

THE CITY OF MARQUETTE

BRIDGE MAINTENANCE

CO. RD 550 OVER THE DEAD RIVER

MQ24-103

STANDARDS:

EXCEPT WHERE OTHERWISE INDICATED ON THESE PLANS OR IN THE PROPOSAL AND SUPPLEMENTAL SPECIFICATIONS CONTAINED THEREIN, ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE MICHIGAN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION, 2012 VERSION, AND THE 2011 MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

DESIGN STANDARD

THE PROPOSED IMPROVEMENTS COVERED BY THESE PLANS ARE IN ACCORDANCE WITH THE AASHTO; A POLICY ON GEOMETRIC DESIGN OF ROADS AND STREETS, 2011.

MICHIGAN DEPARTMENT OF TRANSPORTATION STANDARD PLANS

WHERE THE FOLLOWING ITEMS ARE CALLED OUT ON THE PLANS, THEY ARE TO BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARD PLAN GIVEN BELOW OPPOSITE EACH ITEM UNLESS OTHERWISE INDICATED.

- R-1-G DRAINAGE STRUCTURES
- R-7-F COVER B
- R-8-D COVER C
- * R-15-G COVER K
- R-18-F COVER Q
- * R-28-J SIDEWALK RAMP AND DETECTABLE WARNING DETAILS
- R-29-I DRIVEWAY OPENINGS & APPROACHES, AND CONC. SIDEWALKS
- R-30-G CONCRETE CURB AND CONCRETE CURB & GUTTER
- R-83-C UTILITY TRENCHES
- R-96-E SOIL EROSION & SEDIMENTATION CONTROL MEASURES
- R-105-D GRADING CROSS-SECTIONS

TRAFFIC AND SAFETY STANDARD PLANS

- * WZD-100-A GROUND DRIVEN SIGN SUPPORTS FOR TEMP SIGNS
- * WZD-125-E TEMPORARY TRAFFIC CONTROL DEVICES
- 0-MT-ALL-NONFWY FULL SET OF NON-FREEWAY MAINTAIN. TRAFFIC TYP.
- * SPECIAL DETAIL

UTILITIES

FOR PROTECTION OF UNDERGROUND UTILITIES AND IN CONFORMANCE WITH PUBLIC ACT 53, THE CONTRACTOR SHALL CALL MISS DIG AT 1-800-482-7171 A MINIMUM OF THREE FULL WORKING DAYS, EXCLUDING SATURDAYS, SUNDAYS, AND HOLIDAYS PRIOR TO BEGINNING EACH EXCAVATION IN AREAS WHERE PUBLIC UTILITIES HAVE NOT BEEN PREVIOUSLY LOCATED.

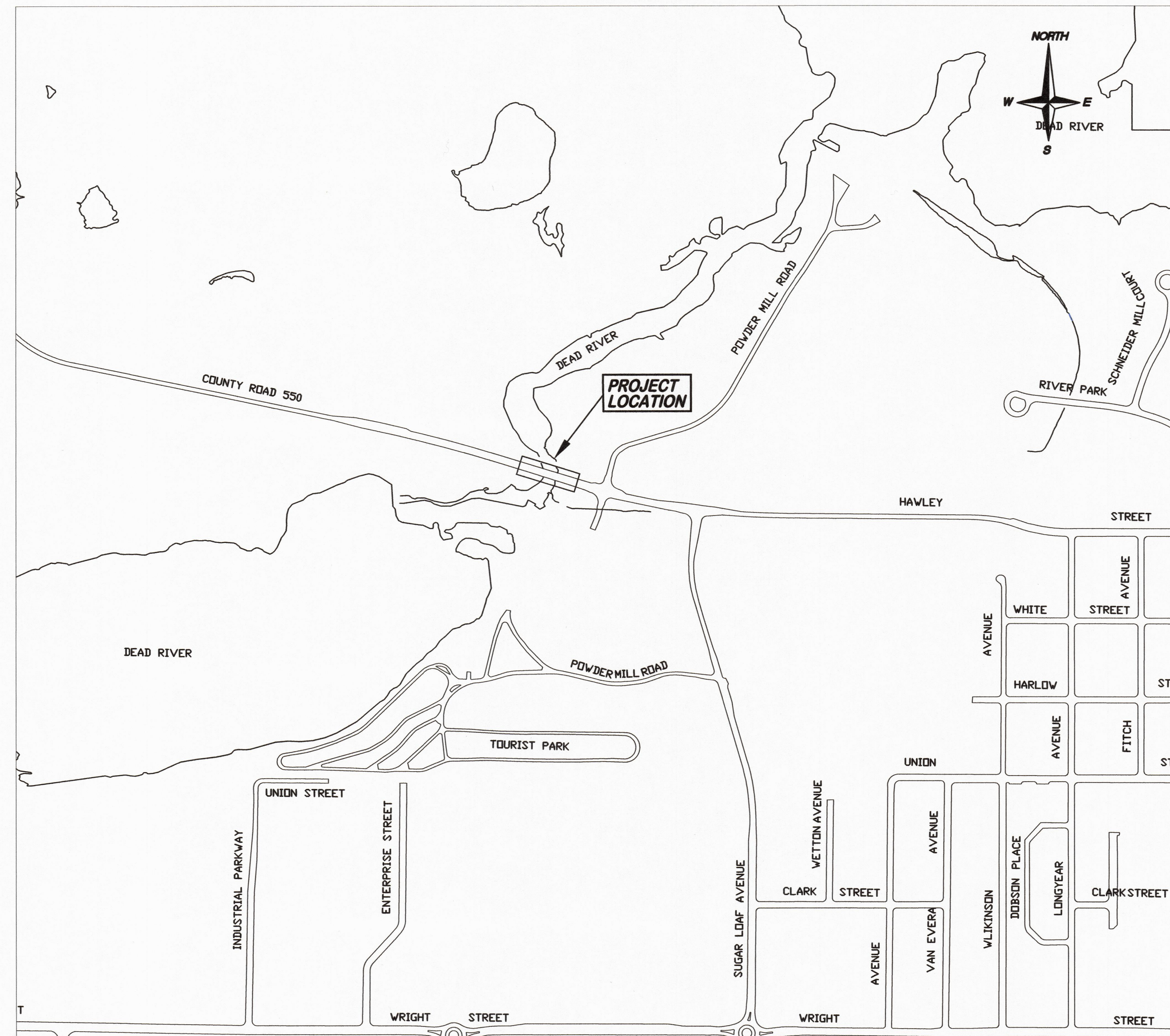
THE FOLLOWING UTILITIES ARE LOCATED IN OR NEAR THE RIGHT-OF-WAY FOR THIS PROJECT:

- SANITARY SEWER MAIN AND LATERALS
- WATERMAIN AND WATER SERVICES
- STORM SEWER MAIN
- GAS MAIN AND SERVICES
- UNDERGROUND TELEPHONE, ELECTRICAL, CABLE TV
- OVERHEAD TELEPHONE, ELECTRICAL, CABLE TV, AND FIBER OPTICS

LEGEND

— — — — — EXISTING STORM SEWER	— — — — — PROPOSED SANITARY SEWER
— — — — — EXISTING SANITARY SEWER	— — — — — PROPOSED WATER MAIN
— — — — — EXISTING WATER MAIN	— — — — — PROPOSED STORM SEWER
— GAS — GAS — GAS — EXISTING GAS MAIN/SERVICE	— — — — — RIGHT OF WAY
— UGT — UGT — UGT — EXISTING TELECOMMUNICATION CABLE	— — — — — PROPERTY LINE, APPROXIMATE
— UGE — UGE — UGE — EXISTING ELECTRIC CABLE	— — — — — EXISTING CABLE TV CABLE
☆ EXISTING LIGHT POLE	⊙ PROPOSED CATCH BASIN
⊙ EXISTING SANITARY/STORM SEWER MANHOLE	⊙ PROPOSED MANHOLE
☆ EXISTING POWER POLE	⊙ PROPOSED WATER VALVE
— — — — — GUY ANCHOR	⊙ PROPOSED FIRE HYDRANT
⊙ EXISTING CATCH BASIN	▭ PROPOSED 6" SIDEWALK
— — — — — EXISTING TRAFFIC SIGN	▭ PROPOSED 4" SIDEWALK
⊙ EXISTING WATER VALVE	▭ PROPOSED ADA RAMP (6")
⊙ EXISTING FIRE HYDRANT	▭ PROPOSED 4" STAMPED CONCRETE
⊙ SOIL BORING LOCATION AND NUMBER	▭ PROPOSED DETECTABLE SURFACE
⊙ EXISTING WATER SHUT OFF	▭ HMA, 1.5A OR LVSP
⊙ EXISTING CLEAN OUT	

LOCATION MAP



PUBLIC UTILITIES

MARQUETTE BOARD OF LIGHT AND POWER
2200 WRIGHT STREET
MARQUETTE, MICHIGAN 49855
PH. (906) 228-0300

SPECTRUM MID-AMERICA, LLC
359 US-41 EAST
NEGAUNEE, MICHIGAN 49866
PH. (906) 228-2900

MARQUETTE WATER AND SEWER DEPARTMENT
1100 WRIGHT STREET
MARQUETTE, MICHIGAN 49855
PH. (906) 228-0444

AT&T
3255 US-41 WEST
MARQUETTE, MICHIGAN 49855
PH. (906) 221-2121

SEMCO ENERGY
34 US-41 EAST
NEGAUNEE, MICHIGAN 49866
PH. (906) 475-9901

PENINSULA FIBER NETWORK
1901 WEST RIDGE STREET #2
MARQUETTE, MICHIGAN 49855
PH. (906) 226-7102

INDEX OF SHEETS

- 1 COVER SHEET
- 2 PROJECT PLAN
- 3 EXISTING AND PROPOSED DETAILS
- 4 TRAFFIC CONTROL AND BRIDGE PROFILE
- 5 SITE PHOTOS

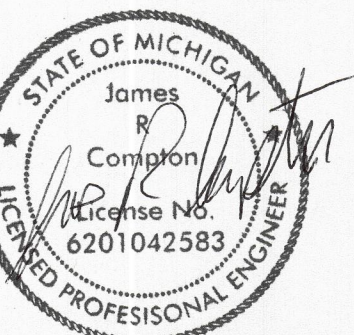
CONTRACT FOR:
550 BRIDGE PREVENTIVE MAINTENANCE

MUNICIPAL APPROVAL:

Karen Kovacs 5/15/2024
KAREN KOVACS, CITY MANAGER DATE

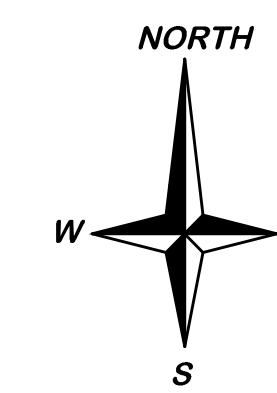
PREPARED UNDER THE SUPERVISION OF:

James R. Compton 5/15/24
JAMES R. COMPTON P.E./PROJECT ENGINEER DATE
P.E. NO. 6201042583



CITY OF MARQUETTE

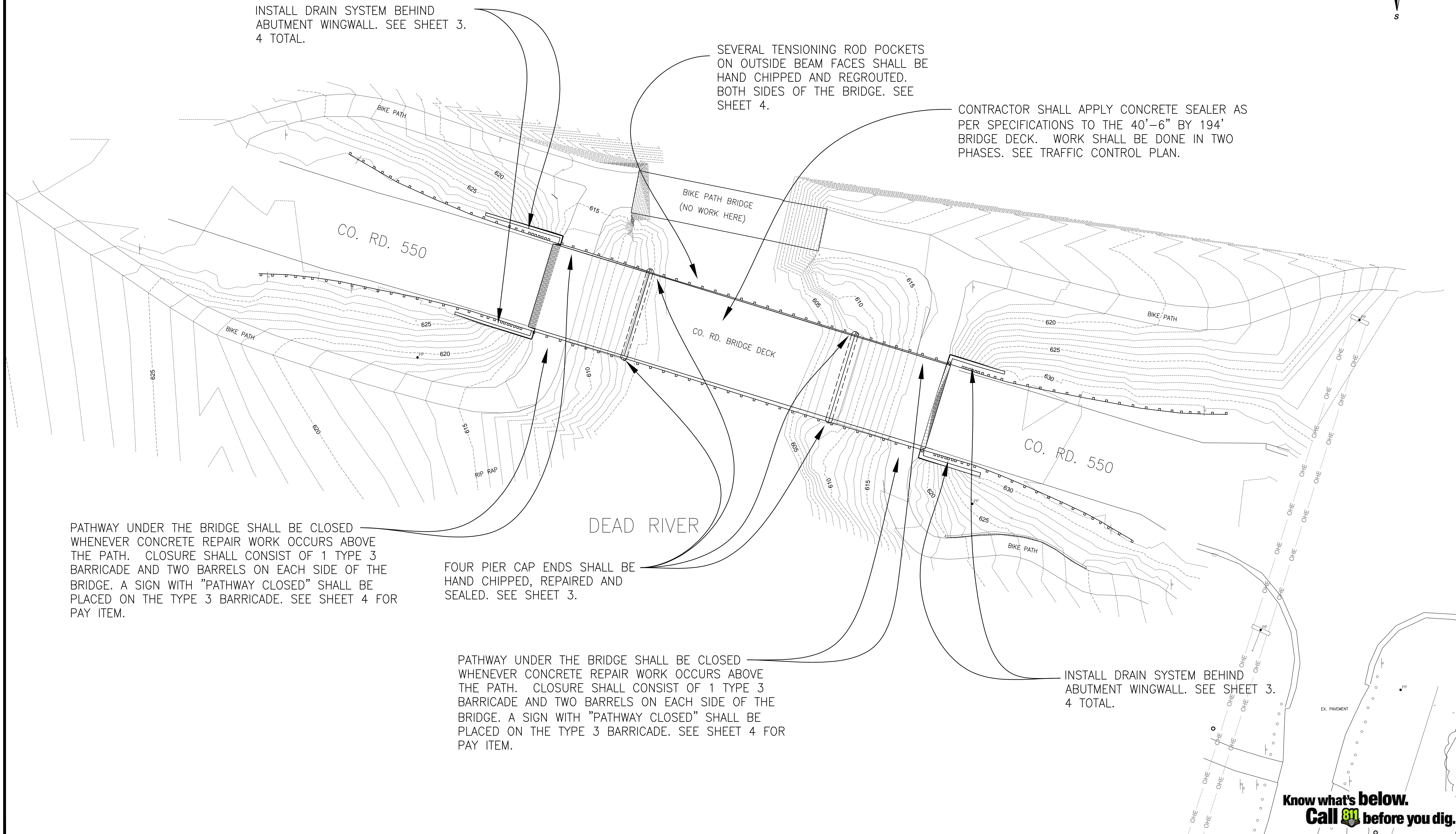
CITY ENGINEER'S OFFICE
1100 WRIGHT STREET
MARQUETTE, MICHIGAN 49855
PH. (906) 228-0440



INSTALL DRAIN SYSTEM BEHIND ABUTMENT WINGWALL. SEE SHEET 3. 4 TOTAL.

SEVERAL TENSIONING ROD POCKETS ON OUTSIDE BEAM FACES SHALL BE HAND CHIPPED AND REGROUTED. BOTH SIDES OF THE BRIDGE. SEE SHEET 4.

CONTRACTOR SHALL APPLY CONCRETE SEALER AS PER SPECIFICATIONS TO THE 40'-6" BY 194' BRIDGE DECK. WORK SHALL BE DONE IN TWO PHASES. SEE TRAFFIC CONTROL PLAN.



PATHWAY UNDER THE BRIDGE SHALL BE CLOSED WHENEVER CONCRETE REPAIR WORK OCCURS ABOVE THE PATH. CLOSURE SHALL CONSIST OF 1 TYPE 3 BARRICADE AND TWO BARRELS ON EACH SIDE OF THE BRIDGE. A SIGN WITH "PATHWAY CLOSED" SHALL BE PLACED ON THE TYPE 3 BARRICADE. SEE SHEET 4 FOR PAY ITEM.

FOUR PIER CAP ENDS SHALL BE HAND CHIPPED, REPAIRED AND SEALED. SEE SHEET 3.

PATHWAY UNDER THE BRIDGE SHALL BE CLOSED WHENEVER CONCRETE REPAIR WORK OCCURS ABOVE THE PATH. CLOSURE SHALL CONSIST OF 1 TYPE 3 BARRICADE AND TWO BARRELS ON EACH SIDE OF THE BRIDGE. A SIGN WITH "PATHWAY CLOSED" SHALL BE PLACED ON THE TYPE 3 BARRICADE. SEE SHEET 4 FOR PAY ITEM.

INSTALL DRAIN SYSTEM BEHIND ABUTMENT WINGWALL. SEE SHEET 3. 4 TOTAL.

Know what's below.
Call 811 before you dig.



CITY ENGINEER'S OFFICE
MARQUETTE, MICHIGAN
1100 WRIGHT STREET, MARQUETTE, MI 49855
PHONE (906)228-0440

REVISIONS:
2/5/24 INITIAL DRAWING

DESIGN BY: JAMES R. COMPTON P.E., ENGINEER
DRAWN BY: JAMES R. COMPTON P.E., ENGINEER
DATE: 2/5/24
FILE NAME: MQ24-103 TOPO MASTER.dwg

HOR. SCALE: 1" = 20'
VERT. SCALE: N.A.

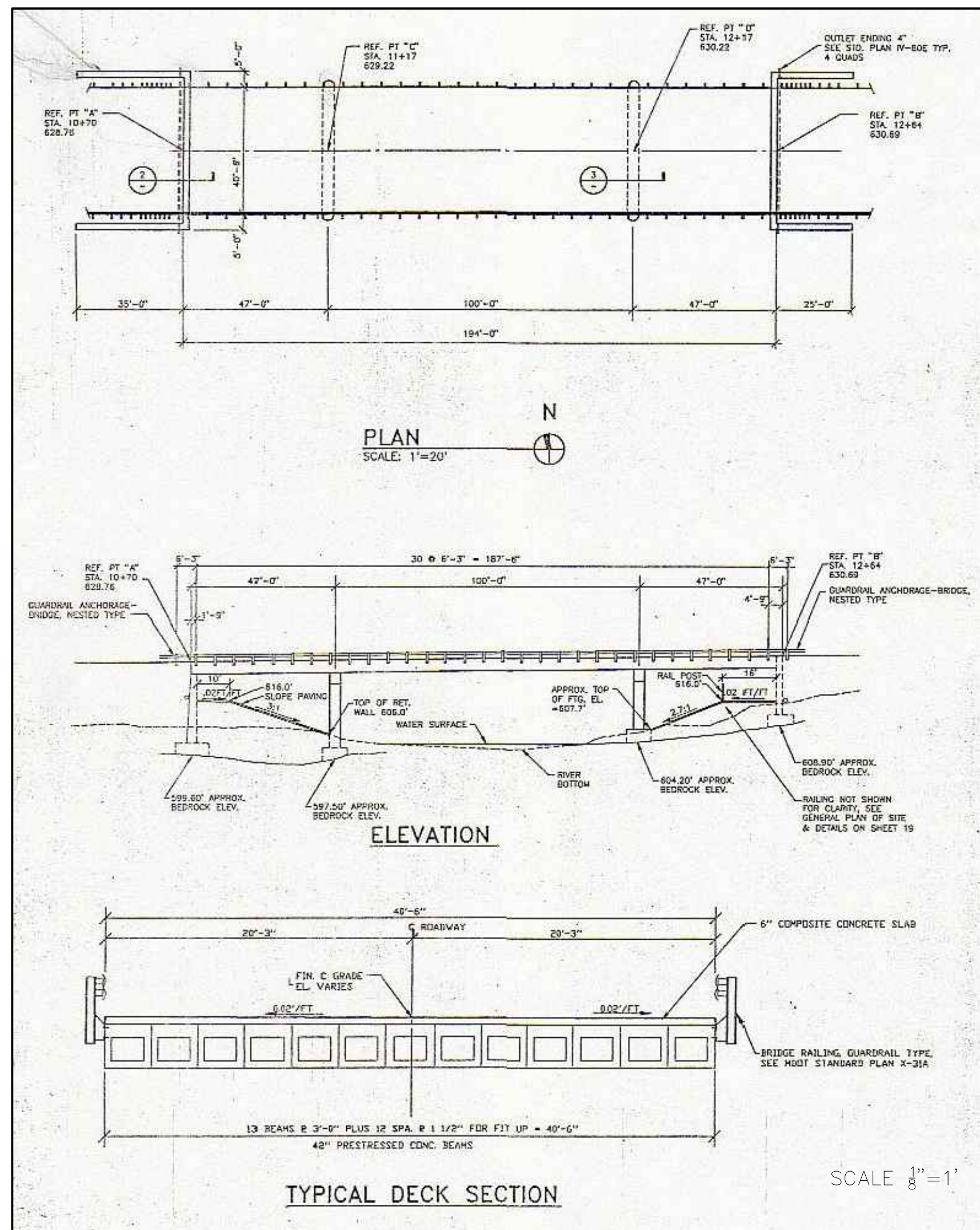
CO. RD. 550 BRIDGE PREVENTIVE MAINTENANCE
CO. RD. 550 OVER THE DEAD RIVER
PROJECT PLAN

PROJECT MQ24-103
SHEET 2 OF 5

J:\PROJECTS\MQ24-103 OR 550 BRIDGE PREVENTIVE MAINTENANCE\DESIGN AND DRAFTING\PROJECT DRAWINGS\TOPO PLAN MASTER.DWG

PROJECT NO. MQ24-103

CO. RD. 550 PREVENTIVE MAINTENANCE



EXISTING BRIDGE PLAN/PROFILE

PAY ITEM NOTES.

HAND CHIPPING AND PATCHING AREAS ARE ESTIMATED AS FOLLOWS:
 1) SOUTHWEST AND SOUTHEAST PIER CAPS 100% OF SIDE AND TOP OF PIER CAP EXTENDING OUT FROM UNDER EDGE BEAM (52 SQ FT). NORTHWEST AND NORTHEAST PIER CAPS 50% EACH (26 SQ FT).
 2) A 1 FOOT BY 1 FOOT PATCH ON BOTTOM EDGE OF OUTSIDE BEAM LOCATED ABOVE THE SOUTHEAST PIER (1 SQ FT).
 3) A 2 FOOT BY 3 FOOT PATCH ON BOTTOM EDGE OF OUTSIDE BEAM LOCATED ABOVE THE SOUTHWEST PIER (6 SQ FT).

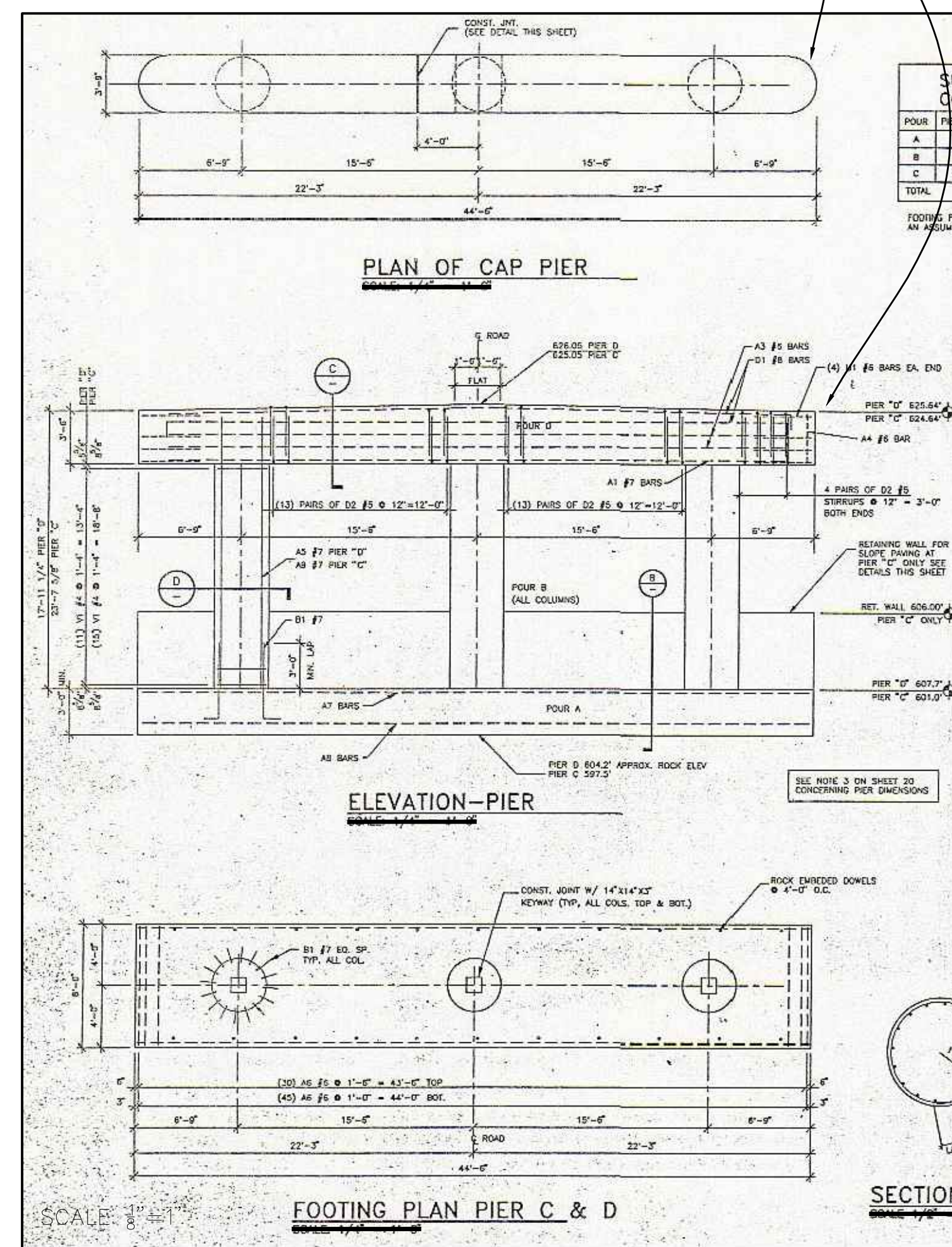
PAY ITEM NOTES.

EMBEDDED ANODES ARE ESTIMATED AS FOLLOWS:
 1) 8 EACH PLACED IN SE PIER CAP PATCH.
 2) 8 EACH PLACED IN SW PIER CAP PATCH.
 3) 8 EACH PLACED IN NE PIER CAP PATCH.
 4) 8 EACH PLACED IN NW PIER CAP PATCH.
 5) 1 EACH IN BEAM FACE PATCH ABOVE SE PIER CAP.
 6) 2 EACH IN BEAM FACE PATCH ABOVE SW PIER CAP.

GENERAL NOTES.

- 1) HAND CHIP CONCRETE TO 3" BEHIND REBAR.
- 2) THE SOUTH TWO PIER CAPS WILL REQUIRE FORMING.
- 3) INSTALL GALVANIC ANODES PER ENGINEERS DIRECTION
- 4)

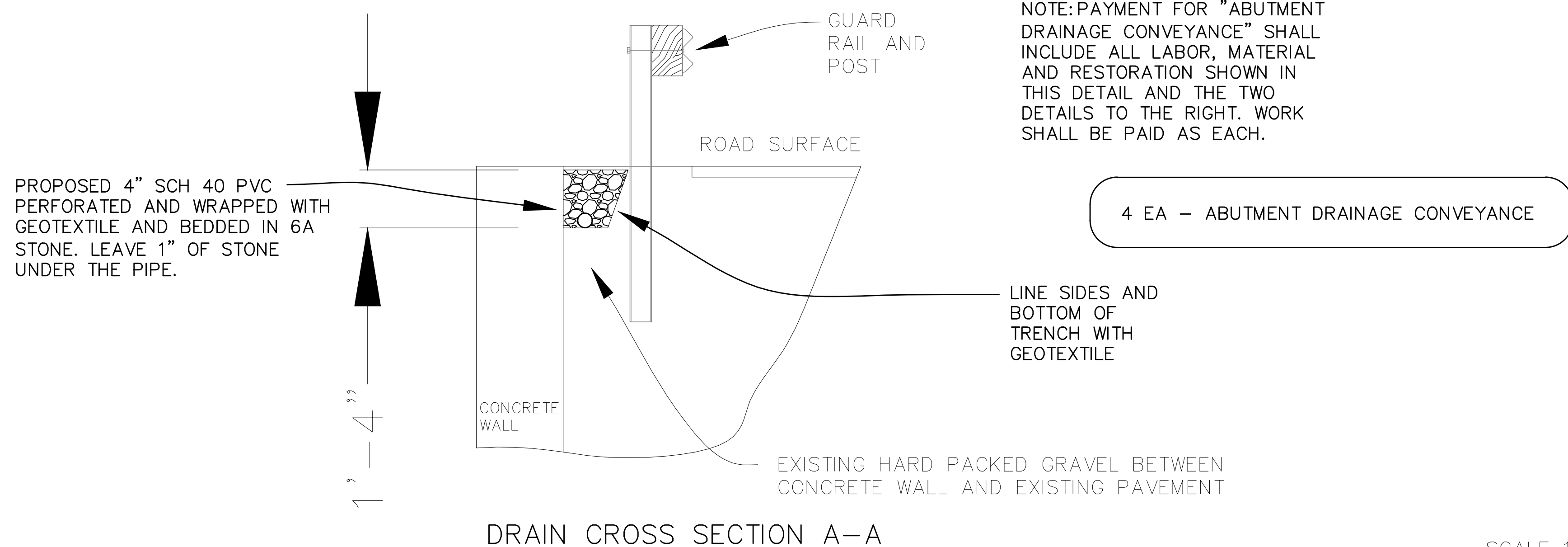
ALL FOUR PIER CAP END SURFACES SHALL BE HAND CHIPPED TO REMOVE ALL LOOSE CONCRETE PER ENGINEERS DIRECTION.



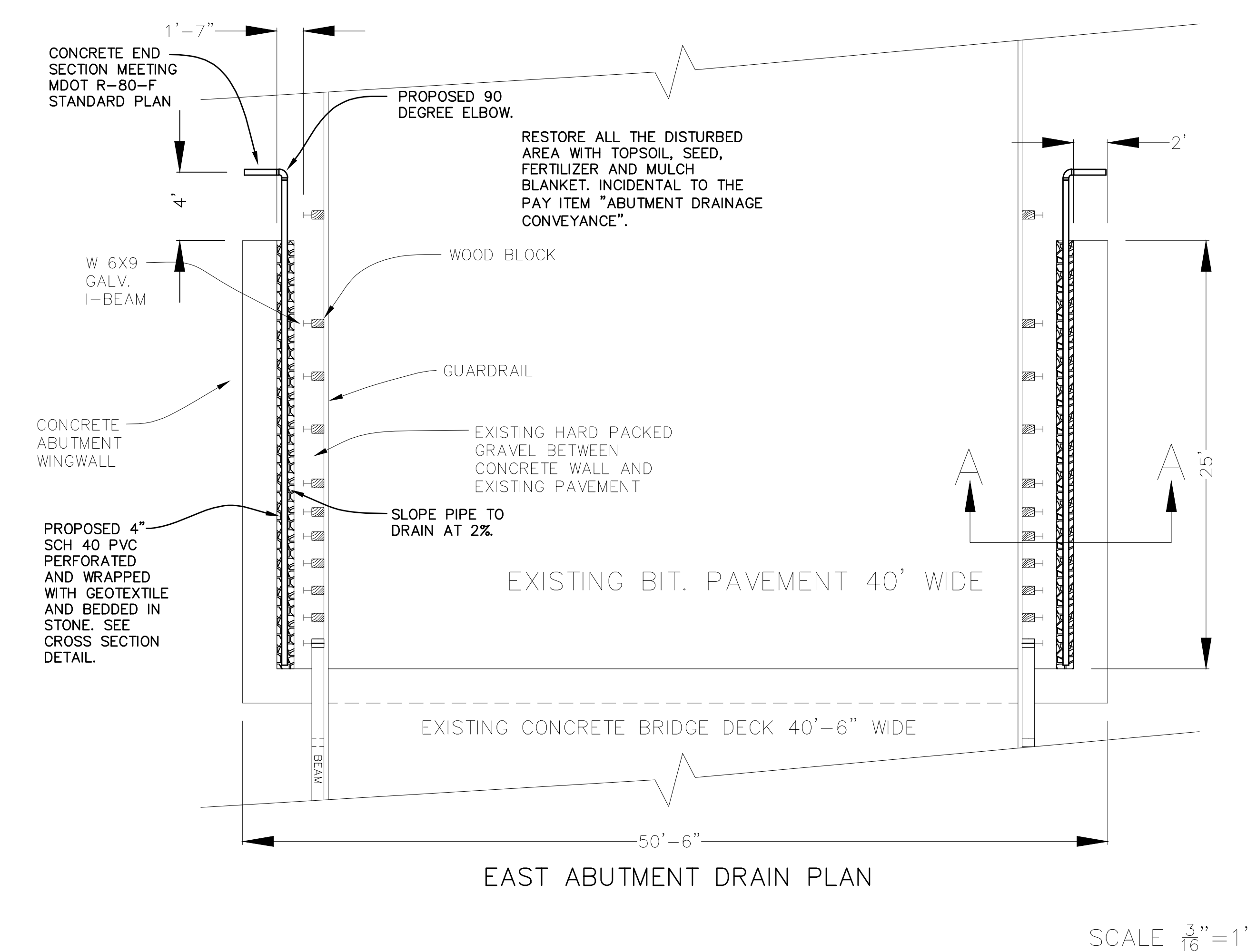
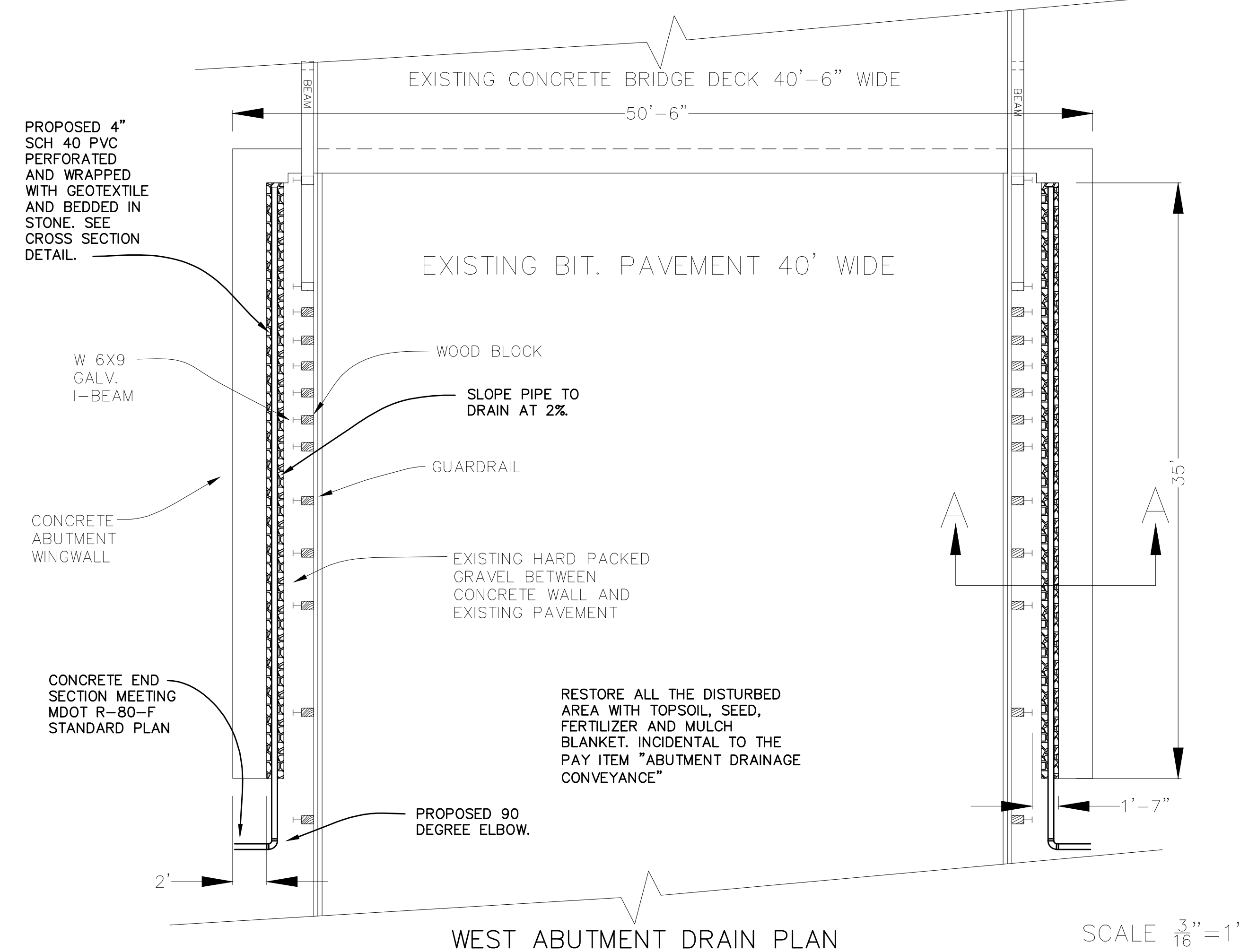
EXISTING PIER CAP DETAILS

- 85 SFT - HAND CHIPPING, OTHER THAN DECK, MODIFIED, PIER CAP
- 85 SFT - PATCHING CONC., MODIFIED, PIER CAP
- 5E SFT - PATCH, FORMING
- 27 EA - EMBEDDED GALVANIC ANODE
- 1 LS - MOBILIZATION

NOTE: PATCH FORMING SHALL BE USED FOR THE SE AND SW PIER CAP. SEE SPECS FOR MIX DESIGN FOR PATCHING



SCALE 1/2"=1'



CITY ENGINEER'S OFFICE
MARQUETTE, MICHIGAN
 300 WEST BARAGA AVE., MARQUETTE, MI 49855
 PHONE (906)228-0440

REVISIONS:
 REVIEW 2/5/24

DESIGN BY: JAMES R. COMPTON, P.E.
DRAWN BY: JAMES R. COMPTON, P.E.
DATE: 2/5/24
FILE NAME: J:PROJ..BRIDGEREPAIRPLANMASTER.dwg

HOR. SCALE: AS NOTED
VERT. SCALE: N.A.

CO. RD. 550 BRIDGE PREVENTIVE MAINTENANCE
 CO. RD. 550 OVER THE DEAD RIVER
 EXISTING AND PROPOSED DETAILS

PROJECT MQ24-103
SHEET 3 OF 5



NORTHWEST PIER CAP



NORTHEAST PIER CAP



SOUTHWEST PIER CAP



SOUTHEAST PIER CAP



NORTH SIDE OF BRIDGE PROFILE



SOUTH SIDE OF BRIDGE PROFILE



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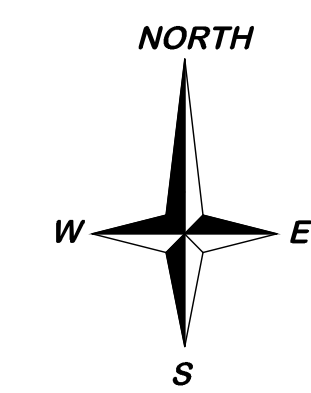
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 VERT. SCALE: N.A.

CO. RD. 550 BRIDGE PREVENTIVE MAINTENANCE
 CO. RD. 550 OVER THE DEAD RIVER
 PROJECT EXISTING PHOTOS

PROJECT MQ24-103
SHEET 5 OF 5

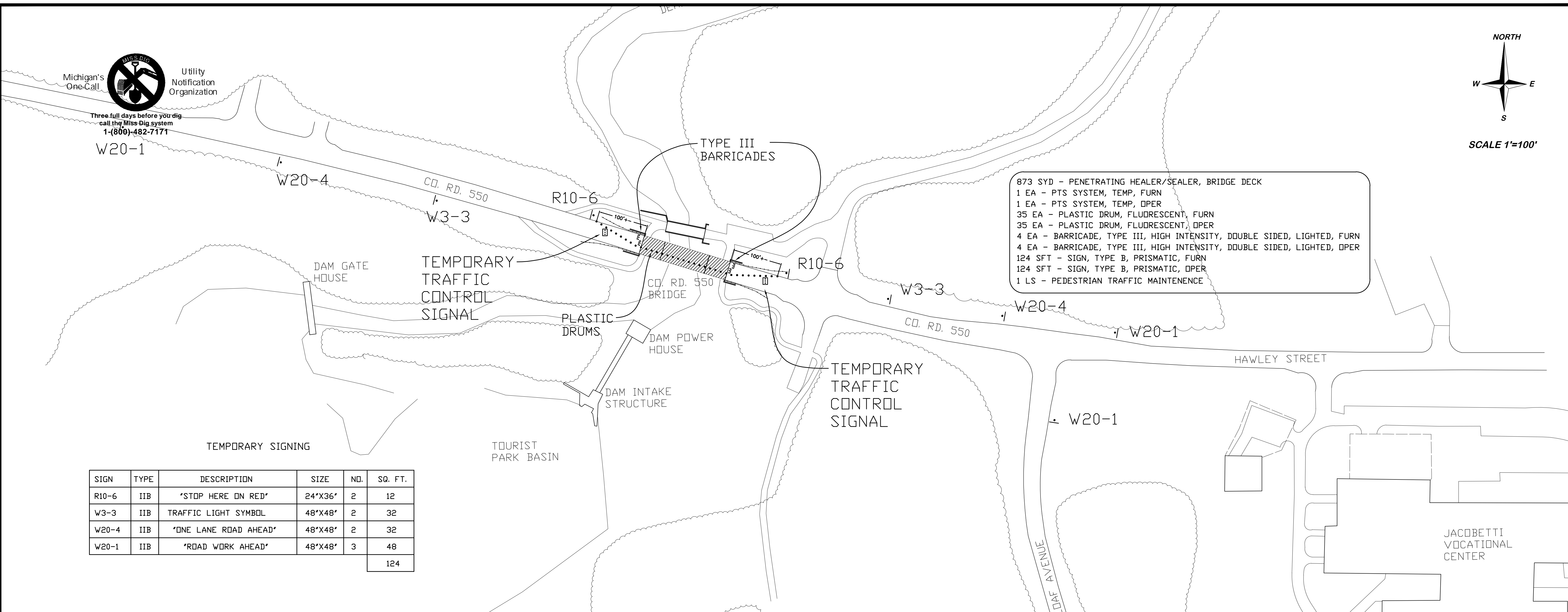
Know what's below.
Call 811 before you dig.



SCALE 1"=100'



Three full days before you dig
call the Miss Dig system
1-(800)-482-7171



- 873 SYD - PENETRATING HEALER/SEALER, BRIDGE DECK
- 1 EA - PTS SYSTEM, TEMP, FURN
- 1 EA - PTS SYSTEM, TEMP, OPER
- 35 EA - PLASTIC DRUM, FLUORESCENT, FURN
- 35 EA - PLASTIC DRUM, FLUORESCENT, OPER
- 4 EA - BARRICADE, TYPE III, HIGH INTENSITY, DOUBLE SIDED, LIGHTED, FURN
- 4 EA - BARRICADE, TYPE III, HIGH INTENSITY, DOUBLE SIDED, LIGHTED, OPER
- 124 SFT - SIGN, TYPE B, PRISMATIC, FURN
- 124 SFT - SIGN, TYPE B, PRISMATIC, OPER
- 1 LS - PEDESTRIAN TRAFFIC MAINTENANCE

SIGN	TYPE	DESCRIPTION	SIZE	NO.	SQ. FT.
R10-6	IIB	*STOP HERE ON RED*	24"X36"	2	12
W3-3	IIB	TRAFFIC LIGHT SYMBOL	48"X48"	2	32
W20-4	IIB	*ONE LANE ROAD AHEAD*	48"X48"	2	32
W20-1	IIB	*ROAD WORK AHEAD*	48"X48"	3	48
					124

TEMPORARY SIGNING

TOURIST PARK BASIN

JACOBETTI VOCATIONAL CENTER

NOTES

8"x8" TENSIONING ROD POCKETS SHOWN HIGHLIGHTED SHALL BE HAND CHIPPED. REPAIR SHALL INCLUDE WIRE MESH AND MDOT SPECIFIED PATCH MATERIAL. WORK SHALL BE PAID AS "HAND CHIPPING, OTHER THAN DECK, MODIFIED, POST TENSIONING POCKET" AND "PATCHING CONC, MODIFIED, POST TENSIONING POCKET". WIRE MESH SHALL BE WELDED STAINLESS STEEL WITH 1"x2" OPENING AND 0.047" SIZE WIRE MINIMUM.

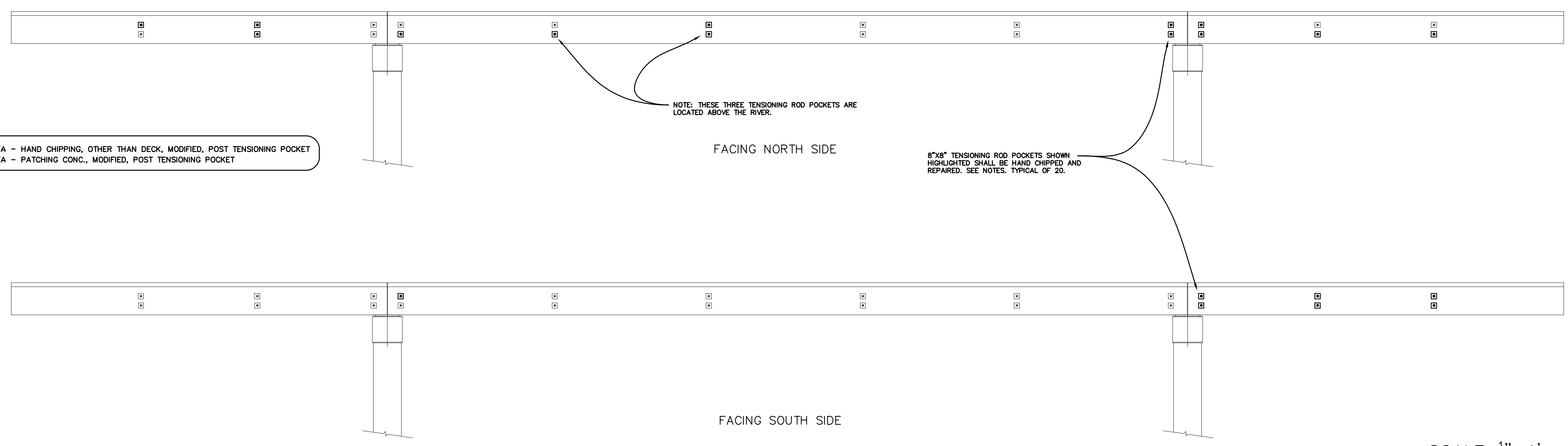
HAND CHIPPING, OTHER THAN DECK, MODIFIED, POST TENSIONING POCKET SHALL BE PAID FOR BY EACH.

PATCHING CONC., MODIFIED, POST TENSIONING POCKET SHALL BE PAID FOR BY EACH.

- 20 EA - HAND CHIPPING, OTHER THAN DECK, MODIFIED, POST TENSIONING POCKET
- 20 EA - PATCHING CONC., MODIFIED, POST TENSIONING POCKET

NOTE: THESE THREE TENSIONING ROD POCKETS ARE LOCATED ABOVE THE RIVER.

8"x8" TENSIONING ROD POCKETS SHOWN HIGHLIGHTED SHALL BE HAND CHIPPED AND REPAIRED. SEE NOTES. TYPICAL OF 20.



SCALE 1/8"=1'



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CO. RD. 550 BRIDGE PREVENTIVE MAINTENANCE
CO. RD. 550 OVER THE DEAD RIVER
TRAFFIC CONTROL AND SIDE BEAM DETAIL

PROJECT MQ24-103
SHEET 4 OF 5