MASSACHUSETTS DEPARTMENT OF TRANSPORTATION
HIGHWAY DIVISION

PLAN AND PROFILE OF

INTERSTATE 195 OVER PALMER RIVER

(BRIDGE NO. R-04-018)

IN THE TOWN OF

REHOBOTH

BRISTOL COUNTY

FEDERAL AID PROJECT NO.

HIP(BR)-003S(988)X

REHOBOTH
INTERSTATE 195 OVER PALMER RIVER

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(BR)-003S(988)X	1	54
	PROJECT FILE NO. 613106		

TITLE SHEET & INDEX

613106-HD1-(TITLE SHEET).DWG Plotted on 7-Aug-2026 6:36 AM

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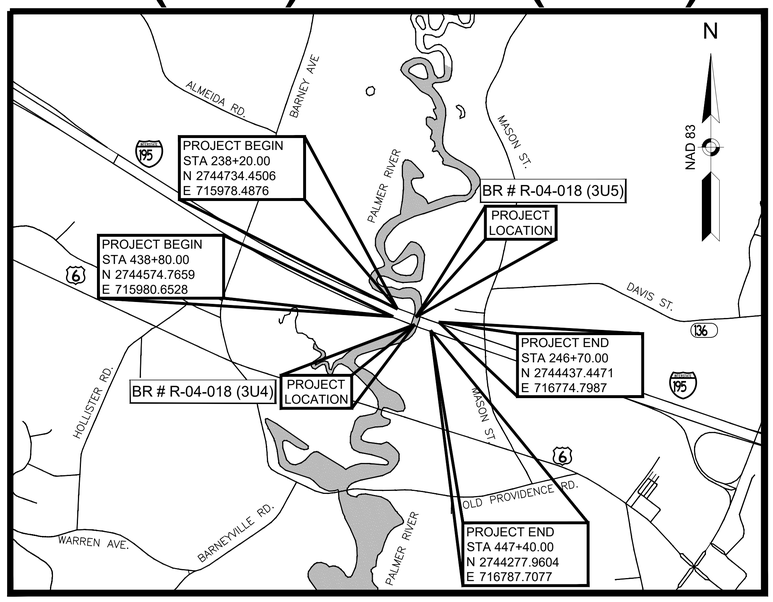


0 1000 2000 3000 4000

SCALE: 1" = 1000'

LENGTH OF PROJECT (WESTBOUND) = 850.00 FEET = 0.161 MILES

LENGTH OF PROJECT (EASTBOUND) = 860.00 FEET = 0.162 MILES

THESE PLANS ARE SUPPLEMENTED BY THE LATEST EDITIONS OF THE FOLLOWING PUBLICATIONS, AS IDENTIFIED IN THE CONTRACT SPECIAL PROVISIONS: THE MASSDOT CONSTRUCTION STANDARD DETAILS, THE MASSDOT STANDARD DRAWINGS FOR SIGNS AND SUPPORTS, THE MASSDOT STANDARD DRAWINGS FOR TRAFFIC SIGNALS AND HIGHWAY LIGHTING, THE MASSDOT OVERHEAD SIGNAL STRUCTURE AND FOUNDATION STANDARD DRAWINGS, THE MASSDOT TRAFFIC MANAGEMENT PLANS AND DETAIL DRAWINGS, AND THE ANSI AMERICAN STANDARD FOR NURSERY STOCK.

DESIGN DESIGNATION (INTERSTATE 195 OVER PALMER RIVER)

DESIGN SPEED	70 MPH
ADT (2024)	85,368
ADT (2044)	104,165
K	9%
D	54%
T (PEAK HOUR)	2.7%
T (AVERAGE DAY)	3.6%
DHV	9,375
DDHV	5,063
FUNCTIONAL CLASSIFICATION	INTERSTATE

COMMONWEALTH OF MASSACHUSETTS
NICHOLAS J. LAPOINTE
CIVIL
No. 51108
REGISTERED PROFESSIONAL ENGINEER

Digitally signed by Nicholas Lapointe
Date: 2026.08.07 14:38:05 -04'00'

DATE	DESCRIPTION	REV #

MassDOT
Massachusetts Department of Transportation
Highway Division

APPROVED

Digitally signed by Carrie Lavallee, P.E.
Date: 2026.08.11 09:34:00 -04'00'

08/11/2026

CHIEF ENGINEER **DATE**

FUSS & O'NEILL
600 UNICORN PARK DR, SUITE 17
WOBURN, MA 01801
781.932.3201
www.fando.com

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
		GUARD RAIL - DOUBLE FACE - STEEL POSTS
		GUARD RAIL - DOUBLE FACE - WOOD POSTS
		CHAIN LINK OR METAL FENCE
		WOOD FENCE
		HAY BALES/SILT FENCE
		TREE LINE
		SAWCUT LINE
		TOP OR BOTTOM OF SLOPE
		LIMIT OF EDGE OF PAVEMENT OR COLD PLANE 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	12" STOP LINE
	CW	24" CROSSWALK
	SWL	6" SOLID WHITE LINE
	SYL	6" SOLID YELLOW LINE
	BWL	6" BROKEN WHITE LINE (10' MARK - 30' SKIP)
	BYL	6" BROKEN YELLOW LINE (10' MARK - 30' SKIP)
	DWL	6" DOTTED WHITE LINE (3' MARK - 9' GAP)
	DYL	6" DOTTED YELLOW LINE (3' MARK - 9' GAP)
	DWLEx	6" DOTTED WHITE LINE EXTENSION (2' MARK - 6' GAP)
	DYLEx	6" DOTTED YELLOW LINE EXTENSION (2' MARK - 6' GAP)
	DBWL	6" DOUBLE WHITE LINE
	DBYL	6" DOUBLE YELLOW LINE

TRAFFIC SIGNAL ABBREVIATIONS

CAB	CABINET
CCVE	CLOSED CIRCUIT VIDEO EQUIPMENT
DW	STEADY UPRAISED HAND
FDW	FLASHING UPRAISED HAND
FR	FLASHING CIRCULAR RED
FRL	FLASHING RED LEFT ARROW
FRR	FLASHING RED RIGHT ARROW
FY	FLASHING CIRCULAR YELLOW
FYL	FLASHING YELLOW LEFT ARROW
FYR	FLASHING YELLOW RIGHT ARROW
G	STEADY CIRCULAR GREEN
GL	STEADY GREEN LEFT ARROW
GR	STEADY GREEN RIGHT ARROW
GSL	STEADY GREEN SLASH LEFT ARROW
GSR	STEADY GREEN SLASH RIGHT ARROW
GV	STEADY GREEN VERTICAL ARROW

TRAFFIC SIGNAL ABBREVIATIONS (cont.)

OL	OVERLAP
PED	PEDESTRIAN
PTZ	PAN, TILT, ZOOM
R	STEADY CIRCULAR RED
RL	STEADY RED LEFT ARROW
RR	STEADY RED RIGHT ARROW
TR SIG	TRAFFIC SIGNAL
TSC	TRAFFIC SIGNAL CONDUIT
W	STEADY WALKING PERSON
Y	STEADY CIRCULAR YELLOW
YL	STEADY YELLOW LEFT ARROW

ABBREVIATIONS

GENERAL

AADT	ANNUAL AVERAGE DAILY TRAFFIC
ABAN	ABANDON
ADJ	ADJUST
APPROX.	APPROXIMATE
A.C.	ASPHALT CONCRETE
ACCM PIPE	ASPHALT COATED CORRUGATED METAL PIPE
BIT.	BITUMINOUS
BC	BOTTOM OF CURB
BD.	BOUND
BL	BASELINE
BLDG	BUILDING
BM	BENCHMARK
BO	BY OTHERS
BOS	BOTTOM OF SLOPE
BR.	BRIDGE
CB	CATCH BASIN
CBCI	CATCH BASIN WITH CURB INLET
CC	CEMENT CONCRETE
CCM	CEMENT CONCRETE MASONRY
CEM	CEMENT
CI	CURB INLET
CIP	CAST IRON PIPE
CLF	CHAIN LINK FENCE
CL	CENTERLINE
CMP	CORRUGATED METAL PIPE
CSP	CORRUGATED STEEL PIPE
CO.	COUNTY
CONC	CONCRETE
CONT	CONTINUOUS
CONST	CONSTRUCTION
CR GR	CROWN GRADE
DHV	DESIGN HOURLY VOLUME
DI	DROP INLET
DIA	DIAMETER
DIP	DUCTILE IRON PIPE
DW	STEADY DON'T WALK - PORTLAND ORANGE
DWY	DRIVEWAY
ELEV (or EL.)	ELEVATION
EMB	EMBANKMENT
EOP	EDGE OF PAVEMENT
EXIST (or EX)	EXISTING
EXC	EXCAVATION
F&C	FRAME AND COVER
F&G	FRAME AND GRATE
FDN.	FOUNDATION
FLDSTN	FIELDSTONE
GAR	GARAGE
GD	GROUND
GG	GAS GATE
GI	GUTTER INLET
GIP	GALVANIZED IRON PIPE
GRAN	GRANITE
GRAV	GRAVEL
GRD	GUARD
HDW	HEADWALL
HMA	HOT MIX ASPHALT
HOR	HORIZONTAL
HYD	HYDRANT
INV	INVERT
JCT	JUNCTION
L	LENGTH OF CURVE
LB	LEACH BASIN
LP	LIGHT POLE
LT	LEFT
MAX	MAXIMUM
MB	MAILBOX
MH	MANHOLE
MECH	MECHANICAL
MHB	MASSACHUSETTS HIGHWAY BOUND
MIN	MINIMUM
NIC	NOT IN CONTRACT
NO.	NUMBER
PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVATURE
P.G.L.	PROFILE GRADE LINE
PI	POINT OF INTERSECTION
POC	POINT ON CURVE
POT	POINT ON TANGENT
PRC	POINT OF REVERSE CURVATURE
PROJ	PROJECT
PROP	PROPOSED
PSB	PLANTABLE SOIL BORROW
PT	POINT OF TANGENCY
PVC	POINT OF VERTICAL CURVATURE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENCY

ABBREVIATIONS (cont.)

GENERAL

PVMT	PAVEMENT
PWW	PAVED WATERWAY
R	RADIUS OF CURVATURE
R&D	REMOVE AND DISPOSE
RCP	REINFORCED CONCRETE PIPE
RD	ROAD
RDWY	ROADWAY
REM	REMOVE
RET	RETAIN
RET WALL	RETAINING WALL
ROW	RIGHT OF WAY
RR	RAILROAD
R&R	REMOVE AND RESET
R&S	REMOVE AND STACK
RT	RIGHT
SB	STONE BOUND
SHLD	SHOULDER
SMH	SEWER MANHOLE
ST	STREET

ABBREVIATIONS (cont.)

STA	STATION
SSD	STOPPING SIGHT DISTANCE
SHLO	STATE HIGHWAY LAYOUT LINE
SW	SIDEWALK
T	TANGENT DISTANCE OF CURVE/TRUCK %
TAN	TANGENT
TEMP	TEMPORARY
TC	TOP OF CURB
TOS	TOP OF SLOPE
TYP	TYPICAL
UP	UTILITY POLE
VAR	VARIES
VERT	VERTICAL
VC	VERTICAL CURVE
PCR	PEDESTRIAN CURB RAMP
WG	WATER GATE
WIP	WROUGHT IRON PIPE
WM	WATER METER/WATER MAIN
X-SECT	CROSS SECTION

REHOBOTH
INTERSTATE 195 OVER PALMER RIVER

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(BR)-003S(988)X	2	54
	PROJECT FILE NO. 613106		

LEGEND, ABBREVIATIONS & PROJECT NOTES

1. EXISTING CONDITIONS AND TOPOGRAPHICAL INFORMATION FROM AN ACTUAL FIELD SURVEY PROVIDED BY MASSDOT FOR WHICH WAS PREPARED BY CHA CONSULTING, INC. OCTOBER 2021.
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 AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
3. INFORMATION REGARDING THE LOCATION OF EXISTING UTILITIES HAS BEEN BASED UPON AVAILABLE INFORMATION AND MAY BE INCOMPLETE, AND WHERE SHOWN SHOULD BE CONSIDERED APPROXIMATE. NO GUARANTEE TO THE ACCURACY OF THE EXISTING UTILITIES FACILITIES SHOWN IN THIS PROJECT IS EXPRESSED OR IMPLIED UNLESS OTHERWISE NOTED. CONTRACTOR SHALL CONTACT "Mass DIG-SAFE", 1-888-344-7233. CONTRACTOR SHALL MAINTAIN MARKINGS WHERE NEEDED DURING PROJECT. ALL UTILITY LOCATIONS THAT DO NOT MATCH THE VERTICAL OR HORIZONTAL CONTROL SHOWN ON THE PLANS SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR RESOLUTION. THE CONTRACTOR SHALL VERIFY LOCATIONS OF UTILITIES AND SERVICE LATERALS PRIOR TO CONSTRUCTION. ANY CONFLICTS WITH LOCATIONS OF LIGHT POLES, TREES, ETC. SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR RESOLUTION PRIOR TO CONSTRUCTION.
4. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY LOCAL AND STATE APPROVALS AND PERMITS PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL CONFORM TO ALL REQUIREMENTS OF THE LOCAL AND STATE AGENCIES. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS AND FEES REQUIRED FOR THIS WORK INCLUDING BUT NOT LIMITED TO EXCAVATION PERMITS AND ASSOCIATED BONDING.
5. THE CONTRACTOR SHALL PROTECT EXISTING UTILITIES AND STRUCTURES. THOSE OF WHICH HAVE BEEN DAMAGED SHALL BE PROMPTLY REPAIRED TO EXISTING OR BETTER CONDITION AT THE CONTRACTOR'S EXPENSE.
6. THE CONTRACTOR IS RESPONSIBLE FOR REPLACING ANY HIGHWAY BOUND OR PRIVATE PROPERTY PIN THAT MAY BE DAMAGED OR DESTROYED DURING CONSTRUCTION, TO IT'S LOCATION JUST PRIOR TO CONSTRUCTION.
7. THE ROADWAY IS TO BE GRADED SMOOTHLY AND EVENLY IN ACCORDANCE WITH THE GRADING AND TIE PLANS, PROFILE, AND CROSS SECTIONS. THE CONTRACTOR IS RESPONSIBLE FOR INSURING A POSITIVE DRAINAGE FLOW TO ALL CATCH BASINS WITHOUT CREATING ANY FLAT SPOTS THAT WILL RESULT IN STANDING WATER.
8. ANY PUBLIC OR PRIVATE PROPERTY DISTURBED AS A RESULT OF CONSTRUCTION OPERATIONS SHALL BE RESTORED AS QUICKLY AS POSSIBLE AND TO THE SATISFACTION OF THE ENGINEER.
9. RIM OR FRAME ELEVATIONS OF ALL UTILITY STRUCTURES SHALL BE ADJUSTED TO MEET FINISHED PAVED SURFACES. PRIVATE UTILITIES WHO ARE RESPONSIBLE FOR ADJUSTING THEIR OWN STRUCTURES SHALL BE NOTIFIED AT LEAST 2 WEEKS IN ADVANCE BY THE CONTRACTOR.
10. STAGING AREAS AND MATERIAL STOCK PILES SHALL BE LIMITED WITHIN THE SITE AND LOCATED SO AS NOT TO INTERFERE WITH VEHICULAR TRAFFIC UNLESS APPROVED OTHERWISE BY THE MassDOT. THE CONTRACTOR SHALL PROVIDE SAFETY DEVICES (IF ORDERED BY THE ENGINEER) TO PROTECT STOCK PILES/WORK STAGING AREAS. IF THIS WORK IS SO ORDERED THERE WILL BE NO ADDITIONAL COMPENSATION MADE TO THE CONTRACTOR.
11. HOURS OF WORK SHALL BE DEFINED IN THE CONTRACT DOCUMENTS. MassDOT RESERVES THE RIGHT TO ADJUST THESE HOURS IN THE INTEREST OF PUBLIC SAFETY.
12. INSTALL SEDIMENTATION AND EROSION CONTROL MEASURES PRIOR TO START OF CONSTRUCTION. EXISTING AND PROPOSED CATCH BASINS DOWNGRADE OF ALL WORK AREAS SHALL BE PROTECTED WITH EROSION CONTROL MEASURES DURING CONSTRUCTION.

613106-HD2-(LEGEND).DWG Plotted on 22-Jul-2026 1:26 PM

REHOBOTH
INTERSTATE 195 OVER PALMER RIVER

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(BR)-003S(988)X	3	54
PROJECT FILE NO.	613106		

KEY PLAN

N

NAD 83

1958 STATE HIGHWAY LAYOUT (No. 4753)

PALMER RIVER

PROJECT BEGIN
N2744734.4506
E715978.4876
STA 238+20

I-195 WESTBOUND
(STATE HIGHWAY LAYOUT)

C1
Δ=13°30'19"
R=15000.00'
L=3535.67'
T=1776.07'

BRIDGE NO.
R-04-018(3U4)

Δ=10°56'19"
R=1000.00'
L=190.91'
T=95.75'

STA 43+09.79 SHL0 4753 =
STA 1+85.92 PALMER RIVER

BENCHMARK: MDSK 5380Z
EL=32.21'

PT +52.11

PROJECT END
N2744437.4471
E716774.7987
STA 246+70.00

PT +37.97

PT +65.90

PROJECT END
N2744277.9604
E716787.7077
STA 447+40.00

I-195 EASTBOUND
(STATE HIGHWAY LAYOUT)

BRIDGE NO.
R-04-018(3U5)

PROJECT BEGIN
N2744574.7659
E715980.6528
STA 438+80.00

BENCHMARK: XCUT
EL=32.16'

SHEET REFERENCE:	①	②
Drawing Title:	Drawing No.	
Construction Plans	6	7
Profiles Eastbound	8	8
Profiles Westbound	9	9
Curb Tie Plans	10	11
Grading Plan	12	13
Traffic Signs & Pavement Marking Plan	14	15

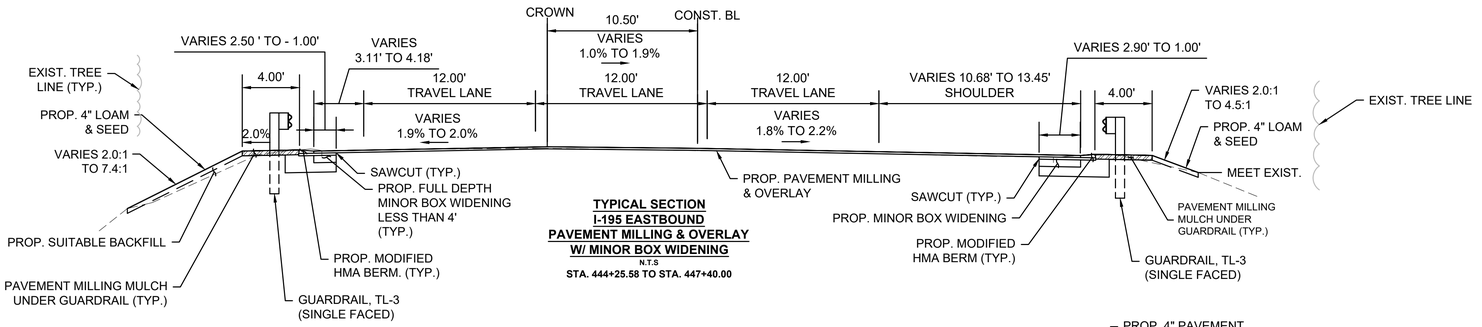
0 40 100 160

SCALE: 1" = 40'

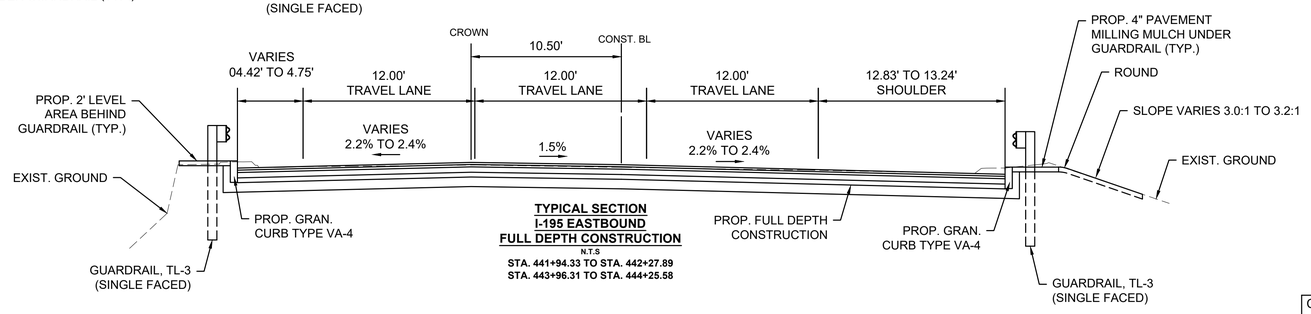
REHOBOTH
INTERSTATE 195 OVER PALMER RIVER

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(BR)-003S(988)X	4	54
	PROJECT FILE NO. 613106		

TYPICAL SECTIONS & PAVEMENT NOTES I-195 EASTBOUND



TYPICAL SECTION
I-195 EASTBOUND
PAVEMENT MILLING & OVERLAY
W/ MINOR BOX WIDENING
N.T.S
STA. 444+25.58 TO STA. 447+40.00



TYPICAL SECTION
I-195 EASTBOUND
FULL DEPTH CONSTRUCTION
N.T.S
STA. 441+94.33 TO STA. 442+27.89
STA. 443+96.31 TO STA. 444+25.58

PAVEMENT NOTES:

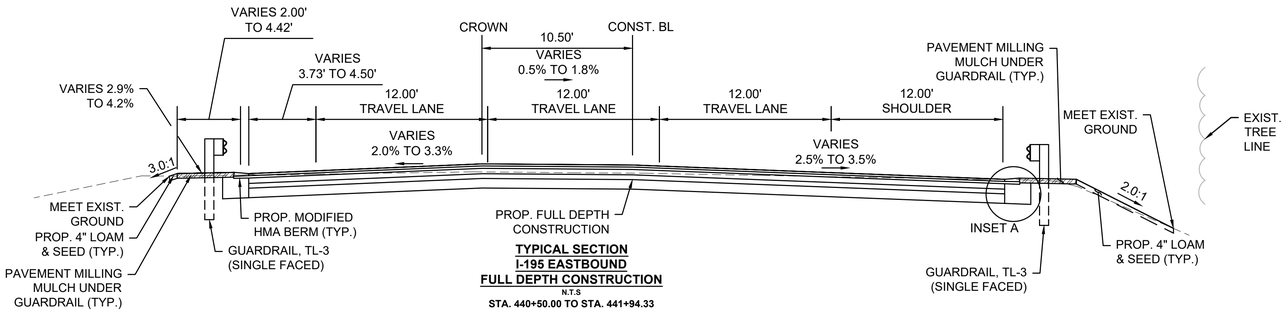
PROPOSED PAVEMENT MILLING AND OVERLAY:
1 3/4" SUPERPAVE BRIDGE SURFACE COURSE - 9.5 POLYMER (SSC-9.5-P) OVER
0.07-0.09 GAL/SY TACK COAT OVER
1" TO 3" PAVEMENT FINE MILLING

PROPOSED PAVEMENT MILLING AND STRUCTURAL OVERLAY:
1 3/4" SUPERPAVE BRIDGE SURFACE COURSE - 9.5 POLYMER (SSC-9.5-P) OVER
0.06-0.08 GAL/SY TACK COAT OVER
2" SUPERPAVE INTERMEDIATE COURSE - 12.5 (SIC-12.5) OVER
0.07-0.09 GAL/SY TACK COAT OVER
1" TO 3" PAVEMENT FINE MILLING

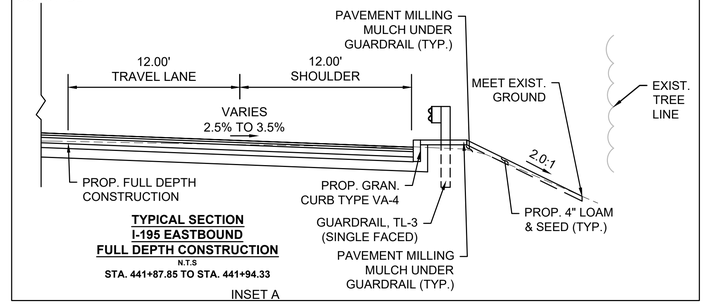
PROPOSED FULL DEPTH MINOR BOX WIDENING (LESS THAN 4' WIDE):
1 3/4" SUPERPAVE BRIDGE SURFACE COURSE - 9.5 POLYMER (SSC-9.5-P) OVER
0.06 TO 0.08 GAL/SY TACK COAT OVER
2" SUPERPAVE INTERMEDIATE COURSE - 12.5 (SIC-12.5) OVER
6" H.E.S. CEMENT CONCRETE BASE OVER
8" GRAVEL BORROW TYPE-B.

PROPOSED FULL DEPTH RECONSTRUCTION:
1 3/4" SUPERPAVE BRIDGE SURFACE COURSE - 9.5 POLYMER (SSC-9.5-P) OVER
0.06 TO 0.08 GAL/SY TACK COAT OVER
2" SUPERPAVE INTERMEDIATE COURSE - 12.5 (SIC-12.5) OVER
0.06 TO 0.08 GAL/SY TACK COAT OVER
4 1/2" SUPERPAVE BASE COURSE - 37.5 (SBC-37.5) OVER
4" DENSE GRADED CRUSHED STONE
8" GRAVEL BORROW (TYPE B)
NOTE: ANY EXISTING GRAVEL BORROW THAT MEETS SPECIFICATIONS CAN REMAIN.

PROPOSED BRIDGE PAVEMENT
1 1/2" SUPERPAVE BRIDGE SURFACE COURSE - 9.5 POLYMER (SSC-B-9.5P) OVER
1 1/2" SUPERPAVE BRIDGE PROTECTIVE COURSE - 9.5 (SPC-B-9.5)
OVER MEMBRANE WATERPROOFING FOR BRIDGE DECKS



TYPICAL SECTION
I-195 EASTBOUND
FULL DEPTH CONSTRUCTION
N.T.S
STA. 440+50.00 TO STA. 441+94.33



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I-195 EASTBOUND
FULL DEPTH CONSTRUCTION
N.T.S
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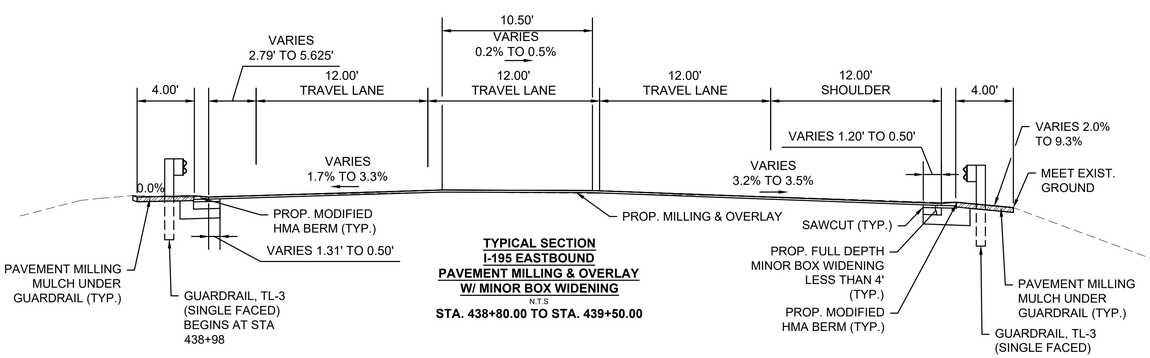
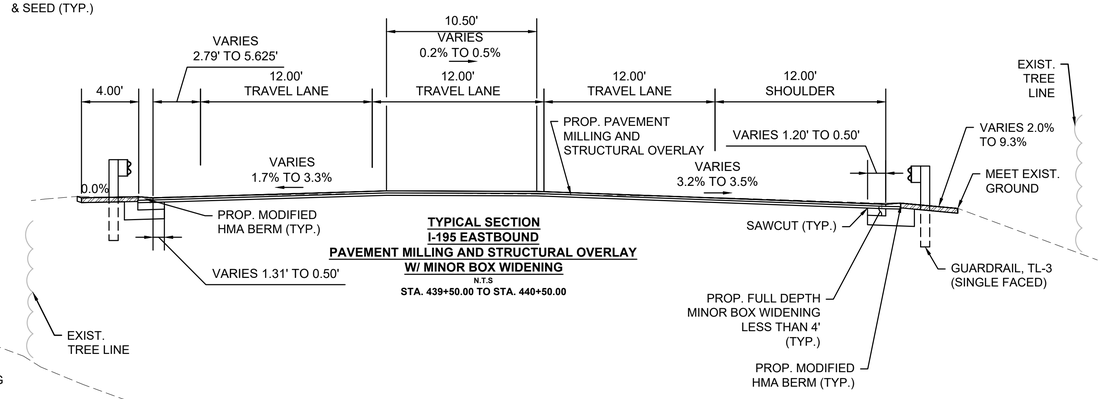


TYPICAL SECTION
I-195 EASTBOUND
PAVEMENT MILLING & OVERLAY
W/ MINOR BOX WIDENING
N.T.S
STA. 438+80.00 TO STA. 439+50.00

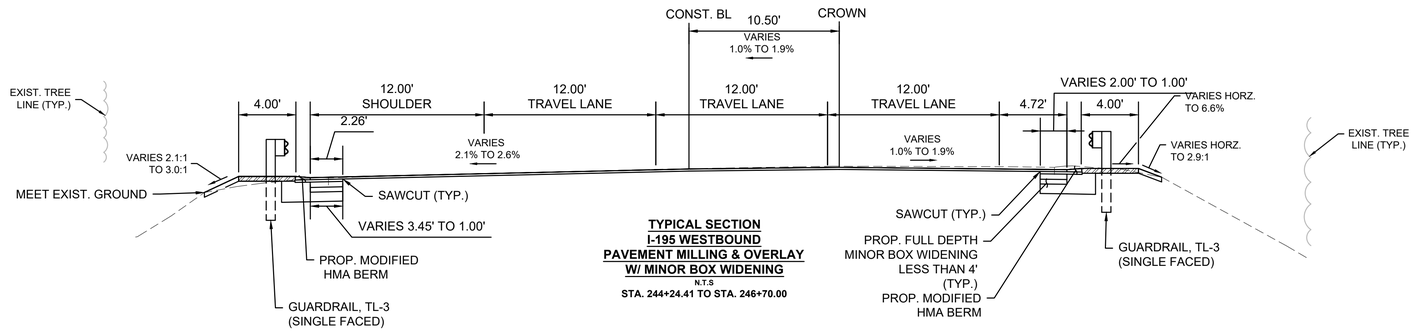


TYPICAL SECTION
I-195 EASTBOUND
PAVEMENT MILLING AND STRUCTURAL OVERLAY
W/ MINOR BOX WIDENING
N.T.S
STA. 439+50.00 TO STA. 440+50.00

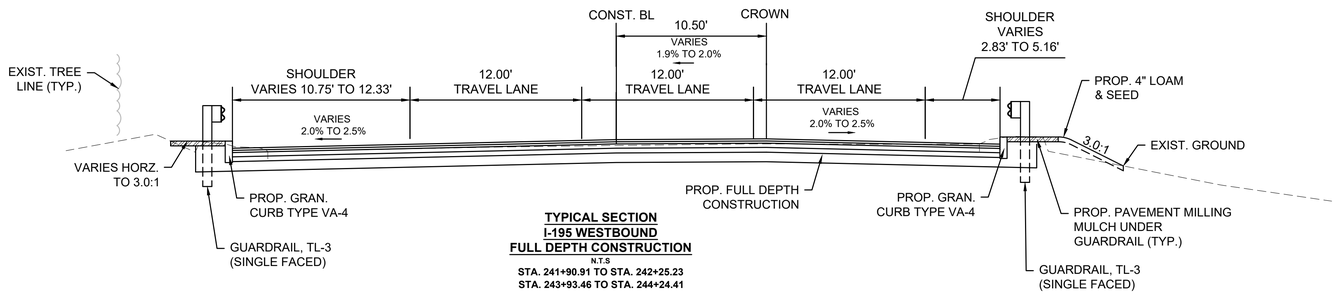
REHOBOTH
INTERSTATE 195 OVER PALMER RIVER

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(BR)-003S(988)X	5	54
	PROJECT FILE NO. 613106		

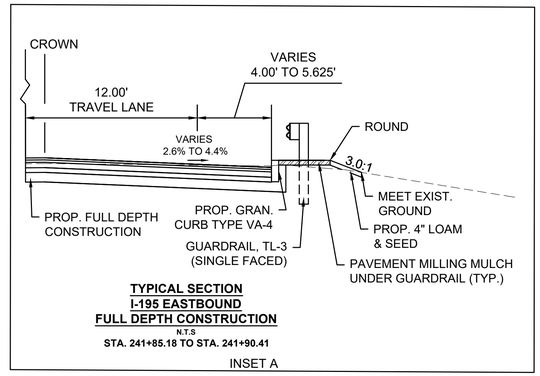
TYPICAL SECTIONS & PAVEMENT NOTES
I-195 WESTBOUND



TYPICAL SECTION
I-195 WESTBOUND
PAVEMENT MILLING & OVERLAY
W/ MINOR BOX WIDENING
N.T.S
STA. 244+24.41 TO STA. 246+70.00

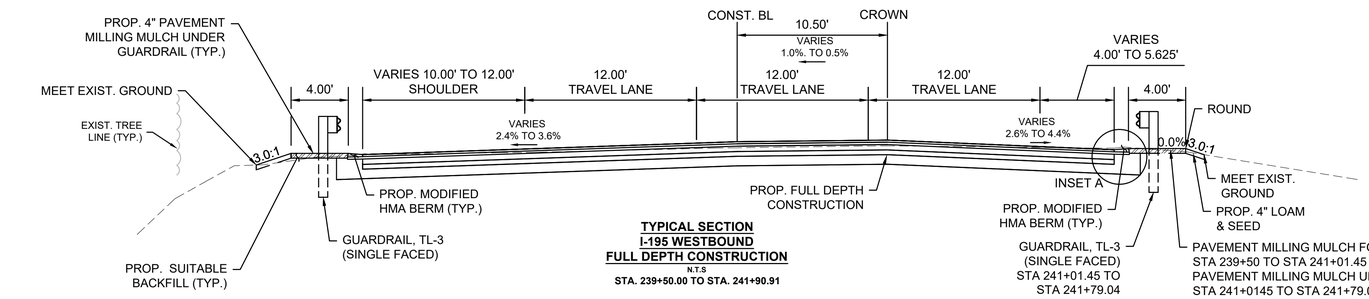


TYPICAL SECTION
I-195 WESTBOUND
FULL DEPTH CONSTRUCTION
N.T.S
STA. 241+90.91 TO STA. 242+25.23
STA. 243+93.46 TO STA. 244+24.41

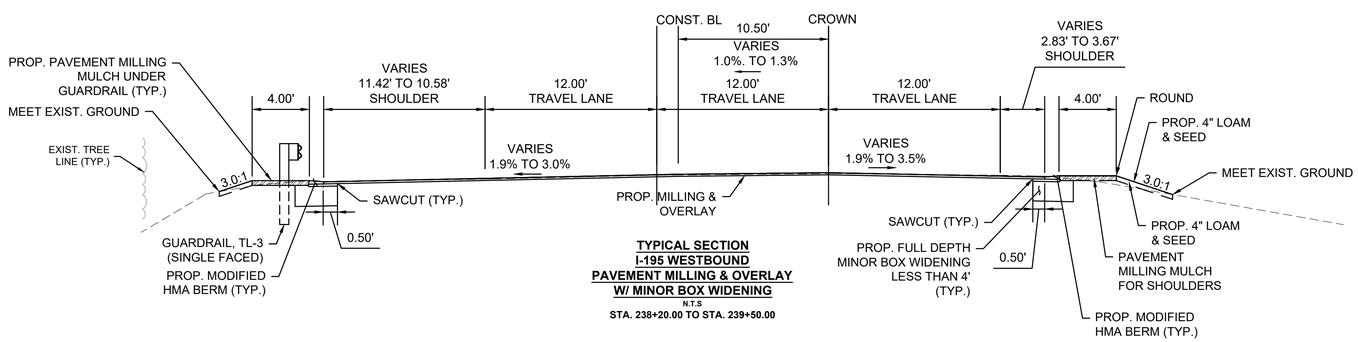


TYPICAL SECTION
I-195 EASTBOUND
FULL DEPTH CONSTRUCTION
N.T.S
STA. 241+85.18 TO STA. 241+90.41

INSET A



TYPICAL SECTION
I-195 WESTBOUND
FULL DEPTH CONSTRUCTION
N.T.S
STA. 239+50.00 TO STA. 241+90.91



TYPICAL SECTION
I-195 WESTBOUND
PAVEMENT MILLING & OVERLAY
W/ MINOR BOX WIDENING
N.T.S
STA. 238+20.00 TO STA. 239+50.00

HIGHWAY GUARDRAIL DETAILS I-195 WESTBOUND
TRANSITION TO NCHRP 350 GUARDRAIL - STA. 238+20.00 (LT) TO STA. 238+54.38 (LT)
W-BEAM TL3 - STA. 238+54.38 (LT) TO STA. 241+78.38 (LT)
TRANSITION TO BRIDGE RAIL - STA. 241+78.38 (LT) TO 242+12.13 (LT)
TRAILING ANCHORAGE- STA. 241+01.45 (RT) TO STA. 241+10.83 (RT)
W-BEAM, TL3 - STA. 241+10.83 (RT) TO STA. 241+79.04 (RT)
TRANSITION TO BRIDGE RAIL - STA. 241+79.04 (RT) TO STA. 242+12.79 (RT)

HIGHWAY GUARDRAIL DETAILS I-195 EASTBOUND
TANGENT END TREATMENT- STA. 438+97.94 (LT) TO STA. 439+07.35 (LT)
W-BEAM TL3 - STA. 439+07.35 (LT) TO STA. 441+81.86 (LT)
TRANSITION TO BRIDGE RAIL - STA. 441+81.86 (LT) TO 442+15.61 (LT)
TANGENT END TREATMENT- STA. 438+80.00 (RT) TO STA. 438+89.38 (RT)
W-BEAM, TL3 - STA. 438+89.38 (RT) TO STA. 441+81.86 (RT)
TRANSITION TO BRIDGE RAIL STA. 441+81.86 (RT) TO STA. 442+15.61 (RT)

WATER DETAILS
NONE

TRAFFIC CONDUIT DETAILS
NONE

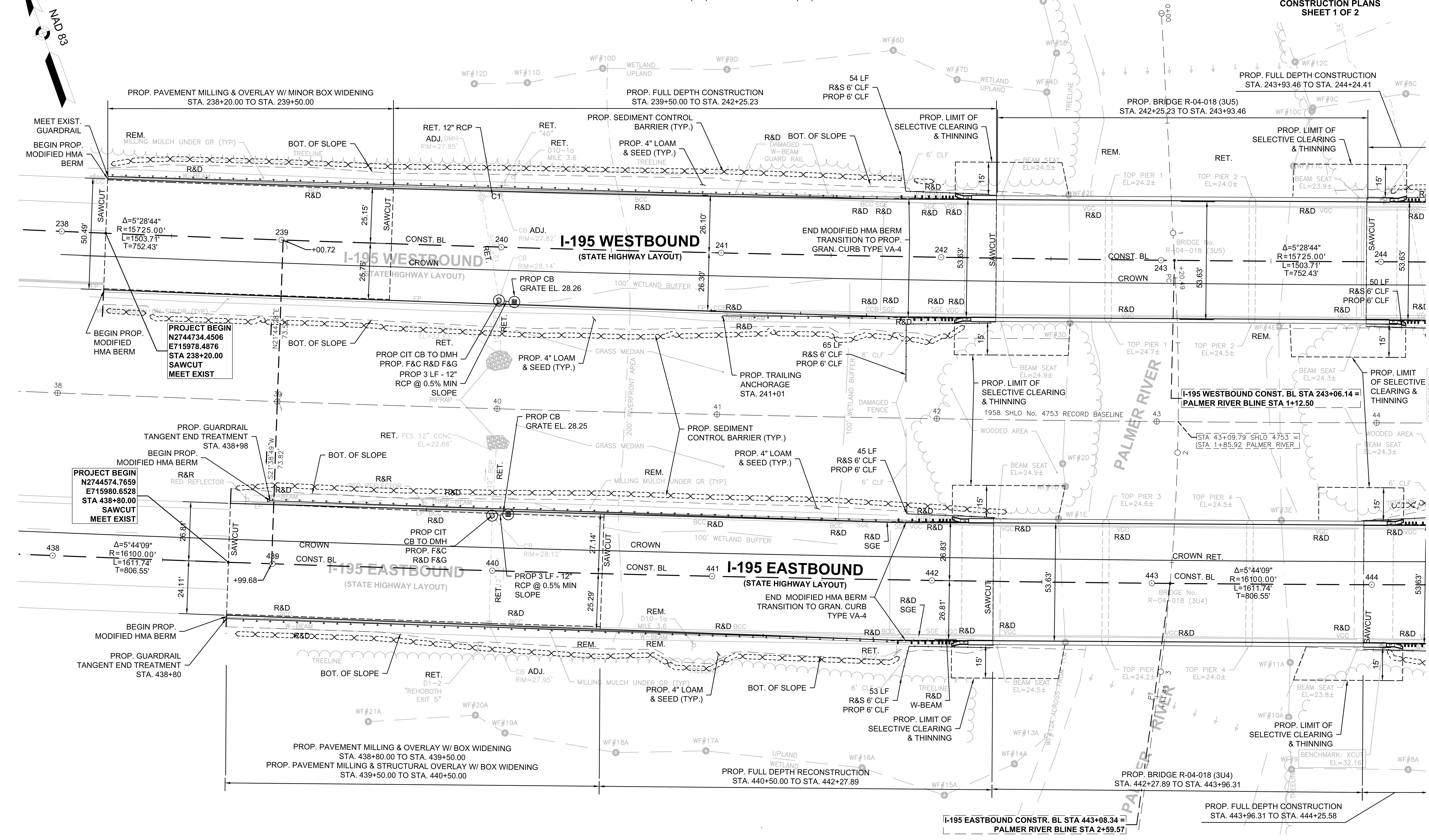
DRAINAGE DETAILS
CONTRACTOR TO FIELD VERIFY INVERTS AT CIT PRIOR TO CONSTRUCTING PROPOSED CATCH BASINS.

REHOBOTH
INTERSTATE 195 OVER PALMER RIVER

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(BR)-003S(988)X	6	54
	PROJECT FILE NO.	613106	

CONSTRUCTION PLANS
SHEET 1 OF 2

613106-HD4-(CONSTRUCTION PLAN).DWG   Plotted on 22-Jul-2026 1:26 PM



N
NAD 83
PROP. PAVEMENT MILLING & OVERLAY W/ MINOR BOX WIDENING
STA. 238+20.00 TO STA. 239+50.00
PROP. FULL DEPTH CONSTRUCTION
STA. 239+50.00 TO STA. 242+25.23
PROP. BRIDGE R-04-018 (3U5)
STA. 242+25.23 TO STA. 243+93.46
PROP. FULL DEPTH CONSTRUCTION
STA. 243+93.46 TO STA. 244+24.41
MEET EXIST. GUARDRAIL
BEGIN PROP. MODIFIED HMA BERM
REM.
BOT. OF SLOPE
RET. 12" RCP
ADJ.
RET.
PROP. SEDIMENT CONTROL BARRIER (TYP.)
PROP. 4" LOAM & SEED (TYP.)
54 LF
R&S 6' CLF
PROP 6' CLF
PROP. LIMIT OF SELECTIVE CLEARING & THINNING
I-195 WESTBOUND
(STATE HIGHWAY LAYOUT)
CONST. BL
CROWN
Δ=5°28'44"
R=15725.00'
L=1503.71'
T=752.43'
END MODIFIED HMA BERM TRANSITION TO PROP. GRAN. CURB TYPE VA-4
SAWCUT
PROP CB GRATE EL. 28.26
BEGIN PROP. MODIFIED HMA BERM
PROJECT BEGIN
N2744734.4506
E715978.4876
STA 238+20.00
SAWCUT
MEET EXIST
PROP CIT CB TO DMH
PROP. F&C R&D F&G
PROP 3 LF - 12" RCP @ 0.5% MIN SLOPE
PROP. TRAILING ANCHORAGE STA. 241+01
65 LF
R&S 6' CLF
PROP 6' CLF
50 LF
R&S 6' CLF
PROP 6' CLF
I-195 WESTBOUND CONST. BL STA 243+06.14 =
PALMER RIVER BLINE STA 1+12.50
CONTINUED ON SHEET NO. 7
PALMER RIVER
1958 SHLO No. 4753 RECORD BASELINE
STA 43+09.79 SHLO 4753 =
STA 1+85.92 PALMER RIVER
PROP. GUARDRAIL TANGENT END TREATMENT STA. 438+98
BEGIN PROP. MODIFIED HMA BERM
PROJECT BEGIN
N2744574.7659
E715980.6528
STA 438+80.00
SAWCUT
MEET EXIST
PROP CB GRATE EL. 28.25
PROP. SEDIMENT CONTROL BARRIER (TYP.)
45 LF
R&S 6' CLF
PROP 6' CLF
I-195 EASTBOUND
(STATE HIGHWAY LAYOUT)
Δ=5°44'09"
R=16100.00'
L=1611.74'
T=806.55'
PROP CIT CB TO DMH PROP. F&C R&D F&G
PROP 3 LF - 12" RCP @ 0.5% MIN SLOPE
END MODIFIED HMA BERM TRANSITION TO GRAN. CURB TYPE VA-4
PROP. GUARDRAIL TANGENT END TREATMENT STA. 438+80
53 LF
R&S 6' CLF
PROP 6' CLF
R&D W-BEAM
PROP. LIMIT OF SELECTIVE CLEARING & THINNING
PROP. PAVEMENT MILLING & OVERLAY W/ BOX WIDENING
STA. 438+80.00 TO STA. 439+50.00
PROP. PAVEMENT MILLING & STRUCTURAL OVERLAY W/ BOX WIDENING
STA. 439+50.00 TO STA. 440+50.00
PROP. FULL DEPTH RECONSTRUCTION
STA. 440+50.00 TO STA. 442+27.89
PROP. BRIDGE R-04-018 (3U4)
STA. 442+27.89 TO STA. 443+96.31
PROP. FULL DEPTH CONSTRUCTION
STA. 443+96.31 TO STA. 444+25.58
I-195 EASTBOUND CONSTR. BL STA 443+08.34 =
PALMER RIVER BLINE STA 2+59.57

0 20 50 100
SCALE: 1" = 20'

FOR CONSTRUCTION PROFILE:
SEE SHEET NO. 8 & 9

HIGHWAY GUARDRAIL DETAILS I-195 EASTBOUND
TRANSITION TO BRIDGE RAIL - STA. 444+08.46 (LT) TO STA. 444+42.27 (LT)
W-BEAM TL3 - STA. 444+42.27 (LT) TO STA. 446+48.30 (LT)
TRAILING ANCHORAGE - STA. 446+48.30 TO STA. 446+57.69 (LT)
TRANSITION TO BRIDGE RAIL - 444+08.32 (RT) TO STA. 444+42.02 (RT)
W-BEAM TL3 - STA. 444+42.02 (RT) TO STA. 446+35.63 (RT)
TRAILING ANCHORAGE - 446+35.63 (RT) TO STA. 446+44.99 (RT)

DRAINAGE DETAILS
CONTRACTOR TO FIELD VERIFY INVERTS AT CIT PRIOR TO CONSTRUCTING PROPOSED CATCH BASINS.

TRAFFIC CONDUIT DETAILS
NONE

WATER DETAILS
NONE

HIGHWAY GUARDRAIL DETAILS I-195 WESTBOUND
TRANSITION TO BRIDGE RAIL - STA. 244+05.63 (LT) TO STA. 244+39.38 (LT)
W-BEAM, TL3 - STA. 244+39.38 (LT) TO STA. 246+36.00 (LT)
TRANSITION TO NCHRP 350 GUARDRAIL - STA. 246+36.00 (LT) TO STA. 246+70.00 (LT)
TRANSITION TO BRIDGE RAIL - STA. 244+05.63 (RT) TO STA. 244+39.38 (RT)
W-BEAM, TL3 - STA. 244+39.38 (RT) TO STA. 246+36.00 (RT)
TRANSITION TO NCHRP 350 GUARDRAIL - STA. 246+36.00 (RT) TO STA. 246+70.00 (RT)

REHOBOTH
INTERSTATE 195 OVER PALMER RIVER

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(BR)-003S(988)X	7	54
PROJECT FILE NO.	613106		

CONSTRUCTION PLANS
SHEET 2 OF 2

N
NAD 83

PROP. LIMIT OF SELECTIVE CLEARING & THINNING
PROP. BRIDGE R-04-018 (3U5)
STA. 242+25.23 TO STA. 243+93.46
PROP. FULL DEPTH CONSTRUCTION
STA. 243+93.46 TO STA. 244+24.41
PROP. PAVEMENT MILLING & OVERLAY W/ MINOR BOX WIDENING
STA. 244+24.41 TO STA. 246+70.00
BENCHMARK: MDSK 5380Z
EL=32.21'
REM.
RET.
BRIDGE No. R-04-018 (3U5)
CONST. BL
CROWN
Δ=5°28'44"
R=1572 5.00'
L=1503.71'
T=752.43'
40 LF R&S 6' CLF PROP 6' CLF
50 LF R&S 6' CLF PROP 6' CLF
53 LF R&S 6' CLF PROP 6' CLF
45 LF R&S 6' CLF PROP 6' CLF
END GRAN. CURB TYPE VA4 TRANSITION TO PROP. MODIFIED HMA BERM
PROP. 4" LOAM & SEED (TYP.)
PROP. SEDIMENT CONTROL BARRIER (TYP.)
BOT. OF SLOPE
MILLING MULCH UNDER GR (TYP)
MEET EXIST. GUARDRAIL
END PROP. MODIFIED HMA BERM
PROP. HMA BERM
PROP. GUARDRAIL TRAILING ANCHORAGE STA. 446+58
PROP. GUARDRAIL TRAILING ANCHORAGE STA. 446+45
PROP CB GRATE EL. 28.26
PROP CIT CB TO DMH PROP. F&C R&D F&G
PROP 3 LF - 12" RCP @ 0.5% MIN SLOPE
PROP. LIMIT OF SELECTIVE CLEARING & THINNING
PROP. BRIDGE R-04-018 (3U4)
STA. 442+27.89 TO STA. 443+96.31
PROP. FULL DEPTH CONSTRUCTION
STA. 443+96.31 TO STA. 444+25.58
PROP. PAVEMENT MILLING & OVERLAY W/ MINOR BOX WIDENING
STA. 444+25.58 TO STA. 447+40.00
I-195 WESTBOUND CONST. BL STA 243+06.14 = PALMER RIVER BLINE STA 1+12.50
STA 43+09.79 SHLO 4753 = STA 1+85.92 PALMER RIVER
I-195 EASTBOUND CONSTR. BL STA 443+08.34 = PALMER RIVER BLINE STA 2+59.57
1958 SHLO No. 4753 RECORD BASELINE
PALMER RIVER
200' RIVERFRONT AREA
I-195 WESTBOUND
(STATE HIGHWAY LAYOUT)
I-195 EASTBOUND
(STATE HIGHWAY LAYOUT)
PROJECT END N2744437.4471 E716774.7987 STA 246+70.00 SAWCUT MEET EXIST
PROJECT END N2744277.9604 E716787.7077 STA 447+40.00 SAWCUT MEET EXIST
S71°01'47"E 847.86'
S71°05'10"E 829.23'
S19°15'36"W 73.82'
N19°15'36"E 72.91'
PT +52.11
+97.54
+37.97 PT
+02.75
PT +65.90
CONTINUED ON SHEET NO. 6
FOR CONSTRUCTION PROFILE: SEE SHEET NO. 8 & 9

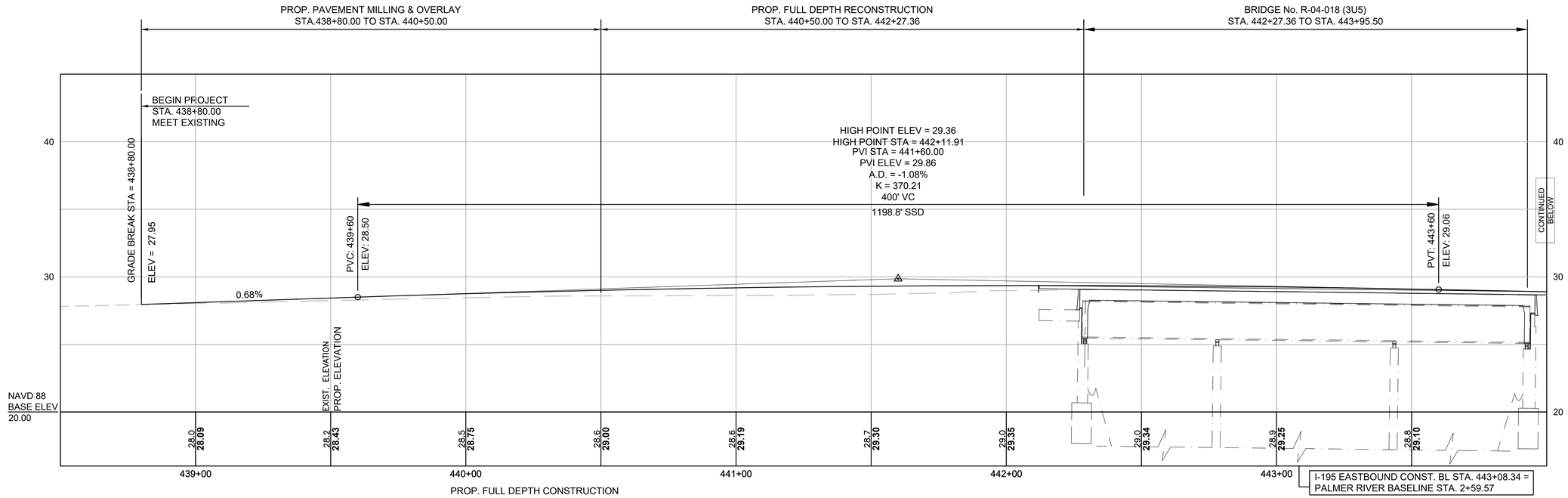
SCALE: 1" = 20'

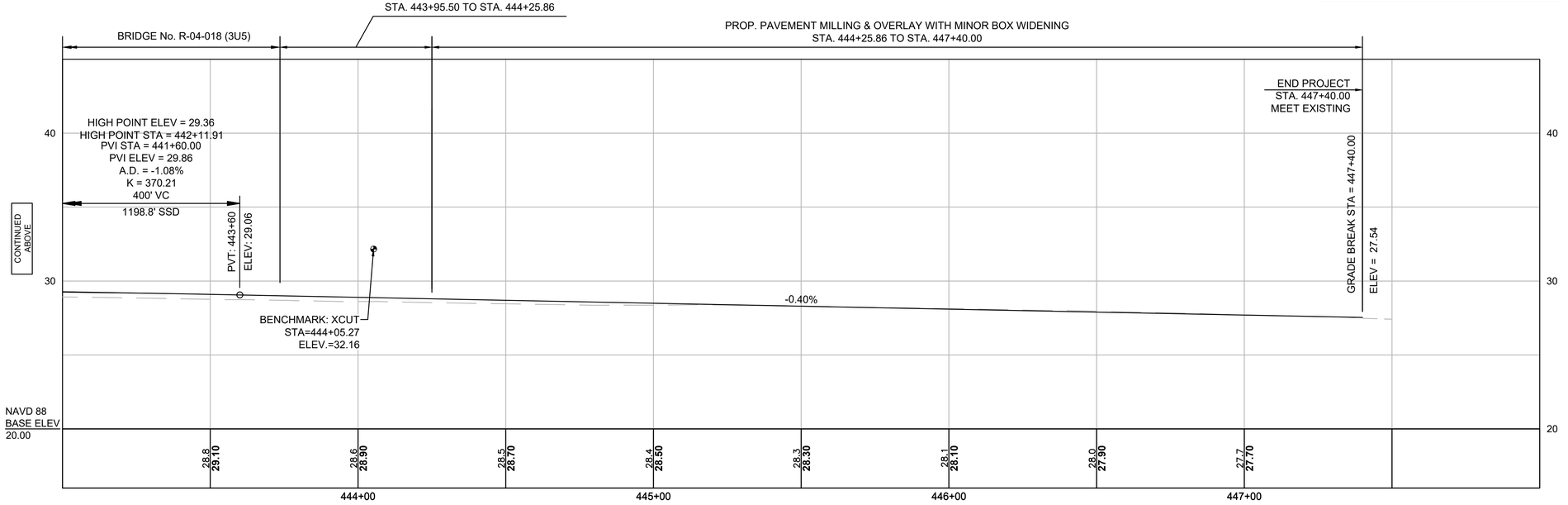
613106-HDA-(CONSTRUCTION PLAN).DWG Plotted on 22-Jul-2026 1:26 PM

REHOBOTH
INTERSTATE 195 OVER PALMER RIVER

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(BR)-003S(988)X	8	54
PROJECT FILE NO.	613106		

PROFILES I-195 EASTBOUND
SHEET 1 0F 1





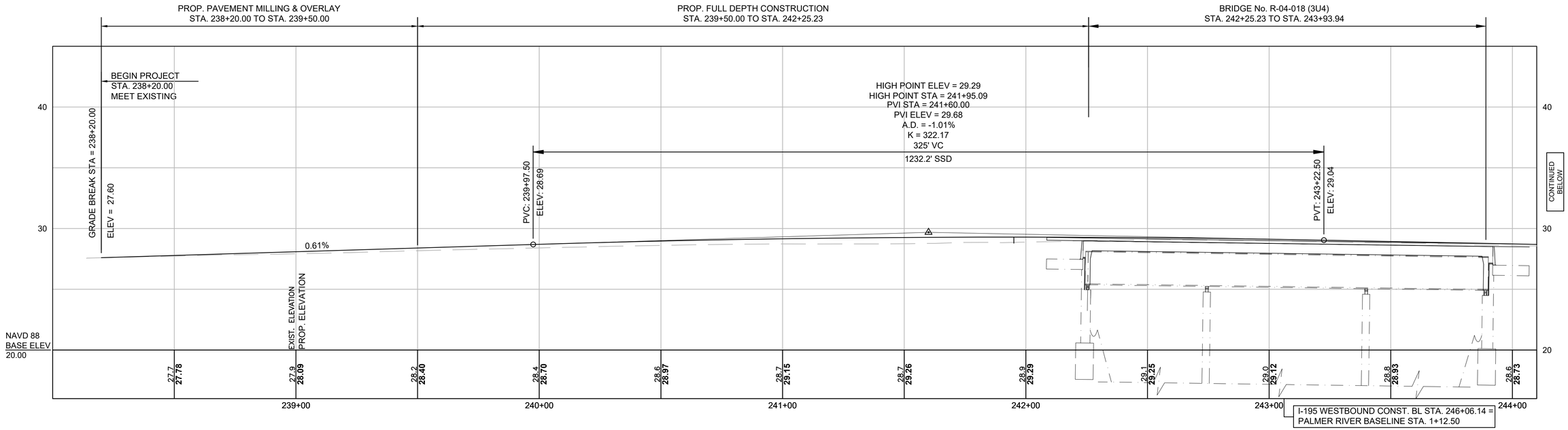
HOR. SCALE IN FEET
20 0 20 40
VER. SCALE IN FEET
4 0 4 8

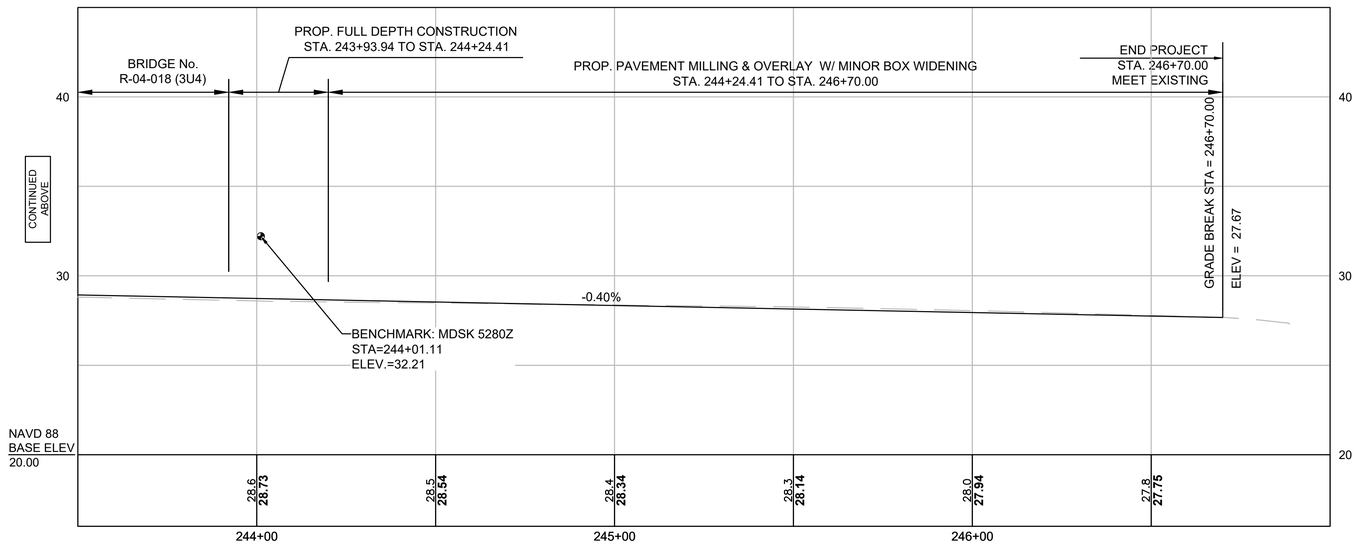
FOR CONSTRUCTION PLAN:
NO. 6, 7

REHOBOTH
INTERSTATE 195 OVER PALMER RIVER

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(BR)-003S(988)X	9	54
PROJECT FILE NO.	613106		

PROFILES I-195 WESTBOUND
SHEET 1 OF 1





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

FOR CONSTRUCTION PLAN:
NO. 6, 7

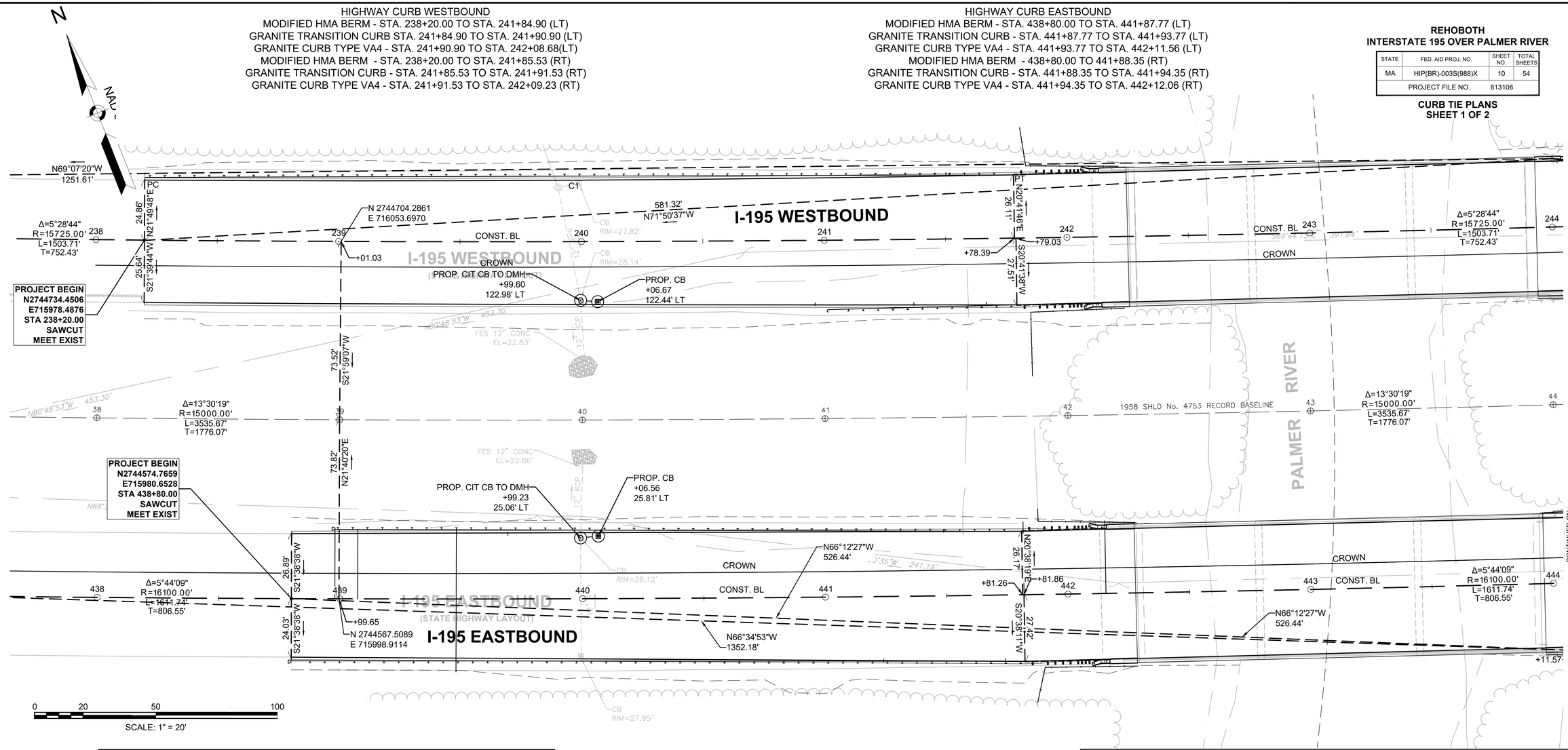
HIGHWAY CURB WESTBOUND
MODIFIED HMA BERM - STA. 238+20.00 TO STA. 241+84.90 (LT)
GRANITE TRANSITION CURB STA. 241+84.90 TO STA. 241+90.90 (LT)
GRANITE CURB TYPE VA4 - STA. 241+90.90 TO STA. 242+08.68(LT)
MODIFIED HMA BERM - STA. 238+20.00 TO STA. 241+85.53 (RT)
GRANITE TRANSITION CURB - STA. 241+85.53 TO STA. 241+91.53 (RT)
GRANITE CURB TYPE VA4 - STA. 241+91.53 TO STA. 242+09.23 (RT)

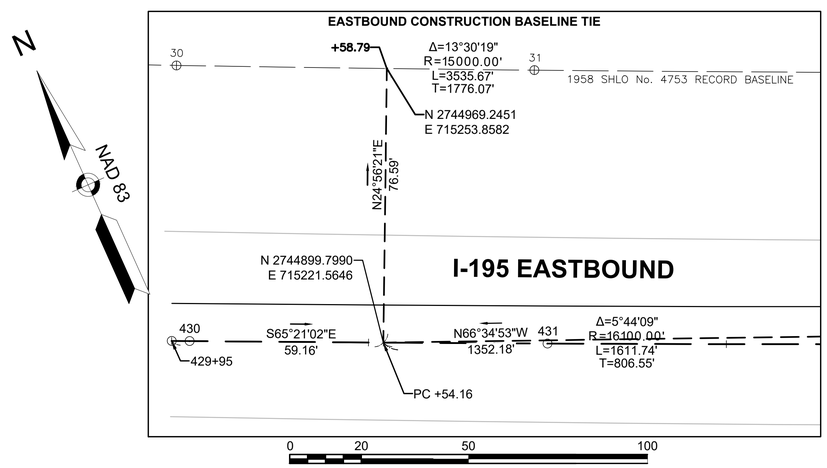
HIGHWAY CURB EASTBOUND
MODIFIED HMA BERM - STA. 438+80.00 TO STA. 441+87.77 (LT)
GRANITE TRANSITION CURB - STA. 441+87.77 TO STA. 441+93.77 (LT)
GRANITE CURB TYPE VA4 - STA. 441+93.77 TO STA. 442+11.56 (LT)
MODIFIED HMA BERM - 438+80.00 TO 441+88.35 (RT)
GRANITE TRANSITION CURB - STA. 441+88.35 TO STA. 441+94.35 (RT)
GRANITE CURB TYPE VA4 - STA. 441+94.35 TO STA. 442+12.06 (RT)

REHOBOTH
INTERSTATE 195 OVER PALMER RIVER

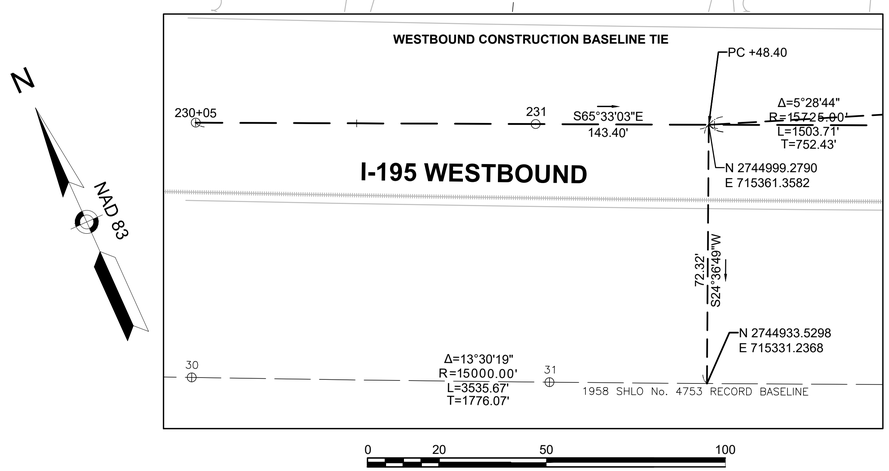
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(BR)-003S(988)X	10	54
PROJECT FILE NO.	613106		

CURB TIE PLANS
SHEET 1 OF 2





Curve Table				
CURVE #	DELTA	RADIUS	LENGTH	TANGENT
C1	1°27'05"	14129.63	357.92	178.97



HIGHWAY CURB WESTBOUND
GRANITE CURB TYPE VA4- STA. 244+08.86 TO STA. 244+26.64 (LT)
GRANITE TRANSITION CURB - STA. 244+26.64 TO STA. 244+32.64 (LT)
MODIFIED HMA BERM - STA. 244+32.64 TO STA. 246+70.00 (LT)
GRANITE CURB TYPE VA4 - STA. 244+08.72 TO STA. 244+26.44 (RT)
GRANITE TRANSITION CURB - STA. 244+26.44 TO STA. 244+32.44 (RT)
MODIFIED HMA BERM - STA. 244+32.44 TO STA. 246+70.00 (RT)

HIGHWAY CURB EASTBOUND
GRANITE CURB TYPE VA4 - STA. 444+11.75 TO STA. 444+29.53 (LT)
GRANITE TRANSITION CURB - STA. 444+29.53 TO STA. 444+35.53 (LT)
MODIFIED HMA BERM - STA. 444+35.53 TO STA. 446+66.22 (LT)
GRANITE CURB TYPE VA4 - STA. 444+11.57 TO STA. 444+29.29 (RT)
GRANITE TRANSITION CURB - STA. 444+29.29 TO STA. 444+35.29 (RT)
MODIFIED HMA BERM - STA. 444+35.29 TO STA. 447+40.00 (RT)

REHOBOTH
INTERSTATE 195 OVER PALMER RIVER

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(BR)-003S(988)X	11	54
PROJECT FILE NO.	613106		

CURB TIE PLANS
SHEET 2 0F 2

613106-HD6-(CURB TIE PLAN).DWG Plotted on 22-Jul-2026 1:27 PM

N
NAD 83

BENCHMARK: MDSK 5380Z
EL=32.21'

BENCHMARK: XCUT
EL=32.16'

CONTINUED ON SHEET NO. 10

1958 SHLO No. 4753 RECORD BASELINE

CONST. BL

CROWN

Δ=5°28'44"
R=15725.00'
L=1503.71'
T=752.43'

Δ=13°30'19"
R=15000.00'
L=3535.67'
T=1776.07'

Δ=5°44'09"
R=16100.00'
L=1611.74'
T=806.55'

Δ=5°44'09"
R=16100.00'
L=1611.74'
T=806.55'

I-195 WESTBOUND

I-195 EASTBOUND

(STATE HIGHWAY LAYOUT)

PALMER RIVER

TREELINE

WOODED AREA

WETLAND
UPLAND

MILLING MULCH UNDER GR (TYP)

RIPRAP

CB
RIM=27.61'

CB
RIM=27.27'

ES 16" CONC
EL=20.68'

24" CI WATER

S54°22'21"E
102.71'

27.07'
N19°44'45"E

26.53'
S19°44'49"W

S64°09'39"E
252.32'

S64°36'53"E
270.09'

PT +52.11

S71°01'47"E
847.86'

N 2744493.4046
E 716614.2743

N 2744443.2621
E 716757.8820

+38.92
+39.16
+96.71
+97.56

72.91'
S19°15'40"W

+37.97
PT

N 2744379.9086
E 716718.1630

S71°05'34"E
2653.60'

73.82'
N19°15'36"E

PROJECT END
N2744437.4471
E716774.7987
STA 246+70.00
SAWCUT
MEET EXIST

PROJECT END
N2744277.9604
E716787.7077
STA 447+40.00
SAWCUT
MEET EXIST

N66°12'27"W
526.44'

N19°42'36"E
26.91'

S19°42'41"W
26.68'

S86°49'34"E
98.93'

+41.78
+42.05
+11.57
+29.29

N 2744356.9066
E 716561.1343

S76°41'09"E
262.31'

+02.77

S75°32'09"E
331.21'

PT +65.90

N18°54'50"E
26.81'

N 2744301.9780
E 716717.6131

S71°05'10"E
829.23'

PROP. CB
+78.96
23.92' RT

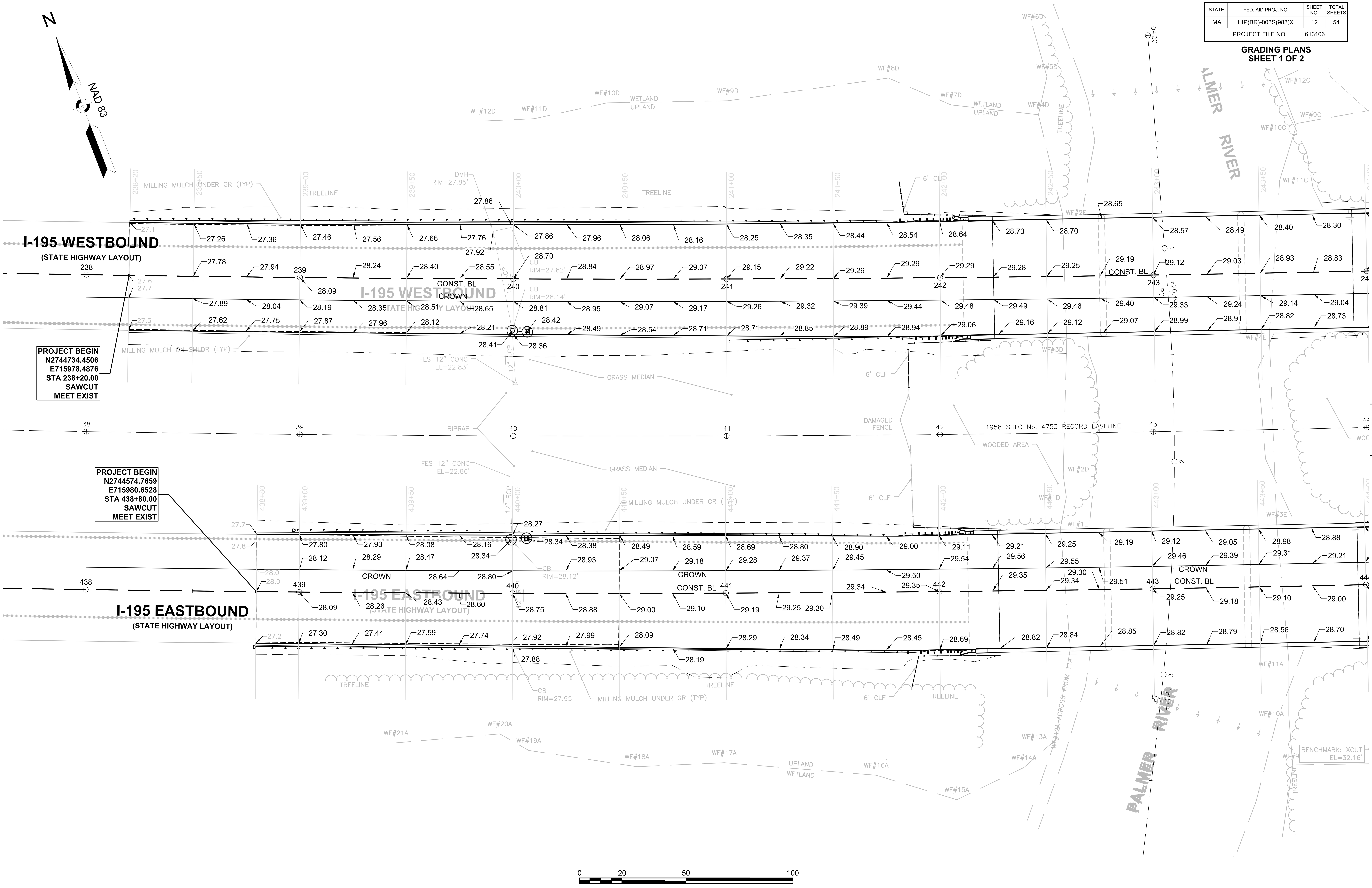
PROP. CIT CB TO DMH
+72.08
23.72' RT

0 20 50 100
SCALE: 1" = 20'

REHOBOTH
INTERSTATE 195 OVER PALMER RIVER

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(BR)-003S(988)X	12	54
	PROJECT FILE NO.	613106	

GRADING PLANS
SHEET 1 OF 2



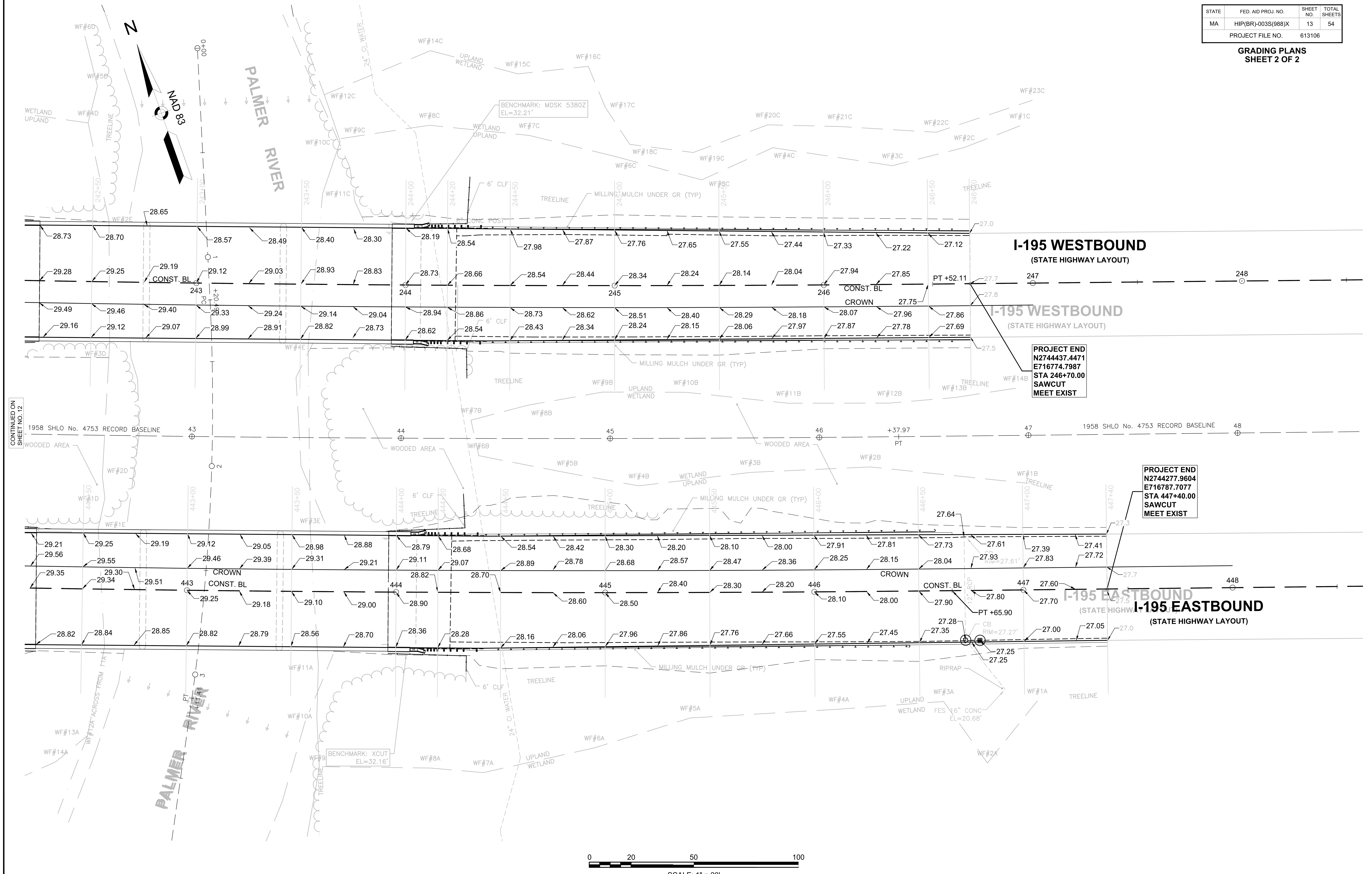
Plotted on 22-Jul-2026 1:27 PM

613106-HD7-(GRADING PLAN).DWG

REHOBOTH
INTERSTATE 195 OVER PALMER RIVER

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(BR)-003S(988)X	13	54
	PROJECT FILE NO.	613106	

GRADING PLANS
SHEET 2 OF 2



613106-HD7-(GRADING PLAN).DWG Plotted on 22-Jul-2026 1:27 PM

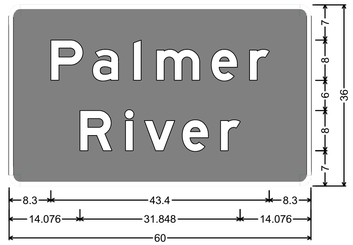
NOTES:

1. EXISTING PAVEMENT MARKINGS AT THE PROJECT LIMITS ARE TO BE RETAINED.

REHOBOTH
INTERSTATE 195 OVER PALMER RIVER

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(BR)-003S(988)X	14	54
PROJECT FILE NO.	613106		

TRAFFIC SIGNS & PAVEMENT MARKINGS
SHEET 1 OF 2



2.250" Radius, 0.750" Border, White on Green;
"Palmer", E Mod; "River", E Mod; Mounted on Twin S5X10 Posts

PROP. PAVEMENT MILLING & OVERLAY
STA. 238+20 TO STA. 239+50

PROP. FULL DEPTH CONSTRUCTION
STA. 239+50 TO STA. 242+25.23

PROP. BRIDGE DECK R-04-018 (3U5)
STA. 242+25.23 TO STA. 243+93.94

RET. "40"

RET. D10-1a MILE 3.6

MILLING MULCH UNDER GR (TYP)

TREELINE

6' CLF

I-195 WESTBOUND
(STATE HIGHWAY LAYOUT)

PROP. RUMBLE STRIP (TYP.)

+19.94 +67.23 +12.49 +99.83
+20.00 +67.22 +12.82 +99.82
+20.05 +67.22 +13.14 +99.81
+20.10 +67.21 +13.47 +99.80

SWL BWL CONST. BL SYL

238 239 240 241 242 243

11'-5" 1'-9" 1'-3" 10'-1" 12'-3"
12'-0" 12'-0" 12'-0" 12'-0" 12'-0"
11'-7" 12'-0" 12'-0" 12'-0" 12'-0" 5'-0"
2'-10" 3'-7" 4'-10"

MILLED TEXT ON SHLDR (TYP)

PROP. ONE-WAY WHITE SLOTTED PAVEMENT MARKINGS (TYP.)

GRASS MEDIAN

RIPRAP

DAMAGED FENCE

WOODED AREA

PALMER RIVER

CONTINUED ON SHEET NO. 15

PROJECT BEGIN
N2744734.4506
E715978.4876
STA 238+20.00
SAWCUT
MEET EXIST

PROJECT BEGIN
N2744574.7659
E715980.6528
STA 438+80.00
SAWCUT
MEET EXIST

PROP. ONE-WAY WHITE SLOTTED PAVEMENT MARKINGS (TYP.)

R&R RED REFLECTOR

+80.02 +80.02 +80.00 +80.01

+45.96 +45.84 +45.72 +45.61

12'-2" 12'-1" 12'-2" 11'-10"
12'-0" 12'-0" 12'-0" 12'-5"
2'-7" 7" 4'-9"

I-195 EASTBOUND
(STATE HIGHWAY LAYOUT)

PROP. RUMBLE STRIP (TYP.)

SYL BWL CONST. BL SWL

438 439 440 441 442 443

RET. D10-1a MILE 3.6

RET. D1-2 "REHOBOTH EXIT 5"

R&S SIGN
R&S POST

PROP I2-2
Palmer River

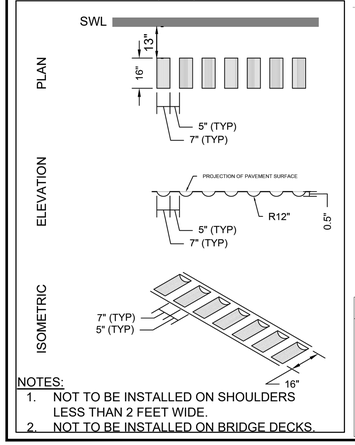
PROP MA-W8-13c
PLOWS USE CAUTION

PROP. PAVEMENT MILLING & OVERLAY
STA. 438+80 TO STA. 440+50.00

PROP. FULL DEPTH RECONSTRUCTION
STA. 440+50.00 TO STA. 442+27.36

PROP. BRIDGE NO. R-04-018 (3U4)
STA. 442+27.36 TO STA. 443+95.50

RUMBLE STRIP DETAIL
(N.T.S)



NOTES:
1. NOT TO BE INSTALLED ON SHOULDERS LESS THAN 2 FEET WIDE.
2. NOT TO BE INSTALLED ON BRIDGE DECKS.

MARKING LEGEND	
▭	PROPOSED RECESSED REFLECTOR
●	PROPOSED SIGN
SYL	PROPOSED 6" SOLID RECESSED YELLOW LINE
SWL	PROPOSED 6" SOLID RECESSED WHITE LINE
BWL	PROPOSED 6" RECESSED BROKEN WHITE LINE (10' MARK, 30' SKIP)

0 20 50 100
SCALE: 1" = 20'

613106-TR1-(TRAFFIC SIGNS AND PAVEMENT MARKINGS).DWG Plotted on 20-Aug-2026 6:37 AM

REHOBOTH
INTERSTATE 195 OVER PALMER RIVER

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(BR)-003S(988)X	15	54
PROJECT FILE NO.	613106		

TRAFFIC SIGNS & PAVEMENT MARKINGS
SHEET 2 OF 2

MARKING LEGEND	
▭	PROPOSED RECESSED REFLECTOR
●	PROPOSED SIGN
SYL	PROPOSED 6" SOLID RECESSED YELLOW LINE
SWL	PROPOSED 6" SOLID RECESSED WHITE LINE
BWL	PROPOSED 6" RECESSED BROKEN WHITE LINE (10' MARK, 30' SKIP)

CONTINUED ON SHEET NO. 14

PROP. BRIDGE DECK R-04-018 (3U5)
STA. 242+25.23 TO STA. 243+93.94

PROP. FULL DEPTH CONSTRUCTION
STA. 243+93.94 39 TO STA. 244+24.41

PROP. PAVEMENT MILLING & OVERLAY W/ MINOR BOX WIDENING
STA. 224+24.41TO STA. 246+70.00

PROP MA-W8-13c

PLOW'S USE CAUTION

R&S SIGN
R&S POST

PROP I2-2

Palmer River

16"ø CONC. SIGN FOUNDATION RET.

MILLING MULCH UNDER GR (TYP)

I-195 WESTBOUND
(STATE HIGHWAY LAYOUT)

PROP. RUMBLE STRIP (TYP.)

CONST. BL

PROP. ONE-WAY WHITE SLOTTED PAVEMENT MARKINGS (TYP.)

PROJECT END
N2744437.4471
E716774.7987
STA 246+70.00
SAWCUT
MEET EXIST

PROP. ONE-WAY WHITE SLOTTED PAVEMENT MARKINGS (TYP.)

I-195 EASTBOUND
(STATE HIGHWAY LAYOUT)

PROP. RUMBLE STRIP (TYP.)

PROJECT END
N2744277.9604
E716787.7077
STA 447+40.00
SAWCUT
MEET EXIST

PROP I20-1

SPONSOR A HIGHWAY NEXT 2 MILES

PROP. BRIDGE NO. R-04-018 (3U4)
STA. 442+27.36 TO STA. 443+95.50

PROP. FULL DEPTH RECONSTRUCTION
STA. 443+95.50TO STA. 444+25.86

PROP. PAVEMENT MILLING & OVERLAY W/ MINOR BOX WIDENING
STA, 444+25.86 TO 447+40.00

SCALE: 1" = 20'

3.000" Radius, 1.000" Border, White on Blue;
"SPONSOR A HIGHWAY", C 80% spacing;
"NEXT 2 MILES", C 80% spacing; Mounted on Twin S5X10 Posts

MASSDOT CONSTRUCTION STANDARD DETAILS		
DETAIL NUMBER	DETAIL NAME	CURRENT VERSION
851.1.1	CONES & DRUMS	JANUARY 2025
852.7.1	DIVIDED HIGHWAY RIGHT SHOULDER CLOSURE (SHORT TERM)	JANUARY 2025
852.7.2	DIVIDED HIGHWAY LEFT SHOULDER CLOSURE (SHORT TERM)	JANUARY 2025
852.7.3	DIVIDED HIGHWAY RIGHT LANE CLOSURE (SHORT TERM)	JANUARY 2025
852.7.4	DIVIDED HIGHWAY LEFT LANE CLOSURE (SHORT TERM)	JANUARY 2025
852.7.5	DIVIDED HIGHWAY RIGHT LANE CLOSURE (INTERMEDIATE & LONG TERM)	JANUARY 2025
852.7.6	DIVIDED HIGHWAY LEFT LANE CLOSURE (INTERMEDIATE & LONG TERM)	JANUARY 2025
852.7.7	DIVIDED HIGHWAY CENTER LANE CLOSURE (SHORT TERM)	JANUARY 2025
852.7.8	DIVIDED HIGHWAY RIGHT TWO LANES CLOSURE (SHORT TERM)	JANUARY 2025
852.7.9	DIVIDED HIGHWAY LEFT TWO LANES CLOSURE (SHORT TERM)	JANUARY 2025
852.7.10	DIVIDED HIGHWAY MULTIPLE LANE SHIFT	JANUARY 2025

FORMULAS FOR DETERMINING TAPER LENGTHS

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

FOR INTERSTATE I-195 TAPER LENGTH (L) FEET
L = W * S
L = 12 * 65
L = 780'

TYPICAL TAPER LENGTHS (L_L OR L_S) IN FEET

SPEED LIMIT (S) IN MPH	WIDTH OF OFFSET (W_L OR W_S)		
	10	11	12
50	500	550	600
55	550	605	660
60	600	660	720
65	650	715	780

NOTE: FOR SHOULDER WIDTHS NOT LISTED IN TABLE, AND IF THIS ACTUALLY APPLIES, USE L_S = WS

TAPER LENGTHS FOR TEMPORARY CONTROL ZONES

TYPE OF TAPER	TAPER LENGTH (L) *	INTERSTATE -195 TAPER LENGTH (L) *
MERGING TAPER	AT LEAST L	780'
SHIFTING TAPER	AT LEAST 0.5 L	390'
SHOULDER TAPER	AT LEAST 0.33L	260'
ONE-LANE, TWO-WAY TRAFFIC TAPER	100 FT. MAXIMUM	100 FT. MAXIMUM
DOWNSTREAM TAPER	100 FT. PER LANE	100 FT. PER LANE

MINIMUM LENGTH OF LONGITUDINAL BUFFER IS EQUAL TO THE STOPPING SIGHT DISTANCE AT THE POSTED SPEED LIMIT AND CAN BE DETERMINED FROM THE FOLLOWING TABLE:

STOPPING SIGHT DISTANCE	
SPEED (MPH)	DISTANCE (FT)
50	425
55	495
60	570
65	645

PORTABLE CHANGEABLE MESSAGE SING (PCMS)

RIGHT LANE CLOSED X MILE	LANES SHIFT M/DD-M/DD X AM- X AM
PHASE 1	PHASE 2

I-195 WESTBOUND STAGE 1

LEFT LANE CLOSED X MILE	LANES SHIFT M/DD-M/DD X AM- X AM
PHASE 1	PHASE 2

I-195 WESTBOUND STAGE 2

RIGHT LANE CLOSED X MILE	LANES SHIFT M/DD-M/DD X AM- X AM
PHASE 1	PHASE 2

I-195 EASTBOUND STAGE 1

LEFT LANE CLOSED X MILE	LANES SHIFT M/DD-M/DD X AM- X AM
PHASE 1	PHASE 2

I-195 EASTBOUND STAGE 2

REHOBOTH
INTERSTATE 195 OVER PALMER RIVER

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(BR)-003S(988)X	16	54
	PROJECT FILE NO. 613106		

TEMPORARY TRAFFIC CONTROL PLANS
TTCP-TYPICALS & NOTES

TRAFFIC MANAGEMENT NOTES:

1. INSTALL AND/OR RELOCATE TEMPORARY SIGNS, DRUMS, CONES AND OTHER TRAFFIC MAINTENANCE DEVICES AS REQUIRED. ALL TRAFFIC CONTROL DEVICES SHALL BE IN PLACE PRIOR TO THE START OF ANY WORK.
2. PORTABLE CHANGEABLE MESSAGE BOARD (PCMS) SHALL BE PROVIDED A MINIMUM OF 2 WEEK IN ADVANCE TO THE COMMENCEMENT OF WORK.
3. ALL CONSTRUCTION SIGNING AND OTHER TRAFFIC MAINTENANCE DEVICES SHALL CONFORM WITH THE 11TH EDITION OF THE MUTCD WITH MASSACHUSETTS AMENDMENTS.
4. REMOVE OR COVER ALL TEMPORARY SIGNS, DRUMS, CONES AND OTHER TRAFFIC MAINTENANCE DEVICES THAT ARE NOT REQUIRED ON THE COMPLETION OF THE WORK, EACH DAY. THIS PARTICULARLY APPLIES TO THE MA-W20-7b SIGNS, WHICH SHALL BE COMPLETELY COVERED OR REMOVED AT THE END OF EACH DAY.
5. THE MATERIAL TO BE USED TO COVER SIGNS SHALL NOT IMPAIR THE REFLECTIVITY OF THE SIGN ONCE THE COVERING IS REMOVED.
6. ALL DISTANCES ARE A GUIDE AND MAY BE ADJUSTED TO FIT FIELD CONDITIONS, AS DIRECTED BY THE ENGINEER.
7. THE FIRST TEN DRUMS OF EACH LANE CLOSURE TAPER SHALL BE MOUNTED WITH SEQUENTIALLY FLASHING LIGHTS IF DEPLOYED BETWEEN DUSK AND DAWN.
8. MAXIMUM DRUM SPACING IN A TAPER IS EQUAL IN FEET TO THE SPEED LIMIT IN MPH. IN TANGENT SECTIONS, MAXIMUM SPACING IN FEET IS EQUAL TO 2.0 TIMES THE SPEED LIMIT IN MPH.
9. MINIMUM LANE WIDTH IS TO BE 11 FEET MEASURED FROM CENTER OF TEMPORARY PAVEMENT MARKING.
10. NO SIGNS SHALL BE ATTACHED TO DRUMS OR CONES. ALL TEMPORARY TRAFFIC CONTROL EQUIPMENT SHALL BE ATTACHED TO THEIR OWN INDEPENDENT SUPPORT AND MEET NCHRP 350 STANDARDS AND/OR MASH.
11. NO SIGNED SHALL BE VISIBLE TO TRAFFIC THAT MAY CONFLICT WITH ACTUAL CONDITIONS.
12. TRUCK MOUNTED ATTENUATORS MAY BE OMITTED IF TAPER, BUFFER AND WORK SPACE IS PROTECTED BY TEMPORARY BARRIER.
13. PROPER PROTECTIONS SHALL BE IN PLACE AT ALL TIMES, NOT ONLY DURING ACTIVE WORK.
14. THE TEMPORARY TRAFFIC MANAGEMENT SET-UPS PROVIDED ARE INTENDED TO SHOW THE FUNDAMENTAL REQUIREMENTS TO CONTROL TRAFFIC FLOW DURING THE PROPOSED CONSTRUCTION.
15. SHORT TERM TRAFFIC CONTROL DETAILS SHALL BE UTILIZED DURING MILLING AND OVERLAY OPERATIONS.
16. NO CONSTRUCTION EQUIPMENT SHALL BE LEFT IN THE ROADWAY OVERNIGHT, DURING THE WEEKEND, OR WHEN NOT IN USE BY THE CONTRACTOR UNLESS APPROVED BY THE ENGINEER.
17. THE RECOMMENDED WORK ZONE SPEED LIMIT FOR THIS PROJECT IS 55 MPH WITH A 10 MPH REDUCTION FROM THE REGULATORY SPEED LIMIT. HOWEVER, ADVISORY SPEED LIMIT SHALL BE APPROVED BY THE ENGINEER.
18. MASSDOT STANDARD SHORT TERM DETAILS 852.7.1 THROUGH 852.7.4 AND DETAILS 852.7.7 THROUGH 852.7.10 WILL BE UTILIZED TO FACILITATE MILL AND OVERLAY OPERATIONS OR AS DIRECTED BY THE ENGINEER.
19. PCMS BOARDS SHOULD BE IN PLACE TWO WEEKS PRIOR TO IMPLEMENTING THE SETUP.

* DISTANCE MAY BE INCREASED IF ADDITIONAL ROLL-AHEAD ALLOWANCE IS NEEDED. REFER TO MANUFACTURERS SPECIFICATIONS.

REHOBOTH
INTERSTATE 195 OVER PALMER RIVER

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(BR)-003S(988)X	17	54
	PROJECT FILE NO. 613106		

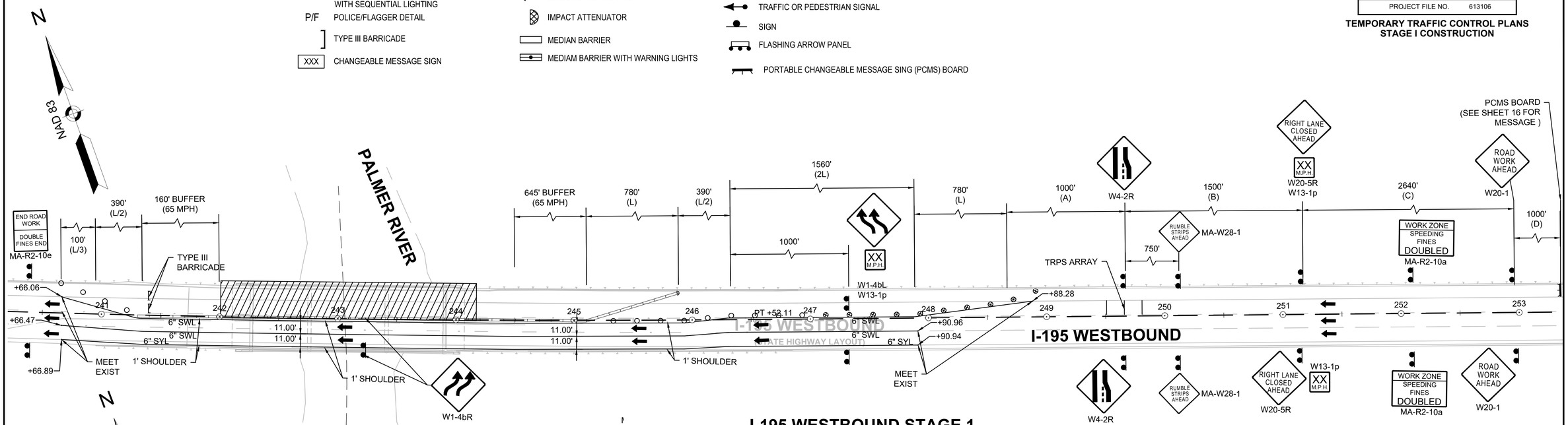
TEMPORARY TRAFFIC CONTROL PLANS
STAGE I CONSTRUCTION

LEGEND

- ○ REFLECTORIZED PLASTIC DRUM
- ⊗ REFLECTORIZED PLASTIC DRUM WITH SEQUENTIAL LIGHTING
- P/F POLICE/FLAGGER DETAIL
-] TYPE III BARRICADE
- XXX CHANGEABLE MESSAGE SIGN
- WORK AREA
- DIRECTION OF TRAFFIC
- IMPACT ATTENUATOR
- MEDIAN BARRIER
- MEDIAM BARRIER WITH WARNING LIGHTS
- TRUCK MOUNTED ATTENUATOR
- TRAFFIC OR PEDESTRIAN SIGNAL
- SIGN
- FLASHING ARROW PANEL
- PORTABLE CHANGEABLE MESSAGE SING (PCMS) BOARD

NOTES:

1. FIFTH (5) W20-1 SIGN SHALL BE PLACED ON THE EXIT 5 ON - RAMP FROM ROUTE 136 TO INTERSTATE 195 WESTBOUND.



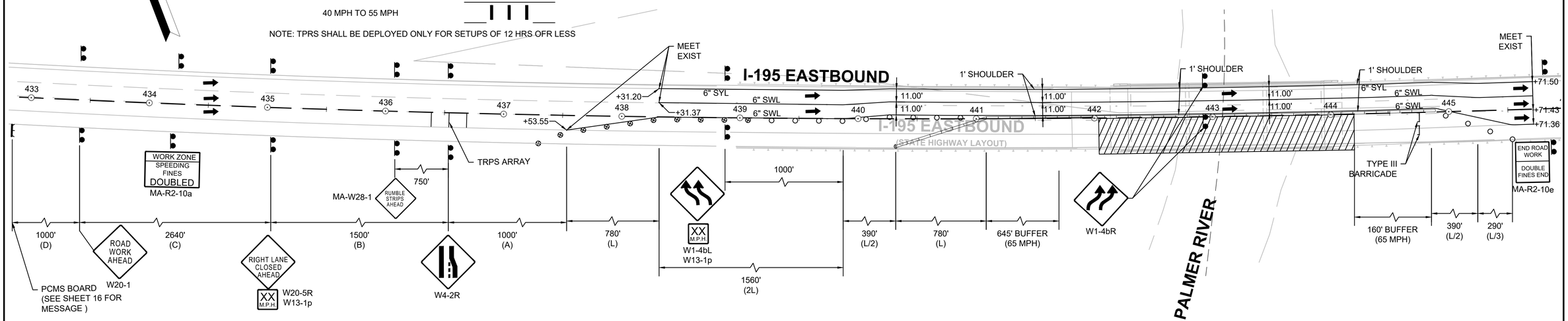
I-195 WESTBOUND STAGE 1
DIVIDED HIGHWAY / LANE CLOSURE
N.T.S

TEMPORARY PORTABLE RUMBLE STRIP (TPRS)

TTPS ARRAY SHALL HAVE THREE RUMBLE STRIPS: SPACING SHALL BE AS FOLLOWS:

POSTED REGULATORY OR WORK ZONE SPEED	
60 MPH AND ABOVE	20'
40 MPH TO 55 MPH	15'

NOTE: TPRS SHALL BE DEPLOYED ONLY FOR SETUPS OF 12 HRS OFR LESS



I-195 EASTBOUND STAGE 1
DIVIDED HIGHWAY / LANE CLOSURE
N.T.S

LEGEND

- REFLECTORIZED PLASTIC DRUM
- REFLECTORIZED PLASTIC DRUM WITH SEQUENTIAL LIGHTING
- P/F POLICE/FLAGGER DETAIL
- TYPE III BARRICADE
- XXX CHANGEABLE MESSAGE SIGN
- WORK AREA
- DIRECTION OF TRAFFIC
- IMPACT ATTENUATOR
- MEDIAN BARRIER
- MEDIAM BARRIER WITH WARNING LIGHTS
- TRUCK MOUNTED ATTENUATOR
- TRAFFIC OR PEDESTRIAN SIGNAL
- SIGN
- FLASHING ARROW PANEL

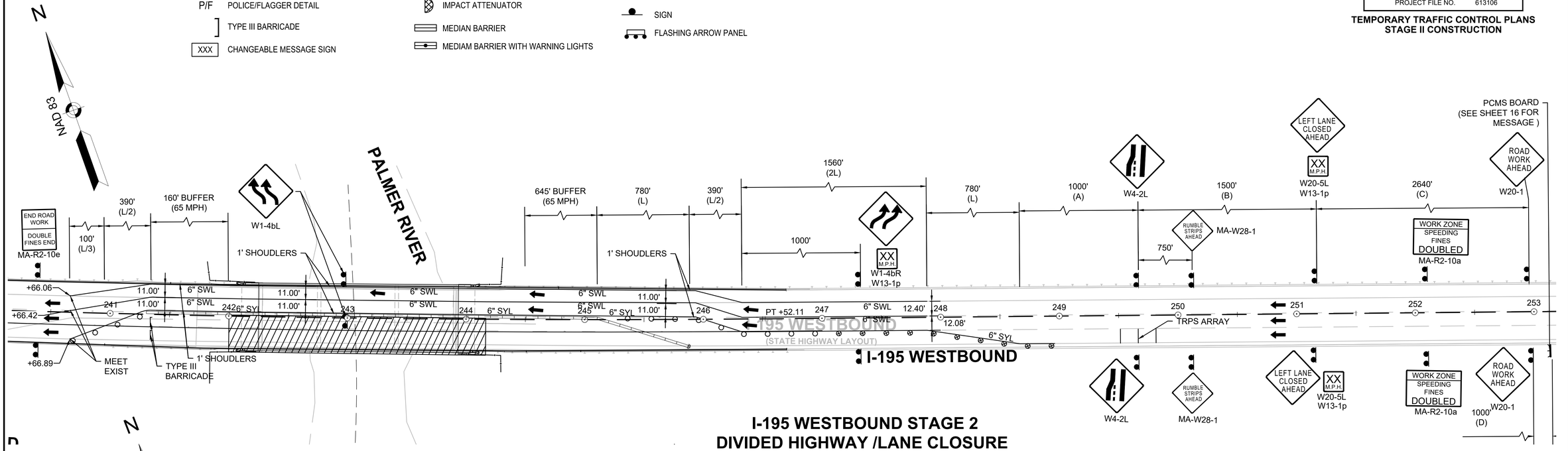
NOTES:

1. AN ADDITIONAL W20-1 AND MA-R2-10a SIGN SHALL BE PLACED ON THE EXIT 5 ON-RAMP FROM ROUTE 136 TO INTERSTATE 195 WESTBOUND.

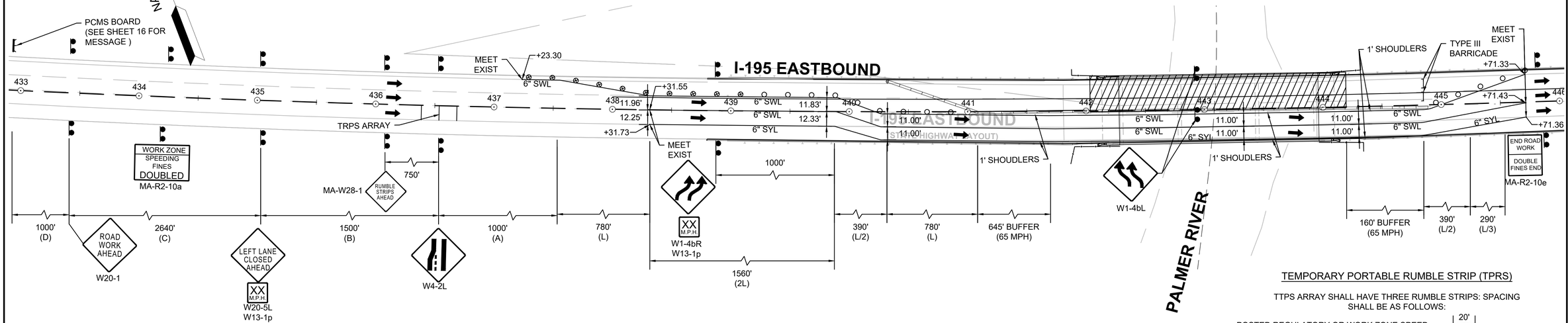
REHOBOTH
INTERSTATE 195 OVER PALMER RIVER

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(BR)-003S(988)X	18	54
	PROJECT FILE NO. 613106		

TEMPORARY TRAFFIC CONTROL PLANS
STAGE II CONSTRUCTION



I-195 WESTBOUND STAGE 2
DIVIDED HIGHWAY /LANE CLOSURE
N.T.S



I-195 EASTBOUND STAGE 2
DIVIDED HIGHWAY /LANE CLOSURE
N.T.S

TEMPORARY PORTABLE RUMBLE STRIP (TPRS)

TTPS ARRAY SHALL HAVE THREE RUMBLE STRIPS: SPACING SHALL BE AS FOLLOWS:

POSTED REGULATORY OR WORK ZONE SPEED	
60 MPH AND ABOVE	20'
40 MPH TO 55 MPH	15'

NOTE: TPRS SHALL BE DEPLOYED ONLY FOR SETUPS OF 12 HRS OFR LESS

REHOBOTH
INTERSTATE 195 OVER PALMER RIVER

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(BR)-003S(988)X	19	54
PROJECT FILE NO.	613106		

CONSTRUCTION SIGN SUMMARY

CONSTRUCTION SIGN SUMMARY

IDENTIFICATION 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			
W4–2L	48	48		①	①	①	4	FLOURE–SCENT ORANGE	BLACK	BLACK	8	16.00	64.00
W4–2R	48	48					4	FLOURE–SCENT ORANGE	BLACK	BLACK	8	16.00	64.00
W13–1p	24	24					8	FLOURE–SCENT ORANGE	BLACK	BLACK	0	4.00	32.00
W20–1	48	48					4	FLOURE–SCENT ORANGE	BLACK	BLACK	8	16.00	64.00
W1–4bL	48	48					4	FLOURE–SCENT ORANGE	BLACK	BLACK	8	16.00	64.00
W1–4bR	48	48					4	FLOURE–SCENT ORANGE	BLACK	BLACK	8	16.00	64.00
W1–4cL	48	48					4	FLOURE–SCENT ORANGE	BLACK	BLACK	8	16.00	64.00
W1–4cR	48	48					4	FLOURE–SCENT ORANGE	BLACK	BLACK	8	16.00	64.00
W20–5L	48	48					4	FLOURE–SCENT ORANGE	BLACK	BLACK	8	16.00	64.00
W20–5R	48	48					4	FLOURE–SCENT ORANGE	BLACK	BLACK	8	16.00	64.00
W8–11	48	48					4	FLOURE–SCENT ORANGE	BLACK	BLACK	8	16.00	64.00
W8–15	48	48					4	FLOURE–SCENT ORANGE	BLACK	BLACK	8	16.00	64.00
MA–R2–10a	60	48		②	②	②	5	FLOURE–SCENT ORANGE WHITE	BLACK BLACK	BLACK BLACK	10	20.00	100.00
MA–R2–10e	48	60					4	FLOURE–SCENT ORANGE WHITE	BLACK BLACK	BLACK BLACK	8	20.00	80.00
MA–W28–1	48	48					4	FLOURE–SCENT ORANGE	BLACK	BLACK	8	20.00	80.00

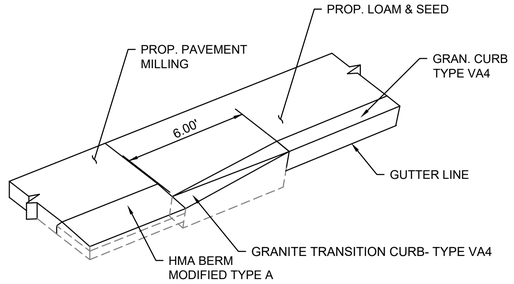
① SEE LATEST EDITION TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR SPECIFICATIONS ON TEXT DIMENSIONS AND COLOR (ALSO SEE SECTION M9.30.0 TYPE III MHD 2022 STANDARD SPECIFICATION).

② SEE MASSDOT STANDARD SIGNS DATED NOVEMBER 2016 FOR SPECIFICATIONS ON TEXT DIMENSIONS AND COLOR (A SUPPLEMENT TO FHWA'S STANDARD HIGHWAY SIGNS AND MARKINGS AND THE MASSACHUSETTS AMENDMENTS TO THE MUTCD DATED JANUARY 2026).

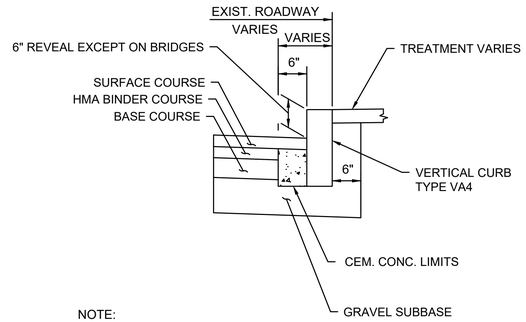
REHOBOTH
INTERSTATE 195 OVER PALMER RIVER

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(BR)-003S(988)X	20	54
	PROJECT FILE NO. 613106		

CONSTRUCTION DETAILS



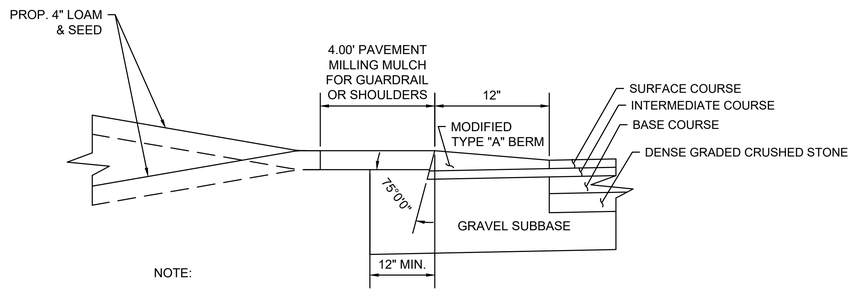
GRANITE CURB TO HMA BERM TRANSITION DETAIL
N.T.S



NOTE:

1. SEE PAVEMENT NOTES ON SHEET 4 FOR PAVEMENT LAYER DESCRIPTIONS.

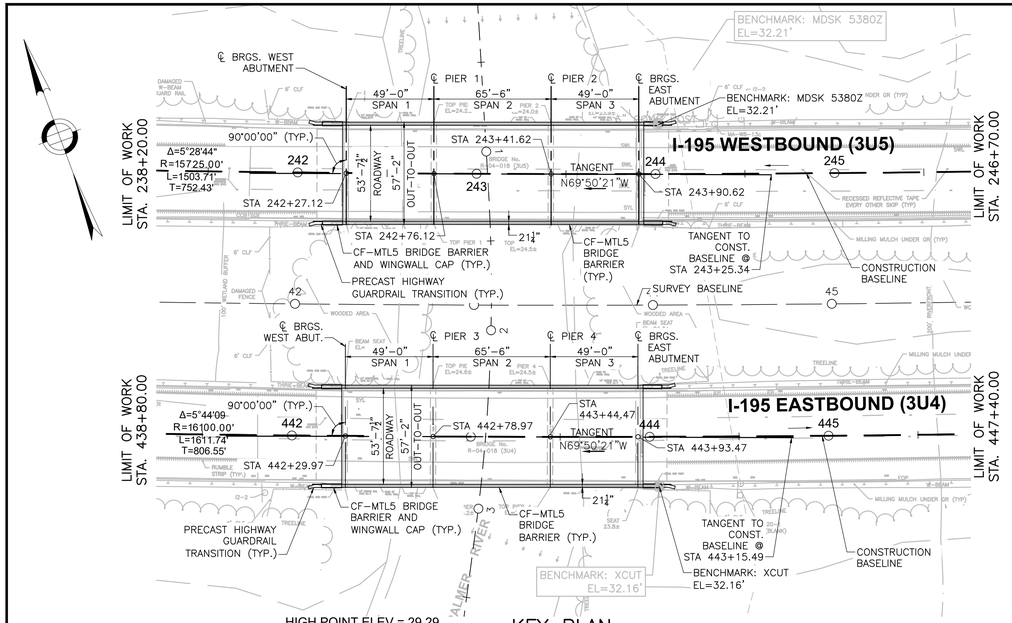
METHOD OF SETTING VERTICAL CURB
N.T.S



NOTE:

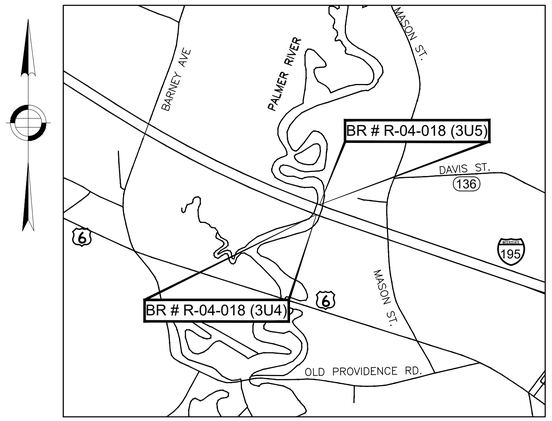
1. SEE PAVEMENT NOTES ON SHEET 4 FOR PAVEMENT LAYER DESCRIPTIONS.

HOT MIX ASPHALT BERM MODIFIED TYPE A INSTALLATION DETAIL
N.T.S



KEY PLAN

SCALE: 1" = 40'



LOCUS PLAN

SCALE: 1" = 1,000'

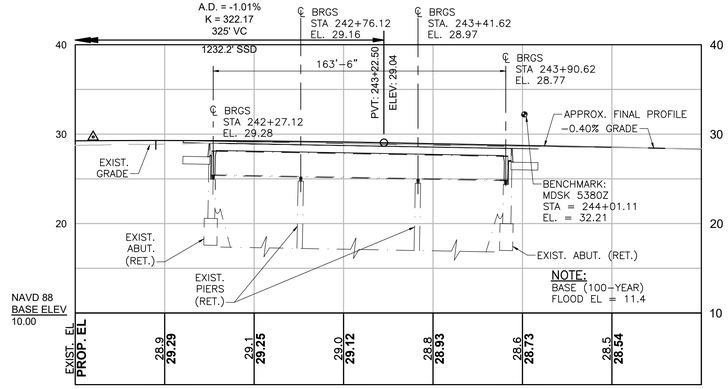
REHOBOTH
INTERSTATE 195 OVER PALMER RIVER

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(BR)-003S(988)X	21	54
	PROJECT FILE NO. 613106		

KEYPLAN, PROFILES & LOCUS PLAN

SHEET INDEX

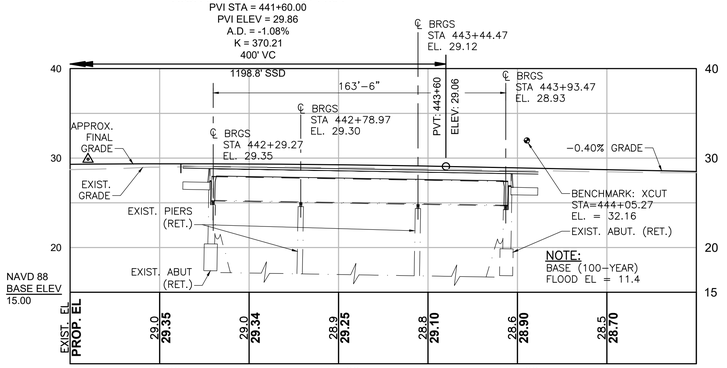
HIGH POINT ELEV = 29.29
HIGH POINT STA = 241+95.09
PVI STA = 241+60.00
PVI ELEV = 29.68
A.D. = -1.01%
K = 322.17
325' VC
1232.2' SSD



WESTBOUND PROFILE

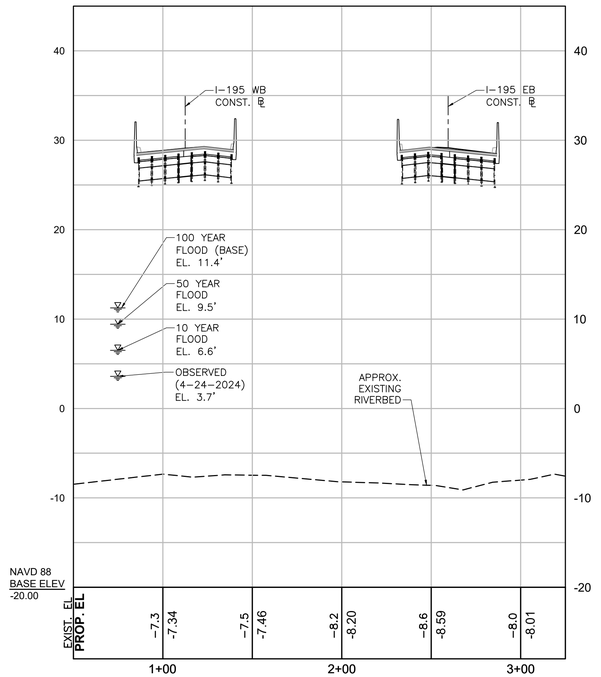
SCALE: 1" = 40' HORIZONTAL
1/8" = 1'-0" VERTICAL

HIGH POINT ELEV = 29.36
HIGH POINT STA = 442+11.91
PVI STA = 441+60.00
PVI ELEV = 29.86
A.D. = -1.08%
K = 370.21
400' VC
1198.8' SSD



EASTBOUND PROFILE

SCALE: 1" = 40' HORIZONTAL
1/8" = 1'-0" VERTICAL



PALMER RIVER PROFILE

SCALE: 1" = 40' HORIZONTAL
1/8" = 1' VERTICAL

*
(3U4)
(3U5)

AUGUST 8, 2026 | ISSUED FOR CONSTRUCTION

COMMONWEALTH OF MASSACHUSETTS
BRIAN A. BOUCHER
CIVIL
No. 40690
PROFESSIONAL ENGINEER

Brian A Boucher Digitally signed by Brian A. Boucher Date: 2026.08.07 13:56:09 -04'00'

FUSS & O'NEILL
600 UNICORN PARK DR, SUITE 17
WOBURN, MA 01801
781.932.3201
www.fando.com

MassDOT Massachusetts Department of Transportation Highway Division

PROPOSED DECK REPLACEMENT
REHOBOTH
INTERSTATE I-195
OVER PALMER RIVER

MASSACHUSETTS DEPARTMENT OF TRANSPORTATION
HIGHWAY DIVISION
10 PARK PLAZA BOSTON, MASS

Alexander K. Bardow, P.E. Digitally signed by Alexander K. Bardow, P.E. Date: 2026.08.17 16:23:38 -04'00'
STATE BRIDGE ENGINEER

Jack Moran Digitally signed by Jack Moran Date: 2026.08.19 10:55:51 -04'00'
CHIEF ENGINEER

SHEET 1 OF 22 SHEETS BRIDGE NO. R-04-018 (*)

GENERAL NOTES & ESTIMATION OF QUANTITIES.DWG Plotted on 7-Aug-2026 6:38 AM

Final Structural Submittal (SF) 10-June-2026

REHOBOTH
INTERSTATE 195 OVER PALMER RIVER

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(BR)-003S(988)X	22	54
	PROJECT FILE NO. 613106		

GENERAL NOTES & ESTIMATION OF QUANTITIES

GENERAL NOTES:

DESIGN:
IN ACCORDANCE WITH THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS LRFD BRIDGE DESIGN SPECIFICATIONS, 10TH EDITION, 2024 FOR HL-93 LOADING.

EXISTING BRIDGE PLANS
PLANS FOR THE EXISTING BRIDGE, DATED NOVEMBER 1958, MAY BE SEEN AT THE OFFICE OF THE BRIDGE ENGINEER, MASSACHUSETTS HIGHWAY DEPARTMENT, 10 PARK PLAZA, BOSTON, MASSACHUSETTS.

MASSDOT BENCH MARK:
THE NORTH AMERICAN VERTICAL DATUM (NAVD) OF 1988 IS USED THROUGHOUT AND ELEVATIONS ARE BASED ON MDSK 5380Z ON THE NORTHEAST ENDPOST FOR I-195 WB CONSTRUCTION BASELINE WITH AN ELEVATION OF 32.21' LOCATED AT STA. 244+01.11 AND XCUT ON THE SOUTHEAST ENDPOST WITH AN ELEVATION OF 32.16' FOR I-395 EB CONSTRUCTION BASELINE AT STA 444+05.27.

DATE:
TO BE PLACED ON THE INSIDE FACE OF THE SOUTHEASTERLY AND NORTHWESTERLY HIGHWAY GUARDRAIL TRANSITIONS OF EACH STRUCTURE. A SHEET SHOWING THE SIZE AND CHARACTER OF THE NUMERALS WILL BE FURNISHED. THE DATE USED SHALL BE THE LATEST YEAR OF THE CONTRACT COMPLETION AS OF THE DATE THE FIRST HIGHWAY GUARDRAIL TRANSITION IS CONSTRUCTED. BOTH HIGHWAY GUARDRAIL TRANSITIONS SHALL FEATURE THE SAME DATE.

MASSDOT SURVEY NOTEBOOKS:
ELECTRONIC SURVEY WAS USED IN THE PREPARATION OF CONSTRUCTION DRAWINGS AND A COPY OF THE FILES MAY BE OBTAINED FROM MASSDOT.

SCALES:
SCALES NOTED ON THE PLANS ARE NOT APPLICABLE TO REDUCED SIZE PRINTS. DIVIDE SCALES BY 2 FOR HALF-SIZED PRINTS (A3).

FOUNDATIONS:
FOUNDATIONS MAY BE ALTERED, IF NECESSARY, TO SUIT CONDITIONS ENCOUNTERED DURING CONSTRUCTION, WITH THE APPROVAL OF THE ENGINEER.

UNSUITABLE MATERIAL:
ALL UNSUITABLE MATERIAL SHALL BE REMOVED WITHIN THE LIMITS OF THE FOUNDATIONS OF THE STRUCTURE, AS DIRECTED BY THE ENGINEER.

CONCRETE:
UNLESS OTHERWISE SPECIFIED, ALL CONCRETE SHALL BE 5000 HP CONCRETE.

ALL CIP AND PRECAST CONCRETE POURS SHOWN ON THESE CONSTRUCTION DRAWINGS WHERE ALL VOLUMETRIC DIMENSIONS ARE 4 FEET OR GREATER SHALL BE CONSIDERED TO BE MASS CONCRETE PLACEMENTS AND SHALL REQUIRE A HEAT OF HYDRATION ANALYSIS AND THERMAL CONTROL PLAN, AS SPECIFIED IN THE MASSDOT STANDARD SPECIFICATIONS.

REINFORCEMENT:
REINFORCING STEEL SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M 31 GRADE 60. UNLESS OTHERWISE NOTED ON THE CONSTRUCTION DRAWINGS, ALL BARS SHALL BE LAPPED AS FOLLOWS:

MODIFICATION CONDITION	#4 BARS	#5 BARS	#6 BARS
1. NONE	16"	17"	21"
2. 12" OF CONCRETE BELOW BAR	18"	22"	27"
3. COATED BARS, COVER <3d, OR CLEAR SPACING <6d	21"	26"	31"
4. COATED BARS, ALL OTHER CASES	17"	21"	25"
5. CONDITION 2. AND 3.	23"	29"	35"
6. CONDITION 2. AND 4.	21"	27"	32"

ALL OTHER BARS SHALL BE LAPPED AS SHOWN ON THE CONSTRUCTION DRAWINGS.

ALL REINFORCEMENT SHALL BE COATED.

TRAFFIC:
THE BRIDGE WILL BE OPEN TO TRAFFIC DURING ALL PHASES OF DEMOLITION AND CONSTRUCTION. REFER TO THE TEMPORARY TRAFFIC CONTROL PLANS FOR THE ASSOCIATED LANE SHIFTS.

I-195 EB TRAFFIC DATA	ROADWAY OVER	ROADWAY UNDER
DESIGN YEAR	2044	N/A
AVERAGE DAILY TRAFFIC - PRESENT	35,422	N/A
AVERAGE DAILY TRAFFIC - DESIGN YEAR	43,222	N/A
DESIGN HOURLY VOLUME	4,322	N/A
DIRECTIONAL DISTRIBUTION	100%	N/A
TRUCK PERCENTAGE - AVERAGE DAY	3.6%	N/A
TRUCK PERCENTAGE - PEAK HOUR	2.7%	N/A
DESIGN SPEED	65 MPH	N/A
DIRECTIONAL DESIGN HOURLY VOLUME	4,322	N/A

I-195 WB TRAFFIC DATA	ROADWAY OVER	ROADWAY UNDER
DESIGN YEAR	2044	N/A
AVERAGE DAILY TRAFFIC - PRESENT	39,595	N/A
AVERAGE DAILY TRAFFIC - DESIGN YEAR	48,313	N/A
DESIGN HOURLY VOLUME	4,831	N/A
DIRECTIONAL DISTRIBUTION	100%	N/A
TRUCK PERCENTAGE - AVERAGE DAY	3.6%	N/A
TRUCK PERCENTAGE - PEAK HOUR	2.7%	N/A
DESIGN SPEED	65 MPH	N/A
DIRECTIONAL DESIGN HOURLY VOLUME	4,831	N/A

SEISMIC DESIGN CRITERIA	
DESIGN RETURN PERIOD:	1000 YR.
DESIGN SPECTRA	
As	0.128
SDs	0.216
SD1	0.120
SITE CLASS	D
SEISMIC DESIGN CATEGORY (SDC)	A

TEMPORARY WATER CONTROL DESIGN DATA	
DESIGN FLOOD DISCHARGE (C.F.S.)	1420
DESIGN FLOOD FREQUENCY (YEARS)	10
DESIGN FLOOD VELOCITY (F.P.S.)	2.1
DESIGN FLOOD ELEVATION (FEET, NAVD)	6.6

ESTIMATED QUANTITIES
(NOT GUARANTEED)

ITEM DESCRIPTION	QUANTITY	UNITS
JACKING AND SHORING	64	EA
PRESSURE INJECTION OF CRACKS	15	LF
DEMOLITION OF DECK OF BRIDGE NO. R-04-018 (3U4)	1	LS
DEMOLITION OF DECK OF BRIDGE NO. R-04-018 (3U5)	1	LS
REINFORCED CONCRETE SUBSTRUCTURE EXCAVATION	1.1	CY
CONTROLLED LOW-STRENGTH MATERIAL (>300 PSI)	5	CY
SUPERPAVE BRIDGE SURFACE COURSE -9.5 POLYMER (SSC-B-9.5-P)	183	TON
SUPERPAVE BRIDGE PROTECTIVE COURSE -9.5 (SPC-B-9.5)	189	TON
CURB REMOVE AND DISCARD	90	FT
TEMPORARY BARRIER - LIMITED DEFLECTION (TL-3)	340	FT
TEMPORARY BARRIER - LIMITED DEFLECTION (TL-3) REMOVE AND RESET	340	FT
5000 PSI. 3/8", 710 CEMENT CONCRETE	1.1	CY
CONCRETE PROTECTIVE COATING	520	SF
CEMENTITIOUS MORTAR FOR PATCHING	1220	SF
RAPID HARDENING CEMENTITIOUS PRODUCTS FOR CONCRETE REPAIRS	35	BAG
DRILLING AND GROUTING DOWELS	1290	EA
CLEAN AND PAINT (OVERCOAT) STEEL BRIDGE NO. R-04-018 (3U4)	1	LS
CLEAN AND PAINT (OVERCOAT) STEEL BRIDGE NO. R-04-018 (3U5)	1	LS
WELD INSPECTION OF TOP COVERPLATE	64	EA
WELD REPAIR OF TOP COVERPLATE (CONTINGENCY)	16	EA
WELD REPAIR	90	LI
ALTERATION TO BRIDGE SUPERSTRUCTURE, BRIDGE NO. R-04-018 (3U4)	1	LS
ALTERATION TO BRIDGE SUPERSTRUCTURE, BRIDGE NO. R-04-018 (3U5)	1	LS
TEMPORARY SUPPORTS FOR BRIDGE DECK, BRIDGE NO. R-04-018 (3U4)	1	LS
TEMPORARY SUPPORTS FOR BRIDGE DECK, BRIDGE NO. R-04-018 (3U5)	1	LS
TEMPORARY PROTECTIVE SHIELDING, BRIDGE NO. R-04-018 (3U4)	1	LS
TEMPORARY PROTECTIVE SHIELDING, BRIDGE NO. R-04-018 (3U5)	1	LS

*
(3U4)
(3U5)

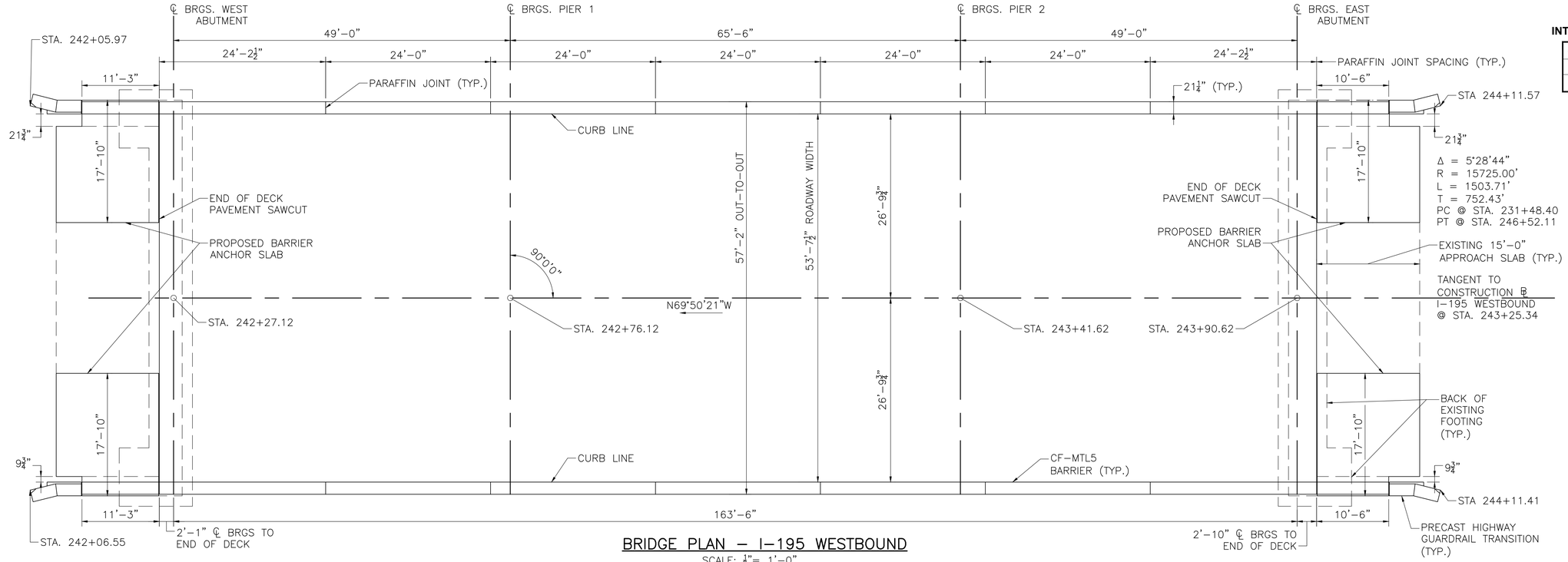
AUGUST 8, 2026	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION

THIS SHEET IS APPROVED FOR CONSTRUCTION BY MASSDOT
AUTHORIZED SIGNATORY: STATE BRIDGE ENGINEER
USE ONLY PRINTS OF LATEST DATE

REHOBOTH
INTERSTATE 195 OVER PALMER RIVER

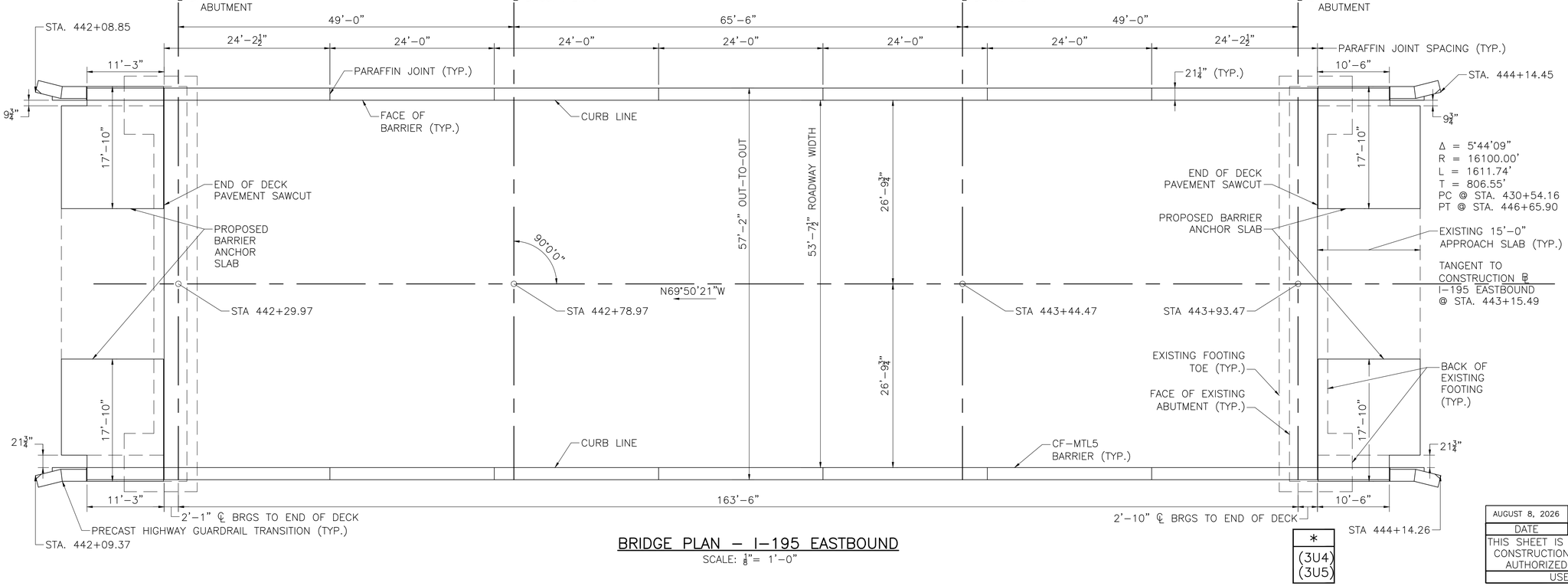
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(BR)-003S(988)X	23	54
PROJECT FILE NO.	613106		

BRIDGE PLAN



BRIDGE PLAN – I-195 WESTBOUND

SCALE: ⅛"= 1'-0"



BRIDGE PLAN – I-195 EASTBOUND

SCALE: ⅛"= 1'-0"

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(3U4)
(3U5)

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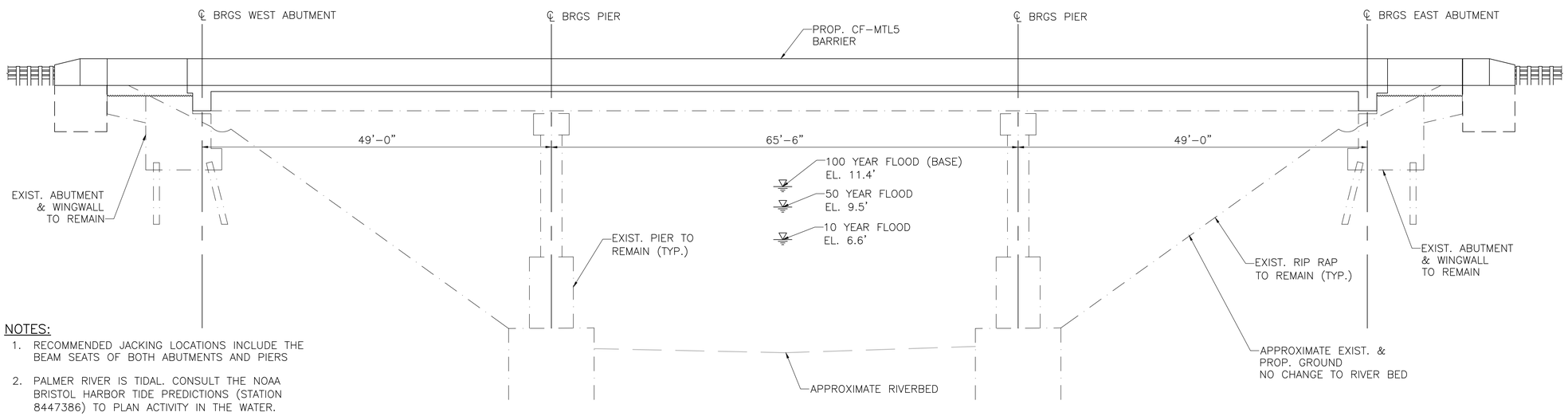
USE ONLY PRINTS OF LATEST DATE	

REHOBOTH
INTERSTATE 195 OVER PALMER RIVER

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(BR)-003S(988)X	24	54
PROJECT FILE NO.	613106		

BRIDGE ELEVATION



NOTES:

1. RECOMMENDED JACKING LOCATIONS INCLUDE THE BEAM SEATS OF BOTH ABUTMENTS AND PIERS
2. PALMER RIVER IS TIDAL. CONSULT THE NOAA BRISTOL HARBOR TIDE PREDICTIONS (STATION 8447386) TO PLAN ACTIVITY IN THE WATER.

PROPOSED SOUTH ELEVATION
SCALE $\frac{1}{8}$" = 1'-0"

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(3U4)
(3U5)

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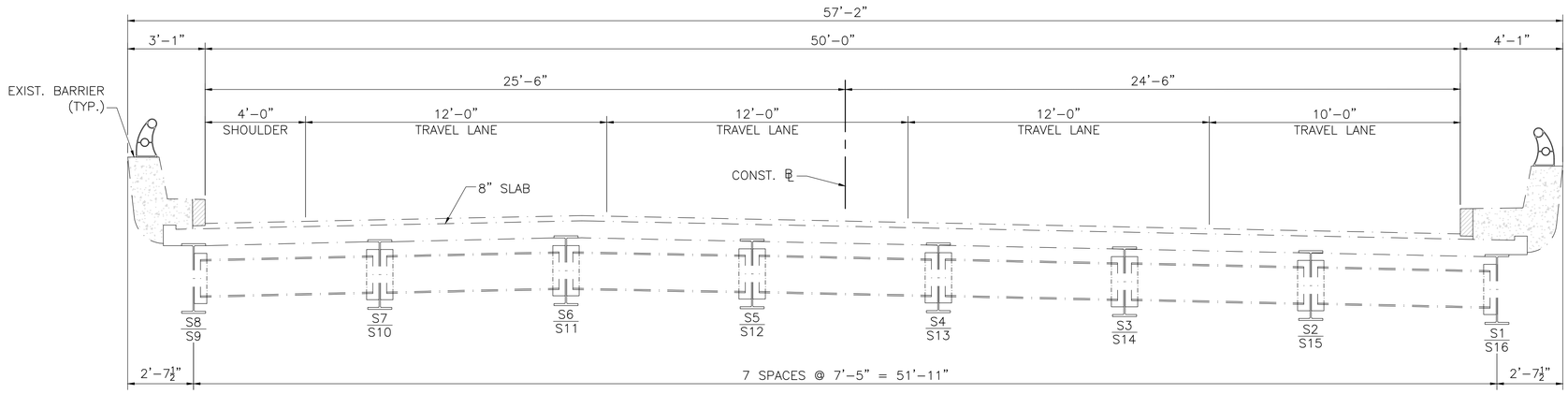
REHOBOTH
INTERSTATE 195 OVER PALMER RIVER

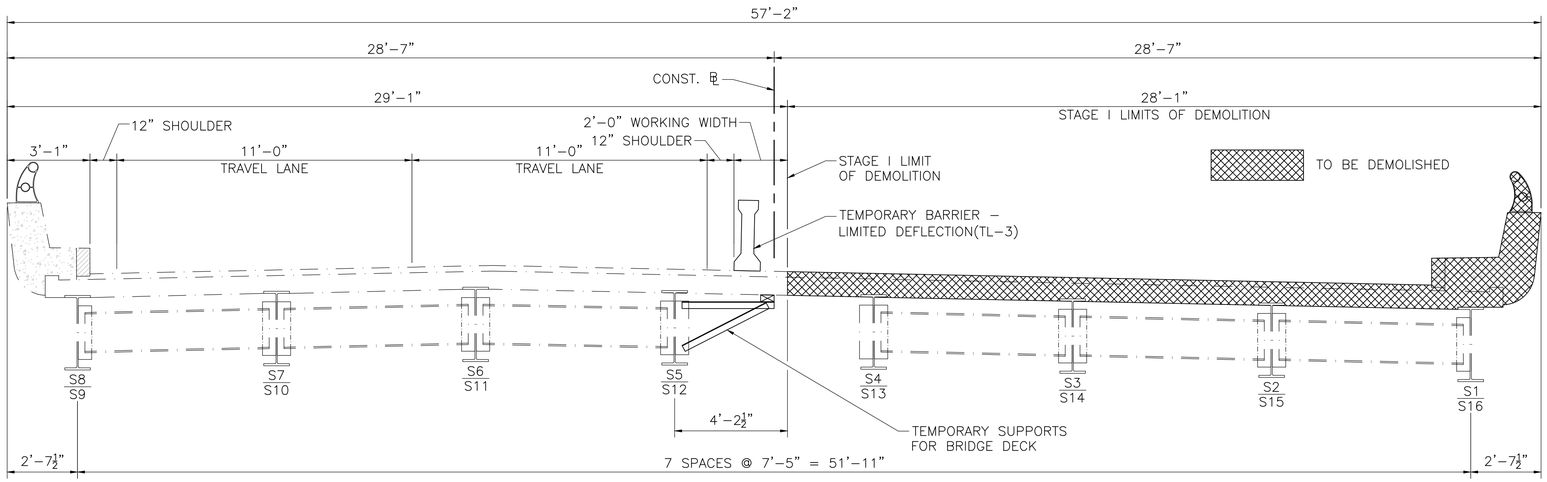
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(BR)-003S(988)X	25	54
	PROJECT FILE NO. 613106		

STAGE CONSTRUCTION I



EXISTING TYPICAL CROSS SECTION
I-195 WESTBOUND LOOKING WEST
I-195 EASTBOUND LOOKING EAST
SCALE: ⅜"=1'-0"

BEAM DESIGNATIONS
S# – I-195 WB
S# – I-195 EB



STAGE I DEMOLITION
I-195 WESTBOUND LOOKING WEST
I-195 EASTBOUND LOOKING EAST
SCALE: ⅜"=1'-0"

BEAM DESIGNATIONS
S# – I-195 WB
S# – I-195 EB

STAGE CONSTRUCTION SECTIONS

CONSTRUCTION NOTES:

1. PRIOR TO ANY DEMOLITION WORK, INSTALL TEMPORARY SUPPORTS FOR BRIDGE DECK. TEMPORARY SUPPORTS FOR BRIDGE DECK SHALL BE DESIGNED BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER FOR APPROVAL IN ACCORDANCE WITH SPECIAL PROVISION ITEM 992.33 TEMPORARY SUPPORTS FOR BRIDGE DECK.
2. LAPPING REINFORCEMENT IS NOT FEASIBLE AT THE LONGITUDINAL STAGE CONSTRUCTION JOINT. MECHANICAL REINFORCING BAR SPLICES SHALL BE USED IN ACCORDANCE WITH THE MANUFACTURERS GUIDELINES.
3. THE CONTRACTOR SHALL ASSUME THAT THE COATINGS ON THE STEEL CONTAIN LEAD, UNLESS OTHERWISE DETERMINED BY TESTING. THE CONTRACTOR SHALL CERTIFY IN WRITING TO THE ENGINEER THE RESULTS OF ALL TESTING, AND SHALL ALSO CERTIFY THAT ANY LEAD-COATED STEEL REMOVED FROM THE PROJECT WAS NOT REUSED OR BURIED, BUT WAS SENT TO A SCRAP METAL RECYCLING FACILITY.
4. PRIOR TO JACKING AND SHORING, THE BRIDGE DECK SHALL BE REMOVED. ALSO, DIAPHRAGMS IN THE STAGE CONSTRUCTION BAY SHALL BE REMOVED. EXISTING CONNECTION PLATES IN THIS BAY WILL REMAIN. CUT DIAPHRAGM 6" FROM END OF CONNECTION PLATE. CUTTING OF EXISTING STEEL MAY BE PERFORMED BY THE CARBON AIR ARC CUTTING METHOD, PLASMA CUTTING, OR GRINDING. FLAME CUTTING SHALL NOT BE ALLOWED.
5. PRIOR TO CUTTING, WELDING, OR BURNING OF ANY PAINTED STEEL SURFACES, THE CONTRACTOR MUST CHEMICALLY OR MECHANICALLY REMOVE THE ENTIRE COATING DOWN TO BARE METAL. THE PAINT COATING MUST BE REMOVED IN AN AREA PRESCRIBED BY A 6" MINIMUM OFFSET FROM THE REQUIRED CUT OR FROM THE PROPOSED WELDED CONNECTION PLATE FOR PROPOSED DIAPHRAGM INSTALLATION. THE CONTRACTOR SHALL INSTALL PROPER SHIELDING AND/OR TARPAULINS UNDER THE PAINT REMOVAL OPERATIONS IN ORDER TO CATCH ALL DEBRIS GENERATED DURING THIS PROCEDURE.
6. JACKING AND SHORING PROCEDURE SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL IN ACCORDANCE WITH SPECIAL PROVISION ITEM 106.88.
7. TEMPORARY BARRIER – LIMITED DEFLECTION (TL-3) SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL IN ACCORDANCE WITH THE 2026 STANDARD SPECIFICATIONS, SUBSECTION 853. MAXIMUM DYNAMIC DEFLECTION SHALL BE LESS THAN OR EQUAL TO 11".

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(3U4)
(3U5)

AUGUST 8, 2026	ISSUED FOR CONSTRUCTION
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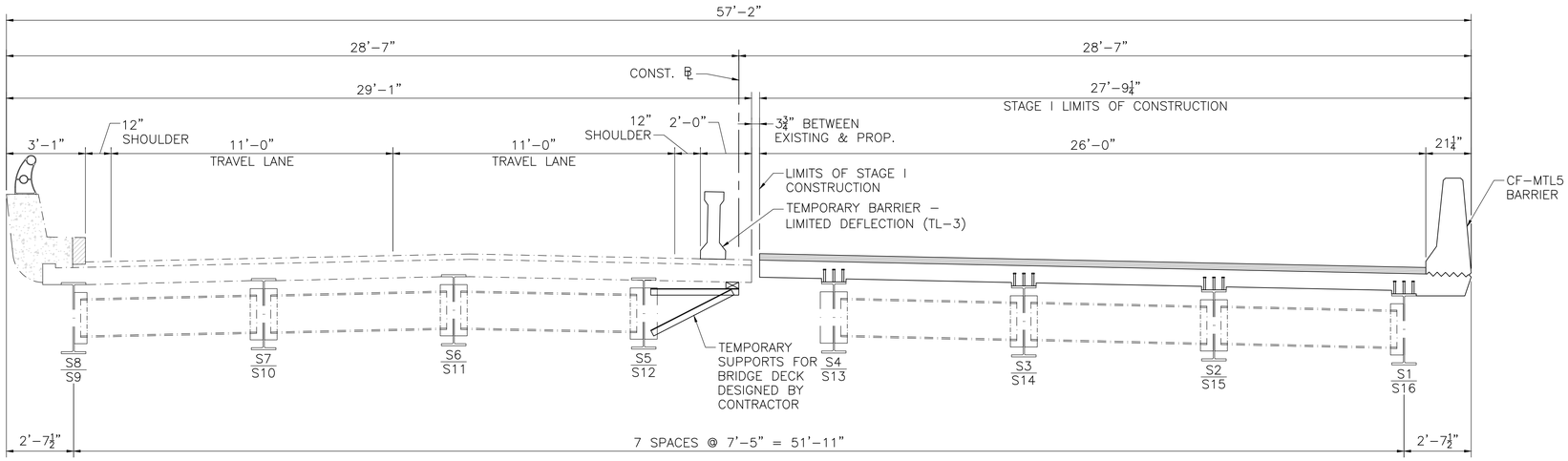
USE ONLY PRINTS OF LATEST DATE	

REHOBOTH
INTERSTATE 195 OVER PALMER RIVER

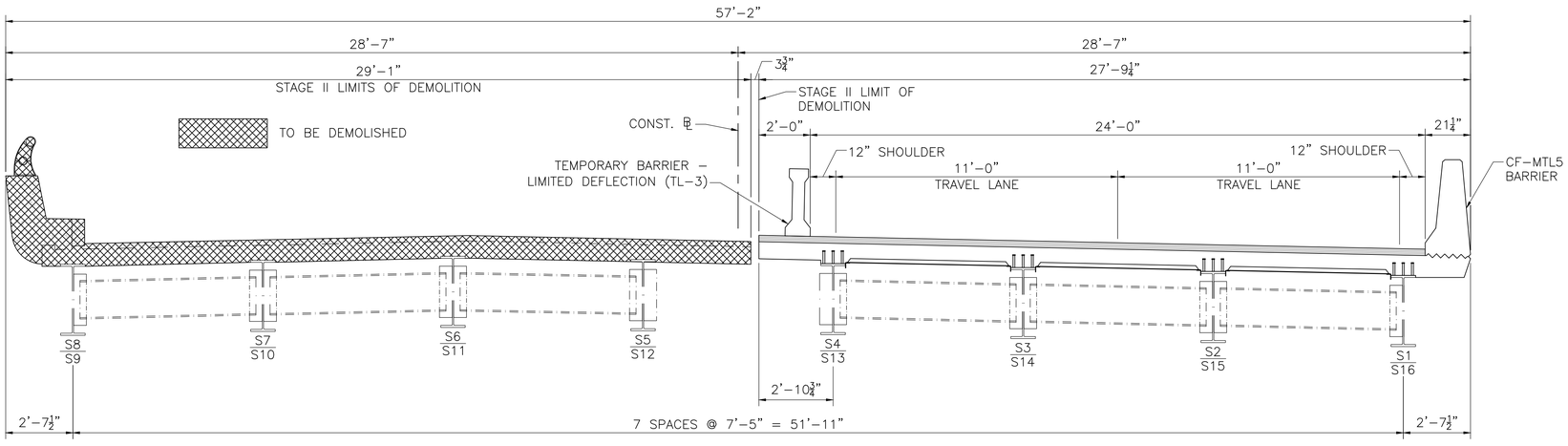
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(BR)-003S(988)X	26	54
	PROJECT FILE NO. 613106		

STAGE CONSTRUCTION II



STAGE I CONSTRUCTION
I–195 WESTBOUND LOOKING WEST
I–195 EASTBOUND LOOKING EAST
SCALE: ⅜"=1'–0"

BEAM DESIGNATIONS
S# – I–195 WB
S# – I–195 EB



STAGE II DEMOLITION
I–195 WESTBOUND LOOKING WEST
I–195 EASTBOUND LOOKING EAST
SCALE: ⅜"=1'–0"

BEAM DESIGNATIONS
S# – I–195 WB
S# – I–195 EB

STAGE CONSTRUCTION SECTIONS

*
(3U4)
(3U5)

DATE	DESCRIPTION
AUGUST 8, 2026	ISSUED FOR CONSTRUCTION

THIS SHEET IS APPROVED FOR CONSTRUCTION BY MASSDOT
AUTHORIZED SIGNATORY: STATE BRIDGE ENGINEER
USE ONLY PRINTS OF LATEST DATE

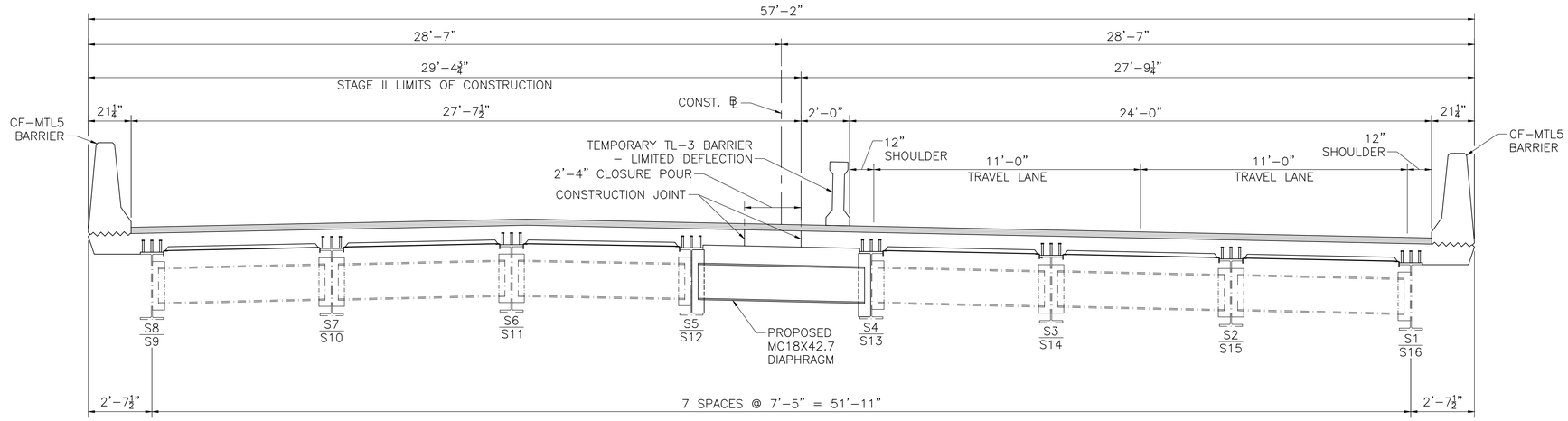
STAGE CONSTRUCTION II.DWG Plotted on 7-Aug-2026 6:39 AM

Final Structural Submittal (SF) 10-June-2026

REHOBOTH
INTERSTATE 195 OVER PALMER RIVER

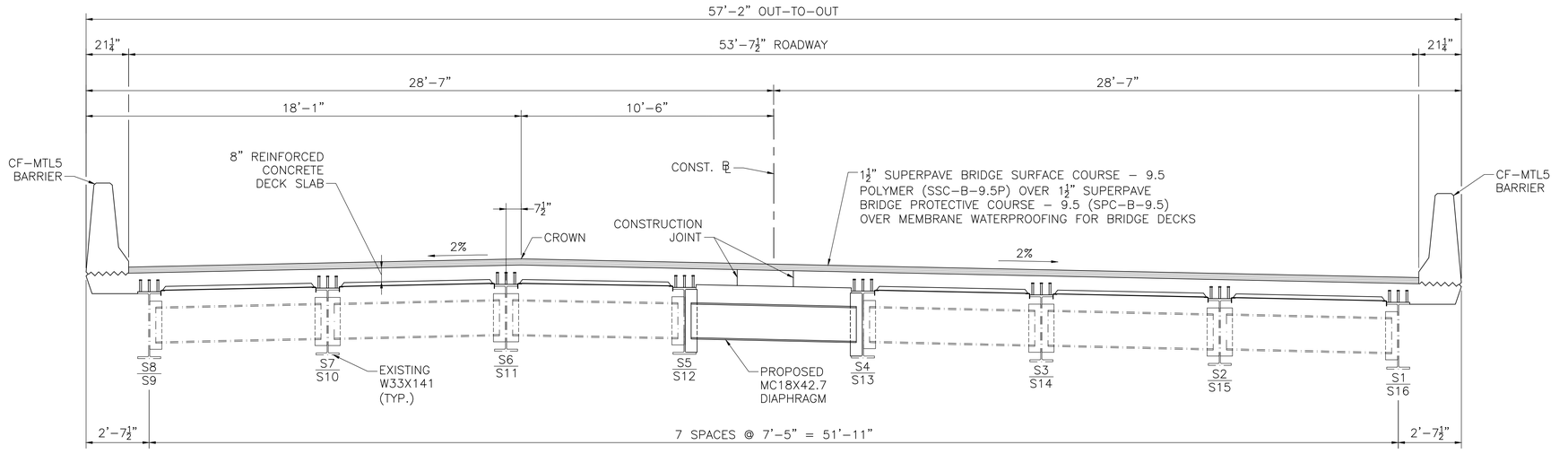
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(BR)-003S(988)X	27	54
	PROJECT FILE NO. 613106		

STAGE CONSTRUCTION III



STAGE II CONSTRUCTION
I–195 WESTBOUND LOOKING WEST
I–195 EASTBOUND LOOKING EAST
SCALE: ⅜"=1'–0"

BEAM DESIGNATIONS
S# – I–195 WB
S# – I–195 EB



PROPOSED CROSS SECTION
I–195 WESTBOUND LOOKING WEST
I–195 EASTBOUND LOOKING EAST
SCALE: ⅜"=1'–0"

BEAM DESIGNATIONS
S# – I–195 WB
S# – I–195 EB

STAGE CONSTRUCTION SECTIONS

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(3U4)
(3U5)

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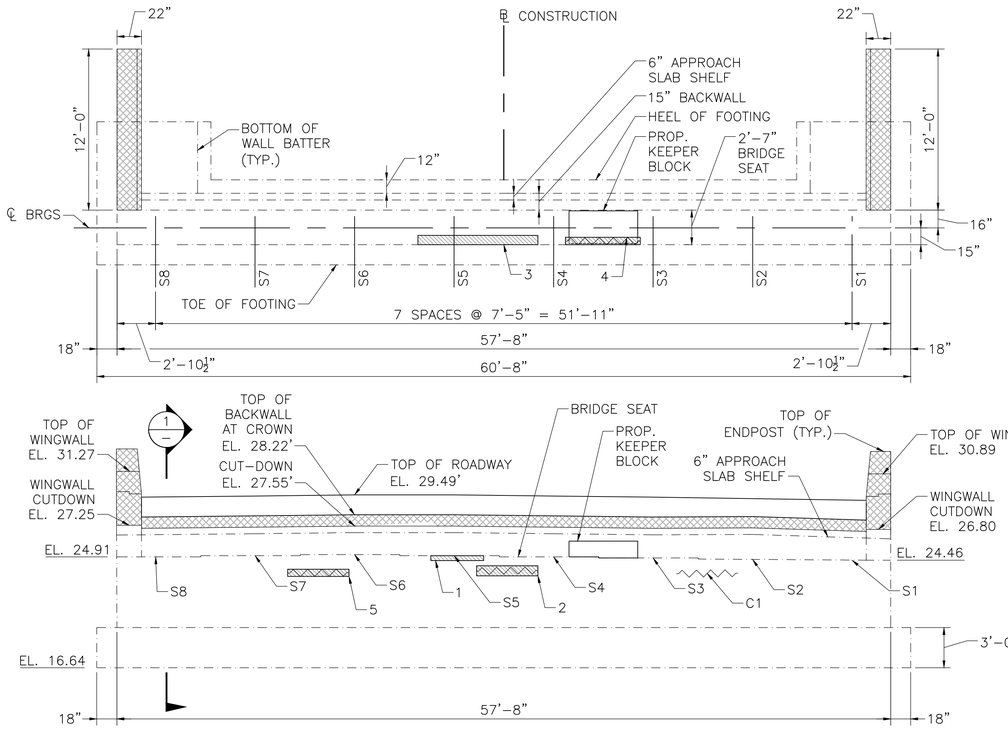
REHOBOTH
INTERSTATE 195 OVER PALMER RIVER

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(BR)-003S(988)X	28	54
PROJECT FILE NO.	613106		

WESTBOUND ABUTMENT



I–195 WESTBOUND – PLAN AND ELEVATION OF WEST ABUTMENT

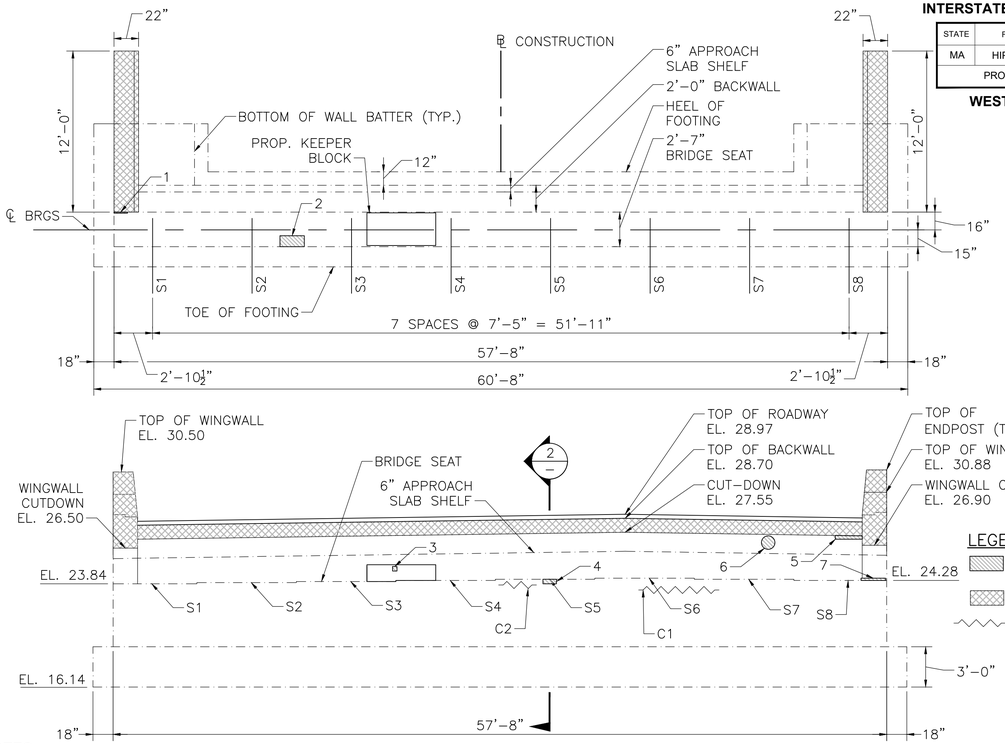
SCALE: $\frac{3}{16}$" = 1'–0"

BEAM SEAT ELEVATIONS *								
BEAM#	S8	S7	S6	S5	S4	S3	S2	S1
ELEVATION	24.91	25.06	25.21	25.09	24.91	24.80	24.62	24.47

* ALL ELEVATIONS OBTAINED FROM EXISTING PLANS HAVE BEEN CONVERTED TO NORTH AMERICAN VERTICAL DATUM (NAVD) OF 1988 USING –0.86 FEET CONVERSION FACTOR.

WEST ABUTMENT NOTES

1. 3"H X 4'–0"L
2. 8"H X 4'–6"L
3. 4"W X 9'–0"L
4. 6"W X 6'–0"L
5. 4"H X 4'–0"L
6. C1 = 4'–6"L CRACK



LEGEND

= SPALL > 1.5" DEEP

= TO BE DEMOLISHED

= CONCRETE CRACK

I–195 WESTBOUND – PLAN AND ELEVATION OF EAST ABUTMENT

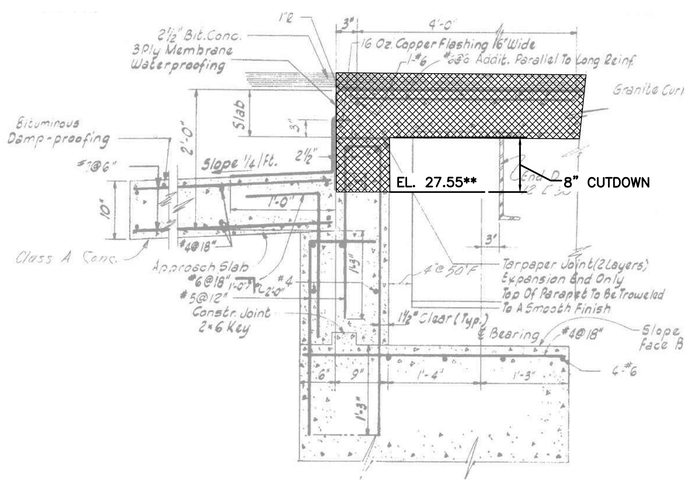
SCALE: $\frac{3}{16}$"=1'–0"

BEAM SEAT ELEVATIONS *								
BEAM#	S1	S2	S3	S4	S5	S6	S7	S8
ELEVATION	23.84	23.00	24.15	24.30	24.46	24.59	24.43	24.28

* ALL ELEVATIONS OBTAINED FROM EXISTING PLANS HAVE BEEN CONVERTED TO NORTH AMERICAN VERTICAL DATUM (NAVD) OF 1988 USING –0.86 FEET CONVERSION FACTOR.

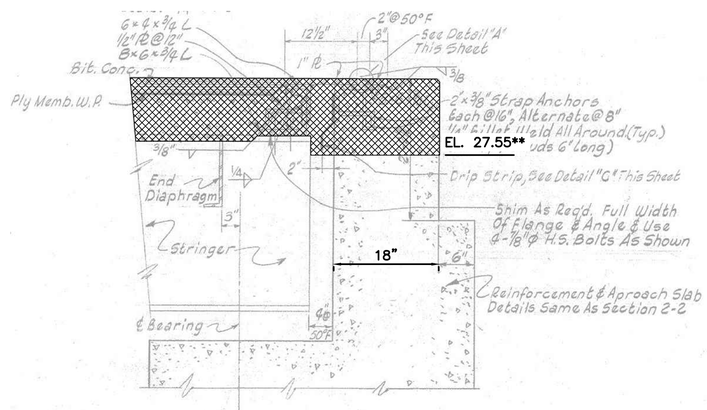
EAST ABUTMENT NOTES

1. 1'–0"L X 2"W X 1"
2. 1'–8"L X 11"W
3. 4"H X 4"W DELAMINATION
4. 5"H X 2'–0"W CORNER SPALL
5. 5'–0"L X 2'–0"W
6. 6" CIRCLE
7. 2"H X 1'–10"W
8. C1 = 6'–0"L HAIRLINE CRACK
9. C2 = 12"L HAIRLINE CRACK



SECTION 1 **** AT CROWN LOCATION**

NOT TO SCALE



**** AT CROWN LOCATION**

SECTION 2

NOT TO SCALE

NOTE:
EXISTING REBAR WILL BE CUT FLUSH TO THE LIMIT OF THE DEMOLITION.

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(3U4)
(3U5)

AUGUST 8, 2026	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION

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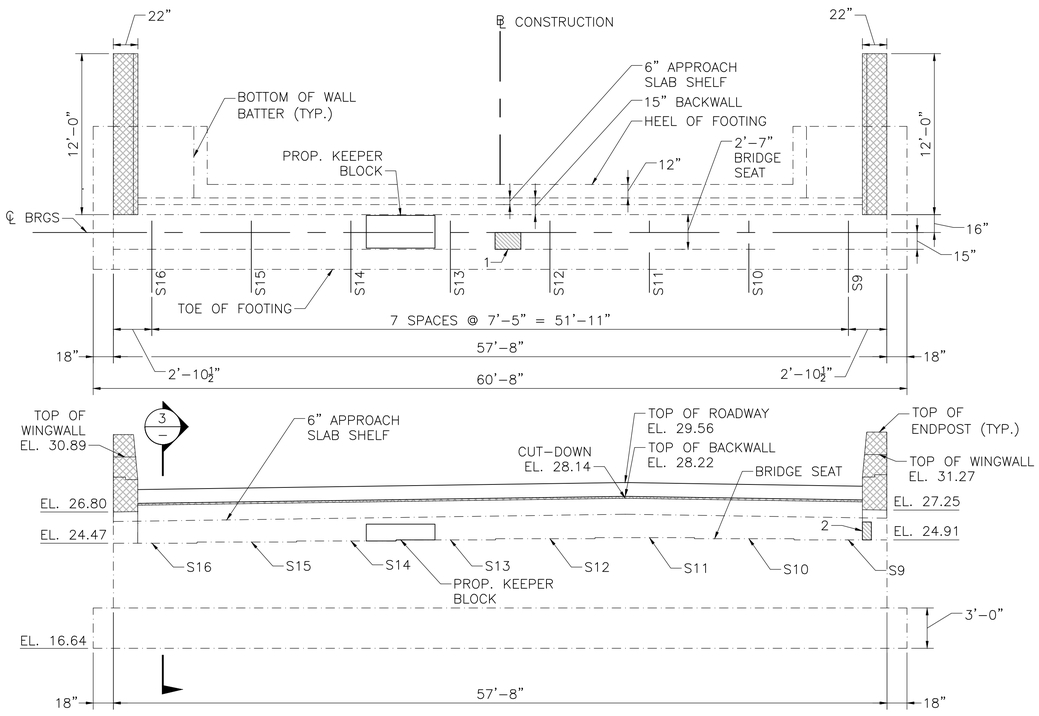
USE ONLY PRINTS OF LATEST DATE

PIER ELEVATIONS.DWG Plotted on 7-Aug-2026 6:39 AM

Final Structural Submittal (SF) 10-June-2026

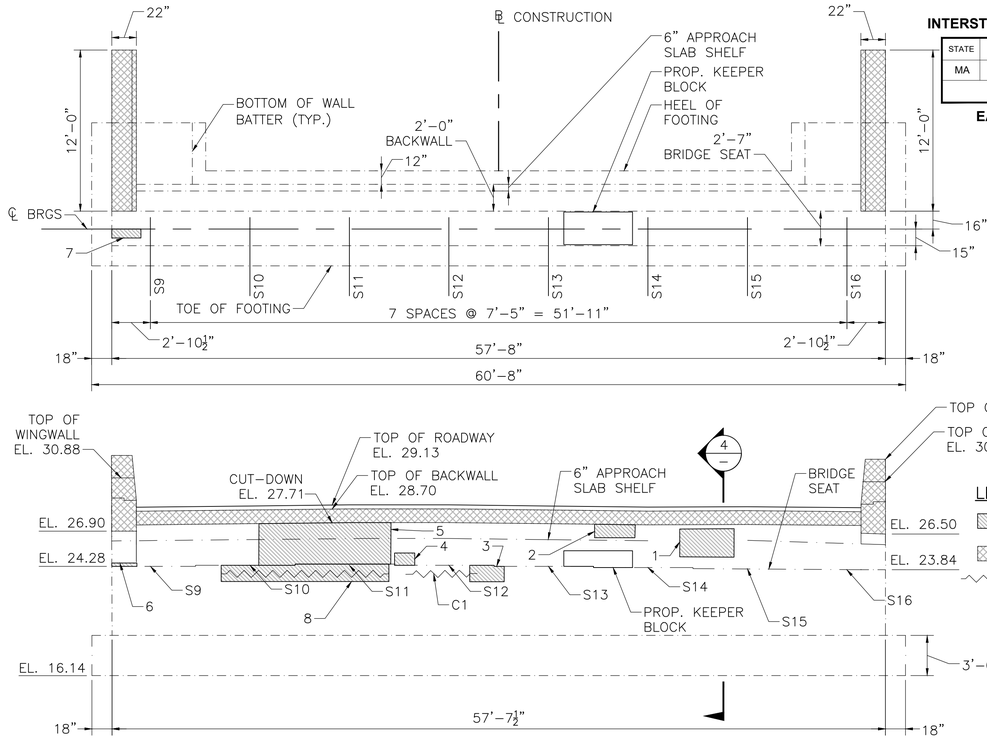


I–195 EASTBOUND – PLAN AND ELEVATION OF WEST ABUTMENT

SCALE: $\frac{3}{16}$"=1'–0"

BEAM SEAT ELEVATIONS *								
BEAM#	S16	S15	S14	S13	S12	S11	S10	S9
ELEVATION	24.47	24.62	24.78	24.93	25.09	25.21	25.06	24.91

* ALL ELEVATIONS OBTAINED FROM EXISTING PLANS HAVE BEEN CONVERTED TO NORTH AMERICAN VERTICAL DATUM (NAVD) OF 1988 USING –0.86 FEET CONVERSION FACTOR.



I–195 EASTBOUND – PLAN AND ELEVATION OF EAST ABUTMENT

SCALE: $\frac{3}{16}$"=1'–0"

BEAM SEAT ELEVATIONS *								
BEAM#	S9	S10	S11	S12	S13	S14	S15	S16
ELEVATION	24.28	24.43	24.59	24.46	24.30	24.15	24.00	24.84

* ALL ELEVATIONS OBTAINED FROM EXISTING PLANS HAVE BEEN CONVERTED TO NORTH AMERICAN VERTICAL DATUM (NAVD) OF 1988 USING –0.86 FEET CONVERSION FACTOR.

REHOBOTH
INTERSTATE 195 OVER PALMER RIVER

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(BR)-003S(988)X	29	54
PROJECT FILE NO. 613106			

EASTBOUND ABUTMENT

LEGEND

= SPALL > 1.5" DEEP

= TO BE DEMOLISHED

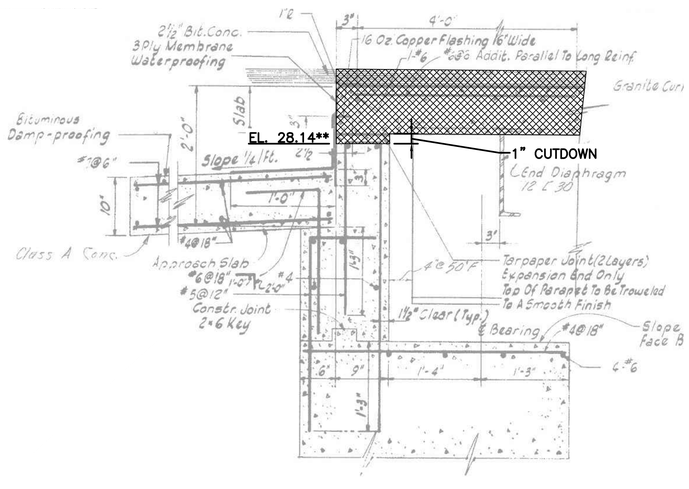
= CONCRETE CRACK

E. ABUTMENT NOTES:

1. 2'–0"H X 4'–0"W
2. 6"H X 3'–0"W ONE EXPOSED RUSTED REBAR.
3. 7"H X 4"W X 2'–6"L CORNER SPALL
4. 11"H X 1'–6"W
5. 2'–6" X 10'–0"W WITH 6 EXPOSED REBAR
6. 7"H X 1'–8"W
7. 3"L X 1'–8"W
8. 4"H X 3"W X 13'–0" L CORNER SPALL
9. C1 = 3'–0"L CRACK UNDER BEAM #12

W. ABUTMENT NOTES:

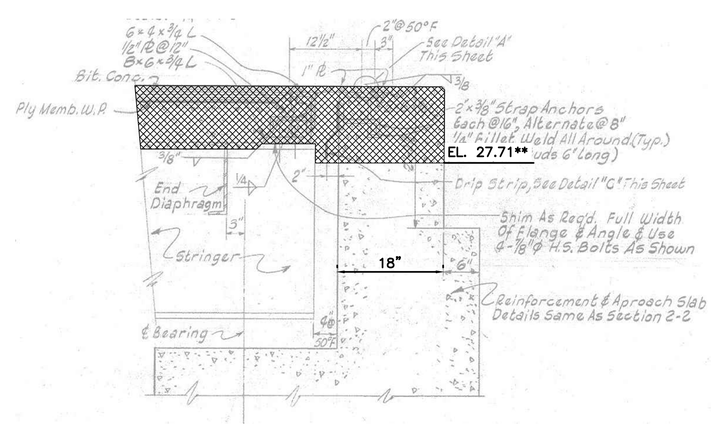
1. 1'–6"L X 2'–0"W
2. 1'–4"H X 8"W



SECTION 3

NOT TO SCALE

** AT CROWN LOCATION



** AT CROWN LOCATION

SECTION 4

NOT TO SCALE

NOTE:

EXISTING REBAR WILL BE CUT FLUSH TO THE LIMIT OF THE DEMOLITION.

*
(3U4)
(3U5)

AUGUST 8, 2026	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION

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REHOBOTH
INTERSTATE 195 OVER PALMER RIVER

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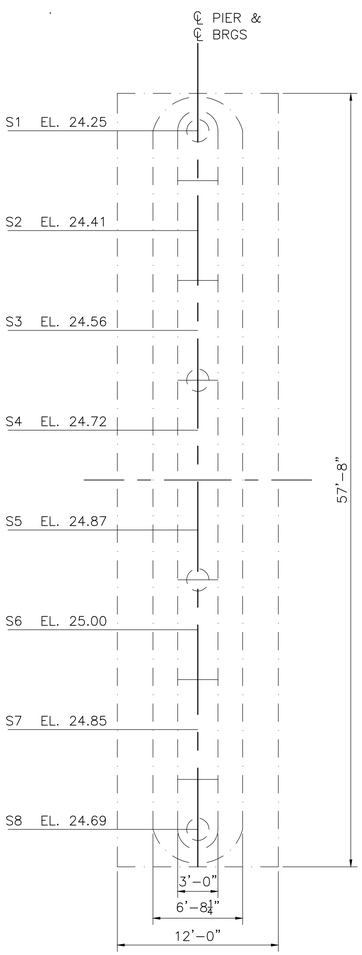
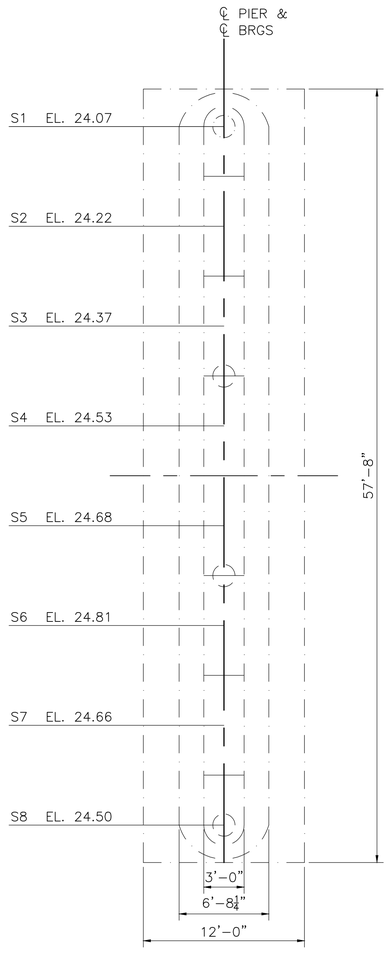
MA	HIP(BR)-003S(988)X	30	54
PROJECT FILE NO.	613106		

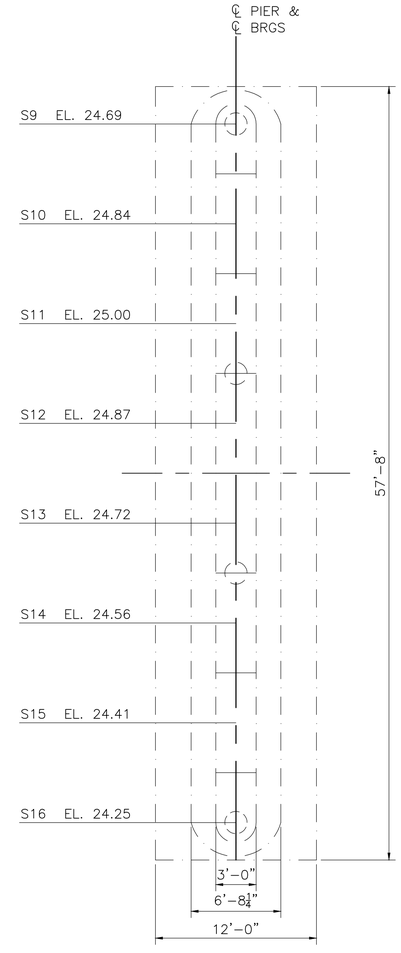
PIER BEAM SEAT ELEVATIONS



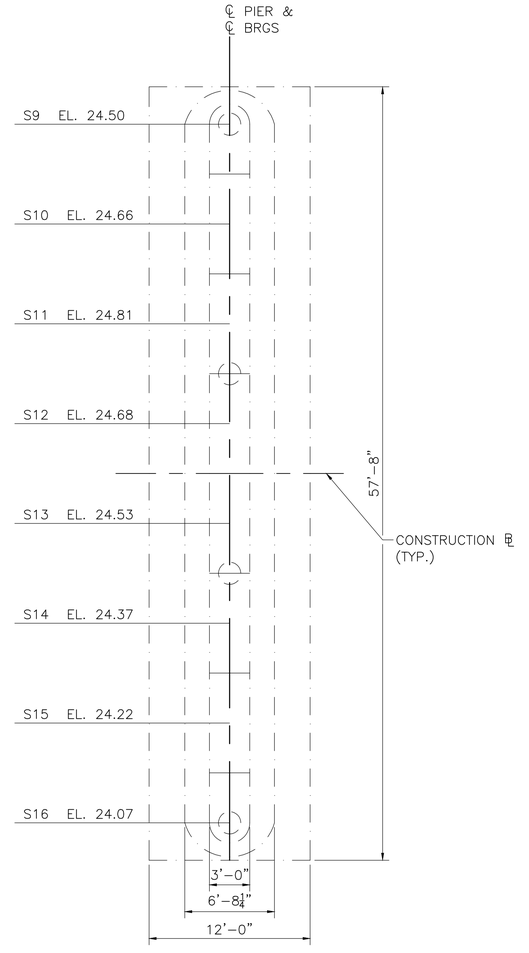
PIER 1



PIER 2



PIER 3



PIER 4

PIER BEAM SEAT ELEVATIONS

SCALE: $\frac{3}{16}$" = 1'-0"

NOTE:

* ALL ELEVATIONS OBTAINED FROM EXISTING PLANS HAVE BEEN CONVERTED TO NORTH AMERICAN VERTICAL DATUM (NAVD) OF 1988 USING −0.86 FEET CONVERSION FACTOR.

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(3U4)
(3U5)

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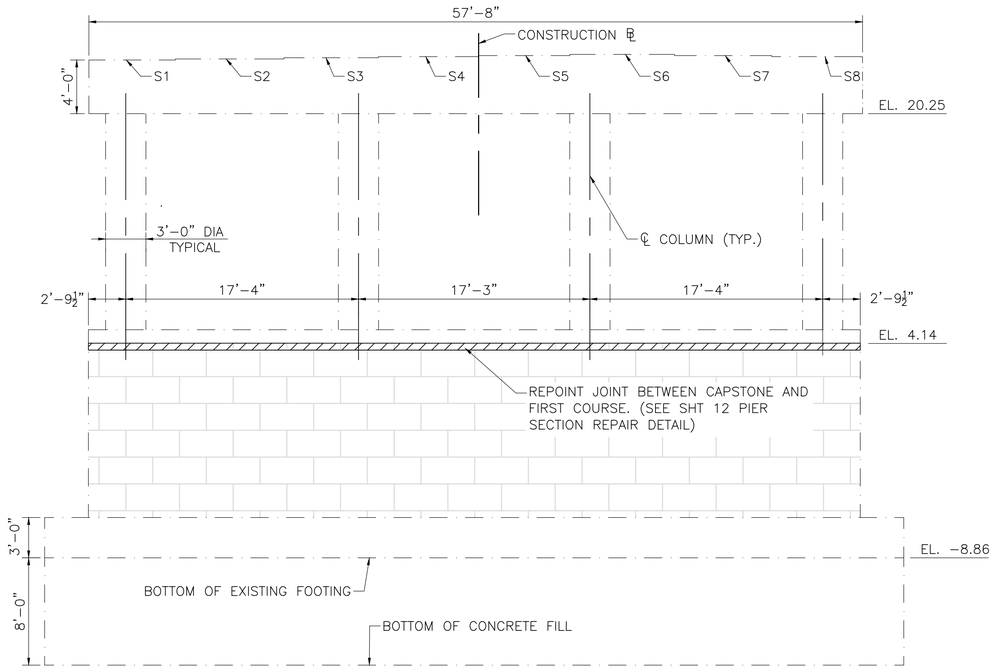
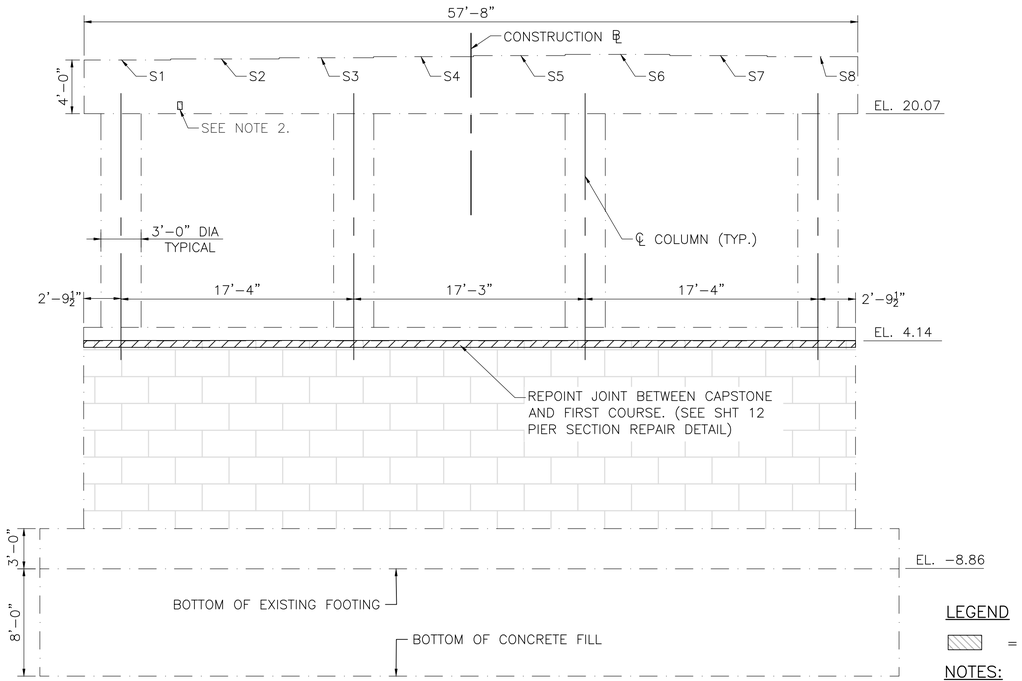


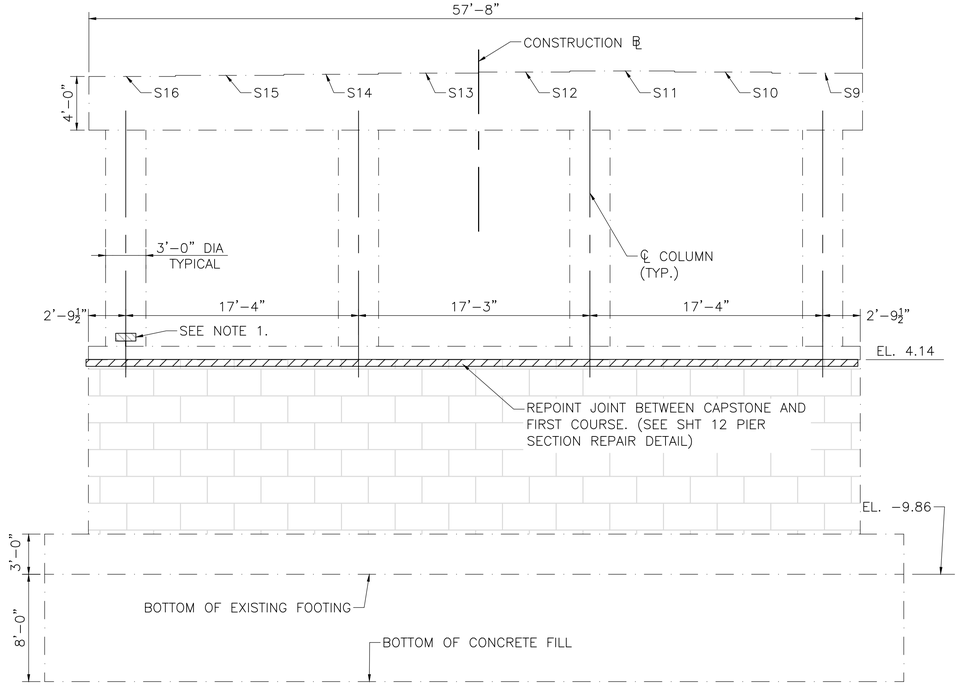
WEST ELEVATION PIER 1 (EAST ELEVATION OPPOSITE)

SCALE: $\frac{3}{16}$" = 1'-0"



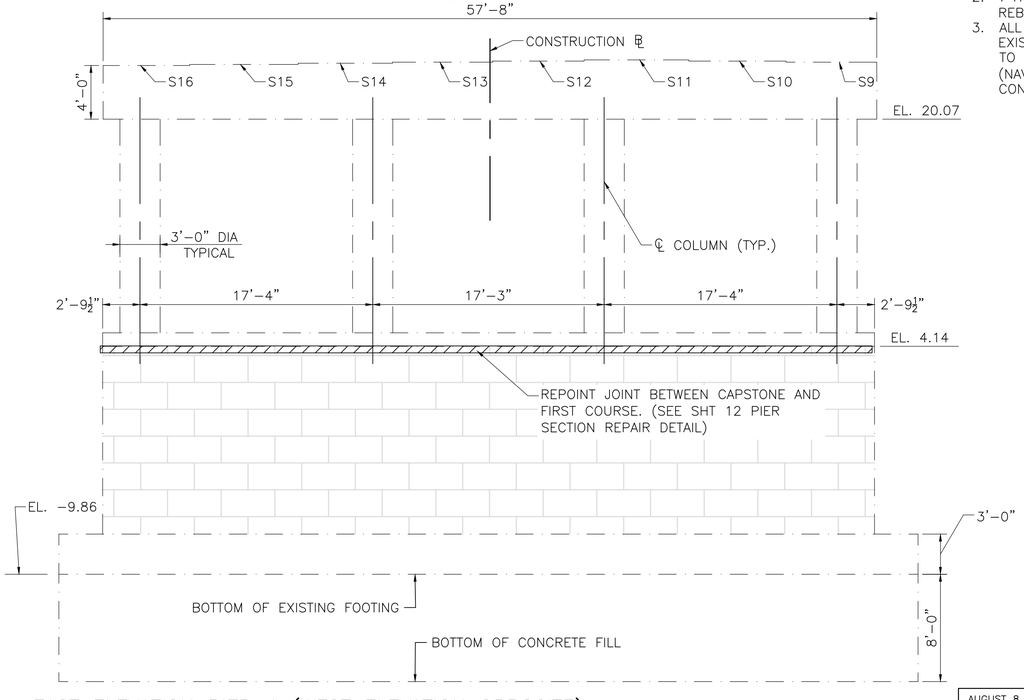
WEST ELEVATION PIER 2 (EAST ELEVATION OPPOSITE)

SCALE: $\frac{3}{16}$" = 1'-0"



EAST ELEVATION PIER 3 (WEST ELEVATION OPPOSITE)

SCALE: $\frac{3}{16}$"=1'-0"



EAST ELEVATION PIER 4 (WEST ELEVATION OPPOSITE)

SCALE: $\frac{3}{16}$"=1'-0"

REHOBOTH
INTERSTATE 195 OVER PALMER RIVER

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PROJECT FILE NO.	613106		

PIER ELEVATIONS

LEGEND

▨ = SPALL > 1.5" DEEP

NOTES:

1. 1'-6"L X 7"H X 2" DEEP WITH ONE EXPOSED RUSTED REBAR.
2. 7"H X 4"W WITH ONE EXPOSED RUSTED REBAR.
3. ALL ELEVATIONS OBTAINED FROM EXISTING PLANS HAVE BEEN CONVERTED TO NORTH AMERICAN VERTICAL DATUM (NAVD) OF 1988 USING -0.86 FEET CONVERSION FACTOR.

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(3U4)
(3U5)

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SURFACE PREPARATION FOR CONCRETE REPAIR:

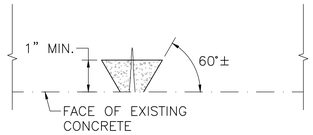
1. EXTENT, LOCATION AND TYPE OF ALL CONCRETE REPAIRS TO BE FIELD VERIFIED AND APPROVED BY THE ENGINEER AFTER CONTRACTOR HAS SOUNDED AND MARKED OUT ALL REPAIR AREAS. REPAIR CONFIGURATIONS SHOULD BE KEPT AS SIMPLE AS POSSIBLE, PREFERABLY WITH SQUARE CORNERS.
2. SAW CUT ALONG NEAT LINES AROUND REPAIR AREA PRIOR TO CONCRETE EXCAVATION. USE SAW CUT DEPTH OF ½" OR LESS AS REQUIRED TO AVOID CUTTING REINFORCING STEEL (REFER TO SPECIAL PROVISIONS).
3. REMOVE DETERIORATED AND DELAMINATED CONCRETE. UNDERCUT EXPOSED REINFORCING STEEL TO PROVIDE 1" MINIMUM CLEARANCE AROUND BARS. REMOVE ADDITIONAL CONCRETE AS REQUIRED TO PROVIDE MINIMUM REQUIRED THICKNESS OF REPAIR MATERIAL.
4. AFTER REMOVAL AND EDGE PREPARATIONS ARE COMPLETE, REMOVE BOND INHIBITING MATERIALS (DIRT, GREASE, LOOSELY BONDED AGGREGATE) BY ABRASION BLASTING OR HIGH PRESSURE WASHER BLASTING WITH WATER THAT CONTAINS NO DETERGENTS OR BOND INHIBITING CHEMICALS. CHECK THE CONCRETE SURFACES AFTER CLEANING TO ENSURE THAT SURFACE IS FREE FROM ADDITIONAL LOOSE AGGREGATE OR THAT ADDITIONAL DELAMINATIONS ARE NOT PRESENT.
5. IF REINFORCING STEEL IS EXPOSED THEN CLEAN BY MECHANICAL CLEANING AND HIGH PRESSURE WASHING WITH WATER THAT CONTAINS NO DETERGENTS OR BOND INHIBITING CHEMICALS. WHERE ACTIVE CORROSION HAS OCCURRED THAT WOULD INHIBIT BONDING, SANDBLAST STEEL TO WHITE METAL FINISH.
6. WET CONCRETE REPAIR AREA SO THAT SUBSTRATE IS SATURATED SURFACE DRY WITH NO STANDING WATER.
7. APPLY BONDING COMPOUND TO EXISTING CONCRETE AND REINFORCING STEEL PRIOR TO PLACEMENT OF REPAIR MATERIAL.
8. EXCAVATION FOR PARTIAL DEPTH REPAIR WILL BE PAID FOR UNDER ITEM 127.12, REINFORCED CONCRETE EXCAVATION FOR REPAIRS. THE REPAIR WILL BE PAID FOR UNDER ITEM 905.2, 5000 PSI, ⅜ IN., 710 CEMENT CONCRETE.

BEAM SEAT CONSTRUCTION NOTES:

1. AFTER THE EXISTING BEARINGS ARE REMOVED, ANCHOR BOLTS SHALL BE CUT DOWN BY CORE DRILLING. THE CORED HOLE SHALL HAVE A DIAMETER ½" GREATER THAN THE ANCHOR BOLT DIAMETER AND A DEPTH OF 1.5 INCHES. THE EXCAVATED HOLE SHALL BE REPAIRED IN ACCORDANCE WITH ITEM 909.2 CEMENTITIOUS MORTAR FOR PATCHING. REMOVAL AND DISPOSAL OF EXISTING STEEL BEARINGS AND ANCHOR BOLTS IS CONSIDERED INCIDENTAL TO ELASTOMERIC BEARING REPLACEMENT. ANCHOR BOLTS AT THE WEST ABUTMENT SHALL BE CUT AND GROUND DOWN TO ½" BELOW THE BEAM SEAT ELEVATION PRIOR TO APPLICATION OF CEMENTITIOUS MORTAR.
2. CLEAN THE ENTIRE ABUTMENT BEAM SEAT OF DIRT, GREASE, AND LOOSELY BONDED AGGREGATE BY ABRASION BLASTING OR HIGH PRESSURE WATER BLASTING, WITH WATER THAT CONTAINS NO DETERGENTS OR BOND INHIBITING CHEMICALS. CHECK THE CONCRETE SURFACE AFTER CLEANING TO ENSURE THAT THE SURFACE IS FREE OF ADDITIONAL LOOSE AGGREGATE AND THAT ADDITIONAL DELAMINATIONS ARE NOT PRESENT. REMOVE HARDENED CONCRETE FROM BEAM SEAT THAT APPEARS TO BE THE REMNANTS OF PREVIOUSLY COMPLETED REPAIRS.
3. THE BEARING AREA IS DEFINED AS A SQUARE 6 INCHES WIDER THAN THE ELASTOMERIC BEARING DIAMETER AND FROM FRONT TO BACK OF ABUTMENT AND PIERS.
4. PREPARE BEARING AREA AT EACH PIER IN ACCORDANCE WITH SPECIAL PROVISION ITEM 909.2 AND NOTE 2 ABOVE.
5. AT EACH ABUTMENT AND PIER, APPLY A 1/2" THICK LAYER OF CEMENTITIOUS MORTAR FOR PATCHING OVER THE BEARING AREA. EPOXY BONDING COMPOUND SHALL NOT BE UTILIZED IN THE BEARING AREAS. AFTER INITIAL SET, GRIND DOWN MORTAR SURFACE FLUSH WITH THE TOP OF THE EXISTING BEARING SURFACE, TO THE ELEVATIONS SPECIFIED ON SHEETS 8 & 9. SEE SPECIAL PROVISION ITEM 909.2 CEMENTITIOUS MORTAR FOR PATCHING FOR ADDITIONAL INSTRUCTION ON BEARING AREA CONSTRUCTION.
6. AT EACH ABUTMENT ONLY, AFTER THE PROPOSED BEARINGS ARE INSTALLED AND THE JACKING AND SHORING COMPONENTS HAVE BEEN REMOVED FROM THE BEAM SEAT, APPLY ½" THICK OVERLAY TO ENTIRE BEAM SEAT, NOT INCLUDING BEARING OR KEEPER BLOCK AREAS. THE OVERLAY SHALL BE INSTALLED WITH A CHAMFER AT THE FACE OF ABUTMENT AND BEAM SEATS WITH RESEMBLE THE EXISTING CHAMFERS.
7. KEEPER BLOCKS WILL BE UTILIZED AT EAST AND WEST ABUTMENTS ONLY, BETWEEN BEAMS S3 & S4, AND S13 & S14. KEEPER BLOCK SHALL BE INSTALLED DIRECTLY ON TOP OF THE EXISTING BEAM SEAT. PREPARE THE BEAM SEAT AS OUTLINED IN NOTE 2.

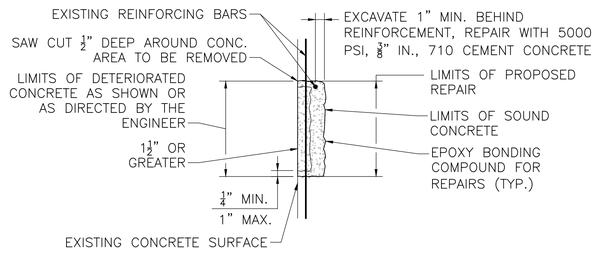
DEFECTIVE REINFORCING STEEL REPAIR NOTES:

1. THE CONCRETE SHALL BE REMOVED TO A DEPTH OF 1" BELOW THE REINFORCING STEEL AND THE EXPOSED REINFORCEMENT SHALL BE CLEANED. SEE SPECIAL PROVISION ITEM 905.2 BEFORE PLACING "PARTIAL DEPTH REPAIR" MATERIAL.
2. THE FURNISHING AND INSTALLING OF NEW ASTM A615, GRADE 60 SUPPLEMENTAL REINFORCING SHALL BE CONSIDERED INCIDENTAL TO ITEM 905.2. MINIMUM LENGTH OF LAP SHALL BE 30 BAR DIAMETERS.
3. COST OF ADDITIONAL CONCRETE REMOVAL REQUIRED FOR THE REPAIR OF THE REINFORCING STEEL SHALL BE CONSIDERED INCIDENTAL TO ITEM 905.2.

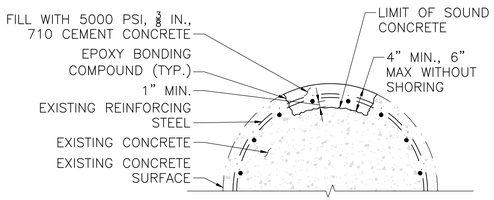


CRACK REPAIR DETAIL PLAN
NOT TO SCALE

NOTES:
1. CHIP AREA SURROUNDING CRACK TO APPROX. DIMENSIONS SHOWN.
2. CLEAN EXCAVATED SURFACE OF ALL DUST AND UNBONDED PARTICLES PRIOR TO REPAIR.
3. FILL VOID IN ACCORDANCE WITH SPECIAL PROVISION ITEM 107.855 PRESSURE INJECTION OF CRACKS.

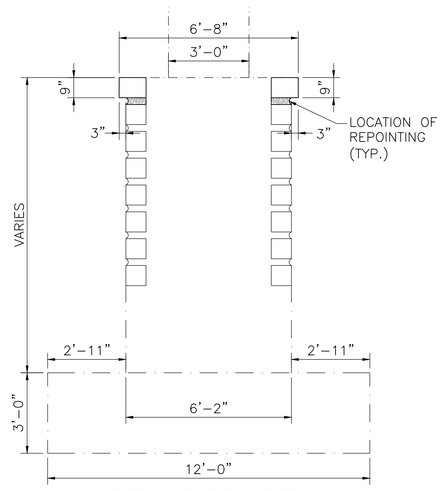


PARTIAL DEPTH REPAIR
SCALE: 1" = 1'–0"



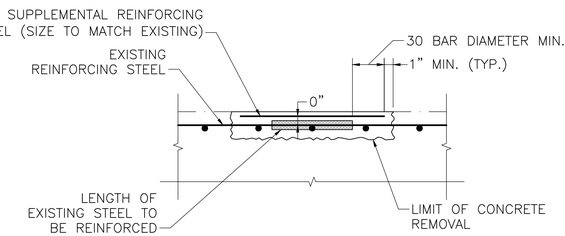
COLUMN SECTION
SCALE: 1" = 1'–0"

NOTE:
COLUMN REPAIR SHALL BE DONE WHEN BEAMS ARE JACKED AND SHORED



PIER SECTION DETAIL
SCALE: ⅜"=1'–0"

NOTES:
1. THERE ARE ISOLATED JOINT PENETRATIONS BETWEEN THE FIRST COURSE AND THE GRANITE CAP STONE AT ALL 4 PIERS. REPLACE ALL MORTAR IN JOINT FOR PENETRATION DEPTH OF 4" MINIMUM AND AS REQUIRED TO COMPLETELY FILL PENETRATIONS. REPAIR SHALL BE DONE IN ACCORDANCE WITH ITEM 909.99 RAPID SETTING CEMENT.
2. POINTING SHALL BE DONE AT LOW TIDE IN ACCORDANCE WITH SPECIAL PROVISIONS ITEM 909.99 RAPID SETTING CEMENT



DEFECTIVE REINFORCING STEEL REPAIR
NOT TO SCALE

REHOBOTH
INTERSTATE 195 OVER PALMER RIVER

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SUBSTRUCTURE REPAIR DETAILS

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(3U5)

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SUBSTRUCTURE REPAIR DETAILS.DWG
10-June-2026
Final Structural Submittal (SF)

REHOBOTH
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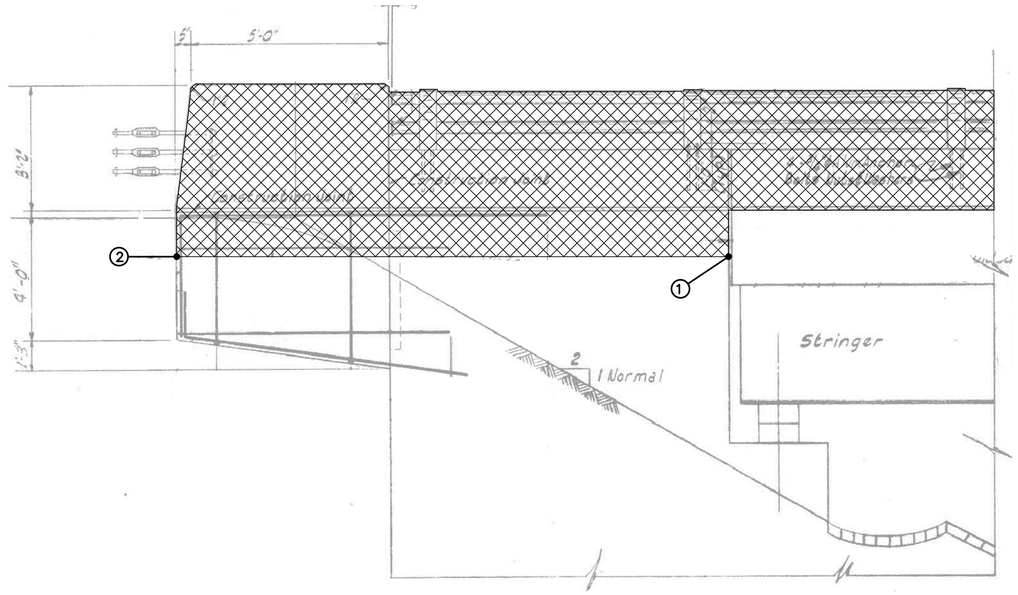
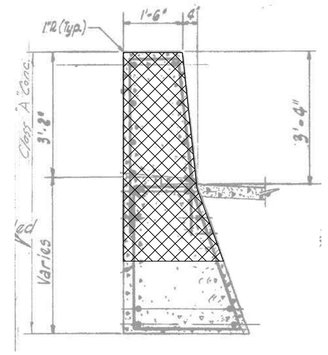
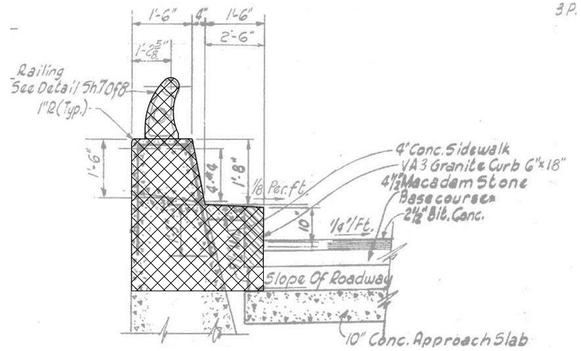
KEEPER BLOCK AND WINGWALL CAP



EXISTING WINGWALL DEMOLITION
NOT TO SCALE



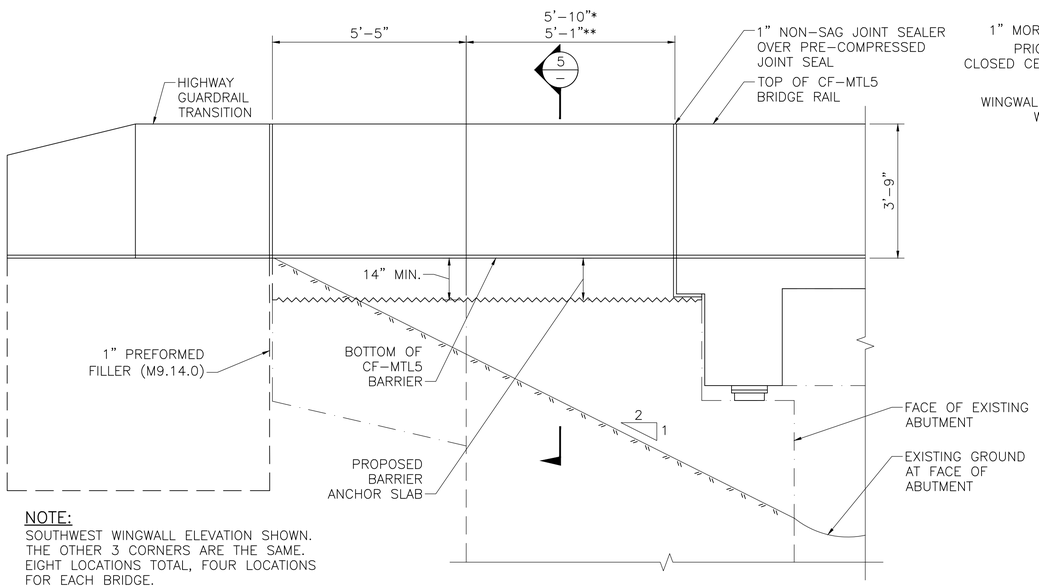
SECTION THRU EXISTING ENDPOST
NOT TO SCALE



SECTION THRU EXISTING WINGWALL
NOT TO SCALE

LIMITS OF DEMOLITION

LIMITS FOR WINGWALL DEMOLITION				
EASTBOUND	NW	SW	NE	SE
POINT 1	27.25	26.80	26.90	26.50
POINT 2	26.95	26.50	26.60	26.20
WESTBOUND	NW	SW	NE	SE
POINT 1	26.80	27.25	26.50	26.90
POINT 2	26.50	26.95	26.20	26.60



NOTE:
SOUTHWEST WINGWALL ELEVATION SHOWN. THE OTHER 3 CORNERS ARE THE SAME. EIGHT LOCATIONS TOTAL, FOUR LOCATIONS FOR EACH BRIDGE.

SOUTHWEST WINGWALL ELEVATION
SCALE: ½" = 1'-0"

* FOR ALL NORTHWEST AND SOUTHWEST WINGWALL LOCATIONS
** FOR ALL NORTHEAST AND SOUTHEAST WINGWALL LOCATIONS

SECTION 5
SCALE: ¾" = 1'-0"

INTERMEDIATE KEEPER BLOCK
SCALE: 1" = 1'-0"

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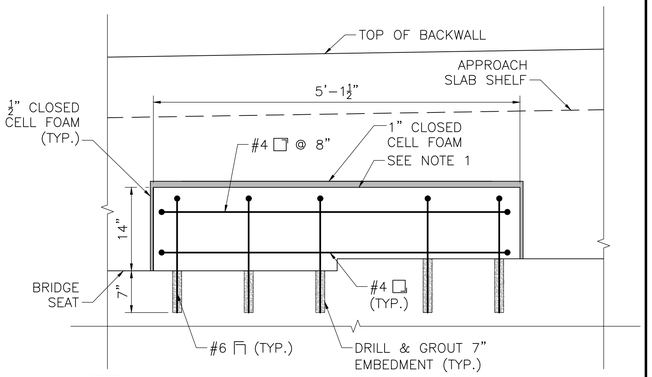
(3U5)



NOTES:
1. TOP OF KEEPER BLOCK SHALL BE TROWELED SMOOTH PARALLEL TO PROFILE GRADE.
2. ABUTMENT REINFORCEMENT BELOW CONSTRUCTION JOINT HAS BEEN OMITTED FOR CLARITY.

SECTION 6
SCALE: 1" = 1'-0"

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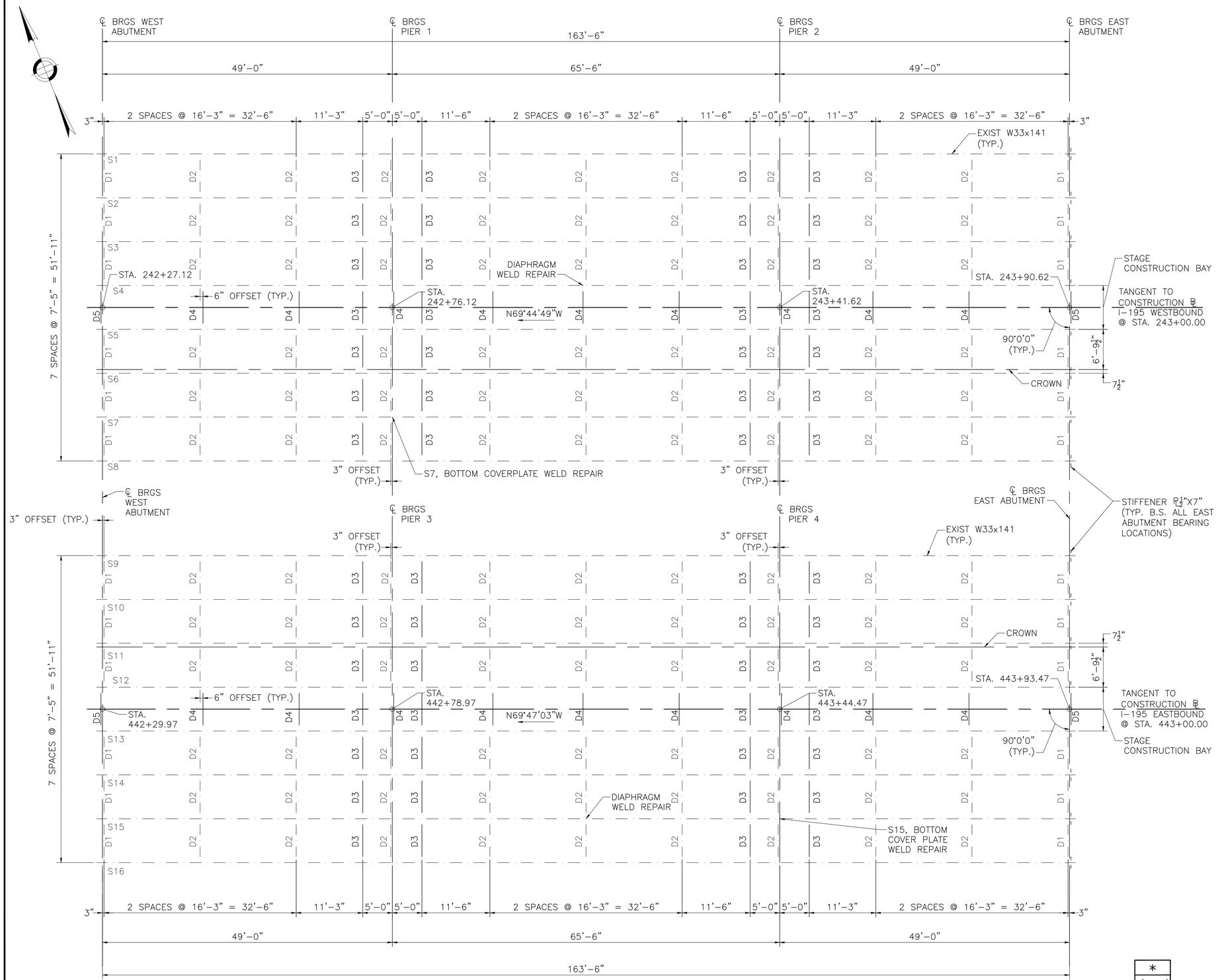
FRAMING PLAN



FRAMING PLAN

SCALE: ⅛"=1'–0"

NOTES:

1. D1 = C12X30 (EXISTING TYP. END DIAPHRAGM).
   D2 = MC18X42.7 (EXISTING TYP. INTERMEDIATE DIAPHRAGM).
   D3 = MC18X42.7 PROPOSED INTERMEDIATE DIAPHRAGM.
   D4 = MC18X42.7 (PROPOSED INTERMEDIATE DIAPHRAGM OFFSET 6" FROM EXISTING.)
   D5 = C12X30 (PROPOSED END DIAPHRAGM. OFFSET 6" FROM EXISTING.)
2. THE MAIN LOAD CARRYING MEMBERS ARE THE EXISTING W33X141 STEEL BEAMS WITH ½"X10"X9'–0" TOP COVER PLATES AND ½"X14"X9'–0" BOTTOM COVER PLATES LOCATED SYMMETRICAL ABOUT THE CENTERLINE OF EACH PIER.
3. ALL EXISTING STRUCTURAL STEEL IS GRADE 33 STEEL.
4. ALL PROPOSED STRUCTURAL STEEL SHALL CONFORM TO AASHTO M270 GRADE 50 STEEL.
5. INTERMEDIATE AND END DIAPHRAGMS WILL BE REMOVED IN STAGE CONSTRUCTION BAY PRIOR TO JACKING. CONNECTION PLATES WILL REMAIN.
6. IN THE STAGE CONSTRUCTION BAY, NEW CONNECTION PLATES AND DIAPHRAGMS WILL BE INSTALLED OFFSET FROM THE EXISTING DIAPHRAGMS.
7. INSTALL PROPOSED BEARING STIFFENER PLATES ON BOTH SIDES OF EACH BEAM AT THE EAST ABUTMENT ONLY AS SHOWN ON SECTION 8 IN SHEET 15.
8. REPAIR UNDERCUT WELDS AND AREAS OF RUST BLEEDING AT TAPERED END OF BOTTOM COVERPLATE AT S15 PIER 4, AT S7 PIER 1, AND S5 AT PIER 1. REPAIR IN ACCORDANCE WITH SPECIAL PROVISION ITEM 961.32.
9. REPAIR DIAPHRAGM WELDED CONNECTION TO S15 IN SPAN 2 AND S4 IN SPAN 2 AT LOCATIONS SHOWN ON PLAN. REPAIR IN ACCORDANCE WITH SPECIAL PROVISION ITEM 961.32.

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(3U5)

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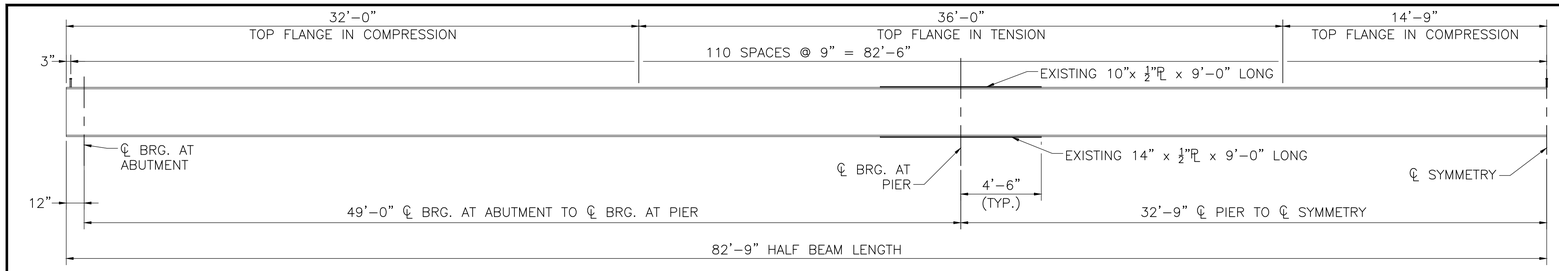
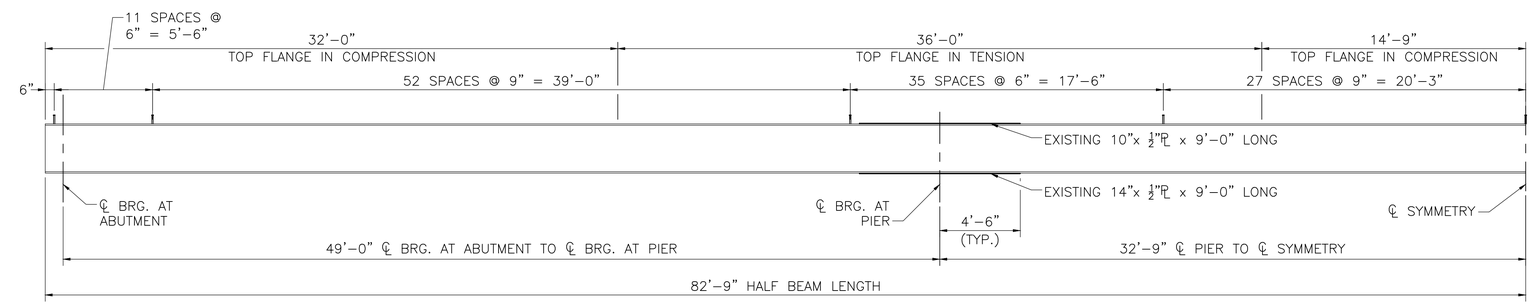


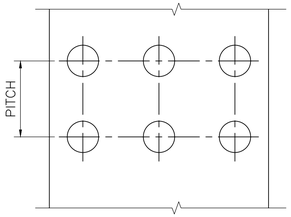
TYPICAL EXTERIOR BEAMS SHEAR CONNECTOR PITCH

SCALE: ¼" = 1'–0"



TYPICAL INTERIOR BEAMS SHEAR CONNECTOR PITCH

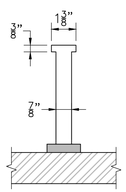
SCALE: ¼" = 1'–0"

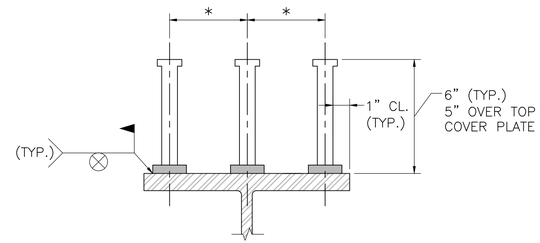


REHOBOTH
INTERSTATE 195 OVER PALMER RIVER

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(BR)-003S(988)X	35	54
PROJECT FILE NO.	613106		

BEAM DETAILS





* – 4.25" ON TOP BEAM FLANGE

* – 3.50" ON TOP COVERPLATE

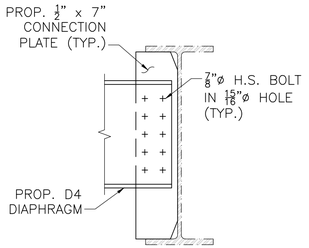
* IN AREAS OF TOP COVERPLATE TAPER, MAINTAIN PLATE/FLANGE EDGE CLEARANCES AND STAGGER AS REQUIRED

- MIN. TRANSVERSE CENTER TO CENTER SPACING IS 3.50"
- MIN. CLEAR DISTANCE FROM EDGE OF FLANGE/COVERPLATE TO EDGE OF STUD SHANK IS 1"
- MIN. LONGITUDINAL CENTER TO CENTER SPACING IS 5.25"

NOTE:
BEFORE INSTALLATION OF SHEAR STUD CONNECTORS, ENSURE THAT ALL POST–INSPECTION COVERPLATE REPAIRS, AS DESCRIBED ON SHEET 16, ARE COMPLETED.

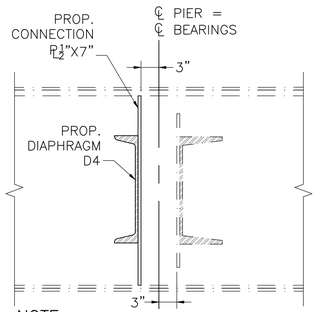
STUD SHEAR CONNECTORS

NOT TO SCALE



D4 DIAPHRAGM CONNECTION

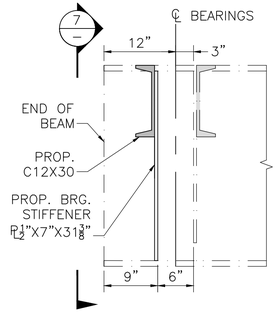
SCALE: 1" = 1'–0"



NOTE:
INSTALL CONNECTION PLATES WITH 3" OFFSET FROM ℄ BEARING PROVIDING 6" CLEARANCE FOR FIELD WELDING. DIAPHRAGM, D4, AT PIER LOCATIONS IN CONSTRUCTION BAY ONLY.

D4 DIAPHRAGM DETAIL AT PIERS

SCALE: 1" = 1'–0

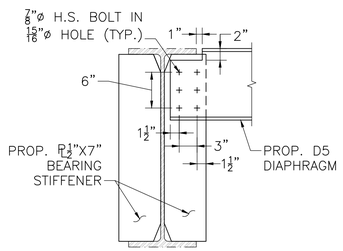


NOTES:

1. PROPOSED CHANNEL, C12X30, D5 IS ONLY IN STAGE CONSTRUCTION BAY 4.
2. PROPOSED END BEARING STIFFENERS ARE FOR ALL BEAMS, BOTH SIDES, AT EAST ABUTMENT ONLY. FIT TIGHT AT ALL LOCATIONS. INSTALL STIFFENERS WITH 3" OFFSET FROM ℄ BEARING PROVIDING 6" CLEARANCE FOR FIELD WELDING.

D5 DIAPHRAGM DETAIL AT ABUTMENTS

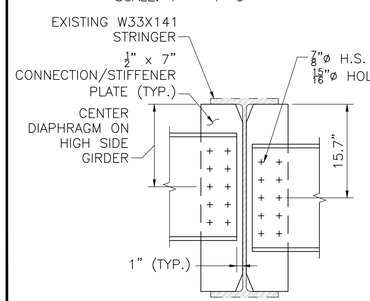
SCALE: 1" = 1'–0

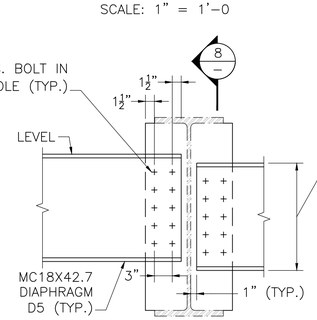


SECTION 7

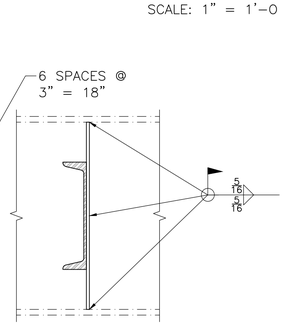
D5 DIAPHRAGM CONNECTION

SCALE: 1" = 1'–0





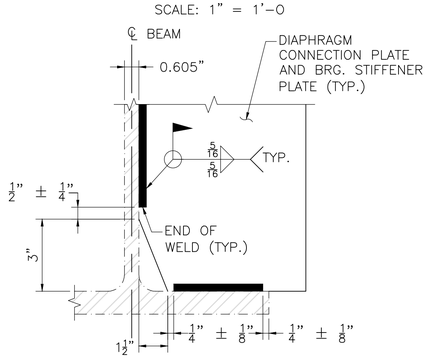
ELEVATION VIEW



SECTION 8

D3 INTERMEDIATE DIAPHRAGM DETAILS

SCALE: 1" = 1'–0"



CLIP DETAIL

NOT TO SCALE

*
(3U4)
(3U5)

AUGUST 8, 2026	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION

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AUTHORIZED SIGNATORY: STATE BRIDGE ENGINEER
USE ONLY PRINTS OF LATEST DATE

REHOBOTH
INTERSTATE 195 OVER PALMER RIVER

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(BR)-003S(988)X	36	54
	PROJECT FILE NO. 613106		

WELD DETAILS

INSPECTION AND REPAIR OF COVERPLATE AND WELDS:

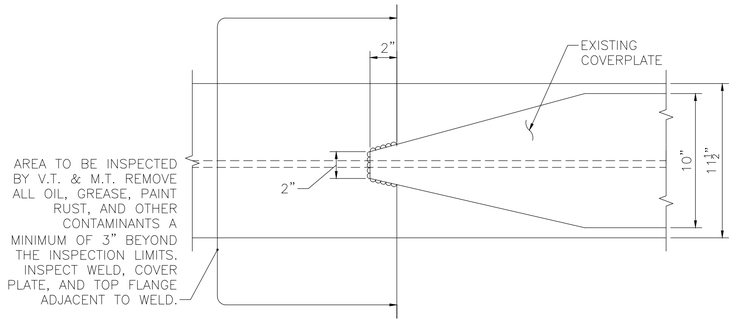
1. AFTER THE EXISTING CONCRETE DECK IS REMOVED, TOP FLANGE COVERPLATE END WELDS WILL BE INSPECTED. THE $\frac{1}{2}$"X10"X9'–0" COVERPLATES ARE LOCATED AT EACH PIER. FOR EACH BRIDGE, THERE ARE 8 BEAMS, 16 COVER PLATES AND 32 COVER PLATE END WELDS.
2. THE CONTRACTOR IS REQUIRED TO ADMINISTER AND PERFORM WELD INSPECTIONS IN ACCORDANCE WITH SPECIAL PROVISIONS ITEM 961.3 WELD INSPECTION. WELDS SHALL BE INSPECTED USING VISUAL INSPECTION (V.T.) AND LIQUID DYE PENETRANT TESTING (P.T.) PER AWS D1.5. TESTS SHALL BE PERFORMED BY A QUALIFIED NDT LEVEL II OPERATOR IN THE PRESENCE OF A DESIGNATED MASSDOT REPRESENTATIVE.
3. SUBMISSION OF THE WELDING INSPECTORS QUALIFICATIONS AND A WELD INSPECTION PROCEDURE IS REQUIRED UNDER SPECIAL PROVISIONS ITEM 961.3 WELD INSPECTION OF TOP COVER PLATE.
4. IF CRACKS ARE FOUND IN THE COVER PLATE END WELD, OR EXTEND INTO TOP COVER PLATE FROM THE WELD, IT WILL BE REPAIRED IN ACCORDANCE WITH THE SUGGESTED COVER PLATE TAPER REMOVAL PROCEDURE.
5. IF THE CRACK IS FOUND IN THE TOP FLANGE OR EXTEND INTO THE TOP FLANGE FROM THE WELD, THE COVER PLATE END AND ASSOCIATED WELD WILL BE REPLACED BY USING THE SUGGESTED COVER PLATE TAPER REMOVAL PROCEDURE AND THE SUGGESTED CRACK REMOVAL PROCEDURE.
6. THE CONTRACTOR IS REQUIRED TO SUBMIT PROCEDURES FOR COVER PLATE TAPER REMOVAL, CRACK REMOVAL AND WELDING IN ACCORDANCE WITH SPECIAL PROVISION ITEM 961.31. ALL WORK ASSOCIATED WITH THE REQUIRED REPAIR SHALL BE DONE AND PAID FOR IN ACCORDANCE WITH ITEM 961.31 WELD REPAIR OF TOP COVERPLATE.

SUGGESTED COVERPLATE TAPER REMOVAL PROCEDURE:

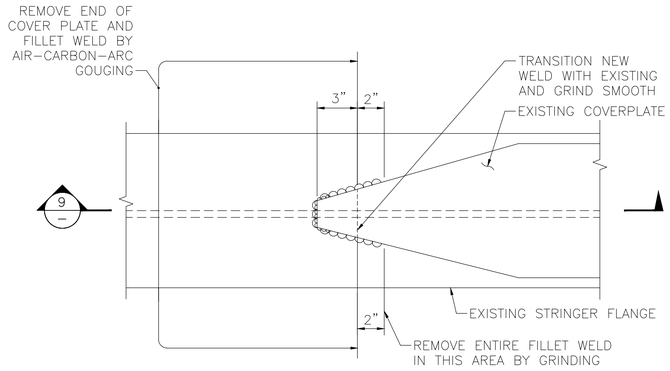
1. REMOVE THE END OF THE COVERPLATE AS SHOWN BY AIR–CARBON–ARC GOUGING TO CUT ACROSS THE WIDTH OF THE COVERPLATE, LEAVING $\frac{1}{8}$" OF THICKNESS SO THAT THE STRINGER FLANGE WILL NOT BE DAMAGED. REMOVE THE EXISTING FILLET WELD TO THE NEW END OF COVERPLATE BY GOUGING TO WITHIN $\frac{1}{8}$" ABOVE THE BASE METAL.
2. REMOVE REMAINING $\frac{1}{8}$" OF COVERPLATE AND WELD THICKNESS BY GRINDING. THE COVERPLATE END THAT IS TO BE DISCARDED SHALL BE PRIED OFF WITH A COLD CHISEL. EXTREME CARE SHALL BE USED TO AVOID GOUGING INTO THE FLANGE OF THE ROLLED STRINGER. GRINDING SHALL BE DONE IN DIRECTION OF APPLIED STRESS WHERE APPLICABLE.
3. REMOVE REMAINING LONGITUDINAL FILLET WELDS FOR 2" BEYOND THE NEW END OF COVERPLATE BY GRINDING AS SHOWN.
4. GRIND SMOOTH AND FLUSH THE NEWLY CUT END OF THE PLATE AND THE STRINGER FLANGE AREA FORMERLY COVERED BY THE COVERPLATE IN PREPARATION FOR VISUAL (V.T.) AND LIQUID DYE PENETRANT (P.T.) TESTING BY THE CONTRACTOR. IF A CRACK IS NOTED, REPAIR BY CRACK REMOVAL PROCEDURE.
5. RE–WELD THE ENDS OF THE COVERPLATES USING THE SAME SIZE WELD AS THE ORIGINAL COVER PLATE WELD. THE LONGITUDINAL WELD SHALL BE GROUND TO MATCH AND BLENDED INTO THE ORIGINAL FILLET WELD.

SUGGESTED CRACK REMOVAL PROCEDURE:

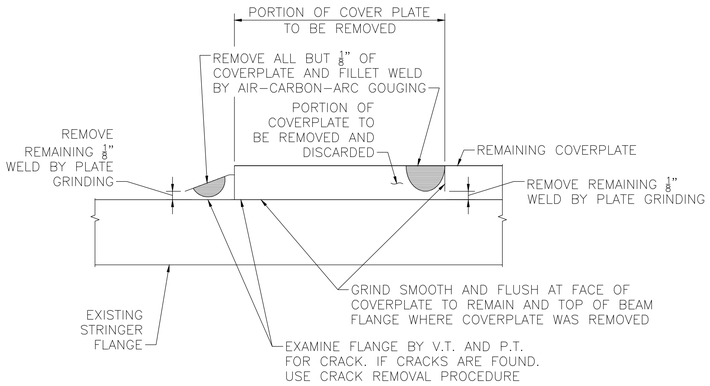
1. EXCAVATE THE CRACK BY GRINDING OR AIR–CARBON–ARC GOUGING AND GRINDING UNTIL THE CRACK IS COMPLETELY REMOVED. THE EXCAVATION SHALL BE LIQUID DYE PENETRANT (P.T.) TESTED BY THE CONTRACTOR TO ENSURE REMOVAL IS COMPLETE.
2. FOR EXCAVATION LESS THAN $\frac{1}{8}$" IN DEPTH, THE EXCAVATIONS SHALL BE BLENDED INTO THE SURROUNDING AREA BY GRINDING TO A 1–ON–10 SLOPE IN THE DIRECTION OF APPLIED STRESS (I.E. PARALLEL TO THE STRINGER).
3. FOR EXCAVATION GREATER THAN $\frac{1}{8}$" IN DEPTH. THE AREA SHALL BE REPAIRED BY WELDING. THE EXCAVATION SITE SHALL BE PREPARED BY GRINDING TO PRODUCE A GROOVE AS SHOWN IN THE CRACK REMOVAL DETAILS. AFTER WELDING, THE REPAIR SHALL BE GROUND FLUSH AND ULTRASONICALLY (U.T.) TESTED BY THE CONTRACTOR.
4. IF LESS THAN $\frac{3}{16}$" OF METAL IS LEFT AFTER GOUGING. THEN REMOVE REMAINING METAL AND PROVIDE BACKING BAR TO WELD AGAINST.
5. IF CRACK EXCAVATION EXTENDED TO EDGE OF PLATE THEN RUNOFF TABS SHALL BE REQUIRED,
6. WHEN USING AIR–CARBON–ARC GOUGING, THE BASE METAL SHALL BE PREHEATED TO 150°F MINIMUM.
7. AFTER AIR–CARBON–ARC GOUGING, THE BASE METAL SHALL BE GROUND TO BRIGHT METAL TO REMOVE CARBON DEPOSITS.



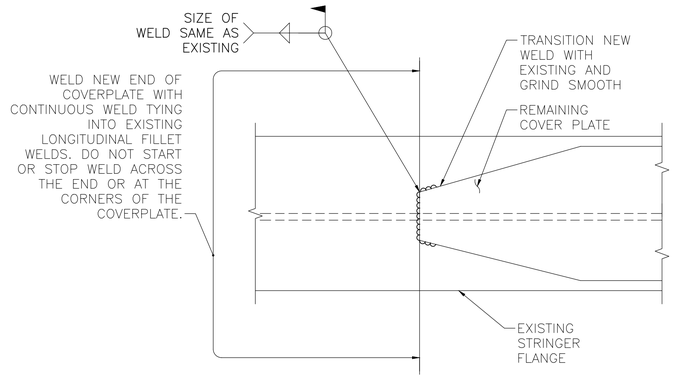
WELD INSPECTION LIMITS
NOT TO SCALE



COVERPLATE TAPER REMOVAL
NOT TO SCALE

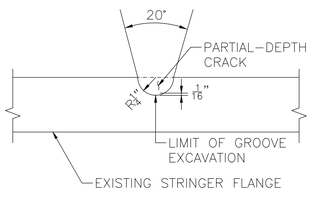


SECTION 9

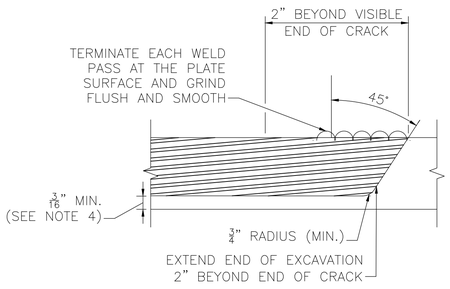


REPAIRED TAPER

COVERPLATE TAPER REMOVAL DETAILS
NOT TO SCALE



TRANSVERSE SECTION



LONGITUDINAL SECTION

CRACK REMOVAL DETAILS
NOT TO SCALE

*
(3U4)
(3U5)

AUGUST 8, 2026	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION

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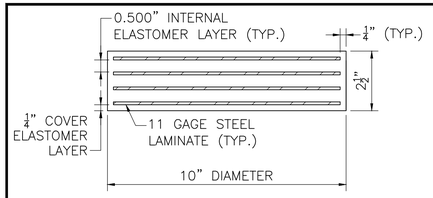
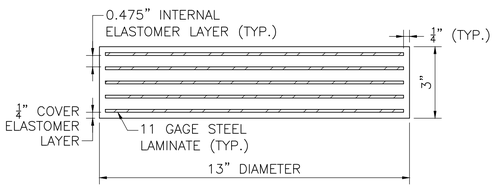
AUTHORIZED SIGNATORY: STATE BRIDGE ENGINEER
USE ONLY PRINTS OF LATEST DATE

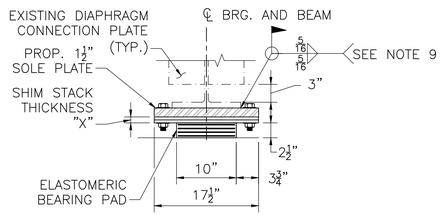
WELD DETAILS.DWG Plotted on 7-Aug-2026 6:39 AM
Final Structural Submittal (SF) 10-June-2026



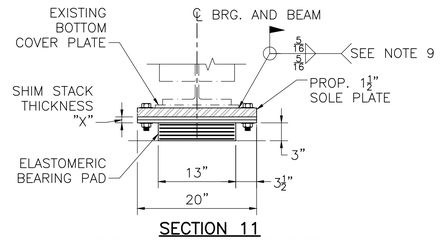
TYP. ELASTOMERIC BEARING PAD AT ABUTMENTS
SCALE: 4" = 1'-0"



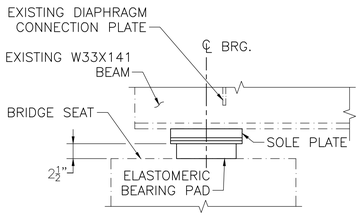
TYP. ELASTOMERIC BEARING PAD AT PIERS
SCALE: 4" = 1'-0"



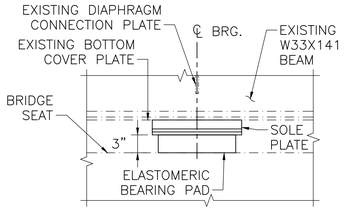
SECTION 10
BEARING ASSEMBLY AT ABUTMENTS
SCALE" 1" = 1'-0"



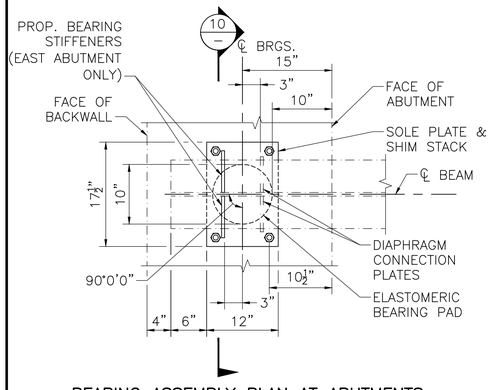
SECTION 11
BEARING ASSEMBLY AT PIERS
SCALE" 1" = 1'-0"



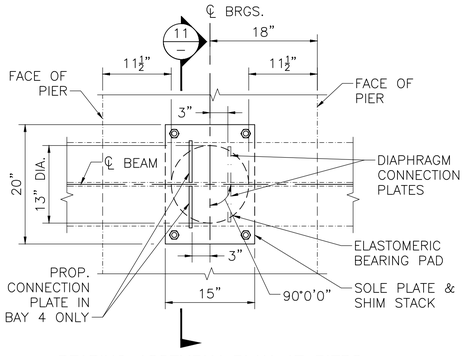
BEARING ASSEMBLY ELEVATION AT ABUTMENTS
SCALE" 1" = 1'-0"



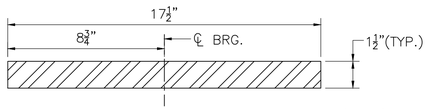
BEARING ASSEMBLY ELEVATION AT PIERS
SCALE" 1" = 1'-0"



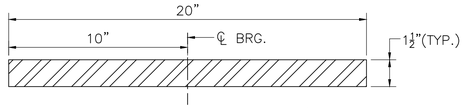
BEARING ASSEMBLY PLAN AT ABUTMENTS
SCALE" 1" = 1'-0"



BEARING ASSEMBLY PLAN AT PIERS
SCALE" 1" = 1'-0"



SOLE PLATE DETAIL AT ABUTMENTS (TYP.)
SCALE: 3" = 1'-0"



SOLE PLATE DETAIL AT PIERS (TYP.)
SCALE: 3" = 1'-0"

ELASTOMERIC BEARING NOTES:

1. THE ELASTOMER SHALL HAVE A SHEAR MODULUS OF 0.160 KSI.
2. STEEL LAMINATES SHALL CONFORM TO ASTM A1011 GRADE 36.
3. THE COMPRESSIVE DESIGN LOAD ON THE BEARING PADS AT THE PIERS IS 162.86 KIPS. THE COMPRESSIVE DESIGN STRESS IS THE RESULT OF DIVIDING THE COMPRESSIVE DESIGN LOAD BY THE AREA OF THE PAD AND IS EQUAL TO 1.28 KSI.
4. THE COMPRESSIVE DESIGN LOAD ON THE BEARING PADS AT THE ABUTMENTS IS 80.28 KIPS. THE COMPRESSIVE DESIGN STRESS IS THE RESULT OF DIVIDING THE COMPRESSIVE DESIGN LOAD BY THE AREA OF THE PAD AND IS EQUAL TO 1.02 KSI.
5. ELASTOMERIC BEARING PAD SHALL NOT BE VULCANIZED TO THE SOLE PLATE.
6. STEEL SOLE PLATE AND SHIM PLATES SHALL CONFORM TO AASHTO M270 GRADE 36 AND BE HOT-DIP GALVANIZED.
7. CENTER THE ELASTOMERIC BEARING PAD UNDER THE SOLE PLATE DURING INSTALLATION.
8. BEARINGS SHALL BE REPLACED WHEN THE AMBIENT TEMPERATURE IS BETWEEN 50°F AND 100°F.
9. WELDS SHALL TERMINATE ¼" FROM EDGE OF PLATE, MASKING AND TOUCH-UP PER STANDARD SPECIFICATIONS.

BEAM SEAT ELEVATION NOTES

1. ELASTOMERIC BEARINGS ARE TO BE SET DIRECTLY ON TOP OF THE EXISTING ABUTMENTS AND PIERS. BEAM SEAT CONSTRUCTION NOTES ON SHEET 12.
2. SHIM STACKS WILL BE BOLTED DIRECTLY TO THE SOLE PLATES USING 4-⅞"ø H.S. BOLTS TO BRING THE BEAMS TO THE REQUIRED ELEVATIONS. BOLT EDGE DISTANCE WILL BE 1½".
3. MINIMUM SHIM THICKNESS OF ⅛" IS ALLOWED IN THE EVENT IT IS NEEDED.
4. THE CONTRACTOR SHALL SURVEY EXISTING BEAM SEAT ELEVATIONS. IF THE ELEVATIONS ARE DIFFERENT THEN THOSE PRESENTED ON SHEETS 8-10 THEN THE SHIM STACK THICKNESS SHALL BE ADJUSTED ACCORDINGLY. SURVERYED BEAM SEAT ELEVATIONS SHALL BE SUBMITTED ALONG WITH THE STRUCTURAL STEEL SHOP DRAWINGS. SHIM STACK ARRANGEMENT AT EACH BEARING SHALL BE SPECIFIED ON THE STRUCTURAL STEEL SHOP DRAWINGS.
5. THE CONTRACTOR SHALL SURVEY THE TOP OF BEAM ELEVATIONS AND SUBMIT THEM TO THE ENGINEER AS REQUIRED FOR CALCULATION OF TOP OF FORM ELEVATIONS. IF IT IS DETERMINED THAT EXISTING CAMBER IS LARGER THAN THE DEAD LOAD DEFLECTION, SHIM STACK ADJUSTMENTS WILL BE SPECIFIED BY THE ENGINEER.

PAINTING NOTES:

1. THE BEAM ENDS AND SECTIONS DIRECTLY ABOVE THE PIERS SHALL BE PAINTED TO THE LIMITS DESCRIBED BELOW, IN ACCORDANCE WITH THE MASSDOT STANDARD PROVISIONS SUBSECTION 961 MAINTENANCE OF PAINTING OF STEEL BRIDGES, ITEM 961.101 CLEAN AND PAINT (OVERCOAT) STEEL BRIDGE NO. R-04-018 (3U4), AND ITEM 961.102 CLEAN AND PAINT (OVERCOAT) STEEL BRIDGE NO. R-04-018 (3U5) AND AS AMENDED HERE. SURFACE CLEANING REQUIREMENTS FOR OVERCOATING SHALL BE DONE IN ACCORDANCE WITH SUBSECTION 961.62, WITH THE EXCEPTION FOR "CLEANING OF BEARING AREAS" SHALL BE RETRACTED. ALL EXISTING STEEL TO BE PAINTED SHALL FIRST BE CLEANED IN ACCORDANCE WITH SSPC SP-1 SOLVENT CLEANING THEN SUBSEQUENTLY CLEANED IN ACCORDANCE WITH SSPC SP-3 POWER TOOL CLEANING OR SSPC SP-14 INDUSTRIAL BLAST CLEANING.
2. THE LENGTH OF BEAM TO BE PAINTED IS DEFINED AS FOLLOWS: 5'-0" FROM THE END OF THE BEAM AT EACH ABUTMENT AND A LENGTH OF 5'-0" CENTERED OVER EACH PIER. TOTAL LENGTH EQUALS 20'-0". THE AREA OF EACH BEAM TO BE PAINTED IS EQUAL TO THE PERIMETER MULTIPLIED BY 20'-0". STEEL END DIAPHRAGMS AT EACH ABUTMENT WILL ALSO BE PAINTED.
3. SPOT COATING IS REQUIRED AT CONSTRUCTION LOCATIONS INCLUDING BUT NOT LIMITED TO THE CUT ENDS OF DIAPHRAGMS IN STAGE CONSTRUCTION BAY, AT WELD REPAIRS, AND AT PROPOSED CONNECTION PLATES, STIFFENERS AND NEW DIAPHRAGMS. SPOT COATING MAY BE REQUIRED AT TEMPORARY SUPPORTS FOR BRIDGE DECK. SPOT COATING SHALL BE DONE IN ACCORDANCE WITH STANDARD SPECIFICATION SECTION 961.64. SPOT CLEANING SHALL BE DONE IN ACCORDANCE WITH 961.62. SPOT CLEANING AND COATING ARE CONSIDERED INCIDENTAL TO THE CONSTRUCTION WORK IT IS ASSOCIATED WITH.

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BEARINGS

I-195 EASTBOUND (IN INCHES)								
BEAM#	S9	S10	S11	S12	S13	S14	S15	S16
SHIM STACK THICKNESS "X" AT WEST ABUTMENT								
"X"	0.875	0.750	0.625	0.750	0.875	0.875	1.000	1.000
SHIM STACK THICKNESS "X" AT PIER 3								
"X"	2.875	2.750	2.625	2.750	2.875	2.875	3.000	3.000
SHIM STACK THICKNESS "X" AT PIER 4								
"X"	3.250	3.125	3.000	3.125	3.250	3.250	3.375	3.375
SHIM STACK THICKNESS "X" AT EAST ABUTMENT								
"X"	3.750	3.625	3.500	3.625	3.750	3.750	3.875	3.875

I-195 WESTBOUND (IN INCHES)								
BEAM#	S1	S2	S3	S4	S5	S6	S7	S8
SHIM STACK THICKNESS "X" AT WEST ABUTMENT								
"X"	0.250	0.125	0.125	0.000	0.000	0.000	0.000	0.000
SHIM STACK THICKNESS "X" AT PIER 1								
"X"	2.250	2.125	2.125	2.000	1.875	1.875	2.000	2.000
SHIM STACK THICKNESS "X" AT PIER 2								
"X"	2.625	2.500	2.500	2.375	2.250	2.250	2.250	2.375
SHIM STACK THICKNESS "X" AT EAST ABUTMENT								
"X"	3.125	3.000	3.000	2.875	2.750	2.750	2.750	2.875

SHIM STACK THICKNESS

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(3U4)
(3U5)

DATE	DESCRIPTION
AUGUST 8, 2026	ISSUED FOR CONSTRUCTION
THIS SHEET IS APPROVED FOR CONSTRUCTION BY MASSDOT AUTHORIZED SIGNATORY:	STATE BRIDGE ENGINEER
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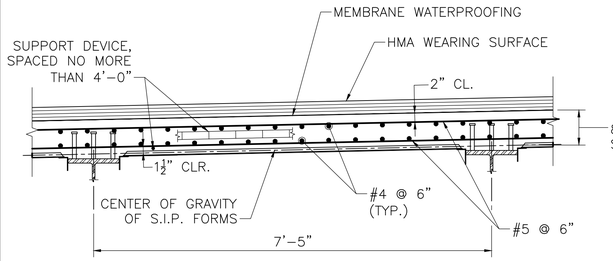
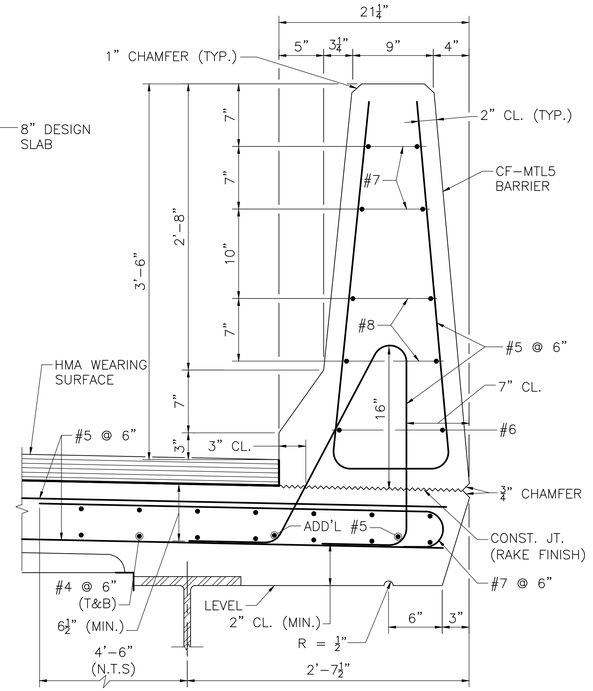


TYPICAL DECK REINFORCEMENT

SCALE: ¾" = 1'–0"

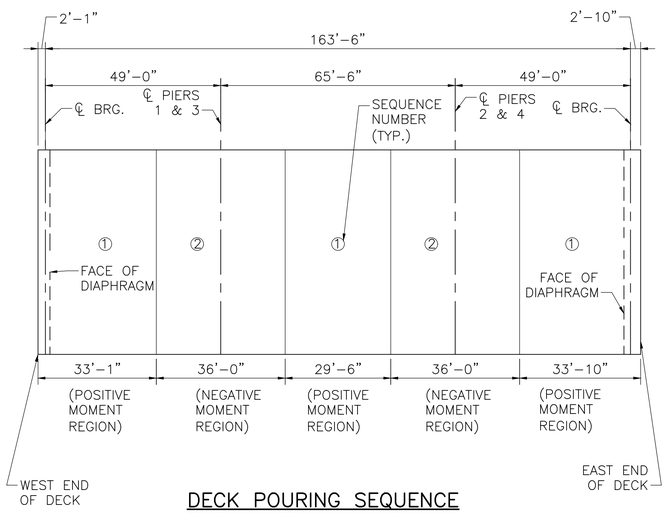
NOTES:

1. LONGITUDINAL REINFORCEMENT SHALL BE PLACED PARALLEL TO THE ℄ OF CONSTRUCTION. TRANSVERSE (PRIMARY) REINFORCEMENT SHALL BE PLACED PERPENDICULAR TO THE ℄ OF CONSTRUCTION.
2. ALL REINFORCEMENT AND SUPPORT DEVICES SHALL BE COATED.
3. THE FINISHED SURFACE OF BRIDGE DECK SHALL BE SMOOTH AND WITHOUT ANY PROJECTIONS THAT COULD PUNCTURE THE MEMBRANE WATERPROOFING OR DEPRESSIONS THAT COULD RETAIN WATER.
4. REINFORCING STEEL SHALL BE EPOXY COATED AND CONFORM TO THE REQUIREMENTS OF AASHTO M31 GRADE 60 (ASTM A615)
5. SEE TYPICAL SECTION AT PIER FOR ADDITIONAL TOP MAT REINFORCEMENT OVER PIER.



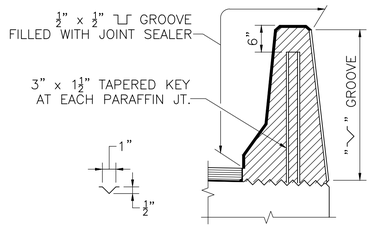
SECTION THRU BARRIER AND OVERHANG

SCALE: 1½" = 1'–0"



DECK POURING SEQUENCE FOR CONTINUOUS SPAN

SCALE: 1" = 20'–0"

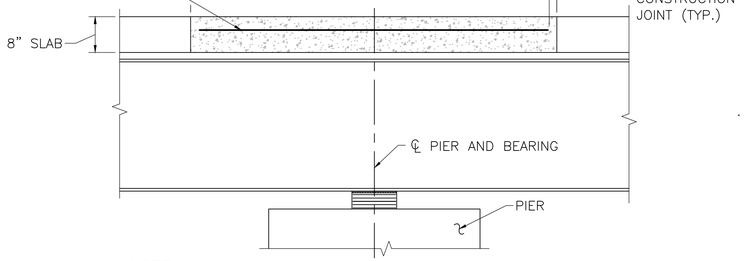


PARAFFIN JOINT NOTES:

1. ALL CONCRETE ABOVE SLAB SHALL BE PLACED IN ALTERNATING SECTIONS WITH NOT LESS THAN 3 DAYS BETWEEN PLACEMENT.
2. DO NOT CARRY LONGITUDINAL BARS THROUGH THE PARAFFIN JOINTS. END THE REINFORCEMENT 2" CLEAR OF JOINT.
3. JOINT SHALL BE SQUARE TO FACE OF CURB

PARAFFIN JOINT DETAILS

SCALE: ¾" = 1'–0"

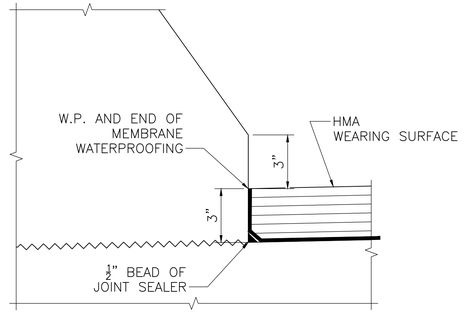


NOTE:

DECK STEEL OMITTED FOR CLARITY.

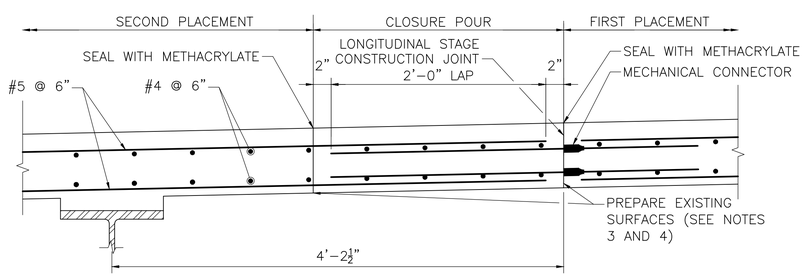
TYPICAL SECTION AT PIER

NOT TO SCALE



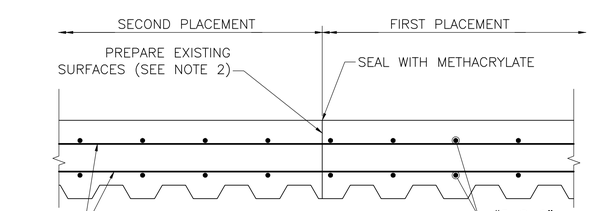
FACE OF BARRIER DETAILS

SCALE: 3" = 1'–0"



LONGITUDINAL CONSTRUCTION JOINT DETAIL IN DECK SLAB

SCALE: 1½" = 1'–0"



TRANSVERSE CONSTRUCTION JOINT DETAIL IN DECK SLAB

SCALE: 1½" = 1'–0"

REHOBOTH
INTERSTATE 195 OVER PALMER RIVER

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
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	PROJECT FILE NO. 613106		

DECK DETAILS I

CONSTRUCTION JOINT NOTES:

1. BRIDGE DECK SLAB SHALL BE PLACED IN ACCORDANCE WITH THE PLACEMENT SEQUENCE SHOWN ON THE CONSTRUCTION DRAWINGS.
2. THE CONTRACTOR MAY PLACE THE ENTIRE DECK IN ONE CONTINUOUS OPERATION WITHOUT CONSTRUCTION JOINTS WITH THE APPROVAL OF THE ENGINEER, PROVIDED THAT THE INITIAL SET (Fc = 500 PSI) OF ALL CONCRETE DOES NOT OCCUR UNTIL AFTER THE COMPLETION OF THE PLACEMENT. AN APPROVED RETARDER SHALL BE USED, WHEN NECESSARY, TO RETAIN THE WORKABILITY OF THE CONCRETE. IF MULTIPLE PLACEMENTS ARE MADE, A MINIMUM OF 72 HOURS SHALL PASS BETWEEN PLACEMENTS.
3. THE SURFACE OF THE PREVIOUSLY CAST CONCRETE SHALL BE BLAST CLEANED, ROUGHENED, WETTED WITH CLEAN WATER, AND THEN FLUSHED WITH A MORTAR COMPOSED OF EQUAL PARTS OF THE CEMENT AND SAND SPECIFIED FOR THE NEW CONCRETE, BEFORE NEW CONCRETE IS PLACED ADJACENT THERETO. NEW CONCRETE SHALL BE PLACED BEFORE MORTAR HAS TAKEN INITIAL SET.
4. IN LIEU OF THE MORTAR, AN EPOXY ADHESIVE SUITABLE FOR BONDING FRESH CONCRETE TO HARDENED CONCRETE FOR LOAD BEARING APPLICATIONS MAY BE USED. THE EPOXY ADHESIVE SHALL CONFORM TO AASHTO M 235 TYPE V AND SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
5. THE CONTRACTOR MAY SUBMIT A PROPOSAL DETAILING THE ELIMINATION OF THE CLOSURE POUR FOR THE APPROVAL OF THE ENGINEER. THE PROPOSAL SHALL DETAIL THE CONTRACTOR'S MEANS AND METHODS FOR ACCURATELY CONSTRUCTING THE DECK SLAB TO THE LINES, GRADES, AND THICKNESS SHOW ON THE CONSTRUCTION DRAWINGS WITHOUT LEAKAGE OF CONCRETE.
6. MECHANICAL CONNECTORS SHALL BE USED AT THE LONGITUDINAL STAGE CONSTRUCTION JOINT.

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(3U5)

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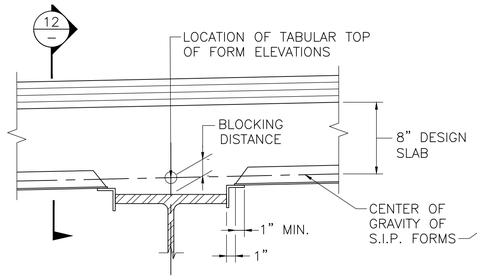
TOP OF FORM ELEVATIONS FOR DECK SLAB PRIOR TO PLACEMENT OF CONCRETE

INCREASING STATIONS →

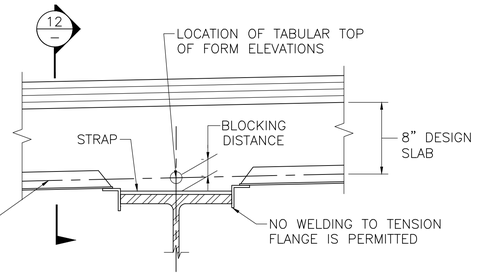
BEAM NO.	℄ BRG.	0.1 PT.	0.2 PT.	0.3 PT.	0.4 PT.	0.5 PT.	0.6 PT.	0.7 PT.	0.8 PT.	0.9 PT.	℄ PIER	0.1 PT.	0.2 PT.	0.3 PT.	0.4 PT.	0.5 PT.	0.6 PT.	0.7 PT.	0.8 PT.	0.9 PT.	℄ PIER	0.1 PT.	0.2 PT.	0.3 PT.	0.4 PT.	0.5 PT.	0.6 PT.	0.7 PT.	0.8 PT.	0.9 PT.	℄ BRG.
S1																														
S2																														
S3																														
S4																														
S5																														
S6																														
S7																														
S8																														
S9																														
S10																														
S11																														
S12																														
S13																														
S14																														
S15																														
S16																														

NOTE:

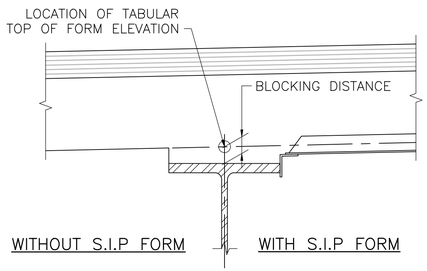
AFTER COMPLETE REMOVAL OF THE CONCRETE DECK, ELEVATIONS ON THE TOP FLANGE OF ALL BEAMS AT THE TENTH POINTS SHALL BE OBTAINED. THESE ELEVATIONS WILL BE SUPPLIED TO THE ENGINEER IN TABLE A1 OF ITEM 992.1 IN THE SPECIAL PROVISIONS. THE TOP OF FORM ELEVATIONS WILL BE CONFIRMED BY THE ENGINEER AND PROVIDED BASED ON THE TOP OF BEAM ELEVATIONS. THE DIFFERENCE BETWEEN ELEVATIONS OBTAINED AND THOSE PROVIDED BY THE ENGINEER GIVES THE ACTUAL BLOCKING DISTANCE FROM THE TOP OF BEAM TO THE BOTTOM OF SLAB AT CENTER LINE OF THE BEAM.



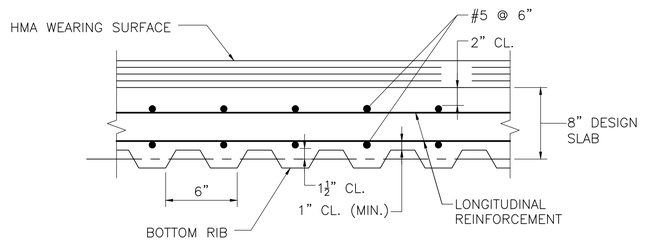
HAUNCH DETAIL AT NON–TENSION FLANGE AREA



HAUNCH DETAIL AT TENSION FLANGE AREA



HAUNCH DETAIL



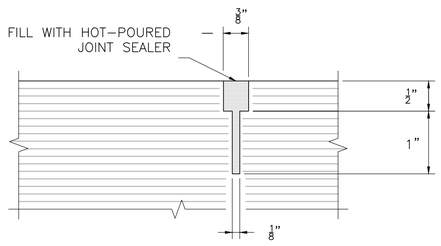
SECTION 12 / —

STAY–IN–PLACE FORM DETAILS

NOT TO SCALE

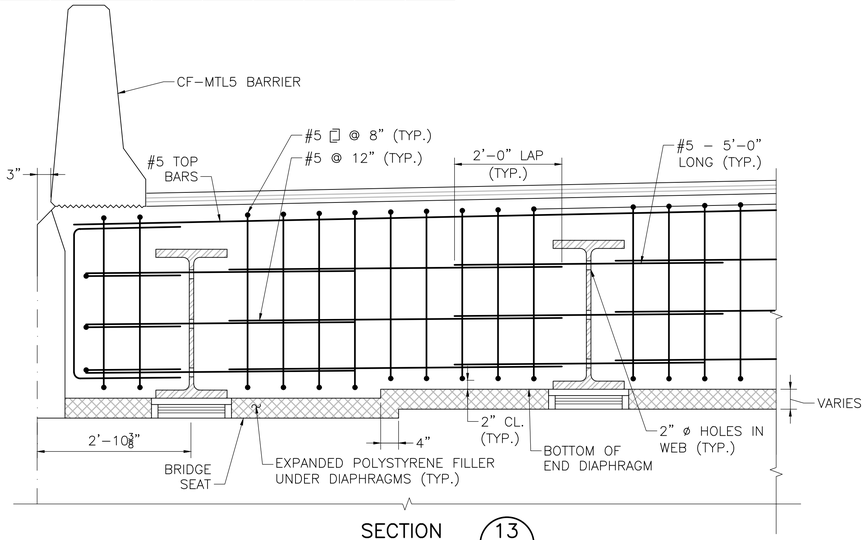
S.I.P FORM NOTES:

1. FOR 2" S.I.P. FORM, SET BOTTOM OF FORM 1" BELOW ELEVATION GIVEN IN TABLE. FOR 3" S.I.P. FORM, SET BOTTOM OF FORM 1½" BELOW TABLE ELEVATIONS.
2. FORM ENDS SHALL BE CRIMPED CLOSED IN A TAPERED MANNER. SEPARATE END CLOSURE PIECES WILL NOT BE ALLOWED.
3. SUPPORT ANGLES SHALL BE PLACED IN THE "LEG DOWN" POSITION WHERE POSSIBLE. WHERE "LEG UP" POSITION IS NECESSARY, THE UPPER MOST PORTION OF THE ANGLE SHALL NOT PROJECT MORE THAN 1" ABOVE THE TOP FLANGE OR COVER PLATE. THE CONTRACTOR SHALL HAVE AN ASSORTMENT OF ANGLES OF VARIOUS SIZES AVAILABLE ON THE SITE TO CONFORM TO THIS REQUIREMENT.
4. ALL MAIN STEEL REINFORCEMENT IN THE LOWER MAT SHALL BE CENTERED OVER THE VALLEY OF THE S.I.P. FORM.
5. CONTRACTOR SHALL DESIGN AND DETAIL ALL ELEMENTS OF THE FORMING SYSTEM AND SHALL SUBMIT IT TO THE ENGINEER FOR APPROVAL.
6. IN CASES WHERE STANDARD 2" OR 3" DEEP S.I.P. FORMS DO NOT SATISFY DESIGN REQUIREMENTS AN ALTERNATIVE FORMING SYSTEM CONSISTING OF DEEPER S.I.P. FORMS OR REMOVABLE FORMS SHALL BE DESIGNED AND DETAILED BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER FOR APPROVAL. THE DESIGN THICKNESS OF THE SLAB SHALL NOT BE REDUCED.



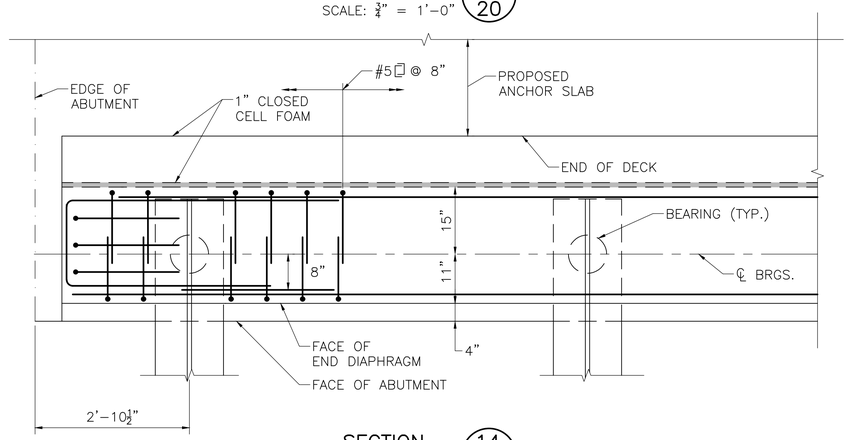
PAVEMENT SAWCUT DETAIL

NOT TO SCALE



SECTION 13 / 20

SCALE: ¾" = 1'–0"



SECTION 14 / 20

SCALE: ¾" = 1'–0"

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(3U4)
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REHOBOTH
INTERSTATE 195 OVER PALMER RIVER

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(BR)-003S(988)X	39	54
	PROJECT FILE NO. 613106		

DECK DETAILS II

AUGUST 8, 2026	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION

THIS SHEET IS APPROVED FOR CONSTRUCTION BY MASSDOT
AUTHORIZED SIGNATORY: STATE BRIDGE ENGINEER
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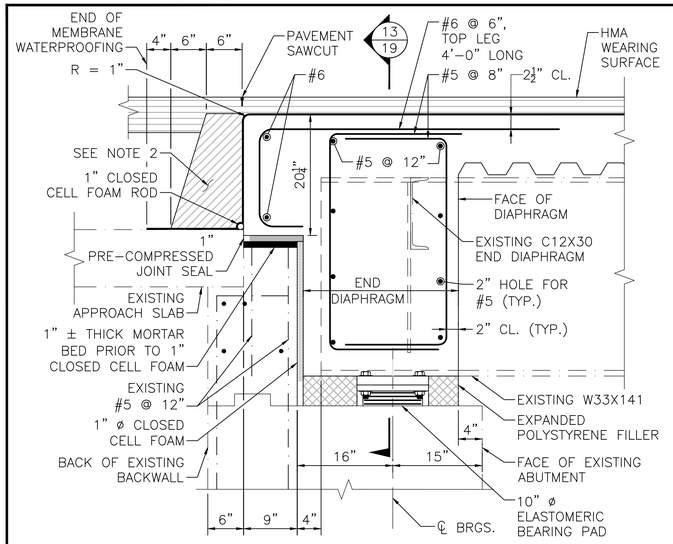
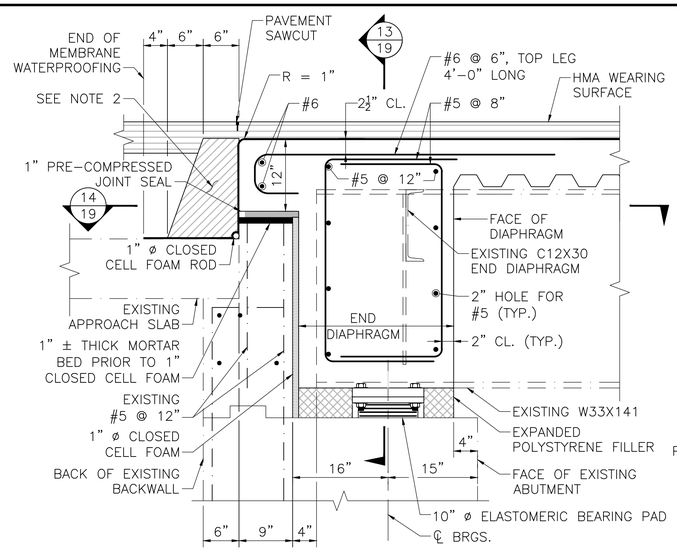
DECK DETAILS II.DWG Plotted on 7-Aug-2026 6:40 AM

Final Structural Submittal (SF) 10-June-2026



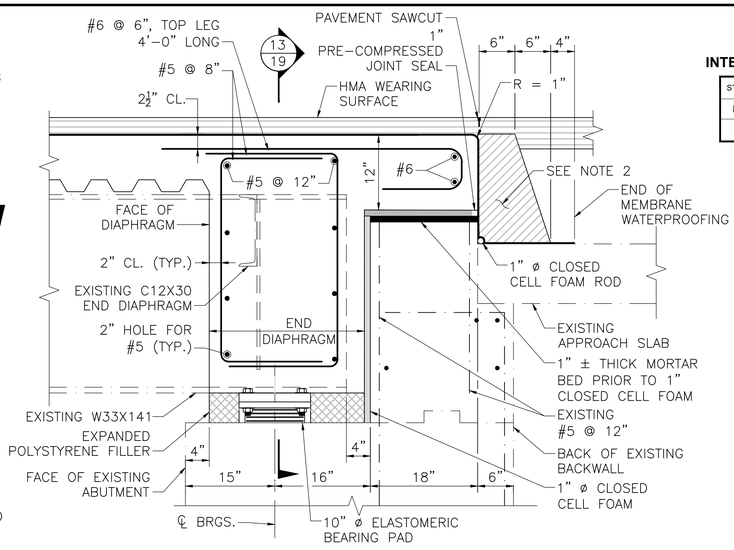
I–195 WESTBOUND – ROADWAY SECTION AT WEST ABUTMENT APPROACH SLAB

SCALE: 1" = 1'–0"



I–195 EASTBOUND – ROADWAY SECTION AT WEST ABUTMENT APPROACH SLAB

SCALE: 1" = 1'–0"



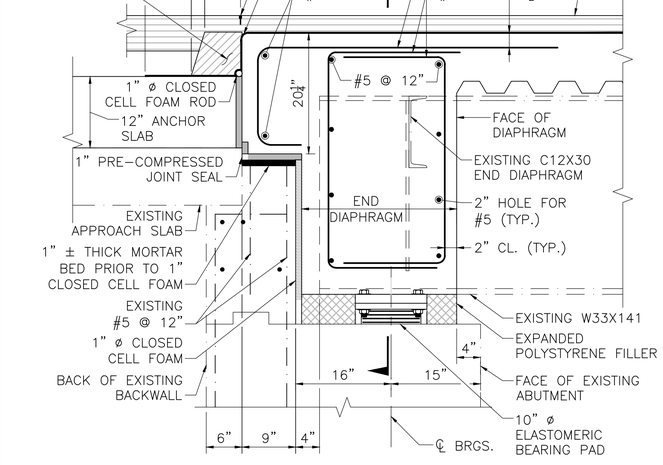
I–195 EB & WB – ROADWAY SECTION AT EAST ABUTMENT APPROACH SLAB

SCALE: 1" = 1'–0"

REHOBOTH
INTERSTATE 195 OVER PALMER RIVER

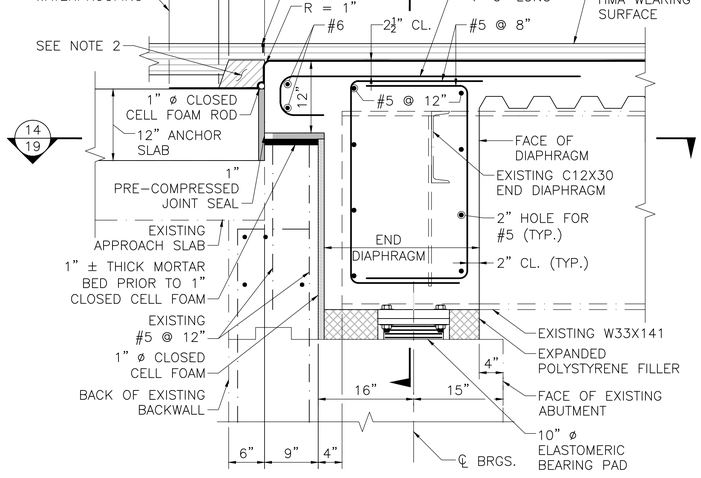
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(BR)-003S(988)X	40	54
	PROJECT FILE NO. 613106		

END DIAPHRAGMS



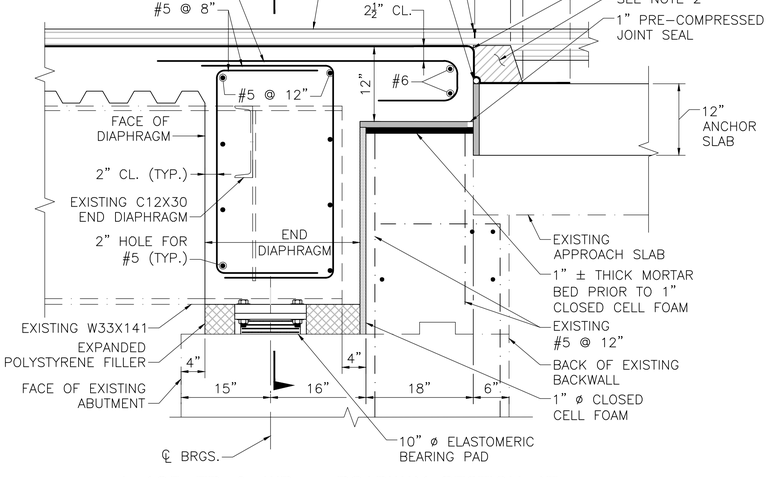
I–195 WESTBOUND – ROADWAY SECTION AT WEST ABUTMENT ANCHOR SLABS

SCALE: 1" = 1'–0"



I–195 EASTBOUND – ROADWAY SECTION AT WEST ABUTMENT ANCHOR SLABS

SCALE: 1" = 1'–0"



I–195 EB & WB – ROADWAY SECTION AT EAST ABUTMENT ANCHOR SLABS

SCALE: 1" = 1'–0"

SECTION NOTES:

1. ALL REINFORCEMENT SHALL BE COATED.
2. HMA PROTECTIVE BERM TO BE SUPERPAVE BRIDGE PROTECTIVE COARSE (SPC–B–12.5), PLACED IN 2" LAYERS AND COMPACTED WITH A MECHANICAL HAND–GUIDED TAMPER.
3. THE BACKWALL AND KEEPER BLOCKS CONCRETE MUST BE PLACED AND SUFFICIENTLY CURED PRIOR TO PLACING THE END DIAPHRAGM CONCRETE.
4. PRIOR TO PLACING END DIAPHRAGM CONCRETE, CLOSED CELL FOAM OF THE SPECIFIED THICKNESS SHALL BE ATTACHED WITH ADHESIVE TO ALL SURFACES OF THE BACKWALL AND KEEPER BLOCKS AS SHOWN ON THE CONSTRUCTION DRAWINGS. THE BOTTOM OF THE END DIAPHRAGM SHALL BE FORMED BY PLACING EXPANDED POLYSTYRENE FILLER OF THE REQUIRED THICKNESS ON THE BRIDGE SEAT AND TUCKING IT UNDER THE BEAM BOTTOM FLANGES. THE CONTRACTOR SHALL MAKE SURE THAT THE CLOSED CELL FOAM AND EXPANDED POLYSTYRENE FILLER HAVE BEEN PROPERLY AND SECURELY INSTALLED SO THAT THE END DIAPHRAGM CONCRETE SHALL NOT COME IN DIRECT CONTACT WITH THE ABUTMENT CONCRETE.
5. DECK SLAB REINFORCEMENT NOT SHOWN FOR CLARITY.

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(3U4)
(3U5)

AUGUST 8, 2026	ISSUED FOR CONSTRUCTION
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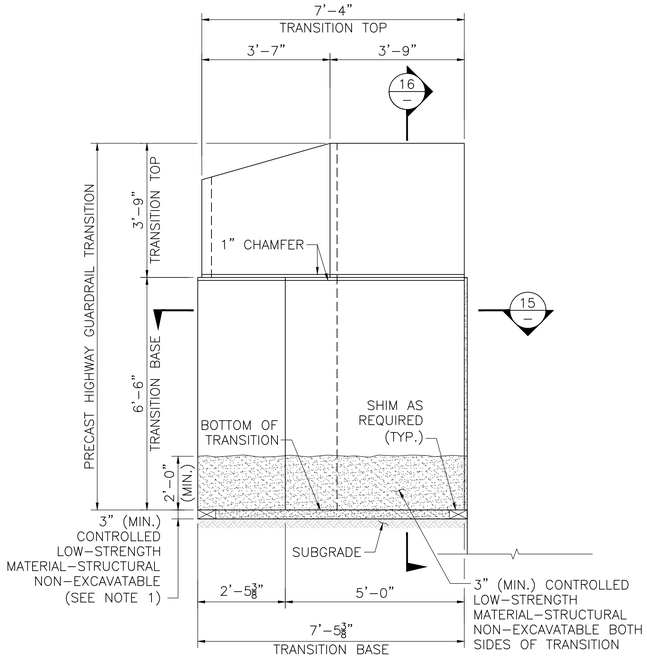
USE ONLY PRINTS OF LATEST DATE

END DIAPHRAGM.DWG Plotted on 7-Aug-2026 6:40 AM
Final Structural Submittal (SF) 10-June-2026

REHOBOTH
INTERSTATE 195 OVER PALMER RIVER

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(BR)-003S(988)X	41	54
	PROJECT FILE NO. 613106		

PRECAST HIGHWAY GUARDRAIL TRANSITION

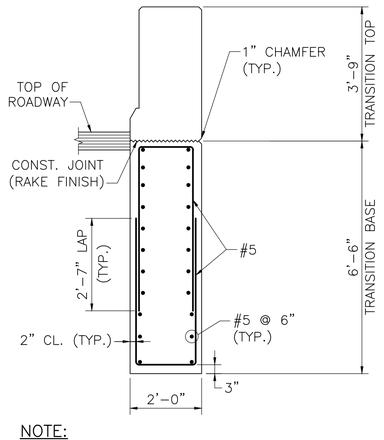


NOTES:

1. GRAVEL BORROW SHALL BE PLACED AND THOROUGHLY COMPACTED TO THE GRADE OF 3" (MIN.) BELOW THE INTENDED BOTTOM OF THE GUARDRAIL TRANSITION BASE AND TO A HEIGHT OF 2'-0" (MIN.) ON ALL SIDES OF THE TRANSITION BASE TO FORM A TRENCH IN WHICH TO SET THE TRANSITION.
2. CONTRACTOR SHALL SET THE PRECAST GUARDRAIL TRANSITION TO THE REQUIRED ELEVATION AND ALIGNMENT, AND BACKFILL GUARDRAIL TRANSITION WITH CONTROLLED LOW-STRENGTH MATERIAL – NON-EXCAVATABLE TO THE ELEVATION SHOWN.

PRECAST GUARDRAIL TRANSITION ELEVATION AT U-WINGWALL

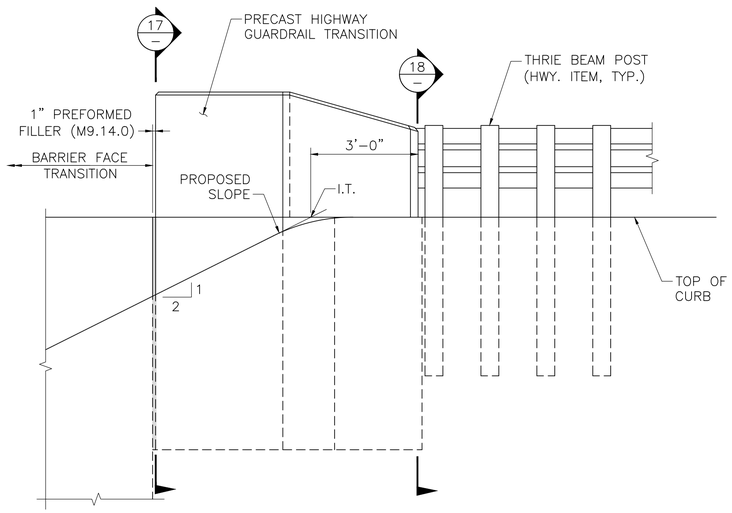
SCALE: ½" = 1'-0"



NOTE:
REINFORCEMENT OF THE TRANSITION TOP IS NOT SHOWN FOR CLARITY.

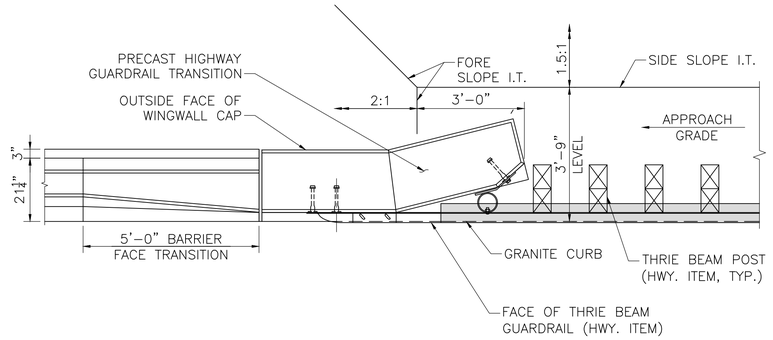
SECTION 16

SCALE: ½" = 1'-0"



GRADING REQUIREMENTS ELEVATION

SCALE: ½" = 1'-0"



GRADING REQUIREMENTS PLAN

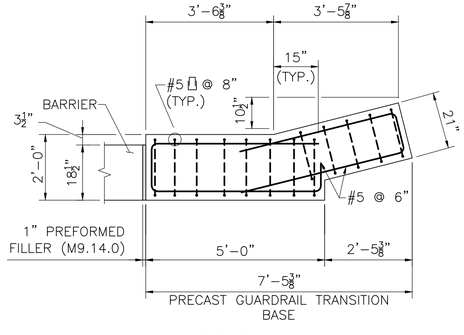
SCALE: ½" = 1'-0"

SECTION 17

SCALE: ⅜" = 1'-0"

SECTION 18

SCALE: ⅜" = 1'-0"



SECTION 15

SCALE: ½" = 1'-0"

AUGUST 8, 2026	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION

THIS SHEET IS APPROVED FOR CONSTRUCTION BY MASSDOT
AUTHORIZED SIGNATORY: STATE BRIDGE ENGINEER
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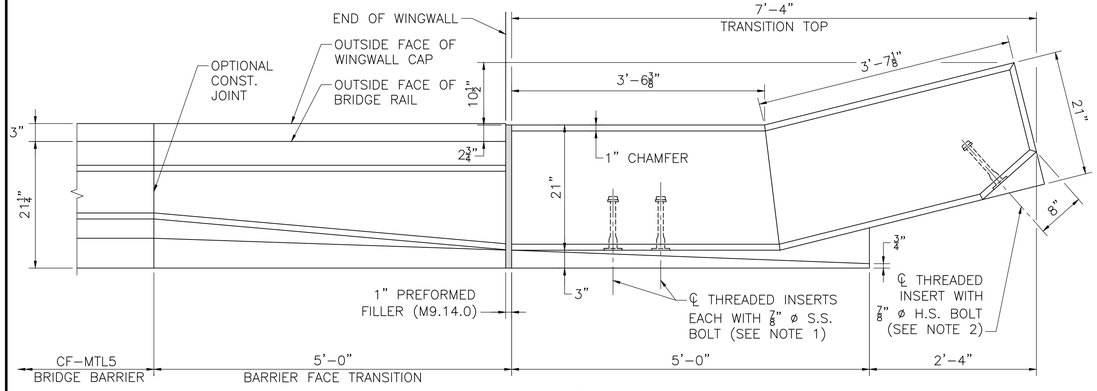
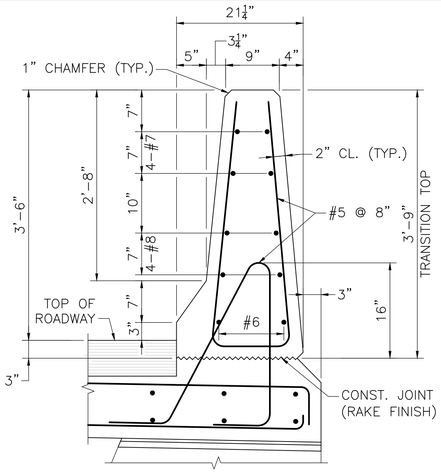
(3U4)
(3U5)



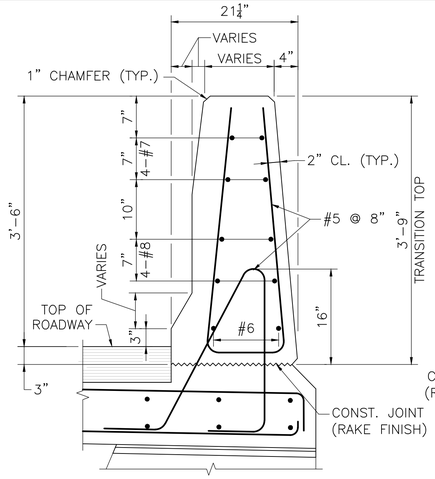
PLAN

SCALE: 1" = 1'-0"



SECTION 20 —

SCALE: 1" = 1'-0"



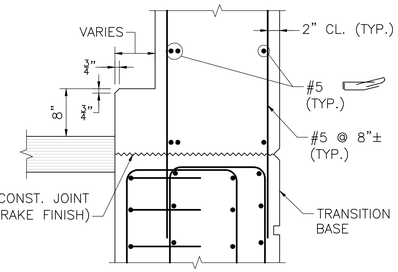
SECTION 21 —

SCALE: 1" = 1'-0"

REHOBOTH
INTERSTATE 195 OVER PALMER RIVER

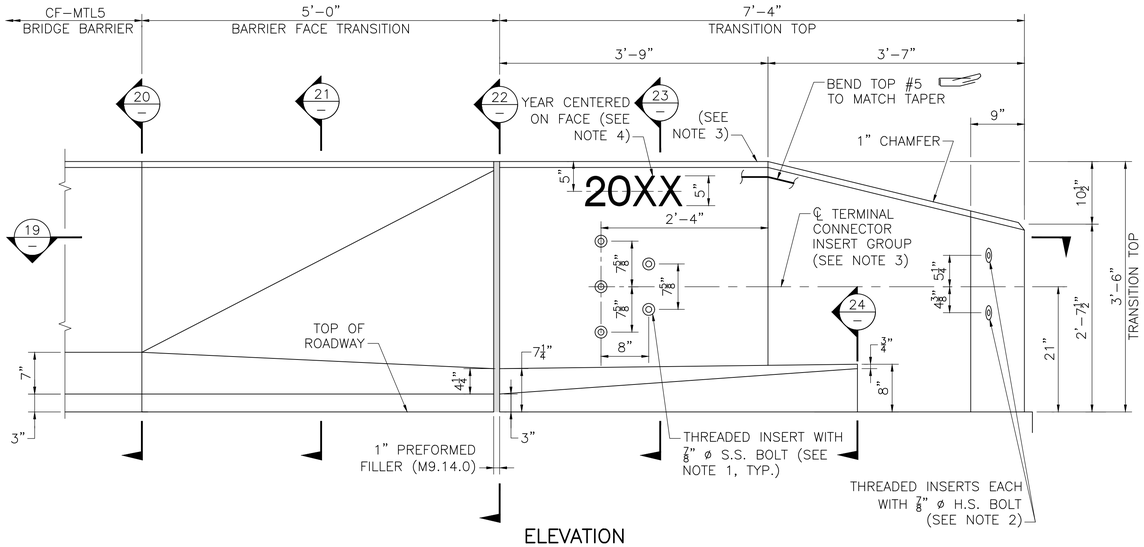
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(BR)-003S(988)X	42	54
	PROJECT FILE NO. 613106		

TOP OF PRECAST HIGHWAY GUARDRAIL TRANSITITON FOR CF-MTL5 BARRIER



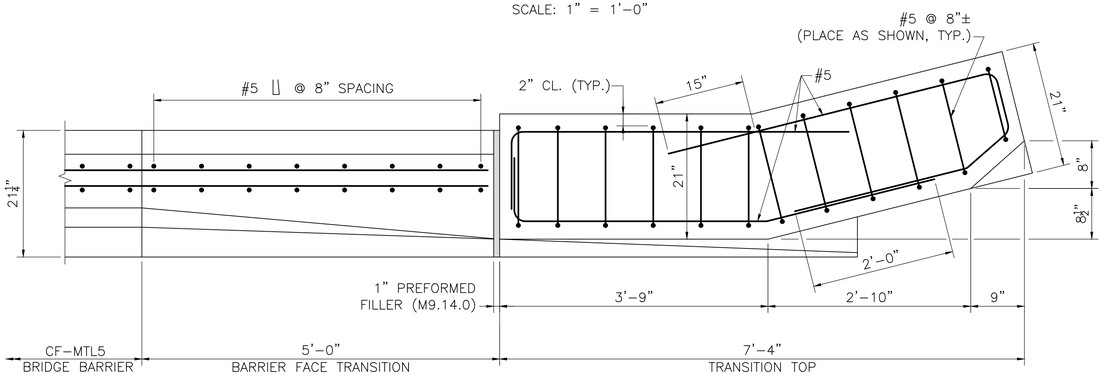
SECTION 24 —

SCALE: 1" = 1'-0"



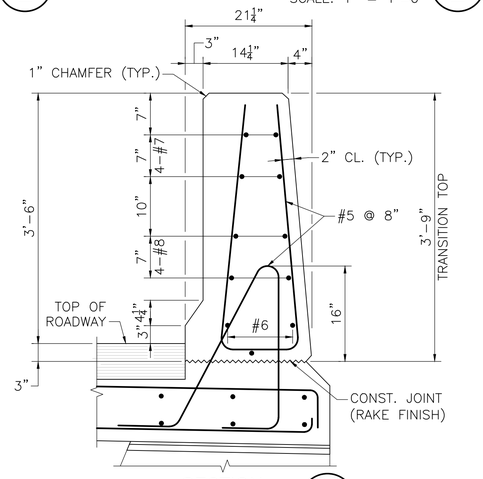
ELEVATION

SCALE: 1" = 1'-0"



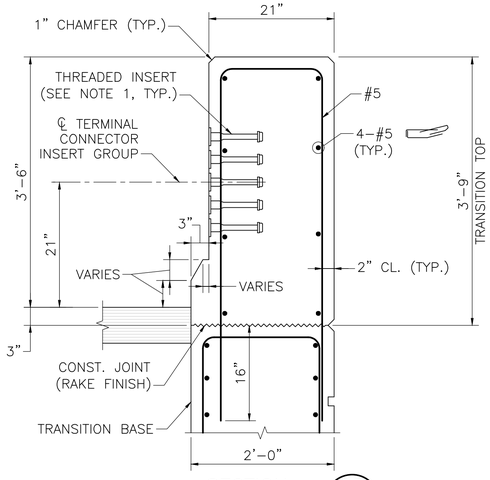
SECTION 19 —

SCALE: 1" = 1'-0"



SECTION 22 —

SCALE: 1" = 1'-0"



SECTION 23 —

SCALE: 1" = 1'-0"

NOTES:

1. THREADED INSERTS SHALL BE PREQUALIFIED BY THE MANUFACTURER AS BEING CAPABLE OF DEVELOPING A NOMINAL SHEAR RESISTANCE OF 20 KIPS PER ⅞" ø S.S. (STAINLESS STEEL) BOLT. S.S. BOLTS SHALL BE ⅞" ø x 1½" LONG FULLY THREADED CONFORMING TO ASTM F593D WITH AISI TYPE 304N S.S. WASHERS. INSERTS FOR ⅞" S.S. BOLTS SHALL BE GALVANIZED AND CAST INTO THE TRANSITION.
2. ⅞" ø HIGH STRENGTH BOLTS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F3125 GRADE 325 TYPE 1 GALVANIZED. USE ADDITIONAL WASHERS AS REQUIRED TO PROPERLY ENGAGE THE BOLTS.
3. FOR AN APPROACH GRADE IN EXCESS OF 3%, THE TRANSITION TOP AND THE TOP OF THE BRIDGE BARRIERS SHALL FOLLOW THE APPROACH GRADE. THE HEIGHT OF THE TRANSITION TOP SHALL VARY PROVIDED THAT THE MINIMUM DIMENSIONS SHOWN ON THE CONSTRUCTION DRAWINGS ARE MET. THE BOTTOM OF THE TRANSITION BASE SHALL BE SET LEVEL WITH THE MINIMUM EMBEDMENT DEPTH SHOWN. THE TERMINAL CONNECTOR INSERT GROUP SHALL BE SLOPED TO FOLLOW THE APPROACH GRADE.TO PROPERLY ENGAGE THE BOLTS.

   FOR AN APPROACH GRADE UP TO 3%, THE TRANSITION MAY BE CAST SQUARE AND SET PLUMB WITH THE MINIMUM EMBEDMENT DEPTH SHOWN. THE TERMINAL CONNECTOR INSERT GROUP SHALL BE SQUARE TO THE POST.
4. USE LATEST CONTRACT COMPLETION YEAR IN EFFECT WHEN THE FIRST GUARDRAIL TRANSITION IS CAST. USE THIS YEAR FOR ALL GUARDRAIL TRANSITIONS.
5. ALL CONCRETE FOR THE PRECAST HIGHWAY GUARDRAIL TRANSITION SHALL BE 5000 HP CEMENT CONCRETE.
6. LIFTING DEVICES (NOT SHOWN), INCLUDING THEIR NUMBER AND LOCATION, SHALL BE DESIGNED AND DETAILED BY THE PRECASTER. THEY SHALL BE GALVANIZED AND SHALL BE PLACED AND RECESSED IN POCKETS TO PROVIDE 1½" CLEAR COVER TO THE FACE OF THE TRANSITION CONCRETE. THESE DEVICES SHALL BE CLEARLY SHOWN ON THE SHOP DRAWINGS ALONG WITH ALL SUPPORTING CALCULATIONS AND/OR CATALOG CUTS. ONCE THE PRECAST TRANSITION IS SET IN PLACE, THE LIFTING DEVICE POCKETS SHALL BE FILLED WITH A NON-SHRINK GROUT THAT MATCHES THE COLOR OF THE TRANSITION CONCRETE WHEN CURED AND THE FILLED POCKETS SHALL BE RUBBED WITH A CORUNDUM STONE TO BLEND OUT THE JOINTS.

*
(3U4)
(3U5)

DATE	DESCRIPTION
AUGUST 8, 2026	ISSUED FOR CONSTRUCTION

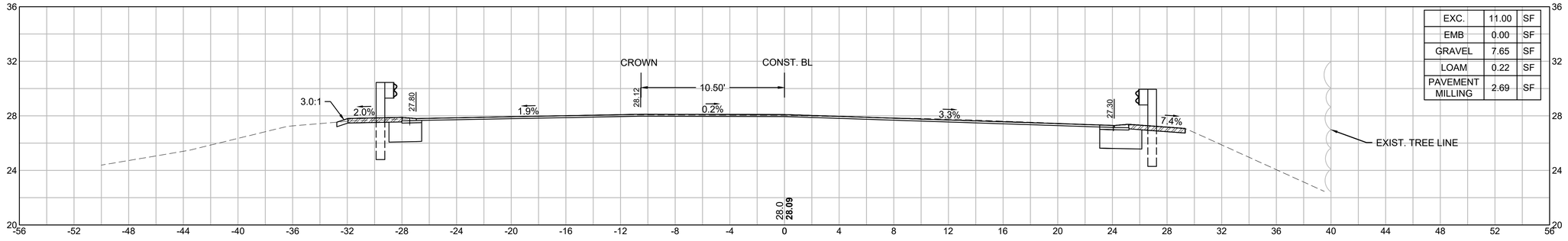
THIS SHEET IS APPROVED FOR CONSTRUCTION BY MASSDOT
AUTHORIZED SIGNATORY: STATE BRIDGE ENGINEER

USE ONLY PRINTS OF LATEST DATE

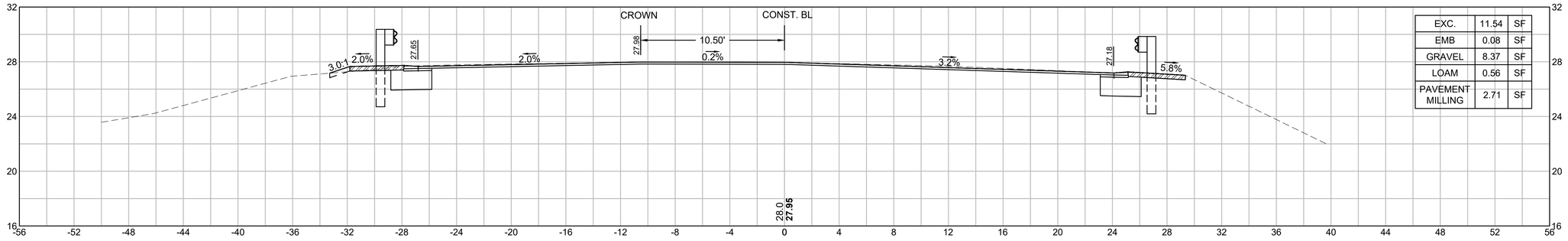
REHOBOTH
INTERSTATE 195 OVER PALMER RIVER

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(BR)-003S(988)X	43	54
	PROJECT FILE NO. 613106		

CROSS SECTIONS
I-195 EASTBOUND



439+00



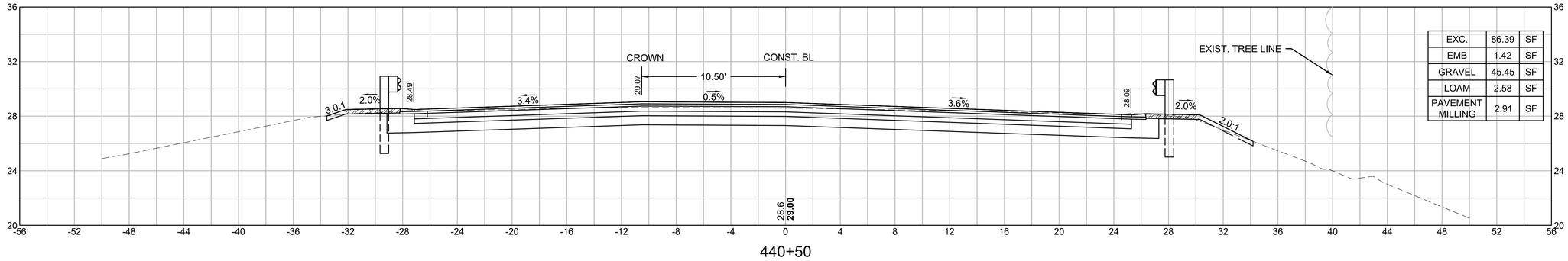
438+80

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

REHOBOTH
INTERSTATE 195 OVER PALMER RIVER

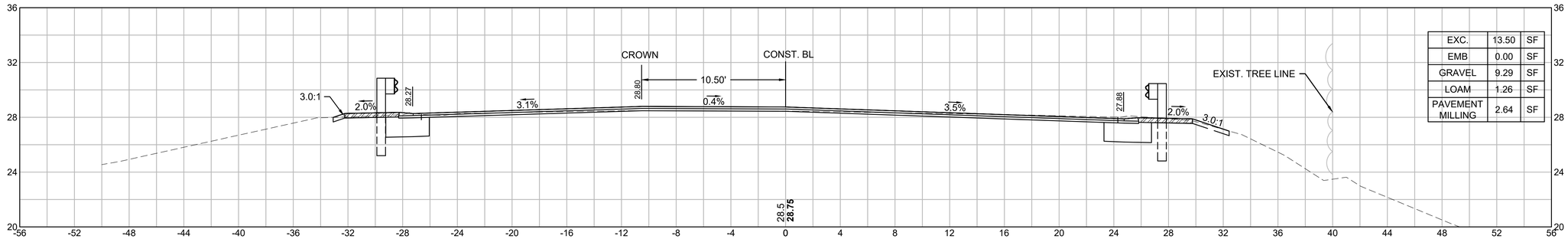
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(BR)-003S(988)X	44	54
PROJECT FILE NO.	613106		

CROSS SECTIONS
I-195 EASTBOUND



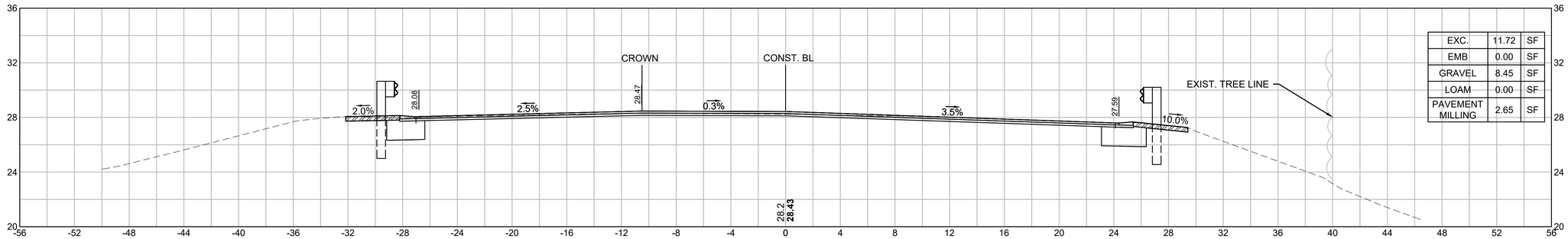
EXC.	86.39	SF
EMB	1.42	SF
GRAVEL	45.45	SF
LOAM	2.58	SF
PAVEMENT MILLING	2.91	SF

440+50



EXC.	13.50	SF
EMB	0.00	SF
GRAVEL	9.29	SF
LOAM	1.26	SF
PAVEMENT MILLING	2.64	SF

440+00



EXC.	11.72	SF
EMB	0.00	SF
GRAVEL	8.45	SF
LOAM	0.00	SF
PAVEMENT MILLING	2.65	SF

439+50

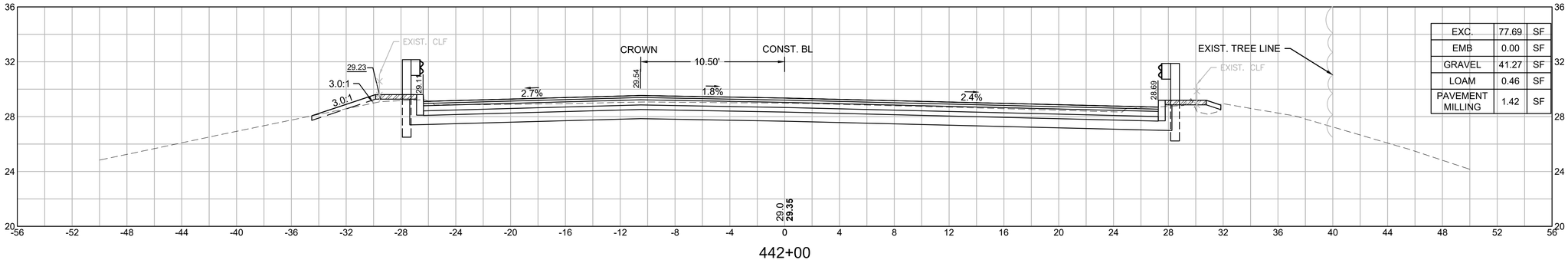
HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

REHOBOTH
INTERSTATE 195 OVER PALMER RIVER

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(BR)-003S(988)X	45	54
PROJECT FILE NO.	613106		

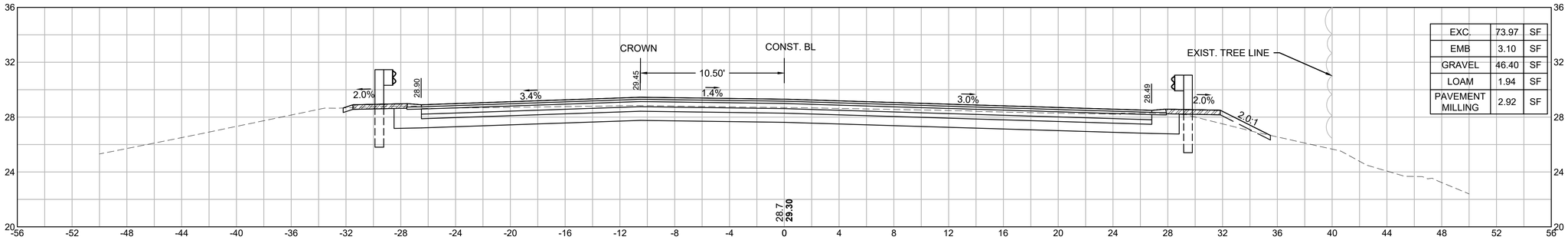
CROSS SECTIONS
I-195 EASTBOUND

WB (6).DWG Plotted on 22-Jul-2026 1:29 PM



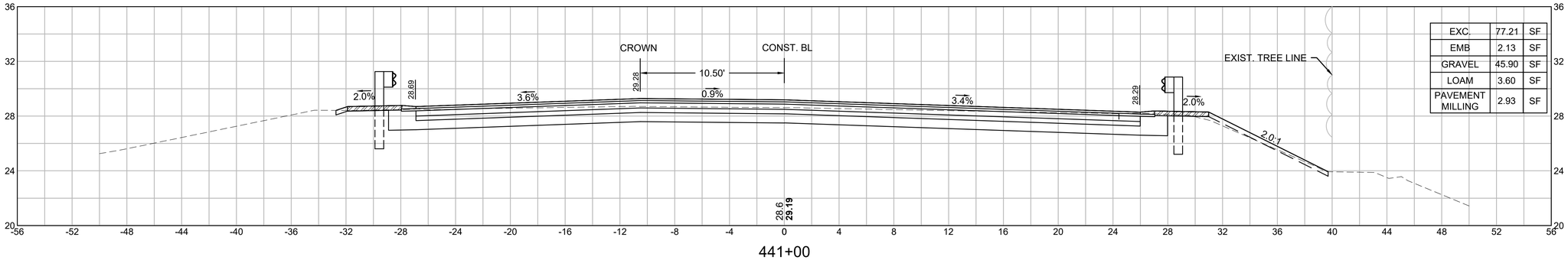
EXC.	77.69	SF
EMB	0.00	SF
GRAVEL	41.27	SF
LOAM	0.46	SF
PAVEMENT MILLING	1.42	SF

442+00



EXC.	73.97	SF
EMB	3.10	SF
GRAVEL	46.40	SF
LOAM	1.94	SF
PAVEMENT MILLING	2.92	SF

441+50



EXC.	77.21	SF
EMB	2.13	SF
GRAVEL	45.90	SF
LOAM	3.60	SF
PAVEMENT MILLING	2.93	SF

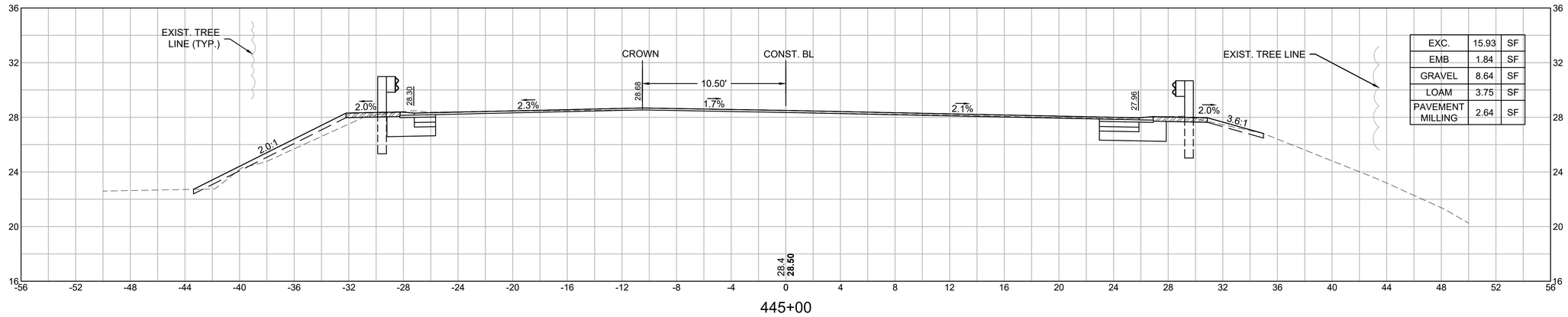
441+00

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

REHOBOTH
INTERSTATE 195 OVER PALMER RIVER

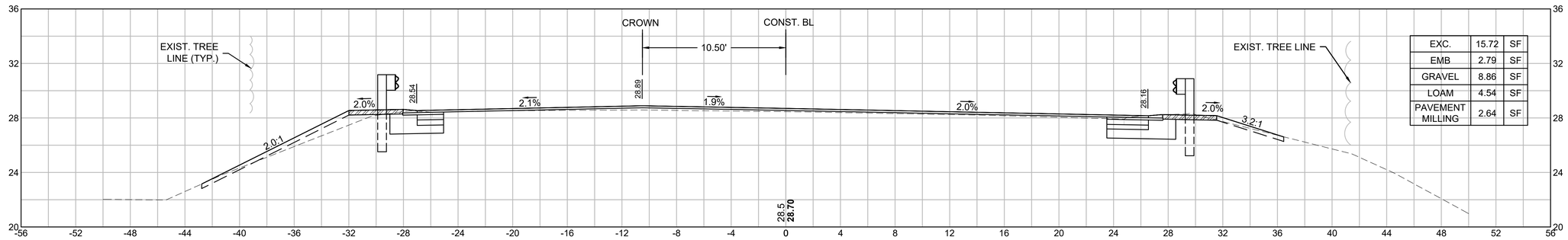
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(BR)-003S(988)X	46	54
PROJECT FILE NO.	613106		

CROSS SECTIONS
I-195 EASTBOUND



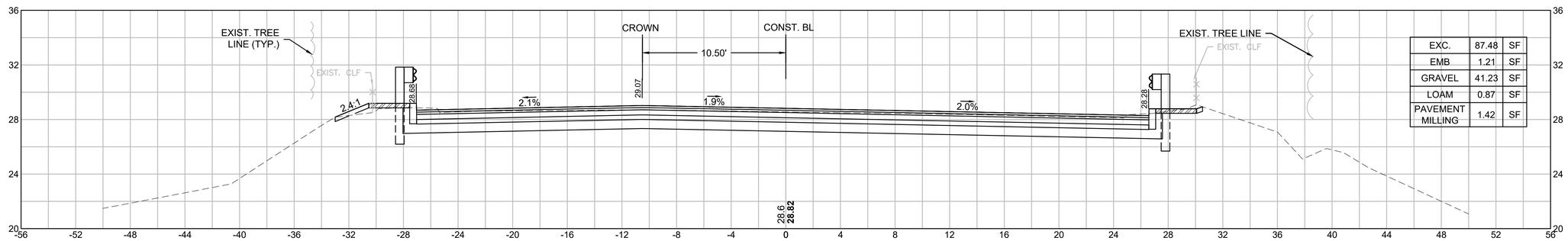
EXC.	15.93	SF
EMB	1.84	SF
GRAVEL	8.64	SF
LOAM	3.75	SF
PAVEMENT MILLING	2.64	SF

445+00



EXC.	15.72	SF
EMB	2.79	SF
GRAVEL	8.86	SF
LOAM	4.54	SF
PAVEMENT MILLING	2.64	SF

444+50



EXC.	87.48	SF
EMB	1.21	SF
GRAVEL	41.23	SF
LOAM	0.87	SF
PAVEMENT MILLING	1.42	SF

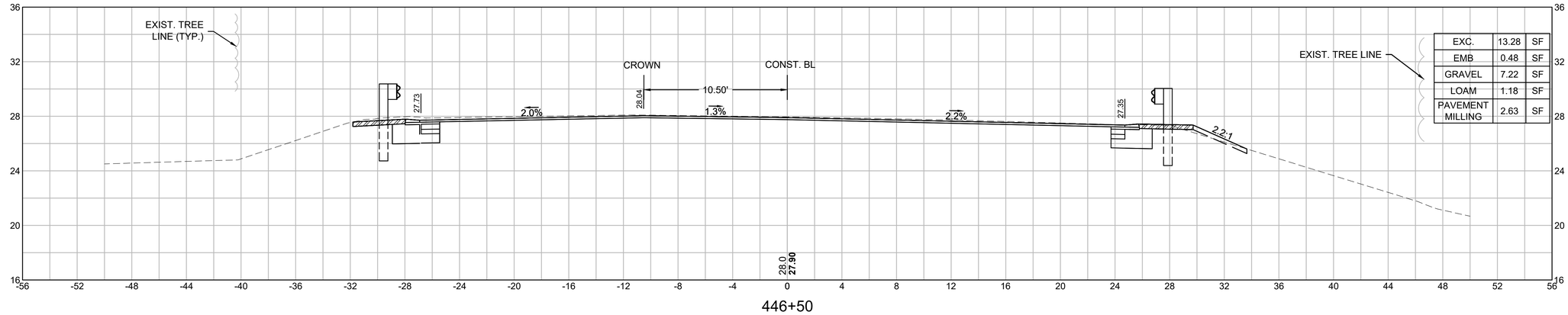
444+20

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

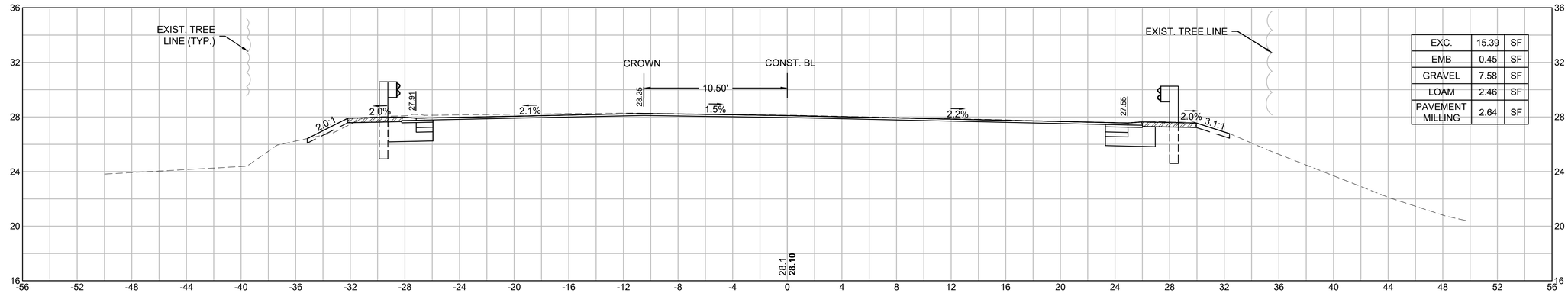
REHOBOTH
INTERSTATE 195 OVER PALMER RIVER

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(BR)-003S(988)X	47	54
PROJECT FILE NO.	613106		

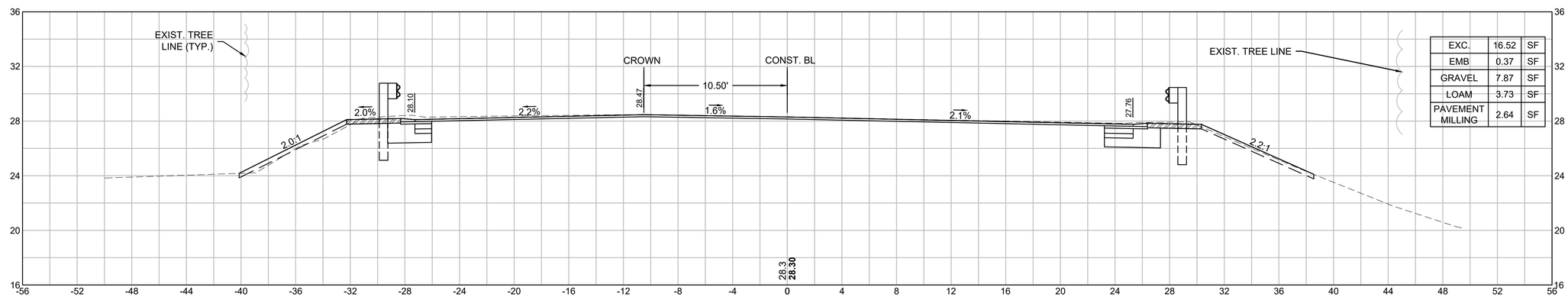
CROSS SECTIONS
I-195 EASTBOUND



446+50



446+00



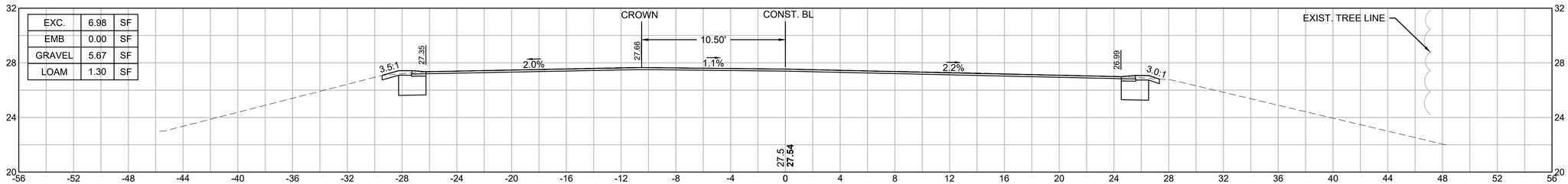
445+50

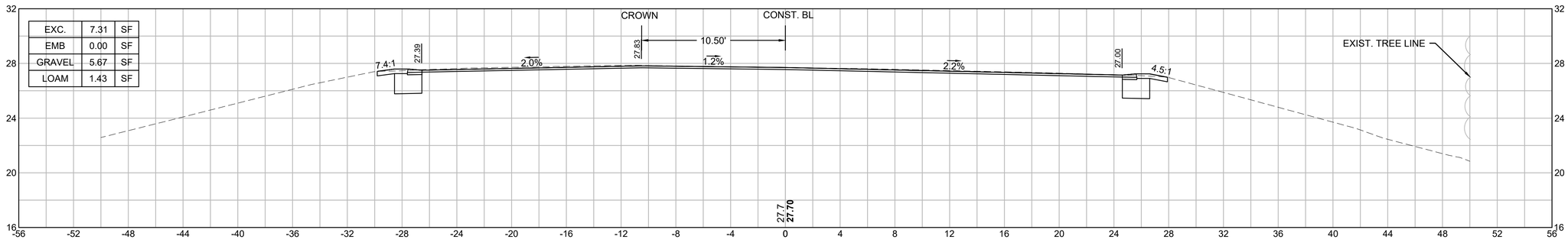
HOR. SCALE IN FEET
4 0 4 8
VER. SCALE IN FEET
4 0 4 8

REHOBOTH
INTERSTATE 195 OVER PALMER RIVER

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(BR)-003S(988)X	48	54
PROJECT FILE NO.	613106		

CROSS SECTIONS
I-195 EASTBOUND



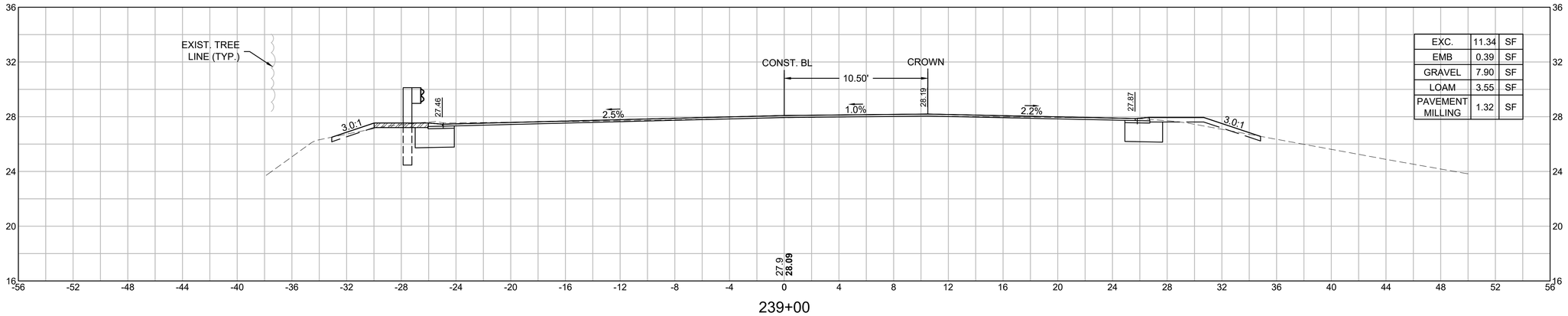


HOR. SCALE IN FEET
4 0 4 8
4 0 4 8
VER. SCALE IN FEET

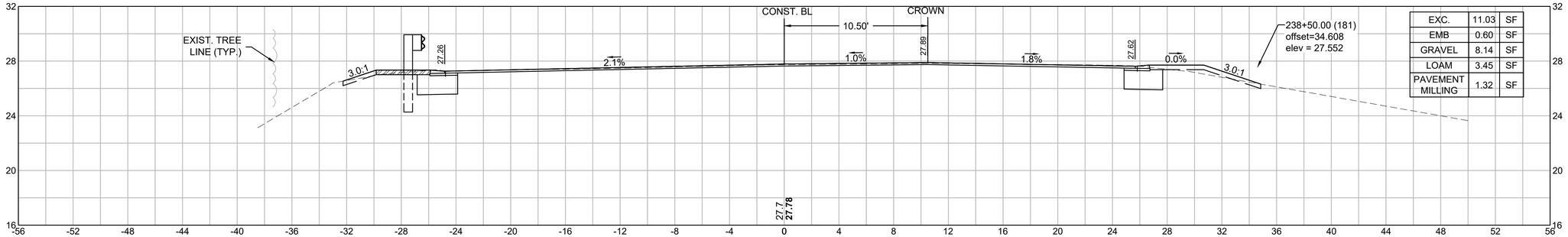
REHOBOTH
INTERSTATE 195 OVER PALMER RIVER

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(BR)-003S(988)X	49	54
PROJECT FILE NO.	613106		

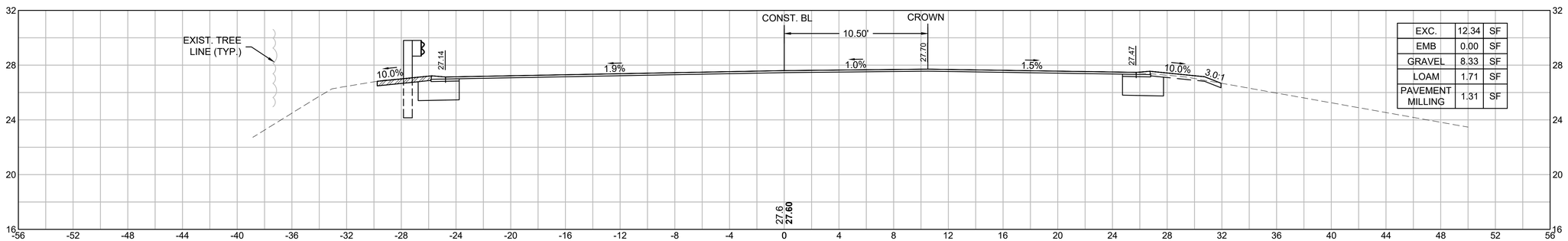
CROSS SECTIONS
I-195 WESTBOUND



239+00



238+50



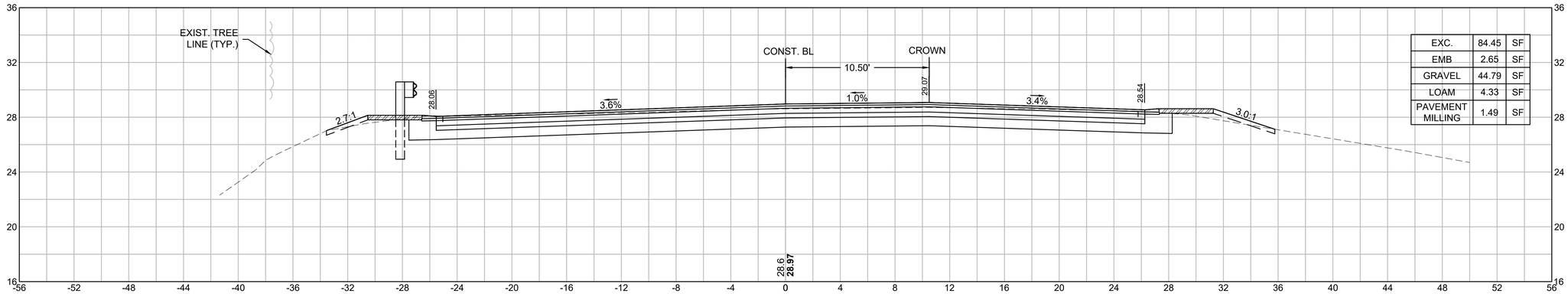
238+20

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

REHOBOTH
INTERSTATE 195 OVER PALMER RIVER

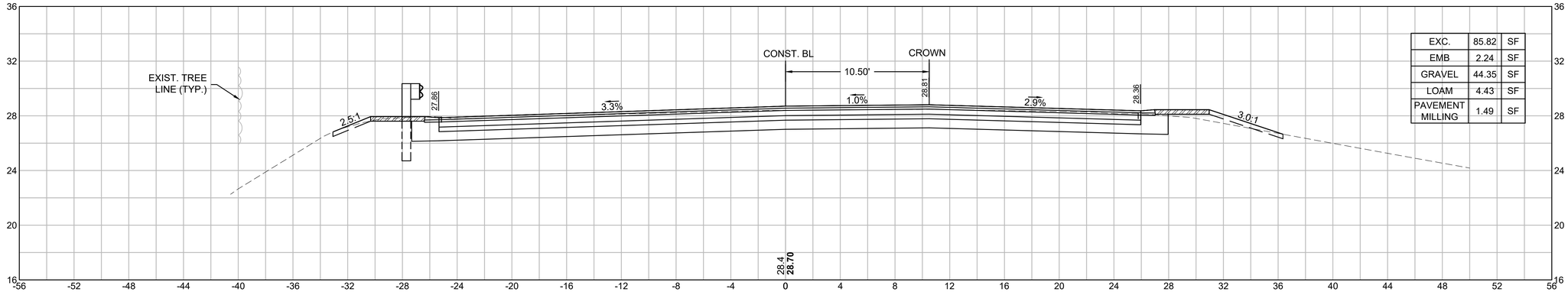
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(BR)-003S(988)X	50	54
PROJECT FILE NO.	613106		

CROSS SECTIONS
I-195 WESTBOUND



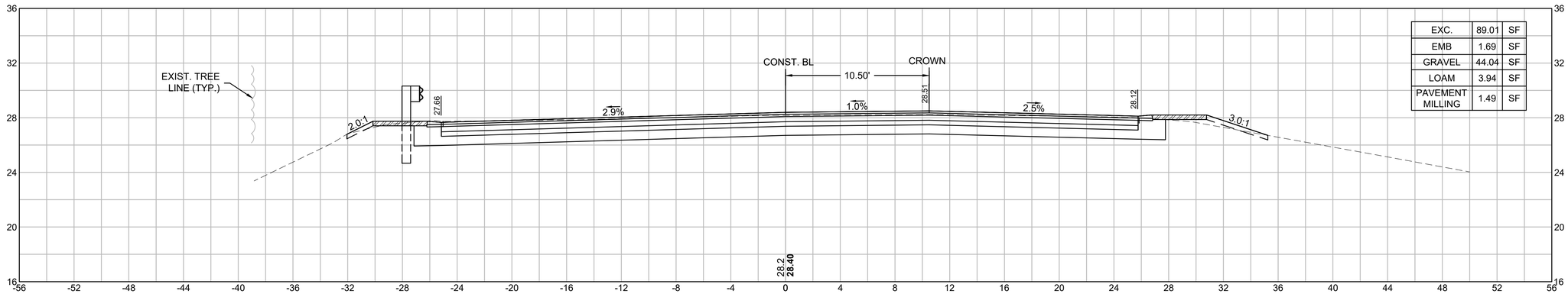
EXC.	84.45	SF
EMB	2.65	SF
GRAVEL	44.79	SF
LOAM	4.33	SF
PAVEMENT MILLING	1.49	SF

240+50



EXC.	85.82	SF
EMB	2.24	SF
GRAVEL	44.35	SF
LOAM	4.43	SF
PAVEMENT MILLING	1.49	SF

240+00



EXC.	89.01	SF
EMB	1.69	SF
GRAVEL	44.04	SF
LOAM	3.94	SF
PAVEMENT MILLING	1.49	SF

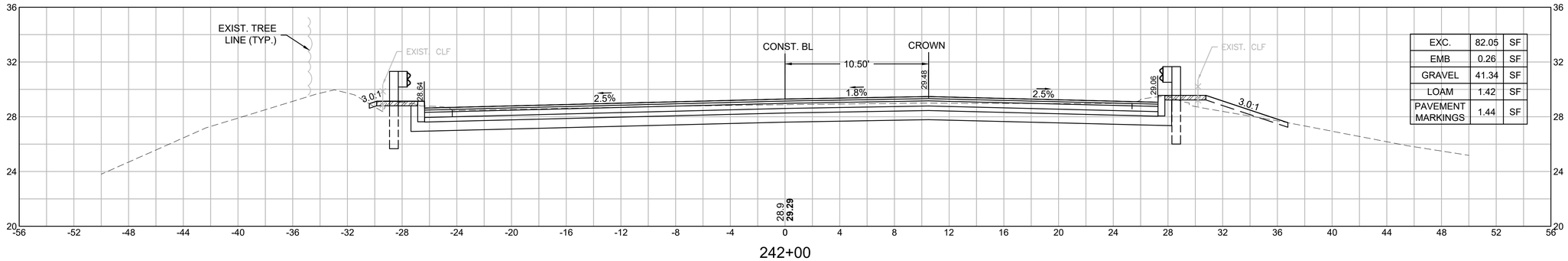
239+50

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

REHOBOTH
INTERSTATE 195 OVER PALMER RIVER

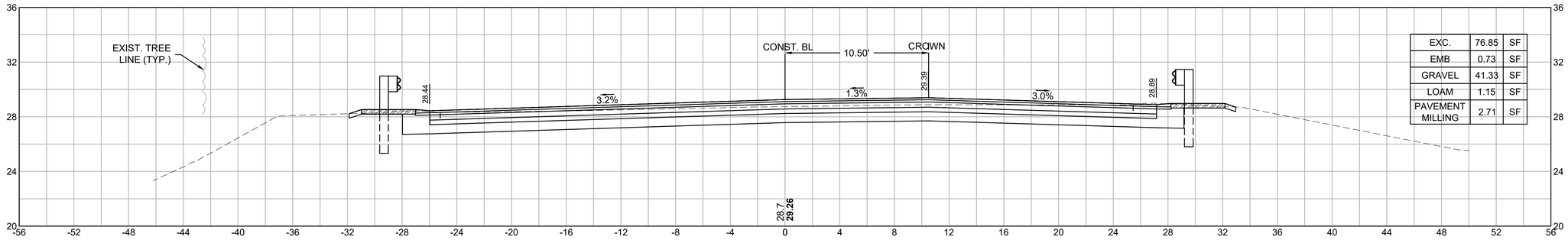
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(BR)-003S(988)X	51	54
PROJECT FILE NO.	613106		

CROSS SECTIONS
I-195 WESTBOUND



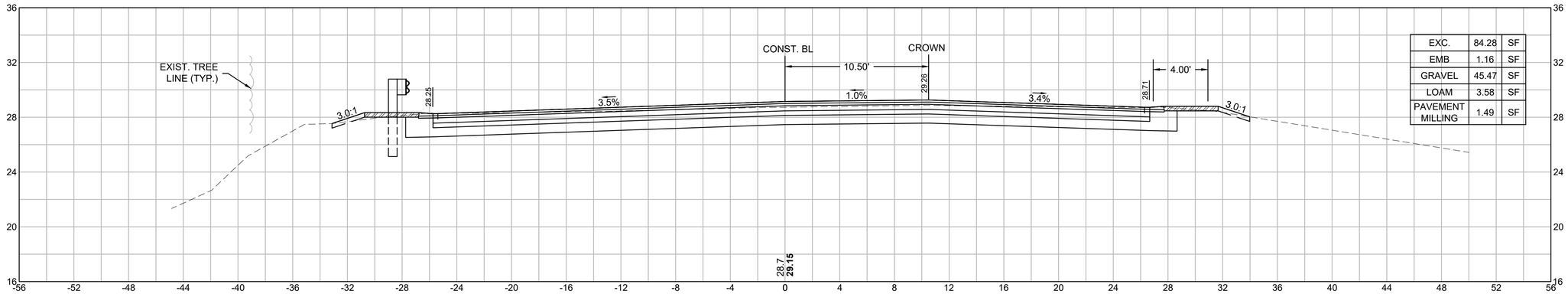
EXC.	82.05	SF
EMB	0.26	SF
GRAVEL	41.34	SF
LOAM	1.42	SF
PAVEMENT MARKINGS	1.44	SF

242+00



EXC.	76.85	SF
EMB	0.73	SF
GRAVEL	41.33	SF
LOAM	1.15	SF
PAVEMENT MILLING	2.71	SF

241+50



EXC.	84.28	SF
EMB	1.16	SF
GRAVEL	45.47	SF
LOAM	3.58	SF
PAVEMENT MILLING	1.49	SF

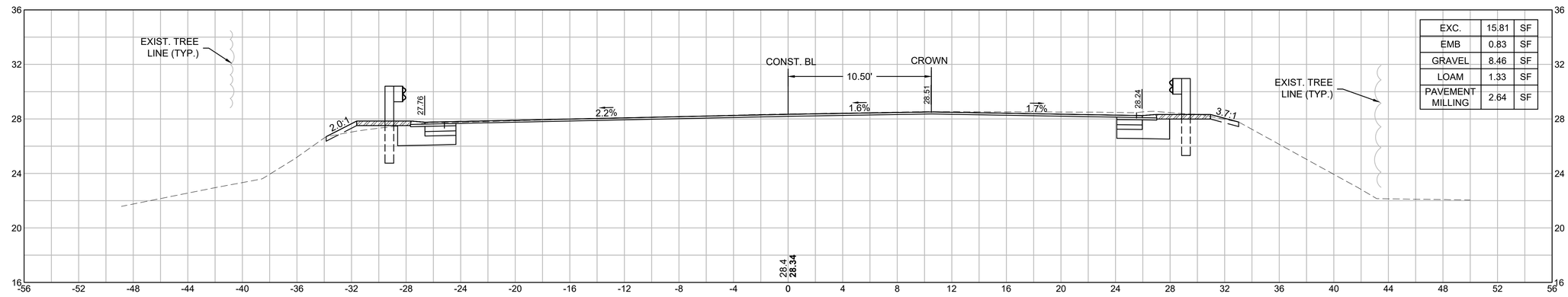
241+00

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

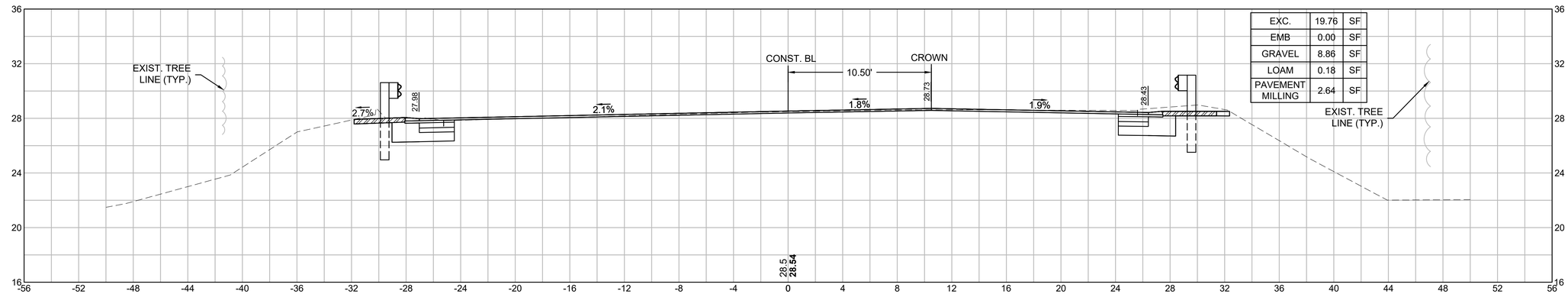
REHOBOTH
INTERSTATE 195 OVER PALMER RIVER

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(BR)-003S(988)X	52	54
	PROJECT FILE NO. 613106		

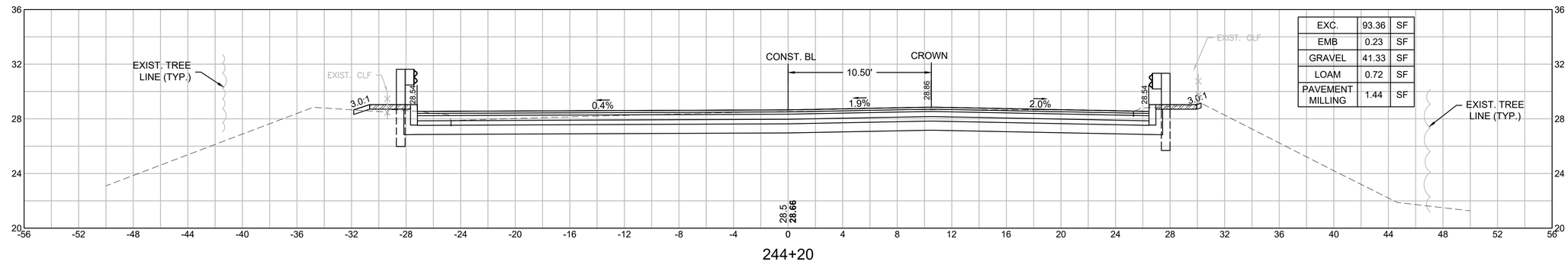
CROSS SECTIONS
I-195 WESTBOUND



EXC.	15.81	SF
EMB	0.83	SF
GRAVEL	8.46	SF
LOAM	1.33	SF
PAVEMENT MILLING	2.64	SF



EXC.	19.76	SF
EMB	0.00	SF
GRAVEL	8.86	SF
LOAM	0.18	SF
PAVEMENT MILLING	2.64	SF



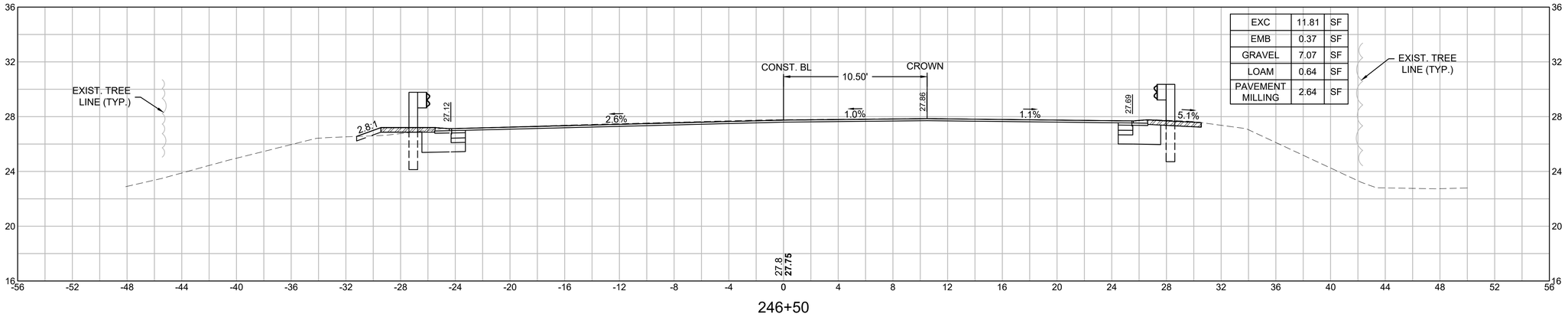
EXC.	93.36	SF
EMB	0.23	SF
GRAVEL	41.33	SF
LOAM	0.72	SF
PAVEMENT MILLING	1.44	SF

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

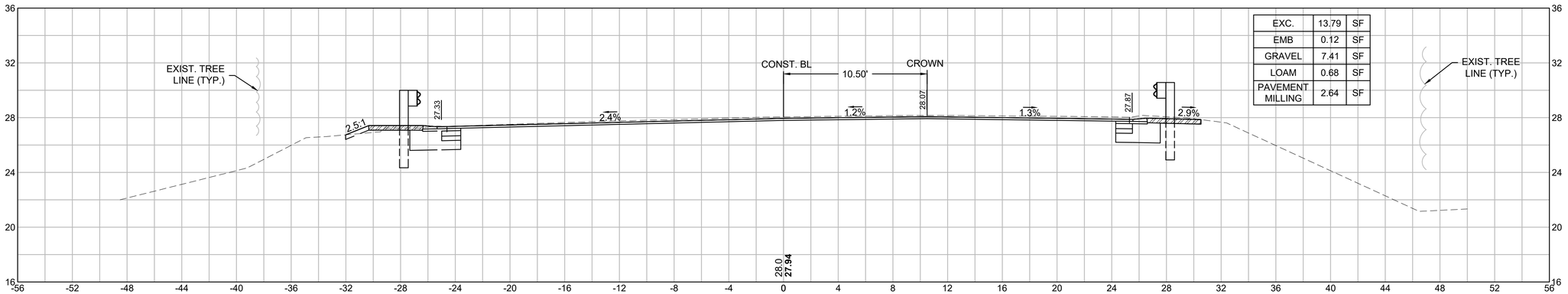
REHOBOTH
INTERSTATE 195 OVER PALMER RIVER

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(BR)-003S(988)X	53	54
	PROJECT FILE NO. 613106		

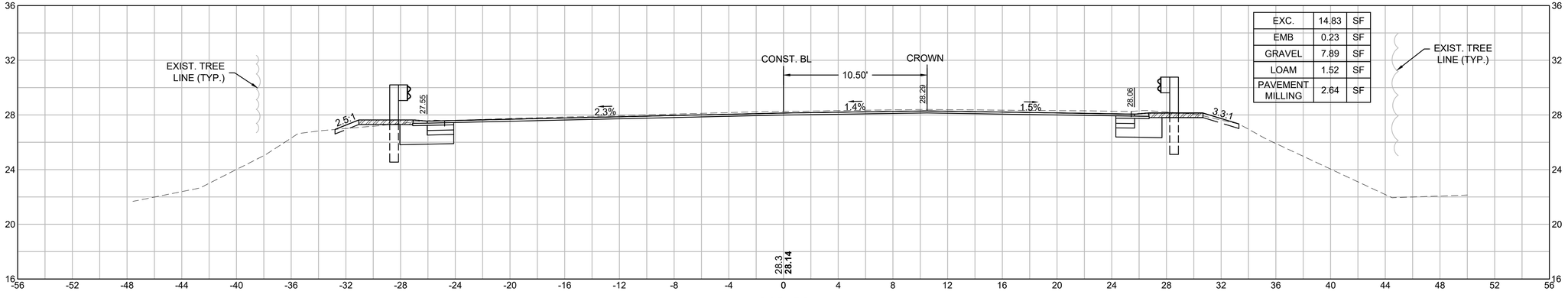
CROSS SECTIONS
I-195 WESTBOUND



EXC	11.81	SF
EMB	0.37	SF
GRAVEL	7.07	SF
LOAM	0.64	SF
PAVEMENT MILLING	2.64	SF



EXC.	13.79	SF
EMB	0.12	SF
GRAVEL	7.41	SF
LOAM	0.68	SF
PAVEMENT MILLING	2.64	SF



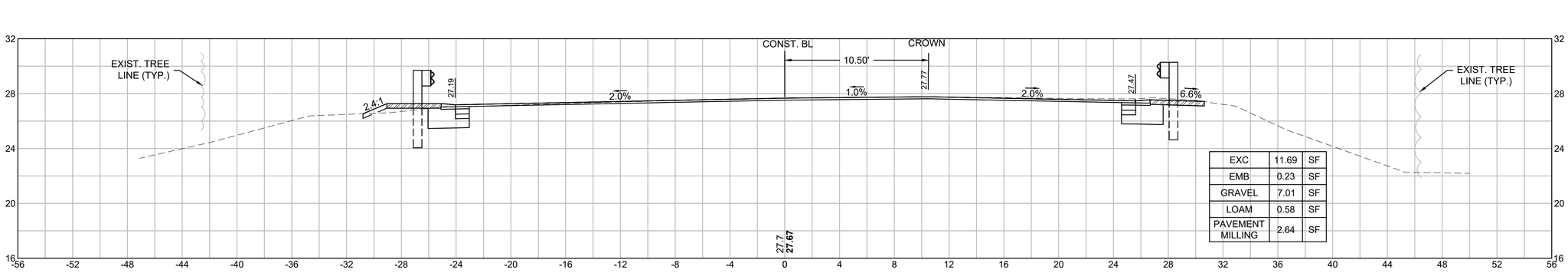
EXC.	14.83	SF
EMB	0.23	SF
GRAVEL	7.89	SF
LOAM	1.52	SF
PAVEMENT MILLING	2.64	SF

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

REHOBOTH
INTERSTATE 195 OVER PALMER RIVER

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(BR)-003S(988)X	54	54
	PROJECT FILE NO. 613106		

CROSS SECTIONS
I-195 WESTBOUND



246+70

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