# MASSACHUSETTS DEPARTMENT OF TRANSPORTATION HIGHWAY DIVISION

#### INDEX

#### SHEET NO. DESCRIPTION

- 1 TITLE SHEET & INDEX
- 2 LEGEND & ABBREVIATIONS
- 3 KEY PLAN
- 4 TYPICAL SECTIONS
- 5 7 CONSTRUCTION BASELINE TIES
- 8 10 CONSTRUCTION PLANS
- 11 13 CONSTRUCTION PROFILES
- 14 16 CURB TIE & GRADING PLANS
- 17 19 DRAINAGE & UTILITY PLANS
- 20 DRAINAGE DETAILS
- 21 23 TRAFFIC SIGN & PAVEMENT MARKING PLANS
- 24 TRAFFIC SIGN SUMMARY SHEET
- 25 TRAFFIC LEGEND ABBREVIATIONS & NOTES
- 26 29 TEMPORARY TRAFFIC CONTROL PLANS
- 30 33 CONSTRUCTION DETAILS
- 34 PEDESTRIAN CURB RAMP & DRIVEWAY DETAILS
- 35 50 CROSS SECTIONS

PLAN AND PROFILE OF

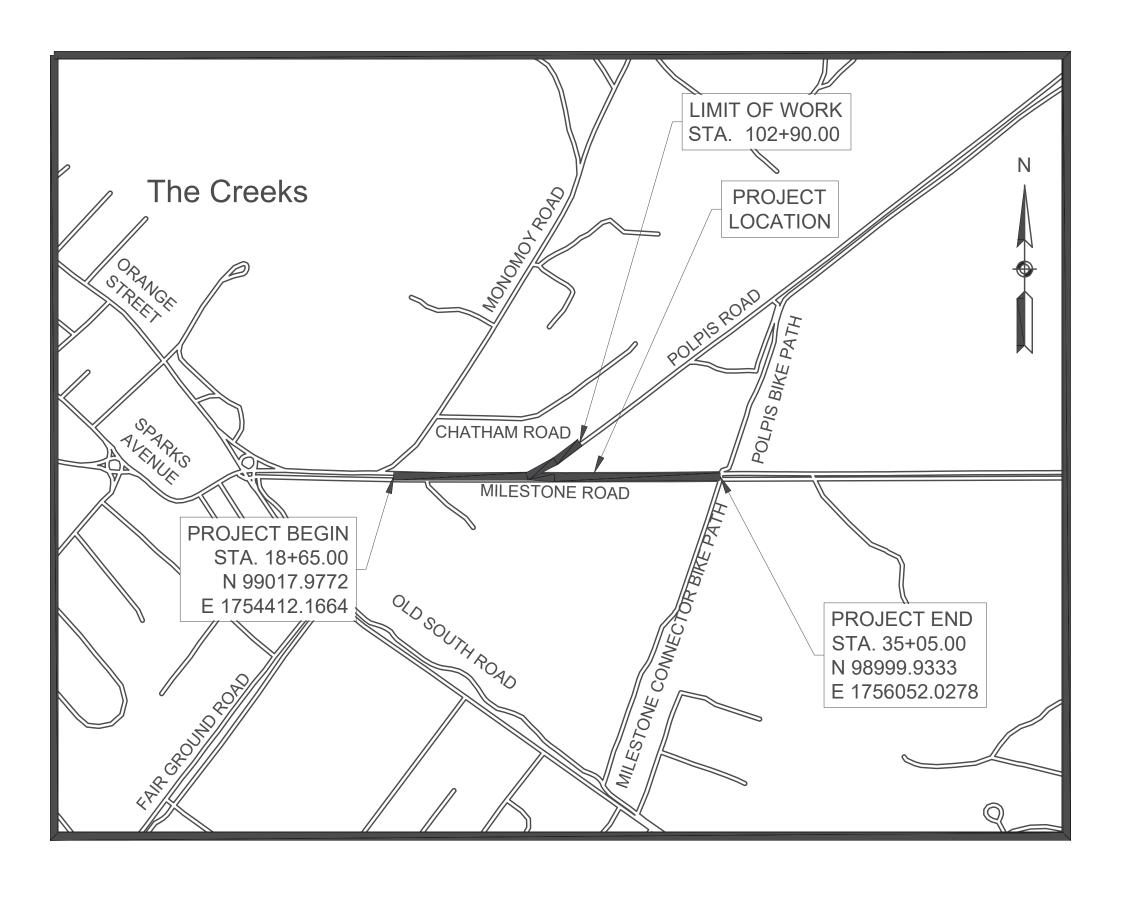
# MILESTONE ROAD AT POLPIS ROAD

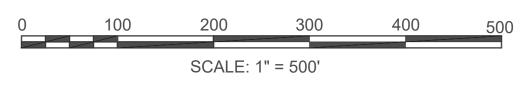
# IN THE TOWN OF

# NANTUCKET

# NANTUCKET COUNTY

FEDERAL AID PROJECT NO.: HSI(VUS)-003S(749)X





LENGTH OF PROJECT = 1,910.00 FEET = 0.36 MILES

NANTUCKET
MILESTONE ROAD AT POLPIS ROAD

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HSI(VUS)-003S(749)X	1	50
	PROJECT FILE NO.	613129	

TITLE SHEET & INDEX

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.

## **DESIGN DESIGNATION**

### MILESTONE ROAD

DESIGN SPEED ADT (2023) ADT (2043) K D T (PEAK HOUR) T (AVERAGE DAY) DHV DDHV FUNCTIONAL CLASSIFICATION 35 MPH 15,600 16,400 8.6% 54% EB 5.4% 4.8% 1,350 730

URBAN MINOR ARTERIAL

## POLPIS ROAD

30 MPH 7,100 7,500 8.7% 50% 4.7% 3.8% 620 310 URBAN MINOR ARTERIAL

DIAZ CIVIL No. 40436 DESCRIPTION DATE REV # **MassDO** John Diaz Digitally signed by John Diaz Digitally signed by John Diaz Massachusetts Department Highway Division GPPI Engineering Design Planning Construction Managemen APPROVED Carrie Lavallee, Digitally signed by Carrie Lavallee, P.E. Date: 2024.06.12 09:55:58 -04'00' 06/12/2024 978.570.2999 GPINET.COM Greenman-Pedersen, Inc. 181 Ballardvale Street, Suite 202 Wilmington, MA 01887 CHIEF ENGINEER, P.E. DATE

GENERAL S	SYMBOLS		
EXISTING	PROPOSED	DESCRIPTION	
JB	JB	JERSEY BARRIER	
Ш 🌐 🏥 СВ	СВ		
© FP	● ● FP	CATCH BASIN CURB INLET FLAG POLE	
G GP	G GP	GAS PUMP	
□ MB	D MB	MAIL BOX	
		POST SQUARE	
O Well	O	POST CIRCULAR WELL	
• EHH	■ EHH	ELECTRIC HANDHOLE	
0	0	FENCE GATE POST	
○ GG ● BHL #	○ GG	GAS GATE BORING HOLE	
• MW #		MONITORING WELL	
TP #	TP #	TEST PIT	
		HYDRANT	
× □ CO.BD.	*	LIGHT POLE COUNTY BOUND	
$\bigcirc \triangle$		GPS POINT	
©	©	CABLE MANHOLE	
D	0	DRAINAGE MANHOLE ELECTRIC MANHOLE	
E	©	GAS MANHOLE	
M	Ŵ	MISC MANHOLE	
S	S	SEWER MANHOLE	
T W	(T) (W)	TELEPHONE MANHOLE WATER MANHOLE	
■ MHB	■ MHB	MASSACHUSETTS HIGHWAY BOUND	
- MON		MONUMENT	
□ SB ■ TB		STONE BOUND TOWN OR CITY BOUND	
		TRAVERSE OR TRIANGULATION STATION	
-• TPL or GUY	→ TPL or GUY	TROLLEY POLE OR GUY POLE	
• HTP		TRANSMISSION POLE	
_&_ UFB -∳- UPDL	_& UFB _∲ UPDL	UTILITY POLE W/ FIREBOX UTILITY POLE WITH DOUBLE LIGHT	
_6_ ULT	_&_ ULT	UTILITY POLE W / 1 LIGHT	
UPL	UPL	UTILITY POLE	
●SIZE & TYPE		BUSH TREE	
0		STUMP	
		SWAMP / MARSH	
• WG	• WG	WATER GATE	
• PM	• PM	PARKING METER – OVERHEAD CABLE/WIRE	AA
		= CURBING	AB AD
-10099		- CONTOURS (ON-THE-GROUND SURVEY DATA)	AF
_100		<ul> <li>CONTOURS (PHOTOGRAMMETRIC DATA)</li> <li>UNDERGROUND DRAIN PIPE (DOUBLE LINE 24 INCH AND OVER)</li> </ul>	A.(
		- UNDERGROUND ELECTRIC DUCT (DOUBLE LINE 24 INCH AND OVER)	AC
		- UNDERGROUND GAS MAIN (DOUBLE LINE 24 INCH AND OVER)	BI
		<ul> <li>UNDERGROUND SEWER MAIN (DOUBLE LINE 24 INCH AND OVER)</li> <li>UNDERGROUND TELEPHONE DUCT (DOUBLE LINE 24 INCH AND OVER)</li> </ul>	BC
		- UNDERGROUND WATER MAIN (DOUBLE LINE 24 INCH AND OVER)	BD
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		BALANCED STONE WALL	BL
		- GUARD RAIL - STEEL POSTS	BL BN
×	x	– GUARD RAIL - WOOD POSTS – CHAIN LINK OR METAL FENCE	BN
¤	0	- WOOD FENCE	BC
		• HAY BALES/SILT FENCE/COMPOST FILTER TUBES	BR
		→ TREE LINE SAWCUT LINE	CB
		- TOP OR BOTTOM OF SLOPE	CB
		- LIMIT OF EDGE OF PAVEMENT OR COLD PLANE AND OVERLAY	CC
		BANK OF RIVER OR STREAM BORDER OF WETLAND	CC
	_	100 FT WETLAND BUFFER	CE
· ·	_	200 FT RIVERFRONT BUFFER	CI CIF
		- STATE HIGHWAY LAYOUT	CII CI
		– TOWN OR CITY LAYOUT – COUNTY LAYOUT	CL
		-RAILROAD SIDELINE	CL
	-	TOWN OR CITY BOUNDARY LINE	CM
· ₩ ₩		PROPERTY LINE OR APPROXIMATE PROPERTY LINE – EASEMENT	CS
			CC
			CF DF
			DF
			DI/

#### GENERAL NOTES

- 1. TOPOGRAPHICAL INFORMATION WAS PROVIDED BY MASSDOT, AUGUST 2017 (508-824-6633). SUPPLEMENTAL SURVEY WAS PROVIDED BY GREENMAN-PEDERSEN, INC. JANUARY 2018, MARCH 2021, APRIL 2023, & OCTOBER 2023. VERTICAL DATUM IS BASED ON NAVD88. HORIZONTAL DATUM IS BASED ON MA ISLAND ZONE NAD83 (2011).
- 2. THE LOCATIONS AND SIZES 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 AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO LOCATE EXACTLY AND TO PRESERVE ANY AND ALL UNDERGROUND UTILITIES. CALL "DIG-SAFE" 1-888-DIGSAFE (344-7233) AT LEAST 72 HOURS BEFORE COMMENCING CONSTRUCTION.
- DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED TO THE ENGINEER FOR RESOLUTION OF THE CONFLICT.
- COMPANIES.
- CONTRACTOR'S EXPENSE.
- (R&R).
- 7. ALL EXISTING SIGNS WITHIN THE PROJECT LIMITS SHALL BE RETAINED UNLESS NOTED OTHERWISE.
- 8. ALL PROPOSED PAVEMENT MARKINGS SHALL BE THERMOPLASTIC.
- ESTABLISHED FROM AVAILABLE INFORMATION AND THEIR EXACT LOCATIONS ARE NOT GUARANTEED.
- RUBBERIZED ASPHALT ADHESIVE MEETING THE REQUIREMENTS OF ITEM 453.
- PLACED FLUSH WITH THE TOP OF THE ADJACENT CURB, EDGING, BERM OR PAVEMENT SURFACE.
- 12. THE LIMIT OF WORK AREA SHALL BE THE STREET RIGHT OF WAY UNLESS SHOWN OTHERWISE.
- ANY DISCREPANCIES OCCUR.
- 14. ALL CASTINGS SHALL BE SET FLUSH WITH FINISHED GRADE.
- 15. ALL PUBLICLY OWNED GATE BOXES, SERVICE BOXES, MANHOLE FRAMES AND COVERS SHALL BE ADJUSTED TO GRADE BY THE CONTRACTOR.
- 17. THE CONTRACTOR SHALL TAKE EVERY PRECAUTION TO PROTECT ALL EXISTING TREES AND ROOTS THAT ARE NOT DESIGNATED FOR REMOVAL.
- 18. CONTRACTOR TO CONTACT ENGINEER PRIOR TO INSTALLATION OF BOUNDS FOR FINAL LOCATIONS.
- INCLUDED IN THE COST OF THE PIPE. PIPE EXCAVATION GREATER THAN 5' WILL BE PAID UNDER CLASS B TRENCH EXCAVATION.

				GENERAL A	ABBREVIATIONS		
ADT	ANNUAL AVERAGE DAILY TRAFFIC	DIP	DUCTILE IRON PIPE	NIC	NOT IN CONTRACT	SMH	SEWER MANHOLE
BAN	ABANDON	DW	STEADY DON'T WALK - PORTLAND ORANGE	NO.	NUMBER	ST	STREET
DJ	ADJUST	DWY	DRIVEWAY	PC	POINT OF CURVATURE	STA	STATION
PPROX.	APPROXIMATE	ELEV (or EL.)	ELEVATION	PCC	POINT OF COMPOUND CURVATURE	SSD	STOPPING SIGHT DISTANCE
A.C.	ASPHALT CONCRETE	EMB	EMBANKMENT	P.G.L.	PROFILE GRADE LINE	SHLO	STATE HIGHWAY LAYOUT LINE
CCM PIPE	ASPHALT COATED CORRUGATED METAL PIPE	EOP	EDGE OF PAVEMENT	PI	POINT OF INTERSECTION	SW	SIDEWALK
BIT.	BITUMINOUS	EXIST (or EX)	EXISTING	POC	POINT ON CURVE	Т	TANGENT DISTANCE OF CURVE/TRUCK %
C	BOTTOM OF CURB	EXC	EXCAVATION	POT	POINT ON TANGENT	TAN	TANGENT
BD.	BOUND	F&C	FRAME AND COVER	PRC	POINT OF REVERSE CURVATURE	TEMP	TEMPORARY
BL	BASELINE	F&G	FRAME AND GRATE	PROJ	PROJECT	ТС	TOP OF CURB
BLDG	BUILDING	FDN.	FOUNDATION	PROP	PROPOSED	TOS	TOP OF SLOPE
M	BENCHMARK	FLDSTN	FIELDSTONE	PSB	PLANTABLE SOIL BORROW	TYP	TYPICAL
0	BY OTHERS	GAR	GARAGE	PT	POINT OF TANGENCY	UP	UTILITY POLE
OS	BOTTOM OF SLOPE	GD	GROUND	PVC	POINT OF VERTICAL CURVATURE	VAR	VARIES
R.	BRIDGE	GG	GAS GATE	PVCC	POINT OF VERTICAL COMPOUND CURVATURE	VERT	VERTICAL
В	CATCH BASIN	GI	GUTTER INLET	PVI	POINT OF VERTICAL INTERSECTION	VC	VERTICAL CURVE
BCI	CATCH BASIN WITH CURB INLET	GIP	GALVANIZED IRON PIPE	PVRC	POINT OF VERTICAL REVERSE CURVATURE	WCR	WHEEL CHAIR RAMP
C	CEMENT CONCRETE	GRAN	GRANITE	PVT	POINT OF VERTICAL TANGENCY	WG	WATER GATE
CM	CEMENT CONCRETE MASONRY	GRAV	GRAVEL	PVMT	PAVEMENT	WIP	WROUGHT IRON PIPE
EM	CEMENT	GRD	GUARD	PWW	PAVED WATER WAY	WM	WATER METER/WATER MAIN
	CURB INLET	HDW	HEADWALL	R	RADIUS OF CURVATURE	X-SECT	CROSS SECTION
ЯР	CAST IRON PIPE	HMA	HOT MIX ASPHALT	R&D	REMOVE AND DISPOSE		
ЛТ	CHANGE IN TYPE	HOR	HORIZONTAL	RCP	REINFORCED CONCRETE PIPE		
CLF	CHAIN LINK FENCE	HYD	HYDRANT	RD	ROAD		
L	CENTERLINE	INV	INVERT	RDWY	ROADWAY		
MP	CORRUGATED METAL PIPE	JCT	JUNCTION	REM	REMOVE		
SP	CORRUGATED STEEL PIPE	L	LENGTH OF CURVE	RET	RETAIN		
0.	COUNTY	LB	LEACH BASIN	RET WALL	RETAINING WALL		
ONC	CONCRETE	LP	LIGHT POLE	ROW	RIGHT OF WAY		
ONT	CONTINUOUS	LT	LEFT	RR	RAILROAD		
ONST	CONSTRUCTION	MAX	MAXIMUM	R&R	REMOVE AND RESET		
RGR	CROWN GRADE	MB	MAILBOX	R&S	REMOVE AND STACK		
ЭНV	DESIGN HOURLY VOLUME	MH	MANHOLE	RT	RIGHT		
)I	DROP INLET	MHB	MASSACHUSETTS HIGHWAY BOUND	SB	STONE BOUND		
AIA	DIAMETER	MIN	MINIMUM	SHLD	SHOULDER		

#### NANTUCKET MILESTONE ROAD AT POLPIS ROAD

STATE	FED AID PROJ NO	SHEET	TOTAL
0 III L		NO.	SHEETS
MA	HSI(VUS)-003S(749)X	2	50
	PROJECT FILE NO.	613129	

LEGEND & ABBREVIATIONS

3. WHERE AN EXISTING UNDERGROUND UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATION AND SIZE OF THE UTILITY SHALL BE ACCURATELY

4. THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS FOR THE ALTERATION AND ADJUSTMENT OF GAS, ELECTRIC, TELEPHONE AND ANY OTHER PRIVATE UTILITIES BY THE UTILITY

5. 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

6. THE TERM "PROPOSED" (PROP.) MEANS WORK TO BE CONSTRUCTED USING NEW MATERIALS, OR, WHERE APPLICABLE, RE-USING EXISTING MATERIALS IDENTIFIED AS "REMOVE & RESET"

9. ALL EXISTING [STATE, COUNTY, CITY AND TOWN] LOCATION LINES HAVE BEEN ESTABLISHED BY CADASTRAL SURVEY AND FOUND MONUMENTATION. PRIVATE PROPERTY LINES HAVE BEEN

10. ALL TRANSVERSE JOINTS, AND ALL LONGITUDINAL JOINTS BETWEEN NEW SURFACE PAVEMENT AND EXISTING SURFACE PAVEMENT TO REMAIN SHALL BE COATED WITH A HOT POURED

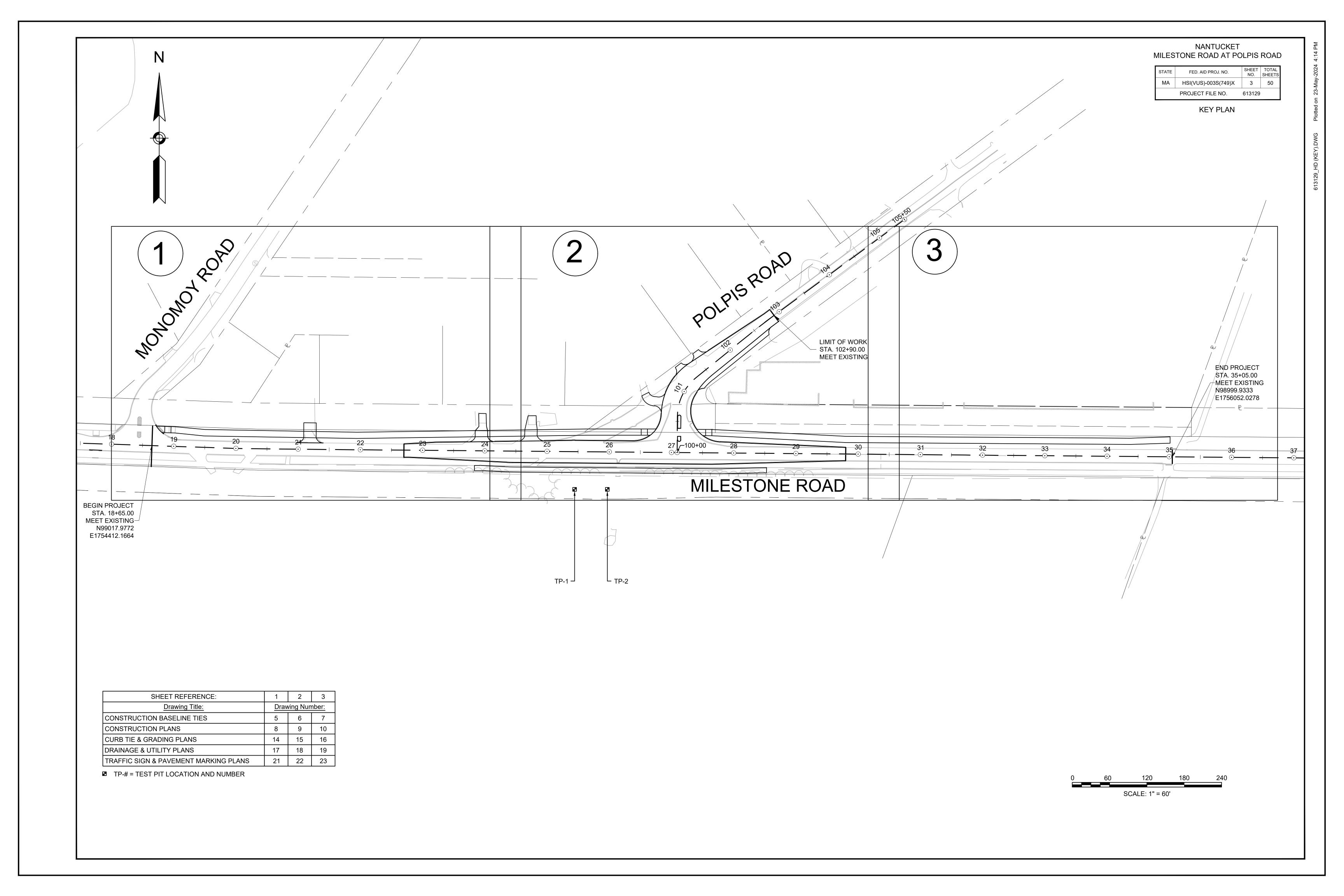
11. ALL DISTURBED AREAS NOT DESIGNATED TO BE PAVED SHALL HAVE LOAM BORROW PLACED AND SEEDED. THE LOAM BORROW SHALL HAVE A MINIMUM DEPTH OF 4 INCHES AND SHALL BE

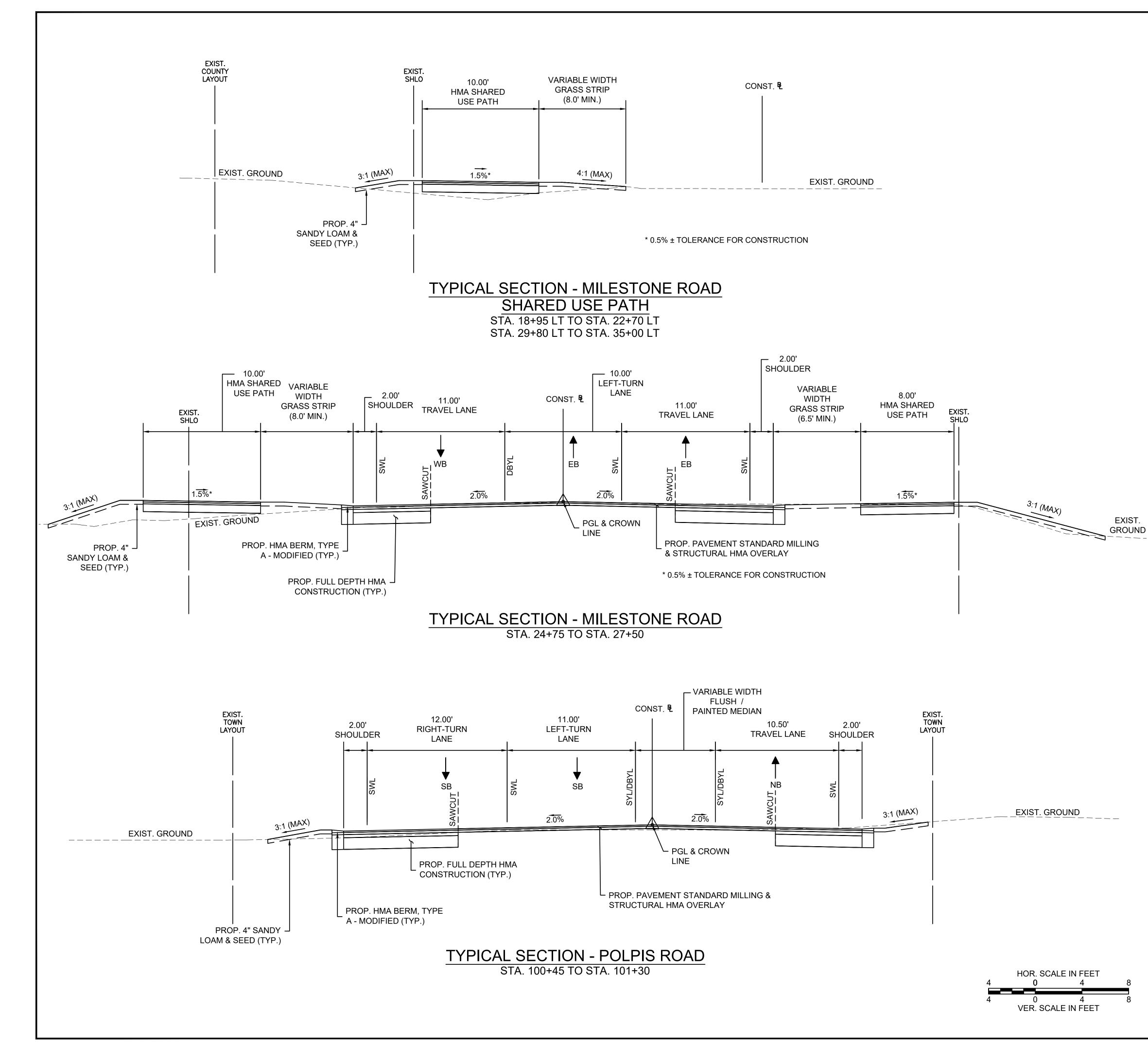
13. PRIOR TO THE START OF ANY NEW UTILITY WORK, ALL ELEVATIONS OF EXISTING UTILITIES IN THOSE AREAS ARE TO BE VERIFIED. THE ENGINEER IS TO BE NOTIFIED IMMEDIATELY SHOULD

16. ALL NEW SIDEWALKS AND DRIVEWAY GRADES SHALL MATCH EXISTING GRADES AT BACK OF SIDEWALK LINE UNLESS SHOWN OTHERWISE ON THE PLANS AND CROSS SECTIONS.

19. DRAINAGE ELEVATIONS ARE PROVIDED FOR DESIGN PURPOSES ONLY. THE CONTRACTOR SHALL VERIFY BY TEST PIT, THE LOCATIONS OF EXISTING UTILITIES WHICH MAY CONFLICT WITH THE PROPOSED DRAINAGE DESIGN. ANY FIELD ADJUSTMENTS REQUIRED WILL BE MADE AS APPROVED OR DIRECTED BY THE ENGINEER. ONLY AFTER THE CONTRACTOR VERIFIES ELEVATIONS FOR THE CONSTRUCTABILITY OF THE DRAINAGE SYSTEM SHALL ANY STRUCTURES BE ORDERED. ANY FIELD ADJUSTMENTS TO LINE & GRADE UP TO A DEPTH OF 5' SHALL BE

#### CENERAL ABBREV/IATIONS





NANTUCKET
MILESTONE ROAD AT POLPIS ROAD

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HSI(VUS)-003S(749)X	4	50
	PROJECT FILE NO.	613129	

## PAVEMENT NOTES

TYPICAL SECTIONS

FULL DEPTH HMA C	ONSTRUCTION
SURFACE COURSE:	1 ½" SUPERPAVE SURFACE COURSE - 9.5 POLYMER (SSC-9.5-P) OVER ASPHALT EMULSION FOR TACK COAT (RS-1h)
	2 <sup>1</sup> / <sub>4</sub> " SUPERPAVE INTERMEDIATE COURSE - 19.0 (SIC-19.0) OVER
	ASPHALT EMULSION FOR TACK COAT (RS-1h)
BASE:	3 $\frac{1}{4}$ " SUPERPAVE INTERMEDIATE COURSE - 19.0 (SIC-19.0) OVER
SUBBASE:	12" GRAVEL BORROW TYPE B (OR SUITABLE EXISTING MATERIAL)
PAVEMENT STANDA	RD MILLING & STRUCTURAL HMA OVERLAY
PROPOSED RESURFACING:	1 ½" SUPERPAVE SURFACE COURSE - 9.5 POLYMER (SSC-9.5-P) OVER ASPHALT EMULSION FOR TACK COAT (RS-1h)
	2 <sup>1</sup> / <sub>4</sub> " SUPERPAVE INTERMEDIATE COURSE - 19.0 (SIC-19.0) OVER ASPHALT EMULSION FOR TACK COAT (RS-1h)
SURFACE MILLING:	2" MIN. TO 4" MAX. PAVEMENT MILLING (TO MEET LINES AND GRADES
	AND HMA QUALITY ASSURANCE)
	ONSTRUCTION LESS THAN 4 FEET
SURFACE COURSE:	1 ½" SUPERPAVE SURFACE COURSE - 9.5 POLYMER (SSC-9.5-P) OVER ASPHALT EMULSION FOR TACK COAT (RS-1h)
	2 ¼" SUPERPAVE INTERMEDIATE COURSE - 19.0 (SIC-19.0) OVER ASPHALT EMULSION FOR TACK COAT (RS-1h)
BASE:	6" HIGH EARLY STRENGTH CEMENT CONCRETE BASE COURSE OVER
SUBBASE:	8" GRAVEL BORROW TYPE B (OR SUITABLE EXISTING MATERIAL)
	E PEDESTRIAN CURB RAMPS
SURFACE COURSE:	4" CEMENT CONCRETE (AIR ENTRAINED 4000 PSI, 3/4", 610) OVER
SUBBASE:	8" GRAVEL BORROW TYPE B
HMA DRIVEWAYS AN	ND SHARED USE PATHS
SURFACE COURSE:	1 ½" SUPERPAVE SURFACE COURSE - 9.5 (SSC-9.5) OVER 2 ½" SUPERPAVE SURFACE COURSE - 12.5 (SSC-12.5) OVER
SUBBASE:	8" GRAVEL BORROW TYPE B

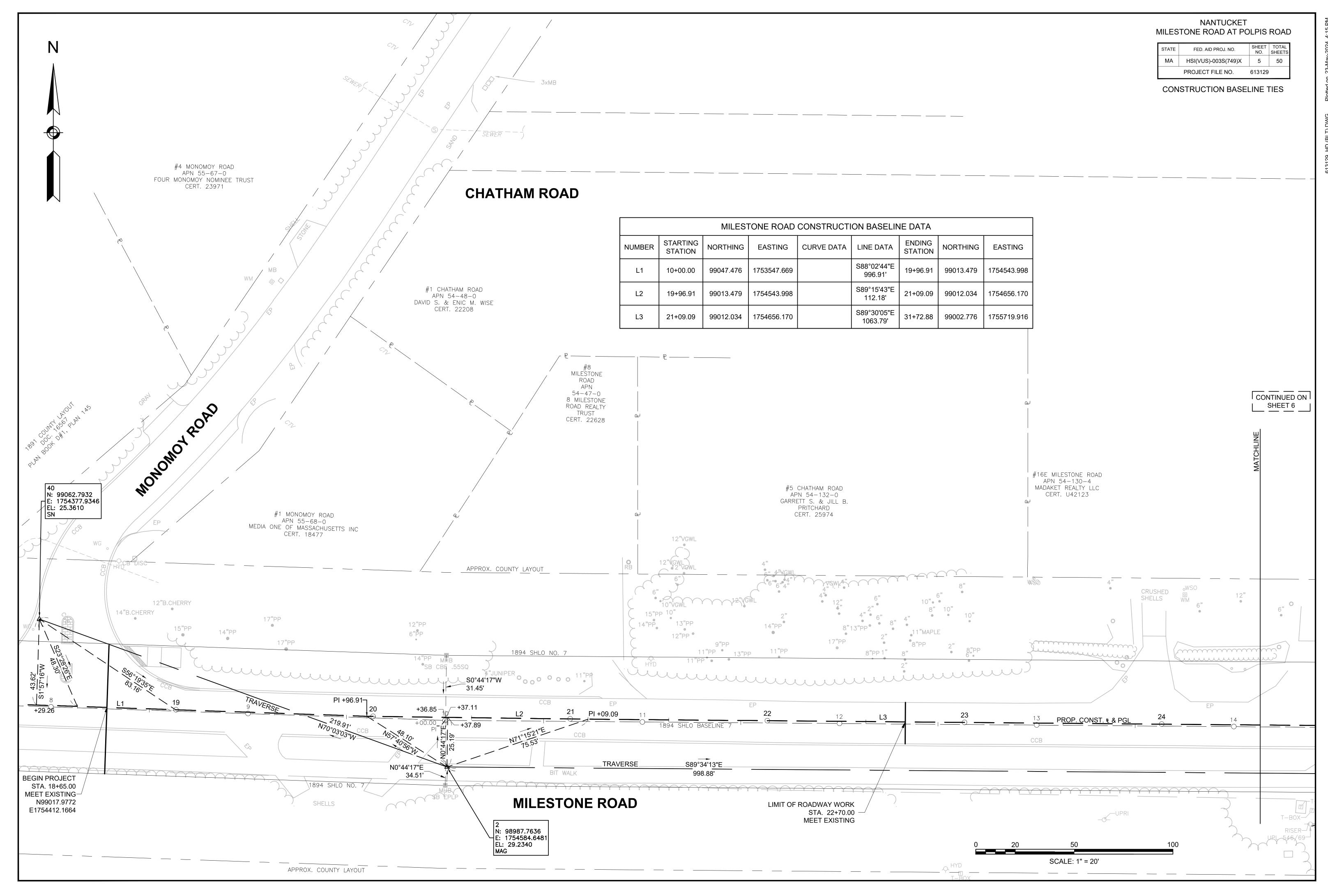
#### **GENERAL NOTES**

- 1. HMA, HMA FOR PATCHING, ASPHALT EMULSION FOR TACK COAT AND HMA JOINT ADHESIVE AND PAVEMENT MILLING SHALL BE IN ACCORDANCE WITH SECTION 450 HMA PAVEMENT AND M3 ASPHALTIC MATERIALS SPECIFICATION.
- 2. THE PROPOSED HMA RESURFACING, BOTH SURFACE AND INTERMEDIATE COURSES, SHALL EXTEND ACROSS THE FULL DEPTH CONSTRUCTION TO MEET SECTION 450 AND PAVING OPERATIONS.
- 3. THE SECTIONS OF PROPOSED ROADWAY NOT COVERED IN THE RANGE OF STATIONS ASSOCIATED WITH THE TYPICAL SECTIONS ARE EITHER AT INTERSECTIONS OR IN AREAS OF TRANSITION AND THEREFORE HAVE NOT BEEN SHOWN. THESE SECTIONS ARE:

STA. 18+65	ТΟ	STA.	18+95	MILESTONE ROAD
STA. 22+70	ТО	STA.	24+75	MILESTONE ROAD
STA. 27+50	ТО	STA.	29+80	MILESTONE ROAD
STA. 35+00	ТО	STA.	35+05	MILESTONE ROAD
STA. 100+00	ТО	STA.	100+45	POLPIS ROAD
STA. 101+32	ТО	STA.	102+90	POLPIS ROAD

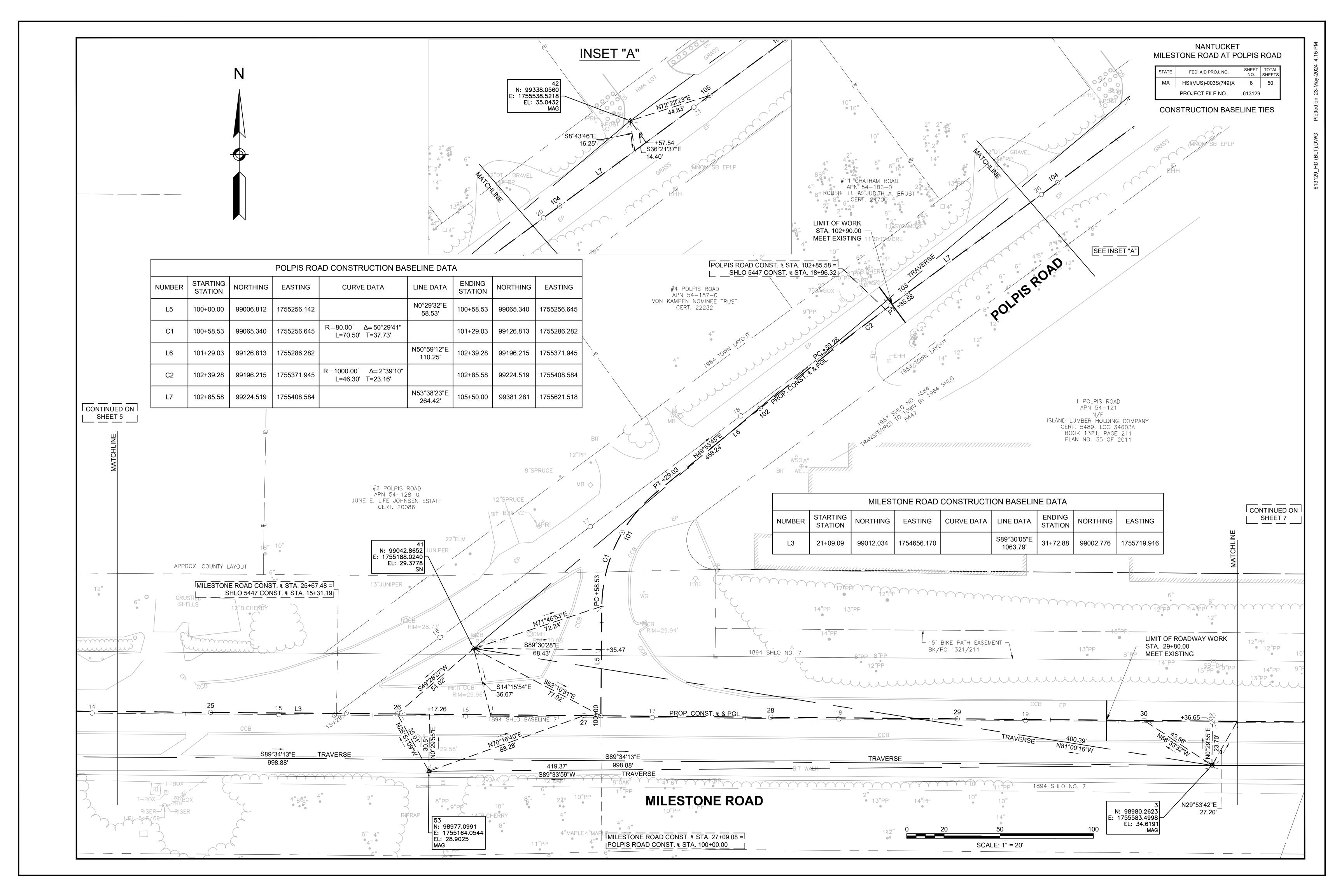
4. ASPHALT EMULSION FOR TACK COAT (RS-1h) SHALL BE APPLIED AT THE RATE OF 0.06 TO 0.08 GALLONS PER SQUARE YARD OVER NEW HMA SURFACES NOT OPENED TO TRAFFIC AS WELL AS OVER EXISTING TIGHT SMOOTH PAVEMENT. ON MILLED SURFACES, THE EMULSION APPLICATION RATE SHALL EQUAL 0.07 TO 0.09 GALLONS PER SQUARE YARD. ON NEW HMA PATCHES, THE EMULSION APPLICATION RATE SHALL EQUAL 0.06 TO 0.09 GALLONS PER SQUARE YARD.

EXIST.



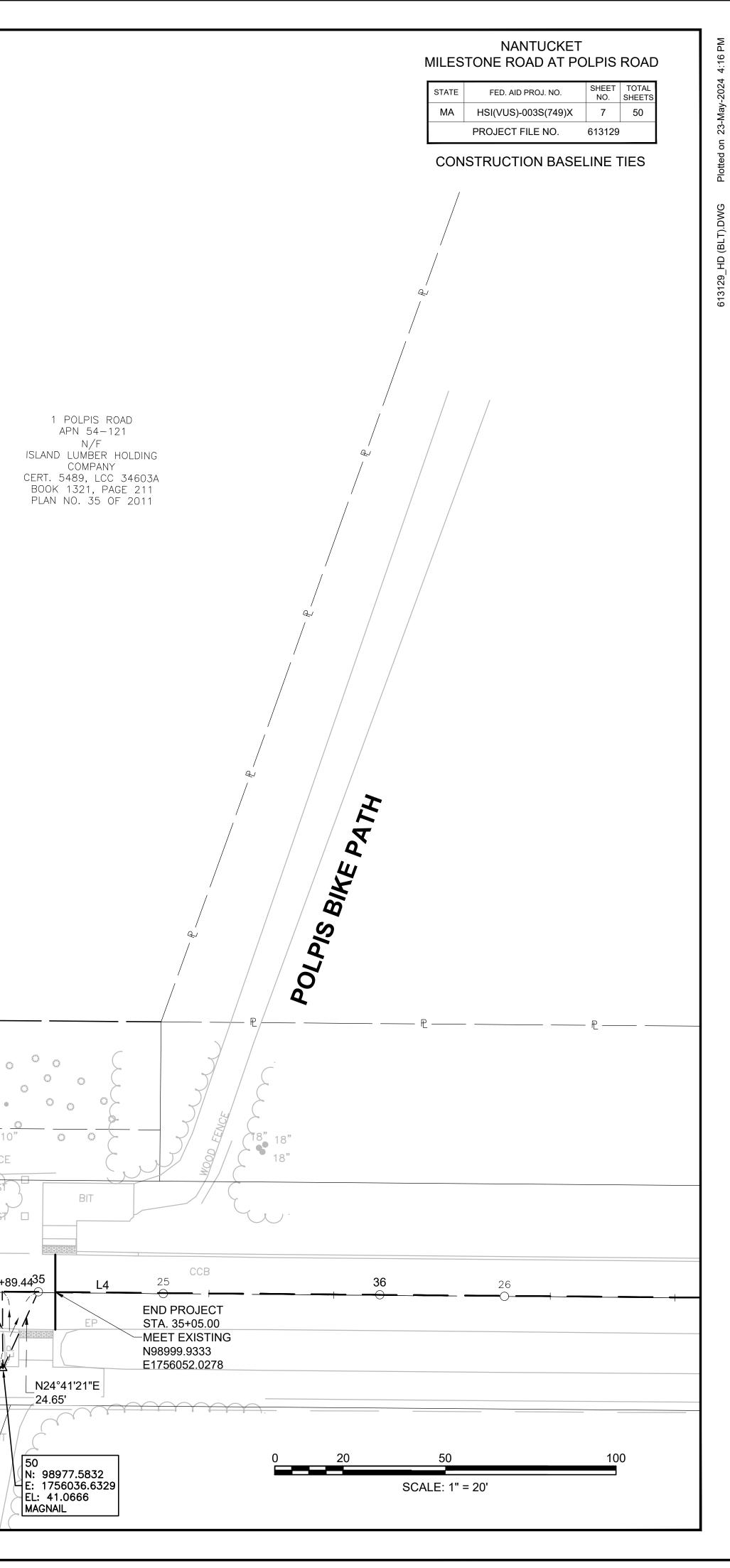


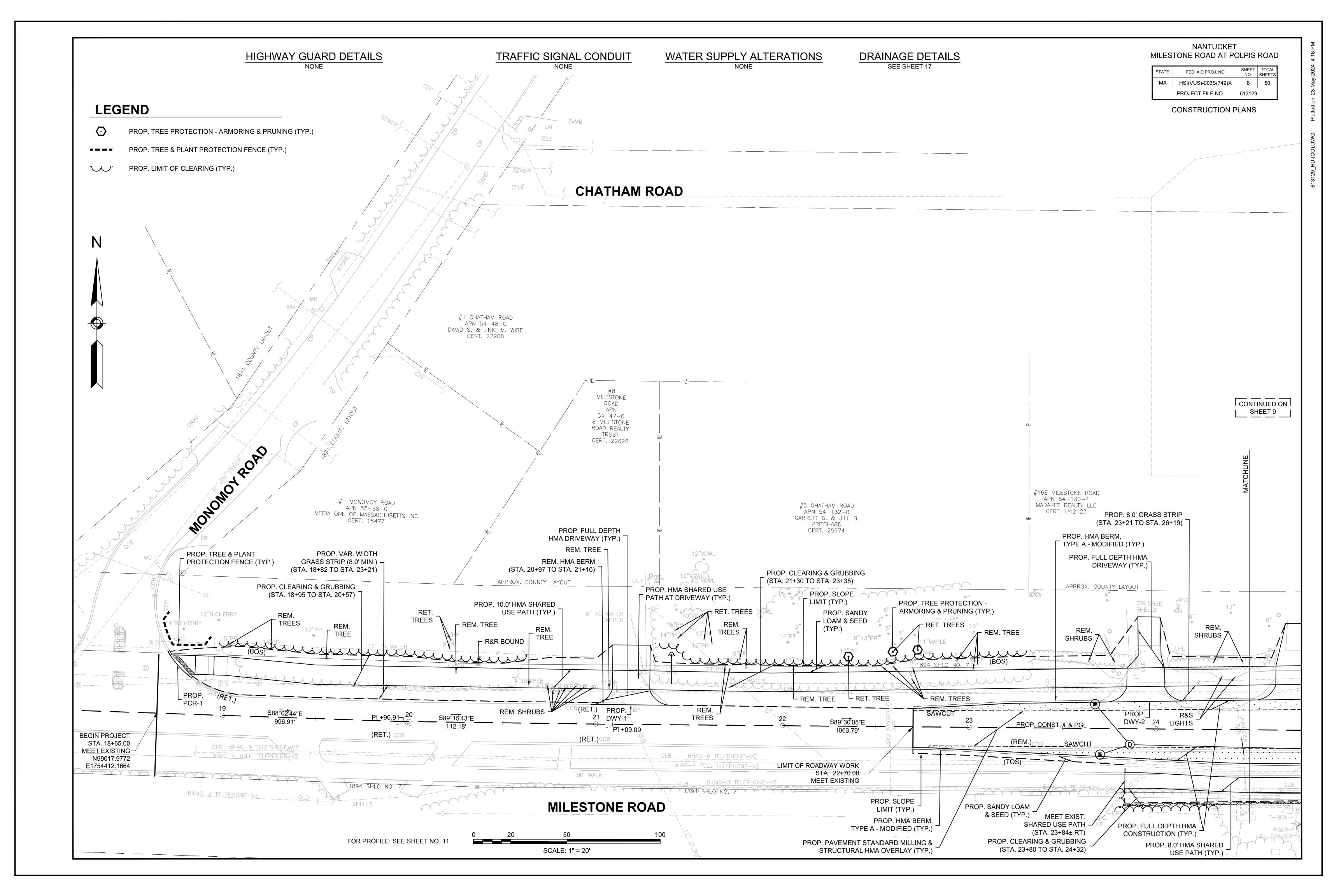
MILESTONE ROAD CONSTRUCTION BASELINE DAT								
STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDIN STATIO			
10+00.00	99047.476	1753547.669		S88°02'44"E 996.91'	19+96.			
19+96.91	99013.479	1754543.998		S89°15'43"E 112.18'	21+09.			
21+09.09	99012.034	1754656.170		S89°30'05"E 1063.79'	31+72.			
	STATION 10+00.00 19+96.91	STARTING STATION         NORTHING           10+00.00         99047.476           19+96.91         99013.479	STARTING STATION         NORTHING         EASTING           10+00.00         99047.476         1753547.669           19+96.91         99013.479         1754543.998	STARTING STATION         NORTHING         EASTING         CURVE DATA           10+00.00         99047.476         1753547.669            19+96.91         99013.479         1754543.998	STARTING STATION         NORTHING         EASTING         CURVE DATA         LINE DATA           10+00.00         99047.476         1753547.669         \$88^02'44"E 996.91'           19+96.91         99013.479         1754543.998         \$89^015'43"E 112.18'           21+09.09         99012.034         1754656.170         \$89^030'05"E			



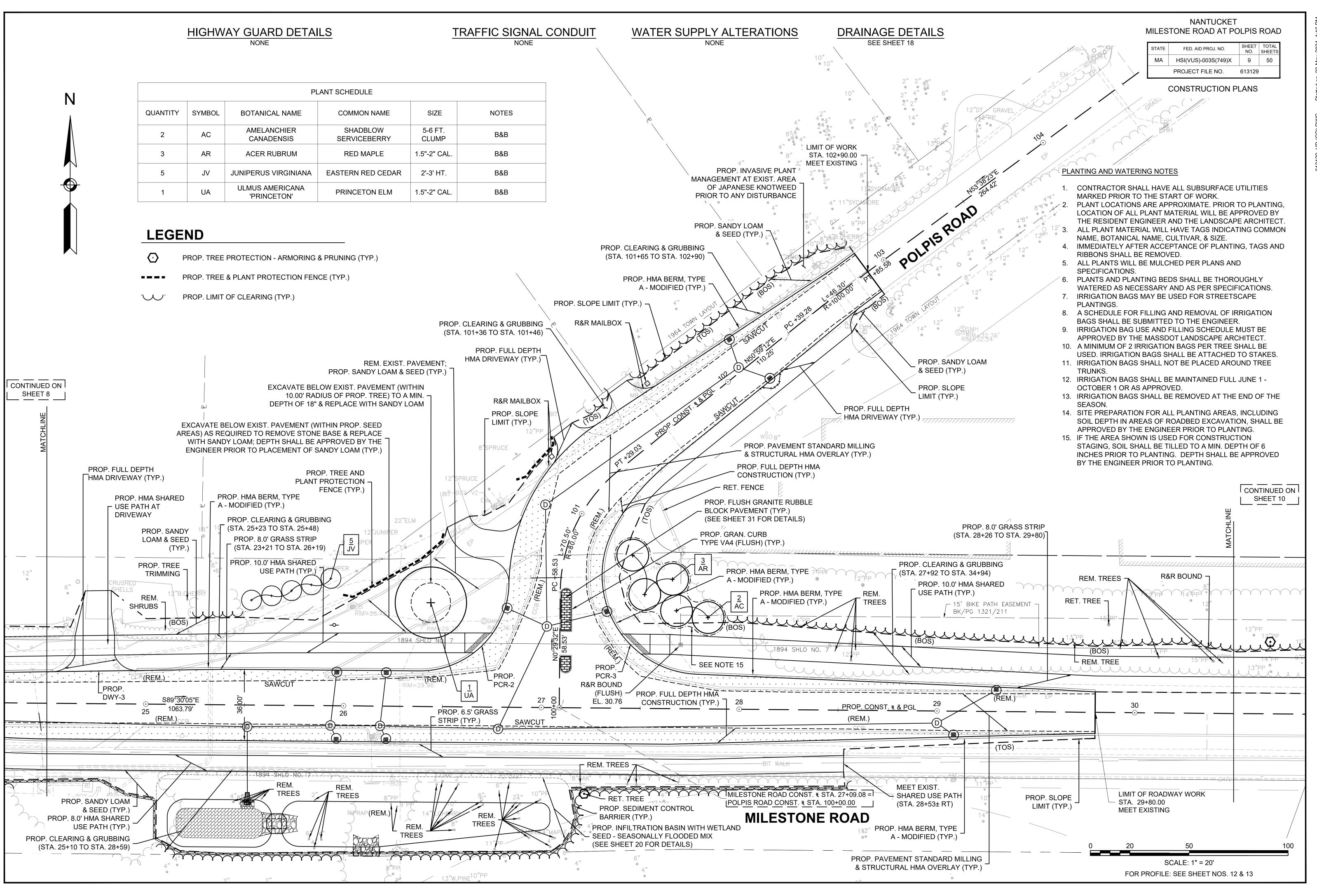
SHEET 6         NUMBER         STATION STATION         NORTHING         EASTING         CURVE DATA         LINE DATA         SENTION SUBJAR         NORTHING         EASTING           13         21+00.00         96012.034         1754666.170         S88"30795"E         31+72.66         96002.776         1755710.916           14         31+72.66         96002.776         1755719.916         S88"30795"E         31+72.66         96002.776         1755710.916           14         31+72.66         96002.776         1755719.916         S88"30795"E         31+72.66         96002.776         1755411.830	N													
Description         Difference         Difference <thdifference< th="">         Difference         Differe</thdifference<>														
NUMBER       SUPATIONS       NORTHING       EATHING       CURVE DATA       LUE DATA       EATHING       EATHING         13       21-00.00       900/2.054       1/264/00.170       000/2.054       1/264/00.070       1/27.070 916         14       31+72.08       900/2.076       1/26/10.017       000/2.076       1/26/216 916         14       31+72.08       900/2.076       1/26/10.017       900/2.076       1/26/216 916         15       31       21+00.00       900/2.054       1/26/10.017       900/2.076       1/26/216 916         14       31+72.08       900/2.076       1/26/11.016       900/2.076       1/26/216 916       900/2.076         14       31+72.08       900/2.076       1/26/11.016       90/14/1       90/14/1       90/14/1       90/14/1       90/14/1       90/14/1       90/14/1       90/14/1       90/14/1       90/14/1       90/14/1       90/14/1       90/14/1       90/14/1       90/14/1       90/14/1       90/14/1       90/14/1       90/14/1       90/14/1       90/14/1       90/14/1       90/14/1       90/14/1       90/14/1       90/14/1       90/14/1       90/14/1       90/14/1       90/14/1       90/14/1       90/14/1       90/14/1       90/14/1       90/14/1       90/14	CONTINUED ON			MILES	TONE ROAD	CONSTRUCT	ON BASELIN	NE DATA						
No.         21 0000         200 0000000         100000000         100000000         100000000         1000000000         1000000000         100000000000         1000000000000000000000000000000000000		NUMBER		NORTHING	EASTING	CURVE DATA		ENDING STATION	NORTHING	EASTING				
Image: state in the s		L3	21+09.09	99012.034	1754656.170		1063.79'			1755719.916				
12 2PP       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12*       12* <t< th=""><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></t<>														
8     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12     12 <t< td=""><td>MATCHLINE</td><td></td><td>6</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	MATCHLINE		6											
12*PP       13*PP       13*PP       15 BKF PATH FASTNENT       12*PP15*PP	MATCHL	<u> </u>					-						12" 18"	
PP       14*PP       9*PP       13*PP       10 W.PME       12*PP       14*PP       10 W.PME       12*PP       14*PP         13*PP       11*PP       15*PP       11*PP       15*PP       12*PP       14*PP       14*PP         13*PP       11*PP       15*PP       11*PP       15*PP       12*PP       14*PP       14*PP         13*PP       11*PP       15*PP       11*PP       15*PP       12*PP       14*PP       14*PP         14*PP       11*PP       15*PP       11*PP       15*PP       15*PP       12*PP       14*PP       14*PP         14*PP       11*PP       15*PP       11*PP       15*PP       15*PP       12*PP       14*PP       14*PP       14*PP         15*PP       12*PP       15*PP       15*PP       15*PP       15*PP       12*PP       14*PP       10*P       15*PP       12*PP       14*PP       10*P       14*PP       10*P       15*PP       15*PP       15*PP       15*PP       10*P       10*P       10*P       10*P       10*P       10*P       <							-				16" •	" "16'	12" •	,
Implemented of the second of	Image: Non-state     Image: Non-state     Image: Non-state       12"PP     12"     12"       12"PP     12"     12"       12"PP     12"     12"       12"PP     12"PP     12"       12"PP     10"PP***11"PP     12"PP       9"PB94     SHLO Non-state	16" • 13"PP			16 16 12"PP <sup>15</sup> "PP	8" • 1 1 24"		27 	9"PP			14" 14" 2" 6"W.PINI	12" 10"W.PINE 10"W.PINE 17"PP 12" 12" 12" 12" 12" 12" 12" 12"	, 15"PP
31     L3     21     32     22     PROP. CONST. # & PGL     33     23     34     +16.54     24     22       1894     SHLO     BASELINE 7     PI +72.88     CCB     CCB     N0*2457       S89*41'23*E     TRAVERSE     CCB     N35*59'08*W     27.83     N6*055       379.89     BIT WALK     N35*59'08*W     27.83     VALK	12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"	13"PP	15 BIKE PAT BK/PG 1321		16 16 12"PP <sup>15</sup> "PP	8" 24" 	12"P 3"PP	" PP 11"PP <sup>10"PP</sup>	• 10"PP • •	12"PP	10" 10" 10" 8"W.PINE <sup>9"P</sup>	" 16" 14" 2" 6"W.PINI 2" 14"PP BK/	12" 10"W.PINE 10"W.PINE 17"PP 12" 12" 10"W.PINE 12" 10"W.PINE 12" 12" 12" 12" 12" 12" 12" 12"	, 15"PP
S89°41'23"E     TRAVERSE     27.83"       379.89'     BIT WALK       1894 SHLO NO. 7         MILESTONE ROAD	12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"	13"PP	15 BIKE PAT BK/PG 1321		16 16 12"PP <sup>15</sup> "PP	8" 24" 	12"P 12"P 12"P 12"P	" PP 11"PP <sup>10"PP</sup>	• 10"PP • •	12"PP	10" 10" 10" 8"W.PINE <sup>9"P</sup>	" 16" 14" 2" 6"W.PINI 2" 14"PP BK/	12" 10"W.PINE 10"W.PINE 17"PP 12" 12" 10"W.PINE 12" 10"W.PINE 12" 12" 12" 12" 12" 12" 12" 12"	, 15"PP
S89°41'23"E     TRAVERSE     27.83"       379.89'     BIT WALK       1894 SHLO NO. 7         MILESTONE ROAD	12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       13"PP     13"     14"       31     13     21	13"PP	15 BIKE PAT BK/PG 1321	TH EASEMENT	12"PP <sup>15</sup> "PP	8" 24"  18 7"PP	12"P 12"P 12"P 12"P 12"P 12"P 12"P 12"P	" PP 11"PP <sup>10"PP</sup> 11"PP 15"Pl	• 10"PP 9"PP • 10"PP • • • • • • • • • • • • • • • • • •	12"PP 12"PP	10" 10" 10" 8"W.PINE <sup>9"P</sup>	" 16" 14" 2" 6"W.PINI 45 P 14"PP BK/ 34	12" 10"W.PINE 10"W.PINE 17"PP 12"W.PINE 8" BIKE PATH EASEMENT /PG 1321/211 10"W.PINE 12"W.PINE 14"PF 14"PF WG +16.54 24	, 15"PP , , , , , , , , , , , , , , , , , ,
MILESTONE ROAD	12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       13"PP     14"PP     9"PP       31     L3     21	13"PP 0. 7 13"PP 6"PP 11"PP 15"PP	15 BIKE PAT BK/PG 1321	TH EASEMENT	12"PP <sup>15</sup> "PP	8" 24" 18 7"PP 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	12"P 12"P 12"P 12"P 12"P 12"P 12"P 12"P 12"P 12"P 12"P 12"P 12"P 12"P 12"P 12"P	" PP 11"PP <sup>10"PP</sup> 11"PP 15"Pl	• 10"PP 9"PP • 15"PP	12"PP 12"PP 12"PP 12"PP	10" 10" 10" 11 8"W.PINE 9"P 14"PP 0 14"PP	" 16" 14" 2" 6"W.PINI 45 P 14"PP BK/ 34 34 34	12" 10"W.PINE 10"W.PINE 17"PP 12"W.PINE 8" BIKE PATH EASEMENT /PG 1321/211 10"W.PINE 12"W.PINE 14"PF 14"PF WG +16.54 24	N0°24'57 22.
	12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       13"PP     14"PP     9"PP       31     L3     21	13"PP 0. 7 13"PP 6"PP 11"PP 15"PP 0. 7 13"PP 0. 7	С 15 ВІКЕ РАТ ВК/РС 1321	TH EASEMENT -		8" 24" 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 	EP € & PGL	" PP 11"PP <sup>10"PP</sup> 11"PP 15"Pl	• 10"PP 9"PP • 15"PP	12"PP 12"PP 12"PP 12"PP	10" 10" 10" 11 8"W.PINE 9"P 14"PP 0 14"PP	" 16" 14" 2" 6"W.PINI 45 P 14"PP BK/ 34 34 34	12" 10"W.PINE 10"W.PINE 17"PP 12"W.PINE 8" BIKE PATH EASEMENT /PG 1321/211 10"W.PINE 12"W.PINE 14"PF 14"PF WG +16.54 24 WG	N0°24'57 22.
	12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       12"     12"     12"       13"     14"     12"       13"     14"     14"       14"     14"     14"       13"     14"     14"       14"     14"     14"       14"     14"     14"       14"     14"     14"       14"     14"     14"       14"     14"     14"       14"     14"     14"       14"     14"     14"       14"     14"     14"       14"     14"	13"PP 0. 7 13"PP 6"PP 11"PP 15"PP 0. 7 13"PP 0. 7	С 15 ВІКЕ РАТ ВК/РС 1321	TRAVERSE		8" 24" 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 	12"P         12"P         3"PP         1         EP <b>&amp;</b> PGL         CCB	" " " " " " " " " " " " " " " " " " "	2 10"PP 9"PP	12"PP 12"PP 12"PP 23 O EMHEMH E E	10" 10" 10" 11 8"W.PINE 9"P 14"PP 0 14"PP	" 16" 14" 2" 6"W.PINI 45 P 14"PP BK/ 34 34 34	12" 10"W.PINE 10"W.PINE 17"PP 12"W.PINE 8" BIKE PATH EASEMENT /PG 1321/211 10"W.PINE 12"W.PINE 14"PF 14"PF WG +16.54 24 WG	, 15"PP

CONSTRUCTION BASELINE DATA							
CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING			
	S89°30'05"E 1063.79'	31+72.88	99002.776	1755719.916			
	S89°30'34"E 691.94'	38+64.82	98996.853	1756411.830			





# NONE



#### HIGHWAY GUARD DETAILS NONE

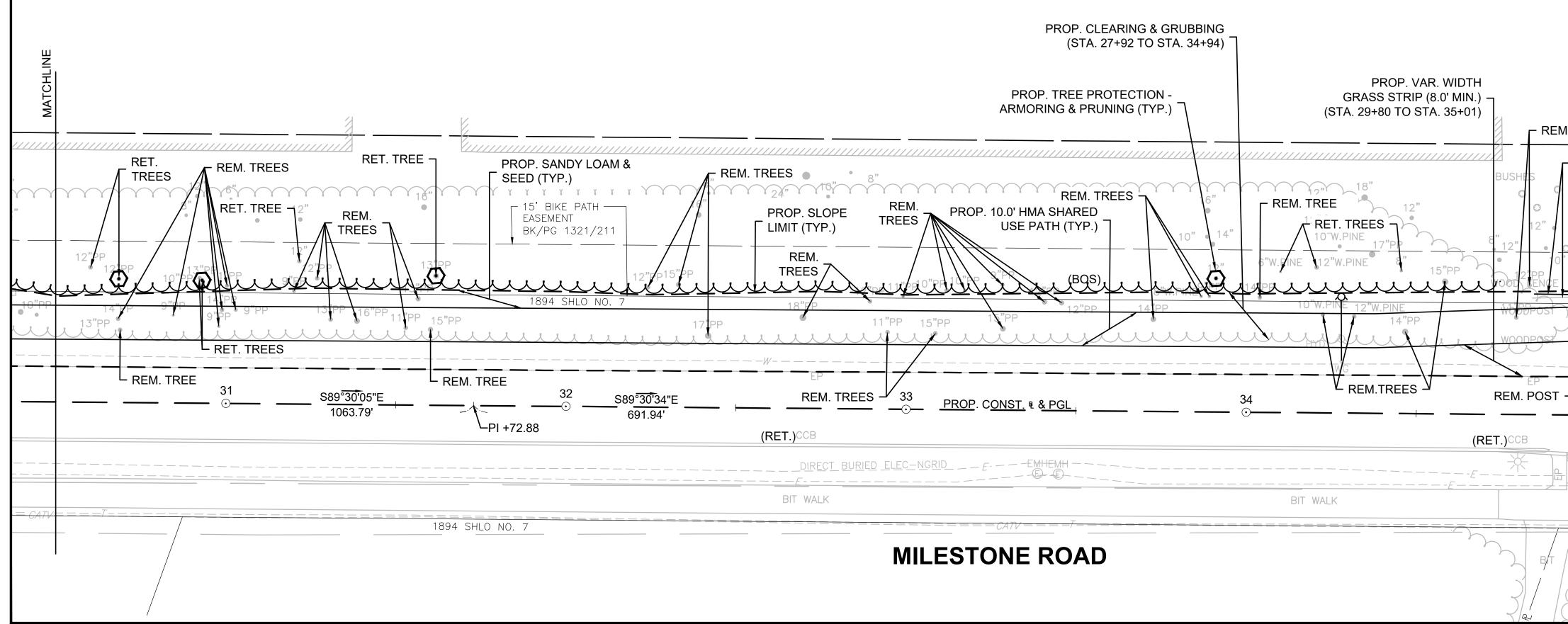


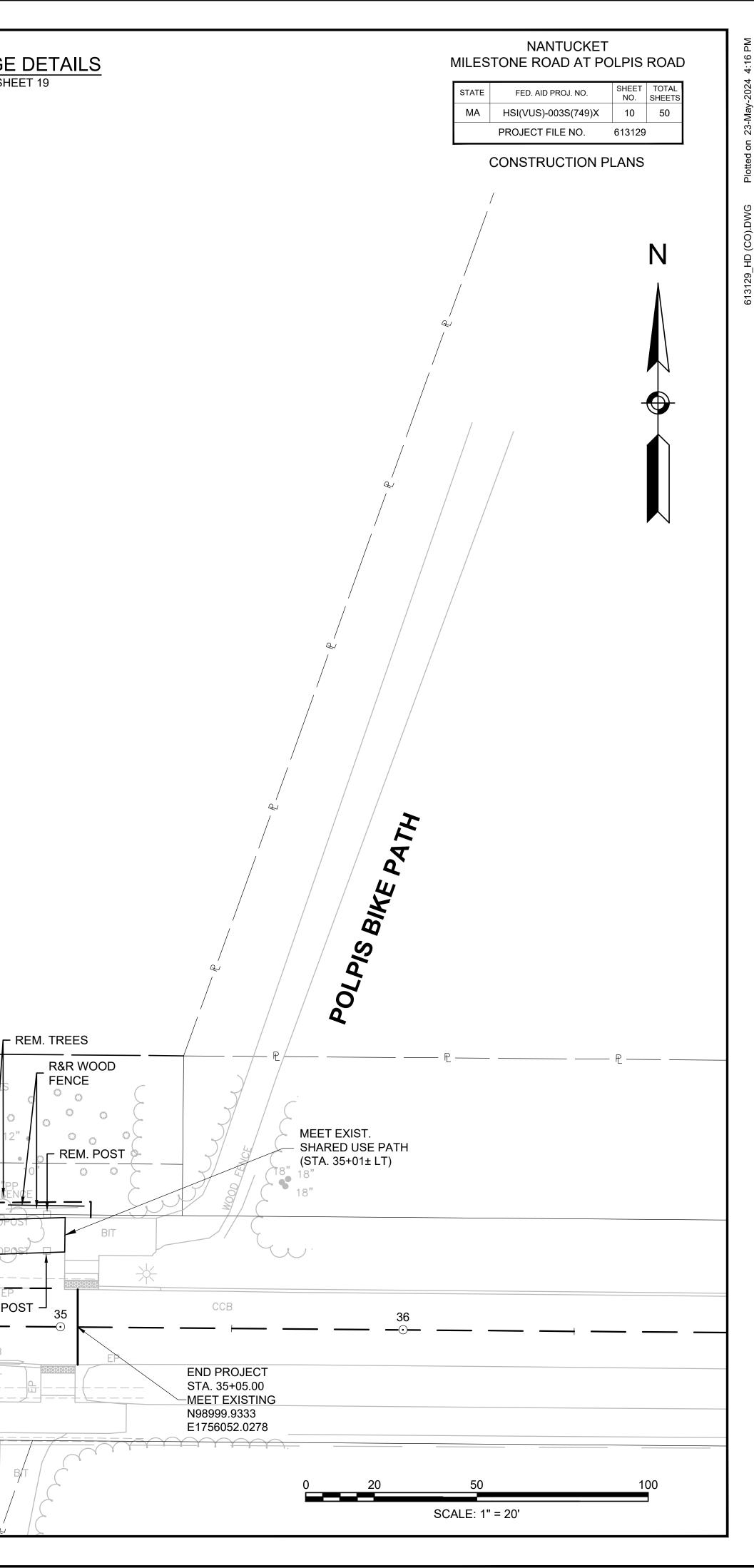
 $\odot$ 

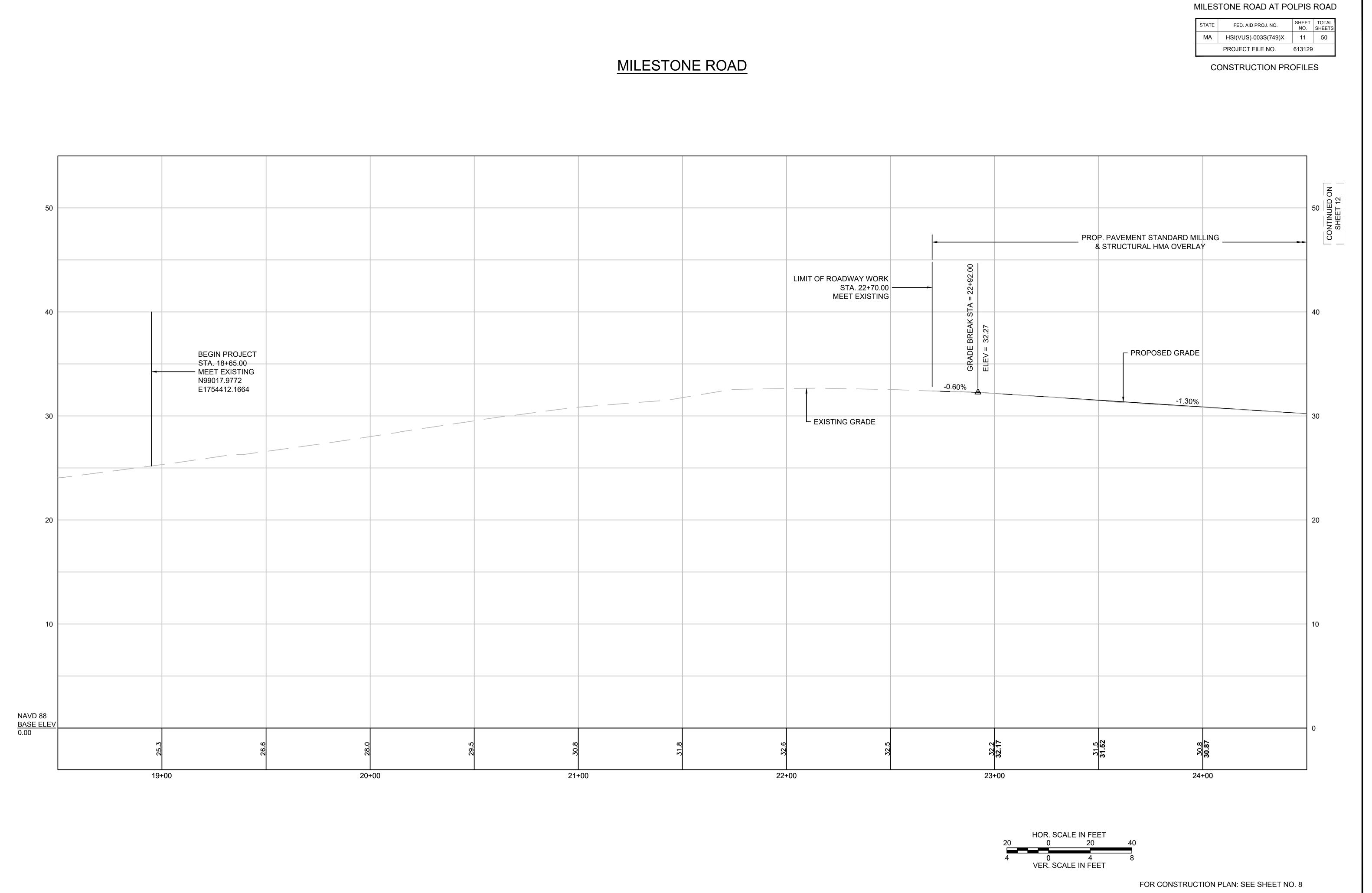
PROP. TREE PROTECTION - ARMORING & PRUNING (TYP.)

- PROP. TREE & PLANT PROTECTION FENCE (TYP.)
- PROP. LIMIT OF CLEARING (TYP.) · V·

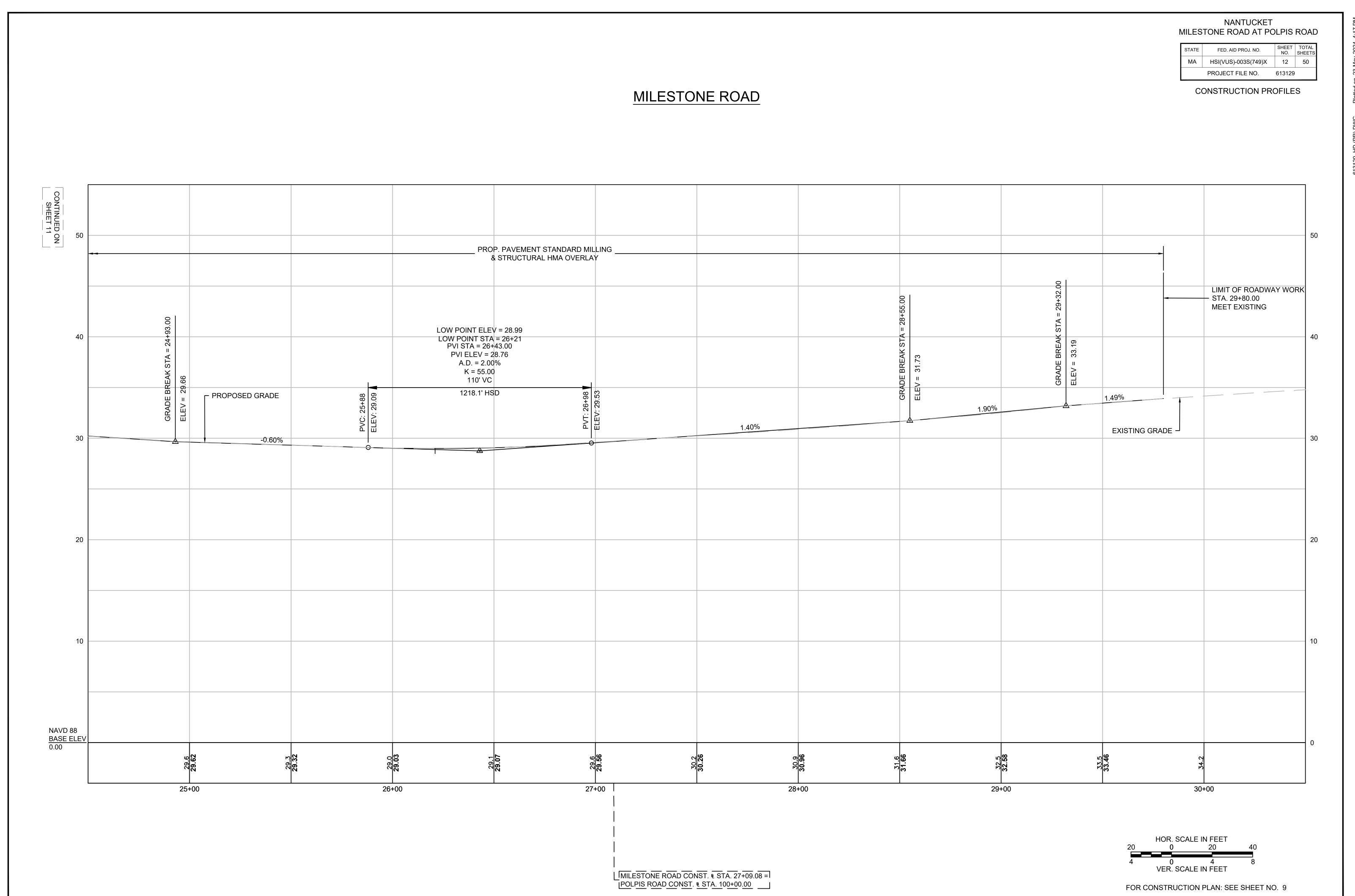
\_\_\_\_\_<u>SHEET 9</u>\_\_\_\_\_

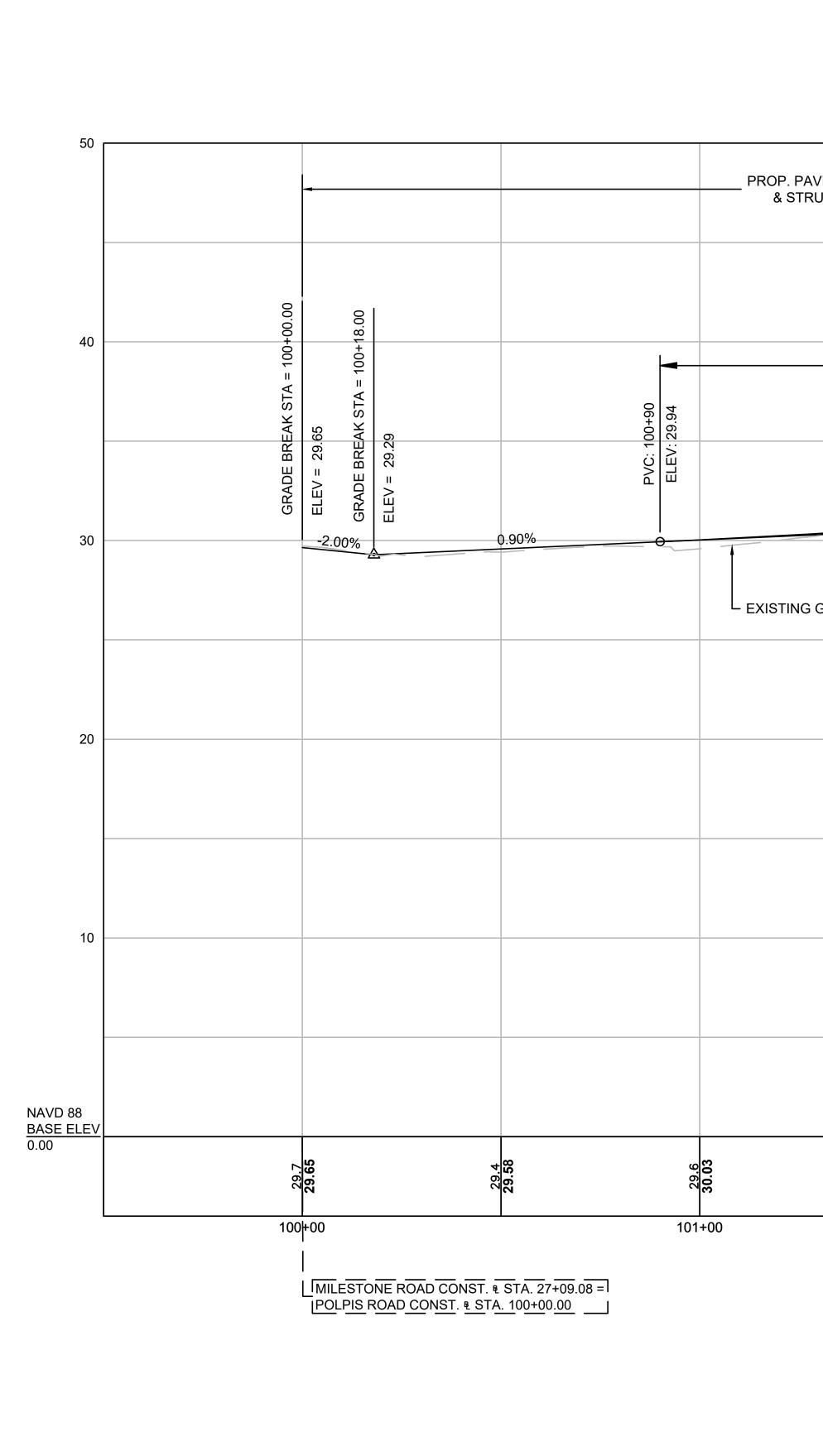






NANTUCKET





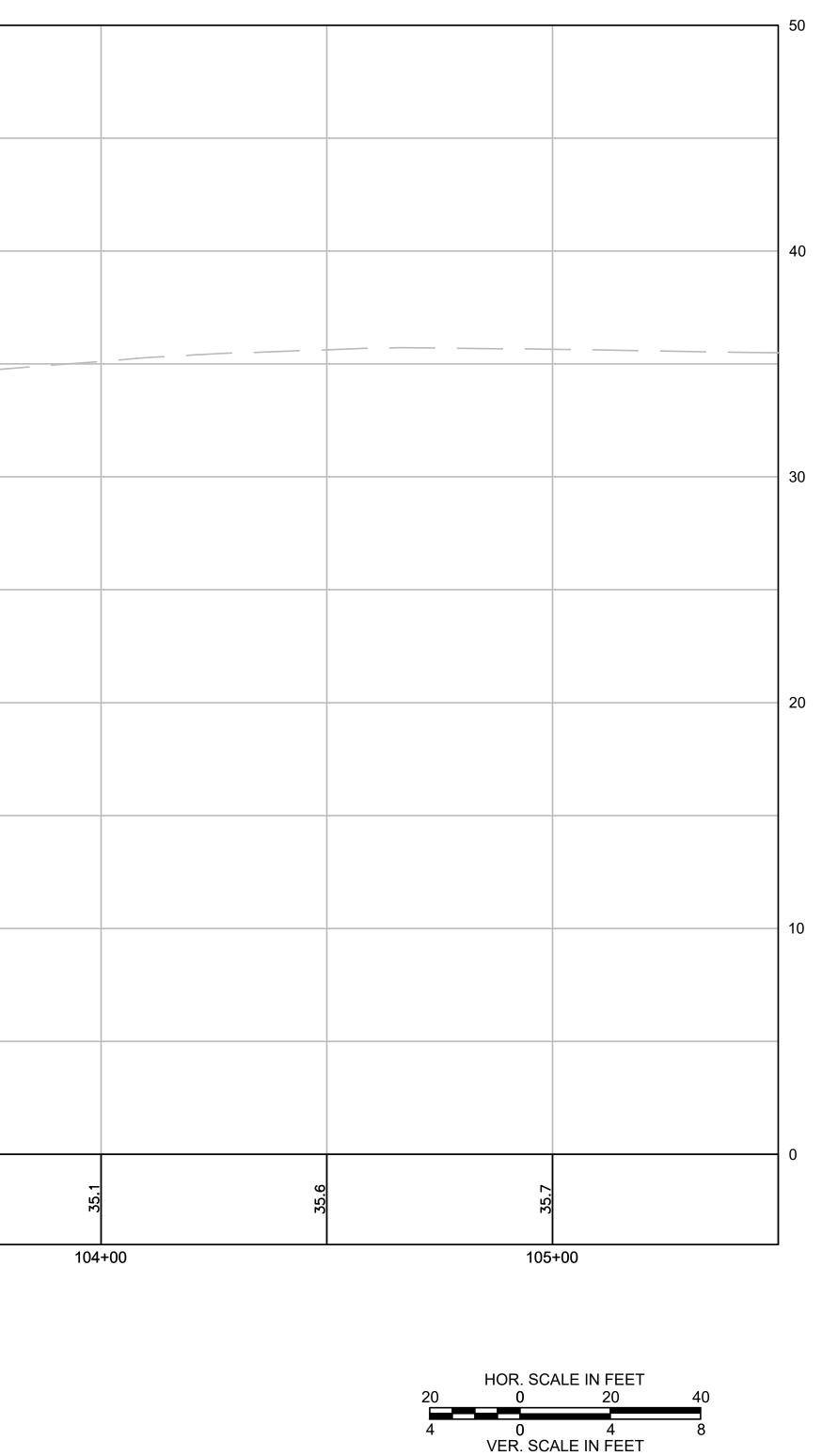
# POLPIS ROAD

	102	2+00	103	+00	
30.5	<b>30.61</b> 31.4	<b>31.38</b> 32.3	<b>32.28</b> 33.2	34.2 24	
GRADE					
<del>k</del>	<u><u></u></u>				
		PROPOSED - 105+10 - 105+10 - 105+10 - 105+10 - 105+10 - 1.80			
120'	'VC	02+10 31.56 ∟ PROPOSED	CRADE		
PVI ELE\ A.D. = K = 1	0.90% 33.65			LIMIT OF WORK - STA. 102+90.00 MEET EXISTING	
	NDARD MILLING MA OVERLAY				

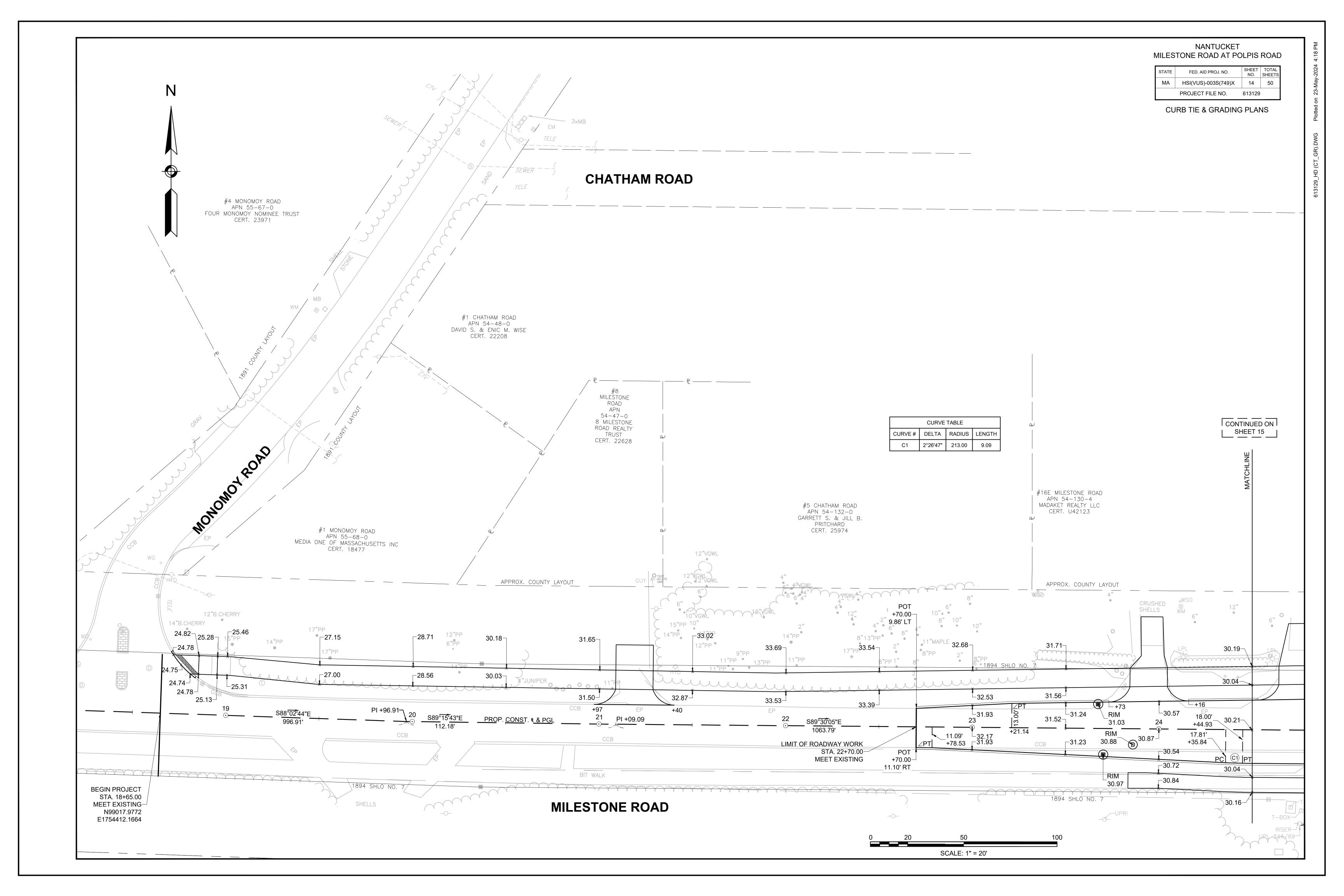
#### NANTUCKET MILESTONE ROAD AT POLPIS ROAD

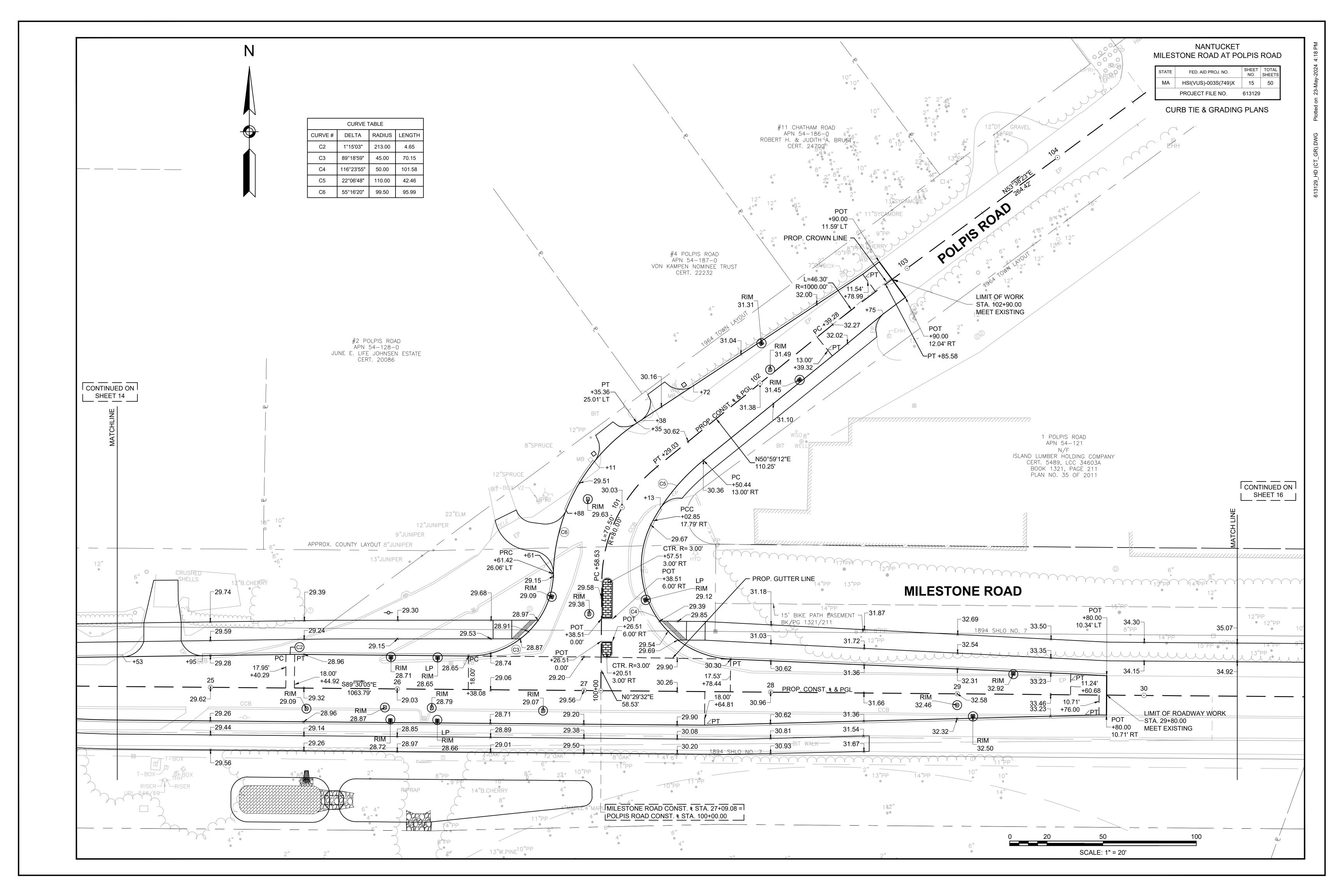
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HSI(VUS)-003S(749)X	13	50
	PROJECT FILE NO.	613129	

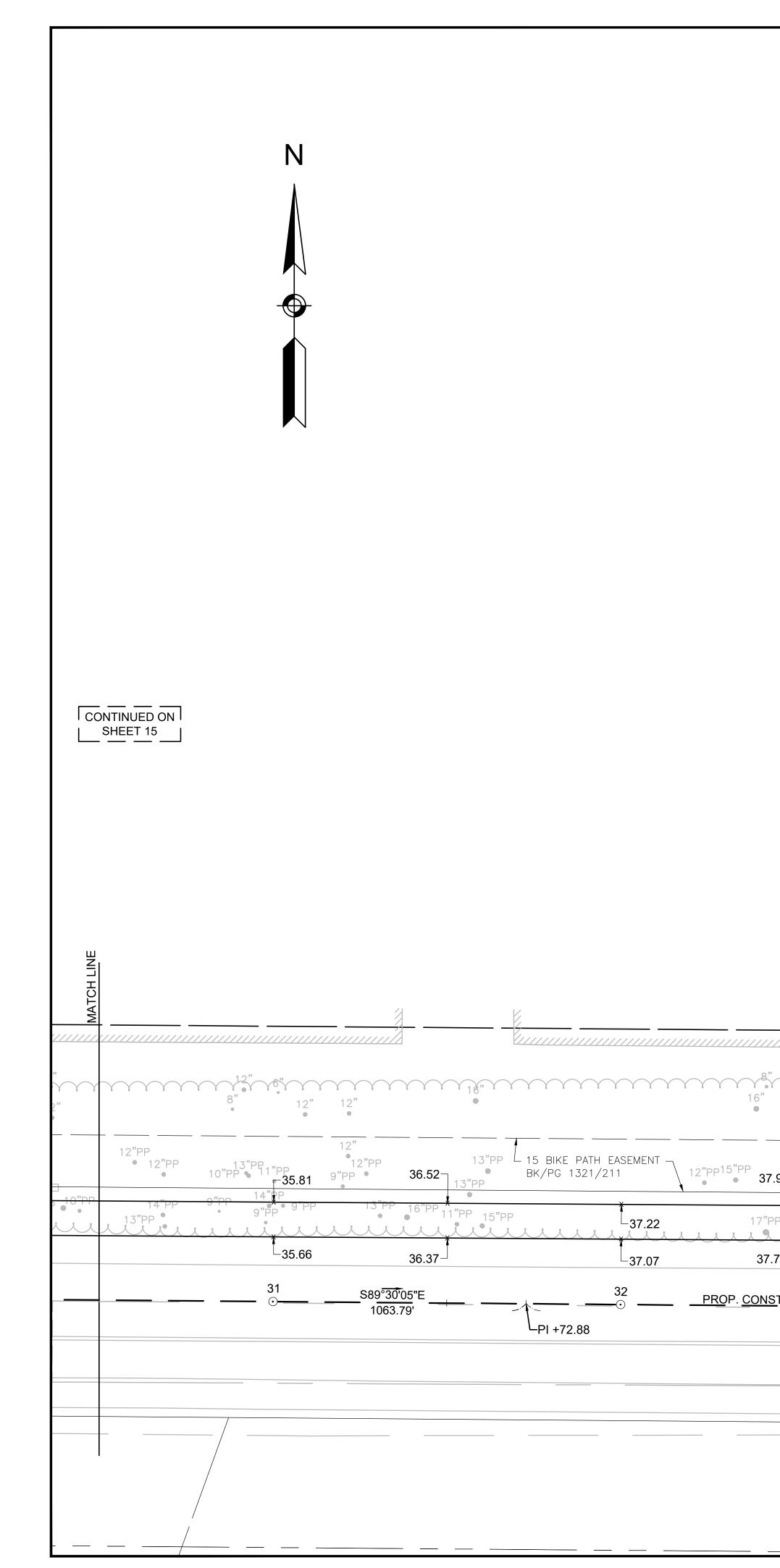
CONSTRUCTION PROFILES



FOR CONSTRUCTION PLAN: SEE SHEET NO. 9

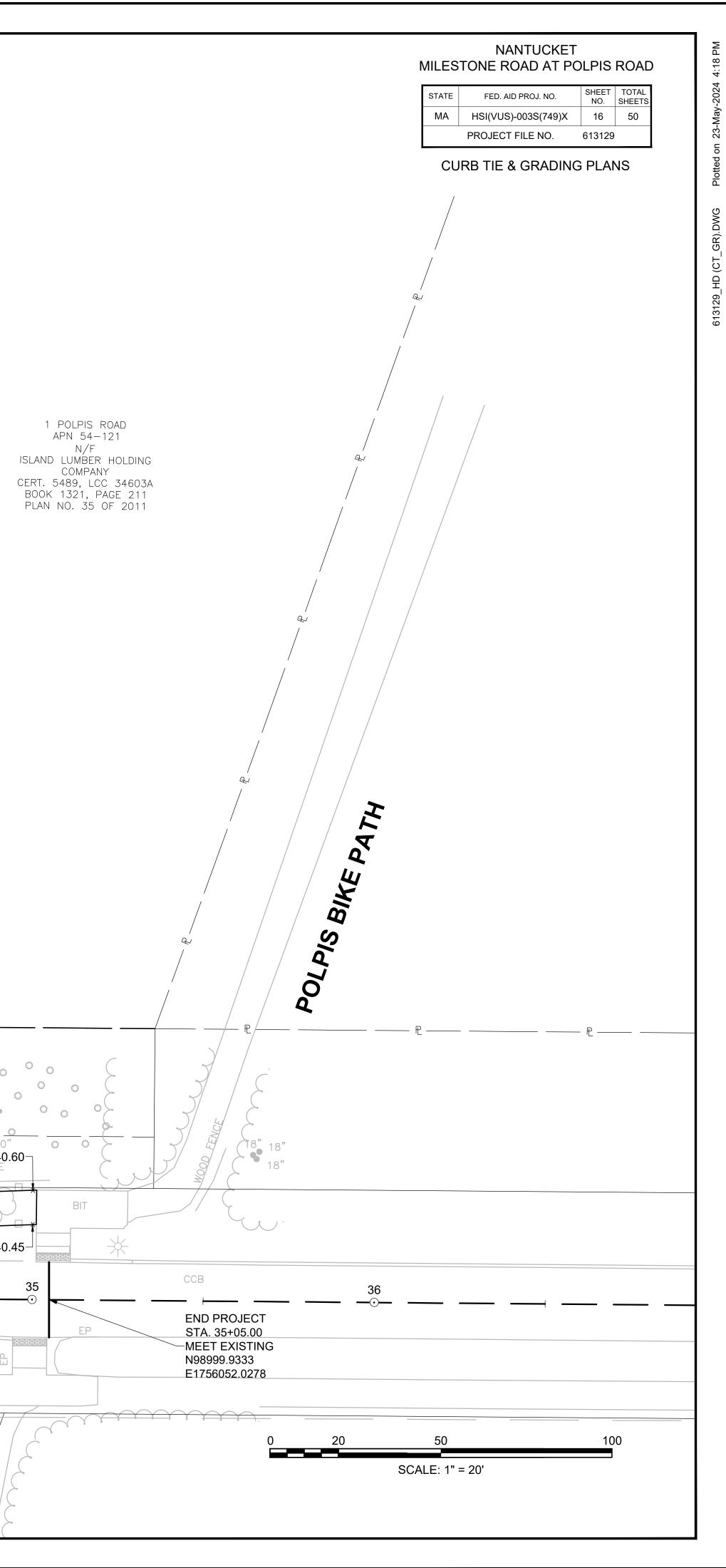


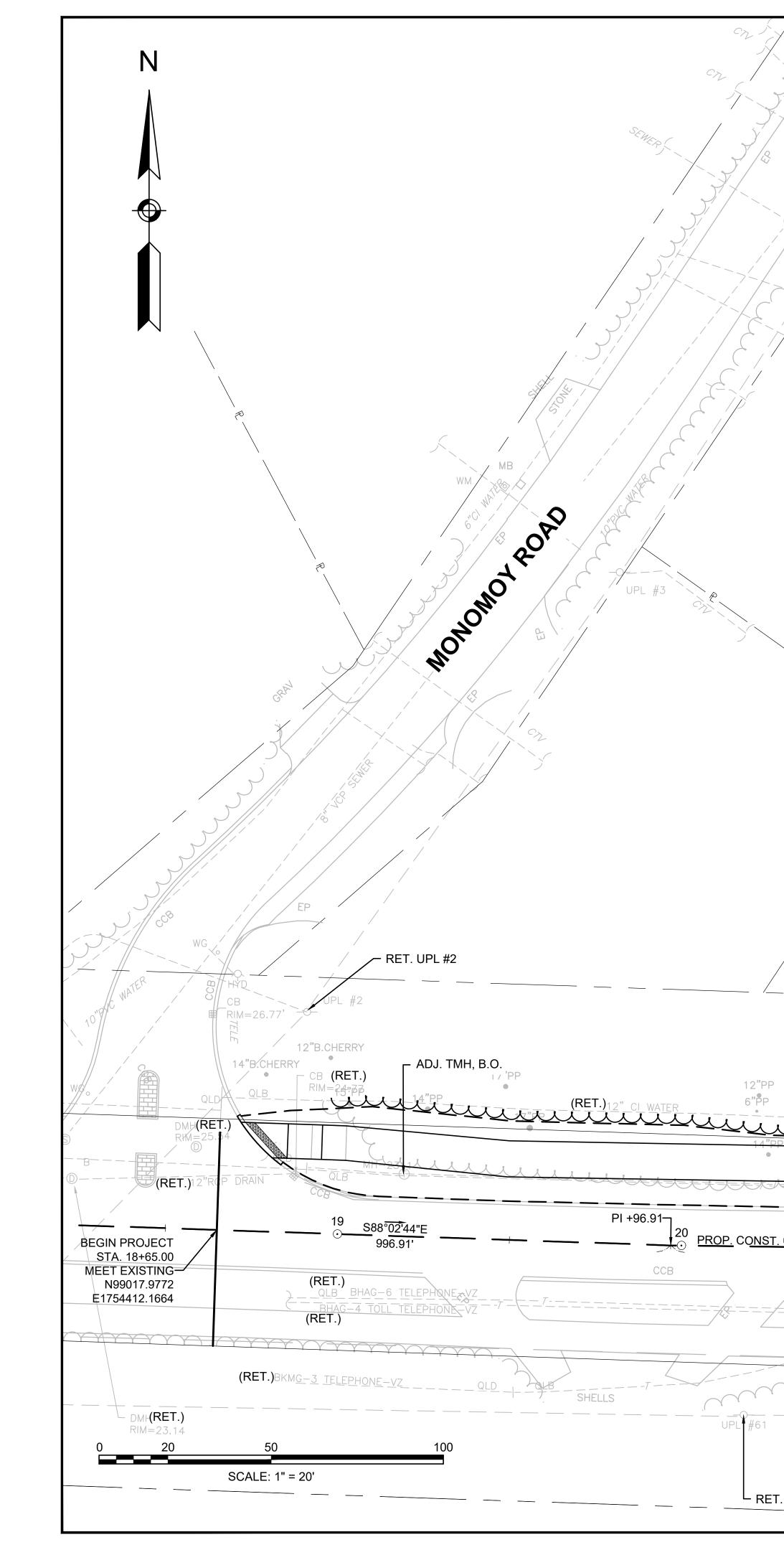




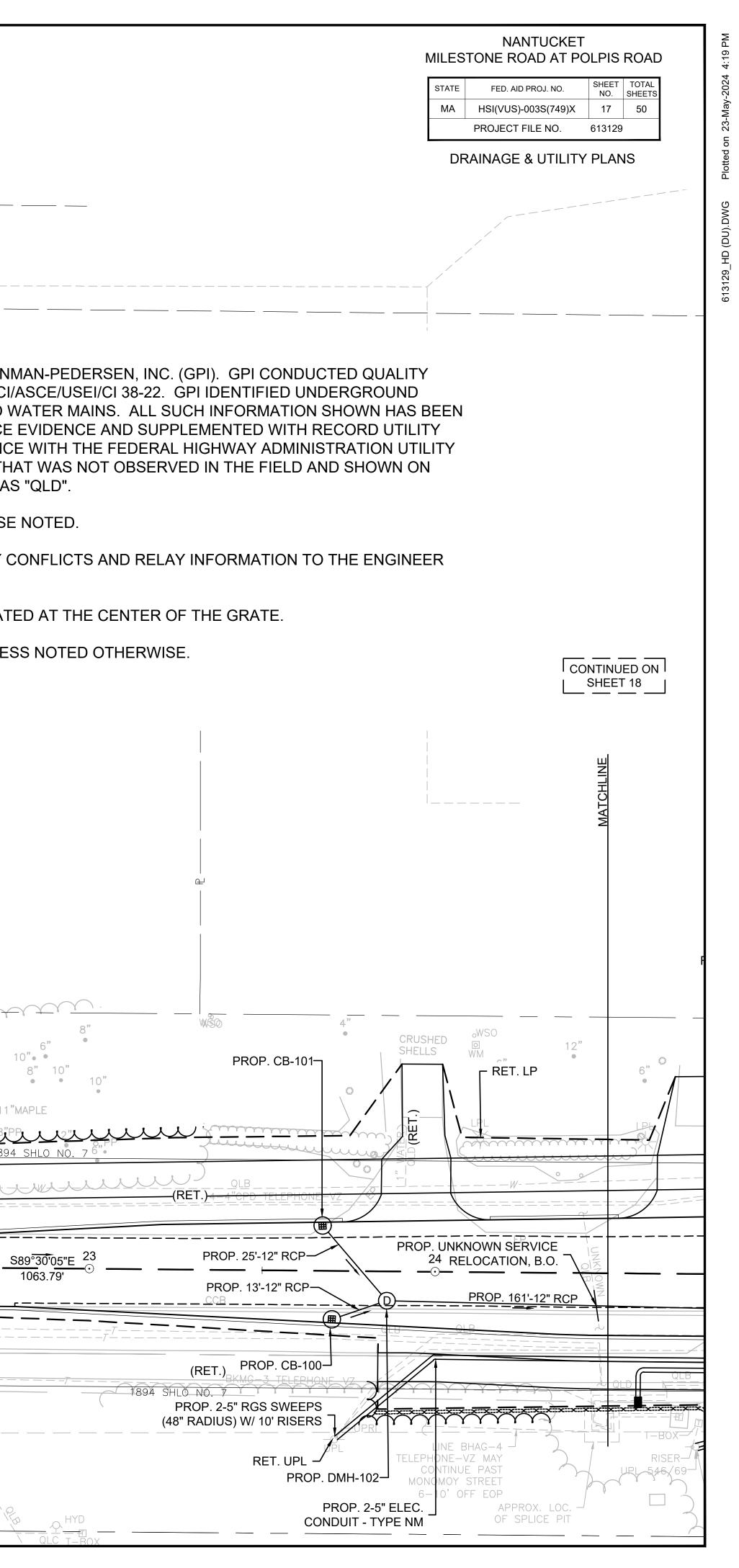
MILESTONE RC	)AD
--------------	-----

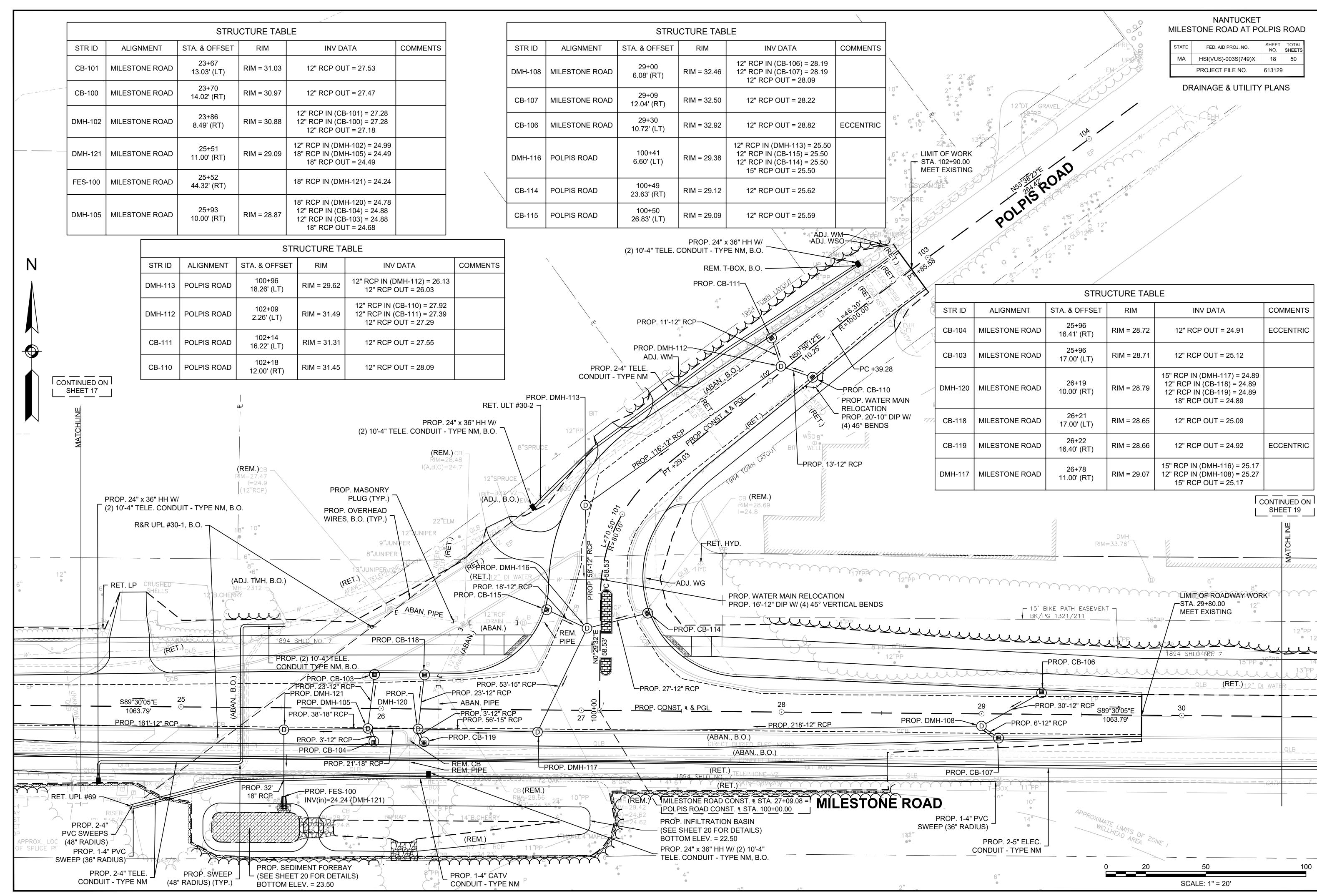
///////////////////////////////////////					
$\gamma\gamma\gamma$	24" 10" 8" • * * * * * * * * * * * * * * * * * * *		16" 16" 10" • 14"	16" • 12" 12" • 12" 12" • 12" 10"W.PINE	BUSHES C 12" • 8"10"
91	38.61 12"PP 11"PP <sup>10"PP</sup> 18"PP 11"PP 15"PP	1894 SHLO NO! 27PP 17"PP	39.96 12" 6"W.P 12" 4"PP B 14"PP 4	17"PP PINE 12"W.PINE 8" 5 BIKE PATH EASEMENT 15"P 3K/PG 1321/211 40.38 10"W.PINE 12"W.PINE 1 14"PP	
 76	38.46	<u>39.16</u>	<u>39.81</u>	WG 40.23	40
_T. ₽ <u>. &amp; P(</u>	EP	9° <u>30</u> '34"E	34 	₩G 40.23-	EP
		EMHEMH E E			CCB
	BIT WALK	1894 SHLO NO. 7		BIT WALK	
	MILEST	ONF ROAD			ВТ





	, ,	
Z EM 3×M	B	
	(	
S =		
TELE		
	GENERAL NOTES:	
	1. SUBSURFACE UTILITY INFORMATION SH LEVEL B UTILITY INVESTIGATIONS IN OC UTILITY LOCATIONS FOR CABLE TV, ELE LABELED AS "QLB". DRAINAGE INFORMA INFORMATION WHERE AVAILABLE. DRAI DATA QUALITY LEVEL D. ANY INFORMAT THESE PLANS IS BASED UPON RECORD	TOBER 2023 IN ACCORDANCE WITH CI CTRIC, GAS, COMMUNICATIONS, AND WATION WAS OBTAINED FROM SURFACE INAGE INFORMATION IS IN COMPLIANC FION DEPICTED ON RECORD PLANS TH
	2. EXISTING UNDERGROUND UTILITIES SH	ALL BE RETAINED UNLESS OTHERWISE
	3. CONTRACTOR SHALL EXCAVATE TEST P PRIOR TO COMMENCEMENT OF UTILITY	
	4. ALL RIM ELEVATIONS SHOWN ON THE D	RAINAGE & UTILITY PLANS ARE LOCAT
	5. ALL DRAINAGE PIPES SHALL BE CLASS	V REINFORCED CONCRETE PIPE UNLES
R		
APPROX. COUNTY LAYOUT	GUY THE SEA STOLE	ANT; 6" DI WATER PIPE 4"
	T.) 6" AC WATER UFL 62-1 10"VSWL 12"(GWL CAPPED UFL 62-1 10"VSWL 12"(GWL 14"PP 13"PP 14"PP 13"PP 9"PP	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$
uuuu		<u>111 PULLUN 8 189</u>
#"JUNIPER 4-4"CPD_IFKTPR	DNE-07 11" AP	
CCB		
<u>₽ &amp; PGL</u> <u>\$89°15'</u> 43" <u>E</u> 112.18'		
	CCB (GRET.) QLBBHAG_6_TELEPHONE_VZ	ASTE
	(RET.)BHAG-4 TOLL TELEPHONE-VZ	
	<u>QLB</u> BKMG-3 TELEPHONE-	
MILESTONE	ROAD	RET. UPL #63 )
	19-3 19-1 12-1	CATV
. UPL #61		



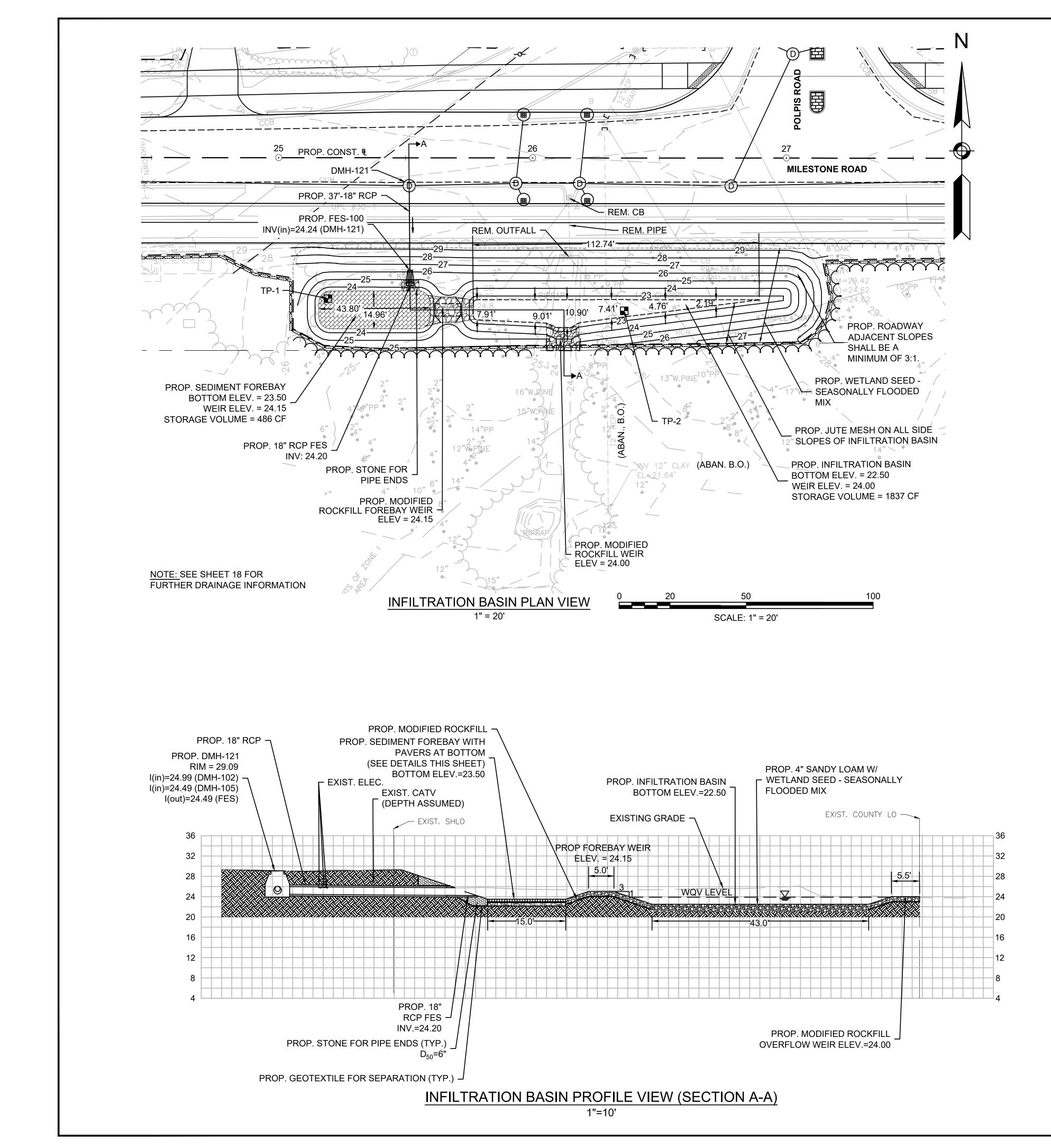


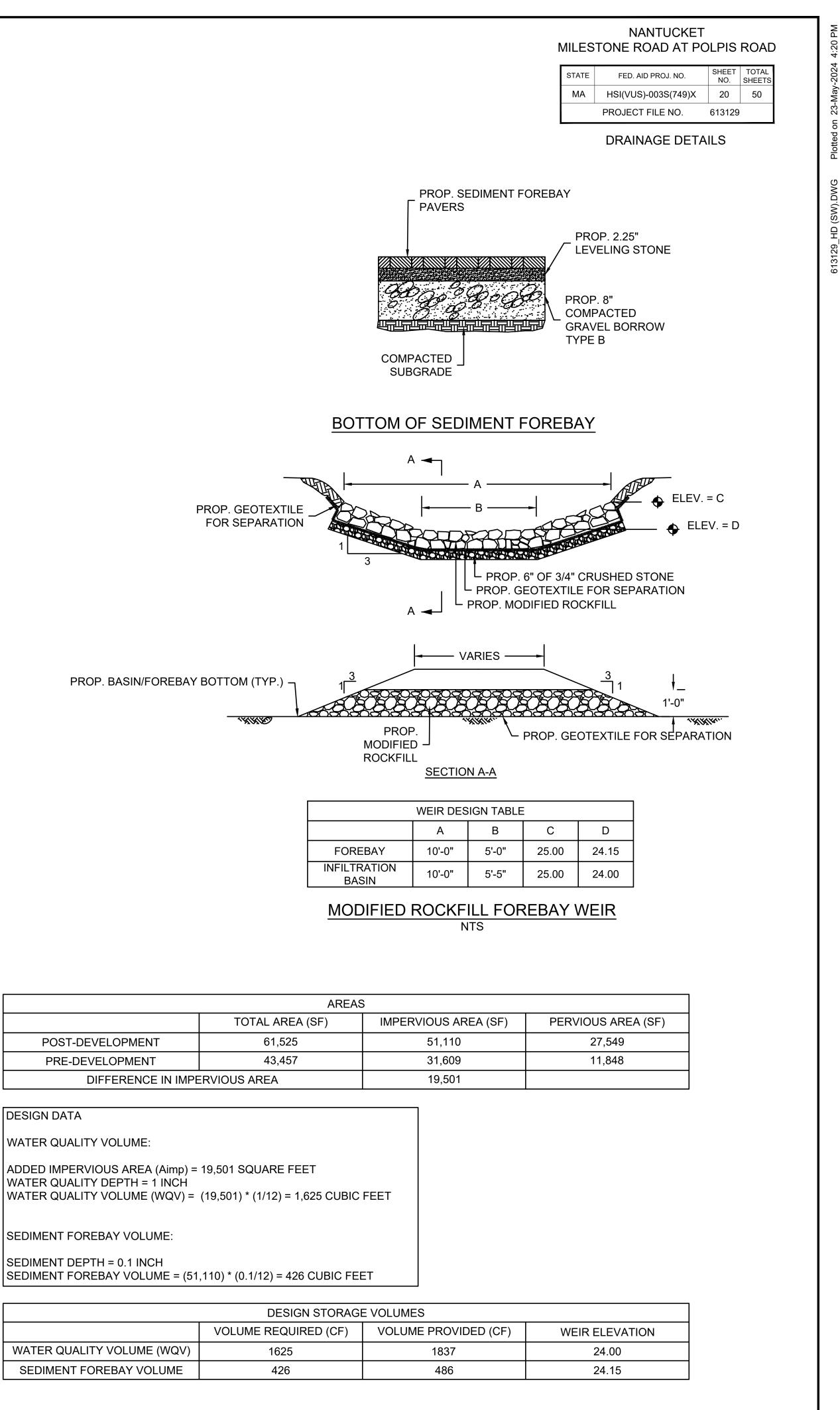
	STRUCTURE TABLE								
STR ID	ALIGNMENT	STA. & OFFSET	RIM	INV DATA	COMMENTS				
CB-104	MILESTONE ROAD	25+96 16.41' (RT)	RIM = 28.72	12" RCP OUT = 24.91	ECCENTRIC				
CB-103	MILESTONE ROAD	25+96 17.00' (LT)	RIM = 28.71	12" RCP OUT = 25.12					
DMH-120	MILESTONE ROAD	26+19 10.00' (RT)	RIM = 28.79	15" RCP IN (DMH-117) = 24.89 12" RCP IN (CB-118) = 24.89 12" RCP IN (CB-119) = 24.89 18" RCP OUT = 24.89					
CB-118	MILESTONE ROAD	26+21 17.00' (LT)	RIM = 28.65	12" RCP OUT = 25.09					
CB-119	MILESTONE ROAD	26+22 16.40' (RT)	RIM = 28.66	12" RCP OUT = 24.92	ECCENTRIC				
DMH-117	MILESTONE ROAD	26+78 11.00' (RT)	RIM = 29.07	15" RCP IN (DMH-116) = 25.17 12" RCP IN (DMH-108) = 25.27 15" RCP OUT = 25.17					

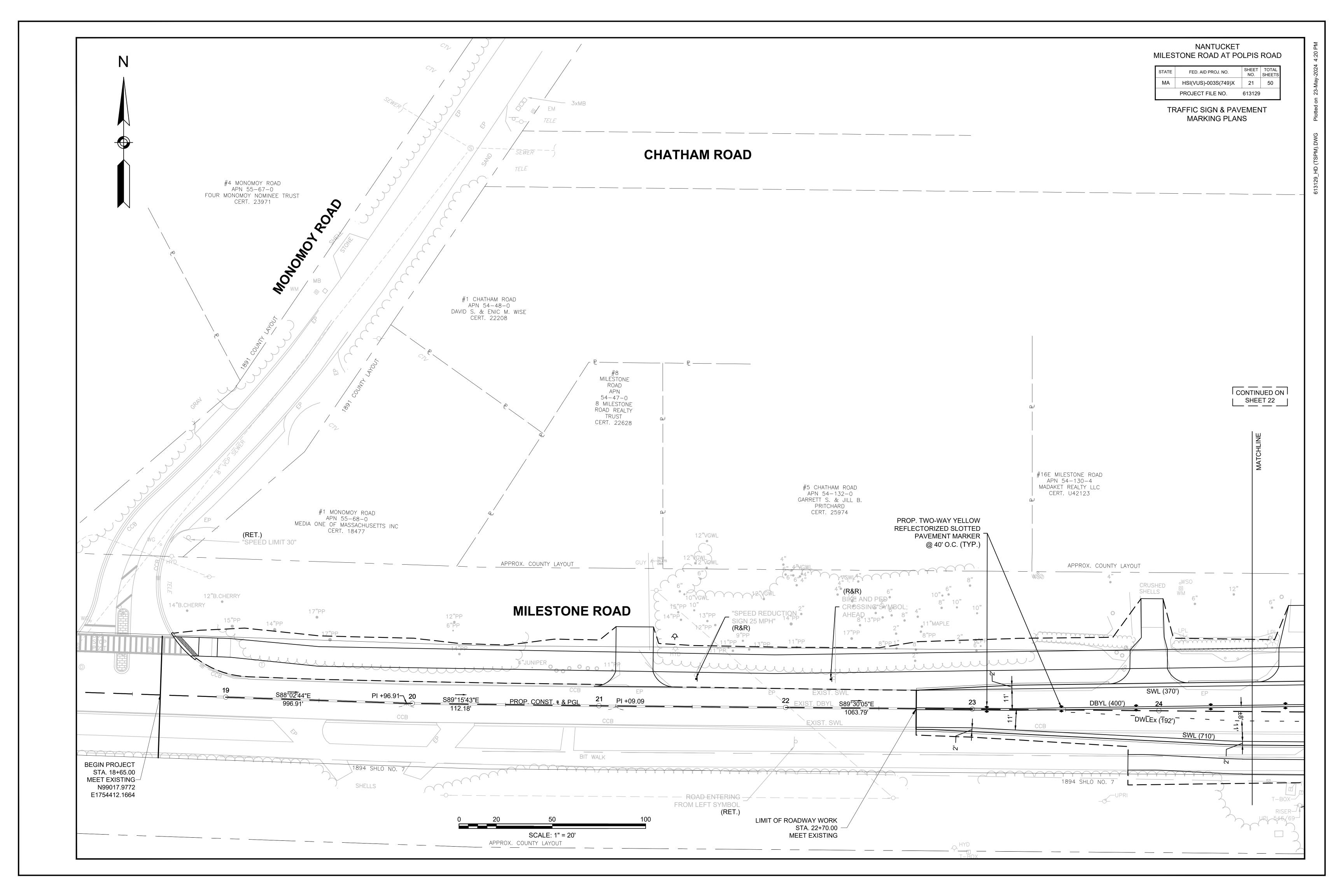
			SHEET 19
	DMH		MATCHLINE
15' BIKE PA	ATH EASEMENT 7	6" LIMIT OF ROADW STA. 29+80.00 MEET EXISTING	8"
		15"PP	12"PP 12"PP
	P. CB-106	yuu	15"PP 10"PP 14"PP 13"PP 13"PP 13"PP 13"PP 13"PP 14"PP
29 PROP. 30' MH-108 PROP. 6'-12" RCP	S89°30'05"E	30	QLB
PROP. CB-107-J BOX 11"PP BOX 10" 10" 10" 14" EP (36" RADIUS) PROP. 2-5" ELEC. CONDUIT - TYPE NM	APPROXIMATE LIMITS OF WELLHEAD AREA	======================================	= = = CATV = = -T = -T
6"	0 2	20 50	100
0		SCALE: 1" = 20'	

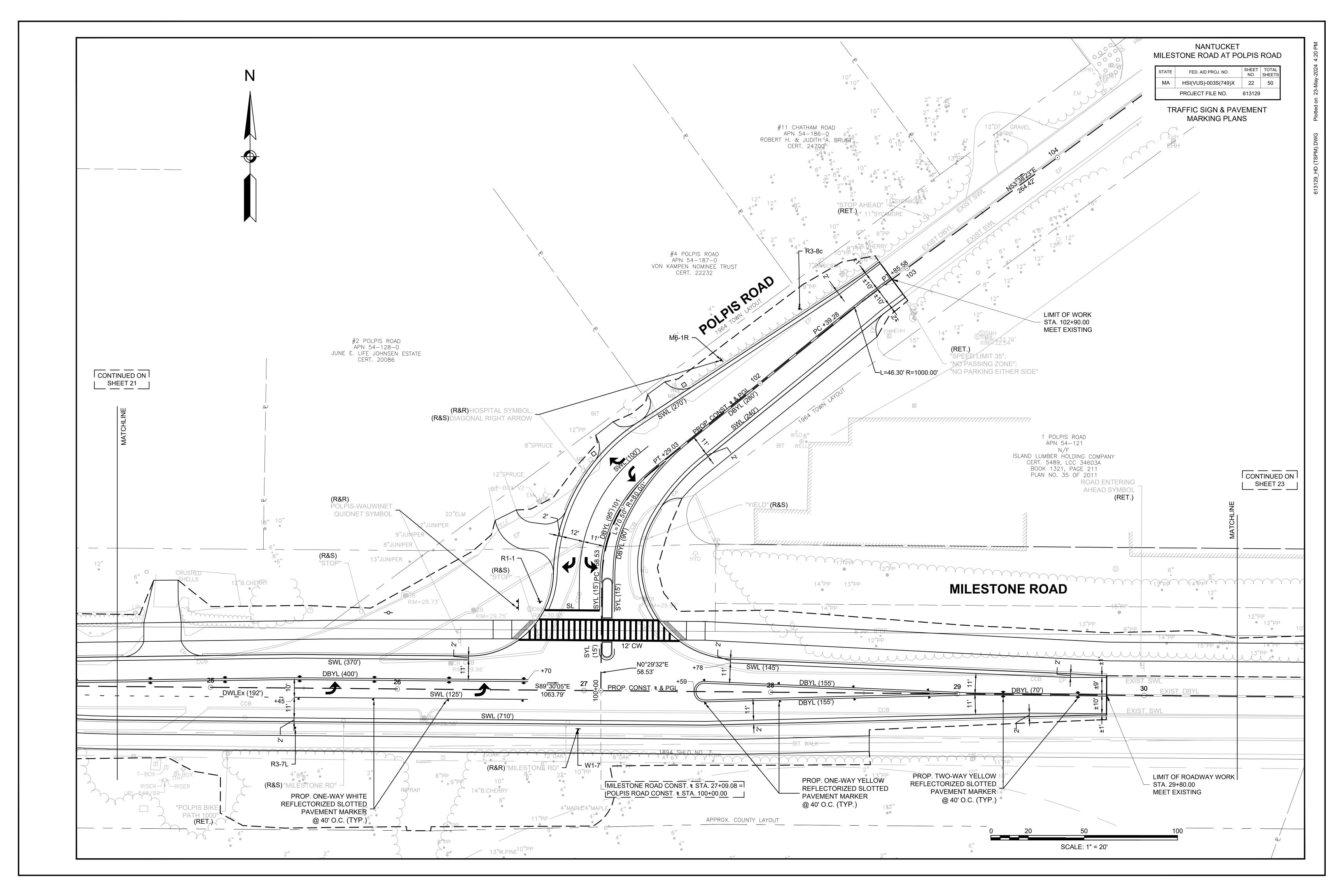
		94 SHLO NO. 7 PROP. 2-5" ELEC. CONDUIT - TYPE NM		========CATV===-T===	STONE ROAD	
			CCB (ABAN., B.O.) 	(RET.) <u>C-NGRID_</u> EEMHEMH		<i>EE</i>
	S89°30'05"EPI + 1063.79'	-72.88 32 ⊙ PROP. CONST. ₽ 8		 33 ⊙	34 	ADJ. WG <u>S89°30'34"E</u> 691.94'
0"PP 14"PP 9"PP 14"PP 13"PP 9"PP 9"PP	13"PP 16"PP 11"PP 15"PP		SHLO NO. 7 <u>18"PP</u> 17"PP 11"PP	2 15"PP 15"PP	R&R HYDRANT; PROP. 17'- 6" DL WATER PIPE	10"W.PRE 12"W.PINE 14"PP
12"PP 12"PP 12"PP 12"PP 13"PB 11"PP 11"PP	12" 12"PP 13"PP <u>9"PP 11115 13"PP</u>	12"PP <sup>15"</sup>		<u>"PF0"PP10"PP 9"PP</u>	10" • 14" 12" 6"W.PIN	10"W.PINE 17"PP 12"W.PINE 8" 15"PP 15"PP
8" 12"	12" •		$ \begin{array}{c} 8^{"} \\ 16^{"} \\ \hline 15^{'} \\ BK/PG 1321/211 \end{array} $		16" 16	12" 18" 12" 12"
۱						
SHEET 18						



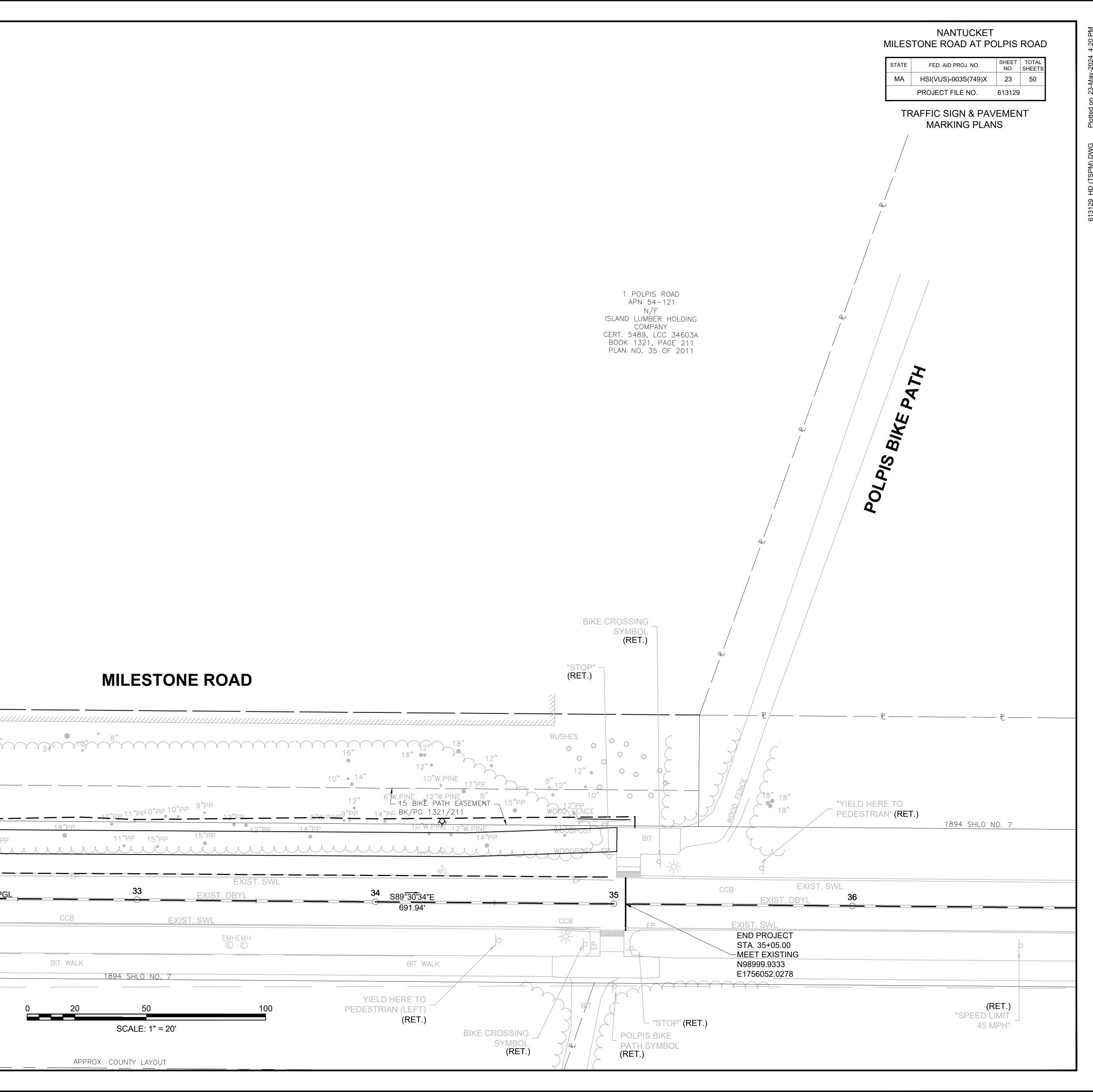








		N		
CONTINUED ON SHEET 22				
MATCHLINE				
2" 12"PP • 12"P	<sup>12</sup> <sup>°</sup> <sup>°</sup> <sup>8</sup> <sup>°</sup> <sup>13</sup> <sup>°</sup> <sup>°</sup> <sup>13</sup> <sup>°</sup> <sup>°</sup> <sup>°</sup> <sup>13</sup> <sup>°</sup>			
2" 12"PP • 12"P	<sup>12</sup> <sup>°</sup> <sup>°</sup> <sup>8</sup> <sup>°</sup> <sup>13</sup> <sup>°</sup> <sup>°</sup> <sup>13</sup> <sup>°</sup> <sup>°</sup> <sup>°</sup> <sup>13</sup> <sup>°</sup>	2" 12" 		PATH EASEMENT - 12"PP <sup>15</sup> "PP
""""""""""""""""""""""""""""""""""""""	<sup>2</sup> P 10"PP 11"PP 10"PP 11"PP 9"PP 14"PP 9"PP 9"PP 9"P	2" 12" 	13"PP 15 BIKE BK/PG	PATH EASEMENT - 12"PP15"PP
2" 12"PP • 12"P	<sup>2</sup> P 10"PP 11"PP 10"PP 11"PP 9"PP 14"PP 9"PP 9"PP 9"P	2" 12" 12" 12" 12" 12" 12" 12" 12"	13"PP 15 BIKE BK/PG	PATH EASEMENT



NOTES:
--------

1.	ALL WARNIN
2.	ALL SIGNS N

3. QUANTITIES OF SIGNS AND POSTS SHOWN ON THIS SHEET MAY DIFFER FROM THE TRAFFIC SIGN & PAVEMENT MARKING PLANS. WHERE DIFFERENCES OCCUR, THE TRAFFIC SIGN & PAVEMENT MARKING PLANS SHALL PREVAIL.

						-						
IDENTIFI-	SIZE OF	SIGN		NUMBER					UNIT AREA IN			
CATION NUMBER	WIDTH	HEIGHT	TEXT	LETTER HEIGHT	LETTER   VERTICAL		BACK- GROUND	LEGEND	BORDER	REQUIRED	SQUARE FEET	SQU, FEI
R1-1	30"	30"	STOP	MUTCD STANDARD		1	RED	WHITE	WHITE	1	6.25	6.2
R3-7L	30"	30"	LEFT LANE MUST TURN LEFT	MUTCD STANDARD		1	WHITE	BLACK	BLACK	1	6.25	6.2
R3-8c	30"	30"	ONLY ONLY	MUTCD STANDARD		1	WHITE	BLACK	BLACK	1	6.25	6.2
W1-7	48"	24"		MUTCD STANDARD		1	YELLOW	BLACK	BLACK	MNT. w/ EXIST. D3-1A	8.00	8.0
M6-1R	21"	15"			MUTCD STANDARD		BLUE	WHITE	WHITE	MNT. w/ EXIST. D9-2	2.19	2.′

ING, REGULATORY AND ROUTE MARKERS SHALL BE FABRICATED WITH HIGH INTENSITY ENCAPSULATED ECTIVE SHEETING (SEE SECTION M9.30.0) TYPE III OR IV.

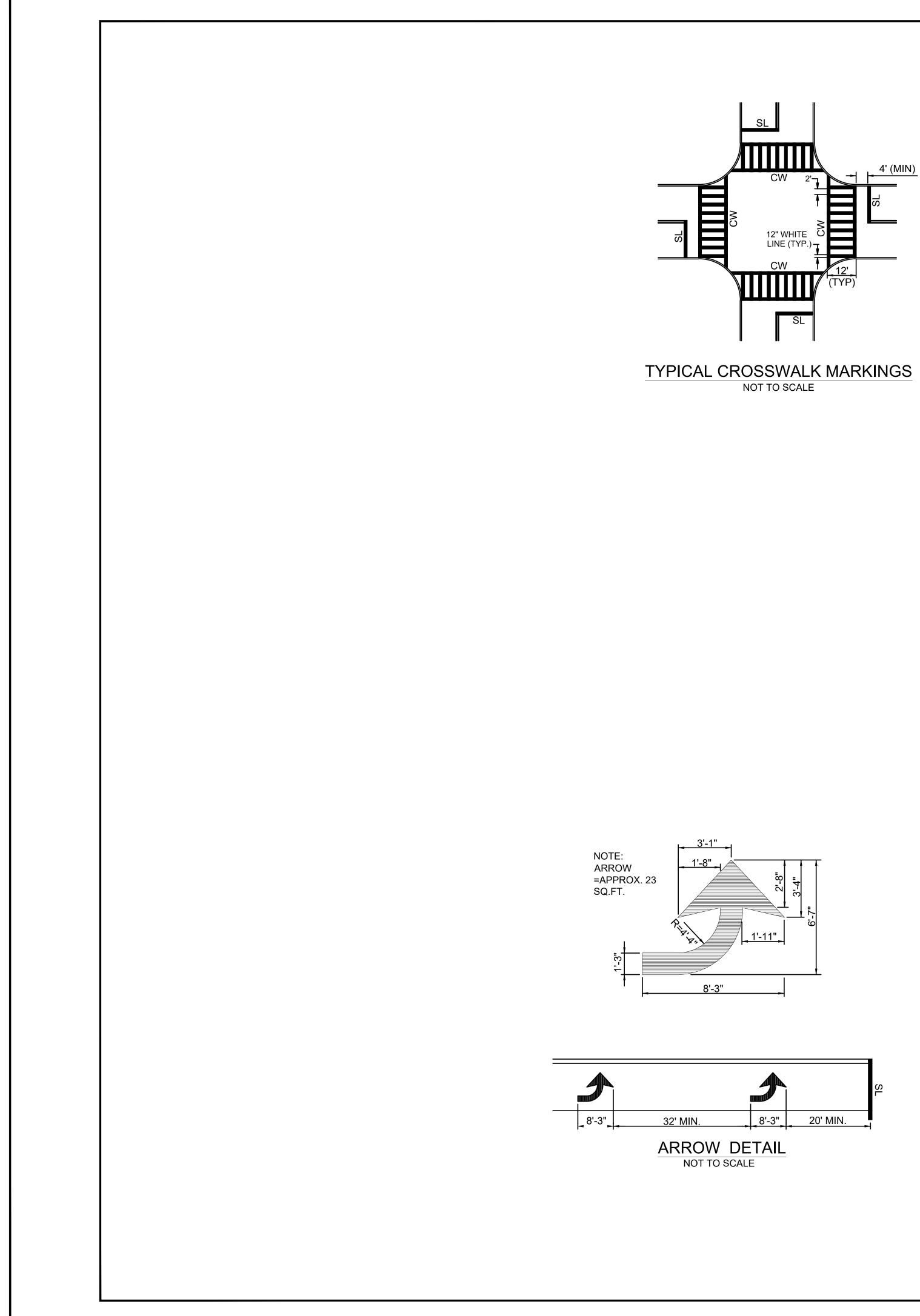
NOTED AS "(R&R)" SHALL BE MOUNTED ON NEW 4"x4" WOOD POST PER THE TOWN OF NANTUCKET'S STANDARDS.

DTED AS "(R&R)" SHALL BE MOUNTED ON NEW 4"x4" WOOD POST PER THE TOWN OF NANTUCK

### NANTUCKET MILESTONE ROAD AT POLPIS ROAD

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HSI(VUS)-003S(749)X	24	50
	PROJECT FILE NO.	613129	

TRAFFIC SIGN SUMMARY SHEET



## PAVEMENT MA

EXISTING	PROPOSED
4	<b>*</b> 1
ONLY	ONLY
	SL
	SWL
	SYL
	BWL
	BYL
	<u>DWL</u>
	<u>DYL</u>
	DWLEx
	DYLEx
	DBWL
	DBYL

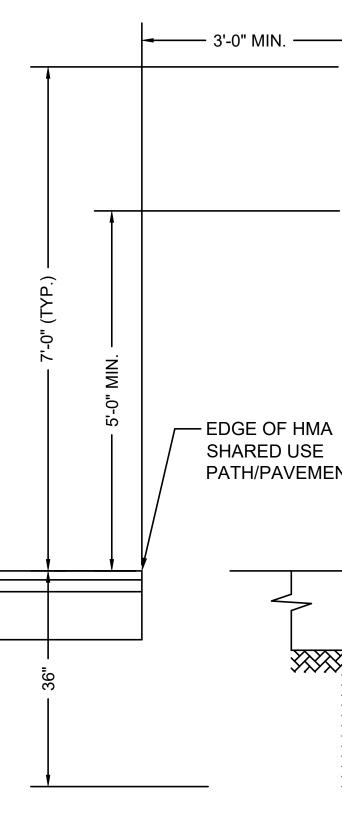
\* BROKEN WHITE/YELLOW LINES TO BE \*\* DWLEX AND DYLEX LINES TO BE 2' IN L

\*\*\* DWL AND DYL LINES TO BE 3' IN LENG

## GENERAL NOTES

1. ALL EXISTING SIGNS WITHIN THE PROJECT L

2. ALL PROPOSED PAVEMENT MARKINGS SHAL



NOTES:

1. MAKE POSTS BREAKAWAY ABOVE THE GROUND SUR

## TRAFFIC

	NANTUCKET MILESTONE ROAD AT POLPIS ROAD
ARKINGS SYMBOLS	STATE FED. AID PROJ. NO. SHEET TOTAL NO. SHEETS
DESCRIPTION	MA         HSI(VUS)-003S(749)X         25         50           PROJECT FILE NO.         613129
PAVEMENT ARROW - WHITE	
LEGEND "ONLY" - WHITE	TRAFFIC LEGEND ABBREVIATIONS & NOTES
STOP LINE (12" WHITE)	
CROSSWALK (12" OR 24")	
SOLID WHITE LINE (6" OR 12")	
SOLID YELLOW LINE (6" OR 12")	
* BROKEN WHITE LINE (6")	
* BROKEN YELLOW LINE (6")	
*** DOTTED WHITE LINE (6")	
*** DOTTED YELLOW LINE (6")	
** DOTTED WHITE LINE EXTENSION (6")	
** DOTTED YELLOW LINE EXTENSION (6")	
* DOUBLE WHITE LINE (6")	
* DOUBLE YELLOW LINE (6")	
0' IN LENGTH WITH 30' GAP (TYP.) (BYL ON SHARED USE I NGTH WITH 6' GAP (TYP.) H WITH 9' GAP (TYP.) (IF WIDE LINE IS SPECIFIED, THE WII	
MITS SHALL BE RETAINED UNLESS NOTED OTHERWISE.	
_ BE THERMOPLASTIC.	
PROPOSED SIGN - SEE PLA     FOR TYPE AND LOCATION	NS
ATTACH SIGN TO WOOD POST V LONG GALVANIZED LAG BOLTS	
2" DIA. HOLE	
NT   /	
6" FROM SURFACE	
FINISHED GRADE	
16" DIA. CEMENT CONCRETE FOOTING	
' BY ADDING A 2" DIAMETER DRILL HOLE 6" FACE IN THE BASE OF THE POST.	
SIGN INSTALLATION	
NOT TO SCALE	

## TRAFFIC MANAGEMENT NOTES

#### GENERAL

- ALL TRAFFIC MANAGEMENT AND WORK ZONE TRAFFIC CONTROL MEASURES SHALL CONFORM TO THE CURRENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.), MASSDOT - HIGHWAY DIVISION'S "STANDARD DETAILS AND DRAWINGS FOR THE DEVELOPMENT OF TRAFFIC MANAGEMENT PLANS". THE STANDARD SPECIFICATIONS, AND THE FOLLOWING NOTES.
- THE TEMPORARY TRAFFIC CONTROL PLANS CONTAINED HEREIN ARE GIVEN AS A GUIDE 2. FOR TYPICAL WORK ZONE TRAFFIC CONTROL APPLICATIONS FOR THE TYPES OF WORK ANTICIPATED FOR THIS PROJECT. THEY ARE NOT INTENDED TO COVER ALL POSSIBLE CONSTRUCTION OPERATIONS WHICH THE CONTRACTOR MAY CHOOSE TO EMPLOY. WORK ZONE TRAFFIC CONTROL FOR OTHER CONSTRUCTION OPERATIONS OR OTHER TRAFFIC SITUATIONS IF APPLICABLE SHALL BE IN ACCORDANCE WITH THE REFERENCES LISTED IN NOTE NO. 1 AND AS APPROVED OR DIRECTED BY THE ENGINEER.
- WITH THE EXCEPTION OF THE PERMANENT LANE CLOSURES REQUIRED FOR STAGED CONSTRUCTION, LANE RESTRICTIONS MAY NOT REMAIN OVERNIGHT OR DURING NON-WORKING HOURS. AFTER EACH WORKING DAY, TRAFFIC CONTROL DEVICES THAT ARE NOT REQUIRED SHALL BE MOVED OFF THE ROADWAY OR FULL DEPTH CONSTRUCTION AREA AND PLACED SO AS NOT TO IMPEDE PEDESTRIAN AREAS, ABUTTER ACCESS OR CAUSE CONFUSION TO MOTORISTS. IN CERTAIN CIRCUMSTANCES, AND ONLY WITH THE APPROVAL OF MASSDOT AND THE ENGINEER. LANE RESTRICTIONS MAY REMAIN OVERNIGHT
- CONTRACTOR SHALL PROVIDE A SAFE TEMPORARY PEDESTRIAN ACCESS WHERE 4. EXISTING SIDEWALKS OR OTHER PEDESTRIAN AREAS ARE AFFECTED BY CONSTRUCTION WORK. CONTRACTOR SHALL PROVIDE RAMPS AND RAILINGS IN ACCORDANCE WITH ADA/AAB ACCESSIBILITY REQUIREMENTS FROM THE LATEST MASSDOT TTCP TEMPLATES. 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.
- PLACE ALL CONSTRUCTION SIGNING, TRAFFIC CONTROL DEVICES AND TEMPORARY PAVEMENT MARKINGS FOR EACH PHASE PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- ONE (1) THRU TRAVEL LANE HAVING A MINIMUM WIDTH OF 11'-0" MUST BE PROVIDED 6. FOR BOTH DIRECTIONS (LANE MAY BE SHARED AND DIRECTION OF TRAVEL TO ALTERNATE UNDER POLICE OFFICER OR FLAGGER CONTROL) DURING ALL PHASES OF CONSTRUCTION AS SHOWN ON THE TEMPORARY TRAFFIC CONTROL PLANS. UNLESS OTHERWISE DIRECTED BY THE ENGINEER. MINIMUM LANE WIDTH IS MEASURED FROM THE EDGE OF DRUMS OR MEDIAN BARRIER.
- WHEN WORK INFRINGES UPON THE TRAVELED WAY, WORK SHALL BE RESTRICTED TO OFF-PEAK HOURS ONLY (NORMALLY 9:00am TO 3:00pm, MONDAY TO FRIDAY). THE CONTRACTOR SHALL NOTIFY EACH ABUTTER AT LEAST 24 HOURS IN ADVANCE OF ROAD CLOSURE.
- NO WORK IS TO BE PERFORMED BETWEEN MEMORIAL DAY AND LABOR DAY, WITHOUT 8. PRIOR WRITTEN APPROVAL OF THE DISTRICT HIGHWAY DIRECTOR AND THE TOWN.
- 9. TAPER LENGTH FORMULAE FOR CHANNELIZATION DEVICES: ENGLISH UNITS: L = WxS FOR SPEED EQUAL TO OR GREATER THAN 45 M.P.H.  $L = WS^2 / 60$  FOR SPEED EQUAL TO OR LESS THAN 40 M.P.H. WHERE: L = MIN. LENGTH OF TAPER, S = POSTED SPEED, W = OFFSET WIDTH.
- 10. ADVISORY SPEED LIMIT, IF USED, SHALL BE SET IN THE FIELD BY THE ENGINEER. W13-1P PLATES SHALL BE USED WHERE APPROPRIATE.
- 11. FLASHING ARROW PANEL SHALL BE SET IN "ARROW MODE" WHEN USED FOR ACTUAL LANE CLOSURES ONLY. FOR SHOULDER CLOSURES, BULBS TO BE ILLUMINATED IN A NON-DIRECTIONAL CAUTION CONFIGURATION TO AVOID UNNECESSARY LANE SHIFTS.
- 12. DISTANCES SHOWN ON THE TEMPORARY TRAFFIC CONTROL PLANS ARE A GUIDE ONLY, AND MAY BE ADJUSTED IN THE FIELD BY THE ENGINEER.
- 13. THE FIRST TEN (10) REFLECTORIZED DRUMS OF A TAPER SHALL BE MOUNTED WITH SEQUENTIAL FLASHING WARNING LIGHTS.

#### GRADE DIFFERENCES

- 14. WHERE THERE IS A LONGITUDINAL DIFFERENCE IN ELEVATION BETWEEN EXISTING PAVEMENT AND ADJACENT TRAVEL SURFACE (UNDER REPAIR OR RECONSTRUCTION), THE CONTRACTOR SHALL PATCH A TEMPORARY HMA WEDGE WITH A 12:1 (OR FLATTER) SLOPE FOR SMOOTH TRANSITION. (SEE DETAIL ON SHEET 27).
- 15. CROSS-SECTIONAL GRADE DIFFERENCES IN EXCESS OF 2" DURING NON-WORKING HOURS WILL REQUIRE DELINEATION BY USE OF REFLECTORIZED DRUMS.
- 16. CROSS-SECTIONAL GRADE DIFFERENCES IN EXCESS OF 4" DURING NON-WORKING HOURS SHALL BE PROTECTED BY BACKFILLING WITH A WEDGE OF EARTHWORK TO BE COMPACTED AT 4:1 SLOPE AND WILL ALSO REQUIRE DELINEATION BY USE OF DRUMS.
- 17. A MINIMUM SLOPE OF 4:1 MUST BE MAINTAINED AFTER WORKING HOURS DURING SUBBASE AND BASE COURSE INSTALLATION ALONG EDGE OF THE TRAVELWAY (SEE DETAIL ON SHEET 27). A MAXIMUM SLOPE OF 8:1 MUST BE MAINTAINED ON ALL ABUTTER ACCESS DRIVES AND A MAXIMUM SLOPE OF 12:1 MUST BE MAINTAINED ON ALL SIDEWALKS.

#### CONSTRUCTION SIGNING

18. ALL CONSTRUCTION SIGNS SHALL BE BLACK LEGEND ON A REFLECTORIZED FLUORESCENT ORANGE BACKGROUND UNLESS OTHERWISE NOTED

- PAYMENT.
- ENGINEER.

- WHEN NOT IN USE.
- WHEN NOT IN USE.

#### **PAVEMENT MARKINGS**

- CONTROL PLANS.
- CONSTRUCTION.

#### CHANNELIZATION

ROAD LOCAL

ROAD\ MOST

FREEV

Based on: Table 6B-1 MUTCD latest edition \*ROAD TYPE TO BE DETERMINED BY MASSDOT OFFICE OF TRANSPORTATION PLANNING.

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

THE "THIRD" SIGN ABOVE IS TYPICALLY REFERRED TO AS AN "ADVANCE WARNING" SIGN ON THE TTCP SETUPS. THESE ADVANCE WARNING SIGNS ARE LOCATED PRIOR TO THE PROJECT LIMITS ON ALL APPROACHES (i.e. THE W20-1 SERIES (ROAD WORK XX FT) SIGNS), AND USUALLY REMAIN FOR THE DURATION OF THE PROJECT.

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

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

19. CONSTRUCTION SIGNING SHOWN ON THE ADVANCE WARNING SIGN PLAN SHALL ONLY BE USED WHEN WORK IS BEING DONE WHICH RESTRICTS TRAFFIC.

20. STANDARD ORANGE OR FLUORESCENT RED-ORANGE FLAGS (16"x16" MIN.) MAY BE ATTACHED TWO (2) EACH ON ALL ADVANCE WARNING SIGNS. FLAGS SHALL NOT INTERFERE WITH A CLEAR VIEW OF THE SIGN FACE. IF USED, THE COST FOR THE FLAGS SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE SIGNS WITH NO ADDITIONAL

21. EXISTING GUIDE SIGNS SHALL BE TEMPORARILY RESET AS DIRECTED BY THE

22. ALL SIGNS, INCLUDING EXISTING, THAT ARE NOT REPRESENTATIVE OF ACTUAL WORK CONDITIONS SHALL BE EITHER COVERED OR REMOVED WHEN NOT APPLICABLE.

23. IF USED, ALL W20-4 AND W20-5 SIGNS SHALL BE TAKEN DOWN OR COVERED AT THE CLOSE OF EACH DAY UNLESS LANE RESTRICTIONS ARE PERMITTED TO REMAIN OVERNIGHT IN ACCORDANCE WITH NOTE NO. 3 ABOVE.

24. USE MA-W20-7b OR W20-7 SIGNS ONLY WHILE POLICE OR FLAGGERS ARE DIRECTING TRAFFIC. THEY SHALL BE TAKEN DOWN OR COVERED AT THE CLOSE OF EACH DAY OR

25. ALL SIGNS SHALL BE MOUNTED ON THEIR OWN STANDARD MASH CRASH TESTED SUPPORT. THEY SHALL BE TAKEN DOWN OR COVERED AT THE CLOSE OF EACH DAY OR

26. PAVEMENT MARKINGS WHICH ARE NO LONGER APPLICABLE SHALL BE REMOVED. APPLY TEMPORARY MARKINGS WHERE SHOWN ON THE TEMPORARY TRAFFIC

27. ON PROJECTS WHERE PAVEMENT OVERLAY IS NOT DESIGNATED, EXISTING PAVEMENT MARKINGS WHICH ARE IN CONFLICT WITH TEMPORARY TRAFFIC CONTROLS SHOULD BE COVERED TEMPORARILY WITH BLACKOUT TAPE, AS DIRECTED BY THE ENGINEER, FOR THE FULL DURATION OF THE PHASE IN PROGRESS. TEMPORARY PAINTED OR REMOVABLE TAPE MARKINGS SHALL BE USED AS NECESSARY FOR ALL PHASES OF

28. THE MAXIMUM SPACING BETWEEN CHANNELIZATION DEVICES (DRUMS OR CONES) SHALL BE APPROXIMATELY EQUAL IN FEET TO THE POSTED SPEED LIMIT. THE FIRST TEN DRUMS OF A TAPER SHALL BE MOUNTED WITH SEQUENTIAL FLASHING LIGHTS.

29. REFLECTORIZED CONES SHALL BE 36" HIGH.

30. ALL TEMPORARY TRAFFIC CONTROL EQUIPMENT, INCLUDING BUT NOT NECESSARILY LIMITED TO, TEMPORARY IMPACT ATTENUATORS, PLASTIC DRUMS, AND SIGNS AND SIGN SUPPORTS (ON OR NEAR THE TRAVELED WAY) MUST PASS THE CRITERIA SET FORTH IN THE MANUAL FOR ASSESSING SAFETY HARDWARE (MASH). IF THEY DO NOT MEET THESE CRITERIA, THEY MUST BE REMOVED FROM THE PROJECT.

#### SUGGESTED WORK ZONE WARNING SIGN SPACING

TYPE	DISTANCE BETWEEN SIGNS**			
	А	В	С	
L OR LOW VOLUME WAYS*	350	350	350	
OTHER ROADWAYS*	500	500	500	
WAYS AND EXPRESSWAYS*	1,000	1,500	2,640	

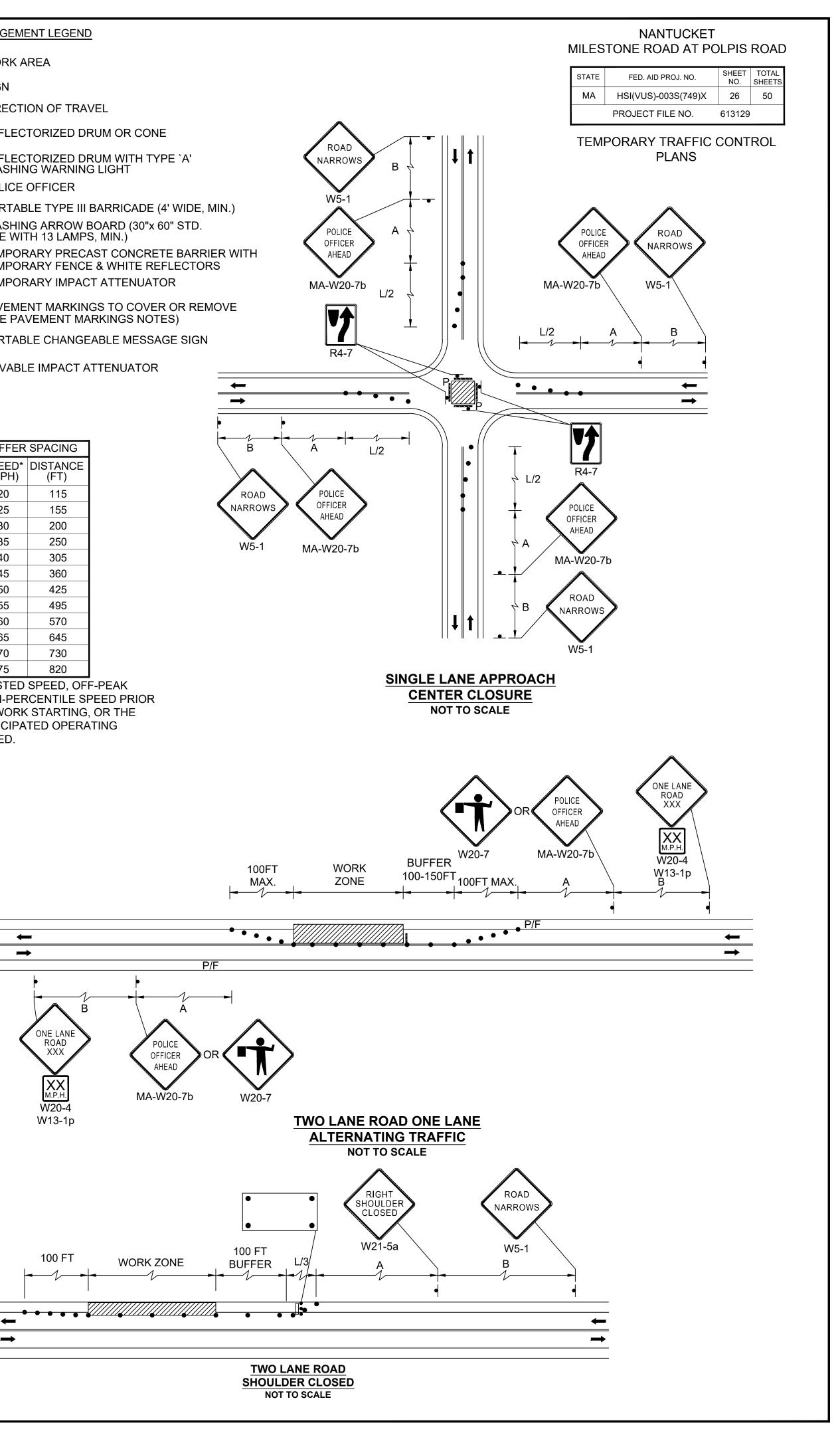
#### TRAFFIC MANAGEMENT LEGEND

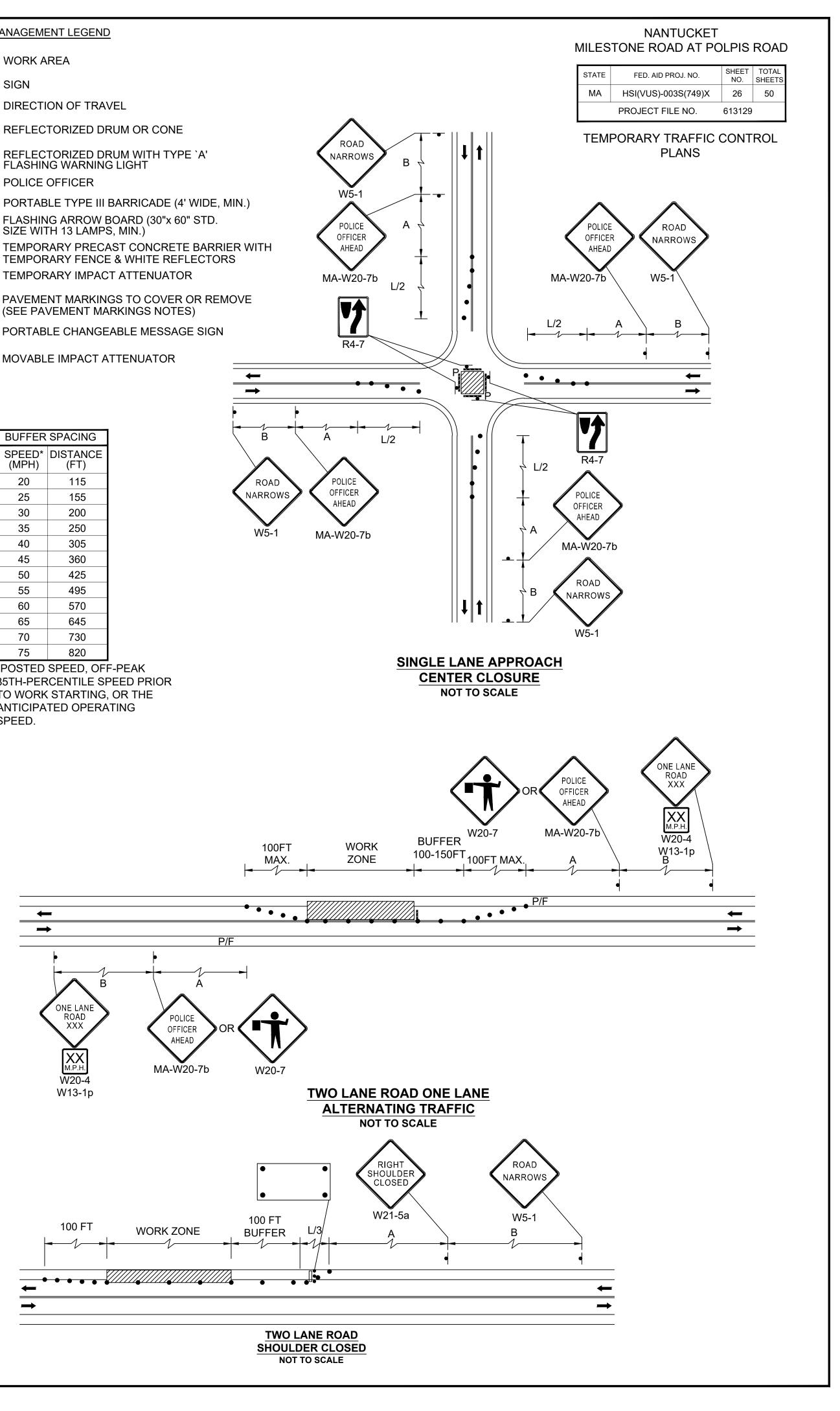
	WORK AREA
<b> </b> •	SIGN
	DIRECTION OF TRAVEL
0	REFLECTORIZED DRUM OR CONE
• A	REFLECTORIZED DRUM WITH TYPE `A' FLASHING WARNING LIGHT
Р	POLICE OFFICER
	PORTABLE TYPE III BARRICADE (4' WIDE
	FLASHING ARROW BOARD (30"x 60" STD SIZE WITH 13 LAMPS, MIN.)
	TEMPORARY PRECAST CONCRETE BAR TEMPORARY FENCE & WHITE REFLECTO
	TEMPORARY IMPACT ATTENUATOR
<del>           </del>	PAVEMENT MARKINGS TO COVER OR RE (SEE PAVEMENT MARKINGS NOTES)

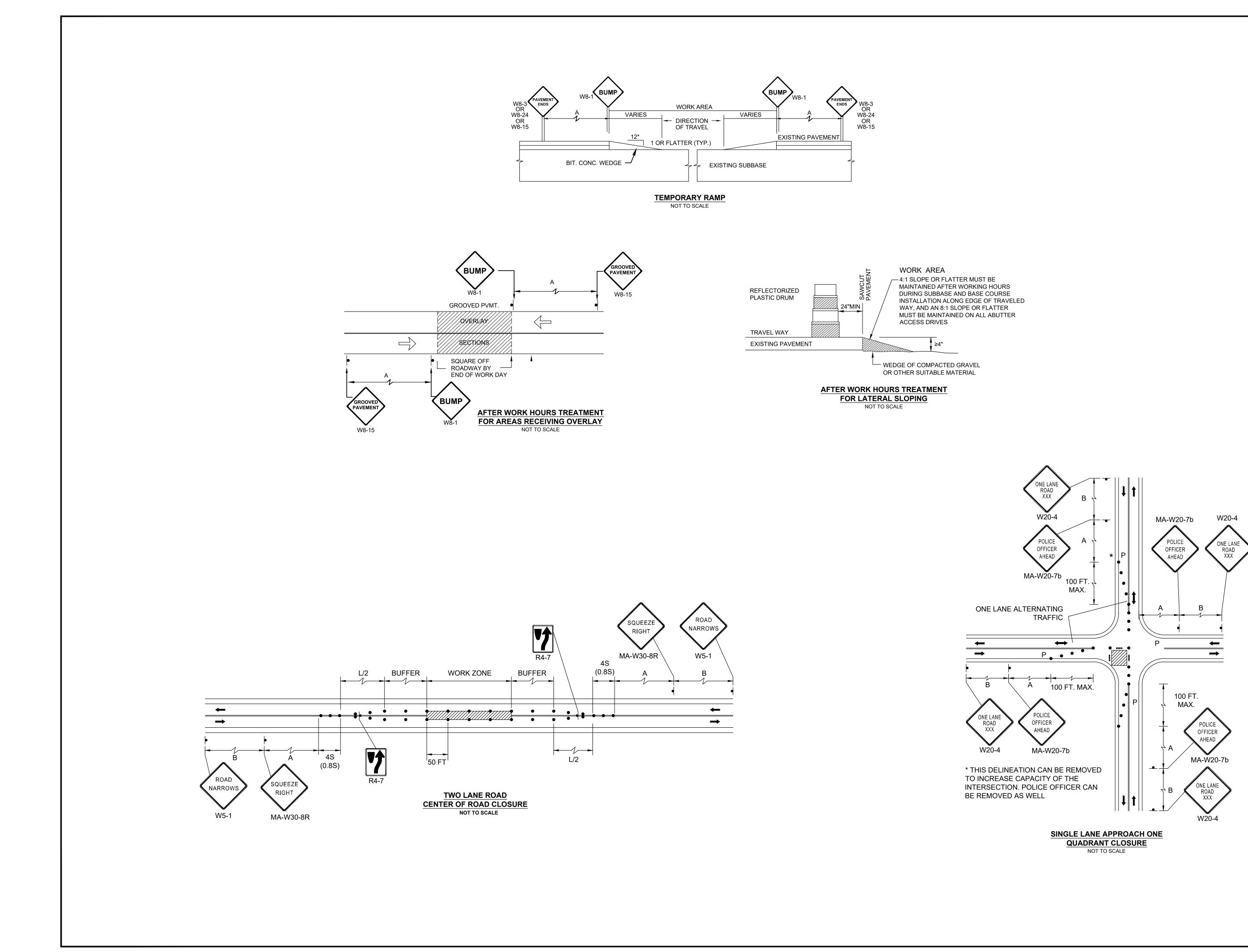
MOVABLE IMPACT ATTENUATOR

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

\*POSTED SPEED, OFF-PEAK **85TH-PERCENTILE SPEED PRIOR** TO WORK STARTING. OR THE ANTICIPATED OPERATING SPEED.



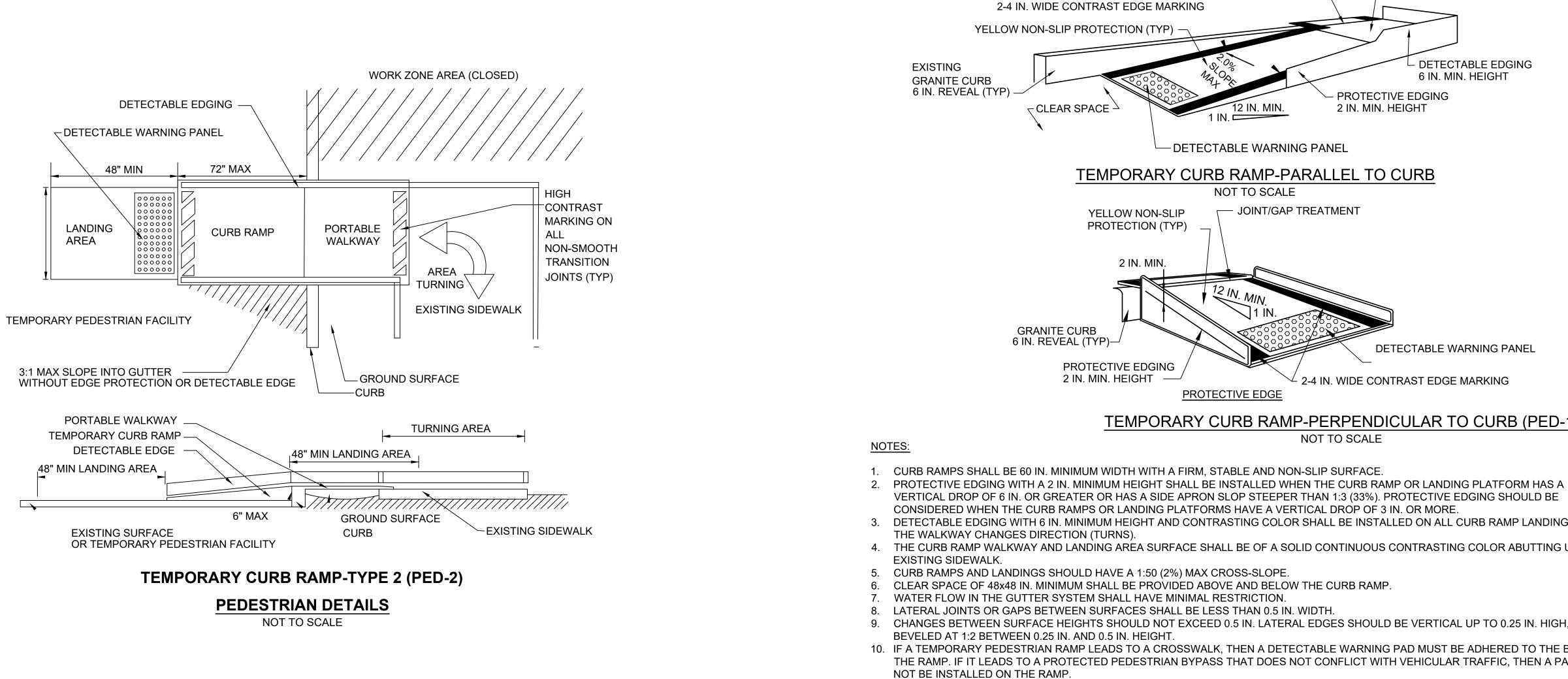




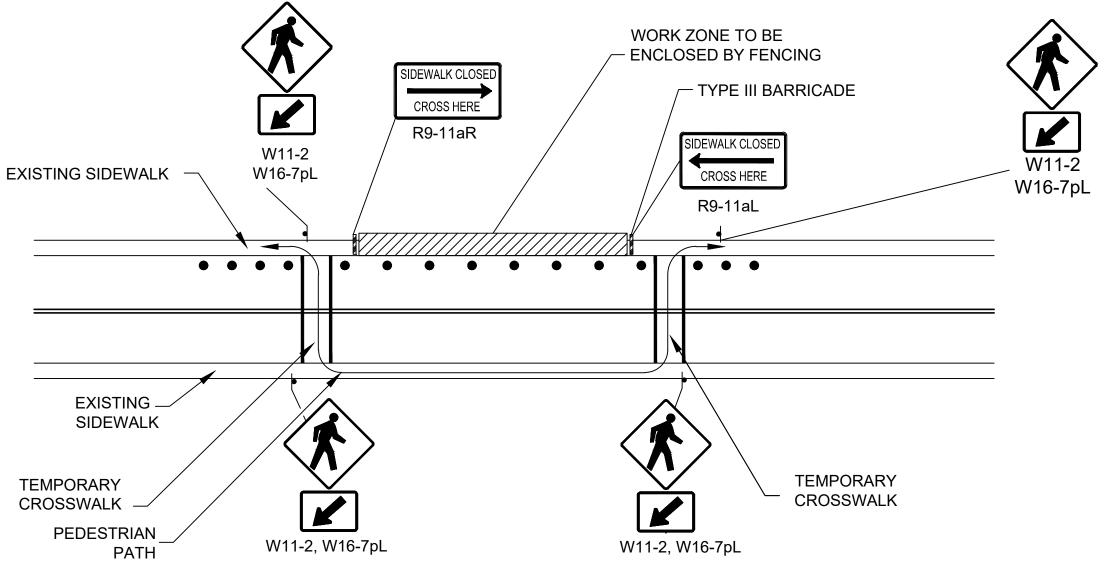
#### NANTUCKET MILESTONE ROAD AT POLPIS ROAD SHEET TOTAL

STATE	FED. AID PROJ. NO.	NO.	SHEETS
MA	HSI(VUS)-003S(749)X	27	50
	PROJECT FILE NO.	613129	

TEMPORARY TRAFFIC CONTROL PLANS



NOTES



ADDITIONAL ADVANCE WARNING MAY BE NECESSARY.

2. CONTROLS ONLY FOR PEDESTRIAN TRAFFIC ARE SHOWN. VEHICULAR TRAFFIC SHOULD BE HANDLED AS SHOWN ELSEWHERE.

3. STREET LIGHTING SHOULD BE CONSIDERED WHEN LOCATING CONTROL DEVICES. 4. BYPASS IS TO BE USED IN CONJUCTION WITH THE PROPOSED LANE CLOSURE DETAILS AND DURING CONSTRUCTION STAGING, AS DIRECTED BY THE ENGINEER.

5. THE SIDEWALK SHOULD BE A MINIMUM OF 4 FEET WIDE. IF THIS WALKWAY EXCEEDS 200 FEET THEN A 5 FOOT X 5 FOOT PASSING ZONE IS REQUIRED.



#### NANTUCKET MILESTONE ROAD AT POLPIS ROAD

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HSI(VUS)-003S(749)X	28	50
	PROJECT FILE NO.	613129	

TEMPORARY TRAFFIC CONTROL PLANS

60x60 IN. MIN. JOINT/GAP TREATMENT **TURNING AREA** L DETECTABLE EDGING 6 IN. MIN. HEIGHT - PROTECTIVE EDGING 12 IN. MIN. 2 IN. MIN. HEIGHT

- DETECTABLE WARNING PANEL

## TEMPORARY CURB RAMP-PARALLEL TO CURB

JOINT/GAP TREATMENT

DETECTABLE WARNING PANEL

- 2-4 IN. WIDE CONTRAST EDGE MARKING

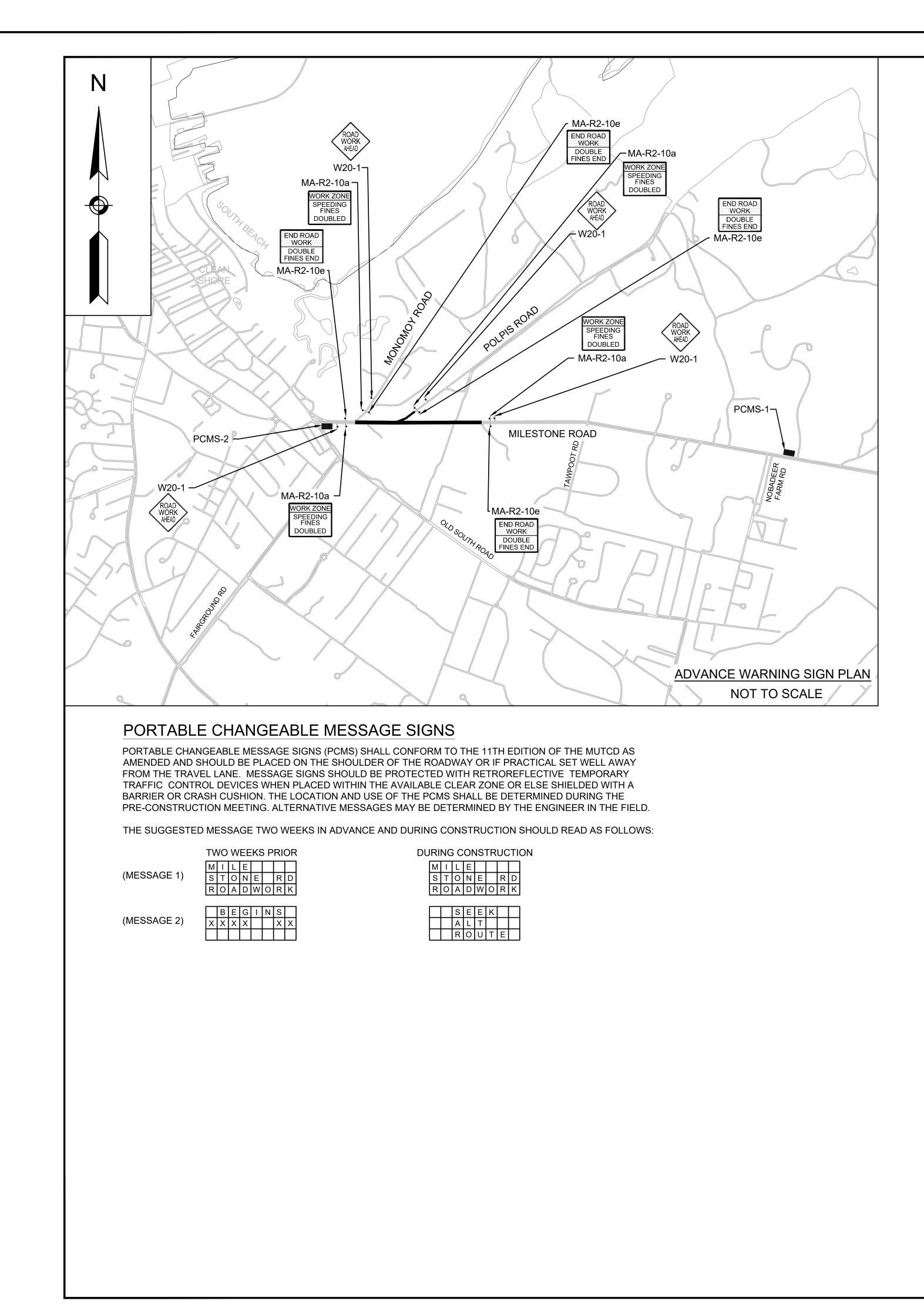
#### TEMPORARY CURB RAMP-PERPENDICULAR TO CURB (PED-1) NOT TO SCALE

DETECTABLE EDGING WITH 6 IN. MINIMUM HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE

4. THE CURB RAMP WALKWAY AND LANDING AREA SURFACE SHALL BE OF A SOLID CONTINUOUS CONTRASTING COLOR ABUTTING UP TO THE

CHANGES BETWEEN SURFACE HEIGHTS SHOULD NOT EXCEED 0.5 IN. LATERAL EDGES SHOULD BE VERTICAL UP TO 0.25 IN. HIGH, AND

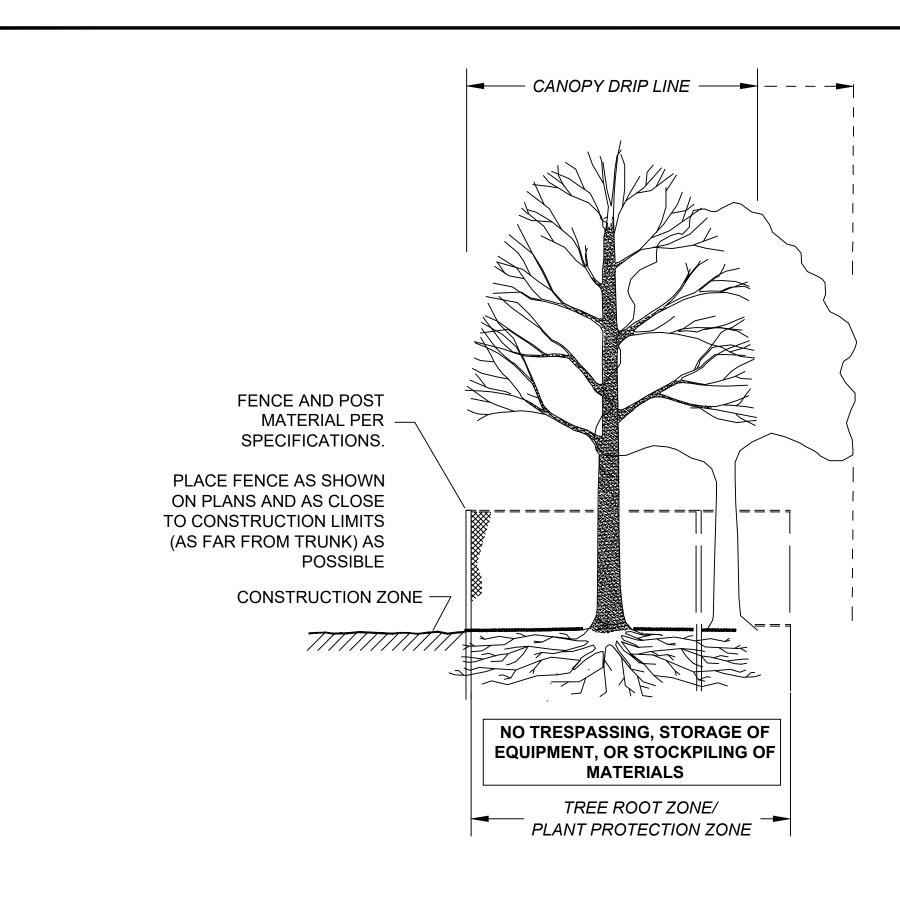
10. IF A TEMPORARY PEDESTRIAN RAMP LEADS TO A CROSSWALK, THEN A DETECTABLE WARNING PAD MUST BE ADHERED TO THE BASE OF THE RAMP. IF IT LEADS TO A PROTECTED PEDESTRIAN BYPASS THAT DOES NOT CONFLICT WITH VEHICULAR TRAFFIC, THEN A PAD SHALL



IDENTIFI-	SIZE OF	- SIGN		TEXT DIMENS	IONS (INCHES)	NUMBER		COLOR		UNIT AREA IN	AREA IN
CATION NUMBER	WIDTH	HEIGHT	TEXT	LETTER HEIGHT	VERTICAL SPACING	OF SIGNS	BACK- GROUND	LEGEND	BORDER	SQUARE	SQUARE FEET
MA-R2-10a	48"	36"	WORK ZONE SPEEDING FINES DOUBLED	MASSDOT STANDARD		4	FLUORE- SCENT ORANGE / WHITE	BLACK	BLACK	12.00	48.00
MA-R2-10e	36"	48"	END ROAD WORK DOUBLE FINES END		SDOT DARD	4	FLUORE- SCENT ORANGE / WHITE	BLACK	BLACK	12.00	48.00
R4-7	24"	30"	7			3	WHITE	BLACK	BLACK	5.00	15.00
W5-1	36"	36"	ROAD			3	FLUORE- SCENT ORANGE	BLACK	BLACK	9.00	27.00
W8-1	30"	30"	BUMP			2	FLUORE- SCENT ORANGE	BLACK	BLACK	6.25	12.50
W8-3	36"	36"	PAVEMENT ENDS			2	FLUORE- SCENT ORANGE	BLACK	BLACK	9.00	18.00
W8-15	30"	30"	GROOVED PAVEMENT	MUTCD ST	TANDARD	2	FLUORE- SCENT ORANGE	BLACK	BLACK	6.25	12.50
W8-24	36"	36"	STEEL PLATE ON PAVEMENT			2	FLUORE- SCENT ORANGE	BLACK	BLACK	9.00	18.00
W13-1P	18"	18"	XX M.P.H.			2	FLUORE- SCENT ORANGE	BLACK	BLACK	2.25	4.50
W20-1	36"	36"	ROAD WORK AHEAD			4	FLUORE- SCENT ORANGE	BLACK	BLACK	9.00	36.00
W20-4	36"	36"	ONE LANE ROAD XX FT			4	FLUORE- SCENT ORANGE	BLACK	BLACK	9.00	36.00
W20-7	36"	36"				2	FLUORE- SCENT ORANGE	BLACK	BLACK	9.00	18.00
MA-W20-7b	36"	36"	POLICE OFFICER AHEAD	MASS STAN	SDOT DARD	3	FLUORE- SCENT ORANGE	BLACK	BLACK	9.00	27.00
W21-5a	36"	36"	RIGHT SHOULDER CLOSED	MU⁻ STAN	TCD DARD	1	FLUORE- SCENT ORANGE	BLACK	BLACK	9.00	9.00
MA-W30-8R	36"	36"	SQUEEZE RIGHT		TCD DARD	2	FLUORE- SCENT ORANGE	BLACK	BLACK	9.00	18.00

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HSI(VUS)-003S(749)X	29	50
	PROJECT FILE NO.	613129	

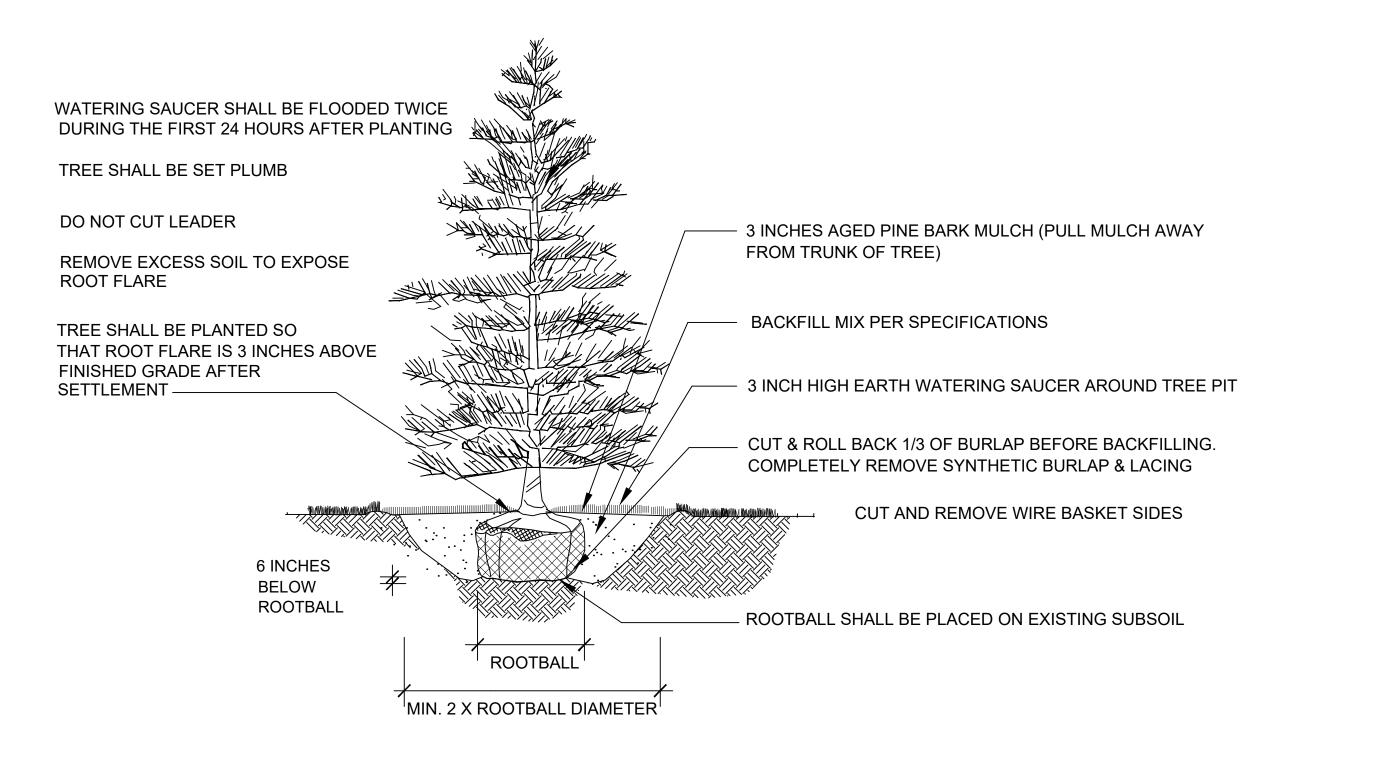
TEMPORARY TRAFFIC CONTROL PLANS

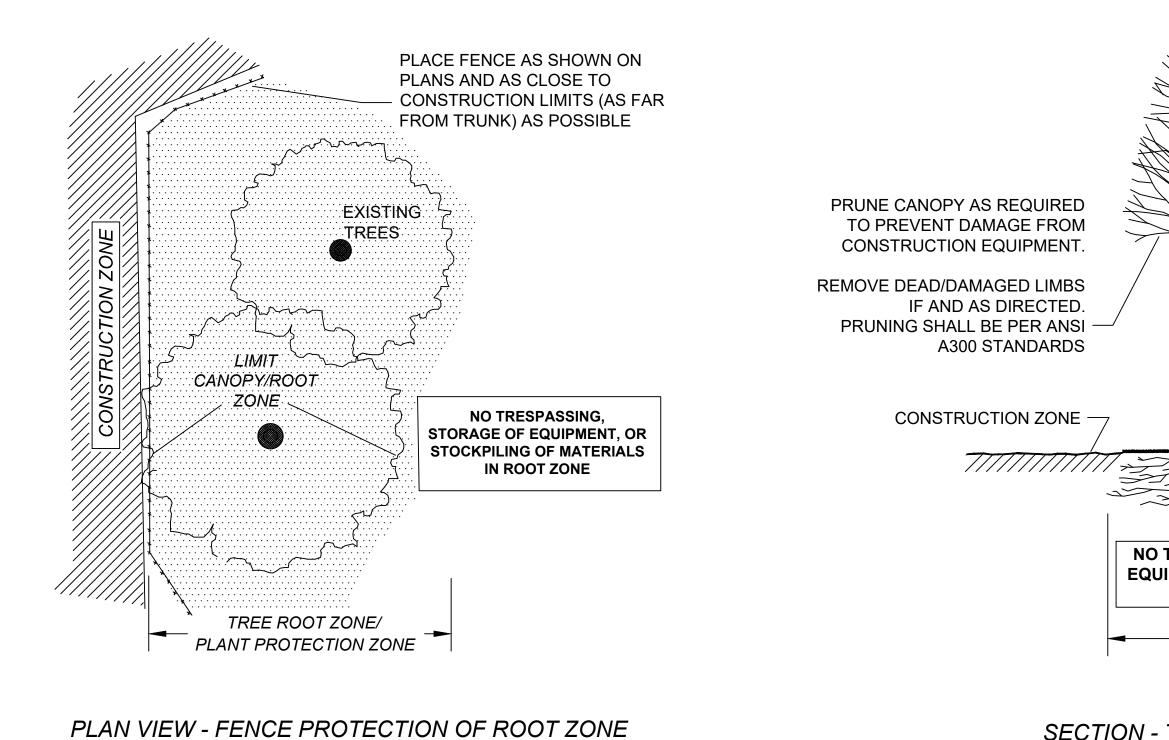


SECTION - FENCE PROTECTION OF ROOT ZONE

## **TREE PROTECTION - ROOT ZONE**

NOT TO SCALE





# 6 INCHES BELOW ROOTBALL ROOTBALL

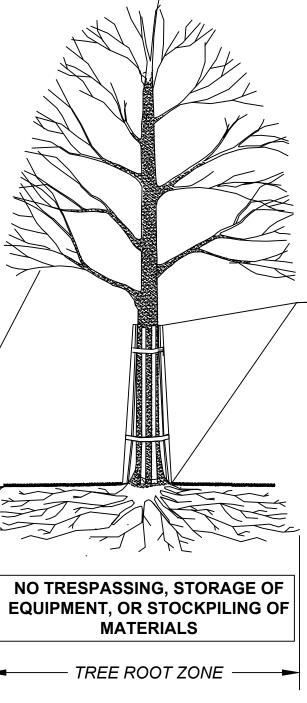
# **EVERGREEN TREE PLANTING**

NOT TO SCALE

#### NANTUCKET MILESTONE ROAD AT POLPIS ROAD

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HSI(VUS)-003S(749)X	30	50
	PROJECT FILE NO.	613129	

CONSTRUCTION DETAILS



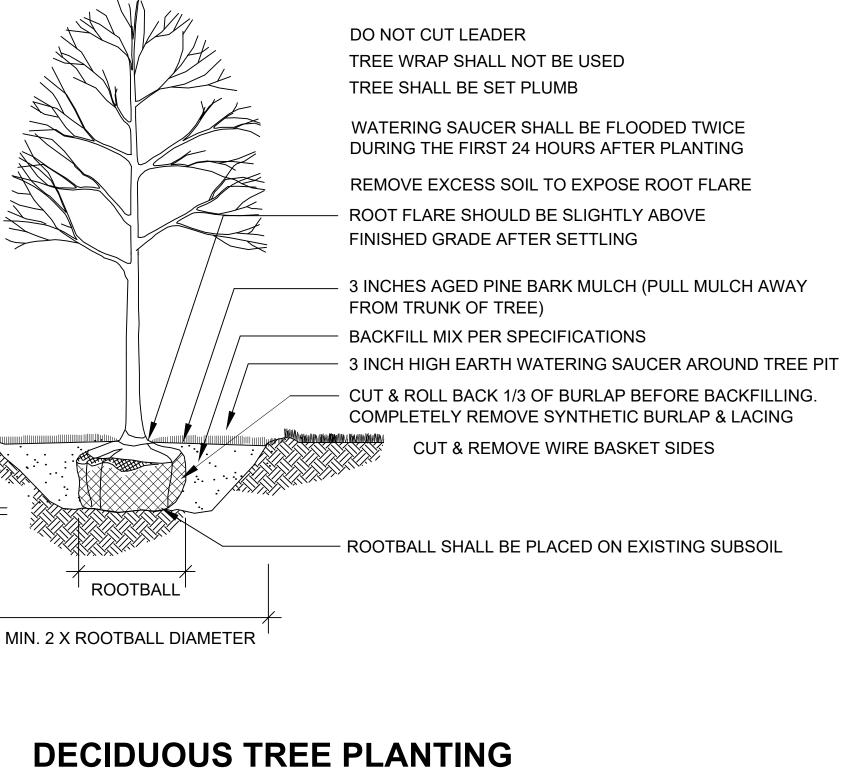
ARMOR TREES AS SHOWN ON PLANS OR PER ARBORIST

ARMOR FROM BASE OF TREE, INCLUDING ROOT FLARE, TO FIRST BRANCH.

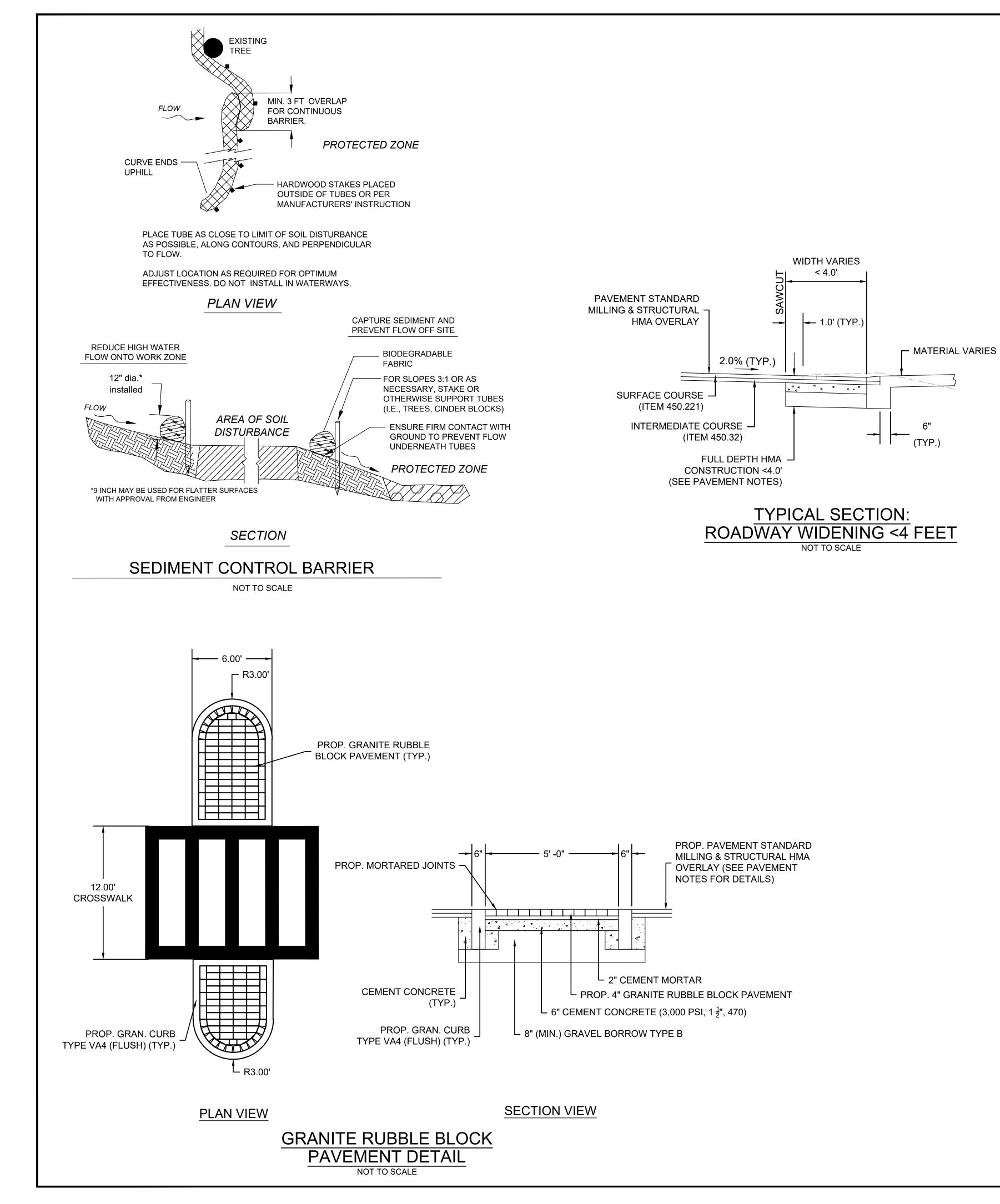
SECTION - TRUNK ARMORING & PRUNING

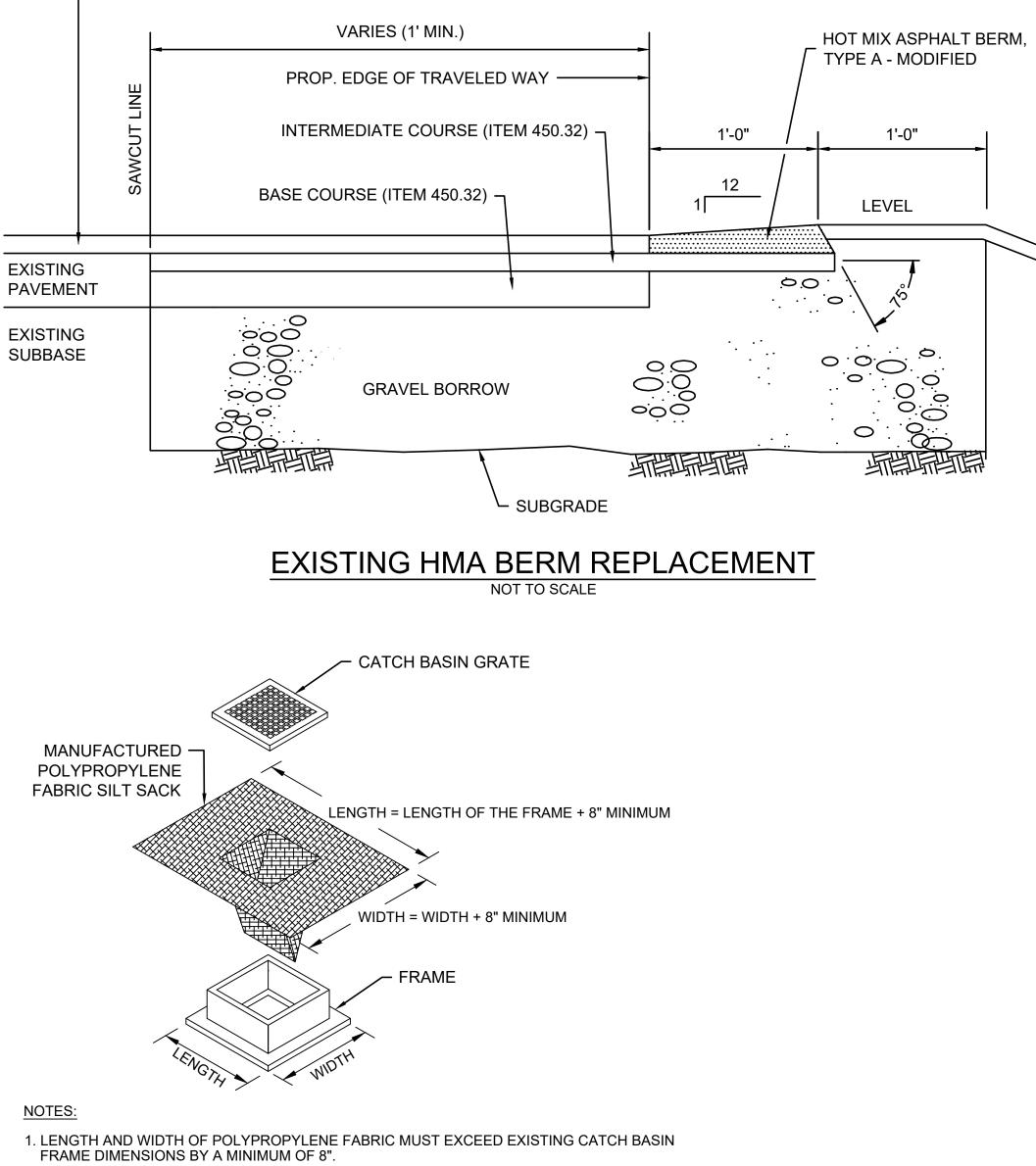
# **TREE PROTECTION - TRUNK**

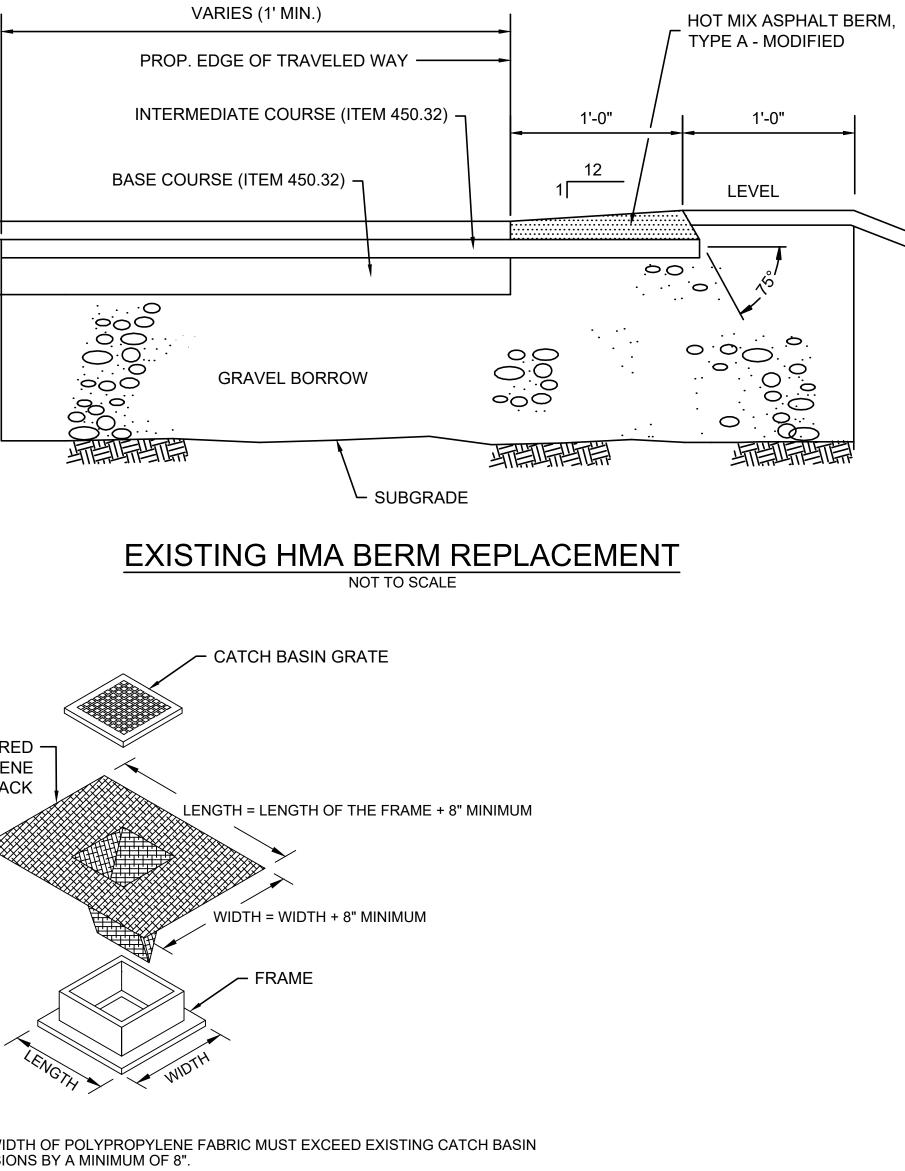
NOT TO SCALE



NOT TO SCALE







2. REMOVE CATCH BASIN GRATE AND INSTALL POLYPROPYLENE FABRIC OVER CATCH BASIN FRAME. REPLACE CATCH BASIN GRATE TO SECURE POLYPROPYLENE FABRIC IN PLACE.

3. FOR USE ON ALL EXISTING CATCH BASINS WITHIN THE PROJECT LIMITS AND PROPOSED CATCH BASINS THAT ARE IN OPERATION DURING CONSTRUCTION.



NANTUCKET MILESTONE ROAD AT POLPIS ROAD SHEET TOTAL NO. SHEETS STATE FED. AID PROJ. NO. MA HSI(VUS)-003S(749)X 31 50

CONSTR	RUCTION	DETAILS

613129

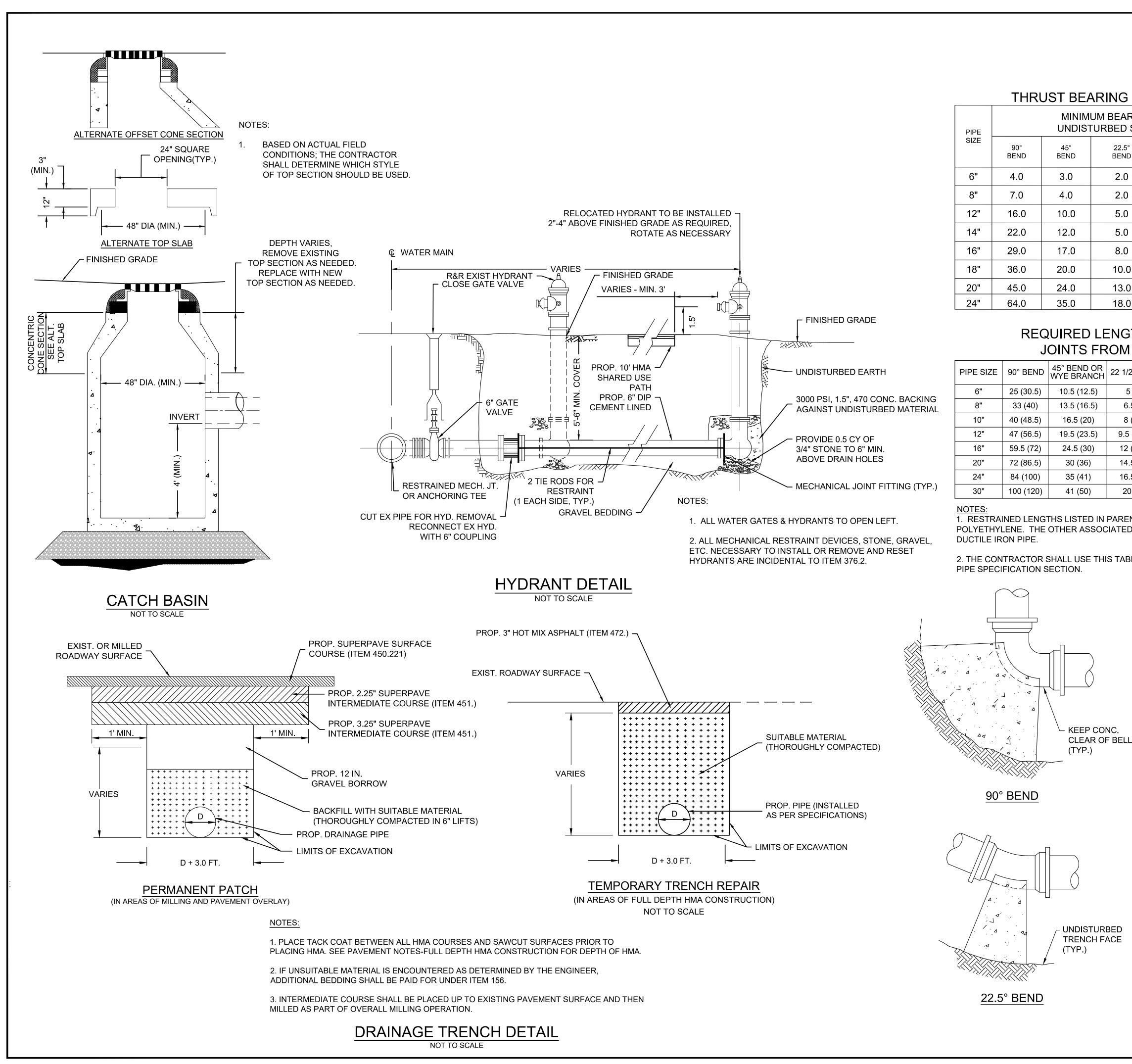
PROJECT FILE NO.

_ HOT

└ SURFACE COURSE (ITEM 450.221)

INLET SEDIMENT CONTROL DEVICE

NOT TO SCALE



PIPE			UM BEARING FURBED SOI			
SIZE	90° BEND	45° BEND	22.5° BEND	11.25° BEND	TEE	САР
6"	4.0	3.0	2.0	1.0	3.0	3.0
8"	7.0	4.0	2.0	1.0	5.0	5.0
12"	16.0	10.0	5.0	3.0	11.0	11.0
14"	22.0	12.0	5.0	3.0	16.0	16.0
16"	29.0	17.0	8.0	5.0	21.0	21.0
18"	36.0	20.0	10.0	5.0	26.0	26.0
20"	45.0	24.0	13.0	7.0	32.0	32.0
24"	64.0	35.0	18.0	9.0	46.0	46.0

PIPE SIZE	90° BEND	45° BEND OR WYE BRANCH	22 1/2° BEND	11 1/4° BEND	PLUG OR CAP	TEE (BRANCH)
6"	25 (30.5)	10.5 (12.5)	5 (6)	2.5 (3)	43 (64)	34 (51)
8"	33 (40)	13.5 (16.5)	6.5 (8)	3 (4)	55 (82)	47 (70)
10"	40 (48.5)	16.5 (20)	8 (9.5)	4 (5)	67 (100)	58 (87)
12"	47 (56.5)	19.5 (23.5)	9.5 (11.5)	4.5 (5.5)	79 (118)	70 (105)
16"	59.5 (72)	24.5 (30)	12 (14.5)	6 (7)	101 (152)	92 (139)
20"	72 (86.5)	30 (36)	14.5 (17)	7 (8.5)	123 (184)	114 (171)
24"	84 (100)	35 (41)	16.5 (20)	8 (10)	144 (216)	134 (202)
30"	100 (120)	41 (50)	20 (24)	10 (12)	174 (261)	165 (247)

1. RESTRAINED LENGTHS LISTED IN PARENTHESES ARE FOR PIPE WRAPPED IN POLYETHYLENE. THE OTHER ASSOCIATED LENGTHS ARE FOR PLAIN UNWRAPPED

#### NANTUCKET MILESTONE ROAD AT POLPIS ROAD

-			
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HSI(VUS)-003S(749)X	32	50
	PROJECT FILE NO.	613129	

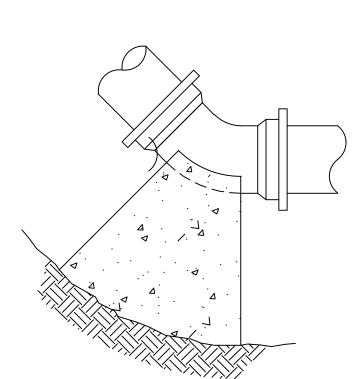
### THRUST BEARING REQUIREMENTS

Ν	O	Т	E	S	:

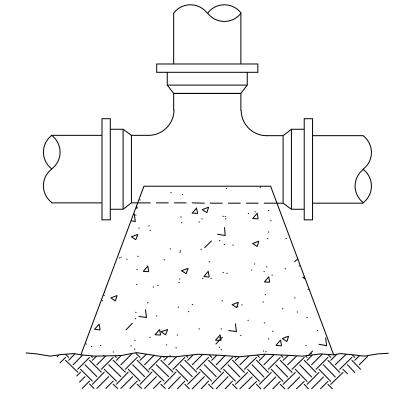
- CONSTRUCTION DETAILS
- FIGURES SHOWN REPRESENT THE MINIMUM BEARING AREA REQUIRED IN SQUARE FEET.
- BEARING AREAS SHOWN ARE BASED ON SANDY SOILS AT 200 PSF AND MAX. HYDROSTATIC PRESSURE OF 200 PSI. ALL FITTINGS SHALL BE ANCHORED BY MECHANICAL
- MEANS AND BY CONCRETE THRUST BLOCKS, REQUIRED BY THE TOWN OR AS NOTED ON THE CONTRACT PLANS. THRUST BLOCKS SHALL BE BUILT AGAINST UNDISTURBED SOIL WITH ADEQUATE BACKING TO PREVENT MOVEMENT OF THE FITTING.
- ALL DI PIPE & FITTINGS SHALL BE WRAPPED IN 5. POLYETHYLENE.
- 6. THRUST BLOCKS SHALL BE 3000 PSI CONCRETE & SHALL HAVE A MINIMUM THICKNESS OF 12".
- 7. NO JOINTS SHALL BE COVERED WITH CONCRETE.
- THRUST BLOCK DETAILS ARE SHOWN HERE FOR TYPICAL INSTALLATIONS. ADDITIONAL RESTRAINT MAY BE
- REQUIRED, AS DIRECTED BY THE ENGINEER. WHEN REQUIRED, THREADED RODS SHALL BE ANSI A242
- FY50 WITH NUTS TO MATCH AWWA C111. THREADED RODS TO BE FIELD COATED WITH PAINT.

## **REQUIRED LENGTH OF RESTRAINED** JOINTS FROM FITTINGS (FEET)

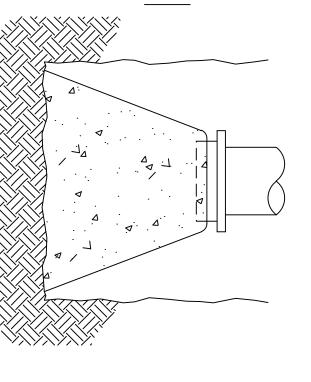
#### 2. THE CONTRACTOR SHALL USE THIS TABLE IN CONJUNCTION WITH THE APPROPRIATE



45° BEND

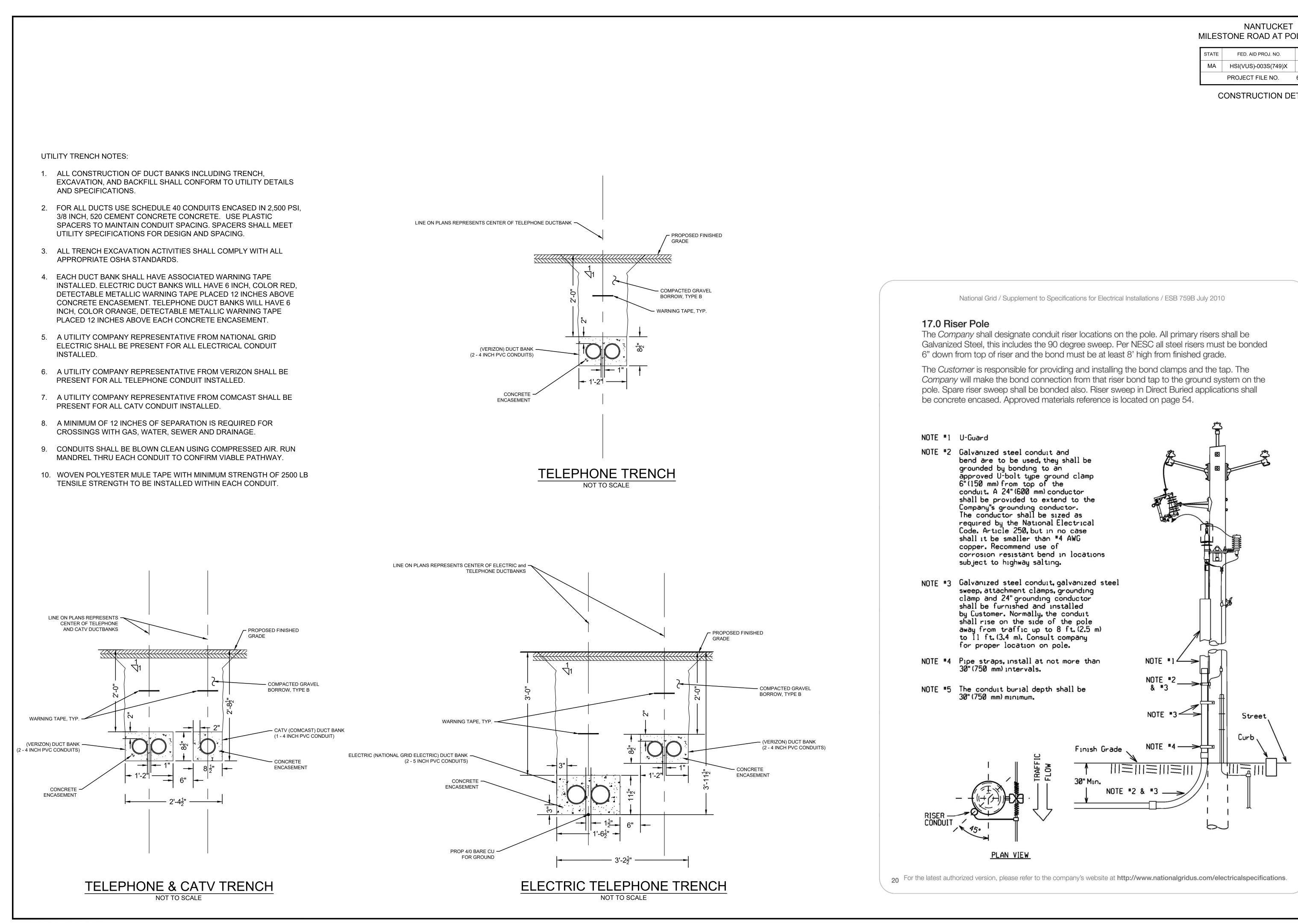


TEE



CAP

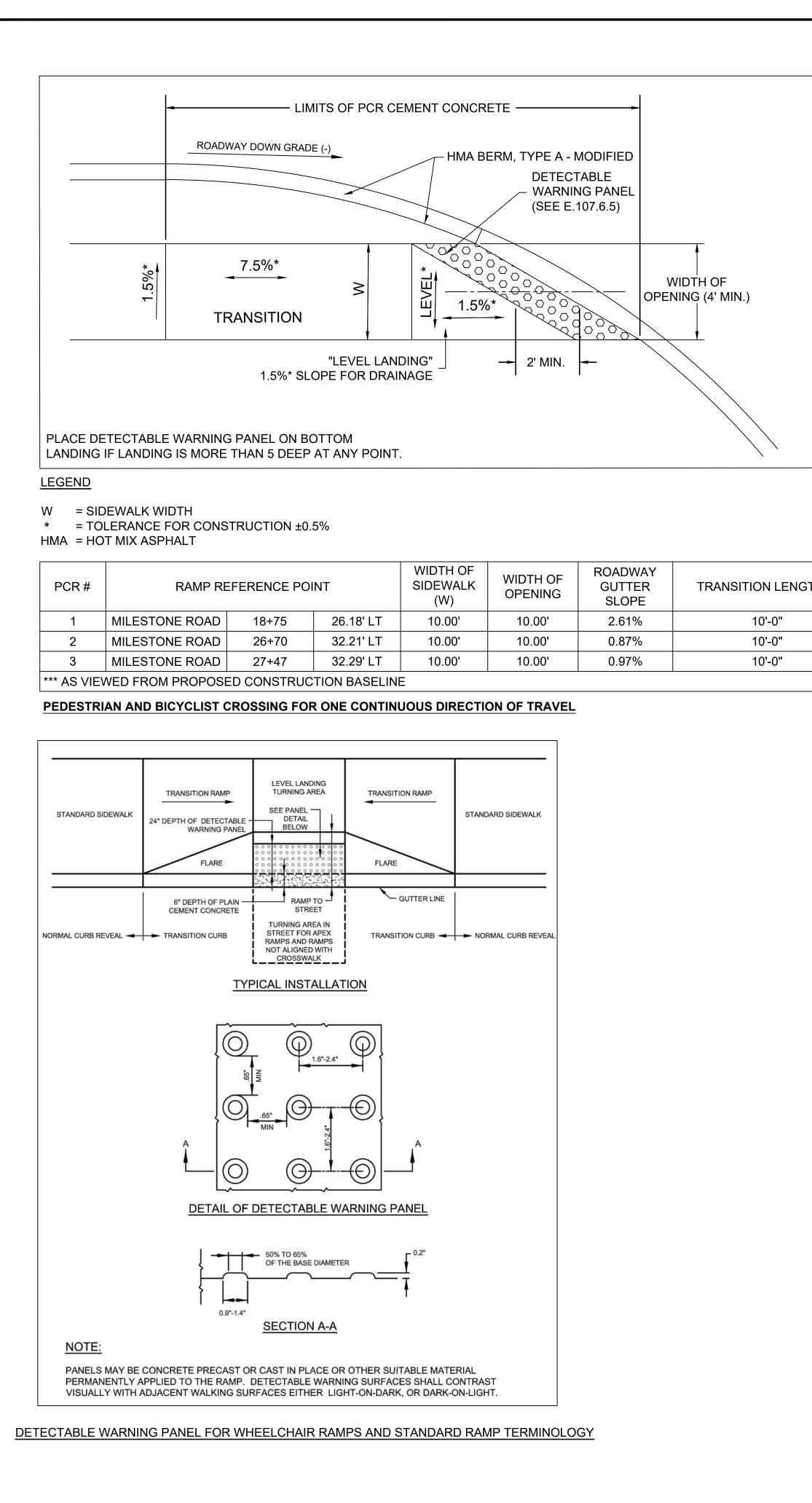




# MILESTONE ROAD AT POLPIS ROAD

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HSI(VUS)-003S(749)X	33	50
	PROJECT FILE NO.	613129	

CONSTRUCTION DETAILS



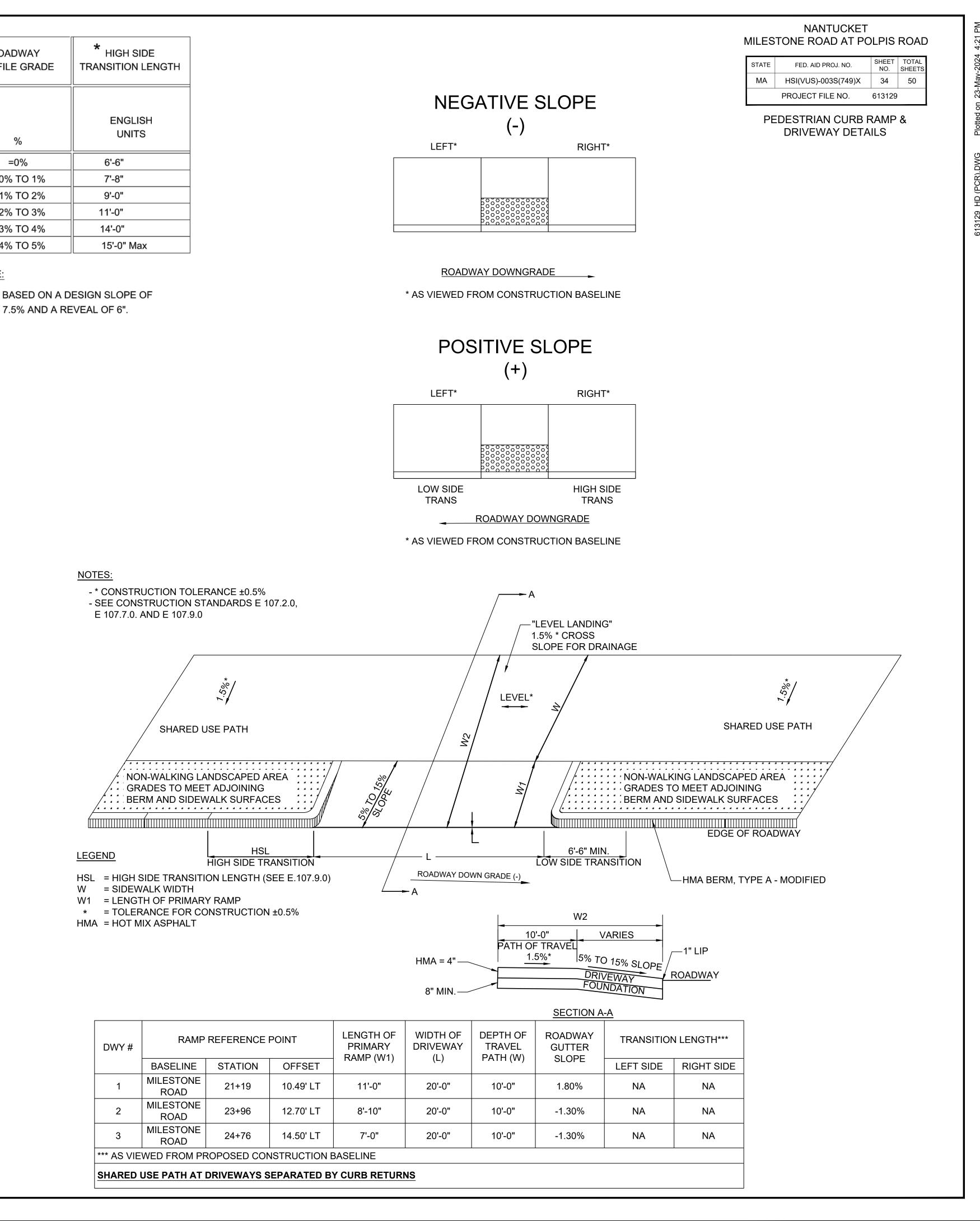
NSITION LENGTH***	
10'-0"	
10'-0"	
10'-0"	

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

NOTE:

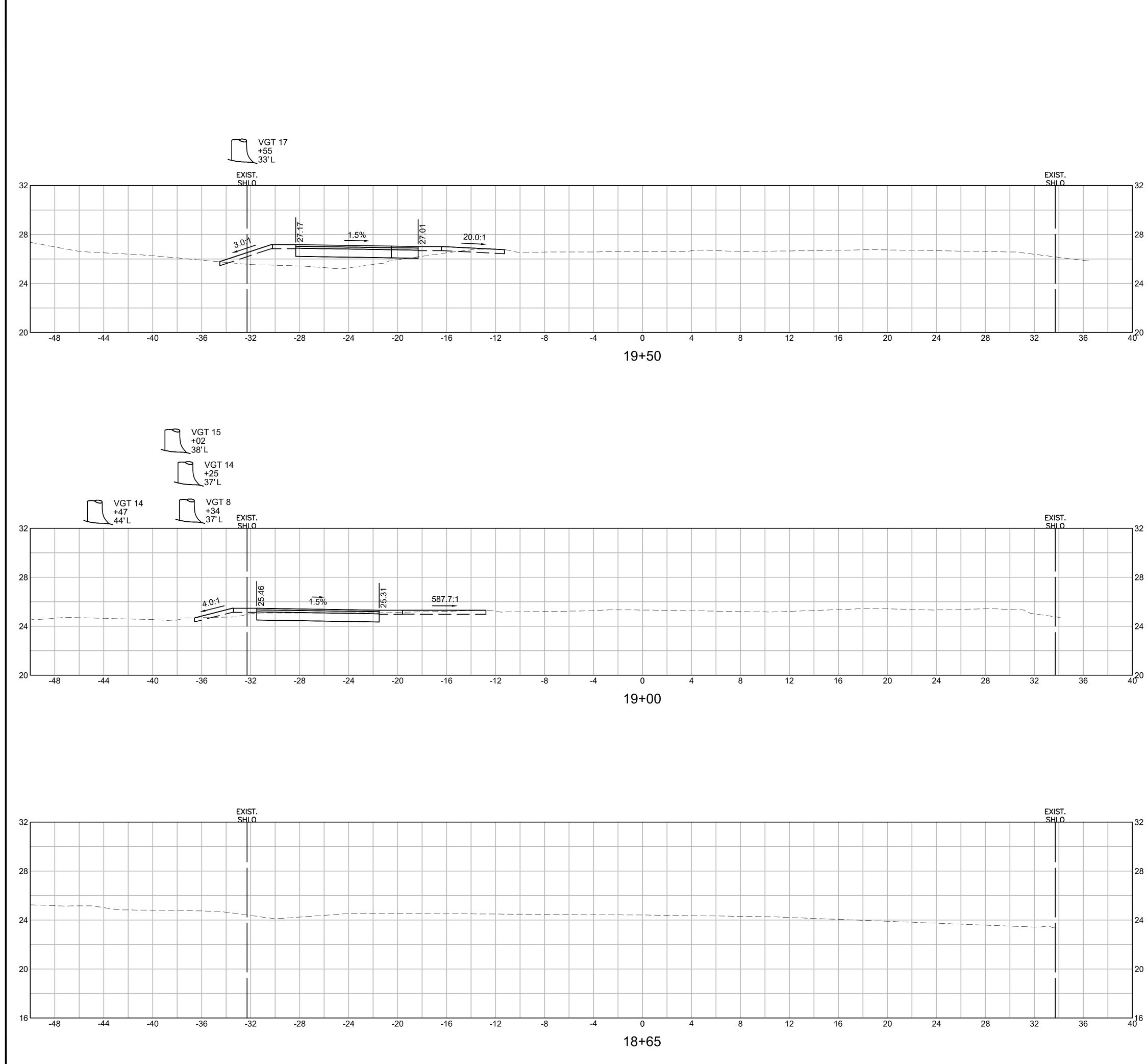
★ BASED ON A DESIGN SLOPE OF 7.5% AND A REVEAL OF 6".





HMA = HOT MIX ASPHALT

DWY #	RAMP	REFERENCE	POINT	LENGTH OF PRIMARY	WII DRI		
	BASELINE	STATION	OFFSET	RAMP (W1)			
1	MILESTONE ROAD	21+19	10.49' LT	11'-0"	4		
2	MILESTONE ROAD	23+96	12.70' LT	8'-10"			
3	MILESTONE ROAD	24+76	14.50' LT	7'-0"	2		
*** AS VIE	WED FROM PF	ROPOSED CON	NSTRUCTION I	BASELINE			
SHARED	SHARED USE PATH AT DRIVEWAYS SEPARATED BY CURB RETURNS						



#### NANTUCKET MILESTONE ROAD AT POLPIS ROAD

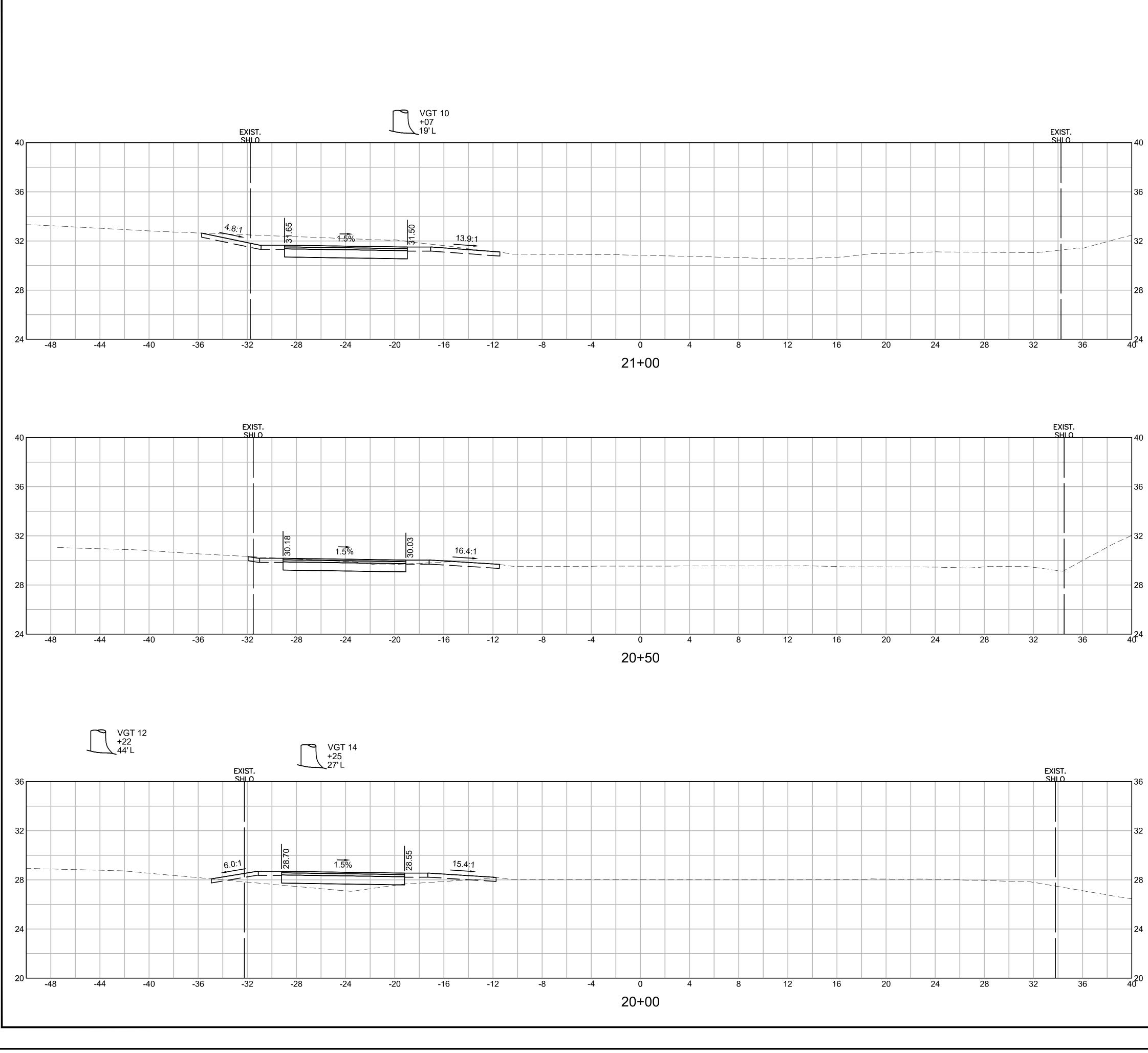
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HSI(VUS)-003S(749)X	35	50
	PROJECT FILE NO.	613129	

CROSS SECTIONS MILESTONE ROAD

32		
	CUT	= 1.05 s.f.
28	FILL	= 11.98 s.f.
24		

32 CUT = 8.76 s.f. FILL = 0.75 s.f. 28

32							
	CUT	= 0.00 s.f.					
28	FILL	= 0.00 s.f.					
24							
20							
16 10					4 4 4	HOR. SCALE IN FEET 0 4 0 4 VER. SCALE IN FEET	8 8



#### NANTUCKET MILESTONE ROAD AT POLPIS ROAD

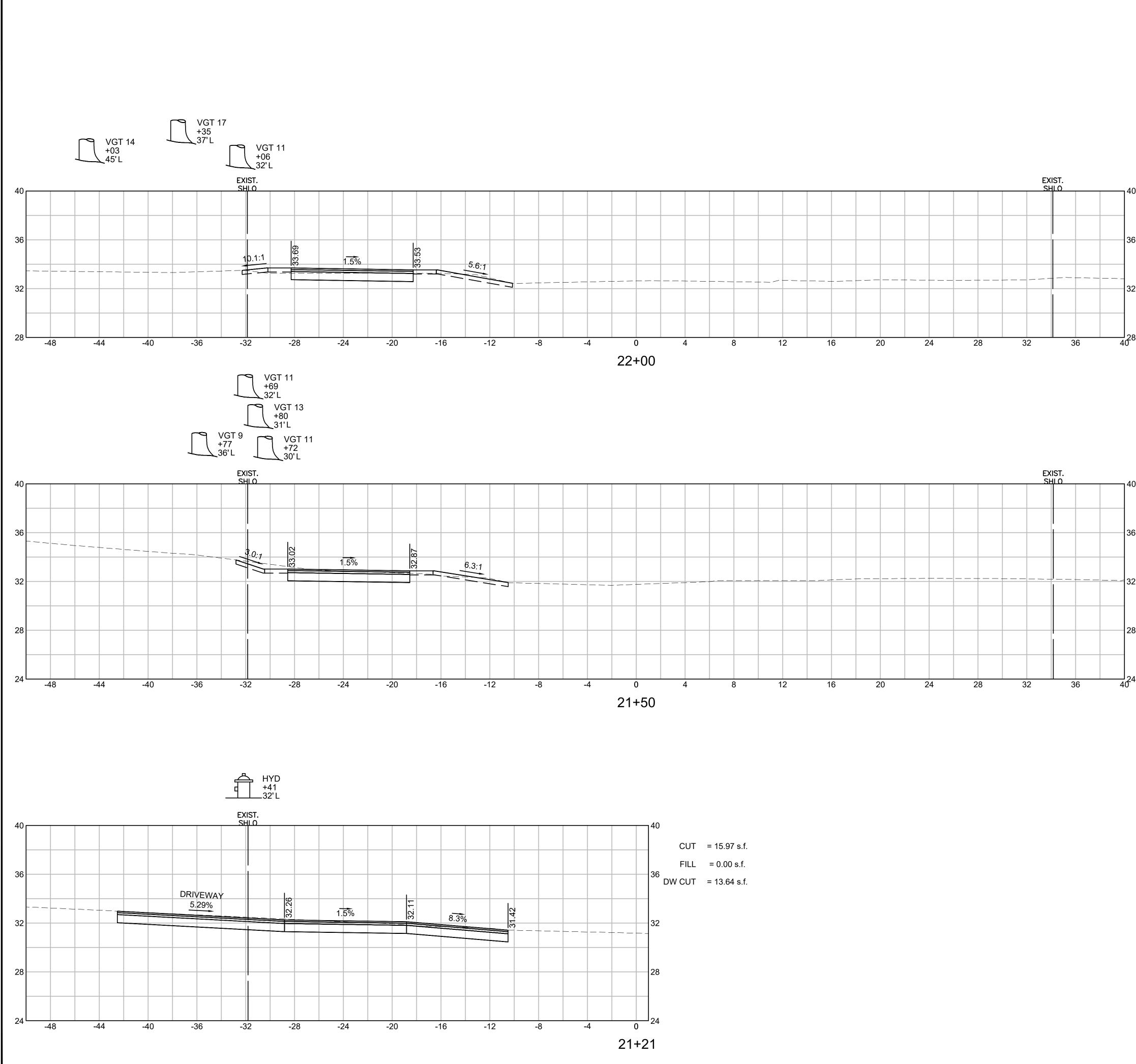
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HSI(VUS)-003S(749)X	36	50
	PROJECT FILE NO.	613129	

CROSS SECTIONS MILESTONE ROAD

28									
4024									
-									
40									
		= 10.39 s.f.							
	FILL	= 0.00 s.f.							
32									
28									
40 <sup>24</sup>									
36	CUT	= 0.56 s.f.							
		= 7.17 s.f.							
32									
00									
28									
24									
24									
						HOR. SC		ET	-
] <sub>20</sub> 40					4 4 4	0 VER. SC	4		8 
						VER. SC	ALE IN FE	El	

CUT = 25.21 s.f.

FILL = 0.00 s.f.

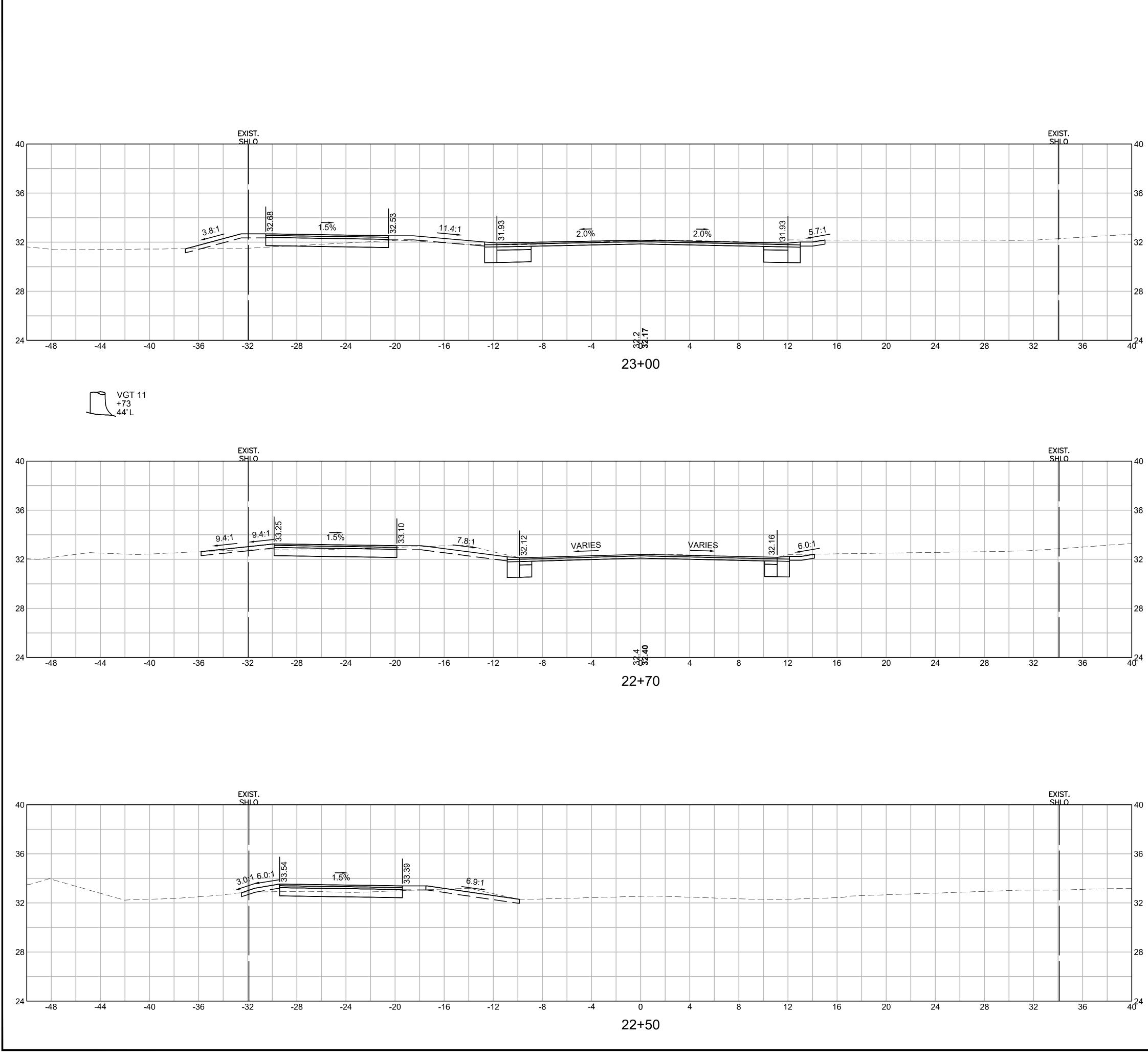


STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HSI(VUS)-003S(749)X	37	50
	PROJECT FILE NO.	613129	

	40		
		CUT	= 8.64 s.f.
	36	FILL	= 0.22 s.f.
_	32		

<sup>40</sup>		
	CUT	= 13.03 s.f.
36	FILL	= 0.00 s.f.
32		
28		

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



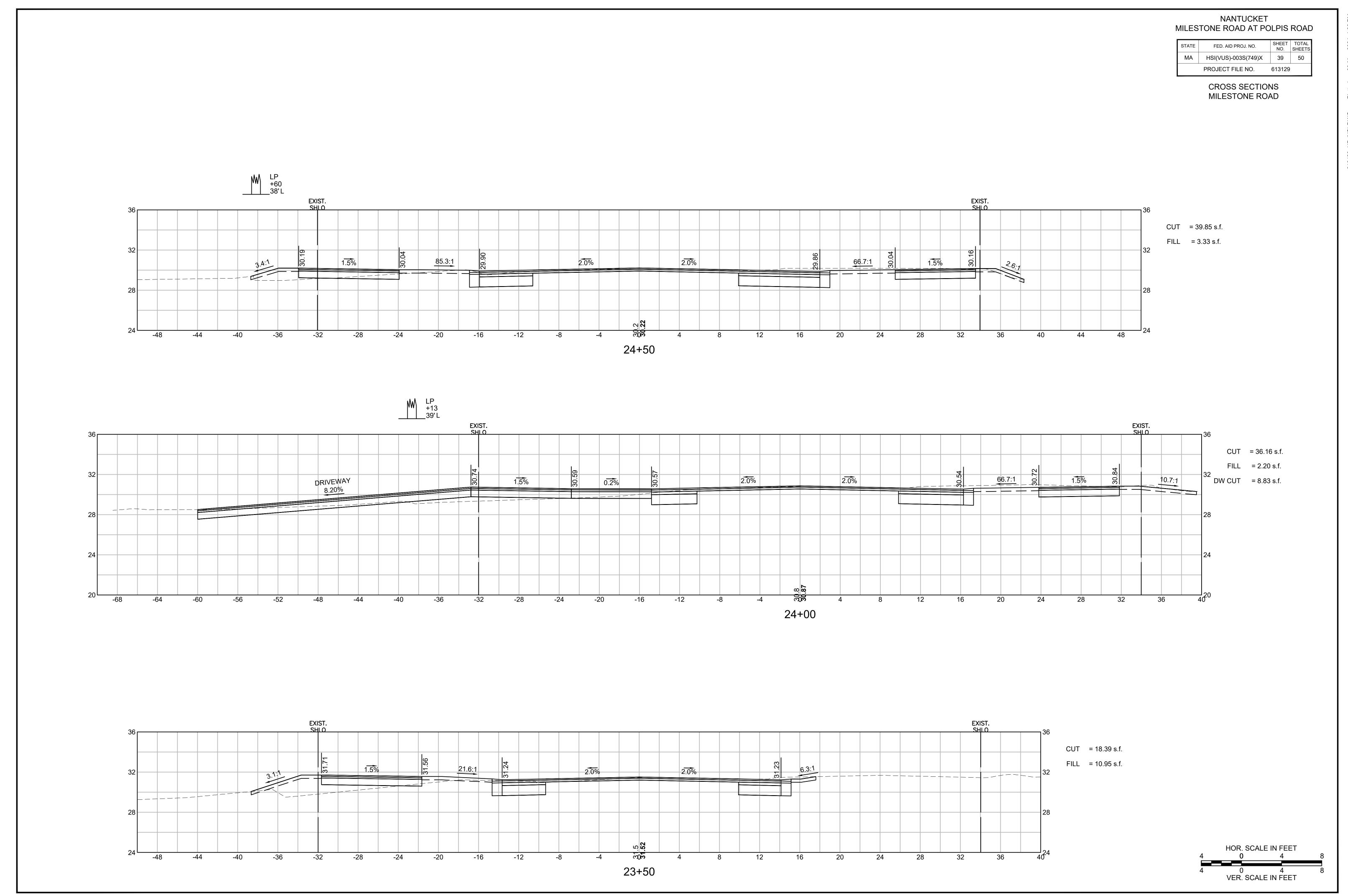
CUT = 14.00 s.f.

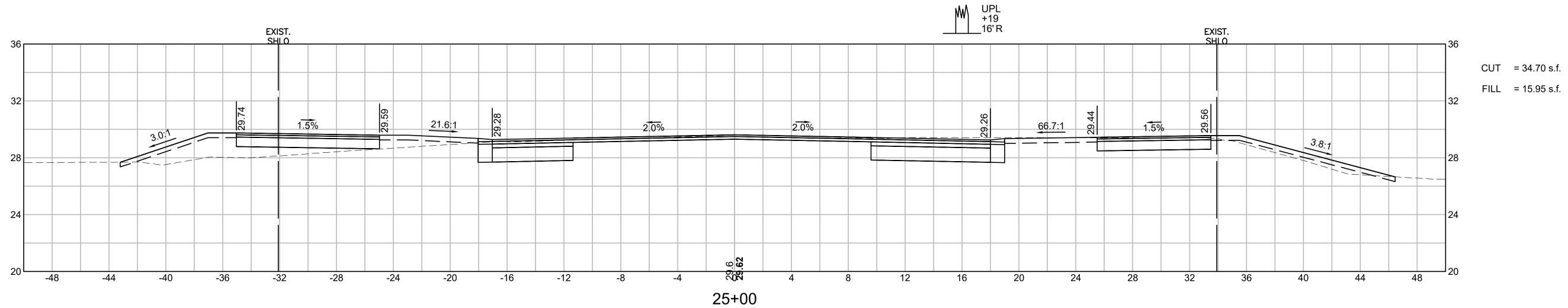
FILL = 3.42 s.f.

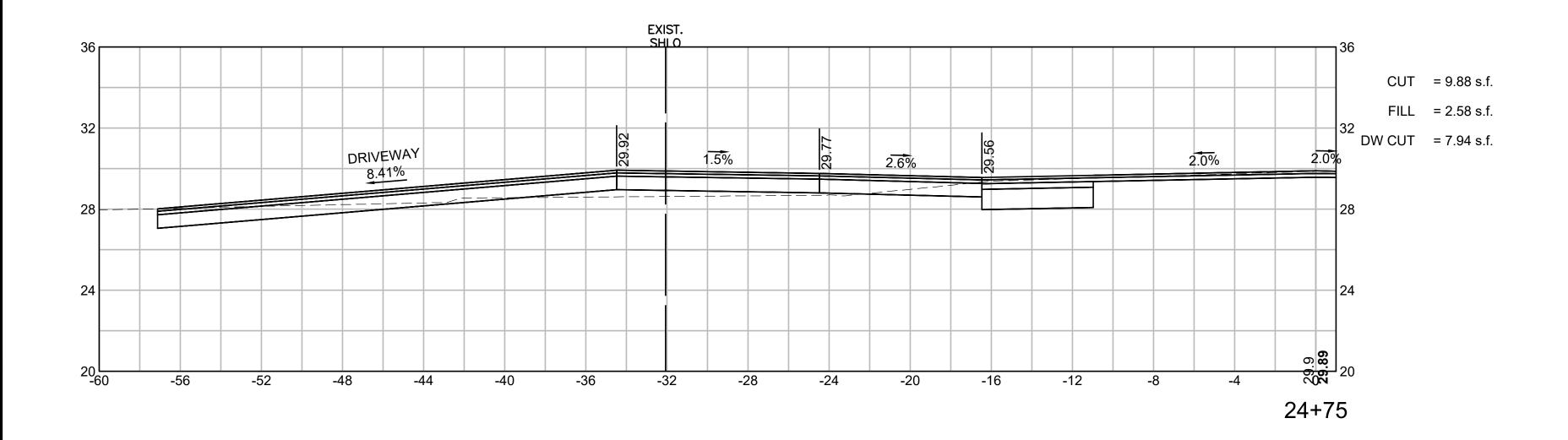
#### NANTUCKET MILESTONE ROAD AT POLPIS ROAD

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HSI(VUS)-003S(749)X	38	50
	PROJECT FILE NO.	613129	

50								
32								
28								
4024								
40	CUT	= 19.17 s.f.						
36	FILL	= 0.11 s.f.						
32								
28								
24 40								
36	CUT FILL	= 7.53 s.f. = 0.30 s.f.						
32								
28								
4024					4	HOR. SCALI	E IN FEET 4	8
					4	0 VER. SCALE		6





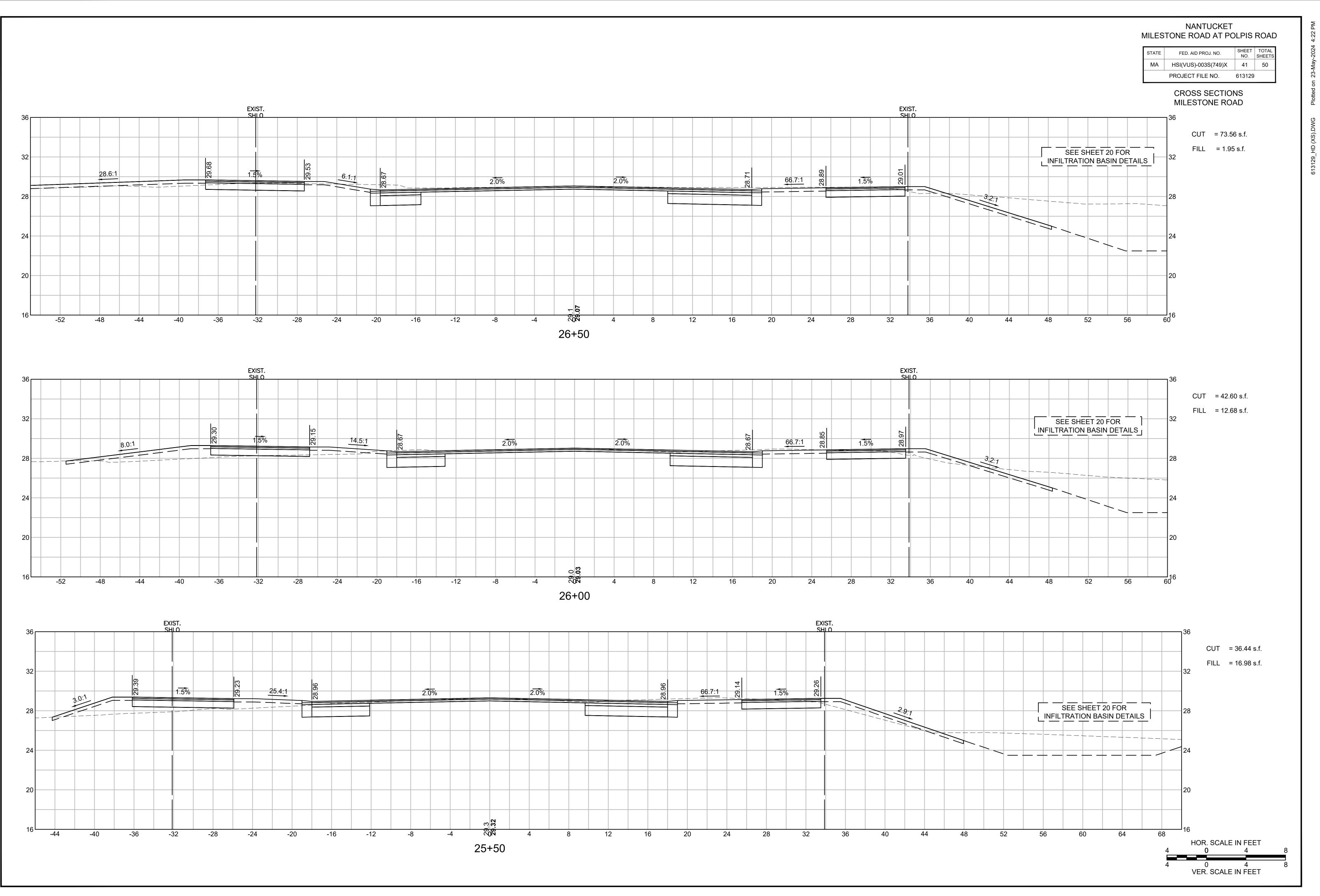


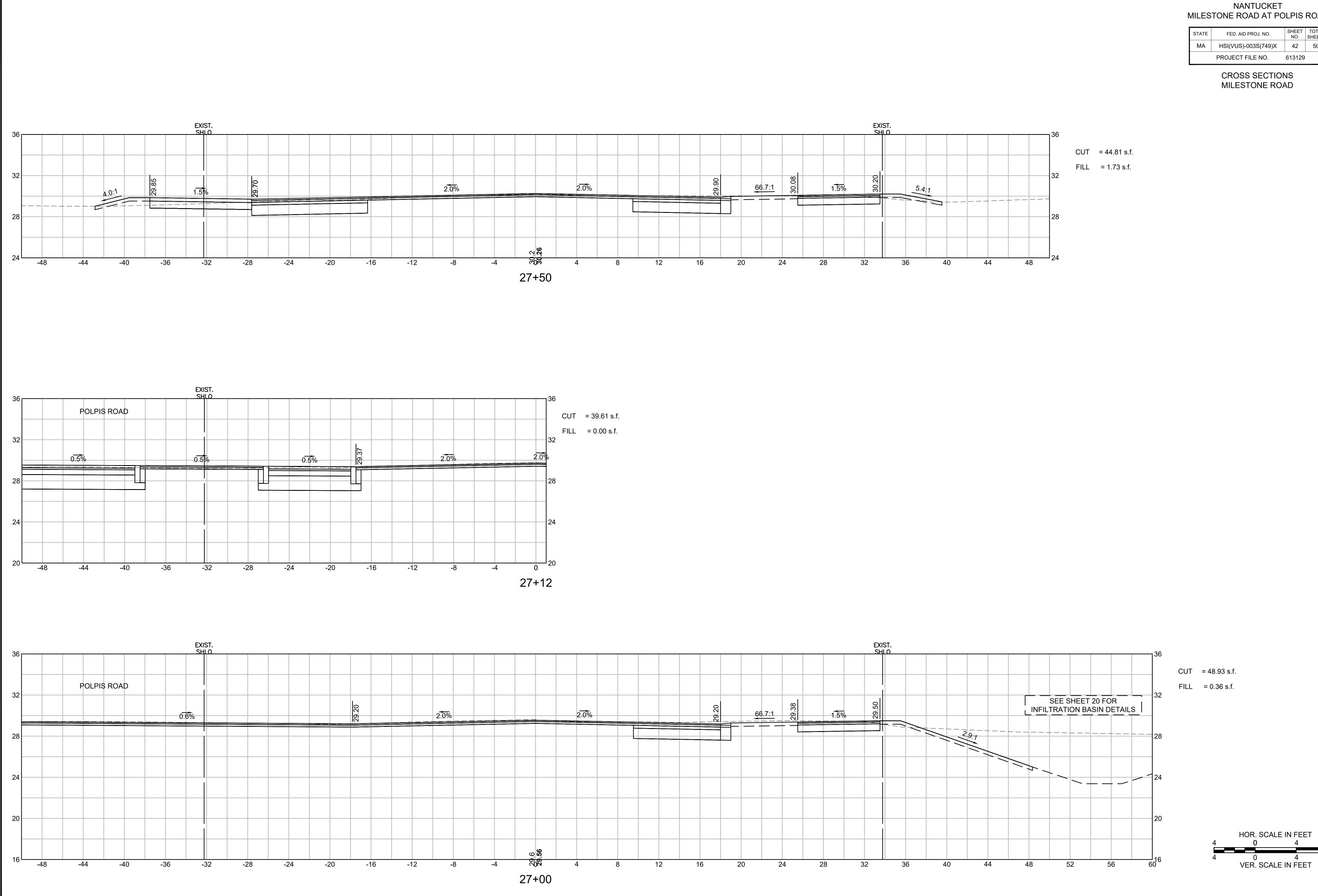
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HSI(VUS)-003S(749)X	40	50
	PROJECT FILE NO.	613129	

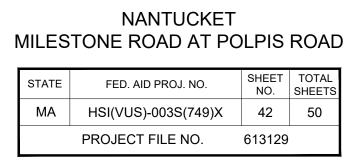
CROSS SECTIONS MILESTONE ROAD

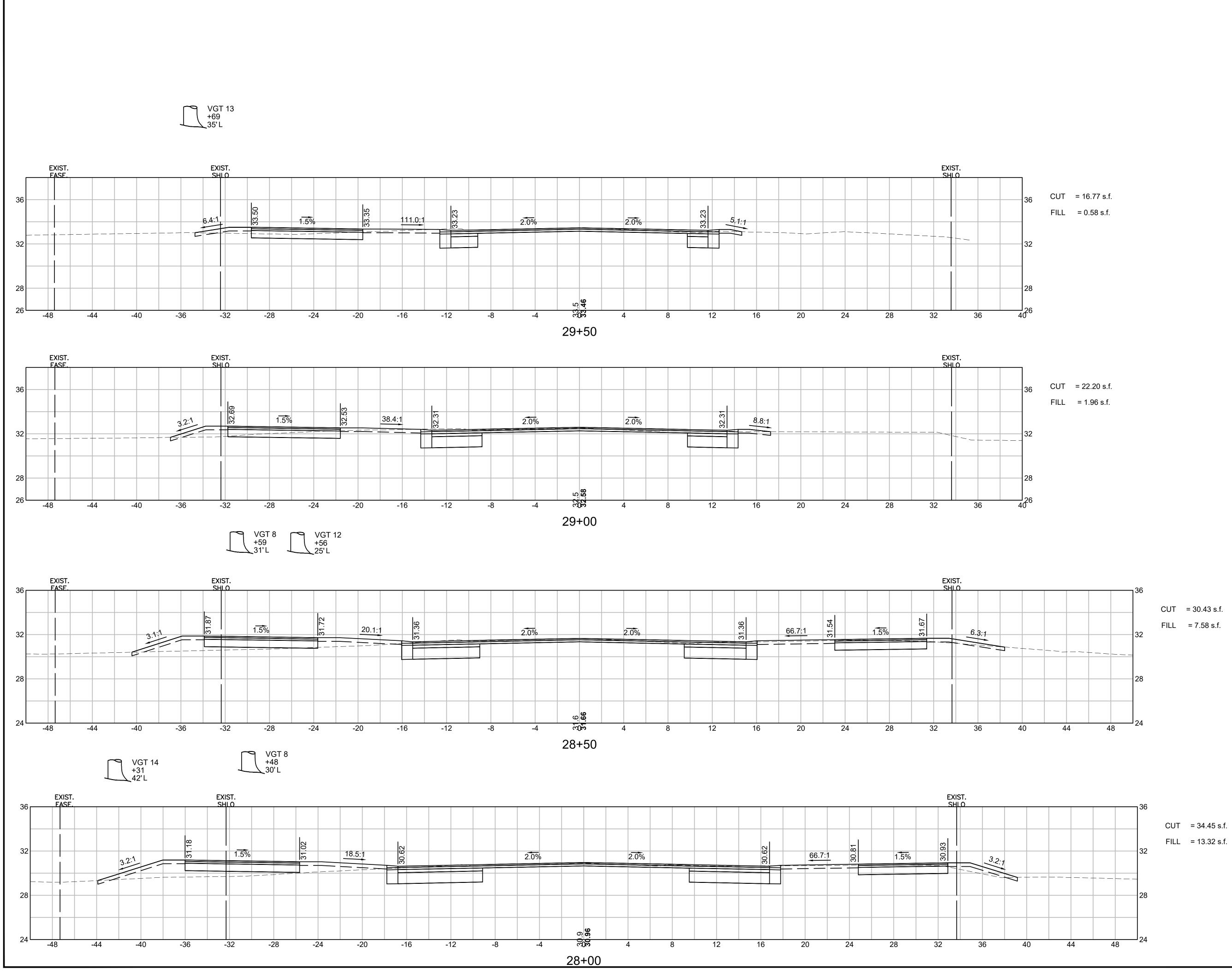
# FILL = 15.95 s.f.

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

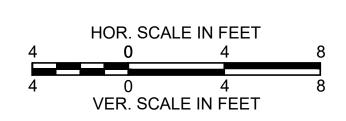


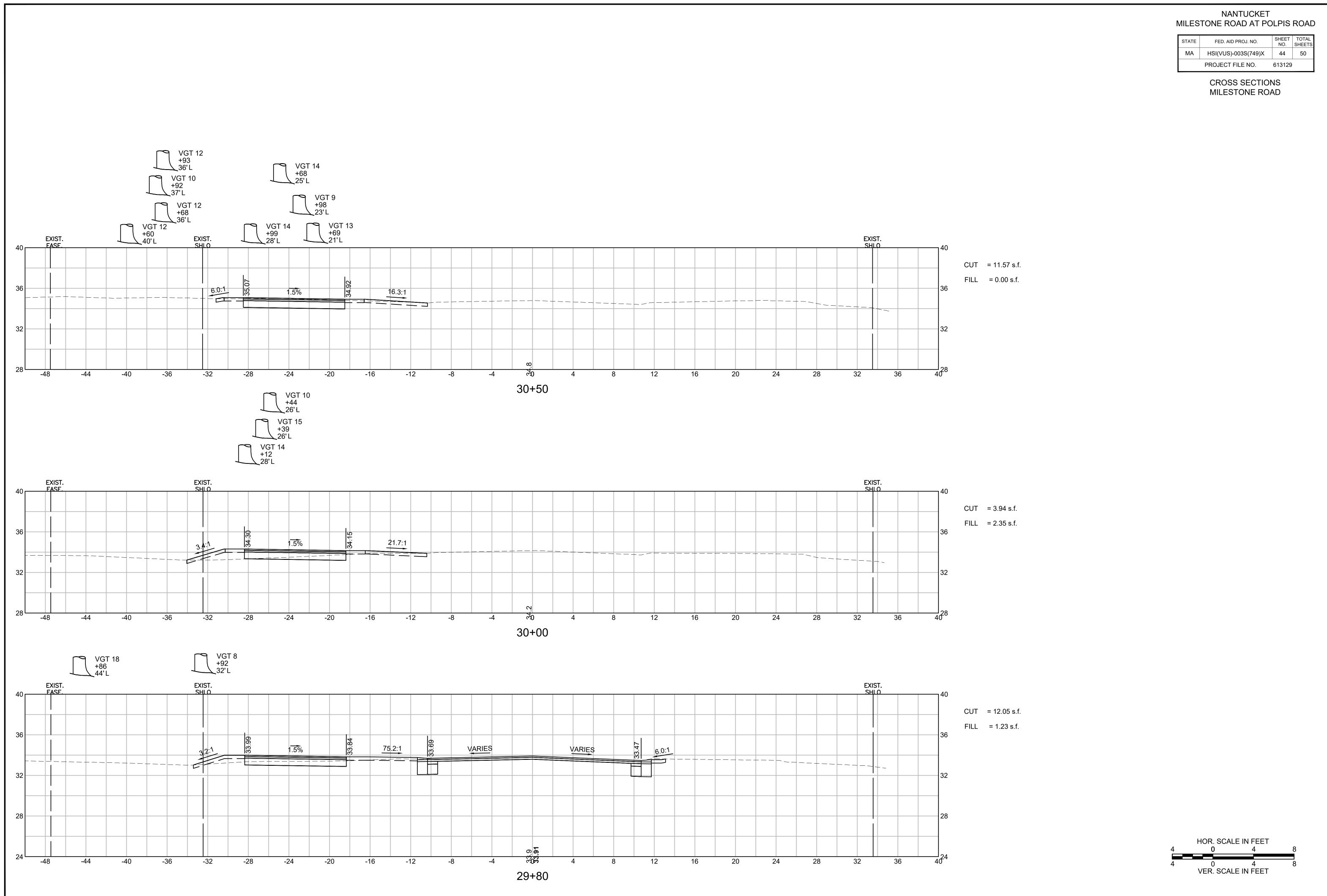




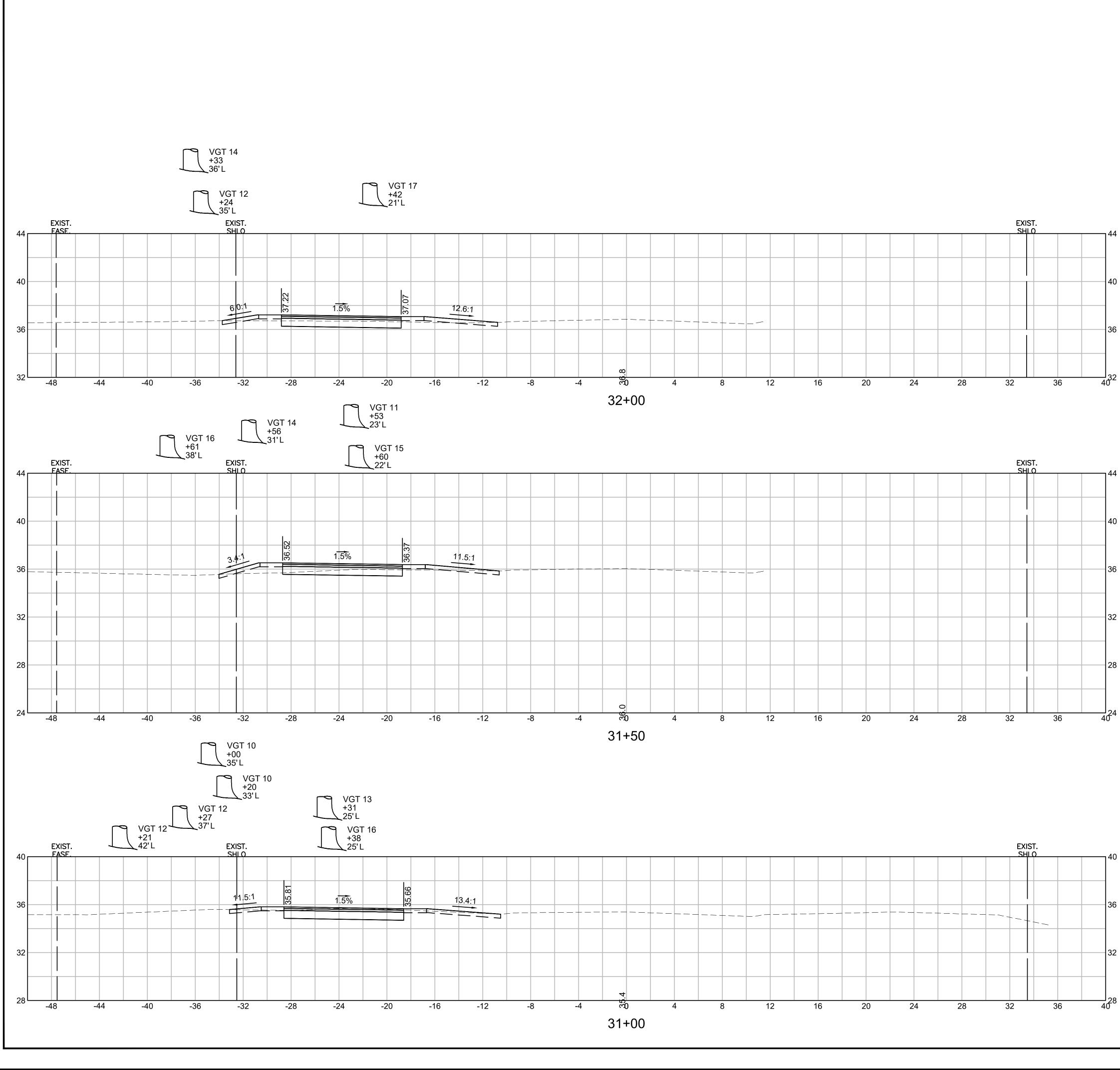


STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HSI(VUS)-003S(749)X	43	50
	PROJECT FILE NO.	613129	





STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HSI(VUS)-003S(749)X	44	50
	PROJECT FILE NO.	613129	



STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HSI(VUS)-003S(749)X	45	50
	PROJECT FILE NO.	613129	

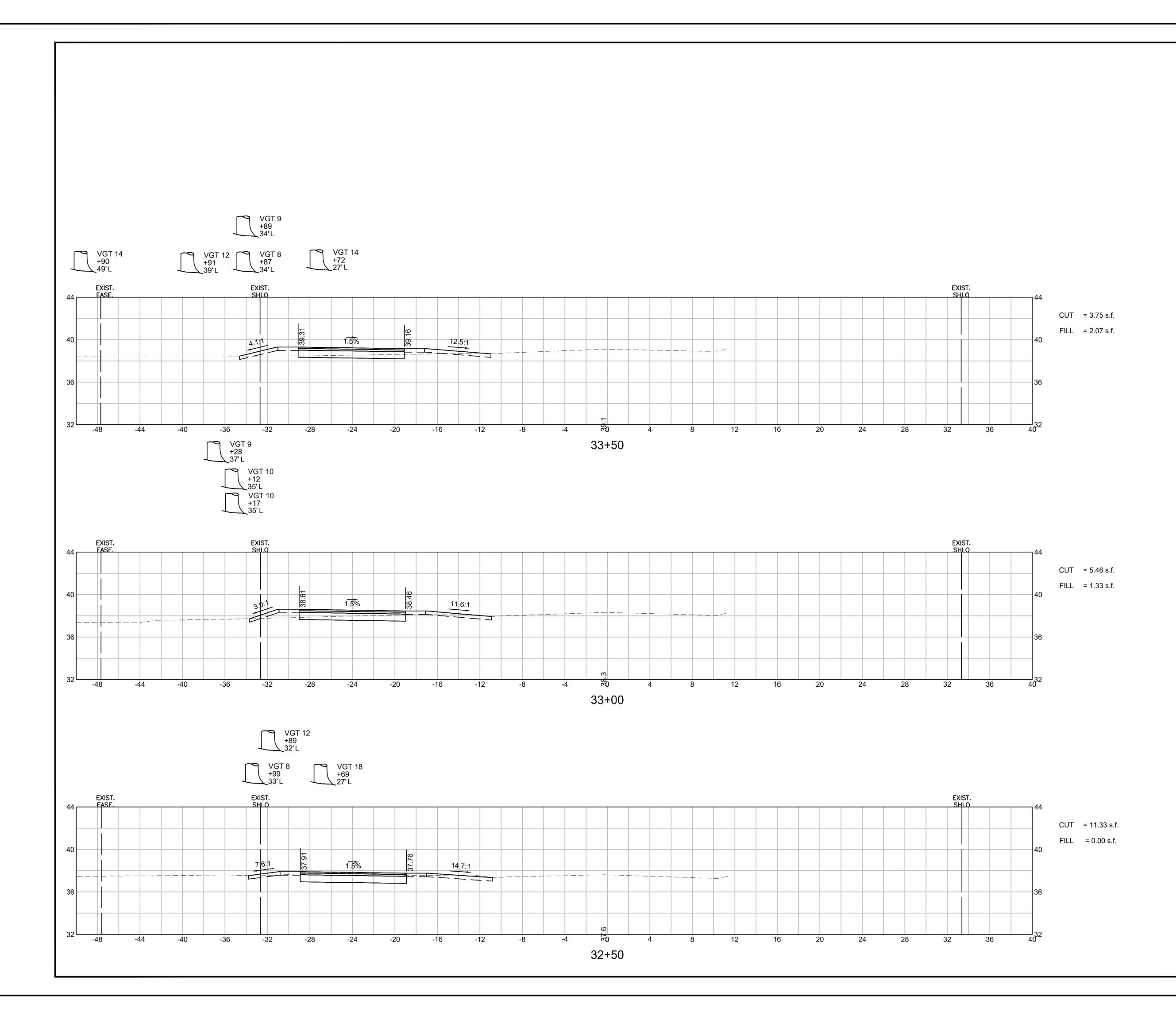
CROSS SECTIONS MILESTONE ROAD

CUT = 5.92 s.f. FILL = 0.86 s.f. 40

CUT = 4.92 s.f. FILL = 1.88 s.f. 40 136 32 28

CUT = 10.90 s.f. FILL = 0.00 s.f. -132

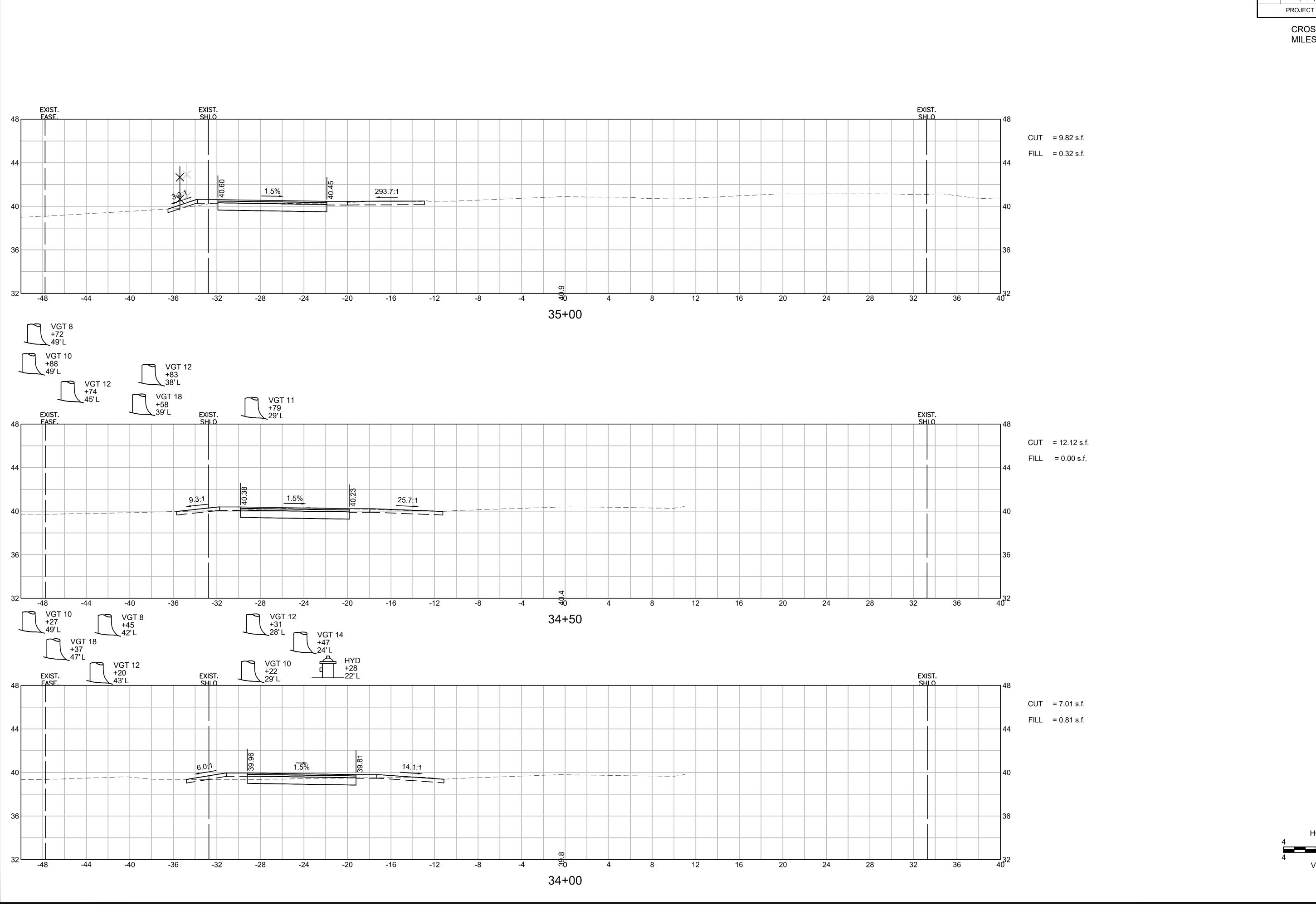
HOR. SCALE IN FEET 0 4 VER. SCALE IN FEET



STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HSI(VUS)-003S(749)X	46	50
	PROJECT FILE NO.	613129	

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



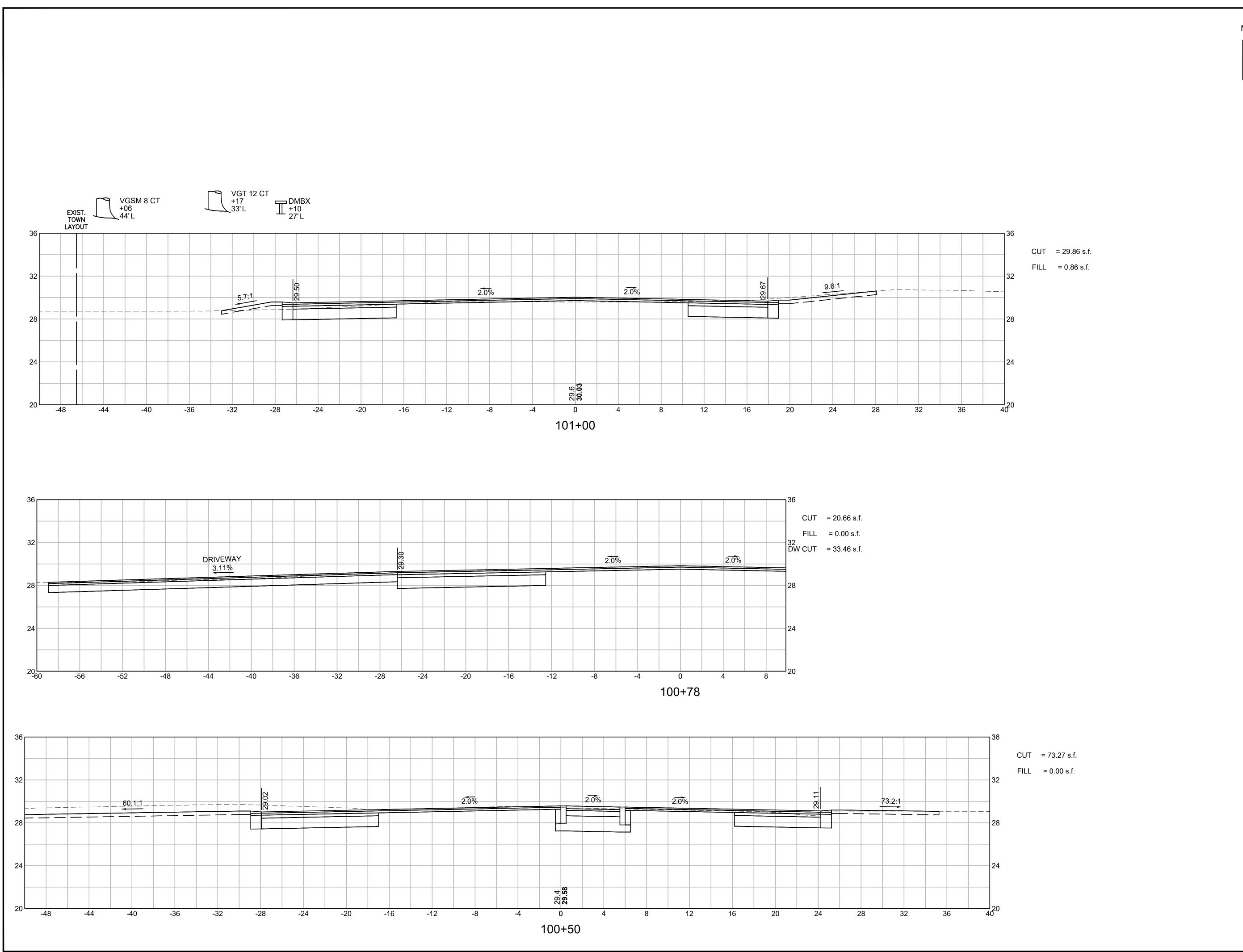


STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HSI(VUS)-003S(749)X	47	50
	PROJECT FILE NO.	613129	

		CUT	= 9.82 s.f.
	44	FILL	= 0.32 s.f.
	40		
	36		
4	32 0		
	48		

<sup>48</sup> ך		
_	CUT	= 12.12 s
- 44	FILL	= 0.00 s.
40		
- 36		
32 40		

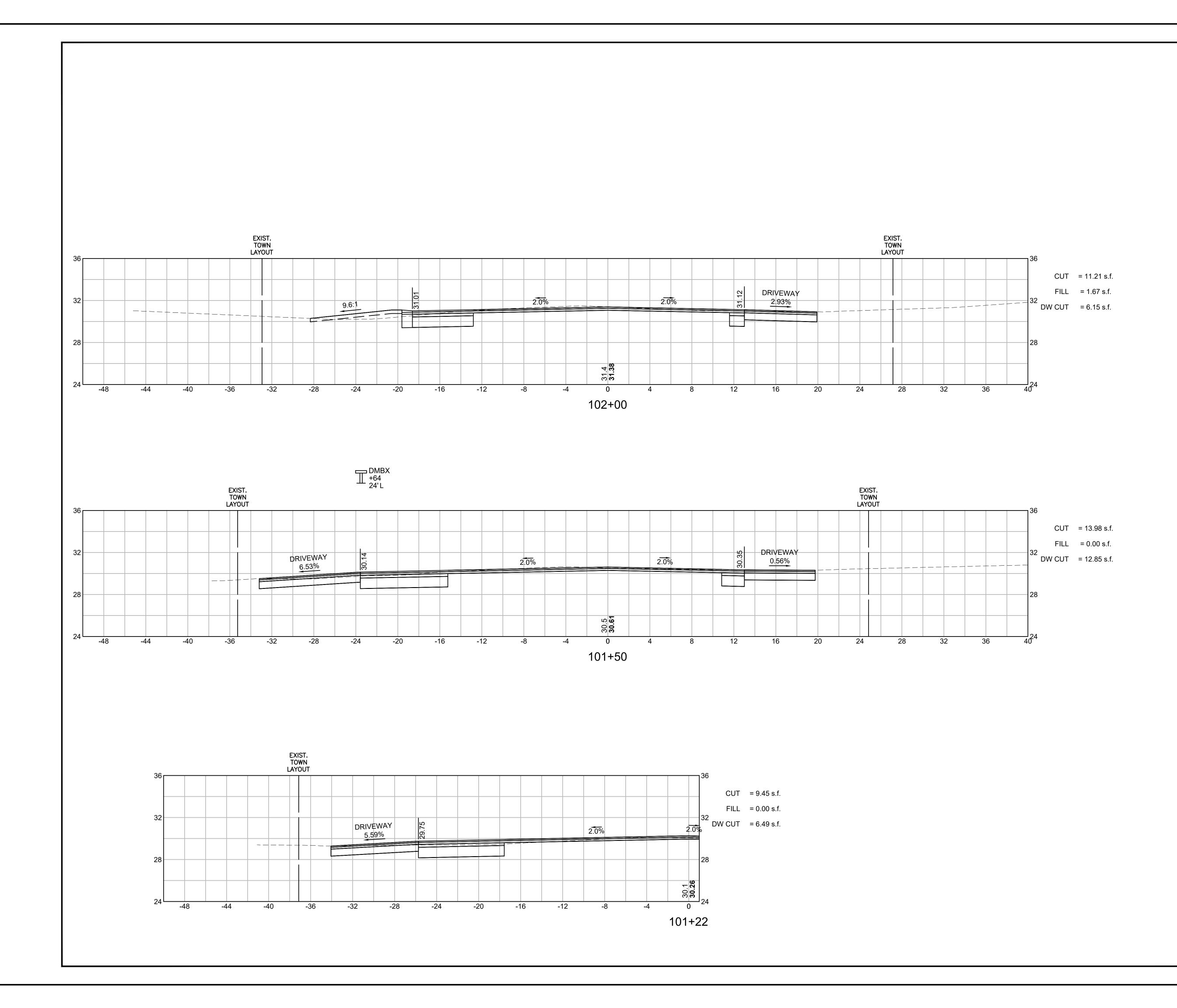
HOR. SCALE IN FEET 0 4 VER. SCALE IN FEET



STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HSI(VUS)-003S(749)X	48	50
	PROJECT FILE NO.	613129	

CROSS SECTIONS POLPIS ROAD

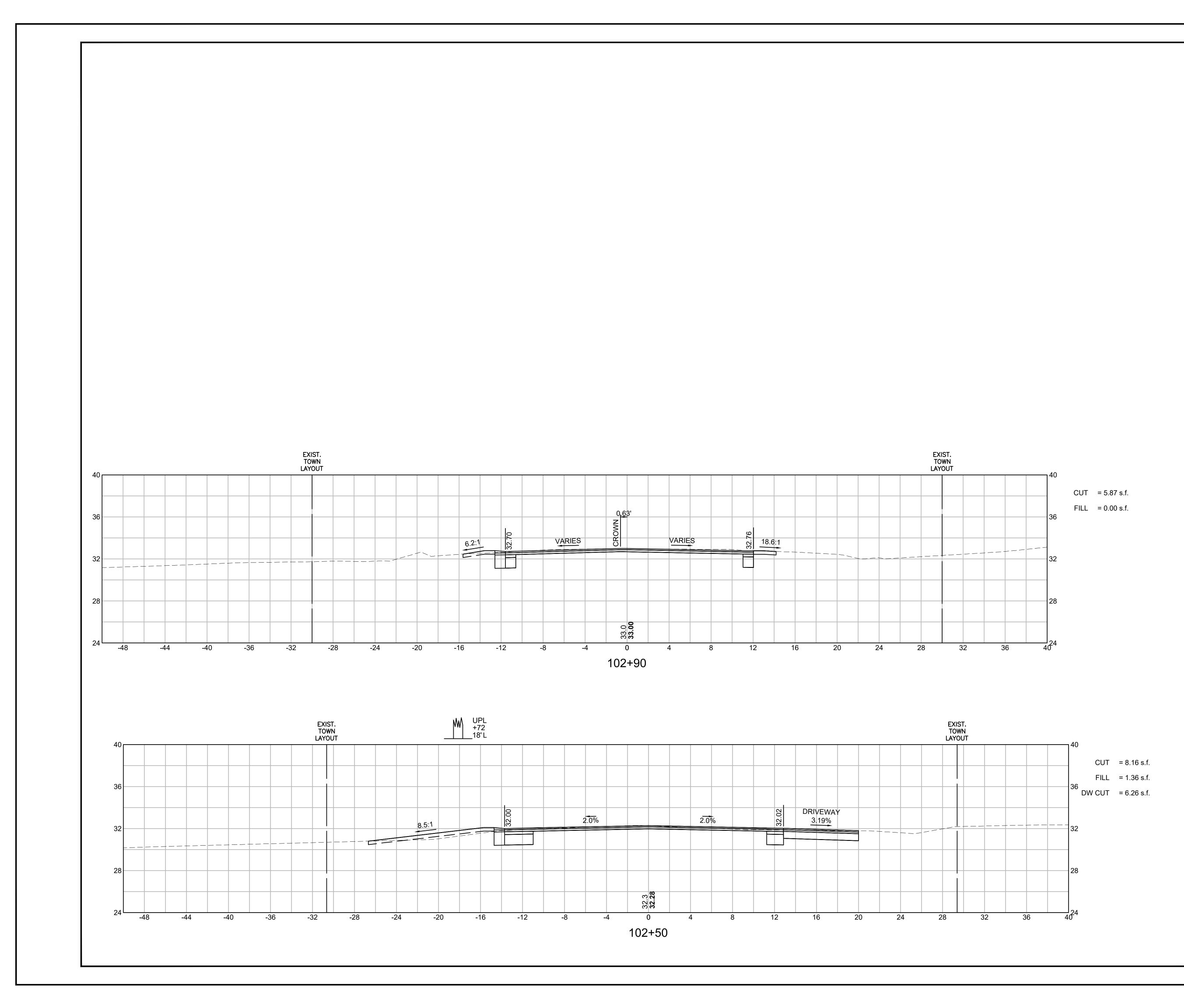
HOR. SCALE IN FEET Ο Δ 0 4 VER. SCALE IN FEET



STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HSI(VUS)-003S(749)X	49	50
	PROJECT FILE NO.	613129	

CROSS SECTIONS POLPIS ROAD

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



STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HSI(VUS)-003S(749)X	50	50
	PROJECT FILE NO.	613129	

CROSS SECTIONS POLPIS ROAD

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