

MASSACHUSETTS DEPARTMENT OF TRANSPORTATION HIGHWAY DIVISION

**NORTH ADAMS
ST 2 (VETERAN'S MEMORIAL DRIVE)**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(NGB)-003S(947)	1	49
PROJECT FILE NO.		612505	

TITLE SHEET & INDEX

PLAN AND PROFILE OF
ST 2 (VETERAN'S MEMORIAL DRIVE)
(BRIDGE NO. N-14-039)

IN THE CITY OF
NORTH ADAMS
BERKSHIRE COUNTY

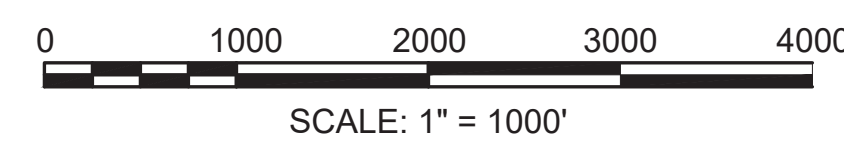
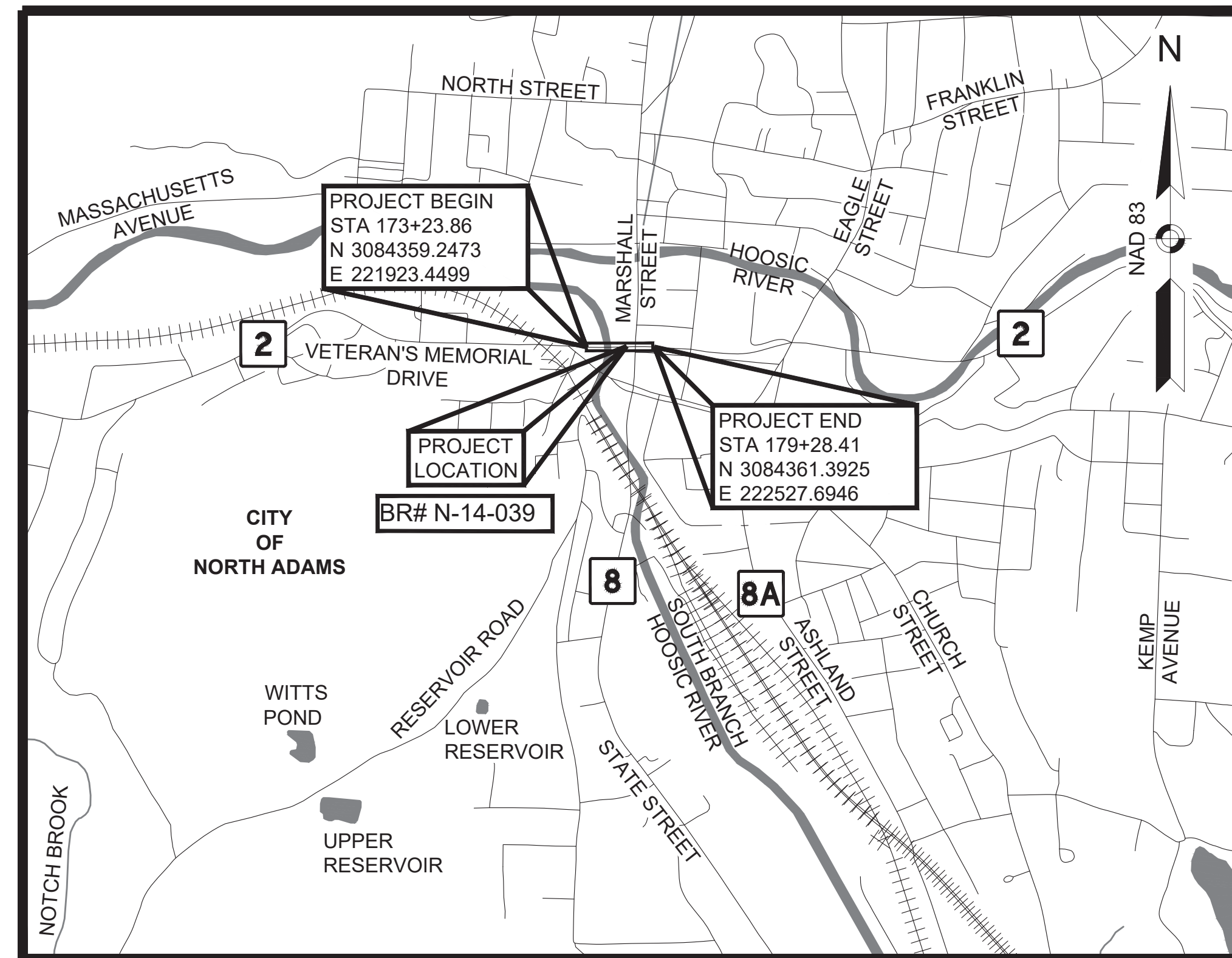
FEDERAL AID PROJECT NO. HIP(NGB)-003S(947)

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.

INDEX

SHEET NO.	DESCRIPTION
1	TITLE SHEET & INDEX
2	LEGEND & ABBREVIATIONS
3-7	TIE PLANS
8-9	PLAN VIEWS
10	EXISTING HIGHWAY & BRIDGE CROSS SECTIONS
11-16	TEMPORARY TRAFFIC CONTROL PLANS
17	TEMPORARY TRAFFIC CONTROL PLAN SIGN SUMMARY
18	TEMPORARY SIGNAL SEQUENCE PLAN
19	CONSTRUCTION DETAILS
20-49	BRIDGE PLANS

DESIGN DESIGNATION (VETERAN'S MEMORIAL DRIVE)	
DESIGN SPEED	35 MPH
ADT (2023)	11,135
ADT (2033)	12,300
K	10.0%
D	68% WB
T (PEAK HOUR)	4.2%
T (AVERAGE DAY)	2.9%
DHV	1,175
DDHV	800
FUNCTIONAL CLASSIFICATION	URBAN PRINCIPAL ARTERIAL



LENGTH OF PROJECT = 604.55 FEET = 0.114 MILES

DATE	DESCRIPTION	REV #

Digitally signed by Kellan Lewis
Date: 2026.03.19 15:33:46 -0400

803 SUMMER STREET
BOSTON, MASSACHUSETTS 02127
617-896-4300 | www.bscgroup.com

APPROVED

Carrie Lavallee, Digitally signed by Carrie Lavallee, P.E.
Date: 2026.03.19 15:33:46 -0400

P. E.

03/19/2026

CHIEF ENGINEER

DATE

GENERAL SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
		JERSEY BARRIER
		CATCH BASIN
		CATCH BASIN CURB INLET
		FLAG POLE
		GAS PUMP
		MAIL BOX
		POST SQUARE
		POST CIRCULAR
		WELL
		ELECTRIC HANDHOLE
		FENCE GATE POST
		GAS GATE
		BORING HOLE
		MONITORING WELL
		TEST PIT
		HYDRANT
		LIGHT POLE
		COUNTY BOUND
		GPS POINT
		CABLE MANHOLE
		DRAINAGE MANHOLE
		ELECTRIC MANHOLE
		GAS MANHOLE
		MISC MANHOLE
		SEWER MANHOLE
		TELEPHONE MANHOLE
		WATER MANHOLE
		MASSACHUSETTS HIGHWAY BOUND
		MONUMENT
		STONE BOUND
		TOWN OR CITY BOUND
		TRAVERSE OR TRIANGULATION STATION
		TROLLEY POLE OR GUY POLE
		TRANSMISSION POLE
		UTILITY POLE W/ FIREBOX
		UTILITY POLE WITH DOUBLE LIGHT
		UTILITY POLE W / 1 LIGHT
		UTILITY POLE
		BUSH
		TREE
		STUMP
		SWAMP / MARSH
		WATER GATE
		PARKING METER
		OVERHEAD CABLE/WIRE
		CURBING
		CONTOURS (ON-THE-GROUND SURVEY DATA)
		CONTOURS (PHOTOGRAMMETRIC DATA)
		UNDERGROUND DRAIN PIPE (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND ELECTRIC DUCT (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND GAS MAIN (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND SEWER MAIN (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND TELEPHONE DUCT (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND WATER MAIN (DOUBLE LINE 24 INCH AND OVER)
		BALANCED STONE WALL
		GUARD RAIL - STEEL POSTS
		GUARD RAIL - WOOD POSTS
		GUARD RAIL - DOUBLE FACE - STEEL POSTS
		GUARD RAIL - DOUBLE FACE - WOOD POSTS
		CHAIN LINK OR METAL FENCE
		WOOD FENCE
		SEDIMENT BARRIER
		COIR LOG SEDIMENT BARRIER
		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
		CONTROLLER PHASE ACTUATED
		TRAFFIC SIGNAL HEAD (SIZE AS NOTED)
		WIRE LOOP DETECTOR (6' x 6' TYP UNLESS OTHERWISE SPECIFIED)
		VIDEO DETECTION CAMERA
		MICROWAVE DETECTOR
		PEDESTRIAN PUSH BUTTON, SIGN (DIRECTIONAL ARROW AS SHOWN) AND SADDLE
		EMERGENCY PREEMPTION CONFIRMATION STROBE LIGHT
		VEHICULAR SIGNAL HEAD
		VEHICULAR SIGNAL HEAD, OPTICALLY PROGRAMMED
		FLASHING BEACON
		PEDESTRIAN SIGNAL HEAD, (TYPE AS NOTED OR AS SPECIFIED)
		RAILROAD SIGNAL
		SIGNAL POST AND BASE (ALPHA-NUMERIC DESIGNATION NOTED)
		MAST ARM, SHAFT AND BASE (ARM LENGTH AS NOTED)
		HIGH MAST POLE OR TOWER
		SIGN AND POST
		SIGN AND POST (2 POSTS)
		MAST ARM WITH LUMINAIRE
		OPTICAL PRE-EMPTION DETECTOR
		CONTROL CABINET, GROUND MOUNTED
		CONTROL CABINET, POLE MOUNTED
		FLASHING BEACON CONTROL AND METER PEDESTAL
		LOAD CENTER ASSEMBLY
		PULL BOX 12"x12" (OR AS NOTED)
		ELECTRIC HANDHOLE 12"x24" (OR AS NOTED)
		TRAFFIC SIGNAL CONDUIT

PAVEMENT MARKINGS SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
		PAVEMENT ARROW - WHITE
		LEGEND "ONLY" - WHITE
		STOP LINE
		CROSSWALK
		SOLID WHITE LINE
		SOLID YELLOW LINE
		BROKEN WHITE LINE (10' LINE, 30" GAP, 6" SWL)
		BROKEN YELLOW LINE (10' LINE, 30" GAP, 6" SYL)
		DOTTED WHITE LINE (3' LINE, 9' GAP, 6" SWL)
		DOTTED YELLOW LINE (3' LINE, 9' GAP, 6" SYL)
		DOTTED WHITE LINE EXTENSION (2' LINE, 6" GAP, 6" SWL)
		DOTTED YELLOW LINE EXTENSION (2' LINE, 6" GAP, 6" SYL)
		DOUBLE WHITE LINE
		DOUBLE YELLOW LINE

PLAN REFERENCES:
 "MASSACHUSETTS DEPARTMENT OF TRANSPORTATION, PLAN OF TOPOGRAPHIC SURVEY OF VETERANS MEMORIAL DRIVE (ROUTE 2) (BRIDGE NO. N-14-039) IN THE CITY OF NORTH ADAMS" DATED OCTOBER 30, 2024

- NOTES:
- THIS PLAN IS BASED UPON AN ON-THE-GROUND INSTRUMENT SURVEY PERFORMED BY GCG ASSOCIATES BETWEEN AUGUST 12, 2024 AND SEPTEMBER 27, 2024. LINE STRIPING AND SOME OTHER PLANIMETRIC DETAIL HAS BEEN SUPPLEMENTED FROM A LOW ALTITUDE AERIAL PHOTOGRAMMETRIC SURVEY. BRIDGE DETAIL AND ELEVATIONS ARE SUPPLEMENTED FROM GROUND BASED LASER SCANNING.
 - NORTH IS BASED UPON THE NORTH AMERICAN DATUM OF 1983 (NAD-83)(2011) EPOCH 2010.00, MASSACHUSETTS STATE PLANE COORDINATE SYSTEM, MAINLAND ZONE. COORDINATES ARE BASED ON CONTROL AS PROVIDED BY MASSDOT SURVEY SECTION FOR STATIONS 3618 AND 3619. THE AVERAGE COMBINED GROUND TO GRID SCALE FACTOR FOR THIS PROJECT HAS BEEN CALCULATED TO BE 0.999973412612.
 - VERTICAL CONTROL IS BASED UPON THE NORTH AMERICAN VERTICAL DATUM OF 1988 AS PROVIDED BY MASSDOT SURVEY SECTION FOR STATIONS 3618 AND 3619.
 - ALL UNITS FOR MASSDOT PROJECTS ARE COLLECTED AND SHOWN IN US SURVEY FEET.
 - FOR TRAVERSE TIE INFORMATION SEE MASSACHUSETTS HIGHWAY FIELD BOOK NO. 41826.
 - THE CONTRACTOR SHALL EXERCISE DUE CARE WHEN WORKING AROUND ALL EXISTING PROPERTY BOUNDS AND PRIVATE PROPERTY PINS. SHOULD ANY DAMAGE TO A HIGHWAY BOUND OR PROPERTY PIN RESULT FROM THE ACTION OF THE CONTRACTOR, THE CONTRACTOR IS RESPONSIBLE FOR REPLACING THAT HIGHWAY BOUND OR PRIVATE PROPERTY PIN TO ITS LOCATION JUST PRIOR TO CONSTRUCTION.

ABBREVIATIONS

GENERAL	DESCRIPTION
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
CBCL	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
MHB	MASSACHUSETTS HIGHWAY BOUND
MIN	MINIMUM
M&O	MILL & OVERLAY
NIC	NOT IN CONTRACT
NO.	NUMBER
PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVATURE
PCR	PEDESTRIAN CURB RAMP
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

NORTH ADAMS ST 2 (VETERAN'S MEMORIAL DRIVE)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(NGB)-003S(947)	2	49
PROJECT FILE NO.		612505	

LEGEND & ABBREVIATIONS

ABBREVIATIONS (cont.)

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

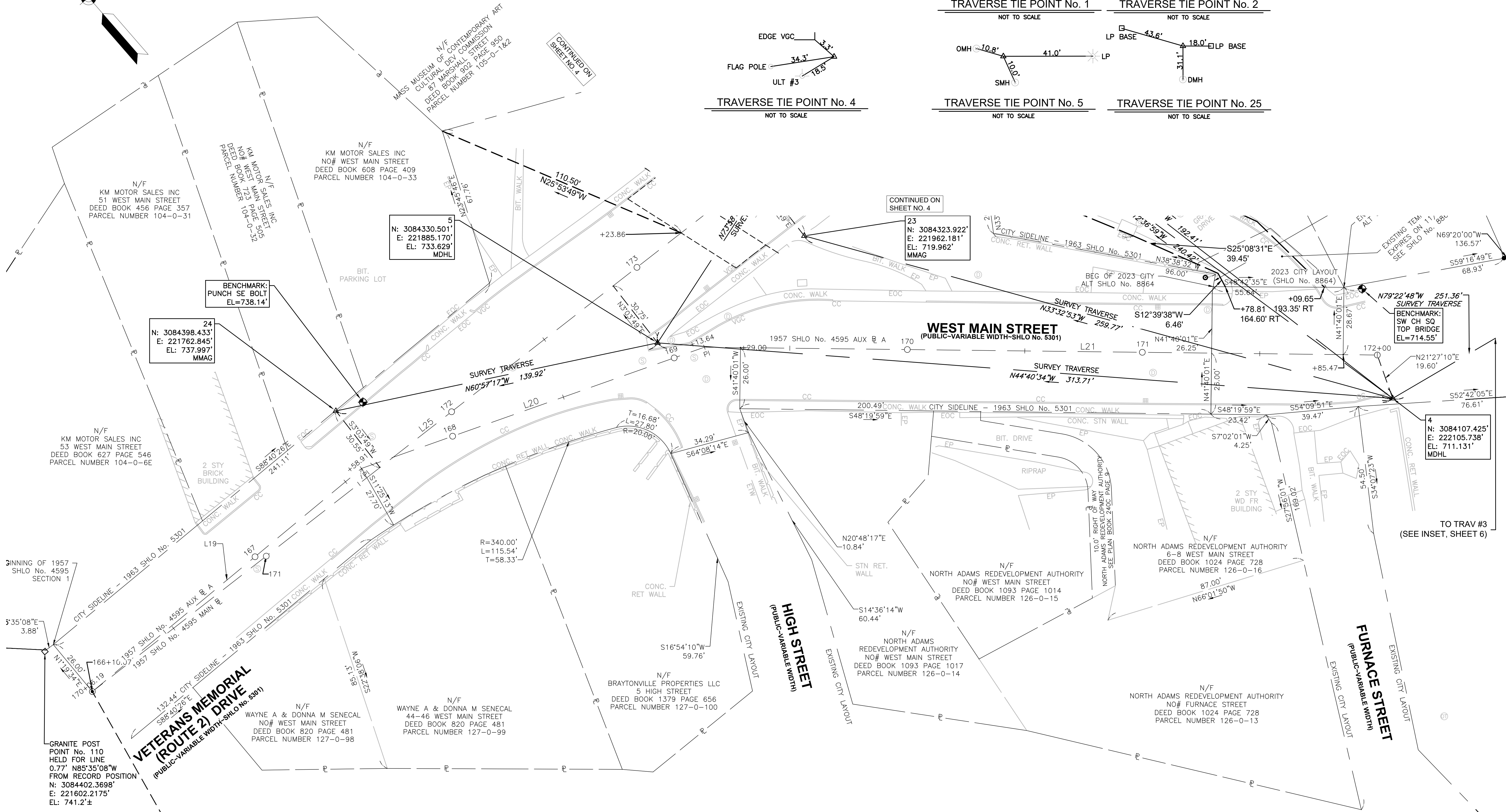
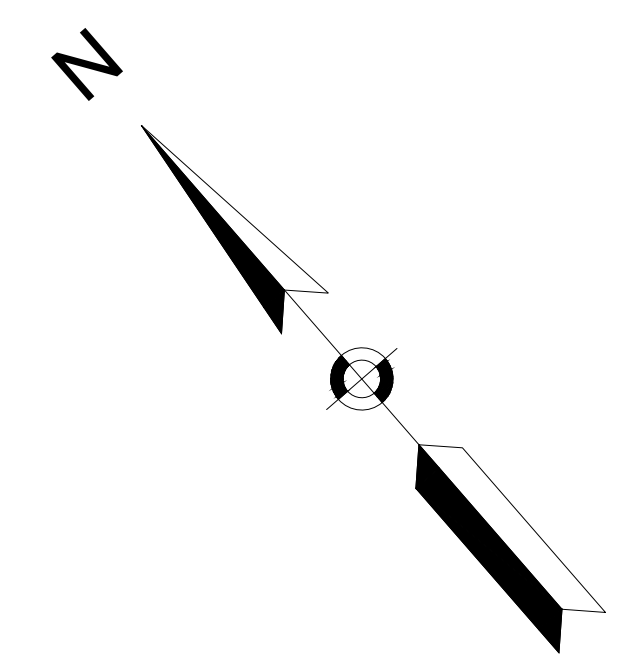
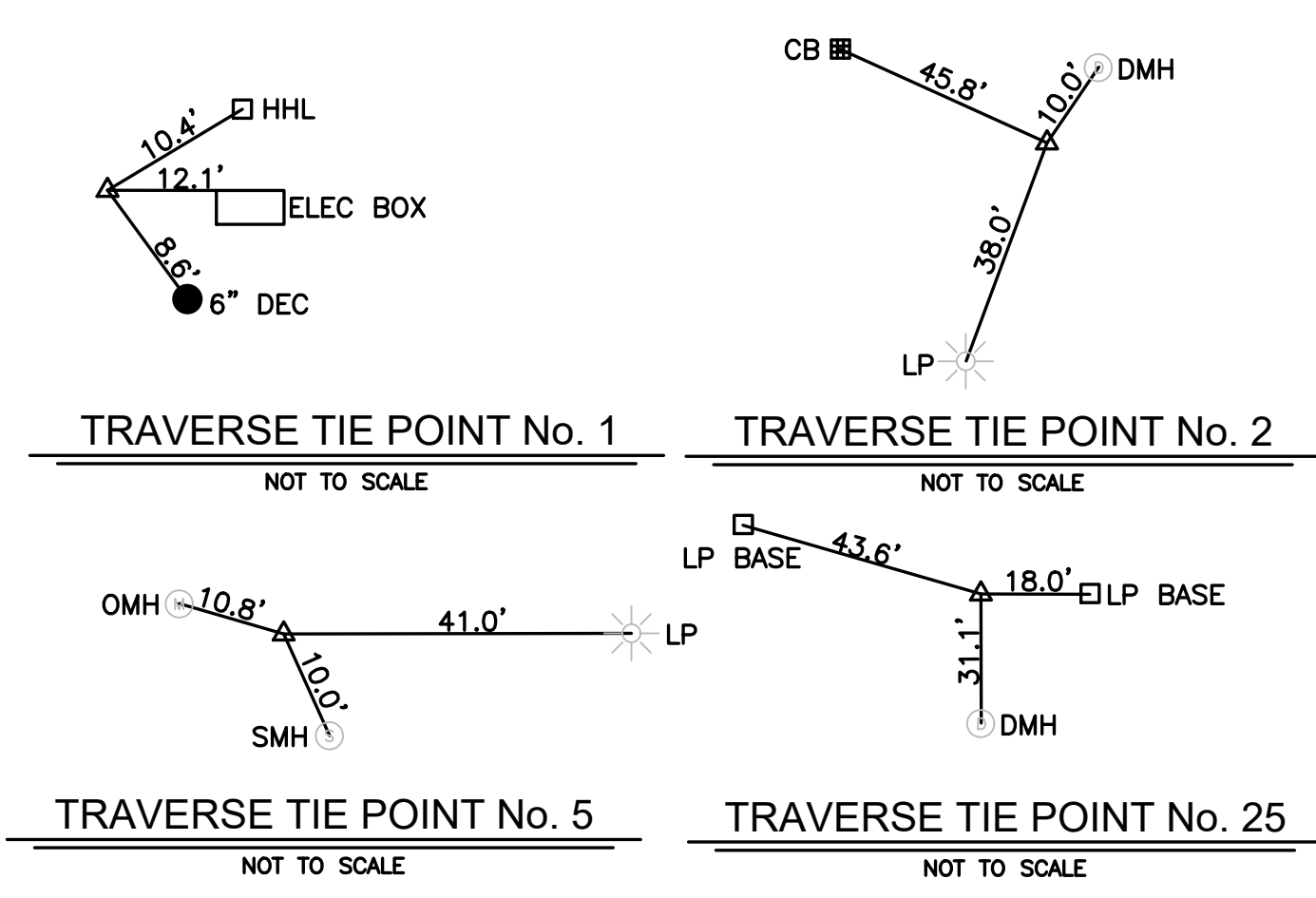
TRAFFIC SIGNAL ABBREVIATIONS

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

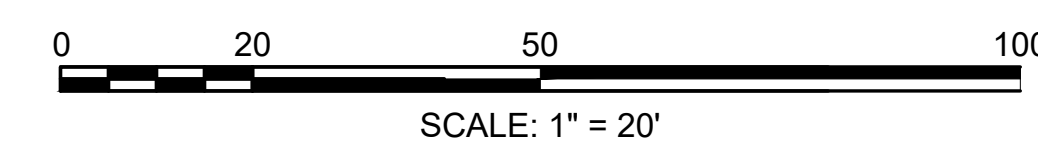
**NORTH ADAMS
ST 2 (VETERAN'S MEMORIAL DRIVE)**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(NGB)-003S(947)	3	49
PROJECT FILE NO.		612505	

TIE PLAN 1 OF 5



1957 SHLO NO. 4595 MAIN BL CONST @ STA 170+06.19 =
1957 SHLO NO. 4595 AUX CONST @ STA 166+10.07

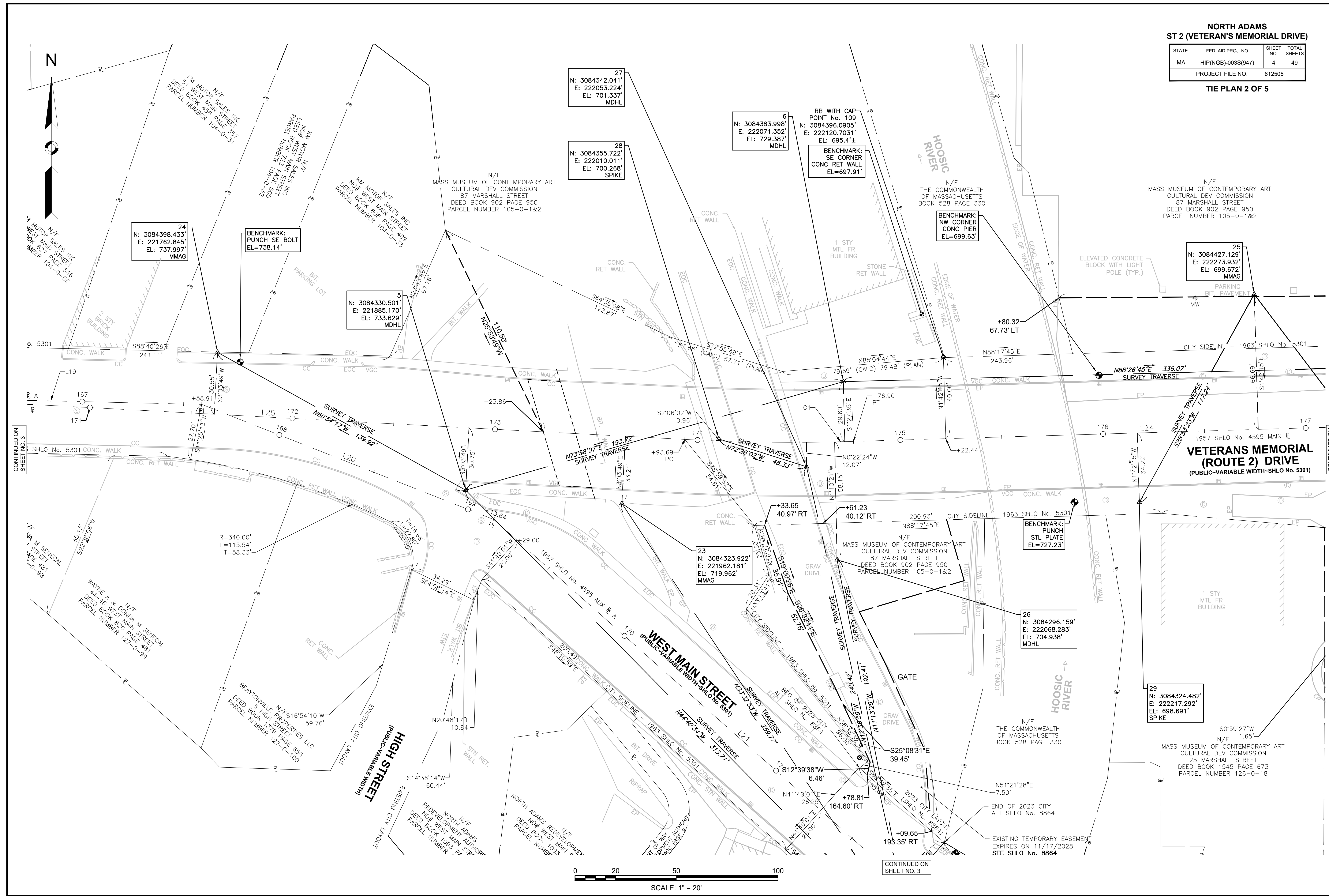


**NORTH ADAMS
ST 2 (VETERAN'S MEMORIAL DRIVE)**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(NGB)-003S(947)	4	49
PROJECT FILE NO.		612505	

TIE PLAN 2 OF 5

612505_HD(TIE).DWG Plotted on 12-Mar-2026 2:32 PM



27
N: 3084342.041'
E: 222053.224'
EL: 701.337'
MDHL

28
N: 3084355.722'
E: 222010.011'
EL: 700.268'
SPIKE

6
N: 3084383.998'
E: 222071.352'
EL: 729.387'
MDHL

RB WITH CAP
POINT No. 109
N: 3084396.0905'
E: 222120.7031'
EL: 695.4'±

BENCHMARK:
SE CORNER
CONC RET WALL
EL=697.91'

BENCHMARK:
NW CORNER
CONC PIER
EL=699.63'

25
N: 3084427.129'
E: 222273.932'
EL: 699.672'
MMAG

24
N: 3084398.433'
E: 221762.845'
EL: 737.997'
MMAG

BENCHMARK:
PUNCH SE BOLT
EL=738.14'

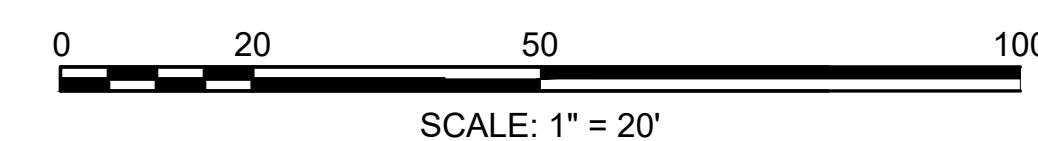
5
N: 3084330.501'
E: 221885.170'
EL: 733.629'
MDHL

23
N: 3084323.922'
E: 221962.181'
EL: 719.962'
MMAG

26
N: 3084296.159'
E: 222068.283'
EL: 704.938'
MDHL

29
N: 3084324.482'
E: 222217.292'
EL: 698.691'
SPIKE

BENCHMARK:
PUNCH
STL PLATE
EL=727.23'



CONTINUED ON
SHEET NO. 3

CONTINUED ON
SHEET NO. 5

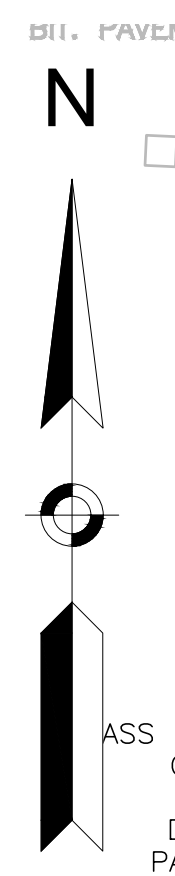
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NORTH ADAMS
ST 2 (VETERAN'S MEMORIAL DRIVE)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(NGB)-003S(947)	5	49
PROJECT FILE NO.		612505	

TIE PLAN 3 OF 5

CONTINUED ON SHEET NO. 6



N/F
ASS MUSEUM OF CONTEMPORARY ART
CULTURAL DEV COMMISSION
87 MARSHALL STREET
DEED BOOK 902 PAGE 950
PARCEL NUMBER 105-0-1&2

25
N: 3084427.129'
E: 222273.932'
EL: 699.672'
MMAG

7
N: 3084393.113'
E: 222407.296'
EL: 722.751'
MDHL

3618
N: 3084500.983'
E: 222562.592'
EL: 704.139'
GPS MMAG

3619
N: 3084394.811'
E: 222627.893'
EL: 707.436'
GPS REBAR WITH CAP

31
N: 3084399.394'
E: 222502.171'
EL: 703.956'
MMAG

BENCHMARK
CHSQ
EL=703.60'

30
N: 3084329.086'
E: 222498.490'
EL: 702.499'
MMAG

1
N: 3084264.237'
E: 222815.789'
EL: 706.856'
MMAG

29
N: 3084324.482'
E: 222217.292'
EL: 698.691'
SPIKE

2
N: 3084311.179'
E: 222361.649'
EL: 701.812'
MMAG

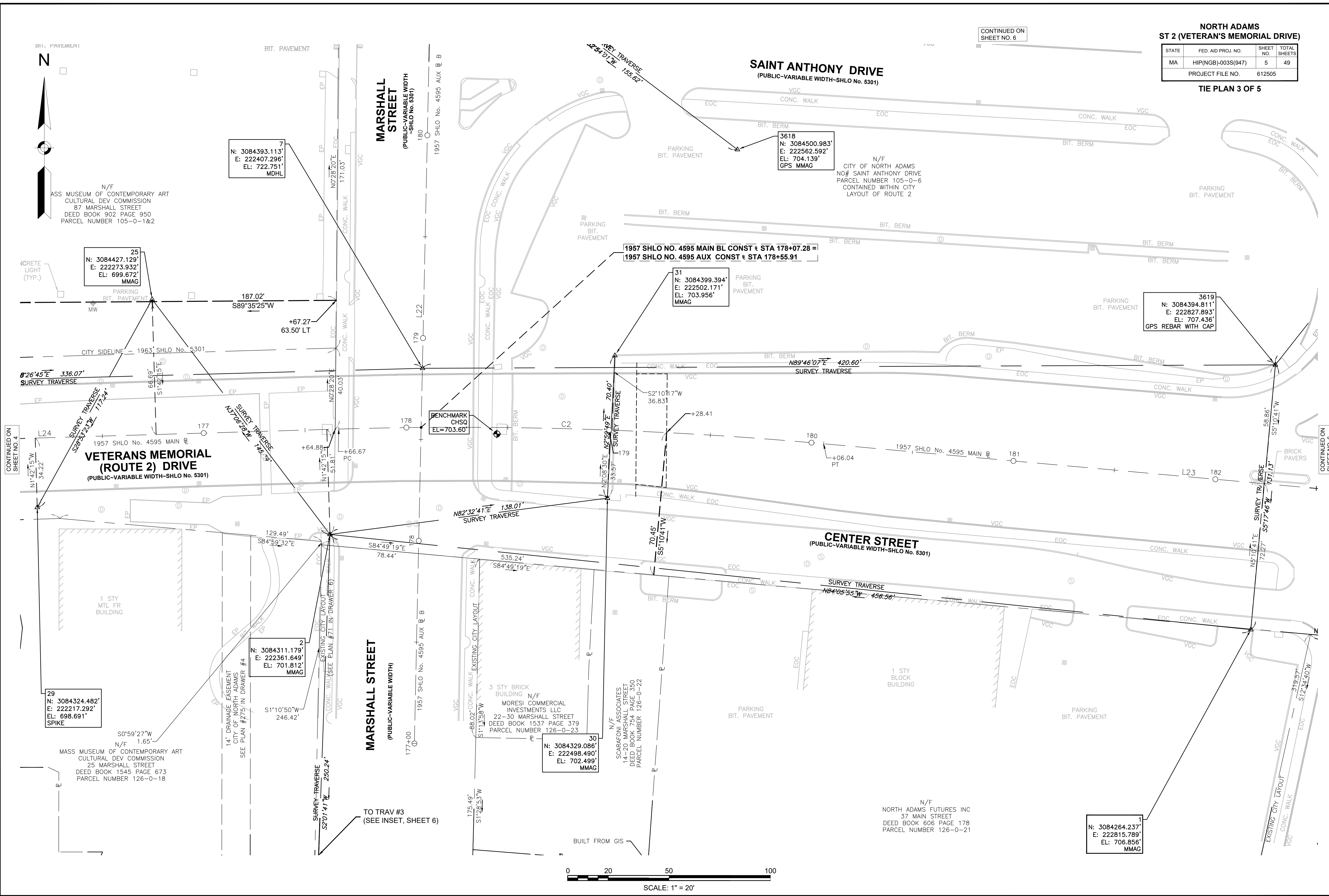
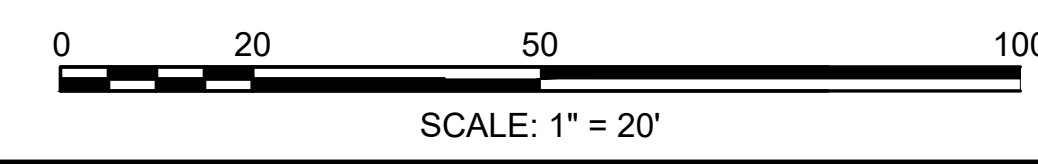
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MASS MUSEUM OF CONTEMPORARY ART
CULTURAL DEV COMMISSION
25 MARSHALL STREET
DEED BOOK 1545 PAGE 673
PARCEL NUMBER 126-0-18

N/F
3 STY BRICK BUILDING
MORESI COMMERCIAL INVESTMENTS LLC
22-30 MARSHALL STREET
DEED BOOK 1537 PAGE 379
PARCEL NUMBER 126-0-23

N/F
SCARAFONI ASSOCIATES
14-20 MARSHALL STREET
DEED BOOK 754 PAGE 350
PARCEL NUMBER 126-0-22

1 STY BLOCK BUILDING

N/F
NORTH ADAMS FUTURES INC
37 MAIN STREET
DEED BOOK 606 PAGE 178
PARCEL NUMBER 126-0-21



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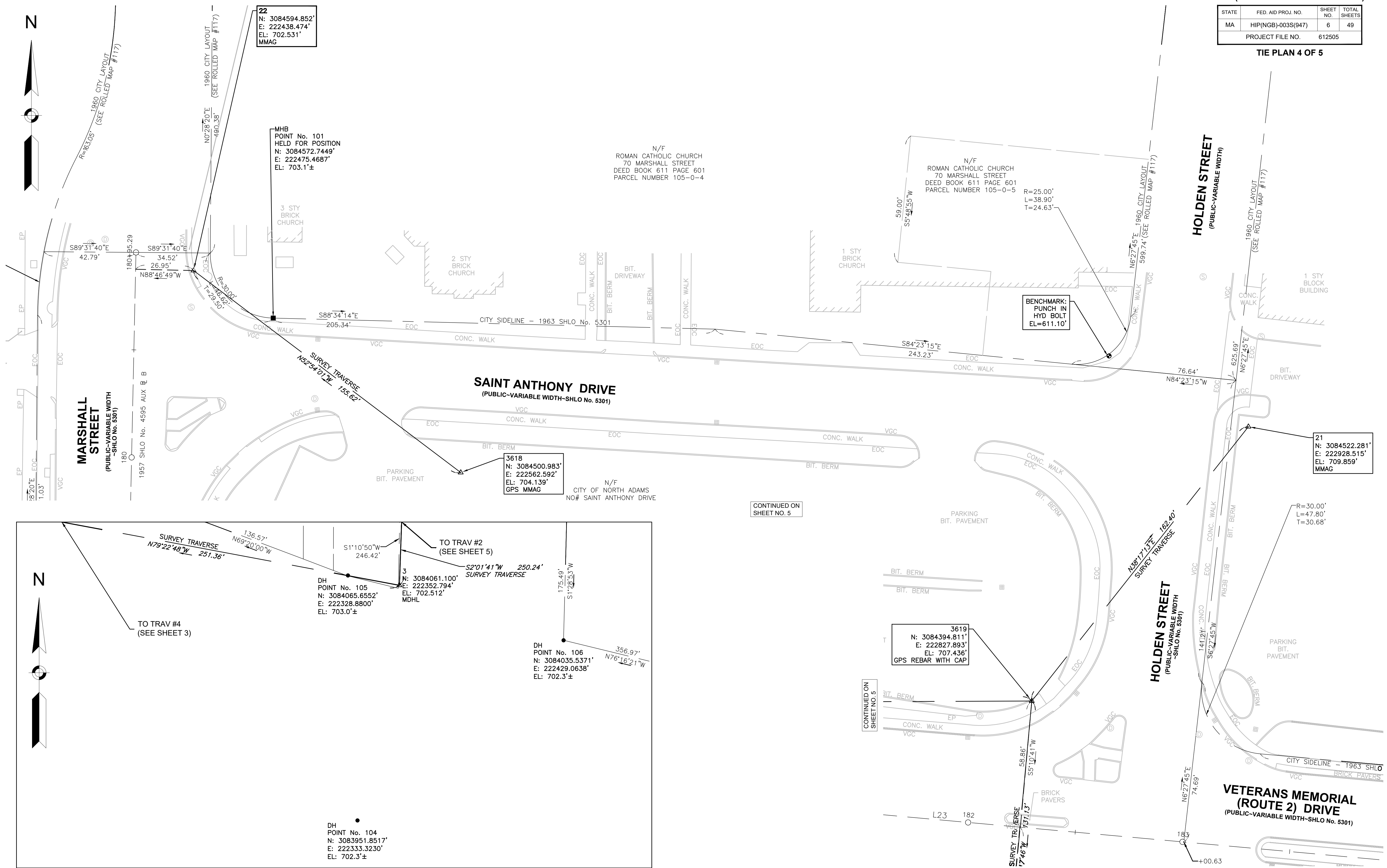
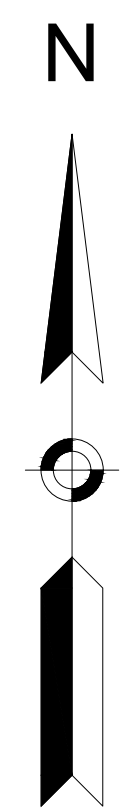
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TO TRAV #3 (SEE INSET, SHEET 6)

**NORTH ADAMS
ST 2 (VETERAN'S MEMORIAL DRIVE)**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(NGB)-003S(947)	6	49
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TIE PLAN 4 OF 5



22
N: 3084594.852'
E: 222438.474'
EL: 702.531'
MMAG

MHB
POINT No. 101
HELD FOR POSITION
N: 3084572.7449'
E: 222475.4687'
EL: 703.1'±

N/F
ROMAN CATHOLIC CHURCH
70 MARSHALL STREET
DEED BOOK 611 PAGE 601
PARCEL NUMBER 105-0-4

N/F
ROMAN CATHOLIC CHURCH
70 MARSHALL STREET
DEED BOOK 611 PAGE 601
PARCEL NUMBER 105-0-5

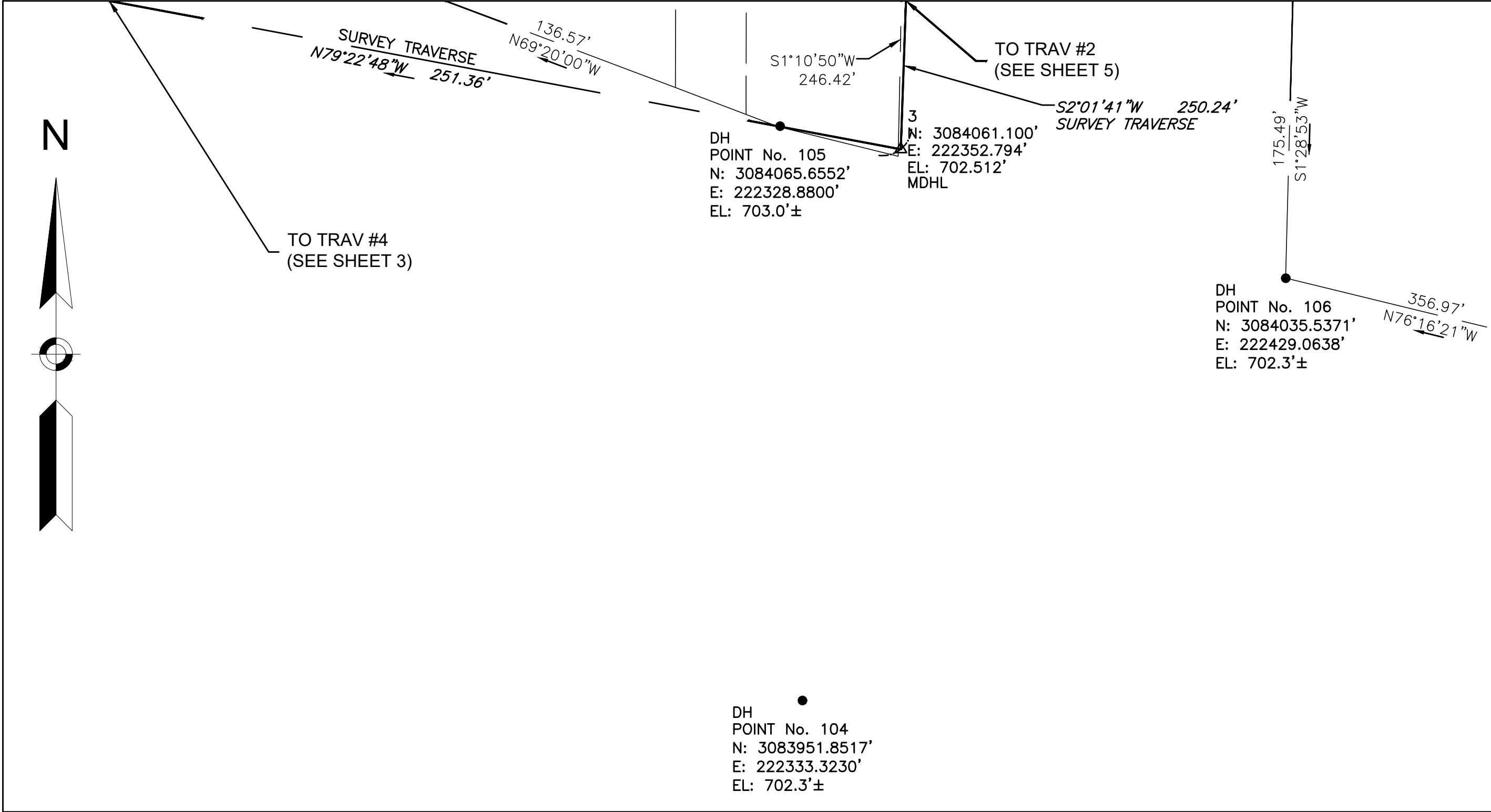
BENCHMARK:
PUNCH IN
HYD BOLT
EL=611.10'

3618
N: 3084500.983'
E: 222562.592'
EL: 704.139'
GPS MMAG

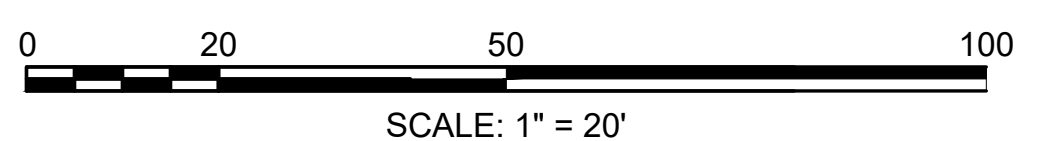
N/F
CITY OF NORTH ADAMS
NO# SAINT ANTHONY DRIVE

21
N: 3084522.281'
E: 222928.515'
EL: 709.859'
MMAG

3619
N: 3084394.811'
E: 222827.893'
EL: 707.436'
GPS REBAR WITH CAP



INSET
SCALE: 1" = 20'



CONTINUED ON
SHEET NO. 5

CONTINUED ON
SHEET NO. 5

**NORTH ADAMS
ST 2 (VETERAN'S MEMORIAL DRIVE)**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(NGB)-003S(947)	7	49
PROJECT FILE NO.		612505	

TIE PLAN 5 OF 5

1957 SHLO NO. 4595 MAIN BL CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L25	170+06.19	3084376.225	221606.239		S86°56'11"E 387.50'	173+93.69	3084355.515	221993.185
C1	173+93.69	3084355.515	221993.185	R=1000.00' Δ=4°46'04" L=83.21' T=41.63'		174+76.90	3084354.528	222076.368
L24	174+76.90	3084354.528	222076.368		N88°17'45"E 289.77'	177+66.67	3084363.145	222366.010
C2	177+66.67	3084363.145	222366.010	R=1992.81' Δ=6°52'56" L=239.37' T=119.83'		180+06.04	3084355.893	222605.128
L23	180+06.04	3084355.893	222605.128		S84°49'19"E 587.02'	185+93.07	3084302.913	223189.756
C3	185+93.07	3084302.913	223189.756	R=840.00' Δ=19°44'51" L=289.51' T=146.21'		188+82.58	3084326.465	223476.876
L26	188+82.58	3084326.465	223476.876		N75°26'12"E 269.74'	191+52.32	3084394.291	223737.949

1957 SHLO NO. 4595 AUX A BL CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L19	166+10.07	3084376.225	221606.239		S88°40'26"E 148.84'	167+58.91	3084372.780	221755.039
L20	167+58.91	3084372.780	221755.039		S68°29'08"E 154.73'	169+13.64	3084316.035	221898.988
L21	169+13.64	3084316.035	221898.988		S48°19'59"E 286.36'	172+00.00	3084125.663	222112.905

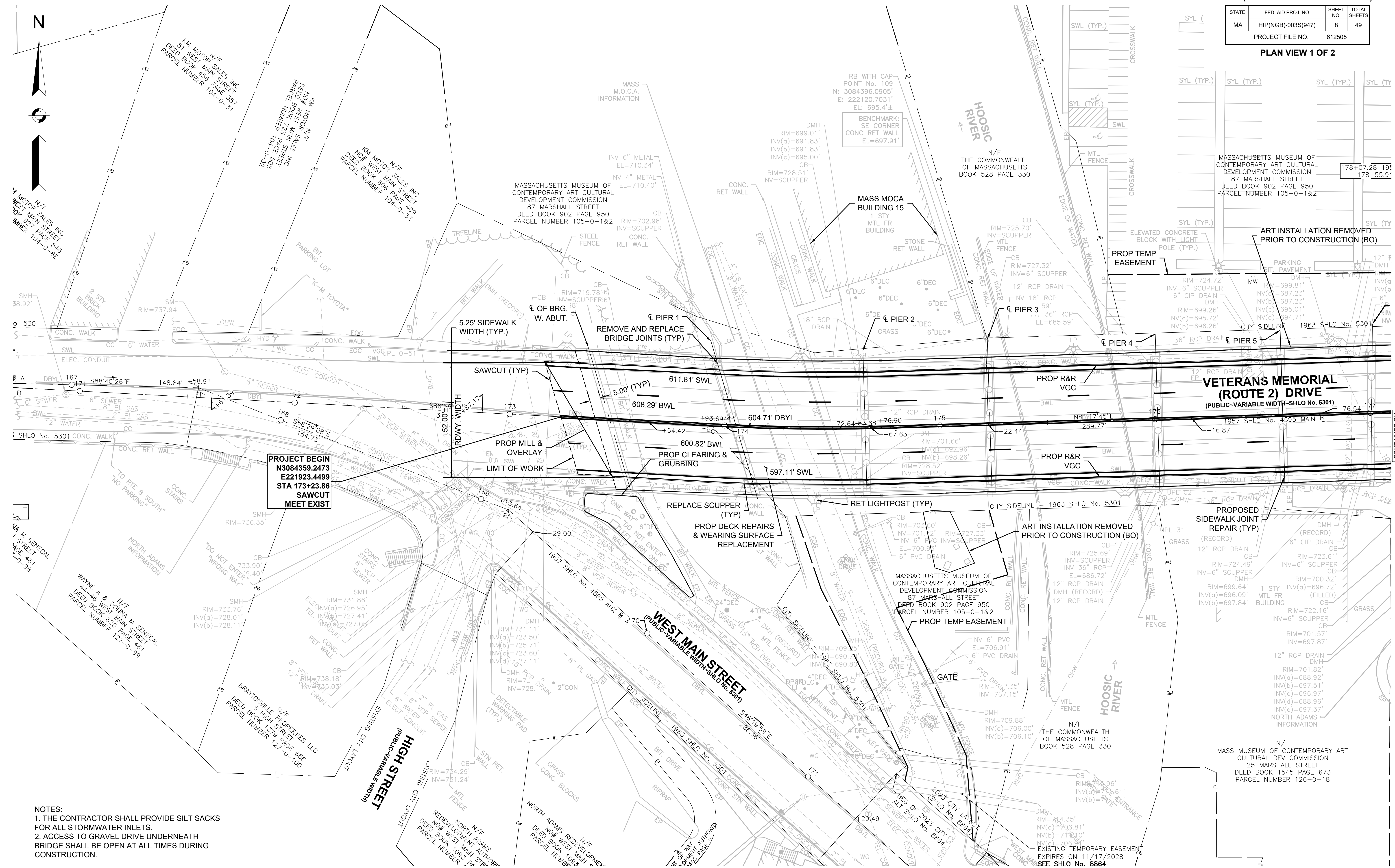
1957 SHLO NO. 4595 AUX B BL CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L22	177+00.00	3084208.064	222403.284		N1°13'11"E 395.29'	180+95.29	3084603.265	222411.699

NONE NONE NONE NONE

NORTH ADAMS
ST 2 (VETERAN'S MEMORIAL DRIVE)

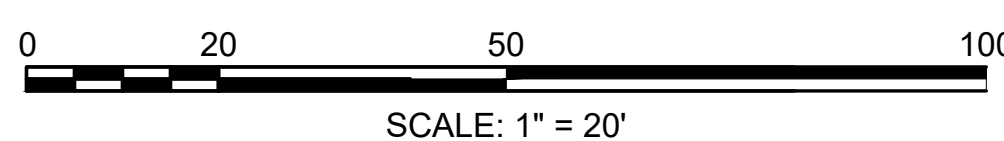
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(NGB)-003S(947)	8	49
PROJECT FILE NO.		612505	

PLAN VIEW 1 OF 2



PROJECT BEGIN
N3084359.2473
E221923.4499
STA 173+23.86
SAWCUT
MEET EXIST

NOTES:
1. THE CONTRACTOR SHALL PROVIDE SILT SACKS FOR ALL STORMWATER INLETS.
2. ACCESS TO GRAVEL DRIVE UNDERNEATH BRIDGE SHALL BE OPEN AT ALL TIMES DURING CONSTRUCTION.



HIGHWAY GUARD DETAILS

TRAFFIC SIGNAL CONDUIT

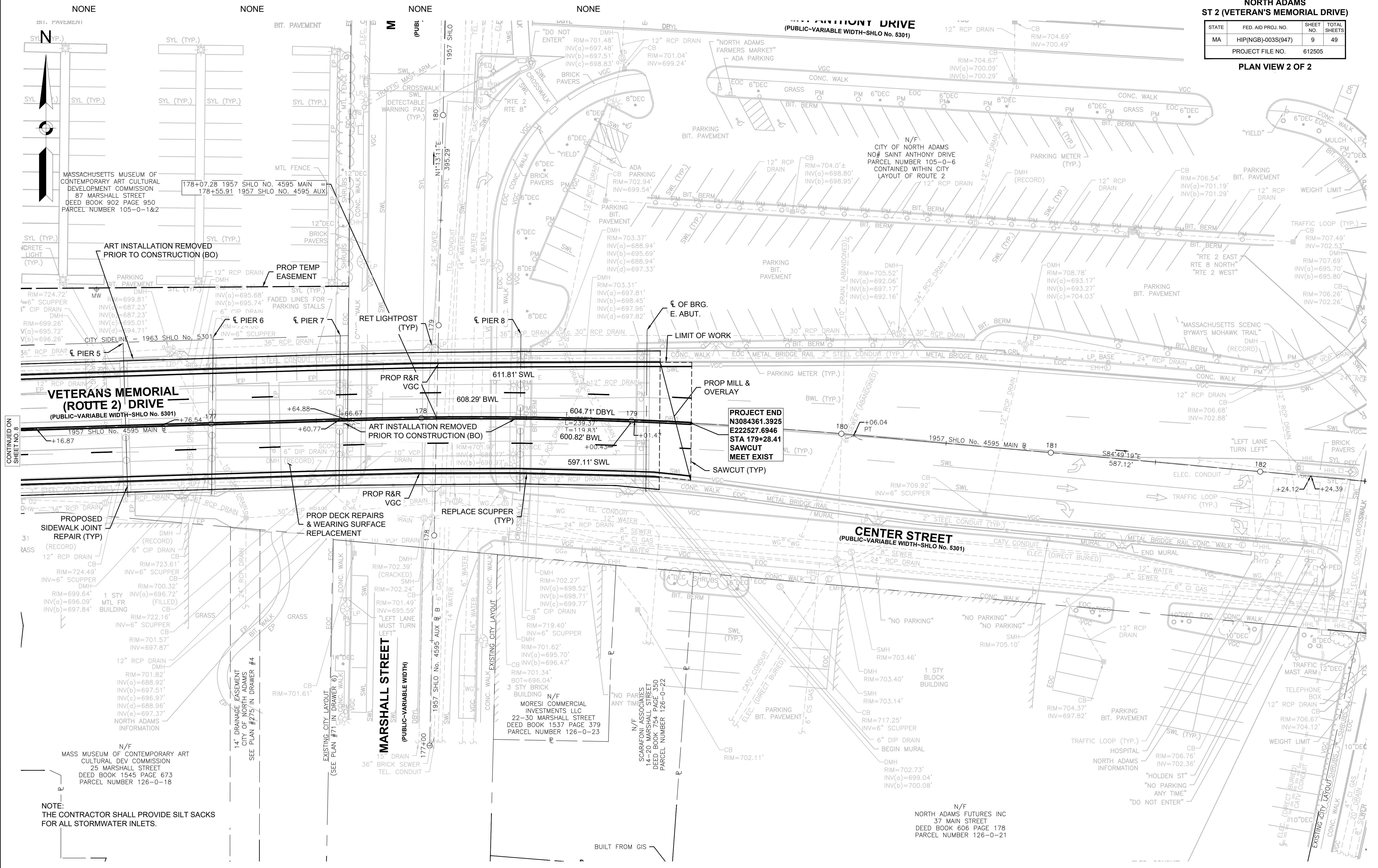
WATER SUPPLY ALTERATIONS

DRAINAGE DETAILS

NORTH ADAMS
ST 2 (VETERAN'S MEMORIAL DRIVE)

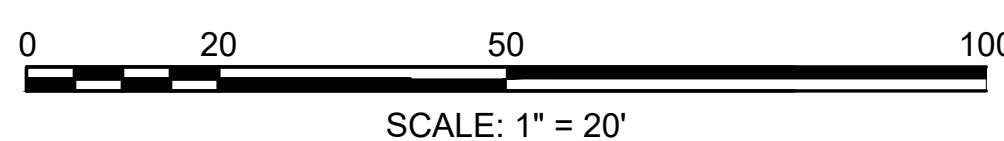
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(NGB)-003S(947)	9	49
PROJECT FILE NO.		612505	

PLAN VIEW 2 OF 2



CONTINUED ON SHEET NO. 8

PROJECT END
N3084361.3925
E222527.6946
STA 179+28.41
SAWCUT MEET EXIST



NOTE:
 THE CONTRACTOR SHALL PROVIDE SILT SACKS FOR ALL STORMWATER INLETS.

**NORTH ADAMS
ST 2 (VETERAN'S MEMORIAL DRIVE)**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(NGB)-003S(947)	10	49
PROJECT FILE NO.		612505	

**EXISTING HIGHWAY & BRIDGE
CROSS SECTIONS**

PAVEMENT NOTES

PROP BRIDGE RESURFACING

SURFACE:

- 1 1/4" SUPERPAVE BRIDGE SURFACE COURSE - 9.5 POLYMER (SSC-B - 9.5 - P) OVER
- 0.06-0.08 GAL/SY TACK COAT OVER
- 1 1/4" SUPERPAVE BRIDGE PROTECTIVE COURSE - 9.5 POLYMER (SPC-B - 9.5 - P) OVER
- MEMBRANE WATERPROOFING (SPRAY APPLIED)

PROP MILLING & OVERLAY

SURFACE:

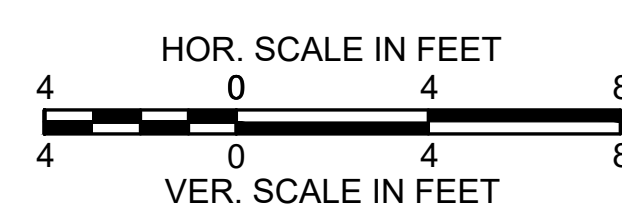
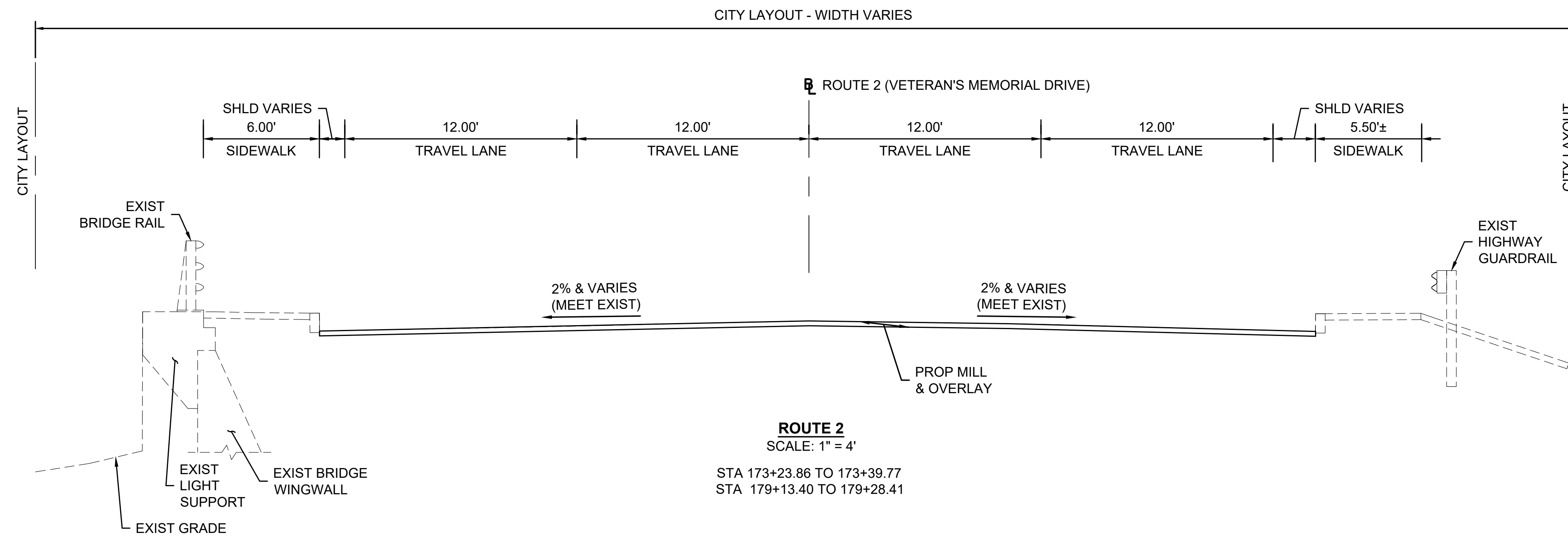
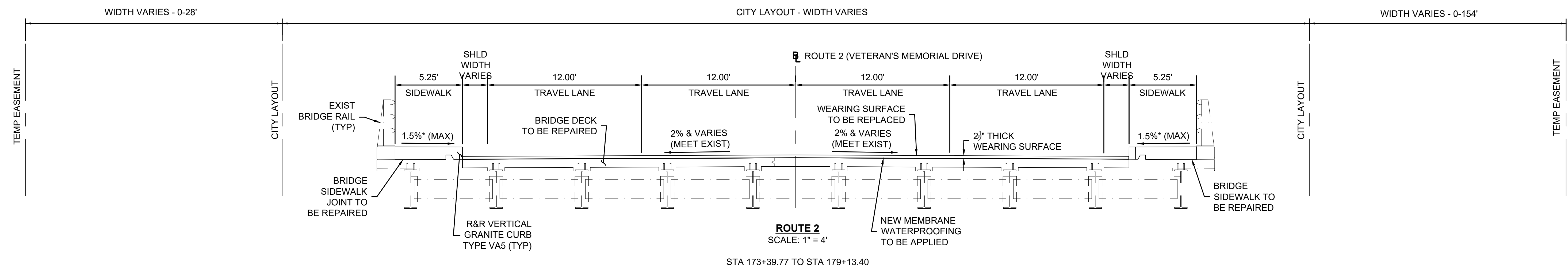
- 1 1/4" SUPERPAVE BRIDGE SURFACE COURSE - 9.5 - POLYMER (SSC-B - 9.5 - P) OVER
- 0.07-0.09 GAL/SY TACK COAT OVER
- 1 1/4" PAVEMENT FINE MILLING

CONCRETE NOTES

1. LIMITS TO BE DETERMINED BY THE ENGINEER.
2. DEPTH OF CONCRETE SIDEWALK TO MEET EXISTING.
3. * 0.5% ± CONSTRUCTION TOLERANCE.

BRIDGE CONCRETE SIDEWALK AND DECK

ALL CONCRETE SHALL BE 5000 HP CONCRETE.

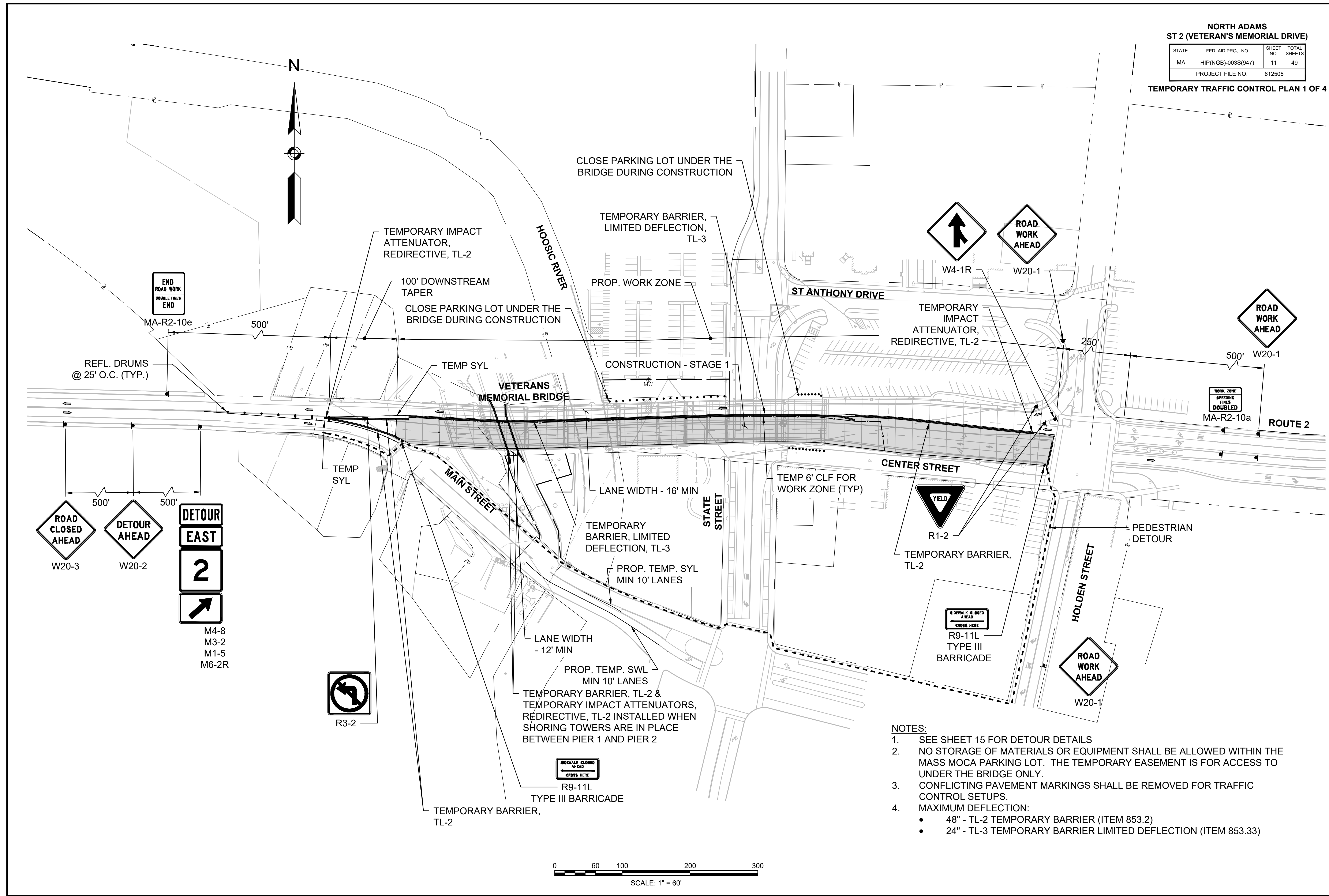


**NORTH ADAMS
ST 2 (VETERAN'S MEMORIAL DRIVE)**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(NGB)-003S(947)	11	49
PROJECT FILE NO.		612505	

TEMPORARY TRAFFIC CONTROL PLAN 1 OF 4

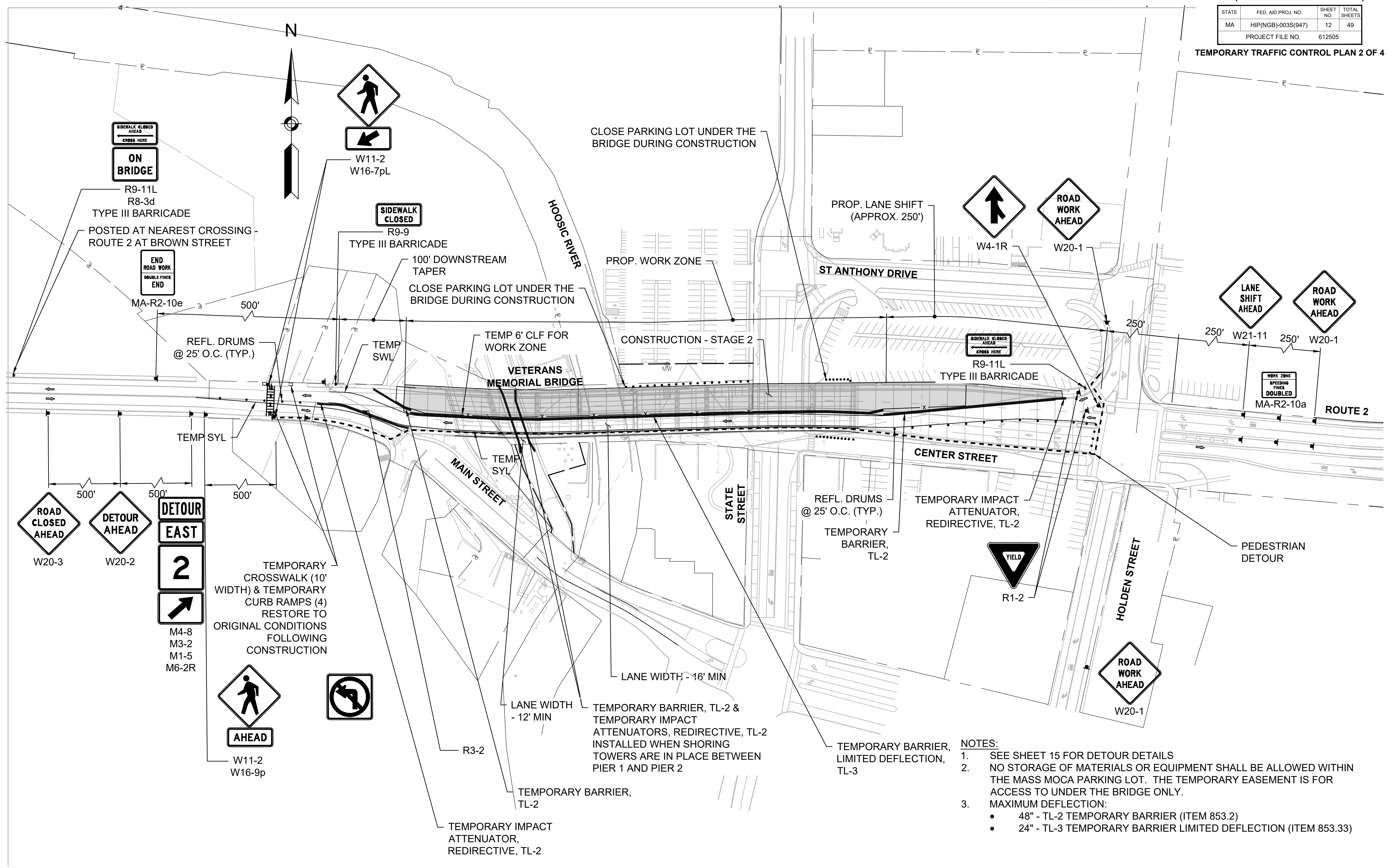
612505_H01(TCP)DWG Plotted on 12-Mar-2026 2:33 PM



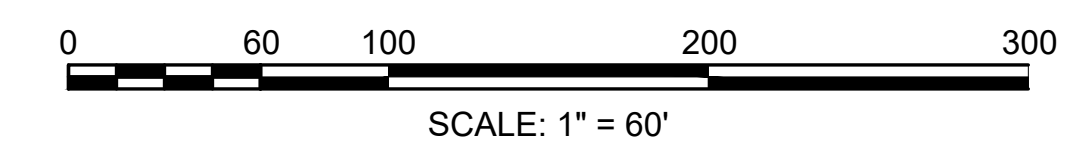
**NORTH ADAMS
ST 2 (VETERAN'S MEMORIAL DRIVE)**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(NGB)-003S(947)	12	49
PROJECT FILE NO.		612505	

TEMPORARY TRAFFIC CONTROL PLAN 2 OF 4



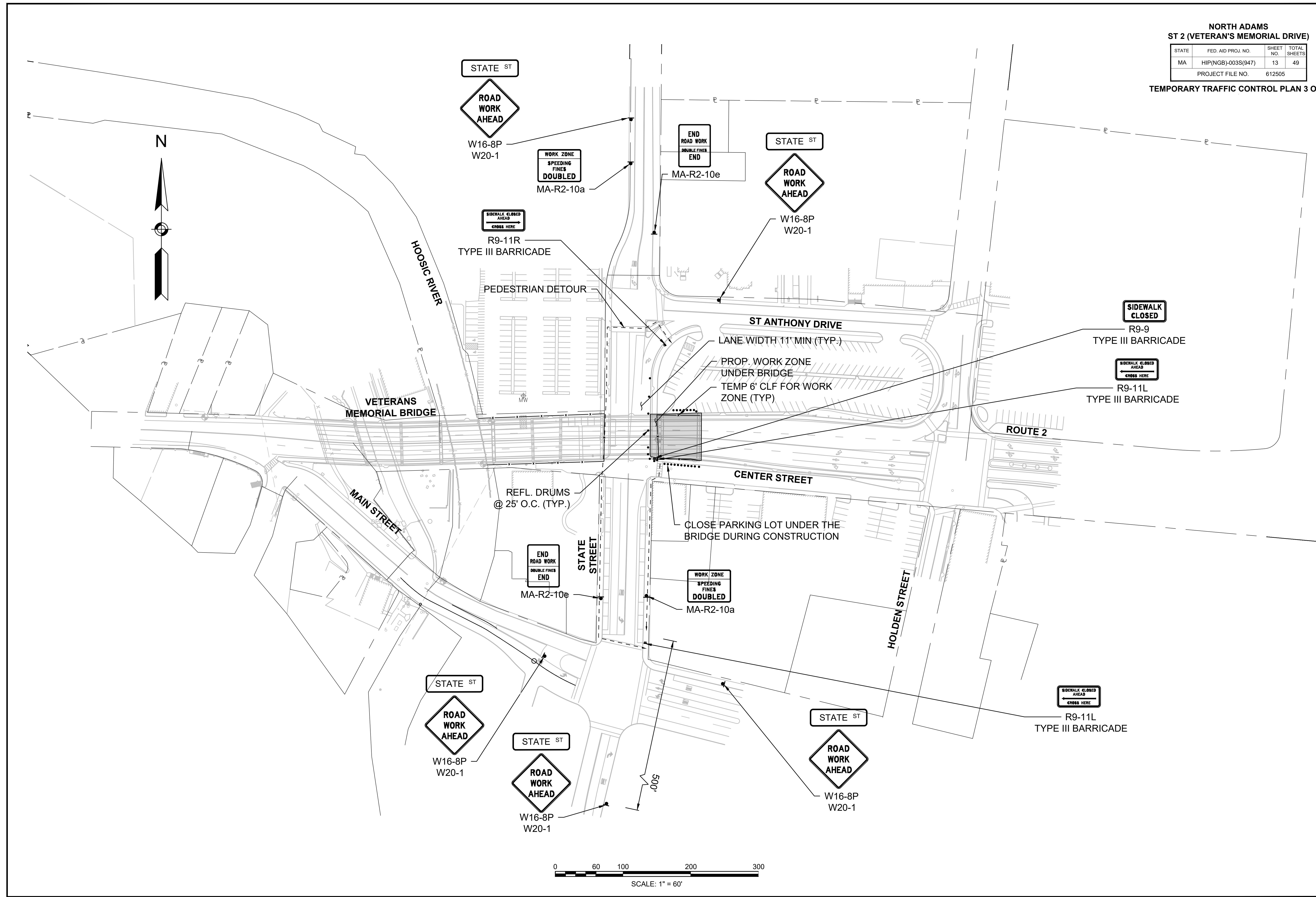
- NOTES:**
- SEE SHEET 15 FOR DETOUR DETAILS
 - NO STORAGE OF MATERIALS OR EQUIPMENT SHALL BE ALLOWED WITHIN THE MASS MOCA PARKING LOT. THE TEMPORARY EASEMENT IS FOR ACCESS TO UNDER THE BRIDGE ONLY.
 - MAXIMUM DEFLECTION:
 - 48" - TL-2 TEMPORARY BARRIER (ITEM 853.2)
 - 24" - TL-3 TEMPORARY BARRIER LIMITED DEFLECTION (ITEM 853.33)



**NORTH ADAMS
ST 2 (VETERAN'S MEMORIAL DRIVE)**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(NGB)-003S(947)	13	49
PROJECT FILE NO.		612505	

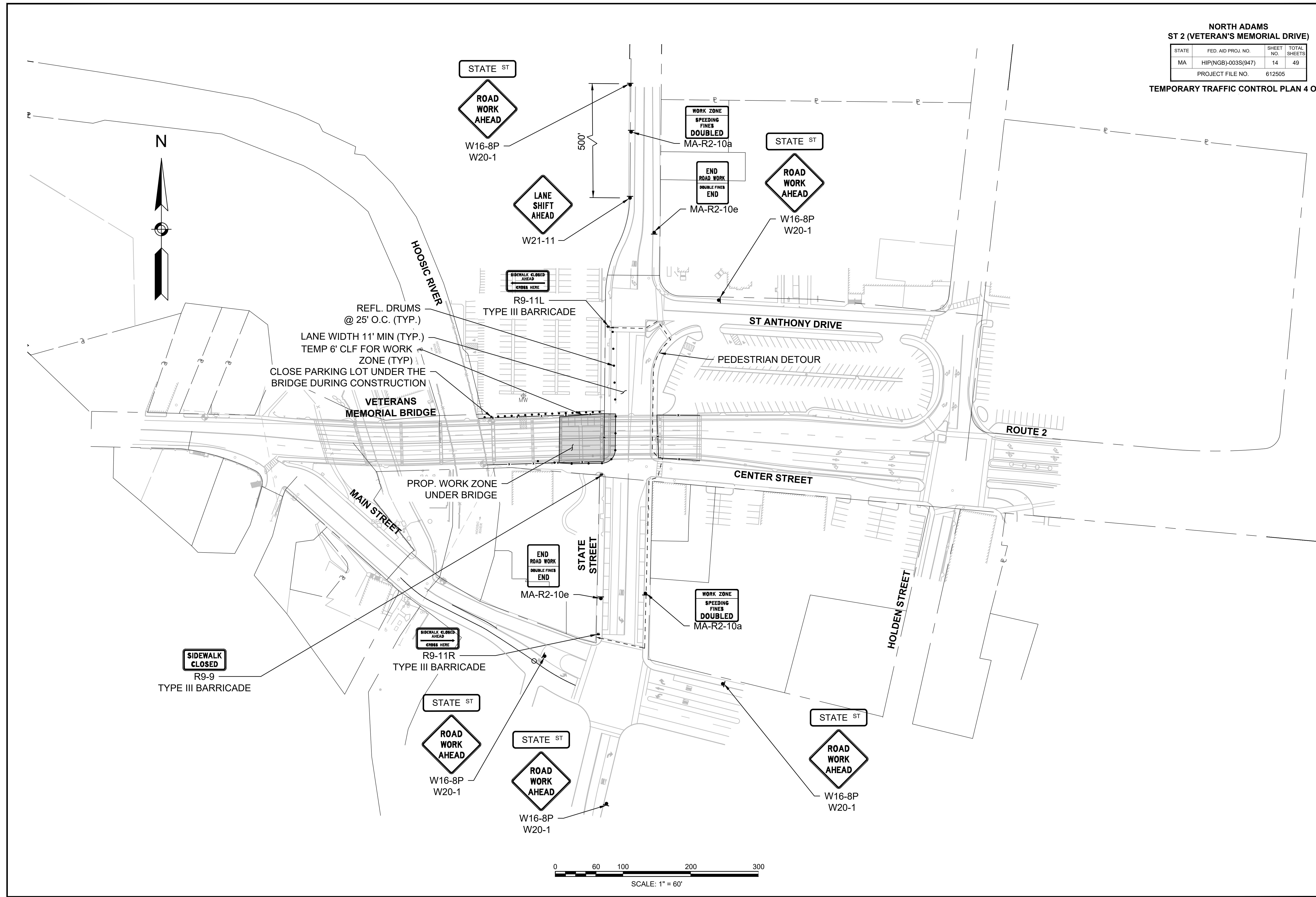
TEMPORARY TRAFFIC CONTROL PLAN 3 OF 4



**NORTH ADAMS
ST 2 (VETERAN'S MEMORIAL DRIVE)**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(NGB)-003S(947)	14	49
PROJECT FILE NO.		612505	

TEMPORARY TRAFFIC CONTROL PLAN 4 OF 4

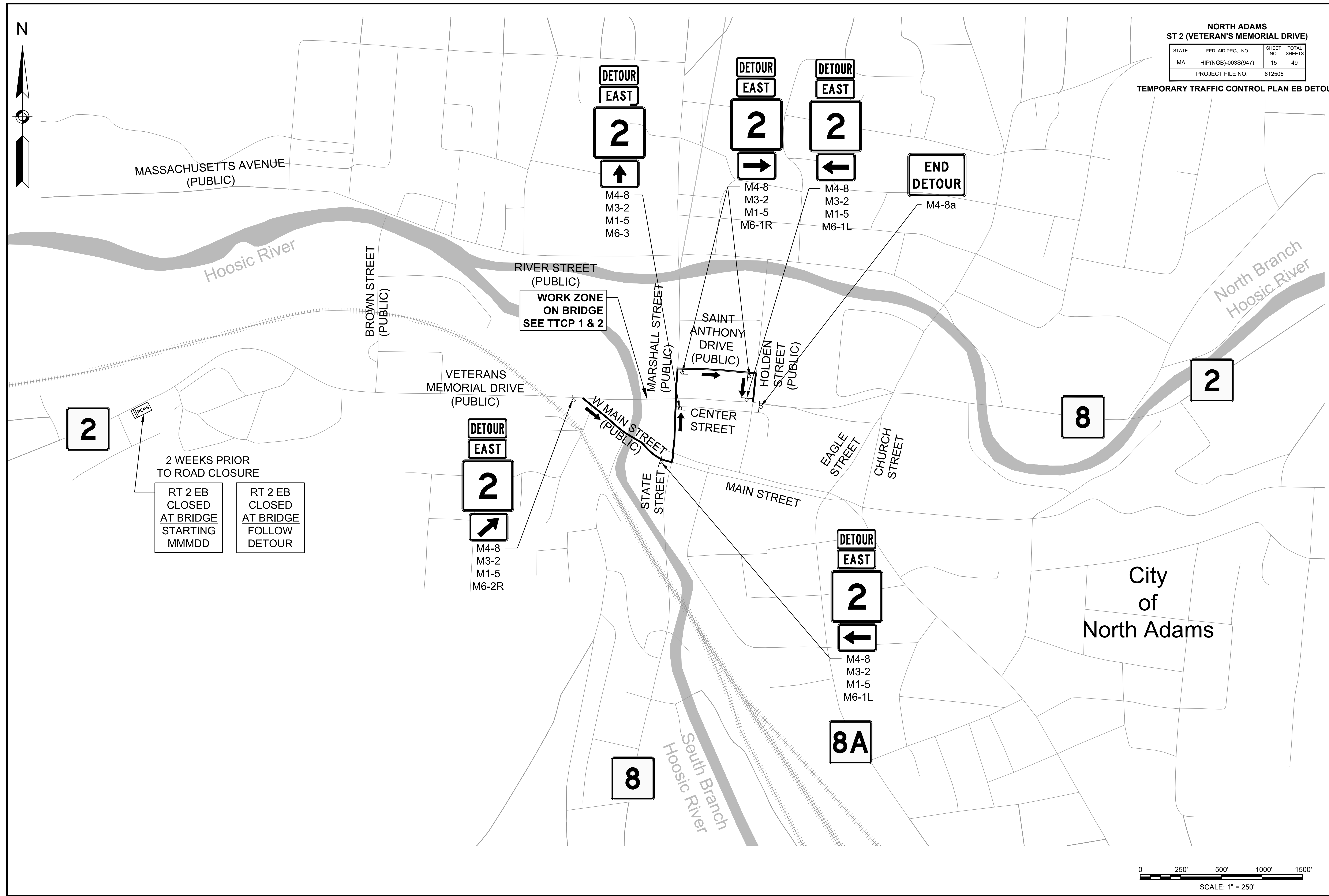




NORTH ADAMS
ST 2 (VETERAN'S MEMORIAL DRIVE)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(NGB)-003S(947)	15	49
PROJECT FILE NO.		612505	

TEMPORARY TRAFFIC CONTROL PLAN EB DETOUR



2

2 WEEKS PRIOR TO ROAD CLOSURE

RT 2 EB CLOSED AT BRIDGE STARTING MMMD	RT 2 EB CLOSED AT BRIDGE FOLLOW DETOUR
--	--

DETOUR EAST

2



M4-8
M3-2
M1-5
M6-2R

WORK ZONE ON BRIDGE SEE TTCP 1 & 2

DETOUR EAST

2



M4-8
M3-2
M1-5
M6-3

DETOUR EAST

2



M4-8
M3-2
M1-5
M6-1R

DETOUR EAST

2



M4-8
M3-2
M1-5
M6-1L

END DETOUR

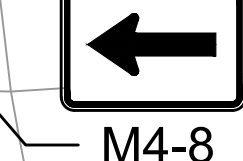
M4-8a

8

2

DETOUR EAST

2

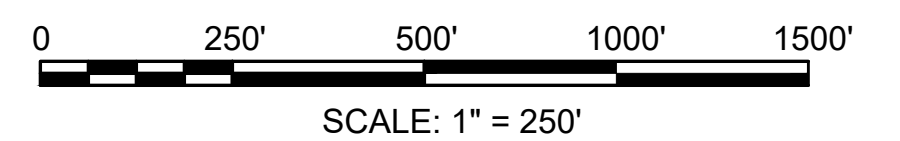


M4-8
M3-2
M1-5
M6-1L

8A

8

City of North Adams



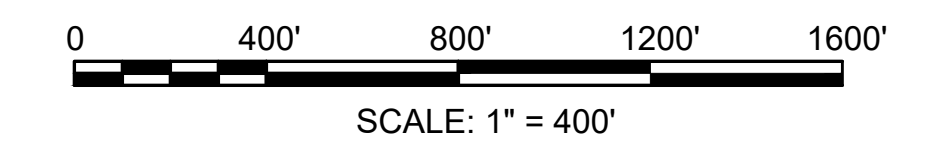
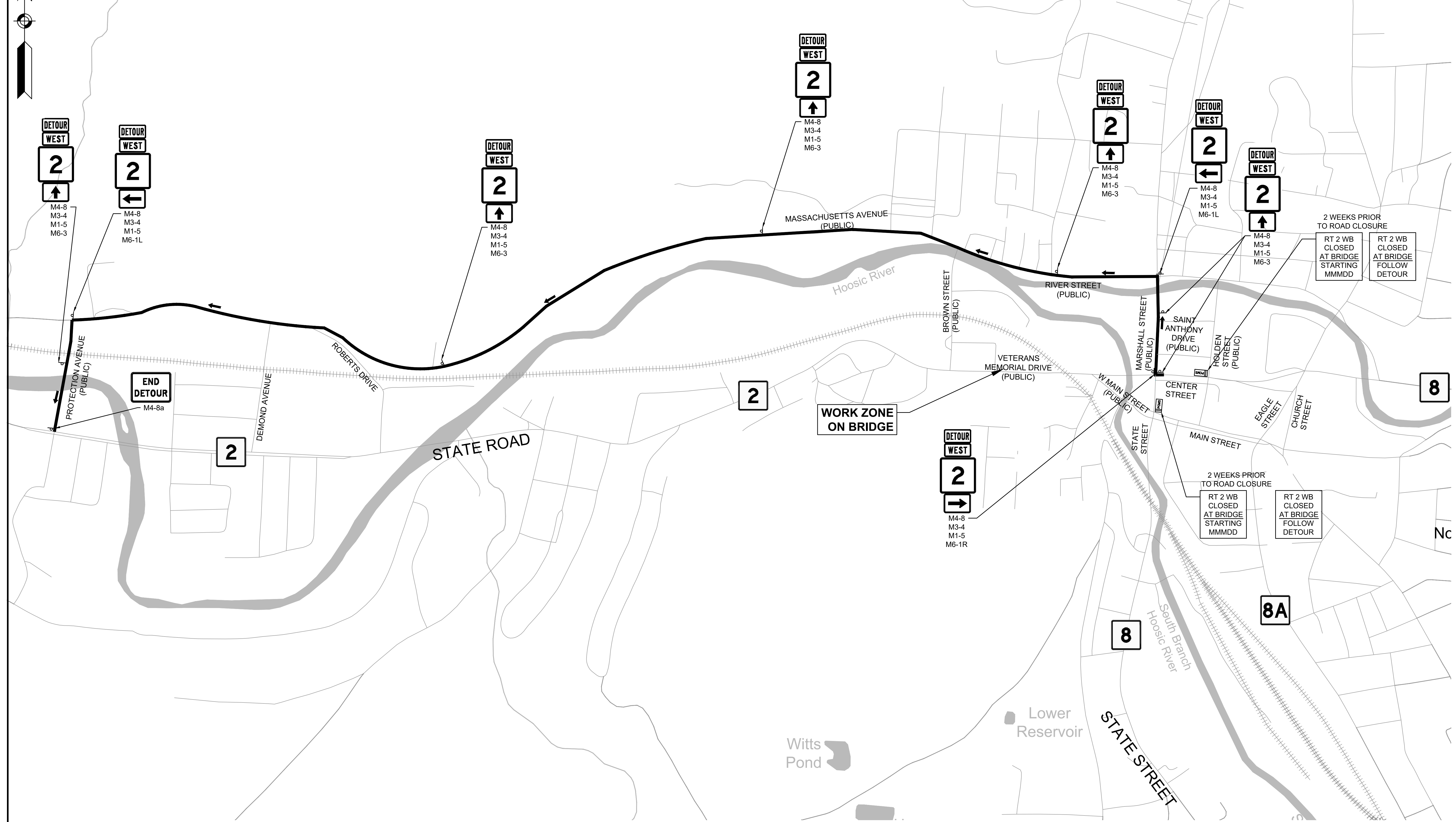


NORTH ADAMS
ST 2 (VETERAN'S MEMORIAL DRIVE)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(NGB)-003S(947)	16	49

PROJECT FILE NO. 612505

TEMPORARY TRAFFIC CONTROL PLAN WB DETOUR



**NORTH ADAMS
ST 2 (VETERAN'S MEMORIAL DRIVE)**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(NGB)-003S(947)	17	49
PROJECT FILE NO.		612505	

TEMPORARY TRAFFIC CONTROL PLAN SIGN SUMMARY

IDENTIFICATION NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS (IN.)			NUMBER OF SIGNS REQUIRED	COLOR			UNIT AREA (S.F.)	TOTAL AREA (S.F.)
	WIDTH (IN.)	HEIGHT (IN.)		LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR.		BACKGROUND	LEGEND	BORDER		
W16-8P	48	12		SEE 2009 M.U.T.C.D.			8	FLUORESCENT ORANGE	BLACK	BLACK	4.00	32.00
M1-5(2)	24	24		SEE MASSDOT STANDARDS			14	WHITE	BLACK	BLACK	4.00	56.00
M3-1	24	12		SEE 2009 M.U.T.C.D.			-	FLUORESCENT ORANGE	BLACK	BLACK	2.00	
M3-2	24	12		SEE 2009 M.U.T.C.D.			5	FLUORESCENT ORANGE	BLACK	BLACK	2.00	10.00
M3-3	24	12		SEE 2009 M.U.T.C.D.			-	FLUORESCENT ORANGE	BLACK	BLACK	2.00	
M3-4	24	12		SEE 2009 M.U.T.C.D.			9	FLUORESCENT ORANGE	BLACK	BLACK	2.00	
M4-8	24	12		SEE 2009 M.U.T.C.D.			14	FLUORESCENT ORANGE	BLACK	BLACK	2.00	28.00
M4-8a	24	18		SEE 2009 M.U.T.C.D.			2	FLUORESCENT ORANGE	BLACK	BLACK	3.00	6.00
M4-9bL/R	30	24		SEE 2009 M.U.T.C.D.			4	FLUORESCENT ORANGE	BLACK	BLACK	5.00	20.00
M6-1L/R	21	15		SEE 2009 M.U.T.C.D.			7	FLUORESCENT ORANGE	BLACK	BLACK	2.19	15.31
M6-2R	21	15		SEE 2009 M.U.T.C.D.			1	FLUORESCENT ORANGE	BLACK	BLACK	2.19	2.19
M6-3	21	15		SEE 2009 M.U.T.C.D.			6	FLUORESCENT ORANGE	BLACK	BLACK	2.19	13.13
MA-R2-10a	48	36		SEE MASSDOT STANDARDS			4	FLUORESCENT ORANGE WHITE	BLACK	BLACK	12.00	48.00
MA-R2-10e	36	48		SEE MASSDOT STANDARDS			4	FLUORESCENT ORANGE WHITE	BLACK	BLACK	12.00	48.00
R1-2	36X36X36			SEE 2009 M.U.T.C.D.			2	WHITE	RED	WHITE	3.90	7.79
R3-2	24	24		SEE 2009 M.U.T.C.D.			1	WHITE	RED BLACK	BLACK	3.90	3.90
R8-3d	24	18		SEE 2009 M.U.T.C.D.			1	WHITE	BLACK	BLACK	3.00	3.00
R9-9	24	12		SEE 2009 M.U.T.C.D.			2	WHITE	BLACK	BLACK	2.00	4.00
R9-11L/R	24	12		SEE 2009 M.U.T.C.D.			5	WHITE	BLACK	BLACK	2.00	10.00
W4-1R	36	36		SEE 2009 M.U.T.C.D.			1	FLUORESCENT ORANGE	BLACK	BLACK	9.00	9.00
W11-2	36	36		SEE 2009 M.U.T.C.D.			2	FLUORESCENT ORANGE	BLACK	BLACK	9.00	18.00

TOTAL 439.32 SF

W16-7pL	24	12		SEE 2009 M.U.T.C.D.	2	FLUORESCENT ORANGE	BLACK	BLACK	2.00	4.00
W16-9p	24	12		SEE 2009 M.U.T.C.D.	1	FLUORESCENT ORANGE	BLACK	BLACK	2.00	2.00
W20-1	36	36		SEE 2009 M.U.T.C.D.	8	FLUORESCENT ORANGE	BLACK	BLACK	9.00	72.00
W20-2c(AHD)	36	36		SEE 2009 M.U.T.C.D.	1	FLUORESCENT ORANGE	BLACK	BLACK	9.00	9.00
W20-3a(AHD)	36	36		SEE 2009 M.U.T.C.D.	1	FLUORESCENT ORANGE	BLACK	BLACK	9.00	9.00
W21-11	36	36		SEE 2009 M.U.T.C.D.	1	FLUORESCENT ORANGE	BLACK	BLACK	9.00	9.00

TRAFFIC MANAGEMENT NOTES

GENERAL NOTES:

- ALL CONSTRUCTION SIGNING, DRUMS, BARRICADES AND OTHER DEVICES SHALL BE FURNISHED AND INSTALLED IN CONFORMANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES - 2009 EDITION (M.U.T.C.D.); MASSDOT'S STANDARD SPECIFICATIONS; MASSDOT'S STANDARD DETAILS AND DRAWINGS FOR THE DEVELOPMENT OF TRAFFIC MANAGEMENT PLANS, JUNE 2017 EDITION, AND THE LATEST REVISIONS; AND THE FOLLOWING:
- WARNING SIGNS SHALL HAVE A FLUORESCENT ORANGE BACKGROUND, AND REGULATORY SIGNS SHALL BE BLACK TEXT ON A WHITE BACKGROUND.

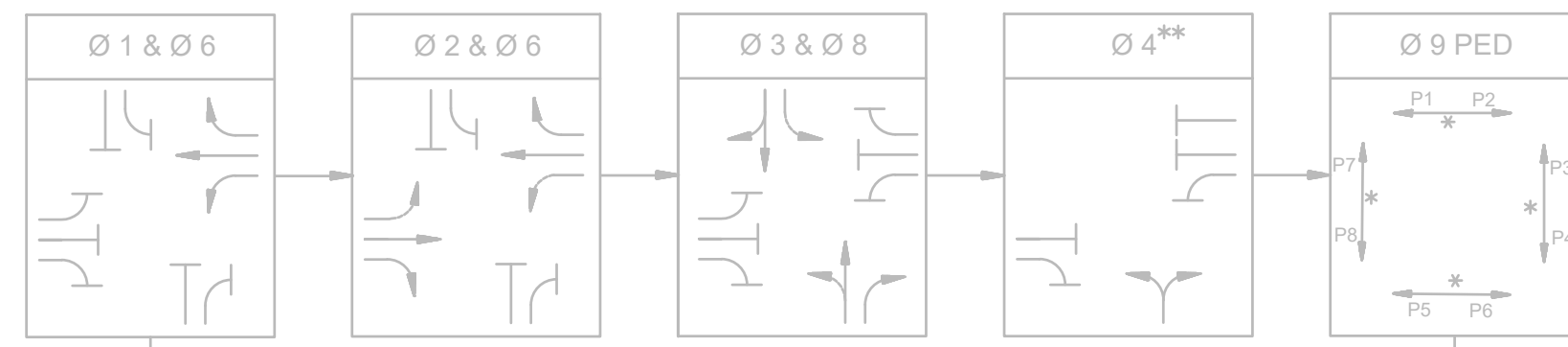
CONSTRUCTION SIGNING:

- FINAL LOCATION OF SIGNS, DRUMS, AND OTHER TRAFFIC CONTROL DEVICES SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.
- AT THE END OF EACH WORKDAY/SHIFT, THE CONTRACTOR SHALL COVER TEMPORARY TRENCHES WITH STEEL PLATES AND PROVIDE A TEMPORARY SIDEWALK WITH A STABLE AND FIRM SURFACE. TEMPORARY TRAFFIC CONTROL DEVICES, I.E., DRUMS AND CONSTRUCTION FENCES, SHALL BE REMOVED FROM THE TRAVELWAY OR MOVED TO THE BACK OF THE SIDEWALK.
- NON-ESSENTIAL TEMPORARY CONSTRUCTION TRAFFIC CONTROL DEVICES SHALL BE COVERED OR REMOVED FROM THE ROADWAY WHEN THEY ARE NOT REQUIRED FOR CONTROL OF TRAFFIC.

MISCELLANEOUS:

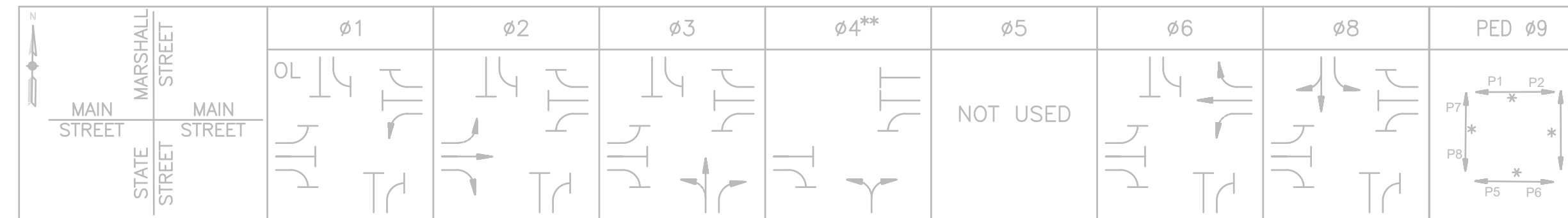
- EXISTING DETAIL ON THESE PLAN IS APPROXIMATE AND WAS DIGITIZED FROM GIS MAPS. ACTUAL FIELD LOCATIONS AND DIMENSIONS MAY VARY
- THE WORKSITE SHALL BE ADEQUATELY PROTECTED (DURING BOTH WORKING AND NON-WORKING HOURS) TO ENSURE THE SAFETY OF ALL MODES OF TRAFFIC.
- AT ALL TIMES, MAINTAIN INGRESS AND EGRESS TO ALL STREETS AND DRIVES.
- UPON COMPLETION OF THE WORK, THE CONTRACTOR SHALL REMOVE ANY TEMPORARY MARKINGS AND RESTORE ANY PAVEMENT MARKINGS TO THEIR ORIGINAL LOCATION.

PREFERENTIAL PHASING SEQUENCE



1. ANY PHASE OR PHASE COMBINATION NOT CALLED SHALL BE SKIPPED.
* UPON PEDESTRIAN PUSHBUTTON ACTUATION ONLY

MAIN STREET AT STATE STREET TEMPORARY SIGNAL TIMING PLAN



SEQUENCE AND TIMING FOR FULL ACTUATED CONTROL

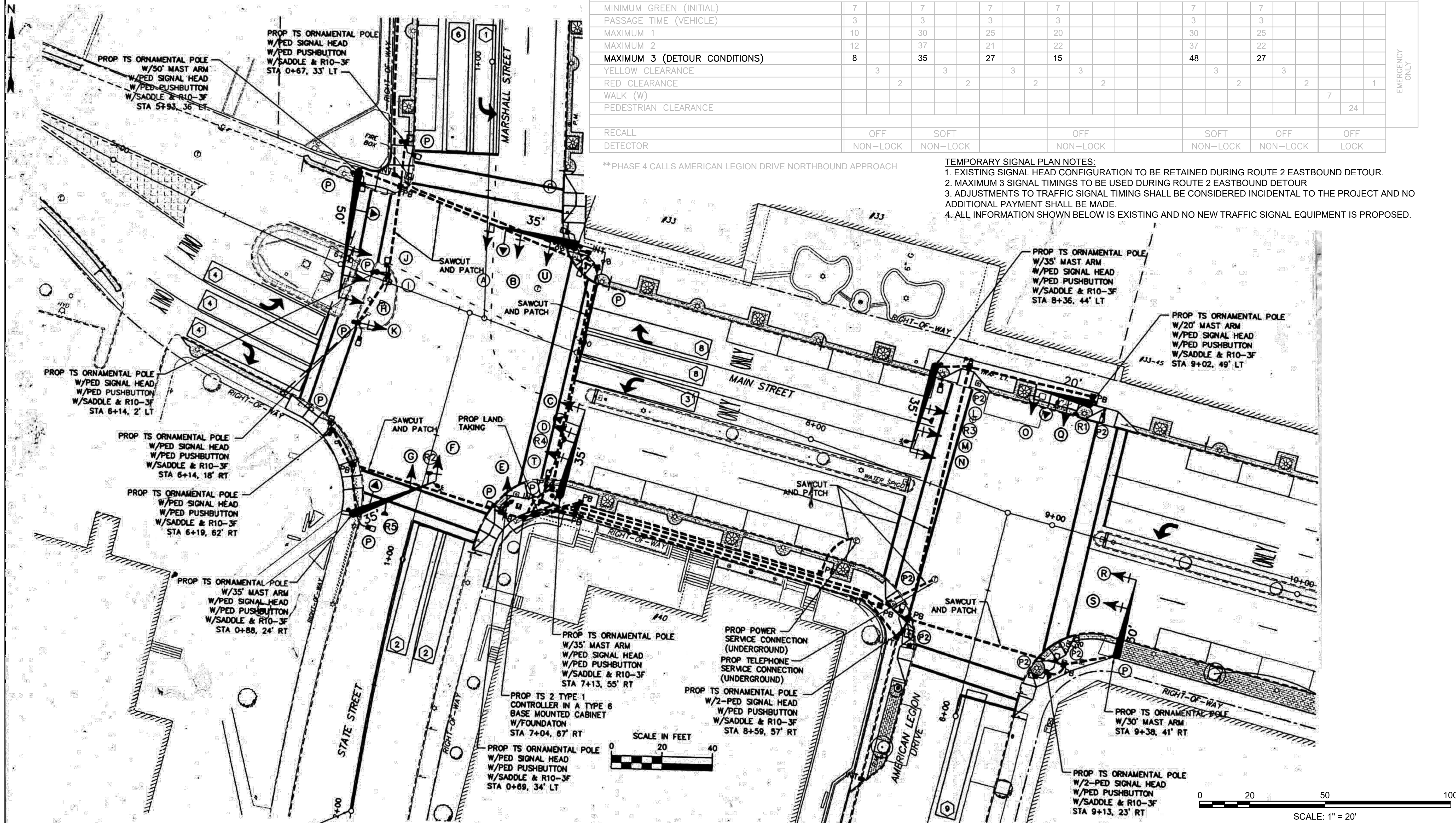
STREET	DIRECTION	HOUSINGS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	FLASH OPER.
MAIN STREET	EB	C,D,T	R	R	R	G	Y	R	R	R	R	R	R	R				R	R	R	R	R	R	R	R	R	
MAIN STREET	WB	H,K	<G	Y	R	R	R	R	R	R	R	R	R	R				G	Y	R	R	R	R	R	R	R	
MAIN STREET	WB	J	R	R	R	R	R	R	R	R	R	R	R	R				G	Y	R	R	R	R	R	R	R	
MAIN STREET	WB	J	R	R	R	R	R	R	R	R	R	R	R	R				<G	Y	R	R	R	R	R	R	R	
MARSHALL STREET	SB	E,F	R	R	R	R	R	R	R	R	R	R	R	R				R	R	R	G	Y	R	R	R	R	
MARSHALL STREET	SB	G	R	R	R	R	R	R	R	R	R	R	R	R				R	R	R	G	Y	R	R	R	R	
STATE STREET	NB	A,B,U	R	R	R	R	R	R	R	G	Y	R	R	R				R	R	R	R	R	R	R	R	R	
AMERICAN LEGION DRIVE	NB	O,Q	R	R	R	R	R	R	R	R	R	G	Y	R				R	R	R	R	R	R	R	R	R	
PEDESTRIAN		P1-P8	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW				DW	DW	DW	DW	DW	DW	W	FDW	DW	OFF

	TIMING IN SECONDS																										
MINIMUM GREEN (INITIAL)	7																										
PASSAGE TIME (VEHICLE)	3																										
MAXIMUM 1	10																										
MAXIMUM 2	12																										
MAXIMUM 3 (DETOUR CONDITIONS)	8																										
YELLOW CLEARANCE																											
RED CLEARANCE																											
WALK (W)																											
PEDESTRIAN CLEARANCE																											
RECALL																											
DETECTOR																											

**PHASE 4 CALLS AMERICAN LEGION DRIVE NORTHBOUND APPROACH

TEMPORARY SIGNAL PLAN NOTES:

- EXISTING SIGNAL HEAD CONFIGURATION TO BE RETAINED DURING ROUTE 2 EASTBOUND DETOUR.
- MAXIMUM 3 SIGNAL TIMINGS TO BE USED DURING ROUTE 2 EASTBOUND DETOUR
- ADJUSTMENTS TO TRAFFIC SIGNAL TIMING SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT AND NO ADDITIONAL PAYMENT SHALL BE MADE.
- ALL INFORMATION SHOWN BELOW IS EXISTING AND NO NEW TRAFFIC SIGNAL EQUIPMENT IS PROPOSED.



**NORTH ADAMS
ST 2 (VETERAN'S MEMORIAL DRIVE)**

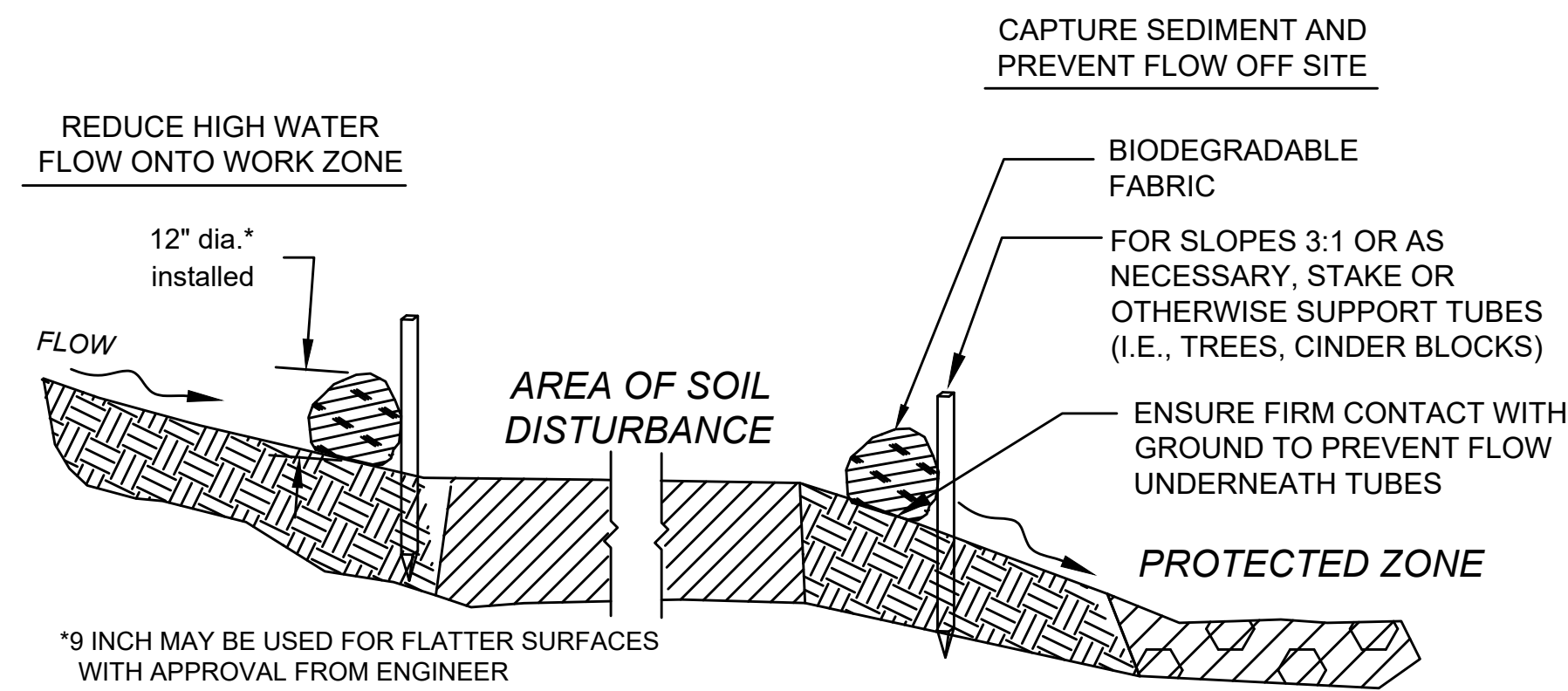
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(NGB)-003S(947)	18	49
PROJECT FILE NO.		612505	

TEMPORARY SIGNAL SEQUENCE PLAN

**NORTH ADAMS
ST 2 (VETERAN'S MEMORIAL DRIVE)**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(NGB)-003S(947)	19	49
PROJECT FILE NO.		612505	

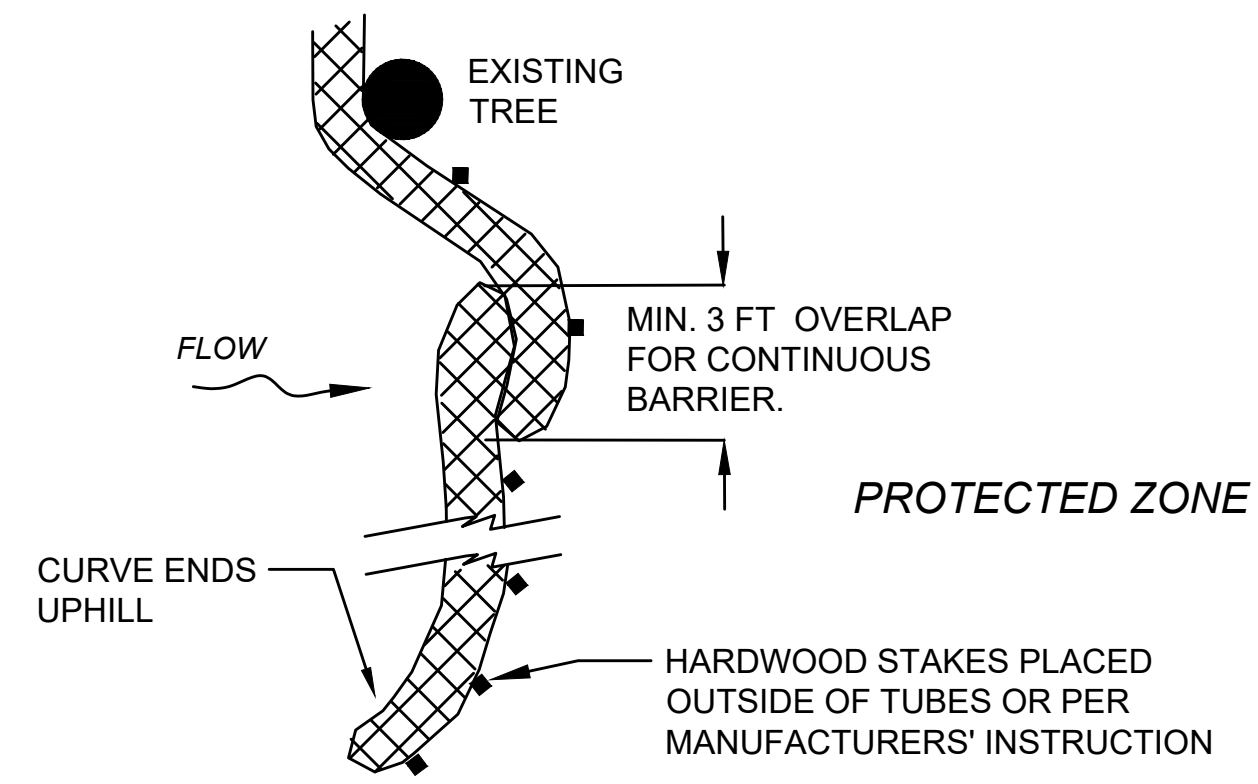
CONSTRUCTION DETAILS



SECTION

SEDIMENT CONTROL BARRIER

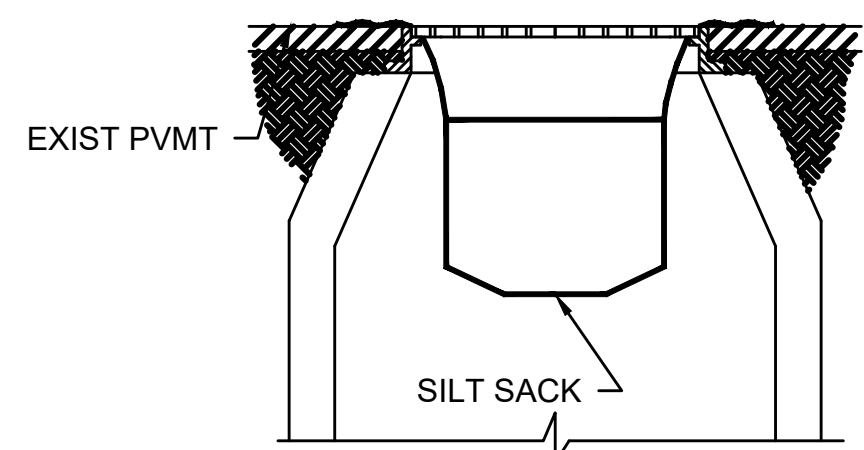
NOT TO SCALE



PLAN VIEW

PLACE TUBE AS CLOSE TO LIMIT OF SOIL DISTURBANCE AS POSSIBLE, ALONG CONTOURS, AND PERPENDICULAR TO FLOW.

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



(FOR USE WITH EXISTING CATCH BASINS)

SILT SACK INLET PROTECTION

NOT TO SCALE

NOTE:
SILT SACKS TO BE PLACED IN ALL CATCH BASINS IN THE VICINITY OF NEW CONSTRUCTION. CATCH BASINS ARE TO BE PROTECTED AS SHOWN, WITH MINIMUM WEEKLY MAINTENANCE, OR AS REQUIRED AND REPLACED IF NECESSARY.

MassDOT STANDARD DETAILS	
DRAWING NUMBER	DRAWING NAME
850.1.1-2	TEMPORARY CURB RAMP
851.1.1	CONES AND DRUMS
851.2.2	TYPE III BARRICADE WITH SIGN
852.1.1	SIDEWALK DETOUR
852.1.3	PEDESTRIAN DETOUR FOR CROSSWALK CLOSURE
853.2.1-3	TEMPORARY CONCRETE BARRIER MASH TL-2

NOTES:
SPECIFIC REFERENCES TO THE DETAILS ABOVE ARE DIRECTLY RELATED TO ITEMS SHOWN ON THE TEMPORARY TRAFFIC CONTROL PLANS. THIS LIST IS NOT ALL INCLUSIVE AND MAY REQUIRE REFERENCE TO ADDITIONAL STANDARD DETAILS AND REFERENCE TO THE MUTCD AND MASSDOT STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES.

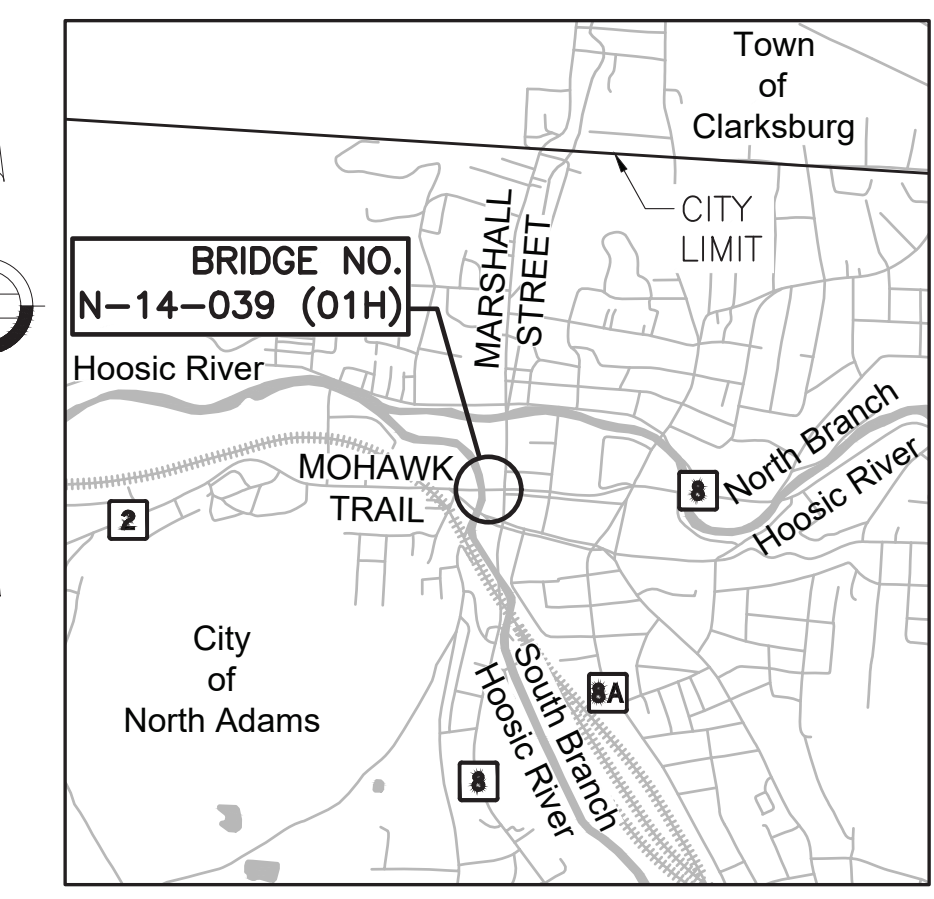
**NORTH ADAMS
ST 2 (VETERANS MEMORIAL DRIVE)**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(NGB)-003S(947)	20	49
PROJECT FILE NO.		612505	

KEY PLAN, LOCUS, & PROFILE

INDEX

SHEET NO.	DESCRIPTION
1 OF 30	KEY PLAN, LOCUS, & PROFILE
2 OF 30	GENERAL NOTES
3 OF 30	FRAMING PLAN 1 OF 3
4 OF 30	FRAMING PLAN 2 OF 3
5 OF 30	FRAMING PLAN 3 OF 3
6 OF 30	TRANSVERSE SECTION
7 OF 30	WEST ABUTMENT & WINGWALL ELEVATIONS
8 OF 30	EAST ABUTMENT & WINGWALL ELEVATIONS
9 OF 30	PIER 1 REPAIRS
10 OF 30	PIER 2 REPAIRS
11 OF 30	PIER 3 REPAIRS
12 OF 30	PIER 4 REPAIRS
13 OF 30	PIER 5 REPAIRS
14 OF 30	PIER 6 REPAIRS
15 OF 30	PIER 7 REPAIRS
16 OF 30	PIER 8 REPAIRS
17 OF 30	SUBSTRUCTURE REPAIR DETAILS 1 OF 2
18 OF 30	SUBSTRUCTURE REPAIR DETAILS 2 OF 2
19 OF 30	SHORING DETAILS
20 OF 30	BEARING REPLACEMENT DETAILS
21 OF 30	BEARING CLEANING & PAINTING DETAILS
22 OF 30	BEAM REPAIR DETAILS
23 OF 30	DECK REPAIR PLAN 1 OF 3
24 OF 30	DECK REPAIR PLAN 2 OF 3
25 OF 30	DECK REPAIR PLAN 3 OF 3
26 OF 30	DECK REPAIRS DETAILS
27 OF 30	DECK JOINTS REPAIRS 1 OF 2
28 OF 30	DECK JOINTS REPAIRS 2 OF 2
29 OF 30	SHIELDING DETAILS
30 OF 30	DECK DRAIN & SCUPPER REPLACEMENT DETAILS



⊞ CURVE DATA*

PC	PT	Δ	RADIUS	LENGTH	TANGENT
173+93.69	174+76.90	4°46'03"	1000.00'	83.21'	41.63'
177+66.67	180+06.04	6°52'56"	1992.81'	239.37'	119.83'

BRIDGE & ROADWAY GEOMETRY*

LOCATION	WIDTH
SIWALKS	5'-3"
BRIDGE RAIL	1'-4 1/2"
WB TRAVEL LANES (2)	12'-0"
WB SHOULDER	2'-0" MIN., 4'-1 1/2" MAX.
EB TRAVEL LANES (2)	12'-0"
EB SHOULDER	2'-0" MIN., 2'-2 7/8" MAX.

BEARING TYPE*

LOCATION	TYPE
⊞ W. ABUT. BRG.	EXP.
⊞ PIER 1 W. BRG.	FIXED
⊞ PIER 1 E. BRG.	EXP.
⊞ PIER 2 W. BRG.	FIXED
⊞ PIER 2 E. BRG.	EXP.
⊞ PIER 3 BRG.	EXP.
⊞ PIER 4 BRG.	FIXED
⊞ PIER 5 W. BRG.	EXP.
⊞ PIER 5 E. BRG.	EXP.
⊞ PIER 6 W. BRG.	FIXED
⊞ PIER 6 E. BRG.	EXP.
⊞ PIER 7 BRG.	EXP.
⊞ PIER 8 BRG.	FIXED
⊞ E. ABUT. BRG.	EXP.

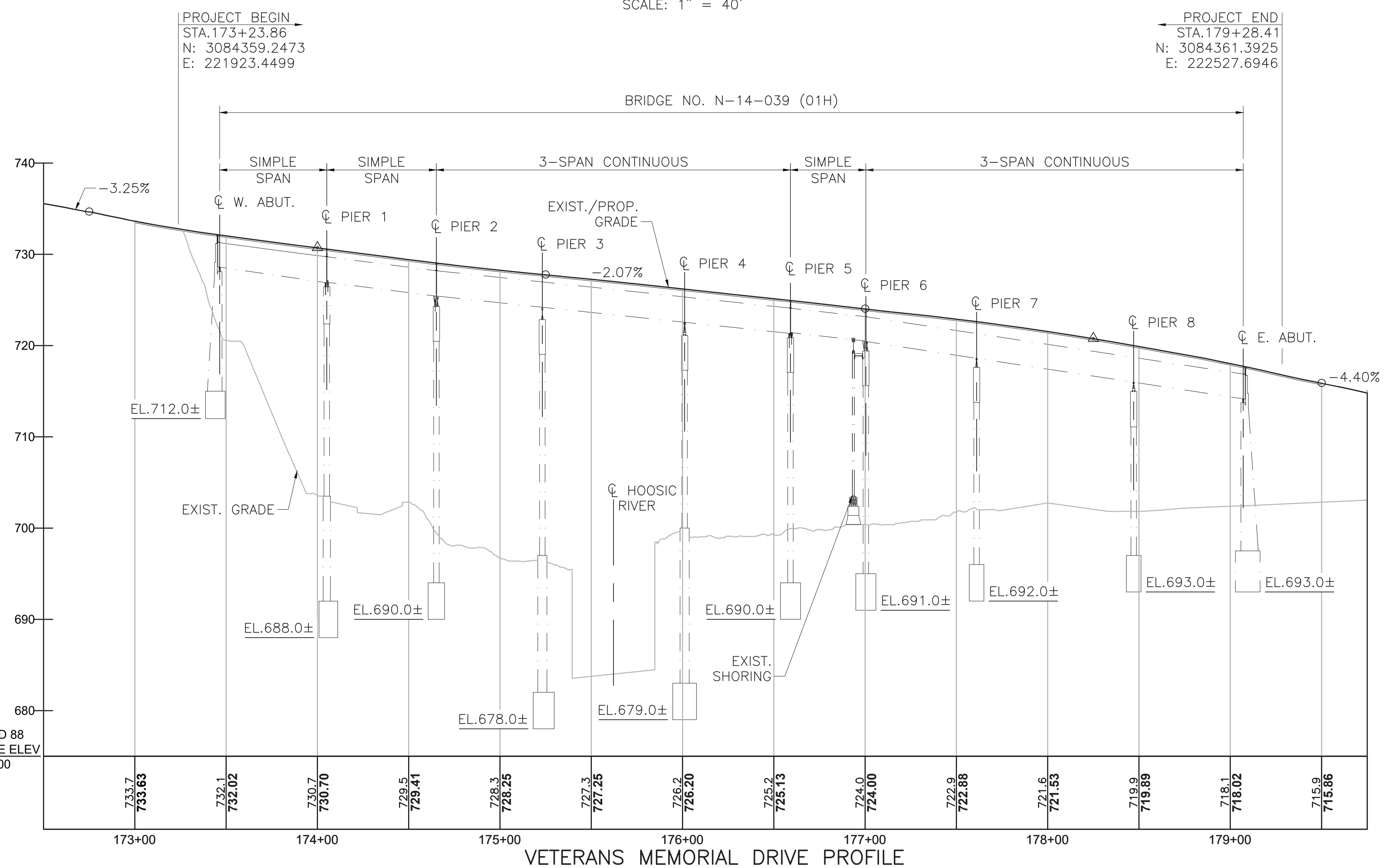
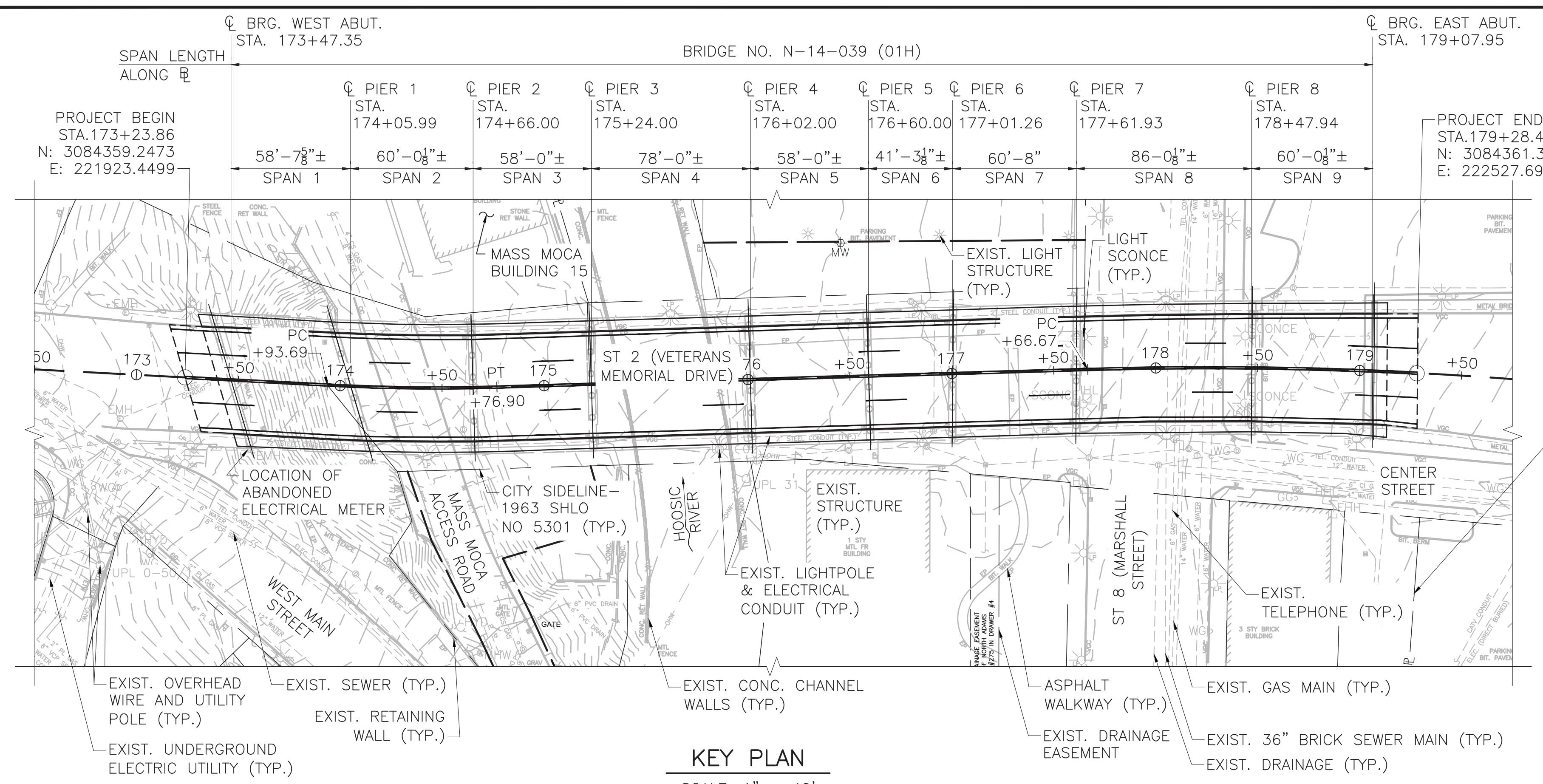
⊞ SAG CURVE DATA*

PVC	172+75.00
PVI	174+00.00
L	250.00
PVT	175+25.00

⊞ CREST CURVE DATA*

PVC	177+00.00
PVI	178+25.00
L	250.00
PVT	179+50.00

* EXISTING DATA FROM 1992 DRAWINGS



COMMONWEALTH OF MASSACHUSETTS
JOHN W. WERTAN
CIVIL
No. 51139
PROFESSIONAL ENGINEER

John W. Wertan
Digitally signed by John W. Wertan
DN: cn=John W. Wertan, o=Professional Engineer
Date: 2026.03.18 16:30:47 -0400

BSC GROUP
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803 SUMMER STREET
BOSTON, MASSACHUSETTS 02127
617-896-4300 | www.bscgroup.com

APRIL 18, 2026 ISSUED FOR CONSTRUCTION

massDOT
Massachusetts Department of Transportation
Highway Division

**PROPOSED BRIDGE PRESERVATION
NORTH ADAMS**
ST 2 (VETERANS MEMORIAL DRIVE)
OVER ST 8 (MARSHALL STREET)
AND HOOSIC 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.
DN: cn=Alexander K. Bardow, o=Professional Engineer
Date: 2026.03.26 16:41:01 -0400

Carrie Lavallo, P.E.
Digitally signed by Carrie Lavallo, P.E.
DN: cn=Carrie Lavallo, o=Professional Engineer
Date: 2026.03.27 10:30:08 -0400

STATE BRIDGE ENGINEER CHIEF ENGINEER

GENERAL NOTES:

DESIGN:

IN ACCORDANCE WITH THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 17TH EDITION, 2002, FOR HS20 LOADING USING ALLOWABLE STRESS (ASD) METHOD.

MASSDOT BENCH MARK:

BENCH MARK 1:
PUNCH SE BOLT OF LIGHT POLE
N = 3084393.6946, E = 221773.9793,
EL. = 738.14

BENCH MARK 2:
NW CORNER CONCRETE PIER
N=3084387.121, E=222197.385,
EL. = 699.63

ELEVATIONS ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM (NAVD) OF 1988.

MASSDOT SURVEY NOTEBOOKS:

COPIES OF ELECTRONIC FILES FOR SURVEY FIELD BOOK #41826 MAY BE OBTAINED FROM MASSDOT.

SCALES:

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

ANCHOR BOLTS:

MATERIALS FOR ANCHOR BOLTS SHALL BE ASTM F1554 GRADE 105 AND SHALL BE HOT DIP GALVANIZED IN ACCORDANCE WITH AASHTO M 232 AND SHALL BE EITHER THREADED OR SWAGED ON THE EMBEDDED PORTION OF THE ROD.

CONCRETE:

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

5000 PSI, 3/4 INCH, 685 HP CEMENT CONCRETE SHALL BE USED FOR FULL DEPTH DECK REPAIRS AND DIAPHRAGM ENCASEMENTS.

5000 PSI, 3/8 INCH, 710 HP CEMENT CONCRETE SHALL BE USED FOR PARTIAL DEPTH DECK REPAIRS AND SUBSTRUCTURE REPAIRS.

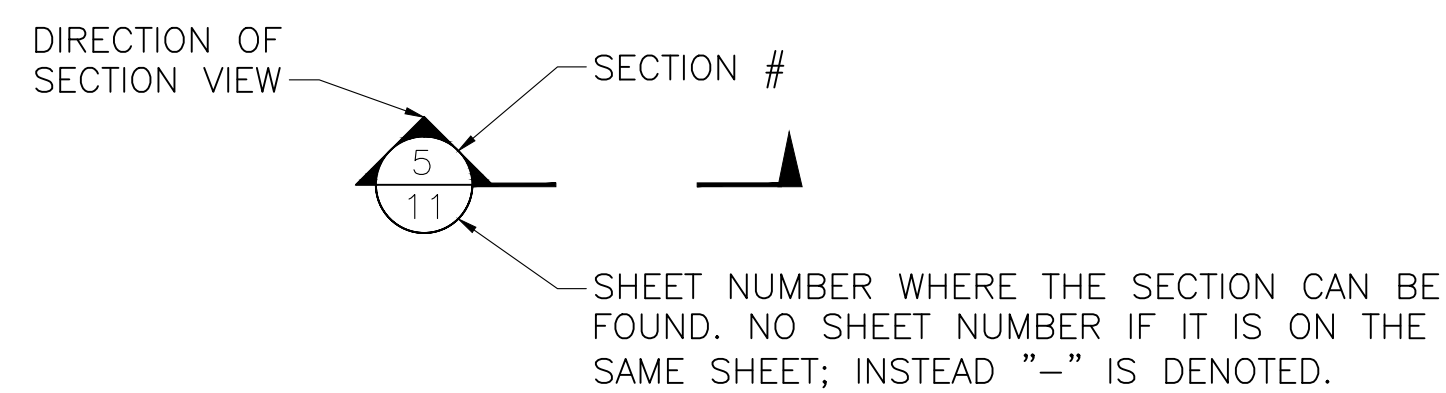
REINFORCEMENT:

ALL REINFORCING BARS AND SUPPORT DEVICES SHALL BE EPOXY COATED UNLESS OTHERWISE NOTED. REINFORCING STEEL SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M31 GRADE 60. UNLESS OTHERWISE NOTED ON THE CONSTRUCTION DRAWINGS, ALL BARS SHALL BE LAPPED AS FOLLOWS:

MODIFICATION CONDITION	#4 BARS	#5 BARS	#6 BARS	#8 BARS
1. NONE	16"	17"	21"	37"
2. 12" OF CONCRETE BELOW BAR	18"	22"	27"	48"
3. EPOXY COATED BARS, COVER < 3db, OR CLEAR SPACING < 6db	21"	26"	31"	56"
4. COATED BARS, ALL OTHER CASES	17"	21"	25"	45"
5. CONDITION 2. AND 3.	23"	29"	35"	63"
6. CONDITION 2. AND 4.	21"	27"	32"	58"

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

SECTION MARK:



WELDING:

1. WELDING SHALL CONFORM TO AASHTO/AWS D1.5/D1.5M 8TH EDITION WITH ALL CURRENT REVISIONS AND INTERIMS, BRIDGE WELDING CODE AND WITH AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS AND LRFD BRIDGE CONSTRUCTION SPECIFICATIONS 4TH EDITION WITH ALL CURRENT REVISIONS AND INTERIMS.
2. THE CONNECTION OF THE BEARINGS TO GIRDERS SHALL BE FIELD-WELDED (WELDS SHALL BE IN THE HORIZONTAL POSITION).
3. THE WELDS FOR THE SOLE PLATE CONNECTION SHALL ONLY BE ALONG THE LONGITUDINAL GIRDER AXIS.
4. TRANSVERSE JOINTS SHALL BE SEALED WITH CAULKING MATERIAL THAT IS ON THE MASSDOT APPROVED MATERIALS LIST.
5. MAGNETIC PARTICLE TESTING IS REQUIRED FOR FIELD WELDS.
6. CONTRACTOR TO SUBMIT WELDING PROCEDURE FOR APPROVAL PRIOR TO COMMENCEMENT OF WORK.

EXISTING CONDITIONS:

ALL DIMENSIONS AND DETAILS SHOWN FOR THE EXISTING STRUCTURE ARE NOT GUARANTEED TO BE CORRECT. THE CONTRACTOR SHALL DETERMINE AND ESTABLISH ALL DIMENSIONS AND DETAILS NECESSARY FOR THE COMPLETION OF ALL WORK BY FIELD MEASUREMENT AND SURVEY.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ADEQUACY AND ACCURACY THEREOF AND SHALL NOT ORDER ANY MATERIALS OR COMMENCE ANY FABRICATION UNTIL THE REQUIRED MEASUREMENTS HAVE BEEN MADE ON THE ACTUAL STRUCTURE AND THE ELEMENT OF PROPOSED WORK HAS BEEN APPROVED BY THE ENGINEER.

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS REQUIRED FOR THE PROPER PERFORMANCE OF THE WORK. FIELD CONDITIONS MAY EXIST WHICH DEVIATE FROM THE TYPICAL WORK AND THEORETICAL DIMENSIONS SHOWN ON THE PLANS. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR FABRICATION AND FIT OF THEIR WORK.

EXISTING BRIDGE PLANS:

PLANS FOR THE EXISTING BRIDGE ARE AVAILABLE AND MAY BE REQUESTED ELECTRONICALLY FROM PLANS AND RECORDS.

WEARING SURFACE:

THE THICKNESS OF THE SUPERPAVE WEARING SURFACE SHALL NOT EXCEED 2 1/2" TO MATCH THE ORIGINAL DESIGN AND EXISTING PLANS.

UNLESS OTHERWISE SPECIFIED, SUPERPAVE MIXES ARE AS FOLLOWS:

1 1/4" THICK SUPERPAVE BRIDGE SURFACE COURSE - 9.5 POLYMER (SSC-B-9.5-P)

1 1/4" THICK SUPERPAVE BRIDGE PROTECTIVE COURSE - 9.5 POLYMER (SPC-B-9.5-P)

ACCURACY OF THE ELEVATIONS PROVIDED IN THE PROPOSED ROADWAY PROFILE SHOWN ON SHEET 1 IS NOT GUARANTEED. THE VETERANS MEMORIAL DRIVE PROFILE IS BASED ON SURVEY DATA AND FIELD MEASUREMENTS THAT SUGGEST AN EXISTING WEARING SURFACE THICKNESS OF 3"± TO BE REMOVED. THE CONTRACTOR SHALL REMOVE THE EXISTING WEARING SURFACE IN ITS ENTIRETY TO THE TOP OF THE EXISTING CONCRETE DECK. TOP OF DECK ELEVATIONS SHALL MATCH EXISTING UPON COMPLETION OF DECK REPAIRS. TOP OF WEARING SURFACE SHALL CLEANLY TRANSITION TO THE EXISTING ROADWAY AND THE CONTRACTOR SHALL VERIFY PROPER DRAINAGE WITHOUT PONDING OF WATER.

TRAFFIC NOTES:

ROUTE 2 (VETERANS MEMORIAL DRIVE) SHALL REMAIN PARTIALLY OPEN TO TRAFFIC. REFER TO THE TRAFFIC MANAGEMENT PLANS FOR DETOUR ROUTES AND STAGE CONSTRUCTION.

UTILITIES:

THE CONTRACTOR SHALL PROTECT FROM DAMAGE, AS NECESSARY, ANY EXISTING UTILITIES/POLES. THE CONTRACTOR SHALL COORDINATE AND COOPERATE WITH THE RESPECTIVE UTILITY OWNERS FOR ALL UTILITIES THAT ARE TO BE TEMPORARILY OR PERMANENTLY RELOCATED FOR THE BRIDGE PRESERVATION WORK. CONTRACTOR TO CONFIRM WITH UTILITY COMPANY PRIOR TO REMOVAL OF ABANDONED UTILITIES. CONTRACTOR TO COORDINATE CONDUIT WORK WITH AFFECTED UTILITY COMPANIES AND WITH BRIDGE PRESERVATION WORK.

REPAIR/REPLACE METAL CONDUITS THAT PROVIDE SERVICE TO LIGHT POLES CARRIED AT THE UNDERSIDE OF BRIDGE AT THE END OF EACH SPAN AND REPLACE BROKEN SUPPORT CLAMPS AND FITTINGS, AS REQUIRED. THIS WORK IS TO BE COORDINATED WITH THE UTILITY COMPANY PRIOR TO COMMENCEMENT. TEMPORARY WIRING TO KEEP LIGHTING ABOVE AND BELOW THE BRIDGE OPERATIONAL DURING DEMOLITION AND CONSTRUCTION SHALL BE INCIDENTAL TO ITEM 100.5 - ELECTRICAL WORK.

PVC CONDUITS SUPPORTING MASS MOCA "HARMONIC BRIDGE" ART INSTALLATION ARE TO BE REMOVED BY MASS MOCA UNDER ITEM 999.01 - REMOVAL OF EXISTING ART INSTALLATIONS.

CAP THE EMPTY CONDUIT OF THE UNUSED LIGHT POLE FOUNDATION AT THE HOLDEN STREET ENTRANCE TO THE BRIDGE. THIS WORK IS TO BE COORDINATED WITH MASS MOCA AND THE UTILITY COMPANY PRIOR TO COMMENCEMENT.

STRUCTURAL STEEL:

STRUCTURAL STEEL SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M270 GRADE 36 AND/OR AASHTO M270 GRADE 50, UNLESS SPECIFIED OTHERWISE.

BEARINGS:

ALL BEARINGS SHALL BE MARKED PRIOR TO SHIPPING. THE MARKS SHALL INCLUDE THE BEARING LOCATION ON THE BRIDGE, AND A DIRECTION ARROW THAT POINTS UP-STATION. ALL MARKS SHALL BE PERMANENT AND VISIBLE AFTER THE BEARING IS INSTALLED. THE MARKS SHALL BE ON THE TOP PLATE OF THE BEARING.

CONCRETE REPAIR:

THE DETERIORATED AREAS INDICATED HEREIN ARE BASED ON AVAILABLE INFORMATION AND ARE NOT INTENDED TO BE ALL INCLUSIVE, RATHER A REPRESENTATION OF THE REPAIRS TO BE PERFORMED. THE CONTRACTOR SHALL SOUND ALL CONCRETE SURFACES IN THE FIELD AND MARK OUT SPALLED, DETERIORATED AND DELAMINATED CONCRETE AREAS TO BE APPROVED BY THE ENGINEER FOR REPAIR BEFORE THE CONTRACTOR COMMENCES ANY REPAIRS.

**NORTH ADAMS
ST RTE 2 (VETERANS MEMORIAL DRIVE)**

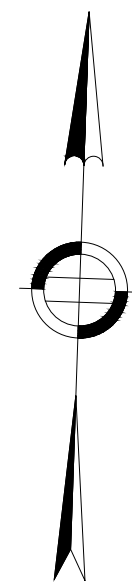
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(NGB)-003S(947)	21	49
PROJECT FILE NO.		612505	

GENERAL NOTES

TRAFFIC DATA		
	ROADWAY OVER	ROADWAY UNDER
DESIGN YEAR	2033	YEAR
AVERAGE DAILY TRAFFIC - PRESENT	11,135	ADT
AVERAGE DAILY TRAFFIC - DESIGN YEAR	12,300	ADT
DESIGN HOURLY VOLUME	1,175	DHV
DIRECTIONAL DISTRIBUTION	68% WB	DIST
TRUCK PERCENTAGE - AVERAGE DAY	2.9%	ADTT
TRUCK PERCENTAGE - PEAK HOUR	4.2%	PHTT
DESIGN SPEED	35	DES
DIRECTIONAL DESIGN HOURLY VOLUME	800	DDHV

ESTIMATED QUANTITIES (NOT GUARANTEED)		
DESCRIPTION	QUANTITY	UNIT
ELECTRICAL WORK	1	LS
BRIDGE CURB REMOVED AND RESET	1000	FT
BLEEDER (BRIDGE DECK) PVC	15	EA
JACKING AND SHORING	60	EA
JACKING AND SHORING REMOVED AND RESET	20	EA
PRESSURE INJECTION OF CRACKS	110	FT
STRUCTURAL STEEL REPAIRS	19300	LB
CONCRETE EXCAVATION	15	CY
REINFORCED CONCRETE EXCAVATION	30	CY
REINFORCED CONCRETE SUBSTRUCTURE EXCAVATION	60	CY
REINFORCED CONCRETE DECK EXCAVATION (FULL DEPTH)	480	SY
REINFORCED CONCRETE DECK EXCAVATION AT BRIDGE JOINTS (FULL DEPTH)	120	SY
REINFORCED CONCRETE DECK EXCAVATION (PARTIAL DEPTH)	120	CY
BRIDGE PAVEMENT EXCAVATION	3400	SY
REMOVAL OF ASBESTOS	1200	FT
SUPERPAVE BRIDGE SURFACE COURSE - 9.5 POLYMER (SSC-B - 9.5 - P)	250	TON
SUPERPAVE BRIDGE PROTECTIVE COURSE - 9.5 POLYMER (SPC-B - 9.5 - P)	250	TON
GRANITE CURB TYPE VA5 - STRAIGHT	125	FT
CURB REMOVED AND DISCARDED	125	FT
5000 PSI, 3/4 INCH, 685 HP CEMENT CONCRETE	165	CY
5000 PSI, 3/8 INCH, 710 HP CEMENT CONCRETE	200	CY
STEEL REINFORCEMENT FOR STRUCTURES - EPOXY COATED	37200	LB
DRILLING AND GROUTING DOWELS	365	EA
CORING AND INSTALLING ANCHOR BOLTS	68	EA
REPLACE STEEL BEARING	29	EA
CLEAN AND PAINT STRUCTURAL STEEL AT BEAM ENDS	5500	SF
ELASTOMERIC PROTECTIVE COATING	24600	SF
MEMBRANE WATERPROOFING FOR BRIDGE DECK REPAIRS	30600	SF
SCUPPER AND DOWNSPOUT	15	EA
MODIFIED ASPHALTIC PLUG JOINT SYSTEM	220	FT
PRE-COMPRESSED JOINT SEAL WITH POLYURETHANE CONCRETE HEADERS	110	FT
PRE-COMPRESSED JOINT SEAL	100	FT
TEMPORARY PROTECTIVE SHIELDING	20350	SF
TEMPORARY PROTECTIVE SHIELDING REMOVED AND RESET	20350	SF

DATE	DESCRIPTION
APRIL 18, 2026	ISSUED FOR CONSTRUCTION
THIS SHEET IS APPROVED FOR CONSTRUCTION BY MASSDOT	
AUTHORIZED SIGNATORY:	STATE BRIDGE ENGINEER
USE ONLY PRINTS OF LATEST DATE	



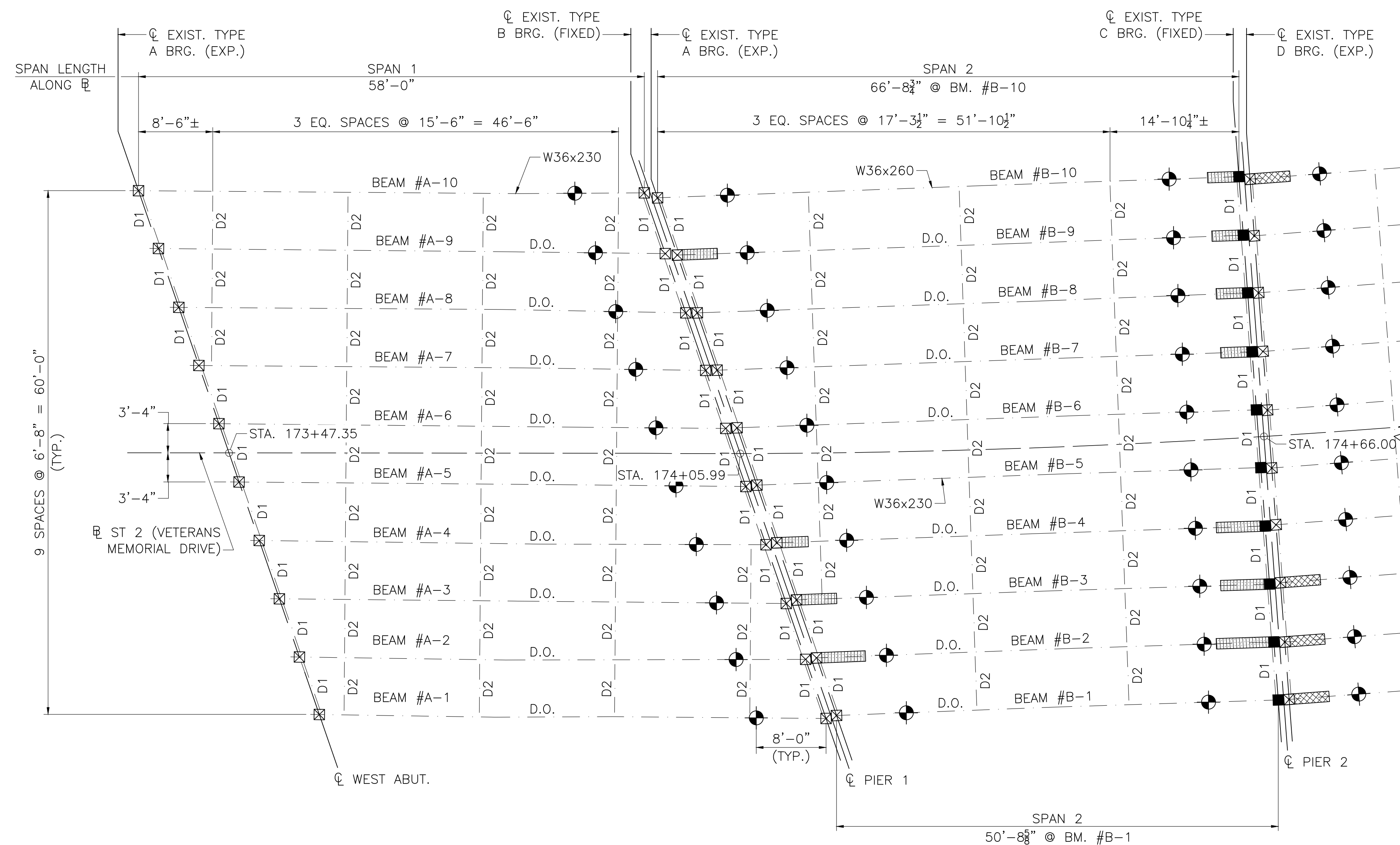
**NORTH ADAMS
ST RTE 2 (VETERANS MEMORIAL DRIVE)**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(NGB)-003S(947)	22	49
PROJECT FILE NO.		612505	

FRAMING PLAN 1 OF 3

NOTES:

- BRIDGE ORIENTATION AND LABELING IS PER THE EXISTING 1958 AND 1992 BRIDGE PLANS.
- BEAM ENDS AND BEARINGS SHALL BE CLEANED AND PAINTED; SEE SHEET 21 FOR LIMITS.
- BEARINGS SHALL BE REMOVED AND REPLACED PER SHEET 20.
- CONTRACTOR SHALL REMOVE ANY EXISTING FORMWORK AND ANY OTHER CONSTRUCTION DEBRIS FROM PREVIOUS REPAIRS.
- THE CONTRACTOR SHALL FIELD MEASURE EXISTING CONDITIONS, INCLUDING END DIAPHRAGMS, CONNECTION PLATES, ETC., PRIOR TO SUBMITTING SHOP DRAWINGS TO ENSURE PROPER FIT OF THE REPAIR PLATES AND ANGLES.



CURVE DATA*	
PC	173+93.69
Δ	4°46'04"
R	1000.00'
L	83.21'
T	41.63'
PT	174+76.90

* EXISTING CURVE DATA FROM 1992 DRAWINGS

SPANS 1 & 2 FRAMING PLAN

SCALE: 1/8" = 1'-0"

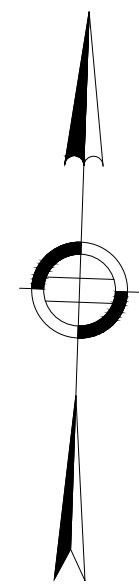
NOTE:

- D1 = CONCRETE ENCASED C15x33.9 END DIAPHRAGM
D2 = C18x42.7 INTERMEDIATE DIAPHRAGM
D3 = 18WF50 INTERIOR SUPPORT DIAPHRAGM

LEGEND:

- STEEL BEAM END REPAIR - TYPE 1
- STEEL BEAM END REPAIR - TYPE 2
- STEEL BEAM END REPAIR - TYPE 3
- PROPOSED SHORING TOWER
- EXISTING SHORING TOWER
- BEARING REPLACED & PAINTED
- BEARING CLEANED & PAINTED

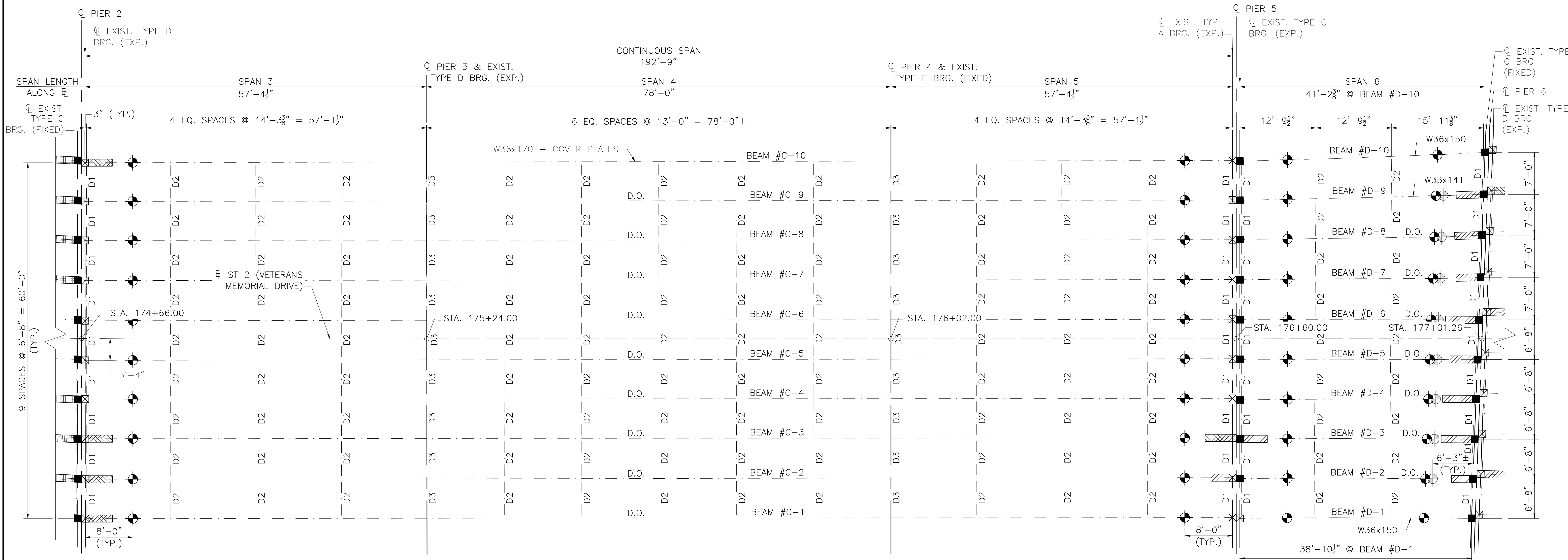
DATE	DESCRIPTION
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**NORTH ADAMS
ST RTE 2 (VETERANS MEMORIAL DRIVE)**

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MA	HIP(NGB)-003S(947)	23	49
PROJECT FILE NO.		612505	

FRAMING PLAN 2 OF 3



SPANS 3 TO 6 FRAMING PLAN

SCALE: 1/8" = 1'-0"

NOTE:

- D1 = CONCRETE ENCASED C15x33.9 END DIAPHRAGM
- D2 = C18x42.7 INTERMEDIATE DIAPHRAGM
- D3 = 18WF50 INTERIOR SUPPORT DIAPHRAGM

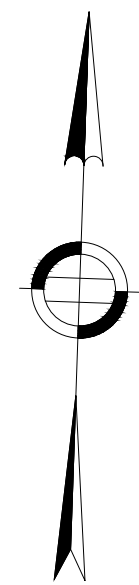
LEGEND:

- STEEL BEAM END REPAIR - TYPE 1
- STEEL BEAM END REPAIR - TYPE 2
- STEEL BEAM END REPAIR - TYPE 3
- PROPOSED SHORING TOWER
- EXISTING SHORING TOWER
- BEARING REPLACED & PAINTED
- BEARING CLEANED & PAINTED

NOTE:

- WITH MASSDOT APPROVAL, THE CONTRACTOR MAY USE THE EXISTING SHORING TOWERS FOR BEAMS D-2 THROUGH D-9 AT PIER 6 IF DESIGN CALCULATIONS INDICATE SUFFICIENT CAPACITY TO SUPPORT THE SPECIFIED BEAM DEAD AND LIVE LOADS AND THEIR LOCATIONS DO NOT CONFLICT WITH PROPOSED REPAIRS.

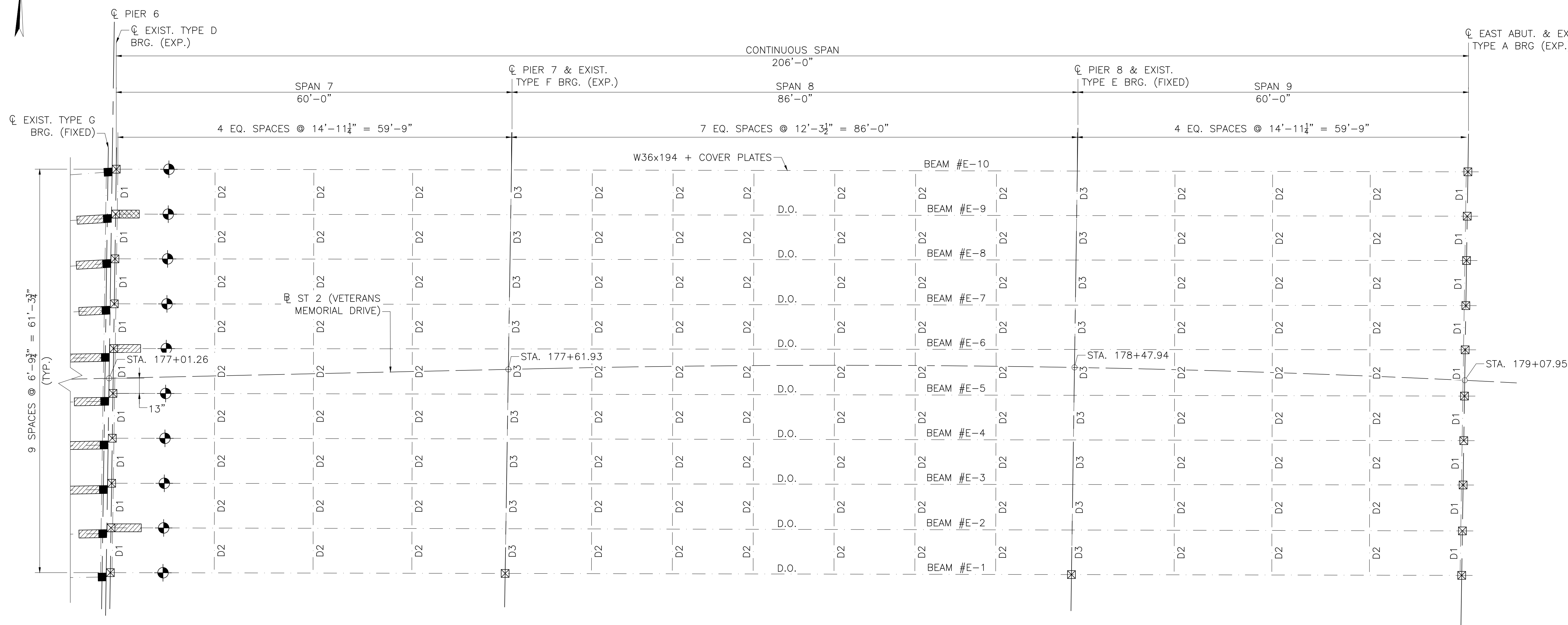
APRIL 18, 2026	ISSUED FOR CONSTRUCTION
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AUTHORIZED SIGNATORY:	STATE BRIDGE ENGINEER
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**NORTH ADAMS
ST RTE 2 (VETERANS MEMORIAL DRIVE)**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(NGB)-003S(947)	24	49
PROJECT FILE NO.		612505	

FRAMING PLAN 3 OF 3



SPANS 7 TO 9 FRAMING PLAN

SCALE: 1/8" = 1'-0"

NOTE:

- D1 = CONCRETE ENCASED C15x33.9 END DIAPHRAGM
- D2 = C18x42.7 INTERMEDIATE DIAPHRAGM
- D3 = 18WF50 INTERIOR SUPPORT DIAPHRAGM

LEGEND:

- STEEL BEAM END REPAIR - TYPE 1
- STEEL BEAM END REPAIR - TYPE 2
- STEEL BEAM END REPAIR - TYPE 3
- PROPOSED SHORING TOWER
- EXISTING SHORING TOWER
- BEARING REPLACED & PAINTED
- BEARING CLEANED & PAINTED

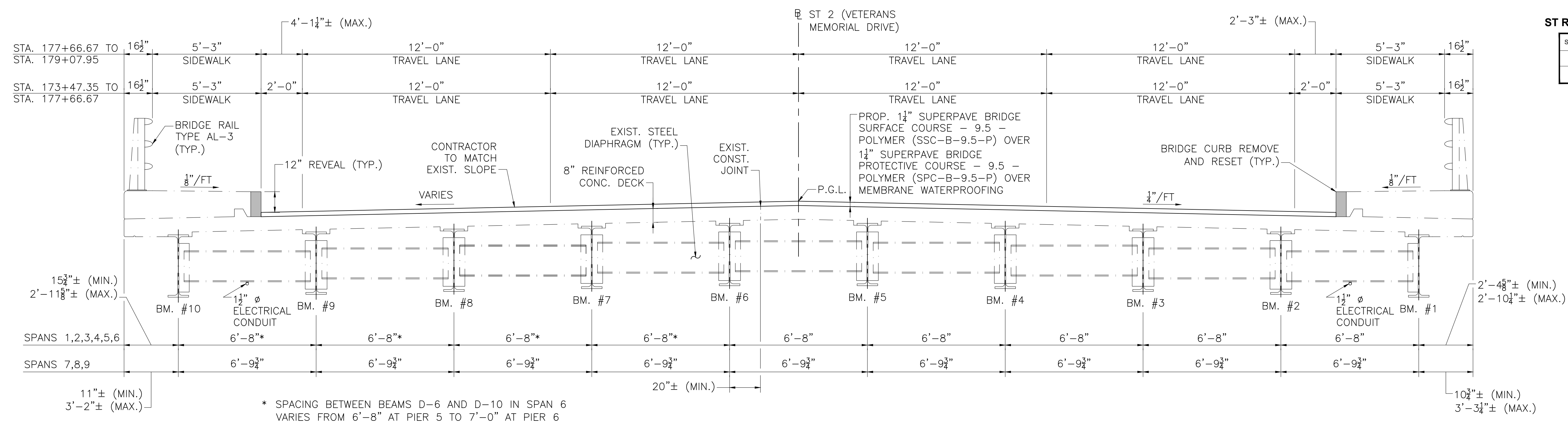
DATE	DESCRIPTION
APRIL 18, 2026	ISSUED FOR CONSTRUCTION
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**NORTH ADAMS
ST RTE 2 (VETERANS MEMORIAL DRIVE)**

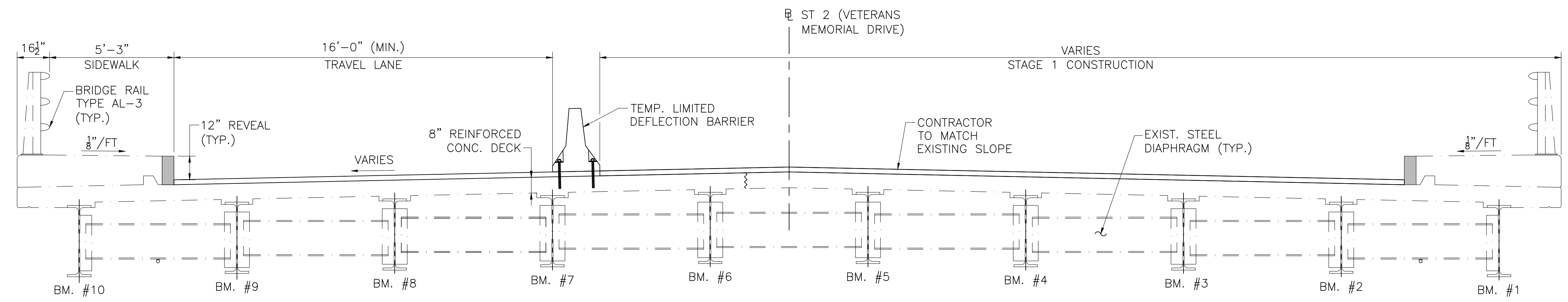
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(NGB)-003S(947)	25	49
PROJECT FILE NO.		612505	

TRANSVERSE SECTION

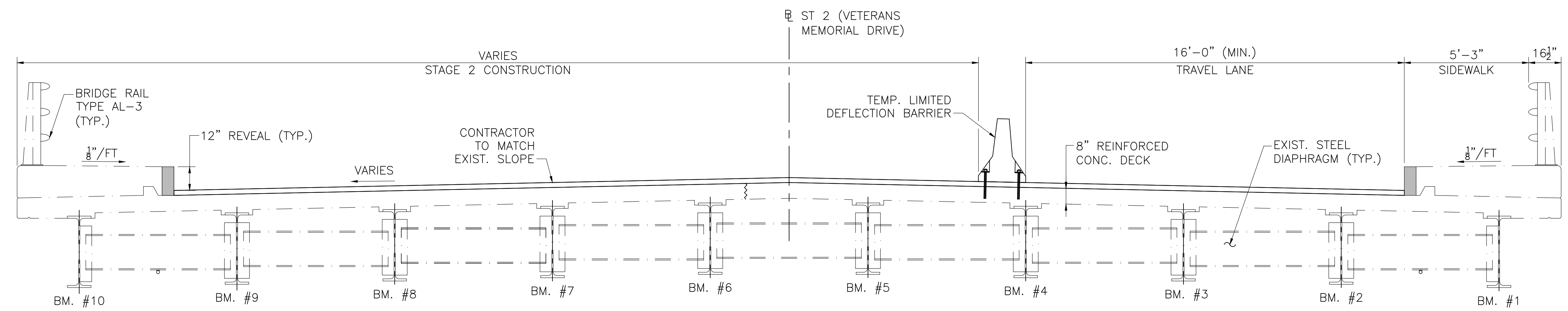
NOTE:
1. CONTRACTOR TO COORDINATE WITH THE UTILITY COMPANY AT LOCATIONS NEEDING BOTH CONDUIT AND/OR CONDUIT SUPPORT REPAIRS ALONG WITH BEAM END REPAIRS AND/OR BEARING REPLACEMENTS. CONDUIT, CLAMPS, AND FITTINGS SHALL BE REPAIRED OR REPLACED WHERE NEEDED. TEMPORARY WIRING FOR LIGHTING ABOVE AND BELOW THE BRIDGE AND ALL COSTS ASSOCIATED WITH UTILITY COORDINATION SHALL BE INCLUDED UNDER ITEM 100.5 - ELECTRICAL WORK.



TRANSVERSE SECTION
SCALE: 3/8" = 1'-0"



STAGE 1 CONSTRUCTION






STAGE 2 CONSTRUCTION

CONSTRUCTION STAGING TRANSVERSE SECTIONS
SCALE: 3/8" = 1'-0"

APRIL 18, 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	

612505_BR6(N14039).DWG
13-MARCH-2026
FINAL STRUCTURAL SUBMITTAL (SF)
Plotted on 12-Mar-2026 2:50 PM

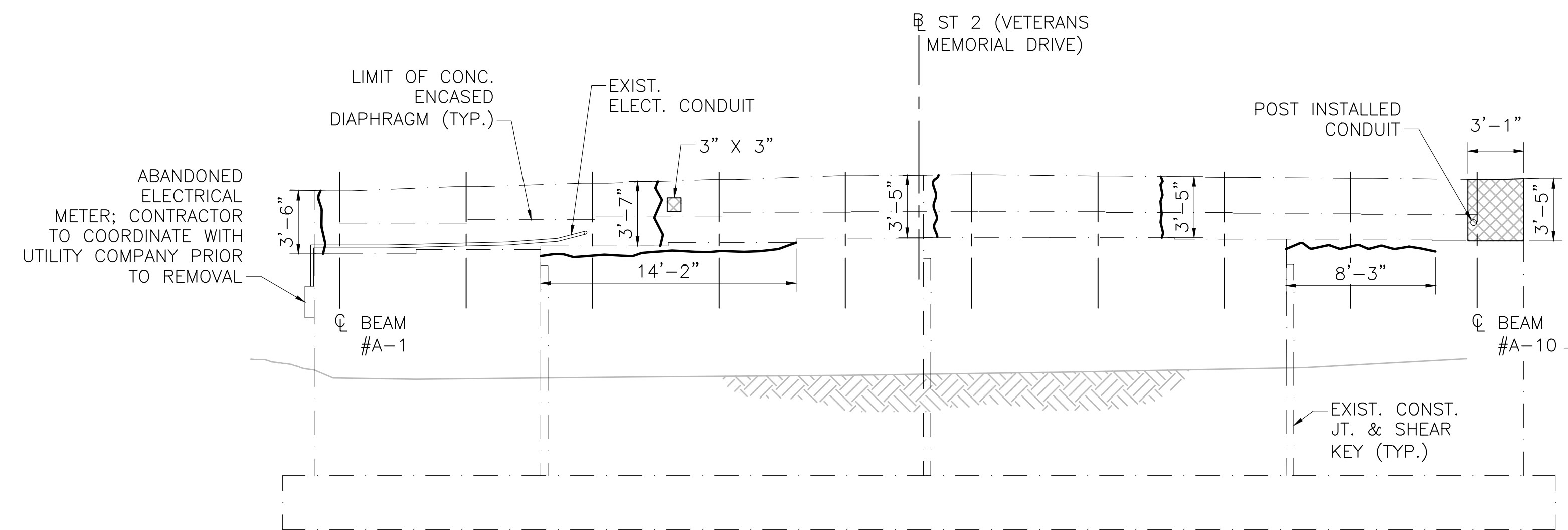
LEGEND:

-  SPALLED CONCRETE AREA TO BE REPAIRED
-  CRACKED AND/OR DELAMINATED CONCRETE AREA TO BE REPAIRED
-  CRACKED CONCRETE TO BE FILLED

NORTH ADAMS
ST RTE 2 (VETERANS MEMORIAL DRIVE)

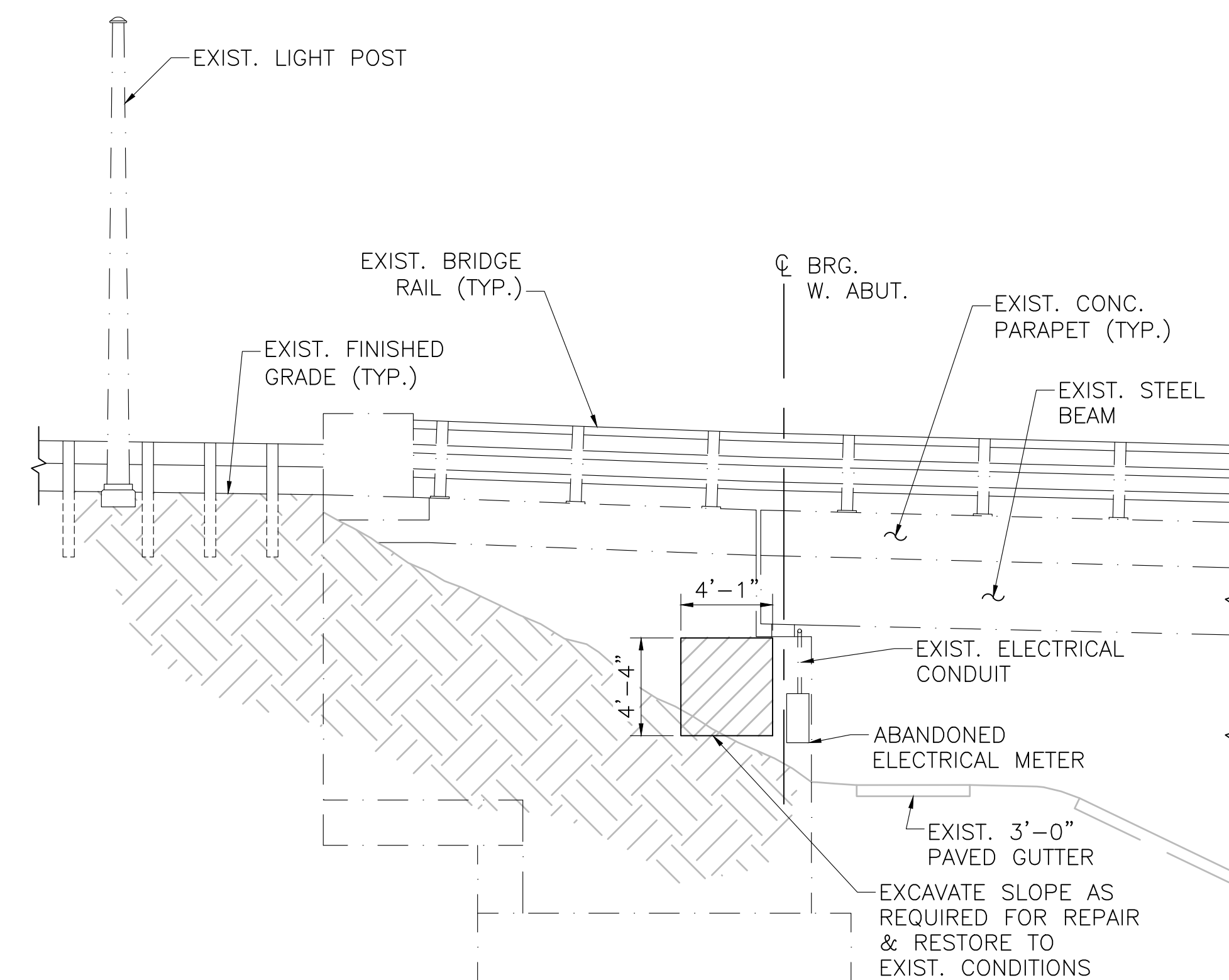
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(NGB)-003S(947)	26	49
PROJECT FILE NO.		612505	

WEST ABUTMENT & WINGWALL ELEVATIONS



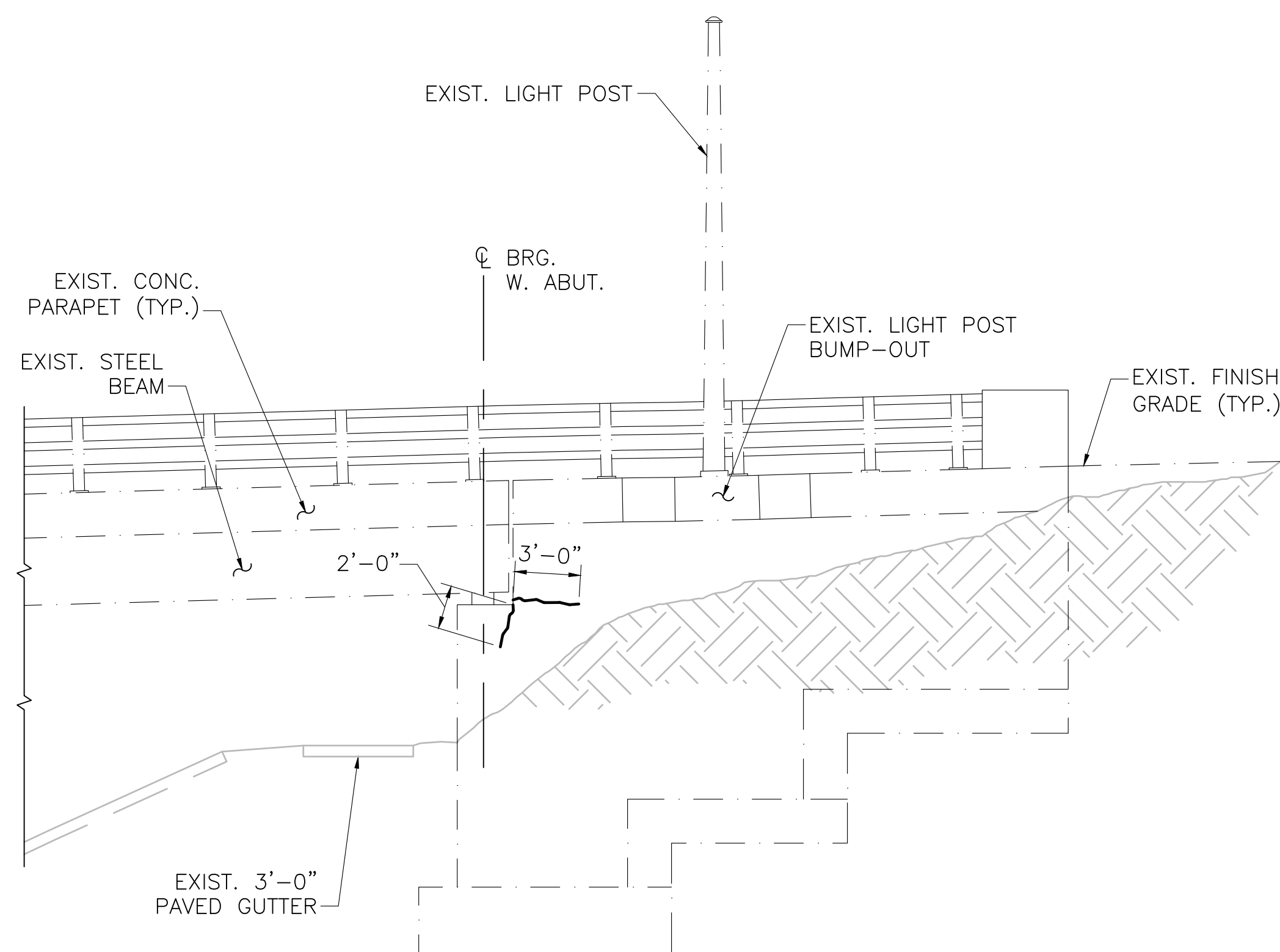
WEST ABUTMENT ELEVATION

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



WEST WINGWALL - SOUTH ELEVATION

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



WEST WINGWALL - NORTH ELEVATION

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

CONCRETE REPAIR NOTES:

- AREAS OF CONCRETE REPAIR INDICATE ANTICIPATED AREAS OF SPALLED, CRACKED, SCALED, OR DELAMINATED CONCRETE.
- EXCAVATION OF UNREINFORCED CONCRETE AT THE ABUTMENT AND WINGWALLS SHALL BE PAID FOR UNDER ITEM 127. - CONCRETE EXCAVATION AND EXCAVATION OF BACKWALL REINFORCED CONCRETE SHALL BE PAID FOR UNDER ITEM 127.1 - REINFORCED CONCRETE EXCAVATION. CONCRETE FOR REPAIRS TO THE ABUTMENTS, AND BACKWALLS, AND WINGWALLS SHALL BE PAID FOR UNDER ITEM 905.2 - 5000 PSI, $\frac{3}{8}$ INCH, 710 HP CEMENT CONCRETE.
- THE DETERIORATED AREAS INDICATED HEREIN ARE BASED ON AVAILABLE INFORMATION AND ARE NOT INTENDED TO BE ALL INCLUSIVE, RATHER A REPRESENTATION OF THE REPAIRS TO BE PERFORMED. THE CONTRACTOR SHALL SOUND ALL CONCRETE SURFACES IN THE FIELD AND MARK OUT SPALLED, DETERIORATED, CRACKED, AND DELAMINATED CONCRETE AREAS TO BE APPROVED BY THE ENGINEER BEFORE THE CONTRACTOR COMMENCES ANY REPAIRS.
- THE ENTIRE LENGTH OF BRIDGE SEAT SHALL BE CLEANED AND ALL DEBRIS REMOVED FROM THE AREA. BRIDGE SEAT CLEANING SHALL BE INCIDENTAL TO THE CLEANING AND PAINTING STEEL BEAM ENDS ITEM.
- JACKING AND SHORING OF THE BEAMS IS NOT REQUIRED FOR THE ANTICIPATED REPAIRS TO THE ABUTMENT AND WINGWALLS SHOWN.
- REMOVE EXISTING CONCRETE SEALANT FROM ALL EXPOSED SURFACES.
- UPON THE COMPLETION OF CONCRETE REPAIR WORK, ALL EXISTING SUBSTRUCTURE SURFACES ARE TO RECEIVE TREATMENT WITH AN ELASTOMERIC PROTECTIVE COATING IN ACCORDANCE WITH ITEM 964.32.
- THE ELASTOMERIC PROTECTIVE COATING (ITEM 964.32) SHALL BE APPLIED NO LESS THAN 28 DAYS AFTER THE CONCRETE REPAIRS HAVE BEEN COMPLETED. ALL EXISTING CONCRETE SURFACES SHALL BE PREPARED IN ACCORDANCE WITH THE SPECIAL PROVISIONS AND MANUFACTURER'S INSTRUCTIONS FOR THIS ITEM. SEE SHEET 17 FOR ELASTOMERIC PROTECTIVE COATING LIMITS.
- SEE SHEETS 17 AND 18 FOR SUBSTRUCTURE CONCRETE REPAIR DETAILS.
- REMOVE SCUPPER PIPE PRIOR TO CONCRETE REPAIRS.

NOTES TO CONTRACTOR:

IF ANY OF THE FOLLOWING CONDITIONS ARE ENCOUNTERED, THE CONTRACTOR SHALL STOP REMOVING DETERIORATED CONCRETE AND IMMEDIATELY NOTIFY THE ENGINEER TO DETERMINE IF THE EXCAVATION CAN CONTINUE.

- WHEN A MAXIMUM EXCAVATION DEPTH OF 6 INCHES IS REACHED IN ANY SUBSTRUCTURE REPAIR.
- WHEN EXCAVATION ENCROACHES WITHIN 6 INCHES OF THE BEARING DEVICES.

ELECTRICAL NOTE:

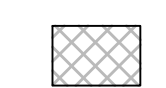

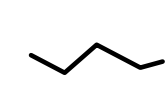
- CONTRACTOR TO COORDINATE WITH THE UTILITY COMPANY FOR CONDUIT AND CONDUIT SUPPORT REPAIRS. CONDUIT, CLAMPS, AND FITTINGS SHALL BE REPAIRED OR REPLACED AS REQUIRED. ALL COSTS ASSOCIATED WITH UTILITY COORDINATION SHALL BE INCLUDED UNDER ITEM 100.5 - ELECTRICAL WORK.

ESTIMATED REPAIR SUMMARY	
DEFICIENCY	QUANTITY
SPALL/DELAMINATION	0.52 CY
CRACK	41.33 FT

NOTE: ESTIMATED REPAIR QUANTITIES ARE FOR COST ESTIMATING PURPOSES ONLY. THE CONTRACTOR SHALL SOUND ALL CONCRETE SURFACES TO DETERMINE ACTUAL REPAIR LOCATIONS AND LIMITS TO BE APPROVED BY THE ENGINEER. SEE CONCRETE REPAIR NOTE 3.

APRIL 18, 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	

LEGEND:

-  SPALLED CONCRETE AREA TO BE REPAIRED
-  CRACKED AND/OR DELAMINATED CONCRETE AREA TO BE REPAIRED
-  CRACKED CONCRETE TO BE FILLED

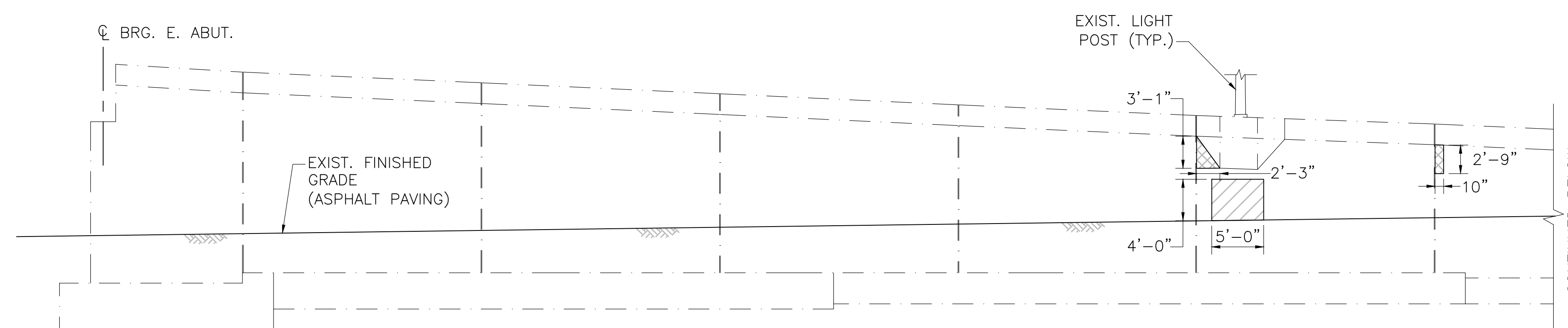
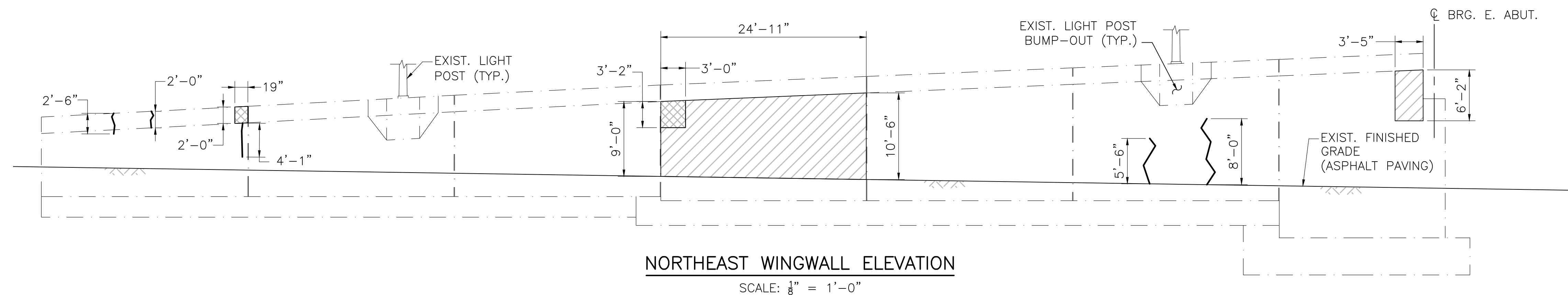
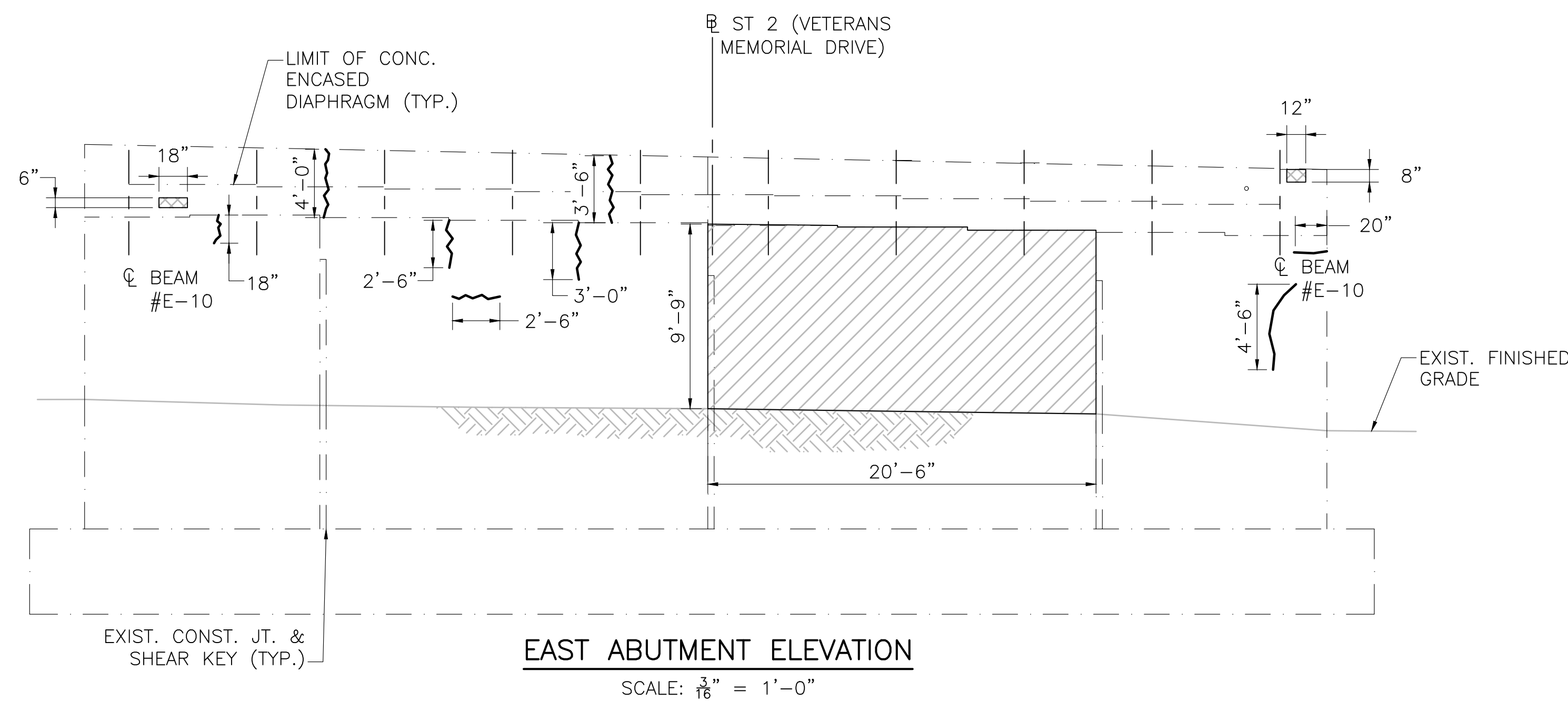
NORTH ADAMS
ST RTE 2 (VETERANS MEMORIAL DRIVE)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(NGB)-003S(947)	27	49
PROJECT FILE NO.		612505	

EAST ABUTMENT & WINGWALL ELEVATIONS

RETAINING WALL CONCRETE REPAIRS:

1. CONTRACTOR SHALL COORDINATE WITH THE CITY IN REGARDS TO THE MURALS ON THE SOUTHEAST AND NORTHEAST WINGWALLS BEFORE PROCEEDING WITH ANY CONCRETE REPAIRS.
2. SEE SHEET 7 FOR CONCRETE REPAIR NOTES.



ESTIMATED REPAIR SUMMARY	
DEFICIENCY	QUANTITY
SPALL/DELAMINATION	9.21 CY
CRACK	51.25 FT

NOTE: ESTIMATED REPAIR QUANTITIES ARE FOR COST ESTIMATING PURPOSES ONLY. THE CONTRACTOR SHALL SOUND ALL CONCRETE SURFACES TO DETERMINE ACTUAL REPAIR LOCATIONS AND LIMITS TO BE APPROVED BY THE ENGINEER. SEE CONCRETE REPAIR NOTE 3 ON SHEET 7.



DATE	DESCRIPTION
APRIL 18, 2026	ISSUED FOR CONSTRUCTION
THIS SHEET IS APPROVED FOR CONSTRUCTION BY MASSDOT	
AUTHORIZED SIGNATORY:	STATE BRIDGE ENGINEER
USE ONLY PRINTS OF LATEST DATE	

**NORTH ADAMS
ST RTE 2 (VETERANS MEMORIAL DRIVE)**

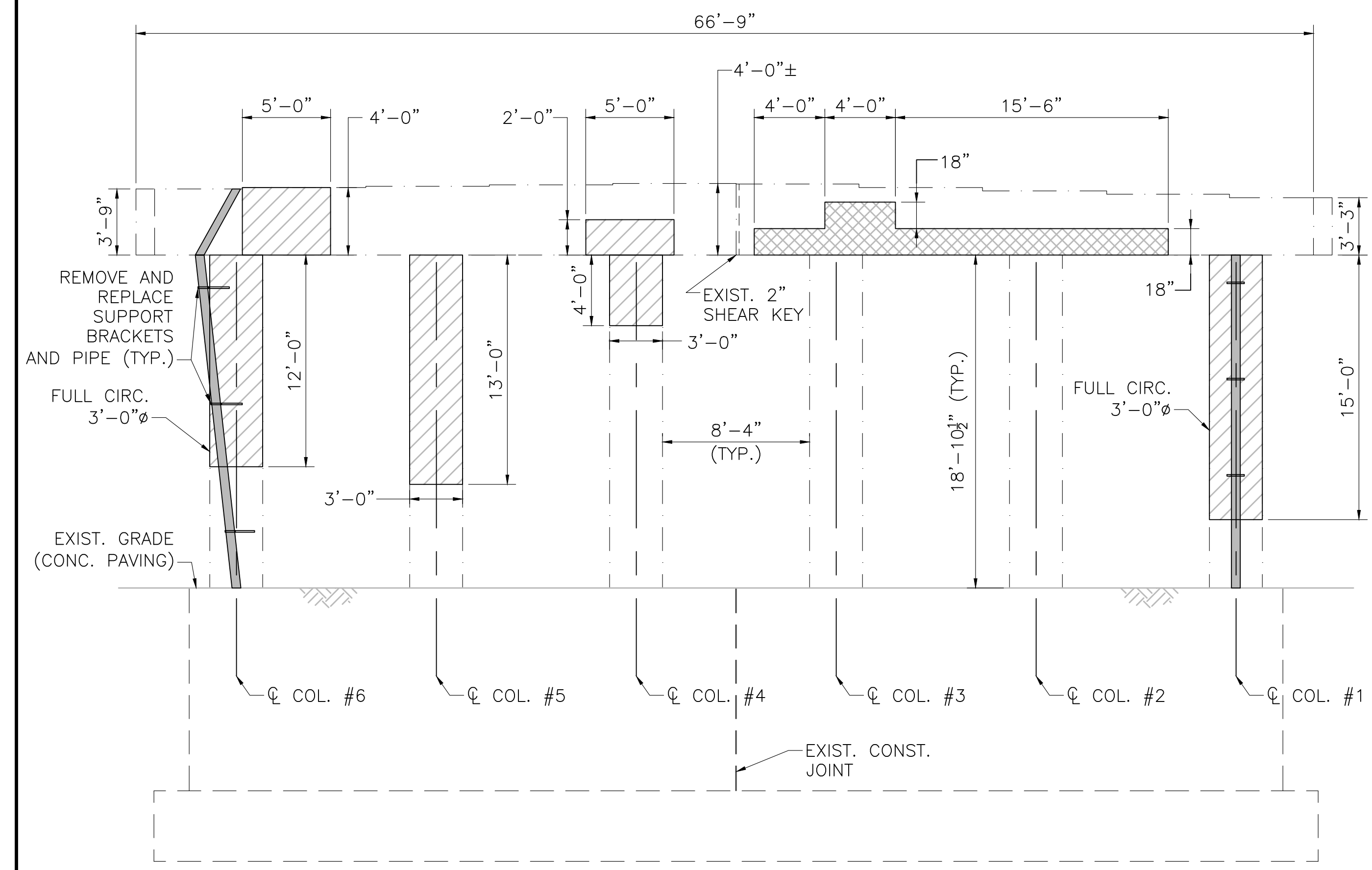
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(NGB)-003S(947)	28	49
PROJECT FILE NO.		612505	

PIER 1 REPAIRS

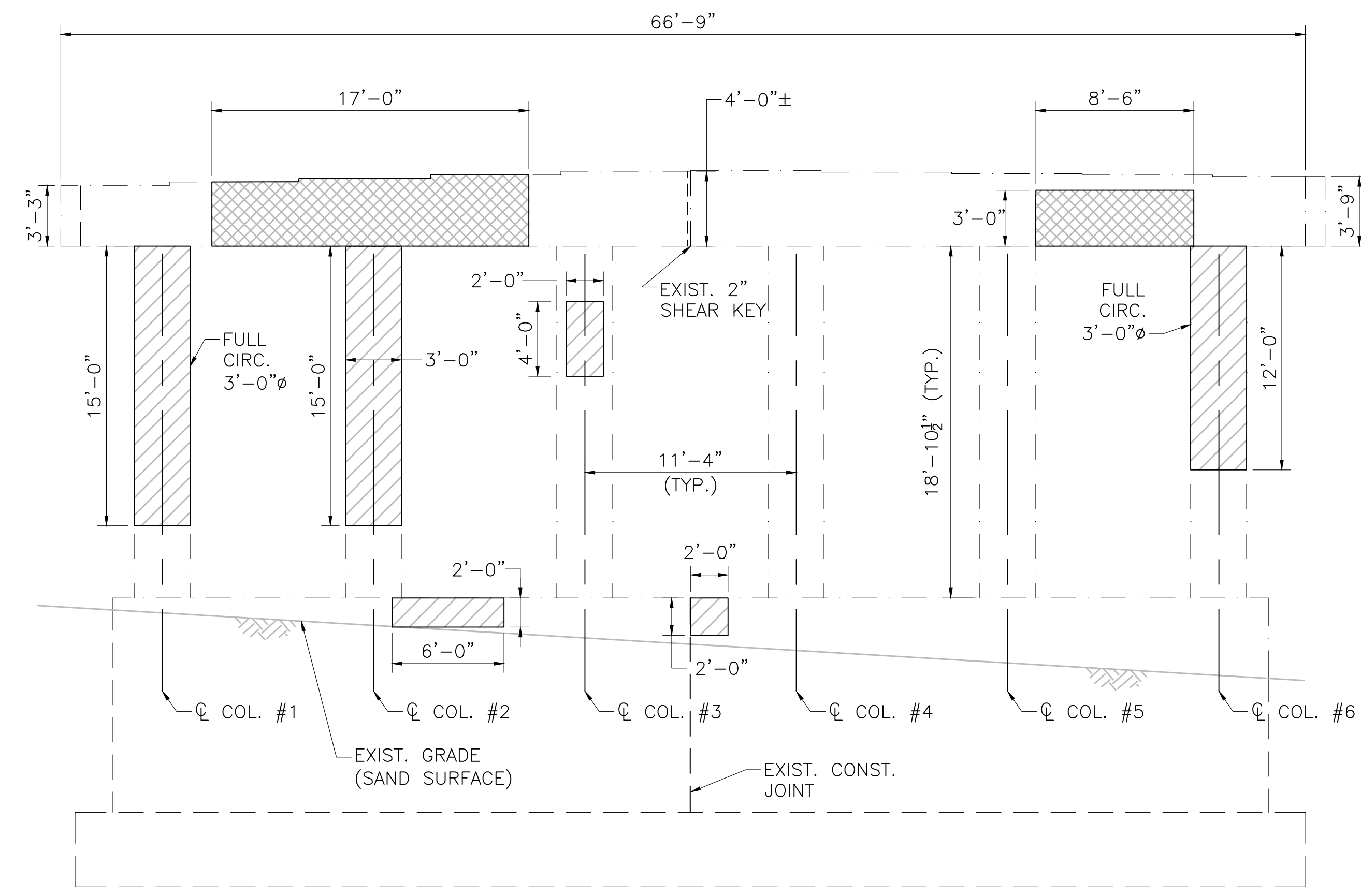
LEGEND:

-  CRACKED AND/OR DELAMINATED CONCRETE AREA TO BE REPAIRED
-  SPALLED CONCRETE AREA TO BE REPAIRED

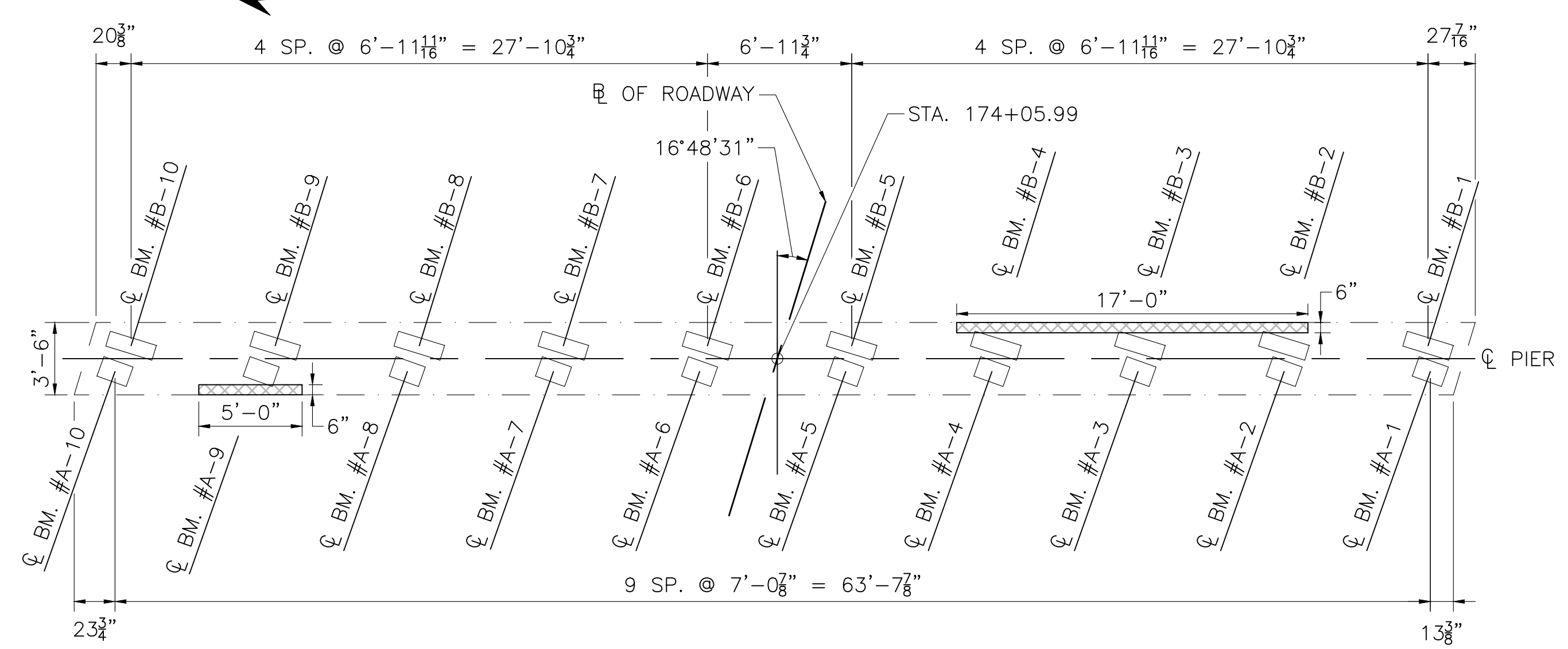
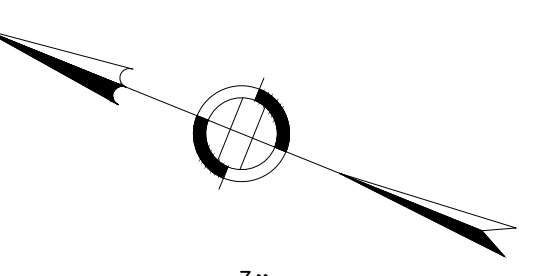
SEE SHEET 7 FOR CONCRETE REPAIR NOTES.



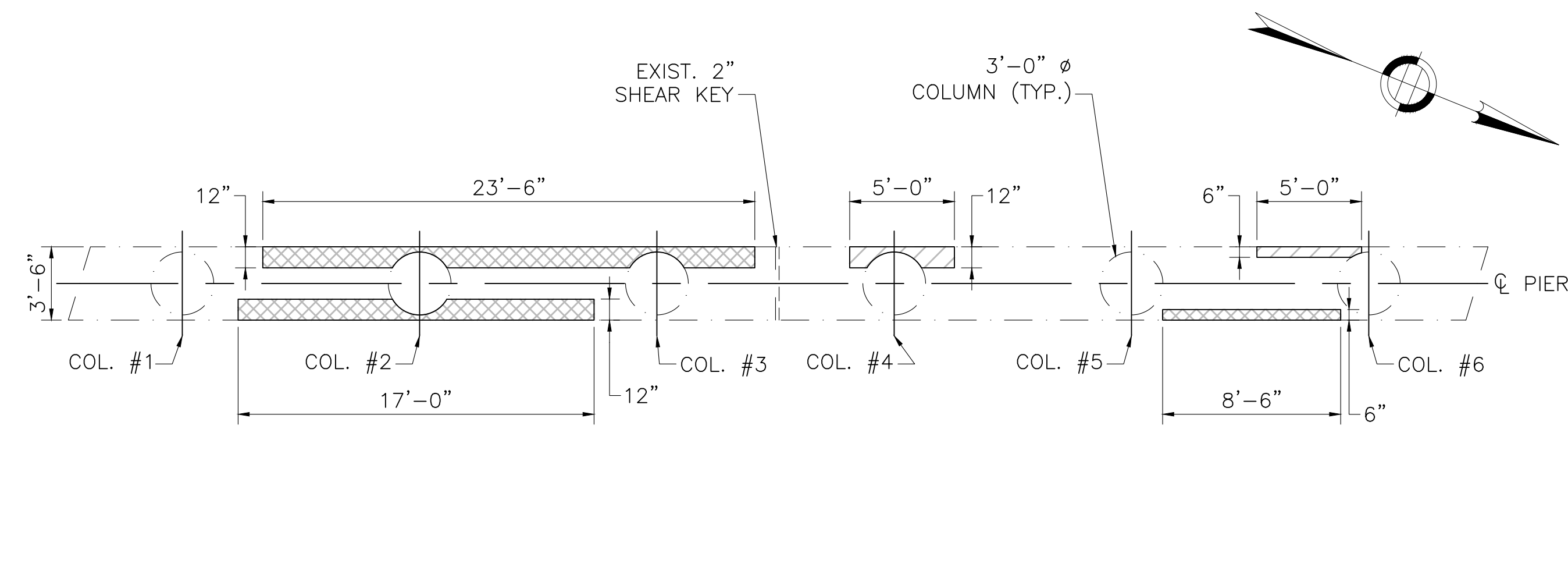
PIER 1 WEST ELEVATION (FACING EAST)
SCALE: 3/16" = 1'-0"



PIER 1 EAST ELEVATION (FACING WEST)
SCALE: 3/16" = 1'-0"



PIER 1 - TOPSIDE OF PIER CAP
SCALE: 3/16" = 1'-0"



PIER 1 - UNDERSIDE OF CAP
SCALE: 3/16" = 1'-0"

ESTIMATED REPAIR SUMMARY	
DEFICIENCY	QUANTITY
SPALLS/DELAMINATION	11.30 CY

NOTE: ESTIMATED REPAIR QUANTITIES ARE FOR COST ESTIMATING PURPOSES ONLY. THE CONTRACTOR SHALL SOUND ALL CONCRETE SURFACES TO DETERMINE ACTUAL REPAIR LOCATIONS AND LIMITS TO BE APPROVED BY THE ENGINEER. SEE CONCRETE REPAIR NOTE 3 ON SHEET 7.



APRIL 18, 2026	ISSUED FOR CONSTRUCTION
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AUTHORIZED SIGNATORY:	STATE BRIDGE ENGINEER
USE ONLY PRINTS OF LATEST DATE	

6/25/05_BR7-16(N14039)DWG Plotted on 12-Mar-2026 2:50 PM 13-MARCH-2026 FINAL STRUCTURAL SUBMITTAL (SF)

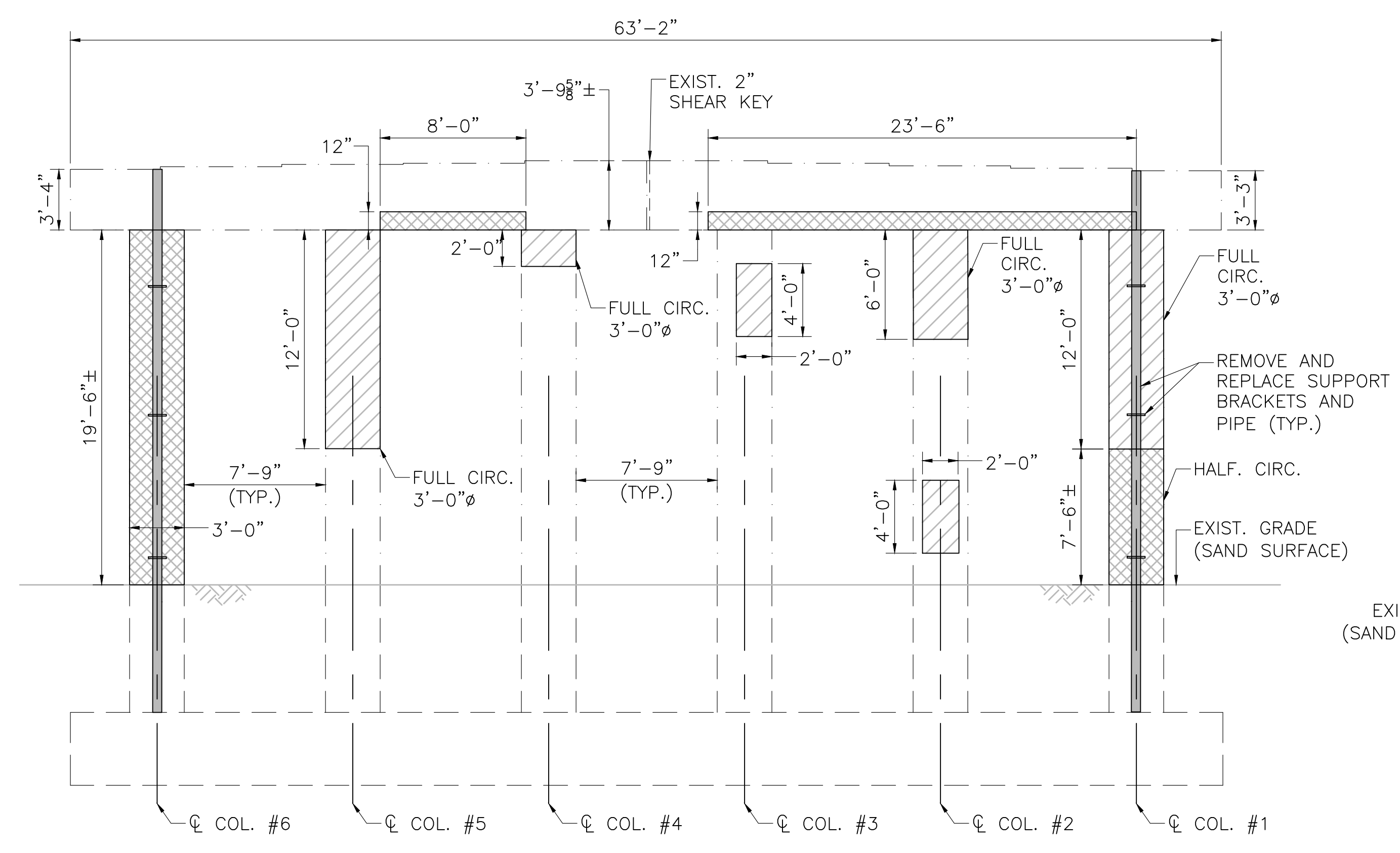
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(NGB)-003S(947)	29	49
PROJECT FILE NO.		612505	

PIER 2 REPAIRS

LEGEND:

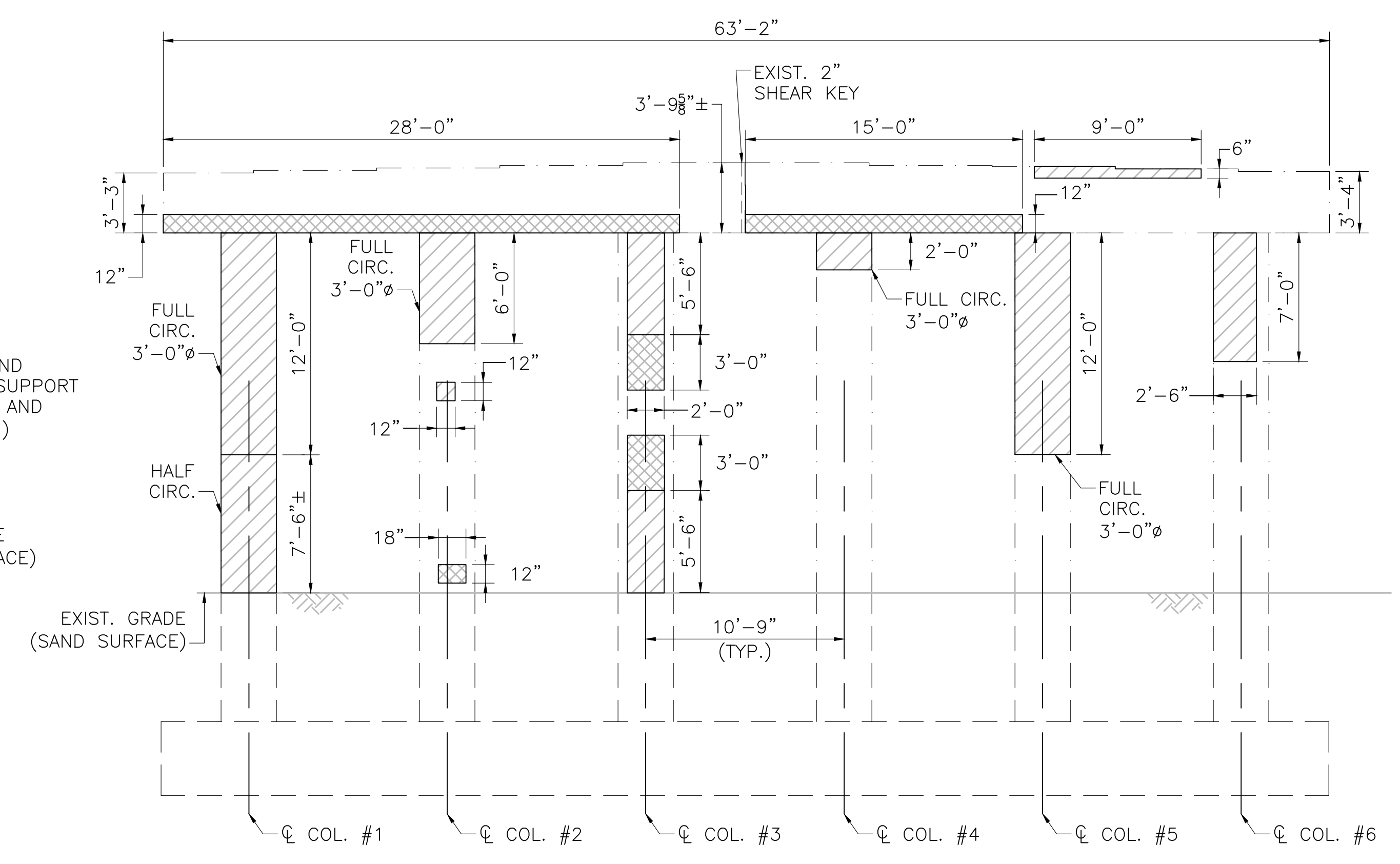
-  CRACKED AND/OR DELAMINATED CONCRETE AREA TO BE REPAIRED
-  SPALLED CONCRETE AREA TO BE REPAIRED

SEE SHEET 7 FOR CONCRETE REPAIR NOTES.



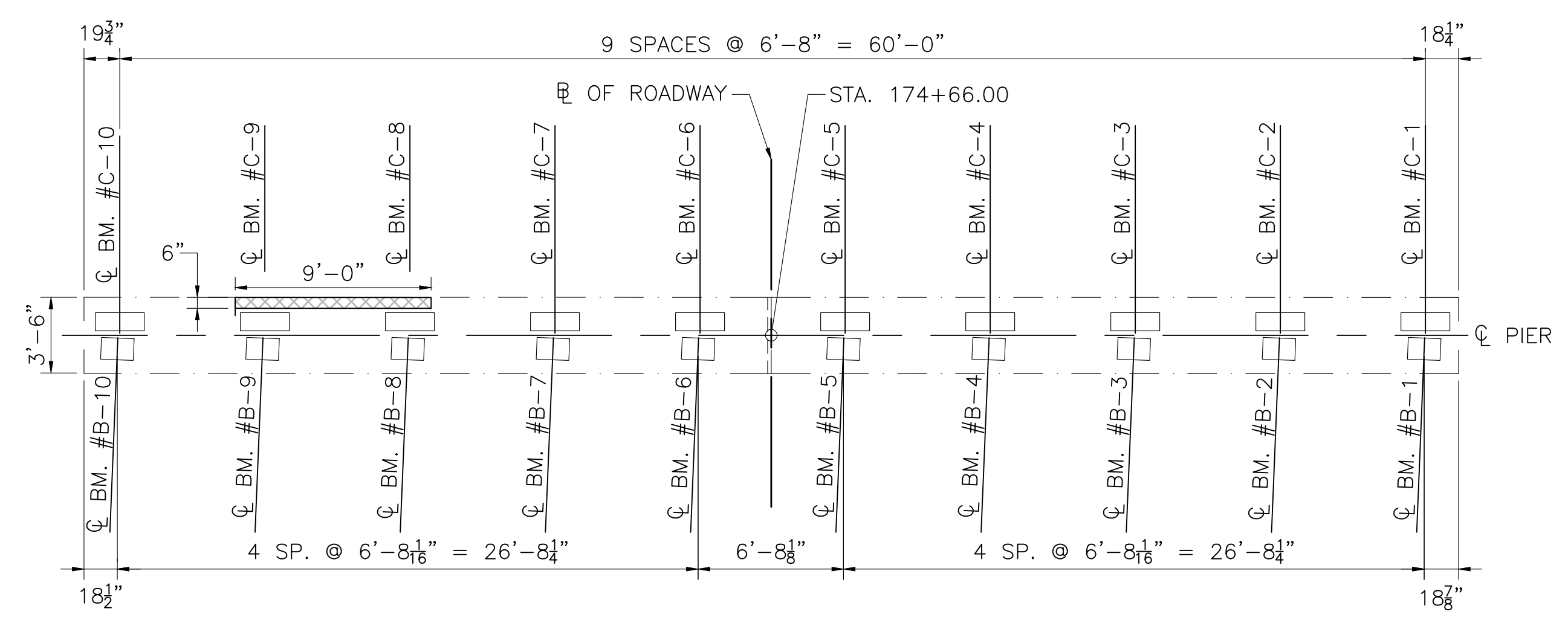
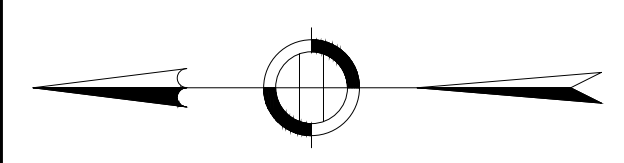
PIER 2 WEST ELEVATION (FACING EAST)

SCALE: 3/16" = 1'-0"



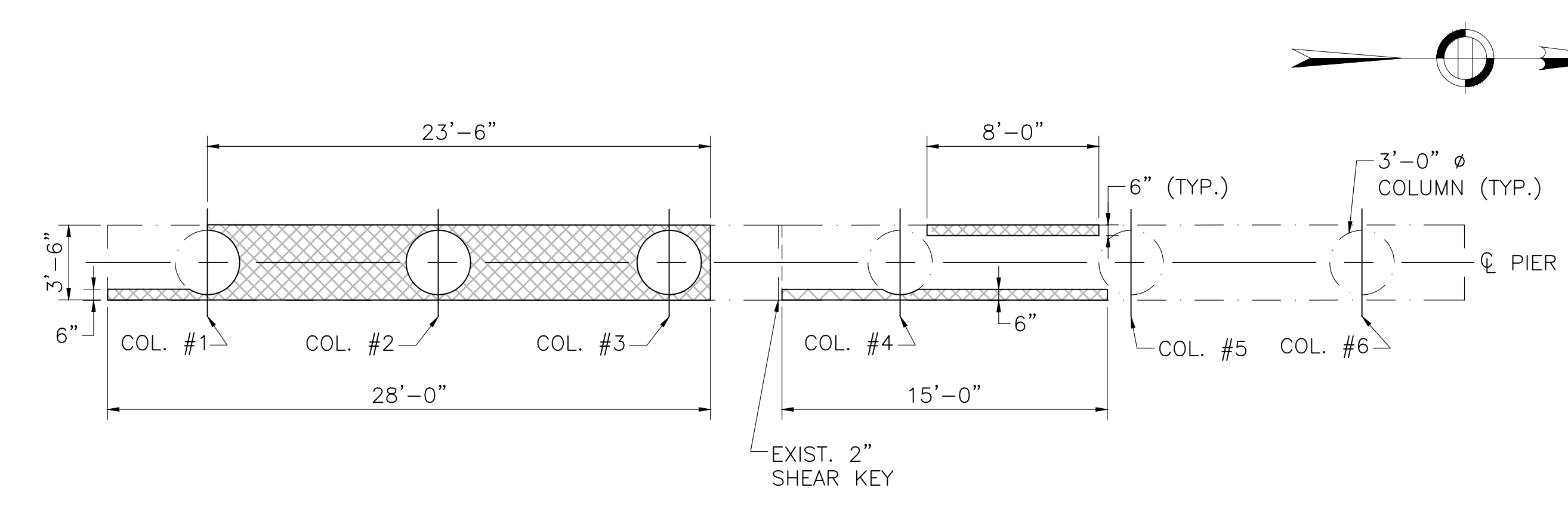
PIER 2 EAST ELEVATION (FACING WEST)

SCALE: 3/16" = 1'-0"



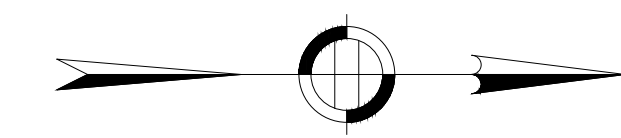
PIER 2 - TOPSIDE OF PIER CAP

SCALE: 3/16" = 1'-0"



PIER 2 - UNDERSIDE OF CAP

SCALE: 3/16" = 1'-0"



ESTIMATED REPAIR SUMMARY	
DEFICIENCY	QUANTITY
SPALLS/DELAMINATION	12.12 CY

NOTE: ESTIMATED REPAIR QUANTITIES ARE FOR COST ESTIMATING PURPOSES ONLY. THE CONTRACTOR SHALL SOUND ALL CONCRETE SURFACES TO DETERMINE ACTUAL REPAIR LOCATIONS AND LIMITS TO BE APPROVED BY THE ENGINEER. SEE CONCRETE REPAIR NOTE 3 ON SHEET 7.

APRIL 18, 2026	ISSUED FOR CONSTRUCTION
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THIS SHEET IS APPROVED FOR CONSTRUCTION BY MASSDOT	
AUTHORIZED SIGNATORY:	STATE BRIDGE ENGINEER
USE ONLY PRINTS OF LATEST DATE	



612505_BR7-16(N14039).DWG Plotted on 12-Mar-2026 2:50 PM 13-MARCH-2026 FINAL STRUCTURAL SUBMITTAL (SF)

**NORTH ADAMS
ST RTE 2 (VETERANS MEMORIAL DRIVE)**

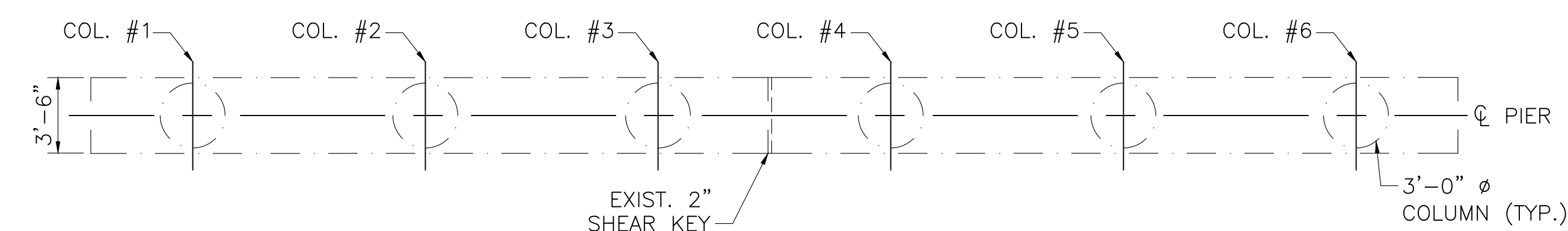
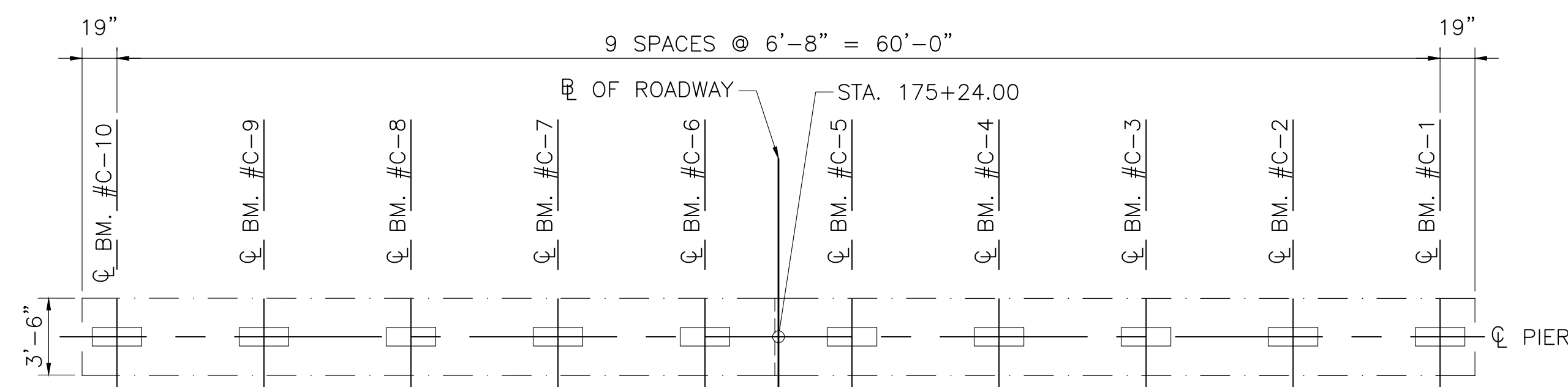
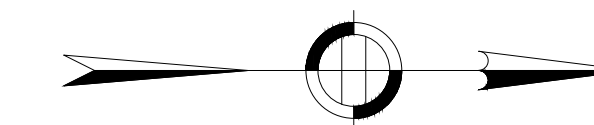
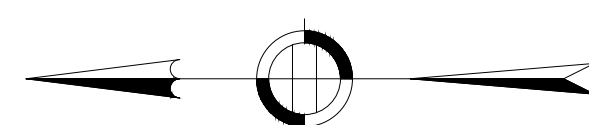
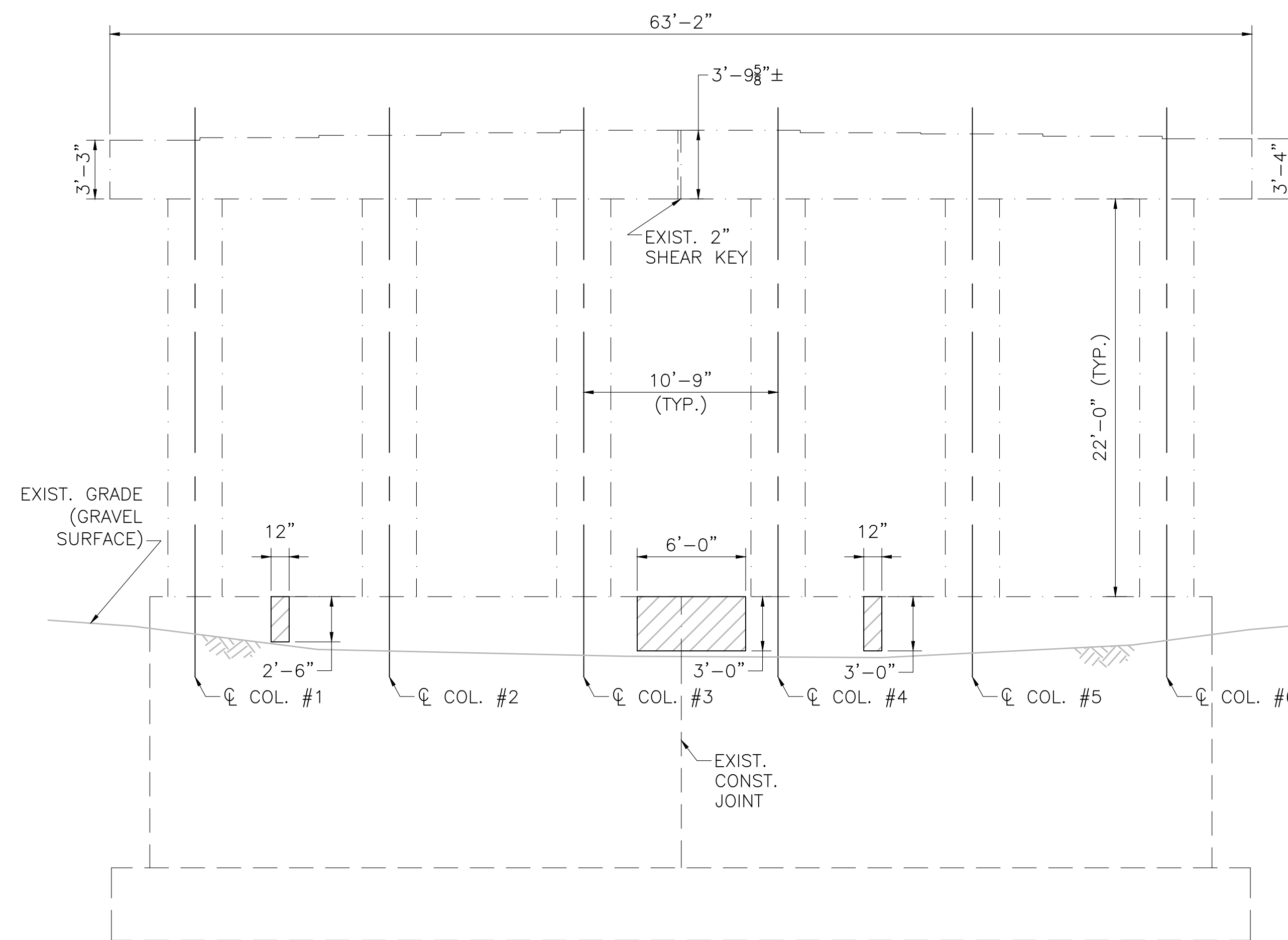
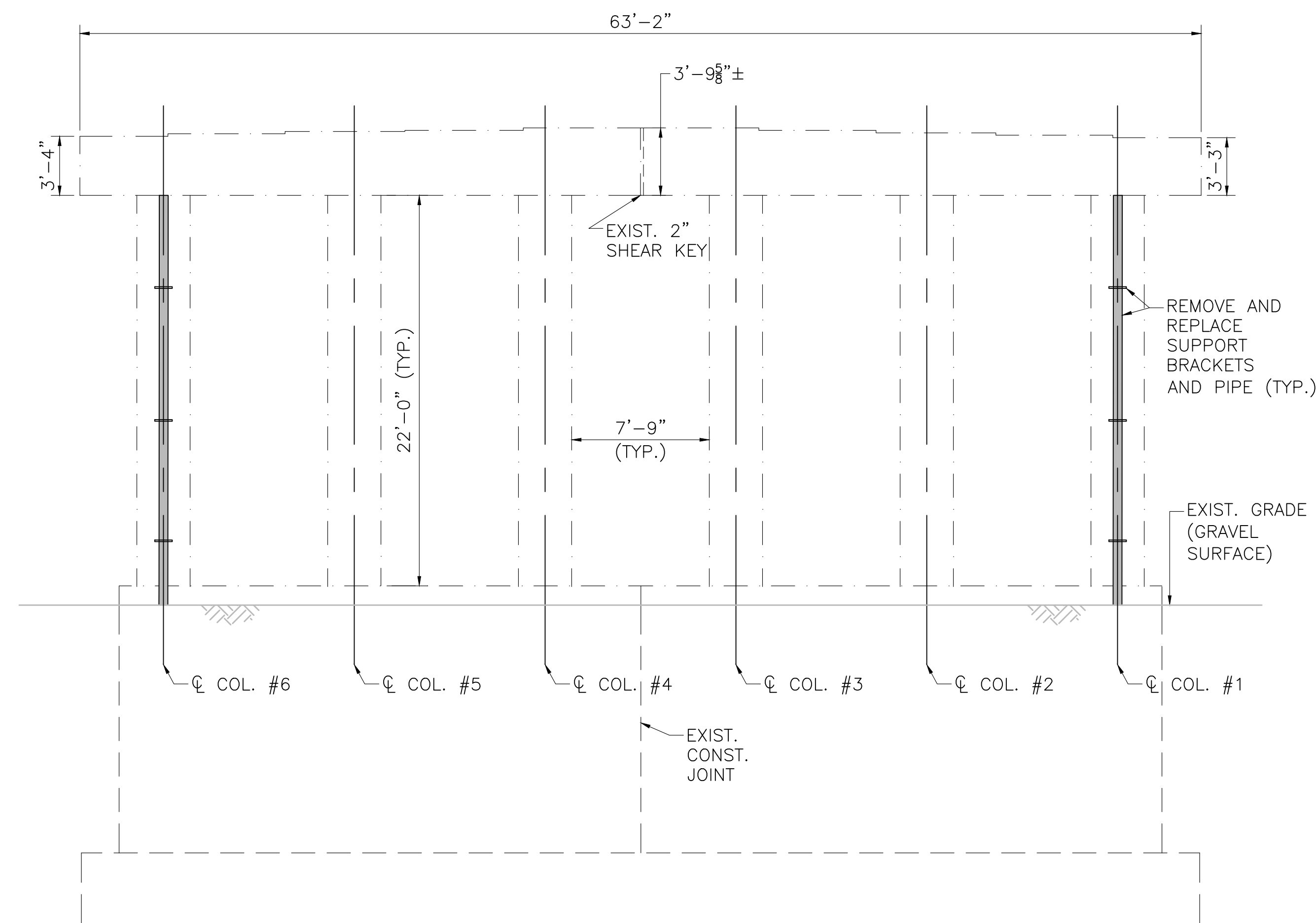
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(NGB)-003S(947)	30	49
PROJECT FILE NO.		612505	

PIER 3 REPAIRS

LEGEND:

-  CRACKED AND/OR DELAMINATED CONCRETE AREA TO BE REPAIRED
-  SPALLED CONCRETE AREA TO BE REPAIRED

SEE SHEET 7 FOR CONCRETE REPAIR NOTES.



ESTIMATED REPAIR SUMMARY	
DEFICIENCY	QUANTITY
SPALLS/DELAMINATION	0.44 CY

NOTE: ESTIMATED REPAIR QUANTITIES ARE FOR COST ESTIMATING PURPOSES ONLY. THE CONTRACTOR SHALL SOUND ALL CONCRETE SURFACES TO DETERMINE ACTUAL REPAIR LOCATIONS AND LIMITS TO BE APPROVED BY THE ENGINEER. SEE CONCRETE REPAIR NOTE 3 ON SHEET 7.



APRIL 18, 2026	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION
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AUTHORIZED SIGNATORY:	STATE BRIDGE ENGINEER
USE ONLY PRINTS OF LATEST DATE	

**NORTH ADAMS
ST RTE 2 (VETERANS MEMORIAL DRIVE)**

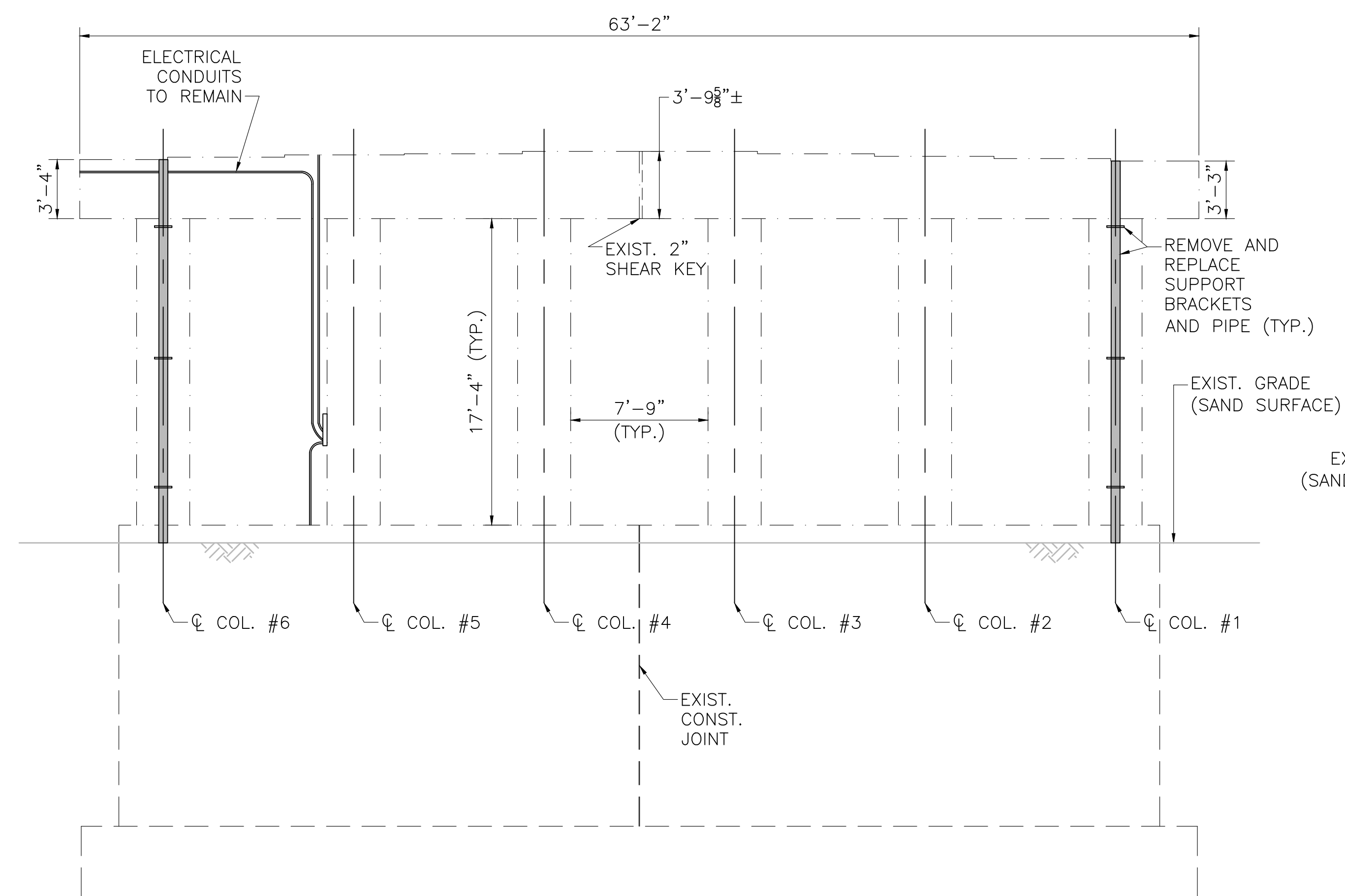
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(NGB)-003S(947)	31	49
PROJECT FILE NO.		612505	

PIER 4 REPAIRS

LEGEND:

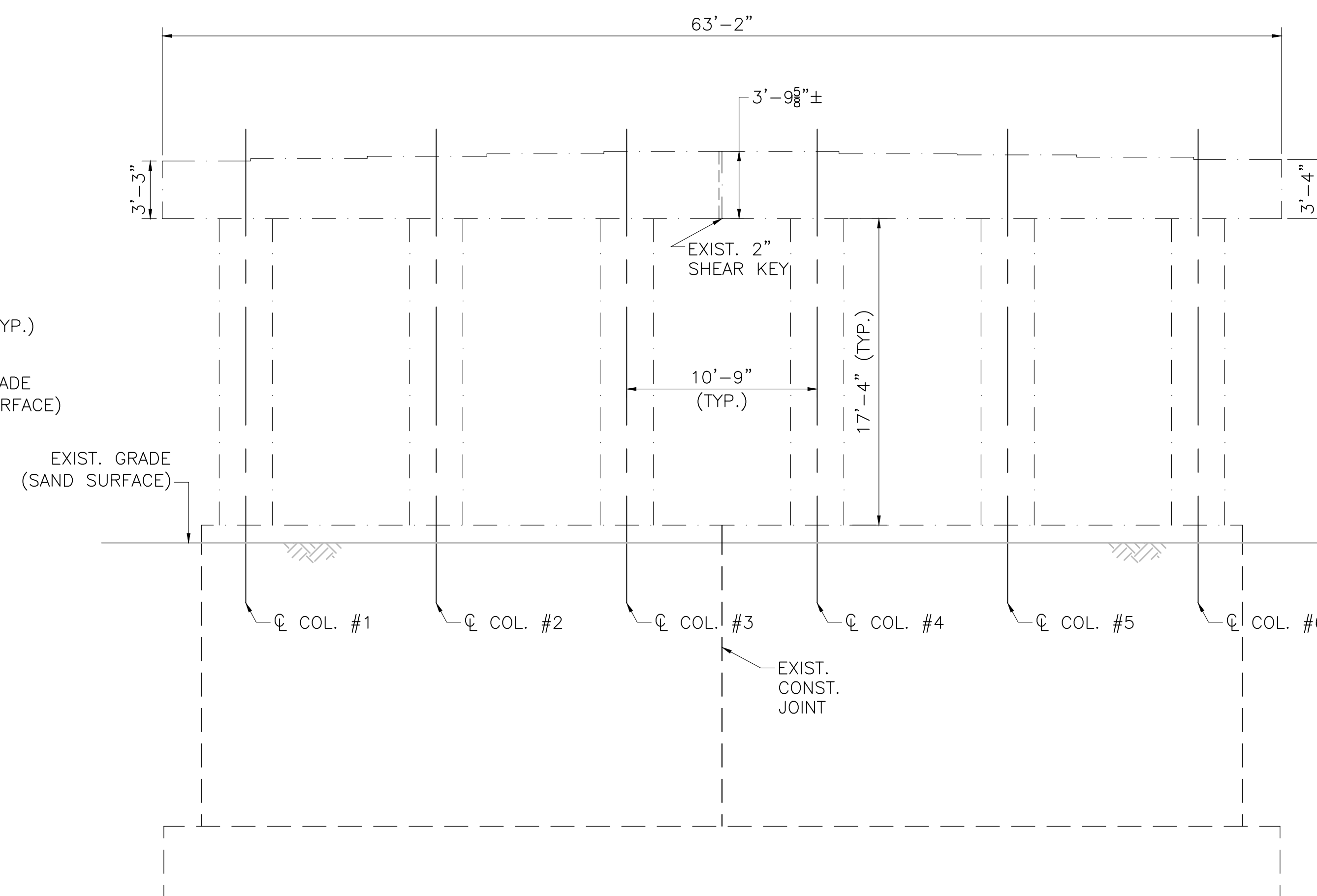
-  CRACKED AND/OR DELAMINATED CONCRETE AREA TO BE REPAIRED
-  SPALLED CONCRETE AREA TO BE REPAIRED

SEE SHEET 7 FOR CONCRETE REPAIR NOTES.



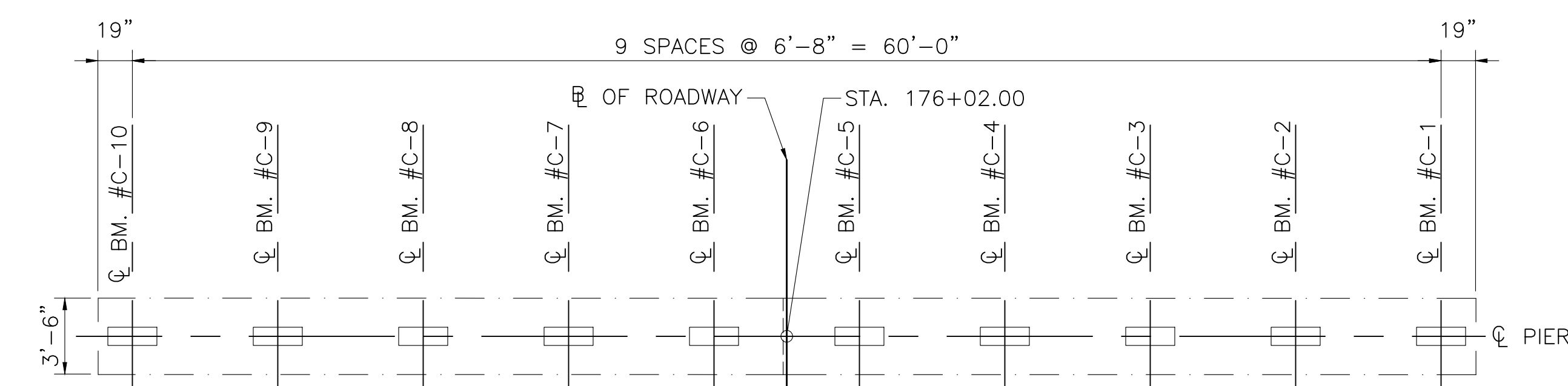
PIER 4 WEST ELEVATION (FACING EAST)

SCALE: 3/16" = 1'-0"



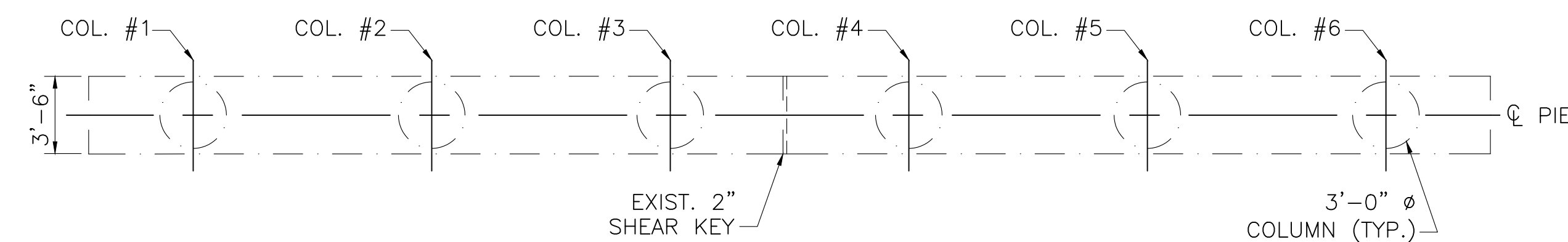
PIER 4 EAST ELEVATION (FACING WEST)

SCALE: 3/16" = 1'-0"



PIER 4 - TOPSIDE OF PIER CAP

SCALE: 3/16" = 1'-0"



PIER 4 - UNDERSIDE OF CAP

SCALE: 3/16" = 1'-0"

ESTIMATED REPAIR SUMMARY	
DEFICIENCY	QUANTITY
SPALLS/DELAMINATION	-



NOTE: ESTIMATED REPAIR QUANTITIES ARE FOR COST ESTIMATING PURPOSES ONLY. THE CONTRACTOR SHALL SOUND ALL CONCRETE SURFACES TO DETERMINE ACTUAL REPAIR LOCATIONS AND LIMITS TO BE APPROVED BY THE ENGINEER. SEE CONCRETE REPAIR NOTE 3 ON SHEET 7.

APRIL 18, 2026	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION
THIS SHEET IS APPROVED FOR CONSTRUCTION BY MASSDOT	
AUTHORIZED SIGNATORY:	STATE BRIDGE ENGINEER
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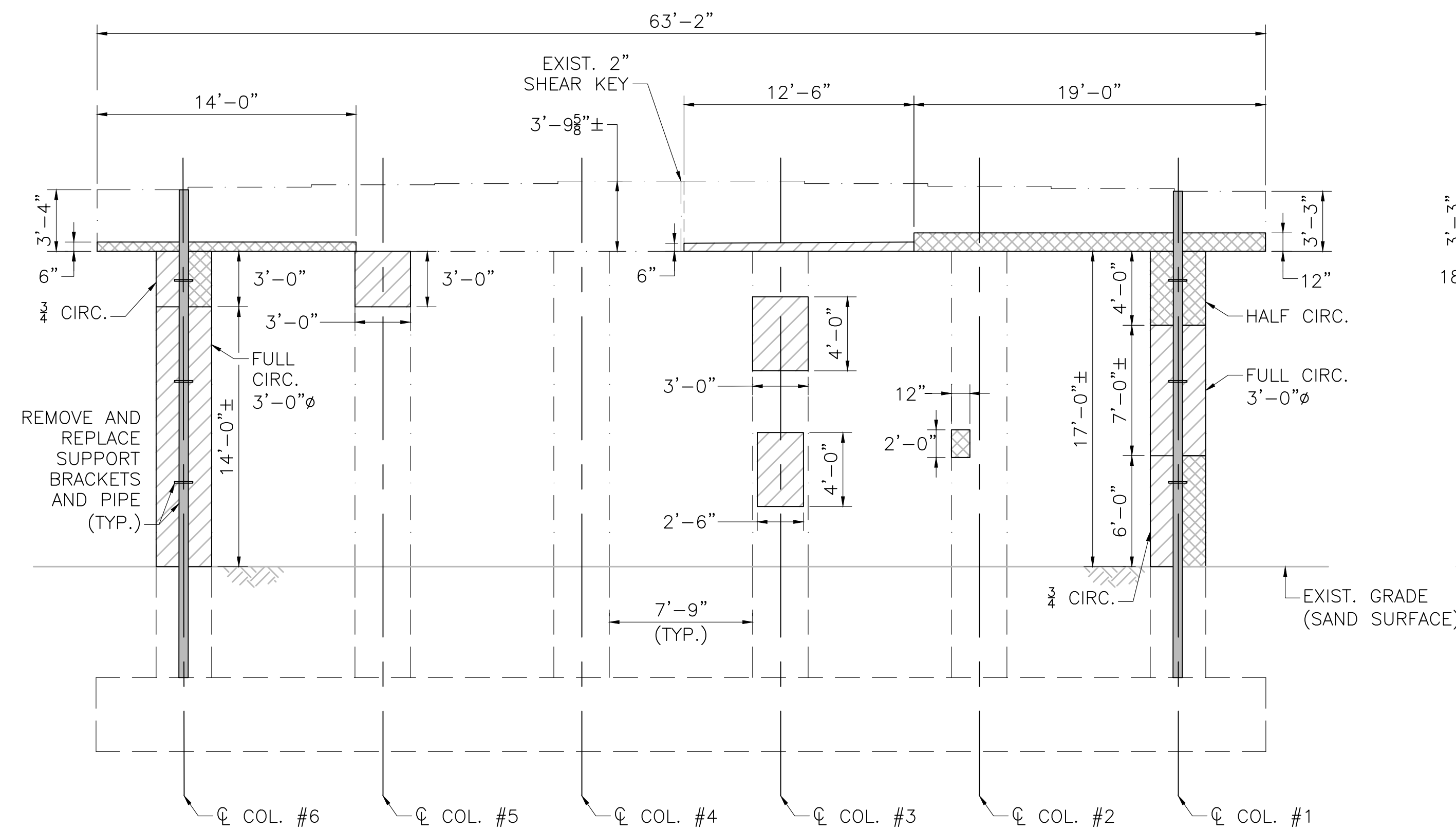
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(NGB)-003S(947)	32	49
PROJECT FILE NO.		612505	

PIER 5 REPAIRS

LEGEND:

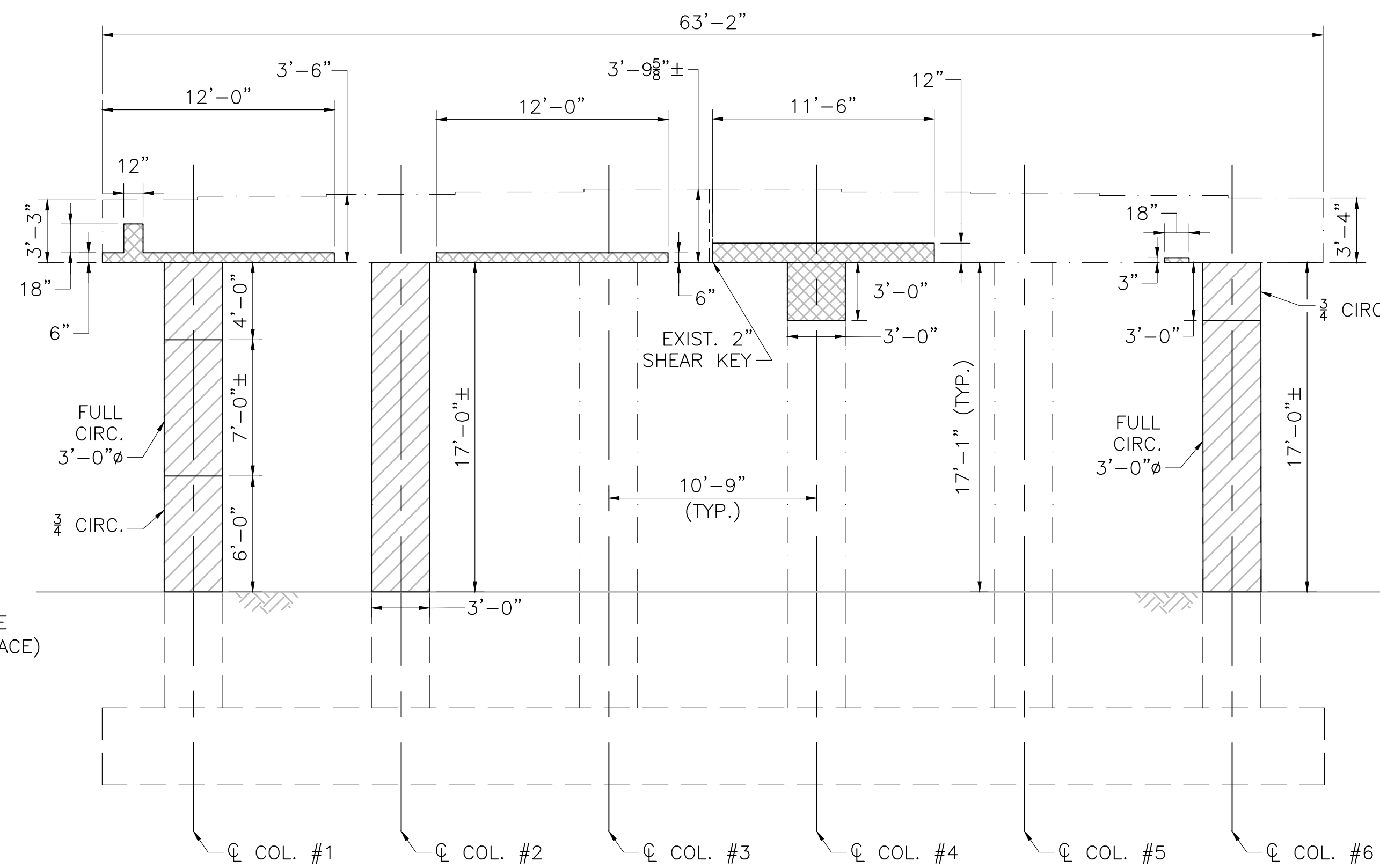
-  CRACKED AND/OR DELAMINATED CONCRETE AREA TO BE REPAIRED
-  SPALLED CONCRETE AREA TO BE REPAIRED

SEE SHEET 7 FOR CONCRETE REPAIR NOTES.



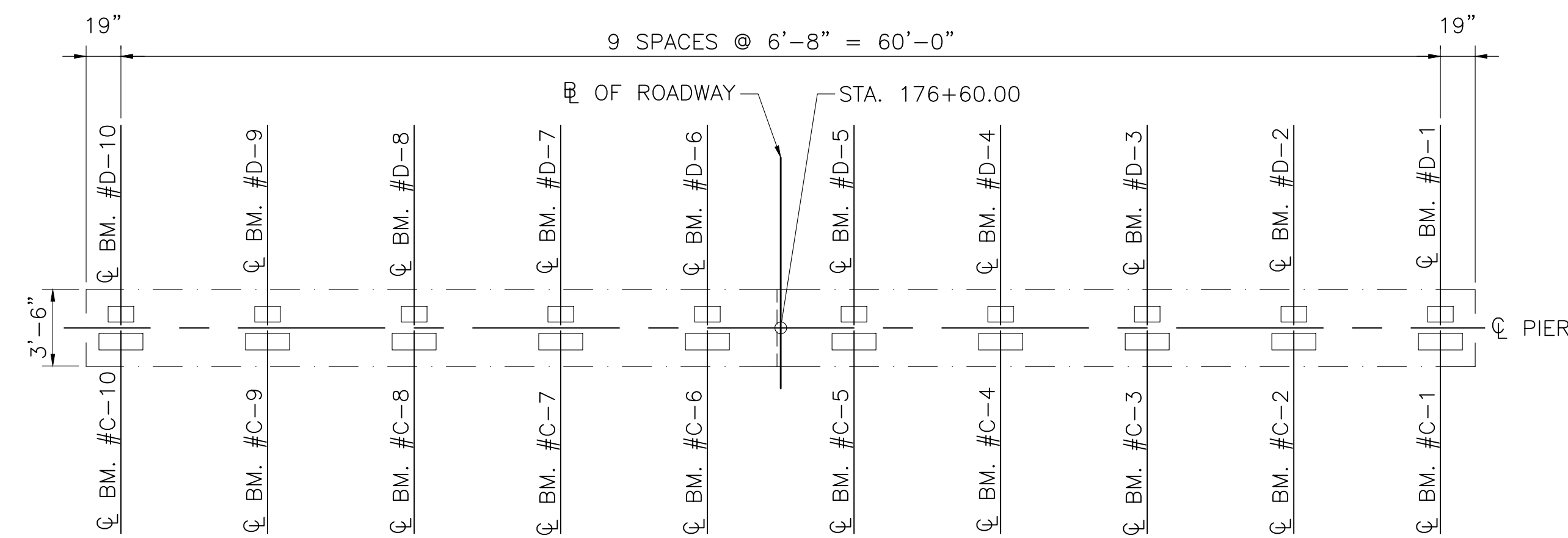
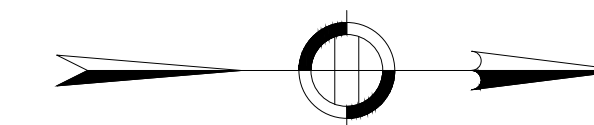
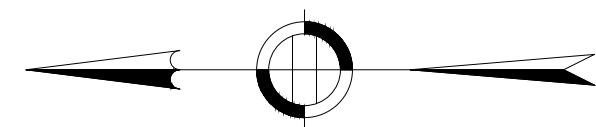
PIER 5 WEST ELEVATION (FACING EAST)

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



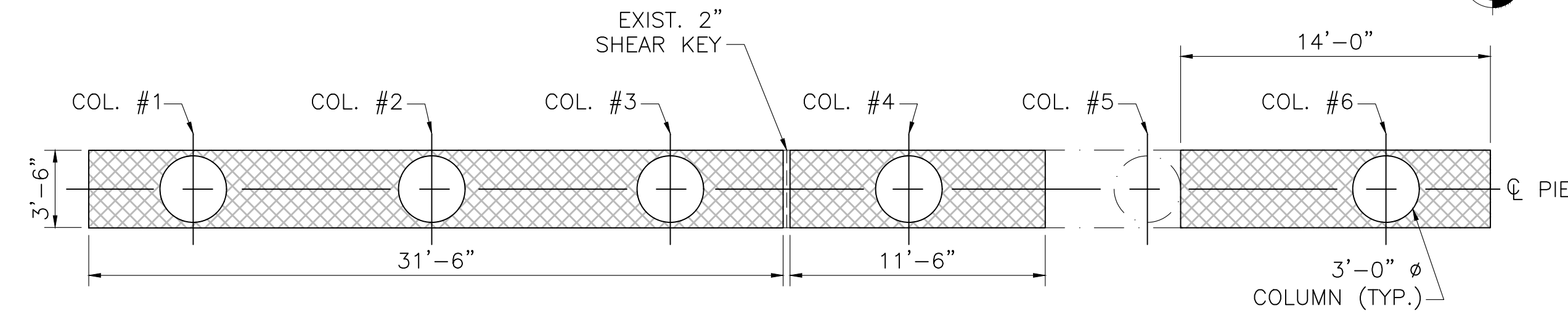
PIER 5 EAST ELEVATION (FACING WEST)

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



PIER 5 - TOPSIDE OF PIER CAP

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



PIER 5 - UNDERSIDE OF CAP

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

ESTIMATED REPAIR SUMMARY	
DEFICIENCY	QUANTITY
SPALLS/DELAMINATION	11.86 CY

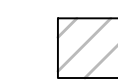

NOTE: ESTIMATED REPAIR QUANTITIES ARE FOR COST ESTIMATING PURPOSES ONLY. THE CONTRACTOR SHALL SOUND ALL CONCRETE SURFACES TO DETERMINE ACTUAL REPAIR LOCATIONS AND LIMITS TO BE APPROVED BY THE ENGINEER. SEE CONCRETE REPAIR NOTE 3 ON SHEET 7.

APRIL 18, 2026	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION
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AUTHORIZED SIGNATORY:	STATE BRIDGE ENGINEER
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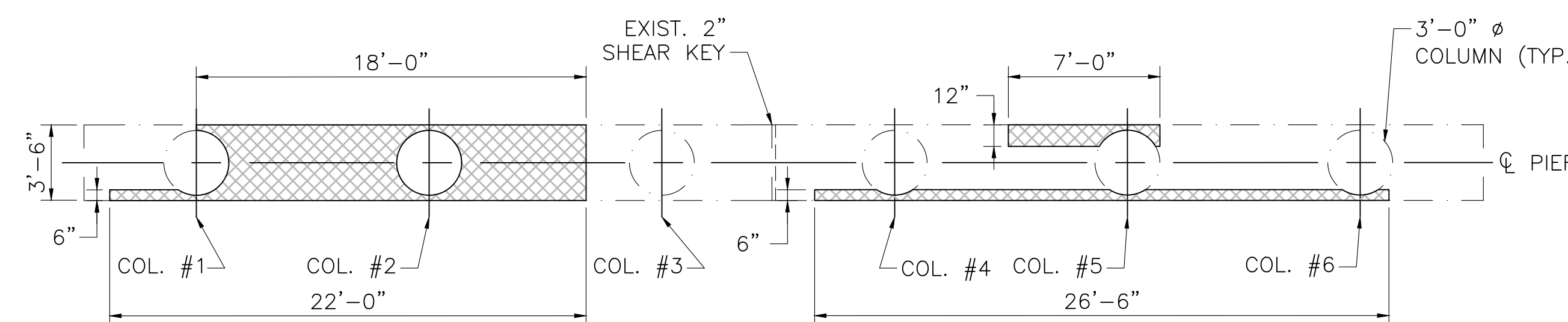
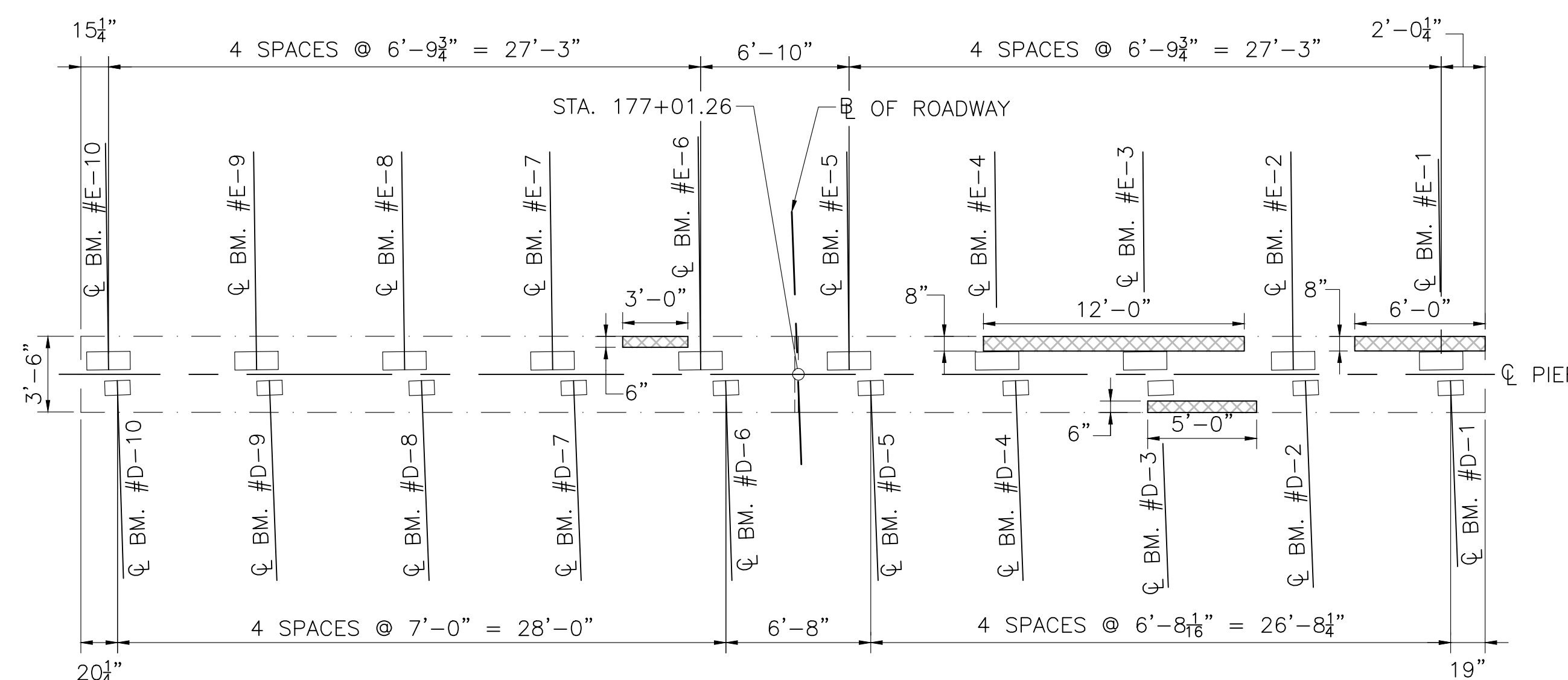
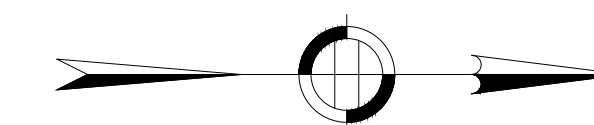
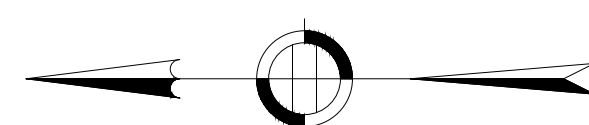
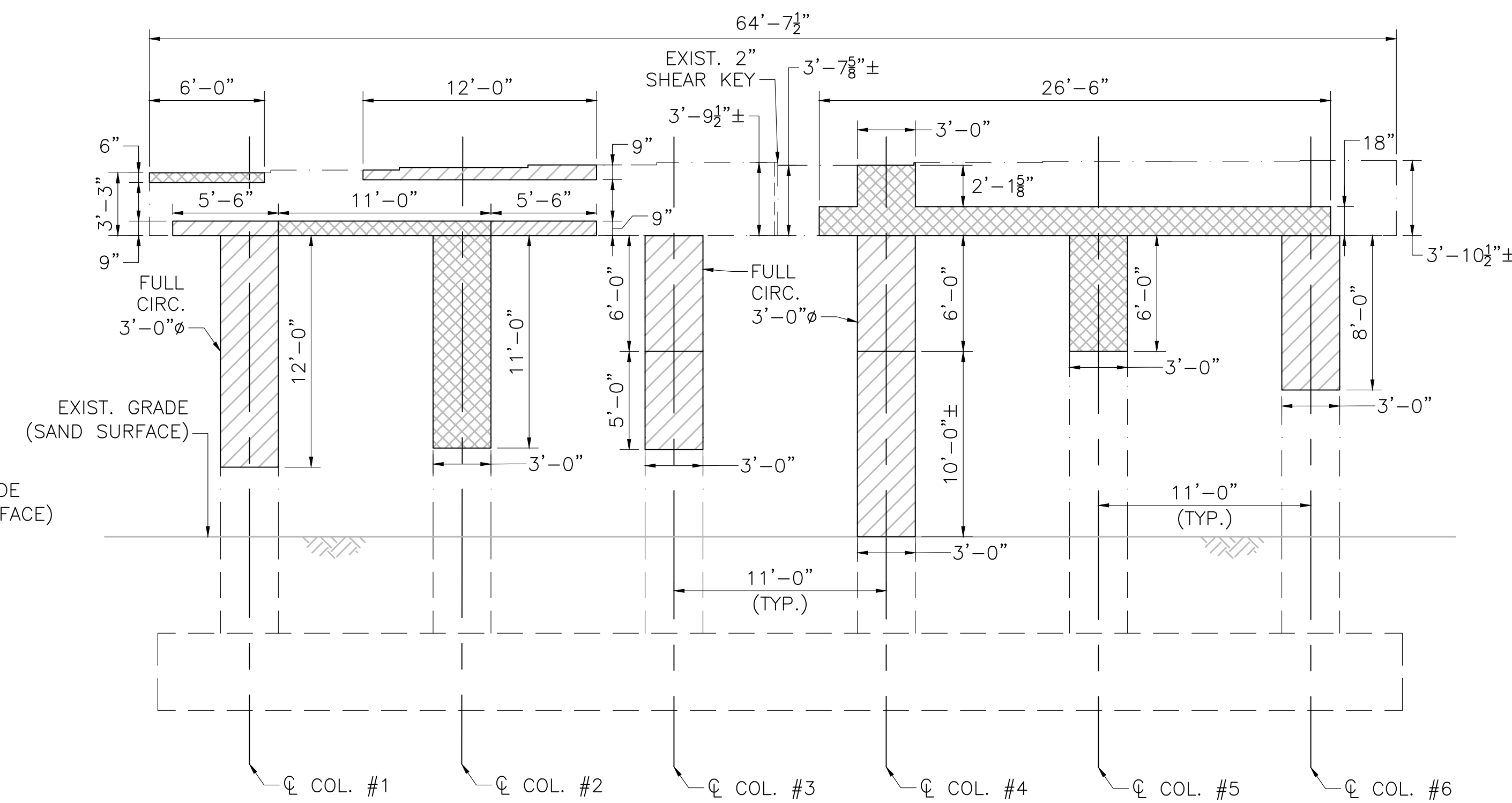
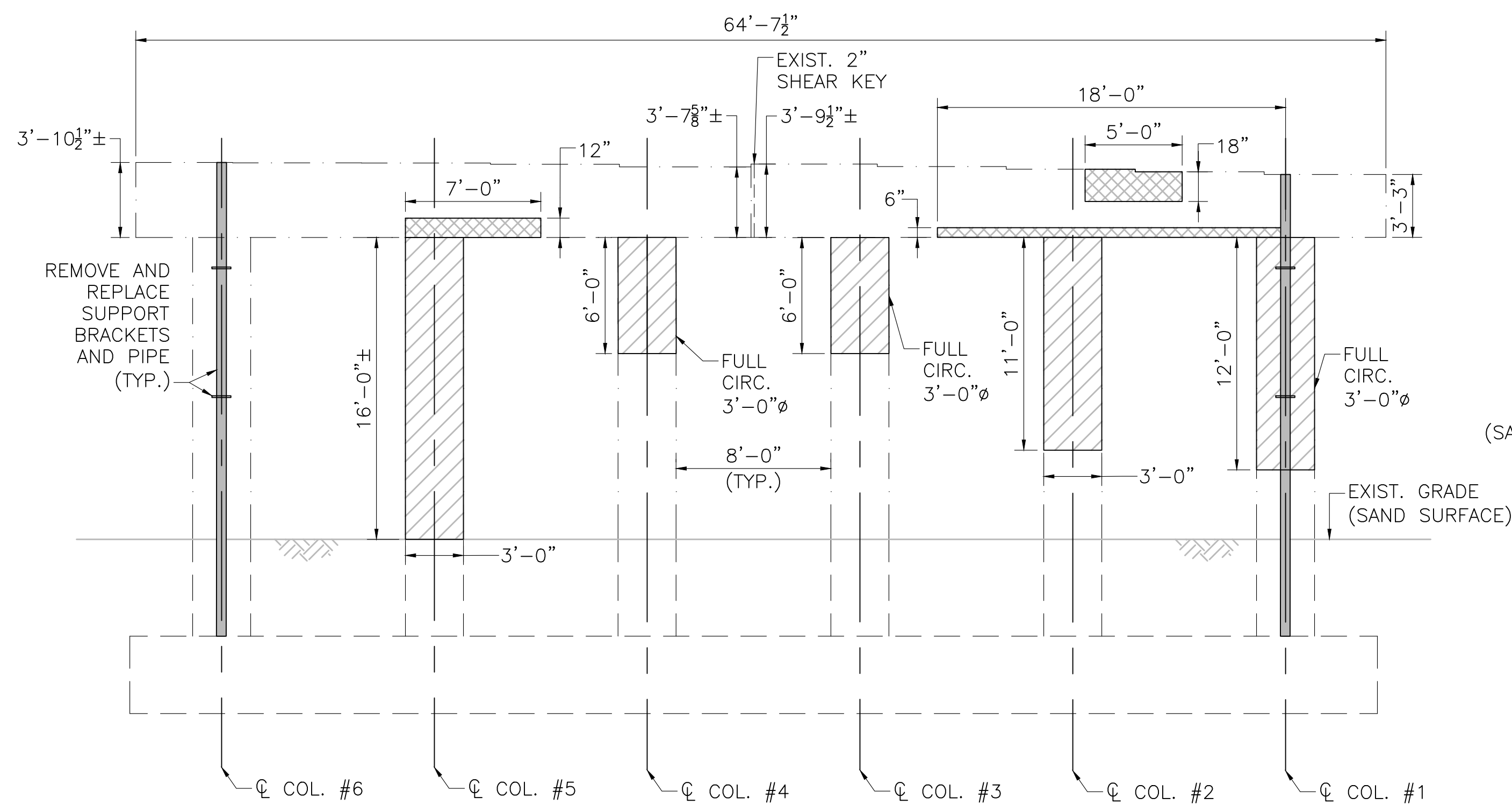
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(NGB)-003S(947)	33	49
PROJECT FILE NO.		612505	

PIER 6 REPAIRS

LEGEND:

-  CRACKED AND/OR DELAMINATED CONCRETE AREA TO BE REPAIRED
-  SPALLED CONCRETE AREA TO BE REPAIRED

SEE SHEET 7 FOR CONCRETE REPAIR NOTES.



ESTIMATED REPAIR SUMMARY	
DEFICIENCY	QUANTITY
SPALLS/DELAMINATION	12.61 CY

NOTE: ESTIMATED REPAIR QUANTITIES ARE FOR COST ESTIMATING PURPOSES ONLY. THE CONTRACTOR SHALL SOUND ALL CONCRETE SURFACES TO DETERMINE ACTUAL REPAIR LOCATIONS AND LIMITS TO BE APPROVED BY THE ENGINEER. SEE CONCRETE REPAIR NOTE 3 ON SHEET 7.

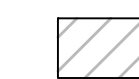

APRIL 18, 2026	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION
THIS SHEET IS APPROVED FOR CONSTRUCTION BY MASSDOT	
AUTHORIZED SIGNATORY:	STATE BRIDGE ENGINEER
USE ONLY PRINTS OF LATEST DATE	

**NORTH ADAMS
ST RTE 2 (VETERANS MEMORIAL DRIVE)**

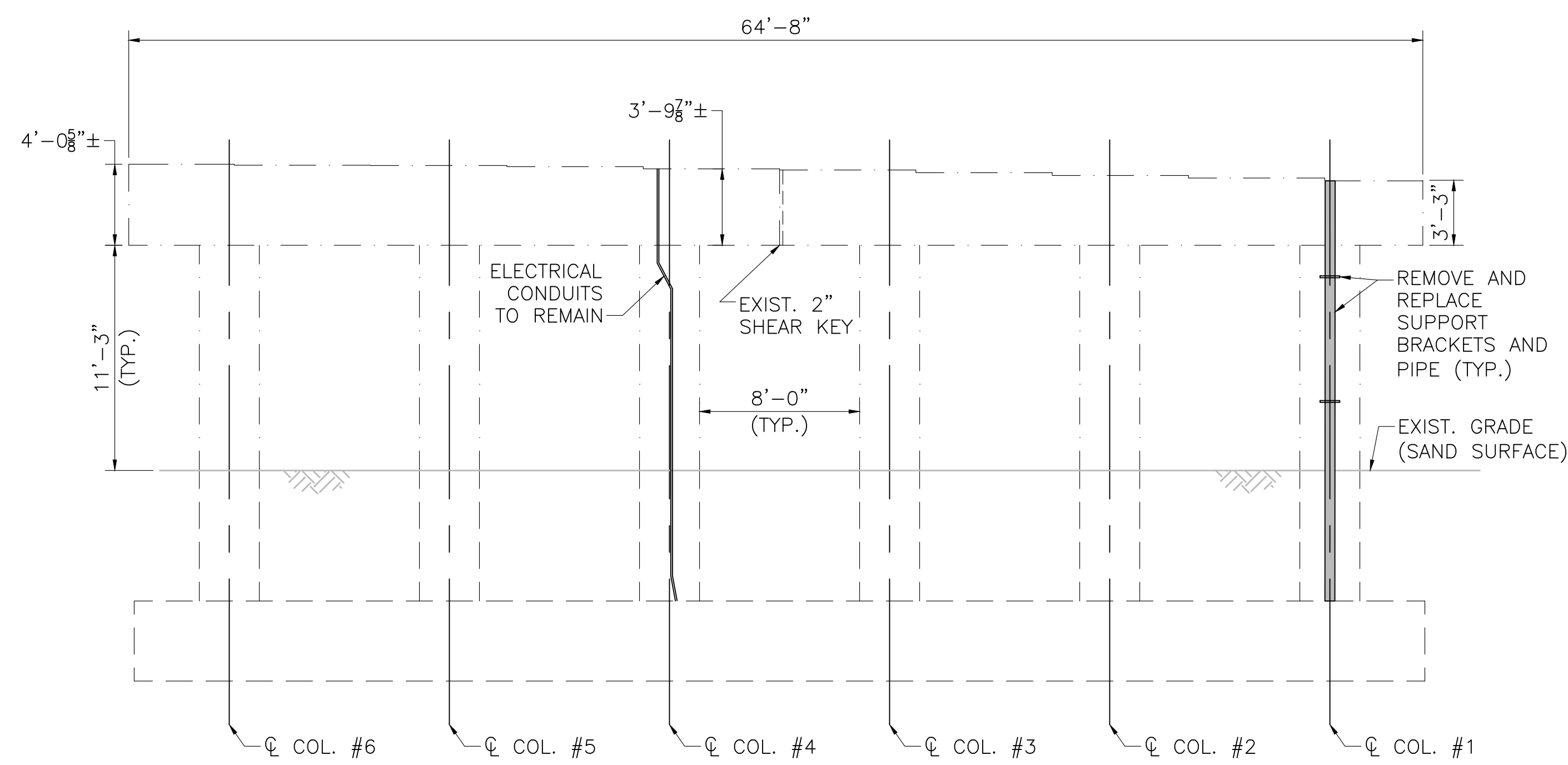
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(NGB)-003S(947)	34	49
PROJECT FILE NO.		612505	

PIER 7 REPAIRS

LEGEND:

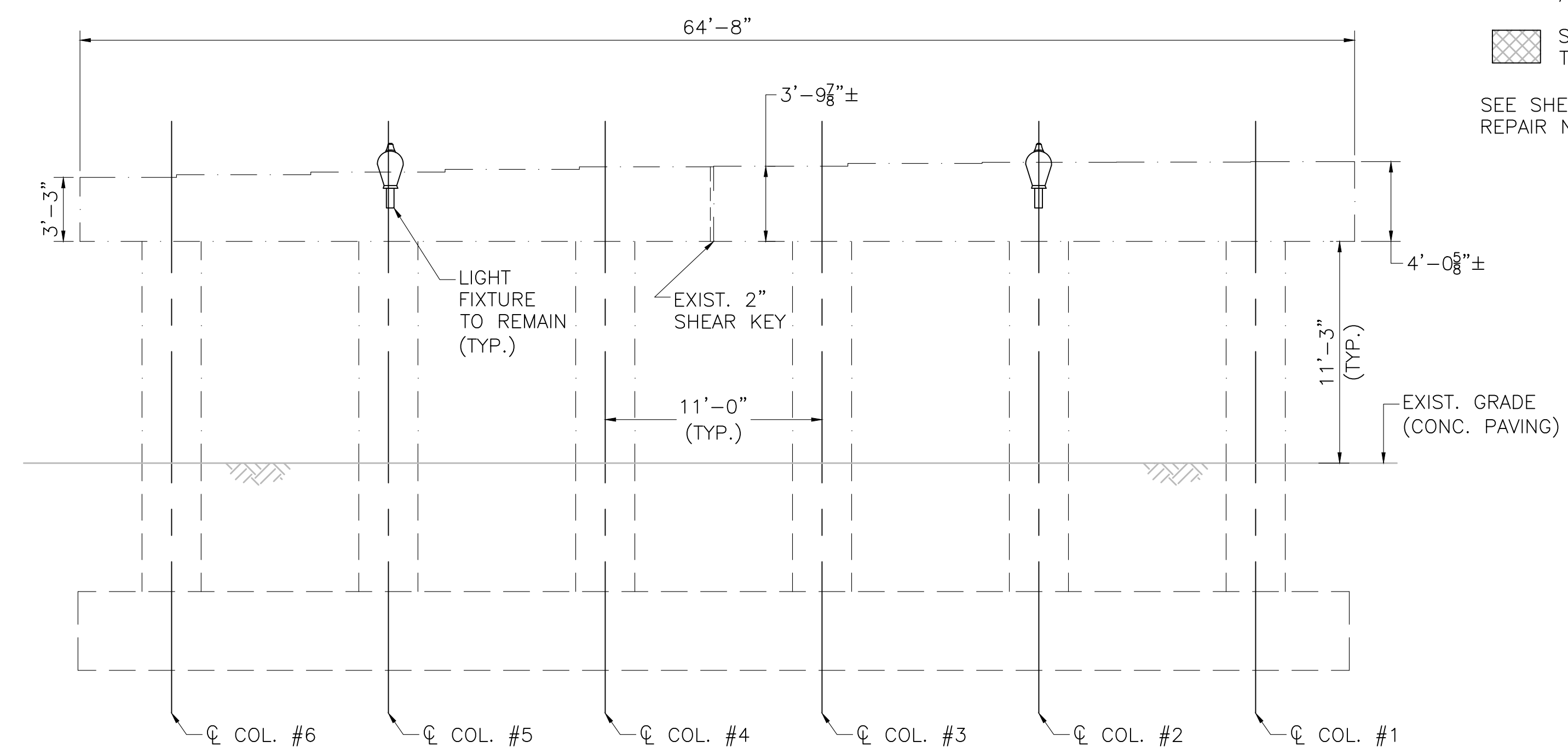
-  CRACKED AND/OR DELAMINATED CONCRETE AREA TO BE REPAIRED
-  SPALLED CONCRETE AREA TO BE REPAIRED

SEE SHEET 7 FOR CONCRETE REPAIR NOTES.



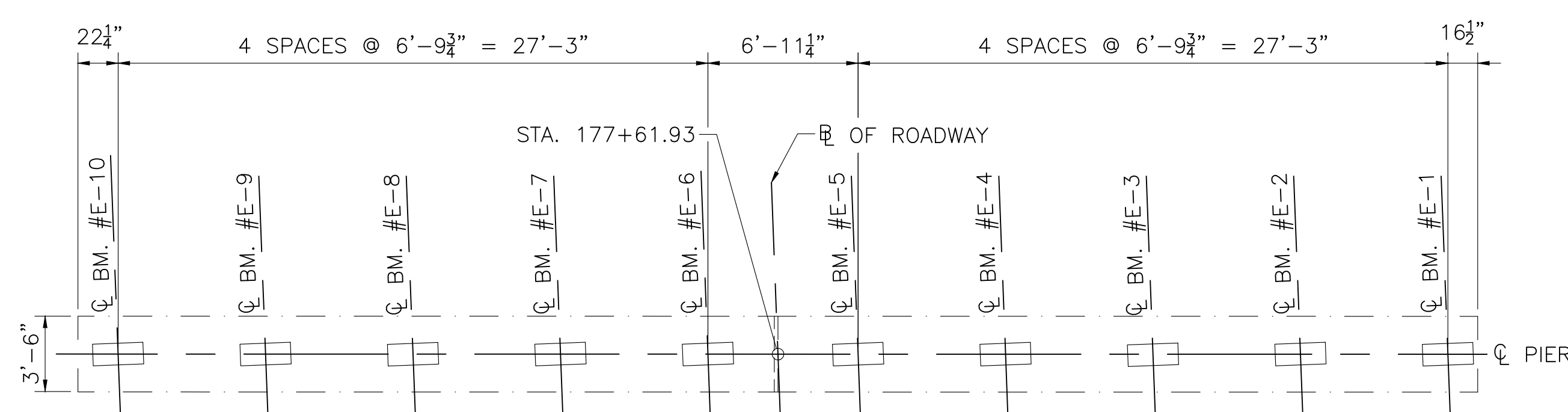
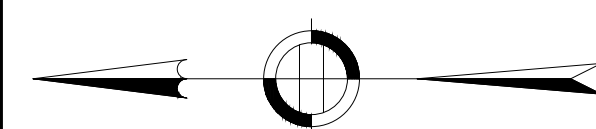
PIER 7 WEST ELEVATION (FACING EAST)

SCALE: 3/16" = 1'-0"



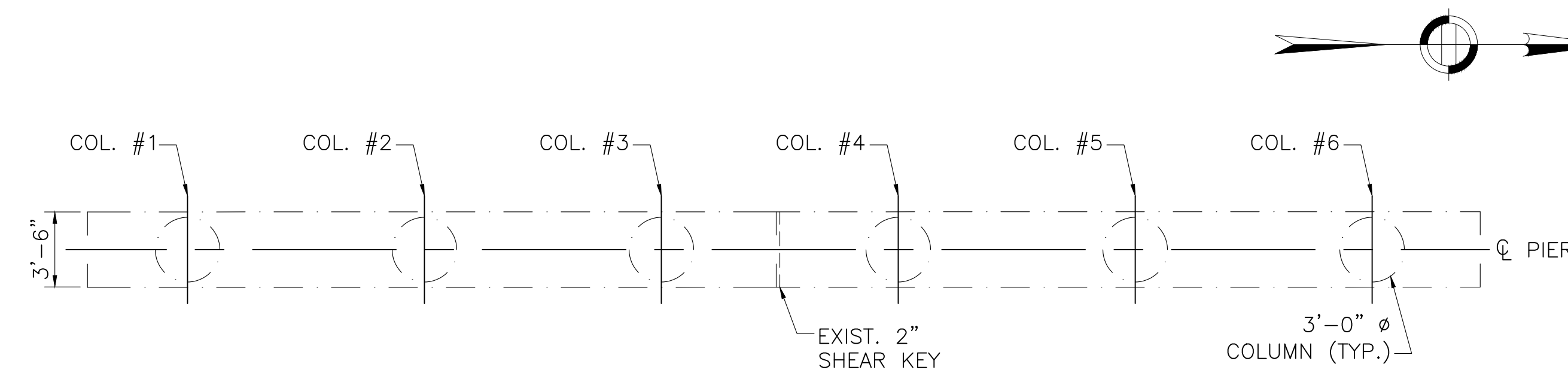
PIER 7 EAST ELEVATION (FACING WEST)

SCALE: 3/16" = 1'-0"



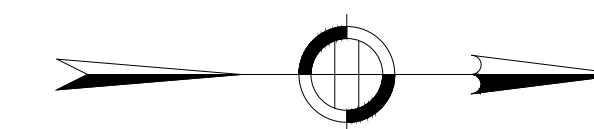
PIER 7 - TOPSIDE OF PIER CAP

SCALE: 3/16" = 1'-0"



PIER 7 - UNDERSIDE OF CAP

SCALE: 3/16" = 1'-0"



ESTIMATED REPAIR SUMMARY	
DEFICIENCY	QUANTITY
SPALLS/DELAMINATION	-

NOTE: ESTIMATED REPAIR QUANTITIES ARE FOR COST ESTIMATING PURPOSES ONLY. THE CONTRACTOR SHALL SOUND ALL CONCRETE SURFACES TO DETERMINE ACTUAL REPAIR LOCATIONS AND LIMITS TO BE APPROVED BY THE ENGINEER. SEE CONCRETE REPAIR NOTE 3 ON SHEET 7.


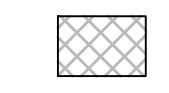
APRIL 18, 2026	ISSUED FOR CONSTRUCTION
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**NORTH ADAMS
ST RTE 2 (VETERANS MEMORIAL DRIVE)**

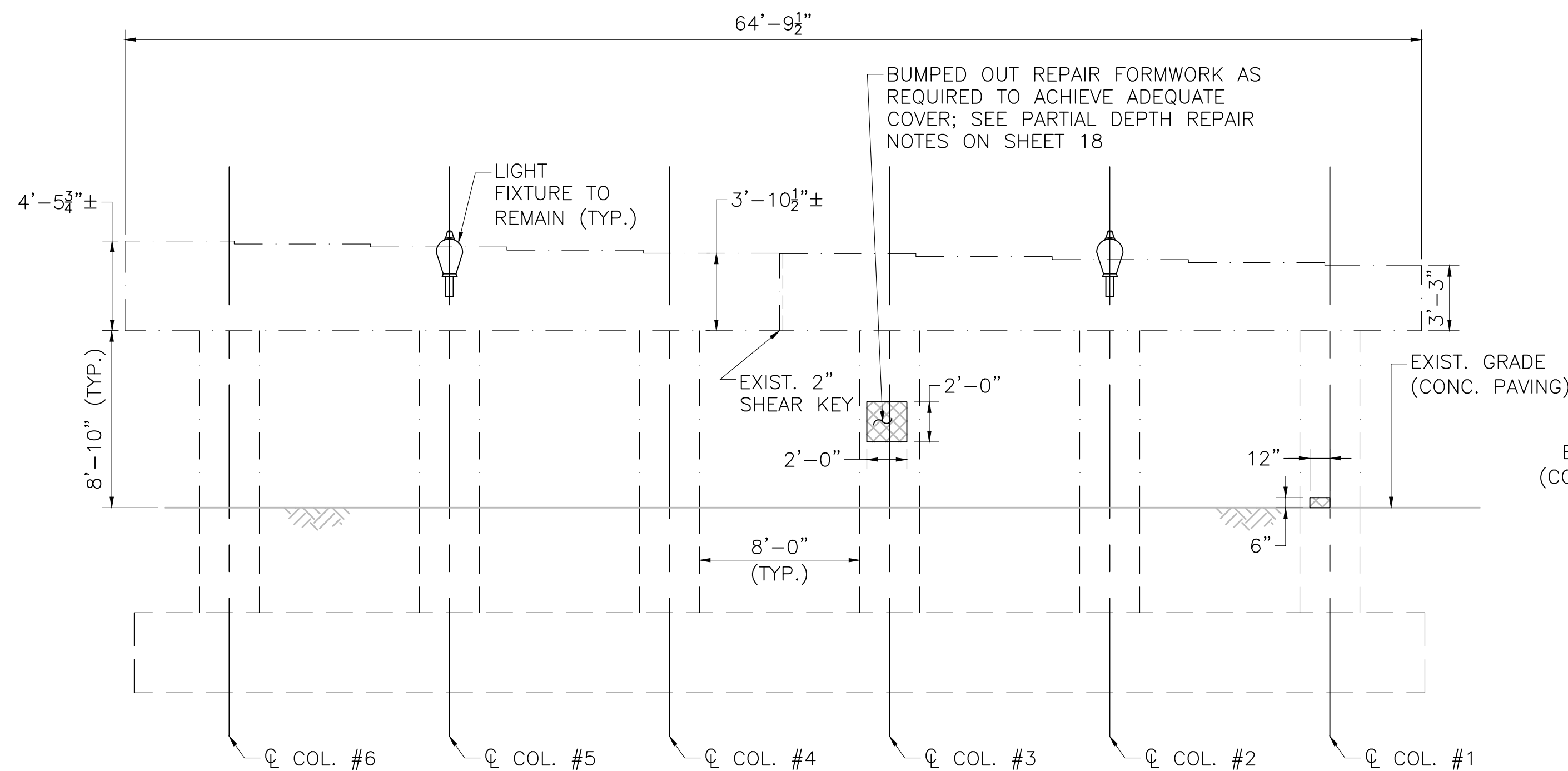
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(NGB)-003S(947)	35	49
PROJECT FILE NO.		612505	

PIER 8 REPAIRS

LEGEND:

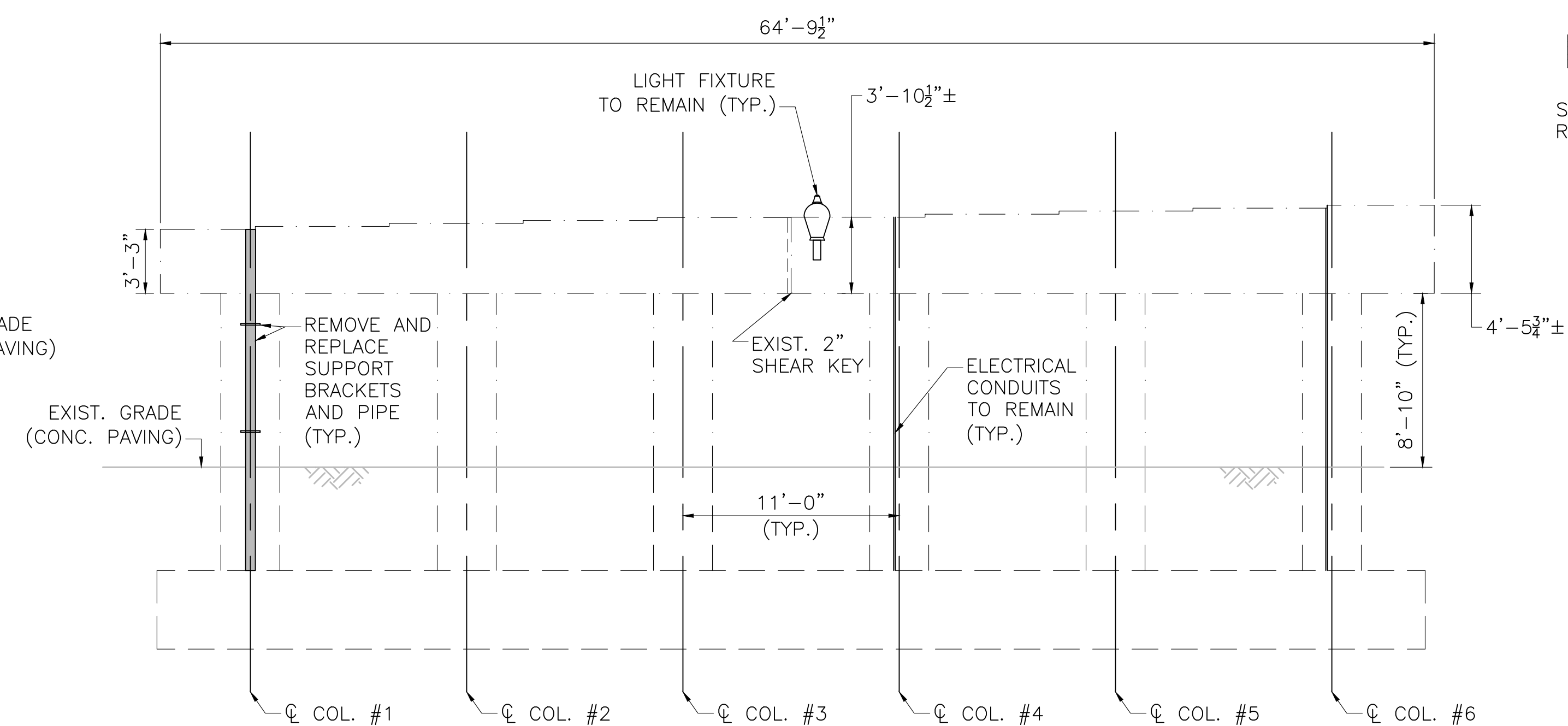
-  CRACKED AND/OR DELAMINATED CONCRETE AREA TO BE REPAIRED
-  SPALLED CONCRETE AREA TO BE REPAIRED

SEE SHEET 7 FOR CONCRETE REPAIR NOTES.



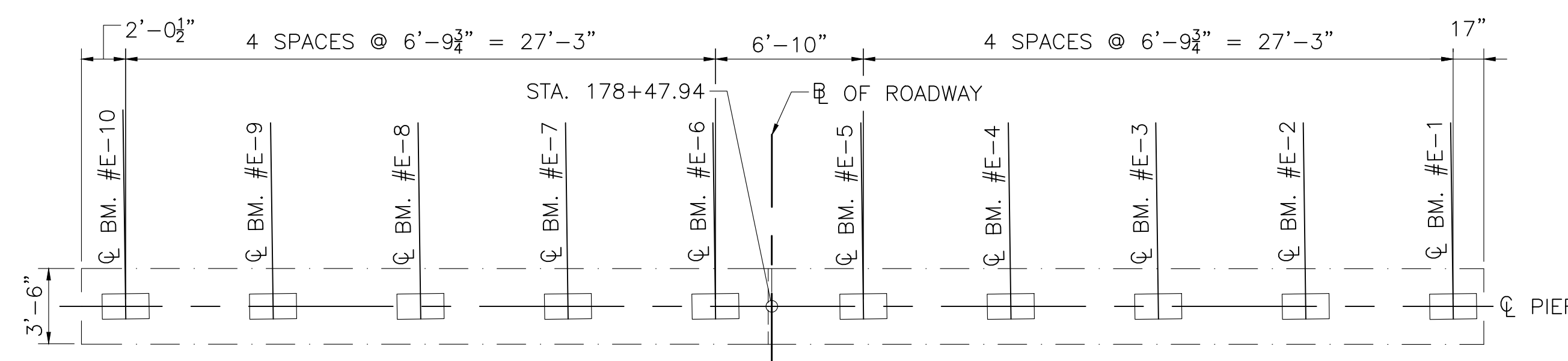
PIER 8 WEST ELEVATION (FACING EAST)

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



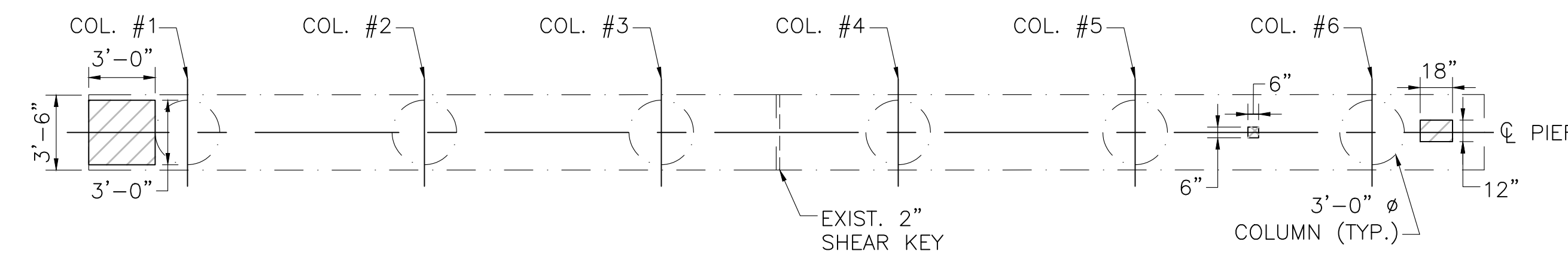
PIER 8 EAST ELEVATION (FACING WEST)

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



PIER 8 - TOPSIDE OF PIER CAP

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



PIER 8 - UNDERSIDE OF CAP

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

ESTIMATED REPAIR SUMMARY	
DEFICIENCY	QUANTITY
SPALLS/DELAMINATION	0.28 CY

NOTE: ESTIMATED REPAIR QUANTITIES ARE FOR COST ESTIMATING PURPOSES ONLY. THE CONTRACTOR SHALL SOUND ALL CONCRETE SURFACES TO DETERMINE ACTUAL REPAIR LOCATIONS AND LIMITS TO BE APPROVED BY THE ENGINEER. SEE CONCRETE REPAIR NOTE 3 ON SHEET 7.

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MA	HIP(NGB)-003S(947)	36	49
PROJECT FILE NO.		612505	

SUBSTRUCTURE REPAIR DETAILS 1 OF 2

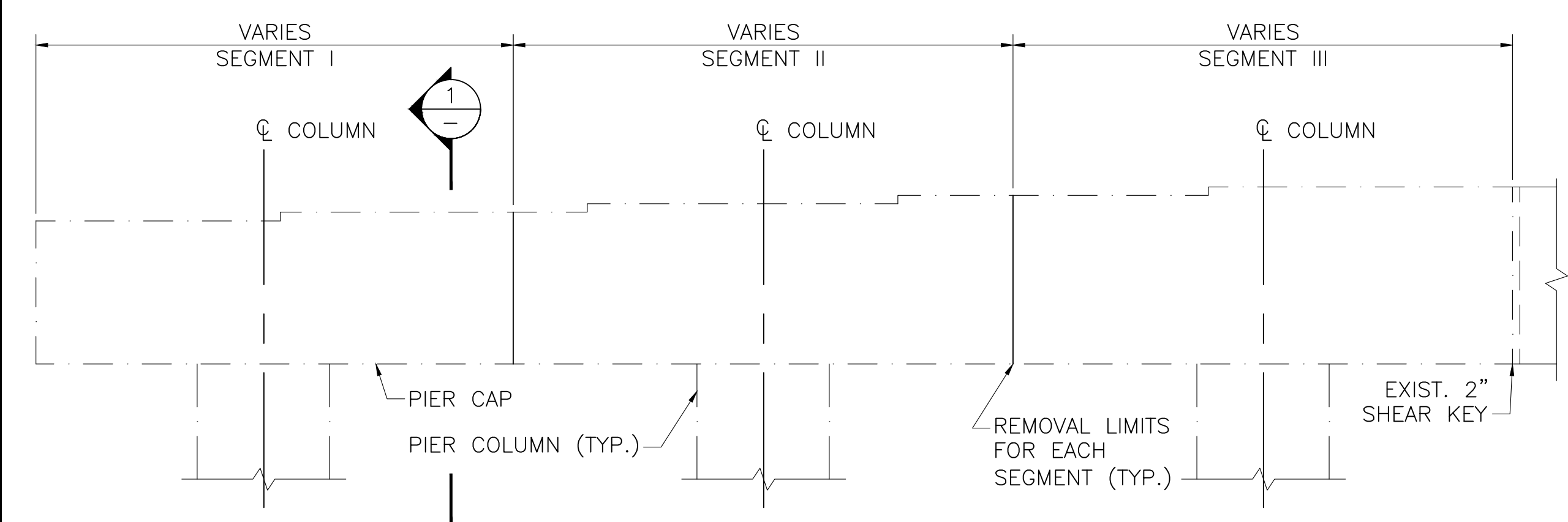
NOTES:

1. THE CONTRACTOR SHALL PROVIDE A TEMPORARY SHORING SYSTEM UNDER THE BEAMS TO SUPPORT THE SUPERSTRUCTURE DEAD AND LIVE LOADS. THE SHORING SYSTEM IS TO BE INSTALLED PRIOR TO THE START OF ANY CONCRETE REMOVAL AND SHALL REMAIN IN PLACE UNTIL CONCRETE SUBSTRUCTURE REPAIRS, BEARING REPLACEMENTS, AND STEEL BEAM END REPAIRS AT EACH PIER ARE COMPLETED.
2. THE CONTRACTOR SHALL INSPECT AND SOUND THE CONCRETE PIER CAP AND COLUMNS TO IDENTIFY AREAS IN NEED OF REPAIR.
3. CONCRETE ELEMENTS ARE DIVIDED INTO SEGMENTS. WORK SHALL BE PERFORMED ON SEGMENTS AS SHOWN. SEGMENTS SHALL EXTEND TO THE MIDPOINT BETWEEN COLUMNS. THE SPECIFIED SEGMENTS REQUIRE THAT ALL SUPERSTRUCTURE DEAD AND LIVE LOADS TO BE REMOVED FROM THE PIER CAP AND COLUMNS.
4. CONTRACTOR SHALL STAGE THE WORK SO THAT THE SEGMENTS IN POOREST CONDITION ARE REPAIRED FIRST, AS APPROVED BY THE ENGINEER.
5. CONTRACTOR SHALL NOT WORK ON ADJACENT SEGMENTS SIMULTANEOUSLY UNLESS APPROVED BY THE DISTRICT BRIDGE ENGINEER.
6. CONTRACTOR SHALL WAIT 72 HOURS AFTER COMPLETING REPAIRS TO A SEGMENT BEFORE STARTING REPAIRS TO ADJACENT SEGMENTS. HOWEVER, HE/SHE MAY PERFORM WORK ON OTHER BRIDGE ELEMENTS.
7. CONTRACTOR SHALL STOP REMOVING DETERIORATED CONCRETE WHEN A MAXIMUM DEPTH OF 6 INCHES IS REACHED. THE ENGINEER SHALL BE IMMEDIATELY NOTIFIED IF ADDITIONAL CONCRETE EXCAVATION IS NECESSARY.
8. THE CONTRACTOR SHALL EXERCISE CARE TO PROTECT PREVIOUSLY COMPLETED REPAIRS DURING EXCAVATION.

DRILLING & GROUTING NOTES FOR CONCRETE SUBSTRUCTURE REPAIR:

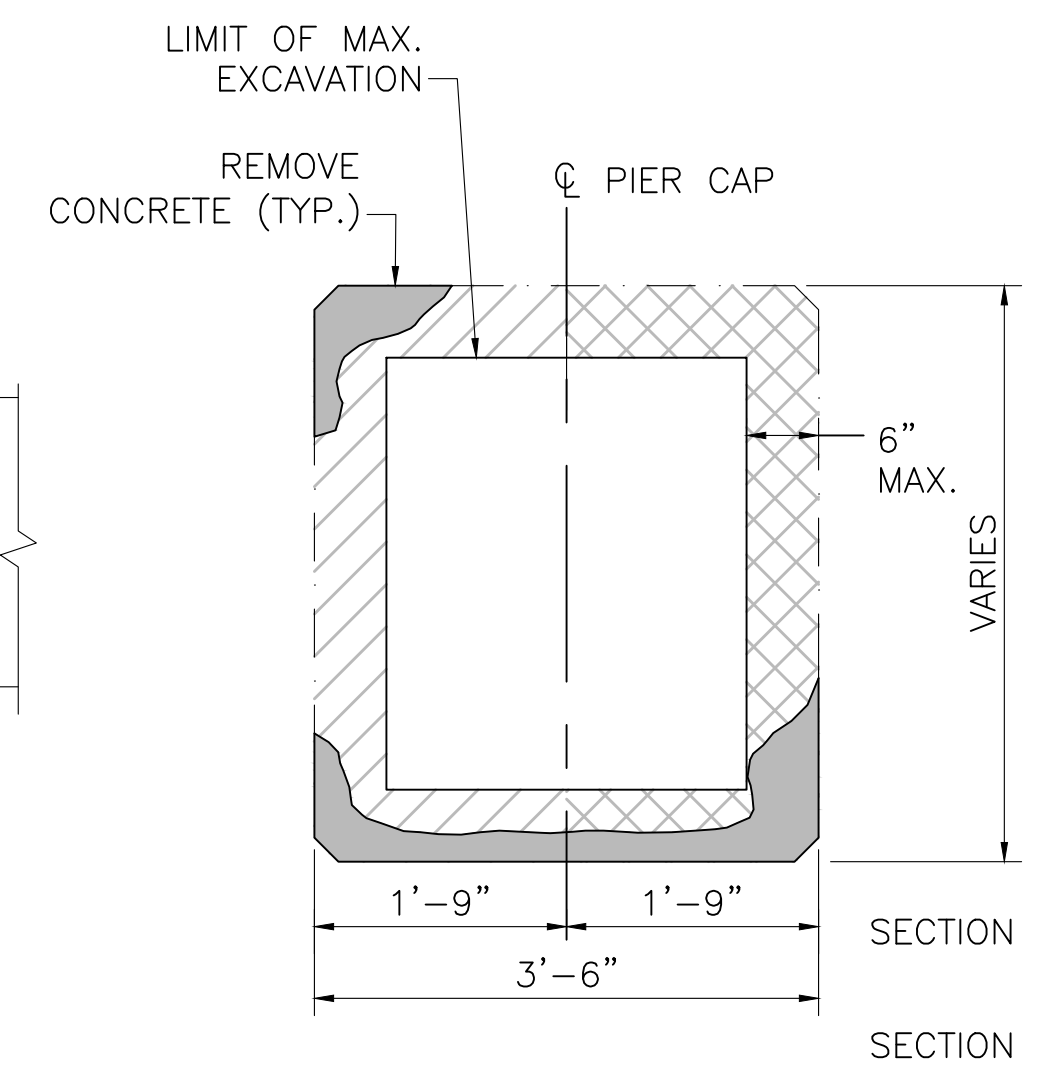
1. THE EMBEDDED DOWELS SHALL BE FULLY DEVELOPED AT 100% OF THE YIELD STRENGTH. TECHNICAL DATA SHEETS AND THE MANUFACTURER'S INSTALLATION PROCEDURE MUST BE SUBMITTED TO THE ENGINEER FOR APPROVAL.
2. THE CEMENTITIOUS NON-SHRINK GROUT SHALL BE SELECTED FROM THE MASSDOT QUALIFIED CONSTRUCTION MATERIAL LIST (QCML).
3. THE DRILLED HOLES SHALL BE THE GREATER OF THE MANUFACTURER'S RECOMMENDATIONS OR AS SPECIFIED BELOW:

MINIMUM EDGE DISTANCE = 4"
MINIMUM HOLE DIAMETER = 2"



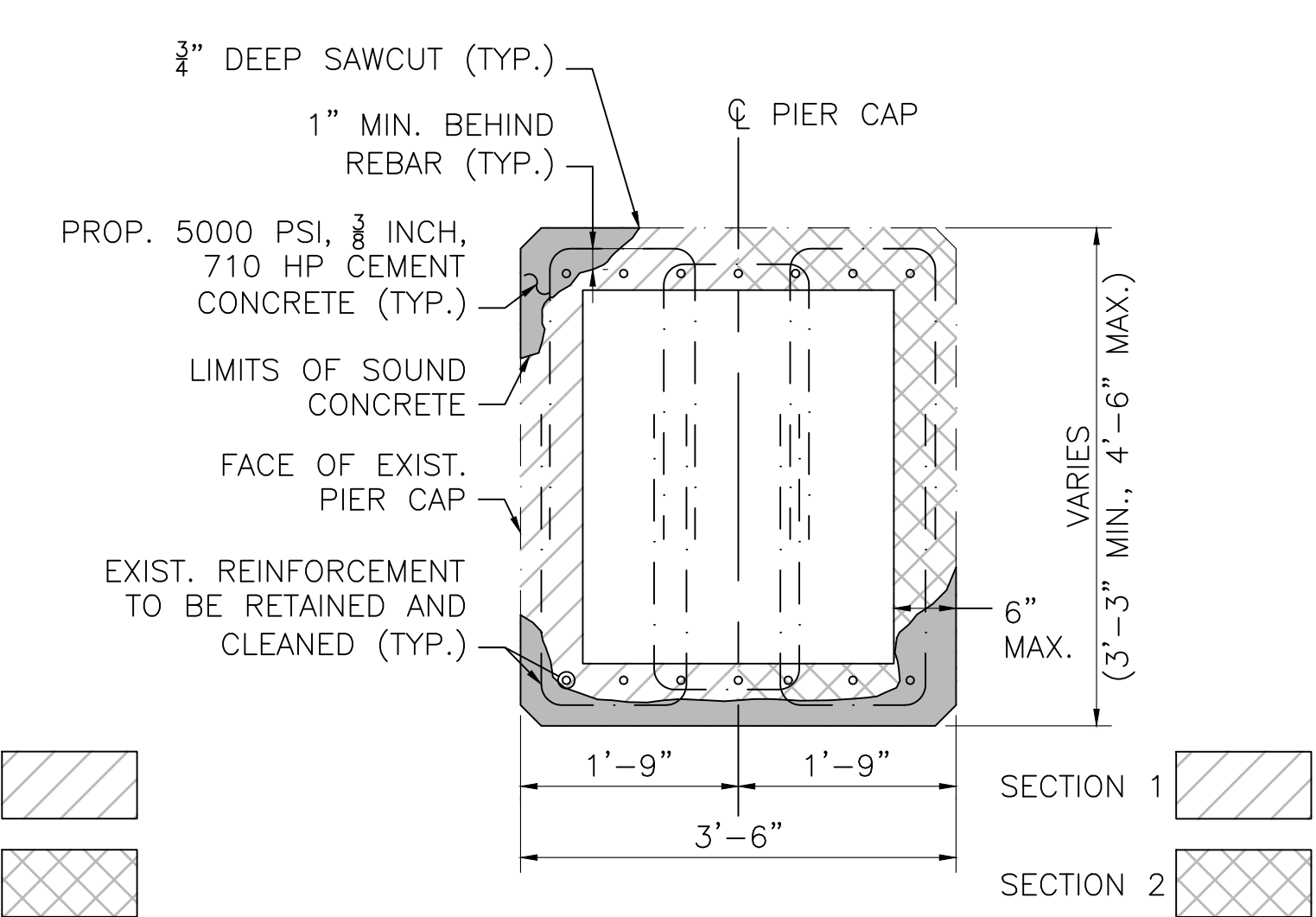
PIER CAP REPAIR SEQUENCE

SCALE: 3/8" = 1'-0"



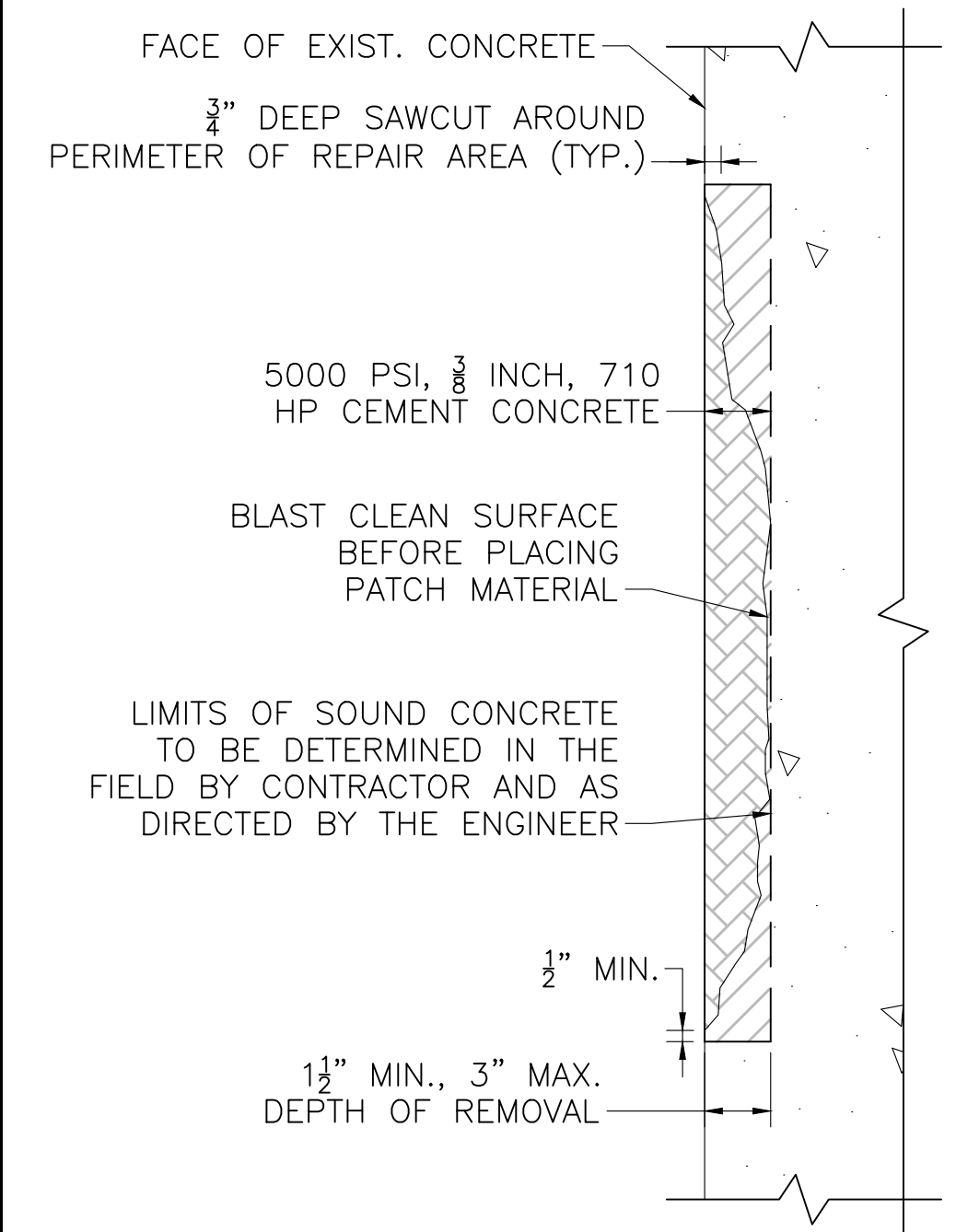
PIER CAP

SCALE: 3/4" = 1'-0"

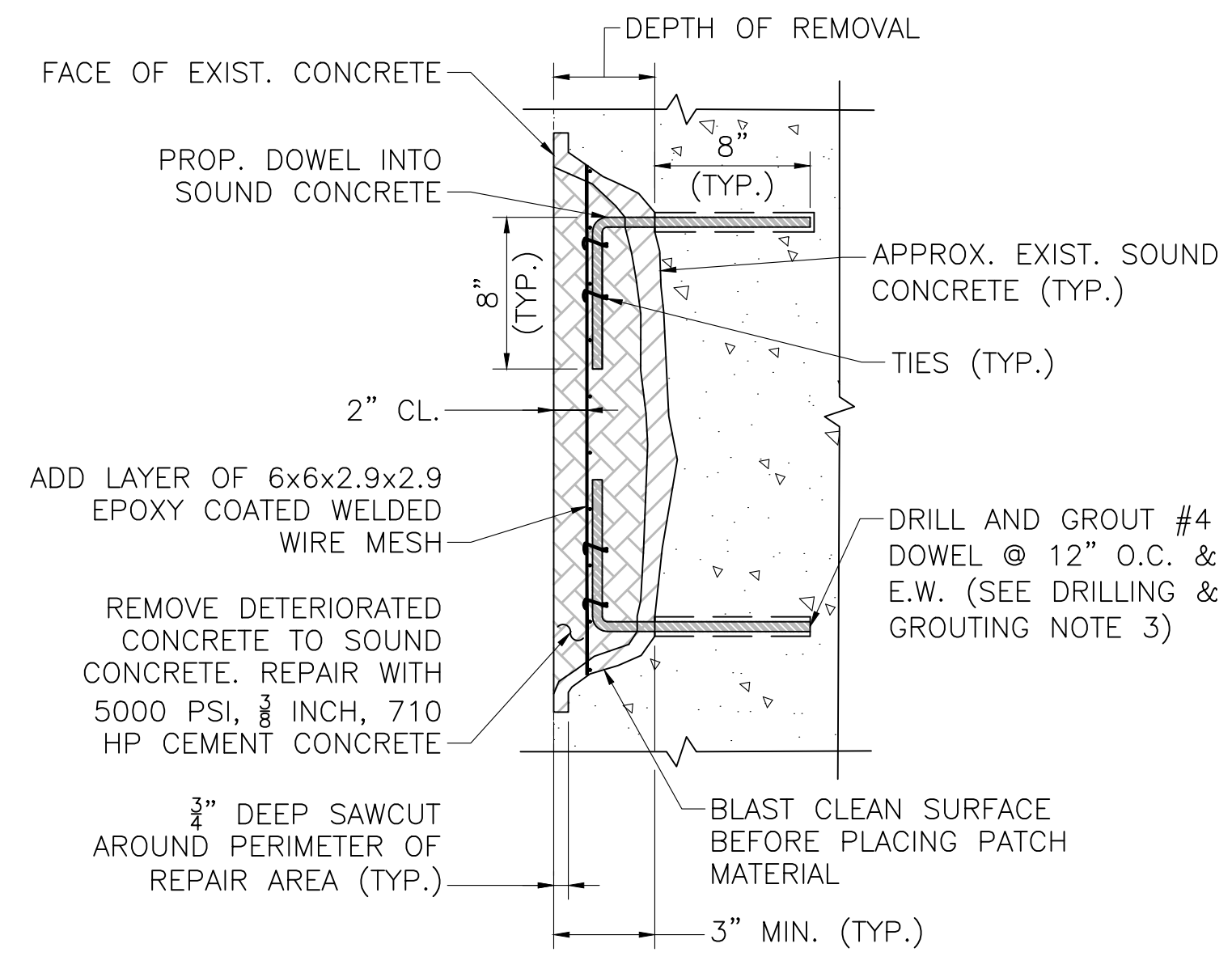


PIER CAP REPAIR SECTION

SCALE: 3/4" = 1'-0"



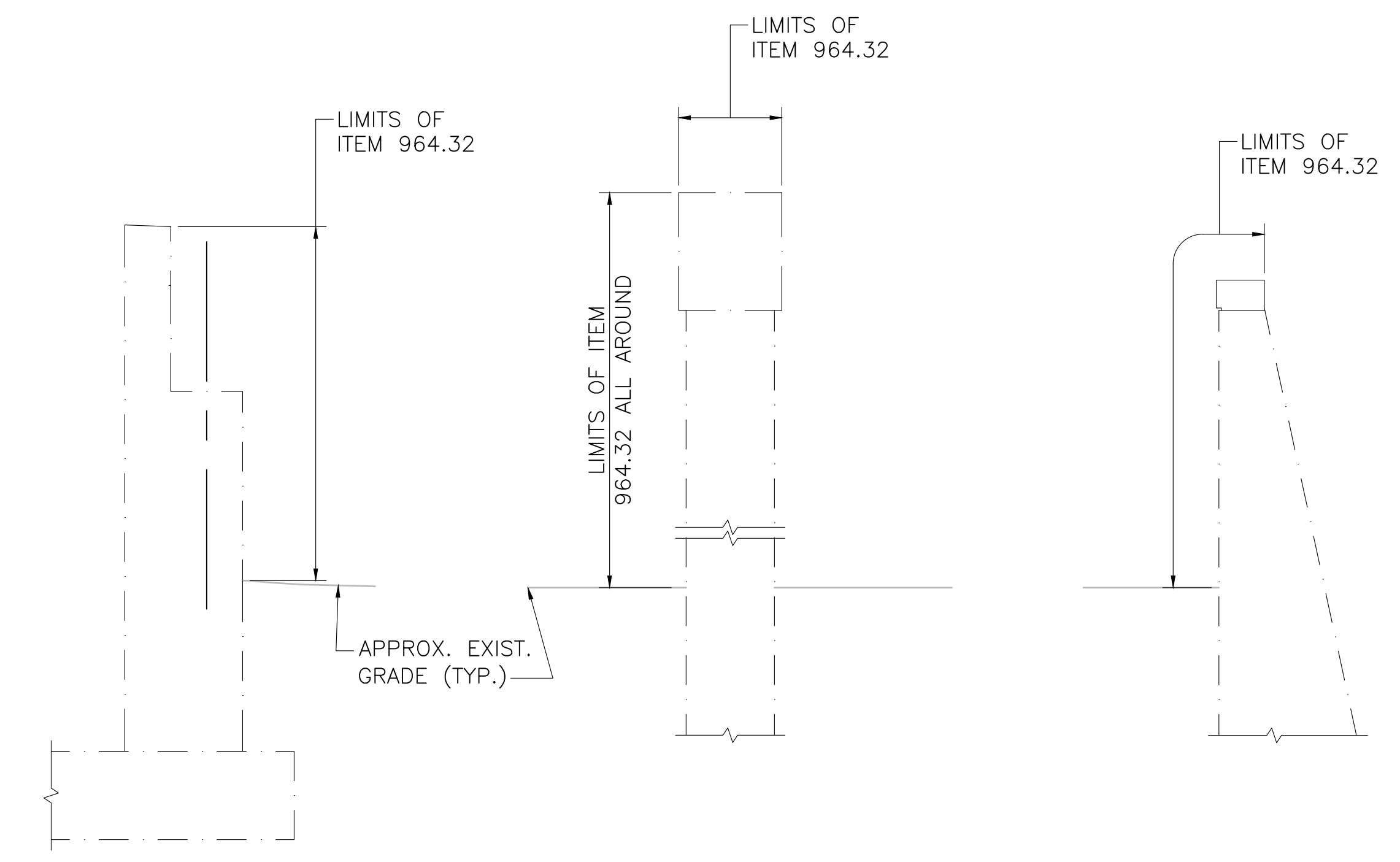
SHALLOW DEPTH CONCRETE REPAIR



DEEP DEPTH CONCRETE REPAIR

UNREINFORCED CONCRETE REPAIR DETAILS

SCALE: 1 1/2" = 1'-0"



TYPICAL ABUTMENT SECTION

TYPICAL PIER SECTION

TYPICAL WINGWALL/RETAINING WALL SECTION

LIMITS OF ELASTOMERIC PROTECTIVE COATING

NOT TO SCALE

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612505_BRT17-18(N14039).DWG Plotted on 12-Mar-2026 2:50 PM 13-MARCH-2026 FINAL STRUCTURAL SUBMITTAL (SF)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(NGB)-003S(947)	37	49
PROJECT FILE NO.		612505	

PIER COLUMN REPAIR NOTES:

1. CONCRETE ELEMENTS ARE DIVIDED INTO SEGMENTS. WORK SHALL BE PERFORMED ON SEGMENTS AS SHOWN AND DEFINED BELOW.
2. THE CONTRACTOR SHALL PROVIDE A TEMPORARY SHORING SYSTEM UNDER THE BEAMS TO SUPPORT THE SUPERSTRUCTURE DEAD AND LIVE LOADS. THE SHORING SYSTEM IS TO BE INSTALLED PRIOR TO THE START OF ANY CONCRETE REMOVAL AND SHALL REMAIN IN PLACE UNTIL THE CONCRETE SUBSTRUCTURE REPAIRS, BEARING REPLACEMENTS, AND STEEL BEAM END REPAIRS AT EACH PIER ARE COMPLETED.
3. CONTRACTOR SHALL STAGE THE WORK SO THAT THE WORSE SEGMENTS ARE REPAIRED FIRST.
4. CONTRACTOR SHALL NOT WORK ON MORE THAN TWO NON-ADJACENT SEGMENTS SIMULTANEOUSLY UNLESS APPROVED BY THE ENGINEER.
5. CONTRACTOR SHALL WAIT 72 HOURS AFTER COMPLETING REPAIRS TO A SEGMENT BEFORE EXCAVATING CONCRETE IN ADJACENT SEGMENTS. HOWEVER, HE/SHE MAY PERFORM WORK ON OTHER BRIDGE ELEMENTS.
6. CONTRACTOR SHALL STOP REMOVING DETERIORATED CONCRETE WHEN A MAXIMUM DEPTH OF 6 INCHES IS REACHED. THE ENGINEER SHALL BE IMMEDIATELY NOTIFIED IF ADDITIONAL CONCRETE EXCAVATION IS NECESSARY.
7. WHEN HEIGHT OF COLUMN IS MORE THAN 18 FEET, THE CONTRACTOR WILL BE RESTRICTED TO 6 FOOT SEGMENTS.

PARTIAL DEPTH REPAIR NOTES:

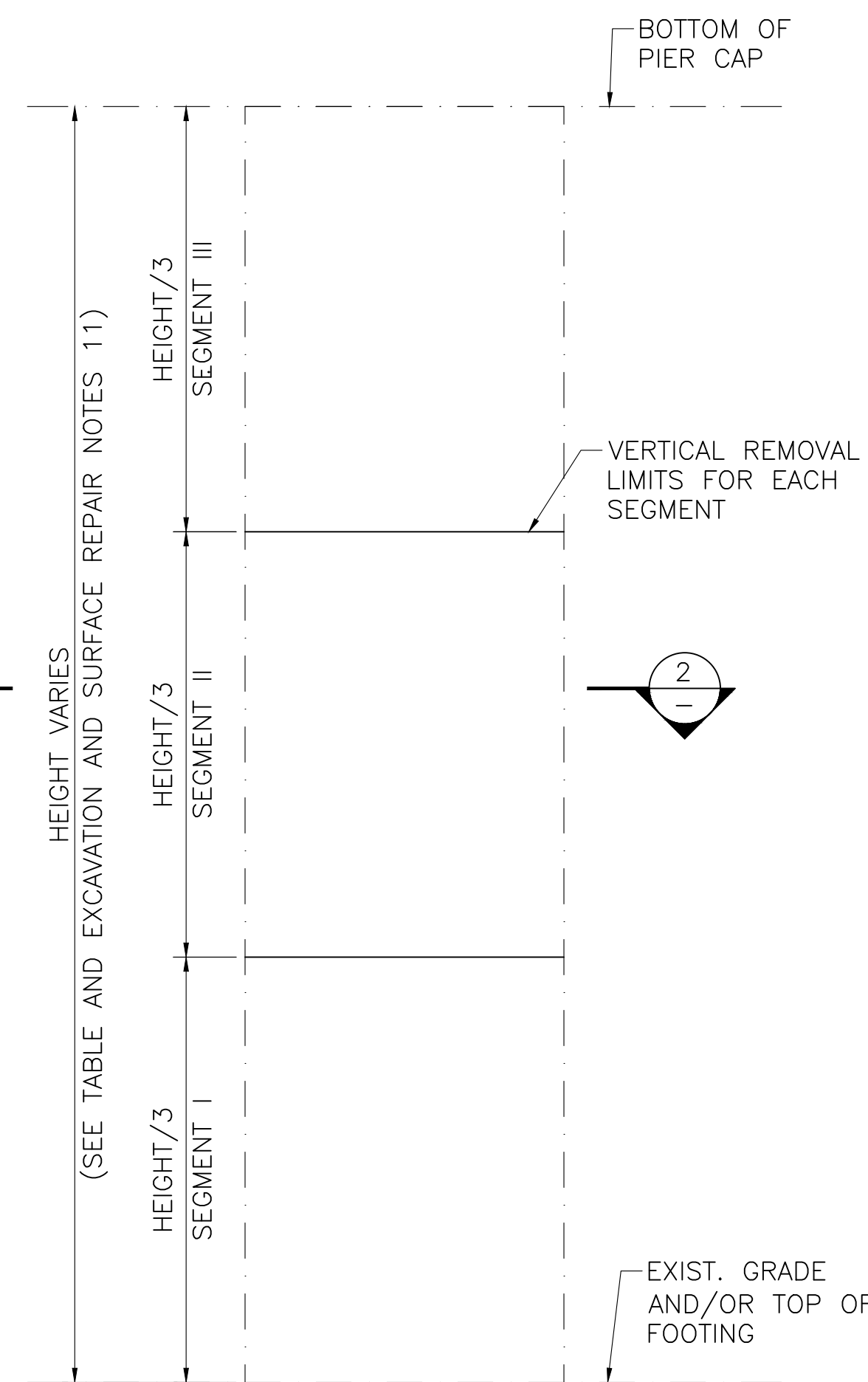
1. IF THERE IS LESS THAN 1 1/2" CONCRETE COVER, THEN THE CONTRACTOR SHALL BUILD OUT THE FORMWORK TO ENSURE A MINIMUM OF 1 1/2" COVER.

EXCAVATION AND SURFACE REPAIR NOTES:

1. THE CONTRACTOR SHALL EXERCISE CARE WHEN REMOVING CONCRETE AROUND REINFORCEMENT TO ONLY REMOVE DETERIORATED CONCRETE AND TO LIMIT THE AMOUNT OF SOUND CONCRETE REMOVED TO THE MINIMUM NECESSARY.
2. THE CONTRACTOR SHALL ESTABLISH LIMITS OF VARIOUS REPAIRS AS SHOWN ON THE PLANS AND AT THE DIRECTION OF THE ENGINEER. THE LOCATIONS SHOWN ON THE PLANS ARE BASED ON INSPECTION REPORTS AND SITE OBSERVATIONS AND ARE NOT GUARANTEED. THE LOCATION AND EXTENT OF ALL CONCRETE REPAIRS ARE TO BE FIELD VERIFIED AND APPROVED BY THE ENGINEER AFTER THE CONTRACTOR HAS SOUNDED AND MARKED OUT THE REPAIR AREAS. REPAIR CONFIGURATIONS SHOULD BE KEPT AS SIMPLE AS POSSIBLE, PREFERABLY WITH SQUARE CORNERS.
3. THE LIMITS OF THE REPAIRS SHALL BE SAWCUT ALONG NEAT LINES TO A DEPTH OF 3/4" TO PRODUCE A CLEAN EDGE.
4. REMOVE DETERIORATED AND UNSOUND CONCRETE, AS WELL AS SOUND CONCRETE WHERE NECESSARY, TO A MINIMUM OF 1" BEYOND SURFACE REINFORCEMENT.
5. EXPOSED REINFORCEMENT IS TO BE CLEANED BY MECHANICAL CLEANING AND HIGH PRESSURE WASHING WITH WATER THAT CONTAINS NO DETERGENTS OR BOND INHIBITING CHEMICALS. WHERE ACTIVE CORROSION HAS OCCURRED (THAT WHICH WOULD INHIBIT BONDING) SANDBLAST STEEL TO SSPC-SP5.
6. MISSING OR DETERIORATED REINFORCING STEEL SHALL BE REPLACED AS DIRECTED BY THE ENGINEER. AFTER REMOVAL AND EDGE PREPARATION ARE COMPLETE, REMOVE BOND INHIBITING MATERIALS (DIRT, GREASE, LOOSELY BONDED AGGREGATE) BY ABRASION BLASTING OR HIGH PRESSURE BLASTING WITH WATER THAT CONTAINS NO DETERGENTS OR BOND INHIBITING CHEMICALS. CHECK THE CONCRETE SURFACES AFTER CLEANING TO ENSURE THAT THE SURFACE IS FREE FROM ADDITIONAL LOOSE AGGREGATE OR THAT ADDITIONAL DELAMINATIONS ARE NOT PRESENT.
7. 5000 PSI, 3/8 INCH, 710 HP CEMENT CONCRETE SHALL BE USED TO PERFORM THE REPAIRS.
8. PRESOAK CONCRETE SUBSTRATE WITH A WATER HOSE FOR 24 HOURS OR AS LONG AS SITE CONSTRAINTS PERMIT. AT TIME OF REPAIR CONCRETE PLACEMENT, SUBSTRATE SHALL BE SATURATED SURFACE DRY WITH NO STANDING WATER.
9. IF AN EPOXY BONDING COMPOUND IS USED (AS DIRECTED BY THE ENGINEER), THE MATERIALS SHALL MEET AASHTO M235 TYPE V AND LISTED ON THE MASSDOT QUALIFIED CONSTRUCTION MATERIAL LIST (QCML). GRADE AND CLASS SHALL BE SPECIFIED FOR EACH INDIVIDUAL APPLICATION. THE EPOXY COMPOUND SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. IN NO CASE WILL THE EPOXY BONDING COMPOUND BE ALLOWED TO CURE TO A HARDENED STATE PRIOR TO CONCRETE PLACEMENT. IF THIS DOES OCCUR IT MUST BE COMPLETELY REMOVED.
10. ALL SURFACES SHALL BE RUBBED TO PRODUCE A SMOOTH FINISH TO MATCH EXISTING SURFACES.
11. PIER COLUMN HEIGHTS ARE TAKEN FROM APPROXIMATE FINISHED GRADE UNLESS OTHERWISE NOTED. CONTRACTOR TO FIELD VERIFY.
12. IF THE MINIMUM LAP SPLICE CANNOT BE ACHIEVED, APPROVED MECHANICAL SPLICERS SHALL BE CONSIDERED. FOR BOTH LAP SPLICING AND MECHANICAL SPLICERS, BUMP OUT THE FORMS AS NEEDED TO ENSURE ADEQUATE COVER.

IN ADDITION TO REPLACING MISSING OR DETERIORATED REINFORCING STEEL, IF THE EXISTING COLUMN STEEL SPIRAL REINFORCEMENT IS SEVERELY DETERIORATED, IT MAY BE WARRANTED TO ALSO INCLUDE A 6 x 6 - W2.9 x W2.9 WELDED EPOXY WIRE FABRIC TIED TO THE OUTER REINFORCING STEEL.

IN LOCATIONS WHERE THE EXISTING COLUMN SPIRAL REINFORCEMENT IS FOUND TO HAVE 50% OR MORE SECTION LOSS TO THE REINFORCEMENT CROSS-SECTION, THE CONTRACTOR SHALL NOTIFY THE ENGINEER FOR EVALUATION.

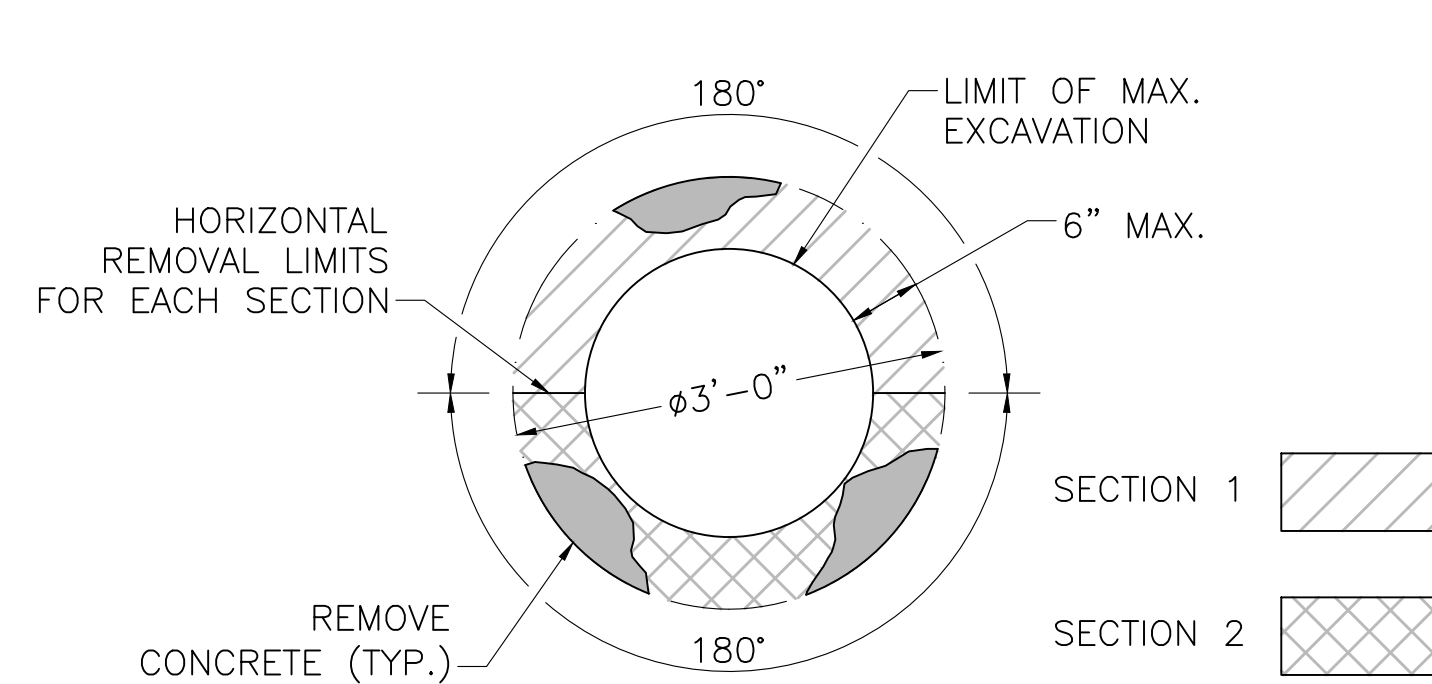


PIER COLUMN REPAIR SEQUENCE

SCALE: 3/4" = 1'-0"

PIER COLUMN HEIGHTS*	
PIER 1	18'-10 1/2" (TOF)
PIER 2	19'-6"
PIER 3	22'-0" (TOF)
PIER 4	17'-4" (TOF)
PIER 5	17'-0"
PIER 6	16'-0"
PIER 7	11'-3"
PIER 8	8'-10"

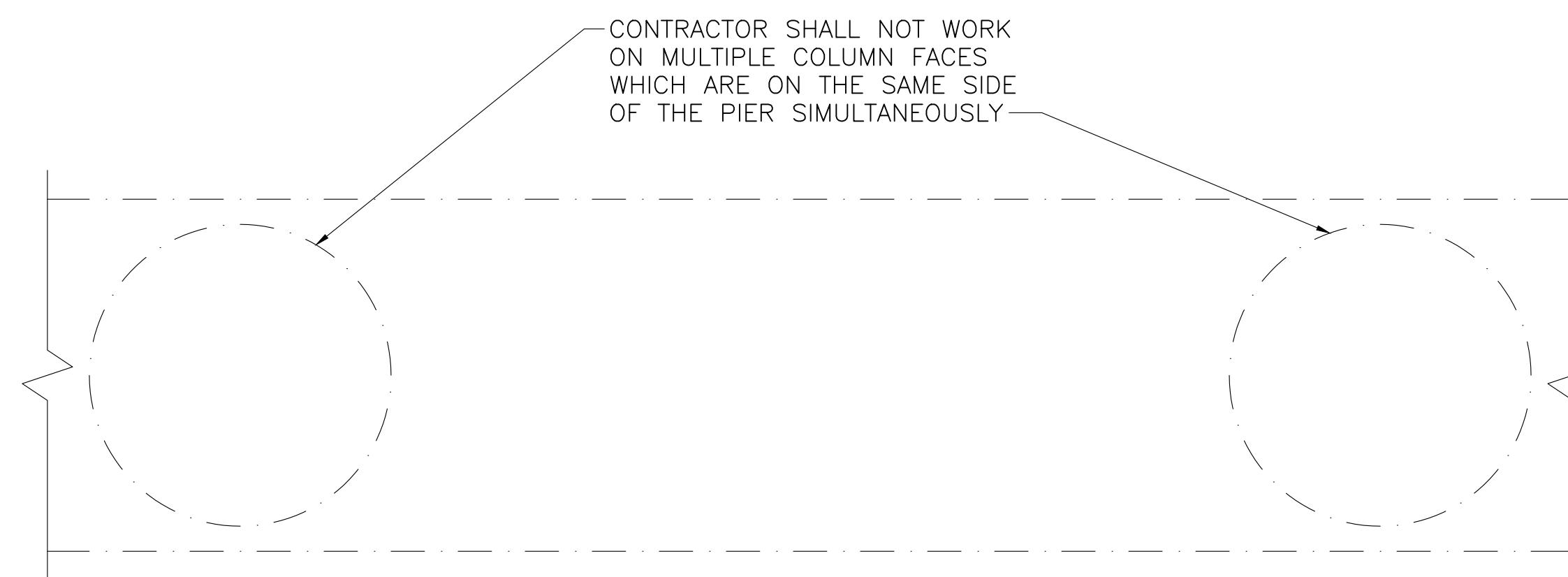
* SEE NOTE 11



PIER COLUMN

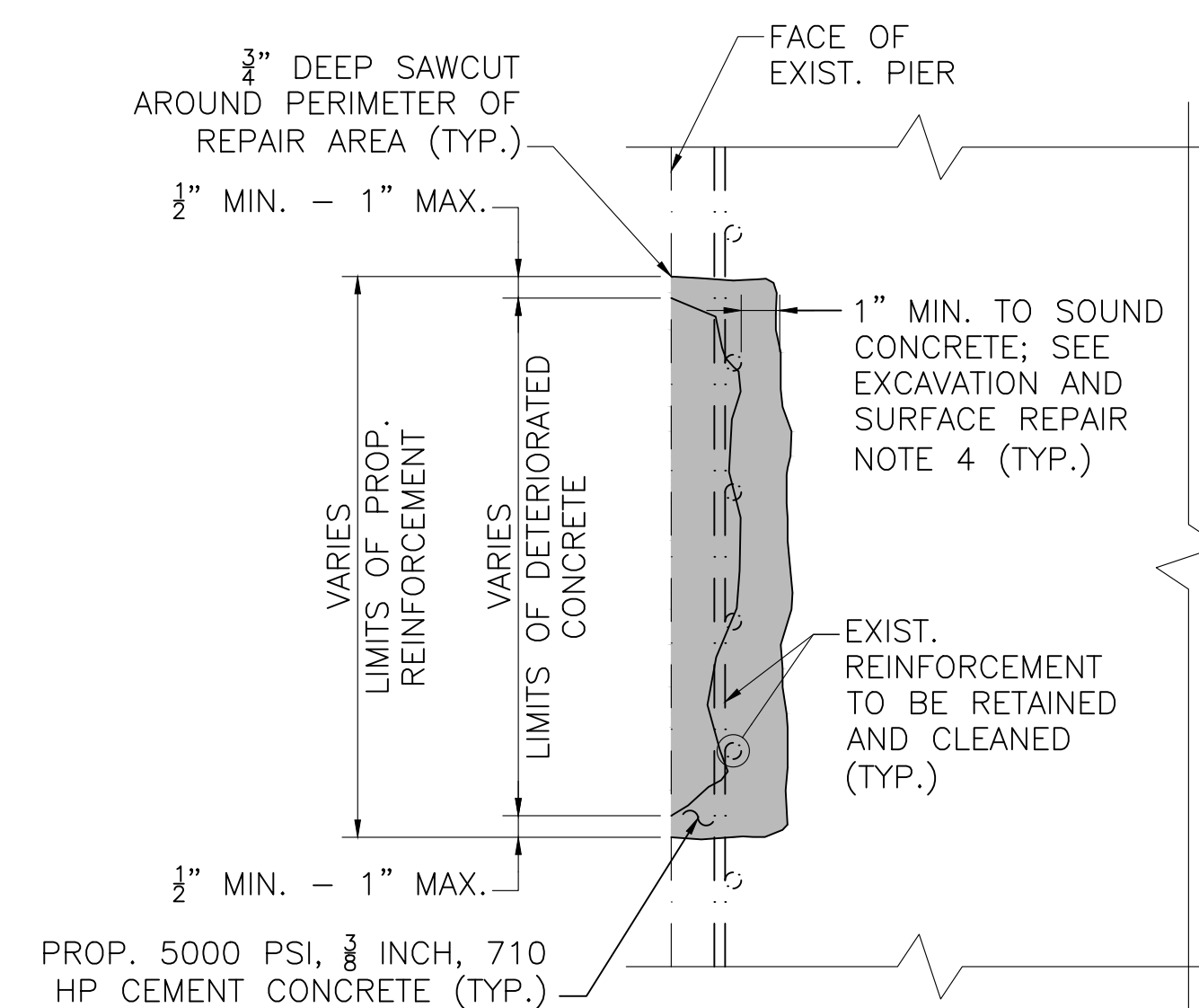
SCALE: 3/4" = 1'-0"

2
-



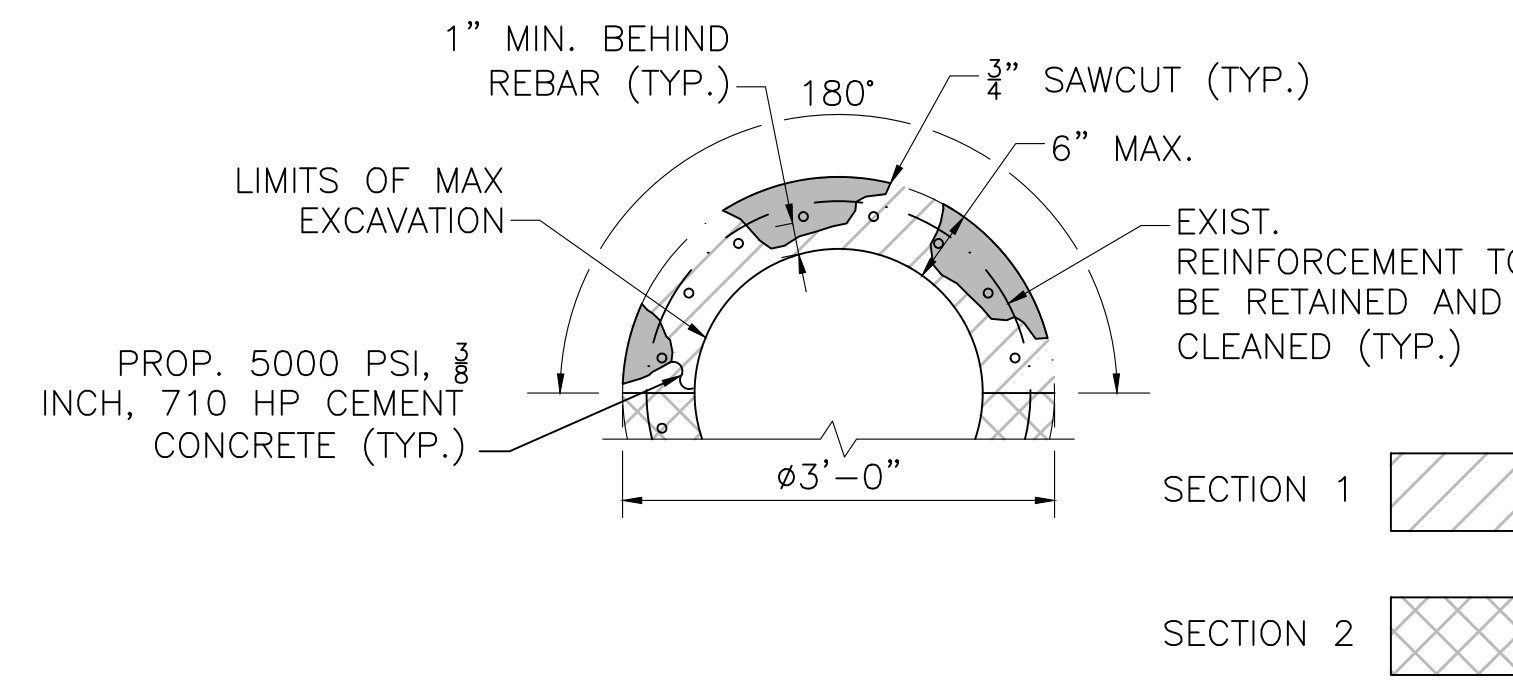
PIER COLUMN REPAIR SEQUENCE PLAN

SCALE: 3/4" = 1'-0"



PARTIAL DEPTH REPAIR

SCALE: 1 1/2" = 1'-0"



COLUMN REPAIR SECTION

SCALE: 3/4" = 1'-0"

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SHORING DETAILS

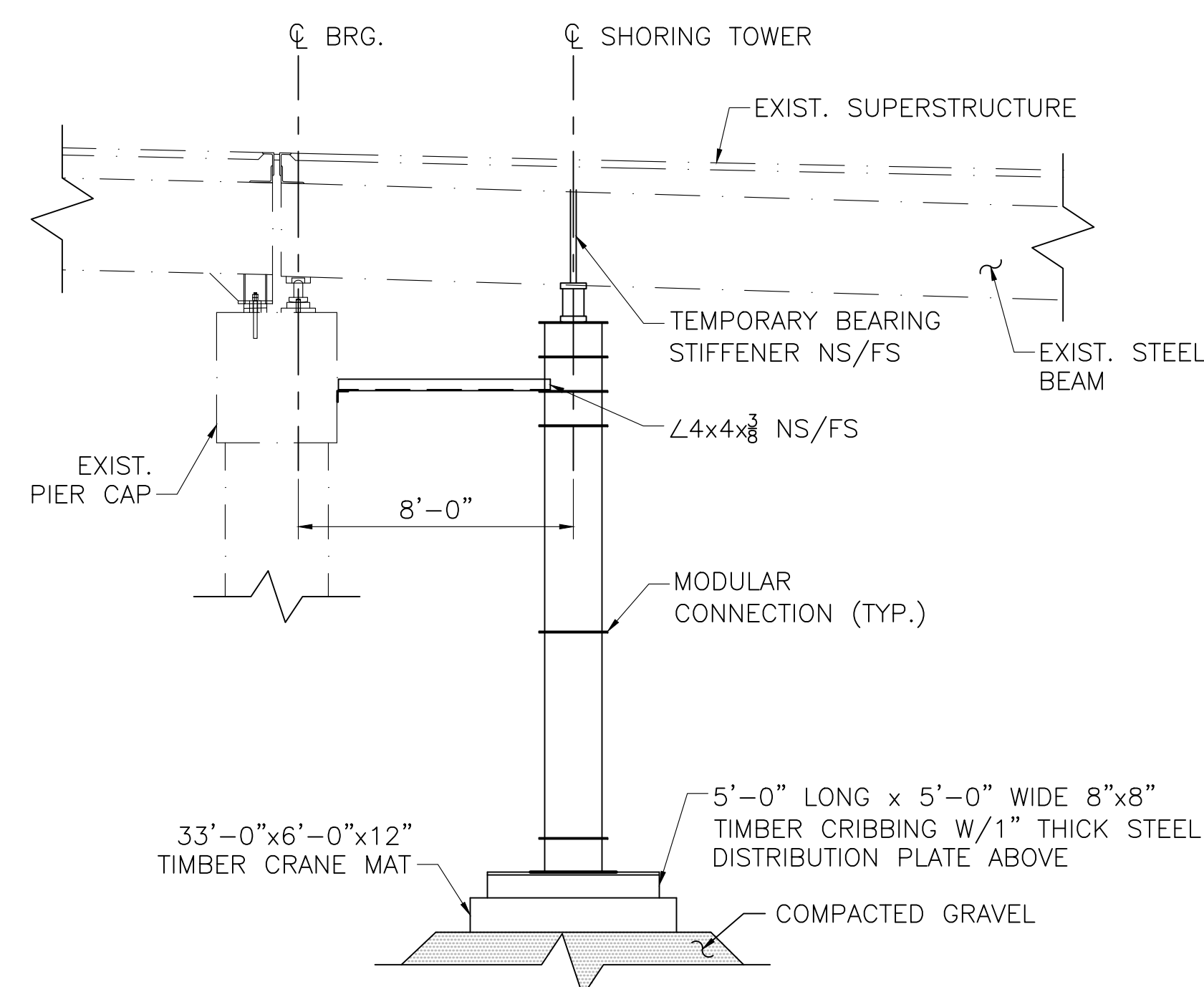
NOTE:

- SHORING IS CONCEPTUAL AND IS TO BE DESIGNED BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER FOR APPROVAL. SHORING DESIGN SHALL BE IN ACCORDANCE WITH THE AASHTO GUIDE DESIGN SPECIFICATIONS FOR BRIDGE TEMPORARY WORKS, 2ND EDITION, 2017 WITH INTERIM REVISIONS.
- TIMBER CRIBBING AND TIMBER CRANE MAT DIMENSIONS ARE CONCEPTUAL. CRIBBING AND DISTRIBUTION MATS ARE TO BE DESIGNED BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER FOR APPROVAL FOR BEARING PRESSURES THAT DO NOT EXCEED THE ALLOWABLE SOIL-BEARING VALUE. THE ALLOWABLE SOIL-BEARING VALUE SHALL BE DETERMINED BY THE CONTRACTOR IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF THE AASHTO GUIDE DESIGN SPECIFICATIONS FOR BRIDGE TEMPORARY WORKS.

TEMPORARY SHORING AT PIER 2 IN SPAN 2 AND PIER 6 IN SPAN 6 ARE LOCATED ABOVE EXISTING REINFORCED CONCRETE DRAINAGE PIPES AND MANHOLES. BEARING PRESSURES IN THESE LOCATIONS SHALL NOT EXCEED THE LESSER OF 2.0 KSF OR THE ALLOWABLE SOIL-BEARING VALUE. THE CONTRACTOR SHALL VERIFY THE CONDITION OF THE EXISTING DRAINAGE STRUCTURES PRIOR TO ERECTION OF TEMPORARY SHORING.
- TEMPORARY SHORING SHALL BE IN PLACE FOR THE DURATION OF WORK TO COMPLETE SUBSTRUCTURE REPAIRS, BEARING REPLACEMENTS, AND STEEL BEAM END REPAIRS. ALL BEAMS IN A GIVEN SPAN SHALL BE JACKED SIMULTANEOUSLY.
- INSTALL TEMPORARY BEARING STIFFENERS AT JACKING LOCATIONS PRIOR TO APPLICATION OF LOAD.
- VEHICULAR LIVE LOAD IS NOT PERMITTED ON THE BRIDGE DURING JACKING. JACKING IS ANTICIPATED TO BE PERFORMED AT NIGHT, WITH ALL TRAFFIC DETOURED; SEE HIGHWAY SHEETS 14 AND 15 OF 48. BEAMS ARE TO BE JACKED TO RELIEVE ALL SUPERSTRUCTURE DEAD AND LIVE LOADS, AS SPECIFIED IN THE SHORING TOWER TABLE. HYDRAULIC JACKS SHALL BE LOCKED OFF WHEN JACKING IS COMPLETED, PRIOR TO REOPENING THE BRIDGE TO TRAFFIC.
- COMPACTION OF GRAVEL BENEATH SHORING TOWER CRANE MATS AT PIERS 1 AND 2 SHALL BE PERFORMED WITH PLATE COMPACTORS APPROVED BY THE ENGINEER, AS SPECIFIED IN SPECIAL PROVISION ITEMS 100.9 AND 106.88.

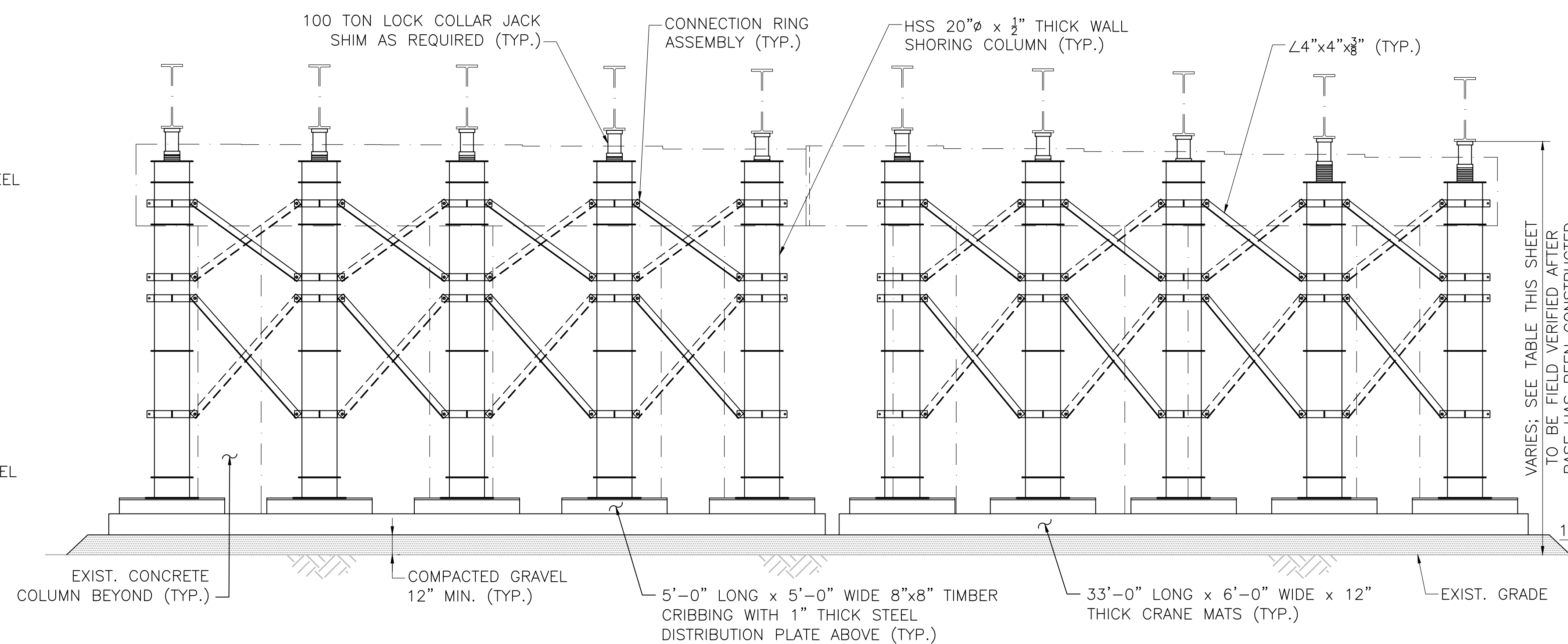
SHORING TOWER TABLE				
BEAM	ESTIMATED SHORING HEIGHT	TOTAL DEAD LOAD	HS20 LIVE LOAD	TOTAL SHORING LOAD
A-1 & A-10	23'-4" @ PIER 1	53.4 KIPS	4.5 KIPS	57.9 KIPS
A-2 & A-9		53.3 KIPS	54.1 KIPS	107.4 KIPS
A-3 - A-8		49.4 KIPS	54.1 KIPS	103.5 KIPS
B-1	23'-4" @ PIER 1 24'-6" @ PIER 2	50.4 KIPS	4.5 KIPS	54.9 KIPS
B-2		49.0 KIPS	54.3 KIPS	103.3 KIPS
B-3 - B-5		49.0 KIPS	54.1 KIPS	103.1 KIPS
B-6 - B-8		53.5 KIPS	53.9 KIPS	107.4 KIPS
B-9		59.1 KIPS	53.8 KIPS	112.9 KIPS
B-10		63.2 KIPS	4.5 KIPS	67.7 KIPS
C-1 & C-10	23'-4" @ PIER 2 21'-3" @ PIER 5	50.8 KIPS	4.5 KIPS	55.3 KIPS
C-2 & C-9		50.6 KIPS	54.1 KIPS	104.7 KIPS
C-3 - C-8		46.6 KIPS	54.1 KIPS	100.7 KIPS
D-1 & D-10	21'-7" @ PIER 5 21'-2" @ PIER 6	41.0 KIPS	6.4 KIPS	47.4 KIPS
D-2 & D-9		39.5 KIPS	57.2 KIPS	96.7 KIPS
D-3 - D-8		36.3 KIPS	57.1 KIPS	93.4 KIPS
E-1 & E-10	20'-10" @ PIER 6	55.4 KIPS	0.9 KIPS	56.3 KIPS
E-2 & E-9		53.6 KIPS	55.3 KIPS	108.9 KIPS
E-3 - E-8		49.7 KIPS	55.3 KIPS	105.0 KIPS

NOTE: ESTIMATED SHORING HEIGHT MEASURED FROM EXISTING GRADE TO UNDERSIDE OF STEEL BEAM.



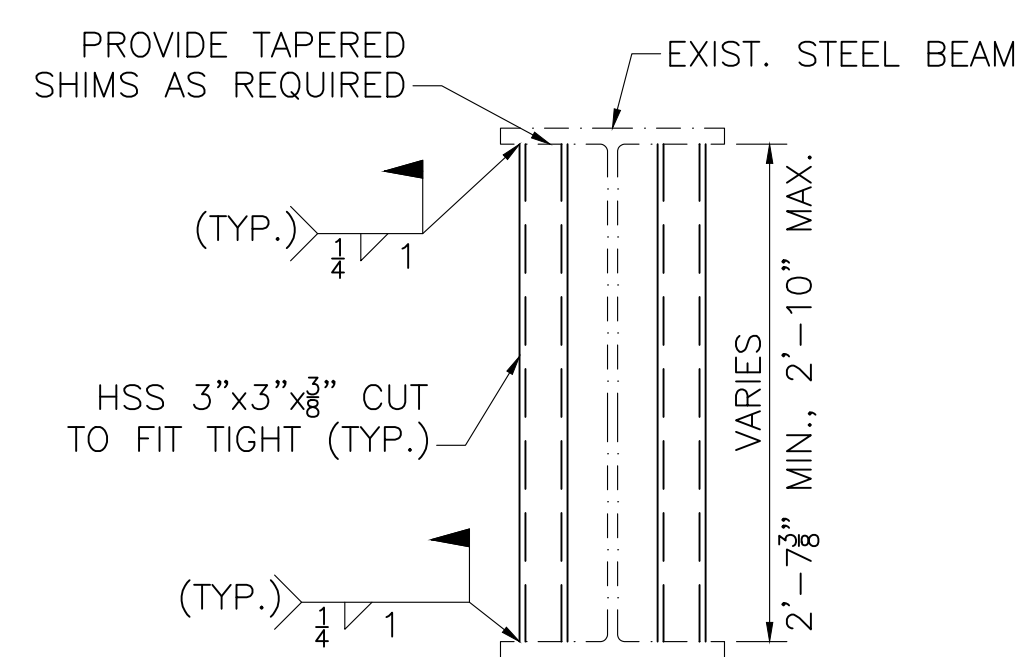
SHORING ELEVATION

SCALE: 1/4" = 1'-0"



TRANSVERSE SECTION

SCALE: 1/4" = 1'-0"



TEMPORARY BEARING STIFFENER

SCALE: 1/4" = 1'-0"

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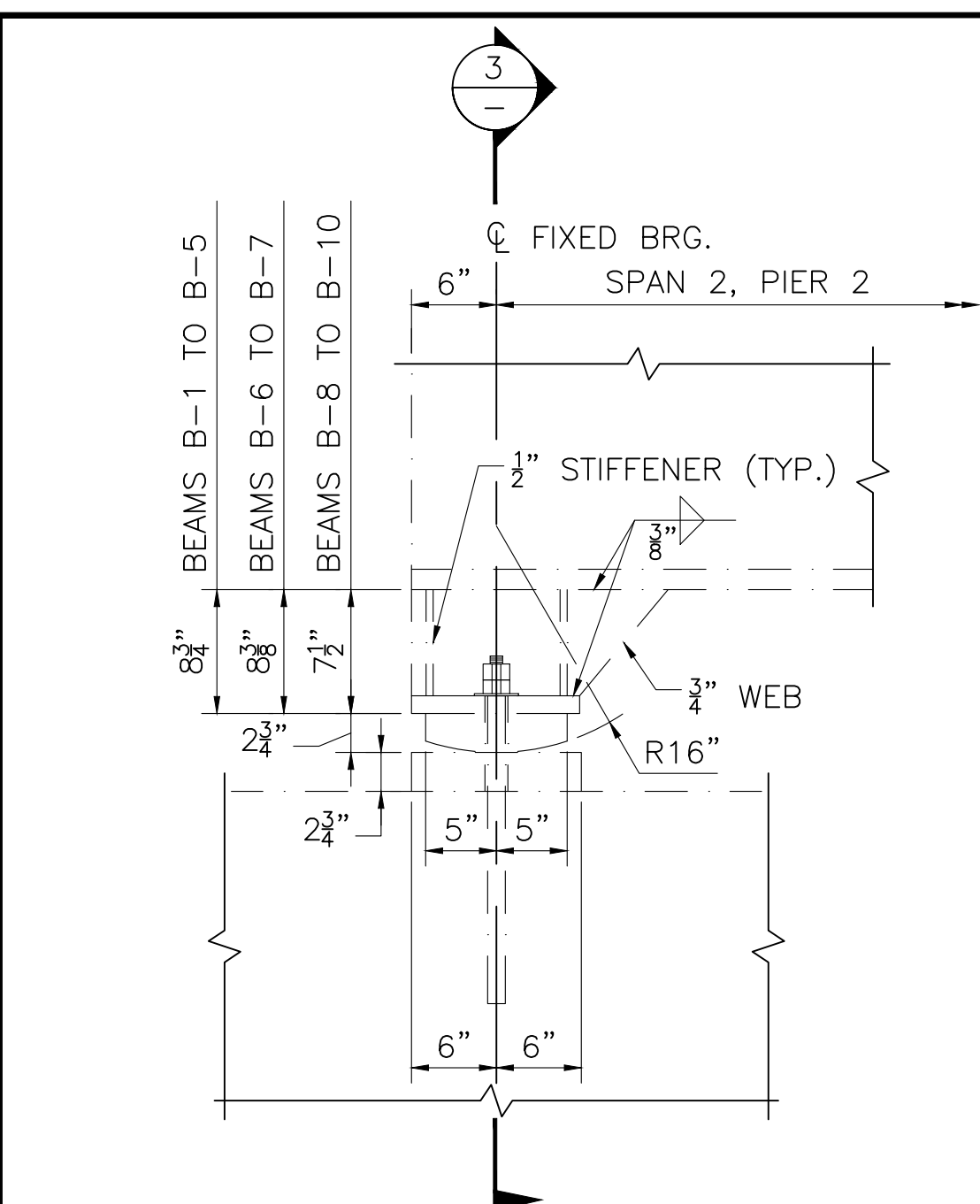
BEARING REPLACEMENT DETAILS

SUGGESTED SEQUENCE FOR BEARING REPLACEMENT

1. TEMPORARY SHORING IS TO BE IN PLACE UNDER ALL BEAMS WITH JACKS LOCKED TO RELIEVE SUPERSTRUCTURE DEAD AND LIVE LOADS. ALL SUBSTRUCTURE REPAIRS SHALL BE COMPLETED AT EACH PIER PRIOR TO STARTING BEARING REPLACEMENTS.
2. REMOVE THE END DIAPHRAGMS, INCLUDING CONCRETE ENCASUREMENT AND STEEL CHANNELS, AS REQUIRED TO PROVIDE SUFFICIENT CLEARANCE FOR CORING ANCHOR RODS. DIAPHRAGM STEEL AND CONCRETE ENCASUREMENT ARE TO BE REPLACED IN KIND. SEE NOTE BELOW.
3. JACK THE EXISTING BEAM TO AN ADEQUATE HEIGHT PER APPROVED JACKING AND SHORING PROCEDURE.
4. REMOVE WELDED CONNECTIONS OF SOLE PLATE TO FLANGE BY GRINDING AND SLIDE THE SOLE OFF THE BEARING ASSEMBLY. CUT OUT/DRILL OUT EXISTING ANCHOR SWEDGE BOLTS AND REMOVE BEARING ASSEMBLY.
5. REMOVE REMAINING PORTIONS OF EXISTING ANCHOR SWEDGE BOLTS BY CORING TO FULL EMBEDMENT DEPTH AND GROUT EXISTING HOLES THAT ARE NOT TO BE REUSED.
6. GRIND THE BEARING SEAT FOR THE PROPOSED BEARING TO ENSURE LEVEL BEARING.
7. EXPOSED FAYING SURFACE OF BEAM BOTTOM FLANGE TO BE CLEANED AFTER REMOVAL OF EXISTING BEARING AND PRIOR TO INSTALLATION OF NEW SOLE PLATE.
8. SET BEARING ASSEMBLY TO ITS CENTERED POSITION.
9. WHERE THE CONTRACT DRAWINGS SPECIFY THE ANCHOR RODS BEING OFFSET FROM THEIR EXISTING LOCATION, CORE NEW ANCHOR ROD HOLES TO THEIR FULL EMBEDMENT DEPTH.
10. EPOXY ANCHOR RODS IN CORED HOLES.
11. ONCE THE SOLE PLATE IS IN ITS FINAL POSITION WELD IT TO THE BEAM BOTTOM FLANGE.
12. RESTORE ALL JACKS TO THEIR HEIGHTS PRIOR TO BEARING REPLACEMENT ACTIVITIES. LOCK JACKS TO RELIEVE SUPERSTRUCTURE DEAD AND LIVE LOADS FOR STEEL BEAM END REPAIRS.

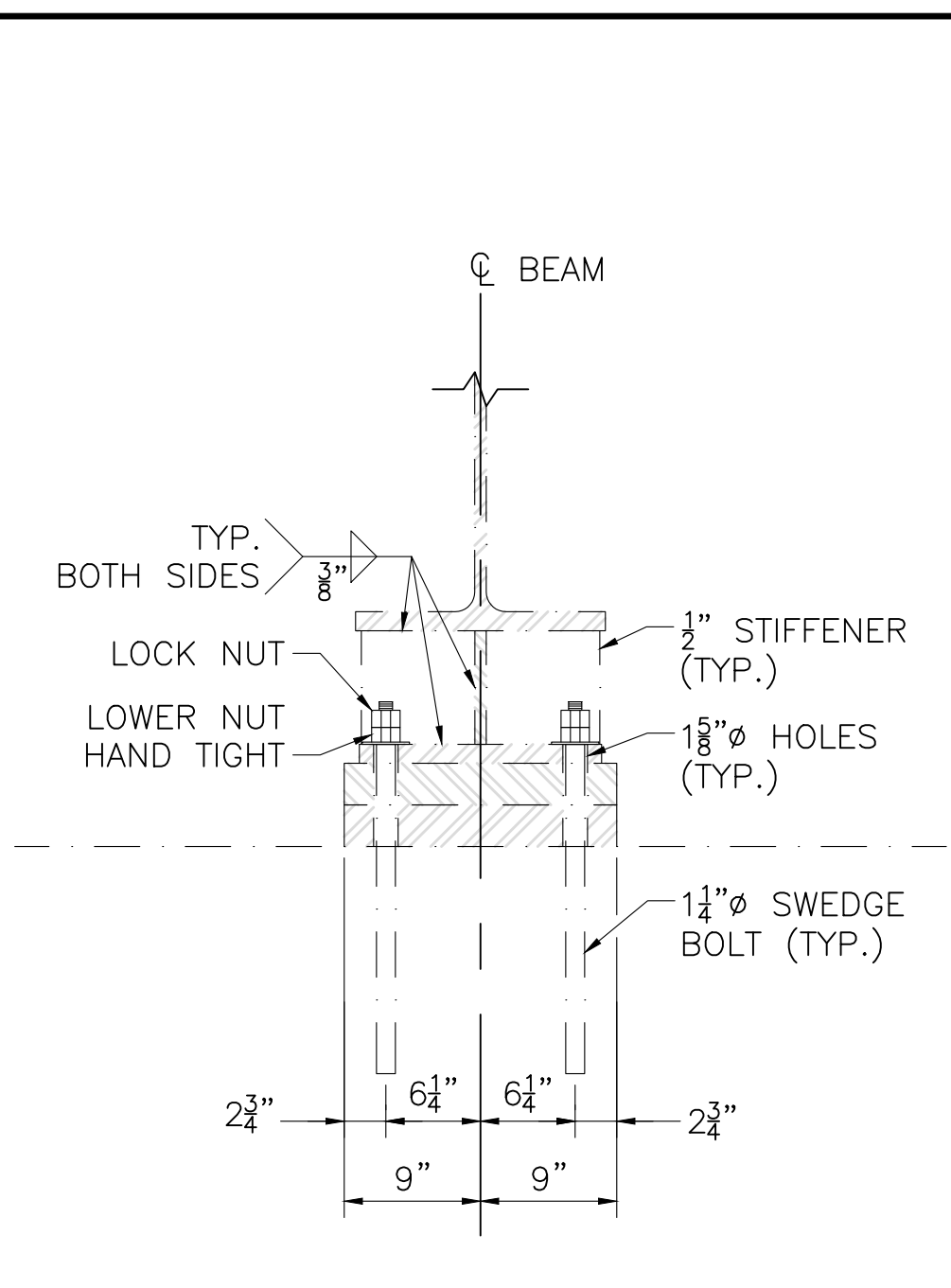
NOTES:

1. CONCRETE ENCASED DIAPHRAGM REMOVAL MAY BE REQUIRED BASED ON WORK SPACE CLEARANCES. WHEN CONCRETE ENCASED DIAPHRAGM REMOVAL IS NECESSARY, CONTRACTOR TO TAKE SPECIAL CARE IN CONCRETE REMOVAL AROUND EXISTING STIFFENERS AND CONNECTION PLATES. CONCRETE EXCAVATION MATERIALS AND DEBRIS TO BE CAREFULLY CONTAINED AS TO NOT IMPACT OR DAMAGE SUBSTRUCTURE ELEMENTS. DIAPHRAGM STEEL CHANNELS TO BE REPLACED IN KIND. SEE DIAPHRAGM DETAILS ON SHEET 27.
2. BEARINGS SHALL BE SET SO THAT THEY ARE CENTERED AT AMBIENT TEMPERATURE BETWEEN 50° AND 70°F. IF WORK CANNOT BE CARRIED OUT WITHIN THIS TEMPERATURE RANGE, THE ENGINEER MUST PROVIDE THE RESET DISTANCE TO CORRECT FOR THERMAL MOVEMENT.



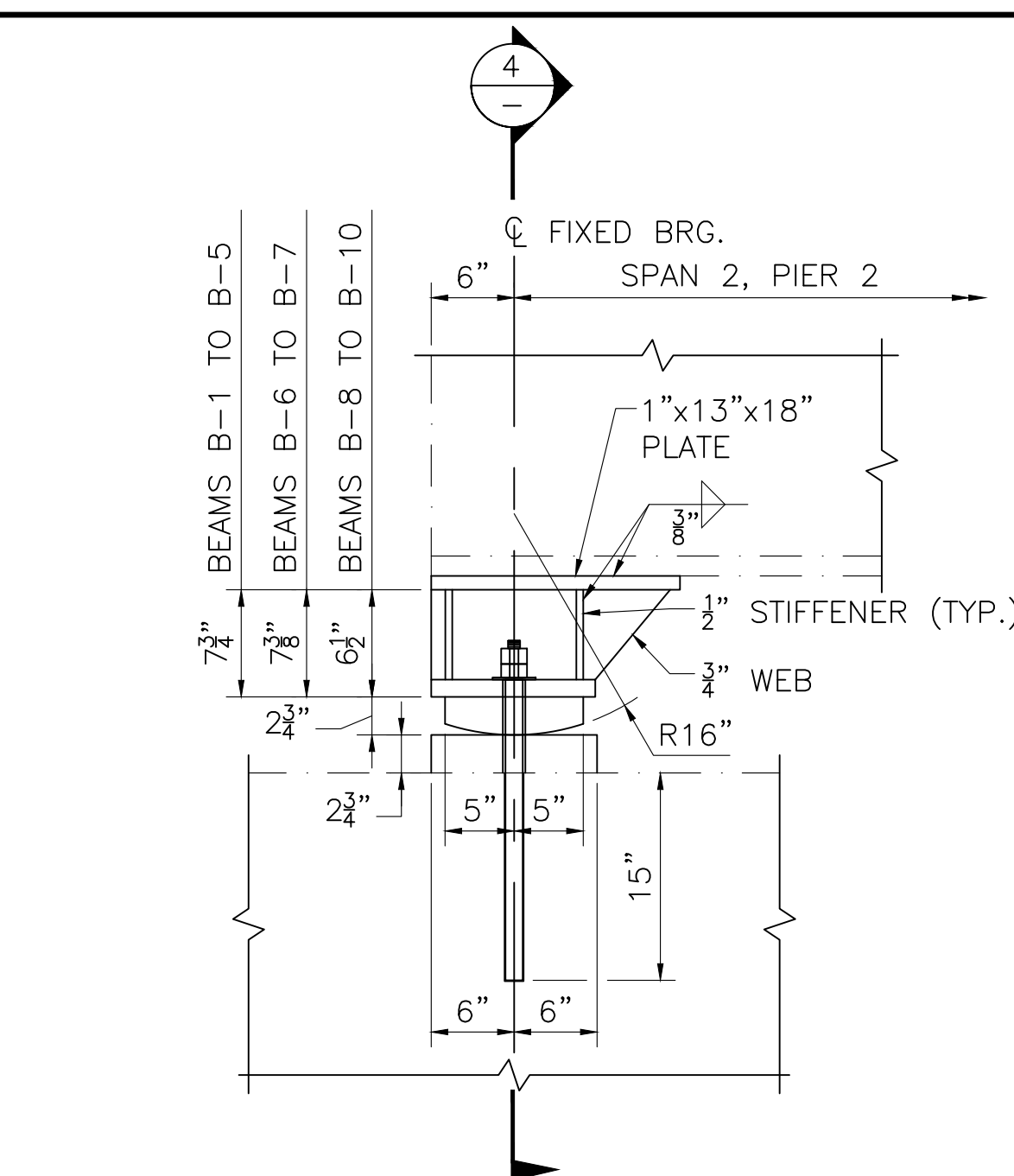
EXISTING BEARING TYPE C ELEVATION

SCALE: 3/8" = 1'-0"



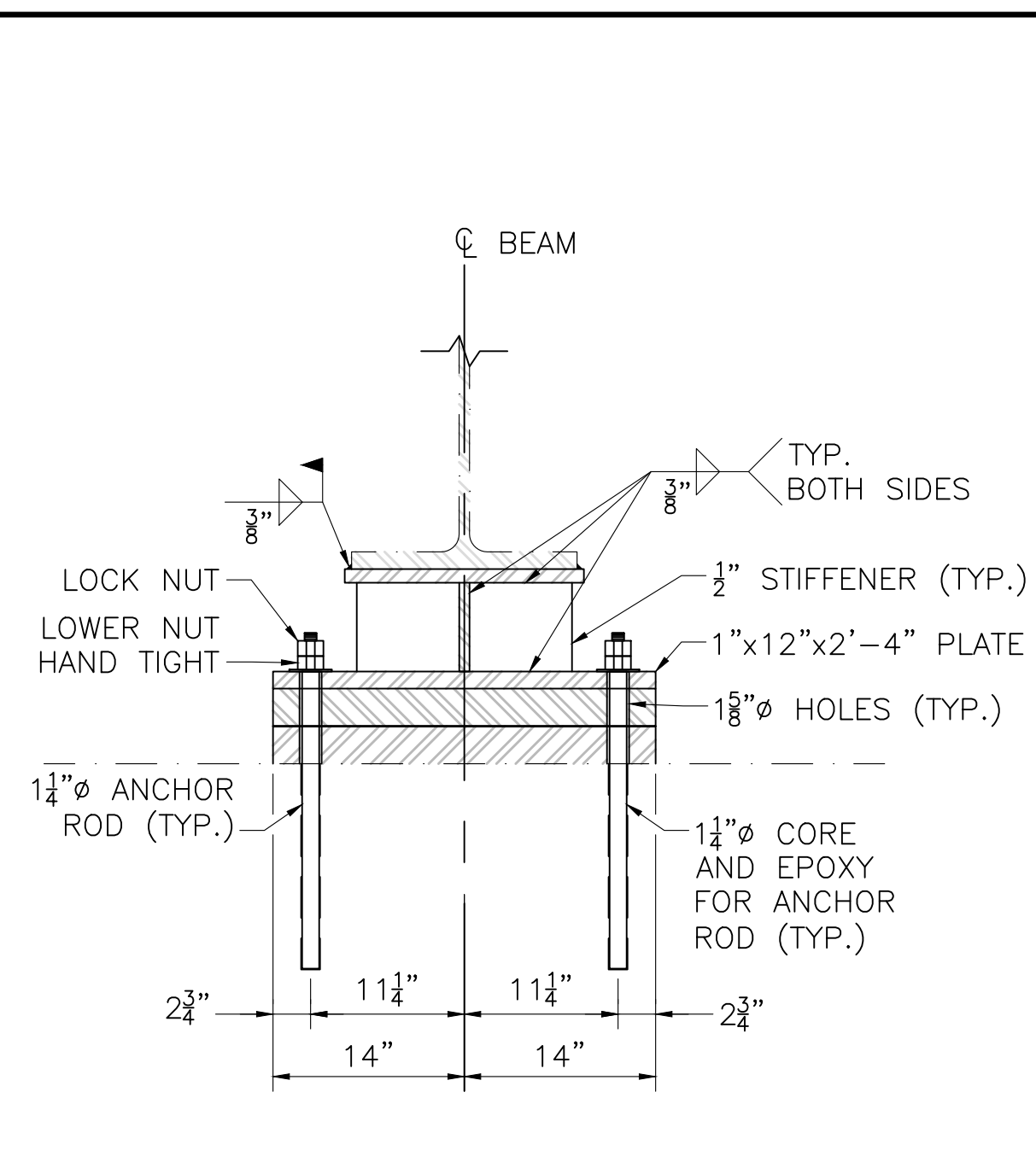
SECTION 3

SCALE: 3/8" = 1'-0"



PROPOSED BEARING TYPE C ELEVATION

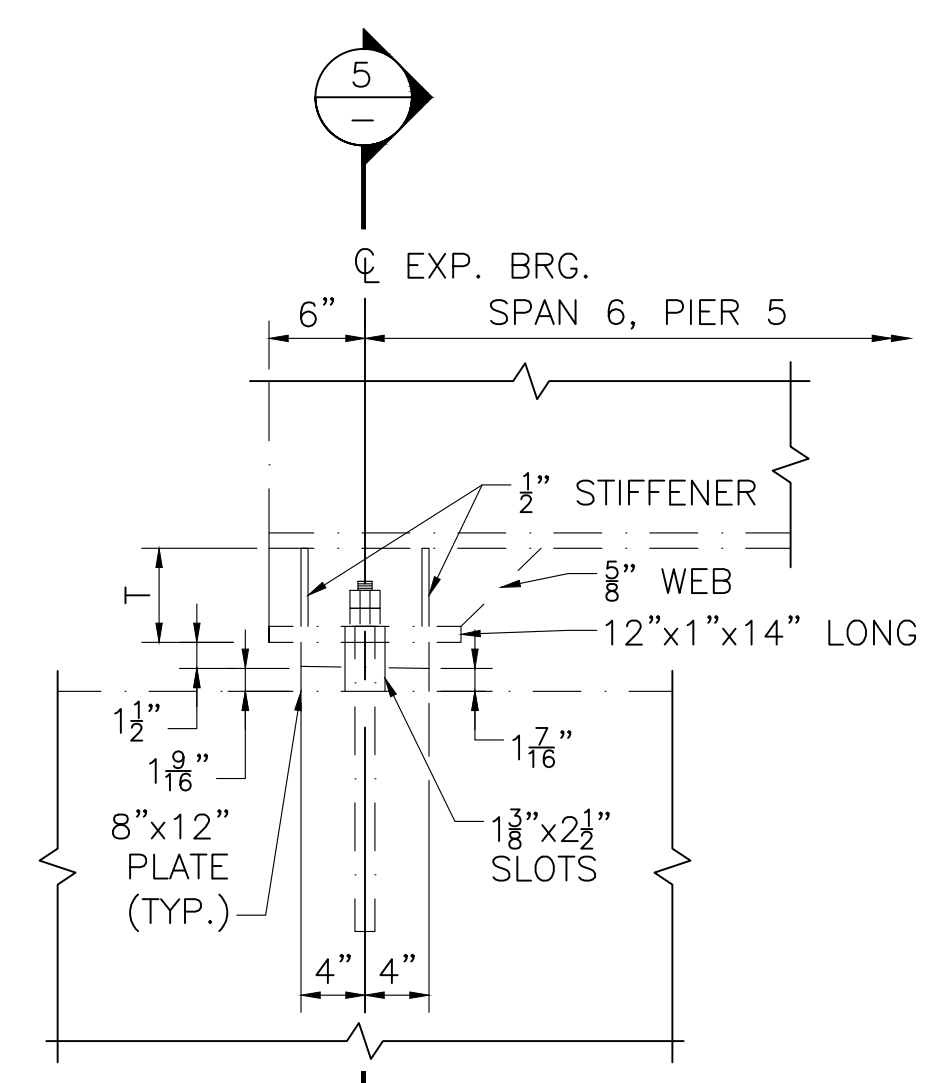
SCALE: 1" = 1'-0"



SECTION 4

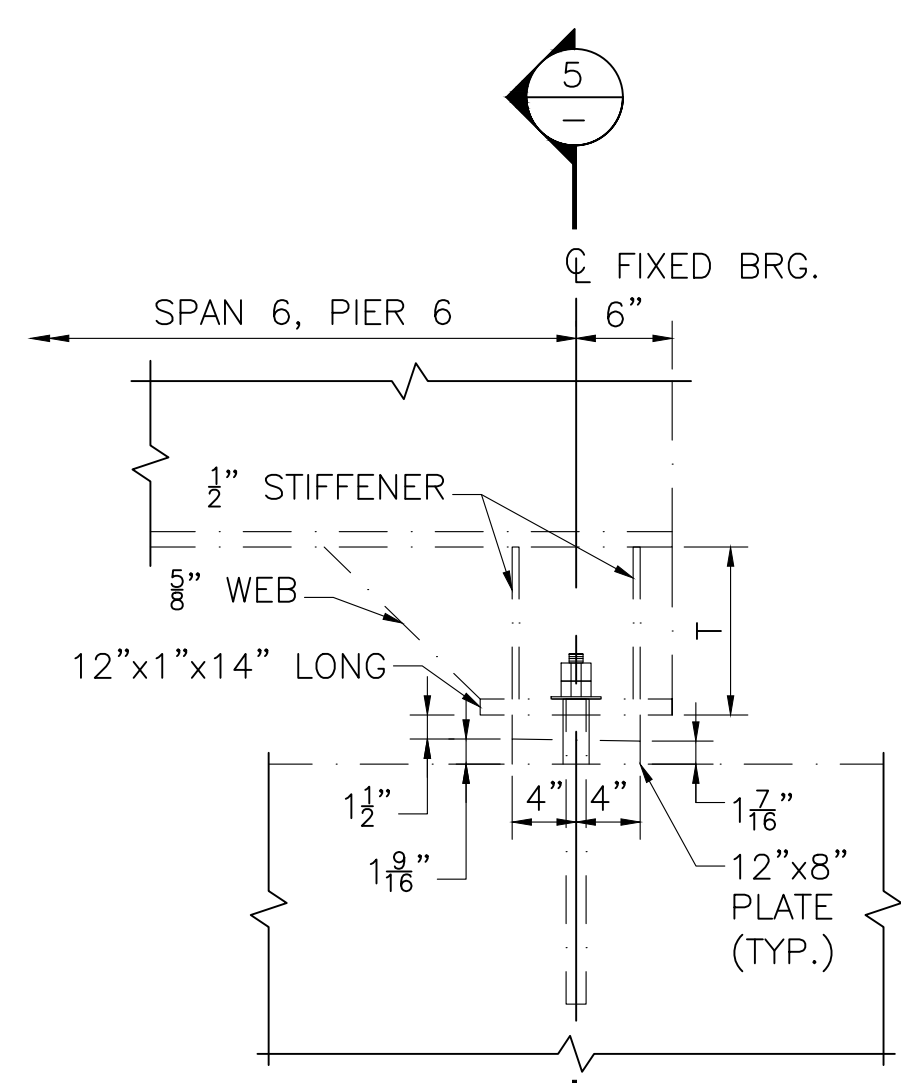
SCALE: 1" = 1'-0"

BEAM	T
D-1	27"
D-2	51"
D-3	51"
D-4	51"
D-5	51"
D-6	53"
D-7	63"
D-8	63"
D-9	71"
D-10	58"

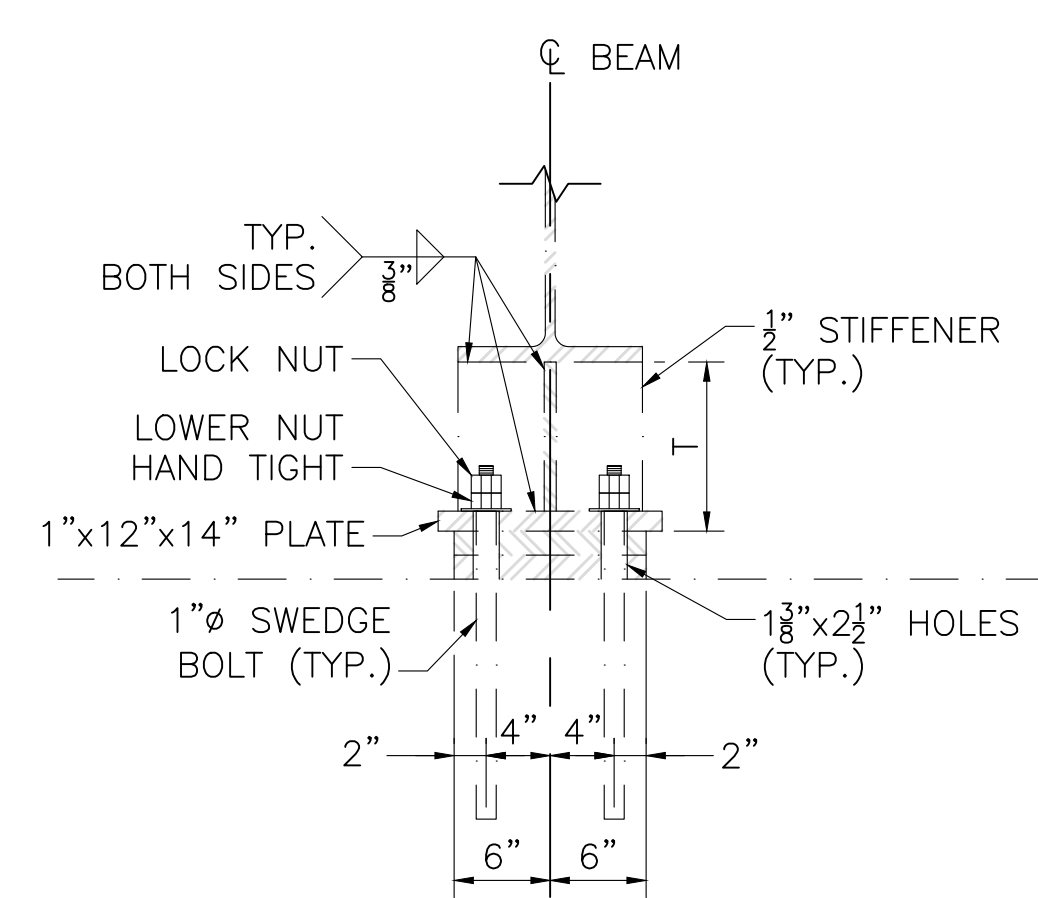


EXISTING BEARING TYPE G ELEVATION

SCALE: 1" = 1'-0"



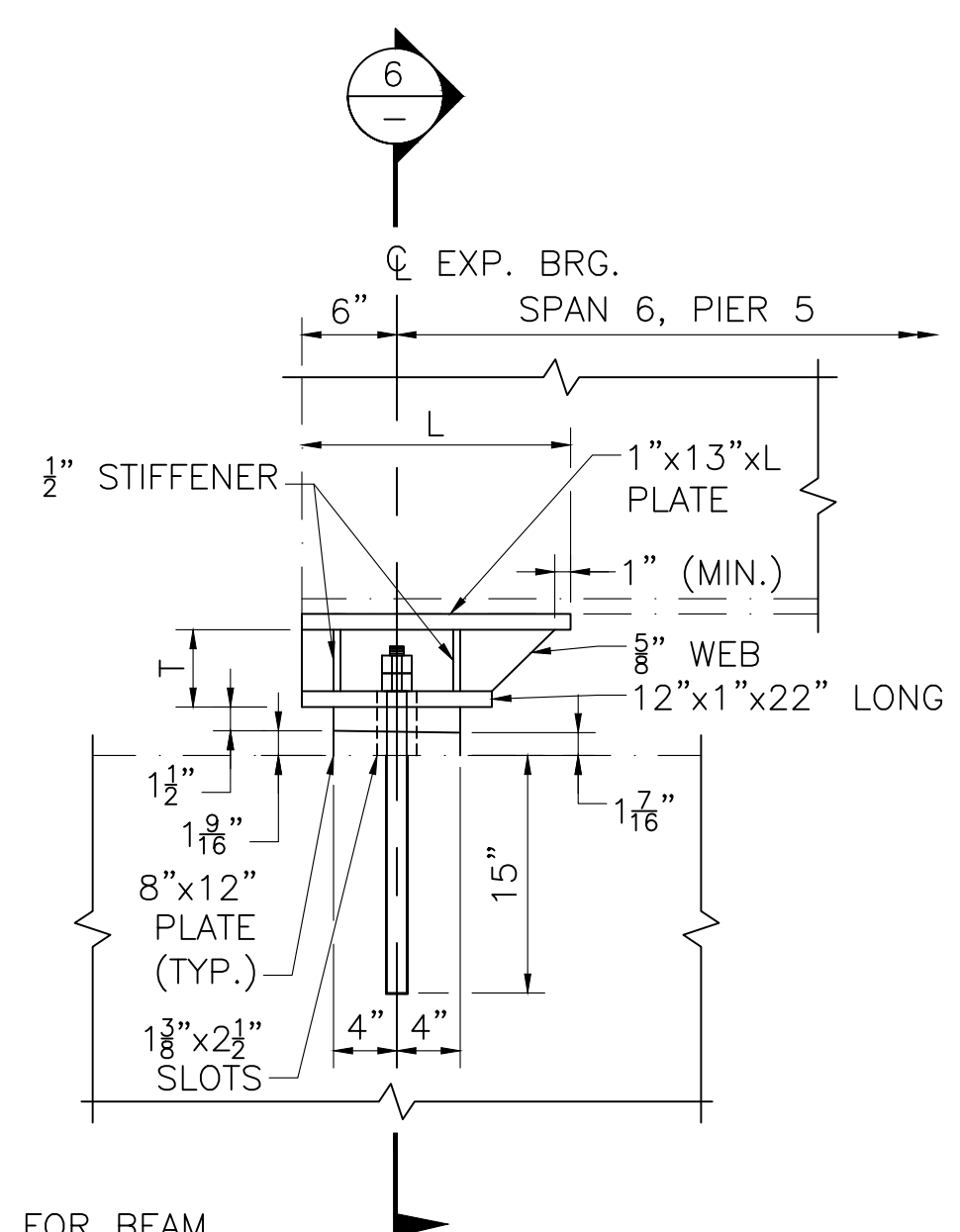
BEAM	T
D-1	10 1/2"
D-2	13 1/4"
D-3	13 3/8"
D-4	13 3/8"
D-5	13 3/8"
D-6	15 1/4"
D-7	12 5/8"
D-8	11 1/8"
D-9	10 1/4"
D-10	6 5/8"



SECTION 5

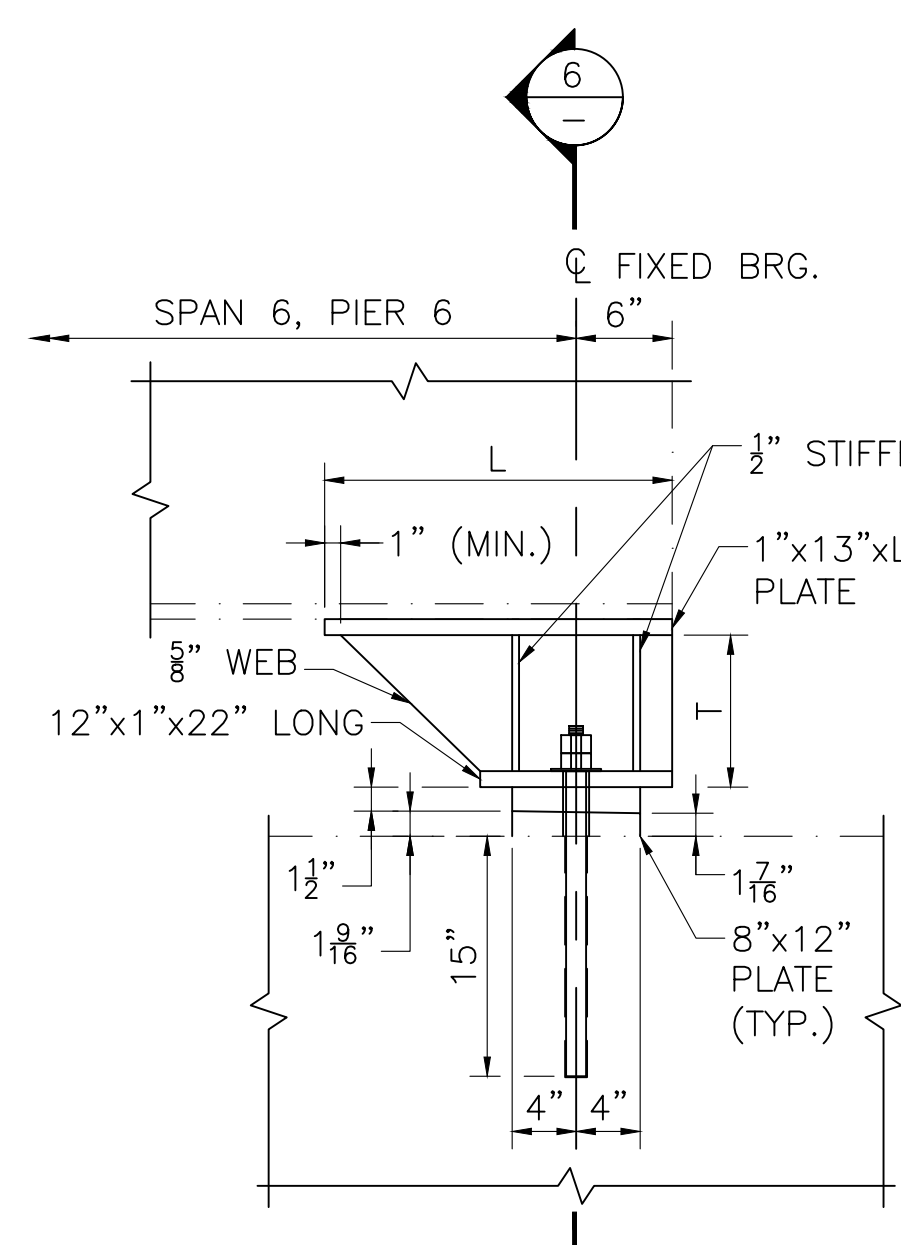
SCALE: 1" = 1'-0"

BEAM	T	L
D-1	*	*
D-2	4 1/2"	17"
D-3	4 1/2"	17"
D-4	4 1/2"	17"
D-5	4 1/2"	17"
D-6	4 1/2"	17"
D-7	5 1/2"	18"
D-8	5 1/2"	18"
D-9	6 1/2"	19"
D-10	4 7/8"	17"

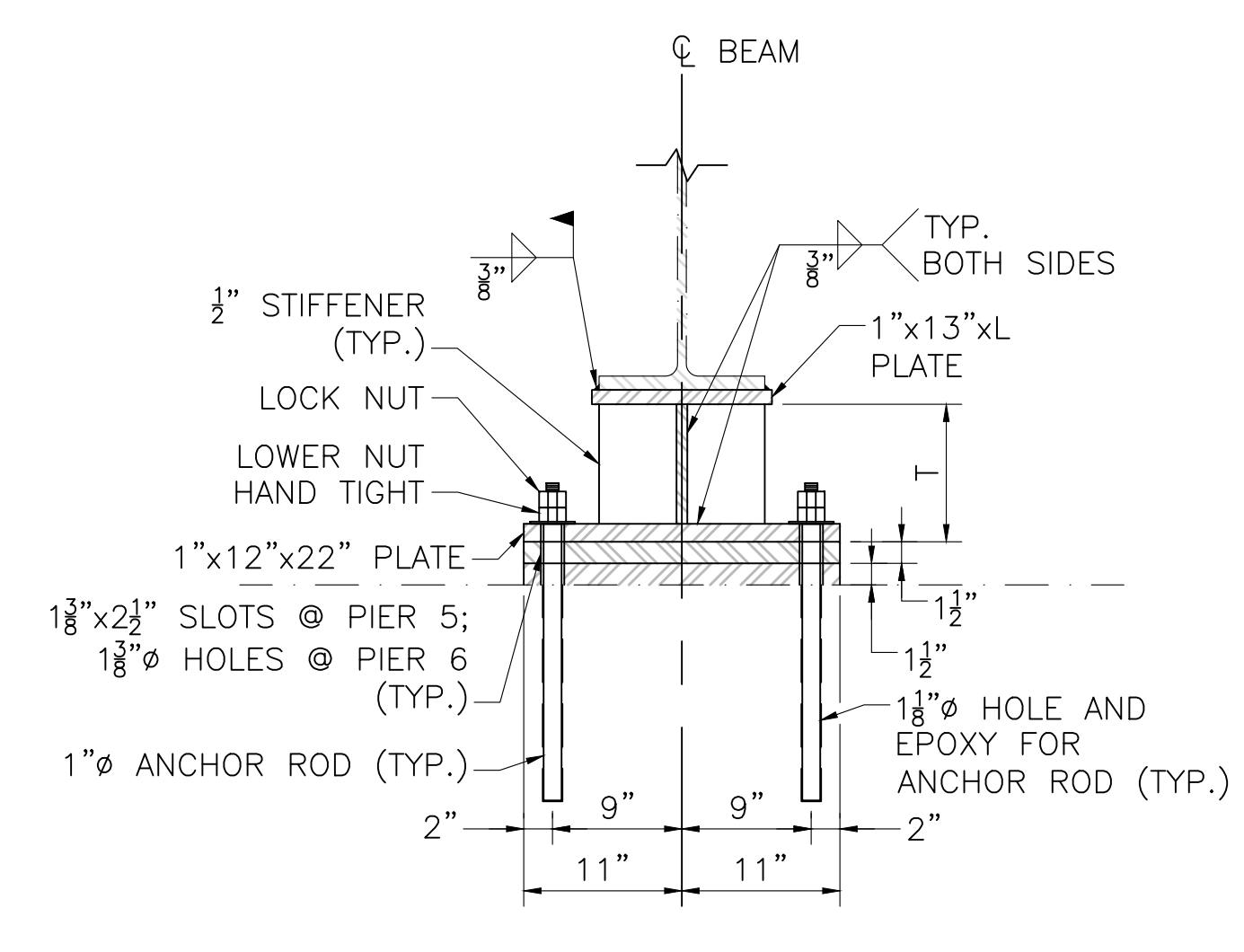


PROPOSED BEARING TYPE G ELEVATION

SCALE: 1" = 1'-0"



BEAM	T	L
D-1	9 1/2"	22"
D-2	12 1/4"	2'-1"
D-3	12 3/8"	2'-1"
D-4	12 3/8"	2'-1"
D-5	12 3/8"	2'-1"
D-6	14 1/4"	2'-3"
D-7	11 5/8"	2'-0"
D-8	10 3/8"	23"
D-9	9 1/4"	22"
D-10	5 5/8"	18"



SECTION 6

SCALE: 1" = 1'-0"

* EXISTING BEARING FOR BEAM #D-1 AT PIER 5 TO BE CLEANED AND PAINTED ONLY

APRIL 18, 2026	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION
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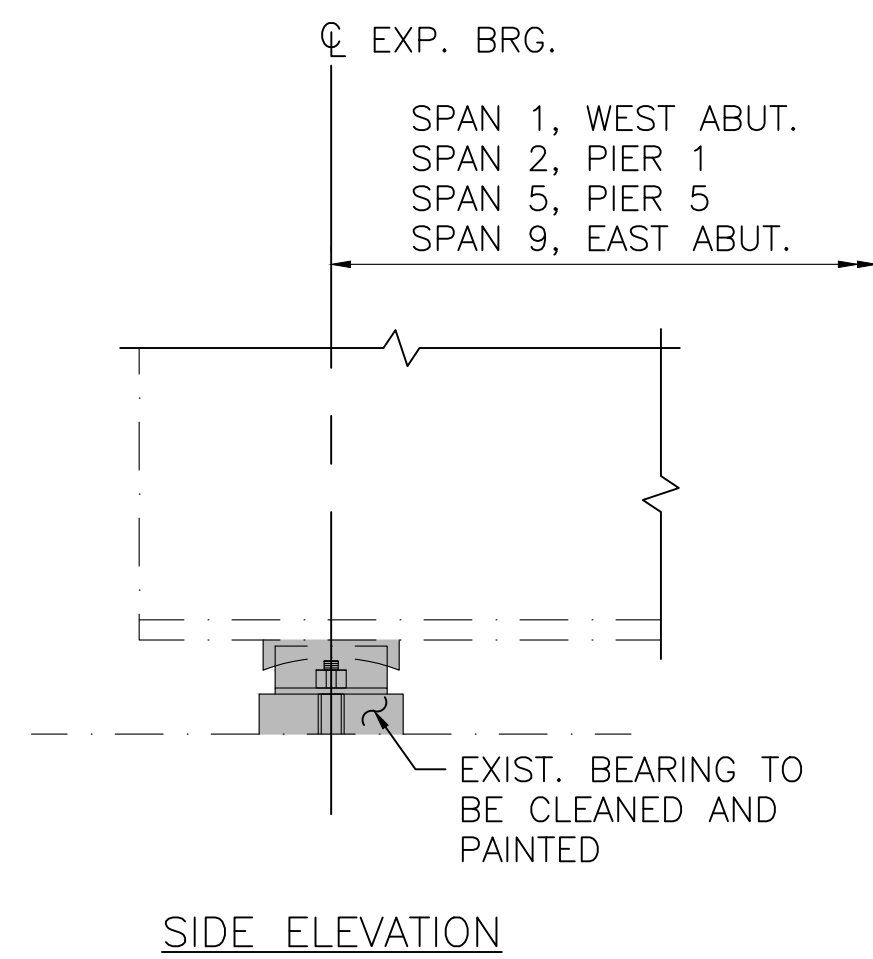
**NORTH ADAMS
ST RTE 2 (VETERANS MEMORIAL DRIVE)**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(NGB)-003S(947)	40	49
PROJECT FILE NO.		612505	

BEARING CLEANING & PAINTING DETAILS

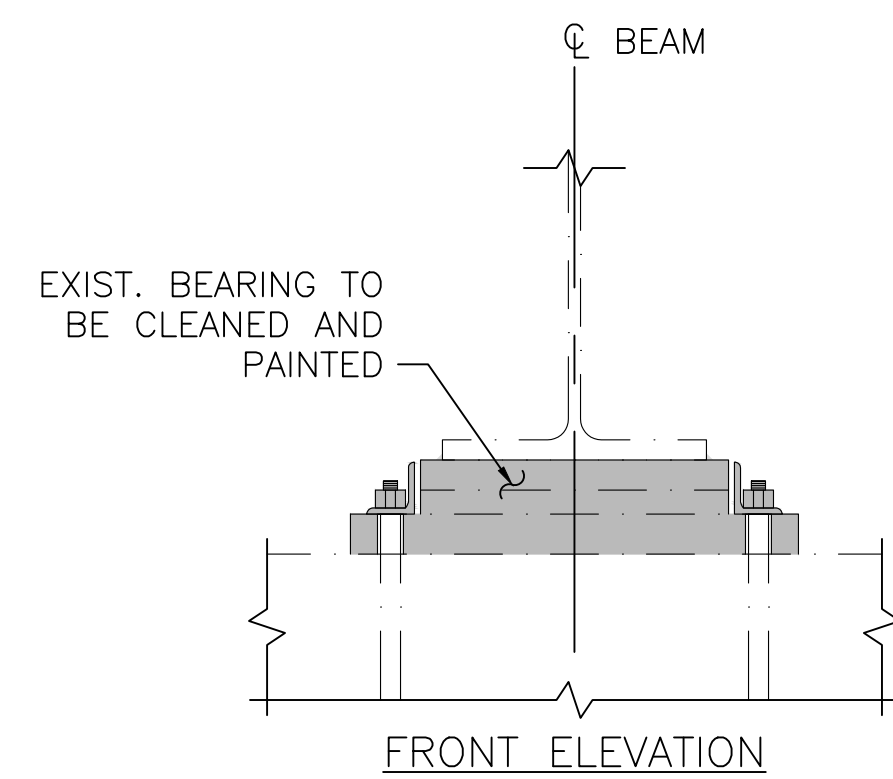
NOTES:

1. SHIMS TO BE PLACED AS REQUIRED IN GAPS CREATED BY THE REMOVAL OF PACK RUST DURING CLEANING OF THE EXISTING BEARINGS TO REMAIN.
2. SHIM DIMENSIONS SHALL BE BASED ON INDIVIDUAL BEARING DIMENSIONS AND MEASURED GAPS AND SHALL BE FABRICATED TO FIT WITHIN THE EXISTING BEARING. CUT OUTS SHALL BE PROVIDED AROUND EXISTING ANCHOR BOLTS AND/OR DOWELS, AS REQUIRED.
3. SHIMMING TO BE ACCOMPLISHED USING A SINGLE PLATE, IF POSSIBLE.
4. SEE FRAMING PLANS ON SHEETS 3, 4, AND 5 FOR BEARING CLEANING AND PAINTING LOCATIONS.



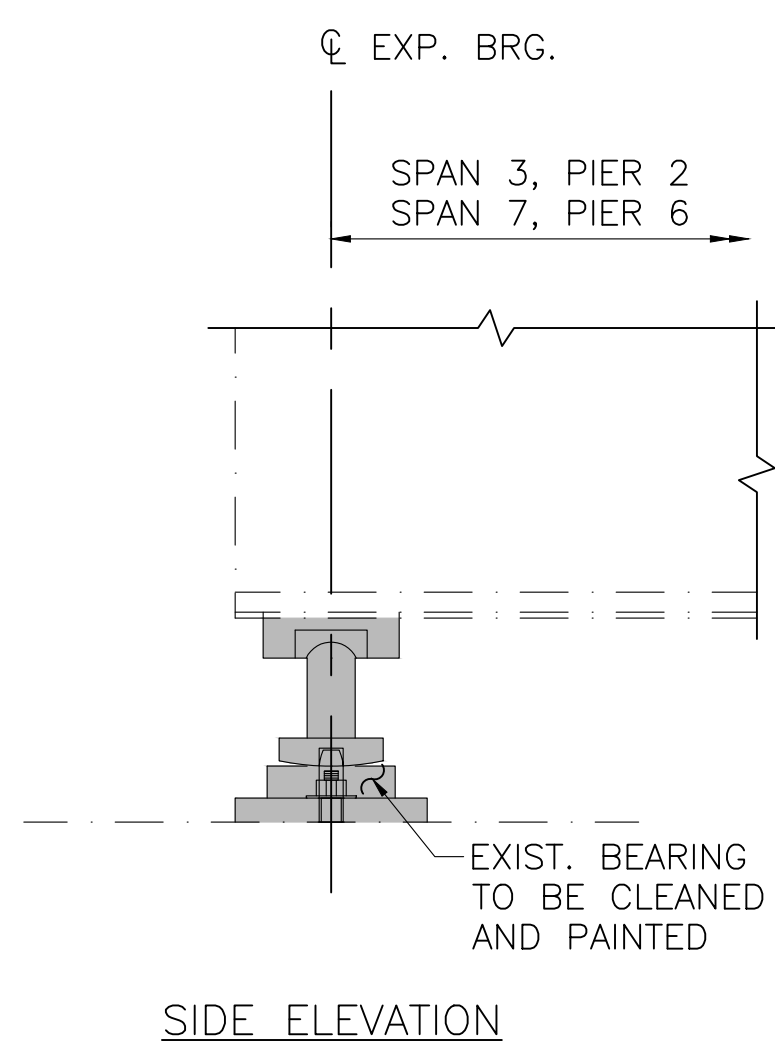
EXISTING BEARING TYPE A PRESERVATION

SCALE: 1" = 1'-0"



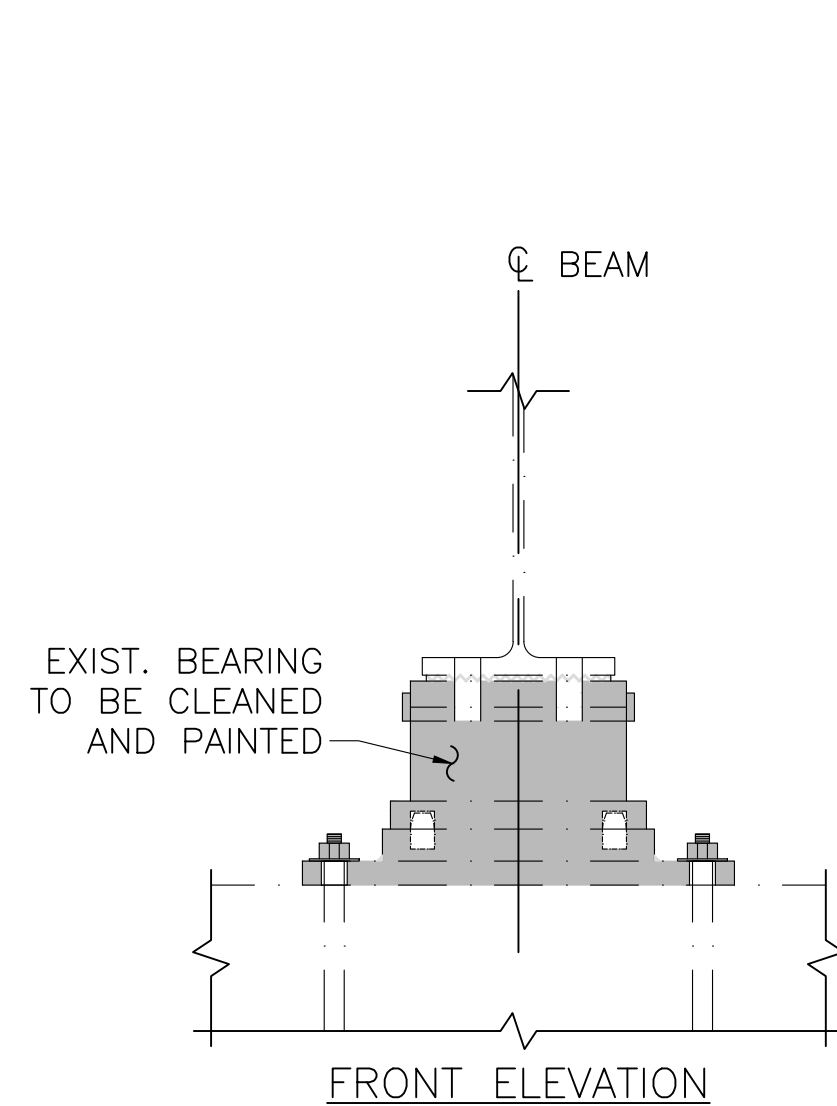
EXISTING BEARING TYPE B PRESERVATION

SCALE: 1" = 1'-0"



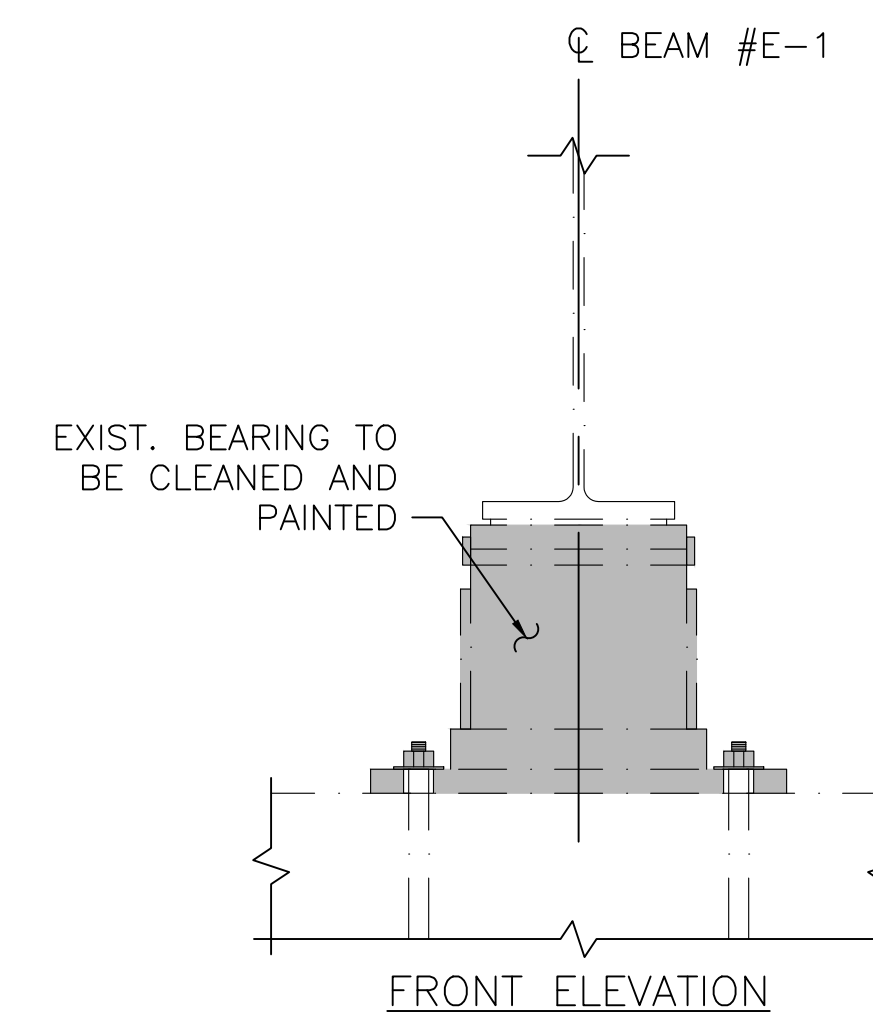
EXISTING BEARING TYPE D PRESERVATION

SCALE: 1" = 1'-0"



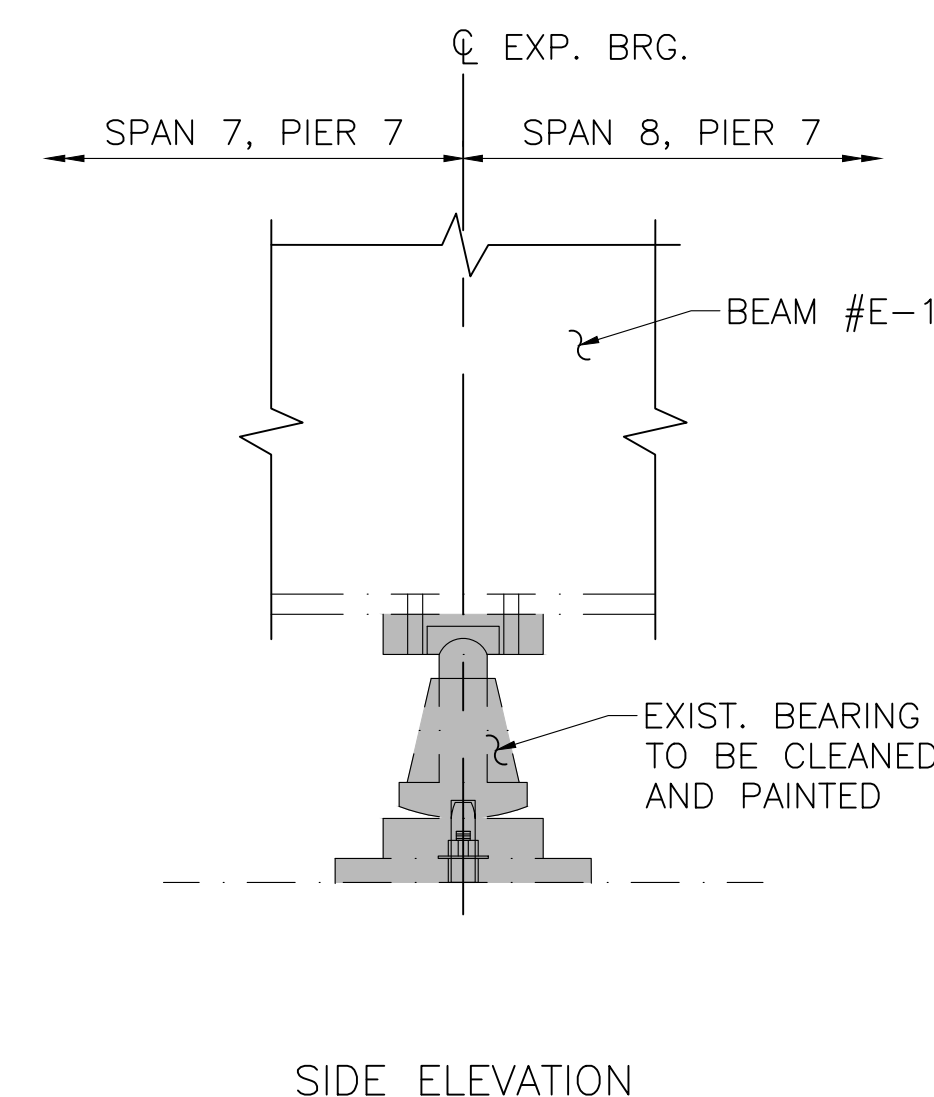
EXISTING BEARING TYPE E PRESERVATION

SCALE: 1" = 1'-0"

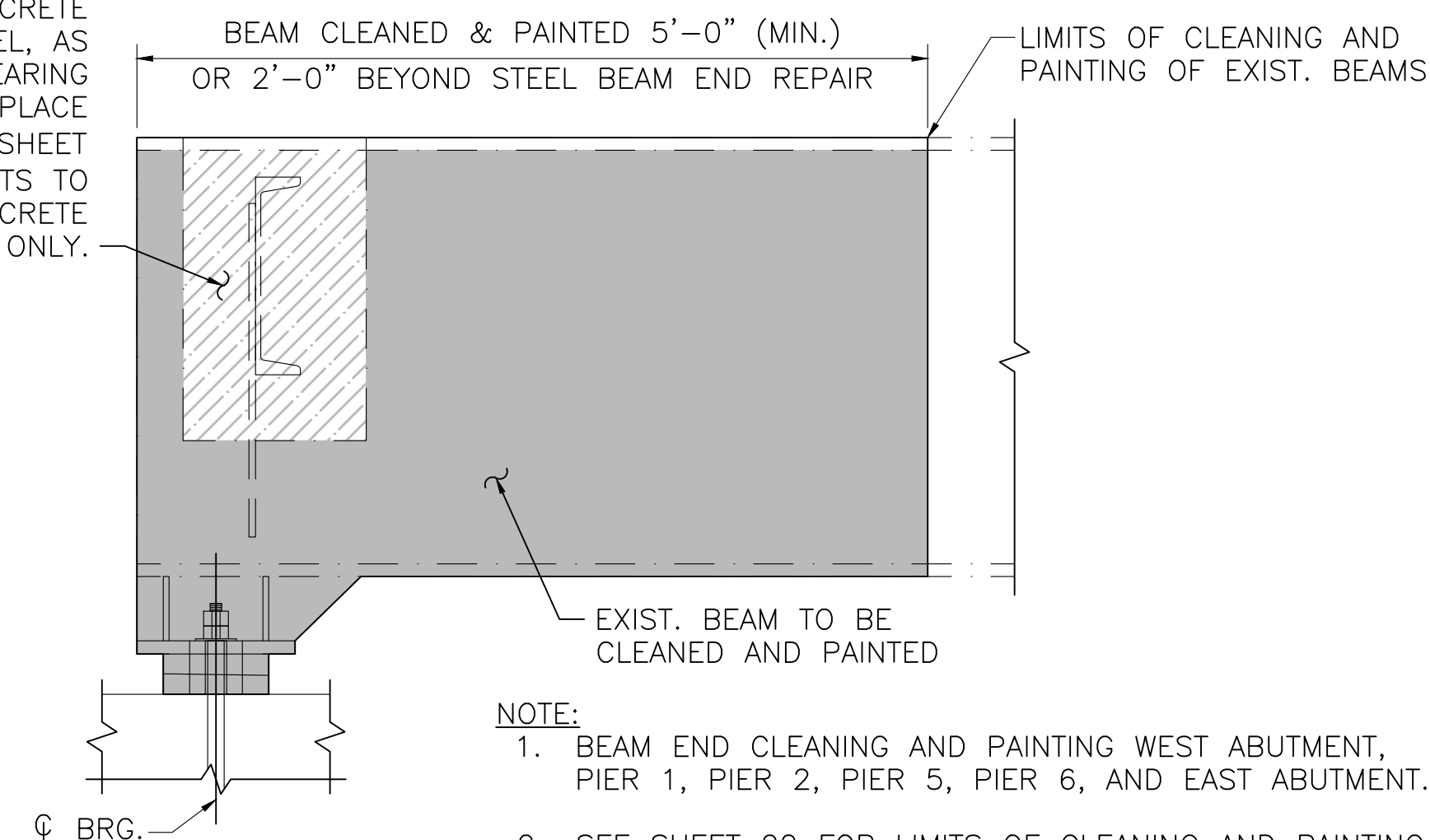


EXISTING BEARING TYPE F PRESERVATION

SCALE: 1" = 1'-0"



REMOVE DIAPHRAGM CONCRETE ENCASUREMENT AND CHANNEL, AS REQUIRED FOR BEARING REPLACEMENT AND REPLACE CHANNEL IN KIND (SEE SHEET 27). STEEL COMPONENTS TO BE ENCASED IN NEW CONCRETE SHALL BE PRIMED ONLY.

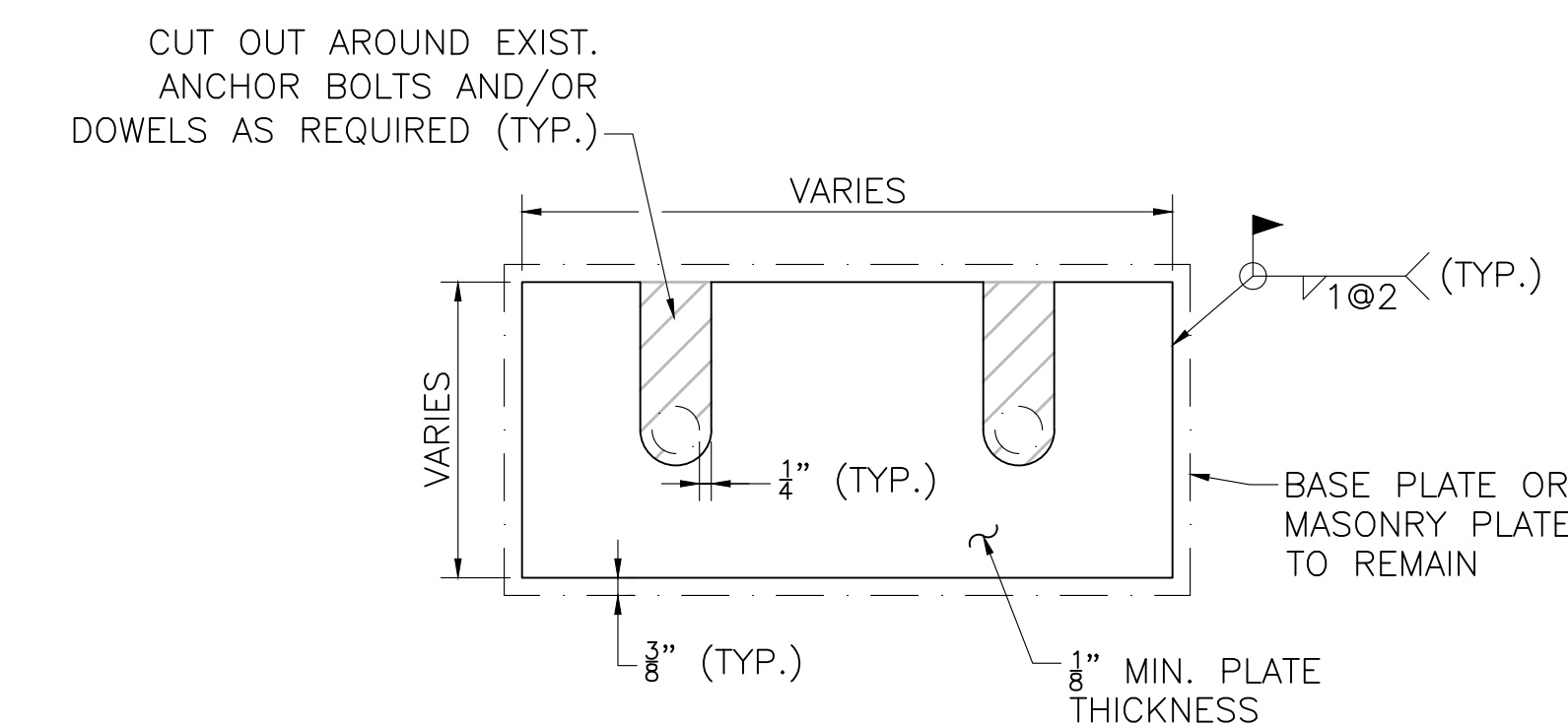


NOTE:

1. BEAM END CLEANING AND PAINTING WEST ABUTMENT, PIER 1, PIER 2, PIER 5, PIER 6, AND EAST ABUTMENT.
2. SEE SHEET 22 FOR LIMITS OF CLEANING AND PAINTING FROM END OF BEAM TO 2'-0" BEYOND THE STEEL BEAM END REPAIR.

TYPICAL LIMITS OF CLEANING & PAINTING

SCALE: 1" = 1'-0"



SHIM PLATE DETAIL

SCALE: 3" = 1'-0"

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STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(NGB)-003S(947)	41	49
PROJECT FILE NO.		612505	

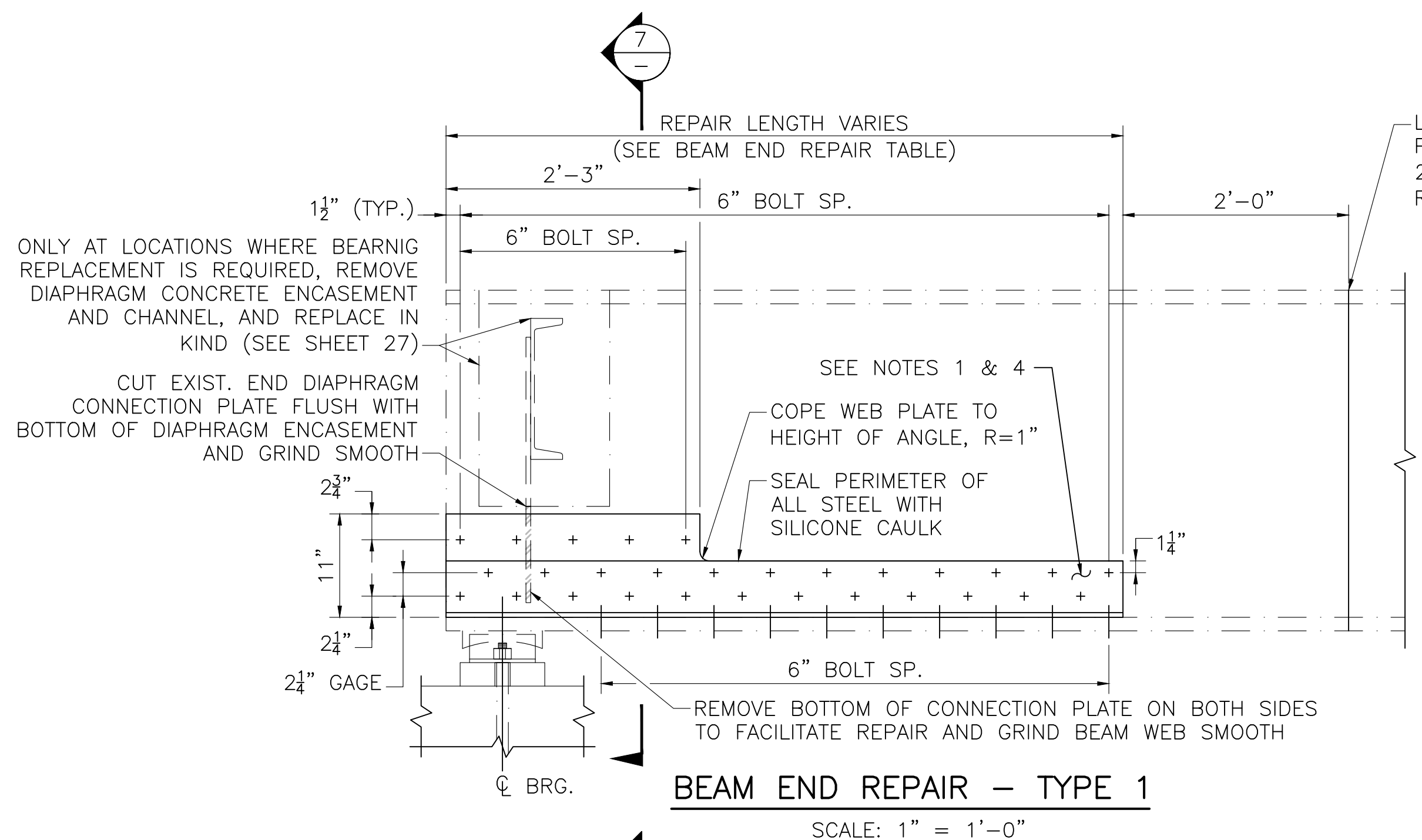
BEAM REPAIR DETAILS

BEAM END REPAIR NOTES:

- THE CONTRACTOR SHALL FIELD MEASURE EXISTING CONDITIONS (DIAPHRAGMS, STIFFENERS, CONNECTION PLATES, ETC.) PRIOR TO SUBMITTING SHOP DRAWINGS TO ENSURE PROPER FIT OF THE REPAIR PLATES AND ANGLES.
- CLEAN THE CONTACT SURFACES OF EXISTING STEEL IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE CONTACT SURFACES SHALL BE FREE OF PAINT, OIL, AND GREASE, AND SHALL PROVIDE THE NECESSARY SLIP RESISTANCE FOR CLASS A SLIP CRITICAL CONNECTIONS.
- BEFORE CONTRACTOR SUBMITS SHOP DRAWINGS, ENGINEER TO INSPECT THE CLEANED REPAIR AREA AND VERIFY REPAIR LIMITS BASED ON CONDITIONS EXPOSED BY CLEANING.
- THE BEAM SHALL BE INSPECTED FOR DAMAGE DUE TO CONTRACTOR OPERATIONS. ANY DAMAGE CAUSED BY THE CONTRACTOR SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- IN LOCATIONS WHERE HEAVY DETERIORATION HAS OCCURRED OR AS DIRECTED BY THE ENGINEER, EPOXY REPAIR FAIRING COMPOUND SHALL BE APPLIED OVER THE PRIME COAT AS FOLLOWS:
 - THE EPOXY REPAIR COMPOUND SHALL BE APPLIED TO THE DETERIORATED AREAS IN STRICT ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER OF RECORD FOR REVIEW AND APPROVAL THE METHODS, PROCEDURES, AND MATERIALS TO BE USED FOR THE WORK.
 - THE REPAIR COMPOUND SHALL ONLY BE APPLIED TO AREAS OF THE EXISTING STEEL THAT EXHIBIT SEVERE SECTION LOSS TO COMPLETELY FILL THE IRREGULARITIES IN THE EXISTING STEEL SURFACES SUCH THAT NO VOIDS REMAIN BETWEEN THE PLIES OF THE EXISTING STEEL AND THE PROPOSED REPAIR STEEL IN THE FINAL REPAIRED CONDITION.
 - THE PROPOSED REPAIR STEEL SHALL BE PROPERLY POSITIONED AND BROUGHT INTO FIRM CONTACT WITHIN THE WORKING TIME LIMITS OF THE EPOXY REPAIR COMPOUND. THE REPAIR STEEL SHALL BE SECURED IN PLACE USING POSITIONING BOLTS TENSIONED TO A SNUG TIGHT CONDITION AND CLAMPS OR OTHER MECHANICAL MEANS TO BRING THE PLIES OF THE EXISTING STEEL AND NEW STEEL INTO FIRM CONTACT. WELDING IS NOT ALLOWED.
 - ONCE THE PROPOSED STEEL HAS BEEN SECURED INTO POSITION WITH THE POSITIONING BOLTS, AND THE EPOXY COMPOUND HAS CURED, THE REMAINING H.S. BOLTS SHALL BE INSTALLED. BOLTS SHALL BE TIGHTENED IN THE SEQUENCE SPECIFIED IN THE CONTRACTOR'S PROPOSED REPAIR PROCEDURE, AS REQUIRED BY THE SPECIAL PROVISIONS.
 - EPOXY COMPOUND FOR STRUCTURAL STEEL REPAIRS SHALL BE A SOLVENT FREE, MOISTURE TOLERANT, EPOXY PASTE ADHESIVE SYSTEM. THE EPOXY PASTE SHALL BE DEVELOPED SPECIFICALLY FOR FILLING, SMOOTHING, SEALING, OR FAIRING APPLICATIONS ON METALS. THE PASTE SHALL BE APPLIED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S LATEST WRITTEN INSTRUCTIONS. AN ACCEPTABLE PRODUCT SHALL BE ONE OF THE FOLLOWING OR AN APPROVED EQUAL: ITW PHILADELPHIA RESINS REPAIR COMPOUND MANUFACTURED BY: ITW PHILADELPHIA RESINS, SIKADUR 31, HI-MOD GEL MANUFACTURED BY: SIKA CORPORATION, DEVCON PLASTIC STEEL PUTTY (A) MANUFACTURED BY: ITW DEVCON, FX-738 METAL FILLED EPOXY MANUFACTURED BY: SIMPSON STRONG-TIE.
- STEEL ELEMENTS FOR REPAIR SHALL BE BOLTED TO EXISTING STEEL SURFACES.
- STEEL SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M270 GRADE 36. IT SHALL BE CONSIDERED A MAIN MEMBER AND CONFORM TO THE CHARPY V-NOTCH REQUIREMENTS OF AASHTO M270 ZONE T2.
- IN THE CASE THAT ANY STEEL REPAIR ANGLE INTERFERES WITH THE EXISTING ANCHOR BOLT, A LEG OF THE ANGLE CAN BE COPE TO PROVIDE CLEARANCE AROUND THE EXISTING ANCHOR BOLT.
- CLEAN AND PAINT IN ACCORDANCE WITH THE TYPICAL LIMITS OF CLEANING & PAINTING SPECIFIED ON SHEET 21 AND THE SPECIAL PROVISIONS.
- SEAL PERIMETER OF ALL STEEL WITH SILICONE CAULK.

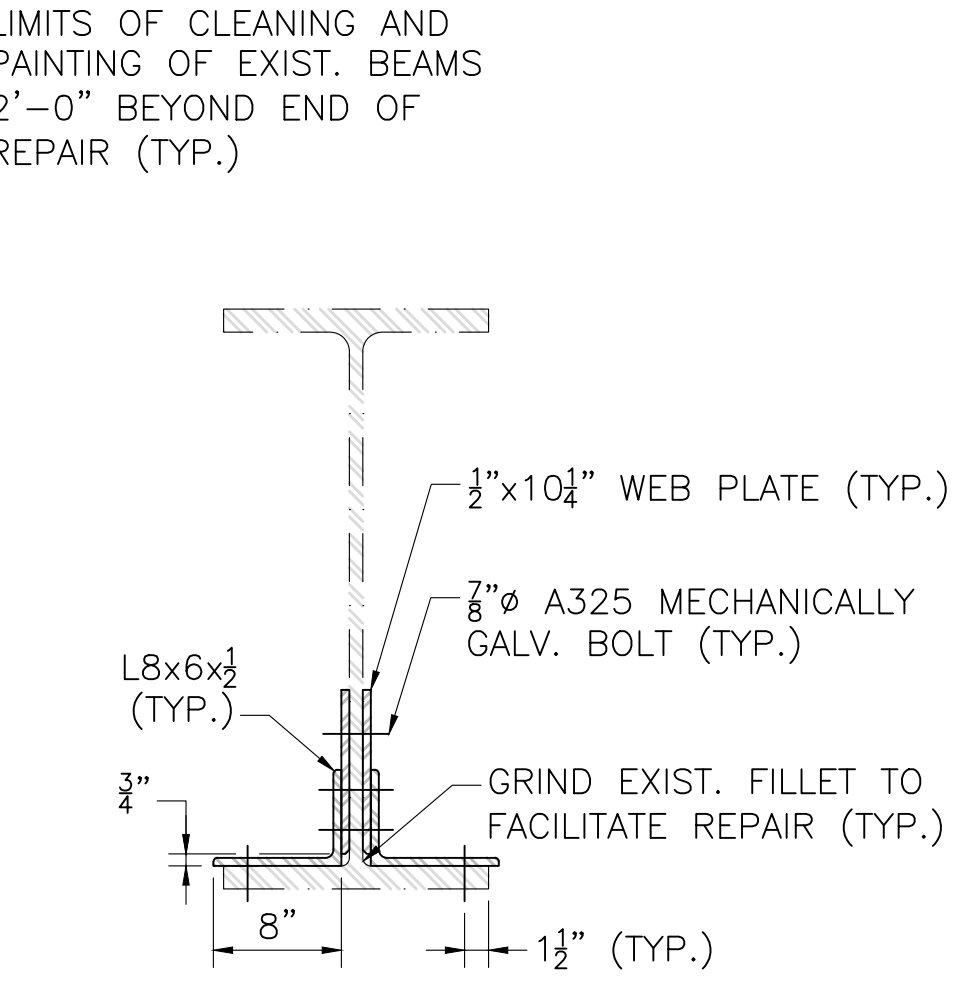
BEAM #	LOCATION	EXIST. BEAM SHAPE	BEAM END REPAIR TYPE	WEB REPAIR LENGTH
B-2	SP. 2, PIER 1	36WF230	TYPE 1	6'-0"
B-3	SP. 2, PIER 1	36WF230	TYPE 1	5'-0"
B-4	SP. 2, PIER 1	36WF230	TYPE 1	4'-0"
B-9	SP. 2, PIER 1	36WF260	TYPE 1	5'-0"
B-2	SP. 2, PIER 2	36WF230	TYPE 1	7'-0"
B-3	SP. 2, PIER 2	36WF230	TYPE 1	6'-0"
B-4	SP. 2, PIER 2	36WF230	TYPE 1	6'-0"
B-7	SP. 2, PIER 2	36WF260	TYPE 1	4'-0"
B-8	SP. 2, PIER 2	36WF260	TYPE 1	4'-0"
B-9	SP. 2, PIER 2	36WF260	TYPE 1	4'-0"
B-10	SP. 2, PIER 2	36WF260	TYPE 1	4'-0"
C-1	SP. 3, PIER 2	36WF170	TYPE 3	5'-0"
C-2	SP. 3, PIER 2	36WF170	TYPE 3	5'-0"
C-3	SP. 3, PIER 2	36WF170	TYPE 3	5'-0"
C-10	SP. 3, PIER 2	36WF170	TYPE 3	5'-0"
C-2	SP. 5, PIER 5	36WF170	TYPE 2	4'-0"
C-3	SP. 5, PIER 5	36WF170	TYPE 3	5'-0"
D-3	SP. 6, PIER 5	33WF141	TYPE 2	5'-0"
D-2	SP. 6, PIER 6	33WF141	TYPE 2	4'-0"
D-3	SP. 6, PIER 6	33WF141	TYPE 2	6'-0"
D-4	SP. 6, PIER 6	33WF141	TYPE 2	6'-0"
D-5	SP. 6, PIER 6	33WF141	TYPE 2	5'-0"
D-6	SP. 6, PIER 6	33WF141	TYPE 2	6'-0"
D-7	SP. 6, PIER 6	33WF141	TYPE 2	4'-6"
D-8	SP. 6, PIER 6	33WF141	TYPE 2	5'-0"
D-9	SP. 6, PIER 6	33WF141	TYPE 2	5'-0"
E-2	SP. 7, PIER 6	36WF194	TYPE 2	5'-0"
E-6	SP. 7, PIER 6	36WF194	TYPE 2	4'-6"
E-9	SP. 7, PIER 6	36WF194	TYPE 3	4'-0"

BEAM END REPAIR TABLE



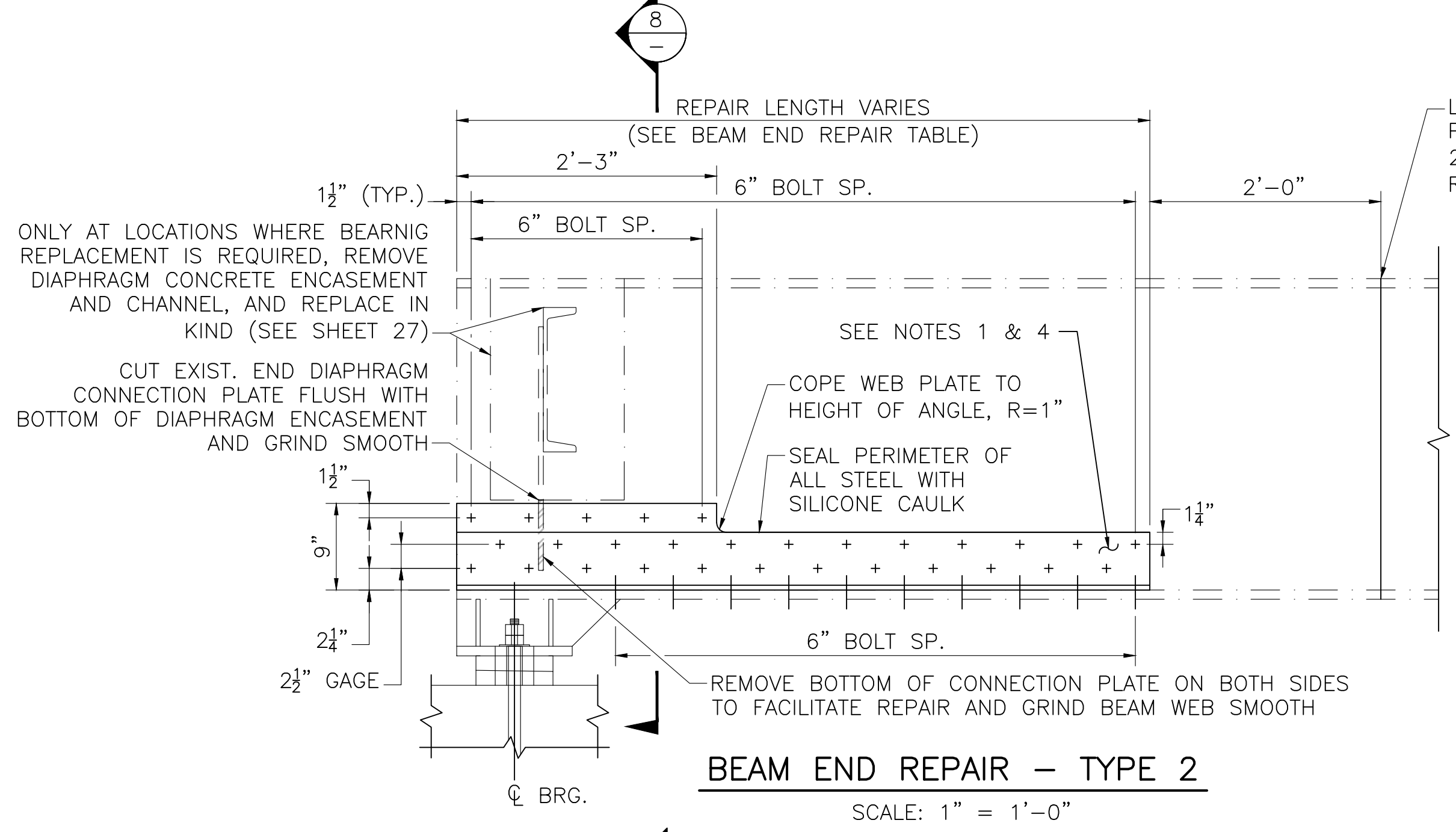
BEAM END REPAIR - TYPE 1

SCALE: 1" = 1'-0"



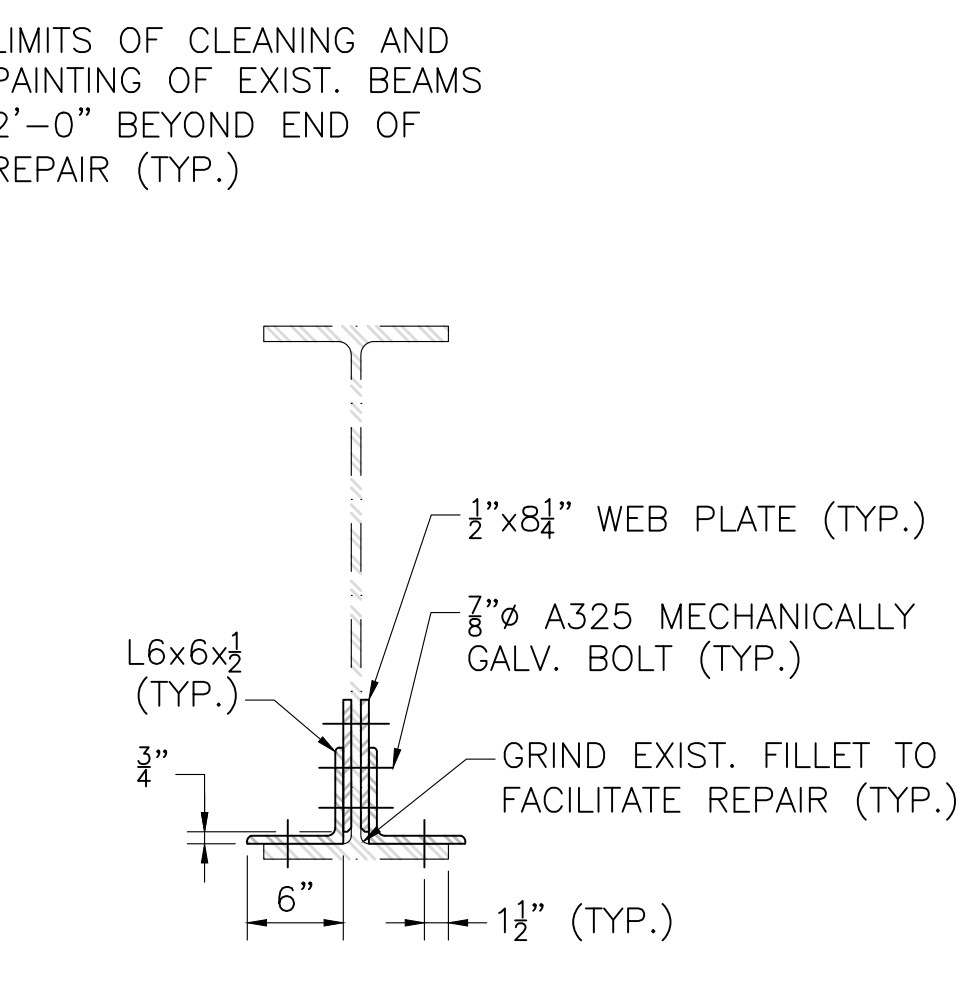
SECTION 7

SCALE: 1" = 1'-0"



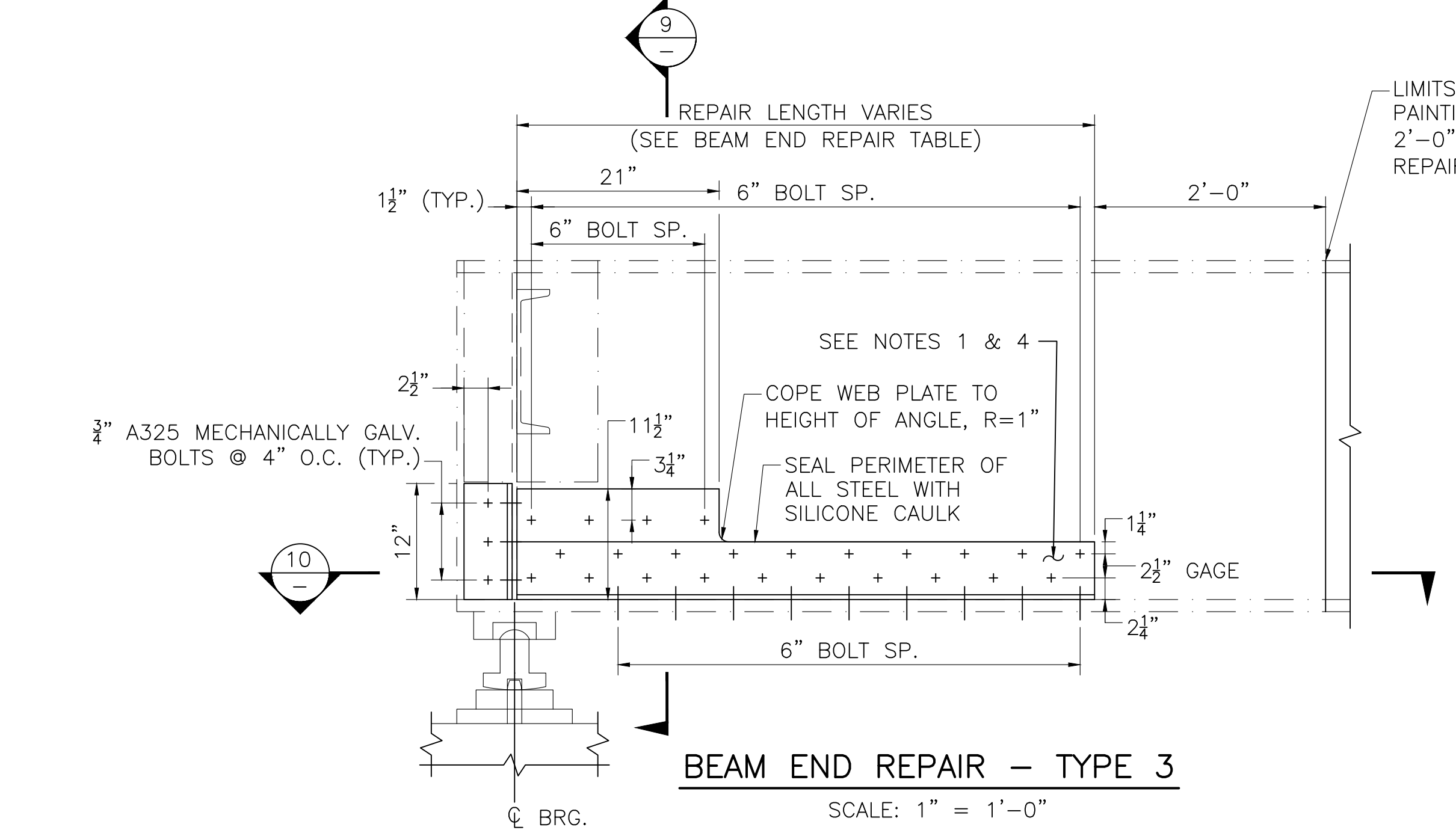
BEAM END REPAIR - TYPE 2

SCALE: 1" = 1'-0"



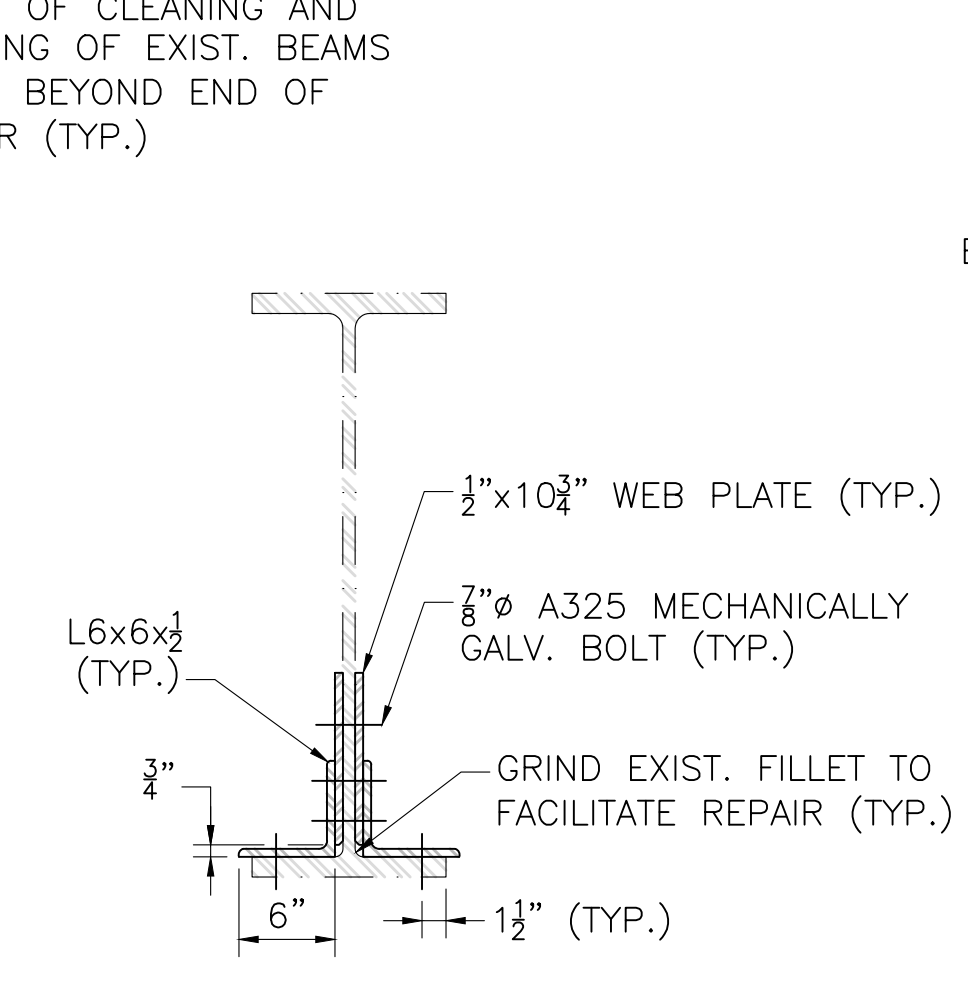
SECTION 8

SCALE: 1" = 1'-0"



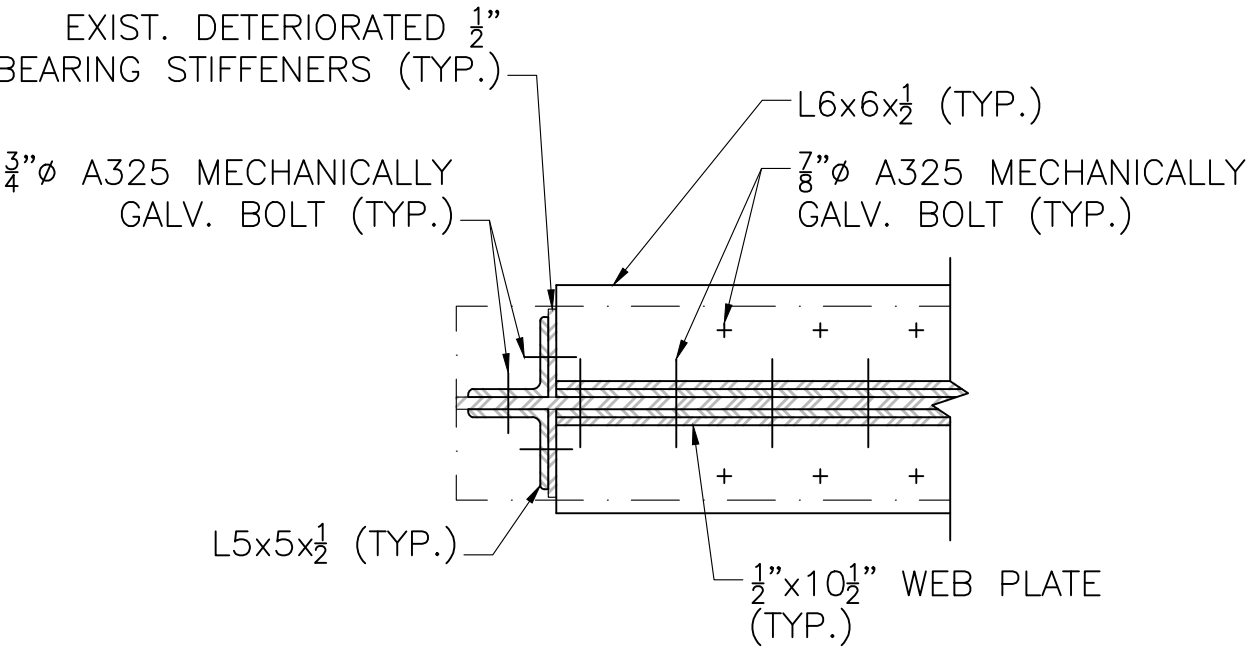
BEAM END REPAIR - TYPE 3

SCALE: 1" = 1'-0"



SECTION 9

SCALE: 1" = 1'-0"



SECTION 10

SCALE: 1" = 1'-0"

APRIL 18, 2026	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION
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612505_BR22(N14039).DWG Plotted on 12-Mar-2026 2:51 PM FINAL STRUCTURAL SUBMITTAL (SF) 13-MARCH-2026

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(NGB)-003S(947)	42	49
PROJECT FILE NO.		612505	

DECK REPAIR PLAN 1 OF 3

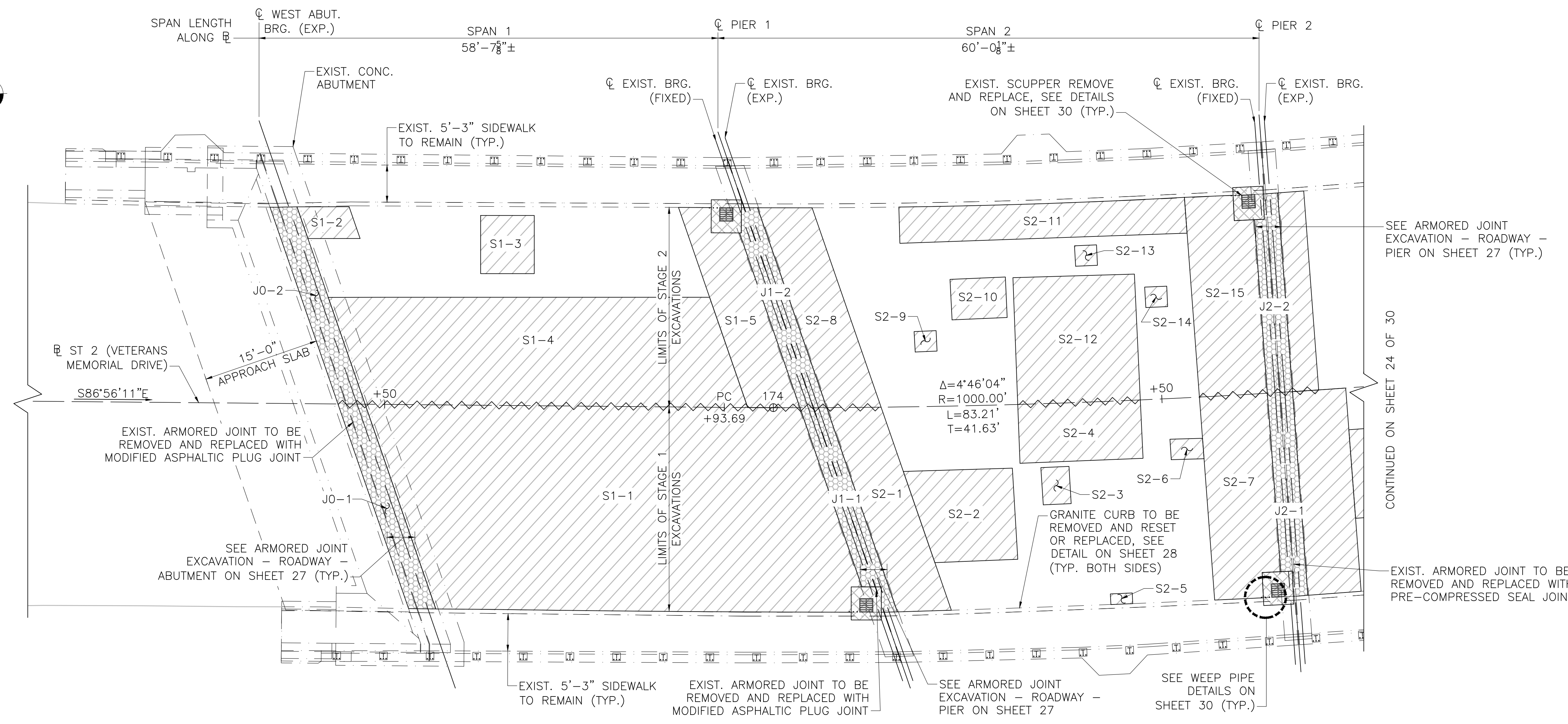
GENERAL BRIDGE DECK NOTES:

1. INSTALL TEMPORARY PROTECTIVE SHIELDING BENEATH ALL SPANS FOR FULL DECK AREA AND AS DIRECTED BY THE ENGINEER.
2. AREAS TO BE REPAIRED ARE DIMENSIONED TO THE SIDEWALK AND ARE APPROXIMATE. DIMENSIONS AND LOCATIONS TO BE FIELD VERIFIED BY CONTRACTOR. ANY DIMENSIONS OR AREA/VOLUME MODIFICATION TO BE APPROVED BY ENGINEER PRIOR TO START OF WORK.
3. REPLACE THE WEARING SURFACE WITH 1 1/2" SUPERPAVE BRIDGE SURFACE COURSE AND 1 1/2" SUPERPAVE BRIDGE PROTECTIVE COURSE OVER MEMBRANE WATERPROOFING.
4. DETERIORATED DECK REINFORCEMENT TO BE REPLACED IN KIND.

SPAN 1 & 2 NOTES:

1. STRIP DECK OF ALL EXISTING WEARING SURFACE AND WATERPROOFING MEMBRANE. EXCAVATE UNSOUND CONCRETE WITHIN APPROVED LIMITS. REPLACE DECK CONCRETE WITH 5000 PSI, 3/8" INCH, 710 HP CEMENT CONCRETE FOR PARITAL DEPTH REPAIRS AND 5000 PSI, 1/2" INCH, 685 HP CEMENT CONCRETE FOR FULL DEPTH REPAIRS.

THE PAVING OF THE BRIDGE DECK SHALL BE PERFORMED USING ROLLERS THAT MINIMIZE VIBRATIONS TO MASS MOCA BUILDING 15, IN ACCORDANCE WITH SPECIAL PROVISION ITEM 100.9 AND AS APPROVED BY THE ENGINEER.



DECK EXCAVATION PLAN SPANS 1-2
SCALE: 1/8" = 1'-0"

DENOTES APPROXIMATE LIMITS OF FULL OR PARTIAL DEPTH CONCRETE DECK REPAIRS (ITEM 127.4 OR 127.41)

DENOTES APPROXIMATE LIMITS OF FULL DEPTH CONCRETE DECK REPAIRS AT BRIDGE JOINTS (ITEM 127.401)

DENOTES LIMITS OF REINFORCED CONCRETE EXCAVATION FOR SCUPPER REMOVAL AND REPLACEMENT; SEE SHEET 30 (ITEM 127.1)

FULL OR PARTIAL DEPTH DECK REPAIRS STAGE 1 CONSTRUCTION			
AREA NAME	AVG. LENGTH	AVG. WIDTH	AREA (SY)
S1-1	56'-0"	26'-3"	163.33
S2-1	7'-0"	26'-3"	20.42
S2-2	12'-3"	11'-9"	15.99
S2-3	3'-6"	4'-9"	1.85
S2-4	15'-9"	7'-6"	13.13
S2-5	2'-9"	1'-6"	0.46
S2-6	4'-3"	2'-6"	1.18
S2-7	8'-9"	26'-3"	25.52

FULL OR PARTIAL DEPTH DECK REPAIRS STAGE 2 CONSTRUCTION			
AREA NAME	AVG. LENGTH	AVG. WIDTH	AREA (SY)
S1-2	6'-9"	4'-0"	3.00
S1-3	7'-0"	7'-6"	5.83
S1-4	49'-0"	14'-0"	76.22
S1-5	6'-6"	25'-6"	18.42
S2-8	7'-0"	25'-6"	19.83
S2-9	2'-9"	2'-6"	0.76
S2-10	7'-0"	5'-3"	4.08
S2-11	37'-0"	4'-9"	19.53
S2-12	15'-9"	16'-3"	28.44
S2-13	2'-9"	2'-6"	0.76
S2-14	3'-0"	2'-9"	0.92
S2-15	8'-9"	25'-6"	24.79

FULL DEPTH DECK REPAIRS AT BRIDGE JOINTS STAGE 1 CONSTRUCTION			
AREA NAME	AVG. LENGTH	AVG. WIDTH	AREA (SY)
J0-1	3'-6"	26'-3"	10.21
J1-1	3'-6"	26'-3"	10.21
J2-1	3'-3"	26'-3"	9.48

FULL DEPTH DECK REPAIRS AT BRIDGE JOINTS STAGE 2 CONSTRUCTION			
AREA NAME	AVG. LENGTH	AVG. WIDTH	AREA (SY)
J0-2	3'-6"	25'-6"	9.92
J1-2	3'-6"	25'-6"	9.92
J2-2	3'-3"	25'-6"	9.21

NOTE:
THE REPAIR DIMENSIONS INDICATED HEREIN ARE APPROXIMATE AND ARE NOT INTENDED TO BE ALL INCLUSIVE. THE CONTRACTOR SHALL PERFORM THEIR OWN FIELD INVESTIGATION AFTER THE REMOVAL OF THE EXISTING WEARING SURFACE TO DETERMINE ACTUAL DECK REPAIR LOCATIONS AND DIMENSIONS TO BE APPROVED BY THE ENGINEER BEFORE COMMENCING ANY REPAIR WORK.

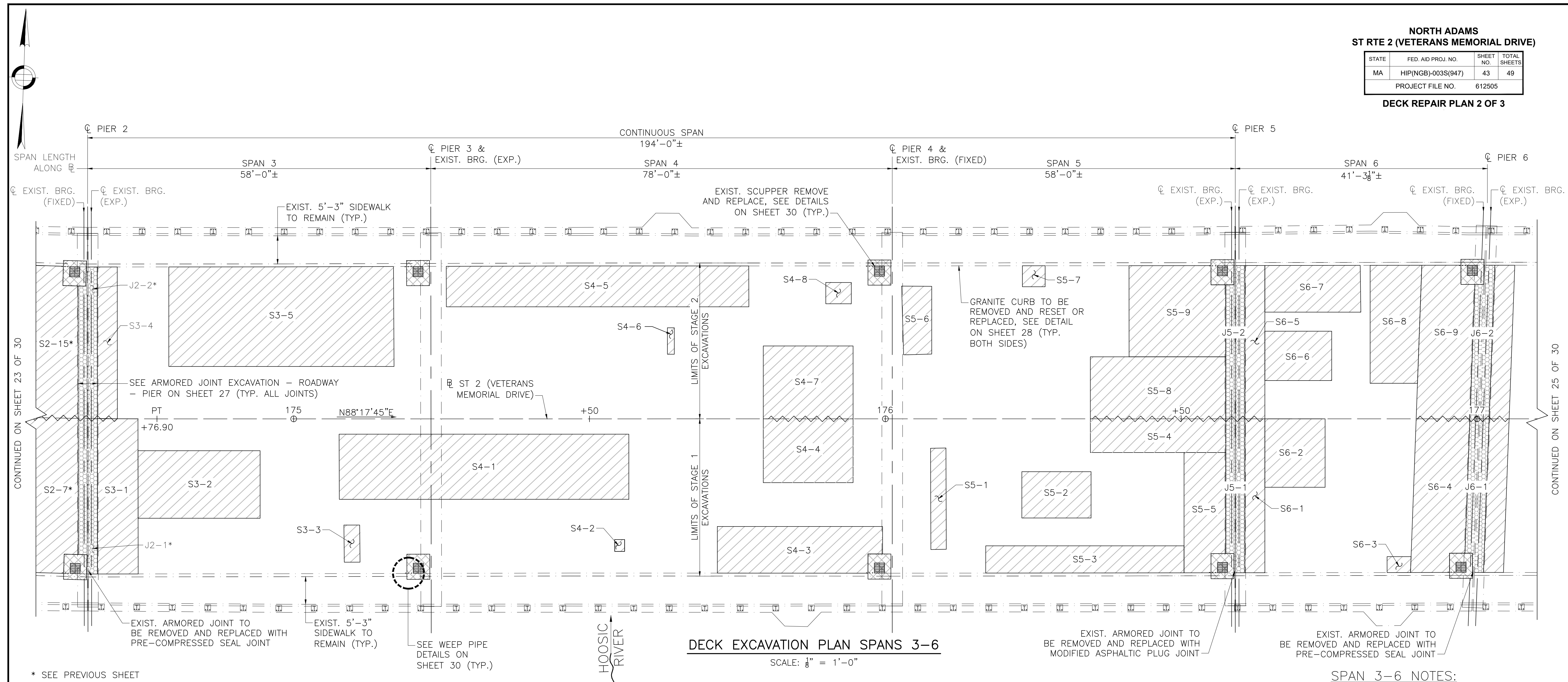
APRIL 18, 2026	ISSUED FOR CONSTRUCTION
DATE	DESCRIPTION
THIS SHEET IS APPROVED FOR CONSTRUCTION BY MASSDOT	
AUTHORIZED SIGNATORY:	STATE BRIDGE ENGINEER
USE ONLY PRINTS OF LATEST DATE	

612505_BR23-25(N14039).DWG Plotted on 12-Mar-2026 2:51 PM 13-MARCH-2026 FINAL STRUCTURAL SUBMITTAL (SF)

**NORTH ADAMS
ST RTE 2 (VETERANS MEMORIAL DRIVE)**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(NGB)-003S(947)	43	49
PROJECT FILE NO.		612505	

DECK REPAIR PLAN 2 OF 3



DECK EXCAVATION PLAN SPANS 3-6

SCALE: 1/8" = 1'-0"

* SEE PREVIOUS SHEET

□ DENOTES APPROXIMATE LIMITS OF FULL OR PARTIAL DEPTH CONCRETE DECK REPAIRS (ITEM 127.4 OR 127.41)

□ DENOTES APPROXIMATE LIMITS OF FULL DEPTH CONCRETE DECK REPAIRS AT BRIDGE JOINTS (ITEM 127.401)

□ DENOTES LIMITS OF REINFORCED CONCRETE EXCAVATION FOR SCUPPER REMOVAL AND REPLACEMENT; SEE SHEET 30 (ITEM 127.1)

FULL OR PARTIAL DEPTH DECK REPAIRS STAGE 1 CONSTRUCTION			
AREA NAME	AVG. LENGTH	AVG. WIDTH	AREA (SY)
S3-1	6'-9"	26'-0"	19.50
S3-2	20'-6"	11'-6"	26.19
S3-3	2'-9"	6'-6"	1.99
S4-1	49'-0"	11'-0"	59.89
S4-2	2'-0"	2'-0"	0.44
S4-3	28'-0"	8'-0"	24.89
S4-4	15'-3"	10'-9"	18.22
S5-1	2'-9"	17'-3"	5.27
S5-2	12'-0"	7'-9"	10.33
S5-3	33'-6"	4'-9"	17.68
S5-4	23'-0"	5'-9"	14.69
S5-5	7'-0"	20'-6"	15.94
S6-1	3'-6"	26'-0"	10.11
S6-2	10'-3"	11'-6"	13.10
S6-3	4'-0"	2'-9"	1.22
S6-4	9'-0"	26'-0"	26.00

FULL OR PARTIAL DEPTH DECK REPAIRS STAGE 2 CONSTRUCTION			
AREA NAME	AVG. LENGTH	AVG. WIDTH	AREA (SY)
S3-4	3'-3"	25'-6"	9.21
S3-5	38'-0"	17'-0"	71.78
S4-5	51'-3"	7'-0"	39.86
S4-6	1'-3"	4'-6"	0.63
S4-7	15'-3"	12'-3"	20.76
S4-8	4'-6"	3'-9"	1.88
S5-6	5'-0"	11'-6"	6.39
S5-7	4'-0"	3'-6"	1.56
S5-8	10'-6"	23'-0"	26.83
S5-9	15'-6"	16'-6"	28.42
S6-5	3'-6"	26'-0"	10.11
S6-6	11'-3"	8'-6"	10.63
S6-7	16'-3"	8'-0"	14.44
S6-8	8'-6"	20'-0"	18.89
S6-9	9'-0"	26'-0"	26.00

FULL DEPTH DECK REPAIRS AT BRIDGE JOINTS STAGE 1 CONSTRUCTION			
AREA NAME	AVG. LENGTH	AVG. WIDTH	AREA (SY)
J5-1	3'-3"	26'-0"	9.39
J6-1	3'-3"	26'-0"	9.39

FULL DEPTH DECK REPAIRS AT BRIDGE JOINTS STAGE 2 CONSTRUCTION			
AREA NAME	AVG. LENGTH	AVG. WIDTH	AREA (SY)
J5-2	3'-3"	26'-0"	9.39
J6-2	3'-3"	26'-0"	9.39

NOTE:
THE REPAIR DIMENSIONS INDICATED HEREIN ARE APPROXIMATE AND ARE NOT INTENDED TO BE ALL INCLUSIVE. THE CONTRACTOR SHALL PERFORM THEIR OWN FIELD INVESTIGATION AFTER THE REMOVAL OF THE EXISTING WEARING SURFACE TO DETERMINE ACTUAL DECK REPAIR LOCATIONS AND DIMENSIONS TO BE APPROVED BY THE ENGINEER BEFORE COMMENCING ANY REPAIR WORK.

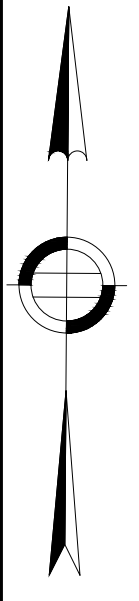
SPAN 3-6 NOTES:

- STRIP DECK OF ALL EXISTING WEARING SURFACE AND WATERPROOFING MEMBRANE. EXCAVATE UNSOUND CONCRETE WITHIN APPROVED LIMITS. REPLACE DECK CONCRETE WITH 5000 PSI, 3/8 INCH, 710 HP CEMENT CONCRETE FOR PARTIAL DEPTH REPAIRS AND 5000 PSI, 1/2 INCH, 685 HP CEMENT CONCRETE FOR FULL DEPTH REPAIRS.

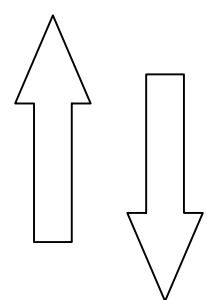
THE PAVING OF THE BRIDGE DECK SHALL BE PERFORMED USING ROLLERS THAT MINIMIZE VIBRATIONS TO MASS MOCA BUILDING 15, IN ACCORDANCE WITH SPECIAL PROVISION ITEM 100.9 AND AS APPROVED BY THE ENGINEER.
- SEE SHEET 23 OF 30 FOR GENERAL BRIDGE DECK NOTES.

APRIL 18, 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	

612505_BR23-25(N14039).DWG Plotted on 12-Mar-2026 2:51 PM 13-MARCH-2026 FINAL STRUCTURAL SUBMITTAL (SF)



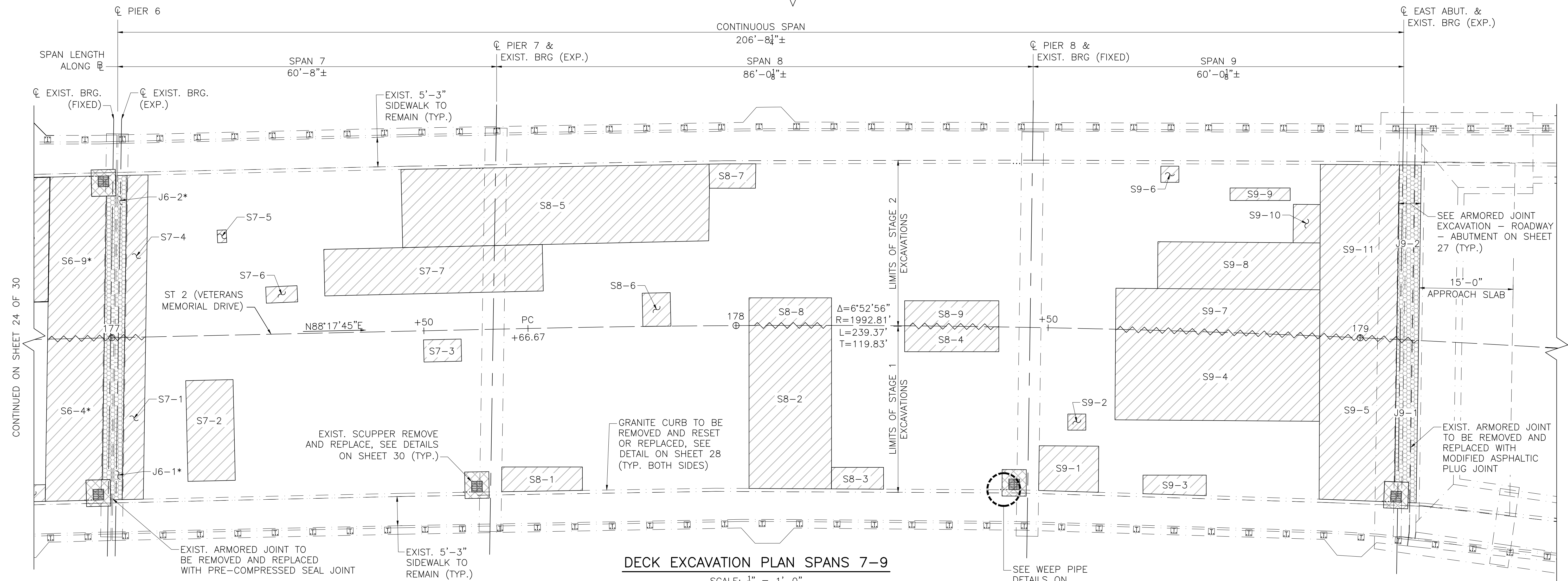
ST 8
(MARSHALL STREET)



NORTH ADAMS
ST RTE 2 (VETERANS MEMORIAL DRIVE)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(NGB)-003S(947)	44	49
PROJECT FILE NO.		612505	

DECK REPAIR PLAN 3 OF 3



* SEE PREVIOUS SHEET

▨ DENOTES APPROXIMATE LIMITS OF FULL OR PARTIAL DEPTH CONCRETE DECK REPAIRS (ITEM 127.4 OR 127.41)

▨ DENOTES APPROXIMATE LIMITS OF FULL DEPTH CONCRETE DECK REPAIRS AT BRIDGE JOINTS (ITEM 127.401)

▨ DENOTES LIMITS OF REINFORCED CONCRETE EXCAVATION FOR SCUPPER REMOVAL AND REPLACEMENT; SEE SHEET 30 (ITEM 127.1)

FULL OR PARTIAL DEPTH DECK REPAIRS STAGE 1 CONSTRUCTION			
AREA NAME	AVG. LENGTH	AVG. WIDTH	AREA (SY)
S7-1	3'-6"	26'-0"	10.11
S7-2	7'-6"	16'-3"	13.54
S7-3	6'-0"	3'-6"	2.33
S8-1	13'-0"	3'-9"	5.42
S8-2	13'-3"	26'-3"	38.65
S8-3	8'-6"	3'-6"	3.31
S8-4	15'-0"	4'-0"	6.67
S9-1	9'-6"	7'-3"	7.65
S9-2	3'-0"	2'-9"	0.92
S9-3	10'-0"	3'-3"	3.61
S9-4	32'-9"	14'-6"	52.76
S9-5	12'-0"	26'-3"	35.00

FULL OR PARTIAL DEPTH DECK REPAIRS STAGE 2 CONSTRUCTION			
AREA NAME	AVG. LENGTH	AVG. WIDTH	AREA (SY)
S7-4	3'-6"	26'-0"	10.11
S7-5	1'-6"	2'-0"	0.33
S7-6	5'-0"	2'-9"	1.53
S7-7	35'-0"	7'-6"	29.17
S8-5	49'-6"	12'-6"	68.75
S8-6	4'-6"	5'-3"	2.63
S8-7	7'-6"	4'-0"	3.33
S8-8	13'-3"	4'-6"	6.63
S8-9	15'-0"	4'-0"	6.67
S9-6	2'-9"	2'-6"	0.76
S9-7	32'-9"	7'-6"	27.29
S9-8	26'-0"	7'-6"	21.67
S9-9	9'-9"	2'-0"	2.17
S9-10	4'-3"	6'-3"	2.95
S9-11	12'-6"	27'-6"	38.19

FULL DEPTH DECK REPAIRS AT BRIDGE JOINTS STAGE 1 CONSTRUCTION			
AREA NAME	AVG. LENGTH	AVG. WIDTH	AREA (SY)
J9-1	3'-6"	26'-3"	10.21

FULL DEPTH DECK REPAIRS AT BRIDGE JOINTS STAGE 2 CONSTRUCTION			
AREA NAME	AVG. LENGTH	AVG. WIDTH	AREA (SY)
J9-2	3'-6"	27'-6"	10.69

NOTE:
THE REPAIR DIMENSIONS INDICATED HEREIN ARE APPROXIMATE AND ARE NOT INTENDED TO BE ALL INCLUSIVE. THE CONTRACTOR SHALL PERFORM THEIR OWN FIELD INVESTIGATION AFTER THE REMOVAL OF THE EXISTING WEARING SURFACE TO DETERMINE ACTUAL DECK REPAIR LOCATIONS AND DIMENSIONS TO BE APPROVED BY THE ENGINEER BEFORE COMMENCING ANY REPAIR WORK.

SPAN 7-9 NOTES:

- STRIP DECK OF ALL EXISTING WEARING SURFACE AND WATERPROOFING MEMBRANE. EXCAVATE UNSOUND CONCRETE WITHIN APPROVED LIMITS. REPLACE DECK CONCRETE WITH 5000 PSI, 3/8 INCH, 710 HP CEMENT CONCRETE FOR PARTIAL DEPTH REPAIRS AND 5000 PSI, 1/2 INCH, 685 HP CEMENT CONCRETE FOR FULL DEPTH REPAIRS.

THE PAVING OF THE BRIDGE DECK SHALL BE PERFORMED USING ROLLERS THAT MINIMIZE VIBRATIONS TO MASS MOCA BUILDING 15, IN ACCORDANCE WITH SPECIAL PROVISION ITEM 100.9 AND AS APPROVED BY THE ENGINEER.

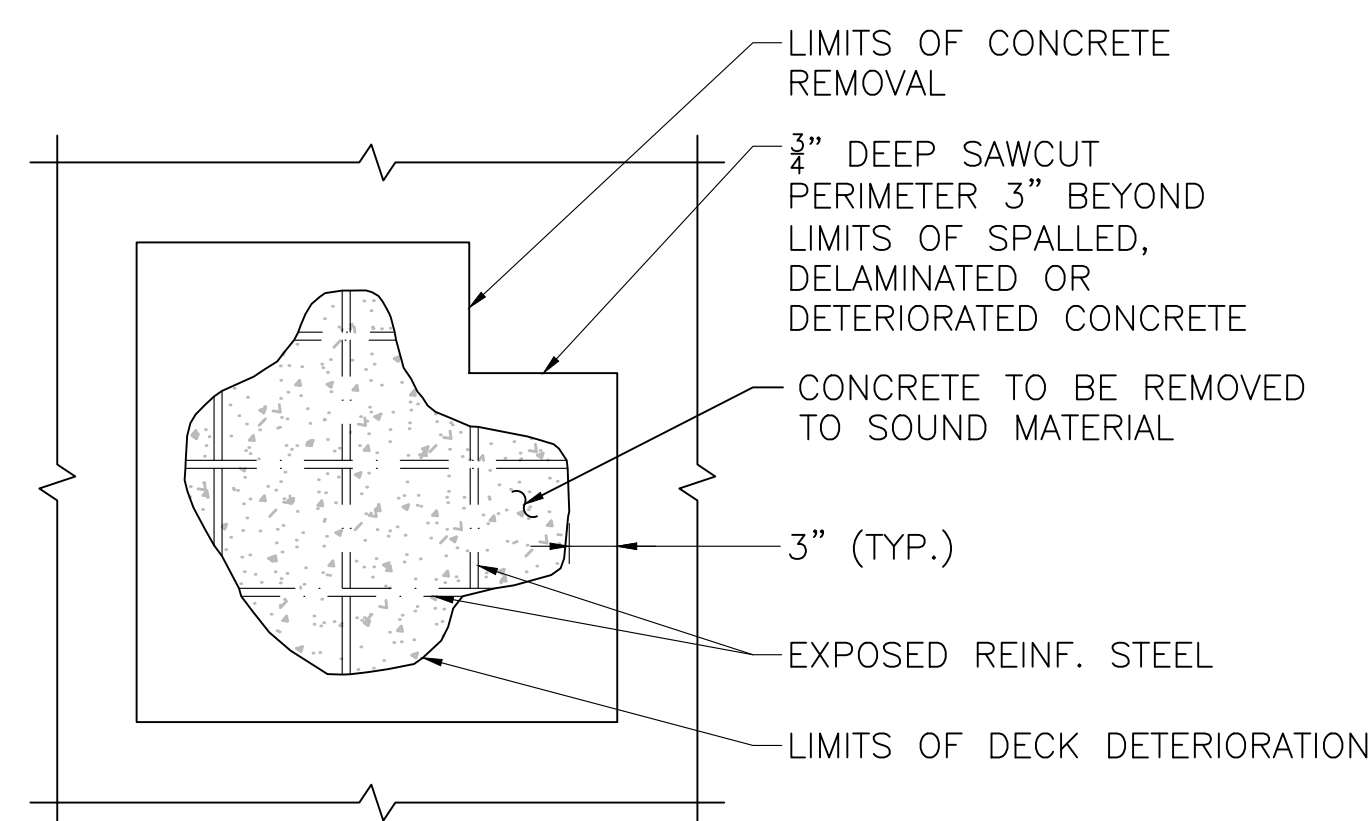
- SEE SHEET 23 OF 30 FOR GENERAL BRIDGE DECK NOTES.

APRIL 18, 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	

**NORTH ADAMS
ST RTE 2 (VETERANS MEMORIAL DRIVE)**

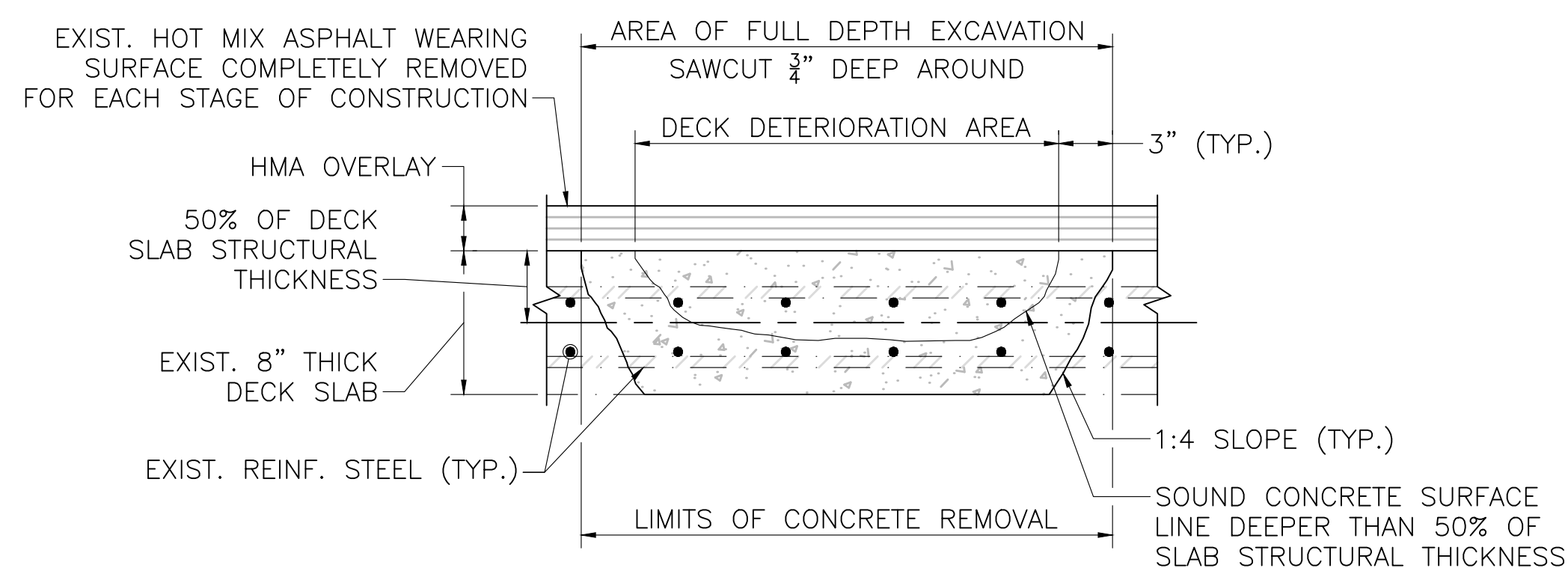
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(NGB)-003S(947)	45	49
PROJECT FILE NO.		612505	

DECK REPAIRS DETAILS



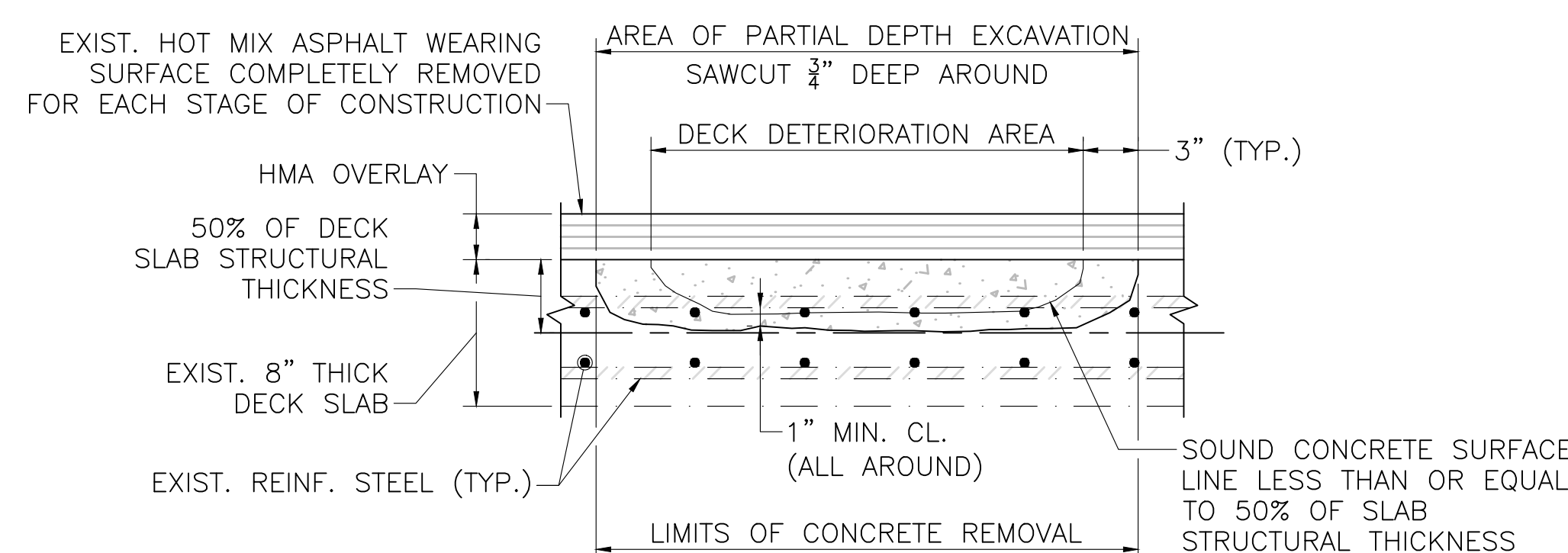
LIMITS OF REPAIR AREA

SCALE: 1" = 1'-0"



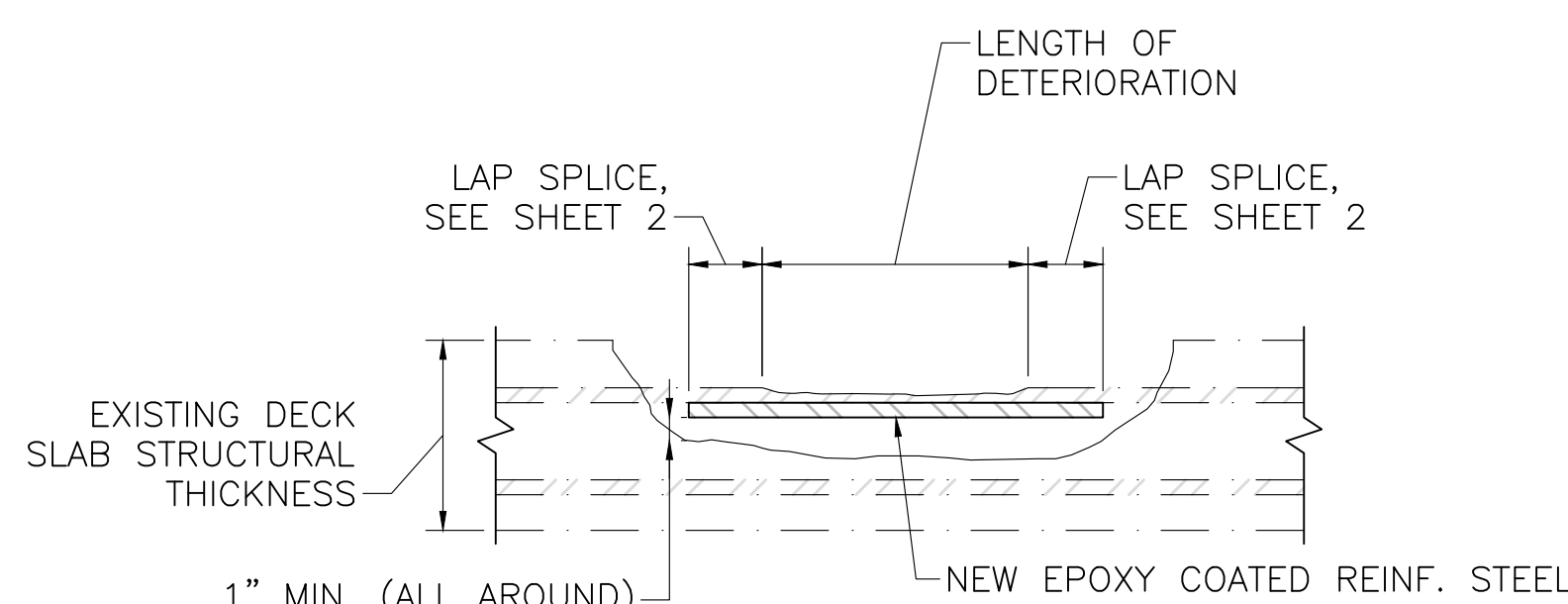
FULL DEPTH DECK REPAIR

SCALE: 1 1/2" = 1'-0"



PARTIAL DEPTH DECK REPAIR

SCALE: 1 1/2" = 1'-0"



TYPICAL DETERIORATED REINFORCEMENT STEEL REPAIR

SCALE: 1 1/2" = 1'-0"

BRIDGE DECK SEQUENCING NOTES:

- BRIDGE DECK REPAIRS ARE TO BE CONSTRUCTED IN TWO (2) STAGES AS SHOWN ON SHEETS 23 - 25. ALL EXISTING HOT MIX ASPHALT WEARING SURFACE AND MEMBRANE WATERPROOFING MATERIAL SHALL BE REMOVED IN EACH CONSTRUCTION STAGE PRIOR TO PERFORMING DECK REPAIRS. THE EXPOSED DECK SURFACE SHALL BE INSPECTED BY THE ENGINEER TO DETERMINE APPROXIMATE LIMITS OF REPAIR. IN ADDITION AREAS WITH EVIDENCE OF DETERIORATION SHALL BE SOUNDED IN THE PRESENCE OF THE ENGINEER TO IDENTIFY AREAS IN NEED OF FULL DEPTH REPAIRS.
- THE TOP SURFACE OF THE DECK REPAIRS SHALL BE FINISHED FLUSH WITH THE ADJACENT TOP OF DECK SLAB AND SHALL MAINTAIN THE EXISTING GRADES AND CROSS SLOPES.
- UPON COMPLETION OF EACH STAGE OF DECK REPAIRS, THE DECK SHALL BE ABRASIVELY BLAST CLEANED AND MEMBRANE WATERPROOFING SHALL BE INSTALLED IN ACCORDANCE WITH THE SPECIAL PROVISIONS, FOLLOWED BY PLACEMENT OF THE SUPERPAVE WEARING SURFACE.

BRIDGE DECK REPAIR NOTES:

- PARTIAL DEPTH REPAIRS: ALL DETERIORATED AND DELAMINATED CONCRETE SHALL BE REMOVED TO A MINIMUM DEPTH OF 1" BELOW THE BOTTOM OF THE TOP LAYER OF EXISTING REINFORCEMENT STEEL TO A MAXIMUM OF 50% OF THE THICKNESS OF THE EXISTING CONCRETE DECK.
- FULL DEPTH REPAIRS: ALL DETERIORATED AND DELAMINATED CONCRETE SHALL BE REMOVED, AND IF THE SOUND CONCRETE SURFACE IS LOCATED AT A DEPTH GREATER THAN 50% OF THE DECK THICKNESS WHEN MEASURED FROM THE TOP OF DECK, A FULL DEPTH DECK REPAIR SHALL BE PERFORMED.
- ALL EXISTING REINFORCING STEEL AND CONCRETE SURFACES THAT ARE TO BE IN CONTACT WITH REPAIR CONCRETE SHALL BE ABRASIVELY BLAST CLEANED IN ORDER TO REMOVE ALL RUST, OIL, AND DEBRIS THAT IS NOT TIGHTLY ADHERED, FOLLOWED BY APPLICATION OF COMPRESSED AIR TO REMOVE ALL DUST. EXISTING CONCRETE SURFACES THAT WILL BE IN CONTACT WITH REPAIR CONCRETE SHALL BE PRE-WETTED FOR A MINIMUM OF 24 HOURS USING POTABLE WATER IN ORDER TO ACHIEVE A SATURATED SURFACE DRY CONDITION IMMEDIATELY PRIOR TO PLACEMENT OF REPAIR CONCRETE.
- AN EPOXY BONDING COMPOUND SHALL BE APPLIED TO ALL EXISTING CONCRETE SURFACES THAT WILL BE IN CONTACT WITH REPAIR CONCRETE. THE MATERIALS SHALL MEET AASHTO M235 TYPE V AND BE SELECTED FROM THE MASSDOT QUALIFIED CONSTRUCTION MATERIALS LIST (QCML). GRADE AND CLASS SHALL BE SPECIFIED FOR EACH INDIVIDUAL APPLICATION. SURFACE PREPARATION AND EPOXY COMPOUND APPLICATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. IN NO CASE WILL THE EPOXY BONDING COMPOUND BE ALLOWED TO CURE TO A HARDENED STATE PRIOR TO CONCRETE PLACEMENT. IF THIS DOES OCCUR IT MUST BE COMPLETELY REMOVED.
- NEW EPOXY COATED STEEL REINFORCEMENT SHALL BE PLACED TO SUPPLEMENT EXISTING REINFORCEMENT THAT HAS A SECTION LOSS OF 25% OR MORE OF THE ORIGINAL CROSS SECTION AREA OR HAS BROKEN, AS DETERMINED BY THE ENGINEER. NEW REINFORCEMENT SHALL BE LAPPED AS REQUIRED IN EACH DIRECTION FROM WHERE THE SECTION LOSS OR BREAK ENDS. THE LIMITS OF THE REPAIR SHALL BE MODIFIED TO MEET THE REINFORCEMENT STEEL LAP SPLICE REQUIREMENTS AS SPECIFIED ON SHEET 2. NEW REINFORCING STEEL SHALL BE PLACED AT THE SAME LEVEL ALONGSIDE THE EXISTING DETERIORATED OR BROKEN REINFORCING STEEL.

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

NORTH ADAMS

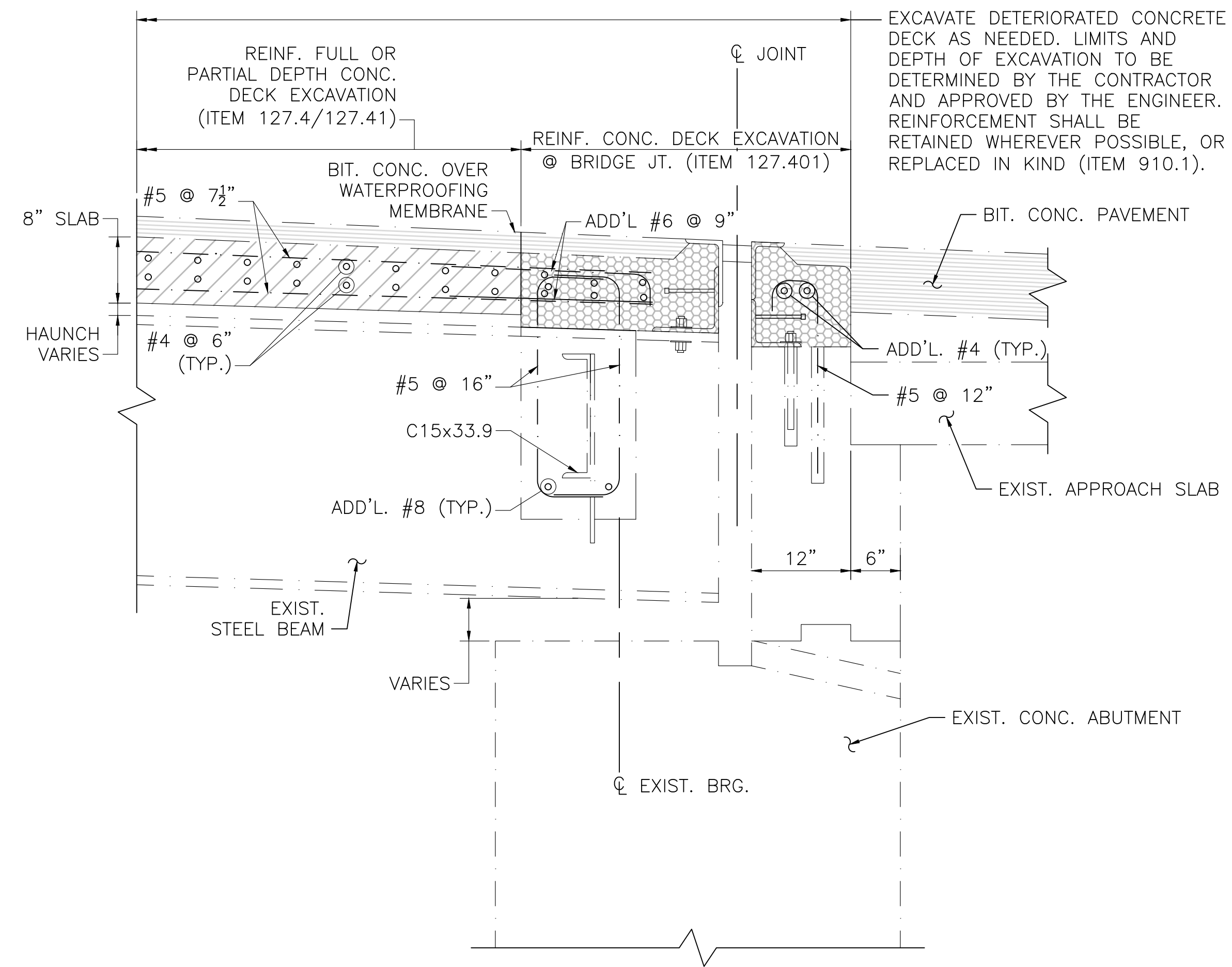
ST RTE 2 (VETERANS MEMORIAL DRIVE)

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(NGB)-003S(947)	46	49
PROJECT FILE NO.		612505	

DECK JOINTS REPAIRS 1 OF 2

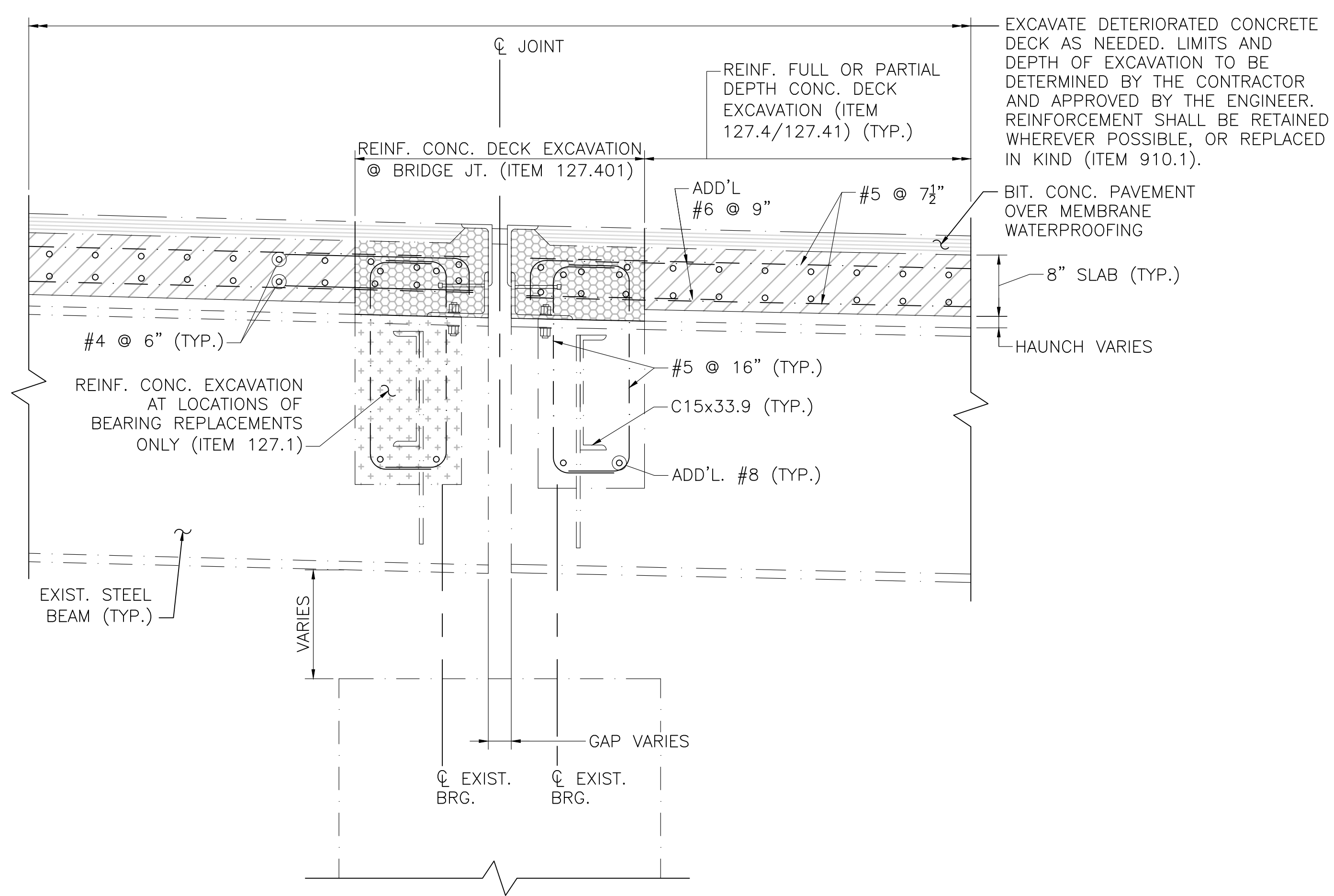
NOTE:

1. EXCAVATE A MINIMUM OF 20" ON EITHER SIDE OF THE ROADWAY JOINTS OR AS REQUIRED BY THE ENGINEER TO REMOVE THE ENTIRE EXISTING JOINT AND DETERIORATED CONCRETE.
2. ALL CONCRETE SHALL BE 5000 PSI, 3/8 INCH, 710 HP CEMENT CONCRETE FOR PARTIAL DEPTH REPAIRS AND 5000 PSI, 3/4 INCH, 685 HP CEMENT CONCRETE FOR FULL DEPTH REPAIRS.
3. EXISTING SHEAR CONNECTORS ARE NOT SHOWN AND SHALL BE RETAINED.
4. THE CONTRACTOR SHALL PROTECT THE RETAINED REINFORCING, SHEAR CONNECTORS AND STRUCTURAL STEEL FROM ANY DAMAGE. ANY DAMAGE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE WITH THE APPROVAL OF THE ENGINEER.



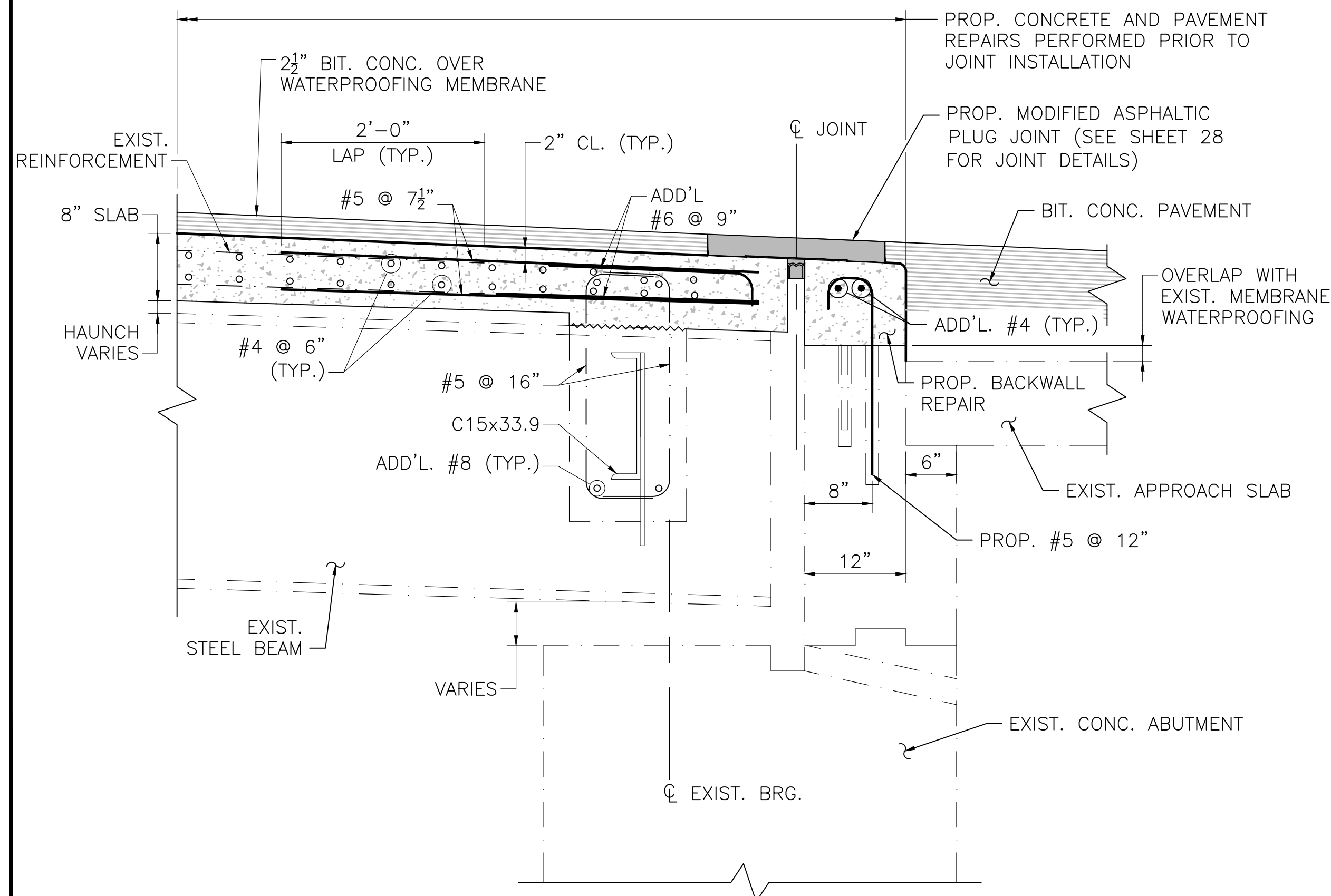
ARMORED JOINT EXCAVATION – ROADWAY – ABUTMENT

SCALE: 1" = 1'-0"



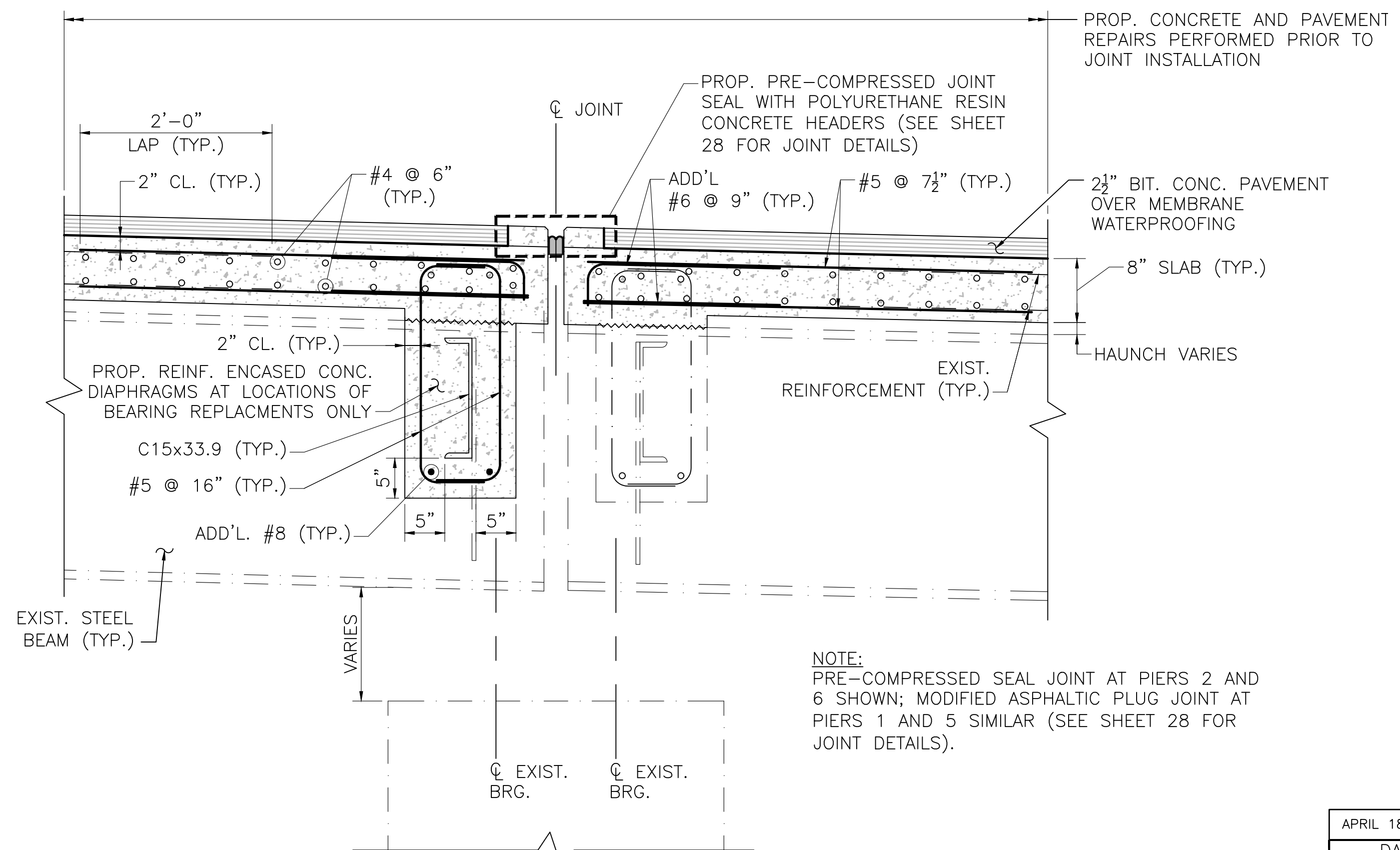
ARMORED JOINT EXCAVATION – ROADWAY – PIER

SCALE: 1" = 1'-0"



ARMORED JOINT REPLACEMENT – ROADWAY – ABUTMENT

SCALE: 1" = 1'-0"



ARMORED JOINT REPLACEMENT – ROADWAY – PIER

SCALE: 1" = 1'-0"

NOTE:
PRE-COMPRESSED SEAL JOINT AT PIERS 2 AND 6 SHOWN; MODIFIED ASPHALTIC PLUG JOINT AT PIERS 1 AND 5 SIMILAR (SEE SHEET 28 FOR JOINT DETAILS).

APRIL 18, 2026	ISSUED FOR CONSTRUCTION
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AUTHORIZED SIGNATORY:	STATE BRIDGE ENGINEER
USE ONLY PRINTS OF LATEST DATE	

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(NGB)-003S(947)	47	49
PROJECT FILE NO.		612505	

DECK JOINTS REPAIRS 2 OF 2

PRE-COMPRESSED SEAL JOINT NOTES:

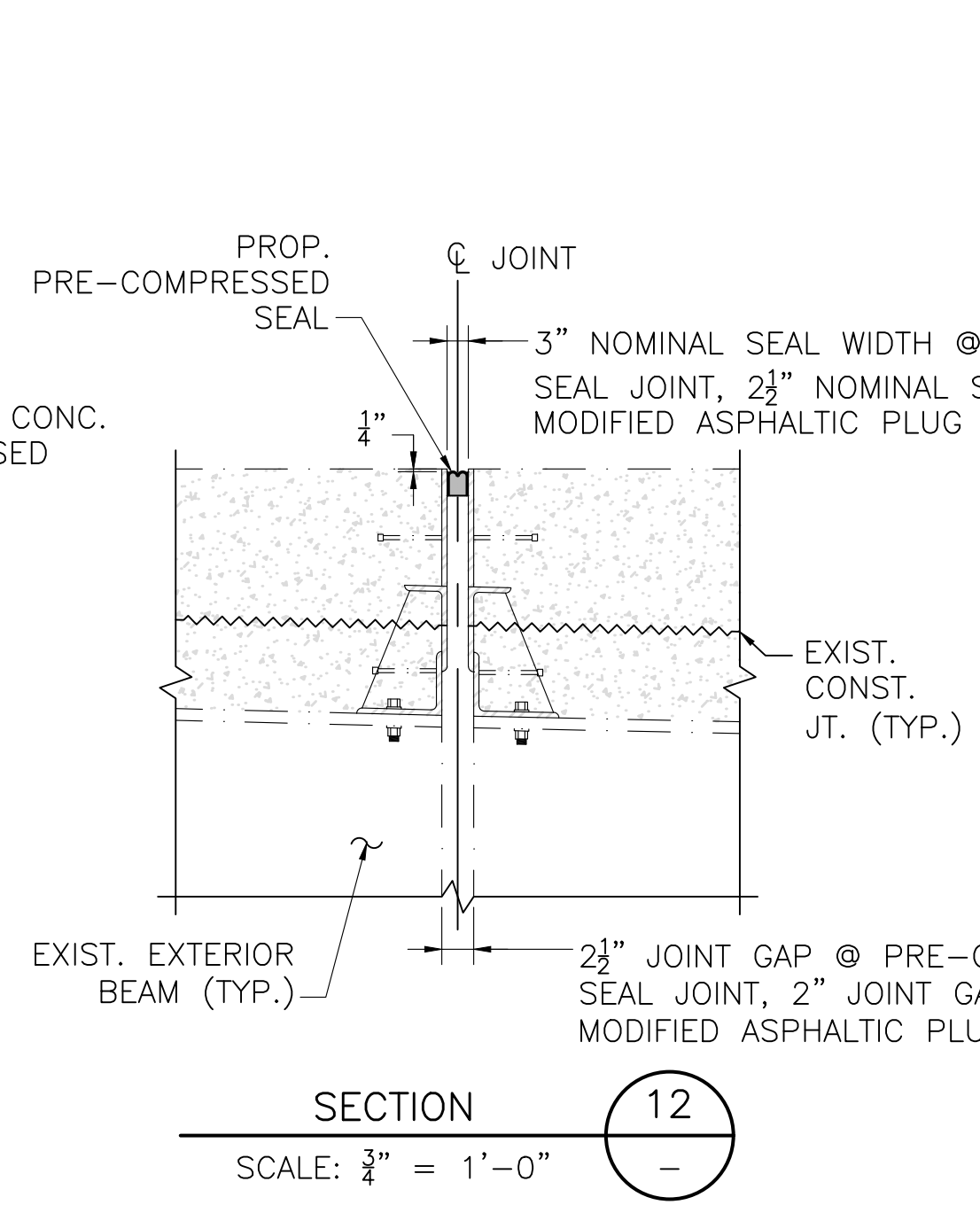
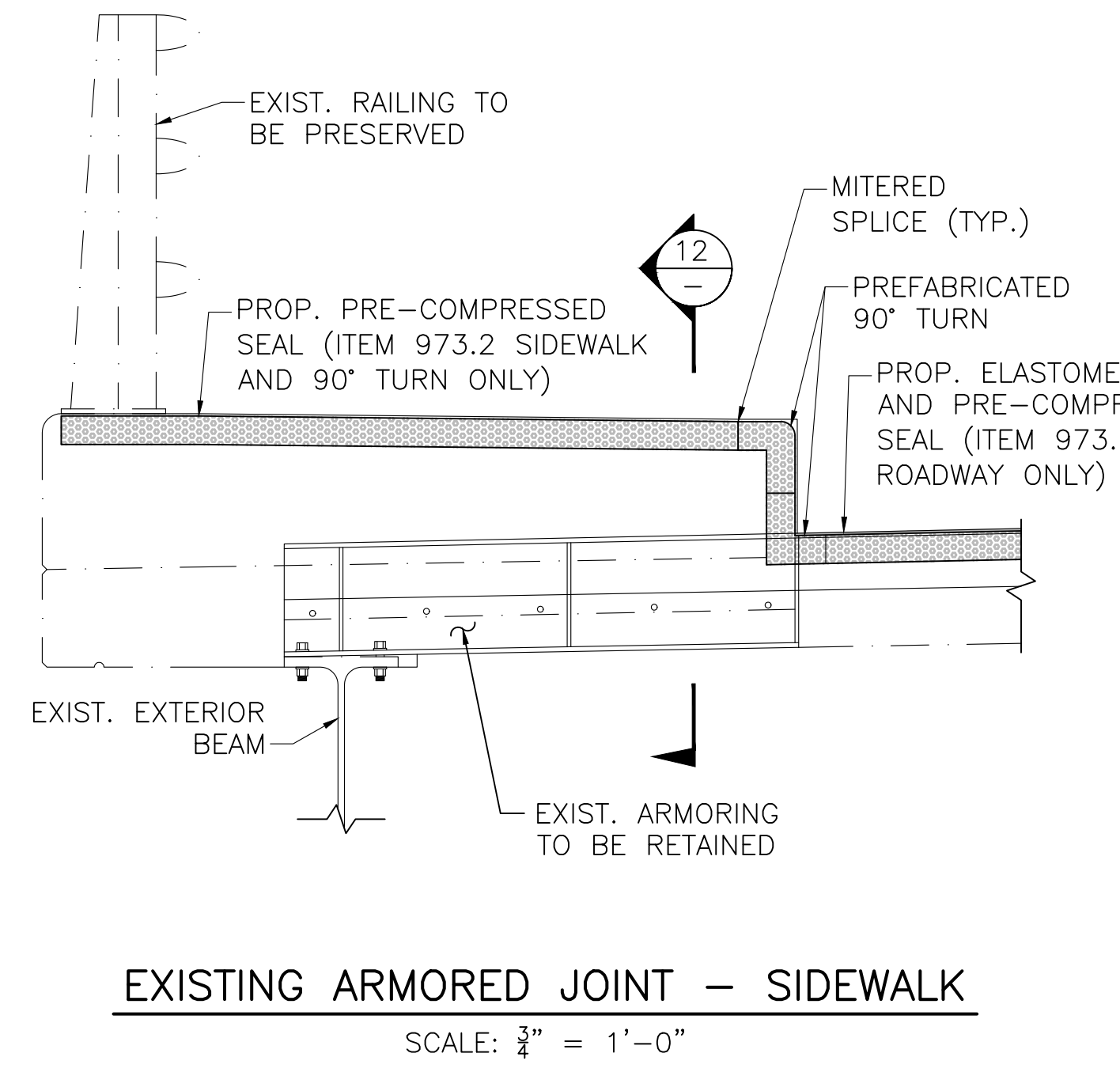
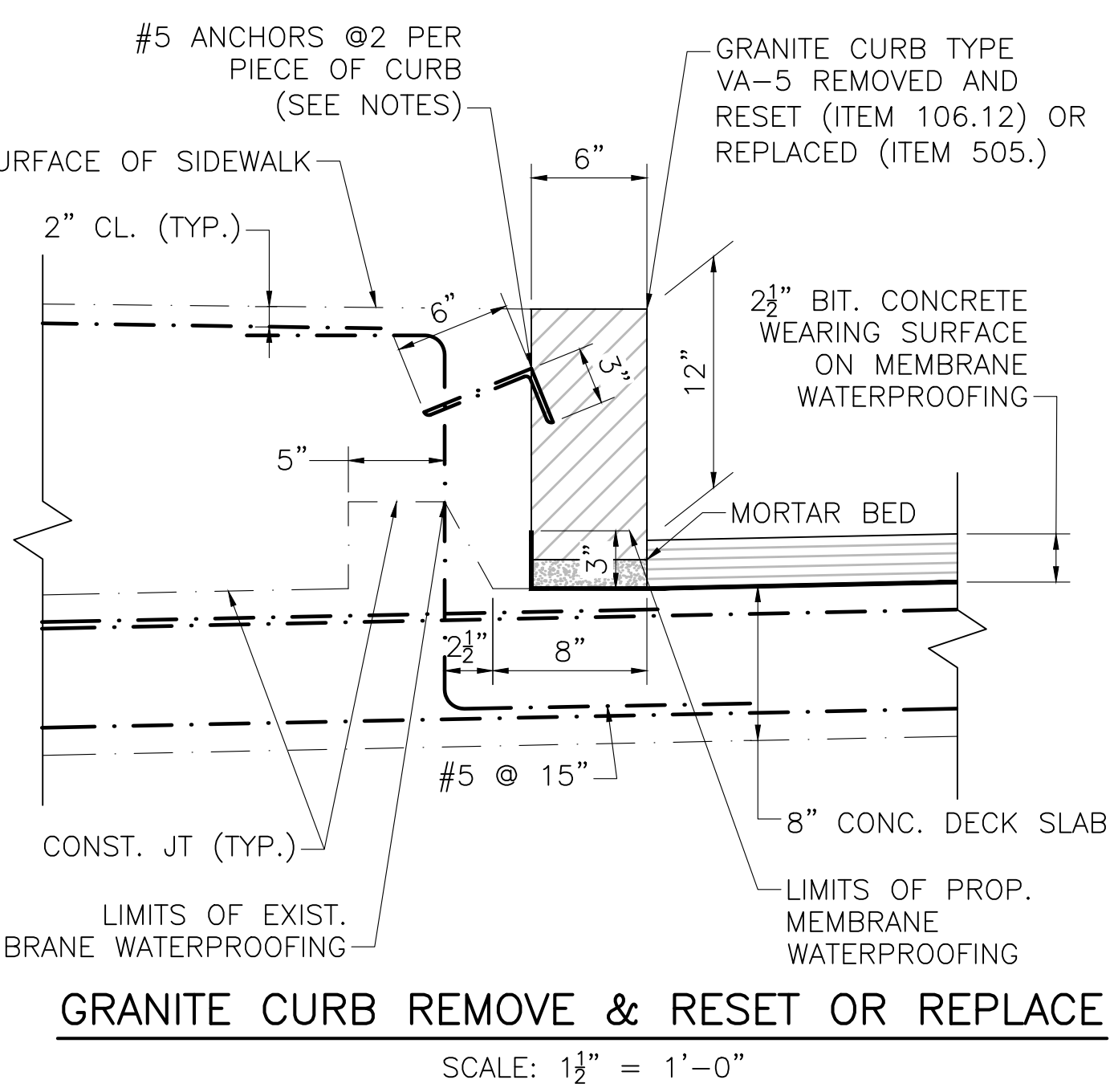
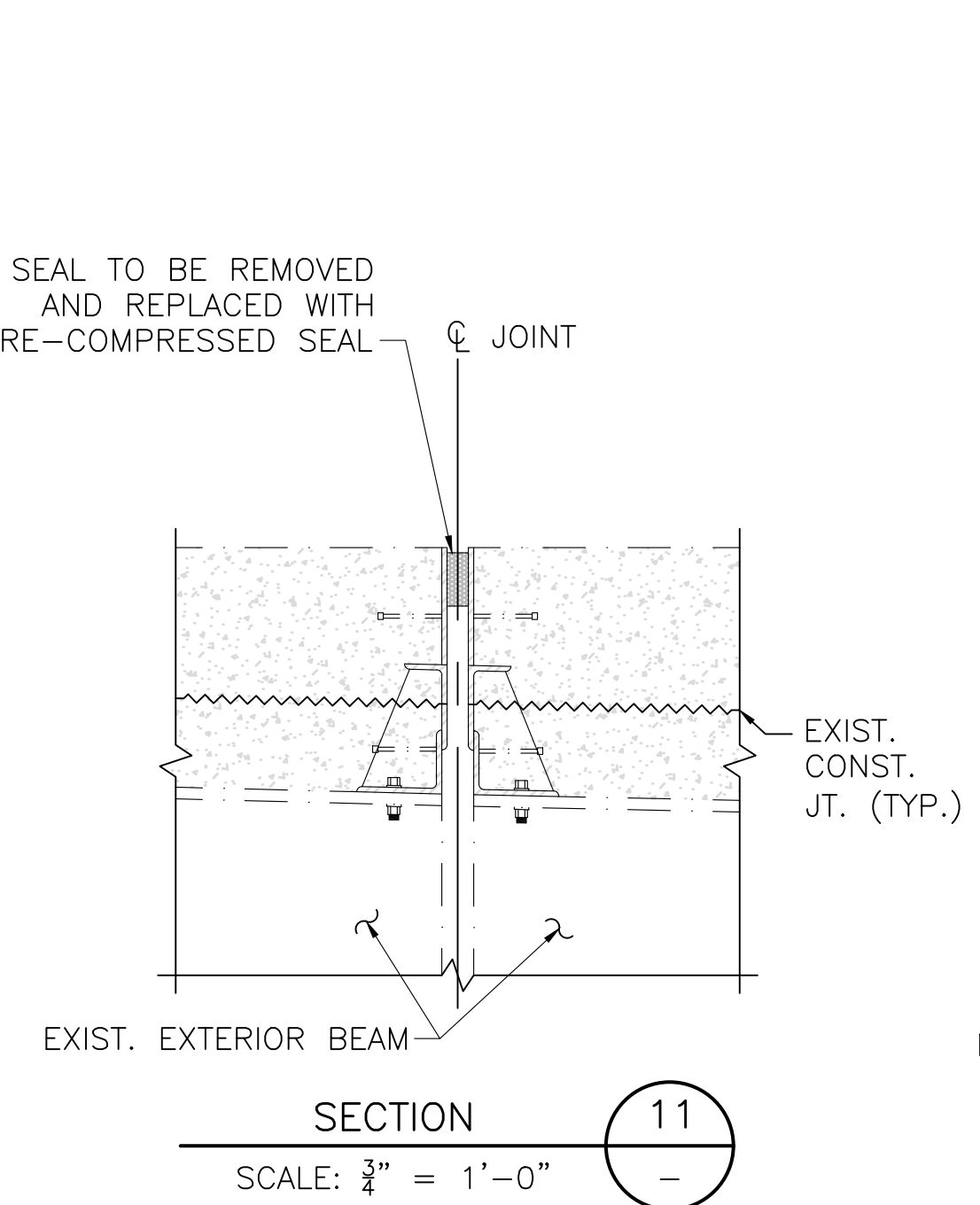
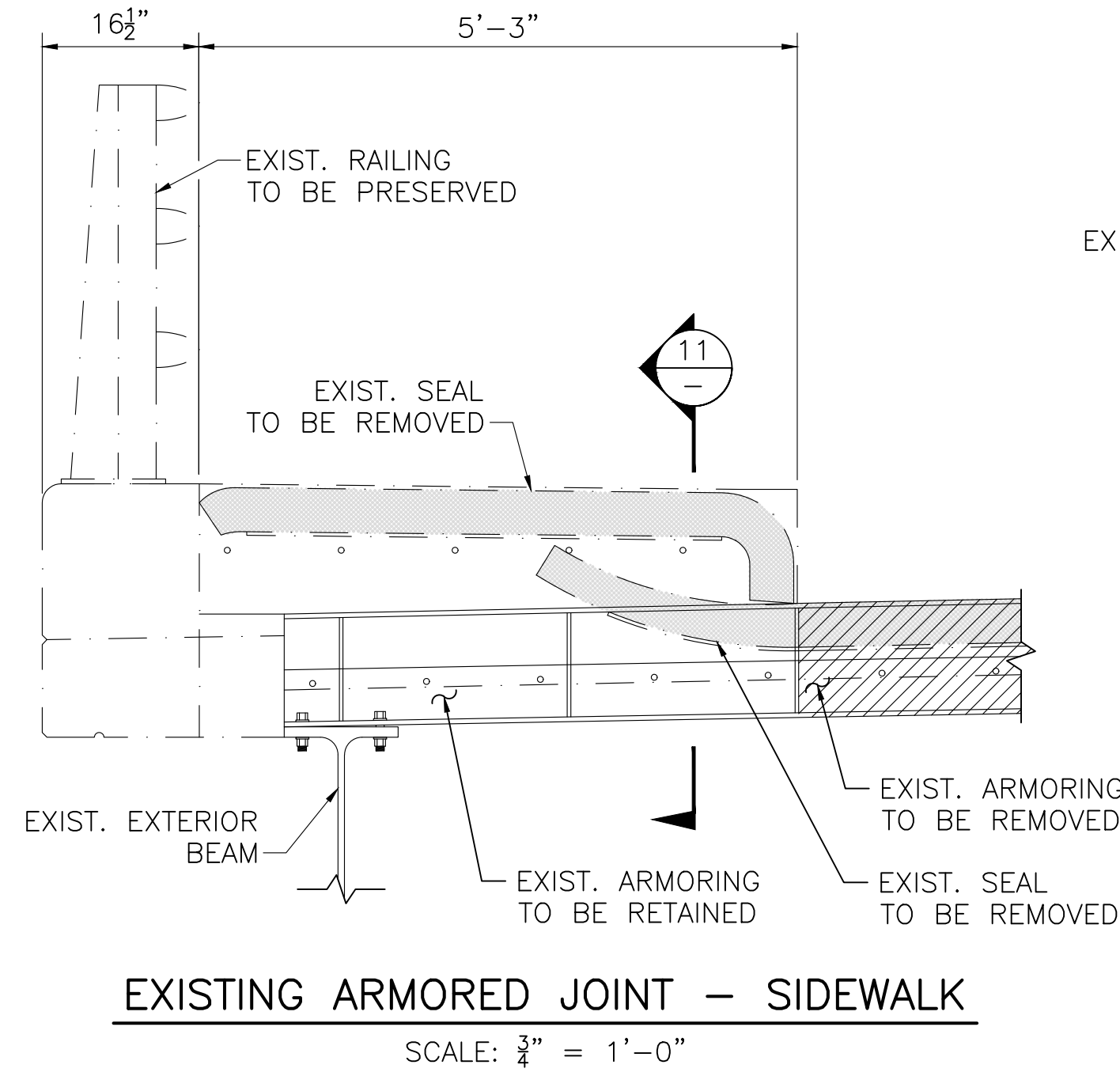
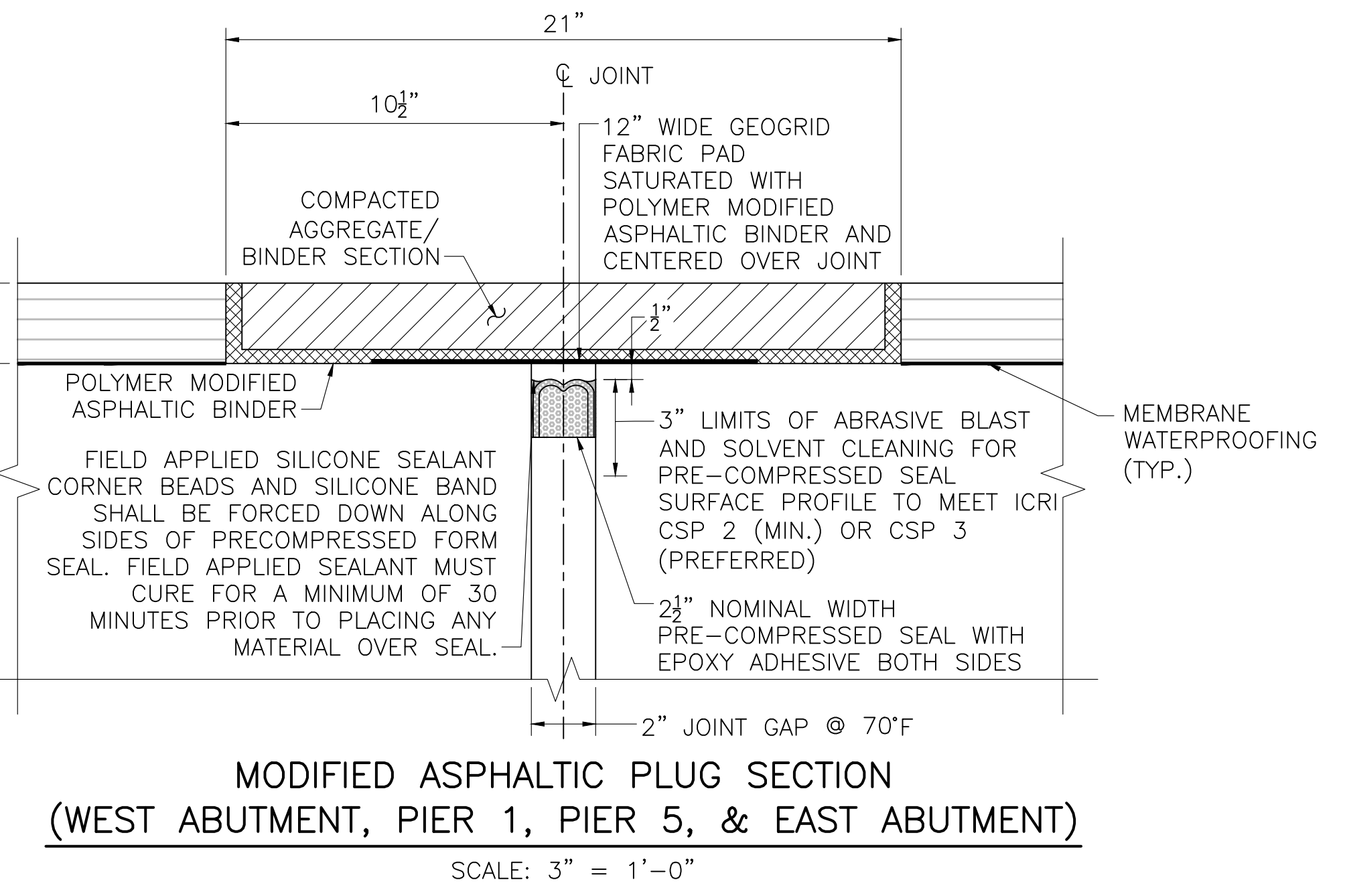
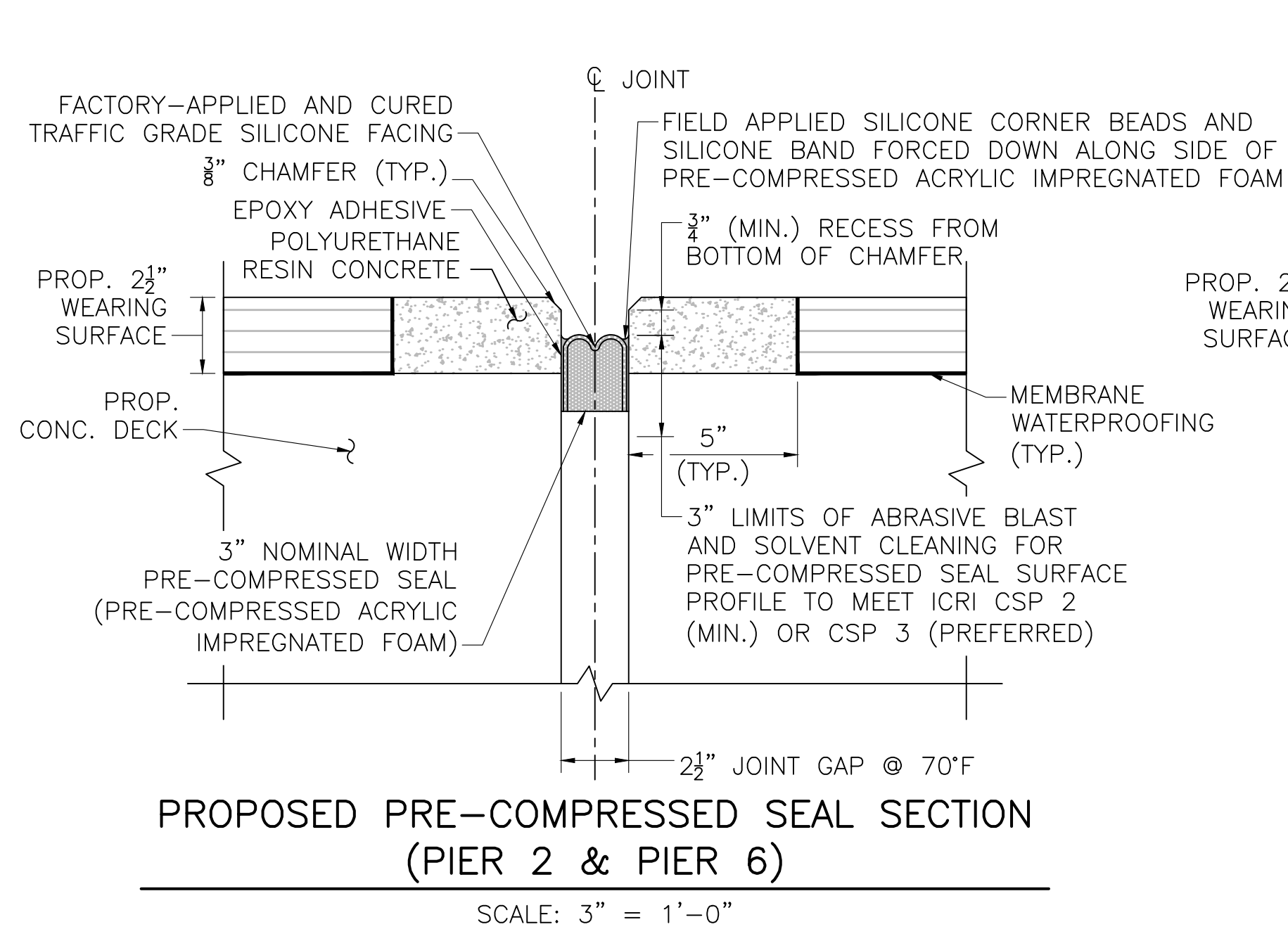
1. THE PRE-COMPRESSED SEAL JOINT SYSTEM SHALL BE THE BEJS SYSTEM MANUFACTURED BY EMSEAL JOINT SYSTEM, LTD., THE WABO FS BRIDGE SEAL BY WATSON BOWMAN ACME, THE SEALTITE 50N BY SCHUL INTERNATIONAL CO., OR AN APPROVED EQUIVALENT.
2. THE INSTALLATION AND SPLICING OF THE PRE-COMPRESSED SEAL SHALL FOLLOW THE MANUFACTURERS INSTRUCTIONS.
3. THE JOINT SYSTEM INSTALLATION SHALL TAKE PLACE AFTER THE DECK REPAIR MATERIAL ADJACENT TO THE JOINT OPENING HAS SUFFICIENTLY CURED.
4. THE JOINT OPENING SHALL BE FREE OF ALL CONTAMINANTS SUCH AS GREASE, DUST, AND DIRT. PRIOR TO JOINT SYSTEM INSTALLATION, THE JOINT WALLS AND THE STEEL ARMORING IN THE SIDEWALK SHALL BE BLOWN CLEAN WITH OIL-FREE COMPRESSED AIR AND WIPED CLEAN WITH A CLEAN WET CLOTH TO THE BOTTOM OF THE PRE-COMPRESSED SEAL MATERIAL PLUS 1" TO REMOVE ANY DUST REMAINING. THE SUBSTRATE PREP SHALL FOLLOW THE ICRI CONCRETE SURFACE PROFILE STANDARDS TO ACHIEVE A SURFACE PROFILE OF CSP 2 (MIN.) OR 3 (PREFERRED) IN ORDER TO ACCEPT THE JOINT SYSTEM. STEEL ARMORING AT THE SIDEWALKS SHALL BE ABRASIVE BLAST CLEANED TO MEET THE REQUIREMENTS OF SSPC-SP 10 "NEAR WHITE METAL".
5. THE PRE-COMPRESSED SEAL JOINT SYSTEM SHALL BE CONTINUOUS THROUGH SIDEWALKS, CURBS, AND PARAPETS AS APPROPRIATE TO THE CONDITIONS AT HAND. CONTINUITY OF SEAL SHALL BE ACHIEVED THROUGH THE USE OF FACTORY-FABRICATED UNIVERSAL OR CUSTOM TRANSITIONS SUPPLIED BY THE PRE-COMPRESSED JOINT SEAL MANUFACTURER. THE FIELD SPLICE OF THE PRE-COMPRESSED SEAL SHALL BE DONE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
6. THE HEADER CONCRETE SHALL CONSIST OF POLYURETHANE RESIN AND AGGREGATE THAT CONSISTS OF SAND AND CHOPPED FIBERGLASS. THE RATIO OF AGGREGATE TO RESIN BY WEIGHT SHALL NOT EXCEED 2. SEE SPECIAL PROVISIONS.
7. THE HEADER CONCRETE SHALL BE SUFFICIENTLY CURED SO THAT VEHICULAR TRAFFIC MAY BE APPLIED IN NO MORE THAN 2 HOURS AFTER MIXING AND PLACEMENT.

MODIFIED ASPHALTIC BRIDGE JOINT COSTRUCTION SEQUENCE:

1. EXISTING JOINT REMOVAL AND ALL DECK REPAIRS/RECONSTRUCTION SHALL BE COMPLETED IN ADVANCE OF NEW JOINT INSTALLATION.
2. CENTER 19" WIDE STRIP OF ROOFING FELT OVER THE JOINT LOCATION.
3. SPRAY WATERPROOFING MEMBRANE AND PLACE HMA WEARING SURFACE UNIFORMLY ACROSS THE DECK AND JOINT LOCATIONS.
4. SAWCUT AND REMOVE THE HMA WEARING SURFACE AND MEMBRANE WATERPROOFING TO THE LIMITS REQUIRED.
5. THE JOINT OPENING SHALL BE FREE OF ALL CONTAMINANTS SUCH AS GREASE, DUST, AND DIRT. PRIOR TO JOINT SYSTEM INSTALLATION, THE JOINT WALLS SHALL BE BLOWN CLEAN WITH OIL-FREE COMPRESSED AIR AND WIPED CLEAN WITH A CLEAN WET CLOTH TO THE BOTTOM OF THE PRE-COMPRESSED SEAL MATERIAL PLUS 1" TO REMOVE ANY DUST REMAINING. THE SUBSTRATE PREP SHALL FOLLOW THE ICRI CONCRETE SURFACE PROFILE STANDARDS TO ACHIEVE A SURFACE PROFILE OF CSP 2 (MIN.) OR 3 (PREFERRED) IN ORDER TO ACCEPT THE JOINT SYSTEM.
6. INSTALL THE PRE-COMPRESSED SEAL JOINT SYSTEM PER THE MANUFACTURER'S RECOMMENDATIONS.
7. COAT THE SURFACES OF THE BLOCKOUT AND THE REMAINING JOINT OPENING WITH THE POLYMER MODIFIED ASPHALTIC BINDER.
8. CENTER THE 12" WIDE GEOGRID FABRIC PAD SATURATED WITH POLYMER MODIFIED ASPHALTIC BINDER AND PLACE IT OVER THE JOINT.
9. PLACE COMPACTED AGGREGATE/BINDER TO FILL ALL VOIDS AND OBTAIN A FINAL AND EVEN SURFACE WITH THE ADJACENT WEARING SURFACE.
10. IT IS NOT NECESSARY TO CONSTRUCT THE JOINT AT MEAN TEMPERATURE; HOWEVER, THE MANUFACTURER SHOULD BE CONSULTED FOR INSTALLATION GUIDELINES FOR EXTREMUM CLIMATE CONDITIONS.
11. THE PRE-COMPRESSED SEAL JOINT SYSTEM SHALL BE CONTINUOUS THROUGH THE SIDEWALKS AS APPROPRIATE TO THE CONDITIONS AT HAND. CONTINUITY OF THE SEAL SHALL BE ACHIEVED THROUGH THE USE OF FACTORY-FABRICATED UNIVERSAL OR CUSTOM TRANSITIONS SUPPLIED BY THE PRE-COMPRESSED JOINT SEAL MANUFACTURER. THE FIELD SPLICE OF THE PRE-COMPRESSED SEAL SHALL BE DONE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

GRANITE CURB REMOVAL AND INSTALLATION NOTE:

1. ANCHORS DRILLED AND GROUTED SHALL BE INCIDENTAL TO THE BRIDGE CURB REMOVE AND RESET (ITEM 106.12) OR GRANITE CURB REPLACEMENT (ITEM 505.).
2. CARE SHOULD BE TAKEN TO MAINTAIN THE INTEGRITY OF THE SIDEWALK. EXISTING #5 ANCHORS TO BE CUT AT THE FACE OF SIDEWALK. PROPOSED #5 ANCHORS TO BE INSTALLED IN SUCH A WAY THAT THEY DON'T INTERFERE WITH THE EXISTING #5 ANCHORS.
3. LIMITS OF REMOVAL AND RESETTING OF CURB (ITEM 106.12) AND CURB REPLACEMENT (ITEM 505.) SHALL BE DETERMINED BY THE ENGINEER PRIOR TO COMMENCING WORK. THE CONTRACTOR WILL BE PAID FOR EITHER ITEM 106.12 OR ITEM 505. FOR EACH OF SECTION OF CURB. CURBS DAMAGED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.



APRIL 18, 2026	ISSUED FOR CONSTRUCTION
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AUTHORIZED SIGNATORY:	STATE BRIDGE ENGINEER
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612505_BR26-28(N14039).DWG Plotted on 12-Mar-2026 2:51 PM 13-MARCH-2026 FINAL STRUCTURAL SUBMITTAL (SF)

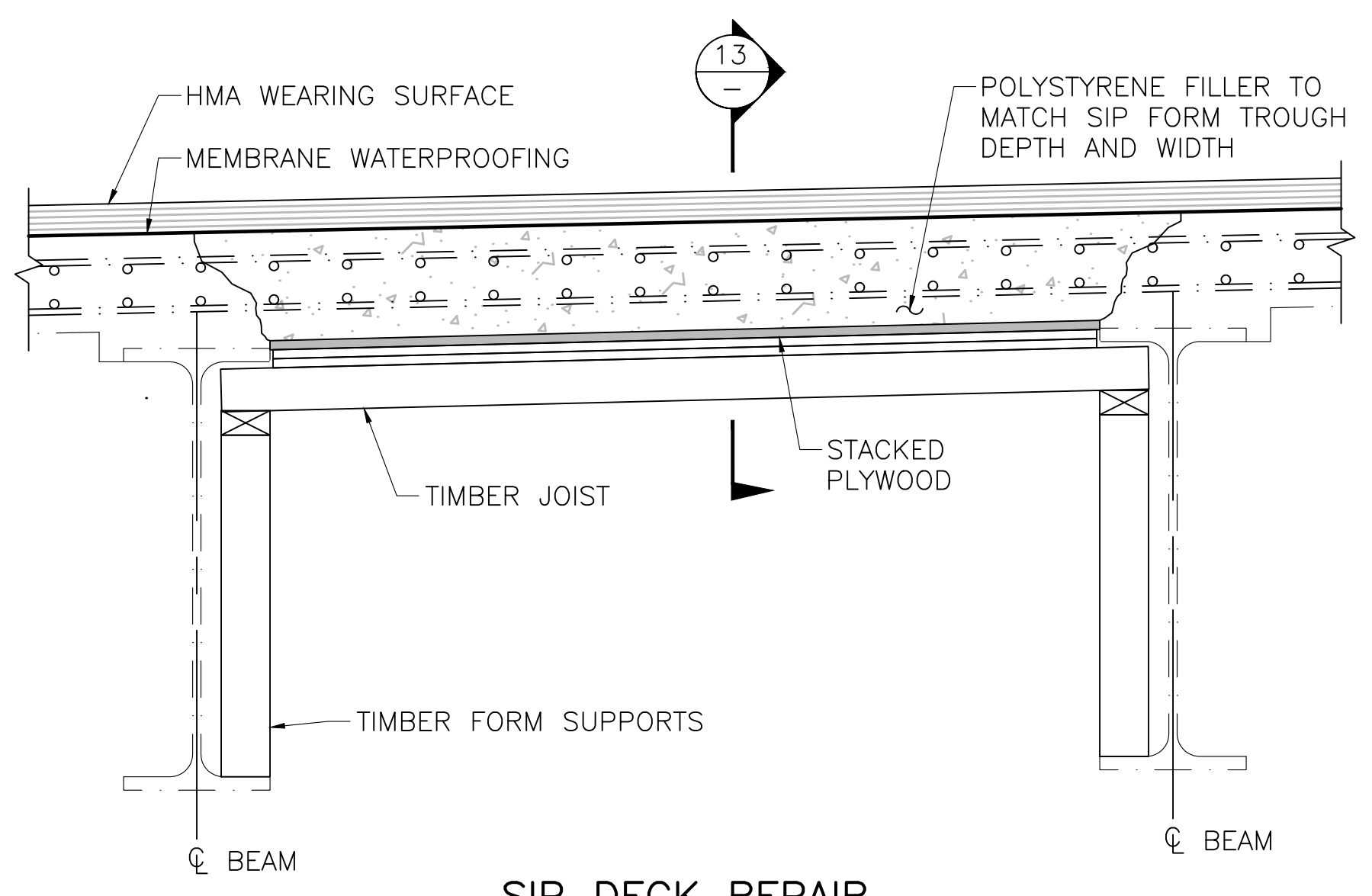
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(NGB)-003S(947)	48	49
PROJECT FILE NO.		612505	

SHIELDING DETAILS

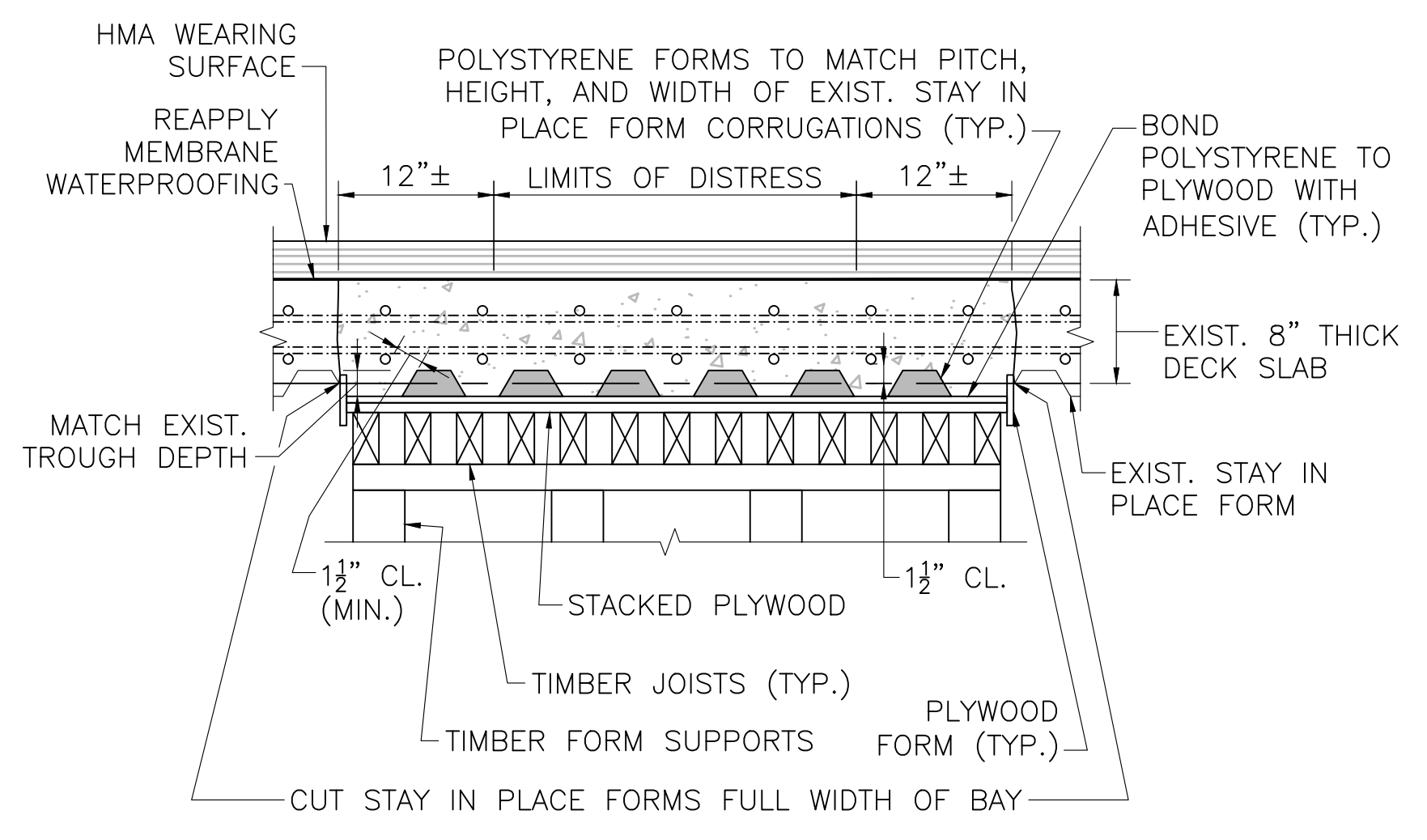
TIMBER SHIELDING NOTES:

1. MATERIAL FOR TIMBER SHIELDING SHALL BE EITHER DOUGLAS FIR NO. 2, HEM FIR NO. 2, OR SOUTHERN PINE NO. 2 OR BETTER.
2. LIMITS OF SHIELDING SHALL EXTEND A MINIMUM OF 5 FEET BEYOND THE EDGE OF THE ROADWAYS (INCLUDING THE SHOULDER).
3. SIZE OF TIMBER SHALL BE 3"x8" NOMINAL. ACTUAL DIMENSIONS 2½"x7½".
4. DEPTH OF DEBRIS BUILDUP SHALL NOT EXCEED 3".

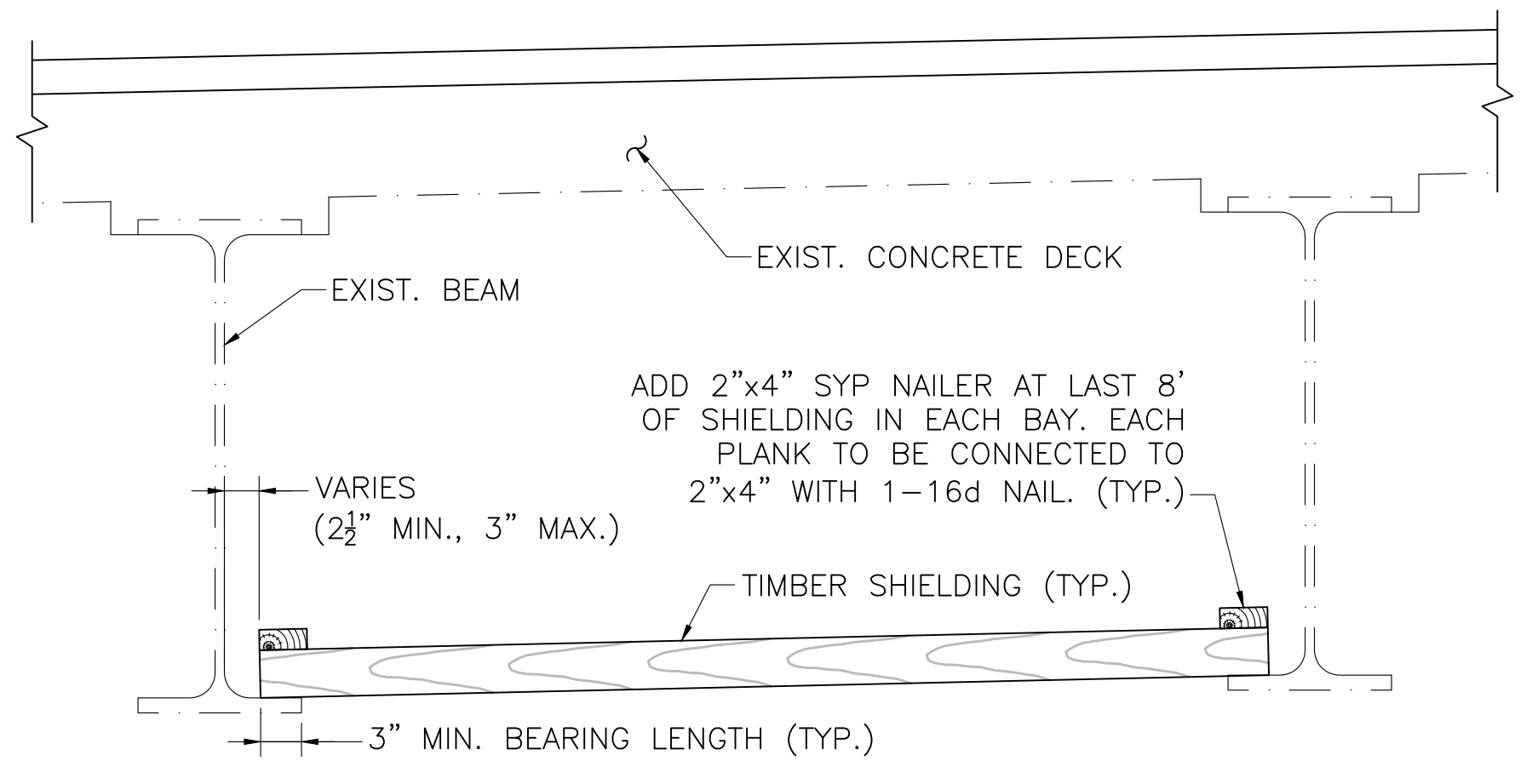
TIMBER SHIELDING DESIGN	
TIMBER MEMBERS (NOMINAL)	APPLICABLE FOR BEAM SPACING(S)
3x4 OR 3x8	S <= 6'-9"
4x4 OR 4x8	6'-9" <= S <= 14'



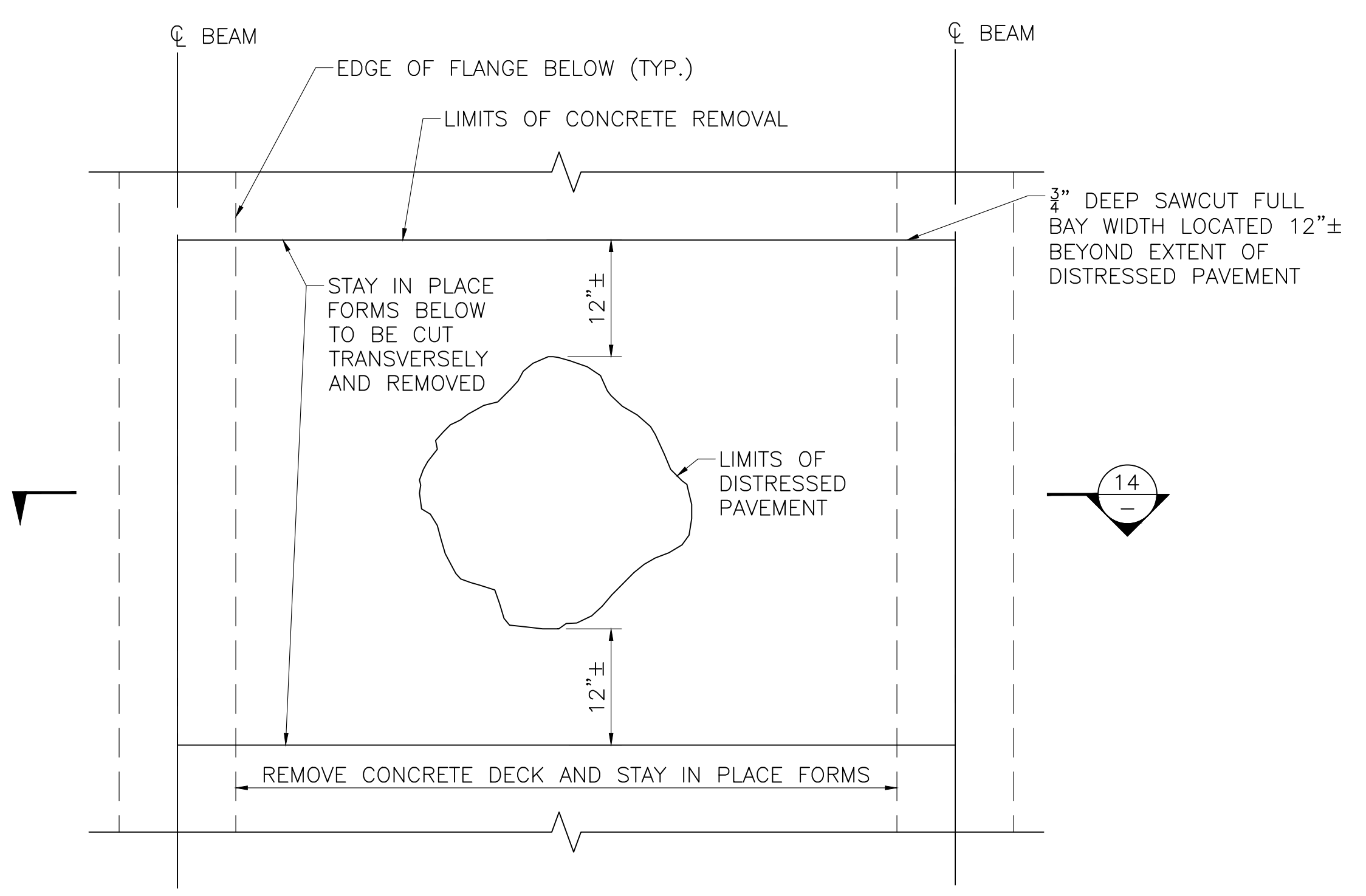
SIP DECK REPAIR
SCALE: 1" = 1'-0"



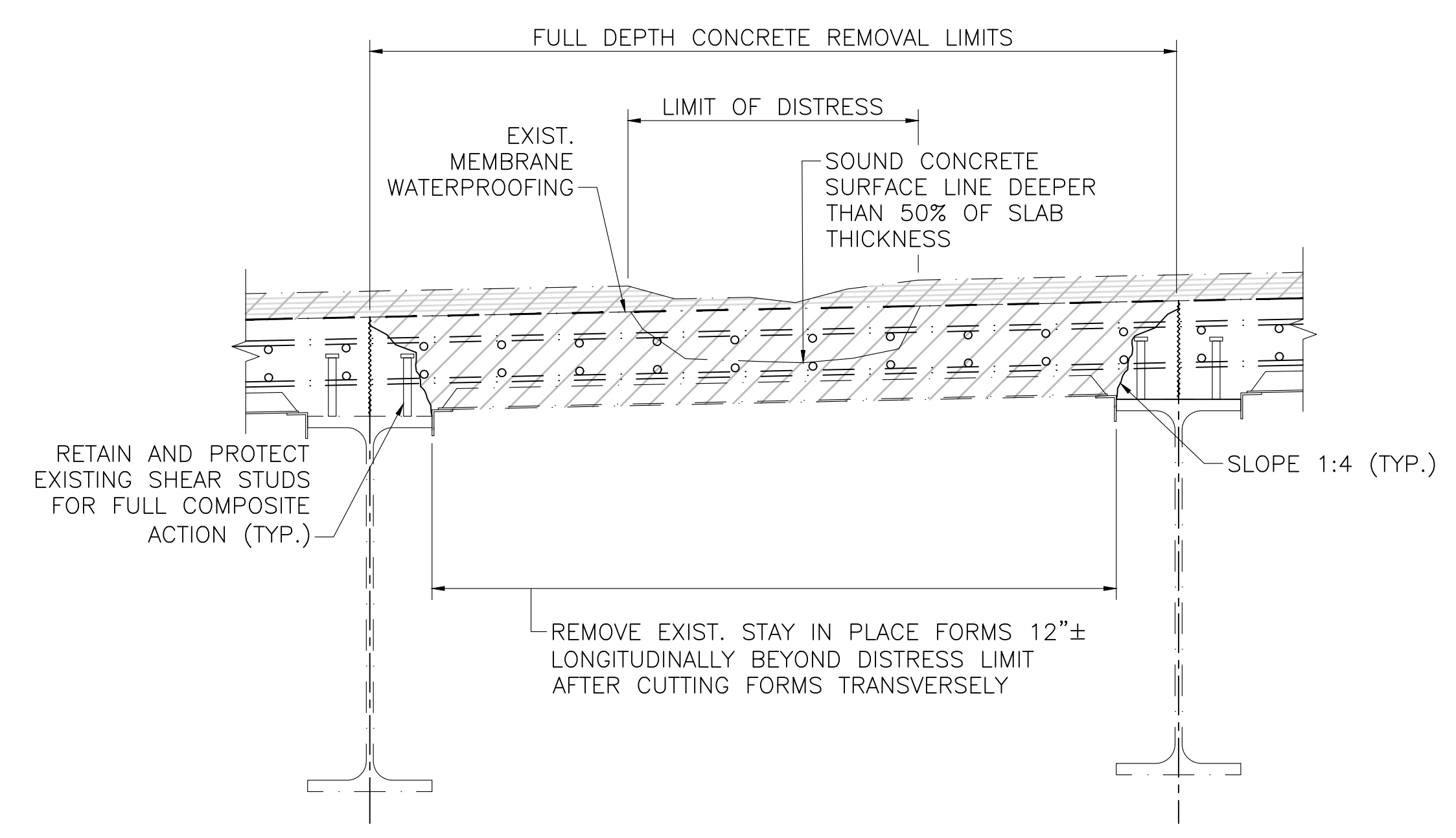
SECTION 13
SCALE: 1" = 1'-0"



TIMBER PLANK DECK SHIELDING SECTION
SCALE: 1" = 1'-0"



LIMITS OF SIP FORM AND DECK REMOVAL
SCALE: 1" = 1'-0"



SECTION 14
SCALE: 1" = 1'-0"

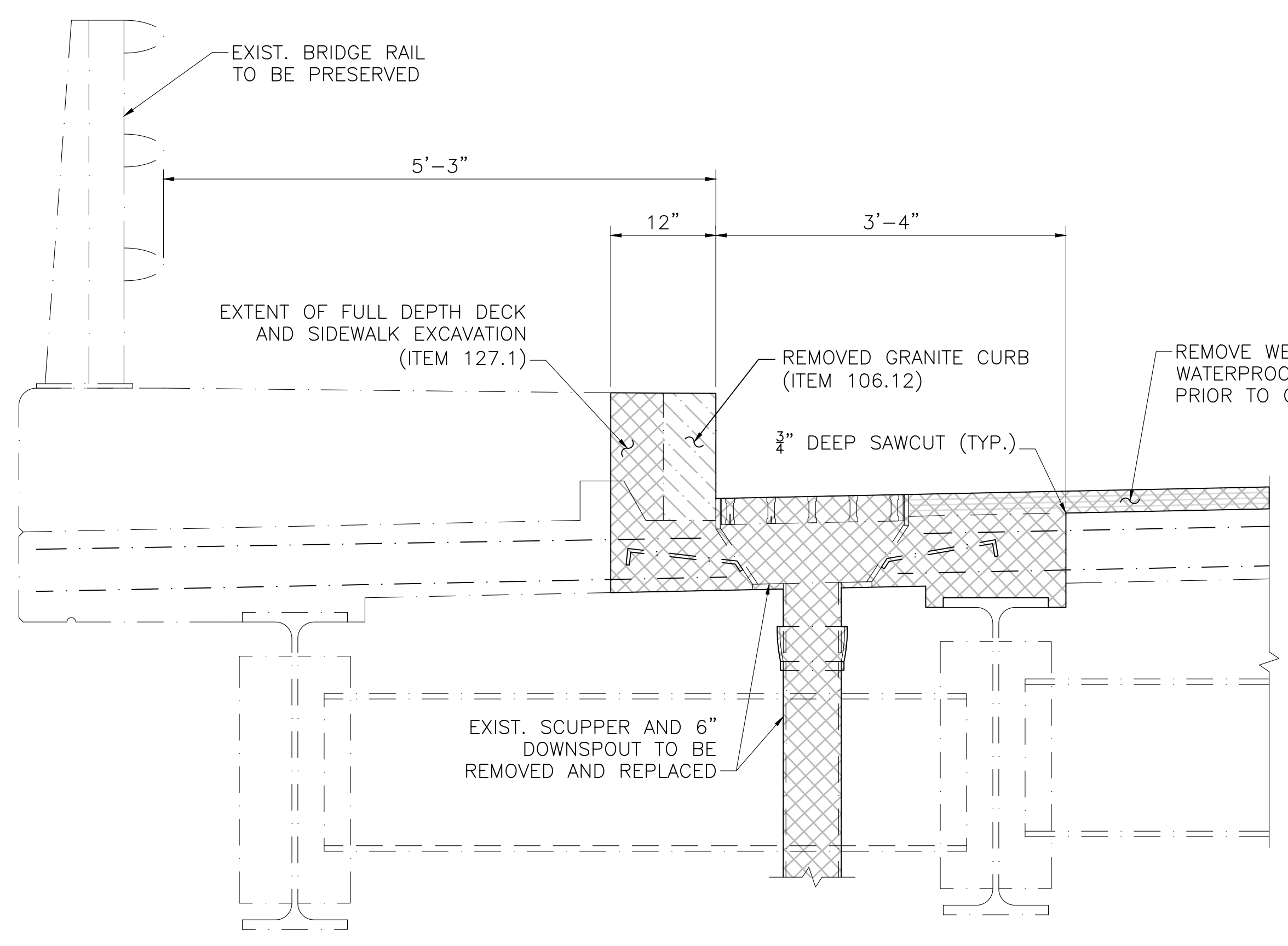
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**NORTH ADAMS
ST RTE 2 (VETERANS MEMORIAL DRIVE)**

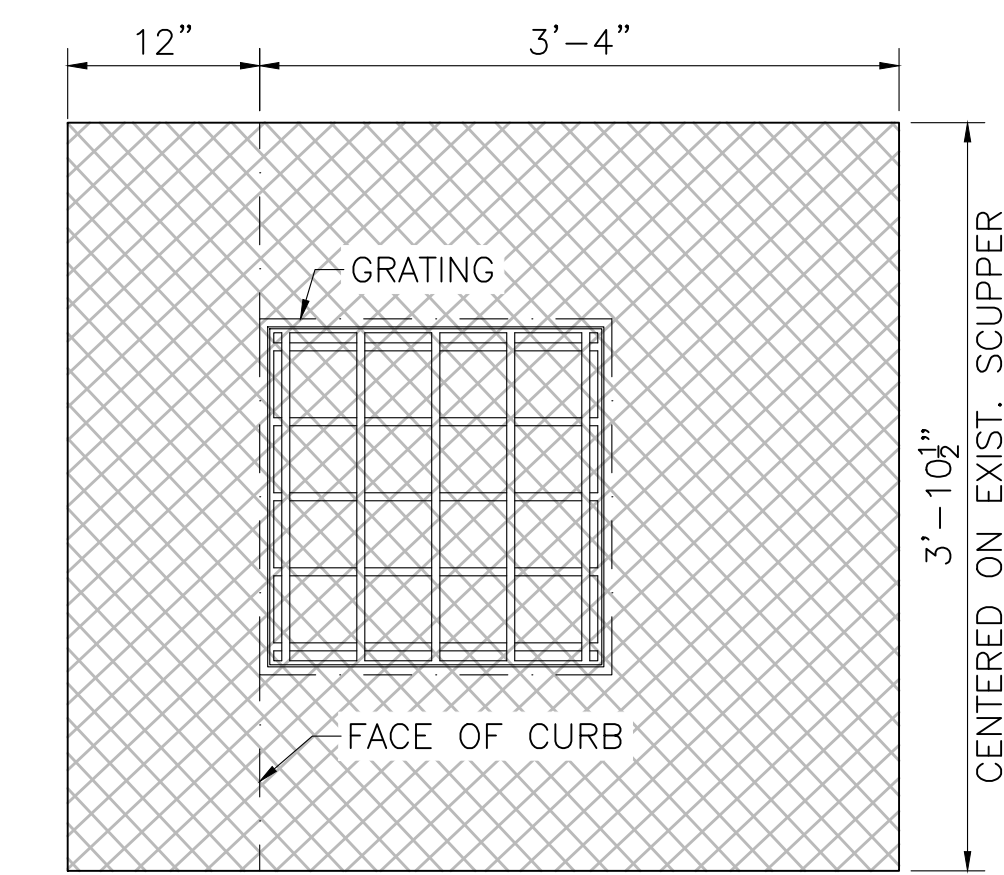
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	HIP(NGB)-003S(947)	49	49
PROJECT FILE NO.		612505	

DECK DRAIN & SCUPPER REPLACEMENT DETAILS

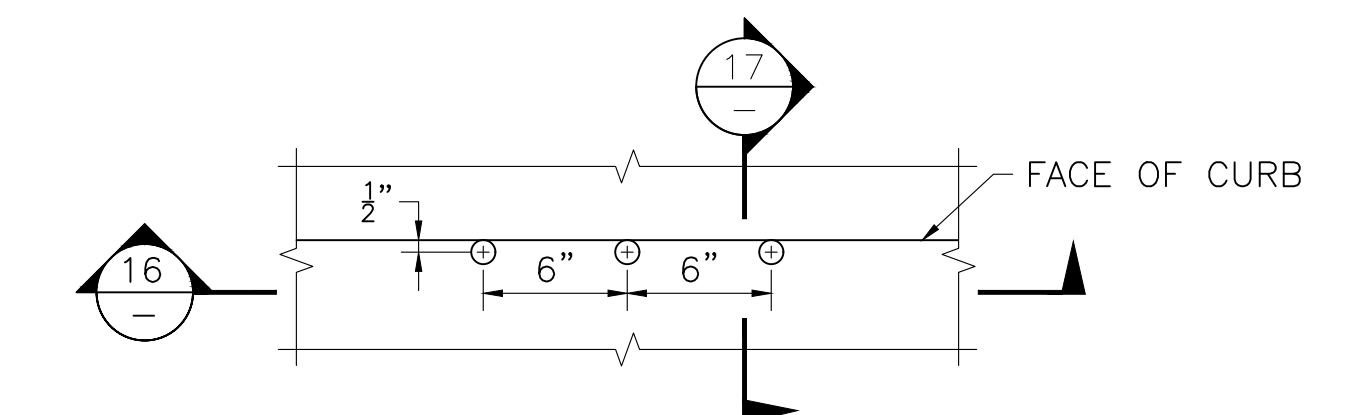
- SCUPPER REPLACEMENT NOTES:**
1. ALL STEEL PLATES SHALL BE AASHTO M270 GRADE 50 AND SQUARE TUBE SHALL BE ASTM A 500 GRADE A OR B.
 2. ALL WELDS SHALL BE CONTINUOUS. ALL JOINTS SHALL BE WELDED USING TWO-SIDED $\frac{1}{4}$ " FILLET WELDS OR $\frac{1}{4}$ " PJP WELDS WITH A BACKING SEAL WELD, AS APPLICABLE.
 3. ALL STEEL TO BE HOT-DIP GALVANIZED. 10" SQUARE TUBE TO BE GALVANIZED AND PAINTED TO MATCH COLOR OF THE STEEL GIRDERS.
 4. TEMPORARY SUPPORT IS REQUIRED. SUPPORT DESIGN SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.
 5. CONNECT DOWNSPOUTS TO PIER COLUMNS SIMILAR TO EXISTING.
 6. THE CONTRACTOR SHALL INSPECT AND CLEAN OUT, AS NEEDED, THE EXISTING DRAINAGE SYSTEM INTO WHICH THE DOWNSPOUTS ARE TO CONNECT.
- WEEP PIPES NOTES:**
1. WEEP PIPES SHALL BE LOCATED UP-SLOPE OF SCUPPERS AT ALL ROADWAY JOINTS AND/OR LOW POINTS OF VERTICAL CURVES TO MATCH EXISTING LOCATIONS.



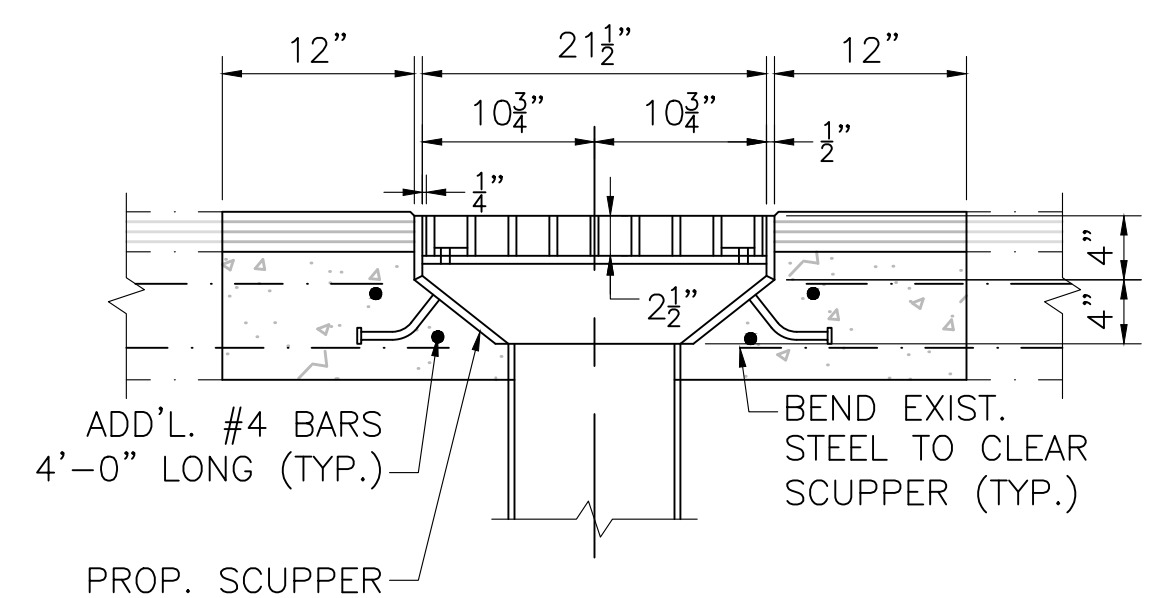
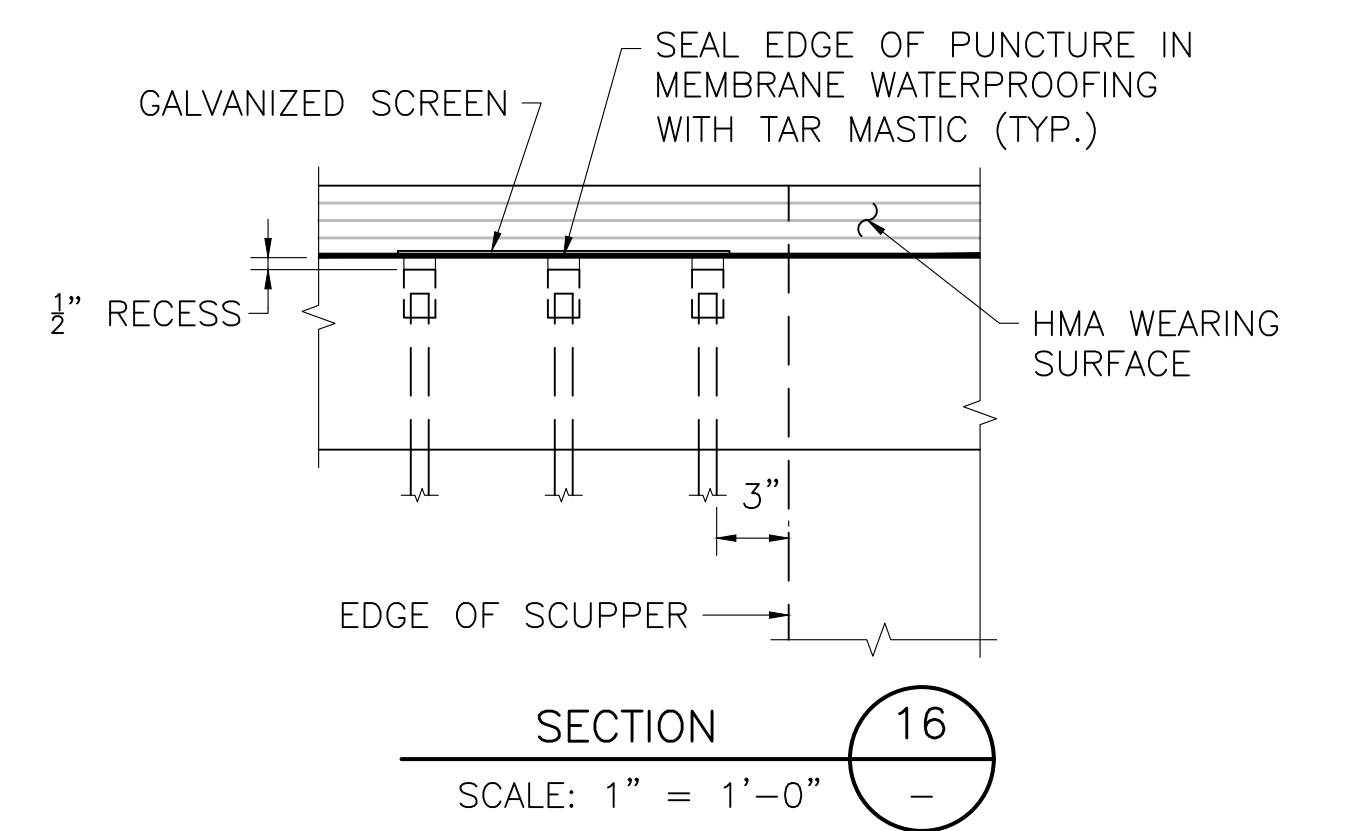
DECK EXCAVATION AT SCUPPER
SCALE: 1" = 1'-0"



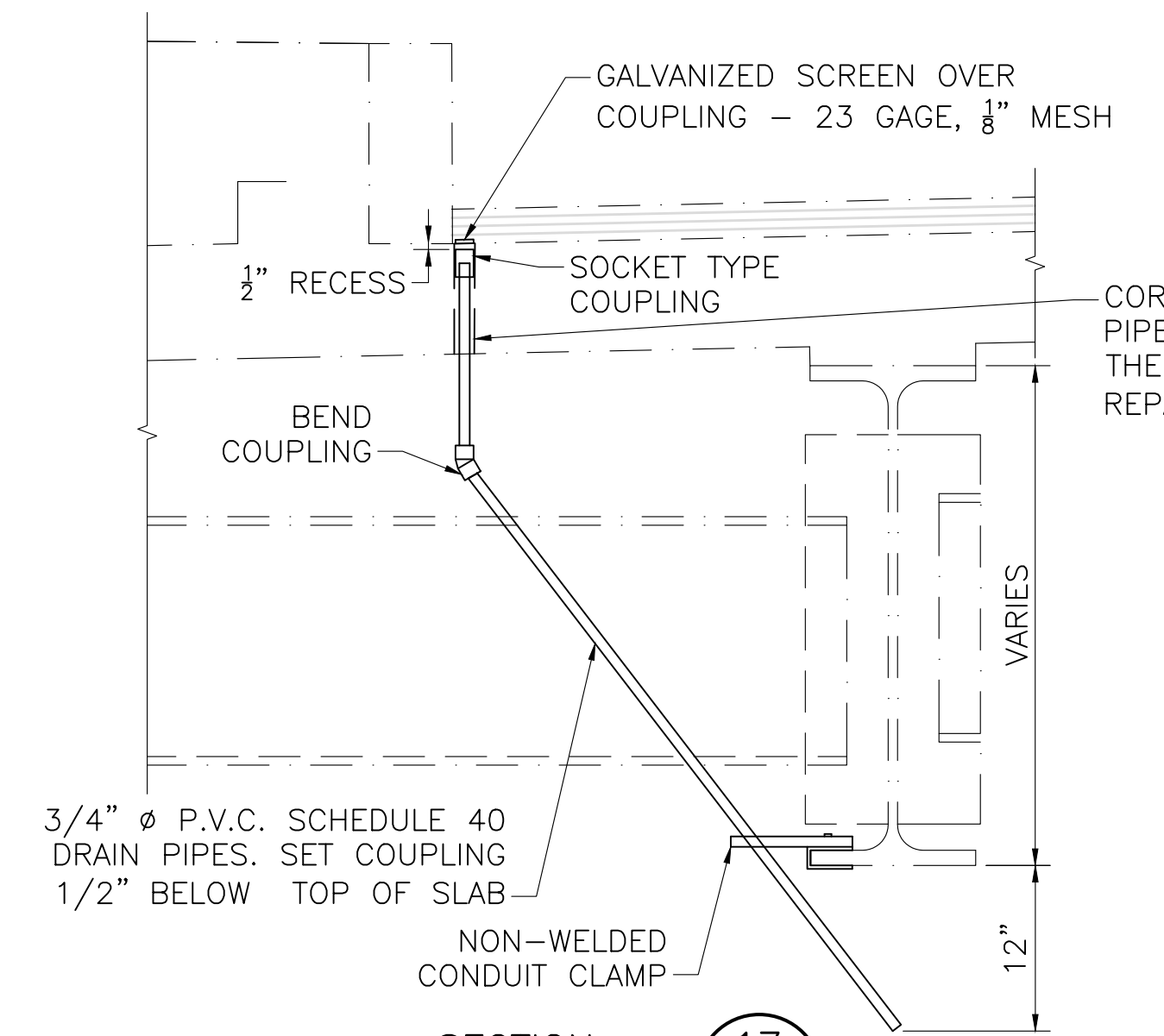
PLAN OF EXCAVATION LIMITS
SCALE: 1" = 1'-0"



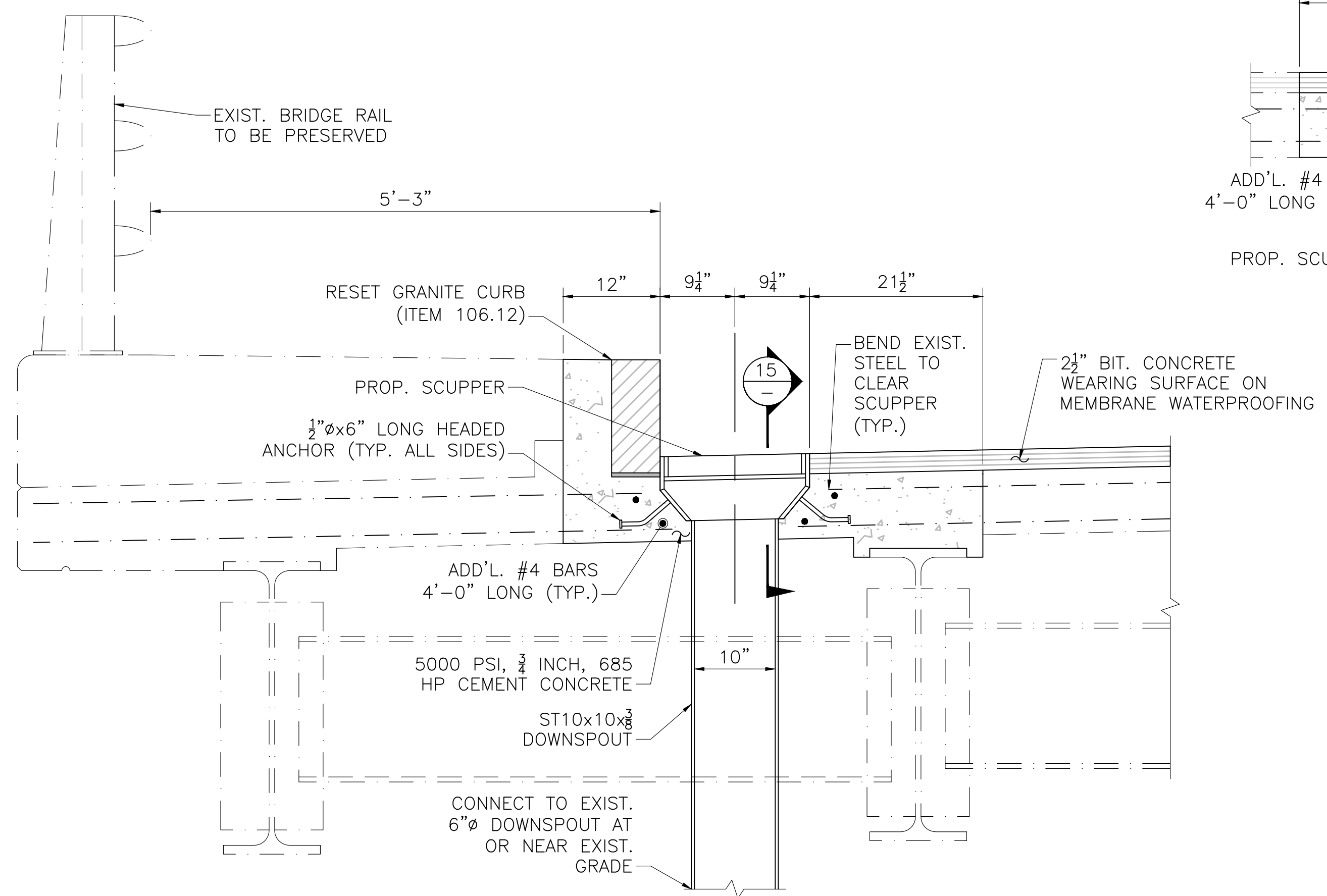
WEEP PIPES PLAN
SCALE: 1" = 1'-0"



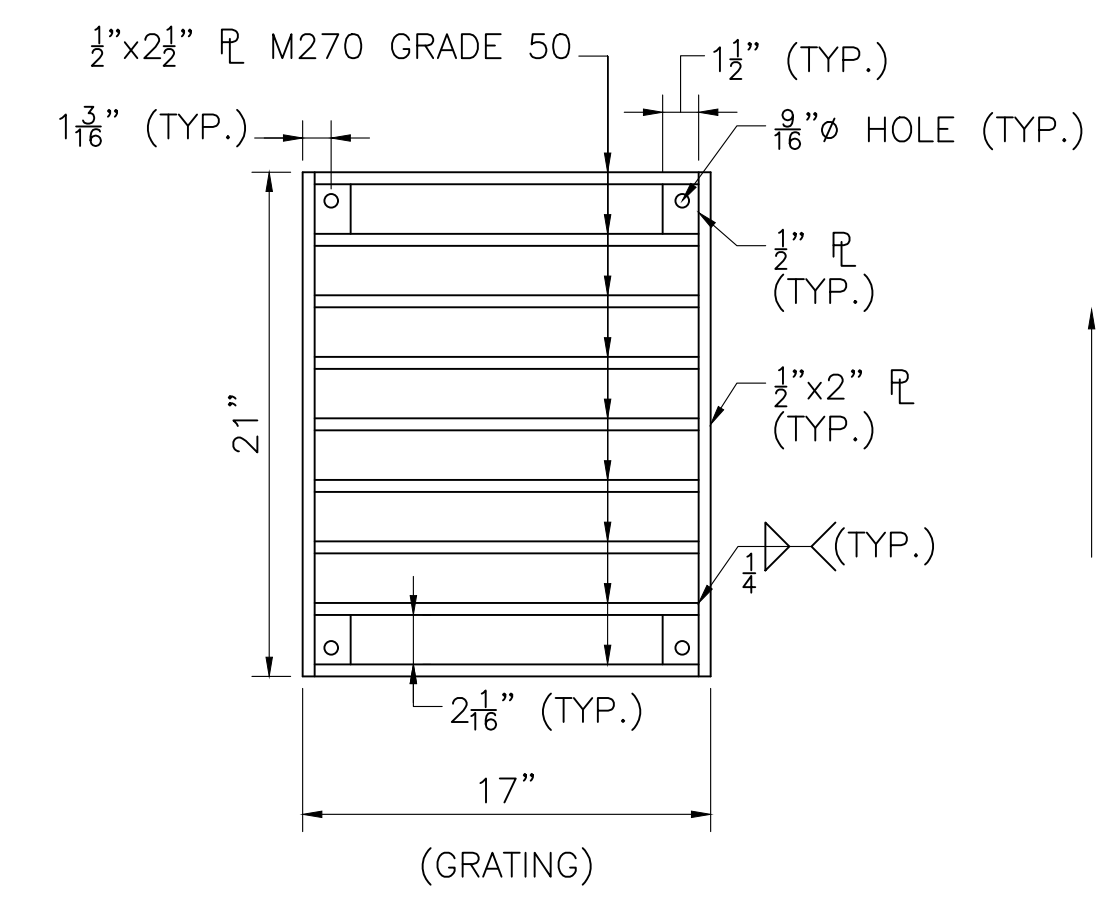
SECTION 15
SCALE: 1" = 1'-0"



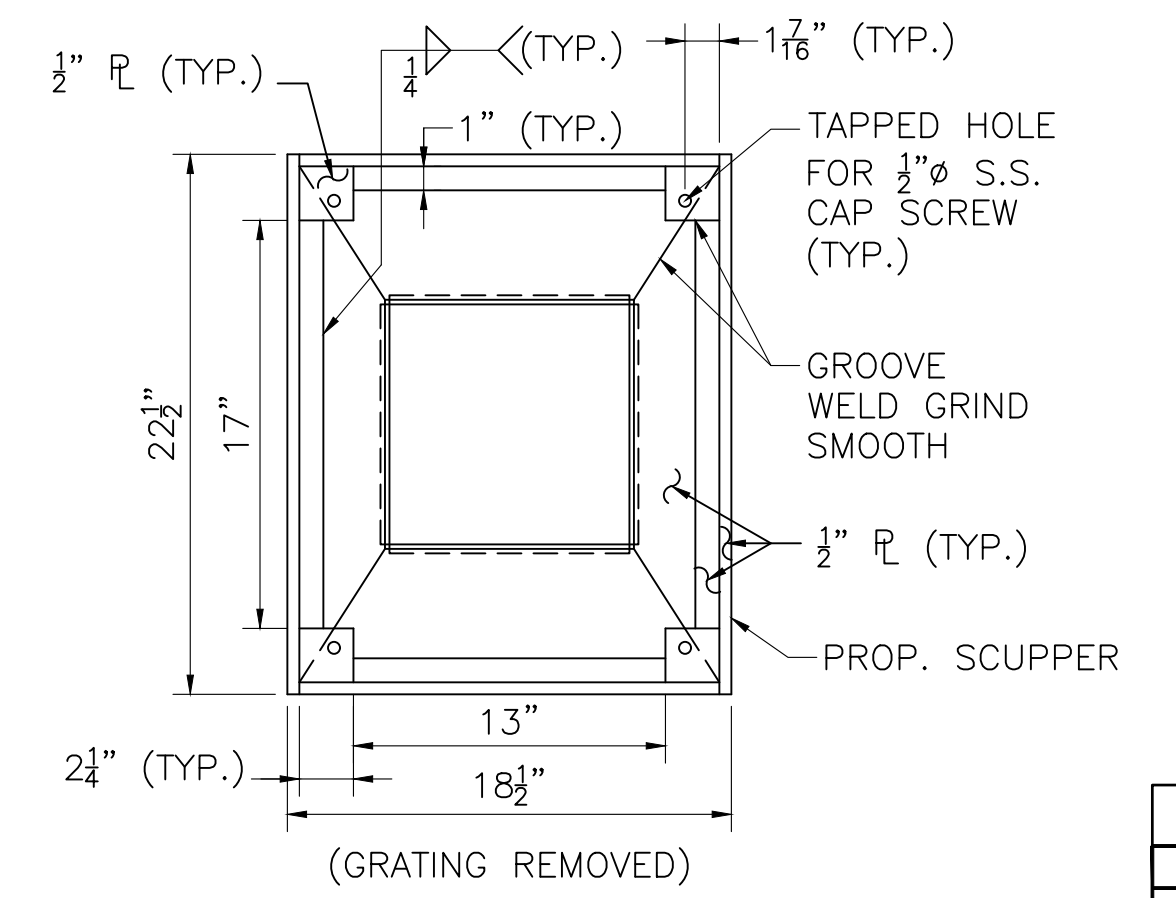
SECTION 17
SCALE: 1" = 1'-0"



PROPOSED DECK AT SCUPPER
SCALE: 1" = 1'-0"



PROPOSED GRATING DETAILS
SCALE: 1 1/2" = 1'-0"



(GRATING REMOVED)
SCALE: 1 1/2" = 1'-0"

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