SALEM
SALEM HARBOR CONNECTOR PATH

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	----	1	40
PROJECT FILE NO.	13150.14		

TITLE SHEET & INDEX

CITY OF SALEM

PLAN AND PROFILE OF

SALEM HARBOR CONNECTOR PATH

IN THE CITY OF

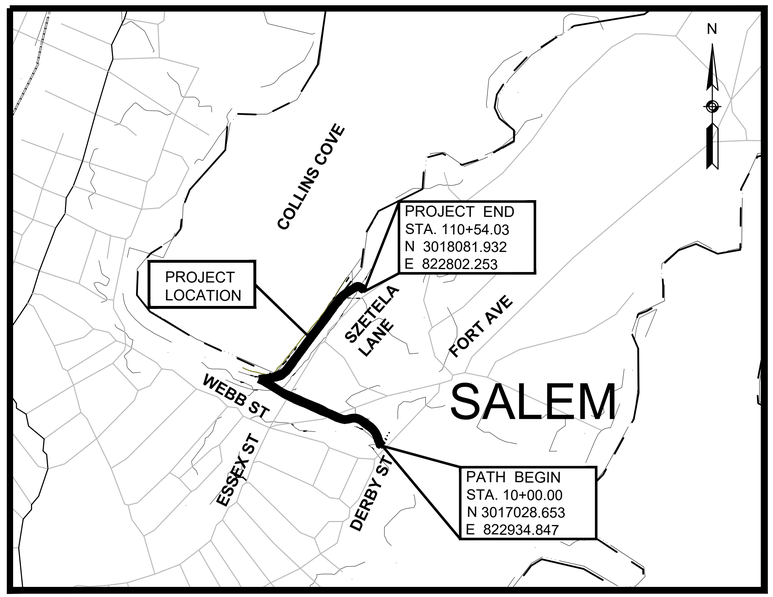
SALEM

ESSEX COUNTY

THE MASSACHUSETTS HIGHWAY DEPARTMENT STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES DATED 1988, AS AMENDED, THE SUPPLEMENTAL SPECIFICATIONS DATED APRIL1, 2019, THE OCTOBER 2017 CONSTRUCTION STANDARD DETAILS, THE 2015 OVERHEAD SIGNAL STRUCTURE AND FOUNDATION STANDARD DRAWINGS, MASSDOT TRAFFIC MANAGEMENT PLANS AND DETAIL DRAWINGS, THE LATEST MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS WITH MASSACHUSETTS AMENDMENTS, 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, WILL GOVERN.

INDEX

SHEET NO.	DESCRIPTION
1	TITLE SHEET & INDEX
2-3	LEGEND & ABBREVIATIONS
4	KEY PLAN
5	TYPICAL SECTIONS
6	CONSTRUCTION BASELINE DATA
7-10	CONSTRUCTION PLANS & PROFILES
11-12	CURB TIE & GRADING PLANS
13-17	TRAFFIC PLANS
18	TRAFFIC SIGN SUMMARY
19-23	TEMPORARY TRAFFIC CONTROL PLANS
24-27	CONSTRUCTION DETAILS
28-40	CROSS SECTIONS



0 500 1000 1500 2000

1"= 500'

LENGTH OF PROJECT = 2075.00 FEET = 0.39 MILES

DESIGN DESIGNATION (SALEM HARBOR CONNECTOR PATH)

DESIGN SPEED	20 MPH

SALEM
SALEM HARBOR CONNECTOR PATH

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	----	2	40
PROJECT FILE NO.	13150.14		

LEGEND & ABBREVIATIONS

GENERAL SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
JB	JB	JERSEY BARRIER
CB	CB	CATCH BASIN
		CATCH BASIN CURB INLET
FP	FP	FLAG POLE
GP	GP	GAS PUMP
MB	MB	MAIL BOX
		POST SQUARE
		POST CIRCULAR
WELL	WELL	WELL
EHH	EHH	ELECTRIC HANDHOLE
		FENCE GATE POST
GG	GG	GAS GATE
BHL #	BHL #	BORING HOLE
MW #	MW #	MONITORING WELL
TP #	TP #	TEST PIT
		HYDRANT
		LIGHT POLE
CO.BD.		COUNTY BOUND
		GPS POINT
C	C	CABLE MANHOLE
D	D	DRAINAGE MANHOLE
E	E	ELECTRIC MANHOLE
G	G	GAS MANHOLE
M	M	MISC MANHOLE
S	S	SEWER MANHOLE
T	T	TELEPHONE MANHOLE
W	W	WATER MANHOLE
MHB	MHB	MASSACHUSETTS HIGHWAY BOUND
MON		MONUMENT
SB		STONE BOUND
TB		TOWN OR CITY BOUND
		TRAVERSE OR TRIANGULATION STATION
TPL or GUY	TPL or GUY	TROLLEY POLE OR GUY POLE
HTP		TRANSMISSION POLE
UFB	UFB	UTILITY POLE W/ FIREBOX
UPDL	UPDL	UTILITY POLE WITH DOUBLE LIGHT
ULT	ULT	UTILITY POLE W / 1 LIGHT
UPL	UPL	UTILITY POLE
		BUSH
SIZE & TYPE		TREE
		STUMP
		SWAMP / MARSH
WG	WG	WATER GATE
PM	PM	PARKING METER
		OVERHEAD CABLE/WIRE
		CURBING
100 99		CONTOURS (ON-THE-GROUND SURVEY DATA)
100 99		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
x	x	CHAIN LINK OR METAL FENCE
		WOOD FENCE
		EROSION CONTROL BARRIER
		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
1	1	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)
RRSG	RRSG	RAILROAD SIGNAL
OR		SIGNAL POST AND BASE (ALPHA-NUMERIC DESIGNATION NOTED)
	20'	MAST ARM, SHAFT AND BASE (ARM LENGTH AS NOTED)
		HIGH MAST POLE OR TOWER
		SIGN AND POST
		SIGN AND POST (2 POSTS)
	20'	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
ONLY	ONLY	LEGEND "ONLY" - WHITE
	SL	STOP LINE
	CW	CROSSWALK
	SWL	SOLID WHITE LINE
	SYL	SOLID YELLOW LINE
	BWL	BROKEN WHITE LINE
	BYL	BROKEN YELLOW LINE
	DWL	DOTTED WHITE LINE
	DYL	DOTTED YELLOW LINE
	DWLEx	DOTTED WHITE LINE EXTENSION
	DYLEx	DOTTED YELLOW LINE EXTENSION
	DBWL	DOUBLE WHITE LINE
	DBYL	DOUBLE YELLOW LINE

GENERAL ABBREVIATIONS

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
CC	CEMENT CONCRETE
CCM	CEMENT CONCRETE MASONRY
CEM	CEMENT
CI	CURB INLET
CLF	CHAIN LINK FENCE
CL	CENTERLINE
CO.	COUNTY
CONC	CONCRETE
CONT	CONTINUOUS / CONTINUED
CONST	CONSTRUCTION
CR GR	CROWN GRADE
DIA	DIAMETER
DWY	DRIVEWAY
ELEV (or EL.)	ELEVATION
EMB	EMBANKMENT
EOP	EDGE OF PAVEMENT
EQ	EQUAL
EXIST (or EX)	EXISTING
EXC	EXCAVATION
FDN.	FOUNDATION
FDP	FULL DEPTH PAVEMENT
FLDSTN	FIELDSTONE
GAR	GARAGE
GD	GROUND
GRAN	GRANITE
GRAV	GRAVEL
GRD	GUARD
HMA	HOT MIX ASPHALT
HOR	HORIZONTAL
HWY	HIGHWAY
JCT	JUNCTION
LOAM	LOAM BORROW
LSA	LANDSCAPED AREA
LT	LEFT
MAHWL	MEAN AVERAGE HIGH WATER LINE
MAX	MAXIMUM
MB	MAILBOX
MHB	MASSACHUSETTS HIGHWAY BOUND
MIN	MINIMUM
MOD	MODIFIED
MSE	MECHANICALLY STABILIZED EARTH
NERR	NEW ENGLAND RAILROAD
NIC	NOT IN CONTRACT
NO.	NUMBER
NTS	NOT TO SCALE
O.C.	ON CENTER
O.D.	OUTSIDE DIAMETER
P.G.L.	PROFILE GRADE LINE
PREV	PREVIOUS/PREVIOUSLY
PROJ	PROJECT
PROP	PROPOSED
PSB	PLANTABLE SOIL BORROW
PVMT	PAVEMENT
R&D	REMOVE AND DISCARD
R&R	REMOVE AND RESET
R&S	REMOVE AND STACK
RD	ROAD
RDWY	ROADWAY
REB	REBUILD
REM	REMOVE
RMDL	REMODEL
RET	RETAIN
RET WALL	RETAINING WALL
ROW	RIGHT OF WAY
RR	RAILROAD
RT	RIGHT
SB	STONE BOUND
SHLD	SHOULDER
SHLO/S.H.L.O.	STATE HIGHWAY LAYOUT LINE

GENERAL ABBREVIATIONS (CONT)

ST	STREET
STA	STATION
STD	STANDARD
SW	SIDEWALK
TEMP	TEMPORARY
TC	TOP OF CURB
TOS	TOP OF SLOPE
TRANS	TRANSITION
TRM	TURF REINFORCING MAT
TYP	TYPICAL
VAR	VARIES
VERT	VERTICAL
WCR	WHEEL CHAIR RAMP
WP	WORKING POINT
X-SECT	CROSS SECTION

UTILITY ABBREVIATIONS

CB	CATCH BASIN
CBCI	CATCH BASIN WITH CURB INLET
CIP	CAST IRON PIPE
CIT	CHANGE IN TYPE
CMP	CORRUGATED METAL PIPE
CSP	CORRUGATED STEEL PIPE
DI	DROP INLET
DIP	DUCTILE IRON PIPE
FES	FLARED END SECTION
F&C	FRAME AND COVER
F&G	FRAME AND GRATE
GG	GAS GATE
GI	GUTTER INLET
GIP	GALVANIZED IRON PIPE
HDPE	HIGH DENSITY POLYETHYLENE PIPE
HDW	HEADWALL
HYD	HYDRANT
INV	INVERT
LB	LEACH BASIN
LP	LIGHT POLE
MH	MANHOLE
MW	MONITORING WELL
OHW	OVERHEAD WIRE
PVC	POLYVINYLCHLORIDE PIPE
PWW	PAVED WATER WAY
RCP	REINFORCED CONCRETE PIPE
SMH	SEWER MANHOLE
TSV&B	TAPPING SLEEVE VALVE & BOX
UP	UTILITY POLE
WG	WATER GATE
WIP	WROUGHT IRON PIPE
WM	WATER METER/WATER MAIN

ALIGNMENT & GRADING ABBREVIATIONS

CC	CENTER OF CURVE
HP	HIGH POINT
I.T.	INTERSECTION OF TANGENT
LP	LOW POINT
PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVATURE
PI	POINT OF INTERSECTION
PNT	POINT
POC	POINT ON CURVE
POT	POINT ON TANGENT
PRC	POINT OF REVERSE CURVATURE
PT	POINT OF TANGENCY
∠PT	ANGLE POINT
R	RADIUS OF CURVATURE
T	TANGENT DISTANCE OF CURVE
TAN	TANGENT
25.45	SPOT ELEVATION

PROFILE ABBREVIATIONS

AD	ALGEBRAIC DIFFERENCE IN RATES OF GRADE
HSD	HORIZONTAL SIGHT DISTANCE
K	RATE OF VERTICAL CURVATURE
L	LENGTH OF CURVE
PVC	POINT OF VERTICAL CURVATURE
PVCC	POINT OF VERTICAL COMPOUND CURVATURE
PVI	POINT OF VERTICAL INTERSECTION
PVRC	POINT OF VERTICAL REVERSE CURVATURE
PVT	POINT OF VERTICAL TANGENCY
SSD	STOPPING SIGHT DISTANCE
VC	VERTICAL CURVE

TRAFFIC & SIGNAL ABBREVIATIONS

AADT	ANNUAL AVERAGE DAILY TRAFFIC
CAB.	CABINET
CCVE	CLOSED CIRCUIT VIDEO EQUIPMENT
COND	CONDUIT
CW	CROSS WALK
DW	STEADY DON'T WALK - PORTLAND ORANGE
DHV	DESIGN HOURLY VOLUME
FDW	FLASHING DON'T WALK
FR	FLASHING CIRCULAR RED
FRL	FLASHING RED LEFT ARROW
FRR	FLASHING RED RIGHT ARROW
FY	FLASHING CIRCULAR AMBER
FYL	FLASHING AMBER LEFT ARROW
FYR	FLASHING AMBER 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
HH	HAND HOLE
OL	OVERLAP
PB	PULL BOX
PED	PEDESTRIAN
PTZ	PAN, TILE, ZOOM
R	STEADY CIRCULAR RED
RL	STEADY RED LEFT ARROW
RR	STEADY RED RIGHT ARROW
SL	STOP LINE
T	TRUCK %
TS OR TR SIG	TRAFFIC SIGNAL
TSC	TRAFFIC SIGNAL CONDUIT
W	STEADY WALK
Y	STEADY CIRCULAR AMBER
YL	STEADY AMBER LEFT ARROW

SALEM
SALEM HARBOR CONNECTOR PATH

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	----	3	40
PROJECT FILE NO.	13150.14		

LEGEND & ABBREVIATIONS

GENERAL NOTES:

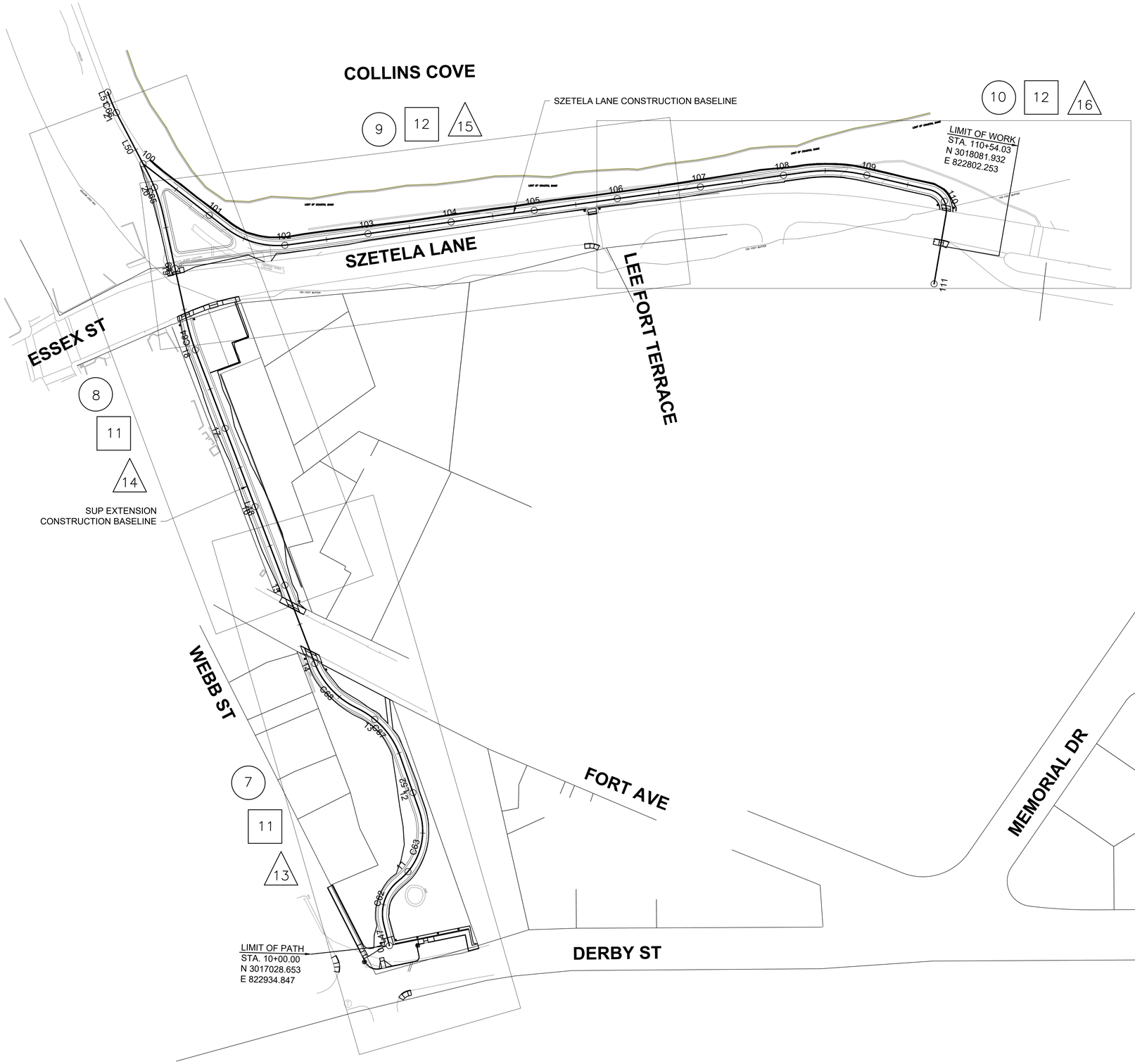
1. EXISTING CONDITIONS AND TOPOGRAPHICAL INFORMATION FROM AN ACTUAL FIELD SURVEY CONDUCTED BY MERIDIAN ASSOCIATES, INC. IN JULY, 2017.
2. THE HORIZONTAL CONTROL IS BASED ON THE MASSACHUSETTS MAINLAND STATE PLANE COORDINATE SYSTEM AND THE NATIONAL GEODETIC SURVEY (NAD83). ALL ELEVATION IS US FEET, REFERENCED TO THE NORTH AMERICA VERTICAL DATUM OF 1988 (NAVD88).
3. THE CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND GRADES IN THE FIELD BEFORE COMMENCING WORK AND PROMPTLY NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
4. THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.
5. THE CONTRACTOR SHALL VERIFY BY TEST PIT, THE LOCATIONS OF EXISTING UTILITIES WHICH MAY CONFLICT WITH PROPOSED CONDUIT AND SIGNAL EQUIPMENT. ANY FIELD ADJUSTMENTS REQUIRED WILL BE MADE AS APPROVED OR DIRECTED BY THE ENGINEER.
6. 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.
7. THE CONTRACTOR SHALL ALTER THE MASONRY OF THE TOP SECTION OF ALL EXISTING DRAINAGE AND SEWER STRUCTURES AS NECESSARY FOR CHANGES IN GRADE, AND RESET ALL WATER AND DRAINAGE FRAMES, GRATES AND BOXES TO THE PROPOSED FINISH SURFACE GRADE. REQUIRED NEW MASONRY SHALL BE CLAY BRICK.
8. THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS FOR THE ALTERATION AND ADJUSTMENT OF GAS, ELECTRIC, TELEPHONE AND ANY OTHER PRIVATE UTILITIES BY THE UTILITY COMPANIES.
9. EXISTING UTILITY POLES WILL BE RELOCATED BY OTHERS IF REQUIRED.
10. TREES AND SHRUBS WITHIN THE LIMITS OF GRADING SHALL BE REMOVED ONLY UPON APPROVAL OF THE ENGINEER.
11. AREAS OUTSIDE THE LIMITS OF PROPOSED WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT NO EXPENSE TO THE OWNER.
12. THE TERM "PROPOSED" (PROP) MEANS WORK TO BE CONSTRUCTED USING NEW MATERIALS OR, WHERE APPLICABLE, RE-USING EXISTING MATERIALS IDENTIFIED AS "REMOVE AND RESET" (R&R).
13. JOINTS BETWEEN NEW PAVEMENT AND SAWCUT EXISTING PAVEMENT SHALL BE SEALED WITH HMA JOINT SEALER AND BACKSANDED.
14. IF SUITABLE, EXISTING GRANITE CURB & EDGING SHALL BE RE-USED IN THE PROPOSED WORK, EXCEPT CURVED STONES OF A DIFFERENT RADIUS THAN PROPOSED CURB.
15. EXISTING STATE, COUNTY, CITY, AND TOWN LOCATION LINES AND PRIVATE PROPERTY LINES HAVE BEEN ESTABLISHED FROM AVAILABLE INFORMATION AND THEIR EXACT LOCATIONS ARE NOT GUARANTEED.
16. THE CONTRACTOR SHALL EXERCISE DUE CARE WHEN WORKING AROUND ALL PROPERTY BOUNDS WHICH ARE TO REMAIN. SHOULD ANY DAMAGE TO A BOUND RESULT FROM THE ACTIONS OF THE CONTRACTOR, THE CONTRACTOR SHALL HAVE THE BOUND REPLACED AND/OR REALIGNED BY A LICENSED PROFESSIONAL SURVEYOR AS DIRECTED BY THE ENGINEER AT NO ADDITIONAL COST.
17. DISPOSAL OF ALL SURPLUS MATERIAL SHALL BE AS APPROVED BY THE ENGINEER AND OWNER.
18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING INVERTS IN THE FIELD FOR WHERE THE PROPOSED CATCH BASIN IS INTENDED TO TIE INTO THE EXISTING MANHOLE ON DERBY STREET.

13150.14_LEG.DWG Plotted on 12-Nov-2019 3:39 PM

SALEM
SALEM HARBOR CONNECTOR PATH

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	----	4	40
PROJECT FILE NO.	13150.14		

KEY PLAN



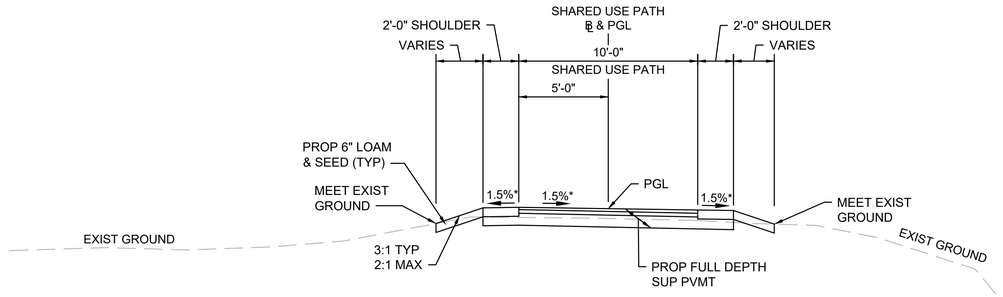
LEGEND

- X — CONSTRUCTION PLANS & PROFILES SHEET NO.
- X — CURB TIE AND GRADING PLANS SHEET NO.
- X — TRAFFIC PLANS SHEET NO.

0 60 100 200 300

SCALE: 1" = 60'

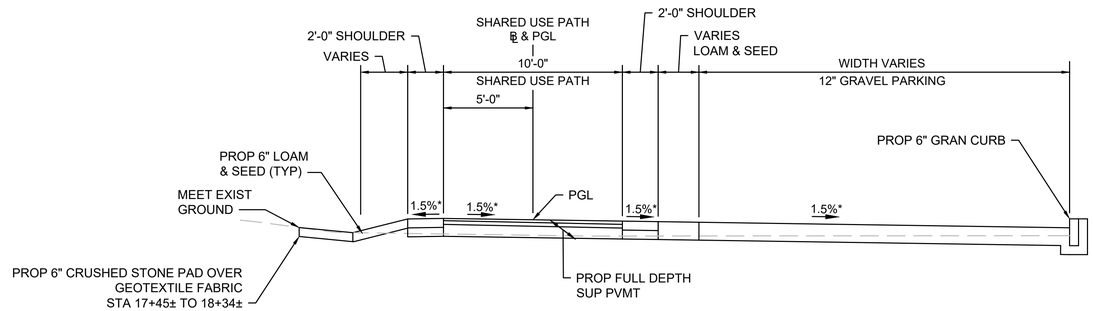
13150.14_KEY.DWG Plotted on 12-Nov-2019 3:40 PM



* 0.5% TOLERANCE FOR CONSTRUCTION

SHARED USE PATH EXTENSION

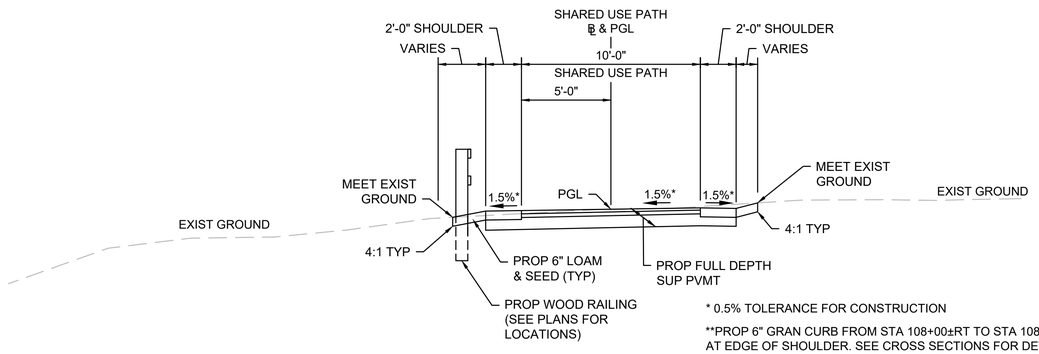
STA 10+00± TO STA 17+67±
STA 19+00± TO STA 20+31±
NTS



* 0.5% TOLERANCE FOR CONSTRUCTION

SHARED USE PATH EXTENSION

STA 17+67± TO STA 18+40±
NTS



* 0.5% TOLERANCE FOR CONSTRUCTION

**PROP 6" GRAN CURB FROM STA 108+00±RT TO STA 108+75± RT AT EDGE OF SHOULDER. SEE CROSS SECTIONS FOR DETAILS

SZETELA LANE SHARED USE PATH

STA 100+00± TO STA 110+54±
NTS

PAVEMENT NOTES

PROPOSED FULL DEPTH SHARED USE PATH (SUP) PAVEMENT

SURFACE: 1.5" SUPERPAVE SURFACE COURSE - 9.5 (SSC - 9.5) OVER

BASE: 2.5" SUPERPAVE INTERMEDIATE COURSE - 19.0 (SIC - 19.0)

SUBBASE: 8" GRAVEL BORROW, TYPE b

PROPOSED HOT MIX ASPHALT (FOR PARKING AREA)

SURFACE: 1.5" SUPERPAVE SURFACE COURSE - 9.5 (SSC - 9.5) OVER

BASE: 2.5" SUPERPAVE INTERMEDIATE COURSE - 12.5 (SIC-12.5)

SUBBASE: 8" GRAVEL BORROW, TYPE b

PROPOSED CEMENT CONCRETE WHEELCHAIR RAMP

SURFACE: 4" CEMENT CONCRETE
AIR ENTRAINED 4000 PSI, 3/4", 610

FOUNDATION: 8" GRAVEL BORROW, TYPE b

PROPOSED GRAVEL PARKING AREA

SURFACE: 12" GRAVEL BORROW , TYPE b

PROPOSED HOT MIX ASPHALT WALK

SURFACE: 1" SUPERPAVE SURFACE COURSE 9.5 (SSC-9.5) OVER
1 1/2" SUPERPAVE INTERMEDIATE COURSE 12.5 (SIC-12.5)

FOUNDATION: 8" GRAVEL BORROW, TYPE b

PROPOSED HOT MIX ASPHALT DRIVEWAY

SURFACE: 1 1/2" SUPERPAVE SURFACE COURSE 9.5 (SSC-9.5) OVER
2" SUPERPAVE INTERMEDIATE COURSE 12.5 (SIC-12.5)

FOUNDATION: 8" GRAVEL BORROW, TYPE b

GENERAL NOTES:

1. ALL HOT MIX ASPHALT PAVEMENTS SHALL BE PER LATEST EDITION OF SECTION 450 HOT MIX ASPHALT AND SECTION M3 ASPHALTIC MATERIALS.
2. ALL HMA FOR PATCHING, ASPHALT EMULSION FOR TACK COAT, AND HMA JOINT SEALANT SHALL BE APPLIED PER SECTION 450 AND M3.
3. HMA JOINT SEALANT (ITEM 453.) SHALL BE APPLIED IN SURFACE COURSE AT ALL VERTICAL COLD JOINTS PRIOR TO HMA PAVING.
4. ALL HOT MIX ASPHALT WALKS SHALL BE ESTIMATED AND PAID FOR UNDER ITEM 702 OF STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES.
5. ALL HOT MIX ASPHALT DRIVEWAYS SHALL BE ESTIMATED AND PAID FOR UNDER ITEM 703 OF STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES.
6. SURFACE PAVING TO BE COMPLETED AT THE END OF THE PROJECT AND AS DIRECTED WHEN IT CAN BE PLACED IN ITS ENTIRETY.
7. ALL FRAMES AND SERVICE BOXES SHALL BE ADJUSTED TO INTERMEDIATE COURSE AND ADJUSTED LEVEL WITH SURFACE COURSE PRIOR TO PAVING WITH HMA JOINT SEALANT.

SALEM
SALEM HARBOR CONNECTOR PATH

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	----	6	40
PROJECT FILE NO.	13150.14		

CONSTRUCTION BASELINE DATA

SUP EXTENSION CONSTRUCTION BASELINE DATA

NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L47	10+00.00	3017028.6525	822934.8470		N60°13'56"W 26.02'	10+26.02	3017041.5700	822912.2624
C62	10+26.02	3017041.5700	822912.2624	R=50.00' Δ=66°50'26" L=58.33' T=32.99'		10+84.35	3017090.7262	822887.4189
C63	10+84.35	3017090.7262	822887.4189	R=75.00' Δ=71°20'46" L=93.39' T=53.84'		11+77.74	3017167.1846	822844.9241
L52	11+77.74	3017167.1846	822844.9241		N64°44'17"W 68.43'	12+46.16	3017196.3858	822783.0423
C67	12+46.16	3017196.3858	822783.0423	R=100.00' Δ=45°23'28" L=79.22' T=41.82'		13+25.39	3017199.8412	822705.9529
C68	13+25.39	3017199.8412	822705.9529	R=100.00' Δ=43°52'22" L=76.57' T=40.27'		14+01.96	3017202.1977	822631.2748
L48	14+01.96	3017202.1977	822631.2748		N66°15'23"W 397.04'	17+99.00	3017362.0643	822267.8419
C64	17+99.00	3017362.0643	822267.8419	R=250.00' Δ=8°20'59" L=36.43' T=18.25'		18+35.43	3017379.1072	822235.6785
L49	18+35.43	3017379.1072	822235.6785		N57°54'24"W 130.13'	19+65.56	3017448.2460	822125.4332
C65	19+65.56	3017448.2460	822125.4332	R=200.00' Δ=15°02'27" L=52.50' T=26.40'		20+18.07	3017470.0165	822077.8228
L50	20+18.07	3017470.0165	822077.8228		N72°56'51"W 77.95'	20+96.02	3017492.8766	822003.2949
C66	20+96.02	3017492.8766	822003.2949	R=200.00' Δ=6°14'26" L=21.78' T=10.90'		21+17.80	3017500.3852	821982.8573
L51	21+17.80	3017500.3852	821982.8573		N66°42'25"W 8.63'	21+26.44	3017503.7982	821974.9299

SZETELA LANE SUP CONSTRUCTION BASELINE DATA

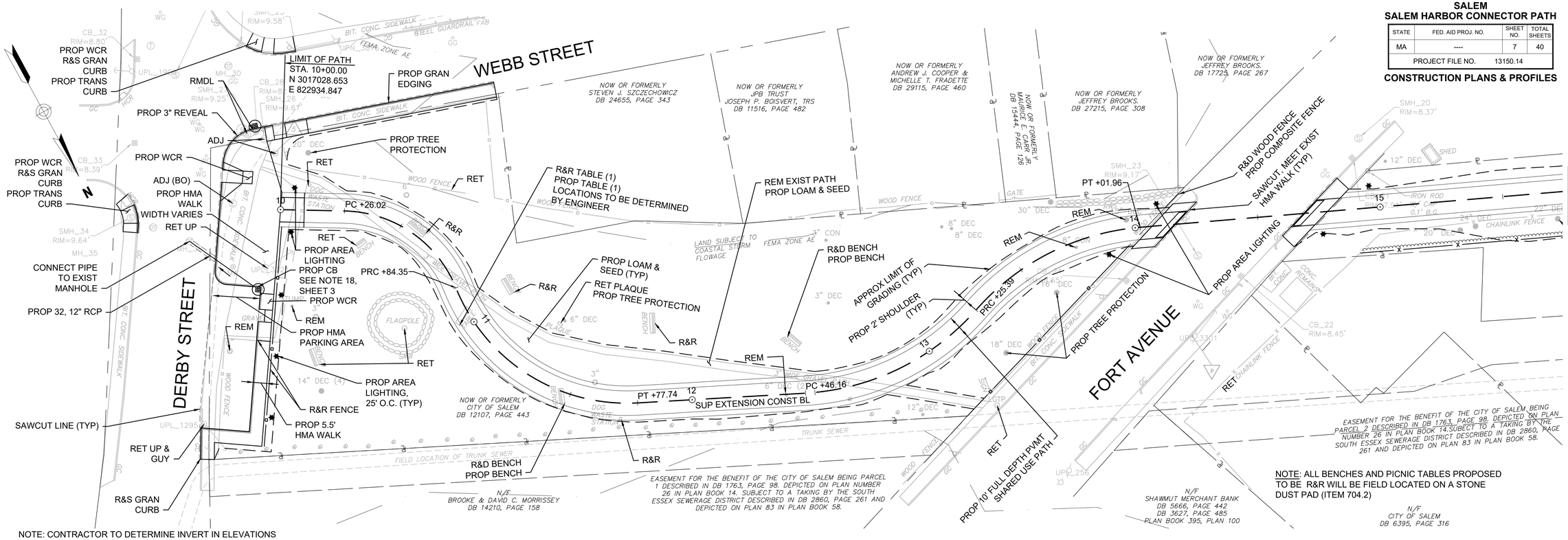
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L40	100+00.00	3017473.8955	822065.1768		N82°23'20"E 124.96'	101+24.96	3017490.4467	822189.0368
C52	101+24.96	3017490.4467	822189.0368	R=100.00' Δ=45°47'04" L=79.91' T=42.23'		102+04.87	3017529.9372	822256.0690
L41	102+04.87	3017529.9372	822256.0690		N36°36'15"E 620.55'	108+25.42	3018028.0982	822626.0932
C50	108+25.42	3018028.0982	822626.0932	R=200.00' Δ=20°58'40" L=73.23' T=37.03'		108+98.65	3018077.6731	822679.4293
L38	108+98.65	3018077.6731	822679.4293		N57°34'55"E 78.81'	109+77.45	3018119.9209	822745.9548
C51	109+77.45	3018119.9209	822745.9548	R=25.00' Δ=86°44'40" L=37.85' T=23.62'		110+15.30	3018113.3962	822779.6659
L39	110+15.30	3018113.3962	822779.6659		S35°40'25"E 84.70'	111+00.00	3018044.5917	822829.0589

SALEM
SALEM HARBOR CONNECTOR PATH

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	----	7	40
PROJECT FILE NO.	13150.14		

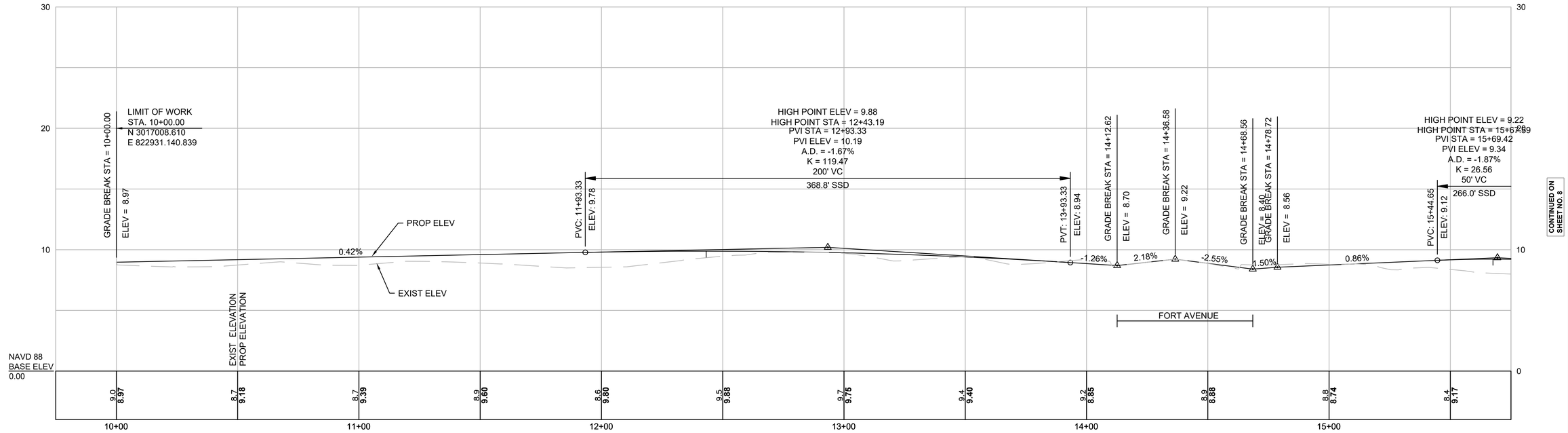
CONSTRUCTION PLANS & PROFILES

13150.14_GEN.DWG Plotted on 12-Nov-2019 3:41 PM



SUP EXTENSION

HOR. SCALE IN FEET
20 0 20 40
4 0 4 8
VER. SCALE IN FEET

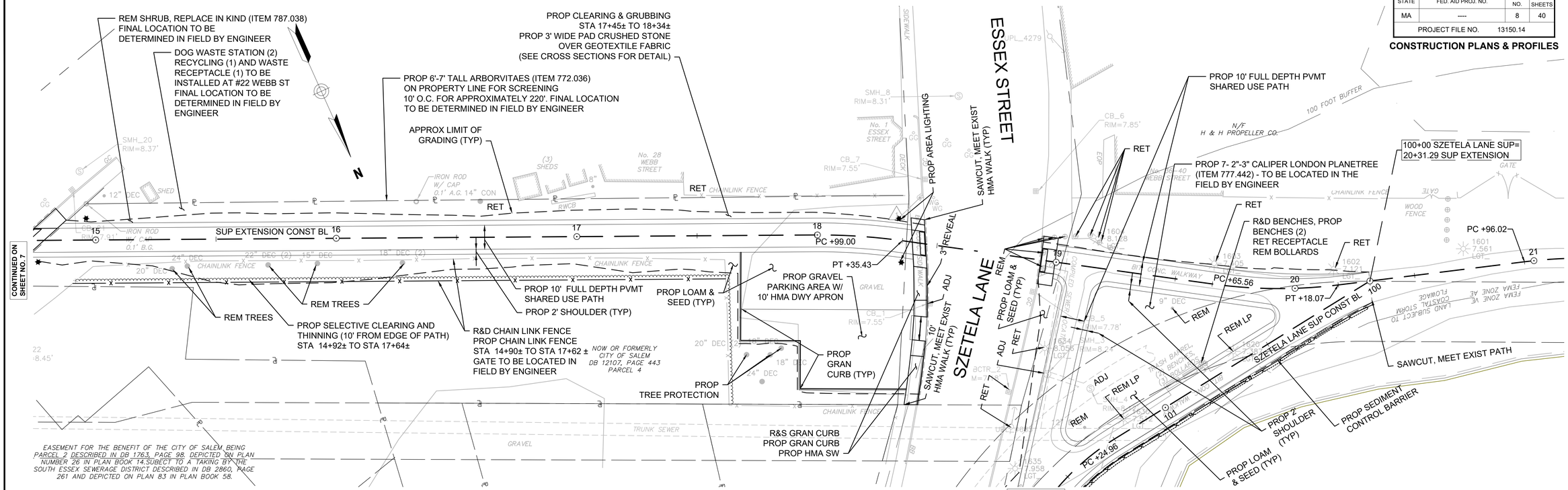


SALEM
SALEM HARBOR CONNECTOR PATH

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	----	8	40
PROJECT FILE NO.	13150.14		

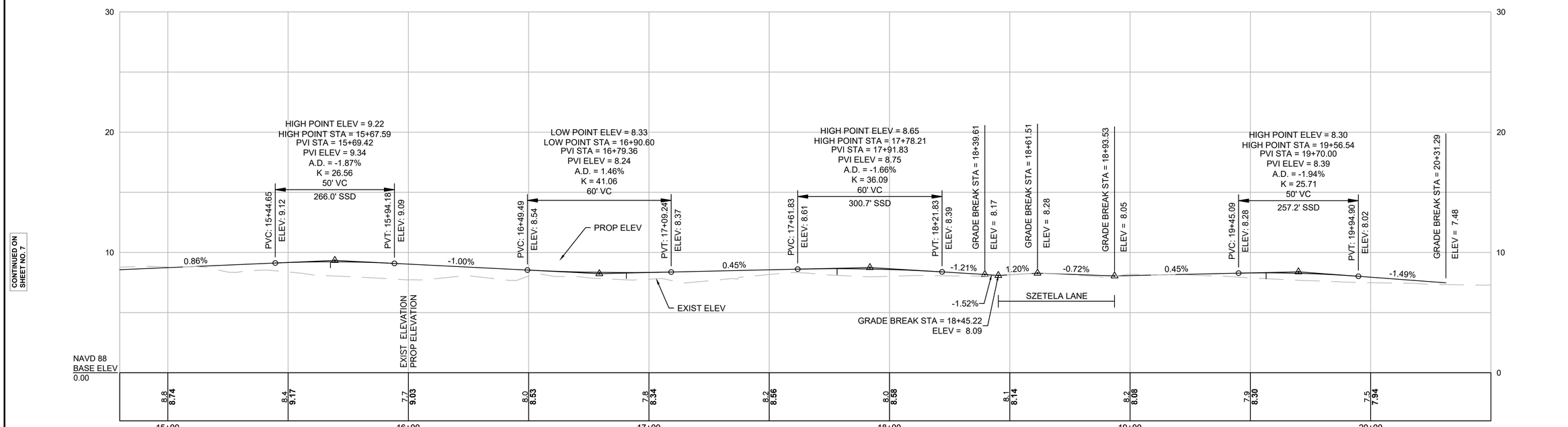
CONSTRUCTION PLANS & PROFILES

13150.14_GEN.DWG Plotted on 12-Nov-2019 3:41 PM



SUP EXTENSION

HOR. SCALE IN FEET
20 0 20 40
4 0 4 8
VER. SCALE IN FEET

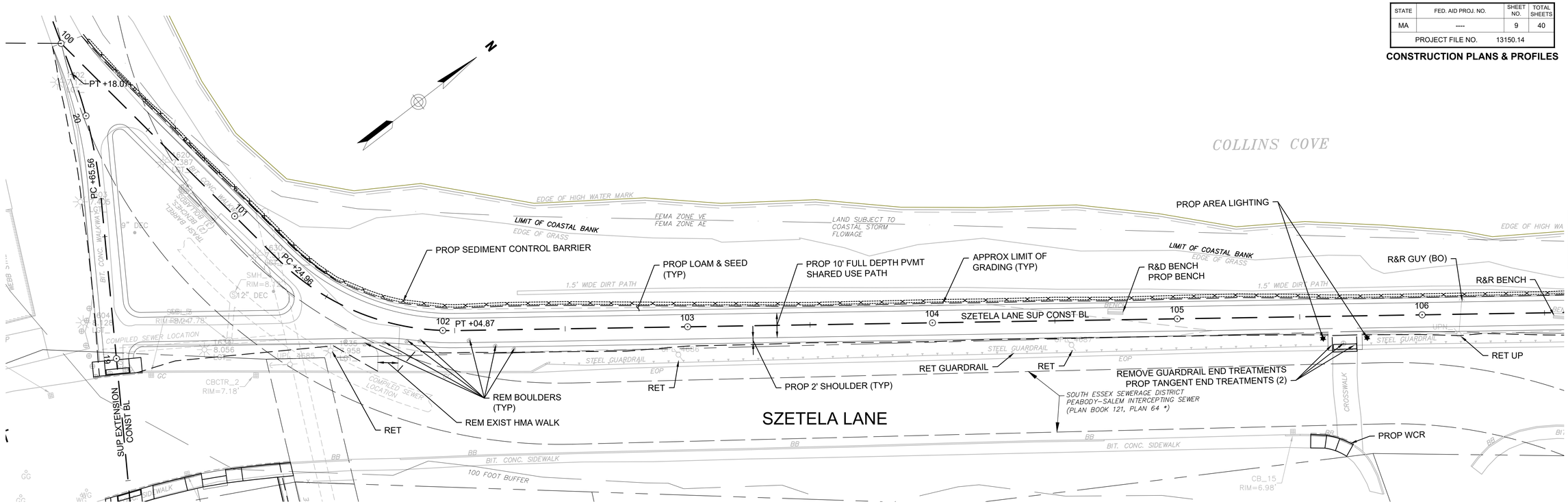


SALEM
SALEM HARBOR CONNECTOR PATH

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	----	9	40
PROJECT FILE NO.	13150.14		

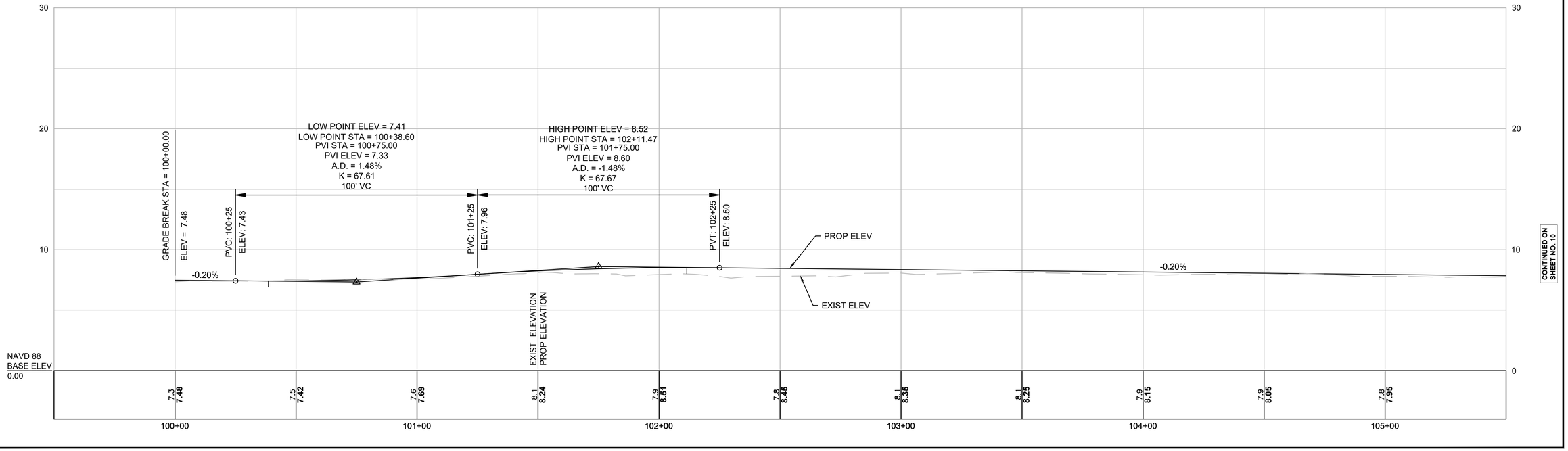
CONSTRUCTION PLANS & PROFILES

13150.14_GEN.DWG Plotted on 12-Nov-2019 3:41 PM



SZETELA LANE SUP

HOR. SCALE IN FEET
20 0 20 40
4 0 4 8
VER. SCALE IN FEET

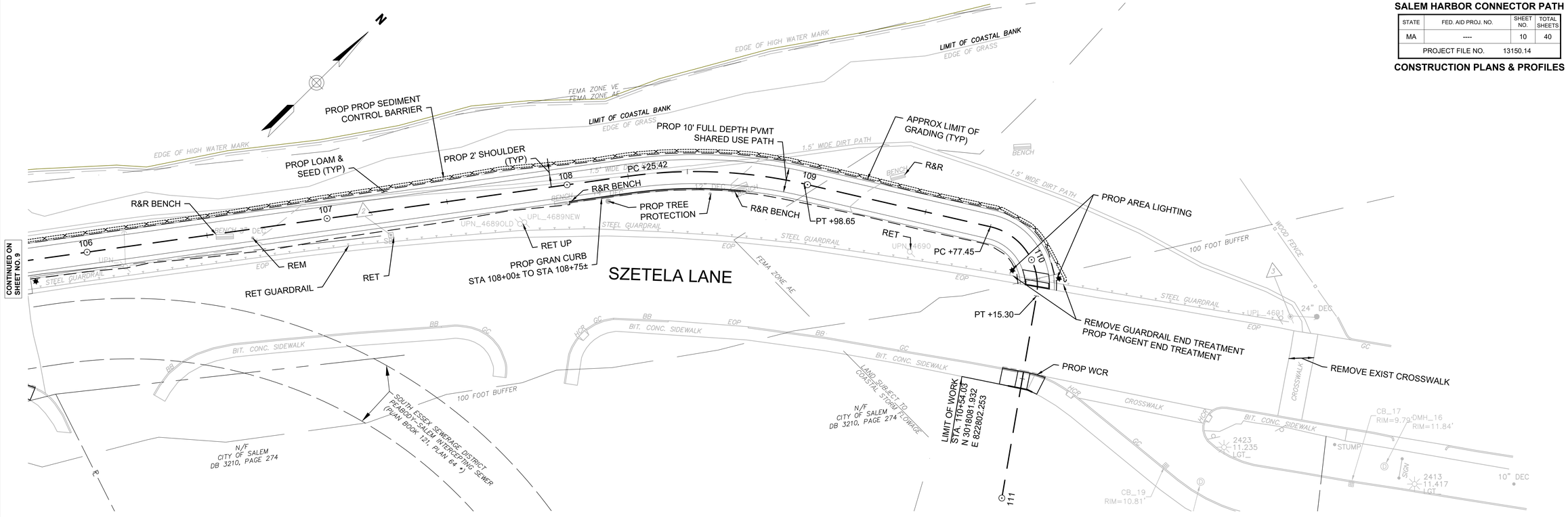


SALEM
SALEM HARBOR CONNECTOR PATH

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	----	10	40
PROJECT FILE NO.	13150.14		

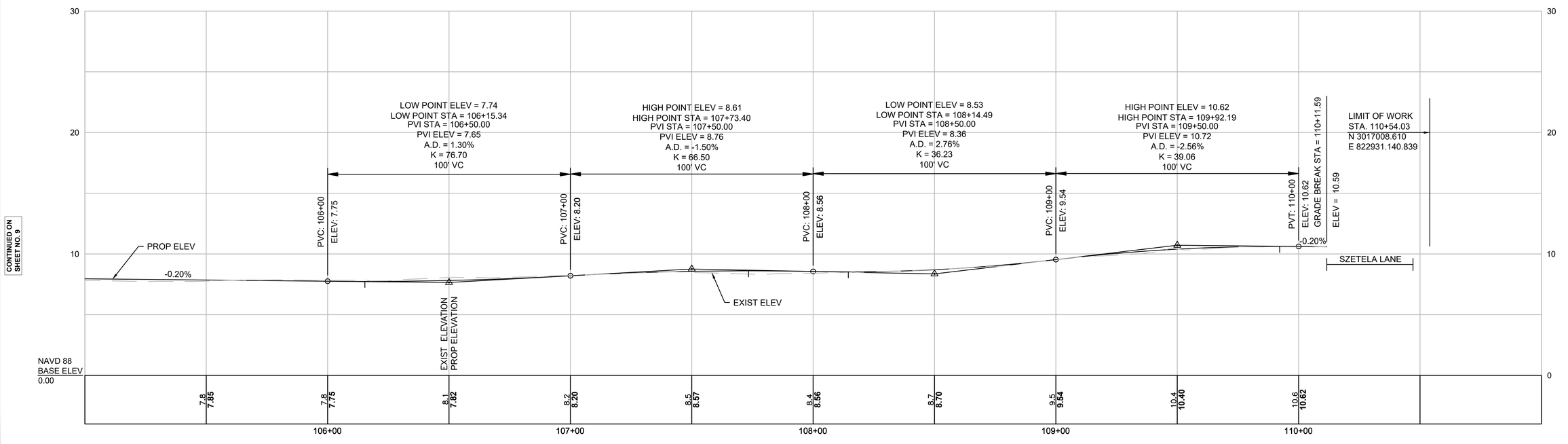
CONSTRUCTION PLANS & PROFILES

13150.14_GEN.DWG Plotted on 12-Nov-2019 3:41 PM



SZETELA LANE SUP

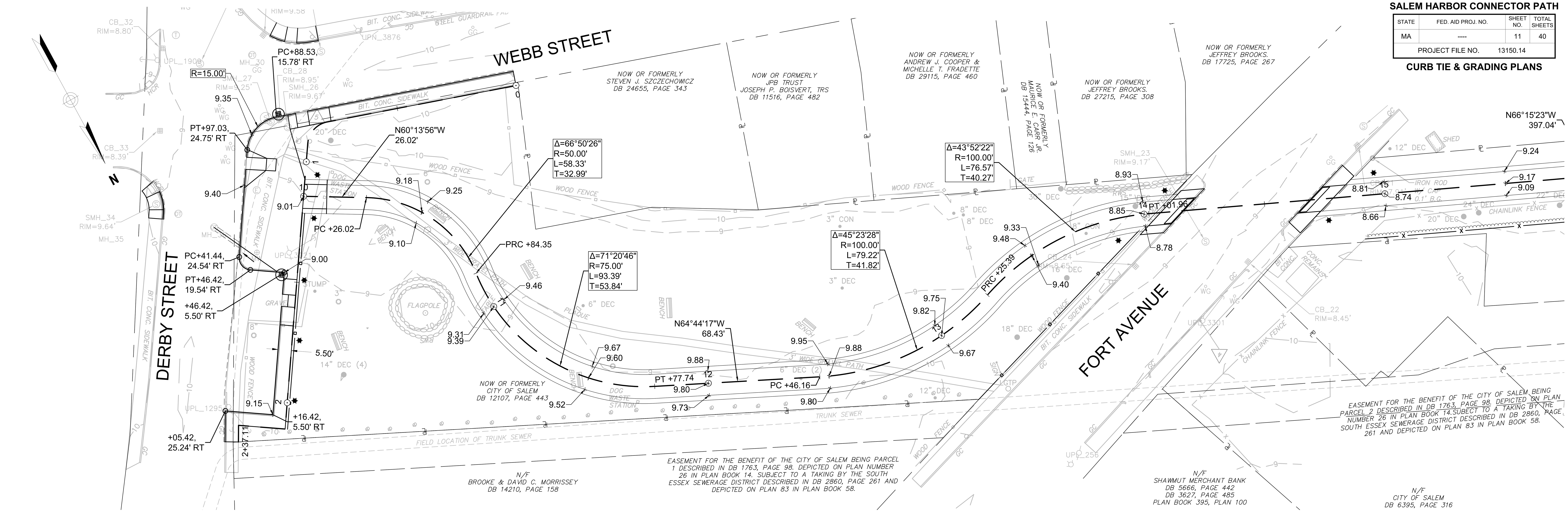
HOR. SCALE IN FEET
20 0 20 40
4 0 4 8
VER. SCALE IN FEET

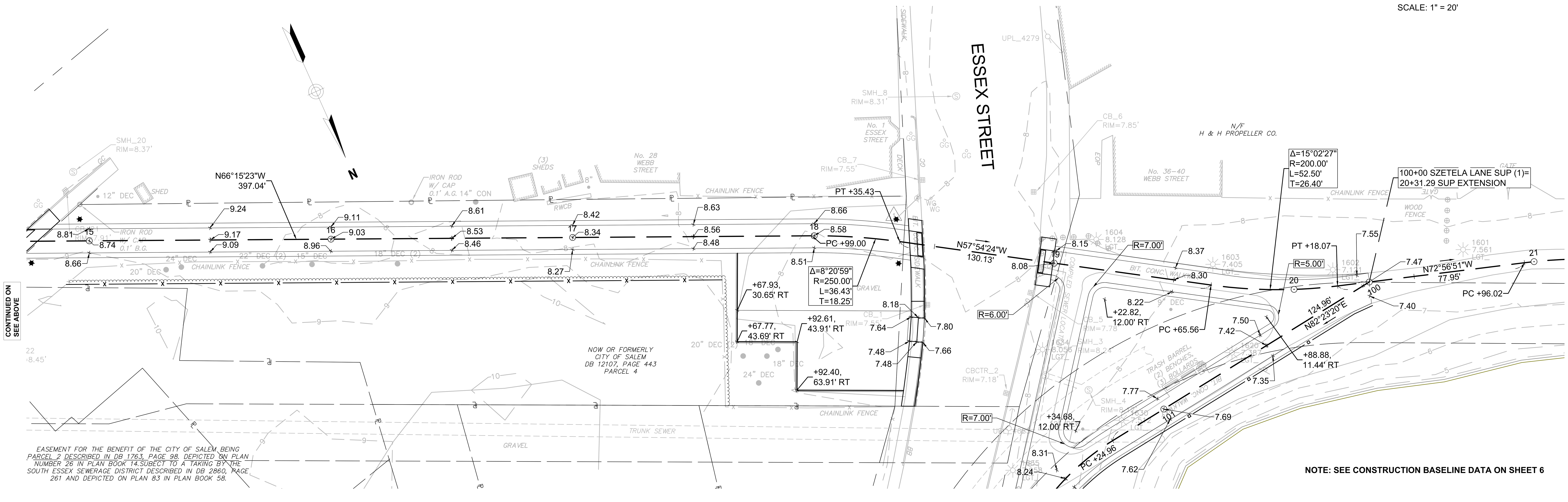


SALEM
SALEM HARBOR CONNECTOR PATH

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	----	11	40
PROJECT FILE NO. 13150.14			

CURB TIE & GRADING PLANS





NOTE: SEE CONSTRUCTION BASELINE DATA ON SHEET 6

SALEM
SALEM HARBOR CONNECTOR PATH

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	----	12	40
PROJECT FILE NO.	13150.14		

CURB TIE & GRADING PLANS

13150.14_ALGN.DWG Plotted on 12-Nov-2019 3:42 PM

COLLINS COVE

SZETELA LANE

Δ=45°47'04"
R=100.00'
L=79.91'
T=42.23'

PC +65.56
PC +24.96
PT +04.87
N36°36'15"E
620.55'

R=7.00'
R=6.00'
R=7.00'

+22.82, 12.00' RT
+34.68, 12.00' RT
+92.40, 63.91' RT
+92.61,

N57°54'24"W
130.13'

Δ=8°20'59"
R=250.00'
L=36.43'
T=18.25'
PT +35.43

CONTINUED ON SHEET NO. 11

CONTINUED ON SEE BELOW

EDGE OF HIGH WATER MARK
EDGE OF GRASS
1.5' WIDE DIRT PATH
BENCH
STEEL GUARDRAIL
EOP
BB
GC
BIT. CONC. SIDEWALK
100 FOOT BUFFER
CROSSWALK
COMPILED SEWER LOCATION
SOUTH ESSEX SEWERAGE DISTRICT PEABODY-SALEM INTERCEPTING SEWER (PLAN BOOK 121, PLAN 64 *)
CHAINLINK FENCE
WOOD FENCE
TRASH BARREL
(2) BENCH
CB_15 RIM=6.98'
SMH_8 RIM=8.1'
SMH_9 RIM=7.78'
CBCTR_2 RIM=7.18'
CB_7 RIM=7.55'

N/F CITY OF SALEM

N/F H & H PROPELLER CO. DB 6735, PAGE 281 PLAN 174 OF 1980

N/F SALEM HOUSING AUTHORITY DB 4373, PAGE 217 PLAN 329 OF 1957

N/F CITY OF SALEM DB 3210, PAGE 274

0 20 50 100
SCALE: 1" = 20'

Δ=20°58'40"
R=200.00'
L=73.23'
T=37.03'

PC +25.42
PT +98.65
N57°34'55"E
78.81'

Δ=86°44'40"
R=25.00'
L=37.85'
T=23.62'
PC +77.45
PT +15.30

84.70'
S35°40'25"E

CB_17 RIM=9.79'
DMH_16 RIM=11.84'
CB_19 RIM=10.81'
STUMP
SIGN
24" DEC
10" DEC

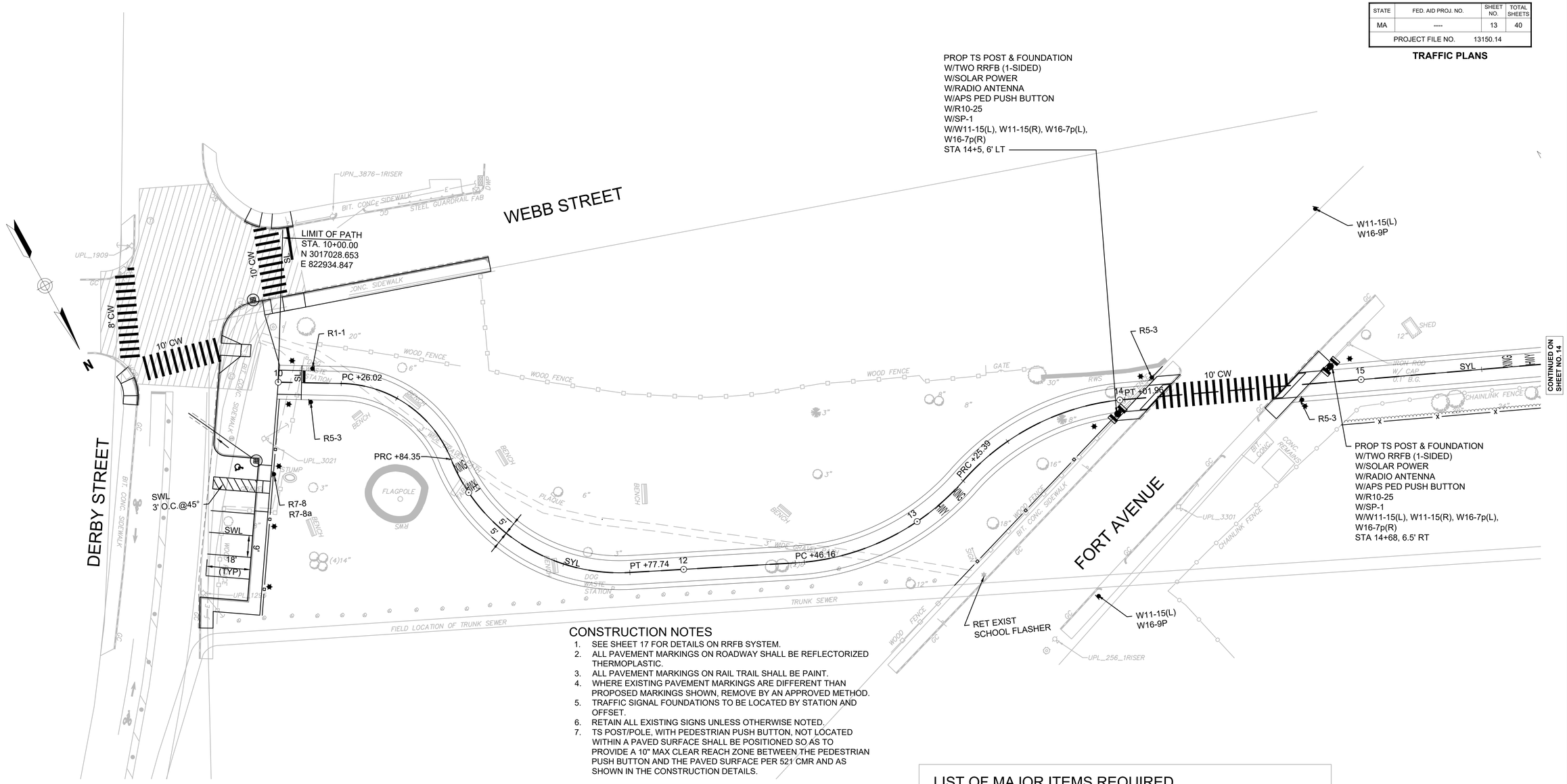
NOTE: SEE CONSTRUCTION BASELINE DATA ON SHEET 6

SALEM
SALEM HARBOR CONNECTOR PATH

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	----	13	40
PROJECT FILE NO.	13150.14		

TRAFFIC PLANS

13150.14_TSIG.DWG Plotted on 12-Nov-2019 3:43 PM



CONSTRUCTION NOTES

1. SEE SHEET 17 FOR DETAILS ON RRFB SYSTEM.
2. ALL PAVEMENT MARKINGS ON ROADWAY SHALL BE REFLECTORIZED THERMOPLASTIC.
3. ALL PAVEMENT MARKINGS ON RAIL TRAIL SHALL BE PAINT.
4. WHERE EXISTING PAVEMENT MARKINGS ARE DIFFERENT THAN PROPOSED MARKINGS SHOWN, REMOVE BY AN APPROVED METHOD.
5. TRAFFIC SIGNAL FOUNDATIONS TO BE LOCATED BY STATION AND OFFSET.
6. RETAIN ALL EXISTING SIGNS UNLESS OTHERWISE NOTED.
7. TS POST/POLE, WITH PEDESTRIAN PUSH BUTTON, NOT LOCATED WITHIN A PAVED SURFACE SHALL BE POSITIONED SO AS TO PROVIDE A 10" MAX CLEAR REACH ZONE BETWEEN THE PEDESTRIAN PUSH BUTTON AND THE PAVED SURFACE PER 521 CMR AND AS SHOWN IN THE CONSTRUCTION DETAILS.

20 0 20 40
SCALE IN FEET

LIST OF MAJOR ITEMS REQUIRED

FORT AVENUE AT SZETELA LANE SHARED USE PATH

PAY ITEM	QUANTITY	DESCRIPTION
824.211	2	TS POST STANDARD INCL. FOUNDATION
	4	L.E.D. RECTANGULAR DUAL YELLOW BEACON (RRFB)
	2	SOLAR PANEL
	2	RADIO ANTENNA
	2	APS PEDESTRIAN PUSH BUTTON W/R10-25
	2	BATTERY SYSTEMS
832.	2	SP-1
	4	W11-15(L)
	2	W11-15(R)
	2	W16-7p(L)
	2	W16-7p(R)
	2	W16-9p

PLUS NECESSARY DUCT, CABLE, LABOR, MISCELLANEOUS MATERIAL AND EQUIPMENT TO COMPLETE THE INSTALLATION AND PROVIDE AN OPERATING RRFB SYSTEM.

SALEM
SALEM HARBOR CONNECTOR PATH

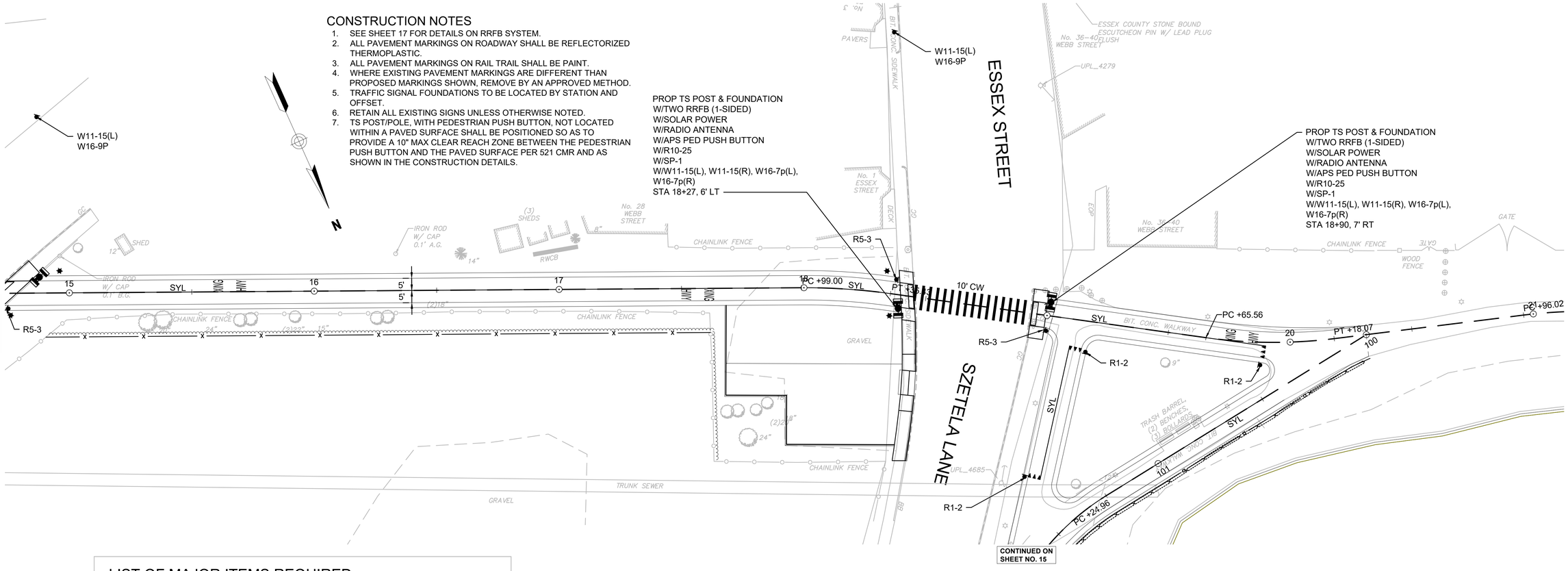
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	----	14	40
PROJECT FILE NO.	13150.14		

TRAFFIC PLANS

13150.14_TSIG.DWG Plotted on 12-Nov-2019 3:43 PM

CONSTRUCTION NOTES

1. SEE SHEET 17 FOR DETAILS ON RRFB SYSTEM.
2. ALL PAVEMENT MARKINGS ON ROADWAY SHALL BE REFLECTORIZED THERMOPLASTIC.
3. ALL PAVEMENT MARKINGS ON RAIL TRAIL SHALL BE PAINT.
4. WHERE EXISTING PAVEMENT MARKINGS ARE DIFFERENT THAN PROPOSED MARKINGS SHOWN, REMOVE BY AN APPROVED METHOD.
5. TRAFFIC SIGNAL FOUNDATIONS TO BE LOCATED BY STATION AND OFFSET.
6. RETAIN ALL EXISTING SIGNS UNLESS OTHERWISE NOTED.
7. TS POST/POLE, WITH PEDESTRIAN PUSH BUTTON, NOT LOCATED WITHIN A PAVED SURFACE SHALL BE POSITIONED SO AS TO PROVIDE A 10" MAX CLEAR REACH ZONE BETWEEN THE PEDESTRIAN PUSH BUTTON AND THE PAVED SURFACE PER 521 CMR AND AS SHOWN IN THE CONSTRUCTION DETAILS.



LIST OF MAJOR ITEMS REQUIRED

SZETELA LANE/ESSEX STREET AT SZETELA LANE SHARED USE PATH

PAY ITEM	QUANTITY	DESCRIPTION
824.212	2	TS POST STANDARD INCL. FOUNDATION
	4	L.E.D. RECTANGULAR DUAL YELLOW BEACON (RRFB)
	2	SOLAR PANEL
	2	RADIO ANTENNA
	2	APS PEDESTRIAN PUSH BUTTON W/R10-25
	2	BATTERY SYSTEMS
832.	2	SP-1
	4	W11-15(L)
	2	W11-15(R)
	2	W16-7p(L)
	2	W16-7p(R)
	4	W16-9p

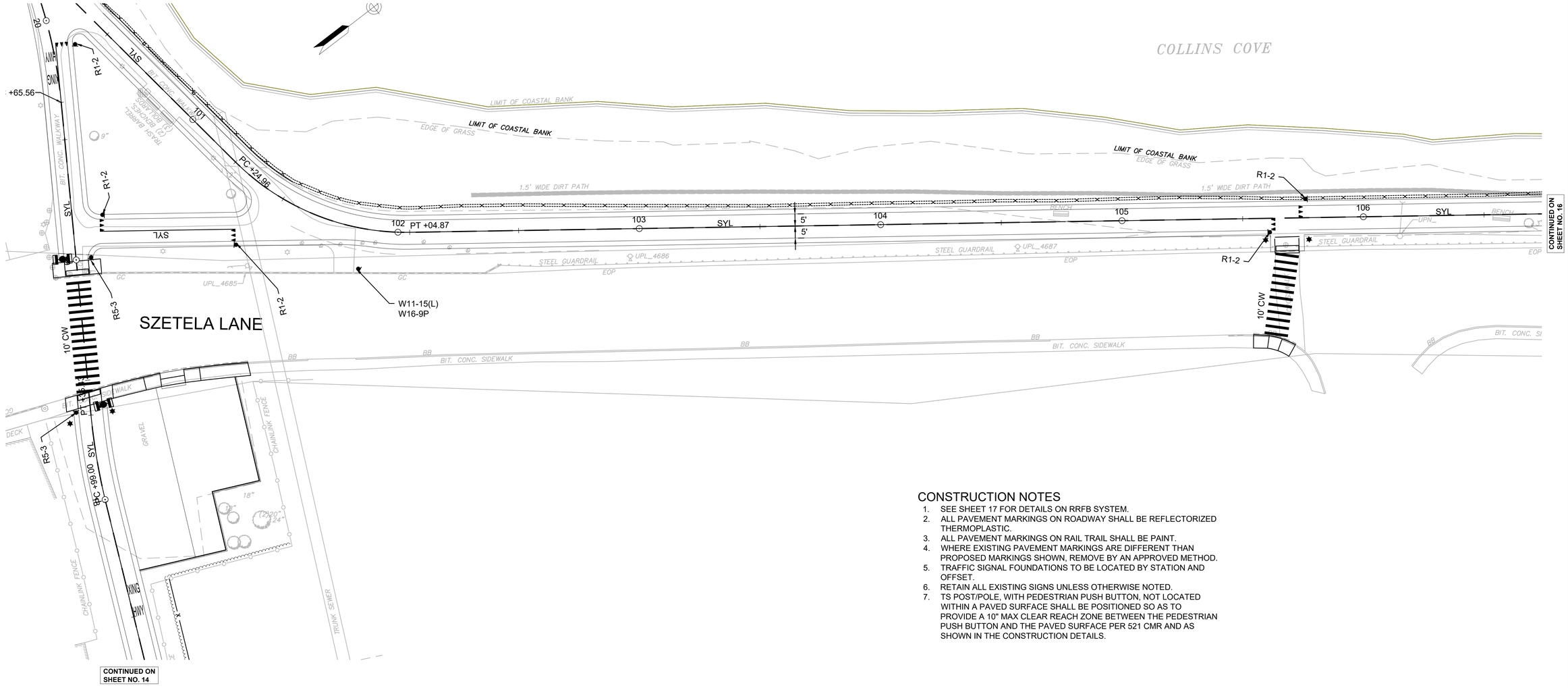
PLUS NECESSARY DUCT, CABLE, LABOR, MISCELLANEOUS MATERIAL AND EQUIPMENT TO COMPLETE THE INSTALLATION AND PROVIDE AN OPERATING RRFB SYSTEM

20 0 20 40
SCALE IN FEET

SALEM
SALEM HARBOR CONNECTOR PATH

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	----	15	40
PROJECT FILE NO.	13150.14		

TRAFFIC PLANS



CONSTRUCTION NOTES

1. SEE SHEET 17 FOR DETAILS ON RRFB SYSTEM.
2. ALL PAVEMENT MARKINGS ON ROADWAY SHALL BE REFLECTORIZED THERMOPLASTIC.
3. ALL PAVEMENT MARKINGS ON RAIL TRAIL SHALL BE PAINT.
4. WHERE EXISTING PAVEMENT MARKINGS ARE DIFFERENT THAN PROPOSED MARKINGS SHOWN, REMOVE BY AN APPROVED METHOD.
5. TRAFFIC SIGNAL FOUNDATIONS TO BE LOCATED BY STATION AND OFFSET.
6. RETAIN ALL EXISTING SIGNS UNLESS OTHERWISE NOTED.
7. TS POST/POLE, WITH PEDESTRIAN PUSH BUTTON, NOT LOCATED WITHIN A PAVED SURFACE SHALL BE POSITIONED SO AS TO PROVIDE A 10" MAX CLEAR REACH ZONE BETWEEN THE PEDESTRIAN PUSH BUTTON AND THE PAVED SURFACE PER 521 CMR AND AS SHOWN IN THE CONSTRUCTION DETAILS.

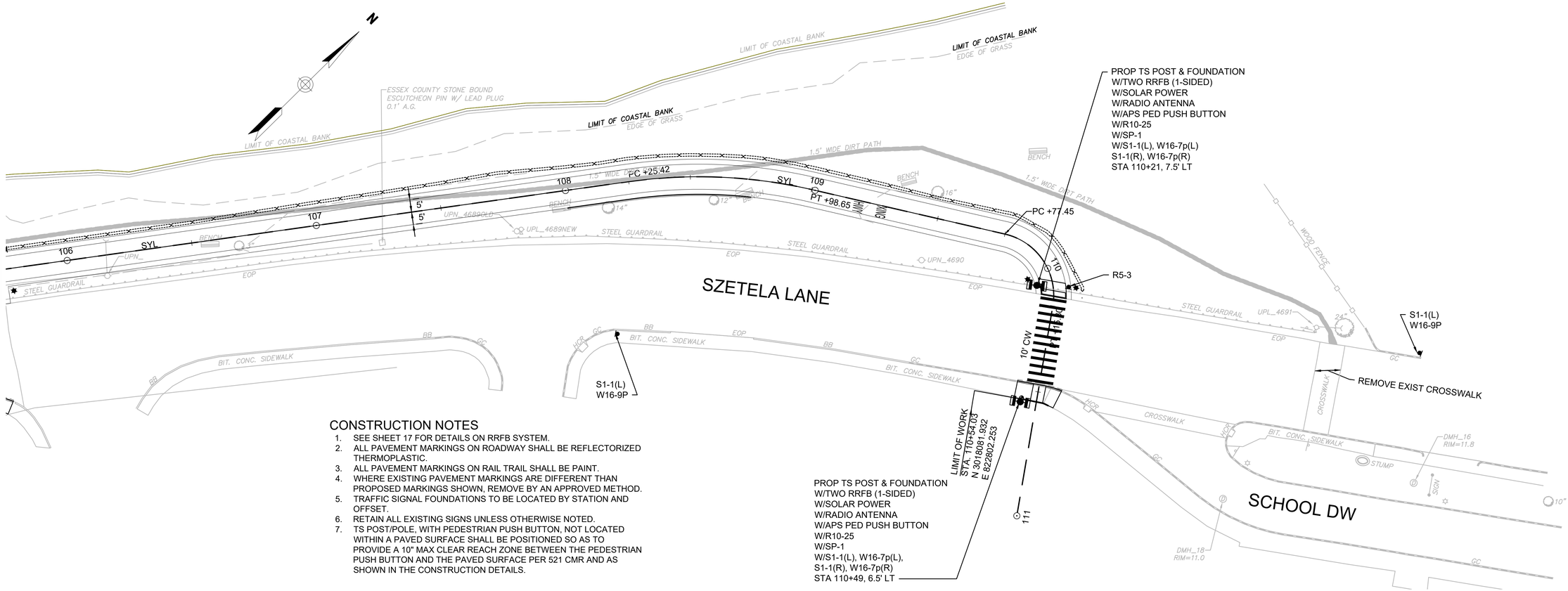
20 0 20 40
SCALE IN FEET

SALEM
SALEM HARBOR CONNECTOR PATH

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	----	16	40
PROJECT FILE NO.	13150.14		

TRAFFIC PLANS

13150.14_TSIG.DWG Plotted on 12-Nov-2019 3:43 PM



CONSTRUCTION NOTES

1. SEE SHEET 17 FOR DETAILS ON RRFB SYSTEM.
2. ALL PAVEMENT MARKINGS ON ROADWAY SHALL BE REFLECTORIZED THERMOPLASTIC.
3. ALL PAVEMENT MARKINGS ON RAIL TRAIL SHALL BE PAINT.
4. WHERE EXISTING PAVEMENT MARKINGS ARE DIFFERENT THAN PROPOSED MARKINGS SHOWN, REMOVE BY AN APPROVED METHOD.
5. TRAFFIC SIGNAL FOUNDATIONS TO BE LOCATED BY STATION AND OFFSET.
6. RETAIN ALL EXISTING SIGNS UNLESS OTHERWISE NOTED.
7. TS POST/POLE, WITH PEDESTRIAN PUSH BUTTON, NOT LOCATED WITHIN A PAVED SURFACE SHALL BE POSITIONED SO AS TO PROVIDE A 10" MAX CLEAR REACH ZONE BETWEEN THE PEDESTRIAN PUSH BUTTON AND THE PAVED SURFACE PER 521 CMR AND AS SHOWN IN THE CONSTRUCTION DETAILS.

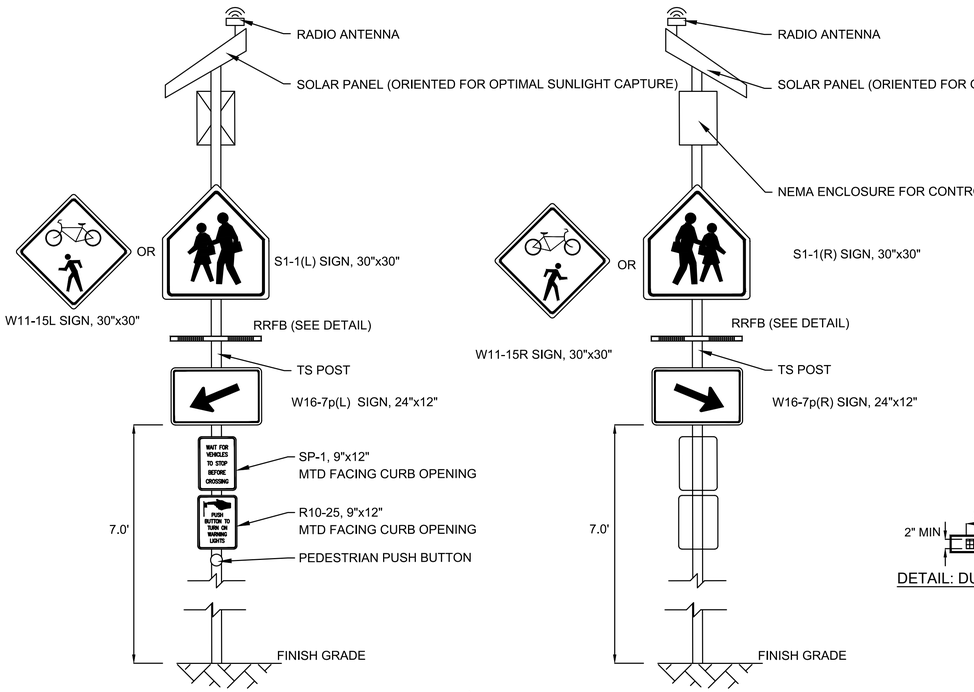
LIST OF MAJOR ITEMS REQUIRED

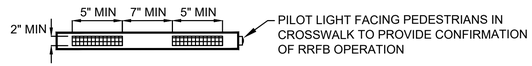
SZETELA LANE RRFB/BENTLEY ACADEMY DRIVEWAY AT SZETELA LANE SHARED USE PATH

PAY ITEM	QUANTITY	DESCRIPTION
824.213	2	TS POST STANDARD INCL. FOUNDATION
	4	L.E.D. RECTANGULAR DUAL YELLOW BEACON (RRFB)
	2	SOLAR PANEL
	2	RADIO ANTENNA
	2	APS PEDESTRIAN PUSH BUTTON W/R10-25
	2	BATTERY SYSTEMS
832.	2	SP-1
	4	S1-1(L)
	2	S1-1(R)
	2	W16-7p(L)
	2	W16-7p(R)
	2	W16-9p

PLUS NECESSARY DUCT, CABLE, LABOR, MISCELLANEOUS MATERIAL AND EQUIPMENT TO COMPLETE THE INSTALLATION AND PROVIDE AN OPERATING RRFB SYSTEM

20 0 20 40
SCALE IN FEET





DETAIL: DUAL YELLOW BEACON (RRFB)

OPERATIONAL NOTES:
1. RRFBS SHALL BE ACTIVATED BY PEDESTRIAN PUSH BUTTON.
2. DURATION OF RRFB UPON RECEIPT OF VALID PEDESTRIAN PUSH BUTTON ACTUATION SHALL BE INITIALLY SET FOR 10 SECONDS.
3. SEE SPECIAL PROVISIONS, ITEMS 824.211-824.213, FOR MORE DETAILS ON FUNCTIONAL REQUIREMENTS OF RRFB SYSTEM.

RECTANGULAR RAPID FLASHING BEACON (RRFB) - POST MOUNTED

SCALE: N.T.S.

SALEM
SALEM HARBOR CONNECTOR PATH

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	----	18	40
PROJECT FILE NO.	13150.14		

TRAFFIC SIGN SUMMARY

TRAFFIC SIGN SUMMARY

IDENTIFI–CATION NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS (INCHES)			NUMBER OF SIGNS REQUIRED	COLOR			POST SIZE AND NUMBER REQUIRED	UNIT AREA (S.F.)	AREA IN SQUARE FEET
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR.		BACK–GROUND	LEGEND	BORDER			
R1-1	18"	18"		SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED			1	RED	WHITE	WHITE	1-P5	1.86	1.86
R1-2	18" x 18" x 18"						5	WHITE	RED	WHITE	5-P5	0.97	4.85
R5-3	24"	24"					6	WHITE	BLACK	BLACK	6-P5	4.00	24.00
R7-8	12"	18"						WHITE	GREEN/ BLUE	GREEN	1-P5	1.50	
R7-8a	12"	6"						WHITE	GREEN	GREEN	1 MTD W/OTHERS	0.50	
R10-25	9"	12"					6	WHITE	BLACK	BLACK	6 MTD ON TS POST	PAID UNDER ITEMS 824.211, 824.212, 824.213	
W11-15(L)	30"	30"					8	FLOURCSCENT YELLOW-GREEN	BLACK	BLACK	4-P5 4 MTD ON TS POST	6.25	50.00
W11-15(R)	30"	30"					4	FLOURCSCENT YELLOW-GREEN	BLACK	BLACK	4 MTD ON TS POST	6.25	25.00
W16-7p(L)	24"	12"					8	FLOURCSCENT YELLOW-GREEN	BLACK	BLACK	4 MTD W/OTHERS 4 MTD ON TS POST	2.00	16.00
W16-7p(R)	24"	12"					4	FLOURCSCENT YELLOW-GREEN	BLACK	BLACK	4 MTD ON TS POST	2.00	8.00
W16-9p	24"	12"					6	FLOURCSCENT YELLOW-GREEN	BLACK	BLACK	6 MTD W/OTHERS	2.00	12.00
S1-1L	30"	30"					4	FLOURCSCENT YELLOW-GREEN	BLACK	BLACK	2-P5 2 MTD ON TS POST	6.25	25.00
S1-1R	30"	30"					2	FLOURCSCENT YELLOW-GREEN	BLACK	BLACK	2 MTD ON TS POST	6.25	12.50
SP-1	9"	12"		1" C 1" C 1" C 1" C 1" C	1.5" 1" 1" 1" 1" 1.5"	N/A	6	YELLOW	BLACK	BLACK	6 MTD ON TS POST	0.75	4.50

NOTES:
1. HIGH INTENSITY REFLECTIVE SHEETING SHALL BE USED FOR ALL SIGNS. SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION" FOR TEXT DIMENSIONS, AS AMENDED; THE 1977 MASSHIGHWAY DEPARTMENT CONSTRUCTION AND TRAFFIC STANDARD DETAILS, AS AMENDED, FOR SIGNS AND SUPPORTS; AND THE MASSHIGHWAY DEPARTMENT SIGN LISTINGS 1993 EDITION, AS AMENDED.
2. POS = PAINTED ONE SIDE

GENERAL NOTES

1. ALL CONSTRUCTION SIGNING, TEMPORARY TRAFFIC CONTROL DEVICES, AND ROADSIDE ELEMENTS SHALL CONFORM WITH THE 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AS AMENDED, THE MASSDOT STANDARD DETAILS AND DRAWINGS FOR THE DEVELOPMENT OF TEMPORARY TRAFFIC CONTROL PLANS, THE LATEST REVISIONS OF THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, (AASHTO) ROADSIDE DESIGN GUIDE, AASHTO POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS, AND NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM (NCHRP) REPORT 350 OR THE AASHTO MANUAL FOR ASSESSING SAFETY HARDWARE (MASH).
2. WORK HOURS SHALL BE 7:00AM TO 3:00PM MONDAY THRU FRIDAY UNLESS OTHERWISE APPROVED BY THE CITY OF SALEM. NO WORK IMPACTING THE TRAVEL WAY WILL BE ALLOWED DURING PEAK TRAFFIC PERIODS. PEAK PERIODS ARE DEFINED AS MONDAY THRU FRIDAY, 6:00AM TO 9:00AM AND 3:00PM TO 7:00PM.
3. NO WORK SHALL OCCUR WITHIN THE PUBLIC WAY THE DAY BEFORE, AFTER OR ON A STATE RECOGNIZED HOLIDAY UNLESS OTHERWISE APPROVED BY THE ENGINEER.
4. ALL TEMPORARY PEDESTRIAN PATHWAYS SHALL COMPLY FULLY WITH ALL REQUIREMENTS OF THE MUTCD AND ALL APPLICABLE MASSACHUSETTS ARCHITECTURAL ACCESS BOARD (MAAB) AND AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG) REQUIREMENTS AND PUBLIC RIGHTS-OF WAY ACCESSIBILITY GUIDELINES (PROWAG).
5. ALL DRUMS OUTSIDE TAPERS SHALL BE SET AT 20' ON CENTER MAX. UNLESS OTHERWISE NOTED OR ADJUSTED BY THE ENGINEER.
6. ALL DRUMS SHALL BE APPROXIMATELY PLACED AND MOVED AS NECESSARY TO MAINTAIN SAFE AND REASONABLE ABUTTER ACCESS. WORK MAY REQUIRE ADDITIONAL SIGNS, DRUMS AND OTHER TRAFFIC CONTROL DEVICES, GRADING AND TEMPORARY PAVEMENT FOR PASSAGE OF PEDESTRIAN, VEHICULAR AND EMERGENCY TRAFFIC THROUGH THE WORK AREAS, BOTH DURING AND AFTER WORKING HOURS, TO MAINTAIN SUCH ACCESS.
7. REFLECTORIZED CONES SHALL BE A MINIMUM OF 36 INCHES IN HEIGHT.
8. CONES MAY BE USED IN LIEU OF DRUMS OUTSIDE OF TAPER AREAS.
9. THE CONTRACTOR SHALL NOTIFY EACH ABUTTER AT LEAST 24 HOURS IN ADVANCE OF THE START OF ANY WORK THAT WILL REQUIRE THE TEMPORARY CLOSURE OR RESTRICTION OF ACCESS.
10. FOR DROP-OFFS 3" OR LESS WITHIN THE CLEAR ZONE, CONDITION MAY BE MITIGATED WITH W8-9 (LOW SHOULDER) SIGN OR TEMPORARY CHANNELIZATION DEVICES.
11. CONTRACTOR SHALL STAGE WORK SUCH THAT A DROP-OFF OF NO MORE THAN 3" AT THE END OF EACH WORK DAY EXISTS WITHIN THE CLEAR ZONE AT ANY TIME AND ENSURE DROP-OFF IS MITIGATED WITHOUT BARRIER PER NOTE 10.
12. CONSTRUCTION CLEAR ZONE SHALL BE IN ACCORDANCE WITH MASSDOT BOSTON TRAFFIC GUIDELINES AS FOLLOWS:
    4' IF POSTED SPEED IS LESS THAN 35 MPH
    8' IF POSTED SPEED IS 35 MPH
13. 11' MINIMUM LANE WIDTHS SHALL BE MAINTAINED UNLESS OTHERWISE NOTED.
14. TEMPORARY TRAFFIC CONTROL DEVICES AND SIGNS SHALL BE COVERED OR REMOVED DURING NON-WORKING HOURS WHEN NOT IN USE.
15. SIGNS INSTALLED ON PORTABLE STANDS REQUIRE 12 INCH MINIMUM MOUNTING HEIGHT FROM THE ROADWAY SURFACE TO THE BOTTOM OF THE SIGN.
16. SIGNS INSTALLED ON PORTABLE STANDS PLACED AMONG CHANNELIZATION DEVICES REQUIRE A 36 INCH MINIMUM MOUNTING HEIGHT FROM THE ROADWAY SURFACE TO THE BOTTOM OF THE SIGN.
17. SIGNS MOUNTED ON POSTS REQUIRE A MINIMUM 84 INCH MOUNTING HEIGHT FROM THE ROADWAY OR SIDEWALK SURFACE TO THE BOTTOM OF THE SIGN. CONTRACTOR SHALL MAINTAIN A MINIMUM SIDEWALK HORIZONTAL CLEAR WIDTH OF 36" AT ALL TIMES.
18. ALL SIGNS SHALL BE MOUNTED ON THEIR OWN NCHRP 350 AND/OR MASH CRASH TESTED SIGN SUPPORTS AND INSTALLED IN ACCORDANCE WITH THE MUTCD.
19. CONTRACTOR SHALL SECURE WORK AREAS BY APPROPRIATE MEANS, TO PREVENT UNAUTHORIZED ACCESS AT ALL TIMES.

SUGGESTED TEMPORARY TRAFFIC CONTROL SETUP APPLICATION

LOCATION	TEMPORARY TRAFFIC CONTROL SETUPS	SHEET NUMBER
DERBY STREET	- TYPICAL ONE-WAY STREET LANE SHIFT- RIGHT - PEDESTRIAN BYPASS TYPE 2	20 22
INTERSECTION OF DERBY STREET AND WEBB STREET	- WORK AT THE INTERSECTION OF DERBY STREET AND WEBB STREET - NORTHEAST CORNER - WORK AT THE INTERSECTION OF DERBY STREET AND WEBB STREET - NORTHWEST CORNER WORK AT THE INTERSECTION OF DERBY STREET AND WEBB STREET - SOUTHWEST CORNER - PEDESTRIAN BYPASS TYPE 2	21 21 21 22
FORT AVENUE	- TYPICAL TWO-WAY STREET LANE CLOSURE ALTERNATING TRAFFIC (SEE NOTE 2) - PEDESTRIAN BYPASS TYPE 1B (SEE NOTE 2) - TYPICAL TWO-WAY STREET LANE SHIFT (SEE NOTE 1) - PEDESTRIAN BYPASS TYPE 1A (SEE NOTE 1)	20 22 20 22
SZETELA LANE (STA 18+00 TO 19+00)	- TYPICAL TWO-WAY STREET LANE CLOSURE ALTERNATING TRAFFIC (SEE NOTE 2) - PEDESTRIAN BYPASS TYPE 1B (SEE NOTE 2) - TYPICAL TWO-WAY STREET LANE SHIFT (SEE NOTE 1) - PEDESTRIAN BYPASS TYPE 1A (SEE NOTE 1) - PEDESTRIAN BYPASS TYPE 2	20 22 20 22 22
SZETELA LANE (STA 105+60)	- TYPICAL TWO-WAY STREET LANE SHIFT	20
SZETELA LANE (STA 110+00 TO 111+00)	- TYPICAL TWO-WAY STREET LANE CLOSURE ALTERNATING TRAFFIC (SEE NOTE 2) - PEDESTRIAN BYPASS TYPE 1B (SEE NOTE 2) - TYPICAL TWO-WAY STREET LANE SHIFT (SEE NOTE 1) - PEDESTRIAN BYPASS TYPE 1A (SEE NOTE 1)	20 22 20 22

NOTES:
1. DETAIL TO BE USED DURING NON-WORKING HOURS
2. DETAIL TO BE USED DURING WORKING HOURS

LEGEND

	POLICE OFFICER
	REFLECTORIZED DRUM
	TEMPORARY CONSTRUCTION SIGN
	TRAFFIC CONE
	TYPE III BARRICADE
	WORK AREA (PUBLIC ACCESS RESTRICTED)
	TRANSITION/BUFFER AREAS
	TRAFFIC FLOW
	PEDESTRIAN ROUTE
	CONSTRUCTION FENCE
	TEMPORARY PEDESTRIAN BARRICADE
NTS	NOT TO SCALE

LANE TAPER LENGTH FORMULAS

L=	TAPER LENGTH IN FEET
W=	WIDTH OF ROADWAY TO BE SHIFTED OR REDIRECTED IN FEET
S=	POSTED SPEED LIMIT IN MPH

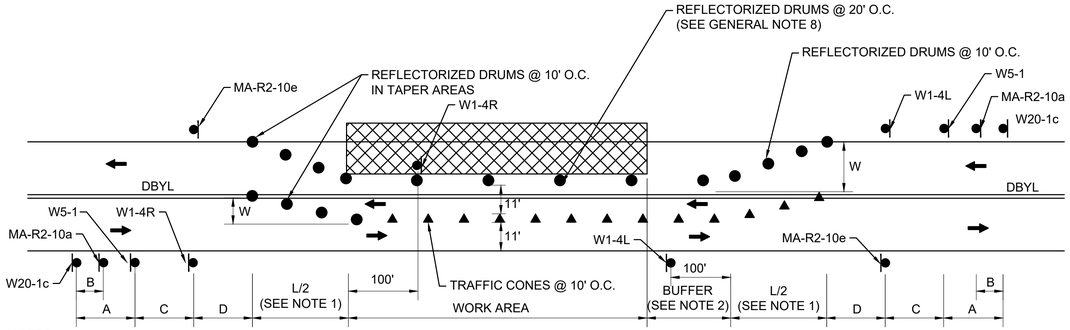
POSTED SPEED	
40 MPH OR LESS	$L=\frac{WS^2}{60}$

ADVANCE SIGN SPACING

ROADWAY	DISTANCE BETWEEN SIGNS (FEET)			
	A	B	C	D
SZETELA LN FORT AVE	350	150	350	350
ALL OTHER ROADWAYS	100	50	100	100

BUFFER SPACING

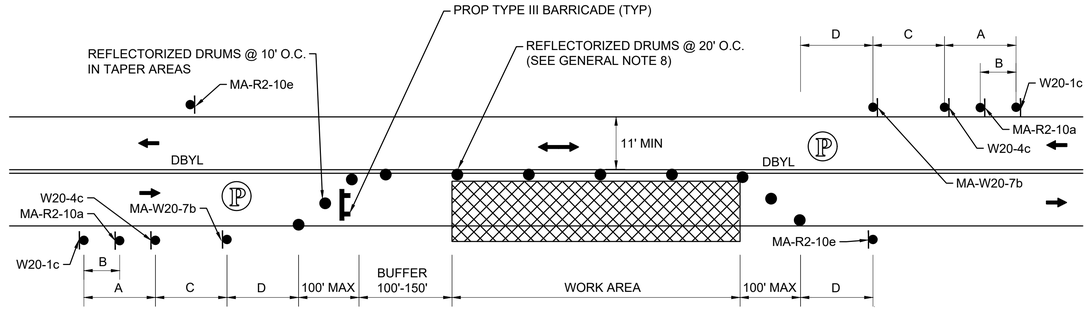
SPEED (MPH)	DISTANCE (FEET)
15	80
20	115
25	155
30	200
35	250



NOTES:
1. SEE TAPER LENGTH FORMULA ON SHEET 19.
2. SEE BUFFER SPACING CHART ON SHEET 19.
3. SEE ADVANCE SIGN SPACING TABLE ON SHEET 19.

TYPICAL TWO-WAY STREET LANE SHIFT

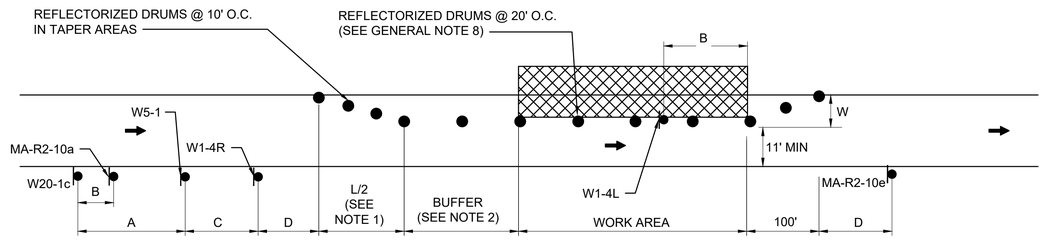
SCALE: NTS



NOTE:
1. REFER TO ADVANCE SIGN SPACING TABLE ON SHEET 19.

TYPICAL TWO-WAY STREET LANE CLOSURE ALTERNATING TRAFFIC

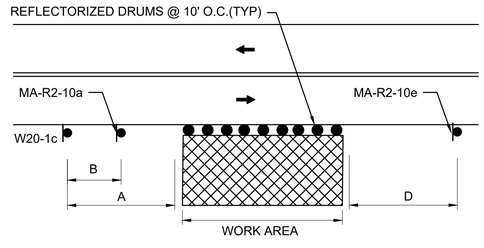
SCALE: NTS



NOTES:
1. SEE TAPER LENGTH FORMULA ON SHEET 19.
2. SEE BUFFER SPACING CHART ON SHEET 19.
3. SEE ADVANCE SIGN SPACING TABLE ON SHEET 19.

TYPICAL ONE-WAY STREET LANE SHIFT-RIGHT

SCALE: NTS



NOTES:
1. REFER TO ADVANCE SIGN SPACING TABLE ON SHEET 19
2. SEE TTCP GENERAL NOTES ON SHEET 19 FOR ADDITIONAL INFORMATION.

OFF ROADWAY WORK

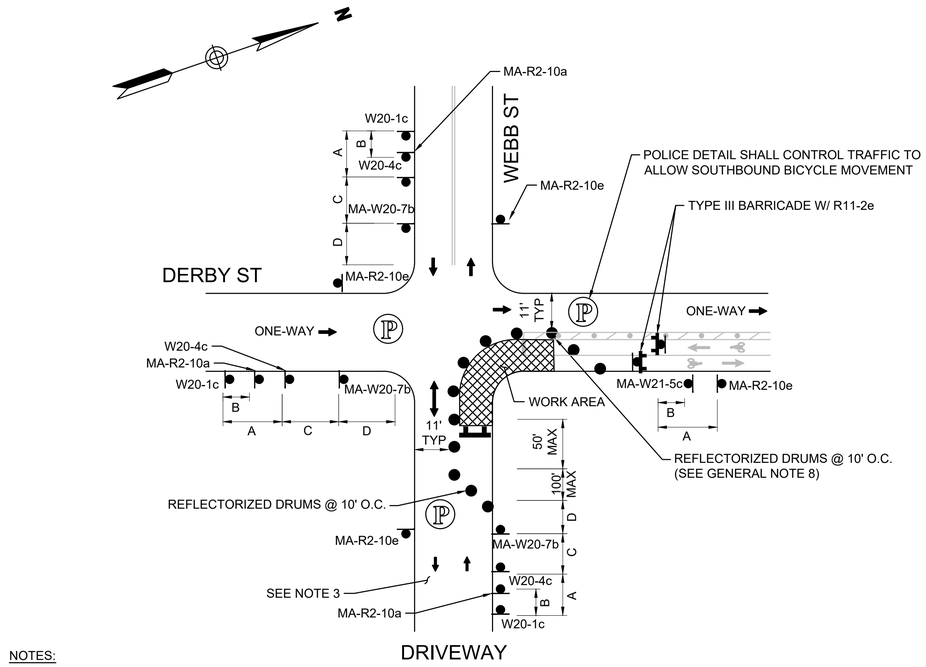
SCALE: NTS

SALEM
SALEM HARBOR CONNECTOR PATH

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	----	21	40
PROJECT FILE NO.	13150.14		

TEMPORARY TRAFFIC CONTROL PLANS
TYPICAL DETAILS - 2 OF 3

13150.14_TTCP.DWG Plotted on 12-Nov-2019 3:45 PM

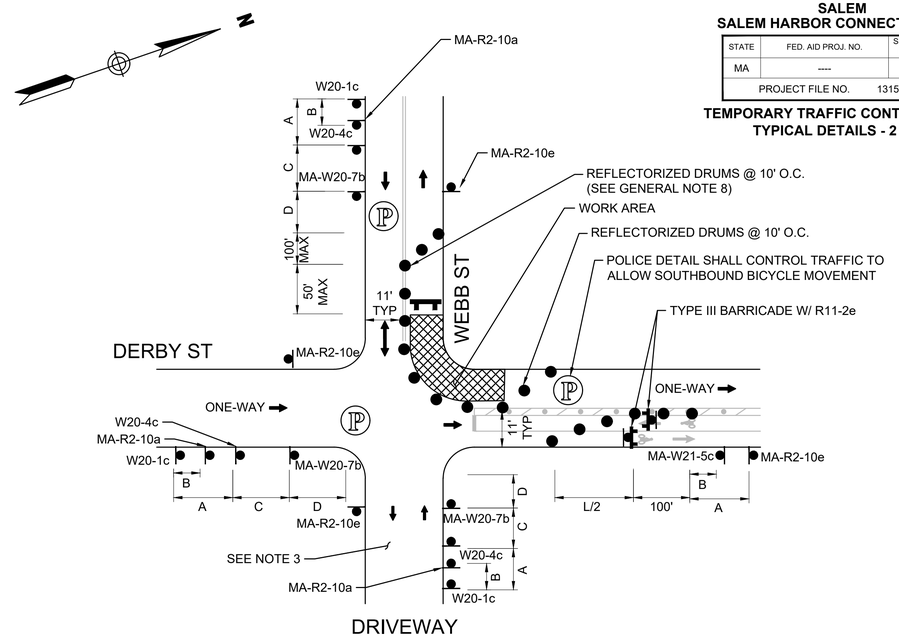


NOTES:

1. ADVANCE WARNING SIGN PLACEMENT TO BE ADJUSTED AS NECESSARY.
2. REFER TO ADVANCE SIGN SPACING TABLE ON SHEET 19.
3. CONTRACTOR TO COORDINATE WITH FOOTPRINT POWER SALEM HARBOR STATION.

WORK AT INTERSECTION OF DERBY STREET AND WEBB STREET - NORTHEAST CORNER

SCALE: NTS

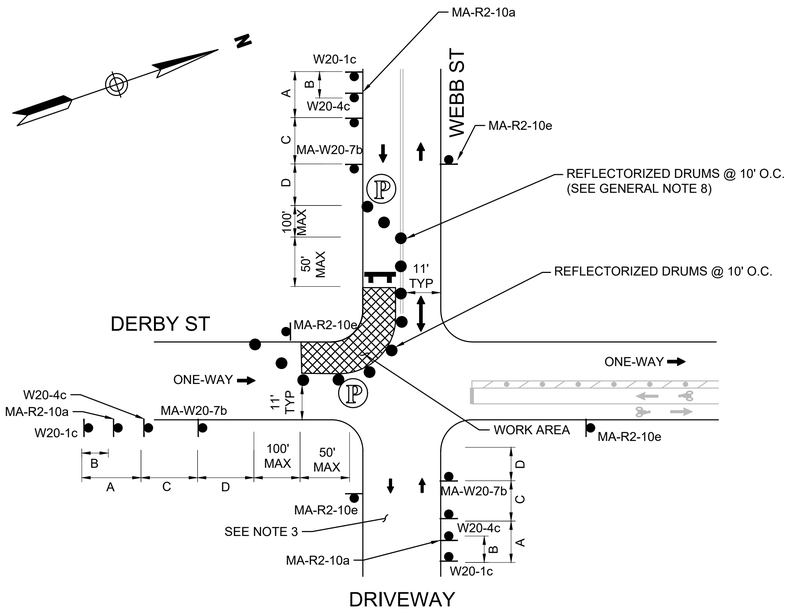


NOTES:

1. ADVANCE WARNING SIGN PLACEMENT TO BE ADJUSTED AS NECESSARY.
2. REFER TO ADVANCE SIGN SPACING TABLE ON SHEET 19.
3. CONTRACTOR TO COORDINATE WITH FOOTPRINT POWER SALEM HARBOR STATION.

WORK AT INTERSECTION OF DERBY STREET AND WEBB STREET - NORTHWEST CORNER

SCALE: NTS



NOTES:

1. ADVANCE WARNING SIGN PLACEMENT TO BE ADJUSTED AS NECESSARY.
2. REFER TO ADVANCE SIGN SPACING TABLE ON SHEET 19.
3. CONTRACTOR TO COORDINATE WITH FOOTPRINT POWER SALEM HARBOR STATION.

WORK AT INTERSECTION OF DERBY STREET AND WEBB STREET - SOUTHWEST CORNER

SCALE: NTS

SALEM
SALEM HARBOR CONNECTOR PATH

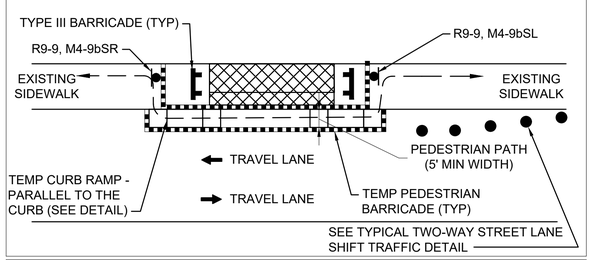
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	----	22	40
PROJECT FILE NO.	13150.14		

TEMPORARY TRAFFIC CONTROL PLANS
TYPICAL DETAILS - 3 OF 3

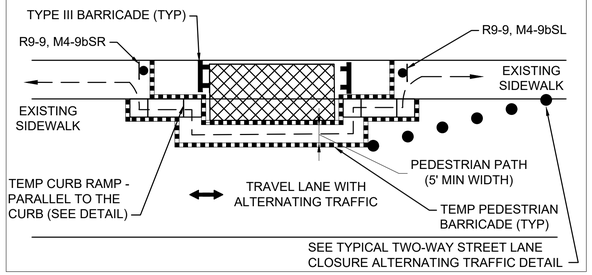
NOTES:

1. ADDITIONAL ADVANCE WARNING SIGNS MAY BE NECESSARY AS DETERMINED BY THE ENGINEER.
2. CONTROLS FOR PEDESTRIAN TRAFFIC ONLY, ARE SHOWN. VEHICULAR TRAFFIC SHALL BE MAINTAINED AS SHOWN ELSEWHERE.
3. STREET LIGHTING SHOULD BE CONSIDERED WHEN LOCATING CONTROL DEVICES.
4. ◄ — ► INDICATES DIRECTION OF PEDESTRIAN TRAVEL.
5. IF THE WORK ZONE DOES NOT PERMIT PEDESTRIANS TO TRAVEL ADJACENT TO IT AS SHOWN IN PEDESTRIAN BYPASS TYPE IA OR 1B, THE APPROPRIATE SIGNS SHALL BE INSTALLED TO CROSS PEDESTRIANS TO THE OPPOSITE SIDE OF THE STREET AT EXISTING OR TEMPORARY CROSSWALKS AS SHOWN IN PEDESTRIAN BYPASS TYPE II, AND AS DIRECTED BY THE ENGINEER.
6. PROPOSED TEMPORARY CROSSWALKS SHALL BE 12" WIDE SURFACE APPLIED TAPE OR REFLECTORIZED PAINT AS DIRECTED BY THE ENGINEER.
7. ALL TEMPORARY PEDESTRIAN PATHWAYS SHALL COMPLY FULLY WITH ALL REQUIREMENTS OF THE MUTCD AND ALL APPLICABLE MAAB AND ADAAG REQUIREMENTS AND INCLUDE THE USE OF COMPLIANT TEMPORARY PEDESTRIAN BARRICADES AND TEMPORARY PEDESTRIAN CURB RAMPS AT ALL TIMES.
8. CONTRACTOR SHALL MAINTAIN AS WIDE OF A PEDESTRIAN ACCESS AS POSSIBLE AT ALL TIMES. EXCEPT WHERE NECESSARY, THE CONTRACTOR MAY TEMPORARILY REDUCE PEDESTRIAN PATHWAYS TO 4 FEET IN WIDTH (EXCLUDING CURB) FOR NO MORE THAN 200 LINEAR FEET AT A TIME IN ACCORDANCE WITH ALL STANDARDS. A 5' x 5' PASSING AREA SHALL BE PROVIDED IN INTERVALS NOT EXCEEDING 200 FEET.
9. TEMPORARY WHEELCHAIR RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH MASSDOT, MAAB, AND ADAAG REQUIREMENTS.
10. TEMPORARY PEDESTRIAN BARRICADES SHALL BE PAID FOR UNDER ITEM 852.11 TEMPORARY PEDESTRIAN BARRICADE.
11. TEMPORARY PEDESTRIAN CURB RAMPS SHALL BE PAID FOR UNDER ITEM 852.12 TEMPORARY PEDESTRIAN CURB RAMP.
12. * INDICATES SIGNS ARE NOT REQUIRED IF EXISTING CROSSWALKS ARE USED.

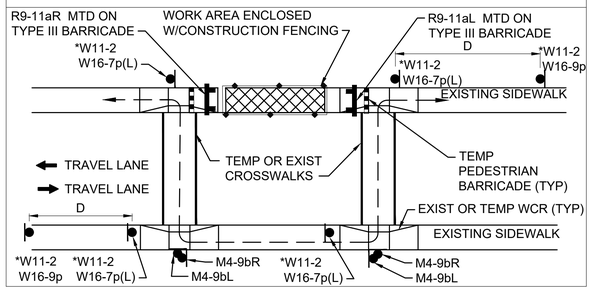
PEDESTRIAN BYPASS TYPE IA



PEDESTRIAN BYPASS TYPE IB

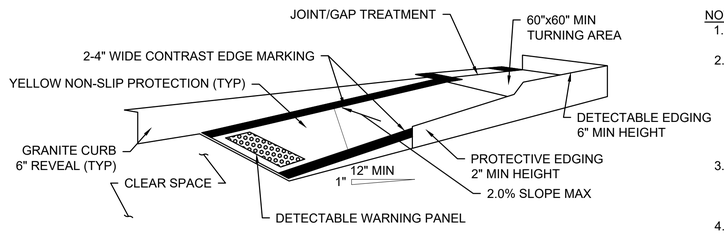


PEDESTRIAN BYPASS TYPE II

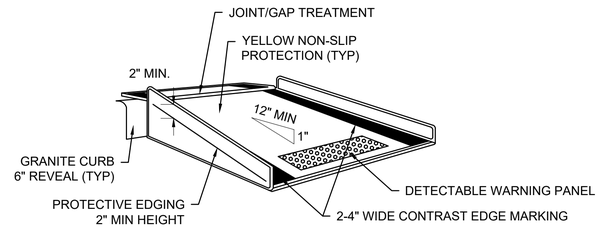


PEDESTRIAN BYPASS DETAIL

SCALE: NTS



TEMPORARY CURB RAMP-PARALLEL TO CURB



TEMPORARY CURB RAMP-PERPENDICULAR TO CURB

NOTES:

1. CURB RAMPS SHALL BE 60" MINIMUM WIDTH WITH A FIRM, STABLE AND NON-SLIP SURFACE.
2. PROTECTIVE EDGING WITH A 2" MINIMUM HEIGHT SHALL BE INSTALLED WHEN THE CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" 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" OR MORE.
3. DETECTABLE EDGING WITH 6" 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 48"x48" 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" WIDTH.
9. CHANGES BETWEEN SURFACE HEIGHTS SHOULD NOT EXCEED 0.5" LATERAL EDGES SHOULD BE VERTICAL UP TO 0.25" HIGH, AND BEVELED AT 1:2 BETWEEN 0.25" AND 0.5" 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.

TEMPORARY CURB RAMPS

SCALE: NTS

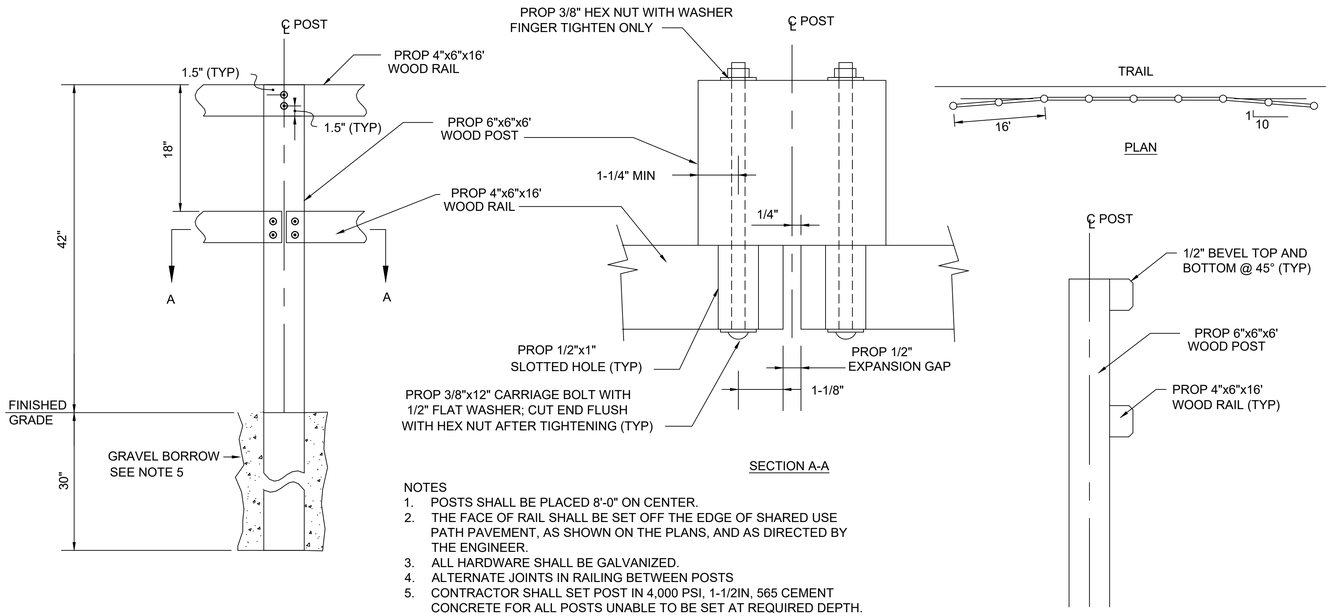
TEMPORARY TRAFFIC CONTROL SIGN SUMMARY

IDENTIFICATION NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS (INCHES)			COLOR		
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR.	BACK-GROUND	LEGEND	BORDER
MA-R2-10a	48"	36"	WORK ZONE / SPEEDING FINES DOUBLED	AS PER MASSDOT STANDARD			FLUOR-ESCENT ORANGE / WHITE	BLACK	BLACK
MA-R2-10e	36"	48"	END ROAD WORK / DOUBLE FINES END				FLUOR-ESCENT ORANGE / WHITE	BLACK	BLACK
R9-9	24"	12"	SIDEWALK CLOSED	SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED			WHITE	BLACK	BLACK
R9-11aL	24"	12"	SIDEWALK CLOSED ← CROSS HERE				WHITE	BLACK	BLACK
R9-11aR	24"	12"	SIDEWALK CLOSED → CROSS HERE				WHITE	BLACK	BLACK
R11-2e	24"	12"	BIKE LANE CLOSED				WHITE	BLACK	BLACK
W1-4L	36"	36"					FLUOR-ESCENT ORANGE	BLACK	BLACK
W1-4R	36"	36"					FLUOR-ESCENT ORANGE	BLACK	BLACK
W5-1	36"	36"	ROAD NARROWS				FLUOR-ESCENT ORANGE	BLACK	BLACK
W8-9	36"	36"	LOW SHOULDER				FLUOR-ESCENT ORANGE	BLACK	BLACK
W11-2	30"	30"					YELLOW	BLACK	BLACK
W16-7p(L)	24"	12"					YELLOW	BLACK	BLACK
W16-7p(R)	24"	12"					YELLOW	BLACK	BLACK
W16-9p	24"	12"	AHEAD				YELLOW	BLACK	BLACK
W20-1c	36"	36"	ROAD WORK AHEAD				FLUOR-ESCENT ORANGE	BLACK	BLACK
W20-4c	36"	36"	ONE LANE ROAD AHEAD				FLUOR-ESCENT ORANGE	BLACK	BLACK
MA-W20-7b	36"	36"	POLICE OFFICER AHEAD	AS PER MASSDOT STANDARD			FLUOR-ESCENT ORANGE	BLACK	BLACK
MA-W21-5c	36"	36"	BIKE LANE CLOSED AHEAD	AS PER MASSDOT STANDARD			FLUOR-ESCENT ORANGE	BLACK	BLACK

TEMPORARY TRAFFIC CONTROL SIGN SUMMARY

IDENTIFICATION NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS (INCHES)			COLOR		
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR.	BACK-GROUND	LEGEND	BORDER
M4-9bL	30"	24"	DETOUR ←	SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION"; AS AMENDED			FLUOR-ESCENT ORANGE	BLACK	BLACK
M4-9bR	30"	24"	DETOUR →				FLUOR-ESCENT ORANGE	BLACK	BLACK
M4-9bSL	30"	24"	DETOUR ↖				FLUOR-ESCENT ORANGE	BLACK	BLACK
M4-9bSR	30"	24"	DETOUR ↗				FLUOR-ESCENT ORANGE	BLACK	BLACK

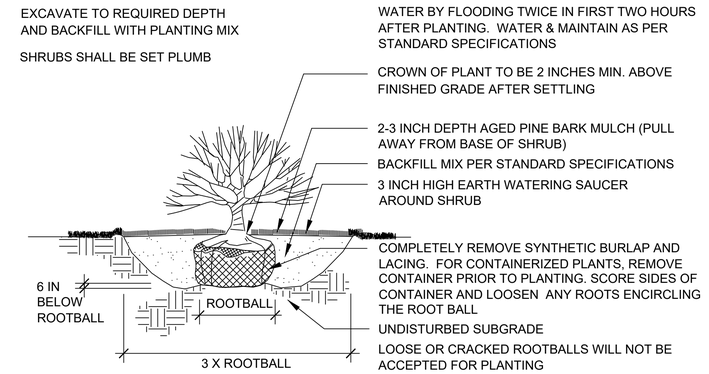
NOTES:
1. HIGH INTENSITY REFLECTIVE SHEETING SHALL BE USED FOR ALL SIGNS. SEE FHWA "STANDARD HIGHWAY SIGNS, 2004 EDITION" FOR TEXT DIMENSIONS, AS AMENDED; THE 1977 MASSHIGHWAY DEPARTMENT CONSTRUCTION AND TRAFFIC STANDARD DETAILS, AS AMENDED, FOR SIGNS AND SUPPORTS; THE MASSHIGHWAY DEPARTMENT SIGN LISTINGS 1993 EDITION, AS AMENDED; THE 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR MOUNTING REQUIREMENTS; AND THE 2017 MassDOT STANDARD SIGNS BOOK, AS AMENDED.
2. ALL SIGNS SHOWN GRAPHICALLY FOR INFORMATION ONLY. SIGN VENDOR SHALL FABRICATE ALL SIGNS IN ACCORDANCE WITH THE APPLICABLE STANDARDS.



NOTES
1. POSTS SHALL BE PLACED 8'-0" ON CENTER.
2. THE FACE OF RAIL SHALL BE SET OFF THE EDGE OF SHARED USE PATH PAVEMENT, AS SHOWN ON THE PLANS, AND AS DIRECTED BY THE ENGINEER.
3. ALL HARDWARE SHALL BE GALVANIZED.
4. ALTERNATE JOINTS IN RAILING BETWEEN POSTS
5. CONTRACTOR SHALL SET POST IN 4,000 PSI, 1-1/2IN, 565 CEMENT CONCRETE FOR ALL POSTS UNABLE TO BE SET AT REQUIRED DEPTH.
6. BOLTS SHALL BE SIZED AND INSTALLED SO THAT THEY EXTEND NO MORE THAN ONE ADDITIONAL NUT LENGTH BEYOND THE SECURED SURFACE.

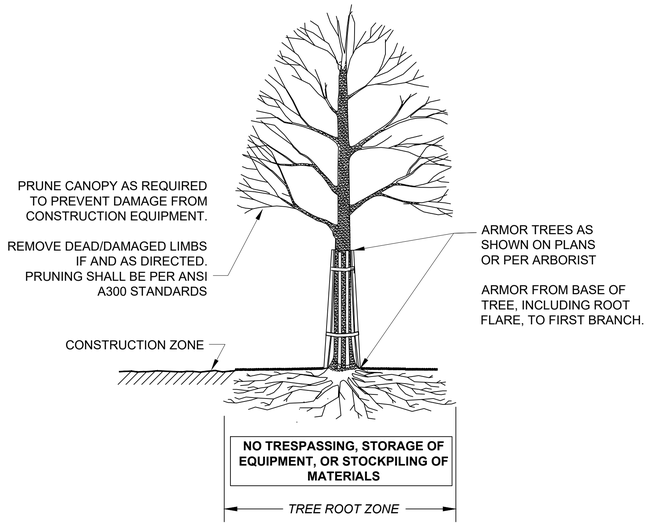
WOOD RAILING DETAIL

SCALE: NTS



SHRUB PLANTING

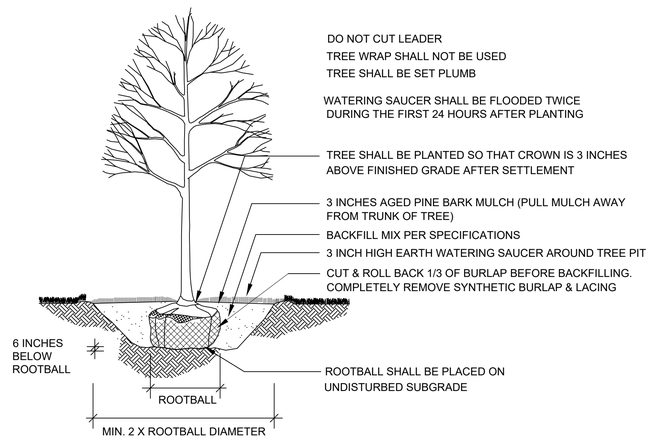
SCALE: NTS



SECTION - TRUNK ARMORING & PRUNING

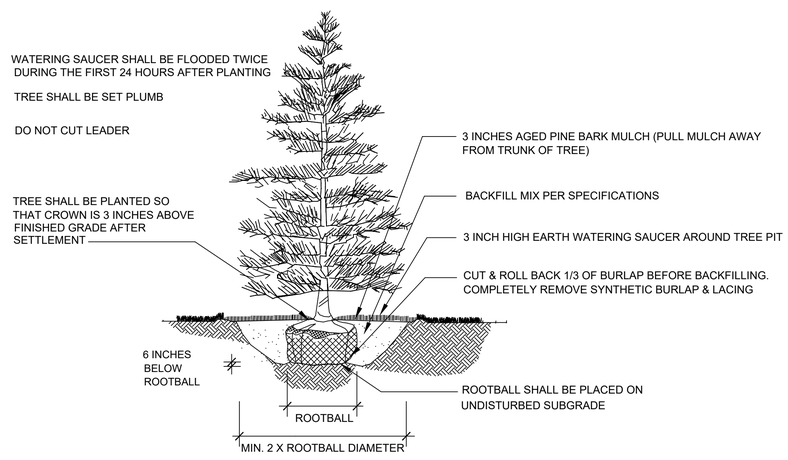
TREE PROTECTION - TRUNK

SCALE: NTS



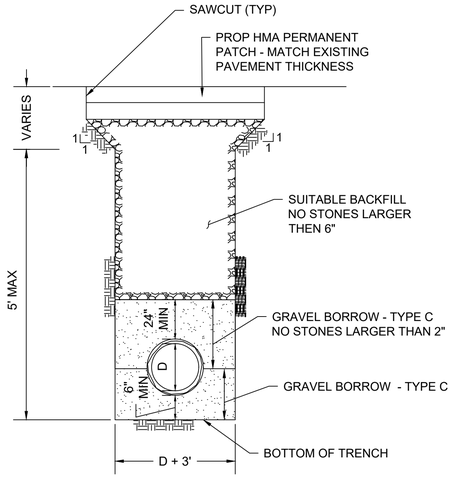
DECIDUOUS TREE PLANTING

SCALE: NTS



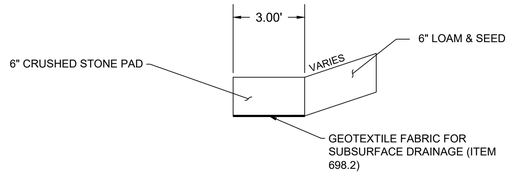
EVERGREEN TREE PLANTING

SCALE: NTS



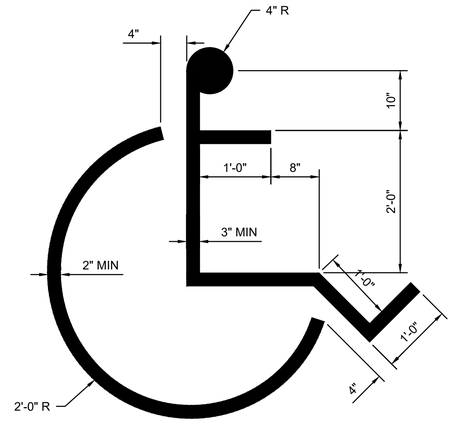
PERMANENT TRENCH DETAIL

SCALE: NTS



CRUSHED STONE PAD DETAIL

SCALE: NTS

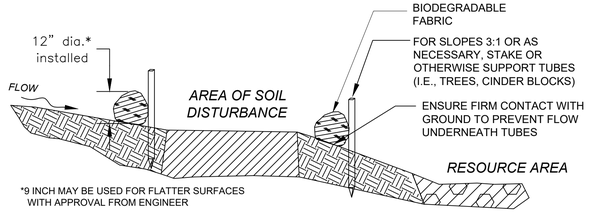


NOTE:
SYMBOL SHALL BE CENTERED
IN THE PARKING STALL

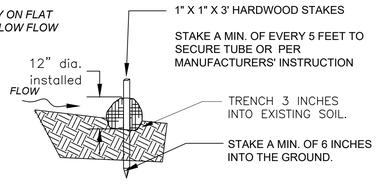
HANDICAPPED PARKING STALL SYMBOL

SCALE: N.T.S. DWG: PM-02 DATE: MARCH 2013

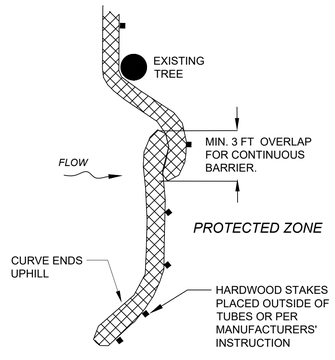
COMPOST FILTER TUBE



12 INCH STRAW WATTLE



SECTION



PLACE TUBE ALONG CONTOURS AND PERPENDICULAR TO FLOW.

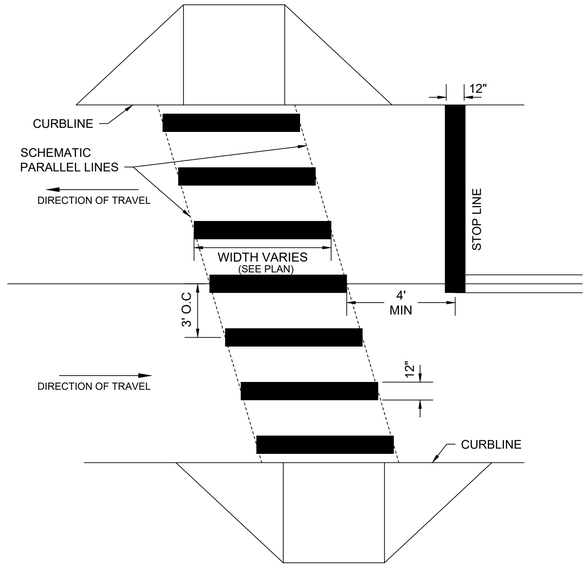
ADJUST LOCATION AS REQUIRED FOR OPTIMUM EFFECTIVENESS. DO NOT INSTALL IN WATERWAYS.

PLACE STAKES AS NEEDED TO SECURE TUBES IN PLACE.

PLAN VIEW

SEDIMENT CONTROL BARRIER DETAIL

SCALE: NTS

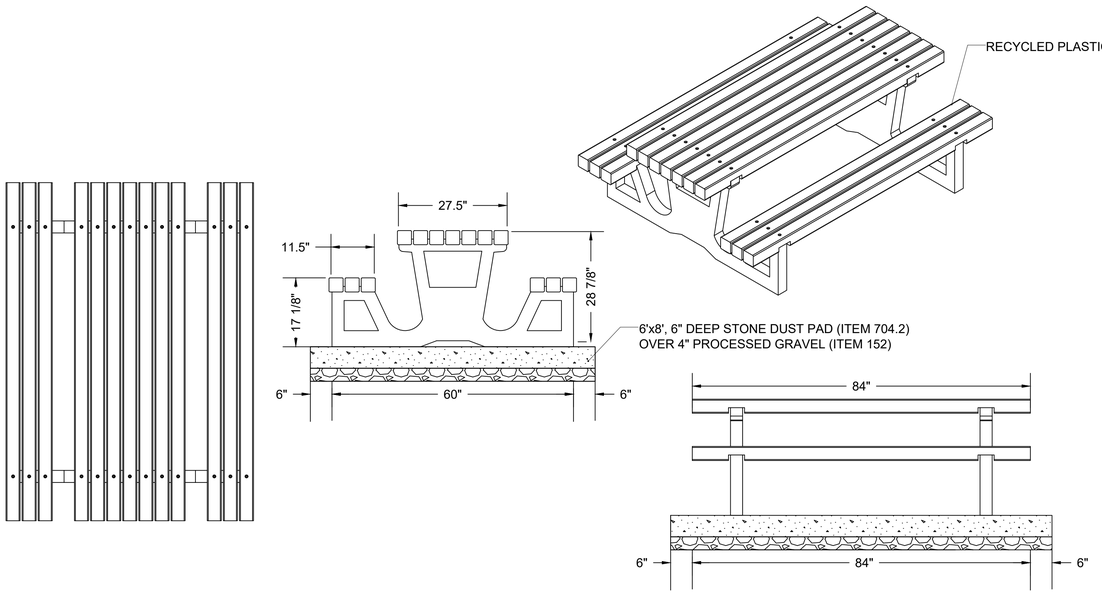


NOTES:

1. ALL EXISTING CROSSWALK MARKINGS SHALL BE FULLY ERADICATED BY APPROVED METHOD PRIOR TO THE APPLICATION OF PROPOSED MARKINGS.
2. ALL 12" THERMOPLASTIC LINES SHALL BE APPLIED IN ONE APPLICATION, NO COMBINATION OF LINES (TWO - 6" LINES) WILL BE ACCEPTED.
3. LAYOUT OF CROSSWALKS SHALL BE ORIENTATED IN THE DIRECTION OF TRAVEL AND LOCATED OUTSIDE OF THE WHEEL PATH OF VEHICLES. LAYOUT SHALL BE APPROVED BY SALEM DPW PRIOR TO APPLICATION OF THERMOPLASTIC.
4. ALL CROSSWALKS INSTALLED SHALL CONFORM TO THE RELEVANT PROVISIONS OF THE MASSACHUSETTS HIGHWAY DEPARTMENT "STANDARD SPECIFICATION FOR HIGHWAY AND BRIDGES" DATED 1988, SECTION 860 FOR REFLECTORIZED LINE (THERMO-PLASTIC) & MATERIAL M7.01.20, LATEST REVISIONS.

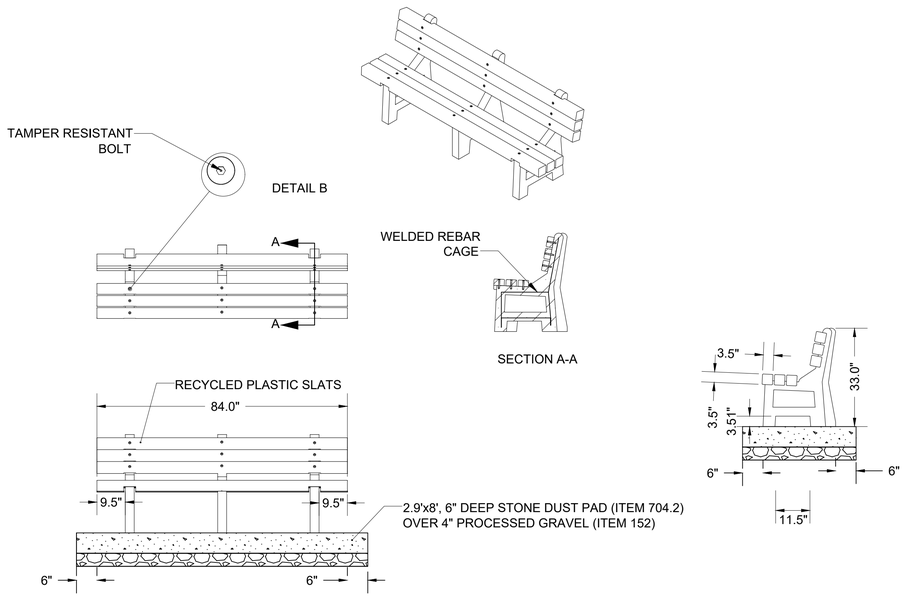
CONTINENTAL-STYLE CROSSWALK - 12" WIDE LINES

SCALE: N.T.S.



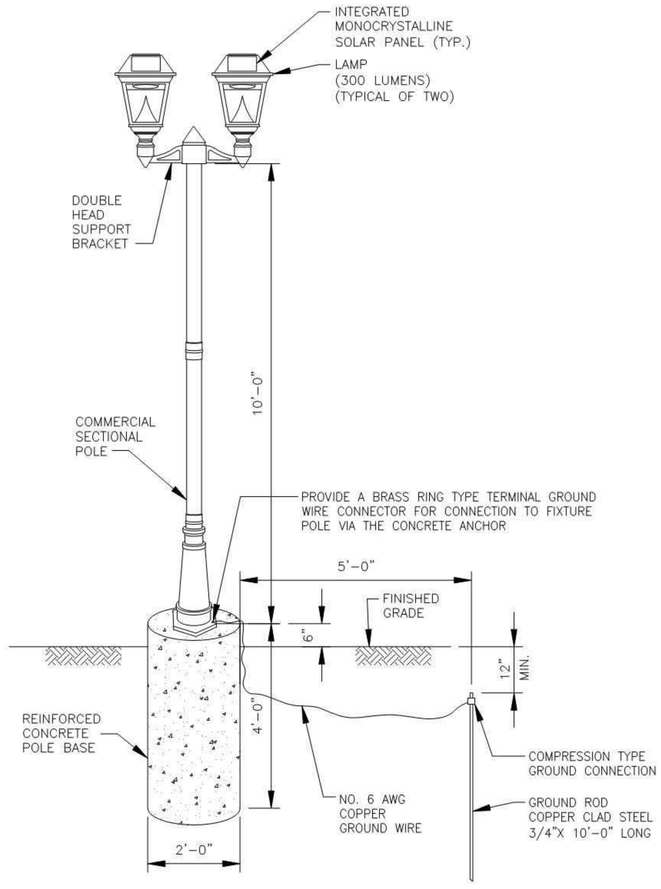
PICNIC TABLE

SCALE: NTS



PARK BENCH

SCALE: NTS



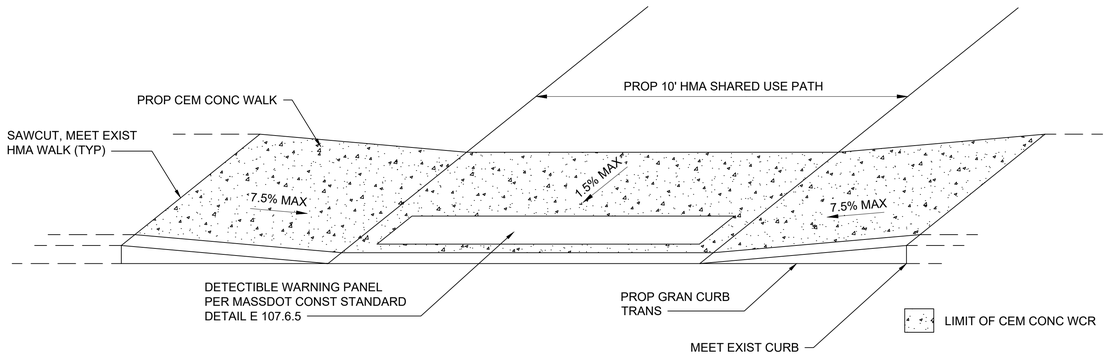
AREA LIGHTING (ITEM 823.211)

SCALE: N.T.S.

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

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

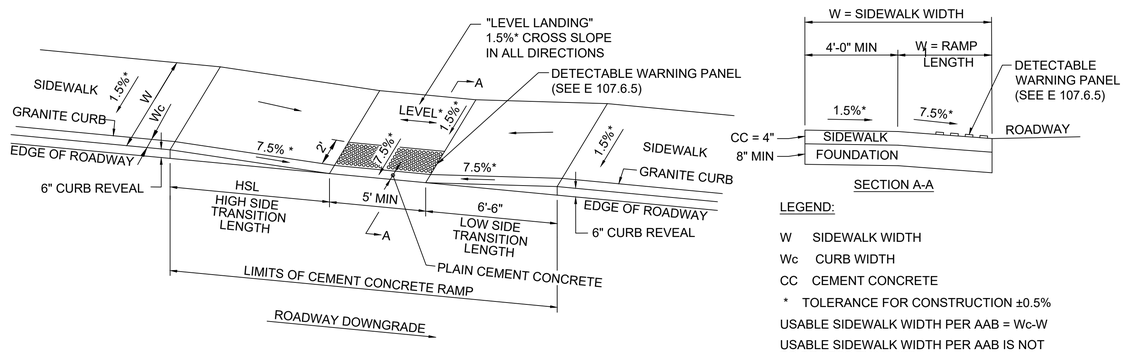
CONTRACTOR SHALL VERIFY ALL TRANSITION LENGTHS BASED ON CHART ABOVE TO MEET AAB/ADA REQUIREMENTS AS SHOWN ON DETAILS



*0.5% CONSTRUCTION TOLERANCE

SHARED USE PATH CURB CUT DETAIL

SCALE: NTS



LEGEND:

W SIDEWALK WIDTH

Wc CURB WIDTH

CC CEMENT CONCRETE

* TOLERANCE FOR CONSTRUCTION ±0.5%

USABLE SIDEWALK WIDTH PER AAB = Wc-W

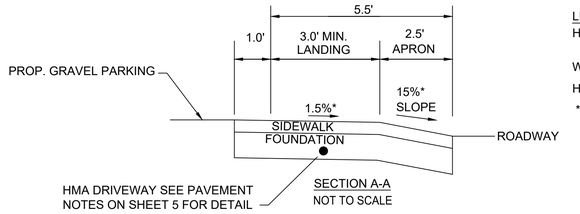
USABLE SIDEWALK WIDTH PER AAB IS NOT TO BE LESS THAN 4'0"

RAMP LENGTH, W1 = W - 4'0" MIN

WHEELCHAIR RAMPS WILL BE FITTED WITH DETECTABLE WARNING PANELS (SEE E 107.6.5)

WHEELCHAIR RAMPS ON LESS THAN 12'-4" SIDEWALK

SCALE: NTS



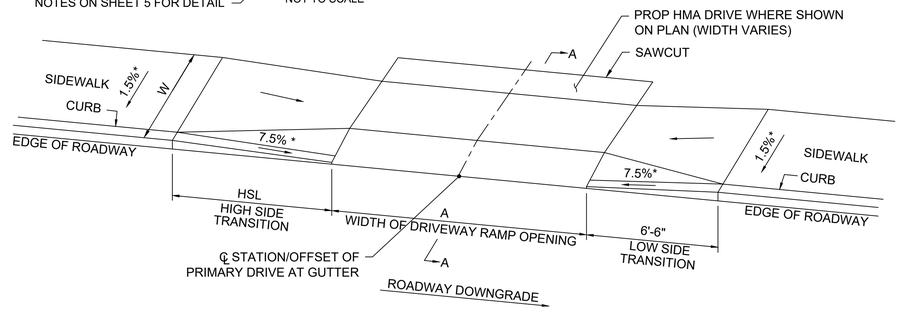
LEGEND:

HSL HIGH SIDE FRONT TRANSITION LENGTH (SEE E 107.9.0)

W SIDEWALK WIDTH

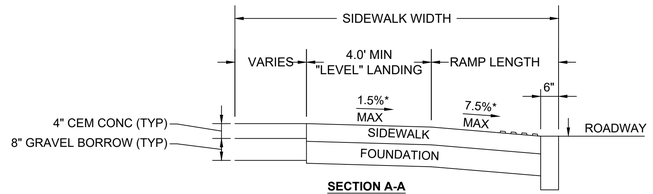
HMA HOT MIX ASPHALT

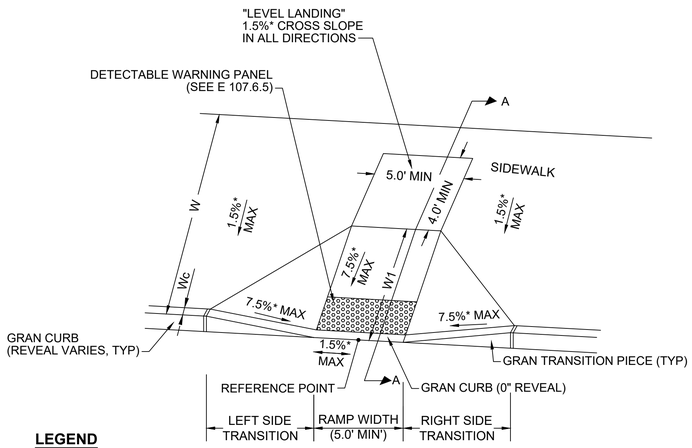
* TOLERANCE FOR CONSTRUCTION ±0.5%



SIDEWALK THROUGH DRIVEWAY WITHOUT CURB RETURNS

SCALE: NTS





LEGEND

DETECTABLE WARNING PANEL

*TOLERANCE FOR CONSTRUCTION ±0.5%

LEGEND:

W SIDEWALK WIDTH

Wc CURB WIDTH

W1 PERPENDICULAR RAMP LENGTH

CC CEMENT CONCRETE

* TOLERANCE FOR CONSTRUCTION ±0.5%

USABLE SIDEWALK WIDTH PER AAB = Wc-W

USABLE SIDEWALK WIDTH PER AAB IS NOT TO BE LESS THAN 4'0"

RAMP LENGTH, W1 = W - 4'0" MIN

WHEELCHAIR RAMPS WILL BE FITTED WITH DETECTABLE WARNING PANELS (SEE E 107.6.5)

WHEELCHAIR RAMPS ON GREATER THAN 12'-4" SIDEWALK

SCALE: NTS

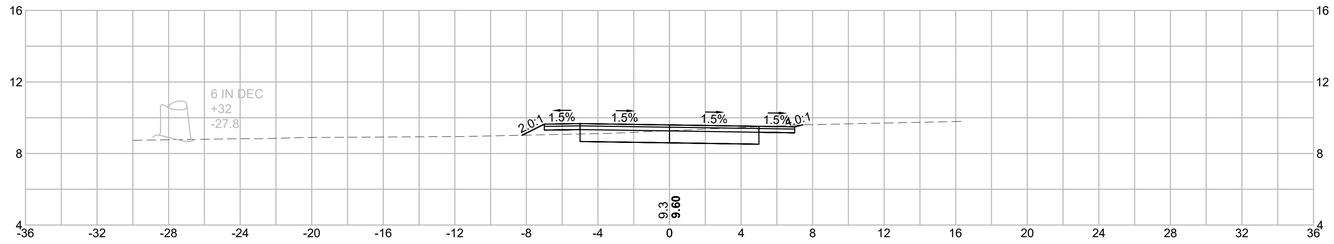
13150.14_DET.DWG Plotted on 12-Nov-2019 3:46 PM

SALEM
SALEM HARBOR CONNECTOR PATH

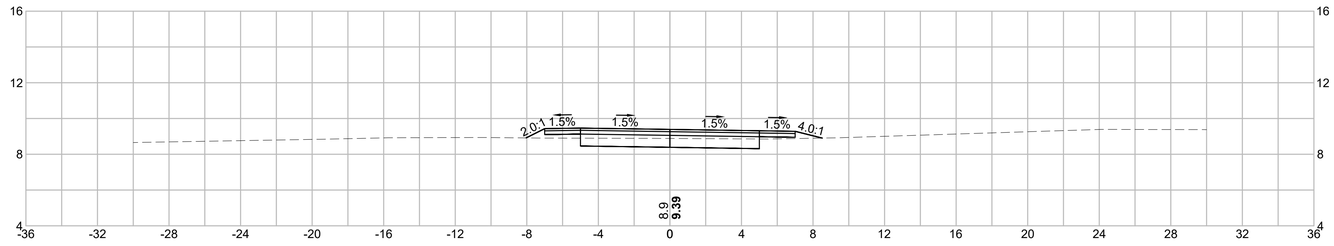
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	----	28	40
PROJECT FILE NO.	13150.14		

CROSS SECTIONS

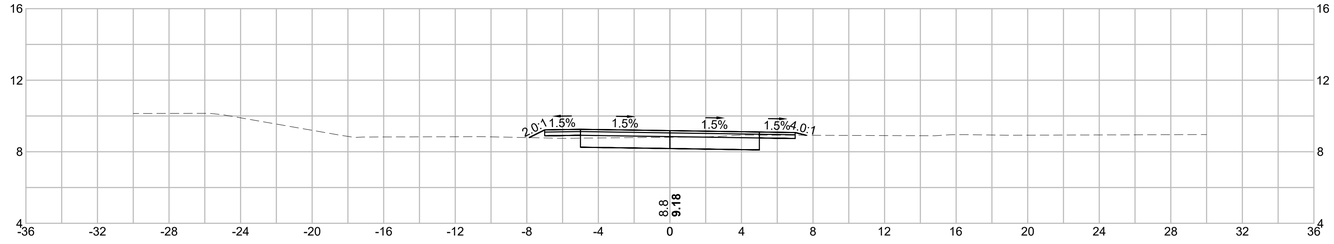
11+50



11+00



10+50



HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

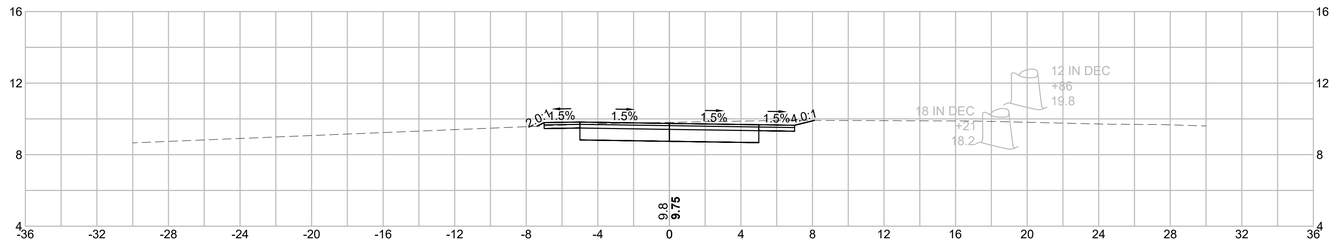
SALEM
SALEM HARBOR CONNECTOR PATH

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	----	29	40
PROJECT FILE NO.	13150.14		

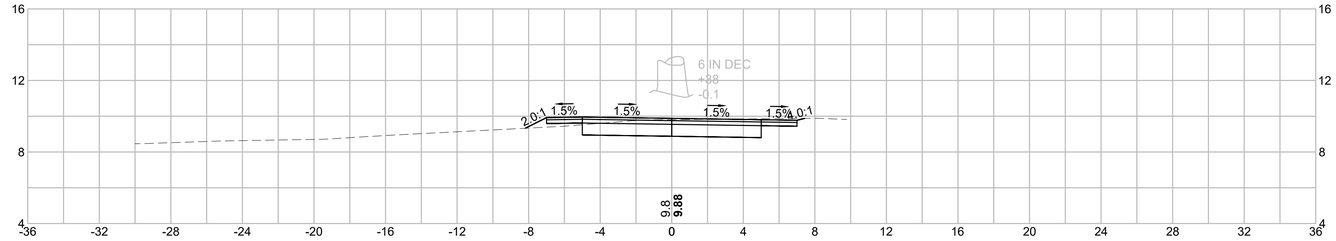
CROSS SECTIONS

13150.14_XSEC.DWG Plotted on 12-Nov-2019 3:47 PM

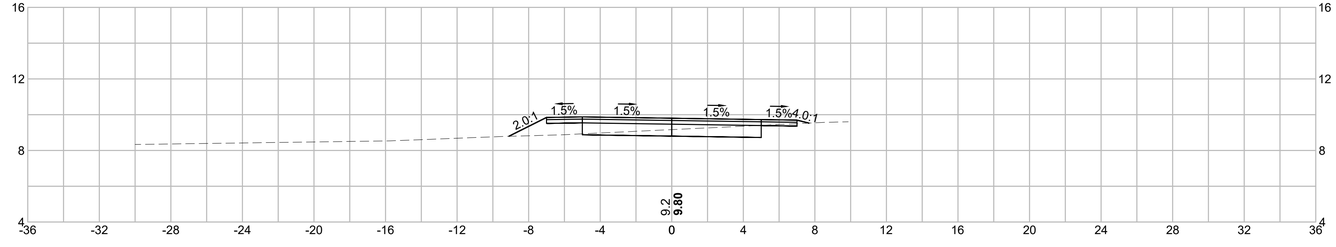
13+00



12+50



12+00



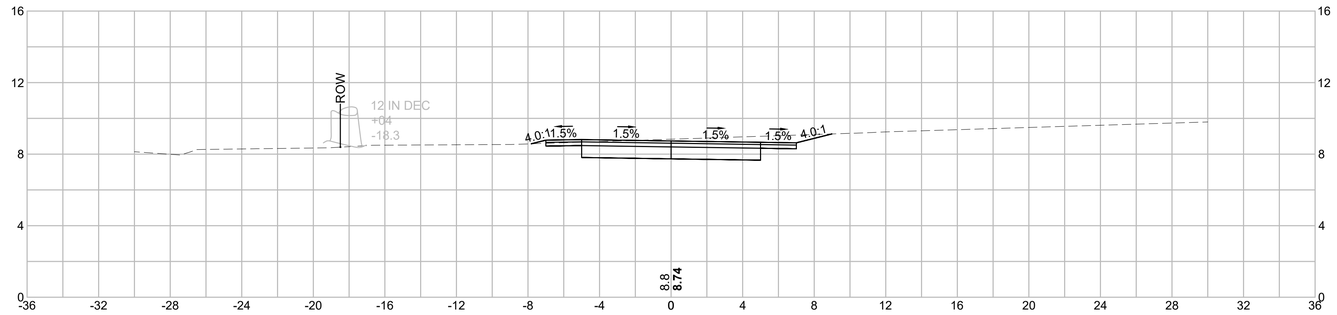
HOR. SCALE IN FEET
4 0 4 8
VER. SCALE IN FEET
4 0 4 8

SALEM
SALEM HARBOR CONNECTOR PATH

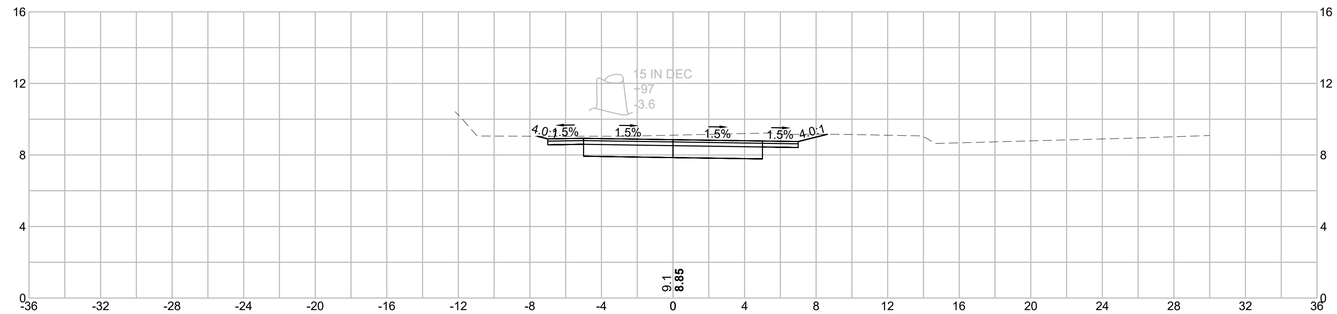
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	----	30	40
PROJECT FILE NO.	13150.14		

CROSS SECTIONS

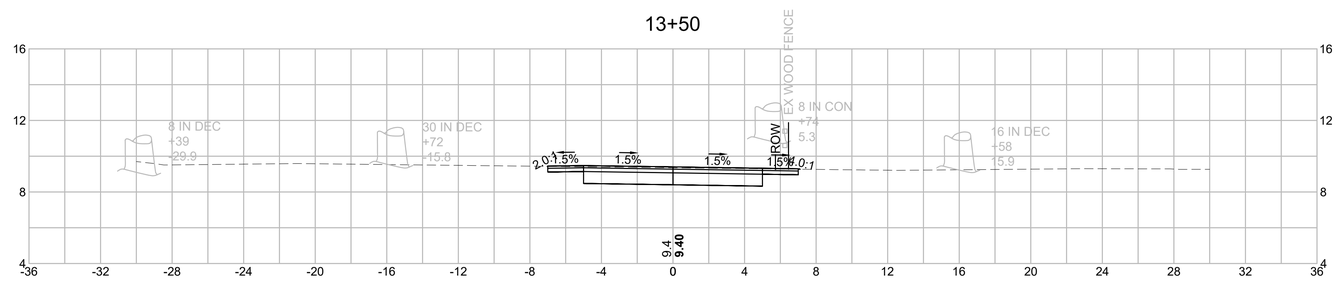
15+00



14+00



13+50



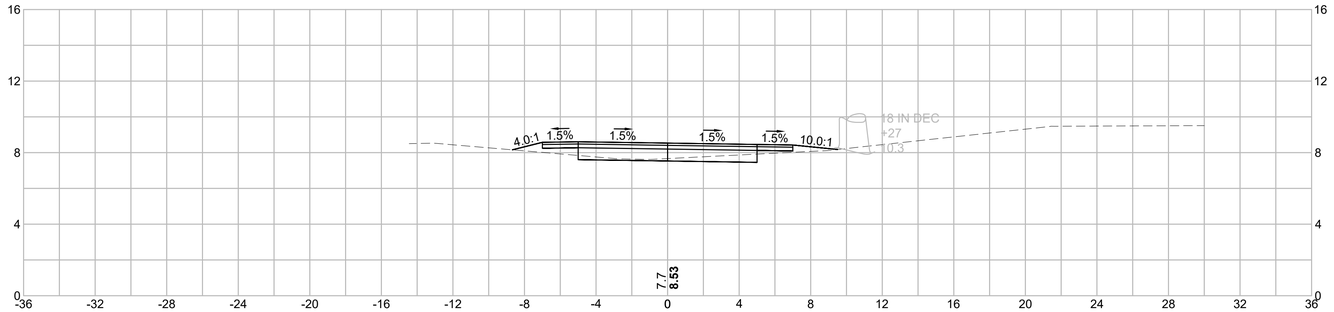
HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

SALEM
SALEM HARBOR CONNECTOR PATH

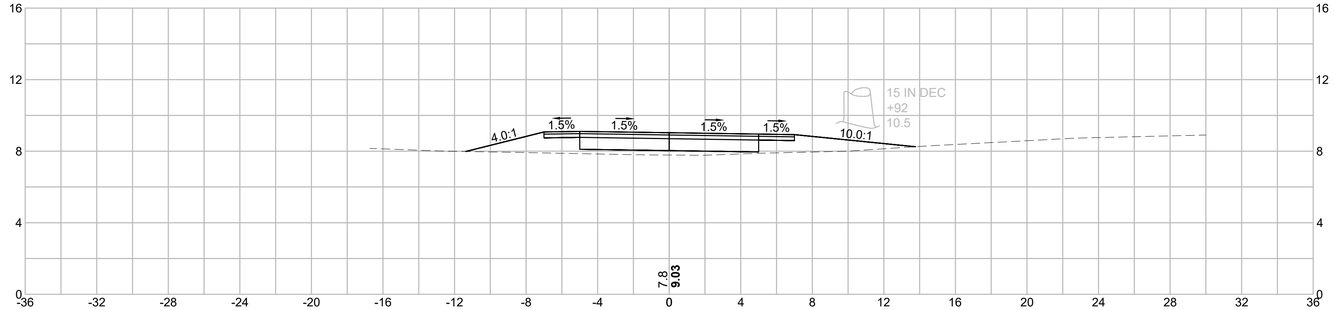
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	----	31	40
PROJECT FILE NO.	13150.14		

CROSS SECTIONS

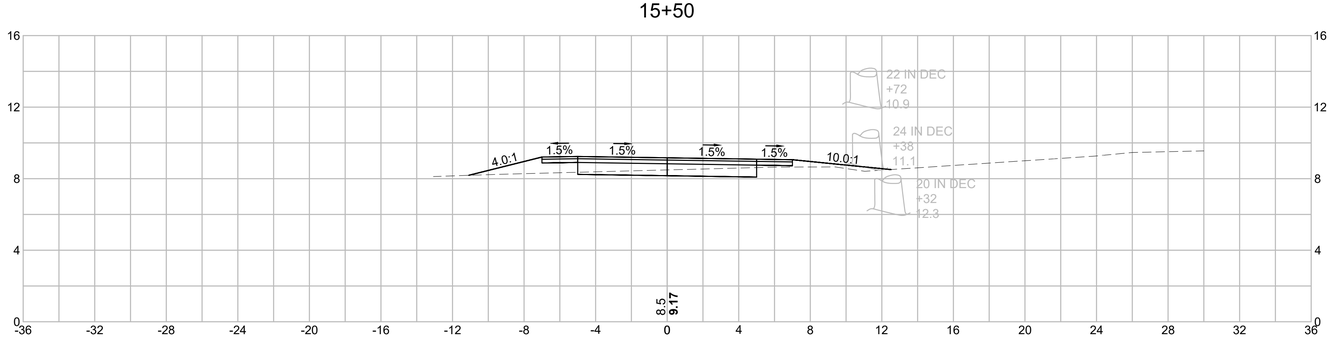
16+50



16+00



15+50



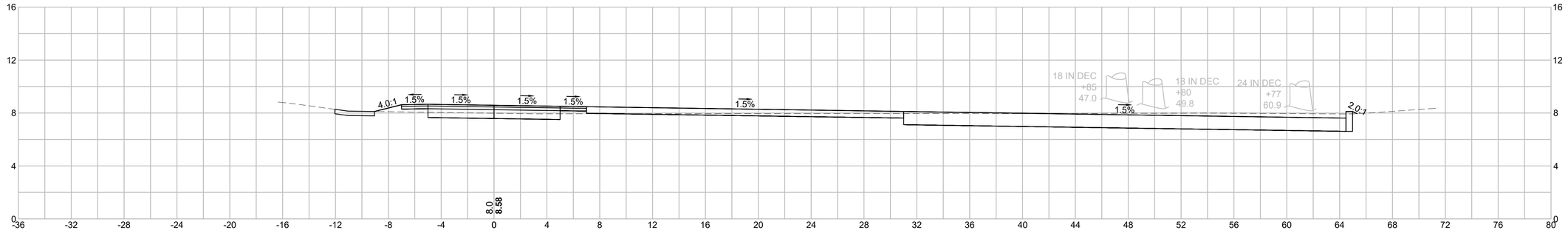
HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

SALEM
SALEM HARBOR CONNECTOR PATH

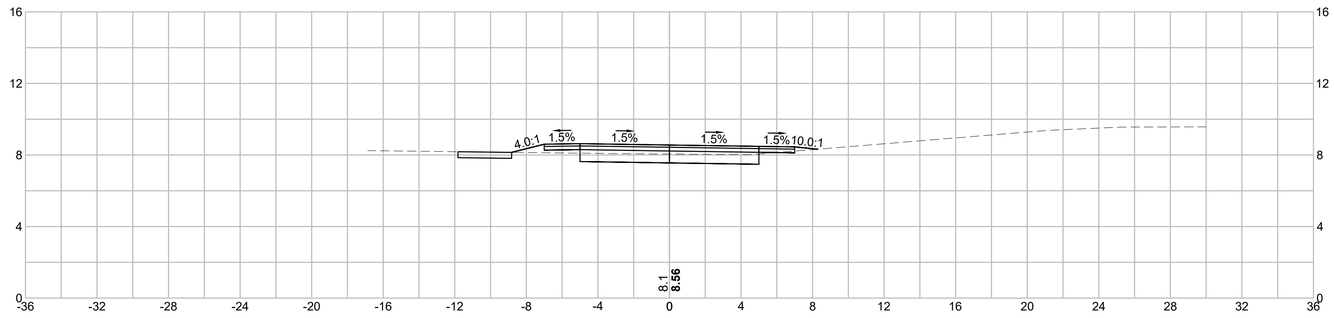
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	----	32	40
PROJECT FILE NO.	13150.14		

CROSS SECTIONS

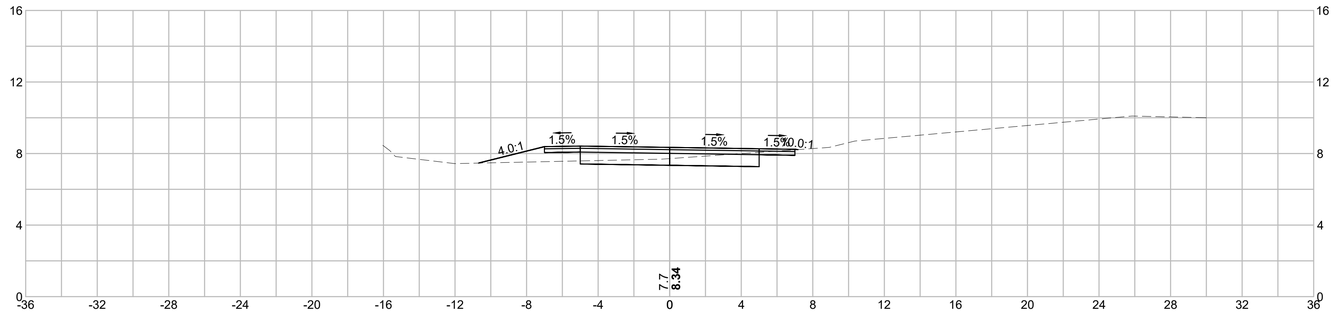
18+00



17+50



17+00



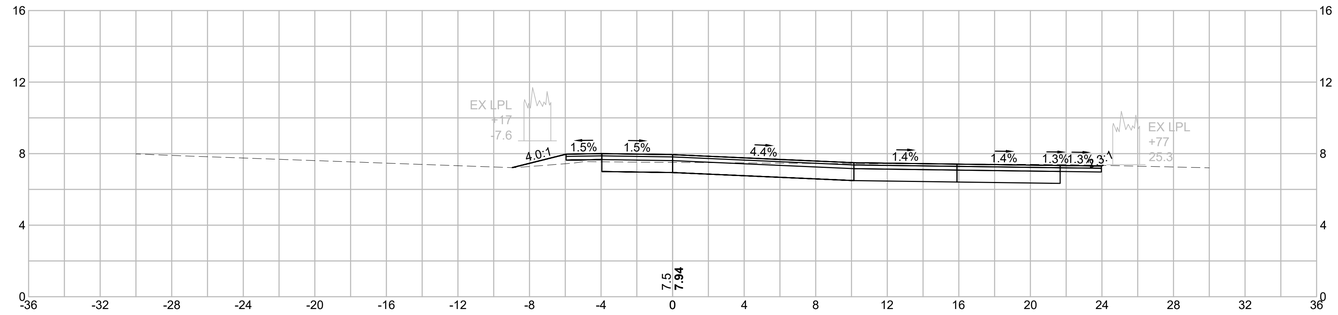
HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

SALEM
SALEM HARBOR CONNECTOR PATH

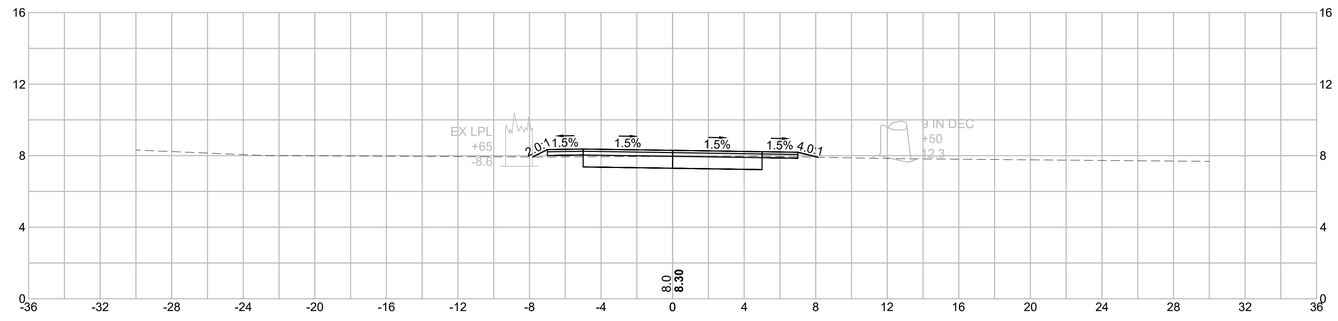
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	----	33	40
PROJECT FILE NO.	13150.14		

CROSS SECTIONS

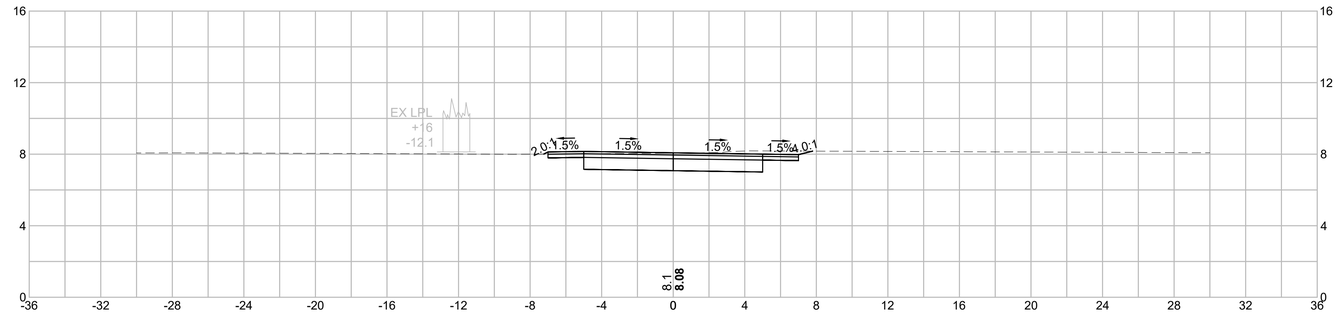
20+00



19+50



19+00



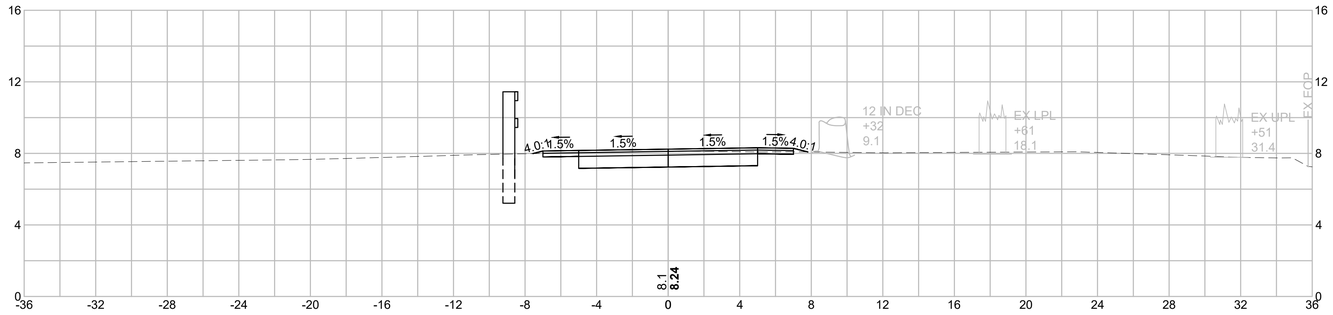
HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

SALEM
SALEM HARBOR CONNECTOR PATH

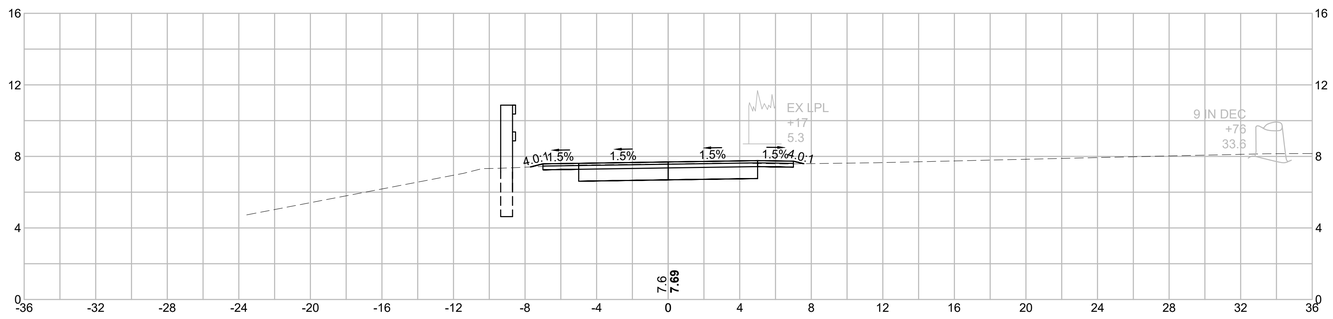
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	----	34	40
PROJECT FILE NO.	13150.14		

CROSS SECTIONS

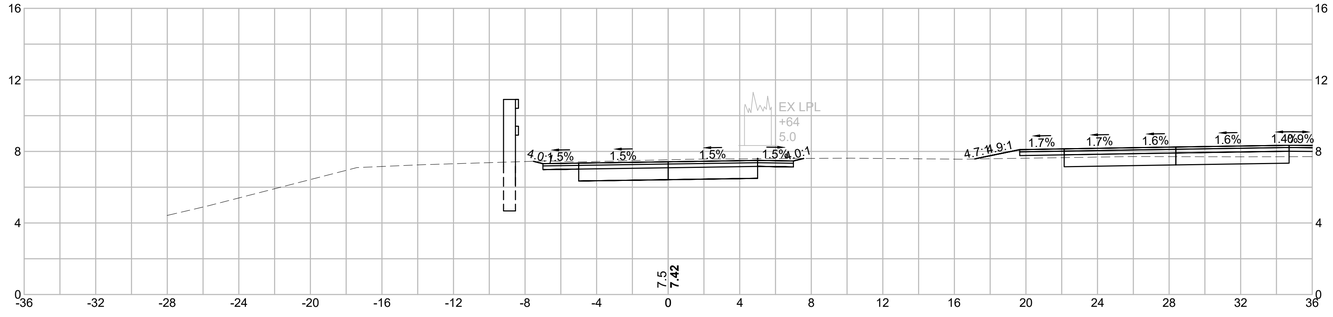
101+50



101+00



100+50



HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

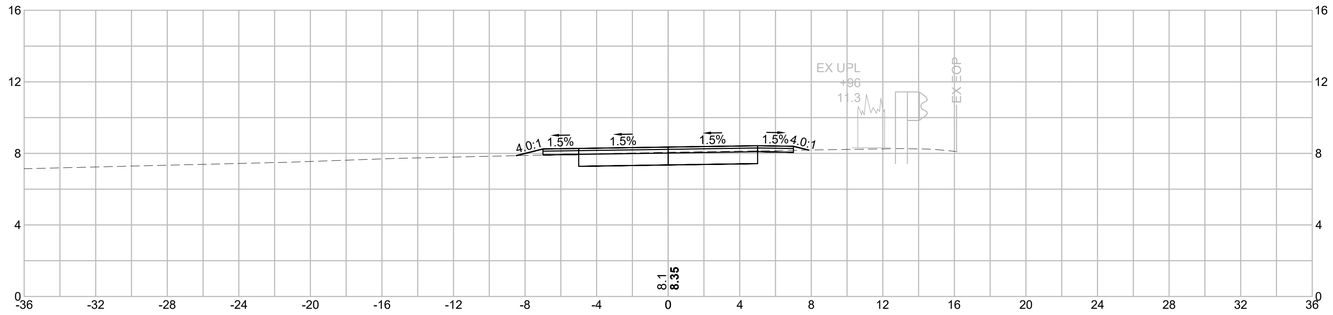
SALEM
SALEM HARBOR CONNECTOR PATH

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	----	35	40
PROJECT FILE NO.	13150.14		

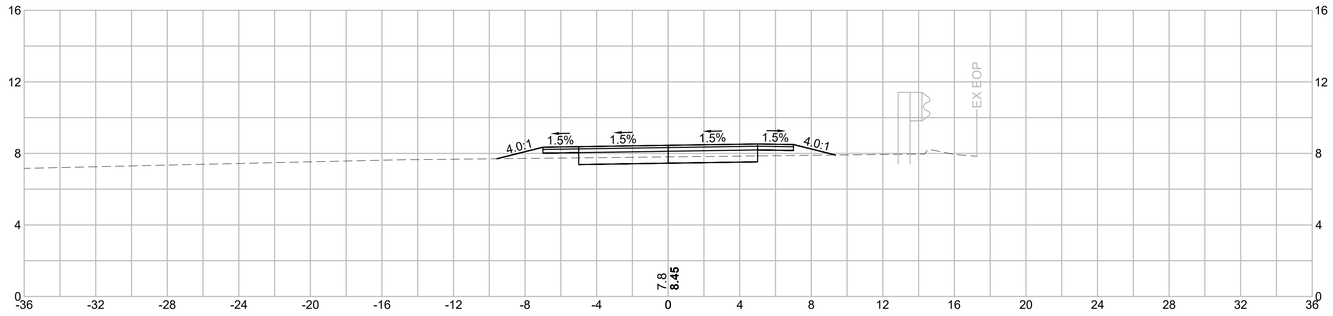
CROSS SECTIONS

13150.14_XSEC.DWG Plotted on 12-Nov-2019 3:48 PM

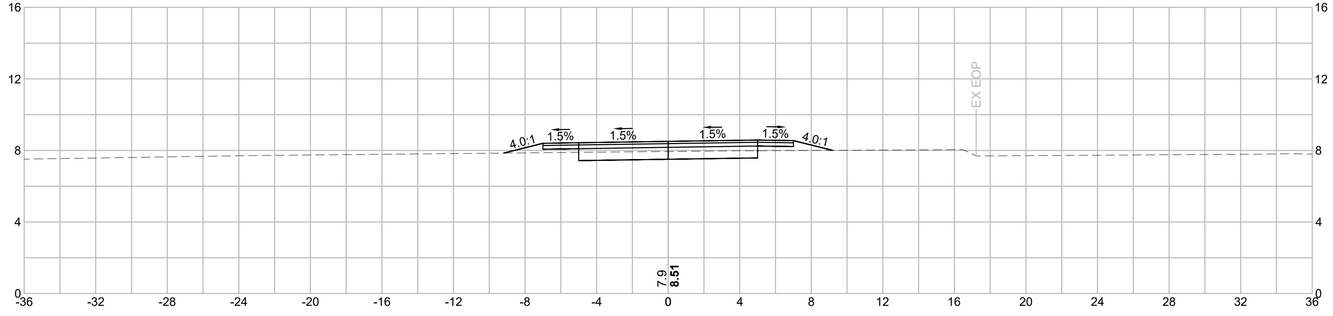
103+00



102+50



102+00



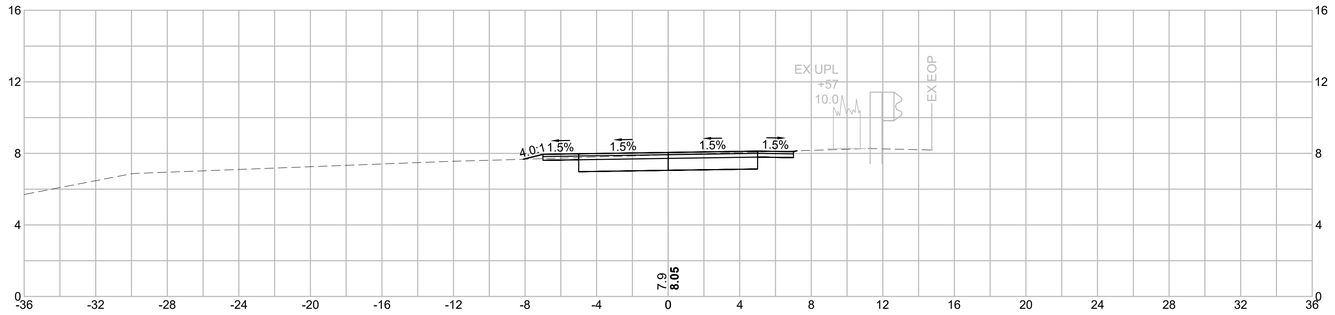
HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

SALEM
SALEM HARBOR CONNECTOR PATH

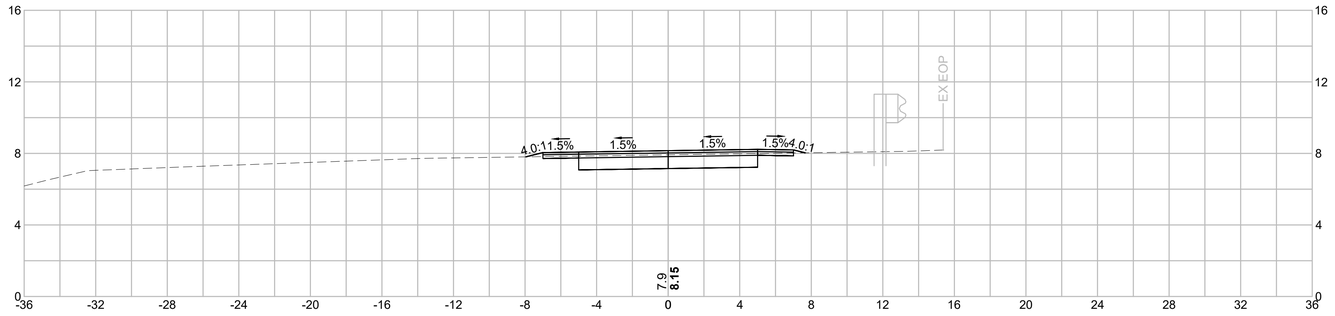
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	----	36	40
PROJECT FILE NO.	13150.14		

CROSS SECTIONS

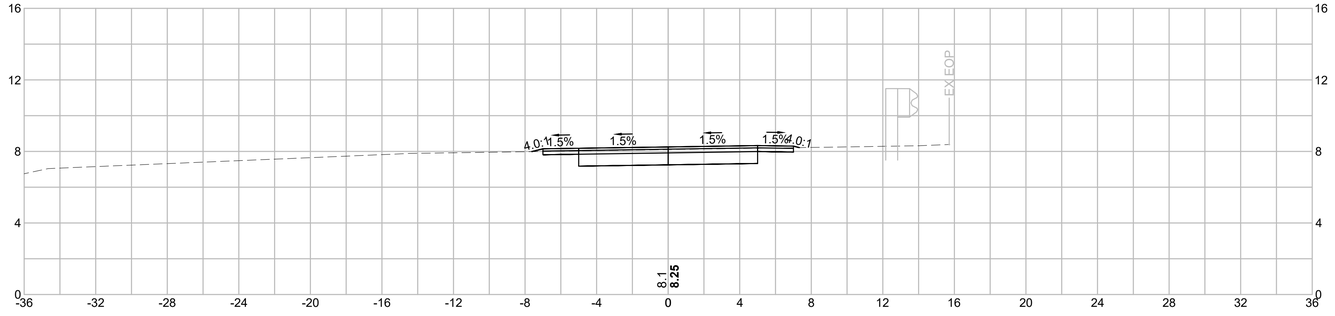
104+50



104+00



103+50



HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

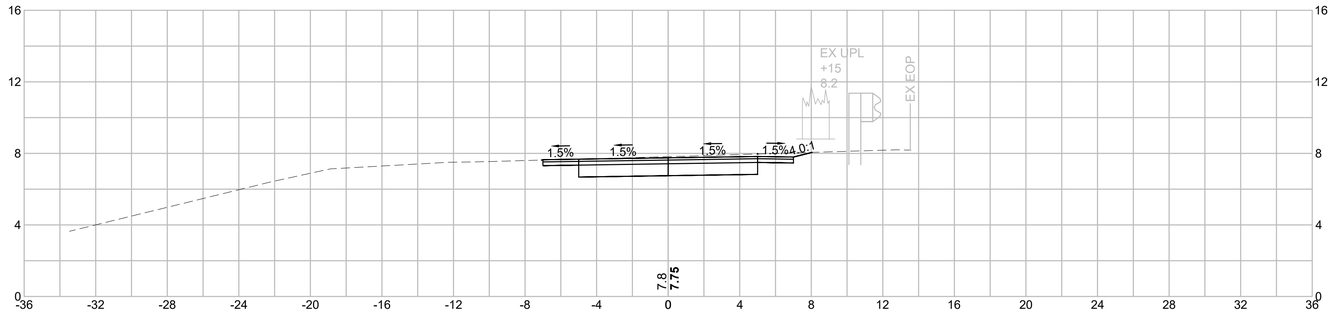
13150.14_XSEC.DWG Plotted on 12-Nov-2019 3:48 PM

SALEM
SALEM HARBOR CONNECTOR PATH

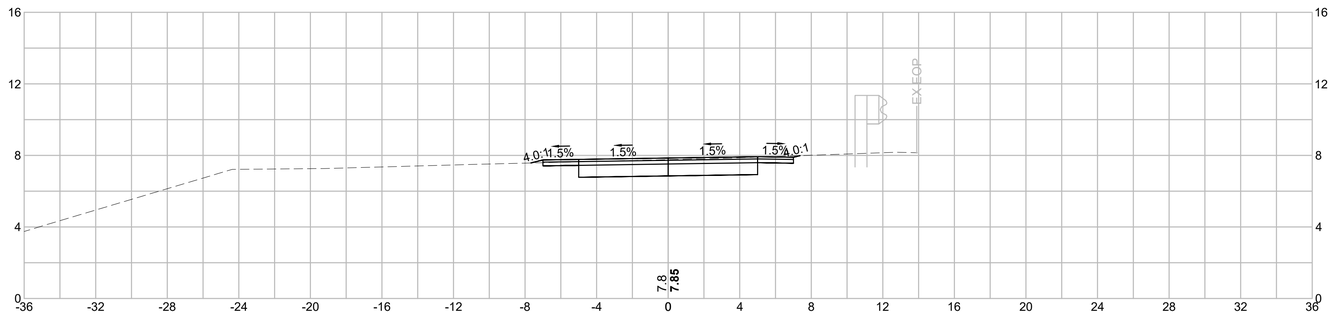
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	----	37	40
PROJECT FILE NO.	13150.14		

CROSS SECTIONS

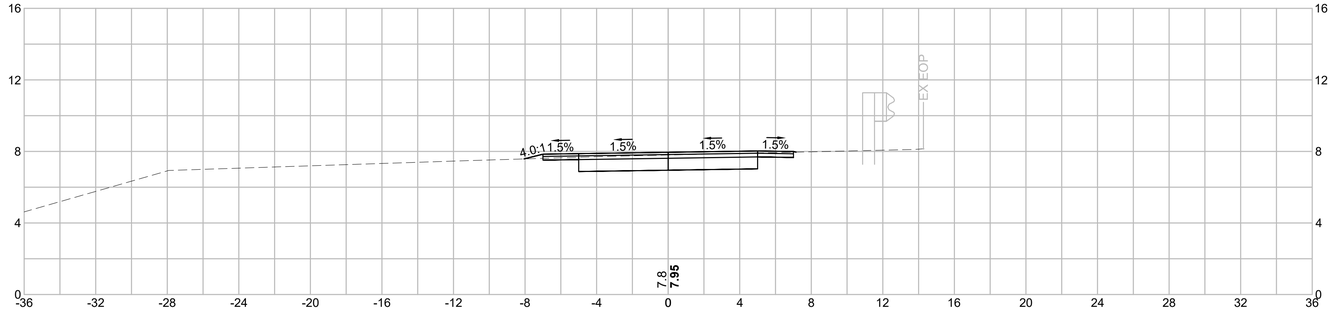
106+00



105+50



105+00



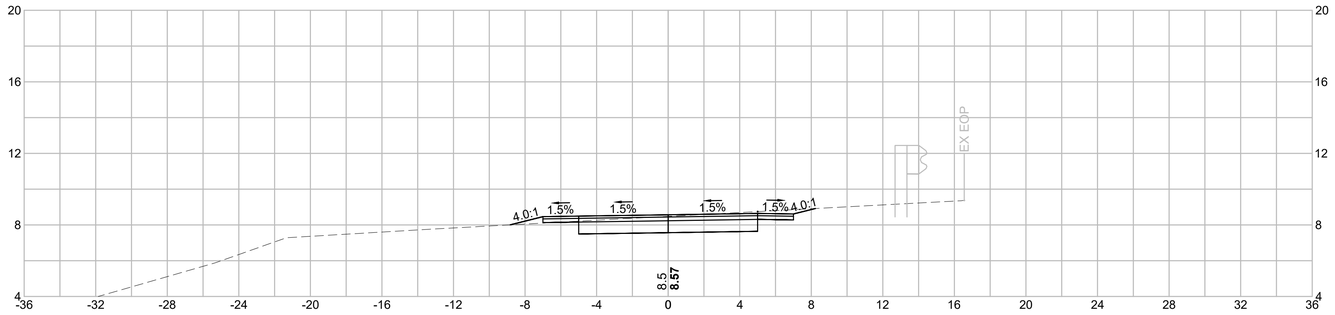
HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

SALEM
SALEM HARBOR CONNECTOR PATH

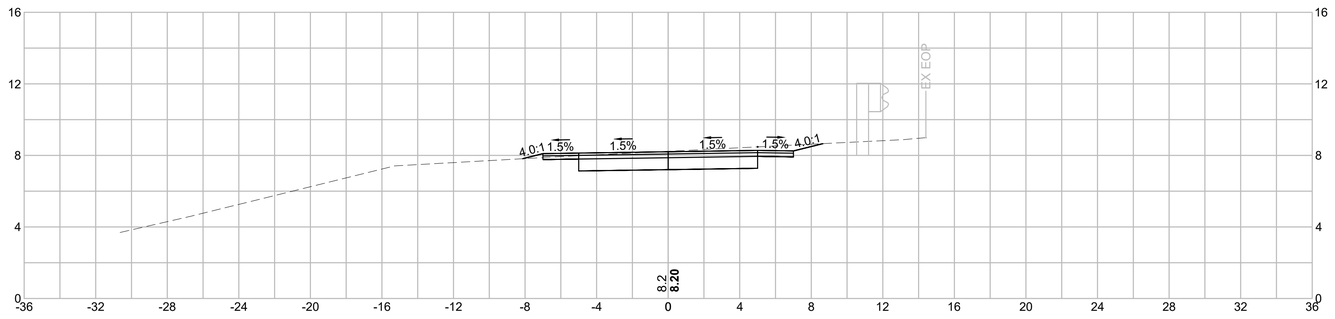
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	----	38	40
PROJECT FILE NO.	13150.14		

CROSS SECTIONS

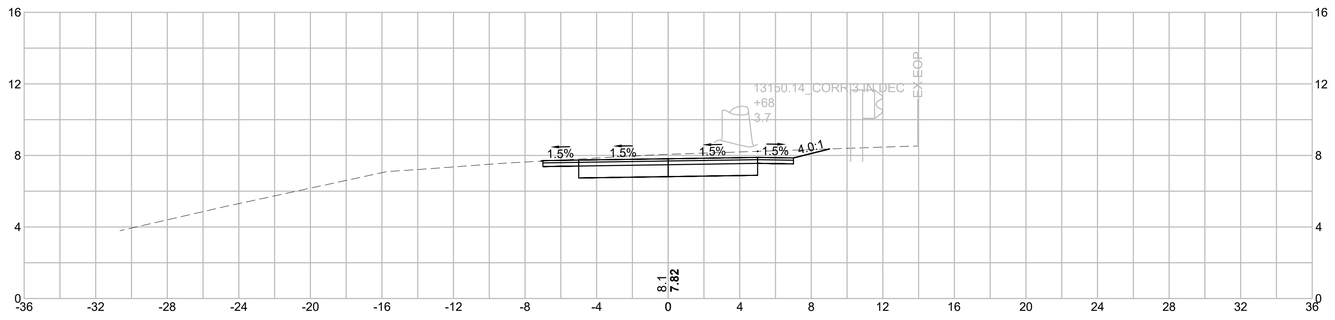
107+50



107+00



106+50



HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

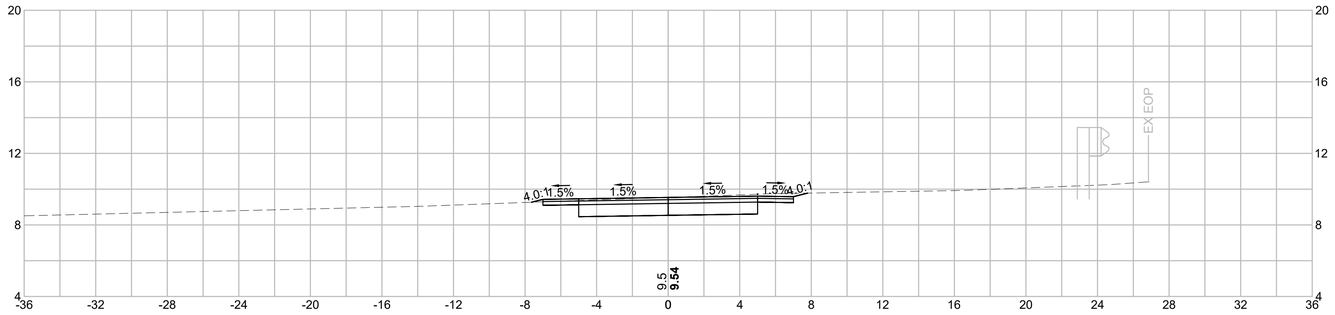
SALEM
SALEM HARBOR CONNECTOR PATH

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	----	39	40
PROJECT FILE NO.	13150.14		

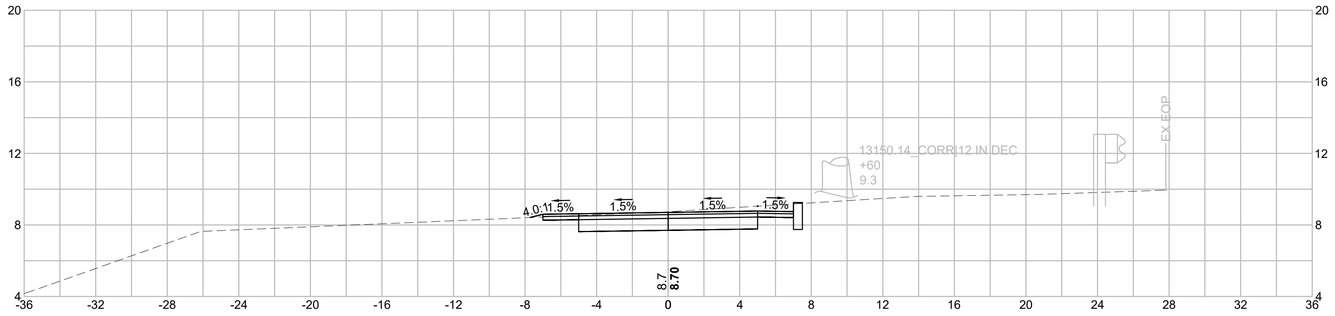
CROSS SECTIONS

13150.14_XSEC.DWG Plotted on 12-Nov-2019 3:48 PM

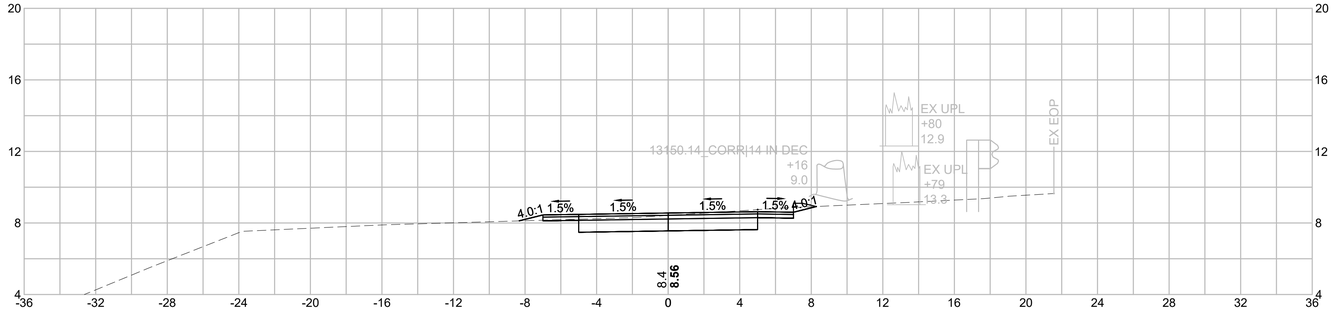
109+00



108+50



108+00



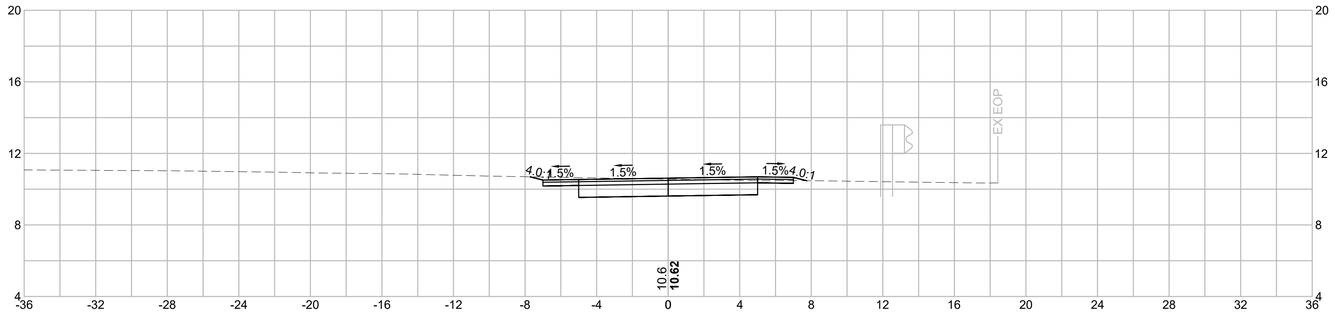
HOR. SCALE IN FEET
4 0 4 8
VER. SCALE IN FEET
4 0 4 8

SALEM
SALEM HARBOR CONNECTOR PATH

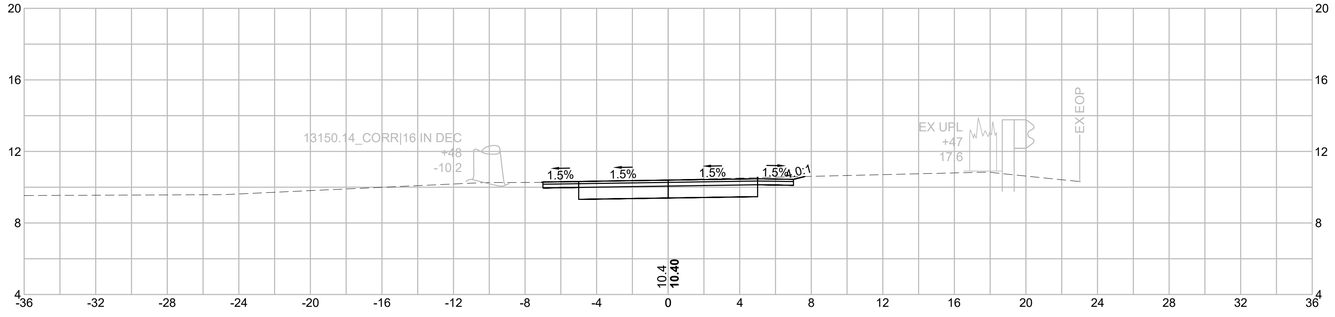
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	----	40	40
PROJECT FILE NO.	13150.14		

CROSS SECTIONS

110+00



109+50



HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET