LINN COUNTY ROAD DEPARTMENT

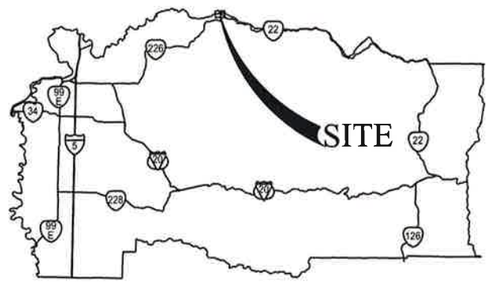
OVERALL PROJECT LENGTH: 370 FEET

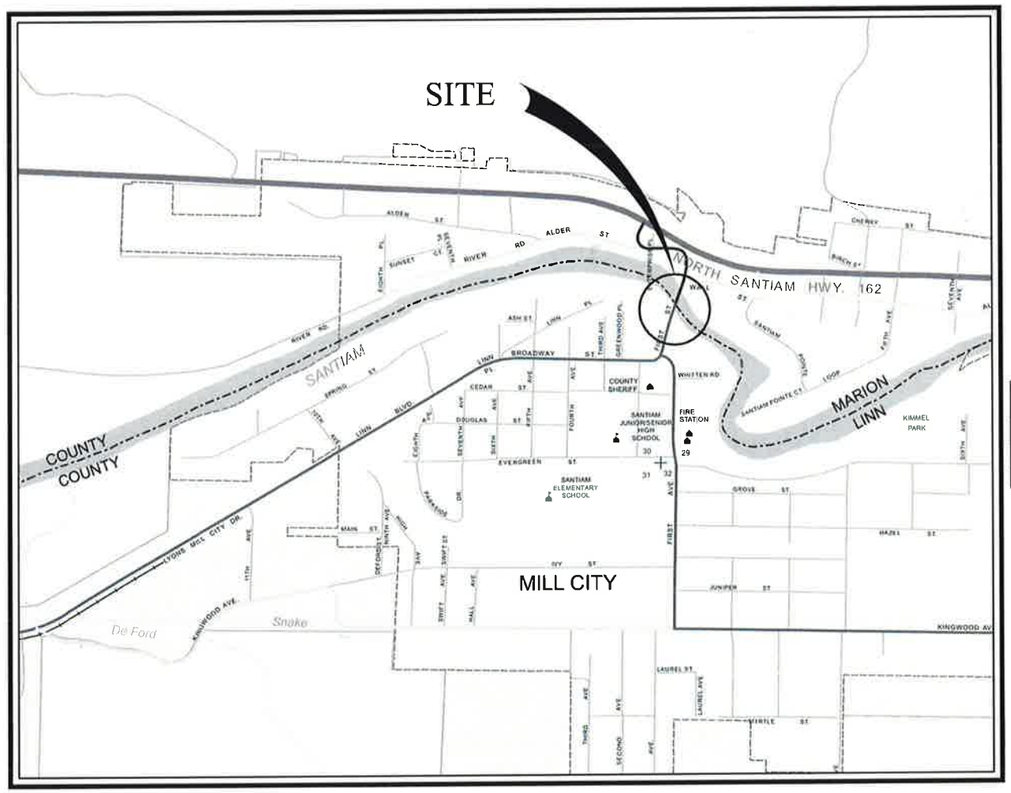
STRUCTURE REHABILITATION AND PAINTING

NORTH SANTIAM RIVER
(MILL CITY) BRIDGE

FIRST AVENUE

ODOT BRIDGE NO. 02058
FEDERAL AID NUMBER T17HC019
LINN COUNTY
APRIL 2020





PROJECT LOCATION

INDEX OF SHEETS	
SHEET NO.	DESCRIPTION
A01	COVER SHEET
A02	INDEX SHEET

Think SAFETY!

Don't be a Weak Link

English Units

ATTENTION:
Oregon law requires you to follow rules adopted by the Oregon Utility Notification Center. Those rules are set forth in OAR 952-001-0010 through OAR 952-001-0090. You may obtain a copies of the rules by calling the center. (Note: the telephone number for the Oregon Utility Notification Center is (503) 232-1987.)

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Salem Oregon 97301
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ALBANY, OREGON 97322
PHONE: (541) 967-3919
FAX: (541) 924-0202
E-MAIL: Roads@co.linn.or.us

BY:												
REVISION:												
DATE:												

REGISTERED PROFESSIONAL ENGINEER
11821PE
OREGON
JULY 16, 1982
GUIDO A. PORTIER
RENEWS: 12-31-2020

BR NO. BR0006-0757	DATE: 2/19/20
PROJECT NO: CB1805	
TRS: T9S R3E SEC29 & 30, W.M.	
DESIGNED BY: JIH	CHECKED BY: NXA
DRAFTED BY: JJC	REVIEWED BY: GAP

NORTH SANTIAM RIVER
(MILL CITY)
BRIDGE
FIRST AVENUE
LINN COUNTY
APRIL 2020

COVER SHEET

SCALE: NO SCALE

A01

INDEX OF SHEETS CONT'D.	
SHEET NO.	DESCRIPTION
J01	PLAN AND ELEVATION
J02	GENERAL NOTES
J03	TEMPORARY SUPPORT
J04	REMOVAL DETAILS
J05	STEEL TRUSS JACKING SUPPORT
J06	BEARING REPLACEMENT
J07	BENT 7 REPAIR DETAILS
J08	BENT 8 & 9 REPAIR DETAILS
J09	PIER 3 SIDEWALK CORBEL CRACK REPAIR & BEARING REPLACEMENT
J10	RAIL DETAILS 1 OF 2
J11	RAIL DETAILS 2 OF 2
J12	SIDEWALK AND CURB REPLACEMENT DETAILS
J13	MISCELLANEOUS DETAILS
TC-01	TRAFFIC CONTROL PLANS - ONE LANE CLOSURE
TC-02	TRAFFIC CONTROL PLANS - BRIDGE CLOSURE & DETOUR
UT-01	PIER 3 JACKING SEQUENCE

ODOT Standard Drg. Nos.
BR140 - Expansion Joint With Poured Seals

TM800 - Tables, Abrupt Edge And PCMS Details
TM821 - Temporary Sign Supports
TM822 - Temporary Sign Supports

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REVISION:												
DATE:												

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JULY 16, 1982
GUIDO A. PORTIER
RENEWS: 12-31-2020

ROAD NO:	DATE: 2/19/20
PROJECT NO: KN-21457	
TRS: T9S R3E SEC29 & 30, W.M.	
DESIGNED BY: JIH	CHECKED BY: NXA
DRAFTED BY: JJC	REVIEWED BY: GAP

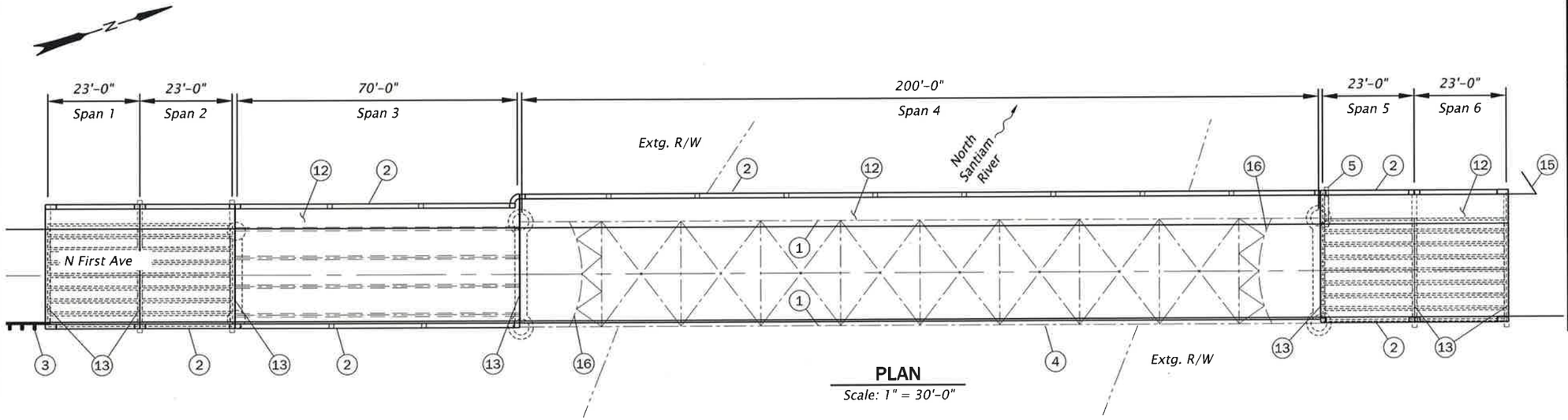
NORTH SANTIAM RIVER
(MILL CITY)
BRIDGE
FIRST AVENUE
LINN COUNTY
APRIL 2020

INDEX SHEET

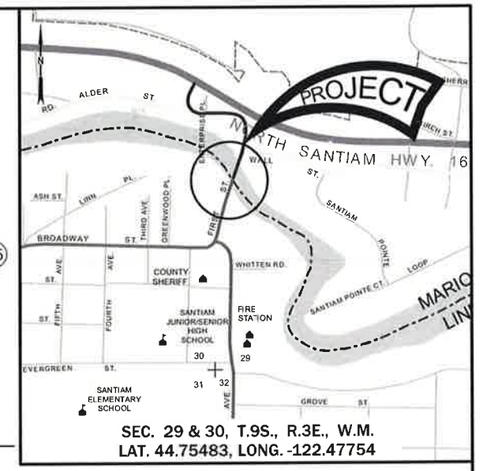
SCALE: NO SCALE

A02

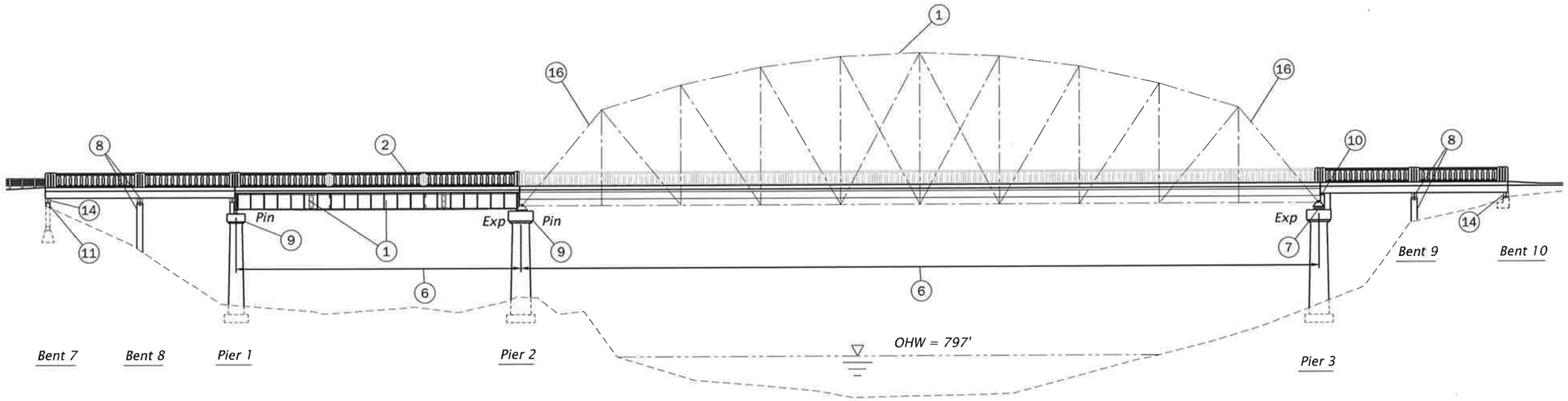
P:\L\LINN00000028\0400CAD\SHEETS\EB\J01 Plan and Elevation.dwg 2/20/2020 1:42 PM



PLAN
Scale: 1" = 30'-0"



LOCATION MAP
No Scale



ELEVATION
Scale: 1" = 30'-0"

Construction Notes:

1. *Clean and repaint steel truss, girders and steel lattice rail.*
2. *Replace historical rails. For salvaged portion of historical rail see special provisions.*
3. *Retain, protect and reconnect existing guardrail transition.*
4. *Replace upstream curb (span 4 east side).*
5. *Repair crack in pier 3 sidewalk support.*
6. *Replace sidewalk bracket diagonals (West side).*
7. *Replace expansion bearings.*
8. *Strengthen Columns, clean and repaint steel caps.*
9. *Patch exposed reinforcement in Piers 1 & 2, See Sht. J08 for concrete repair notes.*
10. *Replace timber block with elastomeric bearing pads.*
11. *Rehabilitate and repair timber piles (2 Total).*
12. *Replace concrete sidewalk.*
13. *Replace existing joints with poured joints.*
14. *Clean and paint exposed faces of steel cap.*
15. *Retain, protect and reconnect existing timber pedestrian railing.*
16. *Remove clearance signs and install county's new signs.*

STRUCTURE NO.	02058
BDS DWG NO.	104462
CALC. BOOK	----
HWY: 0006 M.P.: 7.57	
COUNTY	LINN
DATE	04/2020

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NORTH SANTIAM RIVER (MILL CITY) BRIDGE REHABILITATION

FIRST AVENUE
LINN COUNTY

Designer: Jasper Heckman
Drafter: Jim Culpepper
Reviewer: Guido Portier
Checker: Nowzar Ardalan

PLAN AND ELEVATION

SHEET NO. J01

GENERAL NOTES:

Provide all materials and perform all work according to the Oregon Standard Specifications for Construction 2018 and the special provisions.

Repairs and modifications are designed in accordance with eighth edition of the 2017 AAHTO LRFD Bridge Design Specifications for HL-93 truck loading.

Bridge rehabilitation is designed to provide rating factors greater than 1.0 for ODOT legal trucks according to the ODOT LRFR Manual (June 2018).

Provide all reinforcing steel according to ASTM Specification A706, or AASHTO M31 (ASTM A615) Grade 60. Provide field bent stirrups according to ASTM Specification A706. Use the following splice lengths (unless shown otherwise):

Reinforcing Splice Lengths (Class B) Grade 60 f'c = 4.0 ksi = 0.4, 2" min. concrete clear cover											
Bar Size	#3	#4	#5	#6	#7	#8	#9	#10	#11	#14	#18
Uncoated	1'-0"	1'-4"	1'-8"	2'-0"	2'-9"	3'-7"	4'-6"	5'-9"	7'-0"	Not Permitted	

Use Coated (1) for epoxy coated bars with cover at least 3*db and clear spacing between bars at least 6*db.

Use Coated (2) for epoxy coated bars with cover less than 3*db or clear spacing between bars less than 6*db.

Increase all splice lengths 30% for horizontal or nearly horizontal bars so placed that more than 12" of fresh concrete is cast below the bar.

Splice reinforcing steel at alternate bars, staggered at least one splice length or as far as possible, unless shown otherwise.

All reinforcing spacing is intended to be maximum unless shown otherwise.

Use uncoated reinforcing steel in sidewalks, curbs and railing unless shown otherwise.

Use epoxy coated reinforcing steel all bars extending into the parapet.

Place bars 2" clear of the nearest face of concrete unless shown otherwise.

Provide Class 4000 1 or ¾ concrete.

Provide structural steel conforming to ASTM Specifications A36, unless noted otherwise.

Produce welds according to the latest edition of AWS D 1.5 Bridge Welding Code.

Provide ¾" diameter Type 3 weathering high-strength bolts at structural connections according to ASTM Specifications F3125 GR A325 unless shown otherwise.

Tighten all high-strength bolts using the "Turn-of-Nut Tightening " method.

Provide non-shrink cementitious grout from the ODOT QPL with a minimum 28-day compressive strength of f'c = 3000 psi. Provide grout test panels for color review and approval prior to construction.

Provide general surface finish on new concrete and railing.

Provide Carbon Fiber-Reinforced Polymer (CFRP) products from the QPL, Special Provisions Section 00565.10

Apply final surface finish to the area of repaired and strengthening, matching the existing surface finish and color of the columns and repaired concrete corbel.

Concrete Repair:

Concrete repair includes patching deteriorated concrete and sealing cracks. This work is to be performed on pier walls, columns, concrete channel beams.

1. Remove all deteriorated concrete (poor consolidation, spalling, and delaminated).
2. Blast clean all exposed rebar and concrete surfaces.
3. Place grout to be flush with original concrete surface.
4. Use compressed air to remove debris from cracks greater than or equal to 0.015" in width.
5. Seal and epoxy inject all cracks greater than or equal to 0.015" in width, including large cracks.
6. Remove crack sealant with blast cleaning.

STRUCTURE NO. 02058
BDS DWG NO. 104463
CALC. BOOK ----
HWY: 0006
M.P.: 7.57
COUNTY LINN
DATE 04/2020

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NORTH SANTIAM RIVER (MILL CITY) BRIDGE REHABILITATION
FIRST AVENUE
LINN COUNTY

Designer: Jasper Heckman
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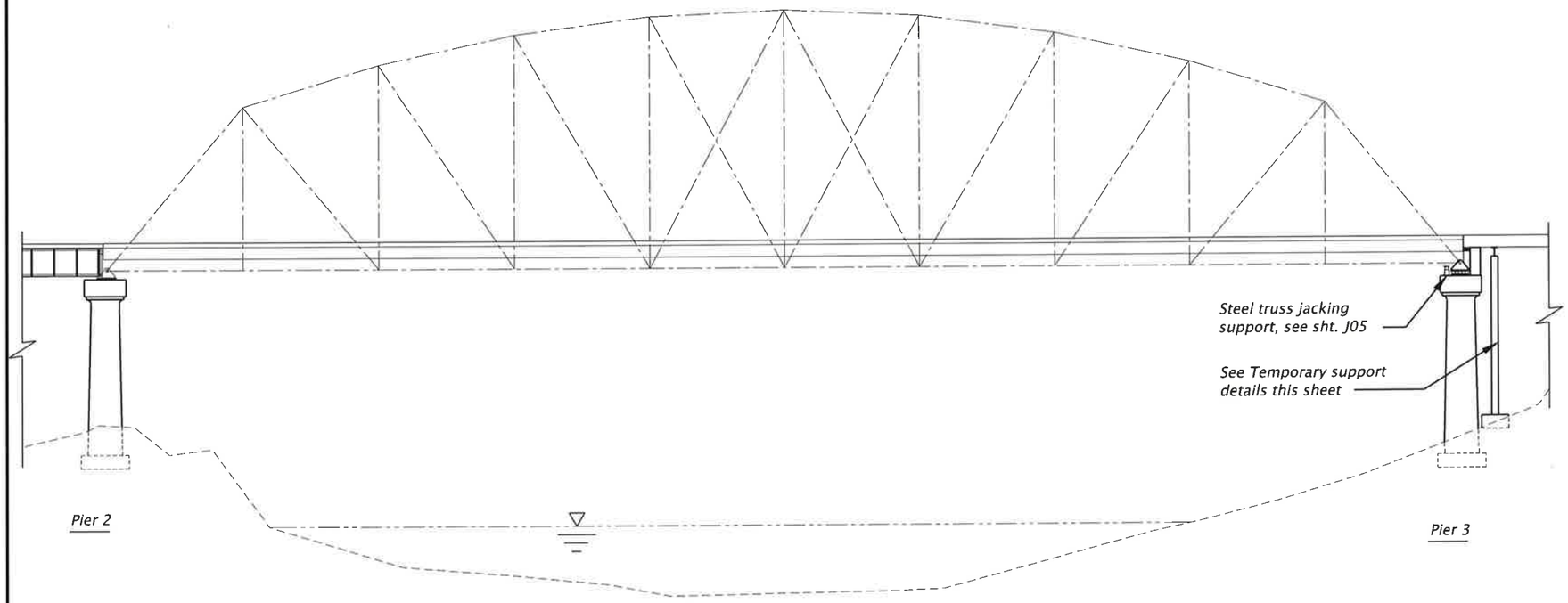
Reviewer: Guido Portier
Checker: Nowzar Ardalan

GENERAL NOTES

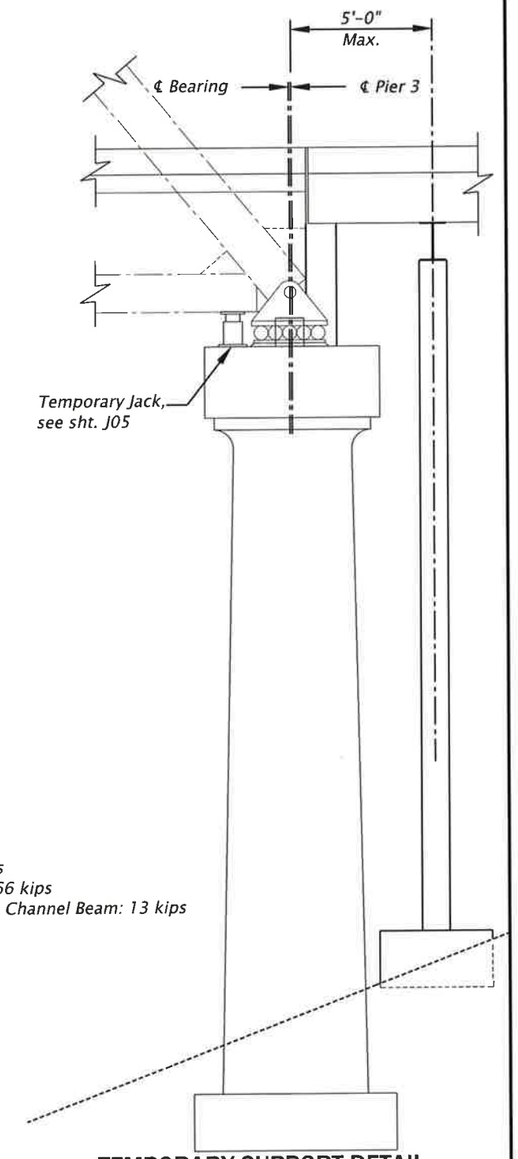
SHEET NO. J02



TEMPORARY SUPPORT ELEVATION

Scale: 1" = 20'-0"

Note:
See sht. UT01 for jacking sequence



TEMPORARY SUPPORT DETAIL

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

Note:
Reactions on Temporary Supports
Dead Load Reaction per Truss: 366 kips
Dead Load Reaction per Concrete Channel Beam: 13 kips

STRUCTURE NO.	02058
BDS DWG NO.	104464
CALC. BOOK	----
HWY: 0006 M.P.: 7.57	
COUNTY	LINN
DATE	04/2020

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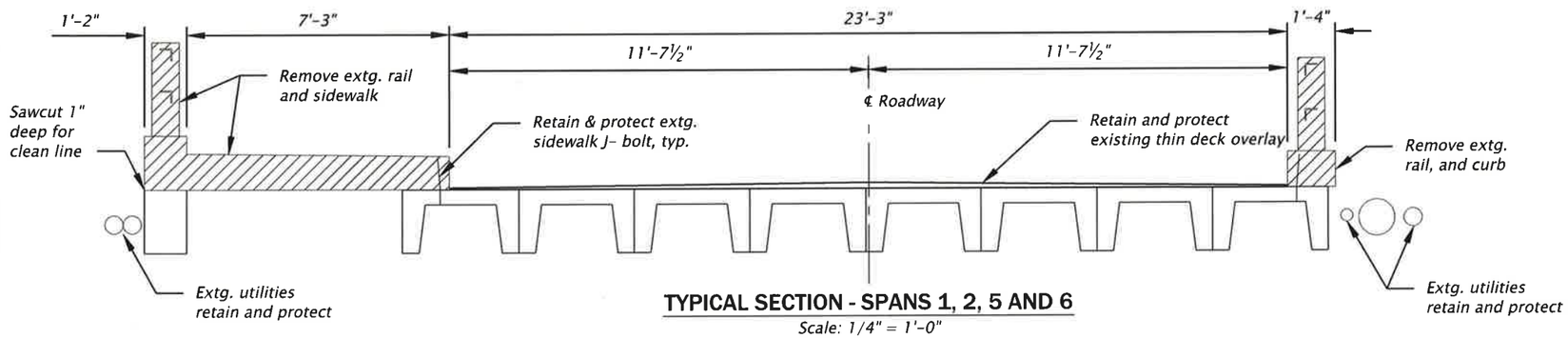
NORTH SANTIAM RIVER (MILL CITY) BRIDGE REHABILITATION
FIRST AVENUE
LINN COUNTY

Designer: Jasper Heckman — Reviewer: Guido Portier
Drafter: Jim Culpepper — Checker: Nowzar Ardalan

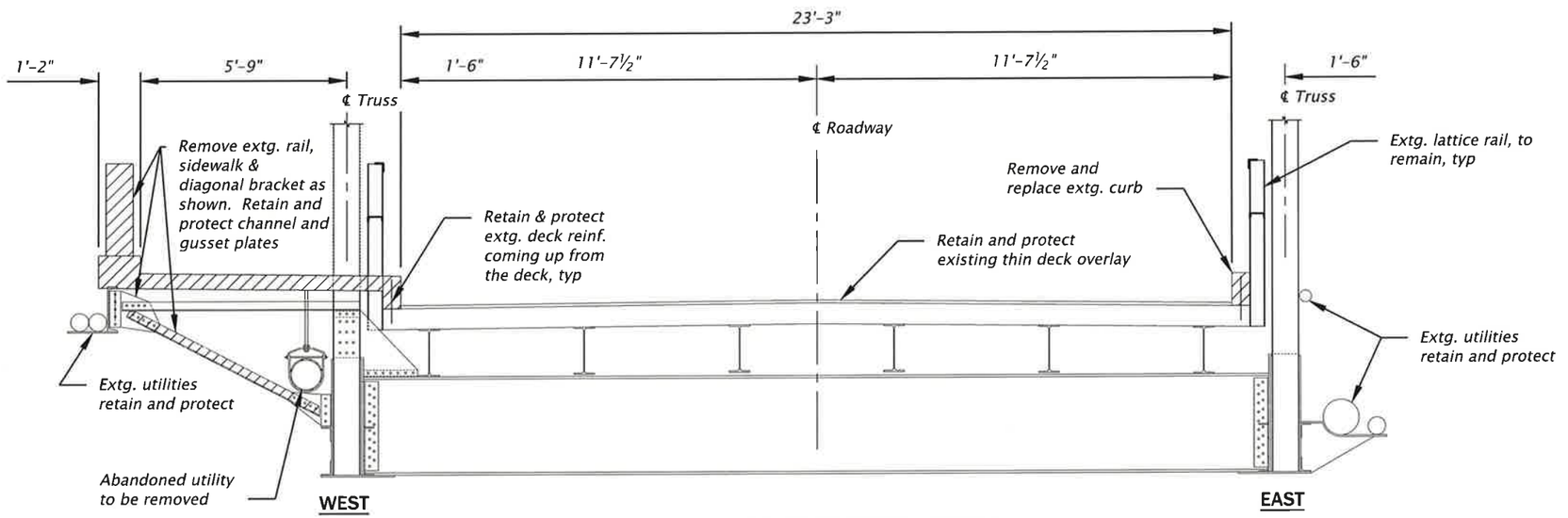
TEMPORARY SUPPORT

SHEET NO. J03



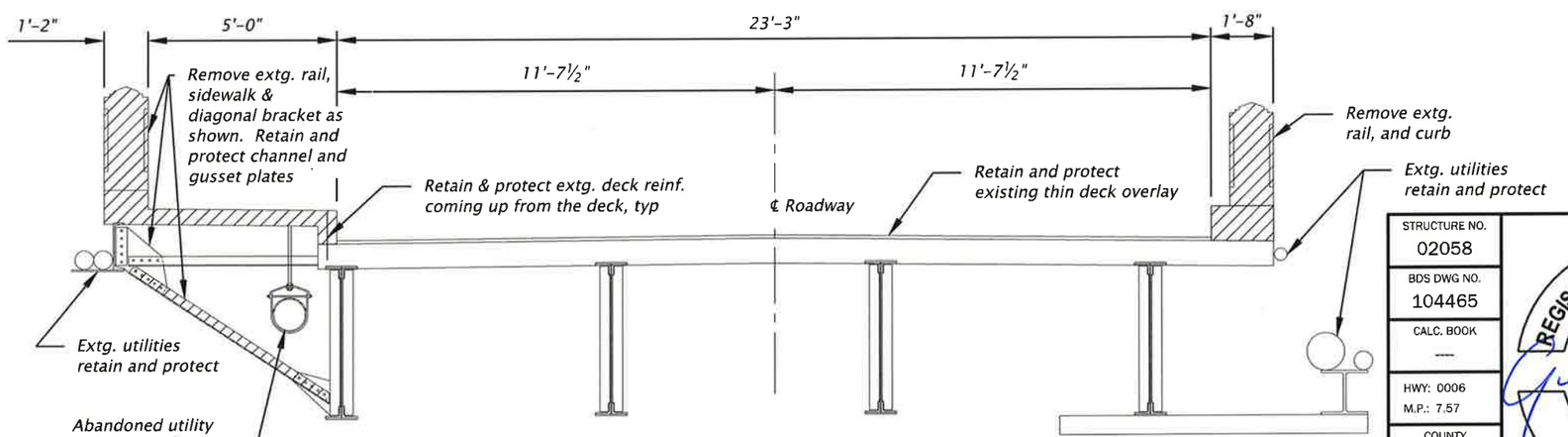
TYPICAL SECTION - SPANS 1, 2, 5 AND 6

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



TYPICAL SECTION AT TRUSS - SPAN 4

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



TYPICAL SECTION - SPAN 3

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

Note:

Saw thin deck overlay at interface with existing concrete curbs before removing concrete curbs.

STRUCTURE NO.	02058
BDS DWG NO.	104465
CALC. BOOK	----
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NORTH SANTIAM RIVER (MILL CITY) BRIDGE REHABILITATION

FIRST AVENUE
LINN COUNTY

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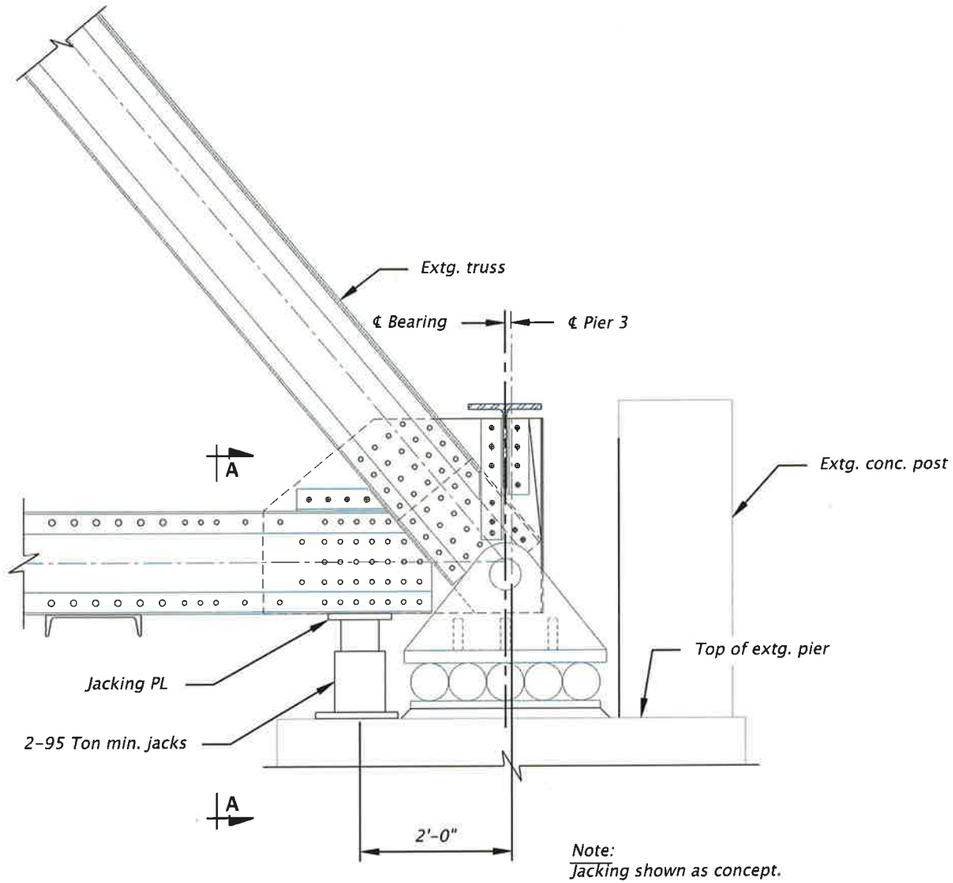
Reviewer: Guido Portier
Drafter: Jim Culpepper
Checker: Nowzar Ardalan

REMOVAL DETAILS

SHEET NO. J04



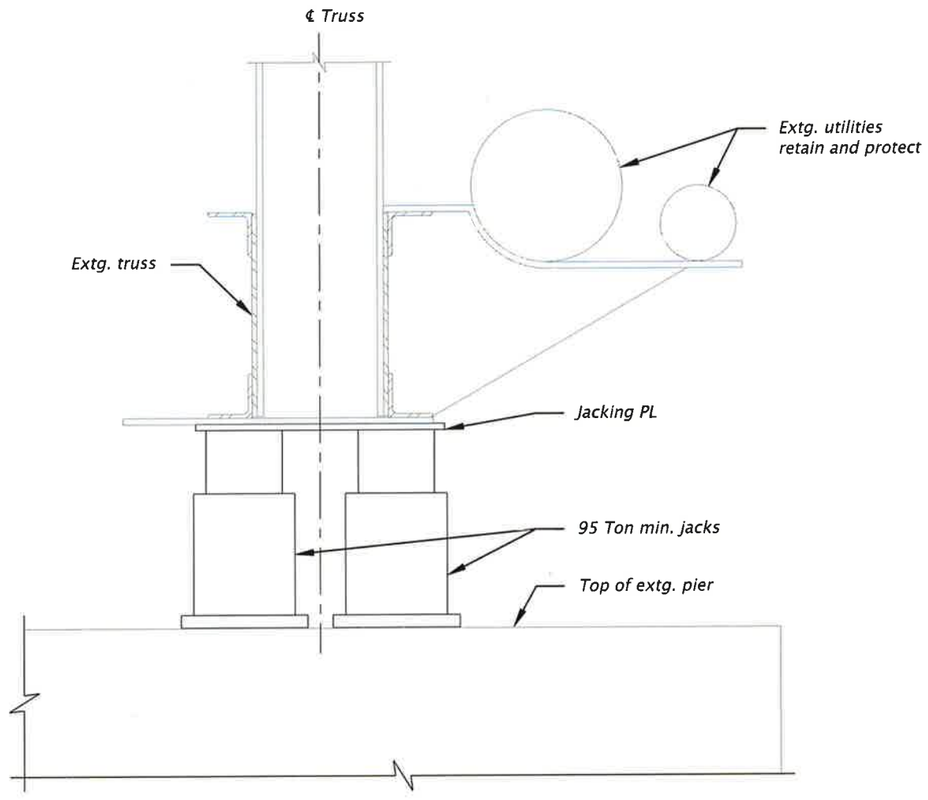
JACKING DETAIL
Scale: 1/2" = 1'-0"

Note:
Jacking shown as concept.

Jacking support designed by contractor.

Some local strengthening of the steel truss and/or concrete pier table may be necessary in order not to damage the truss members or pier top during the jacking operations. (Designed by the contractor).

See Sht. UT01 for jacking sequence and accommodations to existing utilities.



SECTION A-A
Scale: 1" = 1'-0"

STRUCTURE NO.	02058
BDS DWG NO.	104466
CALC. BOOK	----
HWY: 0006 M.P.:	7.57
COUNTY	LINN
DATE	04/2020

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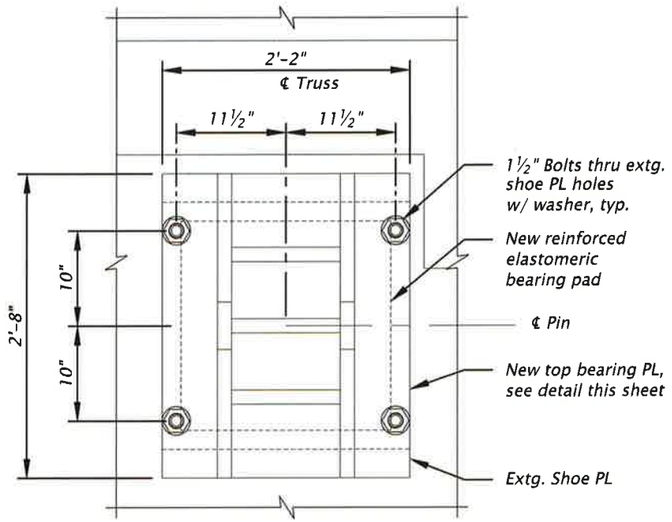
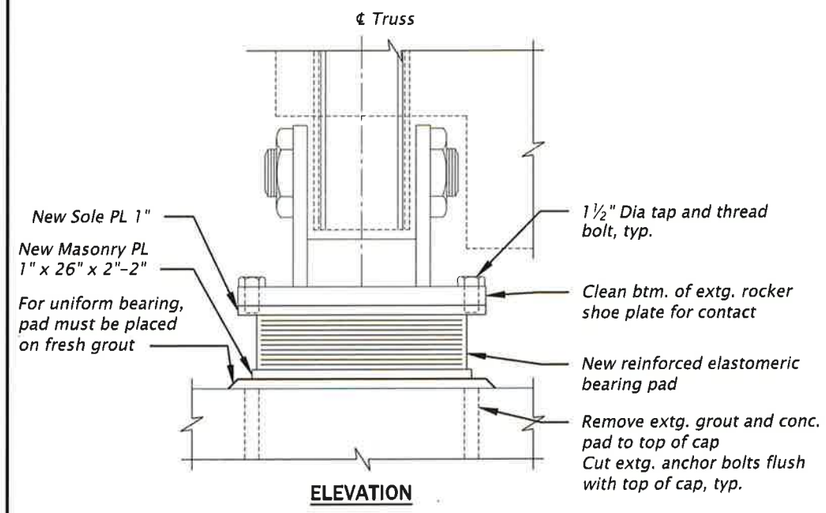
STEEL TRUSS JACKING SUPPORT

SHEET NO. J05



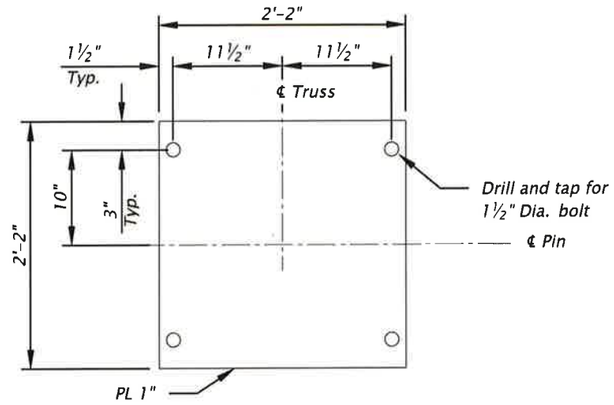
PLAN



ELEVATION

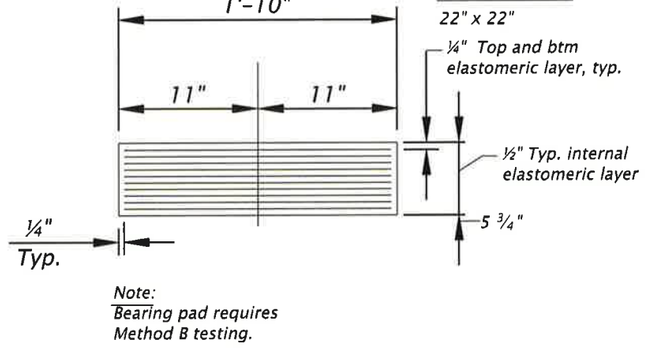
PIER 3 BEARING REPLACEMENT DETAILS

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



SOLE PLATE DETAILS

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



Note:
Bearing pad requires Method B testing.

REINFORCED BEARING PAD DETAIL

SCALE: 1"=1'-0"

ELASTOMERIC BEARING NOTES

1. Bearings shall comply with Section 00582.
2. The shear modulus of the elastomer shall be between 130 and 200 psi.
3. Vulcanizing of the elastomer to the masonry and sole plates shall be done during the primary mold process.
4. Steel shims shall meet the requirement of ASTM A1011, Grade 36 type 1.
5. Masonry plates, sole plates and anchor studs shall meet the requirements of ASTM A709, Grade 50.
6. Masonry plates and sole plates shall be hot dipped galvanized after fabrication in accordance with ASTM A123.
7. All bearings shall be marked prior to shipping. The marks shall include the bearing location on the bridge and direction arrow which points upstation. All marks shall be permanent and shall be visible after the bearing is installed.
8. Bearings shall be covered during transit.

INSTALLATION NOTES

1. Install all bearings and associated plates in horizontal condition.
2. Concrete surface shall be ground smooth and level to +- 1/32".
3. Install bearings and grout prior to resetting truss end connection.
4. Deck wearing surface at each side of joint shall be flush after bearing installation.

STRUCTURE NO.	02058
BDS DWG NO.	104467
CALC. BOOK	----
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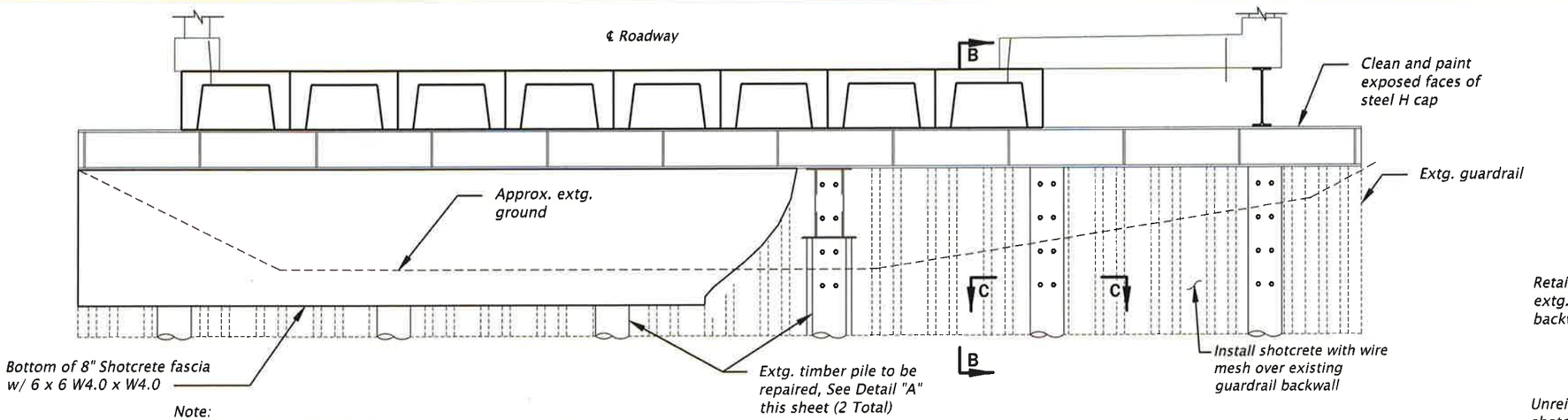
NORTH SANTIAM RIVER (MILL CITY) BRIDGE REHABILITATION
FIRST AVENUE
LINN COUNTY

Designer: Jasper Heckman — Reviewer: Guido Portier
Drafter: Jim Culpepper — Checker: Nowzar Ardalan

BEARING REPLACEMENT

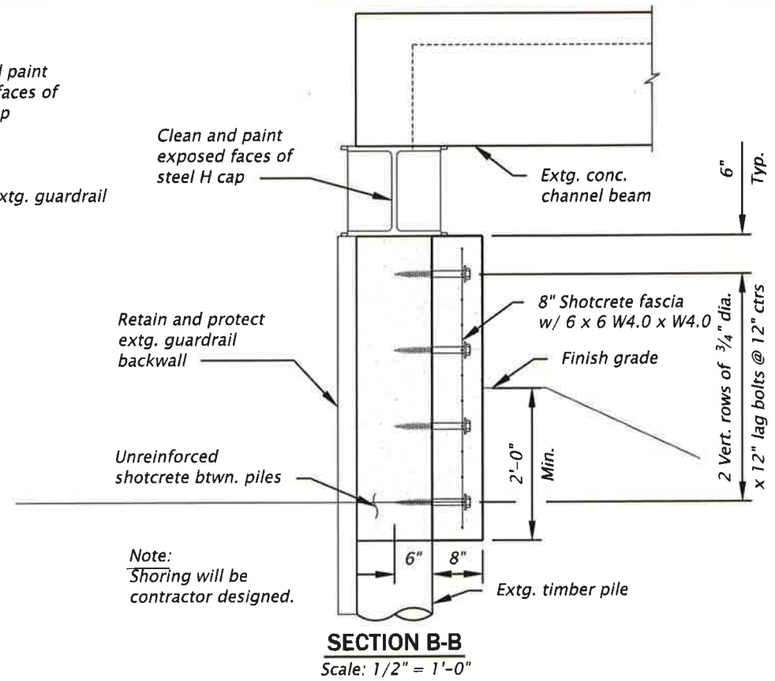
SHEET NO. J06



Note:
Remove portion of guardrail to install DHSS Rnd tube.

BENT 7 TYPICAL SECTION

Scale: 1/4" = 1'-0"
(Looking back on station)



Note:
Shoring will be contractor designed.

SECTION B-B

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

DETAIL "A"

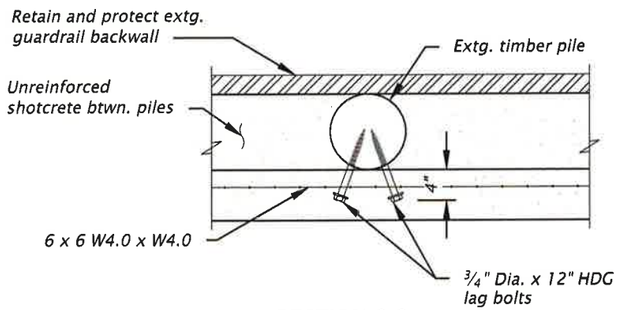
No Scale

SECTION A-A

No Scale

Notes:

1. Excavate around the existing pile shown to a depth of 2'-0" min. to facilitate the installation of HSS Round Steel Tube.
2. Drill the portion of exposed pile to verify that a 2" (minimum) solid timber shell remains.
   -If there is less than a 2" solid shell remaining, extend the excavation until 1'-2" of pile with a solid 2" shell is exposed.
   (Note: Need at least 1'-4" clear from bottom of cap.)
3. Install temporary shoring support at each pile, see Traffic control plans TC-01 and TC-02 prior to jacking.
4. Cut and remove existing timber pile. Cut shall be at least 1'-2" from bottom of cap. Cut shall be horizontal and straight.
5. Remove all of the remaining rotten timber core. Treat remaining timber with 1 - ¾" x 3" borate rod and copper naphthenate from QPL.
6. Place HSS round tube, Bottom of round tube shall be a minimum of 2'-0" below final ground level.
7. Fill voids with high early strength concrete. Use steel rod to ensure proper consolidation. Leave a gap to facilitate welding of cover plate.
8. Field weld cover plate in place.
9. Use grout vents to complete the pour. Wait for concrete strength to reach 2500 psi before preloading pile.
10. Install channels and plates to existing cap as shown.
11. Set 20 ton hydraulic jack between bearing plates and preload the pile to jacking load 15 tons . Lock out jack at desired preload.
12. Field measure, cut, and weld in place channel shims. Ensure tight fit with good bearing.
13. Unload and remove hydraulic jack.
14. Field weld 3/8" shim plates. Plates shall be same height as channel shims.



SECTION C-C

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

STRUCTURE NO.	02058
BDS DWG NO.	104468
CALC. BOOK	----
HWY: 0006 M.P.: 7.57	
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NORTH SANTIAM RIVER (MILL CITY) BRIDGE REHABILITATION

FIRST AVENUE
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Drafter: Jim Culpepper
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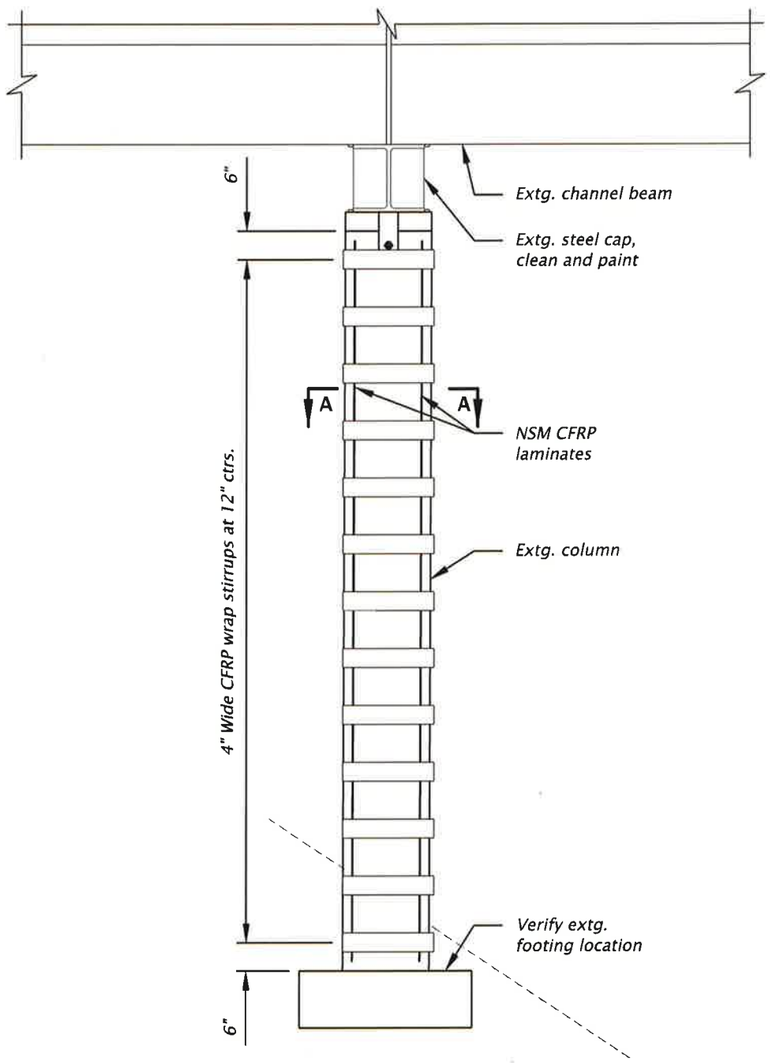
Checker: Nowzar Ardalan

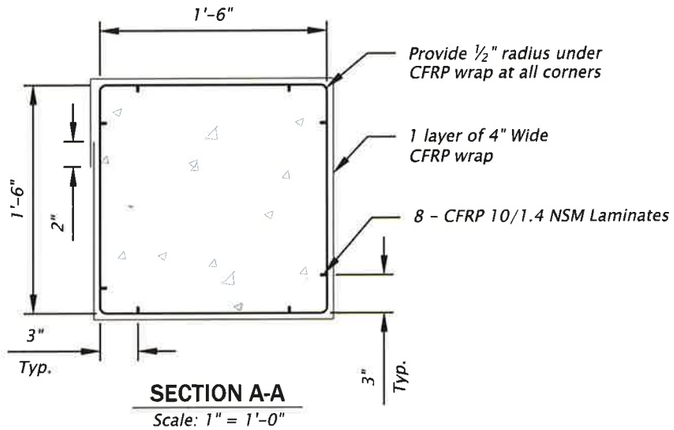
BENT 7 REPAIR DETAILS

SHEET NO. J07



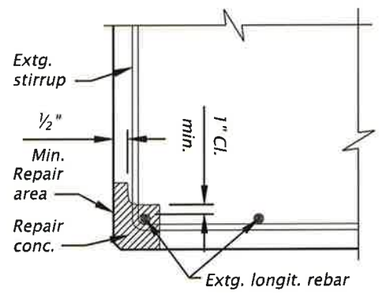
CONCRETE COLUMN REPAIR DETAIL

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



SECTION A-A

Scale: 1" = 1'-0"



Concrete Repair Notes:

Save and protect existing rebar. Saw cut the edges of the repair area to ½" minimum depth. Reduce saw cut depth as required to avoid damage to existing rebar. Remove concrete in repair area to sound concrete and to a minimum ½" depth from original surface but do not remove less than the minimum limits shown or as directed by the Engineer. Clean exposed rebar. Repair areas with a concrete repair mortar that is approved for the site conditions. All areas of repair shall receive a final surface finish matching the texture and color of existing concrete.

CONCRETE REPAIR DETAIL AT EXPOSED REBAR

No Scale

NOTES:

For general notes, see Sht. J02 .

For CFRP NSM Details and notes, see this sheet and Sht. J09 .

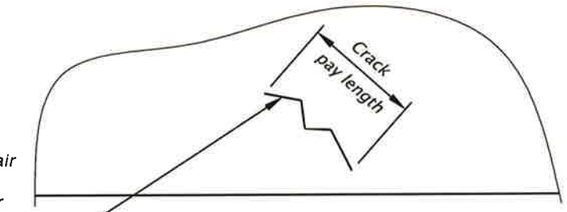
CFRP NOTES:

CARBON FIBER LAYERS (FLEXURAL)

Modulus of Elasticity (E_f) = 33,000 ksi
Ultimate tensile strength of CFRP (f^*_{fu}) = 550 ksi
Ultimate rupture strain of CFRP (ϵ^*_{fu}) = 0.016667
Thickness of CFRP strips (t_f) = 0.013 in/ply

EXTERNALLY BONDED LAMINATE OR NSM STRIPS (FLEXURAL)

Modulus of Elasticity (E_f) = 23,000 ksi
Ultimate tensile strength of CFRP (f^*_{fu}) = 390 ksi
Ultimate rupture strain of CFRP (ϵ^*_{fu}) = 0.016667
Thickness of laminate strip (t_f) = 0.055 in
Area of laminate strip (A_f) = 0.0217 in²



Epoxy injection repair of concrete cracks with a width greater than 0.015 in. or as directed by engineer

Note:
Measure pay length for crack injection as the minimum distance between ends of crack along each vertical face of the member to be sealed.

CRACK REPAIR DETAIL

No Scale

STRUCTURE NO.	02058
BDS DWG NO.	104469
CALC. BOOK	---
HWY: 0006 M.P.: 7.57	
COUNTY	LINN
DATE	04/2020

REGISTERED PROFESSIONAL ENGINEER
11821PE
OREGON
JULY 16, 1982
GUIDO A. PORTIER
RENEWS: 12-31-2020

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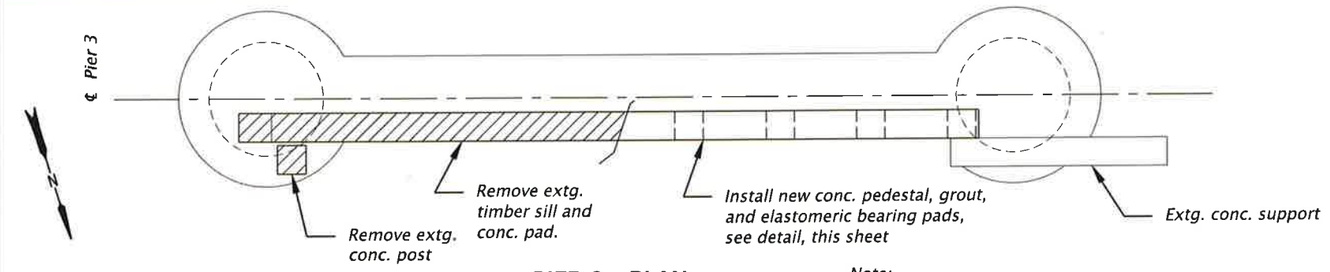
NORTH SANTIAM RIVER (MILL CITY) BRIDGE REHABILITATION
FIRST AVENUE
LINN COUNTY

Designer: Jasper Heckman — Reviewer: Guido Portier
Drafter: Jim Culpepper — Checker: Nowzar Ardalan

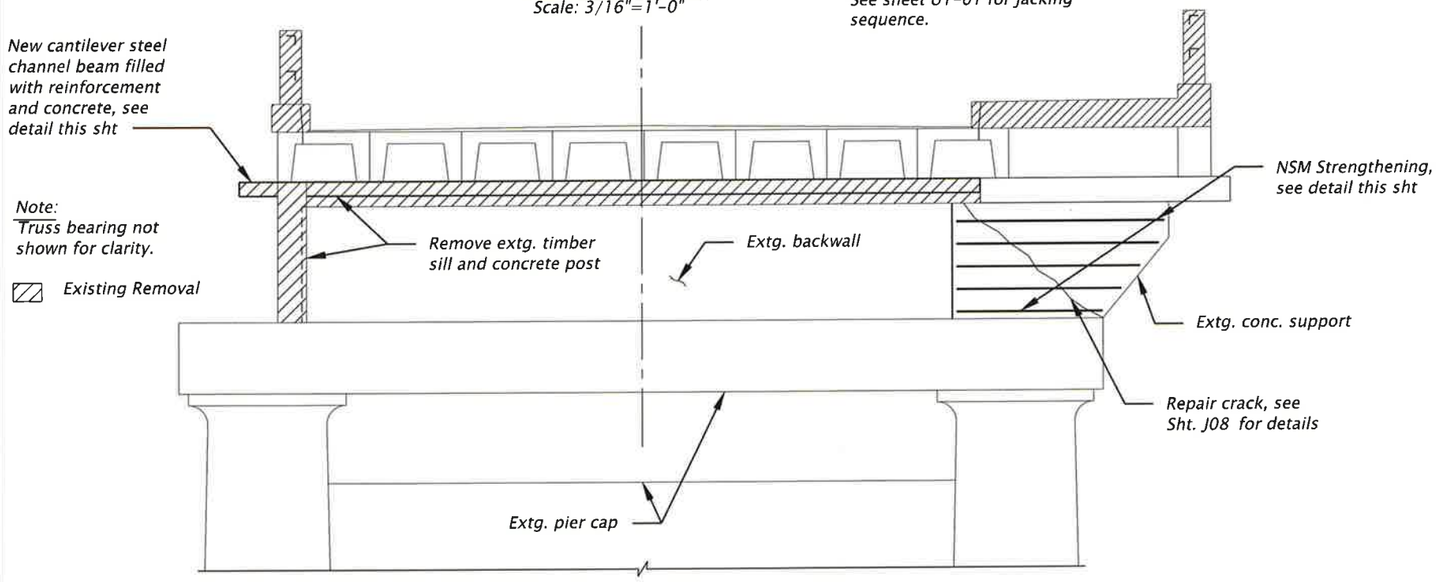
BENT 8 & 9 REPAIR DETAILS

SHEET NO. J08

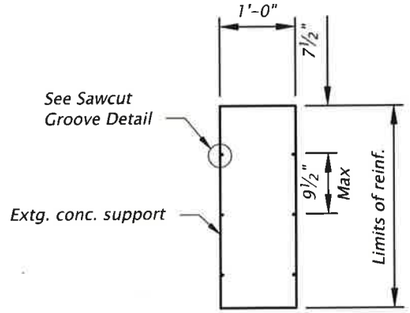


PIER 3 - PLAN
Scale: 3/16"=1'-0"

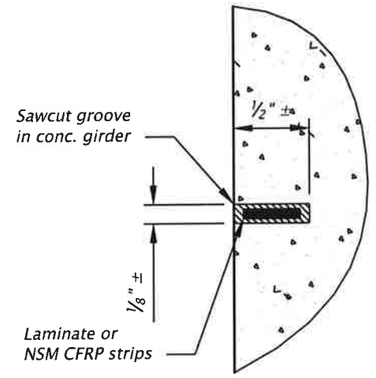
Note:
See sheet UT-01 for jacking sequence.



PIER 3 - NORTH FACE
Scale: 3/16"=1'-0"

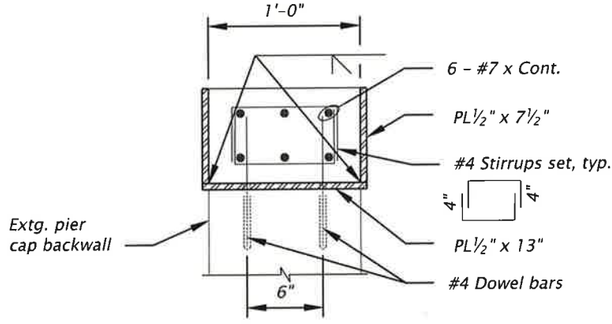


NSM STRENGTHENING DETAIL
Scale: 1/2" = 1'-0"

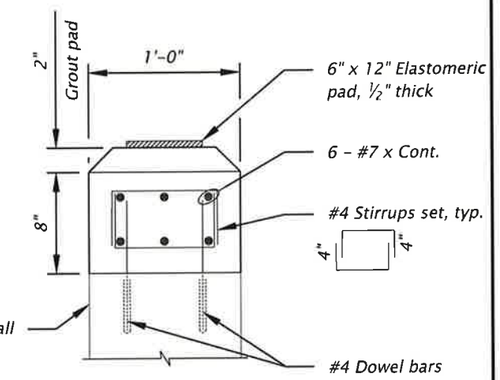


NSM - Near Surface Mount

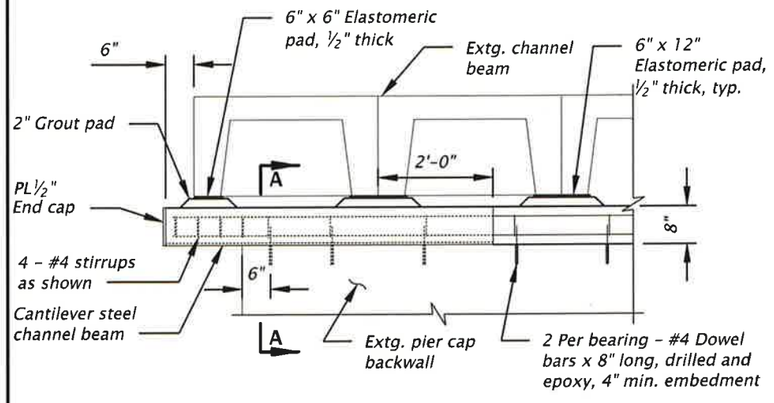
SAWCUT GROOVE DETAIL
No Scale



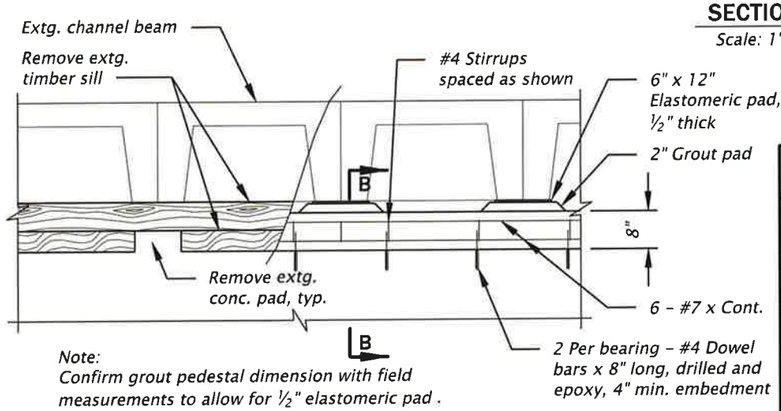
SECTION A-A
Scale: 1"=1'-0"



SECTION B-B
Scale: 1"=1'-0"



CANTILEVER STEEL CHANNEL BEAM DETAIL
Scale: 3/8"=1'-0"



Note:
Confirm grout pedestal dimension with field measurements to allow for ½" elastomeric pad .

GROUT PEDESTAL AND ELASTOMERIC PAD DETAIL
Scale: 3/8"=1'-0"

STRUCTURE NO.	02058
BDS DWG NO.	104470
CALC. BOOK	---
HWY: 0006 M.P.: 7.57	
COUNTY	LINN
DATE	04/2020

REGISTERED PROFESSIONAL ENGINEER 11821PE OREGON JULY 16, 1982 GUIDO A. PORTIER
RENEWS: 12-31-2020

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LINN COUNTY ROAD DEPARTMENT
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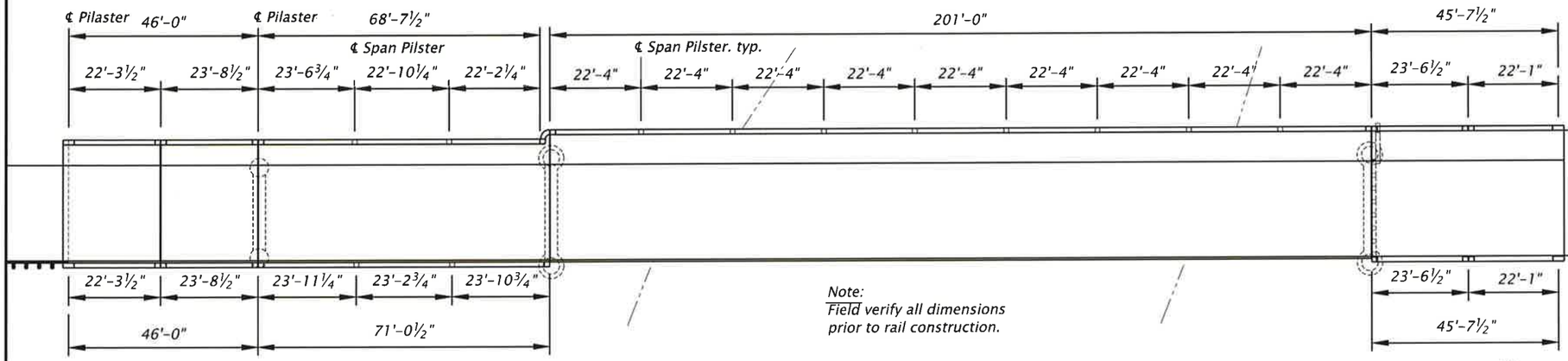
NORTH SANTIAM RIVER (MILL CITY) BRIDGE REHABILITATION
FIRST AVENUE
LINN COUNTY

Designer: Jasper Heckman
Drafter: Jim Culpepper
Reviewer: Guido Portier
Checker: Nowzar Ardalan

PIER 3 SIDEWALK CORBEL CRACK REPAIR & BEARING REPLACEMENT

SHEET NO. J09

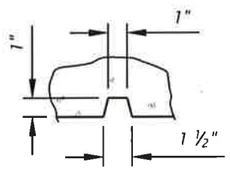


Note:
Field verify all dimensions prior to rail construction.

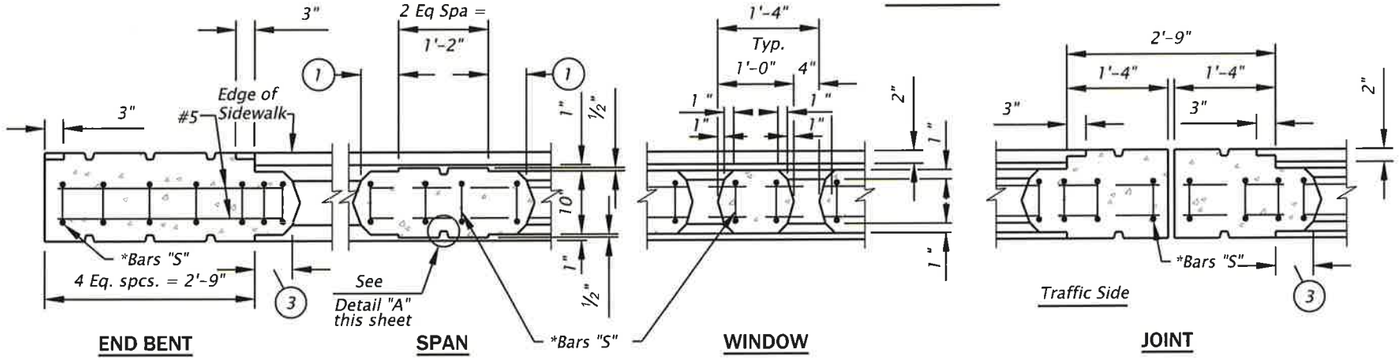
RAIL LAYOUT
Scale: 1/2" = 1'-0"

REFERENCE NOTES:

1. Dimension shall be the same for all posts adjacent to Span Pilasters in a span. Dimensions may vary from span to span, Min = 3", Max = 7 ".
2. Rail Joints shall be provided at ends of span and shall be the same width as deck joint opening, except that rail joints over construction joints must be ¼" minimum to 1" maximum in width. Forming material used in joints may be left in place if it is light in color and compressible, such as the following materials: polystyrene, molded cork granules, sponge rubber sheet, etc. If forming material is not left in place, the bottom 6" shall be plugged with preformed expansion joint material (2 each face) to prevent drainage and staining.
3. Dimensions shall be the same for all posts adjacent to End Bent Pilasters in a span. Min = 6", Max 9"



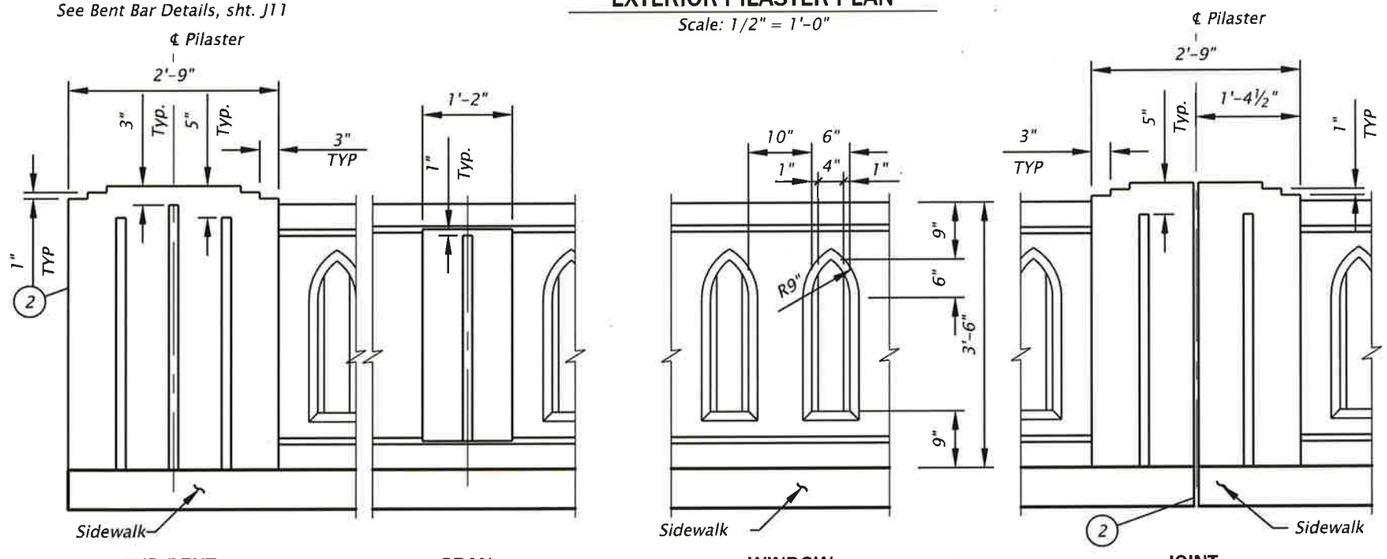
DETAIL "A"
No Scale



END BENT | SPAN | WINDOW | JOINT

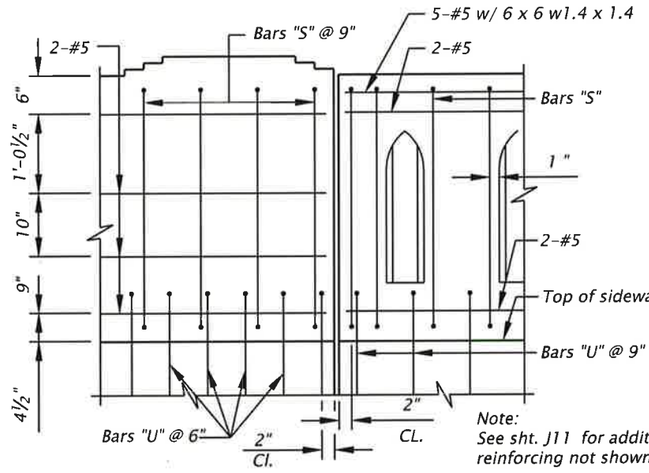
Note:
See Bent Bar Details, sht. J11

EXTERIOR PILASTER PLAN
Scale: 1/2" = 1'-0"



END BENT | SPAN | WINDOW | JOINT

EXTERIOR PILASTER ELEVATIONS
Scale: 1/2" = 1'-0"



Note:
See sht. J11 for additional reinforcing not shown.

TYPICAL REINFORCING PLACEMENT
Scale: 1/2" = 1'-0"

STRUCTURE NO.	02058
BDS DWG NO.	104471
CALC. BOOK	----
HWY: 0006	M.P.: 7.57
COUNTY	LINN
DATE	04/2020

REGISTERED PROFESSIONAL ENGINEER
11821PE
OREGON
JULY 16, 1982
GUIDO A. PORTIER
RENEWS: 12-31-2020

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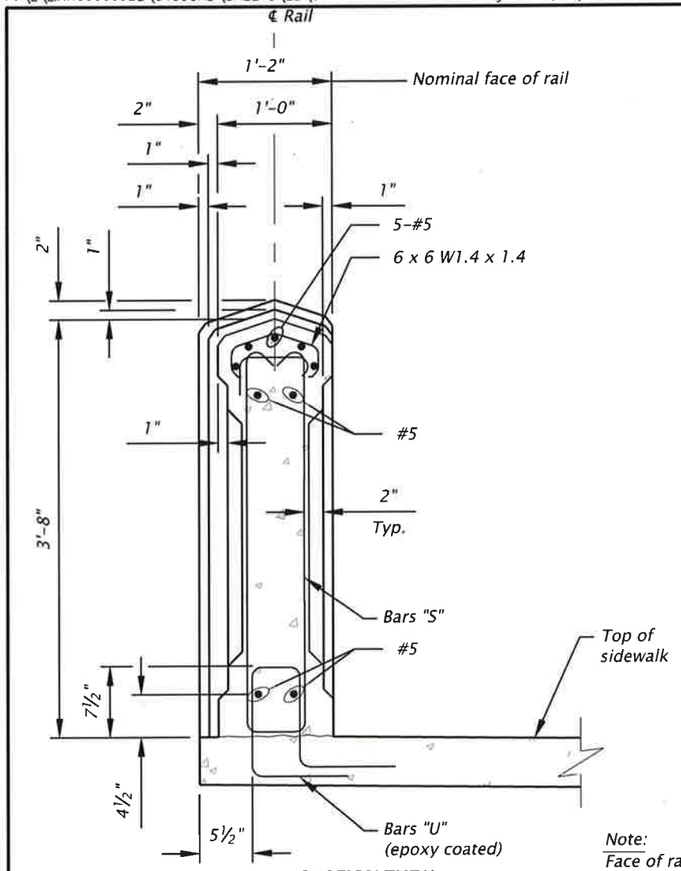
NORTH SANTIAM RIVER (MILL CITY) BRIDGE REHABILITATION
FIRST AVENUE
LINN COUNTY

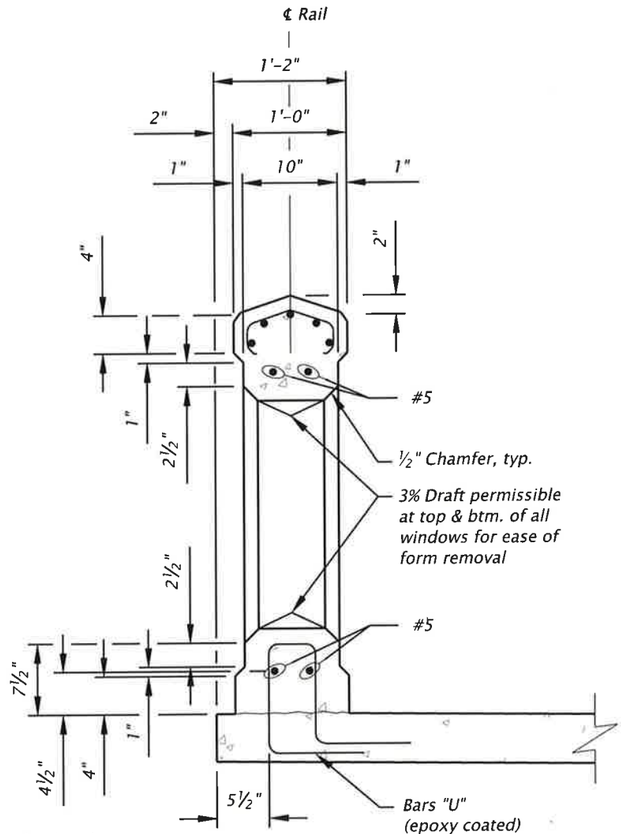
Designer: Jasper Heckman | Reviewer: Guido Portier
Drafter: Jim Culpepper | Checker: Nowzar Ardalan

RAIL DETAILS 1 OF 2 | SHEET NO. J10



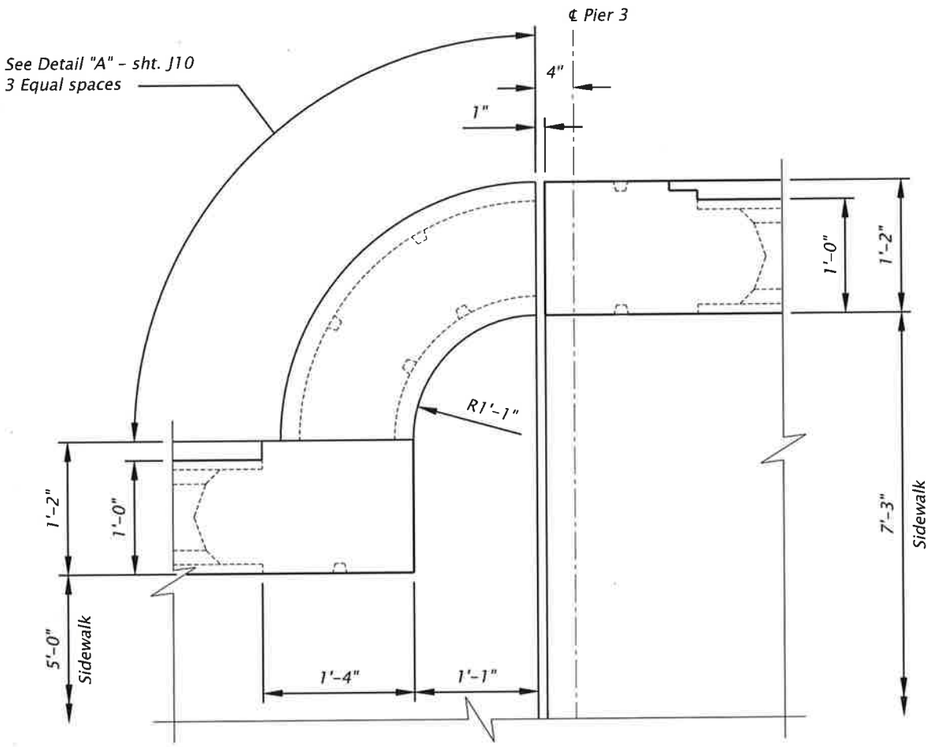
SECTION THRU
POST ON BRIDGE SIDEWALK
(Showing Pilaster)

Note:
Face of rail shall be plumb unless otherwise approved by Engineer.

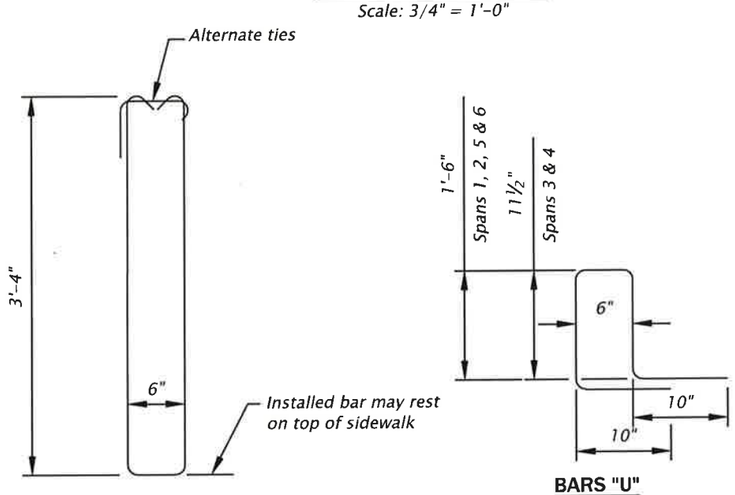


SECTION THRU
WINDOW ON BRIDGE SIDEWALK

SECTIONS THRU RAIL
Scale: 3/4" = 1'-0"



SIDEWALK TURNOUT
Scale: 3/4" = 1'-0"



BARS "S" (#5)

BARS "U"
(#5 expoxy coated)

BAR "S" AND "U" DETAIL
Scale: 3/4" = 1'-0"

STRUCTURE NO.	02058
BDS DWG NO.	104472
CALC. BOOK	----
HWY: 0006	M.P.: 7.57
COUNTY	LINN
DATE	04/2020

REGISTERED PROFESSIONAL ENGINEER
11821PE
OREGON
JULY 16, 1982
GUIDO A. PORTIER
RENEWS: 12-31-2020

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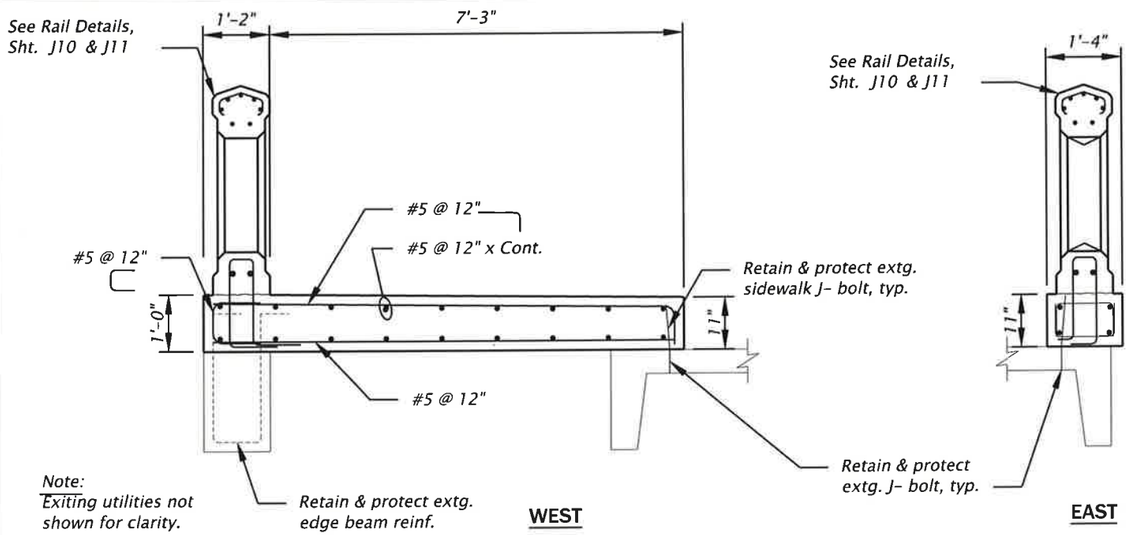
NORTH SANTIAM RIVER (MILL CITY) BRIDGE REHABILITATION
FIRST AVENUE
LINN COUNTY

Designer: Jasper Heckman
Drafter: Jim Culpepper
Reviewer: Guido Portier
Checker: Nowzar Ardalan

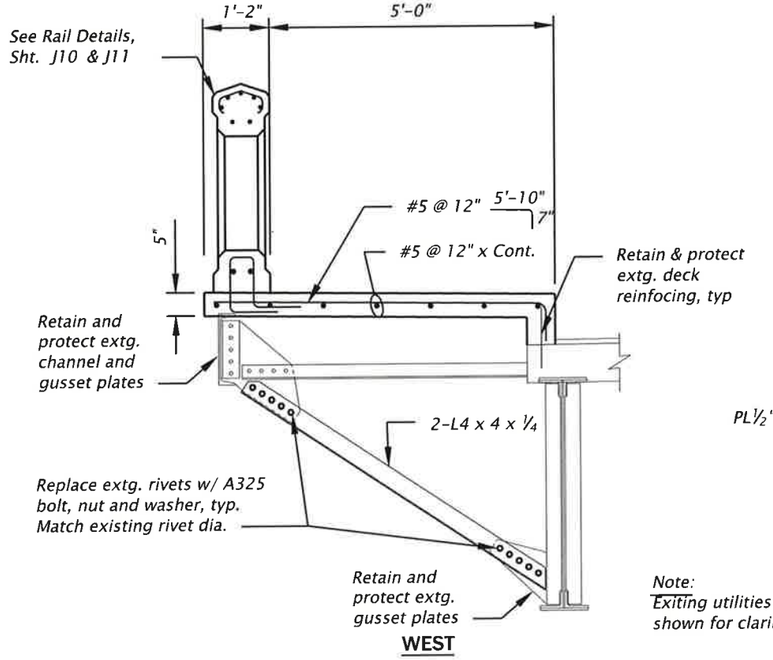
RAIL DETAILS 2 OF 2

SHEET NO. J11



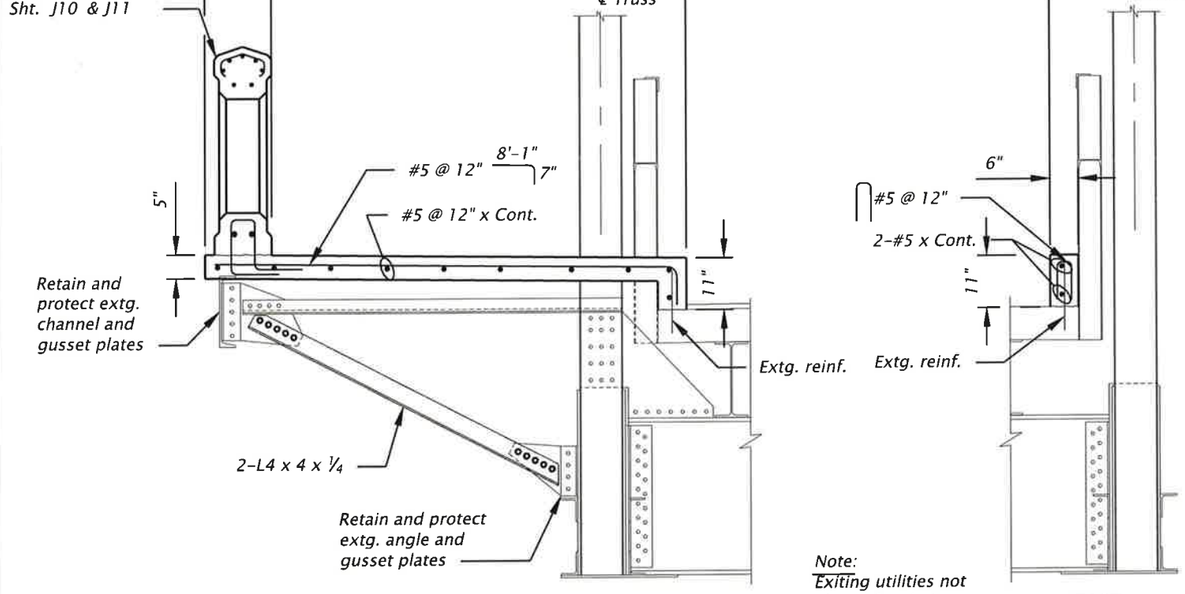
SIDEWALK AND CURB DETAILS - SPANS 1, 2, 5 & 6

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



SIDEWALK AND CURB DETAILS - SPAN 3

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



SIDEWALK AND CURB DETAILS - SPAN 4

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

Sidewalk, Rail Replacement and Curb Repair:

1. *Remove existing rail, remove existing sidewalk, remove existing concrete from top and front faces of curbs, and protect existing concrete below the removal limits.*
2. *Replace angles on sidewalk bracket.*
3. *Recast concrete sidewalk.*
4. *Recast concrete on top and front faces of curbs.*
5. *Contruct new rail.*

STRUCTURE NO.	02058
BDS DWG NO.	104473
CALC. BOOK	---
HWY: 0006 M.P.: 7.57	
COUNTY	LINN
DATE	04/2020

REGISTERED PROFESSIONAL ENGINEER 11821PE OREGON JULY 16, 1982 GUIDO A. PORTIER
RENEWS: 12-31-2020

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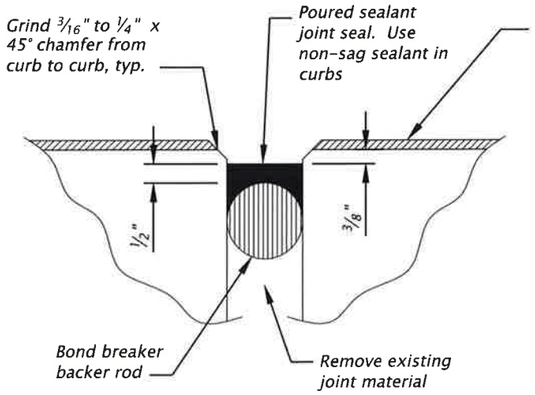
NORTH SANTIAM RIVER (MILL CITY) BRIDGE REHABILITATION
FIRST AVENUE
LINN COUNTY

Designer: Jasper Heckman — Reviewer: Guido Portier
Drafter: Jim Culpepper — Checker: Nowzar Ardalan

SIDEWALK AND CURB REPLACEMENT DETAILS — SHEET NO. J12



Note:
See BR140 for details not shown.

JOINT REPAIR WITH POURED SEALS

No Scale

STRUCTURE NO.	02058
BDS DWG NO.	104474
CALC. BOOK	---
HWY: 0006 M.P.: 7.57	
COUNTY	LINN
DATE	04/2020

REGISTERED PROFESSIONAL ENGINEER
11821PE
OREGON
JULY 16, 1982
GUIDO A. PORTIER
RENEWS: 12-31-2020

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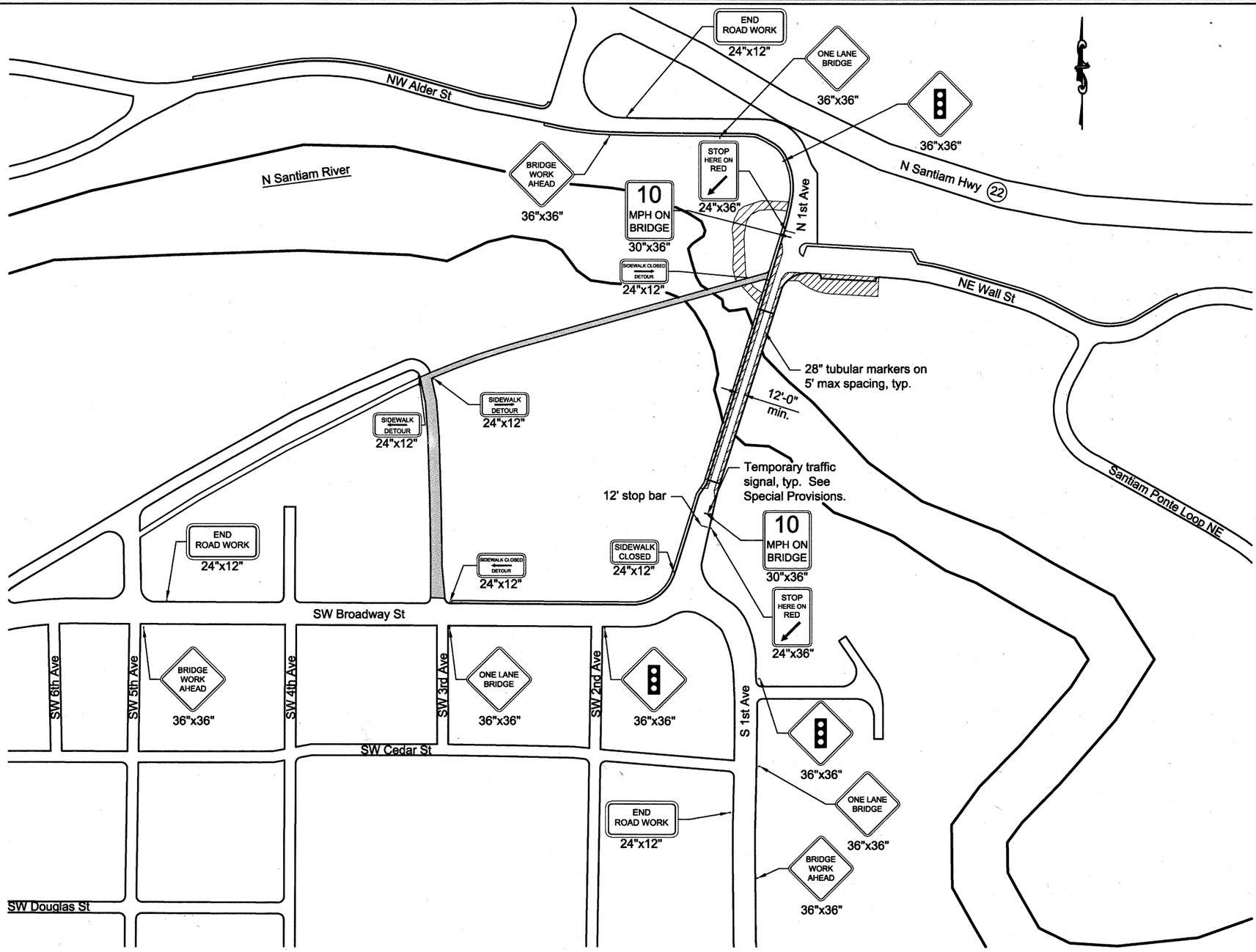
NORTH SANTIAM RIVER (MILL CITY) BRIDGE REHABILITATION
FIRST AVENUE
LINN COUNTY

Designer: Jasper Heckman | Reviewer: Guido Portier
Drafter: Jim Culpepper | Checker: Nowzar Ardalan

MISCELLANEOUS DETAILS

SHEET NO. J13



Notes:

1. Follow the current edition of the *Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD)*, the ODOT Sign Policy and Guidelines, and ODOT Standard Drawings for sign details and placement.
2. Portable traffic signals do not require State Traffic Engineer approval.
3. Supply portable traffic signals meeting the requirements of Section 00225.
4. Tubular markers not required where bridge rail is present.
5. Pedestrian access to remain open at all times.

Temporary Pedestrian Access Route (TPAR)

Construction/Staging Area

TRAFFIC CONTROL PLAN - ONE LANE OPEN ACROSS BRIDGE

NO SCALE

WARNING

If this bar does not measure 1" then drawing is not to scale

LINN COUNTY ROAD DEPARTMENT
3010 FERRY STREET SW
ALBANY, OREGON 97322
PHONE: (541) 967-3919
FAX: (541) 924-0202
E-MAIL: Roads@co.linn.or.us

COUNTY COMMISSION
ROGER NYQUIST
CHAIRMAN
JOHN LINDSEY
WILLIAM TUCKER

ROADMASTER
DARRIN L. LANE, P.E.
COUNTY ENGINEER
CHARLES R. KNOLL, P.E.

DATE:	REVISION:	BY:

BRIDGE NO: 0006-0745 DATE: 02/21/2020
PROJECT NO: CR1805
TRS: T. 09 S., R. 03 E., SECTION 29 & 30, W.M.
DESIGNED BY: K. Groom CHECKED BY: D. Malone
DRAFTED BY: K. Groom REVIEWED BY: C. Knoll

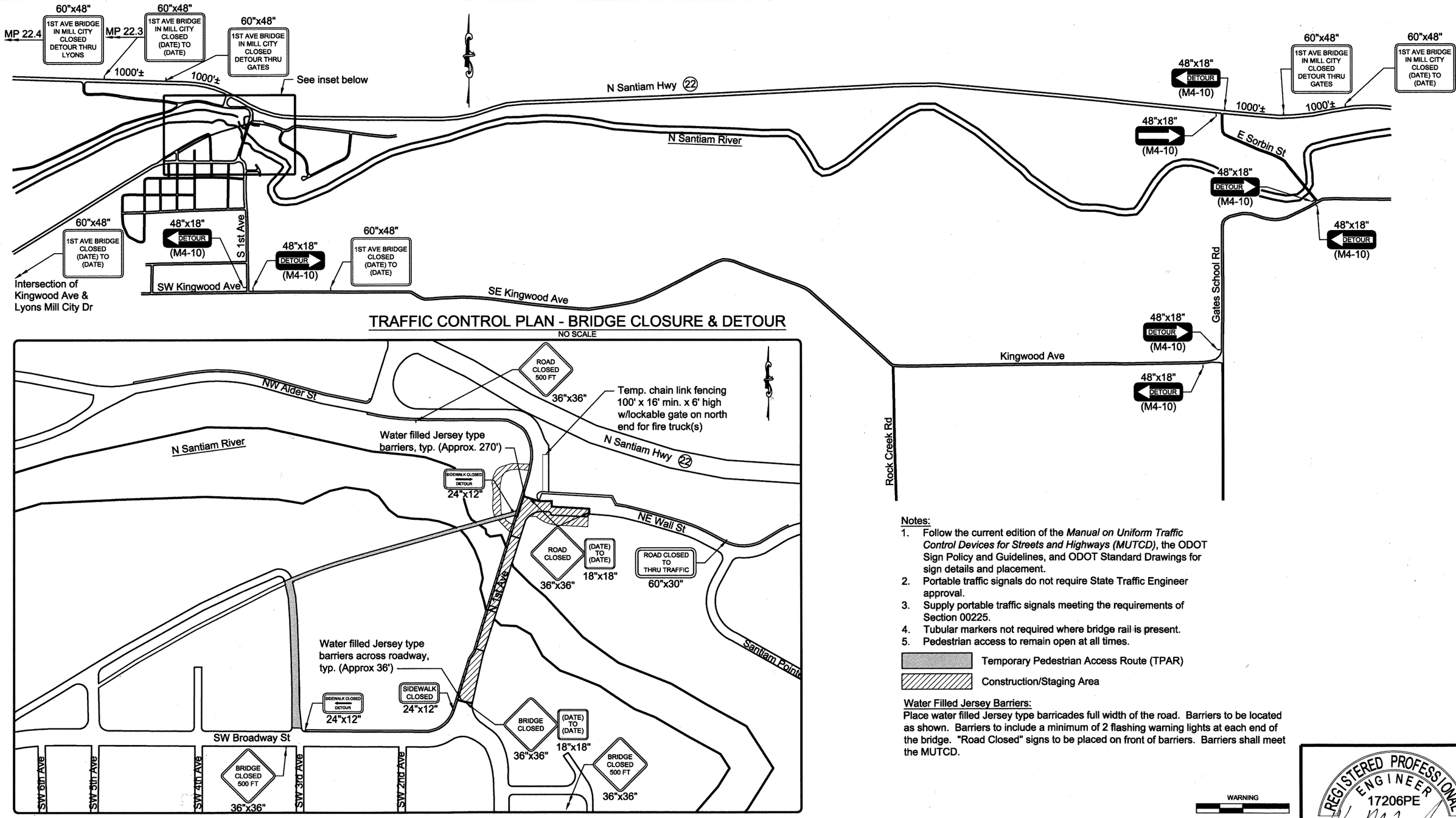
NORTH SANTIAM RIVER (MILL CITY) BRIDGE
FIRST AVENUE
LINN COUNTY
2020

TRAFFIC CONTROL PLANS
ONE-LANE CLOSURE AND TEMP. PED. ACCESS ROUTE

SCALE: AS SHOWN | SHEET TC-01

REGISTERED PROFESSIONAL ENGINEER
17206PE
OREGON
JULY 19, 1994
KEVIN M. GROOM
Expires: 6/30/2021

2/21/2020 11:00 AM



Notes:

1. Follow the current edition of the *Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD)*, the ODOT Sign Policy and Guidelines, and ODOT Standard Drawings for sign details and placement.
2. Portable traffic signals do not require State Traffic Engineer approval.
3. Supply portable traffic signals meeting the requirements of Section 00225.
4. Tubular markers not required where bridge rail is present.
5. Pedestrian access to remain open at all times.

Temporary Pedestrian Access Route (TPAR)

Construction/Staging Area

Water Filled Jersey Barriers:

Place water filled Jersey type barricades full width of the road. Barriers to be located as shown. Barriers to include a minimum of 2 flashing warning lights at each end of the bridge. "Road Closed" signs to be placed on front of barriers. Barriers shall meet the MUTCD.

WARNING

If this bar does not measure 1" then drawing is not to scale

REGISTERED PROFESSIONAL ENGINEER
17206PE
OREGON
JULY 19, 1994
KEVIN M. GROOM
Expires: 6/30/2021

LINN COUNTY ROAD DEPARTMENT
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ALBANY, OREGON 97322
PHONE: (541) 967-3919
FAX: (541) 924-0202
E-MAIL: Roads@co.linn.or.us

COUNTY COMMISSION
ROGER NYQUIST
CHAIRMAN
JOHN LINDSEY
WILLIAM TUCKER

ROADMASTER
DARRIN L. LANE, P.E.
COUNTY ENGINEER
CHARLES R. KNOLL, P.E.

DATE:	REVISION:	BY:

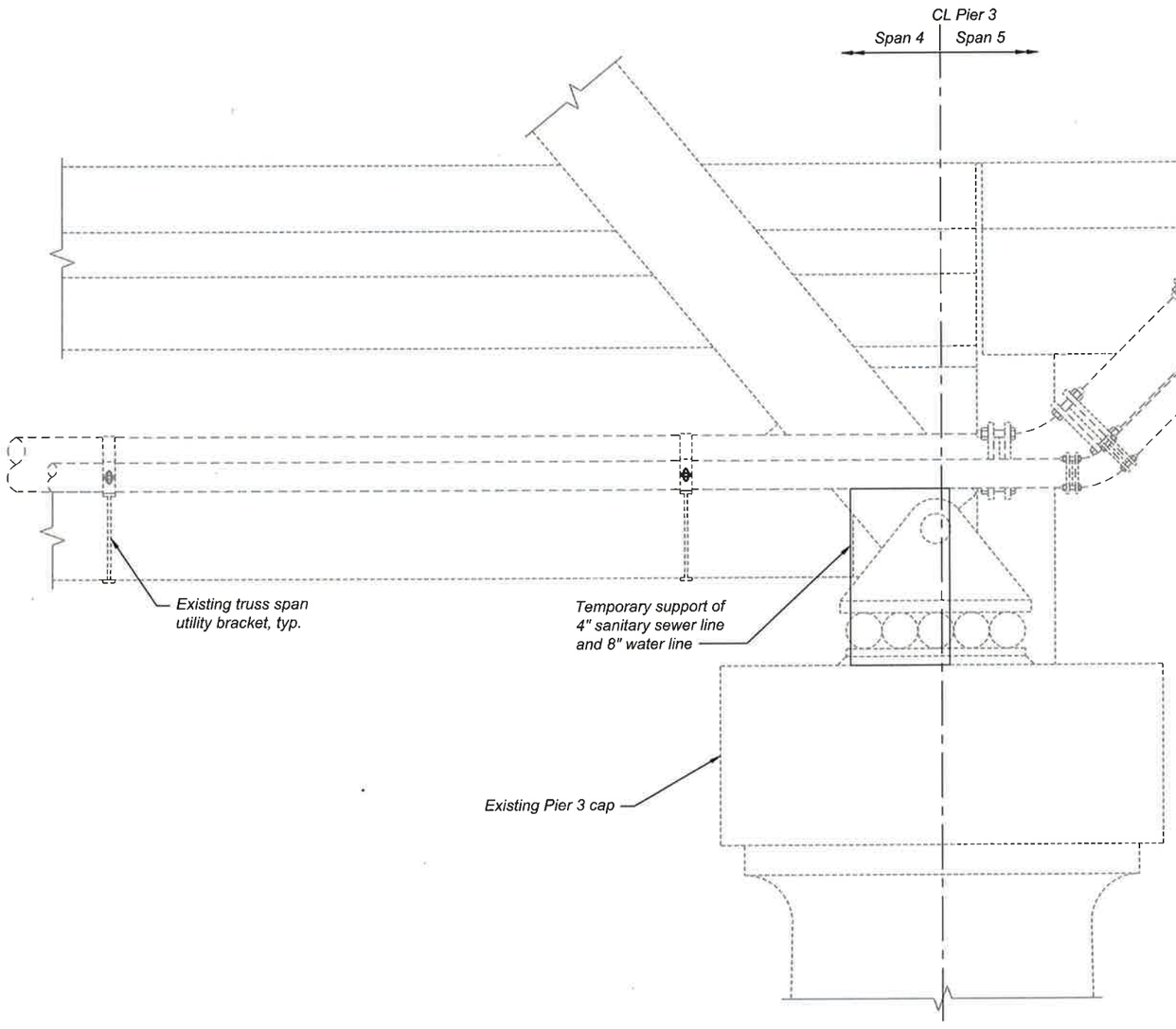
BRIDGE NO: 0006-0745	DATE: 02/21/2020	
PROJECT NO: CR1805		
TRS: T. 09 S., R. 03 E., SECTION 29 & 30, W.M.		
DESIGNED BY: K. Groom	CHECKED BY: D. Malone	
DRAFTED BY: K. Groom	REVIEWED BY: C. Knoll	

NORTH SANTIAM RIVER (MILL CITY) BRIDGE
FIRST AVENUE
LINN COUNTY
2020

TRAFFIC CONTROL PLANS
BRIDGE CLOSURE & DETOUR AND TEMP. PED. ACCESS ROUTE

SCALE: AS SHOWN | SHEET TC-02

K:\Projects - Current\BR 0006-0745 1st Ave\KMG\ACAD\Traffic Control Plans.dwg



PIER 3 - JACKING
NO SCALE

Bridge Jacking Sequence:
Maximum raising of either the truss span or the approach span is 1"

Raising the Truss Span:

1. Contractor to design jacking scheme.
2. Close bridge to traffic.
3. Install Engineer approved temporary support of the 4" sanitary sewer line and 8" water line at Pier 3. Allow the utilities to move up if necessary, but not move down.
4. Completely remove the two utility brackets closet to Pier 3 from the truss span such that the utilities can move up or down relative to the truss span.
5. Remove the top hold-down straps from the two utility brackets closest to Pier 3 from the approach span.
6. Install jacks and raise the truss span no more than 1" and lock into raised position for work to be done. See Sheet J05 for details.
7. If sewer and water line have lifted off the temporary support, shim as required to ensure support at Pier 3.
8. Remove existing roller bearings and replace with new elastomeric bearing pads.
9. Just prior to lowering truss span, remove shims from temporary utility support at Pier 3.
10. Lower truss span to final position.
11. Reinstall all utility brackets and top hold-down straps

Raising the Approach Span:

1. Erect temporary jacking support (See Sheet J03).
2. Close bridge to traffic.
3. Install Engineer approved temporary support of the 4" sanitary sewer line and 8" water line at Pier 3. Allow the utilities to move up if necessary, but not move down.
4. Completely remove the two utility brackets closet to Pier 3 from the approach span such that the utilities can move up or down relative to the approach span.
5. Remove the top hold-down straps from the two utility brackets closest to Pier 3 from the truss span.
6. Install jacks and raise the approach span no more than 1" and lock into raised position for work to be done.
7. If sewer and water line have lifted off the temporary support, shim as required to ensure support at Pier 3.
8. Remove existing timber bearing plate and replace with new concrete pedestal and elastomeric bearing pads.
9. Just prior to lowering approach span, remove shims from temporary utility support at Pier 3.
10. Lower approach span to final position.
11. Reinstall all utility brackets and top hold-down straps

STRUCTURE NO.	02058
BDS DWG NO.	----
CALC. BOOK	----
HWY: 0006 M.P.: 7.57	
COUNTY	LINN
DATE	04/2020

REGISTERED PROFESSIONAL ENGINEER
11821PE
OREGON
JULY 16, 1982
GUIDO A. PORTIER
RENEWS: 12-31-2020

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NORTH SANTIAM RIVER (MILL CITY) BRIDGE REHABILITATION
FIRST AVENUE
LINN COUNTY

Designer: Jasper Heckman — Reviewer: Guido Portier
Drafter: Jim Culpepper — Checker: Nowzar Ardalan

PIER 3 JACKING SEQUENCE

SHEET NO. UT-01