATION ON THE DESIGN AND APPLICATION OF EROSION CONTROL MEASURES SEE THE GEORGIA SOIL AND WATER CONSERVATION COMMISSION. "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA".

BY	REVISION	DATE
TC	UPDATED DRAWING NO.	1-24-13
TC	REV. DI LABEL&DESCRIPTION, RELOCATED Dn2-A, Dn2-B, AND Dn2-1 CODES FROM ECL&UC SHEET 3 OF 6.	10-1-12
GLO	REVISED ORDER	1-3-07
GLO	REVISED TITLE BLOCK	1-19-07

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

EROSION CONTROL LEGEND AND UNIFORM CODE SHEET
SHEET 2 OF 6

NO SCALE JANUARY 2007

NUMBER EC-L2

DRAWING No. 52-002

RELEASED FOR CONSTRUCTION - 07-23-13

3/1/2007 GPLN

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
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(770) 263-9118

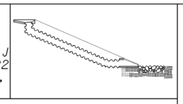
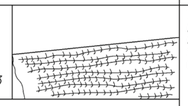
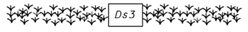
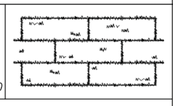
REVISION DATES

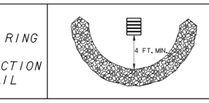
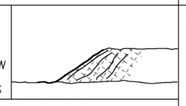
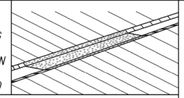
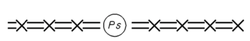
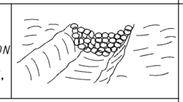
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
EROSION CONTROL LEGEND

DRAWING No. 52-002

RELEASED FOR CONSTRUCTION - 07-23-13

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

CODE	PRACTICE STD :SPC's :SECTION	DETAIL	DESCRIPTION
Dn2-2	PERMANENT DOWN DRAIN STRUCTURE GA. STD. 9017J TP2. D-26 TP2 SECTION 576. 577.	 LINE CODE	CONCRETE DRAIN INLET AND METAL PIPE IS USED TO DRAIN CURB. IN A SAG. DOWN TO A LOWER ELEVATION. THIS IS A PERMANENT STRUCTURE. REQUIRING OUTLET PROTECTION. TEMPORARY AND PERMANENT. INLETS SHALL BE SPACED ACCORDING TO GDOT GUIDELINES (REGARDING GUTTER SPREAD AND OR OTHER CRITERIA).
Ds1	MULCH SECTION 163	 LINE CODE	THIS IS AN APPLICATION OF STRAW MULCH USED TO REDUCE SOIL EROSION AND STABILIZE THE SOIL. IT IS USED TO CONTROL EROSION IN AREAS WHERE PERMANENT VEGETATION IS OUT OF SEASON OR TO TEMPORARILY STABILIZE AREAS PRIOR TO FINAL GRADING.
Ds2	TEMPORARY GRASSING SECTION 163	LINE CODE	THE SOWING OF A QUICK GROWING SPECIES OF GRASS SUITABLE TO THE AREA AND SEASON IS TO BE USED ON ALL PROJECTS.
Ds3	PERMANENT GRASSING SECTION 700	LINE CODE 	THE SOWING OF PERMANENT VEGETATION, SUCH AS GRASS, SUITABLE TO THE AREA AND SEASON IS TO BE USED ON ALL PROJECTS. PERMANENT VEGETATIVE REQUIREMENTS ARE ADDRESSED BY STANDARD SPECIFICATIONS AND ARE NOT TYPICALLY SHOWN ON THE PLANS; HOWEVER, THEY MAY BE SHOWN ON THE PLANS FOR HIGHLY SENSITIVE AREAS WHERE THESE VEGETATIVE PRACTICES ARE CRITICAL.
Ds4	SODDING SECTION 700	 PATTERN	THE INSTALLATION OF A SPECIES OF GRASS SODDING SUITABLE TO THE AREA AND SEASON TO PROVIDE IMMEDIATE PERMANENT VEGETATION. SODDING MAY BE SHOWN FOR HIGHLY SENSITIVE AREAS, TO IMPROVE AESTHETICS, OR FOR SPECIAL PLANTING REQUIREMENTS ON THE BASIS OF ENVIRONMENTAL COMMITMENTS OR LANDSCAPING REQUIREMENTS.

CODE	PRACTICE STD :SPC's :SECTION	DETAIL	DESCRIPTION
Fr	FILTER RING CONSTRUCTION DETAIL	 LINE CODE Fr	A TEMPORARY STONE BARRIER CONSTRUCTED AT DRAINAGE STRUCTURE INLETS. THIS REDUCES THE VELOCITY OF THE RUNOFF AND FILTERS SEDIMENT FROM THE RUNOFF. SEE CHAPTER 6 OF THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA FOR DESIGN CRITERIA AND DETAILS.
Mb	EROSION CONTROL MATS CONSTRUCTION DETAIL SECTION 716	 PATTERN	ALL CUT OR FILL SLOPES OF 2.5:1 OR STEEPER AND WITHIN 50' OF ALL CROSS DRAINS AND CULVERTS.
Ps	PERMANENT SOIL REINFORCING MAT CONSTRUCTION DETAIL SECTION 710	 LINE CODE 	THIS THREE DIMENSIONAL EROSION CONTROL MAT IS USED IN DITCHES TO STABILIZE THE SOIL BY REINFORCING THE GRASS ROOTS TO PROVIDE LONG-TERM PROTECTION FOR SHEAR STRESSES. (THIS IS ALSO CALLED "Mb" IN THE MANUAL FOR EROSION & SEDIMENT CONTROL IN GEORGIA.)
Rd	ROCK FILTER DAM CONSTRUCTION DETAIL SECTION 163. 603.	 LINE CODE	ROCK FILTER DAMS ARE CONSTRUCTED OF TYPE 3 STONE RIP RAP AND ARE USED TO PROTECT SMALL STREAMS OR DRAINAGEWAYS. TO BE USED IN SMALL DRAINAGE CHANNELS OF 50 ACRES OR LESS. THE RIP RAP SHOULD BE PLACED ON A GEOTEXITLE UNDERLINER.

NOTE:
1. DO NOT USE EROSION CONTROL ITEMS IN A FLOWING STREAM OR IN A TIDAL AREA BELOW HIGH TIDE.
2. FOR ADDITIONAL INFORMATION ON THE DESIGN AND APPLICATION OF EROSION CONTROL MEASURES, SEEE THE GEORGIA SOIL AND WATER CONSERVATION COMMISSION, "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA".

BY	REVISION	DATE
TC	UDATED DRAWING NO., ADDED Ds3 & Ds4 CODES, RELOC. Rp & RT+P CODES To DRAWING NO. 52-004.	1-24-13
TC	RELOCATED Rd, Rp, & RT+B CODES FROM ECL&UC SHEET 4 OF 6.	10-2-12
GLO	DELETED Fe, REVISED ORDER	11-13-07
GLO	REVISED TITLE BLOCK	1-19-07

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

EROSION CONTROL LEGEND
AND UNIFORM CODE SHEET
SHEET 3 OF 6

NO SCALE JANUARY 2007

NUMBER EC-L3

DRAWING No. 52-003

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

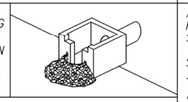
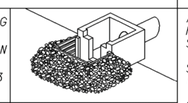
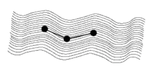
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
EROSION CONTROL LEGEND

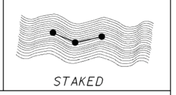
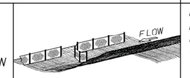
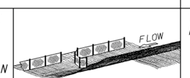
DRAWING No. 52-003

3/1/2007 GPLN

1/30/2013 1:53:36 PM \\GDOT-DSN1\DGPLOT\GCF\GDOT_gcf_color_M:\TPC\EPSG78_colorbin_rasters_shapefs\EV13_bin_16_color_shapefs\ECL52-004.gpf

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

	CODE	PRACTICE STD :SPC's :SECTION	DETAIL	DESCRIPTION
	Rp	RIPRAP SECTION 603 PATTERN		RIP RAP IS A FLEXIBLE PERMANENT BLANKET FOR PROTECTION OF FILL SLOPES AND END ROLLS. RIP RAP, TYPE I SHOULD BE PLACED ON TOP OF A GEOTEXITLE UNDERLINER AT A MINIMUM 24" THICKNESS OR AS INDICATED ON THE PLANS.
	Rt-P	RETROFITTING CONSTRUCTION DETAIL SECTION 163 LINE CODE		A PERFORATED HALF-ROUND PIPE WITH STONE FILTER PLACED IN FRONT OF A PERMANENT STORMWATER DETENTION POND OUTLET STRUCTURE TO SERVE AS A TEMPORARY SEDIMENT FILTER. SHOULD BE USED ONLY IN DETENTION PONDS WITH LESS THAN 30 ACRES TOTAL DRAINAGE AREA. SHALL ONLY BE USED IN DETENTION BASINS LARGE ENOUGH TO STORE 67 CUBIC YARDS OF SEDIMENT PER ACRE OF DISTURBED AREA. THIS ITEM SHOULD BE DESIGNED ACCORDING TO CHAPTER 6 IN THE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA"
	Rt-B	RETROFITTING CONSTRUCTION DETAIL SECTION 163 LINE CODE		A SLOTTED BOARD DAM WITH STONE PLACED IN FRONT OF A PERMANENT STORMWATER DETENTION POND OUTLET STRUCTURE TO SERVE AS A TEMPORARY SEDIMENT FILTER. SHOULD BE USED ONLY IN DETENTION PONDS WITH LESS THAN 100 ACRES TOTAL DRAINAGE AREA. SHALL ONLY BE USED IN DETENTION BASINS LARGE ENOUGH TO STORE 67 CUBIC YARDS OF SEDIMENT PER ACRE OF DISTURBED AREA. THIS ITEM SHOULD BE DESIGNED ACCORDING TO CHAPTER 6 IN THE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA"
	Rt-BSg1 Rt-BSg2 Rt-BSg3	SILT CONTROL GATES CONSTRUCTION DETAIL D-20 SECTION 163 LINE CODE		A SILT CONTROL GATE IS A STRUCTURE PLACED ON A PIPE, SMALL BOX CULVERT, OR DROP INLET TO FORM A BASIN TO CATCH SILT AND PREVENT IT FROM LEAVING THE CONSTRUCTION SITE. IT IS EFFECTIVE ON SMALL DRAINAGE AREAS ONLY. DO NOT USE IN STATE WATERS. Rt-BSg1•TYPE 1: USED ON BOX CULVERTS Rt-BSg2•TYPE 2: USED ON STRAIGHT HEADWALLS Rt-BSg3•TYPE 3: USED ON FLARED END SECTIONS AND TAPERED HEADWALLS
	Sb-F	SILT RETENTION BARRIER FLOATING SECTION 170 LINE CODE		A FLOATING BARRIER IS USED TO PREVENT SEDIMENT FROM MOVING IN WATER BY FORCING IT TO DROP OUT OF SUSPENSION BEFORE IT MOVES OUT OF THE CONSTRUCTION AREA. IT IS USUALLY USED WHERE CONSTRUCTION IS REQUIRED IN A LARGE BODY OF WATER SUCH AS LAKES AND RIVERS. IT SHOULD BE USED AS DIRECTED BY THE ENGINEER. THIS ITEM IS ONLY TO BE USED WHEN PERMITTED FILL IS BEING PLACED INTO A STATE WATER, OR AS A SUPPLEMENT TO ADEQUATELY PLACED BMP'S.

	CODE	PRACTICE STD :SPC's :SECTION	DETAIL	DESCRIPTION
	Sb-S	SILT RETENTION BARRIER STAKED SECTION 170 LINE CODE		A STAKED BARRIER IS USED TO PREVENT SEDIMENT FROM MOVING IN WATER BY FORCING IT TO DROP OUT OF SUSPENSION BEFORE IT MOVES OUT OF THE CONSTRUCTION AREA. IT IS USUALLY USED WHERE CONSTRUCTION IS REQUIRED IN SHALLOW INUNDATED AREAS. IT SHOULD BE USED AS DIRECTED BY THE ENGINEER. A STAKED BARRIER MAY BE USED TO PROTECT A SMALL STREAM WHILE IT IS BEING REALIGNED OR WIDENED IN "Chi". IN THIS CASE THE BARRIER SHOULD EXTEND TO THE BOTTOM OF THE STREAM. IT SHOULD BE LIMITED TO 5' IN HEIGHT UNLESS OTHERWISE DIRECTED. STAKED BARRIERS IN SMALL STREAMS SHOULD EXTEND 1' ABOVE NORMAL WATER. THIS ITEM IS ONLY TO BE USED WHEN PERMITTED FILL IS BEING PLACED INTO A STATE WATER, OR AS A SUPPLEMENT TO ADEQUATELY PLACED BMP'S.
	Sdl-A	SILT FENCE TYPE A CONSTRUCTION DETAIL SECTION 171 LINE CODE		USED ALONG THE TOE OF FILLS LESS THAN 10' HIGH, ALONG THE RIGHT OF WAY LINE OR PARALLEL TO STREAMS. THE FENCE SHOULD NEVER RUN CONTINUOUS. IT SHOULD TURN BACK INTO THE FILL TO CREATE SMALL POCKETS TO TRAP SILT.
	Sdl-B	SILT FENCE TYPE B CONSTRUCTION DETAIL SECTION 171 LINE CODE		TYPE B MAY BE USED IN LIEU OF BALED STRAW AND AT THE TOE OF FILLS LESS THAN 10 FEET HIGH.
	Sdl-C	SILT FENCE TYPE C CONSTRUCTION DETAIL SECTION 171 LINE CODE		A WOVEN SYNTHETIC FIBER FABRIC PLACED IN FRONT OF A WIRE FENCE. IT CAN BE USED ALONG THE TOE OF THE FILL, ALONG THE RIGHT OF WAY LINE OR PARALLEL TO STREAMS. IT IS USED TO CAPTURE SEDIMENT FROM FILLS OVER 10 FEET HIGH AND UNDER ALL BRIDGES.

NOTE:
1. DO NOT USE EROSION CONTROL ITEMS IN A FLOWING STREAM OR IN A TIDAL AREA BELOW HIGH TIDE.
2. FOR ADDITIONAL INFORMATION ON THE DESIGN AND APPLICATION OF EROSION CONTROL MEASURES, SEEE THE GEORGIA SOIL AND WATER CONSERVATION COMMISSION, "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA".

DATE	REVISION	BY
1-24-13	UDATED DRAWING NO.& RELOCATED Sdl-Bb&Sdl-Hb CODES TO DRAWING NO. 52-005.	TC
10-2-12	RELABELED AND RELOCATED Sg-4,Sg-2, Sg-3 TO Rt-BSg1 Rt-BSg2,& Rt-BSg3 CODES AND Sdl-Bb,Sdl-Hb CODES	TC
11-13-07	FROM ECL&UC SHT.5 OF 6. REV. Sdl-A	GLO
1-9-07	REV. Sb-F, Sb-S, Sdl-A, Sdl-B AND Sdl-C.	GLO
	REVISED TITLE BLOCK	GLO

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

EROSION CONTROL LEGEND
AND UNIFORM CODE SHEET
SHEET 4 OF 6

NO SCALE — JANUARY 2007

NUMBER EC-L4 — DRAWING No. 52-004

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THE LPA GROUP
TRANSPORTATION CONSULTANTS
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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
EROSION CONTROL LEGEND

DRAWING No. 52-004

RELEASED FOR CONSTRUCTION - 07-23-13

3/1/2007 GPLN

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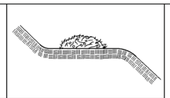
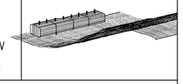
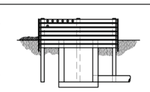
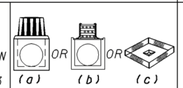
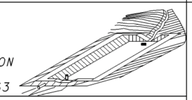
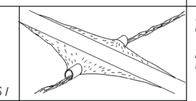
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

CODE	PRACTICE STD :SPC's :SECTION	DETAIL	DESCRIPTION
Sd1-Bb	BRUSH BARRIER CONSTRUCTION DETAIL LINE CODE * * * Sd1-Bb * * *		THIS ITEM CONSISTS OF INTERMINGLED BRUSH. LOGS. ETC. SO AS NOT TO FORM A SOLID DAM. CONSTRUCTED AT THE TOE OF FILL SLOPES DURING THE CLEARING AND GRUBBING OPERATION. THE BARRIER SHOULD BE USED AT THE TOE OF FILL SLOPES ON GRADING PROJECTS IN RURAL AREAS WHERE SUFFICIENT RIGHT OF WAY OR EASEMENT IS AVAILABLE (10 FEET OR MORE). THE BARRIER SHOULD RUN ROUGHLY PERPENDICULAR TO THE FLOW OF WATER WHERE THIS DOES NOT CONFLICT WITH RIGHT OF WAY OR EASEMENT LIMITS. THEY WILL NOT BE PLACED IN WETLANDS. PAYMENT FOR THIS ITEM IS INCLUDED IN THE CLEARING AND GRUBBING COST. NO SEPERATE PAYMENT SHALL BE MADE.
Sd1-Hb	SEDIMENT BARRIER CONSTRUCTION DETAIL SECTION 163 LINE CODE — S — S — S — Sd1-Hb — S — S — S —		A BARRIER OF BALED STRAW IS USED TO PREVENT SEDIMENT FROM LEAVING THE CONSTRUCTION SITE. IT IS USED IN DITCHES AS DITCH CHECKS OR ALONG THE TOE OF SLOPE OR RIGHT OF WAY IN FILLS LESS THAN 10 FEET HIGH. THE BALES SHOULD RUN PARALLEL TO THE SILT YIELDING AREA UNTIL THE TOP OF THE BALE IS 6 INCHES LOWER THAN THE GROUND ELEVATION OF THE BEGINNING BALE. THEY SHOULD THEN TURN INTO THE FILL WITH A LOW POINT FOR THE WATER TO DRAIN OVER THE BALE. IN DITCHES, BALED STRAW SHOULD BE PERPENDICULAR TO THE FLOW. USED FOR SLOPES LESS THAN 1%. USE 100' SPACING. BALED STRAW SHALL BE STAKED SECURELY TO THE GROUND.
Sd2-B	BAFFLE BOX INLET SEDIMENT TRAP CONSTRUCTION DETAIL D42 SPECIFICATIONS SECTION 163 LINE CODE Sd2-B		USED FOR INLETS RECEIVING RUNOFF WITH A HIGHER VOLUME OR VELOCITY. A GUIDE FOR USE WILL BE FOR AN INLET RECEIVING A Q=7cfs.
Sd2-Bg	BLOCK & GRAVEL DROP INLET PROTECTION CONSTRUCTION DETAIL D42 SPECIFICATIONS SECTION 163 LINE CODE Sd2-Bg		USED FOR INLET PROTECTION WHERE HEAVY FLOWS ARE EXPECTED AND WHERE OVERFLOW CAPACITY IS NECESSARY TO PREVENT EXCESSIVE PONDING AROUND THE STRUCTURE. CAN BE USED AT CULVERT INLETS. A GUIDE FOR USE WILL BE FOR AN INLET RECEIVING A Q=5-7 cfs.
Sd2-F	INLET SEDIMENT TRAP CONSTRUCTION DETAILS SECTION 163 (a) OR (b) OR (c) LINE CODE Sd2-F		(a) A SEDIMENT BARRIER CONSISTING OF A PREFABRICATED FRAME WITH FILTER FABRIC USED AROUND A DROP INLET OR CATCH BASIN (b) A SEDIMENT BARRIER CONSISTING OF A PERFORATED METAL STAND PIPE WITH FILTER FABRIC USED AROUND A DROP INLET OR CATCH BASIN (c) TYPE C SILT FENCE WITH SUPPORTING FRAME CAN BE USED AS AN ALTERNATE TO INLET SEDIMENT TRAP FOR AREAS WITH SLOPES < 5% THIS ITEM IS USED TO PREVENT SILT FROM ENTERING THE PIPE SYSTEM. SHALL NOT APPLY TO INLETS RECIEVING CONCENTRATED FLOWS. RECOMMENDED FOR INLET RECEIVING FLOWS THAT RANGE FROM Q=0-4 cfs.

CODE	PRACTICE STD :SPC's :SECTION	DETAIL	DESCRIPTION
Sd2-G	GRAVEL DROP INLET PROTECTION CONSTRUCTION DETAIL D42 SPECIFICATIONS SECTION 163 LINE CODE Sd2-G		USED FOR INLET PROTECTION WHERE HEAVY CONCENTRATED FLOWS ARE EXPECTED. STONE AND GRAVEL ARE USED TO TRAP SEDIMENT. THE SLOPE TOWARD THE INLET SHALL BE NO MORE THAN 3:1. A GUIDE FOR USE WILL BE FOR AN INLET RECEIVING A Q=3-5 cfs.
Sd3	SEDIMENT BASIN CONSTRUCTION DETAIL SECTION 163 LINE CODE Sd3		A BASIN EXCAVATED OR AN AREA THAT IS DAMMED. THE BASIN IS DESIGNED TO HOLD A SEDIMENT LOAD OF 67 CUBIC YARDS OF VOLUME PER ACRE OF DRAINAGE AREA. IT IS USED FOR DRAINAGE AREAS OF 3 TO 5 ACRES OR WHERE A ROADWAY CUTS OR FILLS EXCEEDS 1,000 FEET IN LENGTH. IF A SEDIMENT BASIN IS USED ON AN AREA LARGER THAN 5 ACRES SPECIAL CONSIDERATION FOR CLEAN OUT IS REQUIRED. SUFFICIENT RIGHT OF WAY OR PERMANENT EASEMENT NEEDED FOR THE BASIN AND ACCESS FOR CLEAN OUT VIA A ROUTE WITH 3:1 SLOPES OR LESS. SEDIMENT BASINS SHOULD ALSO BE CONSIDERED WHERE HIGH FILLS OVER 30 FEET DRAIN TO ONE LOCATION.
Sr	STREAM CROSSING SECTION 161 LINE CODE Sr		A TEMPORARY BRIDGE OR PIPE STRUCTURE PROTECTING A STREAM OR WATER COURSE FROM DAMAGE BY CONSTRUCTION EQUIPMENT. THIS AREA MUST BE COMPLETELY STABILIZED. THIS ITEM MUST BE DESIGNED ACCORDING TO CHAPTER 6 OF THE MANUAL FOR EROSION CONTROL IN GEORGIA FOR CONTRACTOR'S USE ONLY

NOTE:
1. DO NOT USE EROSION CONTROL ITEMS IN A FLOWING STREAM OR IN A TIDAL AREA BELOW HIGH TIDE.
2. FOR ADDITIONAL INFORMATION ON THE DESIGN AND APPLICATION OF EROSION CONTROL MEASURES. SEEE THE GEORGIA SOIL AND WATER CONSERVATION COMMISSION. "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA".

BY	REVISION	DATE
TC	UDATED DRAWING NO.& RELOCATED Sf & Sf-Rp.	1-24-13
	CODES TO DRAWING NO. 52-006.	
TC	DEL. Sg-1, Sg-2, Sg-3 CODES. RELOCATED Sf & Sf-Rp. CODES FROM ECL & UC	10-2-12
GLO	REV. Sg-1, Sg-2 AND Sg-3	11-13-07
GLO	REVISED TITLE BLOCK	1-19-07

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

EROSION CONTROL LEGEND
AND UNIFORM CODE SHEET
SHEET 5 OF 6

NO SCALE JANUARY 2007

NUMBER EC-L5

DRAWING No. 52-005

RELEASED FOR CONSTRUCTION - 07-23-13

3/1/2007 GPLN

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THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
EROSION CONTROL LEGEND

DRAWING No. 52-005

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RELEASED FOR CONSTRUCTION - 07-23-13

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

	CODE	PRACTICE STD :SPC's :SECTION	DETAIL	DESCRIPTION
	St	STORM DRAIN OUTLET PROTECTION GA. STD. 1125 & 2332	LINE CODE: St	A PIPE OR BOX CULVERT OUTLET HEADWALL WITH AN APRON AND DISSIPATOR BLOCKS IS USED TO PREVENT EROSION AND TO SLOW WATER. IT IS USED ON THE OUTLET OF ALL BOX CULVERTS AND ON 48" AND LARGER PIPES. MAY BE USED ON INLET FOR FLOWING STREAMS. USE ON SMALL PIPES WHEN OUTLET VELOCITY IS 12 fps AND GREATER.
	St-Rp	STORM DRAIN OUTLET PROTECTION SECTION 603	PATTERN: St-Rp	THIS ITEM IS ADDED TO "St" WHEN ADDITIONAL PROTECTION IS NEEDED. TYPE I RIP RAP PLACED ON FILTER FABRIC SHOULD BE USED AT A 24" THICKNESS. MAY BE USED ON INLETS FOR FLOWING STREAMS. REFER TO CHARTS IN "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA" FOR QUANTITIY DETERMINATION.
	Su	SURFACE ROUGHENING SERRATED SLOPES CONSTRUCTION DETAIL SECTION 205	LINE CODE: Su (LINE CODE Su IS SHOWN ON THE PLANS FOR SERRATED SLOPES WHERE SPECIFIED IN THE SOIL SURVEY.)	PROVIDING A ROUGH SOIL SURFACE WITH HORIZONTAL DEPRESSIONS. BY OPERATING A CLEATED DOZER ON THE SLOPE IN A VERTICAL DIRECTION. CREATING SERRATED SLOPES IN THE GRADING PROCESS TO CONSTRUCT BENCHES WILL REDUCE RUNOFF VELOCITY AND INCREASE INFILTRATION OF WATER. IN MOST CASES THIS ITEM IS NOT REQUIRTED TO BE SHOWN ON THE PLANS. BUT REQUIRED TO BE COMPLETED BY THE CONTRACTOR UNDER ALL PROJECTS. IF SERRATED SLOPES ARE USED ON THE PROJECT, THEN THIS ITEM SHALL BE SHOWN WHERE SERRATED SLOPES ARE TO BE USED.
	Trm-1	TURF REINFORCEMENT MAT CONSTRUCTION DETAIL SECTION 711	LINE CODE: Trm-1	THIS THREE DIMENSIONAL EROSION CONTROL MAT IS USED IN DITCHES TO STABILIZE THE SOIL BY REINFORCING THE GRASS ROOTS TO PROVIDE LONG-TERM PROTECTION FOR SHEAR STRESSES 0-2 psf. (THIS IS ALSO CALLED "Ma" IN THE MANUAL FOR EROSION & SEDIMENT CONTROL IN GEORGIA.)
	Trm-2	TURF REINFORCEMENT MAT CONSTRUCTION DETAIL SECTION 711	LINE CODE: Trm-2	THIS THREE DIMENSIONAL EROSION CONTROL MAT IS USED IN DITCHES TO STABILIZE THE SOIL BY REINFORCING THE GRASS ROOTS TO PROVIDE LONG-TERM PROTECTION FOR SHEAR STRESSES 0-4 psf. (THIS IS ALSO CALLED "Mb" IN THE MANUAL FOR EROSION & SEDIMENT CONTROL IN GEORGIA.)
	Trm-3	TURF REINFORCEMENT MAT CONSTRUCTION DETAIL SECTION 711	LINE CODE: Trm-3	THIS THREE DIMENSIONAL EROSION CONTROL MAT IS USED IN DITCHES TO STABILIZE THE SOIL BY REINFORCING THE GRASS ROOTS TO PROVIDE LONG TERM PROTECTION FOR SHEAR STRESSES 0-6 psf. (THIS IS ALSO CALLED "Mb" IN THE MANUAL FOR EROSION & SEDIMENT CONTROL IN GEORGIA.)
	Trm-4	TURF REINFORCEMENT MAT CONSTRUCTION DETAIL SECTION 711	LINE CODE: Trm-4	THIS THREE DIMENSIONAL EROSION CONTROL MAT IS USED IN DITCHES TO STABILIZE THE SOIL BY REINFORCING THE GRASS ROOTS TO PROVIDE LONG-TERM PROTECTION FOR SHEAR STRESSES 0-8 psf. (THIS IS ALSO CALLED "Mb" IN THE MANUAL FOR EROSION & SEDIMENT CONTROL IN GEORGIA.)
	Trm-5	TURF REINFORCEMENT MAT CONSTRUCTION DETAIL SECTION 711	LINE CODE: Trm-5	THIS THREE DIMENSIONAL EROSION CONTROL MAT IS USED IN DITCHES TO STABILIZE THE SOIL BY REINFORCING THE GRASS ROOTS TO PROVIDE LONG-TERM PROTECTION FOR SHEAR STRESSES 0-10 psf. (THIS IS ALSO CALLED "Mb" IN THE MANUAL FOR EROSION & SEDIMENT CONTROL IN GEORGIA.)
	Trm-6	TURF REINFORCEMENT MAT CONSTRUCTION DETAIL SECTION 711	LINE CODE: Trm-6	THIS THREE DIMENSIONAL EROSION CONTROL MAT IS USED IN DITCHES TO STABILIZE THE SOIL BY REINFORCING THE GRASS ROOTS TO PROVIDE LONG-TERM PROTECTION FOR SHEAR STRESSES 0-12 psf. (THIS IS ALSO CALLED "Mb" IN THE MANUAL FOR EROSION & SEDIMENT CONTROL IN GEORGIA.)

NOTE:
1. DO NOT USE EROSION CONTROL ITEMS IN A FLOWING STREAM OR IN A TIDAL AREA BELOW HIGH TIDE.
2. FOR ADDITIONAL INFORMATION ON THE DESIGN AND APPLICATION OF EROSION CONTROL MEASURES, SEEE THE GEORGIA SOIL AND WATER CONSERVATION COMMISSION. "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA".

BY	REVISION	DATE
TC	UDATED DRAWING NO.	1-24-13
TC	ADDED Trm-1,Trm-2,Trm-3, Trm-4,Trm-5,AND Trm-6.	10-2-12
	CODES AND DESCRIPTIONS.	
	RELOCATED St,& St-Rp	
	CODES TO ECL & UC SHT. 5 of 6.	

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

EROSION CONTROL LEGEND AND UNIFORM CODE SHEET
SHEET 6 OF 6

NO SCALE — NOV., 2007

NUMBER EC-L6 — DRAWING No. 52-006

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3/1/2007 GPLN

THE LPA GROUP
TRANSPORTATION CONSULTANTS
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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
EROSION CONTROL LEGEND

DRAWING No. 52-006

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	663	730

RELEASED FOR CONSTRUCTION - 07-23-13

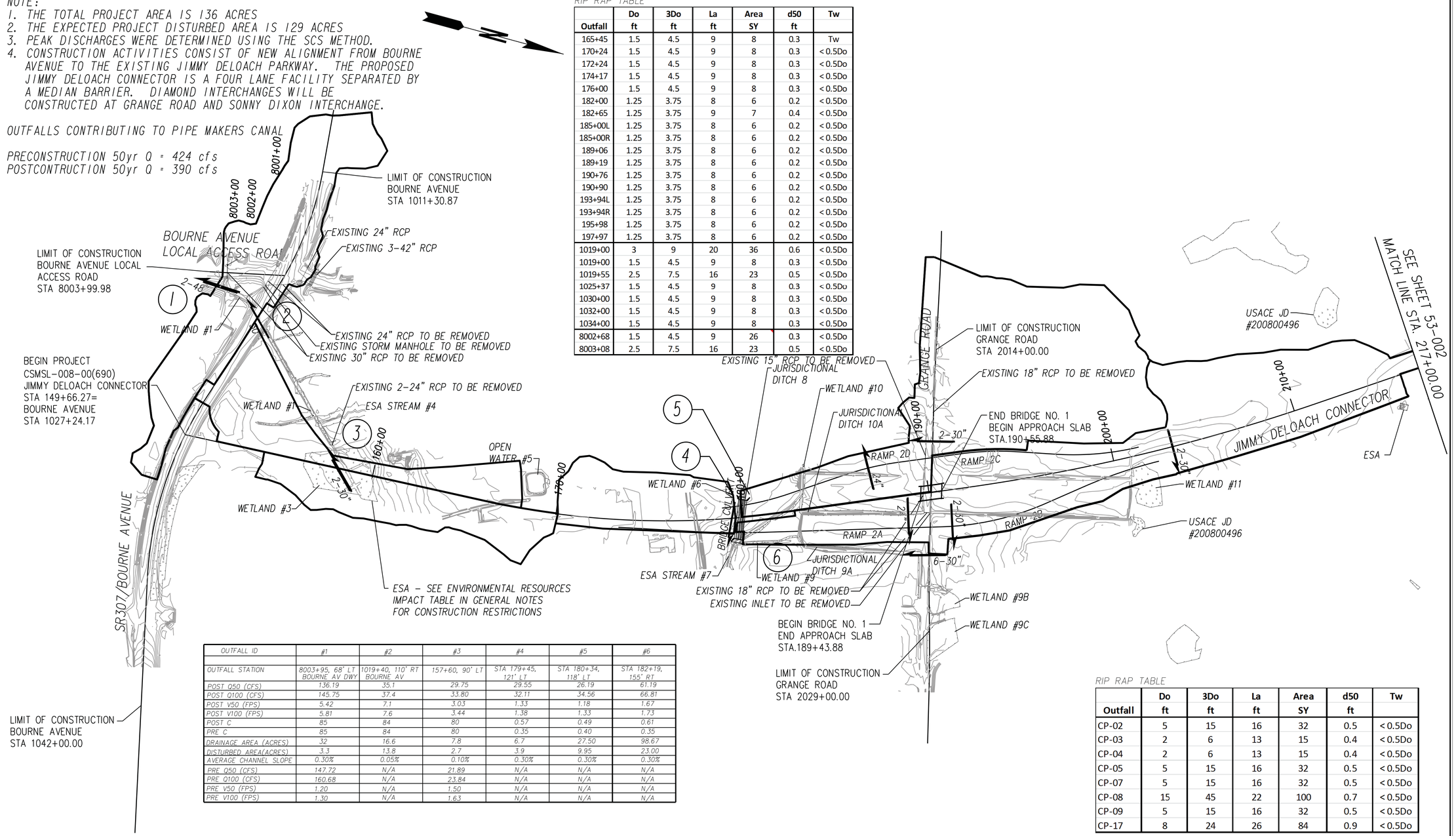
NOTE:
1. THE TOTAL PROJECT AREA IS 136 ACRES
2. THE EXPECTED PROJECT DISTURBED AREA IS 129 ACRES
3. PEAK DISCHARGES WERE DETERMINED USING THE SCS METHOD.
4. CONSTRUCTION ACTIVITIES CONSIST OF NEW ALIGNMENT FROM BOURNE AVENUE TO THE EXISTING JIMMY DELOACH PARKWAY. THE PROPOSED JIMMY DELOACH CONNECTOR IS A FOUR LANE FACILITY SEPARATED BY A MEDIAN BARRIER. DIAMOND INTERCHANGES WILL BE CONSTRUCTED AT GRANGE ROAD AND SONNY DIXON INTERCHANGE.

OUTFALLS CONTRIBUTING TO PIPE MAKERS CANAL

PRECONSTRUCTION 50yr Q = 424 cfs
POSTCONTRUCTION 50yr Q = 390 cfs

RIP RAP TABLE

Outfall	Do ft	3Do ft	La ft	Area SY	d50 ft	Tw
165+45	1.5	4.5	9	8	0.3	Tw
170+24	1.5	4.5	9	8	0.3	< 0.5Do
172+24	1.5	4.5	9	8	0.3	< 0.5Do
174+17	1.5	4.5	9	8	0.3	< 0.5Do
176+00	1.5	4.5	9	8	0.3	< 0.5Do
182+00	1.25	3.75	8	6	0.2	< 0.5Do
182+65	1.25	3.75	9	7	0.4	< 0.5Do
185+00L	1.25	3.75	8	6	0.2	< 0.5Do
185+00R	1.25	3.75	8	6	0.2	< 0.5Do
189+06	1.25	3.75	8	6	0.2	< 0.5Do
189+19	1.25	3.75	8	6	0.2	< 0.5Do
190+76	1.25	3.75	8	6	0.2	< 0.5Do
190+90	1.25	3.75	8	6	0.2	< 0.5Do
193+94L	1.25	3.75	8	6	0.2	< 0.5Do
193+94R	1.25	3.75	8	6	0.2	< 0.5Do
195+98	1.25	3.75	8	6	0.2	< 0.5Do
197+97	1.25	3.75	8	6	0.2	< 0.5Do
1019+00	3	9	20	36	0.6	< 0.5Do
1019+00	1.5	4.5	9	8	0.3	< 0.5Do
1019+55	2.5	7.5	16	23	0.5	< 0.5Do
1025+37	1.5	4.5	9	8	0.3	< 0.5Do
1030+00	1.5	4.5	9	8	0.3	< 0.5Do
1032+00	1.5	4.5	9	8	0.3	< 0.5Do
1034+00	1.5	4.5	9	8	0.3	< 0.5Do
8002+68	1.5	4.5	9	26	0.3	< 0.5Do
8003+08	2.5	7.5	16	23	0.5	< 0.5Do



OUTFALL ID	#1	#2	#3	#4	#5	#6
OUTFALL STATION	8003+95, 68' LT BOURNE AV DWY	1019+40, 110' RT BOURNE AV	157+60, 90' LT	STA 179+45, 121' LT	STA 180+34, 118' LT	STA 182+19, 155' RT
POST Q50 (CFS)	136.19	35.1	29.75	29.55	26.19	61.19
POST Q100 (CFS)	145.75	37.4	33.80	32.11	34.56	66.81
POST V50 (FPS)	5.42	7.1	3.03	1.33	1.18	1.67
POST V100 (FPS)	5.81	7.6	3.44	1.38	1.33	1.73
POST C	85	84	80	0.57	0.49	0.61
PRE C	85	84	80	0.35	0.40	0.35
DRAINAGE AREA (ACRES)	32	16.6	7.8	6.7	27.50	98.67
DISTURBED AREA(ACRES)	3.3	13.8	2.7	3.9	9.95	23.00
AVERAGE CHANNEL SLOPE	0.30%	0.05%	0.10%	0.30%	0.30%	0.30%
PRE Q50 (CFS)	147.72	N/A	21.89	N/A	N/A	N/A
PRE Q100 (CFS)	160.68	N/A	23.84	N/A	N/A	N/A
PRE V50 (FPS)	1.20	N/A	1.50	N/A	N/A	N/A
PRE V100 (FPS)	1.30	N/A	1.63	N/A	N/A	N/A

RIP RAP TABLE

Outfall	Do ft	3Do ft	La ft	Area SY	d50 ft	Tw
CP-02	5	15	16	32	0.5	< 0.5Do
CP-03	2	6	13	15	0.4	< 0.5Do
CP-04	2	6	13	15	0.4	< 0.5Do
CP-05	5	15	16	32	0.5	< 0.5Do
CP-07	5	15	16	32	0.5	< 0.5Do
CP-08	15	45	22	100	0.7	< 0.5Do
CP-09	5	15	16	32	0.5	< 0.5Do
CP-17	8	24	26	84	0.9	< 0.5Do

PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

BEGIN LIMIT OF ACCESS.....BLA
END LIMIT OF ACCESS.....ELA
LIMIT OF ACCESS
REQ'D R/W & LIMIT OF ACCESS

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 250 500 1000

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

ESPCP DRAINAGE AREA MAP
JIMMY DELOACH CONNECTOR

BEGIN TO
STA 217+00

DRAWING No. 53-001

1/5/2009

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	664	730

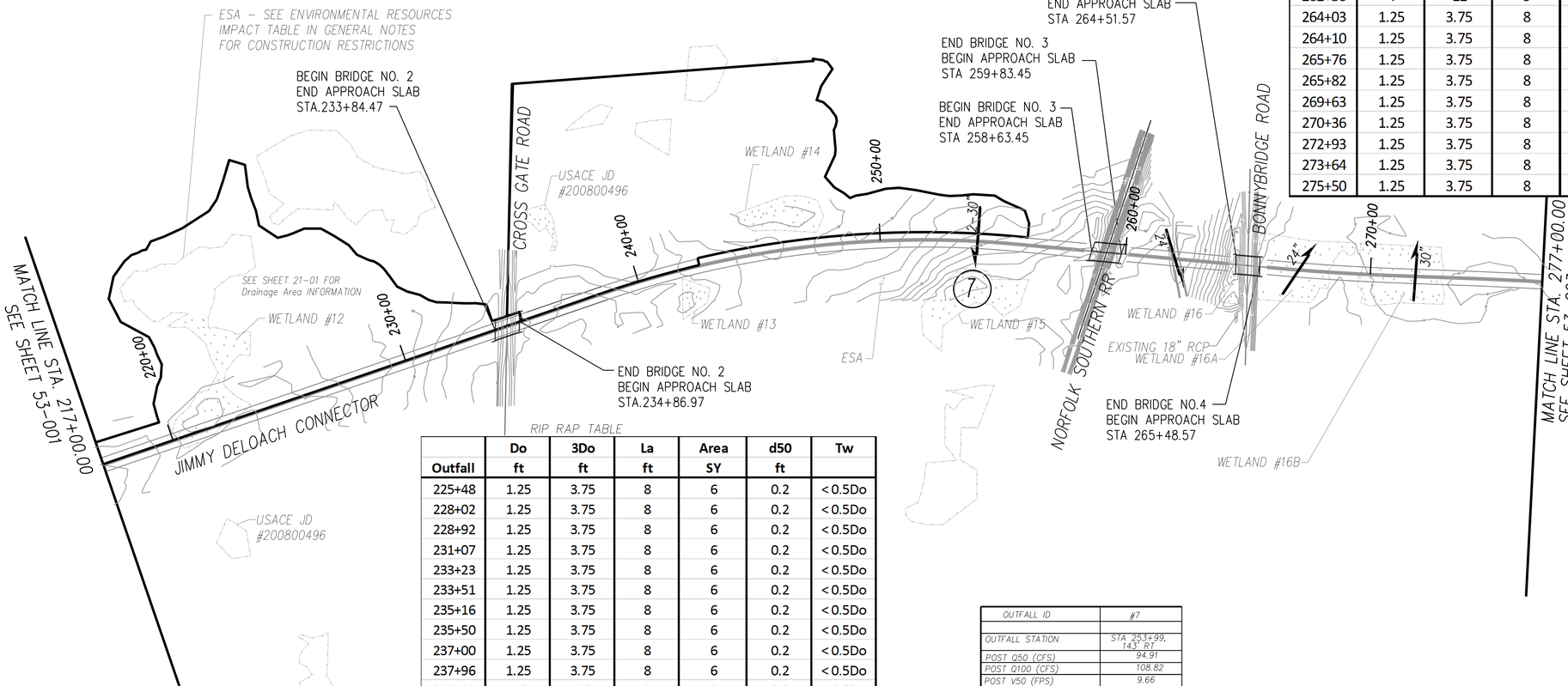
RELEASED FOR CONSTRUCTION - 07-23-13

RIP RAP TABLE

Outfall	Do ft	3Do ft	La ft	Area SY	d50 ft	Tw
CP-10	2.5	7.5	35	88	1.4	< 0.5Do
CP-11	1.25	3.75	13	13	0.4	< 0.5Do
CP-12	2	6	13	15	0.4	< 0.5Do
CP-13	2.5	7.5	16	23	0.5	< 0.5Do

RIP RAP TABLE

Outfall	Do ft	3Do ft	La ft	Area SY	d50 ft	Tw
256+00	1.25	3.75	8	6	0.2	< 0.5Do
256+28	1.5	4.5	9	8	0.3	< 0.5Do
258+03	1.25	3.75	9	7	0.3	< 0.5Do
258+38	1.5	4.5	8	6	0.2	< 0.5Do
260+28	1.25	3.75	8	6	0.2	< 0.5Do
260+47	1.25	3.75	8	6	0.2	< 0.5Do
262+00	4	12	9	13	0.3	< 0.5Do
262+50	4	12	9	13	0.3	< 0.5Do
264+03	1.25	3.75	8	6	0.2	< 0.5Do
264+10	1.25	3.75	8	6	0.2	< 0.5Do
265+76	1.25	3.75	8	6	0.2	< 0.5Do
265+82	1.25	3.75	8	6	0.2	< 0.5Do
269+63	1.25	3.75	8	6	0.2	< 0.5Do
270+36	1.25	3.75	8	6	0.2	< 0.5Do
272+93	1.25	3.75	8	6	0.2	< 0.5Do
273+64	1.25	3.75	8	6	0.2	< 0.5Do
275+50	1.25	3.75	8	6	0.2	< 0.5Do



RIP RAP TABLE

Outfall	Do ft	3Do ft	La ft	Area SY	d50 ft	Tw
225+48	1.25	3.75	8	6	0.2	< 0.5Do
228+02	1.25	3.75	8	6	0.2	< 0.5Do
228+92	1.25	3.75	8	6	0.2	< 0.5Do
231+07	1.25	3.75	8	6	0.2	< 0.5Do
233+23	1.25	3.75	8	6	0.2	< 0.5Do
233+51	1.25	3.75	8	6	0.2	< 0.5Do
235+16	1.25	3.75	8	6	0.2	< 0.5Do
235+50	1.25	3.75	8	6	0.2	< 0.5Do
237+00	1.25	3.75	8	6	0.2	< 0.5Do
237+96	1.25	3.75	8	6	0.2	< 0.5Do
240+21	1.5	4.5	9	8	0.3	< 0.5Do
242+54L	1.5	4.5	9	8	0.3	< 0.5Do
242+54R	1.25	3.75	8	6	0.2	< 0.5Do
244+46	1.5	4.5	9	8	0.3	< 0.5Do
246+15	1.25	3.75	8	6	0.2	< 0.5Do
247+48	1.5	4.5	9	8	0.3	< 0.5Do
249+52	1.25	3.75	8	6	0.2	< 0.5Do
252+50	1.25	3.75	8	6	0.2	< 0.5Do
253+00	1.5	4.5	9	8	0.3	< 0.5Do
255+50	4	12	9	13	0.3	< 0.5Do

OUTFALL ID	#7
OUTFALL STATION	STA 253+99, 143' RT
POST Q50 (CFS)	94.91
POST Q100 (CFS)	108.82
POST V50 (FPS)	9.66
POST V100 (FPS)	11.37
POST C	0.42
PRE C	0.35
DRAINAGE AREA (ACRES)	27.4
DISTURBED AREA(ACRES)	12.50
AVERAGE CHANNEL SLOPE	4.07%
PRE Q50 (CFS)	N/A
PRE Q100 (CFS)	N/A
PRE V50 (FPS)	N/A
PRE V100 (FPS)	N/A

PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

BEGIN LIMIT OF ACCESS.....BLA
END LIMIT OF ACCESS.....ELA
LIMIT OF ACCESS
REQ'D R/W & LIMIT OF ACCESS

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(770) 263-9118

SCALE IN FEET
0 250 500 1000

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

ESPCP DRAINAGE AREA MAP
JIMMY DELOACH CONNECTOR

STA 217+00 TO
STA 277+00

DRAWING No. 53-002

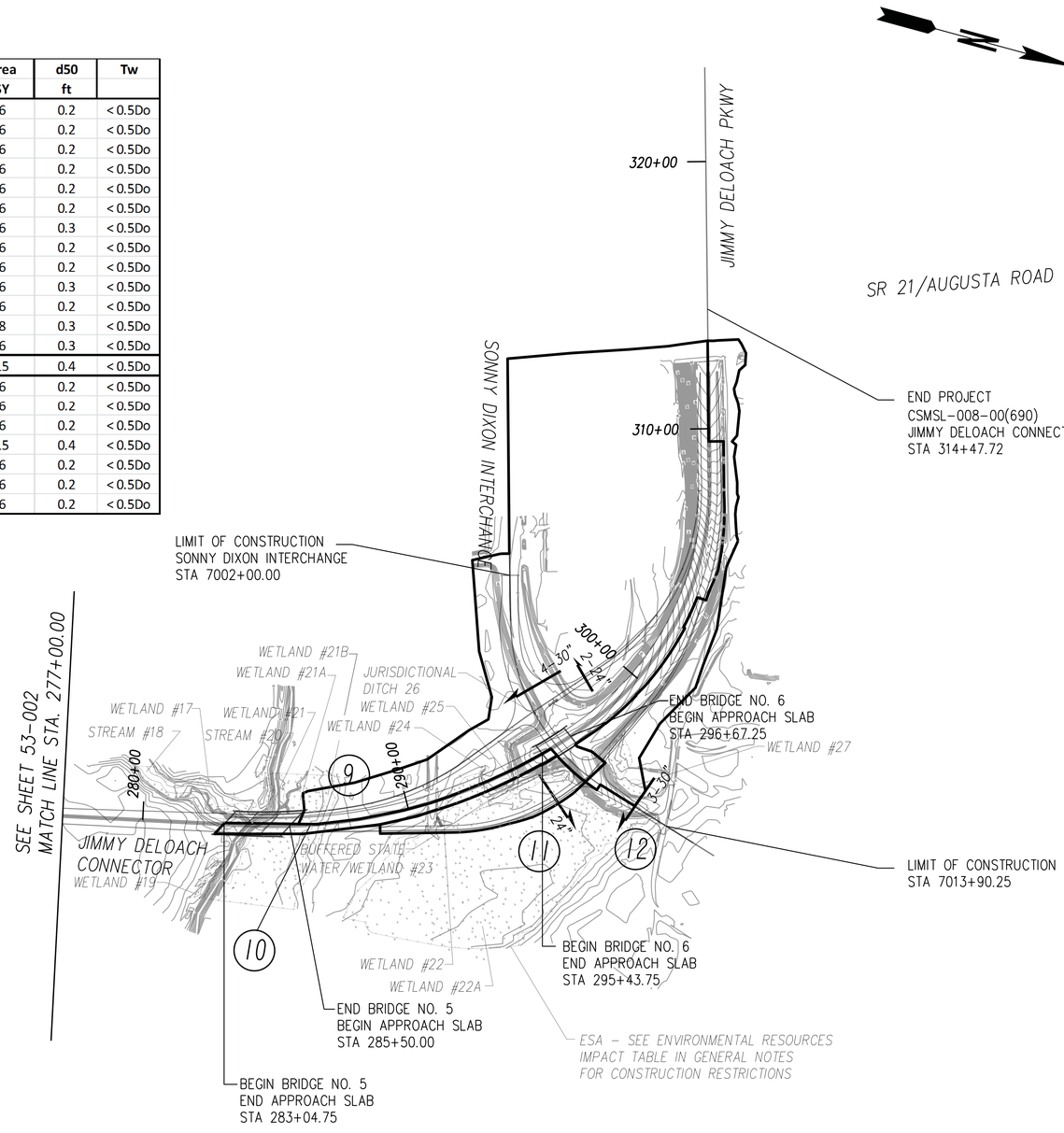
1/5/2009

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	665	730

RELEASED FOR CONSTRUCTION - 07-23-13

RIP RAP TABLE

Outfall	Do ft	3Do ft	La ft	Area SY	d50 ft	Tw
277+68	1.25	3.75	8	6	0.2	< 0.5Do
277+80	1.25	3.75	8	6	0.2	< 0.5Do
280+04	1.25	3.75	8	6	0.2	< 0.5Do
280+17	1.25	3.75	8	6	0.2	< 0.5Do
282+30	1.25	3.75	8	6	0.2	< 0.5Do
283+21	1.25	3.75	8	6	0.2	< 0.5Do
286+26	1.5	4.5	8	6	0.3	< 0.5Do
286+27	1.25	3.75	8	6	0.2	< 0.5Do
296+96	1.25	3.75	8	6	0.2	< 0.5Do
299+00	1.5	4.5	8	6	0.3	< 0.5Do
300+00	1.25	3.75	8	6	0.2	< 0.5Do
301+50	1.5	4.5	9	8	0.3	< 0.5Do
303+87	1.5	4.5	8	6	0.3	< 0.5Do
5201+00	2	6	13	15	0.4	< 0.5Do
6102+50	1.25	3.75	8	6	0.2	< 0.5Do
6104+50	1.25	3.75	8	6	0.2	< 0.5Do
6106+50	1.25	3.75	8	6	0.2	< 0.5Do
6201+70	2	6	13	15	0.4	< 0.5Do
6201+95	1.25	3.75	8	6	0.2	< 0.5Do
6205+00	1.25	3.75	8	6	0.2	< 0.5Do
6207+70	1.25	3.75	8	6	0.2	< 0.5Do



STRUCTURE ID	#9	#10
OUTFALL STATION	STA 286+00 120' LT	STA 286+30 105' RT
POST Q50 (CFS)	98.30	13.87
POST Q100 (CFS)	109.68	15.07
POST V50 (FPS)	4.70	0.68
POST V100 (FPS)	5.28	0.70
POST C	0.59	0.95
PRE C	0.48	0.38
DRAINAGE AREA (ACRES)	23.5	1.9
DISTURBED AREA(ACRES)	15.60	1.9
AVERAGE CHANNEL SLOPE	0.30%	0.33%
PRE Q50 (CFS)	N/A	N/A
PRE Q100 (CFS)	N/A	N/A
PRE V50 (FPS)	N/A	N/A
PRE V100 (FPS)	N/A	N/A

STRUCTURE ID	#11	#12
OUTFALL STATION	STA 5109+00,70'RT RAMP 3A	STA 7012+50,60'RT SONNY DIXON
POST Q50 (CFS)	11.83	89.62
POST Q100 (CFS)	13.56	102.60
POST V50 (FPS)	3.76	7.62
POST V100 (FPS)	10.79	8.18
POST C	0.49	0.44
PRE C	0.36	0.43
DRAINAGE AREA (ACRES)	2.7	4.5
DISTURBED AREA(ACRES)	2.7	2.7
AVERAGE CHANNEL SLOPE	0.41%	0.44%
PRE Q50 (CFS)	8.94	N/A
PRE Q100 (CFS)	9.61	N/A
PRE V50 (FPS)	1.80	N/A
PRE V100 (FPS)	1.90	N/A

RIP RAP TABLE

Outfall	Do ft	3Do ft	La ft	Area SY	d50 ft	Tw
CP-14	10	30	26	95	0.9	< 0.5Do
CP-15	7.5	22.5	16	41	0.5	< 0.5Do
CP-20	2	6	13	15	0.4	< 0.5Do
CP-21	6	18	13	27	0.4	< 0.5Do

OUTFALLS CONTRIBUTING TO SAVANNAH RIVER

PRECONSTRUCTION 50yr Q = 702 cfs
POSTCONTRUCTION 50yr Q = 713 cfs

PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

BEGIN LIMIT OF ACCESS.....BLA
END LIMIT OF ACCESS.....ELA
LIMIT OF ACCESS
REQ'D R/W & LIMIT OF ACCESS

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 250 500 1000

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

ESPCP DRAINAGE AREA MAP
JIMMY DELOACH CONNECTOR

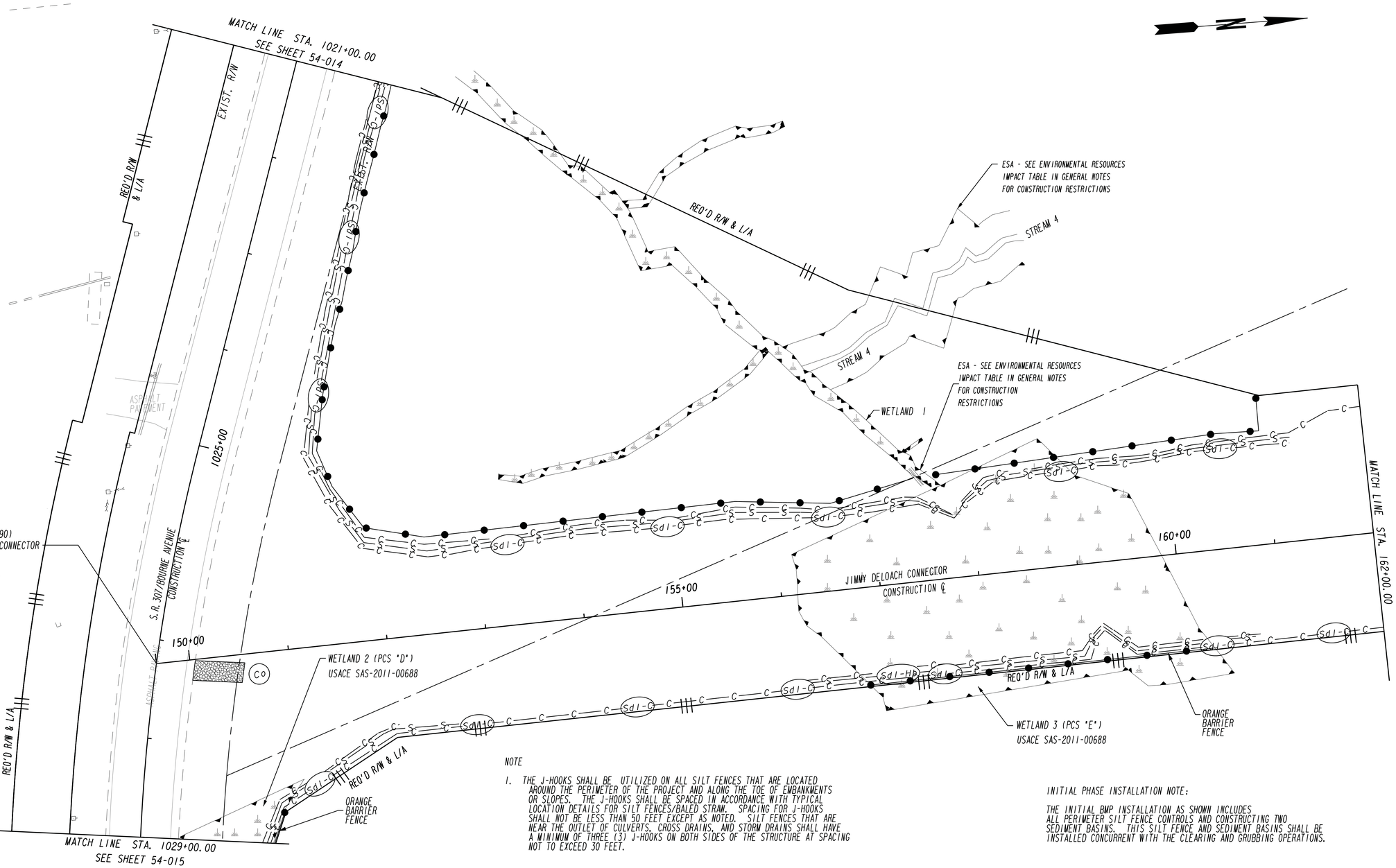
STA 277+00
TO END

DRAWING No. 53-003

1/5/2009

24-JUL-2013 08:52	8:52:26 AM	0008690_54-001	Y:\Roadways\126379\0008690\Dgn\0008690_54-001.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	666	730

RELEASED FOR CONSTRUCTION - 07-23-13



NOTE

1. THE J-HOOKS SHALL BE UTILIZED ON ALL SILT FENCES THAT ARE LOCATED AROUND THE PERIMETER OF THE PROJECT AND ALONG THE TOE OF EMBANKMENTS OR SLOPES. THE J-HOOKS SHALL BE SPACED IN ACCORDANCE WITH TYPICAL LOCATION DETAILS FOR SILT FENCES/BALED STRAW. SPACING FOR J-HOOKS SHALL NOT BE LESS THAN 50 FEET EXCEPT AS NOTED. SILT FENCES THAT ARE NEAR THE OUTLET OF CULVERTS, CROSS DRAINS, AND STORM DRAINS SHALL HAVE A MINIMUM OF THREE (3) J-HOOKS ON BOTH SIDES OF THE STRUCTURE AT SPACING NOT TO EXCEED 30 FEET.

INITIAL PHASE INSTALLATION NOTE:

THE INITIAL BMP INSTALLATION AS SHOWN INCLUDES ALL PERIMETER SILT FENCE CONTROLS AND CONSTRUCTING TWO SEDIMENT BASINS. THIS SILT FENCE AND SEDIMENT BASINS SHALL BE INSTALLED CONCURRENT WITH THE CLEARING AND GRUBBING OPERATIONS.

LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

BMP LOCATION DETAILS
INITIAL STAGE

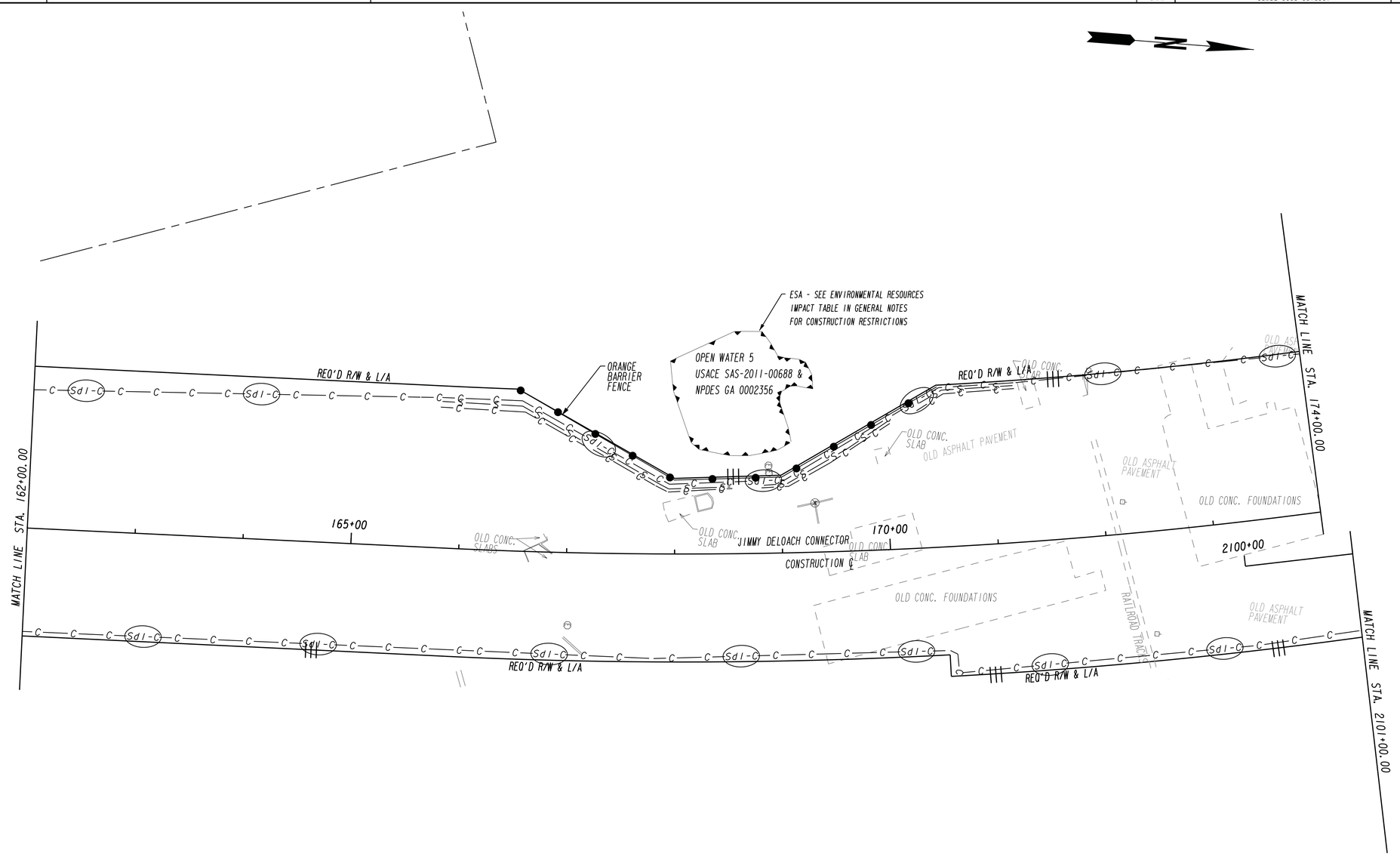
JIMMY DELOACH CONNECTOR
BEGIN TO STA. 162+00

DRAWING No. 54-001

3/11/2007 GPLN

24-JUL-2013 08:52	8:52:33 AM	0008690_54-002	Y:\Roadways\126379\0008690\Dgn\0008690_54-002.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	667	730

RELEASED FOR CONSTRUCTION - 07-23-13



LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

3/11/2007 GPLN

THE LPA GROUP
TRANSPORTATION CONSULTANTS
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SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

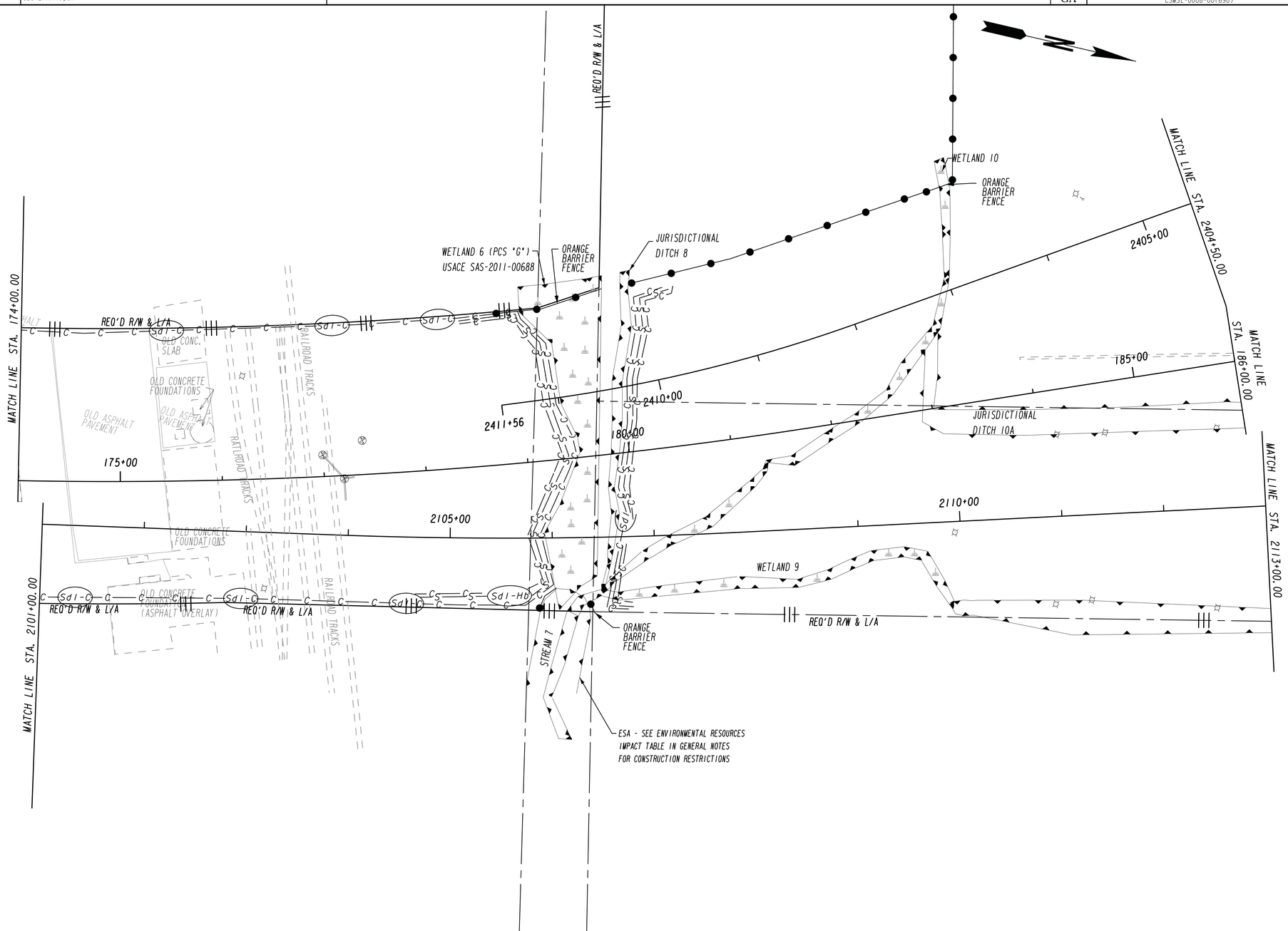
BMP LOCATION DETAILS
INITIAL STAGE

JIMMY DELOACH CONNECTOR
STA. 162+00 TO STA. 174+00

DRAWING No. 54-002

24-JUL-2013 08:52	8:52:39 AM	0008690_54-003	Y:\Roadways\126379\0008690\Dgn\0008690_54-003.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	668	730

RELEASED FOR CONSTRUCTION - 07-23-13



LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

3/1/2007 GPLN

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
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NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

BMP LOCATION DETAILS
INITIAL STAGE

JIMMY DELOACH CONNECTOR
STA. 174+00 TO STA. 186+00

DRAWING No. 54-003

24-JUL-2013 08:52 JParks	8:52:45 AM	0008690_54-004 GDOT_11x17.pen	Y:\Roadways\126379\0008690\Dgn\0008690_54-004.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
				GA	CSMSL-0008-00(690)	669	730

RELEASED FOR CONSTRUCTION - 07-23-13

MATCH LINE STA. 2019+00.00
SEE SHEET 54-016

MATCH LINE STA. 2404+50.00

MATCH LINE STA. 2113+00.00

MATCH LINE STA. 2302+50.00

MATCH LINE STA. 199+00.00

MATCH LINE STA. 2209+50.00

MATCH LINE STA. 2027+00.00
SEE SHEET 54-017

P.C. 2401+86.96

P.C. 2306+51.94

P.C. 191+53.94

P.C. 2204+61.86

P.C. 2024+42.37

P.T. 2309+52.74

P.T. 2304+47.39

P.T. 2206+35.72

P.C. 2208+51.99

CONSTRUCTION ℄ RAMP 2D CURVE 5

CONSTRUCTION ℄ RAMP 2C CURVE 6

CONSTRUCTION ℄ RAMP 2C CURVE 9

CONSTRUCTION ℄ CURVE 11

JIMMY DELOACH CONNECTOR CONSTRUCTION ℄ CURVE 10

CONSTRUCTION ℄ RAMP 2A

CONSTRUCTION ℄ RAMP 2B CURVE

GRANGE ROAD CONSTRUCTION ℄ CURVE 8

REQ'D R/W & L/A

4' WOVEN WIRE, 2 STRAND BARB

RISER PIPE D-36"

RISER PIPE D-48"

Sd3 - BASIN

Sd1 - C

St - Rd

Rt

Mb

Co

JURISDICTIONAL DITCH 10A

JURISDICTIONAL DITCH 9A

WETLAND 9B

END WOVEN WIRE FENCE, STA. 2027+20

S 22°00'33.4" E

S 10°32'32.4" E

N 22°01'04.1" W

N 15°59'06.1" W

N 37°54'17.1" W

CONC. PAVING STRIP

CONC. PAVING

ASPHALT PAVING

CONC. SLAB

CONC. BLK. PLANTERS

CONC. BLOCK WALL FOR EQUIPMENT AREAS

CONC. CURB & GUTTER

CONC. LOADING RAMP

SEPTIC TANK

GAS PUMPS

GAS PUMP SHUT OFF SWITCH

FUEL STORAGE TANK

ELEC. PANEL

ELEC. BOX

ELEC. BOX

G.V.

G.V.

G.V.

LIGHT POLE TYP.

LIGHT POLE

OFFICE TRAILER

OFFICE TRAILER

OFFICE TRAILER

SAN'L C.O.

GAS METER

W.M.

LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

3/1/2007 GPLN

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SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
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OFFICE: INNOVATIVE PROGRAM DELIVERY

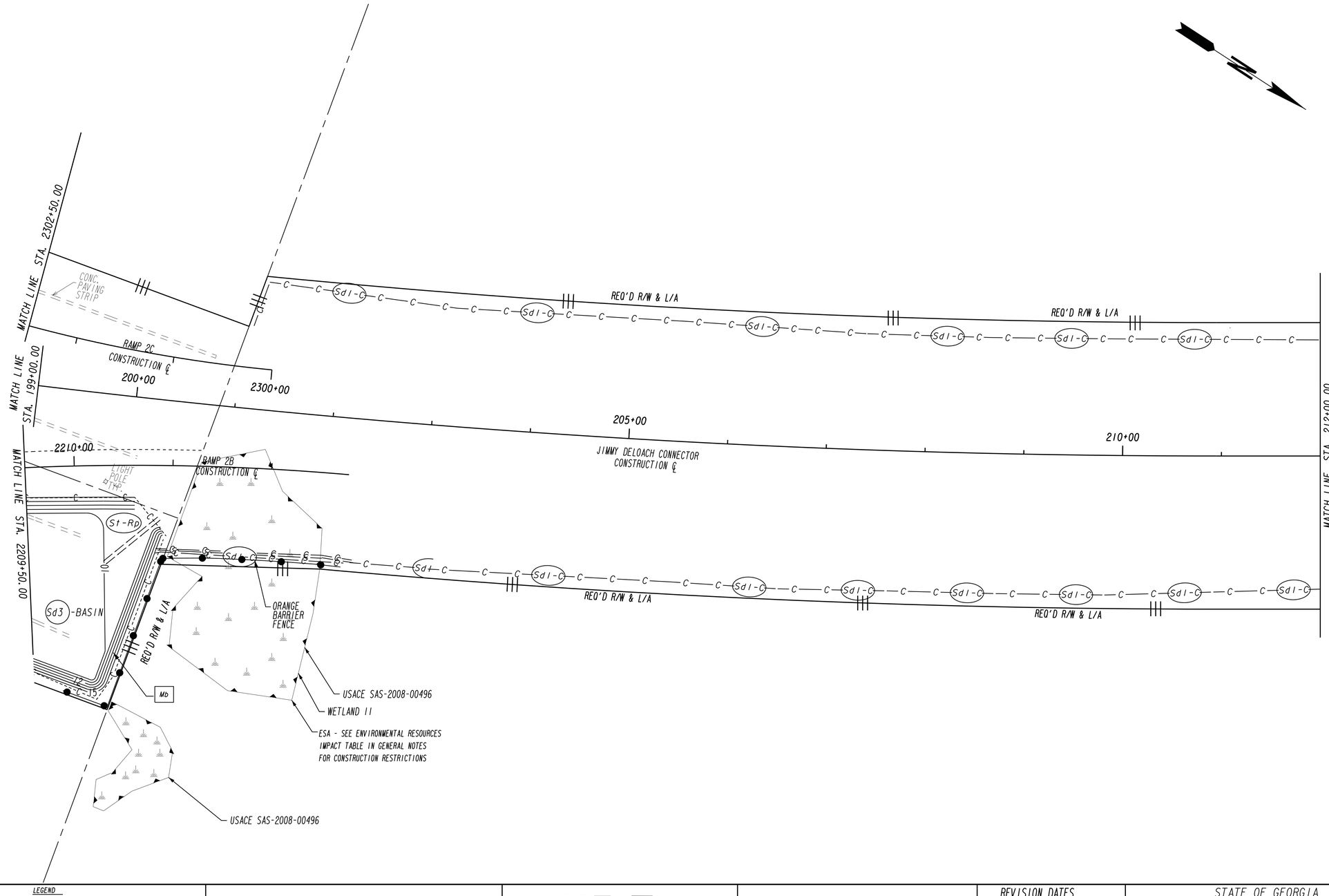
BMP LOCATION DETAILS
INITIAL STAGE

JIMMY DELOACH CONNECTOR
STA. 186+00 TO STA. 199+00

DRAWING No. 54-004

24-JUL-2013 08:52	8:52:53 AM	0008690_54-005	Y:\Roadways\126379\0008690\Dgn\0008690_54-005.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	670	730

RELEASED FOR CONSTRUCTION - 07-23-13



LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

BMP LOCATION DETAILS
INITIAL STAGE

JIMMY DELOACH CONNECTOR
STA. 199+00 TO STA. 212+00

DRAWING No. 54-005

3/11/2007 GPLN

24-JUL-2013 08:52	8:52:58 AM	0008690_54-006	Y:\Roadways\126379\0008690\Dgn\0008690_54-006.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
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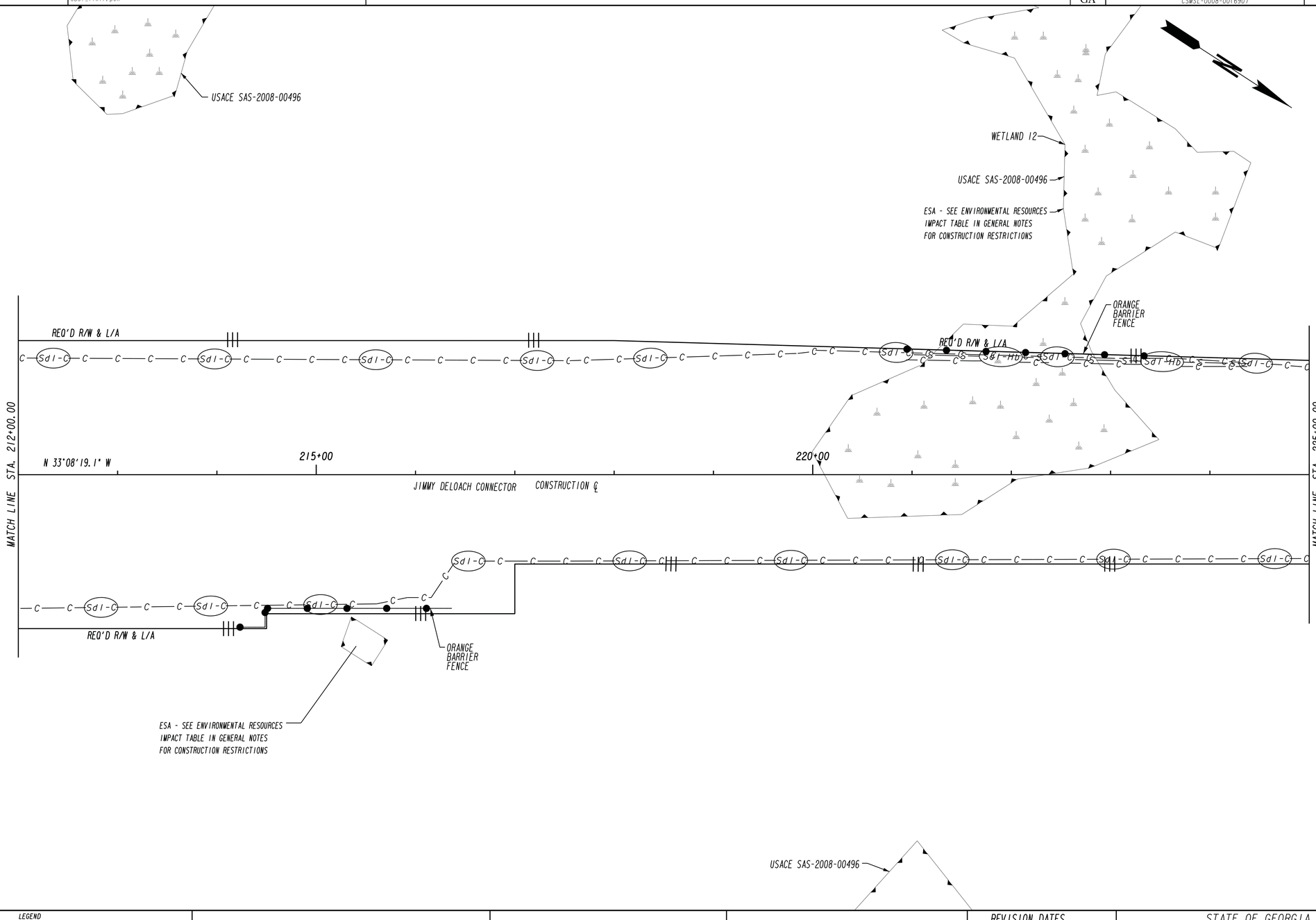
RELEASED FOR CONSTRUCTION - 07-23-13



LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

THE LPA GROUP
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(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

BMP LOCATION DETAILS
INITIAL STAGE

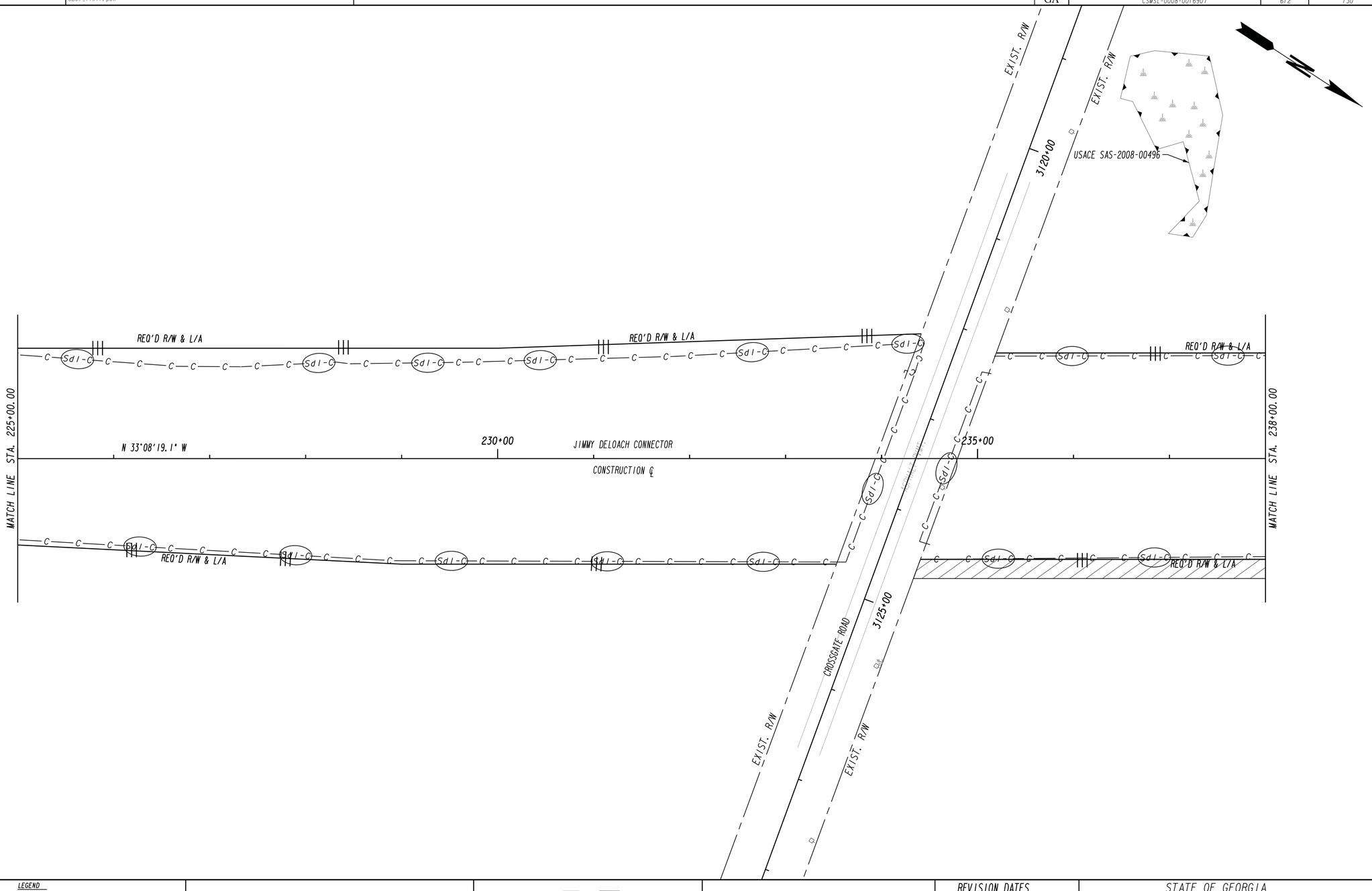
JIMMY DELOACH CONNECTOR
STA. 212+00 TO STA. 225+00

DRAWING No. 54-006

3/1/2007 GPLN

24-JUL-2013 08:54	8:54:17 AM	0008690_54-007	Y:\Roadways\126379\0008690\Dgn\0008690_54-007.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	672	730

RELEASED FOR CONSTRUCTION - 07-23-13



LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

THE LPA GROUP
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3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

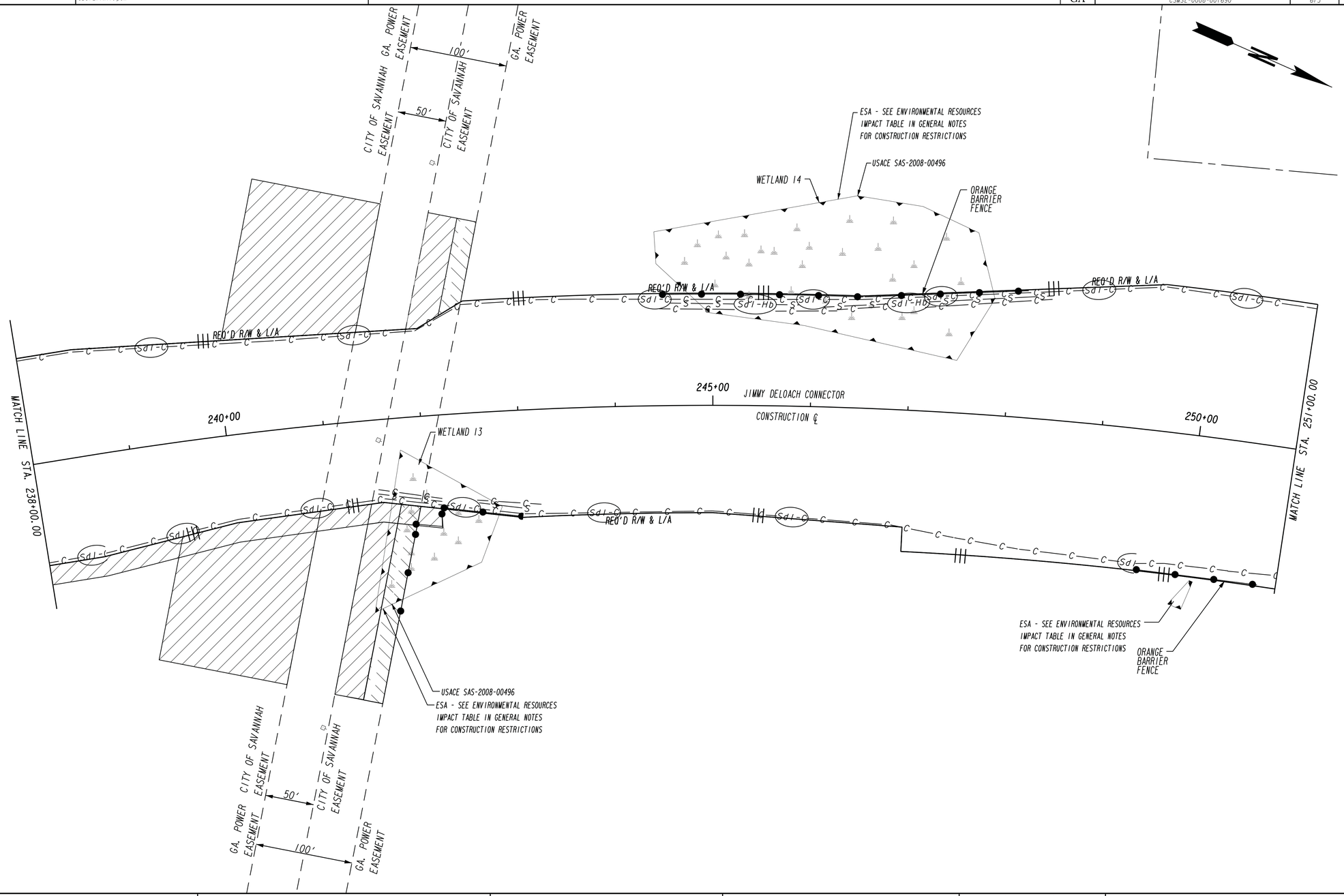
BMP LOCATION DETAILS
INITIAL STAGE
JIMMY DELOACH CONNECTOR
STA. 225+00 TO STA. 238+00

DRAWING No. 54-007

3/11/2007 GPLN

24-JUL-2013 08:54	8:54:22 AM	0008690_54-008	Y:\Roadways\126379\0008690\Dgn\0008690_54-008.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-001690	673	730

RELEASED FOR CONSTRUCTION - 07-23-13



LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

3/1/2007 GPLN

THE LPA GROUP
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(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

BMP LOCATION DETAILS
INITIAL STAGE

JIMMY DELOACH CONNECTOR
STA. 238+00 TO STA. 251+00

DRAWING No. 54-008

24-JUL-2013 08:54	8:54:28 AM	0008690_54-009	Y:\Roadways\126379\0008690\Dgn\0008690_54-009.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	674	730

RELEASED FOR CONSTRUCTION - 07-23-13

JIMMY DELOACH CONNECTOR
STA. 259+23.45 ±
NORFOLK SOUTHERN RAILROAD
STA. 14+30.30
RR W.P. PW 1.50
N 784660.0107
E 962750.2938

50' 100 50'

REQ'D R/W & L/A

CENTRAL OF GEORGIA RAILROAD COMPANY

MATCH LINE STA. 251+00.00

255+00

JIMMY DELOACH CONNECTOR CONSTRUCTION ℄

260+00

EXIST. RAILROAD R/W

15+00

MATCH LINE STA. 263+00.00

REQ'D R/W & L/A

ORANGE BARRIER FENCE

WETLAND 15

150' GEORGIA POWER EASEMENT

SOUTHERN NATURAL GAS EASEMENT

USACE SAS-2008-00496

ESA - SEE ENVIRONMENTAL RESOURCES IMPACT TABLE IN GENERAL NOTES FOR CONSTRUCTION RESTRICTIONS

RAILROAD TRACKS

LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
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- OPEN LANES OF TRAFFIC

3/1/2007 GPLN

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SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

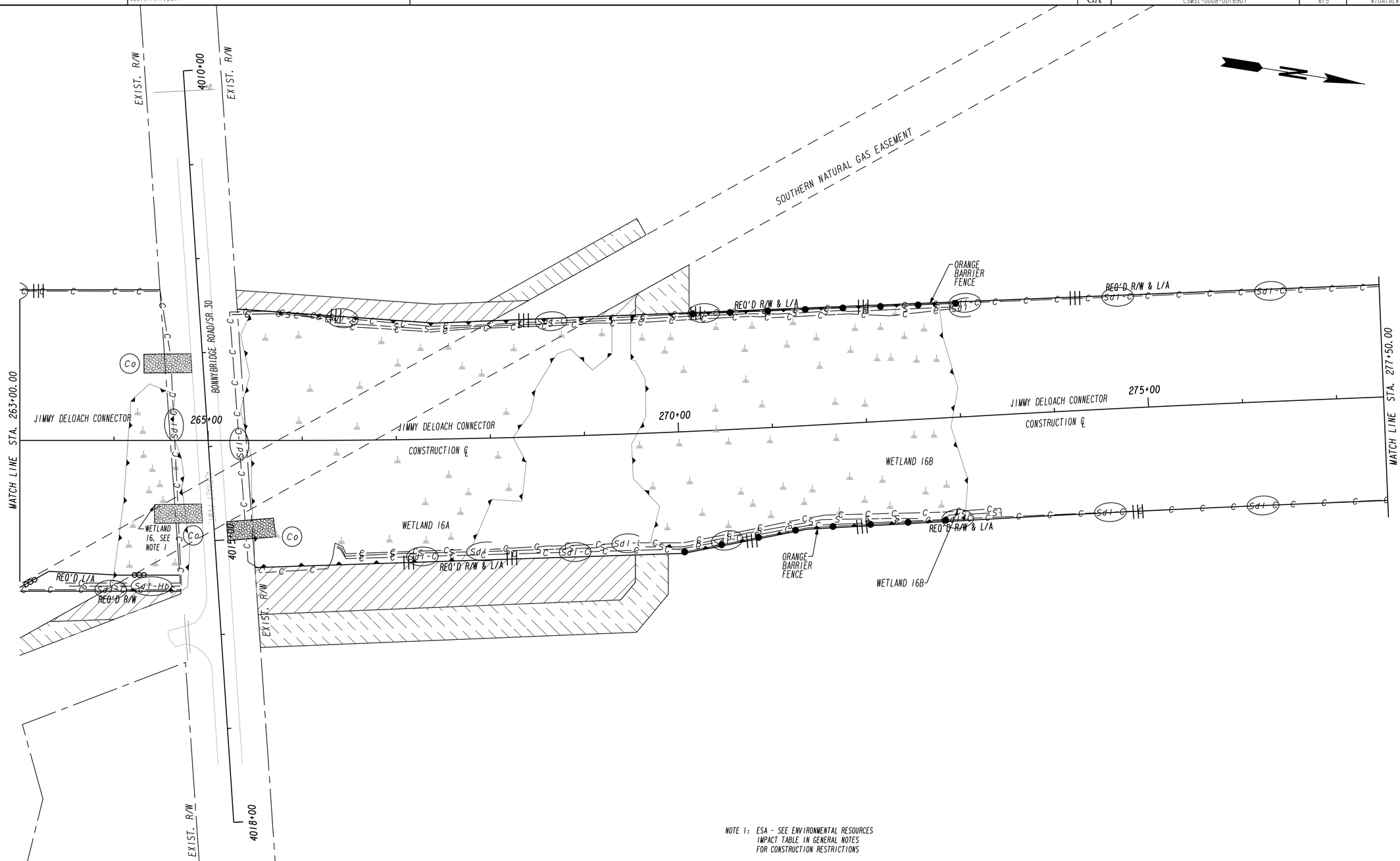
BMP LOCATION DETAILS
INITIAL STAGE

JIMMY DELOACH CONNECTOR
STA. 251+00 TO STA. 263+00

DRAWING No. 54-009

24-JUL-2013 08:54 JParks	8:54:35 AM	0008690_54-010 GDOT_11x17.pen	Y:\Roadways\126379\0008690\Dgn\0008690_54-010.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
				GA	CSMSL-0008-00(690)	675	#TOATAL#

RELEASED FOR CONSTRUCTION - 07-23-13



NOTE 1: ESA - SEE ENVIRONMENTAL RESOURCES IMPACT TABLE IN GENERAL NOTES FOR CONSTRUCTION RESTRICTIONS

LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

THE LPA GROUP
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(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

BMP LOCATION DETAILS
INITIAL STAGE
JIMMY DELOACH CONNECTOR
STA. 263+00 TO STA. 277+00

DRAWING No. 54-010

3/1/2007 GPLN

24-JUL-2013 08:54	8:54:41 AM	0008690_54-011	Y:\Roadways\126379\0008690\Dgn\0008690_54-011.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	676	730

RELEASED FOR CONSTRUCTION - 07-23-13

ESA - SEE ENVIRONMENTAL RESOURCES IMPACT TABLE IN GENERAL NOTES FOR CONSTRUCTION RESTRICTIONS

WETLAND 17

ESA - SEE ENVIRONMENTAL RESOURCES IMPACT TABLE IN GENERAL NOTES FOR CONSTRUCTION RESTRICTIONS

WETLAND 21

ORANGE BARRIER FENCE

MATCH LINE STA. 6205+00.00

REQ'D R/W & L/A

CONSTRUCTION ℄ RAMP 3D

EARTH DRIVE

290+00

MATCH LINE STA. 2911+00.00

REQ'D R/W & L/A

STREAM 18

MATCH LINE STA. 5104+50.00

MATCH LINE STA. 277+50.00

280+00

JIMMY DELOACH CONNECTOR

CONSTRUCTION ℄

285+00

6210+00

WETLAND 21A

WETLAND 21B

5100+00

RAMP 3A CONSTRUCTION ℄

STREAM 20

REQ'D R/W & L/A

REQ'D R/W & L/A

ORANGE BARRIER FENCE

WETLAND 19

ESA - SEE ENVIRONMENTAL RESOURCES IMPACT TABLE IN GENERAL NOTES FOR CONSTRUCTION RESTRICTIONS

WETLAND 22A

ESA - SEE ENVIRONMENTAL RESOURCES IMPACT TABLE IN GENERAL NOTES FOR CONSTRUCTION RESTRICTIONS

LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
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- OPEN LANES OF TRAFFIC

THE LPA GROUP
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(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

BMP LOCATION DETAILS
INITIAL STAGE

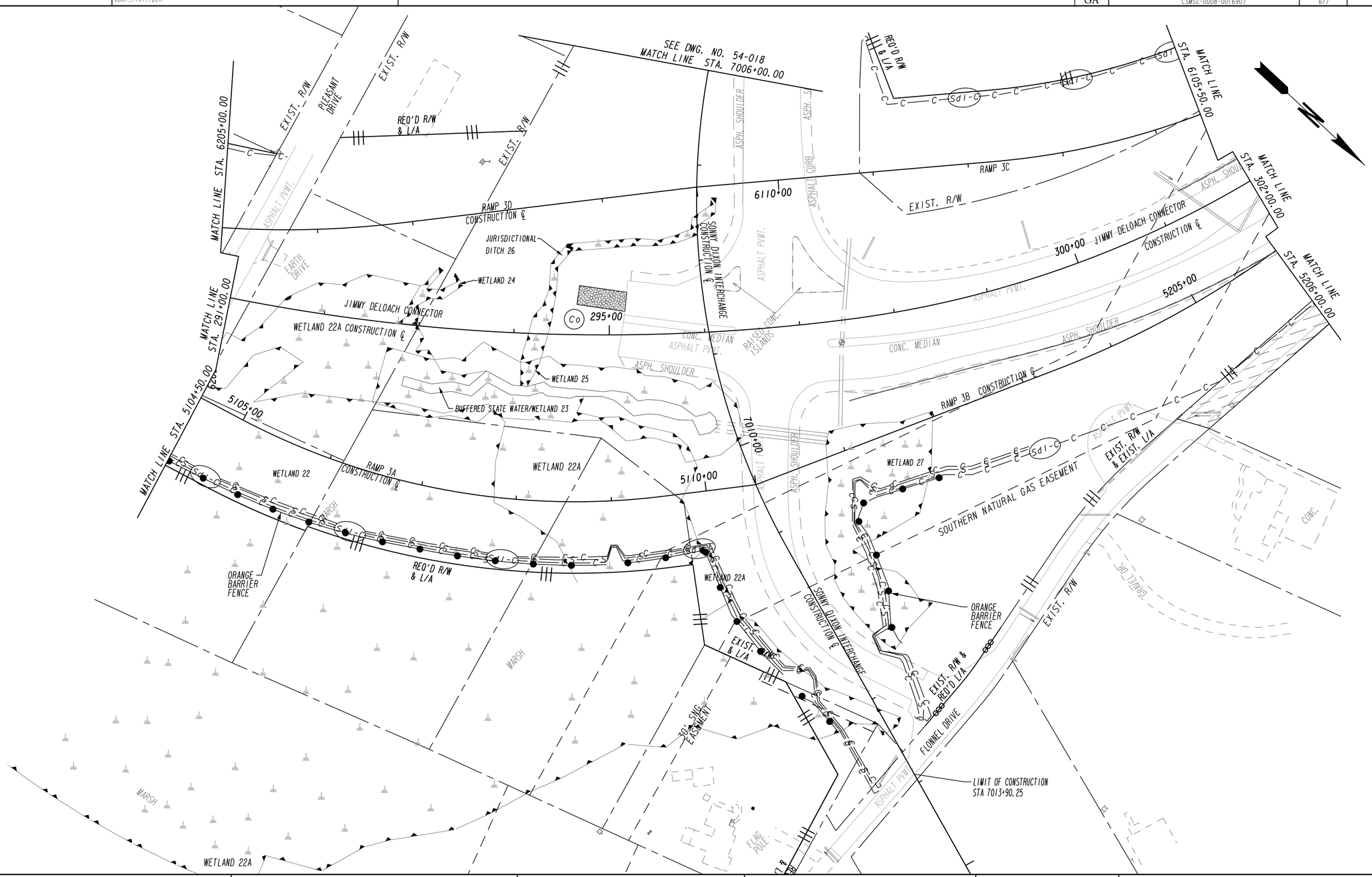
JIMMY DELOACH CONNECTOR
STA. 277+50 TO STA. 291+00

DRAWING No. 54-011

3/1/2007 GPLN

24-JUL-2013 08:54	8:54:48 AM	0008690_54-012	Y:\Roadways\126379\0008690\Dgn\0008690_54-012.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	677	730

RELEASED FOR CONSTRUCTION - 07-23-13



LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

3/1/2007 GPLN

THE LPA GROUP
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(770) 263-9118

SCALE IN FEET
0 50 100 200

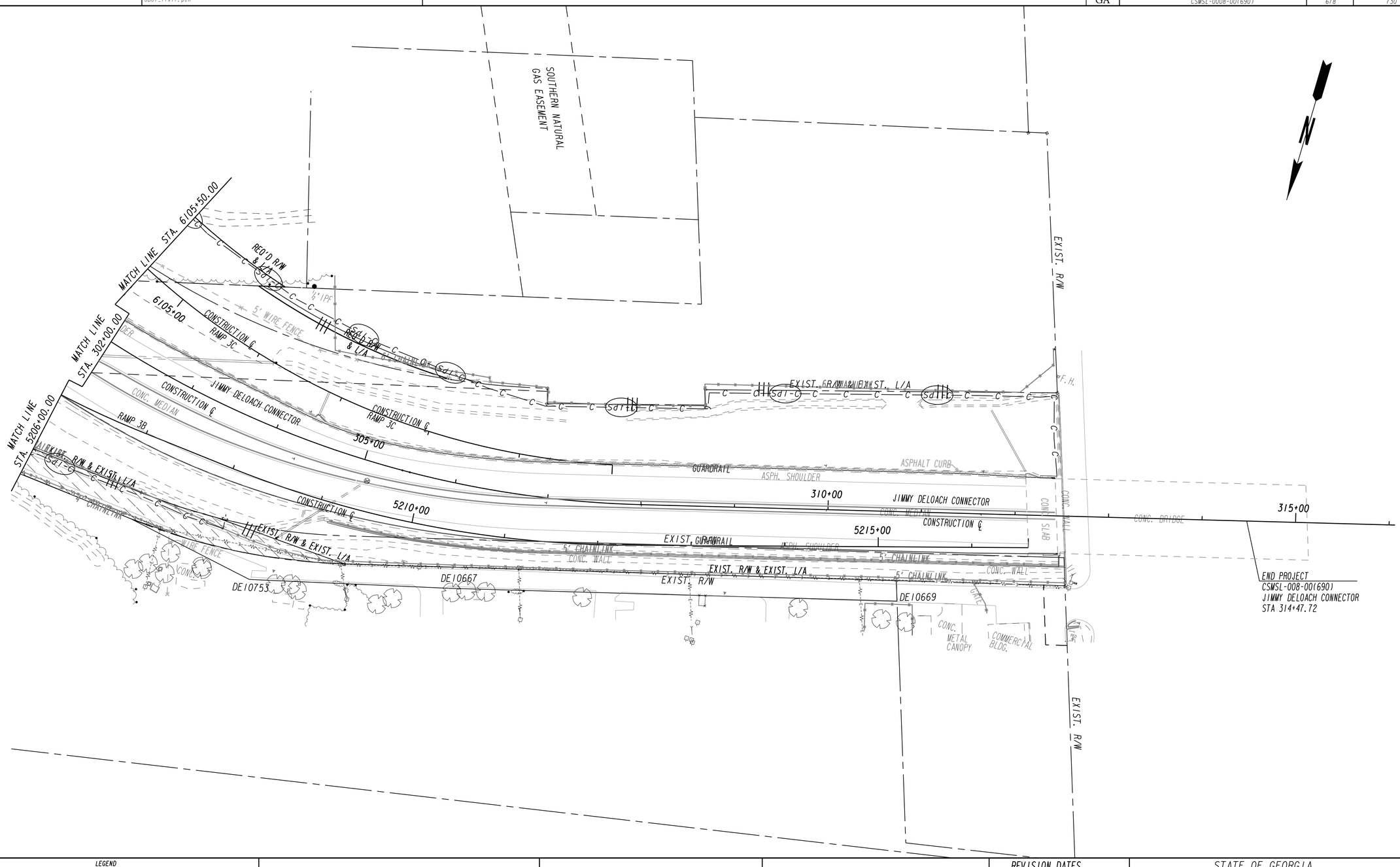
REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

BMP LOCATION DETAILS
INITIAL STAGE
JIMMY DELOACH CONNECTOR
STA. 291+00 TO STA. 302+00

DRAWING No. 54-012

RELEASED FOR CONSTRUCTION - 07-23-13



LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
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- OPEN LANES OF TRAFFIC

3/1/2007 GPLN

THE LPA GROUP
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A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

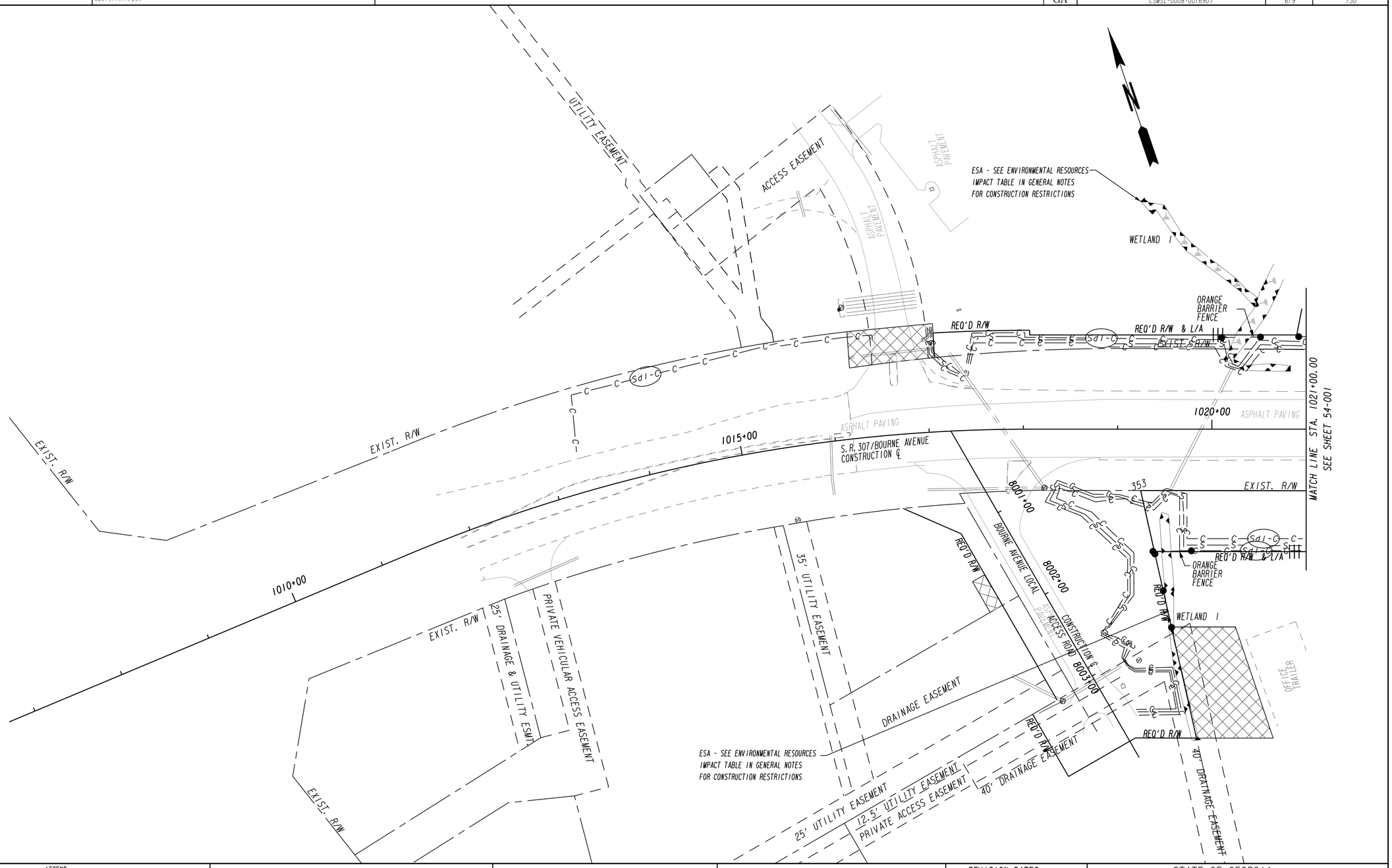
REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

BMP LOCATION DETAILS
INITIAL STAGE
JIMMY DELOACH CONNECTOR
STA. 302+00 TO END PROJECT

DRAWING No. 54-013

RELEASED FOR CONSTRUCTION - 07-23-13



LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
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THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
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NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

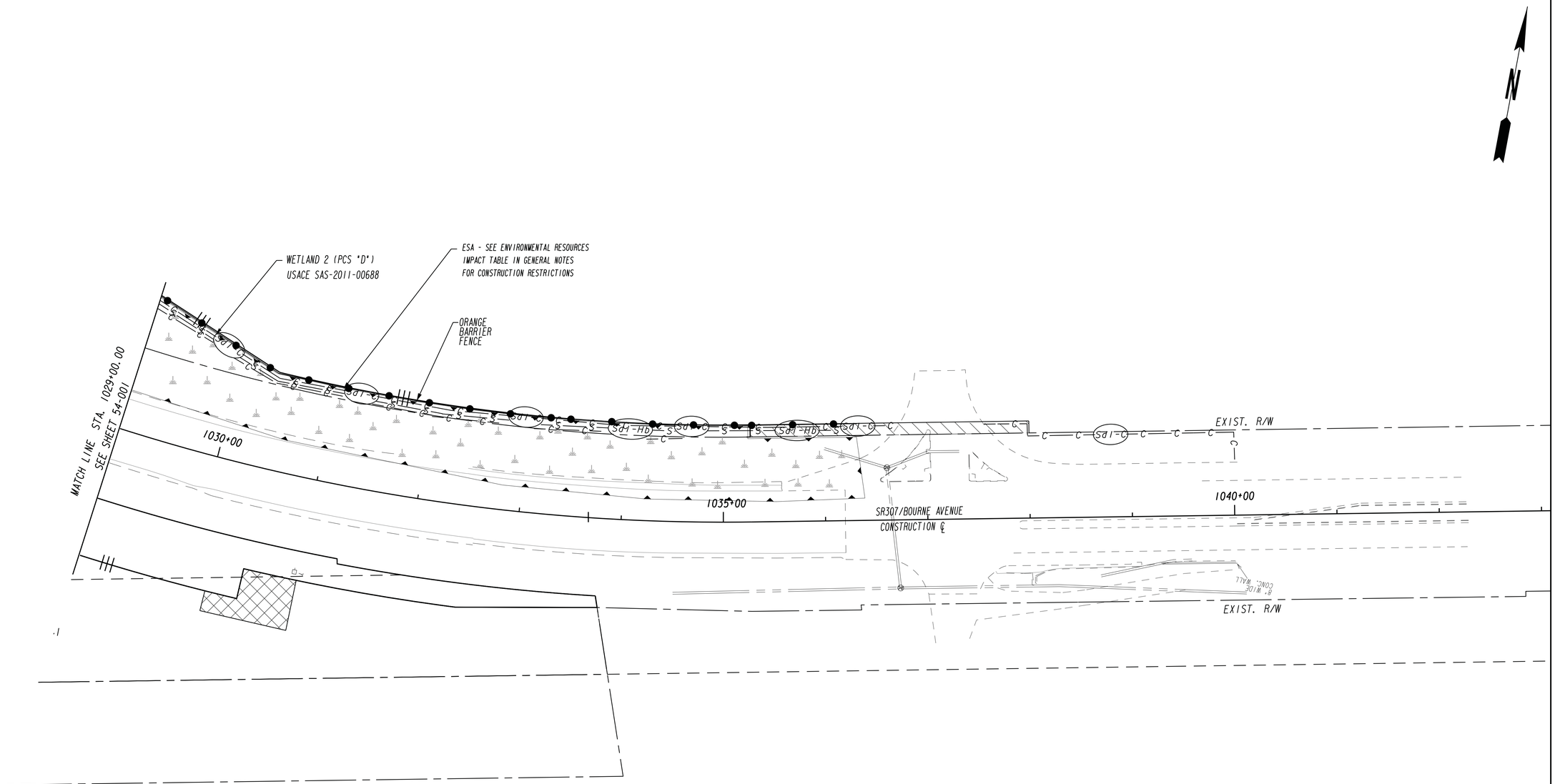
BMP LOCATION DETAILS
INITIAL STAGE
BOURNE AVENUE
BEGIN CONST. TO STA. 1021+00

DRAWING No. 54-014

3/1/2007 GPLN

24-JUL-2013 08:55	8:55:07 AM	0008690_54-015	Y:\Roadways\126379\0008690\Dgn\0008690_54-015.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	680	730

RELEASED FOR CONSTRUCTION - 07-23-13



LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
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3/1/2007 GPLN

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SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

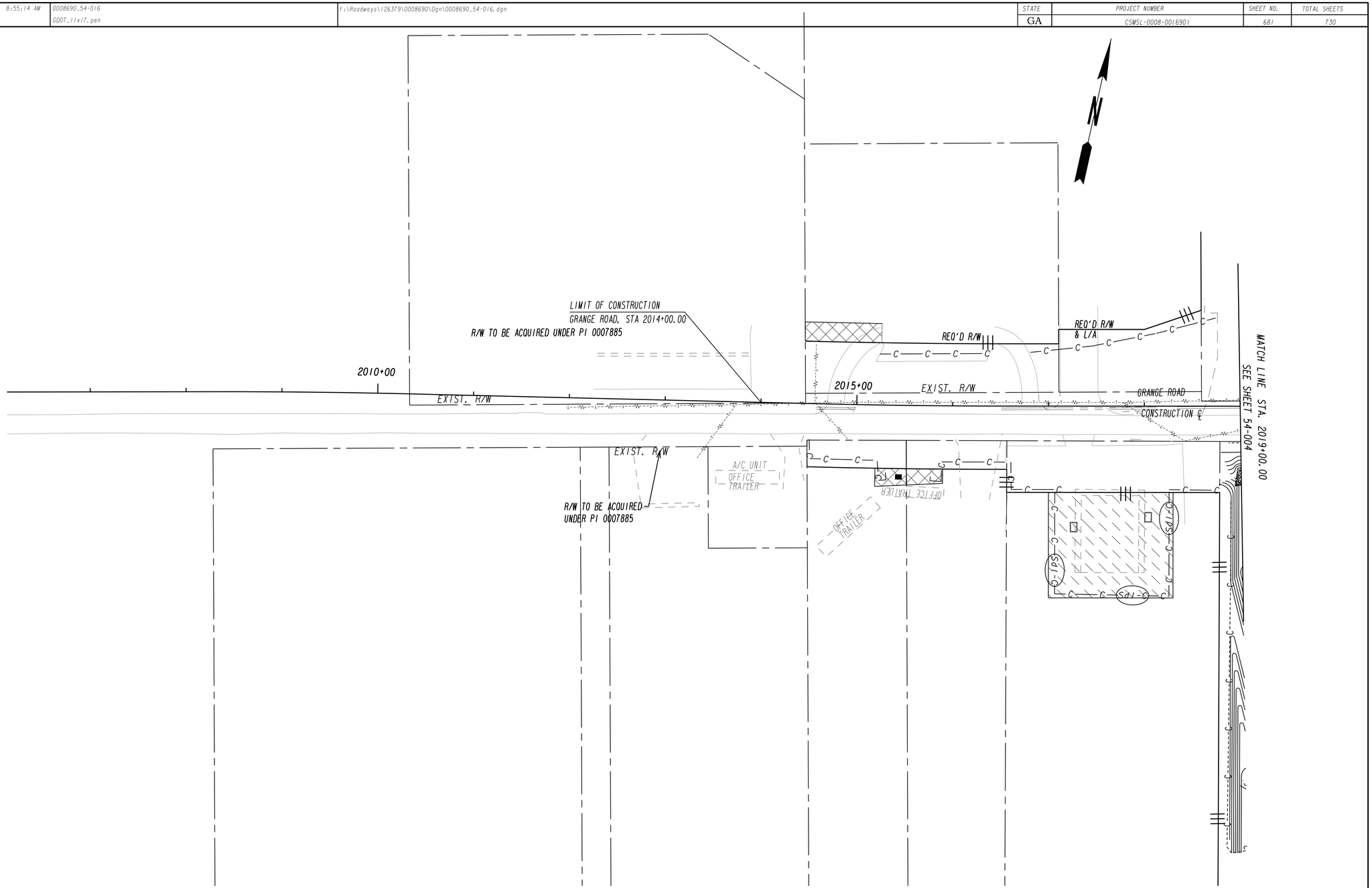
BMP LOCATION DETAILS
INITIAL STAGE

BOURNE AVENUE
STA. 1029+00 TO END CONST.

DRAWING No. 54-015

24-JUL-2013 08:55	8:55:14 AM	0008690_54-016	Y:\Roadways\126379\0008690\Dgn\0008690_54-016.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	681	730

RELEASED FOR CONSTRUCTION - 07-23-13



LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
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- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

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(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
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BMP LOCATION DETAILS
INITIAL STAGE

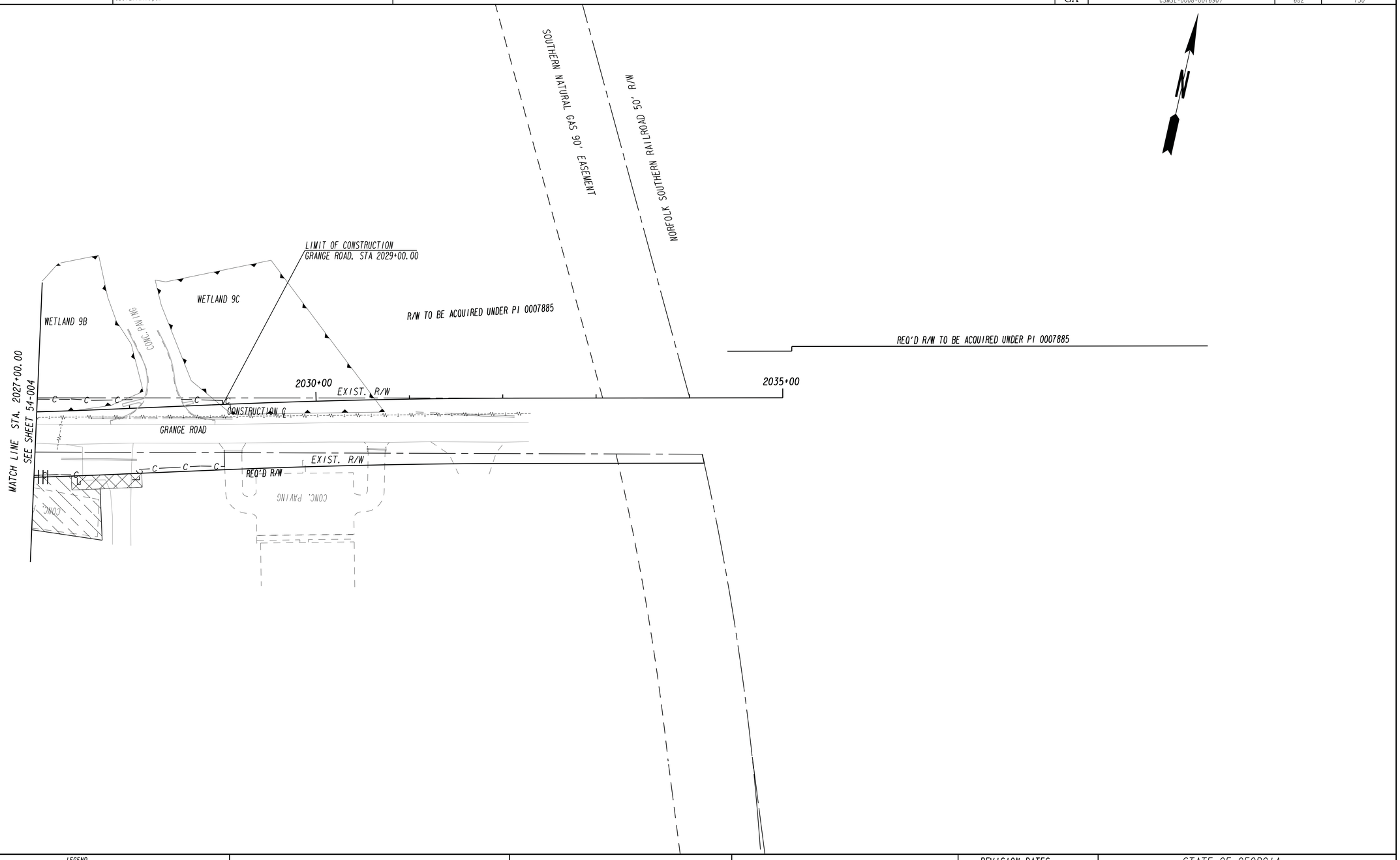
GRANGE ROAD
BEGIN CONST. TO STA. 2019+00

DRAWING No. 54-016

3/1/2007 GPLN

24-JUL-2013 08:56	8:56:24 AM	0008690_54-017	Y:\Roadways\126379\0008690\Dgn\0008690_54-017.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	682	730

RELEASED FOR CONSTRUCTION - 07-23-13



LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

THE LPA GROUP
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(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

BMP LOCATION DETAILS
INITIAL STAGE

GRANGE ROAD
STA. 2027+00 TO END CONST.

DRAWING No. 54-017

3/1/2007 GPLN

24-JUL-2013 08:56 8:56:30 AM JParks	0008690_54-018 GDOT_11x17.pen	Y:\Roadways\126379\0008690\Dgn\0008690_54-018.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
			GA	CSMSL-0008-00(690)	683	730

RELEASED FOR CONSTRUCTION - 07-23-13

LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
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3/1/2007 GPLN

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(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
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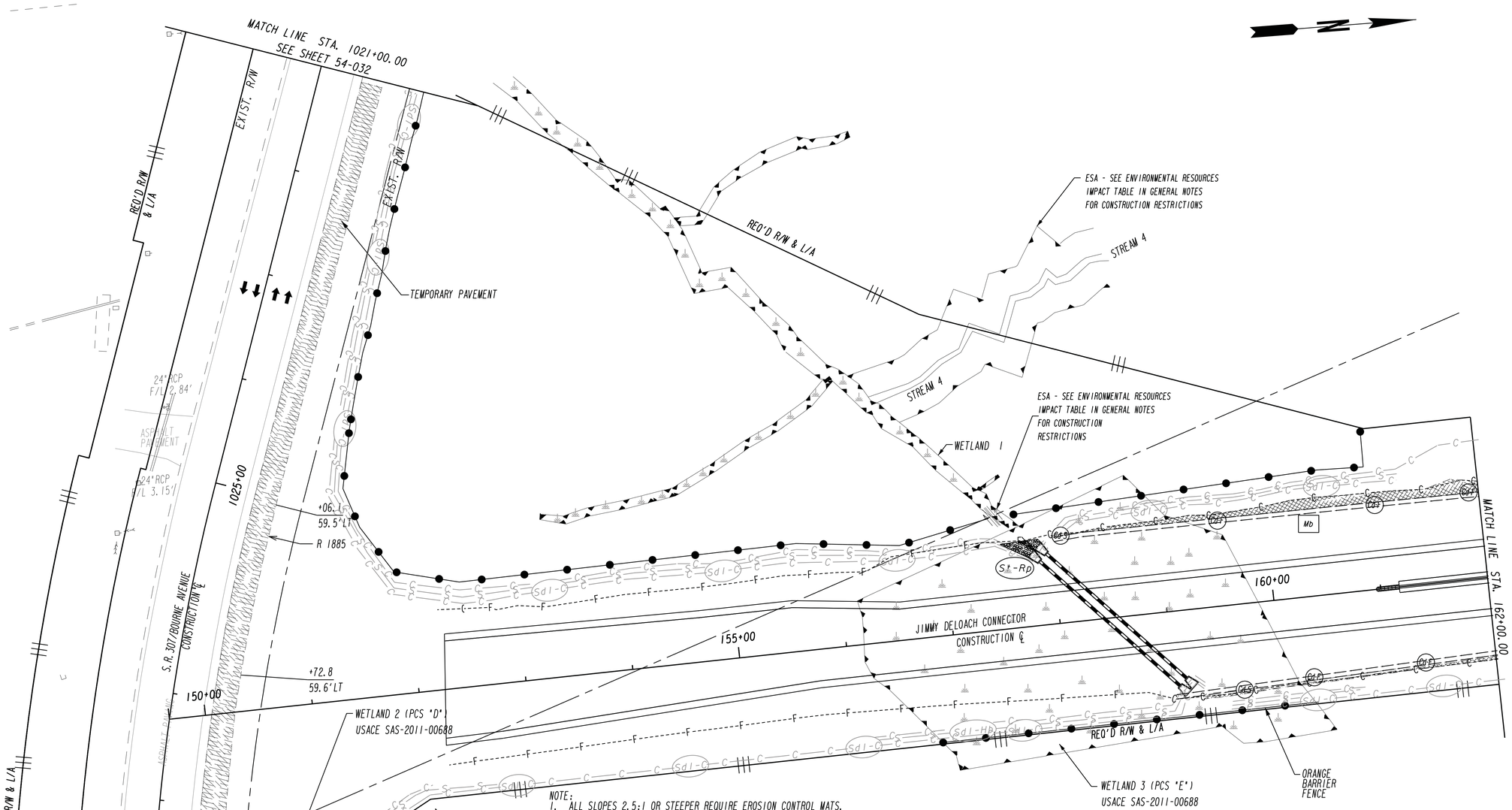
BMP LOCATION DETAILS
INITIAL STAGE

SONNY DIXON INTERCHANGE
BEGIN CONST. TO STA. 7006+00

DRAWING No. 54-018

RELEASED FOR CONSTRUCTION - 07-23-13



NOTE:
1. ALL SLOPES 2.5:1 OR STEEPER REQUIRE EROSION CONTROL MATS.
2. TEMPORARY SLOPE DRAINS TO BE PLACED AT INTERVALS OF 500' ON A 0 TO 2 PERCENT GRADE AND SPACED 200' FOR STEEPER GRADES AS NEEDED.
3. THE J-HOOKS SHALL BE UTILIZED ON ALL SILT FENCES THAT ARE LOCATED AROUND THE PERIMETER OF THE PROJECT AND ALONG THE TOE OF EMBANKMENTS OR SLOPES. THE J-HOOKS SHALL BE SPACED IN ACCORDANCE WITH TYPICAL LOCATION DETAILS FOR SILT FENCES/BALED STRAW. SPACING FOR J-HOOKS SHALL NOT BE LESS THAN 50 FEET EXCEPT AS NOTED. SILT FENCES THAT ARE NEAR THE OUTLET OF CULVERTS, CROSS DRAINS, AND STORM DRAINS SHALL HAVE A MINIMUM OF THREE (3) J-HOOKS ON BOTH SIDES OF THE STRUCTURE AT SPACING NOT TO EXCEED 30 FEET.
4. EARTHEN BERMS TO BE CONSTRUCTED AT HIGH FILLS AT SHOULDER BREAKPOINT AND USED IN CONJUNCTION WITH SLOPE DRAIN PIPE.

STAGE 1 INSTALLATION NOTE:

INTERMEDIATE AND FINAL BMP'S ARE SHOWN ON STAGE 1. THESE BMP'S SHALL BE INSTALLED CONCURRENTLY WITH MASS GRADING OPERATIONS WITH THE EXCEPTION OF THE CHECK DAMS, INLET TRAPS, AND SILT GATES, WHICH SHOULD BE INSTALLED PRIOR TO MASS GRADING OPERATIONS IF POSSIBLE. DURING MASS GRADING OPERATIONS, RUNOFF FROM DISTURBED AREAS MUST BE DIRECTED TO SEDIMENT CONTROL BMP'S. EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.

LEGEND

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THE LPA GROUP
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SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
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BMP LOCATION DETAILS STAGE 1

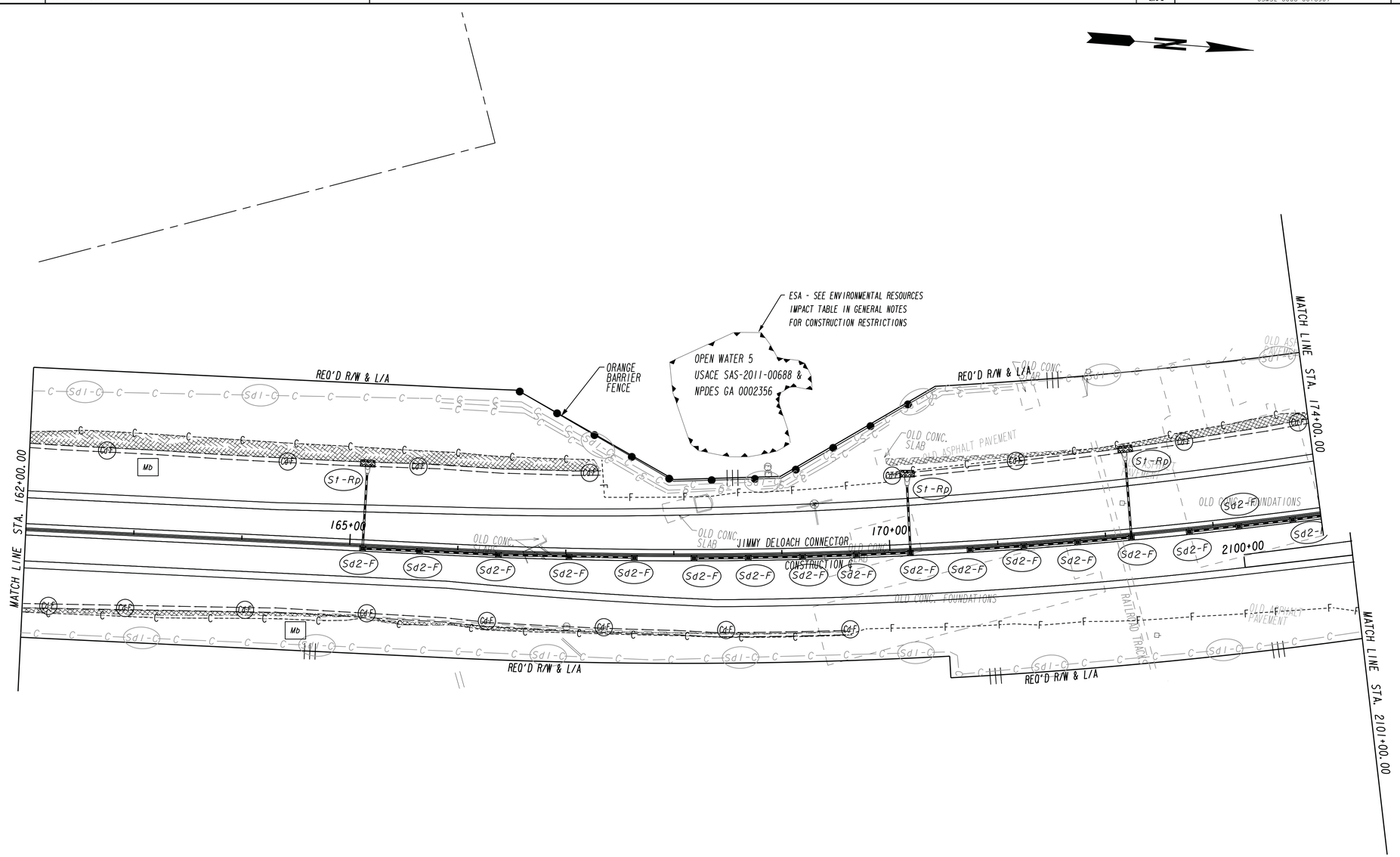
JIMMY DELOACH CONNECTOR
BEGIN TO STA. 162+00

DRAWING No. 54-019

3/11/2007 GPLN

24-JUL-2013 08:56	8:56:47 AM	0008690_54-021	Y:\Roadways\126379\0008690\Dgn\0008690_54-021.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	685	730

RELEASED FOR CONSTRUCTION - 07-23-13



LEGEND

- PAVEMENT REMOVAL
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STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

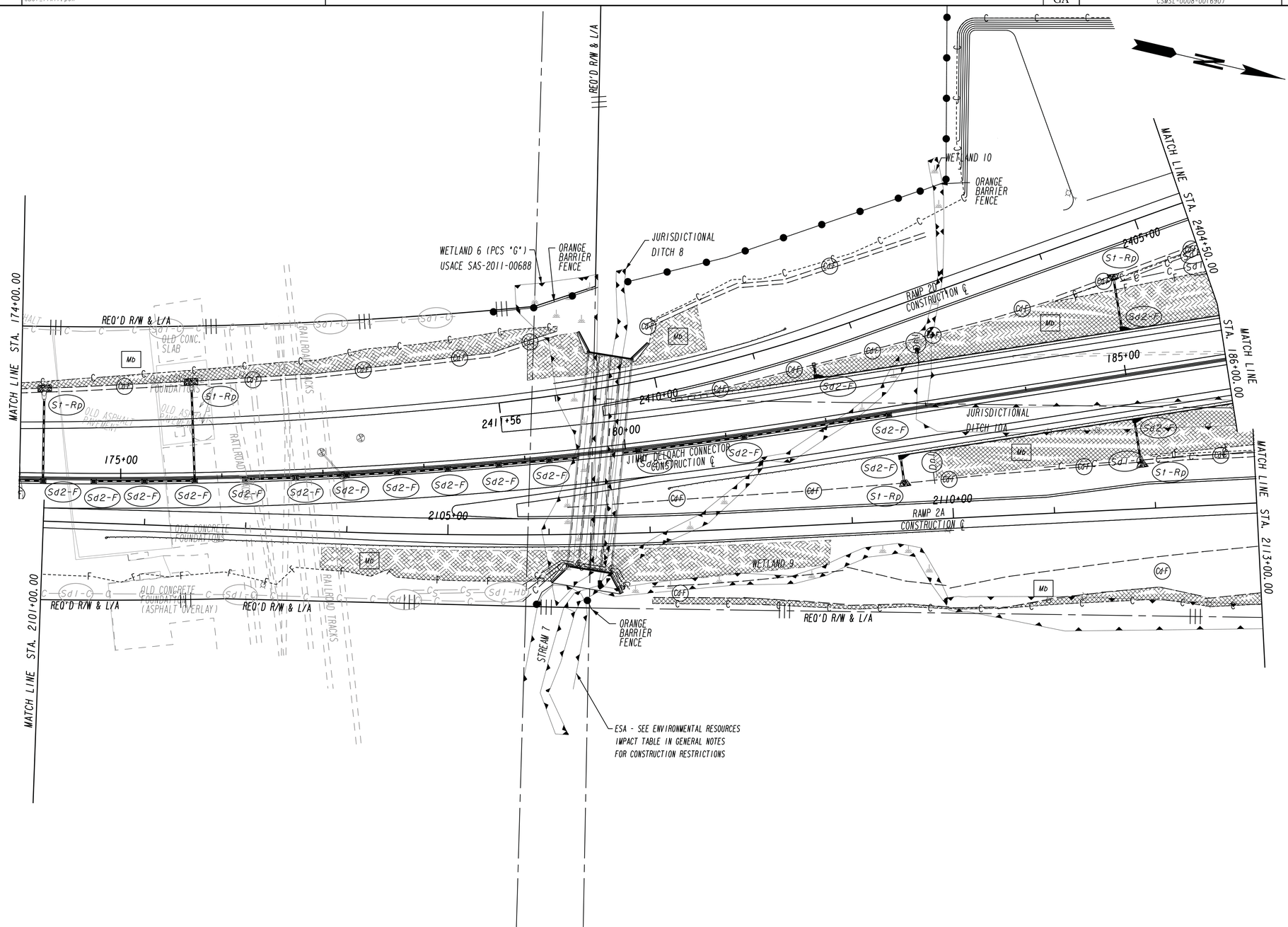
BMP LOCATION DETAILS
STAGE 1
JIMMY DELOACH CONNECTOR
STA. 162+00 TO STA. 174+00

DRAWING No. 54-020

3/1/2007 GPLN

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	686	730

RELEASED FOR CONSTRUCTION - 07-23-13



LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

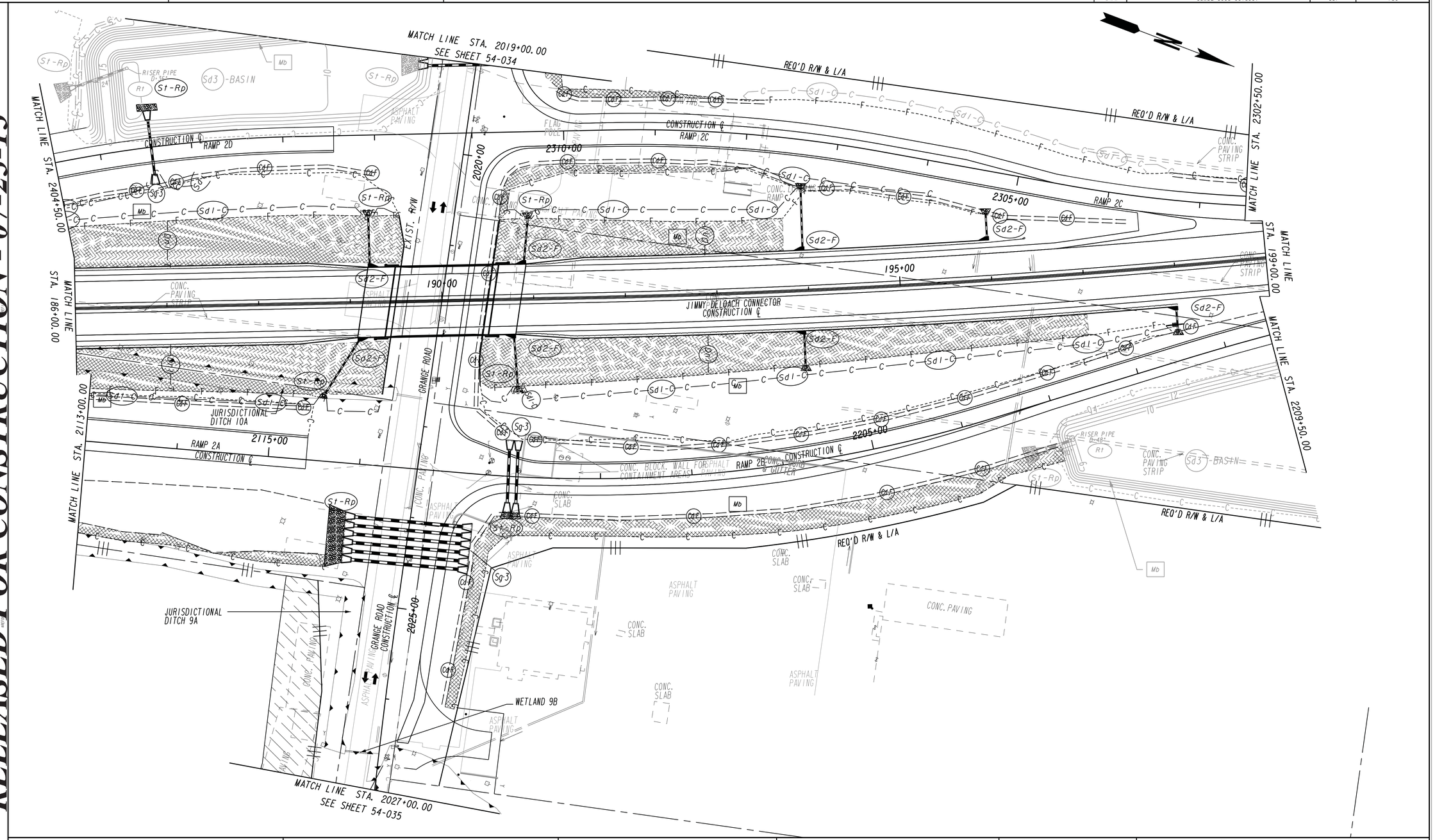
BMP LOCATION DETAILS
STAGE 1
JIMMY DELOACH CONNECTOR
STA. 174+00 TO STA. 186+00

DRAWING No. 54-021

3/1/2007 GPLN

24-JUL-2013 08:57	8:57:03 AM	0008690_54-023	Y:\Roadways\126379\0008690\Dgn\0008690_54-023.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	687	730

RELEASED FOR CONSTRUCTION - 07-23-13



LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

BMP LOCATION DETAILS
STAGE 1

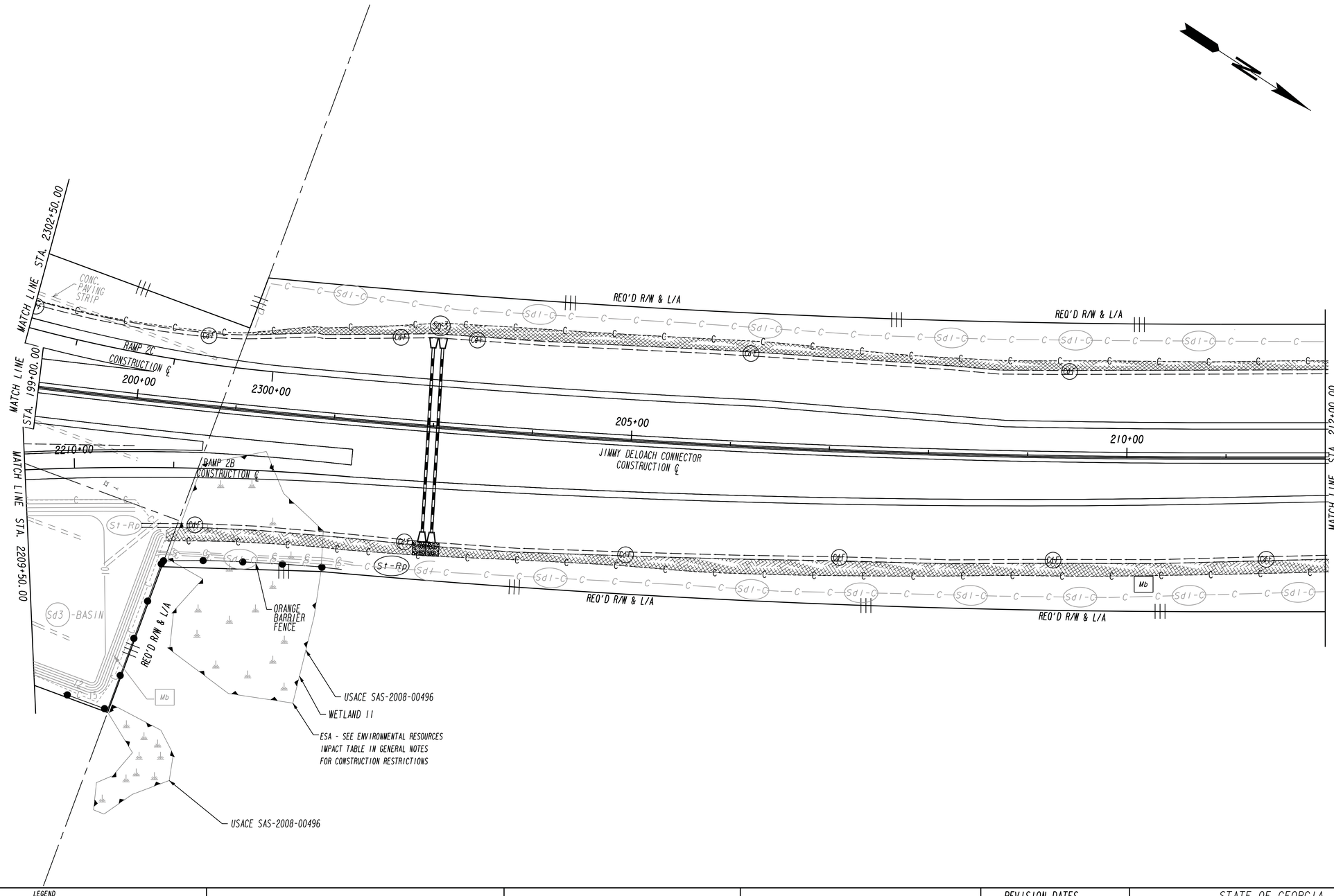
JIMMY DELOACH CONNECTOR
STA. 186+00 TO STA. 199+00

DRAWING No. 54-022

3/1/2007 GPLN

24-JUL-2013 08:57 8:57:11 AM	0008690_54-024	Y:\Roadways\126379\0008690\Dgn\0008690_54-024.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks	GDOT_11x17.pen		GA	CSMSL-0008-00(690)	688	730

RELEASED FOR CONSTRUCTION - 07-23-13



LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

3/11/2007 GPLN

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

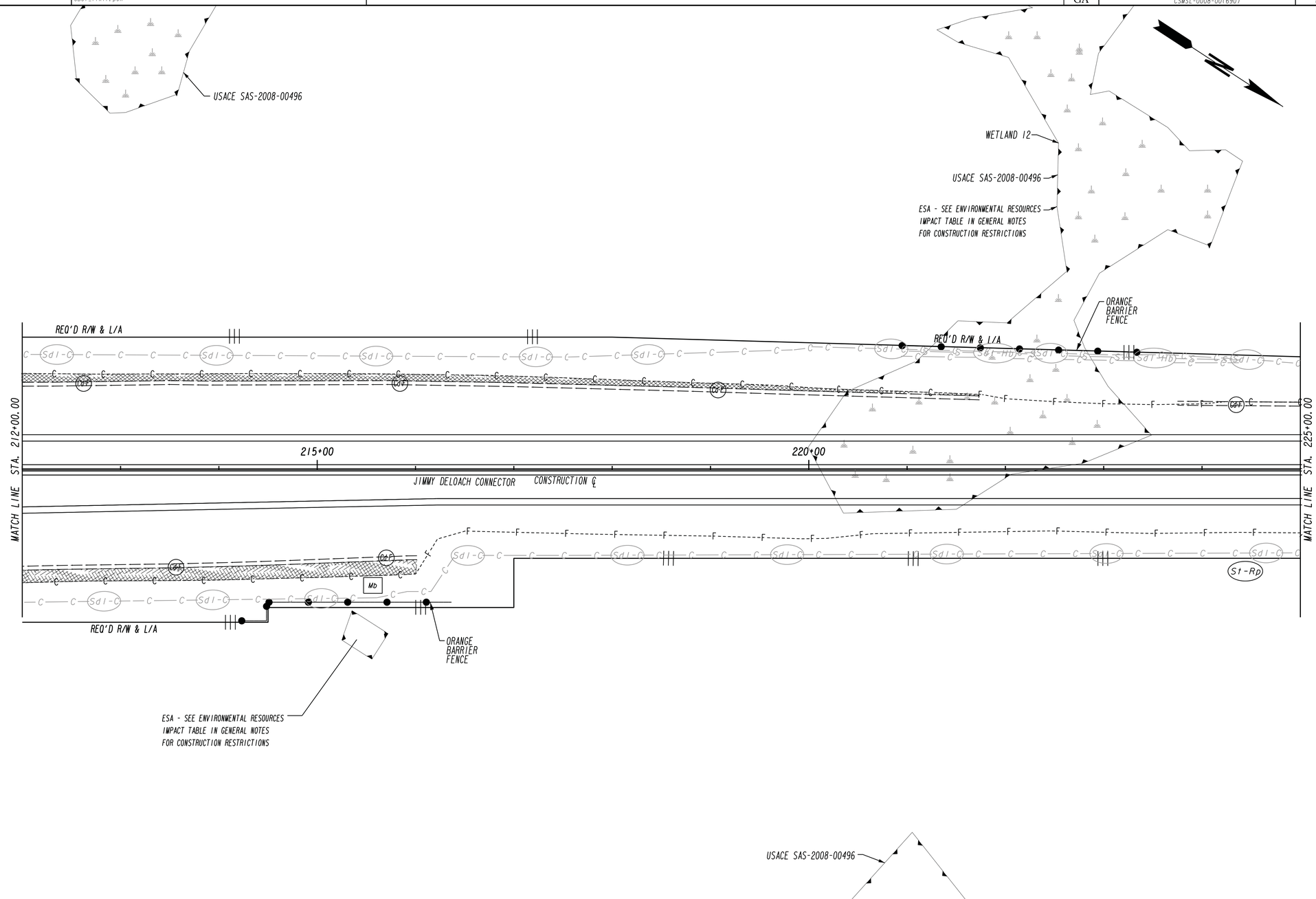
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

BMP LOCATION DETAILS
STAGE 1
JIMMY DELOACH CONNECTOR
STA. 199+00 TO STA. 212+00

DRAWING No. 54-023

24-JUL-2013 08:57	8:57:18 AM	0008690_54-025	Y:\Roadways\126379\0008690\Dgn\0008690_54-025.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	689	730

RELEASED FOR CONSTRUCTION - 07-23-13



LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

BMP LOCATION DETAILS
STAGE 1
JIMMY DELOACH CONNECTOR
STA. 212+00 TO STA. 225+00

DRAWING No. 54-024

3/1/2007 GPLN

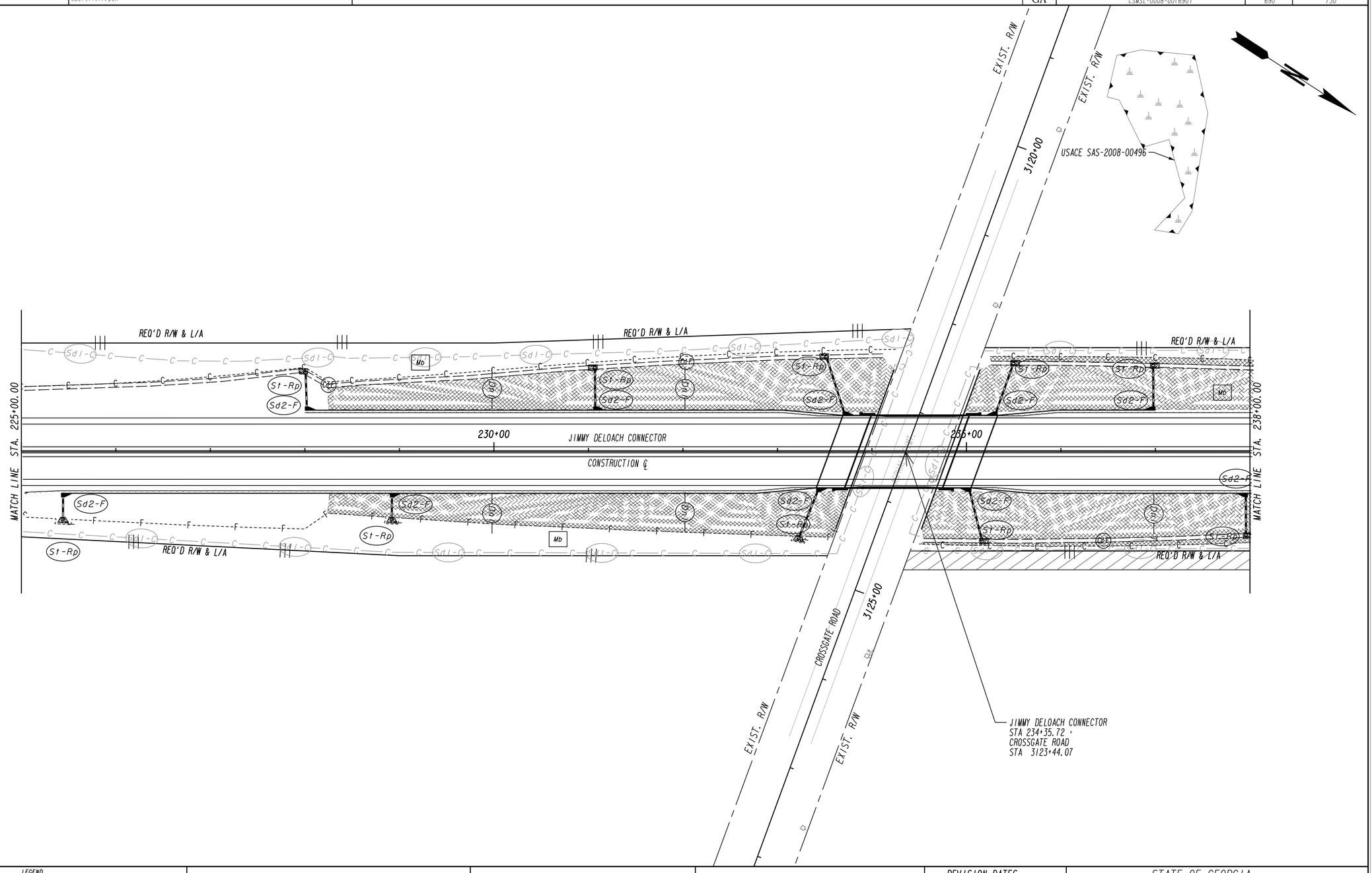
24-JUL-2013 08:57 8:57:25 AM
JParks

0008690_54-026
GDOT_11x17.pen

Y:\Roadways\126379\0008690\Dgn\0008690_54-026.dgn

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	690	730

RELEASED FOR CONSTRUCTION - 07-23-13



LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

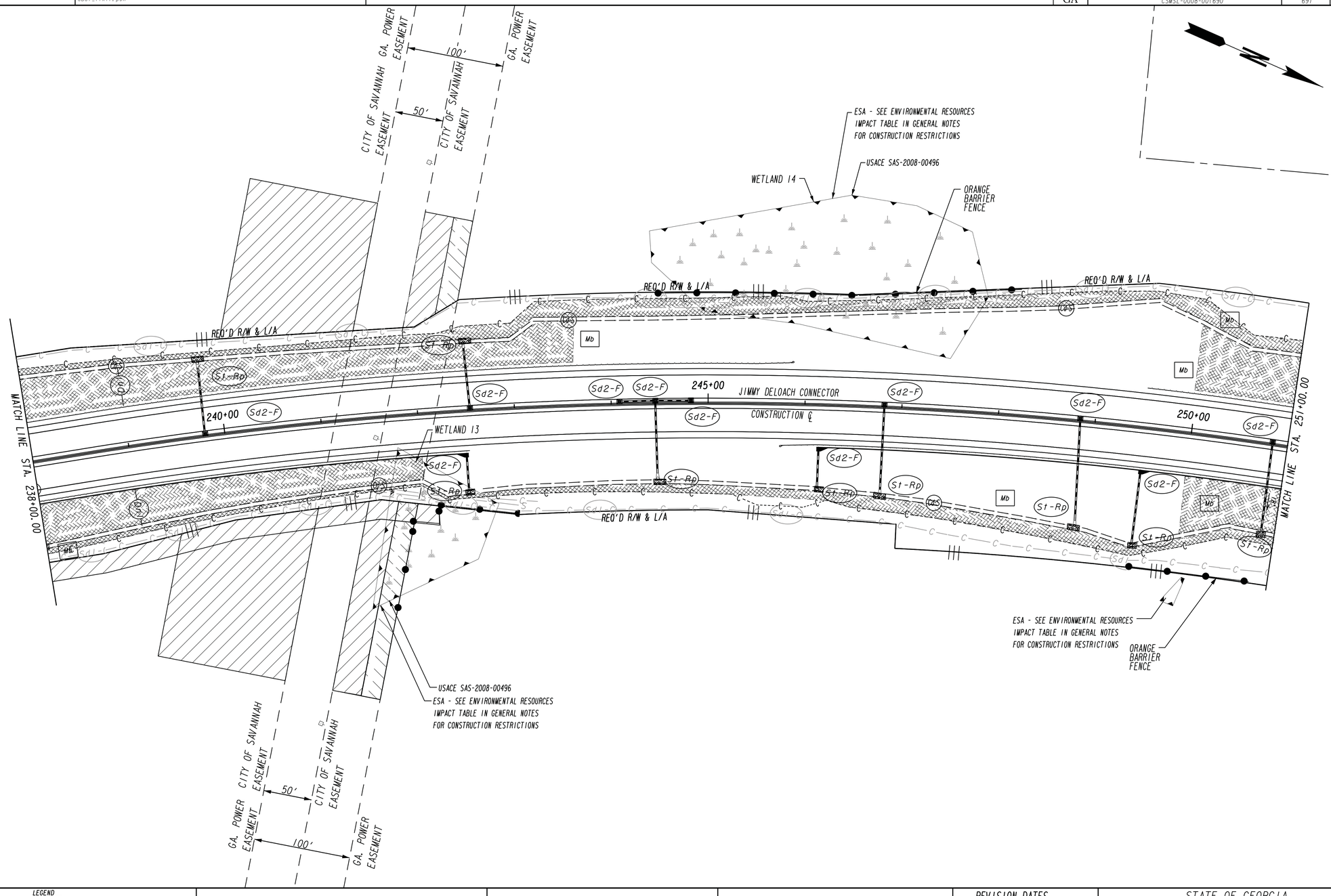
BMP LOCATION DETAILS
STAGE 1
JIMMY DELOACH CONNECTOR
STA. 225+00 TO STA. 238+00

DRAWING No. 54-025

3/1/2007 GPLN

24-JUL-2013 08:57	8:57:31 AM	0008690_54-027	Y:\Roadways\126379\0008690\Dgn\0008690_54-027.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690	691	730

RELEASED FOR CONSTRUCTION - 07-23-13



LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

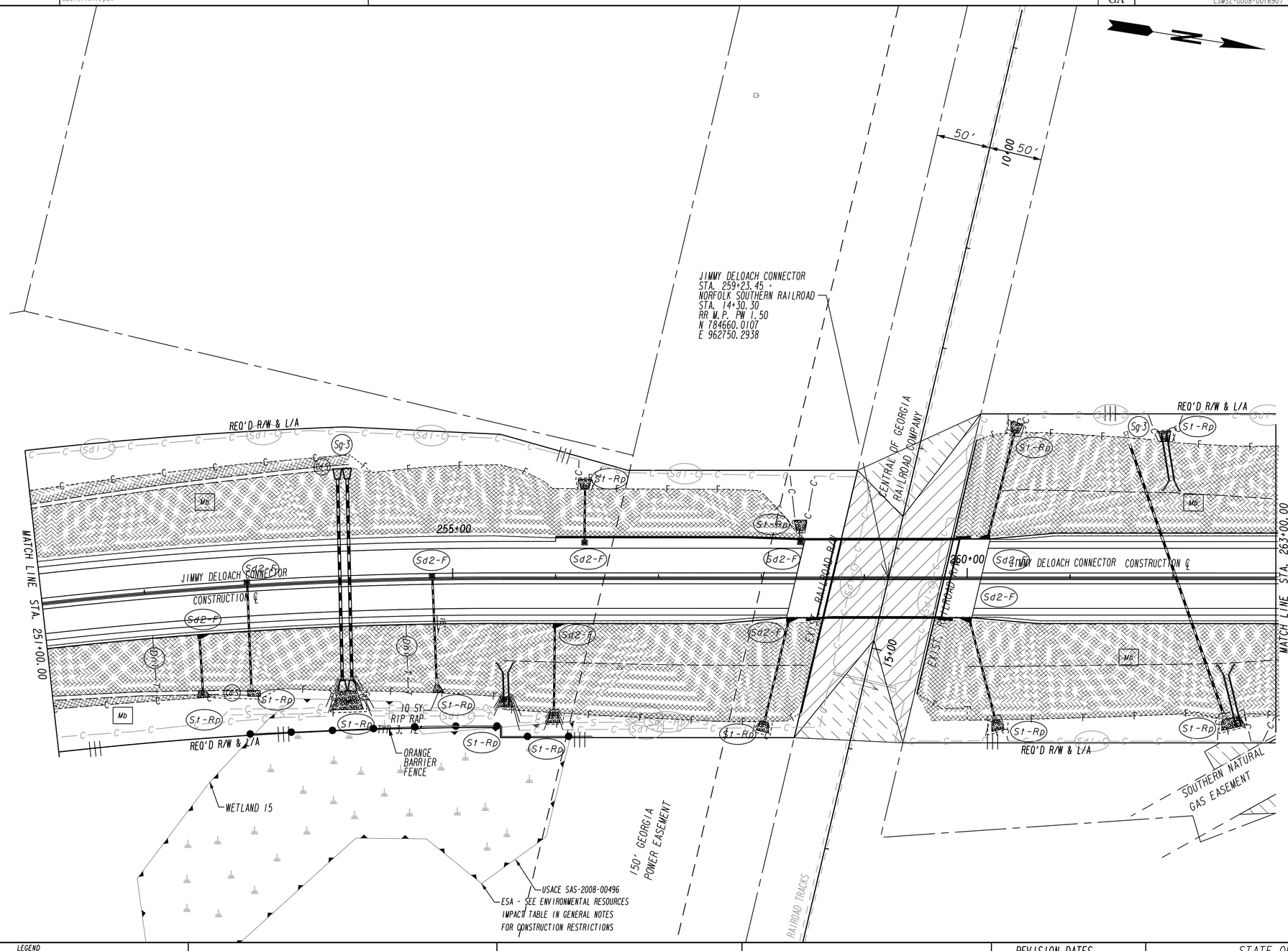
BMP LOCATION DETAILS
STAGE 1
JIMMY DELOACH CONNECTOR
STA. 238+00 TO STA. 251+00

DRAWING No. 54-026

3/1/2007 GPLN

24-JUL-2013 08:57 8:57:39 AM JParks	0008690_54-028 GDOT_11x17_pen	Y:\Roadways\126379\0008690\Dgn\0008690_54-028.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
			GA	CSMSL-0008-00(690)	692	730

RELEASED FOR CONSTRUCTION - 07-23-13



LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

3/11/2007 GPLN

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

BMP LOCATION DETAILS
STAGE 1
JIMMY DELOACH CONNECTOR
STA. 251+00 TO STA. 263+00

DRAWING No. 54-027

RELEASED FOR CONSTRUCTION - 07-23-13

NOTE: SEE DWG. NO. 38-001 AND 38-002 FOR WET SWALE AND RELOCATED STREAM DETAILS

JIMMY DELOACH CONNECTOR
STA 265+00.07 =
BONNYBRIDGE ROAD
STA 4013+93.44

EXIST. R/W

4010+00

BONNYBRIDGE ROAD/SR 30

BEGIN WET SWALE STA. 265+64 LT.

END WET SWALE STA. 266+16 LT.

BEGIN WET SWALE STA. 269+65 LT.

END WET SWALE STA. 270+65 LT.

SOUTHERN NATURAL GAS EASEMENT

BEGIN WET SWALE STA. 273+68 LT.

END WET SWALE STA. 274+68 LT.

BEGIN WET SWALE STA. 275+50 LT.

ORANGE BARRIER FENCE

REQ'D R/W & L/A

MATCH LINE STA. 263+00.00

JIMMY DELOACH CONNECTOR

265+00

270+00

275+00

CONSTRUCTION ℄

MATCH LINE STA. 277+50.00

4015+00

REQ'D L/A

REQ'D R/W

EXIST. R/W

4018+00

END WET SWALE STA. 266+24 RT.

BEGIN WET SWALE STA. 265+89 RT.

BEGIN WET SWALE STA. 270+39 RT.

END WET SWALE STA. 271+54 RT.

BEGIN WET SWALE STA. 272+27 RT.

END WET SWALE STA. 272+92 RT.

BEGIN WET SWALE STA. 275+50 RT.

END WET SWALE STA. 276+13 RT.

LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

3/1/2007 GPLN

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

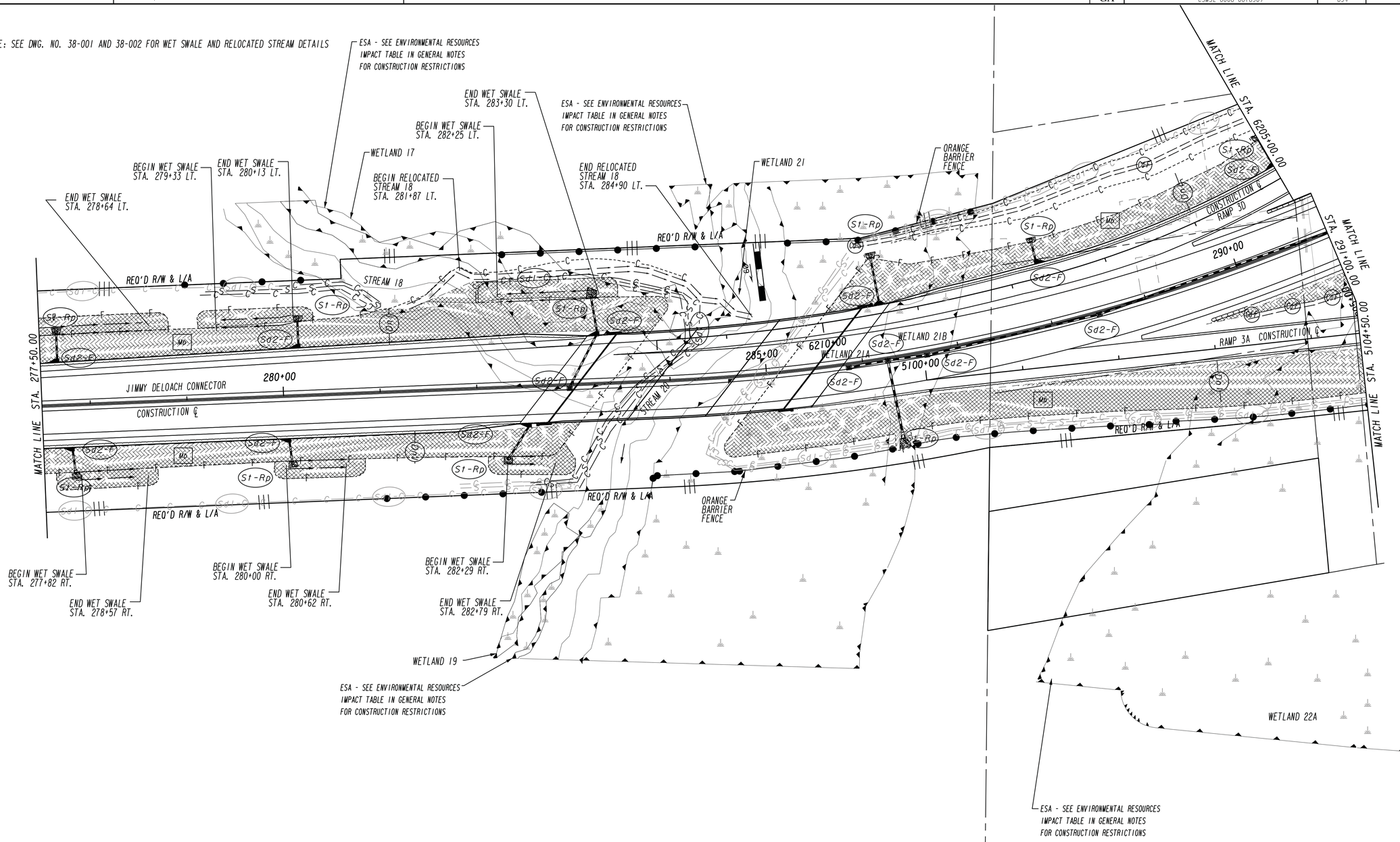
BMP LOCATION DETAILS
STAGE 1
JIMMY DELOACH CONNECTOR
STA. 263+00 TO STA. 277+00

DRAWING No. 54-028

24-JUL-2013 09:33	9:33:01 AM	0008690_54-030	Y:\Roadways\126379\0008690\Dgn\0008690_54-030.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	694	730

RELEASED FOR CONSTRUCTION - 07-23-13

NOTE: SEE DWG. NO. 38-001 AND 38-002 FOR WET SWALE AND RELOCATED STREAM DETAILS



LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

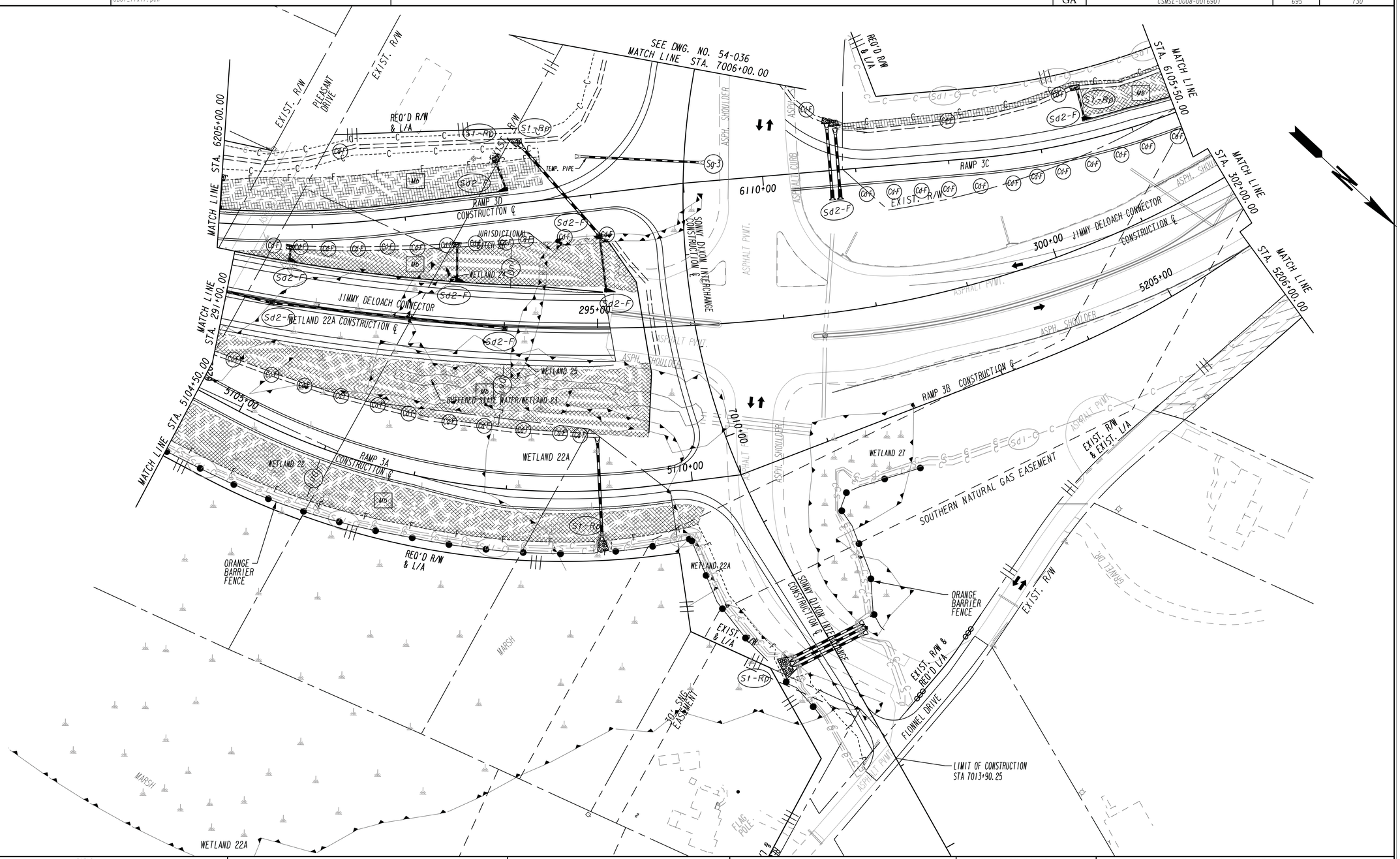
BMP LOCATION DETAILS
STAGE 1
JIMMY DELOACH CONNECTOR
STA. 277+50 TO STA. 291+00

DRAWING No. 54-029

3/1/2007 GPLN

24-JUL-2013 09:33	9:33:10 AM	0008690_54-031	Y:\Roadways\126379\0008690\Dgn\0008690_54-031.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	695	730

RELEASED FOR CONSTRUCTION - 07-23-13



LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

BMP LOCATION DETAILS
STAGE 1
JIMMY DELOACH CONNECTOR
STA. 291+00 TO STA. 302+00

DRAWING No. 54-030

3/1/2007 GPLN

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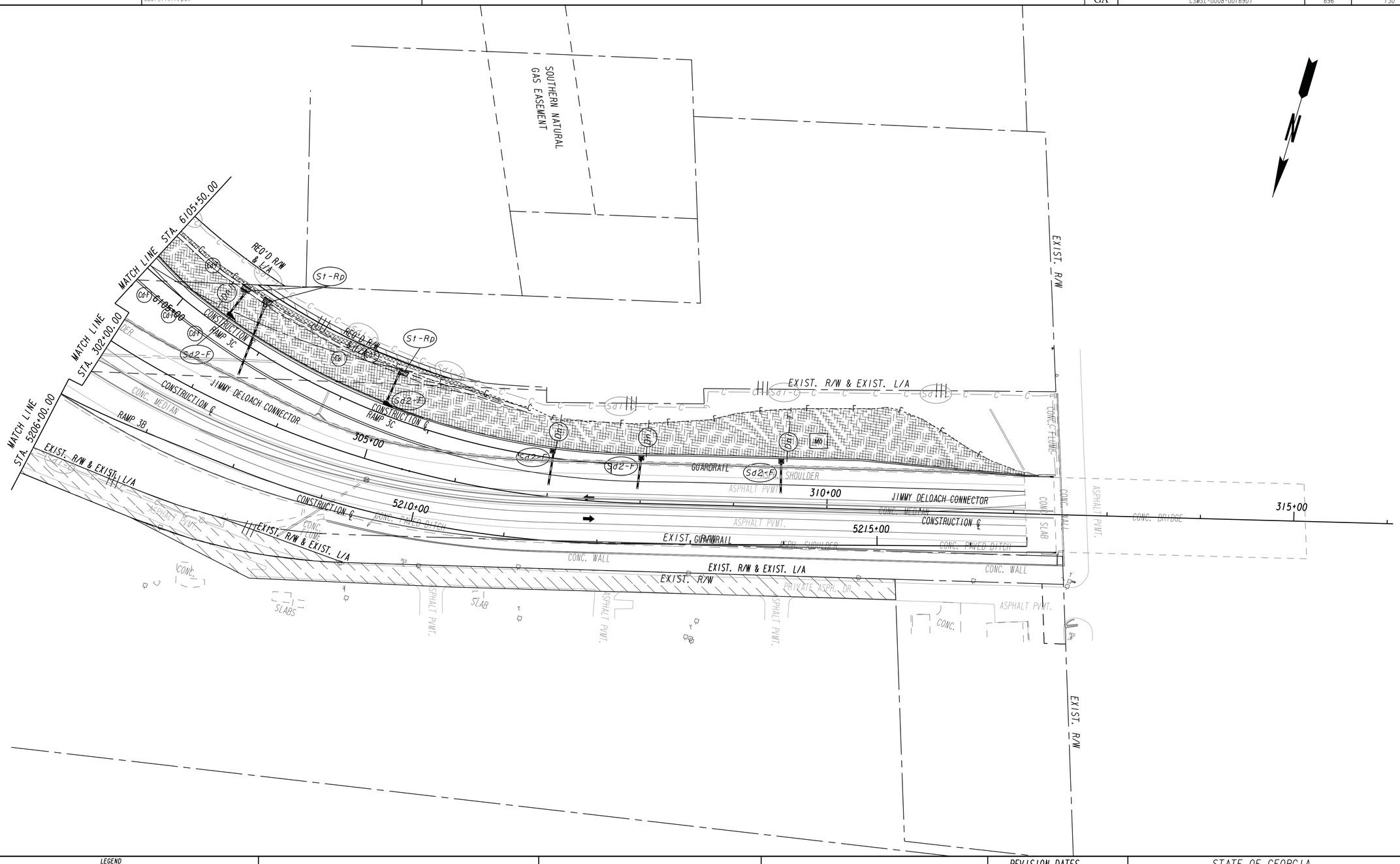
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	696	730

RELEASED FOR CONSTRUCTION - 07-23-13



LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

3/1/2007 GPLN

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

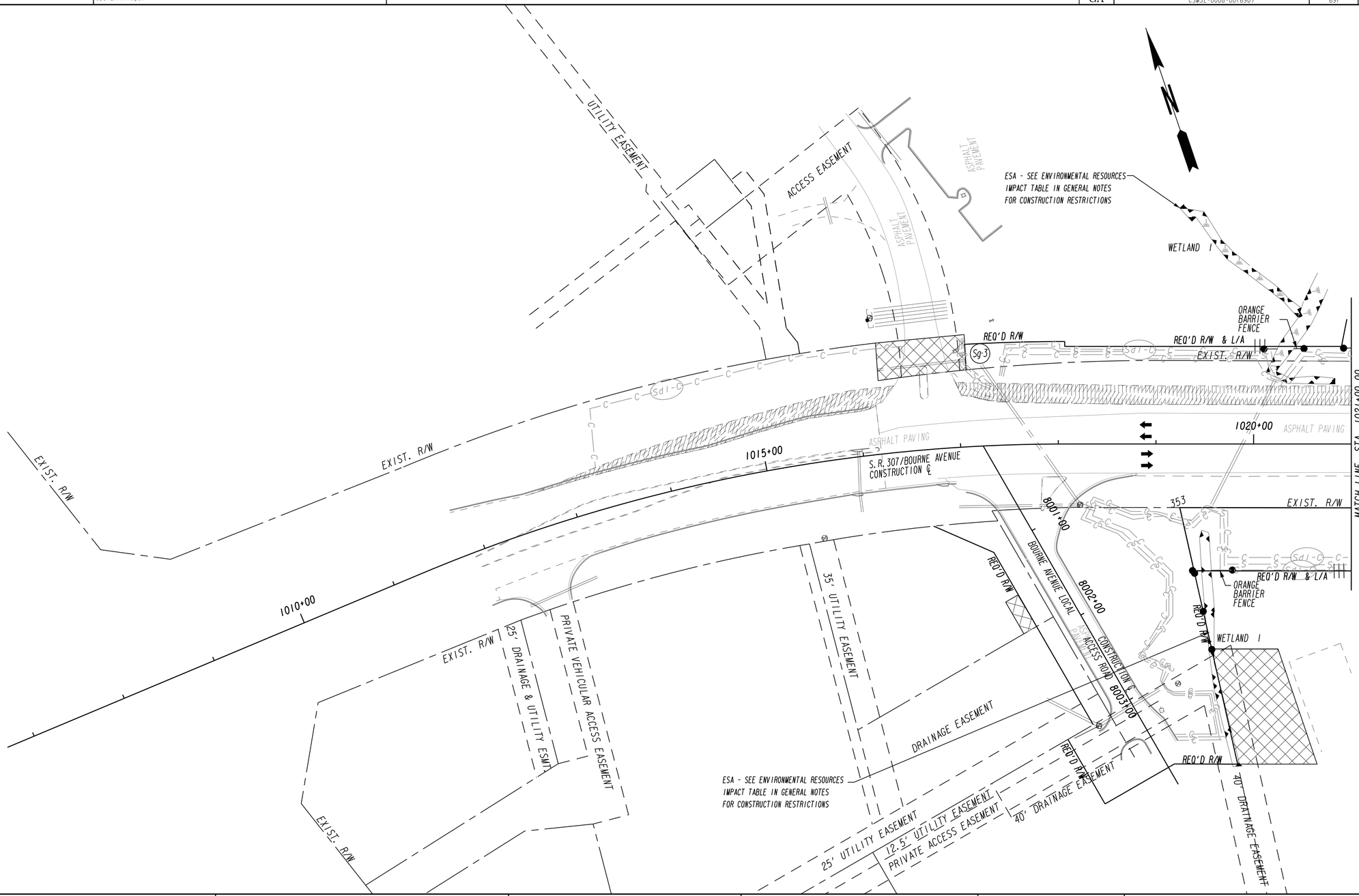
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

BMP LOCATION DETAILS
STAGE 1
JIMMY DELOACH CONNECTOR
STA. 302+00 TO END PROJECT

DRAWING No. 54-031

24-JUL-2013 09:33	9:33:26 AM	0008690_54-033	Y:\Roadways\126379\0008690\Dgn\0008690_54-033.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	697	730

RELEASED FOR CONSTRUCTION - 07-23-13



LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

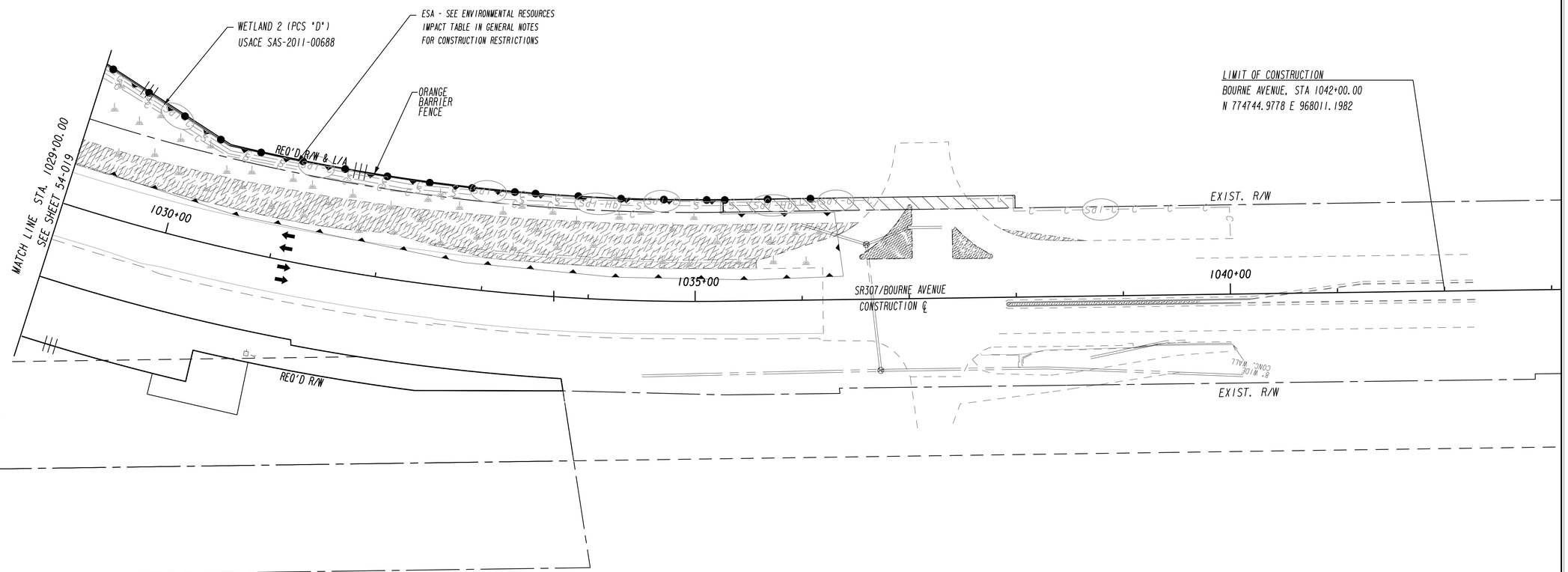
BMP LOCATION DETAILS
STAGE 1
BOURNE AVENUE
BEGIN CONST. TO STA. 1021+00

DRAWING No. 54-032

3/1/2007 GPLN

24-JUL-2013 09:33 9:33:34 AM JParks	0008690_54-034 GDOT_11x17.pen	Y:\Roadways\126379\0008690\Dgn\0008690_54-034.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
			GA	CSMSL-0008-00(690)	698	730

RELEASED FOR CONSTRUCTION - 07-23-13



LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

3/1/2007 GPLN

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

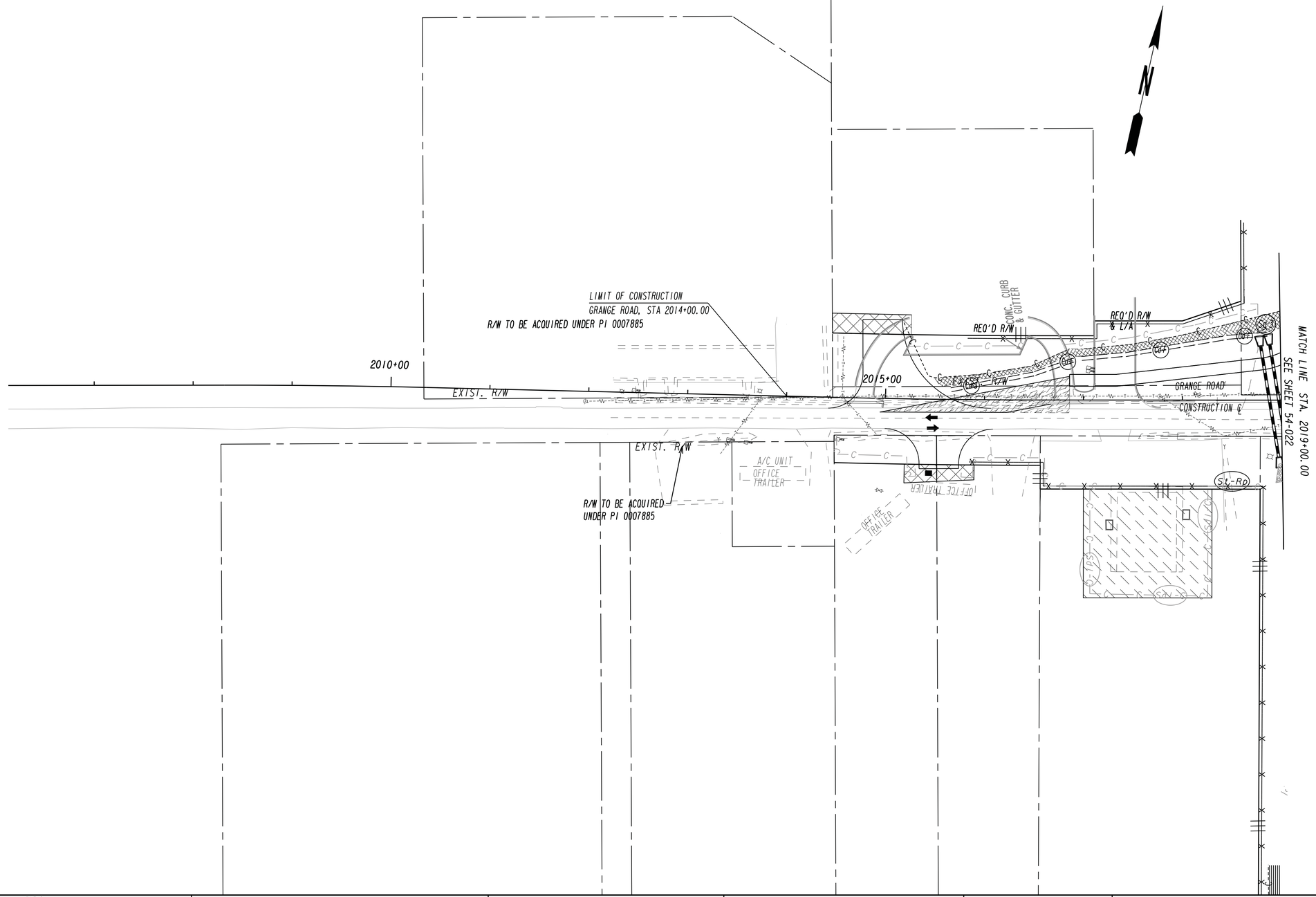
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

BMP LOCATION DETAILS
STAGE 1
BOURNE AVENUE
STA. 1029+00 TO END CONST.

DRAWING No. 54-033

24-JUL-2013 09:33	9:33:41 AM	0008690_54-035	Y:\Roadways\126379\0008690\Dgn\0008690_54-035.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	699	730

RELEASED FOR CONSTRUCTION - 07-23-13



LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

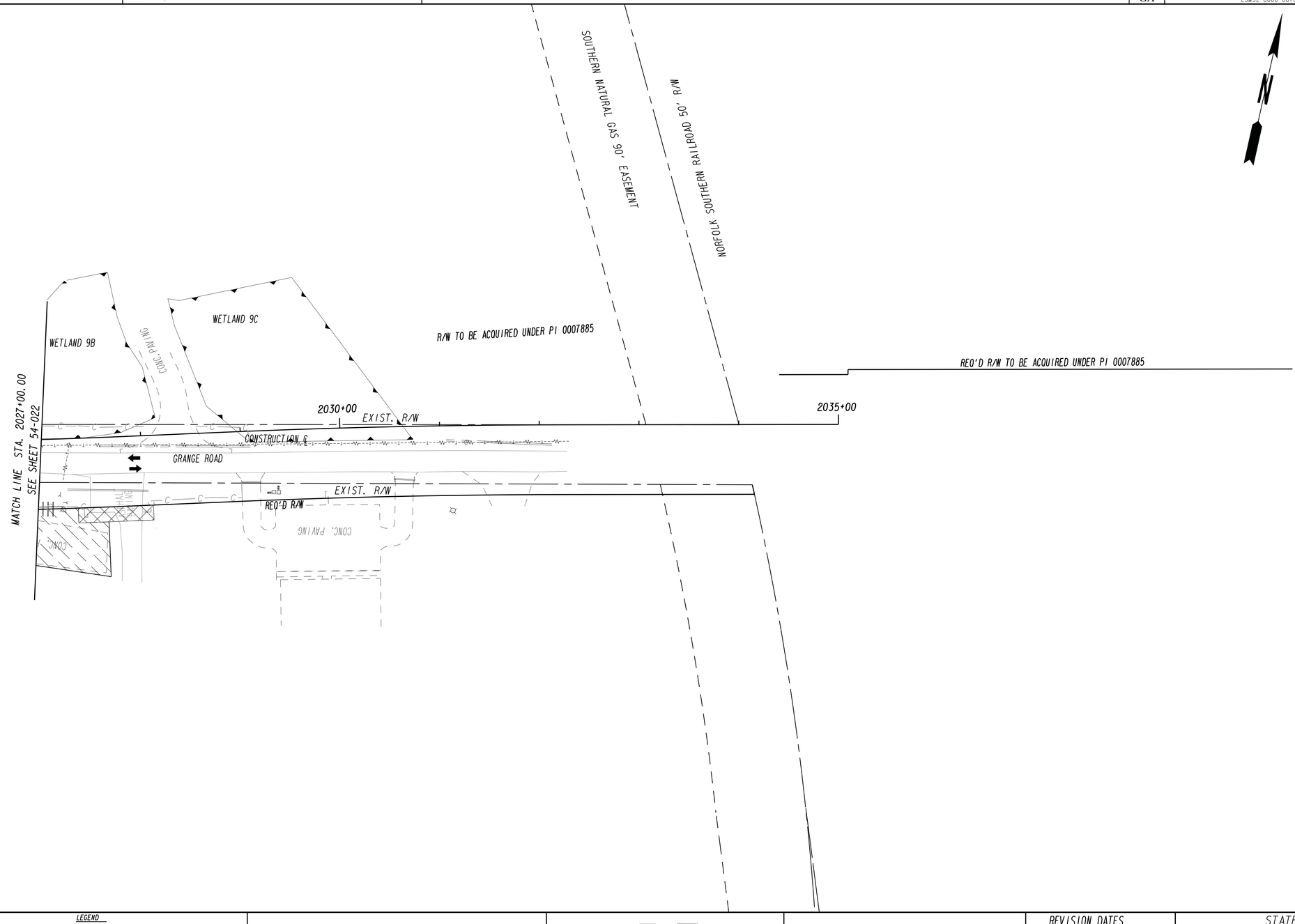
BMP LOCATION DETAILS
STAGE 1
GRANGE ROAD
BEGIN CONST. TO STA. 2009+00

DRAWING No. 54-034

3/11/2007 GPLN

24-JUL-2013 09:33 9:33:47 AM JParks	0008690_54-036 GDOT_11x17.pen	Y:\Roadways\126379\0008690\Dgn\0008690_54-036.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
			GA	CSMSL-0008-00(690)	700	730

RELEASED FOR CONSTRUCTION - 07-23-13



LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

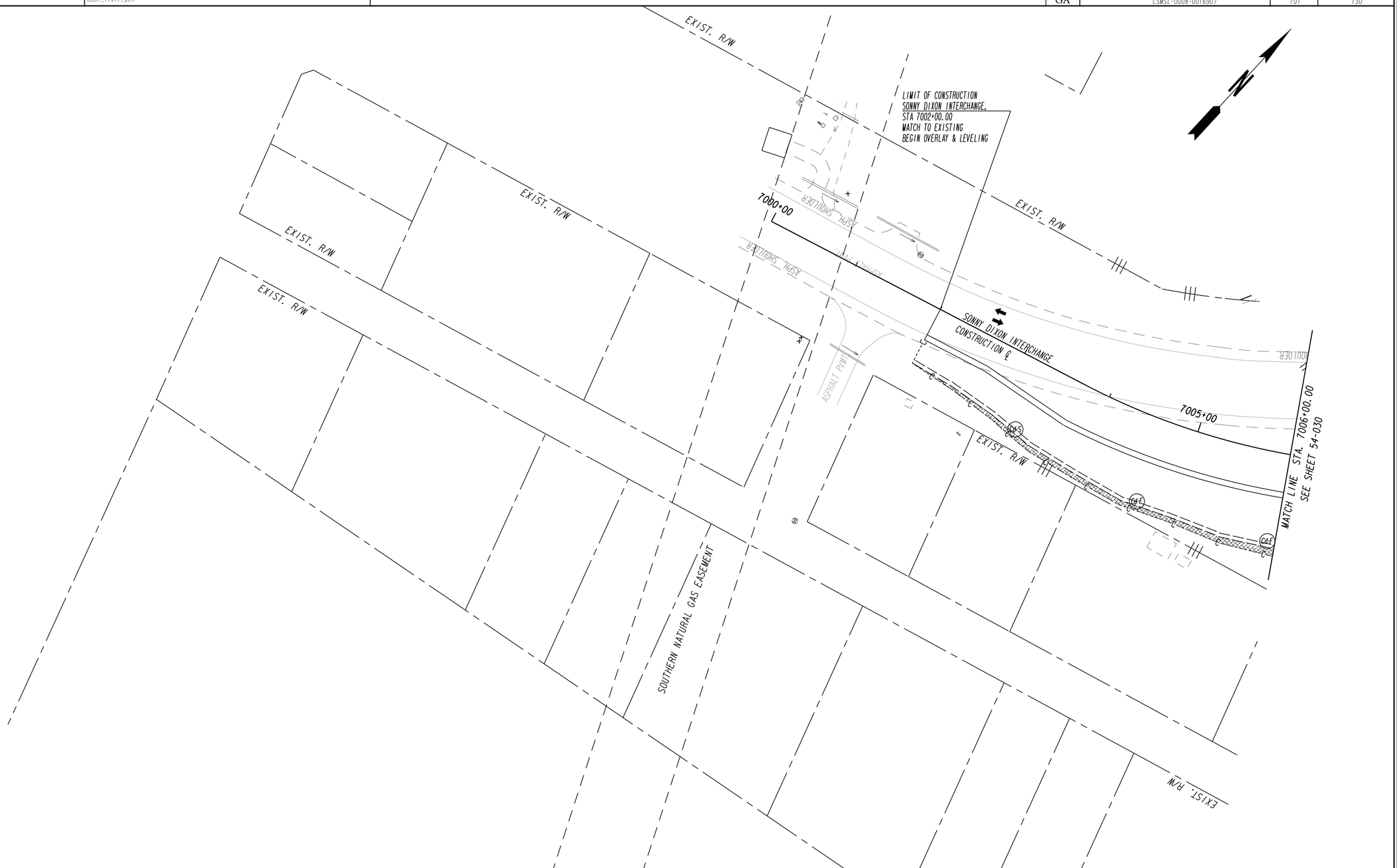
BMP LOCATION DETAILS
STAGE 1
GRANGE ROAD
STA. 2017+00 TO END CONST.

DRAWING No. 54-035

3/11/2007 GPLN

24-JUL-2013 09:33 9:33:55 AM JParks	0008690_54-037 GDOT_11x17.pen	Y:\Roadways\126379\0008690\Dgn\0008690_54-037.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
			GA	CSMSL-0008-00(690)	701	730

RELEASED FOR CONSTRUCTION - 07-23-13



LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

3/1/2007 GPLN

THE LPA GROUP
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A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

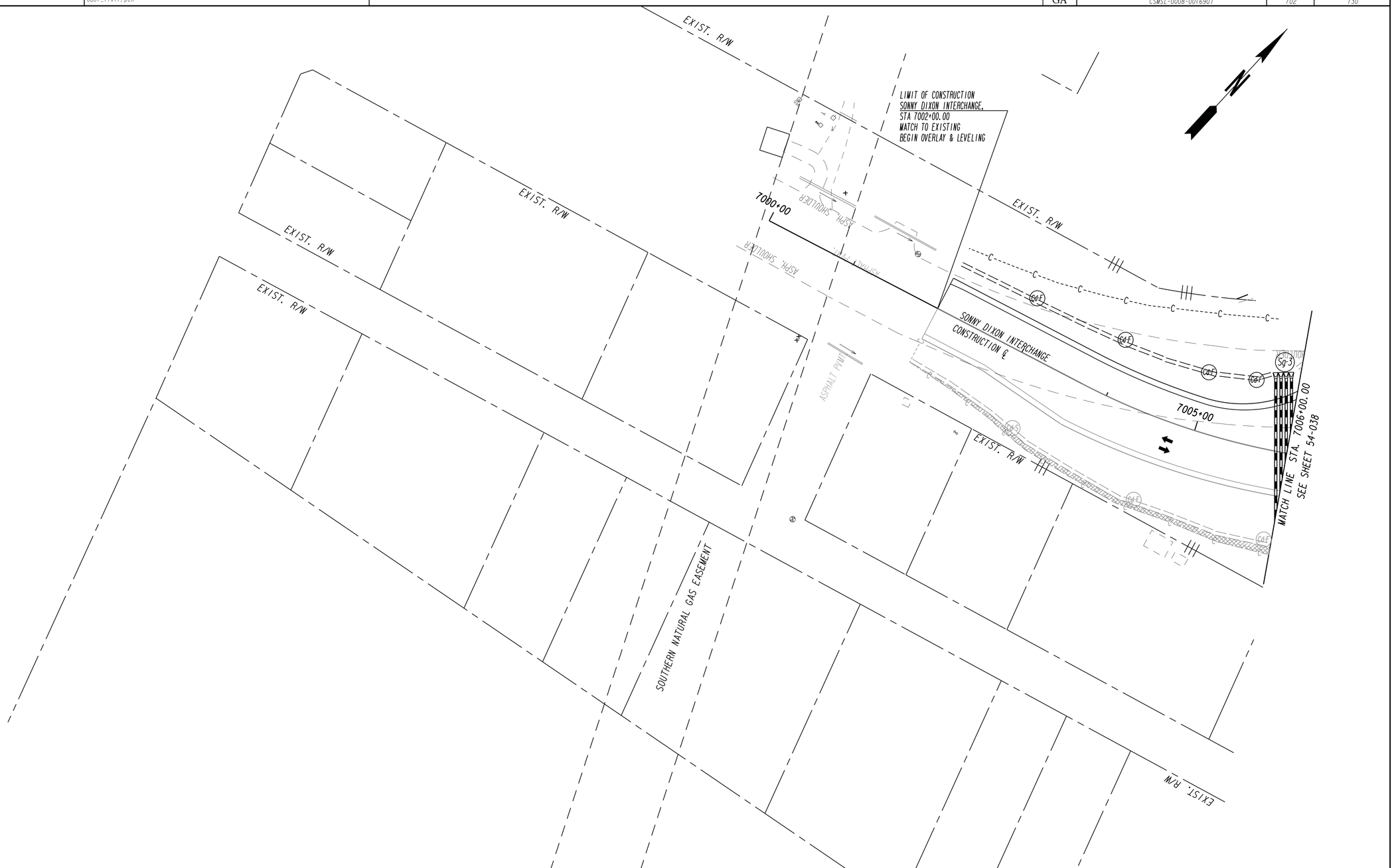
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

BMP LOCATION DETAILS
STAGE 1
SONNY DIXON INTERCHANGE
BEGIN CONST. TO STA. 7006+00

DRAWING No. 54-036

24-JUL-2013 09:34	9:34:03 AM	0008690_54-038A	Y:\Roadways\126379\0008690\Dgn\0008690_54-038A.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	702	730

RELEASED FOR CONSTRUCTION - 07-23-13



LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

BMP LOCATION DETAILS
STAGE 1A

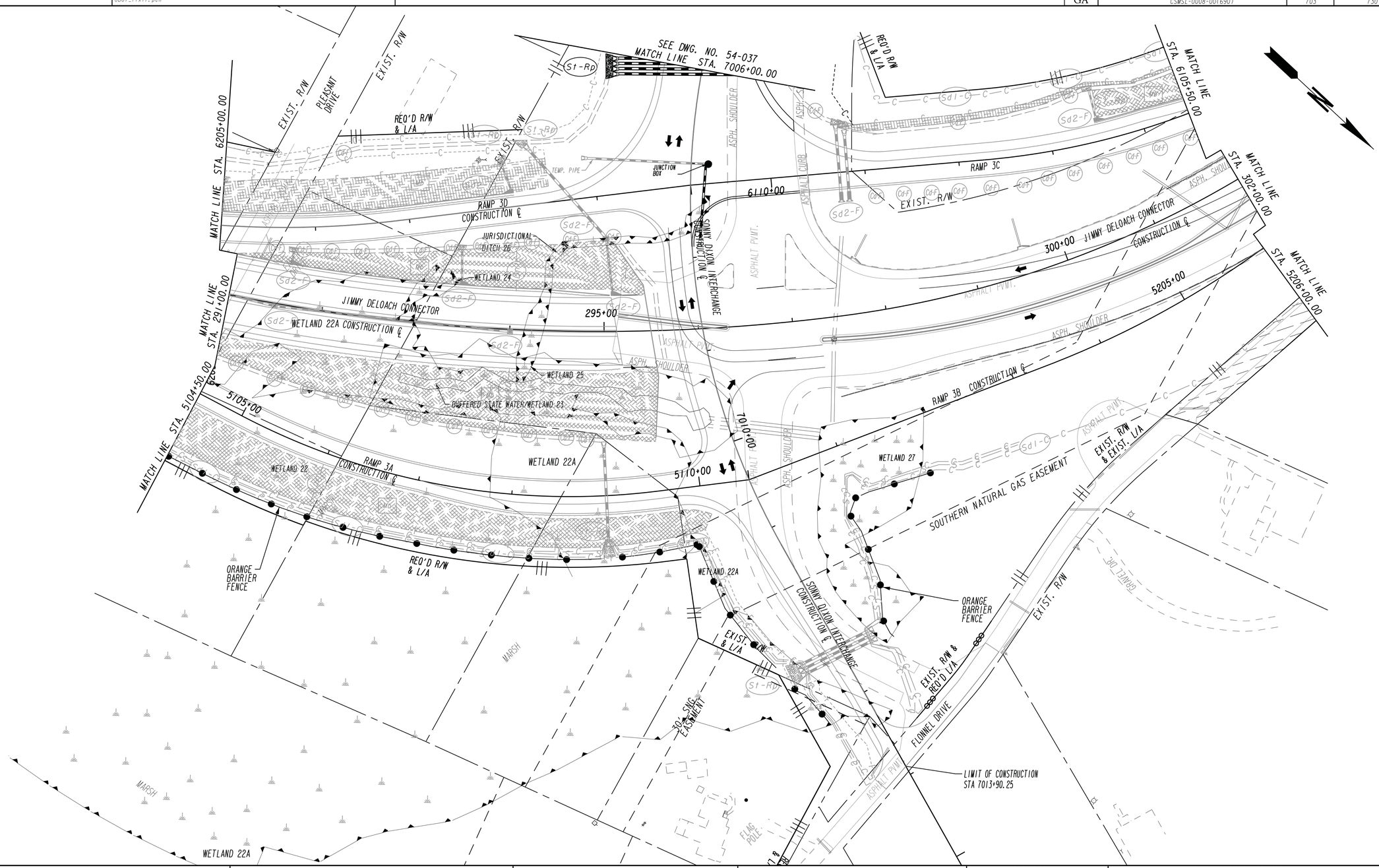
SONNY DIXON INTERCHANGE
BEGIN CONST. TO STA. 7006+00

DRAWING No. 54-037

3/1/2007 GPLN

24-JUL-2013 09:34	9:34:12 AM	0008690_54-038B	Y:\Roadways\126379\0008690\Dgn\0008690_54-038B.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	703	730

RELEASED FOR CONSTRUCTION - 07-23-13



LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

BMP LOCATION DETAILS
STAGE 1A
JIMMY DELOACH CONNECTOR
STA. 291+00 TO STA. 302+00

DRAWING No. 54-038

3/1/2007 GPLN

24-JUL-2013 09:34	9:34:24 AM	0008690_54-038C	Y:\Roadways\126379\0008690\Dgn\0008690_54-038C.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
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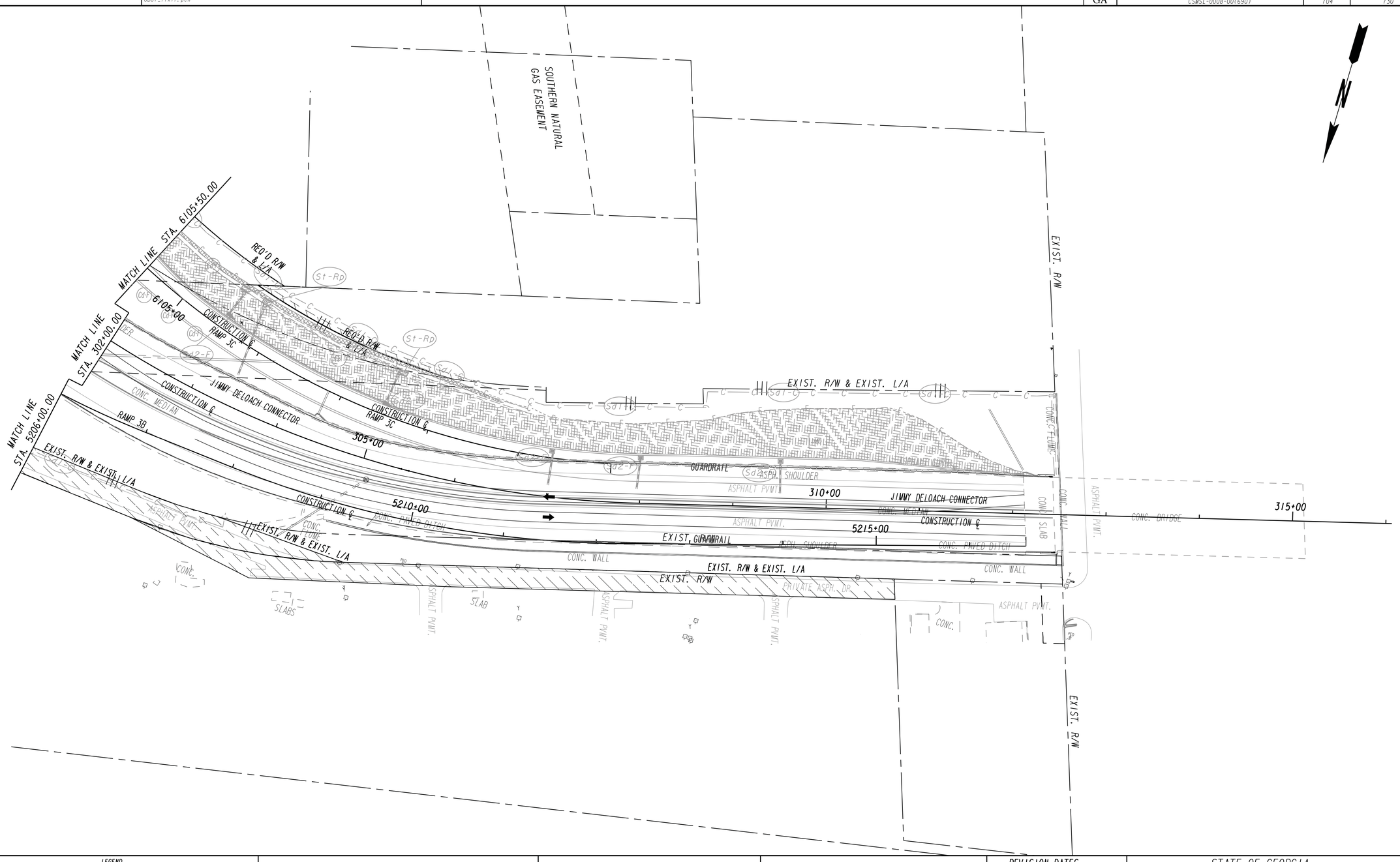
RELEASED FOR CONSTRUCTION - 07-23-13



LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

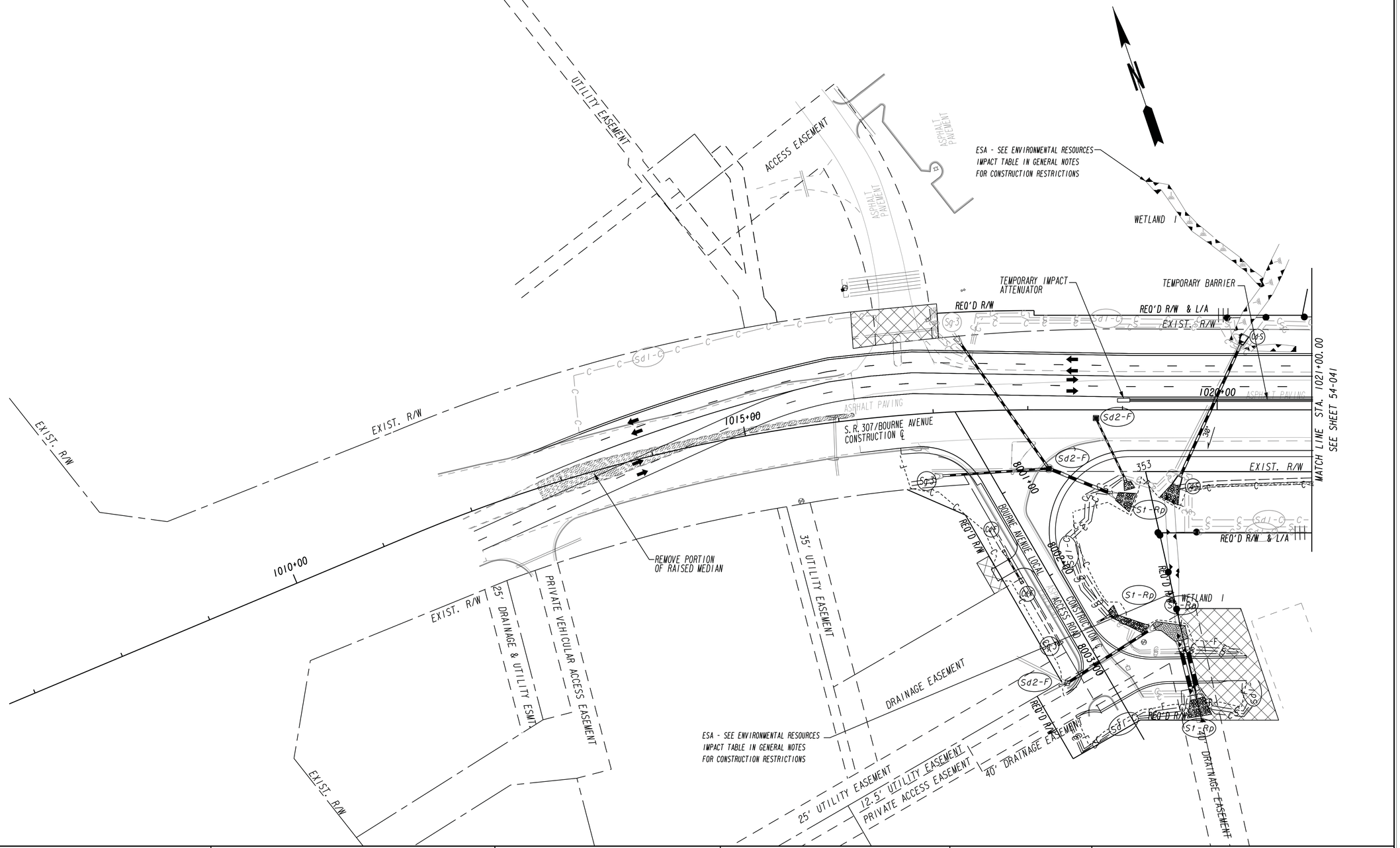
BMP LOCATION DETAILS
STAGE 1A
JIMMY DELOACH CONNECTOR
STA. 5040+50 TO END PROJECT

DRAWING No. 54-039

3/1/2007 GPLN

24-JUL-2013 09:34 9:34:32 AM JParks	0008690_54-039 GDOT_11x17.pen	Y:\Roadways\126379\0008690\Dgn\0008690_54-039.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
			GA	CSMSL-0008-00(690)	705	730

RELEASED FOR CONSTRUCTION - 07-23-13



LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

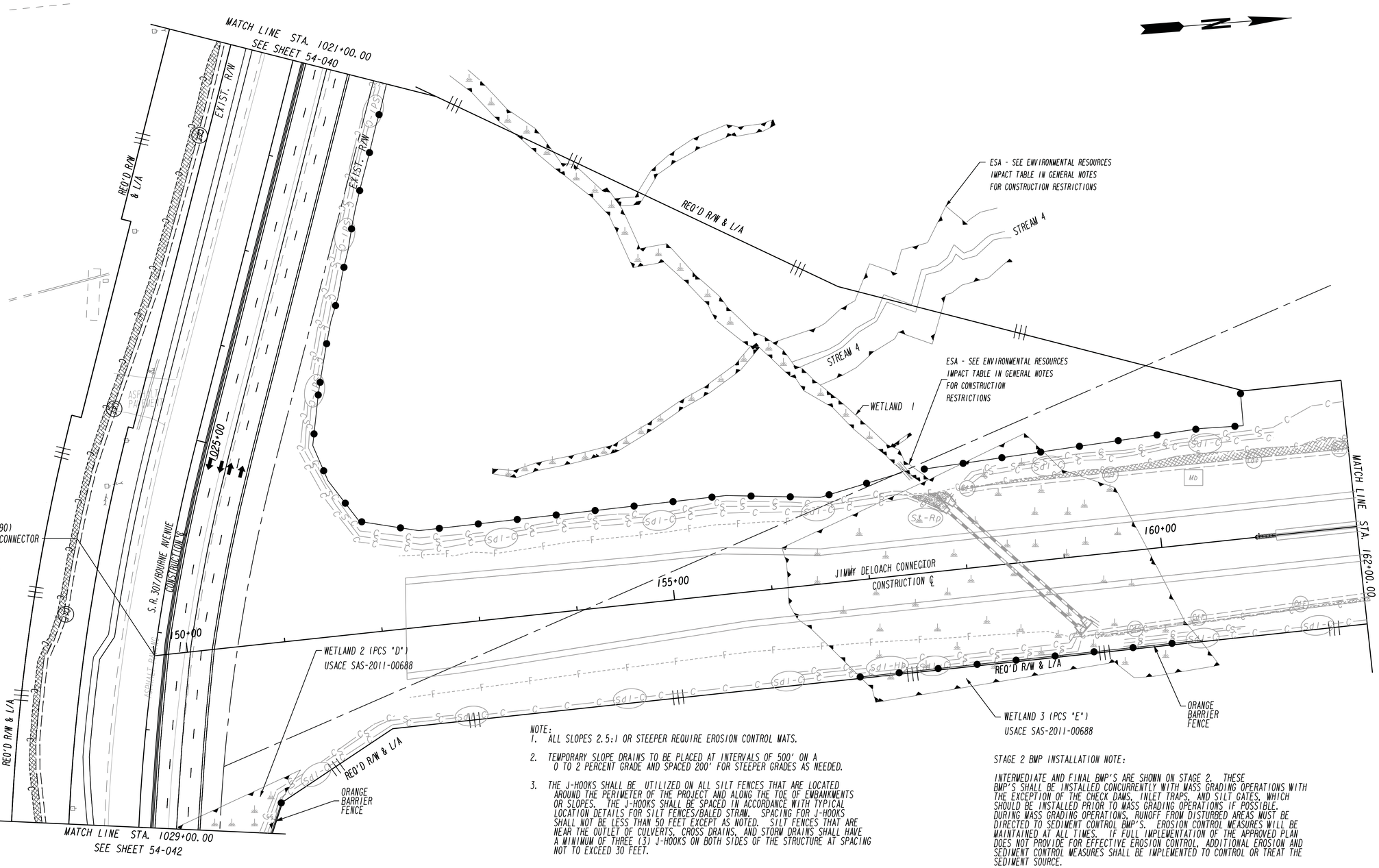
BMP LOCATION DETAILS
STAGE 2
BOURNE AVENUE
BEGIN CONST. TO STA. 1021+00

DRAWING No. 54-040

3/1/2007 GPLN

24-JUL-2013 09:34	9:34:41 AM	0008690_54-040	Y:\Roadways\126379\0008690\Dgn\0008690_54-040.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	706	730

RELEASED FOR CONSTRUCTION - 07-23-13



NOTE:

1. ALL SLOPES 2.5:1 OR STEEPER REQUIRE EROSION CONTROL MATS.
2. TEMPORARY SLOPE DRAINS TO BE PLACED AT INTERVALS OF 500' ON A 0 TO 2 PERCENT GRADE AND SPACED 200' FOR STEEPER GRADES AS NEEDED.
3. THE J-HOOKS SHALL BE UTILIZED ON ALL SILT FENCES THAT ARE LOCATED AROUND THE PERIMETER OF THE PROJECT AND ALONG THE TOE OF EMBANKMENTS OR SLOPES. THE J-HOOKS SHALL BE SPACED IN ACCORDANCE WITH TYPICAL LOCATION DETAILS FOR SILT FENCES/BALED STRAW. SPACING FOR J-HOOKS SHALL NOT BE LESS THAN 50 FEET EXCEPT AS NOTED. SILT FENCES THAT ARE NEAR THE OUTLET OF CULVERTS, CROSS DRAINS, AND STORM DRAINS SHALL HAVE A MINIMUM OF THREE (3) J-HOOKS ON BOTH SIDES OF THE STRUCTURE AT SPACING NOT TO EXCEED 30 FEET.

STAGE 2 BMP INSTALLATION NOTE:

INTERMEDIATE AND FINAL BMP'S ARE SHOWN ON STAGE 2. THESE BMP'S SHALL BE INSTALLED CONCURRENTLY WITH MASS GRADING OPERATIONS WITH THE EXCEPTION OF THE CHECK DAMS, INLET TRAPS, AND SILT GATES, WHICH SHOULD BE INSTALLED PRIOR TO MASS GRADING OPERATIONS IF POSSIBLE. DURING MASS GRADING OPERATIONS, RUNOFF FROM DISTURBED AREAS MUST BE DIRECTED TO SEDIMENT CONTROL BMP'S. EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.

LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

BMP LOCATION DETAILS
STAGE 2

JIMMY DELOACH CONNECTOR
BEGIN PROJECT TO STA. 162+00

DRAWING No. 54-041

3/1/2007 GPLN

24-JUL-2013 09:34	9:34:51 AM	0008690_54-041	Y:\Roadways\126379\0008690\Dgn\0008690_54-041.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
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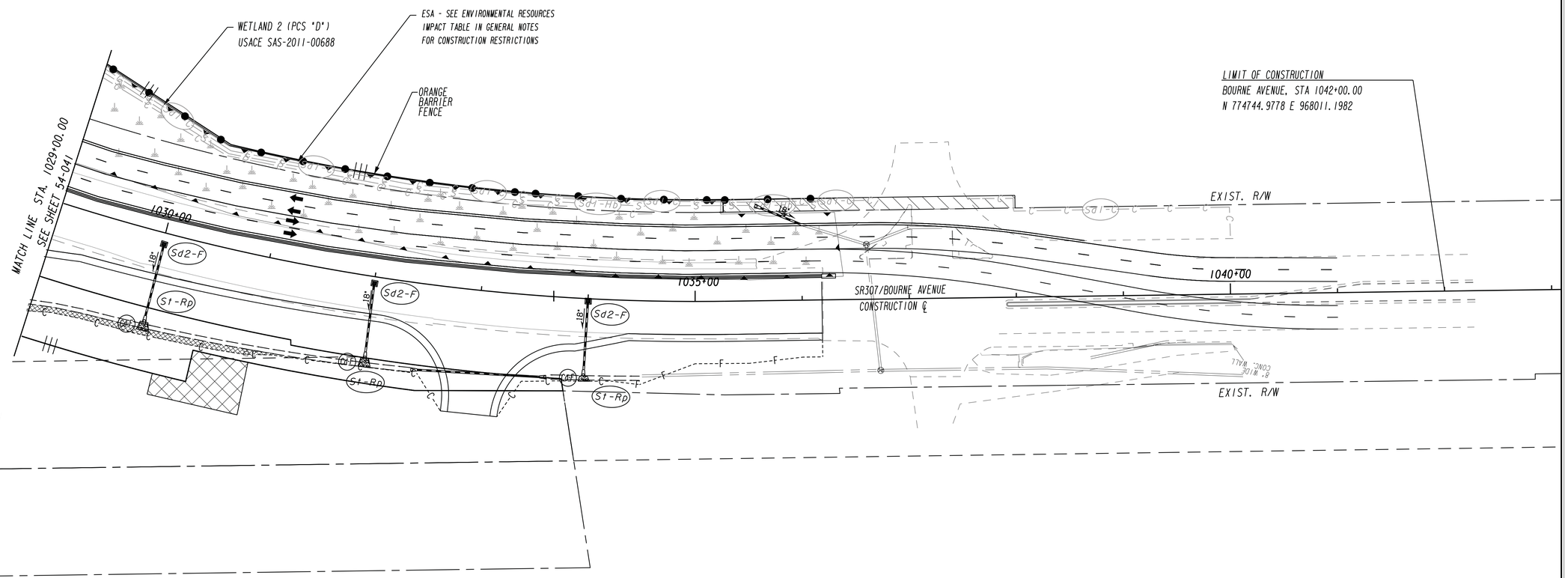
RELEASED FOR CONSTRUCTION - 07-23-13



LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

BMP LOCATION DETAILS
STAGE 2
BOURNE AVENUE
STA. 1029+00 TO END CONST.

DRAWING No. 54-042

3/11/2007 GPLN

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA	CSMSL-0008-00(690)	708	730

RELEASED FOR CONSTRUCTION - 07-23-13

LEGEND

PAVEMENT REMOVAL	
TEMPORARY CONSTRUCTION PAVEMENT	
PERMANENT CONSTRUCTION	
CONCRETE MEDIAN CONSTRUCTION	
MILL & OVERLAY CONSTRUCTION	
OPEN LANES OF TRAFFIC	⇆

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

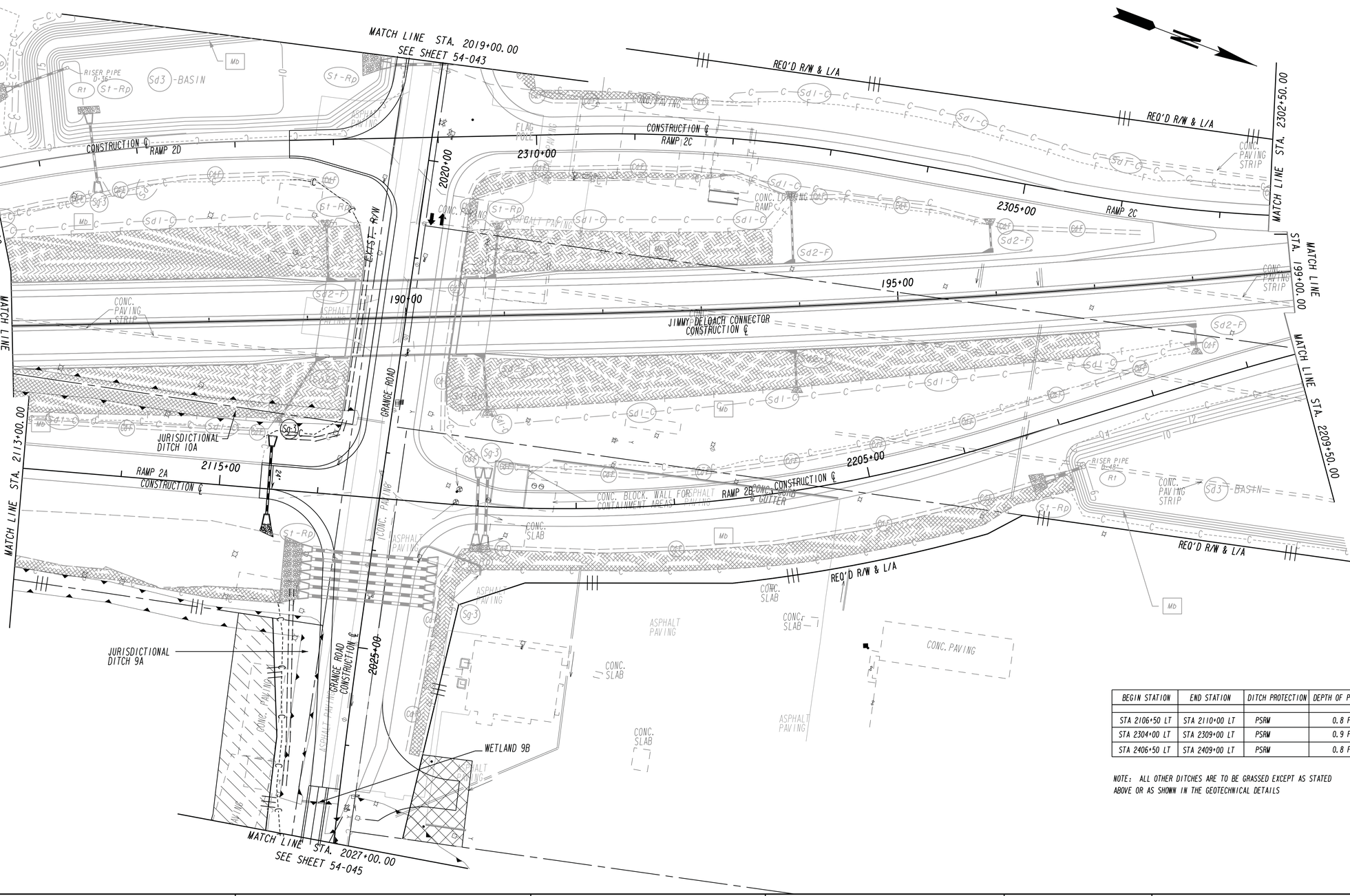
REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

BMP LOCATION DETAILS
STAGE 2
GRANGE ROAD
BEGIN CONST. TO STA. 2009+00

DRAWING No. 54-043

RELEASED FOR CONSTRUCTION - 07-23-13



BEGIN STATION	END STATION	DITCH PROTECTION	DEPTH OF PROTECTION
STA 2106+50 LT	STA 2110+00 LT	PSRM	0.8 FT
STA 2304+00 LT	STA 2309+00 LT	PSRM	0.9 FT
STA 2406+50 LT	STA 2409+00 LT	PSRM	0.8 FT

NOTE: ALL OTHER DITCHES ARE TO BE GRASSED EXCEPT AS STATED ABOVE OR AS SHOWN IN THE GEOTECHNICAL DETAILS

LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

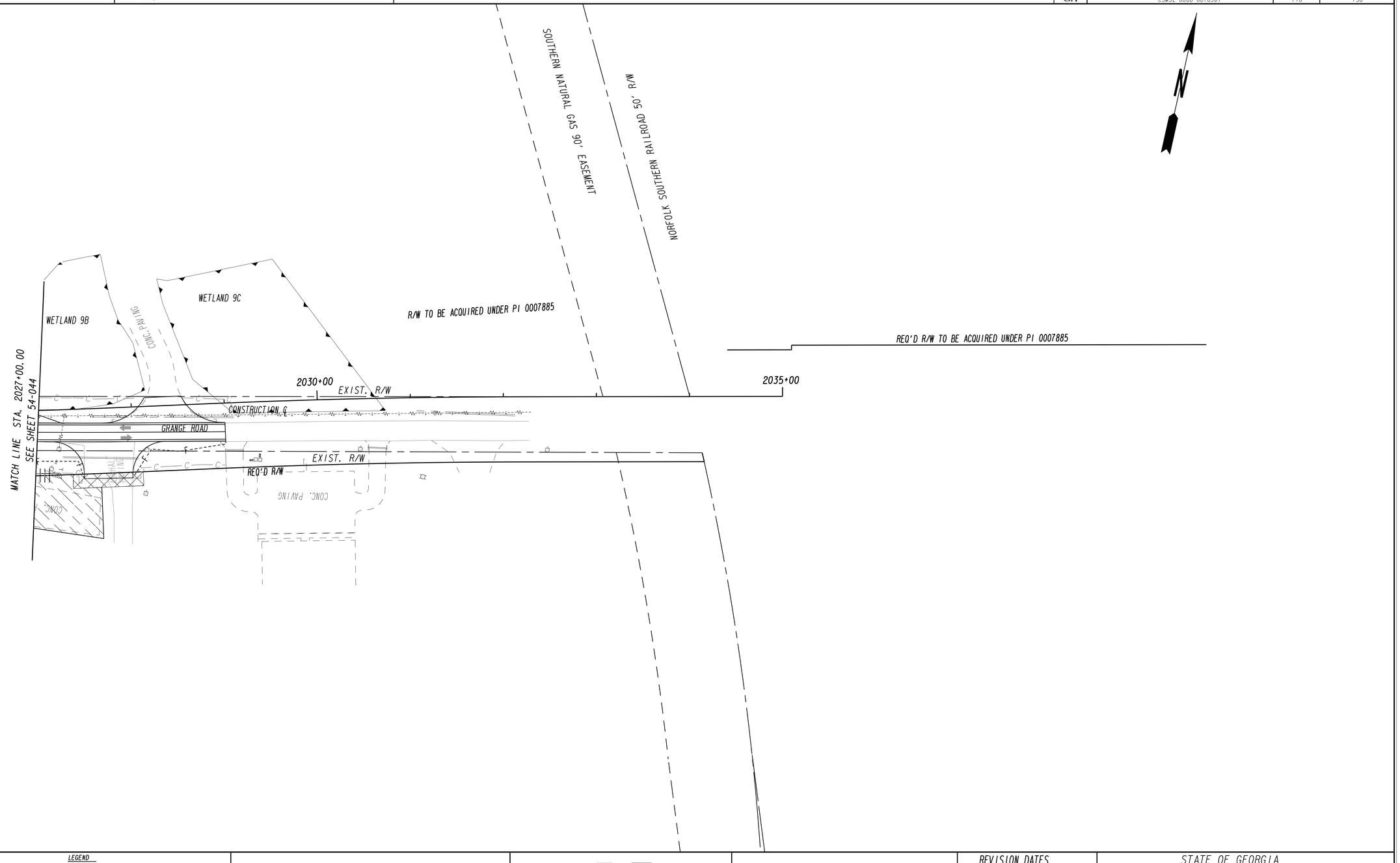
BMP LOCATION DETAILS
STAGE 2
JIMMY DELOACH CONNECTOR
STA. 186+00 TO STA. 199+00

DRAWING No. 54-044

3/1/2007 GPLN

24-JUL-2013 09:43 9:43:12 AM JParks	0008690_54-044 GDOT_11x17.pen	Y:\Roadways\126379\0008690\Dgn\0008690_54-044.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
			GA	CSMSL-0008-00(690)	710	730

RELEASED FOR CONSTRUCTION - 07-23-13



LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

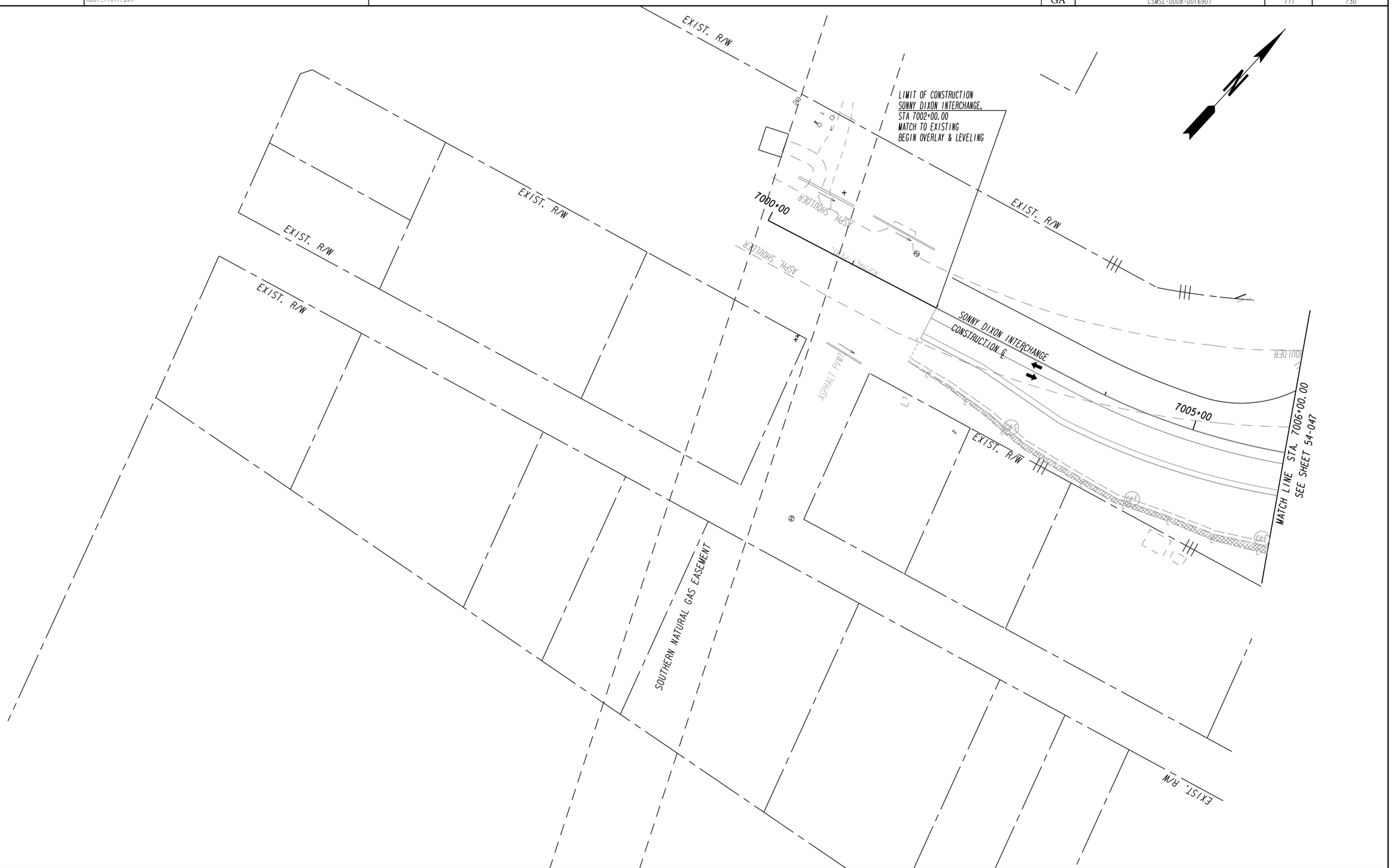
BMP LOCATION DETAILS
STAGE 2
GRANGE ROAD
STA. 2017+00 TO END CONST.

DRAWING No. 54-045

3/11/2007 GPLN

24-JUL-2013 09:43	9:43:19 AM	0008690_54-045	Y:\Roadways\126379\0008690\Dgn\0008690_54-045.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	711	730

RELEASED FOR CONSTRUCTION - 07-23-13



LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

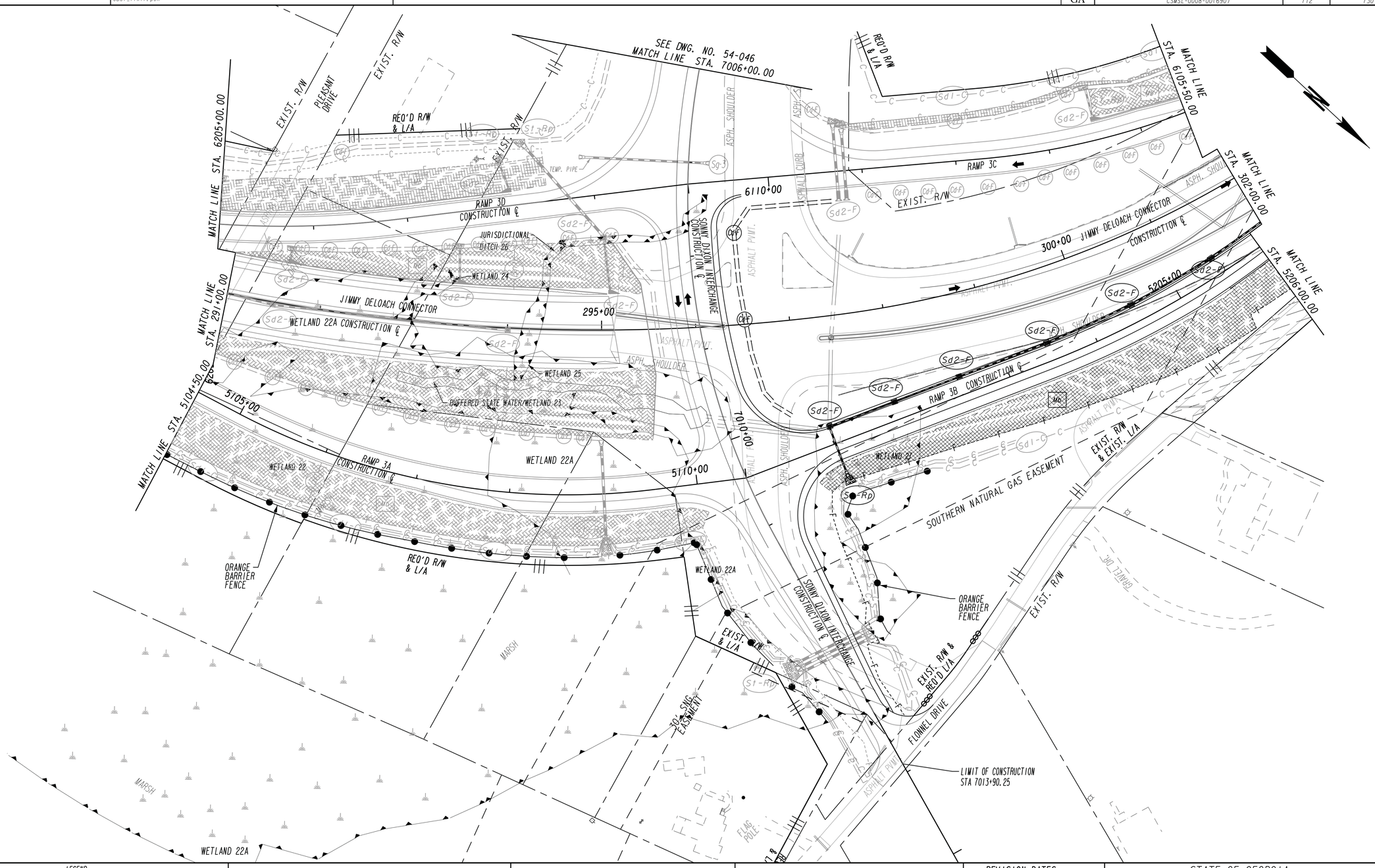
BMP LOCATION DETAILS
STAGE 2
SONNY DIXON INTERCHANGE
BEGIN CONST. TO STA. 7006+00

DRAWING No. 54-046

3/1/2007 GPLN

24-JUL-2013 09:43	9:43:26 AM	0008690_54-046	Y:\Roadways\126379\0008690\Dgn\0008690_54-046.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	712	730

RELEASED FOR CONSTRUCTION - 07-23-13



LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

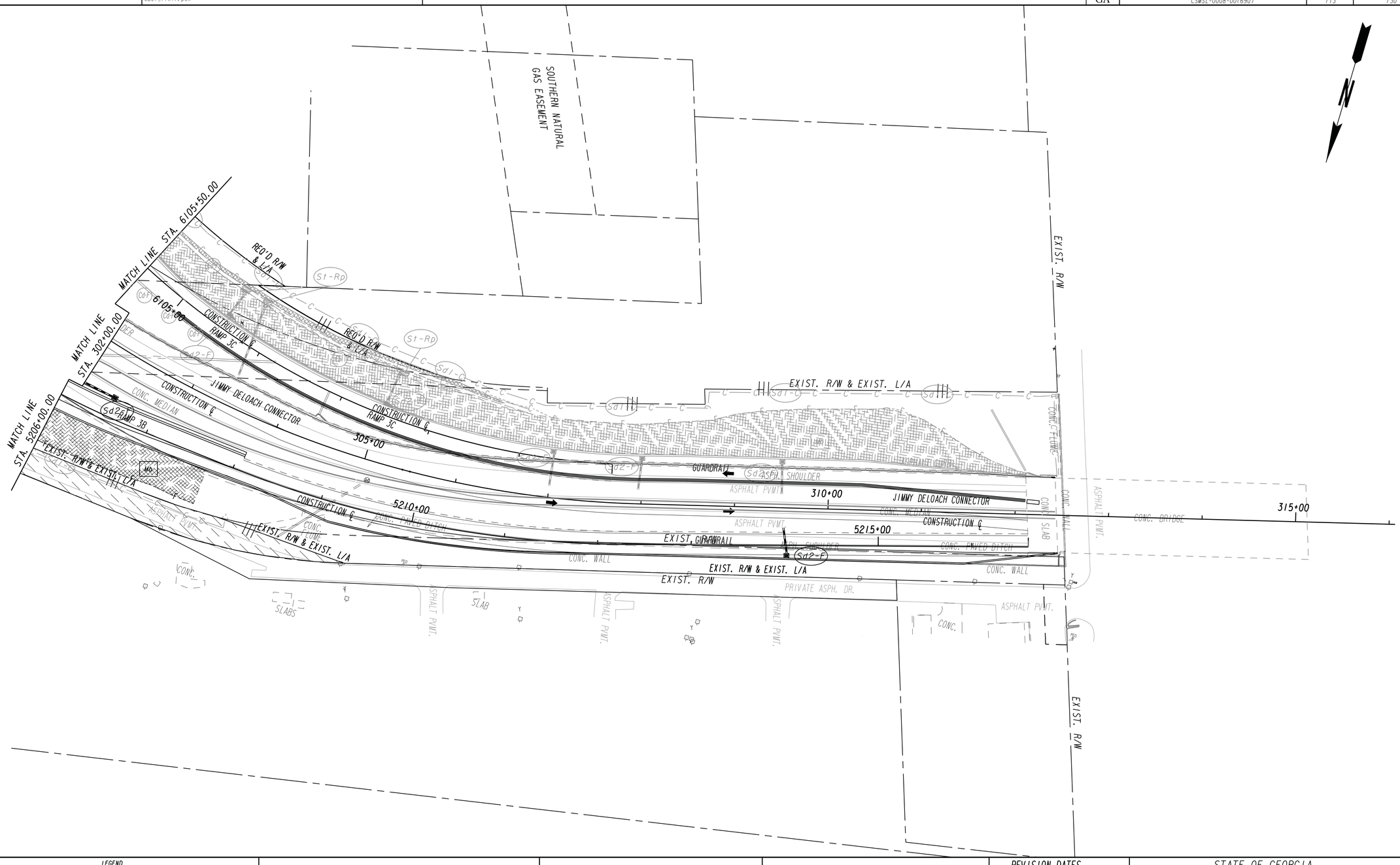
BMP LOCATION DETAILS
STAGE 2
JIMMY DELOACH CONNECTOR
STA. 291+00 TO STA. 302+00

DRAWING No. 54-047

3/1/2007 GPLN

24-JUL-2013 09:43	9:43:37 AM	0008690_54-047	Y:\Roadways\126379\0008690\Dgn\0008690_54-047.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	713	730

RELEASED FOR CONSTRUCTION - 07-23-13



LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

3/11/2007 GPLN

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

BMP LOCATION DETAILS
STAGE 2
JIMMY DELOACH CONNECTOR
STA. 1029+00 TO END PROJECT

DRAWING No. 54-048

24-JUL-2013 09:43	9:43:45 AM	0008690_54-048	Y:\Roadways\126379\0008690\Dgn\0008690_54-048.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	714	730

RELEASED FOR CONSTRUCTION - 07-23-13

UTILITY EASEMENT
ACCESS EASEMENT
ASPHALT PAVEMENT
ESA - SEE ENVIRONMENTAL RESOURCES IMPACT TABLE IN GENERAL NOTES FOR CONSTRUCTION RESTRICTIONS
WETLAND I
ORANGE BARRIER FENCE
REQ'D R/W
REQ'D R/W & L/A
EXIST. R/W
1020+00
ASPHALT PAVING
MATCH LINE STA. 1021+00.00
SEE SHEET 54-050
1015+00
S.R. 307/BOURNE AVENUE CONSTRUCTION ℄
8001+00
353
BOURNE AVENUE LOCAL ACCESS ROAD CONSTRUCTION ℄
8002+00
8003+00
1010+00
25' DRAINAGE & UTILITY ESMT.
PRIVATE VEHICULAR ACCESS EASEMENT
35' UTILITY EASEMENT
DRAINAGE EASEMENT
25' UTILITY EASEMENT
12.5' UTILITY EASEMENT
PRIVATE ACCESS EASEMENT
40' DRAINAGE EASEMENT

LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

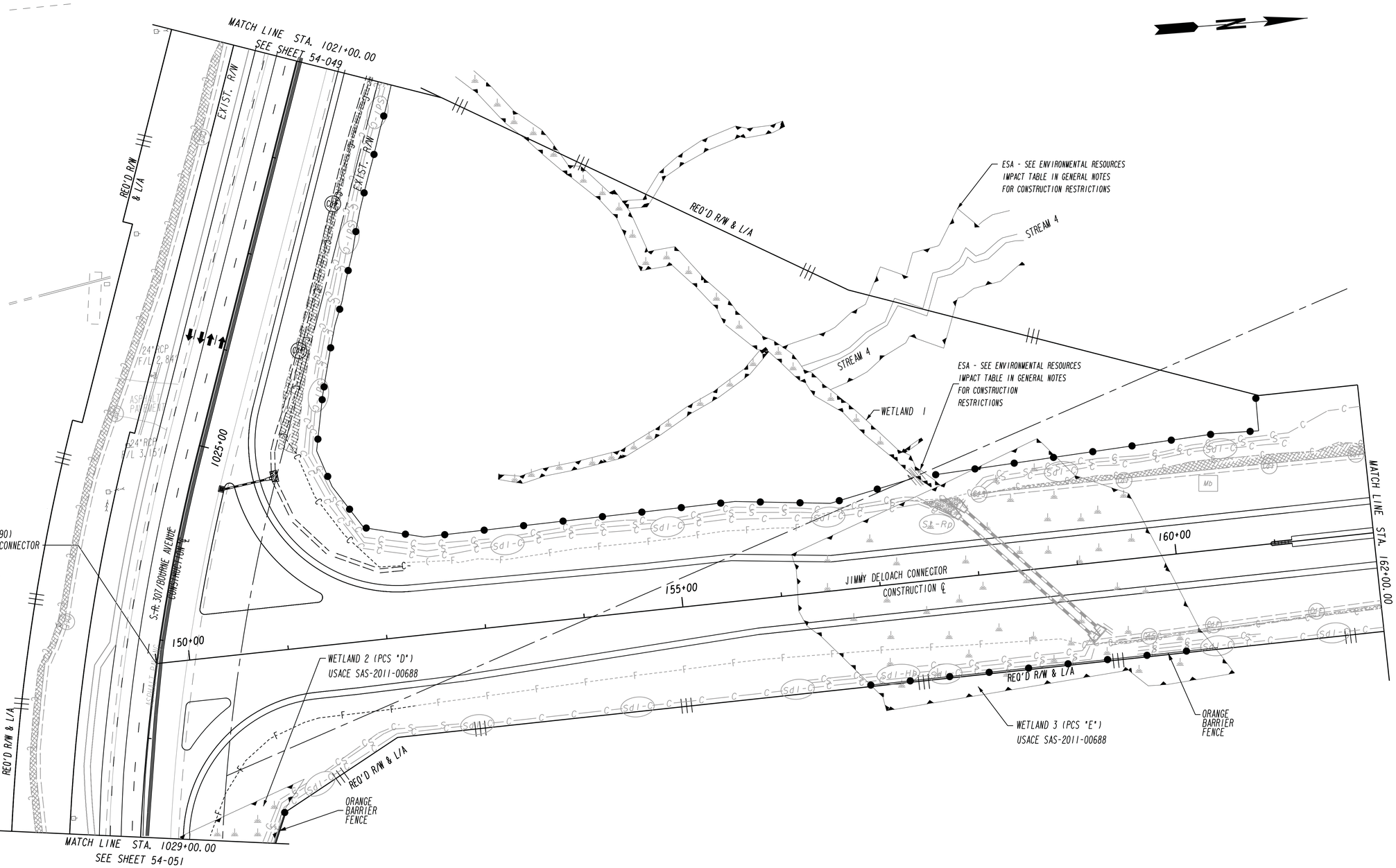
BMP LOCATION DETAILS
STAGE 3
BOURNE AVENUE
BEGIN CONST. TO STA. 1021+00

DRAWING No. 54-049

3/11/2007 GPLN

24-JUL-2013 09:43 9:43:53 AM JParks	0008690_54-049 GDOT_11x17.pen	Y:\Roadways\126379\0008690\Dgn\0008690_54-049.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
			GA	CSMSL-0008-00(690)	715	730

RELEASED FOR CONSTRUCTION - 07-23-13



LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

3/11/2007 GPLN

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

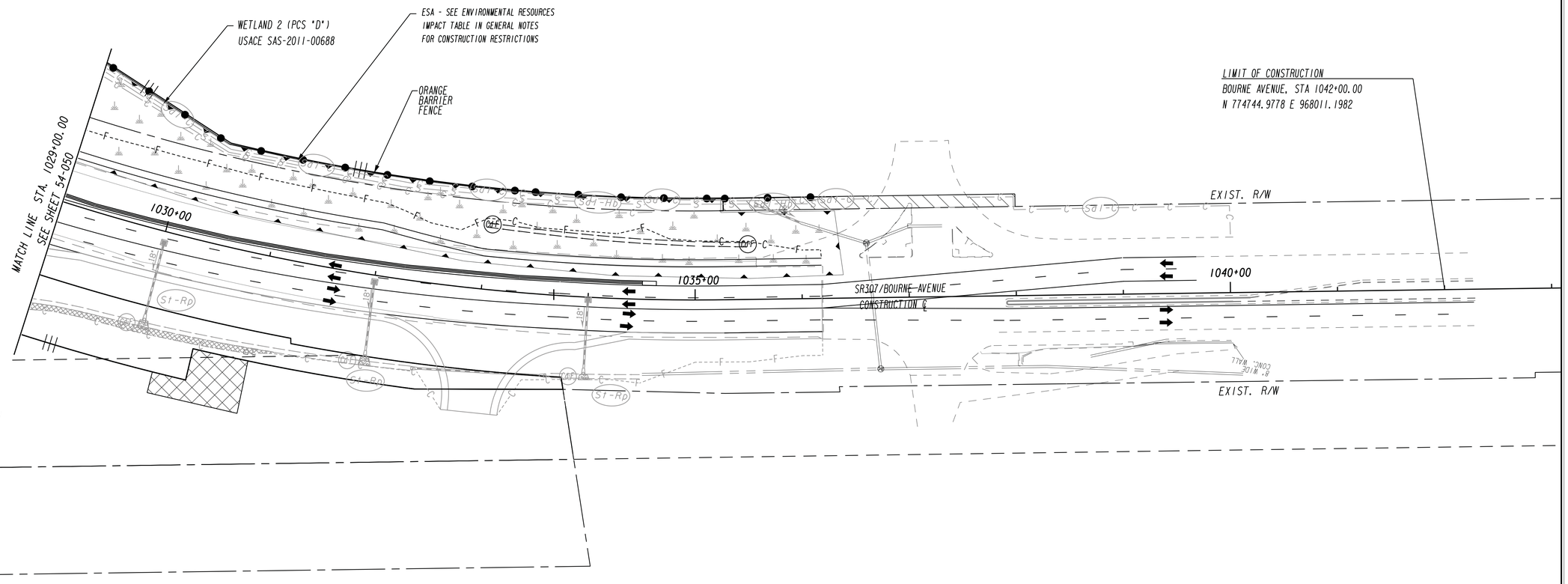
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

BMP LOCATION DETAILS
STAGE 3
JIMMY DELOACH CONNECTOR
BEGIN PROJECT TO STA. 162+00

DRAWING No. 54-050

24-JUL-2013 09:44 9:44:01 AM JParks	0008690_54-050 GDOT_11x17.pen	Y:\Roadways\126379\0008690\Dgn\0008690_54-050.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
			GA	CSMSL-0008-00(690)	716	730

RELEASED FOR CONSTRUCTION - 07-23-13



LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

3/11/2007 GPLN

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

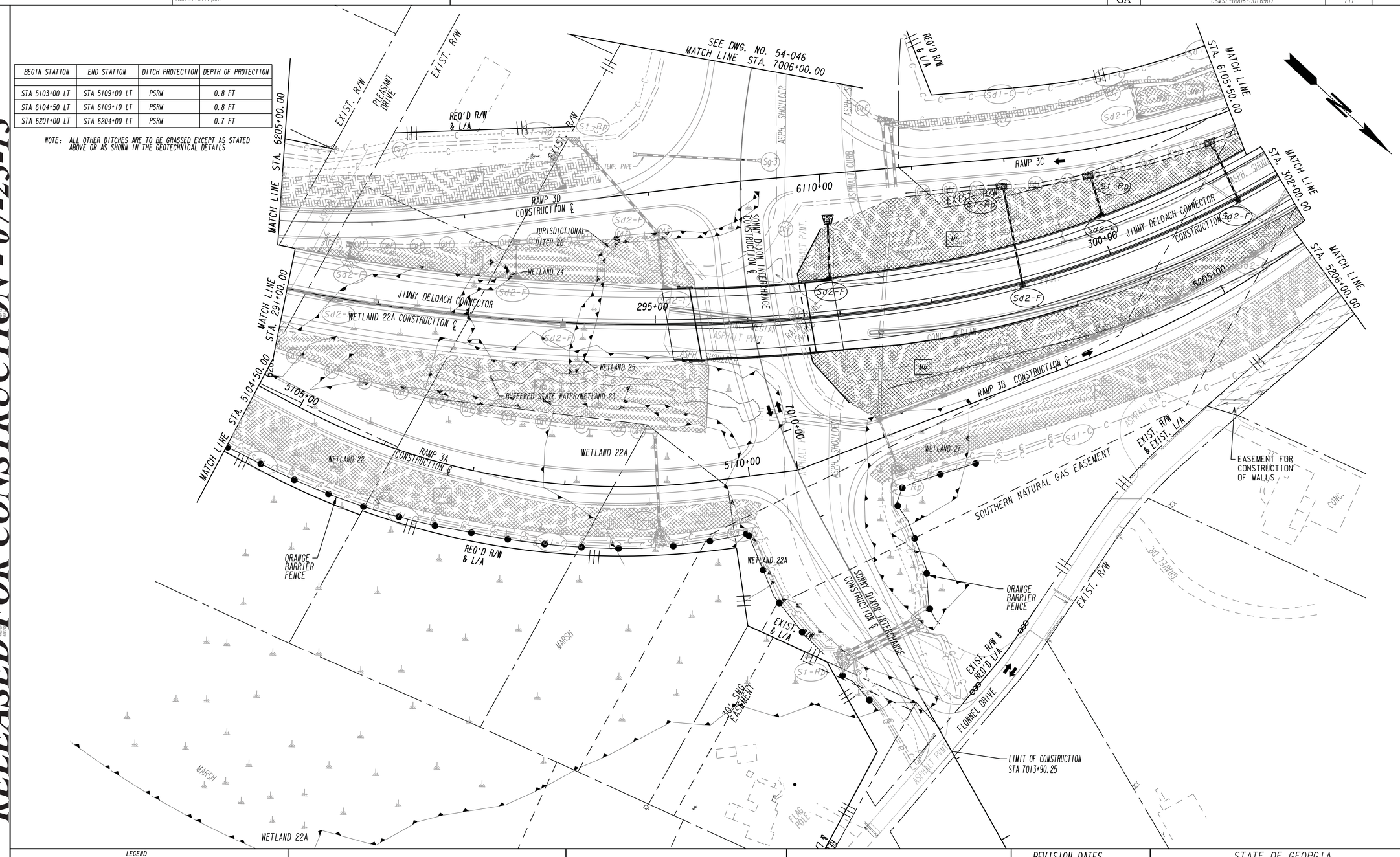
BMP LOCATION DETAILS
STAGE 3
BOURNE AVENUE
STA. 1029+00 TO END CONST.

DRAWING No. 54-051

RELEASED FOR CONSTRUCTION - 07-23-13

BEGIN STATION	END STATION	DITCH PROTECTION	DEPTH OF PROTECTION
STA 5103+00 LT	STA 5109+00 LT	PSRM	0.8 FT
STA 6104+50 LT	STA 6109+10 LT	PSRM	0.8 FT
STA 6201+00 LT	STA 6204+00 LT	PSRM	0.7 FT

NOTE: ALL OTHER DITCHES ARE TO BE GRASSED EXCEPT AS STATED ABOVE OR AS SHOWN IN THE GEOTECHNICAL DETAILS



LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

3/1/2007 GPLN

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

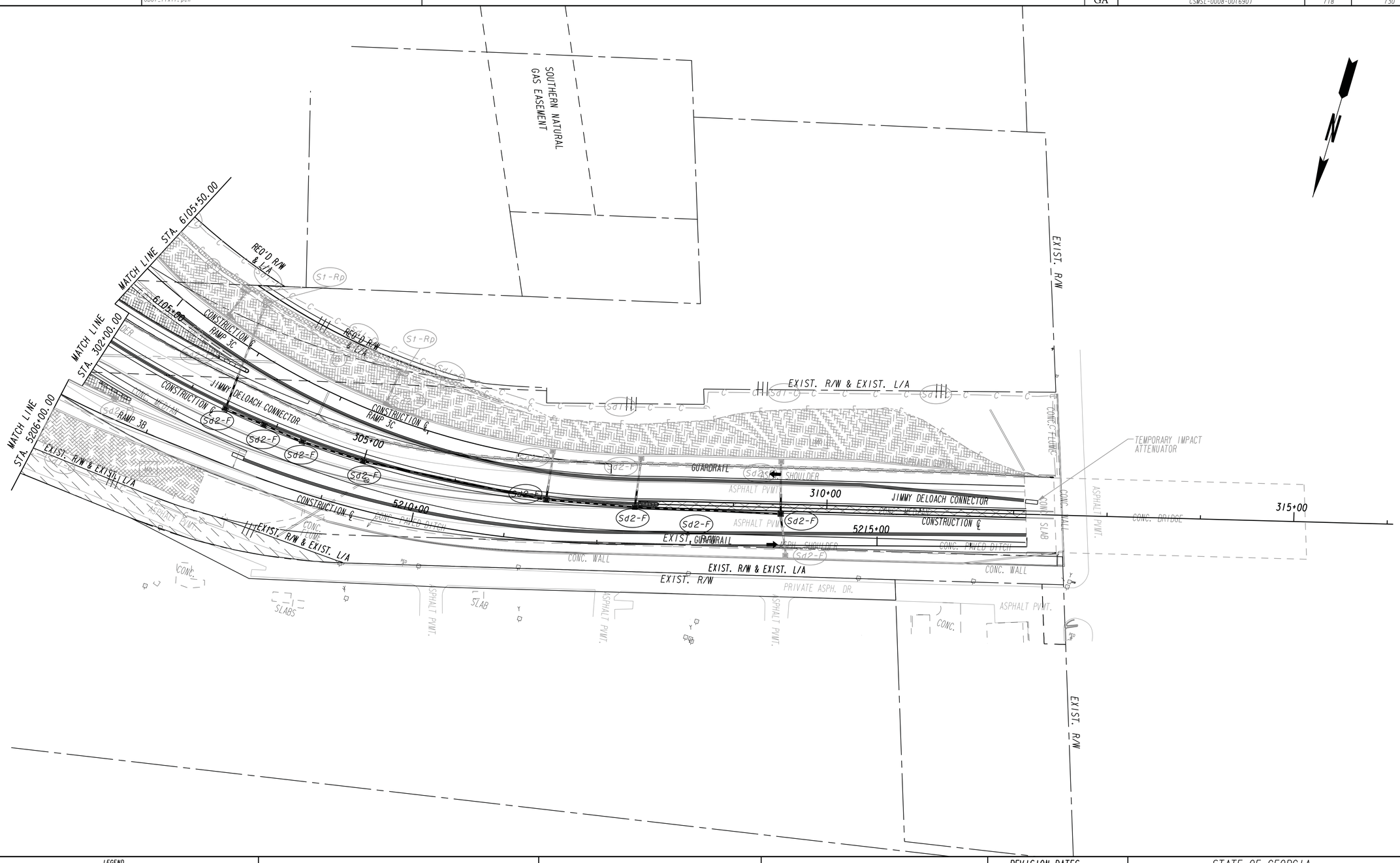
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

BMP LOCATION DETAILS
STAGE 3
JIMMY DELOACH CONNECTOR
STA. 291+00 TO STA. 302+00

DRAWING No. 54-052

24-JUL-2013 09:44	9:44:18 AM	0008690_54-052	Y:\Roadways\126379\0008690\Dgn\0008690_54-052.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	718	730

RELEASED FOR CONSTRUCTION - 07-23-13



LEGEND

- PAVEMENT REMOVAL
- TEMPORARY CONSTRUCTION PAVEMENT
- PERMANENT CONSTRUCTION
- CONCRETE MEDIAN CONSTRUCTION
- MILL & OVERLAY CONSTRUCTION
- OPEN LANES OF TRAFFIC

3/1/2007 GPLN

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

BMP LOCATION DETAILS
STAGE 3
JIMMY DELOACH CONNECTOR
STA. 5040+00 TO END PROJECT

DRAWING No. 54-053

24-JUL-2013 09:44	9:44:24 AM	0008690_55	Y:\Roadways\126379\0008690\Dgn\0008690_55.dgn	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
JParks		GDOT_11x17.pen		GA	CSMSL-0008-00(690)	719	730

RELEASED FOR CONSTRUCTION - 07-23-13

SURFACE WATER
DRAINAGE AREA 1 - 0.26mi²
WETLAND 1

SURFACE WATER
DRAINAGE AREA 2 - 0.26mi²
WETLAND 1

SURFACE WATER
DRAINAGE AREA 3 - 0.26mi²
WETLAND 1

SURFACE WATER
DRAINAGE AREA 4 - 0.24mi²
WETLANDS 6, 10 & STREAM 7

SURFACE WATER
DRAINAGE AREA 5 - 0.24mi²
WETLANDS 6, 10 & STREAM 7

SURFACE WATER
DRAINAGE AREA 6 - 0.28mi²
WETLAND 9 & STREAM 7

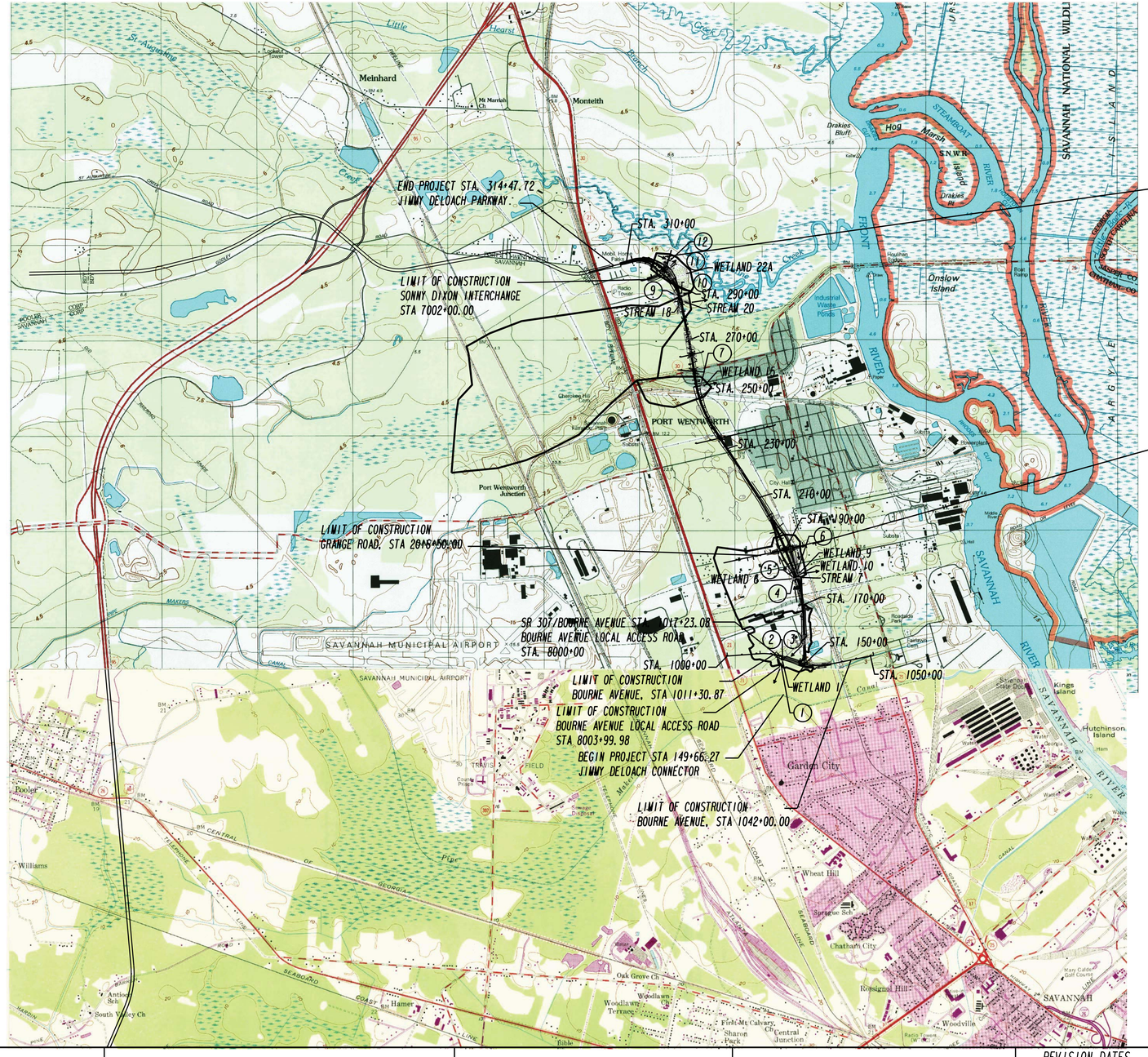
SURFACE WATER
DRAINAGE AREA 7 - 0.07mi²
WETLAND 15

SURFACE WATER
DRAINAGE AREA 9 - 1.02mi²
STREAMS 18 & 20

SURFACE WATER
DRAINAGE AREA 10 - 1.02mi²
STREAM 20

SURFACE WATER
DRAINAGE AREA 11 - 0.04mi²
WETLAND 22A

SURFACE WATER
DRAINAGE AREA 12 - 0.04mi²
WETLAND 22A



LEGEND

(No.) - DENOTES CORRESPONDING OUTFALL

THE LPA GROUP
TRANSPORTATION CONSULTANTS
A UNIT OF MICHAEL BAKER CORPORATION
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-918

SCALE IN FEET
0 2000 4000 8000

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

WATERSHED MAP
SITE MONITORING PLAN

DRAWING No.
55-001

3/1/2007 GPLN

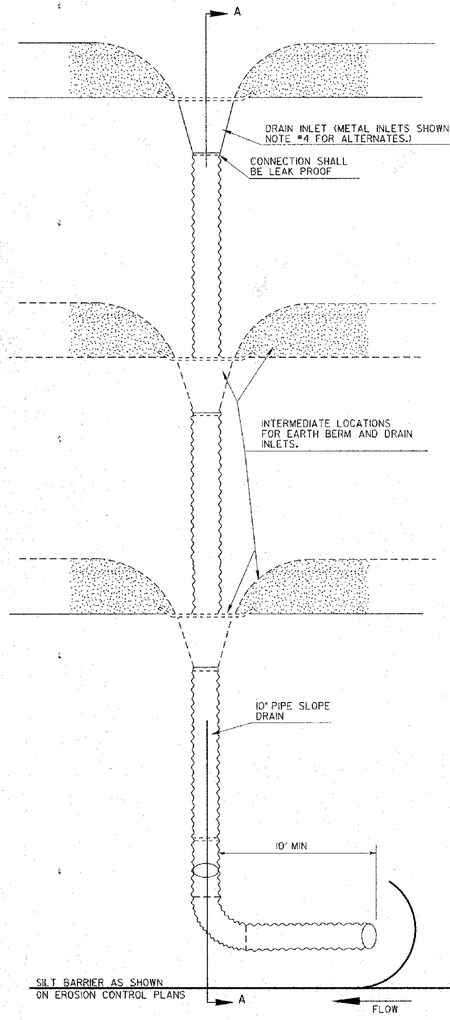
Tue Feb 29 08:32:19 2000 \\GDOT-DSN1\OCF\OSD_MgtProf posted M:\Osvld\working\(gm)d-19.prf

RELEASED FOR CONSTRUCTION - 07-23-13

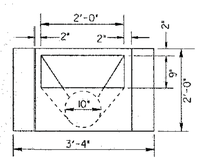
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

USES:

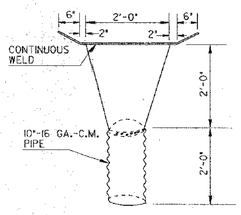
TEMPORARY PIPE SLOPE DRAIN IS USED TO CARRY WATER FROM THE WORK AREA TO A LOWER ELEVATION. TYPICAL SPACING SHALL BE AT INTERVALS OF 500 FEET ON DIAMETER TO 2% GRADES, 200 FEET ON STEEPER GRADES, AND MORE FREQUENTLY AS DICTATED BY EXISTING FIELD CONDITIONS.



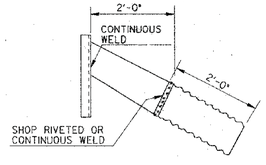
PLAN VIEW
SCALE: ½" = 1'-0"



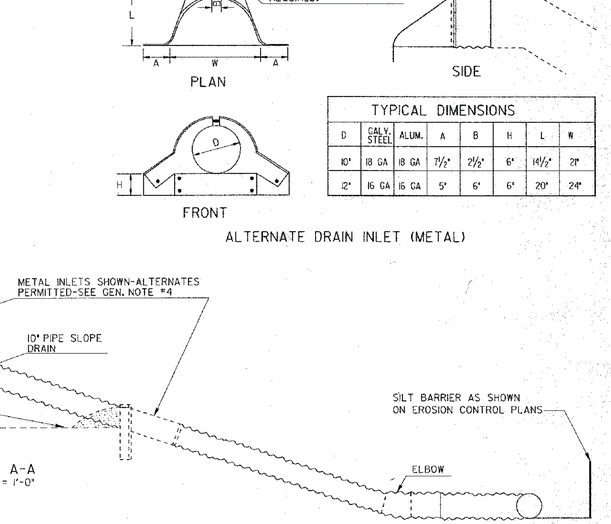
FRONT VIEW
SCALE: ¾" = 1'-0"



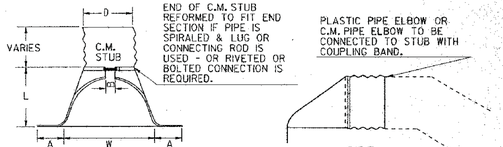
PLAN VIEW
SCALE: ¾" = 1'-0"



SIDE VIEW
SCALE: ¾" = 1'-0"



SECTION A-A
SCALE: ½" = 1'-0"



ALTERNATE DRAIN INLET (METAL)

TYPICAL DIMENSIONS

D	GALV. STEEL	ALUM.	A	B	H	L	W
10"	18 GA	18 GA	7½"	2½"	6"	14½"	21"
12"	16 GA	16 GA	5"	6"	6"	20"	24"

GENERAL NOTES:

1. DRAIN INLETS AND SLOPE DRAIN PIPE USED FOR TEMPORARY EROSION AND POLLUTION CONTROL UNDER SECTION 163 WILL BE RETAINED FOR USE AS INVENTORY ITEMS BY THE CONTRACTOR.
2. EROSION PROTECTION AT PIPE OUTLET WILL BE PROVIDED AS APPROPRIATE. THE PIPE MAY BE EXTENDED TO OUTLET IN A PAVED DITCH OR TEMPORARY DISSIPATORS CONSTRUCTED OF LOGS OR STONE MAY BE USED. NO SEPARATE PAYMENT WILL BE MADE FOR THIS PROTECTION MEASURE.
3. SLOPE DRAIN PIPE MAY BE ANY TYPE ALLOWED BY THE GA. STANDARD SPECIFICATIONS.
4. ALLOWABLE DRAIN INLET ALTERNATES WILL BE:
   (A) IF SLOPE DRAIN IS PLASTIC, A PLASTIC DRAIN INLET OR PLASTIC FLARED END SECTION HAVING SIMILAR DESIGN TO METAL INLETS OR END SECTIONS MAY BE USED FOR THE DRAIN INLET.
   (B) A METAL FLARED END SECTION MAY BE USED WITH EITHER PLASTIC PIPE OR C.M. PIPE, IF THE END SECTION WAS MADE FOR LARGER PIPE THAN THE SLOPE DRAIN PIPE, AN APPROVED MODIFIED CONNECTION WILL BE REQUIRED BETWEEN THE PIPE AND THE END SECTION.
   (C) A SUMP HOLE WITH DIMENSIONS AT LEAST EQUIVALENT TO THE METAL DRAIN AND LINED WITH POLYETHYLENE OR OTHER MATERIAL AS APPROVED BY THE ENGINEER MAY BE USED WITH ANY TYPE OF PIPE.
   (D) THE METAL DRAIN INLET SHOWN MAY BE USED WITH EITHER 10" C.M. PIPE OR PLASTIC PIPE.
5. THE CONTRACTOR MAY ELECT TO USE PIPE LARGER THAN 10" DIAMETER WITH NO ADDITIONAL PAYMENT.

BY	REVISION	DATE
	ADDED ELBOW	2-25-00

CONSTRUCTION DETAILS

TEMPORARY PIPE SLOPE DRAIN WITH DRAIN INLET

SCALE AS SHOWN

D-19

THE LPA GROUP
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION

OFFICE: INNOVATIVE PROGRAM DELIVERY

EROSION CONTROL
CONSTRUCTION DETAILS

DRAWING No. 56-001

3/1/2007 GPLN

Tue Feb 29 08:32:19 2000 \\GDOT-DSN1\OCF\OSD_MgtProf posted M:\Osvld\working\(gm)d-19.prf

RELEASED FOR CONSTRUCTION - 07-23-13

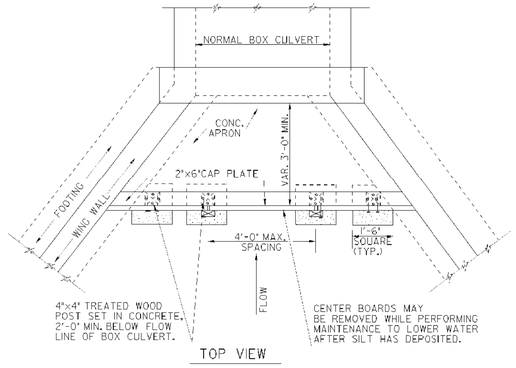
USES: A SILT CONTROL GATE IS A STRUCTURE PLACED ON A PIPE, SINGLE BARREL BOX CULVERT, OR DROP INLET TO FORM A BASIN TO TRAP SILT.

NOTE: SILT CONTROL GATES SHALL NOT BE USED ON STRUCTURES THAT CONVEY STATE WATERS.

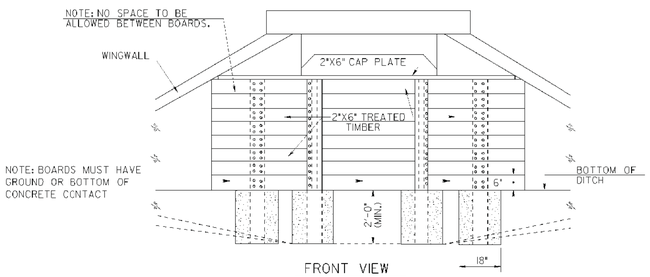
NOTES:

1. REFER TO CONSTRUCTION DETAIL 2332 FOR CONCRETE APRONS.
2. REMOVAL OF TYPE I SILT CONTROL GATE SHALL BE IN ACCORDANCE WITH SECTION 163.3.05.

TYPE 1- FOR BOX CULVERTS

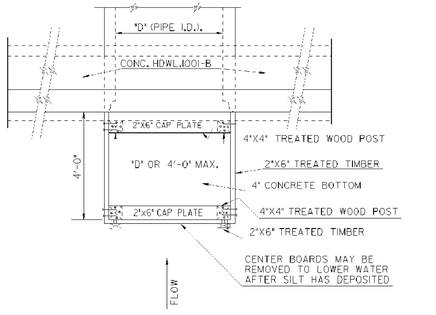


TOP VIEW



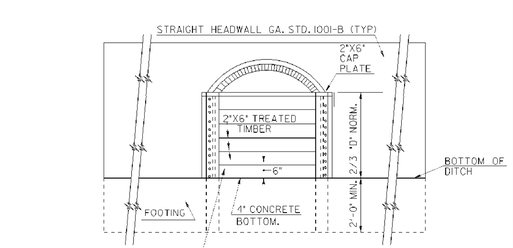
FRONT VIEW

TYPE 2 - FOR STRAIGHT HEADWALLS



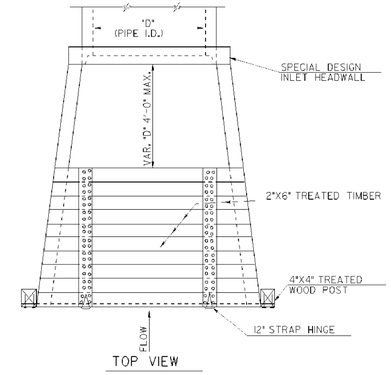
TOP VIEW

NOTE:
NO SPACE TO BE ALLOWED BETWEEN BOARDS

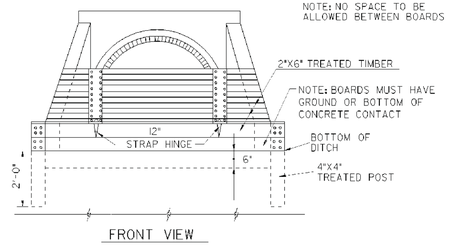


FRONT VIEW

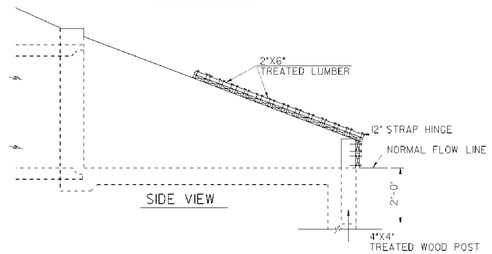
TYPE 3 - FOR FLARED END SECTIONS AND TAPERED HEADWALLS



TOP VIEW



FRONT VIEW



SIDE VIEW

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

H-9-11	3-21-05	NO-22-02	DATE
ADD. & REV SILT GATE NOTES	REMOVE INLET SEDIMENT TRAP	REV. LUMBER SIZES	REV. SPECIFICATION	ADDED PAYMENT NOTE	REVISION
TPC	GLO	MCR	BY

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

CONSTRUCTION DETAILS

SILT CONTROL GATES FOR STRUCTURES TYPE - 1, 2, AND 3

REV. & REDR. DEC., 2000

Designed
Drawn
Traced
Checked
8-T2

NUMBER D-20

THE LPA GROUP
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

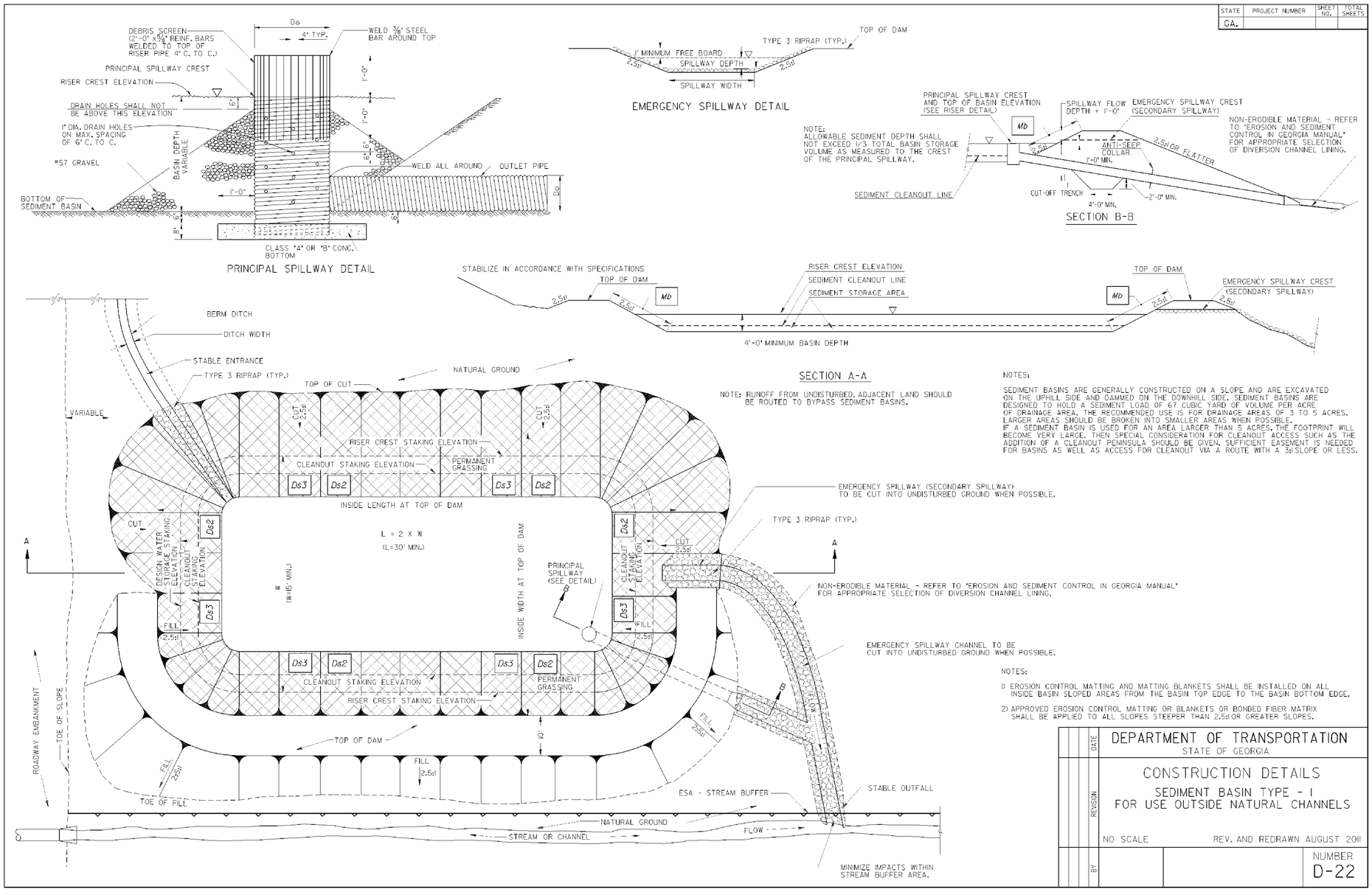
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

EROSION CONTROL CONSTRUCTION DETAILS

DRAWING No. 56-002

3/1/2007 GPLN

RELEASED FOR CONSTRUCTION - 07-23-13



STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

CONSTRUCTION DETAILS
SEDIMENT BASIN TYPE - I
FOR USE OUTSIDE NATURAL CHANNELS

NO SCALE — REV. AND REDRAWN AUGUST 2011

NUMBER D-22

DATE	REVISION	BY

THE LPA GROUP
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

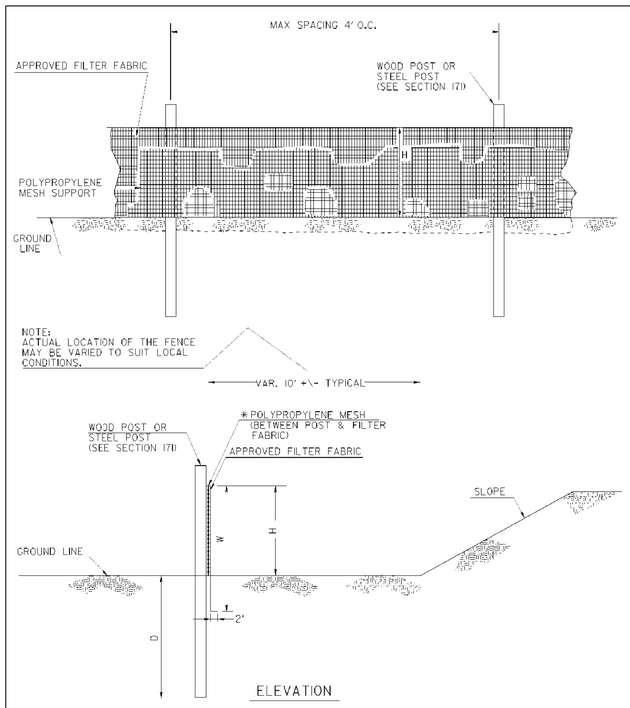
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

EROSION CONTROL
CONSTRUCTION DETAILS

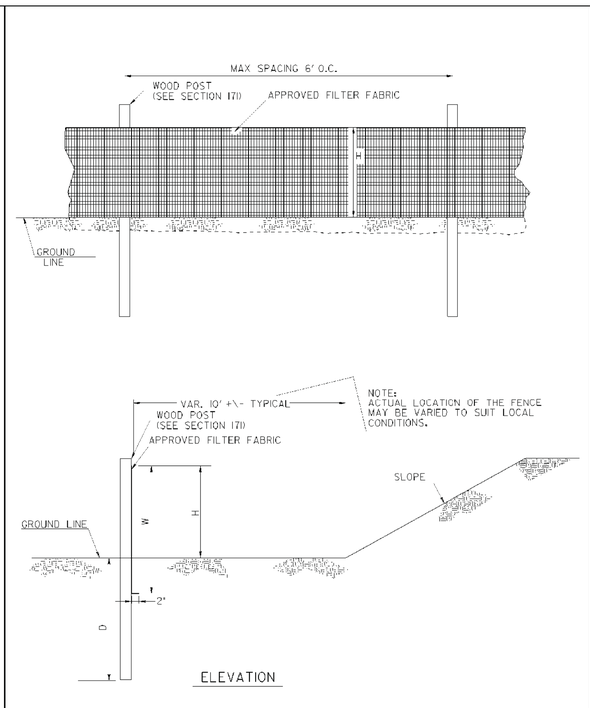
DRAWING No. 56-003

3/11/2007 GPLN

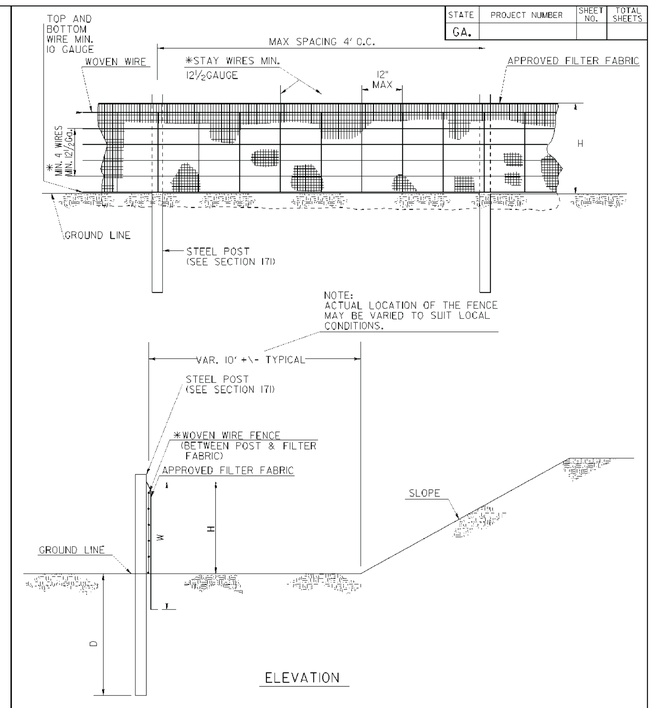
RELEASED FOR CONSTRUCTION - 07-23-13



SINGLE ROW TYPE C SILT FENCE WITH POLYPROPYLENE MESH SUPPORT



SINGLE ROW TYPE A SILT FENCE



SINGLE ROW TYPE C SILT FENCE WITH WOVEN WIRE SUPPORT

FENCE TYPE	POST LENGTH	H	D	W	TYPICAL USES
TYPE "A"	4 FT.	2'-4"	1'-6"	3'-0"	
TYPE "C"	4 FT.	2'-4"	1'-6"	3'-0"	AT BRIDGE END ROLLS, DOUBLE ROW ALONG STREAMS, WETLANDS AND ENVIRONMENTALLY SENSITIVE AREAS FOR USE OF THIS MATERIAL IN FABRIC CHECKDAMS SEE D-24D.

NOTES:

1. WIRE STAPLES SHALL BE AT LEAST 17 GAUGE, WITH LEGS AT LEAST ½ INCHES LONG AND A CROWN AT LEAST ¾INCHES WIDE. NAILS SHALL BE AT LEAST 14 GAUGE, 1INCH LONG , WITH BUTTON HEADS AT LEAST ¾ INCHES WIDE.
2. NAILS OR STAPLES SHALL BE EVENLY PLACED WITH AT LEAST 5 PER POST FOR TYPE A FENCE AND 4 PER POST FOR TYPE C FENCE.
3. THE VERTICAL WIRES FOR THE WOVEN WIRE SUPPORT FENCE SHALL HAVE A MAXIMUM SPACING OF 12 INCHES. THE TOP AND BOTTOM WIRES SHALL BE AT LEAST 10 GAUGE AND ALL OTHER WIRES SHALL BE AT LEAST 12½ GAUGE.
4. TEMPORARY SILT FENCE INSTALLATION IS DIFFERENT THAN THE SILT RETENTION BARRIER INSTALLATION.
5. SEE SECTION 171 FOR SILT FENCE SPECIFICATIONS.
6. SEE SECTION 894 FOR FENCING SPECIFICATIONS.
7. SEE QPL-36 FOR A LIST APPROVED SILT FENCE FABRIC.
8. TEMPORARY SILT FENCE SHALL NOT BE PLACED WITHIN STATE WATERS UNLESS PERMITTED.

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

CONSTRUCTION DETAILS

TEMPORARY SILT FENCE

NO SCALE | REV. AND REDRAWN JAN. 2011

NUMBER D-24A (SHEET 1 OF 4)

REVISION | DATE | BY

3/11/2007 GPLN

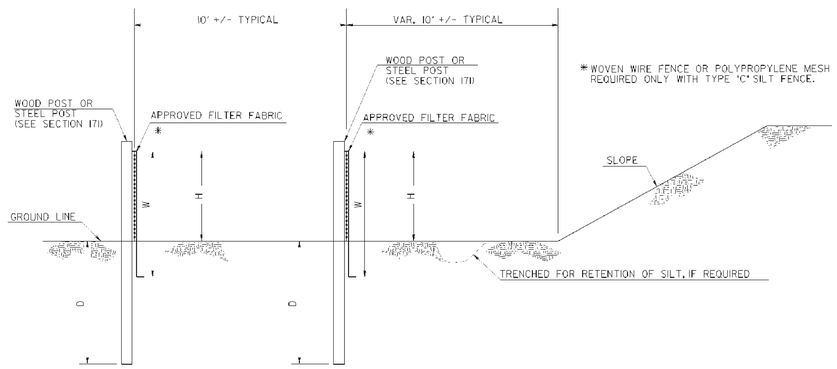
THE LPA GROUP
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
EROSION CONTROL
CONSTRUCTION DETAILS

DRAWING No. 56-004

RELEASED FOR CONSTRUCTION - 07-23-13

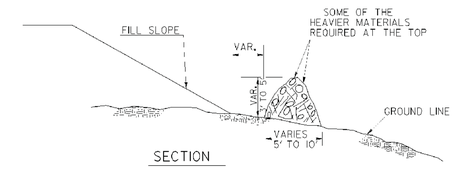


ELEVATION

DOUBLE ROW SILT FENCE

FENCE TYPE	POST LENGTH	H	D	W	TYPICAL USES
TYPE "A"	4 FT.	2'-4"	1'-6"	3'-0"	
TYPE "C"	4 FT.	2'-4"	1'-6"	3'-0"	AT BRIDGE END ROLLS. DOUBLE ROW ALONG STREAMS, WETLANDS AND ENVIRONMENTALLY SENSITIVE AREAS FOR USE OF THIS MATERIAL IN FABRIC CHECKDAMS SEE D-24D.

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS

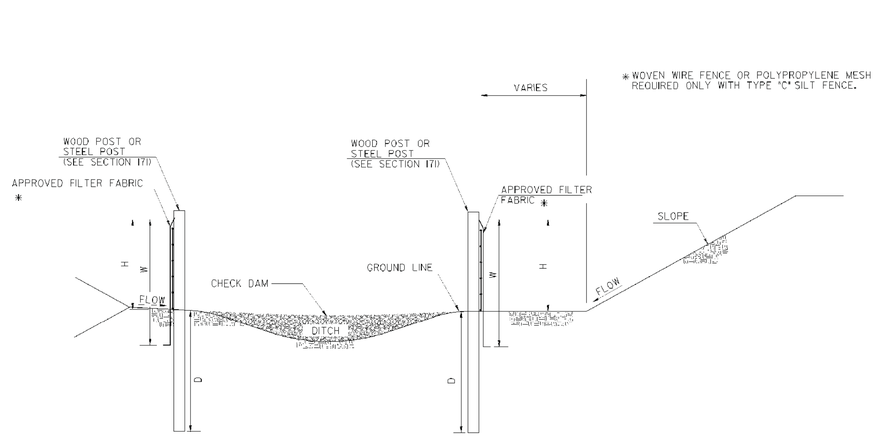


SECTION

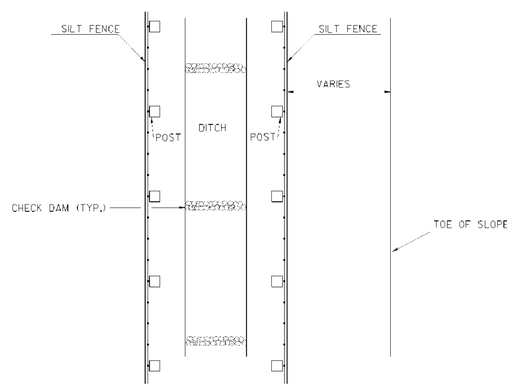
FRONT VIEW

NOTE: BRUSH BARRIER(S) WILL BE INCLUDED IN PAYMENT FOR CLEARING & GRUBBING.

BRUSH BARRIER DETAILS
(FOR USE IN RURAL AREAS)



ELEVATION



PLAN

FENCE TYPE	POST LENGTH	H	D	W	TYPICAL USES
TYPE "A"	4 FT.	2'-4"	1'-6"	3'-0"	
TYPE "C"	4 FT.	2'-4"	1'-6"	3'-0"	AT BRIDGE END ROLLS. DOUBLE ROW ALONG STREAMS, WETLANDS AND ENVIRONMENTALLY SENSITIVE AREAS FOR USE OF THIS MATERIAL IN FABRIC CHECKDAMS SEE D-24D.

SILT FENCE
PERIMETER INSTALLATION ALONG DITCH SECTION

NOTE: TEMPORARY SILT FENCE SHALL NOT BE PLACED WITHIN STATE WATERS.

REVISION	BY	DATE

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

CONSTRUCTION DETAILS

TEMPORARY SILT FENCE
BERM DITCH, INSTALLATION, BRUSH BARRIER

NO SCALE — REV. AND REDRAWN JAN. 2011

NUMBER D-24B
(SHEET 2 OF 4)

3/1/2007 GPLN

THE LPA GROUP
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

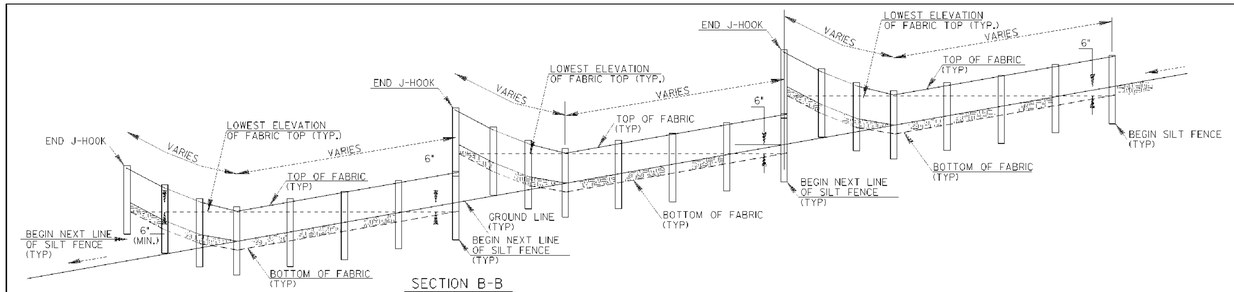
REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

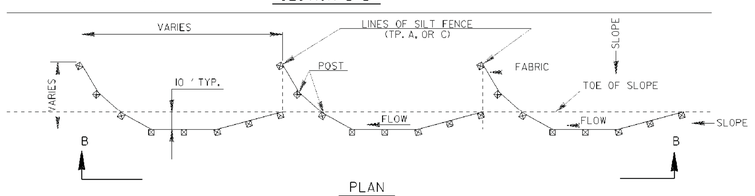
EROSION CONTROL
CONSTRUCTION DETAILS

DRAWING No. 56-005

RELEASED FOR CONSTRUCTION - 07-23-13

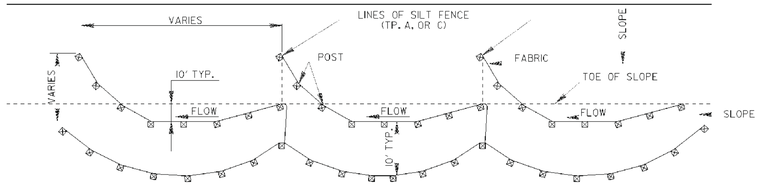


SECTION B-B



PLAN

SINGLE ROW SILT FENCE



PLAN

DOUBLE ROW SILT FENCE

TYPICAL J HOOK SPACING		
SLOPE PERCENT	TYPE OF SILT FENCE	MINIMUM SPACING (FEET)
1% TO 2%	TYPE A	100' ±
2% TO 3%	TYPE A	50' ±
3% TO 4%	TYPE C	50' ±
4% TO 5%	TYPE C	25' ±

NOTE:

1. IF THE GRADE IS BETWEEN 0 TO 1 PERCENT, THE SILT FENCE SHALL BE PLACED ACROSS THE DITCH.
2. TEMPORARY SILT FENCE SHALL NOT BE PLACED WITHIN STATE WATERS.

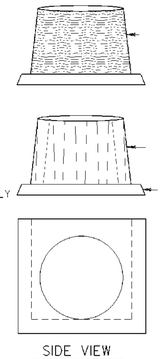
(PLASTIC ALTERNATE)

NOTE:
THE DRAINAGE AREA ENTERING THE INLET SEDIMENT TRAP SHALL BE NO GREATER THAN ONE ACRE.

TYPICAL CONSTRUCTION SEQUENCE FOR INLET SEDIMENT TRAP ALTERNATE

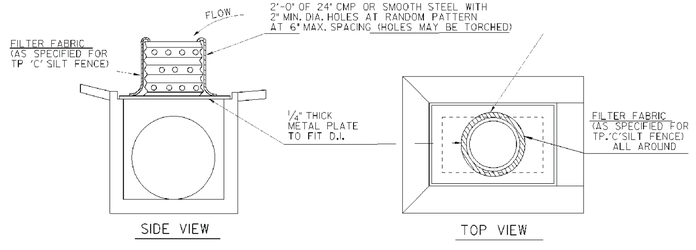
1. EXCAVATE APPROXIMATELY 4' TO 6' BELOW THE TOP OF THE INLET STRUCTURE.
2. PLACE THE FRAME ONTO THE INLET STRUCTURE. ENSURING PROPER SEATING OF FRAME TO STRUCTURE.
3. SLIDE THE FILTER OVER THE FRAME.
4. FILL THE FILTER POCKETS WITH SOIL, #57 GRAVEL OR EQUIVALENT. THE FILTER POCKETS SHOULD BE COMPLETELY FILLED TO ENSURE A GOOD SEAL BETWEEN THE GROUND AND INLET STRUCTURE.
5. BACK FILL AROUND THE FRAME AND FILTER ASSEMBLY IS NOT REQUIRED TO COMPLETE INSTALLATION; HOWEVER, BACK FILLING MAY BE NECESSARY TO COMPLETE EXCAVATION REQUIREMENTS FOR THE SITE.

NOTE:
INLET SEDIMENT TRAP ALTERNATE SHALL BE AS APPROVED BY THE GA. D.O.T. OFFICE OF MATERIALS & RESEARCH. DETAILS & SPECIFICATIONS NOT SHOWN ARE PER THE MANUFACTURER'S REQUIREMENTS.



SIDE VIEW

(METAL ALTERNATE)



SIDE VIEW

TOP VIEW

NOTE: WHERE INLET SEDIMENT TRAPS ARE SPECIFIED, EITHER THE PLASTIC ALTERNATE (LEFT) OR THE METAL ALTERNATE (RIGHT) MAY BE USED AS APPROVED BY THE ENGINEER.

NOTE:
INLET SEDIMENT TRAP AND INLET TO BE BUILT CONTINUOUS WITH PIPE

NOTE:
PAYMENT AS INLET SEDIMENT TRAP PER EACH

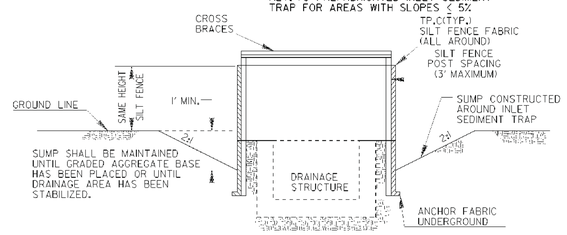
NOTE: SEE SEPARATE DETAILS FOR SILT FENCE AROUND DROP INLETS.

INLET SEDIMENT TRAP - FOR DROP INLETS

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

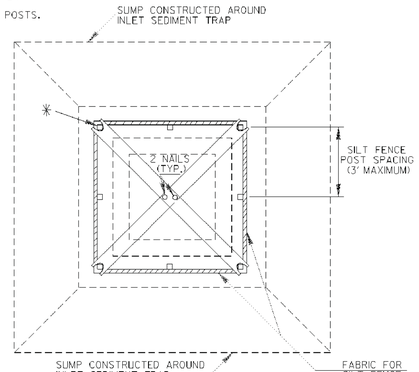
TYPICAL LOCATION AROUND DROP INLETS

ALT. TO PREFABRICATED INLET SEDIMENT TRAP FOR AREAS WITH SLOPES ≤ 5%



ELEVATION

✳ CROSS BRACING REQUIRED WHEN USING "ALTERNATE" TYPE C PRODUCTS WHICH USE WOOD POSTS.



PLAN

CROSS BRACES:

TWO - 2 X 4's WITH ENDS TO FIT POST, PROVIDING STURDY SUPPORT, OR AN APPROVED ALTERNATE

NOTE:
PAYMENT AS INLET SEDIMENT TRAP PER EACH.

NOTE:
SEE SEPARATE SHEET ENTITLED 'TEMPORARY SILT FENCE DETAILS' FOR SILT FENCE ERECTION DETAILS.

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

CONSTRUCTION DETAILS
TEMPORARY SILT FENCE
J-HOOK, INLET SEDIMENT TRAPS

NO SCALE — JANUARY 2011

DATE	REVISION	BY	NUMBER
			D-24C (SHEET 3 OF 4)

3/11/2007 GPLN

THE LPA GROUP
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

REVISION DATES		

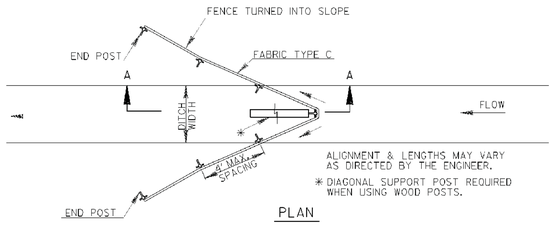
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

EROSION CONTROL
CONSTRUCTION DETAILS

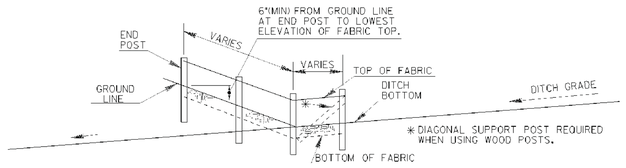
DRAWING No. 56-006

RELEASED FOR CONSTRUCTION - 07-23-13

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			



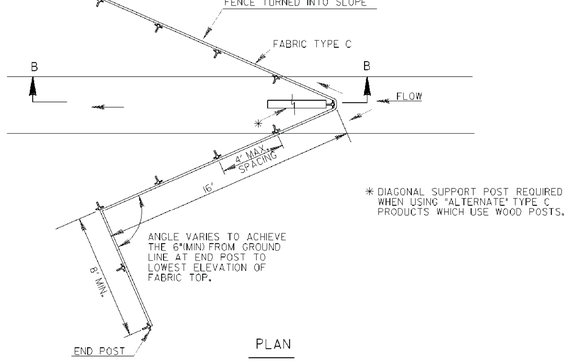
PLAN



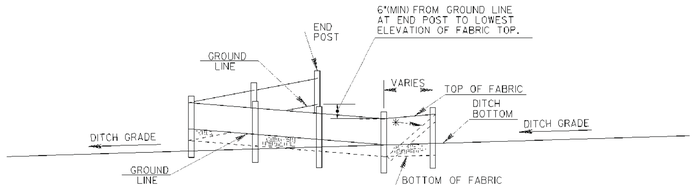
SECTION A-A

FABRIC CHECK DAM
DITCH WITH SIDE SLOPES 6:1 OR GREATER AND DEPTHS OVER 36"

TYPICAL FABRIC CHECK DAM SPACING	
GRADE OF DITCH	MINIMUM SPACING (FEET)
LESS THAN 1%	100' ±
1% TO 2%	100' ±
2% TO 3%	50' ±
3% TO 4%	50' ±
4% TO 5%	25' ±
4% TO <8%	25' ±



PLAN



SECTION B B

FABRIC CHECK DAM
DITCH WITH SIDE SLOPES FLATTER THAN 6:1(ALL MEDIANS) OR DEPTHS LESS THAN 36"

NOTE:

1. THE MAXIMUM DRAINAGE AREA FOR FABRIC CHECK DAMS SHALL BE 1 ACRE.
2. TEMPORARY SILT FENCE SHALL NOT BE PLACED WITHIN STATE WATERS.

	DATE	DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA	
	REVISION	CONSTRUCTION DETAILS TEMPORARY SILT FENCE FABRIC CHECK DAM	
		NO SCALE	JANUARY 2011
	BY		NUMBER D-24D (SHEET 4 OF 4)

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REVISION DATES		

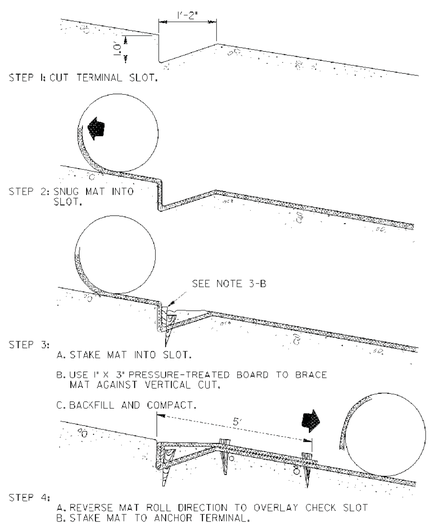
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

EROSION CONTROL CONSTRUCTION DETAILS

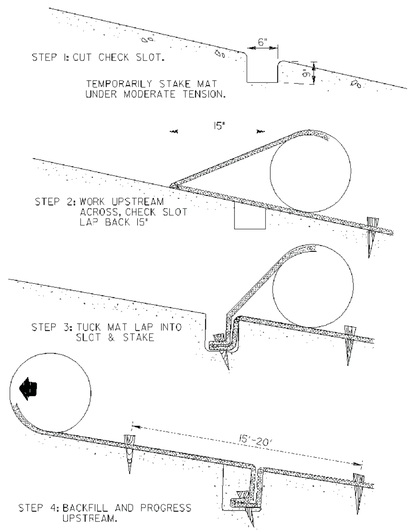
DRAWING No. 56-007

3/11/2007 GPLN

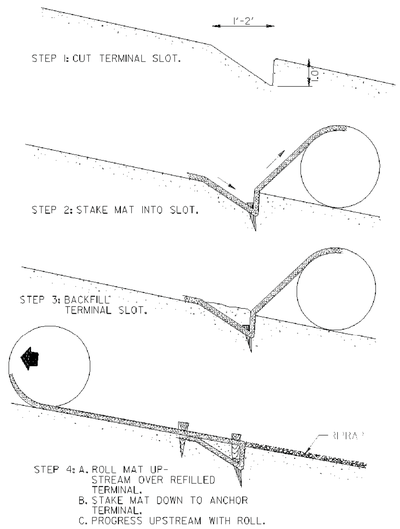
RELEASED FOR CONSTRUCTION - 07-23-13



UPSTREAM TERMINAL

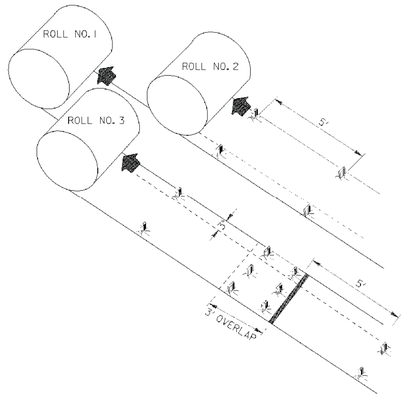


TRANSVERSE CHECK SLOT

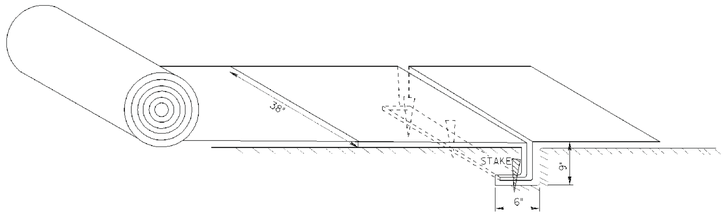


DOWNSTREAM TERMINAL

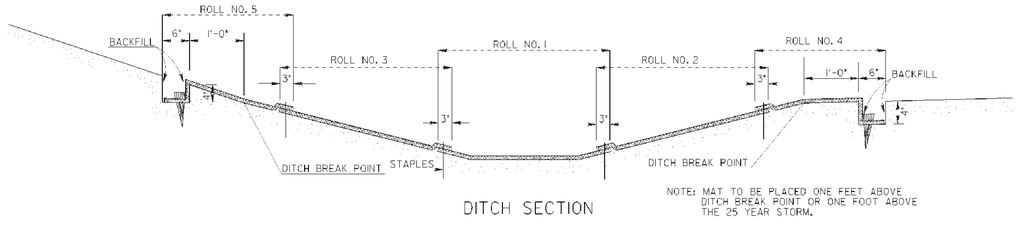
METAL MATTING - BLANKET STAPLE



SEQUENTIAL ROLL RUN OUT IN CHANNELS



PICTORAL VIEW OF TRANSVERSE SLOT



DITCH SECTION

NOTE: MAT TO BE PLACED ONE FEET ABOVE DITCH BREAK POINT OR ONE FOOT ABOVE THE 25 YEAR STORM.

GENERAL NOTES

1. INSTALLATION TO BE DONE AS PER MANUFACTURER'S RECOMMENDATIONS.
2. START AT DOWNSTREAM TERMINAL AND PROGRESS UPSTREAM.
3. FIRST ROLL IS CENTERED LONGITUDINALLY IN MID CHANNEL AND PINNED WITH TEMPORARY STAKES TO MAINTAIN ALIGNMENT.
4. SUBSEQUENT ROLLS FOLLOW IN STAGGERED SEQUENCE BEHIND FIRST ROLL. USE CENTER ROLL FOR ALIGNMENT TO CHANNEL CENTER.
5. WORK OUTWARDS FROM CHANNEL CENTER TO EDGE.
6. USE 3" OVERLAP AND STAKE AT 5' INTERVAL ALONG SEAMS.
7. USE 3' OVERLAPS AND SHINGLE DOWNSTREAM TO CONNECT LINING AT ROLL ENDS.
8. METAL STAPLES MAY BE USED IN LIEU OF WOODEN STAKES.

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

DATE	REVISION	BY
1-94-11	REVISED SHEET LAYOUT & METAL STAPLE.	T.P.C.
	ADDED DITCH SECTION AGGREED	

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

CONSTRUCTION DETAILS
PERMANENT SOIL REINFORCING MAT
(TURF REINFORCING MATS)
INSTALLATION ON DITCHES

NO SCALE | AUGUST 1988

Designed
Drawn K.L.J.
Traced
Checked

NUMBER D-35

THE LPA GROUP
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

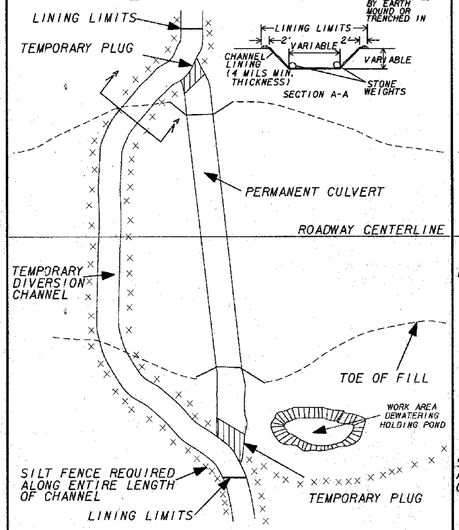
EROSION CONTROL
CONSTRUCTION DETAILS

DRAWING No. 56-008

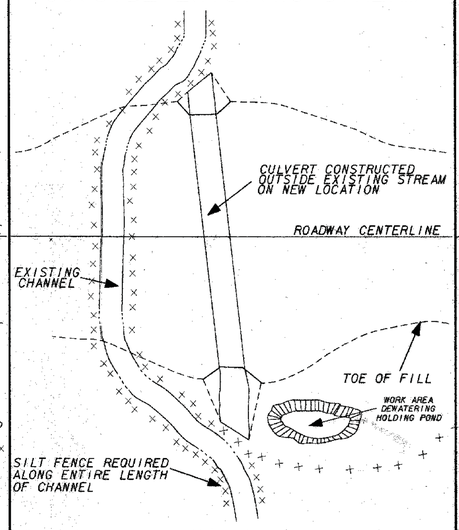
3/1/2007 GPLN

RELEASED FOR CONSTRUCTION - 07-23-13

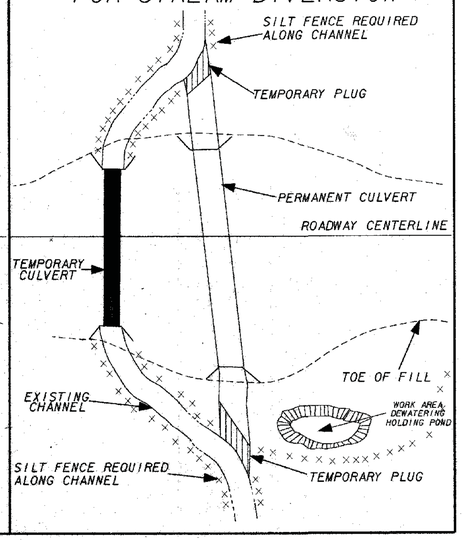
TEMPORARY DIVERSION CHANNEL PLASTIC LINING



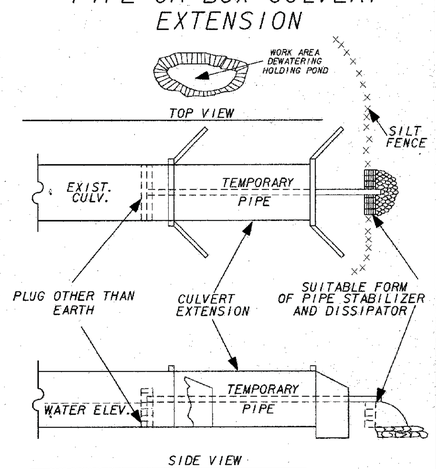
CULVERT CONSTRUCTED OUTSIDE EXISTING STREAM



TEMPORARY CULVERT FOR STREAM DIVERSION



PIPE OR BOX CULVERT EXTENSION



STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

1. THESE DETAILS ARE NOT CONSTRUCTION DRAWINGS. THEY ARE ROUGH SKETCHES OF IDEAS. ALTERNATES MAY BE SUBMITTED BY THE CONTRACTOR IN THE EROSION CONTROL PLAN.
2. DIVERSION CHANNELS TO BE INCLUDED IN THE COST OF CULVERT. WHEN REQUIRED.
3. THE PLASTIC LINING SHALL BE PVC OR PE MATERIAL WITH A MINIMUM THICKNESS OF 6 MILS.
4. THE LAP OF THE SHEETS OF PLASTIC LINING SHALL BE A MINIMUM OF 2 FEET.
5. THE DIVERSION CHANNEL SHOULD BE THE SAME WIDTH AND DEPTH AS THE EXISTING CHANNEL.

BY	REVISION DATE
M.W.	JUNE 28, 1993
M.W.	MAY 14, 1993
M.W.	OCTOBER 23, 1992
M.W.	JUNE 28, 1989

GEORGIA DEPARTMENT OF TRANSPORTATION

EXAMPLES OF DIVERSION CHANNELS

D-38

3/1/2007 GPLN

THE LPA GROUP
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

EROSION CONTROL CONSTRUCTION DETAILS

DRAWING No. 56-009

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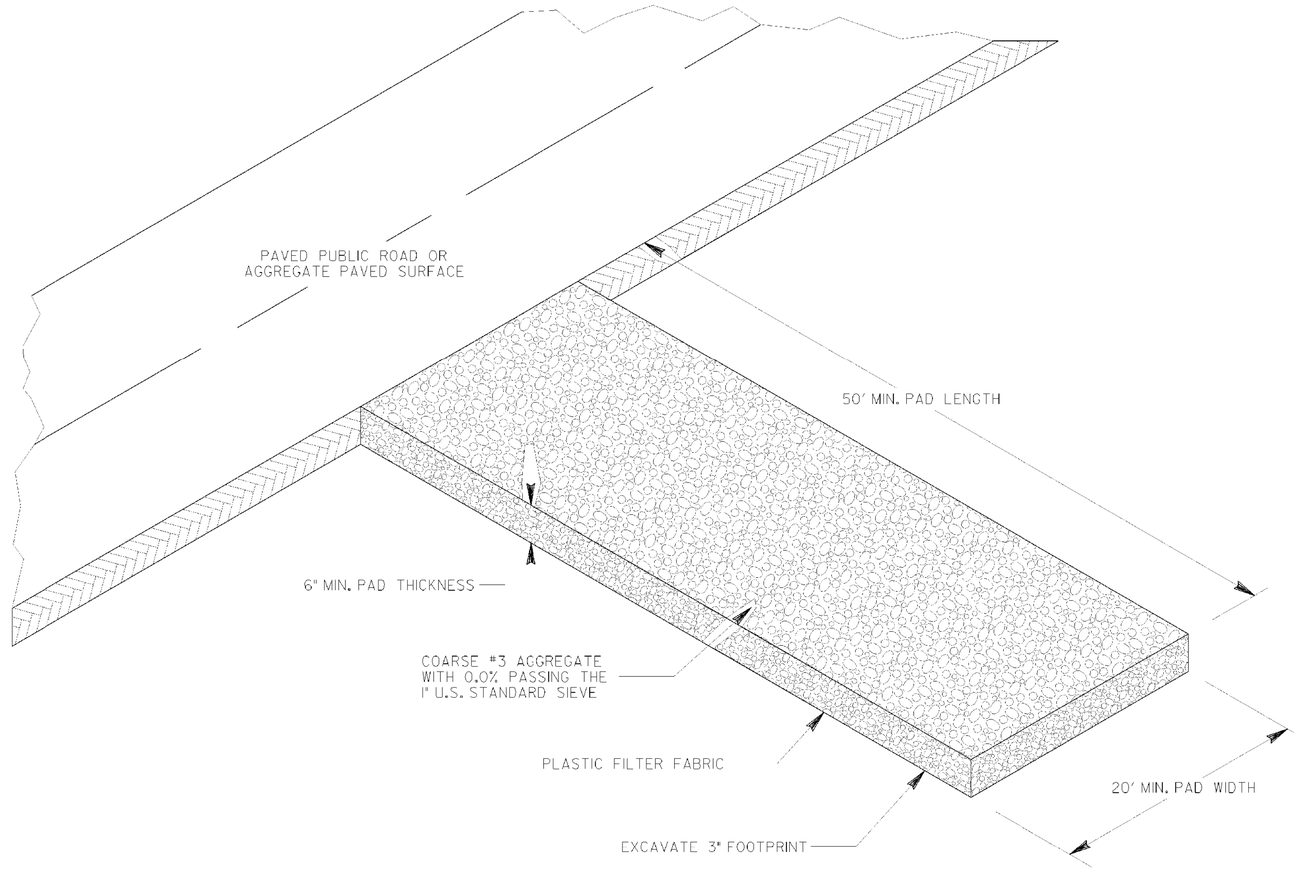
RELEASED FOR CONSTRUCTION - 07-23-13

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			



NOTES:
1) STONE AGGREGATE SHALL BE KEPT LOOSE OR SCARIFIED WHEN AGGREGATE BECOMES CONSOLIDATED.
2) CONSTRUCTION EXITS ARE NOT REQUIRED FOR DIRT PUBLIC ROADS.

MAINTENANCE

THE EXIT SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH COARSE #3 AGGREGATE, AS CONDITIONS DEMAND, AND REPAIR AND/OR CLEANOUT OF ANY STRUCTURES TO TRAP SEDIMENT. ALL MUD AND DEBRIS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES OR SITE ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.

PAY ITEM: 163-0300__CONSTRUCTION EXIT___EACH

TPC BY	REV. CONSTR. EXIT LABELS REVISION	1-19-11 DATE	DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA
			CONSTRUCTION DETAILS CONSTRUCTION EXIT
			NO SCALE — FEBRUARY 2001
			NUMBER D-41

3/1/2007 GPLN

THE LPA GROUP
TRANSPORTATION CONSULTANTS
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
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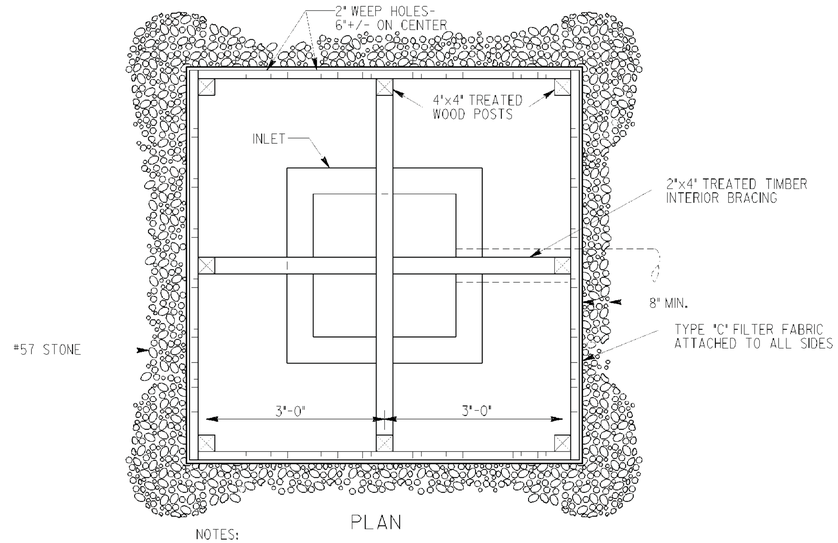
REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY

EROSION CONTROL CONSTRUCTION DETAILS

DRAWING No. 56-010

RELEASED FOR CONSTRUCTION - 07-23-13

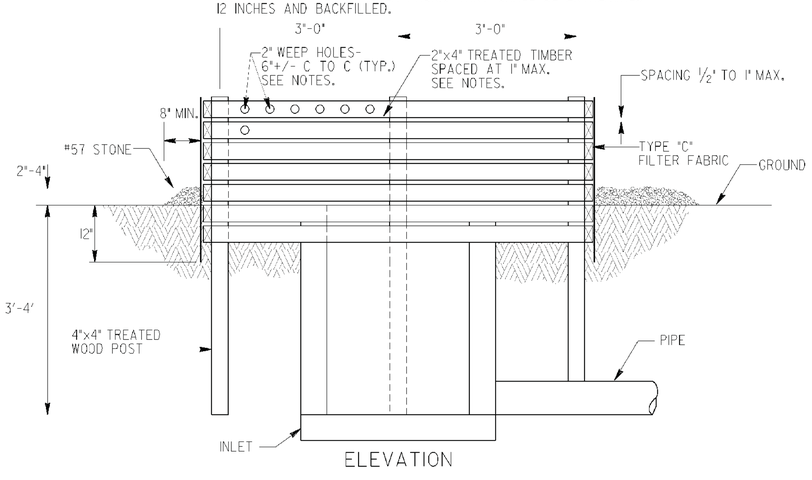


PLAN

NOTES:

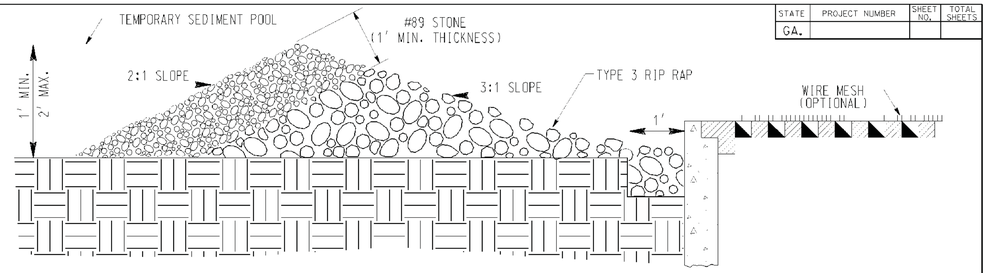
BAFFLE BOX SHALL BE CONSTRUCTED OF 2"x4" TREATED TIMBER SPACED A MAXIMUM OF 1" APART OR OF PLYWOOD WITH WEEP HOLES 2" IN DIAMETER PLACED APPROXIMATELY 6" ON CENTER VERTICALLY AND HORIZONTALLY.

GRAVEL SHALL BE PLACED OUTSIDE THE BOX, ALL AROUND THE INLET, TO A DEPTH OF 2 TO 4 INCHES. THE ENTIRE BOX SHALL BE WRAPPED IN TYPE "C" FILTER FABRIC THAT SHALL BE ENTRENCHED 12 INCHES AND BACKFILLED.

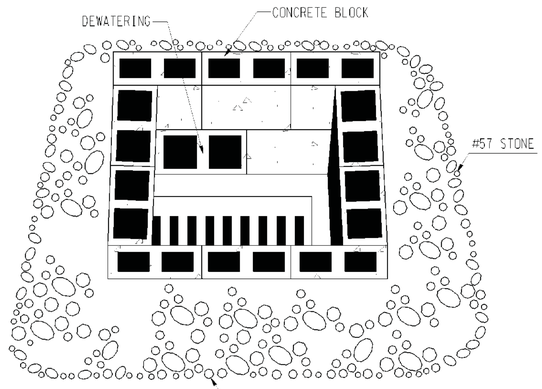


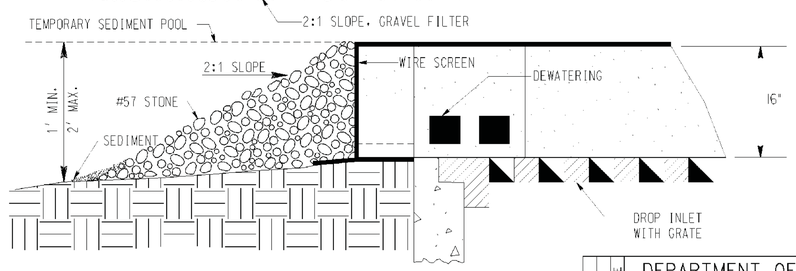
ELEVATION

BAFFLE BOX (Sd2-B)



GRAVEL DROP INLET PROTECTION (GRAVEL DONUT) Sd2-G





BLOCK & GRAVEL DROP INLET PROTECTION (Sd2-Bg)

BASIS OF PAYMENT:
CONSTRUCT AND REMOVE INLET SEDIMENT TRAP _____ EACH

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

CONSTRUCTION DETAIL
INLET SEDIMENT TRAPS
BAFFLE BOX Sd2-B
BLOCK AND GRAVEL DROP INLET PROTECTION Sd2-Bg
GRAVEL DROP INLET PROTECTION Sd2-G

NO SCALE — MAY 2008

NUMBER D-42

REVISION | DATE | BY

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3/1/2007 GPLN

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REVISION DATES

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EROSION CONTROL CONSTRUCTION DETAILS

DRAWING No. 56-011