



**TOWN OF CHESHIRE
DEPARTMENT OF PUBLIC WORKS/ENGINEERING
84 SOUTH MAIN STREET, CHESHIRE, CONNECTICUT 06410
Telephone (203) 271-6650 Fax (203) 271-6659**

Addendum #2

**Re-Bid Sidewalk Ramp Improvements On Highland Ave (CT RTE. 10)
Bid #2223-08
Date: 10/28/2022**

PAGES 1-10 Connecticut DOT standard Details

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: AMECO, 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)

$L_{LOOP} = (P/4) (N^2 + N)$

LEAD-IN INDUCTANCE

$L_{14/2} = (0.24 \mu H/FT) (D)$

LOOP INDUCTANCE (METRIC)

$L_{LOOP} = (3.28P/4) (N^2 + N)$

LEAD-IN INDUCTANCE

$L_{14/2} = (0.78 \mu H/m) (D)$

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)

6' x 6', 4 TURNS, APPROXIMATELY 300' FROM THE CONTROLLER

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

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

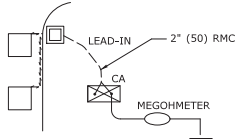
3: POWER INTERRUPTION:

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.

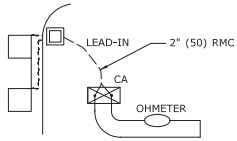
INDUCTIVE LOOP TEST PROCEDURE

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 1a



TEST 1b

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					

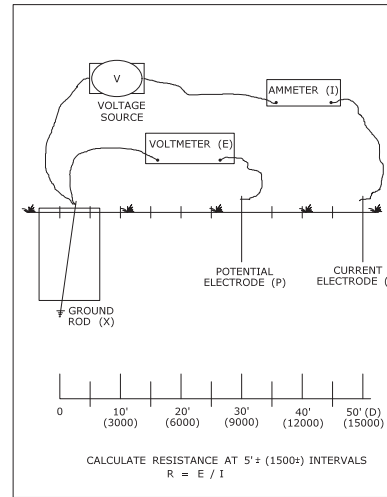
LOOP CIRCUIT TEST DATA (EXAMPLE)

TEST PROCEDURE:

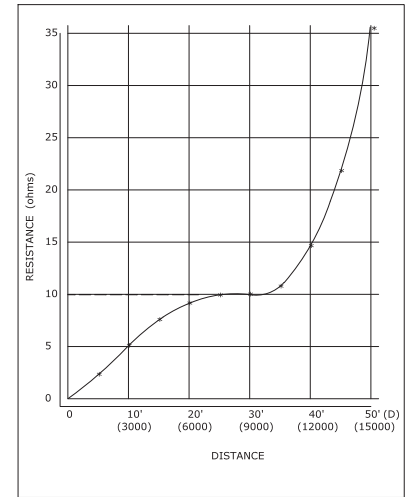
- INSERT ELECTRODE (C) A DISTANCE (D) FROM THE FOUNDATION. RECOMMEND A MINIMUM 50'.
- CONNECT A VOLTAGE SOURCE AND AMMETER BETWEEN THE FOUNDATION GROUND ROD (X) AND C.
- MEASURE THE CURRENT FLOW (I) BETWEEN X AND C.
- INSERT POTENTIAL ELECTRODE (P) AT 5'(1500) INTERVALS IN A STRAIGHT LINE TO ELECTRODE 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:

- 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.
- 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:

- 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.
- DURING THE TEST, THE GROUND ROD SHOULD NOT BE BONDED TO ANY RMC IN THE FOUNDATION.
- THE VOLTAGE SOURCE, VOLTMETER, AMMETER, ELECTRODES P AND C, AND CONNECTING CABLES ARE AVAILABLE AS A SPECIALIZED TEST INSTRUMENT.
- REFER TO NATIONAL ELECTRICAL SAFETY CODE (NEC) SECTION 09, GROUNDING METHODS FOR ELECTRIC SUPPLY AND COMMUNICATIONS FACILITIES.
- 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

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NOT TO SCALE

Revised Date: 1/7/2014



SUBMITTED BY: NAME/DATE/TIME: Troy L. Fogarty 2014.01.07 16:11:26-0500
 APPROVED BY: NAME/DATE/TIME: Charles S. Harlow 2014.01.08.09.02:11-0500

CTDOT STANDARD SHEET
OFFICE OF ENGINEERING

STANDARD SHEET TITLE: **GENERAL CLAUSES (TEST PROCEDURES)**
 STANDARD SHEET NO.: **TR-1000_01**

DOCUMENT ALL LOOP DETECTOR VALUES BOTH CALCULATED AND MEASURED.

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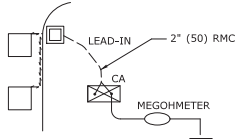
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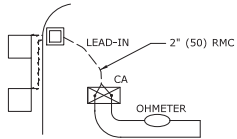
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TEST 1a



TEST 1b

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D4B REAR					
D5					
D6A					
D6B					

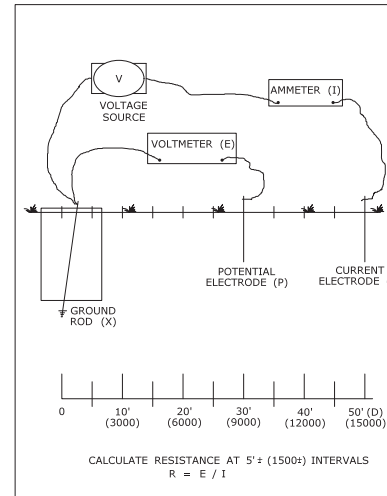
LOOP CIRCUIT TEST DATA (EXAMPLE)

TEST PROCEDURE:

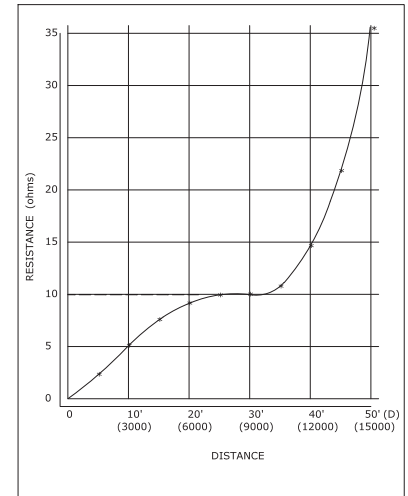
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3 POINT GROUND RESISTANCE TEST CIRCUIT



GROUND RESISTANCE CHART (EXAMPLE)

NOTES:

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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

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NOT TO SCALE

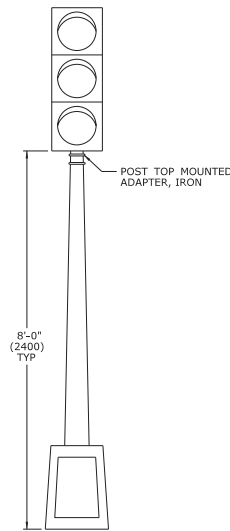
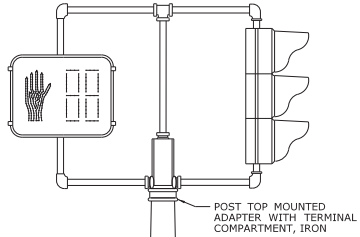
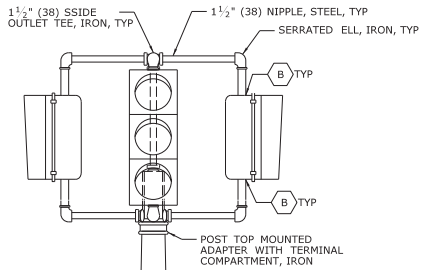
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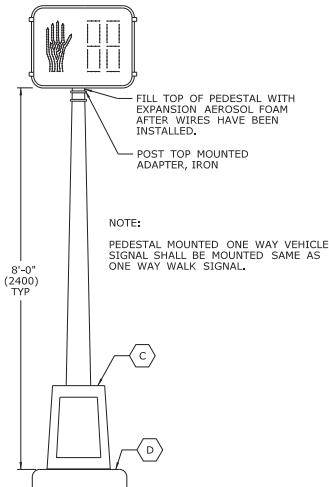
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CTDOT STANDARD SHEET
OFFICE OF ENGINEERING

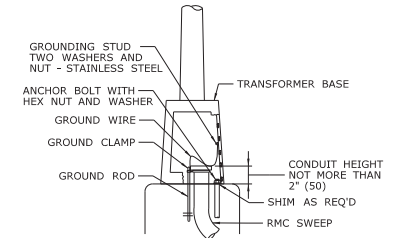
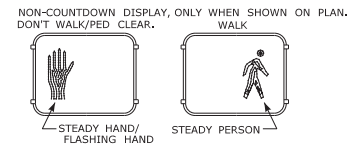
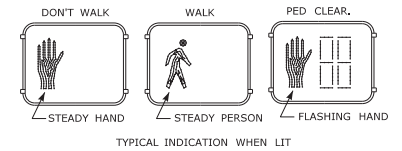
STANDARD SHEET TITLE: **GENERAL CLAUSES (TEST PROCEDURES)**
 STANDARD SHEET NO.: **TR-1000_01**



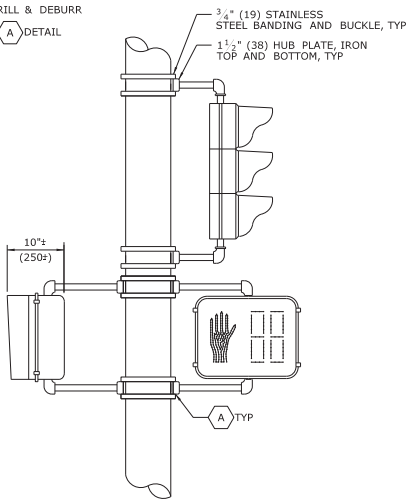
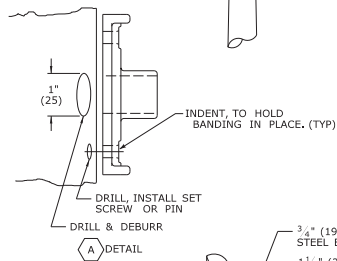
**ONE WAY TRAFFIC SIGNAL
PEDESTAL MOUNTED**



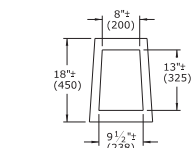
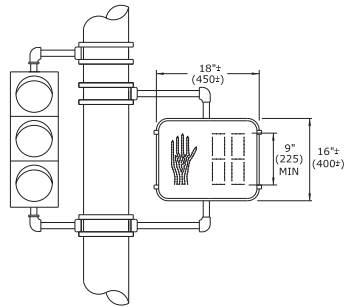
**ONE WAY WALK SIGNAL
PEDESTAL MOUNTED**



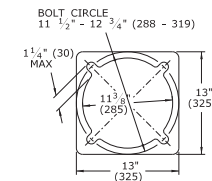
**ALUMINUM PEDESTAL
INSTALLATION DETAIL**



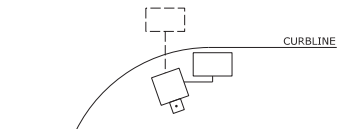
**ONE WAY TRAFFIC SIGNAL
POLE MOUNTED**



**ALUMINUM PEDESTAL
DOOR OPENING DETAIL**



PEDESTAL BASE PLAN



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

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.

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

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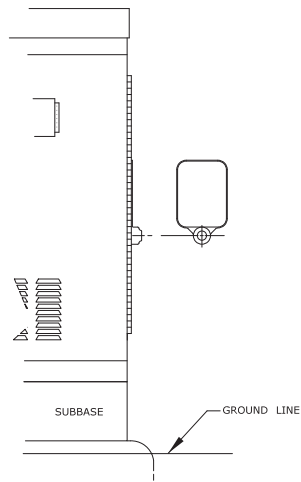
Filename: CTDOT_TRAFFIC_STD.dwg Model: TR-1102_01

SUBMITTED BY: Tracy L. Fogarty
NAME/DATE/TIME: Tracy L. Fogarty 2012.05.01 12:55:27-04'00'

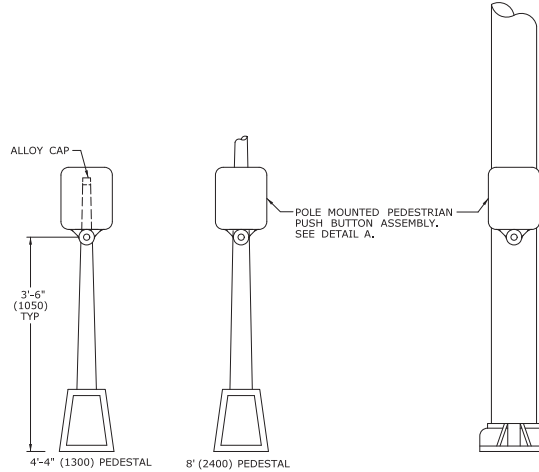
APPROVED BY: Timothy M. Wilson
NAME/DATE/TIME: Timothy M. Wilson 2012.05.09 10:24:58-04'00'

CTDOT
STANDARD SHEET
OFFICE OF ENGINEERING

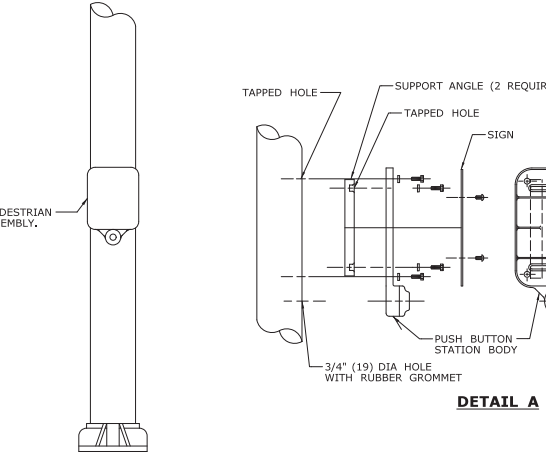
STANDARD SHEET TITLE: PEDESTALS, PEDESTRIAN SIGNALS
STANDARD SHEET NO.: TR-1102_01



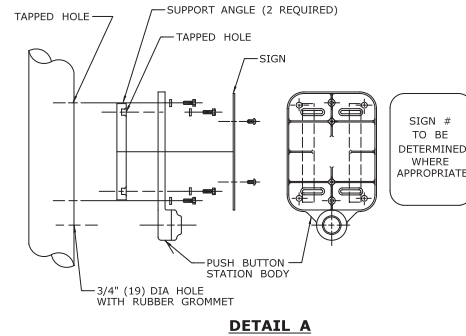
SURFACE MOUNTED



PEDESTAL MOUNTED



SPAN POLE/MAST ARM MOUNTED



DETAIL A



SIGN # 31-0833
USE APPROPRIATE LEFT OR RIGHT ARROW

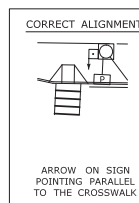


SIGN # 31-0835

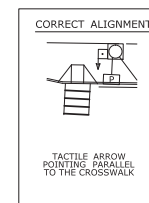
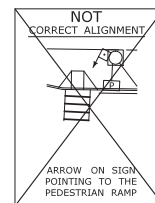
FOR CROSSING WITH SIDE STREET GREEN

GENERAL NOTES:

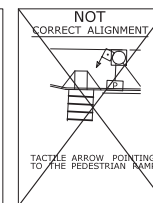
3'-6" (1050) FROM FINISHED GRADE SUCH AS SIDEWALK TO CENTER OF PUSH BUTTON.
 PUSH BUTTON INSTALLATIONS SHALL CONFORM TO THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT (ADA) STANDARDS FOR ACCESSIBLE DESIGN, CURRENT EDITION GOVERNS.
 4'-4" (1300) PEDESTAL TO INCLUDE ALLOY CAP SECURED WITH STAINLESS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



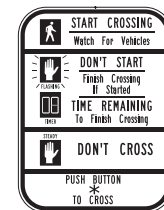
PEDESTRIAN PUSH BUTTON ALIGNMENT



ACCESSIBLE PEDESTRIAN SIGNAL AND DETECTOR



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

3	8-2018	UPDATED PEDESTRIAN SIGN LEGENDS AND NOTES.
2	4-2014	ADDED PEDESTRIAN EXAMPLE ALIGNMENTS
1	4-2012	MINOR REVISIONS & UPDATED SIGN #31-0845.
REV.	DATE	REVISION DESCRIPTION

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.

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, P.E.
 NAME/DATE/TIME: Tracy L. Fogarty, P.E. 2018.08.16 12:13:35-04'00'

APPROVED BY: Mark F. Carfino, P.E.
 NAME/DATE/TIME: Mark F. Carfino, P.E. 2018.08.21 07:46:57-04'00'

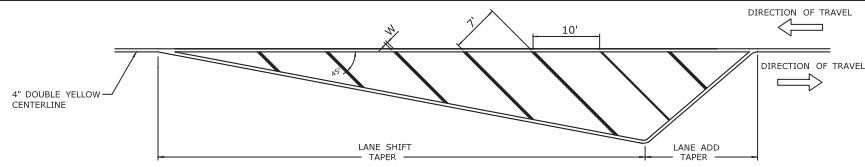
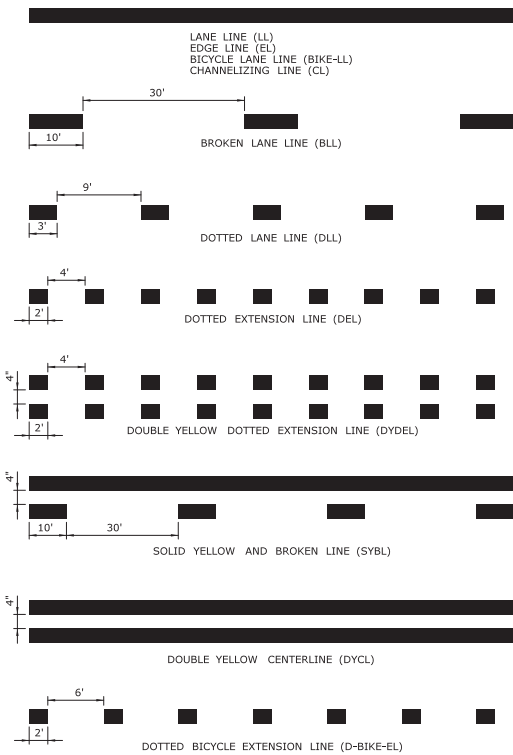
CTDOT
 STANDARD SHEET
 OFFICE OF ENGINEERING

STANDARD SHEET TITLE:
PEDESTRIAN PUSH BUTTONS

STANDARD SHEET NO.:
TR-1107_01

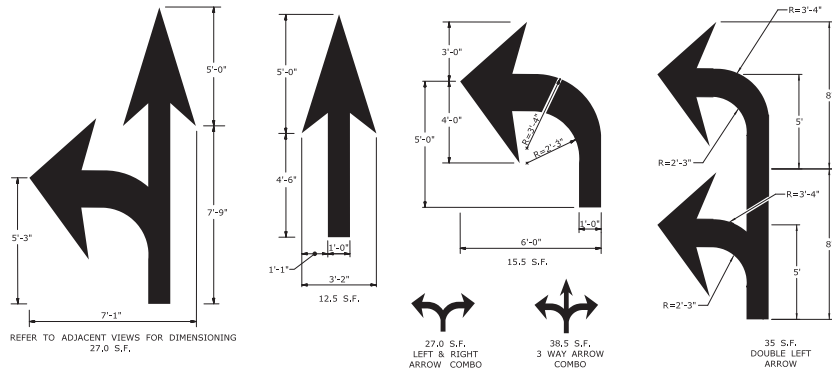
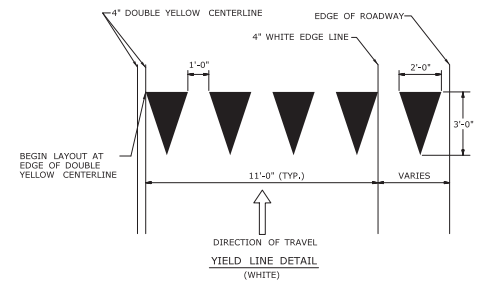
Plotted Date: 8/9/2018

Filename: CTDOT_TRAFFIC_STDS_2018-01-25.dgn Model: TR-1107_01



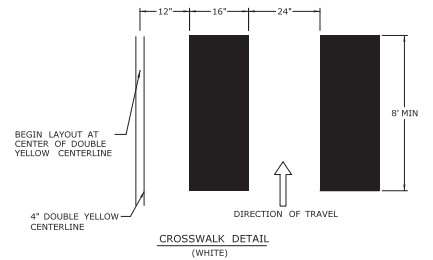
CROSS HATCHED ISLAND DETAIL (YELLOW)

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



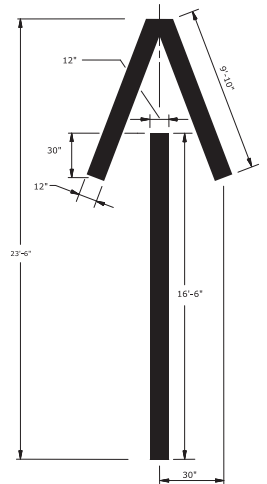
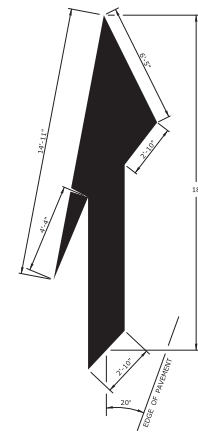
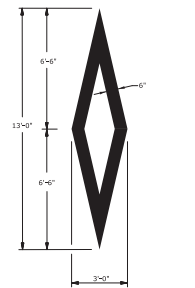
PAVEMENT ARROW DETAILS (WHITE)

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.



REV#	DATE	REVISION DESCRIPTION
1	8-2018	REMOVED ROUNDABOUT MARKINGS

Plotted Date: 8/10/2018

NOT TO SCALE

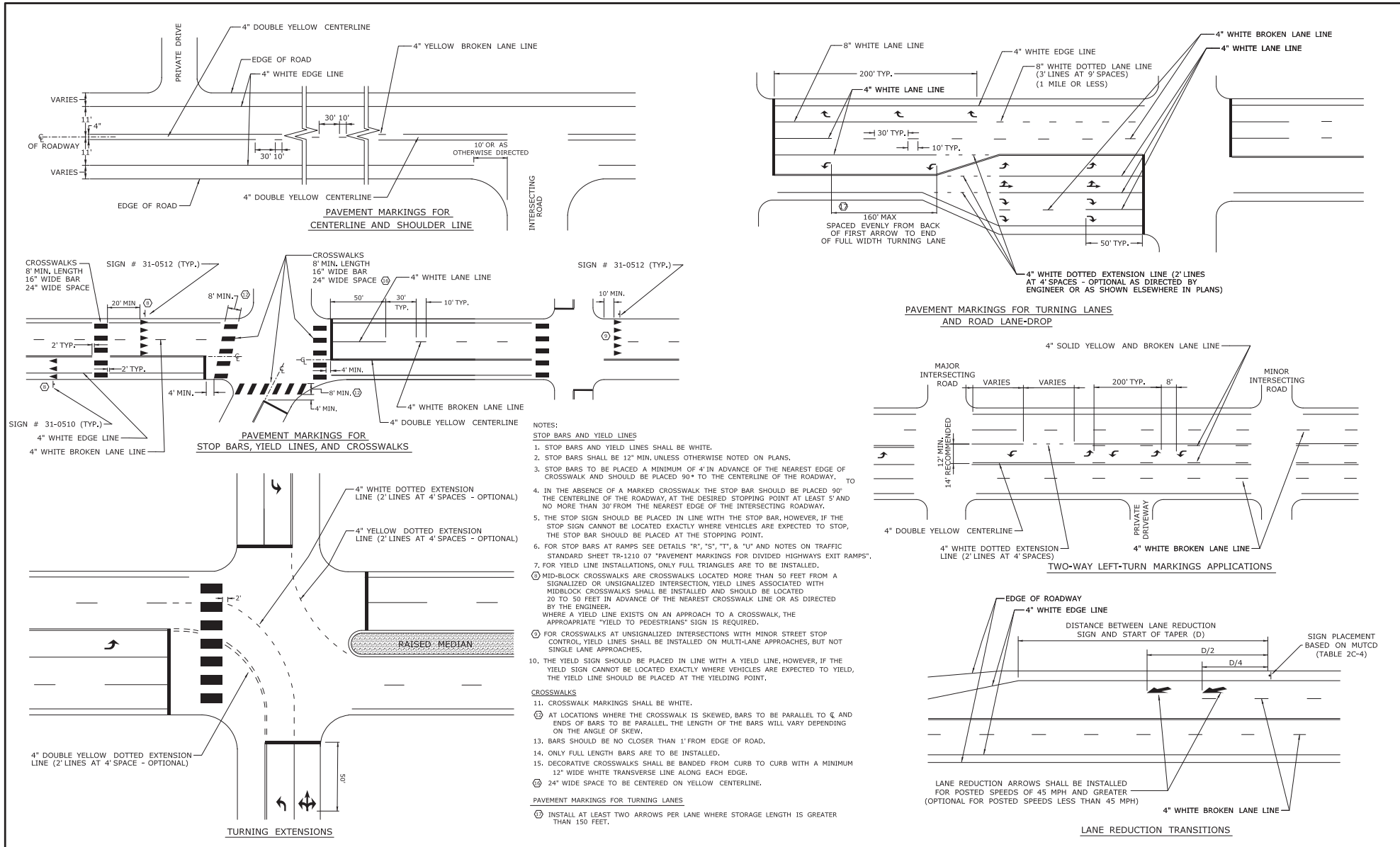


T:\namec TR-1210_04.dwg Model: CT_Civil_2D_Sheet

SUBMITTED BY:	NAME/DATE/TIME:
<i>Mark F. Makuch</i>	Mark F. Makuch, P.E. 2018.08.17 09:07:44-04'00'
APPROVED BY:	NAME/DATE/TIME:
<i>Mark F. Carino</i>	Mark F. Carino, P.E. 2018.08.21 07:48:45-04'00'

CTDOT
STANDARD SHEET
OFFICE OF ENGINEERING

STANDARD SHEET TITLE:	STANDARD SHEET NO.:
PAVEMENT MARKING LINES AND SYMBOLS	TR-1210_04



- NOTES:**
- 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 ϵ AND ENDS OF BARS TO BE PARALLEL TO ϵ AND ENDS OF BARS TO BE PARALLEL TO ϵ 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.

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: Mark F. Makuch, P.E. NAME/DATE/TIME: 2018.08.17 09:10:18-04'07"		CTDOT STANDARD SHEET		STANDARD SHEET TITLE: PAVEMENT MARKINGS FOR NON FREEWAYS		STANDARD SHEET NO.: TR-1210_08	
REV: 8-2018 REVISED YIELD LINE SIGNAGE AND NOTES, REVISION DESCRIPTION		Plotted Date: 8/10/2018		TR-1210_08.DGN		APPROVED BY: Mark F. Carino, P.E. NAME/DATE/TIME: 2018.08.21 07:49:18-04'00"		OFFICE OF ENGINEERING					

E5 - SERIES				G20 - SERIES				M4 - SERIES				R1 - SERIES				R9 & R11 - SERIES				W1 - SERIES				W3 - SERIES																																																																																																																			
<p>COPY & BORDER - WHITE BACKGROUND - GREEN</p> <table border="1"> <tr><th>AREA (SQ. FT.)</th><th>SIZE (INCHES)</th><th>CONN. D.O.T. #</th><th>POSTS</th></tr> <tr><td>16.0</td><td>48</td><td>80-4147</td><td>2</td></tr> </table>				AREA (SQ. FT.)	SIZE (INCHES)	CONN. D.O.T. #	POSTS	16.0	48	80-4147	2	<p>END ROAD WORK</p> <table border="1"> <tr><th>AREA (SQ. FT.)</th><th>SIZE (INCHES)</th><th>CONN. D.O.T. #</th><th>POSTS</th></tr> <tr><td>8.0</td><td>48X24</td><td>80-9612</td><td>2</td></tr> </table>				AREA (SQ. FT.)	SIZE (INCHES)	CONN. D.O.T. #	POSTS	8.0	48X24	80-9612	2	<p>DETOUR</p> <table border="1"> <tr><th>AREA (SQ. FT.)</th><th>SIZE (INCHES)</th><th>CONN. D.O.T. #</th><th>POSTS</th></tr> <tr><td>2.0</td><td>24X12</td><td>80-9787</td><td>1</td></tr> <tr><td>5.0</td><td>30X24</td><td>80-9703</td><td>1</td></tr> </table>				AREA (SQ. FT.)	SIZE (INCHES)	CONN. D.O.T. #	POSTS	2.0	24X12	80-9787	1	5.0	30X24	80-9703	1	<p>STOP</p> <table border="1"> <tr><th>AREA (SQ. FT.)</th><th>SIZE (INCHES)</th><th>CONN. D.O.T. #</th><th>POSTS</th></tr> <tr><td>5.1</td><td>36</td><td>31-0557</td><td>1</td></tr> <tr><td>13.30</td><td>48</td><td>80-4357</td><td>2</td></tr> </table>				AREA (SQ. FT.)	SIZE (INCHES)	CONN. D.O.T. #	POSTS	5.1	36	31-0557	1	13.30	48	80-4357	2	<p>SIDEWALK CLOSED</p> <table border="1"> <tr><th>AREA (SQ. FT.)</th><th>SIZE (INCHES)</th><th>CONN. D.O.T. #</th><th>POSTS</th></tr> <tr><td>3.75</td><td>30X18</td><td>80-9076</td><td>1</td></tr> <tr><td>12.5</td><td>60X30</td><td>80-9077</td><td>2</td></tr> </table>				AREA (SQ. FT.)	SIZE (INCHES)	CONN. D.O.T. #	POSTS	3.75	30X18	80-9076	1	12.5	60X30	80-9077	2	<p>ROAD CLOSED 90 MILES AHEAD LOCAL TRAFFIC ONLY</p> <table border="1"> <tr><th>AREA (SQ. FT.)</th><th>SIZE (INCHES)</th><th>CONN. D.O.T. #</th><th>POSTS</th></tr> <tr><td>4.0</td><td>36</td><td>80-9438</td><td>1</td></tr> <tr><td>16.0</td><td>48</td><td>80-9439</td><td>2</td></tr> <tr><td>9.0</td><td>36</td><td>80-9438</td><td>1</td></tr> <tr><td>16.0</td><td>48</td><td>80-9439</td><td>2</td></tr> </table>				AREA (SQ. FT.)	SIZE (INCHES)	CONN. D.O.T. #	POSTS	4.0	36	80-9438	1	16.0	48	80-9439	2	9.0	36	80-9438	1	16.0	48	80-9439	2	<p>W1-4</p> <table border="1"> <tr><th>AREA (SQ. FT.)</th><th>SIZE (INCHES)</th><th>CONN. D.O.T. #</th><th>POSTS</th></tr> <tr><td>16.0</td><td>48</td><td>80-9438</td><td>2</td></tr> <tr><td>9.0</td><td>36</td><td>80-9438</td><td>1</td></tr> <tr><td>16.0</td><td>48</td><td>80-9439</td><td>2</td></tr> <tr><td>16.0</td><td>48</td><td>80-9438</td><td>2</td></tr> </table>				AREA (SQ. FT.)	SIZE (INCHES)	CONN. D.O.T. #	POSTS	16.0	48	80-9438	2	9.0	36	80-9438	1	16.0	48	80-9439	2	16.0	48	80-9438	2	<p>W3-1</p> <table border="1"> <tr><th>AREA (SQ. FT.)</th><th>SIZE (INCHES)</th><th>CONN. D.O.T. #</th><th>POSTS</th></tr> <tr><td>16.0</td><td>48</td><td>80-9051</td><td>2</td></tr> </table>				AREA (SQ. FT.)	SIZE (INCHES)	CONN. D.O.T. #	POSTS	16.0	48	80-9051	2								
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<p>WORK AREA BE PREPARED TO STOP</p> <table border="1"> <tr><th>AREA (SQ. FT.)</th><th>SIZE (INCHES)</th><th>CONN. D.O.T. #</th><th>POSTS</th></tr> <tr><td>9.0</td><td>36</td><td>80-9711</td><td>1</td></tr> <tr><td>16.0</td><td>48</td><td>80-9712</td><td>2</td></tr> </table>				AREA (SQ. FT.)	SIZE (INCHES)	CONN. D.O.T. #	POSTS	9.0	36	80-9711	1	16.0	48	80-9712	2	<p>M4-8a</p> <table border="1"> <tr><th>AREA (SQ. FT.)</th><th>SIZE (INCHES)</th><th>CONN. D.O.T. #</th><th>POSTS</th></tr> <tr><td>3.0</td><td>24X18</td><td>80-9708</td><td>1</td></tr> <tr><td>6.0</td><td>48X36</td><td>80-9709</td><td>2</td></tr> </table>				AREA (SQ. FT.)	SIZE (INCHES)	CONN. D.O.T. #	POSTS	3.0	24X18	80-9708	1	6.0	48X36	80-9709	2	<p>M4-9b</p> <table border="1"> <tr><th>AREA (SQ. FT.)</th><th>SIZE (INCHES)</th><th>CONN. D.O.T. #</th><th>POSTS</th></tr> <tr><td>6.25</td><td>30X30</td><td>80-9706</td><td>1</td></tr> <tr><td>3.50</td><td>36</td><td>31-0523</td><td>1</td></tr> <tr><td>10.83</td><td>60</td><td>31-0528</td><td>2</td></tr> </table>				AREA (SQ. FT.)	SIZE (INCHES)	CONN. D.O.T. #	POSTS	6.25	30X30	80-9706	1	3.50	36	31-0523	1	10.83	60	31-0528	2	<p>R1-2</p> <table border="1"> <tr><th>AREA (SQ. FT.)</th><th>SIZE (INCHES)</th><th>CONN. D.O.T. #</th><th>POSTS</th></tr> <tr><td>3.0</td><td>24X18</td><td>80-9074</td><td>1</td></tr> <tr><td>12.5</td><td>60X30</td><td>80-9078</td><td>2</td></tr> </table>				AREA (SQ. FT.)	SIZE (INCHES)	CONN. D.O.T. #	POSTS	3.0	24X18	80-9074	1	12.5	60X30	80-9078	2	<p>R9-9</p> <table border="1"> <tr><th>AREA (SQ. FT.)</th><th>SIZE (INCHES)</th><th>CONN. D.O.T. #</th><th>POSTS</th></tr> <tr><td>3.0</td><td>24X18</td><td>80-9074</td><td>1</td></tr> <tr><td>12.5</td><td>60X30</td><td>80-9078</td><td>2</td></tr> </table>				AREA (SQ. FT.)	SIZE (INCHES)	CONN. D.O.T. #	POSTS	3.0	24X18	80-9074	1	12.5	60X30	80-9078	2	<p>R11-3a</p> <table border="1"> <tr><th>AREA (SQ. FT.)</th><th>SIZE (INCHES)</th><th>CONN. D.O.T. #</th><th>POSTS</th></tr> <tr><td>12.5</td><td>60X30</td><td>80-9078</td><td>2</td></tr> <tr><td>3.0</td><td>24X18</td><td>80-9074</td><td>1</td></tr> </table>				AREA (SQ. FT.)	SIZE (INCHES)	CONN. D.O.T. #	POSTS	12.5	60X30	80-9078	2	3.0	24X18	80-9074	1	<p>W1-6</p> <table border="1"> <tr><th>AREA (SQ. FT.)</th><th>SIZE (INCHES)</th><th>CONN. D.O.T. #</th><th>POSTS</th></tr> <tr><td>16.0</td><td>48</td><td>80-9434</td><td>2</td></tr> <tr><td>16.0</td><td>48</td><td>80-9436</td><td>2</td></tr> <tr><td>9.0</td><td>36</td><td>80-9434</td><td>1</td></tr> <tr><td>16.0</td><td>48</td><td>80-9436</td><td>2</td></tr> </table>				AREA (SQ. FT.)	SIZE (INCHES)	CONN. D.O.T. #	POSTS	16.0	48	80-9434	2	16.0	48	80-9436	2	9.0	36	80-9434	1	16.0	48	80-9436	2	<p>W3-2</p> <table border="1"> <tr><th>AREA (SQ. FT.)</th><th>SIZE (INCHES)</th><th>CONN. D.O.T. #</th><th>POSTS</th></tr> <tr><td>16.0</td><td>48</td><td>80-9055</td><td>2</td></tr> </table>				AREA (SQ. FT.)	SIZE (INCHES)	CONN. D.O.T. #	POSTS	16.0	48	80-9055	2				
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NOTES:

- R1-SERIES SIGN THE LEGEND "O,S,T,A," SHALL APPEAR.
- POSTS - SEE STANDARD SHEET TR-1208-02 - "METAL SIGN POSTS AND SIGN MOUNTING DETAILS".
- POSTS SHALL BE 4 LBS./FT.
- ALL POSTS NOTED ARE FOR LONG TERM INSTALLATION. SEE STANDARD SHEET TR-1208-02.
- FOR TEMPORARY SUPPORTS SEE STANDARD SHEET TR-1220-02 - "CONSTRUCTION SIGN SUPPORTS AND CHANNELIZING DEVICES".
- 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/MASTER ARM MOUNTED, MAY REQUIRE SPECIAL BOLT HOLE PATTERNS.
- ALL CONSTRUCTION SIGNS TO BE PAID FOR UNDER THE CONSTRUCTION SIGNS ITEM IN THE CONTRACT.
- MATERIALS & COLORS SHALL CONFORM TO STATE SPECIFICATIONS.

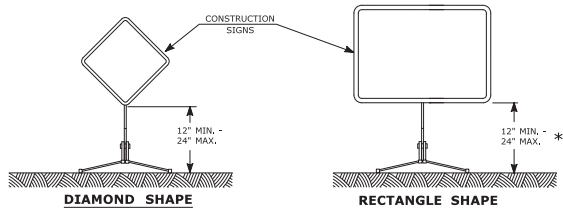
MATERIALS:

SIGNS AND THEIR PORTABLE SUPPORTS SHALL CONFORM TO THE REQUIREMENTS OF NCHRP REPORT 350 (TL-3) OR THE AASHTO MASH FOR CATEGORY 2 DEVICES, ALUMINUM THICKNESS FOR POST MOUNTED SIGNS SHALL BE .100" EXCEPT SIGN #S. 80-1605, 80-9914, 80-9815, 80-9726, 80-9519, & 51-6147 (L OR R) WHICH SHALL BE .125" PLYWOOD THICKNESS FOR POST MOUNTED SIGNS SHALL BE 1/2" EXTERIOR GRADE A-C OR BETTER, SIGN BLANKS SHALL HAVE ONE COAT OF PRIMER PAINT PRIOR TO APPLICATION OF RETROREFLECTIVE SHEETING & COPY.

COLORS:

BACKGROUND - FLUORESCENT ORANGE - EXCEPT AS NOTED.
 LEGEND = BLACK - EXCEPT AS NOTED.
 ALL SIGNS WITH FLUORESCENT ORANGE BACKGROUND TO USE TYPE VIII RETROREFLECTIVE SHEETING.
 ALL OTHER SIGNS TO USE TYPE IX RETROREFLECTIVE SHEETING.

6 8-2018 REVISED PER MUTCD AND SHEETING TYPE. 5 8-2015 UPDATED PER MUTCD AND FORM 816 JAN 2015 REVISION. 4 6-2013 REVISED NOTE #1 TO REFER TO STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED. 3 4-2012 REVISED NEW SIGNAL (SIGNS) TO CONFORM TO 2009 MUTCD. 2 2-2011 MINOR REVISIONS. 1 3-2010 REMOVED OBSOLETE SIGNS (80-9925, 80-5935). REV. DATE REVISION DESCRIPTION		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: 8/12/2018 NOT TO SCALE		 SUBMITTED BY: Mark F. Makuch, P.E. 2018.08.17 09:13:00-0400 APPROVED BY: Mark F. Carlini, P.E. 2018.08.21 07:49:34-0400 CDOT STANDARD SHEET OFFICE OF ENGINEERING		STANDARD SHEET TITLE: SIGNS FOR CONSTRUCTION AND PERMIT OPERATIONS STANDARD SHEET NO.: TR-1220-01	
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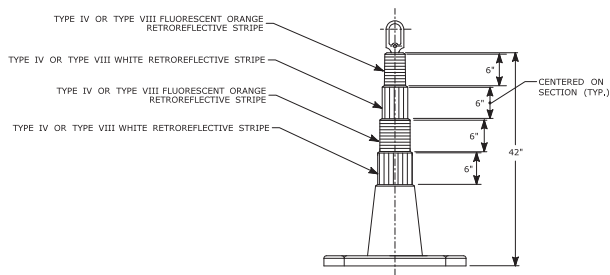


PORTABLE CONSTRUCTION SIGNS

NOTES FOR PORTABLE SIGN SUPPORTS:

1. 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.
2. 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.
3. THE ENGINEER RESERVES THE RIGHT TO REJECT ANY SUPPORT DEEMED UNSUITABLE FOR THE PURPOSE INTENDED.
4. 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.
5. 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.

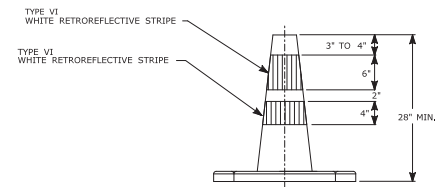
* FOR E5-1 (EXIT SIGNS) USE MIN 48".



42" TRAFFIC CONE

NOTES:

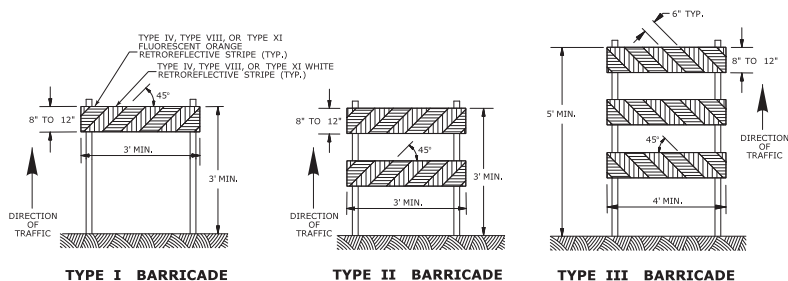
1. TRAFFIC CONES SHALL CONFORM TO THE REQUIREMENTS OF NCHRP REPORT 350 (TL-3) OR THE AASHTO MASH FOR CATEGORY 1 DEVICES AND THE LATEST EDITION OF THE MUTCD.
2. IF RUBBER CONES ARE USED, THEY SHALL HAVE INTERIOR RIBS FOR RIGIDITY.
3. IF PLASTIC CONES ARE USED, THEY SHALL BE COLOR IMPREGNATED.
4. THE ENGINEER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



TRAFFIC CONE

NOTES:

1. 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.
2. IF RUBBER CONES ARE USED, THEY SHALL HAVE INTERIOR RIBS FOR RIGIDITY.
3. IF PLASTIC CONES ARE USED, THEY SHALL BE COLOR IMPREGNATED.
4. THE ENGINEER RESERVES THE RIGHT TO REJECT ANY CONE DEEMED UNSUITABLE FOR THE PURPOSE INTENDED.
5. THE ENTIRE AREA OF WHITE STRIPES SHALL BE RETROREFLECTIVE SHEETING AS REQUIRED IN THE SPECIFICATIONS.
6. TRAFFIC CONES NOT USED AT NIGHT MAY UTILIZE TYPE III SHEETING.
7. THE SECTIONS OF CONES NOT COVERED WITH RETROREFLECTIVE STRIPES SHALL BE ORANGE.



TYPE I BARRICADE

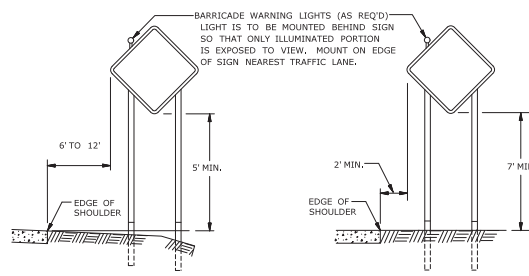
TYPE II BARRICADE

TYPE III BARRICADE

CONSTRUCTION BARRICADES

NOTES:

1. CONSTRUCTION BARRICADES SHALL CONFORM TO THE REQUIREMENTS OF NCHRP REPORT 350 (TL-3) OR THE AASHTO MASH AND THE LATEST EDITION OF THE MUTCD.
2. 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.
3. 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.
4. THE ENGINEER RESERVES THE RIGHT TO REJECT ANY BARRICADE DEEMED UNSUITABLE FOR THE PURPOSE INTENDED.
5. CORNERS OF BARRICADE RAILS SHALL BE ROUNDED.
6. SIGNS MAY ONLY BE INSTALLED ON TYPE III BARRICADES AND SHALL BE PLACED SO AS TO COVER NO MORE THAN ONE BARRICADE RAIL.



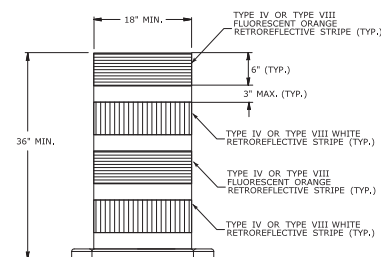
RURAL AREA

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."

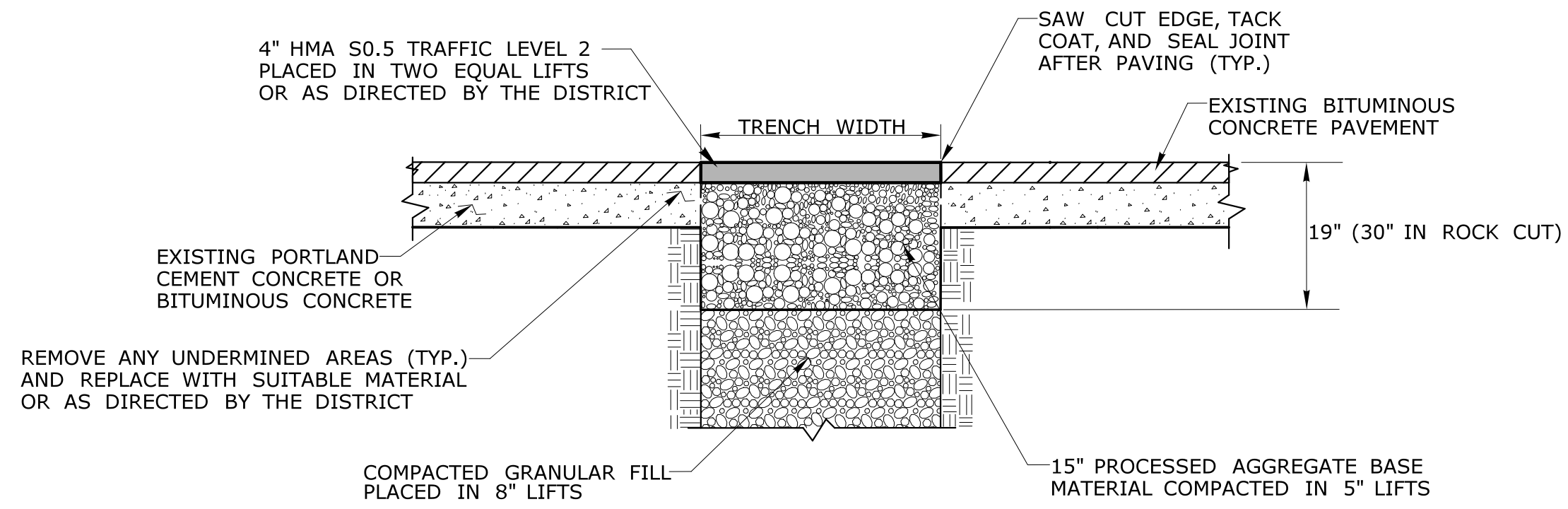


**TRAFFIC DRUM
FRONT VIEW**

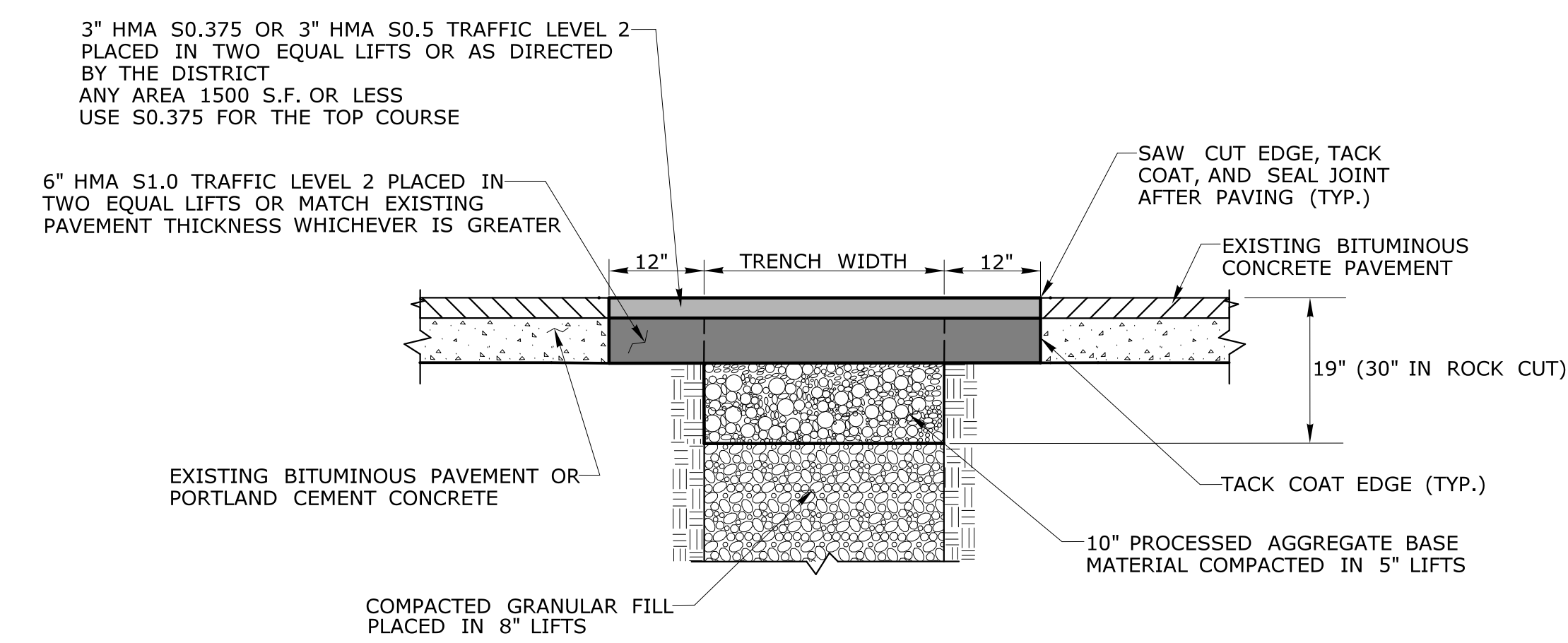
NOTES:

1. 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.
2. THE ENGINEER RESERVES THE RIGHT TO REJECT ANY DRUM DEEMED UNSUITABLE FOR THE PURPOSE INTENDED.
3. THE ENTIRE AREA OF FLUORESCENT ORANGE AND WHITE STRIPES SHALL BE RETROREFLECTIVE SHEETING AS REQUIRED IN THE SPECIFICATIONS.
4. THE SECTIONS OF DRUMS NOT COVERED WITH RETROREFLECTIVE STRIPES SHALL BE ORANGE.

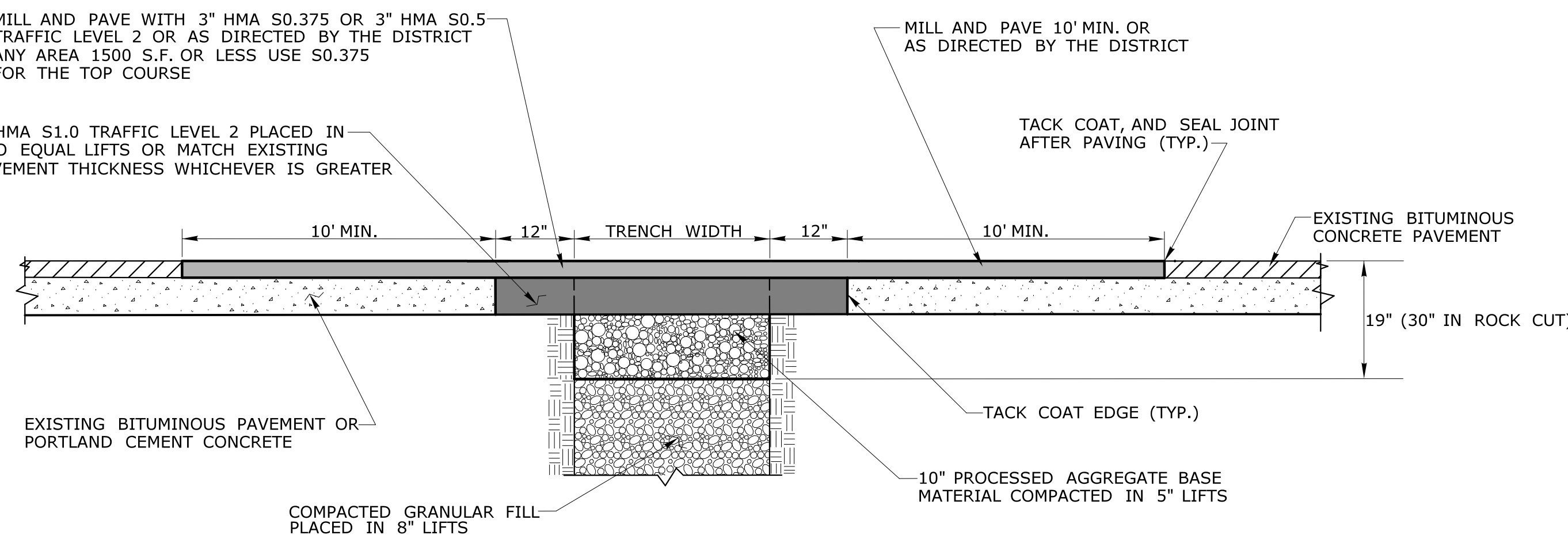
THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.		<p>STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION</p>	SUBMITTED BY: Mark F. Makuch, P.E. 2018.08.17 09:12:43-04'00'	<p>CTDOT STANDARD SHEET</p>	STANDARD SHEET TITLE: <p>CONSTRUCTION SIGN SUPPORTS AND CHANNELIZING DEVICES</p>	STANDARD SHEET NO.: <p>TR-1220_02</p>
3 8-2018 UPDATED SHEETING TYPE AND COLOR. 2 8-2015 UPDATED PER MUTCD AND FORM 816 JAN 2015 REVISION. 1 2-2011 MINOR REVISIONS.	NOT TO SCALE		APPROVED BY: Mark F. Carino, P.E. 2018.08.21 07:49:51-04'00'			
REV. DATE REVISION DESCRIPTION	Plotted Date: 8/10/2018	File Name: TR-1220_02_1_2018.dgn Model: TR-1220_02				



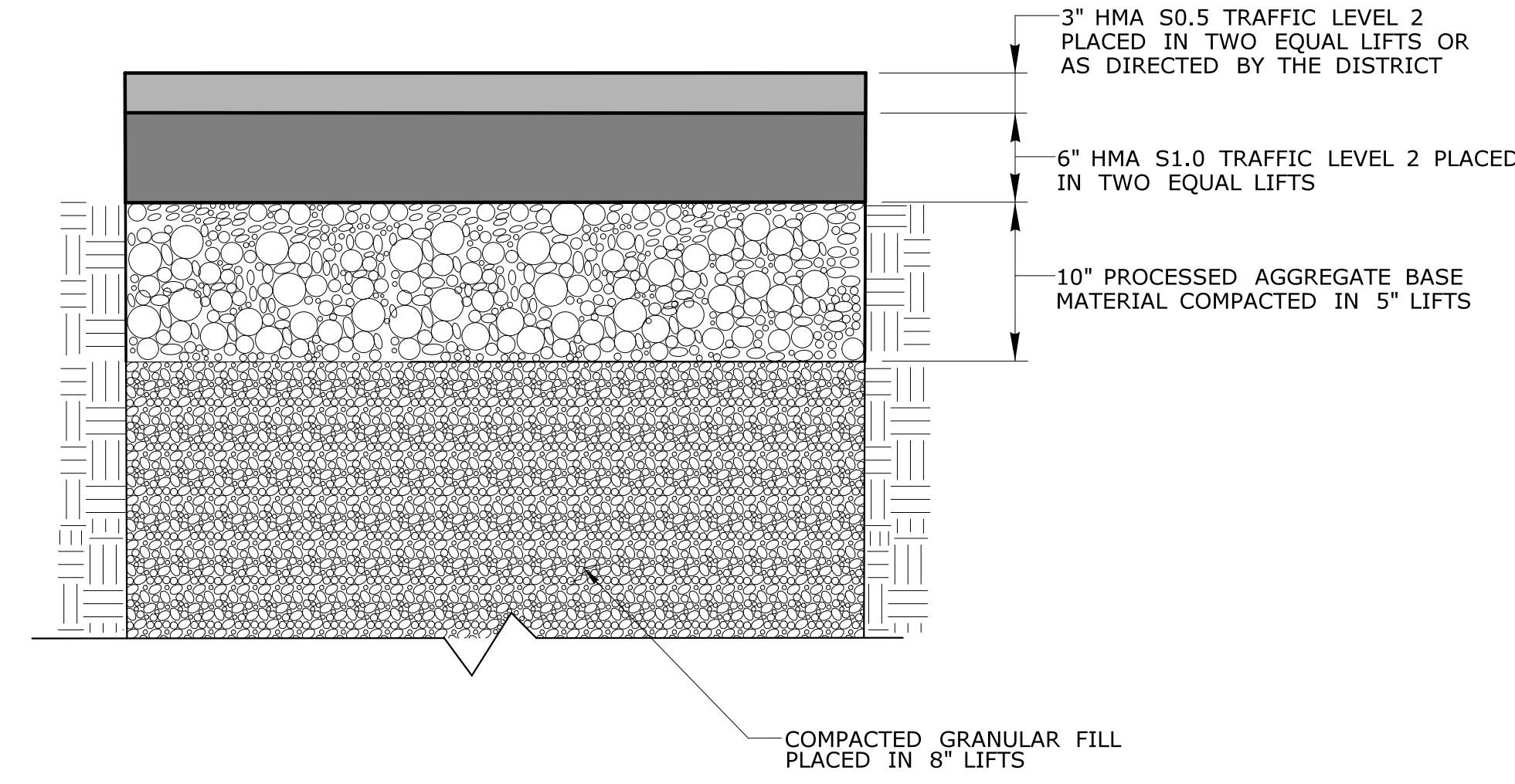
TEMPORARY PAVEMENT REPAIR FOR TRENCH THROUGH OVERLAID PORTLAND CEMENT CONCRETE OR BITUMINOUS CONCRETE PAVEMENT



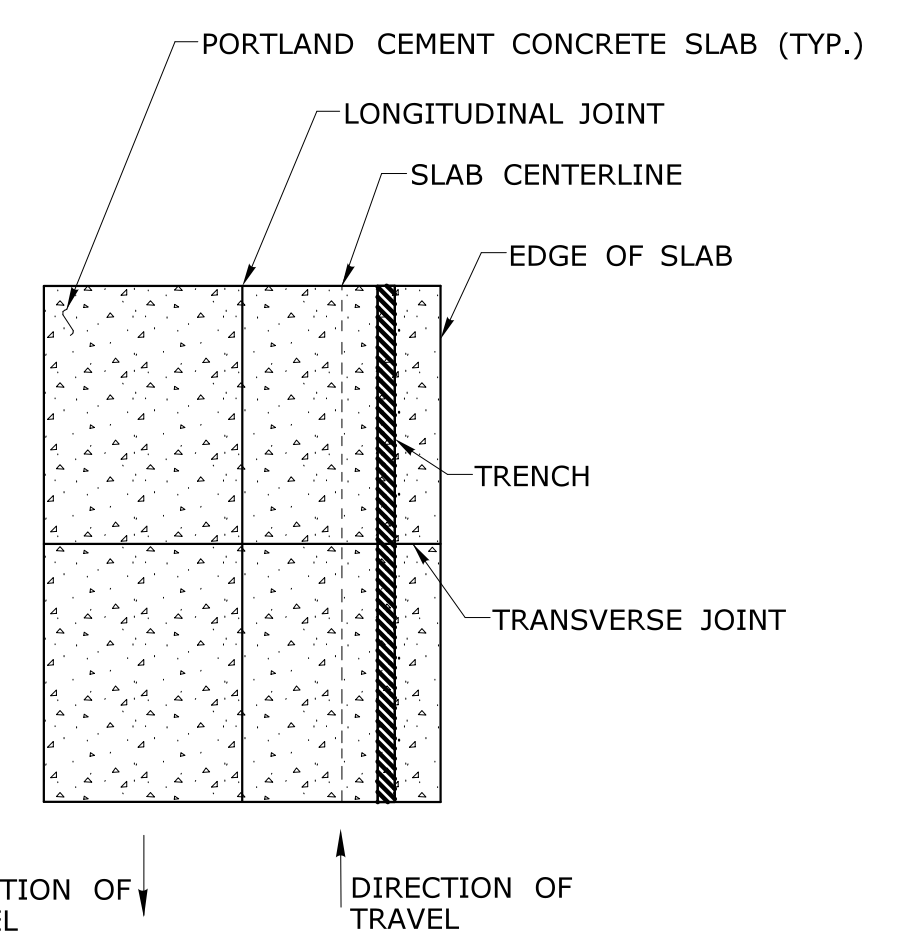
PERMANENT PAVEMENT REPAIR WITHOUT MILLING - THROUGH PORTLAND CEMENT CONCRETE OR BITUMINOUS CONCRETE PAVEMENT



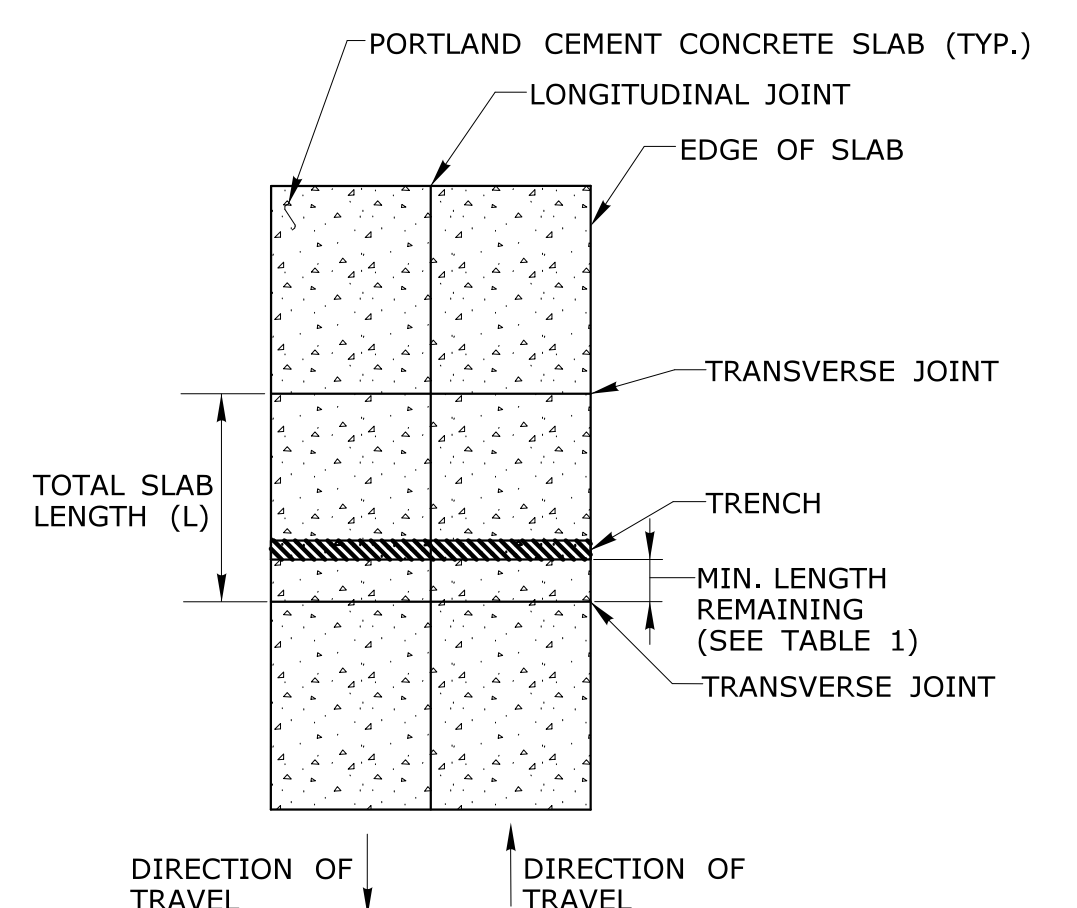
PERMANENT PAVEMENT REPAIR WITH MILLING



ROADWAY PROFILE



LONGITUDINAL TRENCHING FOR JOINTED CONCRETE PAVEMENT (SEE NOTE 1)



TRANSVERSE TRENCHING FOR JOINTED CONCRETE PAVEMENT (SEE NOTE 2)

GENERAL NOTES:

1. LONGITUDINAL TRENCHING FOR JOINTED CONCRETE PAVEMENT:
 - A. IF THE LONGITUDINAL TRENCH FALLS BETWEEN THE SLAB CENTERLINE AND THE EDGE OF SLAB, REMOVE CONCRETE AND BITUMINOUS CONCRETE PAVEMENT FROM THE TRENCH EDGE TO THE EDGE OF ROAD. IF THE LONGITUDINAL TRENCH FALLS BETWEEN THE LONGITUDINAL JOINT AND THE SLAB CENTERLINE, REMOVE THE ENTIRE CONCRETE SLAB AND BITUMINOUS CONCRETE PAVEMENT TO THE EDGE OF ROAD. IN EITHER CASE REBUILD WITH THE FOLLOWING:
 - a. PLACE HMA S1.0 TRAFFIC LEVEL 2 IN TWO EQUAL 4" - 5" LIFTS TO MATCH EXISTING CONCRETE PAVEMENT THICKNESS.
 - b. PLACE HMA S0.5 TRAFFIC LEVEL 2 IN 2" - 3" LIFTS TO MATCH EXISTING BITUMINOUS CONCRETE PAVEMENT THICKNESS, WITH THE FINAL LIFT BEING 2"
2. TRANSVERSE TRENCHING FOR JOINTED CONCRETE PAVEMENT:

TABLE 1	
TOTAL SLAB LENGTH (L)	MIN. LENGTH REMAINING
40' OR LONGER	1/4 L
15' - 40'	10'
15' OR SHORTER	REBUILD TO NEAREST JOINT

 - A. FOR TRANSVERSE TRENCHES, THE MINIMUM SLAB LENGTH AS SHOWN IN TABLE 1 SHALL BE LEFT IN PLACE TO THE NEAREST TRANSVERSE JOINT. IF THIS CRITERIA CANNOT BE MET, THE EXISTING SLAB AREA FROM THE TRENCH EDGE TO THE NEAREST TRANSVERSE JOINT SHALL BE REMOVED AND REBUILT AS FOLLOWS:
 - a. PLACE HMA S1.0 TRAFFIC LEVEL 2 IN TWO EQUAL 4" - 5" LIFTS TO MATCH EXISTING CONCRETE PAVEMENT THICKNESS.
 - b. PLACE HMA S0.5 TRAFFIC LEVEL 2 IN 2" - 3" LIFTS TO MATCH EXISTING BITUMINOUS CONCRETE PAVEMENT THICKNESS, WITH THE FINAL LIFT BEING 2"