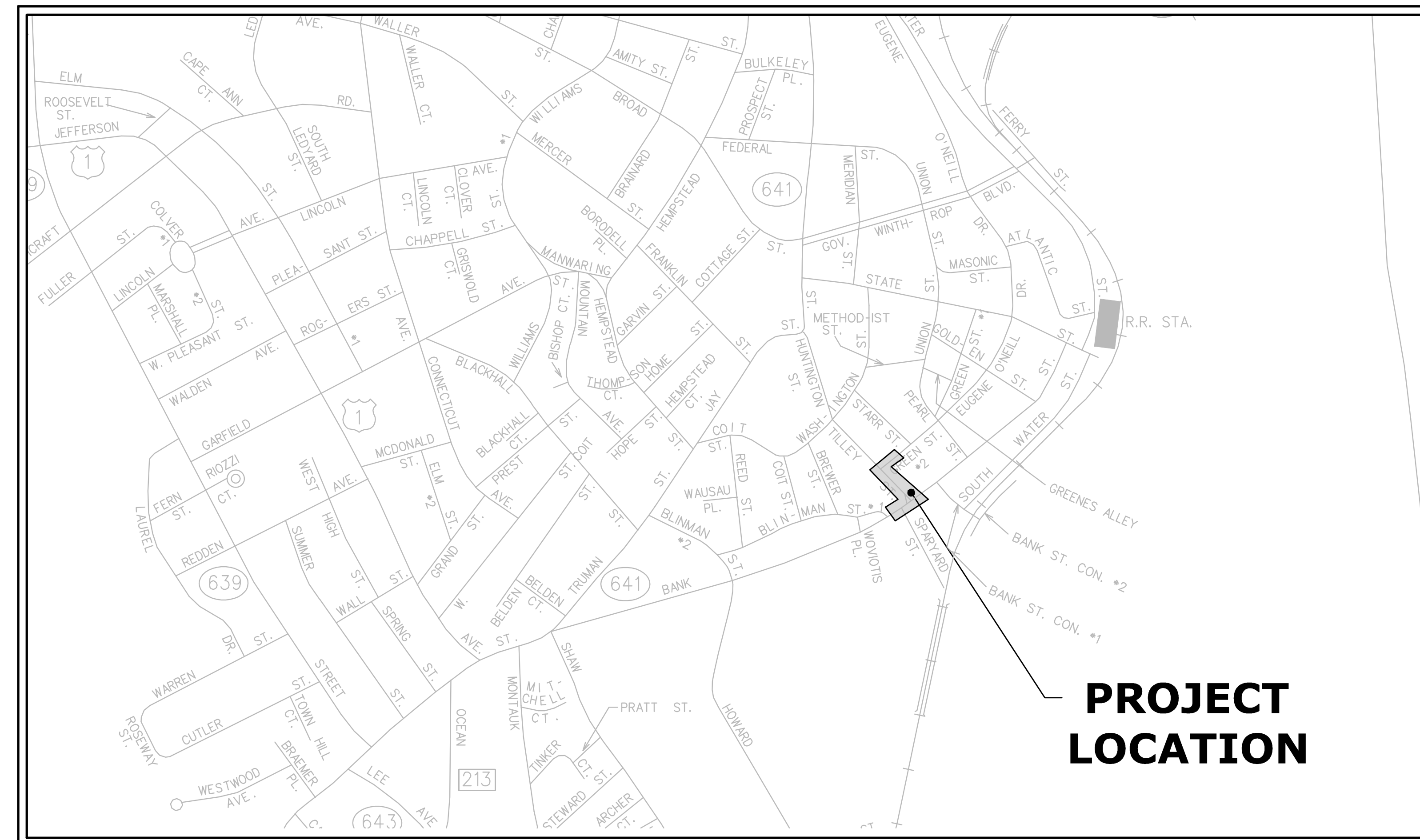


SIGNAL REPLACEMENT

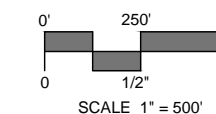
TILLEY STREET AT GREEN STREET AND BANK STREET

NEW LONDON, CONNECTICUT

MMI PROJECT NO. 2389-50
 STATE PROJECT NO. 0094-0260
 FINAL DESIGN DRAWINGS
 JULY 2020



PROJECT SITE VICINITY MAP:



PREPARED FOR:
 CITY OF NEW LONDON

**PROJECT
 LOCATION**

GENERAL NOTES:

1. STATE PROJECT NO. 0094-0260
2. CONSTRUCTION SPECIFICATIONS: Connecticut Department of Transportation, Standard Specifications for Roads, Bridges, Facilities and Incidental Construction, Form 817; Supplemental Specifications, Dated January 2019; and Special Provisions
3. COORDINATES BASED ON NORTH AMERICAN DATUM 1983 (N.A.D. 1983)
4. VERTICAL DATUM BASED ON NAVD 1988
5. BASED UPON FIELD TOPOGRAPHIC SURVEY CONDUCTED BY MILONE & MACBROOM, INC. AND SHOWN ON THE PLANS ENTITLED "RIGHT OF WAY AND TOPOGRAPHIC SURVEY". FOR THE INTERSECTION IMPROVEMENTS ON BANK STREET AT TILLEY STREET, GREEN STREET AT TILLEY STREET AND BANK STREET AT SPARYARD STREET. STREET LINE INFORMATION DEPICTED ON THESE PLANS WERE INFORMATION REGARDING THE LOCATION OF EXISTING UTILITIES HAS BEEN BASED UPON AVAILABLE INFORMATION AND MAY BE INCOMPLETE, AND WHERE SHOWN SHOULD COMPILED FROM VARIOUS SOURCES AND MEETS A-2/T-2 STANDARDS.
6. INFORMATION REGARDING THE LOCATION OF EXISTING UTILITIES HAS BEEN BASED UPON AVAILABLE INFORMATION AND MAY BE INCOMPLETE, AND WHERE SHOWN SHOULD BE CONSIDERED APPROXIMATE. THE LOCATION OF ALL EXISTING UTILITIES SHOULD BE CONFIRMED PRIOR TO BE BEGINNING CONSTRUCTION. "CALL BEFORE YOU DIG", 1-800-922-4455. ALL UTILITY LOCATIONS THAT DO NOT MATCH THE VERTICAL OR HORIZONTAL CONTROL SHOWN ON THE PLANS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER FOR RESOLUTION.
7. MILONE & MACBROOM, INC. ACCEPTS NO RESPONSIBILITY FOR THE ACCURACY OF MAPS AND DATA WHICH HAVE BEEN SUPPLIED BY OTHERS.
8. THE EXACT LOCATION AND SIZE OF THE ELECTRIC, TELEPHONE, CABLE TELEVISION AND GAS UTILITIES ARE TO BE DETERMINED BY THE RESPECTIVE UTILITY COMPANIES. LIMITS SHOWN ON THE PLANS ARE GRAPHICAL IN NATURE AND SHOULD BE FIELD VERIFIED.
9. THE DIMENSIONS AND ELEVATIONS SHALL BE VERIFIED IN THE FIELD PRIOR TO CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER.
10. SEDIMENT AND EROSION CONTROL MEASURES AS DEPICTED ON THESE PLANS AND DESCRIBED WITHIN THE SEDIMENT AND EROSION CONTROL NARRATIVE SHALL BE FOR SOIL EROSION AND SEDIMENT CONTROL, CONNECTICUT - 2002, THE CITY OF NEW LONDON AND IN ALL CASES BEST MANAGEMENT PRACTICES SHALL PREVAIL.
11. ALL PROPOSED CONTOURS AND SPOT ELEVATIONS INDICATE FINISHED GRADE.
12. THE PLANS REQUIRE A CONTRACTOR'S WORKING KNOWLEDGE OF LOCAL, MUNICIPAL, WATER AUTHORITY, AND STATE CODES FOR UTILITY SYSTEMS. ANY CONFLICTS BETWEEN MATERIALS AND LOCATIONS SHOWN, AND LOCAL REQUIREMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE EXECUTION OF WORK. THE ENGINEER WILL NOT BE HELD LIABLE FOR COSTS INCURRED TO IMPLEMENT OR CORRECT WORK WHICH DOES NOT CONFORM TO LOCAL CODE.
13. COMPLIANCE WITH THE PERMIT CONDITIONS IS THE RESPONSIBILITY OF BOTH THE CONTRACTOR AND THE PERMITTEE.

PREPARED BY:

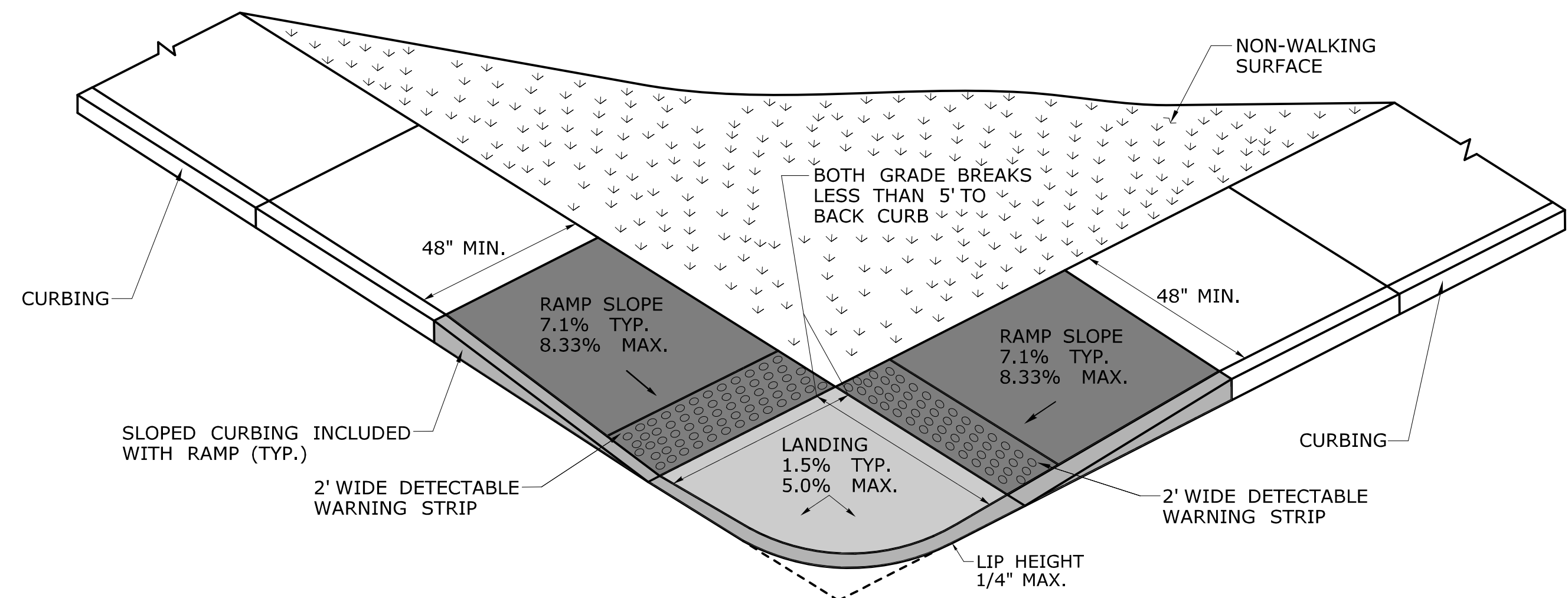


99 REALTY DRIVE
 CHESHIRE, CT 06410
 203.271.1775
 WWW.MMINC.COM

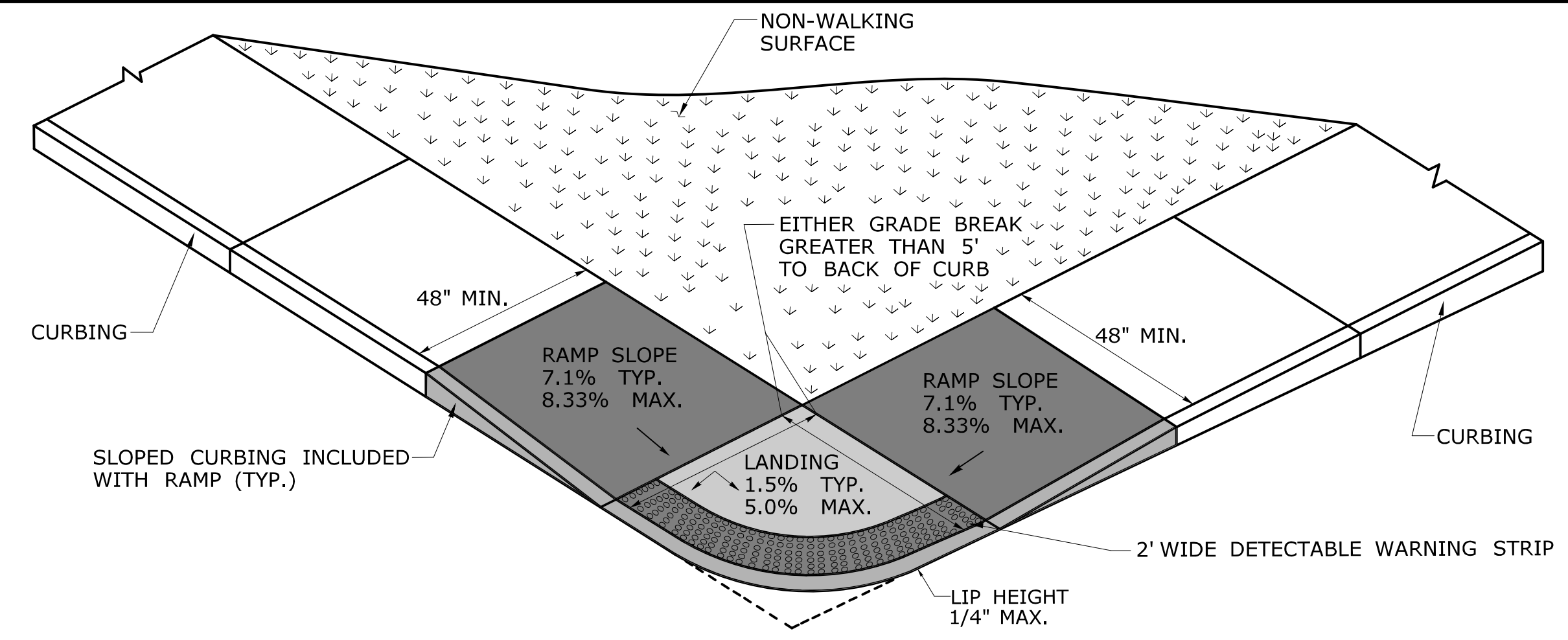
LIST OF DRAWINGS

NO.	TITLE
01	TITLE PLAN
02	DETAILED ESTIMATE SHEET
03	TRAFFIC CONTROL SIGNAL PLAN
04	SIDEWALK RAMP IMPROVEMENT PLAN
05	TEST PIT AND BORING PLAN
06-08	SIDEWALK RAMP GUIDE SHEETS
09	MISCELLANEOUS DETAILS SHEET CTDOT STANDARD DETAIL SHEETS

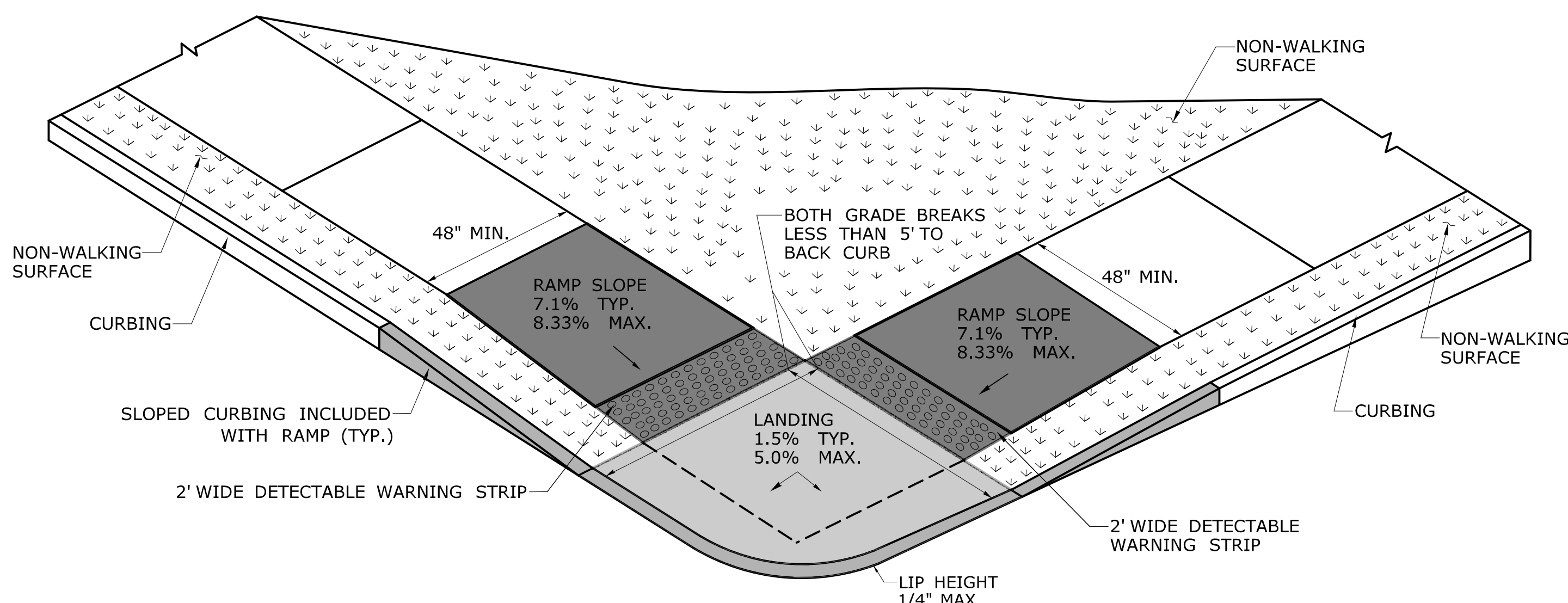
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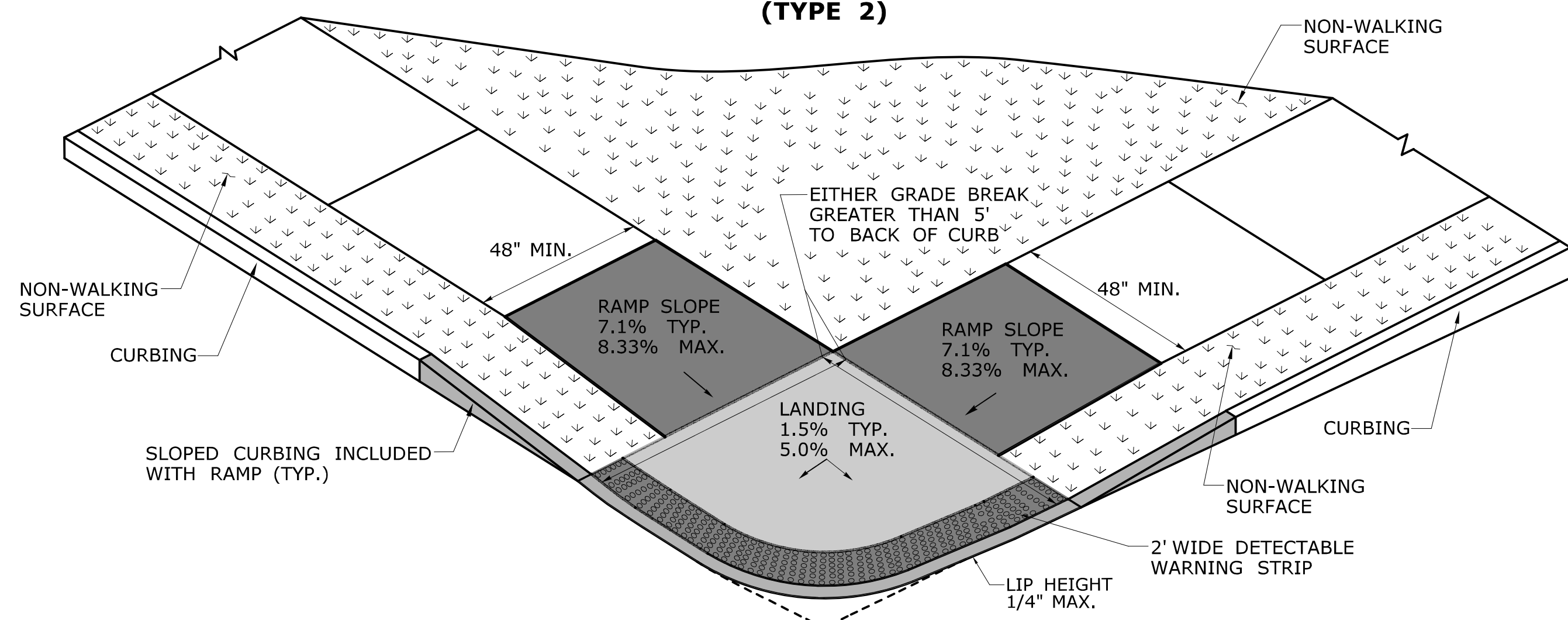
PERPENDICULAR RAMP WITH A GRADE BREAK OF 5' OR LESS (TYPE 1)



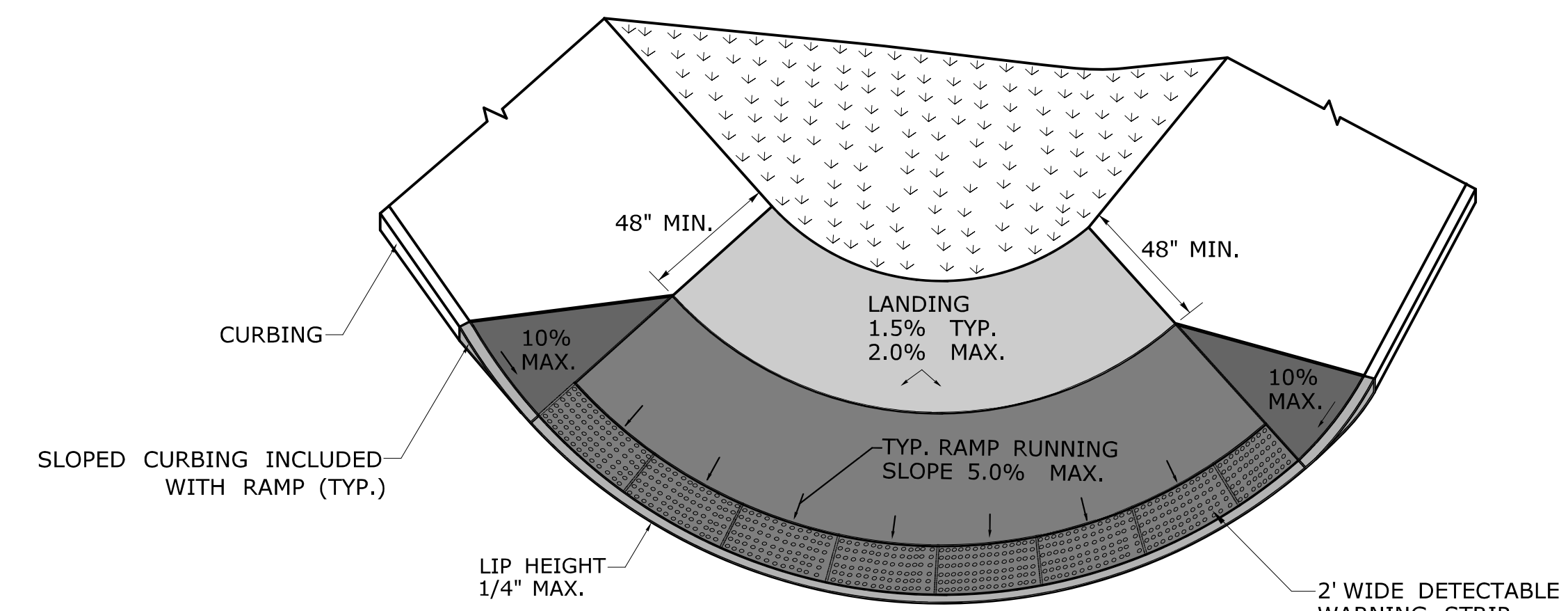
BLENDED TRANSITION WITH GRADE BREAK GREATER THAN 5' (TYPE 2)



PERPENDICULAR RAMP TO BACK OF CURB OF 5' OR LESS (TYPE 3)



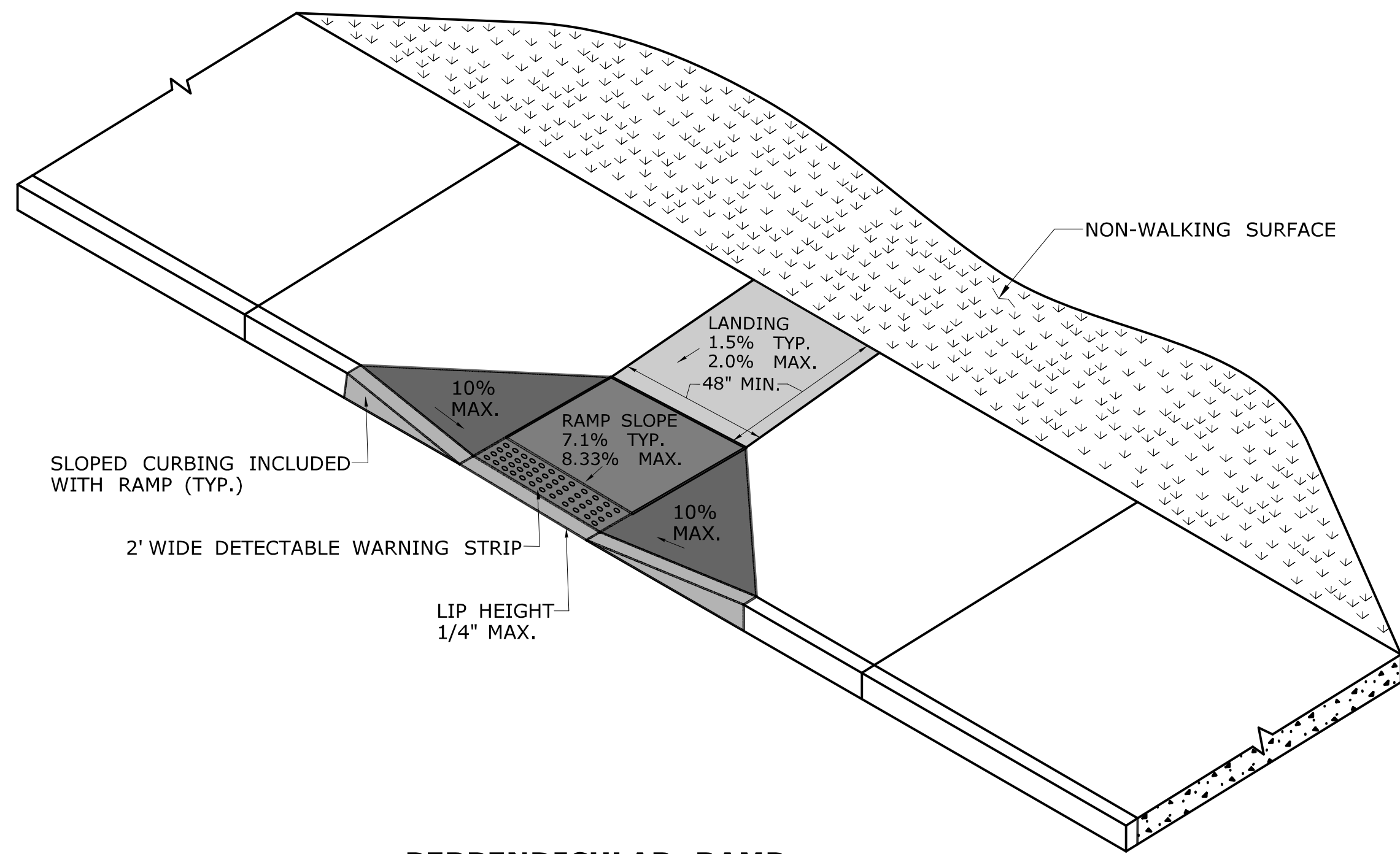
BLENDED TRANSITION TO BACK OF CURB GREATER THAN 5' (TYPE 4)



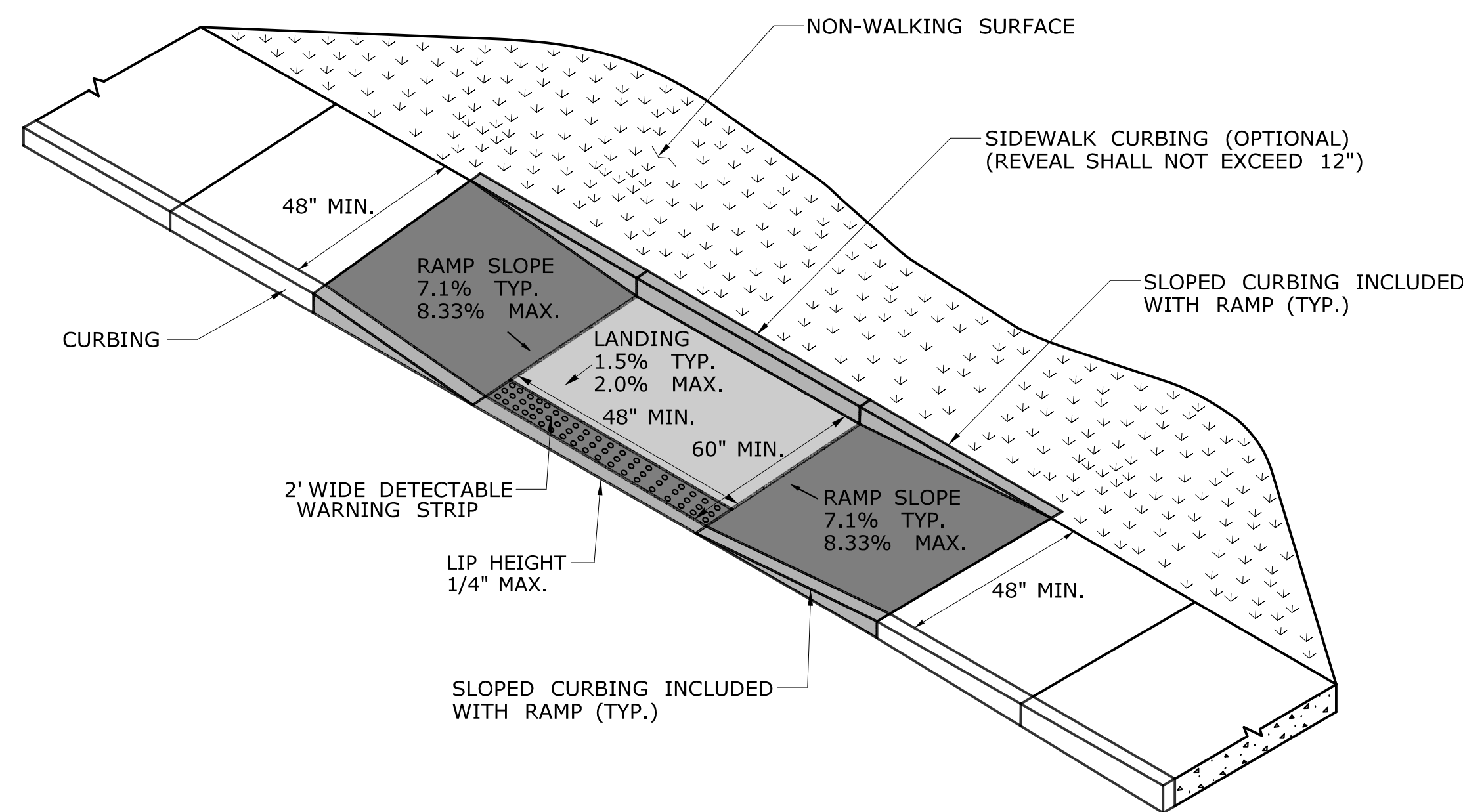
BLENDED TRANSITION WITH LANDING AT TOP (TYPE 5)

FINAL DESIGN

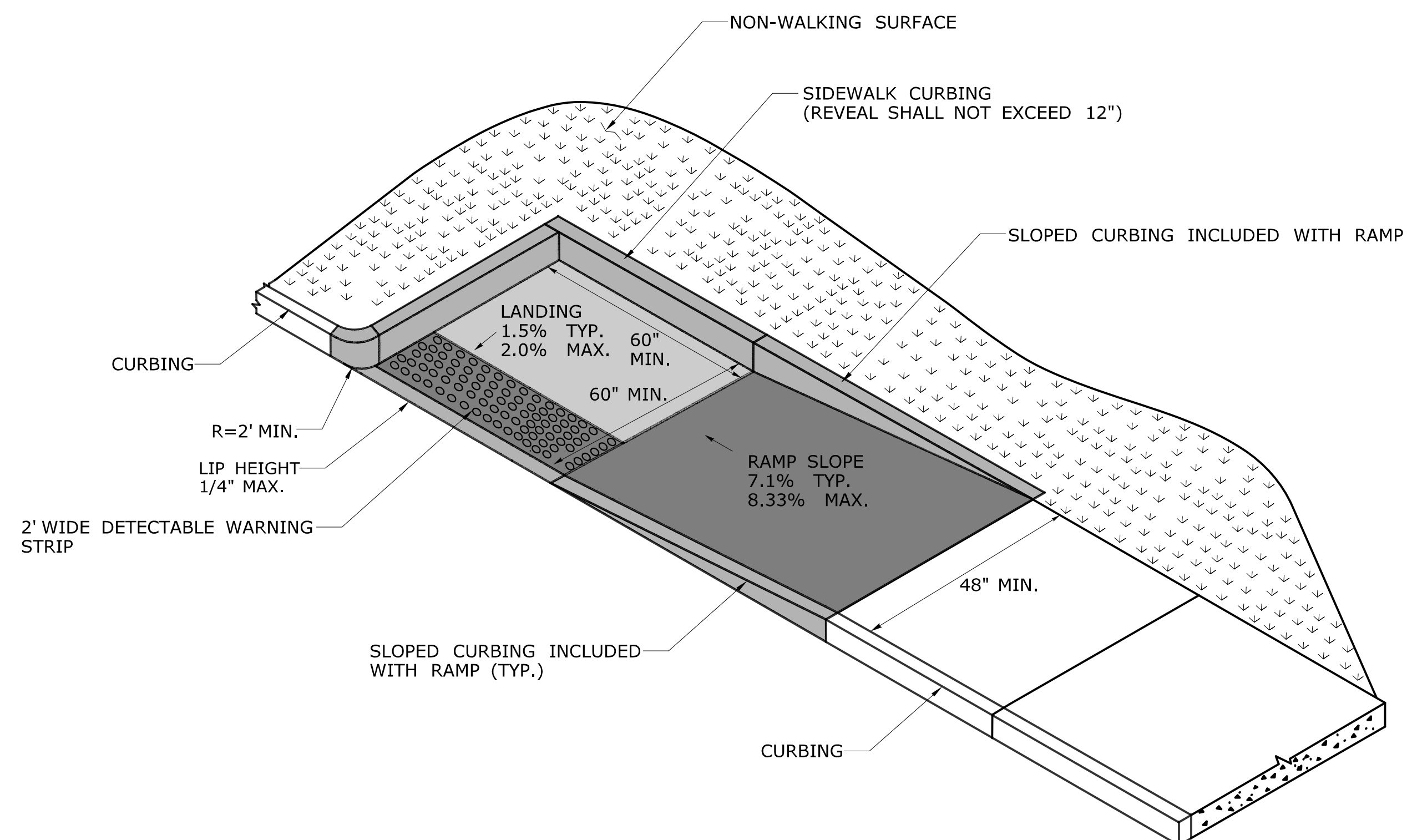
THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.		DESIGNER/DRAFTER: - CHECKED BY: -	STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION	SIGNATURE/BLOCK: OFFICE OF ENGINEERING APPROVED BY:	PROJECT TITLE: SIGNAL REPLACEMENT TILLEY STREET AT GREEN STREET AND BANK STREET	TOWN: NEW LONDON	PROJECT NO. 0094-0260
REV. DATE REVISION DESCRIPTION SHEET NO.	Plotted Date: 8/21/2019	Filename: ...CTDOT_HIGHWAY.GD [6-11-19].dgn	DRAWING TITLE: CONCRETE SIDEWALK RAMPS - SHEET 2		SHEET NO. 06		



PERPENDICULAR RAMP WITH 48" BY-PASS (TYPE 8)



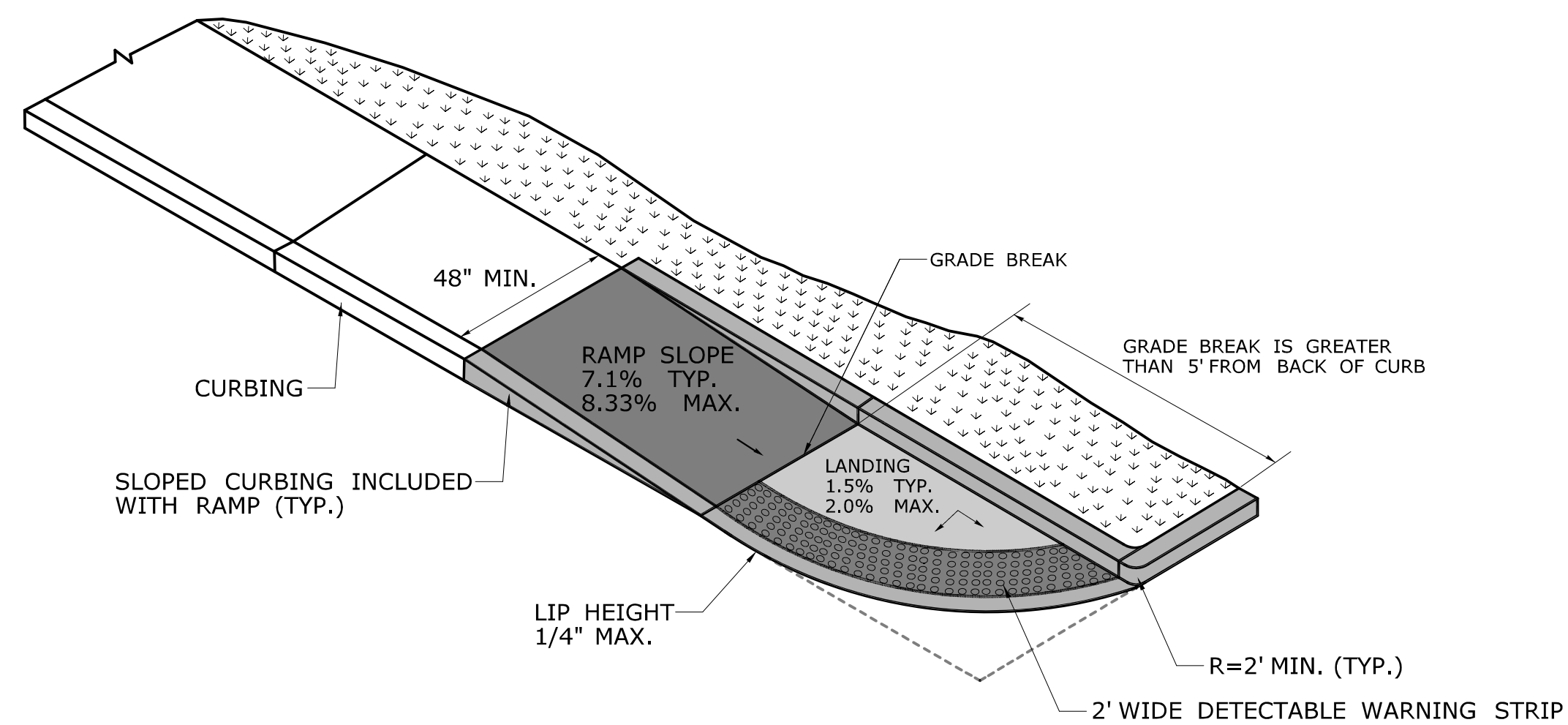
PARALLEL RAMP WITHOUT NON-WALKING SURFACE (TYPE 9)



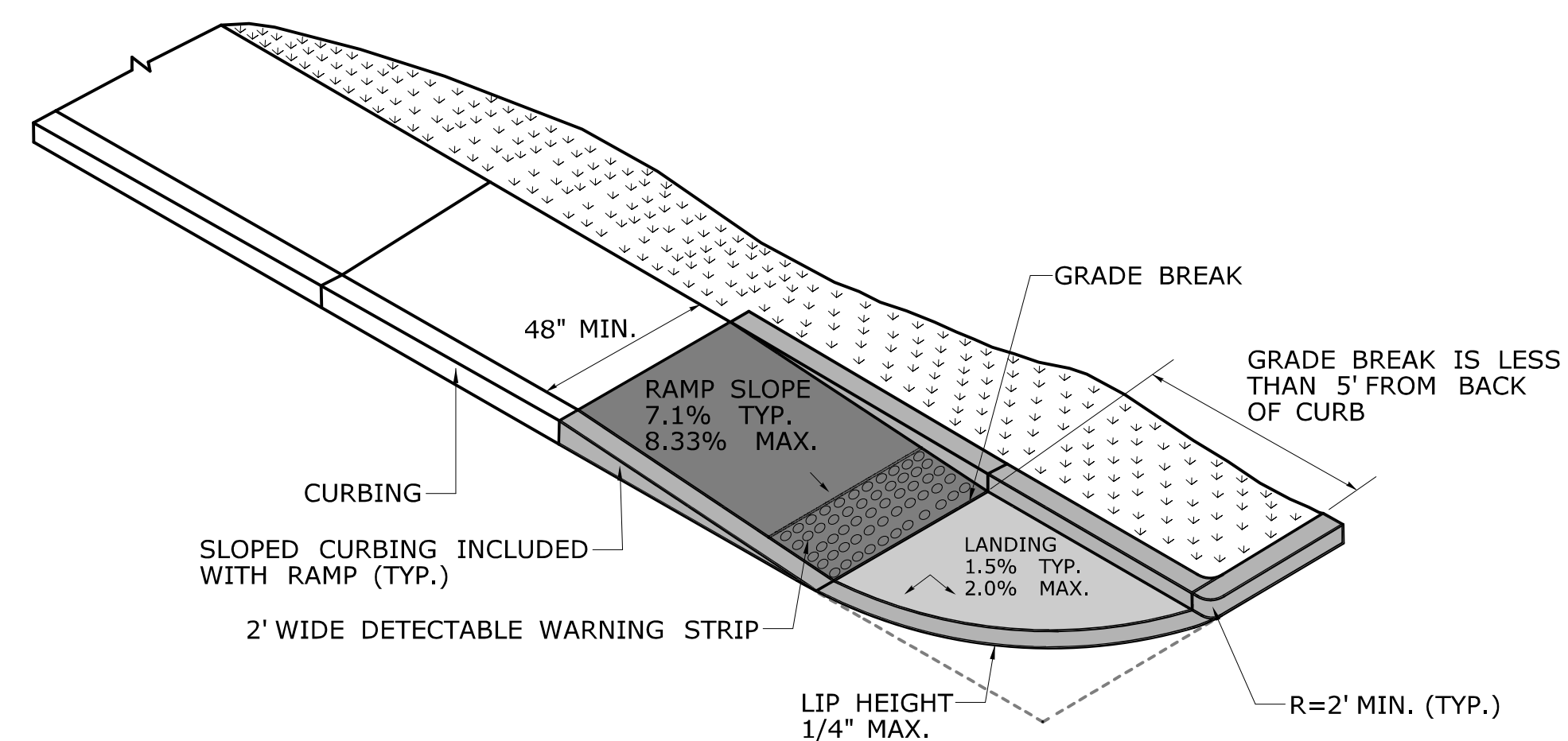
PARALLEL RAMP WITH LANDING AT BOTTOM ON CORNER (TYPE 10)

FINAL DESIGN

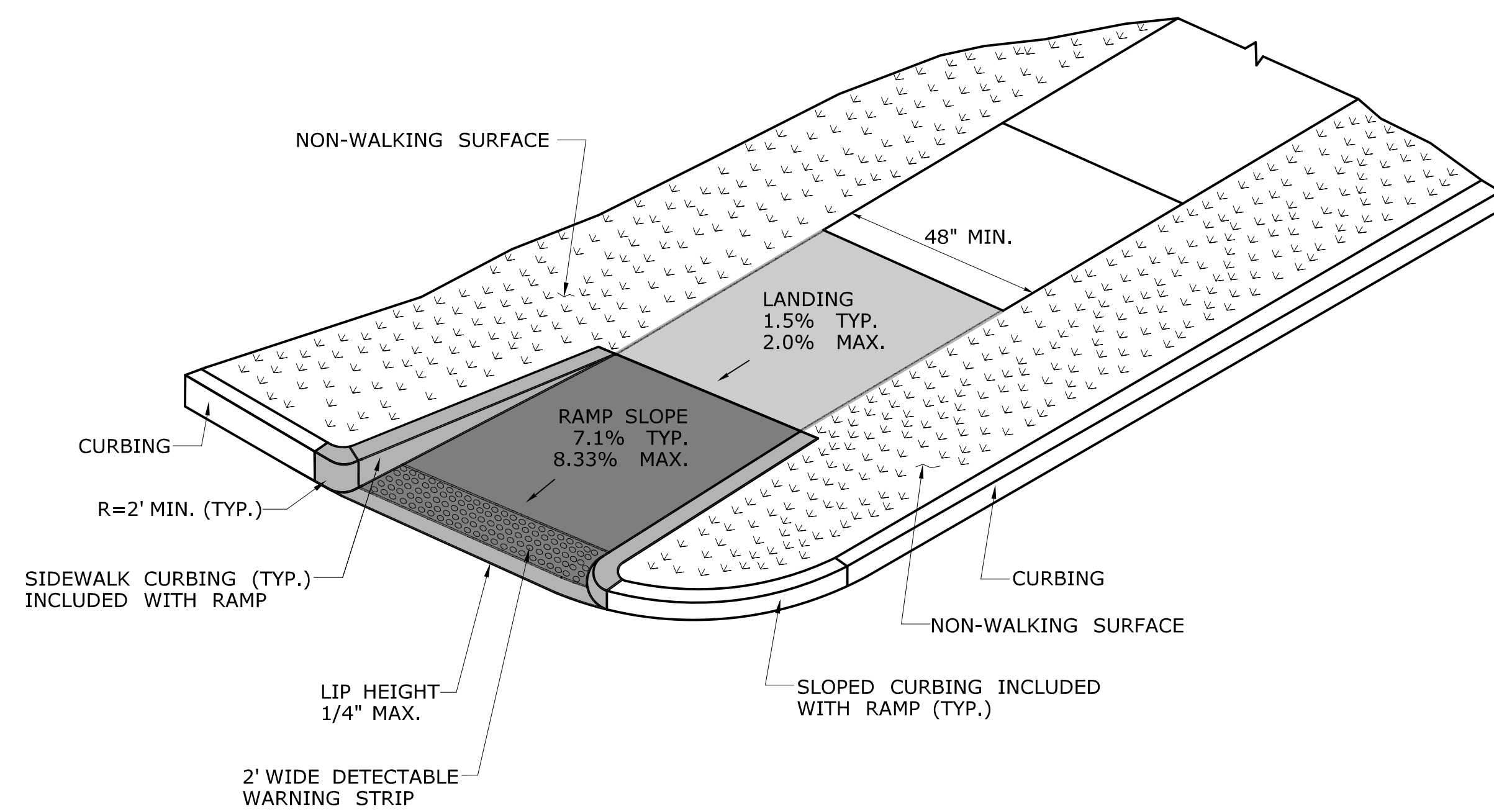
THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.		DESIGNER/DRAFTER: - CHECKED BY: -	<p>STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION</p>	SIGNATURE/ BLOCK: OFFICE OF ENGINEERING APPROVED BY:	PROJECT TITLE: SIGNAL REPLACEMENT TILLEY STREET AT GREEN STREET AND BANK STREET	TOWN: NEW LONDON	PROJECT NO. 0094-0260
REV.	DATE	REVISION DESCRIPTION	SHEET NO.	Plotted Date: 8/21/2019	Filename: ...CTDOT_HIGHWAY.GD [6-11-19].dgn	DRAWING TITLE: CONCRETE SIDEWALK RAMPS SHEET 4	SHEET NO. 07



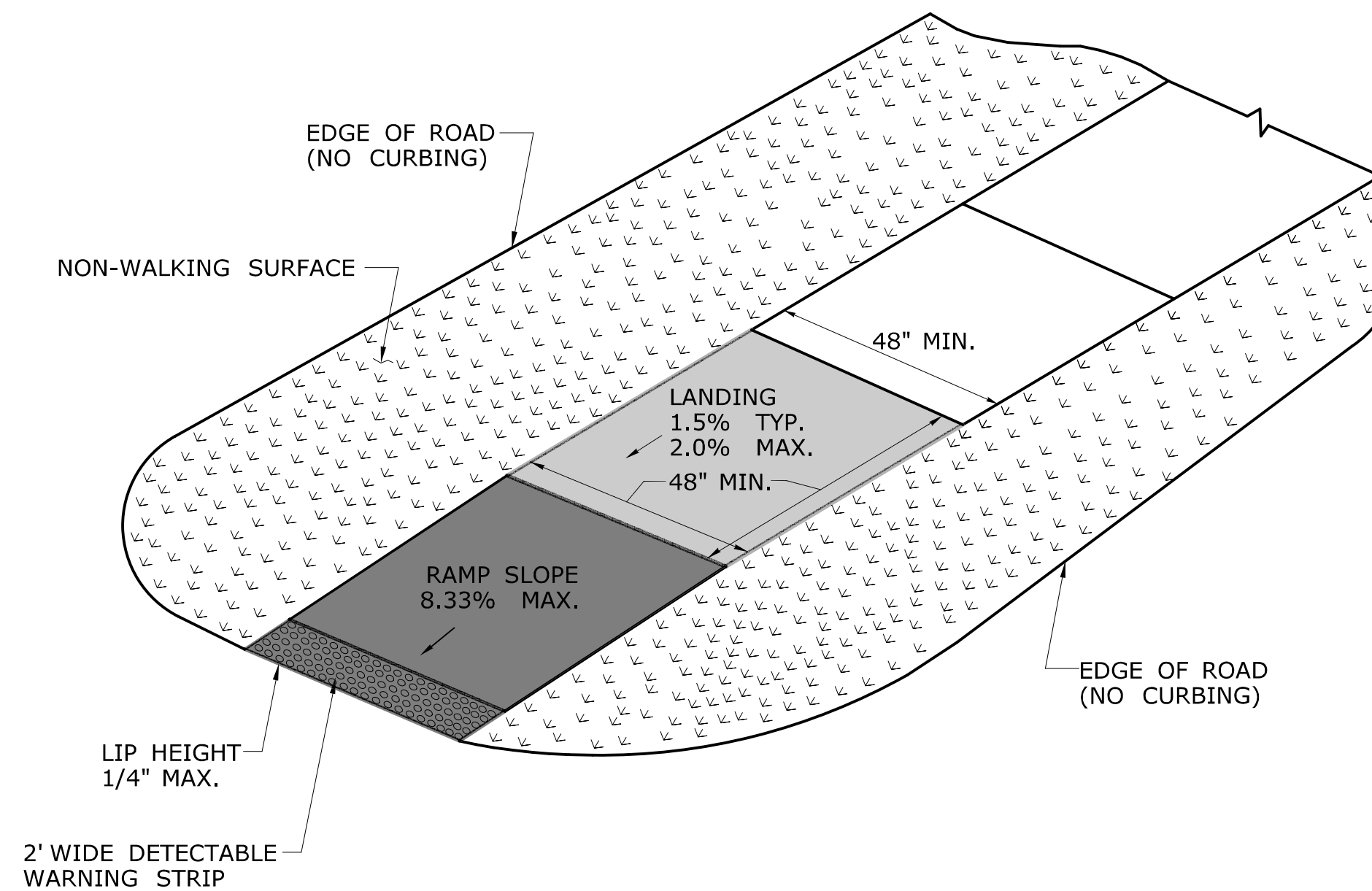
**SINGLE DIRECTION RAMP
WITHOUT NON-WALKING SURFACE
GRADE BREAK GREATER THAN 5'
(TYPE 14)**



**SINGLE DIRECTION RAMP
WITHOUT NON-WALKING SURFACE
GRADE BREAK LESS THAN 5'
(TYPE 15)**



**SINGLE DIRECTION - RETURN CURB
WITH NON-WALKING SURFACE
(TYPE 16)**

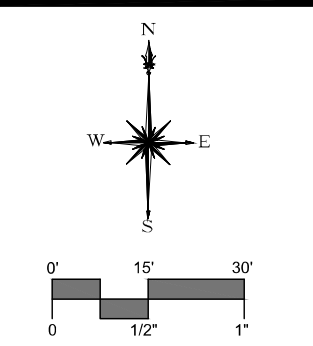


**SINGLE DIRECTION - NO CURB
WITH NON-WALKING SURFACE
(TYPE 17)**

FINAL DESIGN

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.		DESIGNER/DRAFTER: - CHECKED BY: -	<p>STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION</p>	SIGNATURE/ BLOCK: OFFICE OF ENGINEERING APPROVED BY:	PROJECT TITLE: SIGNAL REPLACEMENT TILLEY STREET AT GREEN STREET AND BANK STREET	TOWN: NEW LONDON	PROJECT NO. 0094-0260
REV.	DATE	REVISION DESCRIPTION	SHEET NO.	Plotted Date: 8/21/2019	Filename: ... \CTDOT_HIGHWAY.GD [6-11-19].dgn	DRAWING TITLE: CONCRETE SIDEWALK RAMPS SHEET 6	SHEET NO. 08

MILONE & MACBROOM, INC. 99 REALTY DRIVE, CHELSEA, CONNECTICUT 06410 (203) 271-1773 FAX (203) 272-9733 WWW.MILONEANDMACBROOM.COM



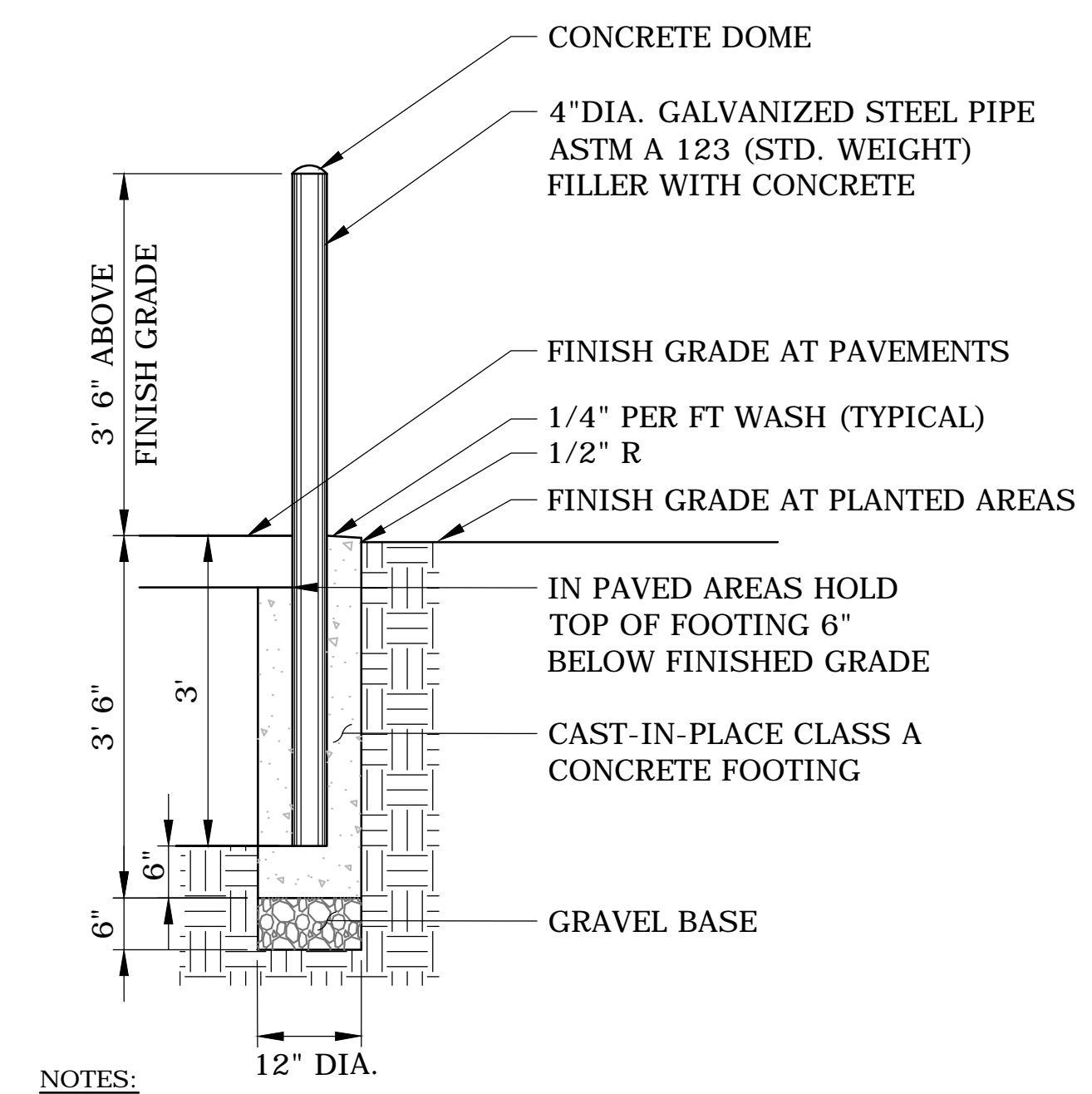
MILONE & MACBROOM
 99 Realty Drive
 Chelsea, Connecticut 06410
 (203) 271-1773 Fax (203) 272-9733
 www.miloneandmacbroom.com

DESCRIPTION	DATE	BY

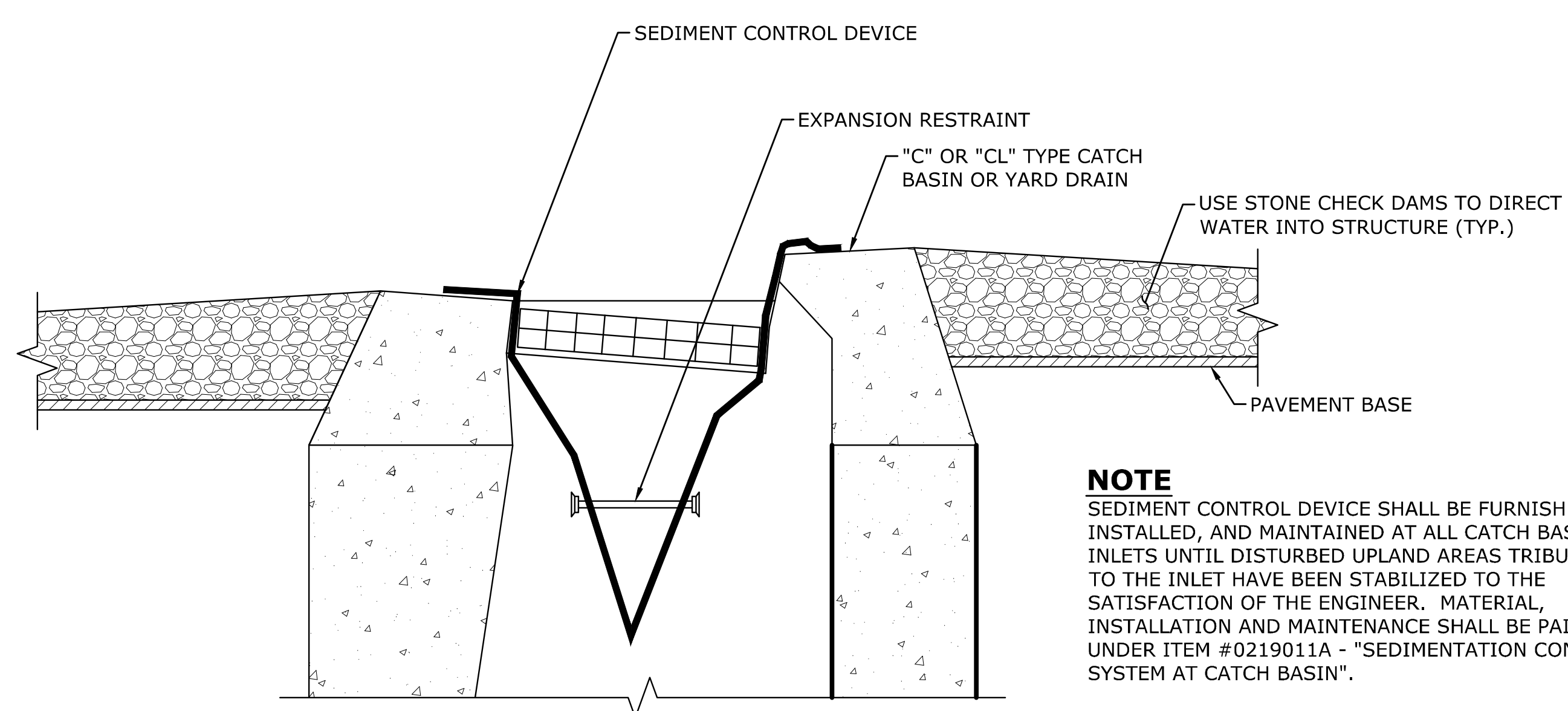
MISCELLANEOUS DETAILS
SIGNAL REPLACEMENT
 TILLEY STREET AT GREEN STREET AND BANK STREET
 NEW LONDON, CONNECTICUT

TDS DESIGNED	TDS DRAWN	MJJ CHECKED
SCALE N.T.S.		
DATE JULY 2020		
PROJECT NO. 0094-0260		
DRAWING NO. MISC -01		

09
 SHEET NO.

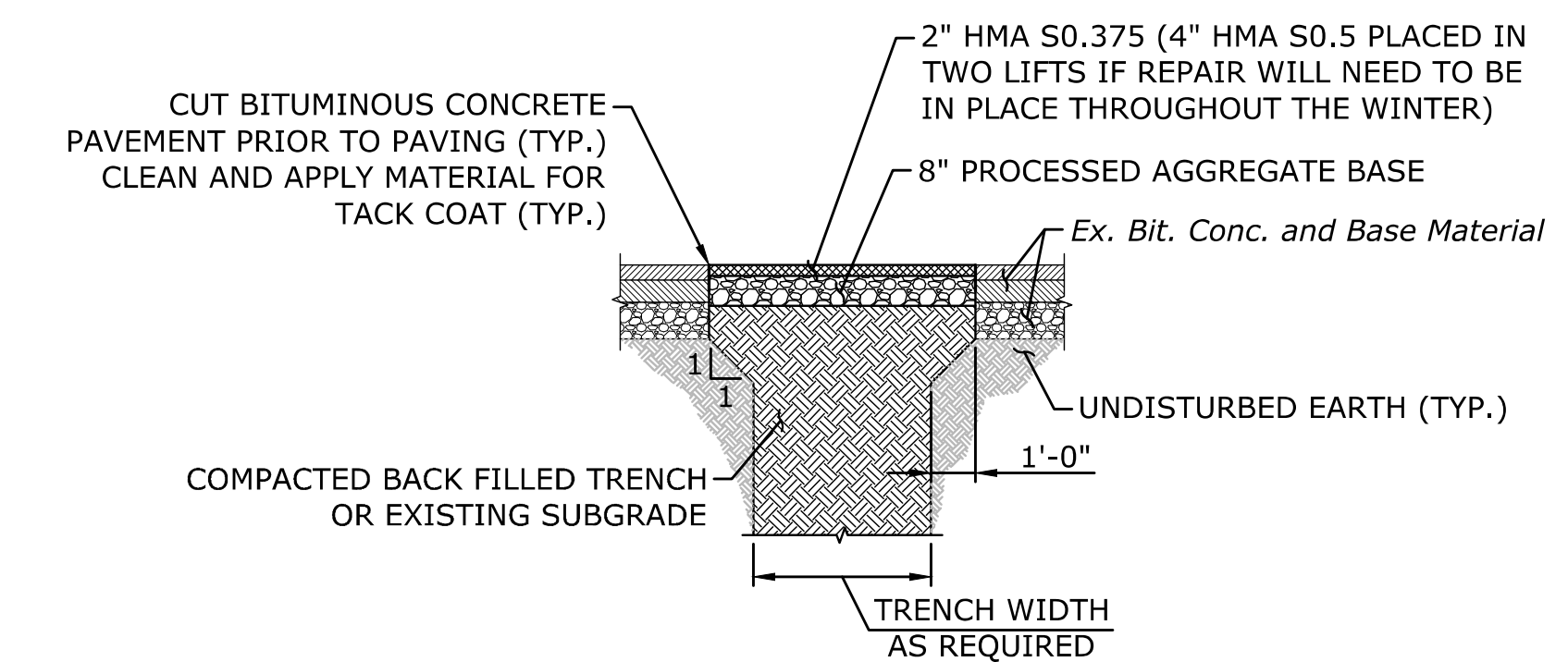


NOTES:
 1. FINISH TO BE COLOR GALVANIZED, TO BE DETERMINED BY CITY.
STEEL PIPE BOLLARD 4" DIA.
 NOT TO SCALE



NOTE
 SEDIMENT CONTROL DEVICE SHALL BE FURNISHED,
 INSTALLED, AND MAINTAINED AT ALL CATCH BASIN
 INLETS UNTIL DISTURBED UPLAND AREAS TRIBUTARY
 TO THE INLET HAVE BEEN STABILIZED TO THE
 SATISFACTION OF THE ENGINEER. MATERIAL,
 INSTALLATION AND MAINTENANCE SHALL BE PAID FOR
 UNDER ITEM #0219011A - "SEDIMENTATION CONTROL
 SYSTEM AT CATCH BASIN".

SEDIMENTATION CONTROL AT CATCH BASIN
 NOT TO SCALE



TEMPORARY PAVEMENT REPAIR
 NOT TO SCALE

*ONLY STANDARD SHEETS MARKED WITH AN "✓" ARE IN THIS PROJECT #

**REVISED OR ADDED

✓*	SHEET NO.	TITLE	APPROVAL DATE**
<input type="checkbox"/>	HW-506_01	ENDWALLS, SLOPE PAVED INLETS AND OUTLETS	1-26-12
<input type="checkbox"/>	HW-506_02	TYPE "D-G" & "L" ENDWALLS	7-13-12
<input type="checkbox"/>	HW-506_03	ENDWALLS FOR PIPE ARCH	9-18-09
<input type="checkbox"/>	HW-507_01	TYPE "C", "C-L" & DROP INLET CATCH BASIN	7-24-13
<input type="checkbox"/>	HW-507_02	TYPE "C", "C-L" & DOUBLE GRATE TYPE - I	7-24-13
<input type="checkbox"/>	HW-507_03	TYPE "C", "C-L" & DOUBLE GRATE TYPE - II	7-24-13
<input type="checkbox"/>	HW-507_04	TYPE "C", "C-L" & ROUND PRECAST CONCRETE CB	11-10-11
<input type="checkbox"/>	HW-507_05	TYPE "C" & "C-L" PRECAST CONCRETE CB DOUBLE GRATE TYPE - I	11-10-11
<input type="checkbox"/>	HW-507_06	TYPE "C" & "C-L" PRECAST CONCRETE CB DOUBLE GRATE TYPE - II	11-10-11
<input type="checkbox"/>	HW-507_07	TYPE "C" & "C-L" CATCH BASIN TOPS AND CURBS	11-10-11
<input type="checkbox"/>	HW-507_08	CATCH BASIN FRAMES AND GRATES	9-18-09
<input type="checkbox"/>	HW-507_09	HEAVY DUTY LOCK DOWN TOPS	7-12-12
<input checked="" type="checkbox"/>	HW-507_10	MANHOLE - FRAME & COVER	7-24-13
<input type="checkbox"/>	HW-651_01	C.C.M. PIPE INSTALLATIONS IN FILL & ROCK SLOPES & PIPE TRENCH DETAIL	7-24-13
<input type="checkbox"/>	HW-651_02	SLOTTED DRAIN PIPE 12"- 15"-18"-24"-30" (305-381-457-610-762)	7-12-12
<input type="checkbox"/>	HW-652_01	PIPE ENDS	7-24-13
<input type="checkbox"/>	HW-751_01	UNDERDRAINS AND UNDERDRAIN OUTLETS	7-12-12
<input type="checkbox"/>	HW-803_01a	PAVED APRONS	6-07-17
<input type="checkbox"/>	HW-803_01b	PAVED DITCHES AND PAVED CHANNELS	6-07-17
<input checked="" type="checkbox"/>	HW-811_01	CONCRETE CURBING	6-07-17
<input type="checkbox"/>	HW-813_01	GRANITE STONE TRANSITION CURBING	7-24-13
<input type="checkbox"/>	HW-813_02	STONE CURBING	6-07-17
<input type="checkbox"/>	HW-815_01	BITUMINOUS CONCRETE CURBING	6-07-17
<input type="checkbox"/>	HW-821_01a	TRANSITION - 45" (1145) F-SHAPE TO 45" (1145) VERTICAL SHAPE SHEET 1	1-26-12
<input type="checkbox"/>	HW-821_01b	TRANSITION - 45" (1145) F-SHAPE TO 45" (1145) VERTICAL SHAPE SHEET 2	10-18-10
<input type="checkbox"/>	HW-821_01c	TRANSITION - 45" (1145) F-SHAPE TO 45" (1145) VERTICAL SHAPE SHEET 3	1-26-12
<input type="checkbox"/>	HW-821_02a	45" F-SHAPE PRECAST CONCRETE BARRIER CURB SHEET 1	1-27-20
<input type="checkbox"/>	HW-821_02b	45" F-SHAPE PRECAST CONCRETE BARRIER CURB SHEET 2	1-27-20
<input type="checkbox"/>	HW-821_03a	TRANSITION - 32" (813) JERSEY SHAPE TO 45" (1145) VERTICAL SHAPE SHEET 1	1-26-12
<input type="checkbox"/>	HW-821_03b	TRANSITION - 32" (813) JERSEY SHAPE TO 45" (1145) VERTICAL SHAPE SHEET 2	10-18-10
<input type="checkbox"/>	HW-821_03c	TRANSITION - 32" (813) JERSEY SHAPE TO 45" (1145) VERTICAL SHAPE SHEET 3	10-18-10
<input type="checkbox"/>	HW-821_03d	TRANSITION - 32" (813) JERSEY SHAPE TO 45" (1145) VERTICAL SHAPE SHEET 4	10-18-10
<input type="checkbox"/>	HW-821_03e	TRANSITION - 32" (813) JERSEY SHAPE TO 45" (1145) F-SHAPE	7-24-13

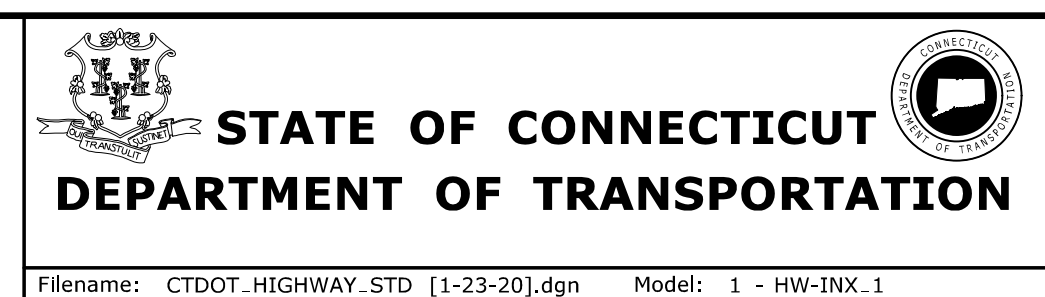
✓*	SHEET NO.	TITLE	APPROVAL DATE**
<input type="checkbox"/>	HW-821_04a	MERRITT PARKWAY NARROW MEDIAN BARRIER	6-09-11
<input type="checkbox"/>	HW-821_04b	MERRITT PARKWAY - 2' (610) WIDE MEDIAN BARRIER AND ROADSIDE BARRIER	7-24-13
<input type="checkbox"/>	HW-821_05a	TRANSITION - 45" (1145) F-SHAPE TO 54" (1372) VERTICAL SHAPE SHEET 1	1-26-12
<input type="checkbox"/>	HW-821_05b	TRANSITION - 45" (1145) F-SHAPE TO 54" (1372) VERTICAL SHAPE SHEET 2	1-26-12
<input type="checkbox"/>	HW-821_06	54" (1372) VERTICAL SHAPE BARRIER	2-06-12
<input type="checkbox"/>	HW-821_07	MISCELLANOUS DETAILS FOR BARRIER TRANSITIONS	7-12-12
<input type="checkbox"/>	HW-821_08a	F-SHAPE CONC. BARRIER CURB (21"x45") TRANSITION FOR THRIE-BEAM	1-09-20
<input type="checkbox"/>	HW-821_08b	F-SHAPE CONC. BARRIER CURB (21"x45") TRANSITION FOR THRIE-BEAM - REINF.	1-09-20
<input type="checkbox"/>	HW-821_09a	SINGLE SLOPE CONC. BARRIER CURB (20"x42") TRANS. FOR THRIE-BEAM	1-09-20
<input type="checkbox"/>	HW-821_09b	SINGLE SLOPE CONC. BARRIER CURB (20"x42") TRANS. FOR THRIE-BEAM - REINF.	1-09-20
<input type="checkbox"/>	HW-821_10a	VERTICAL FACE CONC. (21"x54") TRANSITION FOR THRIE-BEAM	1-09-20
<input type="checkbox"/>	HW-821_10b	VERTICAL FACE CONC. (21"x54") TRANSITION FOR THRIE-BEAM - REINF.	1-09-20
<input type="checkbox"/>	HW-821_11a	42" SINGLE SLOPE PRECAST CONCRETE CURB	1-27-20
<input type="checkbox"/>	HW-821_11b	42" SINGLE SLOPE PRECAST CONCRETE CURB - REINFORCEMENT	1-27-20
<input type="checkbox"/>	HW-822_01	TEMPORARY PRECAST CONCRETE BARRIER CURB	7-24-13
<input type="checkbox"/>	HW-905_01	STONE WALL FENCE	1-25-19
<input type="checkbox"/>	HW-906_01	WIRE FENCE	1-25-19
<input type="checkbox"/>	HW-910_01	W-BEAM METAL BEAM RAIL HARDWARE	6-09-11
<input type="checkbox"/>	HW-910_02	METAL BEAM RAIL (TYPE R-B 350) GUIDERAIL	6-09-11
<input type="checkbox"/>	HW-910_03	METAL BEAM RAIL (TYPE MD-B 350)	6-09-11
<input type="checkbox"/>	HW-910_04	METAL BEAM RAIL (TYPE R-B 350) SYSTEMS 5, 5A, & 6	6-09-11
<input type="checkbox"/>	HW-910_05	METAL BEAM RAIL R-B 350 SPAN TYPE I, II, III SECTIONS	7-24-13
<input type="checkbox"/>	HW-910_06	R-B 350 BRIDGE ATTACHMENT SAFETY SHAPE PARAPET	6-09-11
<input type="checkbox"/>	HW-910_07	R-B 350 BRIDGE ATTACHMENT VERTICAL SHAPE PARAPET	1-25-19
<input type="checkbox"/>	HW-910_08	R-B 350 BRIDGE ATTACHMENT TRAILING END	6-09-11
<input type="checkbox"/>	HW-910_09a	MISCELLANEOUS GUIDERAIL TRANSITIONS SHEET 1	1-26-12
<input type="checkbox"/>	HW-910_09b	MISCELLANEOUS GUIDERAIL TRANSITIONS SHEET 2	7-25-12
<input type="checkbox"/>	HW-910_10	METAL BEAM RAIL 8" (203) X 6" (152) BOX BEAM	7-24-13
<input type="checkbox"/>	HW-910_11	CURVED GUIDERAIL TREATMENT DETAIL	7-25-12
<input type="checkbox"/>	HW-910_12a	MERRITT PARKWAY GUIDERAIL ATTACHMENT - SYSTEM 2 & 3	7-24-13
<input type="checkbox"/>	HW-910_12b	MERRITT PARKWAY GUIDERAIL	7-24-13
<input type="checkbox"/>	HW-910_12c	MERRITT PARKWAY GUIDERAIL TRAILING END ATTACHMENTS	7-24-13
<input type="checkbox"/>	HW-910_12d	MERRITT PARKWAY MEDIAN GUIDERAIL AND END ANCHOR	6-09-11

REV.	DATE	REVISION DESCRIPTION
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Plotted Date: 1/29/2020

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CTDOT
STANDARD SHEET

OFFICE OF ENGINEERING

STANDARD SHEET TITLE:
**HIGHWAY
STANDARD SHEET INDEX**

STANDARD SHEET NO.:
**HW_1NX
1 of 2**

*ONLY STANDARD SHEETS MARKED WITH AN "✓" ARE IN THIS PROJECT #

**REVISED OR ADDED

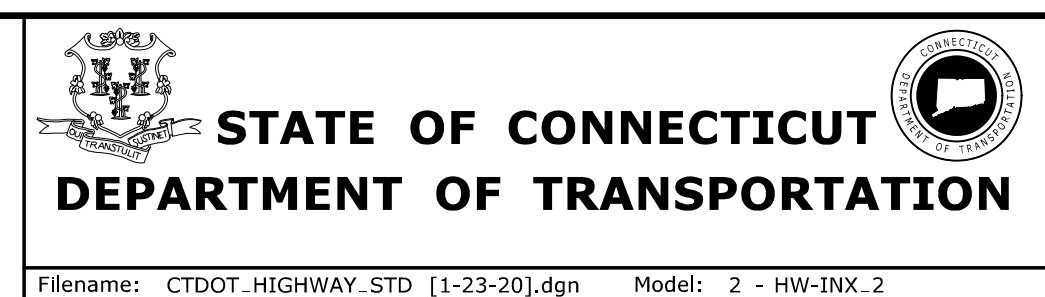
✓*	SHEET NO.	TITLE	APPROVAL DATE**	✓*	SHEET NO.	TITLE	APPROVAL DATE**
<input type="checkbox"/>	HW-910_13a	THRIE-BEAM METAL BEAM RAIL HARDWARE	7-24-13	<input type="checkbox"/>	HW-1800_02	GRADING PLAN FOR IMPACT ATTENUATION SYSTEM (MEDIAN/GORE)	1-25-19
<input type="checkbox"/>	HW-910_13b	THRIE-BEAM TRANSITIONS	7-24-13				
<input type="checkbox"/>	HW-910_14a	THRIE-BEAM 350 BRIDGE ATTACHMENT	6-09-11				
<input type="checkbox"/>	HW-910_14b	THRIE-BEAM 350 GUIDERAIL TRANSITION TO R-B 350 GUIDERAIL	6-09-11				
<input type="checkbox"/>	HW-910_15	MD-B 350 MEDIAN BARRIER SAFETY SHAPE ATTACHMENT TYPE I	6-09-11				
<input type="checkbox"/>	HW-910_16	MD-B 350 MEDIAN BARRIER SAFETY SHAPE ATTACHMENT TYPE II	6-09-11				
<input type="checkbox"/>	HW-910_17	R-B TERMINAL SECTION	7-24-13				
<input type="checkbox"/>	HW-910_18	METAL BEAM RAIL (TYPE MD-I)	10-18-10				
<input type="checkbox"/>	HW-910_19a	METAL BEAM RAIL (MODIFIED TYPE R-I) AND END ANCHORAGE TYPE I	7-24-13				
<input type="checkbox"/>	HW-910_19b	METAL BEAM RAIL (MODIFIED TYPE R-I) AND END ANCHORAGE TYPE II	7-24-13				
<input type="checkbox"/>	HW-910_19c	METAL BEAM RAIL (MODIFIED TYPE R-I) SYSTEMS 2 AND 3	7-24-13				
<input type="checkbox"/>	HW-910_20	MASH W-BEAM HARDWARE	1-05-18				
<input type="checkbox"/>	HW-910_21	METAL BEAM RAIL (R-B MASH) GUIDERAIL	1-25-19				
<input type="checkbox"/>	HW-910_22	METAL BEAM RAIL (MD-B MASH) GUIDERAIL	1-05-18				
<input type="checkbox"/>	HW-910_23	METAL BEAM RAIL (R-B MASH) HALF AND QUARTER POST SPACING	1-05-18				
<input type="checkbox"/>	HW-910_24	METAL BEAM RAIL SPAN SECTION TYPES II AND III	1-05-18				
<input type="checkbox"/>	HW-910_25	METAL BEAM RAIL TRANSITION 350 TO MASH	1-05-18				
<input type="checkbox"/>	HW-910_26	THRIE-BEAM ATTACHMENT HARDWARE	1-09-20				
<input type="checkbox"/>	HW-910_27	THRIE-BEAM ATTACHMENT	1-09-20				
<input type="checkbox"/>	HW-911_01	R-B END ANCHORAGE TYPE I AND II	1-25-19				
<input type="checkbox"/>	HW-911_02	MD-B END ANCHORAGE TYPE I	1-05-18				
<input type="checkbox"/>	HW-911_03	ANCHOR IN EARTH CUT SLOPE & ANCHOR IN ROCK CUT SLOPE	10-18-10				
<input type="checkbox"/>	HW-911_05	MERRITT PARKWAY GUIDERAIL END ANCHORS	7-24-13				
<input type="checkbox"/>	HW-913_01a	CHAIN LINK FENCE	5-06-19				
<input type="checkbox"/>	HW-913_01b	CHAIN LINK FENCE HARDWARE	5-06-19				
<input type="checkbox"/>	HW-913_02	CHAIN LINK FENCE GATES	5-06-19				
<input type="checkbox"/>	HW-918_01a	THREE CABLE GUIDERAIL (I-BEAM POSTS) SHEET 1	7-24-13				
<input type="checkbox"/>	HW-918_01b	THREE CABLE GUIDERAIL (I-BEAM POSTS) SHEET 2	1-26-12				
<input type="checkbox"/>	HW-918_01c	THREE CABLE GUIDERAIL (I-BEAM POSTS) SHEET 3	7-24-13				
<input checked="" type="checkbox"/>	HW-921_01	DRIVEWAY RAMPS AND SIDEWALKS	6-07-17				
<input type="checkbox"/>	HW-949_01a	LANDSCAPE PLANTING	6-15-19				
<input type="checkbox"/>	HW-949_01b	TREE STAKING	6-15-19				
<input type="checkbox"/>	HW-1800_01	GRADING PLAN FOR IMPACT ATTENUATION SYSTEMS (FLARED AND TANGENTIAL)	1-25-19				

REV.	DATE	REVISION DESCRIPTION
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Plotted Date: 1/29/2020

NOT TO SCALE



CTDOT
STANDARD SHEET

OFFICE OF ENGINEERING

STANDARD SHEET TITLE:

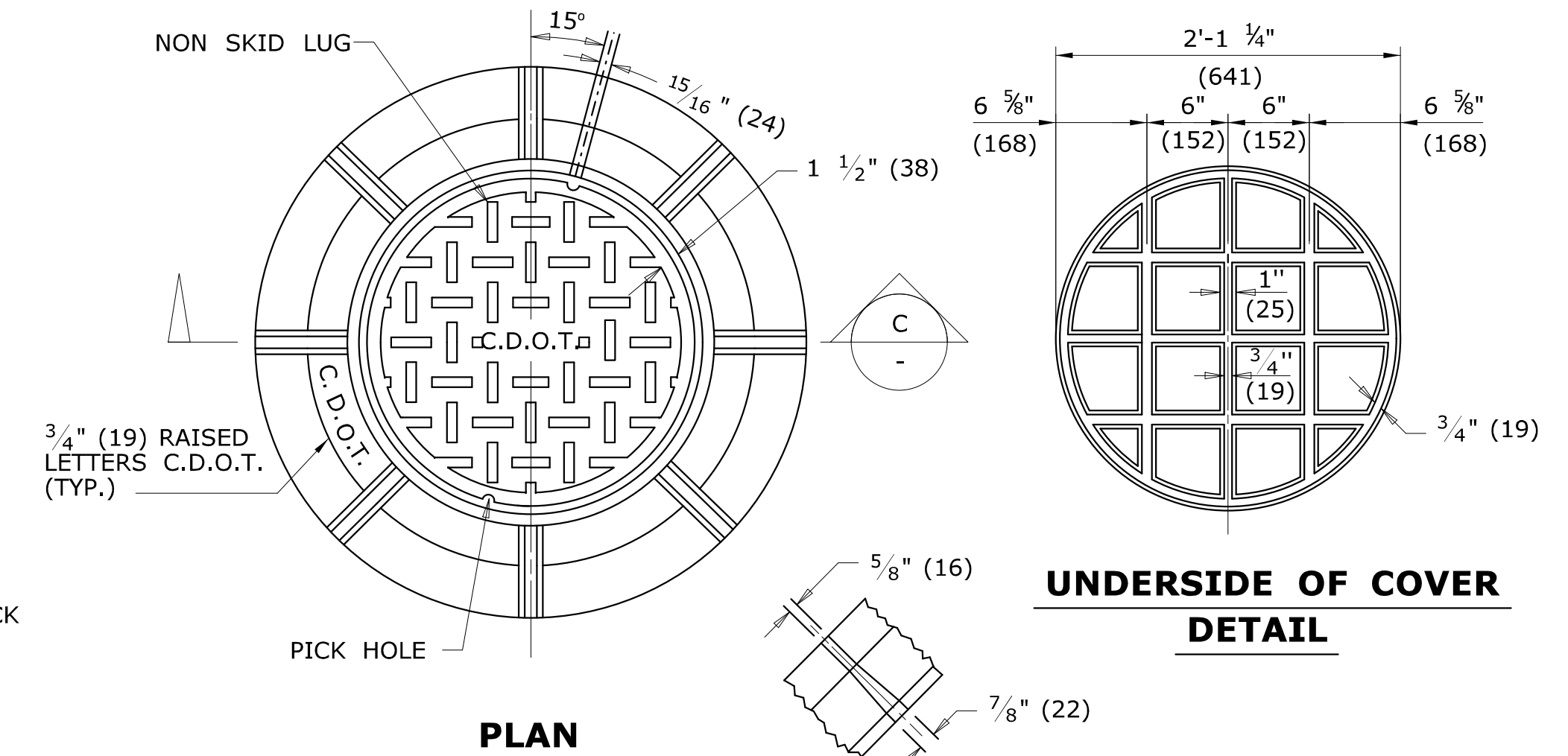
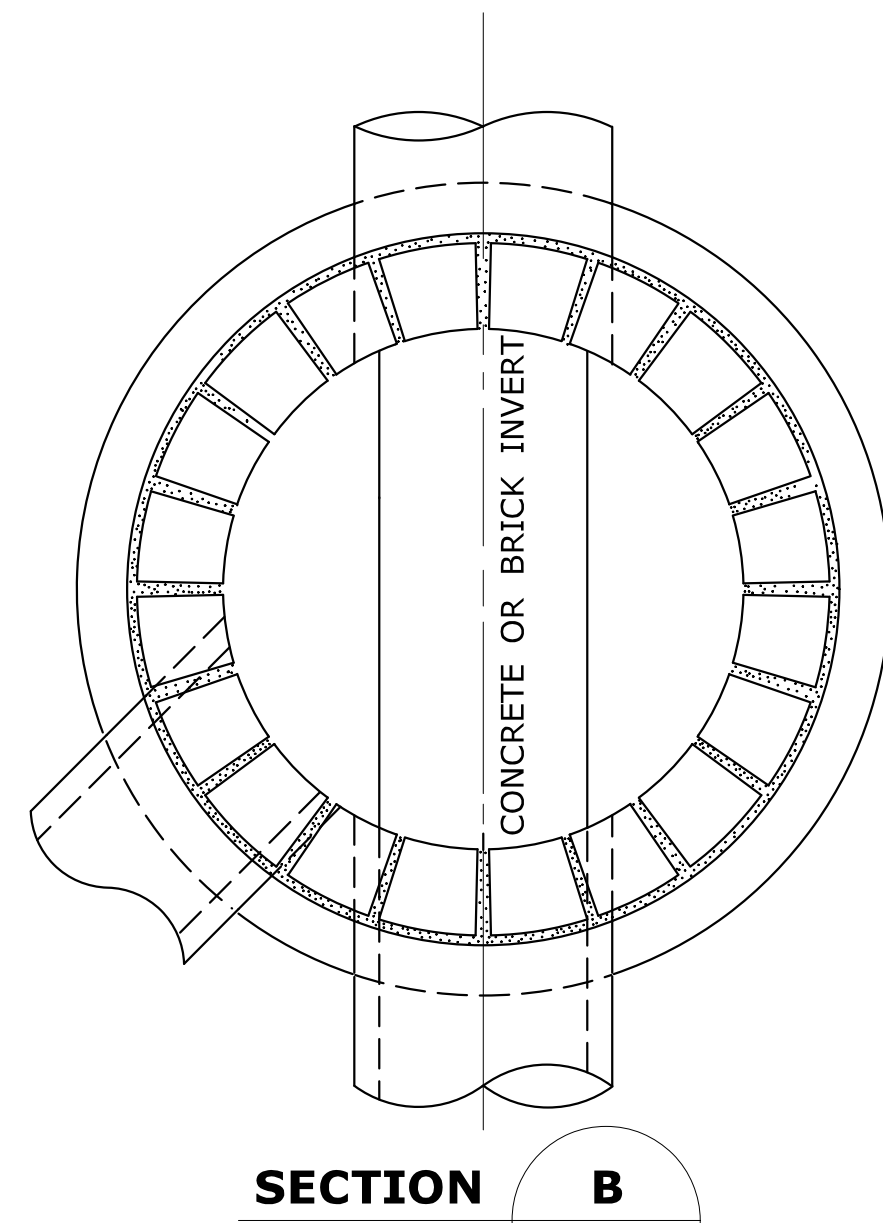
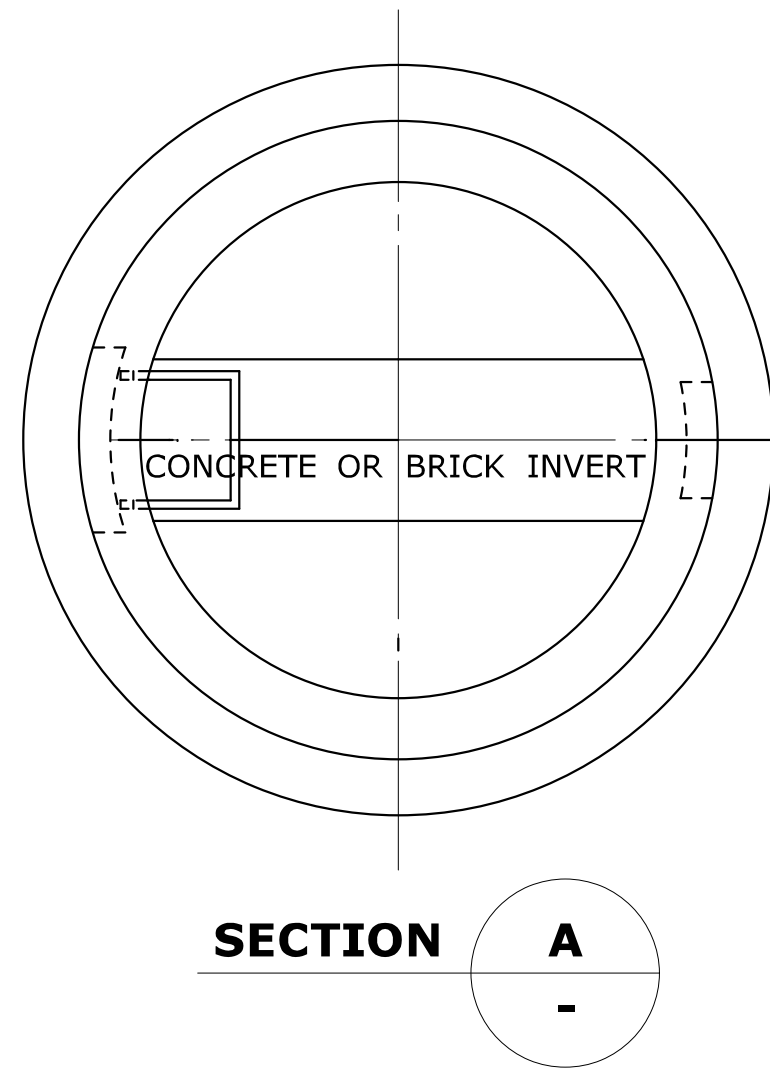
**HIGHWAY
STANDARD SHEET INDEX**

STANDARD SHEET NO.:

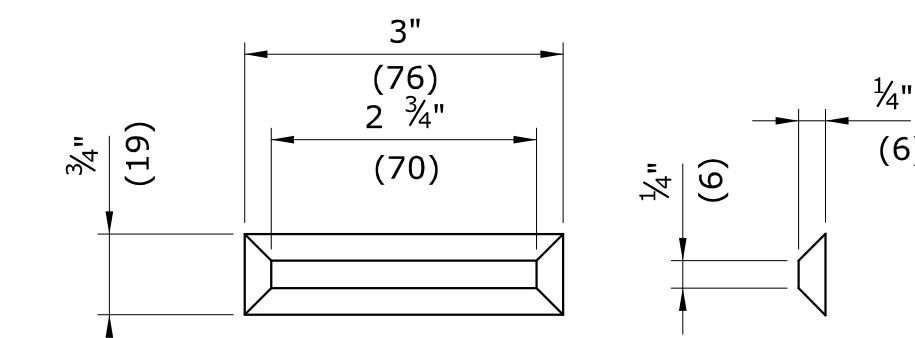
**HW_INX
2 of 2**

GENERAL NOTES:

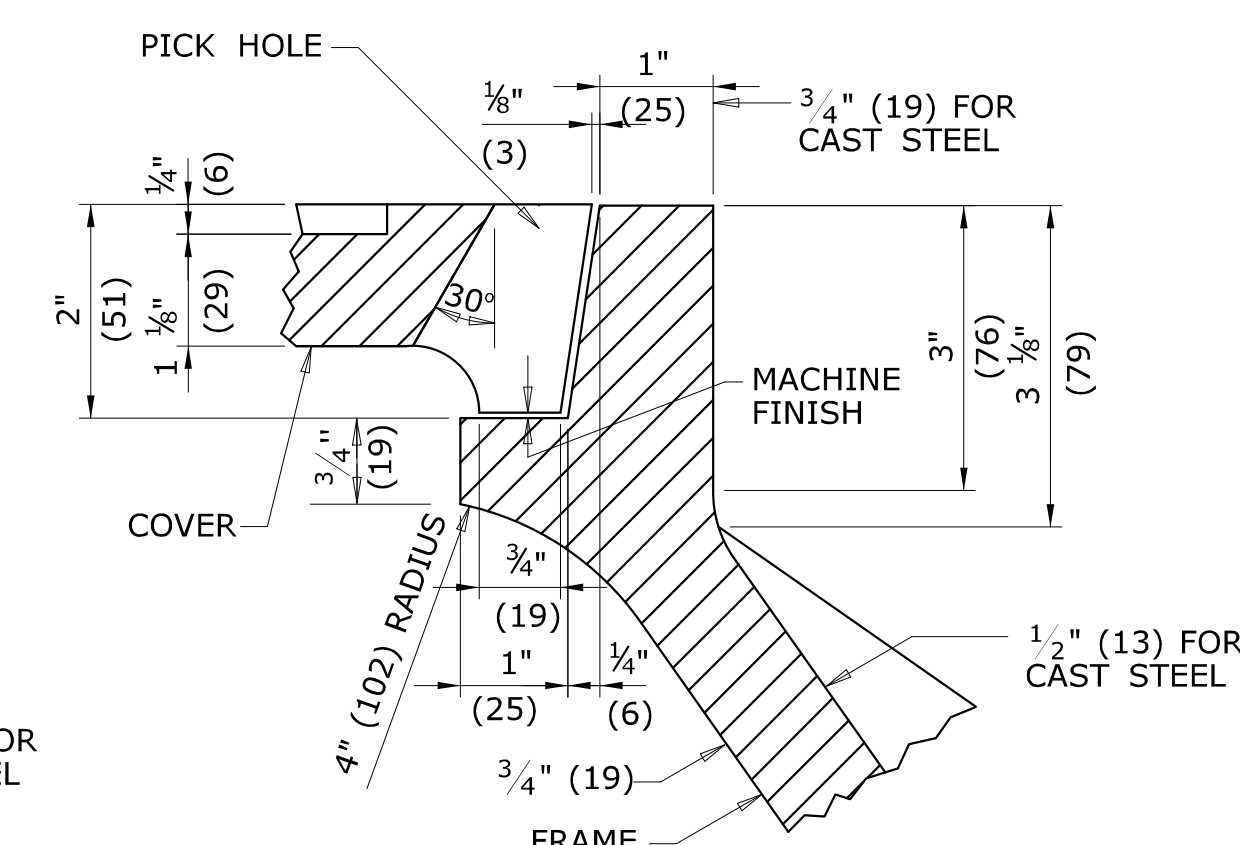
1. CHANNELS MAY BE SHAPED IN CONCRETE BASE OF MANHOLE OR FORMED USING BRICK OR MASONRY.
2. A FRAME DIAMETER OF 3'-3" (991) WITH 4" (102) FLANGE MUST BE USED WHEN THE TOP DIAMETER OF THE PRECAST CONE IS LESS THAN 3'-6" (1067). ALL OTHER FRAME DIMENSIONS SHALL REMAIN THE SAME.
3. COVER: CAST IRON STEEL
MIN. COVER WEIGHT 134LB.(61kg) 134LB.(61kg)
4. ALL DIMENSIONS SUBJECT TO MANUFACTURING TOLERANCES.



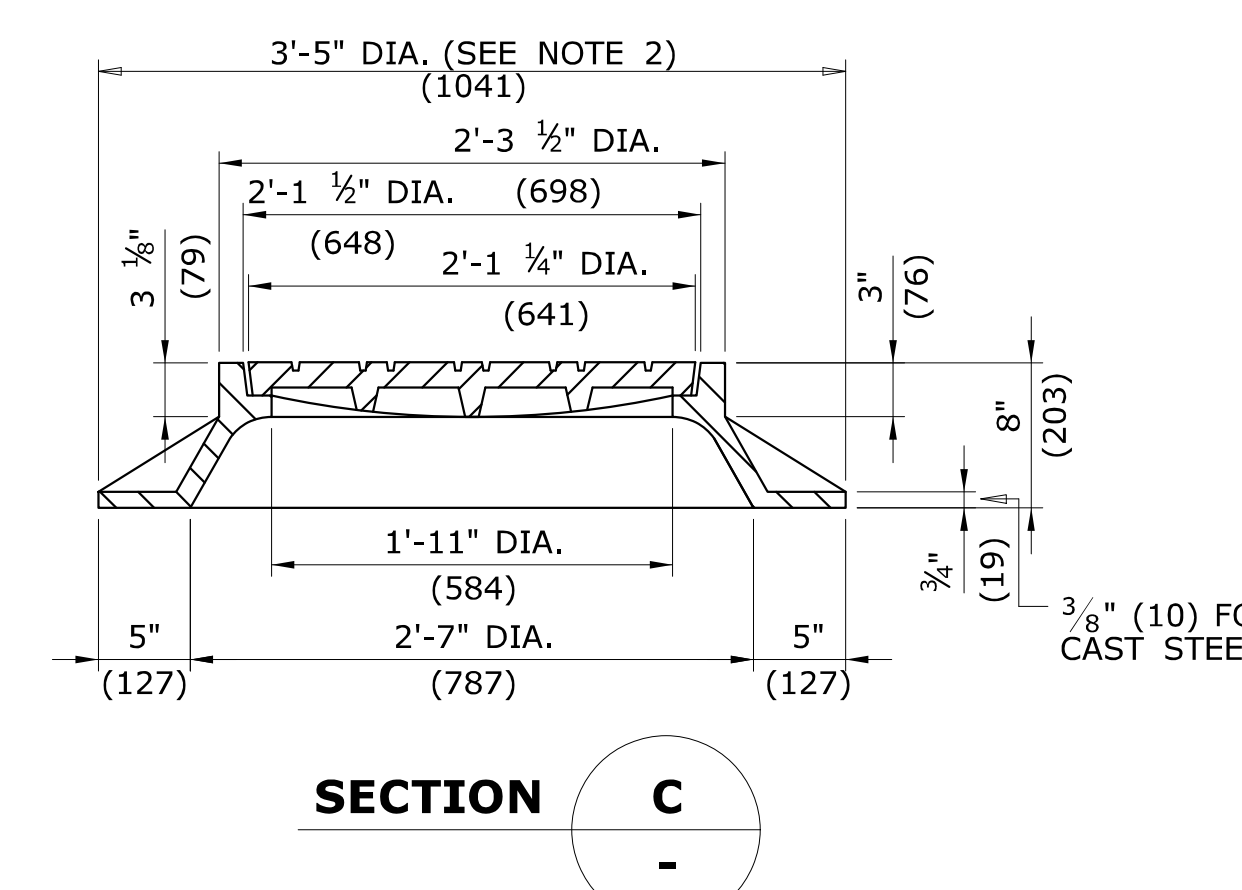
**UNDERSIDE OF COVER
DETAIL**



**NON SKID LUG
DETAIL**

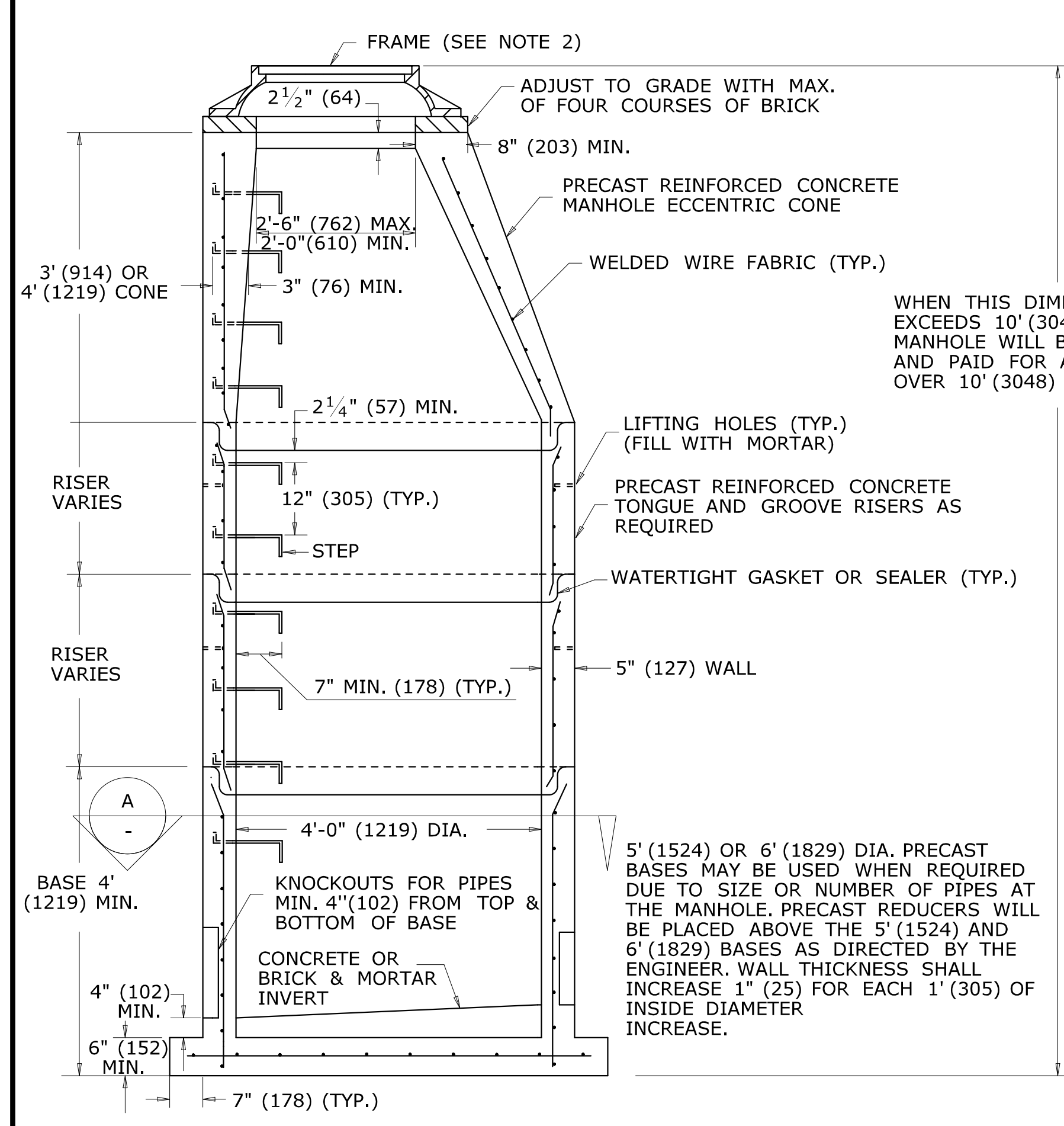


DETAIL OF SEAT



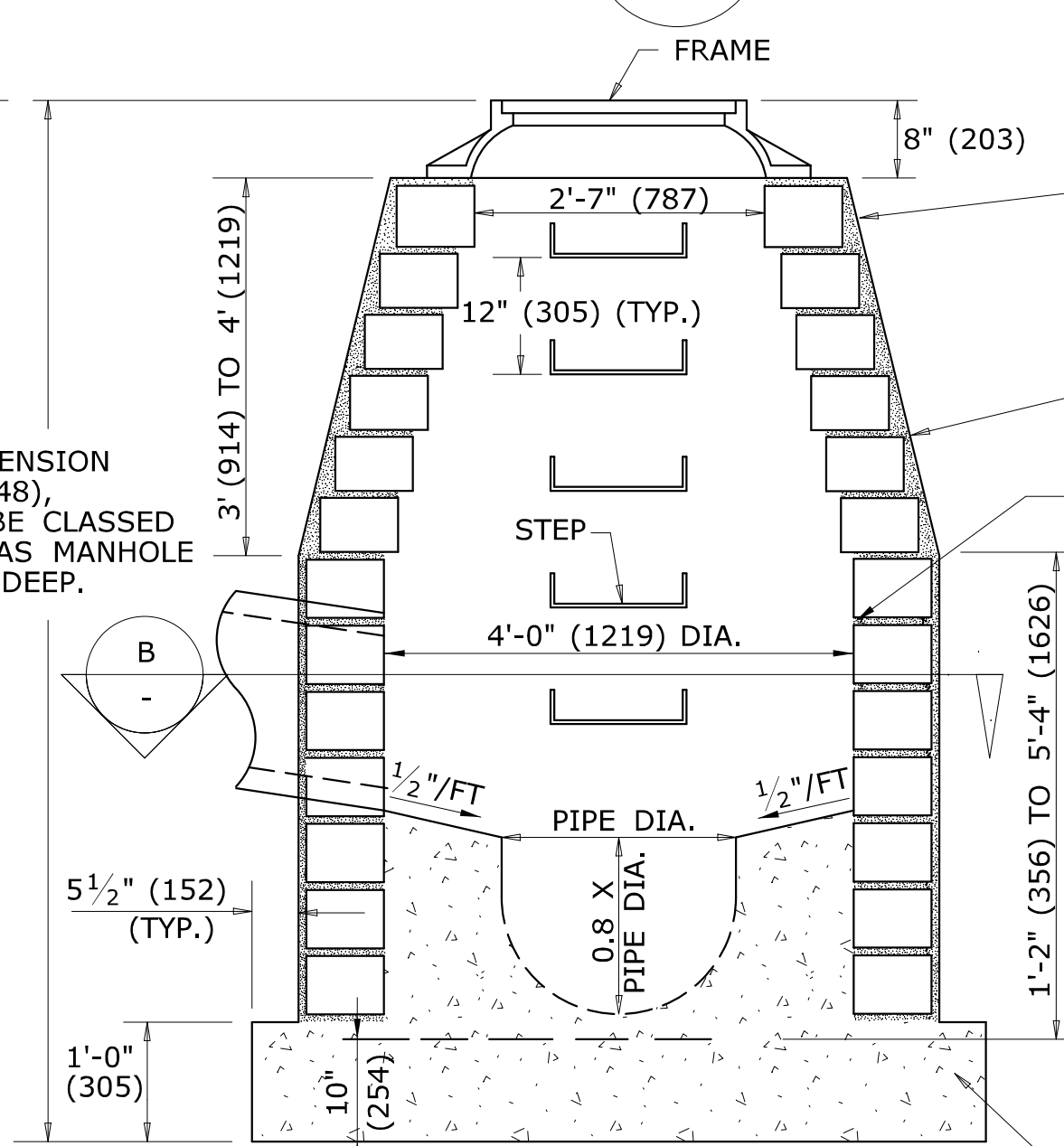
SECTION C

FRAME AND COVER DETAILS



**ELEVATION
MANHOLE**

REINFORCED PRECAST CONCRETE UNIT



**ELEVATION
MANHOLE**

MASONRY CONCRETE UNIT OR CLASS "A" CONCRETE

WALL SHALL BE A MIN. OF 6"(152) WITH MASONRY CONCRETE UNITS, CLASS "A" CONCRETE WALL SHALL BE 12"(300) THICK WHEN DEPTH OF MANHOLE IS GREATER THAN 10'(3048) DEEP.

MASONRY WALLS SHALL BE PLASTERED OUTSIDE WITH 2:1 CEMENT MORTAR 1/2"(13) THICK. MASONRY MUST BE WET WHEN MORTAR IS APPLIED.

ALL JOINTS SHALL BE POINTED FLUSH AND FULL

WALLS SHALL BE BUILT OF MASONRY CONCRETE UNITS OR CLASS "A" CONCRETE AT THE OPTION OF THE CONTRACTOR.

MASONRY CONCRETE UNITS SHALL BE LAID IN CEMENT SAND MORTAR 1:2 MIX, JOINTS SHALL NOT BE OVER 1/2"(13) ON INSIDE FACE

WHEN THIS DIMENSION EXCEEDS 10' (3048), MANHOLE WILL BE CLASSED AND PAID FOR AS MANHOLE OVER 10' (3048) DEEP.

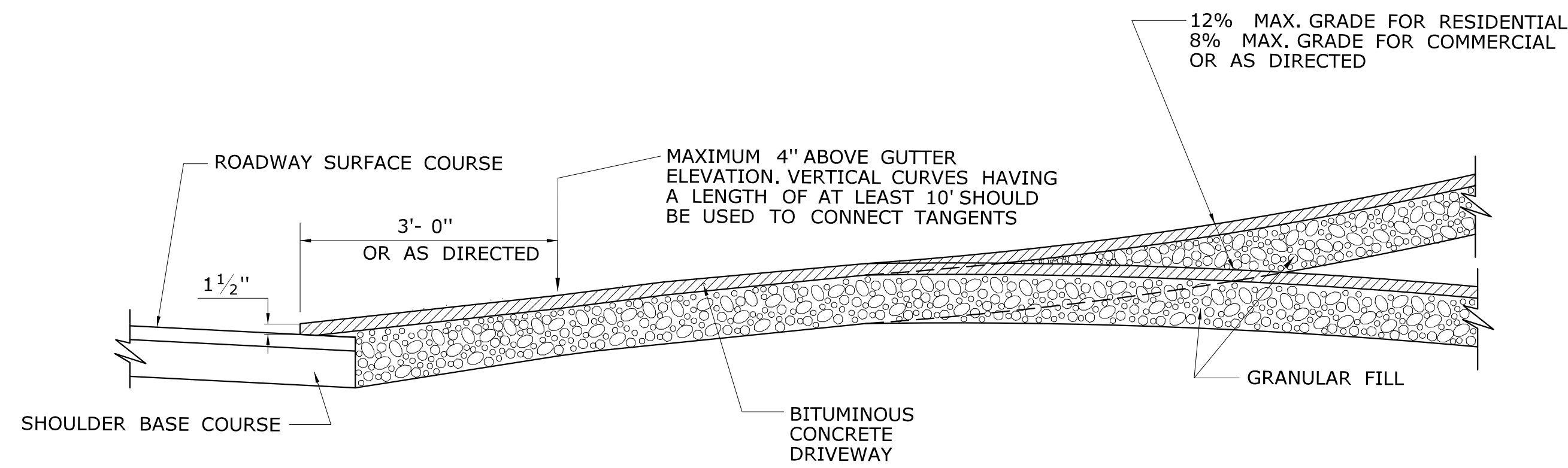
5' (1524) OR 6' (1829) DIA. PRECAST BASES MAY BE USED WHEN REQUIRED DUE TO SIZE OR NUMBER OF PIPES AT THE MANHOLE. PRECAST REDUCERS WILL BE PLACED ABOVE THE 5' (1524) AND 6' (1829) BASES AS DIRECTED BY THE ENGINEER. WALL THICKNESS SHALL INCREASE 1" (25) FOR EACH 1' (305) OF INSIDE DIAMETER INCREASE.

ALL METRIC DIMENSIONS ARE IN MILLIMETERS (mm) UNLESS OTHERWISE NOTED

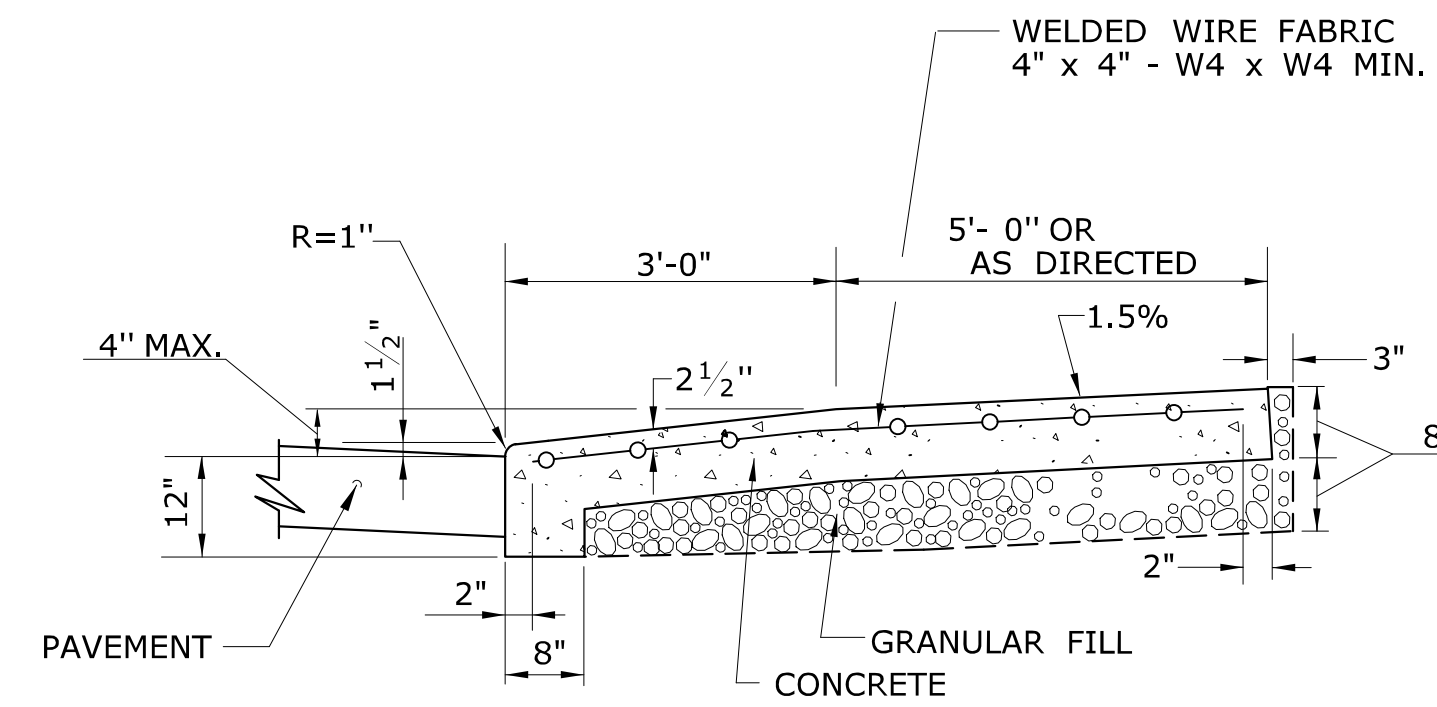
1	6/11	REVISE STEP WIDTH PER OSHA	THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.	NOT TO SCALE	STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION	SUBMITTED BY: NAME/DATE/TIME:	CTDOT STANDARD SHEET OFFICE OF ENGINEERING	STANDARD SHEET TITLE: MANHOLE - FRAME & COVER	STANDARD SHEET NO.: HW-507_10
2	7/13	REVISE COVER FRAME WEIGHT				APPROVED BY: NAME/DATE/TIME:			
-	-	-				James H. Norman 2013.07.24 14:43:21-04'00'			
-	-	-				File name: CTDOT-HIGHWAY-STD2013.dgn Model: 15-HW-507_10			
-	-	-							
REV.	DATE	REVISION DESCRIPTION	Plotted Date: 6/13/2013						

GENERAL NOTES:

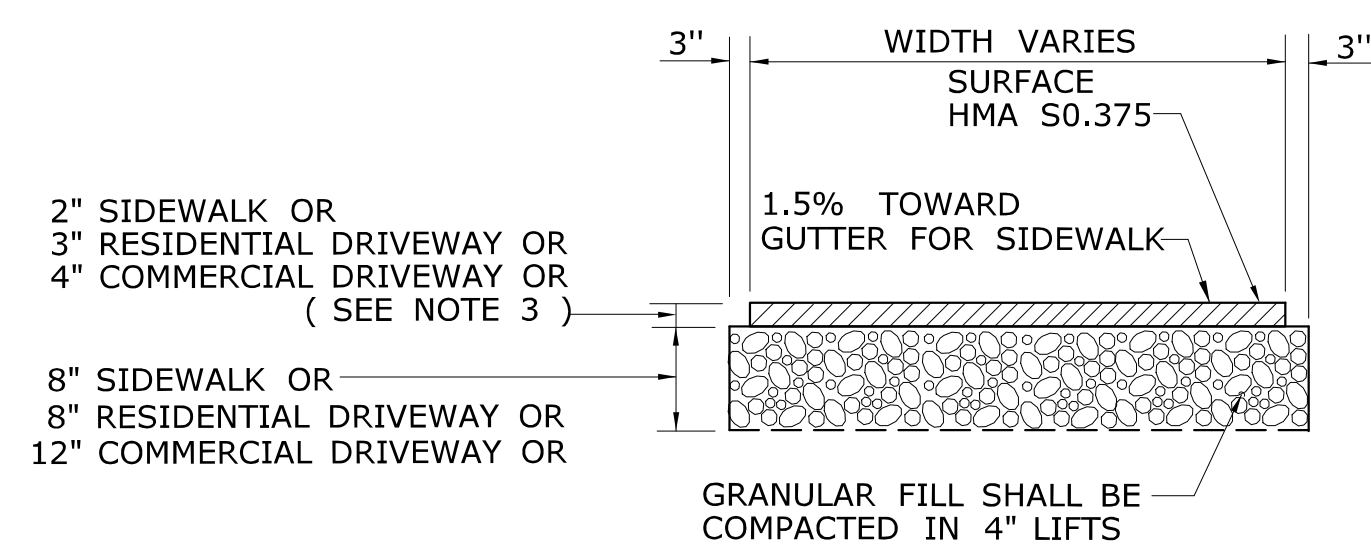
1. DRIVEWAY ENTRANCE SHALL BE A MINIMUM OF 12' WIDE, EXCLUDING CURBING WHEN PRESENT.
2. WELDED WIRE FABRIC MATS WITH REINFORCING AT CLOSER SPACING MAY BE USED.
3. SURFACE HMA S0.375 TO BE PLACED IN TWO EQUAL LIFTS FOR BOTH RESIDENTIAL AND COMMERCIAL DRIVEWAYS.



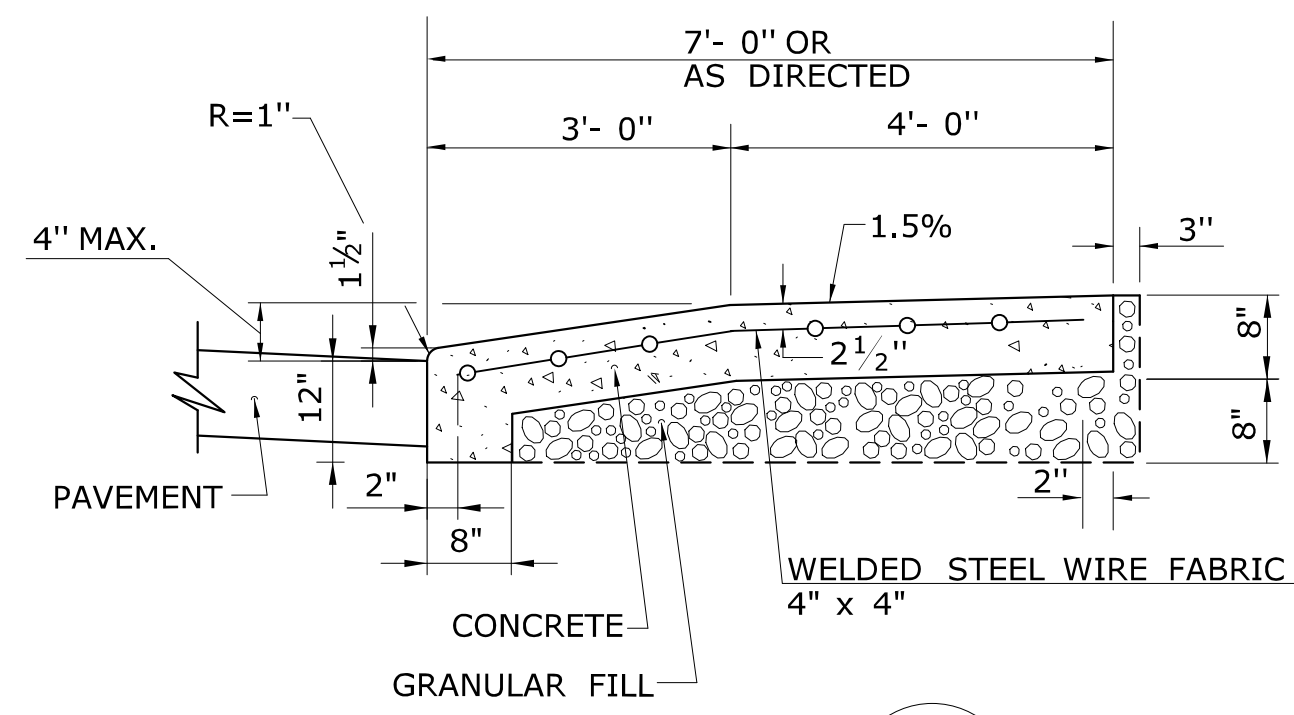
SECTION A



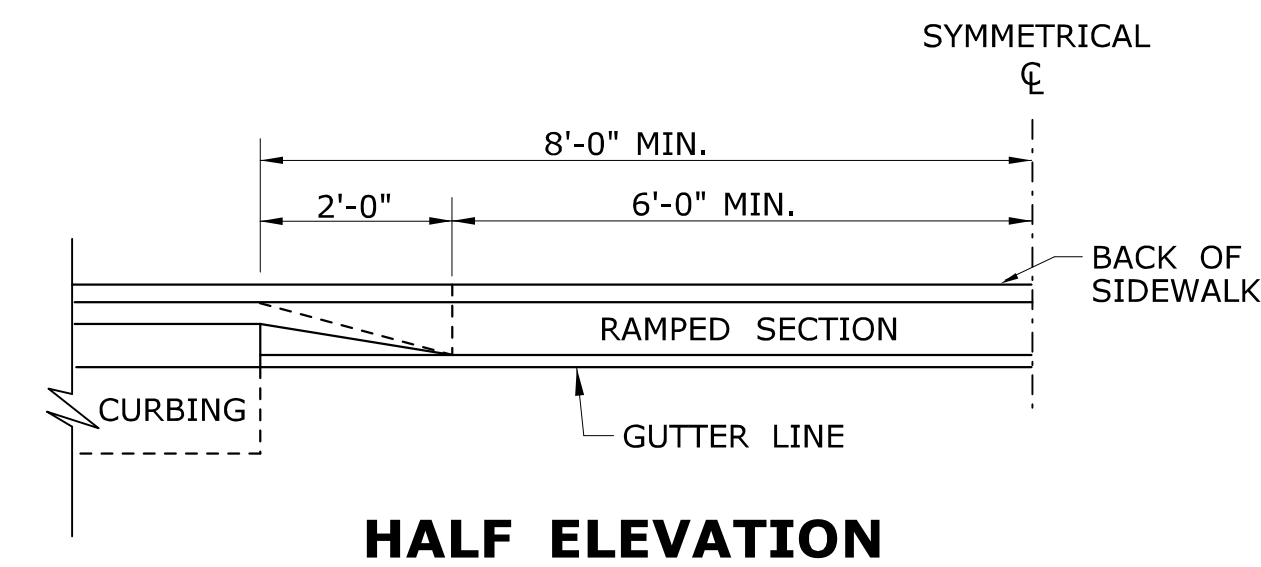
SECTION C



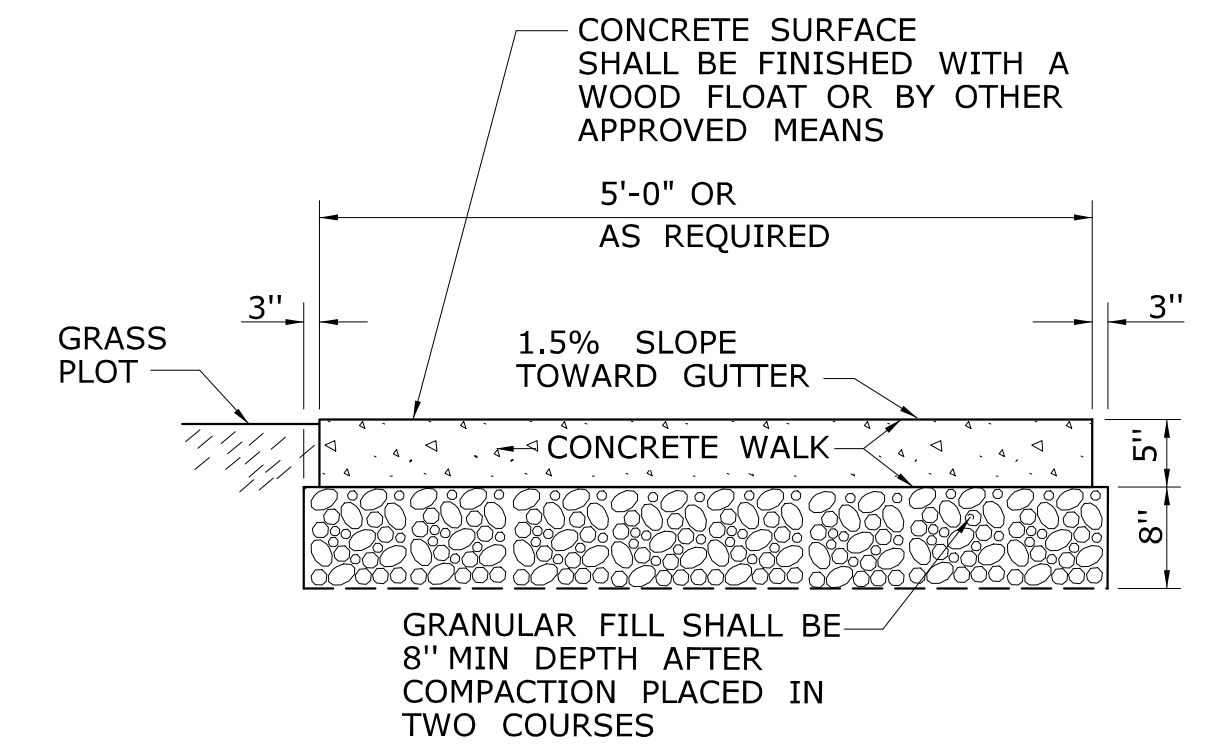
**TYPICAL SECTION
BITUMINOUS CONCRETE
SIDEWALK AND DRIVEWAY**



SECTION B

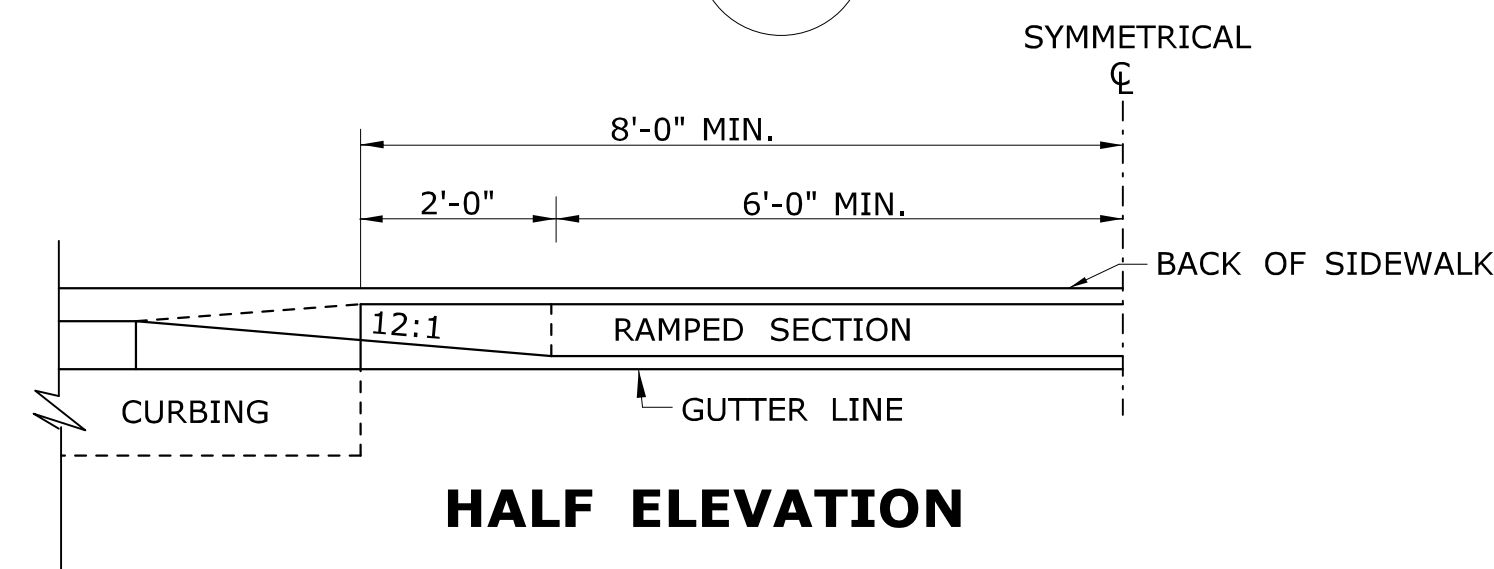


HALF ELEVATION

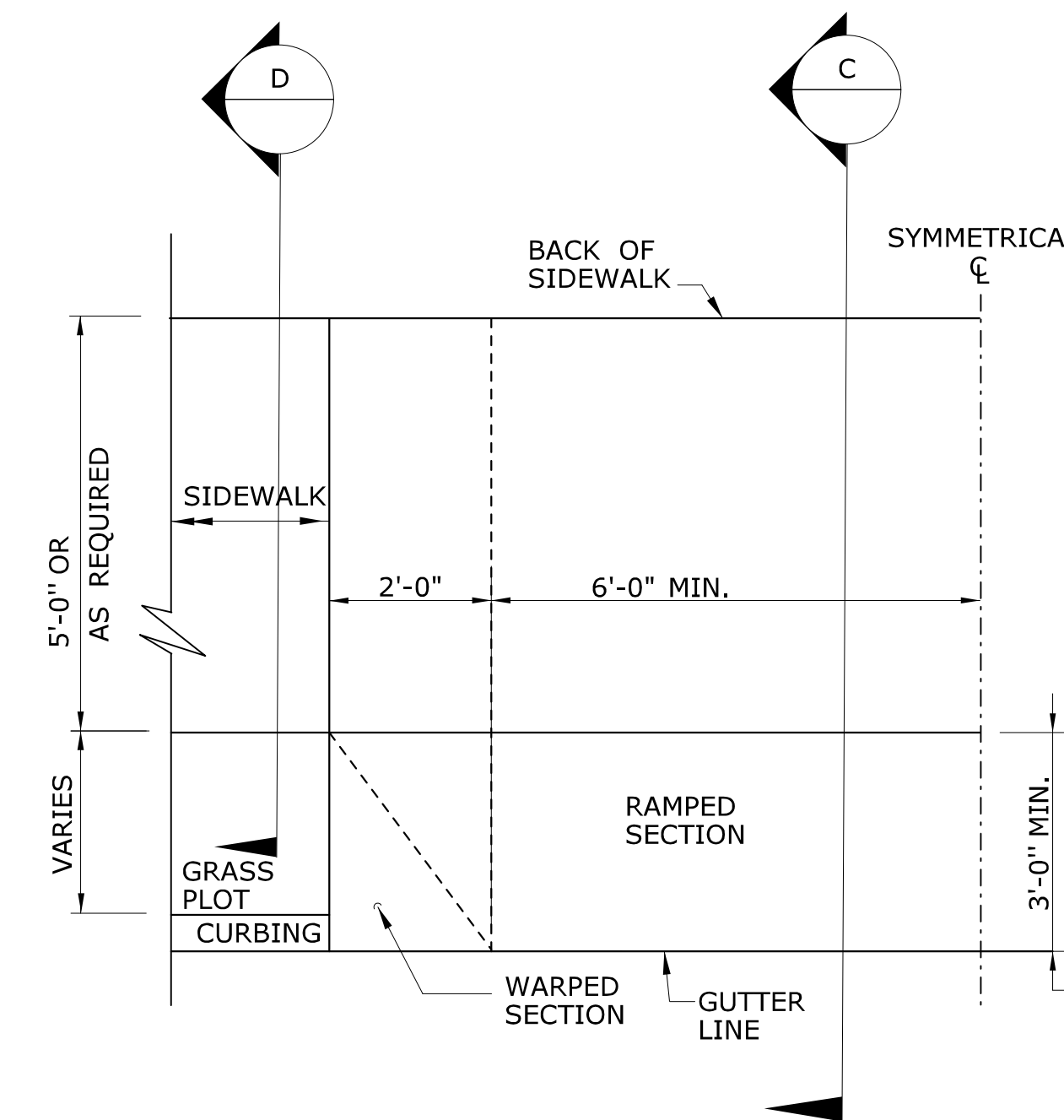


SECTION D

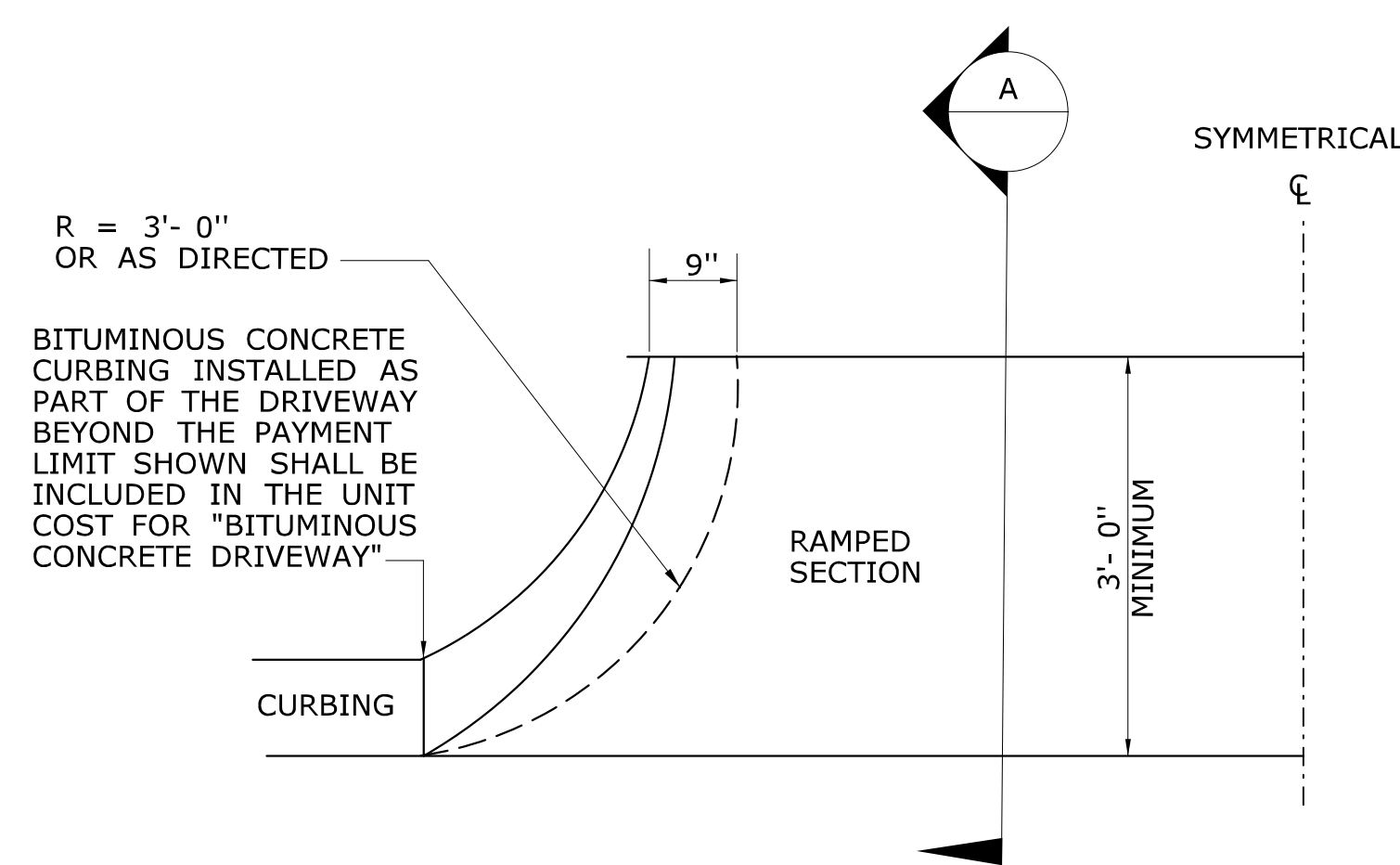
**5' WIDE CONCRETE
SIDEWALK WITH GRASS PLOT**



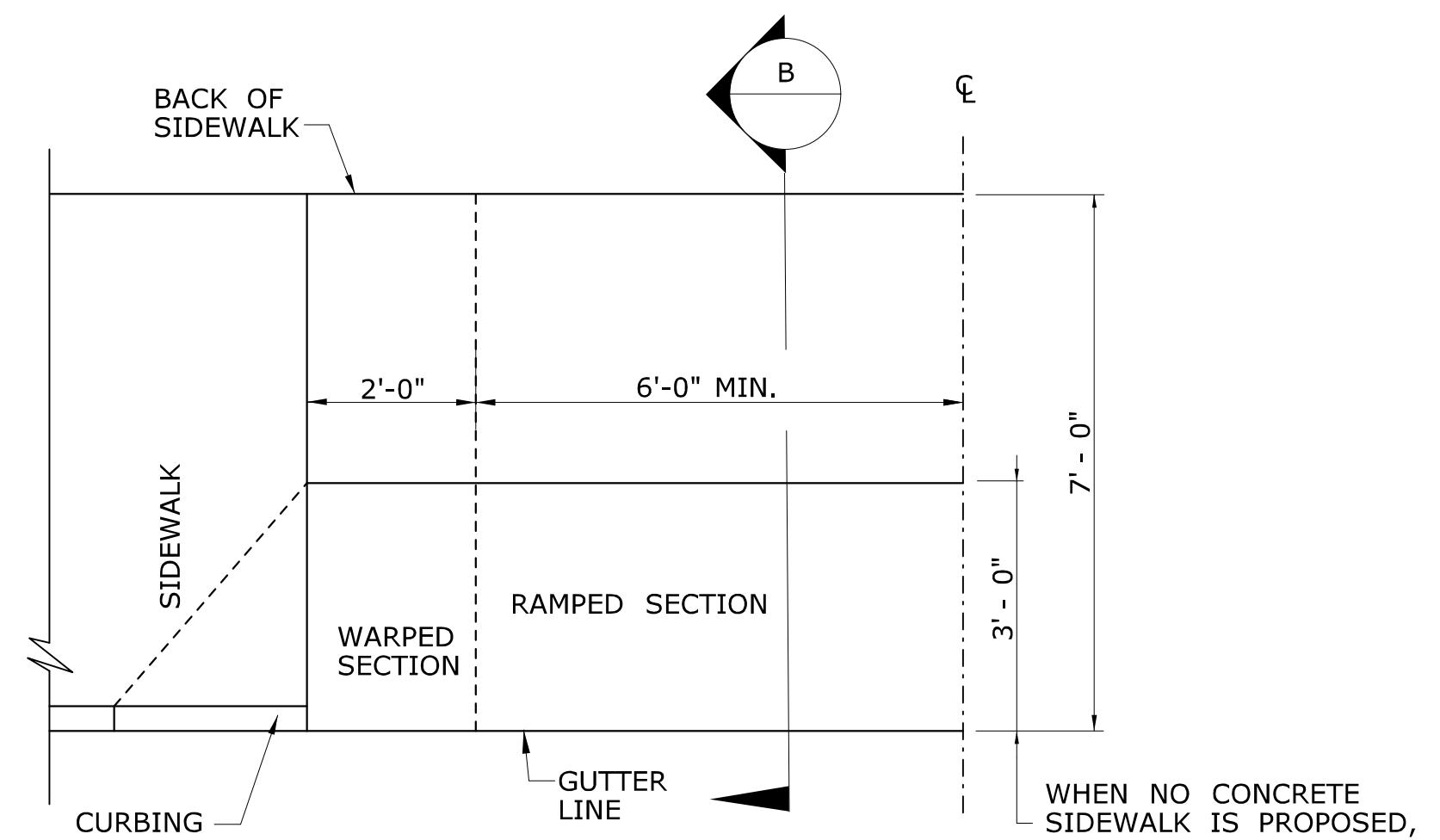
HALF ELEVATION



**HALF PLAN OF
CONCRETE DRIVEWAY RAMP WHERE
CURB IS SEPARATED FROM
SIDEWALK BY GRASS PLOT**



**HALF BITUMINOUS CONCRETE
DRIVEWAY PLAN**



**HALF PLAN OF
CONCRETE DRIVEWAY RAMP WHERE
SIDEWALK ADJOINS CURBING**

1	6/01/10	REVISED BORDER TITLE
2	6/01/10	REVISED HALF ELEVATION DETAILS
3	1/12	REVISE 2% MAX. SLOPE NOTE
4	6/17	REVISED SLOPES & MATERIAL COMPOSITIONS
-	-	INCREASED WALKING WIDTH OF CONCRETE DRIVEWAY RAMP
REV.	DATE	REVISION DESCRIPTION

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Plotted Date: 6/6/2017

NOT TO SCALE



Filename: HW-921_01.dgn Model: CT_Civil_2D_Sheet

SUBMITTED BY:	NAME/DATE/TIME:
<i>Leo Fontaine</i>	Leo Fontaine, P.E. 2017.06.07 07:34:10-04'00'
APPROVED BY:	NAME/DATE/TIME:
<i>Gregory M. Dorosh</i>	Gregory M. Dorosh, P.E. 2017.06.07 10:47:32-04'00'

**CTDOT
STANDARD SHEET
OFFICE OF ENGINEERING**

STANDARD SHEET TITLE:	STANDARD SHEET NO.:
DRIVEWAY RAMPS AND SIDEWALKS	HW-921_01

DOCUMENT ALL LOOP DETECTOR VALUES BOTH CALCULATED AND MEASURED.

DEFINITIONS:

LOOP: #14 AWG WIRE IN SAWCUT, TERMINATED IN HANDHOLE, IMSA SPEC 51-7.
 LEAD-IN: 14/2 SHIELDED TWISTED PAIR CABLE FROM HANDHOLE TO CONTROLLER, IMSA SPEC 50-2.
 LOOP CIRCUIT: LOOP SAWCUT WIRE SPLICED TO 14/2 LEAD-IN CABLE.
 AMPLIFIER: ELECTRONIC DEVICE CONNECTED TO LOOP CIRCUIT. SENSES CHANGE IN RESONANT FREQUENCY AND CREATES AN OUTPUT TO THE CONTROLLER.
 MEGOHMMETER: INSTRUMENT SPECIFICALLY DESIGNED TO TEST THE INSULATION RESISTANCE OF A CIRCUIT. COMMON MANUFACTURERS: AMEC®, AMPROBE®, FLUKE®, MEGGER®.

1: RESISTANCE:

- 1a: INSULATION RESISTANCE: PERFORM A 600 VOLT (MINIMUM) MEGOHMMETER TEST ON LOOP CIRCUIT. THE LOOP AMPLIFIER MUST BE DISCONNECTED FROM THE LOOP CIRCUIT OR THE LOOP AMPLIFIER WILL BE DAMAGED. THE RESISTANCE OF THE LOOP WIRE TO GROUND MUST BE GREATER THAN 100 MEG OHMS.
 - 1b: WIRE RESISTANCE: MEASURE THE DC RESISTANCE OF THE LOOP CIRCUIT. THE LOOP CIRCUIT MUST BE DISCONNECTED FROM THE AMPLIFIER. USING AN OHMMETER CONNECTED ACROSS THE LOOP CIRCUIT, MEASURE THE DC RESISTANCE OF THE CONDUCTORS. THE RESISTANCE SHOULD BE LESS THAN 4 OHMS.
- NOTE: ALL TESTS SHALL BE DONE AT THE CONTROLLER ASSEMBLY (CA), HOWEVER IT IS RECOMMENDED TO PERFORM A PRELIMINARY MEGOHMMETER TEST AT THE HANDHOLE PRIOR TO SEALING THE SAWCUT AND SPLICING TO THE LEAD-IN. IF A DEFECTIVE LOOP WIRE IS FOUND, IT MAY BE EASILY REPLACED.

2: LOOP CIRCUIT INDUCTANCE:

- 2a: CALCULATE INDUCTANCE OF LOOP (L_{Loop}) AND LEAD-IN CABLE (L_{14/2}).

LOOP INDUCTANCE (ENGLISH)	LOOP INDUCTANCE (METRIC)
$L_{Loop} = (P/4) (N^2 + N)$	$L_{Loop} = (3.28P/4) (N^2 + N)$
LEAD-IN INDUCTANCE	LEAD-IN INDUCTANCE
$L_{14/2} = (0.24 \mu\text{H/FT}) (D)$	$L_{14/2} = (0.78 \mu\text{H/m}) (D)$

WHERE:

L_{Loop} = INDUCTANCE OF INDIVIDUAL LOOP SEGMENTS IN MICROHENRIES (μh).
 L_{14/2} = INDUCTANCE OF LEAD-IN CABLE.
 P = PERIMETER OF INDIVIDUAL LOOP SEGMENT, IN FEET OR METERS.
 N = NUMBER OF TURNS.
 D = LENGTH OF LEAD-IN CABLE FROM SPLICE IN HANDHOLE TO CONTROLLER, IN FEET OR METERS.
 $L_T = L_1 + L_2 + L_3$ etc.,
 (TOTAL INDUCTANCE OF SEGMENTED LOOP SPLICED IN SERIES.)
 $L_T = 1 / [(1/L_1) + (1/L_2) + (1/L_3) + \text{etc.}]$,
 (TOTAL INDUCTANCE OF SEGMENTED LOOP SPLICED IN PARALLEL.)

WHERE:

L_T = TOTAL INDUCTANCE OF THE SEGMENTED ARRANGEMENT.
 L₁, L₂, L₃ = INDUCTANCE OF INDIVIDUAL LOOP SEGMENTS.

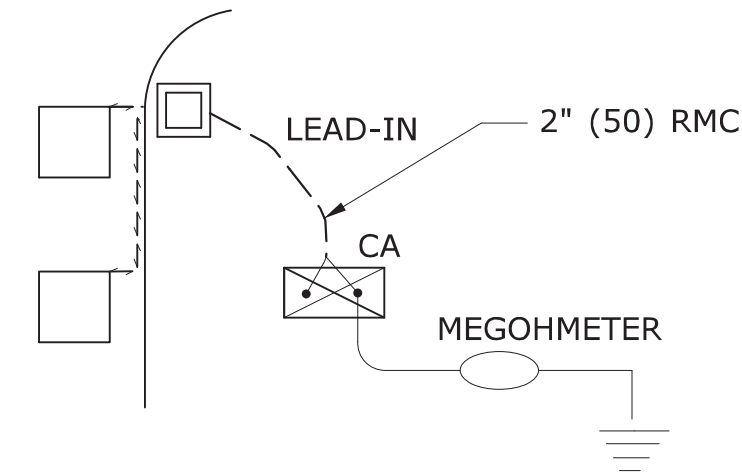
EXAMPLE: (IN ENGLISH)

$L_{Loop} = (24/4) (4^2 + 4)$	$L_{14/2} = (0.24 \mu\text{H/FT}) (300)$
$L_{Loop} = (6) (20)$	$L_{14/2} = (0.24) (300)$
$L_{Loop} = 120 \mu\text{h}$	$L_{14/2} = 72 \mu\text{h}$

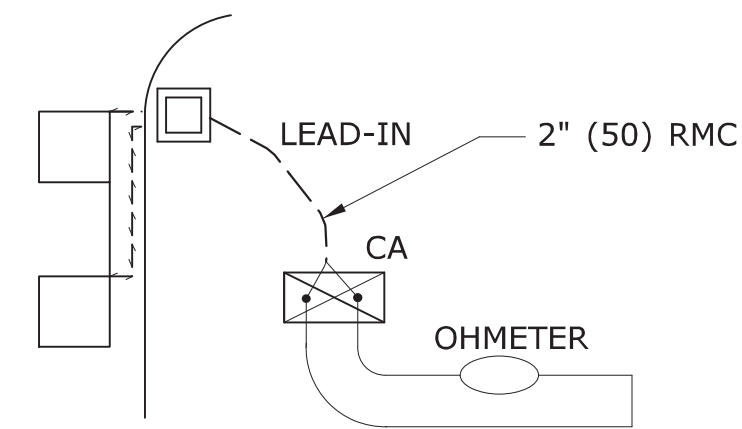
- 2b: MEASURE INDUCTANCE OF LOOP AND LEAD-IN AT CONTROLLER. USE INSTRUMENT DESIGNED TO MEASURE LOOP CIRCUIT INDUCTANCE.

3: POWER INTERRUPTION:

AFTER THE AMPLIFIER HAS TUNED AND IS OPERATING, DISCONNECT POWER BY REMOVING FUSE OR HARNESS CONNECTOR. RETURN POWER TO THE AMPLIFIER AND CONFIRM IT RE-TUNES AUTOMATICALLY WITHOUT ANY MANUAL ADJUSTMENTS.



TEST 1a



TEST 1b

PROJECT: LOCATION:
 TOWN:

LOOP NUMBER	RESISTANCE OHMS		INDUCTANCE MICROHENRIES (μh)		AMPLIFIER POWER INTERRUPTION PASS/FAIL (3)
	TO GROUND (1a)	LOOP WIRE (1b)	CALCULATED (2a)	MEASURED (2b)	
D1 FRONT					
D1 REAR					
D2A					
D2B					
D4A FRONT					
D4B REAR					
D5					
D6A					
D6B					

LOOP CIRCUIT TEST DATA (EXAMPLE)

INDUCTIVE LOOP TEST PROCEDURE

PIN	COLOR	FUNCTION
A	WHITE	110 VAC Neutral
B	BROWN	Output Relay Common (moving contact)
C	BLACK	110 VAC (Fused)
D	RED	Loop
E	ORANGE	Loop
F	YELLOW	Output Relay Contact (Closes with moving contact when detecting vehicle)
G	BLUE	Output Relay Contact (Opens with moving contact when detecting vehicle)
H	GREEN	Chassis Ground
J	GREY	110 VAC Delay/Extend Override
Shell		Ground (shall be connected to pin H in the connector)

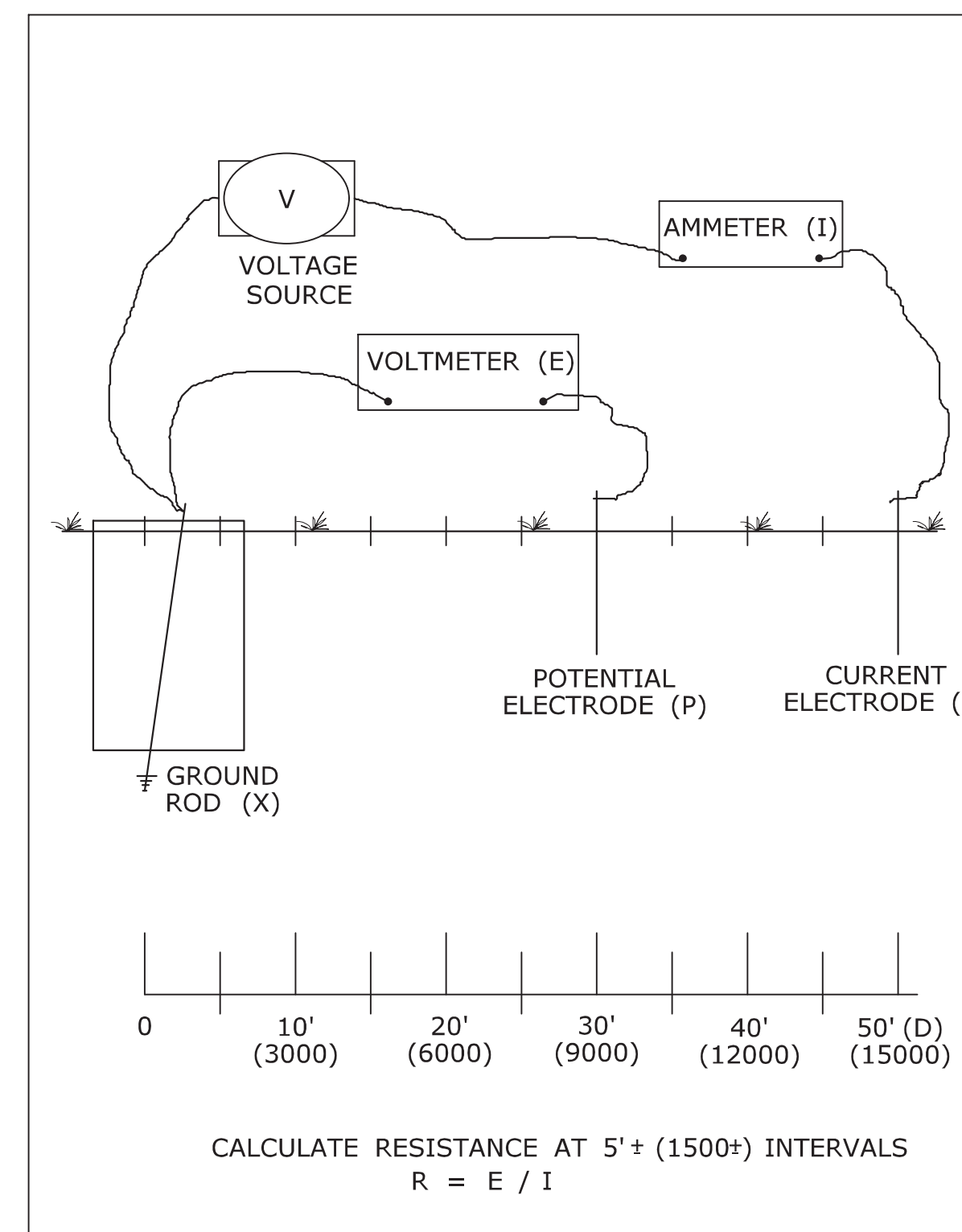
DETECTOR AMPLIFIER PIN DESIGNATION

TEST PROCEDURE:

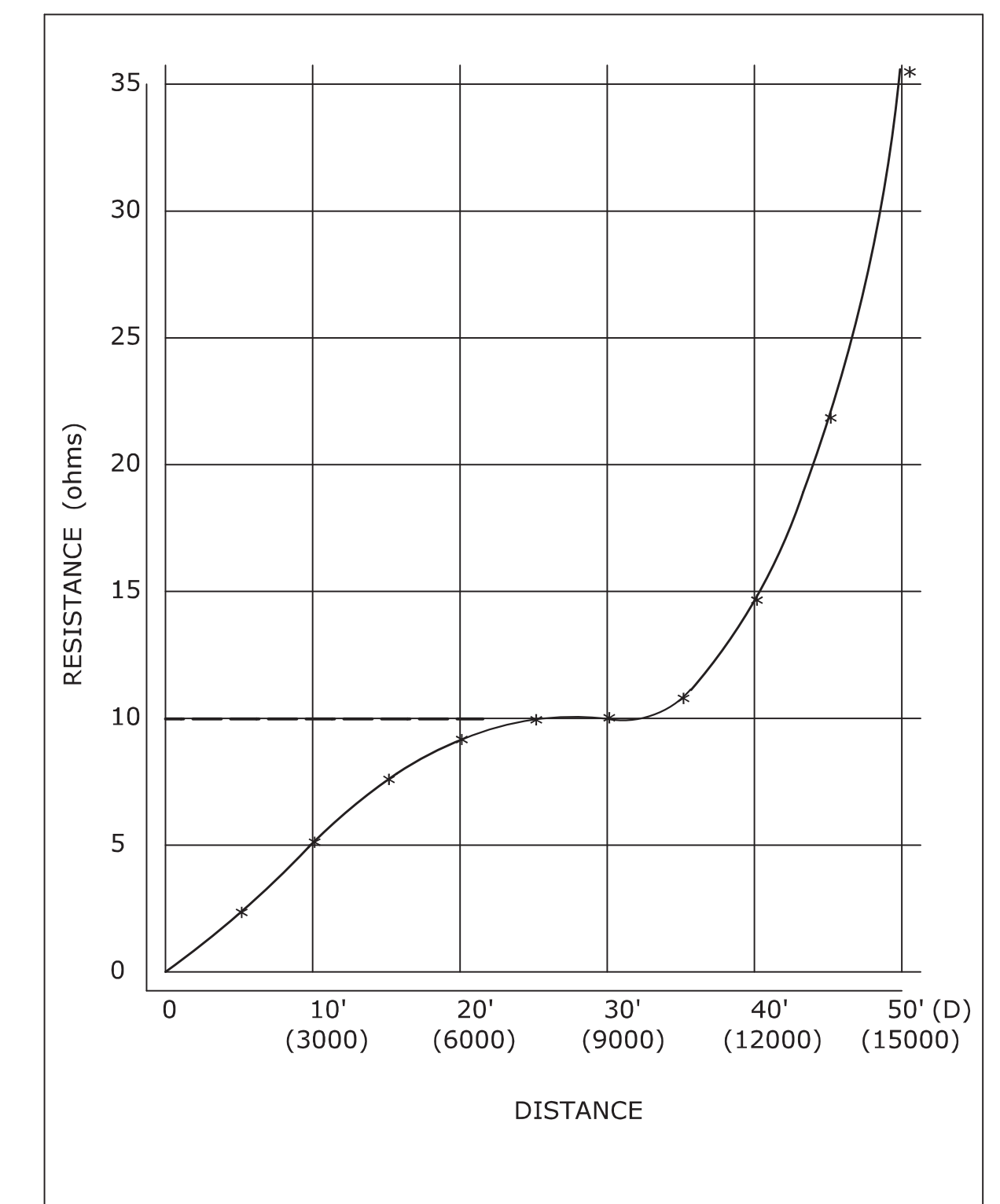
- INSERT ELECTRODE (C) A DISTANCE (D) FROM THE FOUNDATION. RECOMMEND A MINIMUM 50'.
- CONNECT A VOLTAGE SOURCE AND AMMETER BETWEEN THE FOUNDATION GROUND ROD (X) AND C.
- MEASURE THE CURRENT FLOW (I) BETWEEN X AND C.
- INSERT POTENTIAL ELECTRODE (P) AT 5' (1500) INTERVALS IN A STRAIGHT LINE TO ELECTRODE C.
- MEASURE VOLTAGE (E) AT EACH LOCATION OF P.
- CALCULATE RESISTANCE (R) AT EACH LOCATION OF P USING THE FORMULA R=E/I.
- PLOT THE VALUES ON A RxD GROUND RESISTANCE CHART.
- THE ACTUAL GROUND RESISTANCE IS WHERE THE PLOTTED CURVE IS RELATIVELY FLAT, USUALLY AT 62%± OF D.
- SEE EXAMPLE CHART: CURVE FLATTENS OUT AT 10 OHMS, APPROXIMATELY 30' (9000) FROM FOUNDATION.
- IF GROUND RESISTANCE IS GREATER THAN 10 OHMS, PERFORM CORRECTIVE ACTION AND RE-TEST.

SUGGESTED CORRECTIVE ACTION:

- A. INSTALL ADDITIONAL 10' (3000) GROUND ROD(S). REFER TO NESC SECTION 09, RULE 94.B.2. DRIVE ADDITIONAL GROUND RODS NO CLOSER TO FOUNDATION THAN 6' (1800). IF MORE THAN ONE IS NEEDED, SPACE MINIMUM 6' (1800) APART. BONDS TO ADDITIONAL GROUND ROD(S) SHALL BE MADE BY A CLAMP DESIGN FOR DIRECT BURIAL OR BY EXOTHERMIC WELDING TECHNIQUE. TOP OF ADDITIONAL GROUND ROD(S) SHALL BE 6" (150) BELOW GRADE.
- B. IN AREAS OF SHALLOW BEDROCK, INSTALL A GROUND GRID OR ARRAY CONSISTING OF BURIED WIRE, RODS, STRIPS OR PLATES. REFER TO NESC SECTION 09, RULE 94.B.3. REFER TO NEC SECTION 250. MINIMUM DEPTH OF 18" (450). GRID CONNECTIONS AND BONDS ON GROUND GRID SHALL BE MADE BY CLAMPS DESIGNED FOR DIRECT BURIAL OR BY EXOTHERMIC WELDING TECHNIQUE.



3 POINT GROUND RESISTANCE TEST CIRCUIT



GROUND RESISTANCE CHART (EXAMPLE)

NOTES:

1. WHEN REQUESTED BY THE ENGINEER, MEASURE RESISTANCE-TO-GROUND OF GROUND ROD AT TRAFFIC CONTROL FOUNDATIONS. SEE FALL-OF-POTENTIAL METHOD. IF LESS THAN 10 ohms, INSTALL SUPPLEMENTAL ELECTRODES AS REQUIRED. NEC ARTICLE 250.
2. DURING THE TEST, THE GROUND ROD SHOULD NOT BE BONDED TO ANY RMC IN THE FOUNDATION.
3. THE VOLTAGE SOURCE, VOLTMETER, AMMETER, ELECTRODES P AND C, AND CONNECTING CABLES ARE AVAILABLE AS A SPECIALIZED TEST INSTRUMENT.
4. REFER TO NATIONAL ELECTRICAL SAFETY CODE (NESC) SECTION 09, GROUNDING METHODS FOR ELECTRIC SUPPLY AND COMMUNICATIONS FACILITIES.
5. REFER TO NATIONAL ELECTRICAL CODE (NEC) CHAPTER 2, ARTICLE 250, GROUNDING.

3 POINT FALL-OF-POTENTIAL GROUND RESISTANCE TEST

LEGEND AS SHOWN ON TRAFFIC CONTROL SIGNAL PLAN:
 □ INDUCTIVE LOOP DETECTOR
 --- SAW CUT
 — RIGID METAL CONDUIT
 □ HANDHOLE

REV.	DATE	REVISION DESCRIPTION
2	1-2014	REVISED GROUND RESISTANCE NOTES.
1	4-2012	MINOR REVISIONS.

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Plotted Date: 1/7/2014

DIMENSIONS ARE IN ENGLISH ("') & METRIC UNITS (mm).
 METRIC DIMENSIONS ARE ROUNDED:
 - OVER 1" TO NEAREST 5 mm
 - UNDER 1" TO NEAREST 1 mm.

NOT TO SCALE

STATE OF CONNECTICUT
 DEPARTMENT OF TRANSPORTATION

Filename: CTDOT_TRAFFIC_STD.DGN Model: TR-1000_01

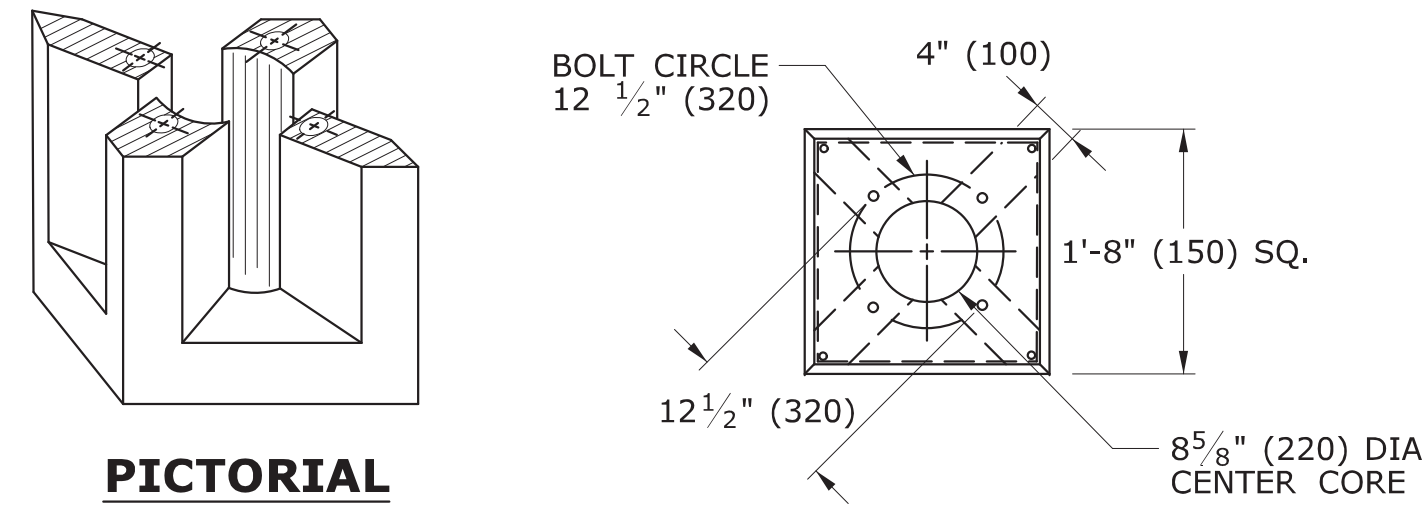
SUBMITTED BY: NAME/DATE/TIME:
 Tracy L. Fogarty Tracy L. Fogarty 2014.01.07 16:11:26-05'00'

APPROVED BY: NAME/DATE/TIME:
 Charles S. Harlow Charles S. Harlow 2014.01.08 09:02:11-05'00'

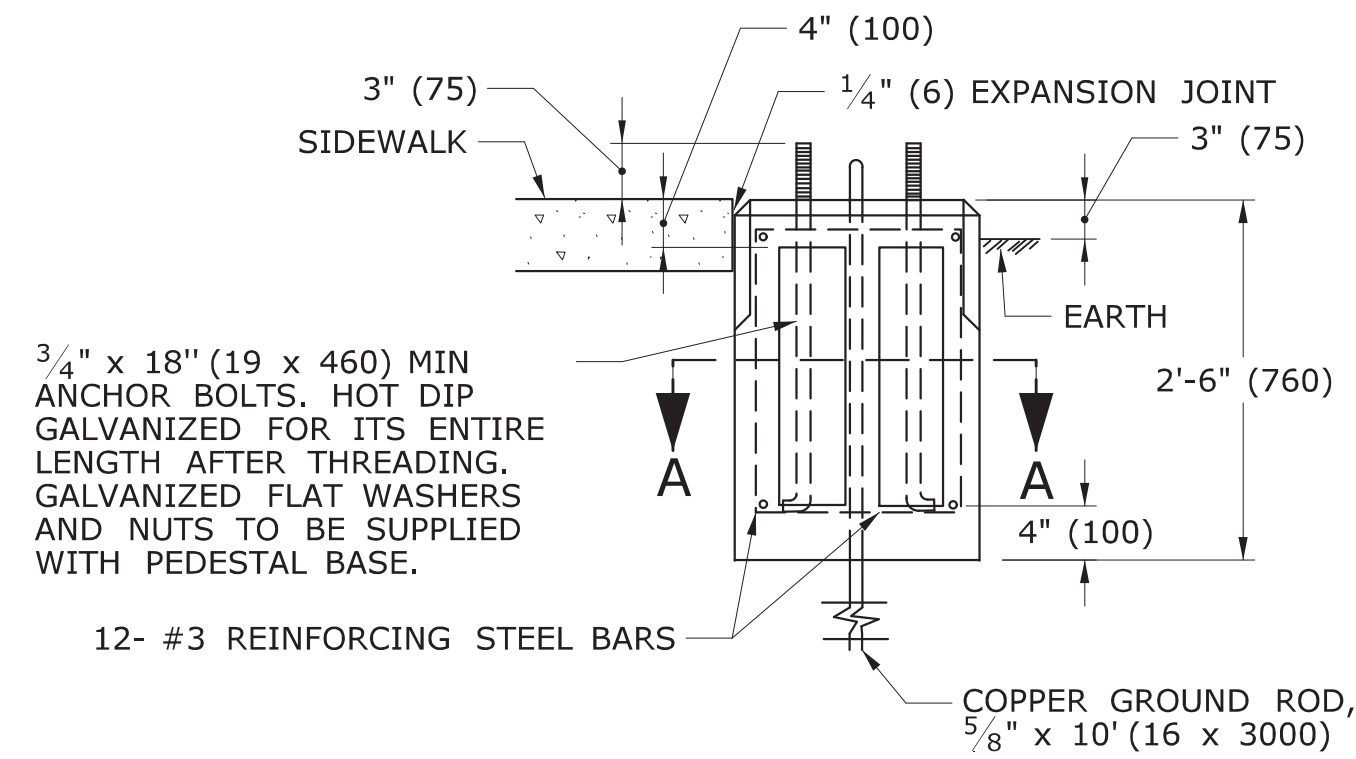
CTDOT
 STANDARD SHEET
 OFFICE OF ENGINEERING

STANDARD SHEET TITLE:
GENERAL CLAUSES (TEST PROCEDURES)

STANDARD SHEET NO.:
TR-1000_01



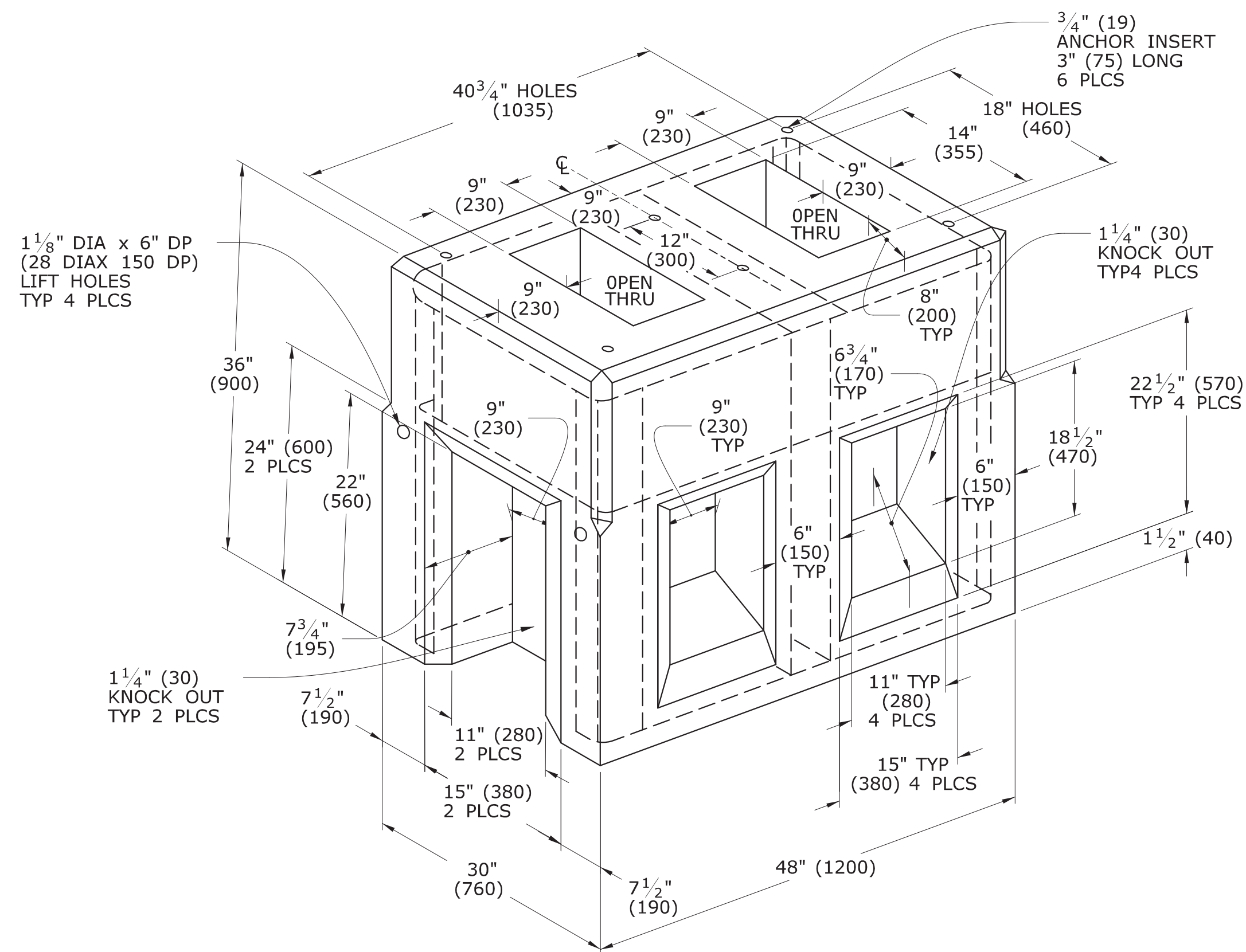
PICTORIAL SECTION A-A



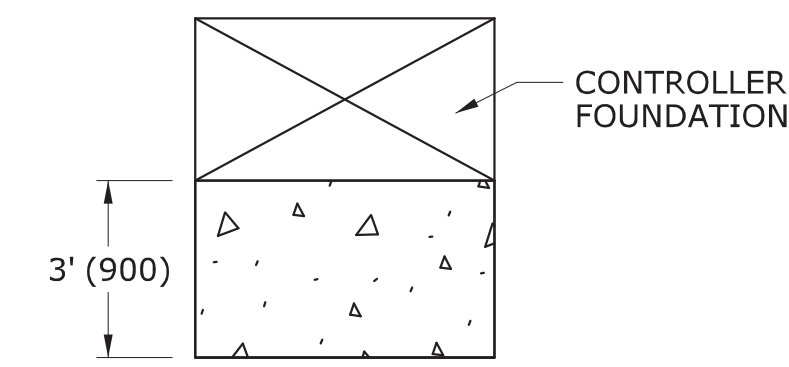
TRAFFIC CONTROL FOUNDATION PEDESTAL - TYPE I - PRECAST

NOTES:

PLACE NO. 6 CRUSHED STONE IN CENTER OPENING AFTER CONDUITS AND GROUND ROD HAVE BEEN INSTALLED.

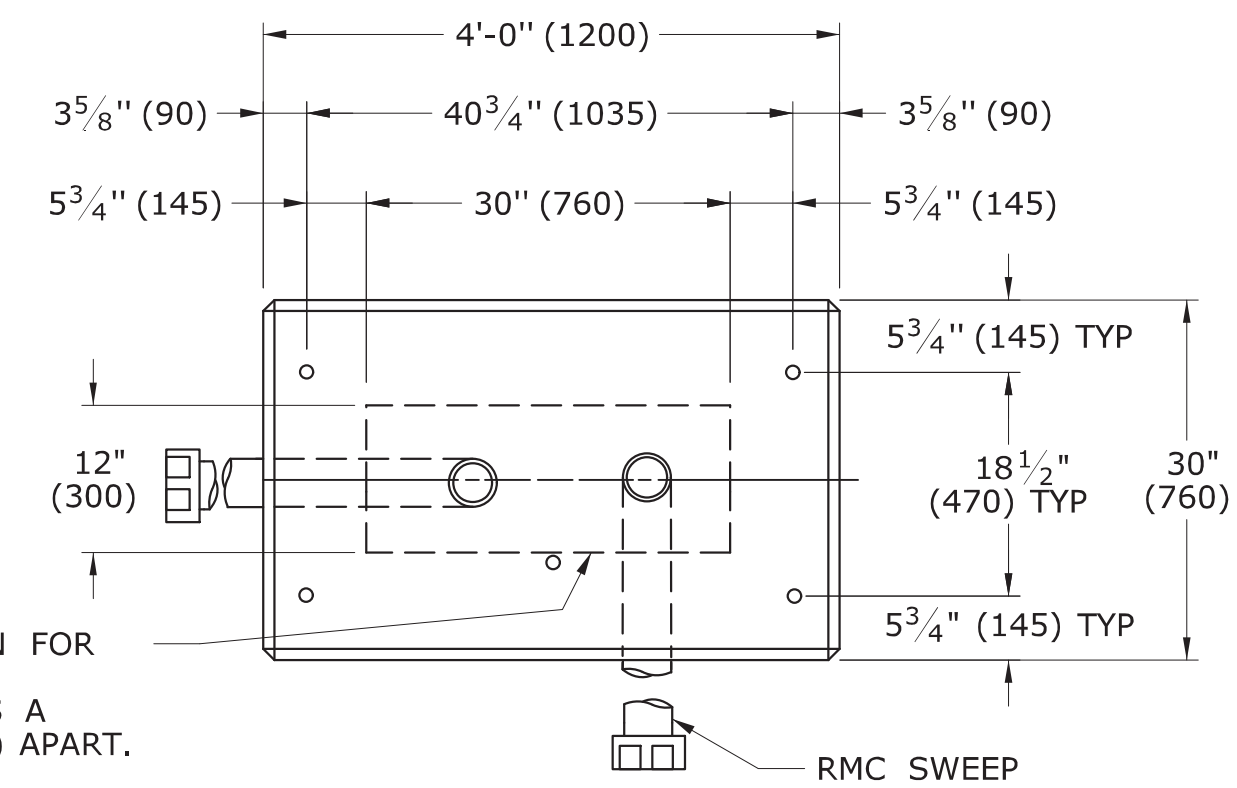


TRAFFIC CONTROL FOUNDATION CONTROLLER - TYPE IV - PRECAST

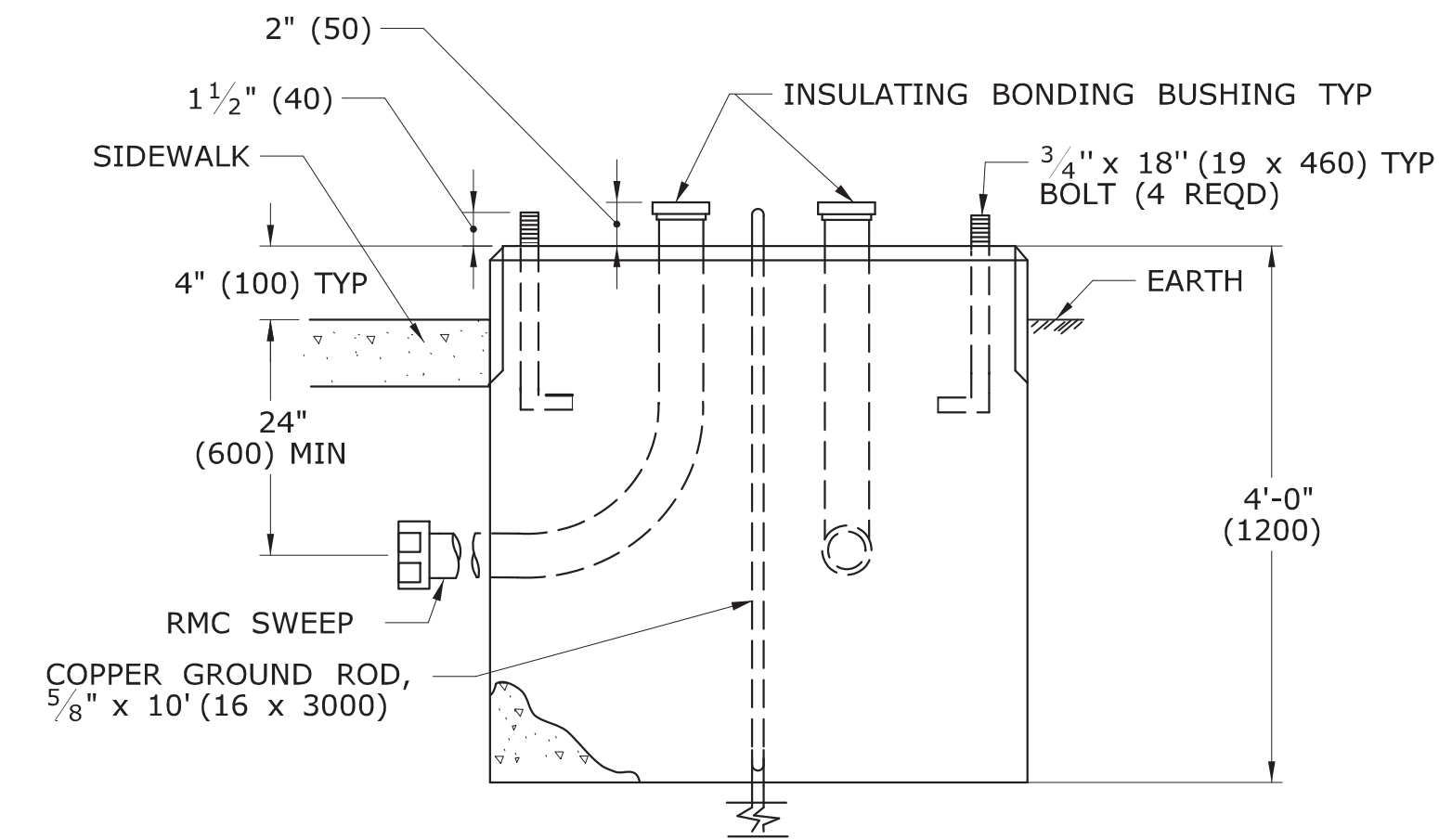


INSTALL PRECAST OR CAST IN PLACE CONCRETE SIDEWALK ON CABINET DOOR SIDE OF CONTROLLER FOUNDATION.
PITCH SIDEWALK 1/4" PER FOOT (20 PER METER) AWAY FROM THE CONTROLLER FOUNDATION.
REFER TO HIGHWAY STANDARD SHEET HW-921.01 FOR SIDEWALK CONSTRUCTION.

TYPICAL CONCRETE SIDEWALK AT CONTROLLER FOUNDATION



AREA OF LIMITATION FOR CONDUIT SWEEPS. SEPARATE CONDUITS A MINIMUM OF 2" (50) APART.



TRAFFIC CONTROL FOUNDATION CONTROLLER - TYPE IV - CAST IN PLACE

NOTES:

INSTALL FOUNDATION ON 6" (150) OF COMPACTED GRAVEL IN ACCORDANCE WITH SECTION 2.14. LEVEL FOUNDATION WITH A PROJECTION OF 4" (100) ABOVE FINISHED GRADE.
INSTALL COPPER GROUND ROD: 5/8" x 10' (16 x 3000).
PLACE NO. 6 CRUSHED STONE IN THE CENTER OPENINGS AFTER THE CONDUITS AND GROUND ROD HAVE BEEN INSTALLED. THE OPENINGS SHALL BE CAPPED WITH A 2" (50) GROUT LEVEL WITH THE TOP OF THE FOUNDATION AND NEATLY FINISHED. THE GROUT SHALL CONFORM WITH THE REQUIREMENTS OF ARTICLE M.3.01-12.
CONCRETE: CLASS "A" CONFORMING TO ARTICLE M.03.01.
#4 REBAR 2" (50) MIN COVER AROUND ALL OPENINGS, 3-#4 REBARS IN EACH CORNER. CONDUITS SHALL NOT PROJECT MORE THAN 2" (50) ABOVE FOUNDATION.

LEGEND AS SHOWN ON TRAFFIC CONTROL SIGNAL PLAN:	
	PROPOSED CONTROLLER
	EXISTING CONTROLLER
	PROPOSED STEEL SPAN POLE
	EXISTING STEEL SPAN POLE

REV.	DATE	REVISION DESCRIPTION
2	1-2014	REMOVED SPAN POLE FOUNDATION DETAILS, REVISED TYPICAL CONCRETE SIDEWALK AT CONTROLLER FOUNDATION.
1	4-2012	MINOR REVISIONS.

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Plotted Date: 1/7/2014

DIMENSIONS ARE IN ENGLISH ("') & METRIC UNITS (mm).
METRIC DIMENSIONS ARE ROUNDED:
- OVER 1" TO NEAREST 5 mm
- UNDER 1" TO NEAREST 1 mm.

NOT TO SCALE

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

FILENAME: CTDOT_TRAFFIC_STD.DGN Model: TR-1002_01

SUBMITTED BY: Tracy L. Fogarty
NAME/DATE/TIME: Tracy L. Fogarty 2014.01.07 16:12:06-05'00'

APPROVED BY: Charles S. Harlow
NAME/DATE/TIME: Charles S. Harlow 2014.01.08 09:02:54-05'00'

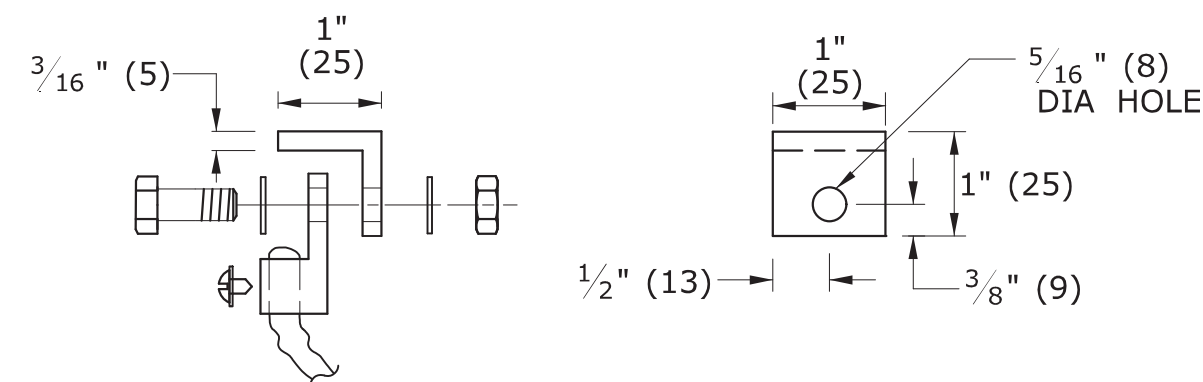
CTDOT
STANDARD SHEET
OFFICE OF ENGINEERING

STANDARD SHEET TITLE:
TRAFFIC CONTROL FOUNDATIONS

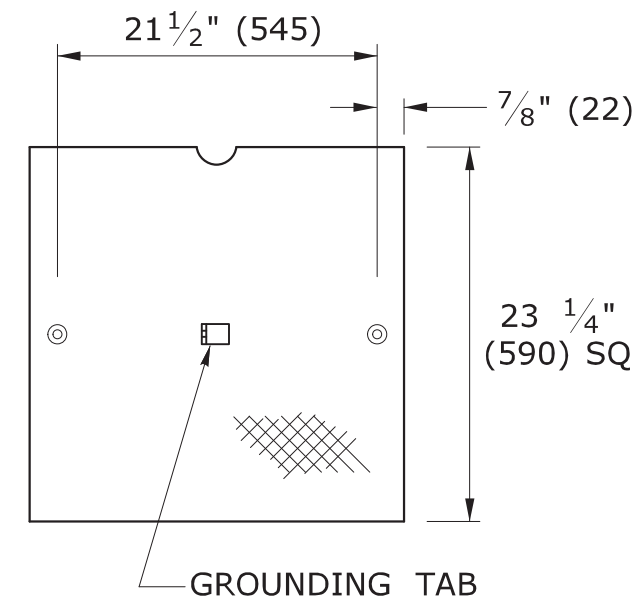
STANDARD SHEET NO.:
TR-1002_01

COVER NOTES:

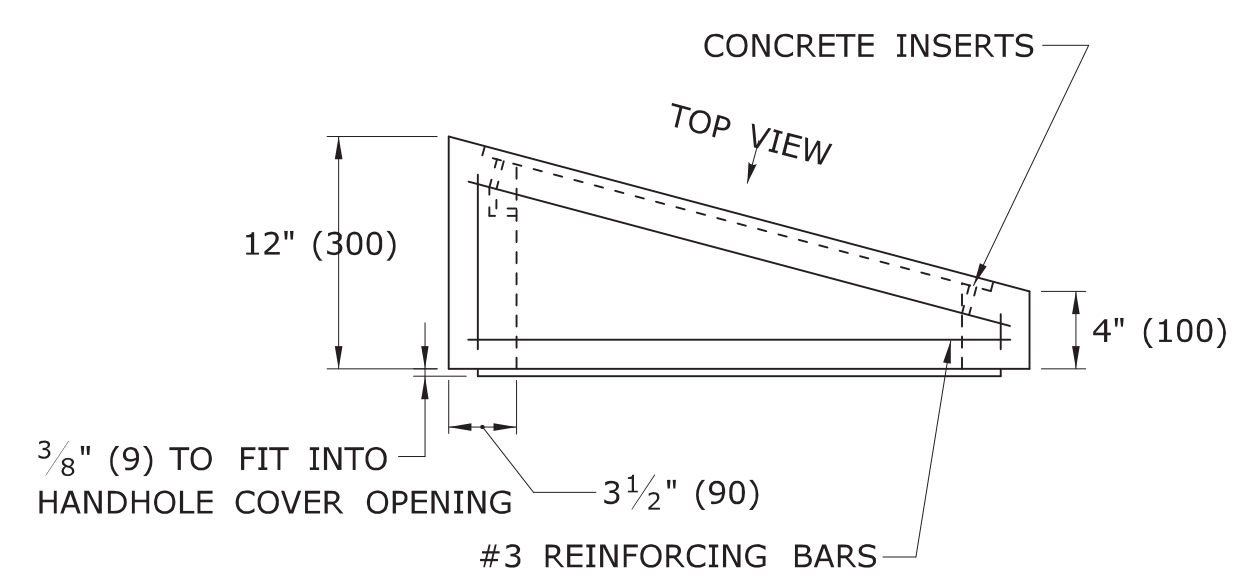
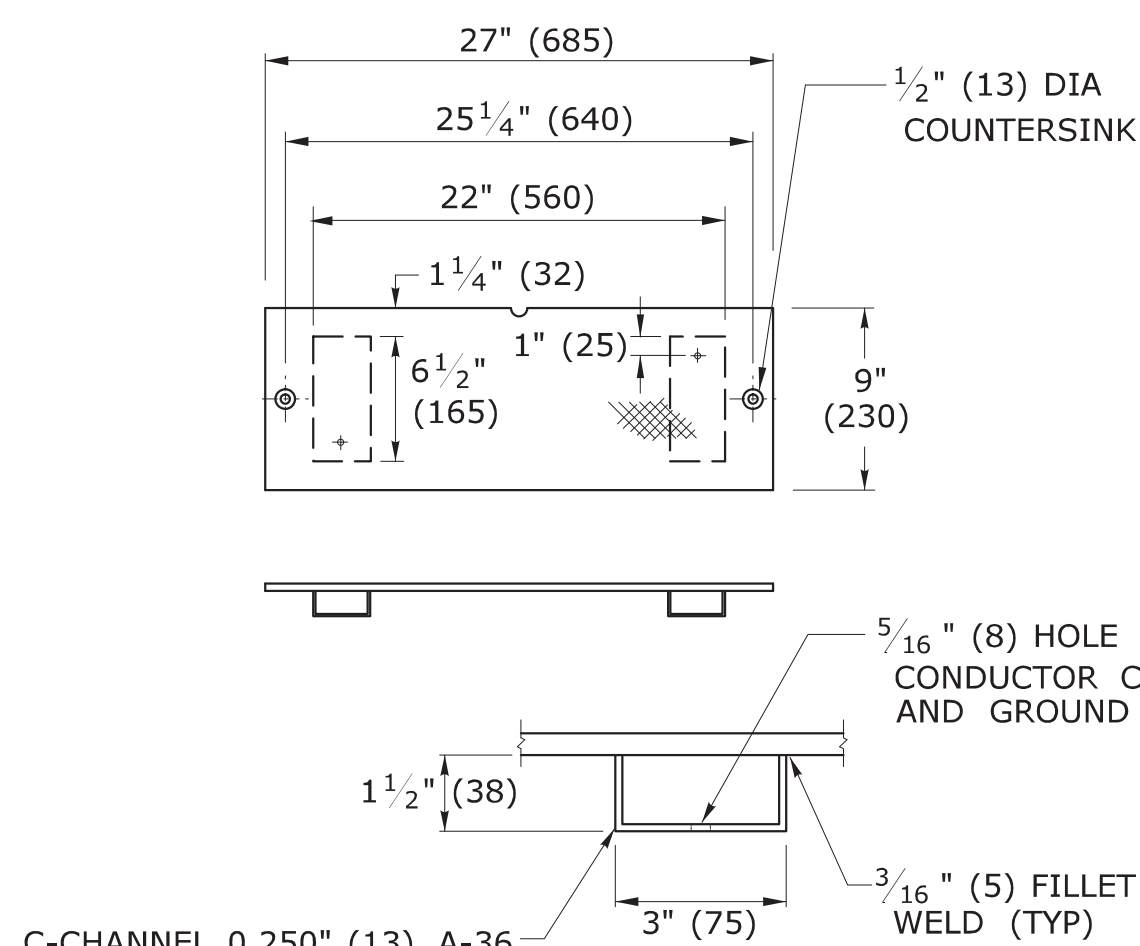
1. GROUNDING TAB WELDED TO BOTTOM CENTER OF COVER WITH 3/16" (5) WELD (3 SIDES).
2. ATTACH 6' (2 m) LENGTH OF NO. 8 GROUND WIRE TO GROUNDING TAB WITH CONDUCTOR CONNECTOR, 1/4" - 20 X 3/4" (M6 X 20) LG SST HEX HEAD BOLT, AND SST FLAT WASHER. ATTACH FREE END OF GROUND WIRE TO CONDUIT BONDING BUSHING IN HANDHOLE.
3. CONDUCTOR CONNECTOR: COPPER ALLOY BODY, BRASS SCREW, BRASS OR COPPER ALLOY PRESSURE PLATE.
4. COVER SCREW INSERT: 3/8"-16 (9-16), 1 1/2"L (37L), STAINLESS STEEL.
5. COVER SCREW: 3/8"-16 (9-16), 1"L (25L), FLAT HEAD, SLOTTED, STAINLESS STEEL.



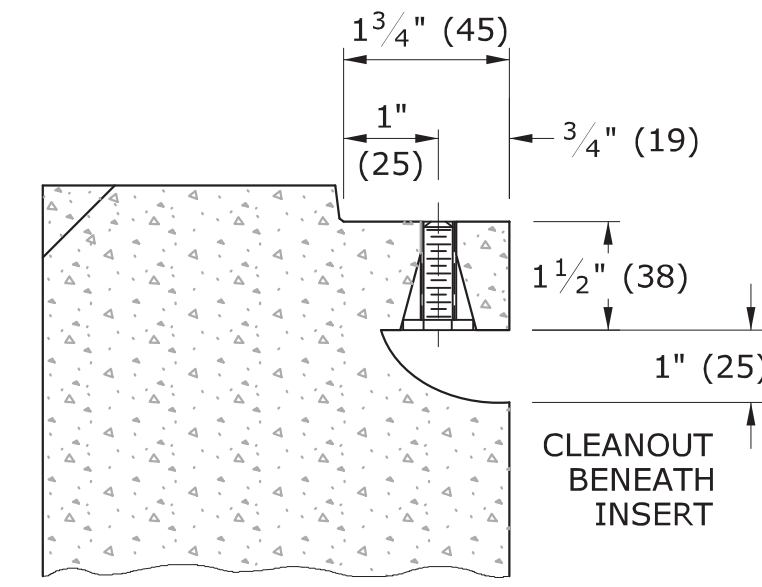
STEEL GROUNDING TAB w/ CONDUCTOR CONNECTOR



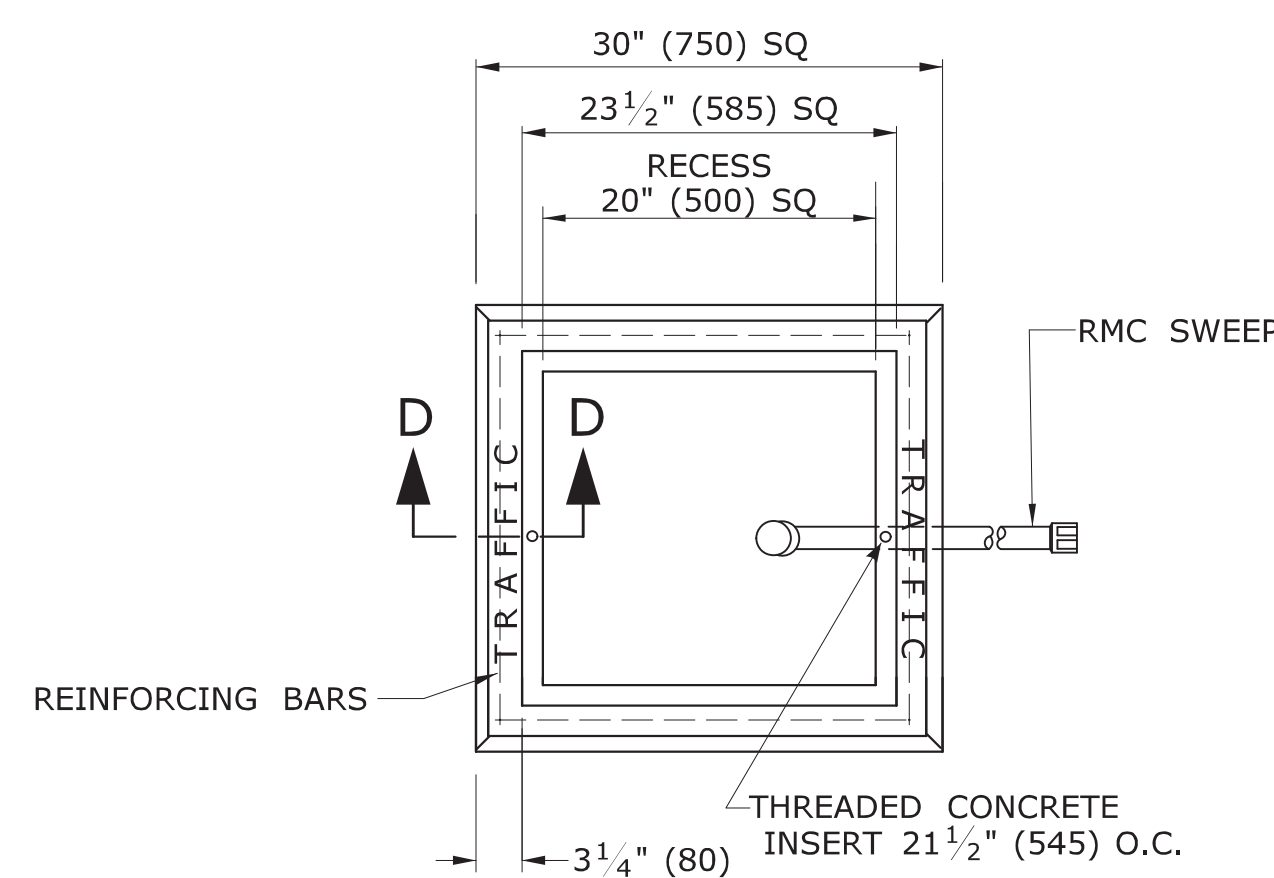
NON SKID FLOOR PLATE GALVANIZED STEEL, 3/8" (10)



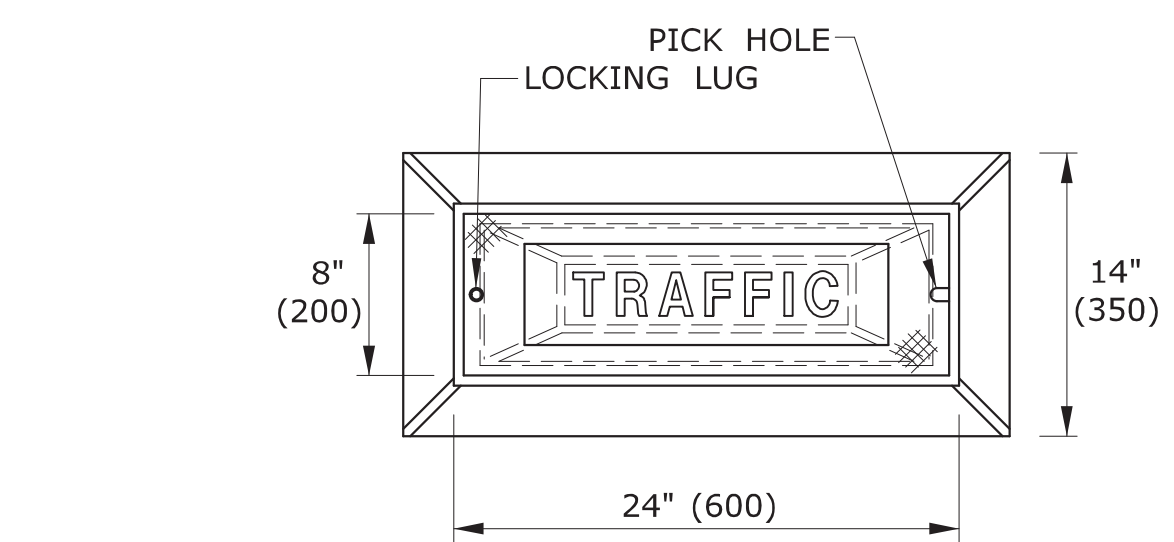
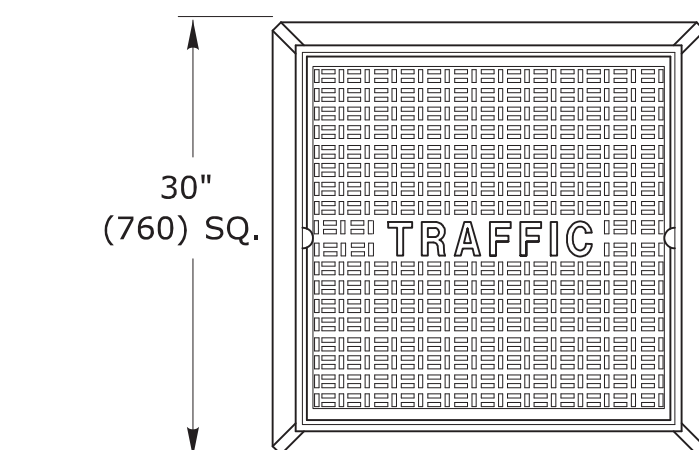
BANK ADAPTER



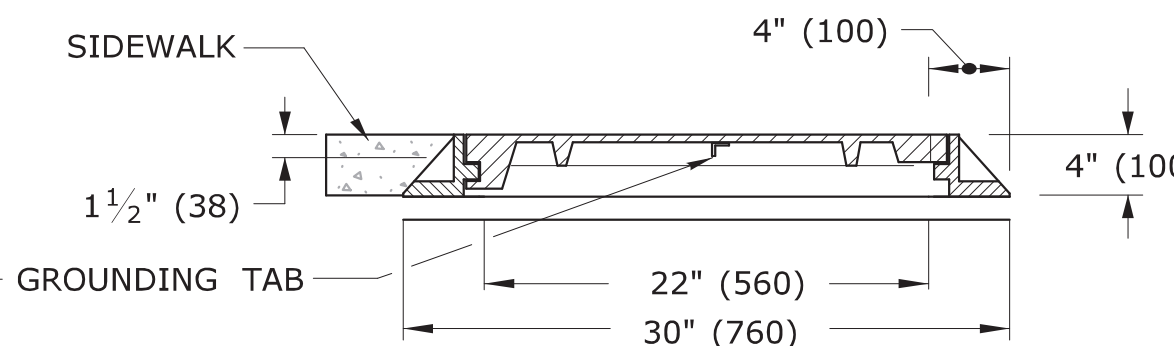
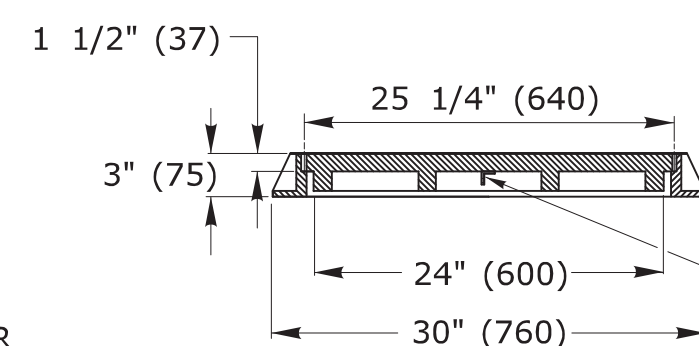
SECTION D-D



PLAN VIEW

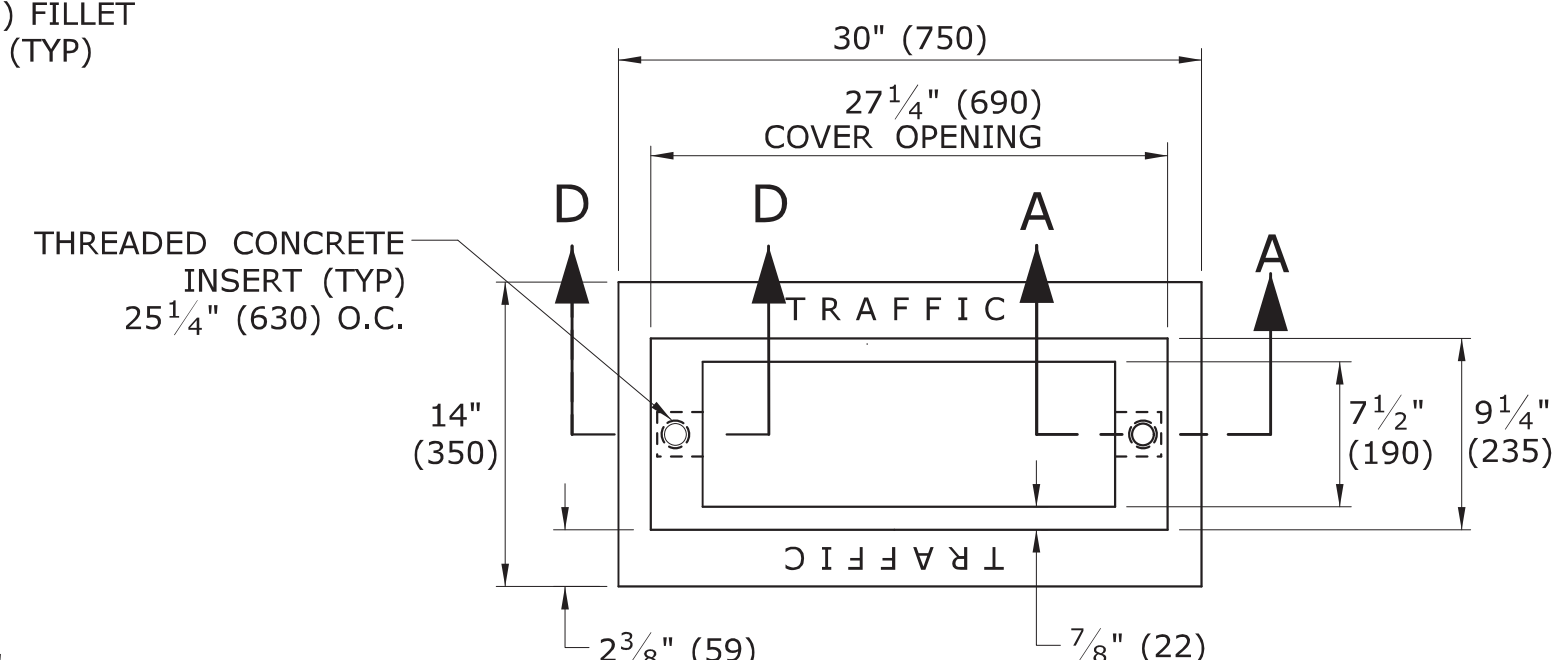


CAST IRON HANDHOLE COVERS

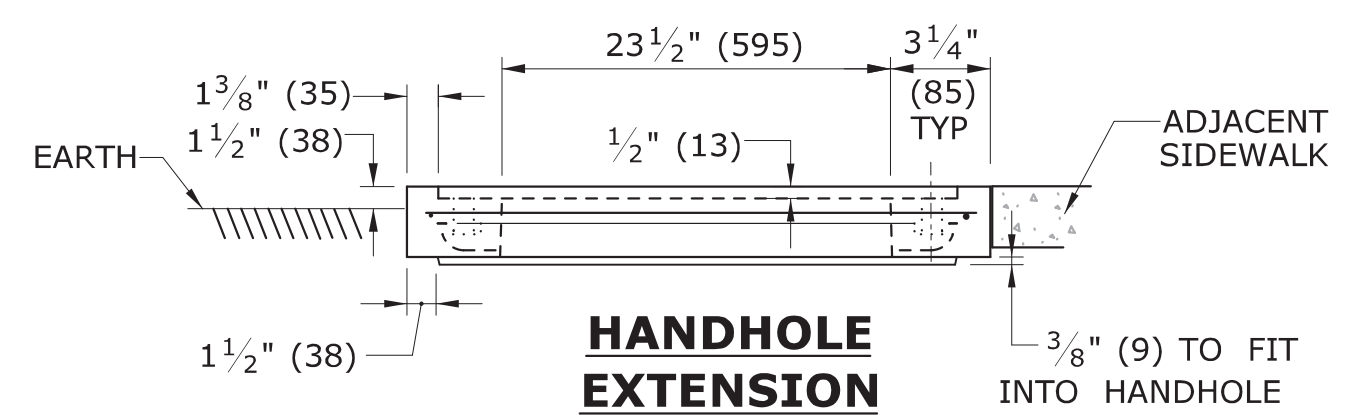


SECTION A-A HANDHOLE EXTENSIONS

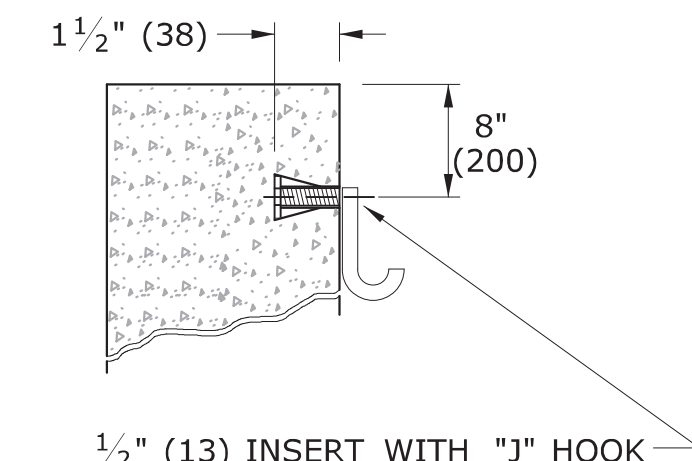
4 - #8 REINFORCING BARS REQ'D



PLAN VIEW

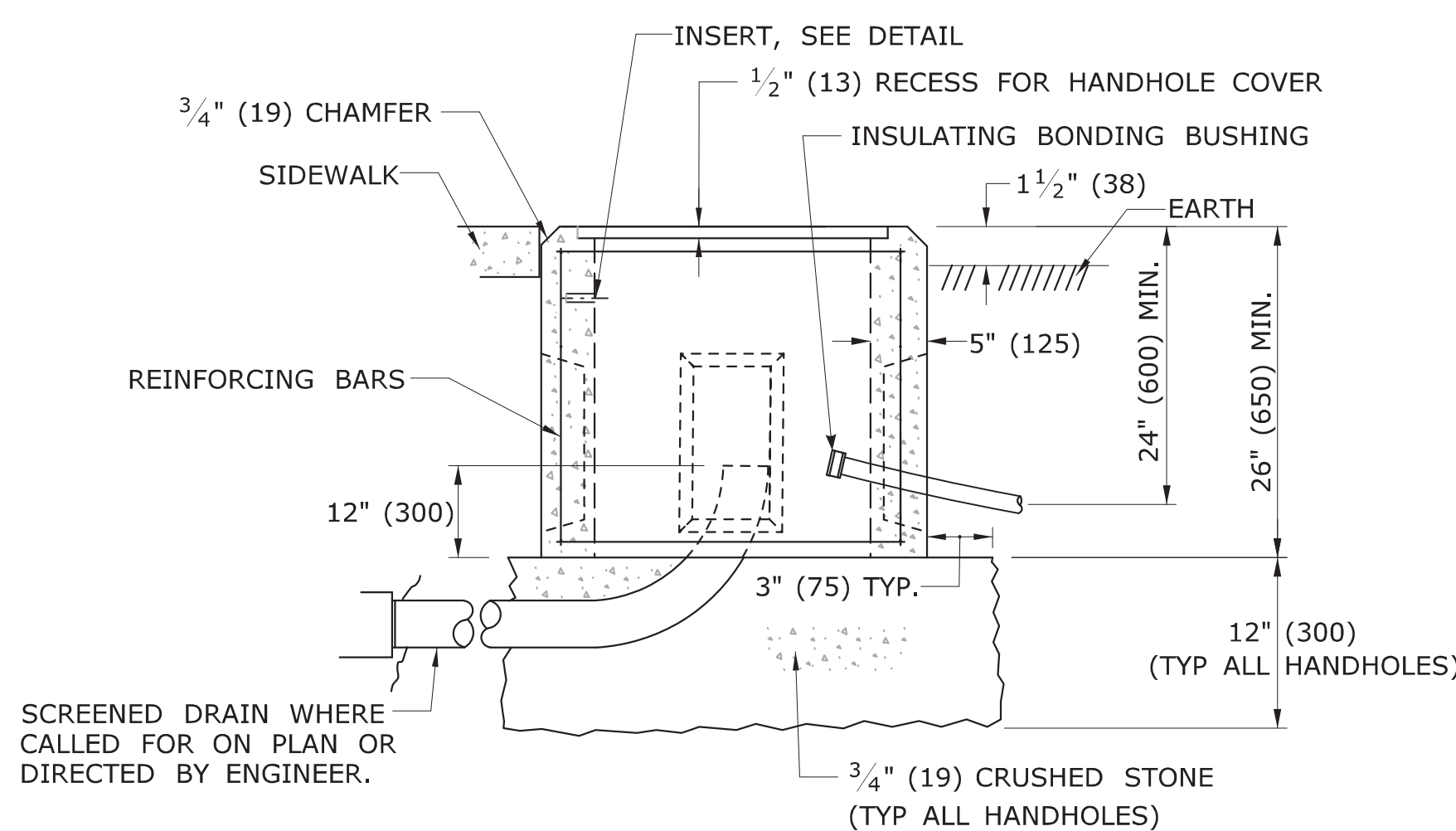


HANDHOLE EXTENSION

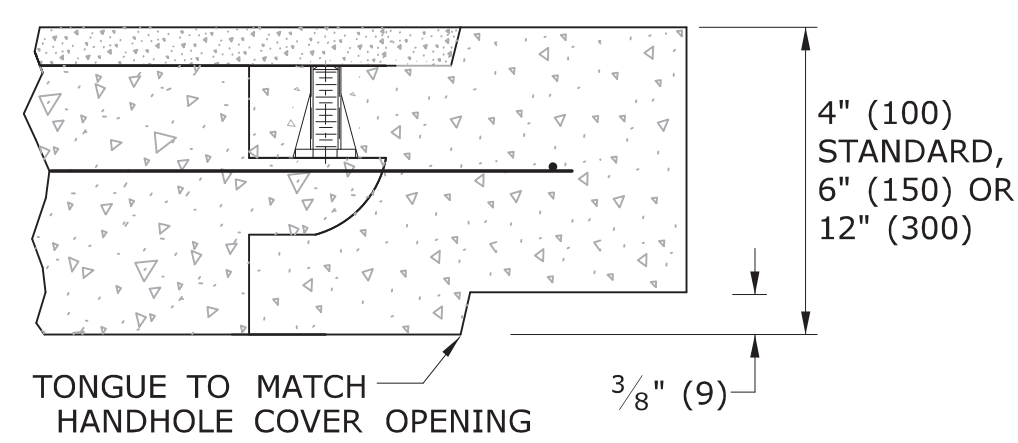


INSERT DETAIL

TYP IN TWO PLACES FOR ALL HANDHOLES

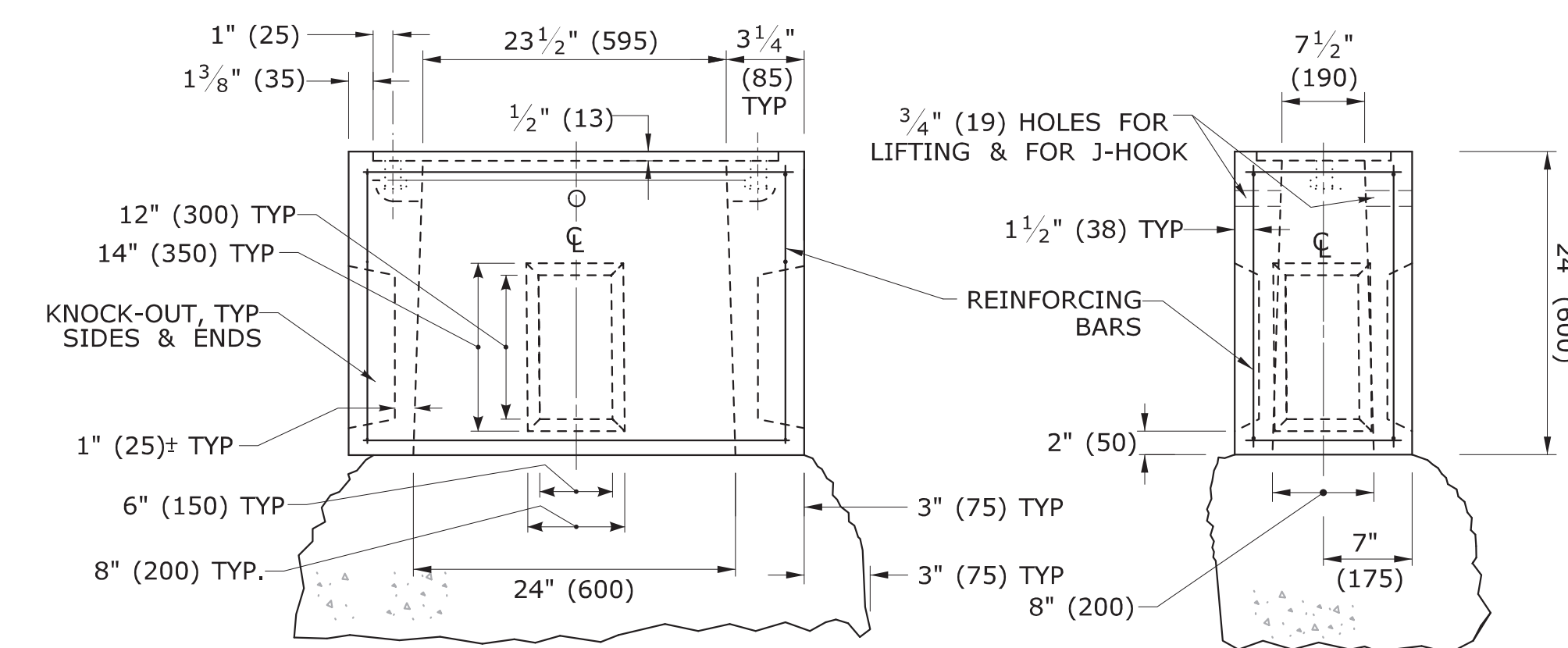


CONCRETE HANDHOLE TYPE I



SECTION A-A HANDHOLE EXTENSIONS

4 - #8 REINFORCING BARS REQ'D



BASE SECTION CONCRETE HANDHOLE TYPE II

HANDHOLE NOTES:

1. MINIMUM CLASS "C" CONCRETE.
2. COMPLETE TYPE II HANDHOLE: IN EARTH AREAS, CONSISTS OF A BASE SECTION WITH 4" (100) HANDHOLE EXTENSION, IN SIDEWALK AREAS, CONSISTS OF A BASE SECTION WITH 4" (100) CAST IRON COVER.
3. PLAN VIEW DIMENSIONS, SECTION VIEW, & DETAILS, SAME FOR BASE SECTION, EXTENSIONS & BANK ADAPTER.
4. GROUT AROUND ALL CONDUITS.

5. INSTALL 30" (750) SIDE PARALLEL TO ROAD UNLESS OTHERWISE NOTED.
6. INSTALL HANDHOLES APPROX. 12" (300) BEHIND CURB OR IF NO CURB, 24" (600) BEHIND EDGE OF ROAD UNLESS OTHERWISE SPECIFIED.
7. CAST THE WORD "TRAFFIC" INTO TOP EDGE OF HANDHOLE, 1 1/2" (38) LETTERS.
8. WHERE AN EXISTING CONCRETE SIDEWALK SLAB ABUTTING A HANDHOLE IS DAMAGED OR CUT DURING INSTALLATION, REPLACE THE ENTIRE SIDEWALK SECTION.
9. 12-#3 REINFORCING BARS REQUIRED FOR ALL HANDHOLES. (8 HORIZONTAL, 4 VERTICAL)

LEGEND AS SHOWN ON TRAFFIC CONTROL SIGNAL PLAN:

- PROPOSED HANDHOLE
- EXISTING HANDHOLE

REV.	DATE	REVISION DESCRIPTION
2	4-2014	REVISED HANDHOLES NOTES, ADDED NOTE #6. ADDED "J" HOOK TO INSERT DETAIL.
1	4-2012	CAST IRON COVER: CHANGED BOLT TO PICK HOLE. ADDED EXTENSIONS, C-CHANNEL, CONDUCTOR CONNECTOR & MINOR REVISIONS.

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STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION

NOT TO SCALE

Filename: CTDOT_TRAFFIC_STD.DGN Model: TR-1010_01

SUBMITTED BY: Tracy L. Fogarty, P.E. 2014.04.25 16:01:09-04'00"

APPROVED BY: Charles S. Harlow, P.E. 2014.04.29 14:26:25-04'00"

CTDOT STANDARD SHEET

OFFICE OF ENGINEERING

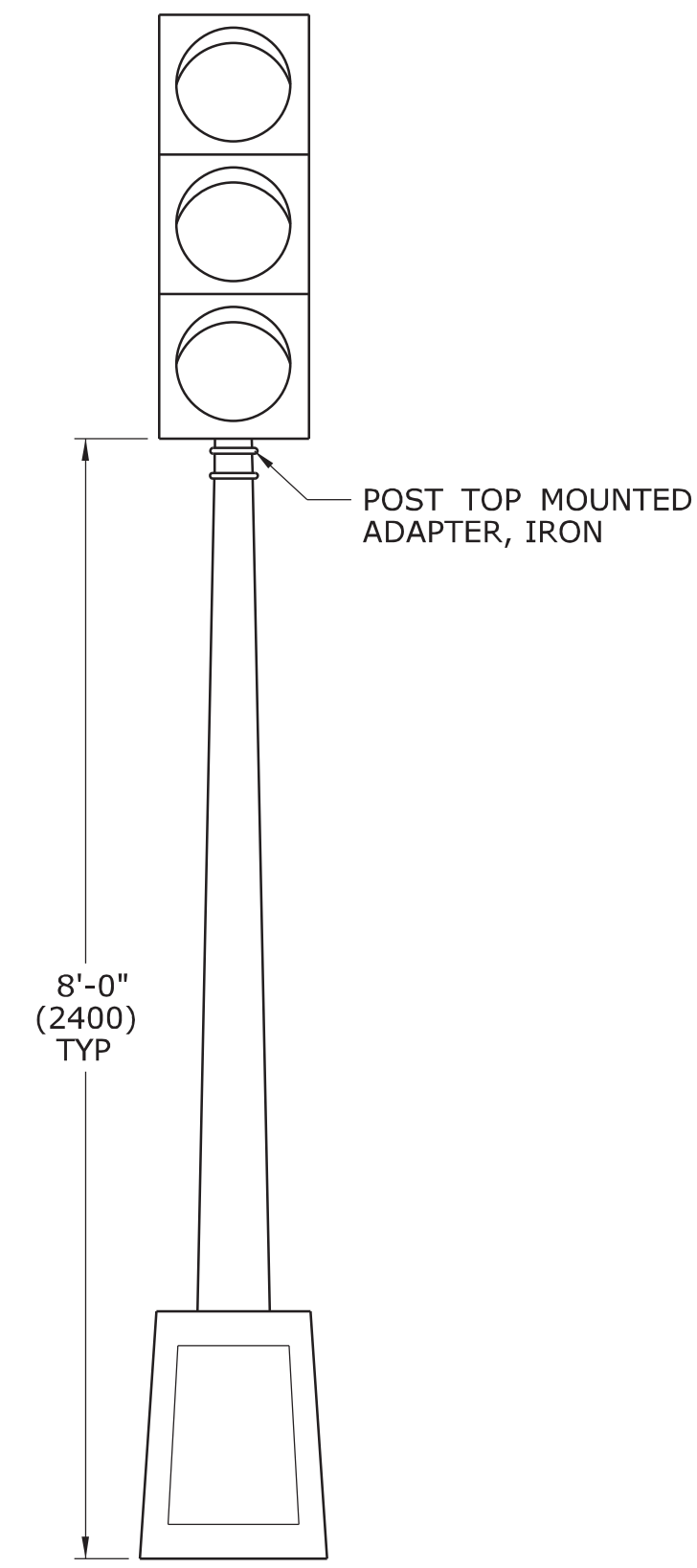
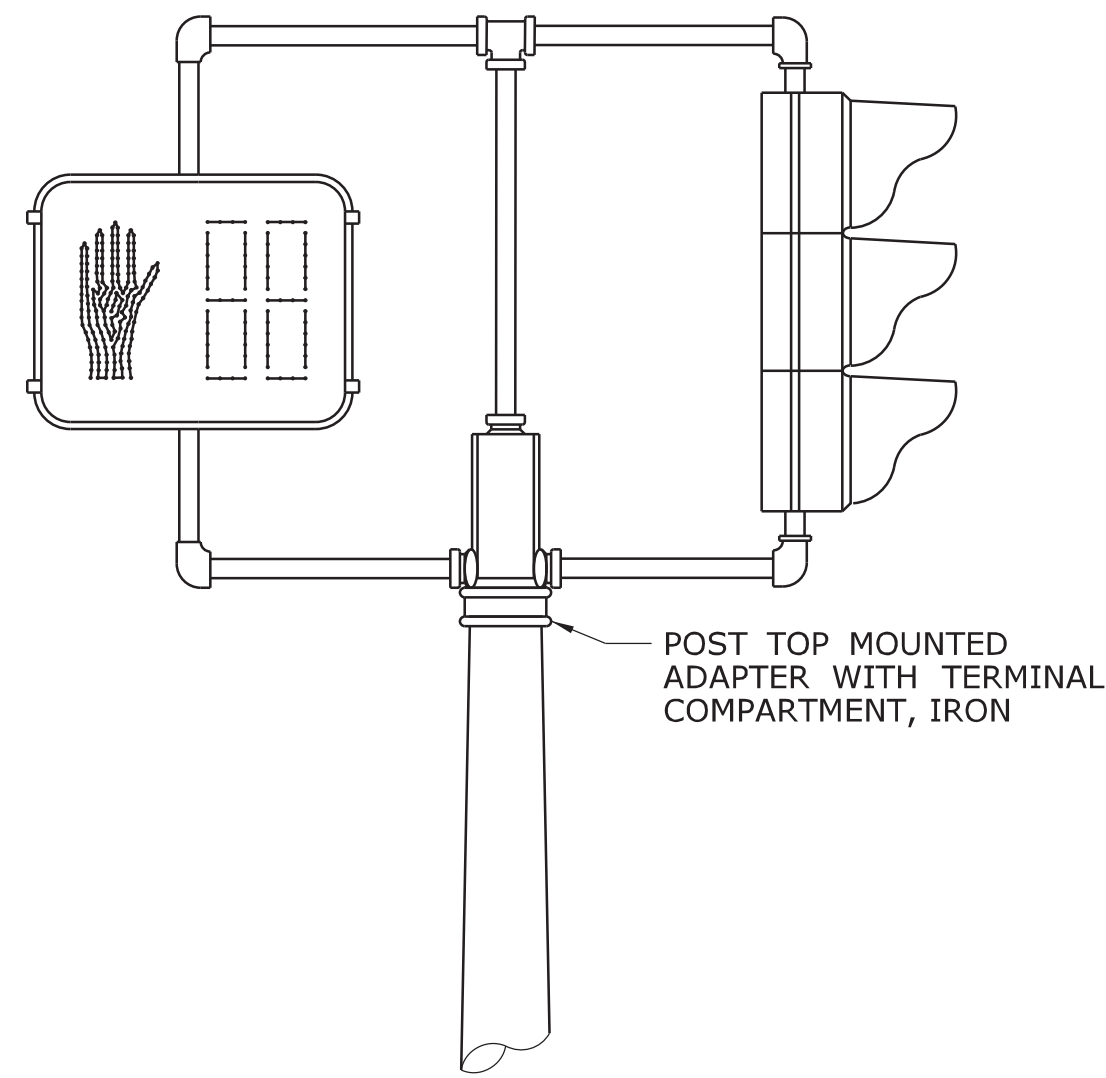
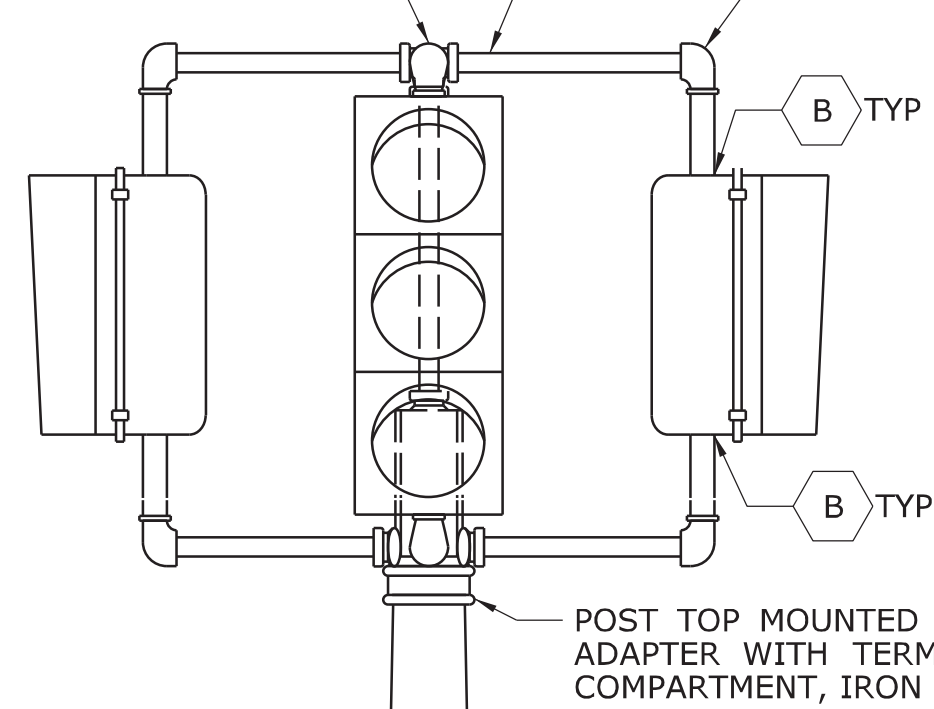
STANDARD SHEET TITLE: CONCRETE HANDHOLE

STANDARD SHEET NO.: TR-1010_01

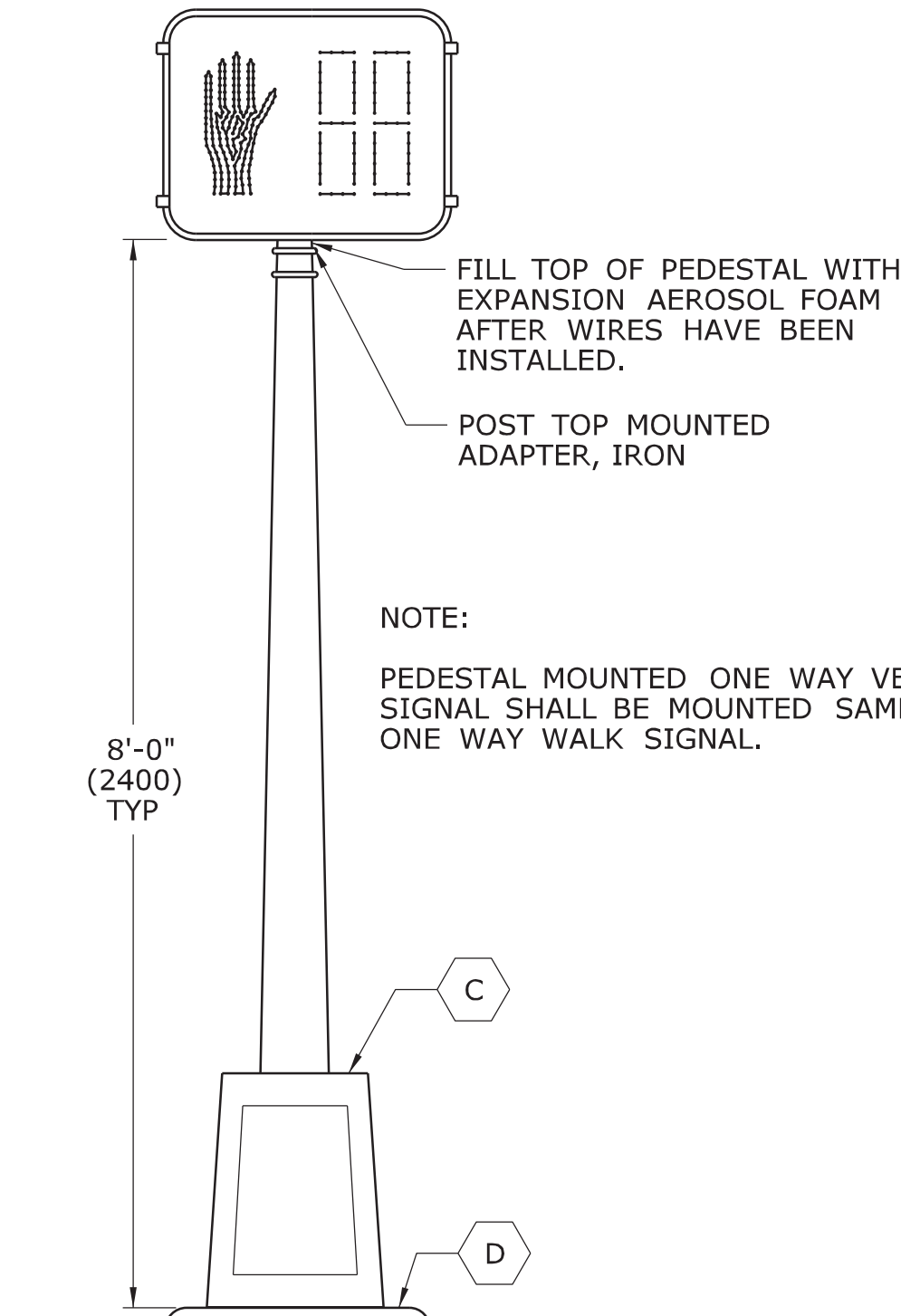
1 1/2" (38) SSIDE
OUTLET TEE, IRON, TYP

1 1/2" (38) NIPPLE, STEEL, TYP

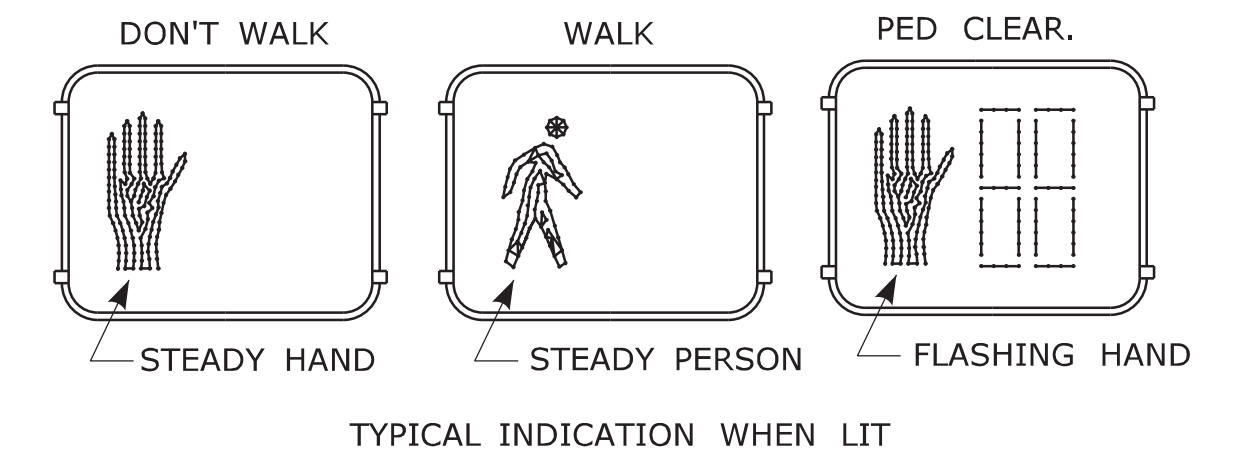
SERRATED ELL, IRON, TYP



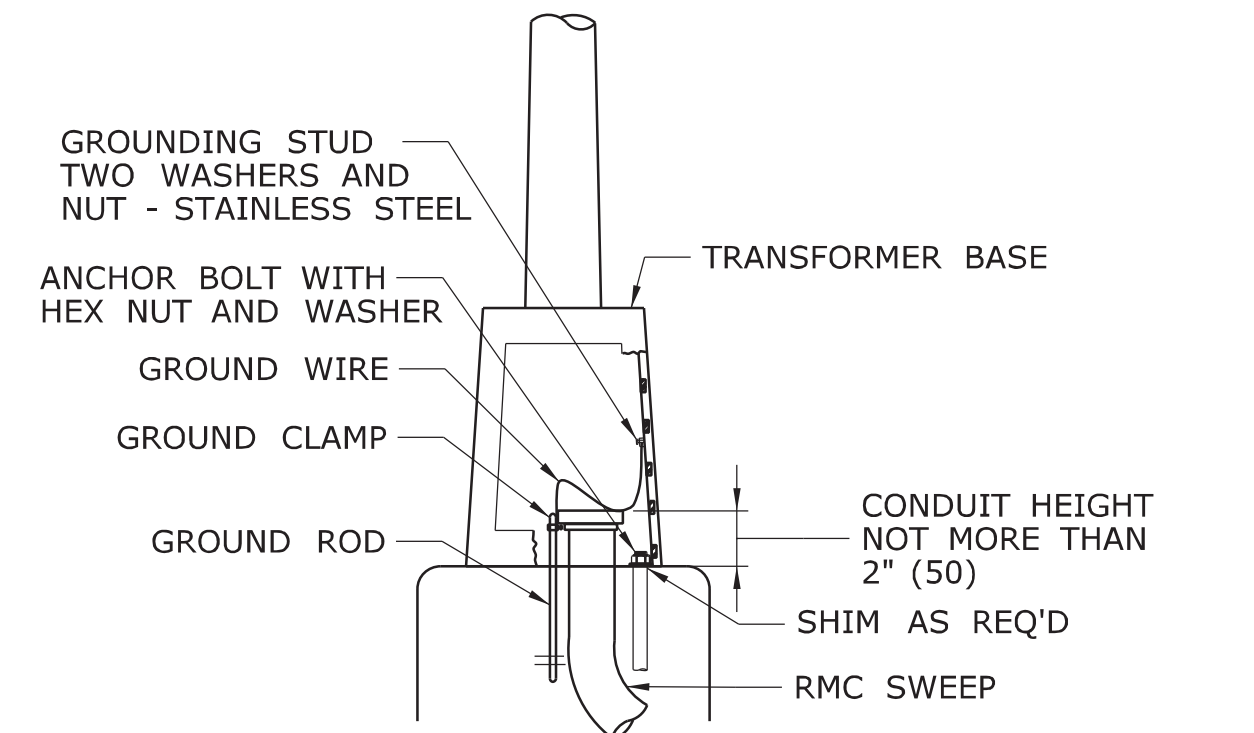
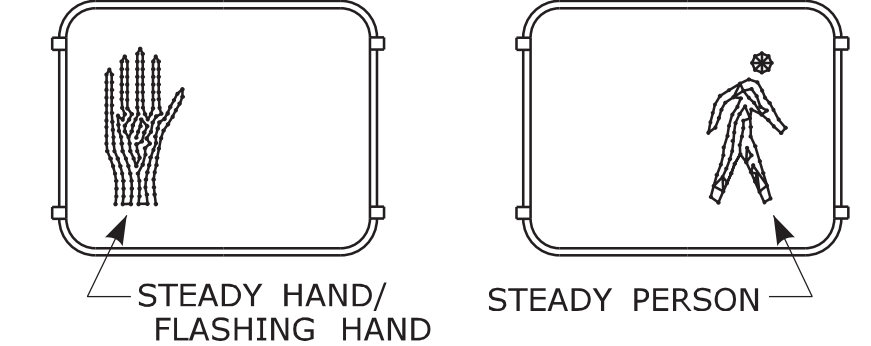
**ONE WAY TRAFFIC SIGNAL
PEDESTAL MOUNTED**



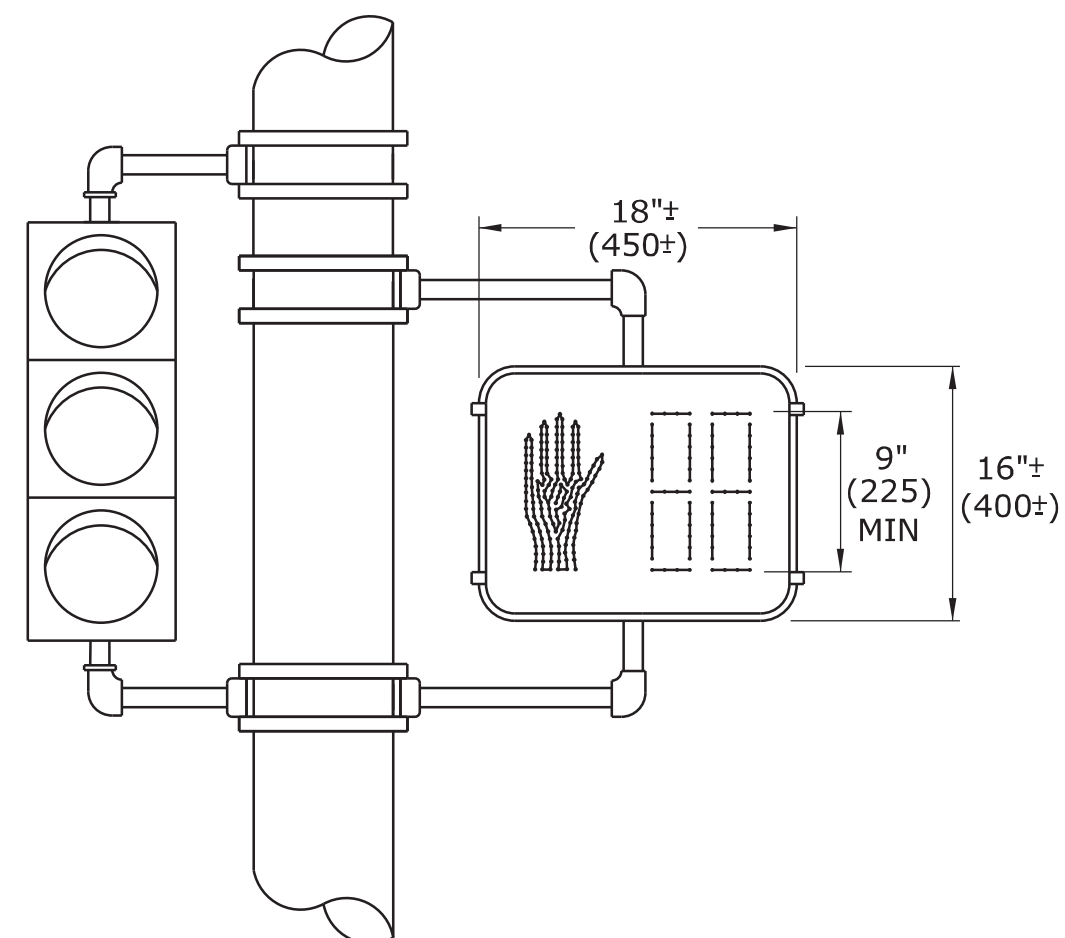
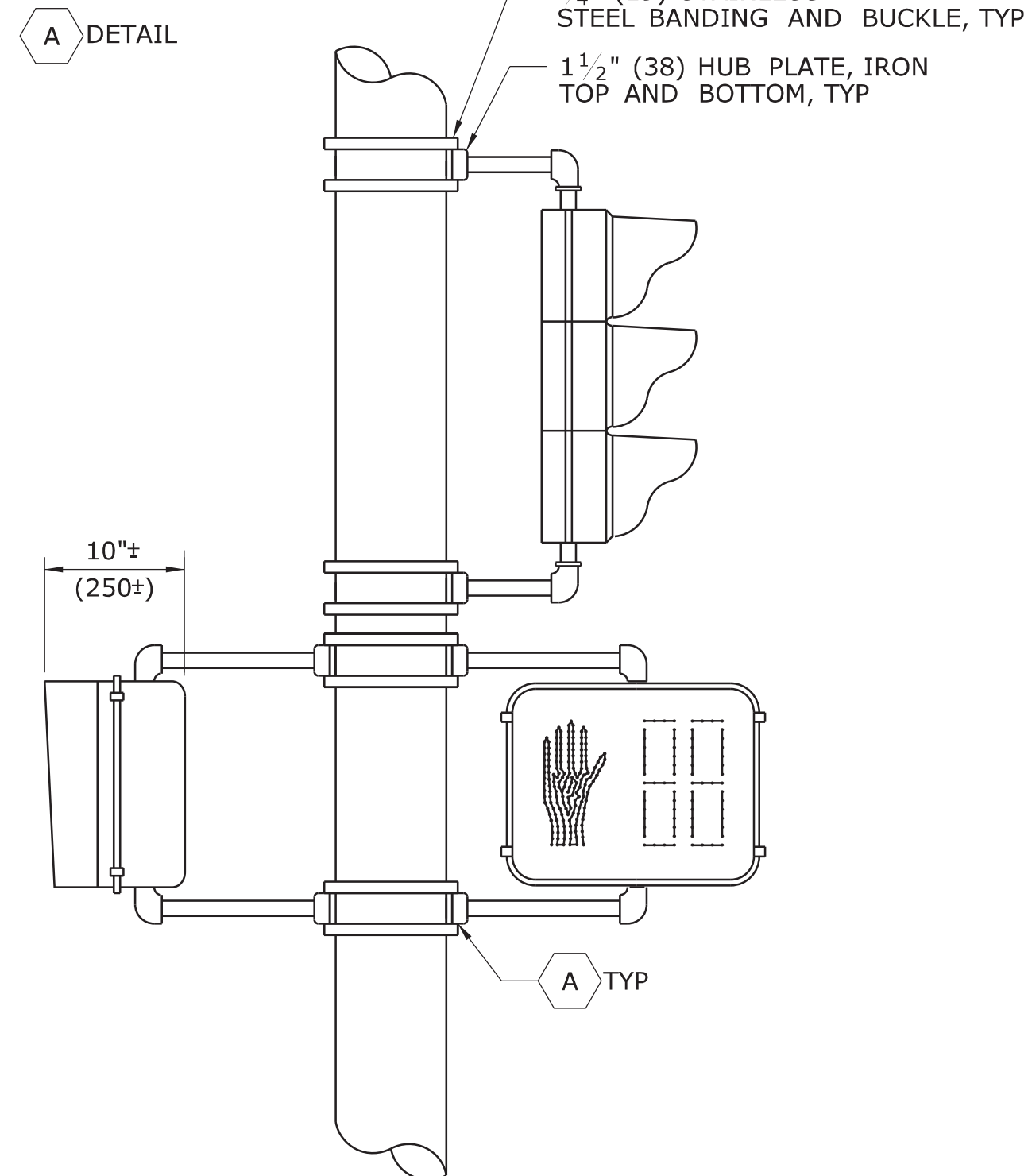
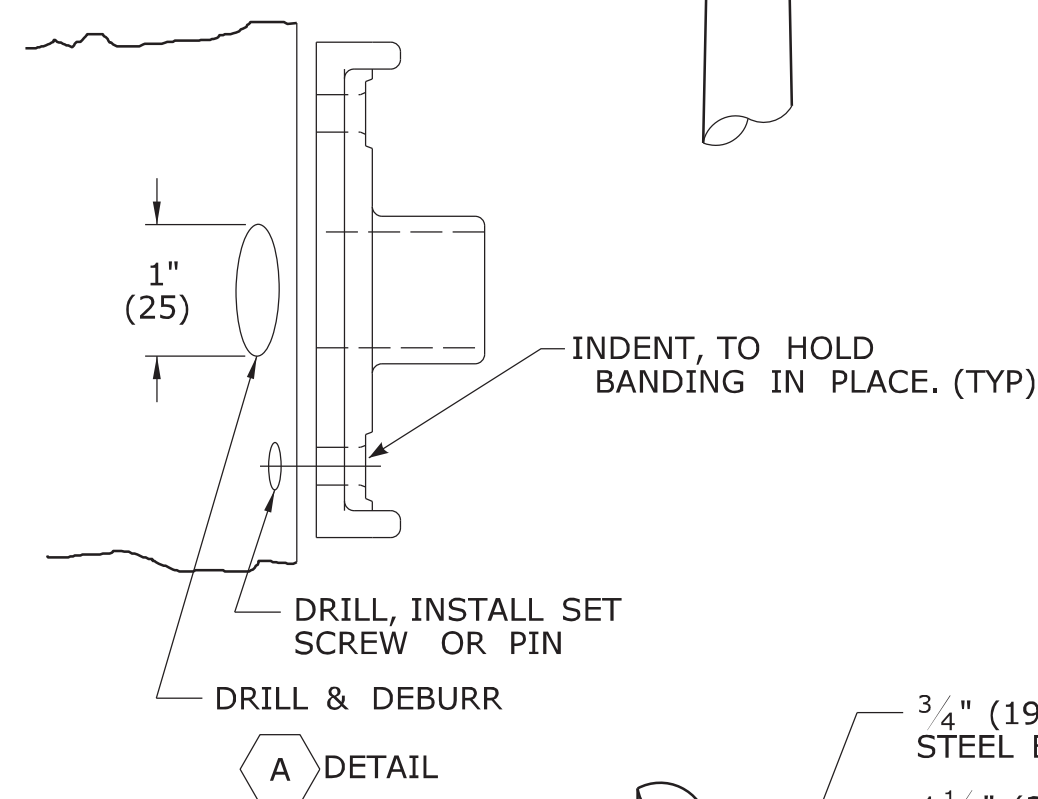
**ONE WAY WALK SIGNAL
PEDESTAL MOUNTED**



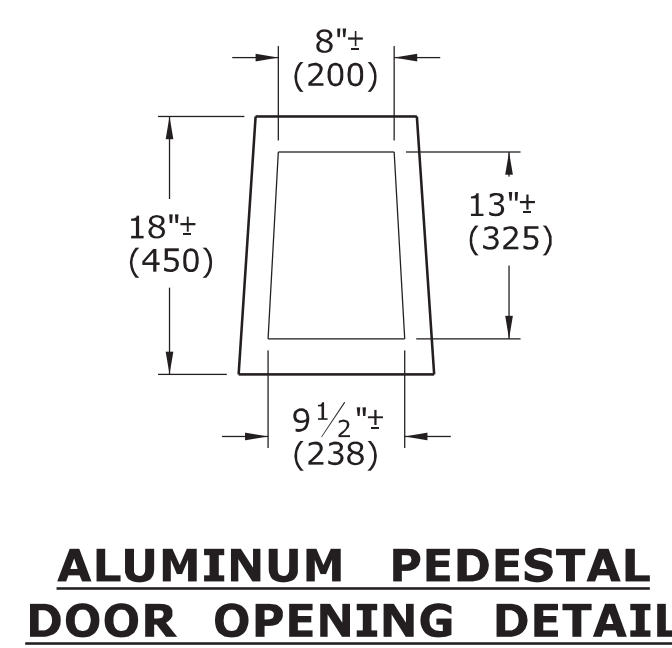
NON-COUNTDOWN DISPLAY, ONLY WHEN SHOWN ON PLAN.
DON'T WALK/PED CLEAR. WALK



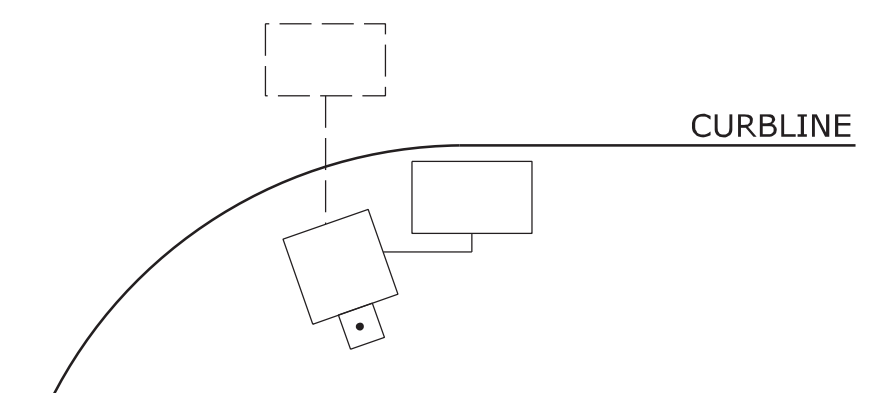
**ALUMINUM PEDESTAL
INSTALLATION DETAIL**



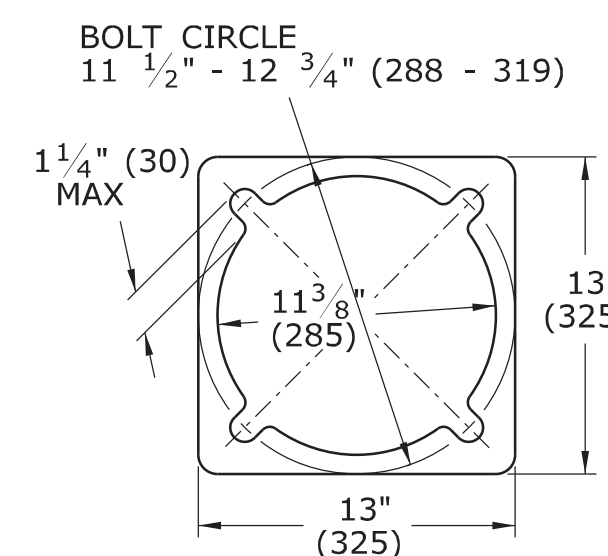
**ONE WAY TRAFFIC SIGNAL
POLE MOUNTED**



**ALUMINUM PEDESTAL
DOOR OPENING DETAIL**



WHEN PEDESTALS OR SPAN POLES ARE INSTALLED CLOSE TO THE CURB, SIDE MOUNT PEDESTRIAN OR TRAFFIC SIGNALS TO AVOID VISOR DAMAGE FROM TURNING VEHICLES.



PEDESTAL BASE PLAN

NOTES:

- A SECURE LOWER HUB PLATE WITH STAINLESS STEEL SET SCREW OR PIN PRIOR TO BANDING TO PREVENT MOVEMENT. INSTALL CABLE THROUGH BOTTOM OF HUB PLATE.
- B REFER TO CTDOT TRAFFIC STANDARD SHEET, TR-1105.01, TRAFFIC SIGNALS & CABLE ASSIGNMENTS.
- C IF THREADED, MIN 1" (25) THREADED INTO BASE, SECURED WITH STAINLESS STEEL SET SCREWS.
- D BASE DESIGNED AS BREAK-AWAY.

INCANDESCENT WALK SIGNAL LAMPS ARE 67 WATTS, RATED AT 8000 HOURS LAMP LIFE.
LED WALK SIGNAL LAMPS ARE MAXIMUM 15 WATTS, WARRANTED AT 5 YEAR LIFE.

LEGEND AS SHOWN ON TRAFFIC CONTROL SIGNAL PLAN:	
☒ STEEL SPAN POLE, MAST ARM ASSEMBLY SHAFT	☐ PEDESTRIAN SIGNAL
☐ ALUMINUM PEDESTAL	☐ PEDESTAL MOUNTED, TRAFFIC & PEDESTRIAN SIGNALS
☒ TRAFFIC SIGNAL	☐ POLE MOUNTED, TRAFFIC & PEDESTRIAN SIGNALS

2	4-2012	MINOR REVISIONS.
1	1-2010	INCLUDED COUNTDOWN PEDESTRIAN SIGNALS.
REV.	DATE	REVISION DESCRIPTION

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- UNDER 1" TO NEAREST 1 mm.

NOT TO SCALE

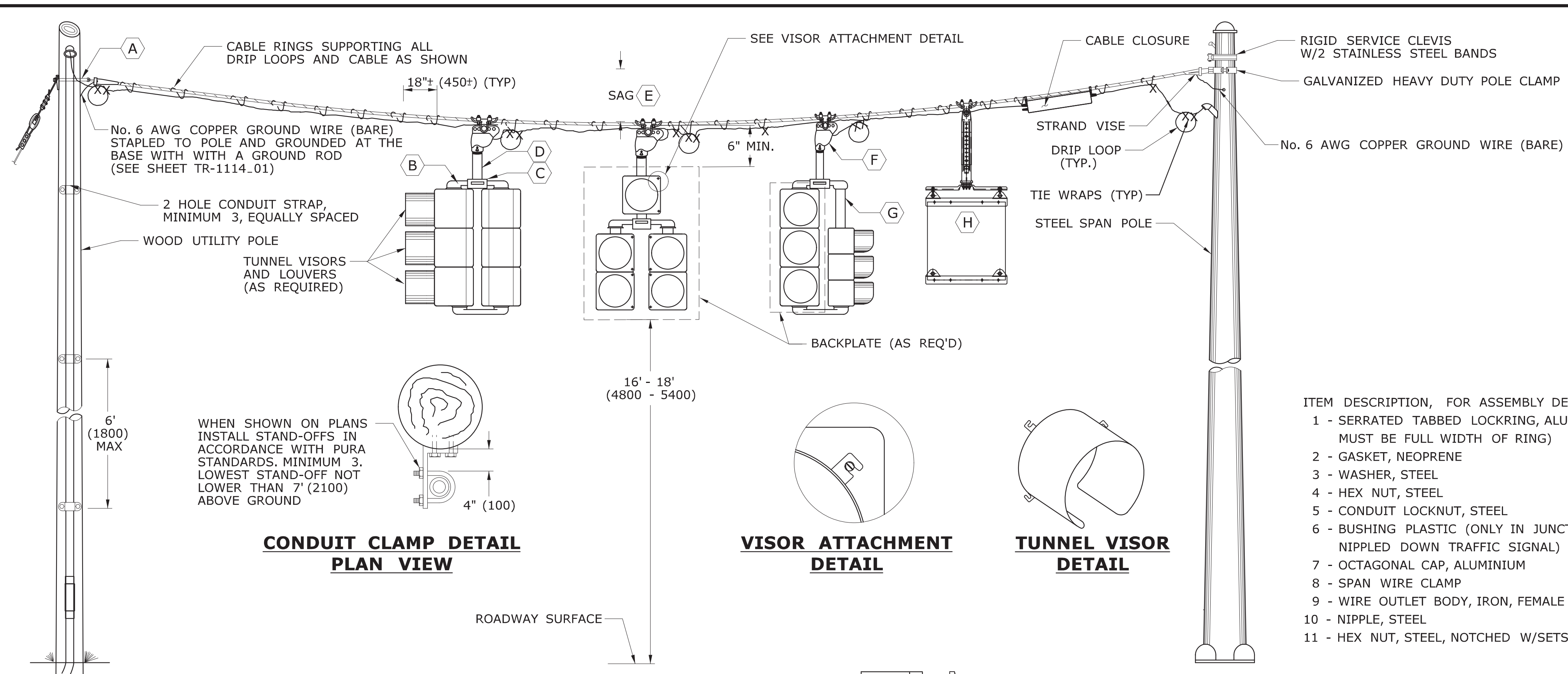
STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: CTDOT_TRAFFIC_STD.dgn Model: TR-1102_01

SUBMITTED BY: NAME/DATE/TIME:
Tracy L. Fogarty 2012.05.01 12:55:27-04'00"
APPROVED BY: NAME/DATE/TIME:
Timothy M. Wilson 2012.05.09 10:24:58-04'00"

CTDOT
STANDARD SHEET
OFFICE OF ENGINEERING

STANDARD SHEET TITLE:
PEDESTALS, PEDESTRIAN SIGNALS
STANDARD SHEET NO.:
TR-1102_01



TRAFFIC SIGNAL CABLE COLOR ASSIGNMENTS

SIGNAL ASSEMBLY & CABLE USED	SIGNAL FUNCTION	ARTERY 1	ARTERY 2	SIDE STREET 1	SIDE STREET 2
2 - WAY 9 CONDUCTOR	RED	RED		BLACK	
	YELLOW	ORANGE		WHITE \ BLACK	
	GREEN	GREEN		BLUE	
	SPARE	GREEN\BLACK		RED \ BLACK	
	NEUTRAL	WHITE			
3 - WAY 12 CONDUCTOR	RED	RED	RED \ BLACK	BLACK	
	YELLOW	ORANGE	ORANGE \ BLACK	WHITE \ BLACK	
	GREEN	GREEN	GREEN \ BLACK	BLUE	
	SPARE	BLUE\BLACK	BLACK \ WHITE		
	NEUTRAL	WHITE			
4 - WAY 15 CONDUCTOR	RED	RED	RED \ BLACK	BLACK	RED \ WHITE
	YELLOW	ORANGE	ORANGE \ BLACK	WHITE \ BLACK	BLACK \ WHITE
	GREEN	GREEN	GREEN \ BLACK	BLUE	GREEN \ WHITE
	SPARE	BLUE\BLACK		BLUE \ WHITE	
	NEUTRAL	WHITE			

PEDESTRIAN SIGNAL CABLE COLOR ASSIGNMENTS

SIGNAL ASSEMBLY & CABLE USED	SIGNAL FUNCTION	WIRE COLOR
WALK SIGNAL W/ PUSHBUTTON 7 CONDUCTOR	DON'T WALK	RED
	WALK	GREEN
	NEUTRAL FOR WALK SIGNAL	WHITE
	PEDESTRIAN PUSHBUTTON	BLACK
	NEUTRAL FOR PUSHBUTTON	ORANGE
WALK SIGNAL W/ PUSHBUTTON 7 CONDUCTOR	SPARE CONDUCTOR	WHITE \ BLACK
	SPARE CONDUCTOR *	BLUE \ BLACK
	RED	RED
	YELLOW	ORANGE
	GREEN	GREEN
WALK SIGNAL W/ PUSHBUTTON 7 CONDUCTOR	NEUTRAL FOR TRAFFIC SIGNAL	WHITE
	PEDESTRIAN PUSHBUTTON	BLACK
	NEUTRAL FOR PUSHBUTTON	WHITE \ BLACK
	SPARE CONDUCTOR *	BLUE \ BLACK

- ITEM DESCRIPTION, FOR ASSEMBLY DETAILS
- 1 - SERRATED TABBED LOCKRING, ALUMINUM (TAB MUST BE FULL WIDTH OF RING)
 - 2 - GASKET, NEOPRENE
 - 3 - WASHER, STEEL
 - 4 - HEX NUT, STEEL
 - 5 - CONDUIT LOCKNUT, STEEL
 - 6 - BUSHING PLASTIC (ONLY IN JUNCTION BOX OR NIPPLED DOWN TRAFFIC SIGNAL)
 - 7 - OCTAGONAL CAP, ALUMINIUM
 - 8 - SPAN WIRE CLAMP
 - 9 - WIRE OUTLET BODY, IRON, FEMALE ONLY
 - 10 - NIPPLE, STEEL
 - 11 - HEX NUT, STEEL, NOTCHED W/SETSCREWS

* IF 14/7 FEEDS MORE THAN ONE BUTTON, SPLIT THE BUTTONS AND USE BLUE WITH BLACK TRACER FOR THE ADDITIONAL BUTTON.

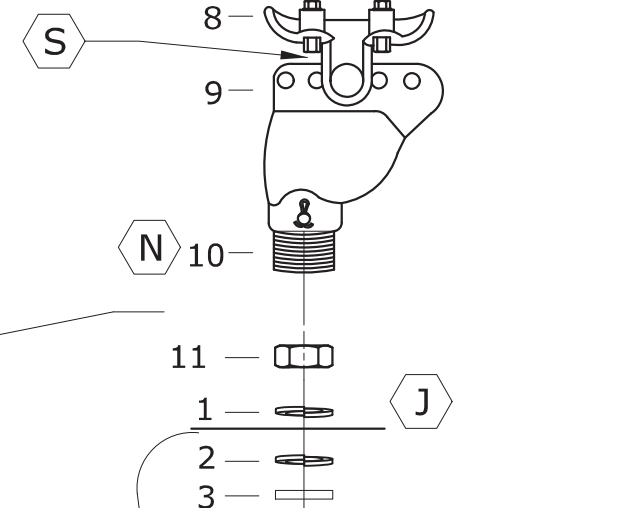
TABLE NOTES:

1. INSTALL SEPARATE CABLE BETWEEN CLOSURE AND EACH TRAFFIC SIGNAL ASSEMBLY. WIRE EACH TRAFFIC SIGNAL SECTION SEPARATELY BACK TO CABLE CLOSURE. JUMPERS BETWEEN TERMINALS ARE NOT ALLOWED EXCEPT ON NEUTRAL CONDUCTORS.
2. WIRE ALL SIGNALS, SAME DIRECTION FROM CONTROLLER, SEPARATELY WITH CONDUCTORS IN 21 CONDUCTOR CABLE, EVEN IF INDICATIONS ARE IDENTICAL.
3. CABLES THAT FEED PEDESTRIAN INDICATIONS, PUSH BUTTONS, AND DETECTORS BYPASS CABLE CLOSURE.
4. REFER TO STANDARD SHEET TR-1113.01 FOR CABLE CLOSURE - TYPE A.

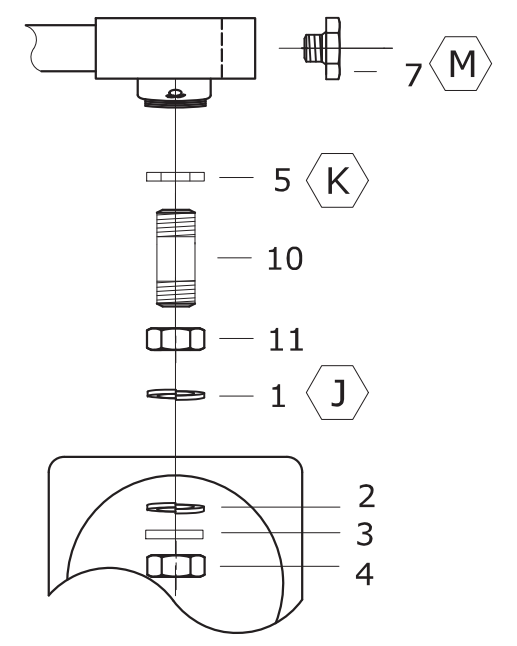
NOTES:

- SERVICE CONDUCTORS: THW, THWN OR XHHW. INDIVIDUAL WIRES MAY BE USED IN LIEU OF MULTI-CONDUCTOR CABLE.
- ALL WORK ON UTILITY POLES MUST COMPLY WITH CURRENT PURA REGULATIONS AND NESC RULES.
- ATTACH SPAN AT LEAST 12" (300) BELOW LOWEST POWER COMPANY ATTACHMENT, AND AT LEAST 40" (1000) ABOVE HIGHEST COMMUNICATIONS ATTACHMENT, UNLESS OTHERWISE DIRECTED ON PLANS.
 - ELBOW OR "T" FITTING MUST HAVE NOTCH FOR SERRATED TABBED LOCKRING.
 - TOP BRACKET CENTER HUB SHALL BE MIN 4" (100) ROUND AND 3" (75) DEEP OR EQUAL VOLUME. SERRATION CAST IN HUB OR TABBED OR SERRATED LOCKRING, TOP OPENING NOT THREADED.
 - NIPPLE LENGTH DEPENDS ON SPAN HEIGHT.
 - SAG OF SPAN TO BE 5%+ LENGTH, UNLESS OTHERWISE ALLOWED BY ENGINEER.
 - FACE ALL ENTRANCE FITTINGS TOWARD CABLE CLOSURE.
 - INSTALL EXTENSION NIPPLE ON TOP OF SIGNAL HOUSING SO BOTTOM OF ALL SIGNALS ARE EVEN.
 - REFER TO TR-GS.01 "SIGN FACE SHEET ALUMINUM, R-SERIES SIGNS TYPICAL DETAILS", AND TO TR-1114.01 FOR SIGN HANGER ASSEMBLY. MAXIMUM SIGN SIZE 36" X 36" (900 X 900). ALL STAINLESS STEEL HARDWARE. SECURE LOUVERS TO TUNNEL VISORS WITH 3 STAINLESS STEEL SCREWS.

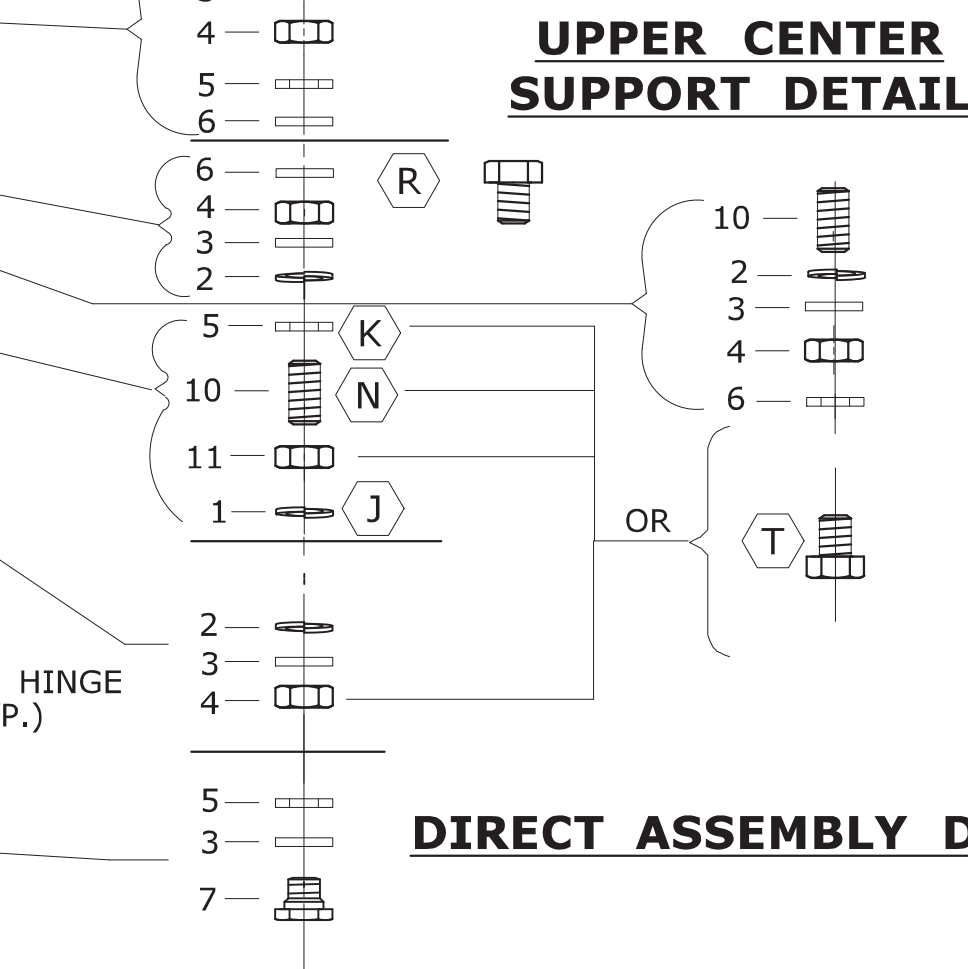
SPAN WIRE HANGER ASSEMBLY DETAIL



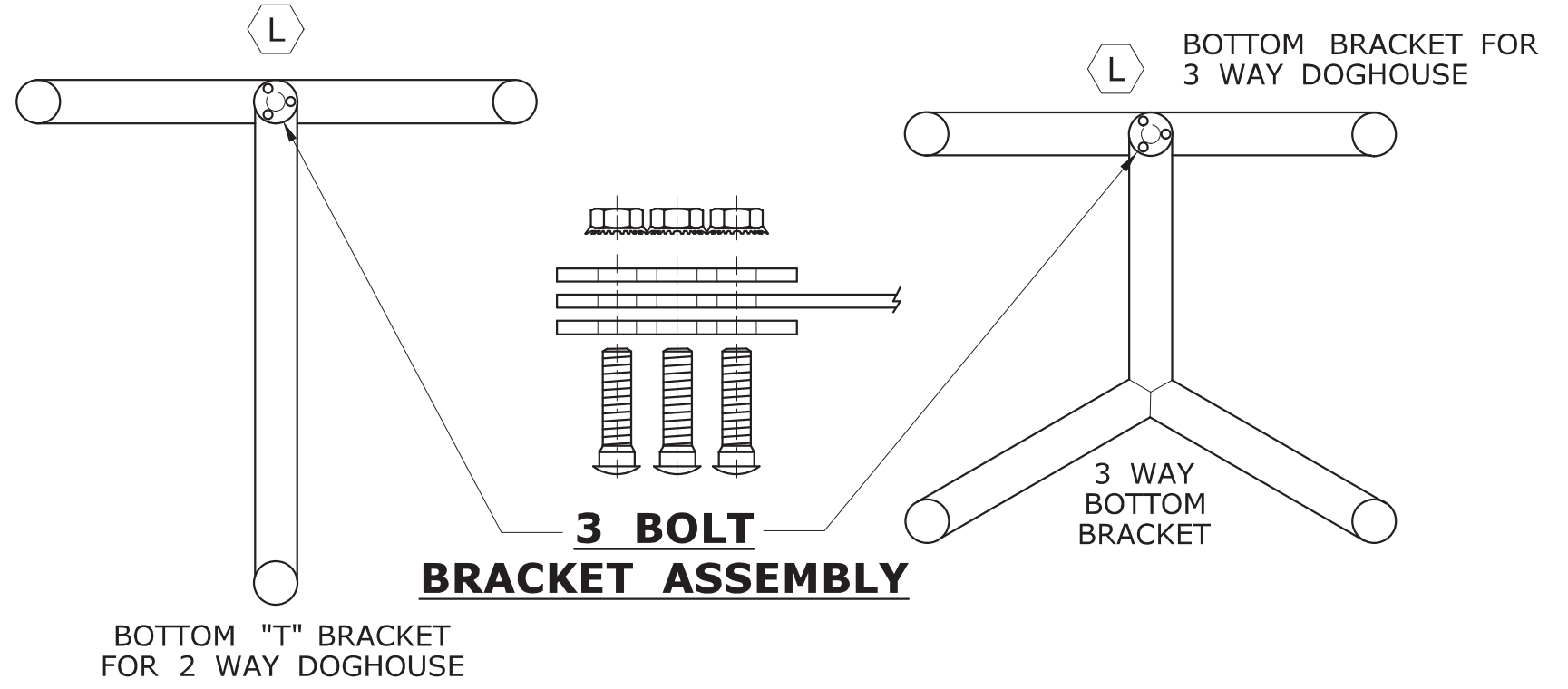
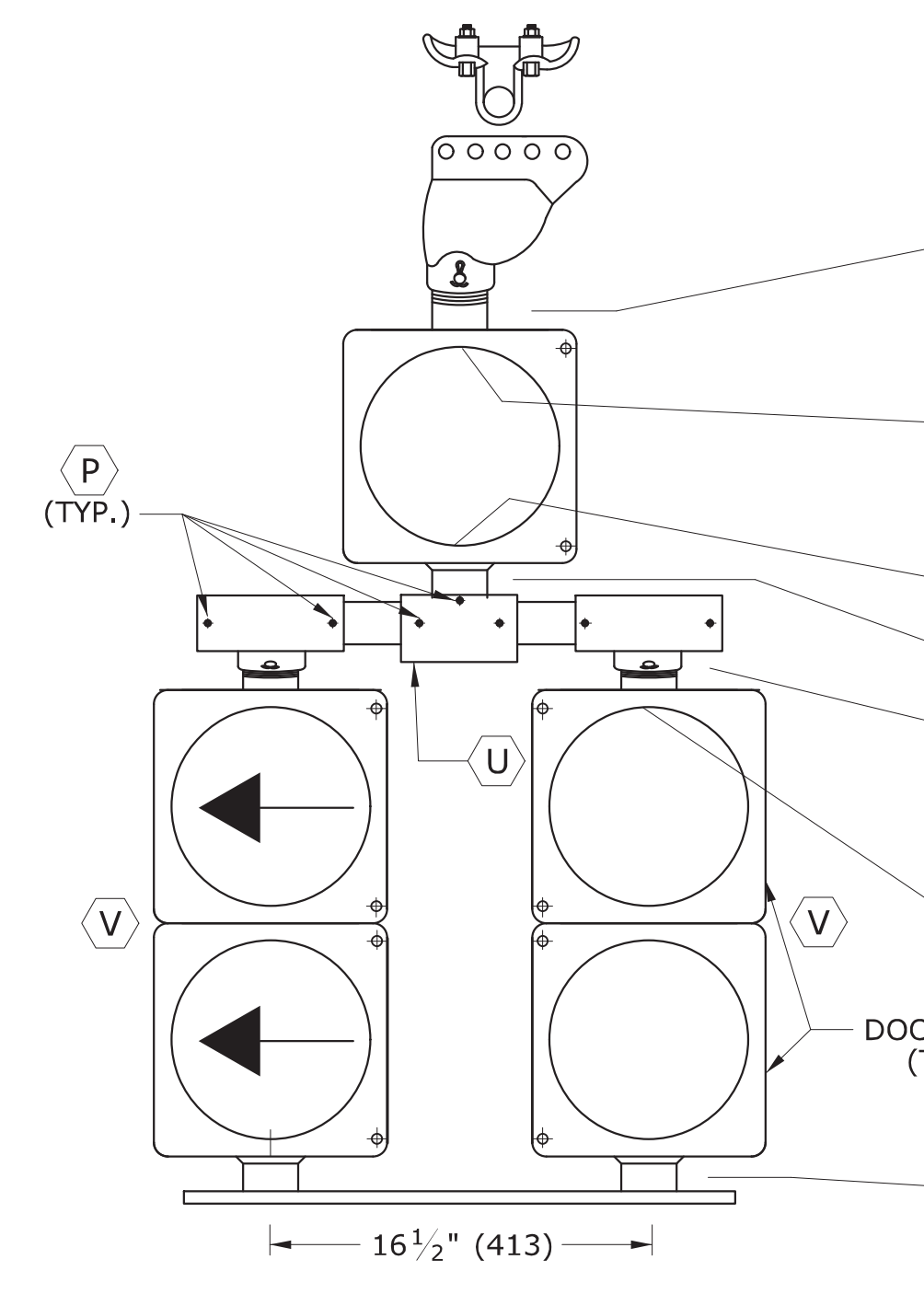
TWO WAY, THREE WAY & FOUR WAY NIPPLE DOWN ASSEMBLY DETAIL



UPPER CENTER SUPPORT DETAIL



DIRECT ASSEMBLY DETAIL



- NOTES: FOR ASSEMBLY DETAILS**
- (J) APPLY SILICONE CAULK BETWEEN OR AROUND SERRATED LOCKRING AND HOUSING.
 - (K) OPTIONAL USE IF NIPPLE THREADS TOO FAR INTO ELBOW.
 - (L) DRILL HOLE IN CENTER OF 2 WAY BOTTOM BRACKET - INSTALL 3 BOLT BRACKET (SEE DETAIL).
 - (M) DO NOT INSERT ORNAMENTAL CAP PAST DOTTED LINE.
 - (N) ALL THREAD.
 - (P) SETSCREW (SQUARE OR ALLEN) ON ALL FITTINGS.
 - (R) CHASE NIPPLE CAN BE SUBSTITUTED FOR THE COMBINATION OF ITEMS 6, 5 AND 10.
 - (S) INSTALL STAINLESS STEEL WASHER ON INSIDE OF COTTER PIN. COTTER PIN AND WASHER SHALL BE ON SIDE OF HANGER AWAY FROM SIGNAL CABLES.
 - (T) CHASE NIPPLE CAN BE SUBSTITUTED FOR COMBINATION 4, 5, 10 AND 11.
 - (U) CENTER HUB SAME AS (C) EXCEPT TOP OPENING MAY BE THREADED.
 - (V) DOOR HINGE ON OUTSIDE OF SIDE BY SIDE ASSEMBLY.

LEGEND AS SHOWN ON TRAFFIC CONTROL SIGNAL PLAN:

○	PROPOSED WOOD SPAN POLE	○	PROPOSED UTILITY POLE	—	CABLE CLOSURE
◐	EXISTING WOOD SPAN POLE	◐	EXISTING UTILITY POLE	—	SPAN MOUNTED SIGN
◑	PROPOSED STEEL SPAN POLE	—	POLE ANCHOR & GUY	—	SPAN MOUNTED TRAFFIC SIGNAL
◒	EXISTING STEEL SPAN POLE				

REV.	DATE	REVISION DESCRIPTION
4	1-2018	REVISED GROUNDING NOTE FOR SPAN AND OTHER MINOR REVISIONS.
3	3-2015	REMOVED STRAIN INSULATOR.
2	5-2013	MINOR REVISIONS.
1	4-2012	MINOR REVISIONS.

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Plotted Date: 5/22/2018

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NOT TO SCALE

**STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION**

Filename: CTDOT_TRAFFIC_STD_2018-05-21.dgn Model: TR-1105_01

SUBMITTED BY: NAME/DATE/TIME:
 Tracy L. Fogarty, P.E.
 2018.08.16 12:13:06-04'00'

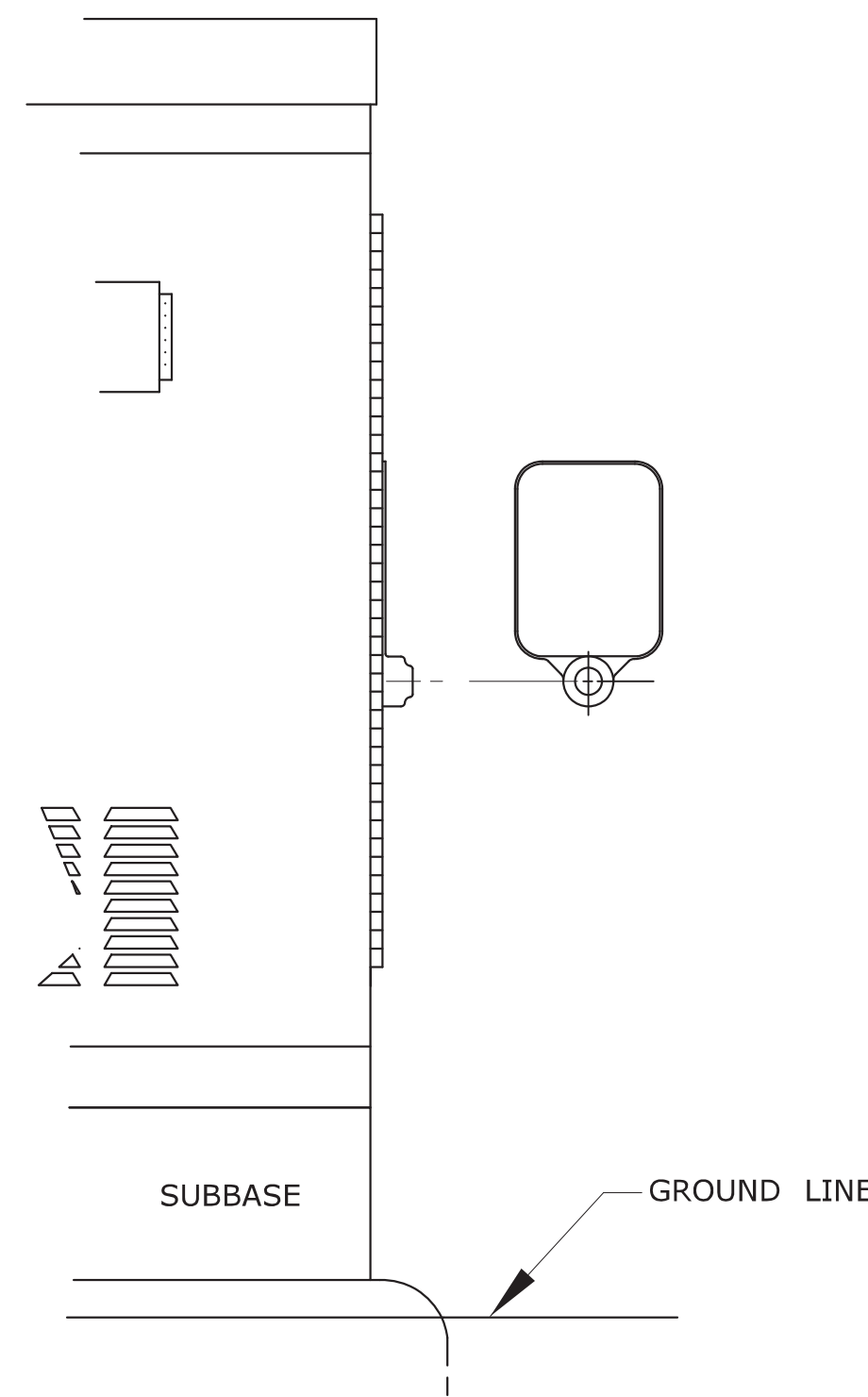
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 Mark F. Carlino, P.E.
 2018.08.21 07:46:03-04'00'

**CTDOT
STANDARD SHEET**

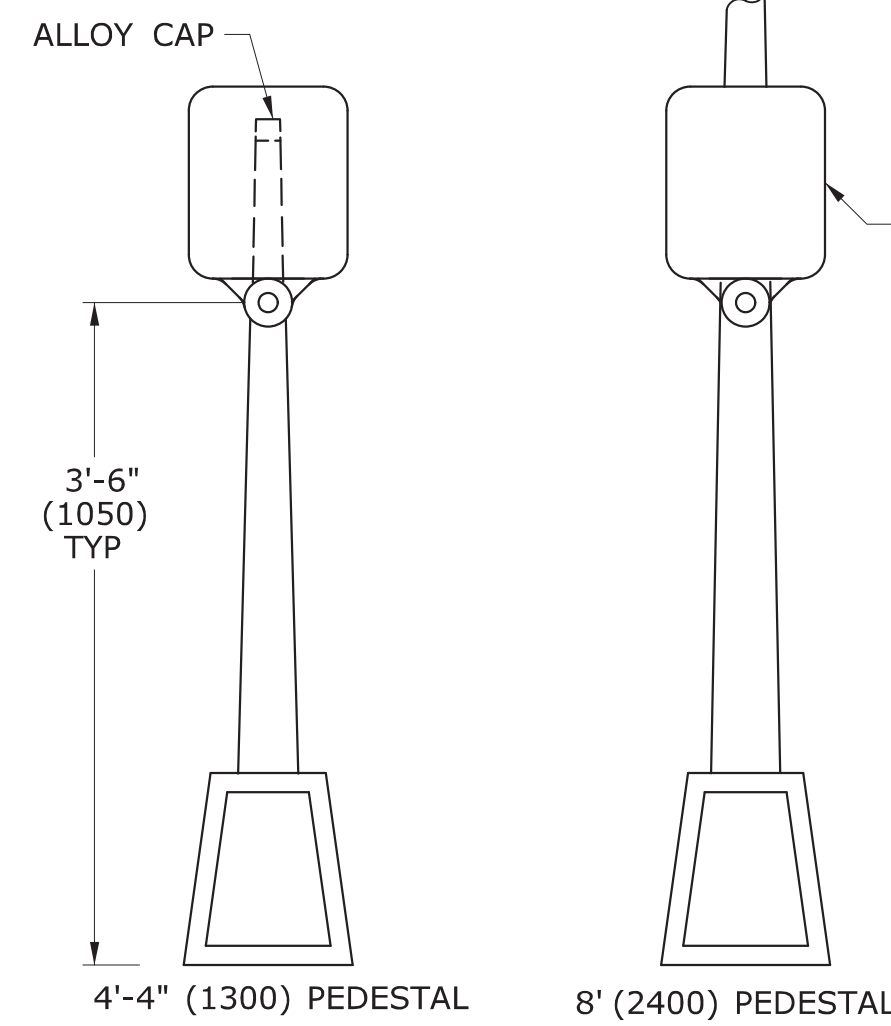
OFFICE OF ENGINEERING

STANDARD SHEET TITLE:
**TRAFFIC SIGNALS
& CABLE ASSIGNMENTS**

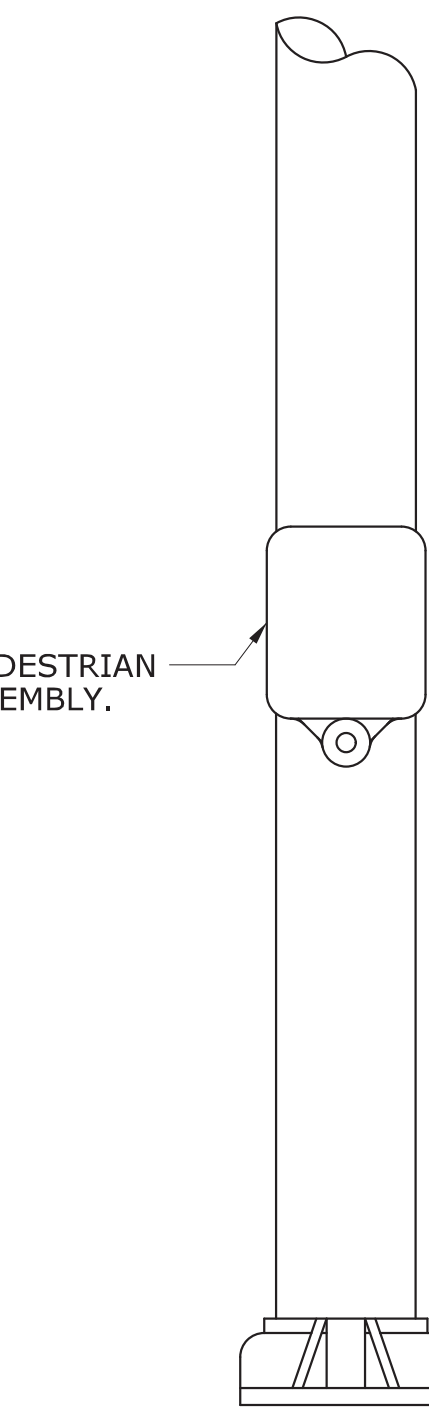
STANDARD SHEET NO.:
TR-1105_01



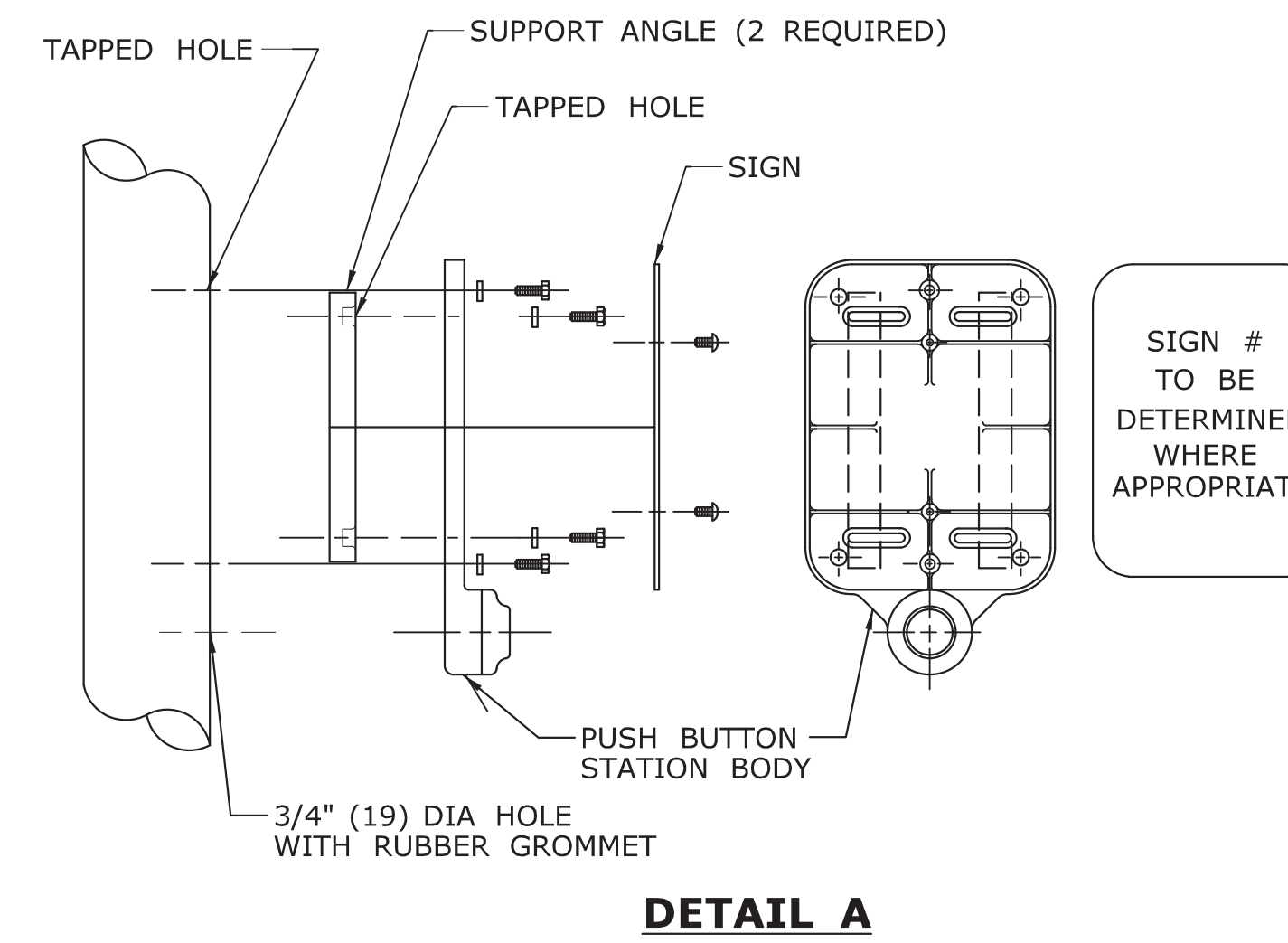
SURFACE MOUNTED



PEDESTAL MOUNTED



SPAN POLE/MAST ARM MOUNTED



SIGN # 31-0833
USE APPROPRIATE LEFT OR RIGHT ARROW

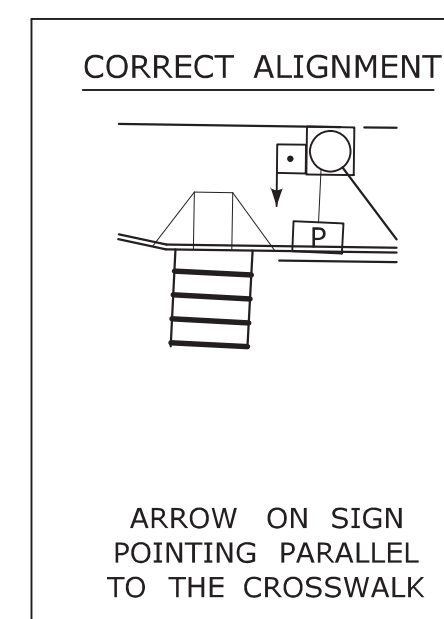


SIGN # 31-0835

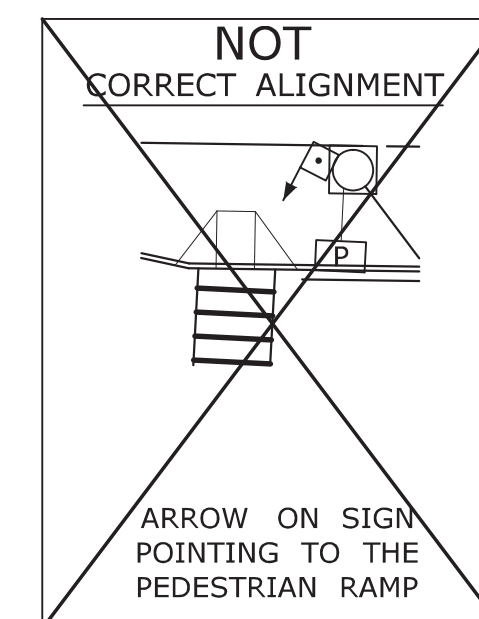
FOR CROSSING WITH SIDE STREET GREEN

GENERAL NOTES:

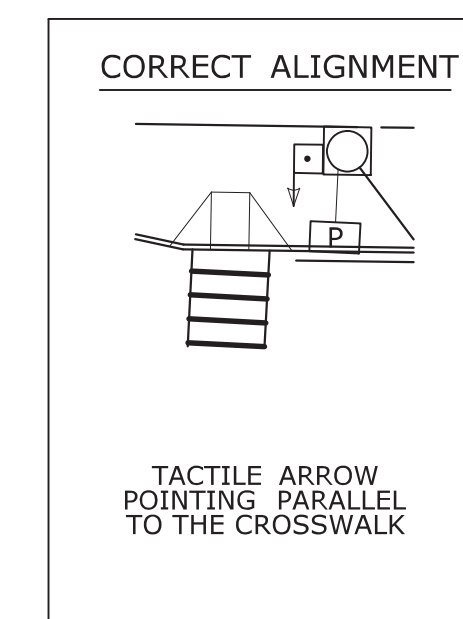
- 3'-6" (1050) FROM FINISHED GRADE SUCH AS SIDEWALK TO CENTER OF PUSH BUTTON.
- PUSH BUTTON INSTALLATIONS SHALL CONFORM TO THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT (ADA) STANDARDS FOR ACCESSIBLE DESIGN, CURRENT EDITION GOVERNS.
- 4'-4" (1300) PEDESTAL TO INCLUDE ALLOY CAP SECURED WITH STAINLESS STEEL SET SCREW.



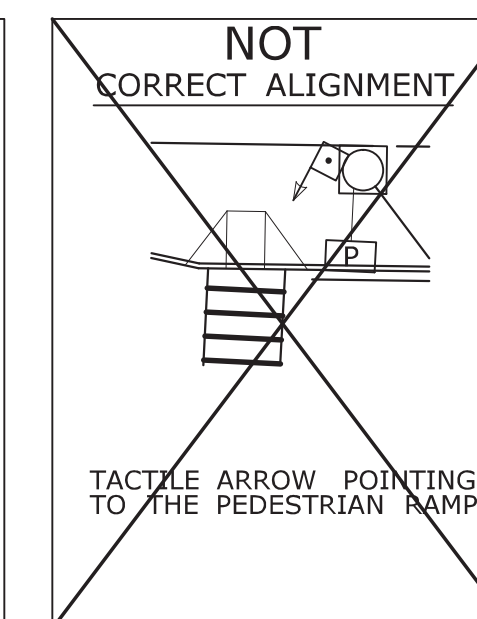
PEDESTRIAN PUSH BUTTON ALIGNMENT



ARROW ON SIGN POINTING TO THE PEDESTRIAN RAMP

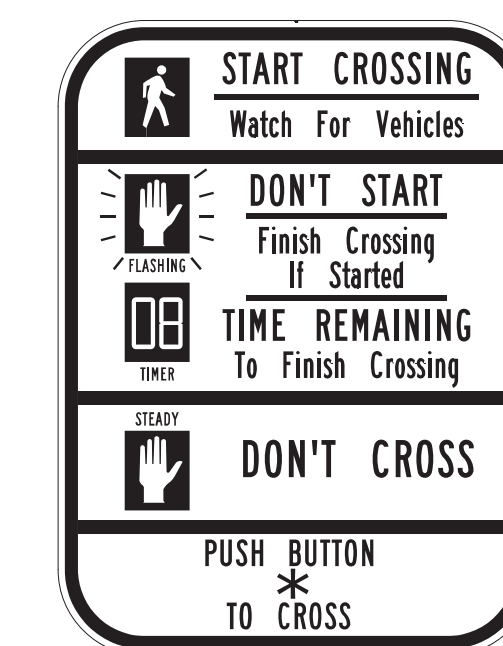


ACCESSIBLE PEDESTRIAN SIGNAL AND DETECTOR



TACTILE ARROW POINTING TO THE PEDESTRIAN RAMP

EXAMPLE ALIGNMENTS FOR EXCLUSIVE PEDESTRIAN PHASE



*USE APPROPRIATE ARROW UNLESS OTHERWISE NOTED ON PLAN.

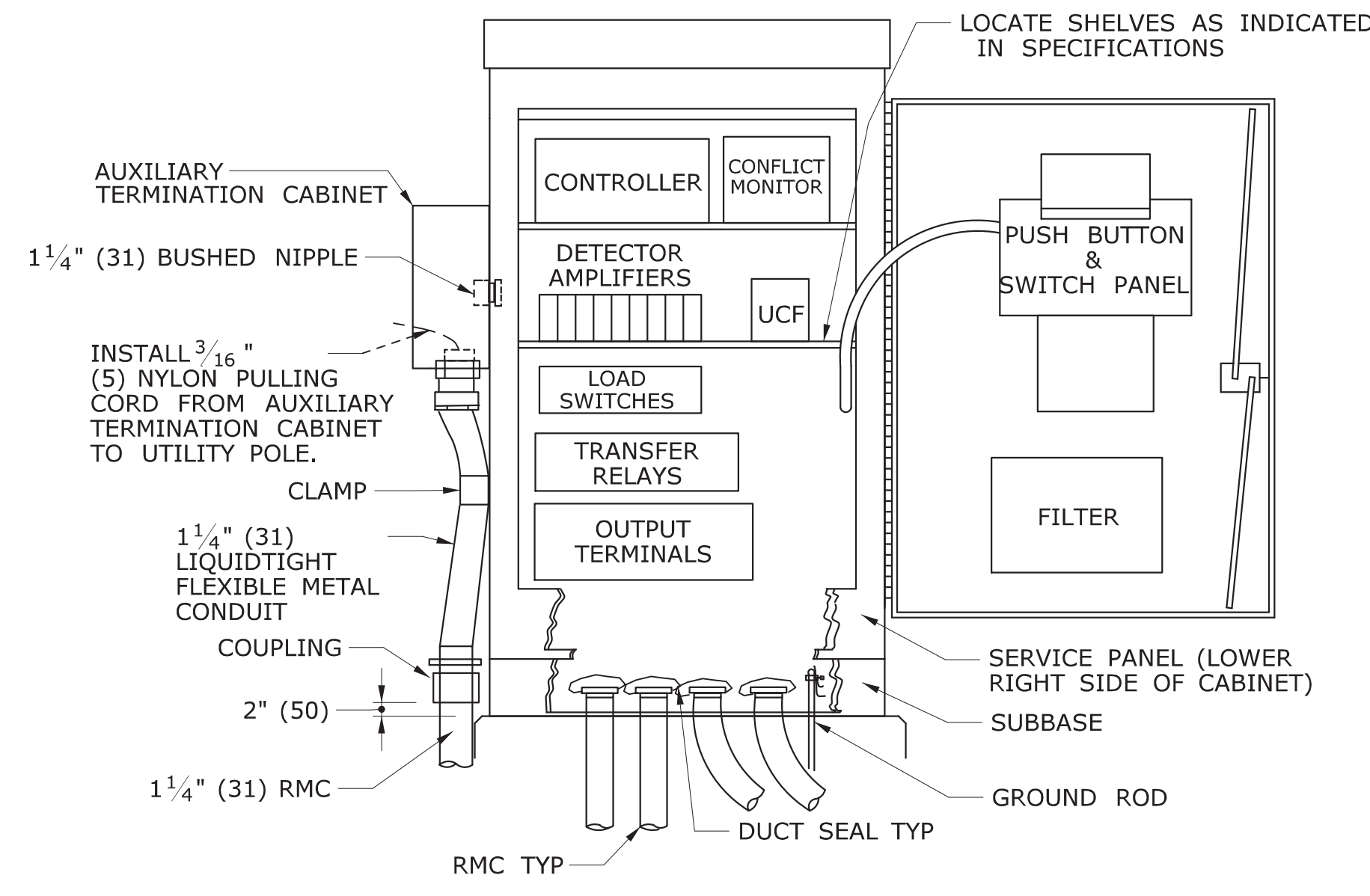
FOR NEW PUSHBUTTON HOUSING, USE 9" x 15" SIGN NO. 31-0856.

FOR EXISTING PUSHBUTTON HOUSING, WITH 9" x 12" SIZE, USE SIGN NO. 31-0845.

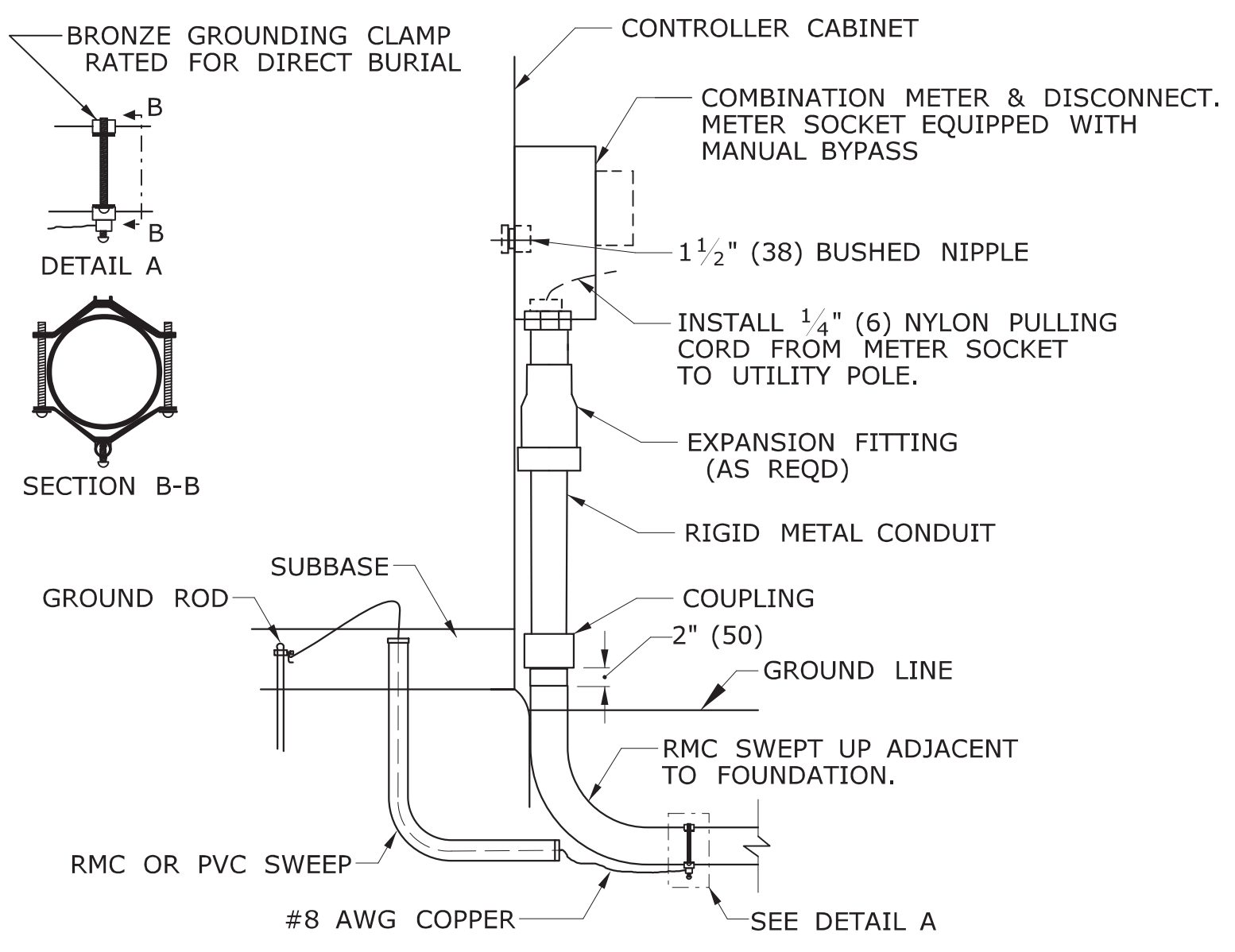
LEGEND AS SHOWN ON TRAFFIC CONTROL SIGNAL PLAN:

	PEDESTRIAN PUSH BUTTON
	PEDESTRIAN PUSH BUTTON, PEDESTAL MOUNTED
	PEDESTRIAN PUSH BUTTON, POLE MOUNTED

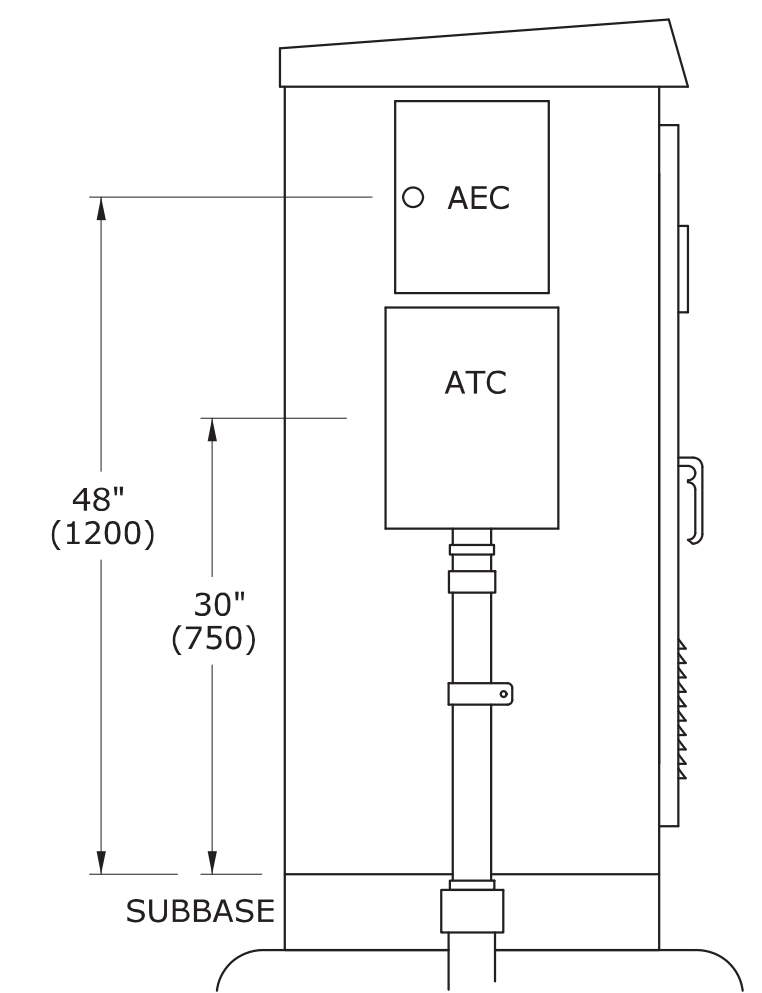
<p>3 8-2018 UPDATED PEDESTRIAN SIGN LEGENDS AND NOTES.</p> <p>2 4-2014 ADDED PEDESTRIAN EXAMPLE ALIGNMENTS</p> <p>1 4-2012 MINOR REVISIONS & UPDATED SIGN #31-0845.</p> <p>REV. DATE REVISION DESCRIPTION</p>	<p>Plotted Date: 8/9/2018</p>	<p>DIMENSIONS ARE IN ENGLISH (") & METRIC UNITS (mm). METRIC DIMENSIONS ARE ROUNDED: - OVER 1" TO NEAREST 5 mm - UNDER 1" TO NEAREST 1 mm.</p> <p>NOT TO SCALE</p>	<p>STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION</p>	<p>SUBMITTED BY: NAME/DATE/TIME: Tracy L. Fogarty, P.E. 2018.08.16 12:13:35-04'00'</p> <p>APPROVED BY: NAME/DATE/TIME: Mark F. Carlino, P.E. 2018.08.21 07:46:57-04'00'</p>	<p>CTDOT STANDARD SHEET</p> <p>OFFICE OF ENGINEERING</p>	<p>STANDARD SHEET TITLE: PEDESTRIAN PUSH BUTTONS</p>	<p>STANDARD SHEET NO.: TR-1107_01</p>
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TYPICAL BASE MOUNTED CONTROLLER ON TYPE IV FOUNDATION



CONTROLLER CABINET WITH METERED SERVICE

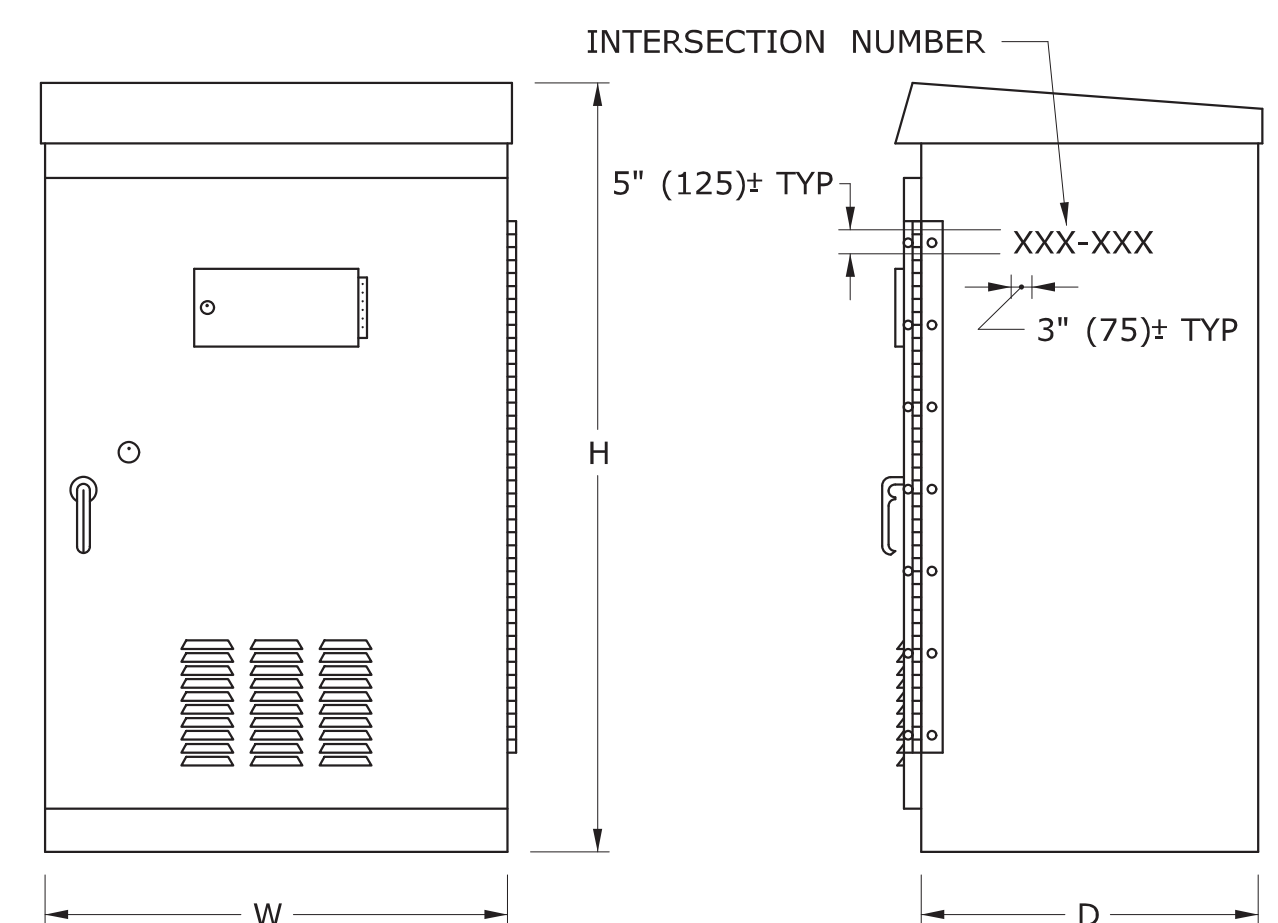


AUXILIARY EQUIPMENT CABINET (AEC) AUXILIARY TERMINATION CABINET (ATC)

CABINET TYPE	HEIGHT	WIDTH	DEPTH
ATC	16"(400)	12"(300)	6"(150)
AEC	14"(350)	11"(275)	11"(275)

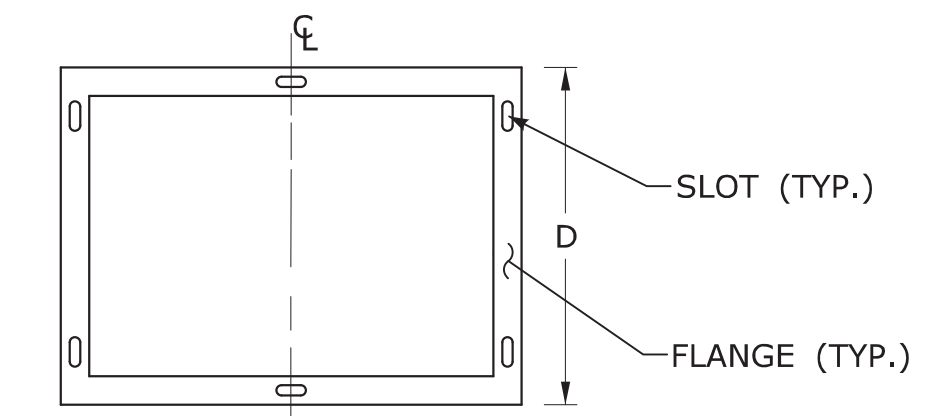
GENERAL NOTES:

- GROUT ALL BASES AFTER MOUNTING ON FOUNDATIONS, WHERE NECESSARY. 3'-0" (900) FROM SIDEWALK TO BOTTOM OF CONTROLLER.
- INSTALL PEDESTALS AND POLES SO THAT DOORS AND COVERS ARE ON THE SIDE AWAY FROM THE STREET, UNLESS OTHERWISE SPECIFIED.
- INSTALL CABINET SO THAT DOOR OPENS FIELD SIDE UNLESS OTHERWISE NOTED ON PLANS. CAULK SEAM BETWEEN SUBBASE AND FOUNDATION.
- STENCIL SIX DIGIT INTERSECTION NUMBER, USING BLACK PAINT ON SIDE, FRONT OR BACK OF CABINET MOST VISIBLE FROM THE ROAD.

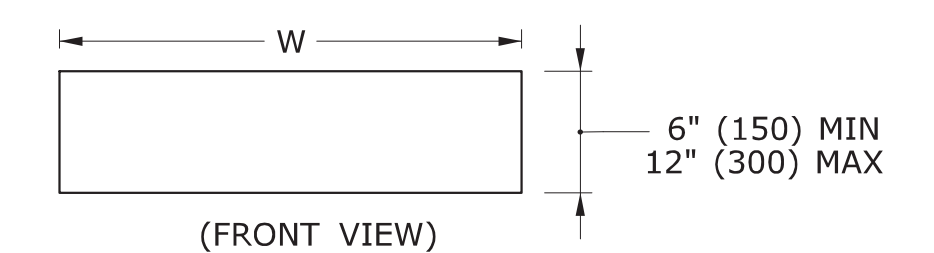


BASE MOUNTED TRAFFIC CONTROLLER (TYPE B, D & E)

CABINET TYPE	DEPTH		WIDTH		HEIGHT	
	MIN	MAX	MIN	MAX	MIN	MAX
B	17" (425)	19" (475)	30" (750)	34" (850)	52" (1300)	56" (1400)
D	25" (625)	27" (675)	42" (1050)	45" (1125)	54" (1350)	59" (1475)
E	17" (425)	19" (475)	30" (750)	32" (800)	49" (1225)	52" (1300)



(TOP & BOTTOM VIEW)



(FRONT VIEW)

SUBBASE

SLOT AND FLANGE DIMENSIONS TO BE PER MANUFACTURER.

LEGEND AS SHOWN ON TRAFFIC CONTROL SIGNAL PLAN:

	CONTROLLER ASSEMBLY
	AUXILIARY EQUIPMENT CABINET
	AUXILIARY TERMINATION CABINET

REV.	DATE	REVISION DESCRIPTION
2	5-2013	REVISED SUBBASE.
1	4-2012	REVISED CABINET TYPES & MINOR REVISIONS.

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

Plotted Date: 5/15/2013

DIMENSIONS ARE IN ENGLISH ("') & METRIC UNITS (mm).
 METRIC DIMENSIONS ARE ROUNDED:
 - OVER 1" TO NEAREST 5 mm
 - UNDER 1" TO NEAREST 1 mm.

NOT TO SCALE

STATE OF CONNECTICUT
 DEPARTMENT OF TRANSPORTATION

Submitted By: Tracy L. Fogarty
 NAME/DATE/TIME: Tracy L. Fogarty 2013.07.29 14:04:24-04'00'

Approved By: Charles S. Harlow
 NAME/DATE/TIME: Charles S. Harlow 2013.07.29 14:59:45-04'00'

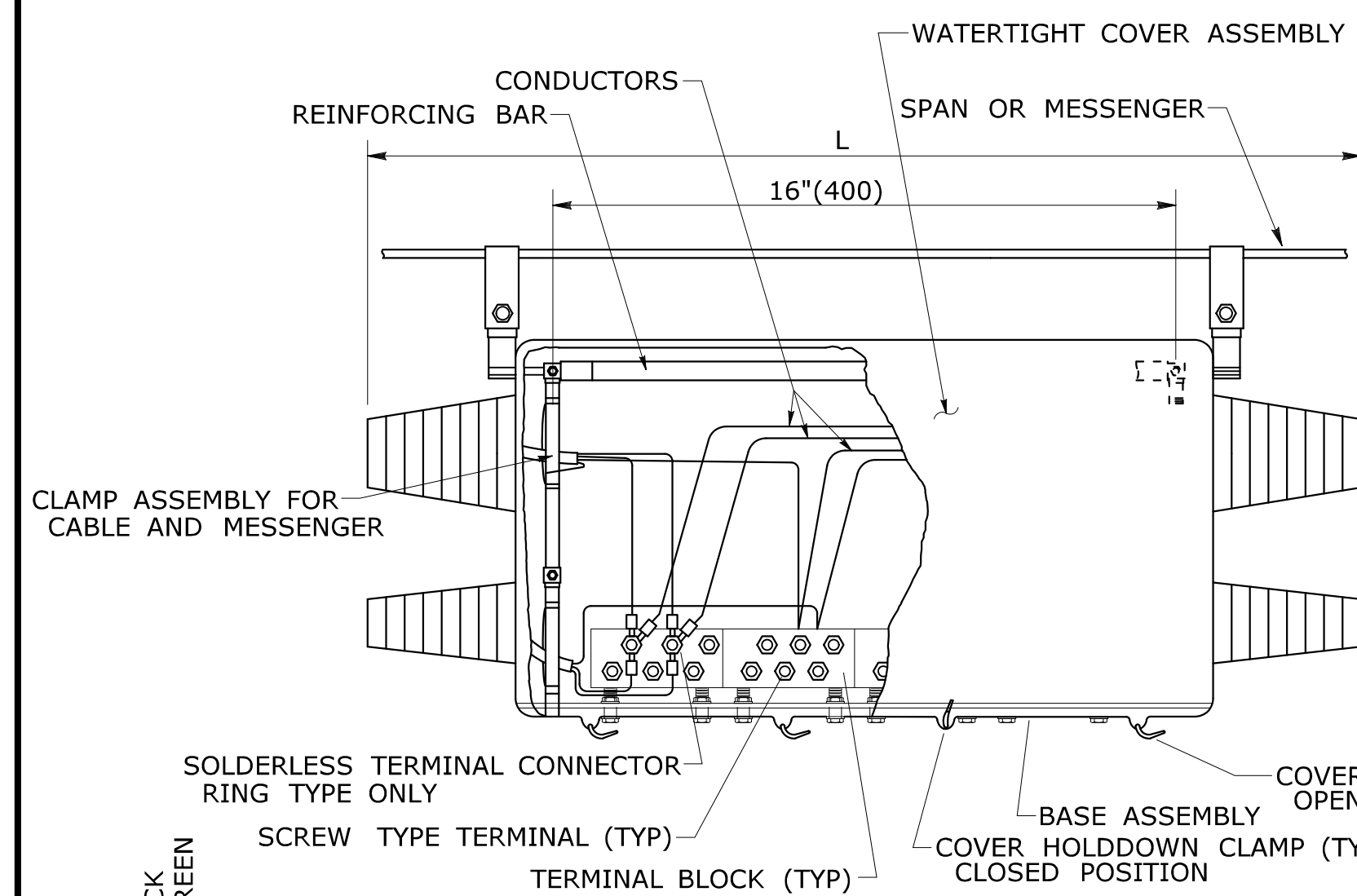
Filename: CTDOT_TRAFFIC_STD.dgn Model: TR-1108_01

CTDOT
 STANDARD SHEET

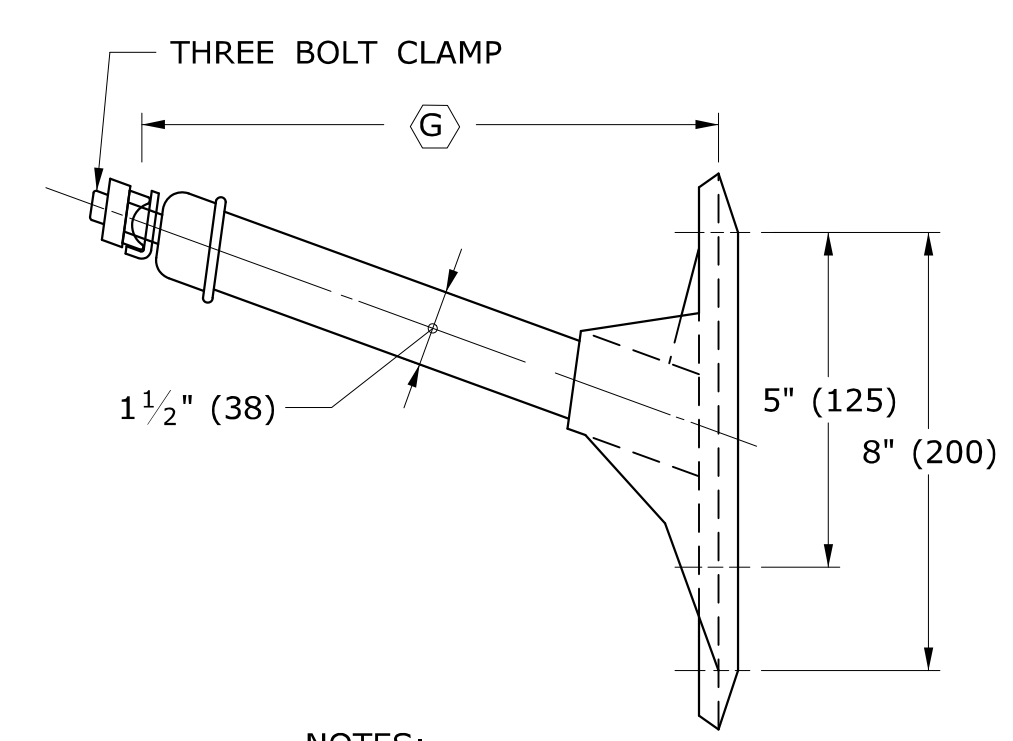
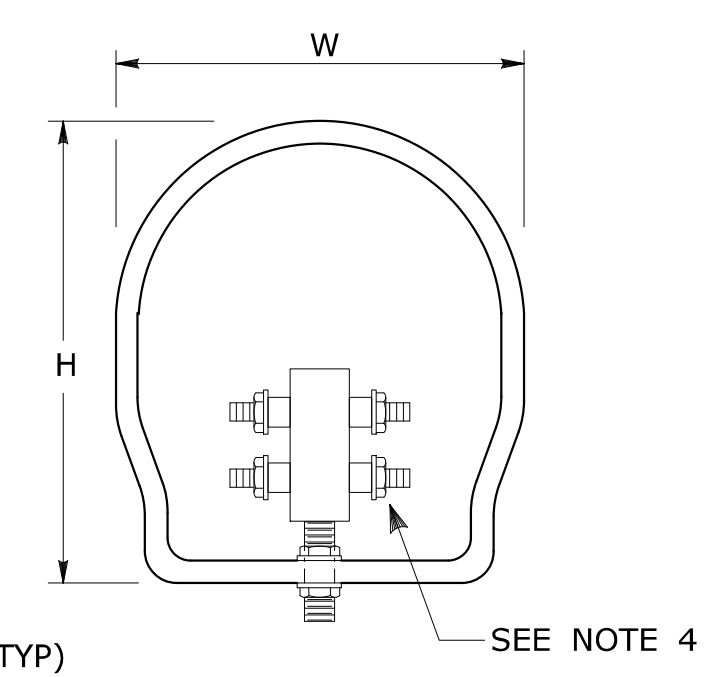
OFFICE OF ENGINEERING

STANDARD SHEET TITLE:
CONTROLLERS

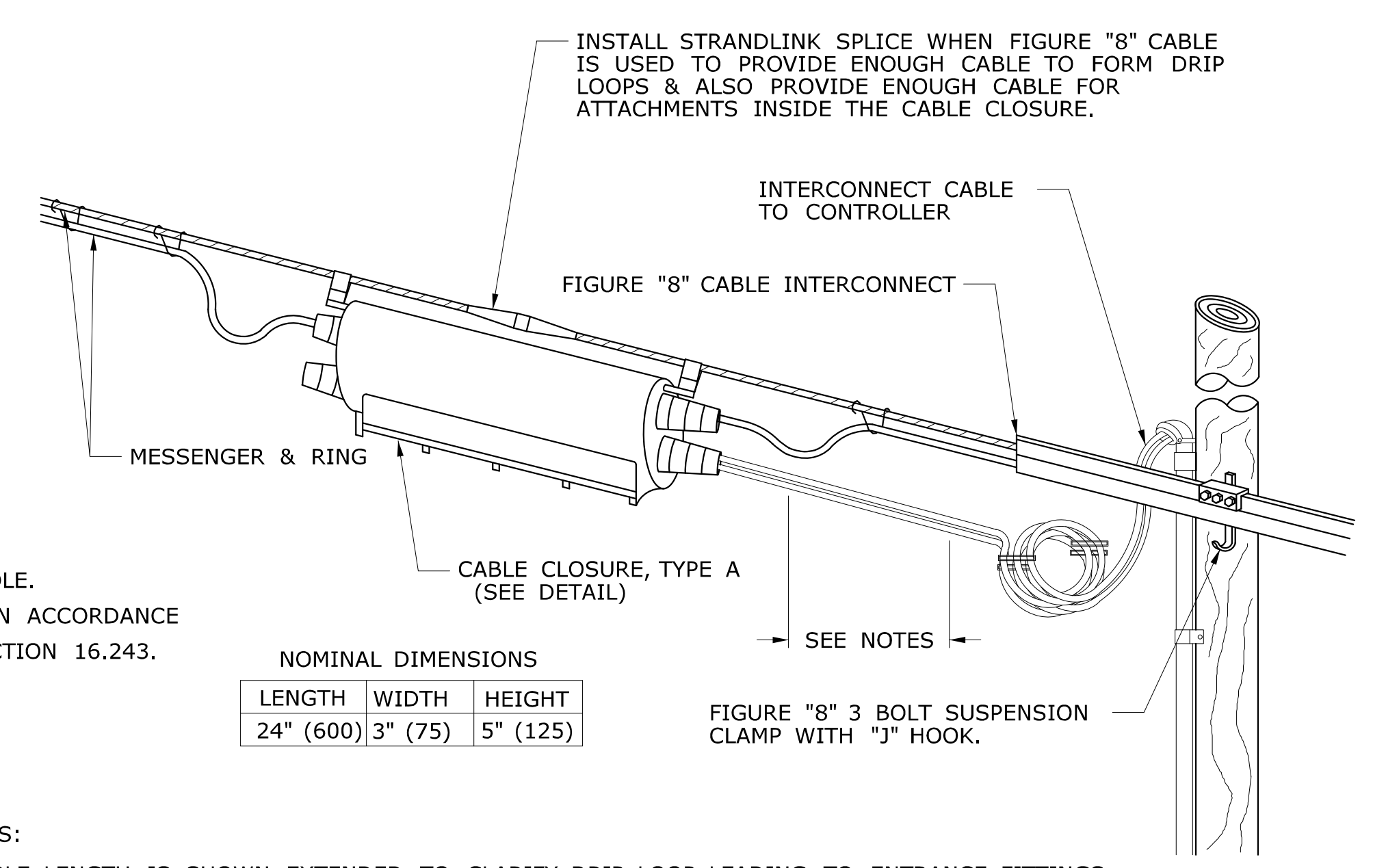
STANDARD SHEET NO.:
TR-1108_01



	LENGTH	WIDTH	HEIGHT
MIN	28" (700)	3" (75)	5" (125)
MAX	33" (840)	6" (150)	8" (200)



NOTES:
 5/8" (16) THROUGH BOLT IN TOP HOLE.
 1/2" (13) X 4" (100) LAG BOLT IN BOTTOM HOLE.
 (G) LENGTH REQUIRED TO PROVIDE CLEARANCE IN ACCORDANCE WITH PURA CONSTRUCTION STANDARD SECTION 16.243.



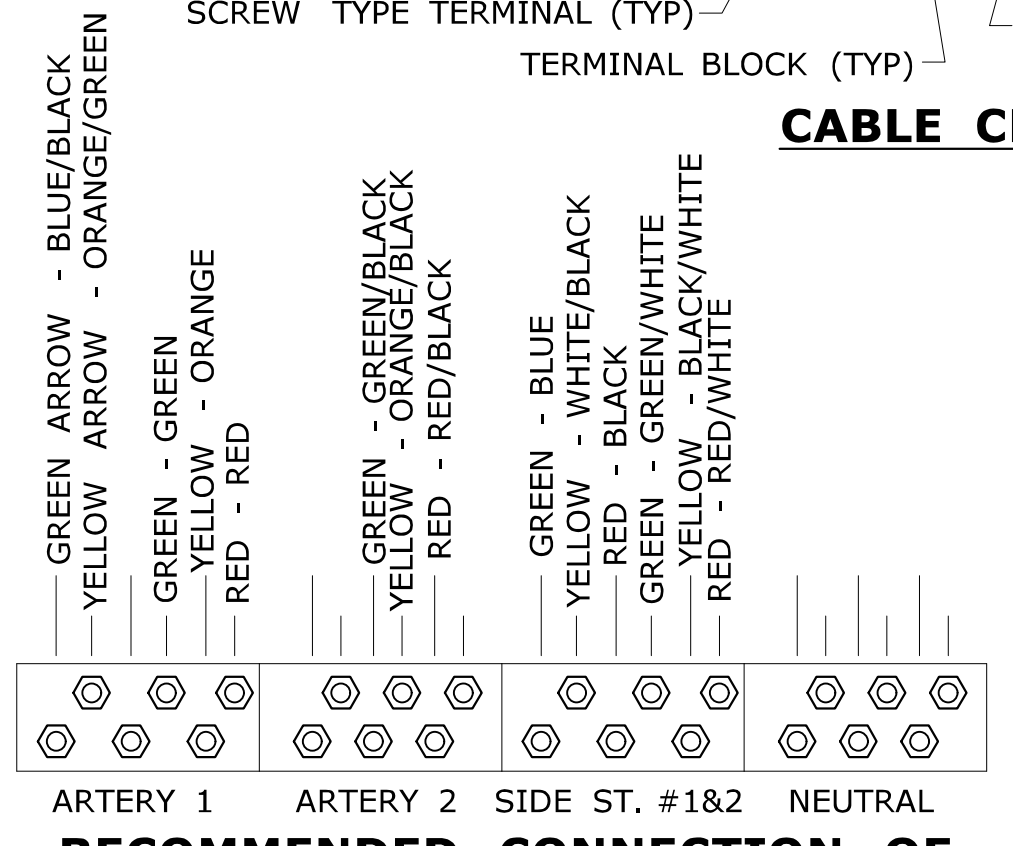
NOMINAL DIMENSIONS

LENGTH	WIDTH	HEIGHT
24" (600)	3" (75)	5" (125)

NOTES:
 CABLE LENGTH IS SHOWN EXTENDED TO CLARIFY DRIP LOOP LEADING TO ENTRANCE FITTINGS. WHEN CABLE IS TOO LARGE TO FORM DRIP LOOPS, INSTALL DIRECTLY INTO CLOSURE WITHOUT DRIP LOOPS.

CABLE CLOSURE FOR TRAFFIC SIGNALS

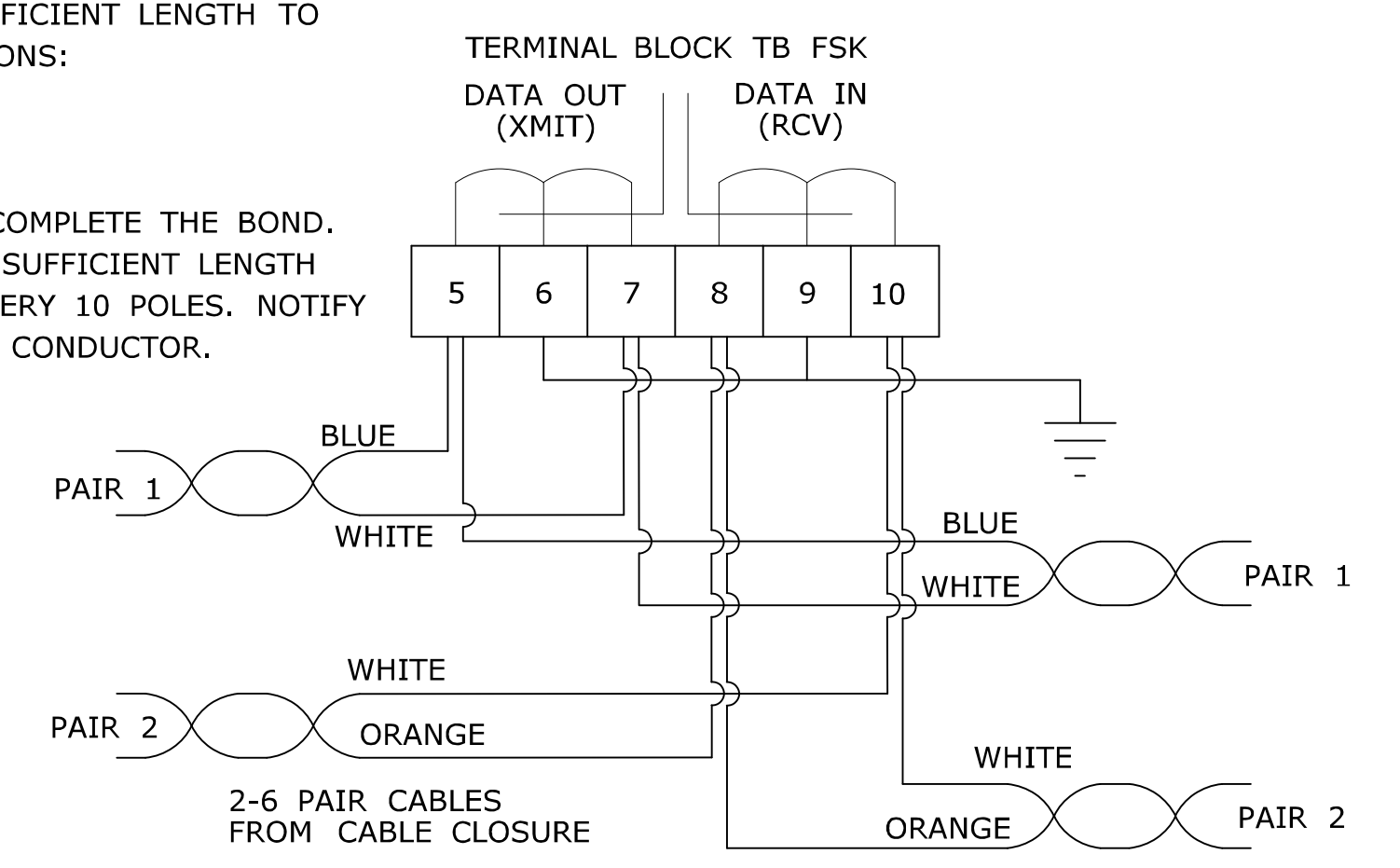
- NOTES:
- PROVIDE A MINIMUM OF FOUR TERMINAL BLOCKS WITH SEPARATE SCREW TYPE TERMINALS, SIX ON EACH SIDE.
 - INSTALL SEPARATE CABLE BETWEEN CLOSURE & EACH TRAFFIC SIGNAL ASSEMBLY. WIRE EACH TRAFFIC SIGNAL SECTION SEPARATELY BACK TO CABLE CLOSURE. JUMPERS BETWEEN TERMINALS ARE NOT ALLOWED EXCEPT ON NEUTRAL CONDUCTORS.
 - WIRE ALL SIGNALS, SAME DIRECTION FROM CONTROLLER, SEPARATELY WITH CONDUCTORS IN 21 OR 25 CONDUCTOR CABLE, EVEN IF INDICATIONS ARE IDENTICAL.
 - PREVENT CONNECTORS, TERMINAL POSTS AND CONDUCTORS FROM CONTACT WITH CLOSURE COVER AND SECURELY WRAP WITH ELECTRICAL TAPE OR RUBBER MASTIC TAPE.
 - CABLES THAT FEED PEDESTRIAN INDICATIONS, PUSH BUTTONS, AND DETECTORS BYPASS CABLE CLOSURE.
 - INSTALL TRAFFIC SIGNAL CABLE CLOSURE ON THE SPAN +5' (+1.5 m) FROM CURBLINE.



RECOMMENDED CONNECTION OF 21 CONDUCTOR CABLE IN CLOSURE

OVERHEAD INTERCONNECT INSTALLATION

- BONDING AND GROUNDING REQUIREMENTS FOR COMMUNICATION CABLES
- PLACE BOND ON STRAND USING #6 AWG LEAVE COIL OF SUFFICIENT LENGTH TO REACH THE NEXT STRAND AT ALL OF THE FOLLOWING LOCATIONS:
 - FIRST POLE
 - LAST POLE
 - JUNCTION POLE
 CONTACT THE UTILITY THAT OWNS THE NEXT STRAND TO COMPLETE THE BOND.
 - LEAVE COIL #6 AWG WIRE ATTACHED TO CABLE STRAND OF SUFFICIENT LENGTH TO REACH VERTICAL GROUNDING CONDUCTOR AT LEAST EVERY 10 POLES. NOTIFY ELECTRIC COMPANY TO MAKE ATTACHMENT TO GROUNDING CONDUCTOR.



NOTES:
 CONNECT SHIELDS TO GROUND ONLY AT EVERY OTHER CABINET, LEAVE SHIELD OPEN AT ALTERNATE CABINETS. TAG 6 PAIR CABLES WITH INTERSECTION DESTINATION. SPARE PAIRS TO BE FOLDED BACK AND NEATLY TIED ADJACENT TO TERMINAL BLOCK.

TYPICAL COMMUNICATION CABLE CONNECTION IN CONTROLLER CABINET

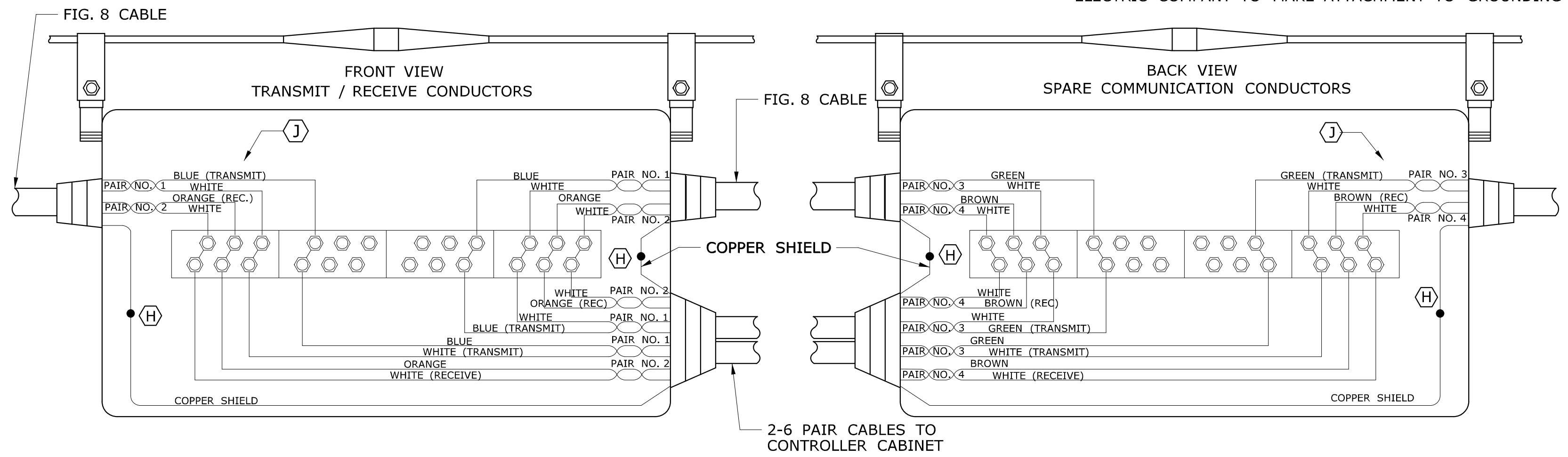
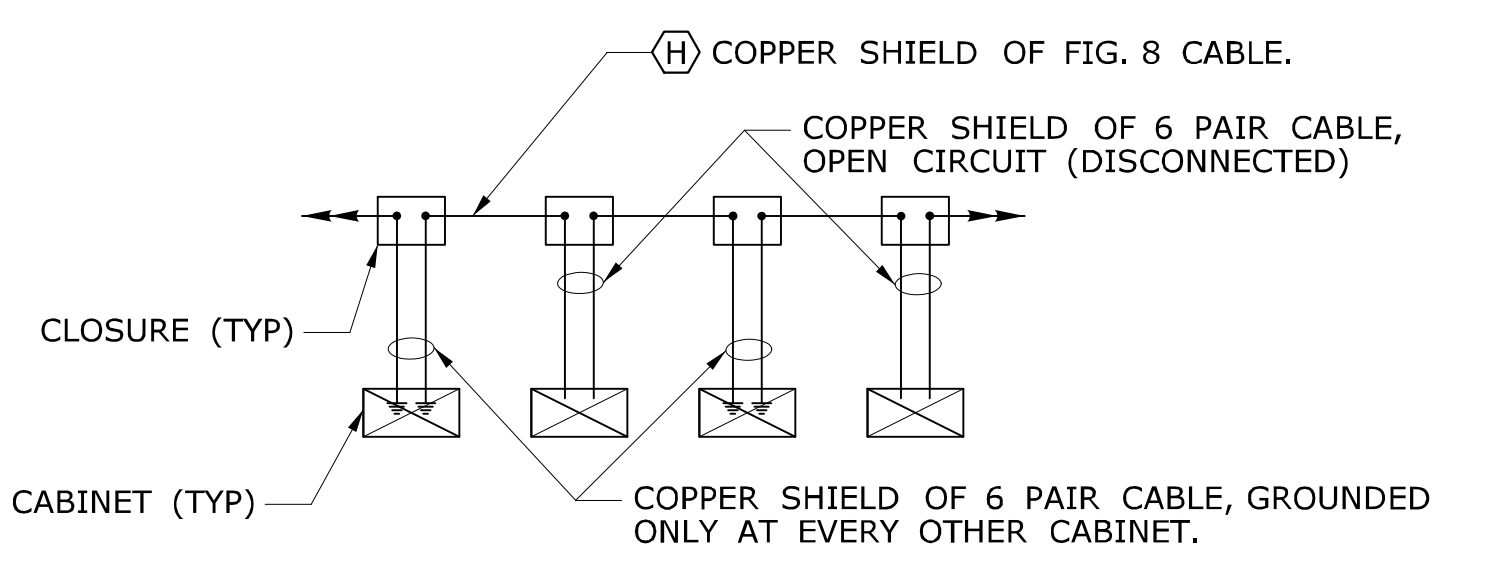
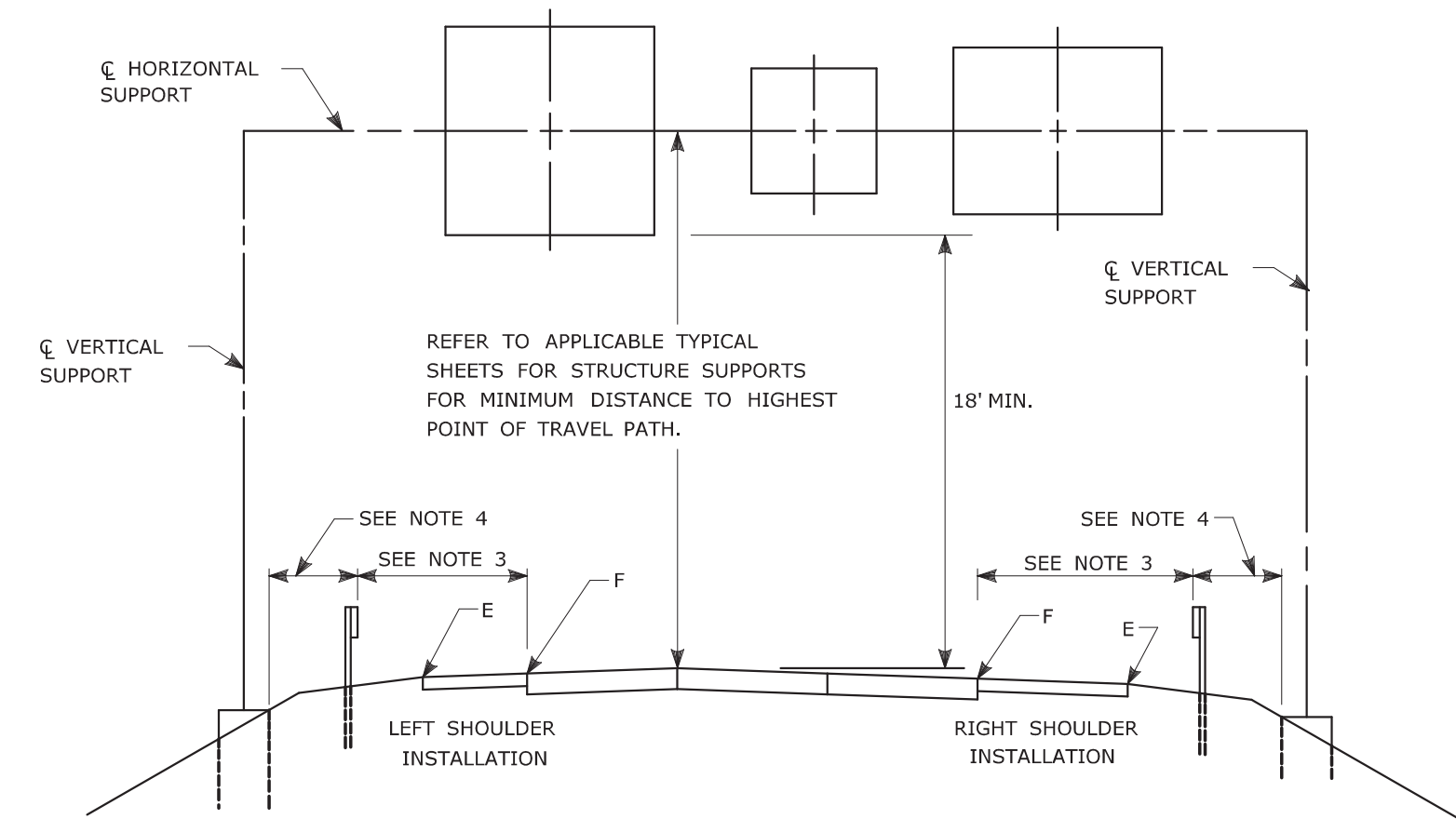


FIG. 8 CABLE				6 PAIR, CABLE			
PAIR #	DOT	SPARE	PAIR #	MUNICIPAL SPARES	PAIR #	DOT	SPARE
3	GREEN	- WHITE	5	SLATE - WHITE	5	SLATE	- WHITE
4	BROWN	- WHITE	6	BLUE - RED	6	BLUE	- RED

NOTES:
 SPARE PAIRS TO BE FOLDED BACK AND NEATLY TIED. GROUP MUNICIPAL SPARES TOGETHER, SEPARATE FROM THOSE RESERVED FOR D.O.T. MUNICIPAL SPARES ARE NOT TO BE CUT. DO NOT BOND THE CABLE SHEATH TO THE SUPPORT STRAND.
 (H) CONNECT ONLY TO SHIELD OF CORRESPONDING 6 PAIR CABLE.
 (I) WHEN CONNECTING TO AN EXISTING SYSTEM, VERIFY COLOR CODE OF TRANSMIT AND RECEIVE CONDUCTORS.

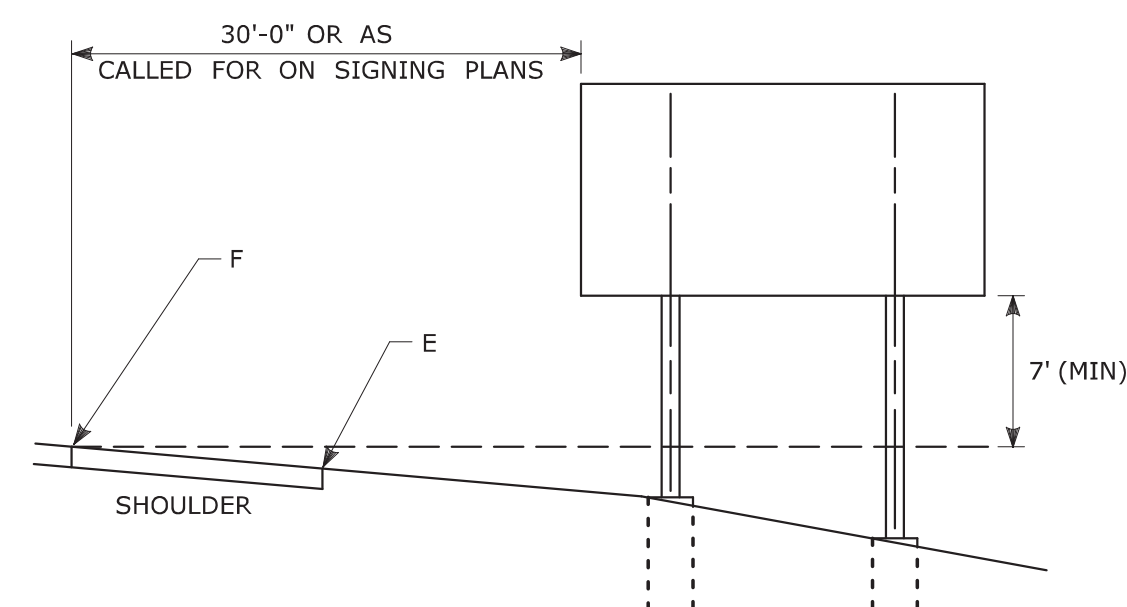
TYPICAL COMMUNICATION CABLE CONNECTION IN CABLE CLOSURE, TYPE A

LEGEND AS SHOWN ON TRAFFIC CONTROL SIGNAL PLAN:
 ○ PROPOSED UTILITY POLE
 ● EXISTING UTILITY POLE
 ○ POLE ANCHOR & GUY
 ○ CABLE CLOSURE



TYPICAL PLACEMENT OF OVERHEAD SIGNS ON SIGN SUPPORTS

- NOTES:
- 1) FOR PLACEMENT OF CANTILEVER SIGN SUPPORT USE APPLICABLE PORTION OF ABOVE DETAIL.
 - 2) BARRIER SYSTEMS MAY BE REQUIRED FOR BOTH SIDES OF SUPPORTS IN MEDIANS.
 - 3) IMPACT PROTECTION SHALL BE PROVIDED FOR THE SIGN SUPPORTS LOCATED WITHIN CLEAR ZONE.
 - 4) SIGN SUPPORT FOUNDATIONS SHALL BE LOCATED OUTSIDE OF BARRIER SYSTEMS DEFLECTION AREA.
 - 5) ALL SIGNS ARE TO BE LEVEL, REGARDLESS OF CAMBER IN SUPPORT.



TYPICAL PLACEMENT OF SIDE MOUNTED SIGNS ON STRUCTURAL STEEL BREAKAWAY SIGN SUPPORTS

- NOTES:
- 1) MIN. VERTICAL CLEARANCE ABOVE SIDEWALKS SHALL BE 7'.
 - 2) WHERE GUIDE RAIL IS USED, THE OFFSET TO THE NEAR EDGE OF SIGN FACE SHALL BE AS SHOWN ELSEWHERE IN THE CONTRACT PLANS.
 - 3) ON INTERSECTING ROADS AT RAMP TERMINI, THE OFFSET TO THE NEAR EDGE OF SIGN FACE SHALL BE 6' MIN. FROM POINT "E".
 - 4) IF 30'-0" MIN. CANNOT BE MET, PLEASE CONTACT THE ENGINEER.

FOR MAXIMUM EFFECTIVENESS, POSITION SIDE MOUNTED SIGNS ON STRUCTURAL STEEL BREAKAWAY SIGN SUPPORTS AS FOLLOWS:

ON A TANGENT SECTION, POSITION THE SIGN SO THE VERTICAL AXIS IS PLUMB AND THE HORIZONTAL AXIS IS AT AN ANGLE OF 90° WITH THE TRAFFIC LANE WHICH THE SIGN SERVES. SIGNS LOCATED 30 FT OR MORE FROM THE EDGE OF THE ROAD SHALL BE TURNED APPROXIMATELY 3° TOWARD THE ROAD.



DIAGRAM "A"

ON A HORIZONTAL CURVE SECTION, POSITION THE SIGN SO THE VERTICAL AXIS IS PLUMB AND THE HORIZONTAL AXIS IS AT AN ANGLE OF 90° WITH A STRAIGHT LINE BETWEEN THE SIGN AND THE POINT AT WHICH THE SIGN SHALL BE READ.

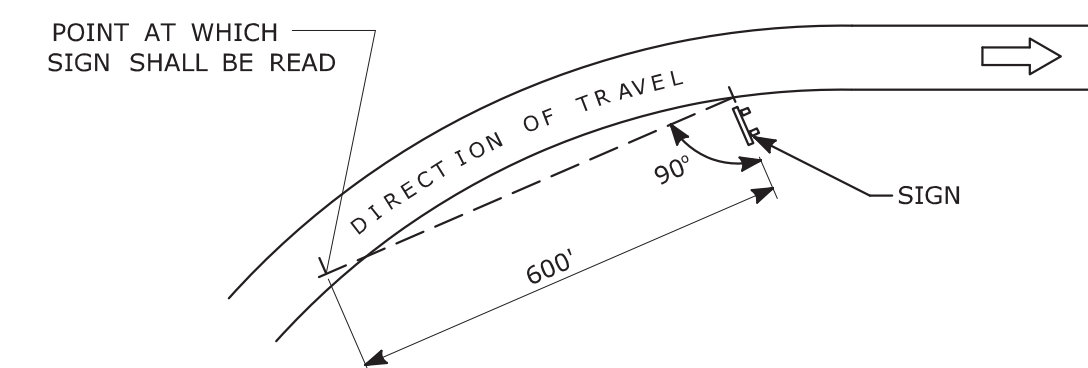
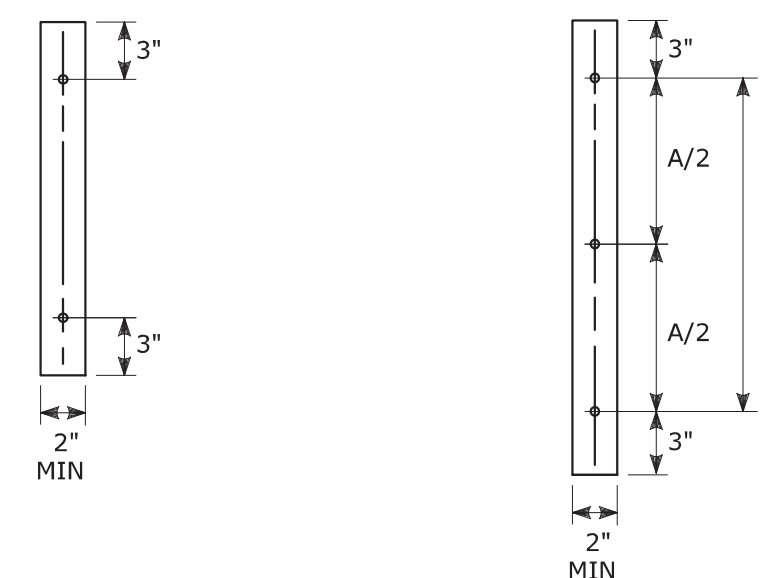


DIAGRAM "B"

SIGN ORIENTATION DETAILS FOR SIDE MOUNTED SIGNS ON STRUCTURAL STEEL BREAKAWAY SIGN SUPPORTS

RETROREFLECTIVE STRIPS 48" LONG OR LESS:

RETROREFLECTIVE STRIPS OVER 48" LONG:



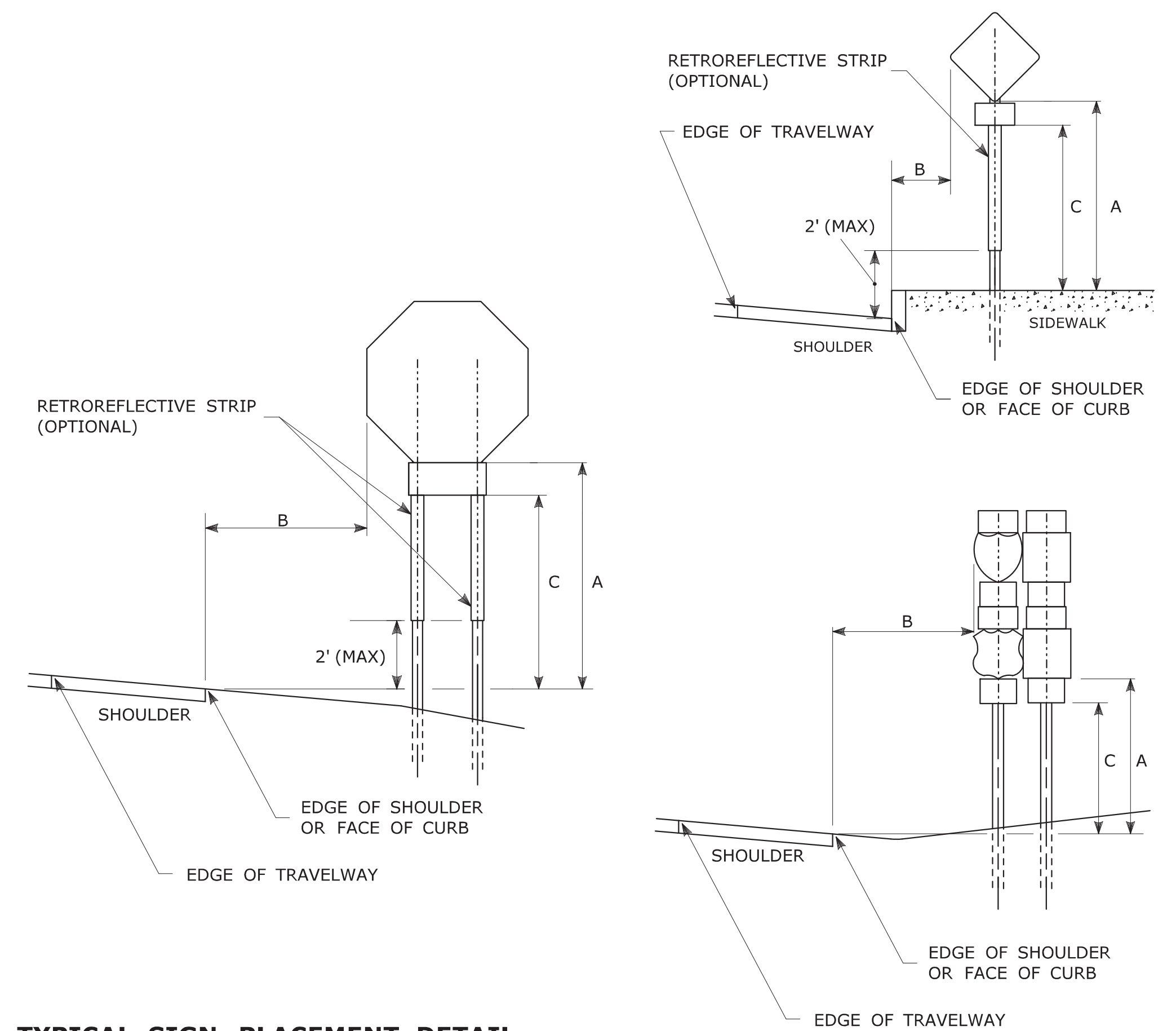
RETROREFLECTIVE STRIP DETAIL

NOTES:

RETROREFLECTIVE STRIPS WHICH ARE 48 IN LONG OR LESS SHALL BE ATTACHED USING 2 BOLTS AND RETROREFLECTIVE STRIPS OVER 48 IN LONG SHALL BE ATTACHED USING 3 BOLTS AS SHOWN ON THE DETAILS ABOVE.

REFER TO STANDARD SHEET No. TR-1208_02 "METAL SIGN POSTS AND SIGN MOUNTING DETAILS" FOR MOUNTING DETAILS.

RETROREFLECTIVE STRIP COLOR SHALL MATCH THE BACKGROUND COLOR OF THE SIGN, EXCEPT THAT THE COLOR OF THE STRIP FOR "YIELD" AND "DO NOT ENTER" SIGNS SHALL BE RED.



TYPICAL SIGN PLACEMENT DETAIL

NOTES:

ALL SIGNS AND SHIELDS ON DIRECTIONAL ASSEMBLIES SHALL ABUT VERTICALLY.

REFER TO STANDARD SHEET No. TR-1208_02 "METAL SIGN POSTS AND SIGN MOUNTING DETAILS" FOR SIGN POSTS AND SIGN MOUNTING.

IF A RETROREFLECTIVE STRIP IS USED ON SIGN SUPPORT, IT SHALL BE PLACED FOR THE FULL LENGTH OF THE SUPPORT FROM THE BOTTOM OF THE SIGN TO WITHIN 2 FT ABOVE THE EDGE OF THE ROADWAY.

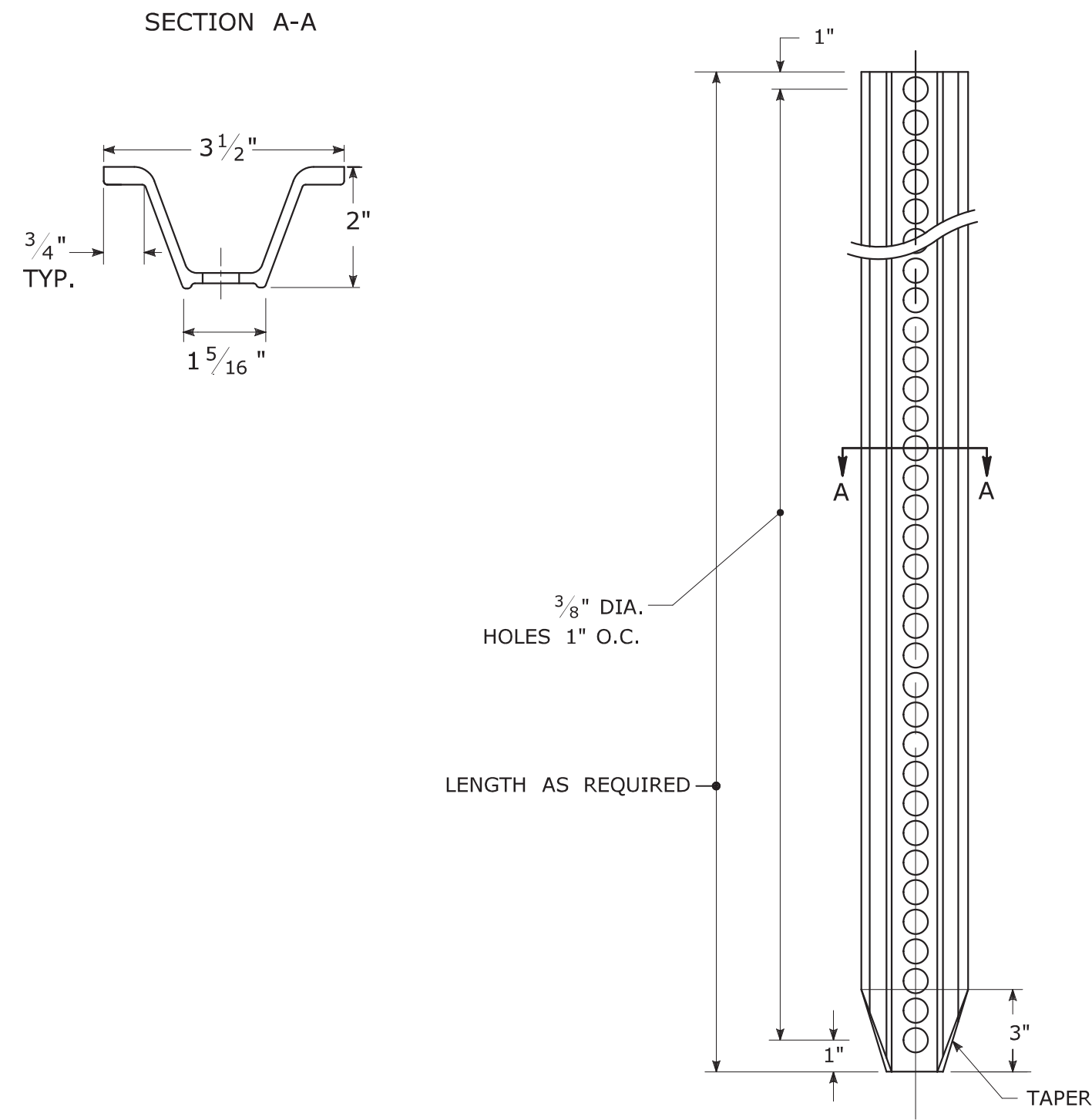
PARKING SIGNS TYPICALLY USE 45° MOUNTING BRACKET.

DIM."A" MIN SIGN HEIGHT	DIM."B" MIN LATERAL OFFSET (1)	DIM."C" MIN PLAQUE HEIGHT (1)	ASSEMBLY LOCATION
7' (2)	6' 12' (3)	5'	SIGNS ON FREEWAYS AND EXPRESSWAYS EXCEPT CHEVRON ALIGNMENT SIGNS, ONE-DIRECTION LARGE ARROW SIGNS, DO NOT ENTER SIGNS, AND WRONG WAY SIGNS
5'	2'	4'	• SIGNS IN RURAL AREAS • DO NOT ENTER AND WRONG WAY SIGNS ALONG EXIT RAMP • DO NOT ENTER AND WRONG WAY SIGNS ON LIMITED ACCESS HIGHWAYS
5'	2'	N/A	• CHEVRON ALIGNMENT SIGNS LOCATED ON FREEWAYS, EXPRESSWAYS, RAMP, AND IN RURAL AREAS • ONE-DIRECTION LARGE ARROW SIGNS LOCATED ON FREEWAYS, EXPRESSWAYS, RAMP, AND IN RURAL AREAS
4'	6' 12' (3)	N/A	INCIDENT MANAGEMENT SIGNS AND MILE POST MARKER ASSEMBLIES LOCATED ON FREEWAYS AND EXPRESSWAYS
4'	2'	4'	CENTRAL ISLANDS OF ROUNDABOUTS
7'	2' (4)	6'	BUSINESS & RESIDENTIAL AREAS WHERE PARKING OR OTHER OBSTRUCTIONS LIMIT VISIBILITY
7'	2' (4)	7'	SIDEWALKS (5)

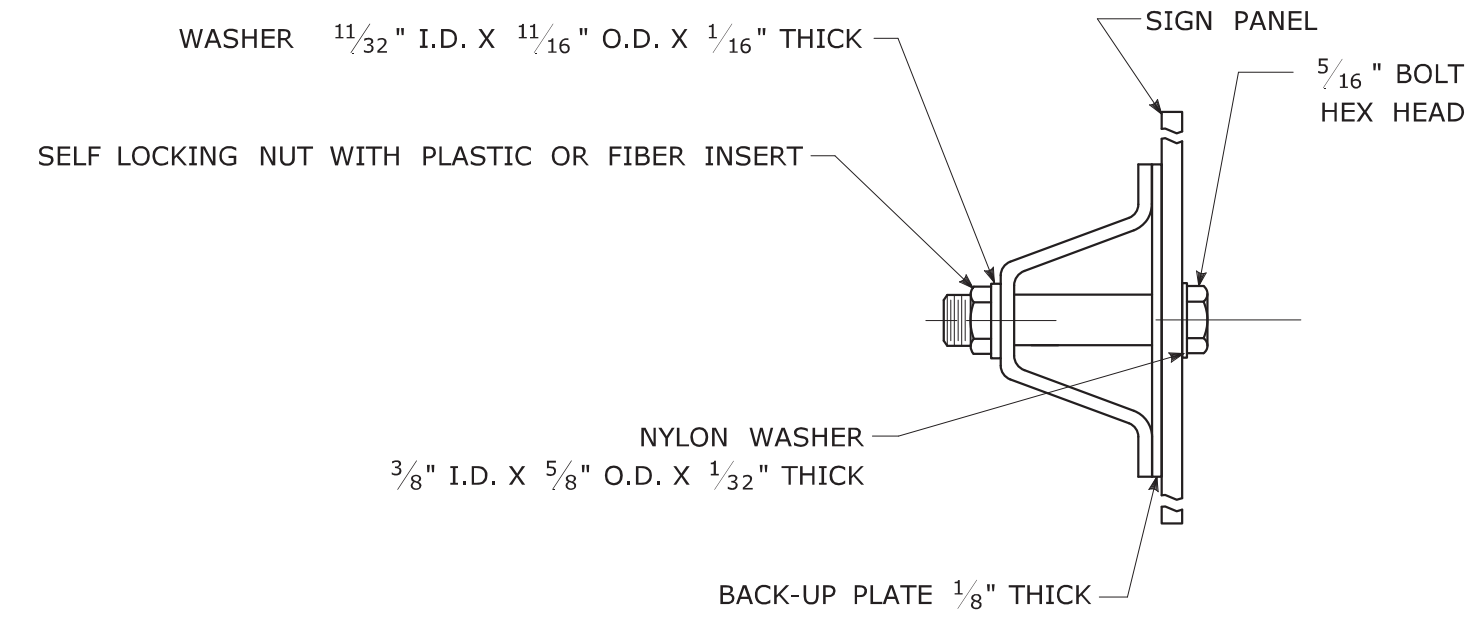
- (1) OR AS DIRECTED BY THE ENGINEER
- (2) 8 FT MINIMUM HEIGHT REQUIRED IF A SUPPLEMENTAL PLAQUE IS SUBMOUNTED BELOW THE MAJOR SIGN.
- (3) 6 FT FROM EDGE OF SHOULDER, WHEN SHOULDER IS OVER 6 FT WIDE 12 FT FROM EDGE OF TRAVELWAY, WHEN SHOULDER IS LESS THAN 6 FT WIDE.
- (4) A LATERAL OFFSET OF AT LEAST 1 FT FROM THE FACE OF THE CURB MAY BE USED WHERE SIDEWALK WIDTH IS LIMITED OR WHERE EXISTING UTILITY POLES ARE CLOSE TO THE CURB.
- (5) A CLEAR PATH OF NOT LESS THAN 4 FT SHALL BE PROVIDED IN SIDEWALK AREAS.

<p>THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.</p>		<p>STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION</p>		<p>SUBMITTED BY: NAME/DATE/TIME: Mark F. Makuch, P.E. 2018.08.17 09:06:06-04'00'</p>		<p>STANDARD SHEET TITLE: CDOT STANDARD SHEET SIGN PLACEMENT AND RETROREFLECTIVE STRIP DETAILS</p>		<p>STANDARD SHEET NO.: TR-1208_01</p>	
<p>3 8-2018 INCLUDED INCIDENT MANAGEMENT AND MILE MARKER SIGNS.</p> <p>2 4-2017 MINOR REVISIONS.</p> <p>1 2-2011 MINOR REVISIONS.</p>		<p>NOT TO SCALE</p>		<p>APPROVED BY: NAME/DATE/TIME: Mark F. Carlino, P.E. 2018.08.21 07:48:06-04'00'</p>		<p>OFFICE OF ENGINEERING</p>			
<p>REV. DATE REVISION DESCRIPTION</p>		<p>Plotted Date: 8/10/2018</p>		<p>Filename: TR_1208_01_1_2018.dgn Model: TR-1208_01</p>					

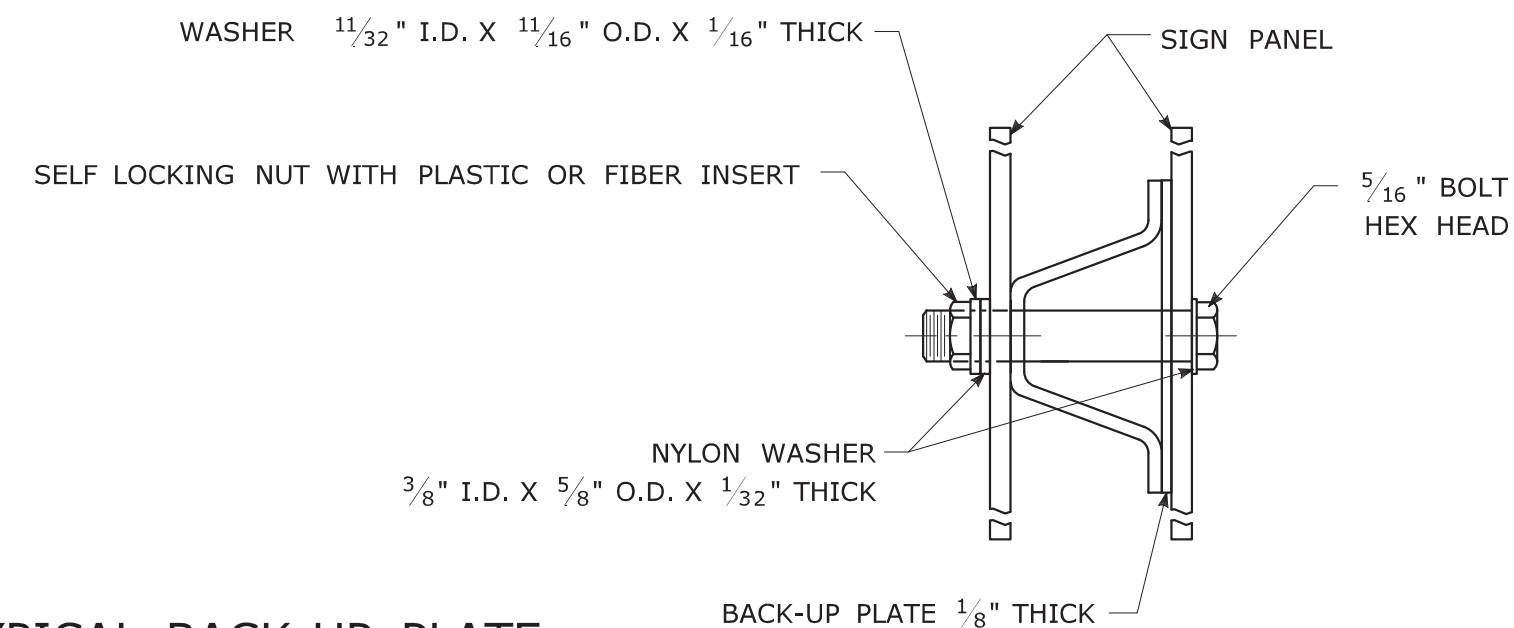
TYPICAL METAL SIGN POSTS



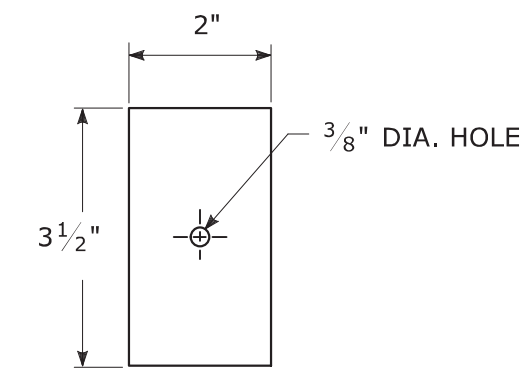
TYPICAL SIGN PANEL ATTACHMENT



TYPICAL BACK TO BACK SIGN PANEL ATTACHMENT

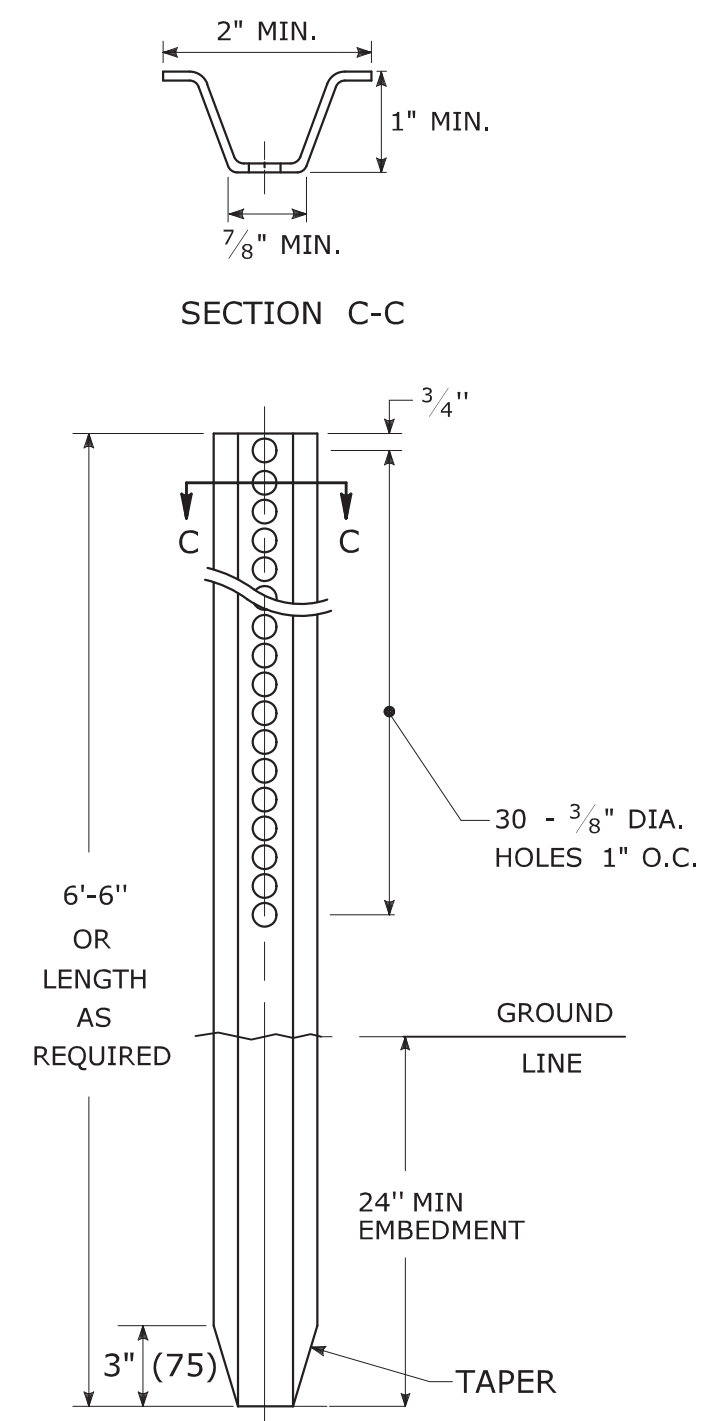


TYPICAL BACK-UP PLATE



BOLTS - STAINLESS STEEL CONFORMING TO ASTM F593, ALLOY GROUP 1 OR 2 (ALLOY TYPES 304 OR 316).
 SELF LOCKING NUTS - STAINLESS STEEL CONFORMING TO ASTM F594, ALLOY GROUP 1 OR 2 (ALLOY TYPES 304 OR 316).
 WASHERS - STAINLESS STEEL CONFORMING TO ASTM A240, (ALLOY TYPES 304 OR 316).

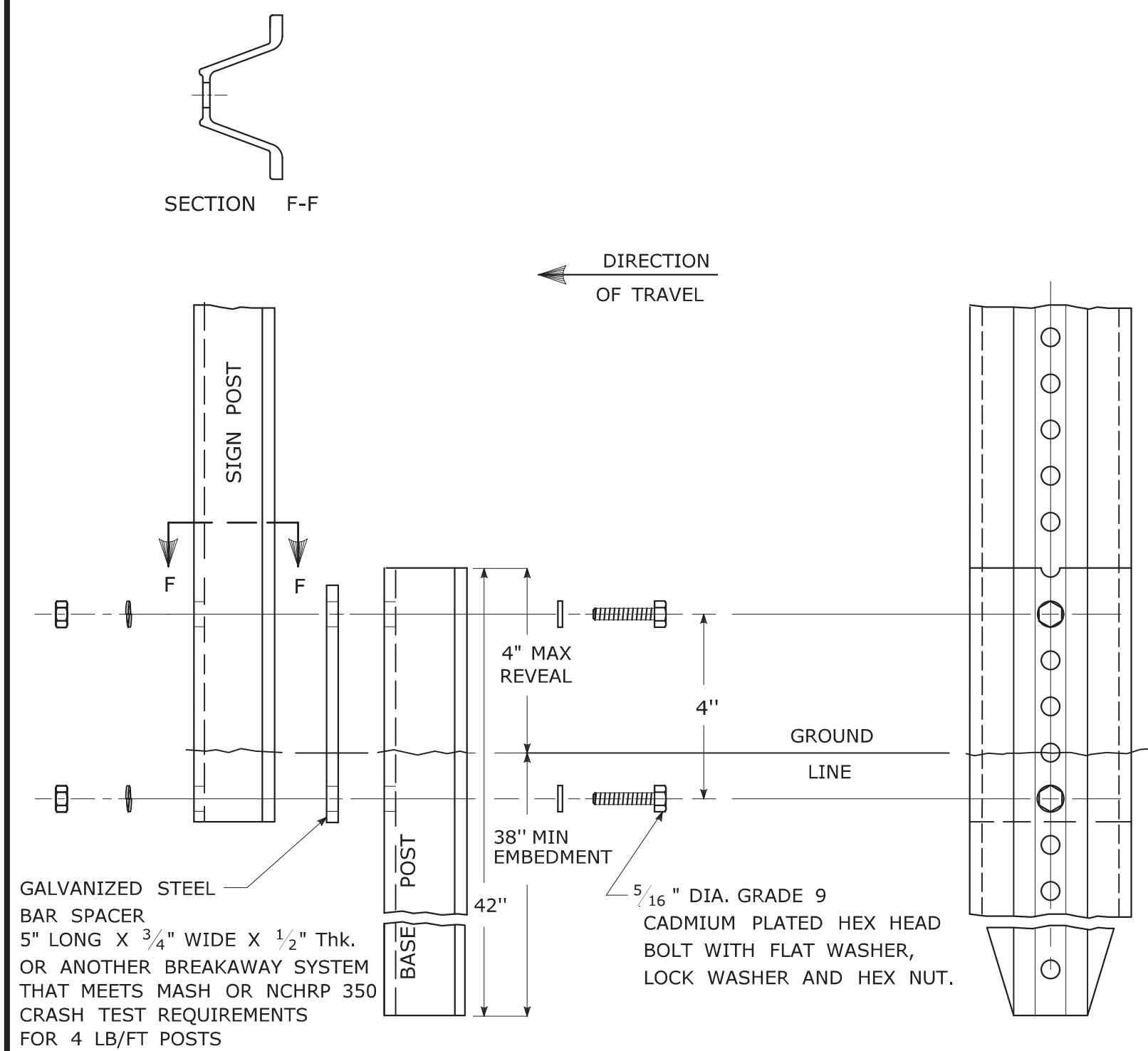
METAL DELINEATOR POST
 WT./FT. = 1.12 LBS./FT. MIN.



GENERAL NOTES:

1. STEEL FOR DELINEATOR POSTS SHALL BE ASTM A36 STEEL. STEEL FOR ALL OTHER POSTS SHALL CONFORM TO THE MECHANICAL REQUIREMENTS OF ASTM A 499 GRADE 80 AND TO THE CHEMICAL REQUIREMENTS OF ASTM A1 CARBON STEEL TEE RAIL HAVING NOMINAL WEIGHT (MASS) OF 91 LBS. OR GREATER PER LINEAR YARD.
2. AFTER FABRICATION, ALL STEEL POSTS, STRAPS AND PLATES SHALL BE GALVANIZED TO MEET THE REQUIREMENTS OF ASTM A123.
3. WASHERS FOR BREAKAWAY INSTALLATIONS SHALL MEET ASTM F436, TYPE 1.
4. SPACER BAR FOR BREAKAWAY INSTALLATION SHALL CONFORM TO THE MECHANICAL REQUIREMENTS OF ASTM A36.
5. ALL BOLTS, NUTS, AND WASHERS FOR BREAKAWAY INSTALLATIONS SHALL BE GALVANIZED TO MEET THE REQUIREMENTS OF ASTM A153.
6. ALL SIGN POSTS SHALL HAVE BREAKAWAY FEATURES THAT MEET AASHTO REQUIREMENTS CONTAINED IN THE CURRENT "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS." THE BREAKAWAY FEATURES SHALL BE STRUCTURALLY ADEQUATE TO CARRY THE SIGNS SHOWN IN THE PLANS AT 60 MPH WIND LOADINGS. INSTALLATIONS SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
7. SIGN POSTS SHALL BE 4 LBS./FT.

BREAKAWAY INSTALLATION
 FOR 4 LBS./FT. POSTS

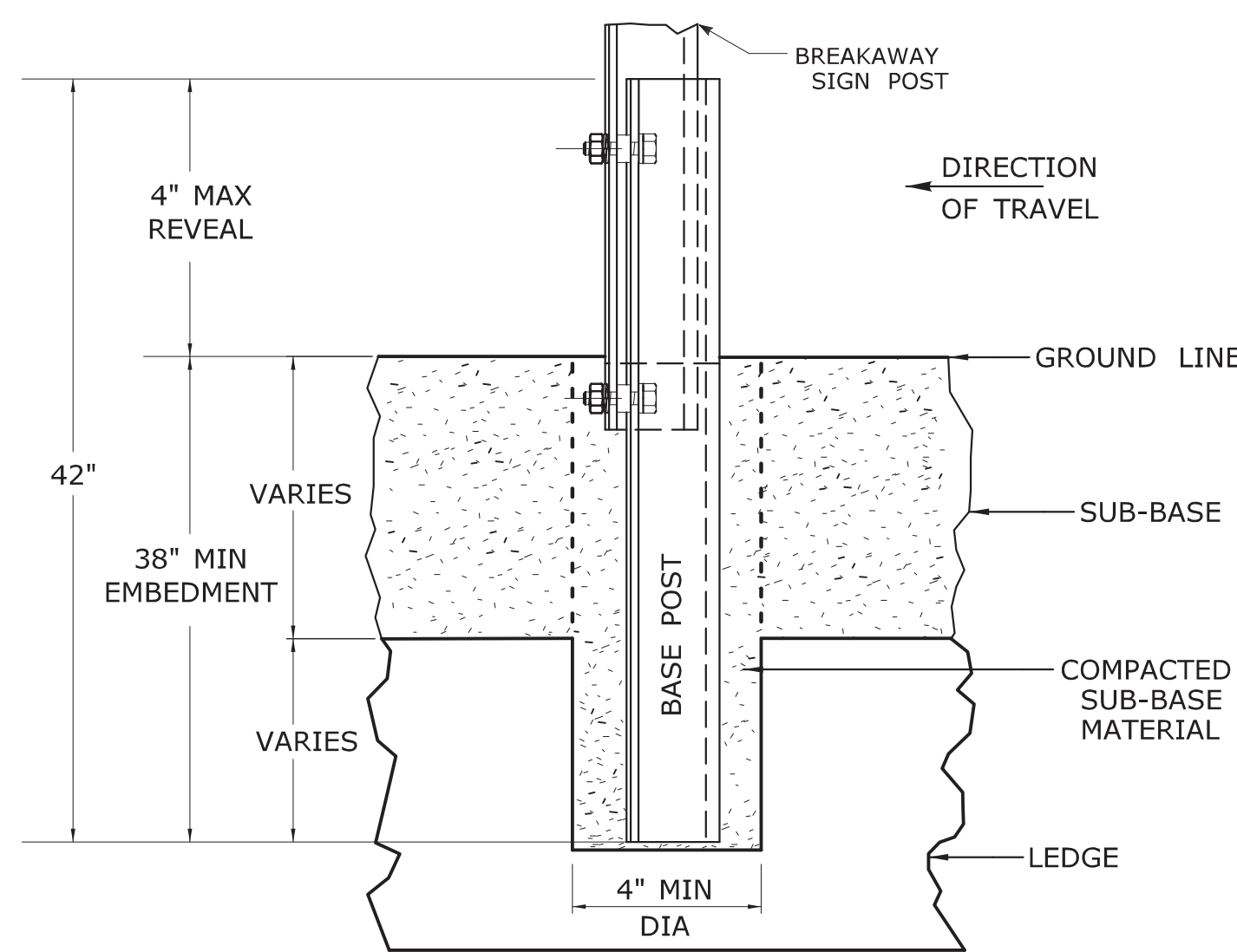


GALVANIZED STEEL BAR SPACER 5" LONG X 3/4" WIDE X 1/2" THK. OR ANOTHER BREAKAWAY SYSTEM THAT MEETS MASH OR NCHRP 350 CRASH TEST REQUIREMENTS FOR 4 LB/FT POSTS

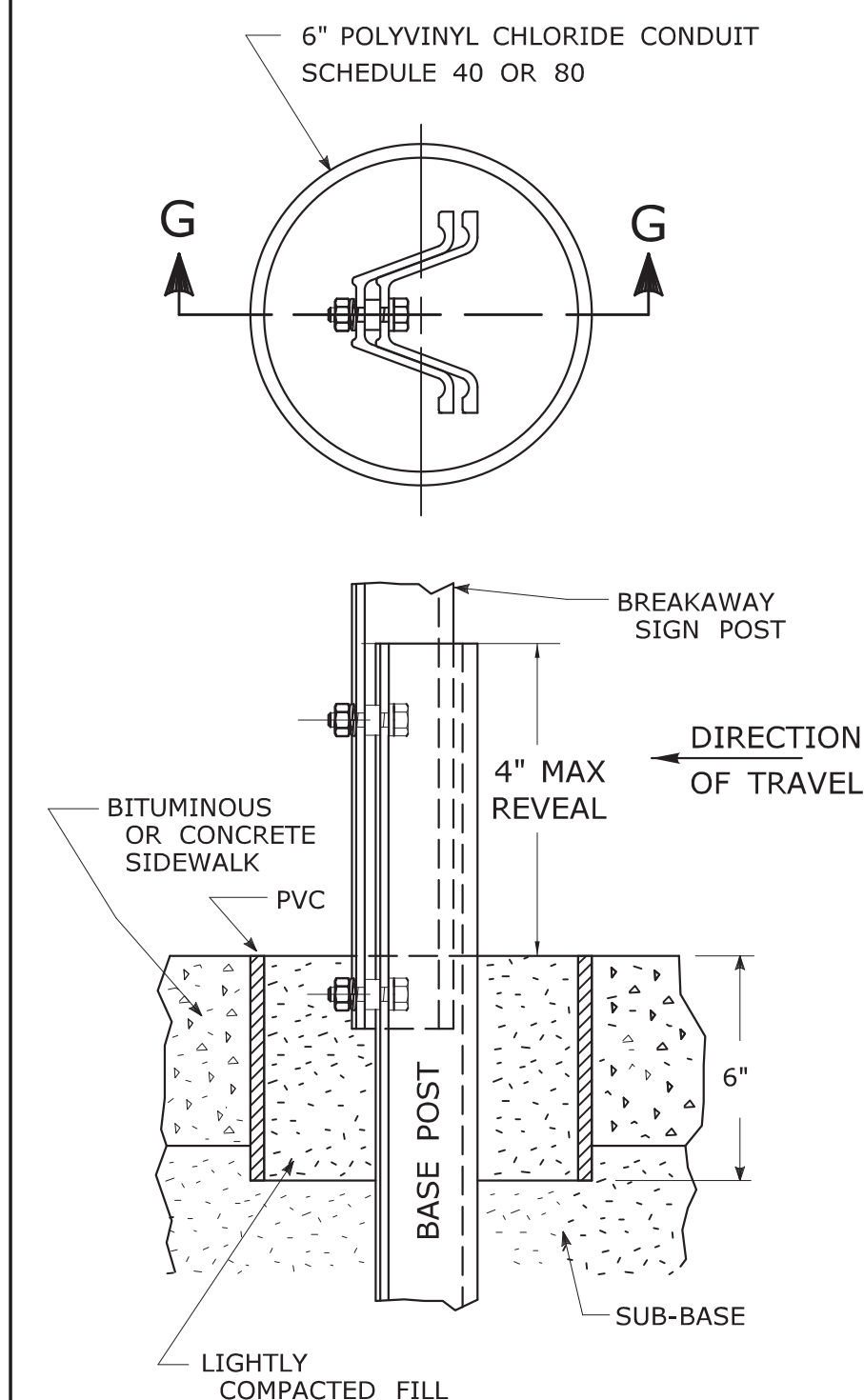
5/16" DIA. GRADE 9 CADMIUM PLATED HEX HEAD BOLT WITH FLAT WASHER, LOCK WASHER AND HEX NUT.

TYPICAL SIGN POST INSTALLATION IN LEDGE

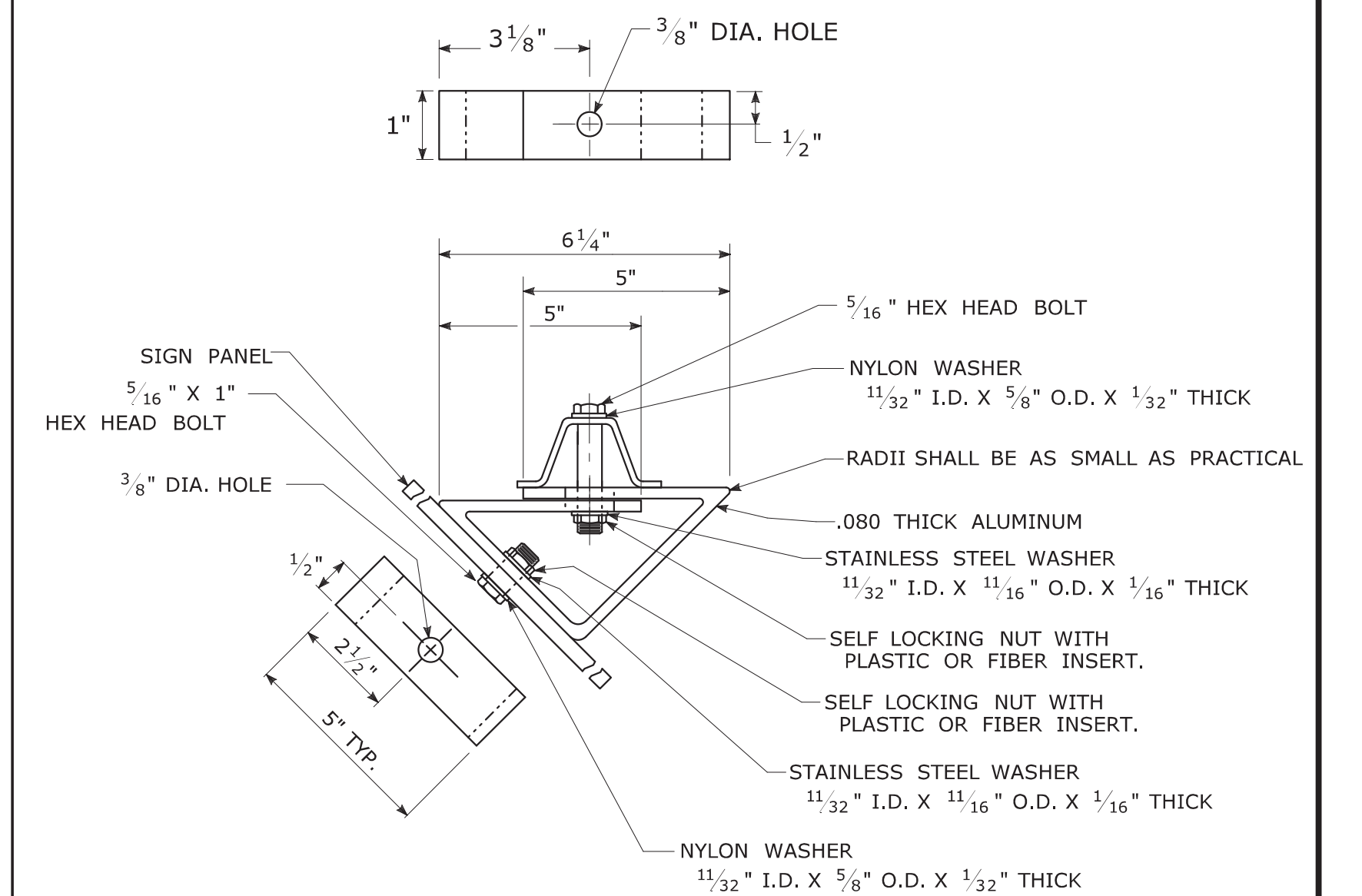
LEDGE SHALL BE REMOVED TO DRIVE THE BASE POST TO A DEPTH OF 38". HOLE SHALL BE FILLED WITH SUB-BASE MATERIAL AND COMPACTED WITH A TAMPING BAR, OR TECHNIQUE APPROVED BY THE ENGINEER, PRIOR TO BASE POST INSTALLATION.



TYPICAL SLEEVE FOR PAVED AREAS



45° MOUNTING BRACKET FOR INSTALLATION OF PARKING SIGNS



REV.	DATE	REVISION DESCRIPTION
2	6-2017	SIGN POST REVISIONS.
1	2-2011	MINOR REVISIONS.

Plotted Date: 6/6/2017

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

NOT TO SCALE



Filename: TR-1208_02_May_2017_Revision.dgn Model: TR-1208_02

SUBMITTED BY: *Mark F. Makuch* NAME/DATE/TIME: Mark F. Makuch, P.E. 2017.06.07 07:30:30-04'00'

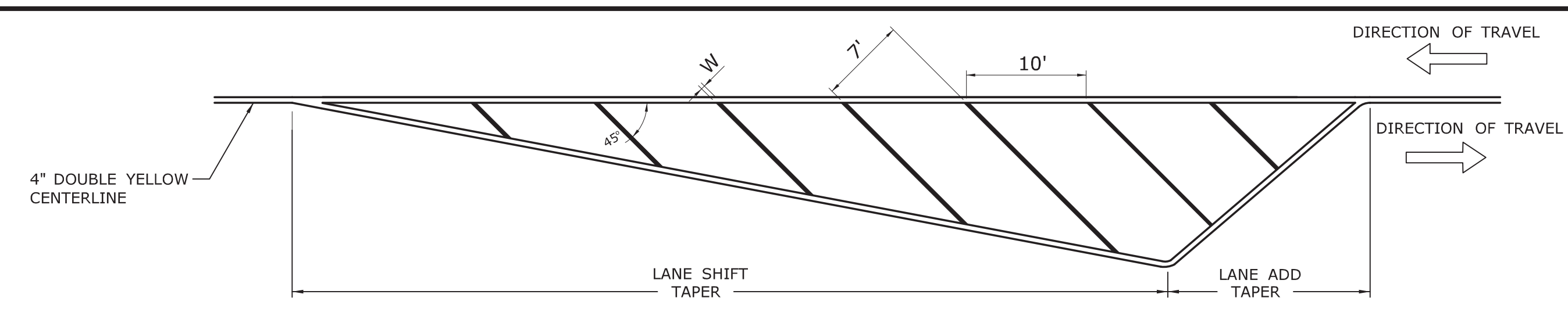
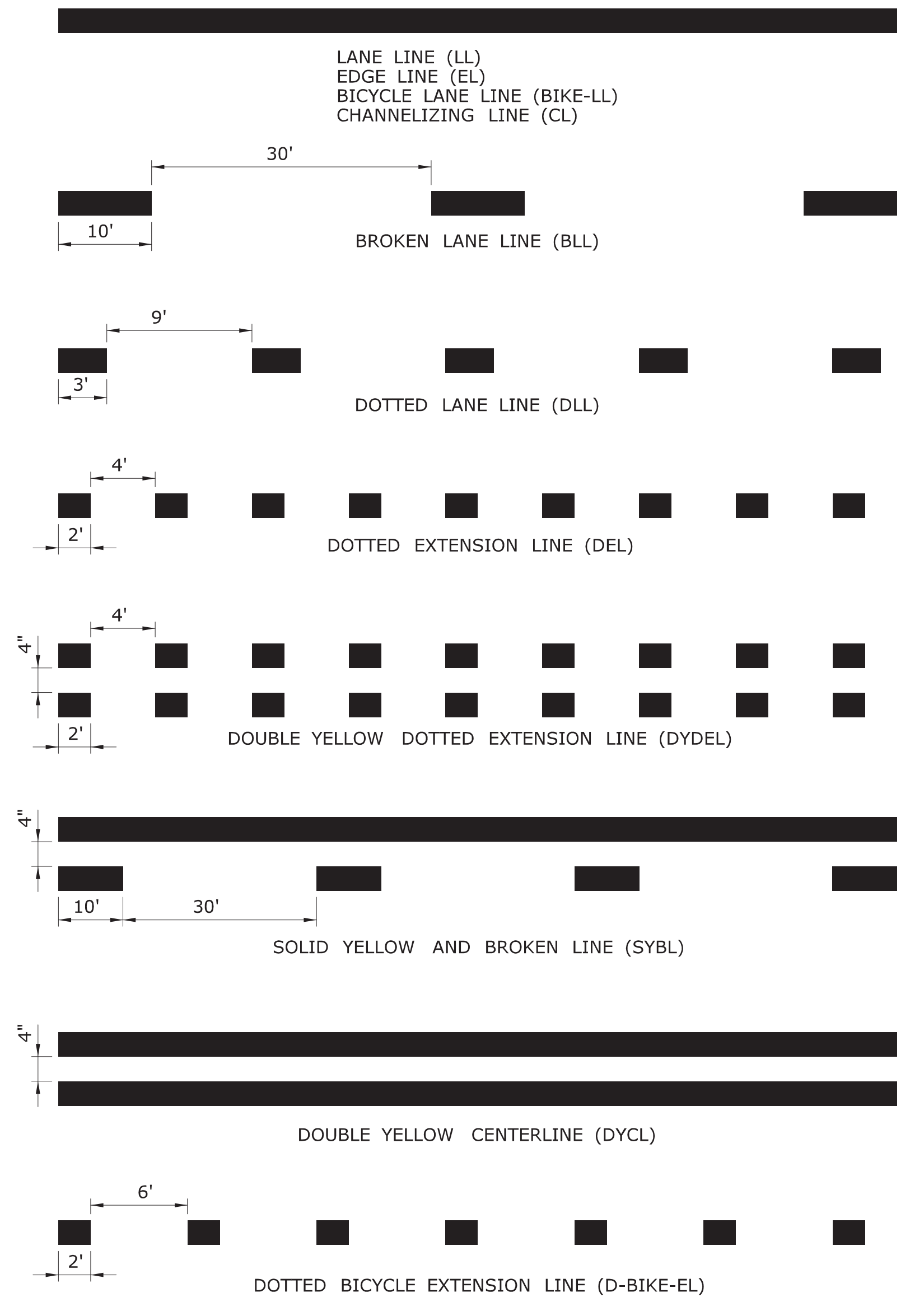
APPROVED BY: *Mary E. Baker* NAME/DATE/TIME: Mary E. Baker, P.E. 2017.06.13 15:28:14-04'00'

APPROVED BY: *Gregory M. Dorosh* NAME/DATE/TIME: Gregory M. Dorosh, P.E. 2017.06.15 09:27:29-04'00'

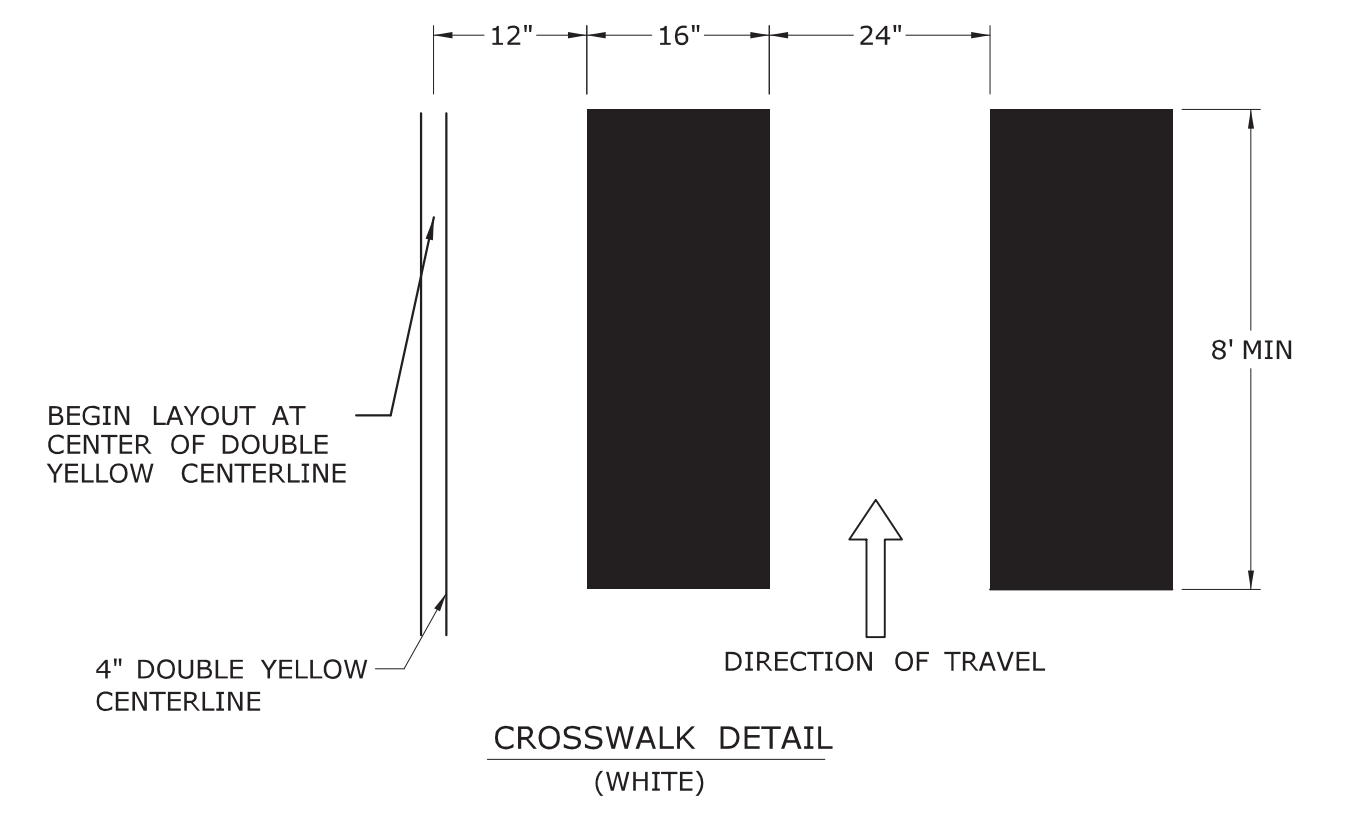
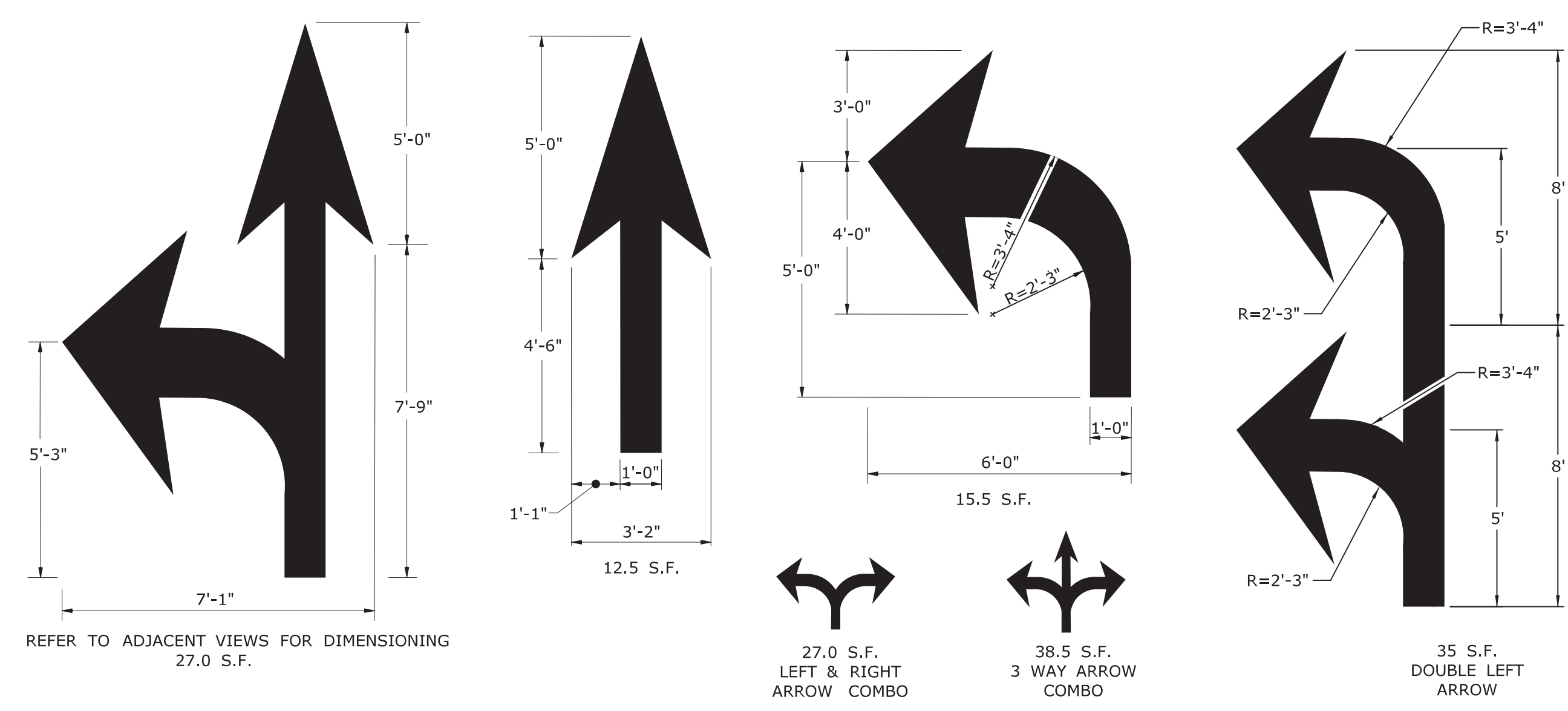
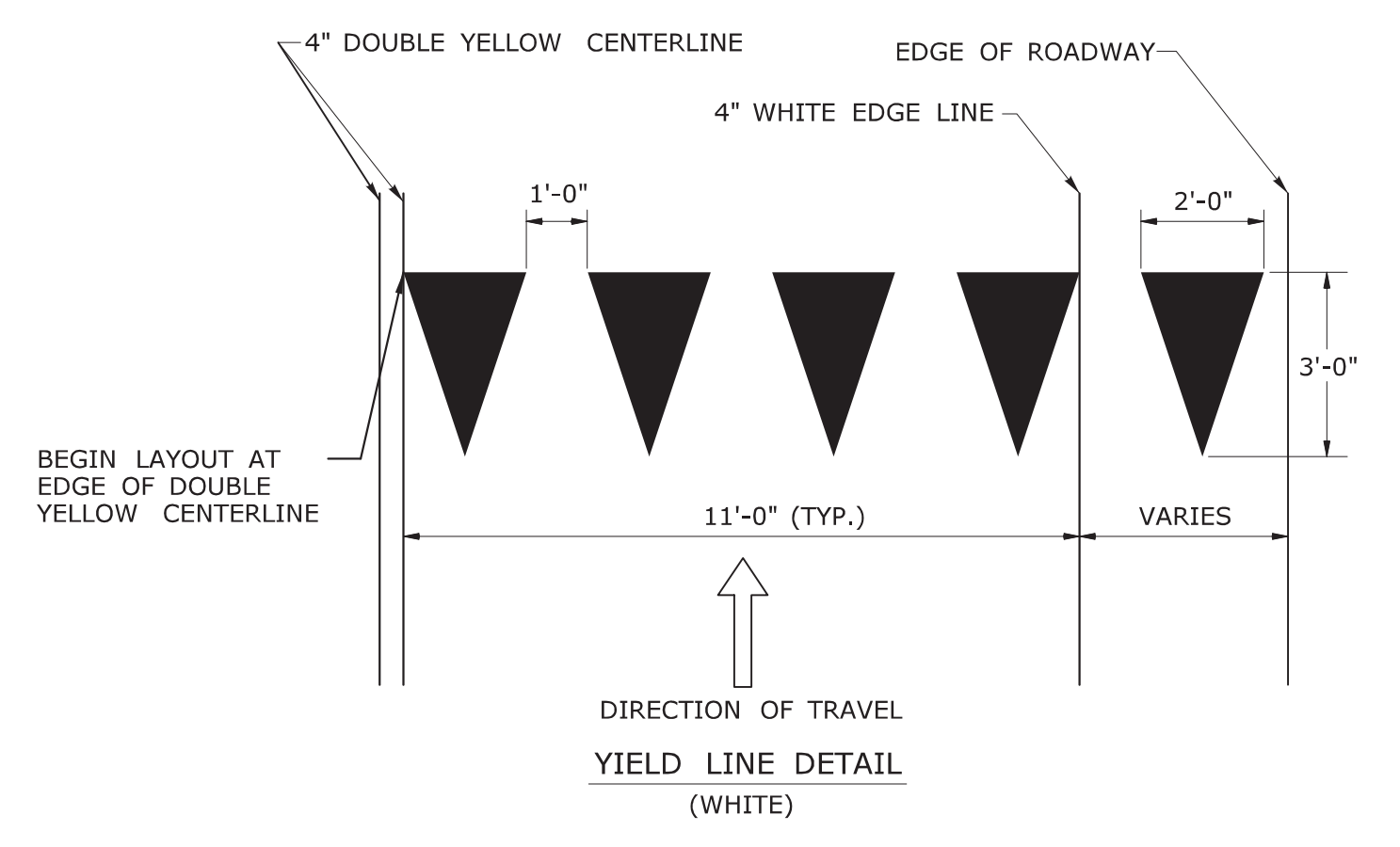
CTDOT STANDARD SHEET
OFFICE OF ENGINEERING

STANDARD SHEET TITLE: **METAL SIGN POSTS AND SIGN MOUNTING DETAILS**

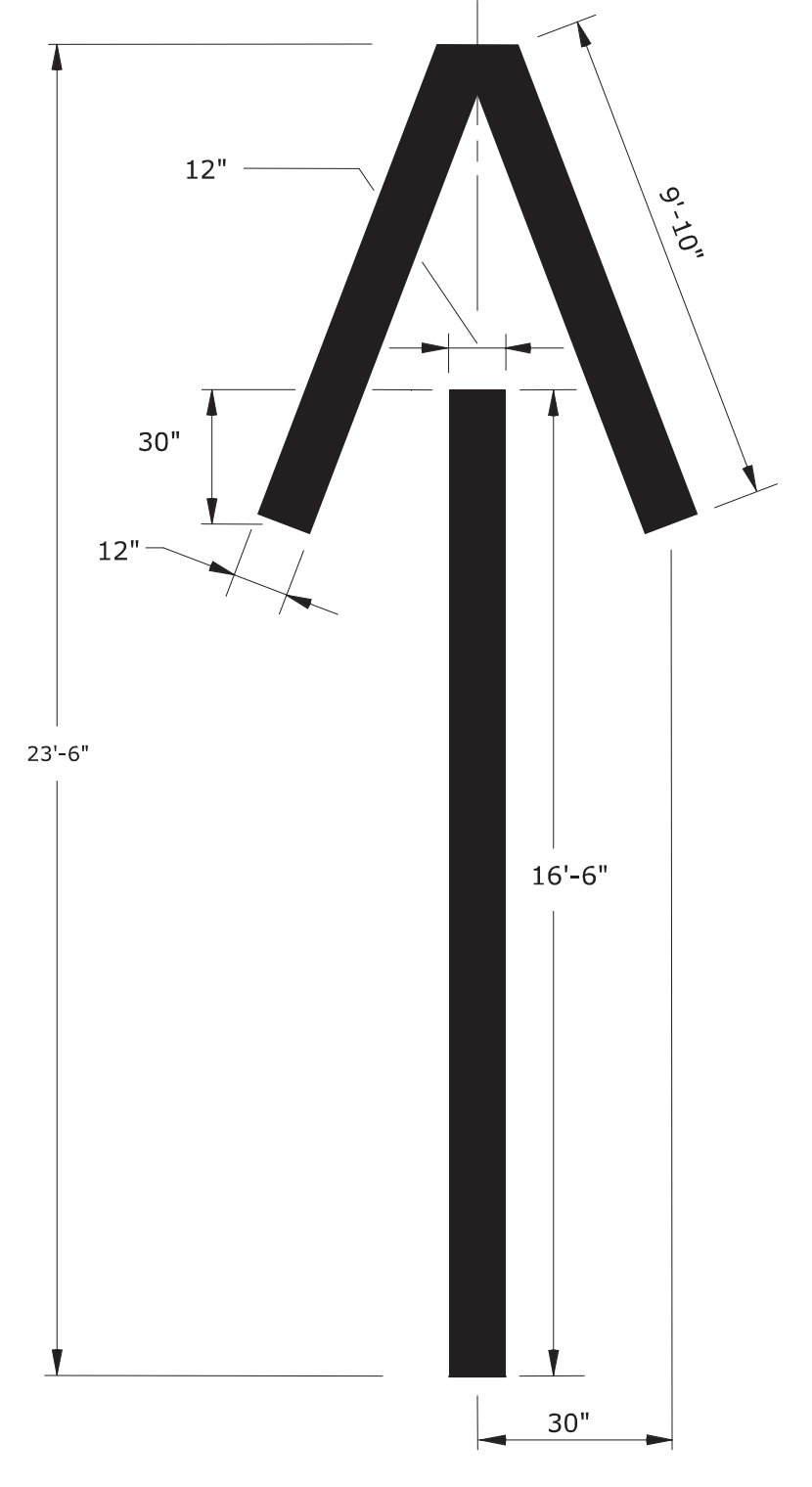
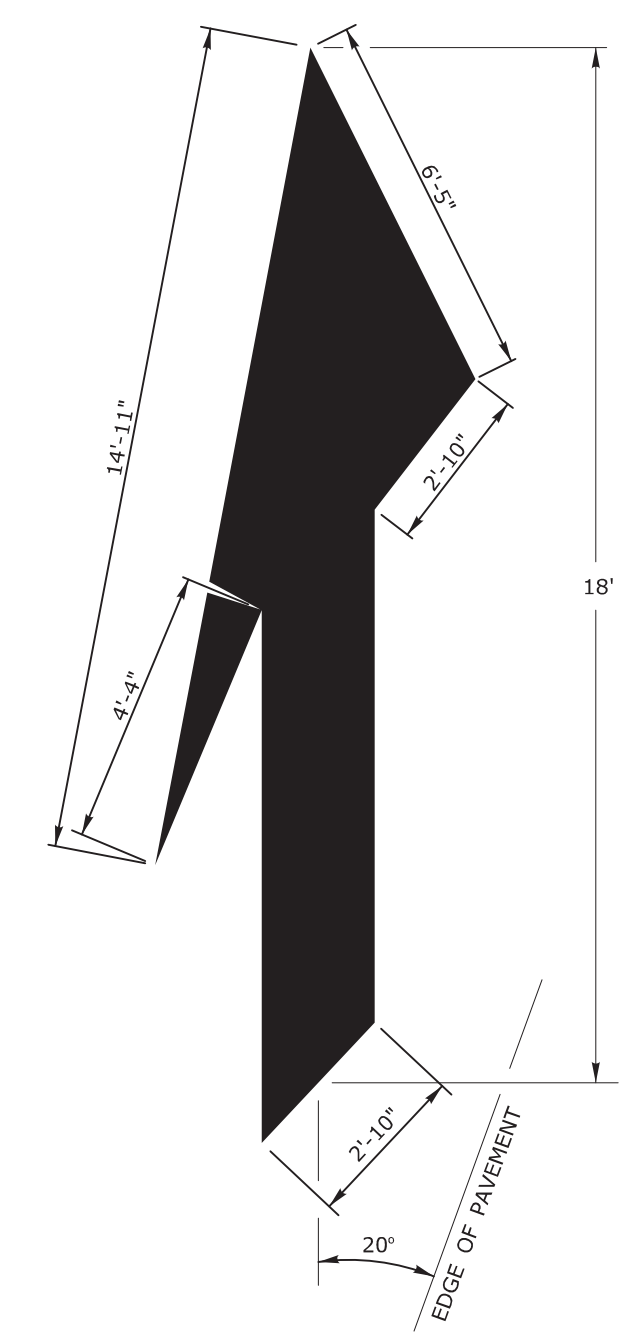
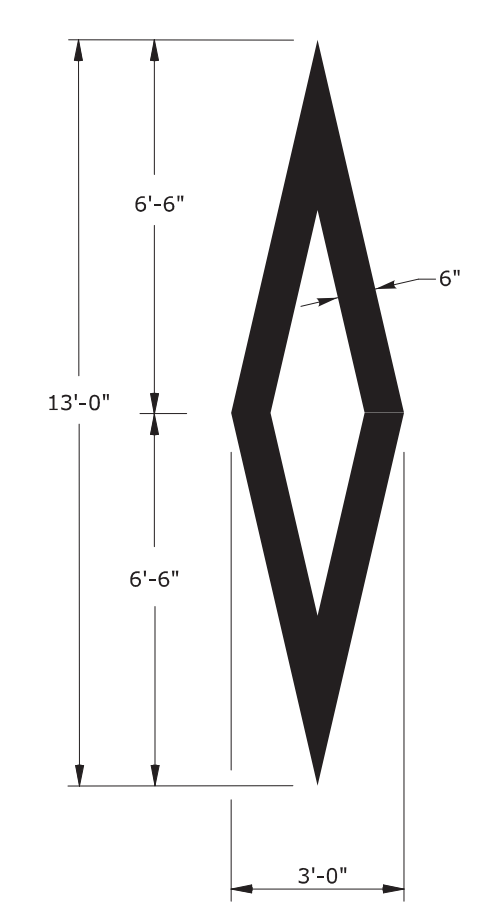
GUIDE SHEET NO.: **TR-1208_02**



W IS TO BE 6" WHEN POSTED SPEED ≤ 45 MPH
W IS TO BE 12" WHEN POSTED SPEED > 45 MPH
CROSS HATCHED ISLANDS ARE TO BE INSTALLED WHERE CALLED FOR ON THE PLANS

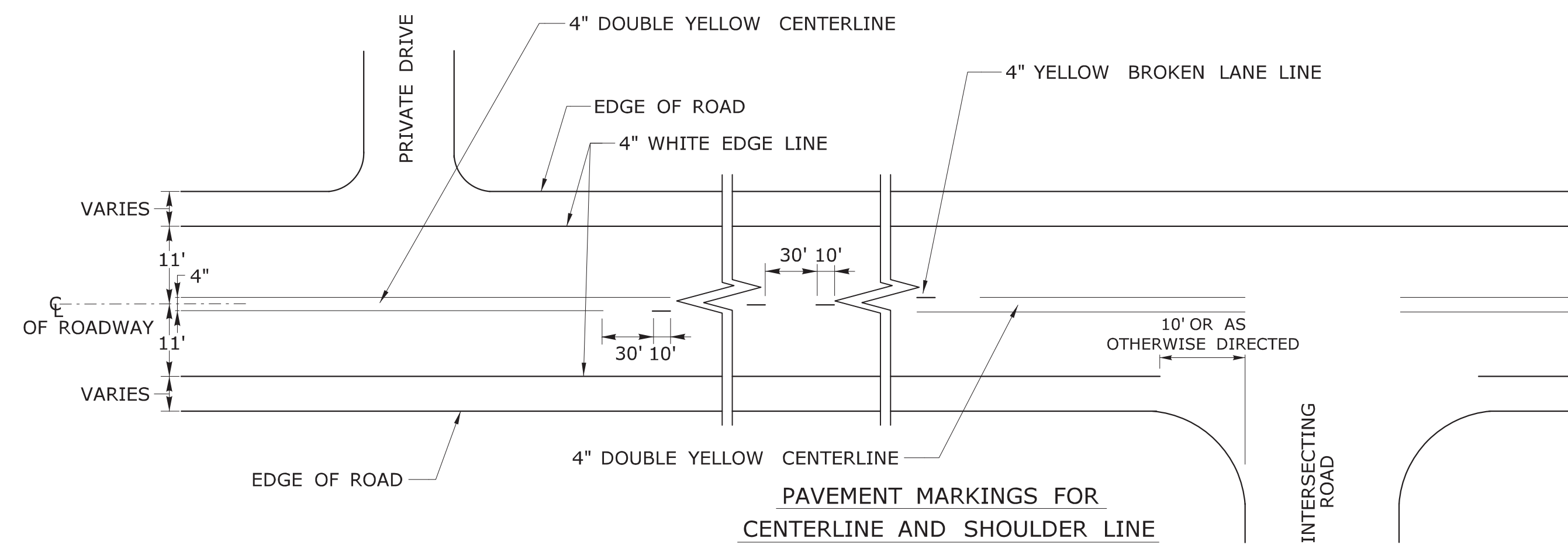


PAVEMENT ARROW DETAILS (WHITE)
ARROWS SHALL BE CENTERED IN TRAVEL LANE

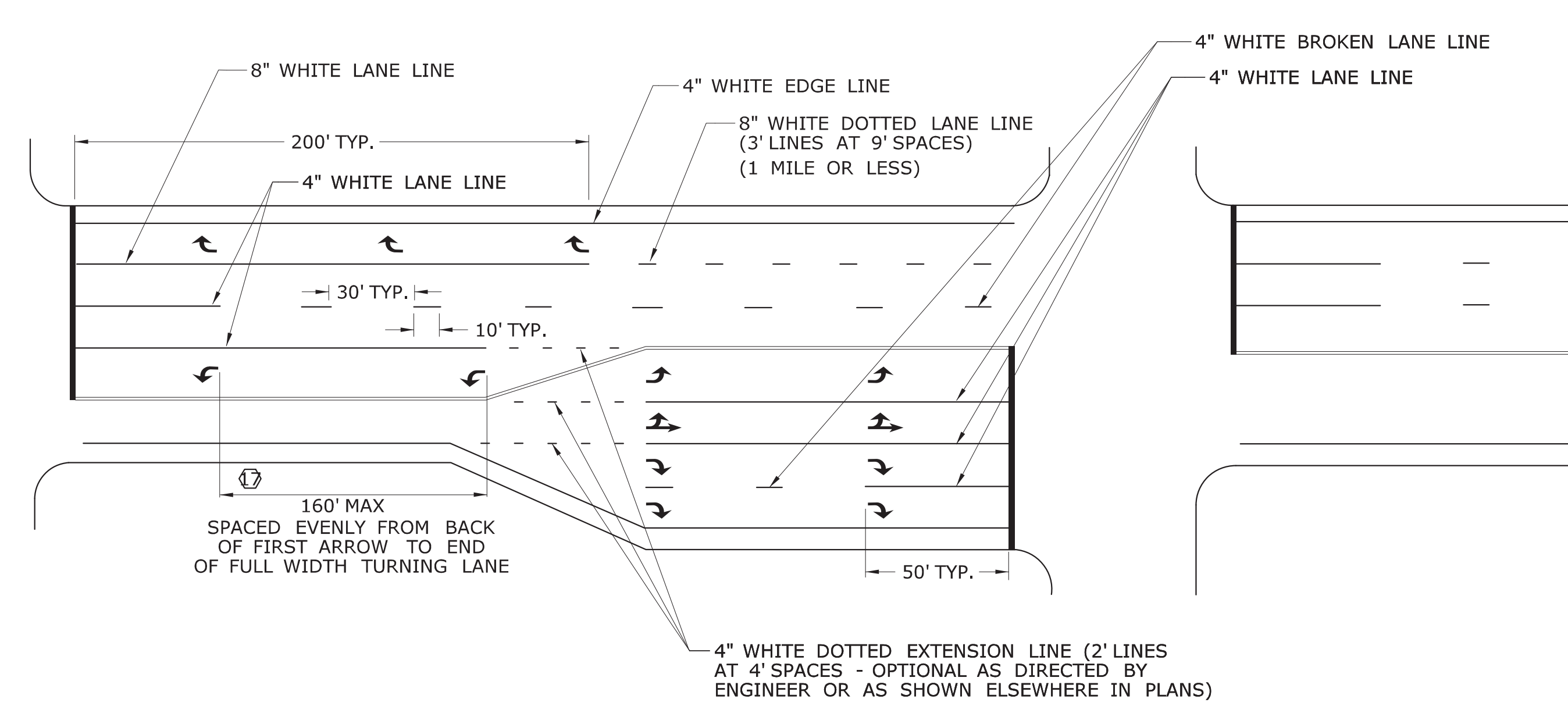


- NOTES :
1. AREA OF PAVEMENT MARKINGS AS INDICATED IS APPROXIMATE.
 2. RIGHT TURN PAVEMENT MARKING ARROWS ARE MIRROR IMAGE OF LEFT TURN PAVEMENT MARKING ARROWS.

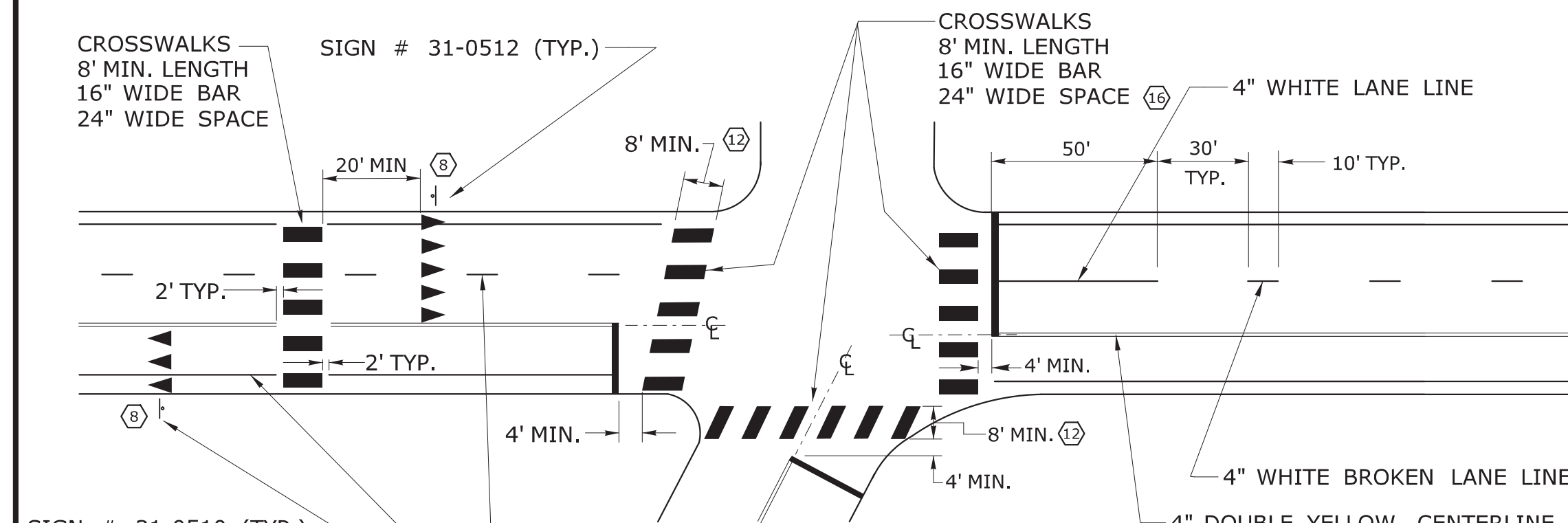
THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED. Plotted Date: 8/10/2018		STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION		SUBMITTED BY: Mark F. Makuch, P.E. 2018.08.17 09:07:44-04'00"	CTDOT STANDARD SHEET OFFICE OF ENGINEERING	STANDARD SHEET TITLE: PAVEMENT MARKING LINES AND SYMBOLS	STANDARD SHEET NO.: TR-1210_04
1 REV. DATE: 8-2018 REMOVED ROUNDABOUT MARKINGS. REVISION DESCRIPTION	NOT TO SCALE	FILENAME: TR-1210_04.dgn MODEL: CT_Civil_2D_Sheet	APPROVED BY: Mark F. Carino, P.E. 2018.08.21 07:48:45-04'00"				



PAVEMENT MARKINGS FOR CENTERLINE AND SHOULDER LINE



PAVEMENT MARKINGS FOR TURNING LANES AND ROAD LANE-DROP

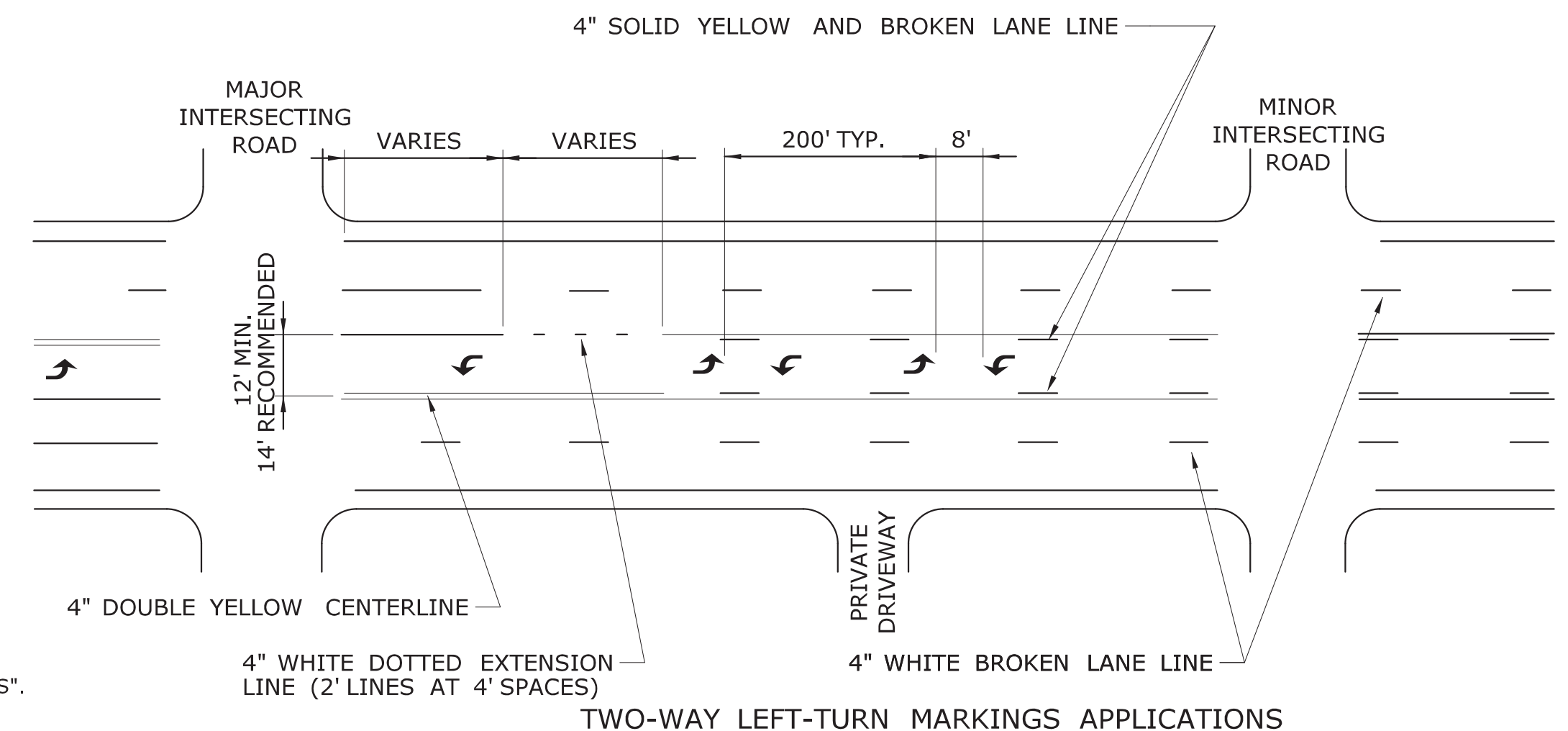


PAVEMENT MARKINGS FOR STOP BARS, YIELD LINES, AND CROSSWALKS

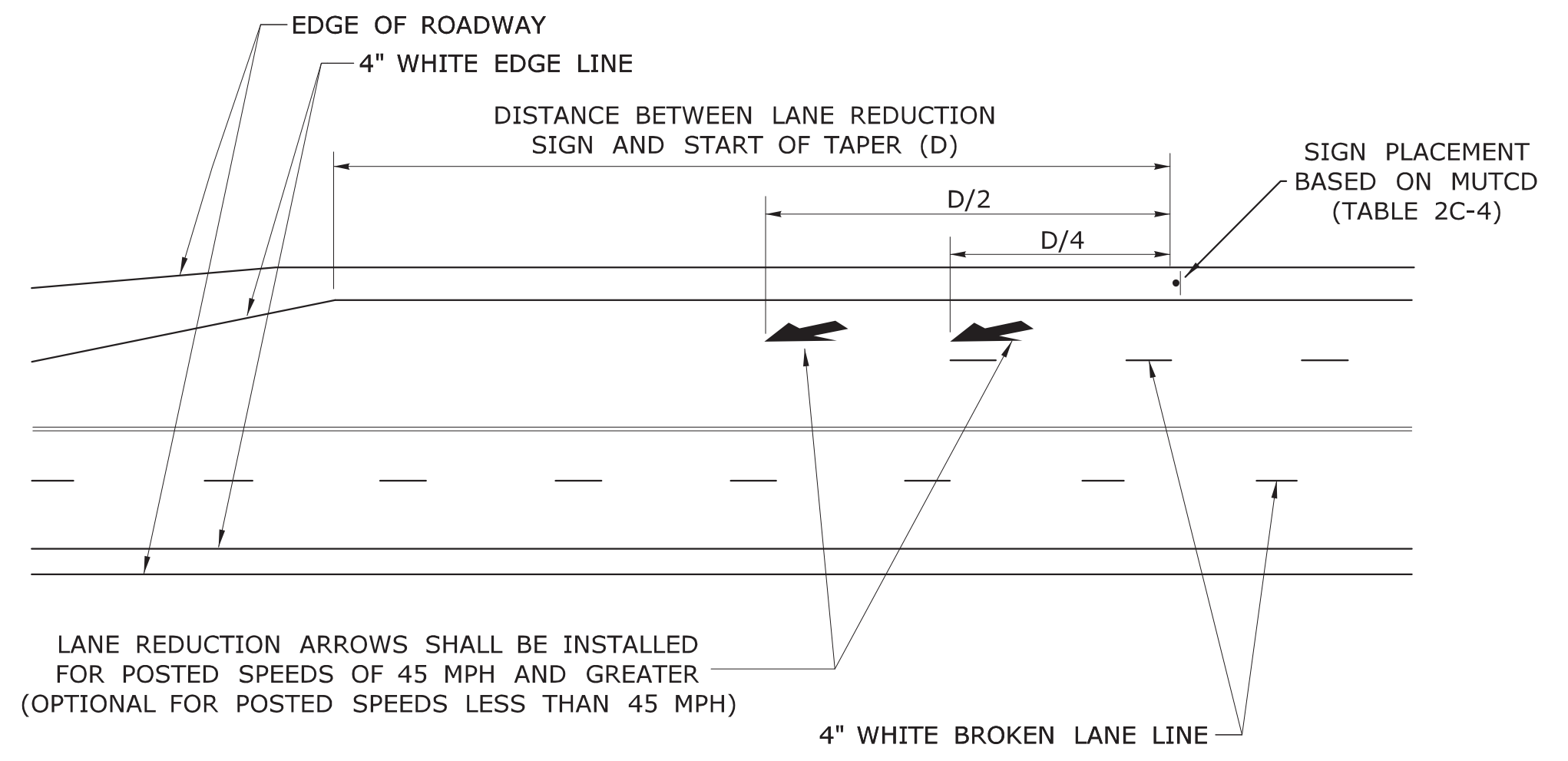
- NOTES:
STOP BARS AND YIELD LINES
- STOP BARS AND YIELD LINES SHALL BE WHITE.
 - STOP BARS SHALL BE 12" MIN. UNLESS OTHERWISE NOTED ON PLANS.
 - STOP BARS TO BE PLACED A MINIMUM OF 4' IN ADVANCE OF THE NEAREST EDGE OF CROSSWALK AND SHOULD BE PLACED 90° TO THE CENTERLINE OF THE ROADWAY.
 - IN THE ABSENCE OF A MARKED CROSSWALK THE STOP BAR SHOULD BE PLACED 90° TO THE CENTERLINE OF THE ROADWAY, AT THE DESIRED STOPPING POINT AT LEAST 5' AND NO MORE THAN 30' FROM THE NEAREST EDGE OF THE INTERSECTING ROADWAY.
 - THE STOP SIGN SHOULD BE PLACED IN LINE WITH THE STOP BAR. HOWEVER, IF THE STOP SIGN CANNOT BE LOCATED EXACTLY WHERE VEHICLES ARE EXPECTED TO STOP, THE STOP BAR SHOULD BE PLACED AT THE STOPPING POINT.
 - FOR STOP BARS AT RAMP SEE DETAILS "R", "S", "T", & "U" AND NOTES ON TRAFFIC STANDARD SHEET TR-1210 07 "PAVEMENT MARKINGS FOR DIVIDED HIGHWAYS EXIT RAMP".
 - FOR YIELD LINE INSTALLATIONS, ONLY FULL TRIANGLES ARE TO BE INSTALLED.
 - MID-BLOCK CROSSWALKS ARE CROSSWALKS LOCATED MORE THAN 50 FEET FROM A SIGNALIZED OR UNSIGNALIZED INTERSECTION. YIELD LINES ASSOCIATED WITH MIDBLOCK CROSSWALKS SHALL BE INSTALLED AND SHOULD BE LOCATED 20 TO 50 FEET IN ADVANCE OF THE NEAREST CROSSWALK LINE OR AS DIRECTED BY THE ENGINEER.
 - WHERE A YIELD LINE EXISTS ON AN APPROACH TO A CROSSWALK, THE APPROPRIATE "YIELD TO PEDESTRIANS" SIGN IS REQUIRED.
 - FOR CROSSWALKS AT UNSIGNALIZED INTERSECTIONS WITH MINOR STREET STOP CONTROL, YIELD LINES SHALL BE INSTALLED ON MULTI-LANE APPROACHES, BUT NOT SINGLE LANE APPROACHES.
 - THE YIELD SIGN SHOULD BE PLACED IN LINE WITH A YIELD LINE. HOWEVER, IF THE YIELD SIGN CANNOT BE LOCATED EXACTLY WHERE VEHICLES ARE EXPECTED TO YIELD, THE YIELD LINE SHOULD BE PLACED AT THE YIELDING POINT.

- CROSSWALKS
- CROSSWALK MARKINGS SHALL BE WHITE.
 - AT LOCATIONS WHERE THE CROSSWALK IS SKEWED, BARS TO BE PARALLEL TO ϕ AND ENDS OF BARS TO BE PARALLEL. THE LENGTH OF THE BARS WILL VARY DEPENDING ON THE ANGLE OF SKEW.
 - BARS SHOULD BE NO CLOSER THAN 1' FROM EDGE OF ROAD.
 - ONLY FULL LENGTH BARS ARE TO BE INSTALLED.
 - DECORATIVE CROSSWALKS SHALL BE BANDED FROM CURB TO CURB WITH A MINIMUM 12" WIDE WHITE TRANSVERSE LINE ALONG EACH EDGE.
 - 24" WIDE SPACE TO BE CENTERED ON YELLOW CENTERLINE.

- PAVEMENT MARKINGS FOR TURNING LANES
- INSTALL AT LEAST TWO ARROWS PER LANE WHERE STORAGE LENGTH IS GREATER THAN 150 FEET.



TWO-WAY LEFT-TURN MARKINGS APPLICATIONS



LANE REDUCTION TRANSITIONS

SIGN # 31-0510 (TYP.)
4" WHITE EDGE LINE
4" WHITE BROKEN LANE LINE

4" DOUBLE YELLOW DOTTED EXTENSION LINE (2' LINES AT 4' SPACE - OPTIONAL)

TURNING EXTENSIONS

RAISED MEDIAN

REV.	DATE	REVISION DESCRIPTION
1	8-2018	REVISED YIELD LINE SIGNAGE AND NOTES.

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

Plotted Date: 8/10/2018

NOT TO SCALE

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: TR-1210_08.DGN Model: TR-1210_05

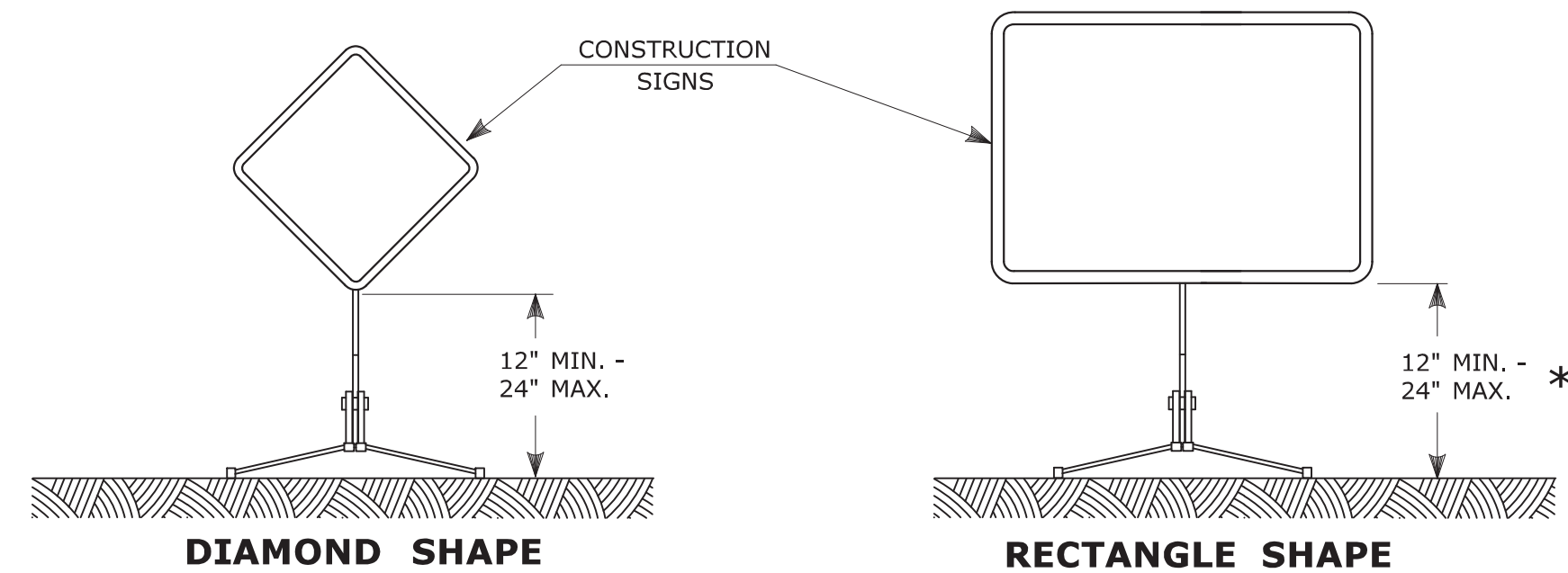
SUBMITTED BY: Mark F. Makuch, P.E. 2018.08.17 09:10:18-04'00'

APPROVED BY: Mark F. Carino, P.E. 2018.08.21 07:49:18-04'00'

CDOT
STANDARD SHEET
OFFICE OF ENGINEERING

STANDARD SHEET TITLE: PAVEMENT MARKINGS FOR NON FREEWAYS

STANDARD SHEET NO.: TR-1210_08

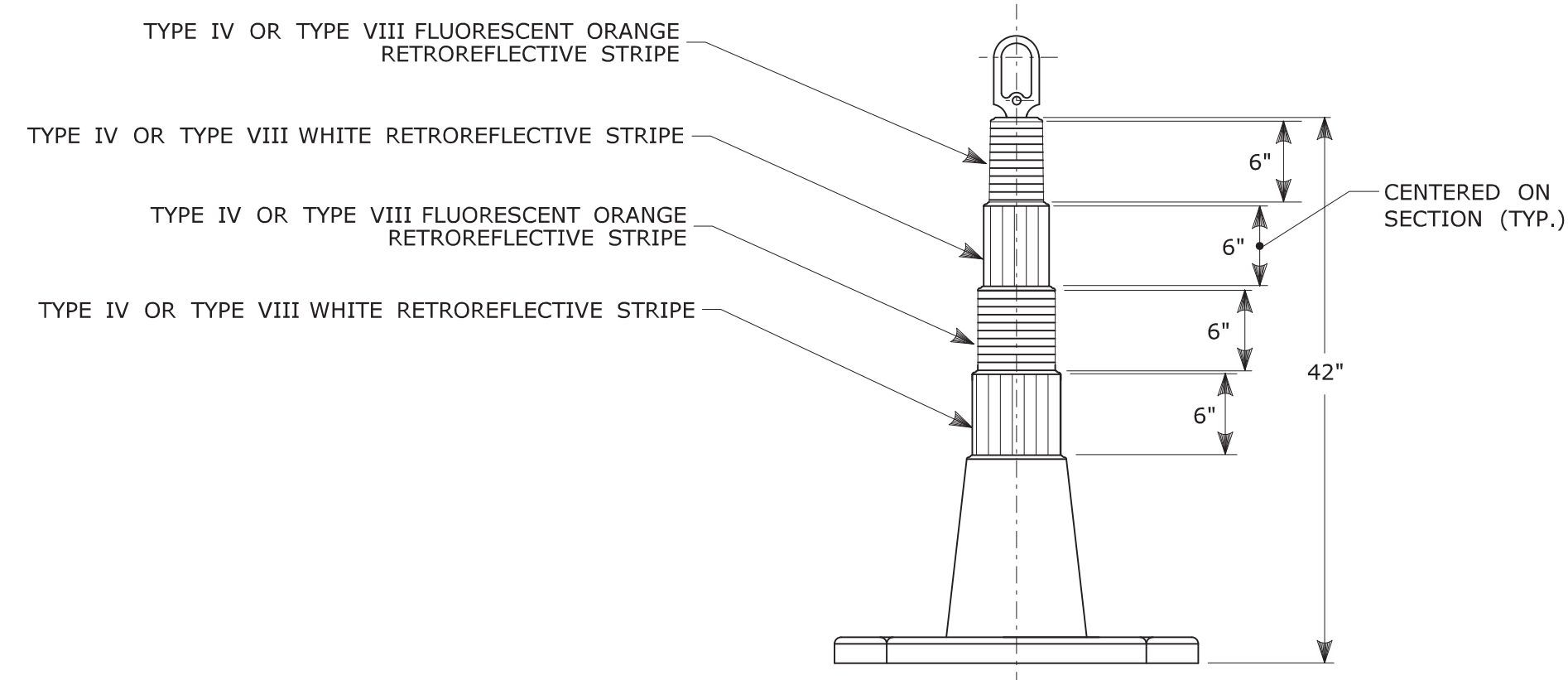


PORTABLE CONSTRUCTION SIGNS

NOTES FOR PORTABLE SIGN SUPPORTS:

- SIGNS AND THEIR PORTABLE SUPPORTS SHALL CONFORM TO THE REQUIREMENTS OF NCHRP REPORT 350 (TL-3) OR THE AASHTO MASH FOR CATEGORY 2 DEVICES AND THE LATEST EDITION OF THE MUTCD.
- MOUNTING HEIGHT OF SIGNS SHALL BE A MINIMUM OF 12" AND A MAXIMUM OF 24". SIGNS SHALL BE MOUNTED HIGHER AS NEEDED TO MEET FIELD CONDITIONS OR AS DIRECTED BY THE ENGINEER.
- THE ENGINEER RESERVES THE RIGHT TO REJECT ANY SUPPORT DEEMED UNSUITABLE FOR THE PURPOSE INTENDED.
- PORTABLE SIGN SUPPORTS SHALL BE STABILIZED IN A MANNER THAT WILL NOT AFFECT THEIR COMPLIANCE WITH NCHRP REPORT 350 (TL-3) OR THE AASHTO MASH FOR CATEGORY 2 DEVICES.
- PORTABLE CONSTRUCTION SIGN SUPPORTS SHOULD NOT BE USED FOR DURATION OF MORE THAN 3 DAYS EXCEPT FOR R9-8 THROUGH R9-11a SERIES, R11 SERIES, W1-6 THROUGH W1-8 SERIES, M4-10, AND E5-1. SEE STANDARD SHEET TR-1220.01 - "SIGNS FOR CONSTRUCTION AND PERMIT OPERATIONS" FOR SIGN DETAILS.

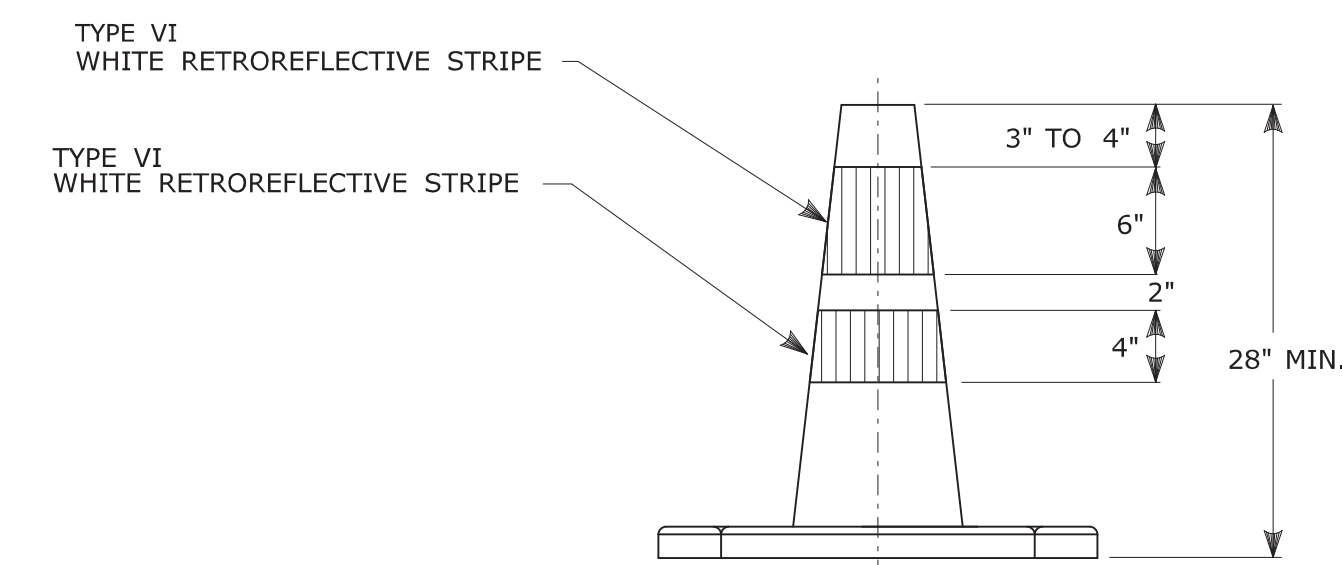
* FOR E5-1 (EXIT SIGNS) USE MIN 48".



42" TRAFFIC CONE

NOTES:

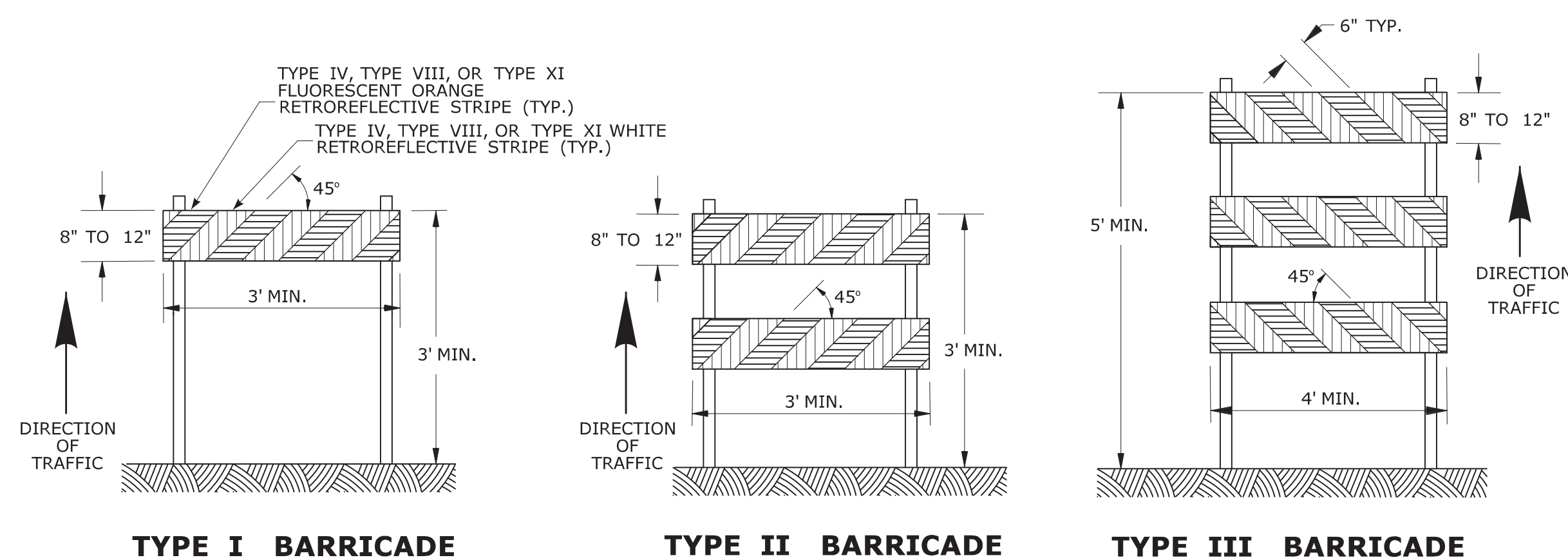
- TRAFFIC CONES SHALL CONFORM TO THE REQUIREMENTS OF NCHRP REPORT 350 (TL-3) OR THE AASHTO MASH FOR CATEGORY 1 DEVICES AND THE LATEST EDITION OF THE MUTCD.
- IF RUBBER CONES ARE USED, THEY SHALL HAVE INTERIOR RIBS FOR RIGIDITY.
- IF PLASTIC CONES ARE USED, THEY SHALL BE COLOR IMPREGNATED.
- THE ENGINEER RESERVES THE RIGHT TO REJECT ANY CONE DEEMED UNSUITABLE FOR THE PURPOSE INTENDED.
- THE ENTIRE AREA OF FLUORESCENT ORANGE AND WHITE STRIPES SHALL BE RETROREFLECTIVE SHEETING AS REQUIRED IN THE SPECIFICATIONS.
- THE SECTIONS OF CONES NOT COVERED WITH RETROREFLECTIVE STRIPES SHALL BE ORANGE.



TRAFFIC CONE

NOTES:

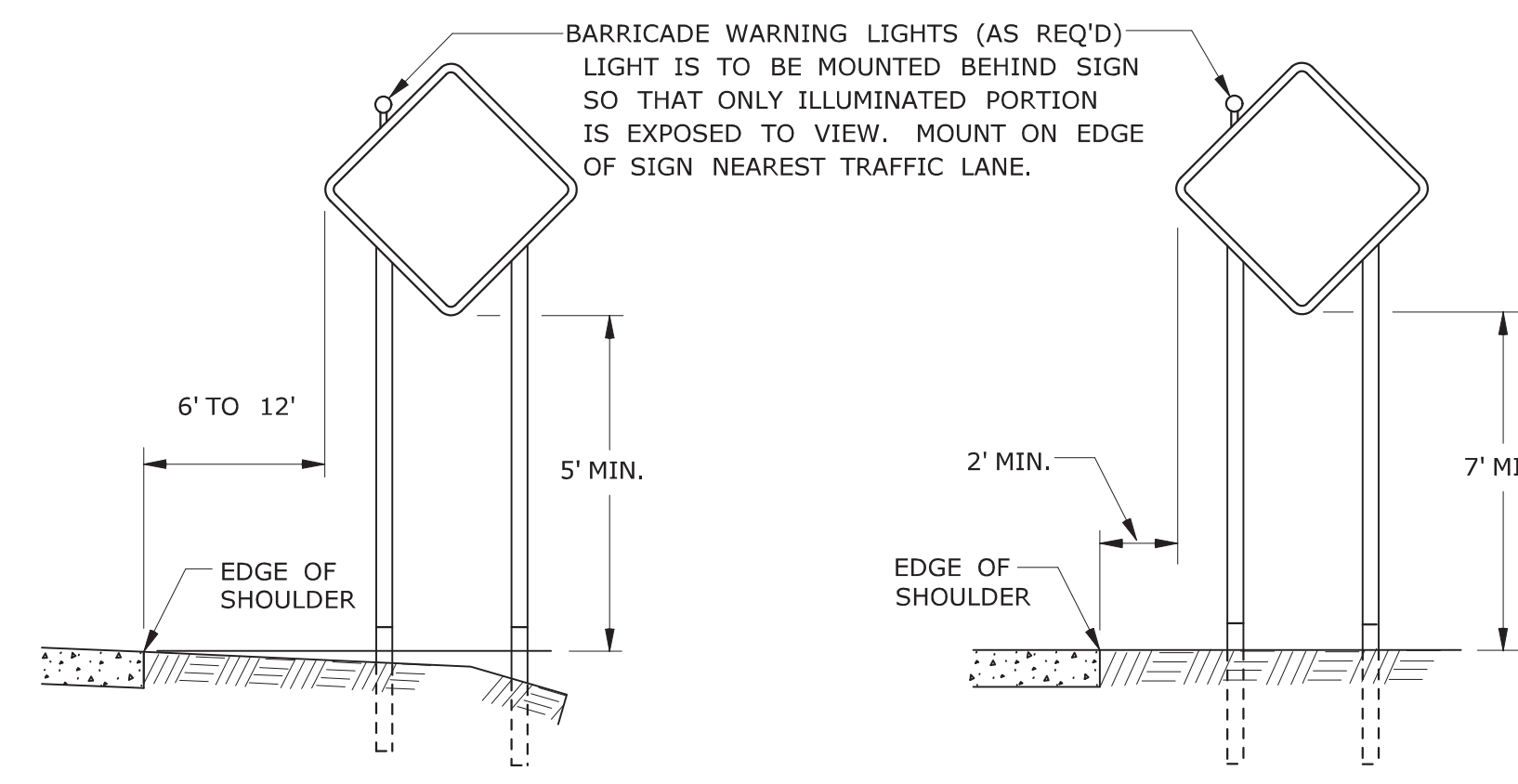
- TRAFFIC CONES SHALL CONFORM TO THE REQUIREMENTS OF NCHRP REPORT 350 (TL-3) OR THE AASHTO MASH FOR CATEGORY 1 DEVICES AND THE LATEST EDITION OF THE MUTCD.
- IF RUBBER CONES ARE USED, THEY SHALL HAVE INTERIOR RIBS FOR RIGIDITY.
- IF PLASTIC CONES ARE USED, THEY SHALL BE COLOR IMPREGNATED.
- THE ENGINEER RESERVES THE RIGHT TO REJECT ANY CONE DEEMED UNSUITABLE FOR THE PURPOSE INTENDED.
- THE ENTIRE AREA OF WHITE STRIPES SHALL BE RETROREFLECTIVE SHEETING AS REQUIRED IN THE SPECIFICATIONS.
- TRAFFIC CONES NOT USED AT NIGHT MAY UTILIZE TYPE III SHEETING.
- THE SECTIONS OF CONES NOT COVERED WITH RETROREFLECTIVE STRIPES SHALL BE ORANGE.



CONSTRUCTION BARRICADES

NOTES:

- CONSTRUCTION BARRICADES SHALL CONFORM TO THE REQUIREMENTS OF NCHRP REPORT 350 (TL-3) OR THE AASHTO MASH AND THE LATEST EDITION OF THE MUTCD.
- MARKINGS FOR BARRICADE RAILS SHALL BE ALTERNATE FLUORESCENT ORANGE AND WHITE STRIPES SLOPING DOWNWARD IN THE DIRECTION TRAFFIC IS TO PASS. 6" WIDE STRIPES SHALL BE USED.
- THE ENTIRE AREA OF FLUORESCENT ORANGE AND WHITE STRIPES SHALL BE RETROREFLECTIVE SHEETING AS REQUIRED IN THE SPECIFICATIONS. THE SIDES OF BARRICADES FACING TRAFFIC SHALL HAVE RETROREFLECTIVE RAIL FACES.
- THE ENGINEER RESERVES THE RIGHT TO REJECT ANY BARRICADE DEEMED UNSUITABLE FOR THE PURPOSE INTENDED.
- CORNERS OF BARRICADE RAILS SHALL BE ROUNDED.
- SIGNS MAY ONLY BE INSTALLED ON TYPE III BARRICADES AND SHALL BE PLACED SO AS TO COVER NO MORE THAN ONE BARRICADE RAIL.



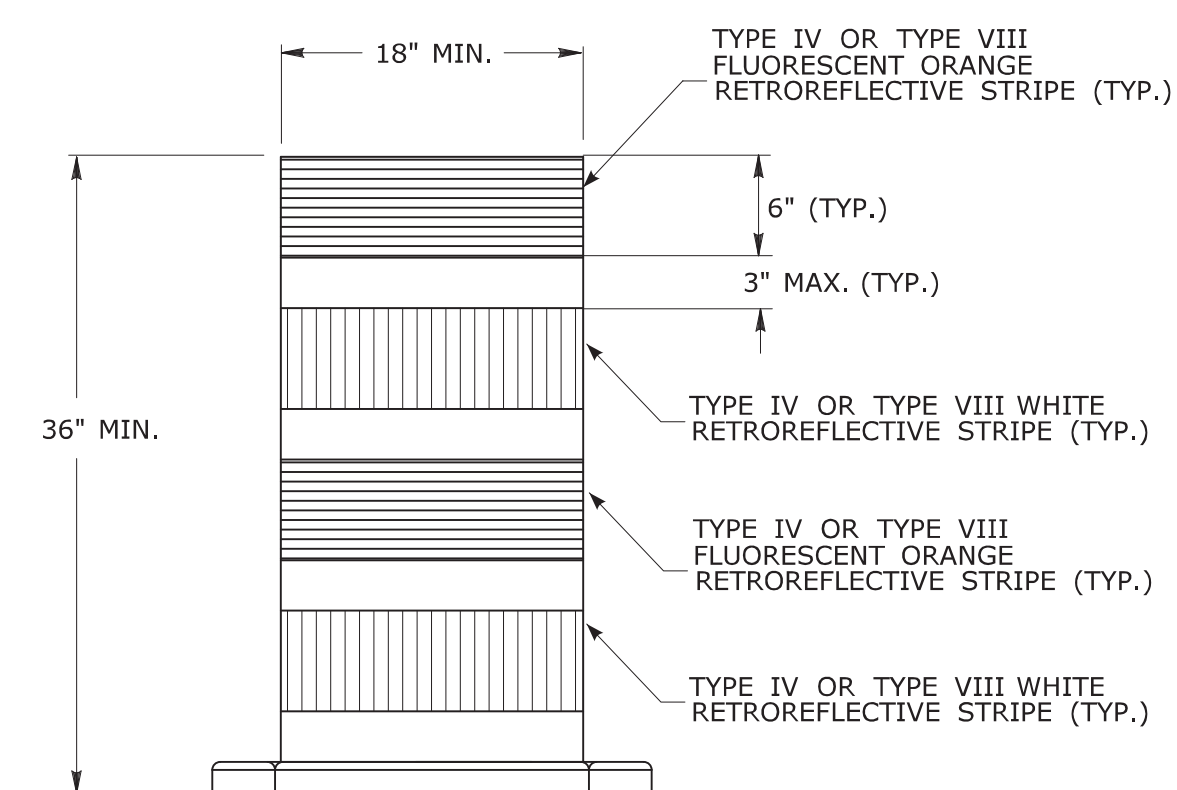
RURAL AREA

URBAN AREA

**PLACEMENT OF CONSTRUCTION SIGNS
TYPICAL LONG TERM INSTALLATION**

NOTES:

- SUPPORTS SHALL BE METAL SIGN POSTS AND HAVE BREAK-AWAY FEATURES.
REFER TO STANDARD SHEETS:
TR-1208.01 - "SIGN PLACEMENT AND RETROREFLECTIVE STRIP DETAILS."
TR-1208.02 - "METAL SIGN POSTS AND SIGN MOUNTING DETAILS."

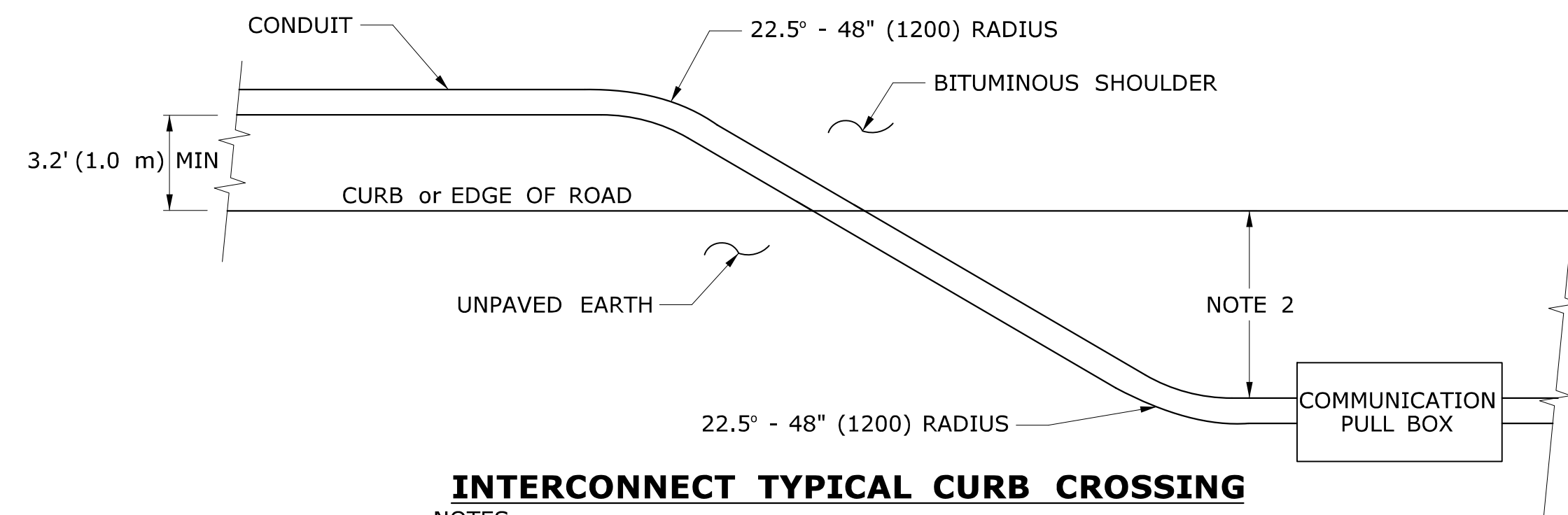


**TRAFFIC DRUM
FRONT VIEW**

NOTES:

- TRAFFIC DRUM SHALL CONFORM TO THE REQUIREMENTS OF NCHRP REPORT 350 (TL-3) OR THE AASHTO MASH FOR CATEGORY 1 DEVICES AND THE LATEST EDITION OF THE MUTCD.
- THE ENGINEER RESERVES THE RIGHT TO REJECT ANY DRUM DEEMED UNSUITABLE FOR THE PURPOSE INTENDED.
- THE ENTIRE AREA OF FLUORESCENT ORANGE AND WHITE STRIPES SHALL BE RETROREFLECTIVE SHEETING AS REQUIRED IN THE SPECIFICATIONS.
- THE SECTIONS OF DRUMS NOT COVERED WITH RETROREFLECTIVE STRIPES SHALL BE ORANGE.

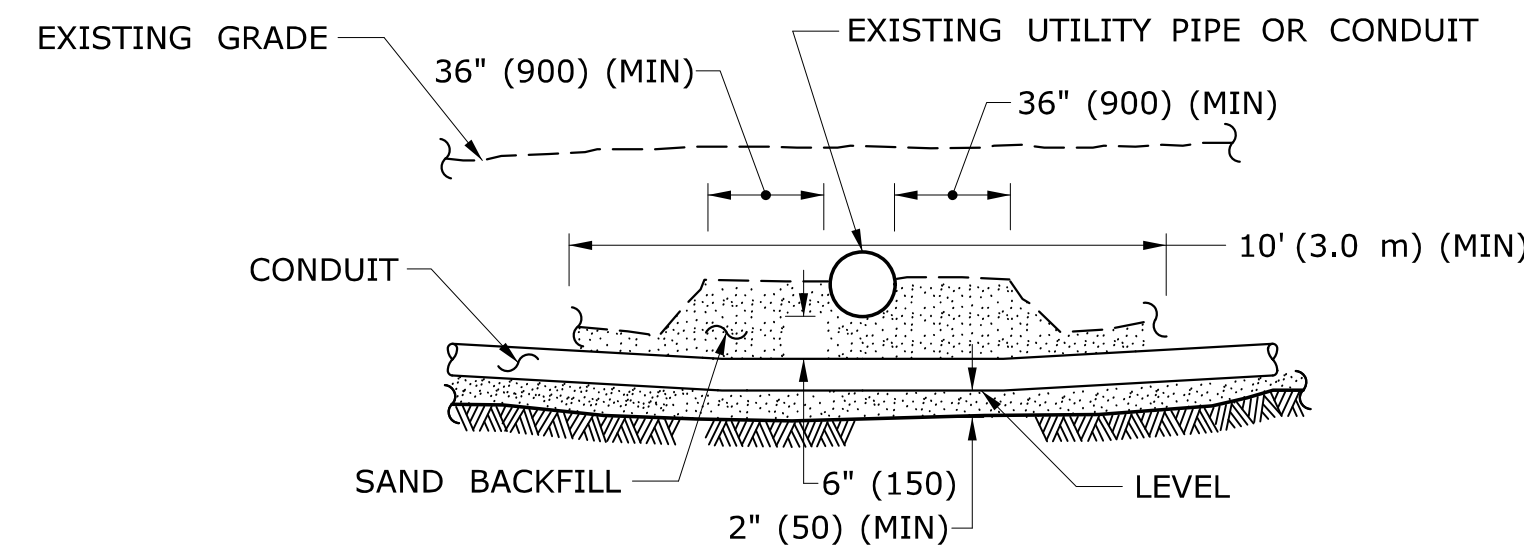
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3	8-2018	UPDATED SHEETING TYPE AND COLOR.	NOT TO SCALE				
2	8-2015	UPDATED PER MUTCD AND FORM 816 JAN 2015 REVISION.					
1	2-2011	MINOR REVISIONS.					
REV.	DATE	REVISION DESCRIPTION					



INTERCONNECT TYPICAL CURB CROSSING

NOTES:

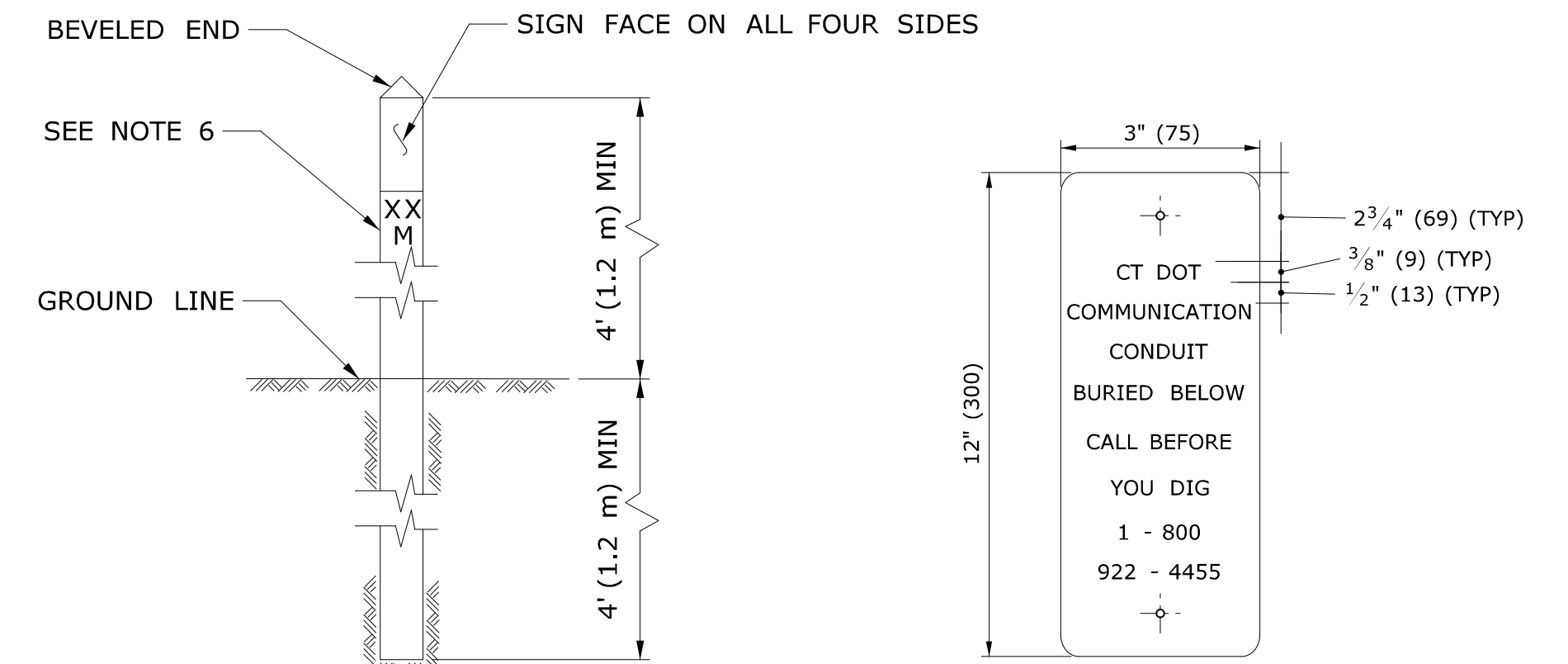
1. RESTORE AREAS DISTURBED BY TRENCH TO ORIGINAL CONDITION.
2. INSTALL PULL BOX A MINIMUM OF 10' (3.0 m) FROM CURB UNLESS OTHERWISE SHOWN ON PLANS OR DIRECTED BY ENGINEER.



CROSSING UNDER EXISTING UTILITY

NOTES:

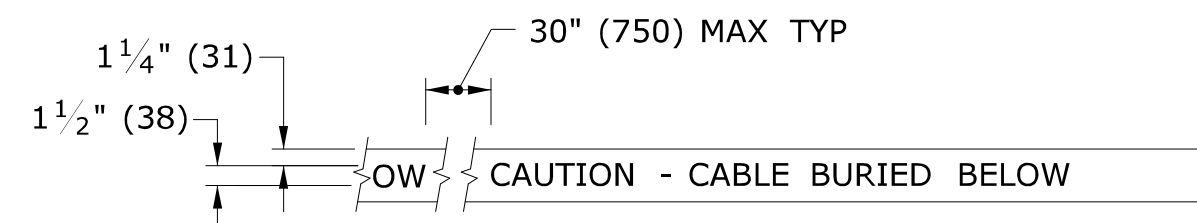
1. WHEN ENCOUNTERED AT APPROXIMATELY THE SAME DEPTH, CROSS BENEATH.
2. PROTECT & SUPPORT EXPOSED EXISTING UTILITY.



INTERCONNECT CONDUIT IDENTIFICATION POST

NOTES:

1. 4" x 4" (100 x 100) NOMINAL, PRESSURE TREATED WOOD POST.
2. ATTACH SIGN TO POST WITH 1/4" x 1 1/4" (6 x 31) STAINLESS STEEL LAG SCREW WITH NYLON WASHER ON FACE OF SIGN.
3. SIGN COLORS: BACKGROUND - ORANGE (RETROREFLECTIVE) LEGEND - BLACK (OPAQUE).
4. INSTALL POST APPROX 24" (600) FROM RMC IN VICINITY OF EACH PULL BOX.
5. INSTALL POSTS BETWEEN PULL BOXES, APPROX 10' (3.0 m) OFF CURB. SPACE POSTS 1500± (460 m±) APART.
6. PERMANENTLY ATTACH STAINLESS STEEL NUMBERS INDICATING DISTANCE TO TRENCH IN FEET (METERS) CONTAINING COMMUNICATION CABLE. ATTACH NUMBERS TO SIDE OF POST FACING CONDUIT. INCLUDE "M" SUFFIX IF METERS.



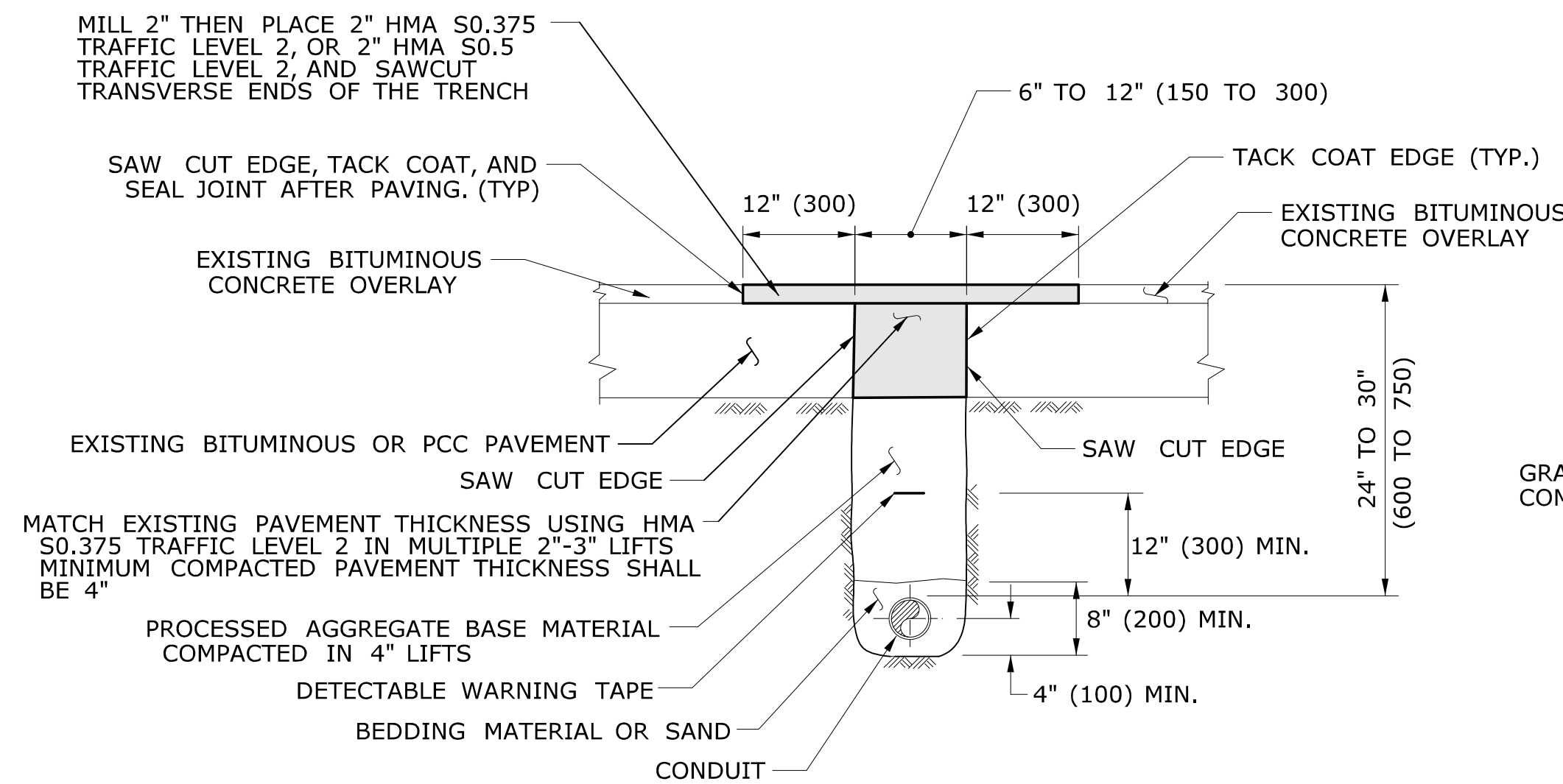
DETECTABLE WARNING TAPE

NOTE:

STANDARD SPECIFICATIONS, ARTICLE: 1.05.15

1. TAPE COLORS:

- COMMUNICATION - ORANGE BACKGROUND / BLACK LEGEND
- POWER - RED BACKGROUND / BLACK LEGEND

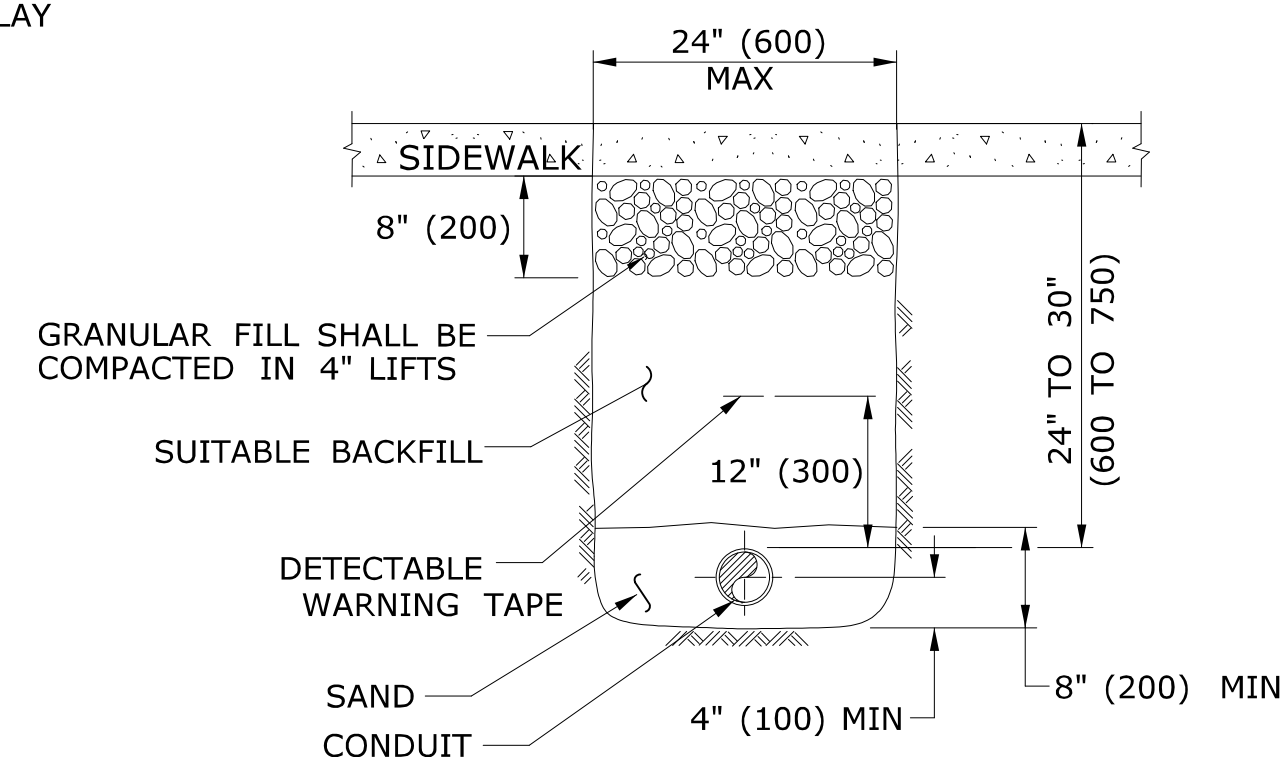


PAVEMENT - BITUMINOUS CONCRETE OR OVERLAVED PORTLAND CEMENT CONCRETE

NOTES:

STANDARD SPECIFICATION, ARTICLE 3.04 AND SPECIAL PROVISION, SECTION 4.06.03

1. TOTAL HOT MIX ASPHALT (HMA) THICKNESS TO MATCH EXISTING BITUMINOUS CONCRETE AND PORTLAND CEMENT CONCRETE (PCC) THICKNESS.
2. WHEN ALLOWED BY ENGINEER, USE CONTROLLED LOW STRENGTH MATERIAL (CLSM) AS BEDDING MATERIAL. TOP OF CLSM AT LEAST 20" (500) BELOW SURFACE.

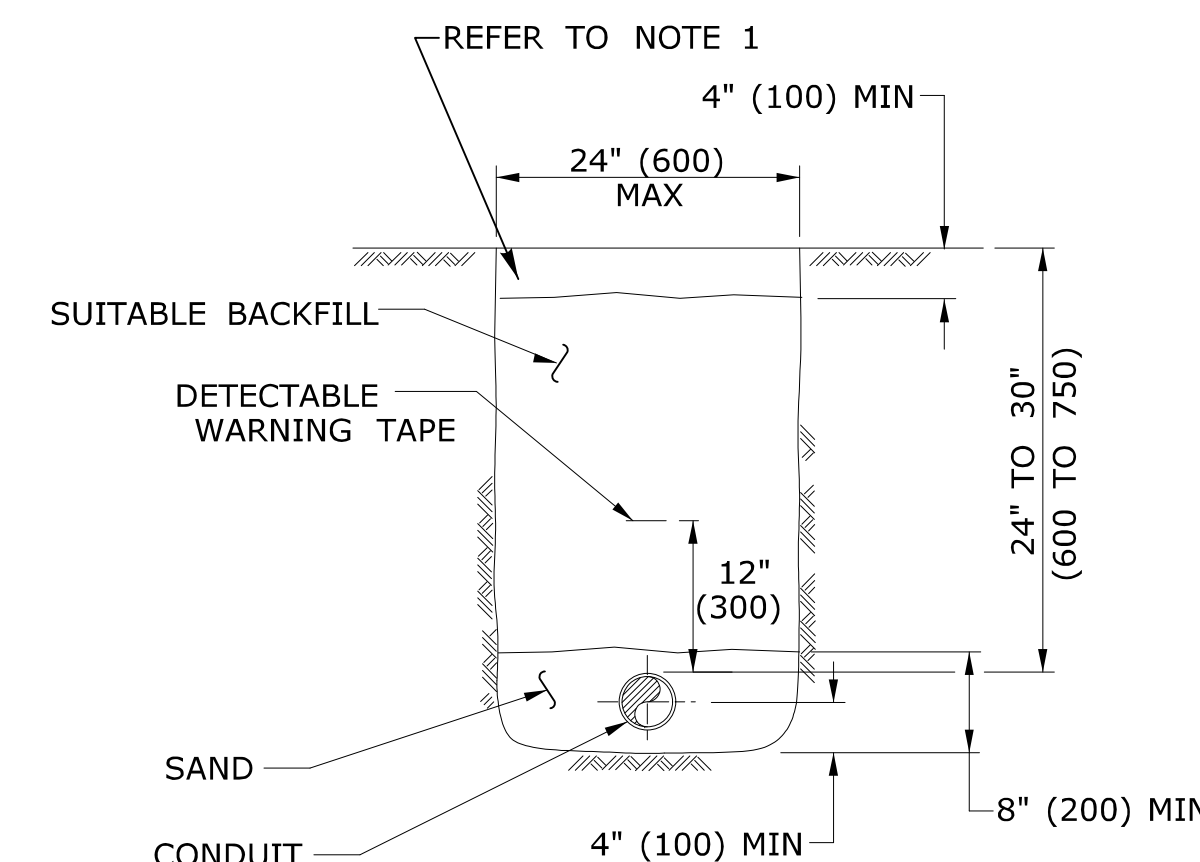


SIDEWALK

NOTES:

STANDARD SPECIFICATIONS, ARTICLE: 9.21 & 9.22

1. WHERE CONCRETE SIDEWALK DAMAGED OR CUT, REPLACE THE ENTIRE SECTION BETWEEN JOINTS. REPLACEMENT SIDEWALK IS PAID FOR AT THE CONTRACT UNIT PRICE FOR "CONCRETE SIDEWALK".



EARTH

NOTES:

STANDARD SPECIFICATIONS, ARTICLE: 9.50

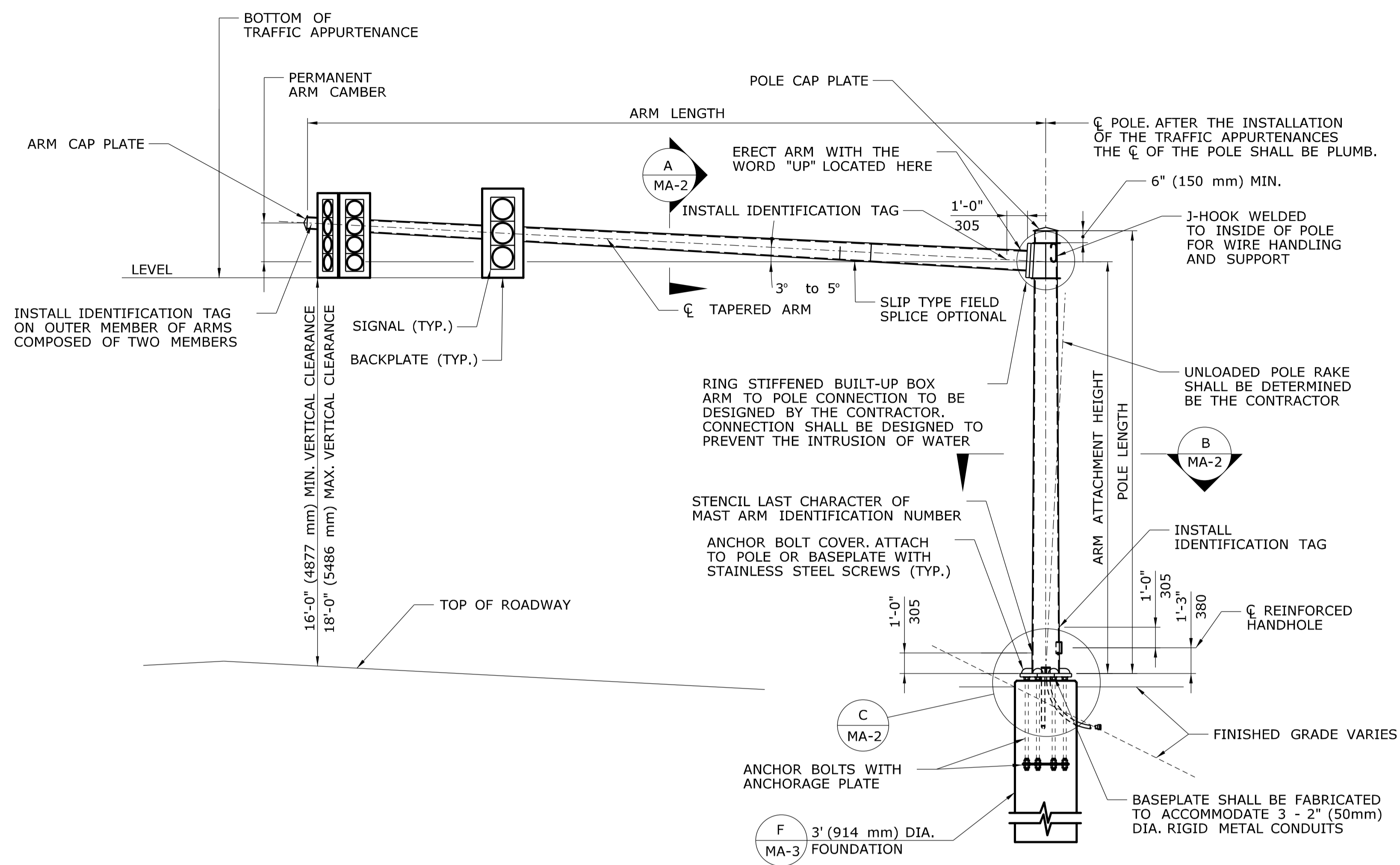
1. IN MOWED AREAS: PLACE TOPSOIL, FERTILIZER, SEED, & MULCH.

GENERAL NOTES:

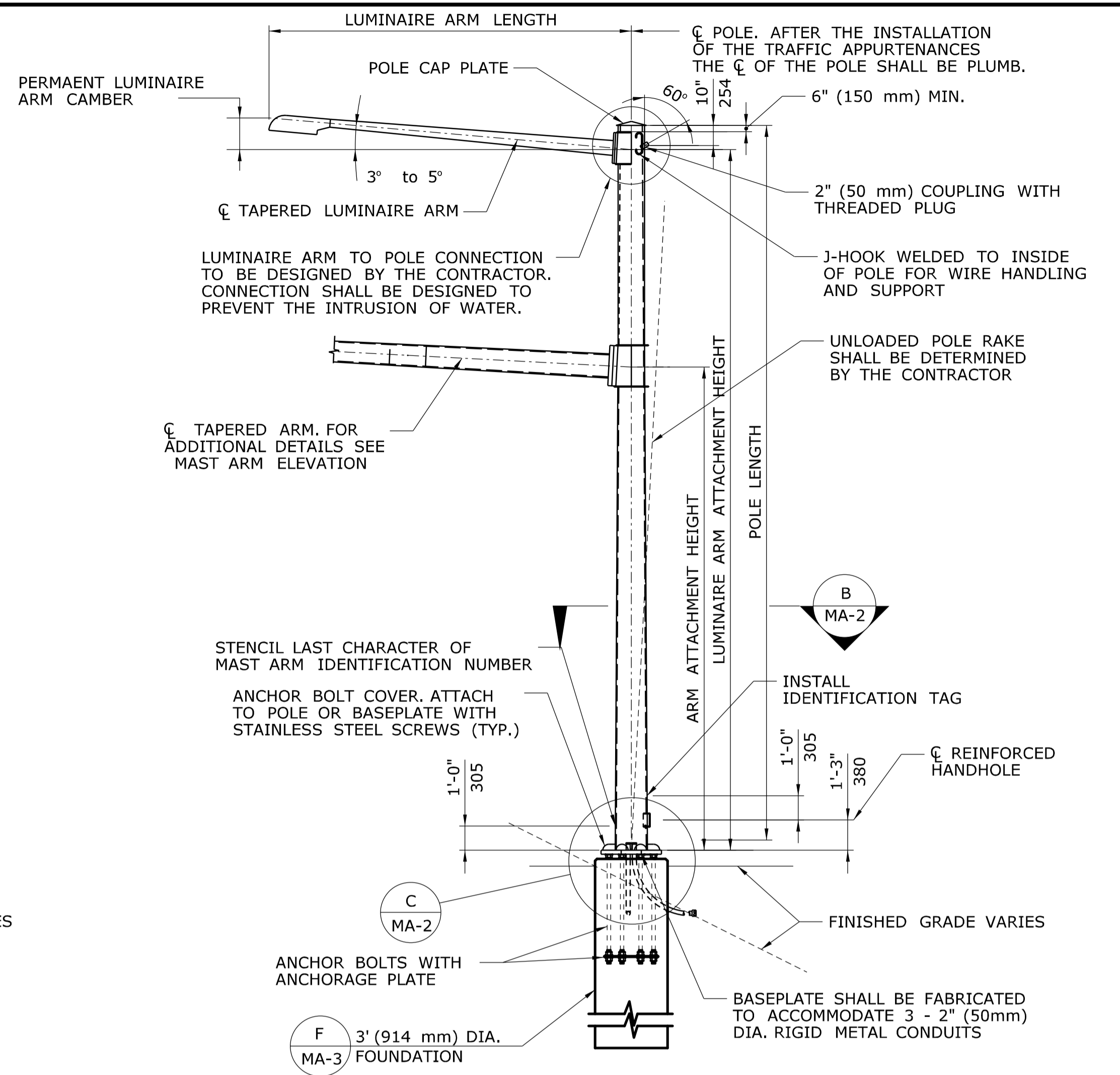
1. TOP OF CONDUIT NO LESS THAN 24" (600) DEEP.
2. COMPACT BACKFILL IN ≤6" (150) LIFTS. HAND COMPACTION NOT PERMITTED.

LEGEND AS SHOWN ON TRAFFIC CONTROL SIGNAL PLAN:
--- RMC (RIGID METAL CONDUIT)

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2 4-2019 REVISED FILL & OVERLAY REQUIREMENTS, & MINOR REVISIONS 1 4-2012 REVISED BITUMINOUS CONCRETE TO HMA, & MINOR REVISIONS.	REVISION DESCRIPTION	Plotted Date: 7/1/2019	Filename: GS_TRENCHING & BACKFILLING.DGN Model: GS_TRENCHING AND BACKFILLING	TRENCHING & BACKFILLING, ELECTRICAL CONDUIT		



**ELEVATION
MAST ARM**
SCALE: 1/4" = 1'-0"



**ELEVATION
COMBINATION MAST ARM**
SCALE: 1/4" = 1'-0"

MAST ARM ASSEMBLY NOTES

THE MAST ARM, INCLUDING THE ANCHORAGE TO THE FOUNDATION, SHALL BE DESIGNED, FABRICATED AND INSTALLED BY THE CONTRACTOR, OF THE SPAN SPECIFIED, IN ACCORDANCE WITH THE SPECIAL PROVISION "XX STEEL MAST ARM ASSEMBLY" OR "XX STEEL COMBINATION MAST ARM ASSEMBLY".

THE DIMENSIONS OF THE MAST ARM ASSEMBLY AND DETAILS OF THE TRAFFIC APPURTENANCES SUPPORTED BY THE MAST ARM ASSEMBLY ARE SHOWN ON THE TRAFFIC SIGNAL PLANS, ELEVATIONS, CROSS-SECTIONS OR IN THE SPECIAL PROVISIONS. THE ARM AND POLE LENGTHS AND THE ATTACHMENT HEIGHTS SHALL BE VERIFIED BY THE CONTRACTOR BASED ON THE FINISHED GRADE AT THE SITE, TOP OF FOUNDATION ELEVATION, THE LOCATIONS OF OVERHEAD UTILITY CABLES AND THE TRAFFIC APPURTENANCE MOUNTING HEIGHTS. IF EITHER THE ARM OR POLE LENGTH IS INADEQUATE, THE CONTRACTOR SHALL NOTIFY THE ENGINEER.

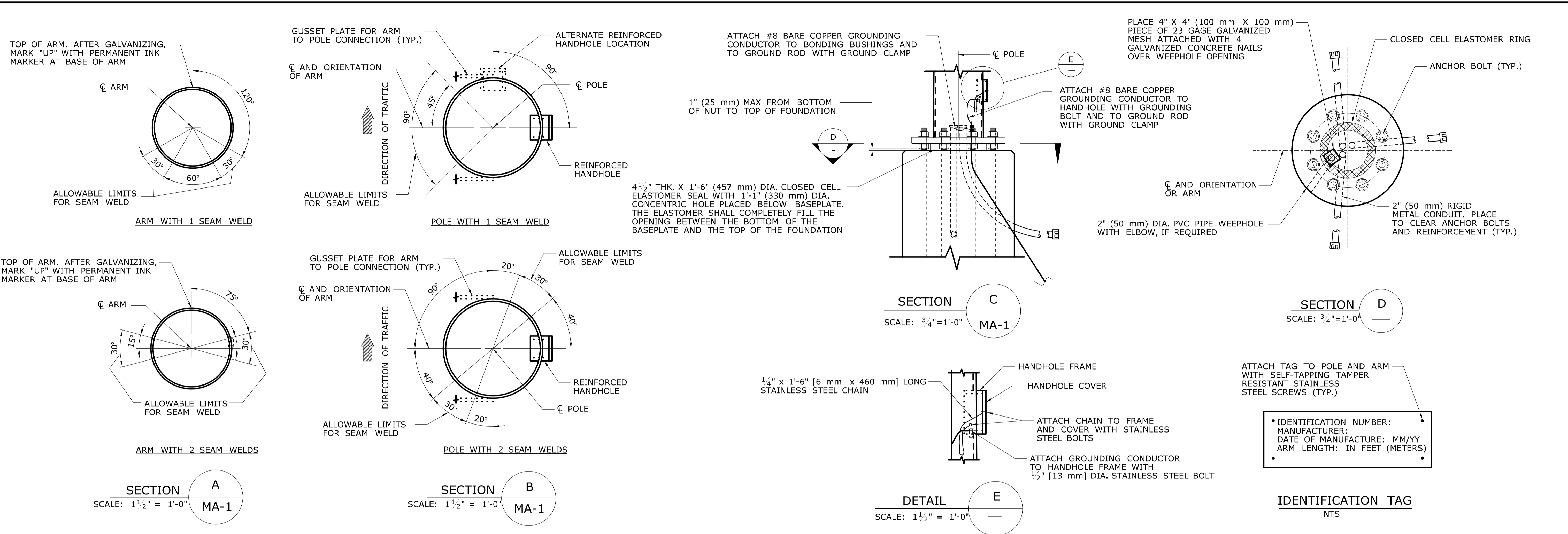
THE MAST ARMS SHALL BE DESIGNED IN ACCORDANCE WITH THE LATEST EDITION OF THE AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS, INCLUDING THE LATEST INTERIM SPECIFICATIONS, AS AMENDED BY THE AS SPECIAL PROVISION "XX STEEL MAST ARM ASSEMBLY" OR "XX STEEL COMBINATION MAST ARM ASSEMBLY".

THE MAST ARM SHALL BE DESIGNED FOR THE LOAD EFFECTS DUE TO THE ACTUAL TRAFFIC APPURTENANCES (SIGNALS, SIGNS, LUMINAIRES, CAMERAS, ETC.). THE MAST ARMS SHALL ALSO BE DESIGNED FOR THE EFFECTS OF TRAFFIC APPURTENANCES DURING ALL STAGES OF CONSTRUCTION THAT MAY EXIST DURING THE PROJECT UNDER WHICH THE MAST ARMS ARE INSTALLED.

THE MAST ARMS SHALL BE DESIGNED TO SUPPORT TRAFFIC APPURTENANCES WITH PROPERTIES NO LESS THAN THOSE SHOWN IN THE TABLE ENTITLED "TRAFFIC APPURTENANCE PROPERTIES - MINIMUM DESIGN VALUES".



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REV. DATE	REVISION DESCRIPTION	SHEET NO.	Plotted Date: 4/14/2010	Filename: ...XXXXXX_SB_MastArm_MA1_Elev.dgn	MAST ARM ASSEMBLY ELEVATION			



**TRAFFIC APPURTENANCE PROPERTIES
 MINIMUM DESIGN VALUES**

	2'-0" 610	2'-0" 610	2'-0" 610	3'-2" 965	WIDTH HEIGHT
	3 SECTION, 12" (305) DIA. TRAFFIC SIGNAL W/ BACKPLATE	4 SECTION, 12" (305) DIA. TRAFFIC SIGNAL W/ BACKPLATE	5 SECTION, 12" (305) DIA. TRAFFIC SIGNAL W/ BACKPLATE	5 SECTION, 12" (305) DIA. TRAFFIC SIGNAL W/ BACKPLATE	SHEET ALUMINUM SIGN PANEL
WEIGHT, INCLUDING MOUNTING HARDWARE	65 LBS (29.48 kg)	80 LBS (36.29 kg)	95 LBS (43.09 kg)	105 LBS (47.63 kg)	4 LBS/SQ.FT. (19.53 kg/m ²)
TOTAL SURFACE AREA	28.04 SQ. FT. (2.61 m ²)	35.46 SQ. FT. (3.29 m ²)	45.16 SQ. FT. (4.20 m ²)	41.04 SQ. FT. (3.81 m ²)	BASED ON PANEL DIMENSIONS
PROJECTED AREA, FRONT FACE	8.62 SQ. FT. (0.80 m ²)	10.91 SQ. FT. (1.01 m ²)	13.34 SQ. FT. (1.24 m ²)	13.72 SQ. FT. (1.28 m ²)	BASED ON PANEL DIMENSIONS
PROJECTED AREA, BOTTOM FACE	1.18 SQ. FT. (0.11 m ²)	1.18 SQ. FT. (0.11 m ²)	1.18 SQ. FT. (0.11 m ²)	2.58 SQ. FT. (0.24 m ²)	BASED ON PANEL DIMENSIONS

NOTES:

THE TABULATED VALUES ARE THE MINIMUM VALUES THAT SHALL BE USED FOR THE DESIGN.

MAST ARMS SHALL BE DESIGNED ASSUMING ALL TRAFFIC SIGNALS ARE COMPOSED OF 12" (305 mm) DIAMETER SECTIONS WITH BACKPLATES.

THE PROJECTED FRONT FACE AREA IS IN A PLANE PARALLEL TO THE PLANE FORMED BY THE ARM AND THE POLE.

IF MULTIPLE APPURTENANCES ARE ATTACHED AT THE SAME LOCATION, THE MINIMUM DESIGN VALUE SHALL BE NO LESS THAN THE SUM OF THE CORRESPONDING TRAFFIC APPURTENANCE PROPERTIES.

FOR TRAFFIC APPURTENANCES NOT SHOWN, THE PROPERTIES SHALL BE DETERMINED BY THE CONTRACTOR AND SUBMITTED FOR REVIEW WITH THE WORKING DRAWING SUBMITTAL.



DESIGNER/DRAFTER: -	<p>STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION</p> <p>Filename: ...XXXXXX_SB_MastArm_MA1_Elev.dgn</p>	SIGNATURE/ BLOCK: -	PROJECT TITLE: -	TOWN: -	PROJECT NO. -
CHECKED BY: -		OFFICE OF ENGINEERING	DRAWING TITLE: MAST ARM ASSEMBLY DETAILS	DRAWING NO. MA-2	SHEET NO. -
SCALE AS NOTED		APPROVED BY: -	DATE: -		
REV. DATE	REVISION DESCRIPTION	SHEET NO.	Plotted Date: 4/14/2010		

FOUNDATION NOTES

THE MAST ARM FOUNDATION IS DESIGNED IN ACCORDANCE WITH THE LATEST EDITION OF THE AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS, WITH THE LATEST INTERIM SPECIFICATIONS.

THE FOUNDATION EMBEDMENT IS DESIGNED FOR MAXIMUM LOAD EFFECTS, APPLIED AT THE TOP OF THE FOUNDATION, NO GREATER THAN THE FOLLOWING:

- AXIAL COMPRESSIVE FORCE: K (kN)
- RESULTANT SHEAR FORCE: K (kN)
- TORSION: FT - K (kN - m)
- RESULTANT BENDING MOMENT: FT - K (kN - m)

THE USE OF THE FOUNDATION IS NOT PERMITTED IF THE COMPUTED REACTIONS FROM THE CONTRACTOR DESIGNED MAST ARM ASSEMBLY EXCEED THE ABOVE LOAD EFFECTS.

THE ENGINEER SHALL BE NOTIFIED IF THE SLOPE OF THE FINISHED GRADE AT THE FOUNDATION EXCEEDS THE MAXIMUM PERMITTED SLOPE.

THE CONCRETE FOR THE FOUNDATION SHALL CONFORM TO "CLASS "A" CONCRETE".

THE REINFORCEMENT SHALL BE UNCOATED AND CONFORM TO ASTM A615, GRADE 60 (ASTM A615M, GRADE 420). THE REINFORCEMENT SHALL BE ASSEMBLED WITH WIRE TIES. WELDING TO ASSEMBLE REINFORCEMENT IS NOT PERMITTED. ALL REINFORCEMENT SHALL HAVE 3" (75 mm) COVER, UNLESS OTHERWISE NOTED.

THE CONCRETE SHALL BE PLACED IN A AUGERED HOLE AGAINST UNDISTURBED EARTH.

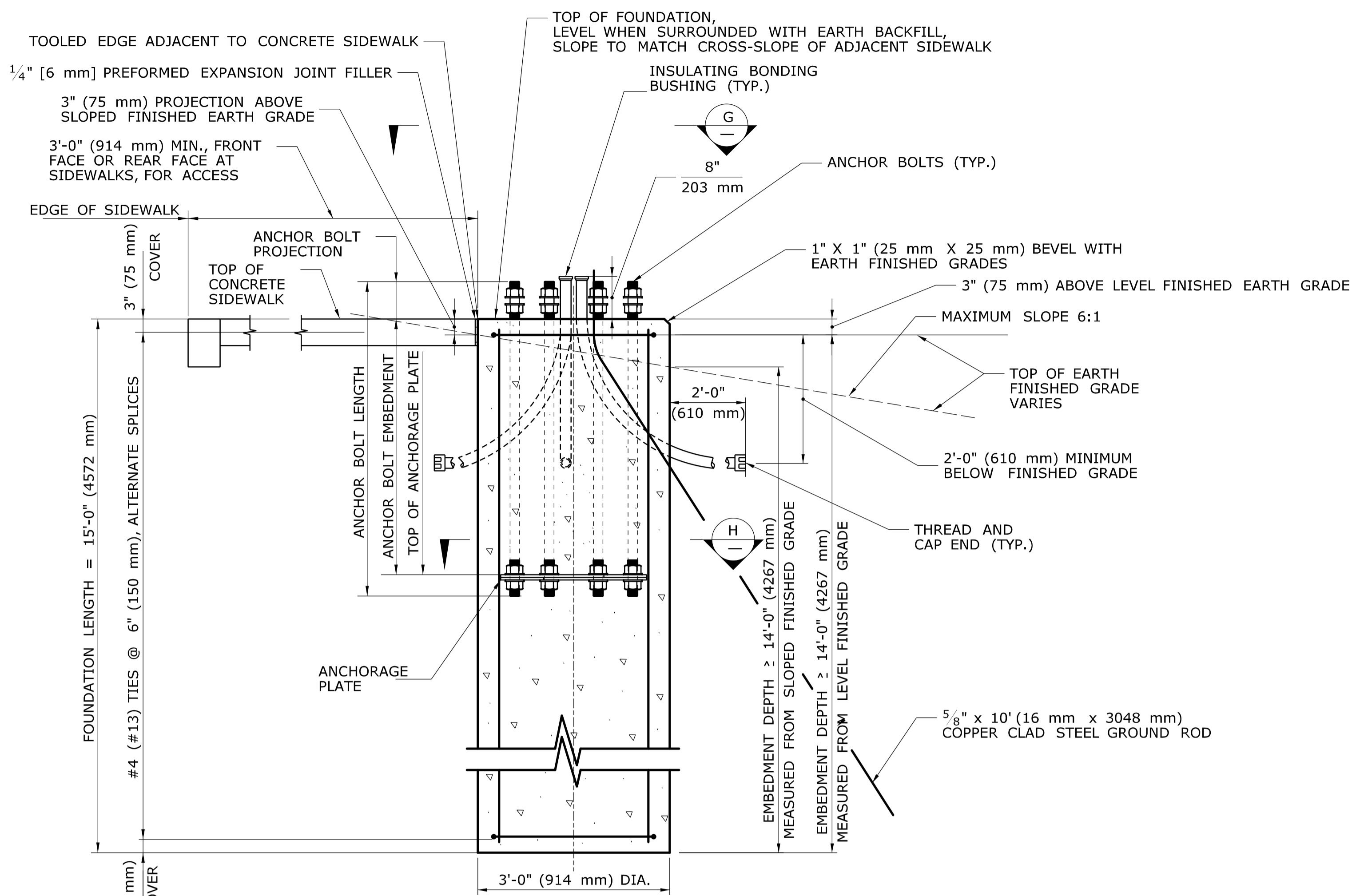
THE MAST ARM SHALL NOT BE ERECTED ON THE FOUNDATION UNTIL AFTER THE CONCRETE HAS ATTAINED A 28 DAY COMPRESSIVE STRENGTH, f'_c , GREATER THAN OR EQUAL TO 3000 PSI (21 MPa).

THE COST OF THE FOUNDATION, INCLUDING THE EXCAVATION, CONCRETE AND REINFORCEMENT, SHALL BE PAID FOR UNDER THE ITEM "TRAFFIC CONTROL FOUNDATION - MAST ARM".

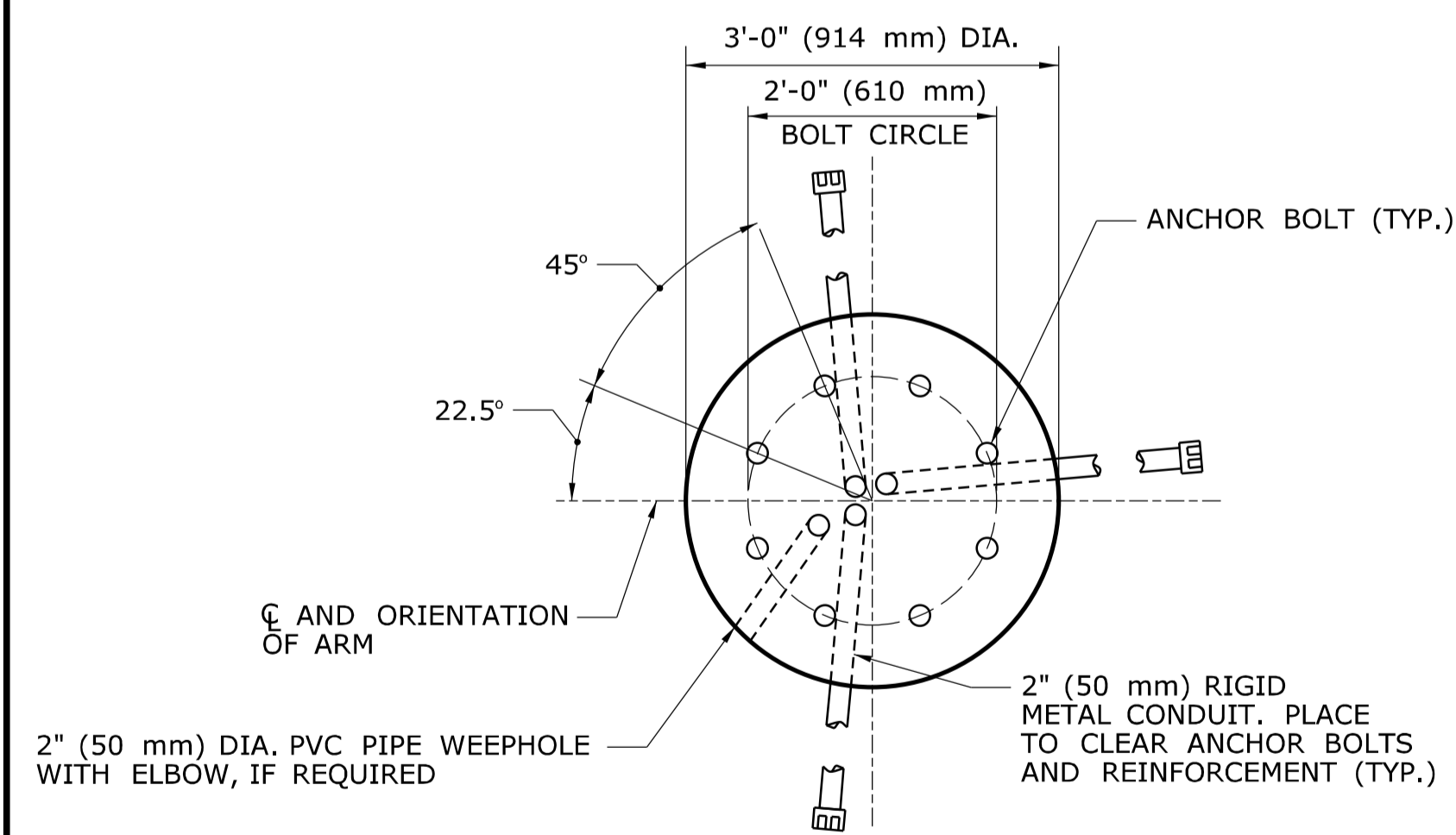
ATTENTION

MAXIMUM LOAD EFFECTS APPLIED AT THE TOP OF THE FOUNDATION SHALL BE PROVIDED BY THE MANUFACTURER OF THE MAST ARMS.

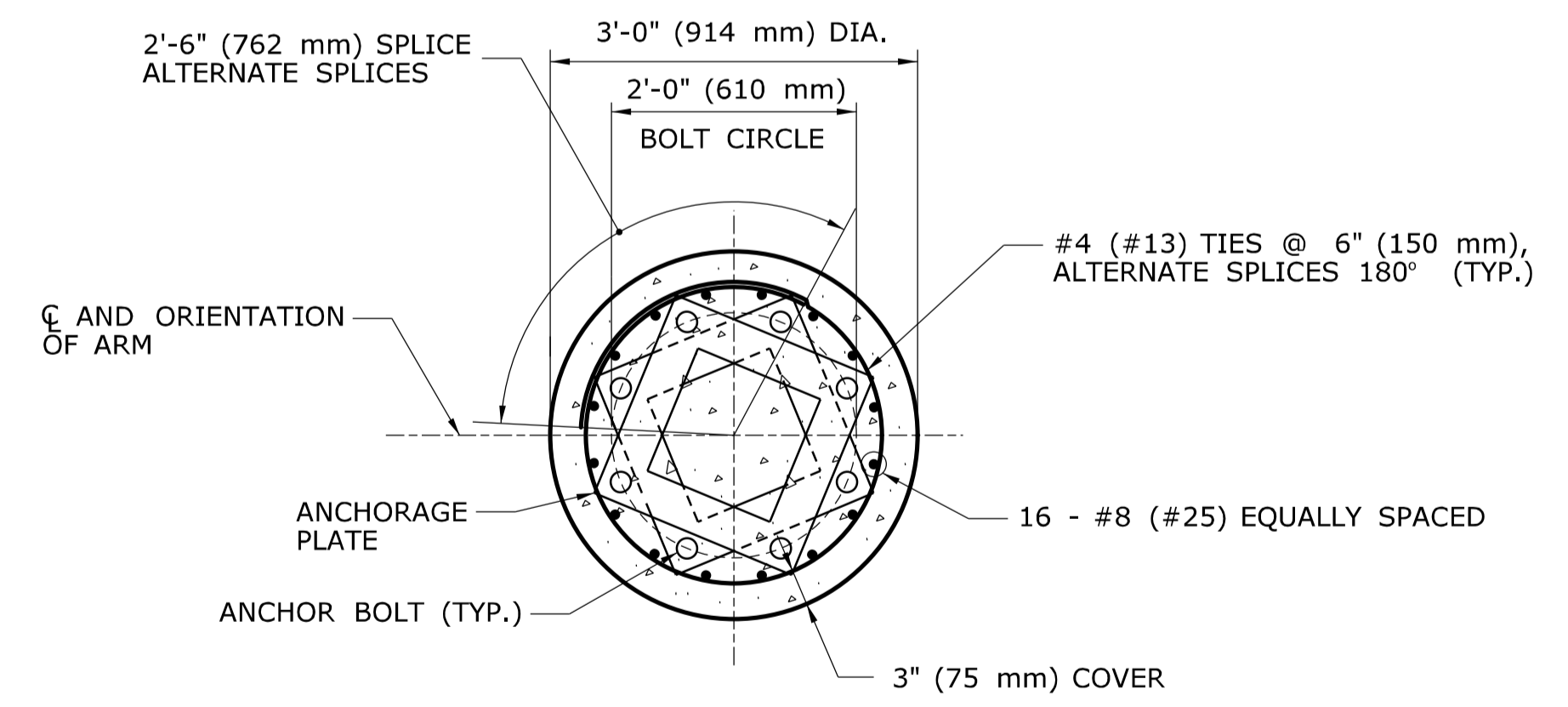
THE ENGINEER ON RECORD SHALL ENSURE THE FOUNDATION IS ONLY USED FOR MAST ARM ASSEMBLIES WITH COMPUTED REACTIONS THAT DO NOT EXCEED THESE MAXIMUM LOAD EFFECTS.



SECTION F
SCALE: 3/4"=1'-0"
MA-1



SECTION G
SCALE: 3/4"=1'-0"




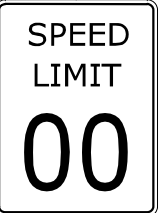
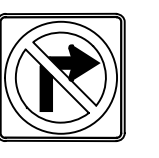
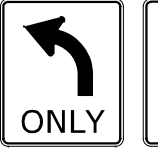



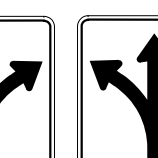

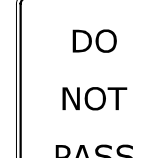
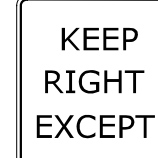
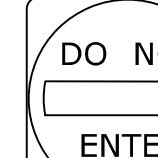

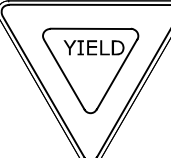
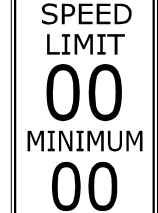



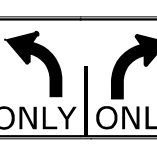

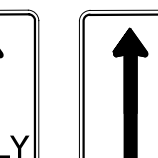
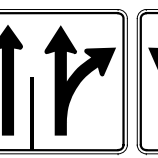
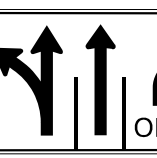
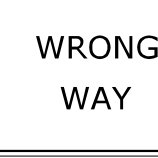









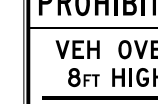



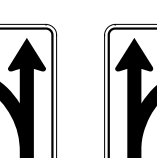
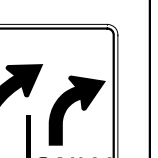



SECTION H
Scale: 3/4"=1'-0"





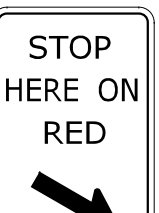


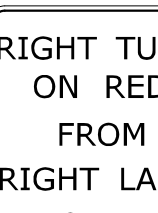
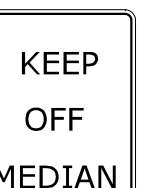


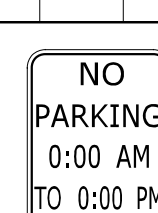


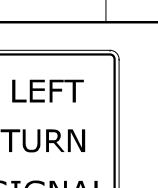



ATTENTION USER:


THE USER OF THESE FOUNDATION DETAILS IS RESPONSIBLE FOR DETERMINING THE VALUES FOR THE MAXIMUM LOAD EFFECTS APPLIED AT THE TOP OF THE FOUNDATION AND ADDING THE VALUES TO THE ABOVE NOTES. THE USER SHALL ENSURE THAT THE FOUNDATION IS ONLY USED FOR MAST ARM ASSEMBLIES WITH COMPUTED REACTIONS THAT DO NOT EXCEED THESE MAXIMUM LOAD EFFECTS. THIS NOTE SHALL BE REMOVED, BY THE USER, PRIOR TO INCORPORATING THESE FOUNDATION DETAILS INTO THE CONTRACT DOCUMENTS.

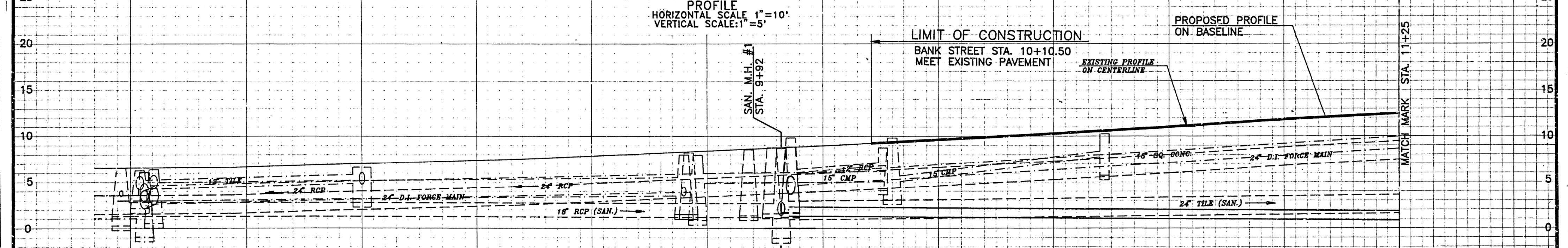
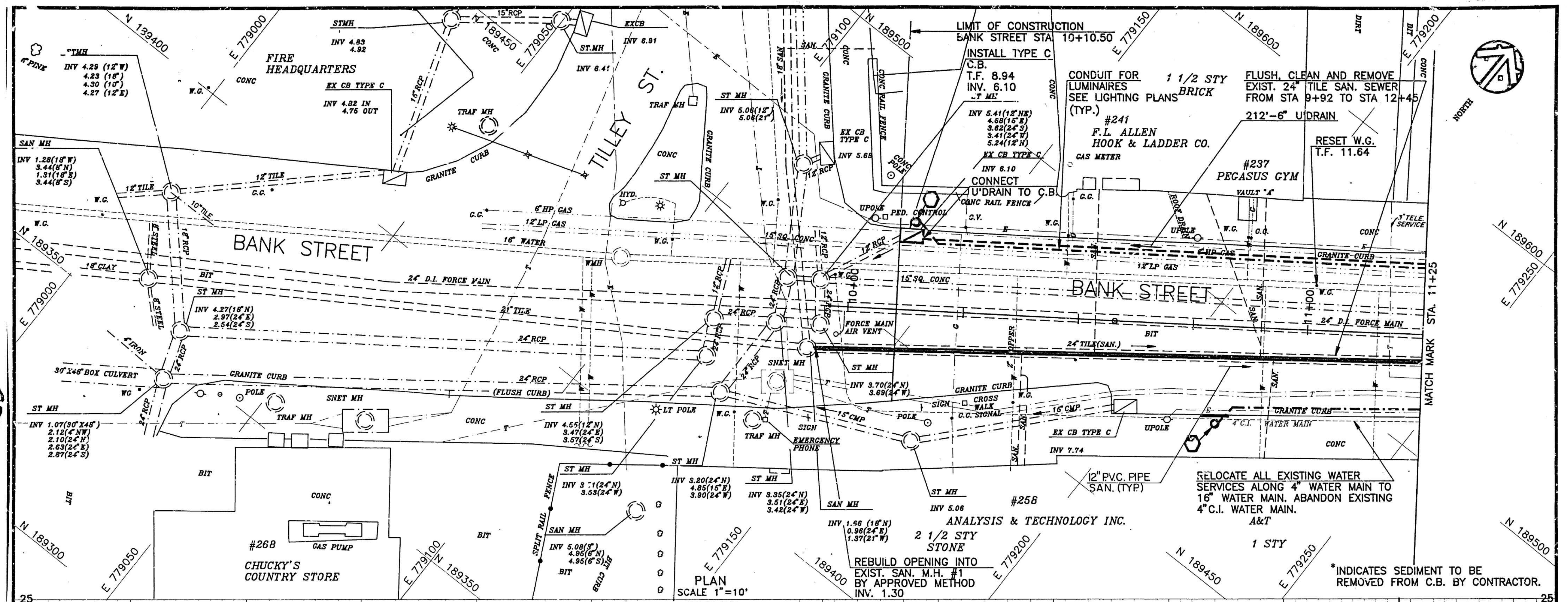
<p>THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.</p>			<p>DESIGNER/DRAFTER: - CHECKED BY: -</p>	<p>STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION</p>	<p>SIGNATURE/BLOCK: - OFFICE OF ENGINEERING</p>	<p>PROJECT TITLE: -</p>	<p>TOWN: -</p>	<p>PROJECT NO. - DRAWING NO. MA-3 SHEET NO. -</p>
REV. DATE	REVISION DESCRIPTION	SHEET NO.	Plotted Date: 4/14/2010	SCALE AS NOTED	APPROVED BY: - DATE: -	<p>DRAWING TITLE: MAST ARM ASSEMBLY FOUNDATION DETAILS</p>		

R1 - SERIES		R2 - SERIES		R3 - SERIES						R4 - SERIES				R5 - SERIES																																																																										
R1-1  LEGEND - WHITE BACKGROUND - RED <table border="1"> <thead> <tr><th>AREA (SQ. FT.)</th><th>SIZE (INCHES)</th><th>CONN. D.O.T. #</th><th>POSTS</th><th>ALUM. THK.</th></tr> </thead> <tbody> <tr><td>1.85</td><td>18</td><td>31-0532</td><td>1</td><td>.080</td></tr> <tr><td>5.19</td><td>30</td><td>31-0552</td><td>1</td><td>.080</td></tr> <tr><td>7.98</td><td>36</td><td>31-0553</td><td>1</td><td>.080</td></tr> <tr><td>13.3</td><td>48</td><td>31-0557</td><td>2</td><td>.100</td></tr> </tbody> </table>		AREA (SQ. FT.)	SIZE (INCHES)	CONN. D.O.T. #	POSTS	ALUM. THK.	1.85	18	31-0532	1	.080	5.19	30	31-0552	1	.080	7.98	36	31-0553	1	.080	13.3	48	31-0557	2	.100	R2-1  <table border="1"> <thead> <tr><th>AREA (SQ. FT.)</th><th>SIZE (INCHES)</th><th>CONN. D.O.T. #</th><th>POSTS</th><th>ALUM. THK.</th></tr> </thead> <tbody> <tr><td>5.00</td><td>24X30</td><td>31-5505</td><td>1</td><td>.080</td></tr> <tr><td>7.50</td><td>30X36</td><td>31-5504</td><td>1</td><td>.080</td></tr> <tr><td>12.00</td><td>36X48</td><td>31-5506</td><td>2</td><td>.100</td></tr> <tr><td>20.00</td><td>48X60</td><td>31-5507</td><td>2</td><td>.100</td></tr> </tbody> </table>		AREA (SQ. FT.)	SIZE (INCHES)	CONN. D.O.T. #	POSTS	ALUM. THK.	5.00	24X30	31-5505	1	.080	7.50	30X36	31-5504	1	.080	12.00	36X48	31-5506	2	.100	20.00	48X60	31-5507	2	.100	R3-1  LEGEND - BLACK BACKGROUND - WHITE CIRCLE & DIAGONAL - RED <table border="1"> <thead> <tr><th>AREA (SQ. FT.)</th><th>SIZE (INCHES)</th><th>CONN. D.O.T. #</th><th>POSTS</th><th>ALUM. THK.</th></tr> </thead> <tbody> <tr><td>4.00</td><td>24X24</td><td>31-1604</td><td>1</td><td>.080</td></tr> <tr><td>9.00</td><td>36X36</td><td>31-1627</td><td>2</td><td>.080</td></tr> </tbody> </table>		AREA (SQ. FT.)	SIZE (INCHES)	CONN. D.O.T. #	POSTS	ALUM. THK.	4.00	24X24	31-1604	1	.080	9.00	36X36	31-1627	2	.080	R3-5  31-0183  31-0184		R3-6  31-0175		R3-8  31-0282  31-0283		R3-8b  31-0302						R4-1  31-1502		R4-16  31-1574		R5-1  31-1119  31-1775	
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- NOTES:**
1. THE LEGEND "O.S.T.A." SHALL APPEAR ON ALL R- SERIES SIGNS EXCEPT WHEN SUFFIXED WITH THE LETTER "Z".
 2. FOR SPECIFIC SIGN DESIGN CONTACT CONN. D.O.T., DIVISION OF TRAFFIC ENGINEERING. FOR BOLT HOLE PATTERN REFER TO FHWA PUBLICATION "STANDARD HIGHWAY SIGNS". SIGNS OF DIFFERENT DIMENSIONS TO BE ERRECTED ON THE SAME POSTS, OR SPAN/MAST ARM MOUNTED, MAY REQUIRE SPECIAL BOLT HOLE PATTERNS.
 3. POSTS - SEE STANDARD SHEET TR-1208-02 - "METAL SIGN POSTS AND SIGN MOUNTING DETAILS."
 4. POSTS SHALL BE 4 LBS./FT.
 5. SIGNS SHALL BE FABRICATED OF ONE CONTINUOUS PIECE OF SHEET ALUMINUM. SPLICING OF SHEET ALUMINUM WILL NOT BE ACCEPTED.
 6. FOR OVERHEAD MOUNTED SIGNS, SEE STANDARD SHEET TR-1114-01 - "BONDING AND UTILITY POLE ATTACHMENT DETAILS, SIGN HANGER, "Y" CLAMP DETAIL."
- COLORS:**
- BACKGROUND - WHITE - EXCEPT AS NOTED.
 LEGEND - BLACK - EXCEPT AS NOTED.
 ALL SIGNS TO USE TYPE IX RETROREFLECTIVE SHEETING.

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.			DESIGNER/DRAFTER: A. MERMELSTEIN CHECKED BY: B. SCHILLING		 STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION		SIGNATURE/BLOCK: OFFICE OF ENGINEERING APPROVED BY: _____ DATE: _____		PROJECT TITLE: -		TOWN: -		PROJECT NO. -	
REV. DATE REVISION DESCRIPTION SHEET NO.			NOT TO SCALE		Filename: ...LCTDOT_TRAFFIC_GS.dgn		DRAWING TITLE: SIGN FACE SHEET ALUMINUM R-SERIES TYPICAL SIGN DETAILS		DRAWING NO. TR-GS_01		SHEET NO.			



- NOTES:
1. RELOCATE ALL EXIST. SANITARY SEWER LATERALS FROM THE EXIST. 24" TILE SEWER TO THE PROPOSED 12" P.V.C. SEWER.
 2. RELOCATE ALL EXIST. WATER SERVICES FROM THE EXIST. 4" WATER MAIN TO THE EXIST. 16" WATER MAIN.
 3. IT IS BROUGHT TO THE ATTENTION OF THE CONTRACTOR THAT THE EXIST. 24" D.I. SANITARY FORCE MAIN IS IN CLOSE PROXIMITY TO THE PROPOSED 12" P.V.C. SEWER. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY TEMPORARY SUPPORTS, INCLUDING SHEETING AND BRACING AS REQUIRED TO ENSURE SAFE WORKING CONDITIONS AND THE PROTECTION OF ALL EXIST. UTILITIES.
 4. THE 24" SANITARY FORCE MAIN IS SHOWN ON THE DRAWINGS FOR INFORMATIONAL PURPOSES ONLY. THE CONTRACTOR SHALL VERIFY THE EXACT HORIZONTAL AND VERTICAL LOCATION PRIOR TO CONSTRUCTION.
 5. ELECTRIC AND TELEPHONE MAIN LINE AND SERVICES ARE SHOWN GRAPHICALLY ON THE PLANS. THE ACTUAL DUCT BANK(S) VARY IN SIZE AND SHAPE AND MAY BE LARGER THAN SHOWN. THE CONTRACTOR SHALL VERIFY THE SIZES AND SHAPES OF EACH UTILITY.

FOR INFORMATIONAL USE ONLY

CITY OF NEW LONDON, CONNECTICUT
 NEW LONDON DOWNTOWN REVITALIZATION
 BANK STREET SITE PL #1

CONTRACT NO.: 3 SCALE: AS NOTED
 MGI NO.: 13060 DATE: JAN. 9, 1992

Maquire Group Inc.
 Engineers - Planners
 One Court Street
 New Britain, Connecticut 06051

S-1

MILONE & MACBROOM
 99 Realty Drive
 Cheshire, Connecticut 06410
 (203) 271-1773 Fax (203) 272-9733
 www.miloneandmacbroom.com

NO.	DATE	DESCRIPTION

DATE: DECEMBER 18, 2019
 STATE PROJECT NO.: 0094-0260
 SHEET NO.: UT-1

Supplemental Utility Plans
 Intersection Improvements - Tilley Street at Green Street
 and Bank Street
 New London, Connecticut

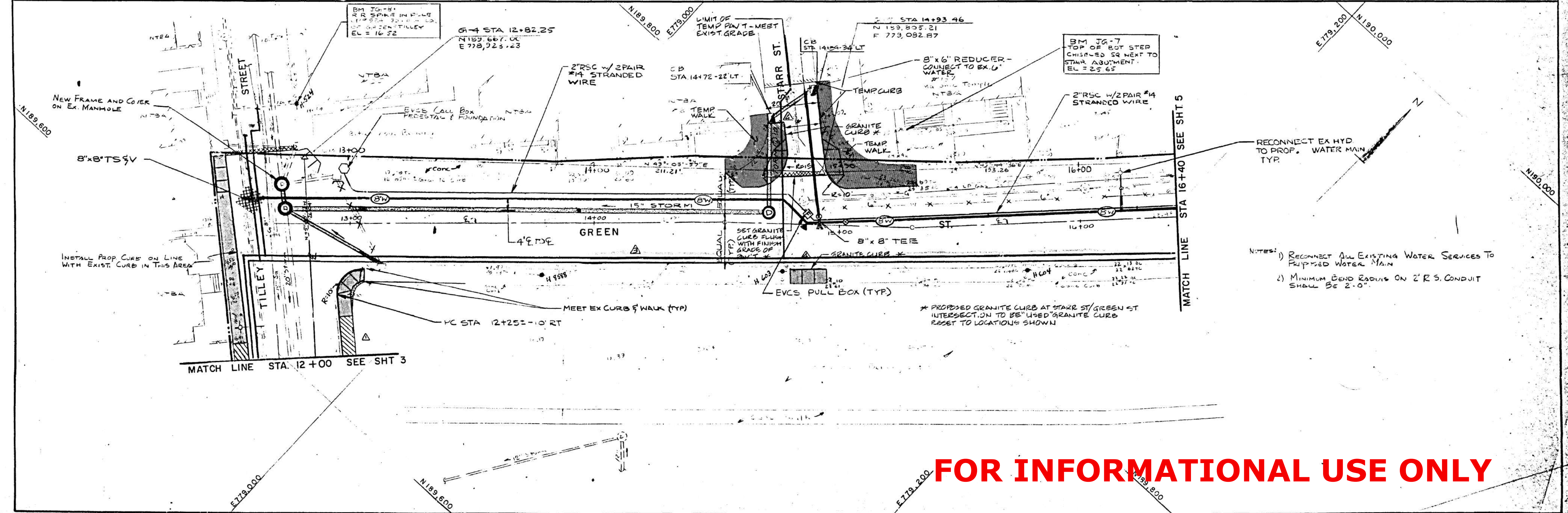
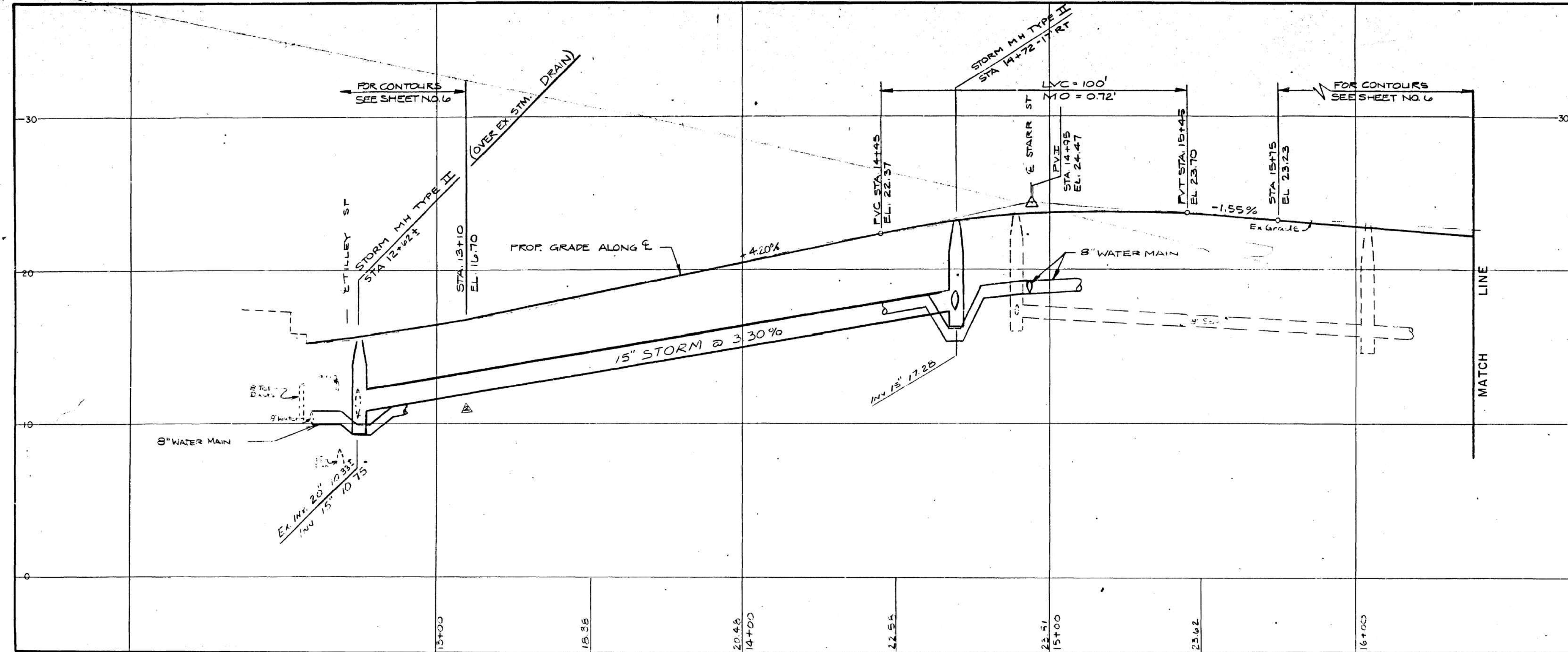
THE REDEVELOPMENT AGENCY OF THE CITY OF NEW LONDON

BANK STREET IMPROVEMENT AREA

EUGENE O'NEILL DRIVE EXTENSION
STAGE 2

CAHN ENGINEERS, INC. - CONSULTING ENGINEERS
Date July, 1977 WALLINGFORD, CONNECTICUT
Scale HORIZ 1" = 20'
VERT 1" = 20' 11 113 AB Sheet No. 4 of 11

DESIGNED BY	RDN	DRAWN BY	OC	CHECKED BY	OC	APPROVED BY	OC
NO	DATE	BY	REVISION		APPROVED BY		
Δ	3/29/78	RDN	TILLEY ST ALIGNMENT		OC		
Δ	4/11/78	RDN	STORM PROFILE				
Δ	5/11/78	RDN	RECONSTRUCT GREEN ST				
Δ	7/28/78	RDN	STARR ST CURB ALIGNMENT & PEDRAIP				



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DESCRIPTION	DATE	BY

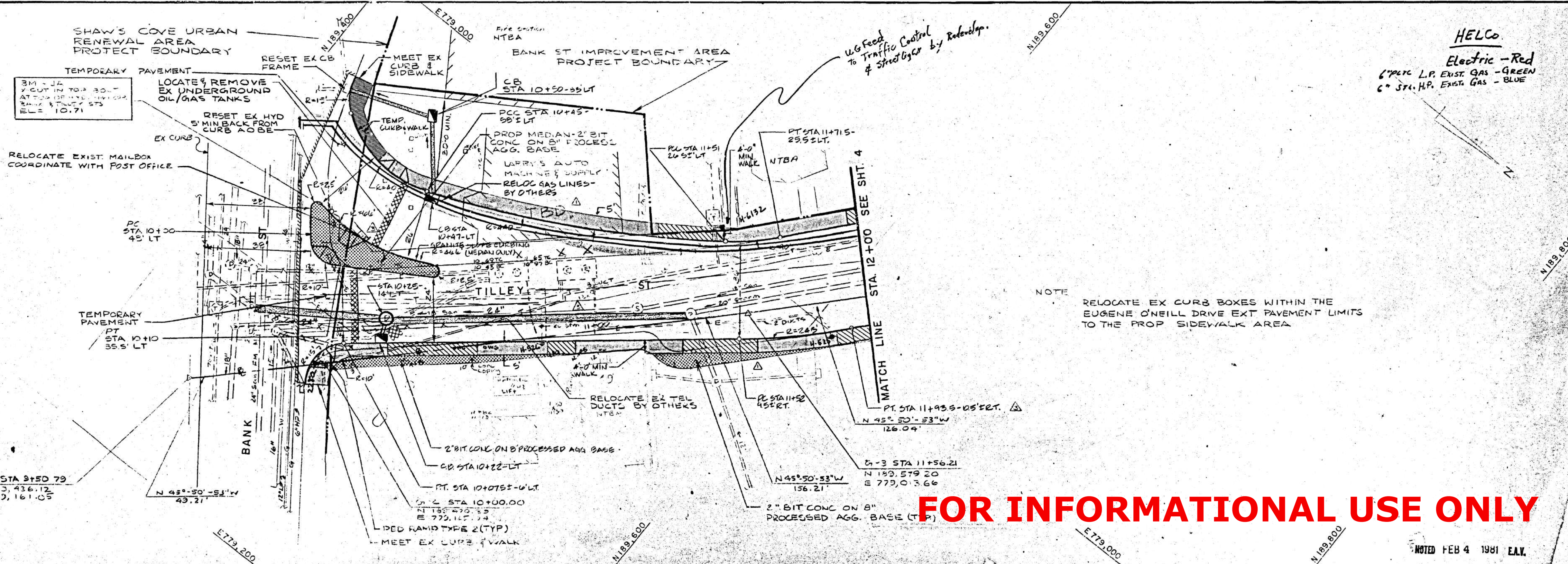
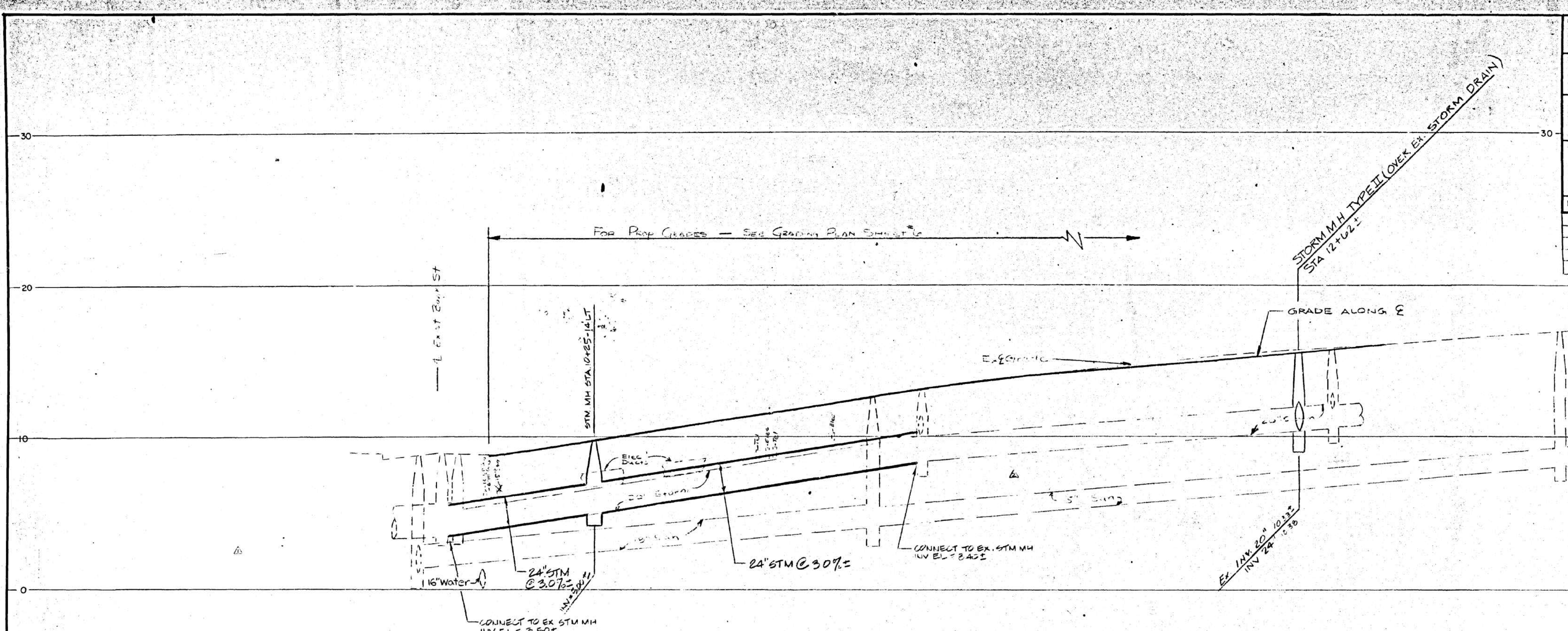
SUPPLEMENTAL UTILITY PLANS
INTERSECTION IMPROVEMENTS - TILLEY STREET AT GREEN STREET
AND BANK STREET
NEW LONDON, CONNECTICUT

WKF	KB
DRAWN	CHECKED
DECEMBER 18, 2019	
DATE	
0094-0260	
STATE PROJECT NO.	
DWG NO.	
UT-2	
SHEET NO.	

000007
Scmm
45

00021 - 38 - REVISIONS - SEE DRAWING FOR DETAILS
 CONTRACT NO. 99-173
 PROJECT NO. 99-173-1
 SHEET NO. 03 OF 11

THE REDEVELOPMENT AGENCY OF THE CITY OF NEW LONDON				
BANK STREET IMPROVEMENT AREA				
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CAHN ENGINEERS, INC. - CONSULTING ENGINEERS				
Date July, 1977 WALLINGFORD, CONNECTICUT				
Scale	HORIZ 1" = 20'	VERT 1" = 4'	Sheet No. 3 of 11	
DESIGNED BY	RDN	DRAWN BY	JD	CHECKED BY
APPROVED BY	[Signature]			
NO.	DATE	BY	REVISION	OCE
1	3/29/78	RDN	TILLEY ST ALIGNMENT & STORM	
2	4/11/78	RDN	30' STORM REMOVED & CO. ADDED	
3	7/27/78	RDN	TILLEY ST ALIGNMENT & ADD 24" STM	
4	11/23/78	RDN	REVISED PLANNING LAYOUT	



FOR INFORMATIONAL USE ONLY

NOTED FEB 4 1981 E.A.V.

DESCRIPTION	DATE	BY

SUPPLEMENTAL UTILITY PLANS
INTERSECTION IMPROVEMENTS - TILLEY STREET AT GREEN STREET AND BANK STREET
 NEW LONDON, CONNECTICUT

WKF	KB
DRAWN	CHECKED
DECEMBER 18, 2019 DATE	
0094-0260 STATE PROJECT NO.	
DWG. NO.	
UT-3	