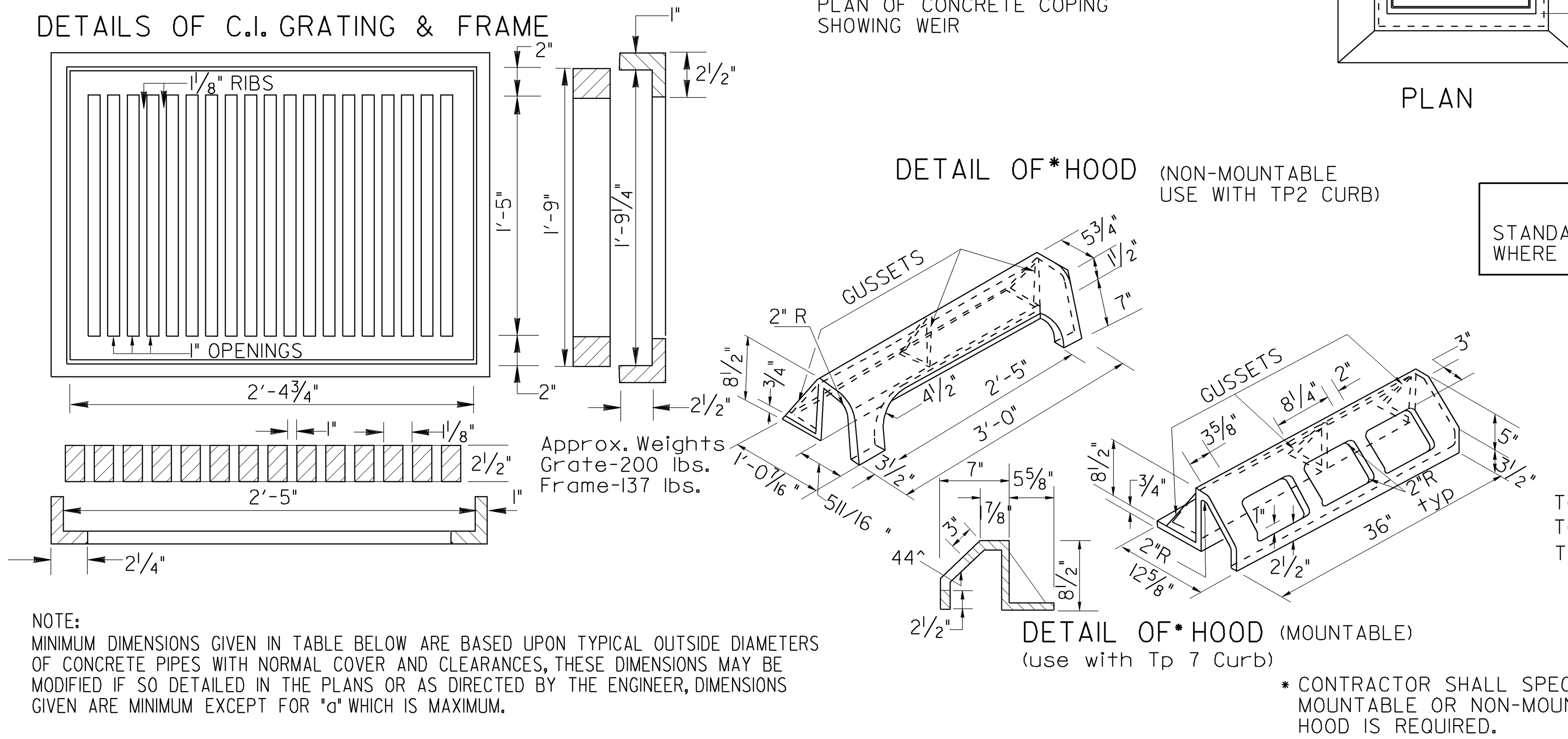
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			



* CONTRACTOR SHALL SPECIFY EITHER MOUNTABLE OR NON-MOUNTABLE TO FOUNDRY IF HOOD IS REQUIRED.

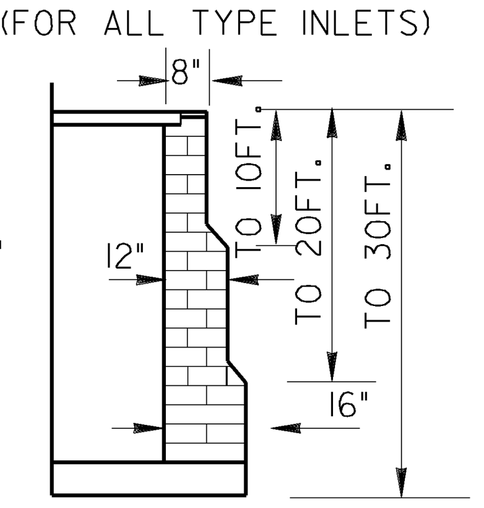
SPECIAL NOTE:

STANDARD 1019A INLETS ARE FOR USE AT LOW POINTS & WHERE HYDRAULIC LOW CAPACITY GRATES ARE SUFFICIENT. WHERE HIGHER CAPACITY GRATES ARE NEEDED ON A CONTINUOUS GRADE, STANDARD 1019B IS RECOMMENDED.

BRICK WALL THICKNESSES

(FOR ALL TYPE INLETS)

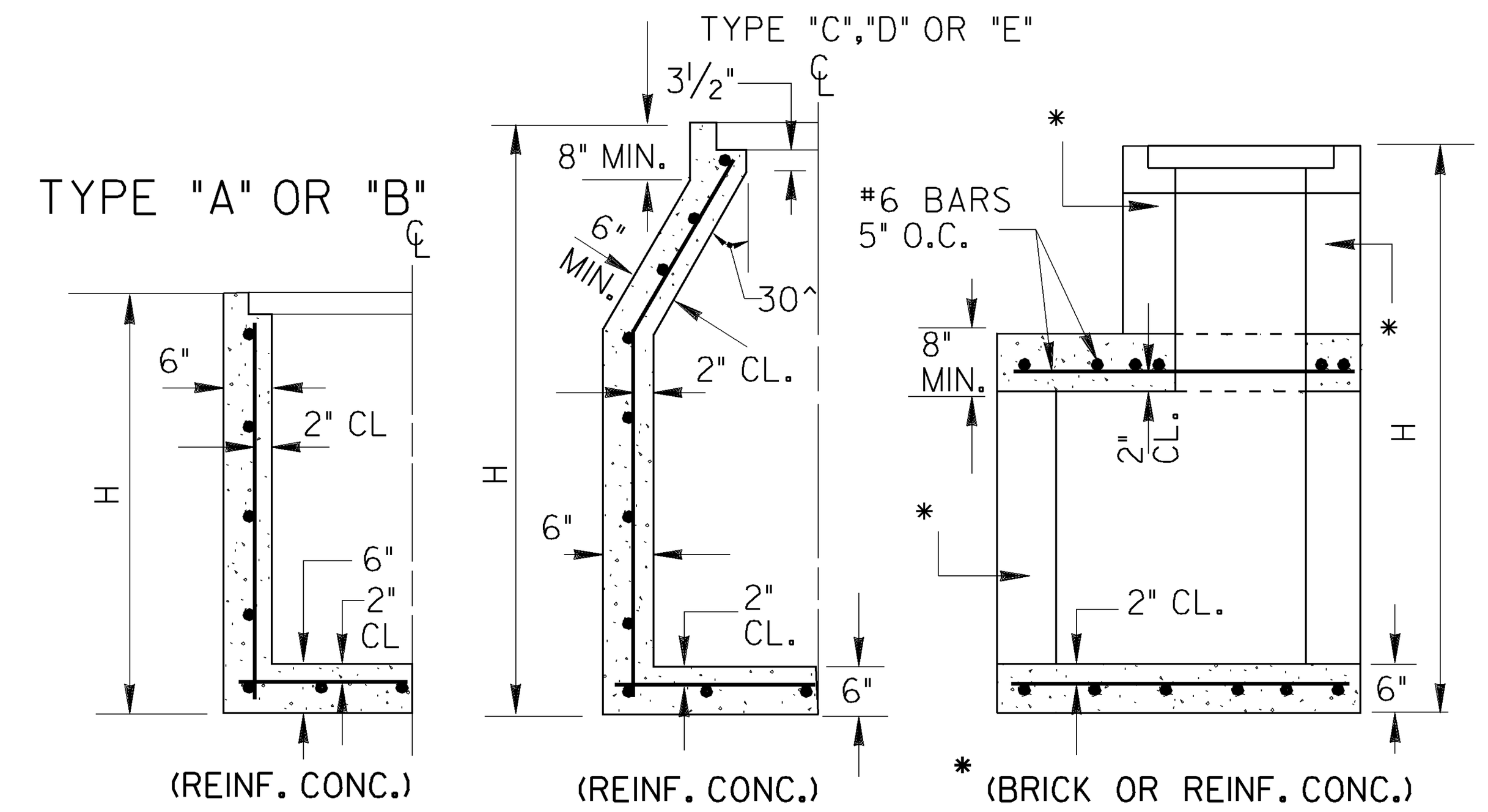
H	T
TO 10'	8"
TO 20'	12"
TO 30'	16"



NOTE:

DETAILS NOT SHOWN FOR CONSTRUCTION ALTERNATES WILL BE SIMILAR TO THAT SHOWN FOR BRICK MASONRY.

CONSTRUCTION ALTERNATES



NOTE: CONCRETE WALLS WILL BE REINFORCED WITH #4 BARS 12" O.C. BOTH WAYS, BUT WHERE H IS OVER 9 FT., AND PIPE IS OVER 30" I.D., THE HORIZONTAL STEEL, WHICH IS MORE THAN 9 FT. DEEP WILL BE INCREASED TO 6" SPACINGS. 6" CONC. BOTTOM SLABS WILL BE REINFORCED WITH #4 BARS 12" O.C. BOTH WAYS.

NOTE: FOR PRECAST ALTERNATES, SEE STD. 1019-A PRECAST AND/OR STD. 1040 PRECAST AND BUILT-IN-PLACE COMPONENTS MAY BE USED IN COMBINATIONS WHICH PROVIDE PROPER FITS AND STRUCTURAL ADEQUACY.

NOTE:

MINIMUM DIMENSIONS GIVEN IN TABLE BELOW ARE BASED UPON TYPICAL OUTSIDE DIAMETERS OF CONCRETE PIPES WITH NORMAL COVER AND CLEARANCES, THESE DIMENSIONS MAY BE MODIFIED IF SO DETAILED IN THE PLANS OR AS DIRECTED BY THE ENGINEER, DIMENSIONS GIVEN ARE MINIMUM EXCEPT FOR "a" WHICH IS MAXIMUM.

TABLE OF MINIMUM DIMENSIONS FOR DROP INLETS

D	TYPES "A" or "B" BRICK OR REINF. CONC.			TYPE "C" OR "D" (BRICK)						TYPE "E" (BRICK)						TYPE "C","D" OR "E" (REINFORCED CONCRETE)						
	W1	W2	H(min)	W1	W2	W3	a (MAX.)	b	H(min.)	W1	W2	W3	a (MAX.)	b	H(min.)	W1 type "C"	W1 type "E"	W2	W3	a (MAX.)	b	H(min.)
15"	2'- 0"	2'- 7"	3'-3 1/2"	2'-2 1/8"	2'-11"	2'-9 1/8"	0'-4 9/16"	0'-7 7/8"	3'-9 1/2"	3'-2 1/8"	3'- 1"	3'-0 5/8"	0'-7 9/16"	1'-1 1/8"	3'-11 1/2"	2'- 0"	2'- 1"	2'- 7"	2'- 0"	3 1/2"	6"	3'- 6"
18"	2'- 0"	2'-10"	3'- 7"	2'-2 1/8"	3'-2 1/2"	2'-9 1/8"	0'-4 9/16"	0'-7 7/8"	4'-1"	3'-2 1/8"	3'-4 1/2"	3'-0 5/8"	0'-7 9/16"	1'-1 1/8"	4'- 1"	2'- 0"	2'- 1"	3'- 0"	2'- 0"	3 1/2"	6"	3'-11"
24"	~	~	~	2'-8 1/8"	3'-3 1/8"	3'-3 1/8"	0'-7 9/16"	1'-1 1/8"	4'- 9"	3'-2 1/8"	3'-11 1/2	3'-0 5/8"	0'-7 9/16"	1'-1 1/8"	4'-8 1/4"	2'- 8"	2'- 9"	3'- 8"	2'- 6"	6 1/2"	11 1/4"	4'- 7"
30"	~	~	~	3'-7 1/4"	4'-0 1/4"	3'-10 1/16"	1'-0 1/8"	1'- 9"	5'-10"	3'-5 1/2"	4'-8 3/8"	3'- 4"	0'- 8"	1'-1 7/8"	5'-6 7/8"	3'- 4"	3'- 6"	4'- 9"	3'- 0"	9 1/2"	16 1/2"	5'-10"
36"	~	~	~	4'-1 7/8"	6'-0 5/8"	4'-8 7/8"	1'-4 7/16"	2'-2 1/4"	6'-11 1/8"	3'-11 1/2	5'-8 9/16"	3'-10"	0'-11"	1'-7 1/16"	6'-7 1/16"	3'-10"	4'- 0"	5'-10"	3'- 9"	1'- 2"	2'- 0"	6'-10"
42"	~	~	~	4'-5 "	7'-1 3/4"	5'- 0"	1'- 6"	2'-7 3/16"	8'-0 1/4"	4'-6 1/2"	7'-5 11/16 "	4'- 5"	1'-2 1/2"	2'-1 3/16"	8'-4 3/16"	4'- 5"	4'- 6"	7'- 0"	4'- 3"	1'- 5"	2'-5 1/2"	7'-11"
48"	~	~	~	5'- 0"	8'-2 3/4"	5'- 7"	1'-9 1/2"	3'-1 1/4"	9'-1 1/4"	5'-1 1/2"	8'-6 11/16 "	5'- 0"	1'- 6"	2'-7 3/16"	9'-5 3/16"	5'- 0"	5'- 0"	8'- 2"	5'- 0"	1'-9 1/2"	3'-1 1/2"	9'- 2"
54"	~	~	~	5'- 7"	9'- 4"	6'- 2"	2'- 1"	3'-7 1/2"	10'-2 1/2"	5'-8 1/2"	9'-7 3/4"	5'- 7"	1'-9 1/2"	3'-1 1/4"	10'-6 1/4"	5'- 6"	5'- 6"	9'- 2"	5'- 6"	2'-0 1/2"	3'-6 1/2"	10'- 0"
60"	~	~	~	6'- 2"	1'-4 7/8"	6'- 9"	2'-4 1/2"	4'-1 3/8"	11'-3 1/4"	6'-3 1/2"	10'-8 13/16 "	6'- 2"	2'- 1"	3'-7 5/16"	11'-7 5/16"	6'- 0"	6'- 0"	10'- 3"	6'- 0"	2'-3 1/2"	4'- 0"	11'- 1"

GENERAL NOTES:

1. SPECIFICATIONS: GEORGIA STANDARD AND CURRENT EDITION, AND SUPPLEMENTS THERETO.
2. 1/2" EXPANSION JOINT WILL BE REQUIRED WHERE RIGID PAVEMENT, CONCRETE SIDEWALK OR CONCRETE GUTTER MEETS DROP INLETS.
3. ALIGNMENT, NUMBER AND SIZES OF PIPES SHOWN ARE ONLY TYPICAL, SEE PLANS FOR ACTUAL PIPE CULVERT REQUIREMENTS.
4. ALL TYPE DROP INLETS WILL BE CONSTRUCTED (AS SHOWN), SO THAT THE GRATE BARS ARE PERPENDICULAR TO THE FLOW OF TRAFFIC EXCEPT ON LIMITED ACCESS PROJECTS OR WHERE BICYCLES ARE PROHIBITED.
5. BRICK MASONRY WITH CLASS "A" CONC. TOP PORTION IS SHOWN AS STANDARD CONSTRUCTION WITH ALTERNATES PERMITTED AS SHOWN, BOTTOM SLAB MAY BE 8" MIN. NON-REINFORCED CONCRETE, 8" BRICK OR 6" MIN. REINFORCED CONCRETE, SEE APPLICABLE STANDARDS FOR ALTERNATE PRECAST CONSTRUCTION.

DATE	DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA
REVISION	STANDARD DROP INLETS (BUILT-IN-PLACE) SCALE AS SHOWN — REV. & REDR. AUG., 1999
BY	DES. ____ REV. ____ TRA. ____ CHK. ____

(SUBMITTED) James A. Kennedy — STATE ROAD & AIRPORT DESIGN ENGR.

(APPROVED) Frank L. Danchetz — CHIEF ENGINEER

NUMBER 1019A

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

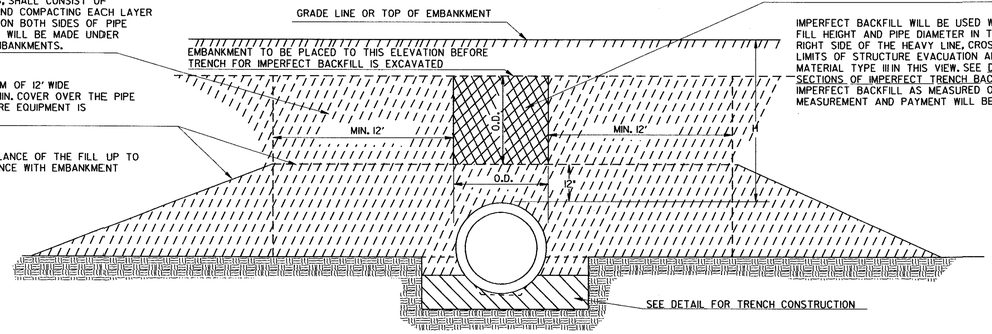
NORMAL BACKFILL

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

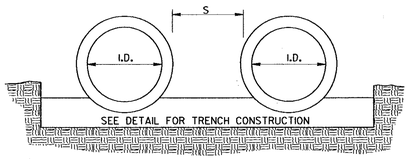
LONGITUDINAL SECTION OF IMPERFECT TRENCH BACKFILL AND BACKFILL METHODS



IMPERFECT BACKFILL

IMPERFECT BACKFILL WILL BE USED WITH CONCRETE PIPE IF FILL HEIGHT AND PIPE DIAMETER IN TABLE NO. I FALLS ON THE RIGHT SIDE OF THE HEAVY LINE. CROSS HATCHED AREA SHOWS LIMITS OF STRUCTURE EVACUATION AND IMPERFECT BACKFILL MATERIAL TYPE IIIIN THIS VIEW. SEE DETAILS BELOW CROSS SECTIONS OF IMPERFECT TRENCH BACKFILL FOR LIMITS OF IMPERFECT BACKFILL AS MEASURED OVER THE PIPE LENGTHWISE. MEASUREMENT AND PAYMENT WILL BE CONFINED TO THESE LIMITS.

MULTIPLE PIPE CULVERT SPACING

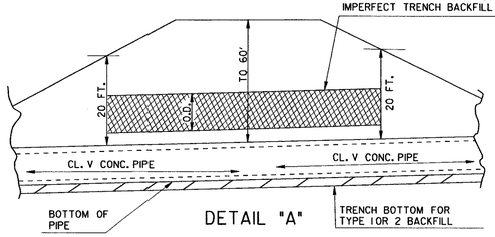


S=ONE INSIDE DIAMETER OF PIPE, OR 3 FEET, WHICHEVER IS SMALLER.
FOR PIPE ARCH CULVERTS, SUBSTITUTE SPAN FOR INSIDE DIAMETER.

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.

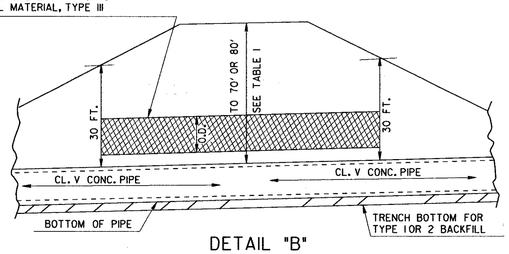
CROSS SECTIONS OF IMPERFECT TRENCH BACKFILL

CROSS HATCHED AREAS SHOW LIMITS OF CONSTRUCTION & MEASUREMENT FOR STRUCTURE EXCAVATION & IMPERFECT TRENCH BACKFILL MATERIAL, TYPE III



DETAIL "A"

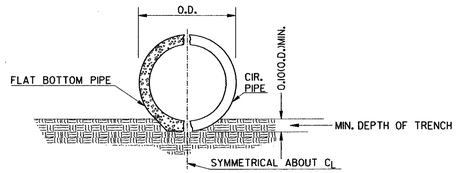
(FOR CONCRETE PIPE DIAMETERS 78" & 84", WITH FILL HEIGHTS OVER 20 FT.)



DETAIL "B"

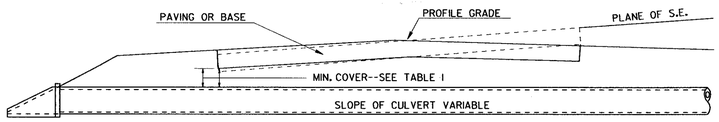
(FOR CONCRETE PIPE DIAMETERS 72" AND LESS WITH FILL HEIGHTS OVER 30 FT.)

TRENCH CONSTRUCTION FOR SIDE DRAIN

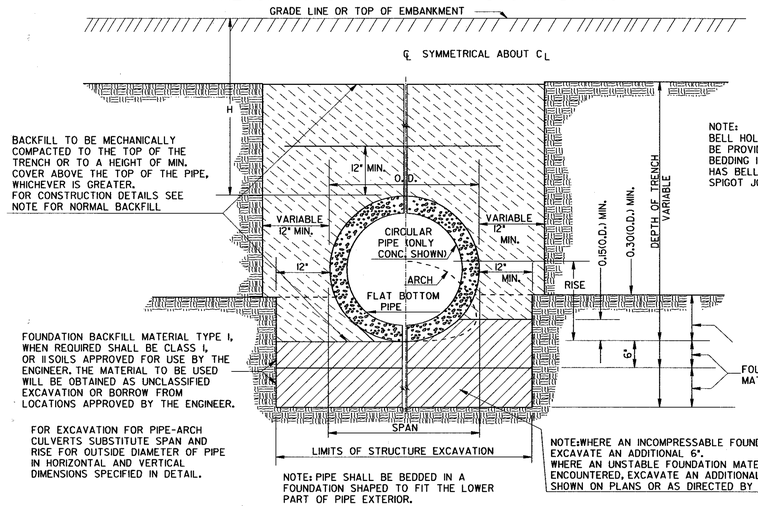


NOTE: THE PIPE SHALL BE BEDDED TO LINE AND GRADE IN A FIRM FOUNDATION SHAPED TO FIT THE LOWER PART OF THE PIPE EXTERIOR. WHERE ROCK EXISTS, EXCAVATE AND BACKFILL WITH COMPRESSABLE MATERIAL (UNCLASSIFIED EXCAVATION) A MINIMUM OF 6" BELOW THE PIPE.

DETAIL SHOWING MINIMUM COVER FOR PIPE CULVERTS



TRENCH CONSTRUCTION FOR STORM DRAIN.



NOTE:
BELL HOLES SHALL BE PROVIDED IN BEDDING IF PIPE HAS BELL AND SPIGOT JOINTS.

NOTE:
TRENCH CONSTRUCTION IS REQUIRED FOR BOTH NORMAL OR IMPERFECT BACKFILL. ALL PIPES WITH BELL & SPIGOT JOINTS SHALL HAVE BELL HOLES IN BEDDING.

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.

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

DATE | REVISION | BY

DES. ____ DRW. ____ TRA. ____ CHK. ____

(SUBMITTED) James A. Kennel
STATE ROAD & AIRPORT DESIGN ENGR.

(APPROVED) Genl L Faddis
CHIEF ENGINEER

NUMBER 1030D

TABLE NO. I 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	PIPE DIAMETER (INCHES)
12	CONCRETE	12	III	III	IV	V	V	V	V	V	V	V	V		12
	STEEL I	12	.064	.064	.064	.064	.064	.064	.064	.064	.064	.064	.064	.064	
	ALUM I	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		15
	STEEL I	12	.064	.064	.064	.064	.064	.064	.064	.064	.064	.064	.064	.064	
	ALUM I	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		18
	STEEL I	12	.064	.064	.064	.064	.064	.064	.064	.064	.064	.064	.064	.064	
	ALUM I	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		24
	STEEL I	12	.064	.064	.064	.064	.064	.064	.064	.064	.064	.064	.079	.079	
	ALUM I	12	.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		30
	STEEL I	12	.064	.064	.064	.064	.064	.064	.064	.064	.079	.079	.109	.109	
	ALUM I	12	.075	.075	.075	.075	.075	.105	.105	.105	.135	.135			
36	CONCRETE	12	III	III	IV	V	V	V	V	V	V	V	V		36
	STEEL I	12	.064	.064	.064	.064	.064	.064	.064	.079	.079	.109	.109	.138	
	STEEL 2	12	.064	.064	.064	.064	.064	.064	.064	.064	.079	.079	.109	.109	
	ALUM I	12	.075	.105	.105	.105	.105	.105	.135	.135	.135	.135			
	ALUM 2	12	.060	.060	.060	.060	.075	.075	.105	.105	.105	.135			
42	CONCRETE	12	III	III	IV	V	V	V	V	V	V	V	V		42
	STEEL I	12	.064	.064	.064	.064	.064	.064	.064	.079	.109	.109	.138	.138	
	STEEL 2	12	.064	.064	.064	.064	.064	.064	.064	.079	.109	.109	.109	.138	
	ALUM I	12	.105	.105	.135	.135	.164	.164							
	ALUM 2	12	.060	.060	.060	.075	.075	.105	.105	.105	.135	.135			
48	CONCRETE	12	III	III	IV	V	V	V	V	V	V	V	V		48
	STEEL I	12	.064	.064	.064	.064	.064	.064	.079	.109	.109	.138	.138	.168	
	STEEL 2	12	.064	.064	.064	.064	.064	.064	.064	.079	.109	.109	.138	.138	
	ALUM I	12	.105	.105	.135	.164	.164	.164							
	ALUM 2	12	.060	.060	.060	.075	.075	.105	.105	.135	.135	.164	.164		
54	CONCRETE	12	III	III	IV	V	V	V	V	V	V	V	V		54
	STEEL I	12	.079	.079	.079	.079	.079	.079	.079	.109	.138	.138	.168		
	STEEL 2	12	.064	.064	.064	.064	.064	.064	.079	.109	.109	.138	.138	.168	
	ALUM I	15	.105	.105	.135	.164	.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		60
	STEEL I	12	.109	.109	.109	.109	.109	.109	.109	.109	.138	.168			
	STEEL 2	12	.064	.064	.064	.064	.064	.079	.079	.109	.138	.138	.168	.168	
	ALUM I	15	.135	.135	.164	.164	.164	.164							
	ALUM 2	15	.060	.060	.075	.105	.105	.135	.135	.164	.164				
66	CONCRETE	12	III	III	IV	V	V	V	V	V	V	V			66
	STEEL I	12	.138	.138	.138	.138	.138	.138	.138	.138	.168	.168			
	STEEL 2	12	.064	.064	.064	.064	.064	.079	.109	.109	.138	.168	.168		
	ALUM I	18	.164	.164	.164	.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	V			72
	STEEL I	12	.138	.138	.138	.138	.138	.138	.138	.138	.168				
	STEEL 2	12	.064	.064	.064	.064	.079	.109	.109	.138	.138	.168			
	ALUM I	18	.164	.164	.164	.164	.164								
	ALUM 2	18	.075	.075	.105	.105	.135	.164	.164	.164					
78	CONCRETE	12	III	III	IV	V	V	V	V	V	V				78
	STEEL I	15	.168	.168	.168	.168	.168	.168	.168	.168					
	STEEL 2	15	.064	.064	.064	.064	.079	.109	.109	.138	.168	.168			
	ALUM 2	21	.075	.075	.105	.105	.135	.164	.164						
84	CONCRETE	12	III	III	IV	V	V	V	V	V	V				84
	STEEL I	15	.168	.168	.168	.168	.168	.168	.168	.168					
	STEEL 2	15	.064	.064	.064	.079	.079	.109	.109	.138	.168				
	ALUM 2	21	.105	.105	.105	.135	.135	.164	.164						
90	CONCRETE	12	III	III											90
	STEEL 2	18	.064	.064	.064	.079	.109	.109	.138	.138	.168				
	ALUM 2	24	.105	.105	.135	.135	.164								
96	CONCRETE	12	III	III											96
	STEEL 2	18	.079	.079	.079	.079	.109	.109	.138	.168					
	ALUM 2	24	.105	.105	.135	.135	.164								
102	CONCRETE	12	III	III											102
	STEEL 2	24	.079	.079	.079	.109	.109	.138	.138	.168					
	ALUM 2	24	.135	.164	.164										
108	CONCRETE	12	III	III											108
	STEEL 2	24	.109	.109	.109	.109	.109	.138	.138	.168					
	ALUM 2	24	.135	.164											
114	CONCRETE														114
	STEEL 2	24	.109	.109	.109	.109	.109	.138	.168						
	ALUM 2	24	.164	.164											
120	CONCRETE														120
	STEEL 2	24	.109	.109	.109	.109	.138	.138	.168						
	ALUM 2	24	.164	.164											

IMPERFECT BACKFILL IS NOT REQUIRED FOR CONDTIONS 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.

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

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 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)

BY	REVISION	DATE
	GEN. REV. NOTES	9-26-01
GJP	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. ____ DRW. ____ TRA. ____ CHK. ____

(SUBMITTED) STATE ROAD & AIRPORT DESIGN ENGR.
(APPROVED) CHIEF ENGINEER

NUMBER 1030D

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

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											PIPE DIAMETER (INCHES)
			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															12
15															15
18	STEEL R	12	.064	.064	.064	.064	.064	.064	.064	.064	.064	.079	.079		18
	ALUM R	12	.060	.060	.060	.060	.060	.060	.075	.075					
24	STEEL R	12	.064	.064	.064	.064	.064	.064	.064	.079	.079	.109	.109		24
	ALUM R	12	.060	.060	.060	.060	.075	.075	.105	.105	.105				
30	STEEL R	12	.064	.064	.064	.064	.064	.064	.079	.079	.109	.109	.109		30
	ALUM R	15	.060	.060	.060	.075	.075	.105	.105	.105					
36	STEEL R	12	.064	.064	.064	.064	.064	.079	.079	.109	.109	.109			36
	ALUM R	18	.060	.060	.075	.075	.105	.105	.105	.135	.135				
42	STEEL R	12	.064	.064	.064	.064	.079	.079	.109	.109	.109				42
	ALUM R	21	.075	.075	.075	.105	.105	.105	.135	.135					
48	STEEL R	12	.064	.064	.064	.079	.079	.109	.109	.109					48
	ALUM R	24	.105	.105	.105	.105	.105	.135	.135						
54	STEEL R	15	.064	.064	.064	.079	.079	.109	.109						54
	ALUM R	24	.105	.105	.105	.105	.135	.135	.135						
60	STEEL R	15	.079	.079	.079	.079	.109	.109	.109						60
	ALUM R	24	.105	.105	.105	.105	.135	.135							
66	STEEL R	18	.079	.079	.079	.109	.109	.109	.109						66
	ALUM R	24	.135	.135	.135	.135	.135								
72	STEEL R	18	.109	.109	.109	.109	.109	.109							72
	ALUM R	27	.135	.135	.135	.135	.135								
78	STEEL R	21	.109	.109	.109	.109	.109								78
84	STEEL R	21	.109	.109	.109	.109	.109								84
90															90
96															96
102															102
108															108
114															114
120															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 IN INCHES OF CORRUGATED STEEL AND CORRUGATED ALUMINUM PIPE-ARCH AND MAXIMUM HEIGHTS OF FILL IN FEET ABOVE THE TOP OF THE PIPE-ARCH.

DIAMETER OF PIPE OF EQUAL PERIPHERY INCH	NOM.-MIN. SPAN INCH	NOM.-MIN. RISE INCH	MIN. THICKNESS (INCHES) COR. STEEL ①	COR. STEEL ②	COR. ALUMINUM	MIN. COVER (INCHES)	MAX. HT. FILL (FEET)
15	17	13	.064			18	13
					.060	18	15
18	21	15	.064			18	12
					.060	18	14
21	24	18	.064			18	10
					.060	18	13
24	28	20	.064			18	9
					.075	18	11
30	35	24	.064			18	9
					.075	18	9
36	42	29	.064			18	7
					.105	18	7
	40	31		.079		18	12
42	49	33	.079			18	7
					.105	18	7
	46	36	.079	.079		18	12
48	57	38	.109			18	7
					.135	18	7
	53	41		.079		18	12
54	64	43	.109			18	7
					.135	18	7
	60	46		.079		18	12
60	71	47	.138			18	7
					.164	18	7
	66	51		.079		18	12
66	77	52	.168			18	7
	73	55		.079		18	15
77	83	57	.168			18	8
	81	59		.079		18	15
78	87	63		.079		18	14
84	95	67		.109		18	12
90	103	71		.109		24	11

NOTE FOR TABLE NO. 2.
ALTERNATE SPAN-RISE COMBINATIONS FOR PIPE-ARCHES, HAVING EQUAL PERIPHERY TO THAT SHOWN, MAY BE SUBSTITUED IF LISTED IN AASHTO SPECIFICATION.

BY	REVISION	DATE

NO SCALE
DESIGNED _____ (SUBMITTED)
TRACED _____ STATE ROAD & TRANSPORT DESIGN ENGINEER
CHECKED _____ (APPROVED) CHIEF ENGINEER
REVISED _____

SEPT., 2001

NUMBER 1030D

STANDARD
CONCRETE & METAL PIPE CULVERTS
SHEET 3 OF 3
(FILL HEIGHTS FOR SPIRAL RIB METAL PIPE & FOR PIPE ARCH)

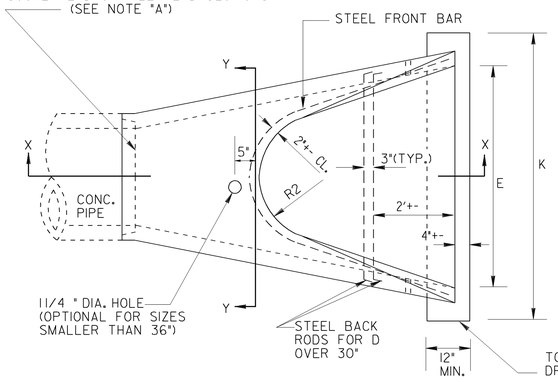
DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

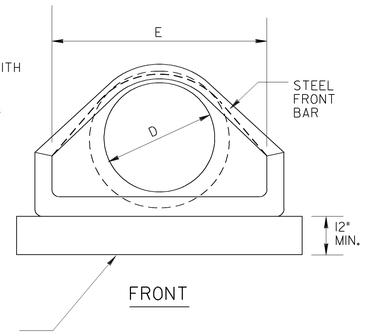
CONCRETE FLARED END SECTION

END SECTION TO PIPE JOINT SHOWN AS TYPICAL:
HUB END ON OUTLET END SECTIONS;
SOCKET END ON INLET END SECTIONS
(SEE NOTE "A")



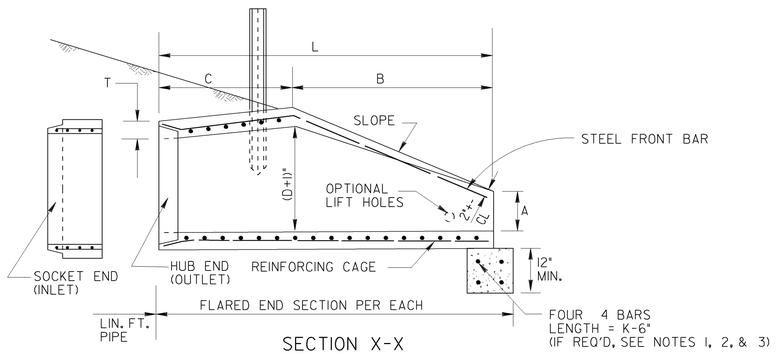
PLAN

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.

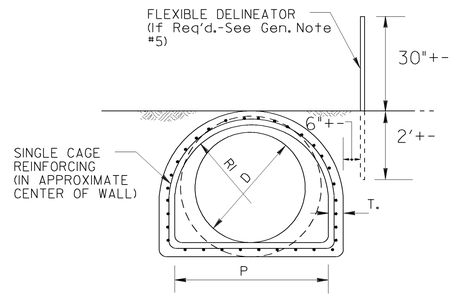


FRONT

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)

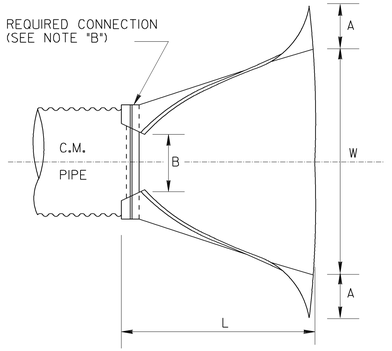
PIPE DIA	FRONT BAR	BACK RODS	SLOPE +-	A	B	C *	L *	E	P	RI	R2	OUTLET TOEWALL (IF REQ'D) K= E + 2'	OUTLET TOEWALL (IF REQ'D) CU.YDS. CONC.
12"	1-#3 x 5' 4"	NOT REQ'D.	2.2:1	4"	2'0"	4' 1"	6'1"	2'0"	1'8"	10"	9"	4'-0"	.148
15"	1-#3 x 6' 0"	NOT REQ'D.	2.2:1	6"	2'3"	3'10"	6'1"	2'6"	2'0"	1'0"	11"	4'-6"	.167
18"	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.

METAL FLARED END SECTION

(USE ONLY WITH COR. METAL PIPE)



PLAN

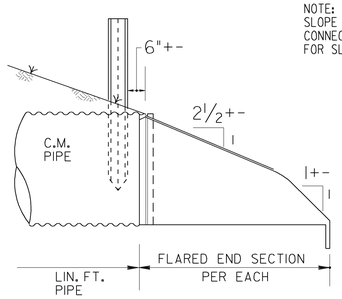
NOTE: GALVANIZED STEEL FLARED END SECTIONS ARE TO BE USED ONLY WITH CORRUGATED STEEL PIPE AND ALUMINUM FLARED END SECTIONS ARE TO BE USED ONLY WITH CORRUGATED ALUMINUM PIPE UNLESS OTHERWISE APPROVED BY D.O.T. OFFICE OF MATERIALS AND TESTS.

FLARED END SECTION DIMENSIONS

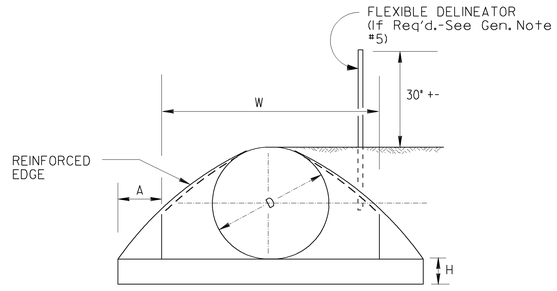
PIPE SIZE "D"	THICKNESS GALV. STEEL	THICKNESS ALUM.	A A= 0.4D +- 1"	B B=0.5 D +- 1"	H H=0.25D +- 1" (MIN.6")	L L=1.67D +- 1 1/2"	W W=2.0D +- 2"
12"	.064"	.060"	5"	6"	6"	1'8"	2'0"
15"	.064"	.060"	6"	7"	6"	2'3"	2'6"
18"	.064"	.060"	7"	9"	6"	2'6"	3'0"
24"	.064"	.060"	9"	1'0"	6"	3'4"	4'0"
30"	.079"	.105"	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 OVER-LAP 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.

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.

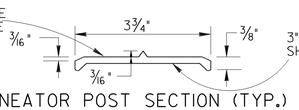
2. TOEWALLS WILL BE PAID FOR AS CU. YDS. OF CLASS "A" OR "B" CONCRETE. CONTRACTOR MAY ELECT TO CONSTRUCT TOE WALL WITH SAND CEMENT BAG RIPRAP OR STONE RIPRAP TO SAME MINIMUM DIMENSIONS WITH NO ADDITIONAL PAYMENT.

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.

1" X 12" LONG YELLOW REFLECTIVE SHEETING TYPE IX, ON EACH SIDE OF RIDGE.



3" X 12" LONG YELLOW REFLECTIVE SHEETING TYPE IX.

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.

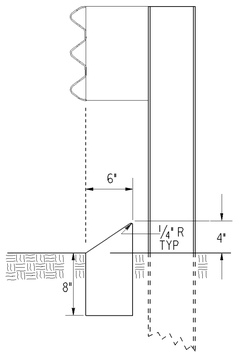
SPECIAL NOTE :

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.

6-9-06	DATE	DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA	
REV. REFLECTIVE SHEETING	REVISION	STANDARD FLARED END SECTIONS FOR PIPES	
		NO SCALE	REV. & REDR. SEPT., 1999
GLO	BY	DES. ____ REV. ____ RETR. ____ CHK. ____ (SUBMITTED) STATE ROAD & AIRPORT DESIGN ENGINEER (APPROVED) CHIEF ENGINEER	NUMBER 1120

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

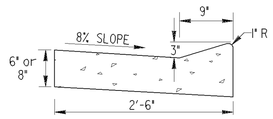
FACE OF CURB MUST ALIGN
WITH BACK EDGE OF GUARDRAIL
AND THE FACE OF THE OFFSET BLOCK.



TYPE 8

TYPE 8 CURB IS USED IN CONJUNCTION WITH GUARDRAIL CONNECTIONS TO CONCRETE BARRIER AS NOTED ON GA. STD. 401 2C.

RAISED EDGE WITH CONCRETE GUTTER



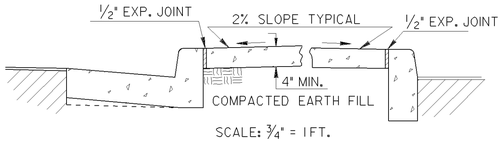
SCALE: 1" = 1FT.

RAISED EDGE TO BE CONSTRUCTED WITH SAME CONCRETE MIX AS THE GUTTER AND SHALL BE FORMED MONOLITHIC WITH GUTTER. JOINTS IN RAISED EDGE SHALL MATCH THOSE IN THE GUTTER.

NOTE:
IF CONCRETE MEDIAN INTERCEPTS PEDESTRIAN CROSSWALKS, WHEELCHAIR RAMPS (CONSTRUCTION DETAIL A-3 AND A-4) WILL BE REQUIRED.

CONCRETE MEDIAN (Between Curbs)

NOTE: CURB TYPES SHOWN ARE TYPICAL.
OTHER TYPES MAY BE SPECIFIED.



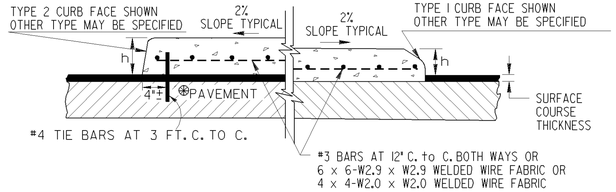
SCALE: 3/4" = 1FT.

NOTE: WIDTH OF CONCRETE MEDIAN WILL BE AS SHOWN IN PLANS

CONCRETE MEDIANS (Integral)

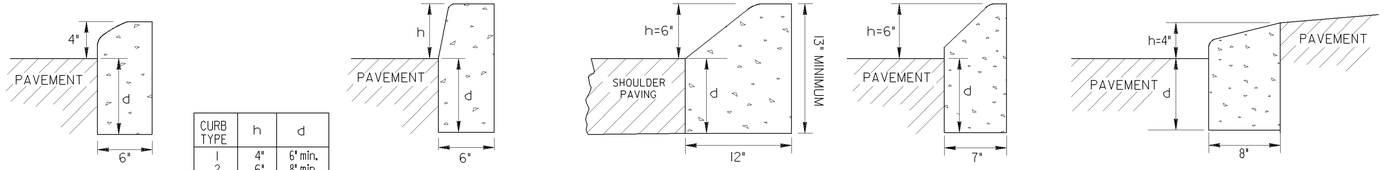
SCALE: 1"=1FT.

-WITH TIE BARS- -WITHOUT TIE BARS-



NOTE:
IF FINAL SURFACE COURSE IN PRESENT OR MUST BE INSTALLED BEFORE THE CONCRETE MEDIAN CAN BE INSTALLED, THEN DOWELED IN CONCRETE MEDIAN IS REQUIRED.

CONCRETE HEADER CURBS



CURB TYPE	h	d
1	4"	6" min.
2	6"	8" min.
3	8"	10" min.
4	10"	12" min.
6	6"	7" min.
7	6"	8" min.
9	4"	8" min.

TYPE 1 TYPE 2, 3 OR 4 TYPE 6 TYPE 7 TYPE 9

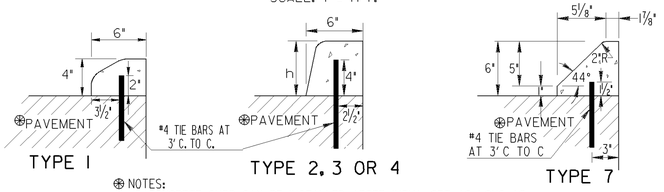
TRUCK APRON IN ROUNDABOUTS

THE DIMENSION d MAY BE INCREASED AT CONTRACTOR'S OPTION SO BOTTOM OF HEADER CURB WILL ALIGN WITH BOTTOM OF PAVEMENT TYPICAL SECTION.

SCALE: 1 1/2" = 1FT.

CONCRETE DOWELED INTEGRAL CURBS

SCALE: 1" = 1FT.

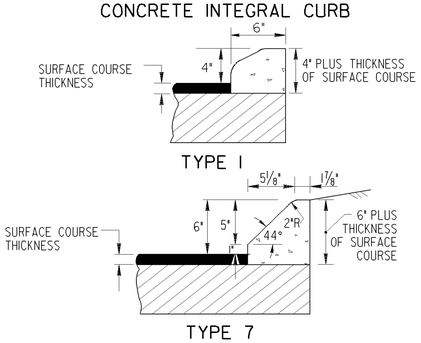


⊕ NOTES:
1. CONCRETE CURB CAN BE INSTALLED AFTER INTIAL SET AS LONG AS TIE BARS ARE DRILLED INTO UNDERLAYING CONCRETE PAVEMENT.
2. CONCRETE CURB CAN BE INSTALLED BEFORE INITIAL SET WITH DOWELS THAT ARE DRIVEN INTO UNDERLYING CONCRETE PAVMENT.
3. JOINTS IN CURB AND CONCRETE MEDIAN WILL MATCH THOSE IN THE CONCRETE PAVEMENT.
4. ALL TYPES OF CONCRETE CURB CAN BE PLACED ON ASPHALT PAVEMENTS WHERE TIE BARS MAY BE EITHER DRIVEN OR DRILLED INTO THE UNDERLYING PAVEMENT. CONTRACTION JOINTS SHALL BE CONSTRUCTED IN CURB OR CONCRETE MEDAIN AT 20 FT. SPACING.

MINIMUM TIE BAR LENGTHS (FOR CONC. DOWELED CURBS OR CONC. MEDIAN)		
CURB TYPE	P.C. CONC. PAV.	ASPHALT PAV.
1	6"	8"
2, 3 or 4	8"	12"
7	6"	8"

NOTE:
TIE BARS FOR DOWELED CURBS MAY BE UNCOATED PLAIN OR DEFORMED BILLET-STEEL BARS (GRADE 40) AS USED FOR CONCRETE REINFORCEMENT. (AASHTO M-31)

CONCRETE INTEGRAL CURB

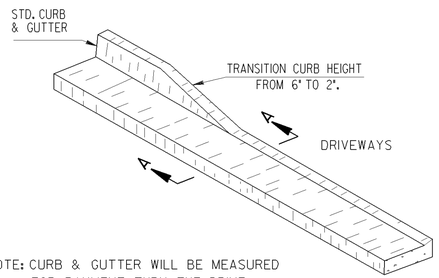


SCALE: 1 1/2" = 1FT.

DETAILS OF RECESSED CURB FOR DRIVEWAYS

NO SCALE

PICTORIAL VIEW

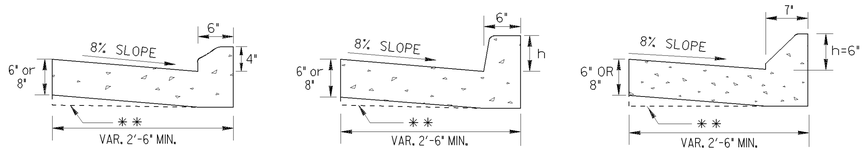


NOTE: CURB & GUTTER WILL BE MEASURED FOR PAYMENT THRU THE DRIVE

SECTIONAL VIEW
SECTION A-A

(SEE SEPARATE CONSTRUCTION DETAILS FOR DRIVEWAYS)

CONCRETE CURB & GUTTER

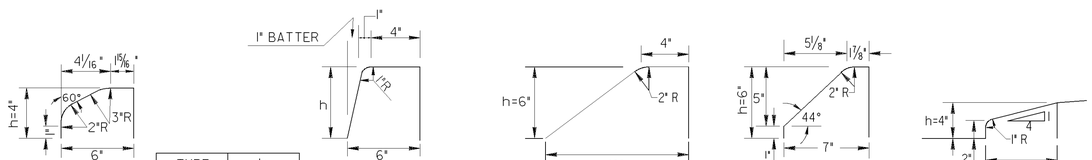


SCALE: 1" = 1FT.

TYPE 1 TYPE 2, 3 OR 4 TYPE 7

**AT CONTRACTOR'S OPTION THE GUTTER THICKNESS MAY BE INCREASED AT EDGE OF PAVEMENT TO MAKE BOTTOM OF GUTTER PARALLEL WITH PAVING OF BASE COURSE, BUT THE GUTTER THICKNESS MUST NOT BE LESS THAN THE SPECIFIED 6" OR 8" AT ANY POINT.

CURB FACE DESIGN



TYPE	h
1	4"
2	6"
3	8"
4	10"
6	6"
7	6"
9	4"

SCALE: 2"=1FT.

DATE	REVISION	BY
11-15-11	REV. TYPE 9 CURB DETAIL & REV. OVERALL LAYOUT	TC
1-27-11	REV. MEDIAN NOTE AND ADDED TYPE 9 CURB DETAIL	GLO
3-03	ADDED TYPE 9 DETAIL	

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

STANDARD

CONCRETE CURB & GUTTER
CONCRETE CURBS, CONCRETE MEDIANS

SCALE: AS SHOWN REVISED AND REDRAWN OCT. 2011

DES. ____
DRW. ____
TRA. ____
CHK. ____

(SUBMITTED) STATE DESIGN POLICY ENGINEER

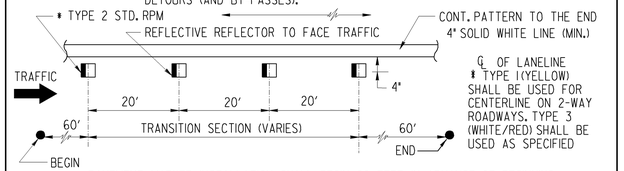
(APPROVED) CHIEF ENGINEER

NUMBER 9032B

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.

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

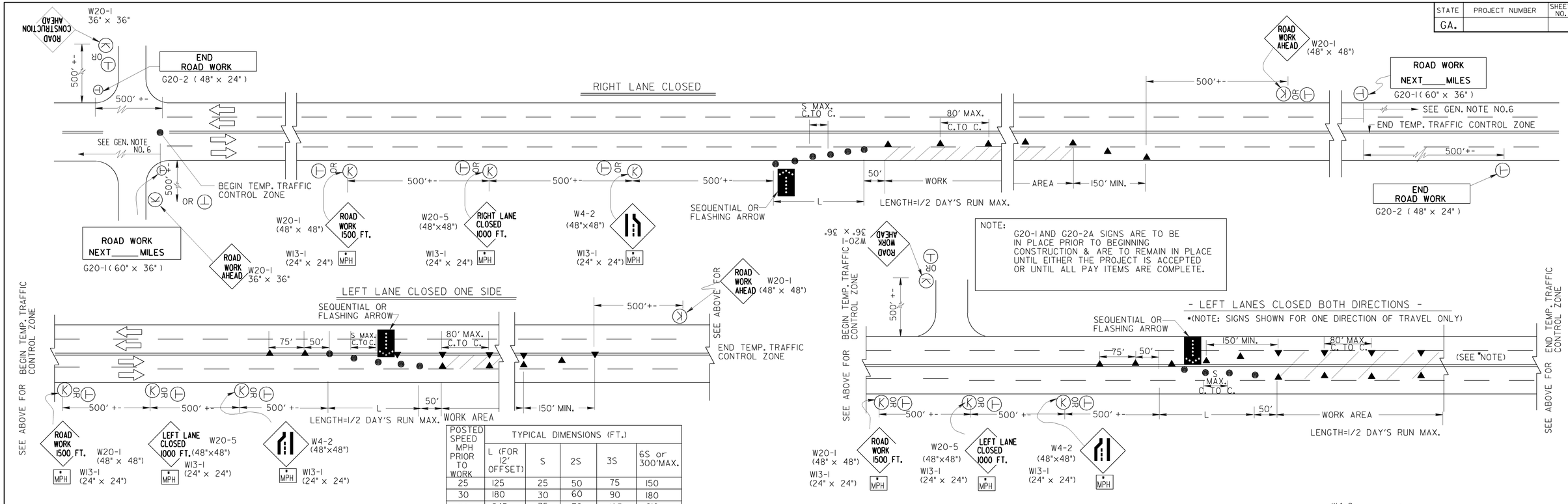
DES. ____ DRW. ____ TRA. ____ CHK. ____

(SUBMITTED) STATE ROAD & AIRPORT DESIGN ENGINEER

(APPROVED) CHIEF ENGINEER

NUMBER 9100

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			



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

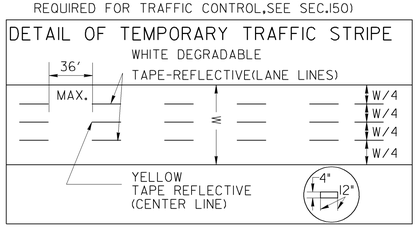
(SEE FORMULA FOR OTHER CONDITIONS)

L=WS FOR SPEEDS OF 45 M.P.H. OR GREATER, OR $WS^2/60$ FOR SPEEDS OF 40 M.P.H. OR LESS,
WHERE:
L=MIN. LENGTH OF TAPER
S=POSTED SPEED
W=WIDTH OF OFFSET.

FOR LOCATIONS ON THIS PROJECT INVOLVING ADDED TURN LANES, THE DISTRICT TRAFFIC OPERATIONS OFFICE WILL FURNISH A SCHEMATIC DRAWING OF THE TEMPORARY PAVEMENT MARKINGS AT THE PRE-CONSTRUCTION CONFRENCE.

(WHERE OTHER PAVEMENT MARKINGS ARE REQUIRED FOR TRAFFIC CONTROL, SEE SEC. 150)

DETAIL OF TEMPORARY TRAFFIC STRIPE



- WHEN TEMPORARY OPERATING SPEEDS ARE LESS THAN THE POSTED SPEED LIMIT, THE ADVISORY SPEED PLATES (WI3-1) SHALL BE USED IN 10 M.P.H. INCREMENTS, UNTIL THE SPEED IS REDUCED TO THE TEMPORARY OPERATING SPEED.

STANDARD LEGEND

- ● STRIPED DRUM
- ⊢ TEMPORARY POST MOUNTED SIGN (OFF SHOULDER) --FOR LONG TERM LANE CLOSURE SUCH AS STATIONARY OPERATIONS, BRIDGE WIDENING PROJECTS ETC. - (7' MOUNT HEIGHT)
- Ⓚ PORTABLE MOUNTED SIGN (ON SHOULDER) --FOR SHORT TERM LANE CLOSURE SUCH AS MOVING OPERATIONS, RESURFACING PROJECTS, ETC. (SEE GENERAL NOTE. NO. 3)
- ▲ TRAFFIC CONE - 28" MIN. (DAYTIME USE ONLY)
- SEQUENTIAL OR FLASHING ARROW
- WORK AREA

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 IN SECTION 150.
7. A PORTABLE SELF-SUSTAINED SEQUENTIAL OR FLASHING ARROW SIGN SHALL BE USED AT THE BEGINNING OF EACH LANE CLOSURE.
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.

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. 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.
12. THE G20-1 SIGNS SHOULD BE PLACED AT EACH TERMINUS OF THE PROJECT, PREFERABLY BETWEEN THE LAST ADVANCE WARNING SIGN(ROAD WORK- 500 FT.) AND BEFORE THE ADVANCE WARNING SIGNS FOR LANE SHIFTS, LANE CLOSURES, ETC.

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 MULTI-LANE UNDIVIDED HIGHWAY

NO SCALE — REV. & REDR. JULY, 1999

DES. ____ DRW. ____ TRA. ____ CHK. ____

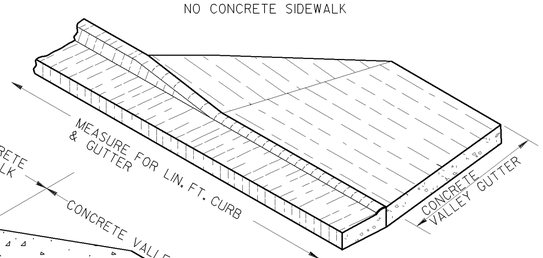
(SUBMITTED) STATE ROAD & AIRPORT DESIGN ENGINEER

(APPROVED) CHIEF ENGINEER

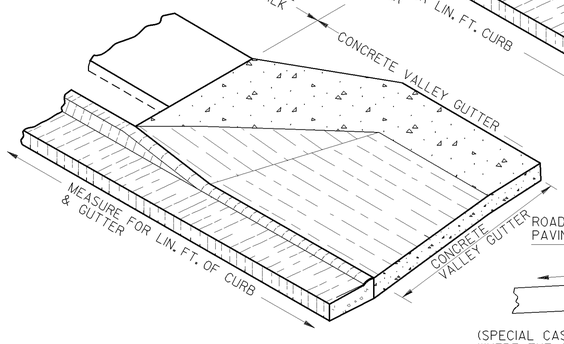
NUMBER 9107

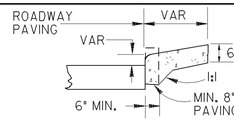
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

PICTORIAL SECTION
NO CONCRETE SIDEWALK

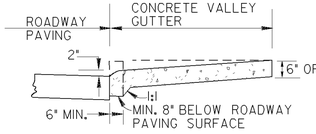


PICTORIAL SECTION
DRIVEWAY & CONRETE SIDEWALK



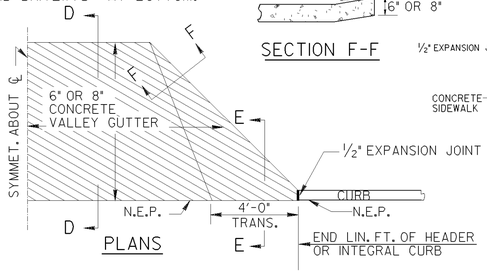


SECTION E-E

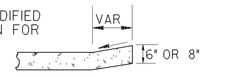


SECTION D-D

NOTE:
PLAN VIEW DETAILS NOT SHOWN FOR MODIFIED DRIVES WILL BE SIMILAR TO THAT SHOWN FOR STANDARD DRIVEWYS AT BOTTOM.

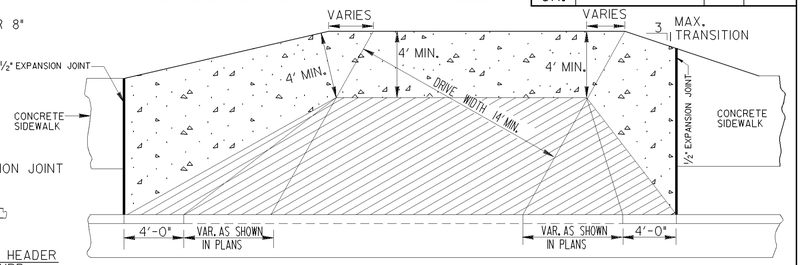


PLANS



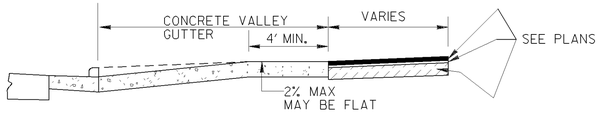
SECTION F-F

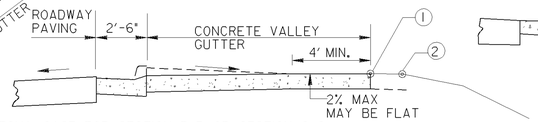
NOTE: DRIVEWAYS WILL NOT BE SKEWED EXCEPT WHERE PERPENDICULAR ALIGNMENT IS NOT FEASIBLE.



DRIVE ENTRANCE MODIFIED FOR SKEW

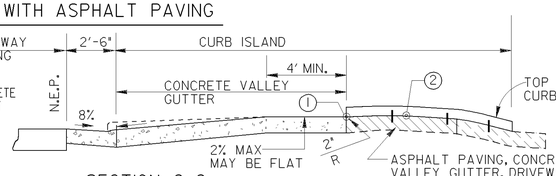
DRIVE MODIFIED FOR HEADER OR INTEGRAL CURB ALONG ROADWAY



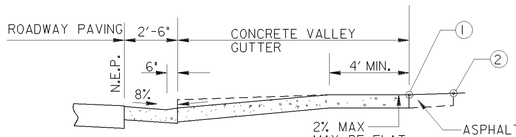


(SPECIAL CASE FOR SECTION B-B OR SECTION C-C: WHERE THE SHOULDER OR SIDEWALK IS SLOPED AWAY FROM THE ROAD)

SECTION WITH ASPHALT PAVING



SECTION C-C

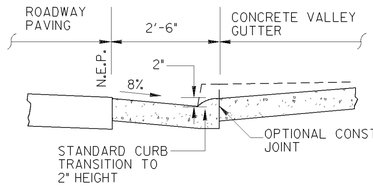


SECTION B-B

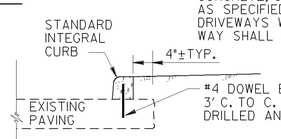
① IS THE BACK OF SIDEWALK SURFACE GRADE OR THE SHOULDER SURFACE GRADE 10'-0" BACK OF THE CURB, SLOPE OF THE CONCRETE VALLEY GUTTER WILL BE SUCH THAT THE BACK OF THE DRIVEWAY TAPER WILL BE THE SAME ELEVATION.

② IS BEGINNING OF DRIVEWAY TIE-IN.

NOTE: ① AND ② MAY COINCIDE



NOTE:
ALTERNATES TO THE CURB ISLAND DESIGN SHOWN HERE MAY BE SPECIFIED IN THE PLANS.



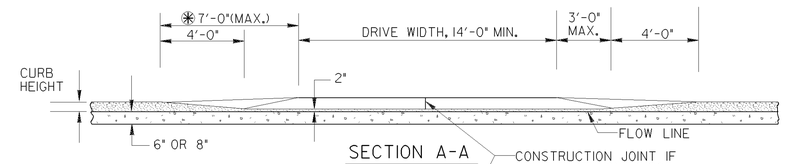
DOWELED CURB DETAIL

GENERAL NOTES:

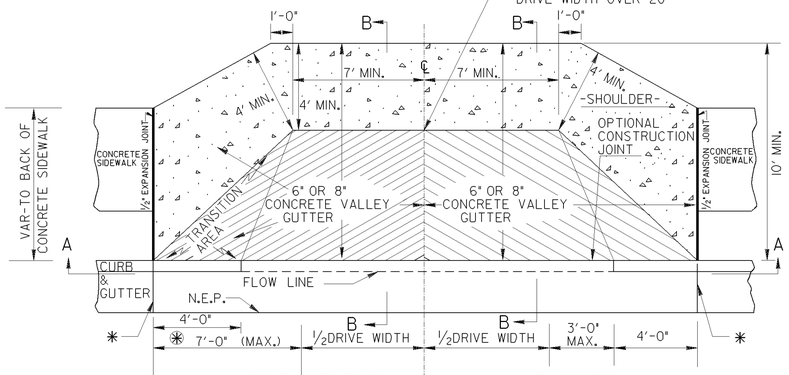
1. QUANTITIES SHALL BE MEASURED AS FOLLOWS:
   (A) CONCRETE CURB & GUTTER ALONG ROADWAY---
   LIN. FT. OF CURB & GUTTER SHALL BE MEASURED FOR PAYMENT CONTINUOUS THRU THE DRIVE ENTRANCES. PAYMENT FOR CURB & GUTTER SHALL INCLUDE DAPPING DOWN THE TOP PORTION OF THE CURB. SQ. YDS. OF CONCRETE VALLEY GUTTER SHALL BE MEASURED FOR PAYMENT TO THE BACK OF THE CURB LINE.
   (B) HEADER (OR INTEGRAL) CURB ALONG ROADWAY---
   LIN. FT. OF CURB SHALL BE MEASURED FOR PAYMENT TO THE BEGINNING OF DRIVE WAY. SQ. YDS. OF CONCRETE VALLEY GUTTER SHALL BE MEASURED FOR PAYMENT TO THE EDGE OF THE ROADWAY PAVING.
2. N.E.P. IS DEFINED AS THE POINT WHERE THE ROADWAY PAVING MEETS THE CURB & GUTTER, OR HEADER CURB, OR FACE OR THE INTEGRAL CURB.
3. DRIVES RECONSTRUCTED SHALL BE REPLACED IN KIND, I.E, ASPHALT FOR ASPHALT, CONCRETE FOR CONCRETE, AND PAVED TO THE RIGHT OF WAY LINE.
4. SEE STANDARD 9032-B FOR DETAILS OF CONCRETE CURB & GUTTER, HEADER CURBS AND DOWELED INTEGRAL CURBS.
5. WIDTHS OF COMMERCIAL DRIVEWAYS SHALL COMPLY WITH CURRENT "RULES AND REGULATIONS FOR DRIVEWAY AND ENCROACHMENT CONTROL". WIDTHS OF RESIDENTIAL NON-COMMERCIAL DRIVEWAYS SHALL BE AS SPECIFIED IN THE PLANS.
6. THE SLOPE OF THE "TRANSITION AREA" OF THE CONCRETE VALLEY GUTTER SHALL NOT BE STEEPER THAN 8% (12:1) WHERE SIDEWALKS ARE LOCATED.
7. MAXIMUM DRIVEWAY GRADES SHOWN BELOW ARE INTENDED FOR RESIDENTIAL DRIVEWAYS WHERE FLATTER GRADES ARE NOT FEASIBLE. GRADES FOR COMMERCIAL DRIVEWAYS OR FOR TRUCKS SHALL NOT BE GREATER THAN 11% UNLESS SPECIFIED OTHERWISE.

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.



SECTION A-A



HALF SECTION — HALF SECTION

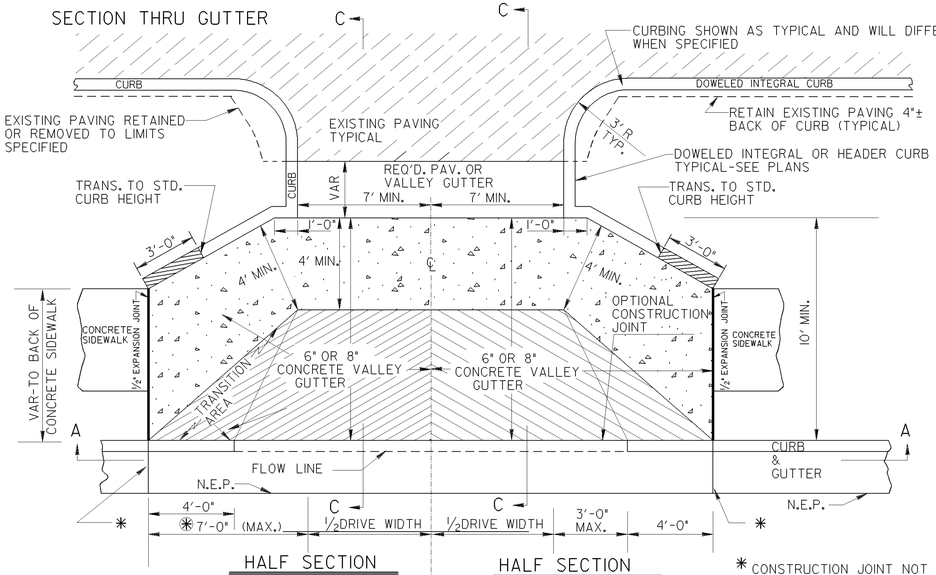
SYMMETRICAL ABOUT THIS SIDE OF CENTERLINE WHERE CONCRETE SIDEWALK OCCURS.

PLAN — PLAN

RESIDENTIAL, COMMERCIAL OR NON-COMMERCIAL DRIVE

* CONSTRUCTION JOINT NOT REQUIRED IF THE OPTIONAL CONSTRUCTION JOINT IS PROVIDED AT BACK OF THE CURB.

SECTION THRU GUTTER



HALF SECTION — HALF SECTION

SYMMETRICAL ABOUT THIS SIDE OF CENTERLINE WHERE CONCRETE SIDEWALK OCCURS.

PLAN — PLAN

DRIVEWAY WITH CURB ISLAND

(SHOWN ADJACENT TO EXISTING PAVED PARKING AREA)

* CONSTRUCTION JOINT NOT REQUIRED IF THE OPTIONAL CONSTRUCTION JOINT IS PROVIDED BACK OF CURB.

* 7'-0" OR DISTANCE EQUAL TO THAT FROM BACK OF CURB TO BACK OF SIDEWALK, WHICHEVER IS LESSER

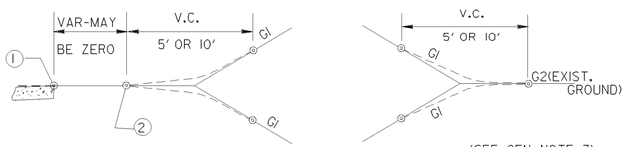
① IS THE BACK OF SIDEWALK SURFACE GRADE OR THE SHOULDER SURFACE GRADE 10'-0" BACK OF THE CURB, SLOPE OF THE CONCRETE VALLEY GUTTER WILL BE SUCH THAT THE BACK OF THE DRIVEWAY TAPER WILL BE THE SAME ELEVATION.

② IS BEGINNING OF DRIVEWAY TIE-IN.

NOTE: ① AND ② MAY COINCIDE

V.C.	MAXIMUM GI	
	CUT	FILL
5'	27%	16.67%
10'	28%	27%

V.C.	GI-G2 (MAX. ALGEBRAIC GRADE CHANGE)	
	SAG	CREST
5'	21%	25%
10'	25%	36%



MAXIMUM DRIVEWAY GRADES (SEE GEN. NOTE 7)

This Detail Replaces Ga Standard 6050

DATE	REVISION	BY
7-2-11	REV. PAVEMENT NOTES, REV.	GLO
4-11-02	12" TO 14' MIN., REV. SWALK	
4-3-02	REVISED	
	REVISED	

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

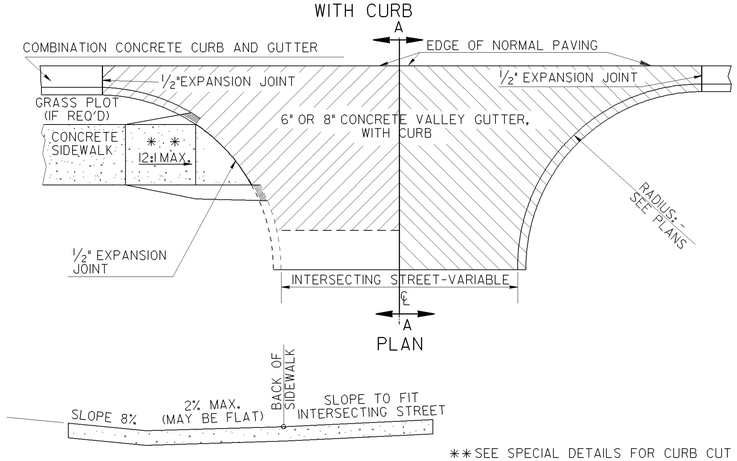
CONSTRUCTION DETAIL
DRIVEWAYS WITH TAPERED ENTRANCES CONCRETE VALLEY GUTTERS

NO SCALE — MARCH 12, 2002

NUMBER
AI

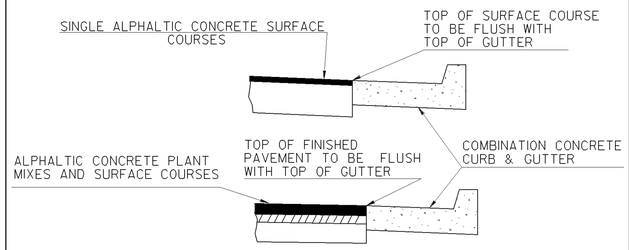
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

DETAIL OF 6" OR 8" CONCRETE VALLEY GUTTER WITH CURB

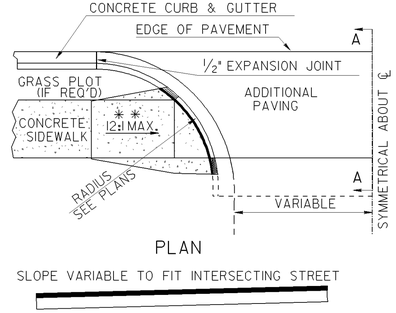


**SEE SPECIAL DETAILS FOR CURB CUT RAMP REQUIREMENTS.

DETAIL OF PLACING PAVEMENT ADJACENT TO GUTTER



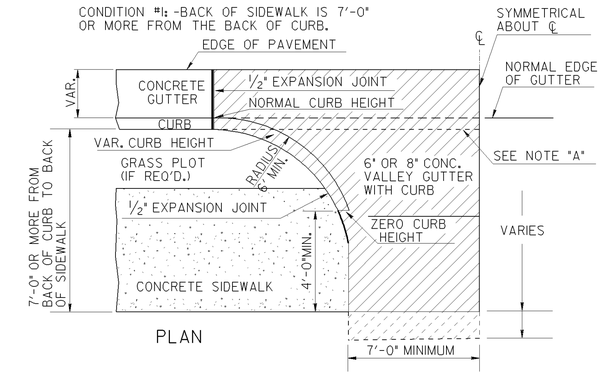
DETAIL OF ADDITIONAL PAVING AT STREET INTERSECTION



NOTE:
ADDITIONAL PAVING TO EXTEND TO END OF RETURN WHEN NO CONCRETE SIDEWALK IS SET UP.

**SEE SPECIAL DETAILS FOR CURB CUT RAMP REQUIREMENTS.

DETAIL OF 6" OR 8" CONCRETE VALLEY GUTTER WITHOUT CURB

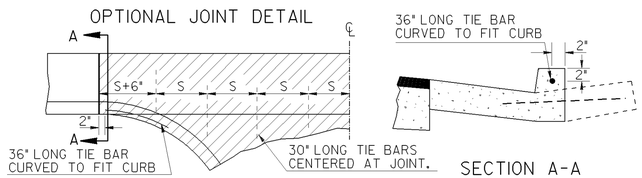


CONDITION "I"-BACK OF SIDEWALK IS 7'-0" OR MORE FROM BACK OF CURB.

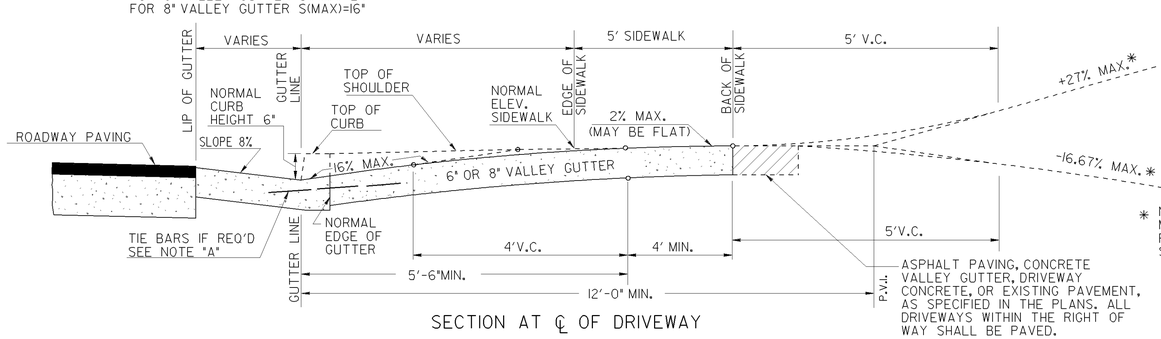
ZERO CURB HT. TO BE A MINIMUM OF 3'-2" FROM GUTTER LINE. IF CURB TRANSITION EXTENDS PAST EDGE OF SIDEWALK, THE TOP OF THE VARIABLE HEIGHT CURB IS TO REMAIN FLUSH WITH THE TOP OF THE SIDEWALK THROUGHT OUT TRANSITION. ZERO CURB HEIGHT WILL BE A MINIMUM OF 4'-0" FROM BACK OF SIDEWALK.

NOTE: "A"
CONSTRUCTION JOINT OPTIONAL: -WHEN IMPLEMENTED #4 TIE BARS WILL BE REQUIRED AS SHOWN BELOW TO BE INCLUDED IN UNIT PRICE FOR VALLEY GUTTER. IF CURB IS POURED THROUGH VALLEY GUTTER, THE TOP PORTION WILL BE REMOVED BEFORE SETTING TO MATCH GRADE OF VALLEY GUTTER.

OPTIONAL JOINT DETAIL



FOR 6" VALLEY GUTTER S(MAX)=24"
FOR 8" VALLEY GUTTER S(MAX)=16"

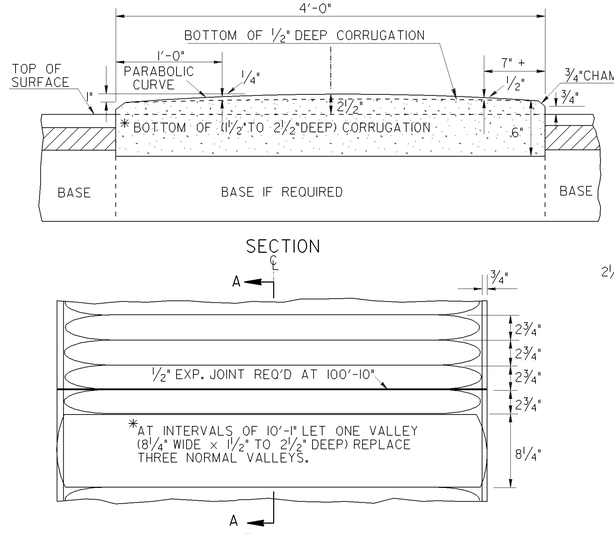


*PERCENTAGE OF ASCENDING GRADE MAY BE INCREASED AT A DISTANCE OF 23' FROM THE GUTTER LINE.

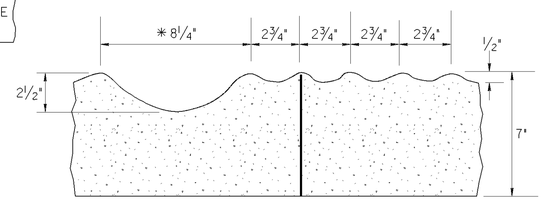
*PERCENTAGE DESCENDING GRADE MAY BE INCREASED AT A DISTANCE 18' FROM THE GUTTER LINE.

* NOTE:
MAXIMUM DRIVEWAY GRADES SHOWN ABOVE ARE INTENDED FOR RESIDENTIAL DRIVEWAYS WHERE FLATTER GRADES ARE NOT FEASIBLE. GRADES FOR COMMERCIAL DRIVEWAYS OR FOR TRUCKS SHALL NOT BE GREATER THAN 11% UNLESS SPECIFIED OTHERWISE.

DETAIL OF 4' CORRUGATED CONCRETE MEDIAN



*APPLIES ONLY TO SUPERELEVATED CURVES, INCLUDING TRANSITIONS.



SEE SPECIAL DETAILS FOR DETAILS OF CONCRETE SIDEWALK.

This Detail Replaces Ga Standard 9031J

Guidelines For Usage On Metric Projects

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BY	REVISION	DATE
GLO	ADDED PAVEMENT NOTE, REV. DRIVEWAY SECTION	7-21-11
GLO	REV. PAVEMENT NOTES	2-21-03
	REVISED	4-11-02
	REVISED	4-3-02

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

CONSTRUCTION DETAIL

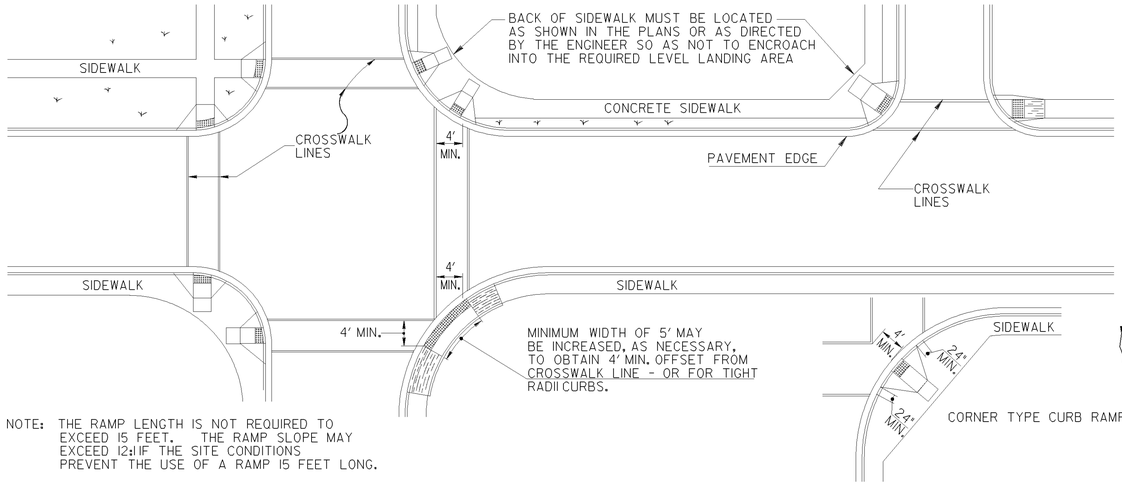
CONCRETE VALLEY GUTTER AT STREET INTERSECTION
6" OR 8" CONCRETE VALLEY GUTTER AT DRIVE
PLACING PAVEMENT ADJACENT TO GUTTER
ADDITIONAL PAVING AT STREET INTERSECTION
4' CORRUGATED CONCRETE MEDIAN

NO SCALE — MARCH 12, 2002

NUMBER A2

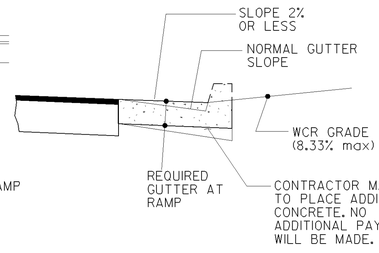
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

TYPICAL LOCATIONS FOR CURB CUT RAMPS - PLAN VIEW

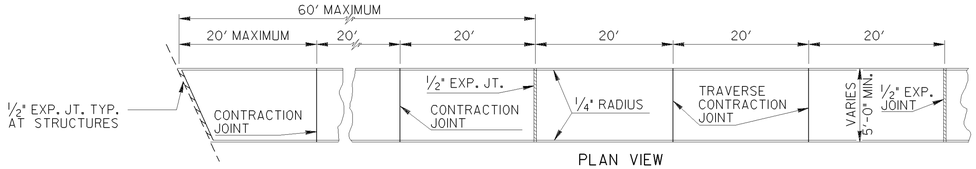


NOTE: THE RAMP LENGTH IS NOT REQUIRED TO EXCEED 15 FEET. THE RAMP SLOPE MAY EXCEED 12:IF THE SITE CONDITIONS PREVENT THE USE OF A RAMP 15 FEET LONG.

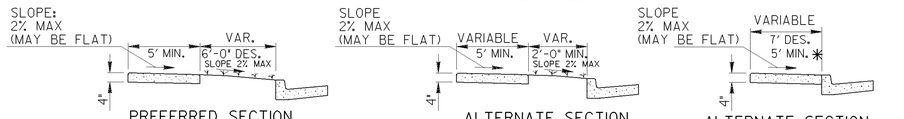
GUTTER TRANSITION DETAIL



CONCRETE SIDEWALK DETAILS



PLAN VIEW



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 1/4"RADIUS.
C. 1/2" 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

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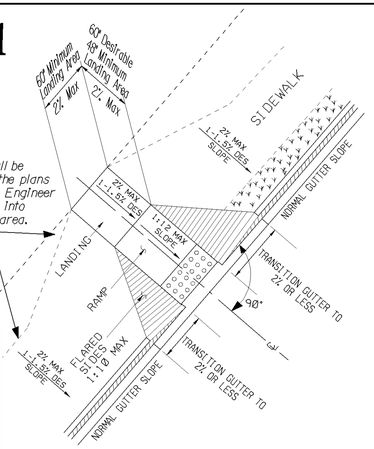
Type A

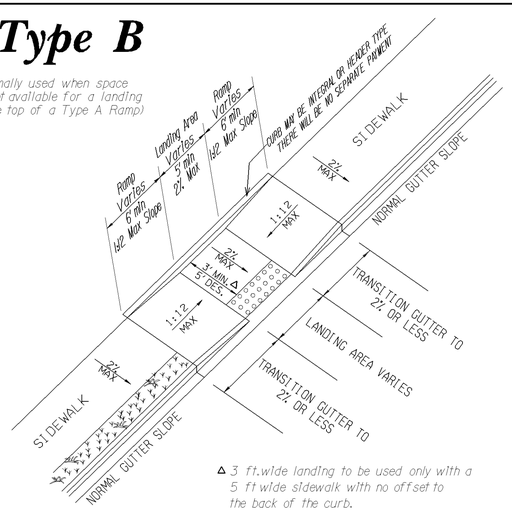
(The Prefered Ramp)



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

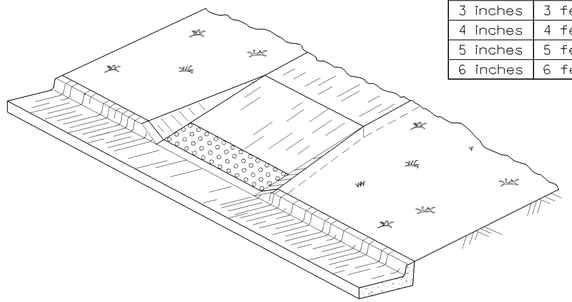
(Normally used when space is not available for a landing at the top of a Type A Ramp)



Δ 3 ft. wide landing to be used only with a 5 ft wide sidewalk with no offset to the back of the curb.

Type D

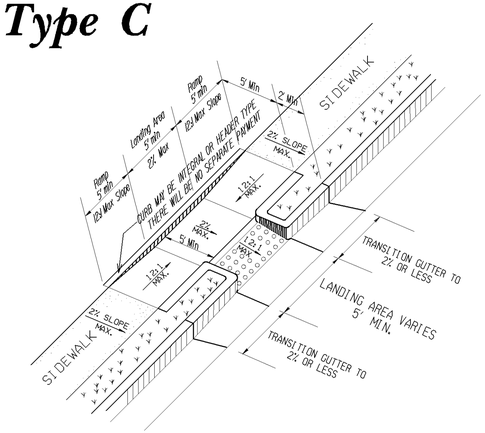
(Normally used when the sidewalk ties directly into the crosswalk)



IN AREAS WHERE THE GUTTER HAS A SLOPE 1" IN 1' END 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.

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

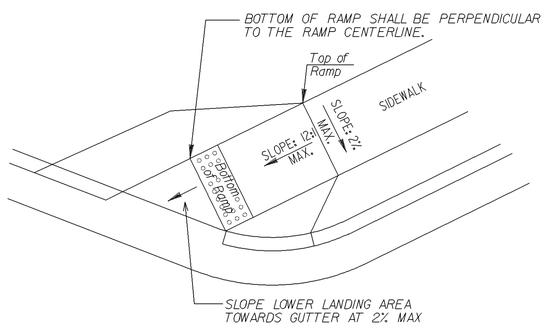
Type C

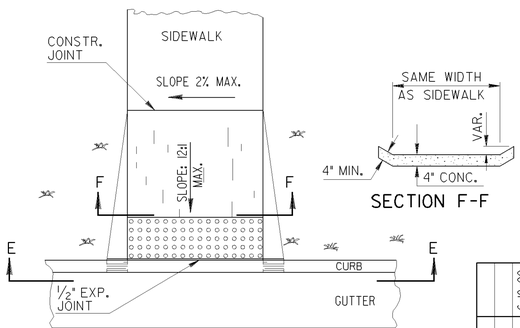


Skewed Ramp Details

(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.





DATE	REVISION
6-18-09	REV. SLOPES TO PERCENT AND ADDED 12:1 & 10:1 CHART. ADDED GEN. NOTE NO. 8.
5-10-06	REV. TRUNCATED DOMES
2-21-03	REVISED
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	REVISED

GLO GLO

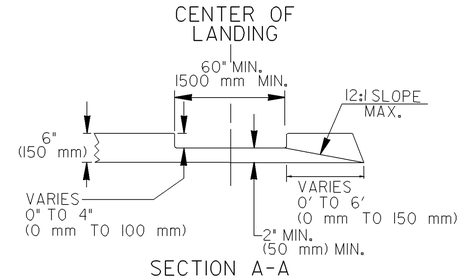
DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

SPECIAL DETAIL
CONCRETE SIDEWALK DETAILS
CURB CUT (WHEELCHAIR) RAMPS

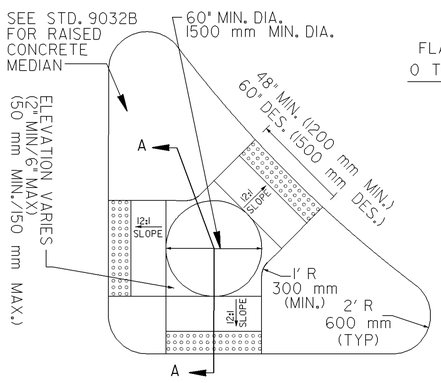
NO SCALE — MARCH 12, 2002

NUMBER A3

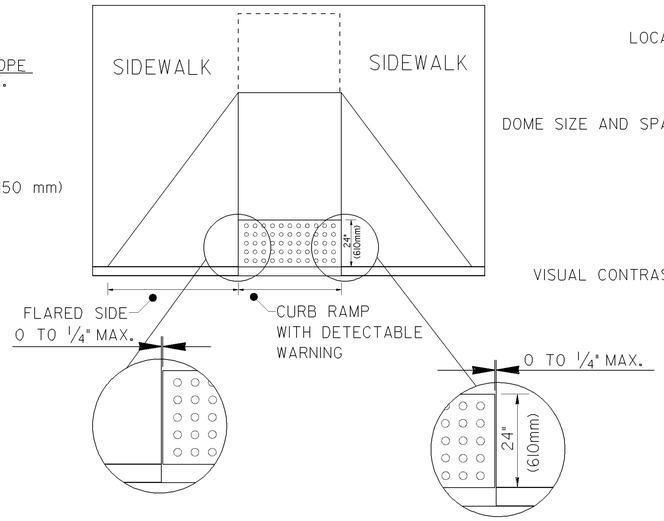
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			



SECTION A-A



CONCRETE ISLAND WITH ELEVATED CUT THROUGH

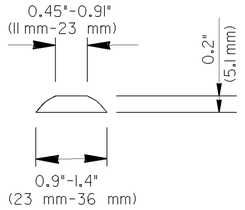


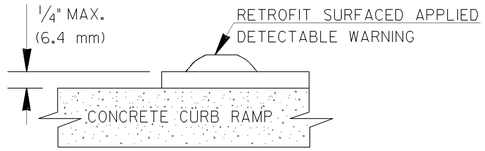
SIZE: DETECTABLE WARNINGS SHALL BE 24 INCHES (610 mm) IN THE DIRECTION OF PEDESTRAIN TRAVEL AND EXTEND THE FULL WIDTH OF THE CURB RAMP OR FLUSH SURFACE.

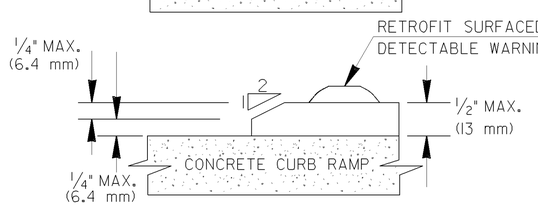
LOCATION: THE DETECTABLE WARNING SHALL BE LOCATED SO THAT THE EDGE NEAREST THE CURB LINE OR OTHER POTENTIAL HAZARD IS 6 TO 8 INCHES (150 mm to 180mm) FROM THE CURB LINE OR OTHER POTENTIAL HAZARD, SUSH AS A REFLECTIVE POOL EDGE OR THE DYNAMIC ENVELOPE OF RAIL OPERATIONS.

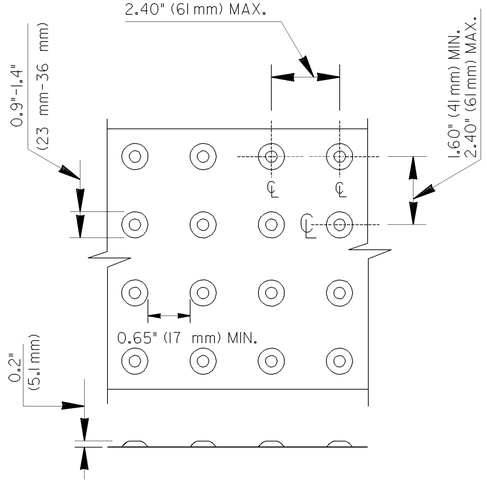
DOME SIZE AND SPACING: TRUNCATED DOMES SHALL HAVE A BASE DIAMETER OF 0.9 INCH TO 1.4 INCH (23mm-36mm) AT THE BOTTOM, A DIAMETER OF 0.45 INCH TO 0.91 INCH (11mm-23mm) AT THE TOP, THE TOP DIAMETER SHALL BE A MINIMUM OF 50% AND A MAXIMUM OF 65% OF THE BASE DIAMENTER, A HEIGHT OF 0.2 INCH (5.1mm) AND A CENTER-TO-CENTER 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.

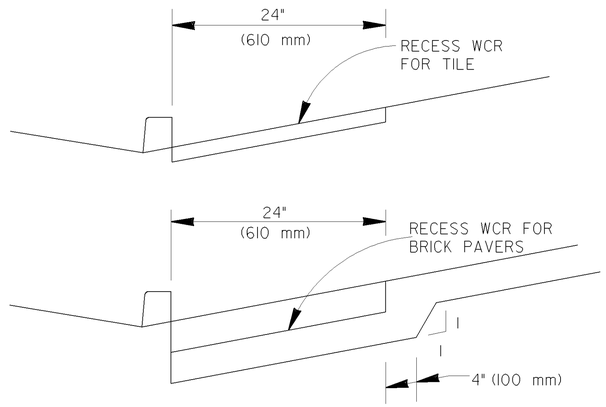
VISUAL CONTRAST: DETECTABLE WARNING SURFACES SHALL CONTRAST VISUALLY WITH THE ADJACENT WALKING SURFACE EITHER LIGHT-ON-DARK OR DARK-ON-LIGHT. THE MATERIAL USED TO PROVIDE VISUAL CONTRACT SHALL BE AN INTEGRAL PART OF THE DETECTABLE WARNING SURFACE.



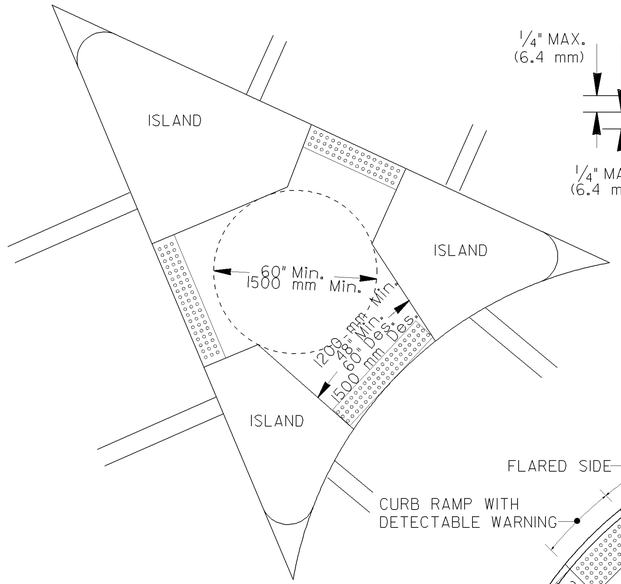


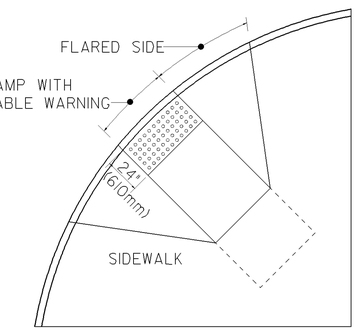




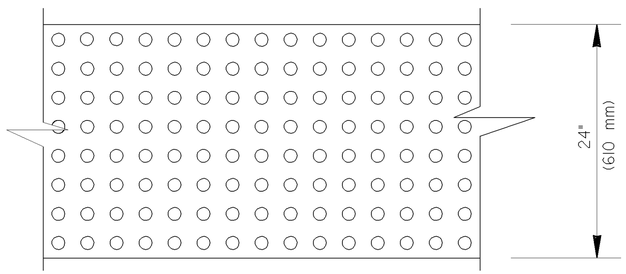


FOR TILE OR BRICK PAVERS NO VERTICAL LIP OVER 1/8" (3 mm) IS ALLOWED





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.

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.

BY	DATE	REVISION
GLO	6-18-09	ADDED RETROFIT DETAIL AND ADDED ALT. RAMP DETAIL AND GEN. NOTES
GLO	10-2-06	ADDED TOLERANCE TO DTL.
GLO	5-10-06	REVISEDTUNCATED DOMES AND NOTES.
	11-14-02	REVISED
	7-29-02	REVISED

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

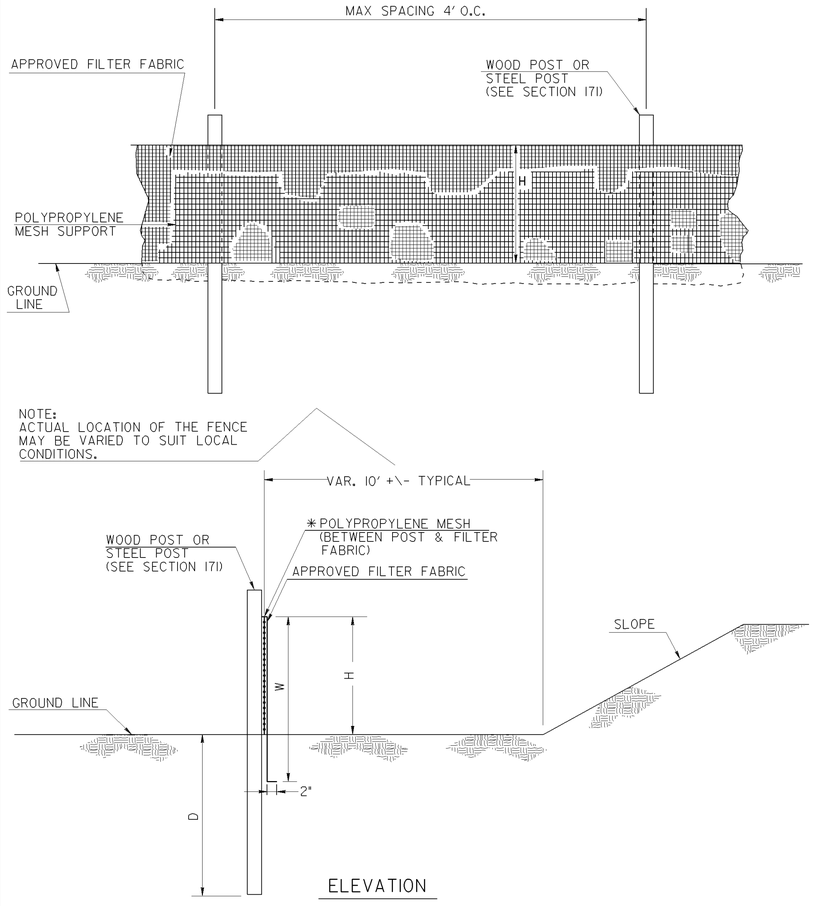
SPECIAL DETAIL

DETECTABLE WARNING SURFACE TRUNCATED DOME SIZE, SPACING AND ALIGNMENT REQUIREMENTS

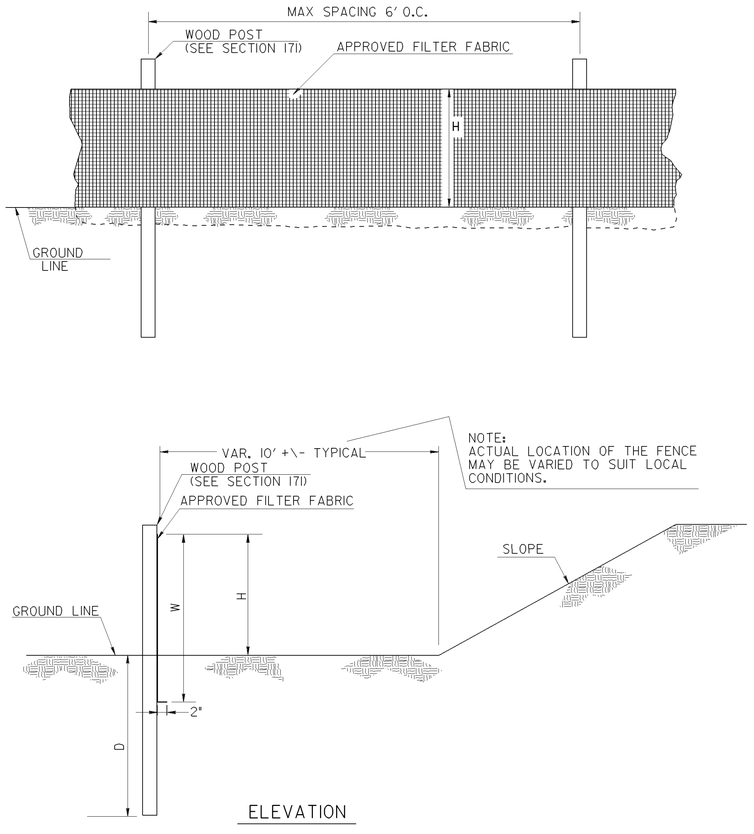
NO SCALE — MARCH 12, 2002

NUMBER A4

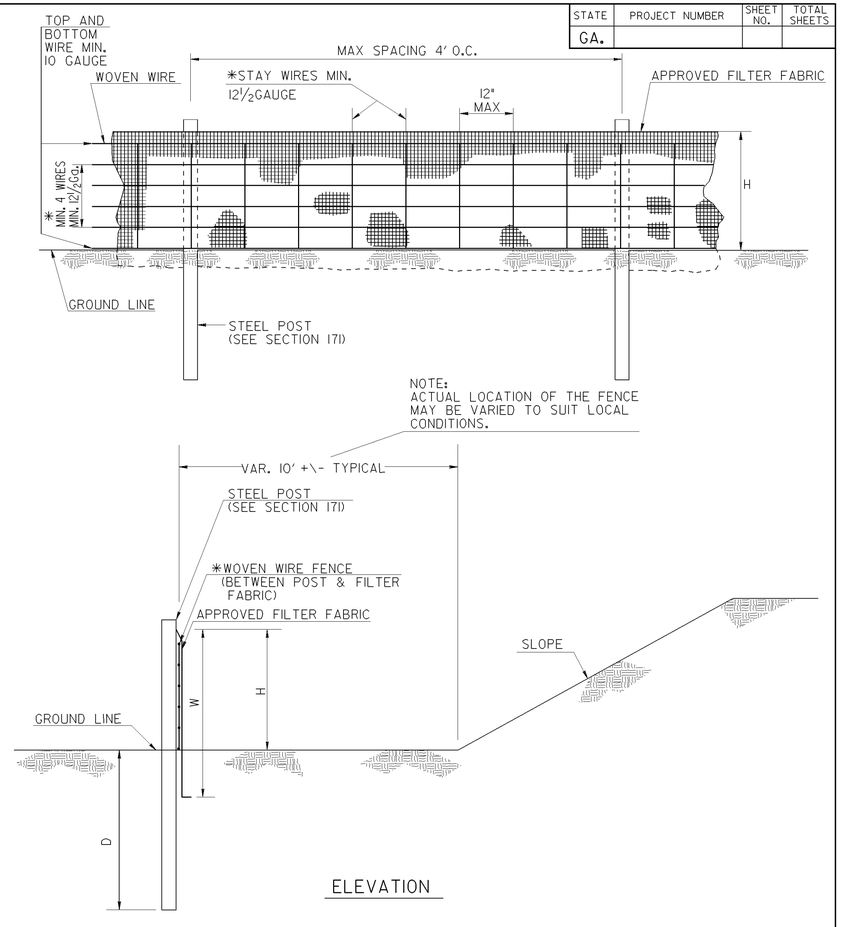
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			



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 ¾ INCHES WIDE. NAILS SHALL BE AT LEAST 14 GAUGE, 1 INCH 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.

DATE	REVISION	BY

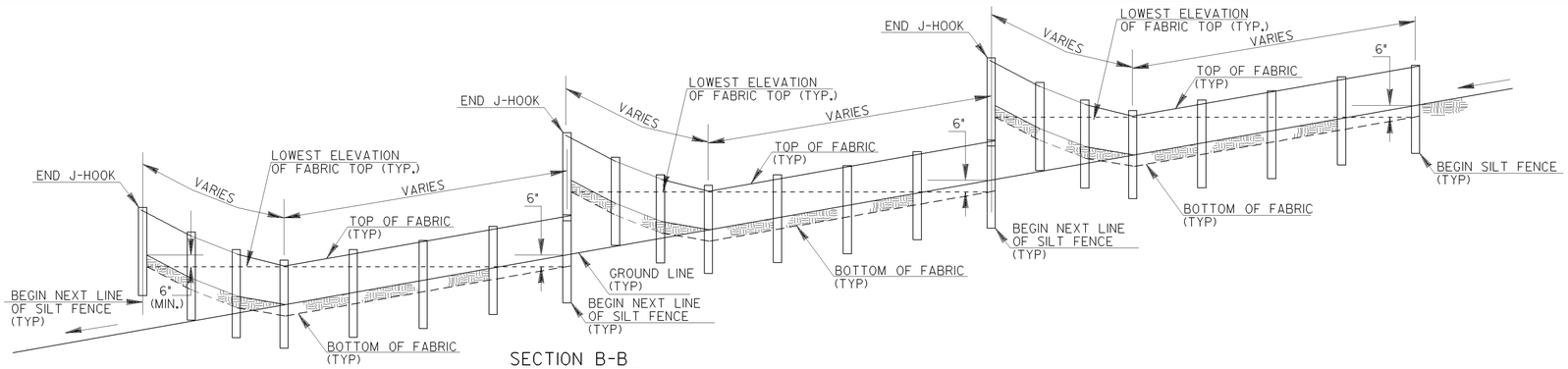
DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

CONSTRUCTION DETAILS

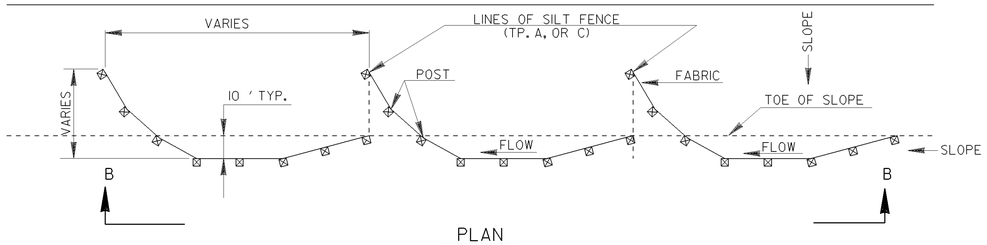
TEMPORARY SILT FENCE

NO SCALE — REV. AND REDRAWN JAN. 2011

NUMBER D-24A
(SHEET 1 OF 4)

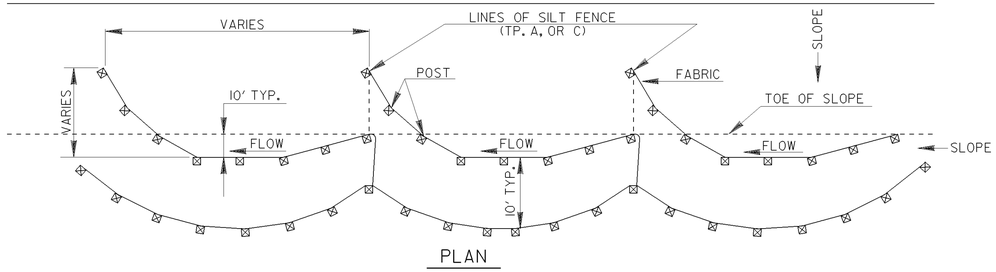


SECTION B-B



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' ±

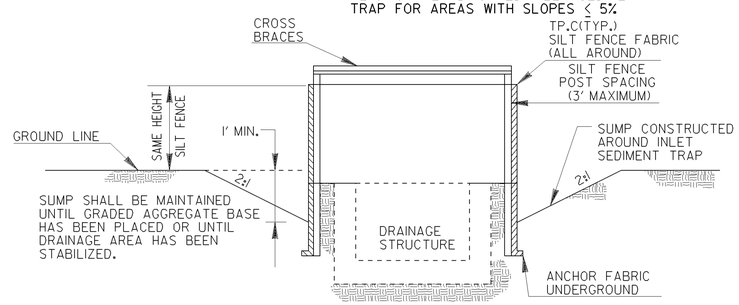
NOTE:

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.

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

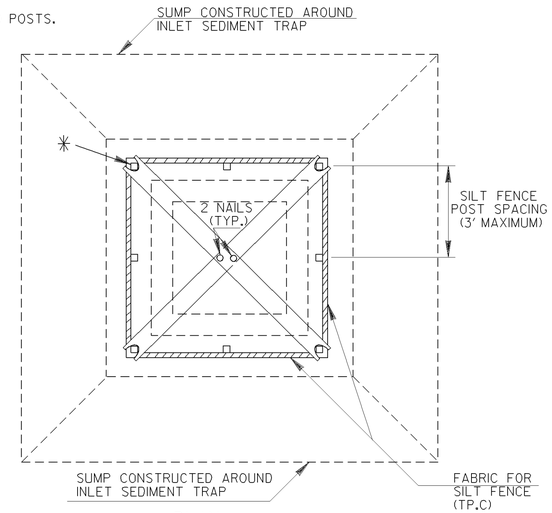
TYPICAL LOCATION AROUND DROP INLETS

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.

INLET SEDIMENT TRAP - FOR DROP INLETS

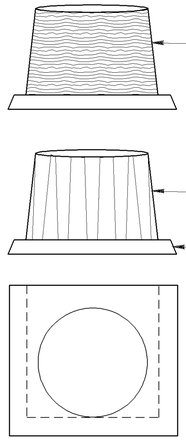
NOTE:
THE DRAINAGE AREA ENTERING THE INLET SEDIMENT TRAP SHALL BE NO GREATER THAN ONE ACRE.

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.

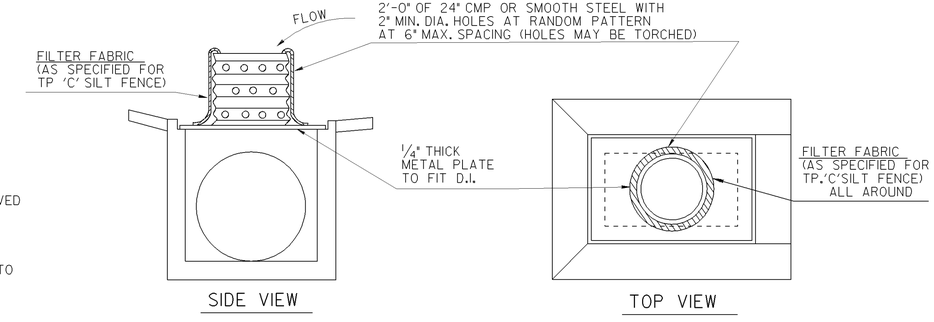
NOTE:
INLET SEDIMENT TRAP ALTERNATE SHALL BE AS APPROVED BY THE GA. D.O.T. OFFICE OF MATERIALS & RESEARCH. DETAILS & SPECIFICATIONS NOT SHOWN ARE PER THE MANUFACTURER'S REQUIREMENTS.

(PLASTIC ALTERNATE)



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.

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

CONSTRUCTION DETAILS

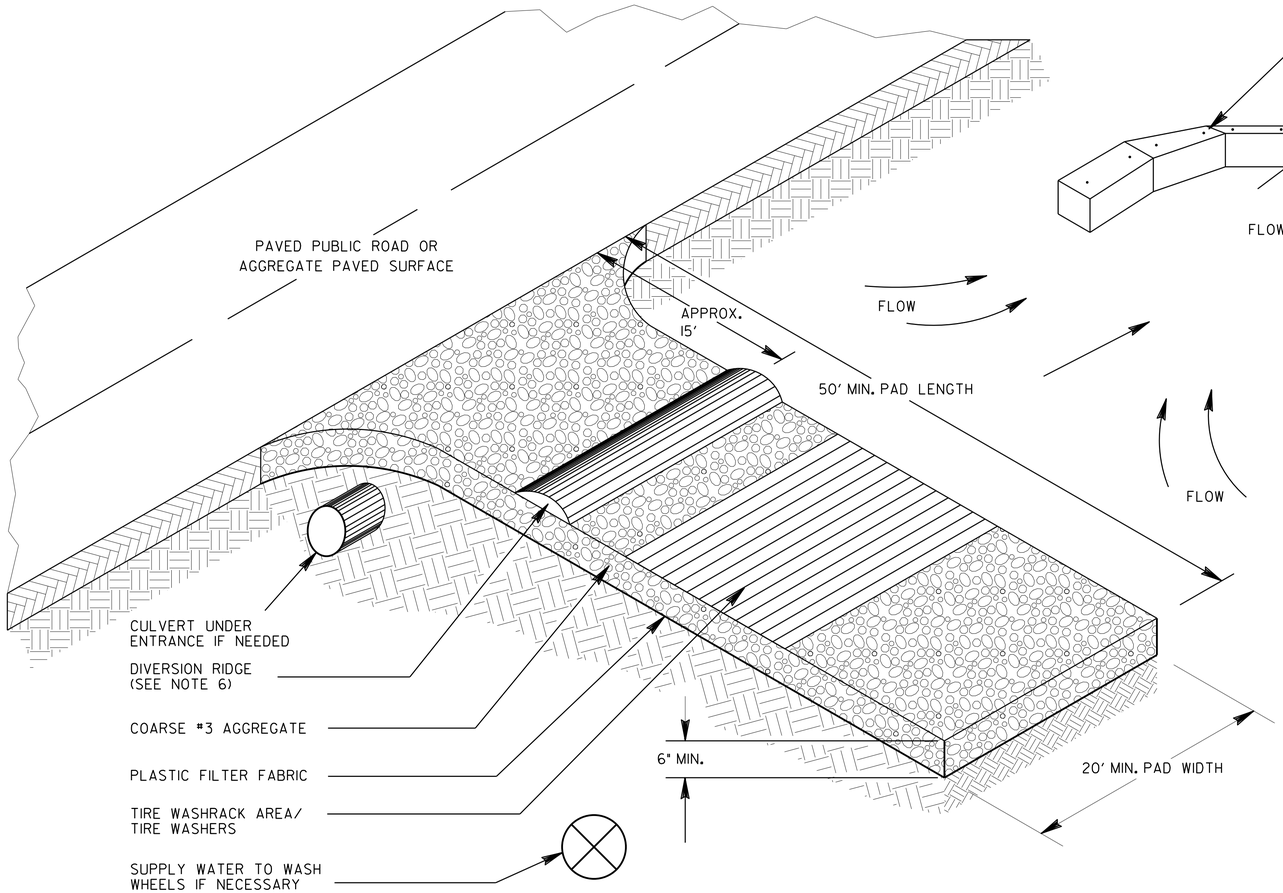
TEMPORARY SILT FENCE
J-HOOK, INLET SEDIMENT TRAPS

NO SCALE — JANUARY 2011

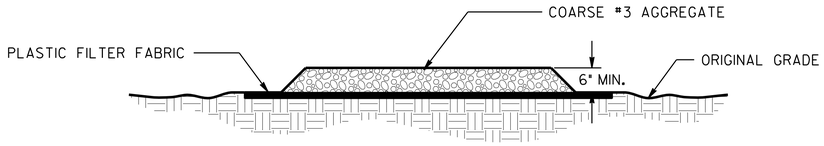
DATE | REVISION | BY

NUMBER D-24C (SHEET 3 OF 4)

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			



ENTRANCE ELEVATION



GENERAL NOTES:

1. AVOID LOCATING CONSTRUCTION EXITS ON STEEP SLOPES OR AT SHARP CURVES ON PUBLIC ROADS. CONSTRUCTION EXITS ARE NOT REQUIRED FOR DIRT PUBLIC ROADS.
2. REMOVE ALL VEGETATION AND OTHER UNSUITABLE MATERIAL FROM THE FOUNDATION AREA, GRADE, AND CROWN FOR POSITIVE DRAINAGE.
3. AGGREGATE SIZE SHALL BE COARSE #3 AGGREGATE WITH 0.0% PASSING THE 1" U.S. STANDARD SIEVE.
4. GRAVEL PAD SHALL HAVE A MINIMUM THICKNESS OF 6".
5. GRAVEL PAD WIDTH SHALL BE EQUAL FULL WIDTH AT ALL POINTS OF VEHICULAR EGRESS, BUT NO LESS THAN 20'.
6. A DIVERSION RIDGE SHOULD BE CONSTRUCTED 6" TO 8" HIGH WHEN GRADE TOWARD PAVED AREA IS GREATER THAN 2%.
7. INSTALL PIPE UNDER THE ENTRANCE IF NEEDED TO MAINTAIN DRAINAGE DITCHES.
8. IF THE ACTION OF THE VEHICLE TRAVELING OVER THE GRAVEL PAD DOES NOT SUFFICIENTLY REMOVE THE MUD, THE TIRES SHALL BE WASHED PRIOR TO ENTERING PUBLIC ROADS. THE WASHING SHOULD BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN (DIVERT ALL SURFACE RUNOFF AND DRAINAGE FROM THE ENTRANCE TO A SEDIMENT CONTROL DEVICE).
9. WASHRACKS AND/OR TIRE WASHERS MAY BE REQUIRED DEPENDING ON SCALE AND CIRCUMSTANCE. IF NECESSARY, WASHRACK DESIGN MAY CONSIST OF ANY MATERIAL SUITABLE FOR TRUCK TRAFFIC THAT REMOVE MUD AND DIRT.
10. AGGREGATE SHALL BE KEPT LOOSE OR SCARIFIED WHEN AGGREGATE BECOMES CONSOLIDATED.
11. MAINTAIN AREA IN A WAY THAT PREVENTS TRACKING AND/OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR, AND/OR CLEAN OUT OF ANY MEASURES USED 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	(EA)
165-0101	MAINTENANCE OF CONSTRUCTION EXIT	(EA)

DATE	REVISION	BY
4-22-2016	REV. GSWCC 2016 MANUAL	DLE
01-19-11	REV. CONSTR. EXIT LABELS	TPC

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

CONSTRUCTION DETAILS

CONSTRUCTION EXIT

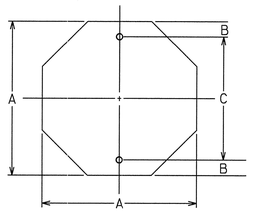
NO SCALE

FEBRUARY 2001

DESIGNED ____
DRAWN DLE
TRACED ____
CHECKED ____

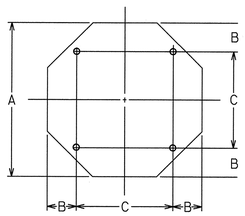
NUMBER
D-41

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

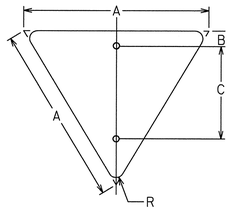


OCTAGON

A	B	C
24	3	18
30	3	24
36	3	30

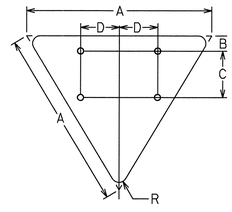


A	B	C
48	9	30

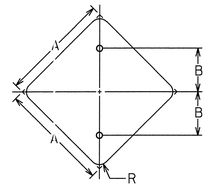


EQUILATERAL TRIANGLE

A	B	C	R
30	3	18	1 1/2
36	3	21	2
48	3	27	3

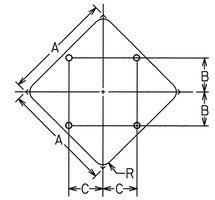


A	B	C	D	R
60	3	18	15	3



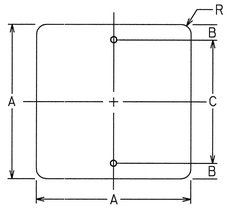
DIAMOND

A	B	R
24	12	1 1/2
30	15	1 7/8
36	18	2 1/4



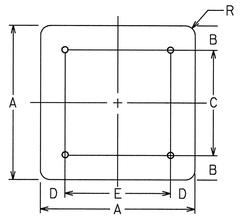
A	B	C	R
*36	10	10	2 1/4
48	15	15	3
60	18	18	3 3/4

* FOR TWO POST ERECTION

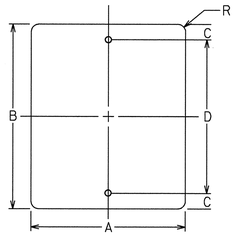


SQUARE

A	B	C	R
18	3	12	1 1/2
24	3	18	1 1/2
30	3	24	1 7/8

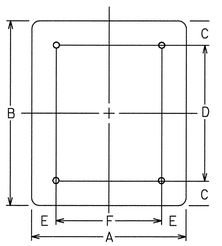


A	B	C	D	E	R
36	6	24	6	24	2 1/4
48	6	36	6	36	3

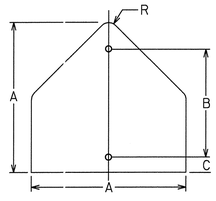


VERTICAL RECTANGLE

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

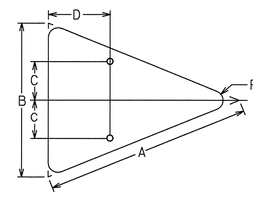


A	B	C	D	E	F	R
36	48	6	36	6	24	2 1/4
48	60	6	48	9	30	3



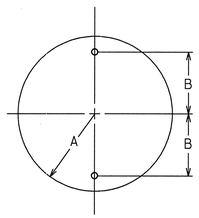
PENTAGON

A	B	C	R
30	21	3	1 7/8
36	24	3	2 1/4



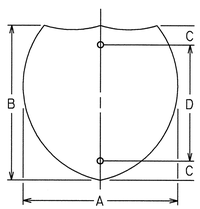
ISOSCELES TRIANGLE

A	B	C	D	R
40	30	7 1/2	12	1 7/8
48	36	9	15	2 1/4



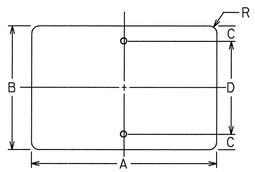
CIRCLE

A	B
15	12
18	15

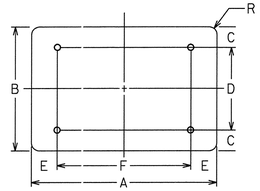


INTERSTATE SHIELD

A	B	C	D
24	24	3	18
30	24	3	18
36	36	6	24
45	36	6	24



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



HORIZONTAL RECTANGLE

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

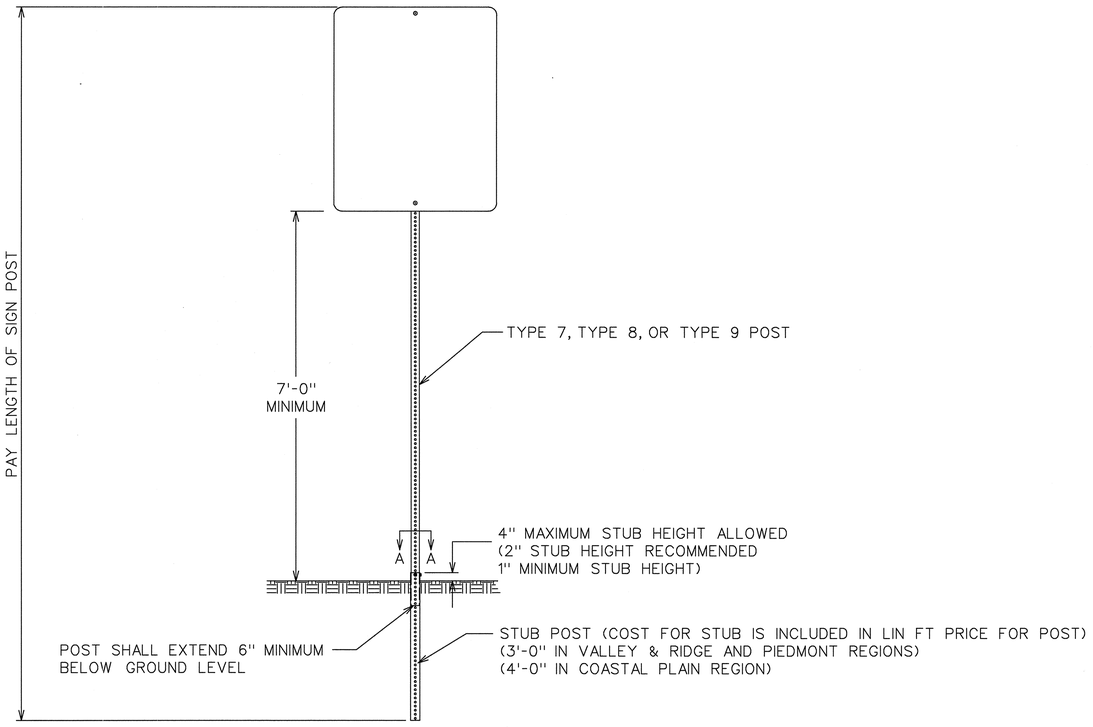
DETAILS OF
SIGN PLATES

NO SCALE JANUARY 2000

PCBDTB

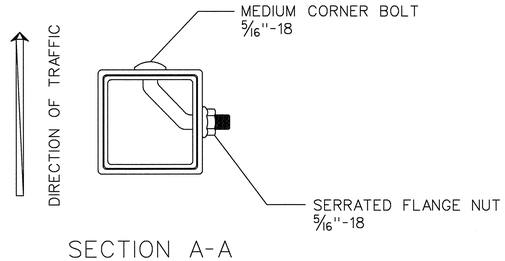
...\10\sign plates.dgn 03-JUL-2000 16:10:10

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

PCBDTB

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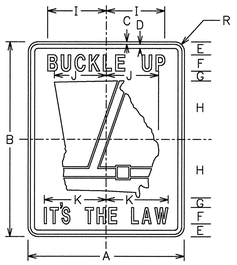
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

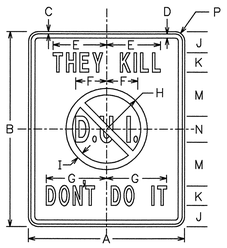


R560-1

SIGN	DIMENSIONS (INCHES)										
	A	B	C	D	E	F	G	H	I	J	K	R
MIN & STD	30	36	1/2	3/4	2 1/2	3C	1 1/2	11	8 1/2	10	11	1 7/8
FWY	48	60	3/4	1 1/4	4	5C	3	18	15 1/2	16	18	3

COLORS

STATE SHIELD & BORDER - RED (REFL)
LEGEND & BELT - BLACK (NON-REFL)
BACKGROUND - WHITE (REFL)

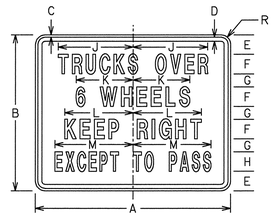


R560-2

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	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)

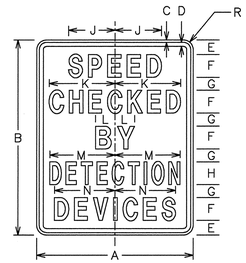


R560-3

SIGN	DIMENSIONS (INCHES)											
	A	B	C	D	E	F	G	H	J	K	L	M	R
MIN & STD	36	30	1/2	3/4	3 1/2	3 1/2 C	3	3 1/2 B	14	10	11 1/2	14 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

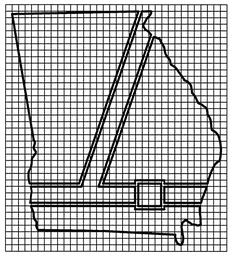
SIGN	DIMENSIONS (INCHES)												
	A	B	C	D	E	F	G	H	J	K	L	M	N	R
MIN & STD	30	36	1/2	3/4	4	4D	2	4C	8 3/16	11 5/8	3 7/16	11 7/16	10 5/8	1 7/8
FWY	48	60	3/4	1 1/4	4 1/2	7D	4	7C	14 5/16	20 3/16	6	20	18 5/16	3

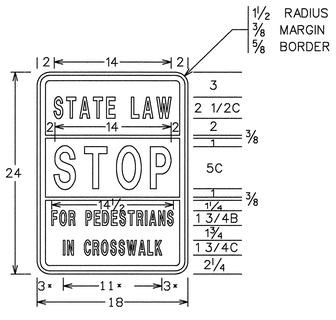
COLORS

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.

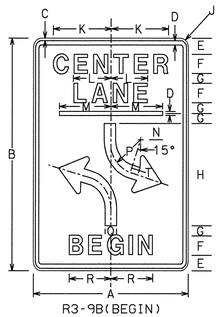




R560-5

COLORS

LEGEND & BORDER-BLACK (NON-REFL)
WORD "STOP" -RED (REFL)
BACKGROUND -WHITE (REFL)



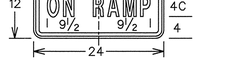
R3-9B(BEGIN)

R3-9B(END)

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	8 7/16	5 3/4	8	2 1/2	6	2	6 7/16	4 3/16	1 1/2
SPECIAL	36	48	5/8	7/8	3 1/2	5E	1 1/2	20	2 1/4	14 1/16	9 1/2	12	3	8	3	7 11/16	4 15/16	2

COLORS

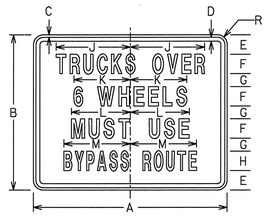
LEGEND & BORDER - BLACK (NON-REFL)
BACKGROUND -WHITE (REFL)



R8-3aP

COLORS

LEGEND & BORDER - RED (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 C	3	3 1/2 B	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
5-24-00	ADDED R9-8 DETAIL
1-21-03	DELETED R1-4 SIGNS
1-21-03	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

PCBDTB

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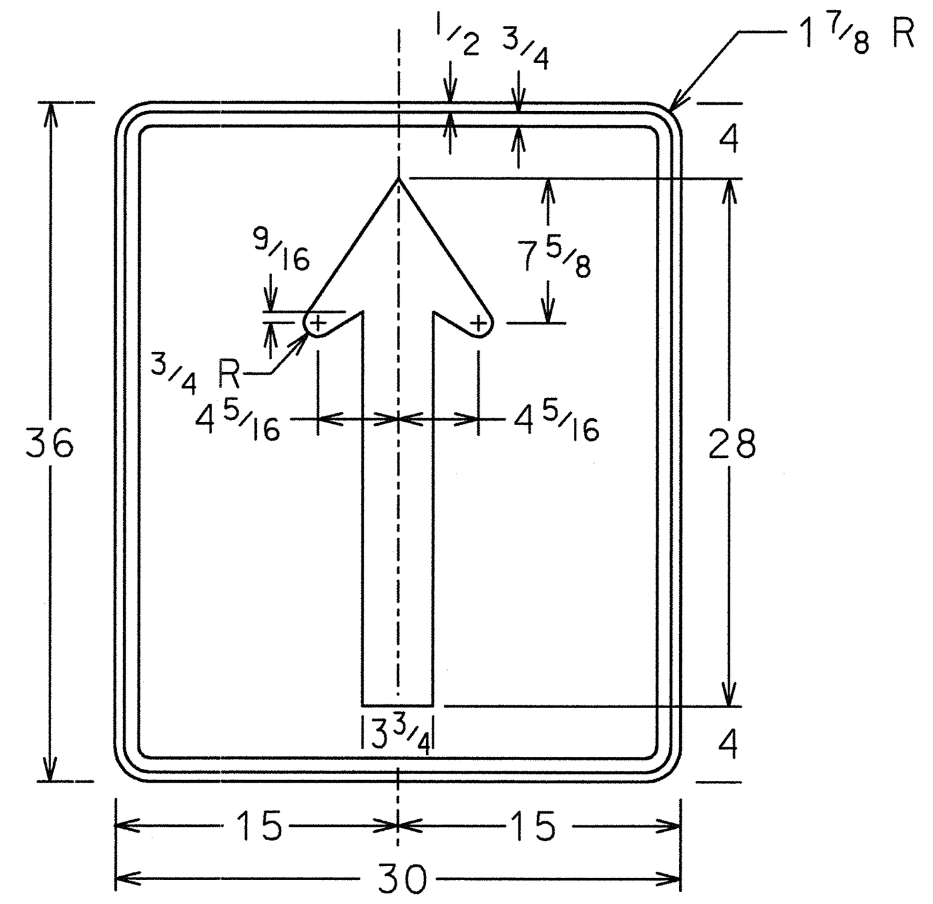
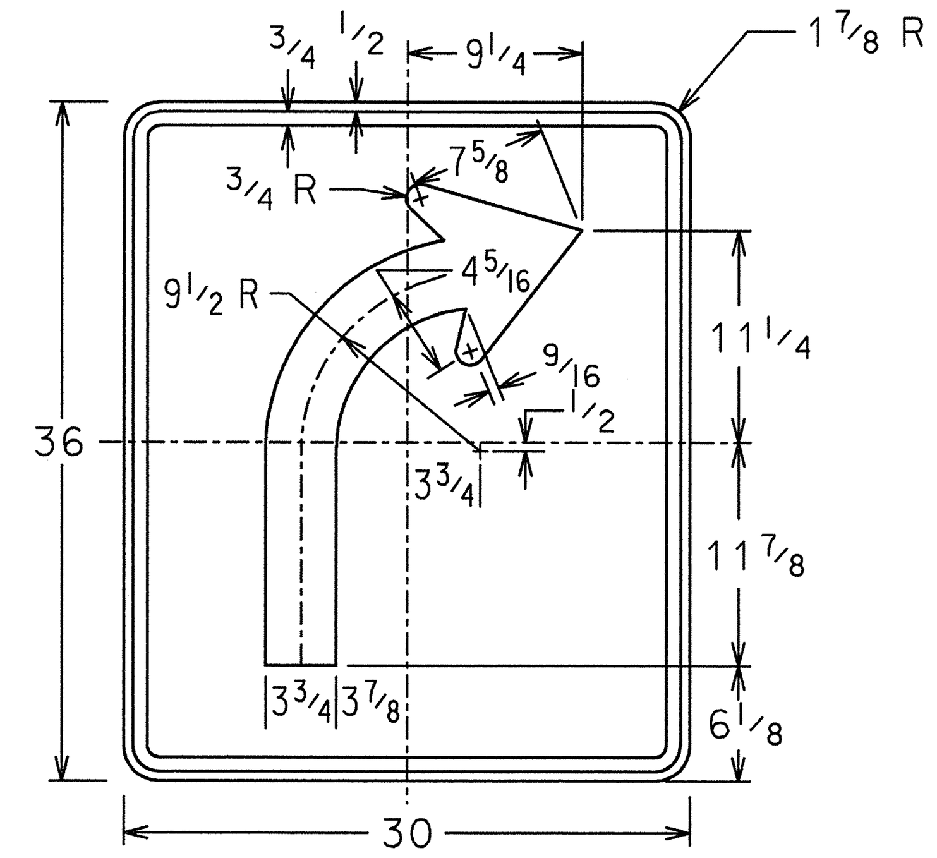
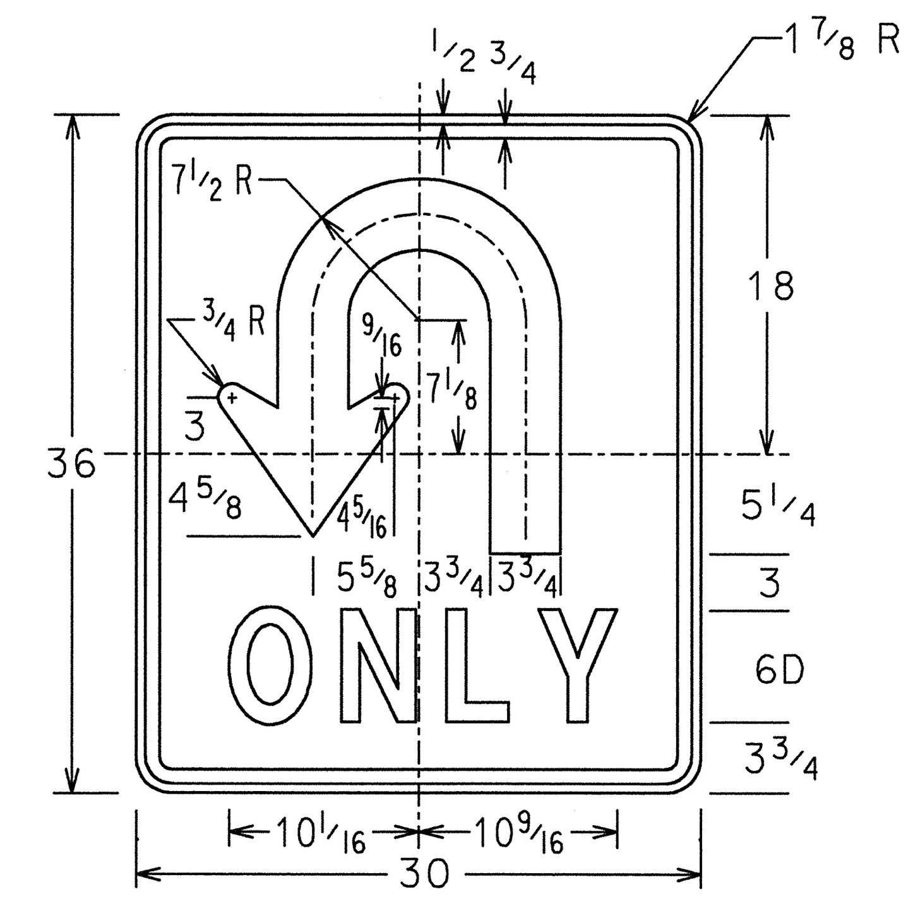
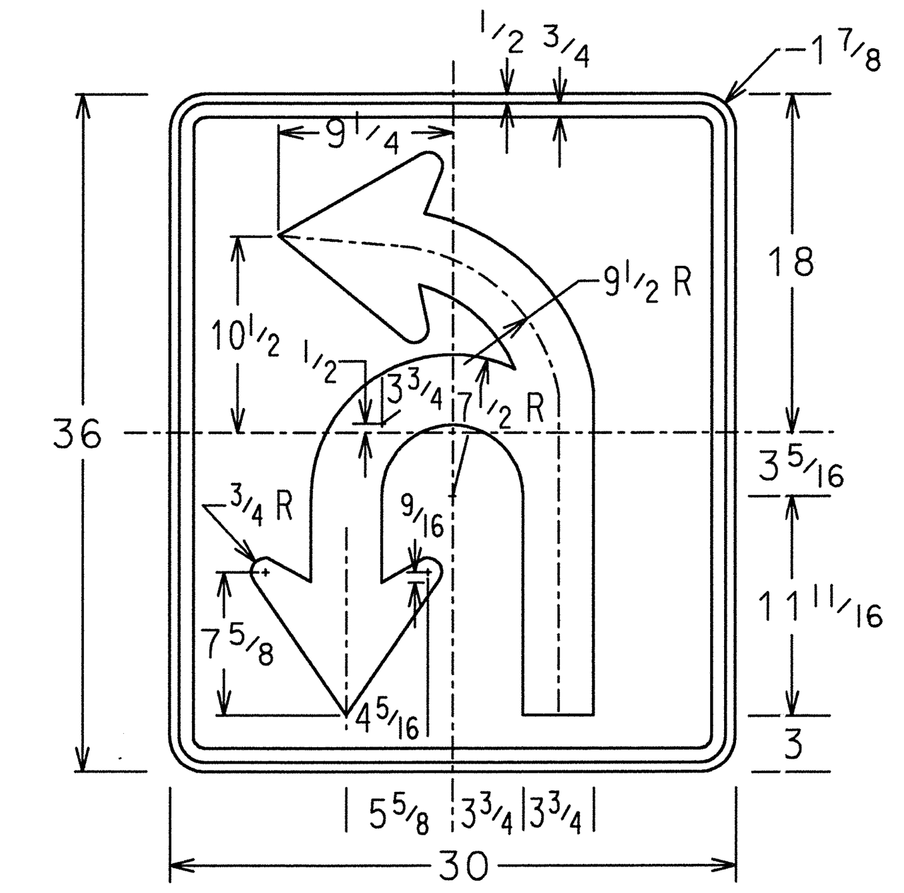
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

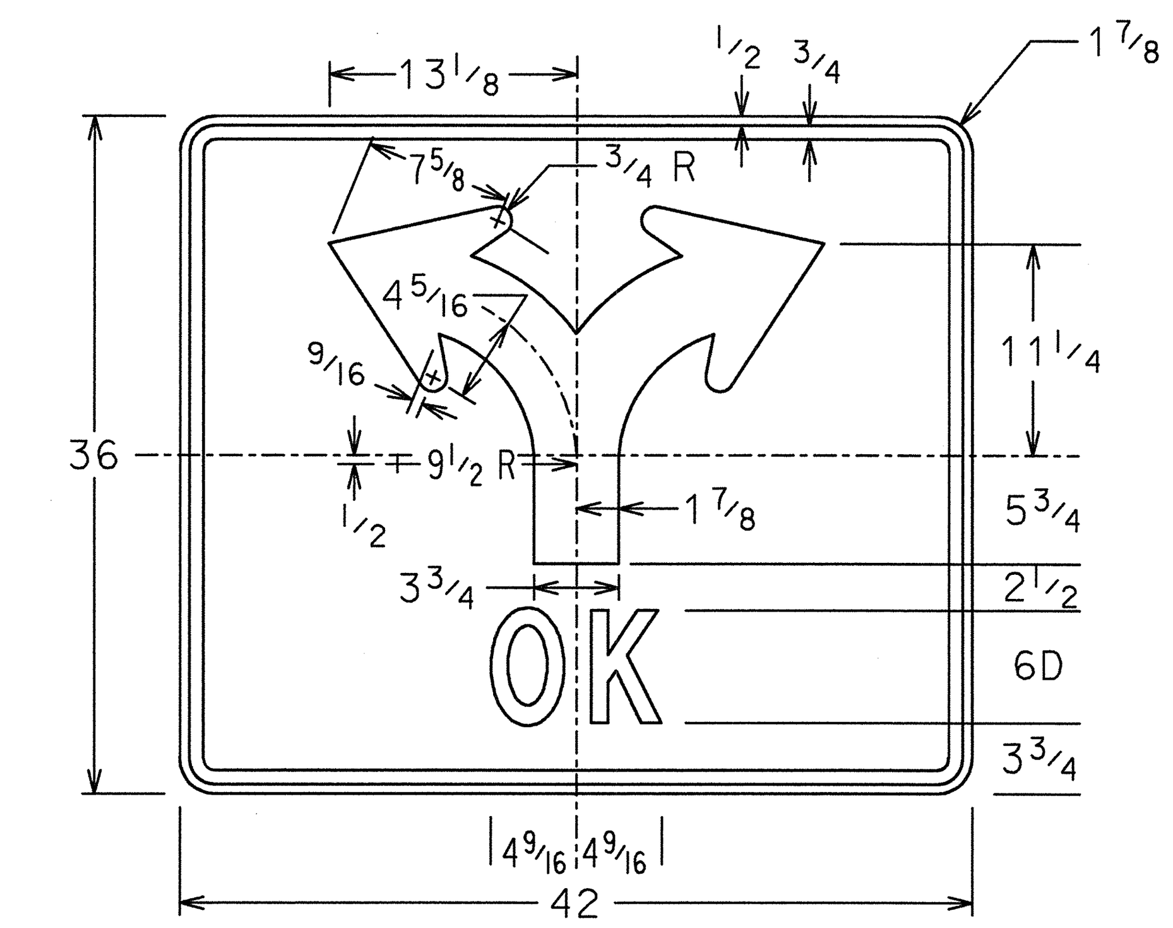

R3-5Ta


R3-5a

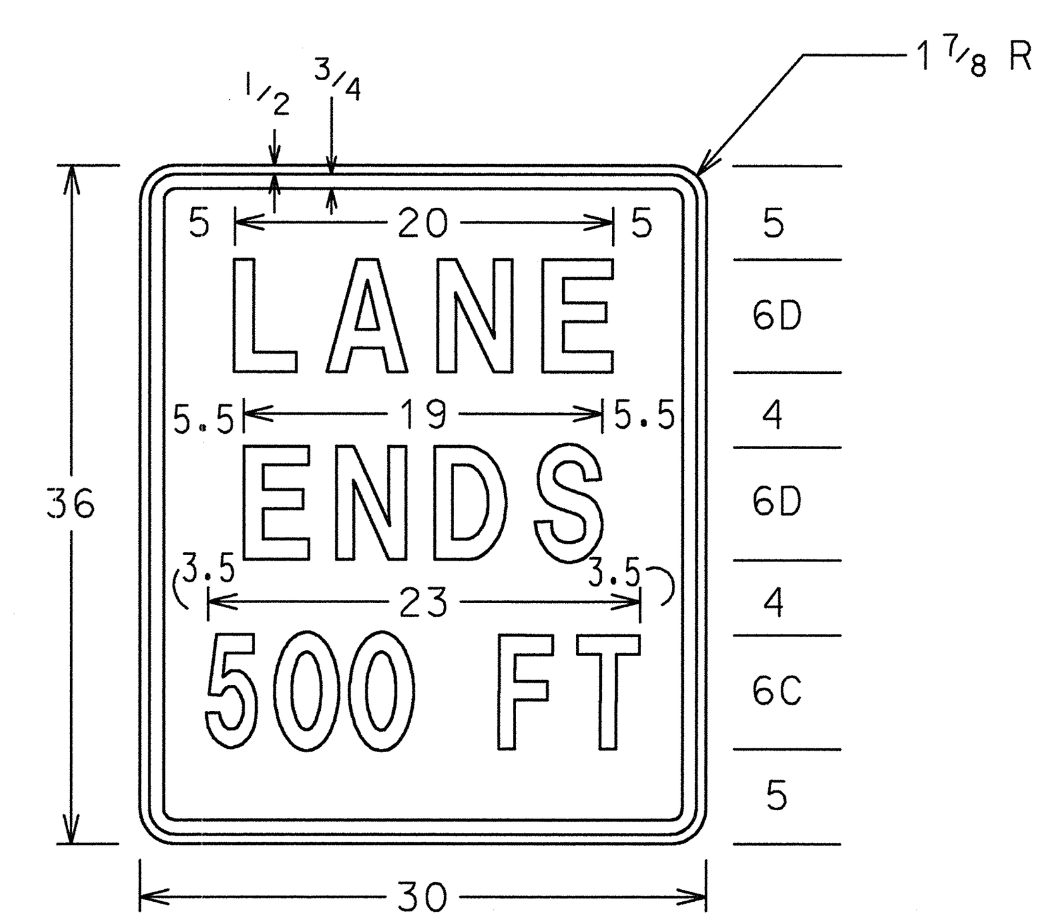


R553-5

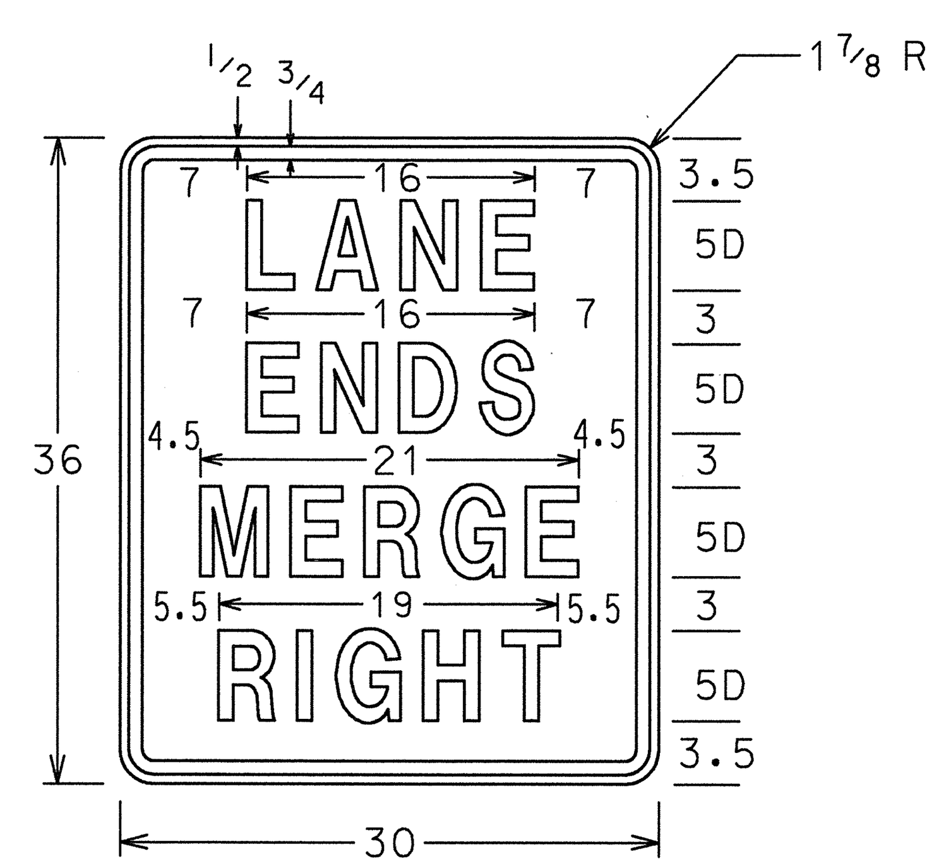

R553-6



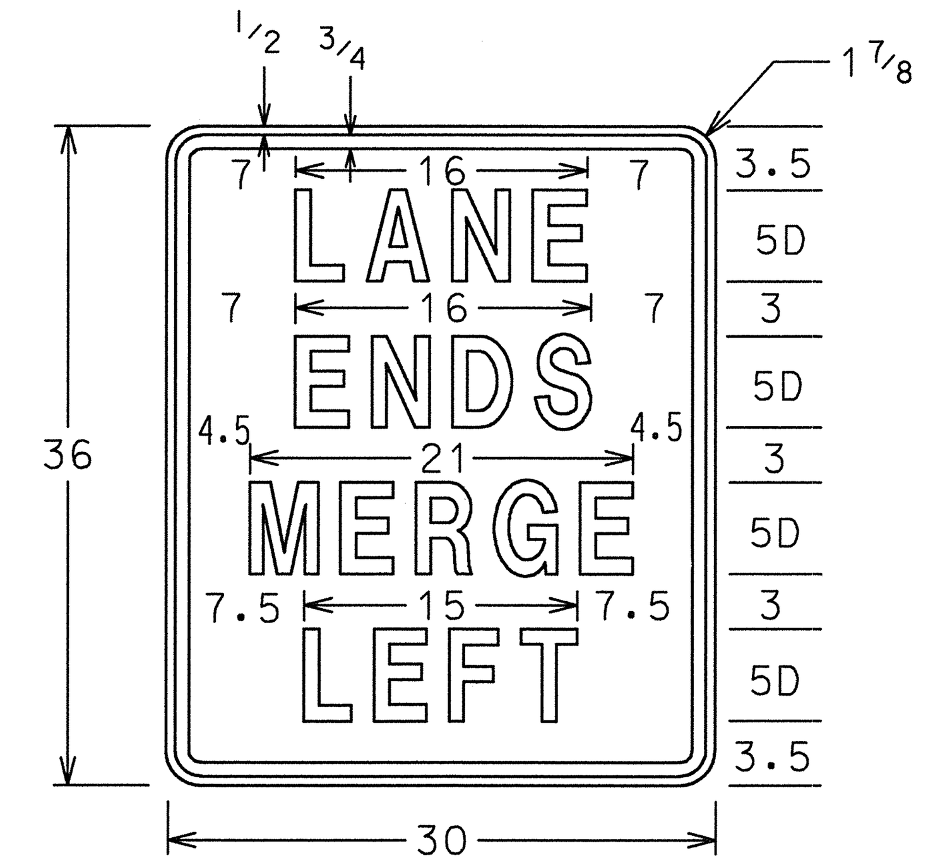
R553-8



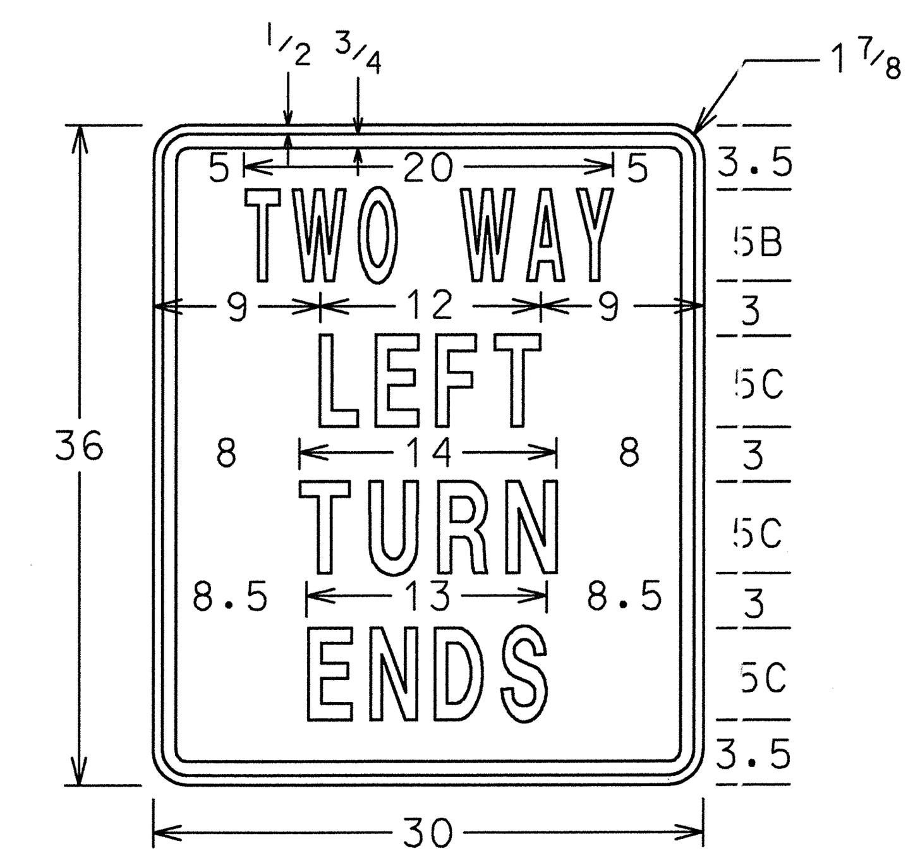
W559-1



W559-2R



W559-2L



W553-9

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

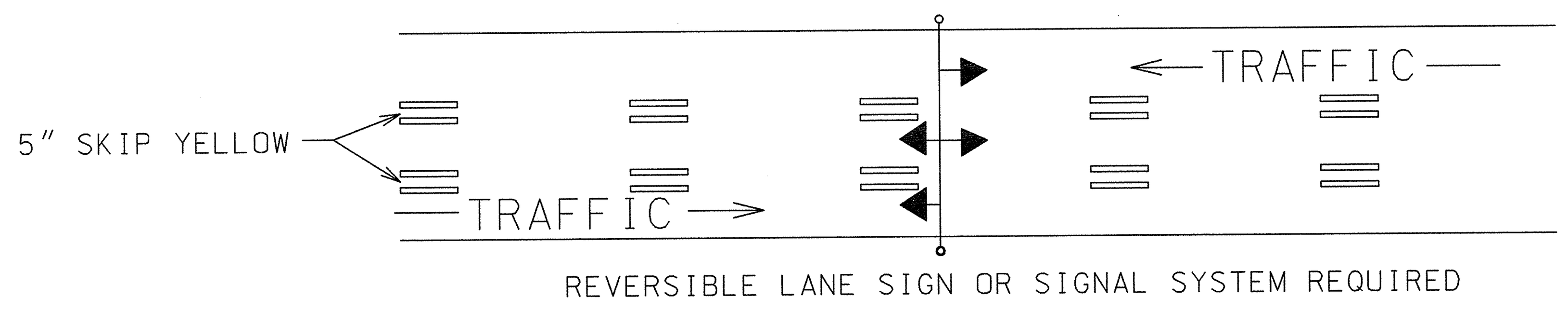
GEORGIA DEPARTMENT OF TRANSPORTATION
OFFICE OF TRAFFIC SAFETY & DESIGN

DETAILS OF OVERHEAD SIGNS

NO SCALE JANUARY 2000

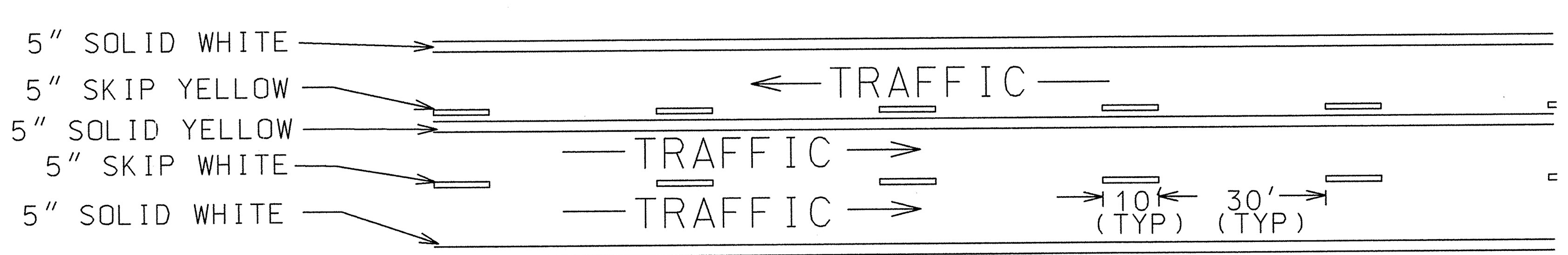
PCBOTB

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

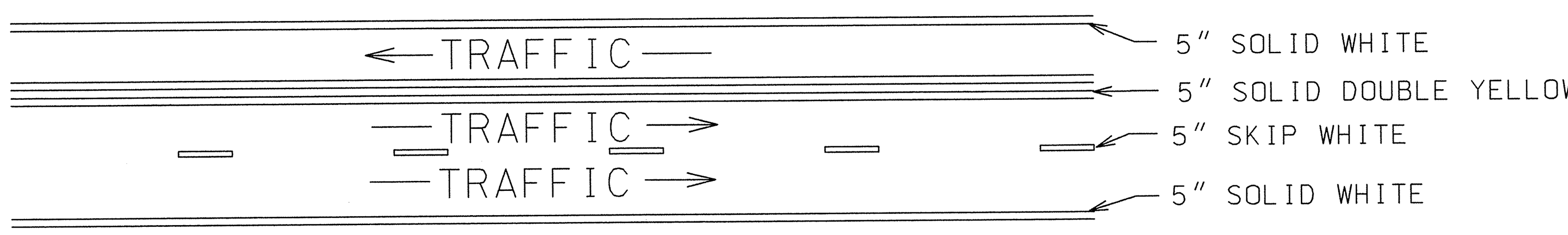


REVERSIBLE LANE SIGN OR SIGNAL SYSTEM REQUIRED

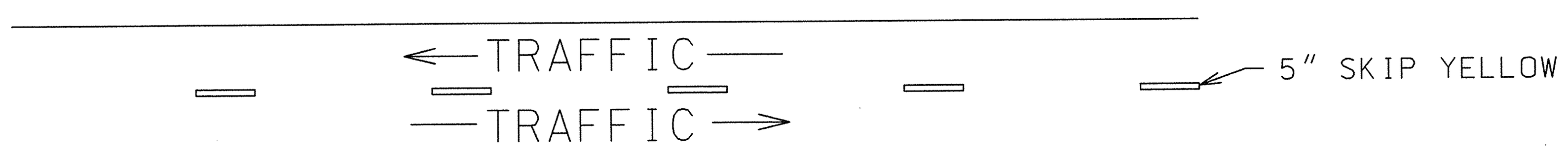
TWO-WAY TRAFFIC WITH A REVERSIBLE CENTER LANE



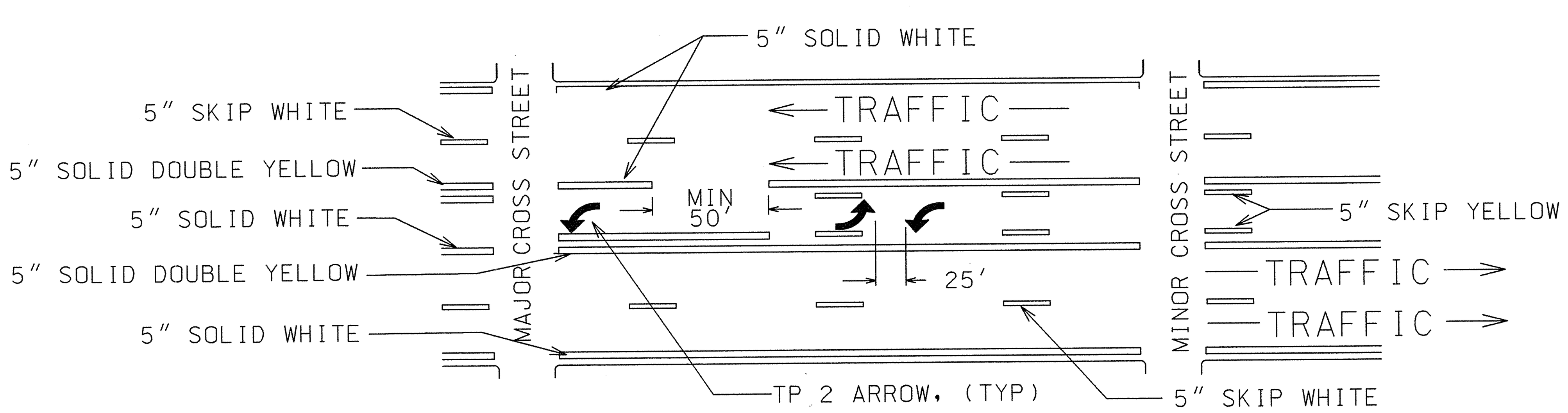
TWO-WAY TRAFFIC WHERE MOTORISTS IN A SINGLE LANE ARE PERMITTED TO PASS



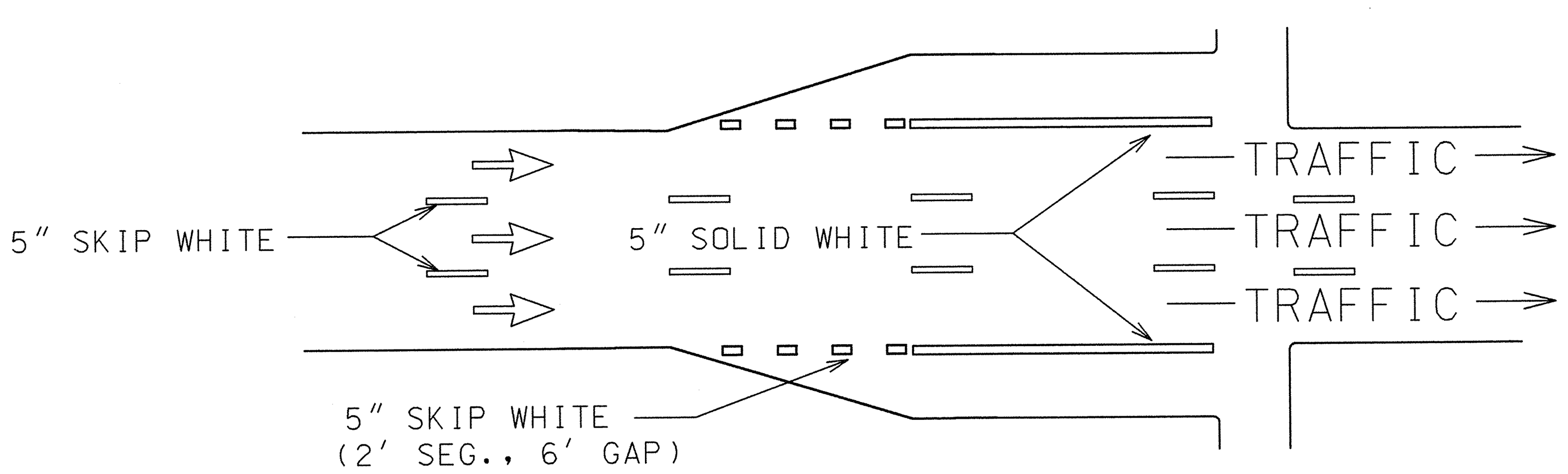
TWO-WAY TRAFFIC WHERE MOTORISTS IN A SINGLE LANE ARE NOT PERMITTED TO PASS



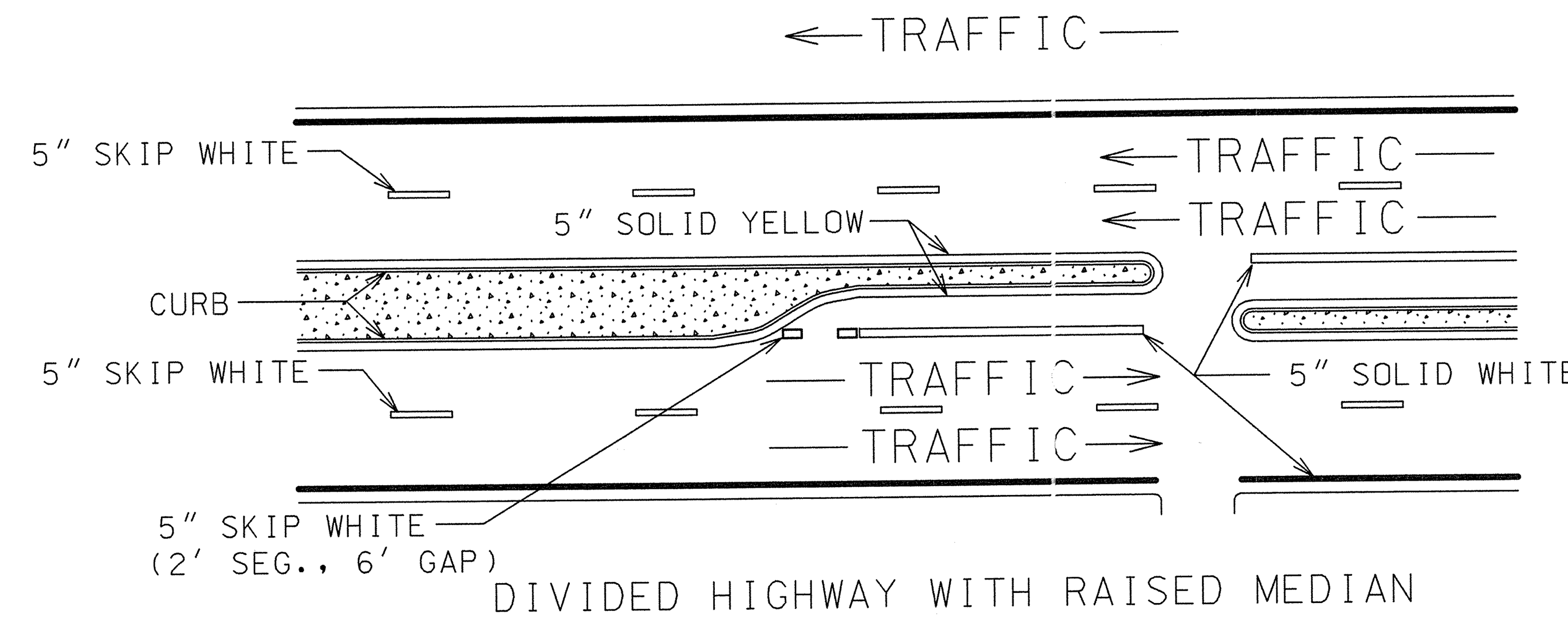
TWO-LANE, TWO-WAY TRAFFIC WITH PASSING PERMITTED



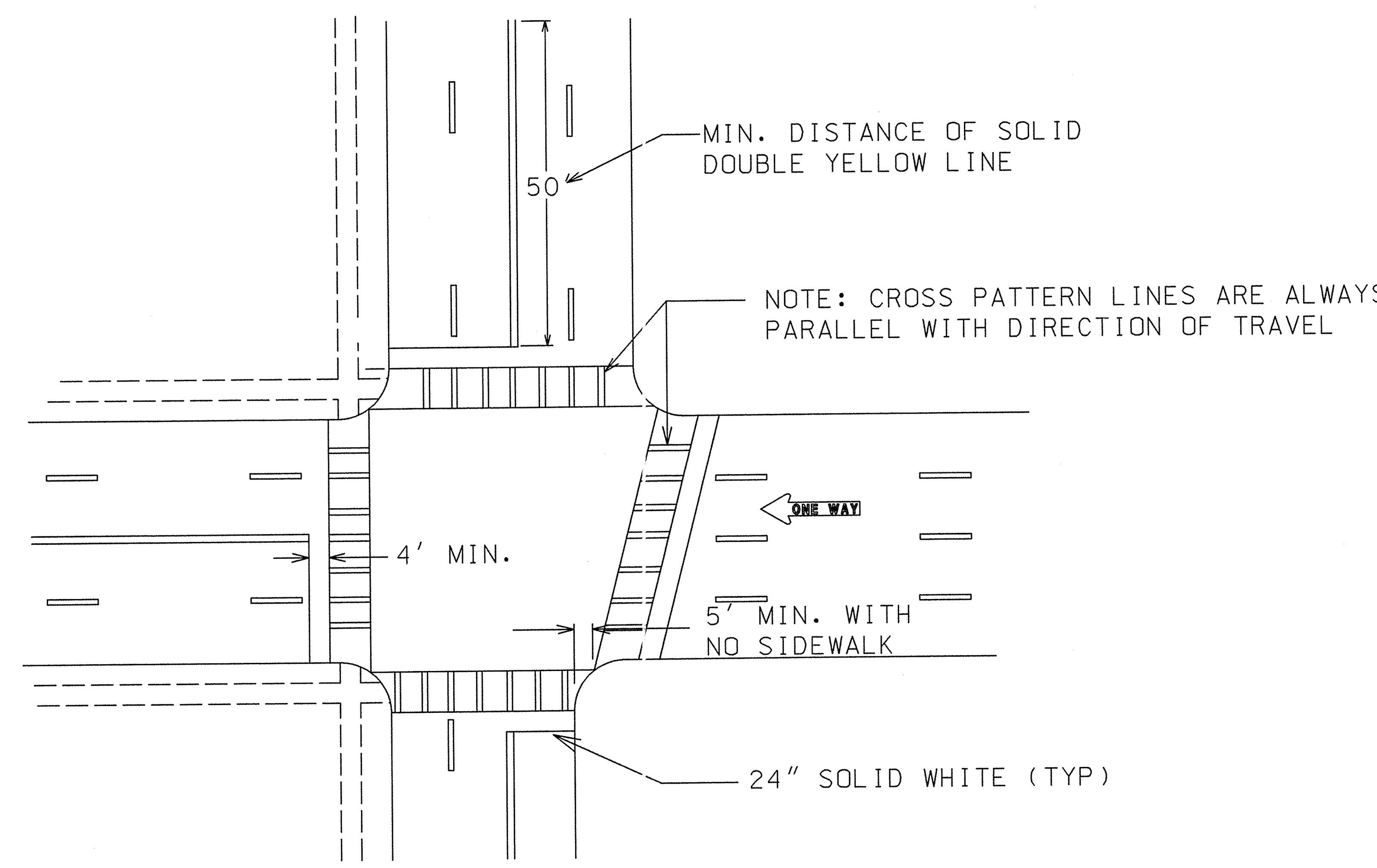
MULTI-LANE, TWO-WAY TRAFFIC WITH SINGLE LANE, TWO-WAY LEFT TURN CHANNELIZATION



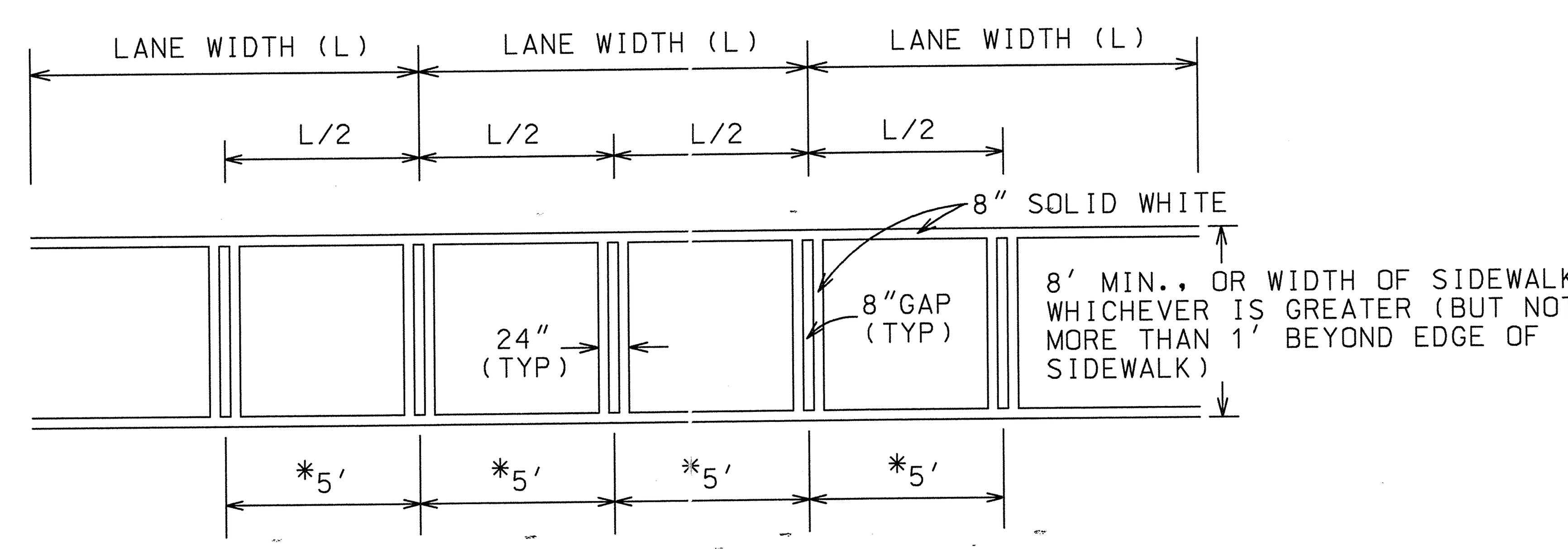
ONE-WAY TRAFFIC WITH ADDED TURN LANES



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

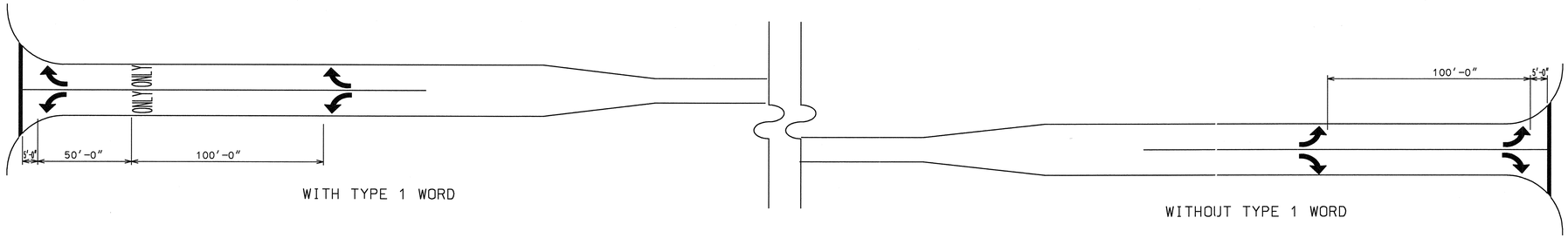
NO SCALE JANUARY 2000

T-11A

PCBDTB

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

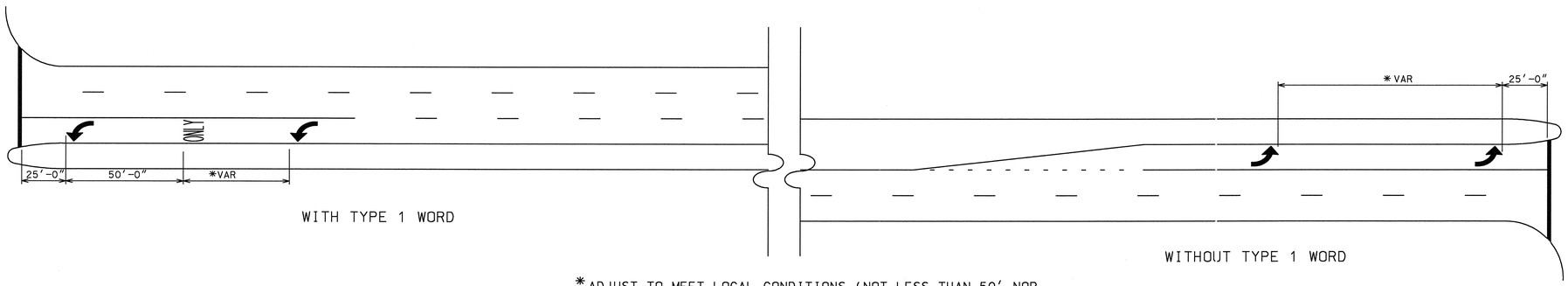
EXIT RAMPS



WITH TYPE 1 WORD

WITHOUT TYPE 1 WORD

SHORT TURN LANES

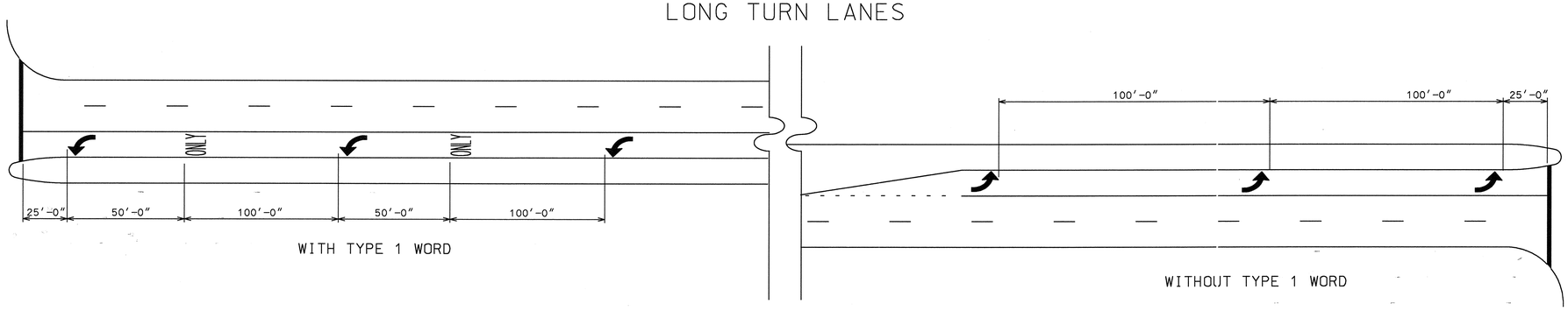


WITH TYPE 1 WORD

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

PCBDTB

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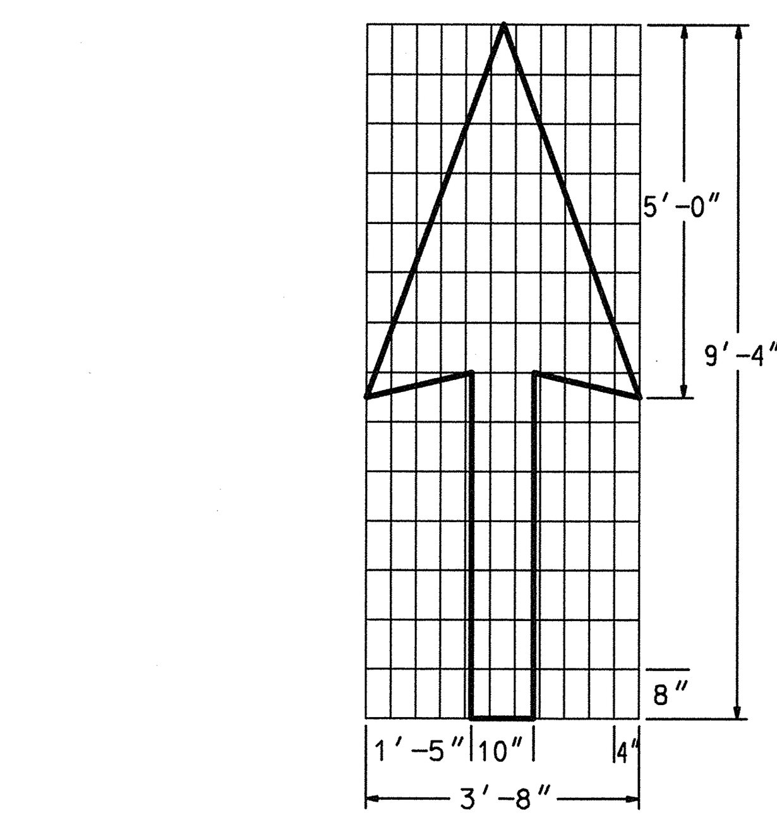
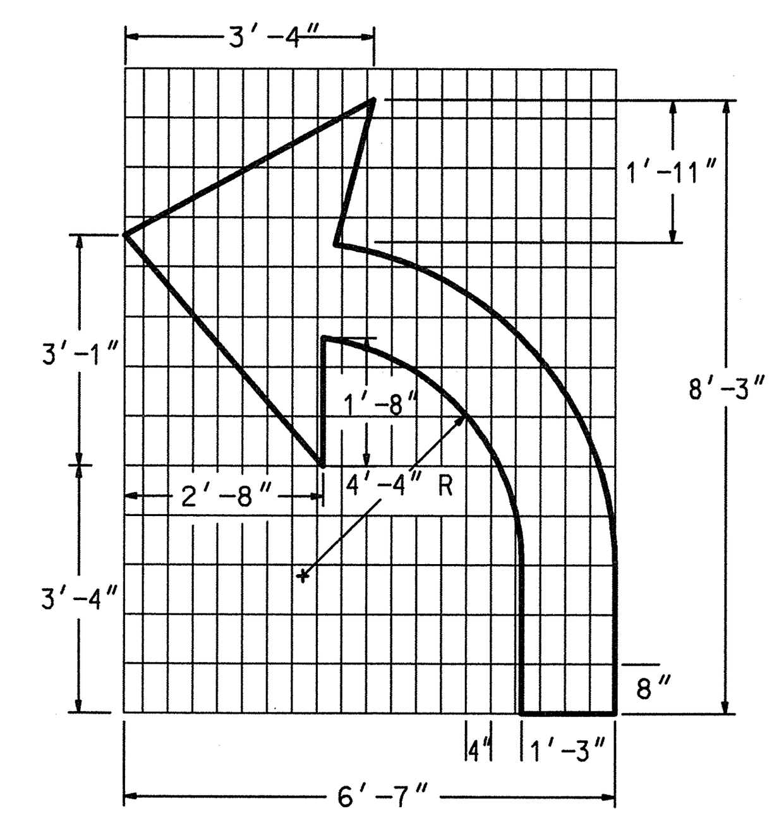
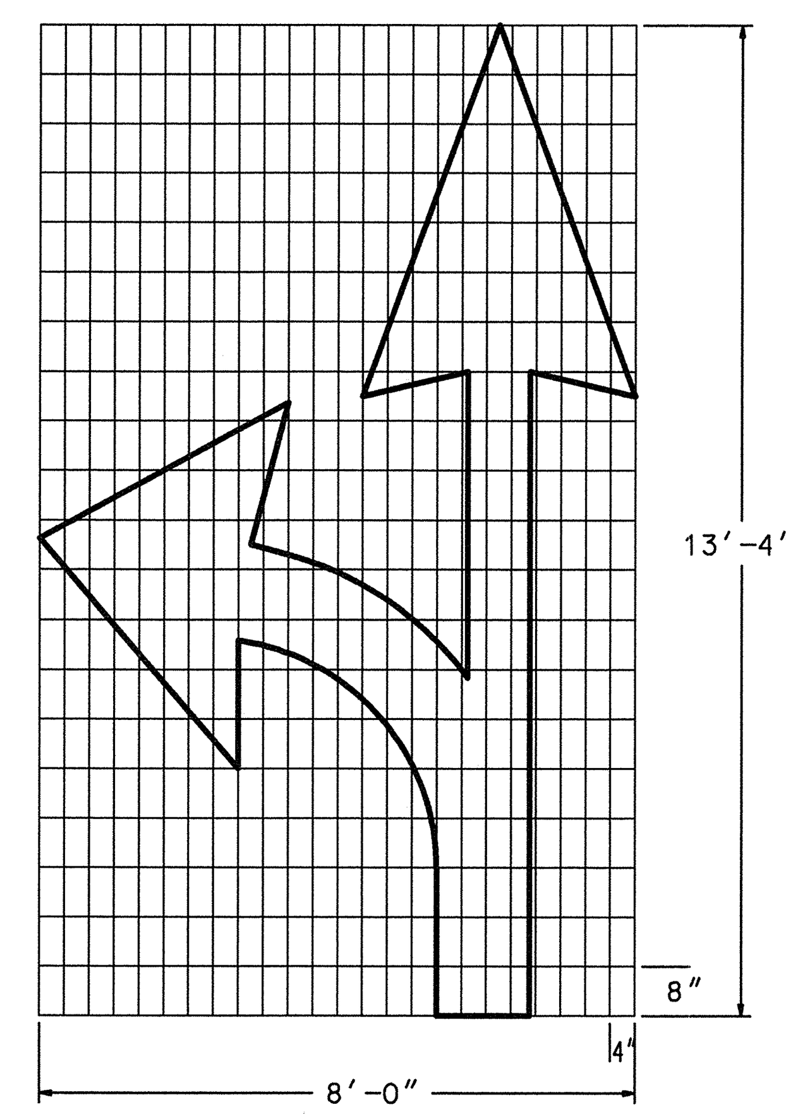
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			



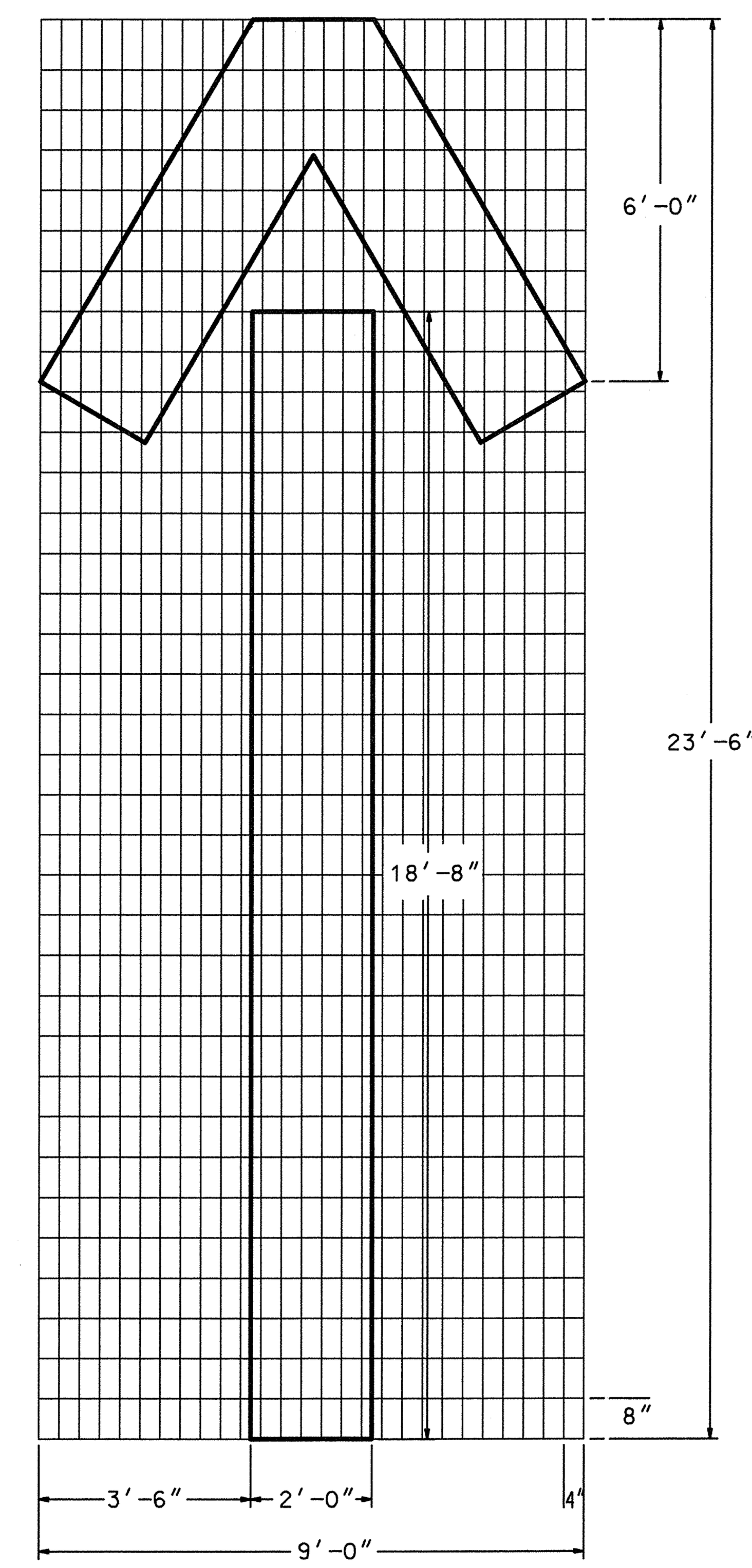
PAVEMENT MARKING, ARROW, TYPE 1
WHITE
(12.0 SQ. FT.)



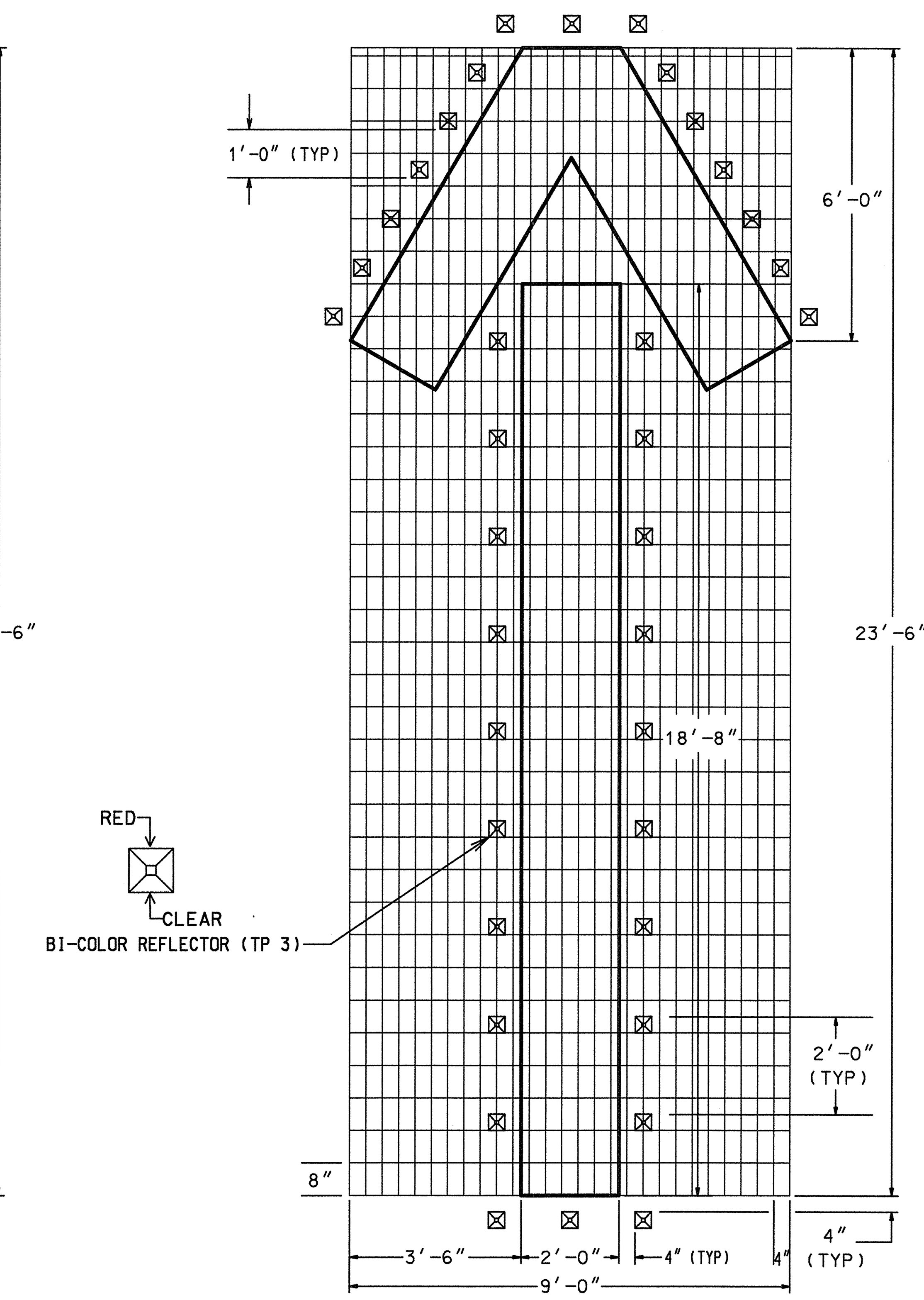
PAVEMENT MARKING, ARROW, TYPE 2
WHITE
(16.0 SQ. FT.)



PAVEMENT MARKING, ARROW, TYPE 3
WHITE
(28.5 SQ. FT.)

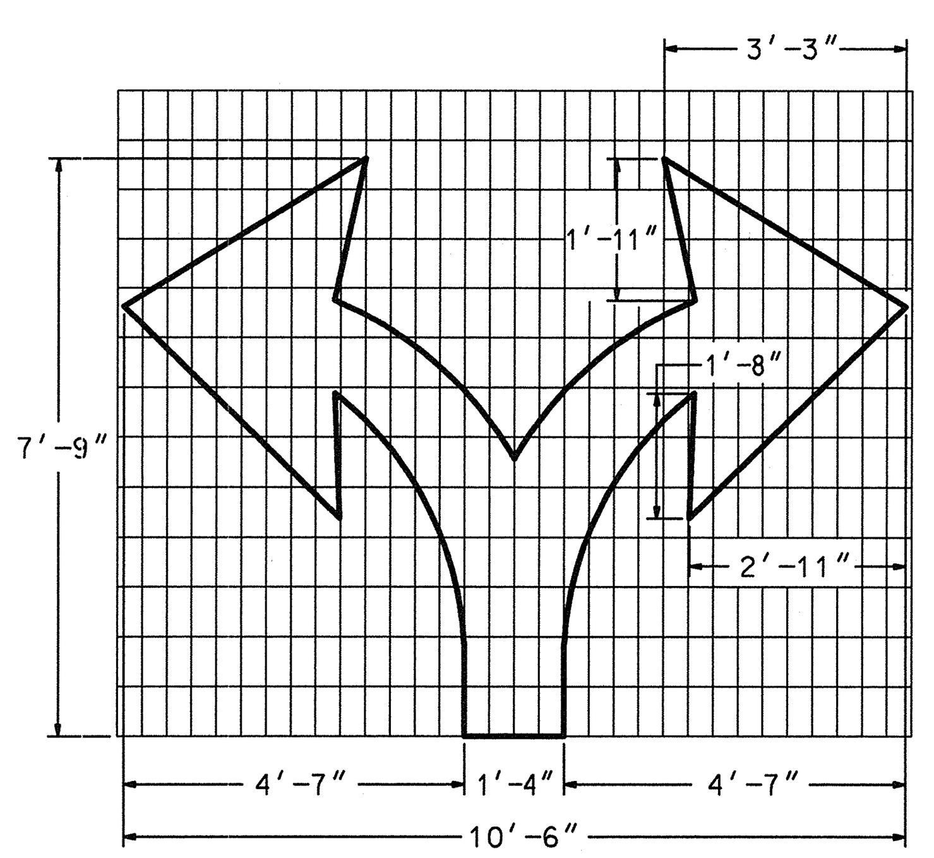


PAVEMENT MARKING, ARROW, TYPE 4
WHITE
(64.5 SQ. FT.)

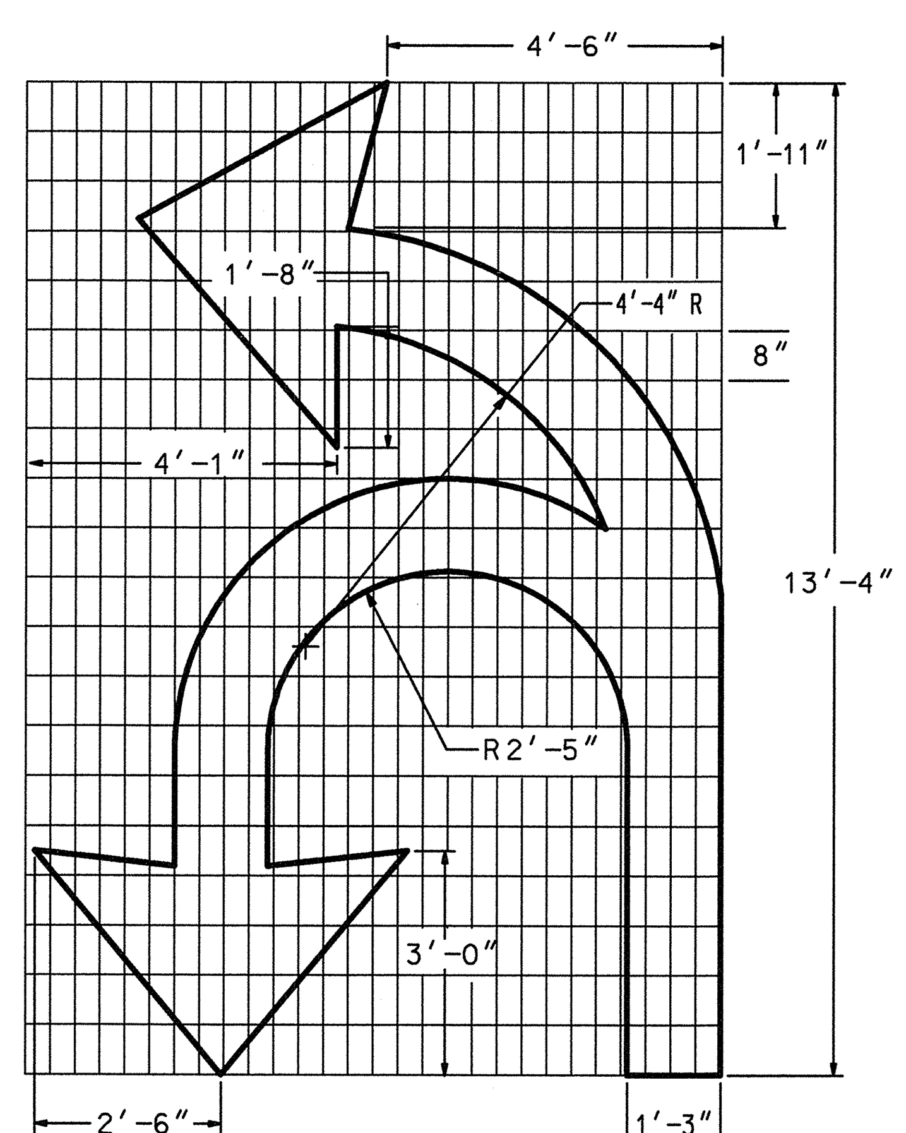


PAVEMENT MARKING, ARROW, WRONG WAY
WHITE
(64.5 SQ. FT.)

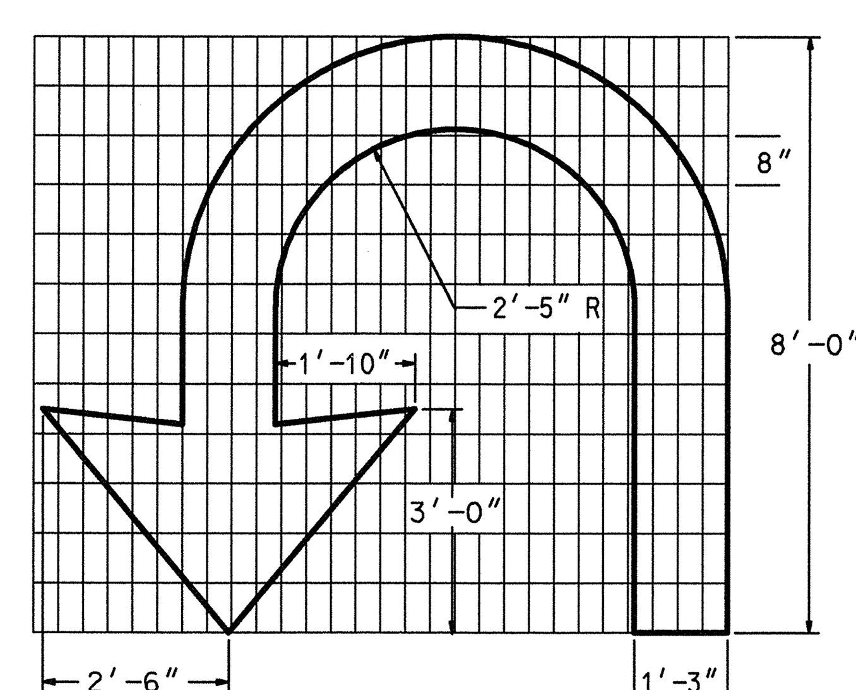
ARROW- WHITE REFLECTORIZED PAINT THERMOPLASTIC, AS SPECIFIED BY GEORGIA STANDARD SPECIFICATIONS, SECTION 655.



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

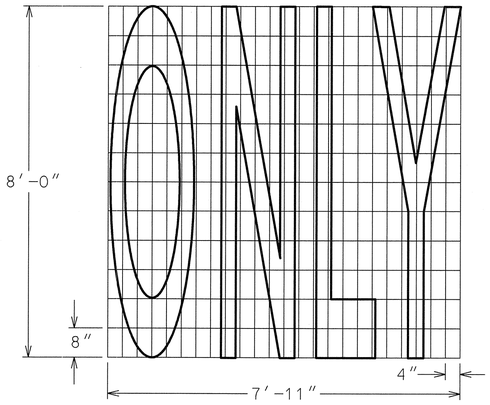
DETAILS OF
PAVEMENT MARKINGS-ARROWS

NO SCALE JANUARY 2000

PCBOTB

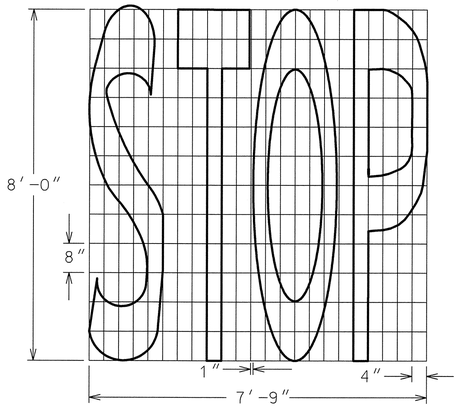
T-12B

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			



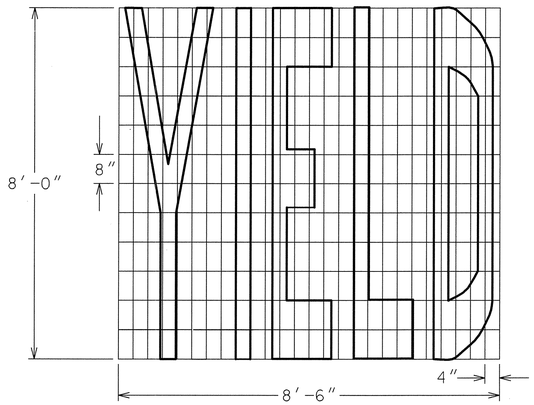
TYPE 1

AREA = 20.8 FT^2



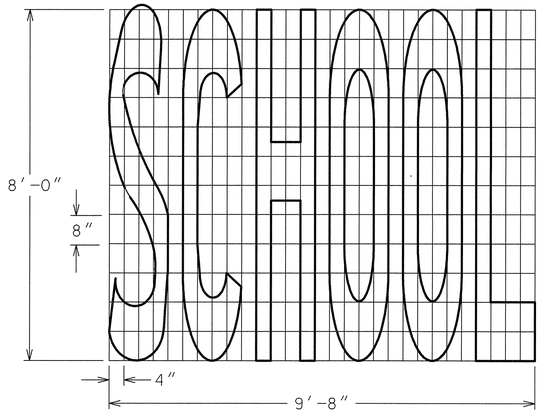
TYPE 2

AREA = 25.4 FT^2



TYPE 15

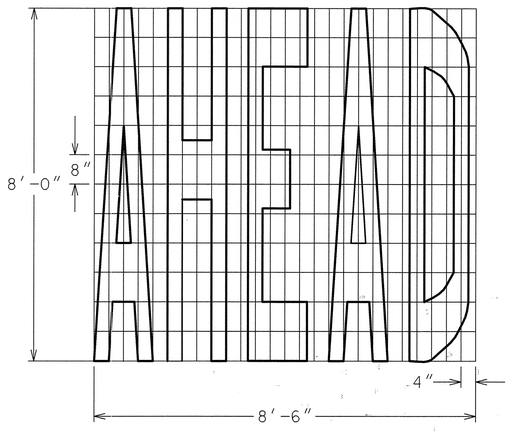
AREA = 25.4 FT^2



TYPE 3A

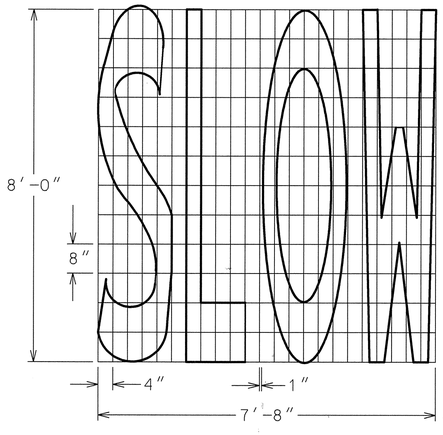
(SINGLE LANE)

AREA = 33.5 FT^2



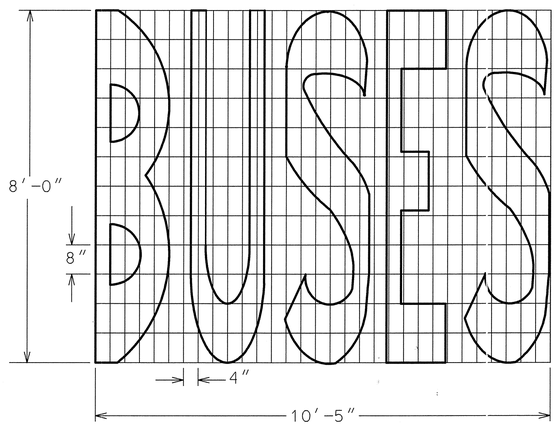
TYPE 4

AREA = 29.1 FT^2



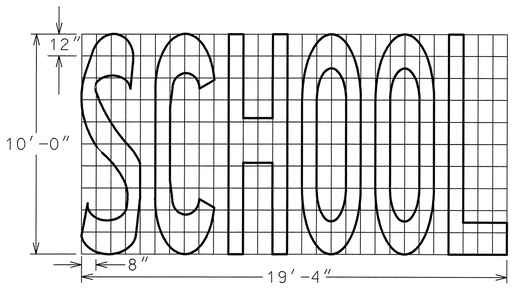
TYPE 5

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

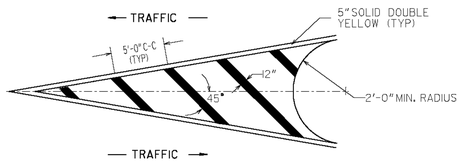
NO SCALE JANUARY 2000

PCBDTB

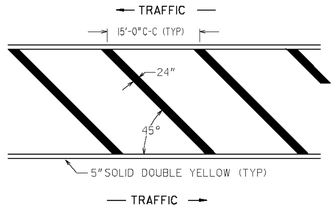
T-13A

			COUNTY	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS

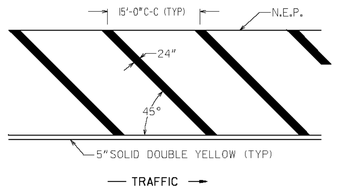
DETAIL "A" (YELLOW)



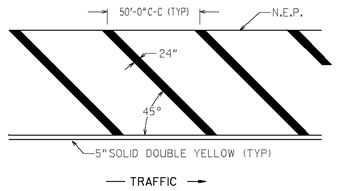
DETAIL "B" (YELLOW)



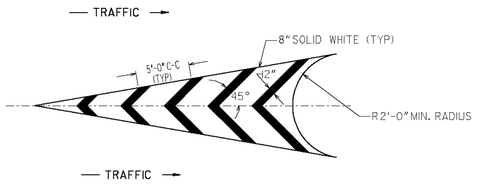
DETAIL "C" (YELLOW)



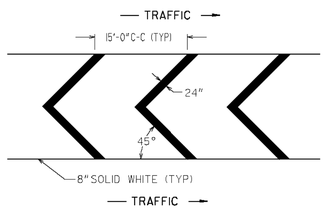
DETAIL "D" (YELLOW)



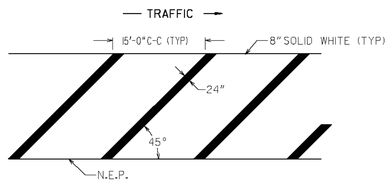
DETAIL "A" (WHITE)



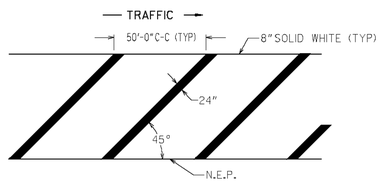
DETAIL "B" (WHITE)



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 HATCHING

JANUARY 2000

T-14

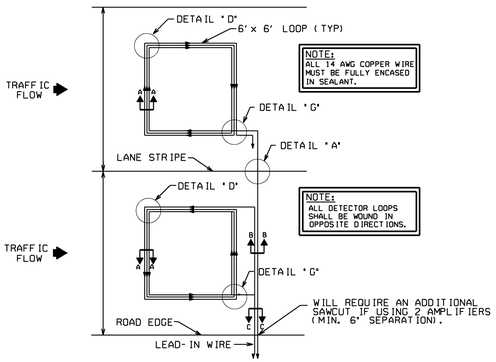
NUMBER T -14

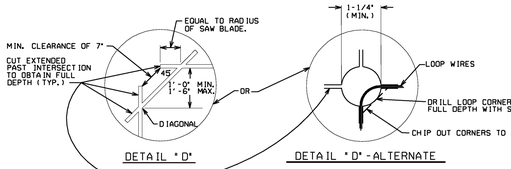
STATE	COUNTY	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.				

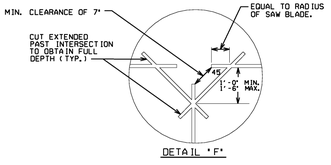
INDUCTIVE LOOP VEHICLE DETECTOR DETAILS

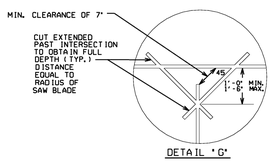
USING STRANDED COPPER WIRE

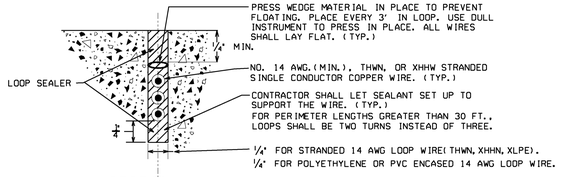
PLAN VIEW OF STANDARD LOOP SAW CUTS

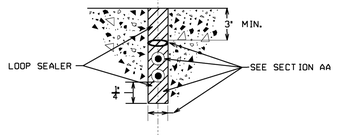


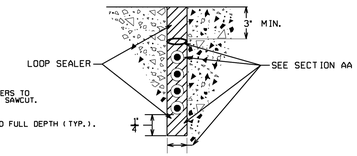


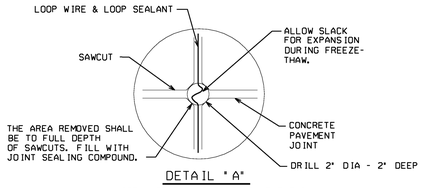


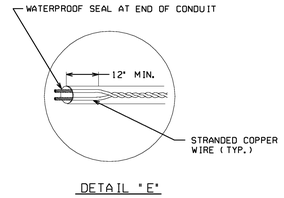




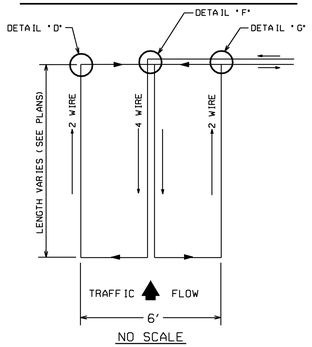








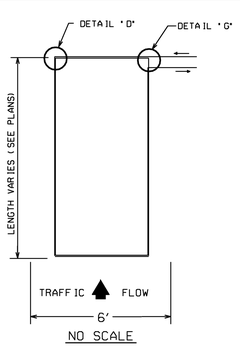
PLAN VIEW OF QUADRUPOLE



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.

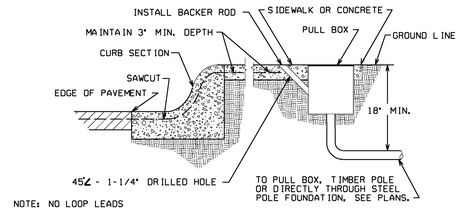
NOTE:
INDUCTIVE LOOPS SHALL NOT BE INSTALLED IN A BRIDGE DECK. LOOPS MAY BE INSTALLED IN AN APPROACH SLAB.

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.

TYPICAL CURB DETAIL

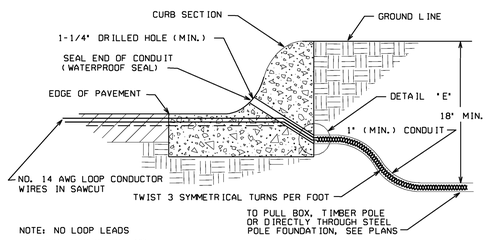
(WITH SIDEWALK)



NOTE: NO LOOP LEADS THROUGH TURNING RADIUS

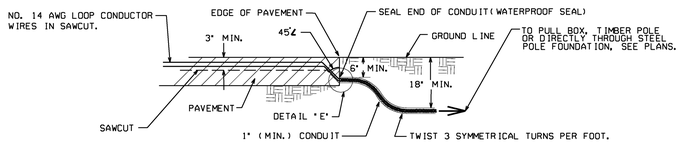
TYPICAL CURB DETAIL

(WITHOUT SIDEWALK)



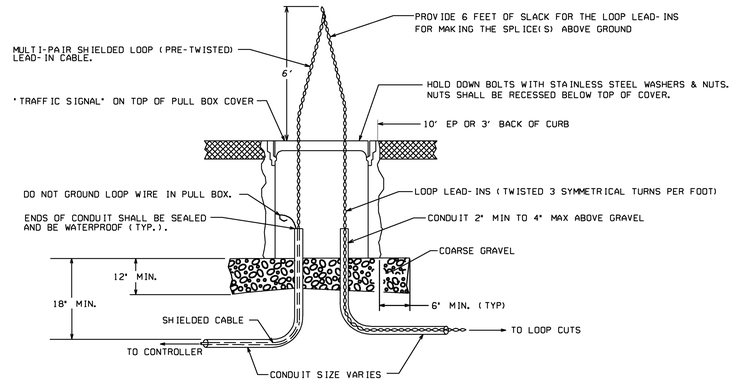
NOTE: NO LOOP LEADS THROUGH TURNING RADIUS

DETAIL WHERE NO CURB EXISTS

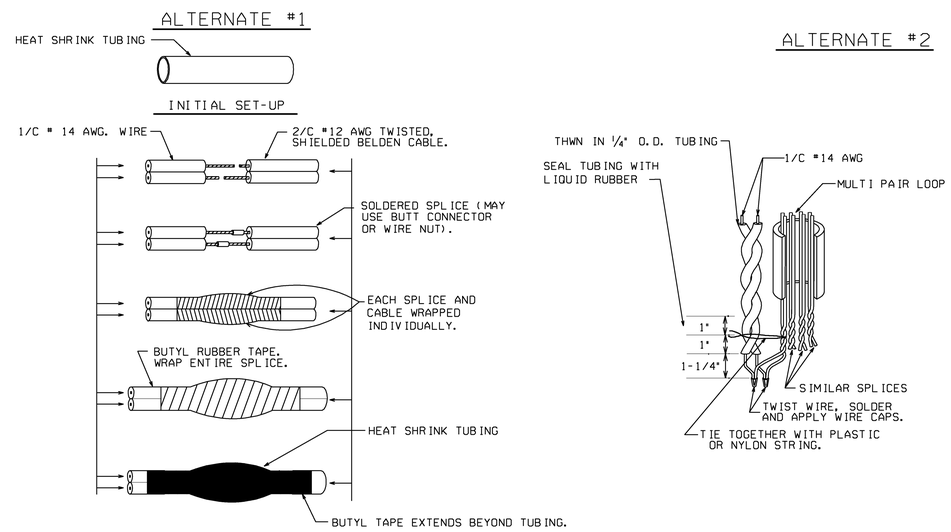


NOTE: NO LOOP LEADS THROUGH TURNING RADIUS

PULL BOX-SPLICE DETAILS

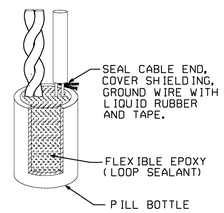


SPLICE DETAILS



NOTE:
FINISHED SPLICE MUST BE WATERPROOF.

FINISHED SPLICE



DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

TRAFFIC SIGNAL DETAIL

INDUCTIVE-LOOP

DETECTOR INSTALLATION

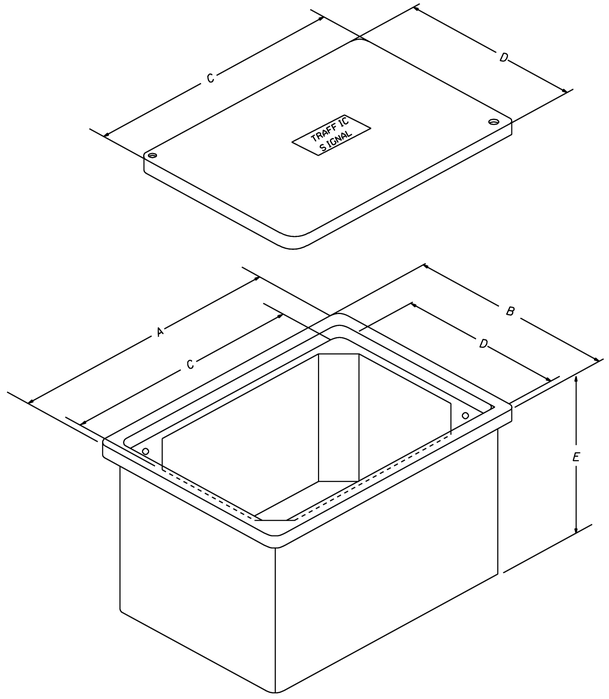
REV. BY:	REVISION DESCRIPTION	DATE

APRIL 2010
NOT TO SCALE - REPORT ERRORS

DETAIL NUMBER
TS-01

STATE	COUNTY	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.				

PULLBOX TYPES 1, 2 AND 3



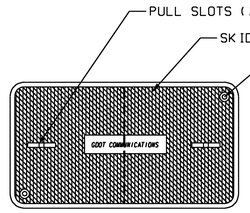
PULL BOX TYPE	* SIZE (IN.)				
	A	B	C	D	E
1	14	14	12	12	12
2	21	14	18	11	12
3	33	20	30	17	12
4S	38	26	36	24	18
4	38	26	36	24	36
5S	50	32	48	30	18
5	50	32	48	30	36
6	38	26	36	24	36
7	50	32	48	30	36

NOTES:
1. SIZES SHOWN ARE MINIMUM TRADE SIZES.
2. DIMENSIONS "C" AND "D" ARE MINIMUM REQUIREMENTS WITH A TOLERANCE OF NO MORE THAN (-.050 IN/ + 2 IN)
3. EXTEND COARSE GRAVEL 6" BEYOND BASE OF PULL BOX
4. PULL BOXES TYPE 4, 4S, 5, 5S, 6 & 7 SHALL HAVE 1° (DEGREE) FLARES FOR MAXIMUM STRENGTH
5. DESIGN PULL BOXES TO MEET OR EXCEED THE TIER LOADING SET FORTH IN SPECIFICATIONS 647.

Guidelines For Usage On Metric Projects

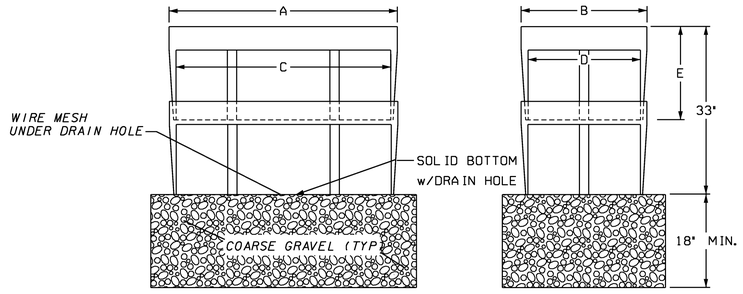
When these details are incorporated into plans and or projects that are being prepared or constructed in metric units, exact or precise conversion to metric units is not required. The dimensions shown that are in feet and inches may be converted to corresponding metric units using the following "Rounded-Off" 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 4, 5, 4S, 5S, 6, AND 7 PULLBOX ASSEMBLIES



TOP VIEW

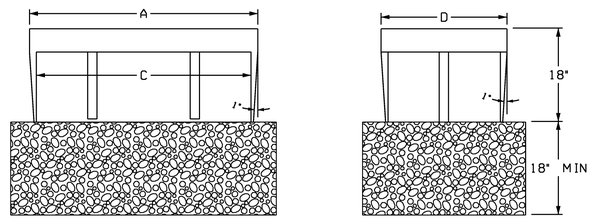
NOTE:
1. TYPE 5 AND TYPE 7 PULL BOXES SHALL HAVE SPLIT LID



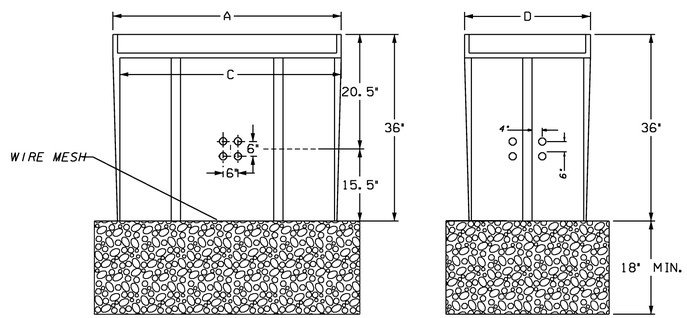
FRONT VIEW

END VIEW

TYPE 4 AND 5 STACKABLE ASSEMBLY

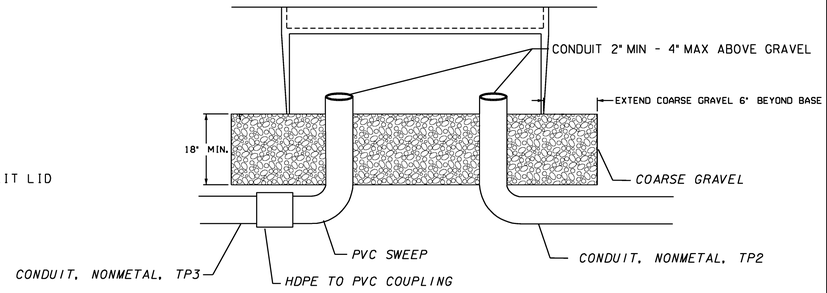


TYPE 4S AND 5S

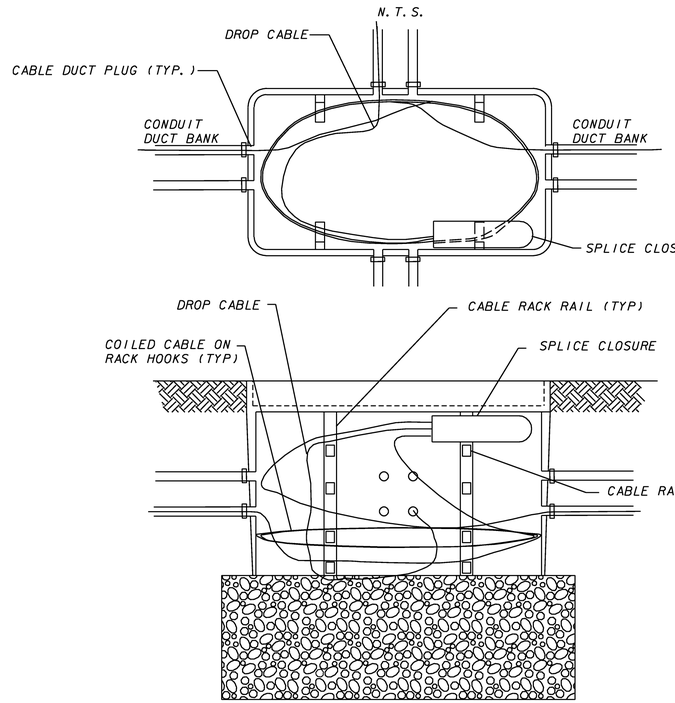


TYPE 6 AND 7

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.

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

TRAFFIC SIGNAL DETAIL

PULLBOX ASSEMBLY AND INSTALLATION

DETAIL NUMBER

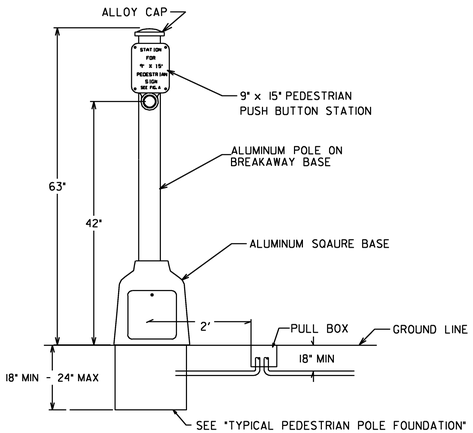
APRIL 2010

NOT TO SCALE - REPORT ERRORS

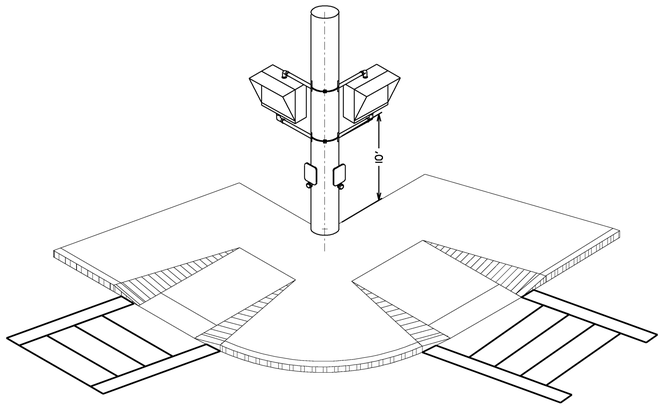
TS-02

DATE | REVISION | BY

STATE	COUNTY	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.				

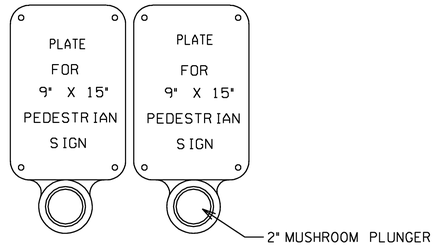


PEDESTRIAN PUSH BUTTON POST



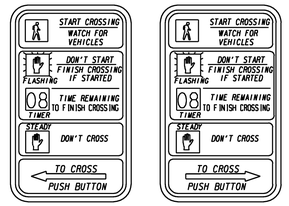
PEDESTRIAN SIGNAL HEAD ORIENTATION FOR SIDE OF POLE MOUNTING

INSTALL PEDESTRIAN SIGNAL HEADS SO THAT VEHICLES MAKING TURNS WILL NOT DAMAGE THE EQUIPMENT



A "PUSH BUTTON STATION" IS THAT PIECE OF EQUIPMENT THAT CONTAINS THE PEDESTRIAN INSTRUCTIONAL SIGN PLATE AND THE PUSH BUTTON

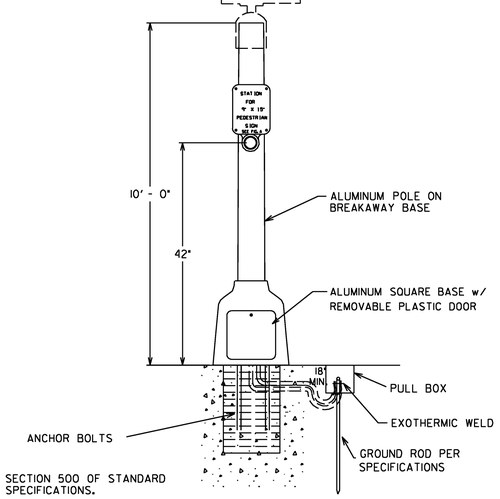
PEDESTRIAN PUSH BUTTON STATION



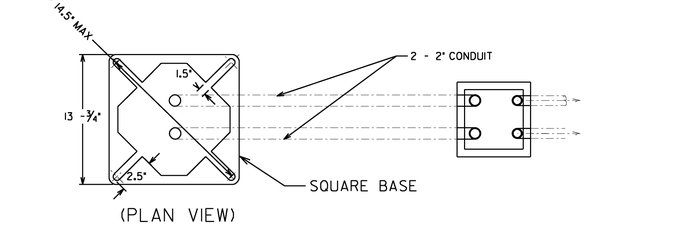
R10-3E(L) 9" X 15"

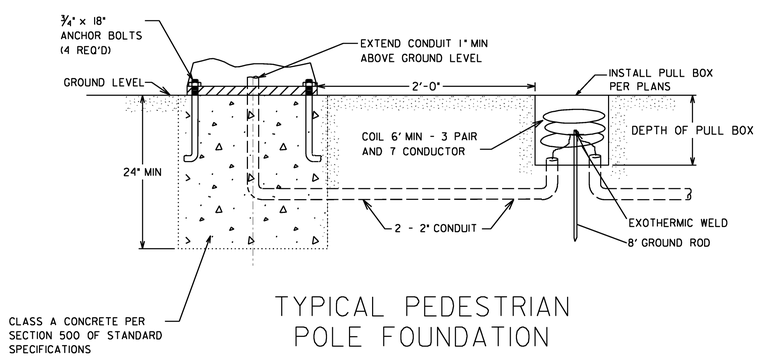
R10-3E(R) 9" X 15"

PEDESTRIAN SIGNS

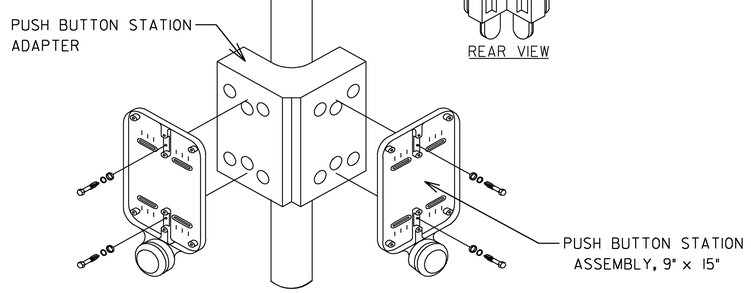


DETAIL FOR PEDESTRIAN SIGNAL POLES





TYPICAL PEDESTRIAN POLE FOUNDATION



DOUBLE PUSH BUTTON STATION ADAPTER FOR 4" DIA. PEDESTRIAN POLE

NOTE:
DETAILS SHOWN IS FOR TOP POST MOUNTING ASSEMBLY ON 10 FEET PEDESTRIAN POLE.
A CLAMSHELL MOUNTING ASSEMBLY (NOT SHOWN) MAY BE USED AS APPROVED BY THE DEPARTMENT.
THE CLAMSHELL MOUNTING HARDWARE ASSEMBLY SHALL MEET THE SAME GDOT STANDARDS AS THE PEDESTRIAN SIGNAL HOUSING IN PAINT AND MATERIAL.

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.

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

TRAFFIC SIGNAL DETAIL

PEDESTRIAN FACILITIES INSTALLATION DETAILS

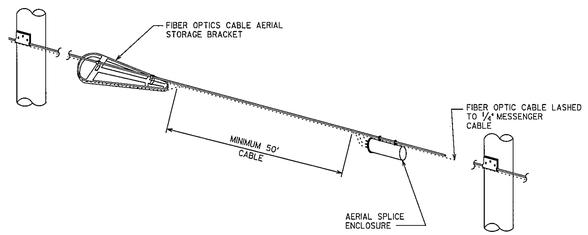
DATE | REVISION DESCRIPTION | REV. BY:

APRIL 2010
NOT TO SCALE - REPORT ERRORS

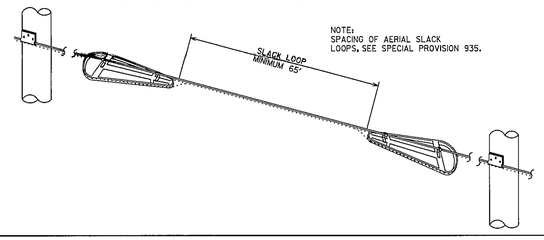
DETAIL NUMBER
TS-03A

DATE$$$	TIME$$$	PRF	DGN	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
$USER$		$$PENTABLE$$		GA			

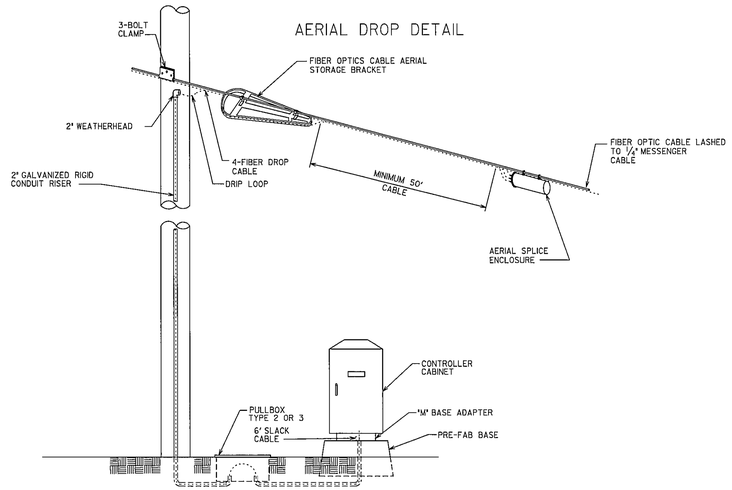
AERIAL BUTT SPLICE DETAIL



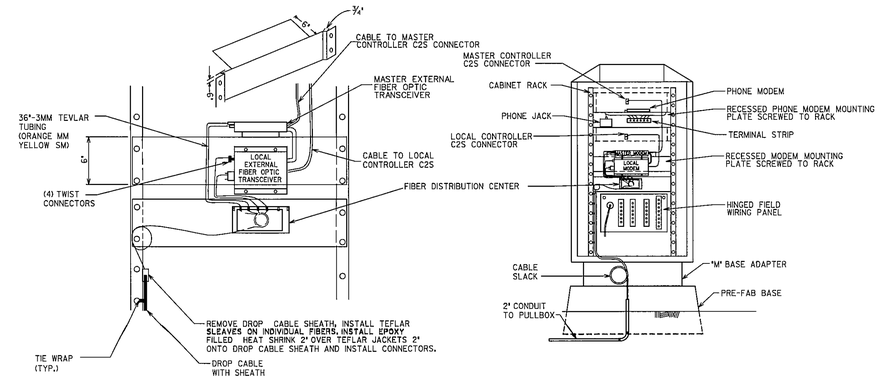
AERIAL SLACK LOOP DETAIL



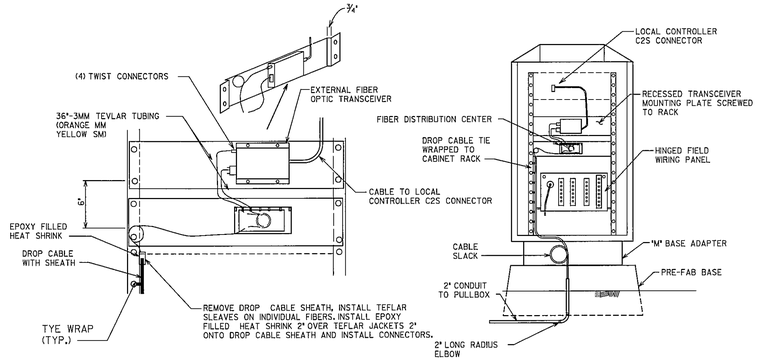
AERIAL DROP DETAIL



FIBER OPTIC DETAIL DROP - CABLE TERMINATION IN CONTROL CABINET MODEL 332 - MASTER SYSTEM



FIBER OPTIC DETAIL DROP-CABLE TERMINATION IN CONTROL CABINET - MODEL 332 LOCAL SYSTEM



GEORGIA
DEPARTMENT OF TRANSPORTATION

-NO SCALE-

REVISION DATES		
11/01/2000		
11/01/2000		
12/18/2001		

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: TRAFFIC OPERATIONS
SIGNAL PLANS

FIBER OPTIC DETAILS
SHEET 1 OF 2

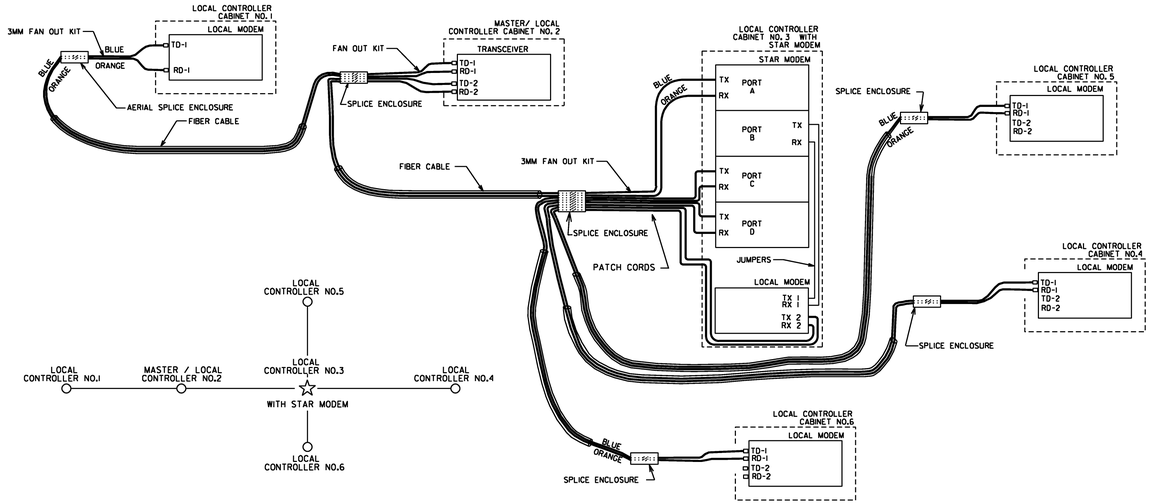
DECEMBER 2001

TS-10
DRAWING No.

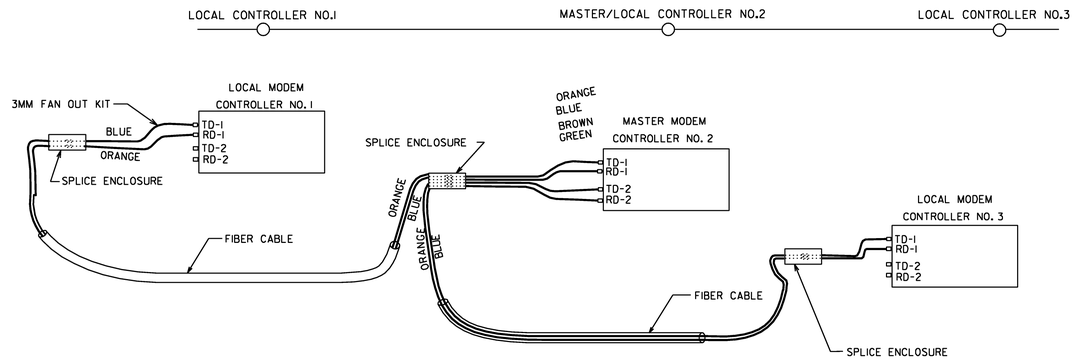
3/1/2007 GPLN

STATE	COUNTY	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.				

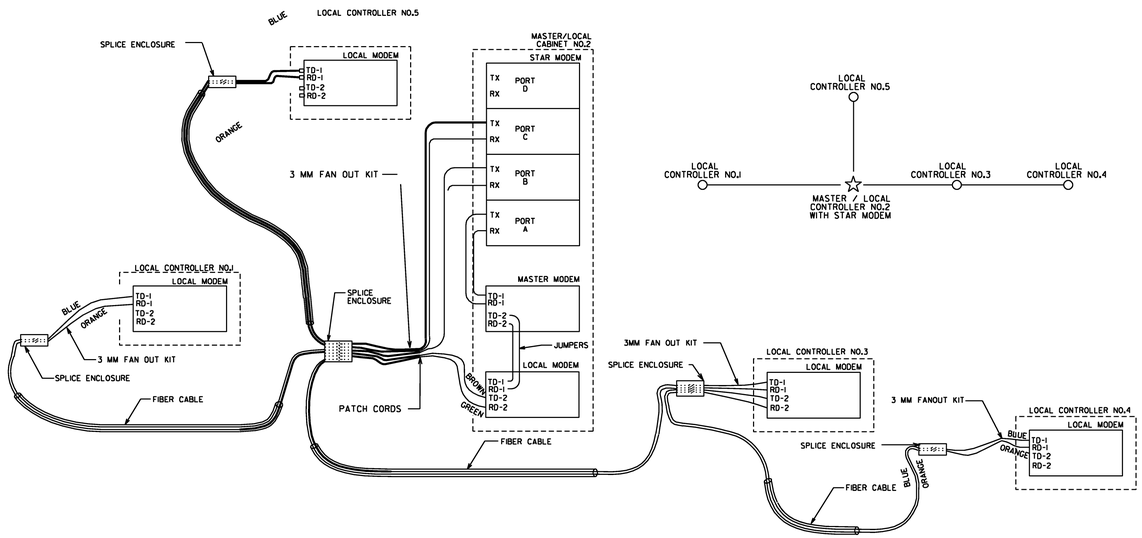
DROP CABLE SPLICE DETAIL
FOR
LOCAL CONTROLLER WITH STAR MODEM



FIBER OPTIC DISTRIBUTION DETAIL
(CLOSED LOOP SYSTEM ONLY)



DROP CABLE SPLICE DETAIL
FOR
MASTER / LOCAL CONTROLLER WITH STAR MODEM



REV. BY:	REVISION DESCRIPTION	DATE

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

TRAFFIC SIGNAL DETAIL

FIBER OPTICS DETAILS
2 OF 2

APRIL 2010

NOT TO SCALE - REPORT ERRORS

DETAIL NUMBER

TS-11