

# TOWN OF SWAMPSCOTT MASSACHUSETTS



SWAMPSCOTT RAIL TRAIL

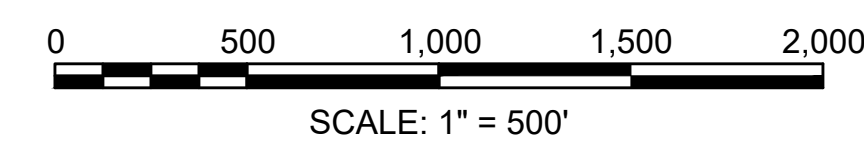
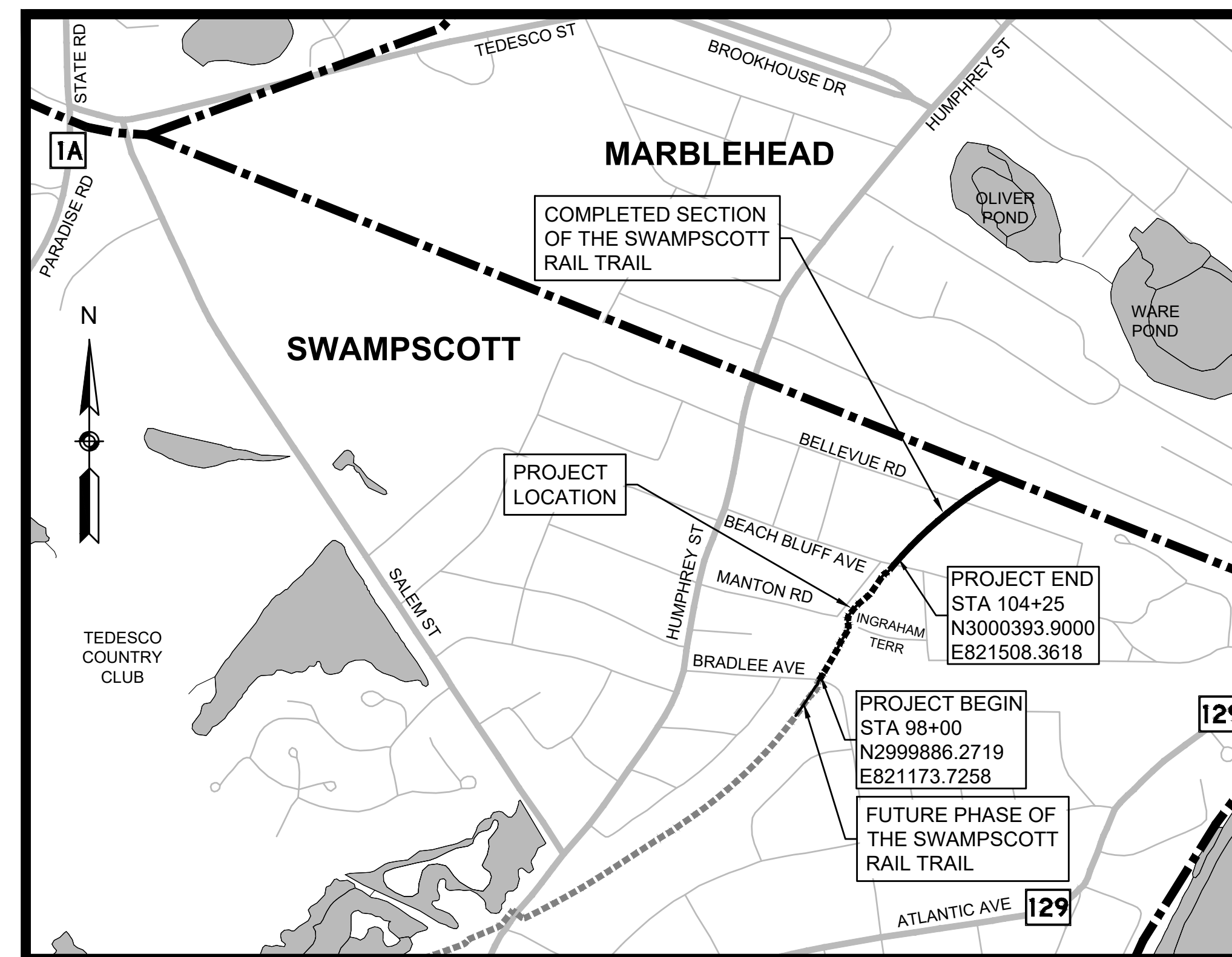
## BID PLANS

**SWAMPSCOTT  
SWAMPSCOTT RAIL TRAIL**

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	FOR BID - 2020-09-11	1	19

STANTEC PROJECT NO. 179410549  
TITLE SHEET & INDEX

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LENGTH OF PROJECT = 625.00 FEET = 0.118 MILES

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.



GENERAL SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
		JERSEY BARRIER
		CATCH BASIN
		CATCH BASIN CURB INLET
		FLAG POLE
		GAS PUMP
		MAIL BOX
		POST SQUARE
		POST CIRCULAR
		WELL
		ELECTRIC HANDHOLE
		FENCE GATE POST
		GAS GATE
		BORING HOLE
		MONITORING WELL
		TEST PIT
		HYDRANT
		LIGHT POLE
		COUNTY BOUND
		GPS POINT
		CABLE MANHOLE
		DRAINAGE MANHOLE
		ELECTRIC MANHOLE
		GAS MANHOLE
		MISC MANHOLE
		SEWER MANHOLE
		TELEPHONE MANHOLE
		WATER MANHOLE
		MASSACHUSETTS HIGHWAY BOUND
		MONUMENT
		STONE BOUND
		TOWN OR CITY BOUND
		TRAVERSE OR TRIANGULATION STATION
		TROLLEY POLE OR GUY POLE
		TRANSMISSION POLE
		UTILITY POLE W/ FIREBOX
		UTILITY POLE WITH DOUBLE LIGHT
		UTILITY POLE W / 1 LIGHT
		UTILITY POLE
		BUSH
		TREE
		STUMP
		SWAMP / MARSH
		WATER GATE
		PARKING METER
		OVERHEAD CABLE/WIRE
		CURBING
		CONTOURS (ON-THE-GROUND SURVEY DATA)
		CONTOURS (PHOTOGRAMMETRIC DATA)
		UNDERGROUND DRAIN PIPE (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND ELECTRIC DUCT (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND GAS MAIN (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND SEWER MAIN (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND TELEPHONE DUCT (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND WATER MAIN (DOUBLE LINE 24 INCH AND OVER)
		BALANCED STONE WALL
		GUARD RAIL - STEEL POSTS
		GUARD RAIL - WOOD POSTS
		CHAIN LINK OR METAL FENCE
		WOOD FENCE
		COMPOST FILTER TUBES
		TREE LINE
		SAWCUT LINE
		TOP OR BOTTOM OF SLOPE
		EDGE OF PAVEMENT
		LIMIT OF MICROMILLING AND OVERLAY
		BANK OF RIVER OR STREAM
		BORDER OF WETLAND
		100 FT WETLAND BUFFER
		200 FT RIVERFRONT BUFFER
		STATE HIGHWAY LAYOUT
		TOWN OR CITY LAYOUT
		COUNTY LAYOUT
		RAILROAD SIDELINE
		TOWN OR CITY BOUNDARY LINE
		PROPERTY LINE OR APPROXIMATE PROPERTY LINE
		EASEMENT

TRAFFIC SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
		CONTROLLER PHASE ACTUATED
		TRAFFIC SIGNAL HEAD (SIZE AS NOTED)
		WIRE LOOP DETECTOR (6' x 6' TYP UNLESS OTHERWISE SPECIFIED)
		VIDEO DETECTION CAMERA
		MICROWAVE DETECTOR
		PEDESTRIAN PUSH BUTTON, SIGN (DIRECTIONAL ARROW AS SHOWN) AND SADDLE
		EMERGENCY PREEMPTION CONFIRMATION STROBE LIGHT
		VEHICULAR SIGNAL HEAD
		VEHICULAR SIGNAL HEAD, OPTICALLY PROGRAMMED
		FLASHING BEACON
		PEDESTRIAN SIGNAL HEAD, (TYPE AS NOTED OR AS SPECIFIED)
		RAILROAD SIGNAL
		SIGNAL POST AND BASE (ALPHA-NUMERIC DESIGNATION NOTED)
		MAST ARM, SHAFT AND BASE (ARM LENGTH AS NOTED)
		HIGH MAST POLE OR TOWER
		SIGN AND POST
		SIGN AND POST (2 POSTS)
		MAST ARM WITH LUMINAIRE
		OPTICAL PRE-EMPTION DETECTOR
		CONTROL CABINET, GROUND MOUNTED
		CONTROL CABINET, POLE MOUNTED
		FLASHING BEACON CONTROL AND METER PEDESTAL
		LOAD CENTER ASSEMBLY
		PULL BOX 12"x12" (OR AS NOTED)
		ELECTRIC HANDHOLE 12"x24" (OR AS NOTED)
		TRAFFIC SIGNAL CONDUIT

PAVEMENT MARKINGS SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
		PAVEMENT ARROW - WHITE
		LEGEND "ONLY" - WHITE
		STOP LINE
		CROSSWALK
		SOLID WHITE LINE
		SOLID YELLOW LINE
		BROKEN WHITE LINE
		BROKEN YELLOW LINE
		DOTTED WHITE LINE
		DOTTED YELLOW LINE
		DOTTED WHITE LINE EXTENSION
		DOTTED YELLOW LINE EXTENSION
		DOUBLE WHITE LINE
		DOUBLE YELLOW LINE

ABBREVIATIONS

GENERAL	
AADT	ANNUAL AVERAGE DAILY TRAFFIC
ABAN	ABANDON
ADJ	ADJUST
APPROX.	APPROXIMATE
A.C.	ASPHALT CONCRETE
ACCM PIPE	ASPHALT COATED CORRUGATED METAL PIPE
BIT.	BITUMINOUS
BC	BOTTOM OF CURB
BD.	BOUND
BL	BASELINE
BLDG	BUILDING
BM	BENCHMARK
BO	BY OTHERS
BOS	BOTTOM OF SLOPE
BR.	BRIDGE
CB	CATCH BASIN
CBCI	CATCH BASIN WITH CURB INLET
CC	CEMENT CONCRETE
CCM	CEMENT CONCRETE MASONRY
CEM	CEMENT
CI	CURB INLET
CIP	CAST IRON PIPE
CLF	CHAIN LINK FENCE
CL	CENTERLINE
CMP	CORRUGATED METAL PIPE
CSP	CORRUGATED STEEL PIPE
CO.	COUNTY
CONC	CONCRETE
CONT	CONTINUOUS
CONST	CONSTRUCTION
CR GR	CROWN GRADE
DHV	DESIGN HOURLY VOLUME
DI	DROP INLET
DIA	DIAMETER
DIP	DUCTILE IRON PIPE
DW	STEADY DON'T WALK - PORTLAND ORANGE
DWY	DRIVEWAY
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
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
LP	LIGHT POLE
LT	LEFT
MAX	MAXIMUM
MB	MAILBOX
MH	MANHOLE
MHB	MASSACHUSETTS HIGHWAY BOUND
MIN	MINIMUM
NIC	NOT IN CONTRACT
NO.	NUMBER
PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVATURE
P.G.L.	PROFILE GRADE LINE
PI	POINT OF INTERSECTION
POC	POINT ON CURVE
POT	POINT ON TANGENT
PRC	POINT OF REVERSE CURVATURE
PROJ	PROJECT
PROP	PROPOSED
PSB	PLANTABLE SOIL BORROW
PT	POINT OF TANGENCY
PVC	POINT OF VERTICAL CURVATURE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENCY
PVMT	PAVEMENT
PWW	PAVED WATER WAY

**SWAMPSCOTT**  
**SWAMPSCOTT RAIL TRAIL**

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MA	FOR BID - 2020-09-11	2	19
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LEGEND & ABBREVIATIONS

ABBREVIATIONS (cont.)

GENERAL	
R	RADIUS OF CURVATURE
R&D	REMOVE AND DISPOSE
RCP	REINFORCED CONCRETE PIPE
RD	ROAD
RDWY	ROADWAY
REM	REMOVE
RET	RETAIN
RET WALL	RETAINING WALL
ROW	RIGHT OF WAY
RR	RAILROAD
R&R	REMOVE AND RESET
R&S	REMOVE AND STACK
RT	RIGHT
SB	STONE BOUND
SHLD	SHOULDER
SMH	SEWER MANHOLE
ST	STREET
STA	STATION
SSD	STOPPING SIGHT DISTANCE
SHLO	STATE HIGHWAY LAYOUT LINE
SW	SIDEWALK
T	TANGENT DISTANCE OF CURVE/TRUCK %
TAN	TANGENT
TEMP	TEMPORARY
TC	TOP OF CURB
TOS	TOP OF SLOPE
TYP	TYPICAL
UP	UTILITY POLE
VAR	VARIES
VERT	VERTICAL
VC	VERTICAL CURVE
WCR	WHEEL CHAIR RAMP
WG	WATER GATE
WIP	WROUGHT IRON PIPE
WM	WATER METER/WATER MAIN
X-SECT	CROSS SECTION

TRAFFIC SIGNAL ABBREVIATIONS

CAB	CABINET
CCVE	CLOSED CIRCUIT VIDEO EQUIPMENT
DW	STEADY UPRAISED HAND
FDW	FLASHING UPRAISED HAND
FR	FLASHING CIRCULAR RED
FRL	FLASHING RED LEFT ARROW
FRR	FLASHING RED RIGHT ARROW
FY	FLASHING CIRCULAR YELLOW
FYL	FLASHING YELLOW LEFT ARROW
FYR	FLASHING YELLOW RIGHT ARROW
G	STEADY CIRCULAR GREEN
GL	STEADY GREEN LEFT ARROW
GR	STEADY GREEN RIGHT ARROW
GSL	STEADY GREEN SLASH LEFT ARROW
GSR	STEADY GREEN SLASH RIGHT ARROW
GV	STEADY GREEN VERTICAL ARROW
OL	OVERLAP
PED	PEDESTRIAN
PTZ	PAN, TILT, ZOOM
R	STEADY CIRCULAR RED
RL	STEADY RED LEFT ARROW
RR	STEADY RED RIGHT ARROW
TR SIG	TRAFFIC SIGNAL
TSC	TRAFFIC SIGNAL CONDUIT
W	STEADY WALKING PERSON
Y	STEADY CIRCULAR YELLOW
YL	STEADY YELLOW LEFT ARROW

**SWAMPSCOTT  
SWAMPSCOTT RAIL TRAIL**

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MA	FOR BID - 2020-09-11	3	19
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**GENERAL NOTES**

**GENERAL NOTES:**

- EXISTING GROUND SURFACES SHOWN ON PLANS, PROFILES AND CROSS SECTIONS ARE BASED UPON DATA OBTAINED BY FIELD SURVEYS.
- THE LOCATIONS OF EXISTING SUBSURFACE STRUCTURES, SUCH AS SEWERS, WATER MAINS, DRAINS AND OTHER UTILITIES ARE APPROXIMATE ONLY AND THE ENGINEER DOES NOT GUARANTEE THEIR NUMBER OR LOCATIONS. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UNDERGROUND UTILITIES BEFORE EXCAVATING.
- ALL GAS GATES, ELECTRIC MANHOLES, AND TELEPHONE MANHOLES WITHIN THE LIMITS OF WORK SHALL BE ADJUSTED BY THE OWNING AGENCY. ALL GAS, ELECTRIC, TELEPHONE AND CATV WORK SHALL BE DONE BY THE OWNING AGENCY. THE CONTRACTOR SHALL NOTIFY THE OWNING AGENCIES TO ADJUST AND/OR RELOCATE THESE STRUCTURES TO AVOID IMPACTING THE CONTRACTOR'S SCHEDULE OF OPERATIONS.
- ANY CLEANING OF CATCH BASINS OR DRAIN PIPES NECESSARY FOR THE PROPOSED WORK SHALL BE COMPLETED BY THE RESPECTIVE MUNICIPALITY INVOLVED.
- THE CONTRACTOR SHALL COORDINATE HIS WORK WITH THE UTILITY COMPANIES DOING WORK IN THE SAME AREA THE CONTRACTOR SHALL ALLOW THE UTILITY COMPANIES AND THEIR REPRESENTATIVES TO ADJUST AND/OR INSTALL THEIR SYSTEMS WITHIN TOWN / STATE OWNED STREETS AND EASEMENTS.
- CONSTRUCT DRIVEWAYS AND WALKS AS SHOWN ON THE PLANS AND/OR AS REQUIRED BY THE ENGINEER.
- SAW CUT EXISTING BITUMINOUS CONCRETE ROADWAYS, CEMENT CONCRETE SIDEWALKS AND BITUMINOUS CONCRETE DRIVEWAYS AS SHOWN ON THE PLANS AND AT THE PROPOSED MATCH LINE.
- 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 THE INFORMATION FURNISHED TO THE ENGINEER FOR RESOLUTION OF THE CONFLICT.
- AREAS OUTSIDE THE LIMITS OF PROPOSED WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE.
- ALL ACCESSIBLE ROUTES, WALKWAYS, CURB CUTS, RAMPS, SIDEWALKS, DRIVEWAY OPENINGS, CLEARANCES AND SLOPE TOLERANCES SHALL CONFORM WITH THE ARCHITECTURAL ACCESS BOARD (AAB), 521 CMR AND MASSHIGHWAY CONSTRUCTION AND TRAFFIC STANDARD DRAWINGS.
- ITEMS LABELED "REM" SHALL BE REMOVED AND DISCARDED BY CONTRACTOR.
- THE CONTRACTOR SHALL PROTECT EXISTING SURVEY MONUMENTS AND SHALL RESET ANY MONUMENTATION DISTURBED BY HIS OPERATIONS.
- THE CONTRACTOR SHALL INSTALL OTHER NECESSARY TEMPORARY REGULATORY AND WARNING SIGNS DURING CONSTRUCTION AS REQUIRED BY THE ENGINEER FOR OTHER INCIDENTAL CONSTRUCTION ACTIVITIES. ALL SIGNAGE AND TRAFFIC CONTROL DEVICES USED MUST CONFORM TO THE 2009 "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD)
- THE CONTRACTOR SHALL PERFORM HIS WORK IN A MANNER ACCEPTABLE TO THE ENGINEER SO THAT INTERFERENCE WITH AND INCONVENIENCE TO BUSINESS CONCERNS AND ABUTTERS, ON ACCOUNT OF THE CONSTRUCTION WORK, IS KEPT TO A MINIMUM.
- THE CONTRACTOR SHALL NOT BE ALLOWED TO PARK EQUIPMENT OR STOCKPILE EQUIPMENT OR MATERIAL ON THE TRAVELED WAYS OVERNIGHT OR WHEN NOT IN USE.
- THE CONTRACTOR SHALL MAINTAIN SAFE AND RESPONSIBLE ACCESS TO AND FROM ABUTTING PROPERTY, PRIVATE WAYS, DRIVEWAYS AND ALL ALLEYS AT ALL TIMES DURING THE CONSTRUCTION PERIOD.
- ALL DETECTABLE WARNING PANELS SHALL BE MOUNTED IN CEMENT CONCRETE AND INSTALLED IN ACCORDANCE WITH MASSDOT CONSTRUCTION STANDARD DETAIL E107.6.5.

**SURVEY NOTES:**

- COORDINATES, IN U.S. SURVEY FEET, ARE IN THE MASSACHUSETTS STATE PLANE COORDINATE SYSTEM (MCS), MAINLAND ZONE, REFERENCED TO THE NORTH AMERICAN DATUM OF 1983, (NAD 83/2011, EPOCH 2010.00), BASED ON THE KeyNetGPS VIRTUAL REFERENCE SYSTEM (VRS) USING TRIMBLE R10 GNSS GPS RECEIVERS.
- PROPERTY LINES COMPILED FROM RECORD PLAN INFORMATION. ABUTTER LINES OBTAINED BY ASSESSORS GIS DATA AND ARE APPROXIMATE.
- THIS PLAN HAS BEEN PREPARED BY PHOTOGRAMMETRIC METHODS USING AERIAL IMAGERY ACQUIRED ON DECEMBER 4, 2017 SUPPLEMENTED WITH LIMITED FIELD SURVEY.
- THE AUGUST 2018 REVISION INCLUDES SELECTED TREES LOCATED ALONG THE CORRIDOR BETWEEN HUMPHREY STREET AND SEAVIEW AVENUE.

**SURVEY REFERENCES:**

- RIGHT OF WAY AND TRACK MAP BOSTON AND MAINE R.R. SCALE 1"=100' DATED JUNE 30, 1914 SHEETS V.7.10 1-3
- PLANS PROVIDED BY THE TOWN OF SWAMPSCOTT ASSESSORS, PLATES C7, D7, E7, F7, G7, H6, H7, I5 & I6
- LAND IN SWAMPSCOTT, MASS., BOSTON AND MAINE RAILROAD TO LYNN ELECTRIC COMPANY, SCALE 1"=200' DATED DECEMBER, 1962 PLAN BOOK 103, PAGE 85
- PLAN OF A PORTION OF HUMPHREY STREET FROM SALEM STREET TO OCEAN AVENUE IN THE TOWN OF SWAMPSCOTT AS RELOCATED, SCALE 1"=40' DATED SEPTEMBER 1953 LAYOUT NO. 2826
- LAND IN SWAMPSCOTT, MASS., BOSTON AND MAINE RAILROAD TO RAYLEN REALTY COMPANY, SCALE 1"=50' DATED DECEMBER 1959 PLAN 583 OF 1963

**UTILITY NOTES:**

- RECORD UTILITY INFORMATION FROM THE VARIOUS UTILITY COMPANIES AND PUBLIC AGENCIES, ARE APPROXIMATE ONLY AND ACTUAL LOCATIONS MUST BE DETERMINED IN THE FIELD.
- ALL UTILITY COMPANIES, PUBLIC AND PRIVATE MUST BE NOTIFIED, INCLUDING THOSE IN CONTROL OF UTILITIES NOT SHOWN ON THIS PLAN, (SEE CHAPTER 370, ACTS OF 1963, MASSACHUSETTS) PRIOR TO DESIGNING, EXCAVATING, BLASTING, INSTALLING, BACKFILLING, GRADING, PAVEMENT RESTORING OR REPAVING.
- THE LOCATION OF EXISTING PIPES OR OTHER UNDERGROUND STRUCTURES OR PROPERTY LINES ARE NOT WARRANTED TO BE EXACT, NOR IS IT WARRANTED THAT ALL UNDERGROUND PIPES OR STRUCTURES ARE SHOWN. THE CONTRACTOR SHALL CALL "DIG SAFE" (1-811-344-7233) 72 HOURS (EXCLUDING SATURDAYS, SUNDAYS AND HOLIDAYS) PRIOR TO ANY EXCAVATION TO OBTAIN ACCURATE UTILITY LOCATIONS.
- INVERTS SHOWN ON PLAN ARE NOT GUARANTEED TO BE ACCURATE. DUE TO THE LIMITATIONS OF FIELD OBSERVATION AND SURVEY TECHNIQUES THE INVERTS ARE SHOWN AS APPROXIMATE ONLY AND SHALL NOT BE WARRANTED TO BE CORRECT. ADDITIONAL FIELD INVESTIGATION IS NECESSARY WHERE ACCURATE MEASUREMENTS ARE REQUIRED FOR DESIGN OF CRITICAL AREAS.
- THE EXISTING CONDITIONS PLAN IS TO BE USED FOR THE SPECIFIED PROJECT ONLY AND IS NOT WARRANTED TO BE COMPLETE FOR ANY OTHER FUTURE PROJECTS.
- NATIONAL GRID EMERGENCY TELEPHONE NUMBERS:

**GAS:**  
EMERGENCY: 1-800-233-5325  
NEW SERVICE: 1-877-696-4743  
CUSTOMER SUPPORT: 1-800-732-3400

**ELECTRIC:**  
OUTAGE/EMERGENCY: 1-800-465-1212  
NEW SERVICE: 1-800-375-4730  
CUSTOMER SERVICE: 1-800-322-3223

**LEGEND**

XX — CONSTRUCTION PLAN SHEET NUMBER

**SWAMPSCOTT  
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STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	FOR BID - 2020-09-11	4	19

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**KEY PLAN**

N



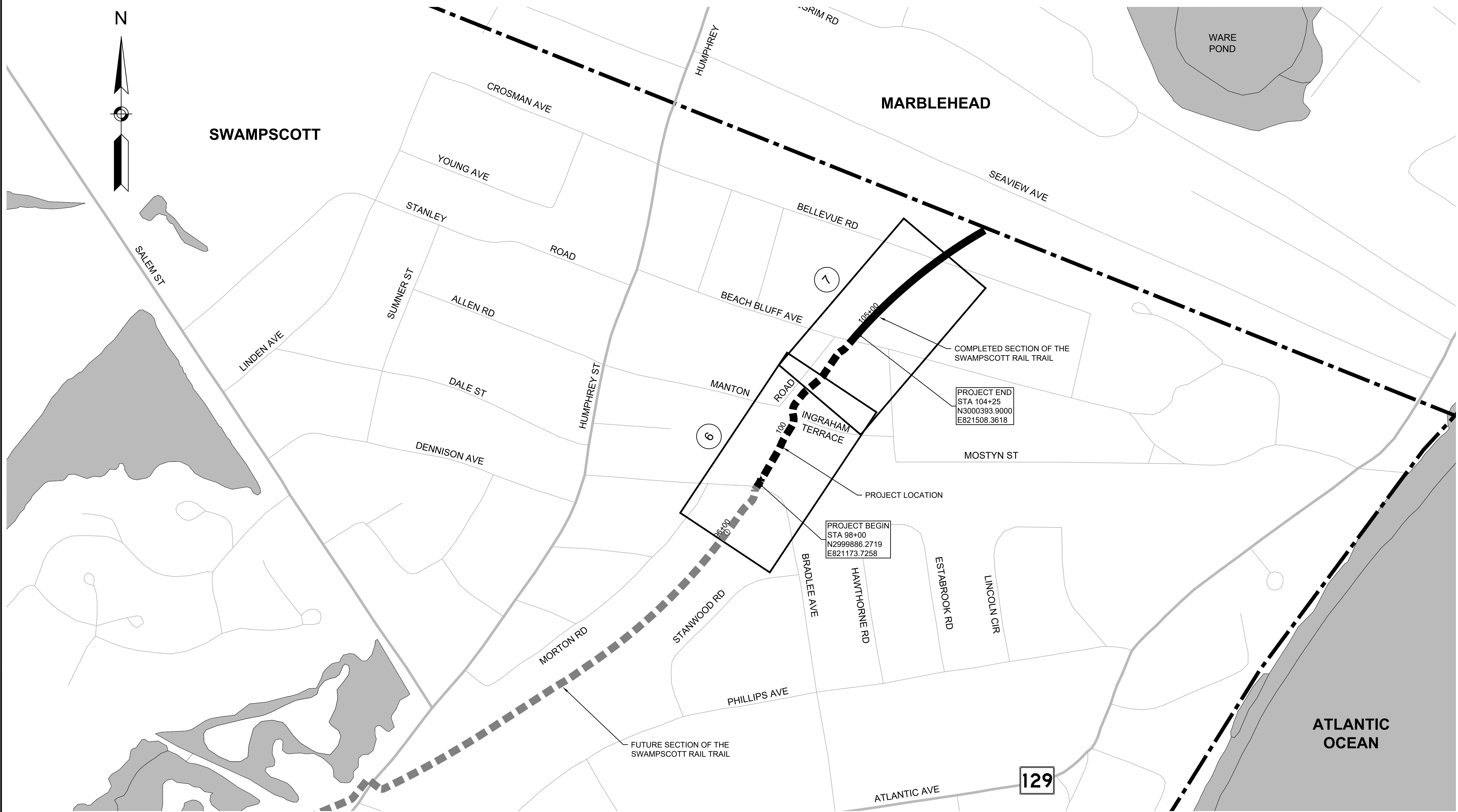
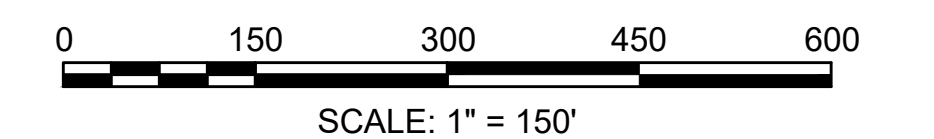
**SWAMPSCOTT**

**MARBLEHEAD**

WARE POND

**ATLANTIC OCEAN**

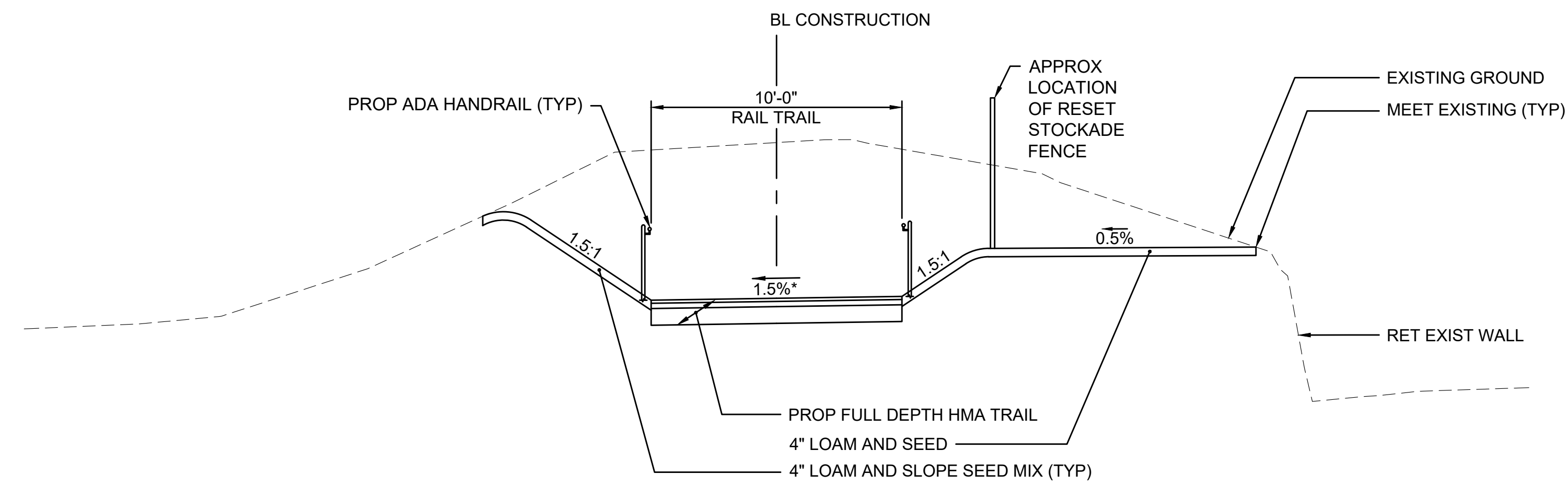
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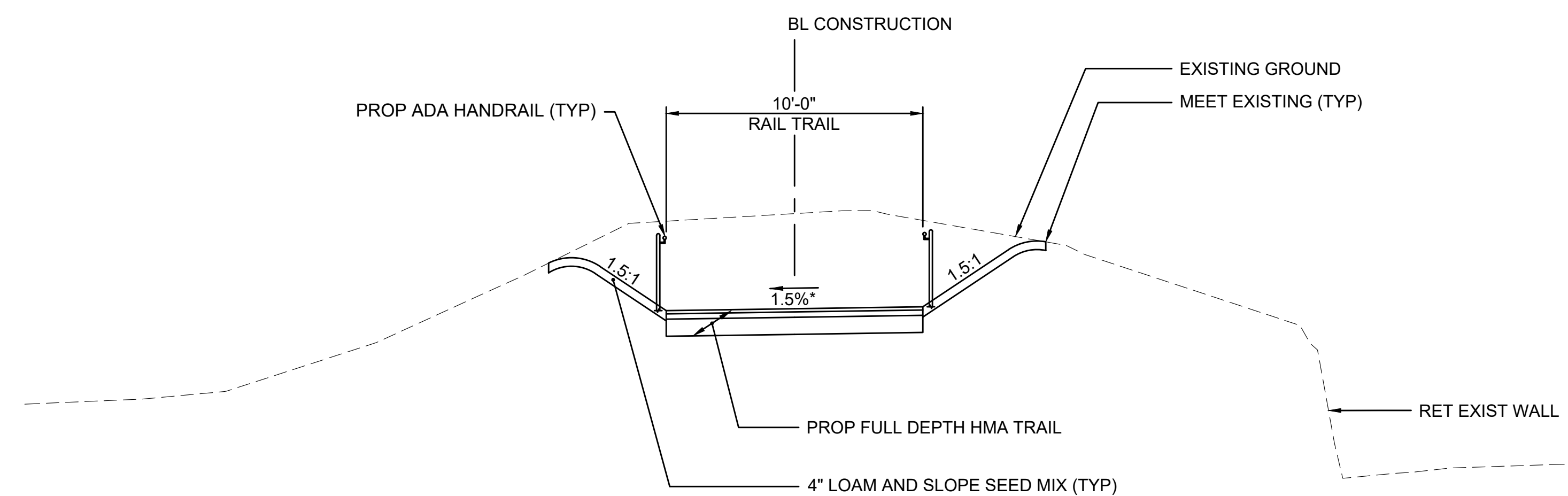
**SWAMPSCOTT  
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STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	FOR BID - 2020-09-10	5	19

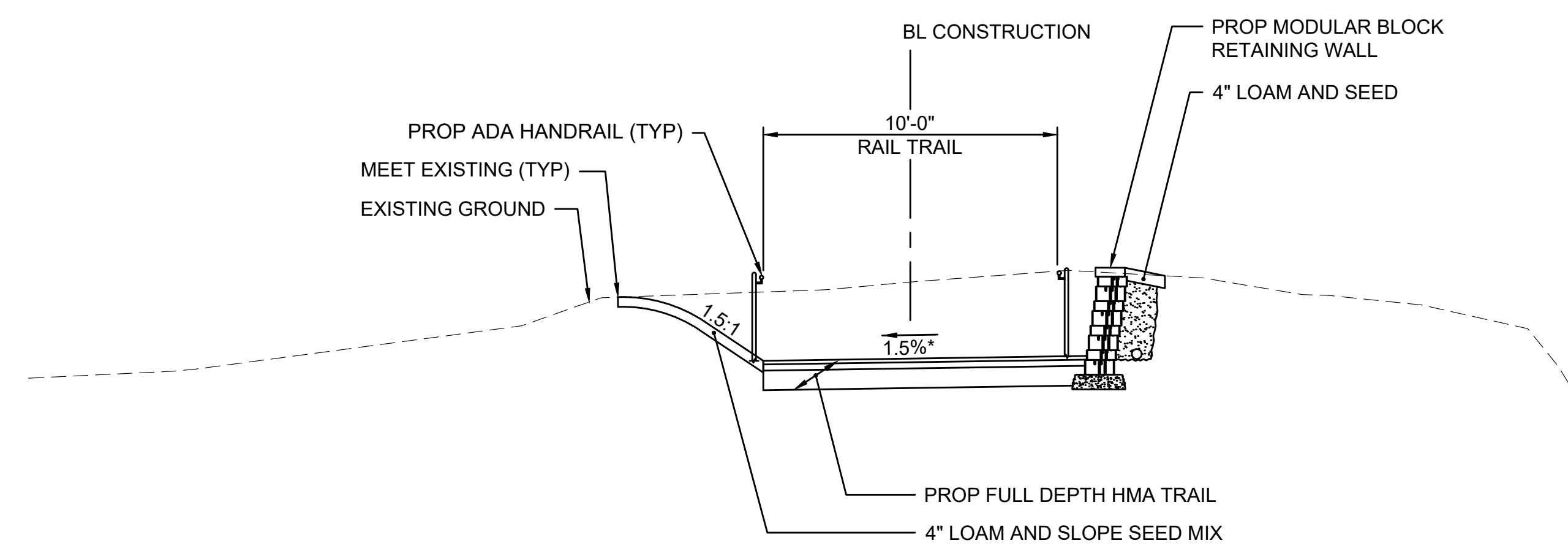
STANTEC PROJECT NO. 179410549  
TYPICAL SECTIONS



**TYPICAL FULL DEPTH TRAIL SECTION**  
NOT TO SCALE  
STA 98+17± TO STA 99+25±



**TYPICAL FULL DEPTH TRAIL SECTION**  
NOT TO SCALE  
STA 99+25± TO STA 99+50±



**TYPICAL FULL DEPTH TRAIL SECTION**  
NOT TO SCALE  
STA 99+50± TO STA 99+90±

**MATERIAL NOTES**

**PROPOSED FULL DEPTH STONEDUST TRAIL SECTIONS**

- SURFACE: 4" STABILIZED STONEDUST
- BASE: 8" (MIN) GRAVEL BORROW, TYPE b

**PROPOSED FULL DEPTH HOT MIX ASPHALT TRAIL SECTIONS**

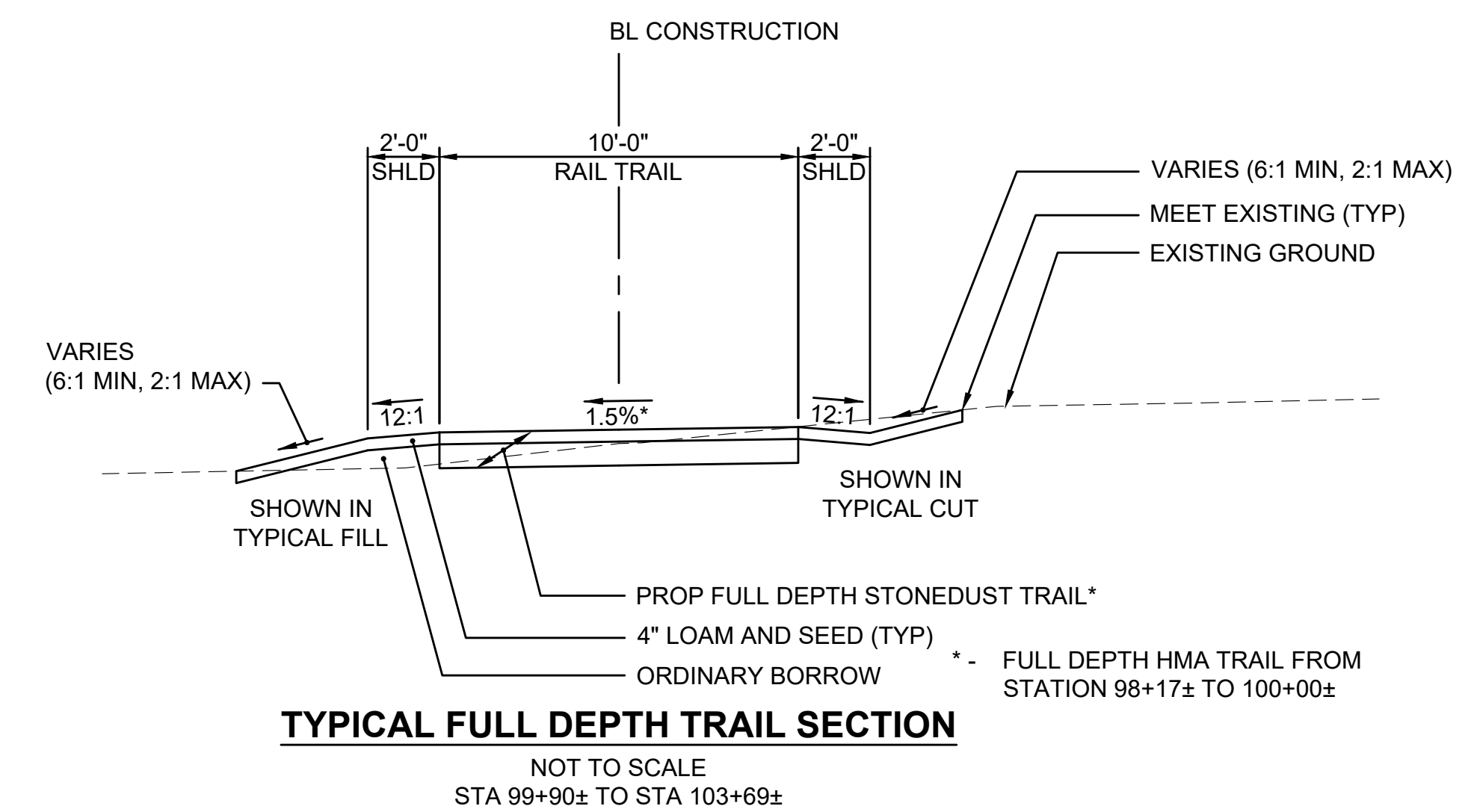
- SURFACE: 1-1/2" HOT MIX ASPHALT - STANDARD TOP COURSE
- INTERMEDIATE: 2-1/2" HOT MIX ASPHALT - DENSE BINDER COURSE
- BASE: 8" (MIN) GRAVEL BORROW, TYPE b

**PROPOSED FULL DEPTH CURB SETTING PAVEMENT SECTIONS**

- SURFACE: 1-1/2" HOT MIX ASPHALT - STANDARD TOP COURSE
- INTERMEDIATE: 3" HOT MIX ASPHALT - DENSE BINDER COURSE
- BASE: 6" (MIN) HIGH EARLY STRENGTH CEMENT CONCRETE  
8" (MIN) GRAVEL BORROW, TYPE b

**PROPOSED CEMENT CONCRETE SIDEWALK AND WHEELCHAIR RAMP SECTIONS**

- SURFACE: 6" CEMENT CONCRETE  
(4000psi, 3/4", 610 lbs. AIR ENTRAINED)
- BASE: 8" (MIN) GRAVEL BORROW, TYPE b



**TYPICAL FULL DEPTH TRAIL SECTION**  
NOT TO SCALE  
STA 99+90± TO STA 103+69±

**SWAMPSCOTT  
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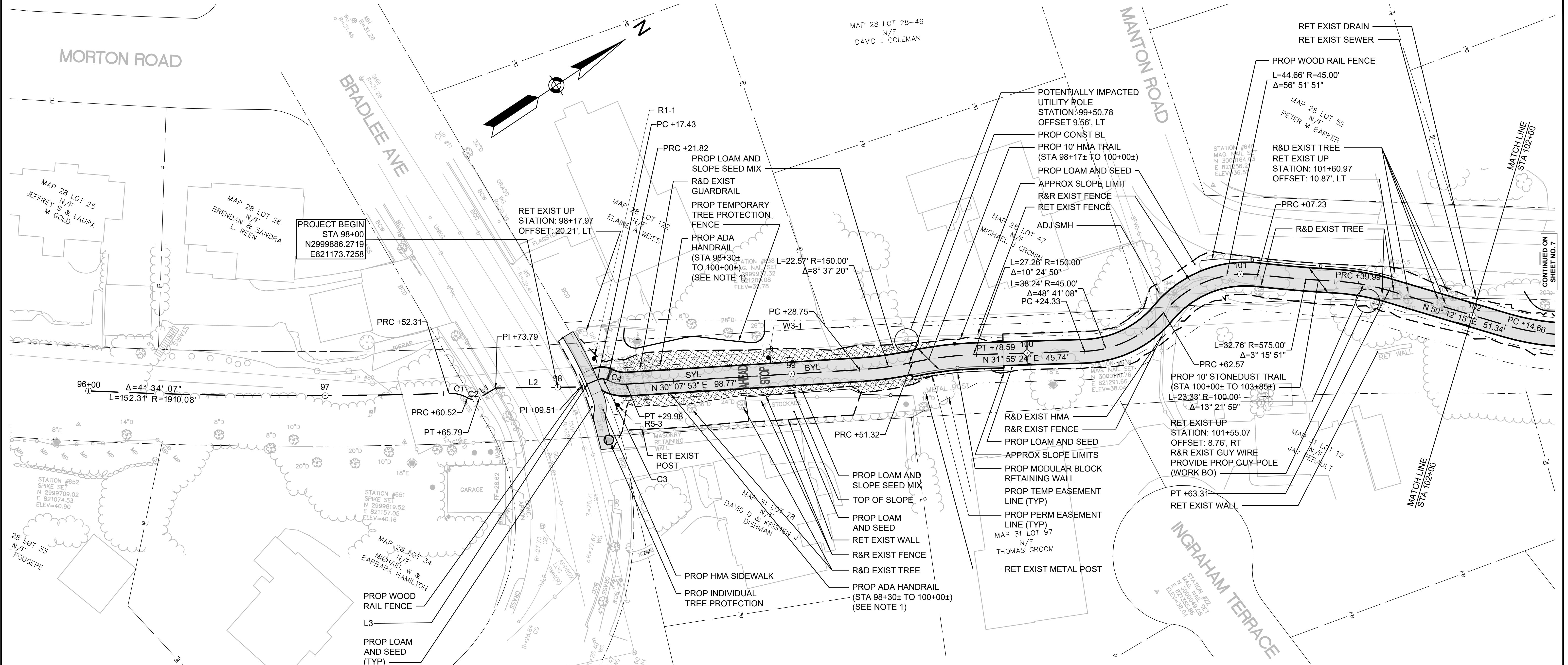
STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	FOR BID - 2020-09-10	6	19

STANTEC PROJECT NO. 179410549

**CONSTRUCTION PLANS  
PART 1 OF 2**

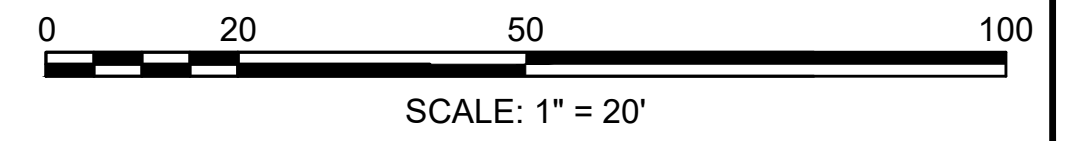
**NOTE:**

1. ADA HANDRAIL SHALL BE PROVIDED FROM STATION 98+30 TO 100+00 ON BOTH SIDES OF THE TRAIL AND SHALL BE CONSTRUCTED IN ACCORDANCE WITH MASSDOT SPECIFICATIONS FOR SECTION 660 - METAL PIPE RAIL AND SHALL CONFORM TO ALL APPLICABLE ADA/AAB STANDARDS BOTH IN ITS FABRICATION AND INSTALLATION.



[BRAD TO BB] SWAMPSCOTT RAIL TRAIL CONSTRUCTION BL CONSTRUCTION BASELINE DATA

NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
C1	97+52.31	2999846.5960	821150.3363	R = 15.00' Δ = 31°23'41" L = 8.22' T = 4.22'		97+60.52	2999852.0824	821156.3179
C2	97+60.52	2999852.0824	821156.3179	R = 5.00' Δ = 60°18'02" L = 5.26' T = 2.90'		97+65.79	2999856.2939	821159.0549
L1	97+65.79	2999856.2939	821159.0549		N2°52'08"E 8.00'	97+73.79	2999864.2839	821159.4553
L2	97+73.79	2999864.2839	821159.4553		N32°59'03"E 35.72'	98+09.51	2999894.2502	821178.9039
L3	98+09.51	2999894.2502	821178.9039		N10°54'04"E 7.92'	98+17.43	2999902.0229	821180.4008
C3	98+17.43	2999902.0229	821180.4008	R = 5.00' Δ = 50°23'34" L = 4.40' T = 2.35'		98+21.82	2999905.4628	821182.9090
C4	98+21.82	2999905.4628	821182.9090	R = 15.00' Δ = 31°09'45" L = 8.16' T = 4.18'		98+29.98	2999911.0894	821188.6774



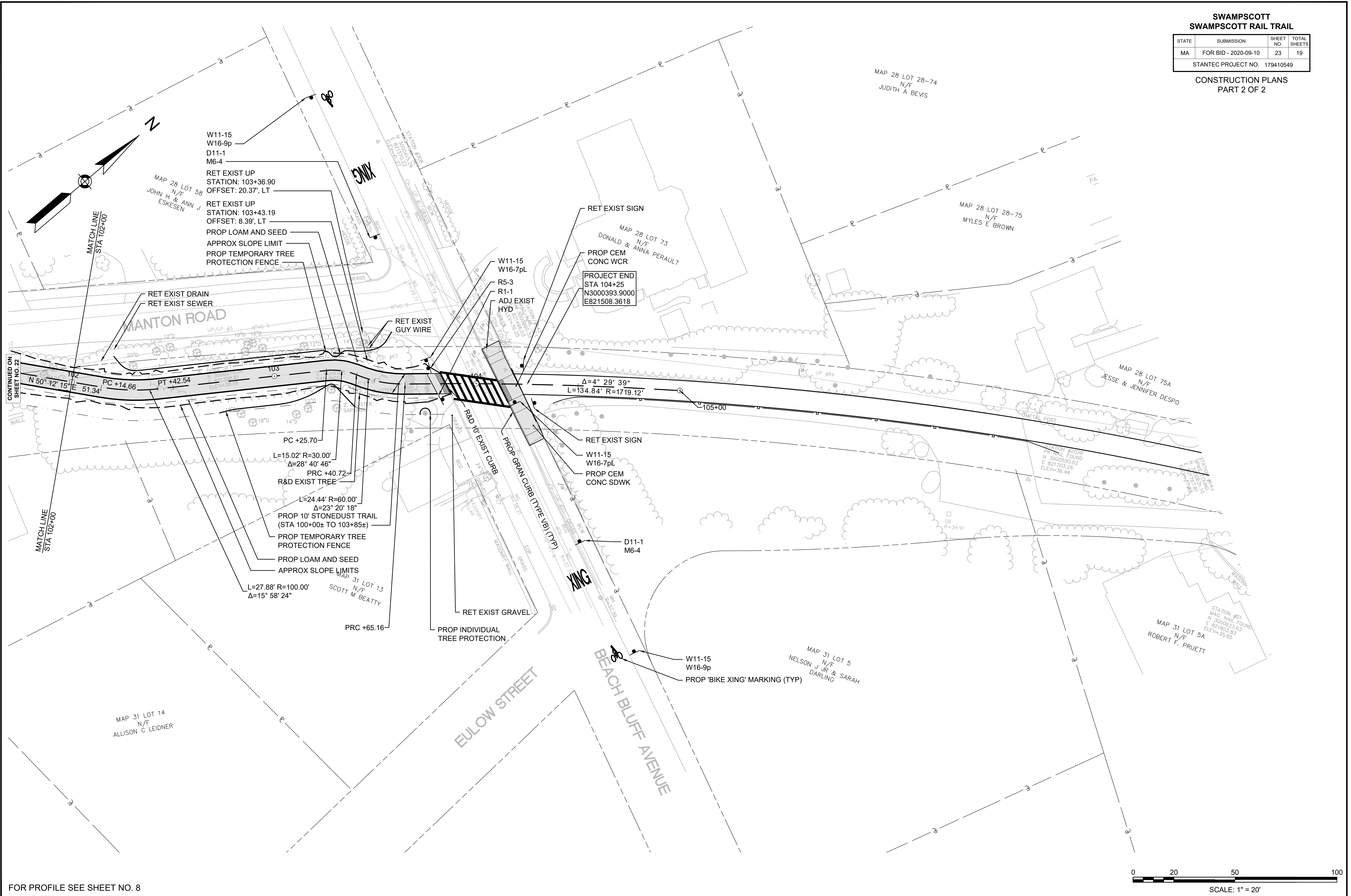
FOR PROFILE SEE SHEET NO. 8

MAP 31 LOT 14  
N/F  
ALLISON C LEIDNER

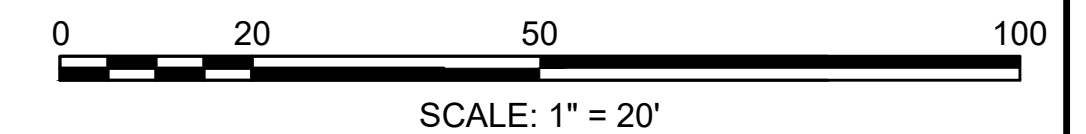
**SWAMPSCOTT  
SWAMPSCOTT RAIL TRAIL**

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	FOR BID - 2020-09-10	23	19

STANTEC PROJECT NO. 179410549  
CONSTRUCTION PLANS  
PART 2 OF 2



FOR PROFILE SEE SHEET NO. 8



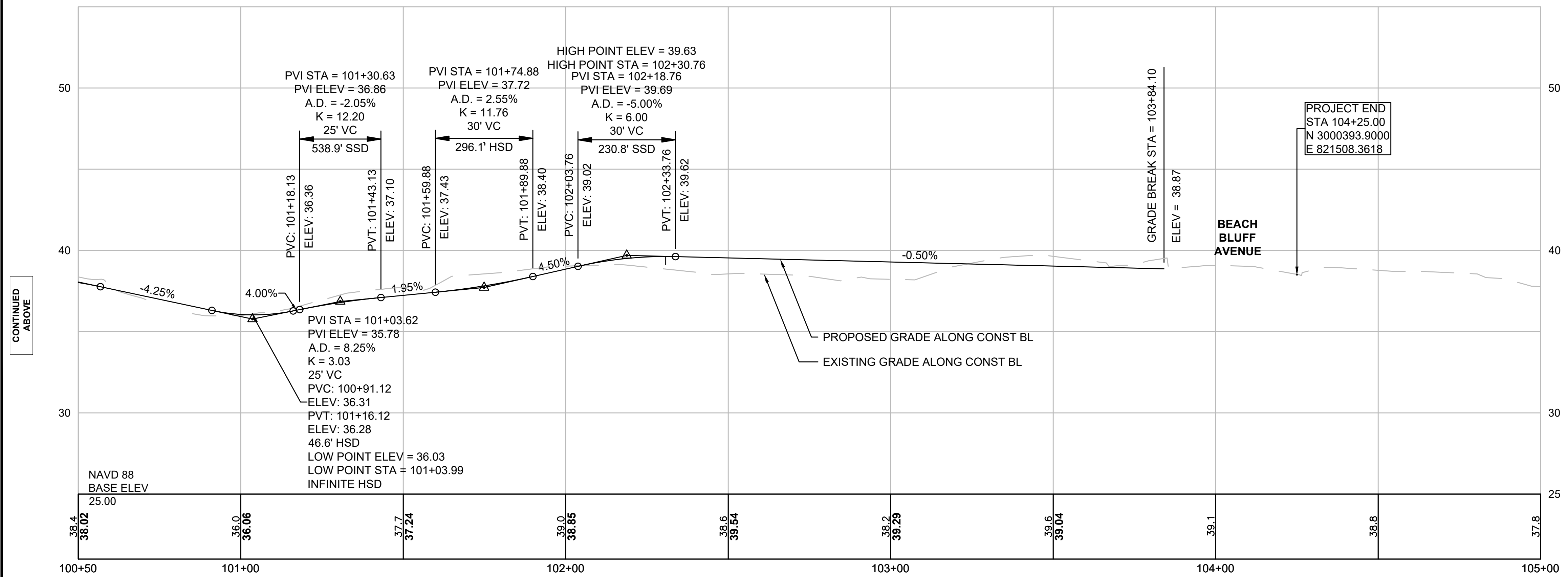
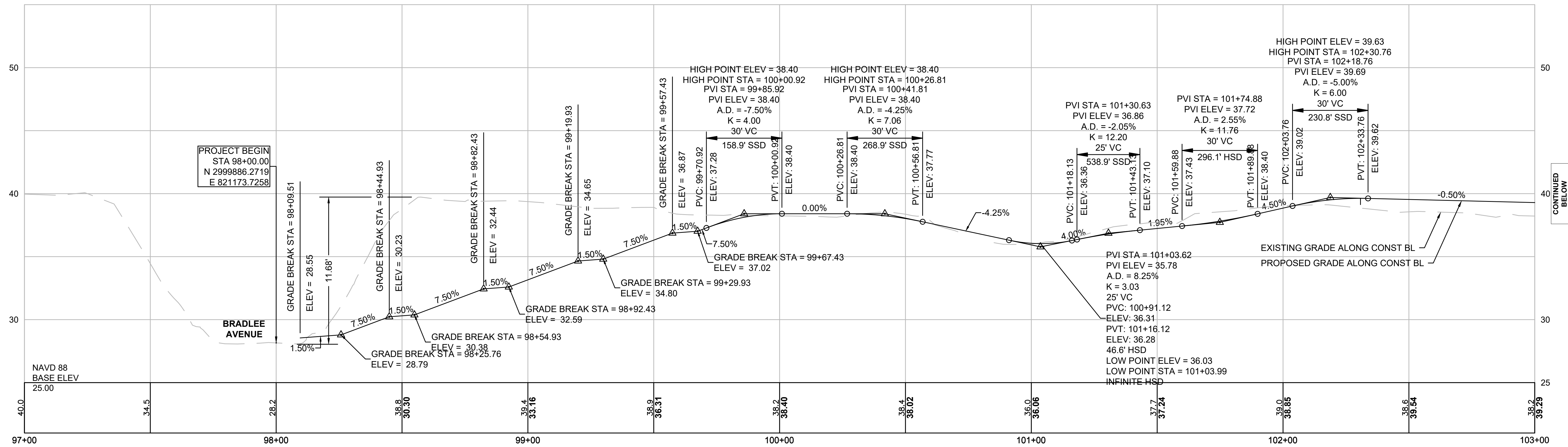
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**SWAMPSCOTT  
SWAMPSCOTT RAIL TRAIL**

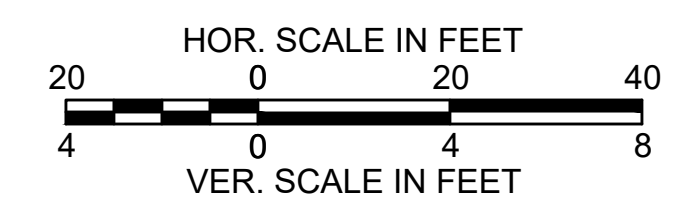
STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	FOR BID - 2020-09-11	8	19

STANTEC PROJECT NO. 179410549

**PROFILES**



FOR CONSTRUCTION PLANS SEE SHEET NO. 6 - 7



SWAMP\_RT\_BRAD\_BB\_PROFILES.DWG Picked on 11-Sep-2020 1:00 PM







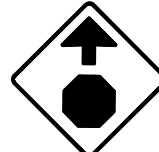



NOTE:  
ALL STOP AND YIELD SIGNS, PROPOSED IN THIS CONTRACT, ARE SUBJECT TO APPROVAL BY THE TOWN OF SWAMPSCOTT BEFORE INSTALLATION.

**SWAMPSCOTT  
SWAMPSCOTT RAIL TRAIL**

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	BID REV: 2020-05-21	9	##
STANTEC PROJECT NO. 179410549			

**TRAFFIC SIGN SUMMARY**

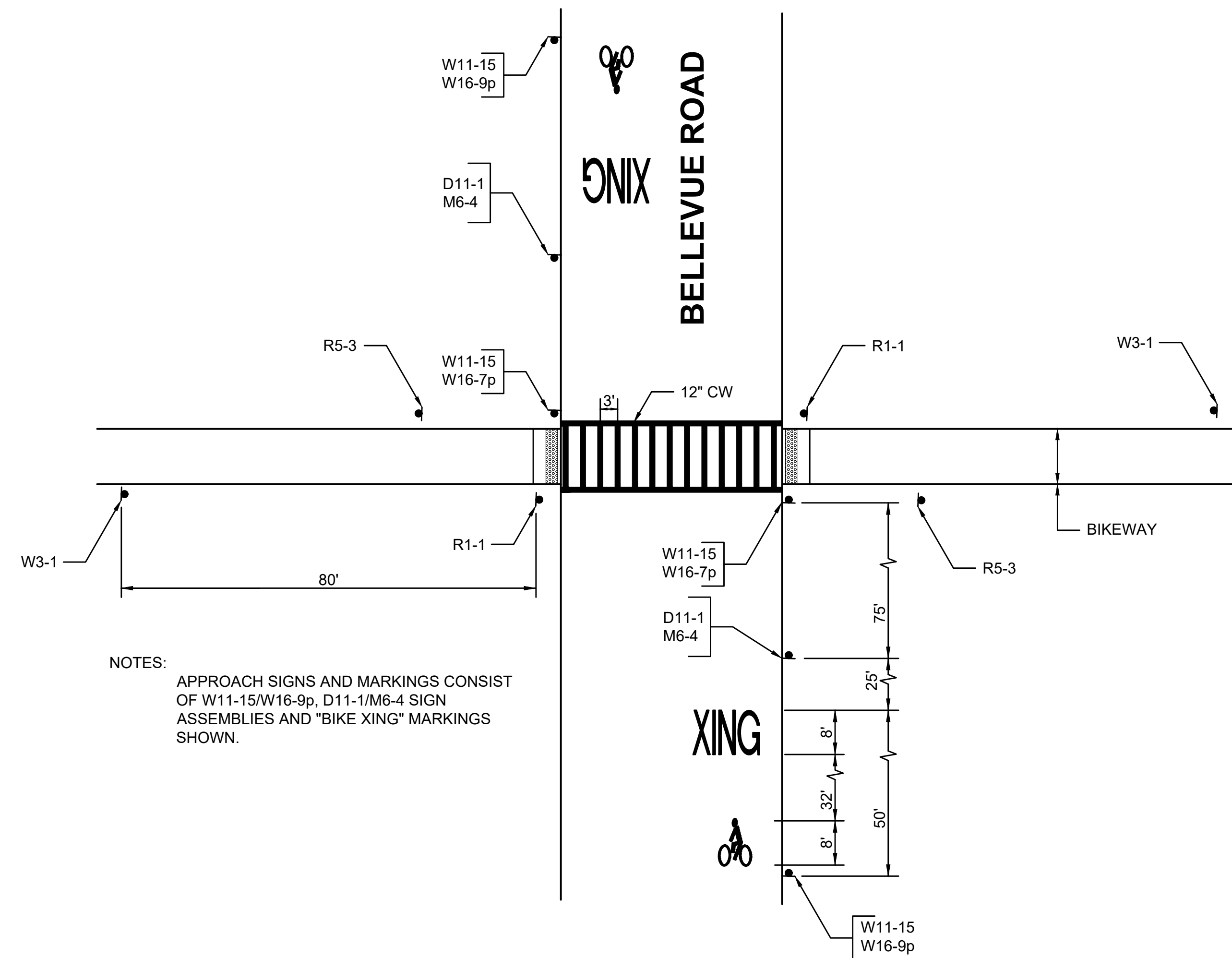
**TRAFFIC SIGN SUMMARY**

IDENTIFICATION NUMBER	SIZE OF SIGN		UNIT AREA (SF)	TEXT	TEXT DIMENSIONS			NUMBER OF SIGNS REQUIRED	COLOR			POST SIZE AND NUMBER REQUIRED	AREA (SF)
	WIDTH	HEIGHT			LETTER HEIGHT	VERTICAL SPACING	ARROW		BACK-GROUND	LEGEND	BORDER		
D11-1	24"	18"	3.00		2009 MUTCD	2009 MUTCD	2009 MUTCD	2	GREEN	WHITE	WHITE	1-P5 2	6.00
M6-4	12"	9"	0.75		2009 MUTCD	2009 MUTCD	2009 MUTCD	2	GREEN	WHITE	WHITE	MOUNT 2 WITH D11-1	1.50
R1-1 (PATH)	18"	18"	2.25		2009 MUTCD	2009 MUTCD	2009 MUTCD	2	RED	WHITE	WHITE	1-P5 2	4.50
R5-3	24"	24"	4.00		2009 MUTCD	2009 MUTCD	2009 MUTCD	2	WHITE	BLACK	BLACK	1-P5 2	8.00
W3-1	18"	18"	2.25		2009 MUTCD	2009 MUTCD	2009 MUTCD	1	YELLOW	BLACK/ RED	BLACK	1-P5 1	2.25
W11-15	30"	30"	6.25		2009 MUTCD	2009 MUTCD	2009 MUTCD	4	YELLOW	BLACK	BLACK	1-P5 4	25.00
W16-9p	24"	12"	2.00		2009 MUTCD	2009 MUTCD	2009 MUTCD	2	YELLOW	BLACK	BLACK	MOUNT 2 WITH W11-15	4.00
W16-7pL	24"	12"	2.00		2009 MUTCD	2009 MUTCD	2009 MUTCD	2	YELLOW	BLACK	BLACK	MOUNT 2 WITH W11-15	4.00

**SWAMPSCOTT  
SWAMPSCOTT RAIL TRAIL**

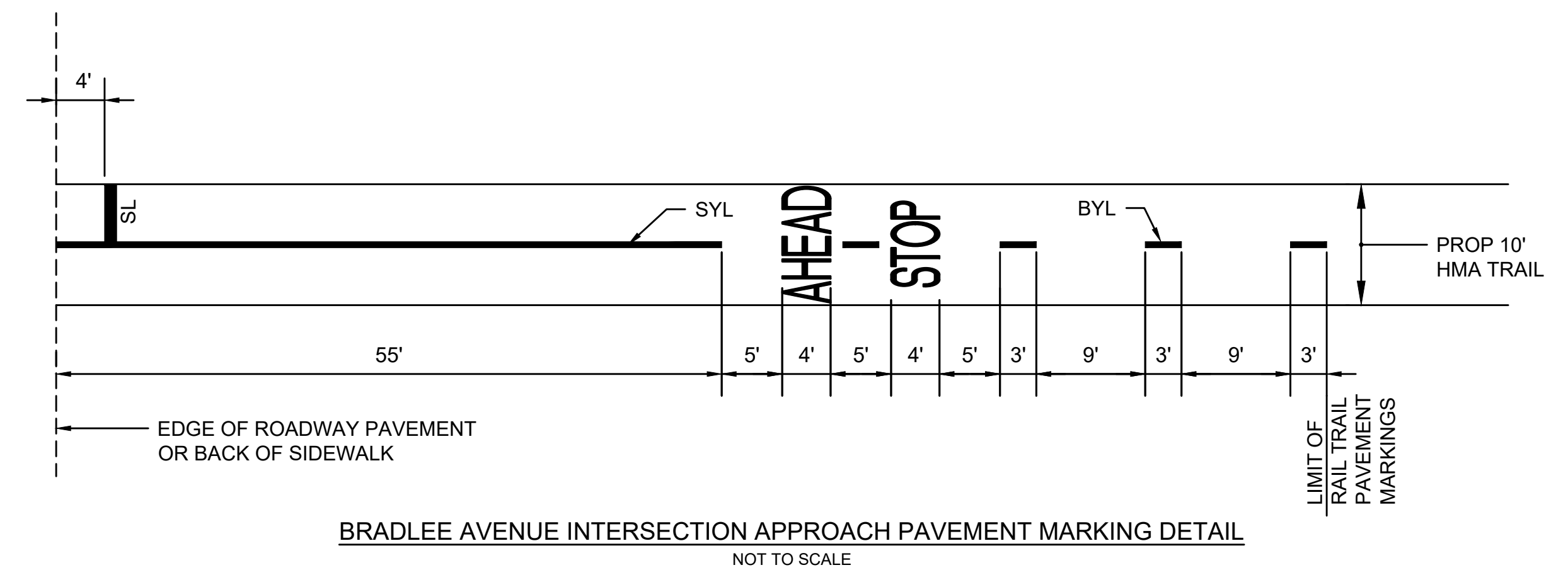
STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	BID REV: 2020-05-21	10	##
STANTEC PROJECT NO. 179410549			

TRAFFIC DETAILS

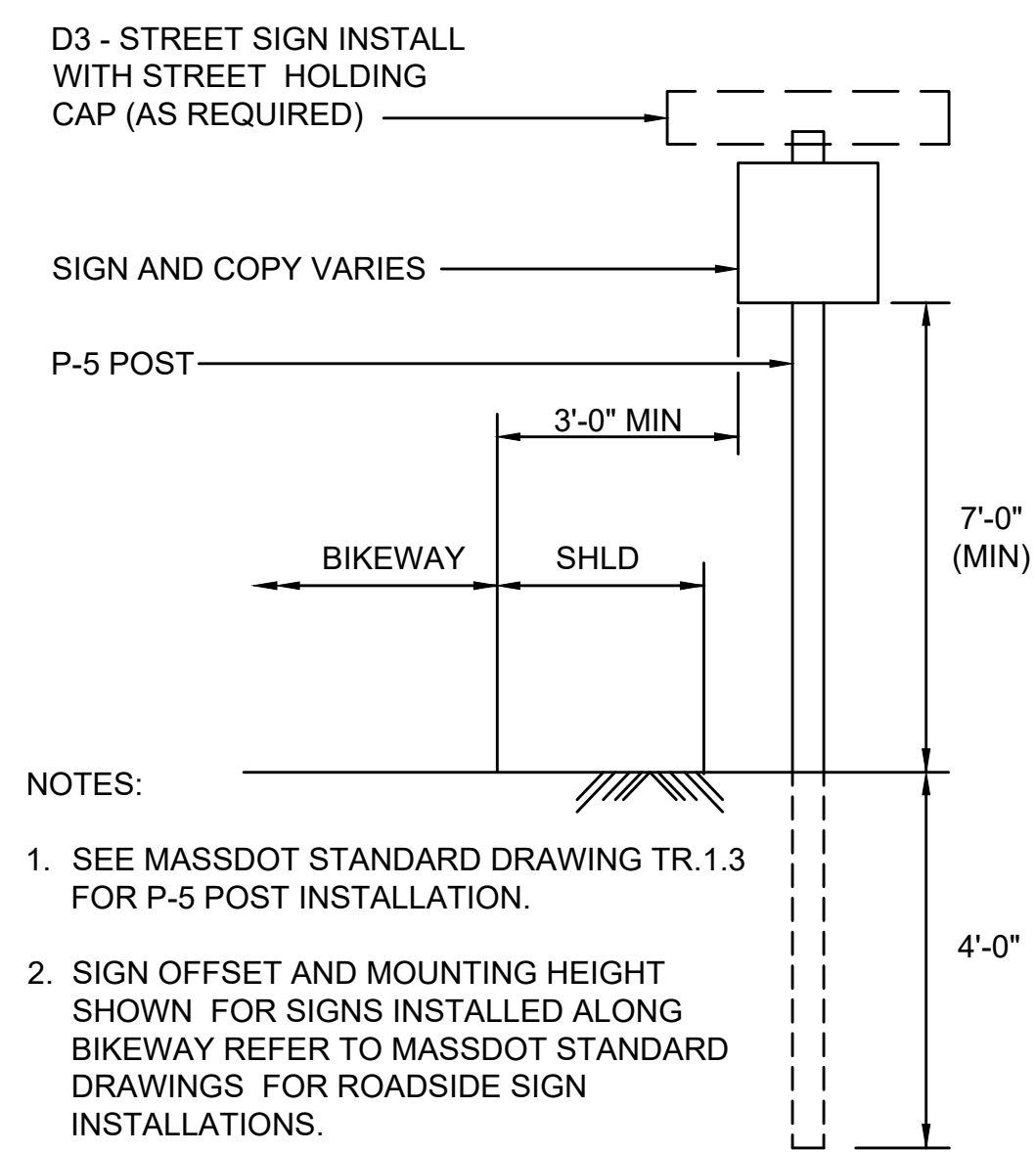


NOTES:  
APPROACH SIGNS AND MARKINGS CONSIST OF W11-15/W16-9p, D11-1/M6-4 SIGN ASSEMBLIES AND "BIKE XING" MARKINGS SHOWN.

**TYPICAL INTERSECTION SIGNS AND MARKINGS**  
NOT TO SCALE



**BRADLEE AVENUE INTERSECTION APPROACH PAVEMENT MARKING DETAIL**  
NOT TO SCALE



- NOTES:
- SEE MASSDOT STANDARD DRAWING TR.1.3 FOR P-5 POST INSTALLATION.
  - SIGN OFFSET AND MOUNTING HEIGHT SHOWN FOR SIGNS INSTALLED ALONG BIKEWAY REFER TO MASSDOT STANDARD DRAWINGS FOR ROADSIDE SIGN INSTALLATIONS.

**TYPICAL SIGN LOCATION**  
NOT TO SCALE

**SWAMPSCOTT  
SWAMPSCOTT RAIL TRAIL**

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	BID REV: 2020-05-21	11	##
STANTEC PROJECT NO. 179410549			

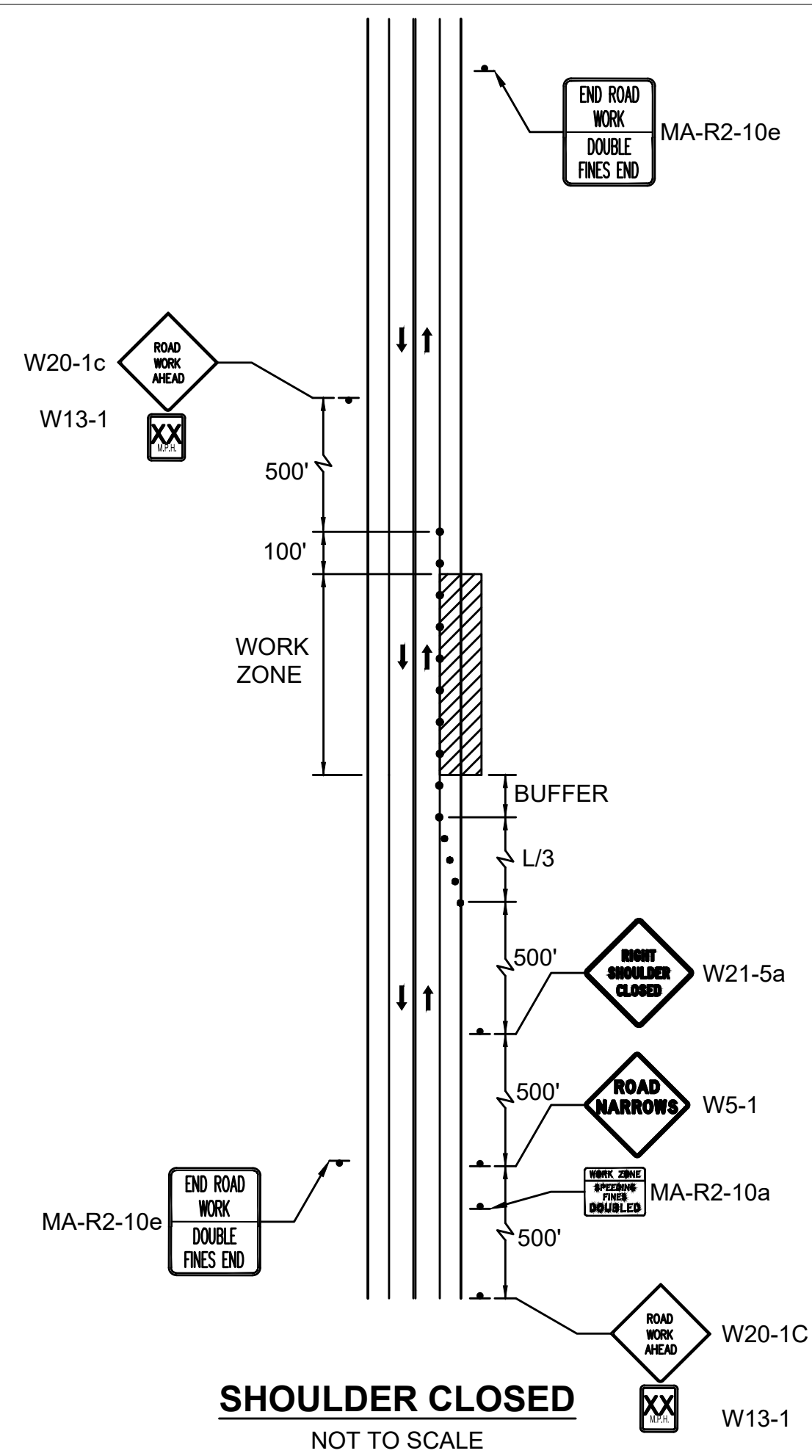
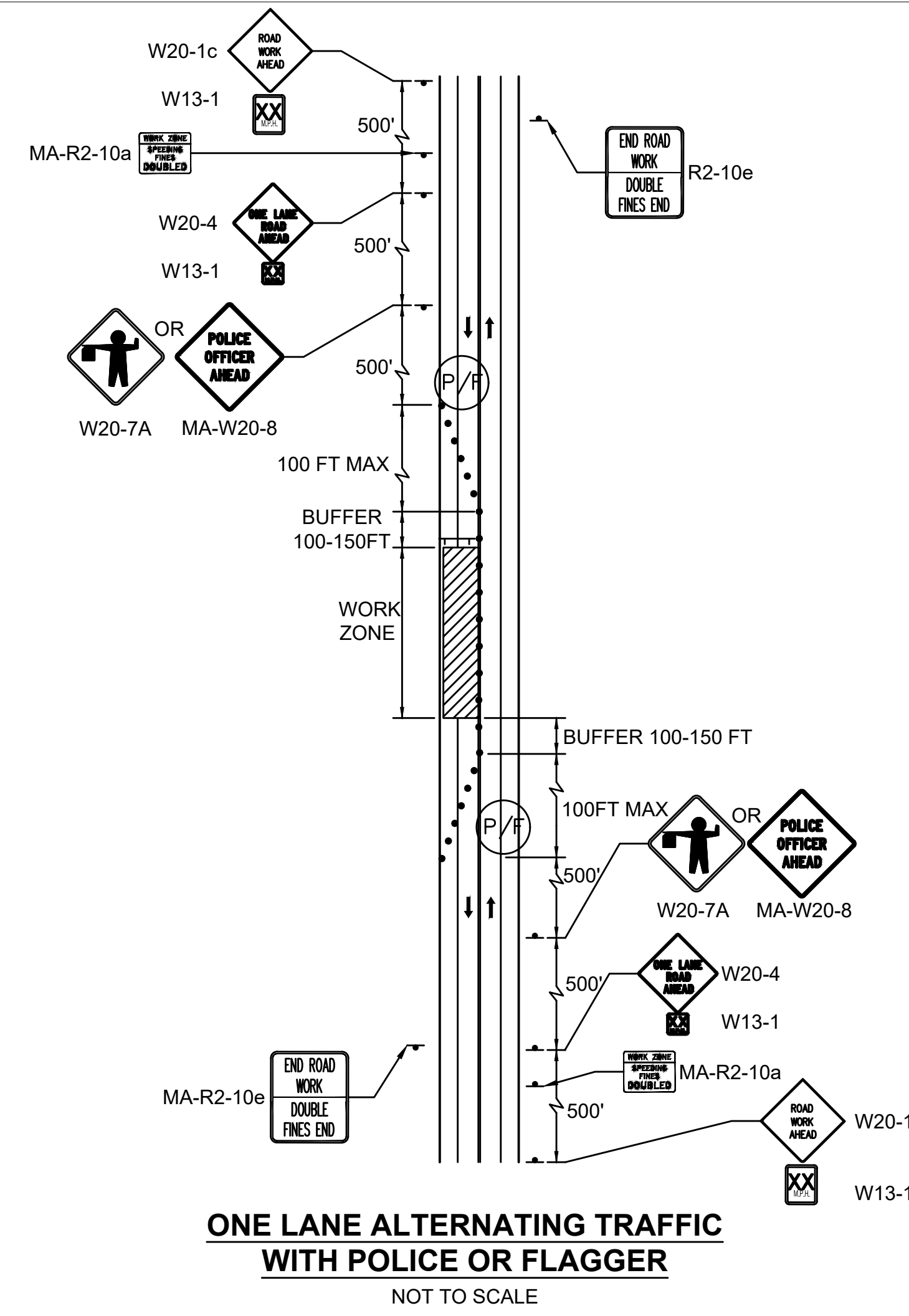
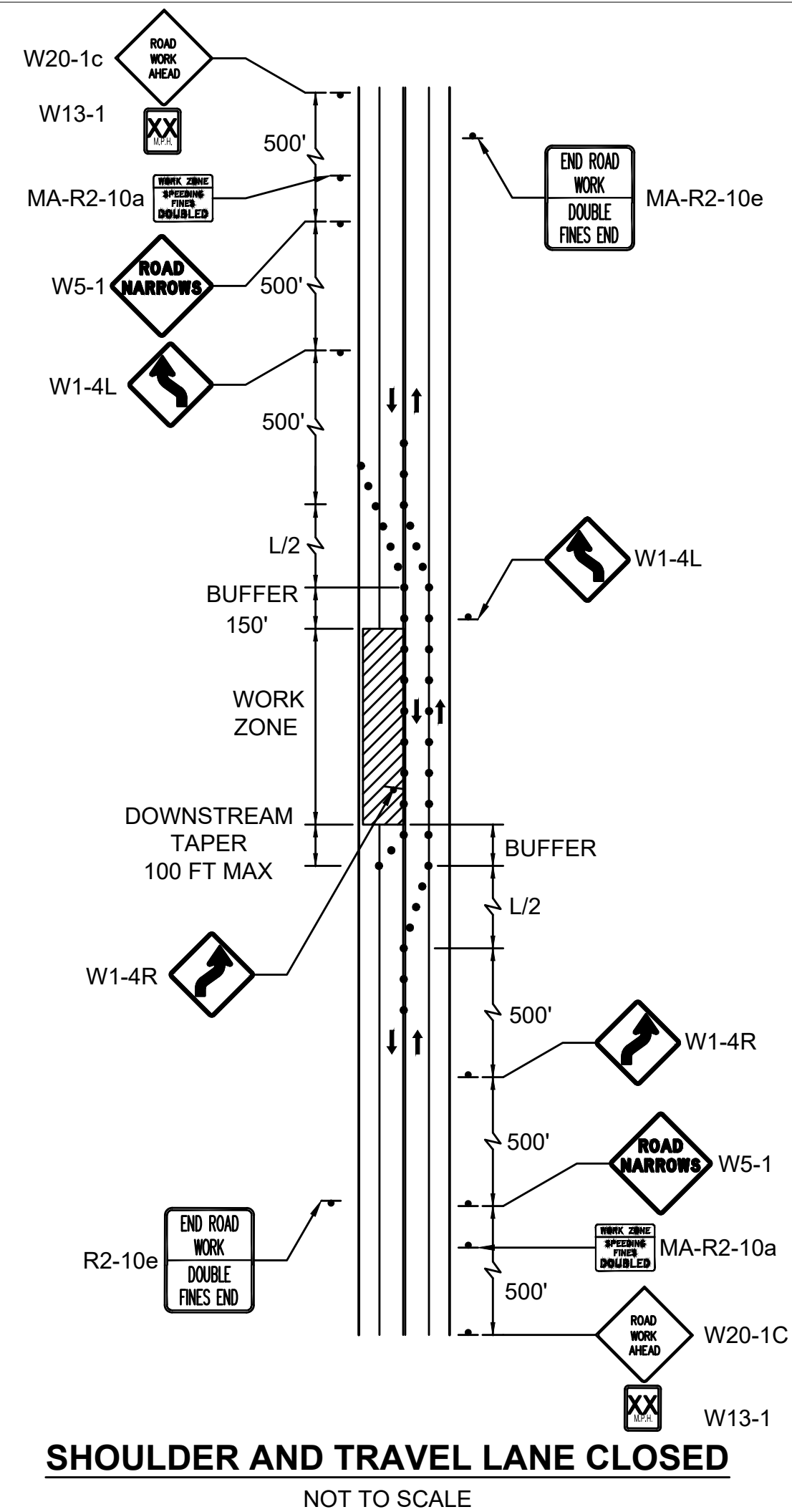
**TEMPORARY TRAFFIC CONTROL PLANS**

**CONSTRUCTION SIGN SUMMARY**

IDENTIFICATION NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS			NUMBER OF SIGNS REQUIRED	COLOR			POST SIZE AND NUMBER REQUIRED	AREA IN SQUARE FEET
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW		BACKGROUND	LEGEND	BORDER		
MA-R2-10a	48"	36"	WORK ZONE SPEEDING FINES DOUBLED	SEE MASSDOT STANDARDS			2	SEE MASSDOT STANDARDS				24.00
MA-R2-10e	36"	18"	END ROAD WORK DOUBLE FINES END	SEE MASSDOT STANDARDS			2	SEE MASSDOT STANDARDS				9.00
S-G20-1 (SEE DETAIL BELOW)	42"	24"	BIKEPATH CLOSED DURING CONSTRUCTION	4"	3"	N/A	2	WHITE	BLACK	BLACK		14.00
W1-4L	36"	36"	ROAD NARROWS	SEE 2009 MUTCD			2	SEE 2009 MUTCD				18.00
W1-4R	36"	36"	ROAD NARROWS	SEE 2009 MUTCD			2	SEE 2009 MUTCD				18.00
W13-1	18"	18"	XX MPH				4					9.00
W5-1	36"	36"	ROAD NARROWS				2					18.00
W20-1c	36"	36"	ROAD WORK AHEAD				4					36.00
W20-4c	36"	36"	ONE LANE ROAD AHEAD				2					18.00
W21-5aR	36"	36"	RIGHT SHOULDER CLOSED				1					9.00
W20-7A	36"	36"	ROAD WORK AHEAD				2					18.00
OR	OR	OR	OR				OR					OR
MA-W20-8	36"	36"	POLICE OFFICER AHEAD	SEE MASSDOT STANDARDS			2					18.00

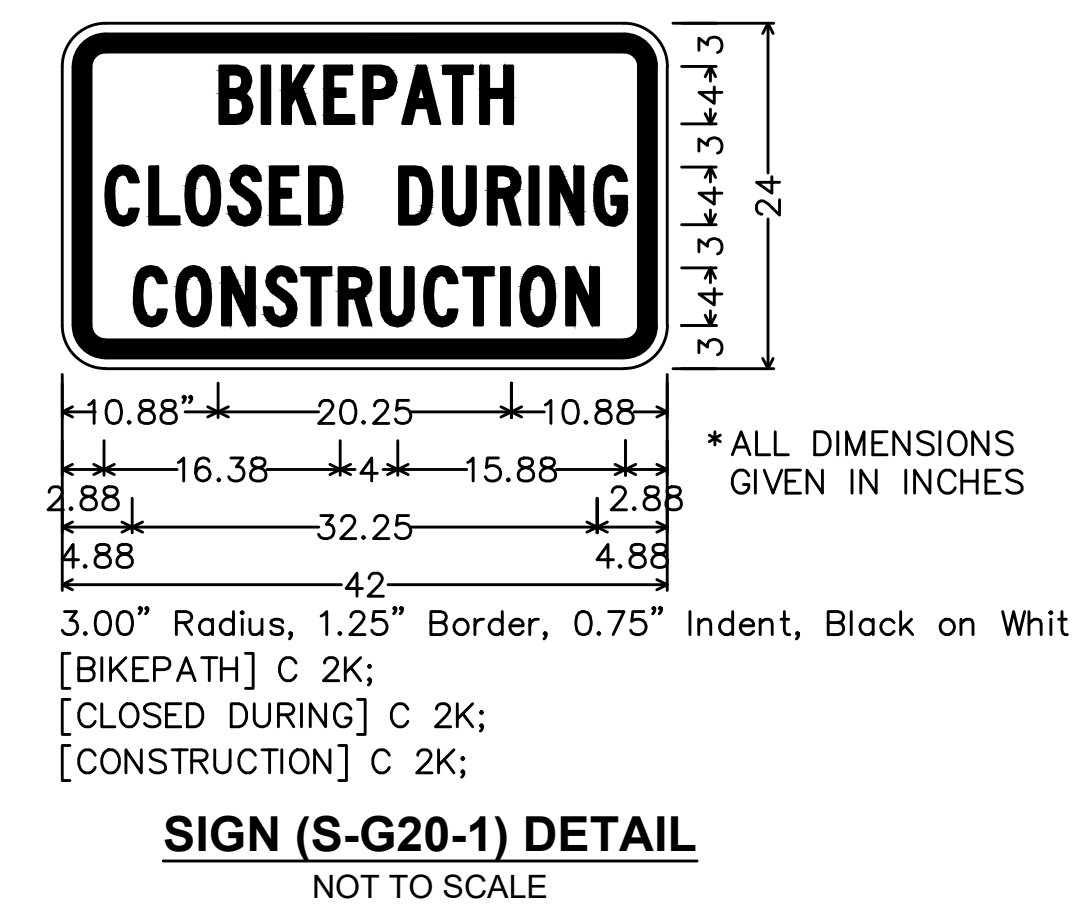
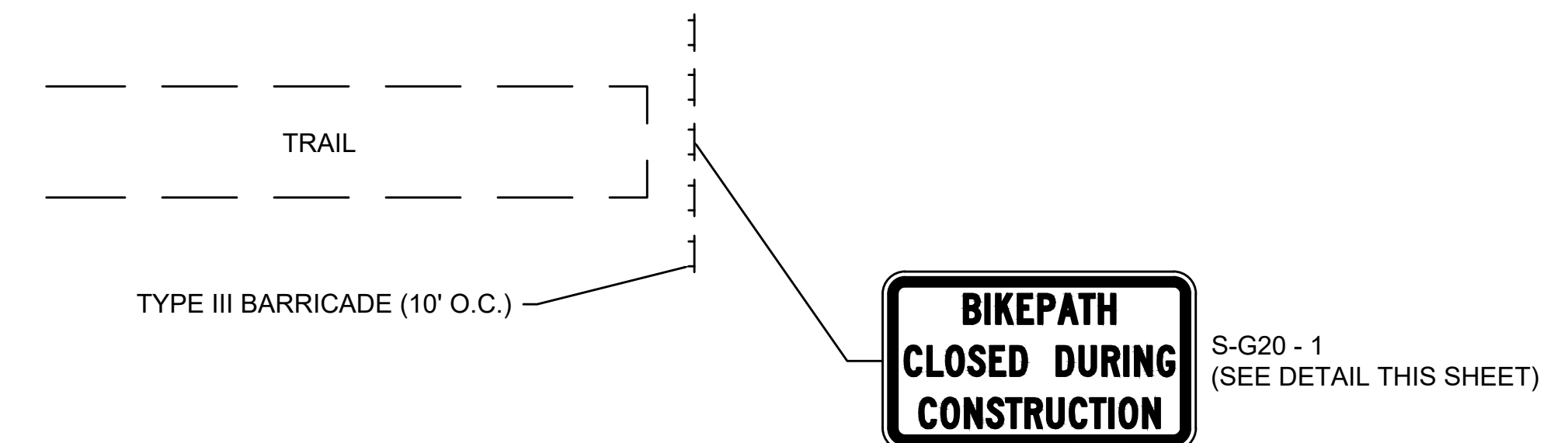
**LEGEND**

- REFLECTORIZED DRUM
- SIGN ON SUPPORT
- TYPE III BARRICADE WITH WARNING LIGHTS
- ▨ WORK ZONE
- P/F POLICE OFFICER/FLAGGER



**NOTES:**

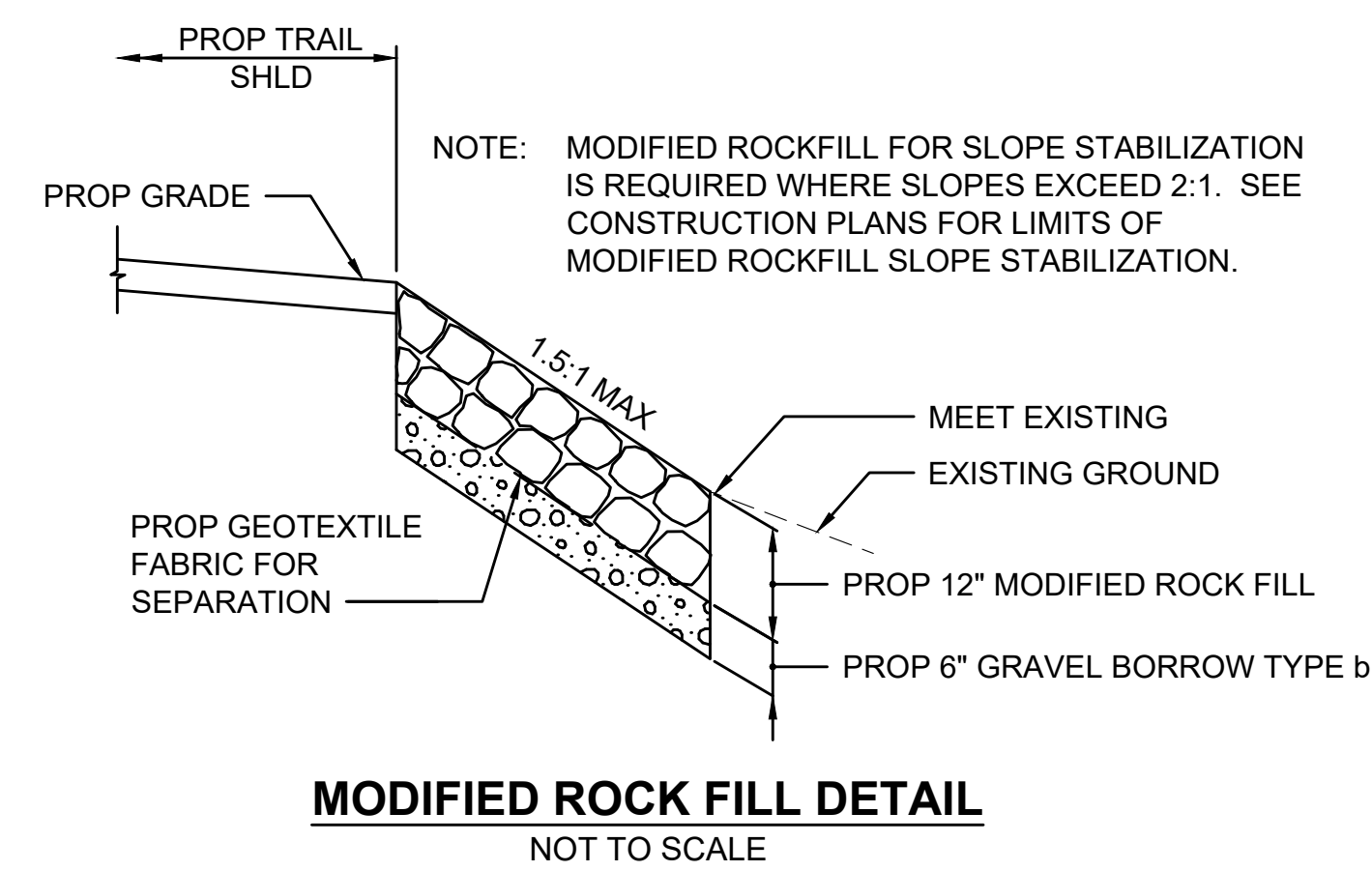
- ALL TEMPORARY TRAFFIC CONTROL WORK SHALL CONFORM TO THE 2009 EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) AND MASSACHUSETTS AMENDMENTS.
- ALL SIGN LEGENDS, BORDERS AND MOUNTING SHALL BE IN ACCORDANCE WITH THE 2009 MUTCD.
- TEMPORARY CONSTRUCTION SIGNING AND ALL OTHER TRAFFIC CONTROL DEVICES SHALL BE IN PLACE PRIOR TO THE START OF ANY WORK.
- TEMPORARY CONSTRUCTION SIGNING, BARRICADES 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, AND REFLECTORIZED PLASTIC DRUMS WITH LIGHTING DEVICES MOUNTED ON THEM, SHALL PASS THE CRITERIA SET FORTH IN NCHRP REPORT 350, "RECOMMENDED PROCEDURES FOR THE SAFETY PERFORMANCE EVALUATION OF HIGHWAY FEATURES."
- 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.
- THE FIRST TEN PLASTIC REFLECTORIZED DRUMS OF A TAPER SHALL BE MOUNTED WITH SEQUENTIAL FLASHING 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 SHALL BE 11 FEET UNLESS OTHERWISE SHOWN. MINIMUM LANE WIDTH TO BE MEASURED FROM THE EDGE OF DRUMS OR MEDIAN BARRIER.
- ALL SIGNS SHALL BE MOUNTED ON THEIR OWN STANDARD SIGN SUPPORTS.
- ALL TEMPORARY WALKWAYS SHALL MEET ADA/AAB GUIDELINES.
- NO LANE CLOSURE WILL BE PERMITTED DURING PEAK HOUR TRAFFIC.



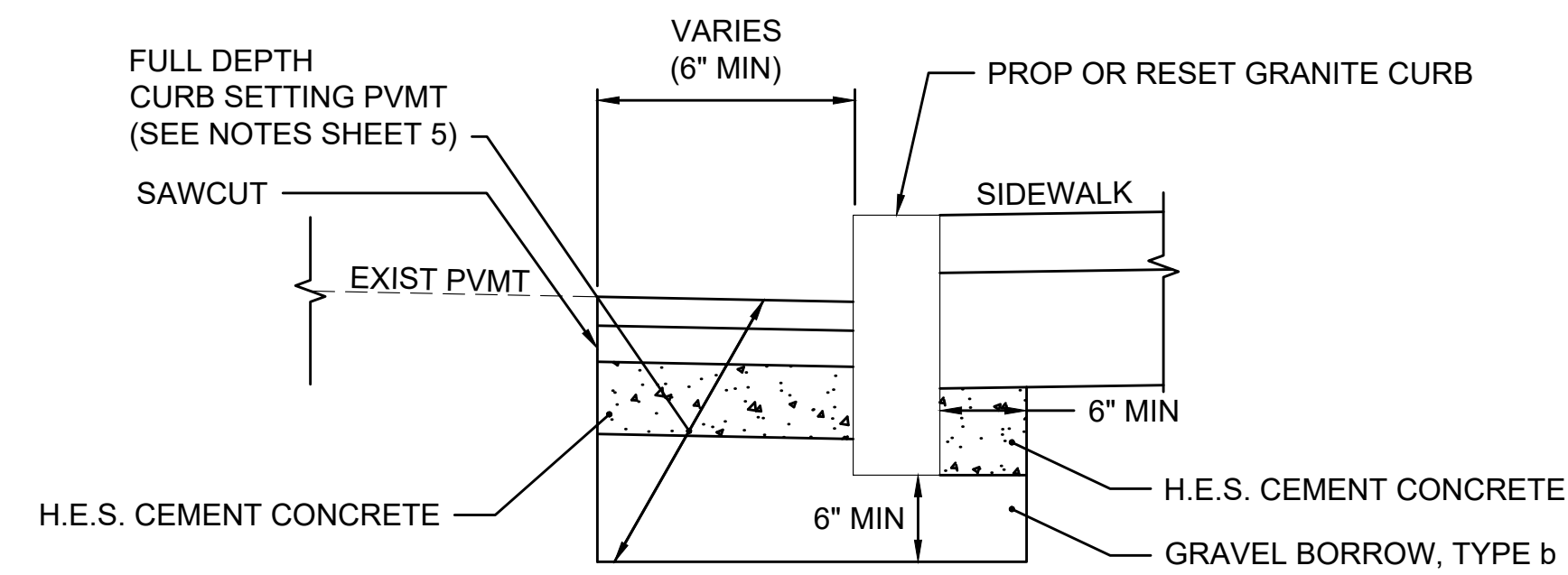
**SWAMPSCOTT  
SWAMPSCOTT RAIL TRAIL**

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	FOR BID - 2020-09-11	12	19
STANTEC PROJECT NO. 179410549			

**CONSTRUCTION DETAILS  
PART 1 OF 3**

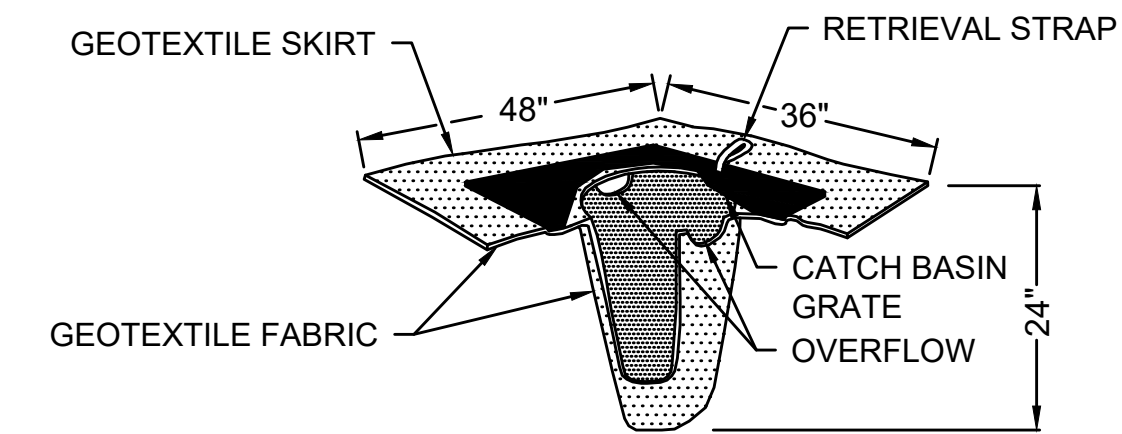


**MODIFIED ROCK FILL DETAIL**  
NOT TO SCALE

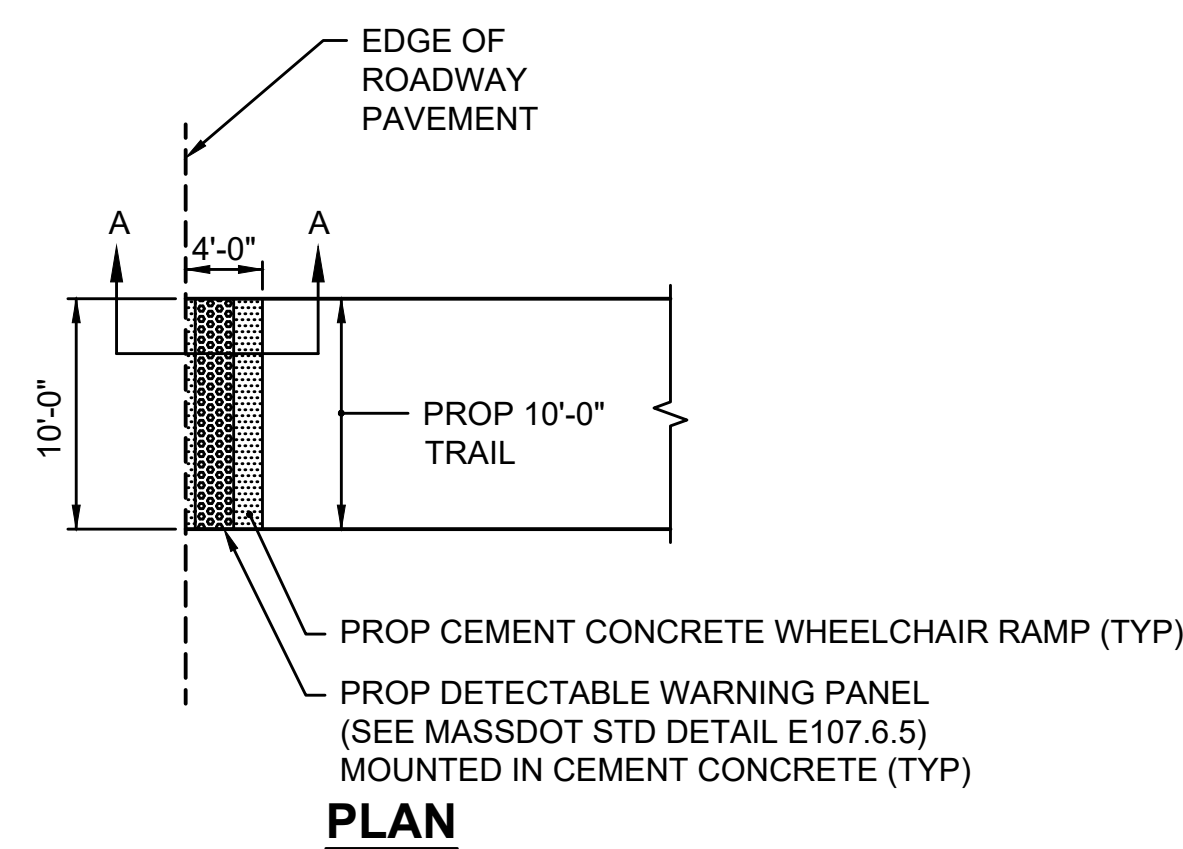


- NOTES:
1. H.E.S. CEMENT CONCRETE SHALL BE PAID FOR UNDER ITEM 431. - HIGH EARLY STRENGTH CEMENT CONCRETE BASE COURSE.
  2. H.E.S. CEMENT CONCRETE SHALL BE PLACED ON BOTH SIDES OF GRANITE CURBING.
  3. HOT MIX ASPHALT SHALL NOT BE USED AS A SUBSTITUTE FOR H.E.S. CONCRETE.
  4. SAWCUTTING EXISTING PAVEMENT SHALL BE INCLUDED IN THE PRICE BID FOR PROPOSED OR RESET GRANITE CURB.
  5. MAXIMUM CURB REVEAL SHALL BE 6 INCHES

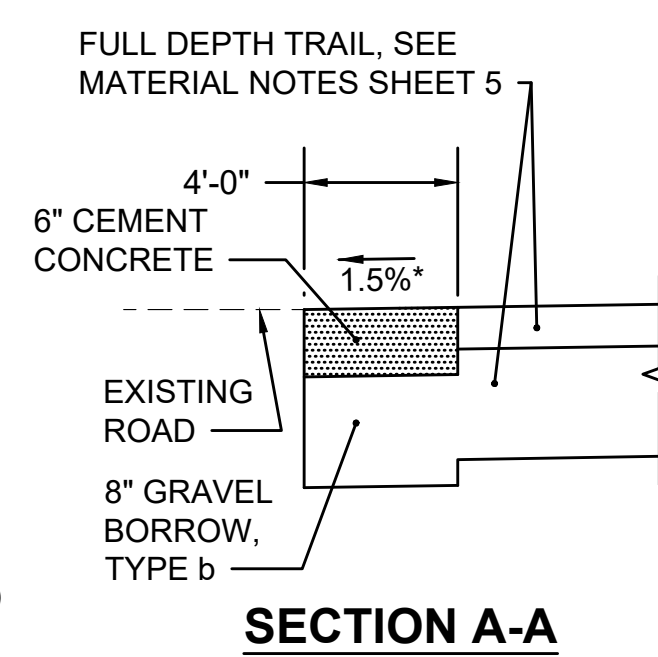
**METHOD OF SETTING GRANITE CURB  
(AGAINST EXISTING PAVEMENT)**  
NOT TO SCALE



**SILT SACK FOR SEDIMENT CONTROL**  
NOT TO SCALE

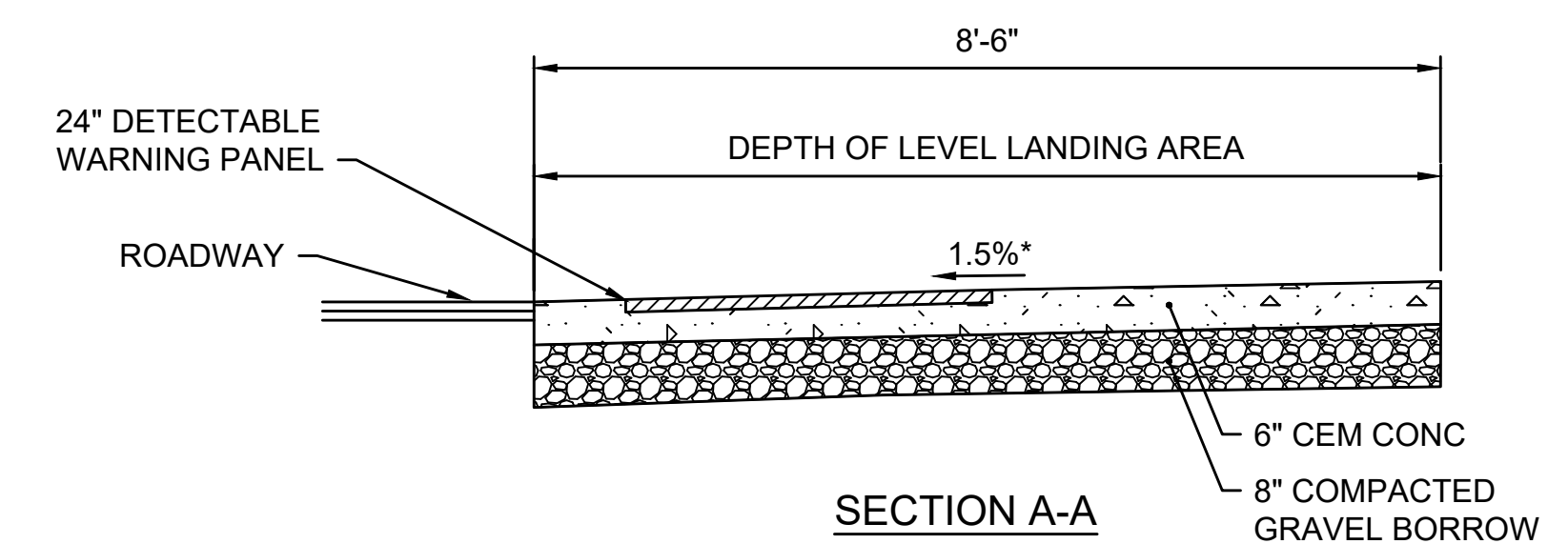
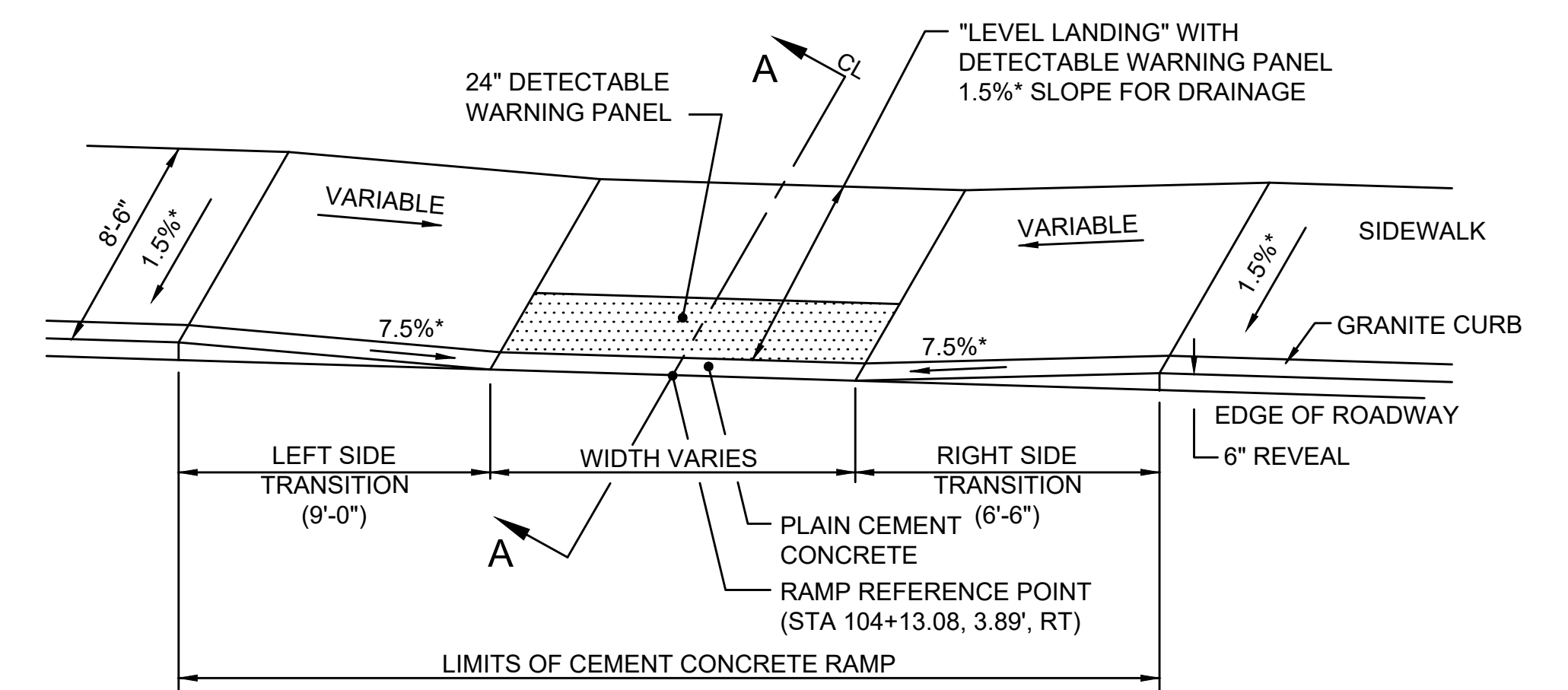


**DETECTABLE WARNING PANEL AT TRAIL INTERSECTION**  
NOT TO SCALE



- NOTES:
1. WHEELCHAIR RAMPS AND DRIVEWAYS SHALL BE CONSTRUCTED IN ACCORDANCE WITH MASSDOT CONSTRUCTION STANDARD DRAWINGS NUMBERED 107.2.0, 107.2.1, 107.6.0, 107.6.4, 107.6.5, 107.7.0 AND 107.9.0 AND ADA/ MA AAB REQUIREMENTS.
  2. DETECTABLE WARNING PANELS ARE REQUIRED ON ALL PROPOSED WHEELCHAIR RAMPS AND ARE TO BE INSTALLED IN ACCORDANCE WITH CONSTRUCTION STANDARD 107.6.5. DETECTIBLE WARNING PANELS SHALL BE PLACED PERPENDICULAR TO THE PATH OF TRAVEL AND NOT THE CURB LINE.
  3. ALL DETECTABLE WARNING PANELS SHALL BE CAST IRON AND MOUNTED IN CEMENT CONCRETE.

\* TOLERANCE FOR CONSTRUCTION ±0.5% (TYP.)

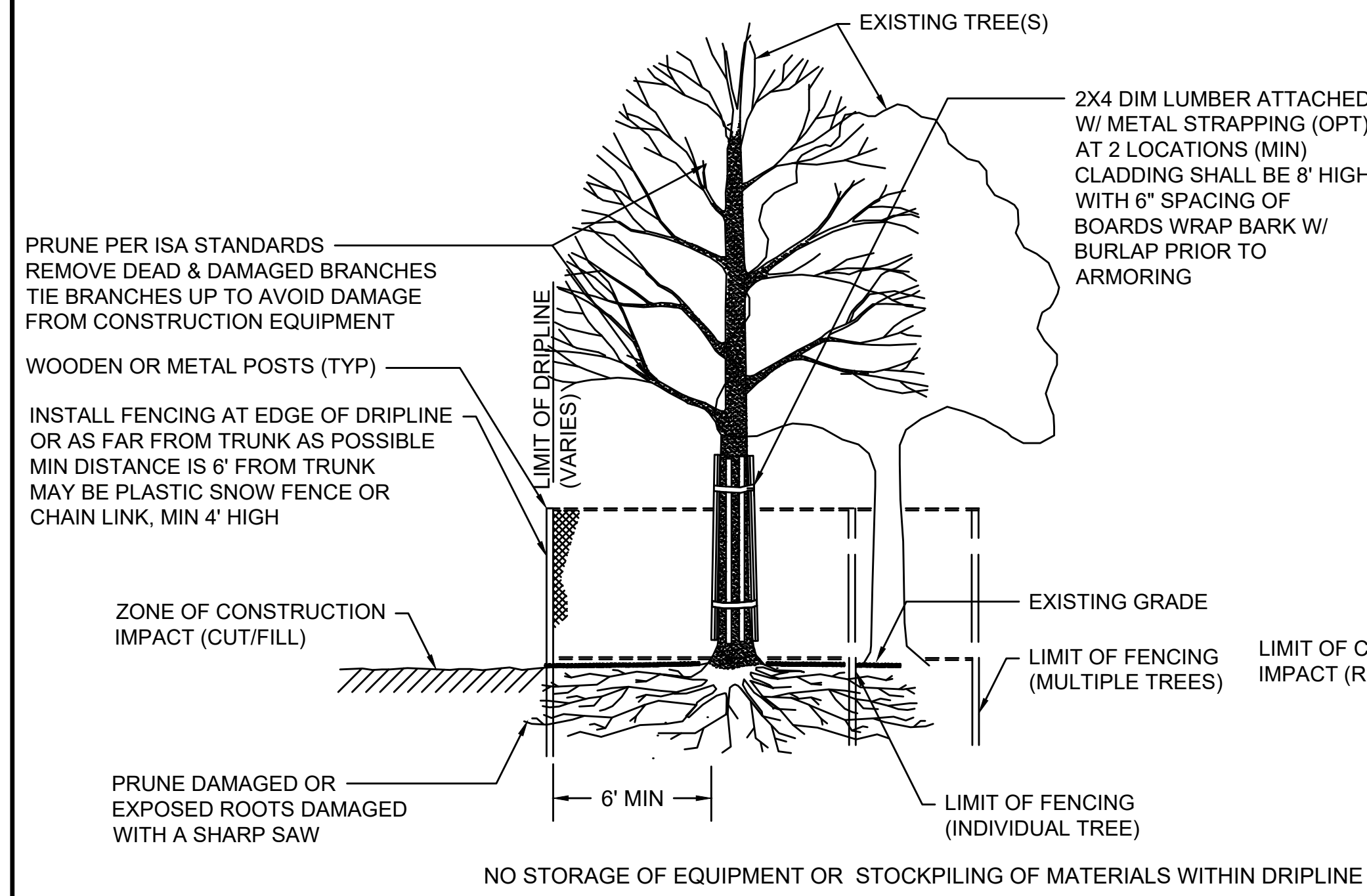


**WHEELCHAIR RAMP DETAIL - TYPE A**  
NOT TO SCALE

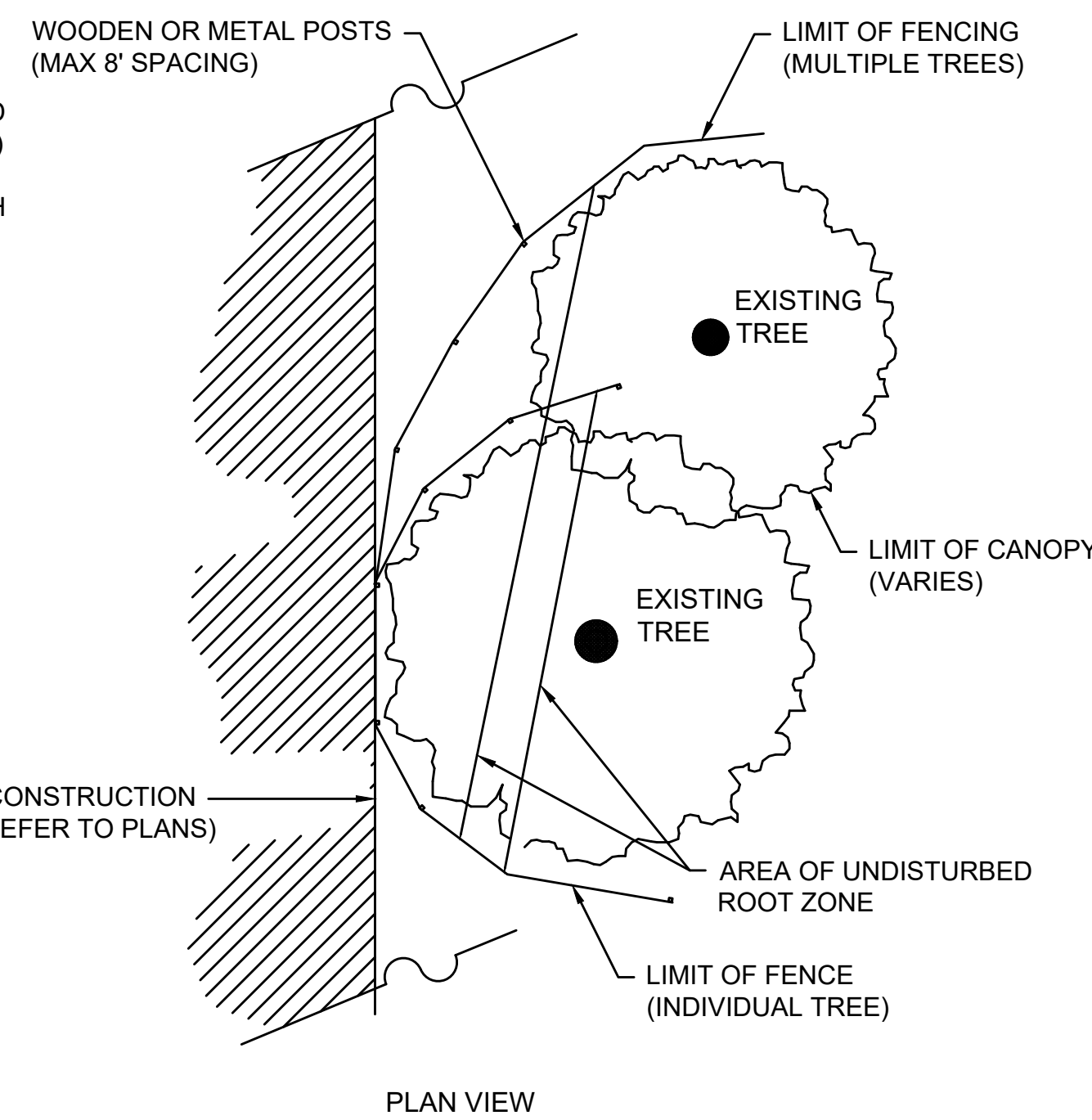
**SWAMPSCOTT  
SWAMPSCOTT RAIL TRAIL**

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	FOR BID - 2020-09-11	13	19
STANTEC PROJECT NO. 179410549			

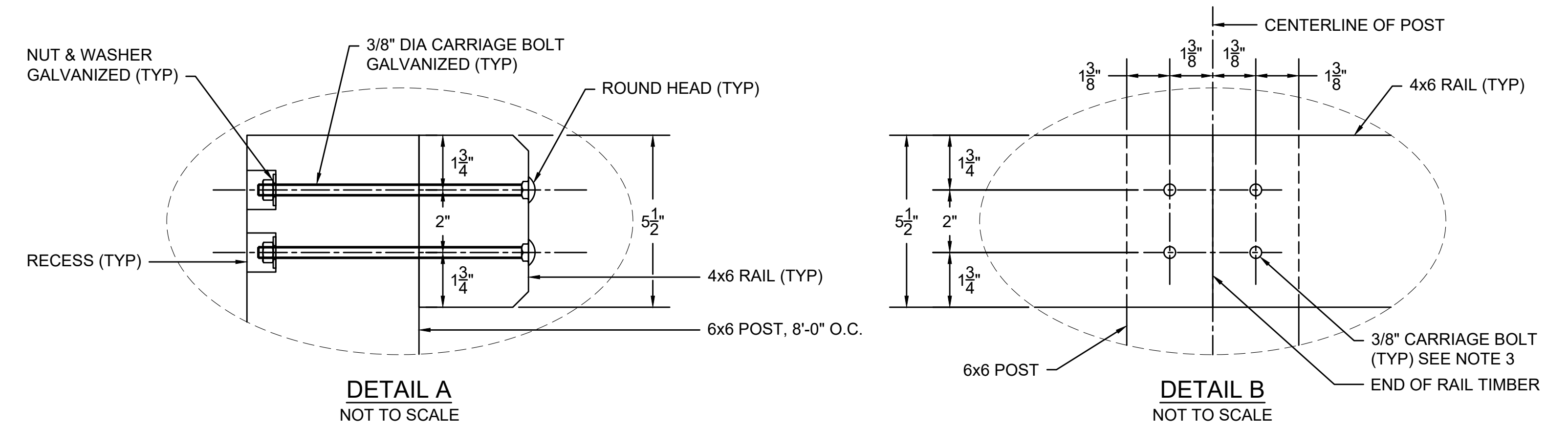
**CONSTRUCTION DETAILS  
PART 2 OF 3**



**TREE PROTECTION - EXISTING TREE(S)**  
NOT TO SCALE

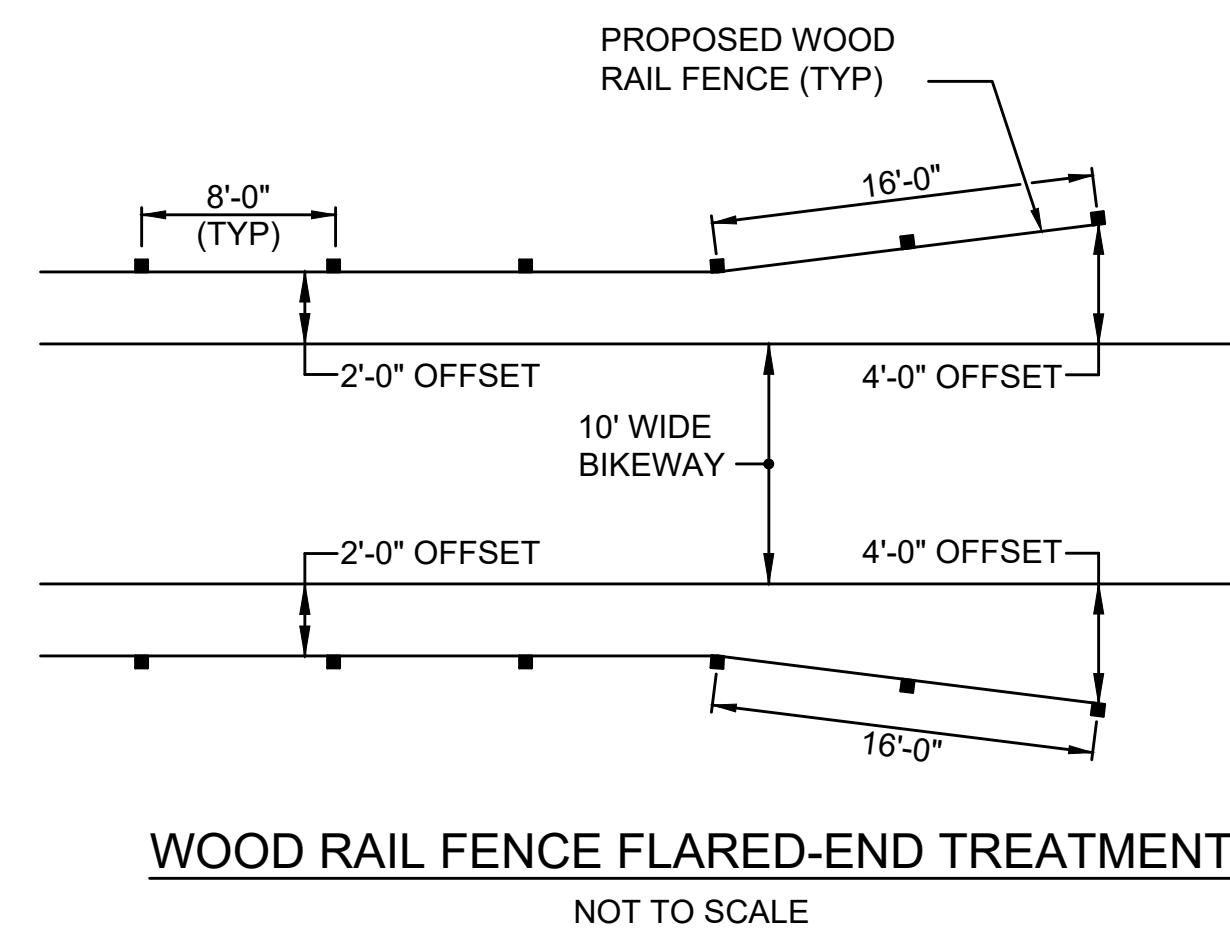


PLAN VIEW

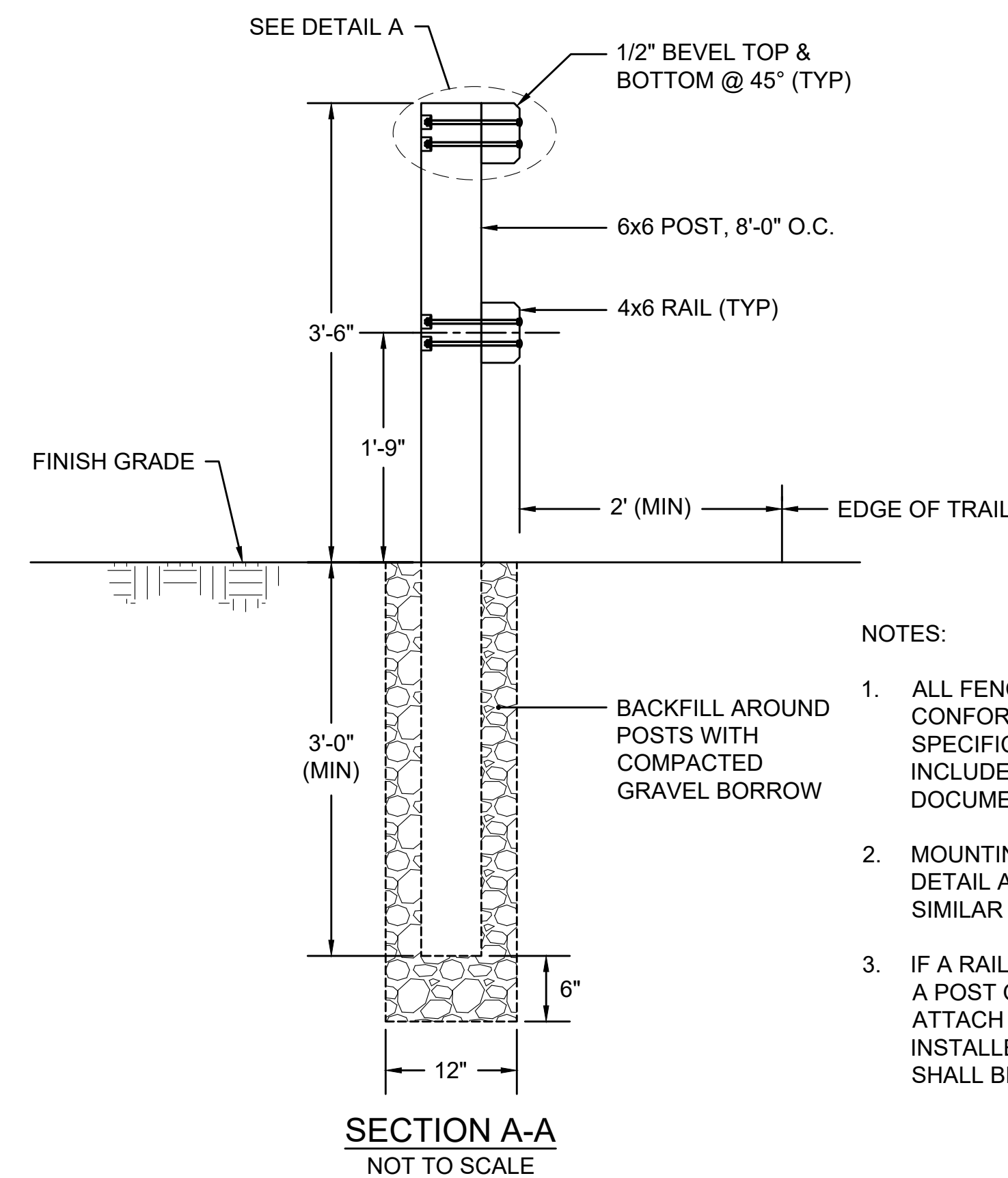


**DETAIL A**  
NOT TO SCALE

**DETAIL B**  
NOT TO SCALE



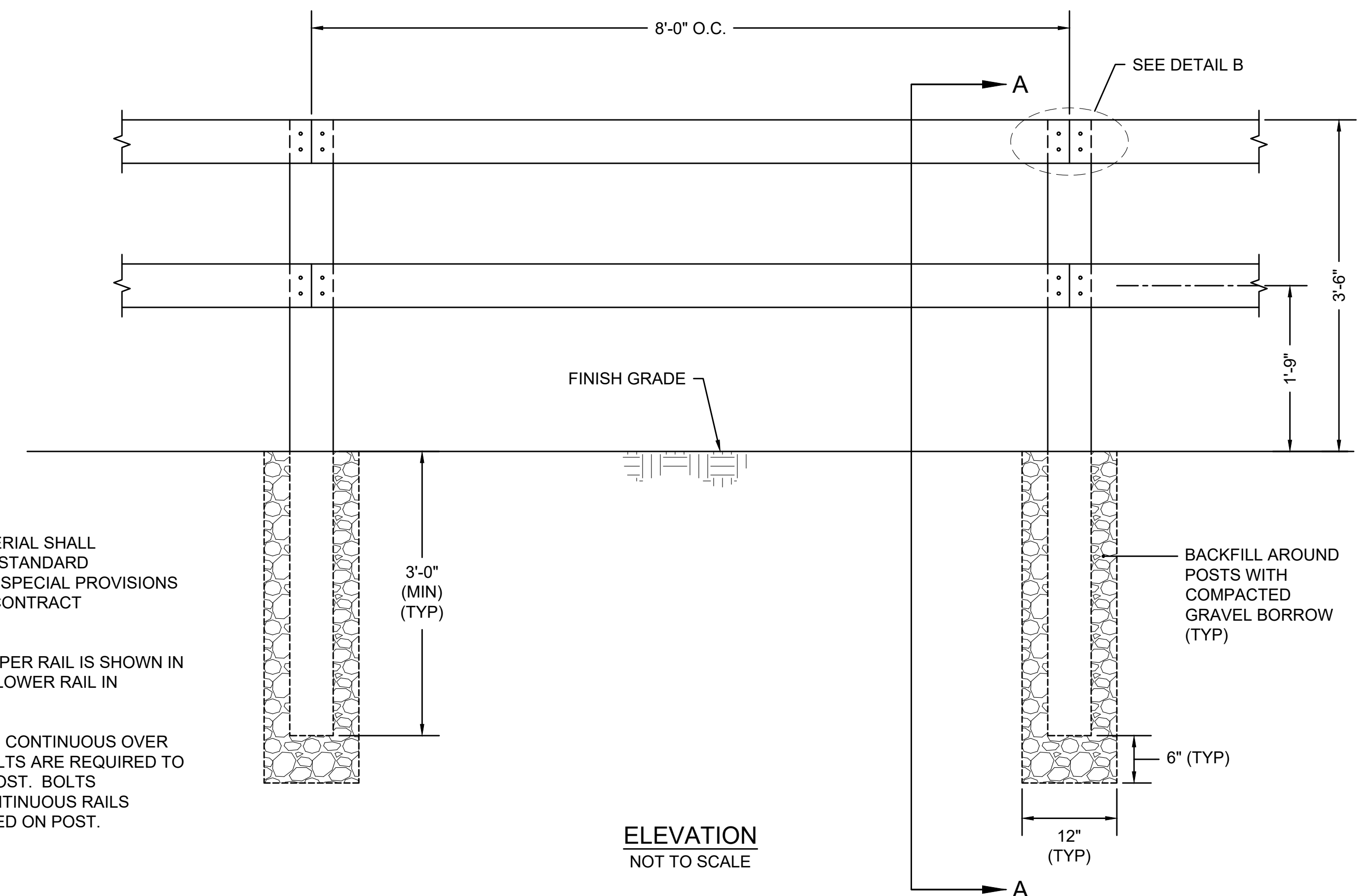
**WOOD RAIL FENCE FLARED-END TREATMENT**  
NOT TO SCALE



**SECTION A-A**  
NOT TO SCALE

**NOTES:**

1. ALL FENCING MATERIAL SHALL CONFORM TO THE STANDARD SPECIFICATIONS & SPECIAL PROVISIONS INCLUDED IN THE CONTRACT DOCUMENTS.
2. MOUNTING FOR UPPER RAIL IS SHOWN IN DETAIL A. MOUNT LOWER RAIL IN SIMILAR FASHION.
3. IF A RAIL TIMBER IS CONTINUOUS OVER A POST ONLY 2 BOLTS ARE REQUIRED TO ATTACH RAIL TO POST. BOLTS INSTALLED ON CONTINUOUS RAILS SHALL BE CENTERED ON POST.



**WOOD RAIL FENCE**  
NOT TO SCALE

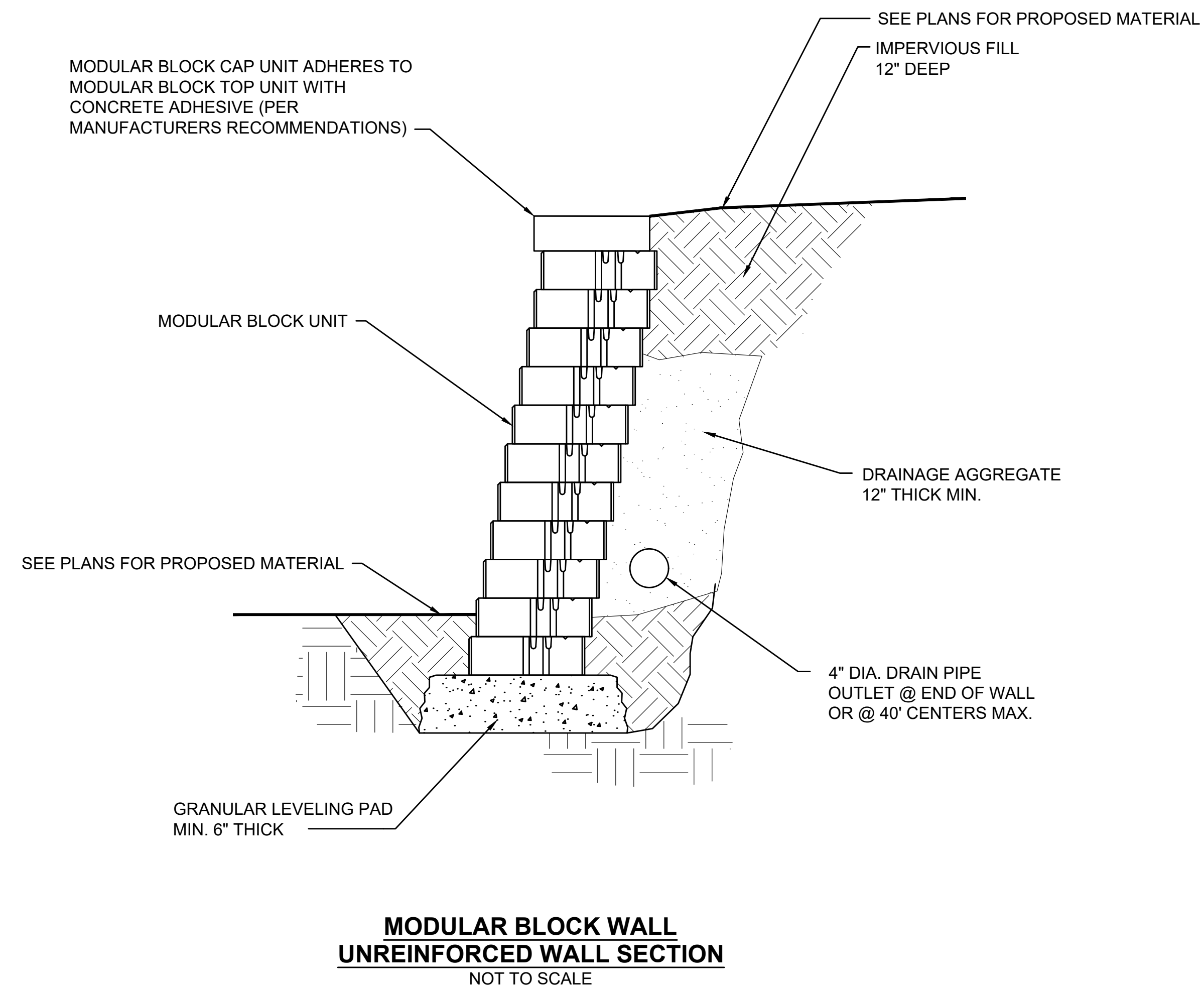
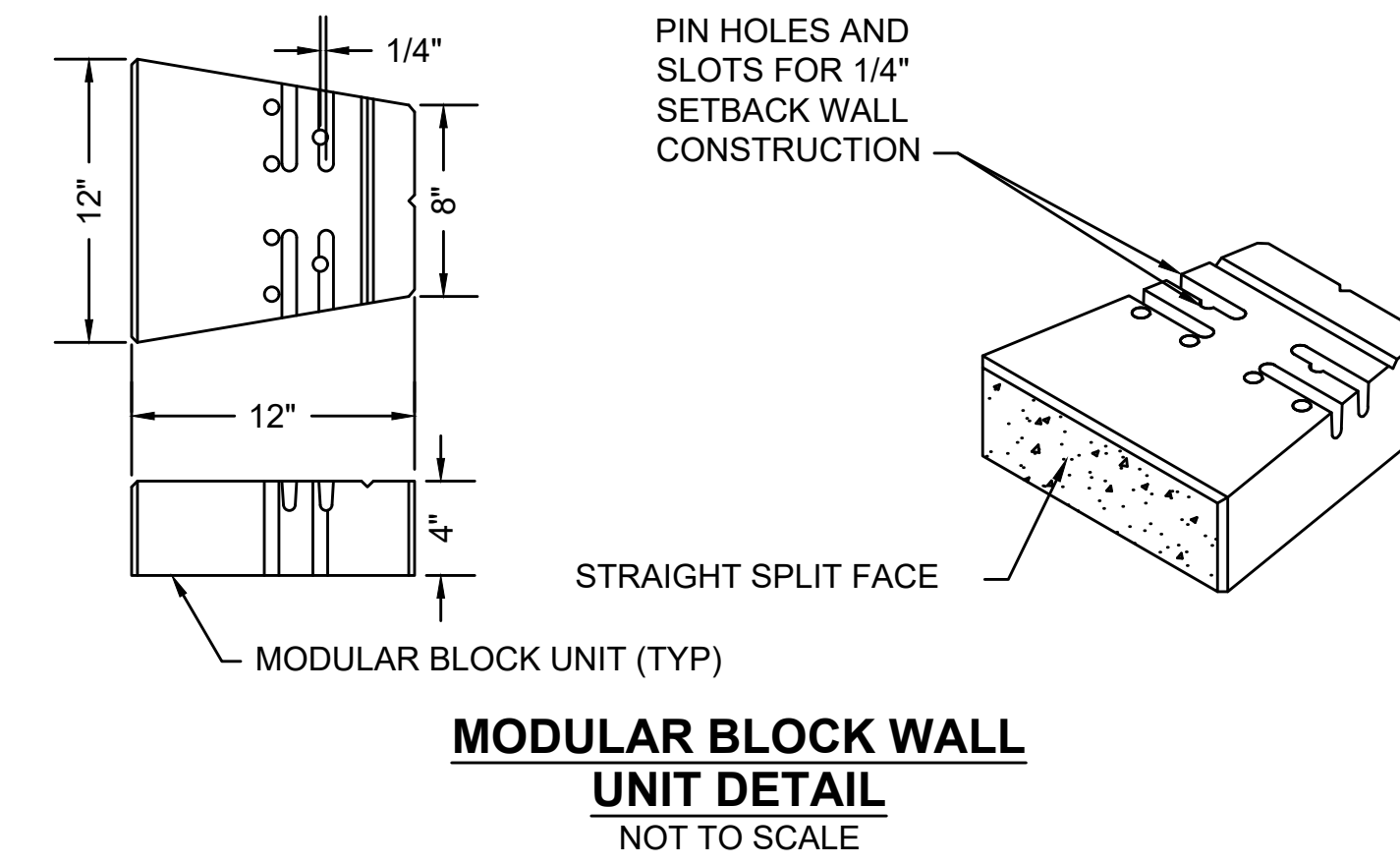
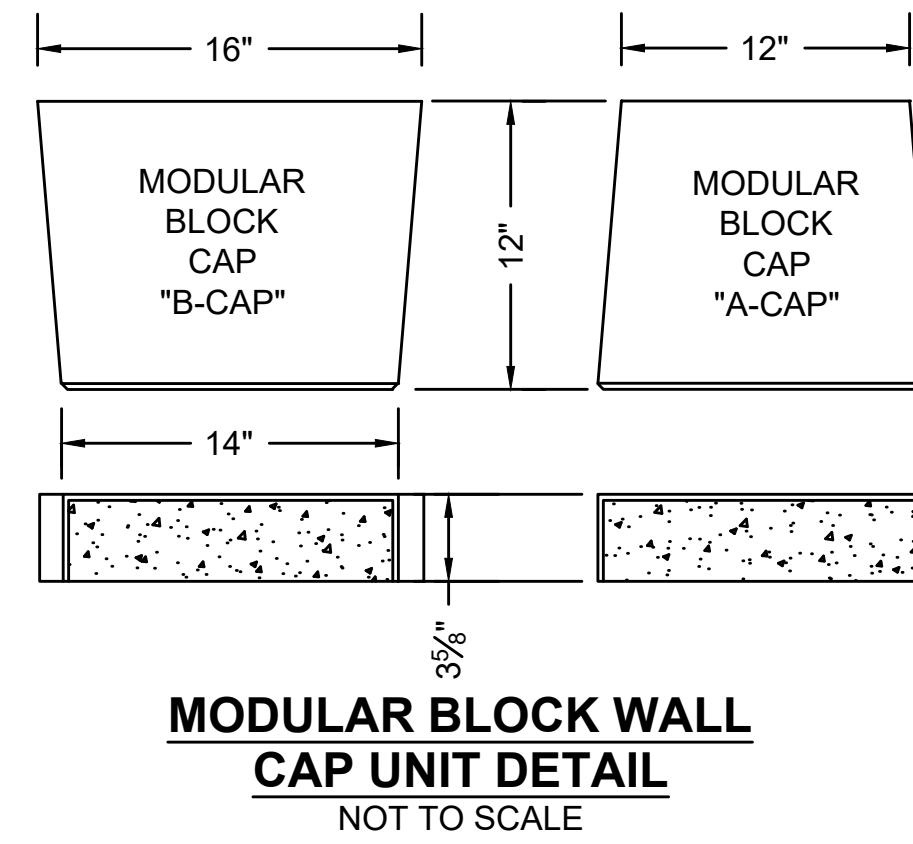
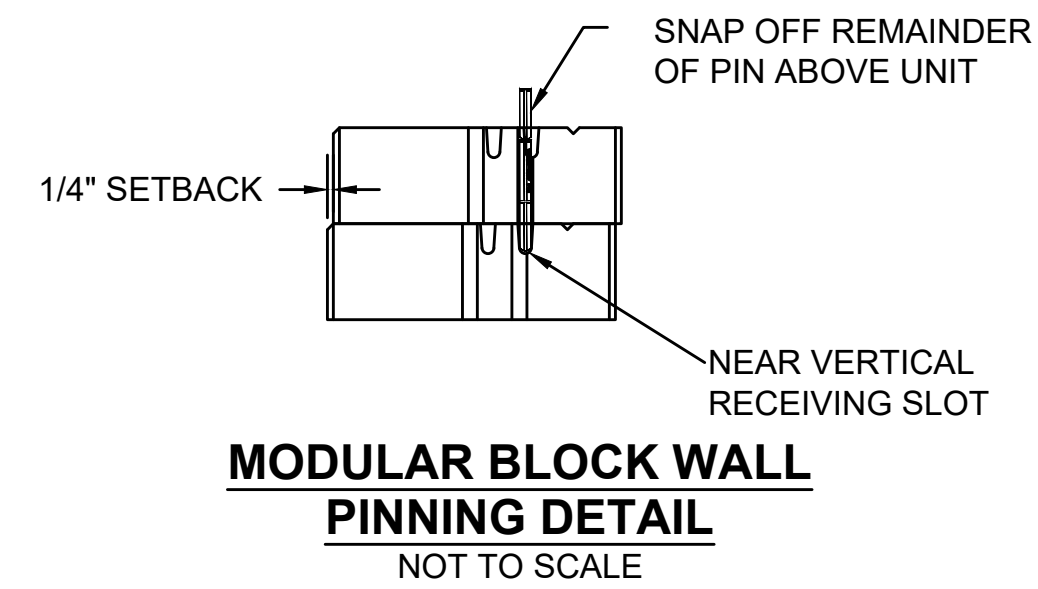
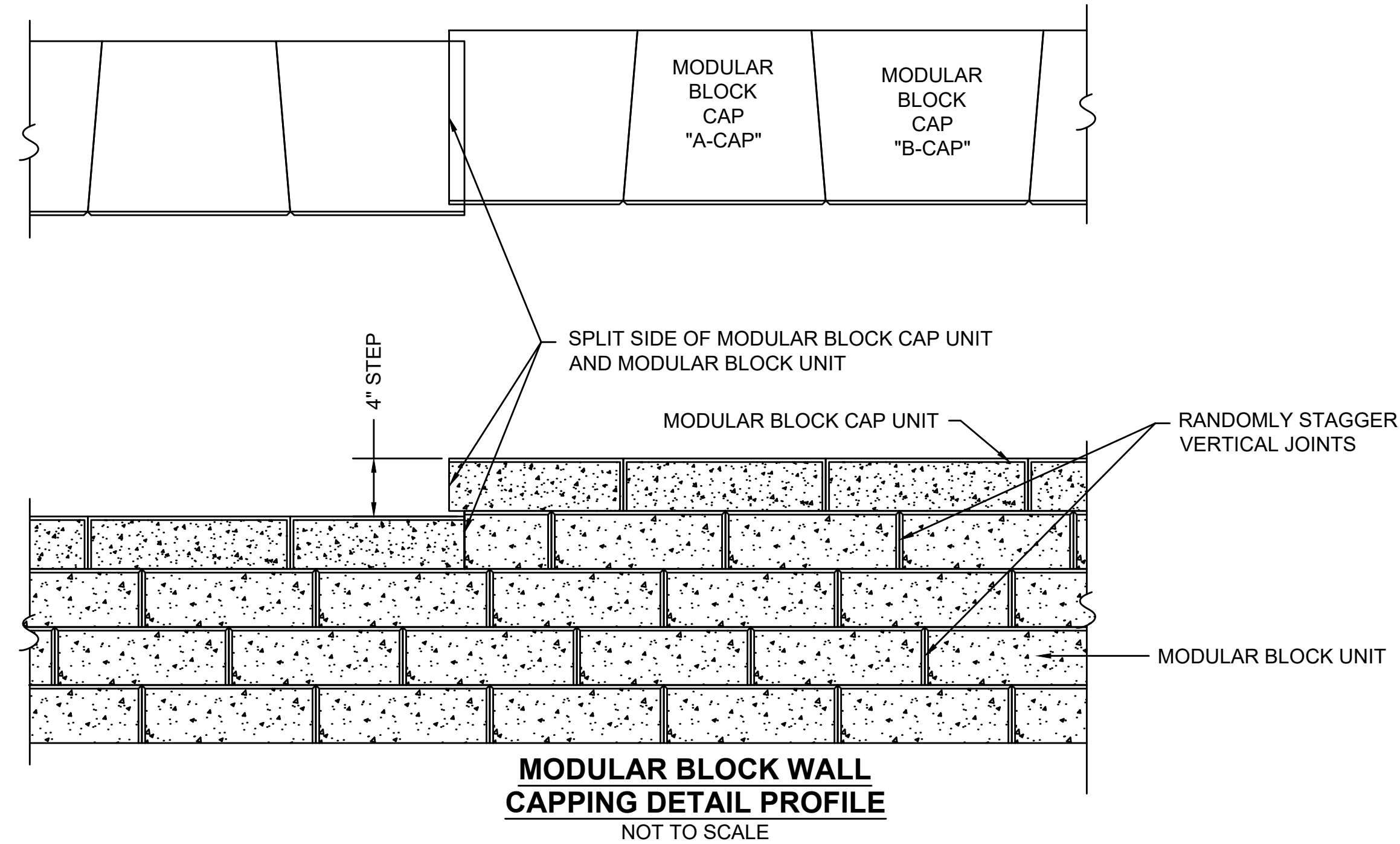
**ELEVATION**  
NOT TO SCALE

SWAMPSCOTT  
SWAMPSCOTT RAIL TRAIL

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	FOR BID - 2020-09-11	14	19

STANTEC PROJECT NO. 179410549  
CONSTRUCTION DETAILS  
PART 3 OF 4

FOR STRAIGHT WALLS, ALTERNATE A-CAP AND B-CAP

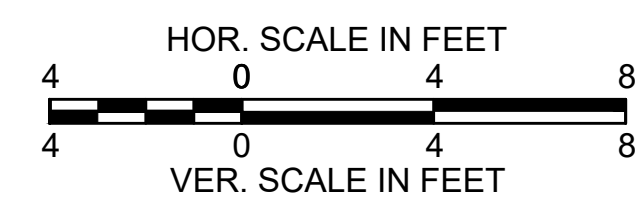
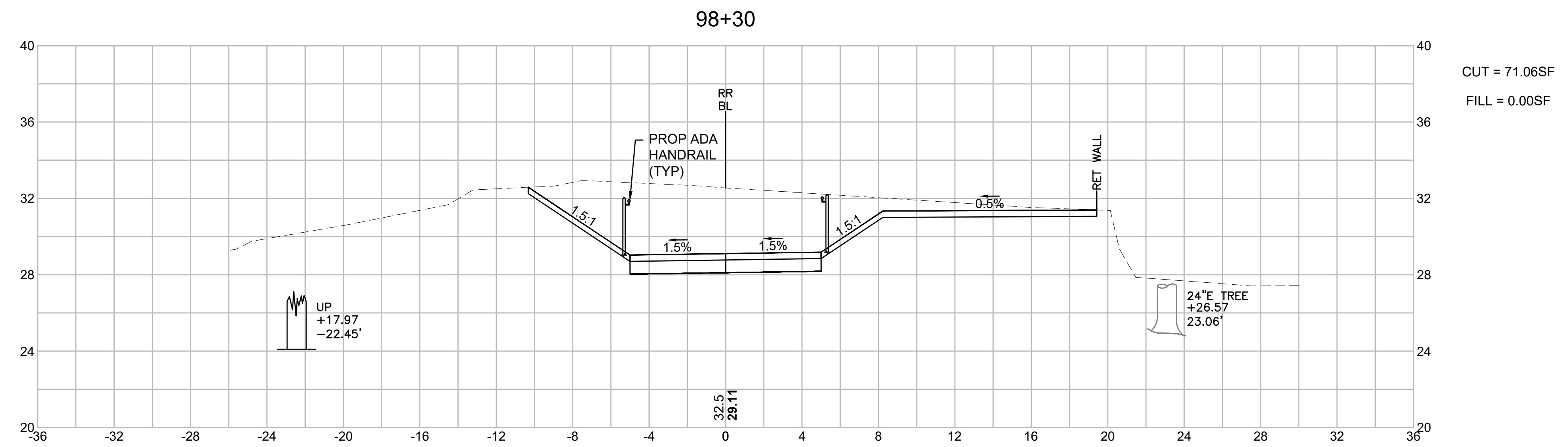
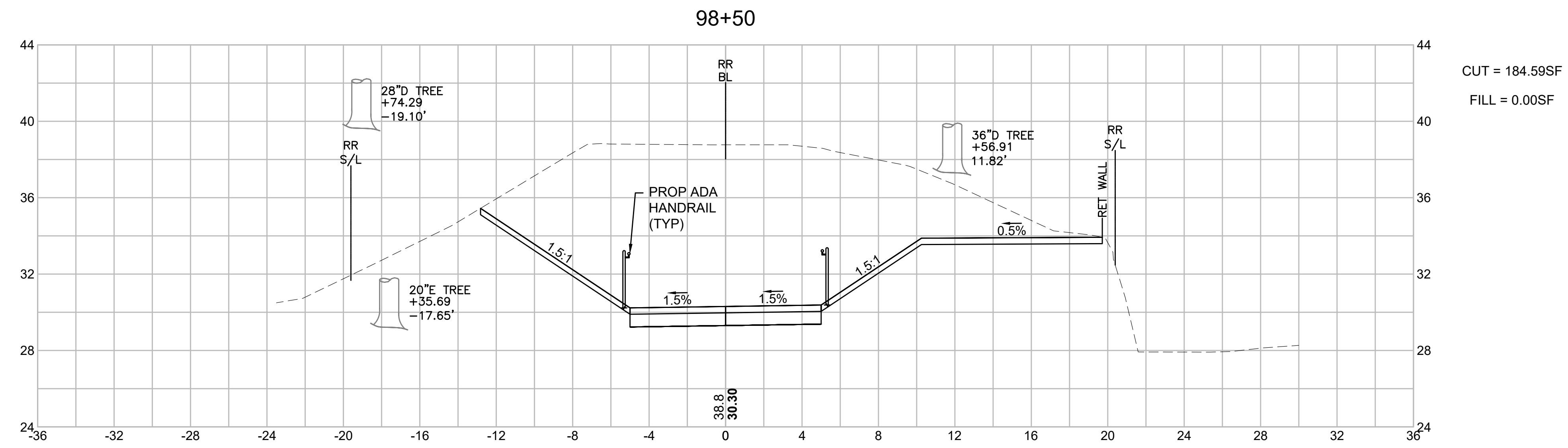


SWAMPSCOTT  
SWAMPSCOTT RAIL TRAIL

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	FOR BID - 2020-09-11	15	19

STANTEC PROJECT NO. 179410549  
CROSS SECTIONS  
PART 1 OF 5

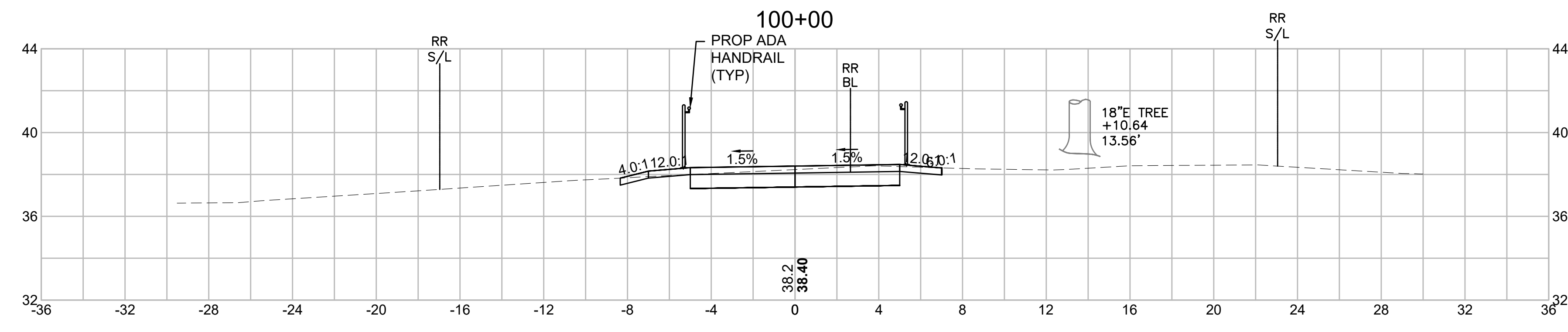
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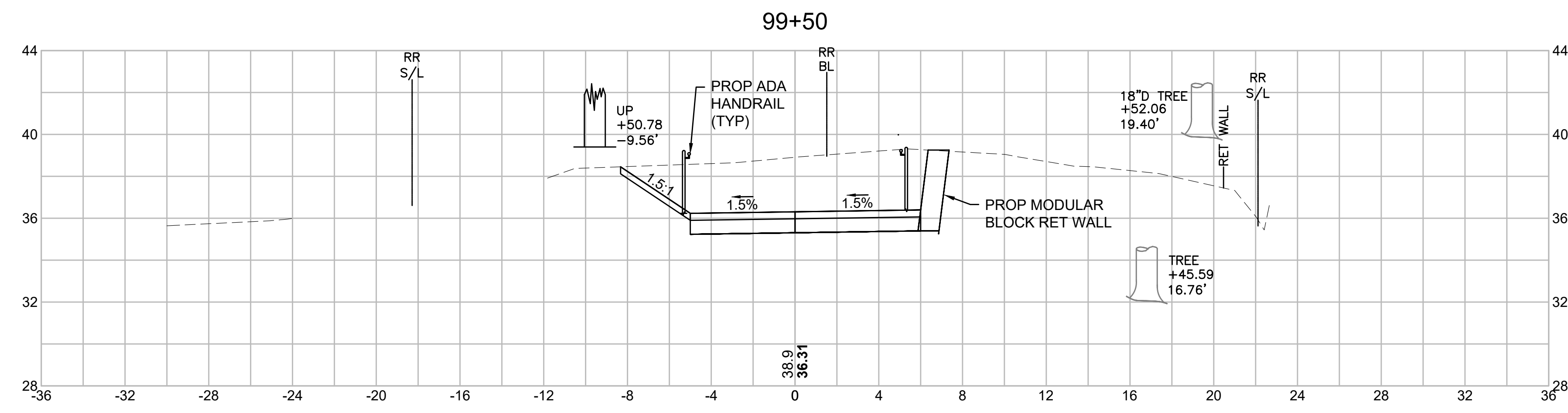
**SWAMPSCOTT  
SWAMPSCOTT RAIL TRAIL**

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	FOR BID - 2020-09-11	16	19

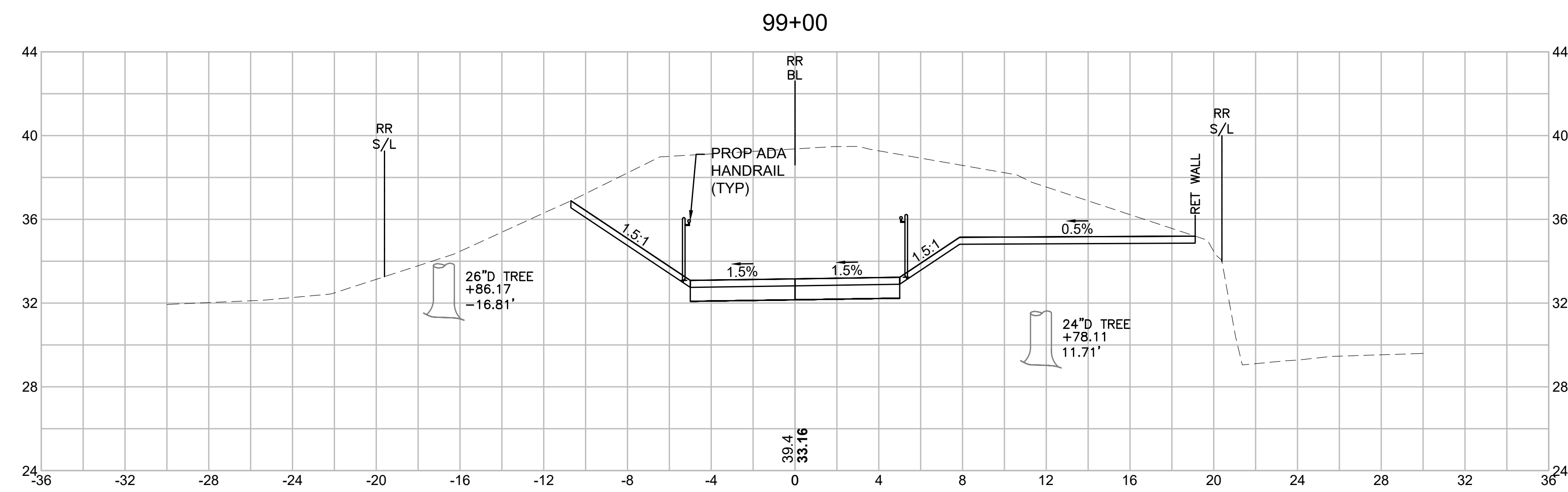
**CROSS SECTIONS  
PART 2 OF 5**



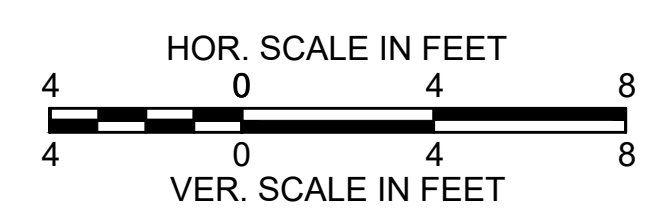
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FILL = 0.00SF



CUT = 49.05SF  
FILL = 0.00SF



CUT = 130.72SF  
FILL = 0.00SF

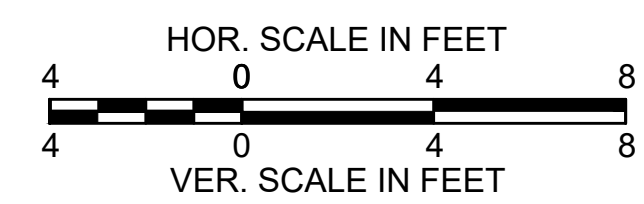
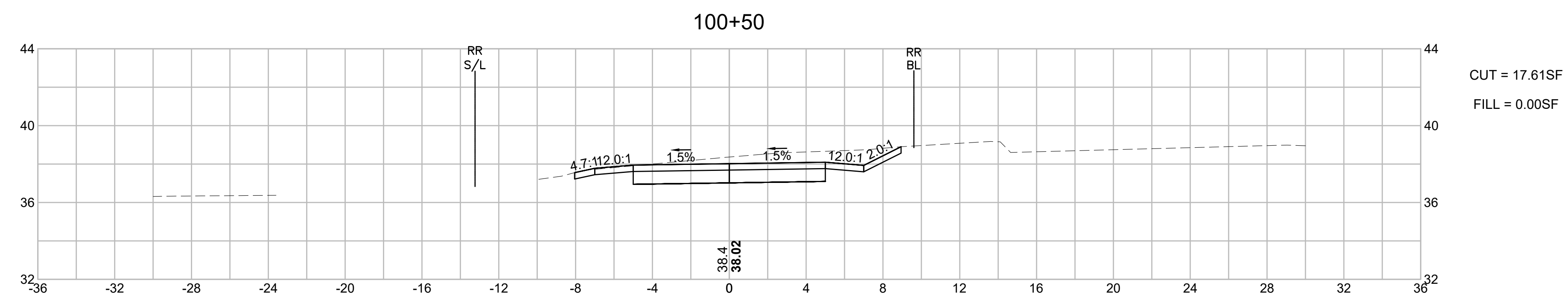
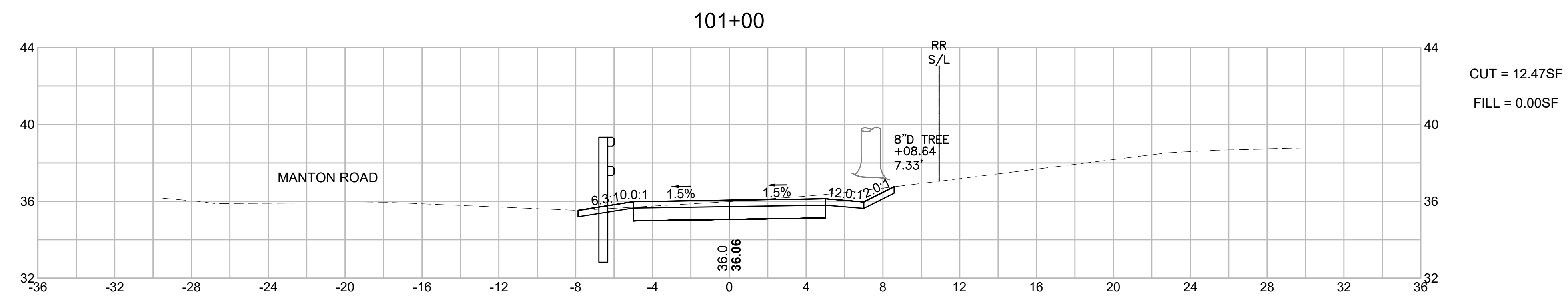
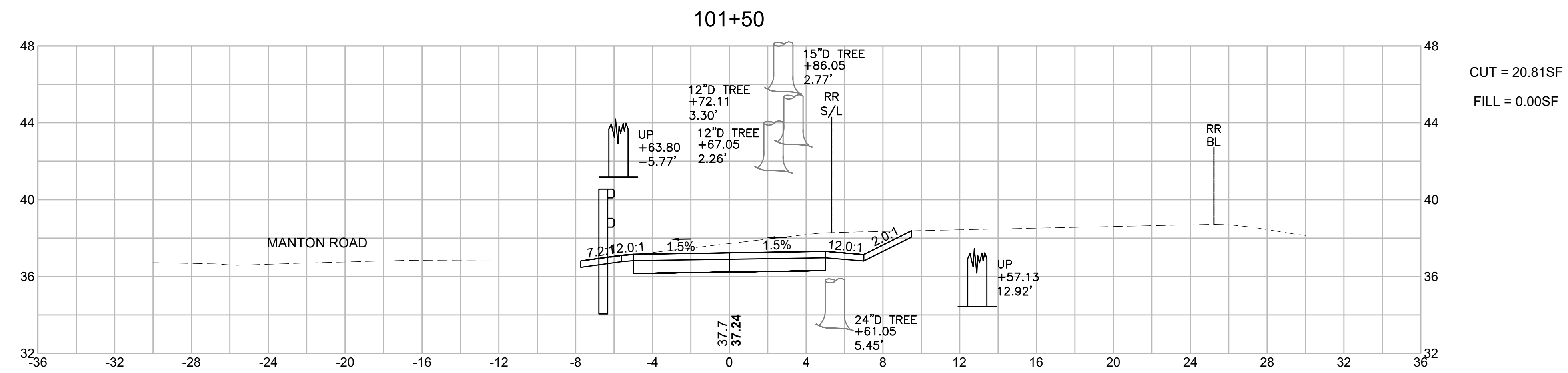




**SWAMPSCOTT  
SWAMPSCOTT RAIL TRAIL**

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	FOR BID - 2020-09-11	17	19

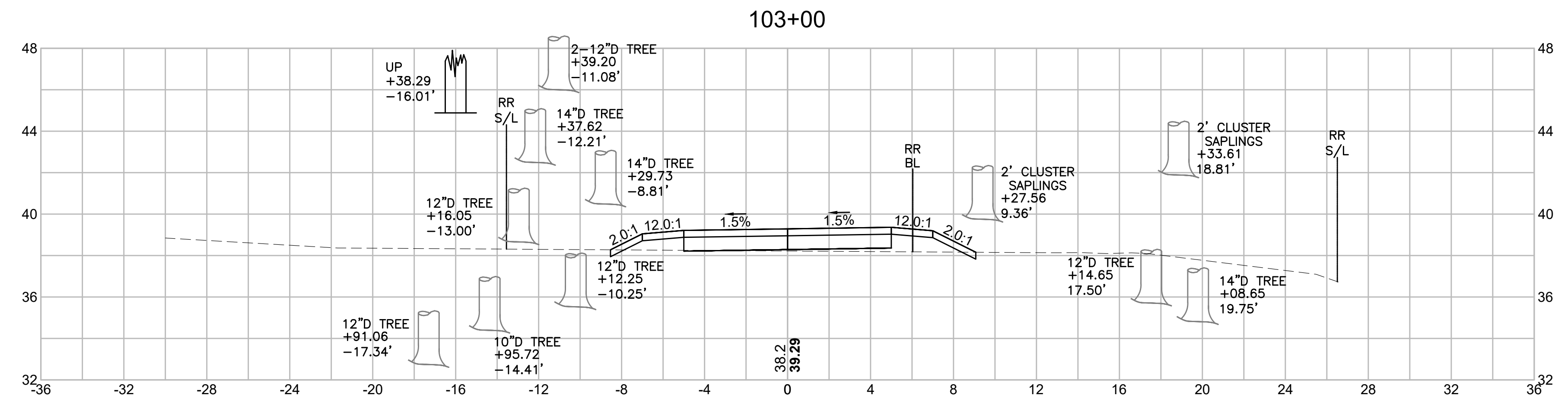
STANTEC PROJECT NO. 179410549  
CROSS SECTIONS  
PART 3 OF 5



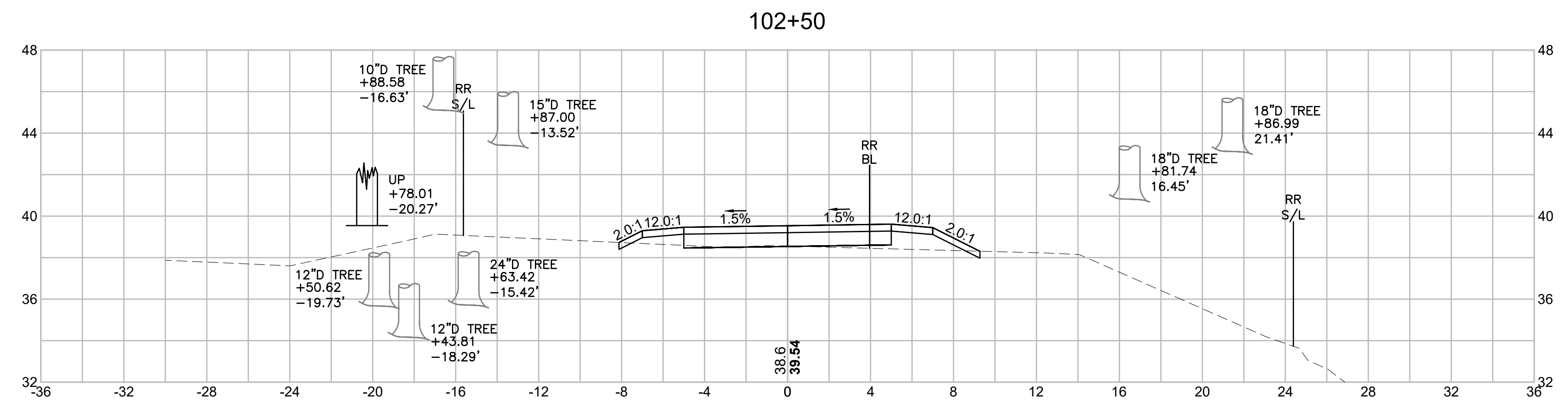
**SWAMPSCOTT  
SWAMPSCOTT RAIL TRAIL**

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	FOR BID - 2020-09-11	18	19

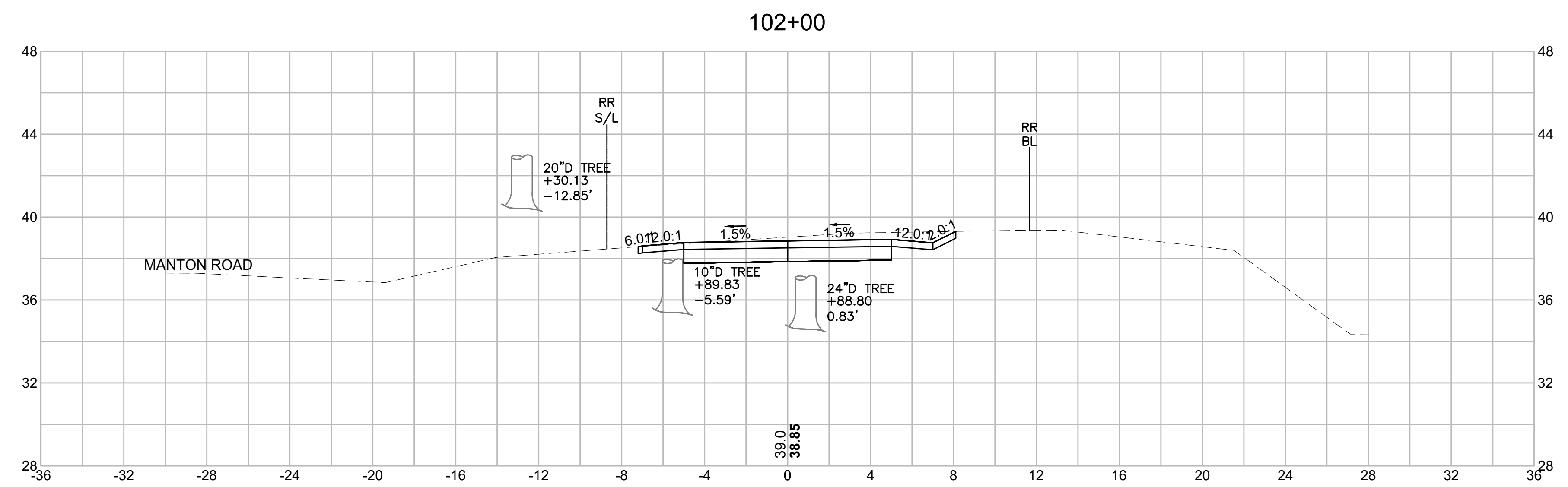
CROSS SECTIONS  
PART 4 OF 5



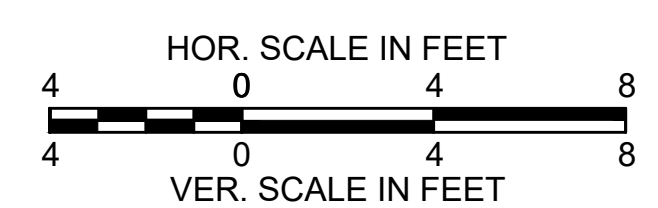
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FILL = 4.00SF



CUT = 0.46SF  
FILL = 3.51SF



CUT = 14.61SF  
FILL = 0.00SF



**SWAMPSCOTT  
SWAMPSCOTT RAIL TRAIL**

STATE	SUBMISSION	SHEET NO.	TOTAL SHEETS
MA	FOR BID - 2020-09-11	19	19

STANTEC PROJECT NO. 179410549

**CROSS SECTIONS  
PART 5 OF 5**

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