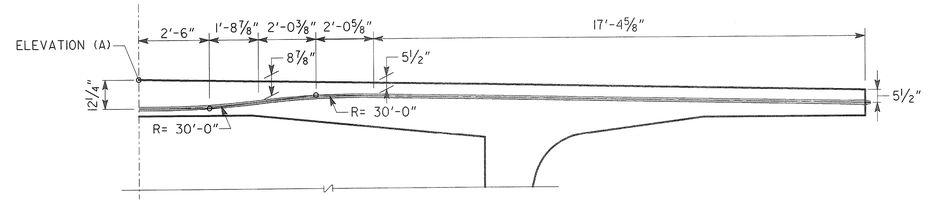
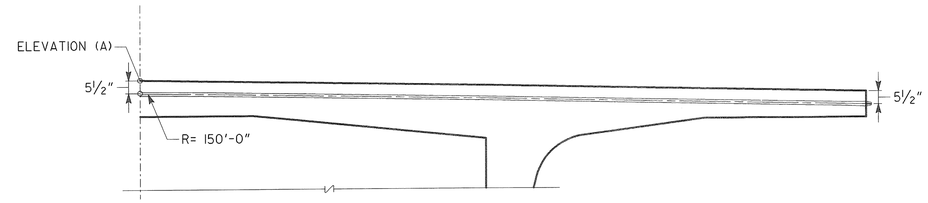
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	CSHPP-0007-00(550) CSSTP-M002-00(960)	85	178

POST TENSIONING STRAND

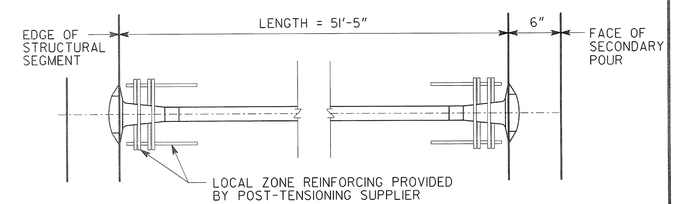
LOCATION	TENDON NUMBER	TYPE	TENDON LENGTH (FT)	TENDON WEIGHT (LBS)	NUMBER OF TENDONS	WEIGHT (LBS)	JACKING FORCE (KIPS)	LOCK-OFF FORCES (KIPS) LIVE-END	MAXIMUM	DEAD END
CANTILEVER	C1	14 X 0.6"Ø	37	384	4	1536	648	561	574	574
	C2	14 X 0.6"Ø	49	508	4	2032	629	559	574	574
	C3	14 X 0.6"Ø	64	664	4	2656	615	542	574	574
	C4	14 X 0.6"Ø	79	819	4	3276	609	543	574	574
	C5	14 X 0.6"Ø	94	974	4	3896	617	557	586	574
	C6	14 X 0.6"Ø	109	1130	4	4520	609	552	580	574
	C7	14 X 0.6"Ø	124	1285	4	5140	618	561	589	574
	C8	14 X 0.6"Ø	139	1441	4	5764	618	561	589	574
	C9	14 X 0.6"Ø	154	1596	4	6384	628	572	599	574
	C10	14 X 0.6"Ø	169	1751	4	7004	623	569	595	574
	C11	14 X 0.6"Ø	184	1907	4	7628	633	574	603	574
	C12	14 X 0.6"Ø	199	2062	4	8248	628	574	600	574
	C13	14 X 0.6"Ø	214	2218	4	8872	638	574	605	574
	C14	14 X 0.6"Ø	229	2373	4	9492	632	574	603	574
	C15	14 X 0.6"Ø	244	2528	4	10112	642	574	607	574
	C16	14 X 0.6"Ø	259	2684	4	10736	636	574	605	574
	C17	14 X 0.6"Ø	274	2839	4	11356	647	574	609	574
	C18	14 X 0.6"Ø	289	2995	4	11980	640	574	606	574
	C19	14 X 0.6"Ø	304	3150	4	12600	651	574	611	574
	C20	14 X 0.6"Ø	319	3305	4	13220	645	574	608	574
CONTINUITY TENDON SPAN 1	B1S1	15 X 0.6"Ø	93	1033	2	2066	703	615	658	609
CONTINUITY TENDON SPAN 2	B1S2 *	15 X 0.6"Ø	210	2331	2	4662	703	537	614	515
							703	537	614	537
	B2S2 *	15 X 0.6"Ø	180	1998	2	3996	703	533	612	521
							703	533	612	533
	B3S2 *	15 X 0.6"Ø	150	1665	2	3330	703	525	607	508
							703	525	607	525
	B4S2	15 X 0.6"Ø	120	1332	2	2664	703	540	616	542
	B5S2	15 X 0.6"Ø	90	999	2	1998	703	557	626	576
	B6S2	15 X 0.6"Ø	60	666	2	1332	703	544	619	582
CONTINUITY TENDON SPAN 3	B1S3	15 X 0.6"Ø	104	1155	2	2310	703	554	624	522
CONTINUITY TENDON SPAN 4	B1S4	15 X 0.6"Ø	119	1321	2	2642	703	574	635	567
	B2S4	15 X 0.6"Ø	118	1310	2	2620	703	615	658	570
	B3S4	15 X 0.6"Ø	118	1310	2	2620	703	615	658	581
	B4S4	15 X 0.6"Ø	118	1310	2	2620	692	615	653	615
DRAPED TENDONS SPAN 4	D1S4 *	15 X 0.6"Ø	185	2054	2	4108	703	581	639	450
							703	581	639	581
FUTURE TENDONS SPANS 1-3	F1S1	15 X 0.6"Ø	-	-	-	-	-	-	-	-
	F2S1	15 X 0.6"Ø	-	-	-	-	-	-	-	-
	F1S2	15 X 0.6"Ø	-	-	-	-	-	-	-	-
	F2S2	15 X 0.6"Ø	-	-	-	-	-	-	-	-
	F1S3	15 X 0.6"Ø	-	-	-	-	-	-	-	-
	F2S3	15 X 0.6"Ø	-	-	-	-	-	-	-	-
TRANSVERSE TENDONS SPANS 1-4 (SPACING ≥ 2'-2")	N/A	5 X 0.5"Ø	52	135	288	38880	158	133	145	145
TRANSVERSE TENDONS SPANS 1-4 (SPACING = 1'-6")	N/A	5 X 0.5"Ø	52	135	47	6345	103	82	90	90



TYPICAL TRANSVERSE POST-TENSIONING TENDON PROFILE



SPECIAL TRANSVERSE POST-TENSIONING TENDON PROFILE (TYP. ALL DIAPHRAGMS)



TYPICAL TRANSVERSE POST-TENSIONING ANCHORAGE DETAIL

(NO SCALE)

NOTES:

1. THE MAXIMUM STRESS (JACKING STRESS) IN THE POST-TENSIONING STEEL SHALL NOT EXCEED 0.8 f_{pu}. THE ASSUMED DESIGN JACKING FORCE IS AS SHOWN.
2. MAXIMUM STRESS IN THE POST-TENSIONING STEEL AFTER FRICTION AND SEATING LOSSES SHALL NOT EXCEED 0.74f_{pu}. MAXIMUM STRESS IN THE TENDON AT THE ANCHORAGES AFTER FRICTION AND SEATING LOSSES SHALL NOT EXCEED 0.70f_{pu}. THE ASSUMED DESIGN LOCK-OFF FORCE AT EACH ANCHORAGE IS AS SHOWN. THE MAXIMUM LOCK-OFF FORCE SHOWN IS THE ASSUMED MAXIMUM FORCE OCCURING WITHIN THE ENTIRE LENGTH OF TENDON IMMEDIATELY AFTER LOCK-OFF.
3. THE CONTRACTOR IS RESPONSIBLE FOR ESTABLISHING THE LOCAL TENDON GEOMETRY DETAILS, EXPECTED TENDON ELONGATION, JACKING FORCES, AND SHALL SUBMIT SUCH TO THE ENGINEER FOR APPROVAL. MINIMUM TENDON CURVATURE RADII SHALL BE GREATER THAN 30 FEET.
4. ALL DIMENSIONS SHOWN ARE MEASURED TO THE CENTER OF THE POST-TENSIONING DUCT.
5. TENDONS SHALL BE STRESSED IN THE ORDER SHOWN ON THE CONSTRUCTION SEQUENCE DRAWINGS. VARIATIONS IN THE STRESSING SEQUENCE REQUIRE THE SUBMITTAL OF CALCULATIONS AND APPROVAL OF THE GDOT BRIDGE OFFICE.
6. * DOUBLE-END STRESSING IS REQUIRED. THE FORCES SHOWN ASSUME TWO SINGLE-END STRESSING OPERATIONS. "LIVE END" AND "DEAD END" IN THE TABLE REFER TO THE ACTION APPLIED IN THE FIRST SINGLE-END STRESSING OPERATION.
7. THE ADDITIONAL LENGTH OF STRAND REQUIRED TO FACILITATE STRESSING OPERATIONS IS NOT INCLUDED IN THE QUANTITIES GIVEN AND SHALL BE CONSIDERED INCIDENTAL TO THE COST OF "PRESTRESSING CAST-IN-PLACE".
8. LOCAL ZONE REINFORCING FOR LONGITUDINAL AND TRANSVERSE POST-TENSIONING IS NOT INCLUDED IN QUANTITIES GIVEN AND SHALL BE CONSIDERED INCIDENTAL TO THE COST OF "PRESTRESSING CAST-IN-PLACE CONCRETE", LOCAL ZONE REINFORCEMENT SHALL BE PROVIDED IN ACCORDANCE WITH THE CONTRACT SPECIAL PROVISIONS AND THE REQUIREMENTS OF THE PROPRIETARY POST-TENSIONING SYSTEM SUPPLIED. COST OF LOCAL ZONE REINFORCING SHALL BE INCLUDED IN 509-0005, PRESTRESSING CAST-IN-PLACE CONCRETE.
9. CANTILEVER, CONTINUITY, AND TRANSVERSE DUCTS SHALL BE GROUTED IN ACCORDANCE WITH THE PROJECT SPECIAL PROVISIONS.
10. "PCD" ARE PROVISIONAL EMPTY CANTILEVER DUCTS THAT CAN BE UTILIZED IF NEEDED AT ANY SEGMENT FACE WITH THE INSTALLATION OF AN ADDITIONAL ANCHORAGE AS SHOWN ON SPANS 1-3 POST-TENSIONING DETAILS. "PBS1", "PBS2" AND "PBS3" ARE PROVISIONAL EMPTY CONTINUITY DUCTS WITH REQUIRED ANCHORAGES THAT CAN BE UTILIZED IF NEEDED. USE OF ANY PROVISIONAL DUCT IN LIEU OF OR IN ADDITION TO THE DESIGN DUCTS REQUIRES THE SUBMITTAL OF UPDATED CALCULATIONS AND APPROVAL OF THE GDOT BRIDGE OFFICE.
11. IF PROVISIONAL DUCTS ARE NOT USED THEY SHALL BE FILLED WITH GROUT.
12. STRESS TRANSVERSE TENDONS IN EACH SUPERSTRUCTURE ELEMENT PRIOR TO STRESSING LONGITUDINAL TENDONS IN THE GIVEN ELEMENT.
13. ALL TRANSVERSE TENDONS MAY BE STRESSED WITH A MONO-STRAND JACK.
14. STRESS TRANSVERSE TENDONS FROM ALTERNATING ENDS.

BRIDGE NO. 1

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STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION - OFFICE OF BRIDGE AND STRUCTURES

REVISIONS | DATE | BY

POST TENSIONING SUMMARY & NOTES

CR 1297 (BROAD AVE.) OVER FLINT RIVER

DOUGHERTY COUNTY

CSHPP-0007-00(550)
CSSTP-M002-00(960)

NO SCALE — NOVEMBER 2011

DRAWING NO. 35 - 033

BRIDGE SHEET 33 OF 53

DESIGNED JMO/JAH — CHECKED GBL/BKA — REVIEWED WEI/WMD
DRAWN GTP — DESIGN GROUP — APPROVED BFR

1 INCH WHEN PRINTED FULL SIZE

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