AS-BUILT PLANS 12/12/12

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	MINIMUM COVER (INCHES)	HEIGHT OF FILL IN 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	CONCRETE	12	III	III	IV	V	V	V	V	V	V	V	V	V
	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
	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
	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
	STEEL 1	12	.064	.064	.064	.064	.064	.064	.064	.064	.064	.064	.064	.079
	ALUM 1	12	.060	.060	.060	.075	.075	.075	.075	.105	.105	.105	.105	.105
30	CONCRETE	12	III	III	IV	V	V	V	V	V	V	V	V	V
	STEEL 1	12	.064	.064	.064	.064	.064	.064	.064	.079	.079	.079	.109	.109
	ALUM 1	12	.075	.075	.075	.075	.105	.105	.105	.105	.135	.135	.135	
36	CONCRETE	12	III	III	IV	V	V	V	V	V	V	V	V	V
	STEEL 1	12	.064	.064	.064	.064	.064	.064	.079	.079	.109	.109	.109	.138
	STEEL 2	12	.064	.064	.064	.064	.064	.064	.064	.079	.079	.079	.109	.109
	ALUM 1	12	.075	.105	.105	.105	.105	.135	.135	.135	.135	.135		
	ALUM 2	12	.060	.060	.060	.075	.075	.075	.105	.105				
42	CONCRETE	12	III	III	IV	V	V	V	V	V	V	V	V	V
	STEEL 1	12	.064	.064	.064	.064	.064	.064	.079	.109	.109	.109	.138	.138
	STEEL 2	12	.064	.064	.064	.064	.064	.064	.064	.079	.109	.109	.109	.138
	ALUM 1	12	.105	.105	.135	.135	.164	.164						
	ALUM 2	12	.060	.060	.060	.075	.075	.105	.105	.105	.135			
48	CONCRETE	12	III	III	IV	V	V	V	V	V	V	V	V	V
	STEEL 1	12	.064	.064	.064	.064	.064	.079	.109	.109	.138	.138	.138	.168
	STEEL 2	12	.064	.064	.064	.064	.064	.064	.079	.109	.109	.109	.138	.138
	ALUM 1	12	.105	.105	.135	.164	.164							
	ALUM 2	12	.060	.060	.060	.075	.075	.105	.135	.135	.164	.164		
54	CONCRETE	12	III	III	IV	V	V	V	V	V	V	V	V	V
	STEEL 1	12	.064	.064	.079	.079	.079	.079	.109	.109	.138	.138	.168	
	STEEL 2	12	.064	.064	.064	.064	.064	.064	.079	.109	.109	.138	.138	.168
	ALUM 1	15	.105	.105	.135	.164	.164							
	ALUM 2	15	.060	.060	.060	.075	.075	.105	.135	.135	.164	.164		
60	CONCRETE	12	III	III	IV	V	V	V	V	V	V	V	V	
	STEEL 1	12	.064	.064	.079	.079	.079	.109	.109	.109	.138	.168	.168	
	STEEL 2	12	.064	.064	.064	.064	.064	.079	.109	.109	.138	.138		.168
	ALUM 1	15	.135	.135	.164	.164								
	ALUM 2	15	.060	.060	.060	.075	.075	.105	.135	.164	.164			
66	CONCRETE	12	III	III	IV	V	V	V	V	V	V	V	V	
	STEEL 1	12	.064	.064	.079	.079	.079	.109	.109	.138	.168	.168	.168	
	STEEL 2	12	.064	.064	.064	.064	.064	.079	.109	.109	.138	.138		.168
	ALUM 1	18	.164	.164										
	ALUM 2	18	.075	.075	.105	.105	.135	.135	.164	.164				
72	CONCRETE	12	III	III	IV	V	V	V	V	V	V			
	STEEL 1	12	.064	.064	.079	.079	.079	.109	.109	.138	.168			
	STEEL 2	12	.064	.064	.064	.064	.064	.079	.109	.109	.138			
	ALUM 1	18	.164	.164										
	ALUM 2	18	.075	.105	.105	.135	.135	.164						
78	CONCRETE	12	III	III	IV	V	V	V	V	V				
	STEEL 1	15	.064	.064	.079	.079	.079	.109	.109	.138				
	STEEL 2	15	.064	.064	.064	.064	.064	.079	.109	.109				
	ALUM 1	21	.075	.105	.105	.135	.135	.164						
	ALUM 2	21	.075	.075	.105	.105	.135	.164						
84	CONCRETE	12	III	III	IV	V	V	V	V					
	STEEL 1	15	.168	.168	.168	.168	.168	.168						
	STEEL 2	15	.064	.064	.064	.064	.079	.079						
	ALUM 1	21	.105	.105	.105	.135	.135							
	ALUM 2	21	.075	.075	.105	.105								
90	CONCRETE	12	III	III	IV	V	V							
	STEEL 2	18	.064	.064	.064	.079	.079							
	ALUM 2	24	.105	.105	.135	.135								
96	CONCRETE	12	III	III	IV	V								
	STEEL 2	18	.079	.079	.079	.079								
	ALUM 2	24	.105	.105	.135									
102	CONCRETE	12	III	III	IV									
	STEEL 2	24	.079	.079	.109									
	ALUM 2	24	.135	.164										
108	CONCRETE	12	III	III	IV									
	STEEL 2	24	.109	.109										
	ALUM 2	24	.135	.164										
114	CONCRETE	12	III	III										
	STEEL 2	24	.109	.109										
	ALUM 2	24	.164											
120	CONCRETE	12	III	III										
	STEEL 2	24	.109	.109										
	ALUM 2	24	.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 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 NO. 1 ALLOWABLE FILL HEIGHTS 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.			

BY	REVISION	DATE
G.P.	GEN. REV. NOTES	9-26-01
	ADDED SEAM CONST. NOTE	3-9-99

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

DES. ___ (SUBMITTED) STATE ROAD & AIRPORT DESIGN ENGR.
DRW. ___
TRA. ___ (APPROVED) CHIEF ENGINEER
CHK. ___

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. 41-003