

NOTES

- ROADWAY STATIONING SHOWN ON LORING AVENUE (RT. 1A) IS REFERENCING THE MASSDOT STATE HIGHWAY LAYOUT (SHLO) OF 1909 AND THE ALTERATIONS OF 1931.
- ANY PAVEMENT MARKINGS WITHIN THE SHLO THAT ARE DAMAGED DURING CONSTRUCTION SHALL BE REPLACED IN KIND.

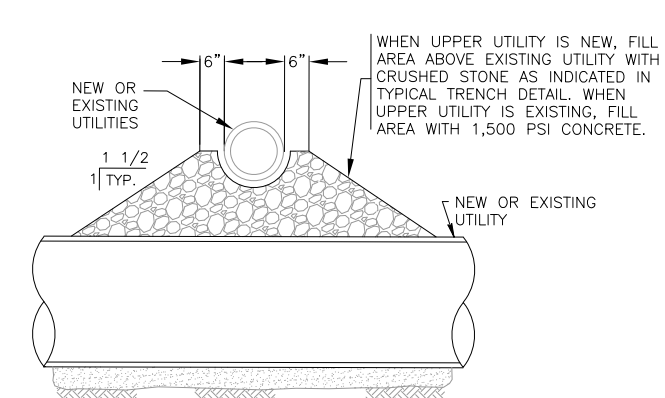
Client	CITY OF SALEM, MASSACHUSETTS
Project	LORING AVENUE WATER MAIN REPLACEMENT PROJECT
	LORING AVENUE

Scale	1"=20'
Date	8/12/2021
Job	Salem-LoringAve
Designed by	WMR
Drawn by	JJD/RLM
No.	1. LIMITS OF EMERGENCY WORK
Date	9/20/2021
File:	W:\Salem\Water Work\Loring Avenue\CAD\LoringAveBase.dwg

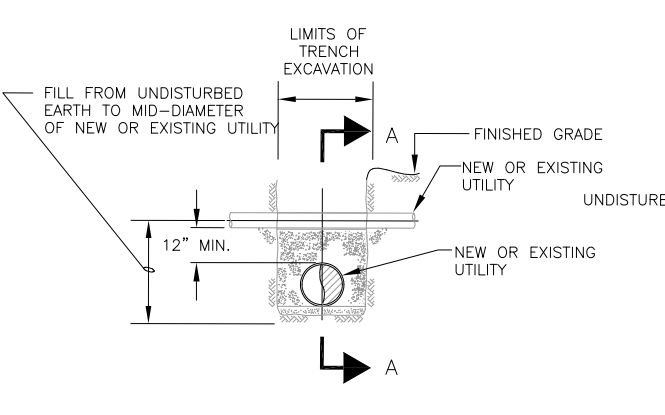


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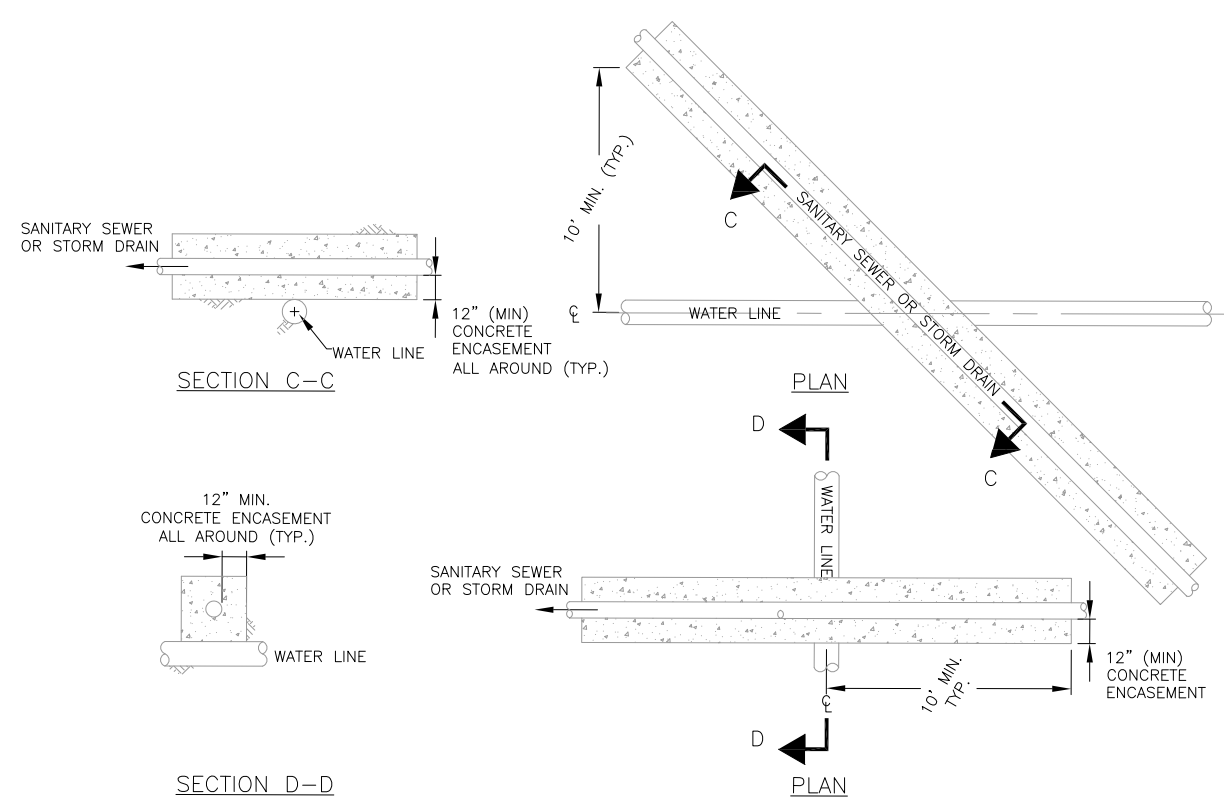


SECTION A-A



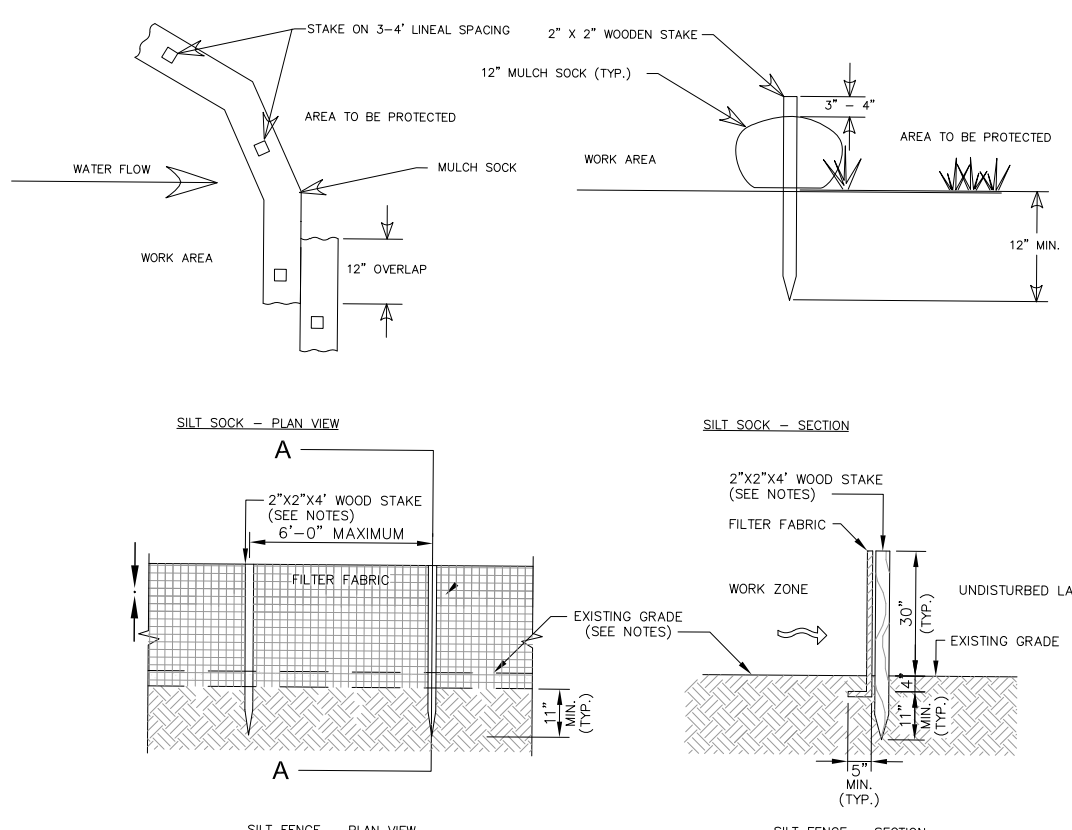
ELEVATION

UTILITY CROSSING DETAIL
NOT TO SCALE



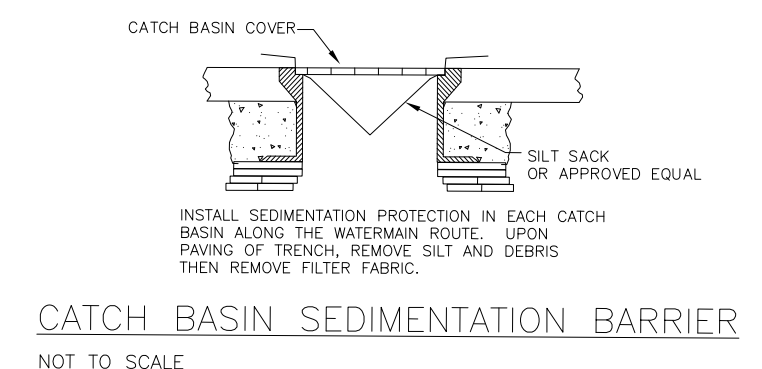
CONCRETE ENCASEMENT DETAIL
NOT TO SCALE

ADA RAMP DETAIL
SEE MASSDOT CONSTRUCTION STANDARDS
FOR DETAIL AND REQUIREMENTS
(PAGE D-6)

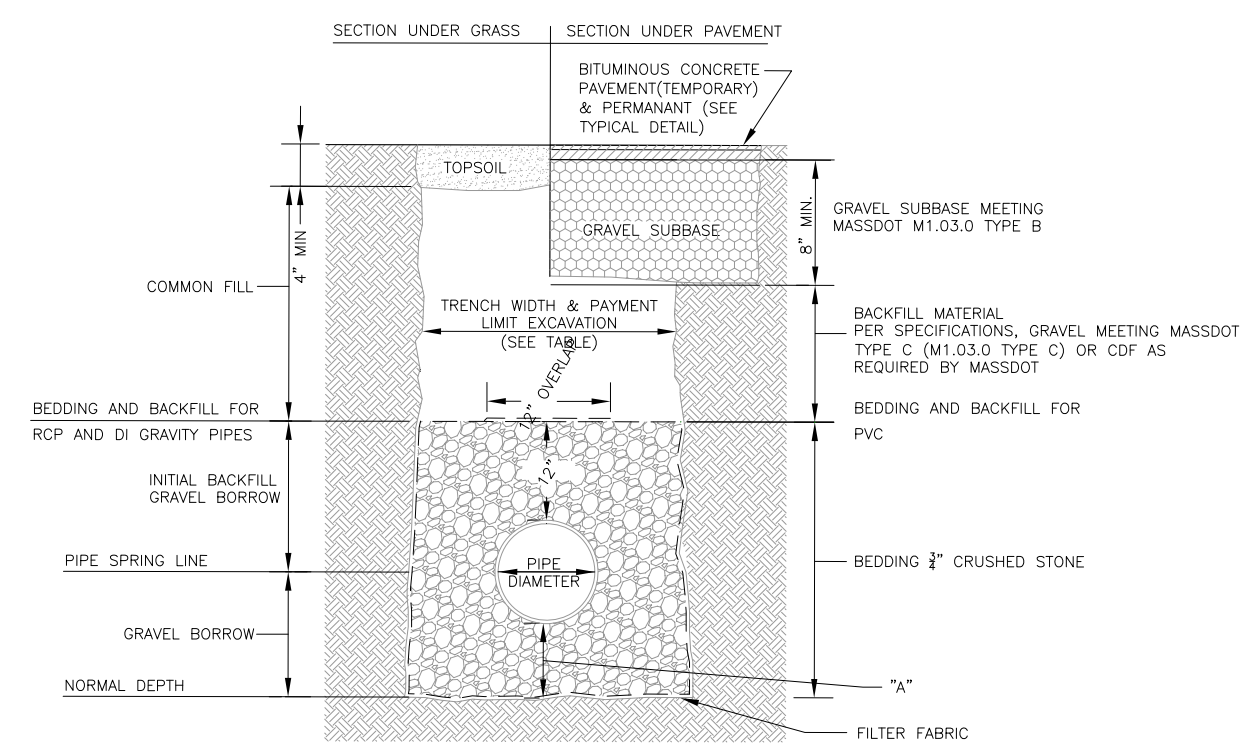


EROSION & SEDIMENTATION BARRIER
NOT TO SCALE

- NOTES:**
- CONTRACTOR TO INSTALL 12" HIGH MULCH SOCK (SILT SOCK OR EQUAL) OR SILT FENCE AS DIRECTED AND APPROVED BY LOCAL CONSERVATION COMMISSION
 - FABRIC FOR FENCES TO BE UV RESISTANT POLYPROPYLENE WITH A MINIMUM WEIGHT OF 2.5 OZ./Y. MESH FOR MULCH SOCK TO BE PHOTO DEGRADABLE.
 - FABRIC TO BE ATTACHED TO STAKES WITH STAPLES.
 - MULCH MATERIAL TO BE HAILED OFFSITE AND DISPOSED AS DETERMINED BY THE ENGINEER.
 - CONTRACTOR TO INSTALL GEOTEXTILE (SILT SACK) IN ALL CATCH BASINS PRIOR TO EXCAVATION.
 - ALL CONSTRUCTION (EROSION) MUST BE TREATED WITH A FILTRATION DEVICE (DIRTBA) AND/OR SEDIMENTATION TANK OR APPROVED TREATMENT DEVICE PRIOR TO DISCHARGE UPSTREAM OF OTHER EROSION AND SEDIMENTATION DEVICES AND CONTROLS.



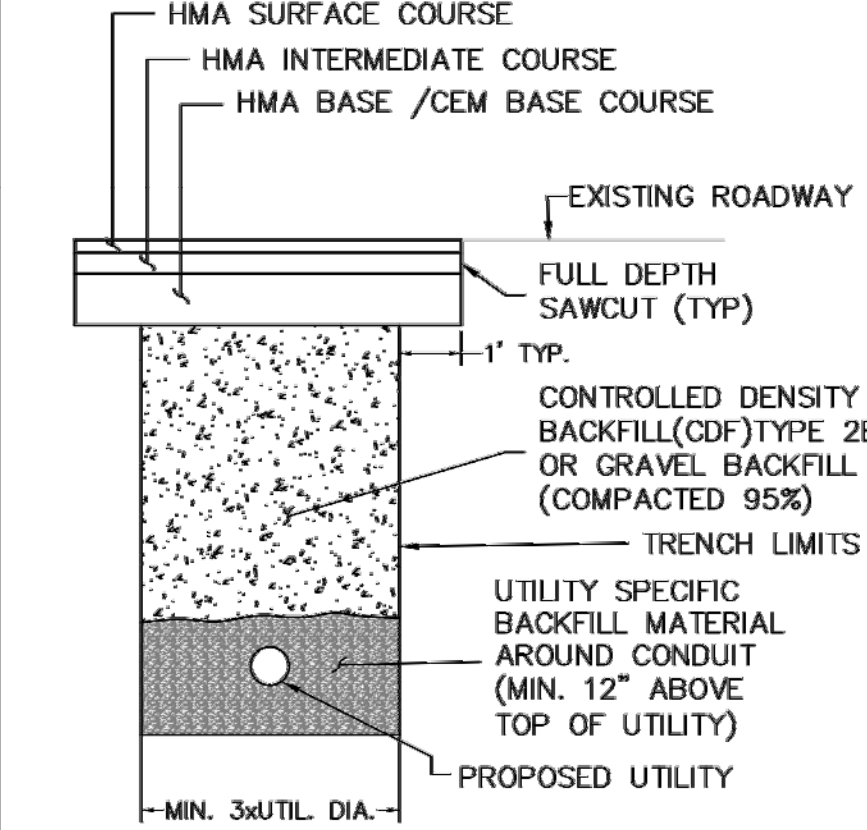
CATCH BASIN SEDIMENTATION BARRIER
NOT TO SCALE



PIPE SIZE	TRENCH WIDTH	"A"
≤ 12" Ø	O.D. DIA. + 3"	6"
> 12" Ø	O.D. DIA. + 3"	9"
MANHOLES AND ALL STRUCTURES	O.D. DIA. + 3"	12"

- TRENCH DETAIL**
NOT TO SCALE
- NOTES:**
- REFER TO SPEC. SECTION 02500-PAVING AND SURFACING, MASSDOT STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES, AND PAVEMENT DETAILS FOR PAVEMENT AND BASE COURSE REQUIREMENTS.
 - REFER TO SPEC. SECTION 02200-EARTH EXCAVATION, BACKFILL, FILL, GRADING AND FOR BEDDING AND BACKFILL MATERIAL REQUIREMENTS.
 - FOR USE IN PAVEMENT OF ALL ITEMS IN WHICH TRENCH WIDTH IS A VARIABLE FOR THE CALCULATION OF QUANTITIES.
 - BEDDING SHALL BE PER TABLE UNLESS OTHERWISE INDICATED.
 - METAL FOIL MARKING TAPE TO BE PLACED ABOVE WATER PIPE AND SERVICES (MIN. 18" SEPARATION)

TRENCH SECTION
N.T.S.
FOR SPECIFICATION REFERENCE SEE NOTE 1



PAVEMENT NOTES*

PAVEMENT MIX DEPTH SHALL BE A MINIMUM OF 7.5 INCHES OR MATCH THE DEPTH OF THE EXISTING HMA, WHICHEVER IS GREATER.

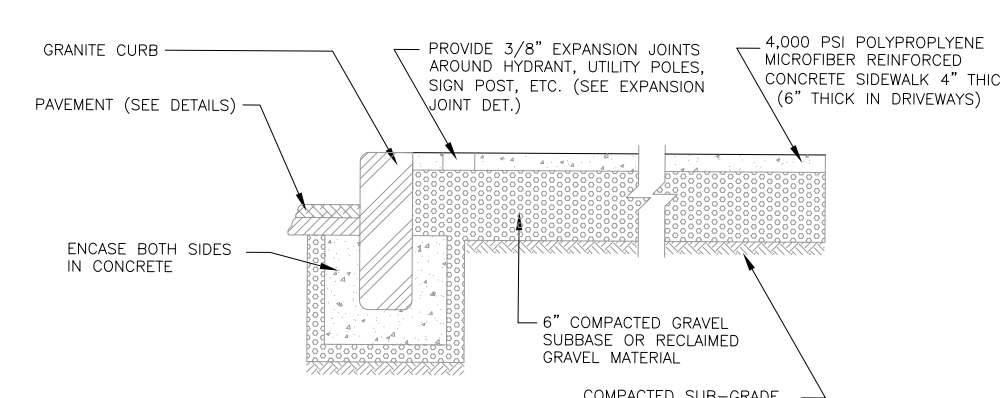
ITEM 451. HMA FOR PATCHING - PERMANENT TRENCH PATCH IN THE ROADWAY SHALL MATCH EXISTING PAVEMENT THICKNESS LAYER THICKNESS AND MATERIALS.

ALL SUPERPAVE HMA FOR TRENCH PATCHES SHALL BE 75 GYRATION MIXTURE.

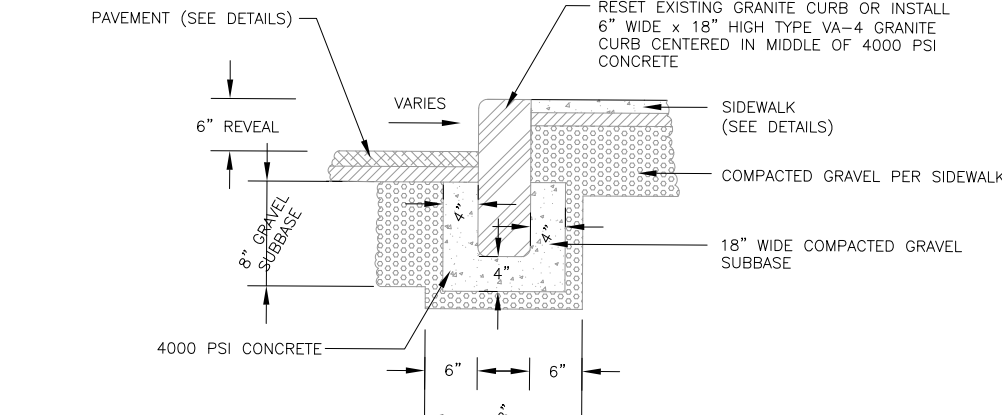
*TRENCHES ON FREEWAYS SHALL REQUIRE A PAVEMENT DESIGN BE SUBMITTED FOR APPROVAL.

- ALL TRENCH PATCHES IN THE ROADWAY SHALL MATCH EXISTING PAVEMENT MATERIALS AND LAYER THICKNESSES. ALL HOT MIX ASPHALT SHALL BE IN ACCORDANCE WITH SUBSECTION 450 HOT MIX ASPHALT PAVEMENT. HMA SURFACE COURSE SHALL RESURFACE (MILL AND OVERLAY) TRAVEL LANE FULL WIDTH WITH JOINTS OUTSIDE OF TRAVEL LANE AND WHEEL PATHS AND AS DIRECTED BY THE ENGINEER.
- MATERIAL WHICH MEETS THE SPECIFICATION FOR GRAVEL BORROW, PLACED AND COMPACTED IN LAYERS PER STANDARD SPECIFICATIONS, MAY BE USED IN PLACE OF THE CDF WITH APPROVAL FROM THE DISTRICT HIGHWAY DIRECTOR.
- THE VERTICAL SAWCUT FACE AND HORIZONTAL SURFACES SHALL BE TREATED WITH ASPHALT EMULSION FOR TACK COAT. THE LANE WIDTH RESURFACING SHALL BE TREATED WITH ASPHALT EMULSION FOR TACK COAT AND COLD JOINTS IN THE SURFACE COURSE SHALL BE SEALED WITH HMA JOINT SEALANT. TACK SHALL BE APPLIED BETWEEN .07 AND .09 GAL PER SQ. YD.
- YELLOW METAL FOIL MARKING TAPE SHALL BE PLACED 18" OVER THE CONDUIT (METAL MARKING TAPE/WIRE SHOULD BE USED FOR NON-METALLIC CONDUIT.)
- FOR ROADS WITH AN EXISTING CEMENT CONCRETE BASE, A REINFORCED, HIGH EARLY STRENGTH CEMENT CONCRETE BASE SHALL BE CAST IN PLACE TO MEET THE EXISTING PAVEMENT. SPECIFIC JOINT DETAILS WITH THE EXISTING PAVEMENT SHALL BE APPROVED DEPENDENT ON THE EXISTING SITE CONDITIONS. STEEL PLATES SHALL BE USED FOR TRENCHES IN THE TRAVELED LANE AND AS NEEDED.
- ALL TRENCH DIMENSIONS SHALL BE IN ACCORDANCE WITH SUB-SECTION 140.80 OF THE MASSDOT STANDARDS AND SPECIFICATIONS FOR HIGHWAYS AND BRIDGES.

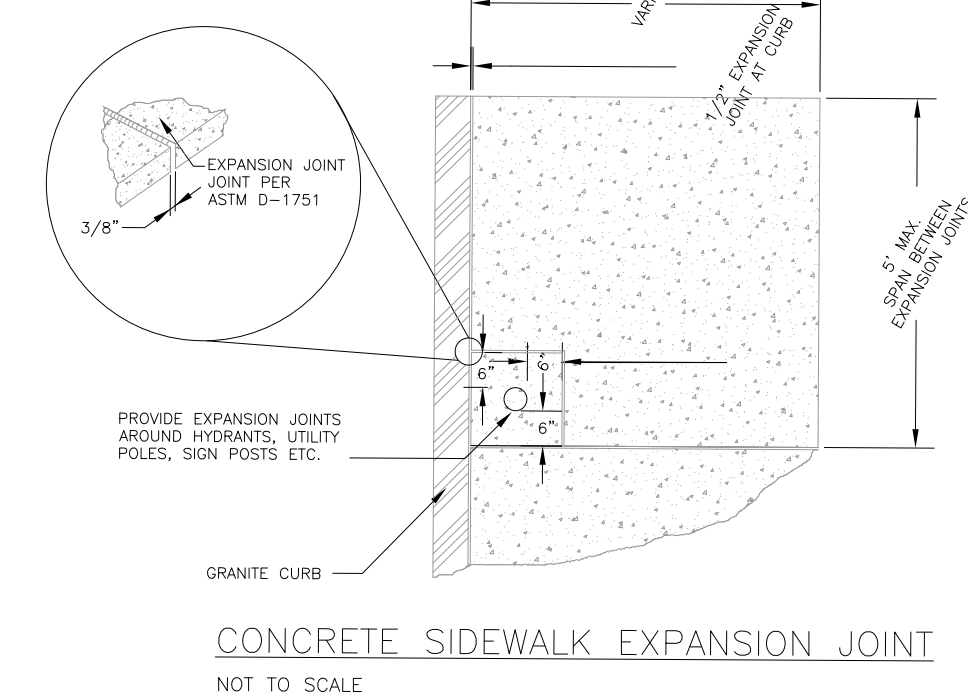
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	DATE: 1/5/21	NTS
	DRAWING NO.: XXXX	
	Drawn By: EMC	Checked By: EMC



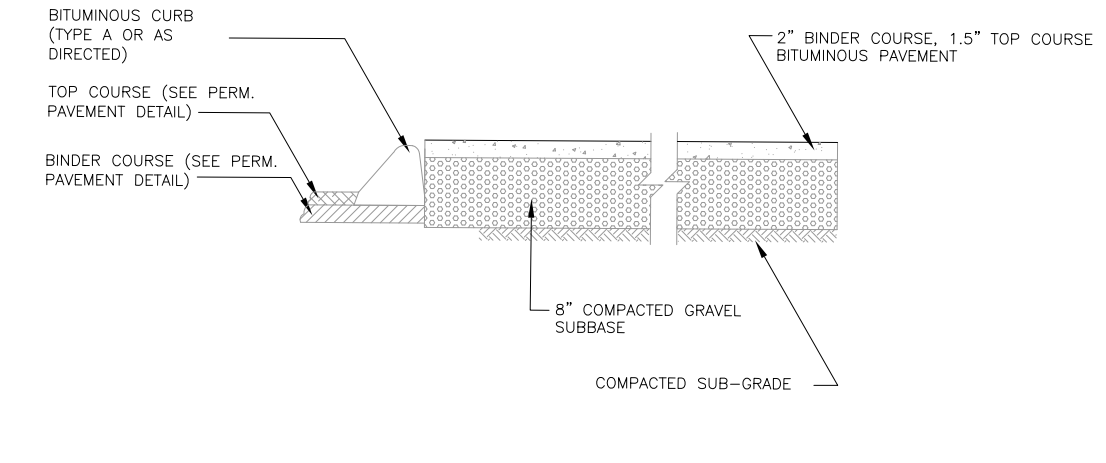
GRANITE CURB DETAIL AND CONCRETE SIDEWALK
NOT TO SCALE



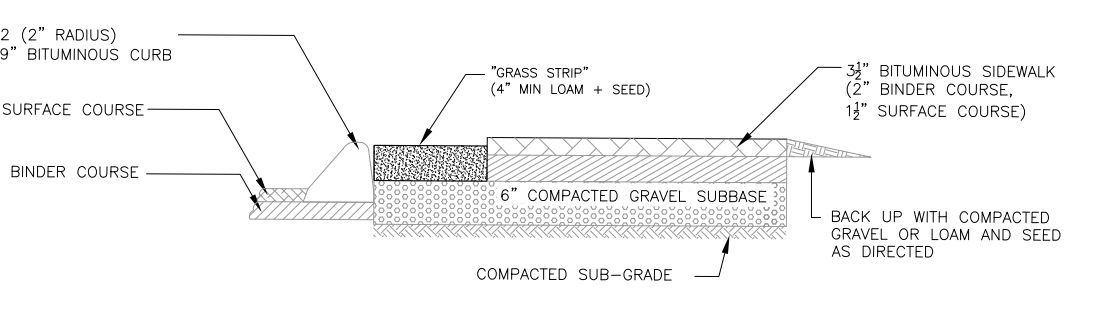
GRANITE CURB DETAIL
NOT TO SCALE



CONCRETE SIDEWALK EXPANSION JOINT
NOT TO SCALE

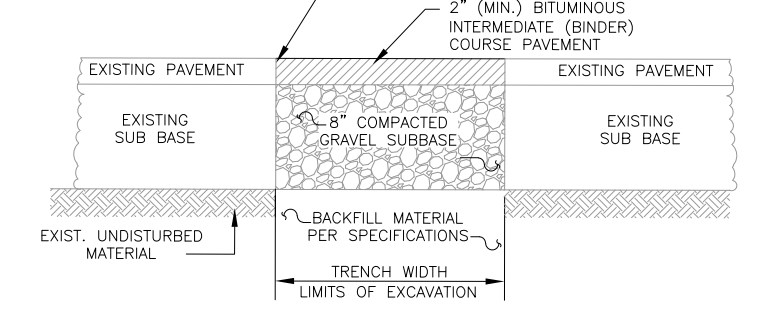


BITUMINOUS CONCRETE CURB
NOT TO SCALE

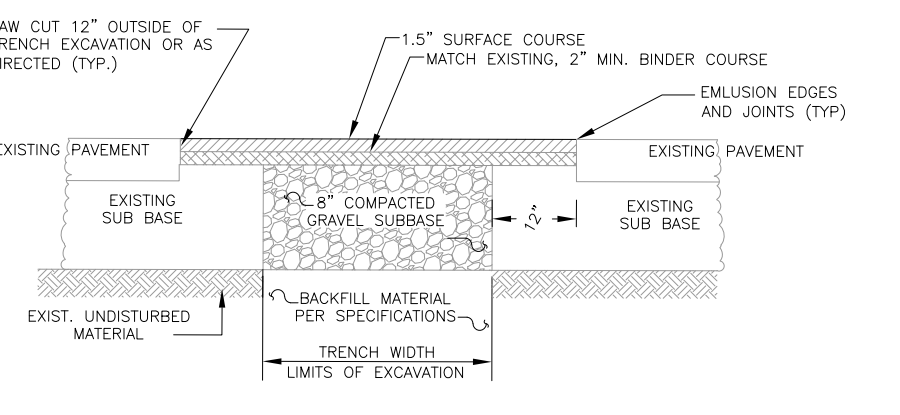


BITUMINOUS CONCRETE CURB AND SIDEWALK DETAIL (AND PAYMENT LIMITS)
NOT TO SCALE

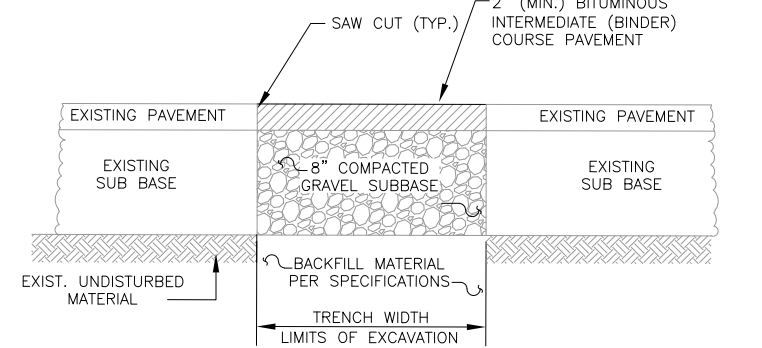
NOTE 1: CONSTRUCT SIDEWALKS IN ACCORDANCE WITH MASSDOT AND ADA REQUIREMENTS AND STANDARDS.



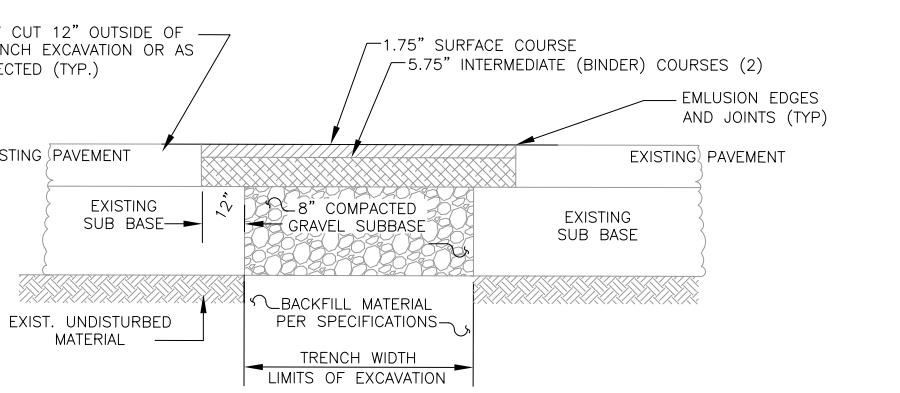
TEMPORARY TRENCH PAVEMENT DETAIL (TOWN ROADS)
NOT TO SCALE, INSTALL AS DIRECTED



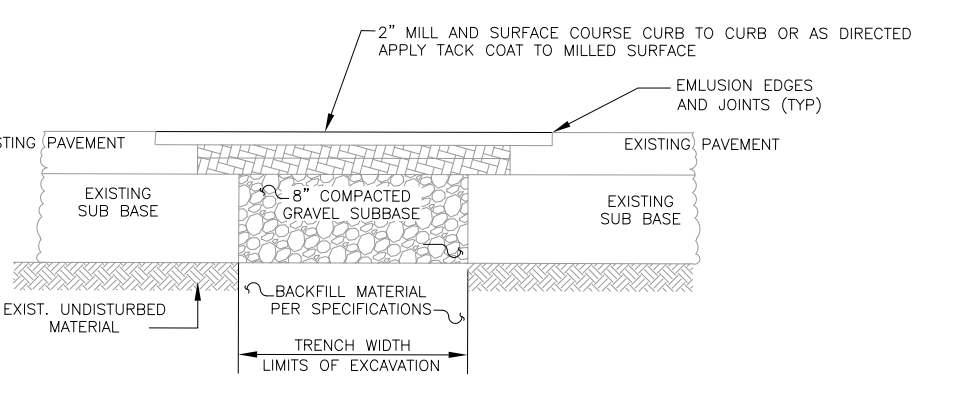
PERMANENT PAVEMENT DETAIL (TOWN ROADS)
NOT TO SCALE



TEMPORARY TRENCH PAVEMENT DETAIL (MASSDOT)
NOT TO SCALE, INSTALL AS DIRECTED



PERMANENT TRENCH PAVEMENT DETAIL (MASSDOT)
NOT TO SCALE



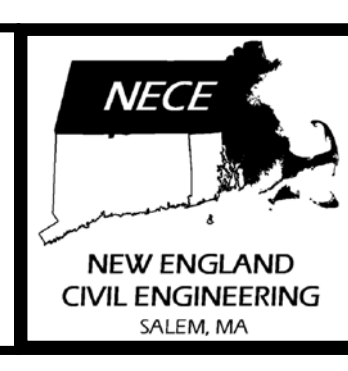
PERMANENT OVERLAY PAVEMENT DETAIL (MASSDOT)
NOT TO SCALE

- GENERAL NOTES:**
- THE CONTRACTOR SHALL MAINTAIN TEMPORARY PAVEMENT FOR A MINIMUM OF 90 DAYS EXCEPT IF TEMPORARY PAVEMENT IS PLACED AFTER OCTOBER 15, THEN IT SHALL BE MAINTAINED UNTIL APRIL 15 OF THE FOLLOWING YEAR.
 - PERMANENT PAVEMENT SHALL BE PLACED BETWEEN APRIL 15 AND OCTOBER 15 OF EACH CALENDAR YEAR UNLESS APPROVED AND DIRECTED BY ENGINEER.
 - THE CONTRACTOR SHALL SAW CUT 12" OUTSIDE OF TRENCH EXCAVATION OR AS DIRECTED. TEMPORARY PAVEMENT SHALL BE REMOVED AND DEPOSITED TO THE GRAVEL SHALL BE FINE GRADED, EMULSION PLACED ON ALL JOINTS, AND PERMANENT PAVEMENT PLACED IN TWO COURSES ON TOWN ROADS AND THREE COURSES ON MASSDOT ROADS.
 - CONTRACTOR SHALL MATCH EXISTING ROADWAY GRADES AND EXISTING THICKNESS UNLESS OTHERWISE DIRECTED.
 - REFER TO SPECIFICATION SECTION 02500 PAVING AND SURFACING FOR ADDITIONAL REQUIREMENTS.
 - HOT MIX ASPHALT IN MASSDOT ROADWAY TO BE SUPERPAVE MIX IN ACCORDANCE WITH MASSDOT SPECIFICATIONS.

Client	CITY OF SALEM, MASSACHUSETTS		
Project	LORING AVENUE WATER MAIN REPLACEMENT PROJECT		
	DETAILS		

Scale	N.T.S.
Date	8/12/2021
Job	Salem-LoringAve
Designed by	WMR
Drawn by	RLM
No.	1. Revised for Emergency Work
Date	9/20/2021
Description	
File:	W:\Salem\Water Work\Loring Avenue\CAD\LoringAveBase_Rev08

DATE:	1/5/21	NTS
DRAWING NO.:	XXXX	
Drawn By:	EMC	Checked By: EMC



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NOTES:

- ALL TEMPORARY TRAFFIC CONTROL WORK SHALL CONFORM TO THE LATEST EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) AND ALL REVISIONS, UNLESS SUPERCEDED BY THESE PLANS.
- ALL SIGN LEGENDS, BORDERS, AND MOUNTING SHALL BE IN ACCORDANCE WITH THE MUTCD.
- TEMPORARY CONSTRUCTION SIGNING AND ALL OTHER TRAFFIC CONTROL DEVICES SHALL BE IN PLACE PRIOR TO THE START OF ANY WORK.
- TEMPORARY CONSTRUCTION SIGNING, BARRIAGES, AND ALL OTHER NECESSARY WORK ZONE TRAFFIC CONTROL DEVICES SHALL BE REMOVED FROM THE HIGHWAY OR COVERED WHEN THEY ARE NOT REQUIRED FOR CONTROL OF TRAFFIC.
- SIGNS AND SIGN SUPPORTS LOCATED ON OR NEAR THE TRAVELED WAY, CHANNELIZING DEVICES, BARRIERS, AND CRASH ATTENUATORS MUST PASS THE CRITERIA SET FORTH IN NCHRP REPORT 350, "RECOMMENDED PROCEDURES FOR THE SAFETY PERFORMANCE EVALUATION OF HIGHWAY FEATURES" AND/OR "MANUAL FOR ASSESSING SAFETY HARDWARE" (MSH).
- CONTRACTORS SHALL NOTIFY EACH ADJUTER AT LEAST 24 HOURS IN ADVANCE OF THE START OF ANY WORK THAT WILL REQUIRE THE TEMPORARY CLOSURE OF ACCESS, SUCH AS CONDUIT INSTALLATION, EXISTING PAVEMENT EXCAVATION, TEMPORARY DRIVEWAY PLACEMENT, AND SIMILAR OPERATIONS.
- THE FIRST FIVE PLASTIC DRUMS OF A TAPER SHALL BE MOUNTED WITH TYPE A LIGHTS.
- THE ADVISORY SPEED LIMIT, IF REQUIRED, SHALL BE DETERMINED BY THE ENGINEER.
- DISTANCES ARE A GUIDE AND MAY BE ADJUSTED IN THE FIELD BY THE ENGINEER.
- MAXIMUM SPACING OF TRAFFIC DEVICES IN A TAPER (DRUMS OR CONES) IS EQUAL IN FEET TO THE SPEED LIMIT IN MPH.
- MINIMUM LANE WIDTH IS TO BE 11 FEET (3.3m) UNLESS OTHERWISE SHOWN. MINIMUM LANE WIDTH TO BE MEASURED FROM THE EDGE OF DRUMS OR MEDIAN BARRIER.

LEGEND:

- REFLECTORIZED PLASTIC DRUM OR 36" CONE
- WORK ZONE
- WORK VEHICLE
- DIRECTION OF TRAFFIC
- TRACK MOUNTED ATTENUATOR
- POLICE/FLAGGER DETAIL
- IMPACT ATTENUATOR
- TRAFFIC OR PEDESTRIAN SIGNAL
- TYPE III BARRICADE
- MEDIAN BARRIER
- SIGN
- CHANGEABLE MESSAGE SIGN
- MEDIAN BARRIER WITH WARNING LIGHTS
- ARROW BOARD

THE IDEAL CAPACITY OF A MAJOR HIGHWAY IS GENERALLY CONSIDERED TO BE 1900 PASSENGER CARS PER HOUR PER LANE (PCPHPL). IN WORK ZONES ON A MULTI-LANE DIVIDED HIGHWAY, THE FOLLOWING VOLUME GUIDELINES HAVE BEEN SUGGESTED:

MEASURED AVERAGE WORK ZONE CAPACITIES				
NUMBER OF LANES		NUMBER OF STUDIES	AVERAGE CAPACITY	
NORMAL (EXISTING)	OPEN (TO TRAFFIC)		VPH	VPHPL
3	1	7	1,170	1,170
2	1	8	1,340	1,340
3	2	9	2,740	1,370
4	2	4	2,960	1,480
3	2	9	2,960	1,480
4	3	4	4,560	1,520

Source: David, C. *Notes on Work Zone Capacity and Level of Service*. Texas Transportation Institute, Texas A&M University, College Station, Texas (1984)

BY OBTAINING HOURLY TRAFFIC COUNTS FOR A PARTICULAR ROADWAY (WITH A MINIMUM OF A 48-HOUR AUTOMATIC TRAFFIC RECORDER (ATR) COUNT), THIS WILL HELP TO DETERMINE AT WHAT TIMES OF THE DAY OR NIGHT A CERTAIN NUMBER OF LANES MAY BE CLOSED.



Notes for Traffic Management

FIGURE GEN-1
GENERAL GUIDELINES

ROAD TYPE	DISTANCE BETWEEN SIGNS**		
	A	B	C
LOCAL OR LOW VOLUME ROADWAYS*	350 (100)	350 (100)	350 (100)
MOST OTHER ROADWAYS*	500 (150)	500 (150)	500 (150)
FREEWAYS AND EXPRESSWAYS*	1,000 (300)	1,500 (450)	2,640 (800)

* ROAD TYPE TO BE DETERMINED BY MASSDOT OFFICE OF TRANSPORTATION PLANNING.

** DISTANCES ARE SHOWN IN FEET (METERS). THE COLUMN HEADINGS A, B, AND C ARE THE DIMENSIONS SHOWN IN THE DETAIL/TYPICAL SETUP FIGURES. THE A DIMENSION IS THE DISTANCE FROM THE TRANSITION OR POINT OF RESTRICTION TO THE FIRST SIGN. THE B DIMENSION IS THE DISTANCE BETWEEN THE FIRST AND SECOND SIGNS. THE C DIMENSION IS THE DISTANCE BETWEEN THE SECOND AND THIRD SIGNS. (THE "THIRD" SIGN IS THE FIRST ONE TYPICALLY ENCOUNTERED BY A DRIVER APPROACHING A TEMPORARY TRAFFIC CONTROL (TTC) ZONE.)

THE "THIRD" SIGN ABOVE IS TYPICALLY REFERRED TO AS AN "ADVANCE WARNING" SIGN ON THE TTC SETUP. THESE ADVANCE WARNING SIGNS ARE LOCATED PRIOR TO THE PROJECT LIMITS ON ALL APPROACHES (I.E. THE W20-1 SERIES (ROAD WORK XX FT) SIGNS), AND USUALLY REMAIN FOR THE DURATION OF THE PROJECT. ADDITIONAL SIGNS (I.E. "RIGHT LANE CLOSED 1 MILE" AND "LEFT LANE CLOSED 1 MILE") HAVE BEEN SHOWN IN SOME FIGURES AS EXAMPLES OF REINFORCEMENT SIGN PLACEMENT BUT ARE USED IN RARE OCCASIONS.

THE FIRST AND SECOND WARNING SIGNS ABOVE ARE REFERRED TO AS THE OPERATIONAL (DAY-TO-DAY) WORK ZONE SIGNS AND MAY BE MOVED DEPENDING ON WHERE THE SPECIFIC ROADWAY WORK FOR THAT DAY IS LOCATED.

R2-10a, R2-10b, AND W20-1 SERIES SIGNS ARE TO BE INCLUDED ON ALL DETAILS/TYPICAL SETUPS.

Based on: Table 6C-1 MUTCD LATEST EDITION

STOPPING SIGHT DISTANCE AS A FUNCTION OF SPEED

SPEED* (km/h)	DISTANCE (m)	SPEED* (mph)	DISTANCE (ft)
30	35	20	115
40	50	25	155
50	85	30	200
60	85	35	250
70	105	40	300
80	130	45	360
90	160	50	425
100	185	55	495
110	220	60	570
120	250	65	645
		70	730
		75	820

*POSTED SPEED, OFF-PEAK 80TH-PERCENTILE SPEED PRIOR TO WORK STARTING, OR THE ANTICIPATED OPERATING SPEED.

THESE VALUES MAY BE USED TO DETERMINE THE LENGTH OF LONGITUDINAL BUFFER SPACES.

THE DISTANCES IN THE ABOVE CHART REPRESENT THE MINIMAL VALUES FOR BUFFER SPACING.

Source: Table 6C-2 MUTCD LATEST EDITION



Notes for Traffic Management

FIGURE GEN-2
NOTES ON WORK ZONE DISTANCES

CONVENTIONAL ROADWAY - A STREET OR HIGHWAY OTHER THAN A LOW-VOLUME ROAD, EXPRESSWAY, OR FREEWAY.

EXPRESSWAY - A DIVIDED HIGHWAY WITH PARTIAL CONTROL OF ACCESS.

FREEWAY - A DIVIDED HIGHWAY WITH FULL CONTROL OF ACCESS.

LOW-VOLUME ROAD - A FACILITY LYING OUTSIDE OF BUILT-UP AREAS OF CITIES, TOWNS, AND COMMUNITIES, AND IT SHALL HAVE A TRAFFIC VOLUME OF LESS THAN 400 AADT. IT SHALL NOT BE A FREEWAY, EXPRESSWAY, INTERCHANGE RAMP, FREEWAY SERVICE ROAD OR A ROAD ON A DESIGNATED STATE HIGHWAY SYSTEM.

Source: MUTCD LATEST EDITION

TAPER LENGTH CRITERIA FOR TEMPORARY TRAFFIC CONTROL ZONES

TYPE OF TAPER	TAPER LENGTH (L)*
MERGING TAPER	AT LEAST L
SHIFTING TAPER	AT LEAST 0.5L
SHOULDER TAPER	AT LEAST 0.3L
ONE-LANE, TWO-WAY TRAFFIC TAPER	50 FT MIN.(15 m) 100 FT MAX.(30 m) MAX.
DOWNSTREAM TAPER	50 FT MIN.(15 m) 100 FT MAX.(30 m) PER LANE

Source: Table 6C-3 MUTCD LATEST EDITION

FORMULAS FOR DETERMINING TAPER LENGTHS

SPEED LIMIT (S)	TAPER LENGTH (L) FEET	SPEED LIMIT (S)	TAPER LENGTH (L) METERS
40 MPH OR LESS	$L = \frac{WS^2}{60}$	60 KM/H OR LESS	$L = \frac{WS^2}{155}$
45 MPH OR MORE	$L = WS$	70 KM/H OR MORE	$L = \frac{WS}{1.6}$

WHERE: L = TAPER LENGTH IN FEET (METERS)

W = WIDTH OF OFFSET IN FEET (METERS)

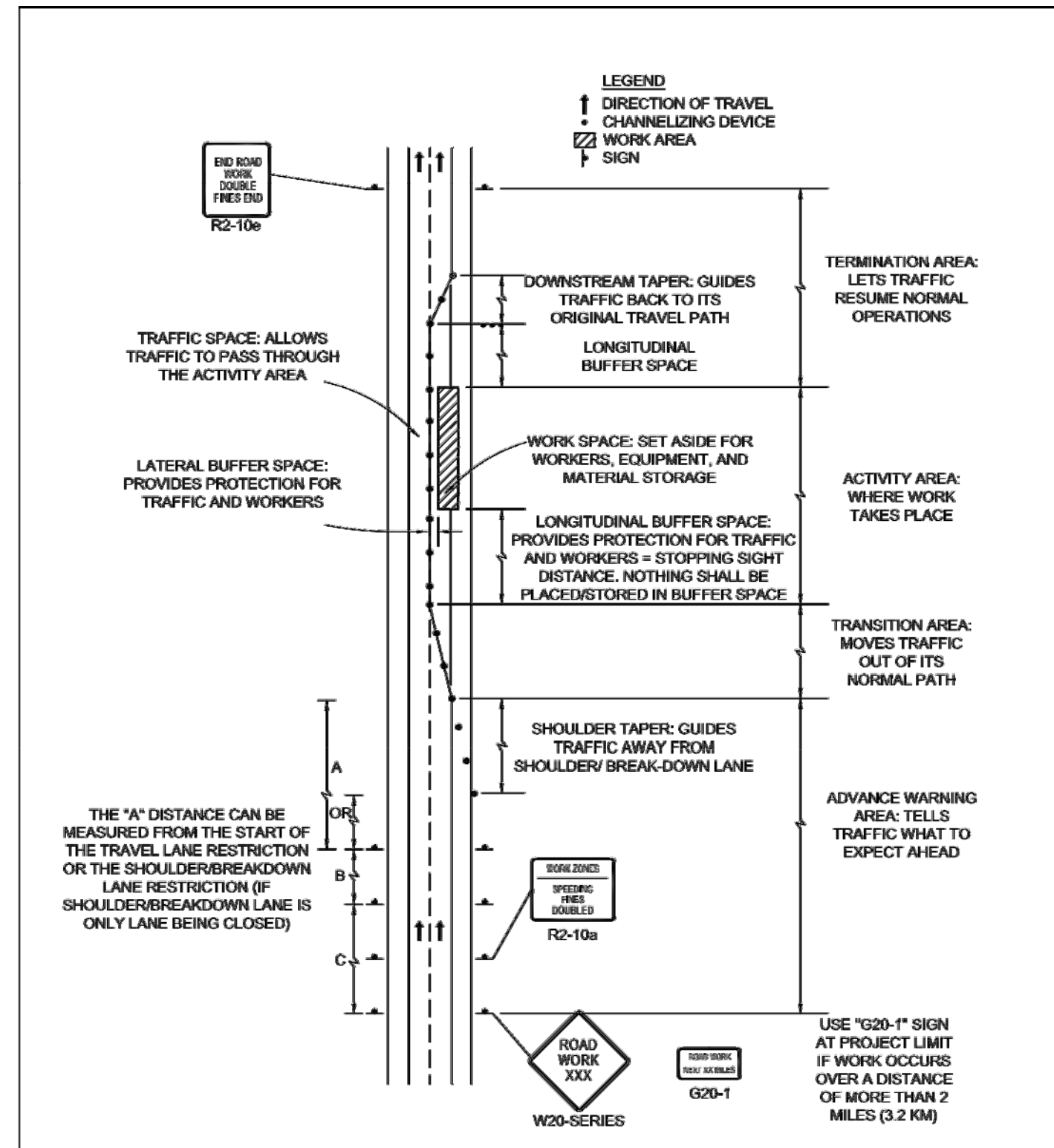
S = POSTED SPEED LIMIT, OR OFF-PEAK 80TH-PERCENTILE SPEED PRIOR TO WORK STARTING, OR THE ANTICIPATED OPERATING SPEED IN MPH (KM/H)

Source: Table 6C-4 MUTCD LATEST EDITION



Notes for Traffic Management

FIGURE GEN-3
NOTES ON WORK ZONE DISTANCES



Standard Details and Drawings for the Development of Temporary Traffic Control Plans

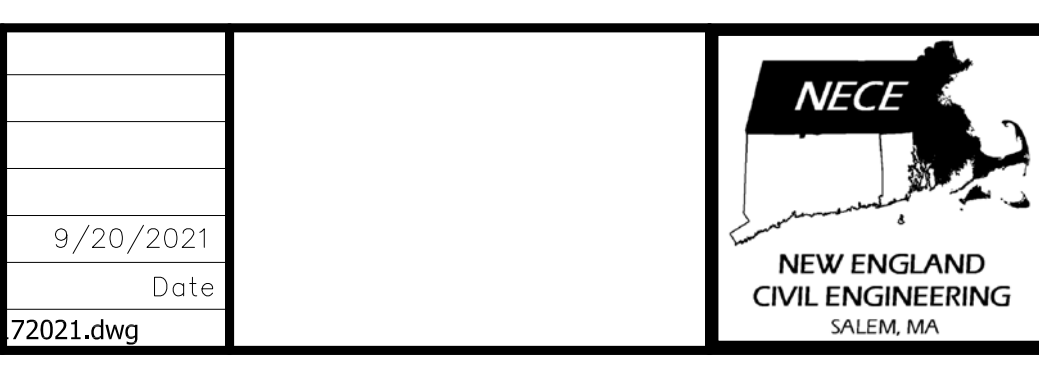
FIGURE GEN-4
COMPONENT PARTS OF A TEMPORARY TRAFFIC CONTROL (TTC) ZONE
NOT TO SCALE

NOTES:

- TRAFFIC CONTROL MEASURES SHALL INCLUDE USE OF POLICE DETAILS AS REQUIRED.
- TRAFFIC CONTROL SIGNAGE SHALL UTILIZE POLICE OFFICER AHEAD IN LIEU OF FLAGGER AHEAD.
- DISTANCES ARE A GUIDE AND MAY BE ADJUSTED IN THE FIELD BY THE ENGINEER OR POLICE DETAIL.
- ALL TEMPORARY WALKWAYS SHALL MEET ADA/AAB GUIDELINES.
- ADA COMPLIANT PEDESTRIAN ACCESS SHALL BE MAINTAINED AT ALL TIMES AND SHALL INCLUDE ADDITIONAL SIGNAGE WHERE NEEDED TO DIRECT PEDESTRIAN TRAFFIC AROUND WORK ZONE.
- ANY WORK OR WORK THAT IMPACTS TRAFFIC WITHIN THE STATE HIGHWAY LAYOUT (SHLO) ON LORING AVE. (ROUTE 1A) IS TO BE DONE AT NIGHT (7:00 A.M. TO 4:00 P.M.).

Client	CITY OF SALEM, MASSACHUSETTS
Project	LORING AVENUE WATER MAIN REPLACEMENT PROJECT
	MASSDOT TEMPORARY TRAFFIC CONTROL DETAILS

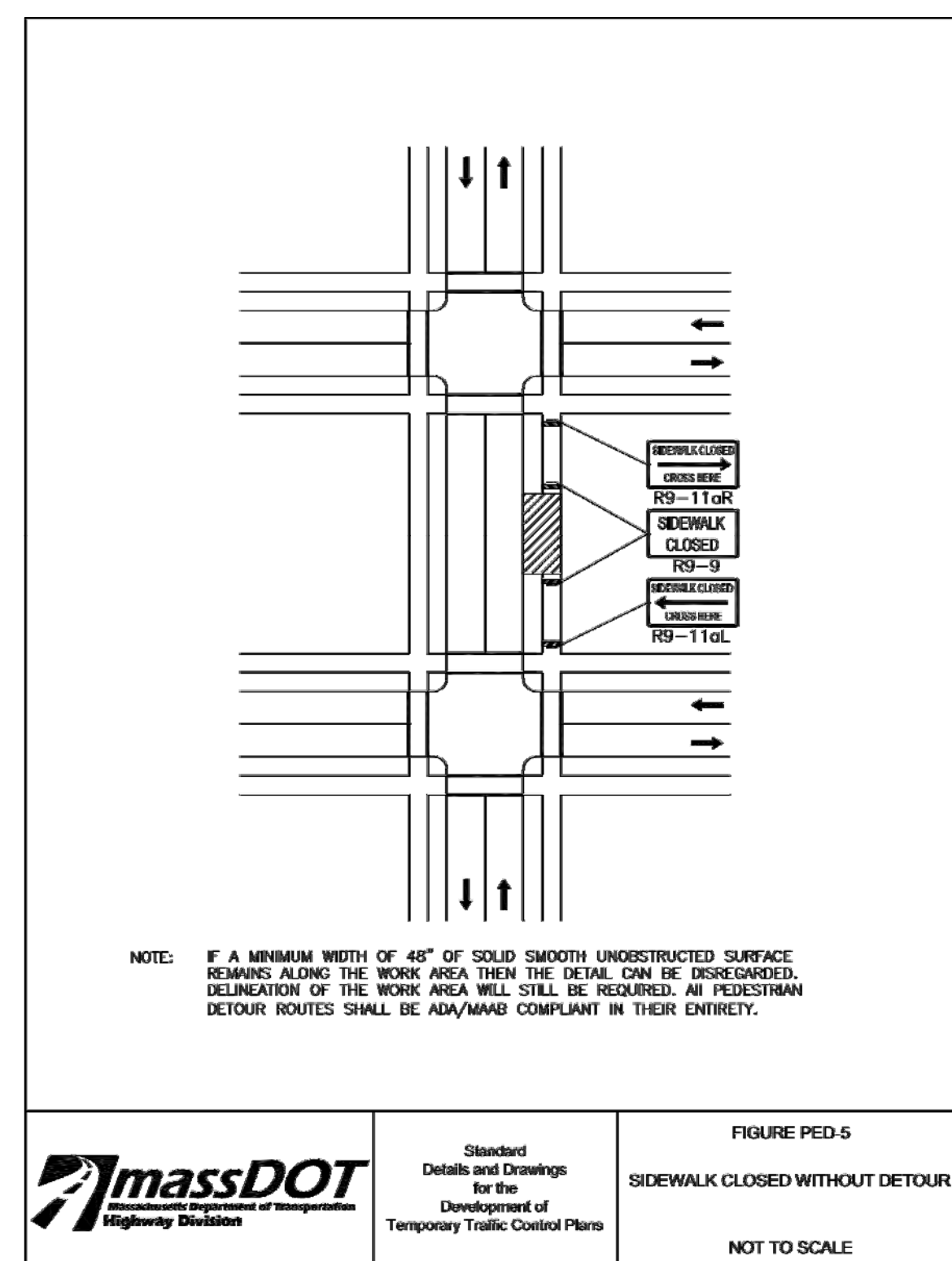
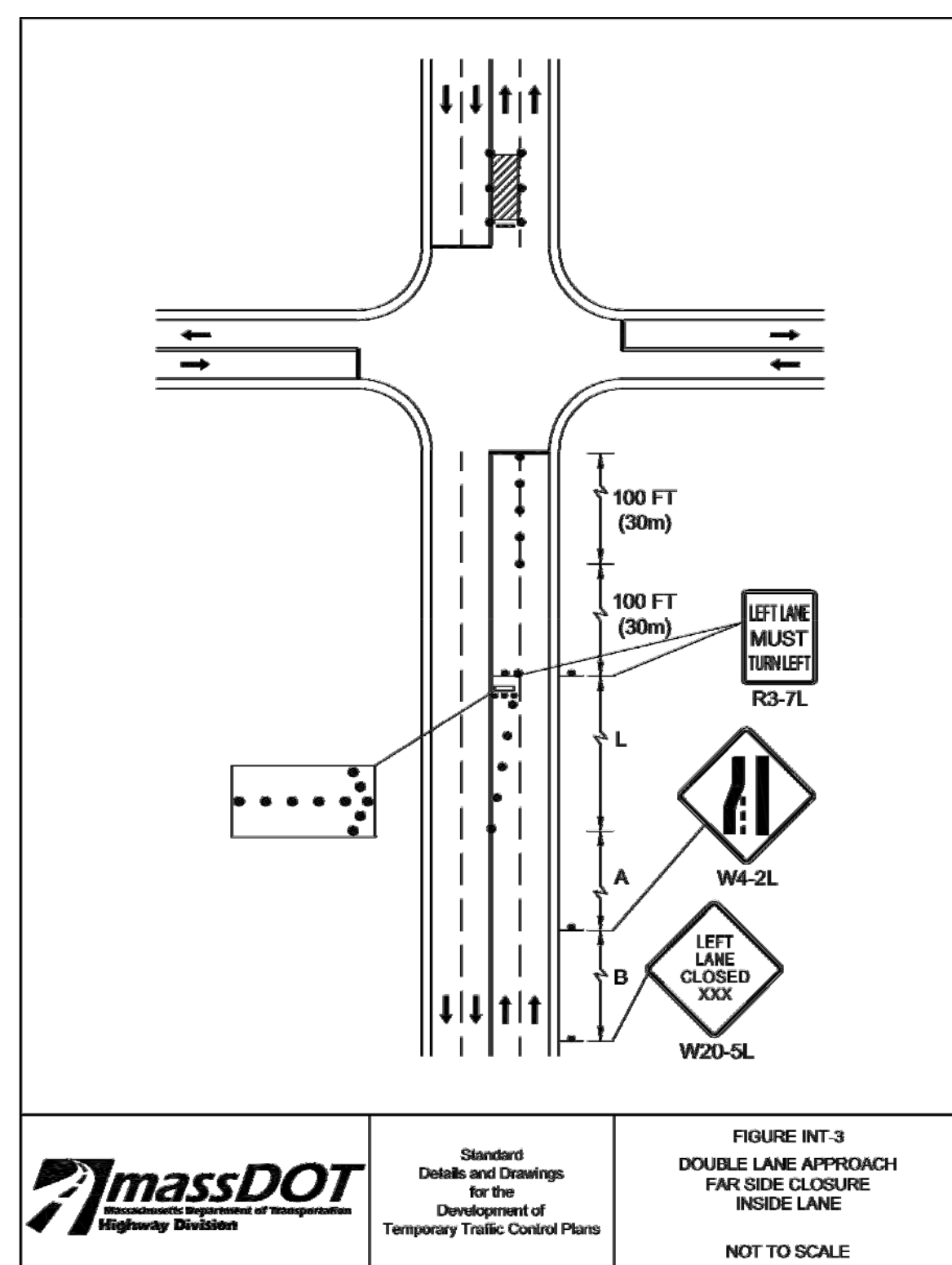
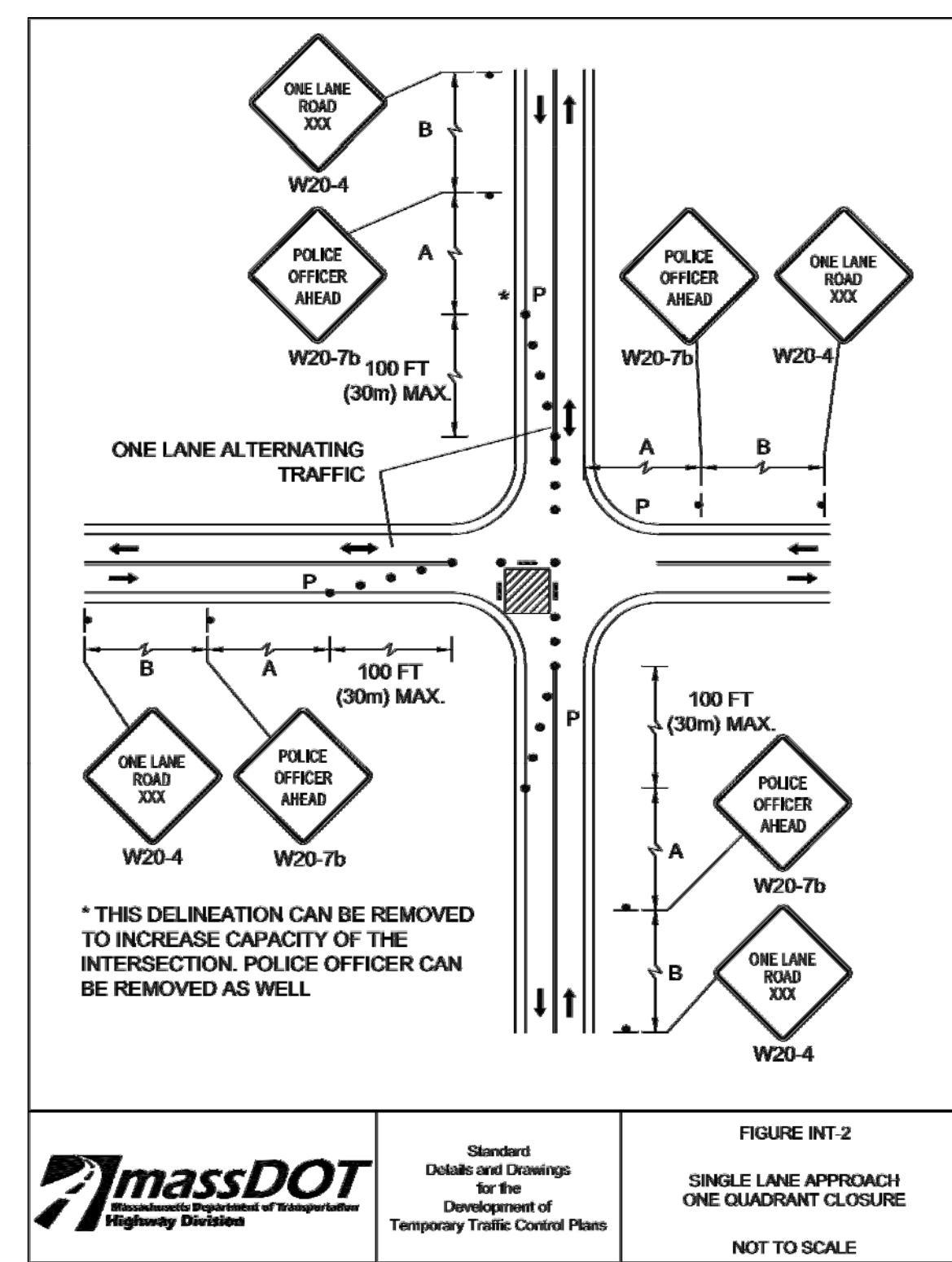
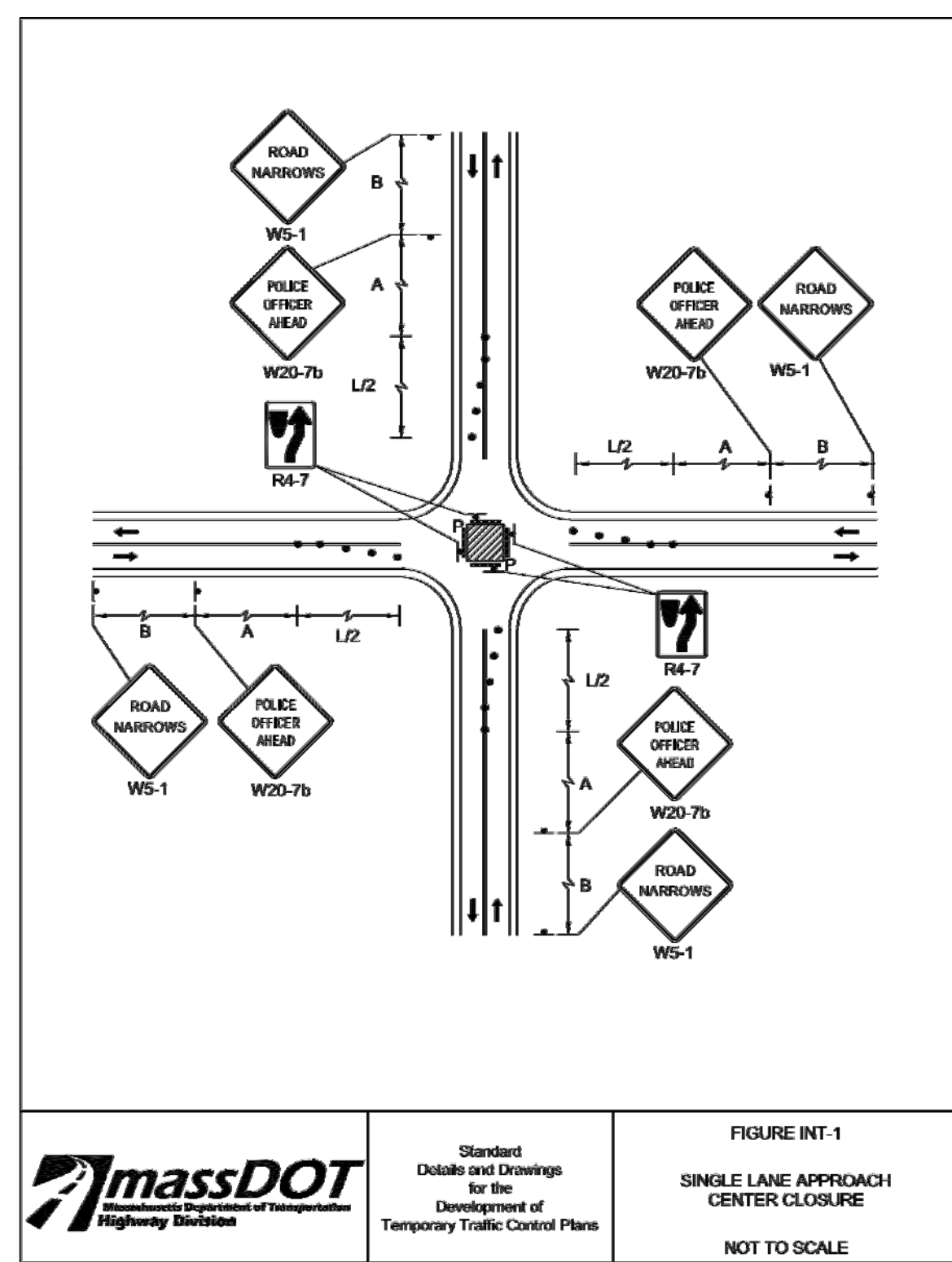
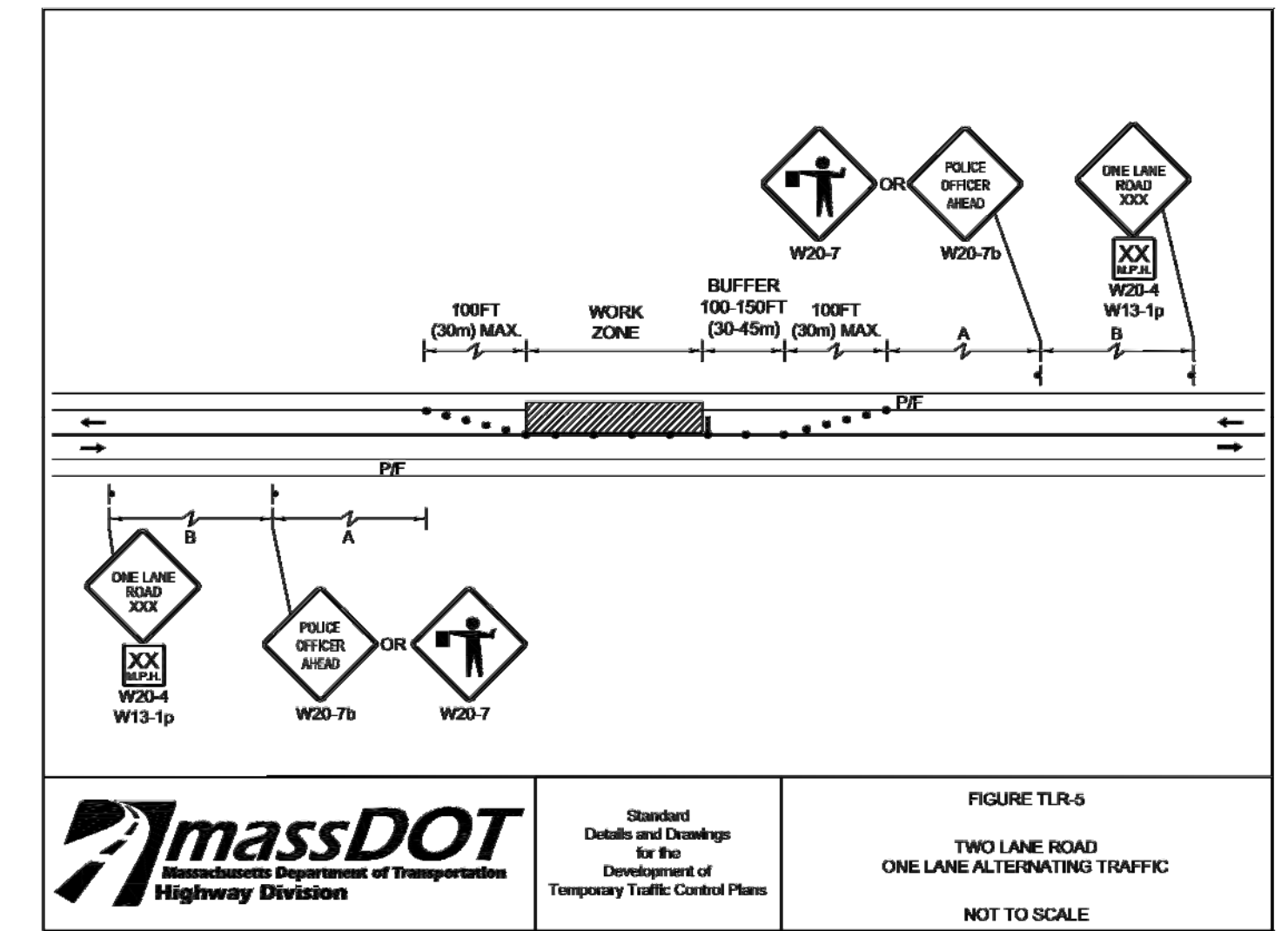
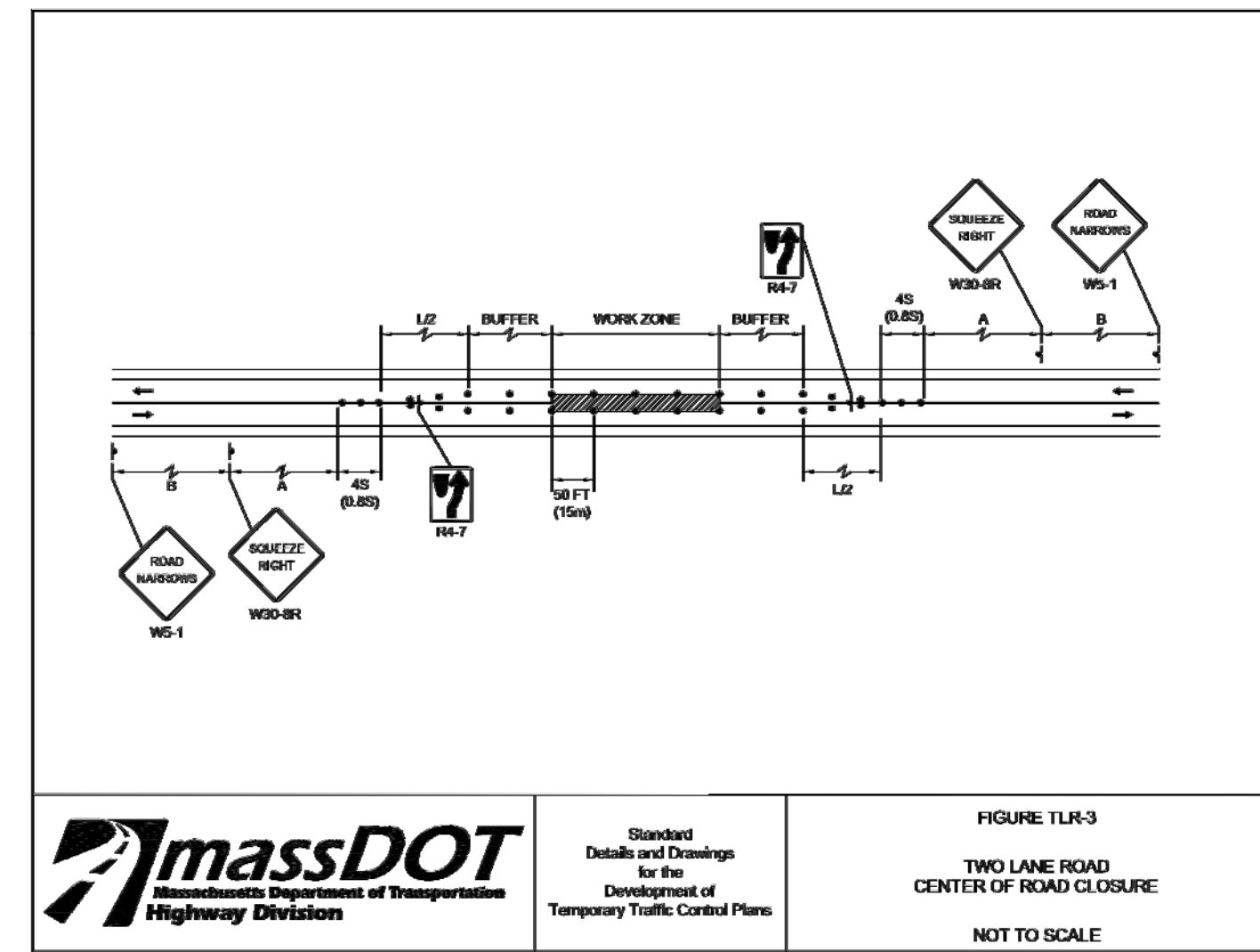
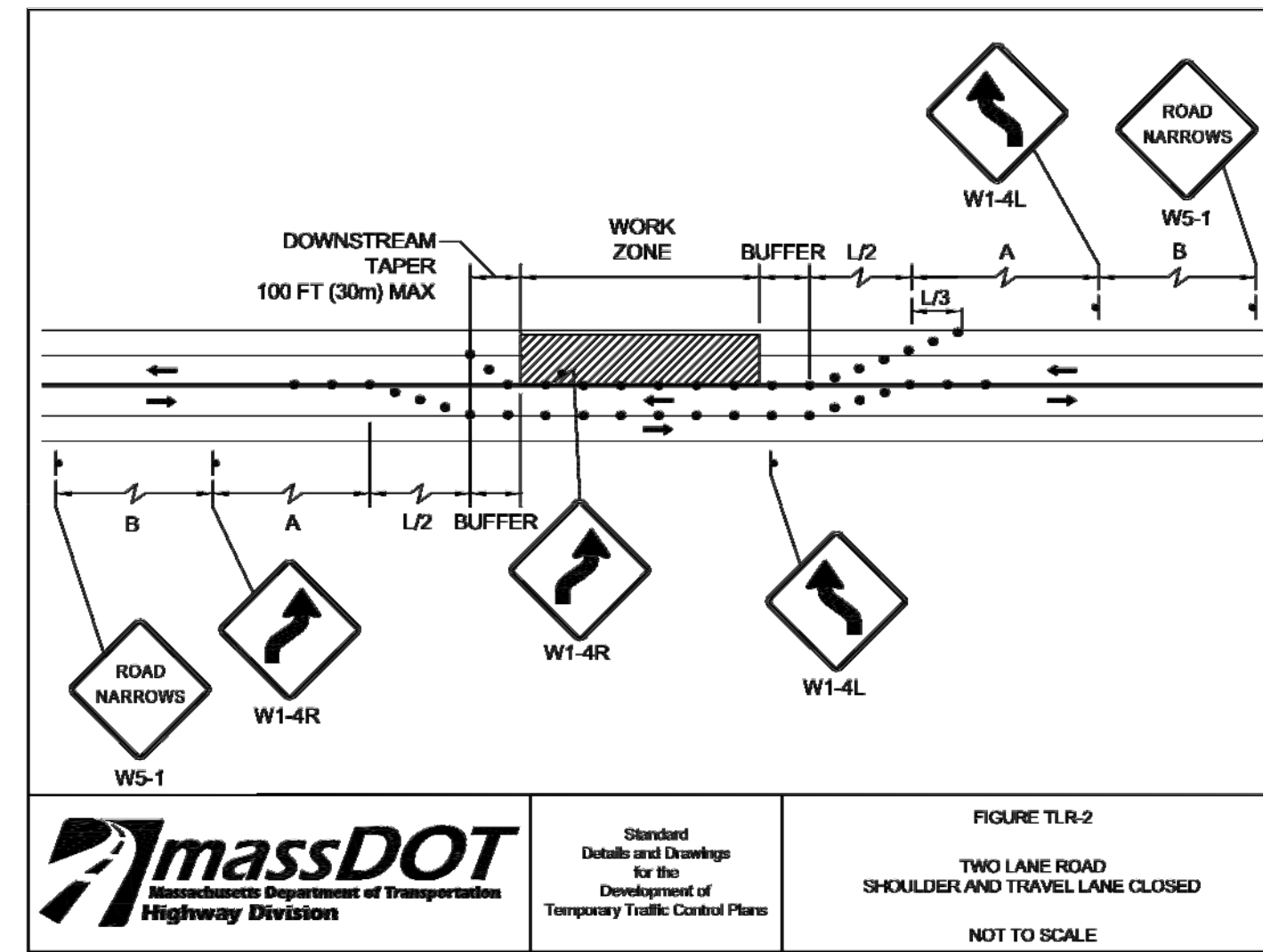
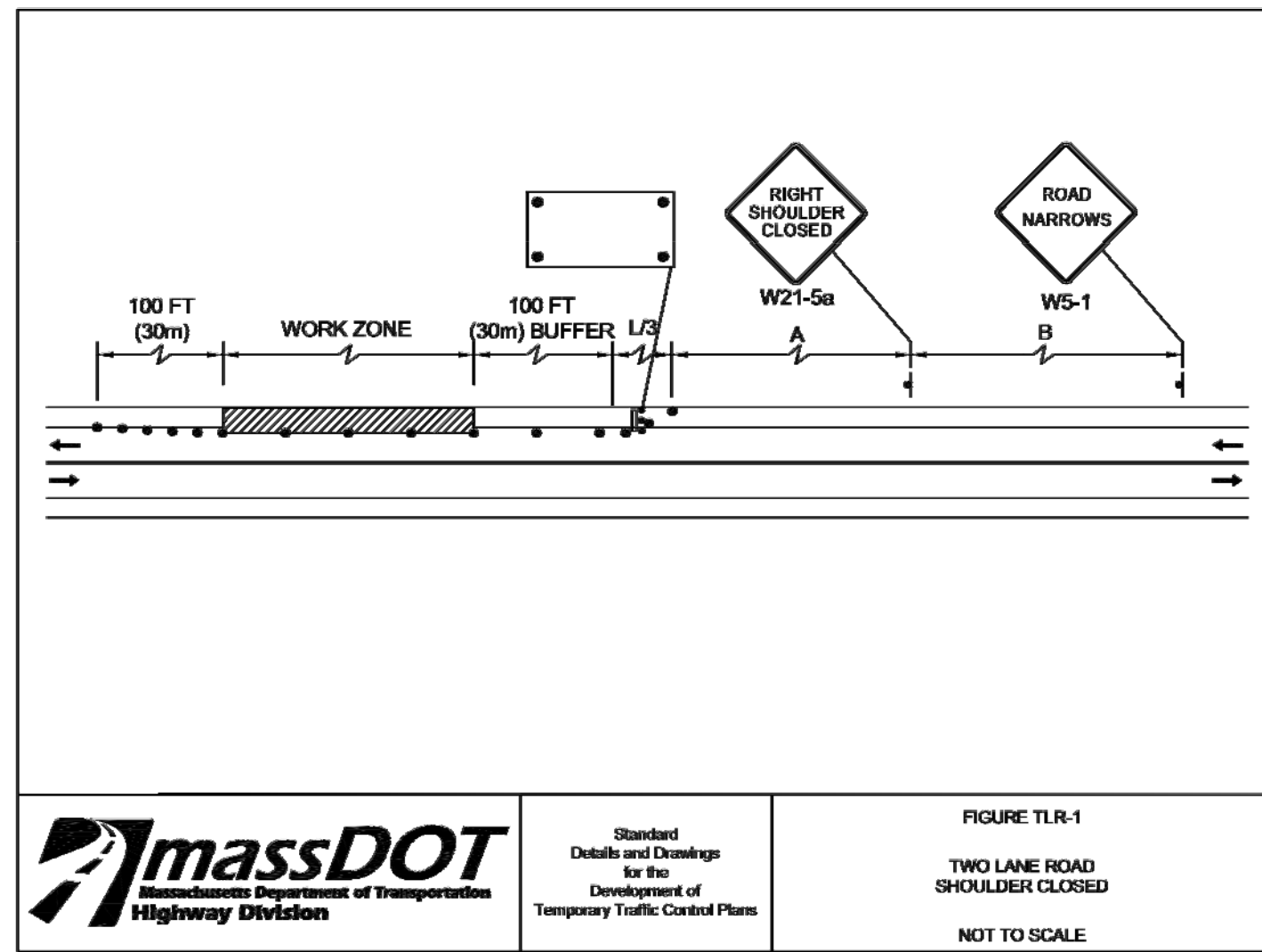
Scale	N.T.S.
Date	8/12/2021
Job	Salem-LoringAve
Designed by	WMR
Drawn by	RLM
	1. Revised for Emergency Work
	9/20/2021
No.	Description
File:	W:\Salem\Water Work\Loring Avenue\CAD\LoringAveBase_Rev08
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Sheet	D-3
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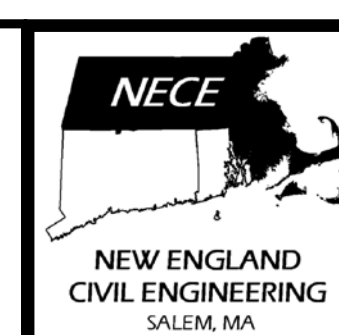


NOTES

1. TRAFFIC CONTROL MEASURES SHALL INCLUDE USE OF POLICE DETAILS AS REQUIRED.
2. TRAFFIC CONTROL SIGNAGE SHALL UTILIZE POLICE OFFICER AHEAD IN LIEU OF FLAGGER AHEAD.
3. DISTANCES ARE A GUIDE AND MAY BE ADJUSTED IN THE FIELD BY THE ENGINEER OR POLICE DETAIL.
4. ALL TEMPORARY WALKWAYS SHALL MEET ADA/AAAS GUIDELINES.
5. ADA COMPLIANT PEDESTRIAN ACCESS SHALL BE MAINTAINED AT ALL TIMES AND SHALL INCLUDE ADDITIONAL SIGNAGE WHERE NEEDED TO DIRECT PEDESTRIAN TRAFFIC AROUND WORK ZONE.
6. ANY WORK OR WORK THAT IMPACTS TRAFFIC WITHIN THE STATE HIGHWAY LAYOUT (SHLO) ON LORING AVE. (ROUTE 1A) IS TO BE DONE AT NIGHT (7:00 A.M. TO 4:00 P.M.).

Client	CITY OF SALEM, MASSACHUSETTS
Project	LORING AVENUE WATER MAIN REPLACEMENT PROJECT
	MASSDOT TEMPORARY TRAFFIC CONTROL DETAILS

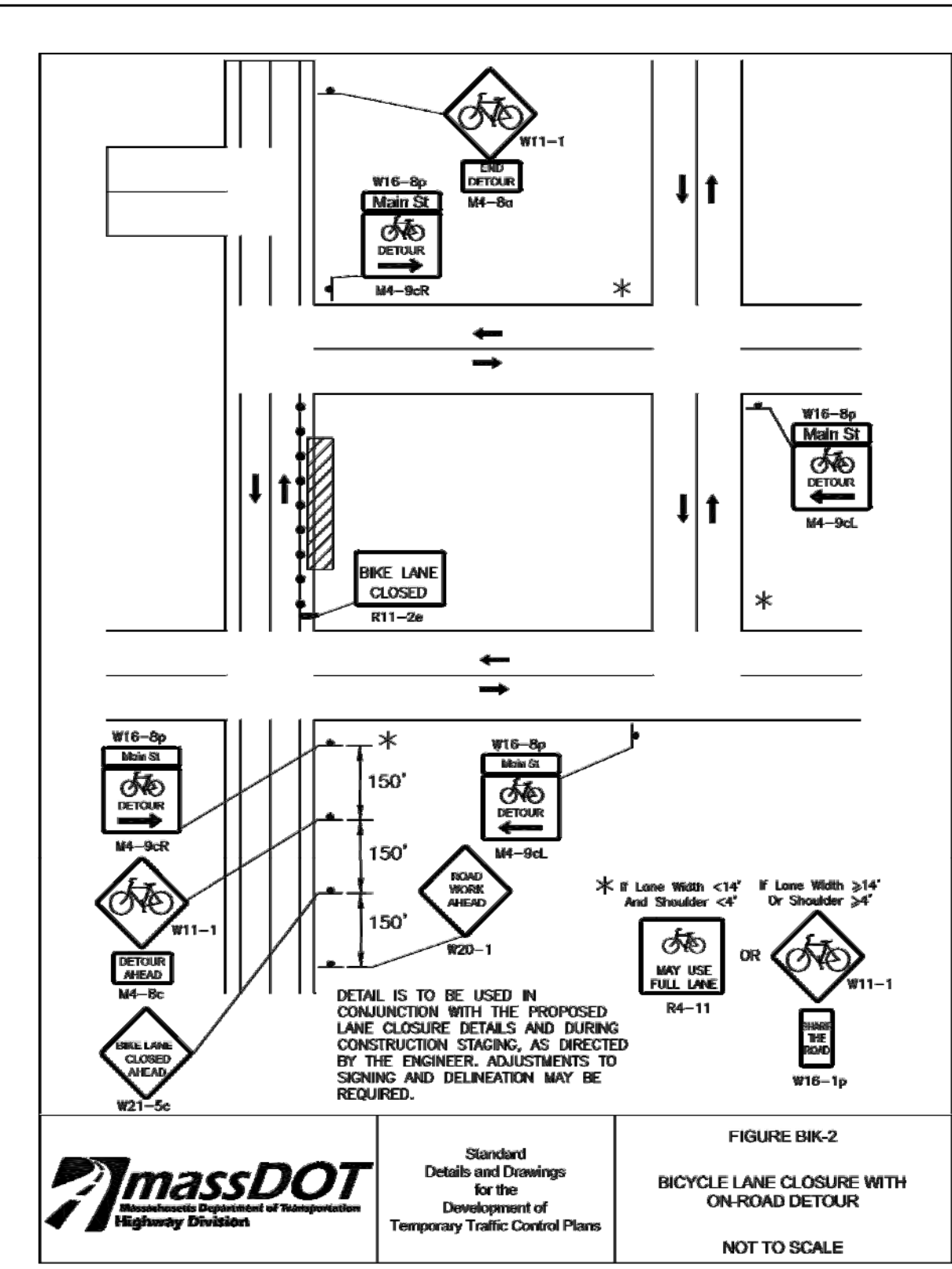
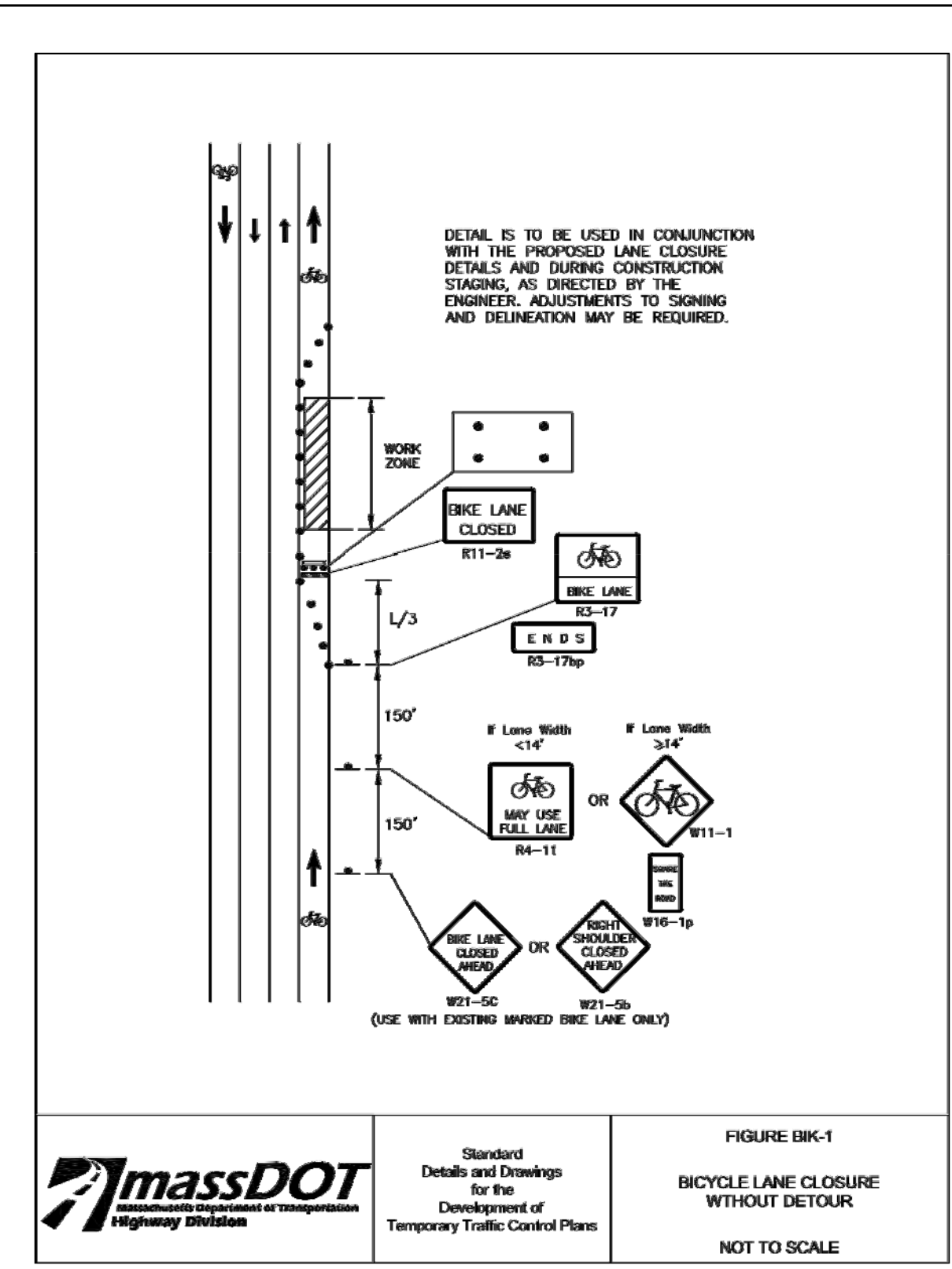
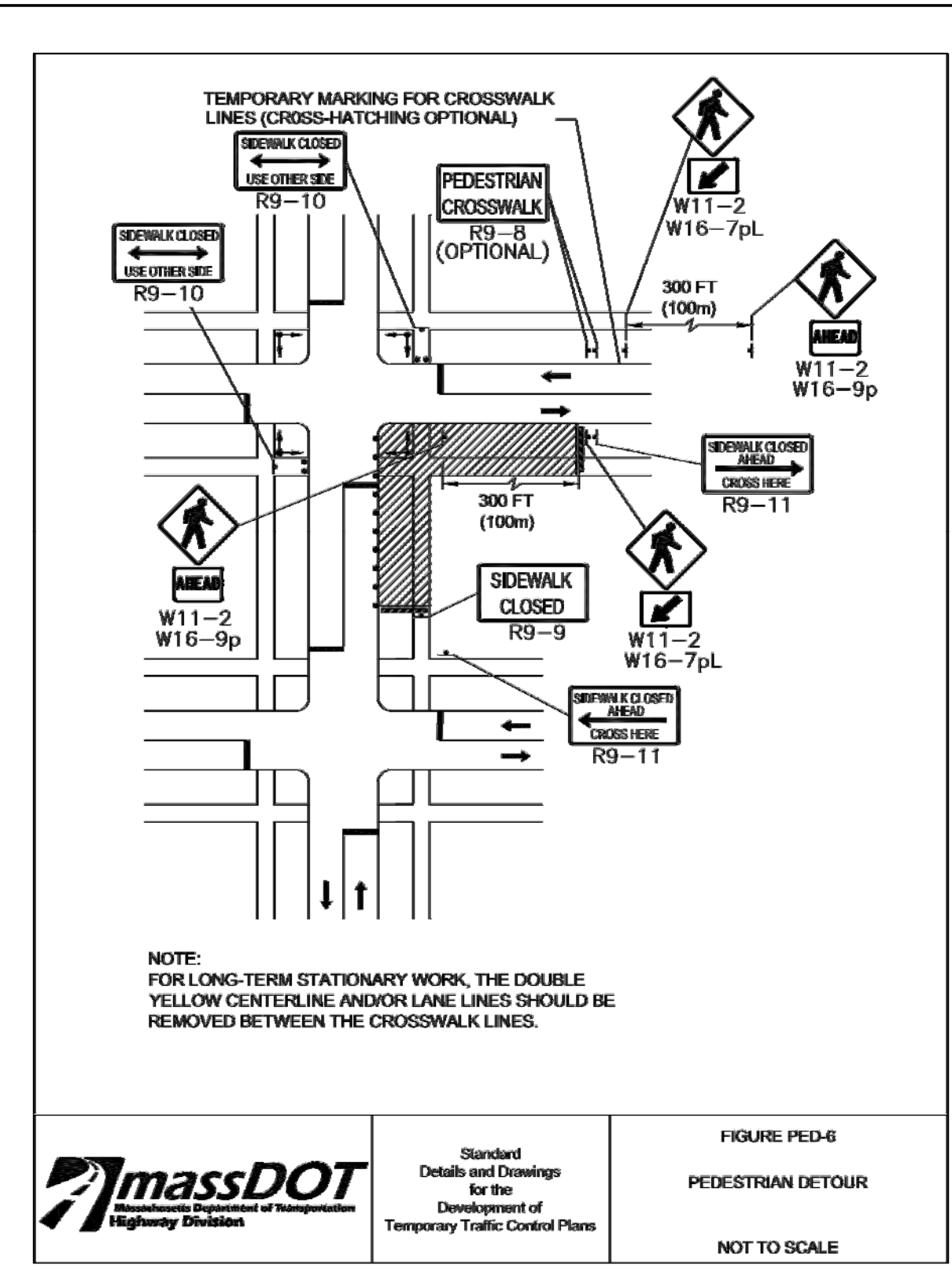
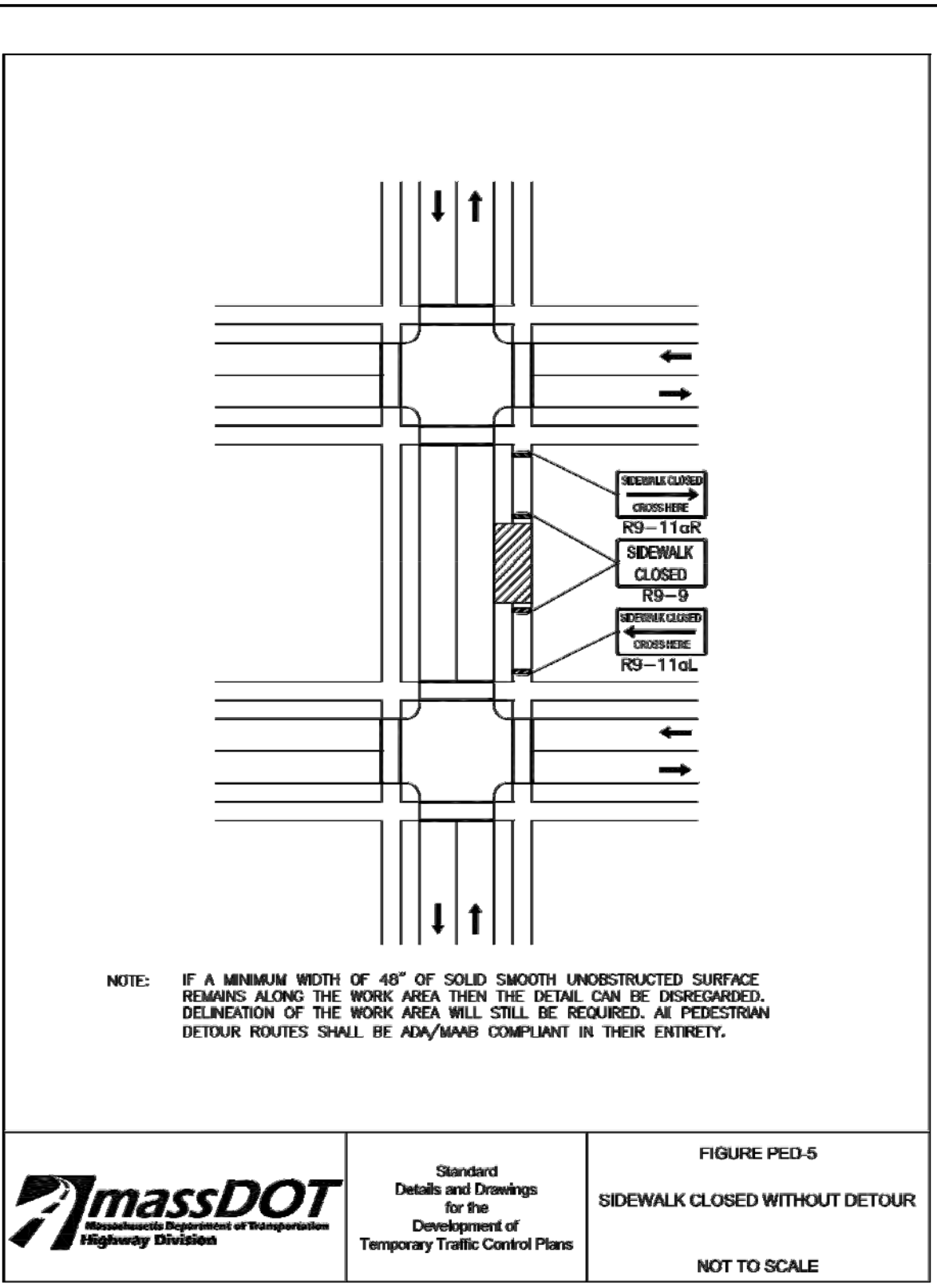
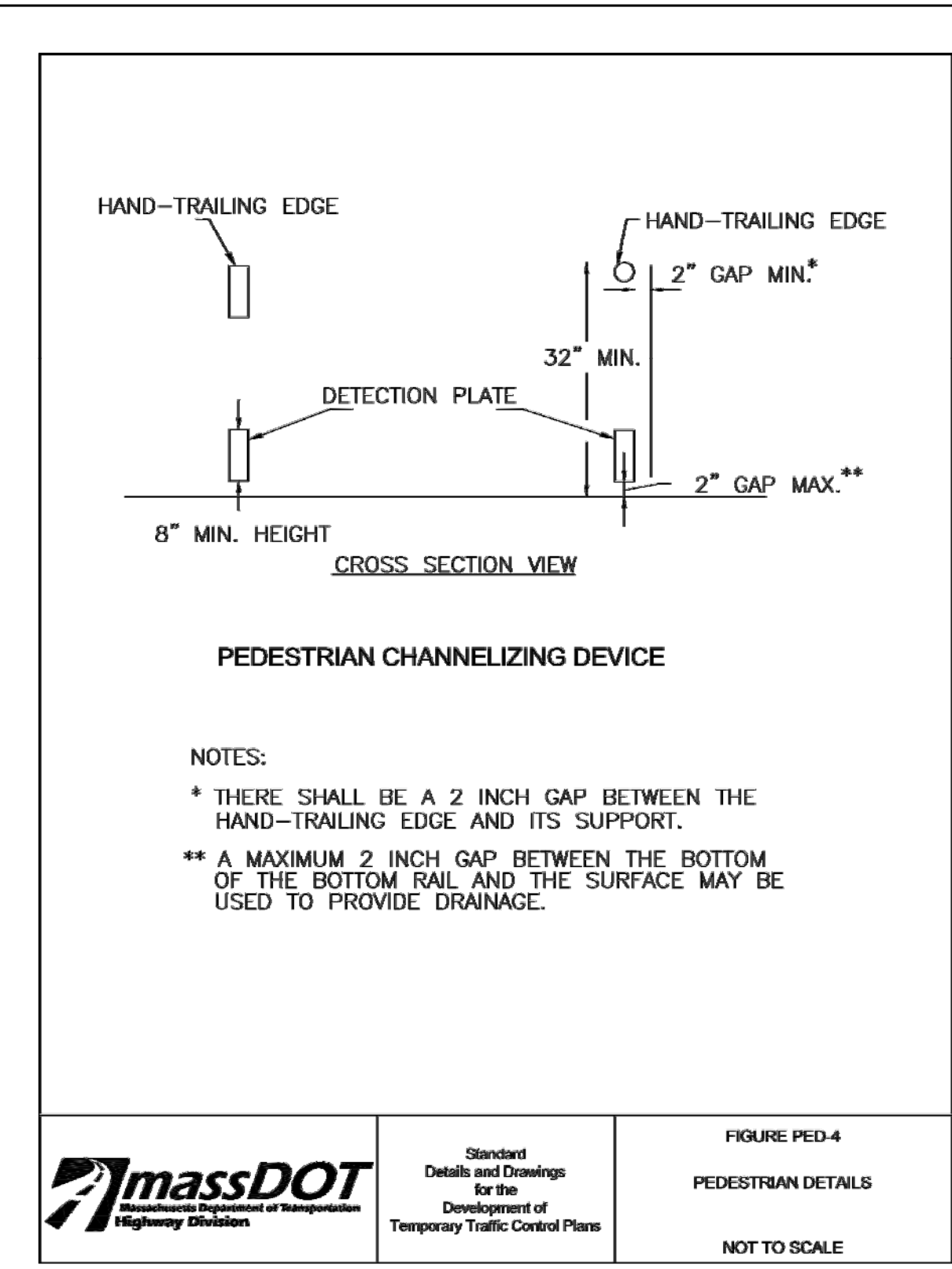
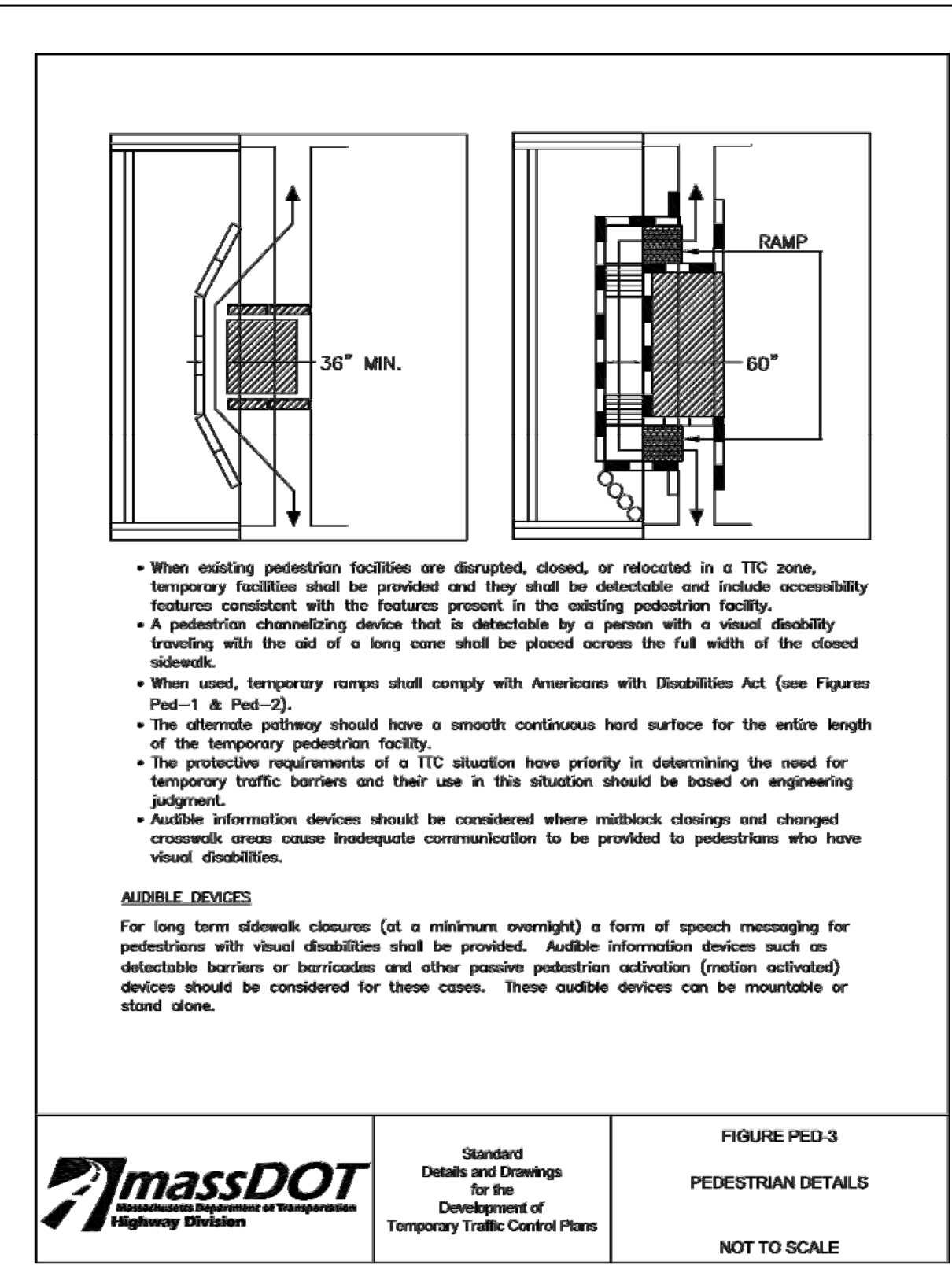
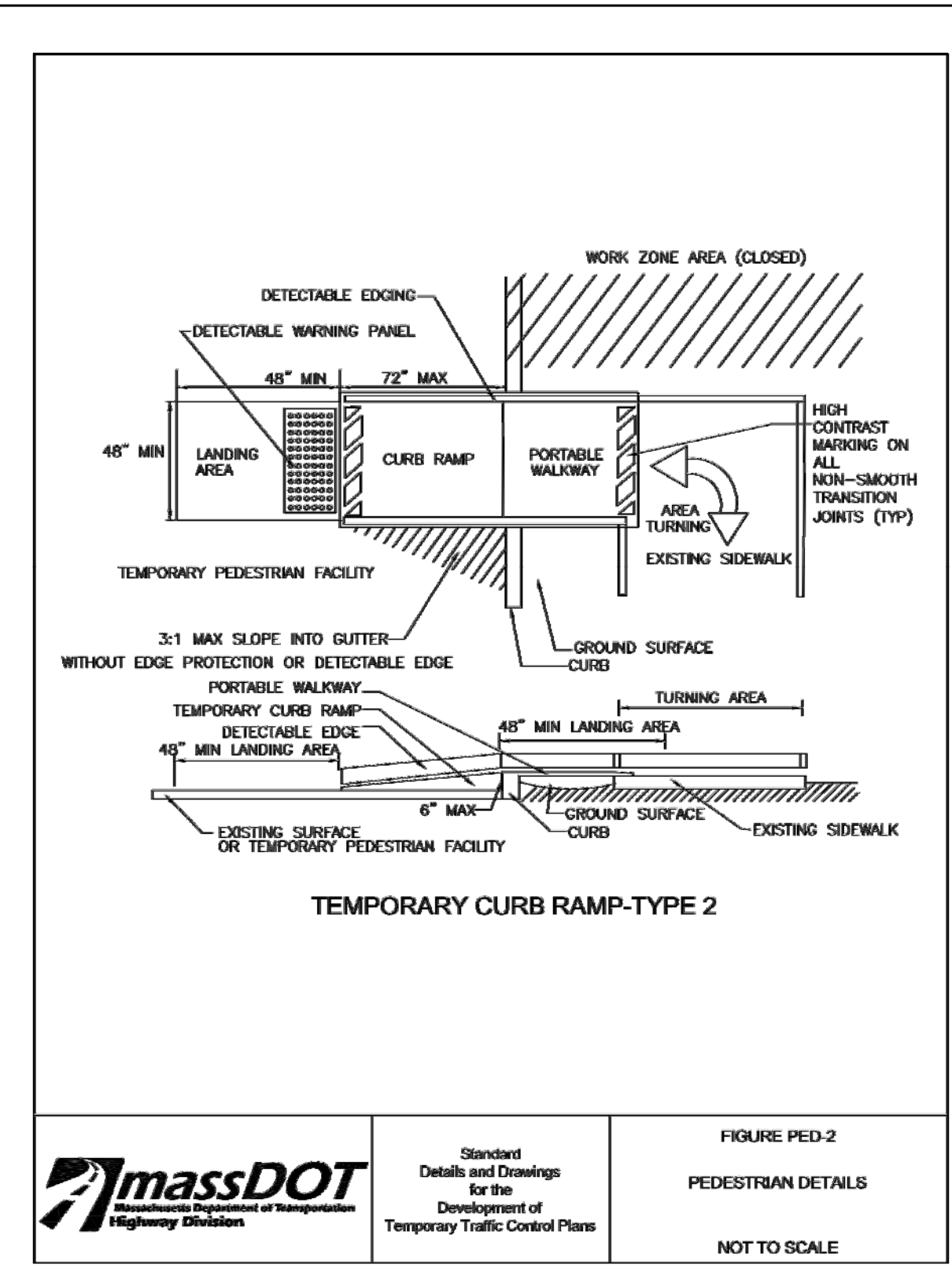
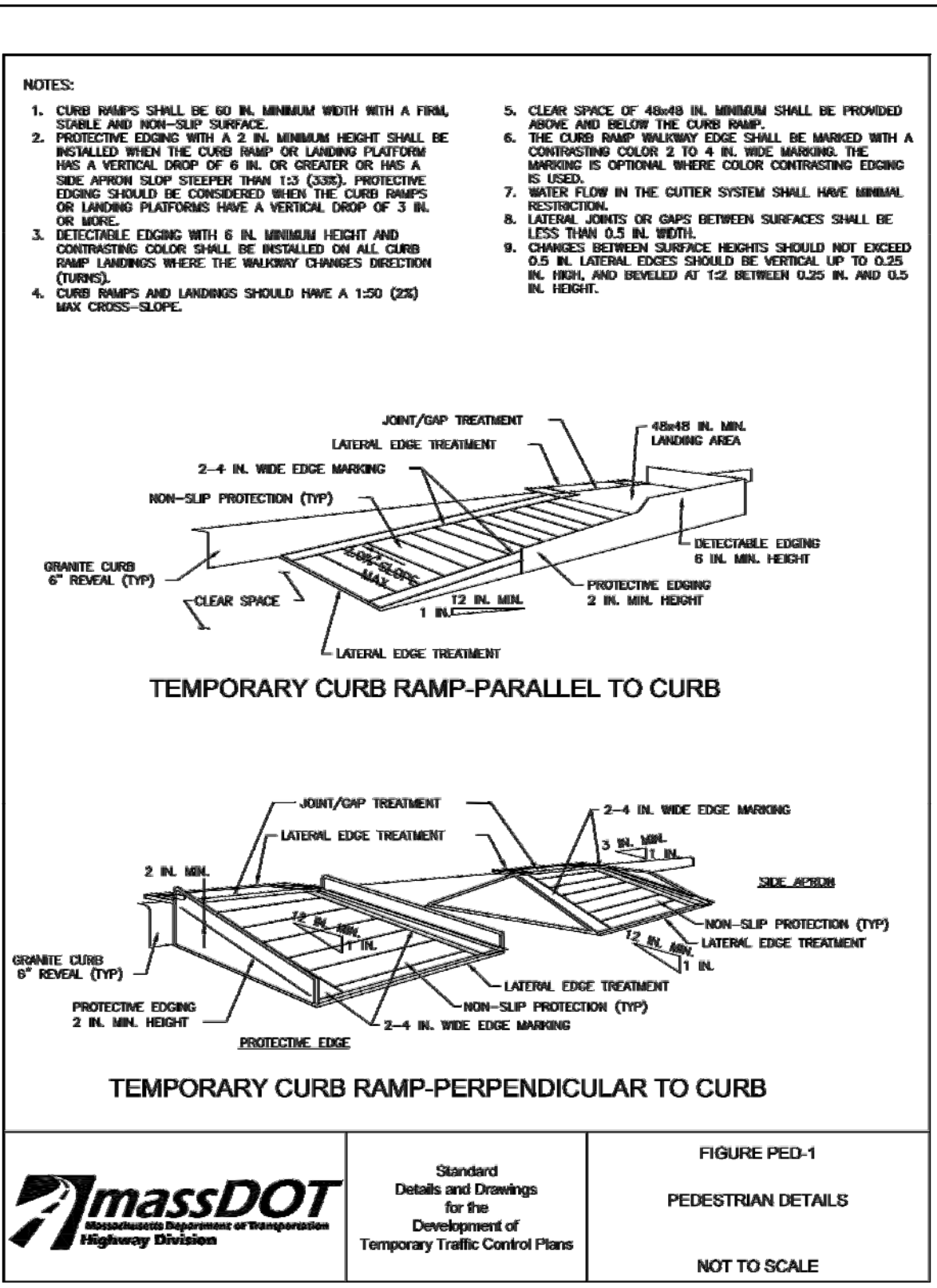
Scale	N.T.S.
Date	8/12/2021
Job	Salem-LoringAve
Designed by	WMR
Drawn by	RLM
	1. Revised for Emergency Work
No.	9/20/2021
Description	
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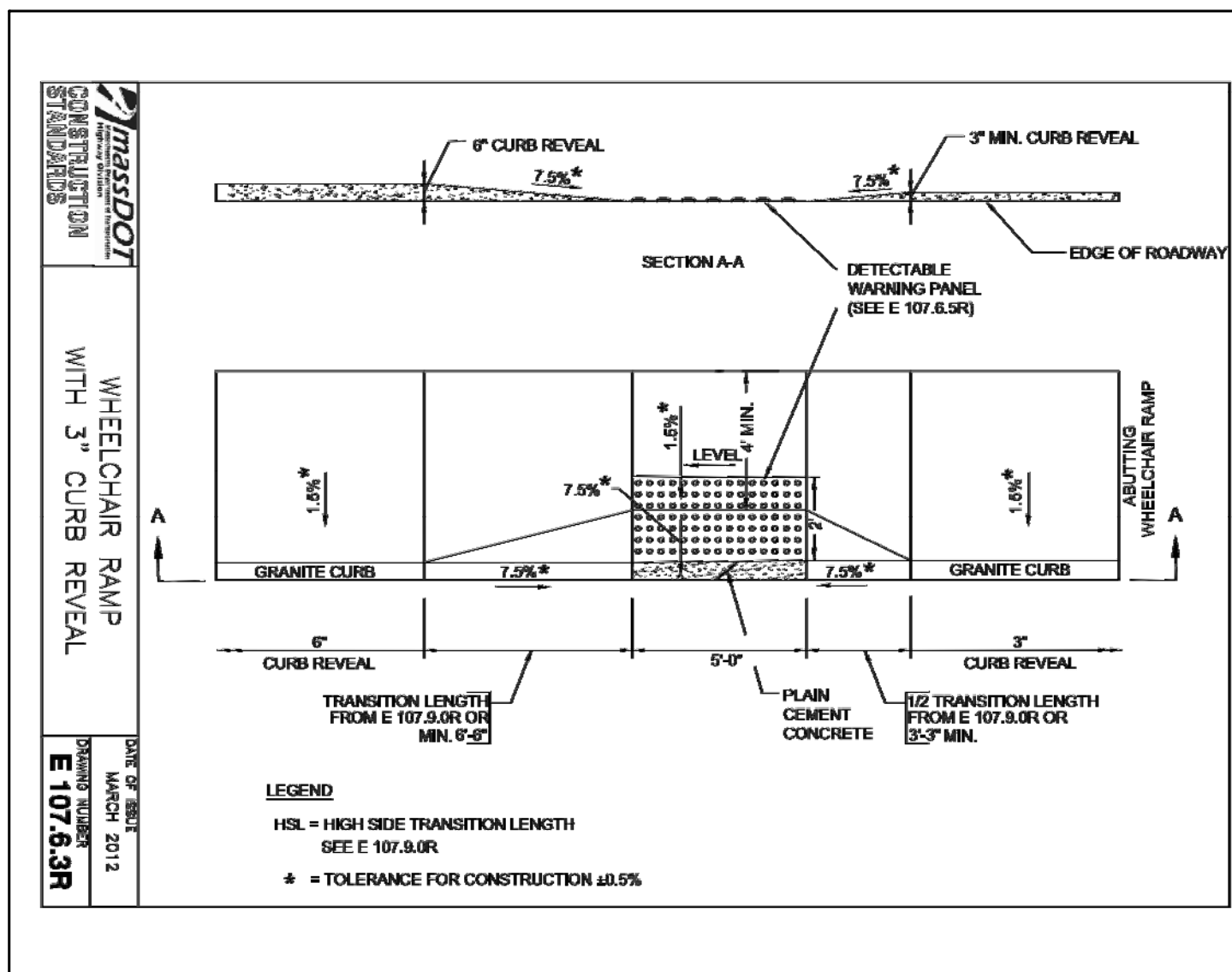
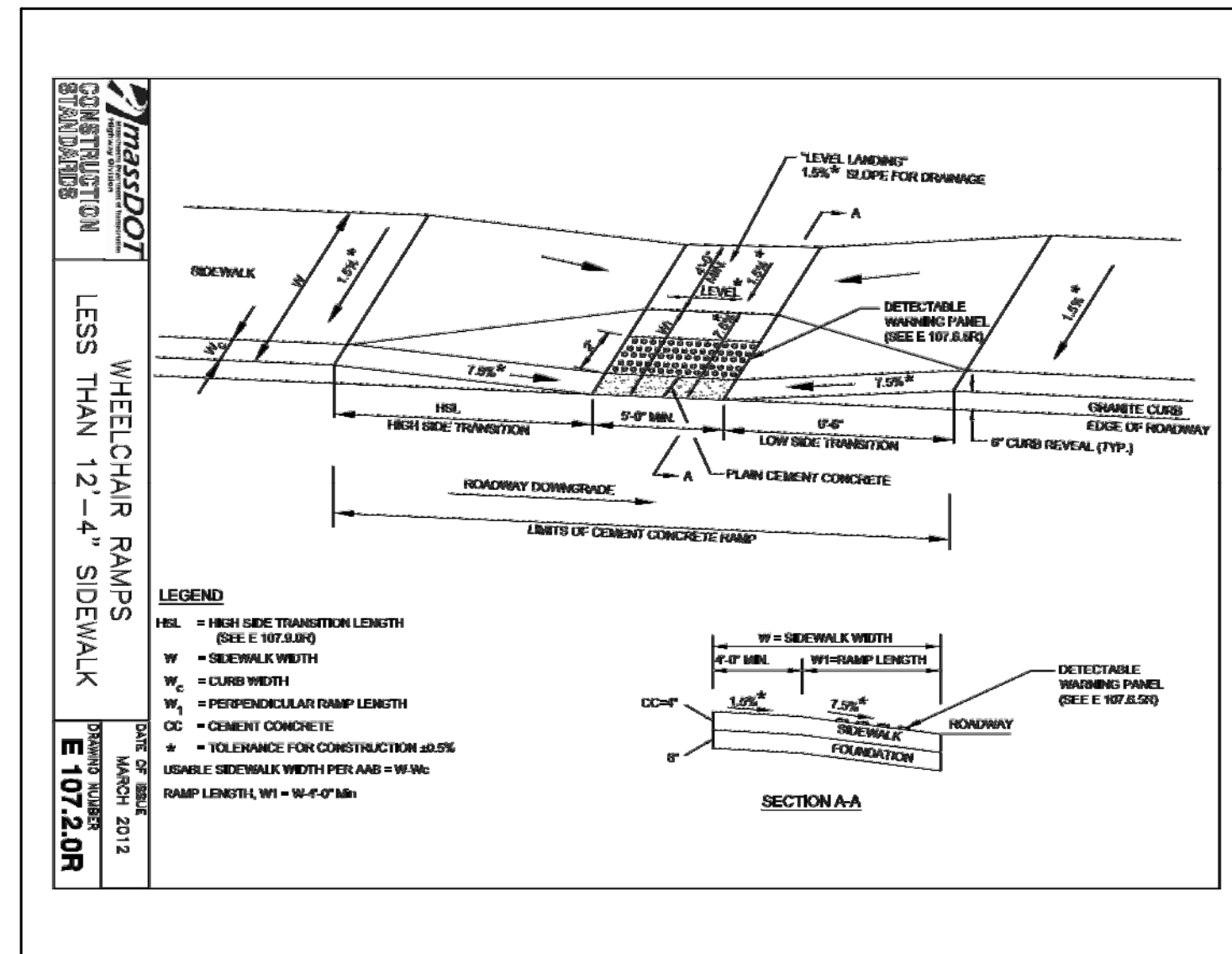
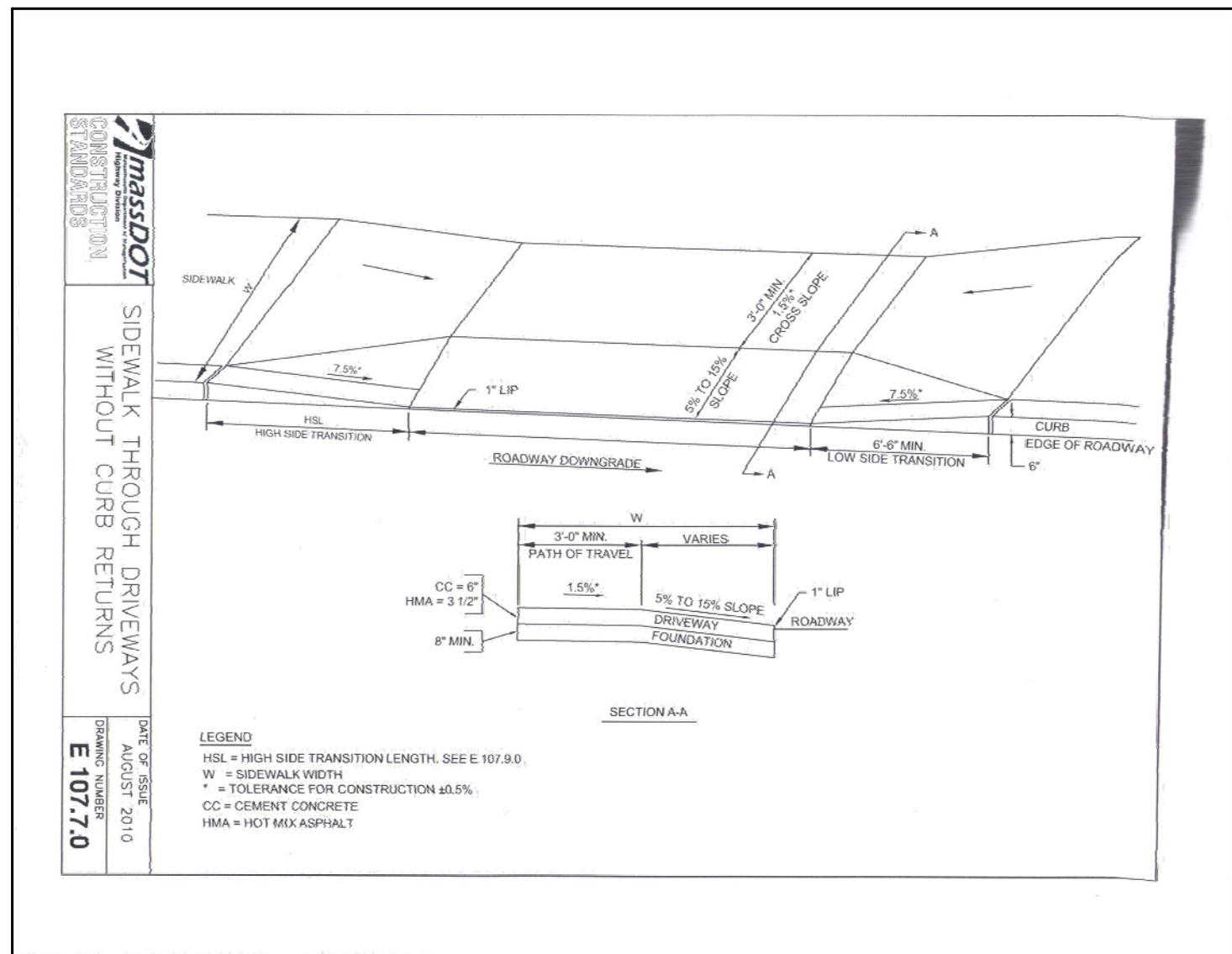
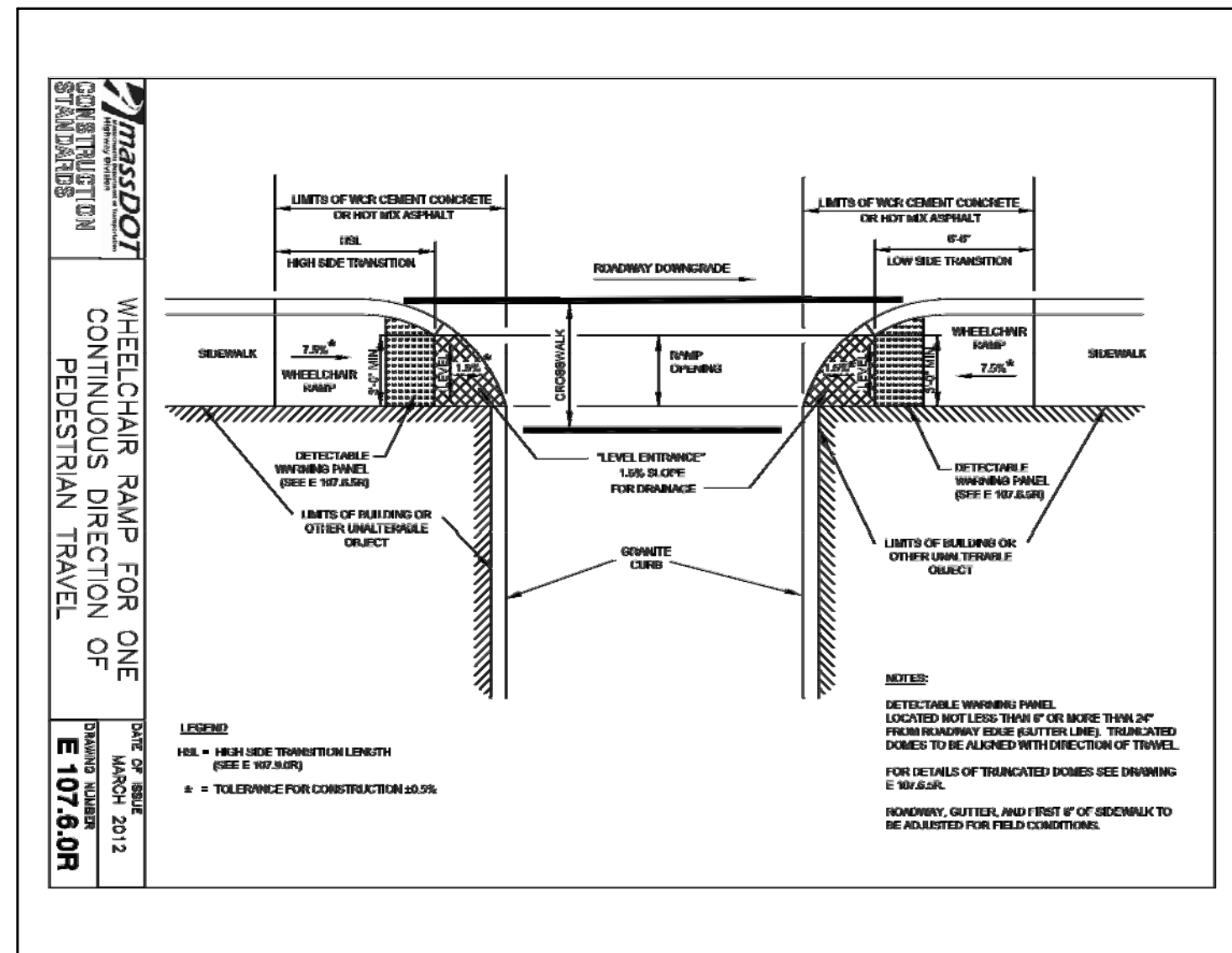
New England Civil Engineering Corp.

265 Essex Street, Suite 102
SALEM, MASSACHUSETTS

Sheet	D-4
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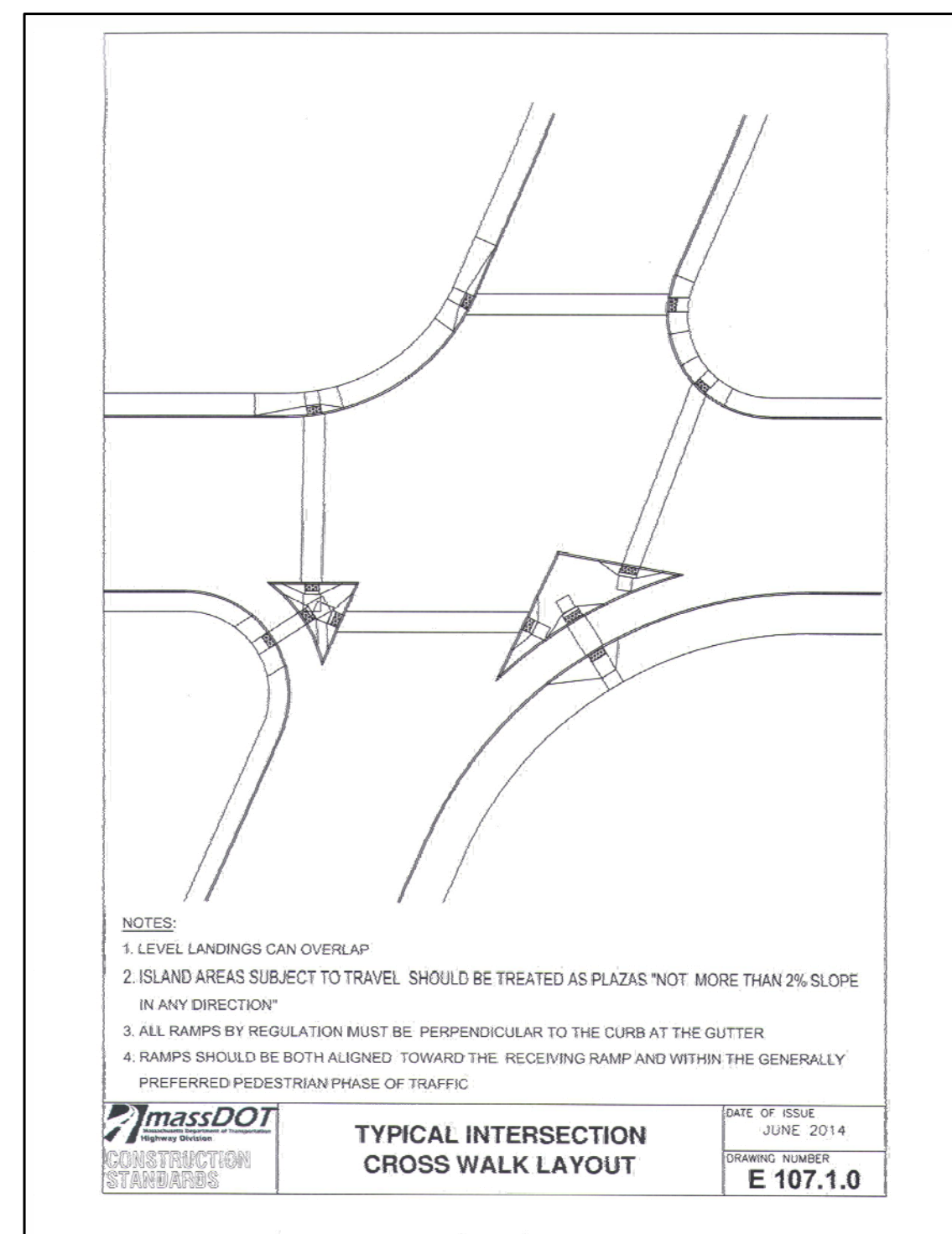
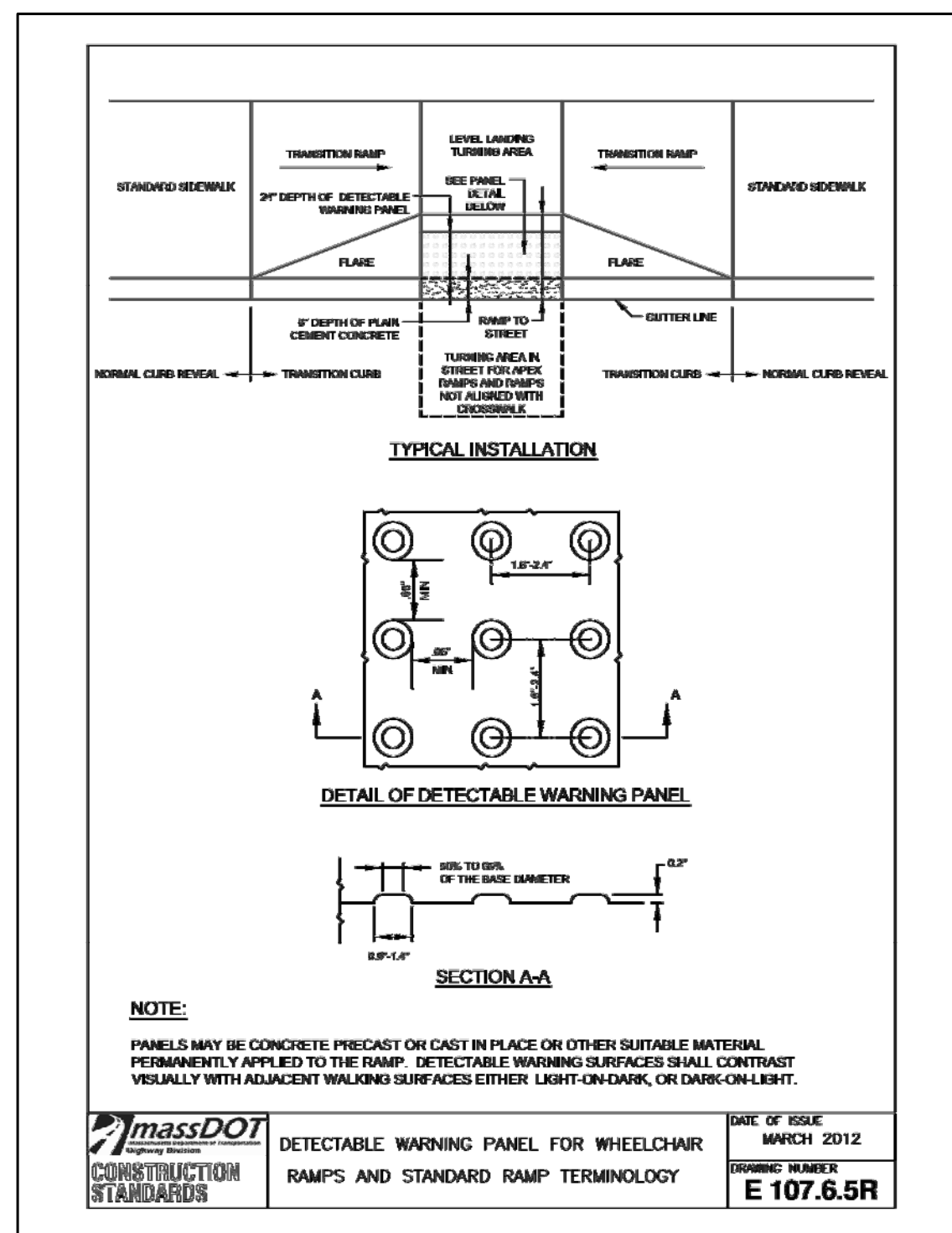
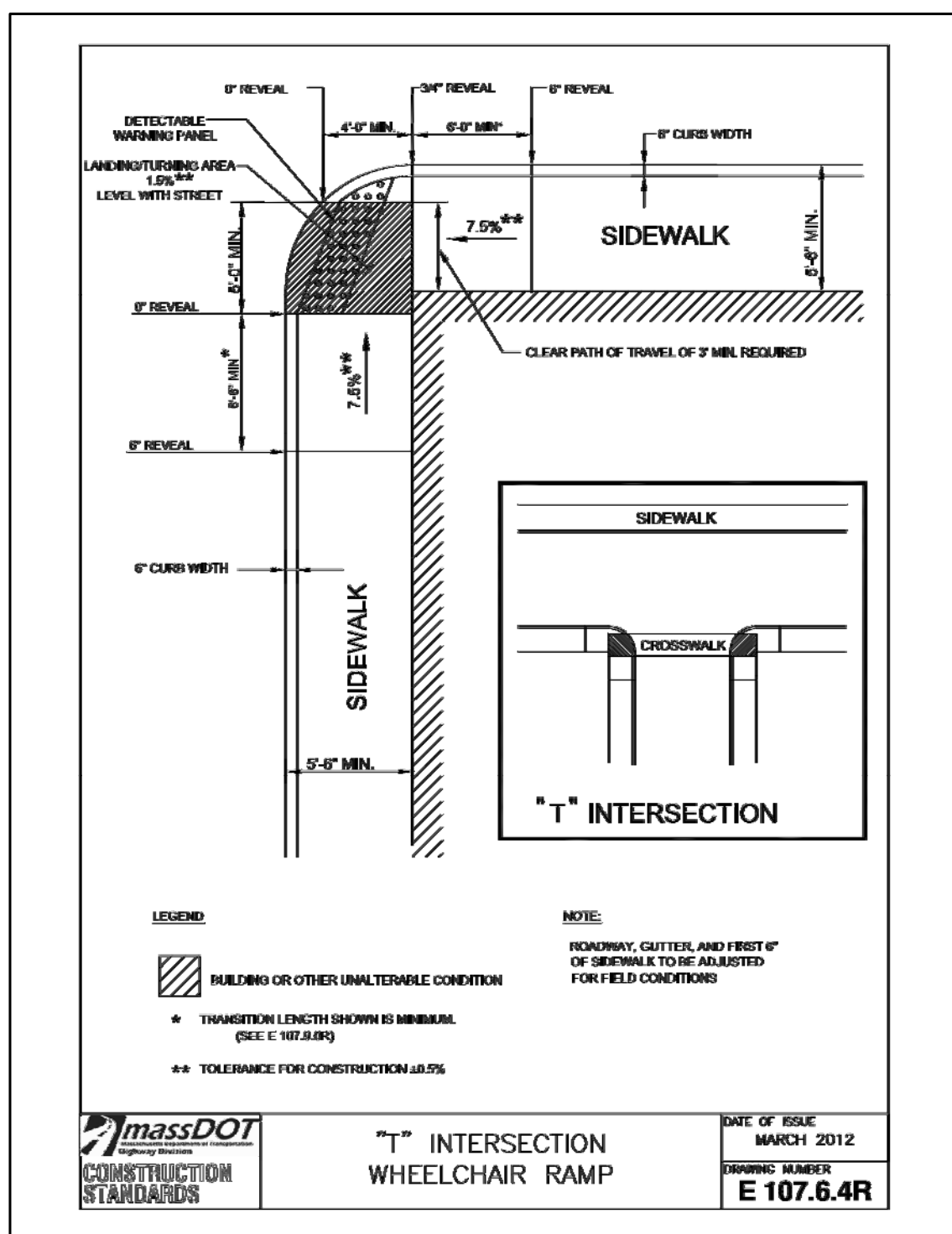
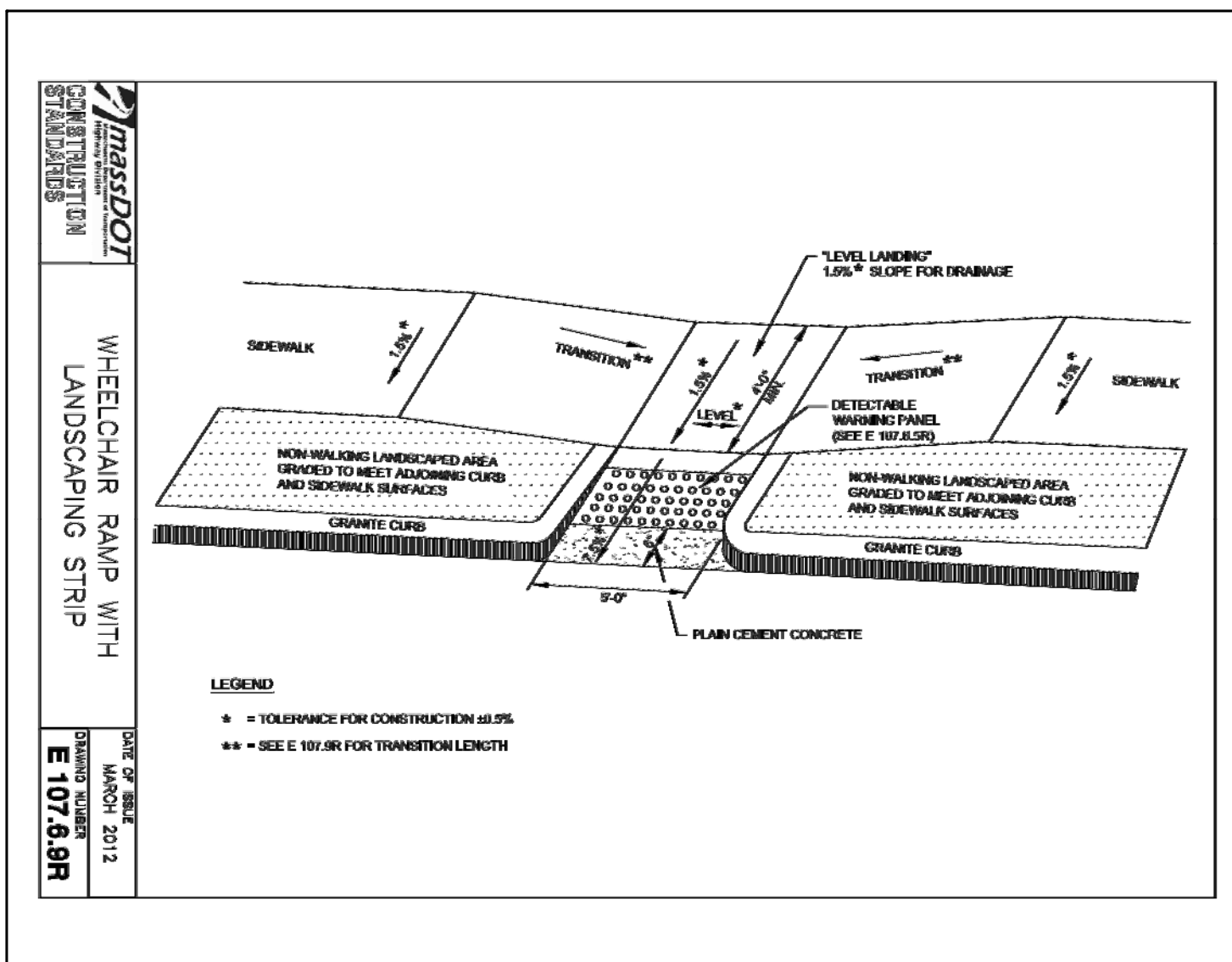
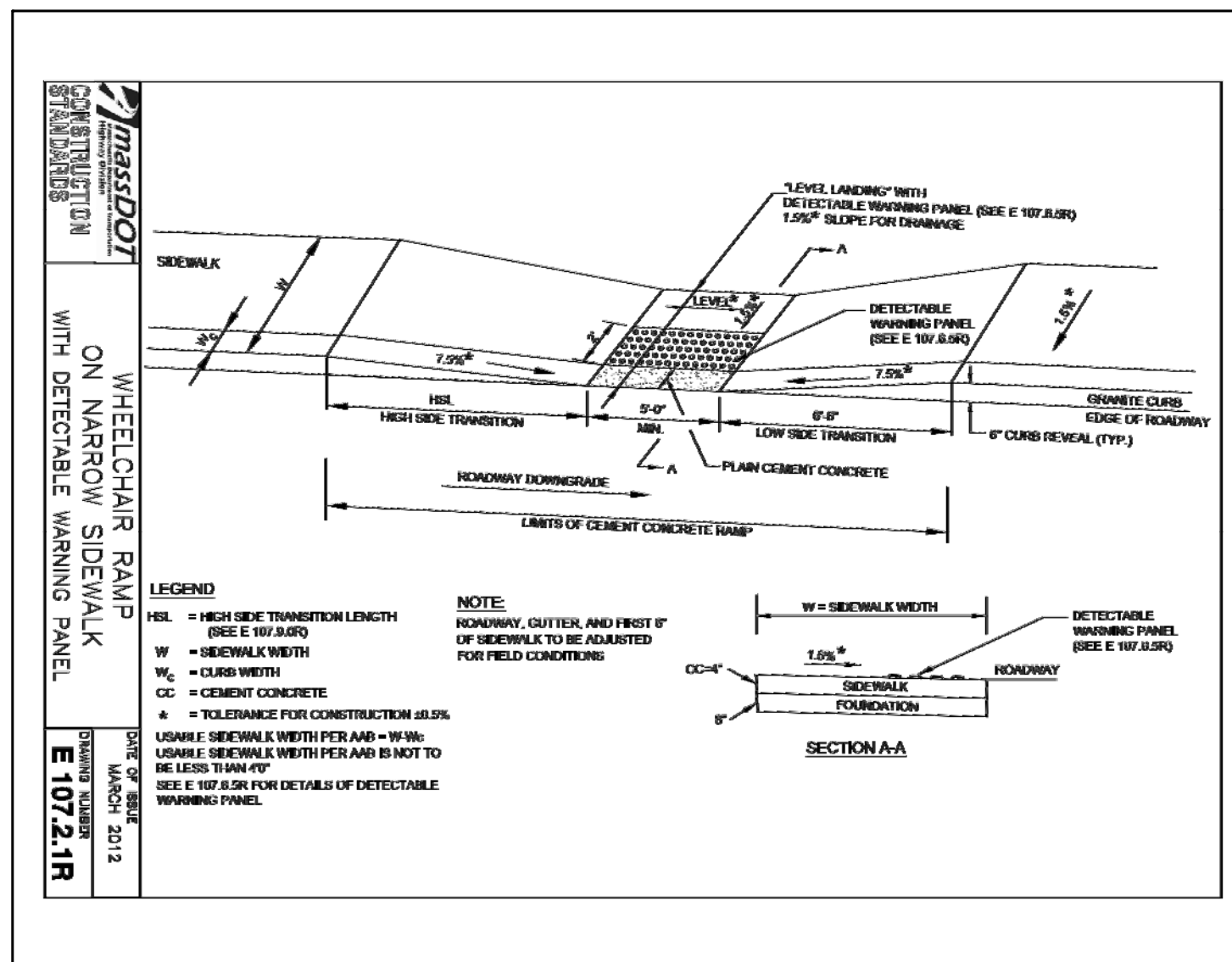


- NOTES:**
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 - ANY WORK OR WORK THAT IMPACTS TRAFFIC WITHIN THE STATE HIGHWAY LAYOUT (SHLO) ON LORING AVE. (ROUTE 1A) WITHIN THE EMERGENCY LIMITS IS TO BE DONE BETWEEN THE HOURS OF 7:00 A.M. TO 4:00 P.M.



ROADWAY PROFILE GRADE	* HIGH SIDE TRANSITION LENGTH
%	ENGLISH UNITS
=0%	6'-6"
>0% TO 1%	7'-8"
>1% TO 2%	9'-0"
>2% TO 3%	11'-0"
>3% TO 4%	14'-0"
>4% TO 5%	15'-0" Max

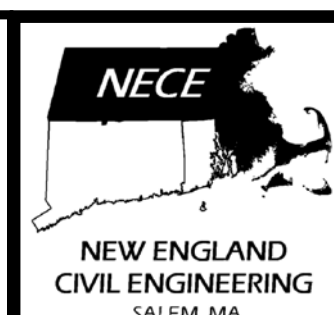
NOTE:
* BASED ON A DESIGN SLOPE OF 7.5% AND A REVEAL OF 6".



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Client: CITY OF SALEM, MASSACHUSETTS
 Project: LORING AVENUE WATER MAIN REPLACEMENT PROJECT
 MASSDOT CONCRETE ADA RAMP AND SIDEWALK DETAILS

Scale: N.T.S.
 Date: 8/12/2021
 Job: Salem-LoringAve
 Designed by: WMR
 Drawn by: RLM
 1. Revised for Emergency Work
 No. Description Date
 File: W:\Salem\Water Work\Loring Avenue\CAD\LoringAveBase_Rev08 72021.dwg



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