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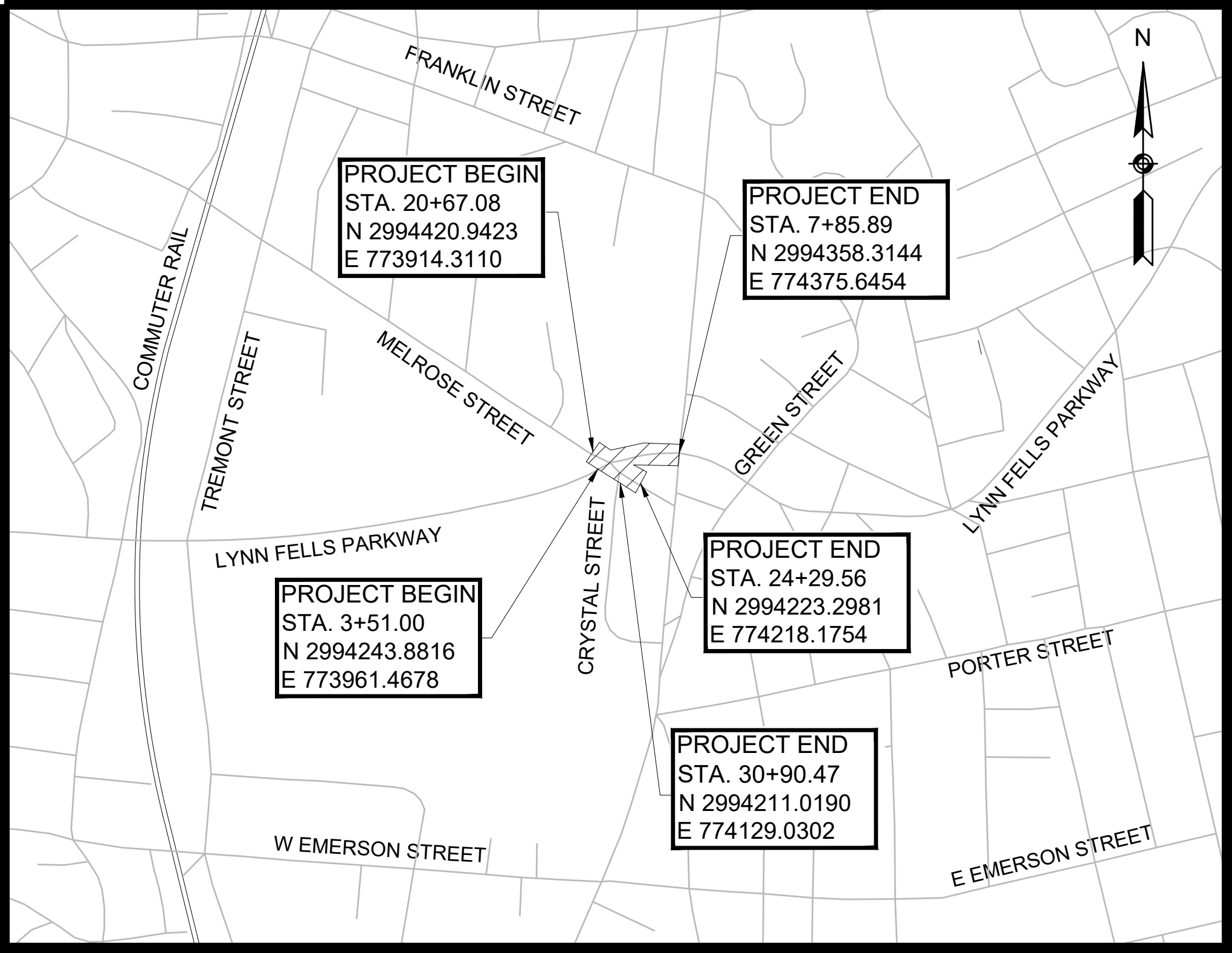
COMMONWEALTH OF MASSACHUSETTS DEPARTMENT OF CONSERVATION AND RECREATION DIVISION OF PLANNING

IMPROVEMENTS AT LYNN FELLS PARKWAY AND MELROSE STREET IN THE CITY OF MELROSE MASSACHUSETTS MIDDLESEX COUNTY

THESE PLANS ARE SUPPLEMENTED BY THE OCTOBER 2017 CONSTRUCTION STANDARD DETAILS, THE 2015 OVERHEAD SIGNAL STRUCTURE AND FOUNDATION STANDARD DRAWINGS, MASSDOT TRAFFIC MANAGEMENT PLANS AND DETAIL DRAWINGS, THE 1990 STANDARD DRAWINGS FOR SIGNS AND SUPPORTS, THE 1968 STANDARD DRAWINGS FOR TRAFFIC SIGNALS AND HIGHWAY LIGHTING, AND THE LATEST EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK.

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DCR CONTRACT NO. XXX-XXXX-XXX 25% DESIGN SUBMITTAL



CHARLES D. BAKER, GOVERNOR

KARYN E. POLITO, LT. GOVERNOR

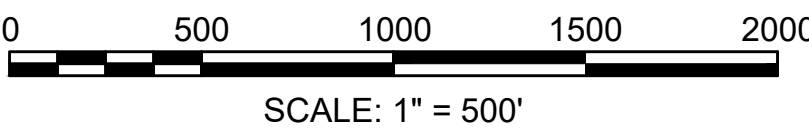
MATHEW A. BEATON, SECRETARY,
EXECUTIVE OFFICE OF ENERGY & ENVIRONMENTAL AFFAIRS

LEO ROY, COMMISSIONER
DEPARTMENT OF CONSERVATION & RECREATION

ROBERT LOWELL, ACTING CHIEF ENGINEER
DEPARTMENT OF CONSERVATION & RECREATION

DESIGN DESIGNATION (LYNN FELLS PARKWAY)

DESIGN SPEED	25 MPH
ADT (2020)	14,130
ADT (2030)	14,853
K	7.8%
D	55% EB
T (PEAK HOUR)	3.1%
T (AVERAGE DAY)	3.6%
DHV	1,160
DDHV	702
FUNCTIONAL CLASSIFICATION	URBAN MINOR ARTERIAL



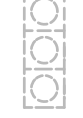
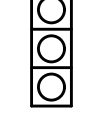
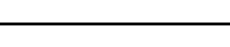
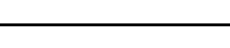
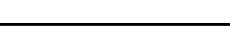
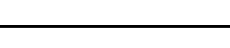
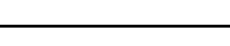
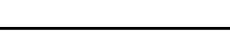
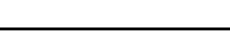
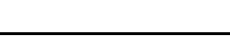
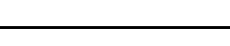
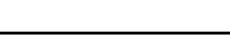
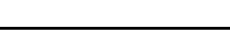
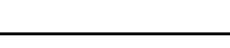
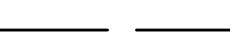
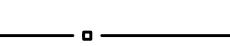
LENGTH OF PROJECT = 797.37 FEET = 0.1510 MILES

				COMMONWEALTH OF MASSACHUSETTS DEPARTMENT OF CONSERVATION AND RECREATION DIVISION OF ENGINEERING AND DIVISION OF PLANNING AND RESOURCE PROTECTION			
				INTERSECTION IMPROVEMENTS AT LYNN FELLS PARKWAY AND MELROSE STREET MELROSE			
				TITLE SHEET & INDEX			
				SHEET NO. 1			
				CONT. XXX-XXXX-XXX ACC. XXXXXXXXXX			
				SCALE: AS NOTED DATE: 4/11/2023			
				1 OF 33			

1	4/11/2023	25% DESIGN SUBMISSION	BY
REV.	DATE	DESCRIPTION	BY

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Civil Engineering
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Transportation Engineering
Structural Engineering
Open Infrastructure
Planning
GIS

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ABBREVIATIONS		ABBREVIATIONS (cont.)		GENERAL SYMBOLS		TRAFFIC SYMBOLS			
GENERAL		GENERAL		EXISTING		PROPOSED		DESCRIPTION	
AADT	ANNUAL AVERAGE DAILY TRAFFIC	R	RADIUS OF CURVATURE					CONTROLLER PHASE ACTUATED	
ABAN	ABANDON	R&D	REMOVE AND DISPOSE					TRAFFIC SIGNAL HEAD (SIZE AS NOTED)	
ADJ	ADJUST	RCP	REINFORCED CONCRETE PIPE					WIRE LOOP DETECTOR (6' x 6' TYP UNLESS OTHERWISE SPECIFIED)	
APPROX.	APPROXIMATE	RD	ROAD					VIDEO DETECTION CAMERA	
A.C.	ASPHALT CONCRETE	RDWY	ROADWAY					MICROWAVE DETECTOR	
ACCM PIPE	ASPHALT COATED CORRUGATED METAL PIPE	RET	RETAIN					PEDESTRIAN PUSH BUTTON, SIGN (DIRECTIONAL ARROW AS SHOWN) AND SADDLE	
BIT.	BITUMINOUS	RET WALL	RETAINING WALL					EMERGENCY PREEMPTION CONFIRMATION STROBE LIGHT	
BC	BOTTOM OF CURB	ROW	RIGHT OF WAY					VEHICULAR SIGNAL HEAD	
BD.	BOUND	RR	RAILROAD					VEHICULAR SIGNAL HEAD, OPTICALLY PROGRAMMED	
BL	BASELINE	R&R	REMOVE AND RESET					FLASHING BEACON	
BLDG	BUILDING	R&S	REMOVE AND STACK					PEDESTRIAN SIGNAL HEAD, (TYPE AS NOTED OR AS SPECIFIED)	
BM	BENCHMARK	RT	RIGHT					RAILROAD SIGNAL	
BO	BY OTHERS	SB	STONE BOUND					SIGNAL POST AND BASE (ALPHA-NUMERIC DESIGNATION NOTED)	
BOS	BOTTOM OF SLOPE	SHLD	SHOULDER					MAST ARM, SHAFT AND BASE (ARM LENGTH AS NOTED)	
BR.	BRIDGE	SHMD	SHOULDER					HIGH MAST POLE OR TOWER	
CB	CATCH BASIN	SMH	SEWER MANHOLE					SIGN AND POST	
CBCI	CATCH BASIN WITH CURB INLET	ST	STREET					SIGN AND POST (2 POSTS)	
CC	CEMENT CONCRETE	STA	STATION					MAST ARM WITH LUMINAIRE	
CCM	CEMENT CONCRETE MASONRY	SSD	STOPPING SIGHT DISTANCE					OPTICAL PRE-EMPTION DETECTOR	
CEM	CEMENT	SHLO	STATE HIGHWAY LAYOUT LINE					CONTROL CABINET, GROUND MOUNTED	
CI	CURB INLET	SW	SIDEWALK					CONTROL CABINET, POLE MOUNTED	
CIP	CAST IRON PIPE	T	TANGENT DISTANCE OF CURVE/TRUCK %					FLASHING BEACON CONTROL AND METER PEDESTAL	
CLF	CHAIN LINK FENCE	TAN	TANGENT					LOAD CENTER ASSEMBLY	
CL	CENTERLINE	TEMP	TEMPORARY					PULL BOX 12"x12" (OR AS NOTED)	
CMP	CORRUGATED METAL PIPE	TC	TOP OF CURB					ELECTRIC HANDHOLE 12"x24" (OR AS NOTED)	
CSP	CORRUGATED STEEL PIPE	TOS	TOP OF SLOPE					TRAFFIC SIGNAL CONDUIT	
CO.	COUNTY	TYP	TYPICAL						
CONC	CONCRETE	UP	UTILITY POLE						
CONT	CONTINUOUS	VAR	VARIES						
CONST	CONSTRUCTION	VERT	VERTICAL						
CR GR	CROWN GRADE	VC	VERTICAL CURVE						
DHV	DESIGN HOURLY VOLUME	WCR	WHEEL CHAIR RAMP						
DI	DROP INLET	WG	WATER GATE						
DIA	DIAMETER	WIP	WROUGHT IRON PIPE						
DIP	DUCTILE IRON PIPE	WM	WATER METER/WATER MAIN						
DW	STEADY DON'T WALK - PORTLAND ORANGE	X-SECT	CROSS SECTION						
DWY	DRIVEWAY	NTS	NOT TO SCALE						
ELEV (or EL.)	ELEVATION								
EMB	EMBANKMENT								
EOP	EDGE OF PAVEMENT								
EXIST (or EX)	EXISTING								
EXC	EXCAVATION								
F&C	FRAME AND COVER								
F&G	FRAME AND GRATE								
FDN.	FOUNDATION								
FLDSTN	FIELDSTONE								
GAR	GARAGE								
GD	GROUND								
GG	GAS GATE								
GI	GUTTER INLET								
GIP	GALVANIZED IRON PIPE								
GRAN	GRANITE								
GRAV	GRAVEL								
GRD	GUARD								
HDW	HEADWALL								
HMA	HOT MIX ASPHALT								
HOR	HORIZONTAL								
HYD	HYDRANT								
INV	INVERT								
JCT	JUNCTION								
L	LENGTH OF CURVE								
LB	LEACH BASIN								

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF CONSERVATION AND RECREATION
DIVISION OF ENGINEERING AND
DIVISION OF PLANNING AND RESOURCE PROTECTION

INTERSECTION IMPROVEMENTS AT
LYNN FELS PARKWAY AND MELROSE STREET
MELROSE

SURVEY BY: NITSCH
DRAWN BY: KC
CHECKED BY: BG
APPROVED BY: JM

LEGEND & ABBREVIATIONS

CONT. XXX-XXXX-XXX
ACC. XXXXXXXXXX

SCALE: NTS
DATE: 4/11/2023

SHEET NO.
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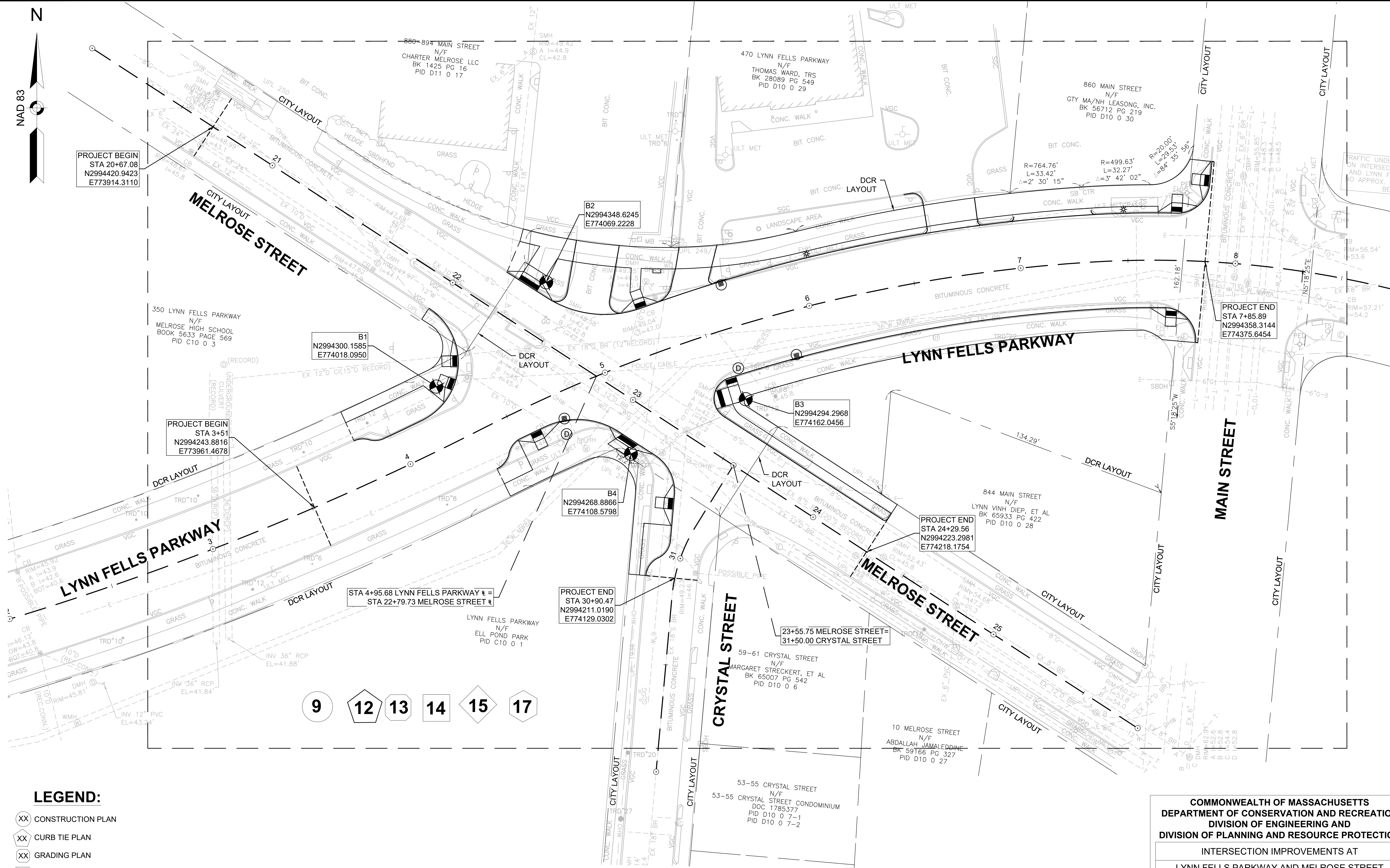
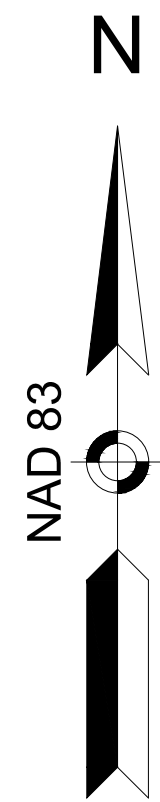
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GENERAL NOTES

- THE EXISTING TOPOGRAPHIC CONDITIONS SHOWN ON THESE PLANS CONSIST OF ON-THE-GROUND INSTRUMENT SURVEY PERFORMED BY NITSCH ENGINEERING IN JANUARY OF 2020.
- COORDINATES ARE PROVIDED IN US SURVEY FEET, REFERENCED TO THE NORTH AMERICAN DATUM OF 1983 (NAD83). ELEVATIONS ARE PROVIDED IN US SURVEY FEET, REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
- THE CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY EXISTING GRADES AND ELEVATIONS AT THE LOCATIONS WHERE PROPOSED WORK MEETS EXISTING CONDITIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO MAKE HIS OWN DETERMINATION OF SUBSURFACE CONDITIONS INCLUDING THE LOCATION OF ROCK AND THE ACTUAL LOCATION OF UTILITIES OR OTHER FEATURES WHICH MAY AFFECT HIS WORK.
- EXISTING UTILITIES SHOWN ON THESE PLANS WERE COMPILED FROM FIELD SURVEYS AND VARIOUS OTHER SOURCES. LOCATIONS ARE NOT GUARANTEED TO BE ACCURATE NOR IS IT GUARANTEED THAT ALL UTILITIES ARE SHOWN. NO SEPARATE OR ADDITIONAL COMPENSATION WILL BE ALLOWED TO THE CONTRACTOR DUE TO ANY VARIANCE BETWEEN THE DATA SHOWN ON THE PLANS AND ACTUAL FIELD CONDITIONS ENCOUNTERED. WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATION AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR AND THIS INFORMATION FURNISHED TO THE ENGINEER.
- THE RELOCATION, INSTALLATION OR REMOVAL OF PRIVATE UTILITIES SHALL BE ACCOMPLISHED BY THEIR OWNERS, EXCEPT AS OTHERWISE NOTED. THE CONTRACTOR WILL BE REQUIRED TO COOPERATE WITH THE PRIVATE UTILITY COMPANIES AND ALLOW THEM ADEQUATE TIME TO COMPLETE THEIR WORK IN ADVANCE OF PERFORMING ANY PAVING OPERATIONS OR OTHER FINISHED WORK.
- AREAS OUTSIDE OF THE LIMITS OF PROPOSED WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE TO THEIR ORIGINAL CONDITION AND TO THE SATISFACTION OF THE ENGINEER.
- THE CONTRACTOR SHALL CONTACT "DIG SAFE" AT 1-888-DIG-SAFE AT LEAST 72 HOURS PRIOR TO COMMENCING WORK ON THE PROJECT.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND FOR MAINTAINING COMPOST FILTER TUBES, SILT FENCE(S), AND OTHER EROSION CONTROL MEASURES THROUGHOUT THE DURATION OF THE CONTRACT AS SHOWN ON THE PLANS AND AS REQUIRED BY THE ENGINEER.
- THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL SAFETY CODES AND LEGAL REQUIREMENTS, IN THE CONSTRUCTION OF IMPROVEMENTS.
- UNLESS OTHERWISE NOTED OR APPROVED BY THE ENGINEER, THE CONTRACTOR SHALL MAINTAIN ALL EXISTING UTILITIES IN SERVICE AT ALL TIMES. IF THE CONTRACTOR DAMAGES UTILITY SYSTEMS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE RESPECTIVE UTILITY COMPANY AND SHALL REPAIR/REPLACE THE AFFECTED SYSTEM AT HIS OWN EXPENSE.
- ALL MATERIALS TO BE REMOVED AND DISCARDED SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE CODES AND REGULATIONS.
- THE TEMPORARY TRAFFIC CONTROL PLANS INDICATE THE GENERAL REQUIREMENTS FOR THE VARIOUS PHASES OF WORK. THE CONTRACTOR SHALL SUBMIT DETAILED TRAFFIC MANAGEMENT PLANS TO THE ENGINEER FOR APPROVAL.
- THE FLOW OF TRAFFIC THROUGH THE SITE MUST BE MAINTAINED AS SHOWN ON THE TRAFFIC CONTROL PLANS AND SPECIFIED IN THE SPECIAL PROVISIONS. CONSTRUCTION EQUIPMENT AND MATERIALS SHALL NOT BE PARKED OR STOCKPILED SO AS TO OBSTRUCT THE FLOW OF VEHICLES.
- THE TERM "PROPOSED" (PROP) MEANS WORK TO BE CONSTRUCTED USING NEW MATERIALS OR, WHERE APPLICABLE, RE-USING EXISTING MATERIALS IN SUITABLE CONDITION IDENTIFIED AS "REMOVE AND RESET" (R&R).
- SURFACE JOINTS BETWEEN NEW HOT MIX ASPHALT ROADWAY PAVEMENT AND SAWCUT EXISTING PAVEMENT SHALL BE SEALED WITH HMA JOINT SEALANT.
- ALL EXISTING GRANITE CURB & EDGING IN SUITABLE CONDITION SHALL BE RE-USED IN THE PROPOSED WORK, EXCEPT CURVED STONES OF A DIFFERENT RADIUS THAN PROPOSED CURB.
- IN AREAS OF SIDEWALK RECONSTRUCTION WHERE PROPOSED MEETS EXISTING PAVEMENT, THE EXISTING PAVEMENT SHALL BE SAWCUT TO OBTAIN A CLEAN VERTICAL FACE.
- THE LAYOUT OF ALL NEW PEDESTRIAN RAMPS SHALL CONFORM TO ADA/AAB STANDARDS AND CURRENT MASSDOT STANDARDS AND DIRECTIVES.
- THE CONTRACTOR WILL BE REQUIRED TO SET SURVEY CONTROL USING A PROFESSIONAL LAND SURVEYOR (PLS) AND COORDINATE THE SURVEY WORK WITH THE DEPARTMENT OF CONSERVATION AND RECREATION (DCR).
- THE CONTRACTOR SHALL PROVIDE INLET PROTECTION DURING CONSTRUCTION FOR ALL EXISTING AND PROPOSED CATCH BASINS/AREA DRAINS WITHIN THE LIMIT OF WORK. REFER TO THE SPECIAL PROVISIONS AND THE DETAIL ENTITLED "CATCH BASIN W/ SILT SACK INLET PROTECTIONS" ON THE CONSTRUCTION DETAIL SHEETS.

COMMONWEALTH OF MASSACHUSETTS DEPARTMENT OF CONSERVATION AND RECREATION DIVISION OF ENGINEERING AND DIVISION OF PLANNING AND RESOURCE PROTECTION			
INTERSECTION IMPROVEMENTS AT			
LYNN FELS PARKWAY AND MELROSE STREET MELROSE			
SURVEY BY: NITSCH DRAWN BY: KC		SHEET NO.	
CHECKED BY: BG		3	
APPROVED BY: JM		SCALE: NTS	
CONT. XXX-XXXX-XXX		DATE: 4/11/2023	
ACC. XXXXXXXXXX		3 OF 33	



LEGEND:

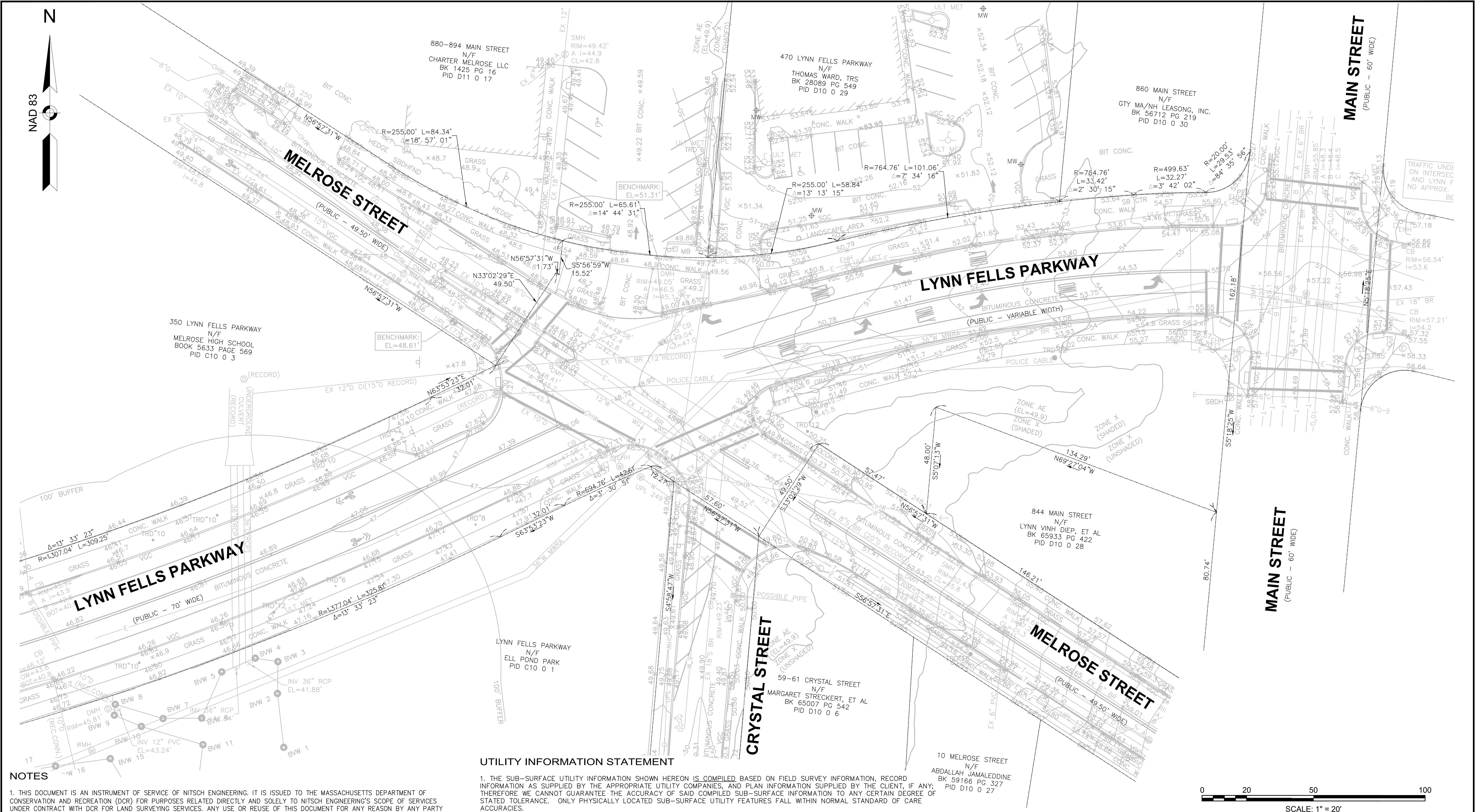
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- XX CURB TIE PLAN
- XX GRADING PLAN
- XX DRAINAGE & UTILITY PLAN
- XX TRAFFIC SIGN & PAVEMENT MARKING PLAN
- XX TRAFFIC SIGNAL PLAN
- XX BORING LOCATION

0 20 50 100
SCALE: 1" = 20'

**COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF CONSERVATION AND RECREATION
DIVISION OF ENGINEERING AND
DIVISION OF PLANNING AND RESOURCE PROTECTION**

**INTERSECTION IMPROVEMENTS AT
LYNN FELLS PARKWAY AND MELROSE STREET
MELROSE**

SURVEY BY: NITSCH	KEY PLAN & BORING LOCATION PLAN	SHEET NO.
DRAWN BY: KC		4
CHECKED BY: BG	CONT. XXX-XXXX-XXX	SCALE: 1 IN. = 20 FT.
APPROVED BY: JM	ACC. XXXXXXXXX	DATE: 4/11/2023
		4 OF 33

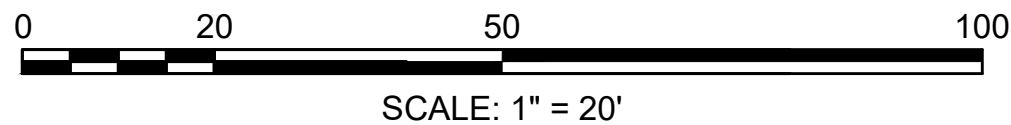


NOTES

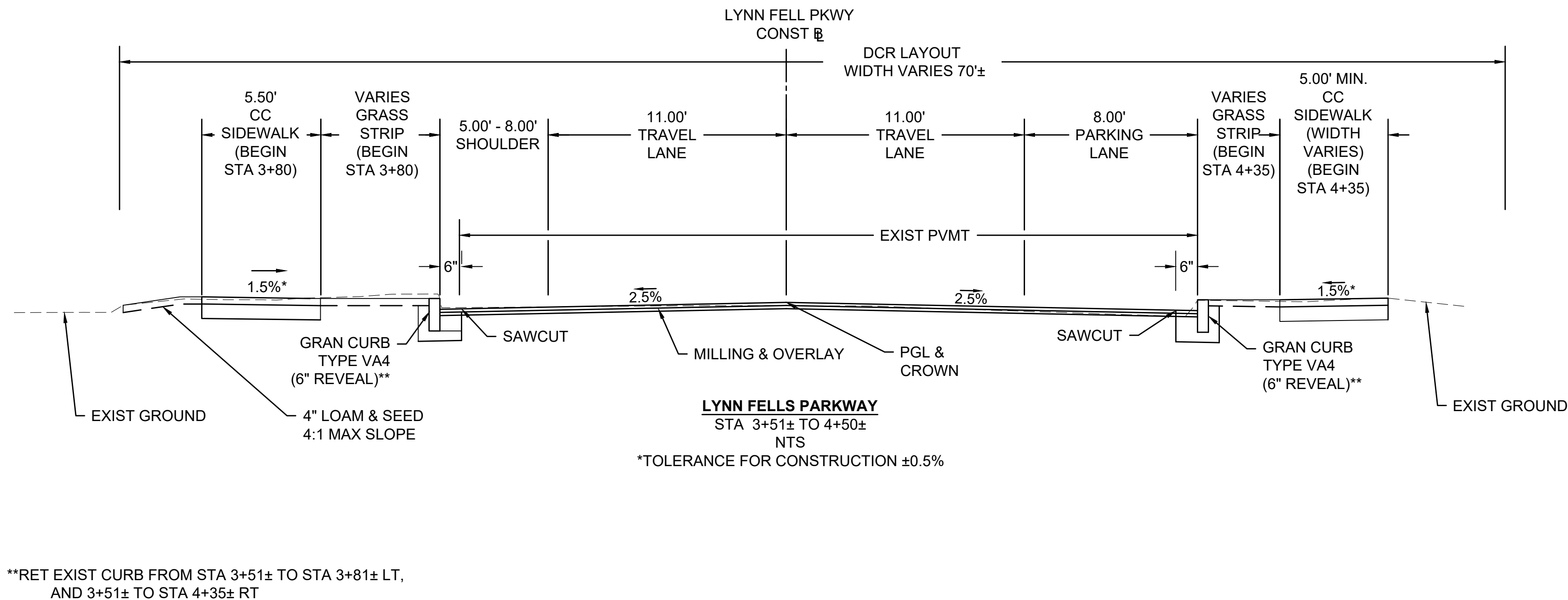
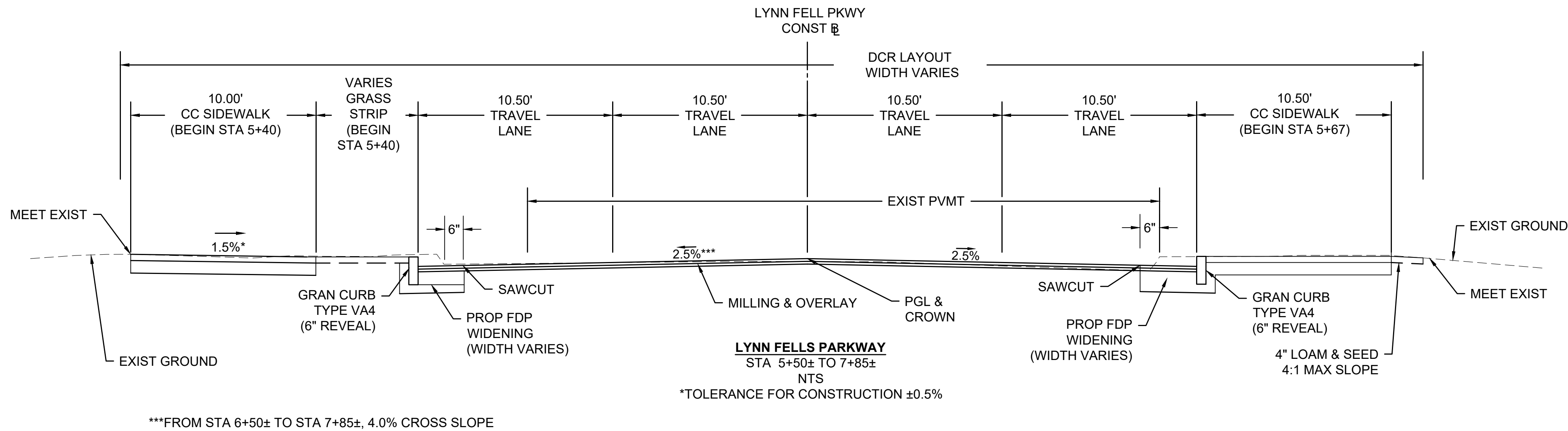
1. THIS DOCUMENT IS AN INSTRUMENT OF SERVICE OF NITSCH ENGINEERING. IT IS ISSUED TO THE MASSACHUSETTS DEPARTMENT OF CONSERVATION AND RECREATION (DCR) FOR PURPOSES RELATED DIRECTLY AND SOLELY TO NITSCH ENGINEERING'S SCOPE OF SERVICES UNDER CONTRACT WITH DCR FOR LAND SURVEYING SERVICES. ANY USE OR REUSE OF THIS DOCUMENT FOR ANY REASON BY ANY PARTY FOR PURPOSES UNRELATED DIRECTLY AND SOLELY TO SAID CONTRACT AND PROJECT SHALL BE AT THE USER'S SOLE AND EXCLUSIVE RISK AND LIABILITY, INCLUDING LIABILITY FOR VIOLATION OF COPYRIGHT LAWS, UNLESS WRITTEN AUTHORIZATION IS GIVEN THEREFOR BY NITSCH ENGINEERING.
2. THE PURPOSE OF THIS PLAN IS TO SHOW EXISTING CONDITIONS AS THE RESULT OF AN ON-THE-GROUND INSTRUMENT SURVEY WHICH WAS COMPLETED ON JANUARY 18, 2020.
3. HORIZONTAL COORDINATES REFER TO MASSACHUSETTS STATE PLANE COORDINATE SYSTEM (NAD83) BASED ON GPS OBSERVATIONS.
4. ELEVATION REFERS TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAV88) BASED ON GPS OBSERVATIONS.
5. THE WETLANDS FLAGS SHOWN HEREON ARE AS DELINEATED BY LEC ENVIRONMENTAL CONSULTANTS, INC. ON JANUARY 15, 2020.
6. THE FEMA FLOOD ZONES SHOWN HERE ON ARE AS SHOWN AS GRAPHICALLY DEPICTED ON FLOOD INSURANCE RATE MAPS 25017C0429E AND 25017C0433E AND THE FEMA LETTER OF MAP REVISION DATED DECEMBER 3, 2018.
7. THE INFORMATION CONTAINED ON THE DISK OR ELECTRONIC DRAWING FILE ACCOMPANYING THIS PLAN MUST BE COMPARED TO THE SEALED AND SIGNED HARD COPY OF THE PLAN TO ENSURE THE ACCURACY OF ALL INFORMATION AND TO ENSURE NO CHANGES, ALTERATIONS, OR MODIFICATIONS HAVE BEEN MADE. RELIANCE SHALL NOT BE MADE ON A DOCUMENT TRANSMITTED BY COMPUTER OR OTHER ELECTRONIC MEANS UNLESS FIRST COMPARED TO THE ORIGINAL SEALED DOCUMENT ISSUED AT THE TIME OF THE SURVEY. DUE TO THE CRITICAL NATURE OF SURVEYING, DATA ACQUISITION, AND AUTOCAD PLAN DEVELOPMENT, IF CRITICAL DIMENSIONAL INFORMATION IS NEEDED AND IS NOT SPECIFICALLY SHOWN ON THE ELECTRONIC DRAWING FILE, PLEASE CONTACT NITSCH ENGINEERING.

UTILITY INFORMATION STATEMENT

1. THE SUB-SURFACE UTILITY INFORMATION SHOWN HEREON IS COMPILED BASED ON FIELD SURVEY INFORMATION, RECORD INFORMATION AS SUPPLIED BY THE APPROPRIATE UTILITY COMPANIES, AND PLAN INFORMATION SUPPLIED BY THE CLIENT, IF ANY; THEREFORE WE CANNOT GUARANTEE THE ACCURACY OF SAID COMPILED SUB-SURFACE INFORMATION TO ANY CERTAIN DEGREE OF STATED TOLERANCE. ONLY PHYSICALLY LOCATED SUB-SURFACE UTILITY FEATURES FALL WITHIN NORMAL STANDARD OF CARE ACCURACIES.
2. THE LOCATIONS OF UNDERGROUND PIPES, CONDUITS, AND STRUCTURES HAVE BEEN DETERMINED FROM SAID INFORMATION, AND ARE APPROXIMATE ONLY. COMPILED LOCATIONS OF ANY UNDERGROUND STRUCTURES, NOT VISIBLY OBSERVED AND LOCATED, CAN VARY FROM THEIR ACTUAL LOCATIONS.
3. ADDITIONAL BURIED UTILITIES/STRUCTURES MAY BE ENCOUNTERED.
4. THE STATUS OF UTILITIES, WHETHER ACTIVE, ABANDONED, OR REMOVED, IS AN UNKNOWN CONDITION AS FAR AS OUR COMPILATION OF THIS INFORMATION.
5. IT IS INCUMBENT UPON INDIVIDUALS USING THIS INFORMATION TO UNDERSTAND THAT COMPILING UTILITY INFORMATION IS NOT EXACT, AND IS SUBJECT TO CHANGE BASED UPON VARYING PLAN INFORMATION RECEIVED AND ACTUAL LOCATIONS.
6. THE ACCURACY OF MEASURED UTILITY INVERTS AND PIPE SIZES IS SUBJECT TO FIELD CONDITIONS, THE ABILITY TO MAKE VISUAL OBSERVATIONS, DIRECT ACCESS TO THE VARIOUS ELEMENTS AND OTHER MATTERS.
7. THE PROPER UTILITY ENGINEERING/COMPANY SHOULD BE CONSULTED AND THE ACTUAL LOCATIONS OF SUBSURFACE STRUCTURES SHOULD BE VERIFIED IN THE FIELD (V.I.F.) BEFORE PLANNING FUTURE CONNECTIONS. CONTACT THE DIG SAFE CALL CENTER AT 1-888-344-7233, SEVENTY-TWO HOURS PRIOR TO EXCAVATION, BLASTING, GRADING, AND/OR PAVING.
8. AS OF THE DATE OF THIS PLAN RECORD INFORMATION HAS NOT BEEN RECEIVED BY NITSCH ENGINEERING FOR THE FOLLOWING UTILITIES: TELEPHONE (VERIZON)



COMMONWEALTH OF MASSACHUSETTS DEPARTMENT OF CONSERVATION AND RECREATION DIVISION OF ENGINEERING AND DIVISION OF PLANNING AND RESOURCE PROTECTION	
INTERSECTION IMPROVEMENTS AT LYNN FELS PARKWAY AND MELROSE STREET MELROSE	
EXISTING CONDITIONS PLAN	
SURVEY BY: NITSCH DRAWN BY: KC CHECKED BY: BG APPROVED BY: JM	CONT. XXX-XXXX-XXX ACC. XXXXXXXXX SCALE: 1 IN. = 20 FT. DATE: 4/11/2023 SHEET NO. 5 5 OF 33



PAVEMENT NOTES:

PROPOSED STANDARD MILLING & OVERLAY

SURFACE: 1.75" SUPERPAVE SURFACE COURSE - 12.5 (SSC-12.5) OVER
1.75" SUPERPAVE INTERMEDIATE COURSE - 12.5 (SIC-12.5) OVER
MILLING: VARIABLE DEPTH PAVEMENT STANDARD MILLING (3.5" MAX)

PROPOSED FULL DEPTH PAVEMENT

SURFACE: 1.75" SUPERPAVE SURFACE COURSE - 12.5 (SSC-12.5) OVER
1.75" SUPERPAVE INTERMEDIATE COURSE - 12.5 (SIC-12.5)
BASE: 4.00" SUPERPAVE BASE COURSE - 37.5 (SBC-37.5)
SUBBASE: 4" DENSE GRADED CRUSHED STONE FOR SUBBASE OVER
8" GRAVEL BORROW, TYPE B

PROPOSED FULL DEPTH PAVEMENT WIDENING LESS THAN 4 FEET

SURFACE: 1.75" SUPERPAVE SURFACE COURSE - 12.5 (SSC-12.5) OVER
1.75" SUPERPAVE INTERMEDIATE COURSE - 12.5 (SIC-12.5)
BASE: 6" HIGH EARLY STRENGTH CEMENT CONCRETE
SUBBASE: 8" GRAVEL BORROW, TYPE B

PROPOSED CEMENT CONCRETE SIDEWALK / PEDESTRIAN CURB RAMP

SURFACE: 4" CEMENT CONCRETE SIDEWALK (4000 PSI, $\frac{3}{4}$ ", 610)
SUBBASE: 8" GRAVEL BORROW, TYPE B

PROPOSED CEMENT CONCRETE SIDEWALK AT DRIVEWAY

SURFACE: 6" CEMENT CONCRETE SIDEWALK (4000 PSI, $\frac{3}{4}$ ", 610)
SUBBASE: 8" GRAVEL BORROW, TYPE B

PROPOSED HOT MIX ASPHALT DRIVEWAY

SURFACE: 1.75" SUPERPAVE SURFACE COURSE - 12.5 (SSC-12.5) OVER
3" SUPERPAVE INTERMEDIATE COURSE - 12.5 (SIC-12.5)
SUBBASE: 8" GRAVEL BORROW, TYPE B

- NOTES:
- ALL PAVING SHALL BE IN ACCORDANCE WITH SECTION 450 HOT MIX ASPHALT PAVEMENT AND SECTION M3 ASPHALTIC MATERIALS.
 - INTERMEDIATE COURSE SHALL BE PLACED WITHIN 7 DAYS OF THE COMPLETION OF THE PAVEMENT MILLING TO PROTECT THE MILLED SURFACE.
 - DRAINAGE INLETS AT ROADWAY LOW POINTS SHALL BE ADJUSTED TO INTERMEDIATE COURSE GRADE IMMEDIATELY FOLLOWING MILLING.
 - DRIVEWAY PAVEMENT PAID FOR UNDER ITEM 702.
 - HMA FOR PATCHING (ITEM 451.) SHALL BE USED FOR PERMANENT HMAPATCHES. TEMPORARY ASPHALT PATCHING (ITEM 472.) SHALL BE USED FOR TEMPORARY PATCHES.
 - PAVEMENT MILLING SHALL ESTABLISH THE PROPOSED GRADING AND A PROPOSED 2.00% CROSS SLOPE, UNLESS OTHERWISE NOTED.

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF CONSERVATION AND RECREATION
DIVISION OF ENGINEERING AND
DIVISION OF PLANNING AND RESOURCE PROTECTION

INTERSECTION IMPROVEMENTS AT

LYNN FELS PARKWAY AND MELROSE STREET
MELROSE

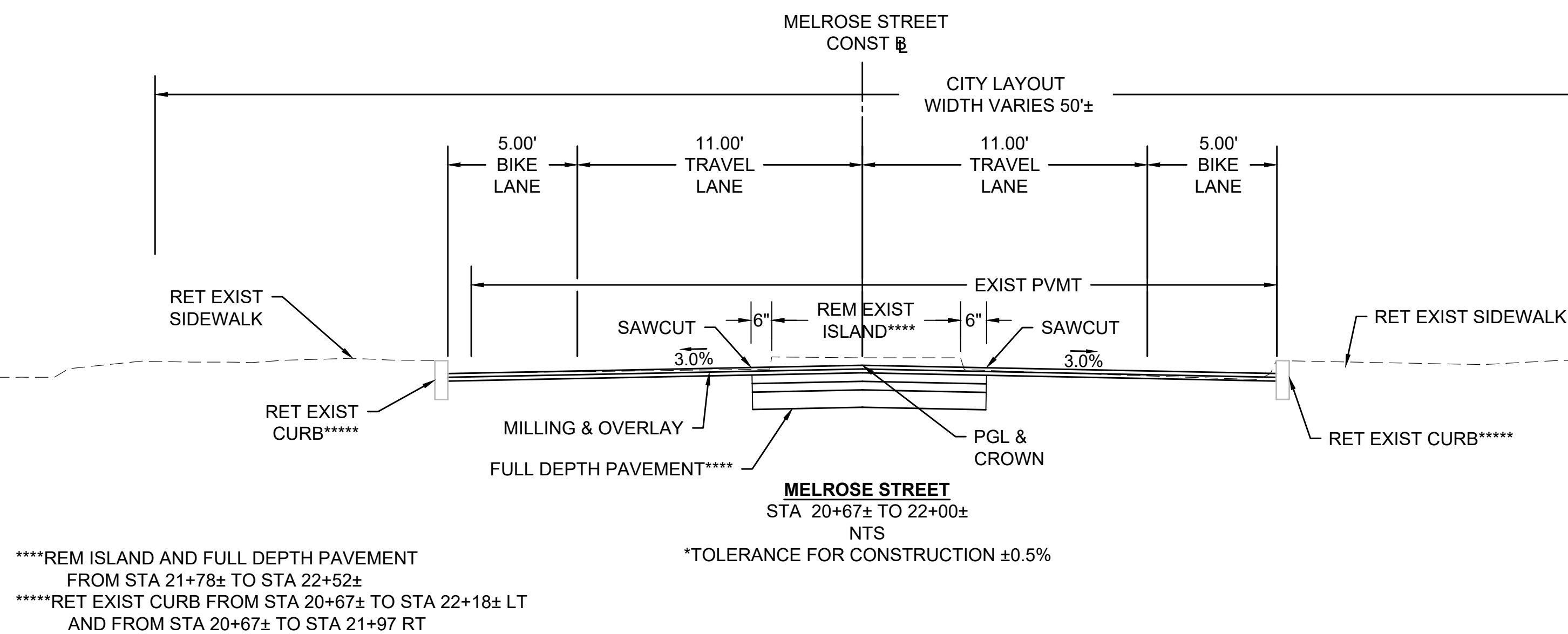
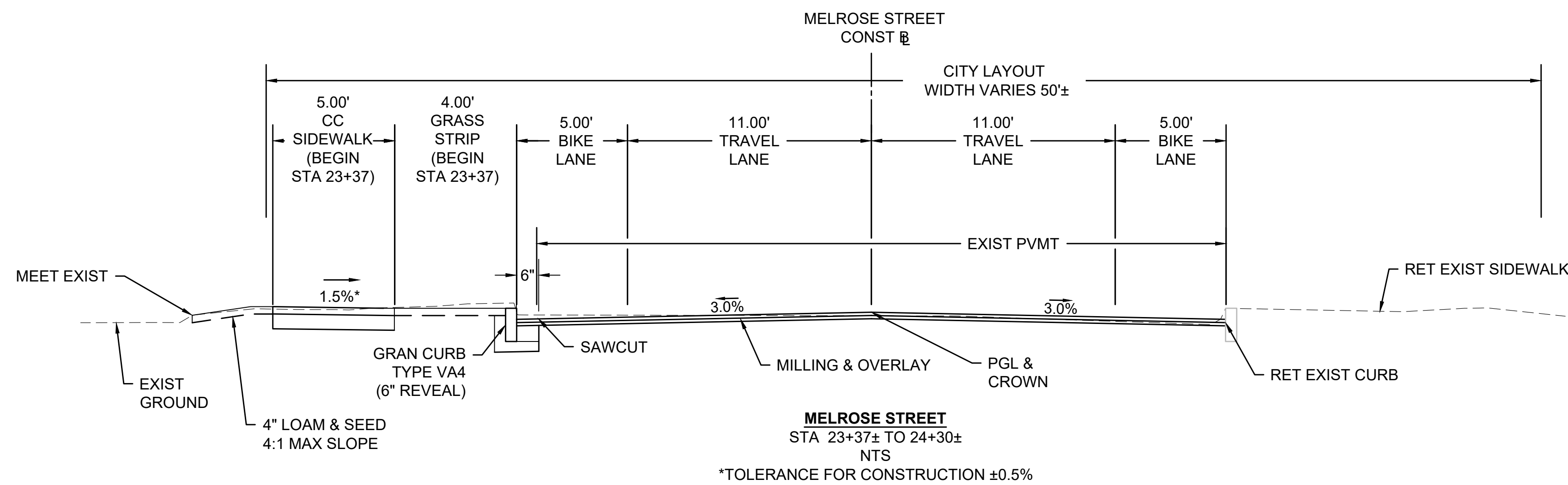
SURVEY BY: NITSCH
DRAWN BY: KC
CHECKED BY: BG
APPROVED BY: JM

TYPICAL SECTIONS

CONT: XXX-XXXX-XXX
ACC: XXXXXXXXX

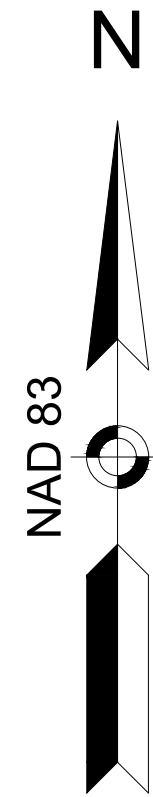
SCALE: AS NOTED
DATE: 4/11/2023

SHEET NO.
6
6 OF 33



SEE SHEET 6 FOR PAVEMENT NOTES:

COMMONWEALTH OF MASSACHUSETTS DEPARTMENT OF CONSERVATION AND RECREATION DIVISION OF ENGINEERING AND DIVISION OF PLANNING AND RESOURCE PROTECTION			
INTERSECTION IMPROVEMENTS AT LYNN FELLS PARKWAY AND MELROSE STREET MELROSE			
TYPICAL SECTIONS			
SURVEY BY: NTSCH DRAWN BY: KC CHECKED BY: BG APPROVED BY: JM		CONT. XXX-XXXX-XXX ACC. XXXXXXXXXX	SCALE: AS NOTED DATE: 4/11/2023
SHEET NO. 7		7 OF 33	

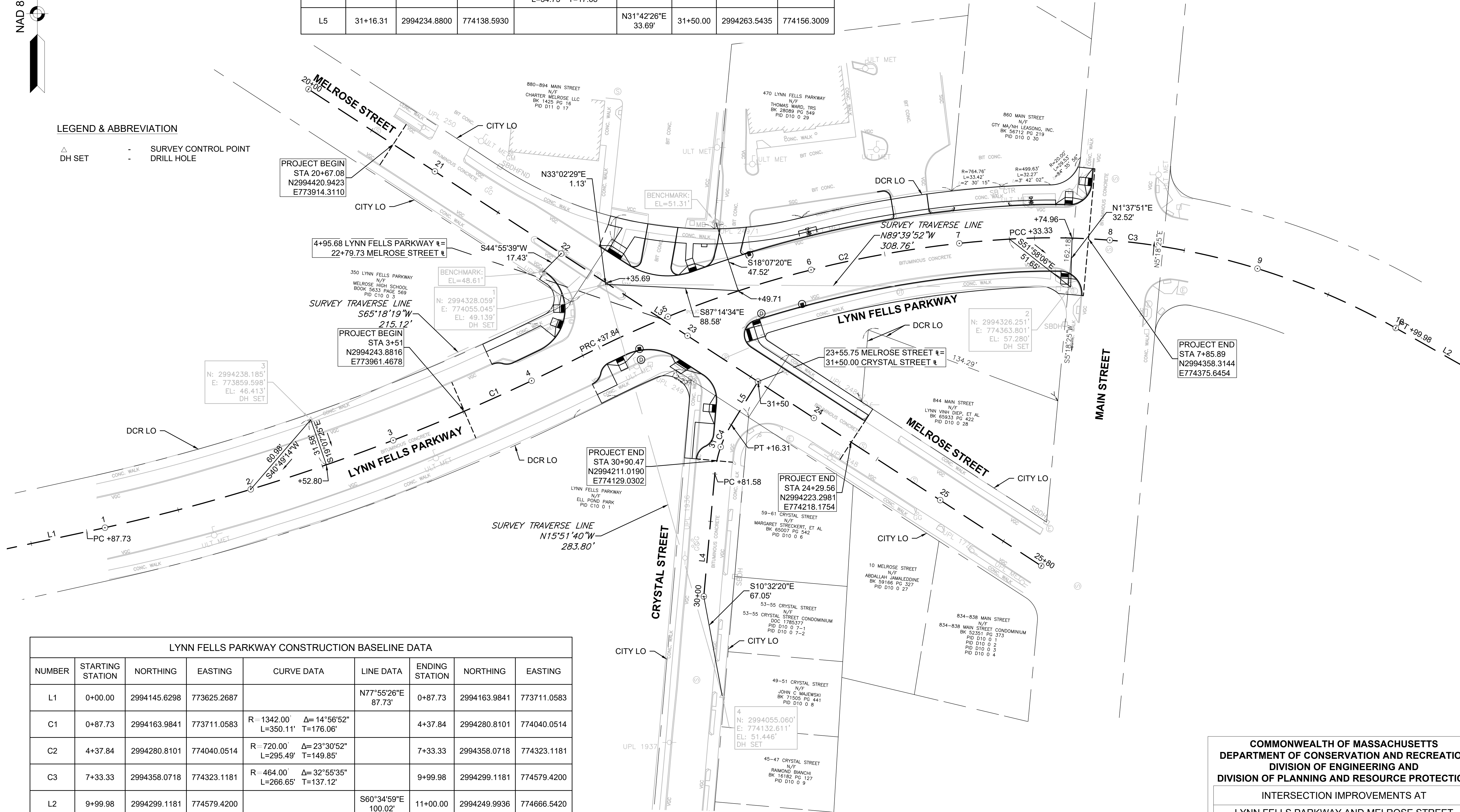


LEGEND & ABBREVIATION

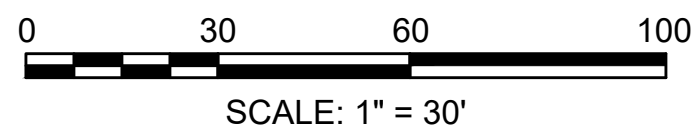
- △ DH SET
- SURVEY CONTROL POINT
- DRILL HOLE

CRYSTAL STREET CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L4	30+00.00	2994120.9815	774120.3474		N5°10'28"E 81.58'	30+81.58	2994202.2258	774127.7046
C4	30+81.58	2994202.2258	774127.7046	R=75.00' Δ=26°31'58" L=34.73' T=17.68"		31+16.31	2994234.8800	774138.5930
L5	31+16.31	2994234.8800	774138.5930		N31°42'26"E 33.69'	31+50.00	2994263.5435	774156.3009

MELROSE STREET CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L3	20+00.00	2994457.5151	773858.0828		S56°57'31"E 580.00'	25+80.00	2994141.2730	774344.2834



LYNN FELS PARKWAY CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L1	0+00.00	2994145.6298	773625.2687		N77°55'26"E 87.73'	0+87.73	2994163.9841	773711.0583
C1	0+87.73	2994163.9841	773711.0583	R=1342.00' Δ=14°56'52" L=350.11' T=176.06"		4+37.84	2994280.8101	774040.0514
C2	4+37.84	2994280.8101	774040.0514	R=720.00' Δ=23°30'52" L=295.49' T=149.85"		7+33.33	2994358.0718	774323.1181
C3	7+33.33	2994358.0718	774323.1181	R=464.00' Δ=32°55'35" L=266.65' T=137.12"		9+99.98	2994299.1181	774579.4200
L2	9+99.98	2994299.1181	774579.4200		S60°34'59"E 100.02'	11+00.00	2994249.9936	774666.5420



COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF CONSERVATION AND RECREATION
DIVISION OF ENGINEERING AND
DIVISION OF PLANNING AND RESOURCE PROTECTION

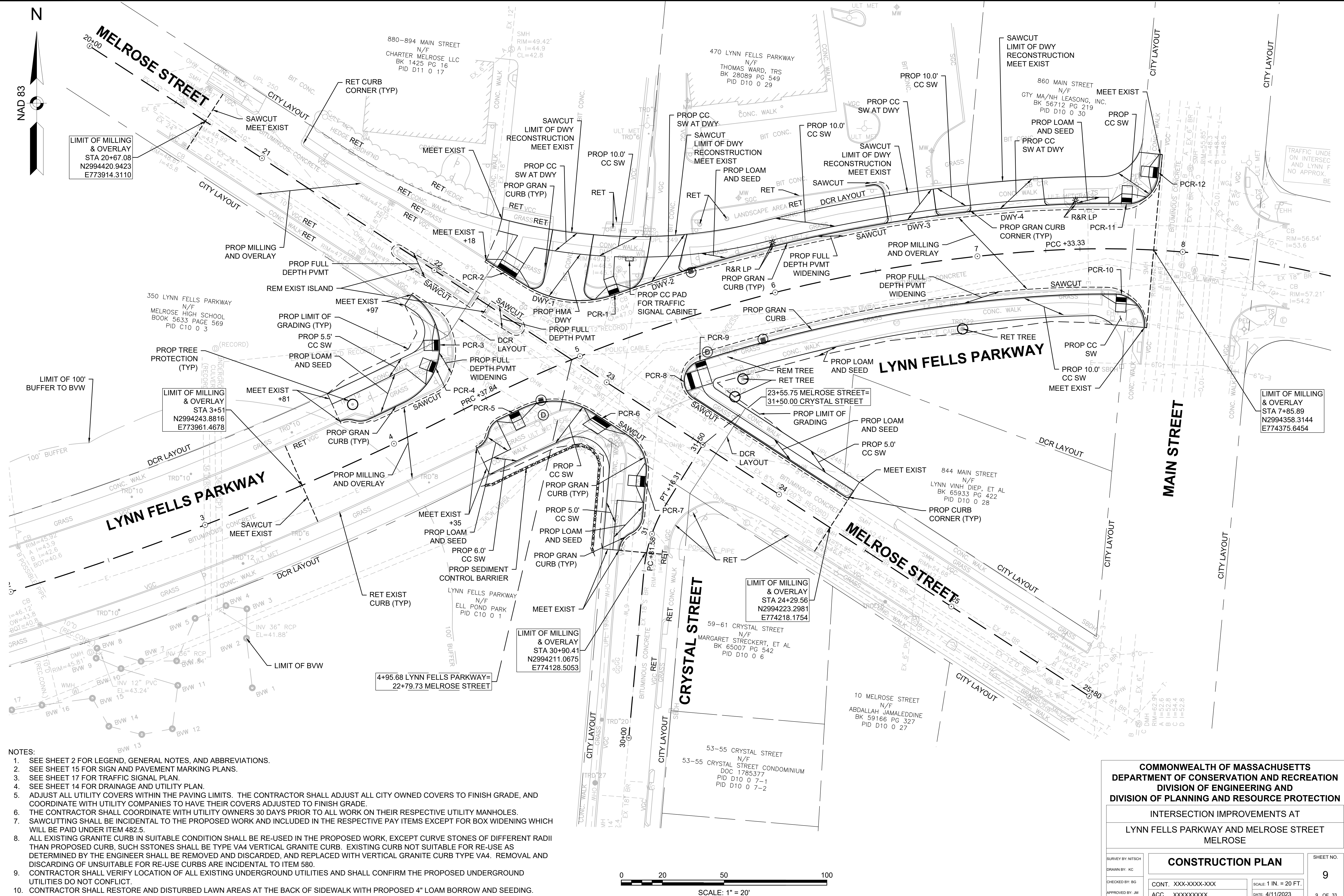
INTERSECTION IMPROVEMENTS AT
LYNN FELS PARKWAY AND MELROSE STREET
MELROSE

SURVEY BY: NITSCH
DRAWN BY: KC
CHECKED BY: BG
APPROVED BY: JM

CONSTRUCTION BASELINE TIES PLAN
CONT. XXX-XXXX-XXX
ACC. XXXXXXXXXX

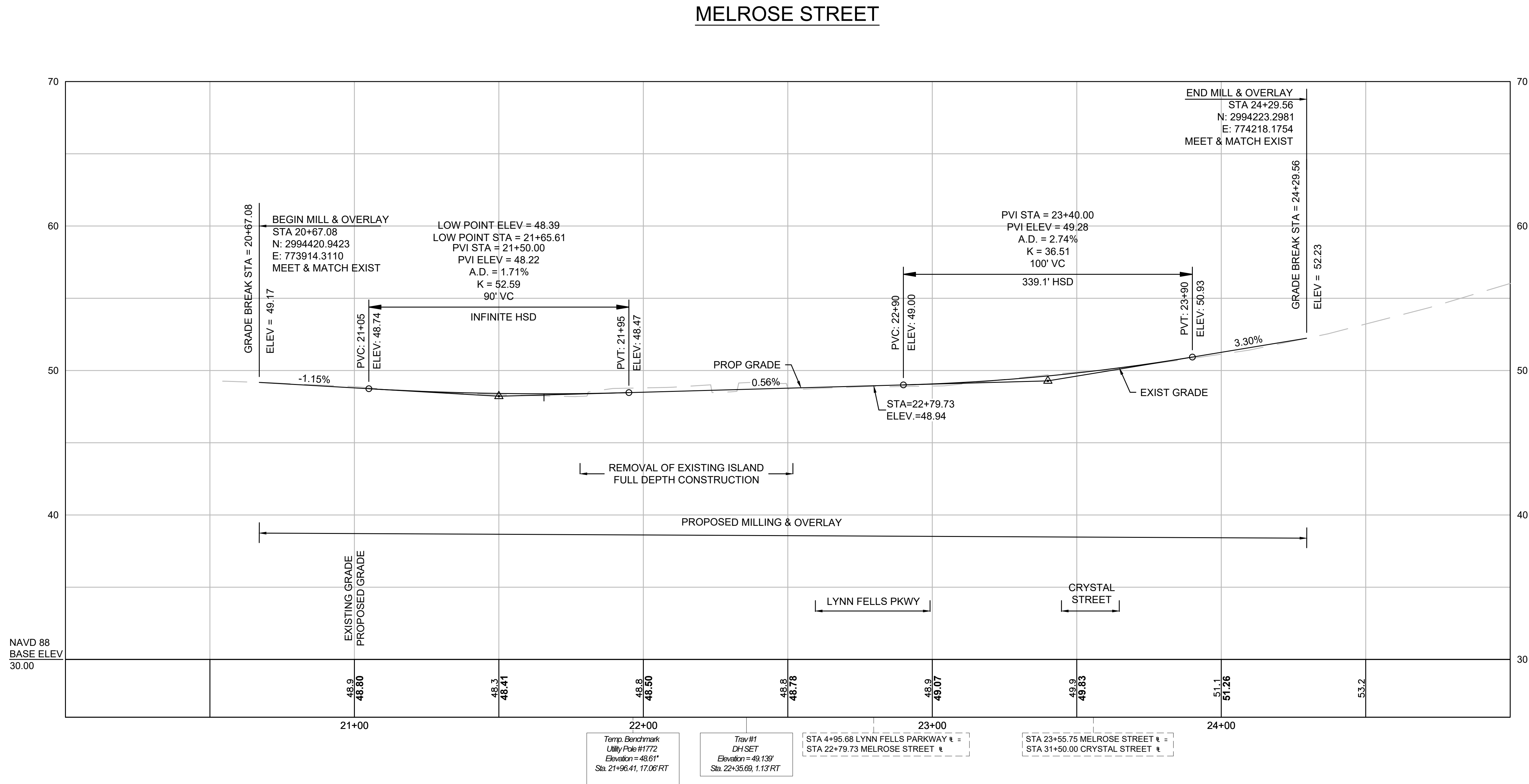
SCALE: 1 IN. = 30 FT.
DATE: 4/11/2023

SHEET NO.
8
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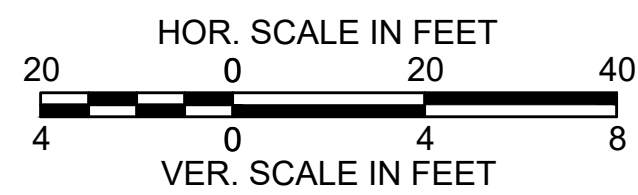


COMMONWEALTH OF MASSACHUSETTS DEPARTMENT OF CONSERVATION AND RECREATION DIVISION OF ENGINEERING AND DIVISION OF PLANNING AND RESOURCE PROTECTION		
INTERSECTION IMPROVEMENTS AT LYNN FELS PARKWAY AND MELROSE STREET MELROSE		
CONSTRUCTION PLAN		
SURVEY BY: NITSCH DRAWN BY: KC CHECKED BY: BG APPROVED BY: JM	CONT. XXX-XXXX-XXX ACC. XXXXXXXXXX	SCALE: 1 IN. = 20 FT. DATE: 4/11/2023
SHEET NO. 9		9 OF 33

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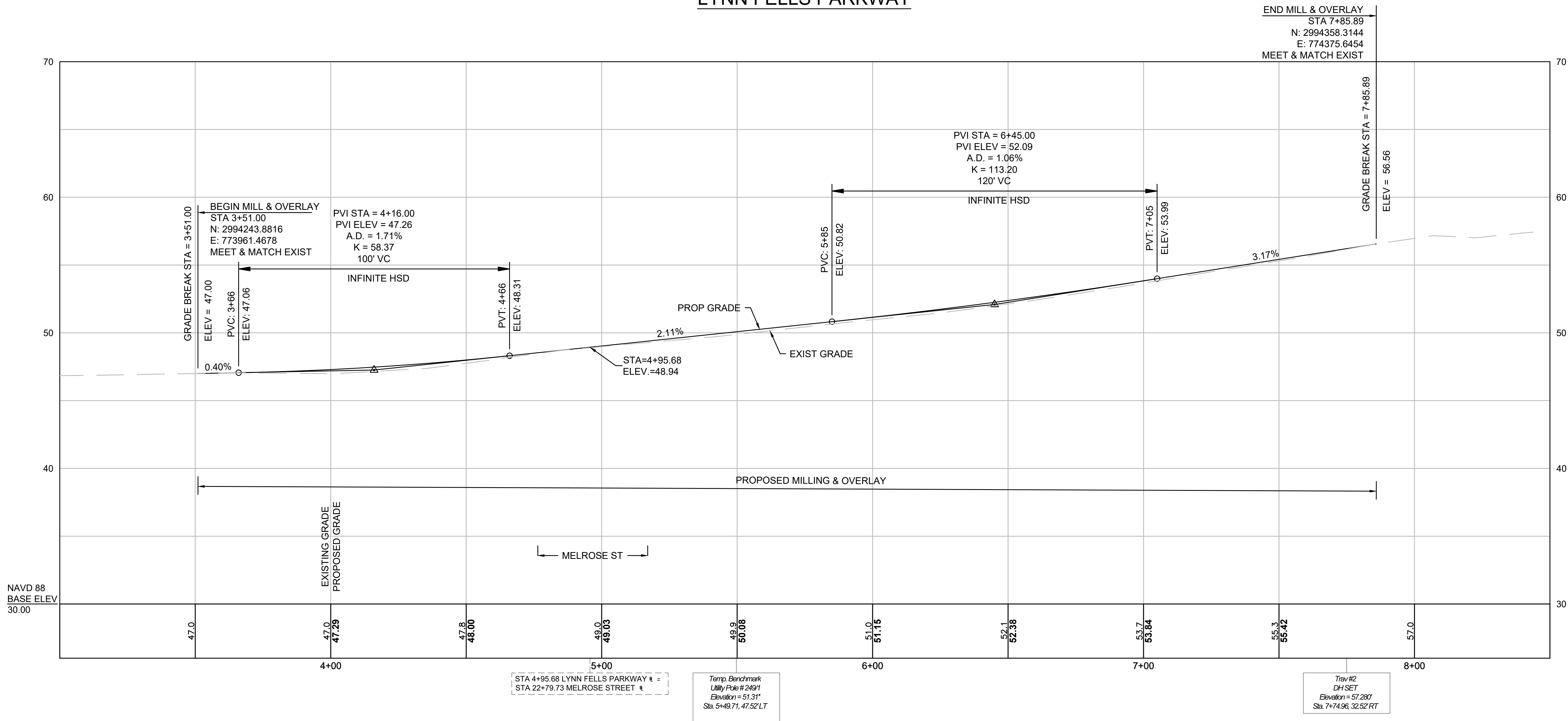


FOR CONSTRUCTION PLANS: SEE SHEET NOS. 9

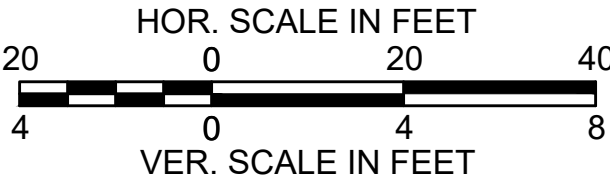


COMMONWEALTH OF MASSACHUSETTS DEPARTMENT OF CONSERVATION AND RECREATION DIVISION OF ENGINEERING AND DIVISION OF PLANNING AND RESOURCE PROTECTION									
INTERSECTION IMPROVEMENTS AT LYNN FELS PARKWAY AND MELROSE STREET MELROSE									
SURVEY BY: NITSCH DRAWN BY: KC CHECKED BY: BG APPROVED BY: JM		<table><tr><td colspan="2">PROFILE</td></tr><tr><td>CONT. XXX-XXXX-XXX</td><td>SCALE: AS NOTED</td></tr><tr><td>ACC. XXXXXXXXXX</td><td>DATE: 4/11/2023</td></tr></table>	PROFILE		CONT. XXX-XXXX-XXX	SCALE: AS NOTED	ACC. XXXXXXXXXX	DATE: 4/11/2023	SHEET NO. 10 10 OF 33
PROFILE									
CONT. XXX-XXXX-XXX	SCALE: AS NOTED								
ACC. XXXXXXXXXX	DATE: 4/11/2023								

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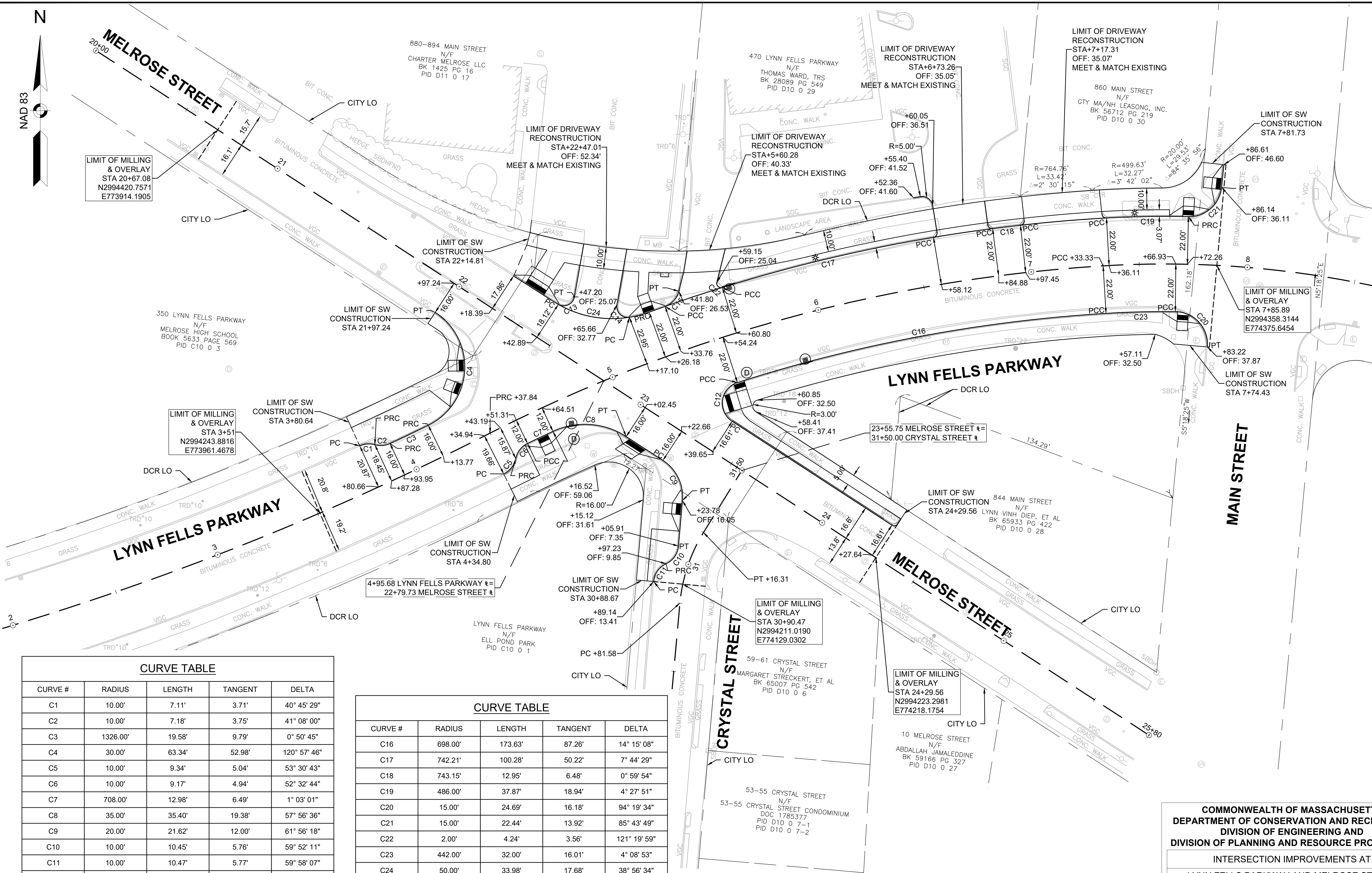
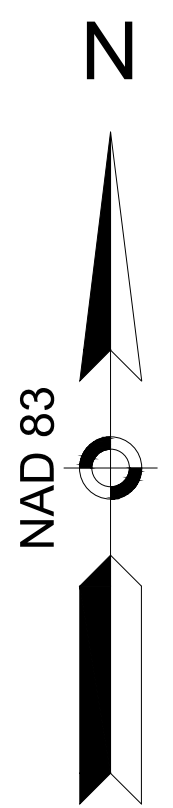


FOR CONSTRUCTION PLANS: SEE SHEET NOS. 9



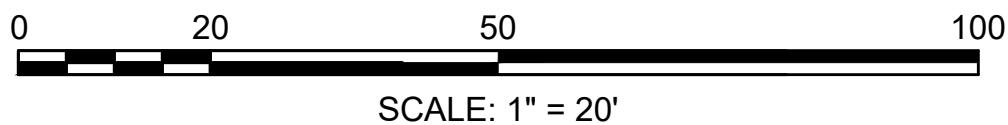
COMMONWEALTH OF MASSACHUSETTS DEPARTMENT OF CONSERVATION AND RECREATION DIVISION OF ENGINEERING AND DIVISION OF PLANNING AND RESOURCE PROTECTION			
INTERSECTION IMPROVEMENTS AT LYNN FELS PARKWAY AND MELROSE STREET MELROSE			
SURVEY BY: NITSCH		SHEET NO.	
DRAWN BY: KC		11	
CHECKED BY: BG		SCALE: AS NOTED	
APPROVED BY: JM		DATE: 4/11/2023	
CONT. XXX-XXXX-XXX		ACC. XXXXXXXXXX	

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CURVE TABLE				
CURVE #	RADIUS	LENGTH	TANGENT	DELTA
C1	10.00'	7.11'	3.71'	40° 45' 29"
C2	10.00'	7.18'	3.75'	41° 08' 00"
C3	1326.00'	19.58'	9.79'	0° 50' 45"
C4	30.00'	63.34'	52.98'	120° 57' 46"
C5	10.00'	9.34'	5.04'	53° 30' 43"
C6	10.00'	9.17'	4.94'	52° 32' 44"
C7	708.00'	12.98'	6.49'	1° 03' 01"
C8	35.00'	35.40'	19.38'	57° 56' 36"
C9	20.00'	21.62'	12.00'	61° 56' 18"
C10	10.00'	10.45'	5.76'	59° 52' 11"
C11	10.00'	10.47'	5.77'	59° 58' 07"
C12	10.00'	22.55'	21.06'	129° 11' 49"
C13	5.00'	9.57'	7.10'	109° 40' 50"
C14	5.00'	9.53'	7.04'	109° 15' 44"
C15	10.00'	9.86'	5.37'	56° 30' 55"

CURVE TABLE				
CURVE #	RADIUS	LENGTH	TANGENT	DELTA
C16	698.00'	173.63'	87.26'	14° 15' 08"
C17	742.21'	100.28'	50.22'	7° 44' 29"
C18	743.15'	12.95'	6.48'	0° 59' 54"
C19	486.00'	37.87'	18.94'	4° 27' 51"
C20	15.00'	24.69'	16.18'	94° 19' 34"
C21	15.00'	22.44'	13.92'	85° 43' 49"
C22	2.00'	4.24'	3.56'	121° 19' 59"
C23	442.00'	32.00'	16.01'	4° 08' 53"
C24	50.00'	33.98'	17.68'	38° 56' 34"



COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF CONSERVATION AND RECREATION
DIVISION OF ENGINEERING AND
DIVISION OF PLANNING AND RESOURCE PROTECTION

INTERSECTION IMPROVEMENTS AT
LYNN FELS PARKWAY AND MELROSE STREET
MELROSE

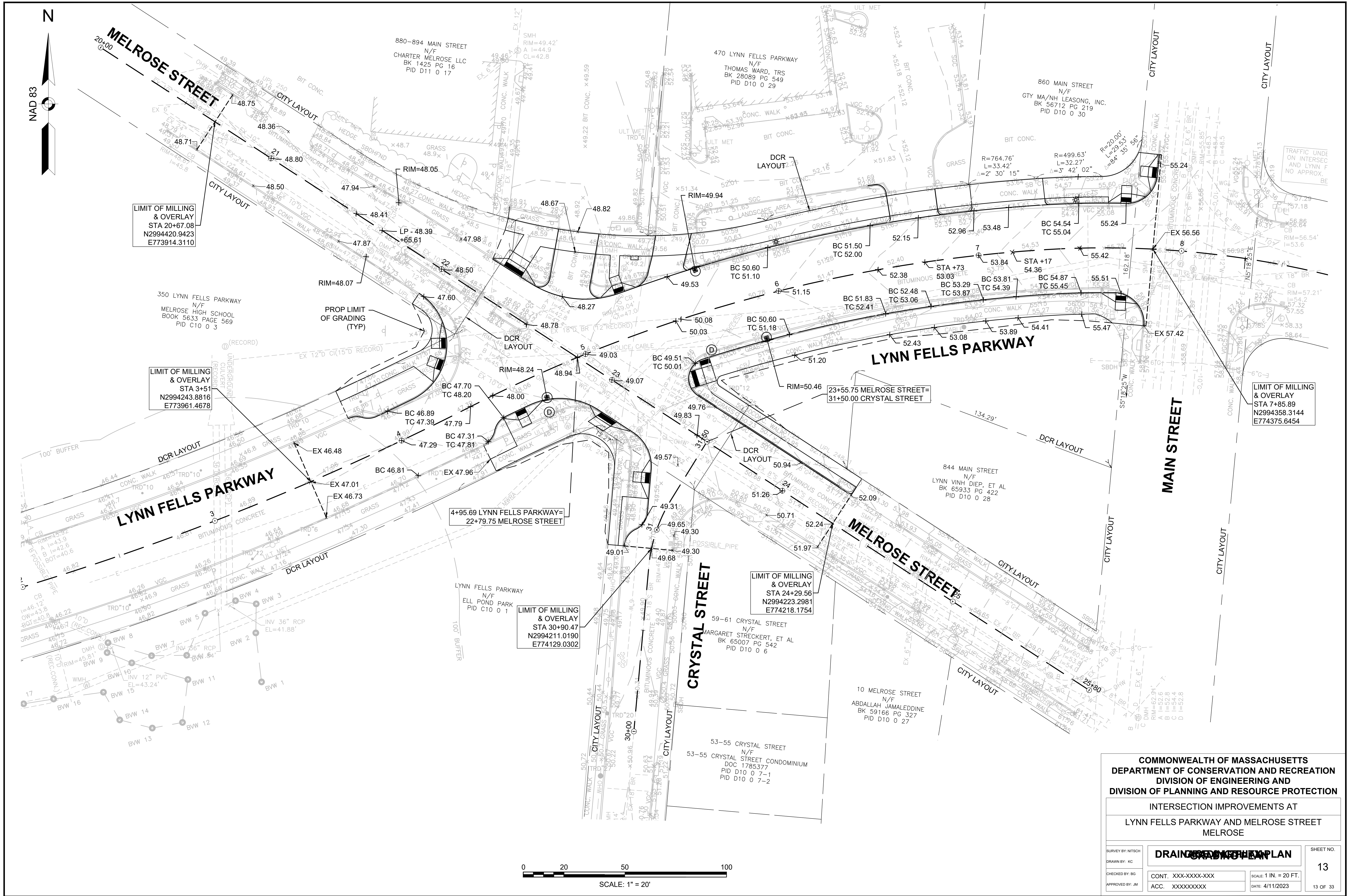
CURB TIE PLAN

CONT. XXX-XXXX-XXX
ACC. XXXXXXXXXX

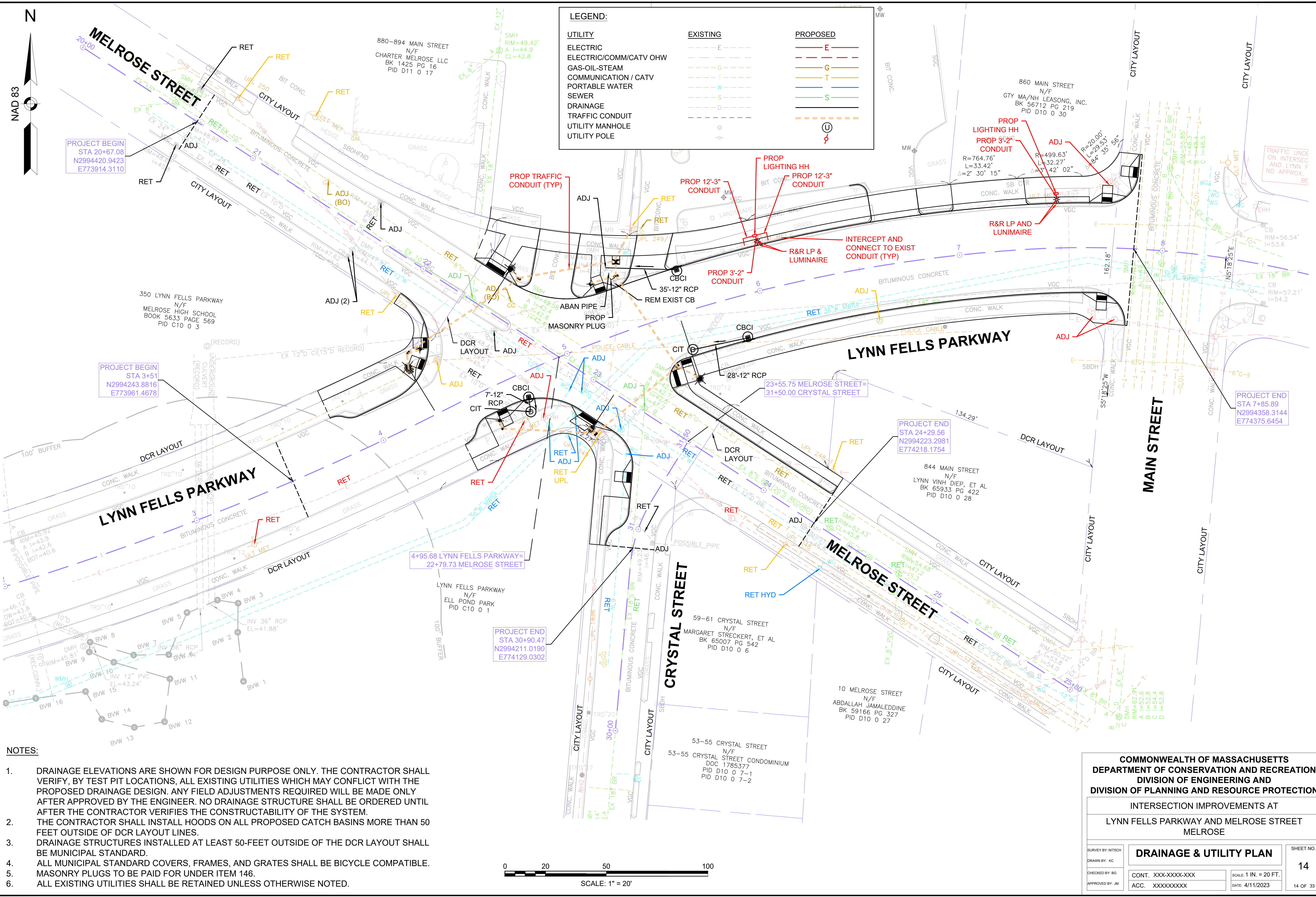
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DATE: 4/11/2023

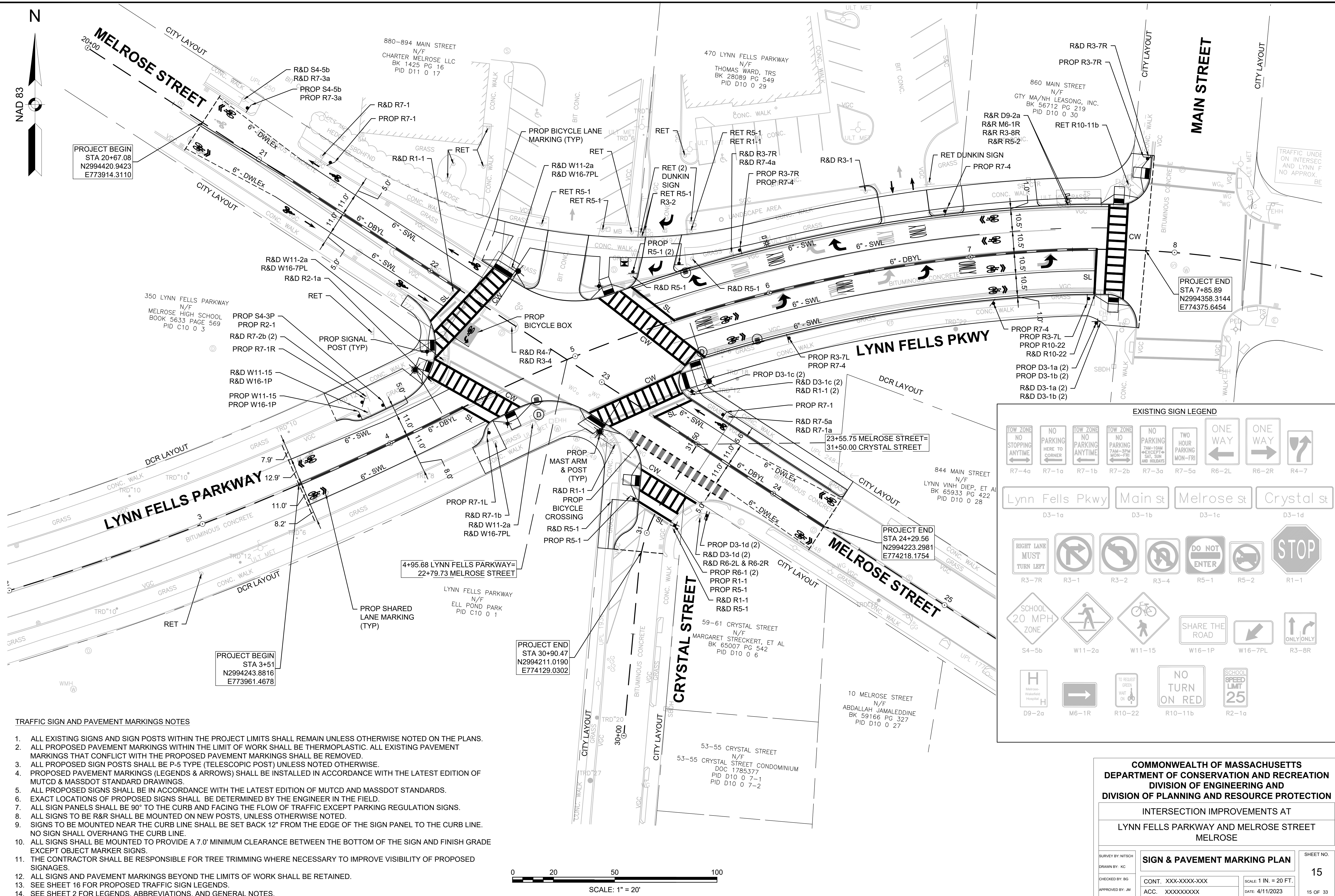
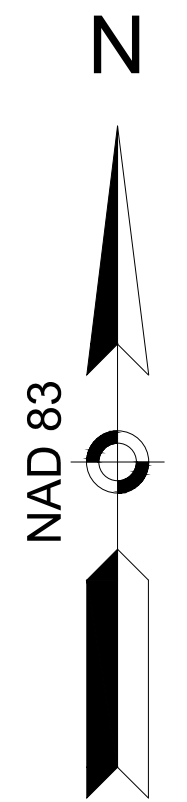
SHEET NO.
12
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12589.9_HD(CURB TIE PLAN).DWG Printed on 7-Apr-2023 10:37 AM



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TRAFFIC SIGN AND PAVEMENT MARKINGS NOTES

1. ALL EXISTING SIGNS AND SIGN POSTS WITHIN THE PROJECT LIMITS SHALL REMAIN UNLESS OTHERWISE NOTED ON THE PLANS.
2. ALL PROPOSED PAVEMENT MARKINGS WITHIN THE LIMIT OF WORK SHALL BE THERMOPLASTIC. ALL EXISTING PAVEMENT MARKINGS THAT CONFLICT WITH THE PROPOSED PAVEMENT MARKINGS SHALL BE REMOVED.
3. ALL PROPOSED SIGN POSTS SHALL BE P-5 TYPE (TELESCOPIC POST) UNLESS NOTED OTHERWISE.
4. PROPOSED PAVEMENT MARKINGS (LEGENDS & ARROWS) SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF MUTCD & MASSDOT STANDARD DRAWINGS.
5. ALL PROPOSED SIGNS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF MUTCD AND MASSDOT STANDARDS.
6. EXACT LOCATIONS OF PROPOSED SIGNS SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.
7. ALL SIGN PANELS SHALL BE 90° TO THE CURB AND FACING THE FLOW OF TRAFFIC EXCEPT PARKING REGULATION SIGNS.
8. ALL SIGNS TO BE R&R SHALL BE MOUNTED ON NEW POSTS, UNLESS OTHERWISE NOTED.
9. SIGNS TO BE MOUNTED NEAR THE CURB LINE SHALL BE SET BACK 12" FROM THE EDGE OF THE SIGN PANEL TO THE CURB LINE. NO SIGN SHALL OVERHANG THE CURB LINE.
10. ALL SIGNS SHALL BE MOUNTED TO PROVIDE A 7.0' MINIMUM CLEARANCE BETWEEN THE BOTTOM OF THE SIGN AND FINISH GRADE EXCEPT OBJECT MARKER SIGNS.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TREE TRIMMING WHERE NECESSARY TO IMPROVE VISIBILITY OF PROPOSED SIGNAGES.
12. ALL SIGNS AND PAVEMENT MARKINGS BEYOND THE LIMITS OF WORK SHALL BE RETAINED.
13. SEE SHEET 16 FOR PROPOSED TRAFFIC SIGN LEGENDS.
14. SEE SHEET 2 FOR LEGENDS, ABBREVIATIONS, AND GENERAL NOTES.



COMMONWEALTH OF MASSACHUSETTS DEPARTMENT OF CONSERVATION AND RECREATION DIVISION OF ENGINEERING AND DIVISION OF PLANNING AND RESOURCE PROTECTION		
INTERSECTION IMPROVEMENTS AT LYNN FELLS PARKWAY AND MELROSE STREET MELROSE		
SURVEY BY: NITSCH DRAWN BY: KC CHECKED BY: BG APPROVED BY: JM	SIGN & PAVEMENT MARKING PLAN CONT. XXX-XXXX-XXX ACC. XXXXXXXXXX	SHEET NO. 15 15 OF 33

Nitsch - P: \\10000-14999\\12589.9 LynnFellsMelrose\\Transportation\\CAD\\12589.9 CAD\\Project Drawing Data\\DWG\\12589.9_HD(SIGN & PAVEMENT MARKING PLAN).dwg Apr 7, 2023 10:38 AM

PROPOSED TRAFFIC SIGN SUMMARY

IDENTIFI- CATION NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS (INCHES)			NUMBER OF SIGNS REQUIRED	COLOR			POST SIZE AND NUMBER REQUIRED ②	UNIT AREA (S.F.)	AREA IN SQUARE FEET
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR.		BACK- GROUND	LEGEND	BORDER			
MA-D3-1a	VARIES	12"	Lynn Fells Pkwy	6D/4D	3" 6D/4D 3"	-	2	RED	WHITE	WHITE	P-5 1 REQ'D	-	EACH
MA-D3-1b	VARIES	12"	Main st	6D/4D	3" 6D/4D 3"	-	2	RED	WHITE	WHITE	2 MOUNT W/ MA-D3-1a	-	EACH
MA-D3-1c	VARIES	12"	Melrose st	6D/4D	3" 6D/4D 3"	-	2	RED	WHITE	WHITE	P-5 1 REQ'D	-	EACH
MA-D3-1d	VARIES	12"	Crystal st	6D/4D	3" 6D/4D 3"	-	2	RED	WHITE	WHITE	P-5 1 REQ'D	-	EACH
R1-1	30"	30"	STOP	①	①	①	1	RED	WHITE	WHITE	P-5 1 REQ'D	6.25	6.25
R2-1 (25)	24"	30"	SPEED LIMIT 25				1	WHITE	BLACK	BLACK	1 MOUNT W/ S4-3P	5.00	5.00
R3-7L	30"	30"	LEFT LANE MUST TURN LEFT				2	WHITE	BLACK	BLACK	1 MOUNT W/ R7-4 1 MOUNT W/ R10-22	6.25	12.50
R3-7R	30"	30"	RIGHT LANE MUST TURN LEFT				2	WHITE	BLACK	BLACK	P-5 1 REQ'D 1 MOUNT W/ R7-4	6.25	12.50
R5-1	30"	30"	DO NOT ENTER				4	RED	WHITE	WHITE	P-5 3 REQ'D 1 MOUNT W/ R1-1	6.25	25.00
R6-1	36"	12"	ONE WAY				2	WHITE	BLACK	BLACK	2 MOUNT W/ R1-1	3.00	6.00
R7-1	12"	18"	NO PARKING ANY TIME				2	WHITE	RED	RED	P-5 2 REQ'D	1.50	3.00
R7-1L	12"	18"	NO PARKING ANY TIME				1	WHITE	RED	RED	P-5 1 REQ'D	1.50	1.50
R7-1R	12"	18"	NO PARKING ANY TIME				1	WHITE	RED	RED	P-5 1 REQ'D	1.50	1.50
R7-3a	12"	18"	NO PARKING 7AM-10AM EXCEPT SAT, SUN AND HOLIDAYS				1	WHITE	RED	RED	1 MOUNT W/ S4-5b	1.50	1.50
R7-4	12"	18"	NO STANDING ANY TIME				4	WHITE	GREEN /BLUE	RED	P-5 4 REQ'D	1.50	6.00
R10-22	12"	18"	TO REQUEST GREEN WAIT ON				1	WHITE	BLACK	BLACK	P-5 1 REQ'D	1.50	1.50
S4-3P	24"	8"	SCHOOL				1	FLUOR. YELLOW GREEN	BLACK	BLACK	P-5 1 REQ'D	1.33	1.33
S4-5b	30"	30"	SCHOOL 20 MPH ZONE				1	FLUOR. YELLOW GREEN	BLACK	BLACK	P-5 1 REQ'D	6.25	6.25

IDENTIFI- CATION NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS (INCHES)			NUMBER OF SIGNS REQUIRED	COLOR			POST SIZE AND NUMBER REQUIRED ②	UNIT AREA (S.F.)	AREA IN SQUARE FEET
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR.		BACK- GROUND	LEGEND	BORDER			
W11-15	30"	30"		①	①	①	1	YELLOW	BLACK	BLACK	P-5 1 REQ'D	6.25	6.25
W16-1P	18"	24"	SHARE THE ROAD				1	YELLOW	BLACK	BLACK	1 MOUNT W/ W11-15	3.00	3.00

NOTES

- ① SEE MUTCD 2009 EDITION, THE 2012 SUPPLEMENT TO THE 2004 EDITION OF THE STANDARD HIGHWAY SIGNS AND SECTION M9.30.0 TYPE III OF THE MASSDOT STANDARD SPECIFICATION FOR TEXT DIMENSIONS AND COLOR.
- ② SEE STANDARD DRAWINGS FOR SIGNS AND SUPPORTS, 1990.

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF CONSERVATION AND RECREATION
DIVISION OF ENGINEERING AND
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INTERSECTION IMPROVEMENTS AT
LYNN FELS PARKWAY AND MELROSE STREET
MELROSE

SURVEY BY: NITSCH
DRAWN BY: KC
CHECKED BY: BG
APPROVED BY: JM

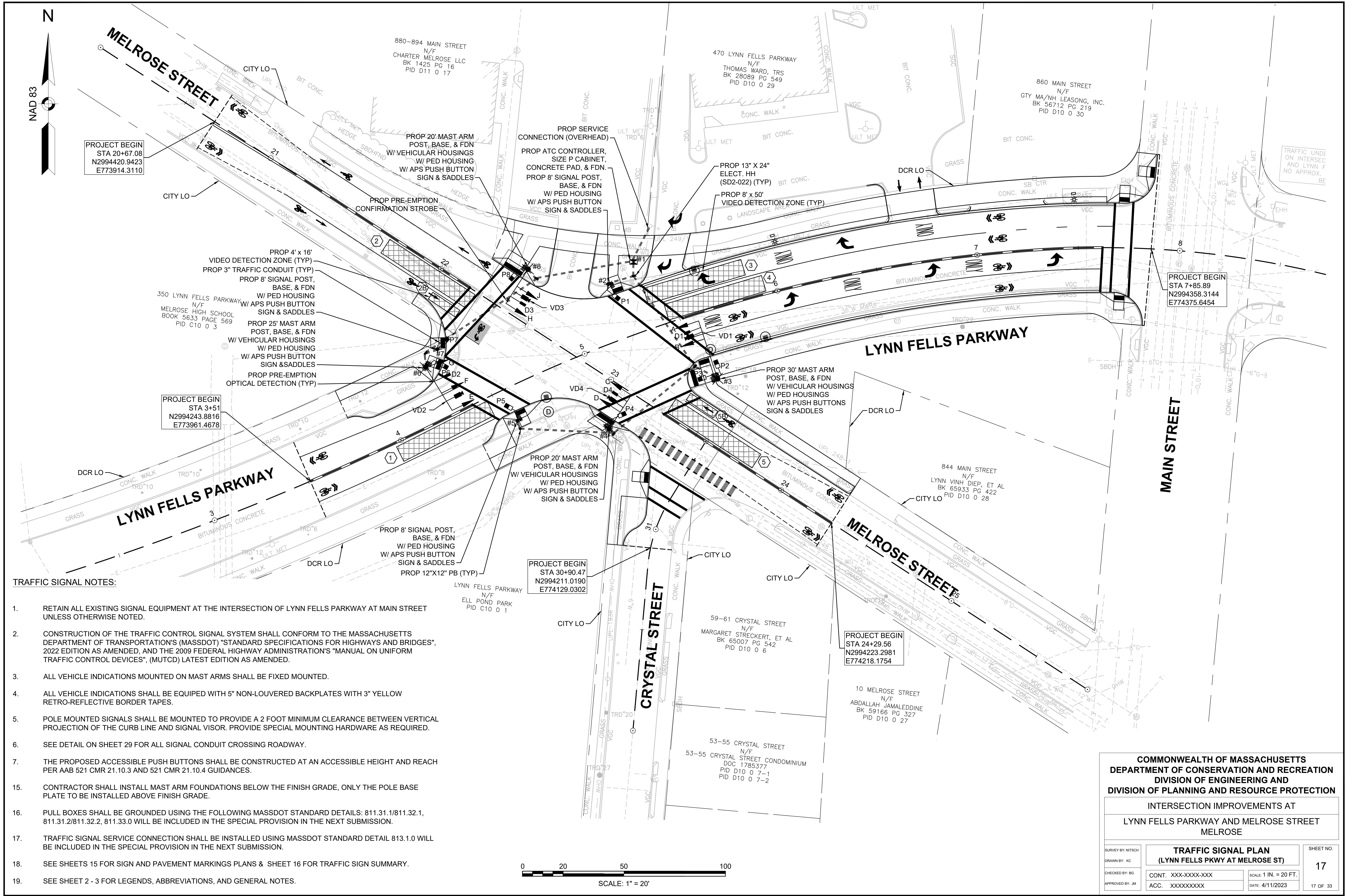
TRAFFIC SIGN SUMMARY

CONT. XXX-XXXX-XXX
ACC. XXXXXXXXXX

SCALE: NTS
DATE: 4/11/2023

SHEET NO.
16
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			Ø1		Ø2		Ø3		Ø4		Ø5		Ø6		Ø7		Ø8		Ø9*												
SEQUENCE AND TIMING FOR FULL ACTUATED CONTROL (COORDINATED)																															
STREET	DIRECTION	HOUSINGS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	FLASH OPER.	
LYNN FELS PARKWAY	EB	A,B				R	R	R				R	R	R				G	Y	R				R	R	R	R	R	R	FY	
LYNN FELS PARKWAY	WB	E,F,G				G	Y	R				R	R	R				R	R	R				R	R	R	R	R	R	FY	
MELROSE STREET	NB	H,J				R	R	R				R	R	R				R	R	R				G	Y	R	R	R	R	FR	
MELROSE STREET	SB	C,D				R	R	R				G	Y	R				R	R	R				R	R	R	R	R	R	FR	
PEDESTRIAN CROSSING	NB-SB	P1,P2				DW	DW	DW				DW	DW	DW				DW	DW	DW				DW	DW	DW	W	FDW	DW	OFF	
PEDESTRIAN CROSSING	EB-WB	P3,P4				DW	DW	DW				DW	DW	DW				DW	DW	DW				DW	DW	DW	W	FDW	DW	OFF	
PEDESTRIAN CROSSING	NB-SB	P5,P6				DW	DW	DW				DW	DW	DW				DW	DW	DW				DW	DW	DW	W	FDW	DW	OFF	
PEDESTRIAN CROSSING	EB-WB	P7,P8				DW	DW	DW				DW	DW	DW				DW	DW	DW				DW	DW	DW	W	FDW	DW	OFF	
TIMING IN SECONDS																															
MINIMUM GREEN (INITIAL)						5						5						5						5			-				
PASSAGE TIME (VEHICLE)						3						3						3						3			-				
MAXIMUM 1						41						31						41						31			-				
MAXIMUM 2						44						28						44						28			-				
YELLOW CLEARANCE							3						3.5						3						3.5			-			
RED CLEARANCE								2						2.5						2						2.5			4		
WALK (W)																										7					
PEDESTRIAN CLEARANCE																												11			
RECALL						SOFT						OFF						SOFT						OFF						OFF	
MEMORY						NON-LOCKING						NON-LOCKING						NON-LOCKING						NON-LOCKING			LOCKING				
COORDINATION DATA						COORDINATION PHASE TIMING																									
TIMING PLAN		CYCLE LENGTH (SEC.)	REF/OFFSET (SEC.)	SEC.		SEC.		SEC.		SEC.		SEC.		SEC.		SEC.		SEC.		SEC.		SEC.		SEC.		SEC.		SEC.			
1 (6 AM - 10 AM)		105	97			46				37				46				37				22									
2 (3 PM - 7 PM)		105	89			49				34				49				34				22									

MAX 1: 7:00 AM - 10:00 AM
MAX 2: 3:00 PM - 7:00 PM
MAX 1: WEEKENDS & ALL OTHER TIMES
* PEDESTRIAN PHASE PUSH BUTTON ACTUATED ONLY.

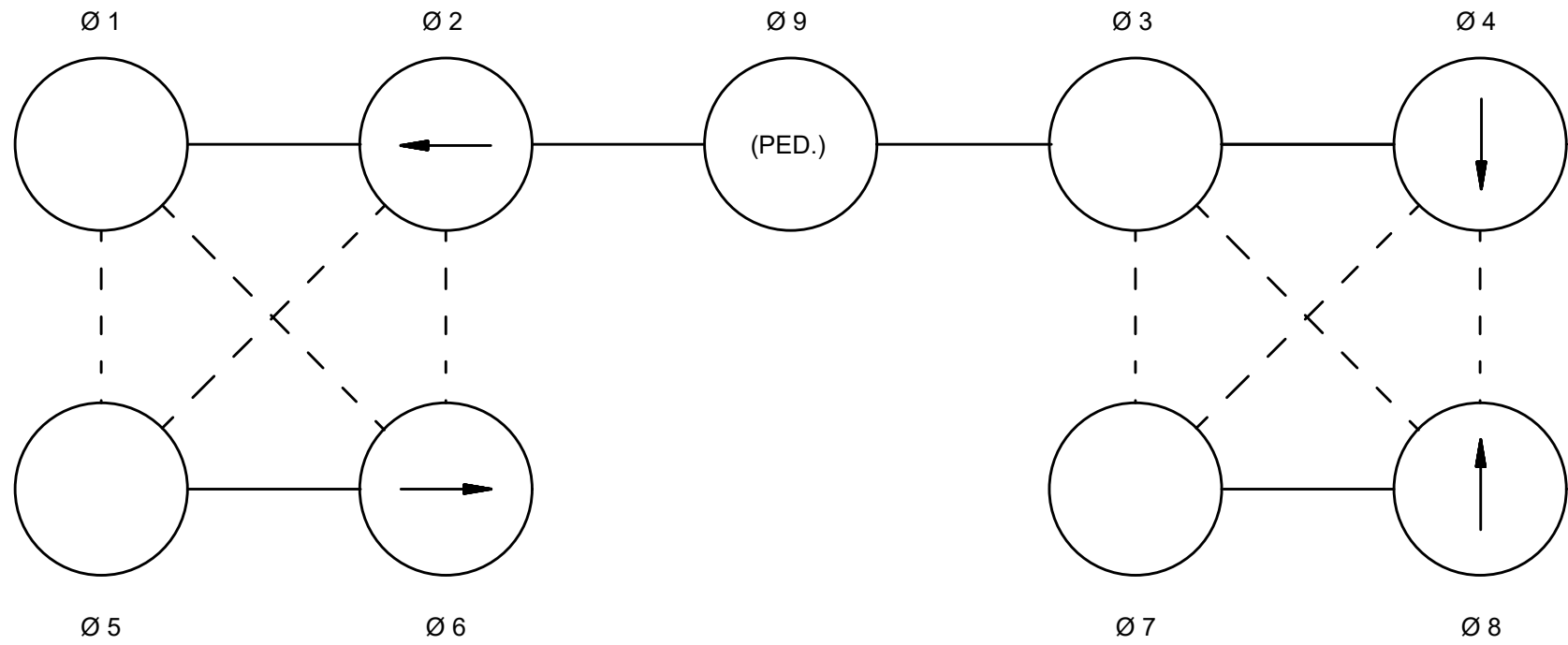
EMERGENCY VEHICLE PREEMPTION SCHEDULE

APPROACH	PREEMPTION RECEIVER	PREEMPTION PHASE	NEXT PHASE CALLED
EASTBOUND	D1	6	2 & 6
WESTBOUND	D2	2	2 & 6
NORTHBOUND	D3	8	4 & 8
SOUTHBOUND	D4	4	4 & 8

EMERGENCY VEHICLE PREEMPTION OPERATION:

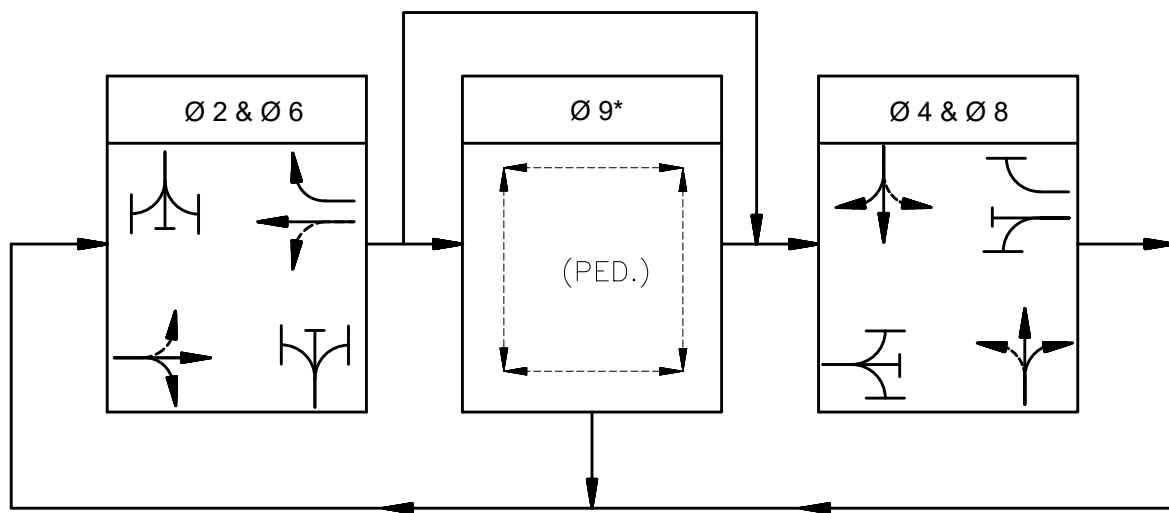
- EMERGENCY VEHICLE PREEMPTION SHALL BE ACTUATED BY AN OPTICAL SIGNAL FROM AN OPTICAL EMITTER MOUNTED ON AN EMERGENCY VEHICLE AND RECEIVED BY AN OPTICAL DETECTOR LOCATED AT INTERSECTION. A SEPARATE RECEIVING DETECTOR IS REQUIRED FOR EACH DETECTED APPROACH.
- PREEMPTION SIGNALS FROM MULTIPLE APPROACHES SHALL BE SERVICED ON A FIRST DETECTED FIRST SERVED BASIS.
- IN RESPONSE TO A PREEMPTION SIGNAL RECEIVED AT AN INTERSECTION BY AN OPTICAL DETECTOR, THE CONTROLLER SHALL TIME THE CLEARANCE INTERVALS OF THE ACTIVE PHASE (IF DIFFERENT THAT TO BE SERVICED) AND ADVANCE TO AND/OR HOLD IN EMERGENCY VEHICLE PREEMPTION PHASE UNTIL PREEMPTION SIGNAL CEASES. THE CONTROLLER SHALL THEN TIME CLEARANCES AND SIMILARLY SERVICE OTHER EMERGENCY VEHICLE PREEMPTION SEQUENCES IN THE ORDER RECEIVED (IF RECEIVED) OTHERWISE, RESUME NORMAL PREFERENTIAL PHASE SEQUENCE.
- PREEMPTION MINIMUM GREENS SHALL BE TEN SECONDS.
- NORMAL CLEARANCES SHALL BE PROVIDED ON PHASES THAT ARE TERMINATED BY PREEMPTION DEMAND.
- ACTUAL TIMING FOR PREEMPTION SHALL BE DETERMINED IN THE FIELD IN COORDINATION WITH THE FIRE DEPARTMENT AND SHALL BE APPROVED BY DCR PRIOR TO OPERATION.

NEMA DUAL RING PHASING NOTES:

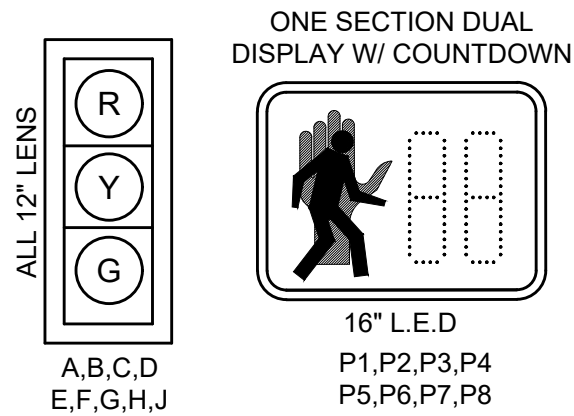


- PHASES ASSOCIATED BY A SOLID LINE SHALL NOT OPERATE CONCURRENTLY.
- PHASES ASSOCIATED BY A DASHED LINE MAY OPERATE CONCURRENTLY.
- THROUGH MOVEMENTS MAY INCLUDE RIGHT TURNS.
- IF THE ASSIGNED RIGHT OF WAY FOR ANY TRAFFIC MOVEMENT IS TO REMAIN IN EFFECT DURING THE NEXT CALLED PHASE, THE SIGNAL INDICATIONS FOR THAT TRAFFIC MOVEMENT SHALL NOT CHANGE DURING THE CHANGE INTERVAL(S) UNLESS OTHERWISE NOTED.

PREFERENTIAL PHASING SEQUENCE



SIGNAL IDENTIFICATION



NOTES:

- ALL SIGNALS SHALL HAVE CUTAWAY TUNNEL VISORS.
- ALL SIGNALS SHALL BE 12" LED WITH 5" NON-LOUVERED BACKPLATES.
- ALL BACKPLATES SHALL HAVE A 3" YELLOW RETROREFLECTIVE BORDER.

MAJOR ITEMS REQUIRED		
PAY ITEM	QUANTITY	ITEM
815.1	1	ATC TRAFFIC CONTROLLER, CABINET, CONCRETE PAD, & FDN.
	1	SERVICE CONNECTION, TYPE OVERHEAD
	4	8' SIGNAL POLE, BASE, & FDN.
	2	20 FT TYPE II, GALV. STEEL MAST ARM ASSEMBLY , BASE & FDN.
	1	25 FT TYPE II, GALV. STEEL MAST ARM ASSEMBLY , BASE & FDN.
	1	30 FT TYPE II, GALV. STEEL MAST ARM ASSEMBLY , BASE & FDN.
	9	1 WAY, 3 SECTION, SIGNAL HOUSING (12" L.E.D.)
	9	5" 3-SECTION BACKPLATES (NON-LOUVERED) WITH 3" RETROREFLECTIVE BORDER
	8	16" PEDESTRIAN COUNTDOWN HOUSING, TYPE L.E.D. (INT'L SYMBOL)
	8	PEDESTRIAN PUSH BUTTON, SIGN & SADDLES (APS)
	1	VIDEO DETECTION SYSTEM (4 VIDEO DETECTION CAMERAS)
	4	EMERGENCY VEHICLE PRE-EMPTION RECEIVER-SINGLE CHANNEL
	2	EMERGENCY VEHICLE PRE-EMPTION PHASE SELECTOR MODULE-DUAL CHANNEL
	1	PRE-EMPTION CARD RACK
	1	EMERGENCY VEHICLE PRE-EMPTION CONFIRMATION STROBE (WHITE)
	1	GPS TIME UNIT
811.22	5	13" X 24" ELECTRIC HANDHOLE - SD2.022
811.31	1	12" X 12" PULL BOX
Plus all necessary duct, cable, labor, miscellaneous material and equipment to complete the installation.		

NOTE: THE CONTRACTOR SHALL CONTACT CITY OF MELROSE FIRE AND POLICE DEPARTMENT TO INSURE COMPATIBILITY OF THE PREEMPTION EQUIPMENT AND SUPPLY NEW EMITTER DEVICES ON EMERGENCY VEHICLES AS NECESSARY.

VIDEO DETECTOR DATA

DETECTION ZONE IDENT.	QTY.	DETECTION ZONE SIZE	NUM. OF TURNS	Ø CALLED	Ø EXT.	MODE A=PULSE B=PRES.	DELAY TIME	EXT. TIME (SEC)
1	1	8' X 50'	-	6	6	B	-	-
2	1	8' X 50'	-	4	4	B	-	-
2B	1	4' X 16'	-	4	4	B	-	-
3	1	8' X 50'	-	2	2	B	-	-
4	1	8' X 50'	-	2	2	B	-	-
5	1	8' X 50'	-	8	8	B	-	-
5B	1	4' X 16'	-	8	8	B	-	-

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF CONSERVATION AND RECREATION
DIVISION OF ENGINEERING AND
DIVISION OF PLANNING AND RESOURCE PROTECTION

INTERSECTION IMPROVEMENTS AT
LYNN FELS PARKWAY AND MELROSE STREET
MELROSE

SURVEY BY: NITSCH
DRAWN BY: KC
CHECKED BY: BG
APPROVED BY: JM

TRAFFIC SIGNAL DATA PLAN
(LYNN FELS PKWY AT MELROSE ST)

CONT. XXX-XXXX-XXX
ACC. XXXXXXXXX

SCALE: NTS
DATE: 4/11/2023

SHEET NO.

18

18 OF 33

TRAFFIC MANAGEMENT NOTES:

1.

ALL TRAFFIC MANAGEMENT AND WORK ZONE TRAFFIC CONTROL MEASURES SHALL CONFORM TO THE REQUIREMENTS OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) CURRENT EDITION WITH MASSACHUSETTS AMMENDMENTS, THE STANDARD SPECIFICATIONS, THE PROJECT SPECIAL PROVISIONS, AND THE FOLLOWING NOTES.
2.

ALL SIGN LEGENDS, BORDERS, AND MOUNTING SHALL BE IN ACCORDANCE WITH THE MUTCD.
3.

THE TRAFFIC MANAGEMENT PLANS CONTAINED HEREIN ARE GIVEN AS A GUIDE FOR TYPICAL WORK ZONE TRAFFIC CONTROL APPLICATIONS FOR THE TYPES OF WORK ANTICIPATED FOR THIS PROJECT. THEY ARE NOT INTENDED TO COVER ALL POSSIBLE CONSTRUCTION OPERATIONS WHICH THE CONTRACTOR MAY CHOOSE TO EMPLOY. WORK ZONE TRAFFIC CONTROL FOR OTHER CONSTRUCTION OPERATIONS OR OTHER TRAFFIC SITUATIONS IF APPLICABLE SHALL BE IN ACCORDANCE WITH THE MUTCD AND AS APPROVED OR DIRECTED BY THE ENGINEER.
4.

NO CONSTRUCTION VEHICLES SHALL BE PARKED WITHIN THE TRAVEL WAY WITHOUT PROPER PROTECTION AND APPROVAL OF THE ENGINEER.
5.

TEMPORARY CONSTRUCTION SIGNING AND ALL OTHER TRAFFIC CONTROL DEVICES SHALL BE IN PLACE PRIOR TO THE START OF ANY WORK.
6.

ALL WARNING SIGNS SHALL BE BLACK LEGEND ON A REFLECTIVE ORANGE BACKGROUND AND IN ACCORDANCE WITH THE MUTCD. ALL REGULATORY SIGNS SHALL BE BLACK LEGEND ON A WHITE REFLECTIVE BACKGROUND. ALL CONSTRUCTION SIGNS SHALL BE ATTACHED TO THEIR OWN INDEPENDENT SUPPORTS UNLESS SHOWN OTHERWISE.
7.

THE CONTRACTOR SHALL MAKE EVERY EFFORT TO AVOID PLACING TEMPORARY TRAFFIC CONTROL DEVICES ON PRIVATE PROPERTY. IF SUCH PLACEMENT ON PRIVATE PROPERTY IS UNAVOIDABLE, IT SHALL BE DONE WITH THE EXPLICIT APPROVAL OF THE PROPERTY OWNER AND THE ENGINEER.
8.

ABUTTER ACCESS SHALL NOT BE CLOSED EXCEPT FOR SHORT PERIODS AND ONLY WITH THE APPROVAL OF THE ENGINEER. THE CONTRACTOR SHALL NOTIFY EACH ABUTTER 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 PAVEMENT PLACEMENT AND SIMILAR OPERATIONS.
9.

THE CONTRACTOR SHALL PROVIDE IMMEDIATE ACCESS TO EMERGENCY VEHICLES AT ALL TIMES.
10.

GRADE DIFFERENCES IN EXCESS OF 2" DURING NON-WORKING HOURS WILL REQUIRE DELINEATION BY USE OF DRUMS.
11.

GRADE DIFFERENCES IN EXCESS OF 4" DURING NON-WORKING HOURS SHALL BE PROTECTED BY BACKFILLING WITH A TRANSITION OF GRAVEL OR OTHER MATERIAL TO BE COMPACTED AT A 4:1 SLOPE, AND DELINEATED BY DRUMS.
12.

CONSTRUCTION SIGNS NOT APPLICABLE TO VARIOUS STAGES OF CONSTRUCTION SHALL BE REMOVED OR COVERED.
13.

USE MA-W20-7b SIGNS ONLY WHEN POLICE OFFICER IS DIRECTING TRAFFIC. THEY SHALL BE TAKEN DOWN OR COVERED AT THE CLOSE OF EACH OPERATION.
14.

MAINTAIN PEDESTRIAN ACCESS THROUGH THE WORK AREA AT ALL TIMES. THE POLICE DETAIL SHALL PROVIDE CONTROL TO CROSS PEDESTRIANS ON ROADWAY TO SIDEWALK. PROVIDE TEMPORARY CROSSWALKS AND RAMPS AS NEEDED AND AS DIRECTED BY THE ENGINEER.
15.

ALL CONSTRUCTION SIGNING AND OTHER TRAFFIC MAINTENANCE DEVICES SHALL CONFORM WITH THE 2009 MUTCD AS AMENDED, MASH, AND MASSDOT STANDARDS.
16.

ADVANCE WARNING SIGNS NO LONGER APPLICABLE, WHICH MIGHT CREATE CONFUSION IN THE MINDS OF VEHICLE OPERATORS, SHALL EITHER BE COVERED OR REMOVED AS SOON AS POSSIBLE. NO SIGN SHALL BE VISIBLE TO TRAFFIC THAT MAY CONFLICT WITH ACTUAL ROADWAY CONDITIONS.
17.

ALL DISTANCES MAY BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.HOWEVER, MINIMUM DISTANCES, WHERE INDICATED, SHOULD BE MAINTAINED.
18.

THE CONTRACTOR SHALL USE TEMPORARY PATCHING OR BEVELED STEEL PLATES TO COVER PIPE TRENCHES AND OTHER EXCAVATED HOLES NOT COMPLETED BY THE END OF EACH WORK DAY.
19.

ALL DRUMS WITH FLASHERS, 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" (MASH).
20.

MINIMUM LANE WIDTH IS TO BE 11 FEET UNLESS OTHERWISE SHOWN. MINIMUM LANE WIDTH WILL BE MEASURED FROM THE EDGE OF DRUMS OR CONES.
21.

ORANGE CONSTRUCTION FLAGS MAY BE USED ON ADVANCE WARNING SIGNS AS DIRECTED BY THE ENGINEER. FLAGS SHALL BE A MINIMUM OF 16" X 16".
22.

MAINTAIN EXISTING PAVEMENT MARKINGS WHERE APPLICABLE. WHEN LANES SHIFT, IF NECESSARY, EXISTING MARKINGS SHALL BE REMOVED AND TEMPORARY PAVEMENT MARKING SHALL BE PROVIDED.
23.

AT THE END OF EACH WORK DAY, NO TRAFFIC CONTROL DEVICES SHALL REMAIN IN THE ROADWAY AND ALL LANES SHALL BE OPEN FOR TRAFFIC FLOW.
24.

THE CONTRACTOR MAY PROPOSE TO USE A DIFFERENT SEQUENCE OF WORK AREAS THAN WHAT IS BEING PROPOSED IN THESE DOCUMENTS. THE CONTRACTOR SHALL SUBMIT PHASING AND TRAFFIC MANAGEMENT PLANS FOR APPROVAL BY THE ENGINEER.
25.

MAXIMUM SPACING OF CHANNELIZING DEVICES IN A TAPER IS EQUAL IN FEET TO THE SPEED LIMIT IN MPH. (20' SPACING TYPICAL ON TAPER, 30' SPACING TYPICAL ON TANGENTS.)
26.

CHANNELIZATION WILL BE ACCOMPLISHED THROUGH THE USE OF REFLECTORIZED PLASTIC DRUMS OR CONES.
27.

THE FIRST TEN PLASTIC DRUMS OF A TAPER SHALL HAVE SEQUENTIAL FLASHING LIGHTS.
28.

POLICE DETAIL SHALL BE USED WHILE SETTING UP THE TEMPORARY TRAFFIC CONTROL DEVICES ON THE ROADWAY.
29.

EACH WORK ZONE SHALL HAVE MA-R2-10a, MA-R2-10e, AND W-20 SERIES SIGNS WHERE APPLICABLE.
30.

POLICE DETAILS SHALL BE EMPLOYED AND SHALL BE SUBSTITUTED WITH CERTIFIED ROADWAY FLAGGERS AS DIRECTED BY THE ENGINEER AND PER SECTION 850 "TRAFFIC CONTROLS FOR CONSTRUCTION AND MAINTENANCE OPERATIONS" IN THE MASSDOT STANDARD SPECIFICATIONS.
31.

ALL DRIVEWAYS AND STREETS SHALL REMAIN OPEN AT ALL TIMES EXCEPT FOR SHORT PERIODS AS APPROVED BY THE ENGINEER.

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 TTCP SETUPS. 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.

MA-R2-10a SIGNS SHALL BE PLACED BETWEEN THE SECOND AND THIRD SIGNS AS DESCRIBED ABOVE.

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

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 0.33L
ONE-LANE, TWO-WAY TRAFFIC TAPER	50 FT MIN.(15 m) 100 FT(30 m) MAX.
DOWNSTREAM TAPER	50 FT MIN.(15 m) 100 FT MAX.(30 m) PER LANE

FORMULAS FOR DETERMINING TAPER LENGTHS

SPEED LIMIT (S)	TAPER LENGTH (L) FEET
40 MPH OR LESS	$L = \frac{WS^2}{60}$
45 MPH OR MORE	$L = WS$

WHERE: L = TAPER LENGTH IN FEET

W = WIDTH OF OFFSET IN FEET

S = POSTED SPEED LIMIT, OR OFF-PEAK 85TH-PERCENTILE SPEED PRIOR TO WORK STARTING, OR THE ANTICIPATED OPERATING SPEED IN MPH (KM/H)

STOPPING SIGHT DISTANCE AS A FUNCTION OF SPEED

SPEED* (mph)	DISTANCE (ft)
20	115
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570
65	645
70	730
75	820

*POSTED SPEED, OFF-PEAK 85TH-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.

LEGEND:

● REFLECTORIZED PLASTIC DRUM OR 36" CONE

P/F POLICE/FLAGGER DETAIL

▨ TYPE III BARRICADE

□ CHANGEABLE MESSAGE SIGN

➡➡➡ ARROW BOARD

▨ WORK ZONE

➡ DIRECTION OF TRAFFIC

⊞ IMPACT ATTENUATOR

▭ MEDIAN BARRIER

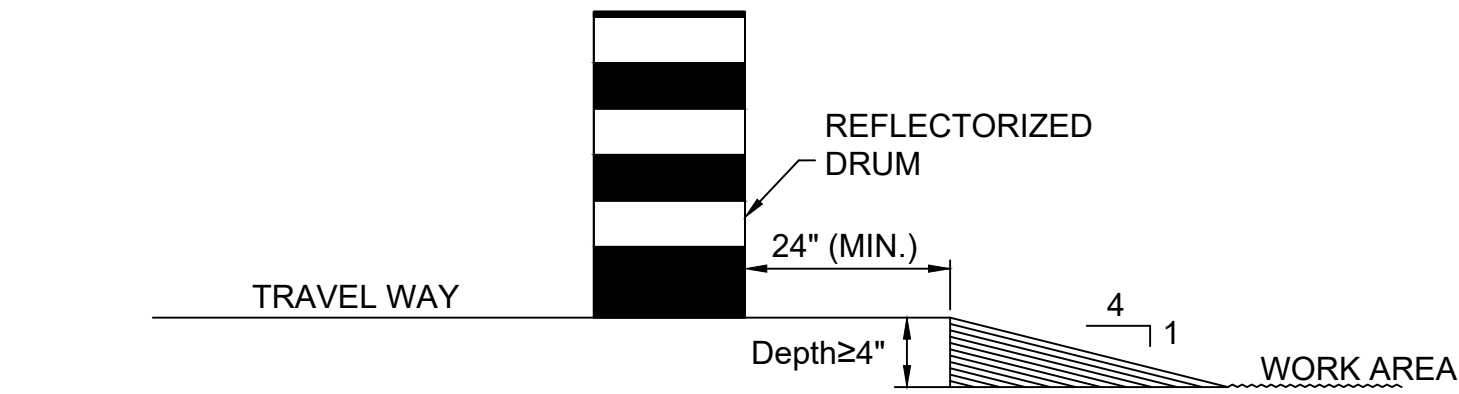
⊞ MEDIAN BARRIER WITH WARNING LIGHTS

🚚 WORK VEHICLE

▭ TRUCK MOUNTED ATTENUATOR

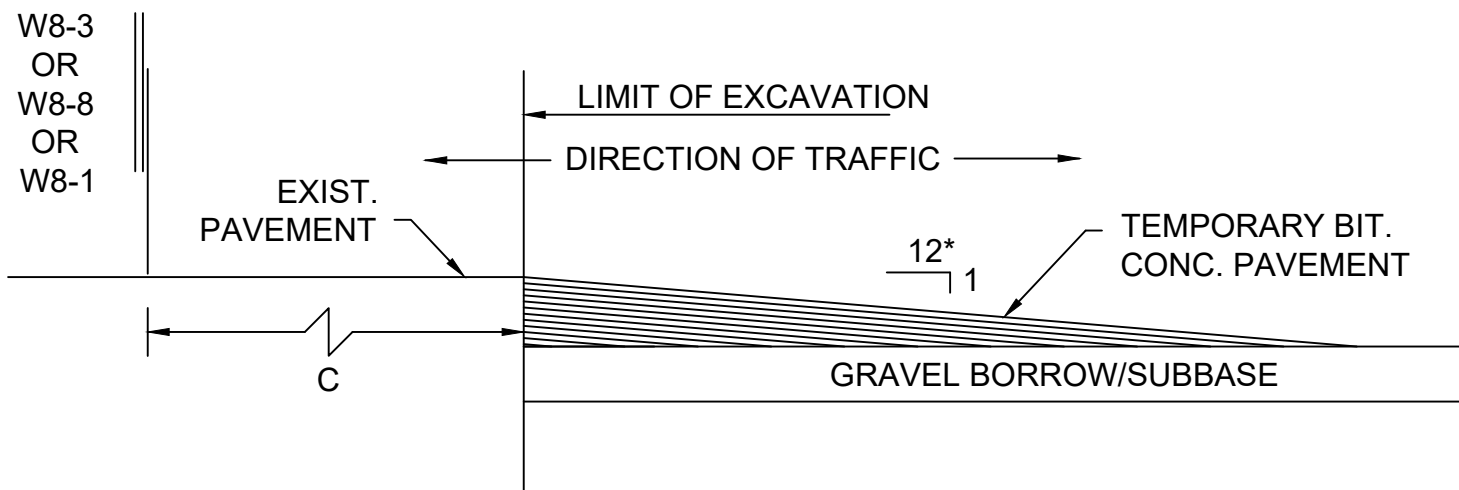
➡➡➡ TRAFFIC OR PEDESTRIAN SIGNAL

● SIGN



LATERAL DROP-OFF DETAIL

NOT TO SCALE



LONGITUDINAL DROP-OFF DETAIL

NOT TO SCALE

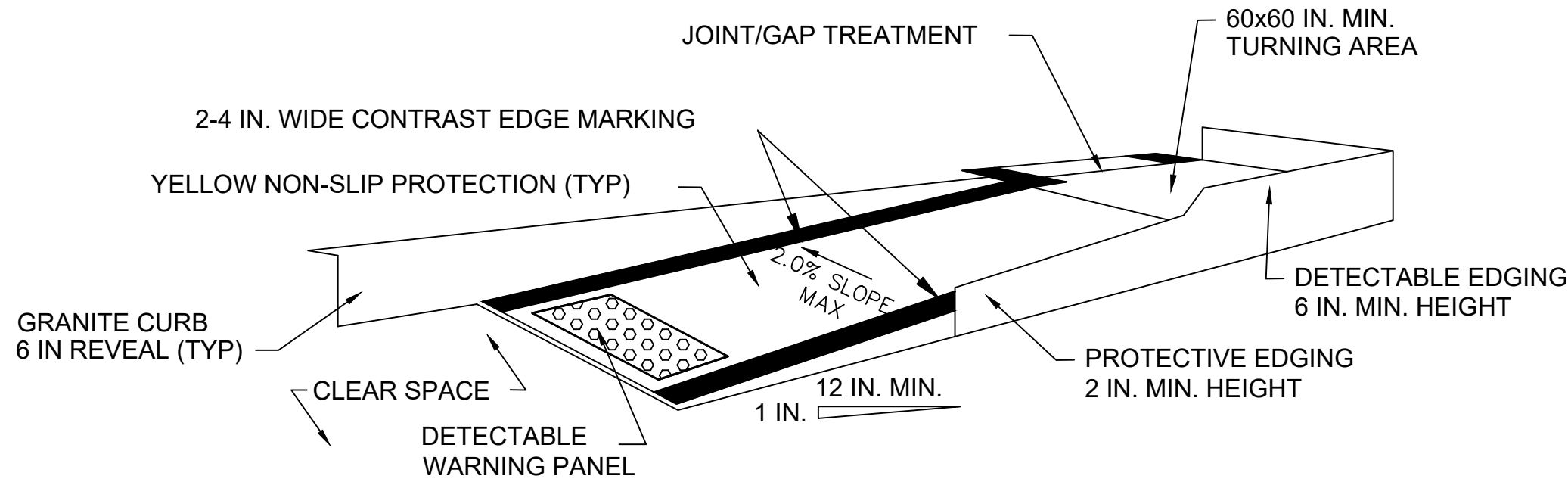
* - INCREASE SLOPE RATIO FOR HIGHER SPEEDS

LATERAL AND LONGITUDINAL DROP-OFF DETAILS

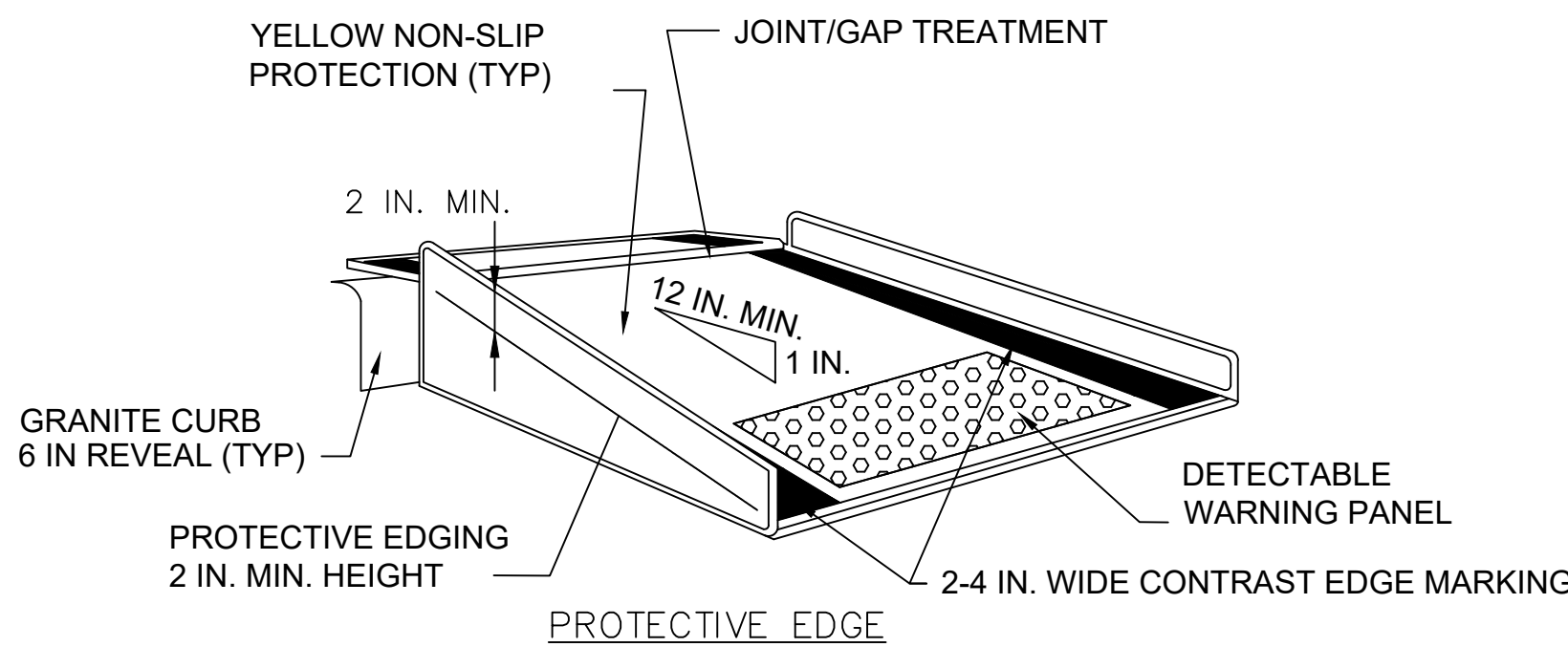
COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF CONSERVATION AND RECREATION
DIVISION OF ENGINEERING AND
DIVISION OF PLANNING AND RESOURCE PROTECTION

INTERSECTION IMPROVEMENTS AT		
LYNN FELS PARKWAY AND MELROSE STREET MELROSE		
SURVEY BY: NITSCH	TEMPORARY TRAFFIC CONTROL PLAN	SHEET NO.
DRAWN BY: KC		23
CHECKED BY: BG	CONT. XXX-XXXX-XXX	SCALE: NTS
APPROVED BY: JM	ACC. XXXXXXXXXX	DATE: 4/11/2023
		23 OF 33

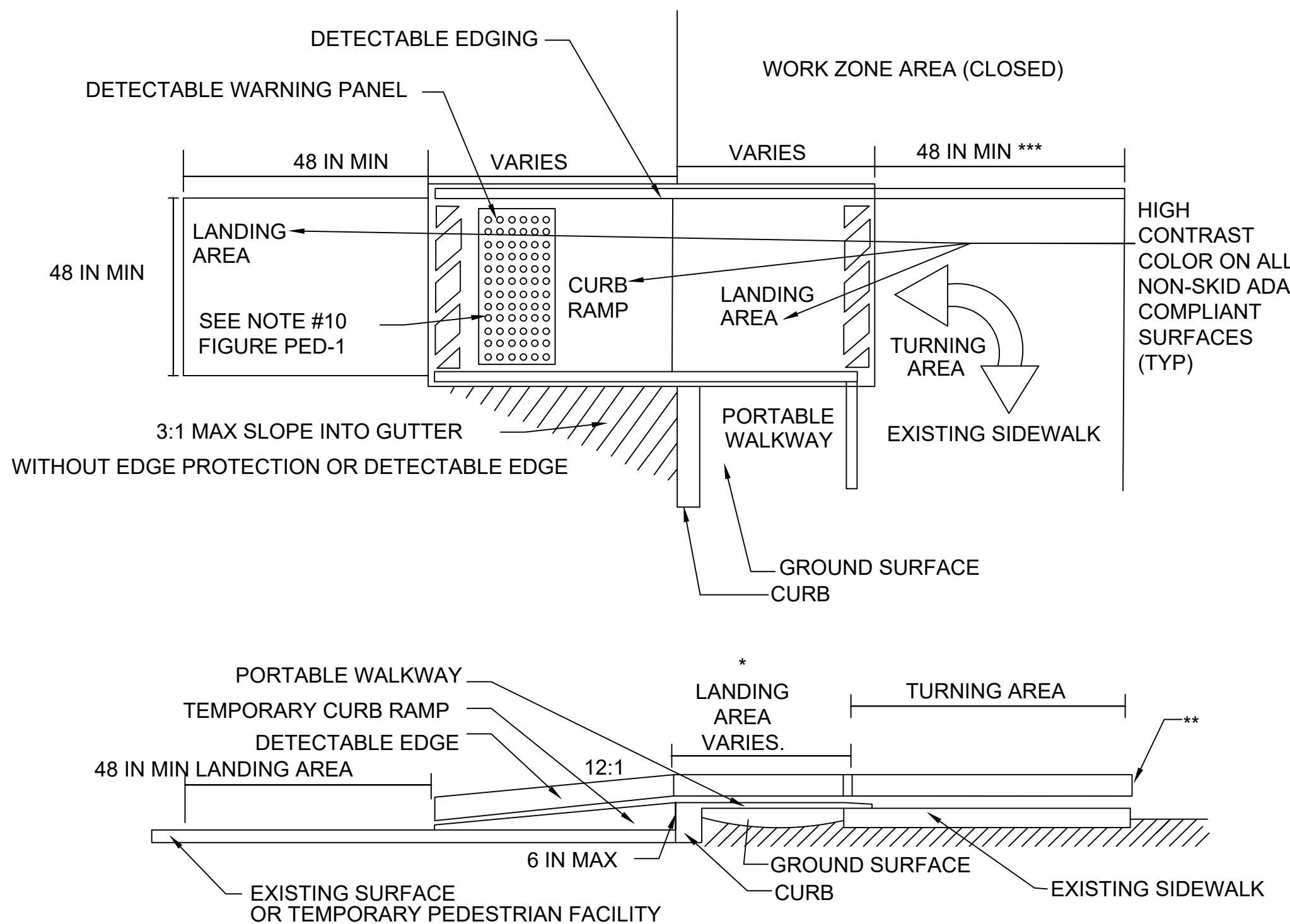
Nitsch - P:\10000-14999\12589.9 LynnFellsMelrose\Transportation\CAD\12589.9 CAD\Project Drawing Data\DWG\12589.9_HD(TTCP).dwg Apr 7, 2023 10:39 AM



TEMPORARY CURB RAMP-PARALLEL TO CURB



TEMPORARY CURB RAMP-PERPENDICULAR TO CURB

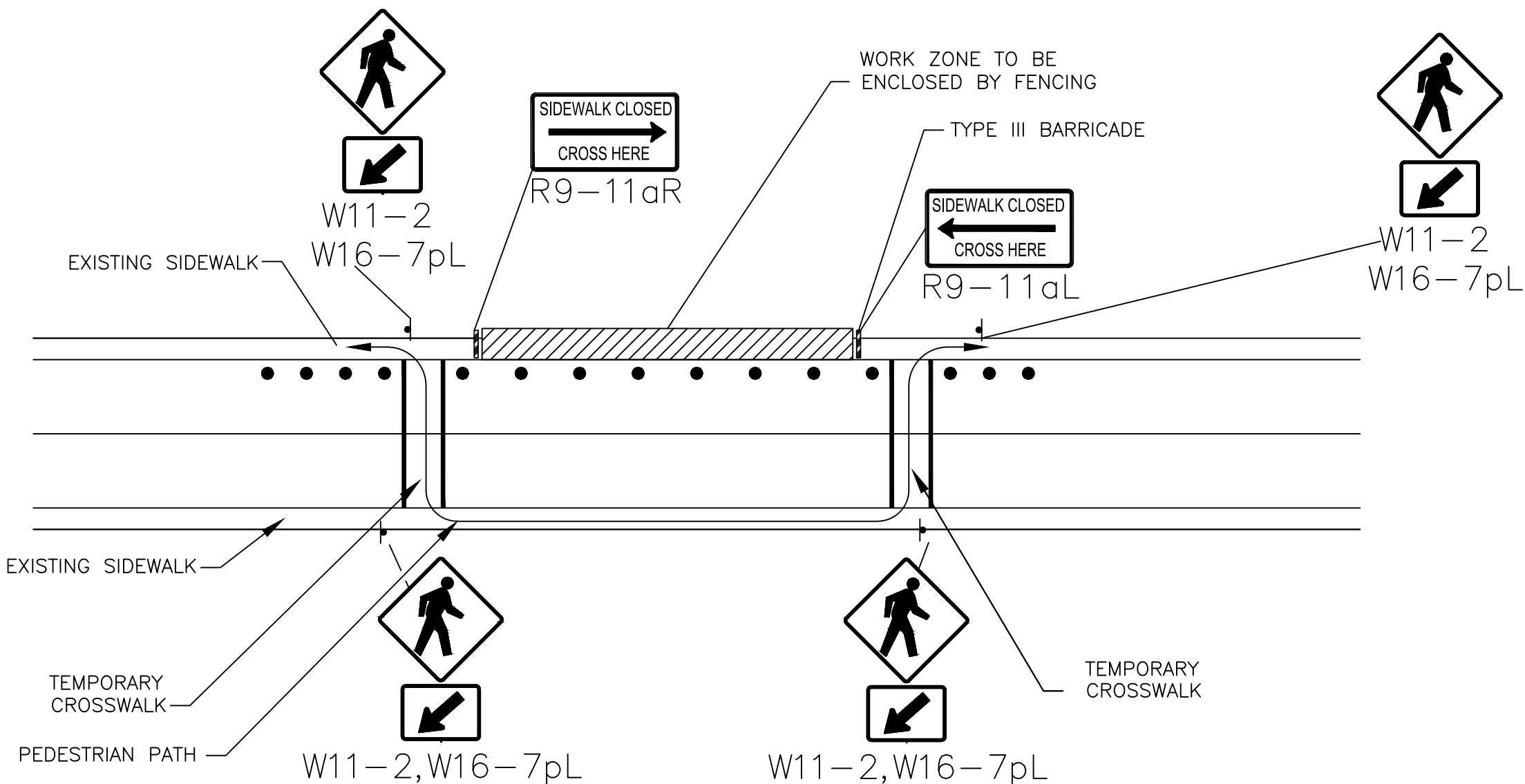


TEMPORARY CURB RAMP

- * -LANDING AREA USED TO OVERLAP NON-ADA COMPLIANT SURFACES.
** -DETECTABLE EDGE REMOVED IF A CONTINUOUS SIDEWALK.
*** -60 IN. IF AN OBSTRUCTION IS AT BACK OF SIDEWALK

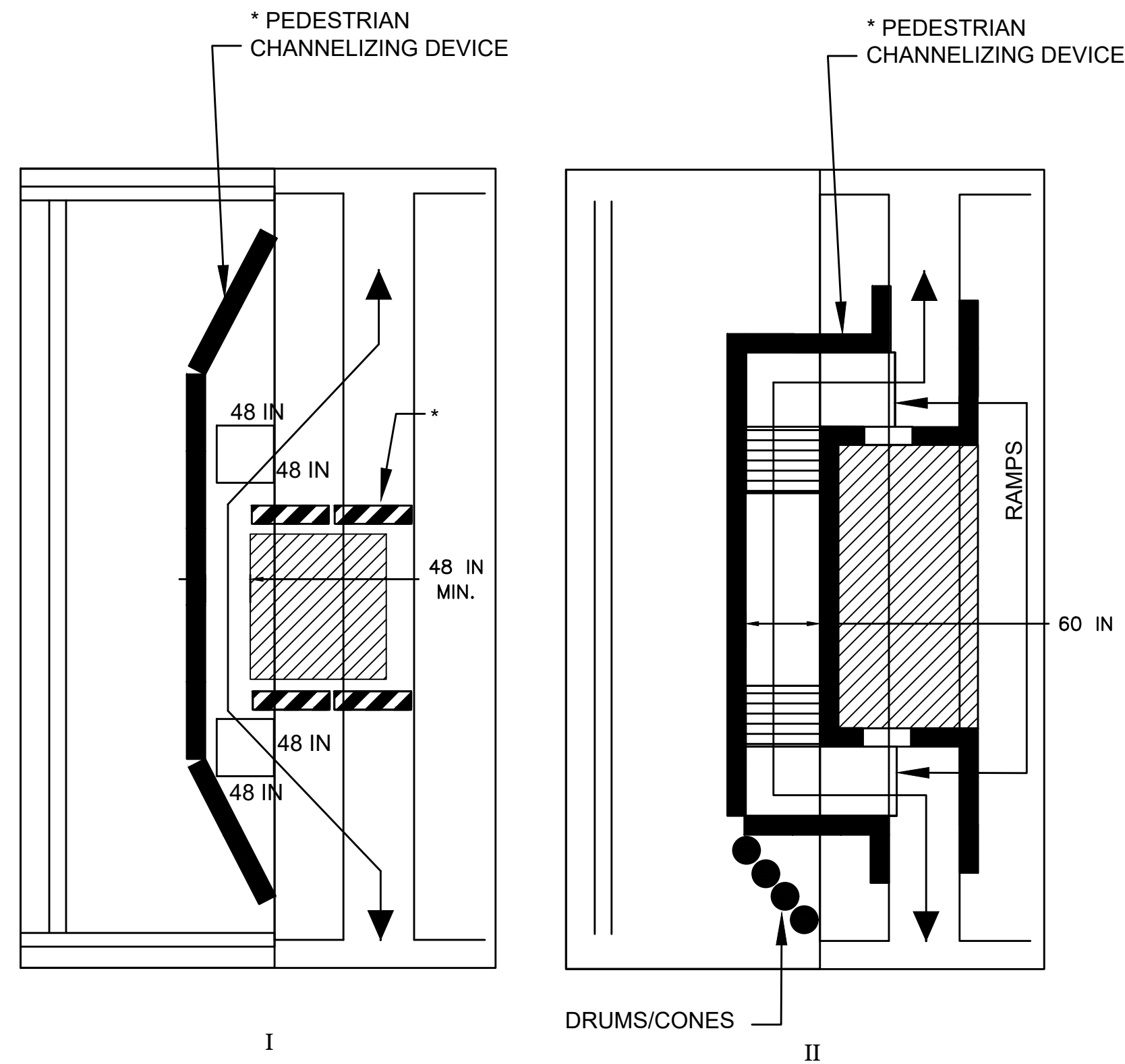
NOTES:

1. CURB RAMPS SHALL BE 60 IN. MINIMUM WIDTH WITH A FIRM, STABLE AND NON-SLIP SURFACE.
2. PROTECTIVE EDGING WITH A 2 IN. MINIMUM HEIGHT SHALL BE INSTALLED WHEN THE CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6 IN. OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN THE CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3 IN. OR MORE.
3. DETECTABLE EDGING WITH 6 IN. MINIMUM HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
4. THE CURB RAMP WALKWAY AND LANDING AREA SURFACE SHALL BE OF A SOLID CONTINUOUS CONTRASTING COLOR ABUTTING UP TO THE EXISTING SIDEWALK.
5. CURB RAMPS AND LANDINGS SHOULD HAVE A 1:50 (2%) MAX CROSS-SLOPE.
6. CLEAR SPACE OF 48x48 IN. MINIMUM SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.
7. WATER FLOW IN THE GUTTER SYSTEM SHALL HAVE MINIMAL RESTRICTION.
8. LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 0.5 IN. WIDTH.
9. CHANGES BETWEEN SURFACE HEIGHTS SHOULD NOT EXCEED 0.5 IN. LATERAL EDGES SHOULD BE VERTICAL UP TO 0.25 IN. HIGH, AND BEVELED AT 1:2 BETWEEN 0.25 IN. AND 0.5 IN. HEIGHT.
10. IF A TEMPORARY PEDESTRIAN RAMP LEADS TO A CROSSWALK, THEN A DETECTABLE WARNING PAD MUST BE ADHERED TO THE BASE OF THE RAMP, IF IT LEADS TO A PROTECTED PEDESTRIAN BYPASS THAT DOES NOT CONFLICT WITH VEHICULAR TRAFFIC, THEN A PAD SHALL NOT BE INSTALLED ON THE RAMP.

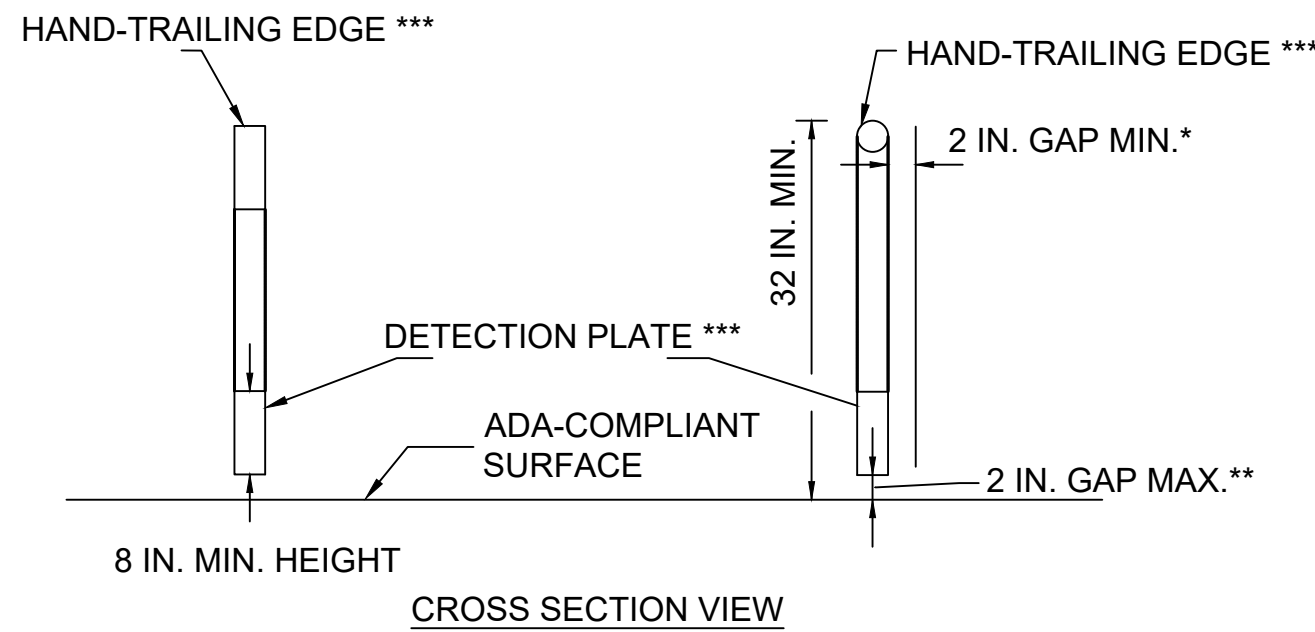


NOTES:

1. ADDITIONAL ADVANCE WARNING MAY BE NECESSARY.
2. CONTROLS ONLY FOR PEDESTRIAN TRAFFIC ARE SHOWN. VEHICULAR TRAFFIC SHOULD BE HANDLED AS SHOWN ELSEWHERE.
3. STREET LIGHTING SHOULD BE CONSIDERED WHEN LOCATING CONTROL DEVICES.
4. IF THE WORK ZONE DOES NOT PERMIT PEDESTRIANS TO TRAVEL ADJACENT TO IT AS SHOWN IN PEDESTRIAN BYPASS TYPE I, TEMPORARY CROSSWALKS WITH APPROPRIATE SIGNS SHOULD BE INSTALLED TO CROSS PEDESTRIANS TO THE OPPOSITE SIDE OF THE STREET AS SHOWN IN PEDESTRIAN BYPASS TYPE II, AND AS DIRECTED BY THE ENGINEER. TEMPORARY CURB RAMPS WILL BE REQUIRED AT ALL TEMPORARY CROSSWALK LOCATIONS.
5. BYPASS IS TO BE USED IN CONJUNCTION WITH THE PROPOSED LANE CLOSURE DETAILS AND DURING CONSTRUCTION STAGING, AS DIRECTED BY THE ENGINEER.
6. THE TEMPORARY SIDEWALK SHOULD BE A MINIMUM OF 4 FEET WIDE. IF THIS WALKWAY EXCEEDS 200 FEET THEN A 5 FOOT X 5 FOOT PASSING ZONE. (FOR SHORT TERM SETUPS < 10 HOURS, THIS CONDITION MAY BE WAIVED. A NOTE WOULD NEED TO BE INCLUDED IN THE TTCP THAT STATES HOW THE CONTRACTOR SHOULD ADDRESS THIS ISSUE.)



TEMPORARY PEDESTRIAN DELINEATION DETAILS



PEDESTRIAN CHANNELIZING DEVICE

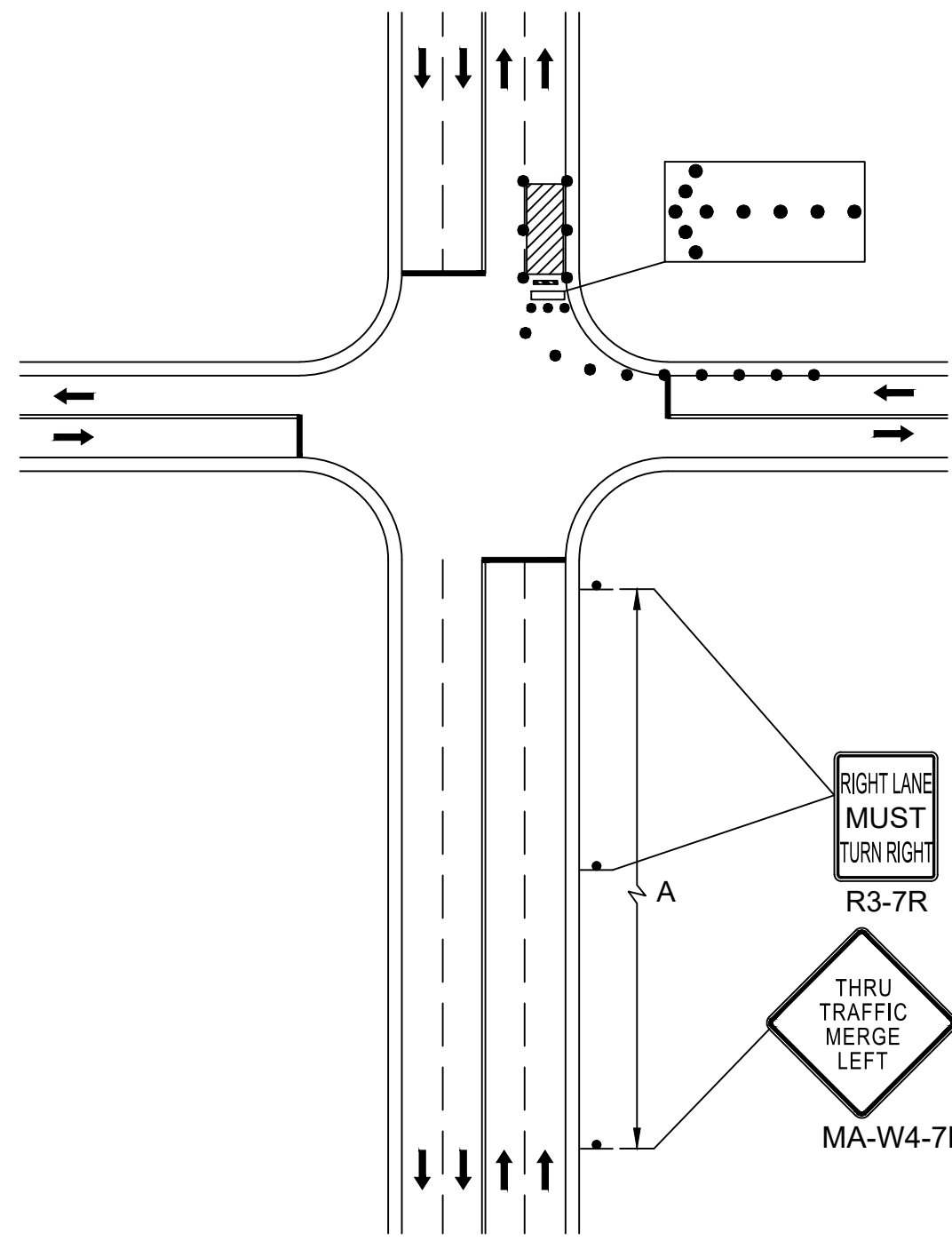
NOTES:

- * THERE SHALL BE A 2 INCH GAP BETWEEN THE HAND-TRAILING EDGE AND ITS SUPPORT.
** A MAXIMUM 2 INCH GAP BETWEEN THE BOTTOM OF THE BOTTOM RAIL AND THE SURFACE MAY BE USED TO PROVIDE DRAINAGE.
*** THE HAND-TRAILING EDGE AND DETECTION PLATE SHALL BE CONTINUOUS THROUGHOUT THE LENGTH OF THE PATH SUCH THAT A PEDESTRIAN USER WITH A LONG CANE CAN FOLLOW IT.

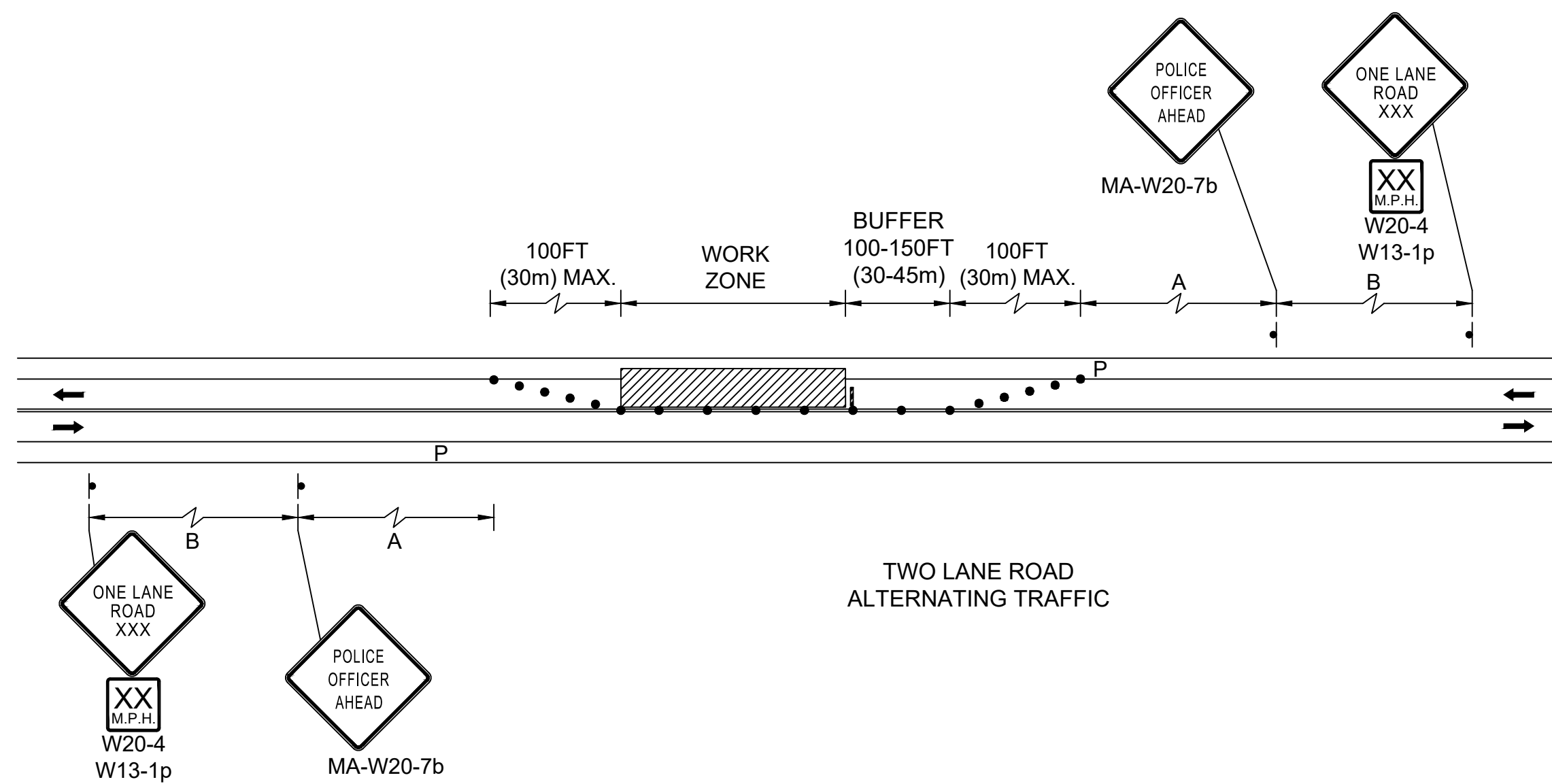
COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF CONSERVATION AND RECREATION
DIVISION OF ENGINEERING AND
DIVISION OF PLANNING AND RESOURCE PROTECTION

INTERSECTION IMPROVEMENTS AT
LYNN FELS PARKWAY AND MELROSE STREET
MELROSE

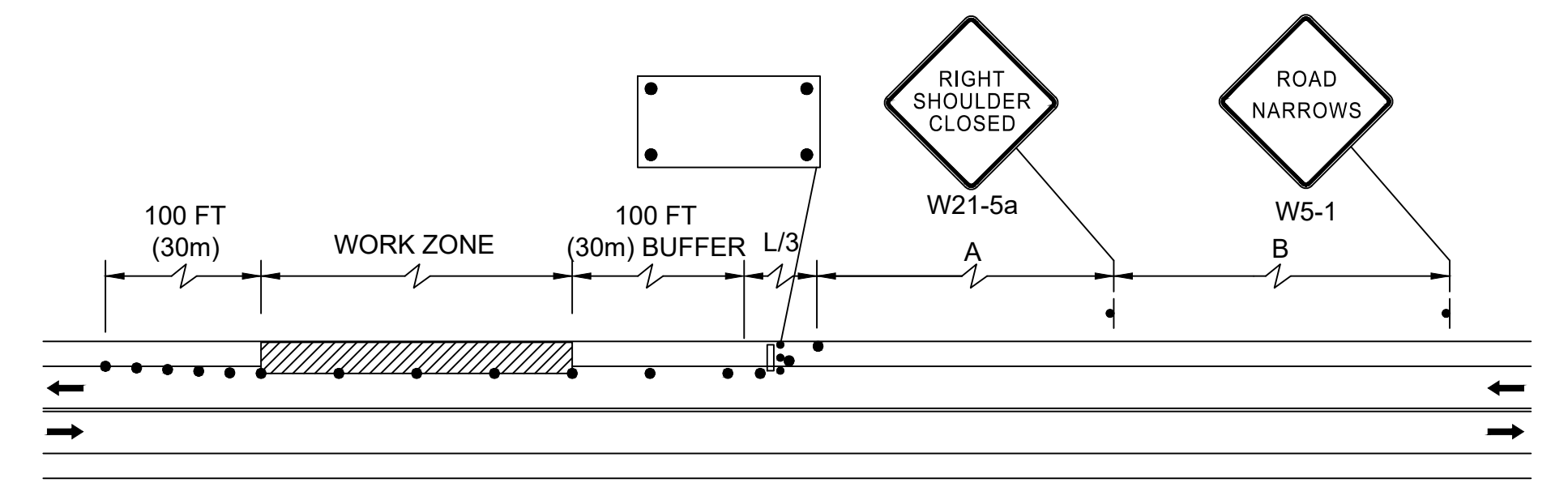
SURVEY BY: NTSCH	TEMPORARY TRAFFIC CONTROL PLAN	SHEET NO. 24 24 OF 33
DRAWN BY: KC		
CHECKED BY: BG		
APPROVED BY: JM		
CONT. XXX-XXXX-XXX	SCALE: NTS	
ACC. XXXXXXXXX	DATE: 4/11/2023	



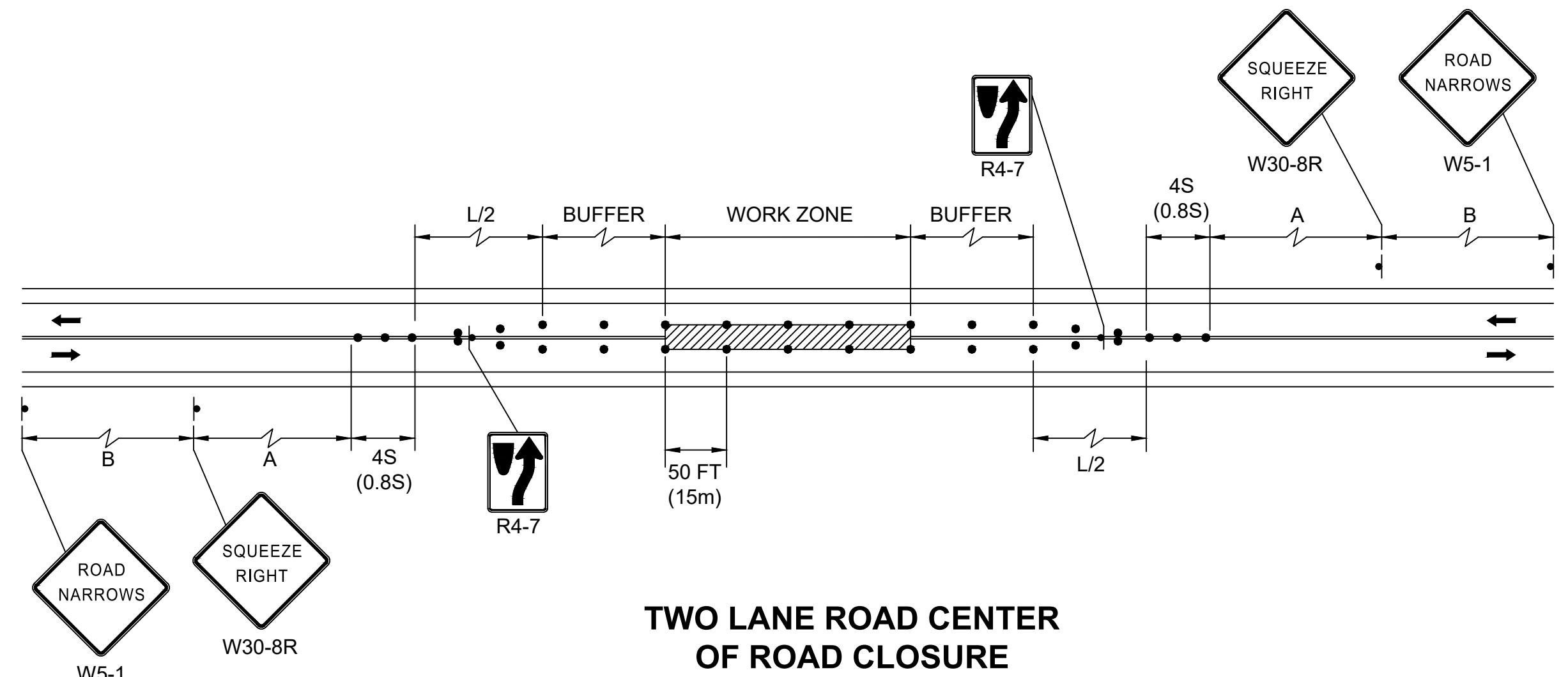
DOUBLE LANE APPROACH FAR
SIDE CLOSURE RIGHT LANE



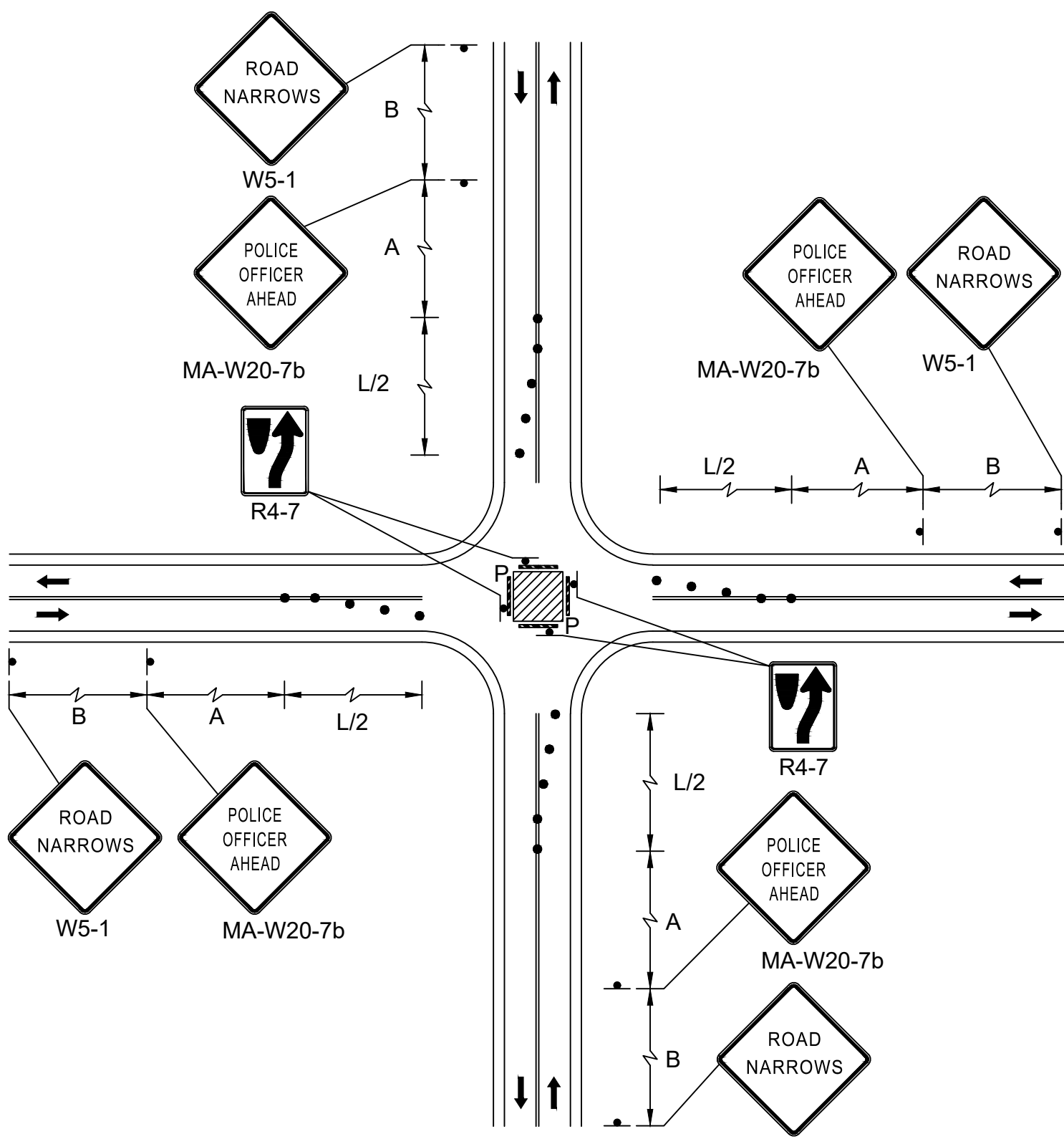
TWO LANE ROAD
ALTERNATING TRAFFIC



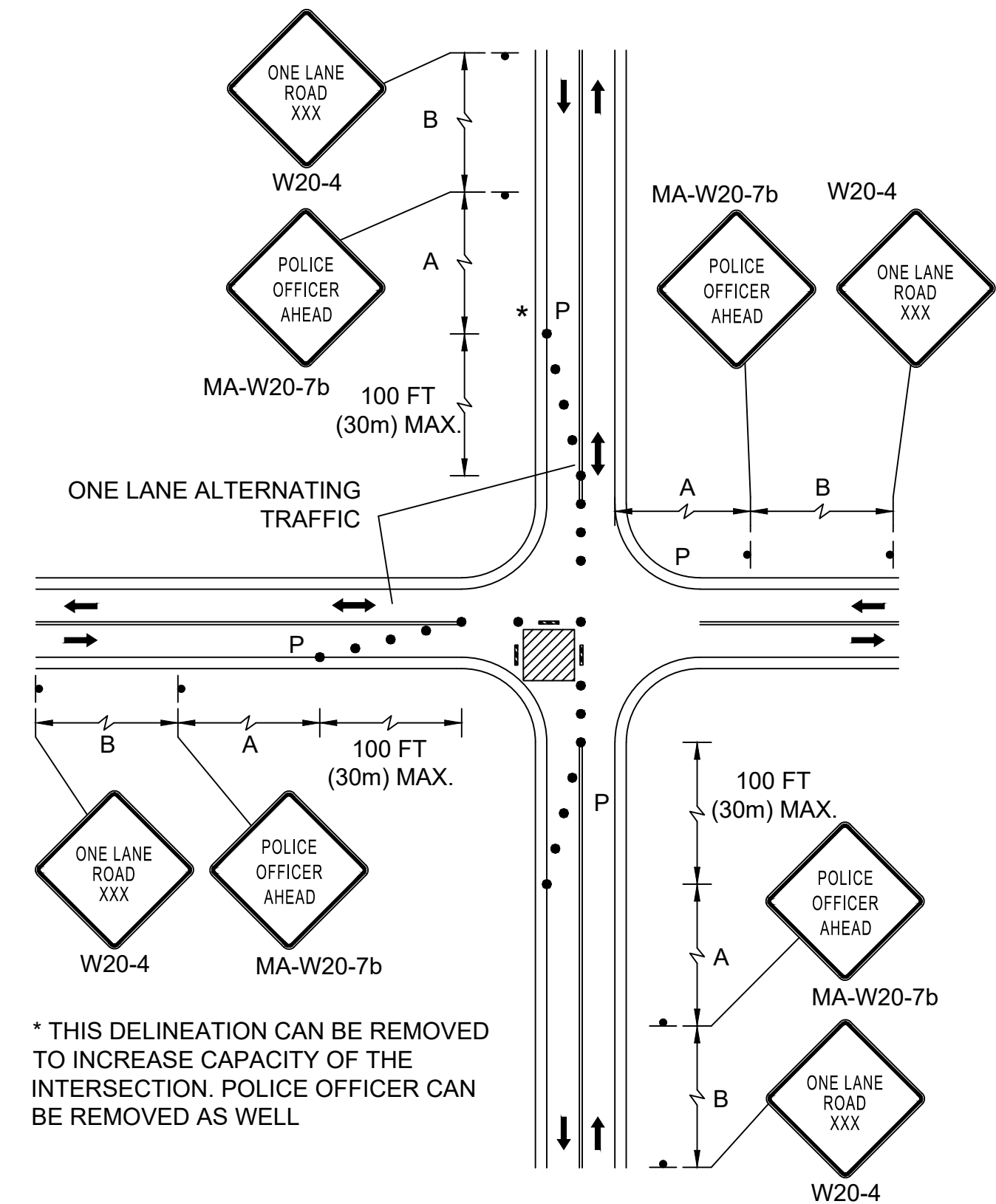
TWO LANE ROAD
SHOULDER CLOSURE



TWO LANE ROAD CENTER
OF ROAD CLOSURE

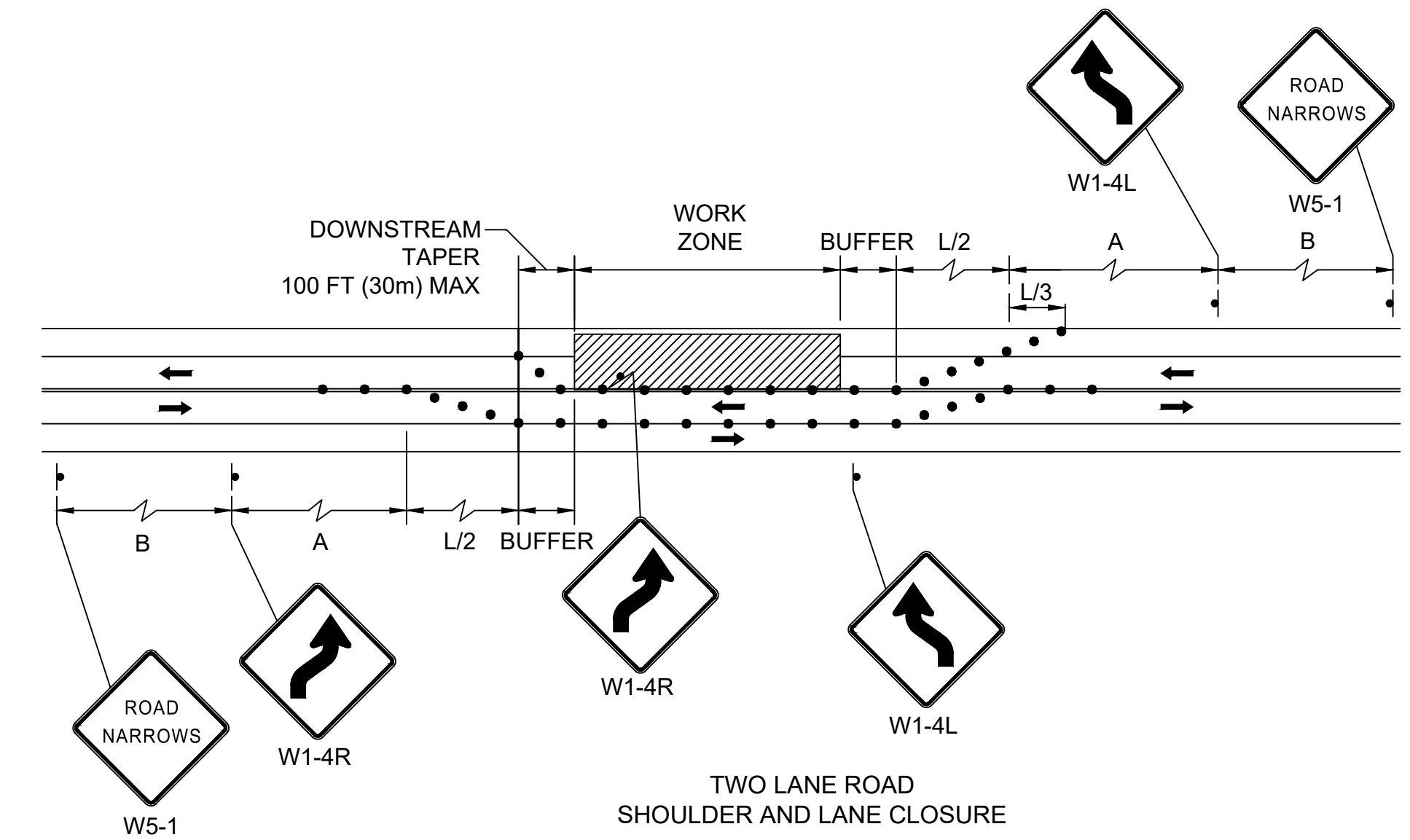


SINGLE LANE APPROACH INTERSECTION
CENTER CLOSURE



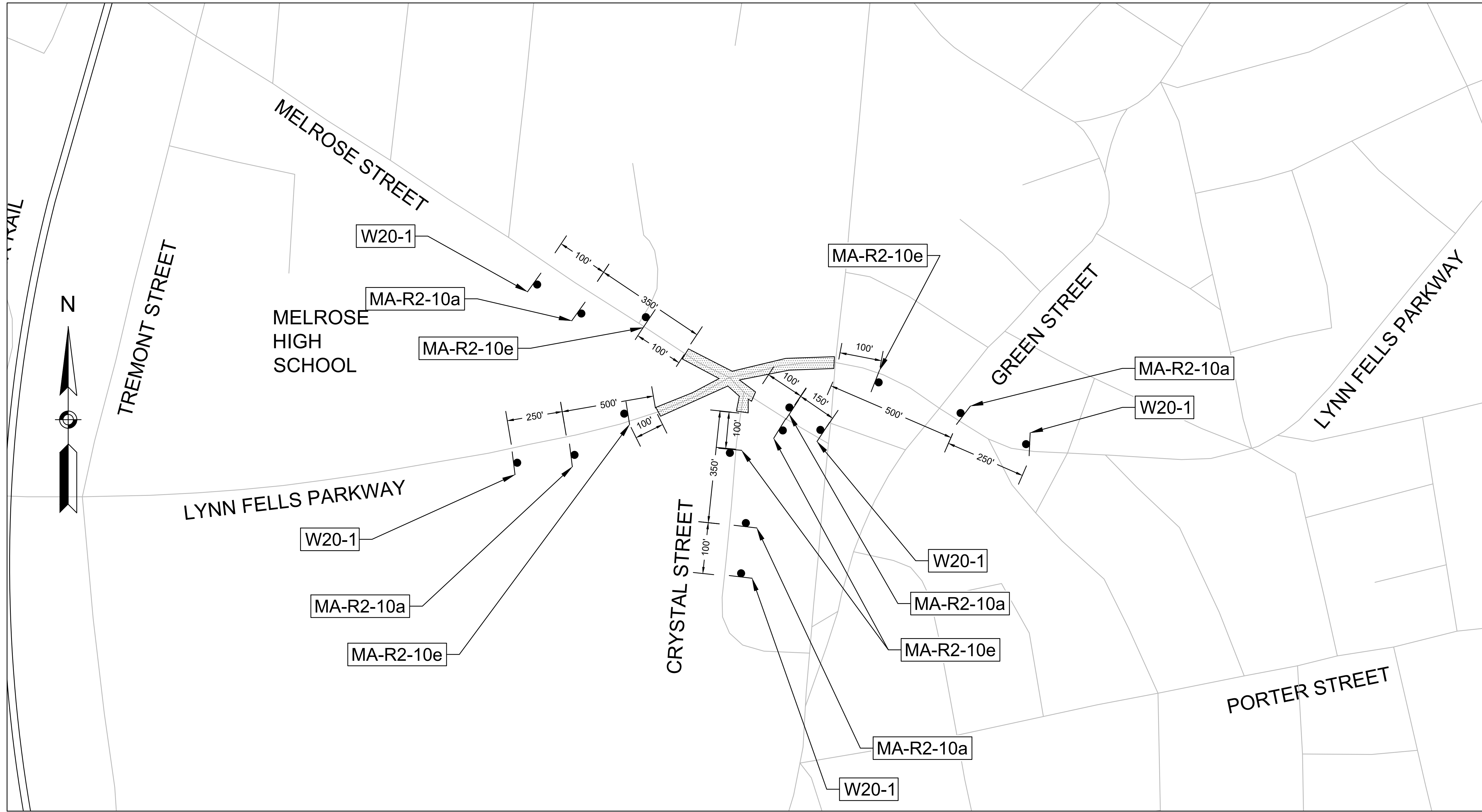
* THIS DELINEATION CAN BE REMOVED
TO INCREASE CAPACITY OF THE
INTERSECTION. POLICE OFFICER CAN
BE REMOVED AS WELL

SINGLE LANE APPROACH INTERSECTION
ONE CORNER CLOSURE



TWO LANE ROAD
SHOULDER AND LANE CLOSURE

COMMONWEALTH OF MASSACHUSETTS DEPARTMENT OF CONSERVATION AND RECREATION DIVISION OF ENGINEERING AND DIVISION OF PLANNING AND RESOURCE PROTECTION			
INTERSECTION IMPROVEMENTS AT LYNN FELS PARKWAY AND MELROSE STREET MELROSE			
SURVEY BY: NTSCH		SHEET NO.	
DRAWN BY: KC		25	
CHECKED BY: BG		DATE: 4/11/2023	
APPROVED BY: JM		25 OF 33	
TEMPORARY TRAFFIC CONTROL PLAN			
CONT. XXX-XXXX-XXX			
ACC. XXXXXXXXXX			



ADVANCE WARNING SIGN PLAN
NTS

KEY:

| LIMIT OF WORK

▼ SIGN

XXXX PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)

WORK ZONE

NOTES:

- PCMS SHALL BE INSTALLED AT LEAST 2 WEEKS PRIOR TO THE START OF WORK. WITH THE FOLLOWING WORD MESSAGE:
PHASE 1: CONSTR BEGINS MM-DD
PHASE 2: SEEK ALT ROUTE
- THE CONTRACTOR SHALL CONFIRM THE EXACT LOCATION OF THE PCMS WITH THE RESIDENT ENGINEER AND THE CITY OF MELROSE.
- THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER TO CONTINUALLY UPDATE THE PCMS BASED UPON ON-GOING WORK. ABBREVIATIONS SHALL BE IN ACCORDANCE WITH THE MUTCD.
- PLACEMENT OF ADVANCE WARNING SIGN SHALL BE ADJUSTED BASED ON THE ACTUAL FIELD CONDITIONS.
- MA-R2-10e, "END ROAD WORK DOUBLE FINES END" SIGN SHALL BE PLACED AT A MINIMUM OF 100' DOWNSTREAM OF WORK ZONE.

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF CONSERVATION AND RECREATION
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INTERSECTION IMPROVEMENTS AT
LYNN FELLS PARKWAY AND MELROSE STREET
MELROSE

SURVEY BY: NTSCH
DRAWN BY: KC
CHECKED BY: BG
APPROVED BY: JM

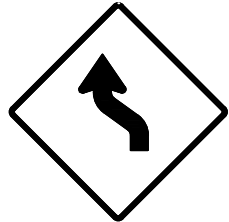
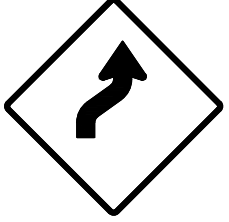
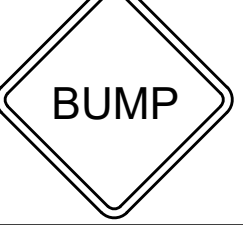
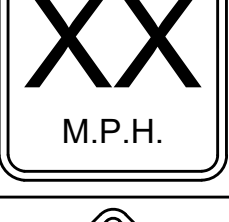
TEMPORARY TRAFFIC CONTROL PLAN

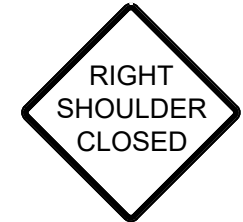
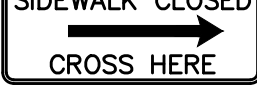
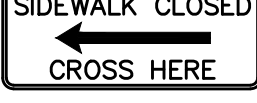
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ACC: XXXXXXXXX

SCALE: NTS
DATE: 4/11/2023

SHEET NO.
26
26 OF 33

CONSTRUCTION SIGN SUMMARY

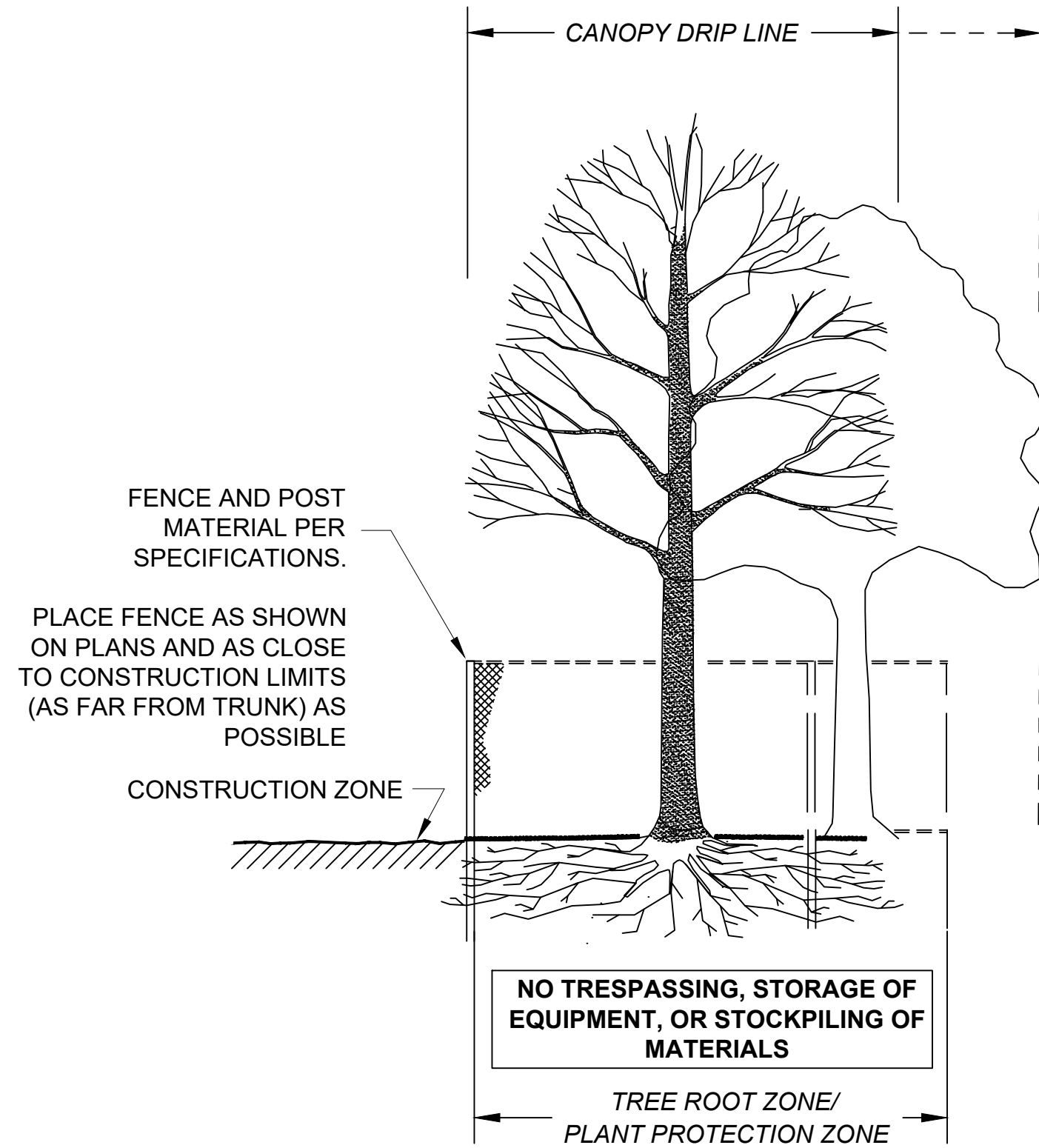
IDENTIFI- CATION NUMBER	SIZE OF SIGN		SIGN DIAGRAM	COLOR			# REQ'D *	UNIT AREA S.F.	AREA IN SQUARE FEET
	WIDTH	HEIGHT		BACK- GROUND	LEGEND	BORDER			
W1-4L	36"	36"		FLUORESCENT ORANGE	BLACK	BLACK	2	9.00	18.00
W1-4R	36"	36"		FLUORESCENT ORANGE	BLACK	BLACK	2	9.00	18.00
MA-W4-7L	36"	36"		FLUORESCENT ORANGE	BLACK	BLACK	1	9.00	9.00
W5-1	36"	36"		FLUORESCENT ORANGE	BLACK	BLACK	4	9.00	36.00
W8-1	36"	36"		FLUORESCENT ORANGE	BLACK	BLACK	2	9.00	18.00
W8-3	36"	36"		FLUORESCENT ORANGE	BLACK	BLACK	2	9.00	18.00
W8-15	36"	36"		FLUORESCENT ORANGE	BLACK	BLACK	2	9.00	18.00
W8-24	36"	36"		FLUORESCENT ORANGE	BLACK	BLACK	2	9.00	18.00
W13-1p	24"	24"		FLUORESCENT ORANGE	BLACK	BLACK	2	4.00	8.00
W20-1	36"	36"		FLUORESCENT ORANGE	BLACK	BLACK	5	9.00	108
W20-4	36"	36"		FLUORESCENT ORANGE	BLACK	BLACK	4	9.00	36.00

IDENTIFI- CATION NUMBER	SIZE OF SIGN		SIGN DIAGRAM	COLOR			# REQ'D *	UNIT AREA S.F.	AREA IN SQUARE FEET
	WIDTH	HEIGHT		BACK- GROUND	LEGEND	BORDER			
MA-W20-7b	36"	36"		FLUORESCENT ORANGE	BLACK	BLACK	4	9.00	36.00
W21-5a	36"	36"		FLUORESCENT ORANGE	BLACK	BLACK	2	9.00	18.00
MA-R2-10a	48"	36"	WORK ZONE SPEEDING FINES DOUBLED	FLUORESCENT ORANGE	BLACK	BLACK	5	12.00	144.00
MA-R2-10e	36"	48"	END ROAD WORK DOUBLE FINES END	FLUORESCENT ORANGE	BLACK	BLACK	5	12.00	144.00
R3-7R	36"	36"		WHITE	BLACK	BLACK	1	9.00	9.00
R4-7	24"	30"		WHITE	BLACK	BLACK	2	5.00	10.00
R9-9	24"	12"		WHITE	BLACK	BLACK	4	2.00	8.00
R9-11aR	24"	12"		WHITE	BLACK	BLACK	2	2.00	4.00
R9-11aL	24"	12"		WHITE	BLACK	BLACK	2	2.00	4.00
W11-2	36"	36"		FLUORESCENT ORANGE	BLACK	BLACK	4	9.00	36.00
W16-7p	24"	12"		FLUORESCENT ORANGE	BLACK	BLACK	4	2.00	8.00

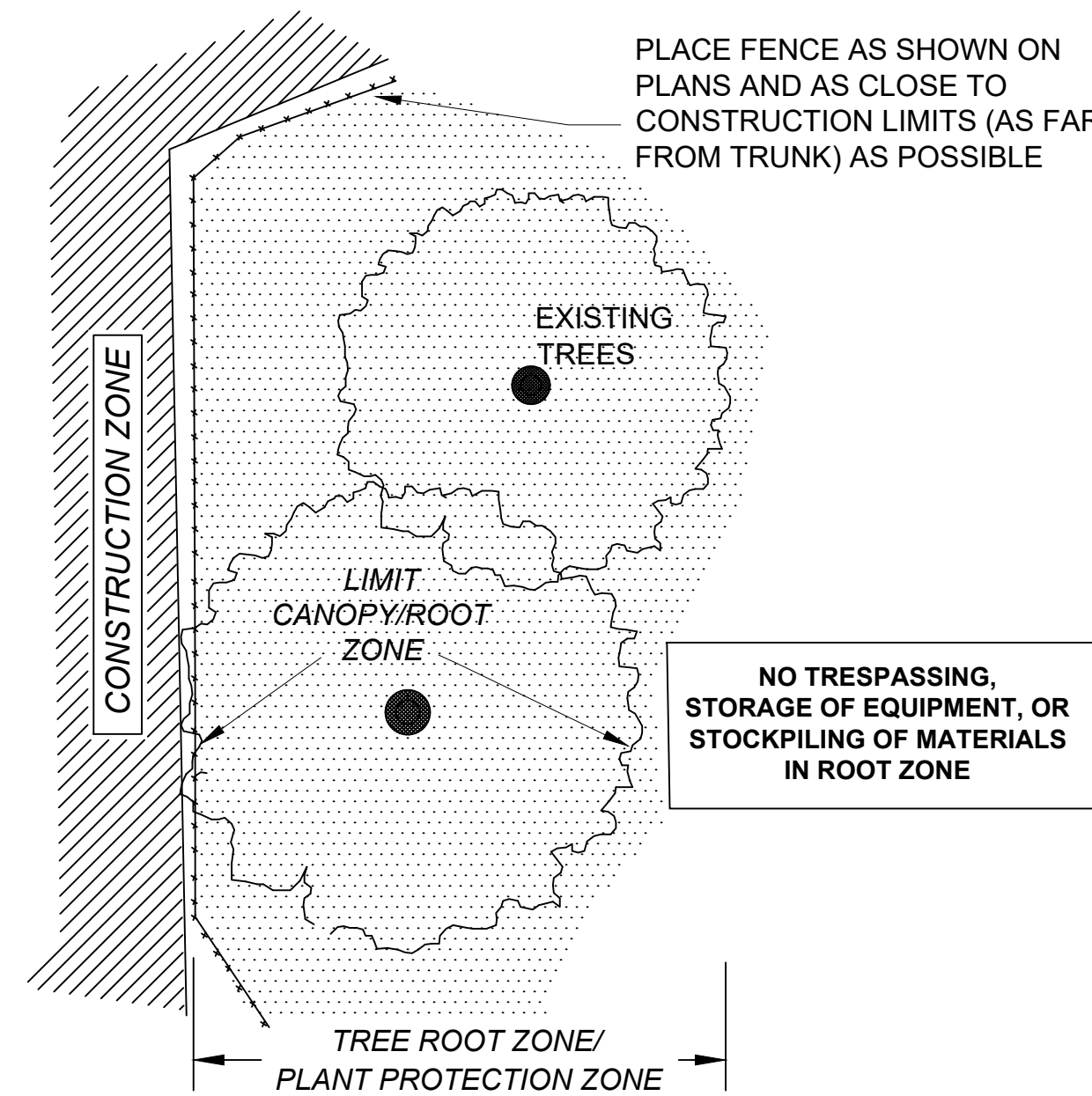
* NO. OF SIGNS ARE ESTIMATED FOR BIDDING PURPOSES ONLY

COMMONWEALTH OF MASSACHUSETTS DEPARTMENT OF CONSERVATION AND RECREATION DIVISION OF ENGINEERING AND DIVISION OF PLANNING AND RESOURCE PROTECTION			
INTERSECTION IMPROVEMENTS AT LYNN FELS PARKWAY AND MELROSE STREET MELROSE			
SURVEY BY: NTSCH		SHEET NO.	
DRAWN BY: KC		27	
CHECKED BY: BG		TEMPORARY TRAFFIC CONTROL PLAN	
APPROVED BY: JM		CONT. XXX-XXXX-XXX	SCALE: NTS
		ACC. XXXXXXXXX	DATE: 4/11/2023
		27 OF 33	

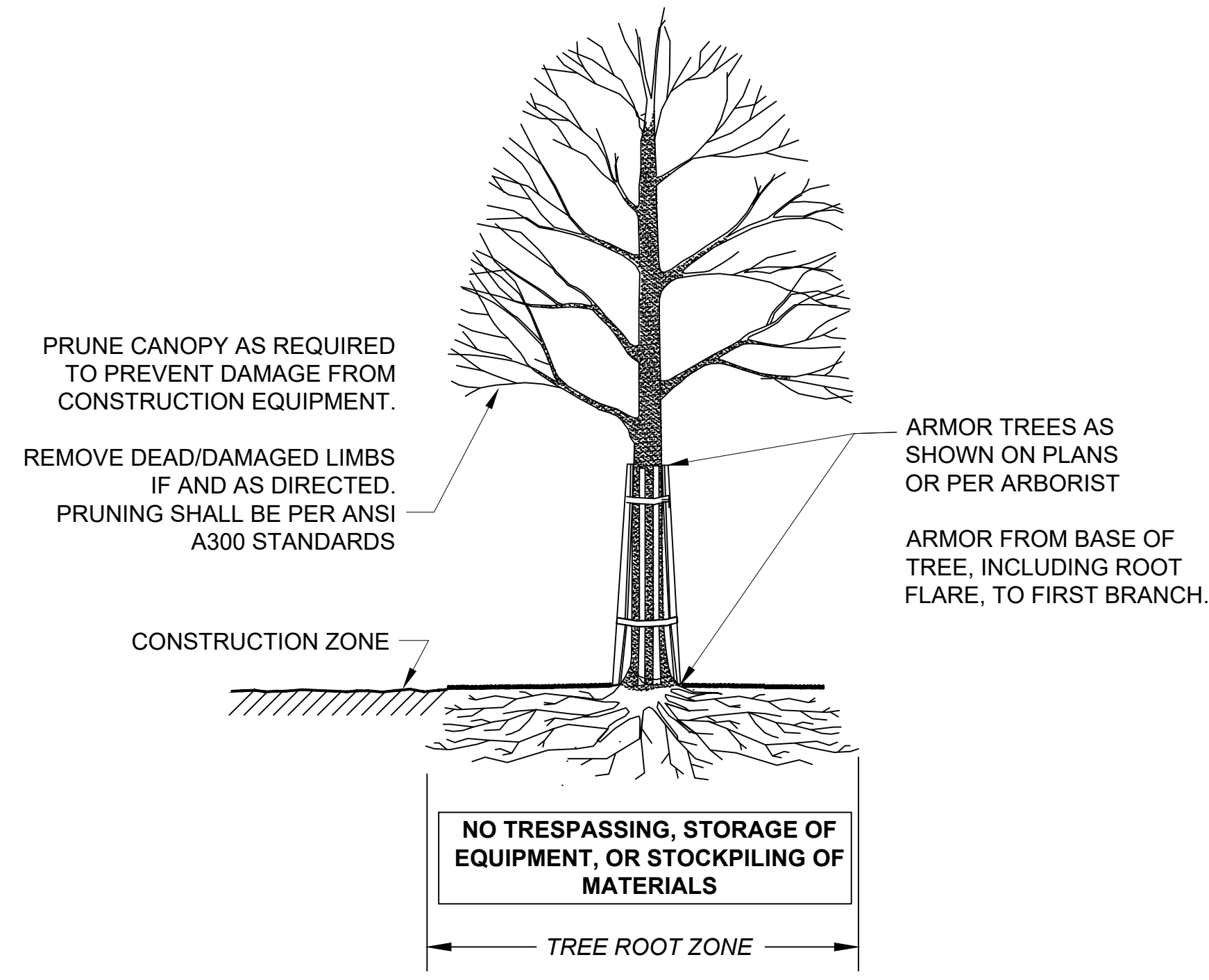
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SECTION - FENCE PROTECTION OF ROOT ZONE



PLAN VIEW - FENCE PROTECTION OF ROOT ZONE

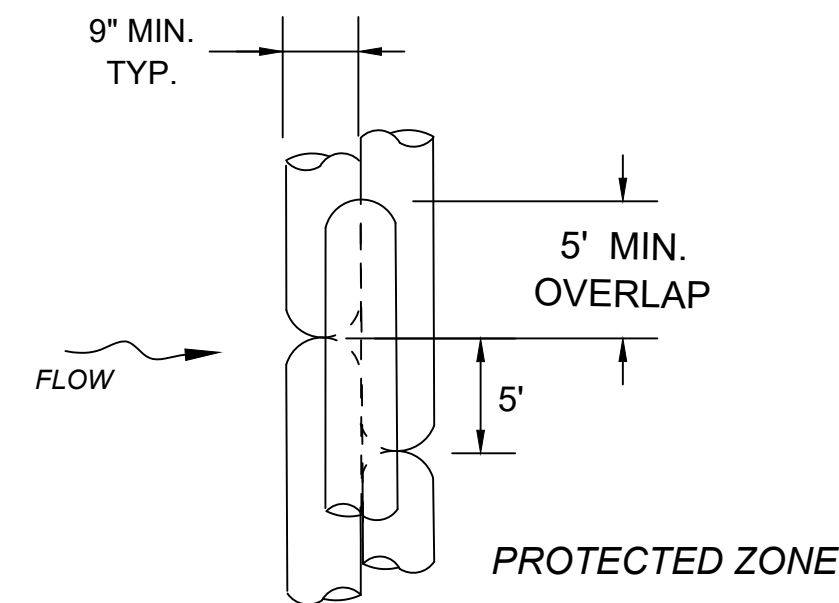


SECTION - TRUNK ARMORING & PRUNING

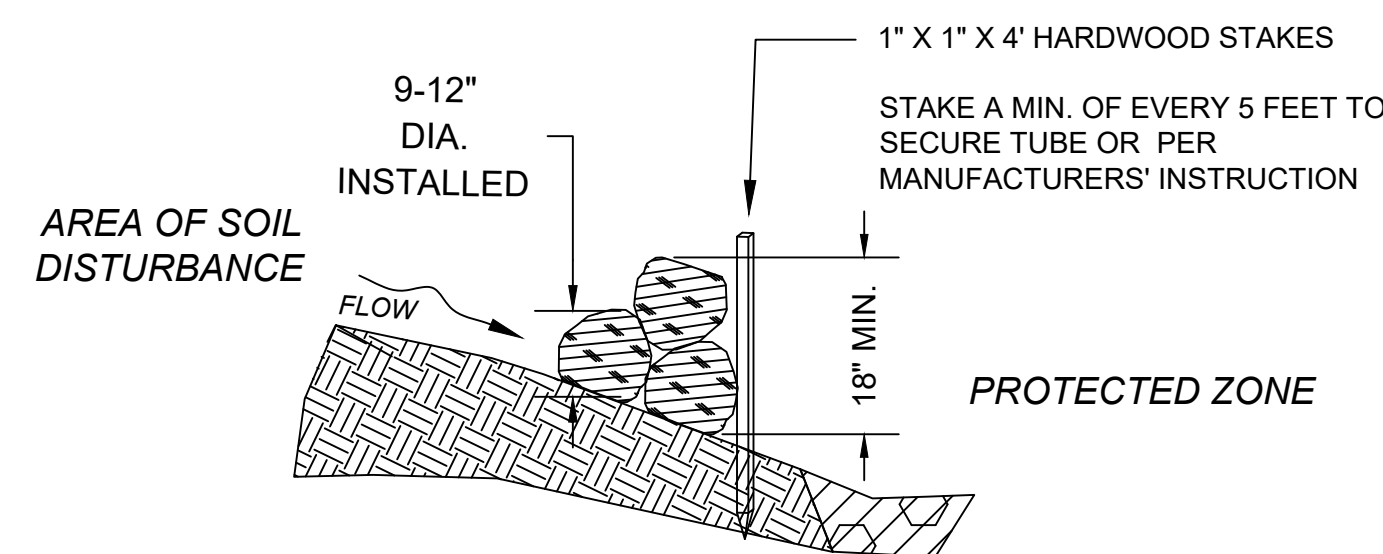
TREE PROTECTION - ROOT ZONE

NOT TO SCALE

TREE PROTECTION - TRUNK



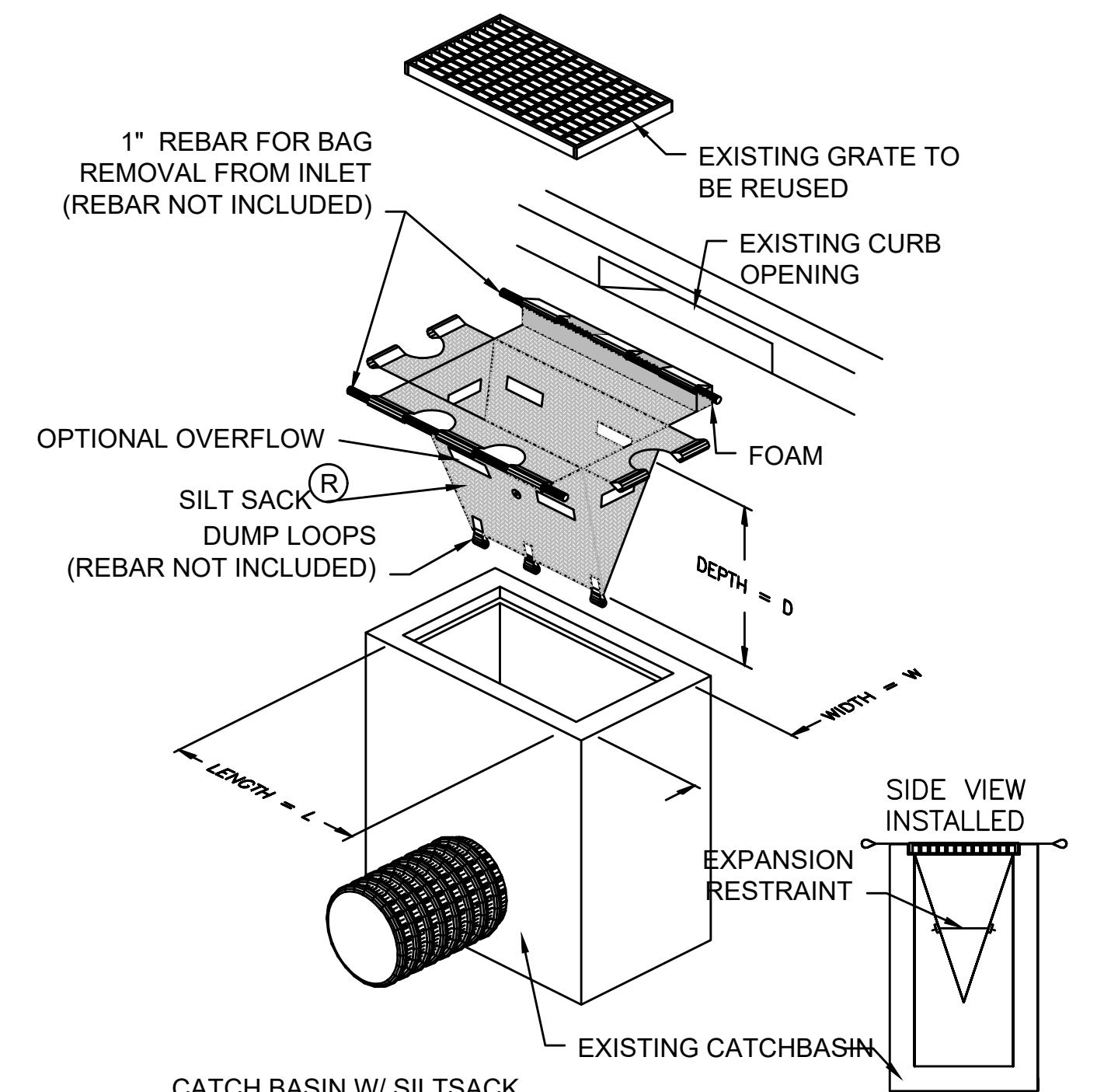
PLAN VIEW



SECTION

COMPOST FILTER TUBE BERM (SLOPES 2:1 OR STEEPER)

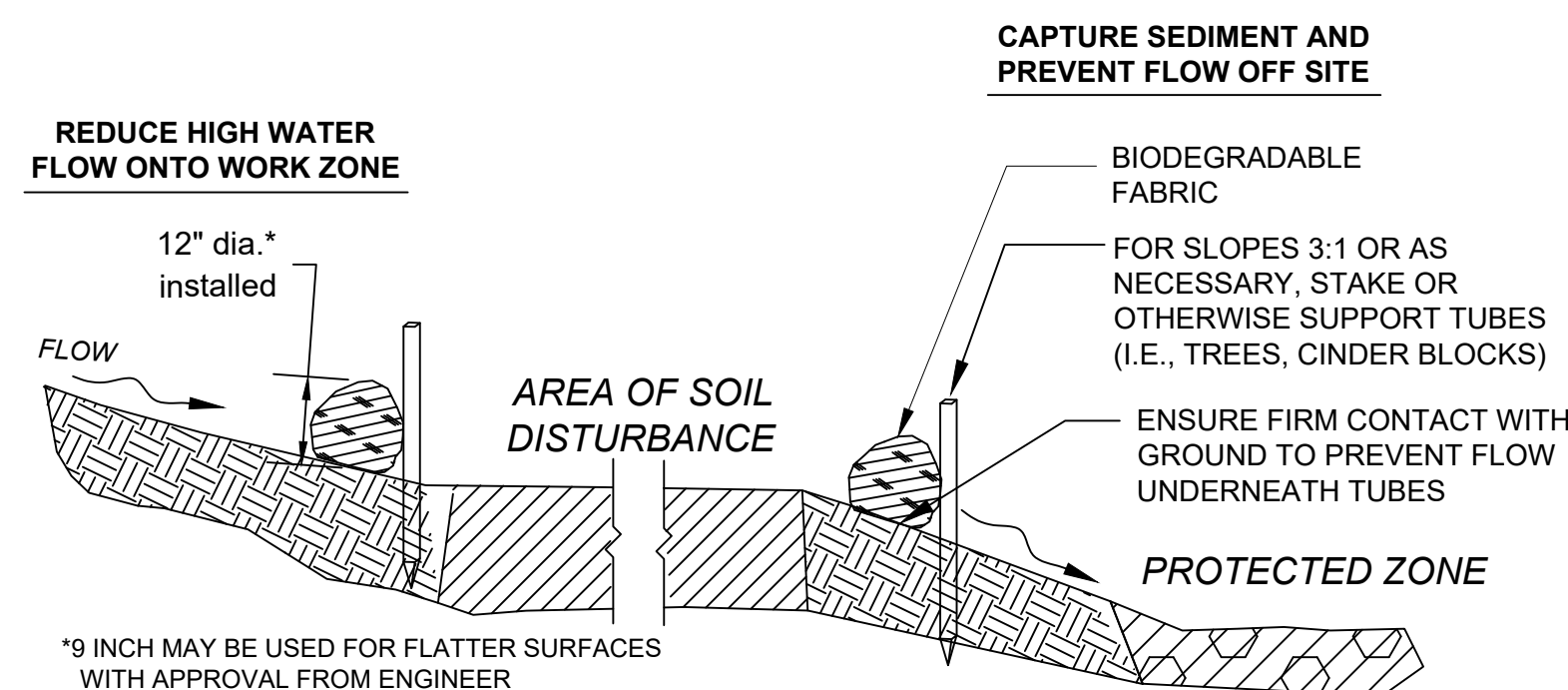
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CATCH BASIN W/ SILTSACK

INLET PROTECTION

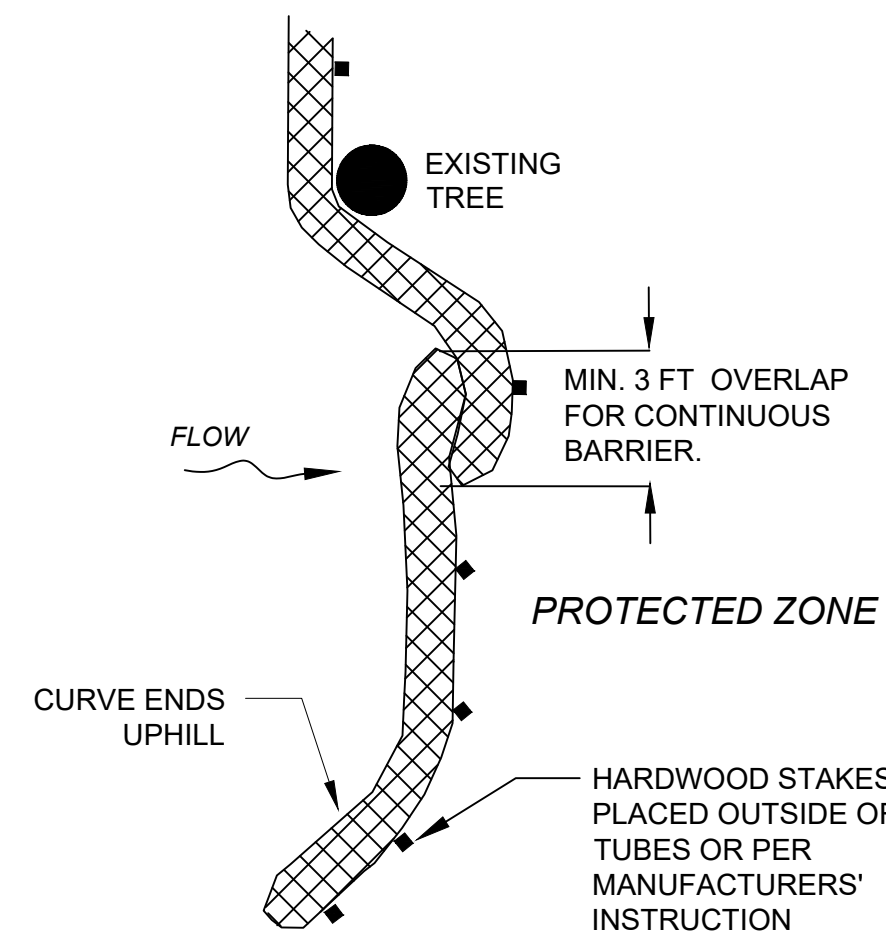
NOT TO SCALE



SECTION

SEDIMENT BARRIER - COMPOST FILTER TUBES

NOT TO SCALE



PLAN VIEW

COMPOST FILTER TUBE

NOT TO SCALE

COMMONWEALTH OF MASSACHUSETTS
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DIVISION OF PLANNING AND RESOURCE PROTECTION

INTERSECTION IMPROVEMENTS AT
LYNN FELS PARKWAY AND MELROSE STREET
MELROSE

SURVEY BY: NITSCH
DRAWN BY: KC
CHECKED BY: BG
APPROVED BY: JM

CONSTRUCTION DETAILS

CONT. XXX-XXXX-XXX
ACC. XXXXXXXXXX

SCALE: AS NOTED
DATE: 4/11/2023

SHEET NO.

28

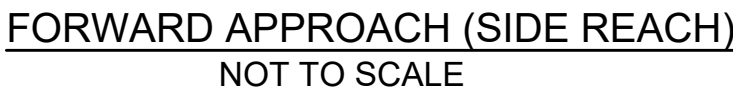
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CONDUIT UNDER SIDEWALK
NOT TO SCALE

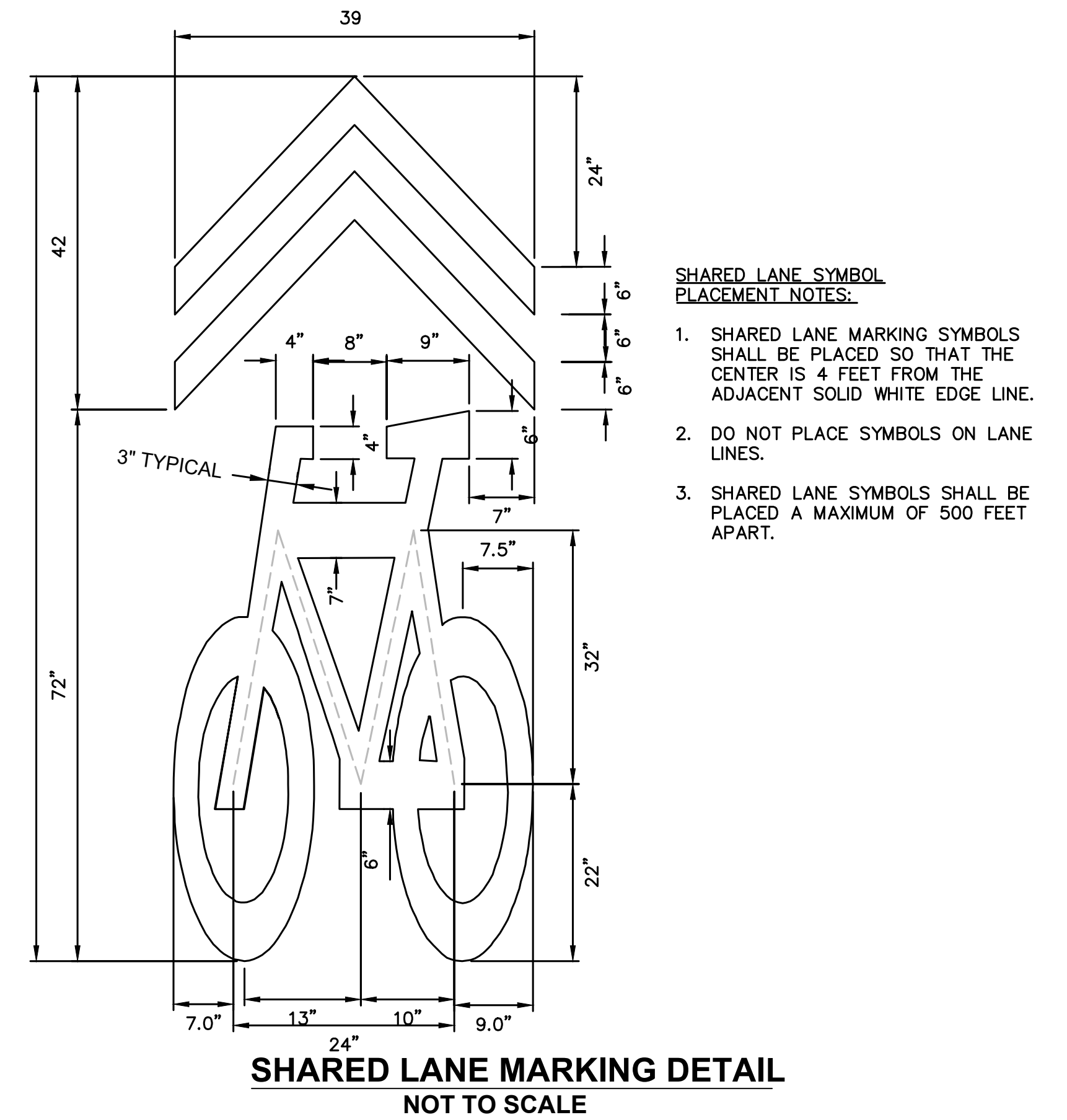
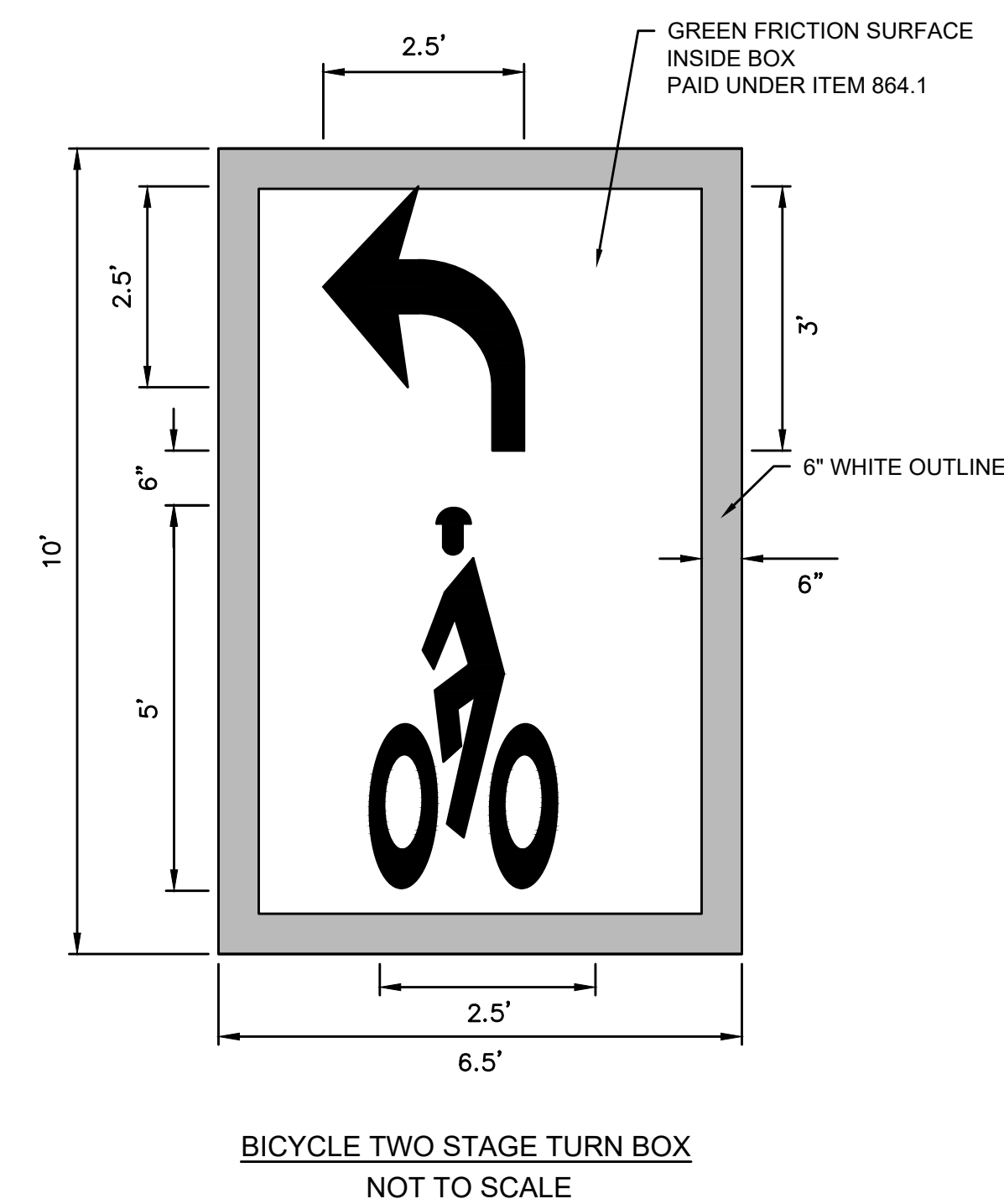
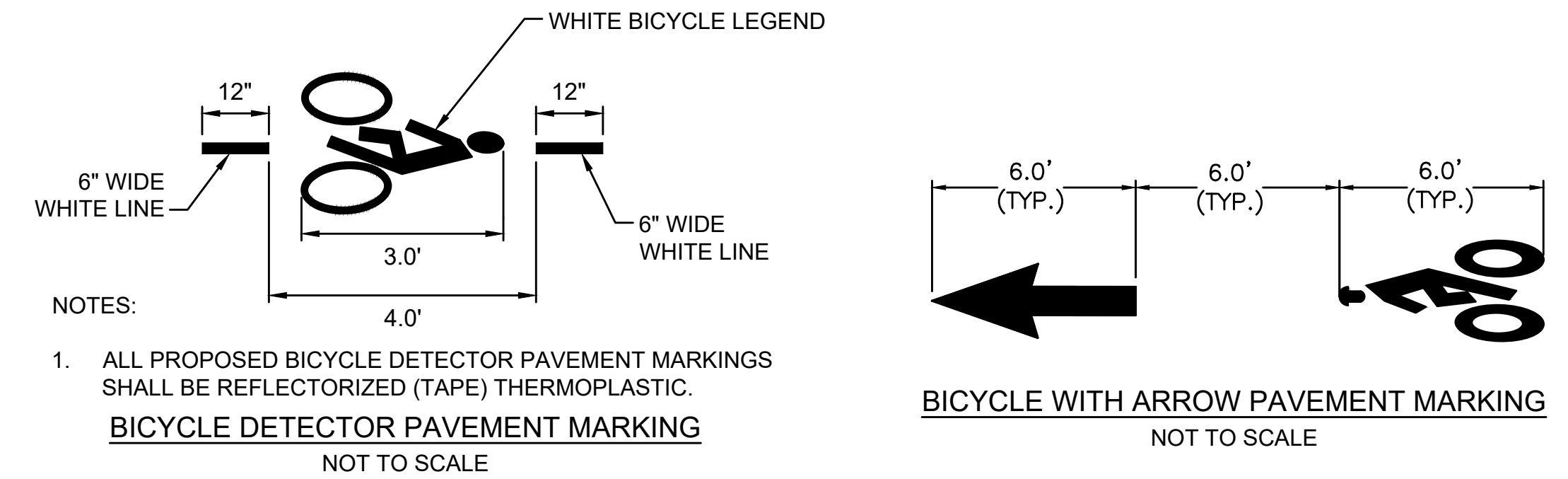
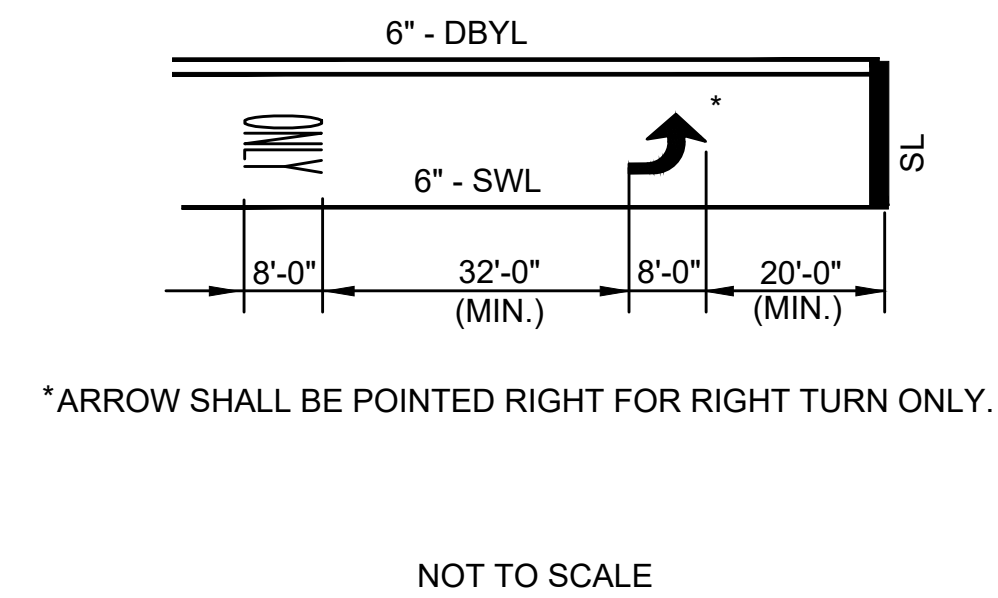
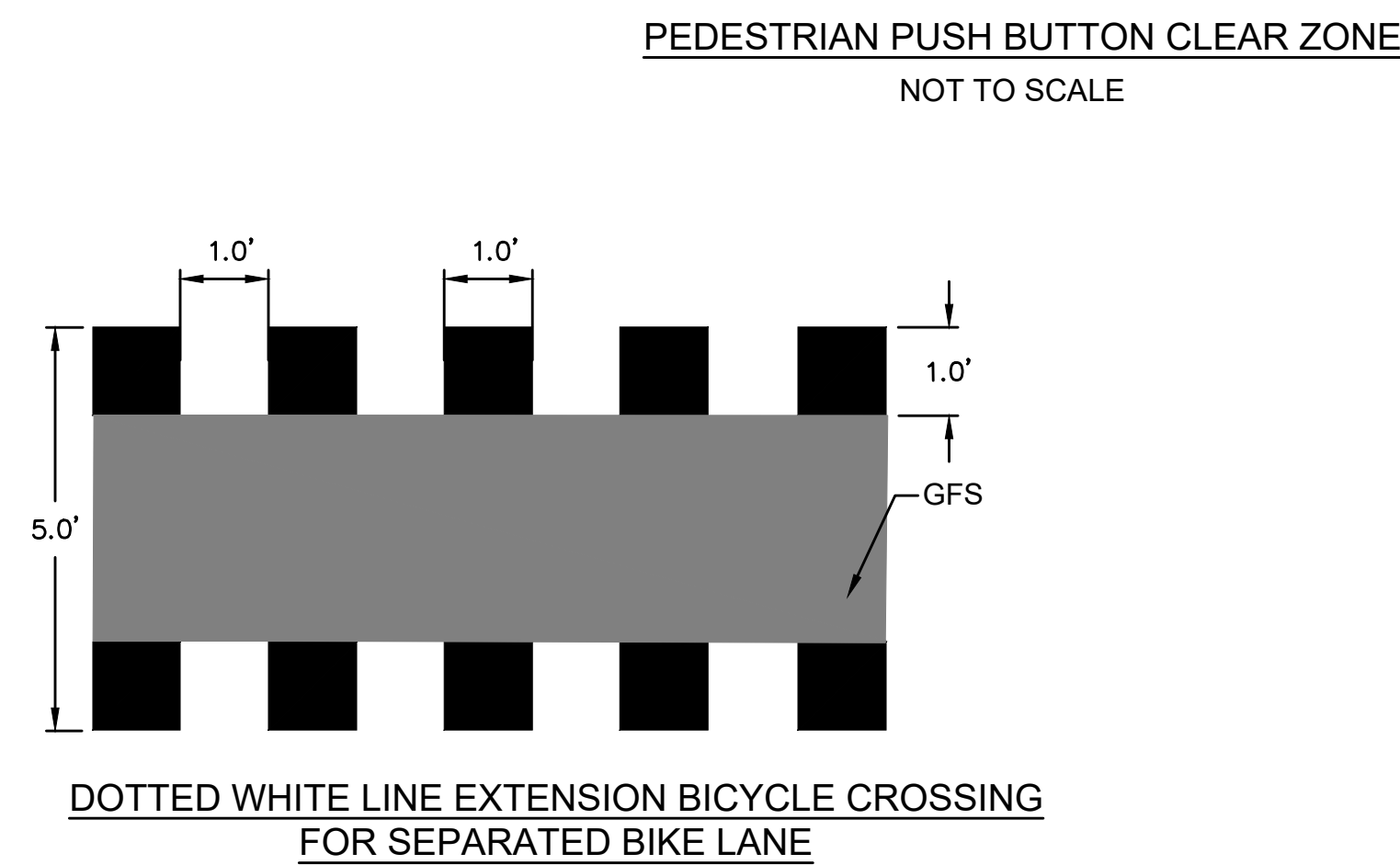
CONDUIT UNDER GRASS AREAS
NOT TO SCALE

CONDUIT CROSSING ROADWAY
NOT TO SCALE

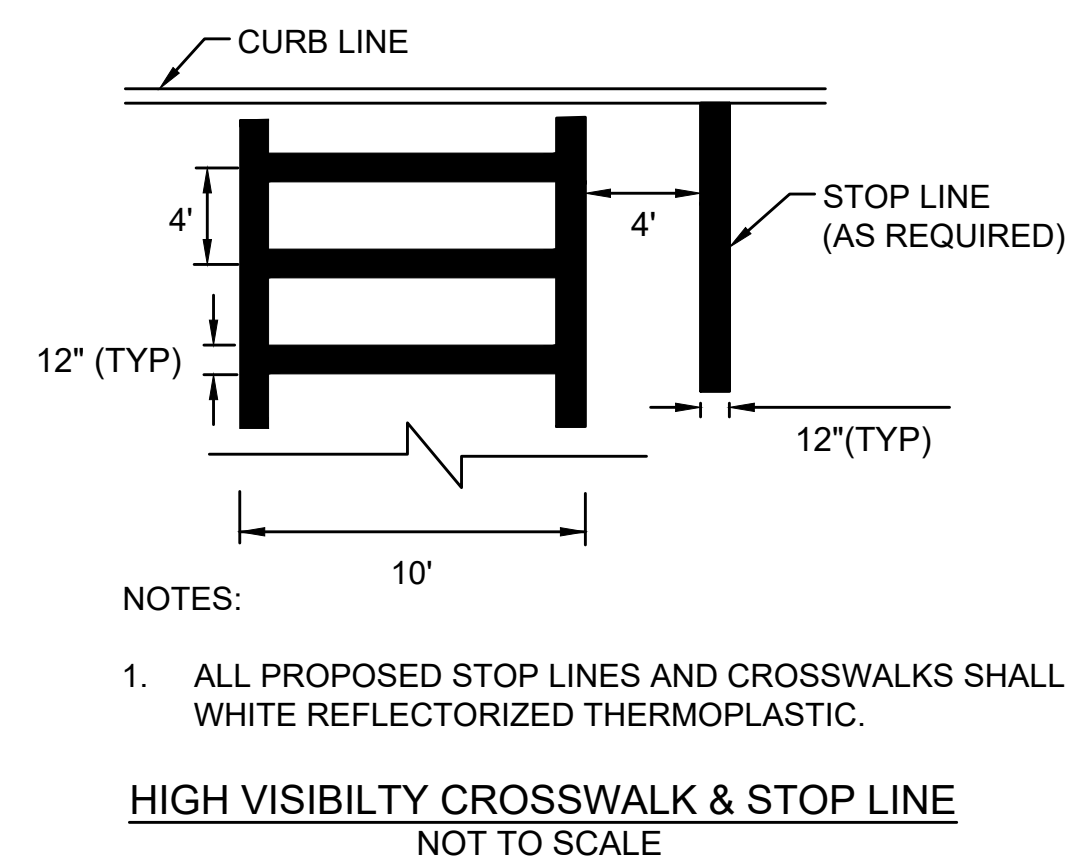
1. FOR PERMANENT PATCH IN ROADWAY AREAS WITH MILL AND OVERLAY, USE FULL DEPTH PAVEMENT MATERIAL SHOWN ON TYPICAL SECTIONS (PAID FOR UNDER ITEM 451.)
2. FOR TEMPORARY PATCH IN ROADWAY AREAS WITH FULL DEPTH PAVEMENT USE 3.5 INCHES HMA BINDER MIX. (PAID FOR UNDER ITEM 472.)



- NOTES:
1. A CLEAR GROUND SPACE SHALL CONSIST OF A STABLE AND FIRM AREA, COMPLYING WITH 521 WMR 6.5 (FORWARD REACH) OR 521 CMR 6.6 (SIDE REACH) AND SHALL BE PROVIDED AT EACH OF THE PEDESTRIAN PUSH BUTTONS.
 - 1.1. WHERE A FORWARD APPROACH IS PROVIDED, PEDESTRIAN PUSH BUTTONS SHALL BE WITHIN TEN INCHES (10") HORIZONTALLY OF AND CENTERED ON THE CLEAR GROUND SPACE.
 - 1.2. WHERE A PARALLEL APPROACH IS PROVIDED, PEDESTRIAN PUSH BUTTONS SHALL BE WITHIN TEN INCHES (10") HORIZONTALLY OF AND CENTERED ON THE CLEAR GROUND SPACE.

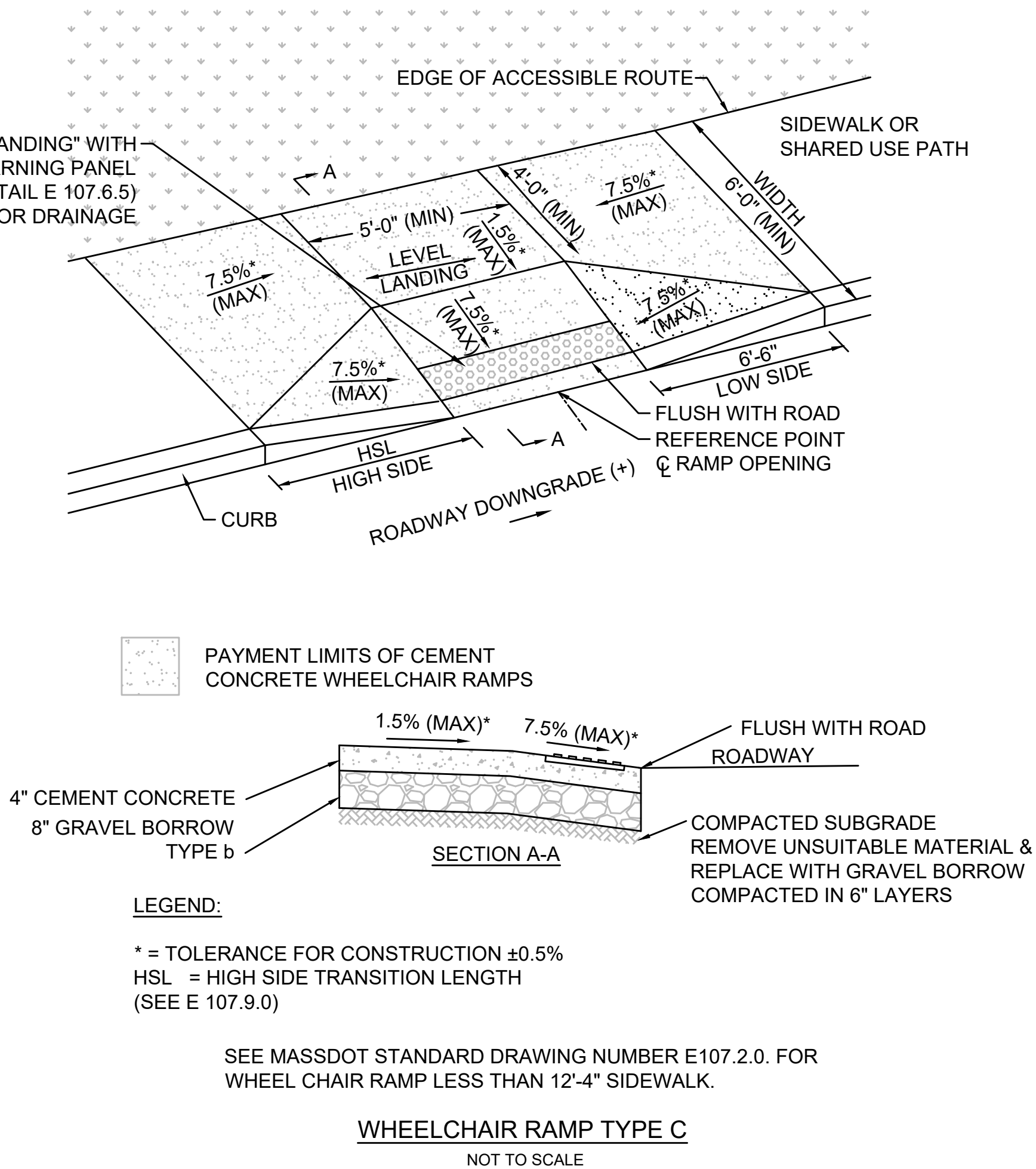


- SHARED LANE SYMBOL**
PLACEMENT NOTES:
1. SHARED LANE MARKING SYMBOLS SHALL BE PLACED SO THAT THE CENTER IS 4 FEET FROM THE ADJACENT SOLID WHITE EDGE LINE.
 2. DO NOT PLACE SYMBOLS ON LANE LINES.
 3. SHARED LANE SYMBOLS SHALL BE PLACED A MAXIMUM OF 500 FEET APART.

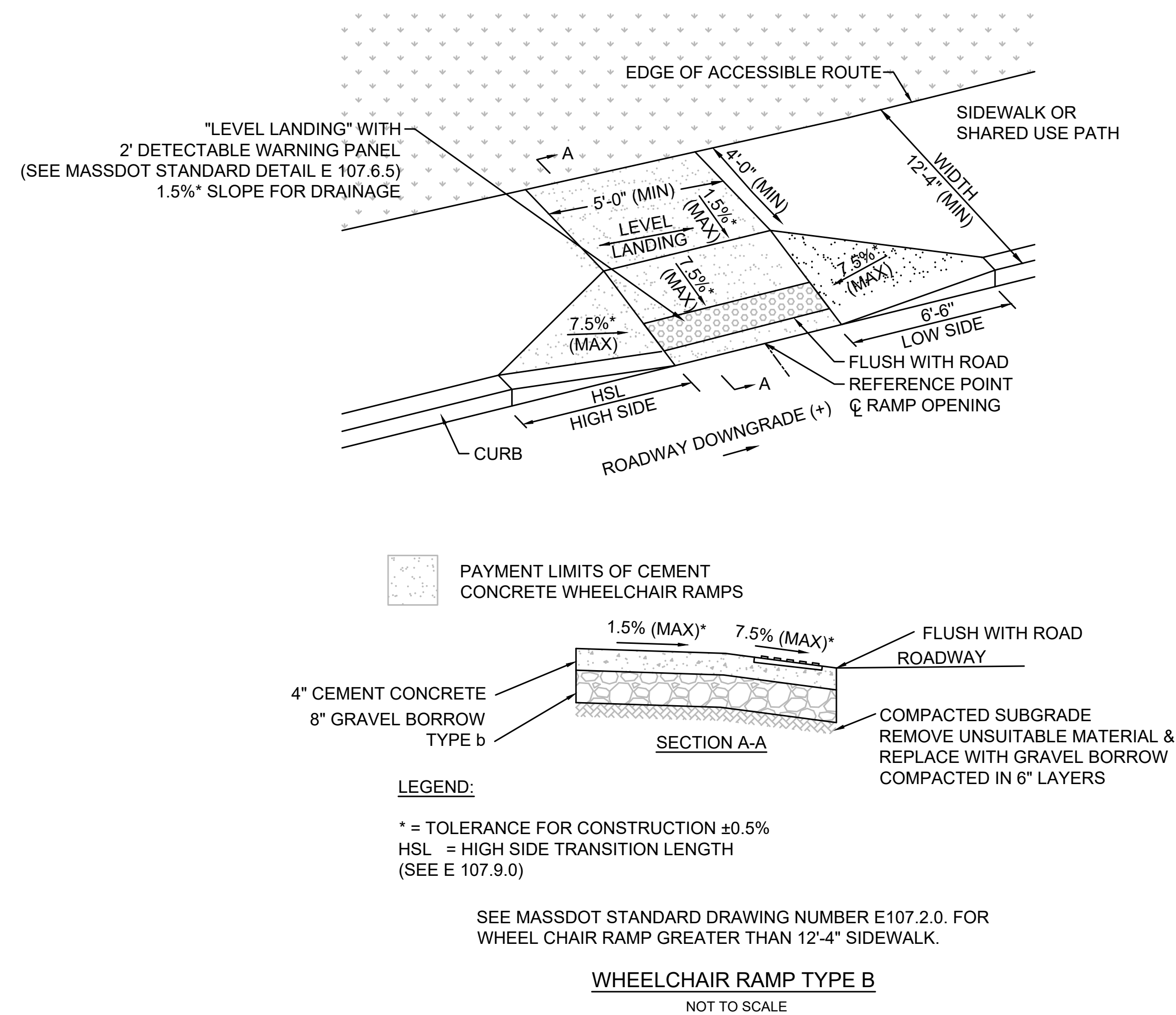


- NOTES:
1. ALL PROPOSED STOP LINES AND CROSSWALKS SHALL BE WHITE REFLECTORIZED THERMOPLASTIC.

COMMONWEALTH OF MASSACHUSETTS DEPARTMENT OF CONSERVATION AND RECREATION DIVISION OF ENGINEERING AND DIVISION OF PLANNING AND RESOURCE PROTECTION						
INTERSECTION IMPROVEMENTS AT LYNN FELS PARKWAY AND MELROSE STREET MELROSE						
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%; padding: 5px;"> CONSTRUCTION DETAILS </td> <td style="width: 40%; padding: 5px;"> SHEET NO. 30 </td> </tr> <tr> <td style="padding: 5px;"> SURVEY BY: NITSCHE DRAWN BY: KIC CHECKED BY: BG APPROVED BY: JM </td> <td style="padding: 5px;"> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 5px;"> CONT. XXX-XXXX-XXX ACC. XXXXXXXXX </td> <td style="width: 50%; padding: 5px;"> SCALE: AS NOTED DATE: 4/11/2023 </td> </tr> </table> </td> </tr> </table>	CONSTRUCTION DETAILS	SHEET NO. 30	SURVEY BY: NITSCHE DRAWN BY: KIC CHECKED BY: BG APPROVED BY: JM	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 5px;"> CONT. XXX-XXXX-XXX ACC. XXXXXXXXX </td> <td style="width: 50%; padding: 5px;"> SCALE: AS NOTED DATE: 4/11/2023 </td> </tr> </table>	CONT. XXX-XXXX-XXX ACC. XXXXXXXXX	SCALE: AS NOTED DATE: 4/11/2023
CONSTRUCTION DETAILS	SHEET NO. 30					
SURVEY BY: NITSCHE DRAWN BY: KIC CHECKED BY: BG APPROVED BY: JM	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 5px;"> CONT. XXX-XXXX-XXX ACC. XXXXXXXXX </td> <td style="width: 50%; padding: 5px;"> SCALE: AS NOTED DATE: 4/11/2023 </td> </tr> </table>	CONT. XXX-XXXX-XXX ACC. XXXXXXXXX	SCALE: AS NOTED DATE: 4/11/2023			
CONT. XXX-XXXX-XXX ACC. XXXXXXXXX	SCALE: AS NOTED DATE: 4/11/2023					

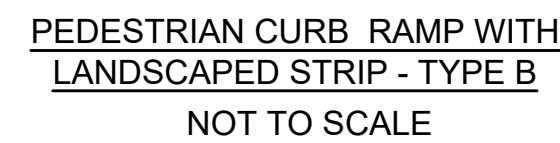
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****CHARTS TO BE COMPLETED
WITH THE NEXT SUBMISSION**

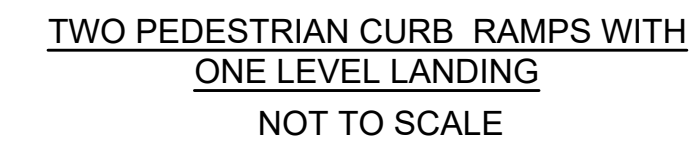
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****CHARTS TO BE COMPLETED
WITH THE NEXT SUBMISSION**

COMMONWEALTH OF MASSACHUSETTS DEPARTMENT OF CONSERVATION AND RECREATION DIVISION OF ENGINEERING AND DIVISION OF PLANNING AND RESOURCE PROTECTION					
INTERSECTION IMPROVEMENTS AT LYNN FELS PARKWAY AND MELROSE STREET MELROSE					
SURVEY BY: NITSCH DRAWN BY: KC CHECKED BY: BG APPROVED BY: JM	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2" style="text-align: center; padding: 10px;"> CONSTRUCTION DETAILS </td> </tr> <tr> <td style="width: 50%; padding: 10px;"> CONT. XXX-XXXX-XXX ACC. XXXXXXXXXX </td> <td style="width: 50%; padding: 10px;"> SCALE: AS NOTED DATE: 4/11/2023 </td> </tr> </table>	CONSTRUCTION DETAILS		CONT. XXX-XXXX-XXX ACC. XXXXXXXXXX	SCALE: AS NOTED DATE: 4/11/2023
CONSTRUCTION DETAILS					
CONT. XXX-XXXX-XXX ACC. XXXXXXXXXX	SCALE: AS NOTED DATE: 4/11/2023				
SHEET NO. 31 31 OF 33					

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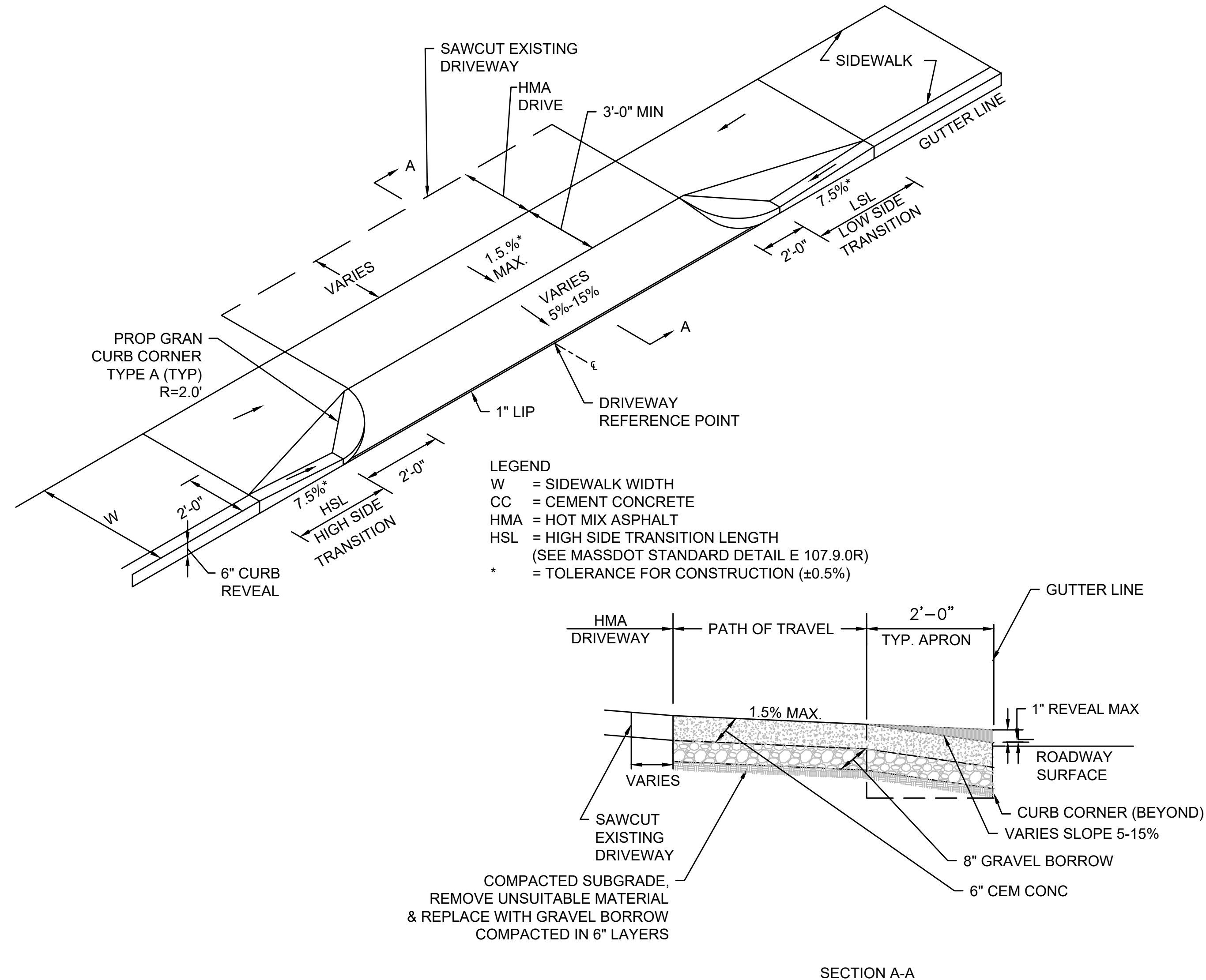
****CHARTS TO BE COMPLETED
WITH THE NEXT SUBMISSION**

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****CHARTS TO BE COMPLETED
WITH THE NEXT SUBMISSION**

COMMONWEALTH OF MASSACHUSETTS DEPARTMENT OF CONSERVATION AND RECREATION DIVISION OF ENGINEERING AND DIVISION OF PLANNING AND RESOURCE PROTECTION					
INTERSECTION IMPROVEMENTS AT LYNN FELLS PARKWAY AND MELROSE STREET MELROSE					
SURVEY BY: NITSCHE DRAWN BY: KGC CHECKED BY: BG APPROVED BY: JAM	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2" style="text-align: center; padding: 10px;"> CONSTRUCTION DETAILS </td> </tr> <tr> <td style="width: 50%; padding: 5px;"> CONT. XXXX-XXXX-XXXX ACC. XXXXXXXXXX </td> <td style="width: 50%; padding: 5px;"> SCALE: AS NOTED DATE: 4/11/2023 </td> </tr> </table>	CONSTRUCTION DETAILS		CONT. XXXX-XXXX-XXXX ACC. XXXXXXXXXX	SCALE: AS NOTED DATE: 4/11/2023
CONSTRUCTION DETAILS					
CONT. XXXX-XXXX-XXXX ACC. XXXXXXXXXX	SCALE: AS NOTED DATE: 4/11/2023				
SHEET NO. 32 32 OF 33					

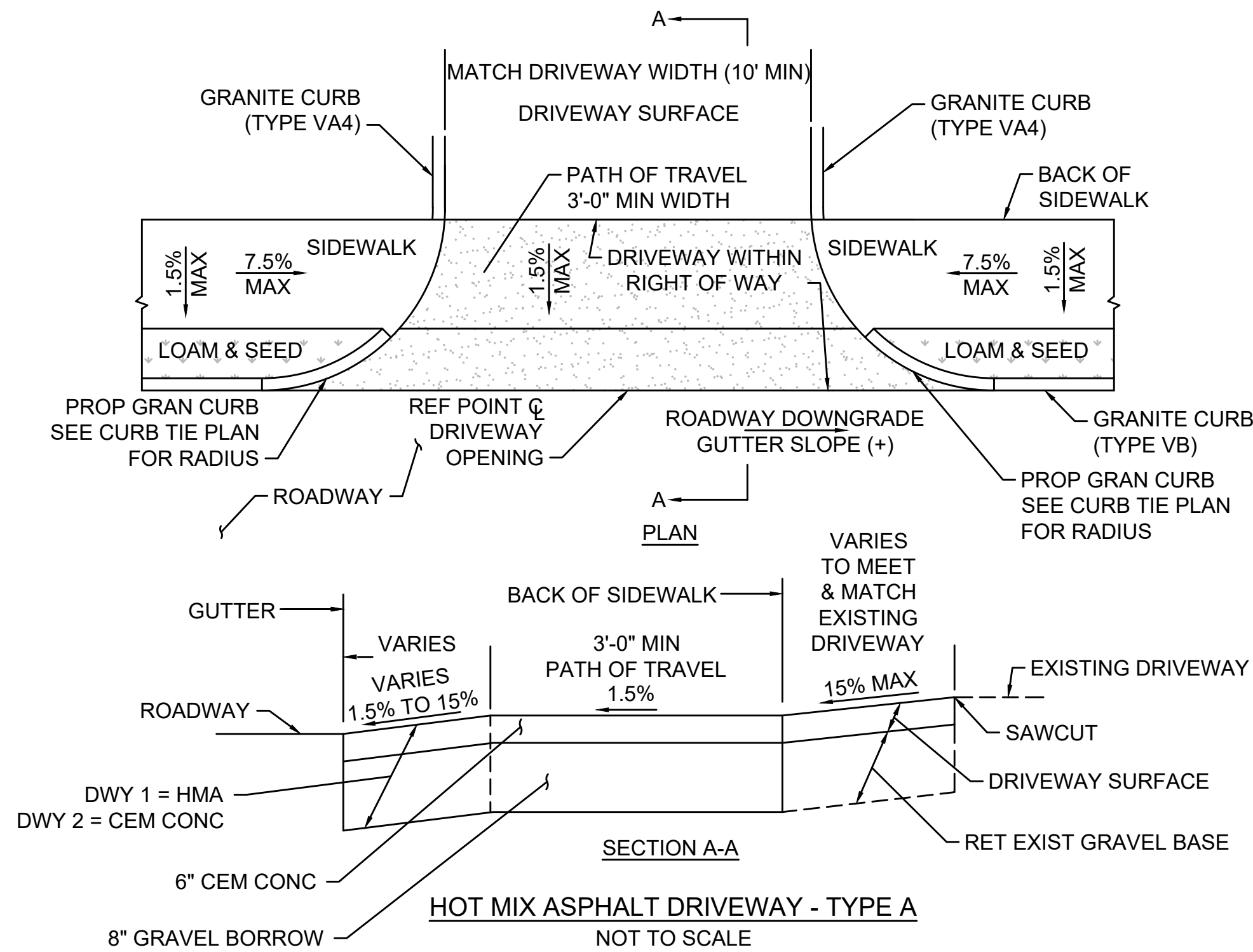
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**SIDEWALK THROUGH DRIVEWAY
WITH CURB RETURNS
2' CURB CORNER
NOT TO SCALE**

DRIVEWAY DATA - SIDEWALK WITHOUT CURB RETURNS								
DRIVE-WAY NUMBER	STREET NAME &	STATION	OFFSET	RAMP WIDTH	SIDEWALK WIDTH	ROADWAY GUTTER SLOPE	CURB TRANSITION LENGTH	
							LEFT SIDE	RIGHT SIDE
3								
4								

**CHARTS TO BE COMPLETED WITH THE NEXT SUBMISSION



DRIVEWAY DATA - HOT MIX ASPHALT DRIVEWAY TYPE A							
DRIVE-WAY NUMBER	STREET NAME &	STATION	OFFSET	SIDEWALK WIDTH	ROADWAY GUTTER SLOPE	CURB TRANSITION LENGTH	
						LEFT SIDE	RIGHT SIDE
1							
2							

**CHARTS TO BE COMPLETED WITH THE NEXT SUBMISSION

COMMONWEALTH OF MASSACHUSETTS DEPARTMENT OF CONSERVATION AND RECREATION DIVISION OF ENGINEERING AND DIVISION OF PLANNING AND RESOURCE PROTECTION			
INTERSECTION IMPROVEMENTS AT LYNN FELS PARKWAY AND MELROSE STREET MELROSE			
SURVEY BY: NITSCH DRAWN BY: KC CHECKED BY: BG APPROVED BY: JM		CONSTRUCTION DETAILS CONT. XXX-XXXX-XXX ACC. XXXXXXXXX SCALE: AS NOTED DATE: 4/11/2023	
SHEET NO. 33		33 OF 33	