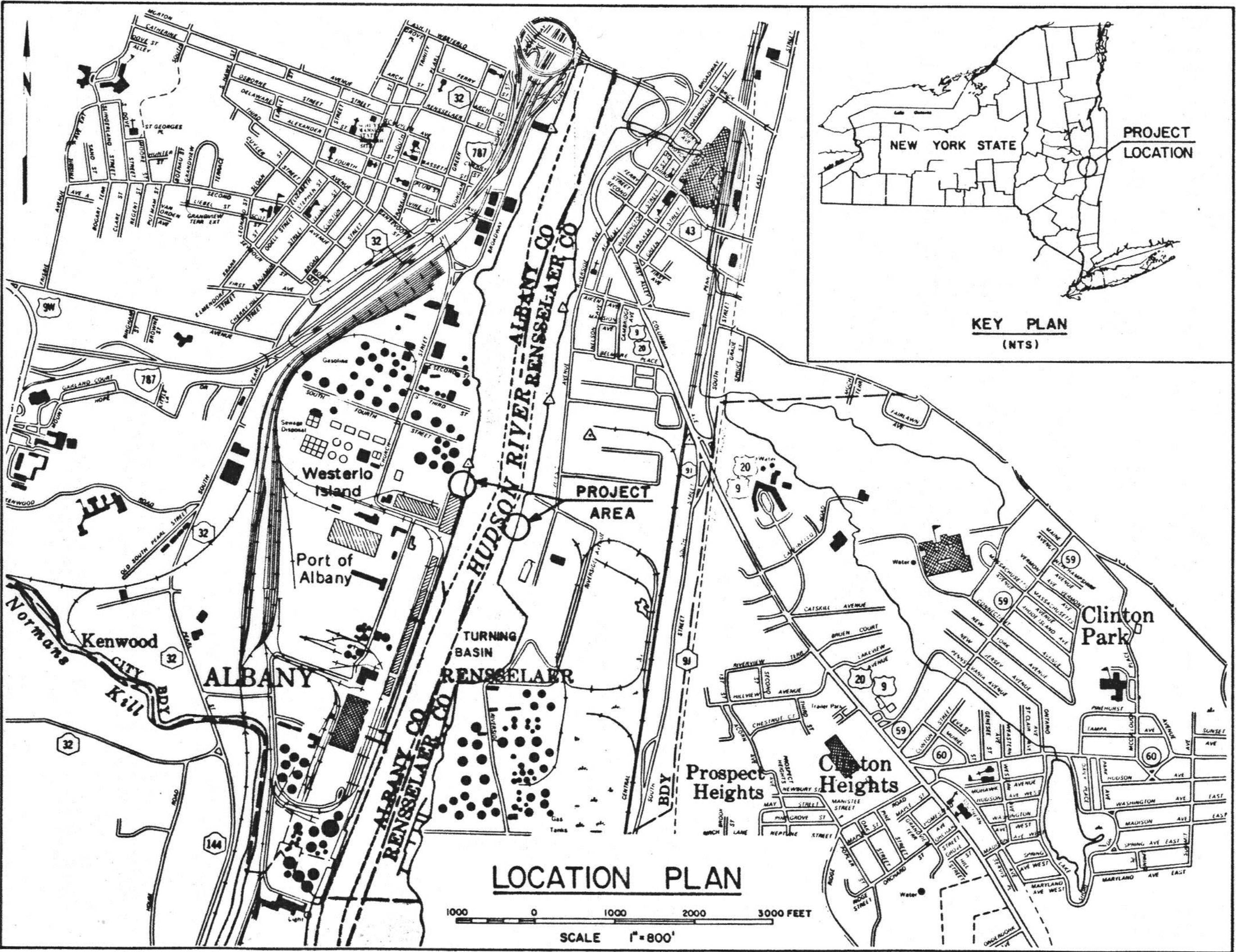


# PORT OF ALBANY WHARF UPGRADES

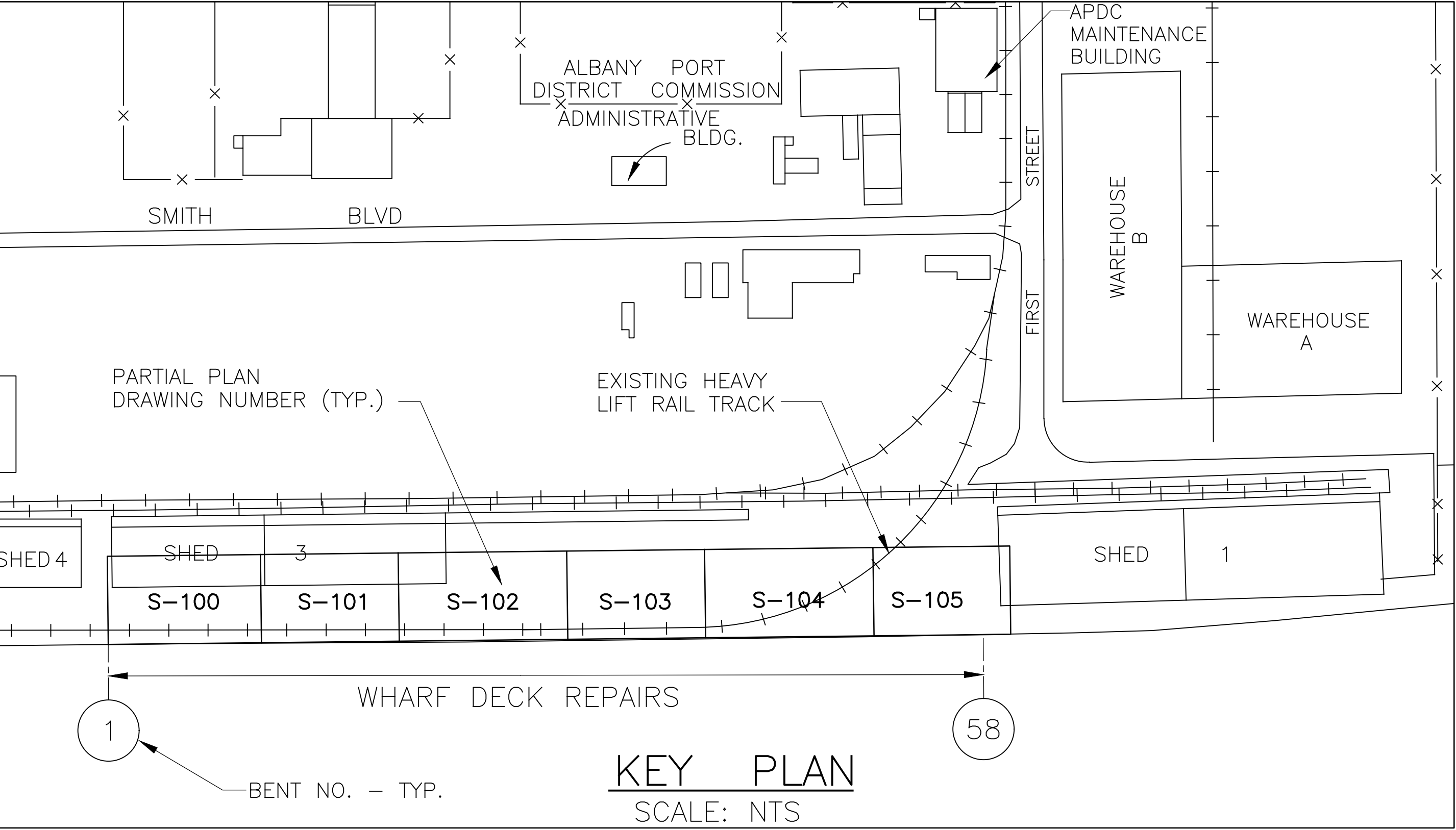


ALBANY PORT DISTRICT COMMISSION  
ALBANY - RENSSELAER, NEW YORK

PORT OF ALBANY WHARF UPGRADES			
ALBANY		NEW YORK	
ALBANY PORT DISTRICT COMMISSION ALBANY – RENSSELAER			
ALBANY		NEW YORK	
MUESER RUTLEDGE CONSULTING ENGINEERS			
14 PENN PLAZA – 225 W. 34TH STREET, NY, NY 10122			
SCALE	MADE BY	M.A.S.	DATE 01-29-24
AS NOTED	CH'KD BY	A.D	DATE 01-29-24
			FILE NO. 14990
TITLE SHEET AND SITE LOCATION PLAN			DRAWING NO. S-001

CONTRACT DRAWINGS  
2025-07-31

LIST OF DRAWINGS	
DRAWING NUMBER	DRAWING TITLE
S-001	TITLE SHEET AND SITE LOCATION PLAN
S-002	KEY PLAN, GENERAL NOTES, AND LIST OF DRAWINGS
S-100	PLAN BENT 1 TO BENT 11
S-101	PLAN BENT 11 TO BENT 20
S-102	PLAN BENT 20 TO BENT 31
S-103	PLAN BENT 31 TO BENT 40
S-104	PLAN BENT 40 TO BENT 51
S-105	PLAN BENT 51 TO BENT 58
S-200	WHARF SECTIONS
S-201	WHARF SECTIONS AND DETAILS 1 OF 2
S-202	WHARF SECTIONS AND DETAILS 2 OF 2
S-203	MISCELLANEOUS REPAIR DETAILS
S-300	FENDER SYSTEM REPAIR – ELEVATION BENT NOS. 1-17
S-301	FENDER SYSTEM REPAIR – ELEVATION BENT NOS. 17-34
S-302	FENDER SYSTEM REPAIR – ELEVATION BENT NOS. 34-51
S-303	FENDER SYSTEM REPAIR – ELEVATION BENT NOS. 51-60 AND DETAILS
S-304	FENDER AND CURB DETAILS
S-305	BOLLARDS AND CLEAT DETAILS
S-310	BENT REPAIRS – BENTS 1 TO 12
S-311	BENT REPAIRS – BENTS 13 TO 24
S-312	BENT REPAIRS – BENTS 25 TO 36
S-313	BENT REPAIRS – BENTS 37 TO 48
S-314	BENT REPAIRS – BENTS 49 TO 58
S-400	RAIL SECTION AND DETAILS
S-401	WHARF AREA LOADING
S-401A	CURRENT CONDITION WHARF AREA LOADING
S-402	STORMWATER PREVENTION PLAN
S-520	NEW STRUCTURAL CONCRETE PARTIAL PLAN – BENT 1 TO BENT 33
S-521	NEW STRUCTURAL CONCRETE PARTIAL PLAN – BENT 33 TO BENT 49
S-522	NEW STRUCTURAL CONCRETE PARTIAL PLAN – EXPANSION JOINTS
S-530	NEW STRUCTURAL CONCRETE SECTIONS AND DETAILS – BENT 1 TO BENT 33
S-531	NEW STRUCTURAL CONCRETE SECTIONS AND DETAILS – BENT 33 TO BENT 49
S-532	NEW STRUCTURAL CONCRETE SECTIONS AND DETAILS – EXPANSION JOINTS
R-101	CRACK AND PHOTO REFERENCE PLAN – BENT 1 TO 20
R-102	CRACK AND PHOTO REFERENCE PLAN – BENT 21 TO 39
R-103	CRACK AND PHOTO REFERENCE PLAN – BENT 40 TO 58
---	MULTIBEAM HYDROGRAPHIC SURVEY (S.T. HUDSON)



GENERAL NOTES

- ELEVATIONS SHOWN ARE REFERENCED TO 1929 NATIONAL GEODETIC VERTICAL DATUM (MEAN SEA LEVEL DATUM). MEAN LOW WATER AT THE PORT IS CURRENTLY ESTABLISHED BY THE U.S. ARMY CORPS OF ENGINEERS AS 1.75 FEET BELOW SEA LEVEL DATUM. THE MEAN TIDAL RANGE IS 4.6 FEET.
- CONTRACT DOCUMENTS HAVE BEEN PREPARED BASED ON FIELD INSPECTIONS. ACTUAL FIELD CONDITIONS MAY REQUIRE MODIFICATIONS TO CONSTRUCTION DETAILS. CONFLICTS BETWEEN THE CONTRACT DRAWINGS AND ACTUAL FIELD CONDITIONS SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION FOR RESOLUTION.
- UTILITY OR EXISTING STRUCTURE LOCATIONS ARE NOT EXACTLY KNOWN. CONTRACTOR SHALL COORDINATE WITH APDC, CONTACT "ONE-CALL" OR UTILITIES TO CONFIRM ANY KNOWN OR UNKNOWN UTILITY LOCATIONS OR STRUCTURE LOCATIONS PRIOR TO ANY ADJACENT WORK
- THE TIDAL INFORMATION NOTED IS APPROXIMATE. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING TIDAL CONDITIONS FOR CONSTRUCTION PURPOSES.
- CONSTRUCTION MATERIALS, EQUIPMENT AND DEMOLITION DEBRIS, SHALL NOT BE STORED WITHIN 75 FEET OF THE FACE OF THE WHARF, AND ONLY AS PERMITTED BY THE APDC.
- CONTRACTOR SHALL NOT USE THE EXISTING WHARF FOR PARKING VEHICLES OR FOR MATERIAL STORAGE.
- CONTRACTOR SHALL COMPLY WITH THE SAFETY REQUIREMENTS OF AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) A.10.6, AND OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA).
- CONTRACTOR IS TO COORDINATE ALL OPERATIONS WITH THE PORTS REPRESENTATIVE IN ORDER TO COMPLY WITH VESSEL TRAFFIC, SECURITY PROCEDURES, AND FACILITY OPERATIONAL CONSTRAINTS.
- ALL STRUCTURAL TIMBER SHALL BE SOUTHERN YELLOW PINE NO. 1 WITH A MINIMUM ALLOWABLE BENDING STRESS (F<sub>b</sub>) 1200 PSI AND A MINIMUM ALLOWABLE HORIZONTAL SHEAR STRESS (F<sub>v</sub>) 175 PSI. PRESSURE TREAT ALL TIMBER IN ACCORDANCE WITH AWWA USING CHROMATE COPPER ARSENATE (CCA) TO A RETENTION OF 2.5 PCF. ALL TIMBER SHALL BE KILN DRIED AFTER TREATMENT TO A MOISTURE CONTENT OF NOT GREATER THAN 19 PERCENT.
- ALL STRUCTURAL TIMBERS SHALL BE THE ROUGH CUT FULL SIZE INDICATED UNLESS NOTED OTHERWISE.
- ALL BOLTS, ANCHOR BOLTS, AND LAG BOLTS SHALL CONFORM TO ASTM A-307 (U.N.O.). NUTS SHALL CONFORM TO ASTM, A-307, GRADE A, SQUARE. ALL BOLTS SHALL BE FULL SIZE AND HAVE CUT THREADS. WASHERS BEARING ON TIMBER SHALL BE HEAVY CAST OGEE GALVANIZED WASHERS. WASHERS SHALL BE PLACED UNDER BOLT HEADS AND NUTS. ALL STEEL HARDWARE SHALL BE NEW, UNUSED, HOT DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A-153.
- ALL BOLTED HARDWARE SHALL BE 1" DIAMETER UNLESS NOTED OTHERWISE.
- TIMBER CUT OR BORED AFTER PRESERVATIVE TREATMENT SHALL BE PROTECTED IN ACCORDANCE WITH AWWA M4 REQUIREMENTS.
- ALL COUNTERSINKS IN TIMBER SHALL PROVIDE 1-1/2" MINIMUM RECESS FOR BOLT.
- DRYPACK/NON-SHRINK GROUT SHALL BE SIKAGROUT 713 AS MANUFACTURED BY THE SIKA CORPORATION OR APPROVED EQUAL.
- EPOXY RESIN GROUT FOR ANCHOR BOLTS SHALL BE HILTI HIT-RE 500 V3 EPOXY BY THE HILTI CORPORATION OR APPROVED EQUAL.
- TIMBER PILES SHALL BE SOUTHERN YELLOW PINE CONFORMING TO ASTM D25, MINIMUM BUTT DIAMETER OF 12 INCHES. PRESSURE TREATED IN ACCORDANCE WITH AWWA USING CCA TO A RETENTION OF 2.5 PCF.
- THE CONTRACTOR SHALL PREPARE DRIVING RECORDS FOR ALL PILES INCLUDING PILE IDENTIFICATION MARK, TYPE, SIZE AND LENGTH OF PILE, PILE HAMMER USED, HAMMER SPEED AND PRESSURE, SPLICE LOCATIONS AND TYPE, TIP AND CUT-OFF ELEVATIONS, PLUMBNESS CHECKS BEFORE AND AFTER DRIVING, DRIVING RESISTANCE PER FOOT, DATE AND TIME OF DRIVING AND ANY UNUSUAL OCCURRENCES. RECORDS SHALL BE TURNED OVER TO THE OWNER UPON COMPLETION OF THE PROJECT.
- THE PILE TIP ELEVATIONS FOR THE REPLACEMENT FENDER PILES SHOWN ON DRAWINGS NOS. S-300 THROUGH S-303 ARE TO BE EL. -47.0.
- ALL CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 6000 PSI.
- ALL REINFORCING STEEL SHALL BE EPOXY COATED DEFORMED NEW BILLET STEEL CONFORMING WITH REQUIREMENTS OF ASTM A615, GRADE 60.
- MINIMUM SPLICE LENGTHS FOR REINFORCING STEEL SHALL BE AS DETERMINED FOLLOWING ACI PROVISIONS.
- PLACING DIMENSIONS ARE GIVEN TO CENTER OF BARS, UNLESS NOTED. SHIFT OR BEND BARS TO CLEAR ANCHOR BOLTS AND ALL OTHER EMBEDDED ITEMS.
- ALL BARS SHALL HAVE A MINIMUM CONCRETE COVER OF THREE INCHES, UNLESS OTHERWISE NOTED.
- ALL WELDING SHALL BE PERFORMED USING E70 LOW HYDROGEN ELECTRODES IN ACCORDANCE WITH AWS D1.1.
- THE OWNER SHALL ENGAGE AND PAY FOR AN INDEPENDENT COMMERCIAL TESTING LABORATORY APPROVED BY THE ENGINEER TO TEST CONCRETE. ONE SET OF FIVE CONCRETE TEST CYLINDERS WILL BE TAKEN FOR EVERY 50 CUBIC YARDS OR LESS OF CONCRETE PLACED DAILY. TEST TWO CYLINDERS AT SEVEN DAYS, AND 2 AT 28 DAYS AND MAINTAIN ONE SPARE. CONCRETE TEST REPORTS TO BE SUBMITTED TO THE ENGINEER. TEST SLUMP, AIR AND TEMPERATURE IN ACCORDANCE WITH ASTM C143, C173 AND C1064, RESPECTIVELY.
- UHPC CONCRETE SHALL BE TESTED FOR COMPRESSIVE STRENGTH, FLEXURAL STRENGTH AND TENSILE STRENGTH, IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS AND TEST METHODS AS INDICATED HEREIN. TESTING SHALL GENERALLY FOLLOW ASTM C1856, STANDARD PRACTICE FOR FABRICATING AND TESTING SPECIMENS OF UHPC.

FIELD MOCK-UPS

- APPROVAL OF SAMPLE REPAIRS AND FIELD MOCK-UPS ARE REQUIRED FOR THE FOLLOWING ITEMS BELOW:
  - CONCRETE REPAIRS
  - CEMENTITIOUS REPAIR AND OVERLAY
- APPROVED SAMPLE INSTALLATIONS CONSTRUCTED ON THE PROJECT SITE SHALL ESTABLISH STANDARDS OF WORKMANSHIP BY WHICH THE ENSUING WORK SHALL BE JUDGED.

CEMENTITIOUS REPAIR AND OVERLAY MATERIAL NOTES

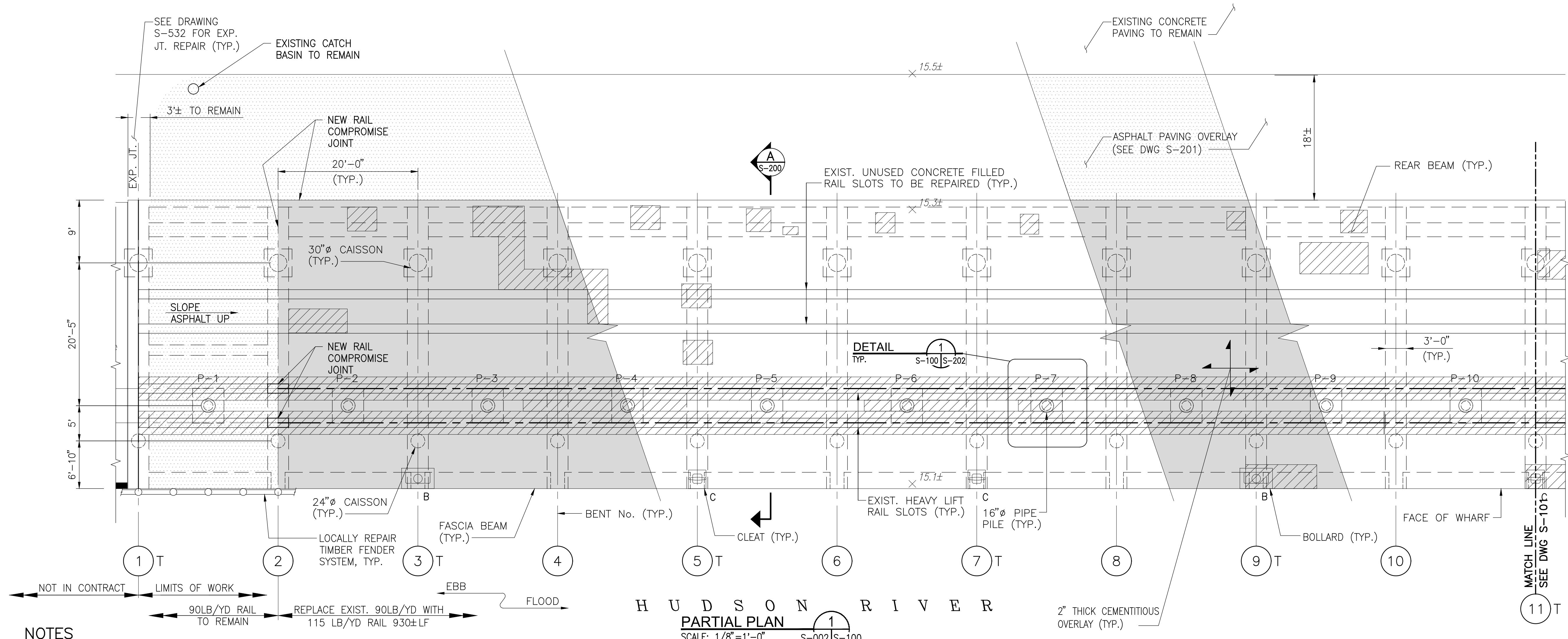
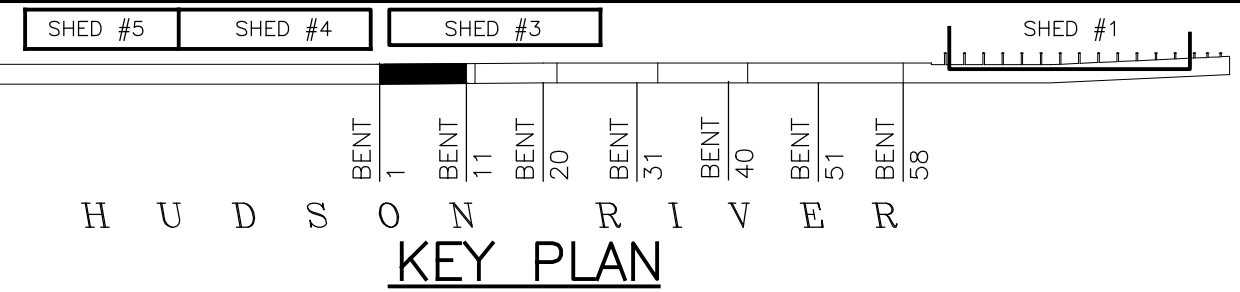
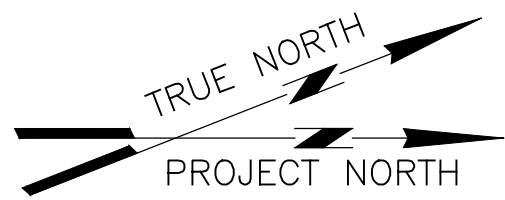
- UHPC (ULTRA-HIGH PERFORMANCE CONCRETE) COMMONLY INCLUDING FINE AGGREGATE, CEMENTITIOUS MATERIAL, SUPER PLASTICIZER, AND DEFORMED STEEL FIBERS, SHALL HAVE:
  - A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 18,000 PSI (ASTM C39)
  - A FLEXURAL STRENGTH AT 28 DAYS OF 1500 PSI OR GREATER AT L/150 WITH ASTM C1609 TEST METHOD
  - A DIRECT TENSILE STRENGTH AT 28 DAYS OF 1000 PSI OR GREATER WITH AASHTO T397 TEST METHOD.
  - CHLORIDE ION PENETRABILITY LESS THAN 250 COULOMBS (ASTM C 1202).
  - SCALING RESISTANCE (ASTM C672) Y<3.
  - ALKALI-SILICA REACTION "INNOCUOUS" (ASTM C1260, TESTED AT 28 DAYS).
- CEMENT USED SHALL BE PORTLAND CEMENT MEETING THE REQUIREMENTS OF ASTM C150, TYPE II.
- FINE AGGREGATE SHALL MEET THE REQUIREMENTS OF ASTM C33.
- WATER USED SHALL BE POTABLE AND FREE OF DEBRIS (AND MEET NYSDOT 712-01).
- A HIGH RANGE WATER REDUCING ADMIXTURE SHALL BE USED TO IMPROVE WORKABILITY. WATER REDUCING ADMIXTURE SHALL COMPLY WITH THE REQUIREMENTS OF ASTM C-494 TYPE A OR TYPE D. PROVIDE AS RECOMMENDED BY THE MANUFACTURER.
- PROVIDE CORROSION INHIBITION AS RECOMMENDED BY THE MANUFACTURER.
- STEEL FIBERS SHALL BE 0.5 INCH LONG, 0.008 INCH DIAMETER, AND A MINIMUM OF 300 KSI TENSILE STRENGTH, OR EQUIVALENT.
- THE MIX MUST BE CAPABLE OF BEING PLACED ON A 3% GRADE WHILE MAINTAINING THE REQUIRED PROFILE.
- MANUFACTURER SHALL DESIGNATE A TARGET SLUMP FLOW FOR THE MIX DESIGN. SLUMP FLOW TO BE MEASURED IN THE FIELD TO DETERMINE WHETHER THE UHPC IS PROPERLY MIXED.
- PROVIDE RESULTS OF ALL ABOVE TESTS, CONDUCTED BY AN AASHTO ACCREDITED TESTING LAB, INCLUDING TEST SLAB/FIELD MOCK-UP, A MINIMUM OF 30 DAYS PRIOR TO USE OF THE UHPC ON THE PROJECT.

SUBMITTALS

- DESCRIPTION OF TIMBER FENDER PILE HAMMER AND DRIVING EQUIPMENT.
- CERTIFIED MILL TEST REPORTS FOR ALL STEEL MATERIAL TO BE USED ON THE PROJECT.
- CERTIFICATION OF QUALIFICATIONS FOR FIELD WELDERS.
- SHOP DRAWINGS SHOWING DIMENSIONS FOR CONCRETE DETAILS REINFORCING LAYOUT, BENDING DETAILS , AND SPLICING DETAILS.
- MILL CERTIFICATION FOR REINFORCING STEEL.
- CONCRETE MIX DESIGNS WITH SUPPORTING MIX PROPORTIONING DATA PREPARED BY AN APPROVED LABORATORY. PRODUCT DATA FOR ALL ADMIXTURES TO BE USED.

CONTRACT DRAWINGS  
2025-07-31

PORT OF ALBANY WHARF UPGRADES			
ALBANY		NEW YORK	
ALBANY PORT DISTRICT COMMISSION ALBANY — RENSSELAER			
ALBANY		NEW YORK	
MUESER RUTLEDGE CONSULTING ENGINEERS			
14 PENN PLAZA — 225 W. 34TH STREET, NY, NY 10122			
SCALE	MADE BY	M.A.S.	DATE 01-29-24
AS NOTED	CH'KD BY	A.D.	DATE 01-29-24
			FILE NO. 14990
KEY PLAN GENERAL NOTES AND LIST OF DRAWINGS			DRAWING NO. S-002



NOTES

- FOR GENERAL NOTES, SEE DRAWING NO. S-002.
- TIMBER FENDER SYSTEM PARTIALLY SHOWN FOR CLARITY. SEE DRAWINGS S-300 TO S-303 FOR FENDER SYSTEM REPAIRS.
- THE CEMENTITIOUS REPAIR MATERIAL SHALL MEET ALL THE STRENGTH, DURABILITY AND PERFORMANCE REQUIREMENTS OF UHPC (ULTRA-HIGH PERFORMANCE CONCRETE).
- THE CONTRACTOR SHALL FOLLOW ALL THE MANUFACTURERS RECOMMENDATIONS FOR THE UHPC AND THE FOLLOWING NOTES:
  - FINAL MILLED SURFACE SHALL BE "SURFACE SATURATED DRY", DAMP WITH WATER (NO STANDING WATER), BEFORE CASTING UHPC.
  - COVER EXPOSED SURFACES WITH VAPOR BARRIERS IMMEDIATELY AFTER FINISHING TO PREVENT MATERIAL DEHYDRATION.
  - MINIMUM AMBIENT AND SURFACE TEMPERATURE 45 DEGREES F AND RISING. MAXIMUM TEMPERATURE DURING POUR OF 80 DEGREES F.
  - CONSTRUCTION AND/OR CONTROL JOINTS SHALL BE AS PER MANUFACTURERS RECOMMENDATIONS.
  - INSTALLATION DRAWINGS SHALL BE SUBMITTED PER SECTION 2.3 OF THE PCCM (PRESTRESSED CONCRETE CONSTRUCTION MANUAL) SHOWING ALL EQUIPMENT AND METHODS OF HANDLING, PLACING AND CURING THE UHPC.

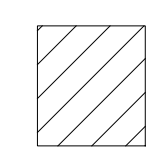
- PRIOR TO THE INITIAL PLACEMENT OF THE UHPC, THE CONTRACTOR SHALL ARRANGE AN ON-SITE MEETING THAT SHALL INCLUDE THE UHPC REPRESENTATIVE, THE CONTRACTOR'S STAFF THAT WILL PARTICIPATE IN THE PLACEMENT, THE ENGINEER, AND THE INSPECTORS. THE MEETING OBJECTIVE IS TO CLEARLY OUTLINE THE PROCEDURES FOR PROPERLY PREPARING THE SURFACE TO RECEIVE THE UHPC AND THE MIXING, TRANSPORTING, FINISHING AND CURING OF THE UHPC MATERIAL.
- THE CONTRACTOR SHALL ARRANGE FOR A REPRESENTATIVE OF THE UHPC SUPPLIER TO BE PRESENT DURING PLACEMENT OPERATION. THE REPRESENTATIVE SHALL BE KNOWLEDGEABLE IN THE SURFACE PREPARATION, SUPPLY, MIXING, DELIVERY, PLACEMENT, FINISHING, AND CURING OF THE UHPC MATERIAL. THE REPRESENTATIVE SHALL EXAMINE THE DECK PRIOR TO PLACEMENT AND INFORM THE ENGINEER OF ANY DEFICIENCIES IN ANY OF THE OPERATIONS, BEGINNING FROM THE PREPARATION OF THE SURFACE.
- THE CONTRACTOR SHALL ASSURE THE PROPER STORAGE OF MATERIALS AS REQUIRED BY THE SUPPLIERS'S SPECIFICATIONS TO PROTECT MATERIALS AGAINST LOSS OF PHYSICAL AND MECHANICAL PROPERTIES.
- THE UHPC SHALL BE CURED AS SHOWN ON THE INSTALLATION DRAWING. CURING SHALL CONTINUE UNTIL THE COMPRESSIVE STRENGTH HAS ACHIEVED AT LEAST 12 KSI.
- FOR QUALITY CONTROL THE CONTRACTOR SHALL MEASURE THE SLUMP FLOW ON EACH BATCH OF UHPC. THE SLUMP FLOW WILL BE CONDUCTED USING A MINI-SLUMP CONE. THE FLOW FOR

EACH BATCH SHALL BE WITHIN TWO INCHES OF THE TARGET ESTABLISHED BY THE MANUFACTURER. THE SLUMP FLOW FOR EACH BATCH SHALL BE RECORDED IN THE QA/QC LOG. A COPY OF THE LOG SHALL BE GIVEN TO THE ENGINEER.

K. THE OVERLAY SURFACE SHALL NOT VARY MORE THAN  $\frac{1}{4}$ " FROM THE LOWER EDGE OF A 12'±2" LONG STRAIGHT EDGE PLACED IN ANY DIRECTION.

LEGEND

- |                     |                              |
|---------------------|------------------------------|
| B                   | - BOLLARD                    |
| C                   | - CLEAT                      |
| T                   | - TIED BACK BENT             |
| P-XX                | - HEAVY LIFT PILE CAP NUMBER |
| (Circle with cross) | - HEAVY LIFT RAIL PILE CAP   |
| (Solid gray box)    | - 2" CEMENTITIOUS OVERLAY    |
| (Dotted gray box)   | - ASPHALT PAVING OVERLAY     |
| X XX                | - SPOT ELEVATION             |
| (Line with cross)   | - REPAIR EXPANSION JOINT     |

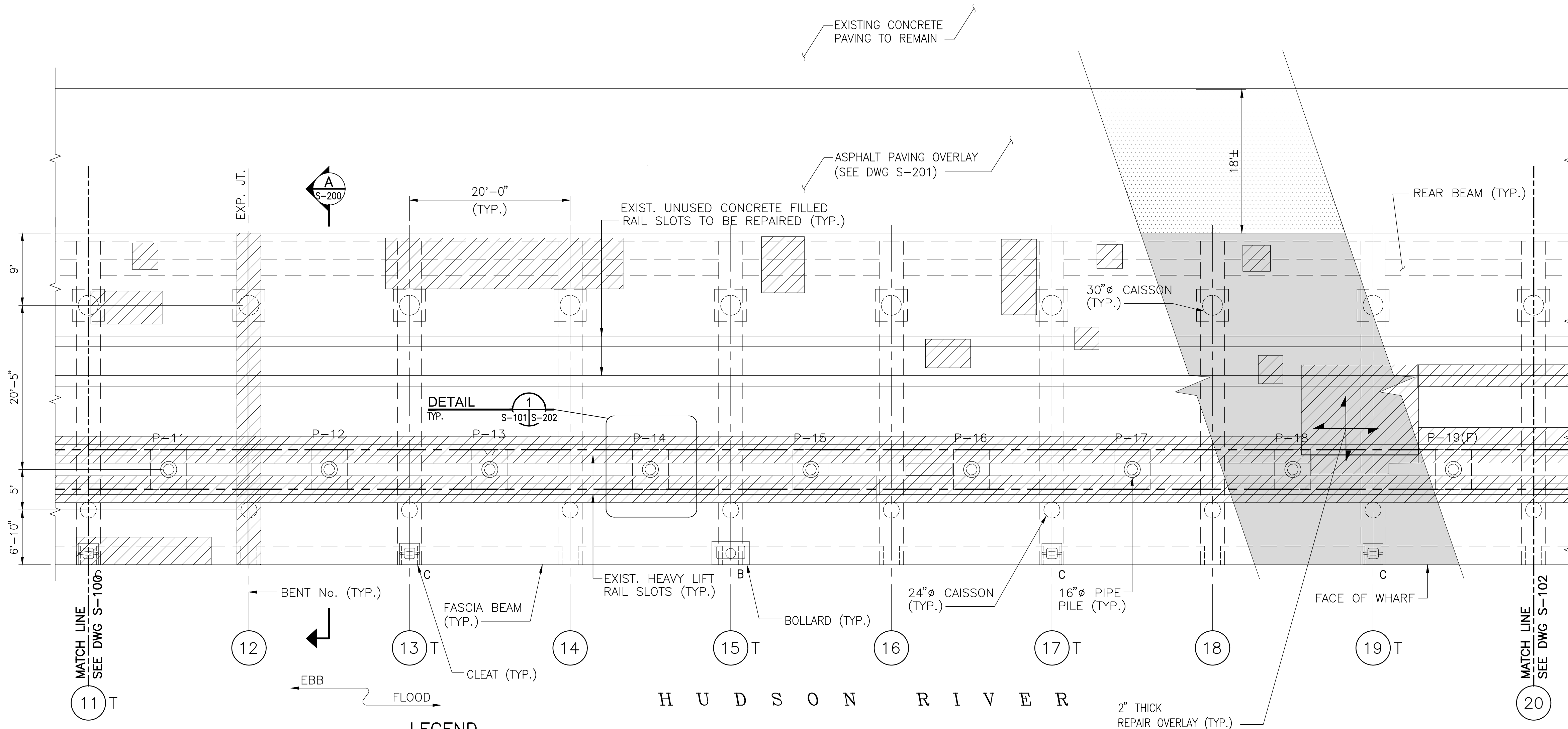
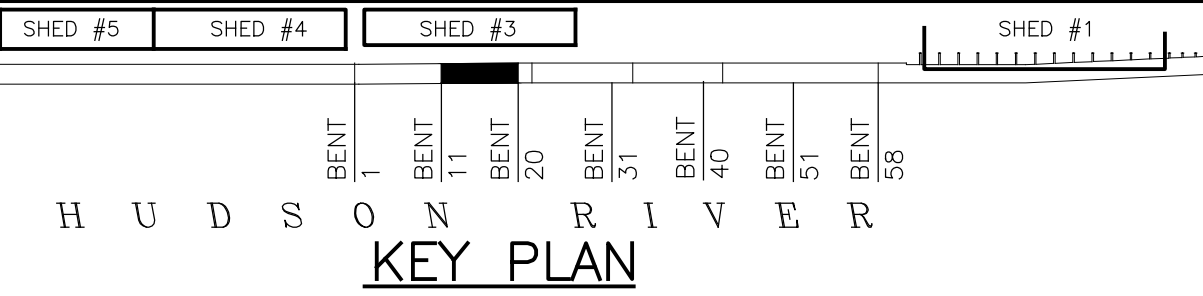
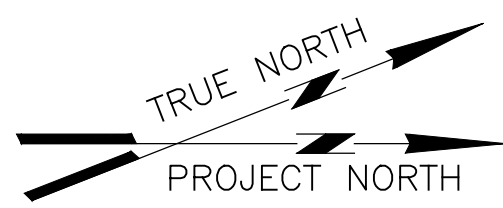


REPAIR DAMAGED EXISTING CONCRETE DECK

- REMOVE EXISTING ASPHALT AND DETERIORATING CONCRETE
- SCARIFY OR MILL AND HYDRODEMOLISH TO SOUND CONCRETE (AS DIRECTED BY THE ENGINEER)
- CLEAN WITH COMPRESSED AIR
- REPLACE DETERIORATED CONCRETE WITH CEMENTITIOUS REPAIR MATERIAL AND PROVIDE 2" CEMENTITIOUS REPAIR OVERLAY

CONTRACT DRAWINGS  
2025-07-31

PORT OF ALBANY WHARF UPGRADES			
ALBANY		NEW YORK	
ALBANY PORT DISTRICT COMMISSION ALBANY — RENSSELAER			
ALBANY		NEW YORK	
MUESER RUTLEDGE CONSULTING ENGINEERS			
14 PENN PLAZA — 225 W. 34TH STREET, NY, NY 10122			
SCALE	MADE BY	M.A.S	DATE 01—29—24
AS NOTED	CH'KD BY	A.D.	DATE 01—29—24
PLAN BENT 1 TO BENT 11			DRAWING NO. S—100



#### NOTES

- FOR GENERAL NOTES, SEE DRAWING NO. S-002.  
FOR OTHER NOTES, SEE DRAWING NO. S-100.

#### LEGEND

- B - BOLLARD
- C - CLEAT
- T - TIED BACK BENT

- P-XX(F) - HEAVY LIFT PILE CAP NUMBER  
- F = REMOVE TIMBER FORMWORK
- - HEAVY LIFT RAIL PILE CAP

- REPAIR DAMAGED EXISTING CONCRETE DECK**
  - A. REMOVE EXISTING ASPHALT AND DETERIORATING CONCRETE
  - B. SCARIFY OR MILL AND HYDRODEMOLISH TO SOUND CONCRETE (AS DIRECTED BY THE ENGINEER)
  - C. CLEAN WITH COMPRESSED AIR
  - D. REPLACE DETERIORATED CONCRETE WITH CEMENTITIOUS REPAIR MATERIAL AND PROVIDE 2" CEMENTITIOUS REPAIR OVERLAY

- 2" CEMENTITIOUS OVERLAY

- ASPHALT PAVING OVERLAY

- XX - SPOT ELEVATION

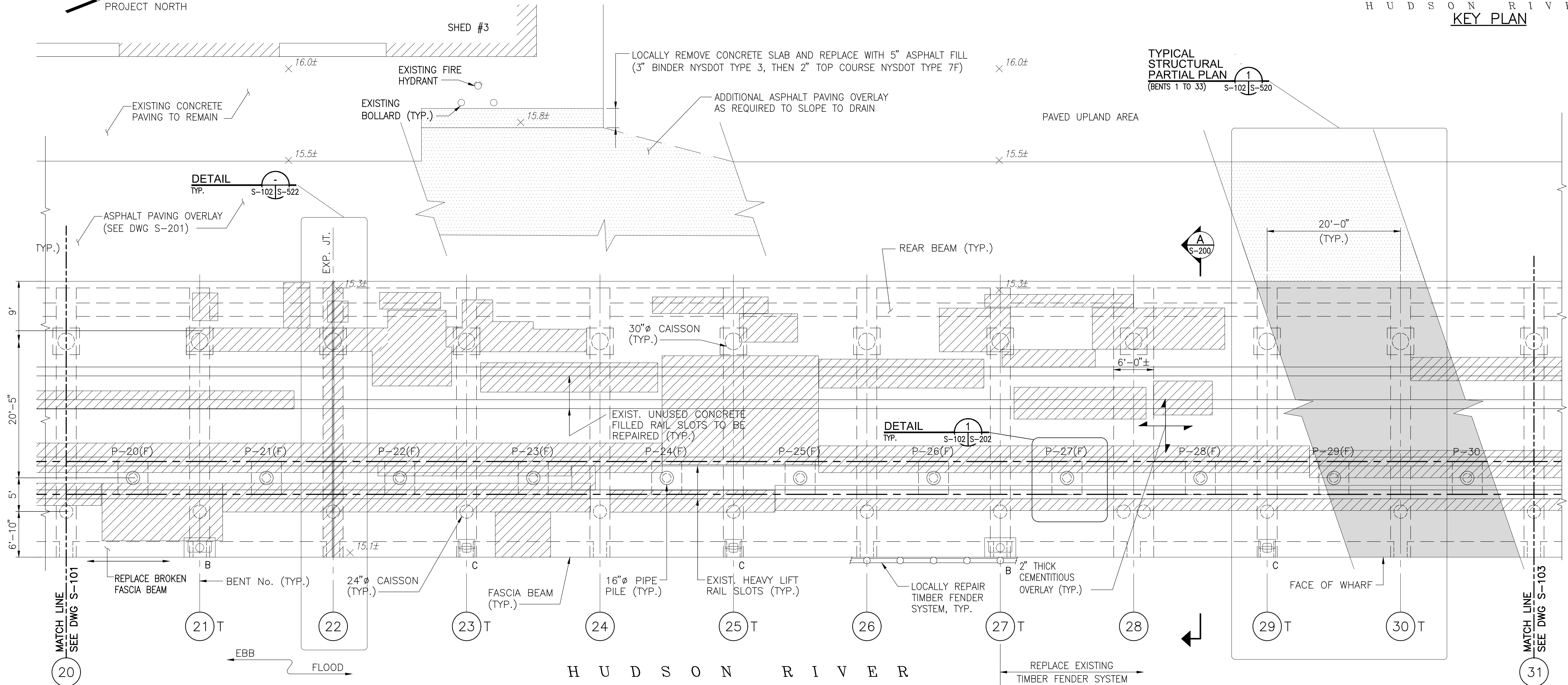
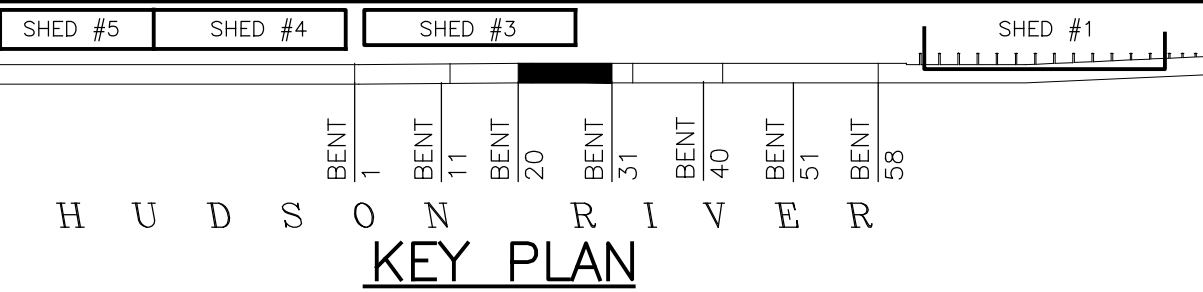
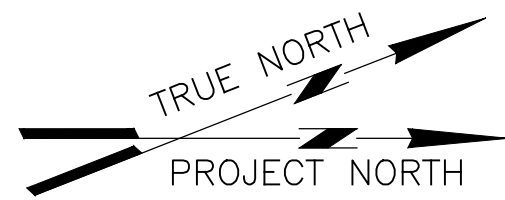
- REPAIR EXPANSION JOINT

#### PARTIAL PLAN

SCALE: 1/8" = 1'-0" S-002 S-101

**CONTRACT DRAWINGS**  
2025-07-31

PORT OF ALBANY WHARF UPGRADES			
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ALBANY PORT DISTRICT COMMISSION ALBANY — RENSSELAER			
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SCALE	MADE BY	M.A.S.	DATE 01—29—24
AS NOTED	CH'KD BY	A.D.	DATE 01—29—24
PLAN BENT 11 TO BENT 20			DRAWING NO. 14990 S—101



**NOTES**

1. FOR GENERAL NOTES, SEE DRAWING NO. S-002.  
FOR OTHER NOTES, SEE DRAWING NO. S-100.

**LEGEND**

- B - BOLLARD  
C - CLEAT  
T - TIED BACK BENT

- P-XX(F) - HEAVY LIFT PILE CAP NUMBER  
F = REMOVE TIMBER FORMWORK  
- HEAVY LIFT RAIL PILE CAP

**REPAIR DAMAGED EXISTING CONCRETE DECK**

- A. REMOVE EXISTING ASPHALT AND DETERIORATING CONCRETE  
B. SCARIFY OR MILL AND HYDRODEMOLISH TO SOUND CONCRETE (AS DIRECTED BY THE ENGINEER)  
C. CLEAN WITH COMPRESSED AIR  
D. REPLACE DETERIORATED CONCRETE WITH CEMENTITIOUS REPAIR MATERIAL AND PROVIDE 2" CEMENTITIOUS REPAIR OVERLAY

- 2" CEMENTITIOUS OVERLAY

- ASPHALT PAVING OVERLAY

- XX - SPOT ELEVATION

- REPAIR EXPANSION JOINT

**PARTIAL PLAN**

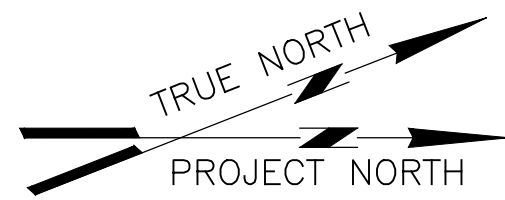
SCALE: 1/8"=1'-0" S-002 S-102

**TYPICAL STRUCTURAL PARTIAL PLAN**  
(BENTS 1 TO 33)

S-102 S-520

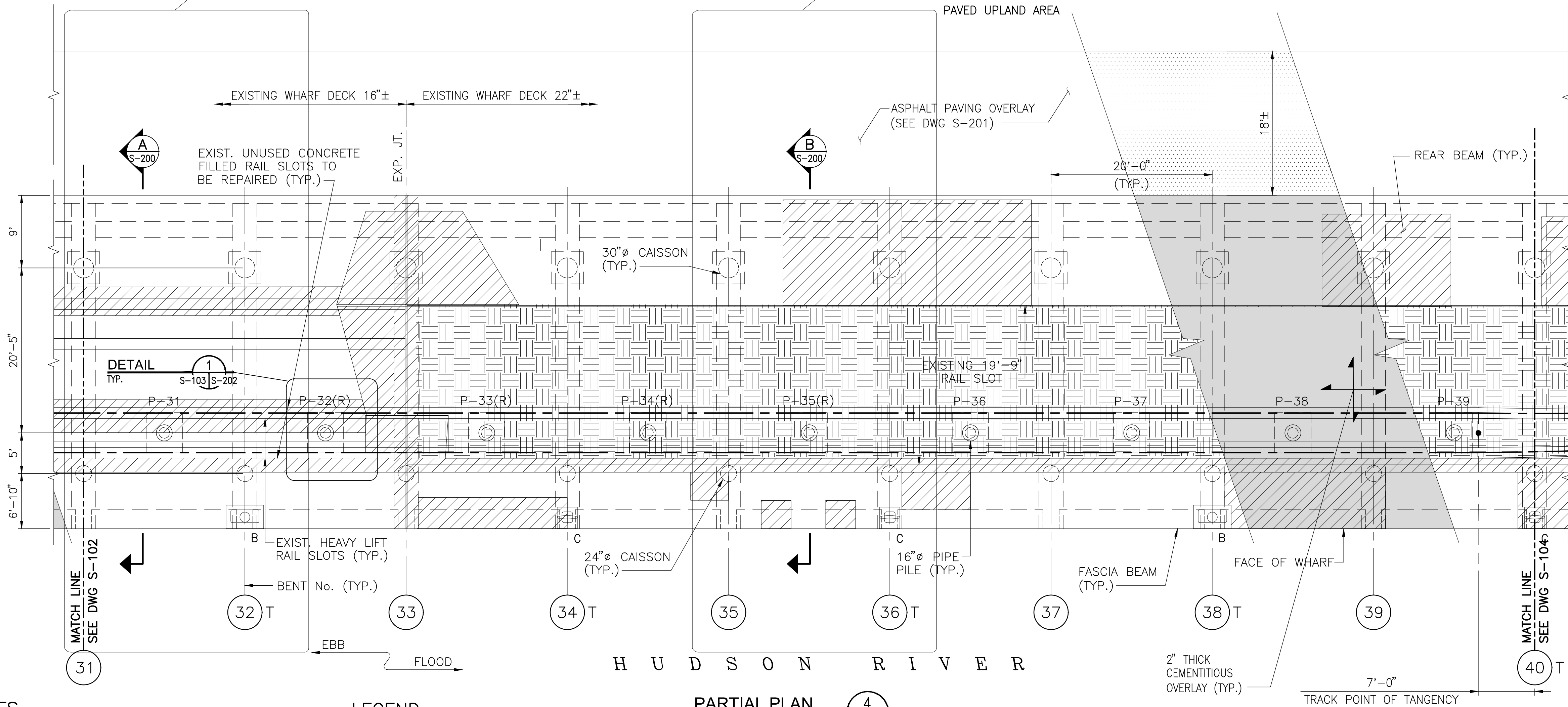
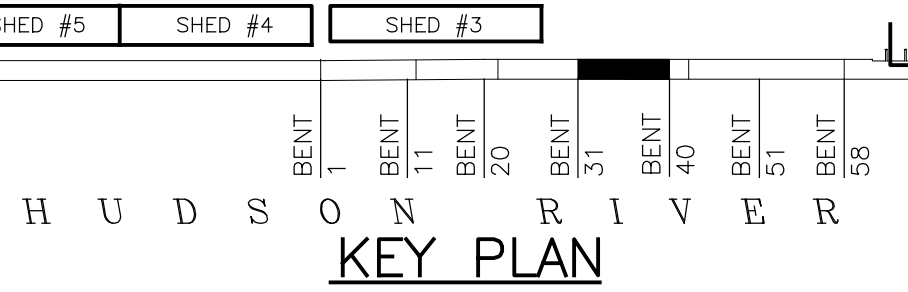
**CONTRACT DRAWINGS**  
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ALBANY		NEW YORK	
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ALBANY — RENSSELAER			
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PLAN			FILE NO.
BENT 20 TO			14990
BENT 31			DRAWING NO.
			S—102



TYPICAL  
STRUCTURAL  
PARTIAL PLAN  
(BENTS 1 TO 33) S-103 | S-520

TYPICAL  
STRUCTURAL  
PARTIAL PLAN  
(BENTS 33 TO 47) S-103 | S-521



NOTES

- FOR GENERAL NOTES, SEE DRAWING NO. S-002.  
FOR OTHER NOTES, SEE DRAWING NO. S-100.

LEGEND

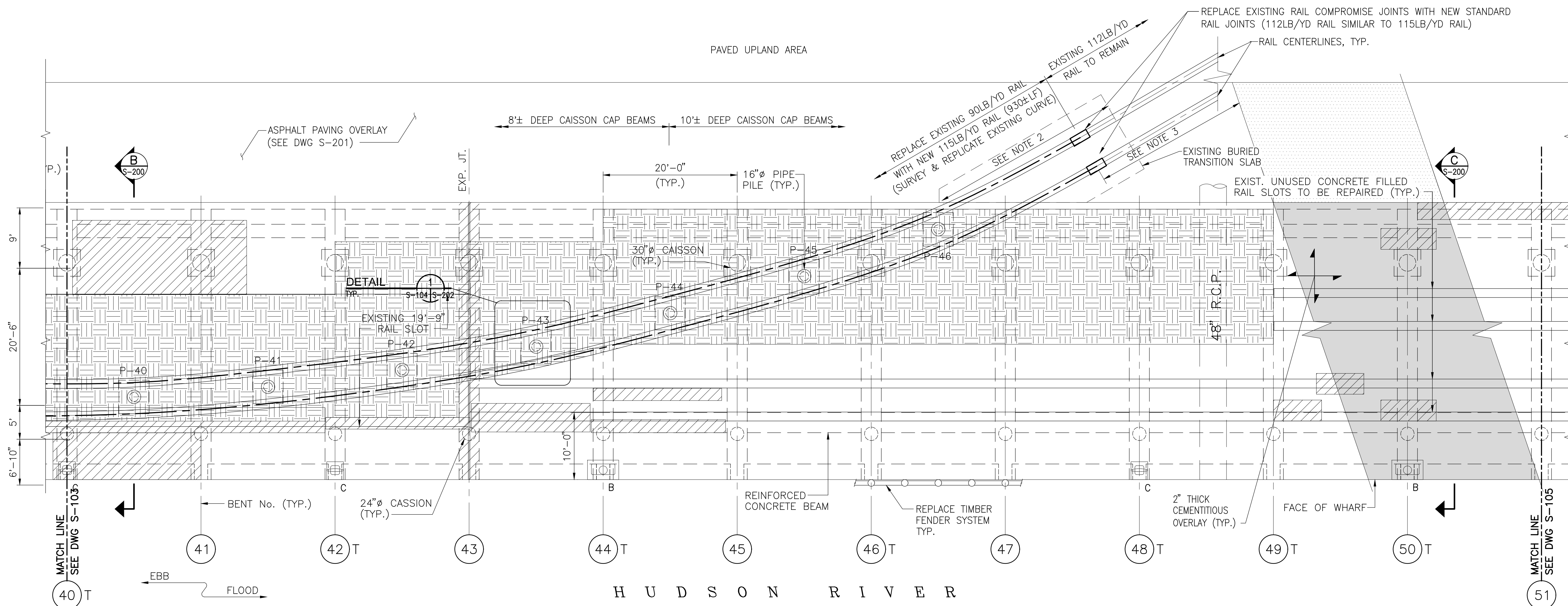
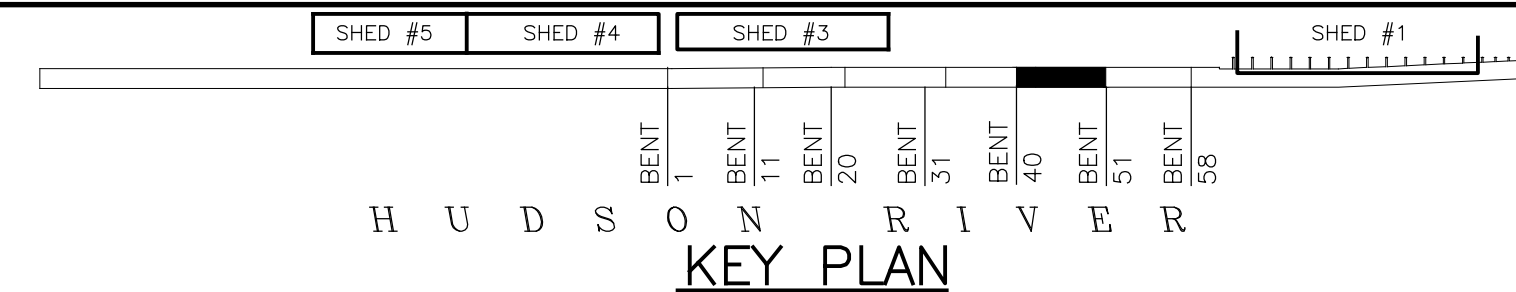
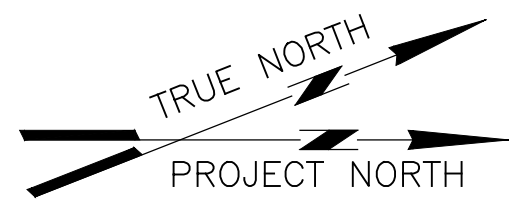
- B - BOLLARD
- C - CLEAT
- T - TIED BACK BENT
- P-XX(R) - HEAVY LIFT PILE CAP NUMBER
- R = REPAIR PILE CAP
- HEAVY LIFT RAIL PILE CAP

- REPAIR DAMAGED EXISTING CONCRETE DECK
- A. REMOVE EXISTING ASPHALT AND DETERIORATING CONCRETE
  - B. SCARIFY OR MILL AND HYDRODEMOLISH TO SOUND CONCRETE (AS DIRECTED BY THE ENGINEER)
  - C. CLEAN WITH COMPRESSED AIR
  - D. REPLACE DETERIORATED CONCRETE WITH CEMENTITIOUS REPAIR MATERIAL AND PROVIDE 2" CEMENTITIOUS REPAIR OVERLAY
- REMOVE 8" THICK ASPHALT FROM EXISTING RAIL SLOT. DEMOLISH EXISTING 14" DECK SLAB. INSTALL NEW 22" REINFORCED CONCRETE SLAB.
  - 2" CEMENTITIOUS OVERLAY
  - ASPHALT PAVING OVERLAY
  - SPOT ELEVATION
  - REPAIR EXPANSION JOINT

PARTIAL PLAN  
SCALE: 1/8"=1'-0" S-002 | S-103

CONTRACT DRAWINGS  
2025-07-31

PORT OF ALBANY WHARF UPGRADES			
ALBANY		NEW YORK	
ALBANY PORT DISTRICT COMMISSION			
ALBANY — RENSSELAER			
ALBANY		NEW YORK	
MUESER RUTLEDGE CONSULTING ENGINEERS			
14 PENN PLAZA — 225 W. 34TH STREET, NY, NY 10122			
SCALE	MADE BY	M.A.S.	DATE 01-29-24
AS NOTED	CH'KD BY	A.D.	DATE 01-29-24
PLAN			FILE NO.
BENT 31 TO			14990
BENT 40			DRAWING NO.
			S-103



**NOTES:**

- FOR GENERAL NOTES, SEE DRAWING NO. S-002. FOR OTHER NOTES' SEE DRAWING NO. S-100.
- SHIM NEW 115 LB/YD RAIL ON EXISTING BASE PLATES AS REQUIRED, AND PROVIDE NEW GANTREX CLIPS AND WELDED CLIP BASES. PROVIDE  $\frac{3}{16}$ " WELD SHIM PLATES TO EXISTING BASE PLATES, ALL AROUND.
- SLOPE EXISTING 112 LB/YD RAIL UP APPROXIMATELY 2" IN 25 FT (0.7%) TO MATCH NEW 115 LB/YD RAIL TOP ELEVATION. ADJUST EXISTING TIES AND ADD BALLAST STONE BY MACHINE AS REQUIRED.

**LEGEND**

- B - BOLLARD
- C - CLEAT
- T - TIED BACK BENT
- P-XX - HEAVY LIFT PILE CAP NUMBER
- HEAVY LIFT RAIL PILE CAP

- REPAIR DAMAGED EXISTING CONCRETE DECK**
- A. REMOVE EXISTING ASPHALT AND DETERIORATING CONCRETE
  - B. SCARIFY OR MILL AND HYDRODEMOLISH TO SOUND CONCRETE (AS DIRECTED BY THE ENGINEER)
  - C. CLEAN WITH COMPRESSED AIR
  - D. REPLACE DETERIORATED CONCRETE WITH CEMENTITIOUS REPAIR MATERIAL AND PROVIDE 2" CEMENTITIOUS REPAIR OVERLAY

- REMOVE 8" THICK ASPHALT FROM EXISTING RAIL SLOT. DEMOLISH EXISTING 14" DECK SLAB. INSTALL NEW 22" REINFORCED CONCRETE SLAB.

- 2" CEMENTITIOUS OVERLAY

- ASPHALT PAVING OVERLAY

- SPOT ELEVATION

- REPAIR EXPANSION JOINT

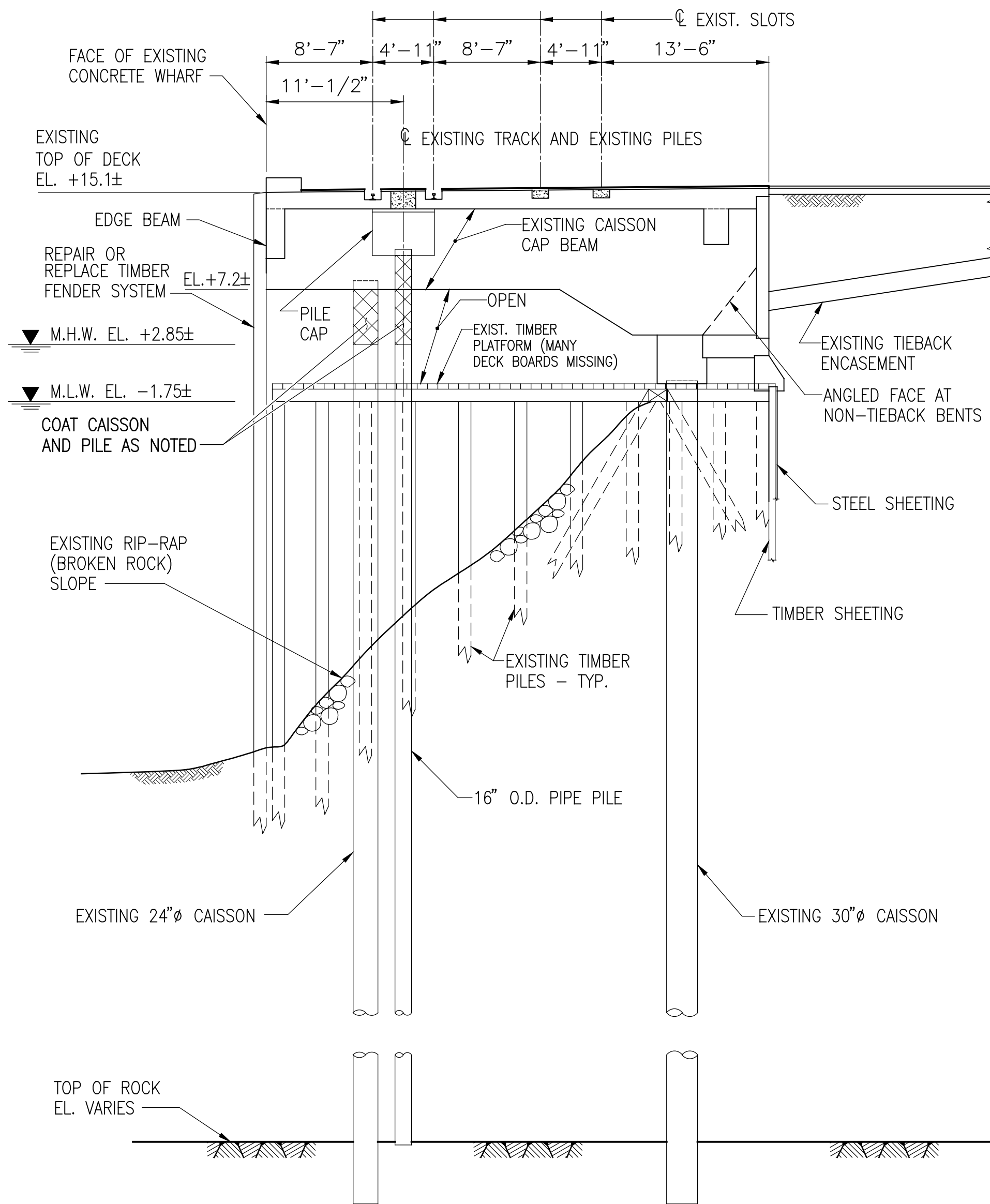
**PARTIAL PLAN 5**

SCALE: 1/8"=1'-0" S-002/S-104

**CONTRACT DRAWINGS**  
2025-07-31

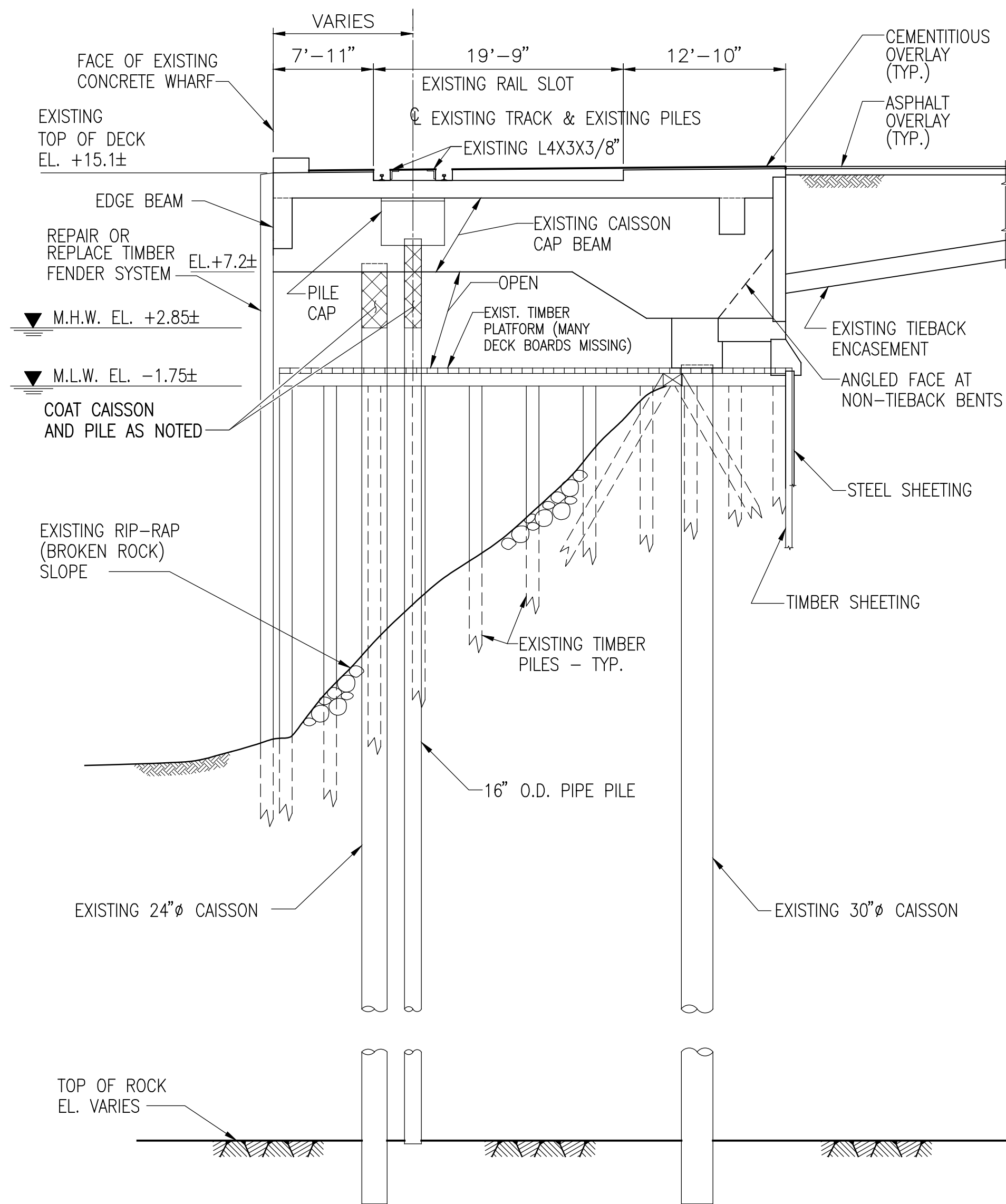
PORT OF ALBANY WHARF UPGRADES			
ALBANY		NEW YORK	
ALBANY PORT DISTRICT COMMISSION			
ALBANY — RENSSELAER			
ALBANY		NEW YORK	
MUESER RUTLEDGE CONSULTING ENGINEERS			
14 PENN PLAZA — 225 W. 34TH STREET, NY, NY 10122			
SCALE	MADE BY	M.A.S.	DATE 01—29—24
AS NOTED	CH'KD BY	A.D.	DATE 01—29—24
PLAN			FILE NO.
BENT 40 TO			14990
BENT 51			DRAWING NO.
			S—104





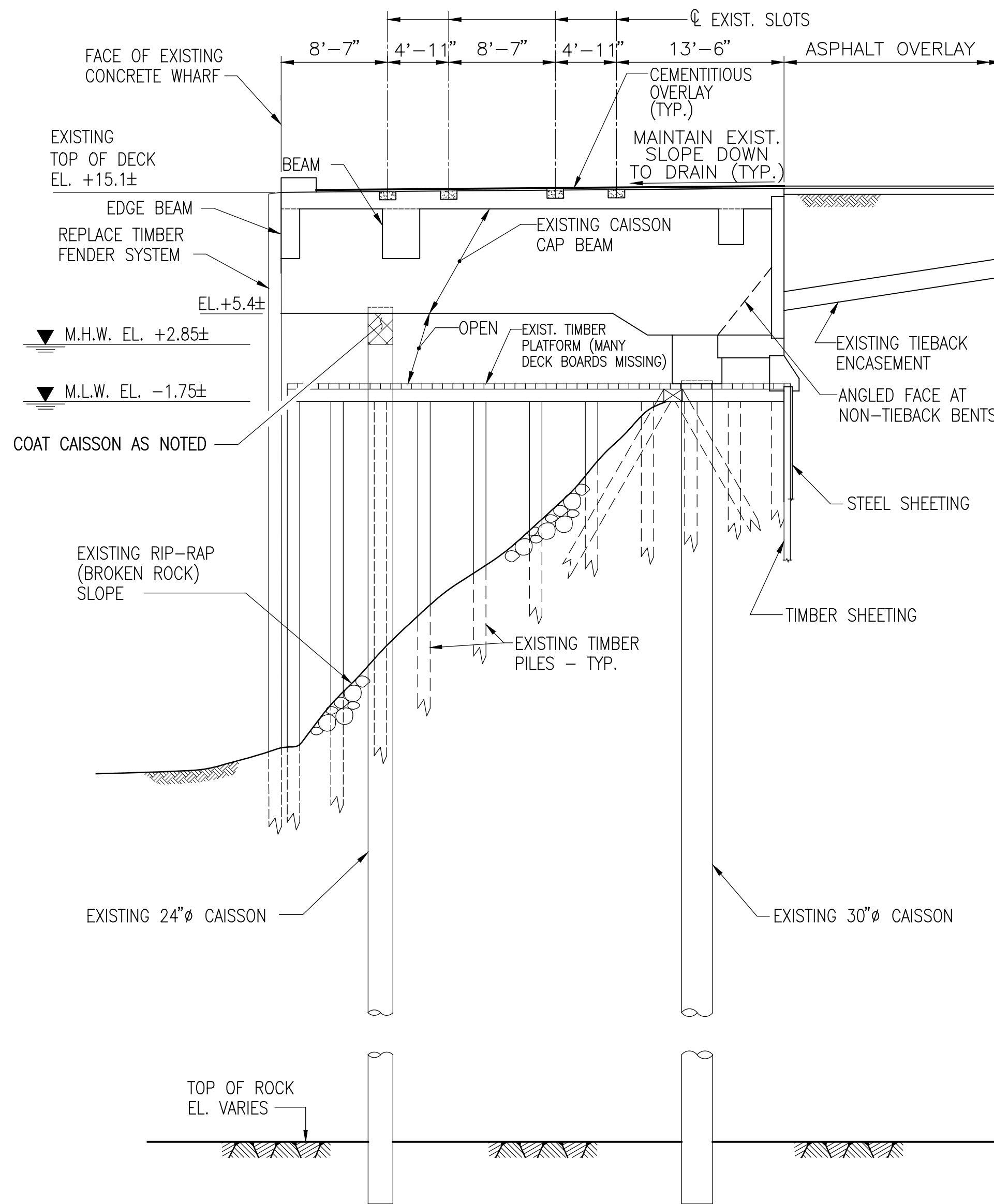
SECTION  
SCALE: 1/8"=1'-0"  
BENTS 1 TO 33

A  
S-100 S-200  
S-101  
S-102  
S-103



SECTION  
SCALE: 1/8"=1'-0"  
BENTS 33 TO 43

B  
S-103 S-200  
S-104



SECTION  
SCALE: 1/8"=1'-0"  
BENTS 49 TO 58

C  
S-104 S-200  
S-105

NOTE: FOR BENTS BETWEEN 43 AND 49, THE EXISTING RAIL TRACK AND RAIL SLOT TRANSITION IS AS SHOWN IN PLAN. CAISSON CAP BEAMS FROM BENT 45 TO 58, INCLUSIVE, ARE OF GREATER DEPTH (SEE SECTION C).

#### NOTES:

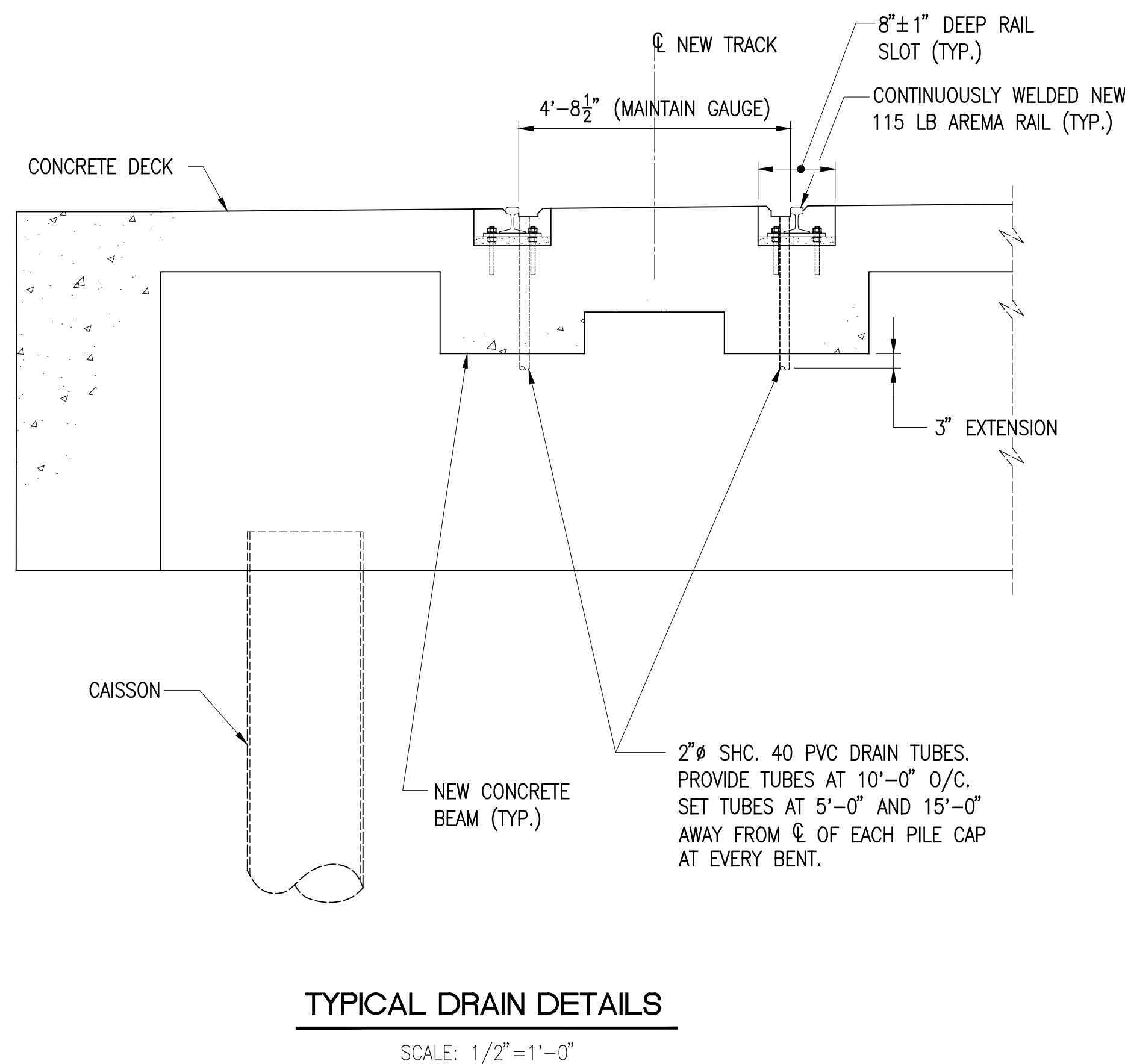
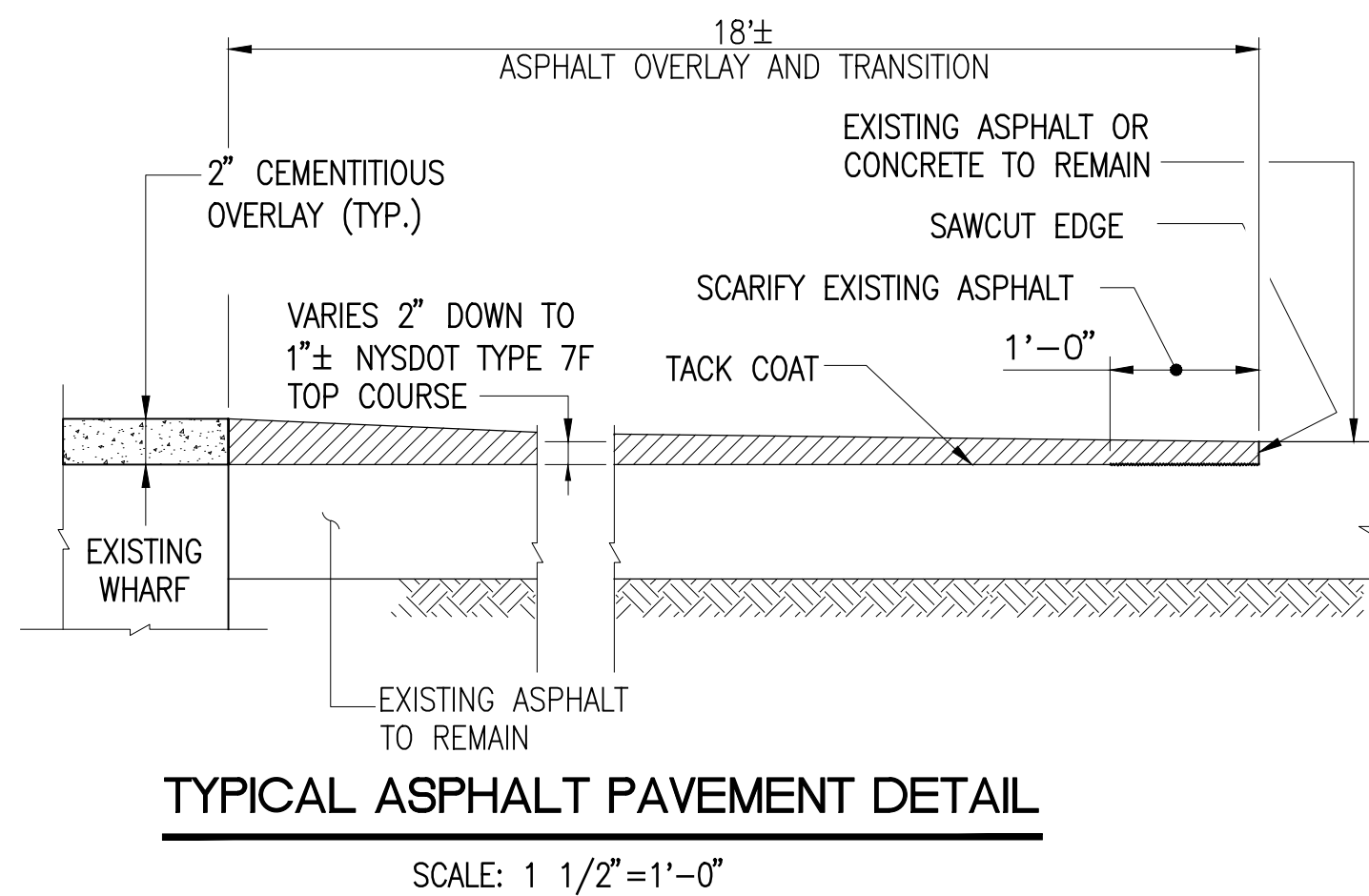
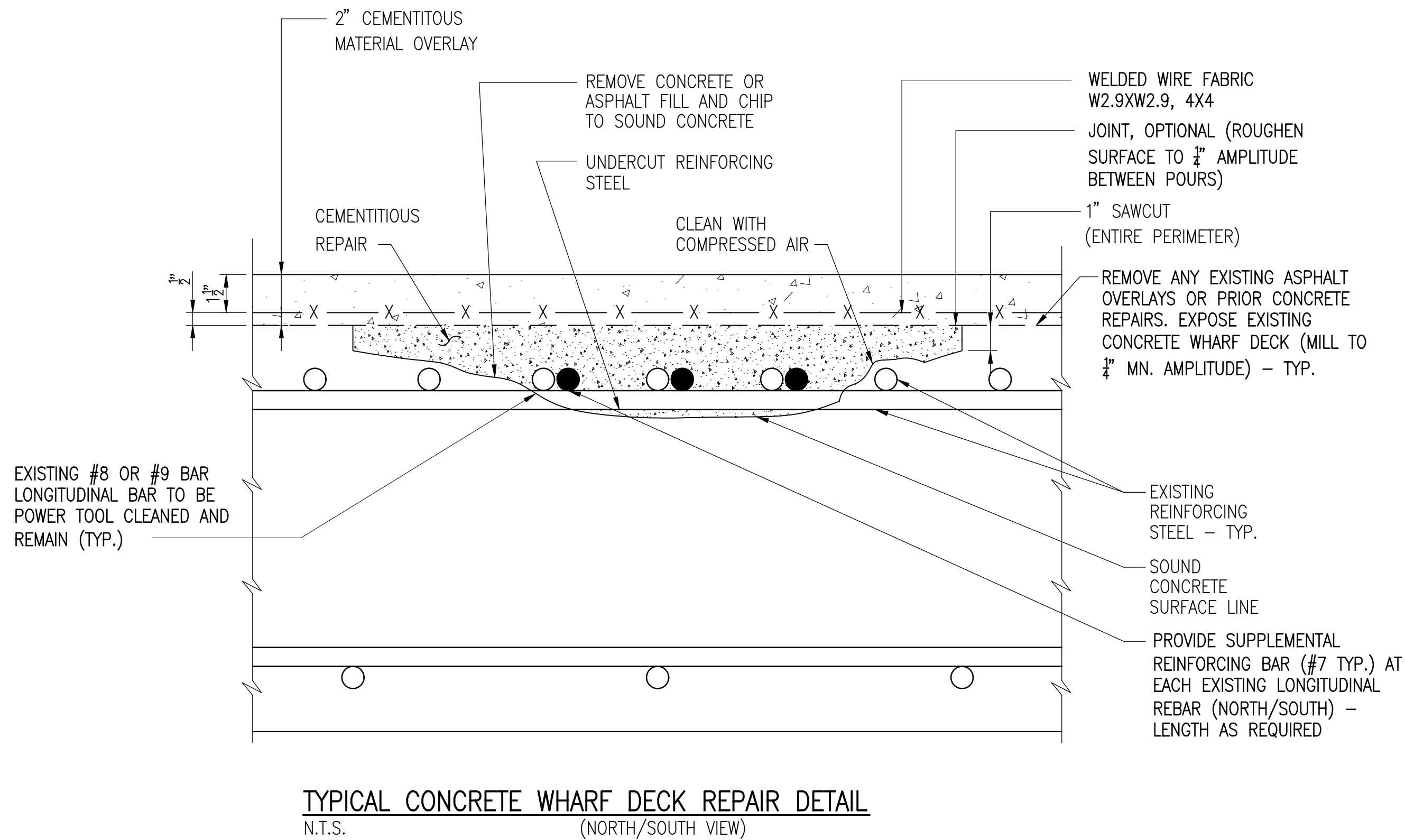
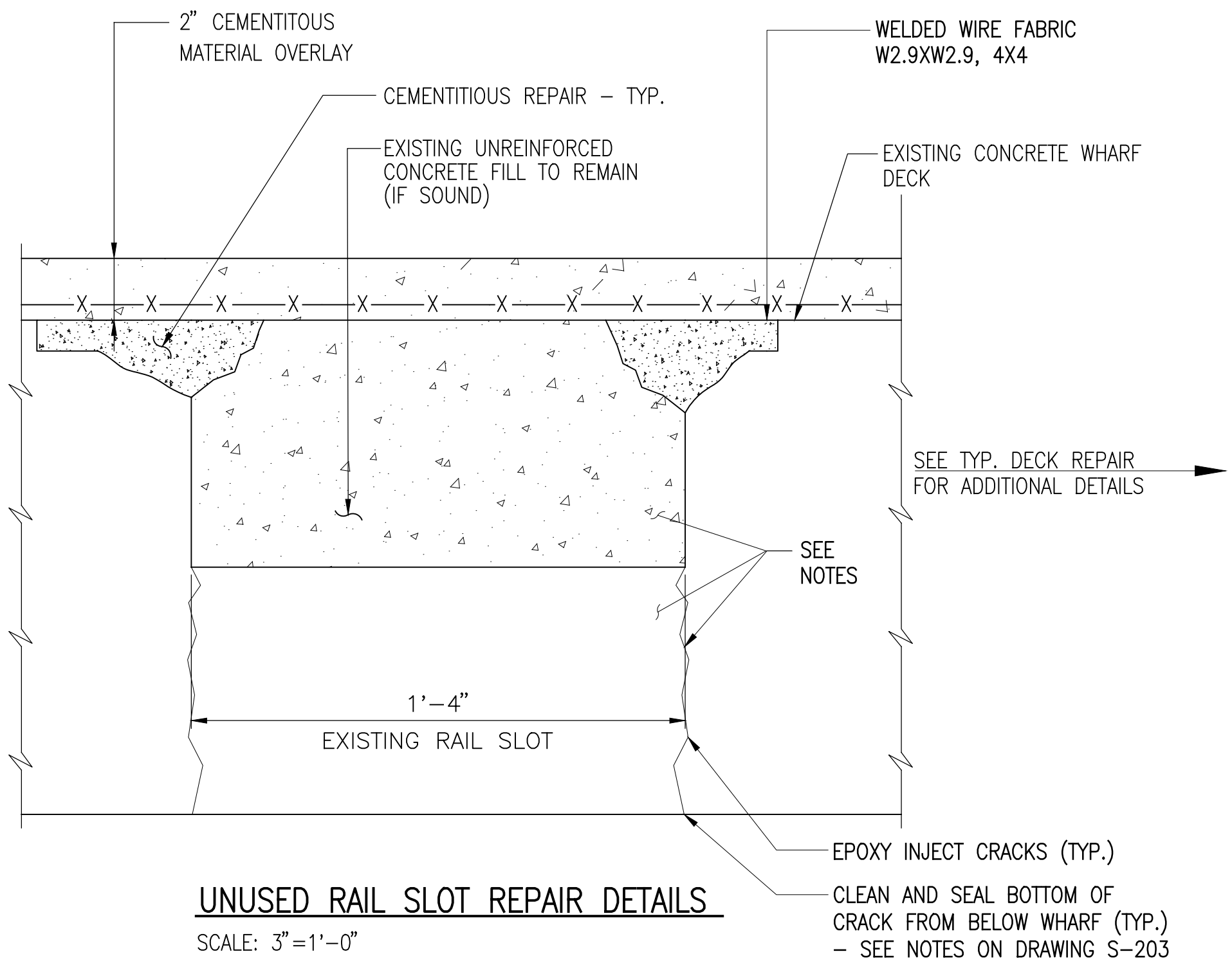
- FOR GENERAL NOTES, SEE DRAWING S-002.
- FOR FENDER SYSTEM, SEE ELEVATION DWGS. S-300 TO S-303 FOR REPAIR DETAILS AND EXACT LOCATIONS OF FENDER SYSTEM REPAIRS AND REPLACEMENTS.

#### CAISSON AND PILE COATING NOTES

- COAT 24 INCH DIAMETER CAISSONS AND 16 INCH DIAMETER PILES FROM MHW UP TO UNDERSIDE OF CONCRETE: CAISSONS FROM BENT NO. 2 TO BENT NO. 59, INCLUSIVE, AND PILES P-12 TO P-14 AND P-32 TO P-41 INCLUSIVE.
- POWER TOOL CLEAN ALL SURFACES TO SSPC - SP3 LEVEL.
- CAPTURE AND PROPERLY DISPOSE OF ALL CLEANING DEBRIS OR CHIPS OR OTHER MATERIALS ON SURFACES OF EXISTING CAISSONS AND PILES. DO NOT ALLOW SUCH MATERIAL TO ENTER THE RIVER BELOW.
- COAT CAISSONS WITH SIGMASHIELD 880GF, TWO COMPONENT HIGH SOLIDS GLASSFLAKE EPOXY COATING PRODUCT, AS MANUFACTURED BY PPG. FOLLOW ALL MANUFACTURERS DIRECTIONS.
- APPLY TWO COATS FOR A TOTAL OF 20 MILS THICKNESS OR GREATER. ONE COAT WILL NOT BE PERMITTED. PREVIOUS COAT MUST BE DRY AND FREE FROM ANY CONTAMINATION PRIOR TO SECOND COAT. OVERCOATING IS WITH SAME PRODUCT. ALLOW AT LEAST 24 HOURS BETWEEN COATS.
- DO NOT INSTALL AT TEMPERATURES LOWER THAN 45 DEGREES F OR WHEN SUCH TEMPERATURES ARE TO OCCUR WITHIN 24 HOURS BEFORE OR AFTER THE COATING.
- BOTH COATS SHALL BE COLOR BLACK.
- CONTRACTOR TO PROVIDE COATING THICKNESS TEST DATA BY INDEPENDENT TESTING LAB AS PROOF OF COMPLETION. OWNER RESERVES THE RIGHT TO PERFORM SEPARATE INSPECTION.

CONTRACT DRAWINGS  
2025-07-31

PORT OF ALBANY WHARF UPGRADES			
ALBANY		NEW YORK	
ALBANY PORT DISTRICT COMMISSION ALBANY — RENSSELAER			
ALBANY		NEW YORK	
MUESER RUTLEDGE CONSULTING ENGINEERS			
14 PENN PLAZA — 225 W. 34TH STREET, NY, NY 10122			
SCALE	MADE BY	M.A.S.	DATE 01-29-24
AS NOTED	CH'KD BY	A.D.	DATE 01-29-24
			FILE NO. 14990
WHARF SECTIONS			DRAWING NO. S-200



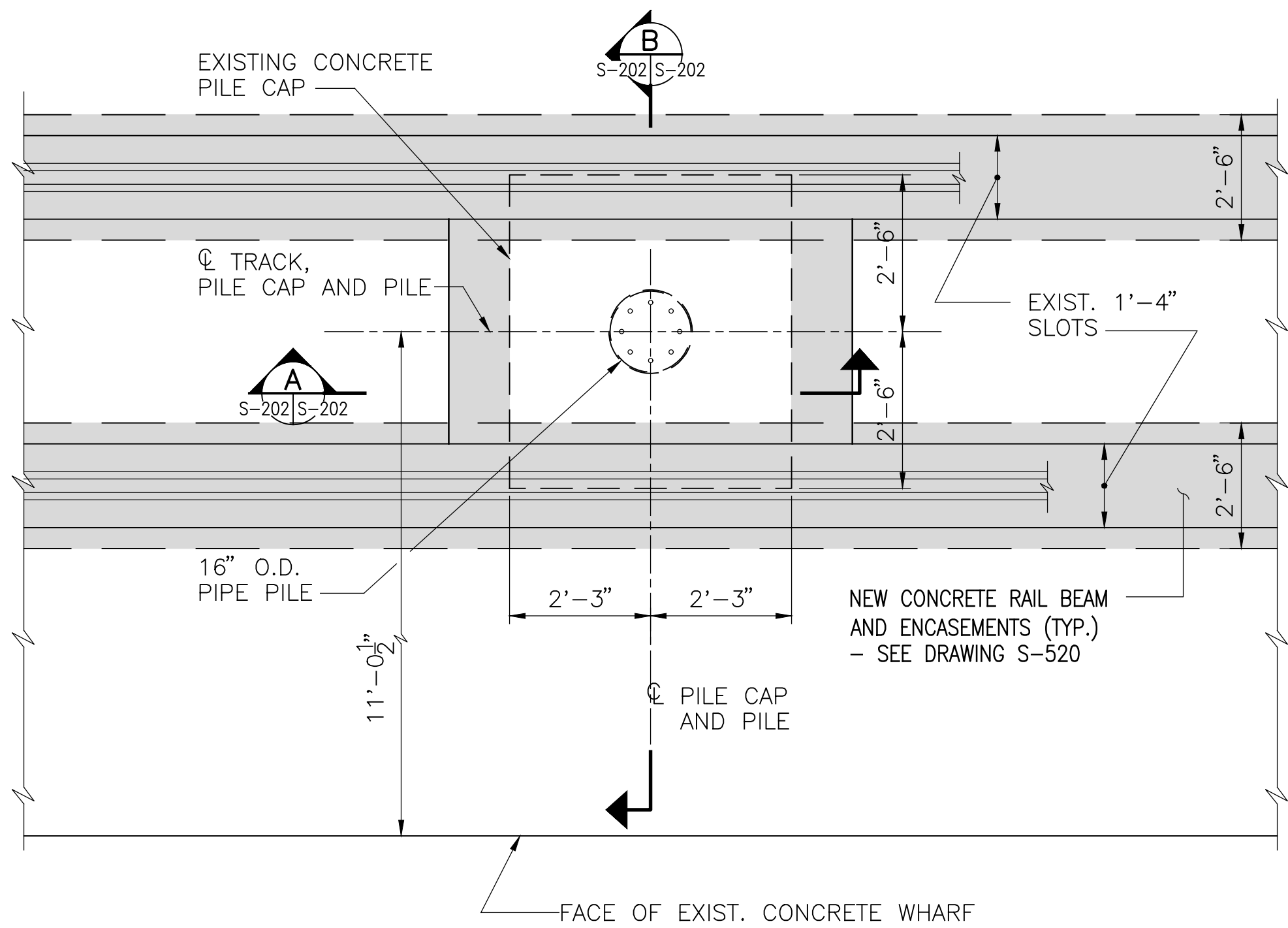
#### NOTES:

- FOR GENERAL NOTES, SEE DRAWING NO. S-002, FOR OTHER NOTES, SEE DRAWING NO. S-100.
- FOR UNUSED RAIL SLOTS, IF EXISTING CONCRETE FILL OR DECK SLAB CONCRETE BELOW IS UNSOUND AND/OR DETERIORATED, THE ENGINEER WILL PROVIDE DETAILS FOR LOCAL REINFORCED CONCRETE REPAIRS, POSSIBLY IN LIEU OF EPOXY INJECTION OF CRACKS.

**CONTRACT DRAWINGS**  
2025-07-31

PORT OF ALBANY WHARF UPGRADES			
ALBANY		NEW YORK	
ALBANY PORT DISTRICT COMMISSION			
ALBANY — RENSSELAER			
ALBANY		NEW YORK	
MUESER RUTLEDGE CONSULTING ENGINEERS			
14 PENN PLAZA — 225 W. 34TH STREET, NY, NY 10122			
SCALE	MADE BY	M.A.S.	DATE 01-29-24
AS NOTED	CH'KD BY	A.D.	DATE 01-29-24
WHARF			FILE NO.
SECTIONS AND DETAILS			14990
1 OF 2			DRAWING NO.
			S-201

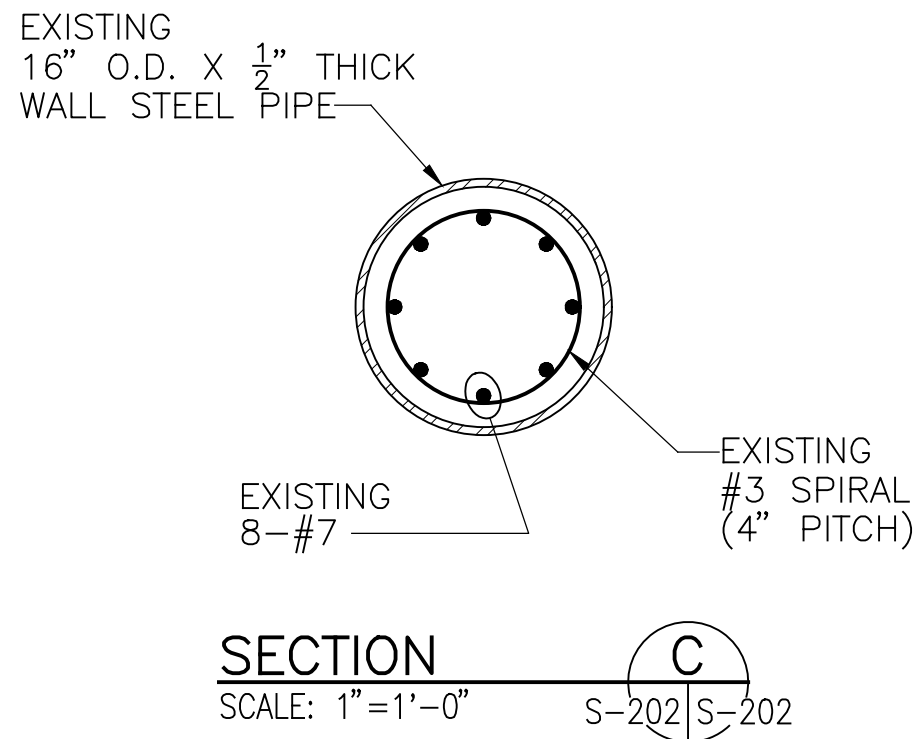
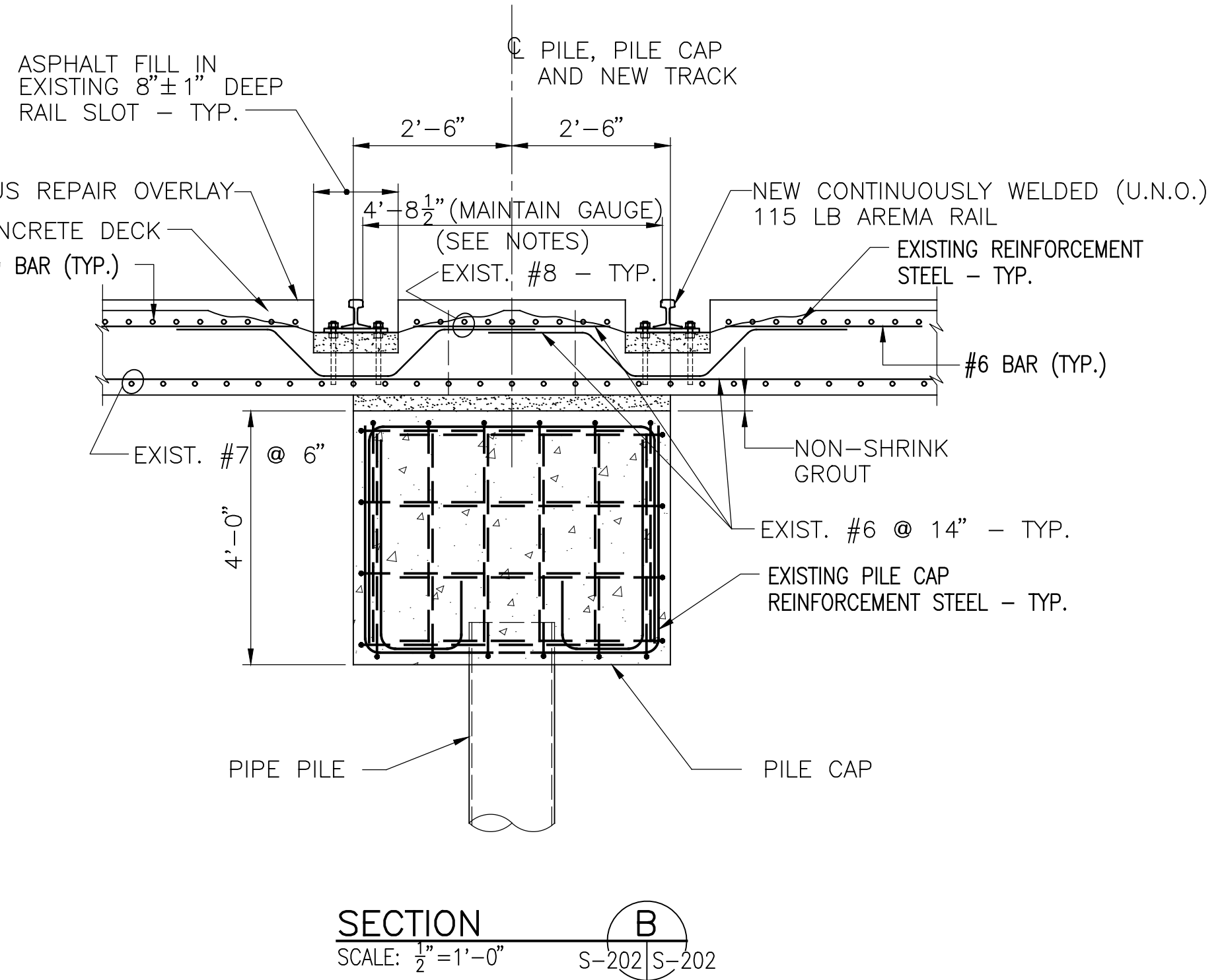
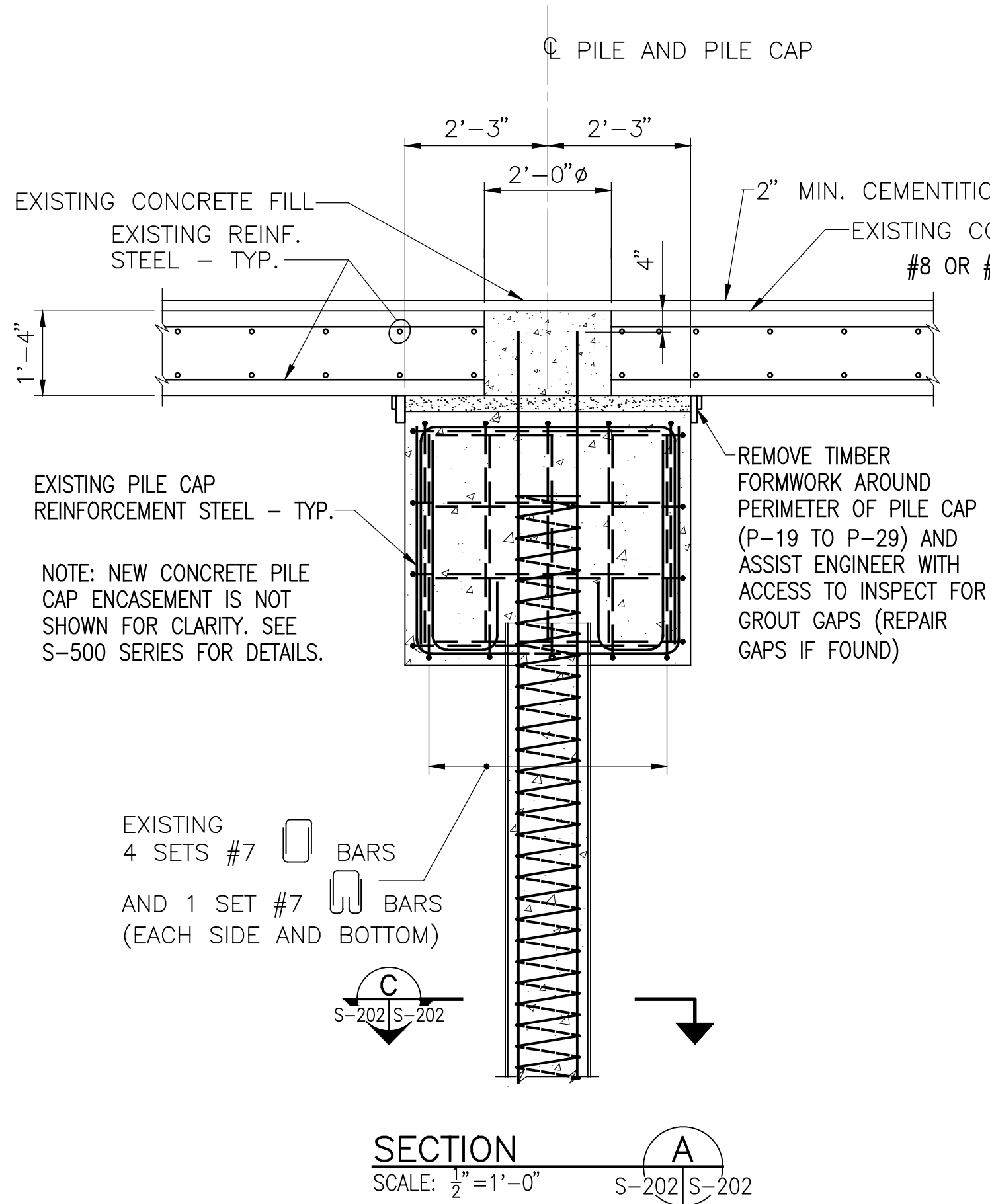
D:\GCS\8888\F-4.DWG (XREF: 8888-SHT.DWG)



DETAIL 1  
SCALE:  $\frac{1}{2}" = 1'-0"$   
S-100 S-202  
S-101  
S-102  
S-103

#### NOTES

- FOR GENERAL NOTES, SEE DRAWING NO. S-002.
- GAUGE IS 4'-8 1/2" FOR STRAIGHT TRACKS. INCREASE GAUGE TO APPROXIMATELY 4'-9" AT CURVED TRACKS.



PORT OF ALBANY WHARF UPGRADES  
ALBANY NEW YORK

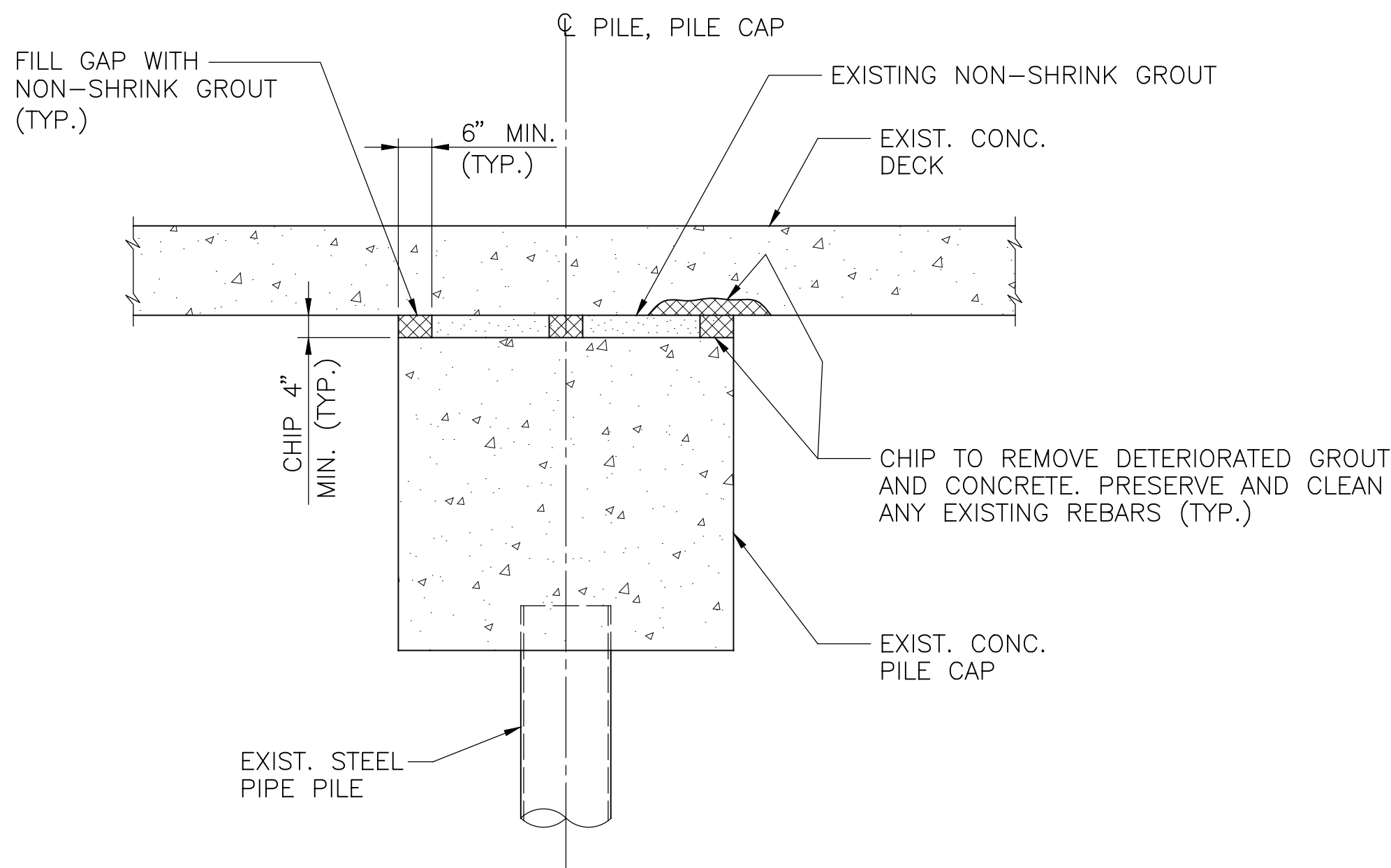
ALBANY PORT DISTRICT COMMISSION  
ALBANY - RENSSELAER  
ALBANY NEW YORK

MUESER RUTLEDGE CONSULTING ENGINEERS  
14 PENN PLAZA - 225 W. 34TH STREET, NY, NY 10122

SCALE	MADE BY	M.A.S.	DATE	01-29-24	FILE NO.
AS NOTED	CH'KD BY	A.D.	DATE	01-29-24	14990

WHARF SECTIONS AND DETAILS 2 OF 2	DRAWING NO. S-202
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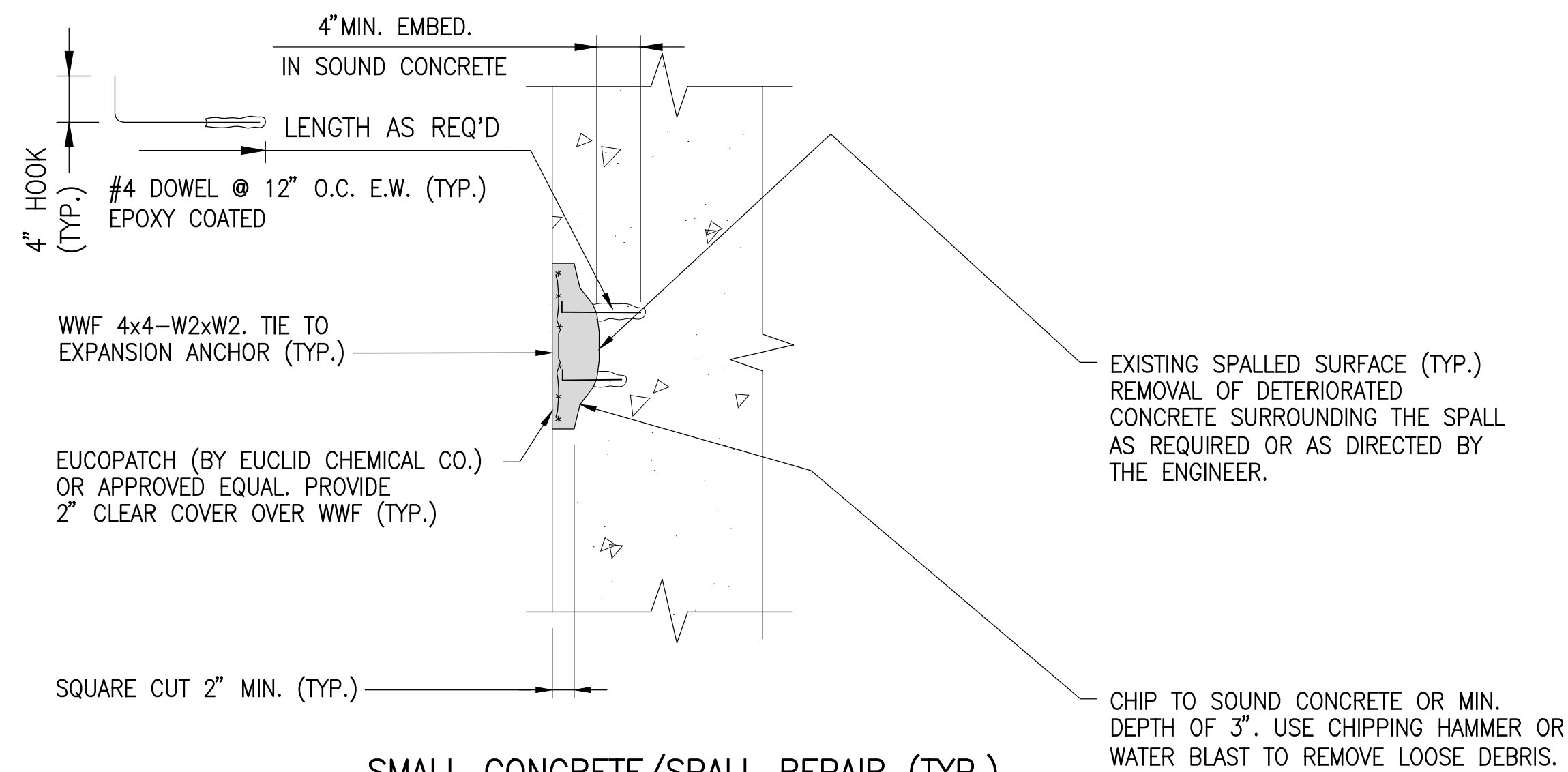
CONTRACT DRAWINGS  
2025-07-31



#### REPAIR GAP BETWEEN PILE CAP AND DECK

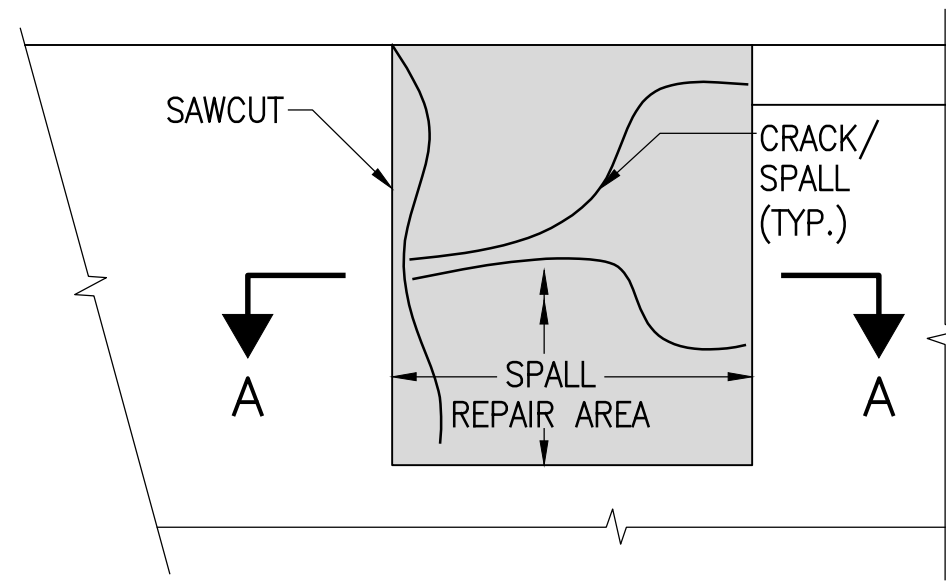
NOTE: NEW CONCRETE ENCASEMENT AROUND AND BELOW EXISTING PILE CAP NOT SHOWN FOR CLARITY. SEE S-500 SERIES

NON-SHRINK GROUT IS MISSING LOCALLY FROM BETWEEN EXISTING DECK UNDERSIDE AND TOP OF EXISTING PILE CAPS. ASSUME ALL PILE CAPS FROM P-1 TO P-32 WILL HAVE SOME GAPS. P-4, P-5, P-7, AND P-16 HAVE EXTENSIVE GAPS AS INDICATED ON BENT REPAIR CROSS SECTION DRAWINGS. REPAIR AS SHOWN IF GROUT OR DETERIORATED DECK AREA IS NOT WITHIN NEW CONCRETE BEAM OR ENCASEMENT.



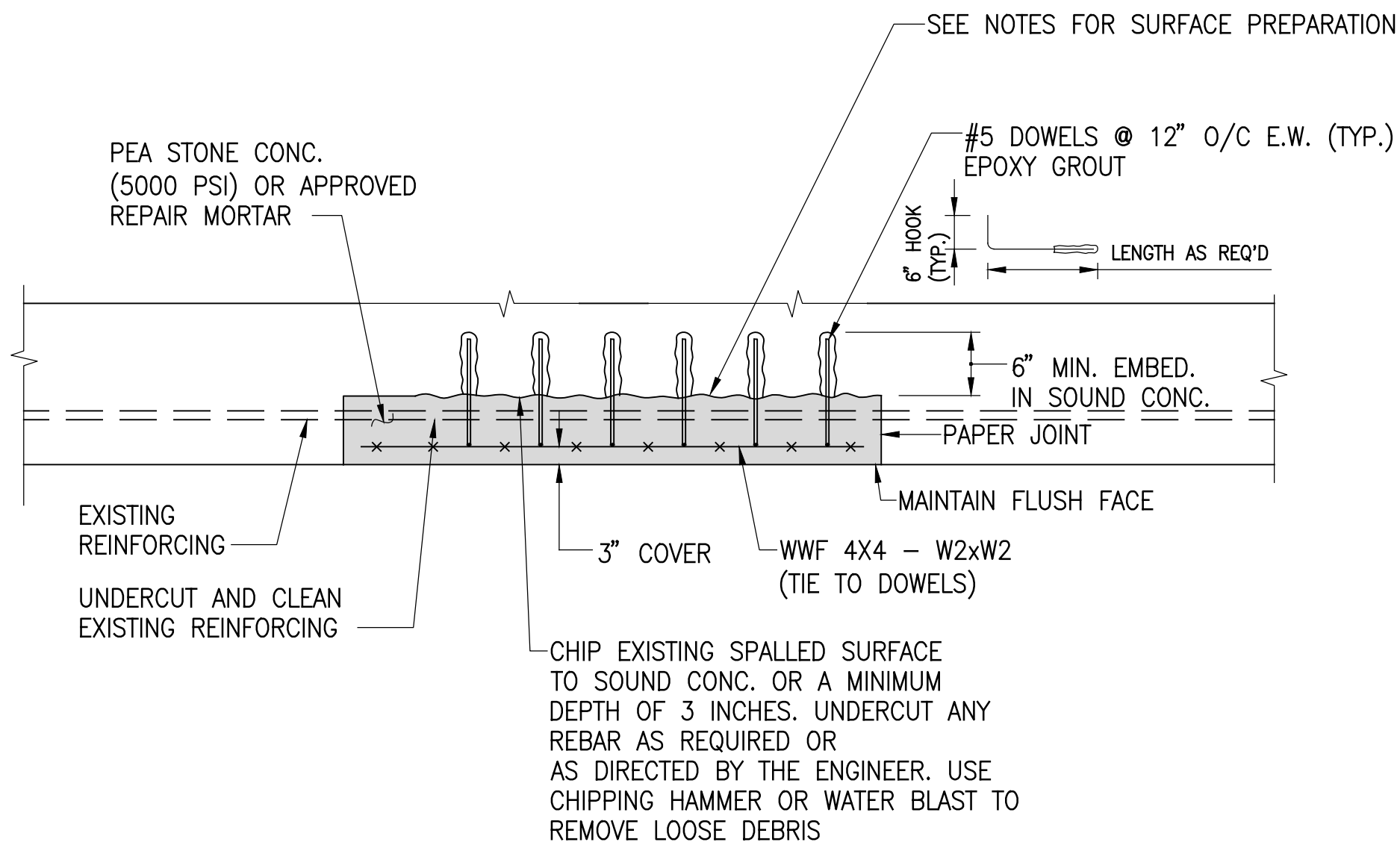
#### SMALL CONCRETE/SPALL REPAIR (TYP.)

SCALE: NTS



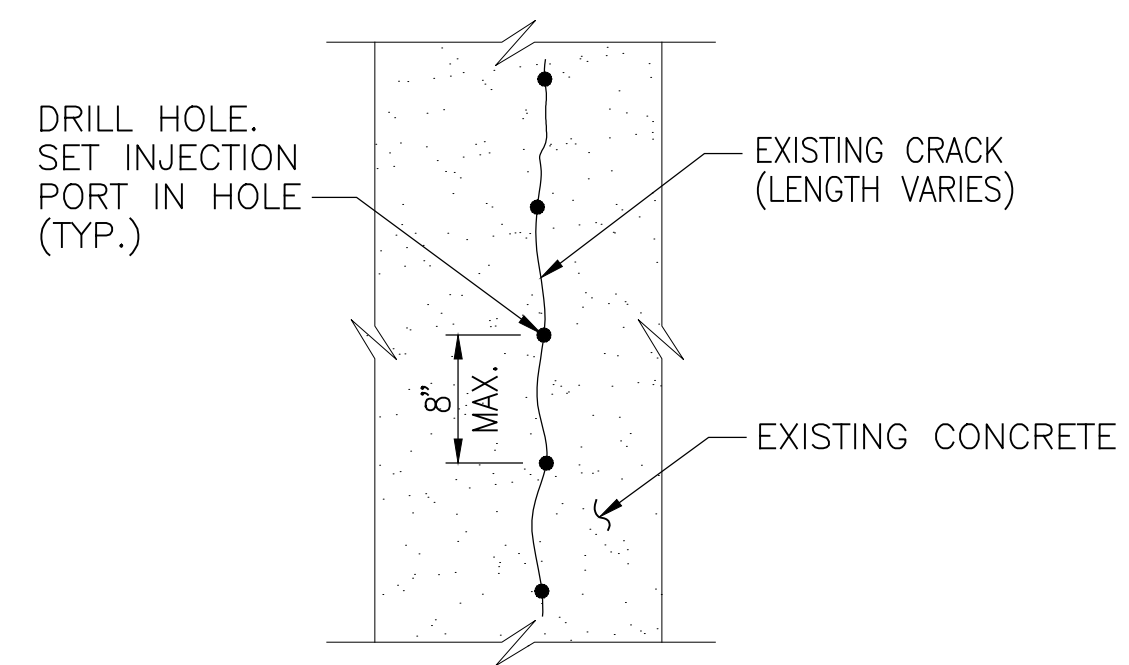
#### LARGE CONCRETE SPALL REPAIR

SCALE:  $\frac{1}{4}$ "=1'-0"



#### SECTION A-A

SCALE:  $\frac{1}{2}$ "=1'-0"



#### EPOXY CRACK INJECT CONCRETE REPAIR

##### REPAIR PROCEDURE

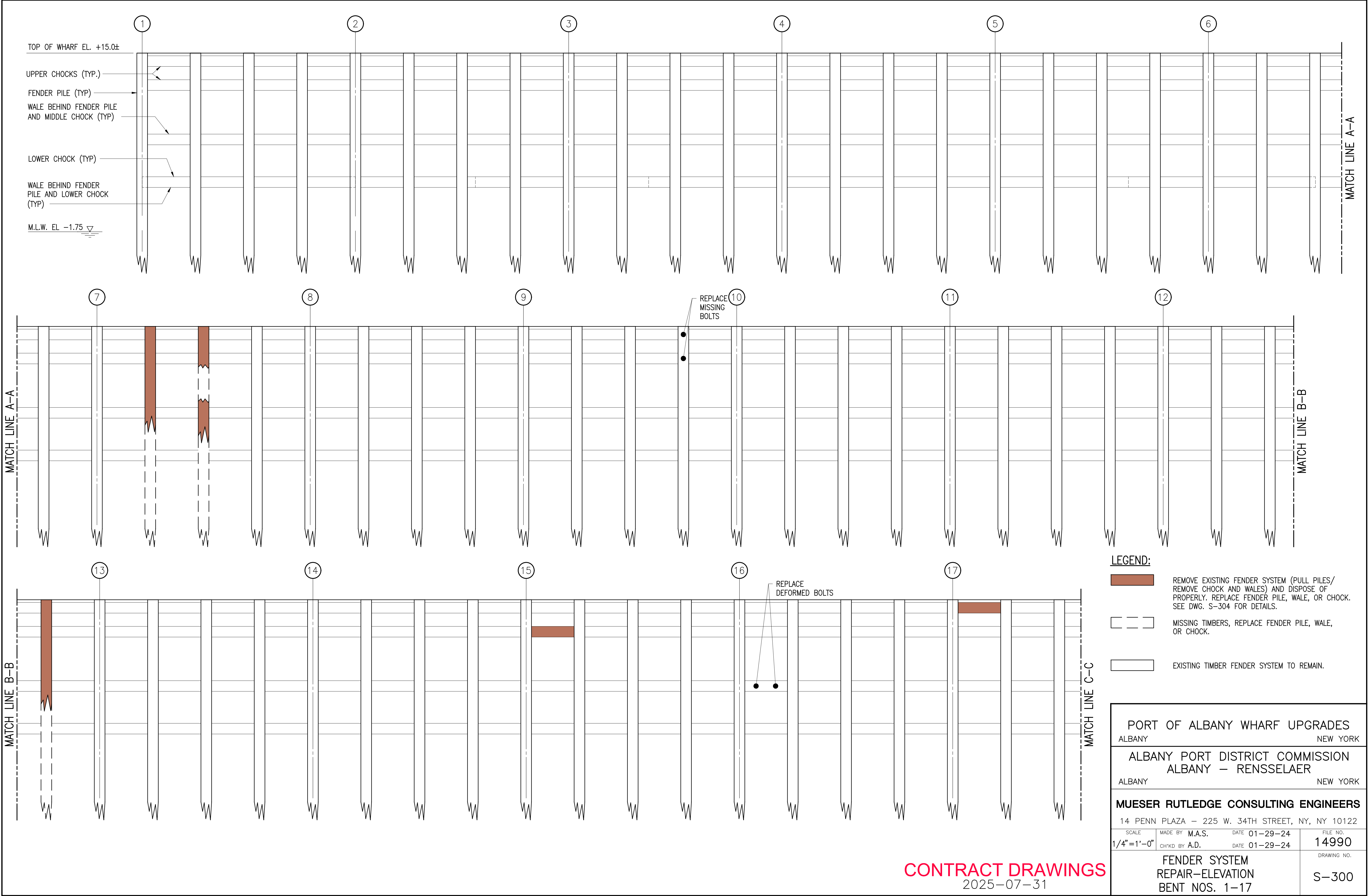
1. FOR CRACKS IN CONCRETE AT UNUSED EXISTING RAIL SLOTS AT BENTS NOS. 2 TO 33, AND OUTSIDE OF LARGE RAIL SLOT AT BENTS 33 TO 47, AS SHOWN ON REFERENCE DRAWINGS R-101 TO R-103 AND AS OTHERWISE NOTED.
2. IF CRACK IN CONCRETE IS WIDER THAN  $\frac{1}{4}$ ", THE CONTRACTOR SHALL REPAIR AS DIRECTED BY THE ENGINEER.
3. CLEAN CRACK OF ALL MARINE GROWTH, LAITANCE, EFFLORESCENCE, STALACTITES, LOOSE MATERIAL, DEBRIS, AND OTHER CONTAMINANTS BY WATER PRESSURE WASHING, GRINDING AND SCRAPING AS APPROPRIATE.
4. SEAL CRACKS PRIOR TO INJECTION GROUTING WITH SIKADUR 35, HI-MOD LV AS MANUFACTURED BY SIKA CORPORATION OR APPROVED EQUAL, ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
5. PRESSURE INJECT CRACKS ( $\frac{1}{4}$ " MAX) WITH SIKADUR INJECTION GEL OR SIKADUR 35 BY SIKA OR APPROVED EQUAL, ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

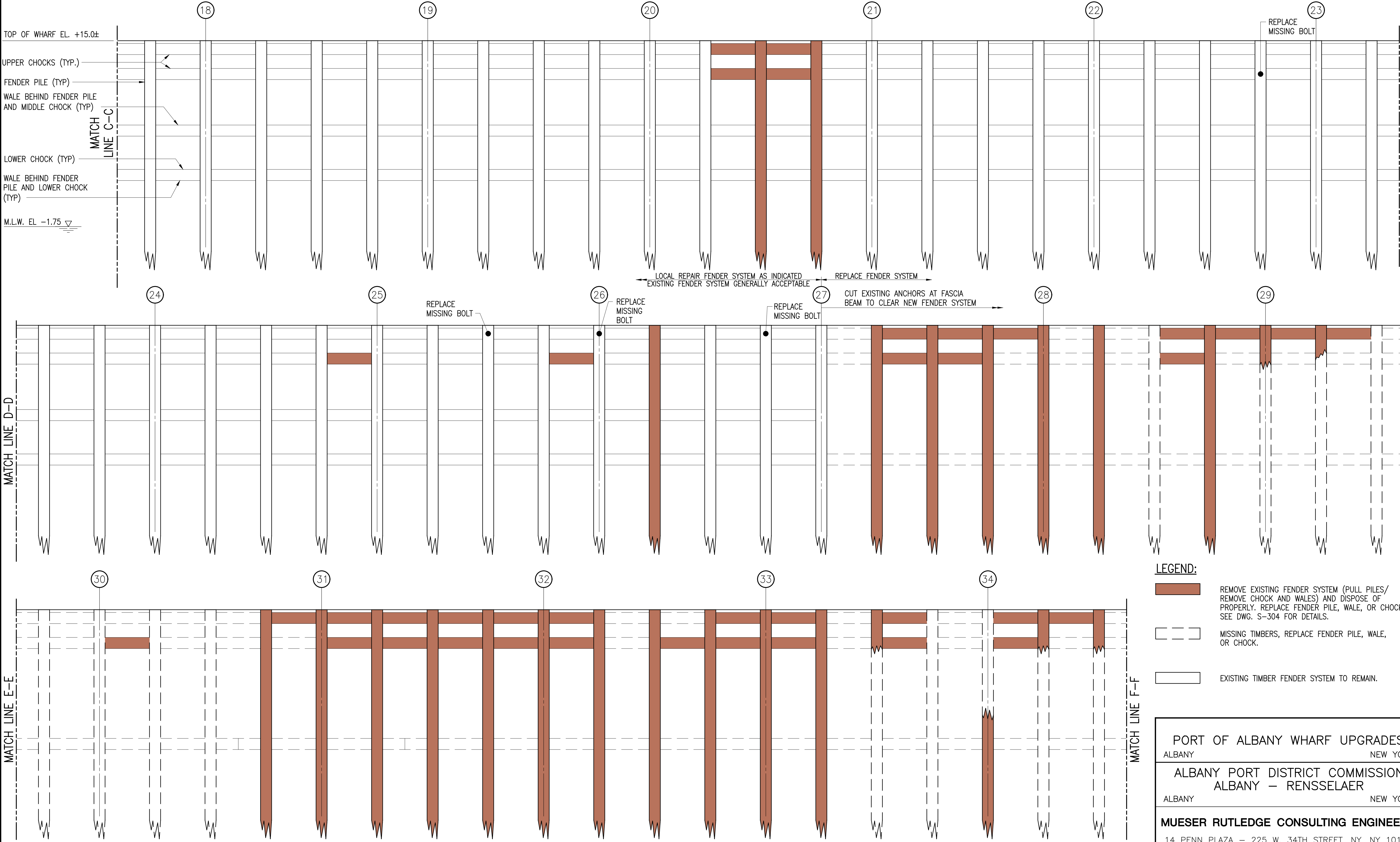
##### NOTES:

1. FOR GENERAL NOTES, SEE S-002. FOR OTHER NOTES SEE DRAWING S-100.
2. CLEAN ALL DUST AND LOOSE CONCRETE FROM SPALL REPAIR AREAS AND DAMPEN TO SURFACE SATURATED DRY (SSD) CONDITION BEFORE CASTING REPAIR MATERIAL.

PORT OF ALBANY WHARF UPGRADES			
ALBANY		NEW YORK	
ALBANY PORT DISTRICT COMMISSION ALBANY — RENSSELAER			
ALBANY		NEW YORK	
MUESER RUTLEDGE CONSULTING ENGINEERS			
14 PENN PLAZA — 225 W. 34TH STREET, NY, NY 10122			
SCALE	MADE BY	M.A.S.	DATE 04-11-25
AS NOTED	CH'KD BY	A.D.	DATE 04-11-25
			FILE NO. 14990
MISCELLANEOUS REPAIR DETAILS			DRAWING NO. S-203

CONTRACT DRAWINGS  
2025-07-31

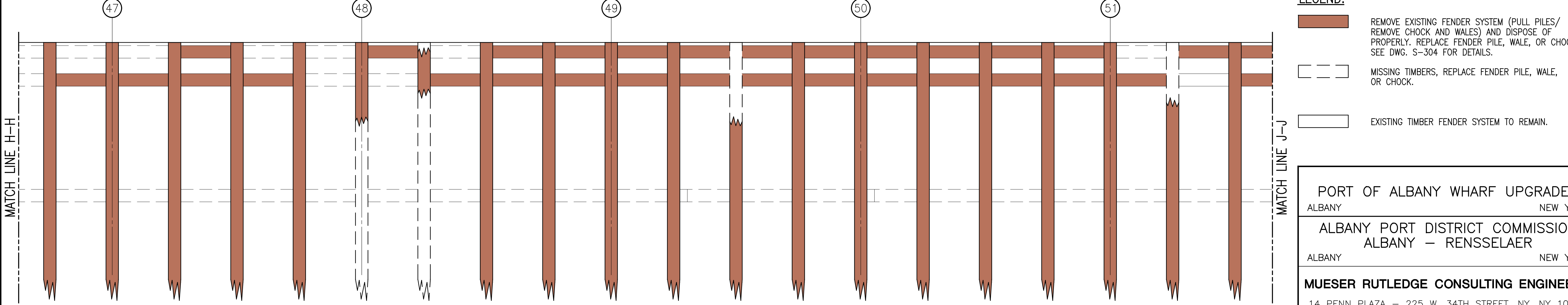
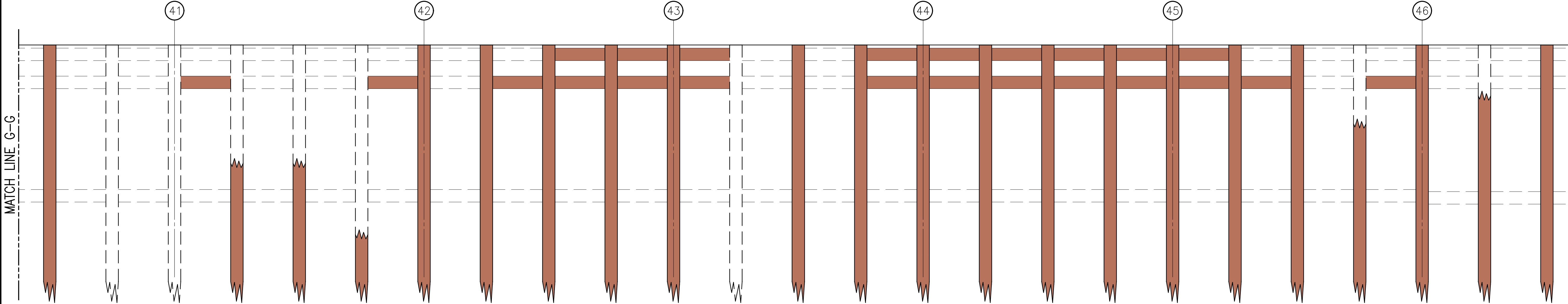
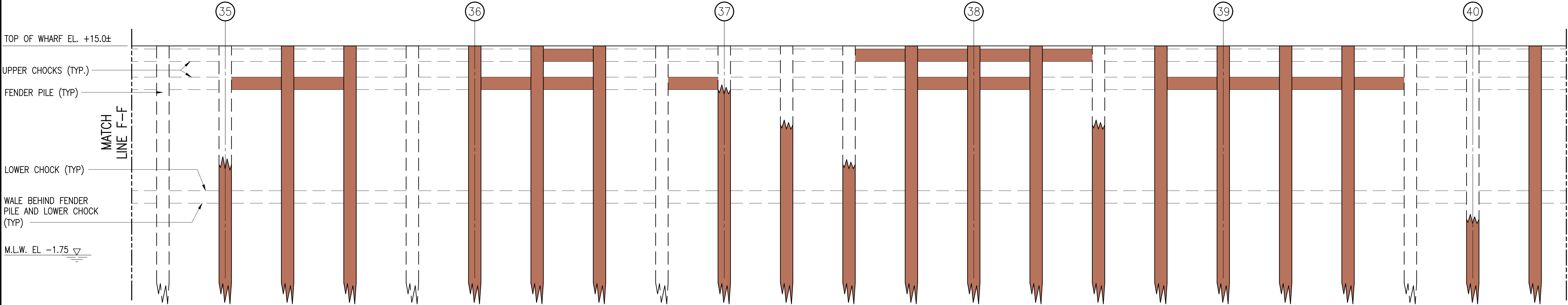




- LEGEND:**
- REMOVE EXISTING FENDER SYSTEM (PULL PILES/ REMOVE CHOCK AND WALES) AND DISPOSE OF PROPERLY. REPLACE FENDER PILE, WALE, OR CHOCK. SEE DWG. S-304 FOR DETAILS.
  - MISSING TIMBERS, REPLACE FENDER PILE, WALE, OR CHOCK.
  - EXISTING TIMBER FENDER SYSTEM TO REMAIN.

PORT OF ALBANY WHARF UPGRADES			
ALBANY		NEW YORK	
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ALBANY — RENSSELAER			
ALBANY		NEW YORK	
MUESER RUTLEDGE CONSULTING ENGINEERS			
14 PENN PLAZA — 225 W. 34TH STREET, NY, NY 10122			
SCALE	MADE BY	DATE	FILE NO.
1/4"=1'-0"	M.A.S.	01-29-24	14990
	CH'KD BY	DATE	DRAWING NO.
	A.D.	01-29-24	
FENDER SYSTEM REPAIR-ELEVATION BENT NOS. 18-34			S-301

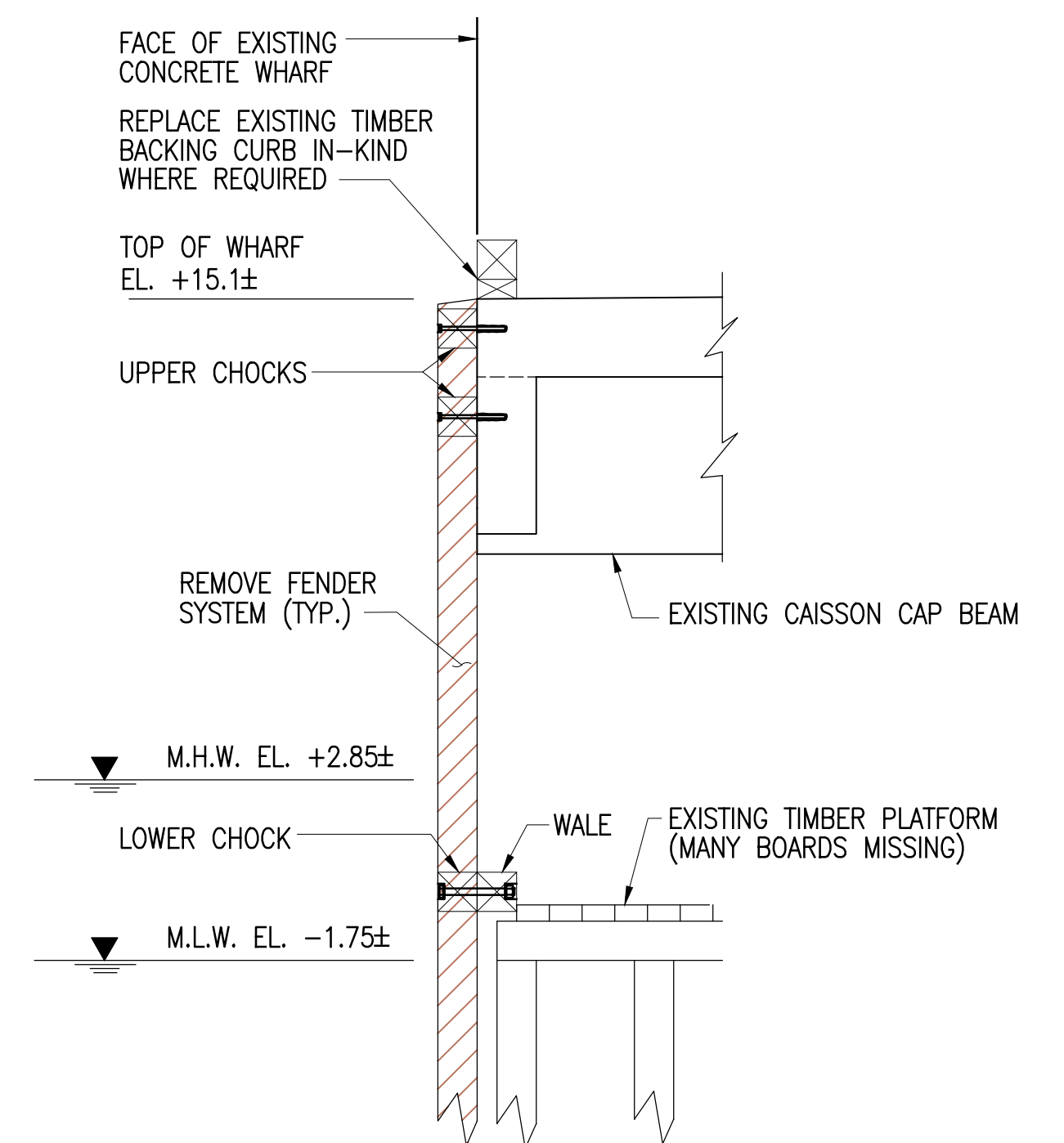
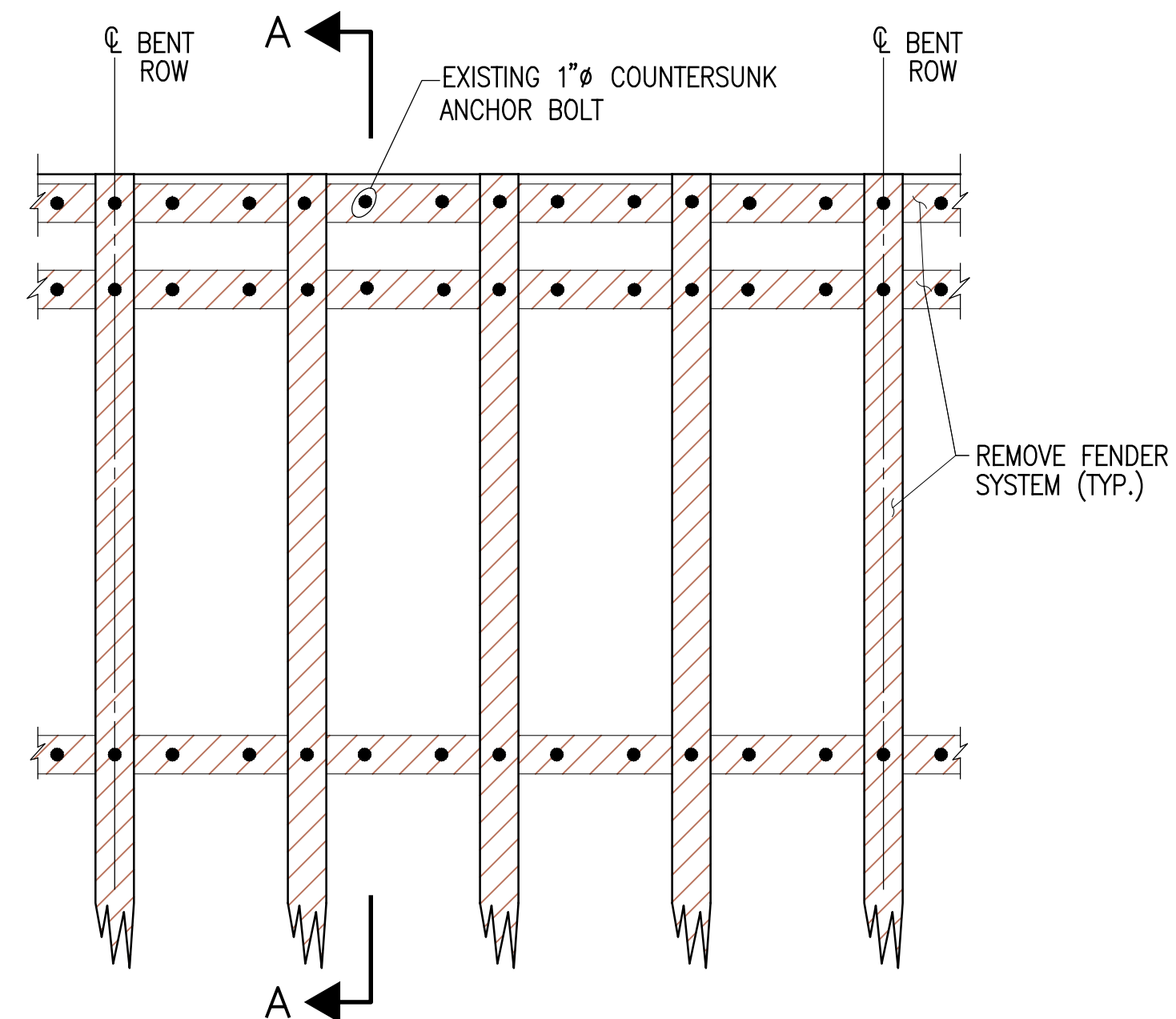
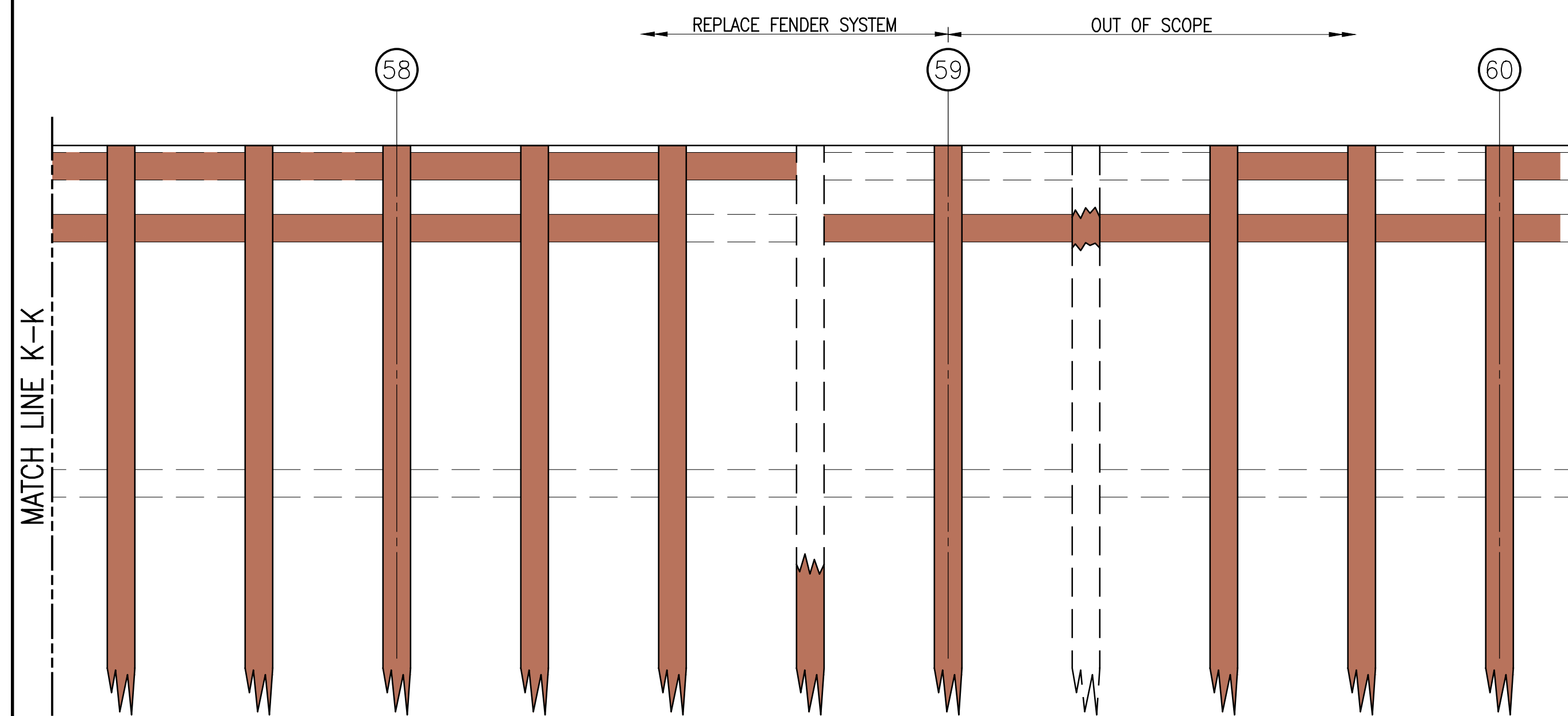
CONTRACT DRAWINGS  
2025-07-31



- LEGEND:**
- REMOVE EXISTING FENDER SYSTEM (PULL PILES/ REMOVE CHOCK AND WALES) AND DISPOSE OF PROPERLY. REPLACE FENDER PILE, WALE, OR CHOCK. SEE DWG. S-304 FOR DETAILS.
  - MISSING TIMBERS, REPLACE FENDER PILE, WALE, OR CHOCK.
  - EXISTING TIMBER FENDER SYSTEM TO REMAIN.


PORT OF ALBANY WHARF UPGRADES			
ALBANY		NEW YORK	
ALBANY PORT DISTRICT COMMISSION			
ALBANY — RENSSELAER			
ALBANY		NEW YORK	
MUESER RUTLEDGE CONSULTING ENGINEERS			
14 PENN PLAZA — 225 W. 34TH STREET, NY, NY 10122			
SCALE	MADE BY	DATE	FILE NO.
1/4"=1'-0"	M.A.S.	01-29-24	14990
	CH'KD BY	DATE	DRAWING NO.
	A.D.	01-29-24	
FENDER SYSTEM REPAIR—ELEVATION BENT NOS. 35—51			S—302

CONTRACT DRAWINGS  
2025-07-31



REMOVE EXISTING FENDER SYSTEM (PULL PILES/  
REMOVE CHOCK AND WALES) AND DISPOSE OF  
PROPERLY. REPLACE FENDER PILE, WALE, OR CHOCK.  
SEE DWG. S-304 FOR DETAILS.

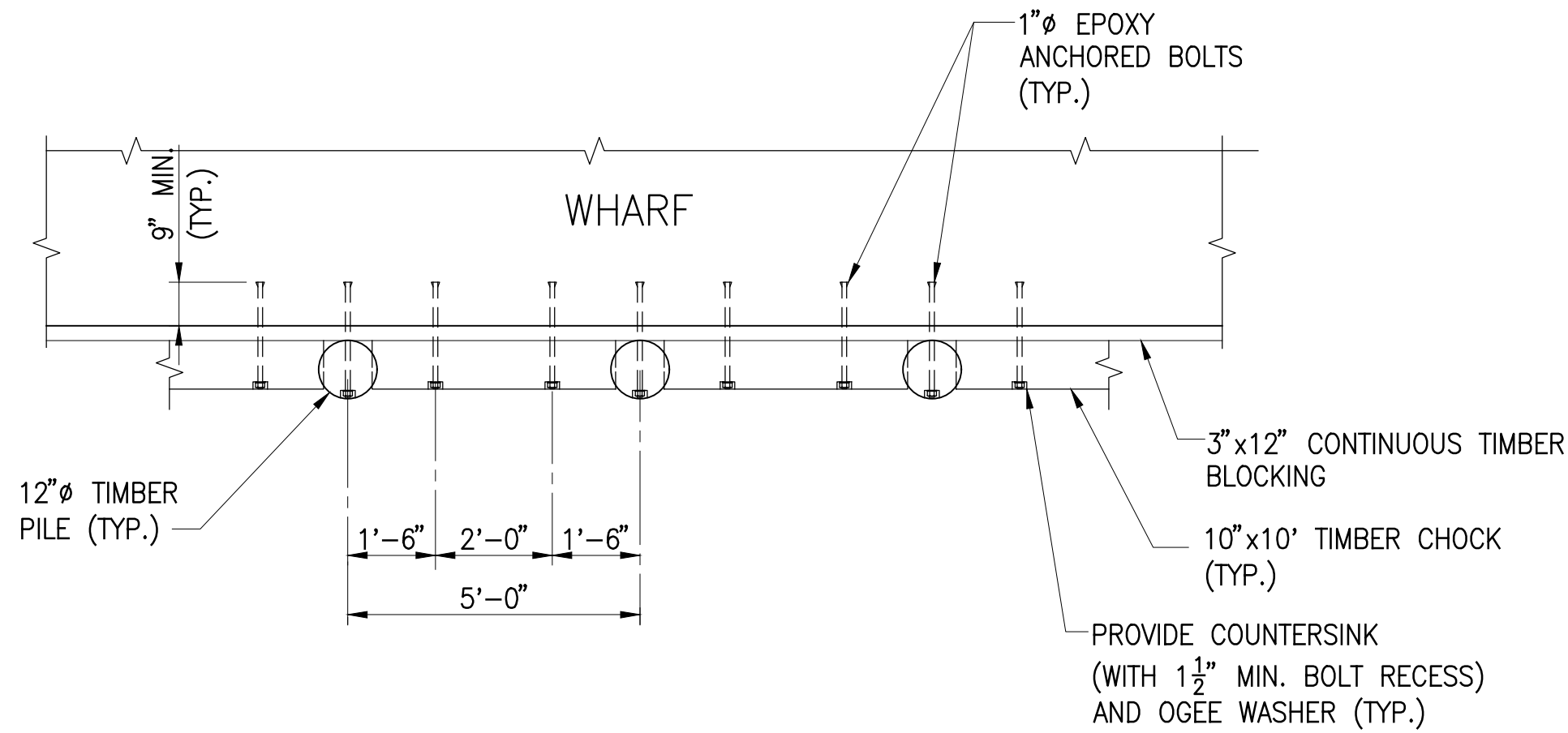
☐ EXISTING TIMBER FENDER SYSTEM TO REMAIN

 MISSING TIMBERS, REPLACE FENDER PILE, WALE,  
OR CHOCK TO BE REPLACED.

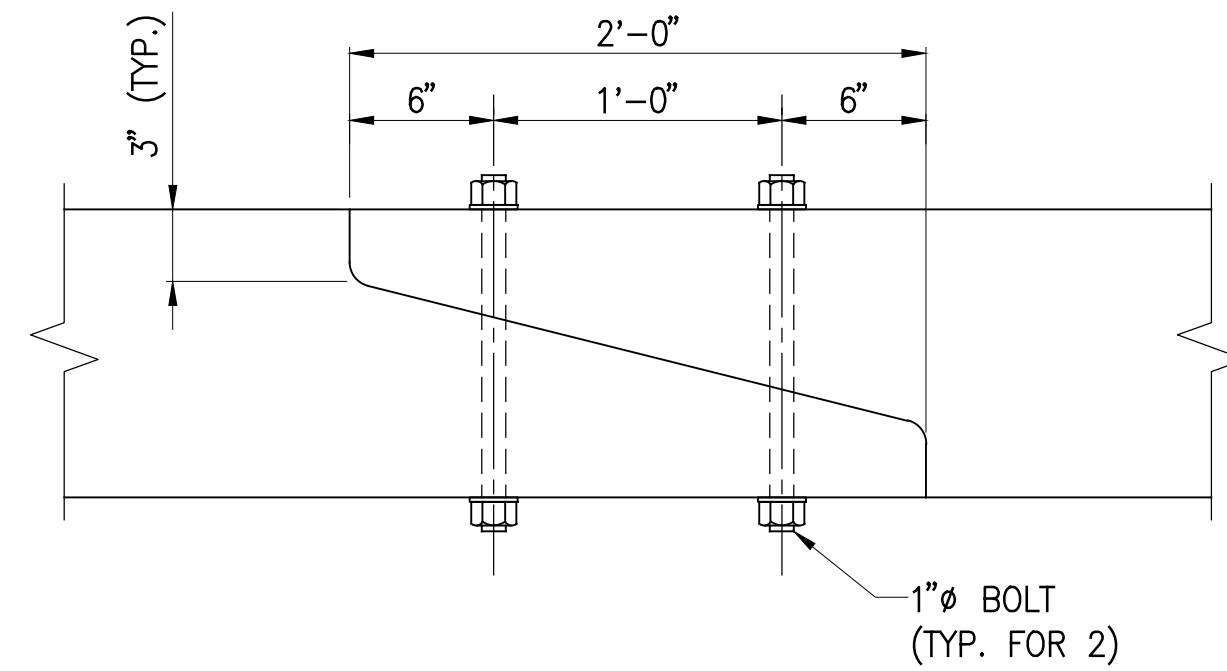
SECTION A  
SCALE: 1/4"=1'-0" S-303 | S-303  
(REPLACE WITH NEW FENDER SYSTEM AS SHOWN ON DRAWINGS)

PORT OF ALBANY WHARF UPGRADES		ALBANY		NEW YORK	
ALBANY PORT DISTRICT COMMISSION					
ALBANY — RENSSELAER					
ALBANY		NEW YORK			
<b>MUESER RUTLEDGE CONSULTING ENGINEERS</b>					
14 PENN PLAZA — 225 W. 34TH STREET, NY, NY 10122					
SCALE	MADE BY	M.A.S.	DATE	01-29-24	FILE NO.
AS NOTED	CH'D BY	A.D.	DATE	01-29-24	14990
FENDER SYSTEM REPAIR—ELEVATION BENT NOS. 52-58 & DETAILS					DRAWING NO.  S—303

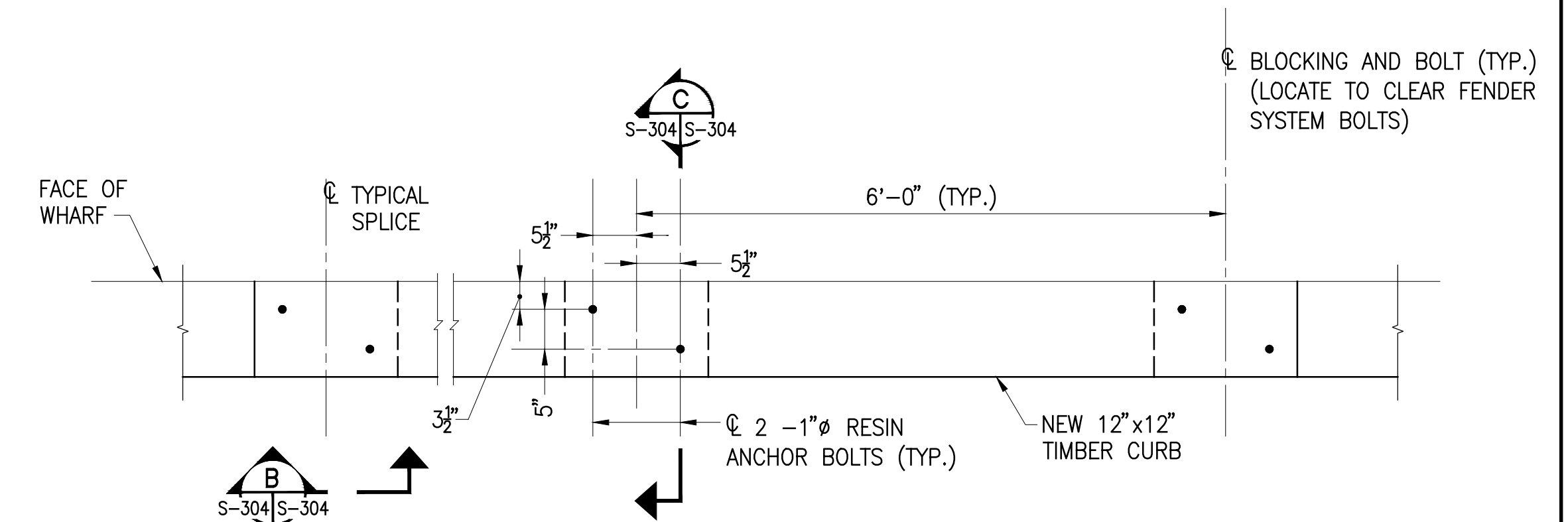
CONTRACT DRAWINGS  
2025-07-31



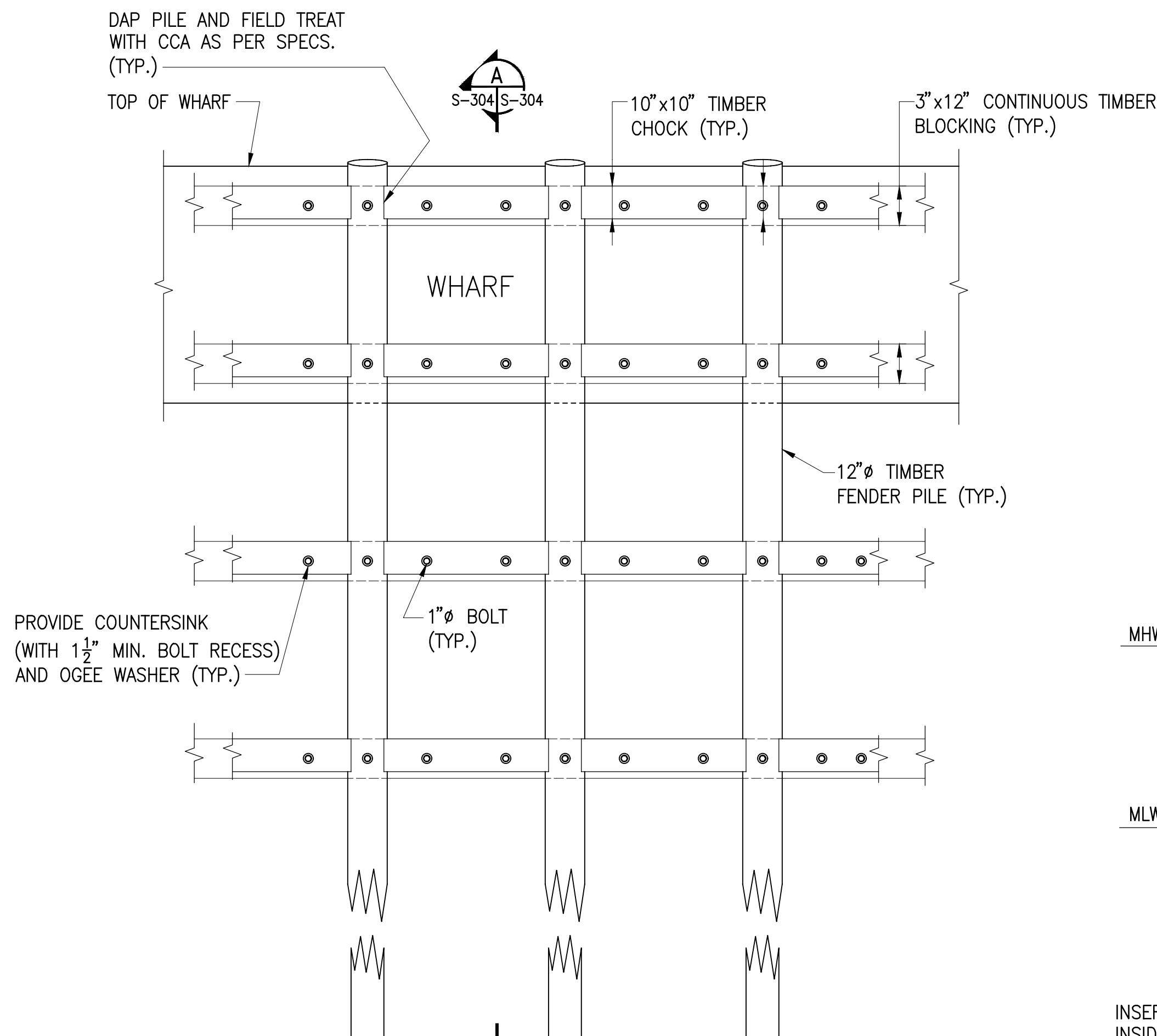
**TYPICAL PLAN - UPPER WALE**  
(LOWER AND MIDDLE WALE SIMILAR - SEE TYPICAL ELEVATION)  
SCALE: 3/8" = 1'-0"



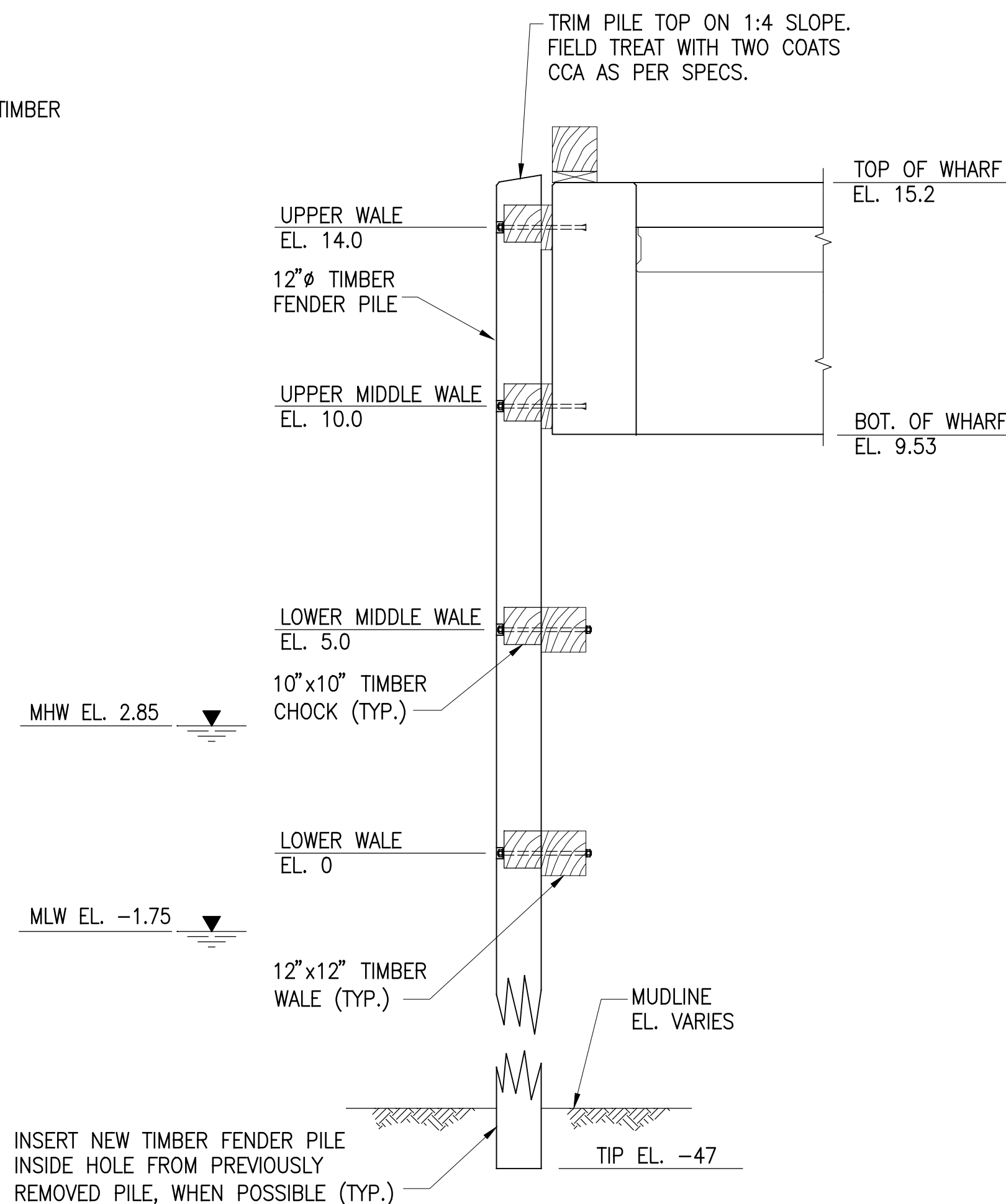
**TYPICAL WALE SPLICE DETAIL**  
SCALE: 1 1/2" = 1'-0"



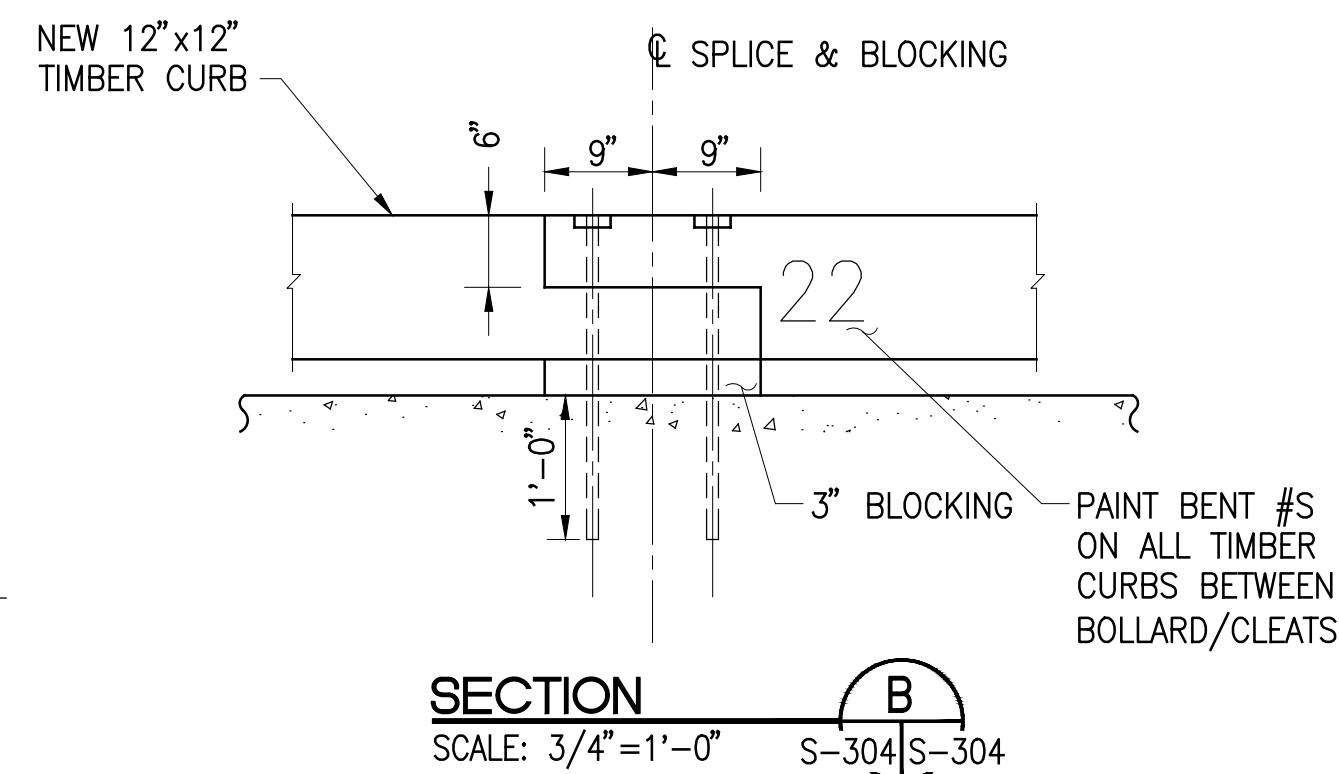
**TYPICAL TIMBER CURB DETAIL**  
SCALE 3/4" = 1'-0"



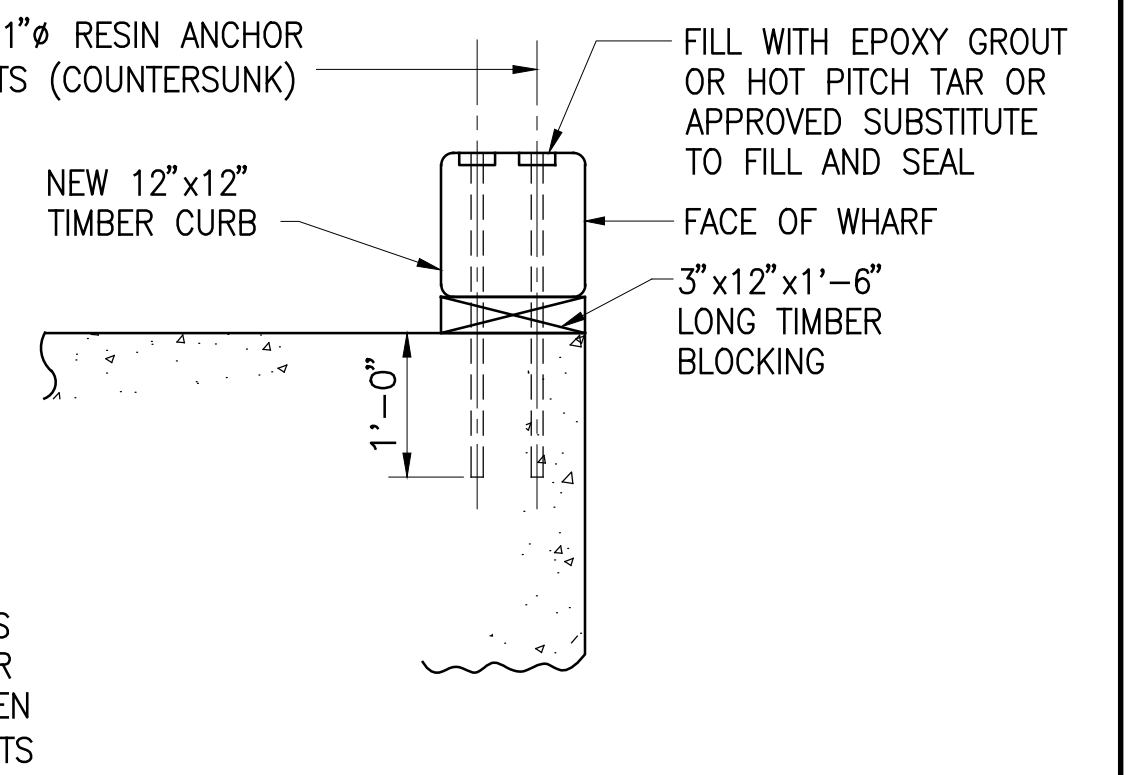
**TYPICAL ELEVATION**  
SCALE: 3/8" = 1'-0"



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



**SECTION B**  
SCALE: 3/4" = 1'-0"



**SECTION C**  
SCALE: 3/4" = 1'-0"

### NOTES:

- EXISTING ANCHOR BOLTS SHALL BE RE-USED WHERE POSSIBLE. IF EXISTING BOLT IS DETERMINED UNUSABLE, A NEW 1" DIA. RESIN ANCHOR BOLT SHALL BE INSTALLED NO LESS THAN 3" FROM THE EXISTING BOLT.
- APDC WILL PROVIDE SOME TIMBER SYSTEM MATERIALS, CHOCKS, AND WALES FOR USE ON THE PROJECT. CONTRACTOR TO INSPECT, QUANTIFY, AND CONFIRM FOR SUITABILITY WITH ENGINEER AND APDC PRIOR TO BID.

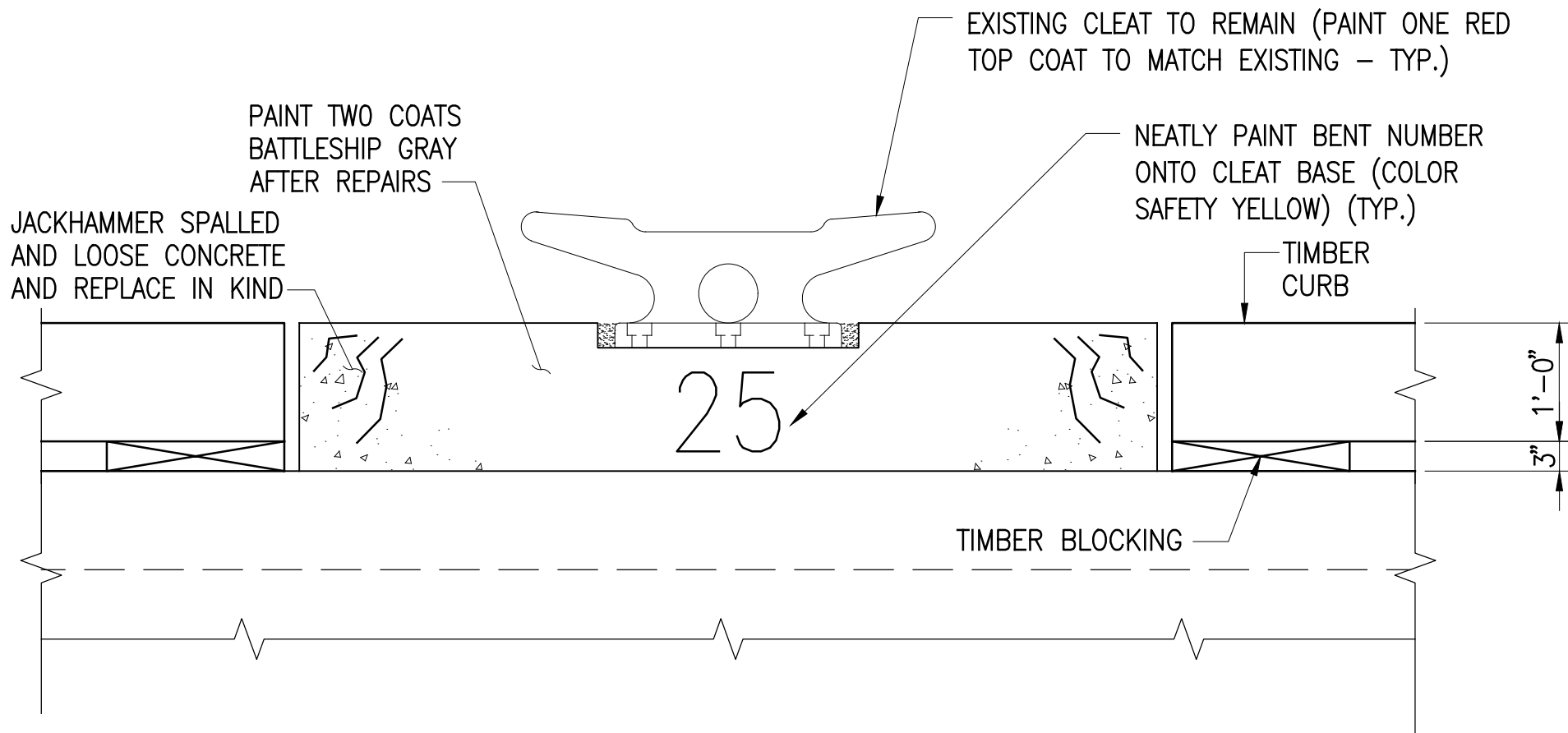
### APPROXIMATE ESTIMATED QUANTITY OF AVAILABLE MATERIALS:

- 3"X12"X20' LONG TREATED TIMBERS (4 PIECES)
- 3"X10"X20' LONG TREATED TIMBERS (20 PIECES)
- 10"X10"X20' LONG TREATED TIMBERS (170 PIECES)
- 12"X12"X20' LONG TREATED TIMBERS (100 PIECES)
- HDG SQUARE HEAD BOLTS 1" DIA. X 28" LONG (600 PIECES)
- HDG SQUARE NUTS FOR 1" DIA. (1300 PIECES)
- HDG ALL THREAD RODS 1" DIA. X 10' LONG (51 PIECES)

- APDC WILL PROVIDE SOME TIMBER BACKING CURB MATERIAL FOR REPLACEMENT IN-KIND ON THE PROJECT. CONTRACTOR TO INSPECT, QUANTIFY, AND CONFIRM FOR SUITABILITY WITH ENGINEER AND APDC PRIOR TO BID. THIS BACKING CURB IS STORED IN PLACE BUT NOT ATTACHED AND DIRECTLY ADJACENT TO EXISTING BACKING CURB (TO BE REMOVED) FROM BENT 27 TO BENT 32, BENT 36 TO BENT 50, AND BENT 57 TO BENT 59.

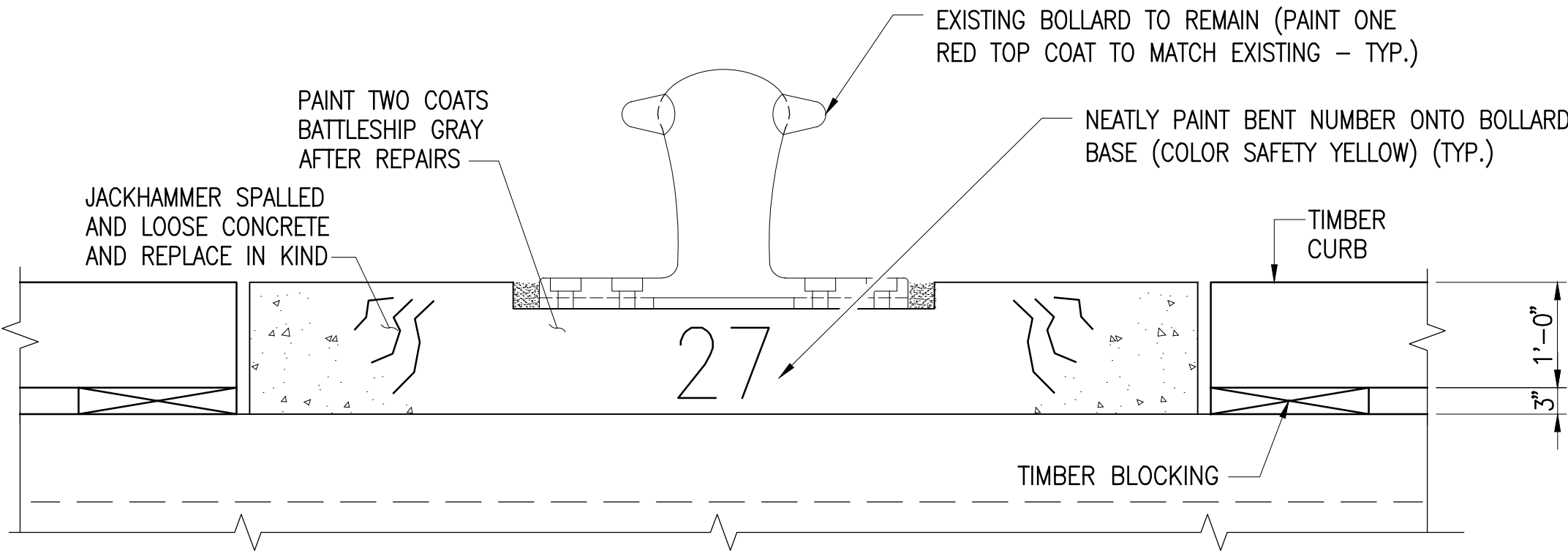
PORT OF ALBANY WHARF UPGRADES			
ALBANY		NEW YORK	
ALBANY PORT DISTRICT COMMISSION ALBANY — RENSSELAER			
ALBANY		NEW YORK	
MUESER RUTLEDGE CONSULTING ENGINEERS			
14 PENN PLAZA — 225 W. 34TH STREET, NY, NY 10122			
SCALE	MADE BY M.A.S.	DATE 4-21-2025	FILE NO.
AS NOTED	CH'KD BY A.D.	DATE 4-21-2025	14990
FENDER AND CURB REPAIR DETAILS			DRAWING NO.  S-304

**CONTRACT DRAWINGS**  
2025-07-31



**CLEAT REPAIR DETAIL**

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



**BOLLARD REPAIR DETAIL**

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

**PAINT COATING NOTES:**

1. PAINT/COATING SHALL BE FAST CLAD ER EPOXY BY SHERWIN WILLIAMS PROTECTIVE AND MARINE COATINGS (OR EQUIVALENT).
2. FOLLOW ALL MANUFACTURERS DIRECTIONS INCLUDING FOR SURFACE PREPARATION AND APPLICATION WEATHER CONDITIONS.
3. APPLY IN THREE COATS AS FOLLOWS:
  - 3.1. 1 COAT COROBOND EPOXY PRIMER/SEALER (4 TO 6 MILS DFT)
  - 3.2. 2 COATS FAST CLAD EPOXY (9 TO 11 MILS EACH, FOR 18 MILS TOTAL DFT)

PORT OF ALBANY WHARF UPGRADES  
ALBANY NEW YORK

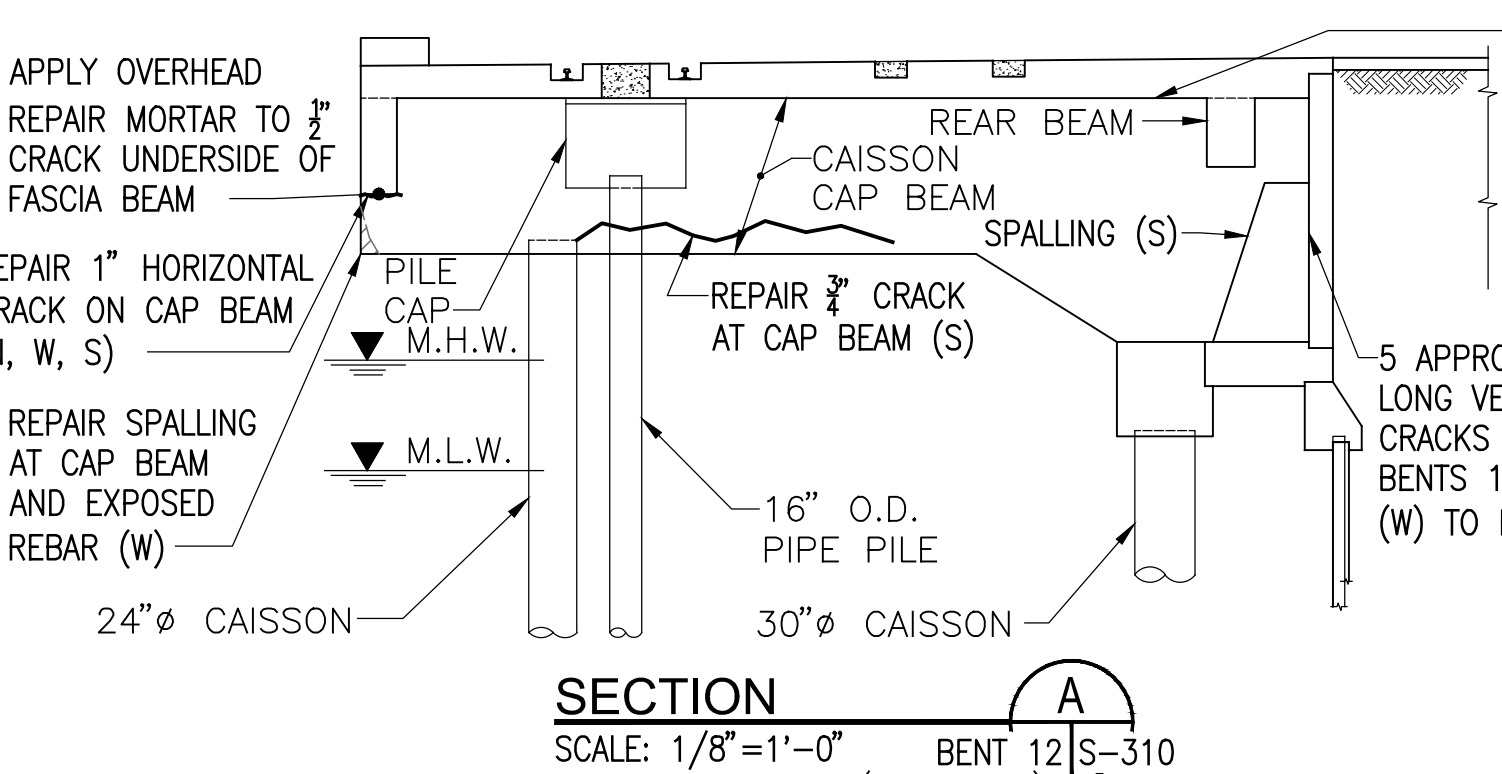
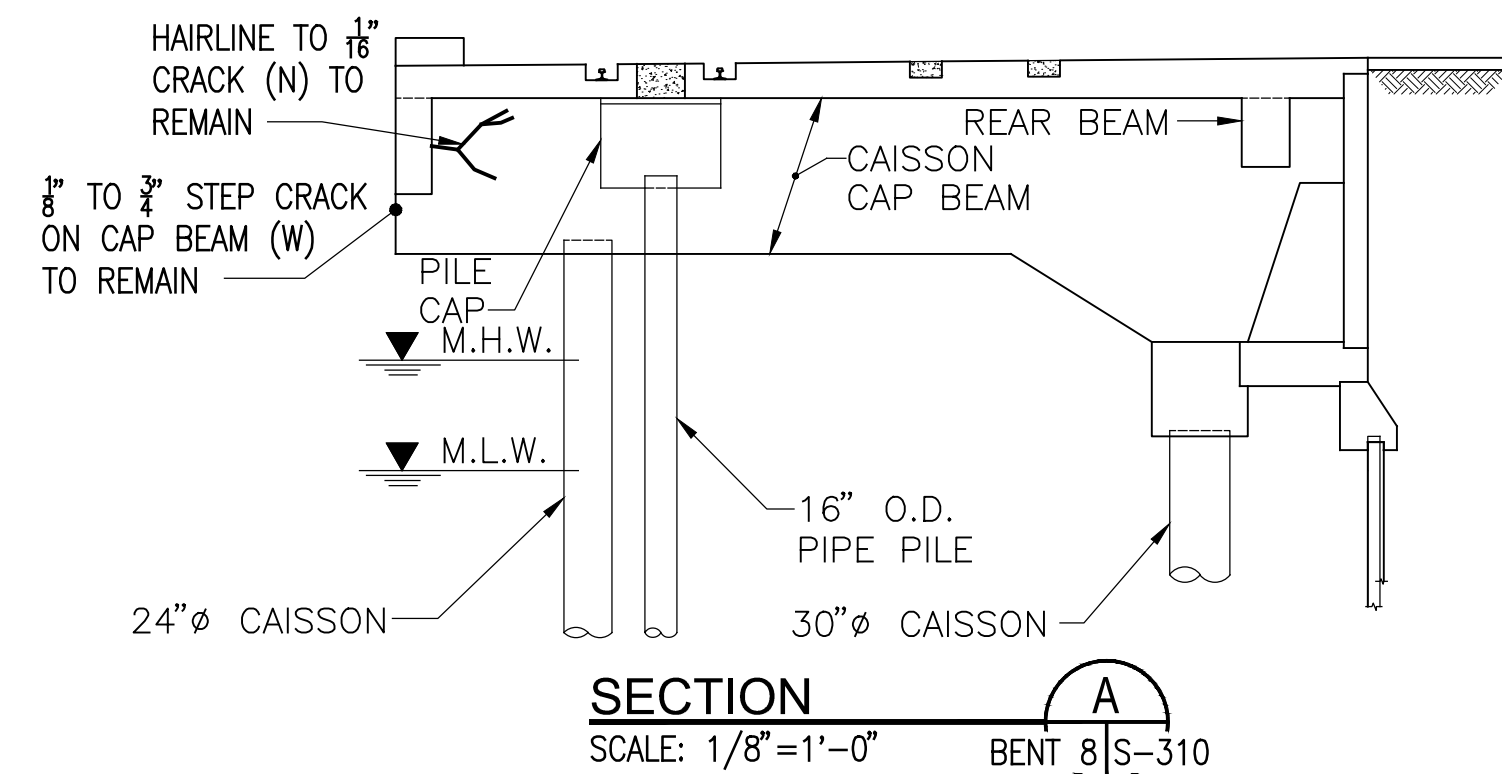
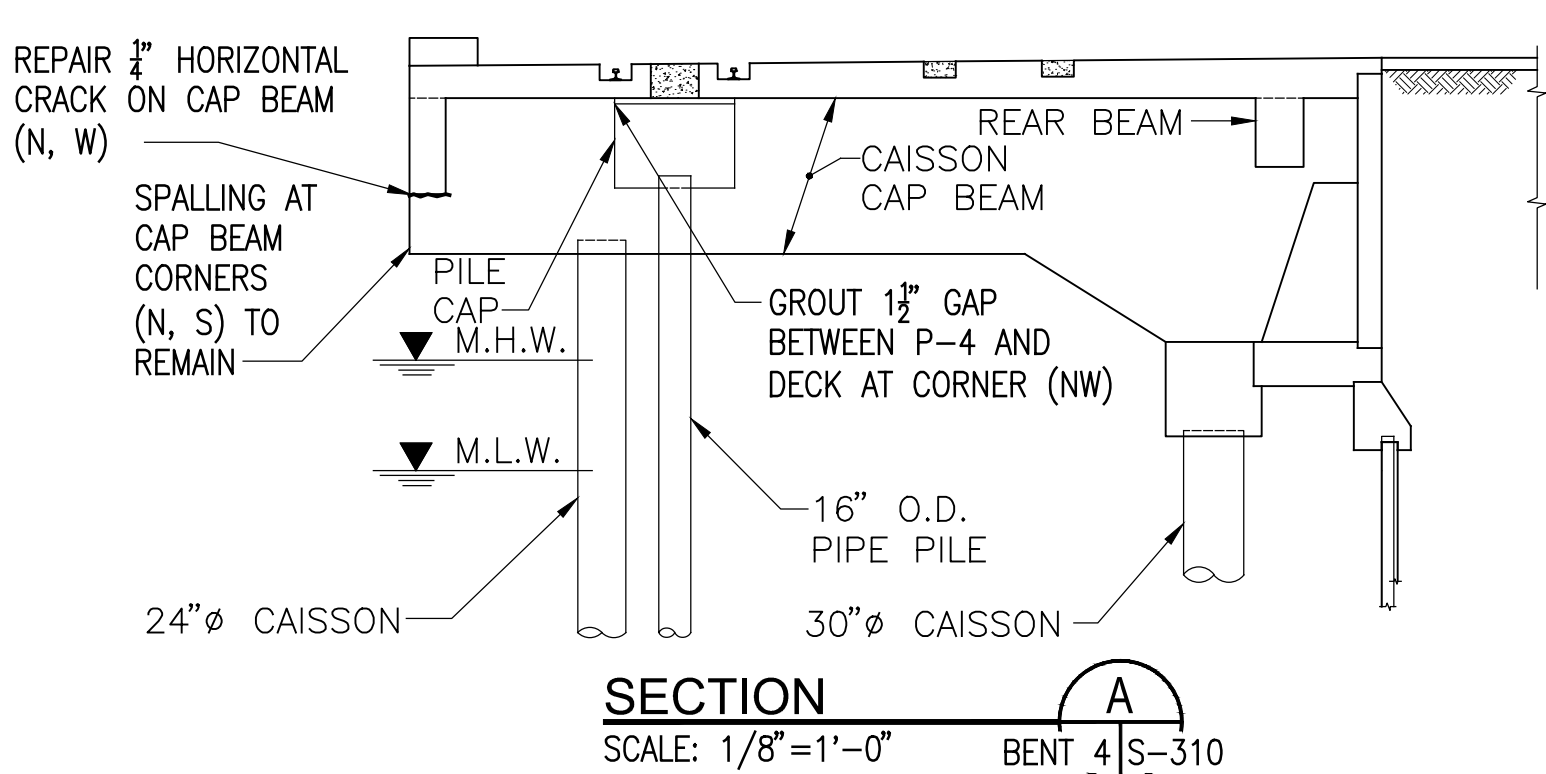
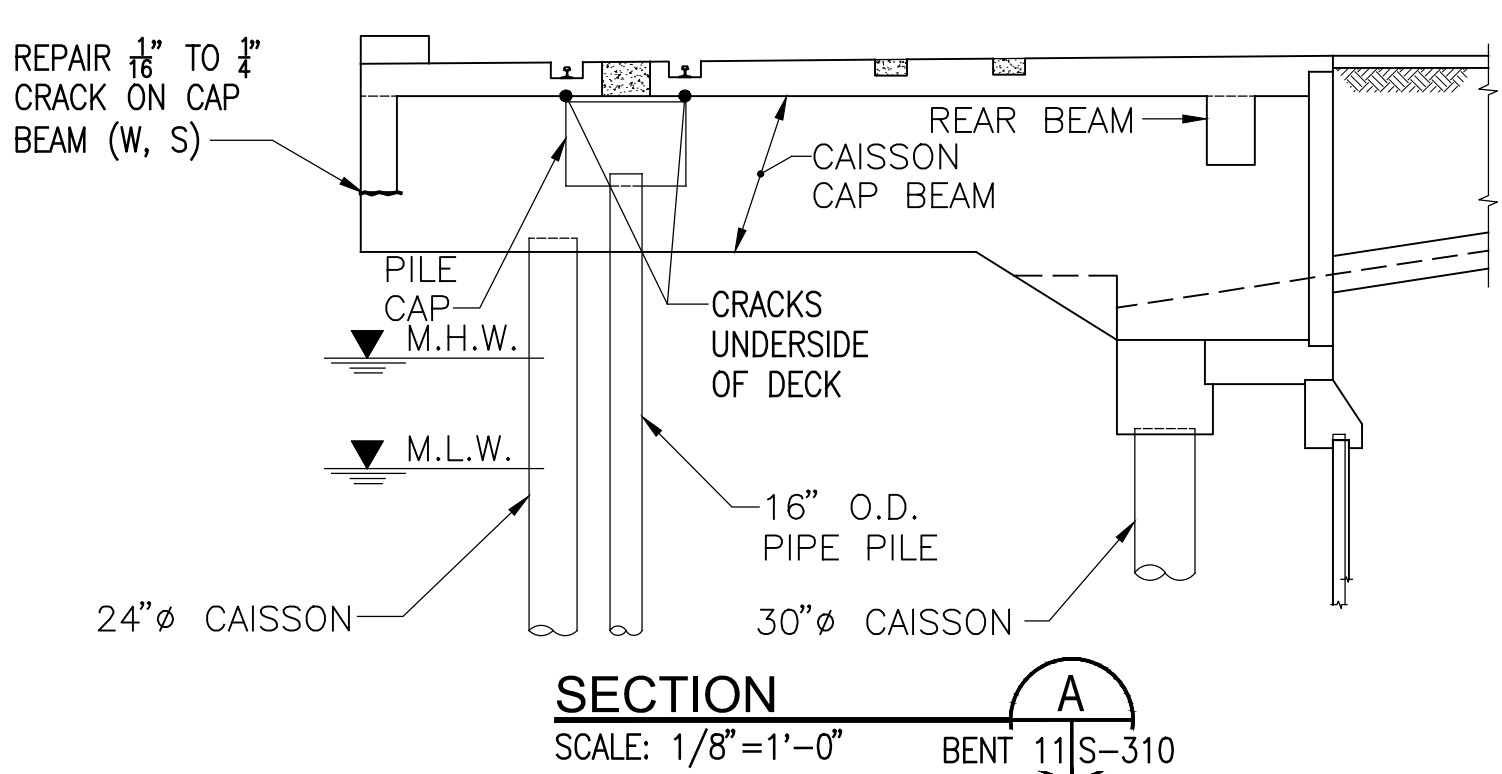
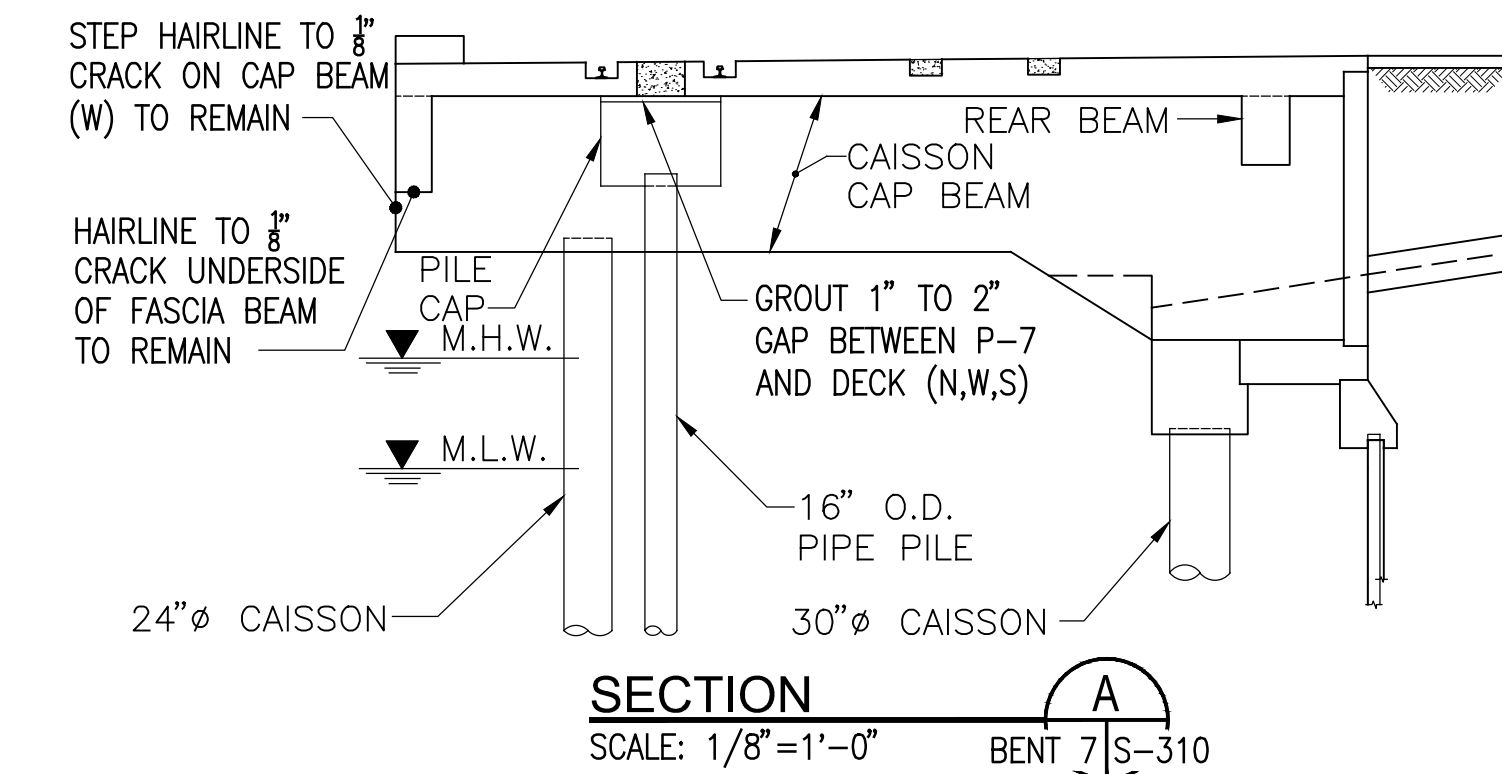
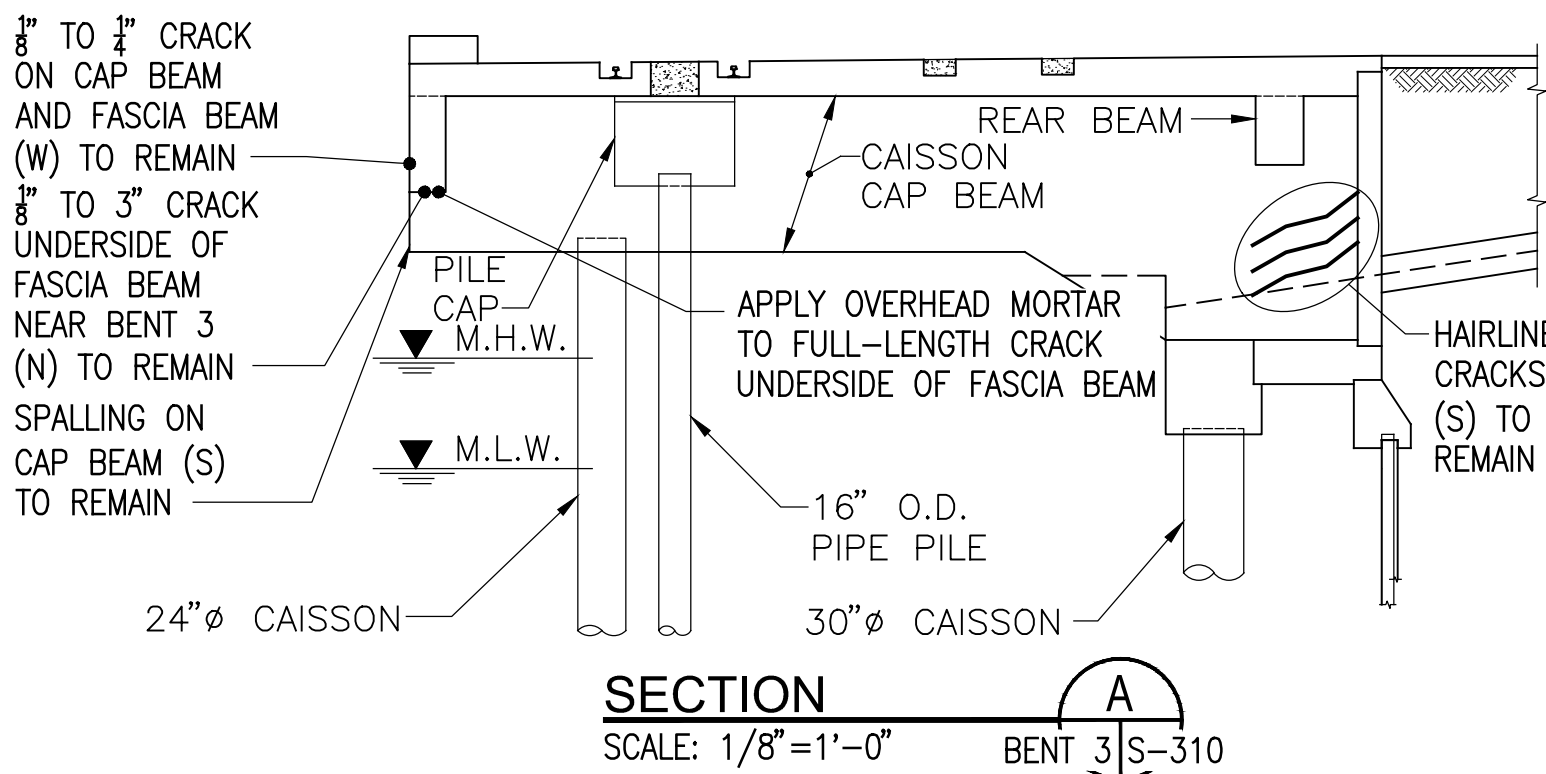
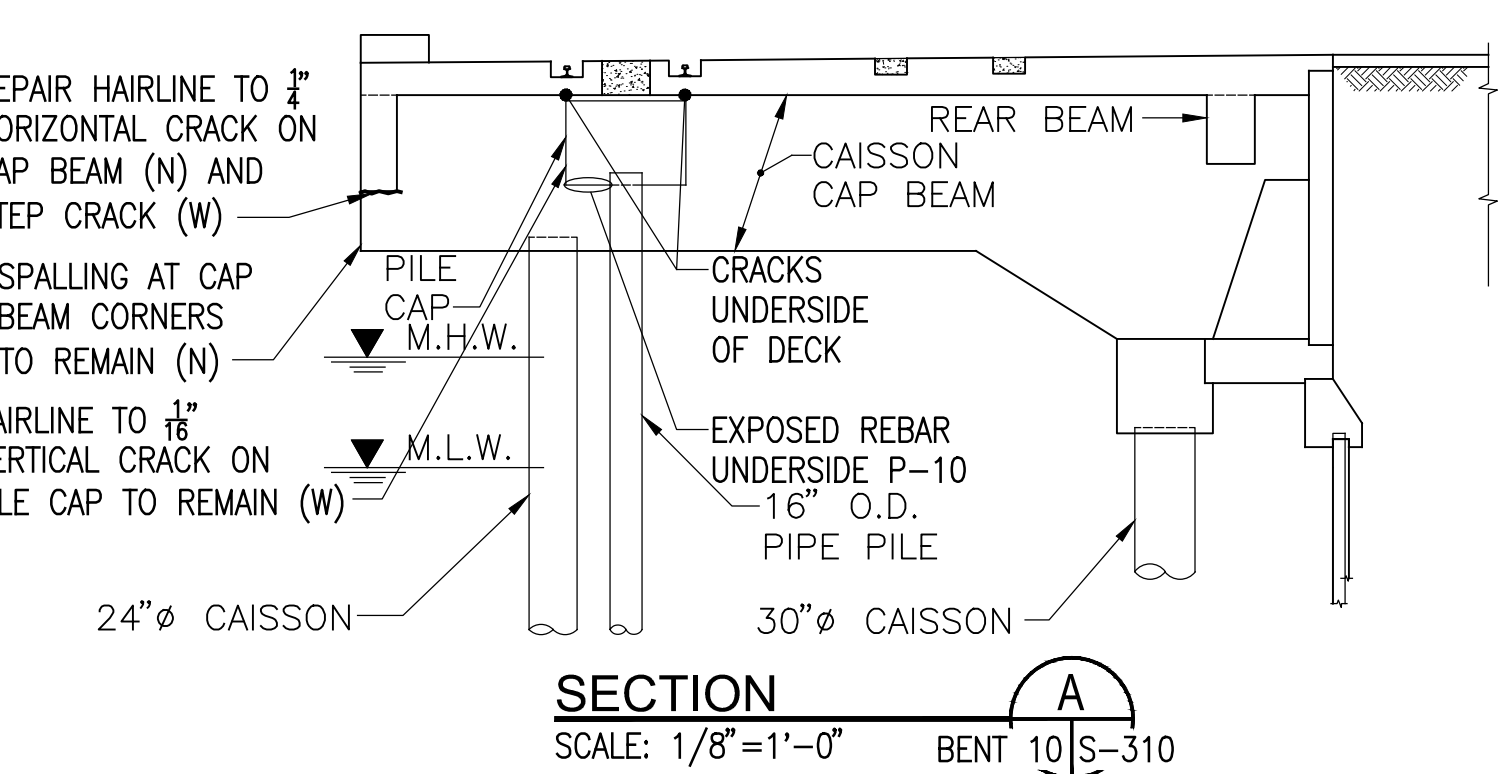
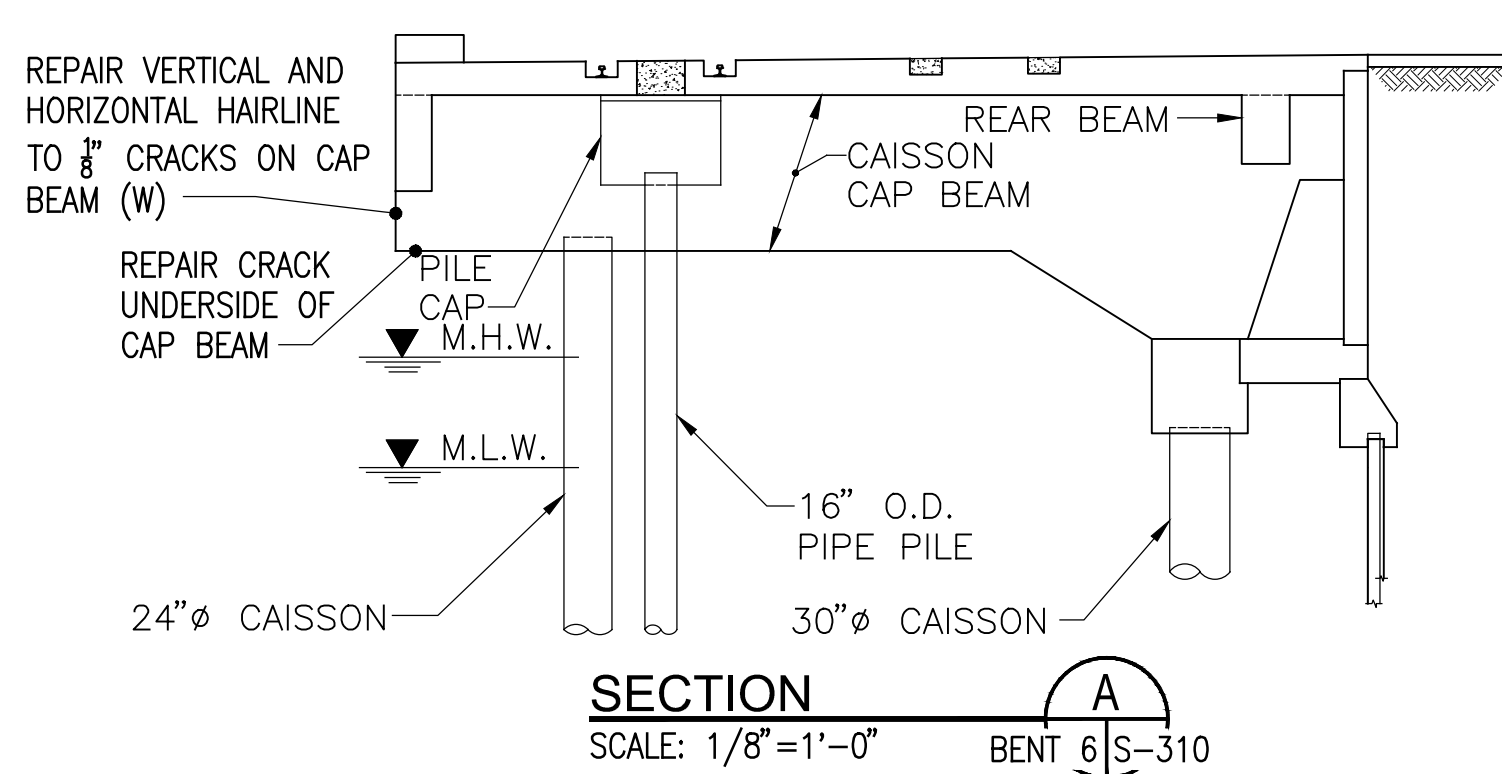
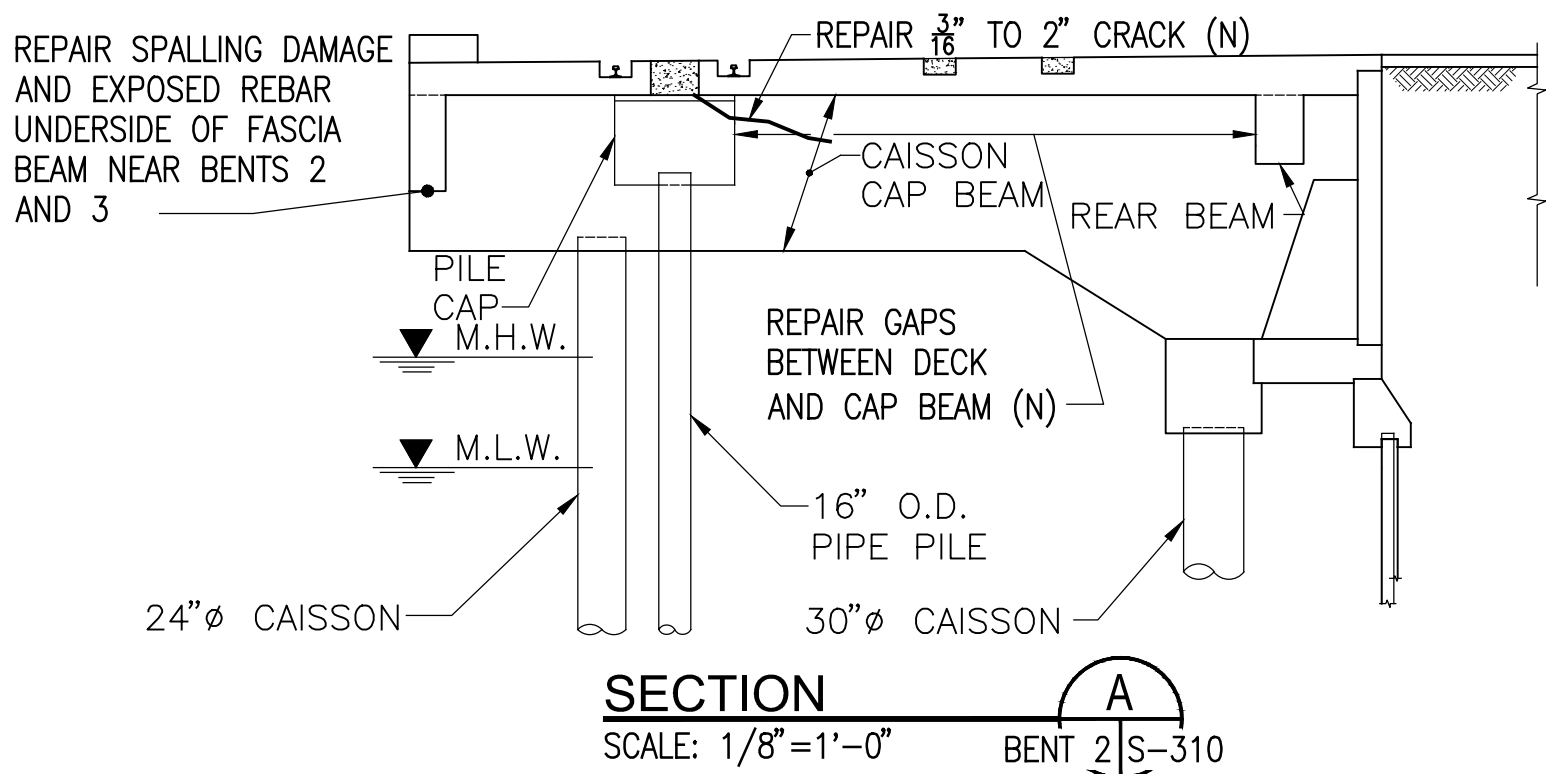
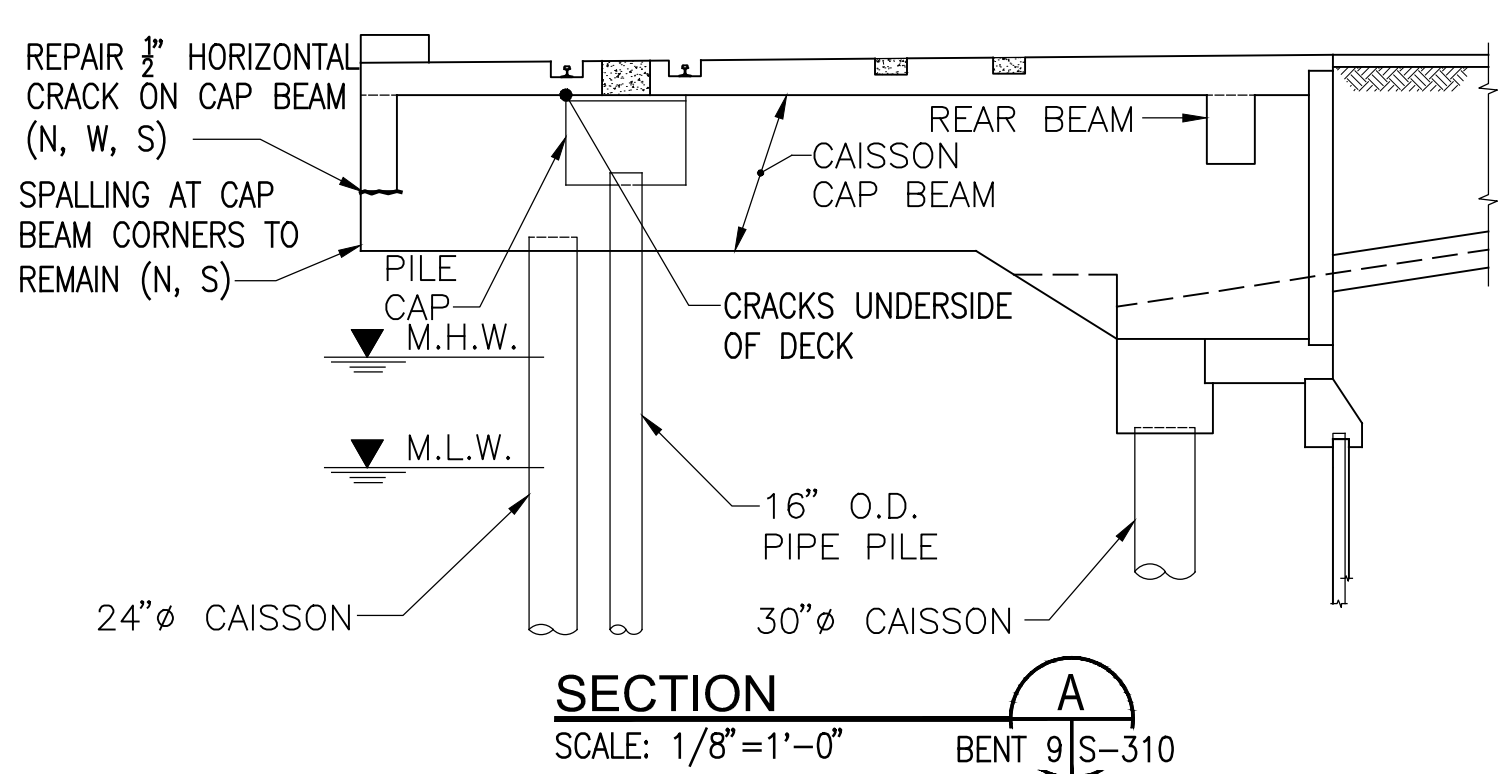
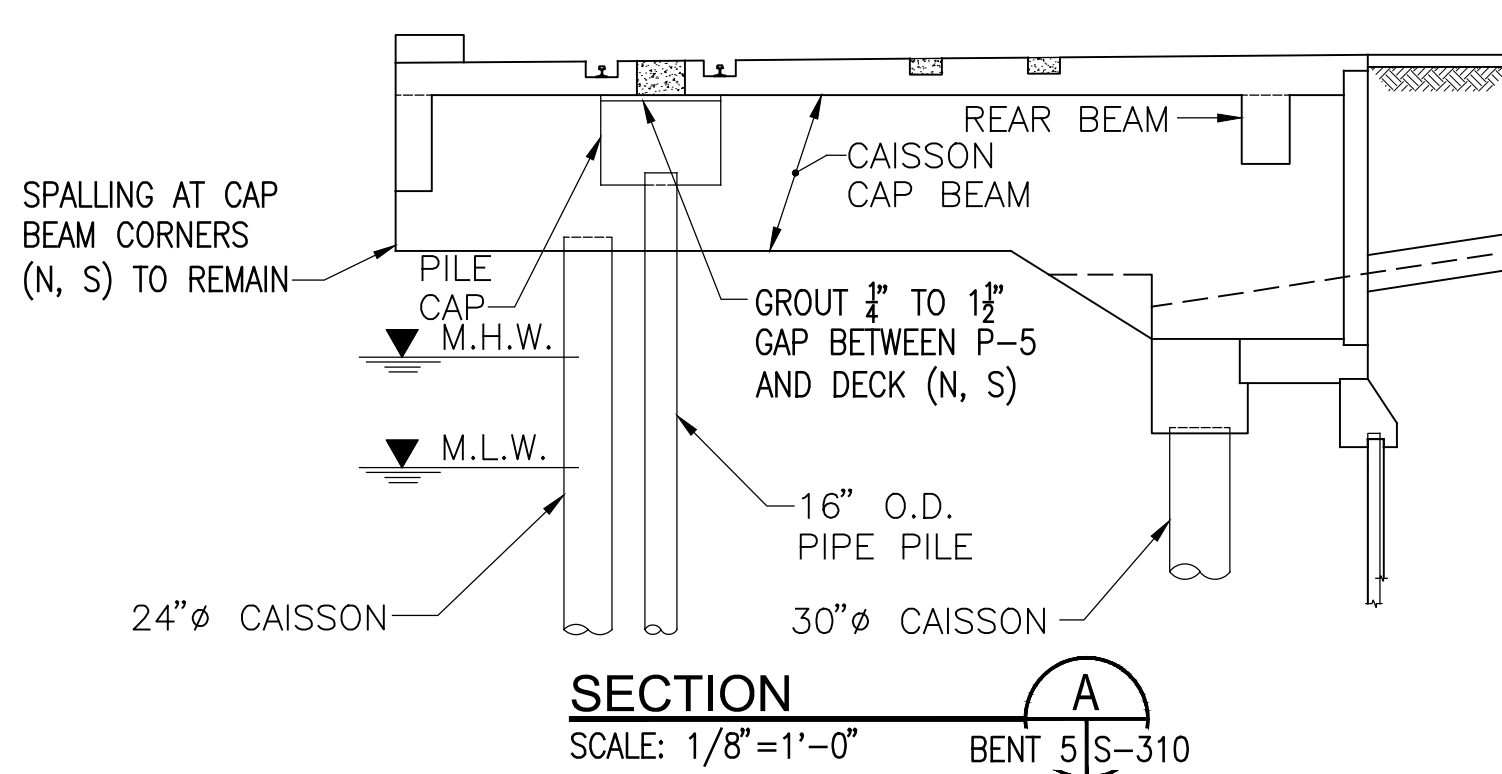
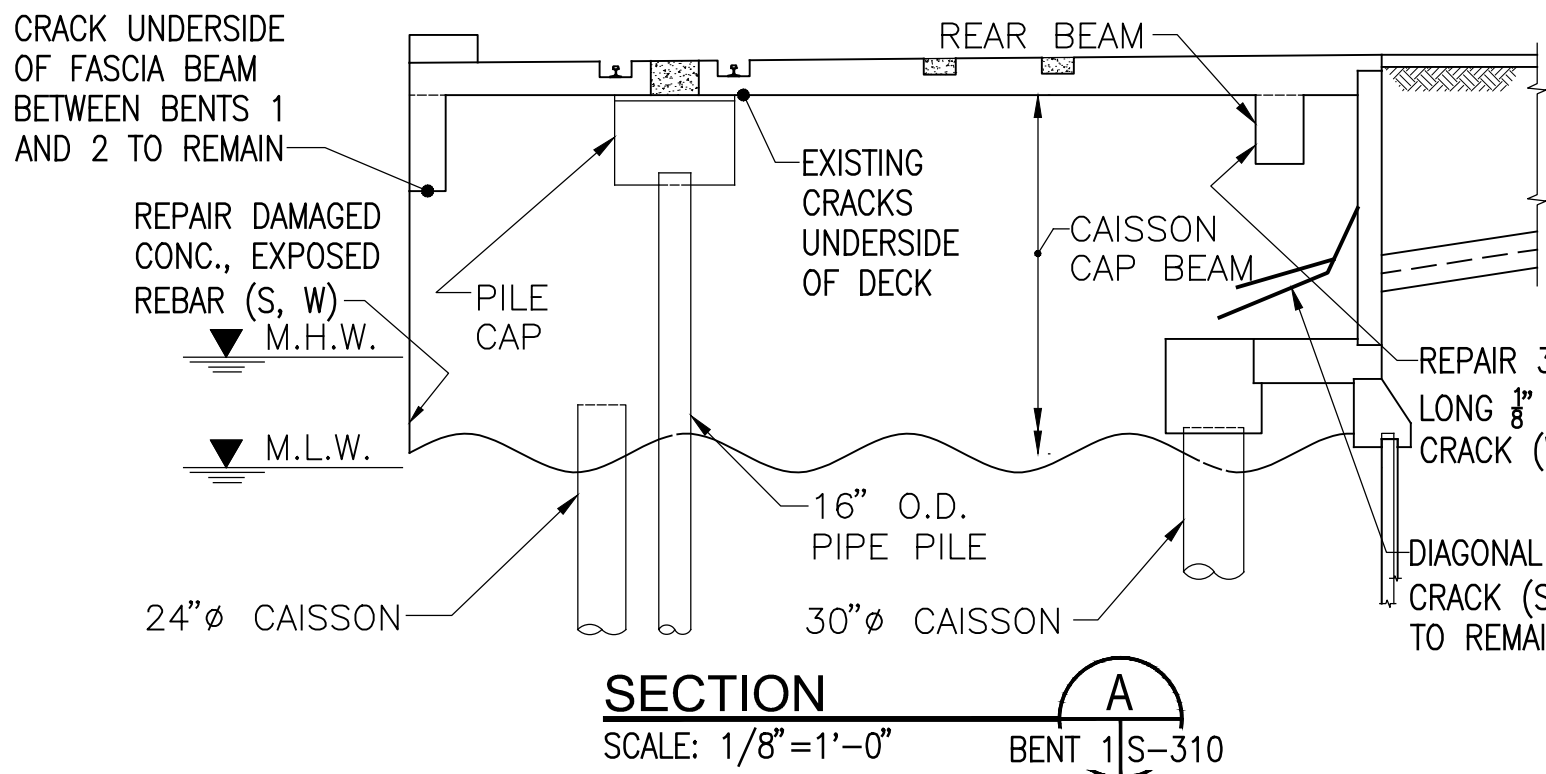
ALBANY PORT DISTRICT COMMISSION  
ALBANY - RENSSELAER  
ALBANY NEW YORK

**MUESER RUTLEDGE CONSULTING ENGINEERS**  
14 PENN PLAZA - 225 W. 34TH STREET, NY, NY 10122

SCALE	MADE BY M.A.S.	DATE 01-29-24	FILE NO.
AS NOTED	CH'KD BY A.D.	DATE 01-29-24	14990
			DRAWING NO.

BOLLARD AND CLEAT DETAILS	S-305
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**CONTRACT DRAWINGS**  
2025-07-31



- NOTES:**
- FOR GENERAL NOTES, SEE DRAWING NO. S-002.
  - PILE CAP ENCASEMENTS NOT SHOWN FOR CLARITY. SEE S-500 SERIES DRAWINGS FOR DETAILS.
  - CAISSON CAP BEAM ENCASEMENTS AT EXPANSION JOINTS NOT SHOWN FOR CLARITY. SEE S-500 SERIES DRAWINGS FOR DETAILS.
  - EXISTING CRACKS UNDERSIDE OF DECK AT ACTIVE RAIL DO NOT NEED REPAIR (DECK AREA WILL BE REPLACED BY NEW CONCRETE BEAM BENEATH RAIL SLOT SEE S-500 SERIES DRAWINGS FOR DETAILS). REMAINING DECK CRACKS AT UNUSED RAIL SLOTS AND ELSEWHERE TO BE REPAIRED BY EPOXY INJECTION.
  - SPALLING AND DAMAGED CONCRETE, WITH OR WITHOUT EXPOSED REINFORCING, ON FASCIA BEAM, CAISSON CAP BEAMS, AND DECK SURFACES, UNDERSIDE/OVERHEAD OR VERTICAL, OR ON CORNERS, SHALL BE REPAIRED BY EUCOPATCH (BY EUCLID CHEMICAL CO.) OR APPROVED EQUAL, IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS.
  - LARGER VERTICAL AND HORIZONTAL/OVERHEAD CRACKS AND GAPS (MAINLY THOSE OVER 1/4 INCH) ON FASCIA BEAM, CAISSON CAP BEAMS, AND DECK SURFACES, SHALL BE REPAIRED AND SEALED BY EUCOPATCH (WITH LAYER OF MATERIAL PARGED OVER AN INITIAL SCRUB COAT AND INDIVIDUAL CRACKS FILLED) IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS. REPAIR AND SEAL SMALLER CRACKS (UNDER 1/4 INCH) WITH SIKADUR 35 HI-MOD LV PASTE, IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS.
  - SPIDER CRACKING ON EXTERIOR (RIVER FACING) END OF CAISSON CAP BEAMS (AND ADJACENT SIDES OF THE CAP BEAMS) TO BE REPAIRED AS PER NOTE ITEM 6 ABOVE, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
  - PRESSURE INJECTION OF CRACKS IN DEEP AND LARGE FASCIA BEAMS AND CAISSON CAP BEAMS IS NOT REQUIRED. PRESSURE INJECTION OF CRACKS IN WHARF DECK IS REQUIRED (SEE DRAWINGS S-201 TO S-203 FOR TYPICAL PRESSURE INJECTION DETAILS AND PRODUCT).
  - FOR REPAIRS GREATER THAN 4 INCHES DEPTH (BEYOND SUITABLE LIMIT OF EUCOPATCH), CONTRACTOR SHALL DESIGN AND INSTALL SATISFACTORY 5000 PSI MINIMUM PEA STONE CONCRETE MIX FOR PUMPING OR GRAVITY FLOW (AS APPROPRIATE).

**LEGEND**  
S – LOOKING SOUTH  
N – LOOKING NORTH  
E – LOOKING EAST  
W – LOOKING WEST

PORT OF ALBANY WHARF UPGRADES					
ALBANY		NEW YORK			
ALBANY PORT DISTRICT COMMISSION					
ALBANY – RENSSELAER					
ALBANY		NEW YORK			
MUESER RUTLEDGE CONSULTING ENGINEERS					
14 PENN PLAZA – 225 W. 34TH STREET, NY, NY 10122					
SCALE	MADE BY	M.A.S.	DATE	01-29-24	FILE NO.
AS NOTED	CH'KD BY	A.D.	DATE	01-29-24	14990
					DRAWING NO.
BENT REPAIRS BENTS 1 TO 12					S-310

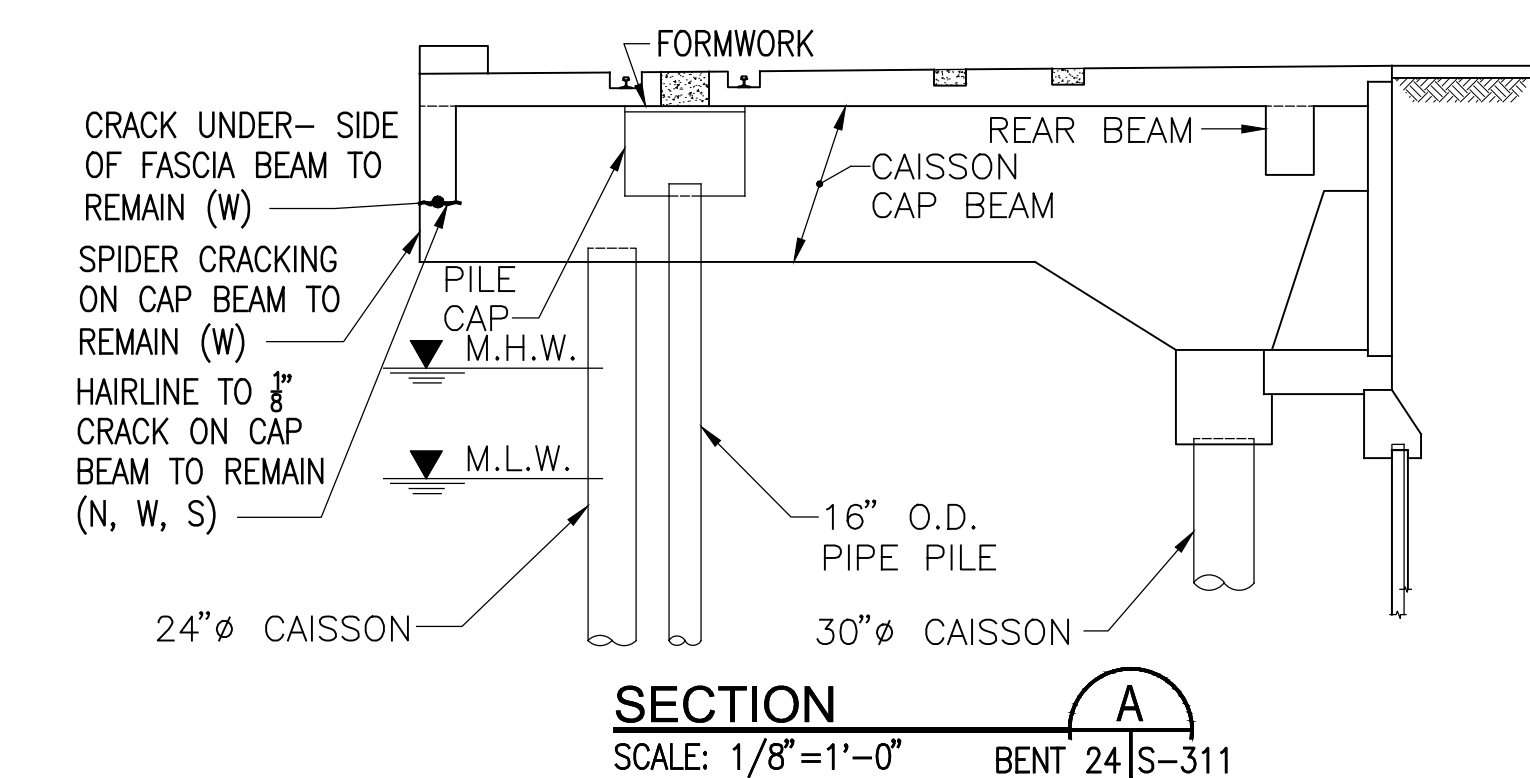
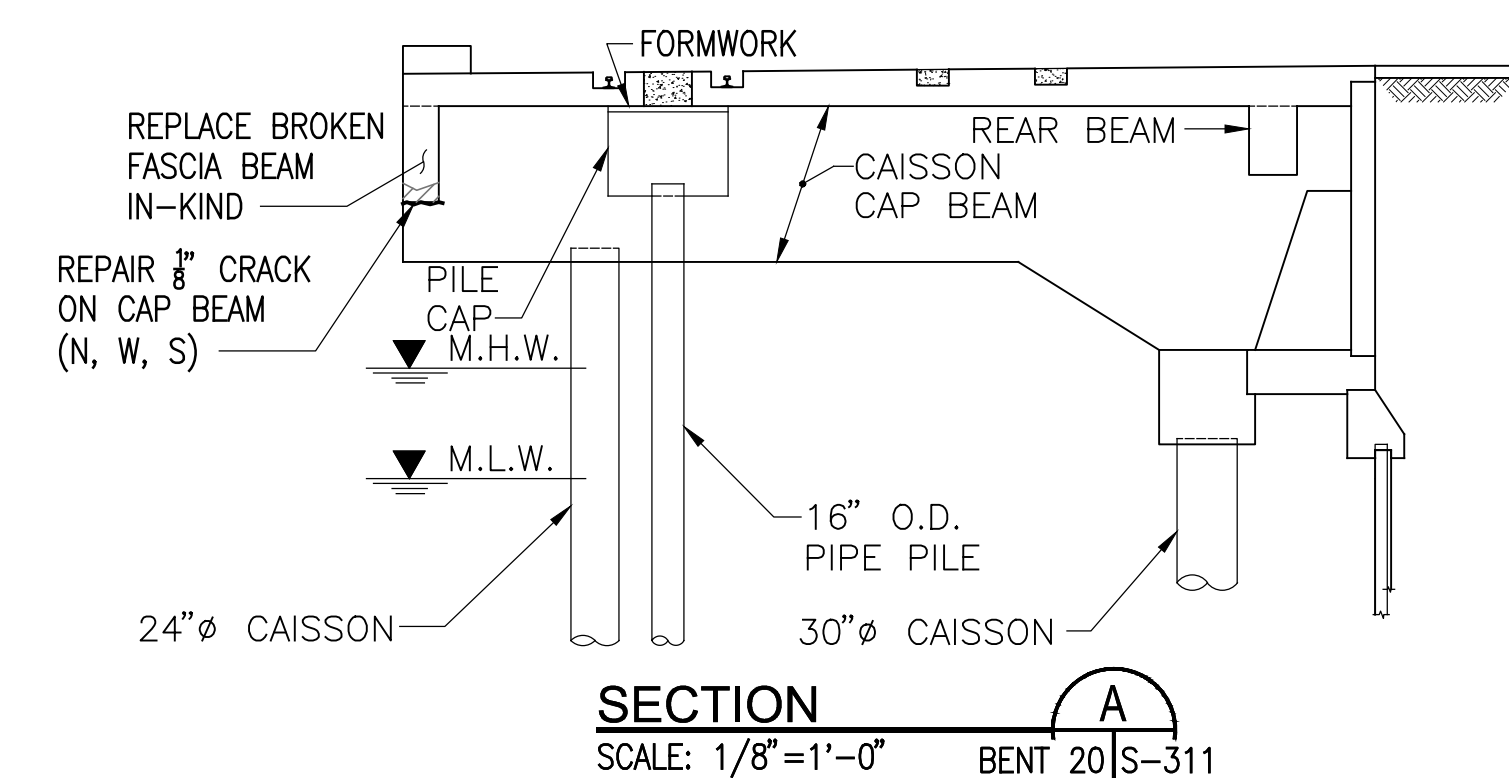
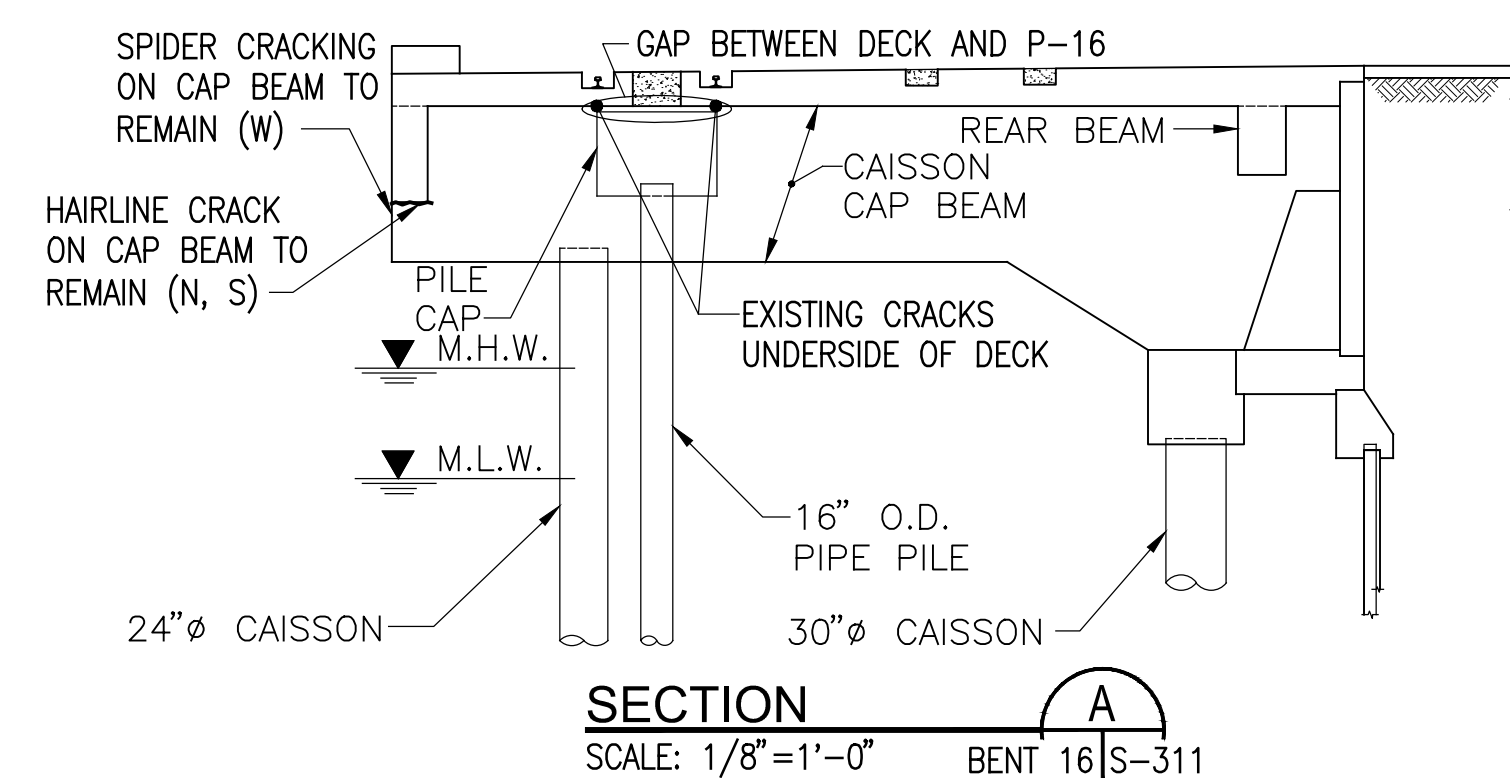
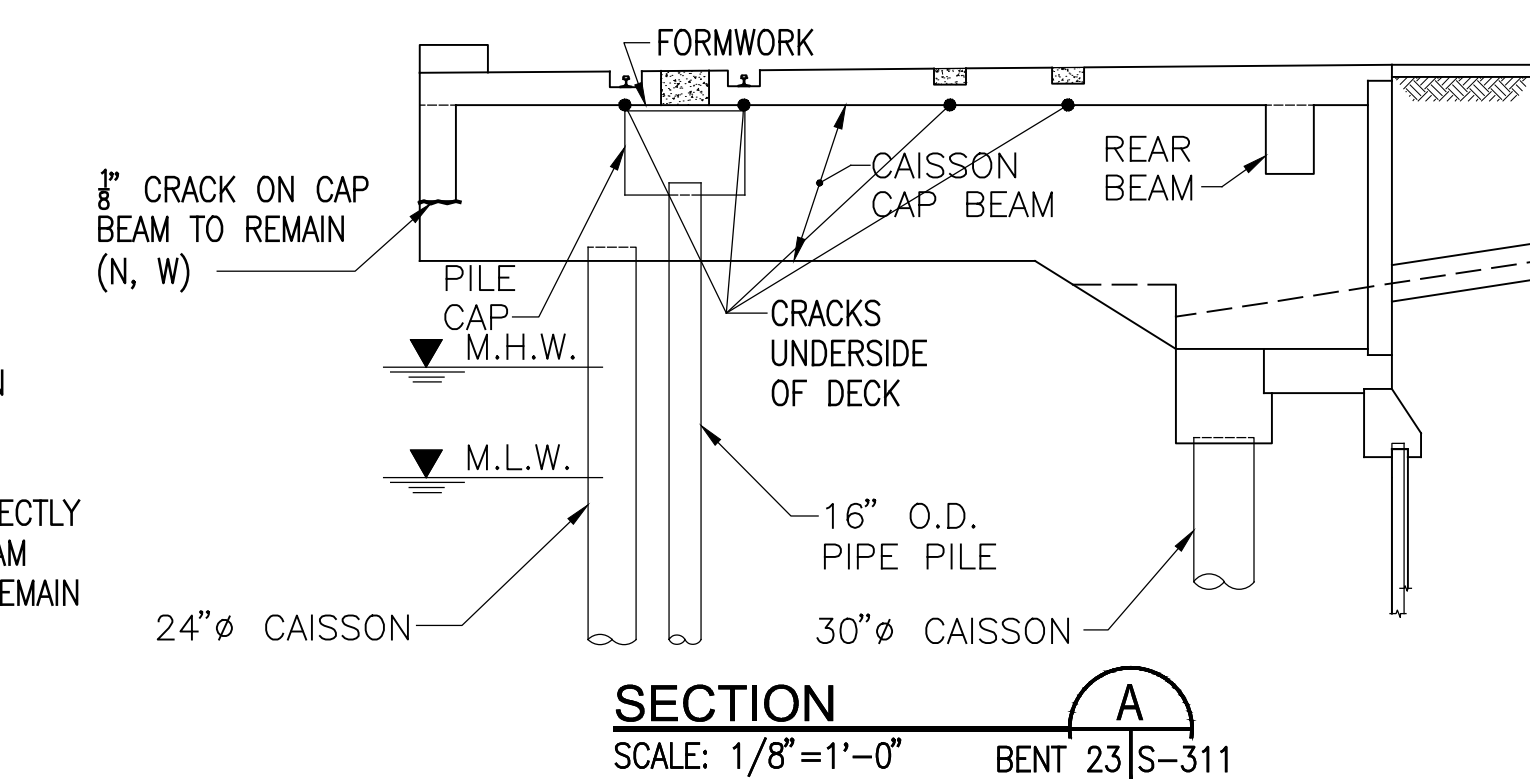
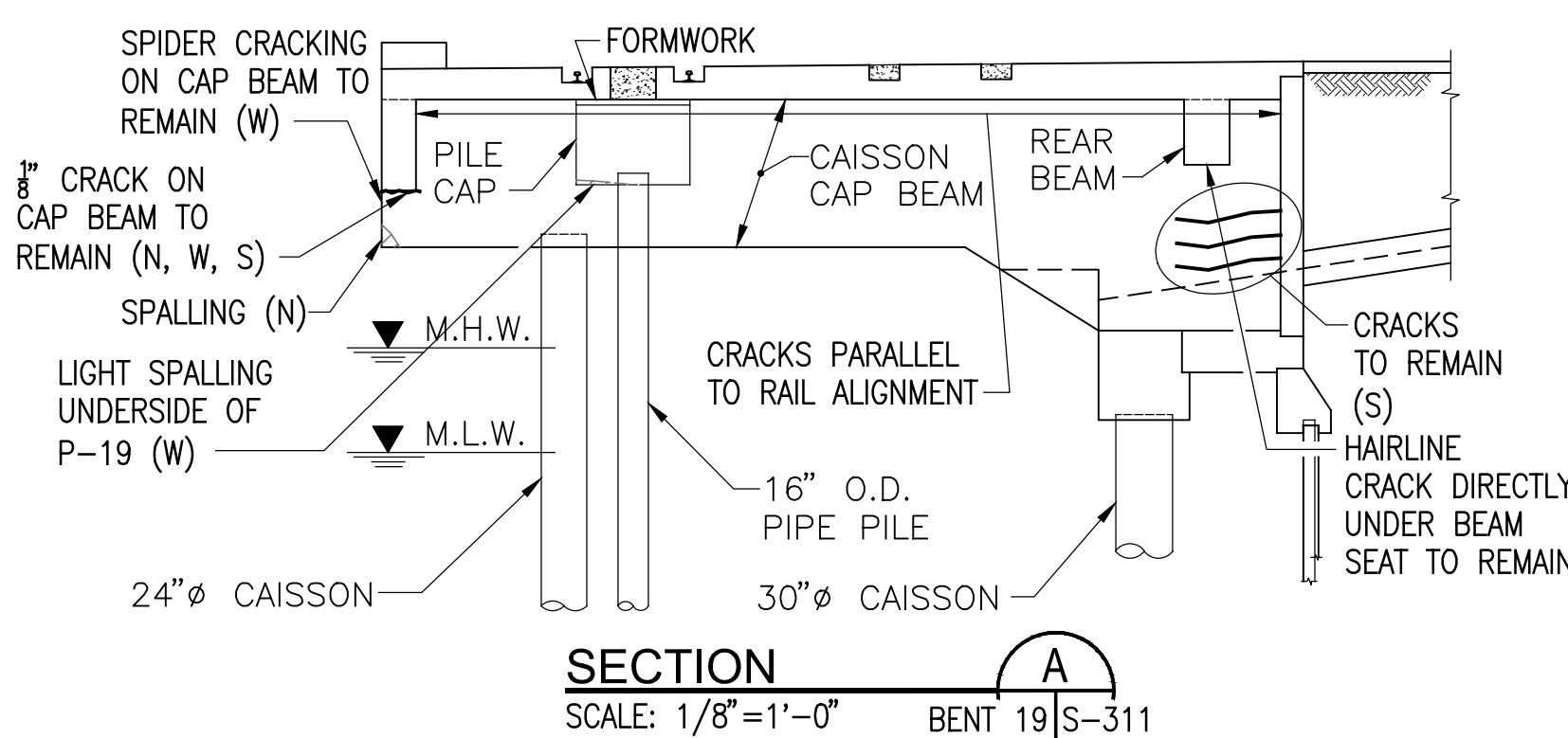
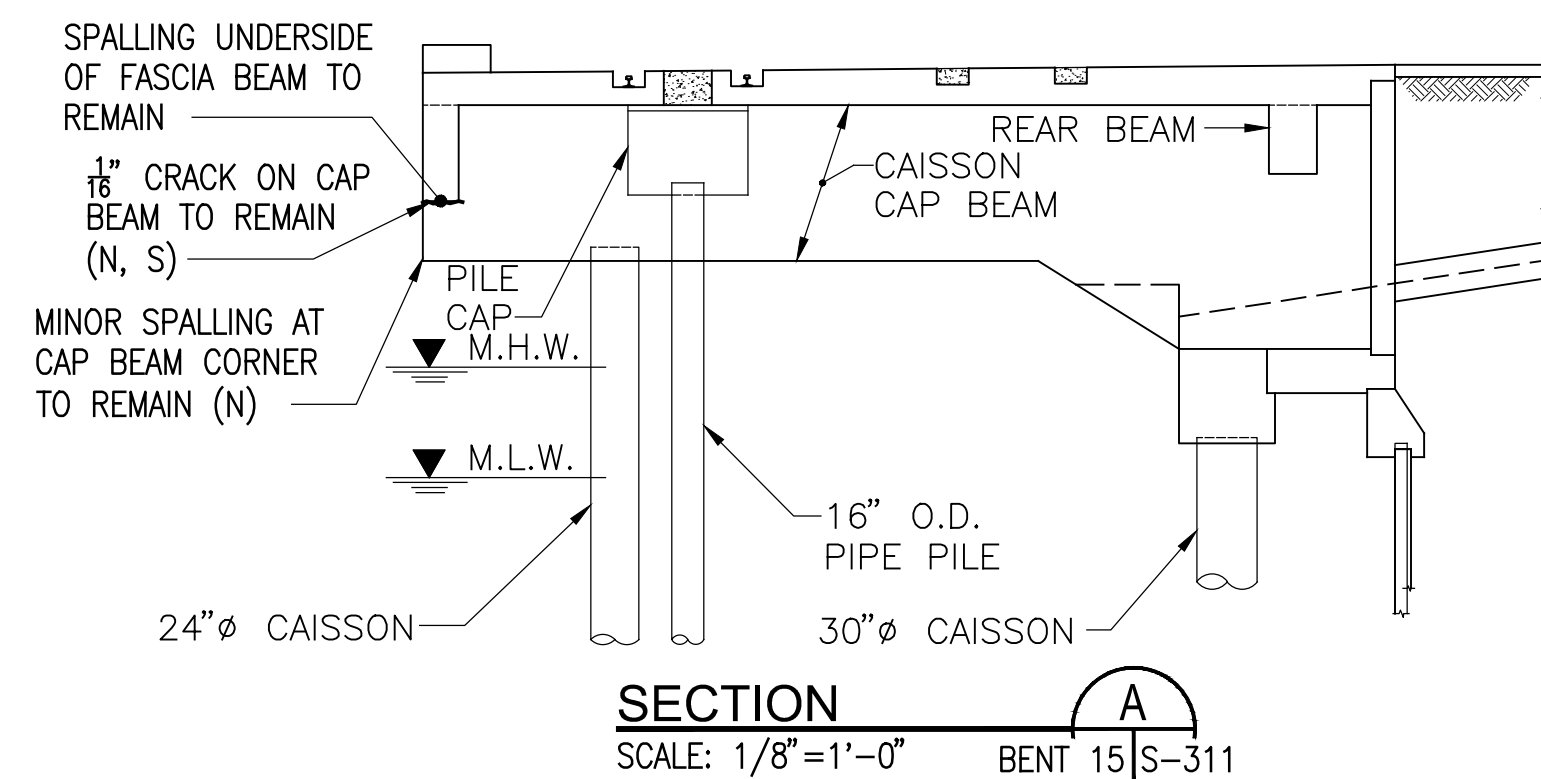
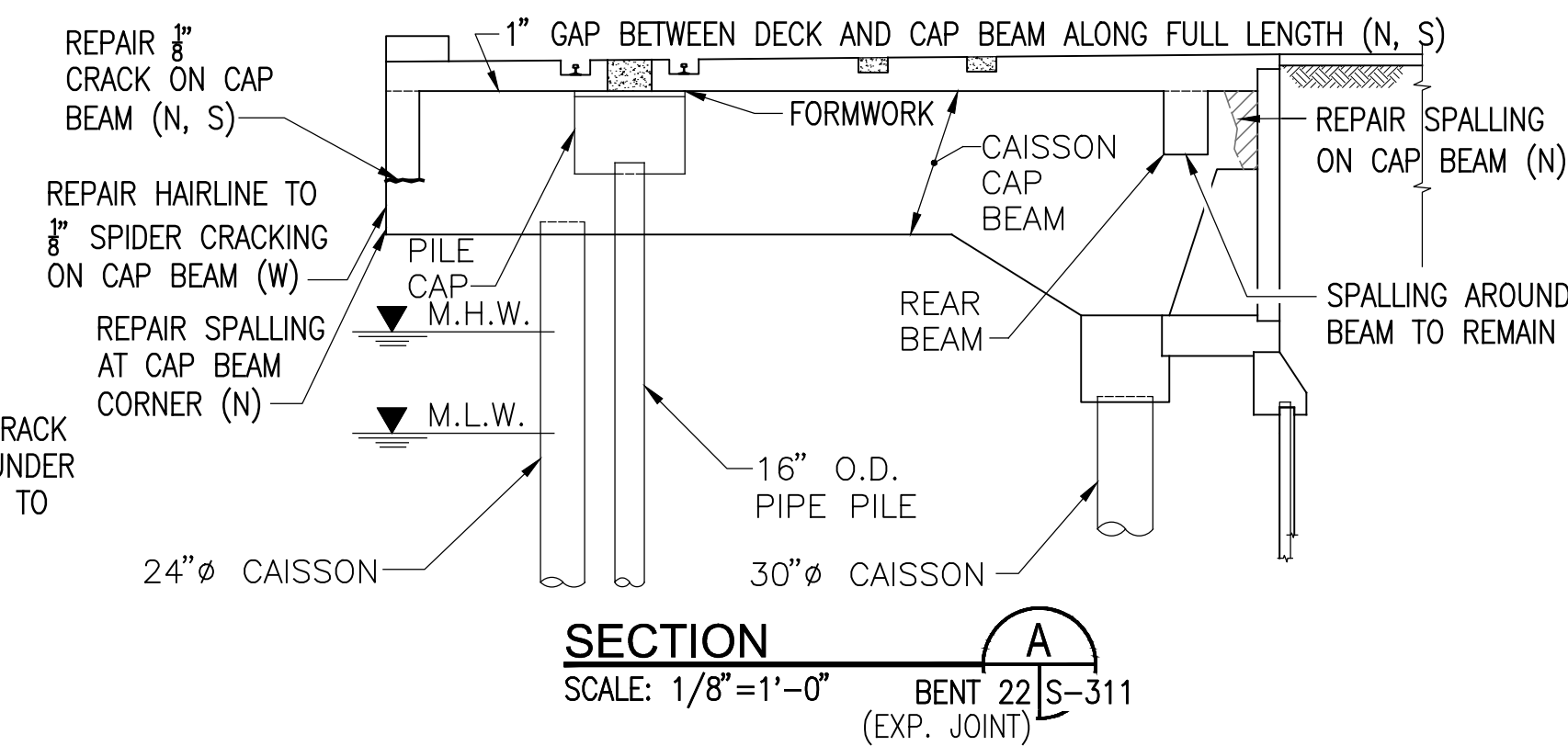
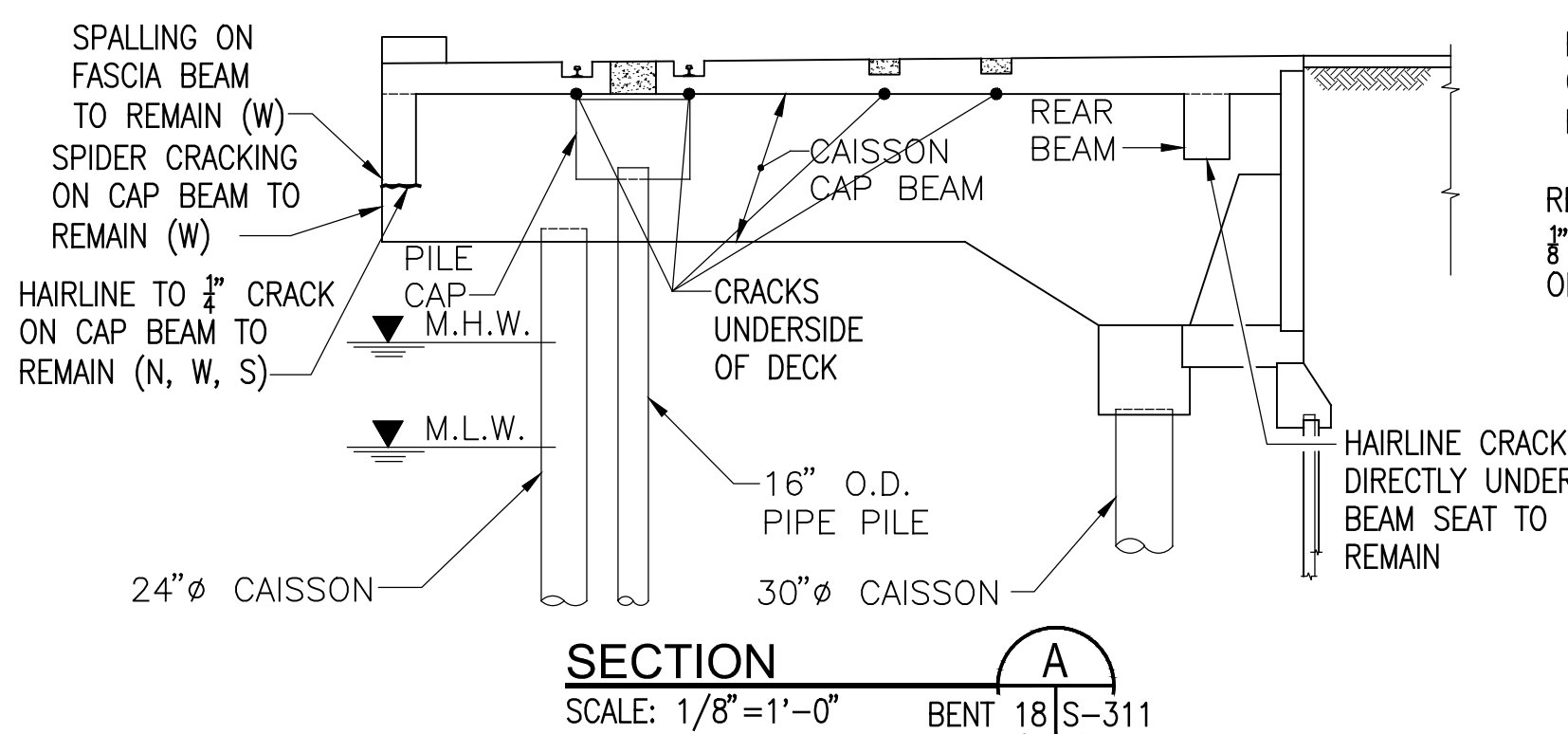
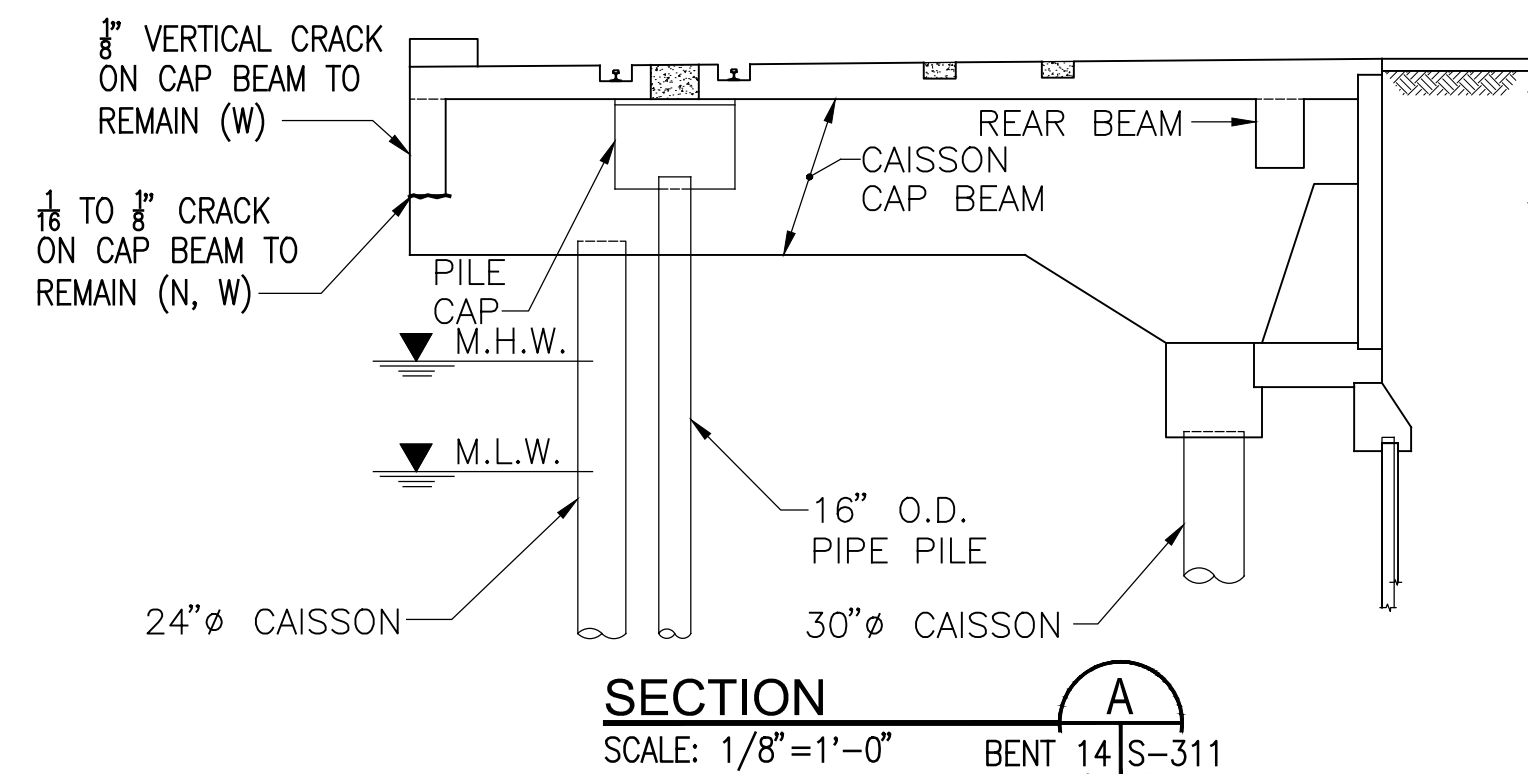
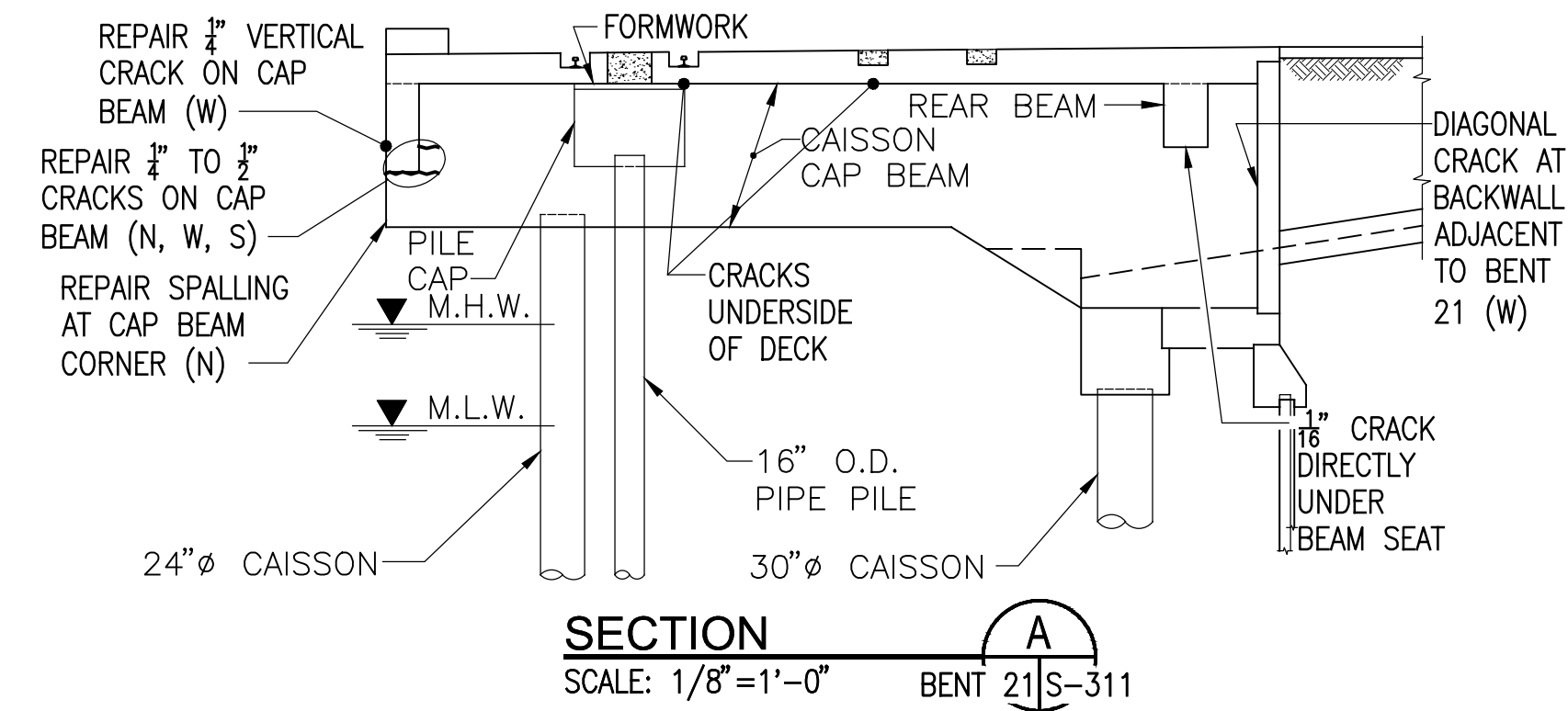
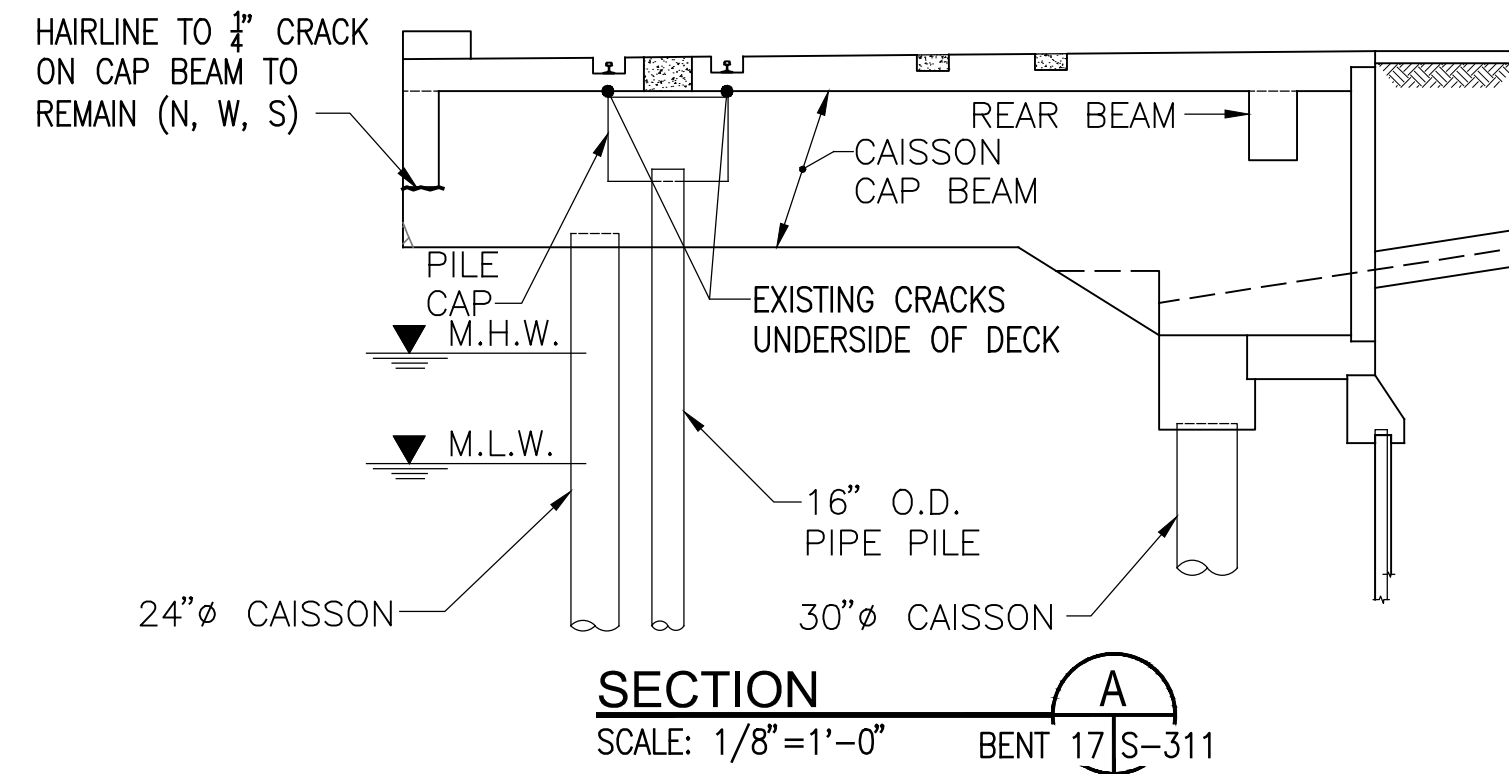
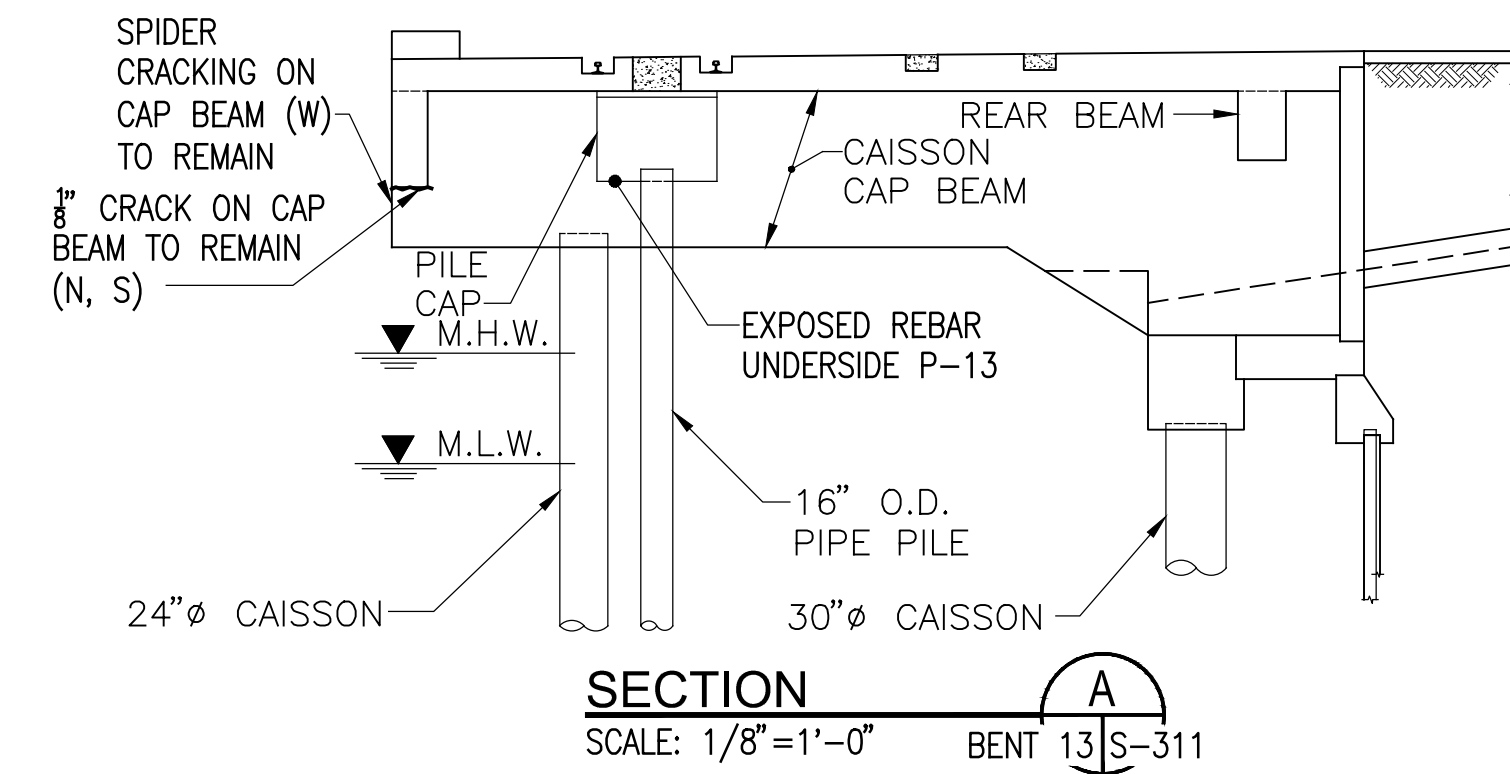
**CONTRACT DRAWINGS**  
2025-07-31

**NOTES:**

1. SEE DRAWING NO. S-310 FOR NOTES.

**LEGEND**

S - LOOKING SOUTH  
N - LOOKING NORTH  
E - LOOKING EAST  
W - LOOKING WEST

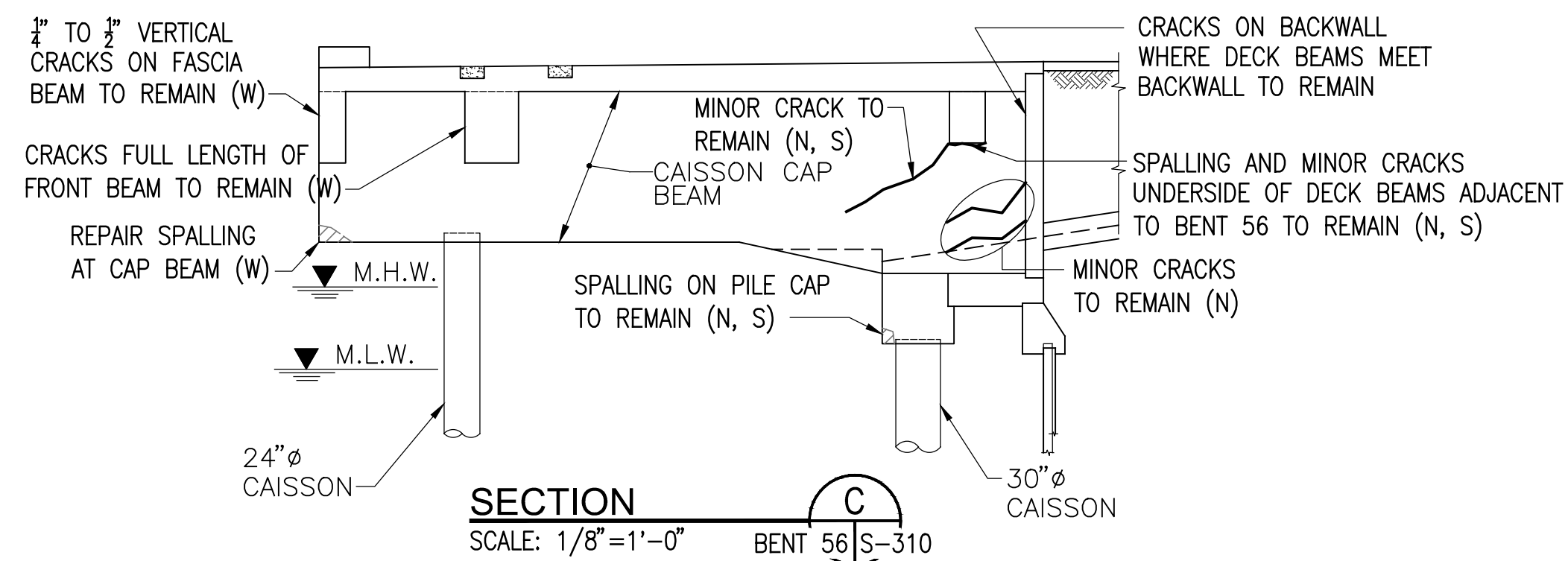
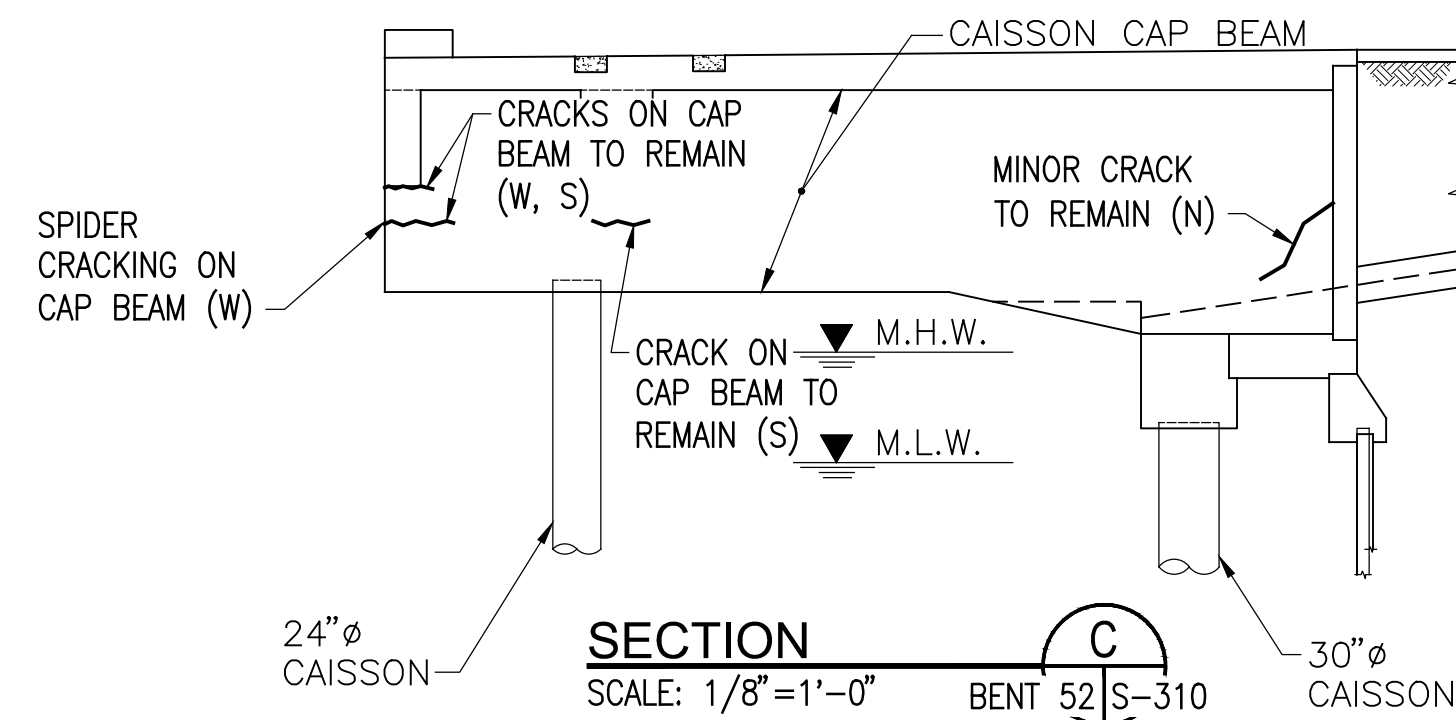
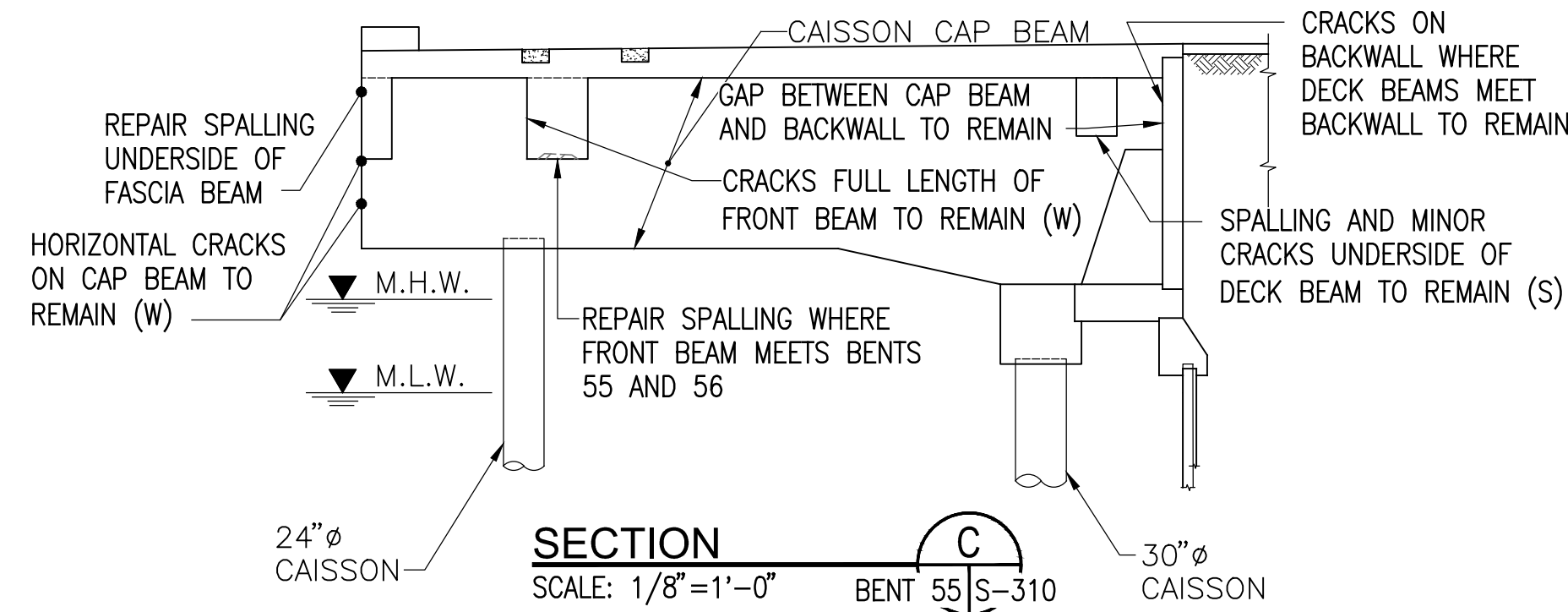
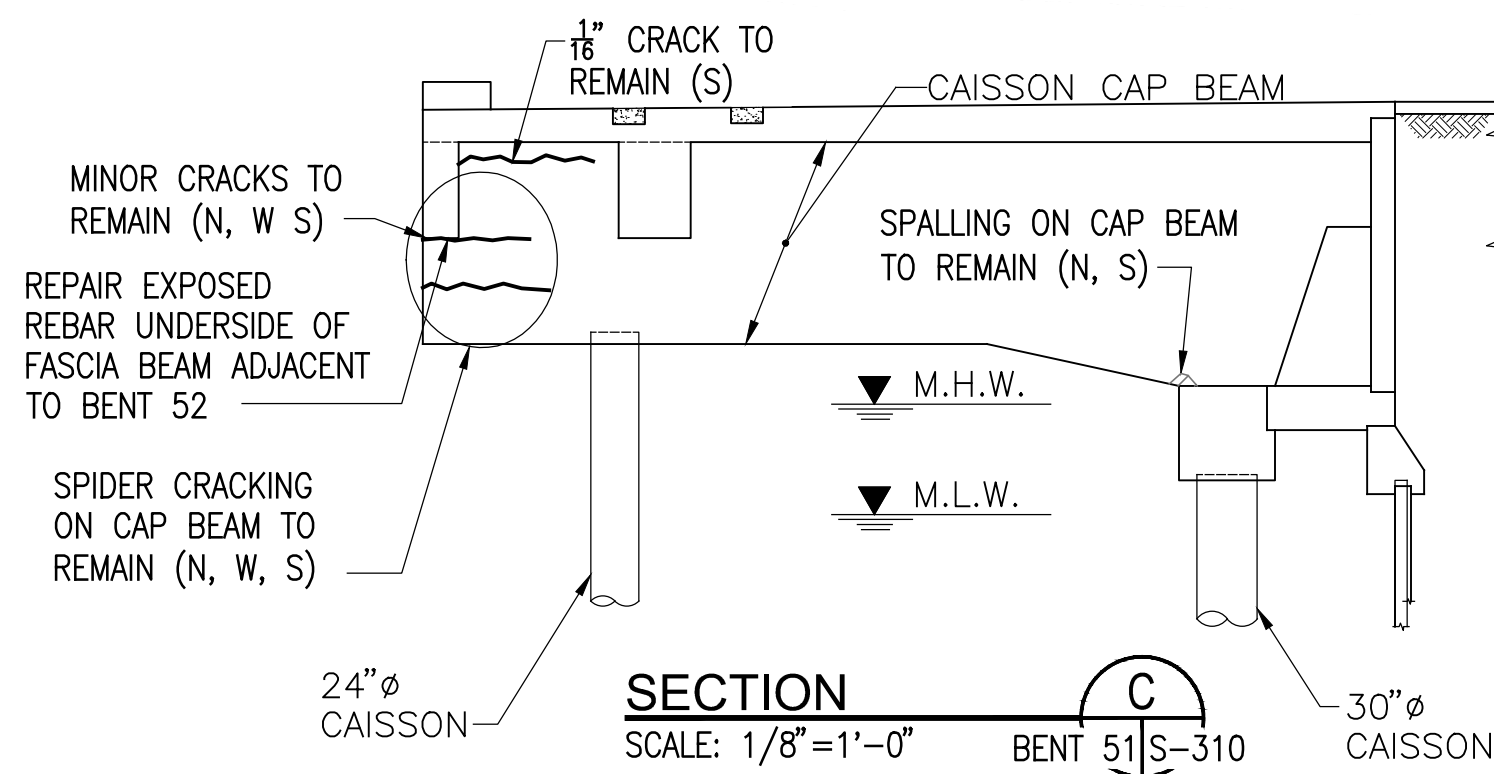
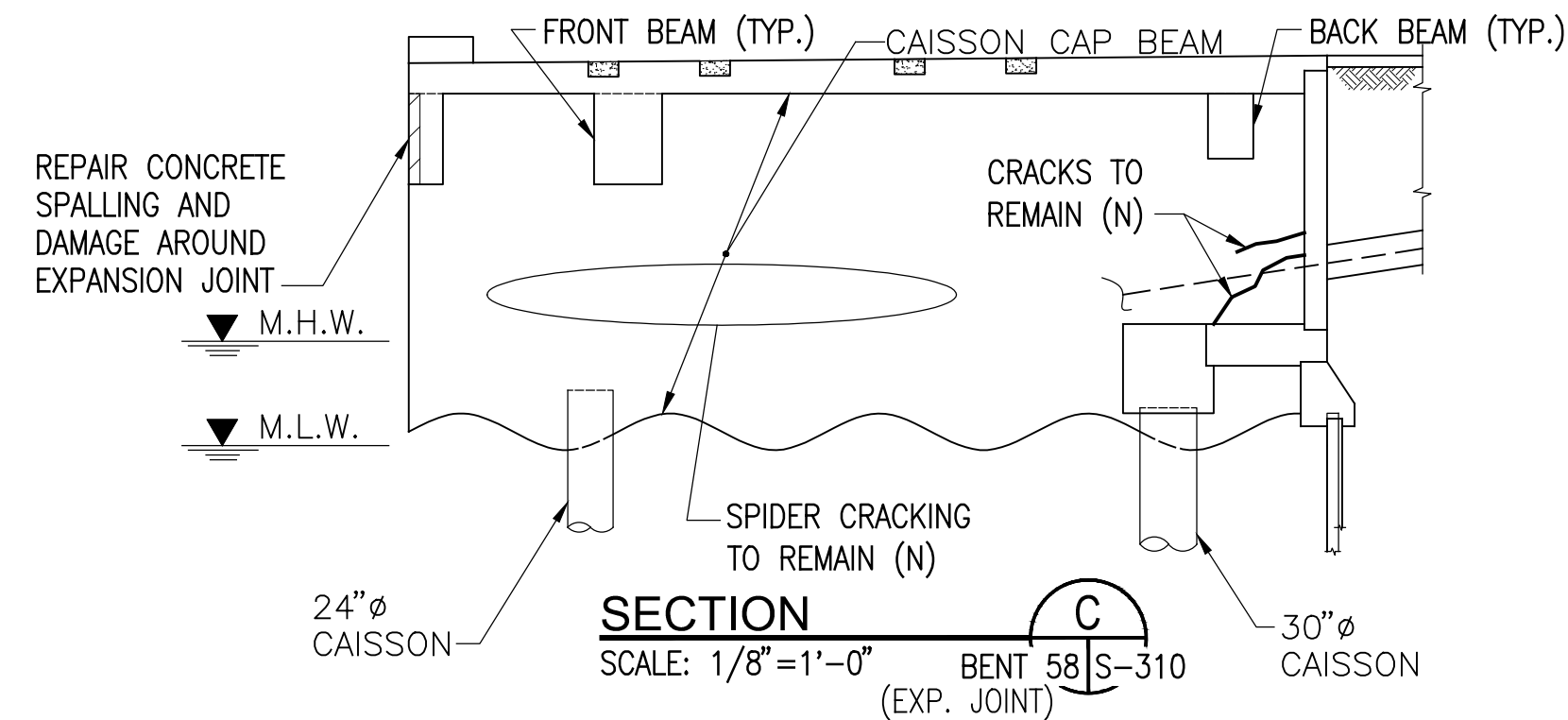
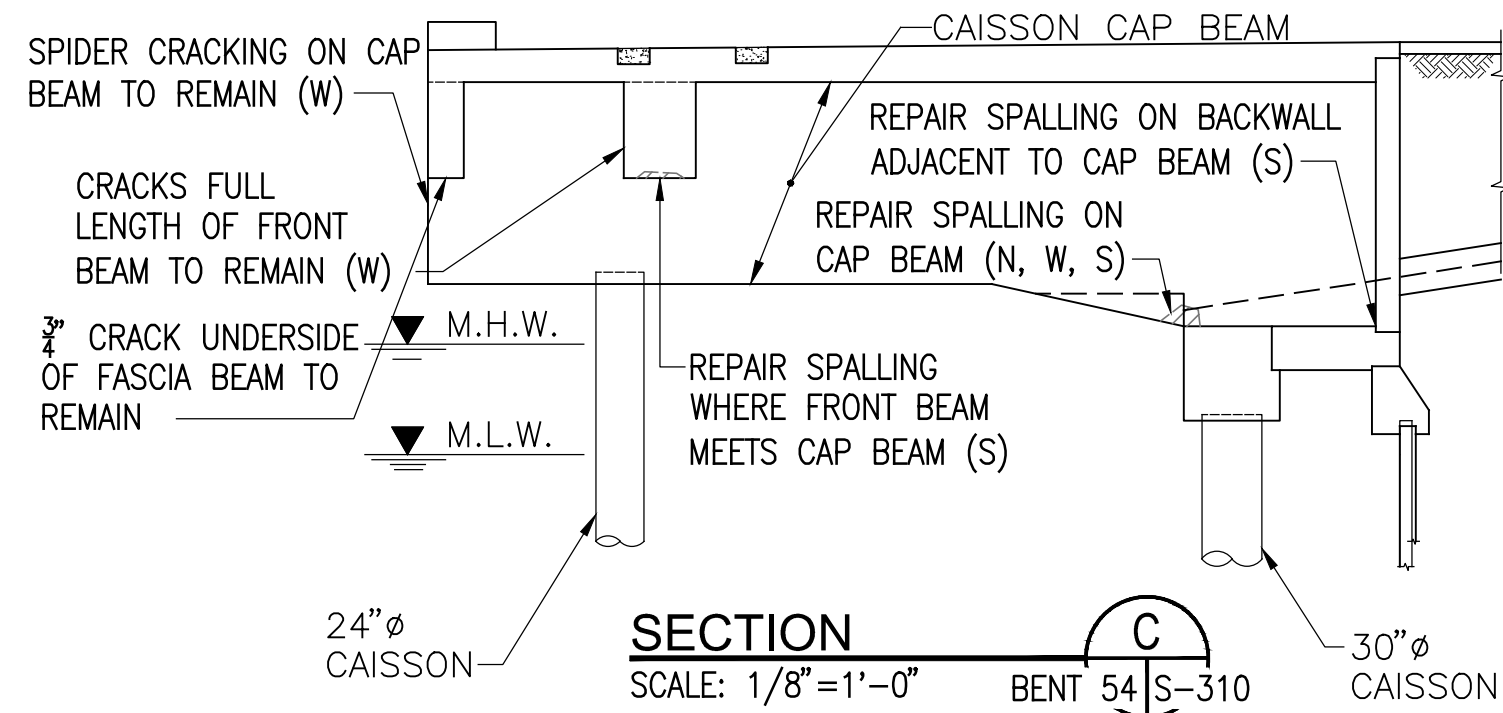
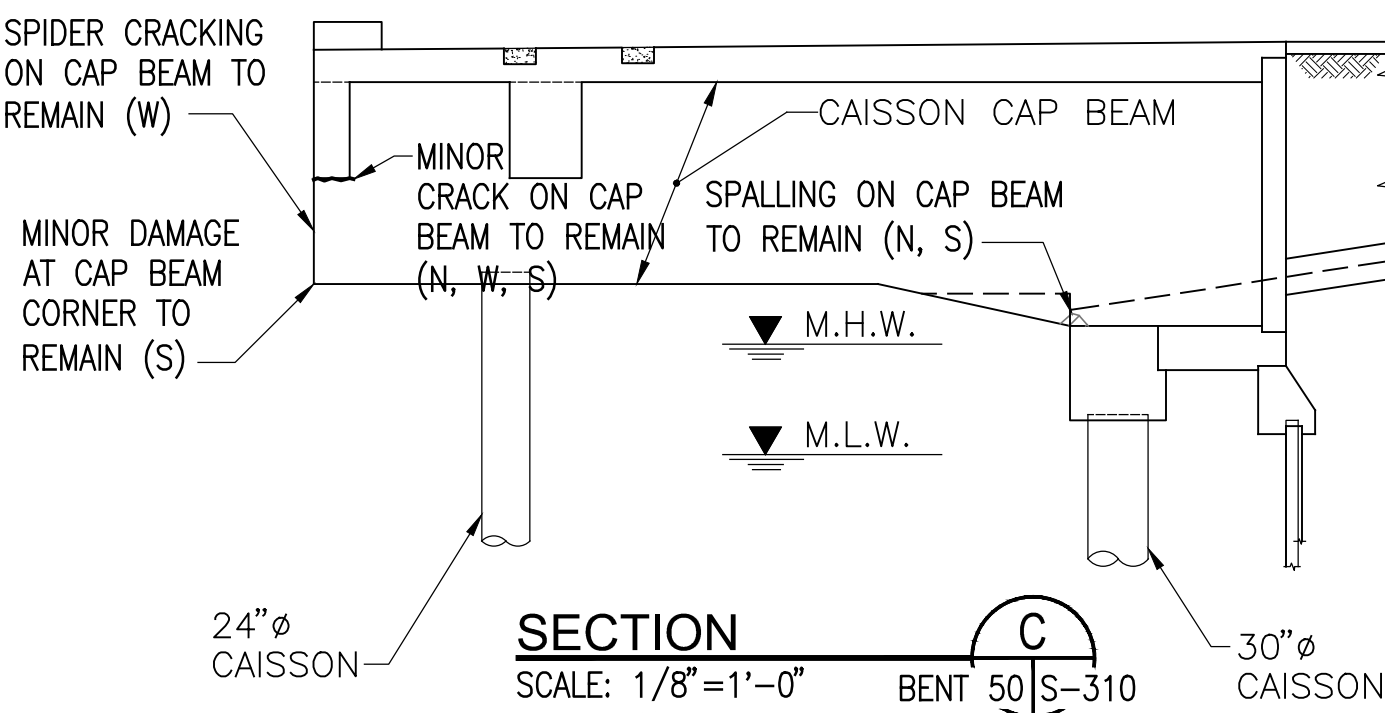
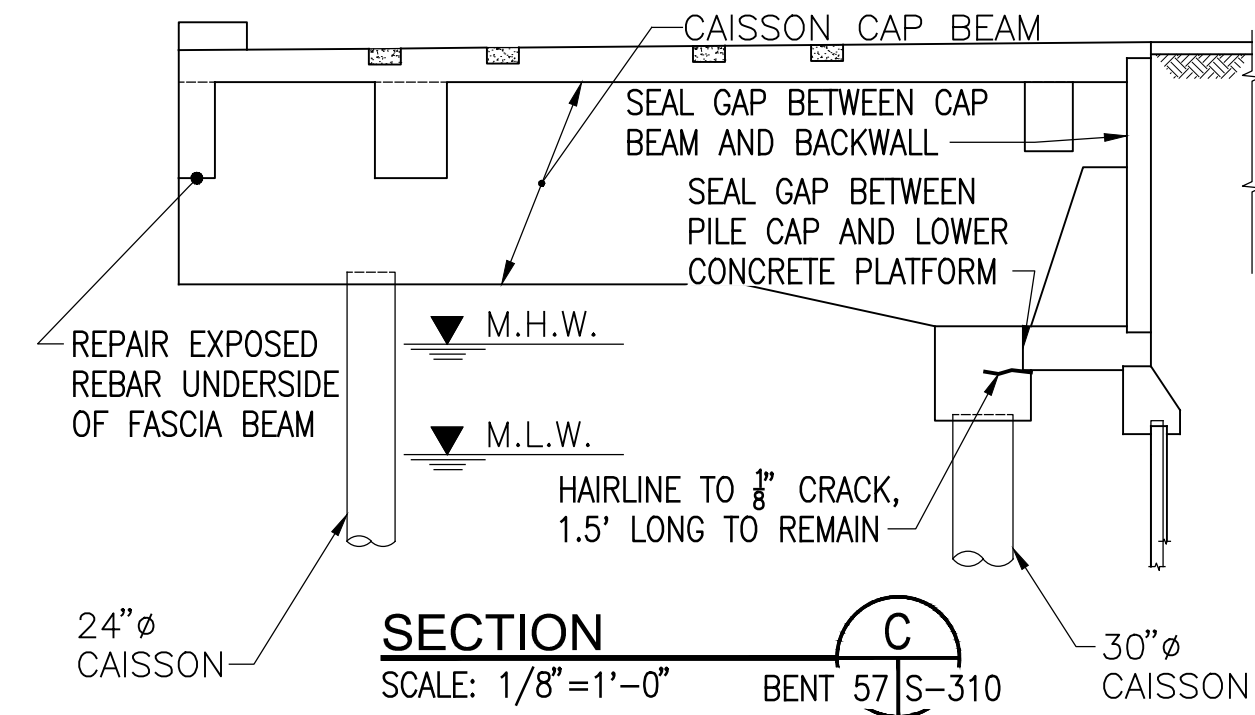
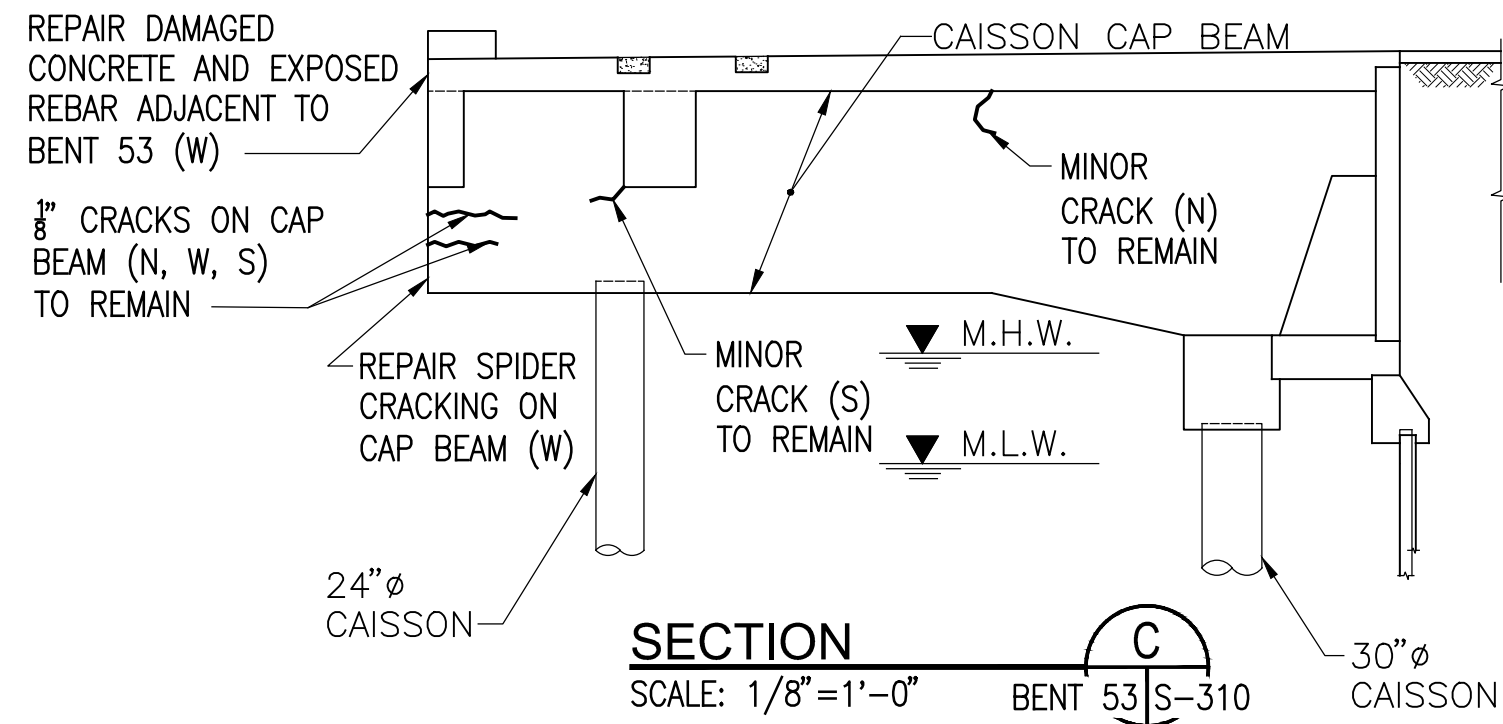
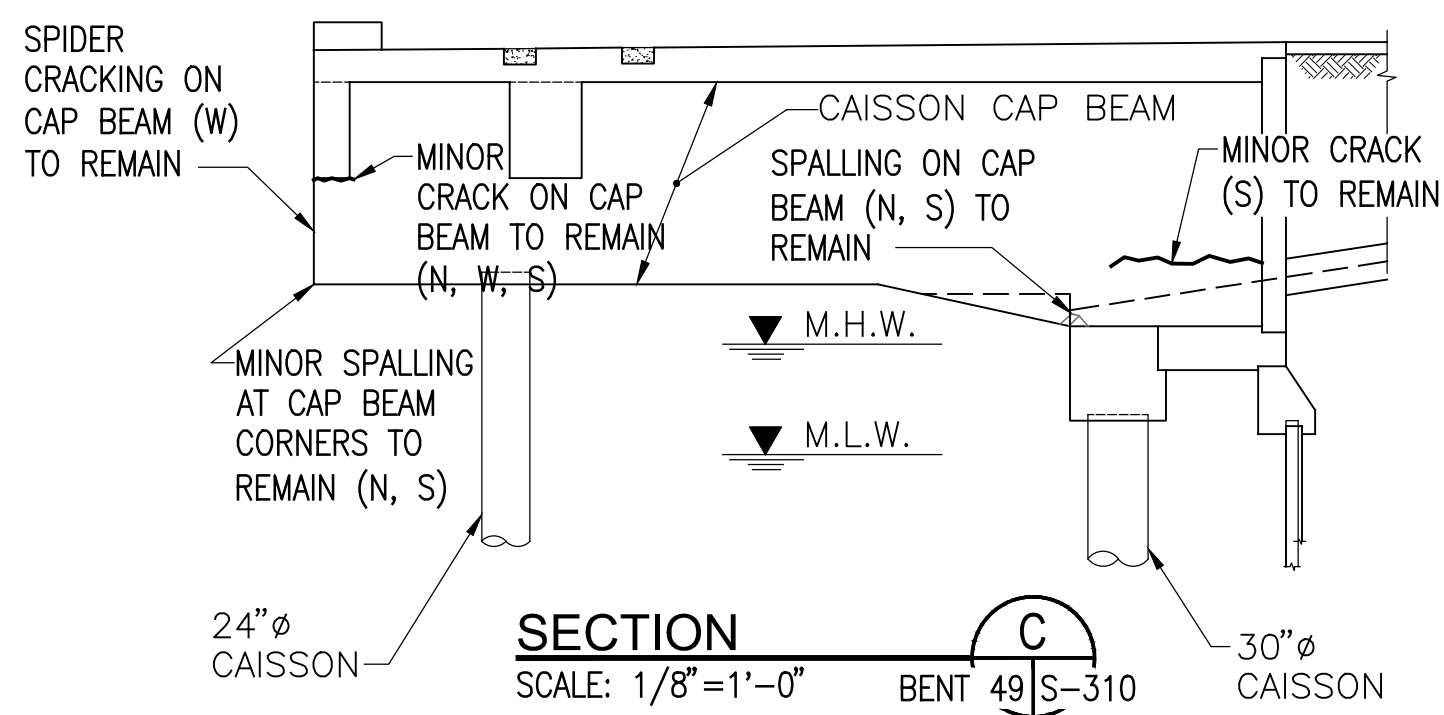


PORT OF ALBANY WHARF UPGRADES			
ALBANY		NEW YORK	
ALBANY PORT DISTRICT COMMISSION ALBANY — RENSSELAER			
ALBANY		NEW YORK	
MUESER RUTLEDGE CONSULTING ENGINEERS			
14 PENN PLAZA — 225 W. 34TH STREET, NY, NY 10122			
SCALE	MADE BY	M.A.S.	DATE 01-29-24
AS NOTED	CH'KD BY	A.D.	DATE 01-29-24
BENT REPAIRS BENTS 13 TO 24			FILE NO. 14990 DRAWING NO. S-311

CONTRACT DRAWINGS  
2025-07-31







## NOTES:

- SEE S-310 FOR BENT REPAIR NOTES.

## LEGEND

S - LOOKING SOUTH

N - LOOKING NORTH

E - LOOKING EAST

W - LOOKING WEST

PORT OF ALBANY WHARF UPGRADES  
ALBANY NEW YORK

ALBANY PORT DISTRICT COMMISSION  
ALBANY - RENSSELAER  
ALBANY NEW YORK

MUESER RUTLEDGE CONSULTING ENGINEERS

14 PENN PLAZA - 225 W. 34TH STREET, NY, NY 10122

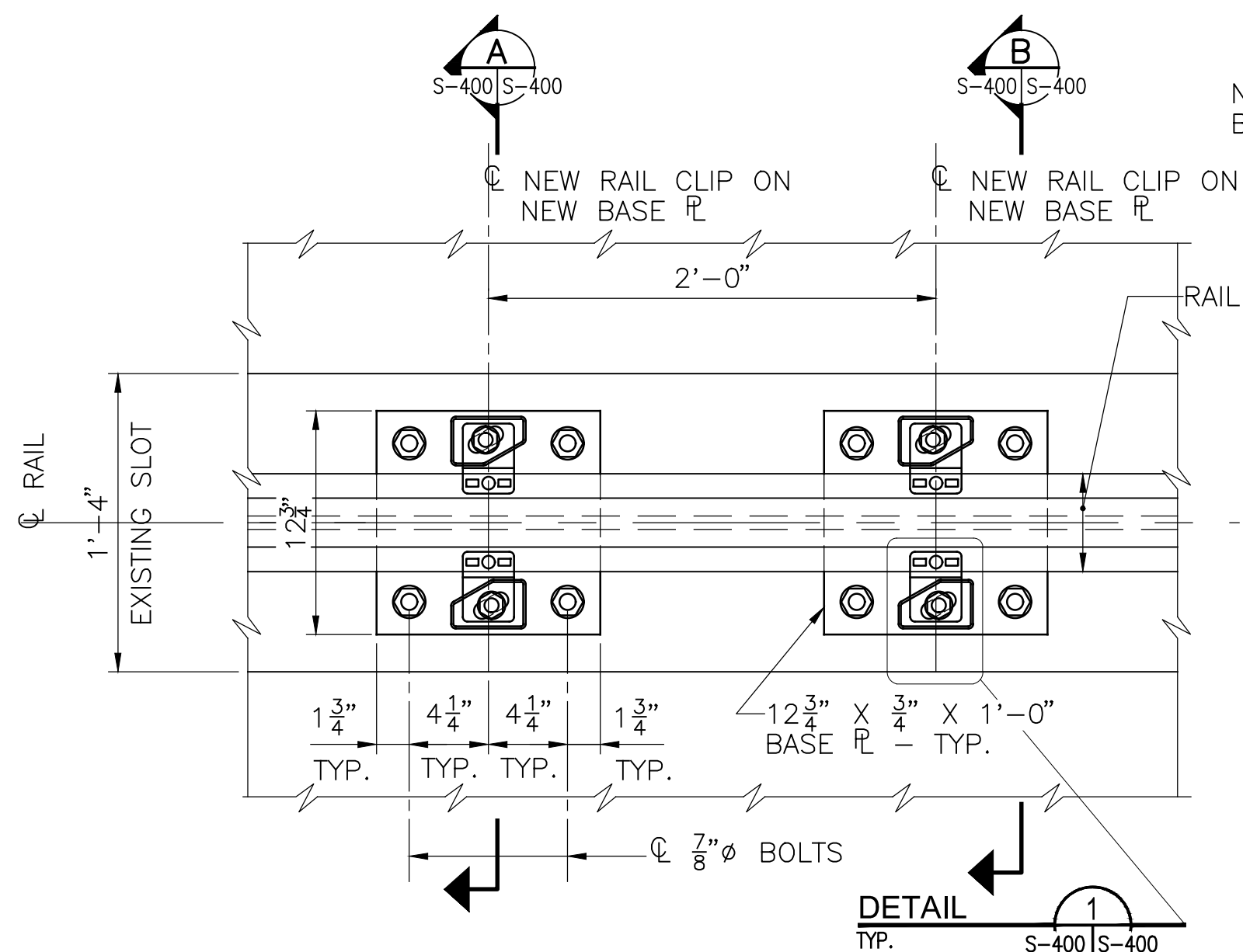
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					DRAWING NO.

BENT REPAIRS  
BENTS 49 TO 58

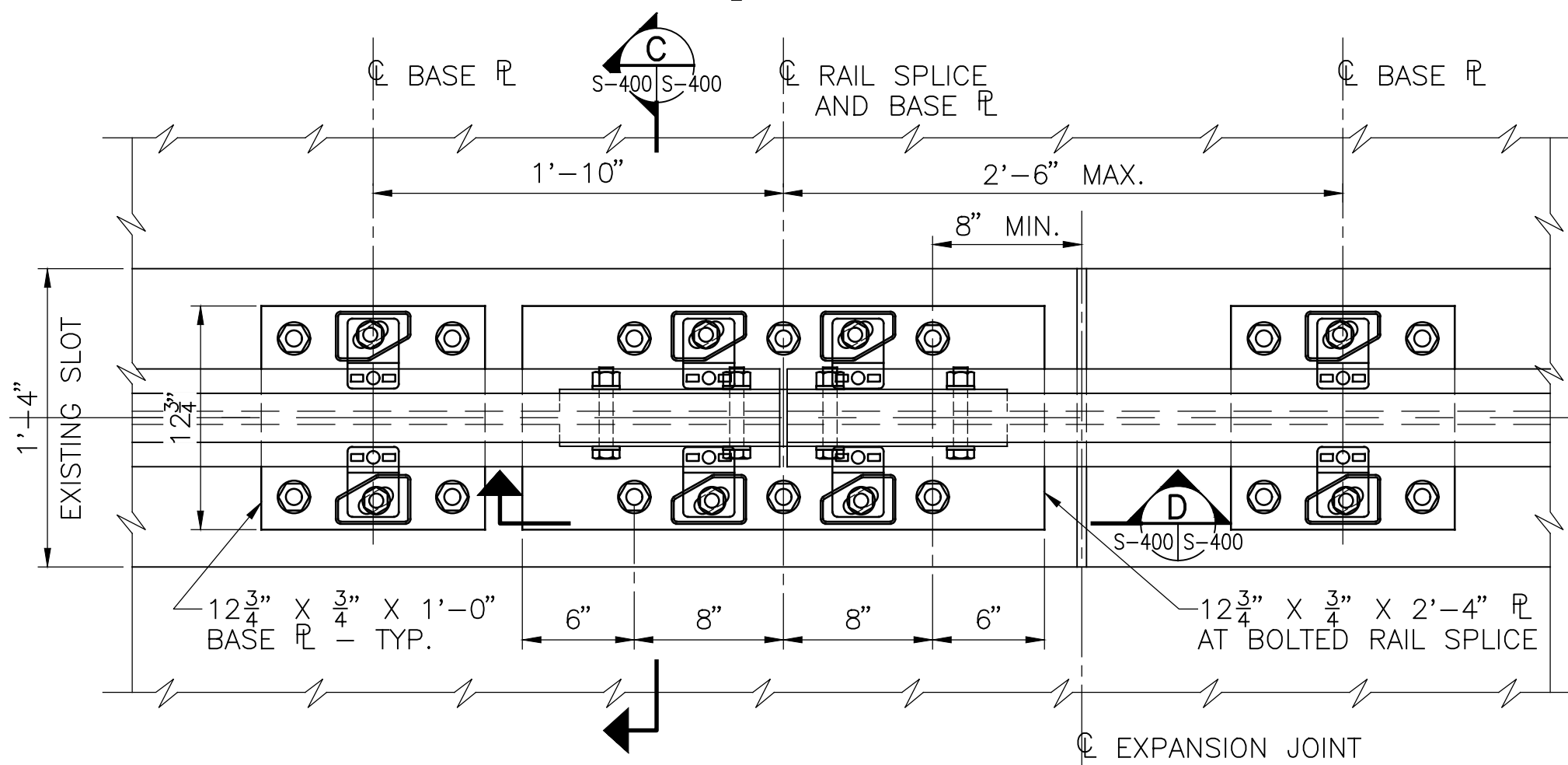
S-314

CONTRACT DRAWINGS  
2025-07-31

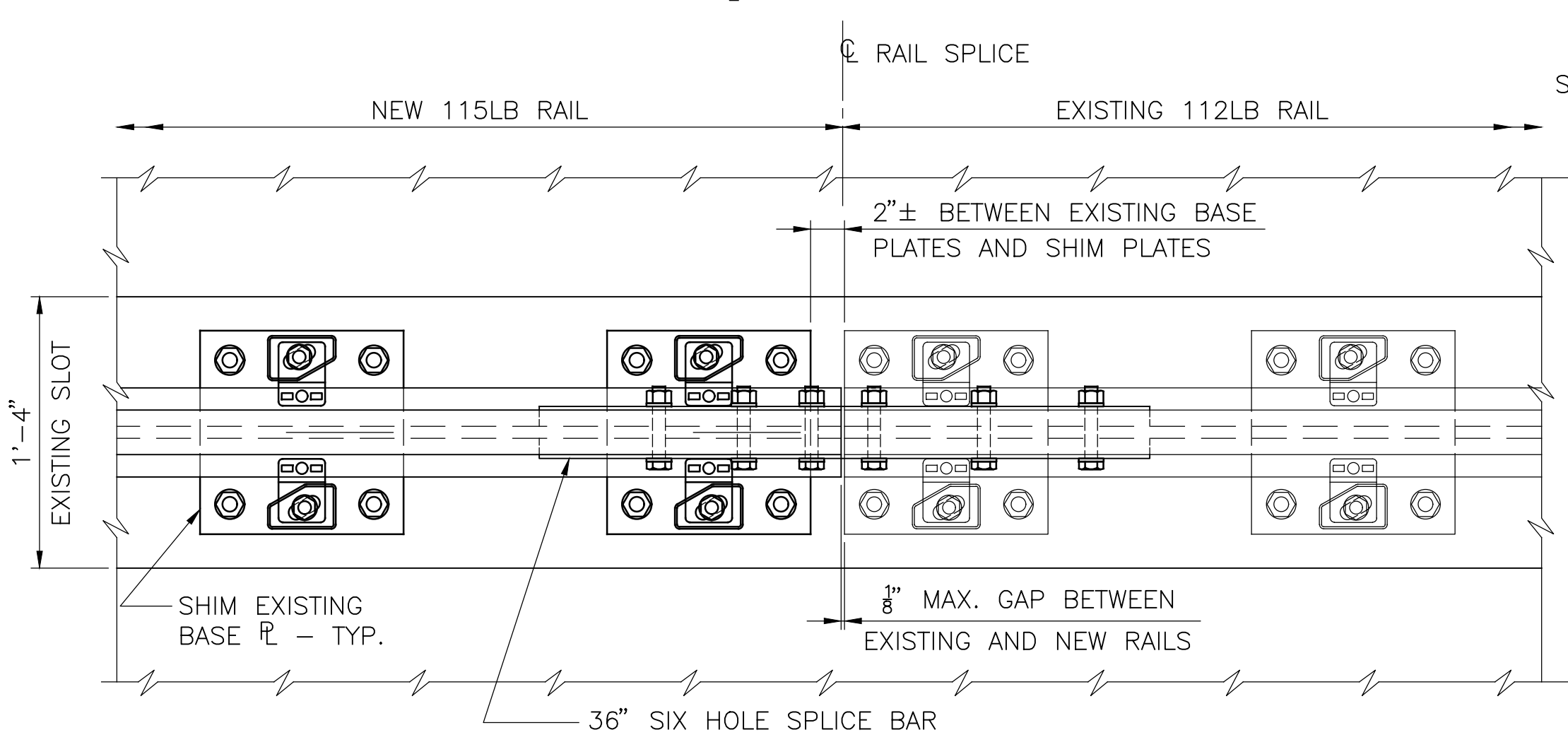
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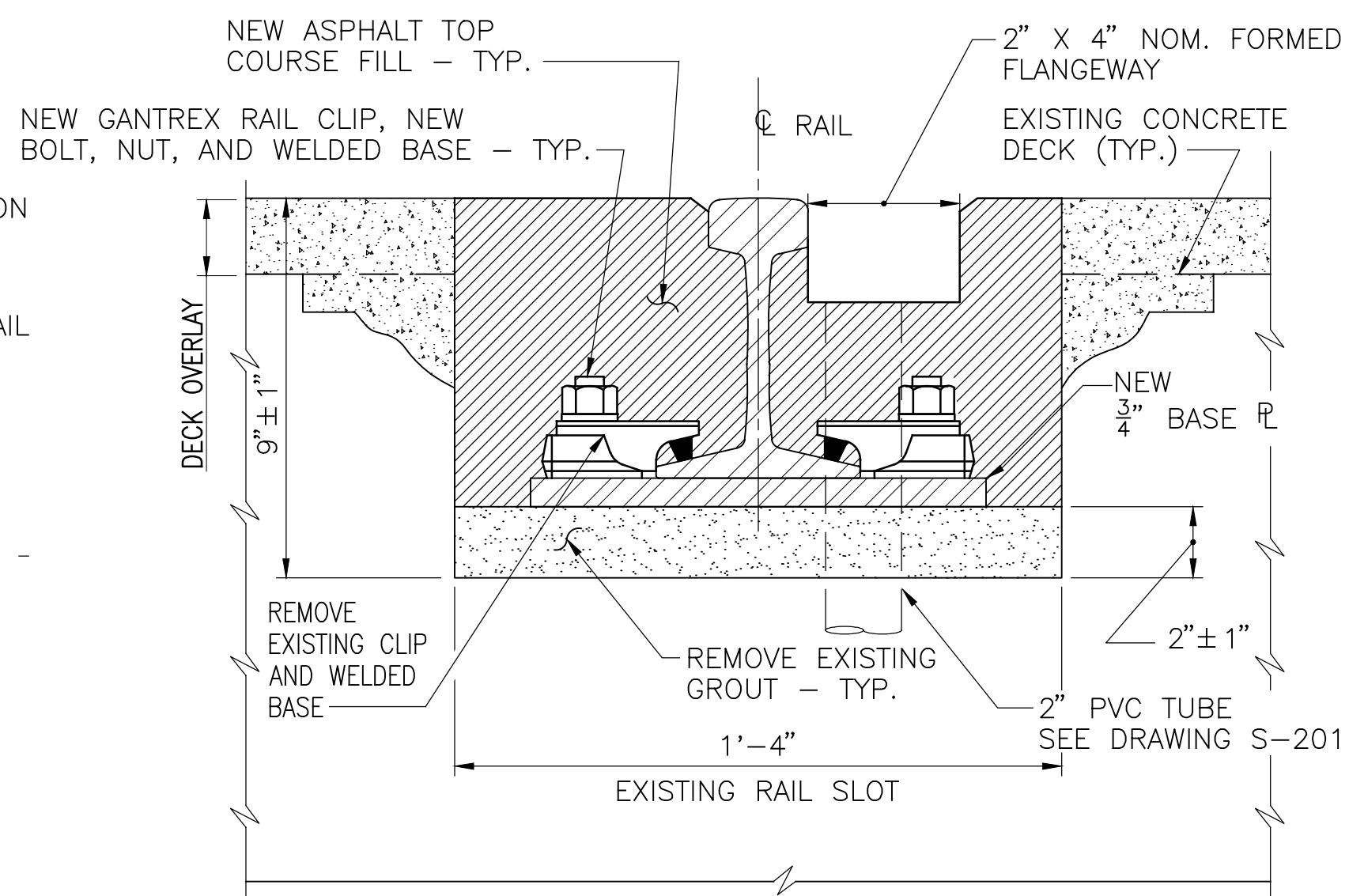
**TYPICAL RAIL SUPPORT DETAIL**  
**PART PLAN**  
SCALE: 1 1/2" = 1'-0"



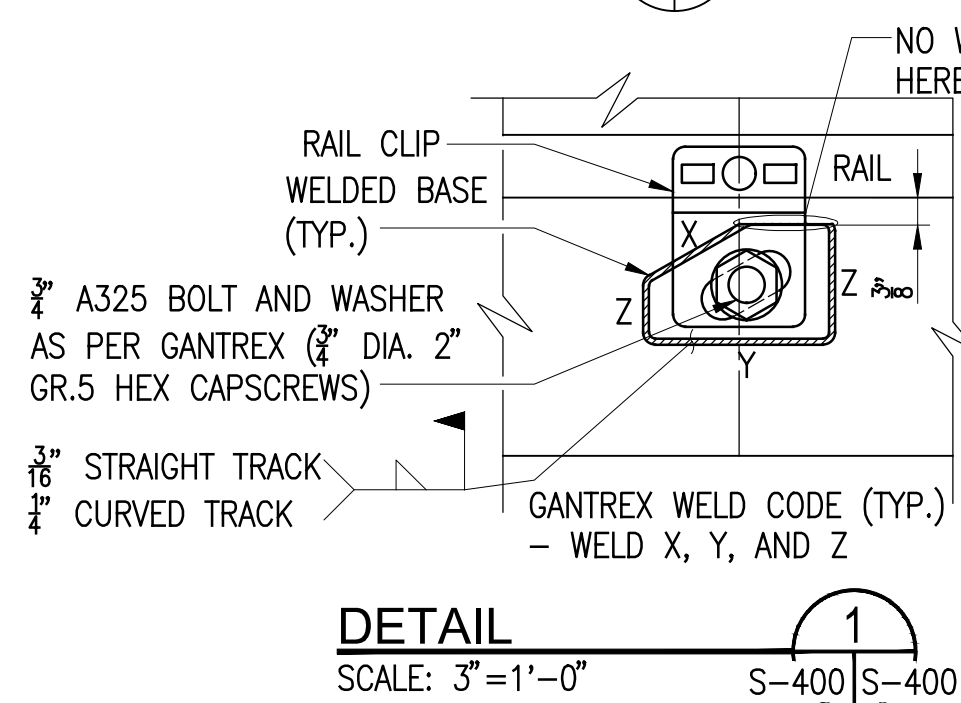
**NEW RAIL SPLICE DETAIL AT EXISTING DECK EXPANSION JOINTS**  
**(BENTS 12, 22, 33, AND 43) PART PLAN**  
SCALE: 1 1/2" = 1'-0"



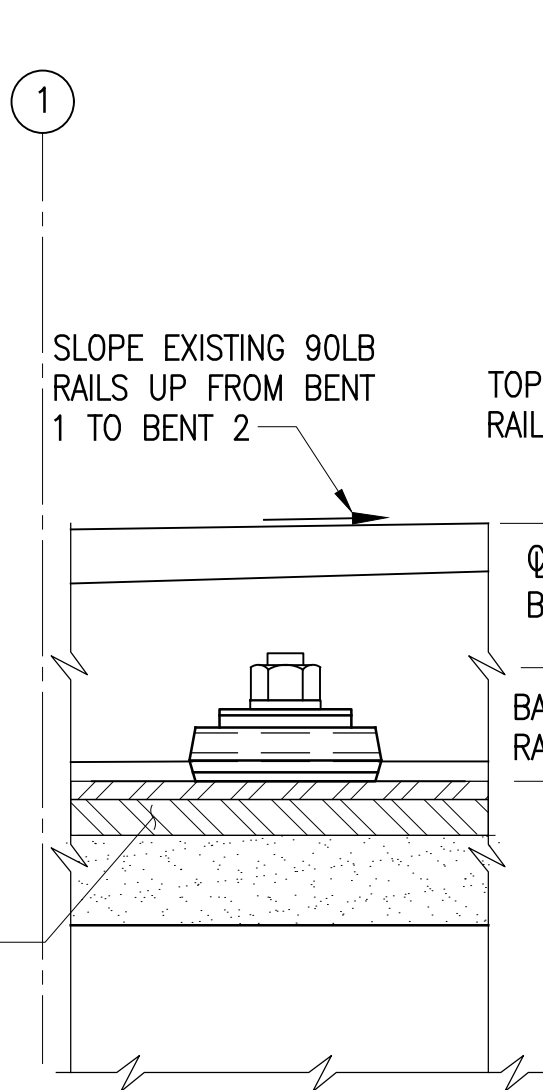
**RAIL SPLICE DETAIL AT EXISTING RAIL (NORTH END)**  
**PART PLAN**  
SCALE: 1 1/2" = 1'-0"



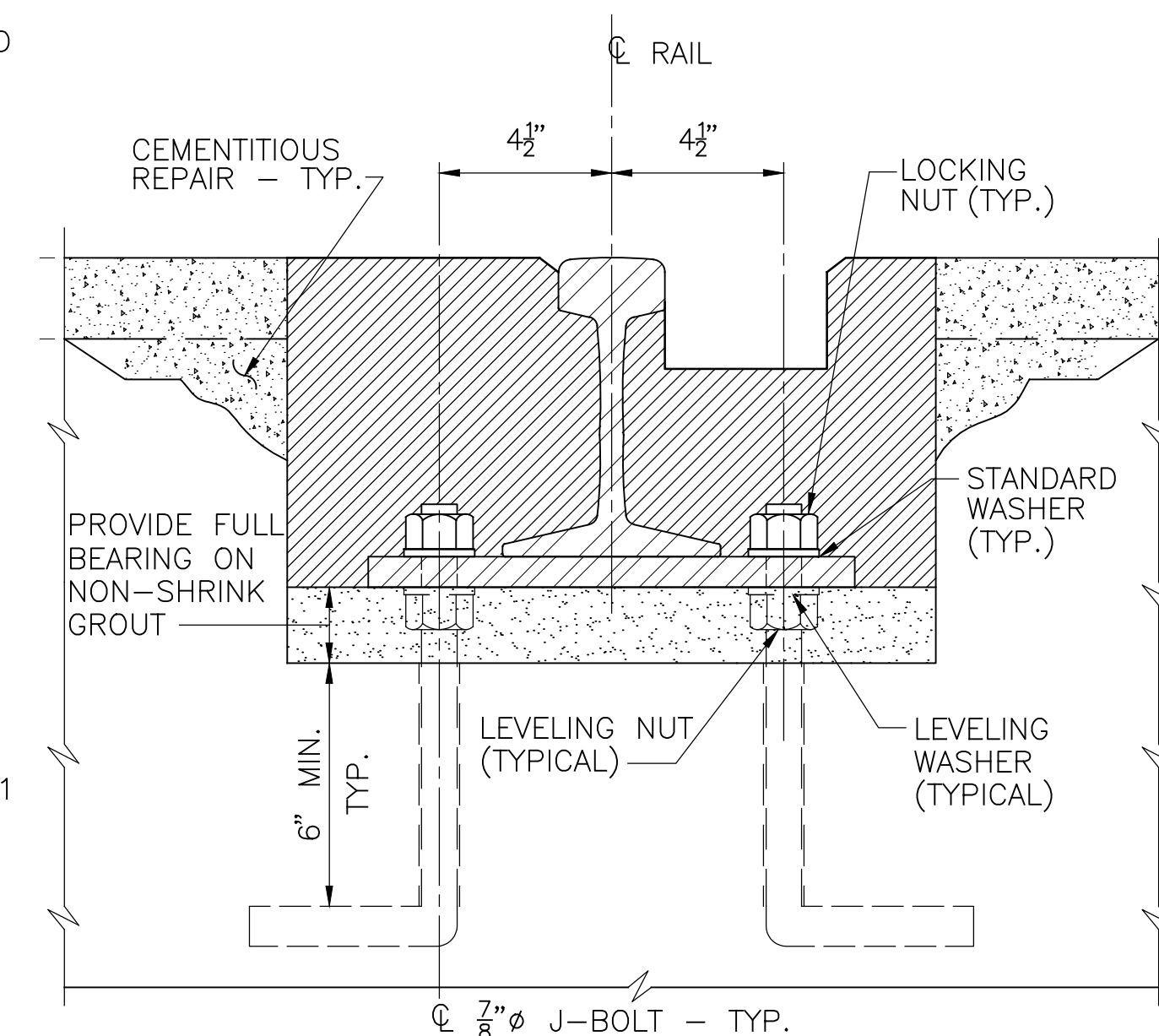
**SECTION A**  
SCALE: 3" = 1'-0"



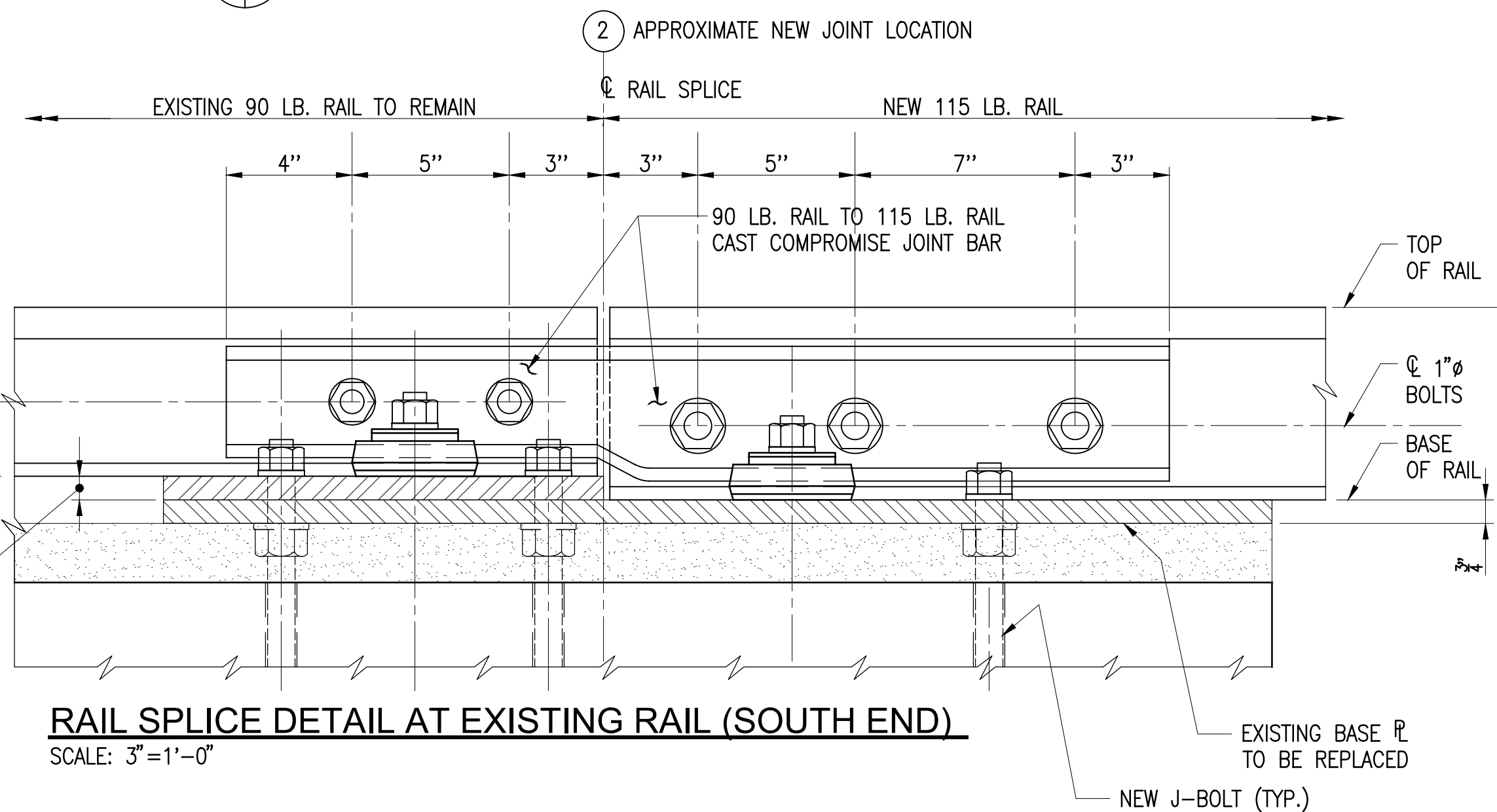
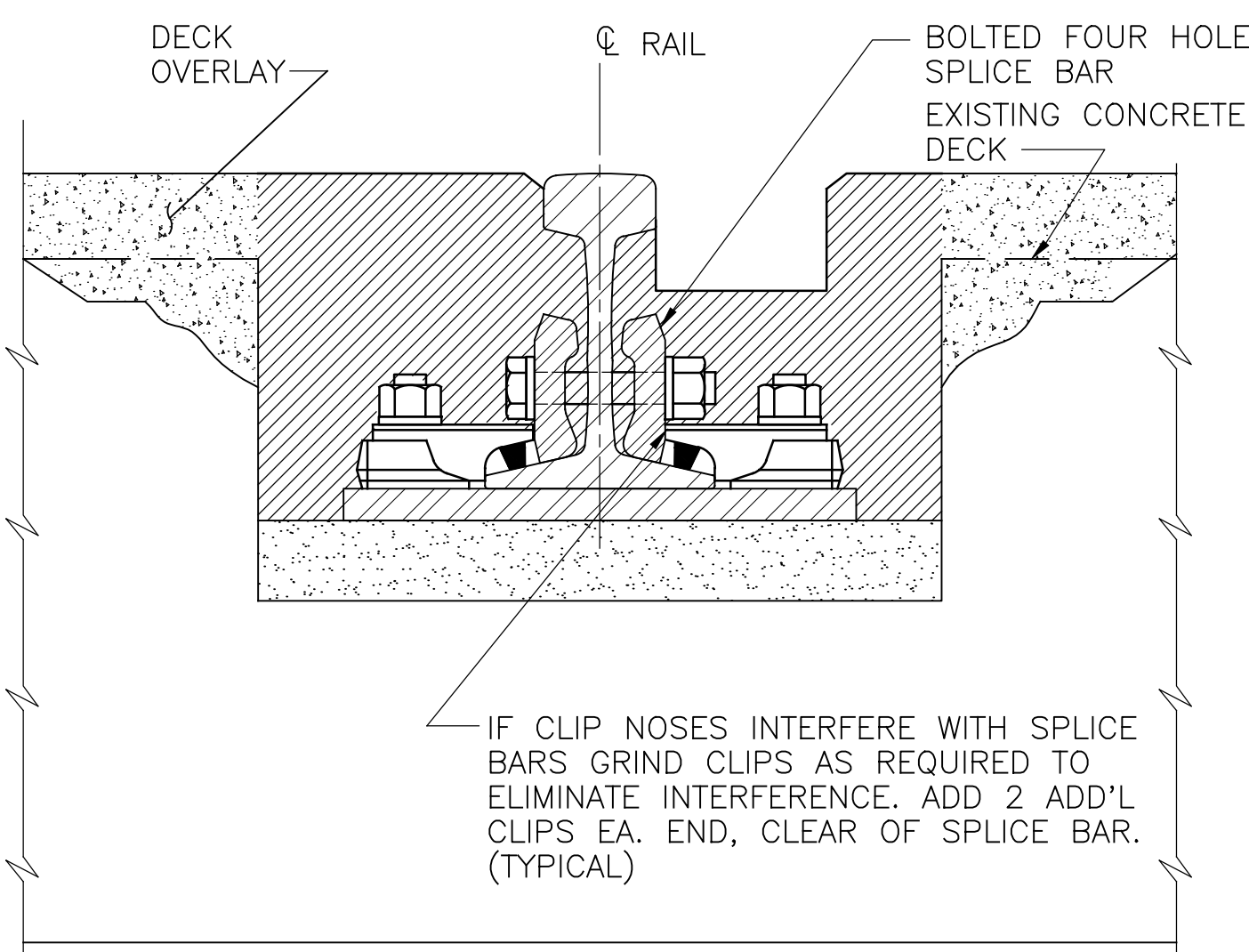
**DETAIL 1**  
SCALE: 3" = 1'-0"



**SECTION B**  
SCALE: 3" = 1'-0"

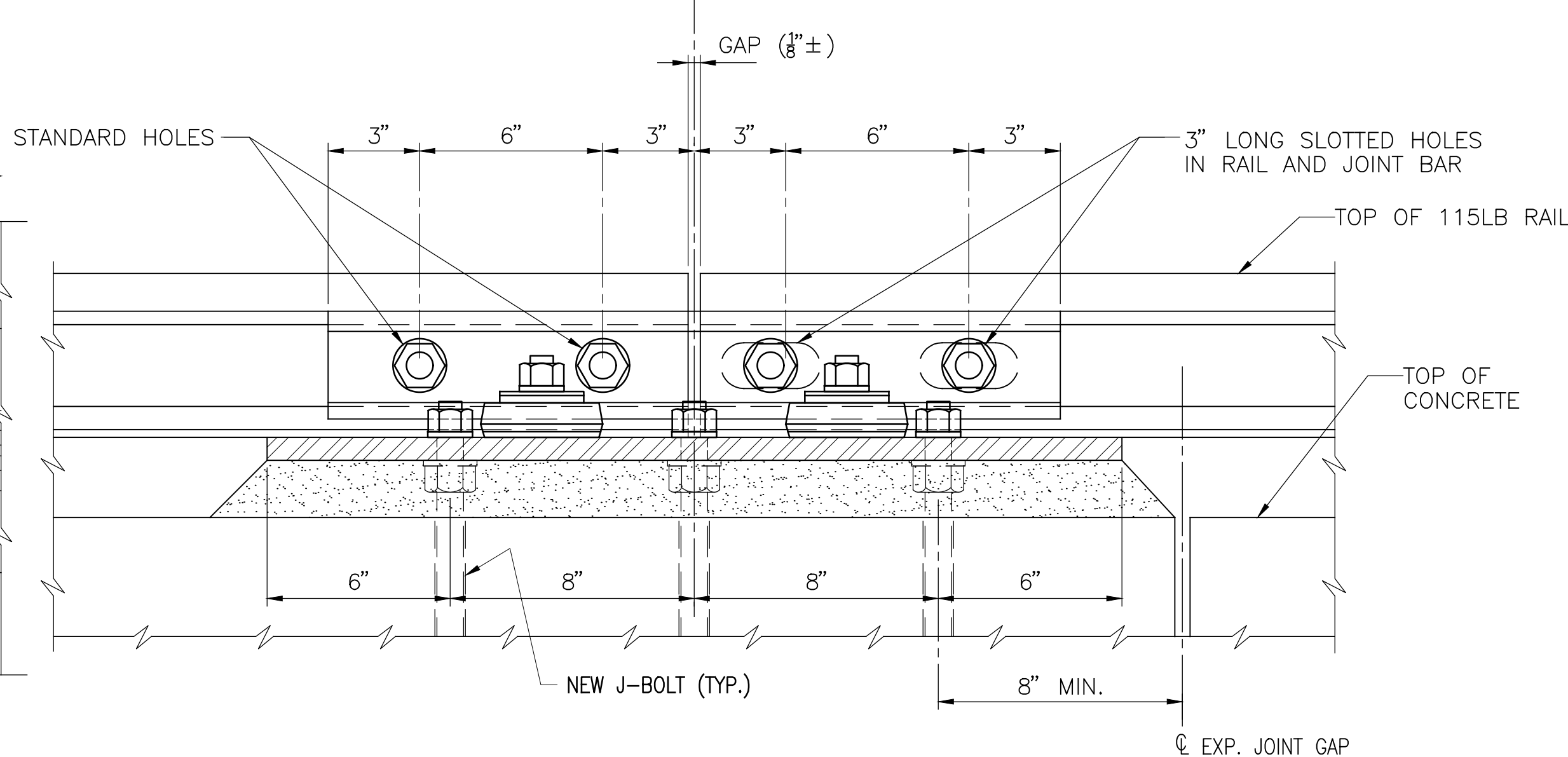


**SECTION C**  
SCALE: 3" = 1'-0"



**RAIL SPLICE DETAIL AT EXISTING RAIL (SOUTH END)**  
SCALE: 3" = 1'-0"

NOTE: FILLER PLATE THICKNESS TO VARY FROM 1/8"± AT BENT 1 TO 2"± AT BENT 2.



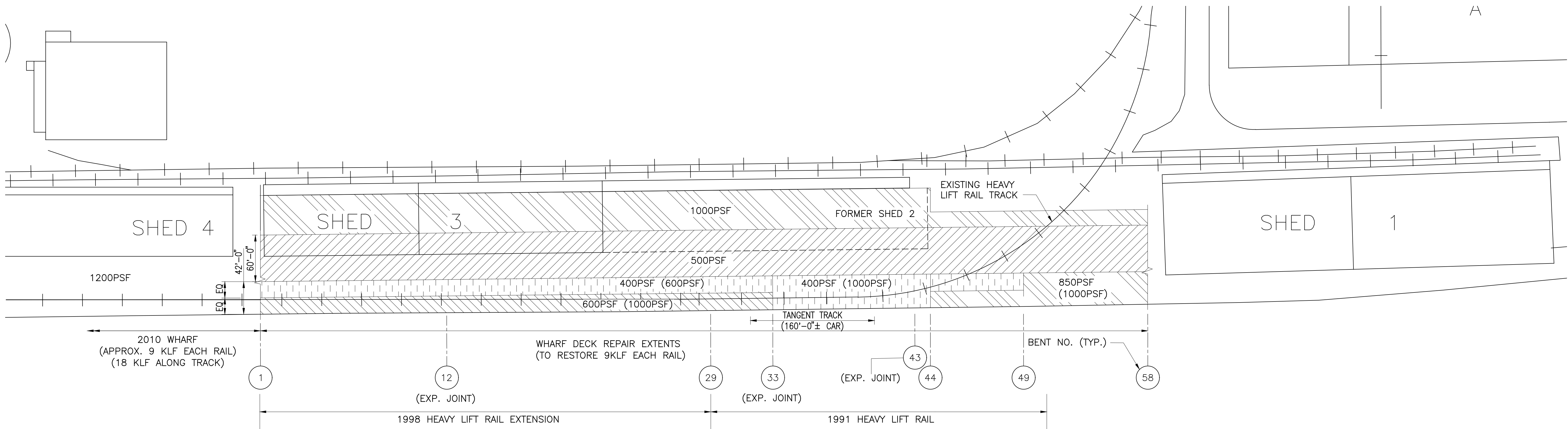
**SECTION D**  
SCALE: 3" = 1'-0"

**NOTES:**

1. RAIL, ANCHOR BOLTS, RAIL CLIPS, AND PLATES TO BE FULLY COVERED WITH 6 MIL POLYVINYL BOND BREAKER PRIOR TO ENCASEMENT IN ASPHALT FILL (TYP.).
2. GAGE, TEST, AND COMPLETE, TO THE SATISFACTION OF THE ENGINEER, ALL ASPECTS OF RAIL AFFIXATION, PRIOR TO ENCASEMENT IN ASPHALT FILL.

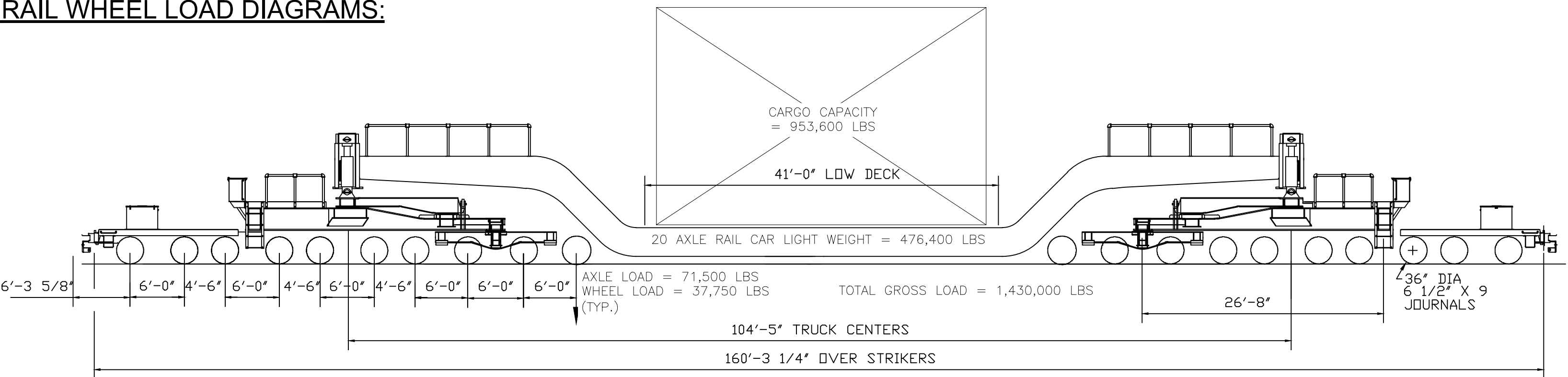
PORT OF ALBANY WHARF UPGRADES			
ALBANY		NEW YORK	
ALBANY PORT DISTRICT COMMISSION			
ALBANY — RENSSELAER			
ALBANY		NEW YORK	
MUESER RUTLEDGE CONSULTING ENGINEERS			
14 PENN PLAZA — 225 W. 34TH STREET, NY, NY 10122			
SCALE	MADE BY	DATE	FILE NO.
AS NOTED	M.A.S.	12-16-24	14990
	CH'KD BY	DATE	
	A.D.	1-29-2025	DRAWING NO.
RAIL SECTIONS AND DETAILS			S-400

**CONTRACT DRAWINGS**  
2025-07-31

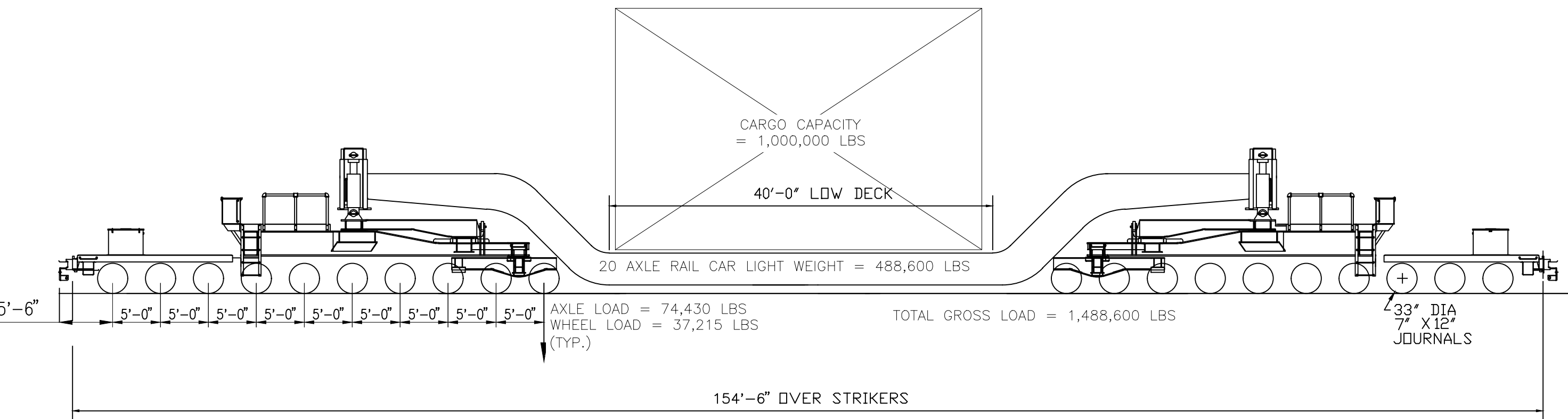


AREA LOADING PLAN PRIOR TO UPGRADES (AFTER UPGRADES IF APPLICABLE)  
SCALE: 1/64"=1'-0"

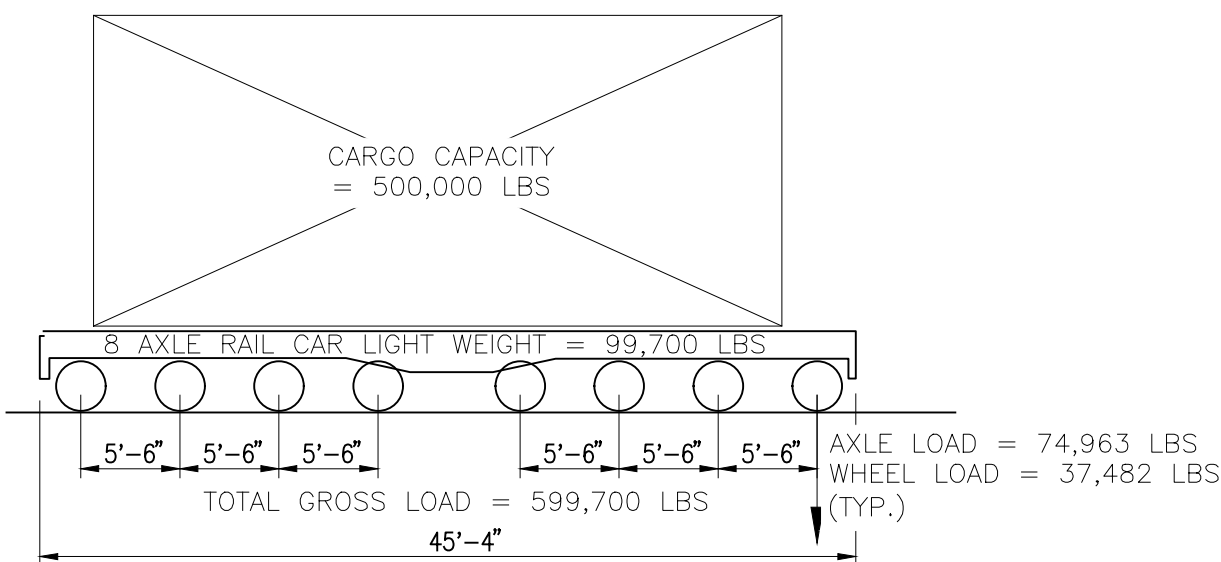
RAIL WHEEL LOAD DIAGRAMS:



KRL 204041 RAIL CAR (7.2 KLF EACH RAIL)  
NTS



GEX80003 RAIL CAR (8.3KLF EACH RAIL)  
NTS



DH16153 RAIL CAR (9KLF EACH RAIL)  
NTS

NOTES:

1. MAXIMUM AREA LOADING (PSF) AS INDICATED IS WITHOUT APPLIED RAIL LOAD.
2. FOR RAIL LOAD CASE (RAIL CAR USE ON OR UPLAND OF WHARF), NO APPLIED AREA LOAD SHALL BE PLACED WITHIN 15 FEET OF EITHER SIDE OF RAIL CENTERLINE AT THE SAME TIME.
3. ORIGINAL DECK WHARF DECK CONSTRUCTED IN 1966 (3000 PSI CONCRETE, 40 KSI REBAR). LOCAL UPGRADES (6000 PSI CONCRETE, 60 KSI REBAR)

PORT OF ALBANY WHARF UPGRADES  
ALBANY NEW YORK

ALBANY PORT DISTRICT COMMISSION  
ALBANY - RENSSELAER  
ALBANY NEW YORK

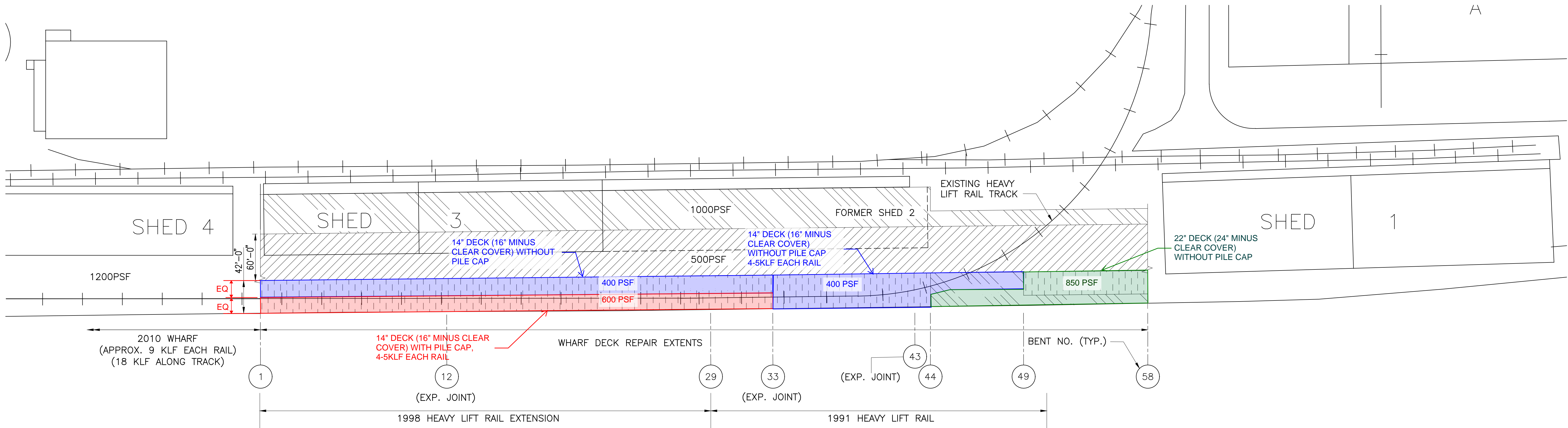
MUESER RUTLEDGE CONSULTING ENGINEERS

14 PENN PLAZA - 225 W. 34TH STREET, NY, NY 10122

SCALE AS NOTED	MADE BY M.A.S.	DATE 01-29-24	FILE NO. 14990
	CH'KD BY A.D.	DATE 01-29-24	DRAWING NO.

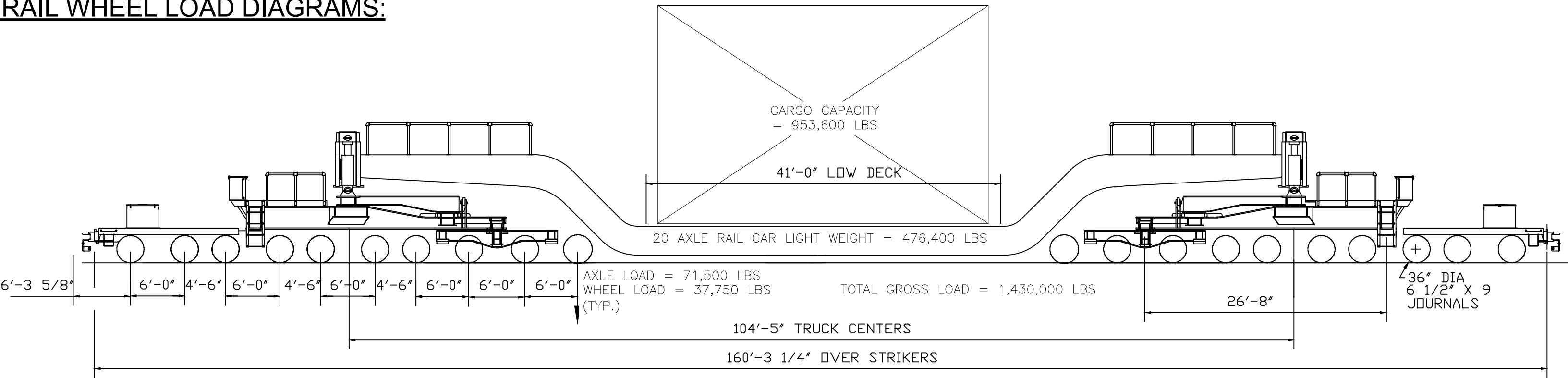
WHARF  
AREA LOADING  
S-401

CONTRACT DRAWINGS  
2025-07-31

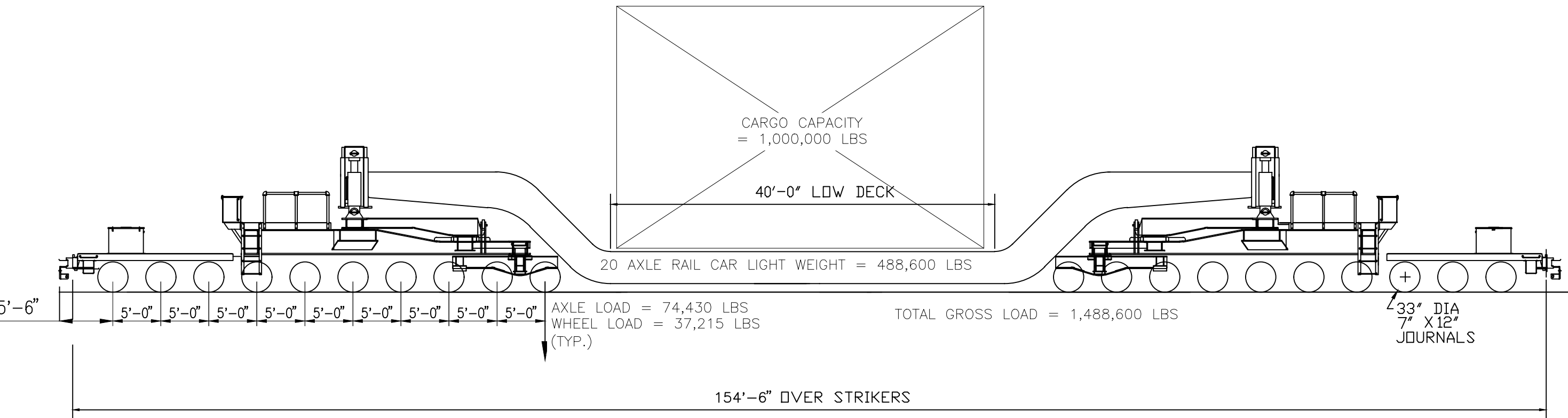


AREA LOADING PLAN PRIOR TO UPGRADES  
SCALE: 1/64"=1'-0"

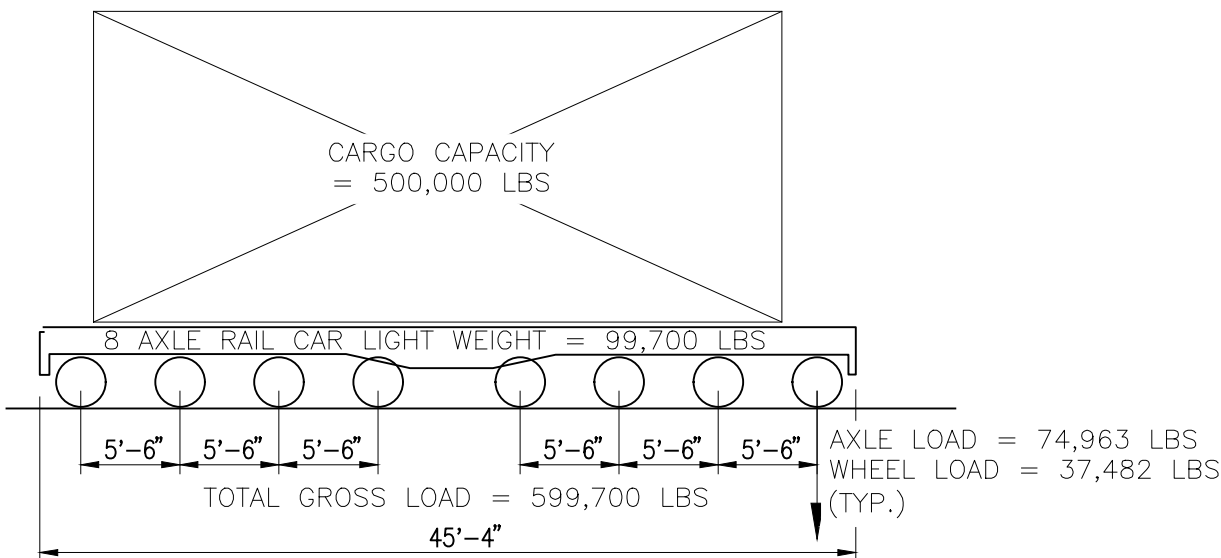
RAIL WHEEL LOAD DIAGRAMS:



KRL 204041 RAIL CAR (7.2 KLF EACH RAIL)  
NTS



GEX80003 RAIL CAR (8.3KLF EACH RAIL)  
NTS



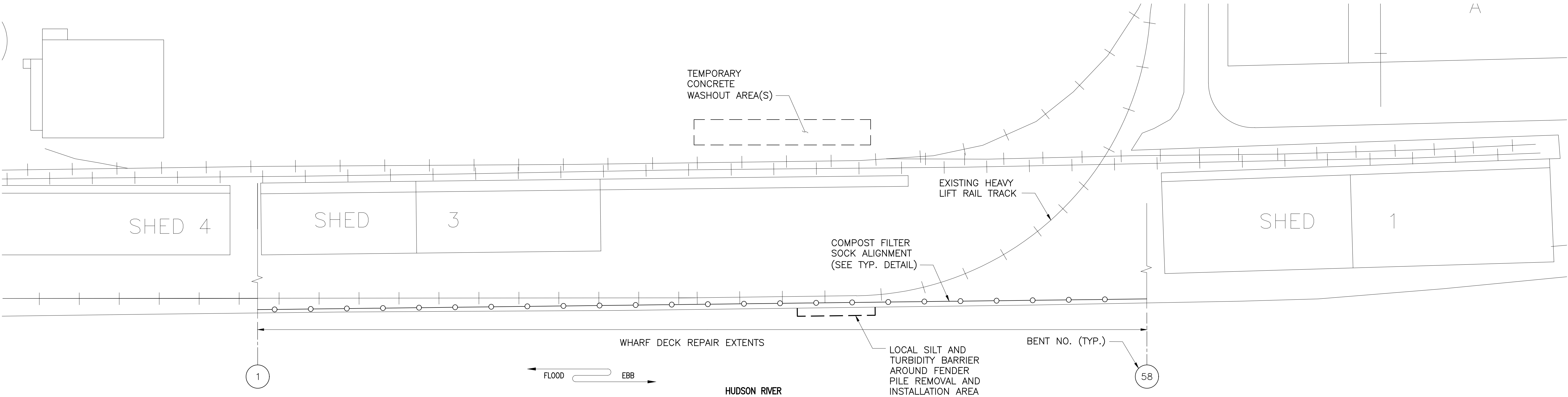
DH16153 RAIL CAR (9KLF EACH RAIL)  
NTS

NOTES:

- 1. MAXIMUM AREA LOADING (PSF) AS INDICATED IS WITHOUT APPLIED RAIL LOAD.
- 2. FOR RAIL LOAD CASE (RAIL CAR USE ON OR UPLAND OF WHARF), NO APPLIED AREA LOAD SHALL BE PLACED WITHIN 15 FEET OF EITHER SIDE OF RAIL CENTERLINE AT THE SAME TIME.
- 3. ORIGINAL DECK WHARF DECK CONSTRUCTED IN 1966 (3000 PSI CONCRETE, 40 KSI REBAR).

CONTRACT DRAWINGS  
2025-07-31

PORT OF ALBANY WHARF UPGRADES			
ALBANY		NEW YORK	
ALBANY PORT DISTRICT COMMISSION ALBANY — RENSSELAER			
ALBANY		NEW YORK	
MUESER RUTLEDGE CONSULTING ENGINEERS			
14 PENN PLAZA — 225 W. 34TH STREET, NY, NY 10122			
SCALE	MADE BY	M.A.S.	DATE 01-29-24
AS NOTED	CH'KD BY	A.D.	DATE 01-29-24
			FILE NO. 14990
CURRENT CONDITION WHARF AREA LOADING			DRAWING NO. S-401A



**SEDIMENT AND EROSION CONTROL PLAN**

SCALE: 1/64"=1'-0"

**NOTES:**

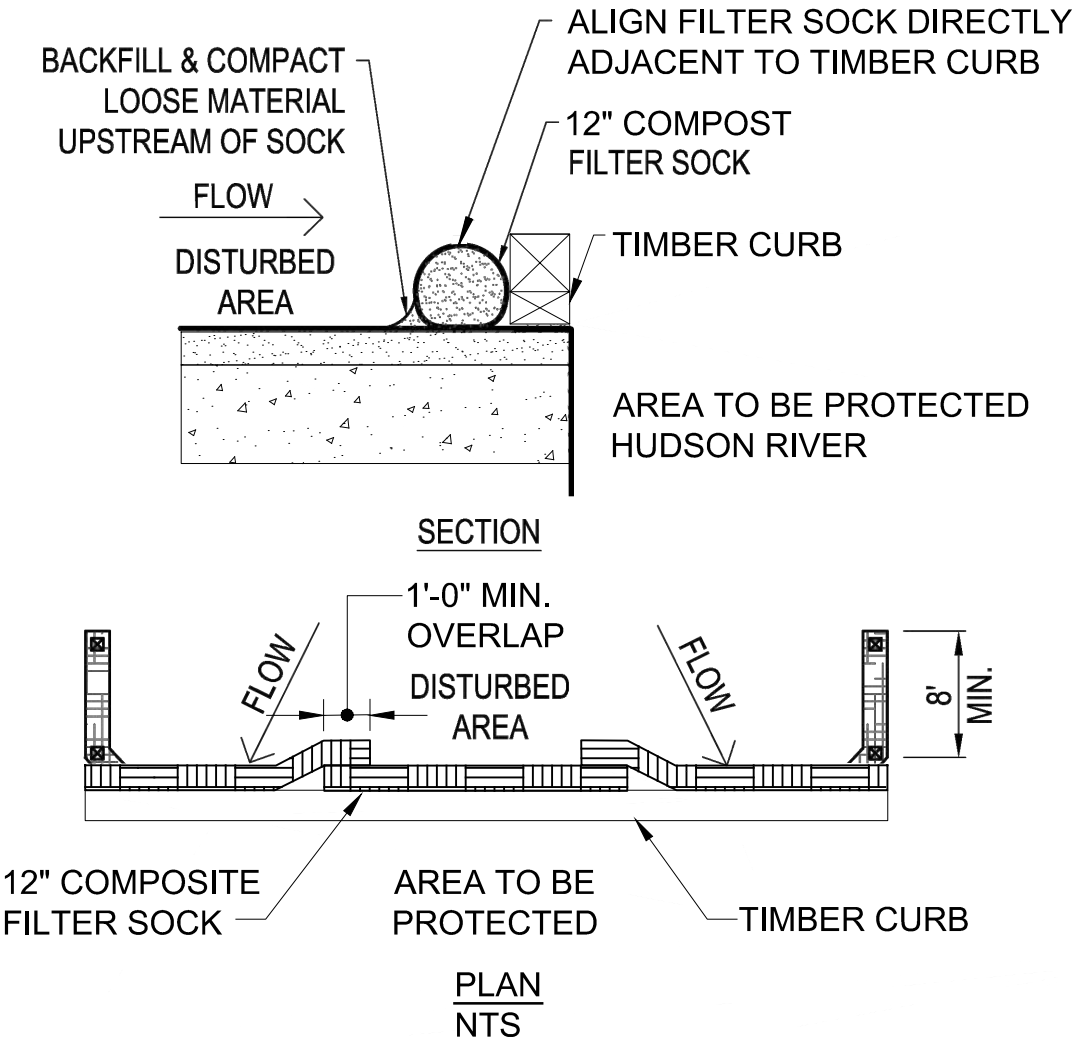
- FOR GENERAL NOTES, SEE DRAWING S-002.
- SEDIMENT AND EROSION CONTROLS MAY BE REMOVED ONLY UPON COMPLETION OF ADJACENT WORK.
- ALL DEMOLITION AND CONSTRUCTION WASTES, UNSUITABLE MATERIAL, EXCESS SOIL AND DEBRIS (SOLID WASTE) MUST BE DISPOSED OF IN ACCORDANCE WITH THE REQUIREMENTS OF ANY AND ALL MUNICIPAL, COUNTY, STATE, AND FEDERAL LAWS AND APPLICABLE CODES WHICH HAVE JURISDICTION OVER THIS PROJECT OR OVER THE CONTRACTOR.
- IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO MAINTAIN RECORDS TO DEMONSTRATE PROPER AND FULLY COMPLIANT DISPOSAL ACTIVITIES, TO BE PROMPTLY PROVIDED TO THE OWNER UPON REQUEST.
- INSTALLATION OF EROSION CONTROL DEVICES MUST BE IN ACCORDANCE WITH ALL OF THE MANUFACTURER'S RECOMMENDATIONS.
- THE CONTRACTOR MUST INSPECT EROSION CONTROL MEASURES WEEKLY. THE CONTRACTOR MUST REMOVE ANY SILT DEPOSITS GREATER THAN 6" COLLECTED ON THE FILTER FABRIC AND/OR FILTER SOCK BARRIERS AND EXCAVATE AND REMOVE ANY SILT ACCUMULATION.
- DUST CONTROL
  - THE SITE MAY BE SPRAYED WITH WATER UNTIL THE SURFACE IS WET. THIS IS ESPECIALLY EFFECTIVE ON ACCESS ROUTES TO PROVIDE SHORT TERM LIMITED DUST CONTROL. WATER TO BE PROVIDED BY CONTRACTOR VIA TRUCK WITH SPRAYERS.
  - USE AS NEEDED THROUGHOUT CONSTRUCTION ACTIVITIES. IF THE SITE CONDITIONS ARE DRY, APPLY MORE OFTEN.
- TURBIDITY CURTAIN (IN-WATER)
  - THIS SHALL BE LOCATED BEYOND THE LATERAL LIMITS OF THE CONSTRUCTION SITE AND FIRMLY ANCHORED IN PLACE. THE ALIGNMENT SHOULD BE SET AS CLOSE TO THE WORK AREA AS POSSIBLE BUT NOT SO CLOSE AS TO BE DISTURBED BY APPLICABLE CONSTRUCTION EQUIPMENT.

- THE HEIGHT OF THE CURTAIN SHALL BE THE DEPTH OF THE WATER WITH ALLOWANCE FOR WATER LEVEL FLUCTUATIONS.
- SILT AND TURBIDITY BARRIER SHALL BE SILTMAX TYPE III DOT BY ELASTEC (OR EQUIVALENT) ANCHOR AS REQUIRED TO RESTRAIN FROM MOVEMENT.
- CONTRACTOR SHALL LOCALLY PROVIDE NETTING BELOW THE WHARF AND ADJACENT TO THE FACE OF WHARF, OR OTHER SIMILAR MEANS, AS REQUIRED, TO PREVENT ANY MATERIAL FROM DEMOLITIONS, DEBRIS, OR OTHER SOURCES FROM FALLING INTO THE RIVER.

**TEMPORARY CONCRETE WASHOUT PIT/AREA NOTES:**

- CONTRACTOR TO PROVIDE CONCRETE WASHOUT AREAS TO PREVENT DISCHARGE OF POLLUTANTS TO STORMWATER OR GROUNDWATER FROM CONCRETE WASTE BY CONDUCTING AND PERFORMING ON-SITE WASHOUT IN DESIGNATED AREAS.
- ACTUAL LAYOUT, NUMBER AND LOCATIONS OF WASHOUT AREAS TO BE DETERMINED IN THE FIELD BETWEEN CONTRACTOR, ENGINEER AND APDC REPRESENTATIVES.
- A HIGHLY VISIBLE "CONCRETE WASHOUT AREA" SIGN SHALL BE INSTALLED WITHIN 30 FEET OF THE WASHOUT AREA(S).
- PERFORM WASHOUT OF CONCRETE TRUCKS AT DESIGNATED CONCRETE WASHOUT AREAS ONLY. DO NOT WASH OUT CONCRETE TRUCKS ONTO THE GROUND, OR INTO STORM DRAINS, OPEN DITCHES, STREETS, OR STREAMS.
- CONCRETE WASHOUT AREAS MAY BE PREFABRICATED CONCRETE WASHOUT CONTAINERS, OR SELF-INSTALLED STRUCTURES, AS APPROVED BY THE ENGINEER AND THE APDC. EACH AREA SHALL CONTAIN A MINIMUM VOLUME OF CONCRETE WASTE WITH DIMENSIONS 10' WIDE X 10' LONG X 3' HIGH OR AS REQUIRED. SELF-INSTALLED STRUCTURES, SUCH AS THOSE COMPRISED OF WOOD FRAMES AND HAY BALES, SHALL BE POSITIVELY STAKED DOWN OR OTHERWISE, AND FOUNDED AS REQUIRED TO RESIST A WORST CASE OF 3 FEET OF CONCRETE HEAD.
- PLASTIC LINING MATERIAL SHALL BE INSTALLED IN THE INTERIOR OF THE ENTIRE PIT AND SHOULD BE A MINIMUM OF 10 MIL POLYETHYLENE SHEETING AND SHOULD BE FREE OF HOLES, TEARS, OR OTHER DEFECTS THAT COMPROMISE THE IMPERMEABILITY OF THE MATERIAL.

- DISCUSS CONCRETE WASTE MANAGEMENT TECHNIQUES WITH THE READY-MIX CONCRETE SUPPLIER AND EMPLOYEES AND SUBCONTRACTORS BEFORE ANY DELIVERIES ARE MADE.
- LINER SEAMS AND LAPS SHALL BE INSTALLED IN SUCH A MANNER AS TO PREVENT LOSS OF WASHOUT MATERIALS.
- PROVIDE REGULAR MAINTENANCE AND DISPOSAL OF SOLID AND LIQUID WASTE. ONCE CONCRETE WASTES ARE WASHED INTO THE DESIGNATED AREA AND ALLOWED TO HARDEN, THE CONCRETE SHOULD BE BROKEN UP, REMOVED, AND DISPOSED OF PER APPLICABLE SOLID WASTE REGULATIONS. DISPOSE OF HARDENED CONCRETE ON A REGULAR BASIS.
- DURING PERIODS OF CONCRETE WORK, INSPECT DAILY TO VERIFY CONTINUED PERFORMANCE. VERIFY PLASTIC LINERS ARE INTACT AND SIDEWALLS ARE NOT DAMAGED. REMOVE AND DISPOSE OR RECYCLE HARDENED CONCRETE AND RETURN THE STRUCTURE TO A FUNCTIONAL CONDITION AS REQUIRED. INSPECT WASHOUT AREAS FOR SIGNS OF WEAKENING OR DAMAGE AND MAKE ANY NECESSARY REPAIRS. RE-LINE THE STRUCTURE WITH NEW PLASTIC AFTER EACH CLEANING, AS NEEDED.
- PLACE A SECURE, NON-COLLAPSING, NON-WATER COLLECTING COVER OVER THE CONCRETE WASHOUT FACILITY PRIOR TO PREDICTED WET WEATHER TO PREVENT ACCUMULATION AND OVERFLOW OF PRECIPITATION.
- WHEN TEMPORARY CONCRETE WASHOUT FACILITIES ARE NO LONGER REQUIRED FOR THE WORK, THE HARDENED CONCRETE, SLURRIES AND LIQUIDS SHALL BE REMOVED AND PROPERLY DISPOSED OF.
- MATERIALS USED TO CONSTRUCT TEMPORARY CONCRETE WASHOUT FACILITIES SHALL BE REMOVED FROM THE SITE OF THE WORK AND DISPOSED OF OR RECYCLED. RESTORE AREAS TO CONDITIONS EXISTING PRIOR TO USE FOR WASHOUT.



**COMPOST FILTER SOCK DETAIL**

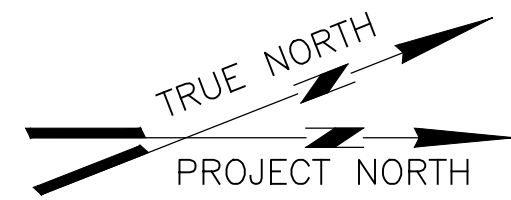
SCALE: N.T.S.

**NOTES:**

- FILTER SOCKS SHALL MEET OR EXCEED THE CRITERIA SET FORTH BY THE NYSDEC STANDARDS AND SPECIFICATIONS FOR EROSION & SEDIMENT CONTROL (BLUE BOOK), LATEST EDITION.
- TERMINAL ENDS OF THE SOCK SHALL EXTEND 8-FEET INLAND.
- THE FLAT DIMENSION OF THE SOCK SHALL BE AT LEAST 1.5X THE NOMINAL DIAMETER.
- WHEN USING COMPOST FILTER SOCK ADJACENT TO SURFACE WATER, COMPOST SHOULD HAVE LOW NUTRIENT VALUE.
- TRAFFIC SHALL NOT BE PERMITTED TO CROSS FILTER SOCKS.
- ACCUMULATED SEDIMENT SHALL BE REMOVED AND PROPERLY DISPOSED OF WHEN IT REACHES HALF THE HEIGHT OF THE SOCK.
- BIODEGRADABLE SOCKS SHALL BE REPLACED AFTER 6 MONTHS AND PHOTODEGRADABLE SOCKS AFTER ONE YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED PER MANUFACTURERS RECOMMENDATIONS.

PORT OF ALBANY WHARF UPGRADES			
ALBANY		NEW YORK	
ALBANY PORT DISTRICT COMMISSION			
ALBANY — RENSSELAER			
ALBANY		NEW YORK	
MUESER RUTLEDGE CONSULTING ENGINEERS			
14 PENN PLAZA — 225 W. 34TH STREET, NY, NY 10122			
SCALE	MADE BY	M.A.S.	DATE 01-29-24
AS NOTED	CH'KD BY	A.D.	DATE 01-29-24
			FILE NO. 14990
STORMWATER PREVENTION PLAN			DRAWING NO. S-402

CONTRACT DRAWINGS  
2025-07-31



EXISTING 16"± WHARF DECK

ASPHALT PAVING OVERLAY (SEE DWG S-201)

20'-0"  
TYP.

EXIST. CONCRETE FILLED  
RAIL SLOTS (TYP.)

EXIST. EXPANSION  
JOINT TO REMAIN

2" DEEP  
BEAM SEAT  
(TYP.)

NEW CONCRETE  
BEAM BENEATH  
RAIL SLOT (TYP.)

NEW CONCRETE  
ENCASEMENT AROUND  
AND BELOW EXIST.  
PILE CAP (TYP.)

EXIST. HEAVY LIFT  
RAIL SLOTS (TYP.)

EXISTING 30" DIA.  
CAISSON (TYP.)

EXISTING CONCRETE  
CAP BEAM (TYP.)

EXISTING CONCRETE  
PILE CAP (TYP.)

EXISTING 16" DIA.  
PIPE PILE (TYP.)

EXISTING 24" DIA.  
CAISSON (TYP.)

C  
S-520/S-530

B  
S-520/S-530

A  
S-520/S-530

5'-0"

10'-0"

5'-0"

CL DRAIN  
(TYP.)

CL DRAIN  
(TYP.)

FACE OF WHARF  
BENT NO. (TYP.)

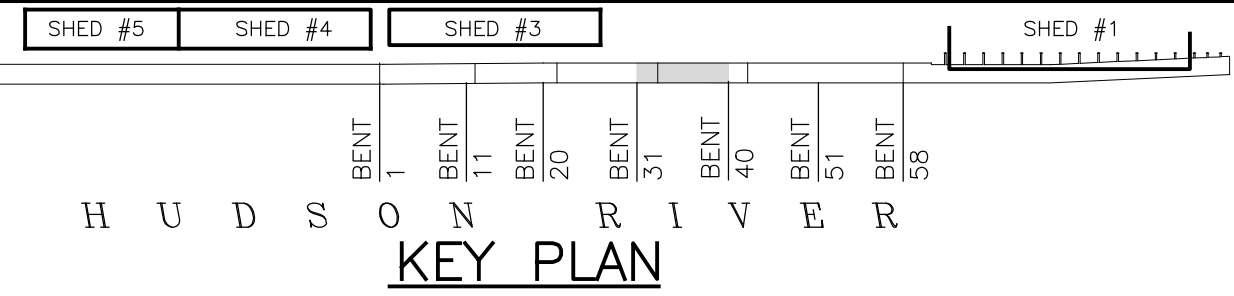
EBB

FLOOD

HUDSON RIVER

**TYPICAL STRUCTURAL PART PLAN - BENTS 1 THROUGH 33**

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



**NOTES:**

1. FOR GENERAL NOTES, SEE DRAWING S-002. FOR OTHER NOTES, SEE DRAWING S-100.
2. CONCRETE WORK SHOWN ON THIS PARTIAL PLAN IS APPLICABLE TO ALL BENTS SOUTH OF BENT 33.
3. REPAIRS TO EXISTING DECK, CAP BEAMS, PILE CAPS, AND PILES ARE NOT SHOWN FOR CLARITY. SEE PRIOR DRAWINGS FOR REPAIR DETAILS.
4. FOR CONCRETE ENCASEMENT AT EXPANSION JOINT CAP BEAMS, SEE DRAWINGS S-522 AND S-532.

PORT OF ALBANY WHARF UPGRADES  
ALBANY NEW YORK

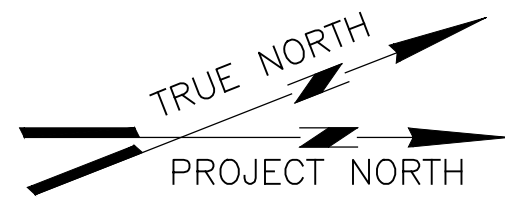
ALBANY PORT DISTRICT COMMISSION  
ALBANY - RENSSELAER  
ALBANY NEW YORK

**MUESER RUTLEDGE CONSULTING ENGINEERS**  
14 PENN PLAZA - 225 W. 34TH STREET, NY, NY 10122

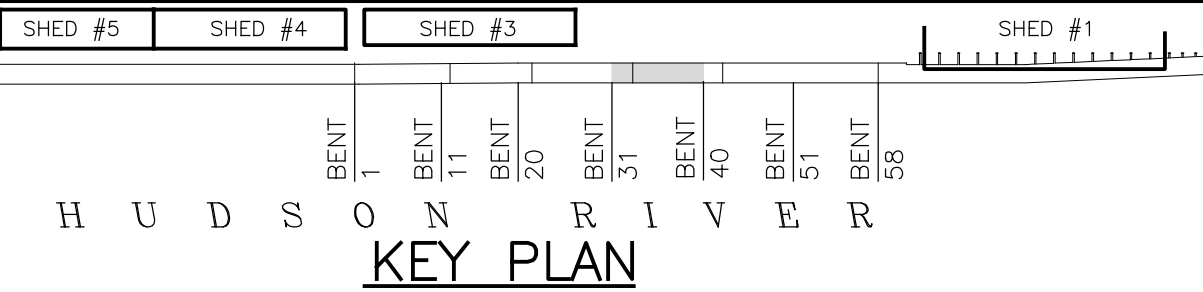
SCALE AS NOTED	MADE BY C.C.C.	DATE XX-XX-XX	FILE NO. 14990
	CH'KD BY M.T.R.	DATE XX-XX-XX	DRAWING NO.

NEW STRUCTURAL CONCRETE  
PARTIAL PLAN -  
BENT 1 TO BENT 33  
S-520

**CONTRACT DRAWINGS**  
2025-07-31

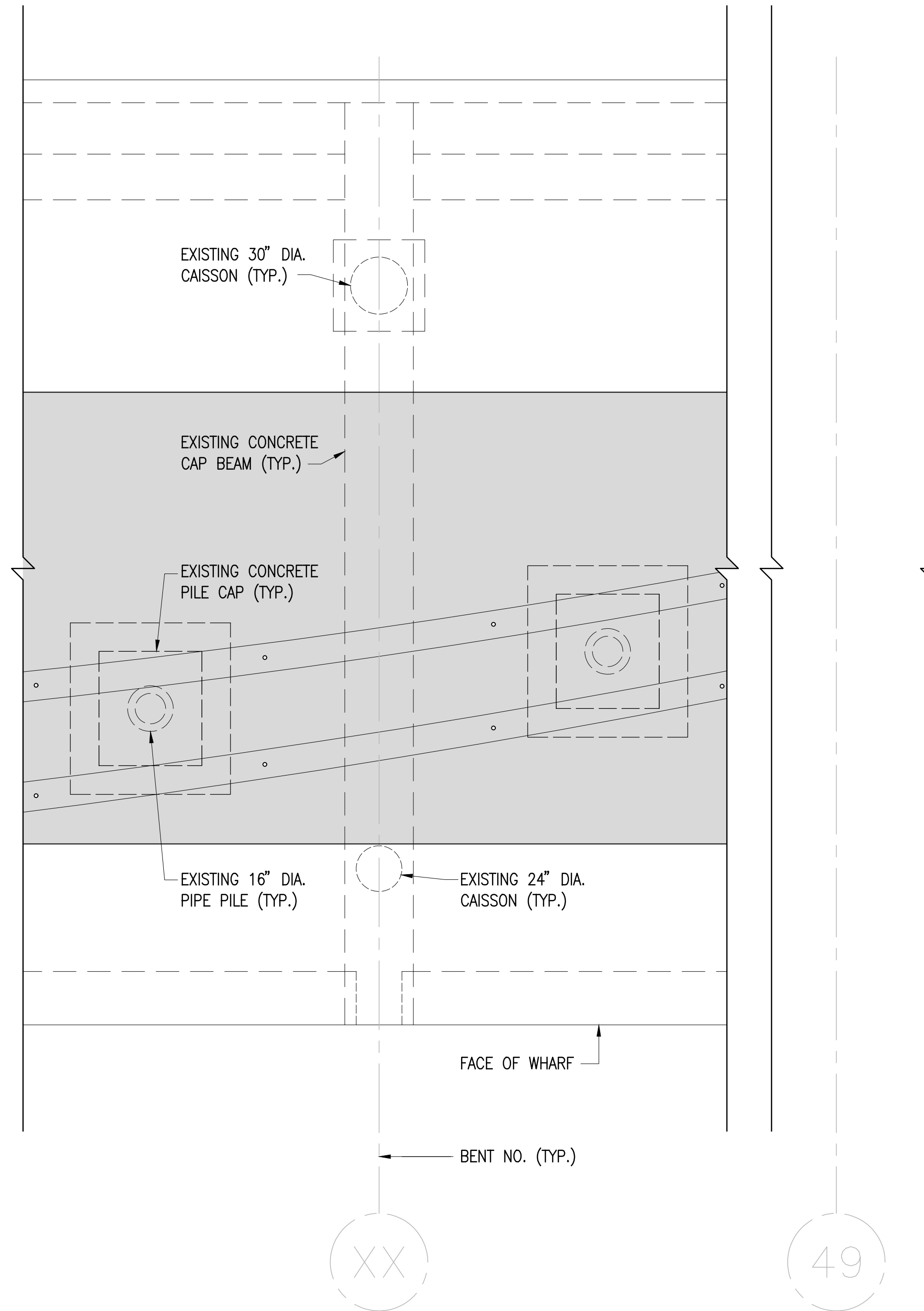
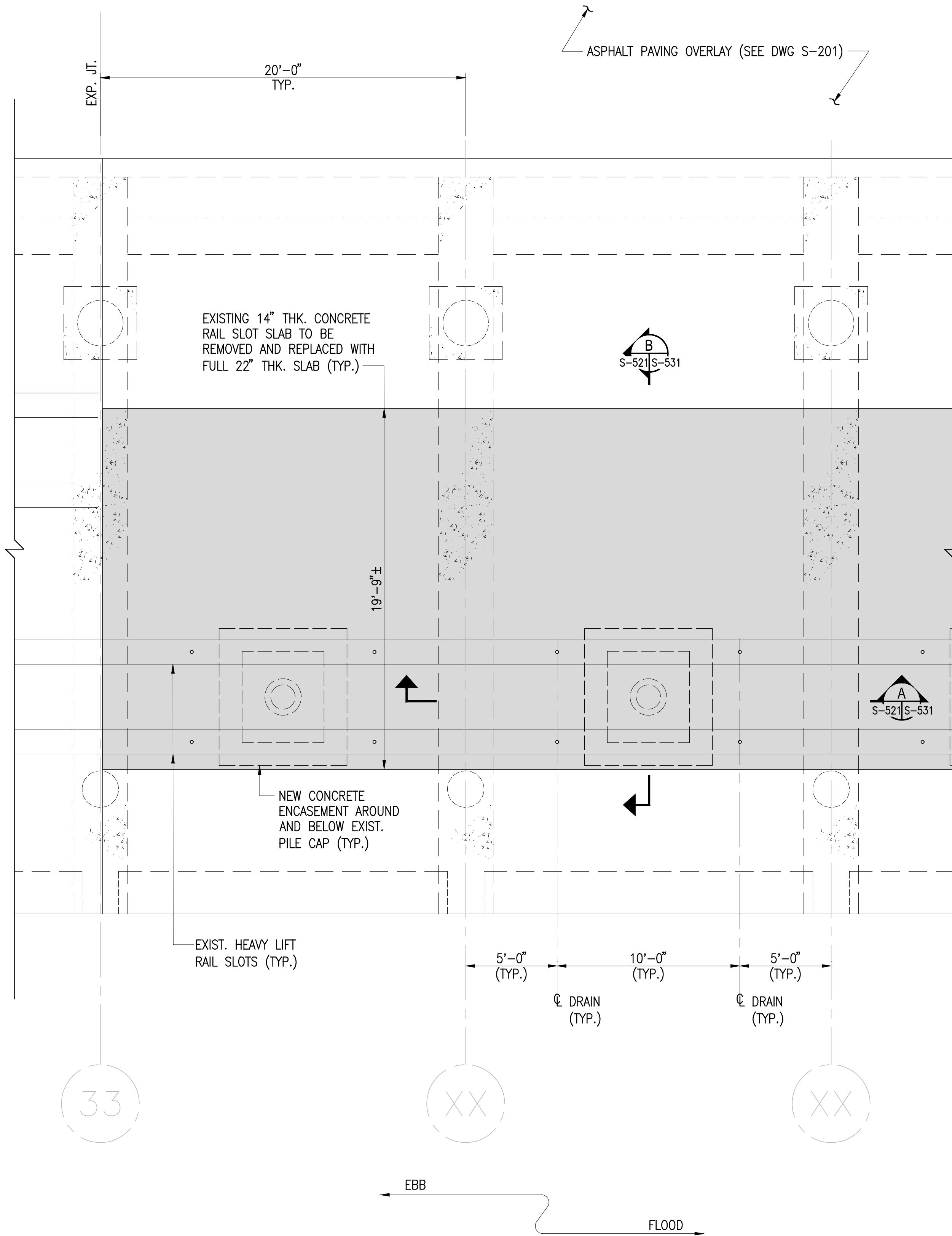


EXISTING 22'± WHARF DECK



NOTES:

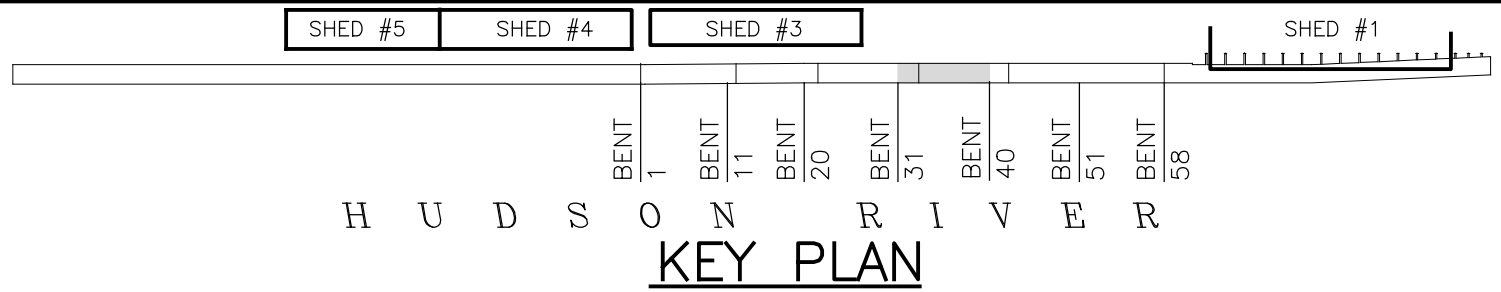
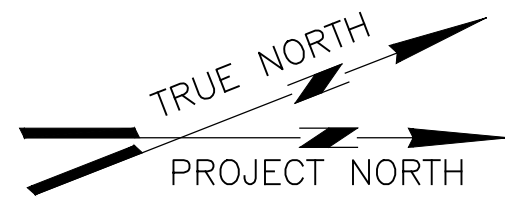
- FOR GENERAL NOTES, SEE DRAWING S-002. FOR OTHER NOTES, SEE DRAWING S-100.
- CONCRETE WORK SHOWN ON THIS PARTIAL PLAN IS APPLICABLE FROM BENT 33 TO BENT 42.
- REPAIRS TO EXISTING DECK, CAP BEAMS, PILE CAPS, AND PILES ARE NOT SHOWN FOR CLARITY. SEE PRIOR DRAWINGS FOR REPAIR DETAILS.



TYPICAL STRUCTURAL PART PLAN - BENTS 33 THROUGH 49  
SCALE: 1/4"=1'-0"

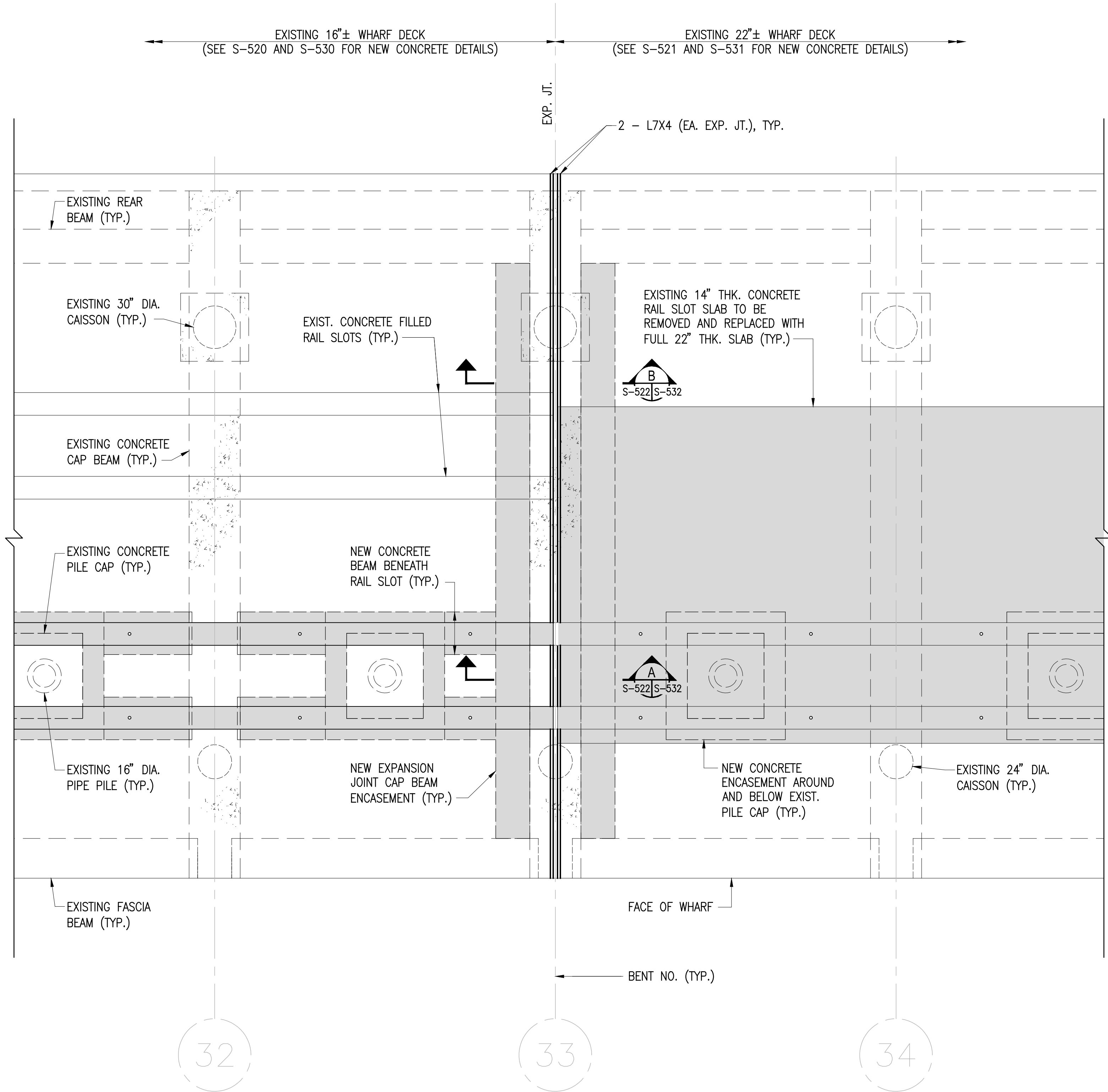
CONTRACT DRAWINGS  
2025-07-31

PORT OF ALBANY WHARF UPGRADES			
ALBANY		NEW YORK	
ALBANY PORT DISTRICT COMMISSION			
ALBANY — RENSSELAER			
ALBANY		NEW YORK	
MUESER RUTLEDGE CONSULTING ENGINEERS			
14 PENN PLAZA — 225 W. 34TH STREET, NY, NY 10122			
SCALE	MADE BY	C.C.C.	DATE XX-XX-XX
AS NOTED	CH'KD BY	M.T.R.	DATE XX-XX-XX
NEW STRUCTURAL CONCRETE			FILE NO.
PARTIAL PLAN —			14990
BENT 33 TO BENT 49			DRAWING NO.
			S-521



**NOTES:**

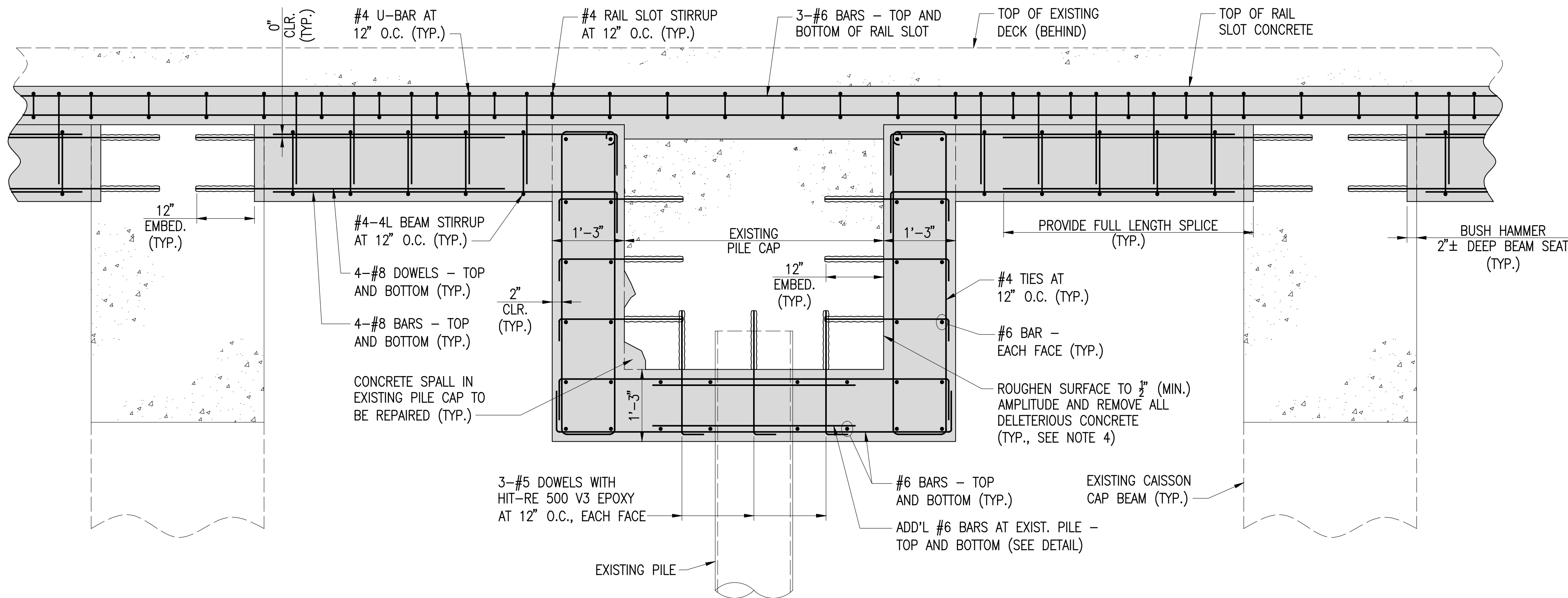
1. FOR GENERAL NOTES, SEE DRAWING S-002. FOR OTHER NOTES, SEE DRAWING S-100.
2. CONCRETE WORK SHOWN ON THIS PARTIAL PLAN IS APPLICABLE TO ALL EXPANSION JOINTS BETWEEN BENT 1 AND BENT 50 (EXPANSION JOINTS AT BENTS 12, 22, 33, AND 43).
3. REPAIRS TO EXISTING DECK, CAP BEAMS, PILE CAPS, AND PILES ARE NOT SHOWN FOR CLARITY. SEE PRIOR DRAWINGS FOR REPAIR DETAILS.



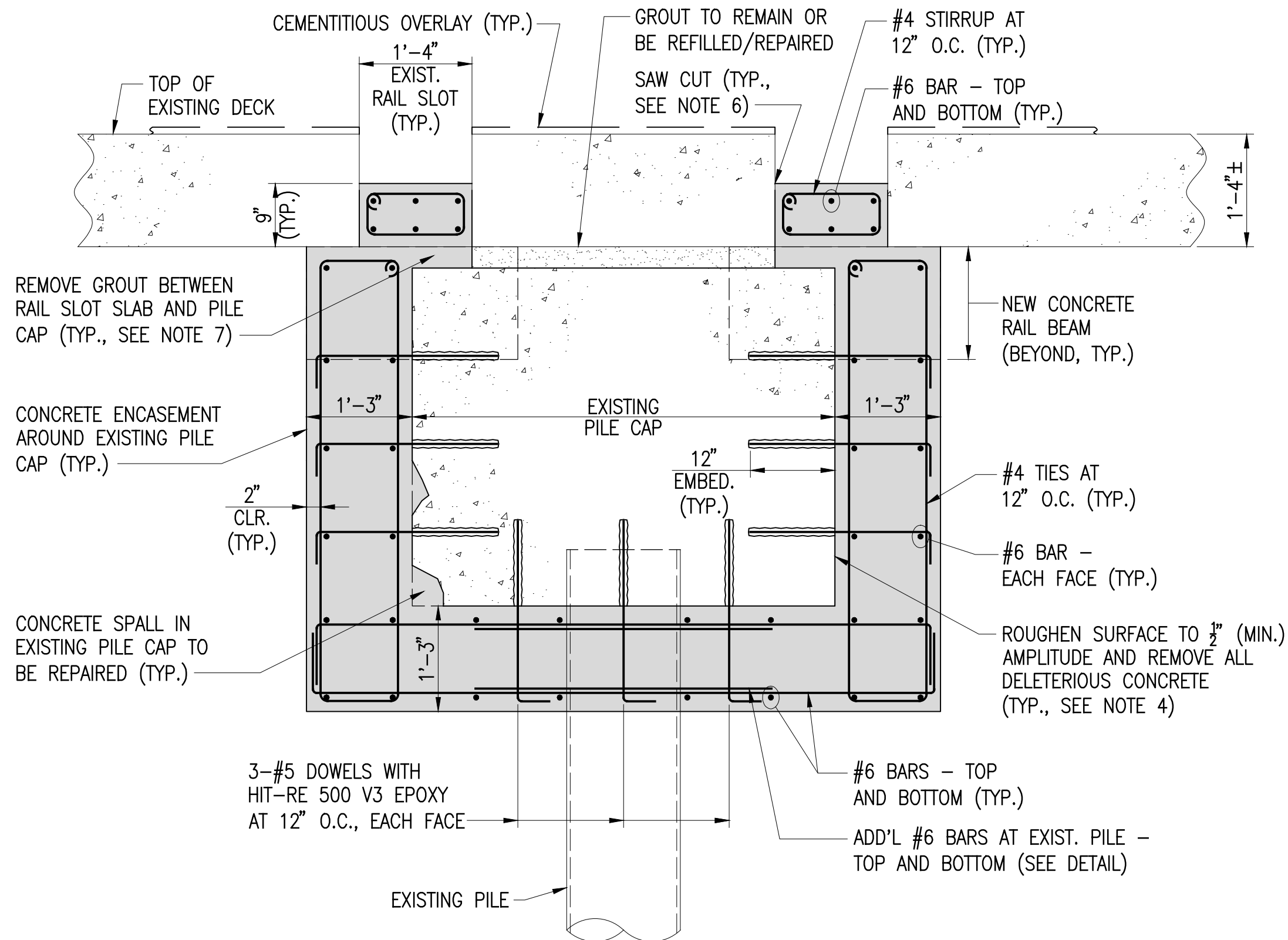
**TYPICAL STRUCTURAL PART PLAN - AT EXPANSION JOINTS**  
SCALE: 1/4"=1'-0"

**CONTRACT DRAWINGS**  
2025-07-31

PORT OF ALBANY WHARF UPGRADES			
ALBANY		NEW YORK	
ALBANY PORT DISTRICT COMMISSION			
ALBANY — RENSSELAER			
ALBANY		NEW YORK	
MUESER RUTLEDGE CONSULTING ENGINEERS			
14 PENN PLAZA — 225 W. 34TH STREET, NY, NY 10122			
SCALE	MADE BY	C.C.C.	DATE XX—XX—XX
AS NOTED	CH'KD BY	M.T.R.	DATE XX—XX—XX
NEW STRUCTURAL CONCRETE			FILE NO.
PARTIAL PLAN —			14990
AT EXPANSION JOINTS			DRAWING NO.
			S—522

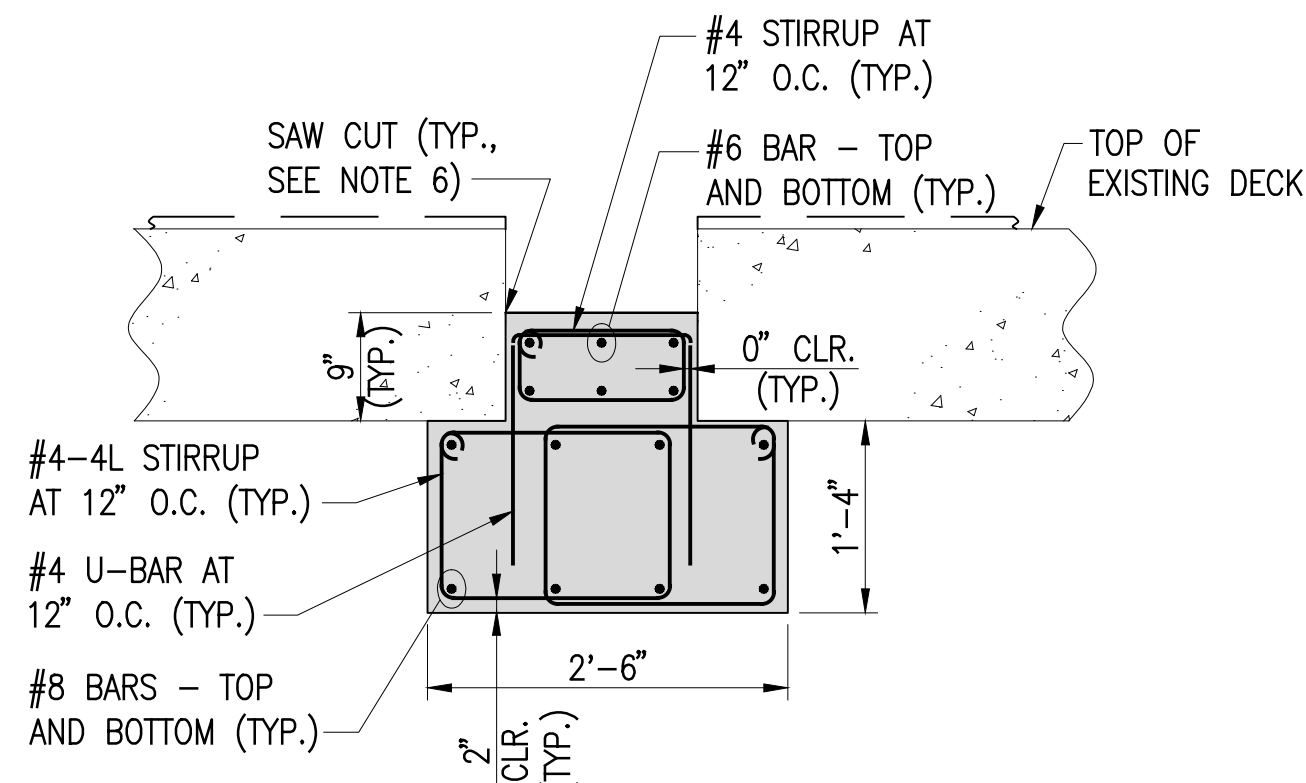


**SECTION A**  
SCALE: 3/4"=1'-0" S-520 S-530

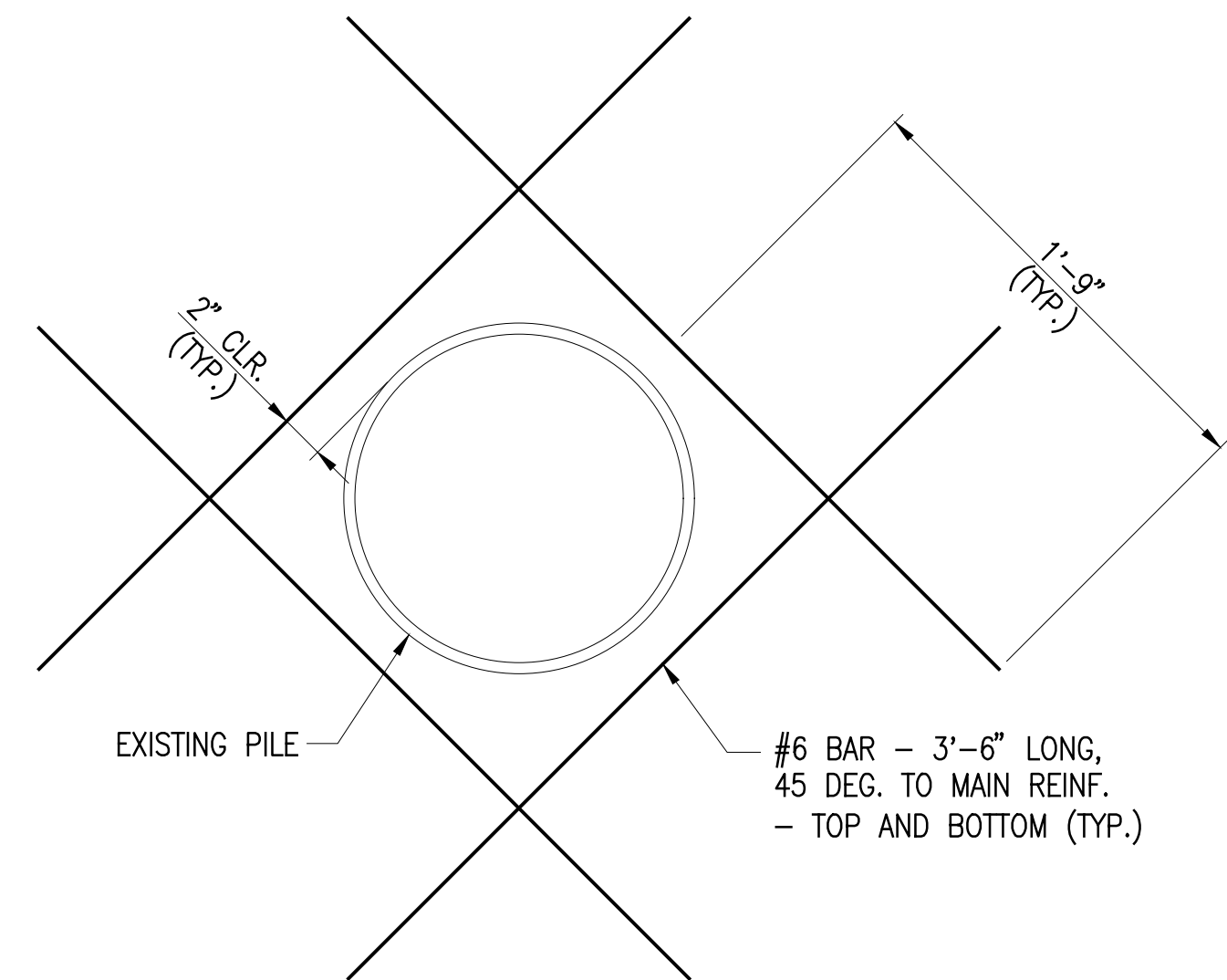


NOTE: NEW RAILS NOT SHOWN FOR CLARITY. SEE DRAWING S-400 FOR RAIL DETAILS.

**SECTION B**  
SCALE: 3/4"=1'-0" S-520 S-530



**SECTION C**  
SCALE: 3/4"=1'-0" S-520 S-530



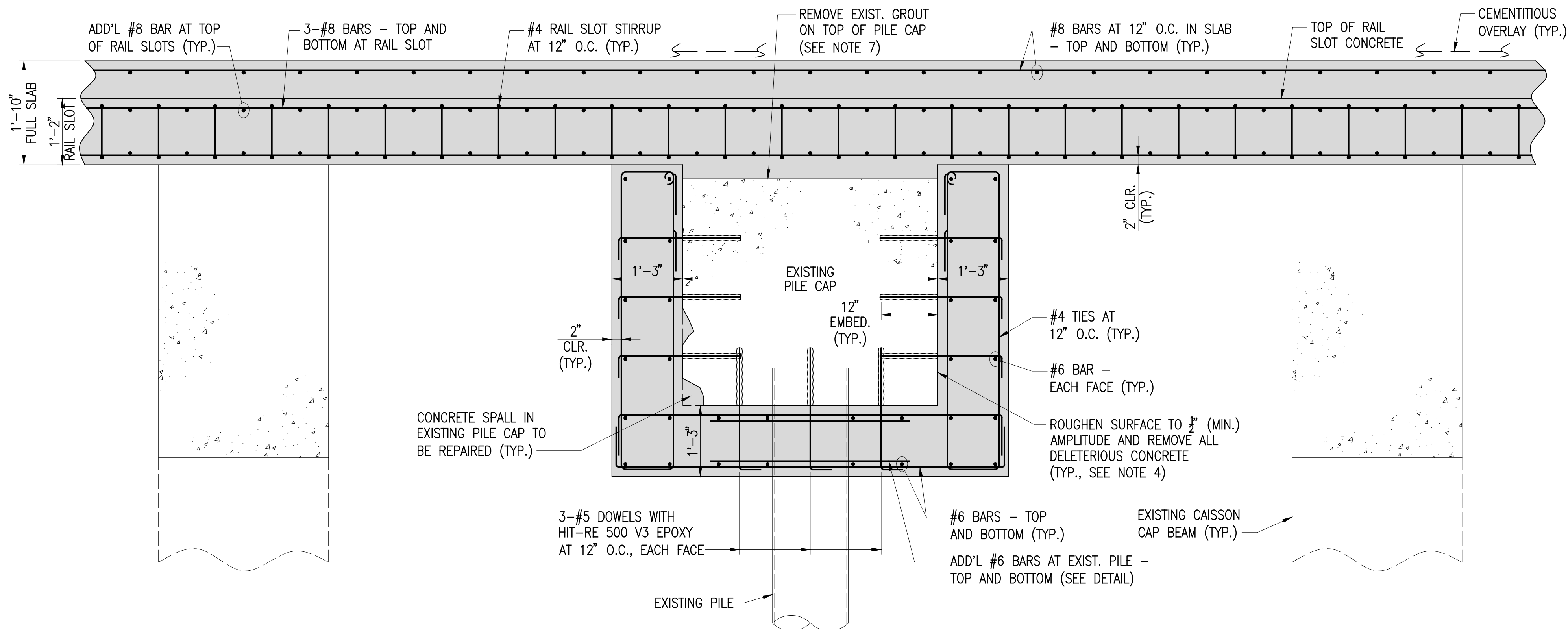
**ADDITIONAL PILE CAP REINFORCING AT EXISTING PILE**  
SCALE: 1-1/2"=1'-0"

# **NOTES:**

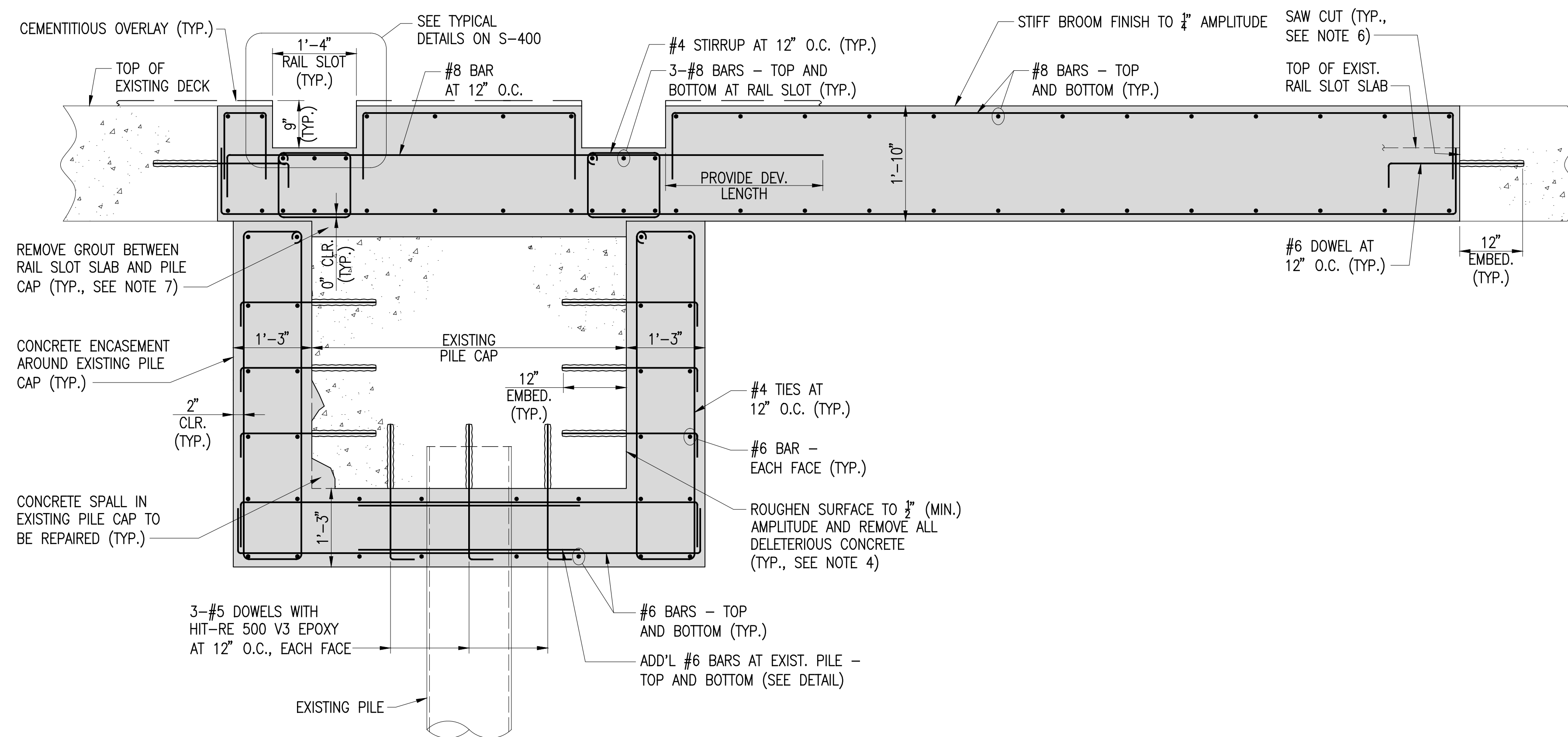
- FOR GENERAL NOTES, SEE DRAWING S-002. FOR OTHER NOTES, SEE DRAWING S-100.
- CONCRETE WORK SHOWN ON THIS DRAWING IS APPLICABLE TO ALL BENTS SOUTH OF BENT 33.
- REPAIRS TO EXISTING DECK, CAP BEAMS, PILE CAPS, AND PILES ARE NOT SHOWN FOR CLARITY. SEE PRIOR DRAWINGS FOR REPAIR DETAILS.
- IF REQUIRED, REMOVE CRACKED AND SPALLING SURFACE CONCRETE TO COMPETENT CONCRETE, EXPOSE/CLEAN/UNDERCUT EXISTING REINFORCING STEEL, AS NECESSARY, AND FILL IN REMOVAL WITH ADDITIONAL ENCASEMENT CONCRETE.
- ALL DOWELS INTO EXISTING CONCRETE SHALL BE EMBEDDED A MINIMUM OF 12" INTO SOUND CONCRETE AND SHALL BE ANCHORED USING HILTI HIT-RE 500 V3 EPOXY OR APPROVED EQUAL.
- SAW CUT ALONG BOTH INSIDE EDGES OF EXISTING RAIL SLOTS TO BOTTOM OF DECK AND FULLY REMOVE CONCRETE FROM WITHIN SLOTS. CAST NEW RAIL SLOT SLAB CONCRETE INTEGRALLY WITH NEW CONCRETE BEAMS.
- REMOVE EXISTING GROUT FILL BETWEEN SLAB AND PILE CAP TO TOP OF PILE CAP WITHIN LIMITS OF RAIL SLOT. GROUT BENEATH REMAINING SLAB MAY REMAIN IN PLACE, OR CAN BE REMOVED TO EXTENTS PRACTICAL, OR IF GROUT IS MISSING OR DEFECTIVE. POUR CONCRETE TO FILL IN SPACE LEFT BY REMOVED GROUT.
- PROVIDE 3/4" CHAMFERS FOR ALL EXPOSED CORNERS (TYP.)

PORT OF ALBANY WHARF UPGRADES			
ALBANY		NEW YORK	
ALBANY PORT DISTRICT COMMISSION ALBANY — RENSSELAER			
ALBANY		NEW YORK	
MUESER RUTLEDGE CONSULTING ENGINEERS			
14 PENN PLAZA — 225 W. 34TH STREET, NY, NY 10122			
SCALE	MADE BY	C.C.C.	DATE XX—XX—XX
AS NOTED	CH'KD BY	M.T.R.	DATE XX—XX—XX
NEW STRUCTURAL CONCRETE SECTIONS AND DETAILS BENT 1 TO BENT 33			FILE NO. 14990
			DRAWING NO. S—530

**CONTRACT DRAWINGS**  
2025-07-31



**SECTION A**  
SCALE: 3/4"=1'-0" S-521|S-531

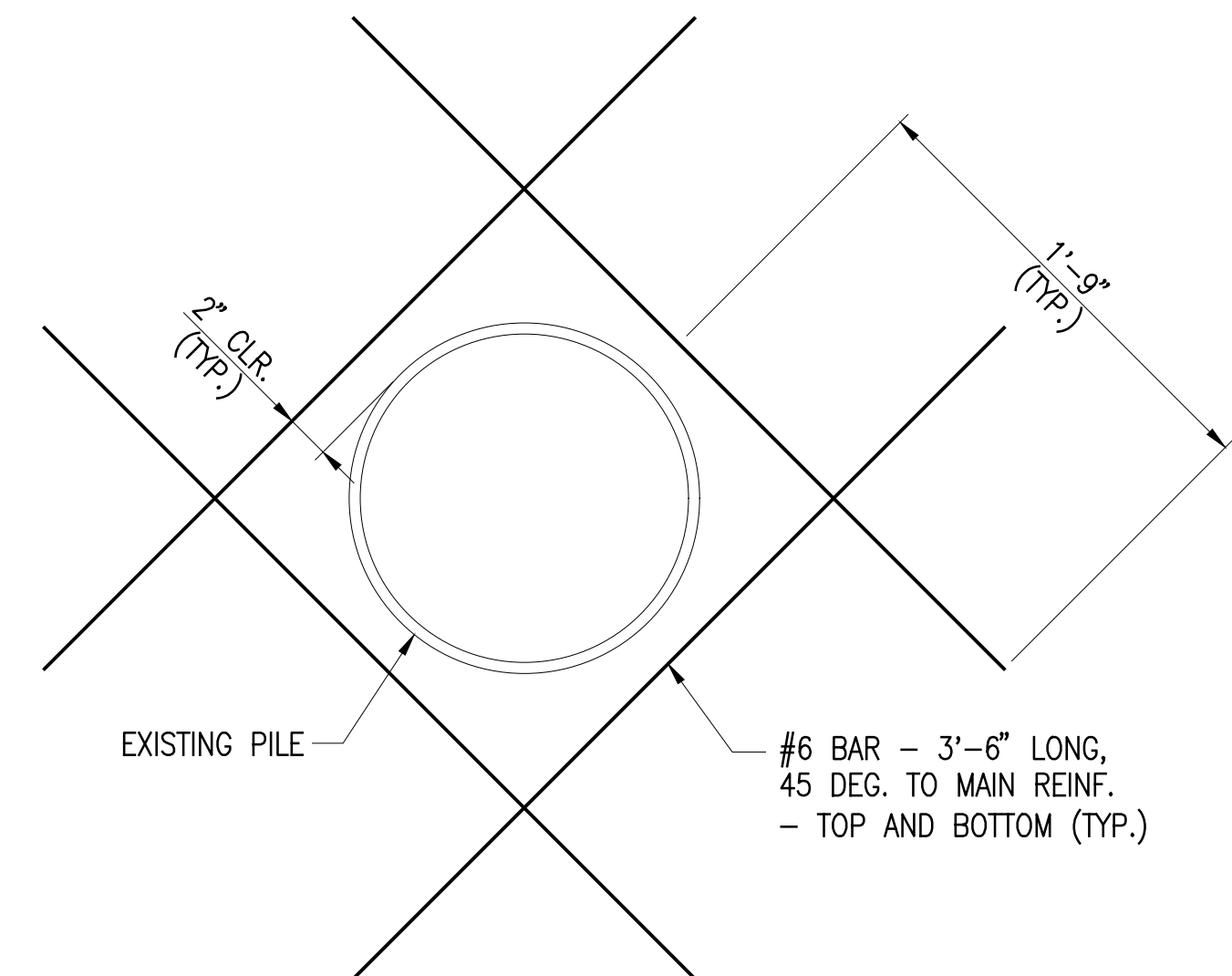


NOTE: NEW RAILS NOT SHOWN FOR CLARITY. SEE DRAWING S-400 FOR RAIL DETAILS.

**SECTION B**  
SCALE: 3/4"=1'-0" S-521|S-531

**NOTES:**

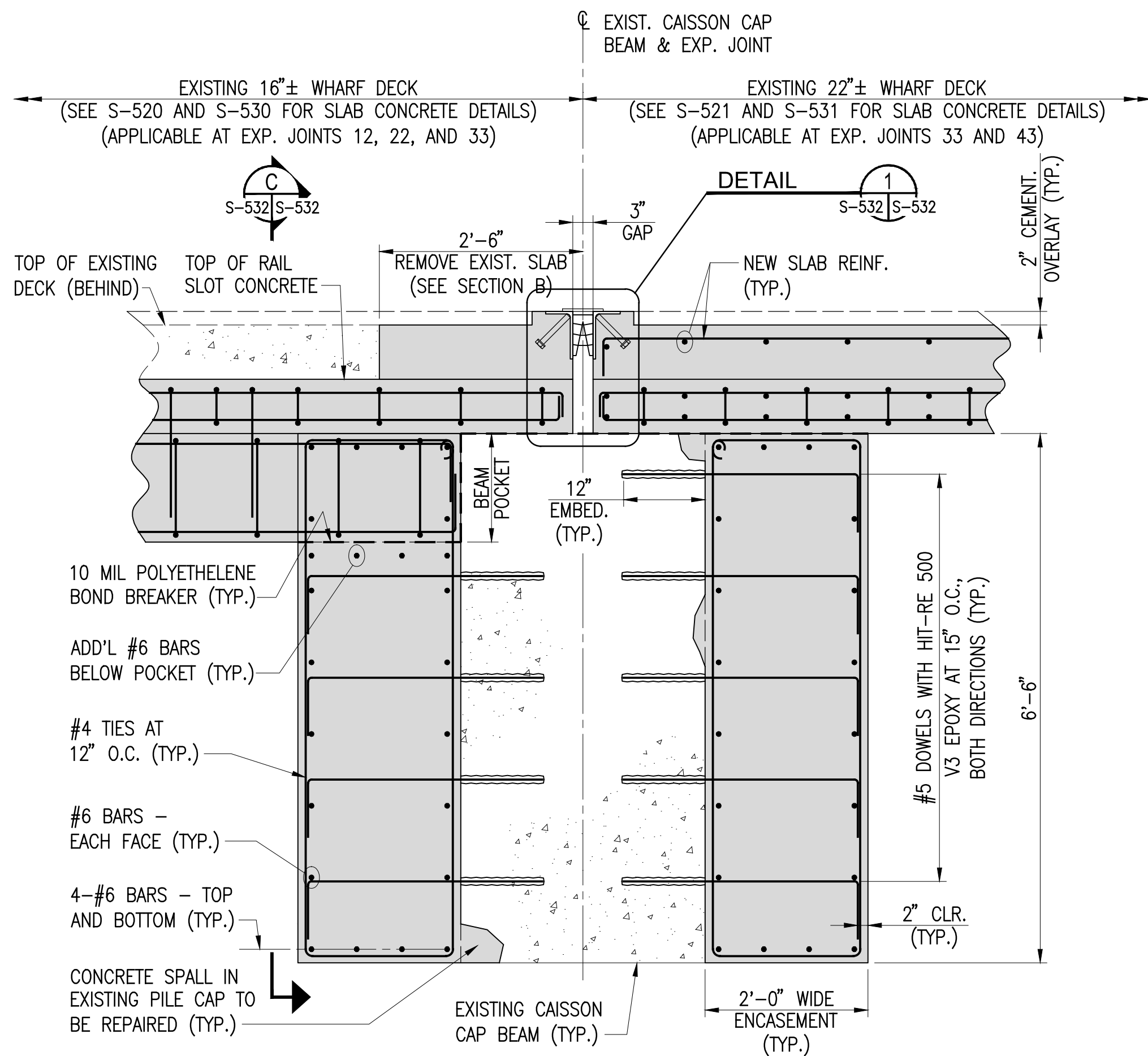
- FOR GENERAL NOTES, SEE DRAWING S-002. FOR OTHER NOTES, SEE DRAWING S-100.
- CONCRETE WORK SHOWN ON THIS DRAWING IS APPLICABLE FROM BENT 33 TO BENT 42.
- REPAIRS TO EXISTING DECK, CAP BEAMS, PILE CAPS, AND PILES ARE NOT SHOWN FOR CLARITY. SEE PRIOR DRAWINGS FOR REPAIR DETAILS.
- IF REQUIRED, REMOVE CRACKED AND SPALLING SURFACE CONCRETE TO COMPETENT CONCRETE, EXPOSE/CLEAN/UNDERCUT EXISTING REINFORCING STEEL, AS NECESSARY, AND FILL IN REMOVAL WITH ADDITIONAL ENCASEMENT CONCRETE.
- ALL DOWELS INTO EXISTING CONCRETE SHALL BE EMBEDDED A MINIMUM OF 12" INTO SOUND CONCRETE AND SHALL BE ANCHORED USING HILTI HIT-RE 500 V3 EPOXY OR APPROVED EQUAL.
- SAW CUT ALONG BOTH SIDES OF EXISTING RAIL SLOT SLAB TO BOTTOM OF DECK AND FULLY REMOVE RAIL SLOT SLAB CONCRETE. CAST NEW SLAB CONCRETE INTEGRALLY WITH CONCRETE ENCASEMENT.
- AFTER REMOVING CONCRETE SLAB, REMOVE ALL EXISTING GROUT FILL BETWEEN SLAB AND PILE CAP TO TOP OF PILE CAP. POUR CONCRETE TO FILL IN SPACE LEFT BY REMOVED GROUT.
- PROVIDE 3/4" CHAMFERS FOR ALL EXPOSED CORNERS (TYP.)



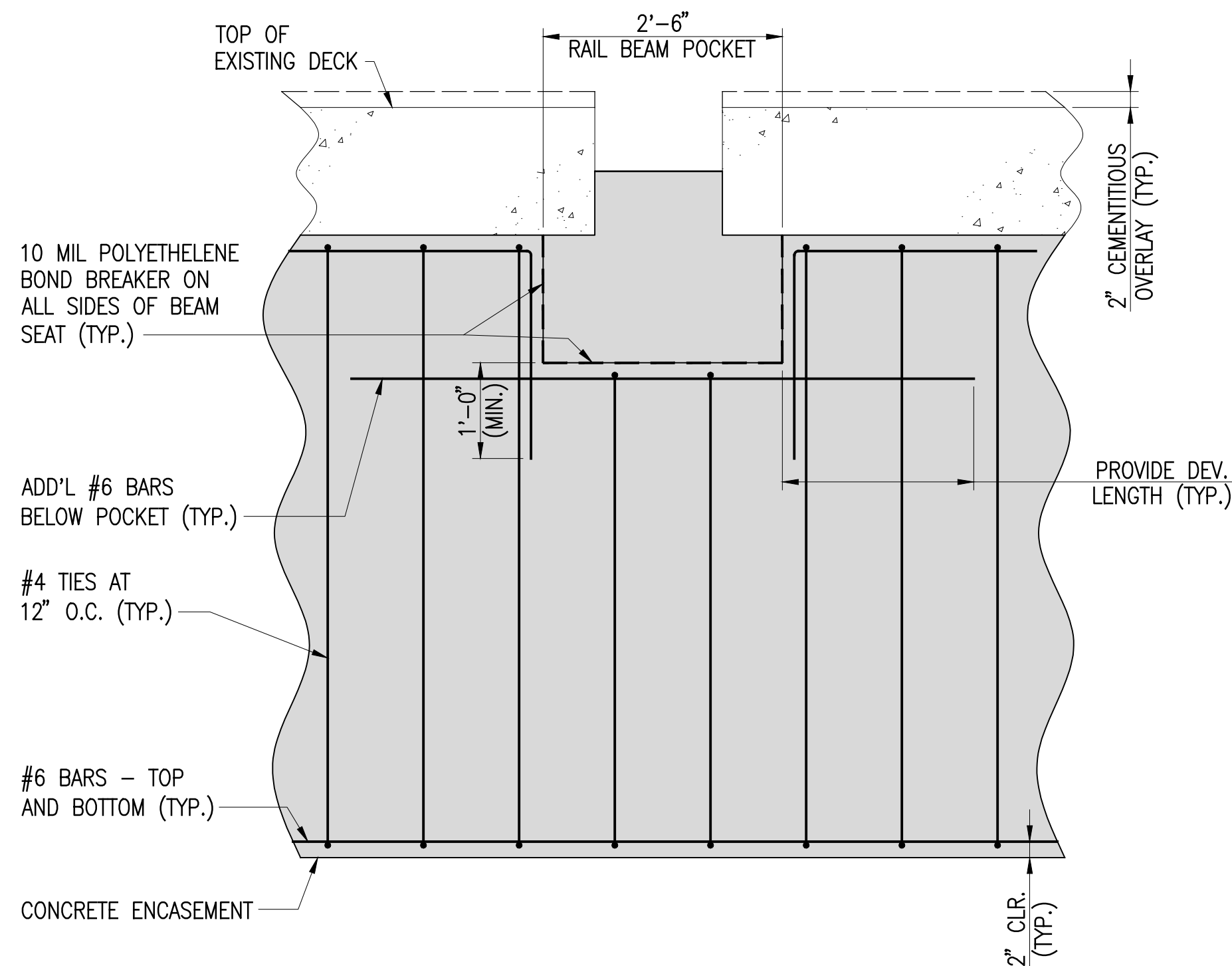
**ADDITIONAL PILE CAP REINFORCING AT EXISTING PILE**  
SCALE: 1-1/2"=1'-0"

PORT OF ALBANY WHARF UPGRADES			
ALBANY		NEW YORK	
ALBANY PORT DISTRICT COMMISSION			
ALBANY — RENSSELAER			
ALBANY		NEW YORK	
MUESER RUTLEDGE CONSULTING ENGINEERS			
14 PENN PLAZA — 225 W. 34TH STREET, NY, NY 10122			
SCALE	MADE BY	C.C.C.	DATE XX-XX-XX
AS NOTED	CH'KD BY	M.T.R.	DATE XX-XX-XX
NEW STRUCTURAL CONCRETE SECTIONS AND DETAILS BENT 33 TO BENT 49			FILE NO. 14990
			DRAWING NO. S-531

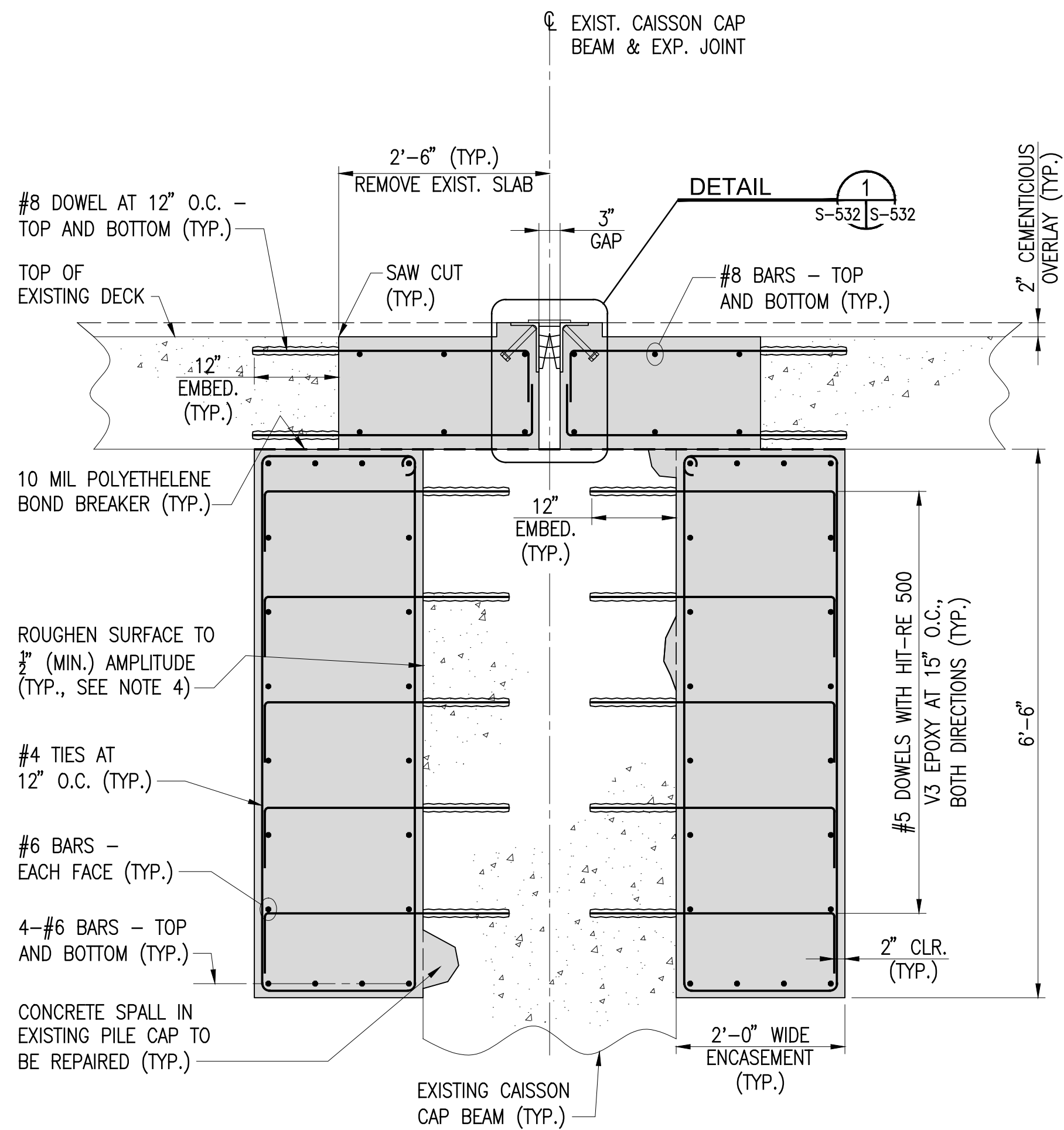
**CONTRACT DRAWINGS**  
2025-07-31



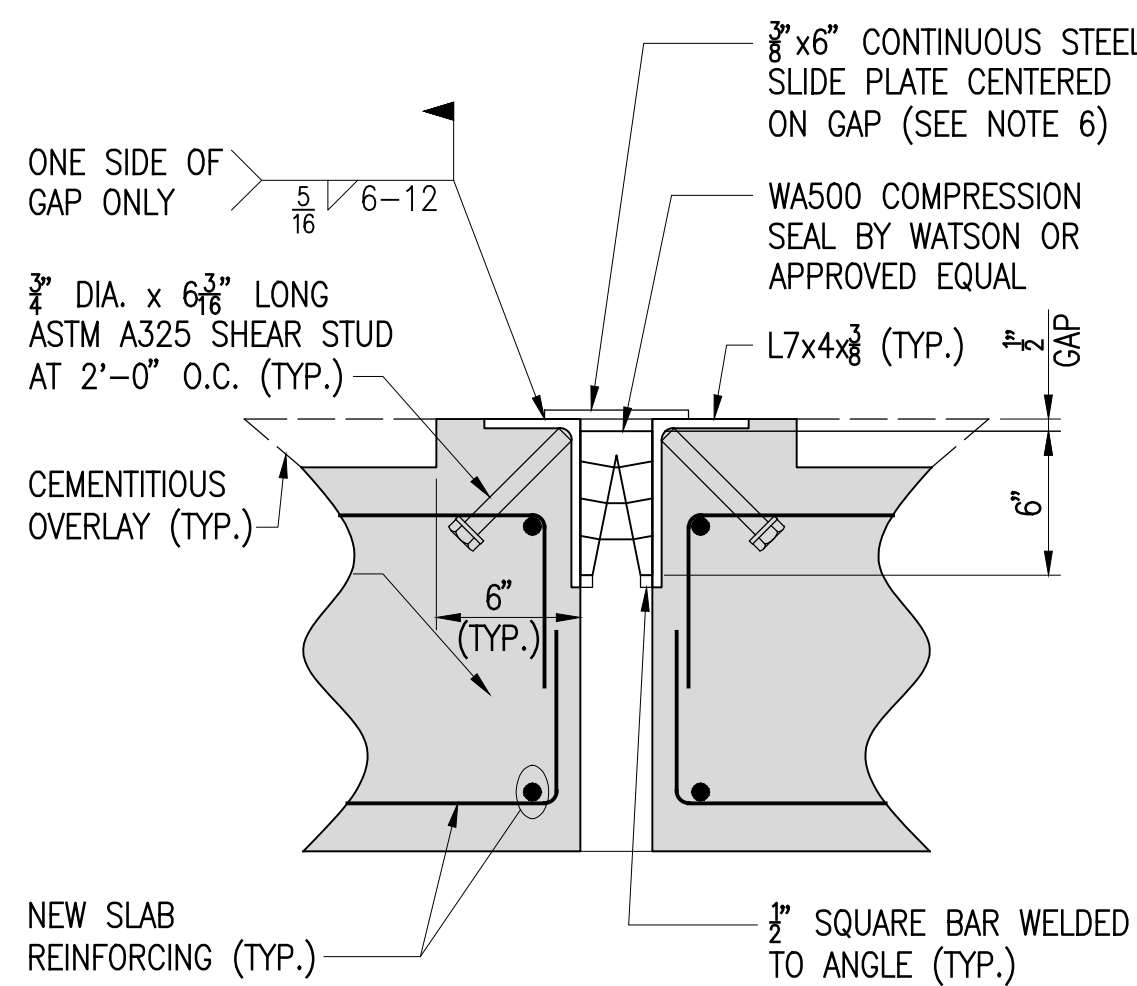
**SECTION A**  
SCALE: 3/4"=1'-0" S-522 | S-532



**SECTION C**  
SCALE: 3/4"=1'-0" S-532 | S-532



**SECTION B**  
SCALE: 3/4"=1'-0" S-522 | S-532



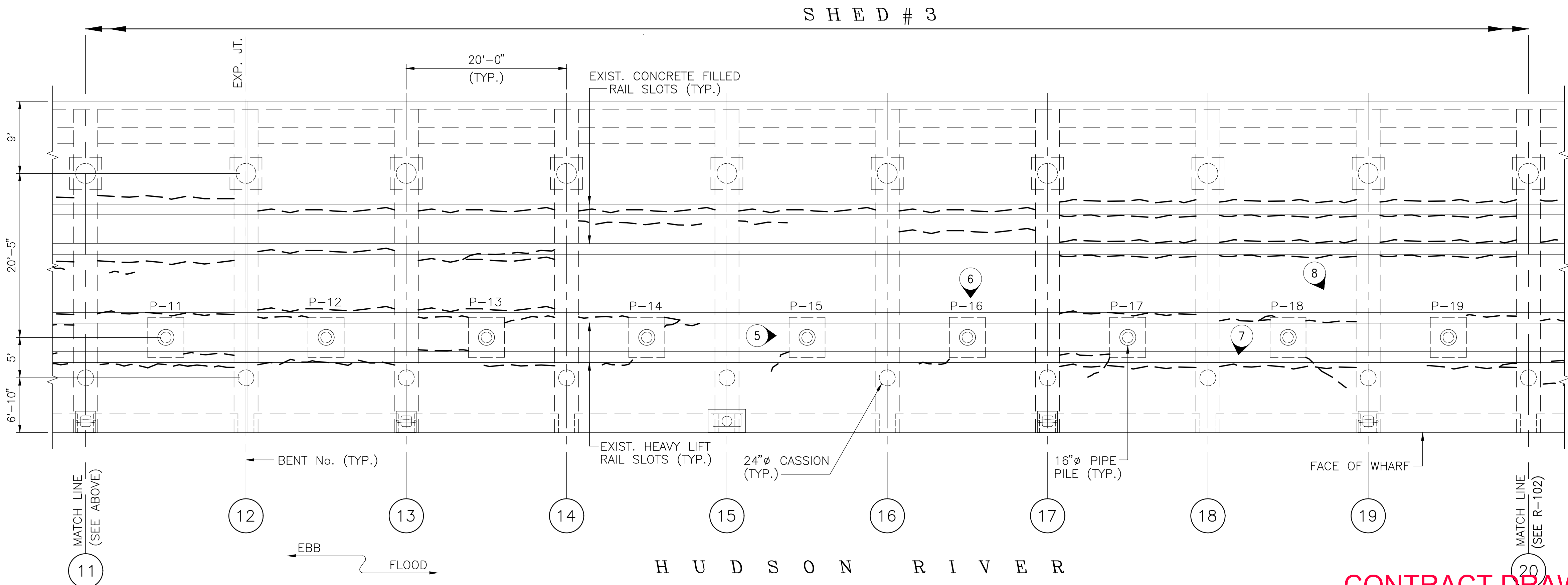
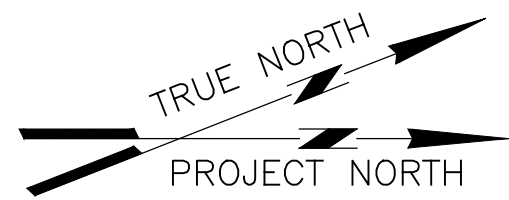
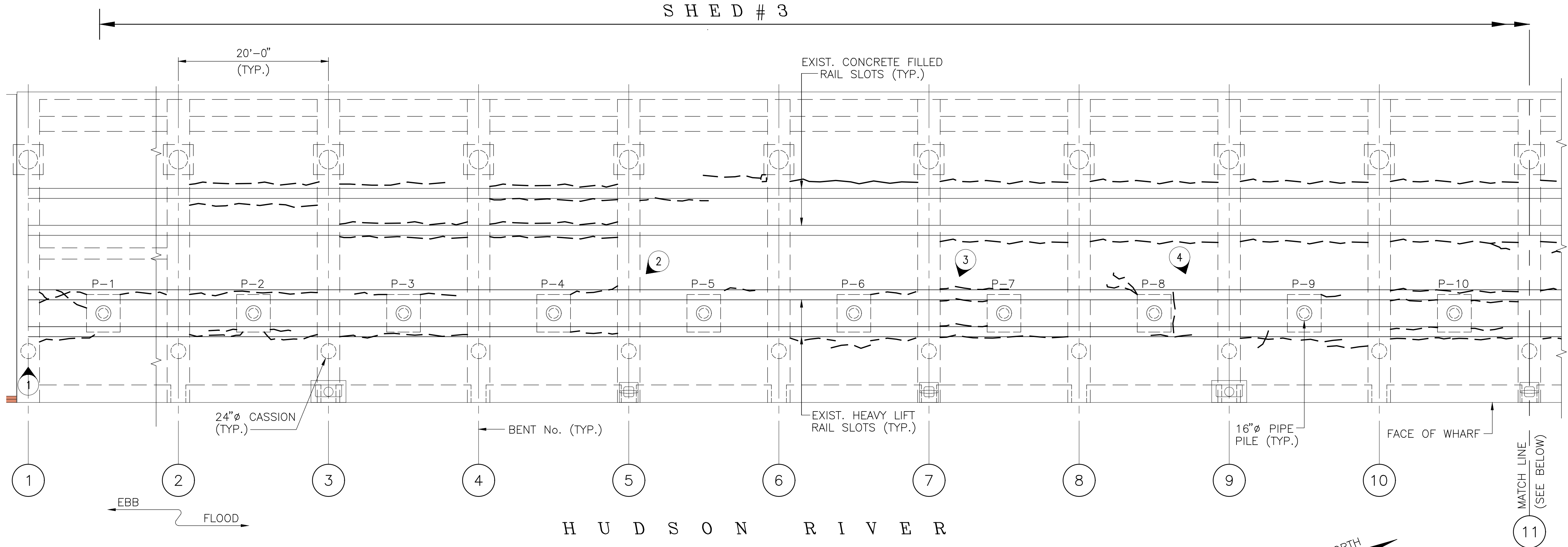
**DETAIL 1**  
SCALE: 1-1/2"=1'-0" S-532 | S-532

## NOTES:

- FOR GENERAL NOTES, SEE DRAWING S-002. FOR OTHER NOTES, SEE DRAWING S-100.
- CONCRETE WORK SHOWN ON THIS DRAWING IS APPLICABLE TO ALL EXPANSION JOINTS BETWEEN BENT 1 AND BENT 50 (EXPANSION JOINTS AT BENTS 12, 22, 33, AND 43).
  - FOR EXPANSION JOINT AT BENT 1, RESET EXISTING COMPRESSION SEAL AND PROVIDE SIMILAR STEEL SLIDE PLATE AS SHOWN IN DETAIL 1 ON THIS DRAWING.
  - FOR EXPANSION JOINT AT BENT 58, REMOVE ALL EXISTING ASPHALT AND DELETERIOUS CONCRETE, INSTALL NEW EXPANSION JOINT SIMILAR TO DETAIL 1 SHOWN ON THIS DRAWING, AND REPAIR CONCRETE, AS REQUIRED.
- REPAIRS TO EXISTING DECK, CAP BEAMS, PILE CAPS, AND PILES ARE NOT SHOWN FOR CLARITY. SEE PRIOR DRAWINGS FOR REPAIR DETAILS.
- IF REQUIRED, REMOVE CRACKED AND SPALLING SURFACE CONCRETE TO COMPETENT CONCRETE, EXPOSE/CLEAN/UNDERCUT EXISTING REINFORCING STEEL, AS NECESSARY, AND FILL IN REMOVAL WITH ADDITIONAL ENCASEMENT CONCRETE.
- ALL DOWELS INTO EXISTING CONCRETE SHALL BE EMBEDDED A MINIMUM OF 12" INTO SOUND CONCRETE AND SHALL BE ANCHORED USING HILTI HIT-RE 500 V3 EPOXY OR APPROVED EQUAL.
- PAINT STEEL ANGLES AND SLIDE PLATE SAFETY YELLOW, A MINIMUM OF TWO COATS, FOR ALL EXPANSION JOINTS.
- REMOVE ALL EXISTING BOND BREAKERS, PATCH AND LEVEL SURFACES, AND INSTALL NEW BOND BREAKERS AT LOCATIONS SHOWN ON THESE SECTIONS.
- PROVIDE 3/4" CHAMFERS FOR ALL EXPOSED CORNERS (TYP.)

**CONTRACT DRAWINGS**  
2025-07-31

PORT OF ALBANY WHARF UPGRADES			
ALBANY		NEW YORK	
ALBANY PORT DISTRICT COMMISSION			
ALBANY — RENSSELAER			
ALBANY		NEW YORK	
MUESER RUTLEDGE CONSULTING ENGINEERS			
14 PENN PLAZA — 225 W. 34TH STREET, NY, NY 10122			
SCALE	MADE BY	C.C.C.	DATE XX-XX-XX
AS NOTED	CH'KD BY	M.T.R.	DATE XX-XX-XX
NEW STRUCTURAL CONCRETE SECTIONS AND DETAILS AT EXPANSION JOINTS			FILE NO. 14990
			DRAWING NO. S-532



LEGEND

- HEAVY LIFT RAIL PILECAP
- CRACK AT UNDERSIDE OF DECK
- TOPSIDE PHOTO ID

PORT OF ALBANY WHARF UPGRADES  
ALBANY NEW YORK

ALBANY PORT DISTRICT COMMISSION  
ALBANY - RENSSELAER  
ALBANY NEW YORK

MUESER RUTLEDGE CONSULTING ENGINEERS

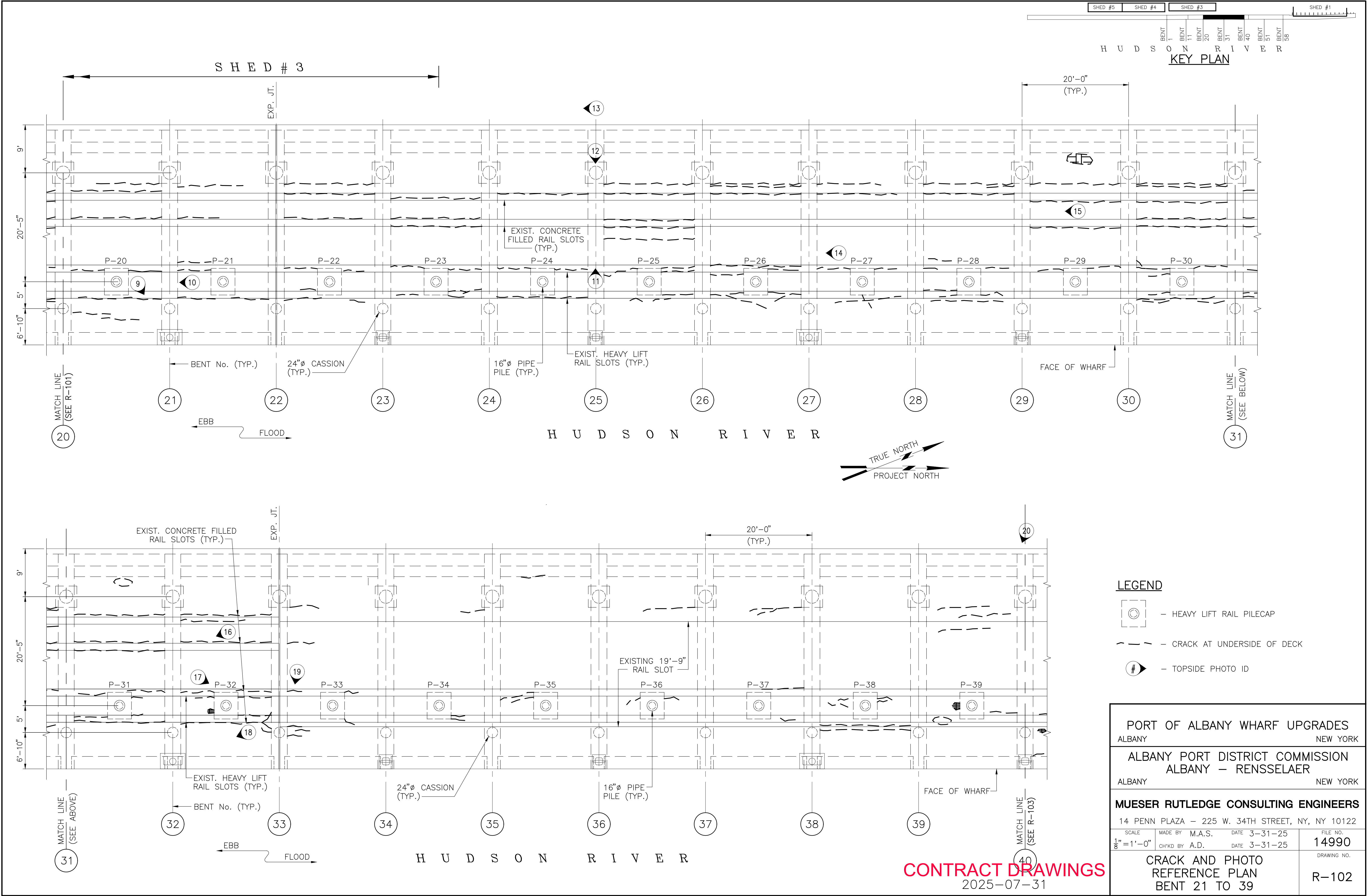
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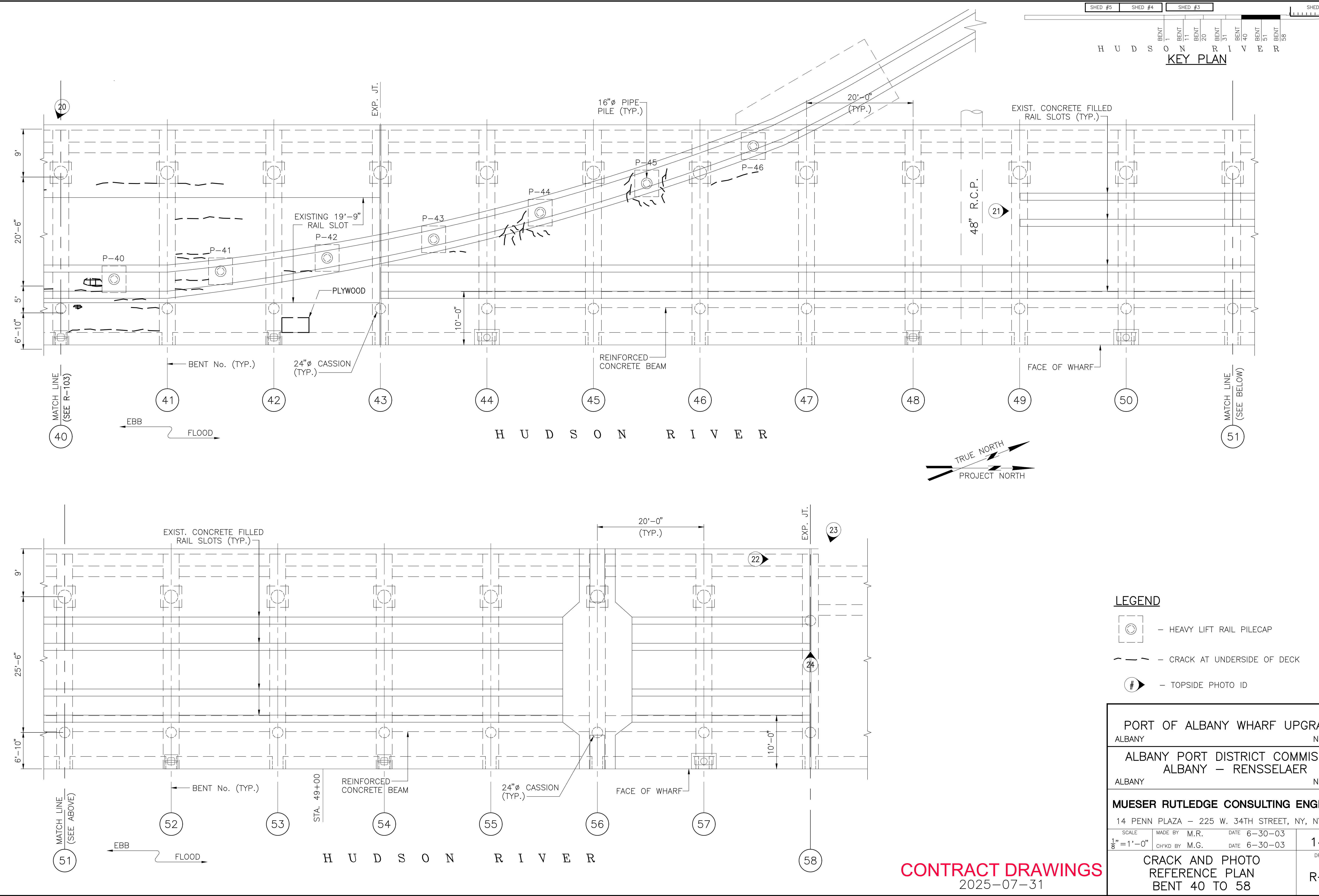
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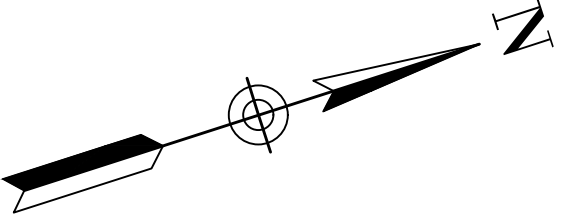
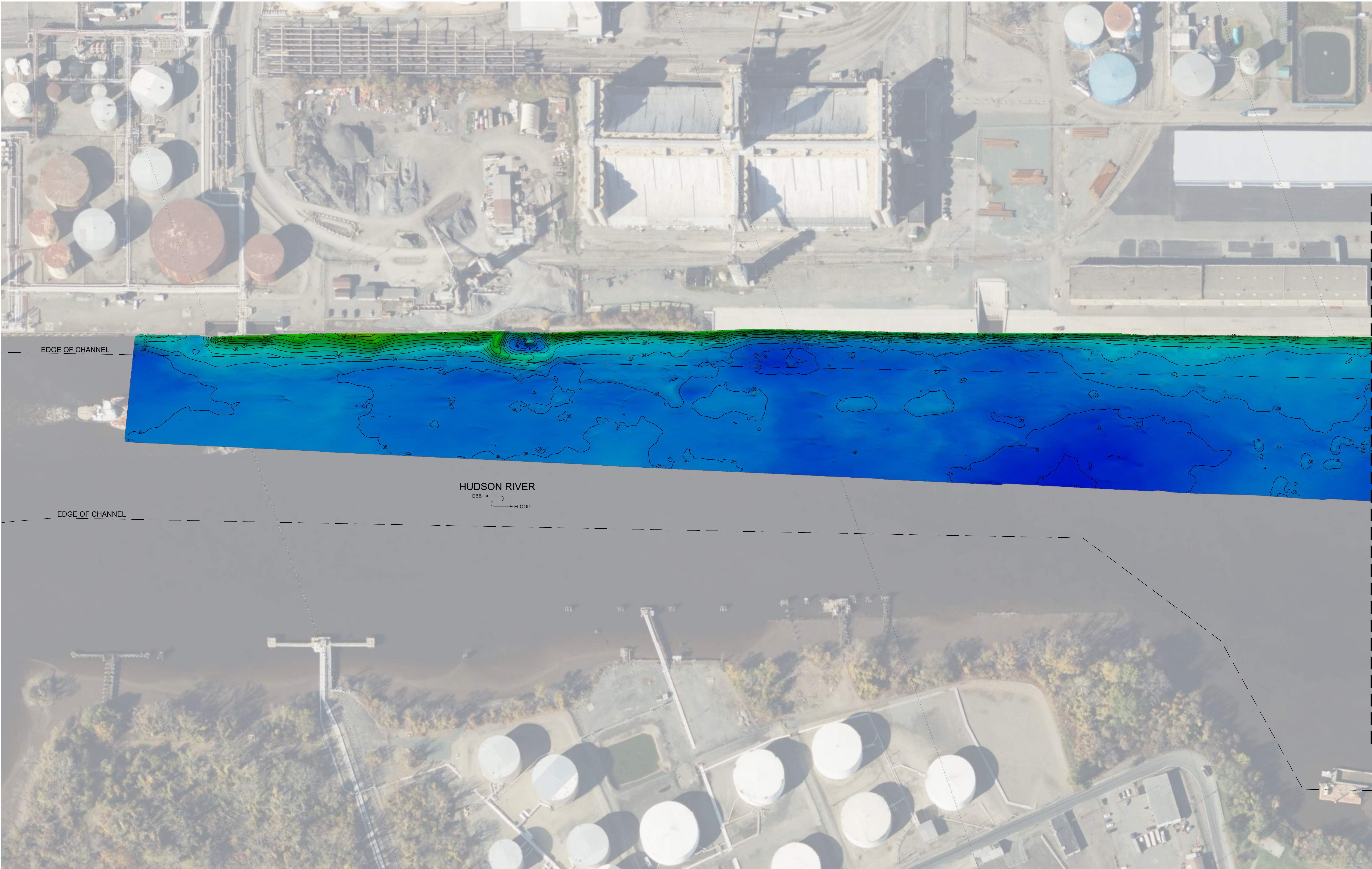
CRACK AND PHOTO  
REFERENCE PLAN  
BENT 1 TO 20

R-101

CONTRACT DRAWINGS  
2025-07-31





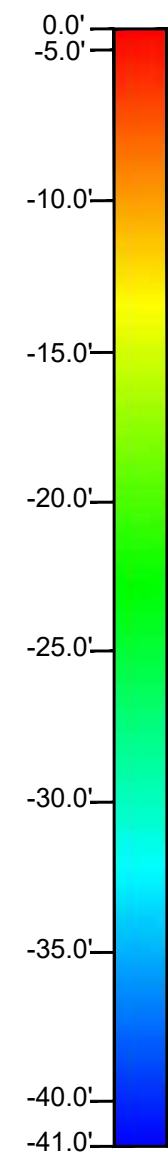


### SITE PLAN

SCALE: 1" = 100'

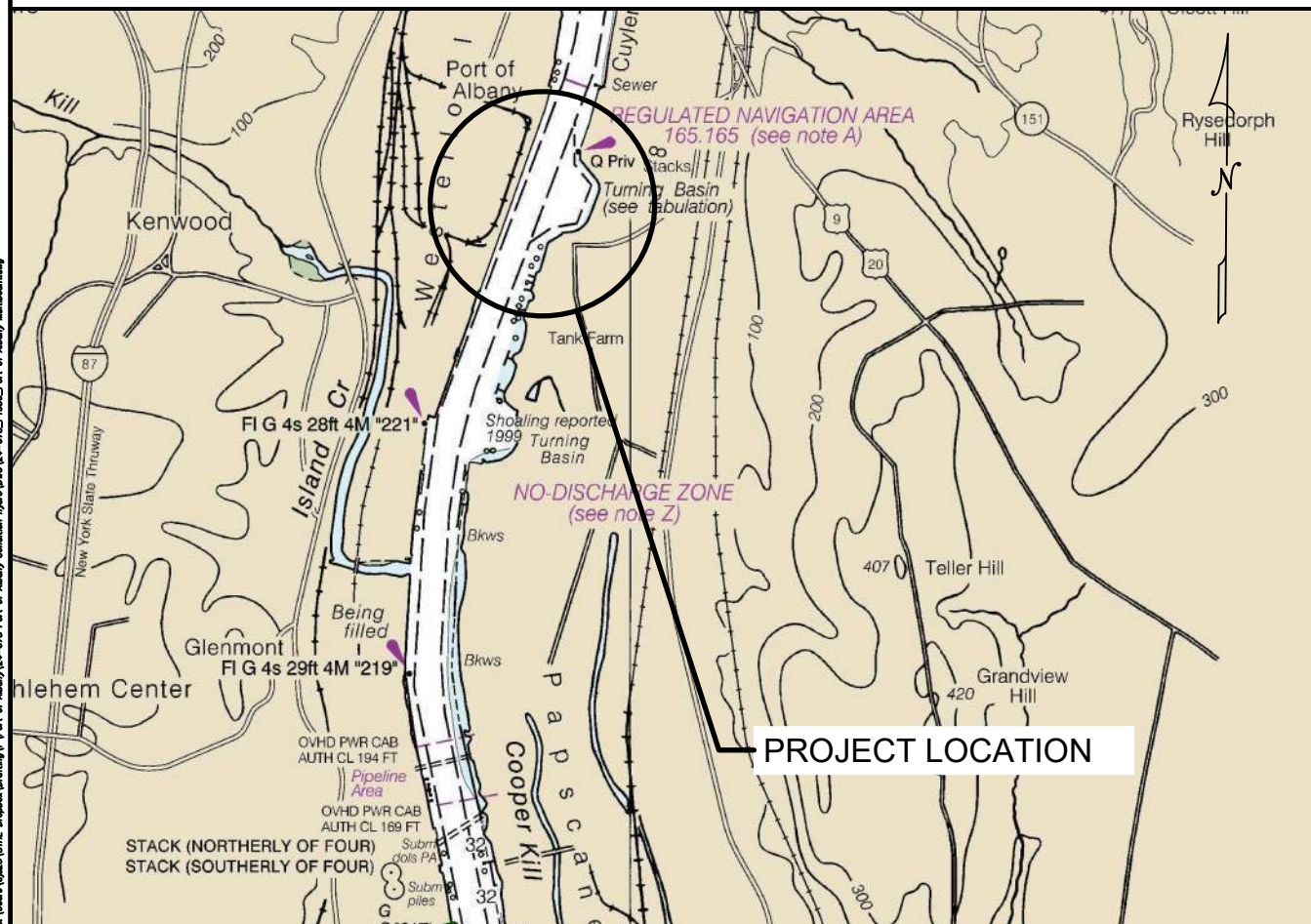


### ELEVATION (M.L.L.W.)



### NOAA NAUTICAL CHART LOCATION MAP

CHART No. 12348 • HUDSON RIVER, COXSACKIE TO TROY



### MULTIBEAM HYDROGRAPHIC SURVEY NOTES:

- ALL SOUNDINGS WERE CONDUCTED USING:
  - APPLANIX POS MV 120 NAVIGATION AND MOTION SENSOR FOR POSITIONING, HEADING, ATTITUDE, HEAVE AND VELOCITY, BLENDING GLOBAL NAVIGATION SATELLITE SYSTEM (GNSS) WITH AN INERTIAL MEASUREMENT UNIT (IMU) AND APPLANIX POSView (MOBILE MAPPING SUITE),
  - QPS QINSY ACQUISITION SOFTWARE
  - NORBIT I77h MULTIBEAM ECHOSOUNDER
  - AML-3 LGR SOUND VELOCITY SENSOR
- SOUNDINGS WERE CONDUCTED ON THURSDAY DECEMBER 12, 2024.
- THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS CONDUCTED ON THE DATES INDICATED AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.
- SOUNDINGS ARE REFERENCED TO MEAN LOWER LOW WATER (MLLW).
- HORIZONTAL CONTROL IS BASED ON NEW YORK EAST STATE PLANE COORDINATES NAD83, AS ESTABLISHED IN THE FIELD AND SOLELY FOR THE USE OF THIS HYDROGRAPHIC SURVEY.
- CONTOURS WERE INTERPOLATED WITH TRIMBLE NAVIGATION LIMITED, TERRAMODEL VERSION 10.61.

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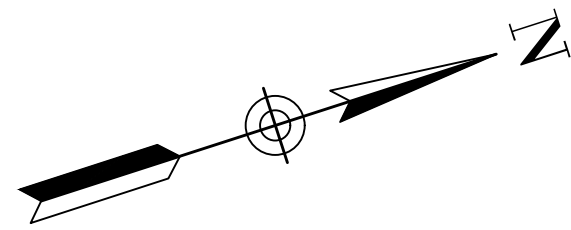
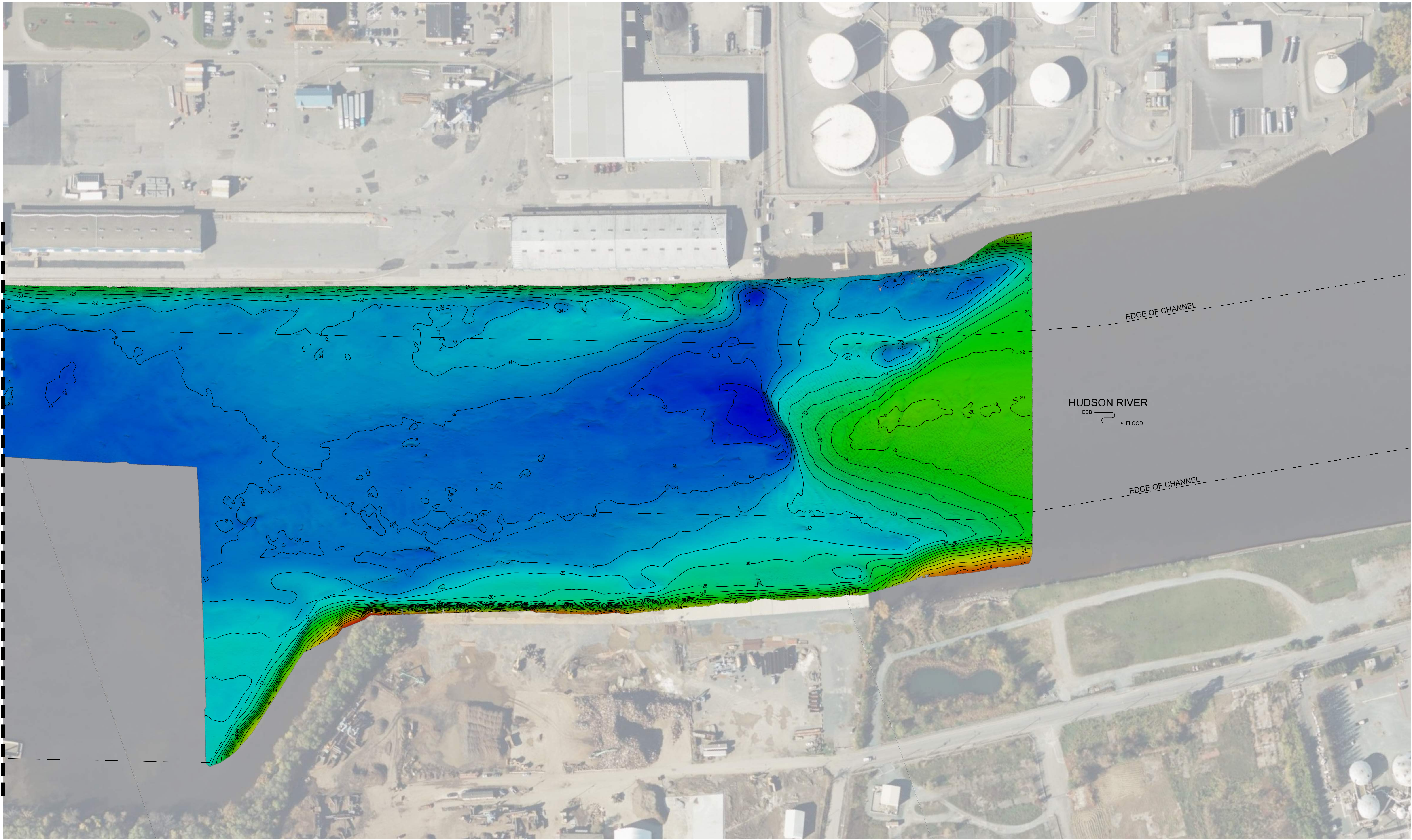
**S.T. HUDSON ENGINEERS, INC.**  
PROFESSIONAL ENGINEERS & CONSULTANTS  
900 Dudley Avenue  
Cherry Hill, N.J. 08002  
Phone 856-342-6600  
Fax No. 856-342-6323

**PORT OF ALBANY**  
106 SMITH BLVD.  
ALBANY, NEW YORK 12202

drawn **DJD** date **12/18/2024** contract  
checked **CD** FILE **P-1350**  
drftg. approval **TK**

PORT OF ALBANY dwg. no. rev.

MULTIBEAM HYDROGRAPHIC SURVEY 1 of 2 0

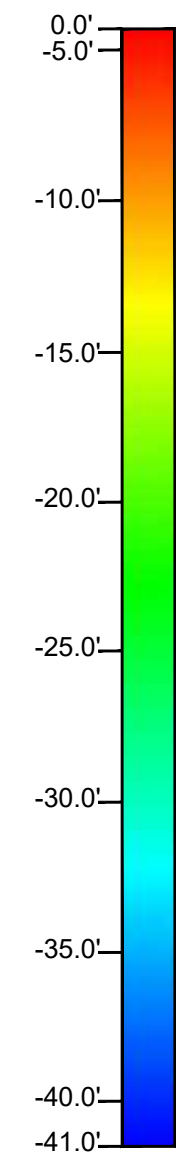


### SITE PLAN

SCALE: 1" = 100'

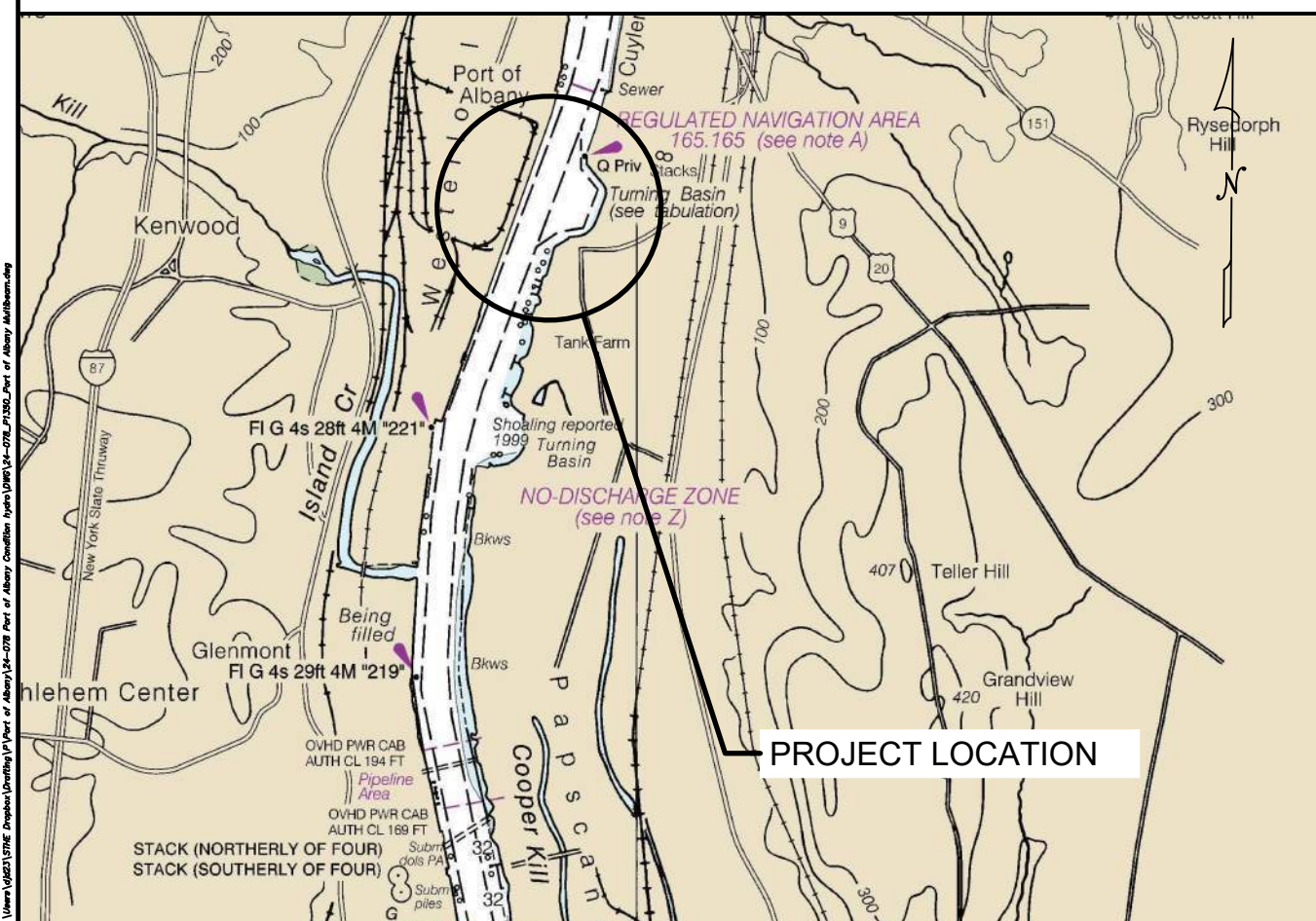


### ELEVATION (M.L.L.W.)



### NOAA NAUTICAL CHART LOCATION MAP

CHART No. 12348 • HUDSON RIVER, COXSACKIE TO TROY



### MULTIBEAM HYDROGRAPHIC SURVEY NOTES:

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drawn: DJD date: 12/18/2024 contract:  
checked: CD FILE: P-1350 24-078  
drftg. approval: TK

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MULTIBEAM HYDROGRAPHIC SURVEY 2 of 2 0