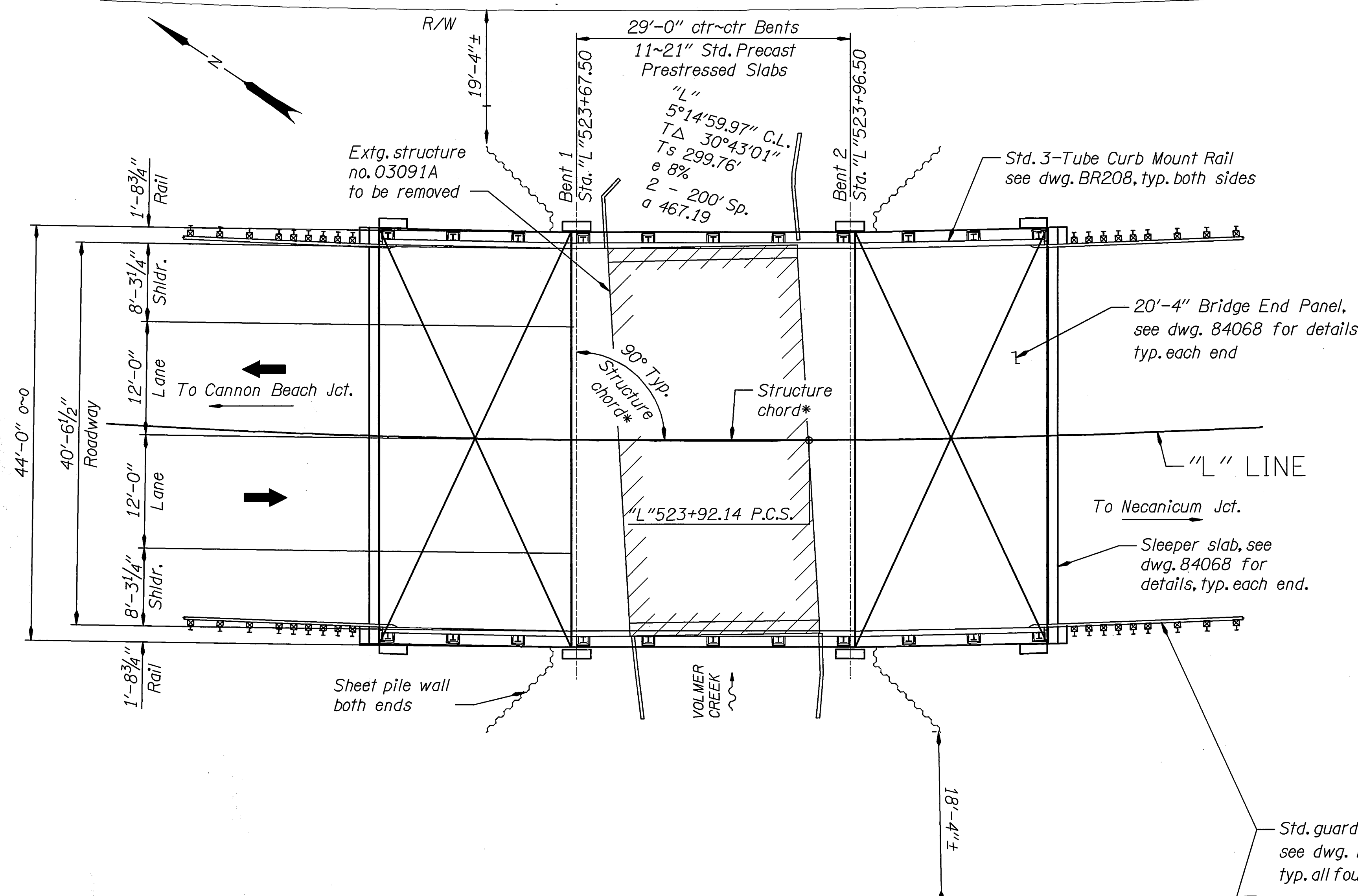


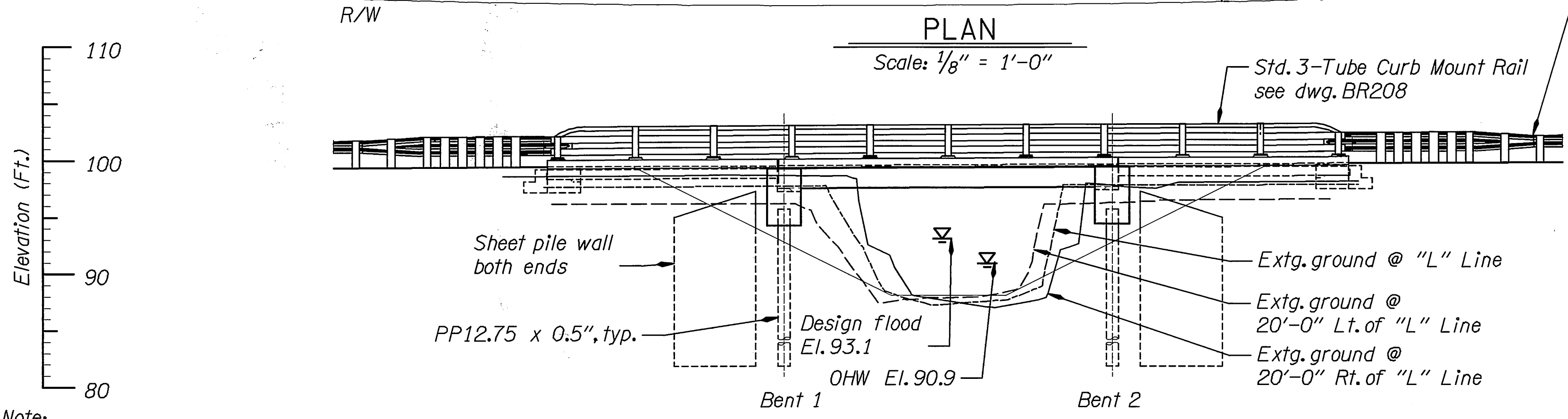
LOCATION MAP
No Scale



*Structure Chord = a line from the intersection of the "L" ϕ and Bent 1 ϕ to the intersection of "L" ϕ and Bent 2 ϕ . See dwg. 84059 for diagram.

HYDRAULIC DATA					
ITEMS	UNITS	DESIGN FLOOD	BASE FLOOD	ROADWAY OVERTOPPING FLOOD, OR 500 YR	PERMIT CONDITION
DISCHARGE	cf/s	478	530	672	196
FREQUENCY	years	50	100	500	2
HIGH WATER ELEVATION AT UPSTREAM FACE OF BRIDGE	feet	92.3	92.5	93.1	90.9
BACKWATER	feet	-0.2	-0.4	-1.0	N/A
SCOUR ELEVATION	ft	84.7	84.5	84.0	N/A

See shts. GP and GP-2 for bridge riprap protection.

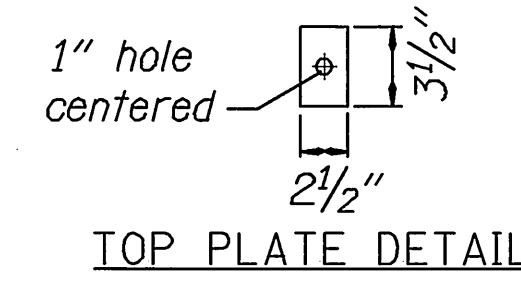
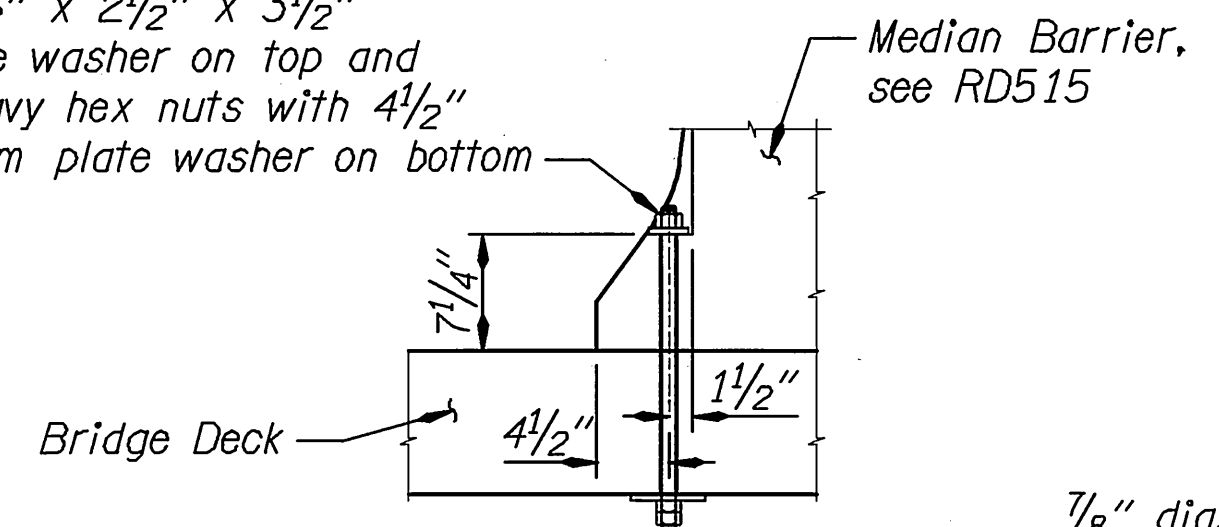


Note:
Elevations shown are based on National Geodetic Vertical Datum (MSL=0.0)

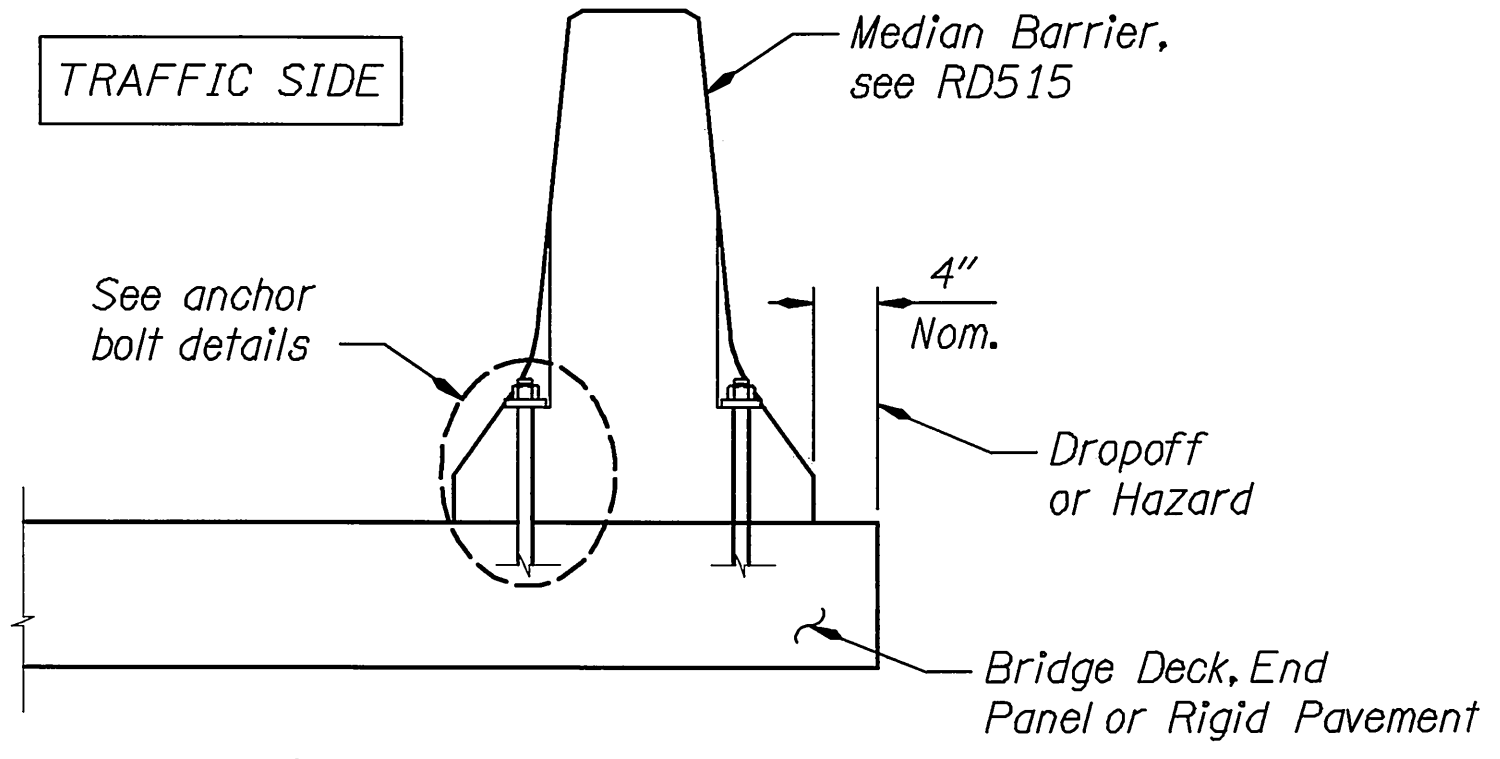
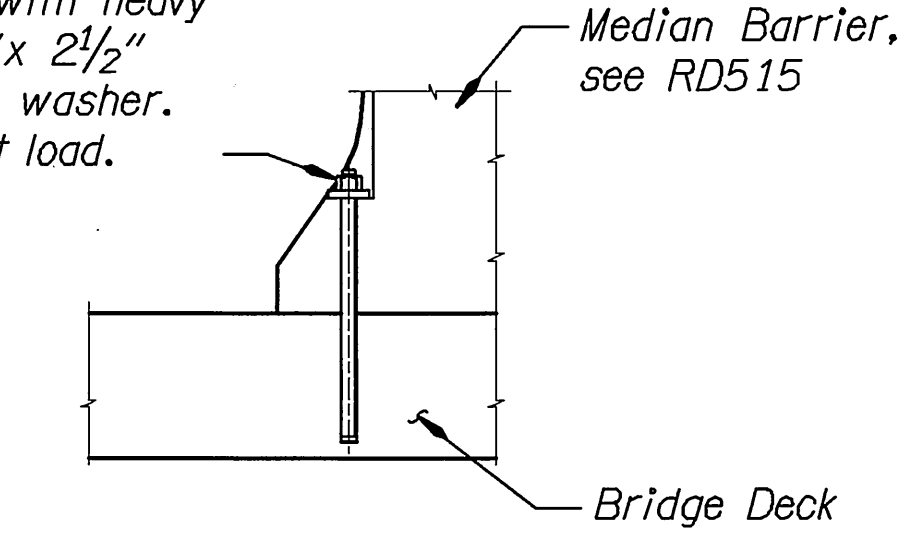
SCALE WARNING
If scale bar doesn't measure one inch then drawing is not to scale

DATE	REVISION	BY	DRAFTER: Sandra Gish	REGISTERED PROFESSIONAL ENGINEER 72562PE RONALD MERLE BLACKETER NOVEMBER 13, 2001 RENEWS: 12-31-2011	STRUCTURE NO. 21188	VOLMER CREEK, HWY 47 OR26: VOLMER CREEK BRIDGE & JOHNSON CREEK BRIDGE PROJECT SUNSET HIGHWAY (M.P. 2.24) CLATSOP CO.	SHEET 1 OF 12 DRAWING NO. 84057
			DESIGNER: Ron Blacketer, P.E.	OREGON DEPARTMENT OF TRANSPORTATION	DATE JULY 2010		
ACCOMPANIED BY DWGS. 84058 thru 84068, BR208, BR209, BR400, BR415, BR445.			CHECKER: Susan E. Kocher, P.E.	REGION 2 TECH CENTER	CALC. BOOK 6231	PLAN AND ELEVATION	
			REVIEWER: Al Heyn, P.E.				

7/8" dia. A307 (A36) anchor bolt through with heavy hex nut & 1/2" x 2 1/2" x 3 1/2" top plate washer on top and 2 - heavy hex nuts with 4 1/2" Sq. bottom plate washer on bottom



7/8" dia. Resin bonded/ concrete anchor with heavy hex nut and 1/2" x 2 1/2" x 3 1/2" top plate washer. 15,000 lb. pullout load.



THROUGH BOLTED ANCHOR ON EXISTING STRUCTURE

RESIN BONDED ANCHOR ON PRECAST SLAB

NOTE: Avoid prestressing strands, reinforcing steel and slab voids when installing barrier anchors. Patch slab surface after removing bolts.

GENERAL NOTES:

Provide all materials and perform all work according to the 2008 Oregon Standard Specifications for Construction and Project Special Provisions.

Bridge is designed in accordance with the 2007 edition of the AASHTO LRFD Bridge Design Specifications including 2008 interim revisions with an allowance of 40 psf for present wearing surface and 25 psf for future wearing surface and the following Live Loads:

Service and Strength I Limit State:

- * HL-93: Design truck (or trucks per LRFD 3.6.1.3) or the design tandems and the design lane load.

Strength II Limit State:

- * ODOT Type STP-5BW Permit Truck
- * ODOT Type STP-4E Permit Truck

Seismic design is performed in accordance with the "AASHTO LRFD Bridge Design Specifications" ("AASHTO Guide Specifications for LRFD Seismic Bridge Design") as modified by the "ODOT Bridge Design & Drafting Manual" for 500- and 1000-year criteria. The Horizontal Peak Ground Acceleration Coefficients (PGA) for the 500-year (Serviceable) and 1000-year (No Collapse) return periods are 0.24g and 0.39g respectively, based on 2002 USGS Seismic Hazard Maps. The bridge site is defined as a Site Class C with Site Factor (Fpga) of 1.16 (500-year) and 1.00 (1000-year).

Provide reinforcing steel according to ASTM Specification A706, or AASHTO M31 (ASTM A615) Grade 60 except where labeled specifically in the plans. Provide Field bent bars according to ASTM Specification A706. Use the following splice lengths (unless shown otherwise):

Bar Size	#3	#4	#5	#6	#7	#8	#9	#10	#11	#14	#18
Splice Length	Uncoated 1'-0"	1'-4"	1'-8"	2'-0"	2'-8"	3'-6"	4'-4"	5'-7"	6'-9"	Not Permitted	Not Permitted

Increase lap splice length by 40% where more than 12 inches of concrete is cast below reinforcing steel.

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

Provide all construction joints with roughened surface in accordance to 00540.43(a), or as directed by the Engineer.

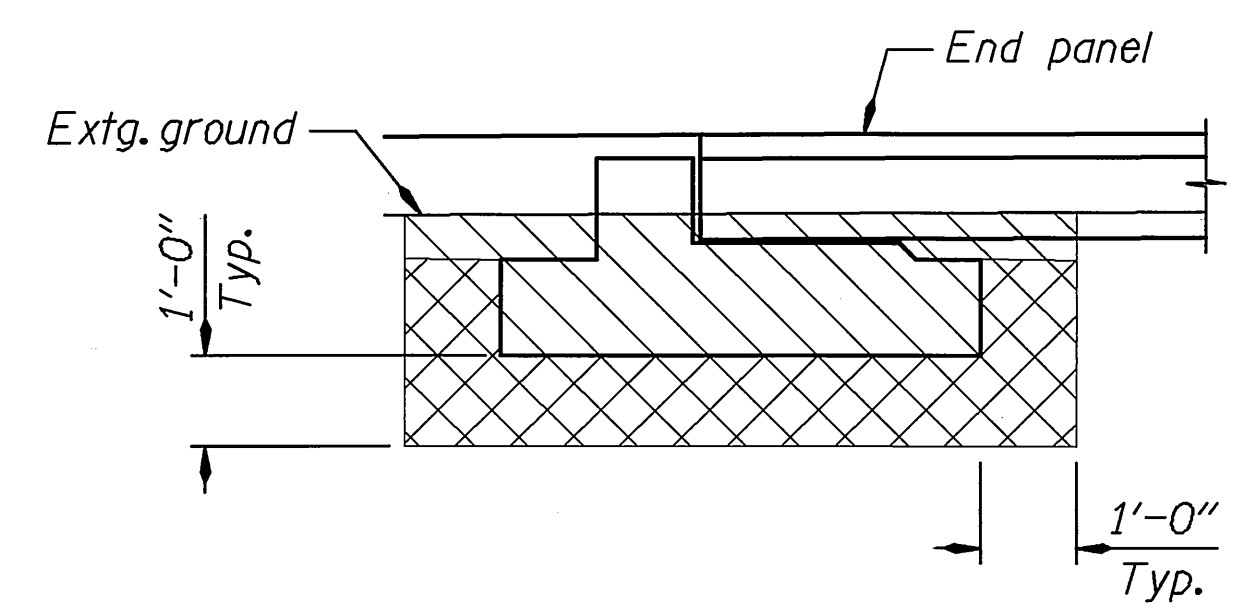
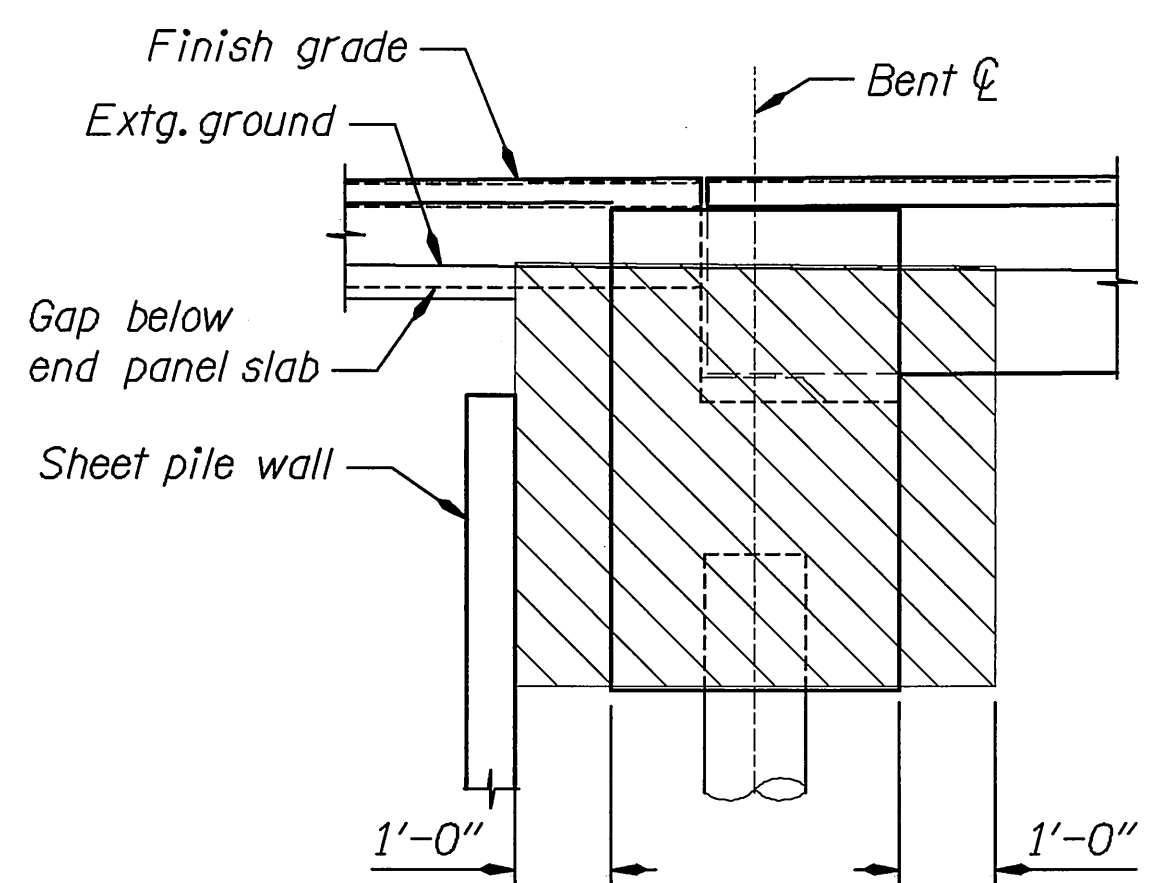
Design law requires the rules set forth in OAR 952-001-0010 through 952-001-0090, adopted by the Oregon Utility Notification Center, to be observed. Copies of these rules may be obtained from the Center.

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

Provide Class 4000 -1 1/2", 1" or 3/4" concrete for precast reinforced concrete pile caps, sleeper slabs and shear lugs.

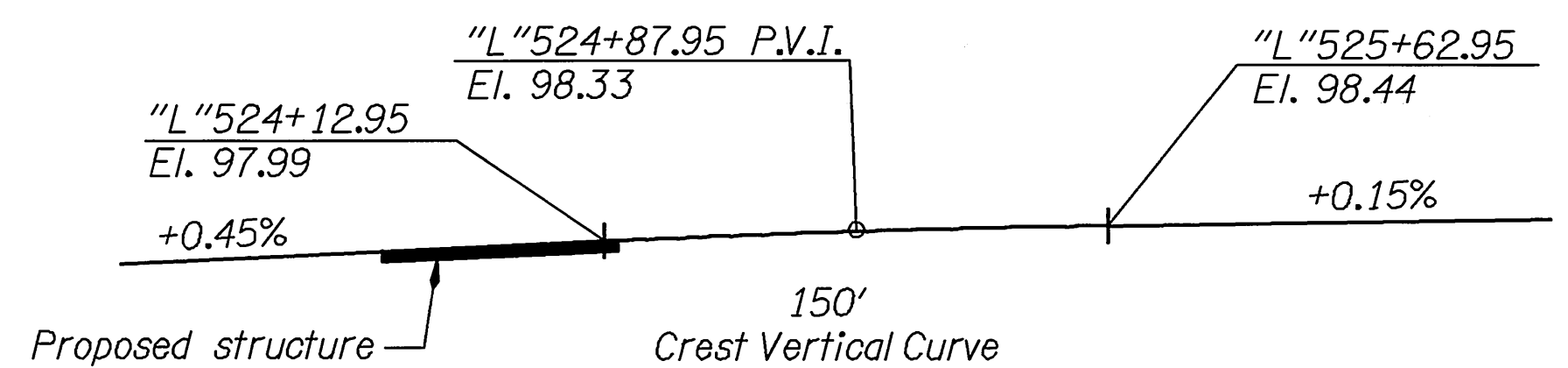
Provide High Early Strength grout per the QPL for all grouting procedures.

TEMPORARY CONC. BARRIER DETAILS



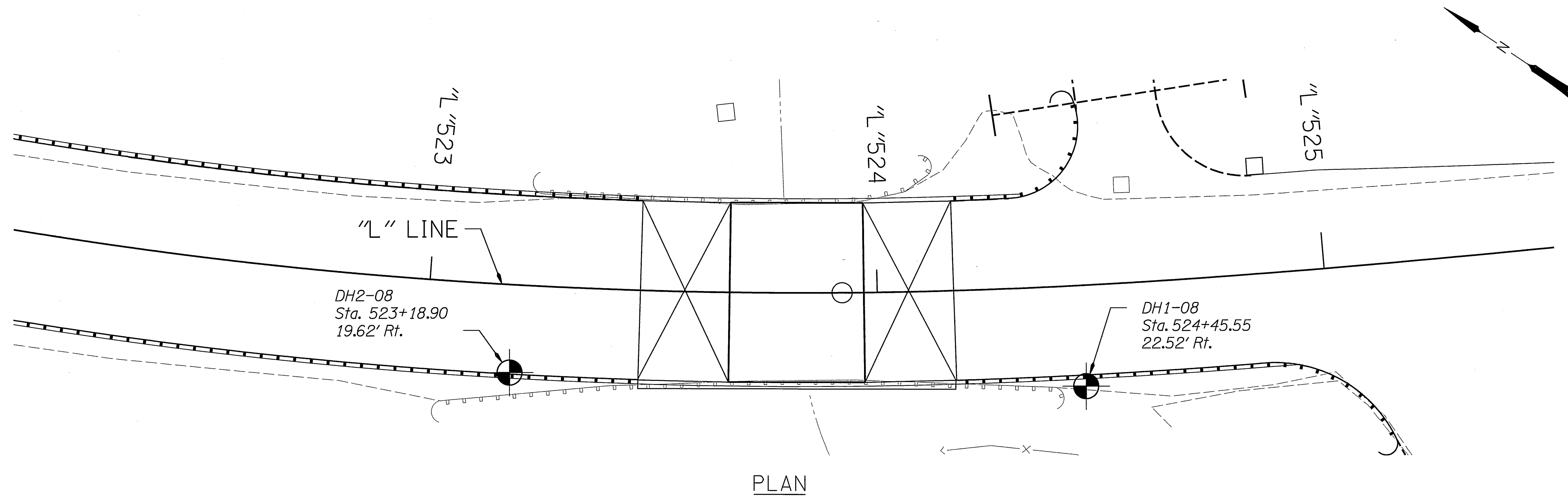
Pay Limits of Structure Excavation
Pay Limits of Granular Structure Backfill

EXCAVATION PAY LIMITS

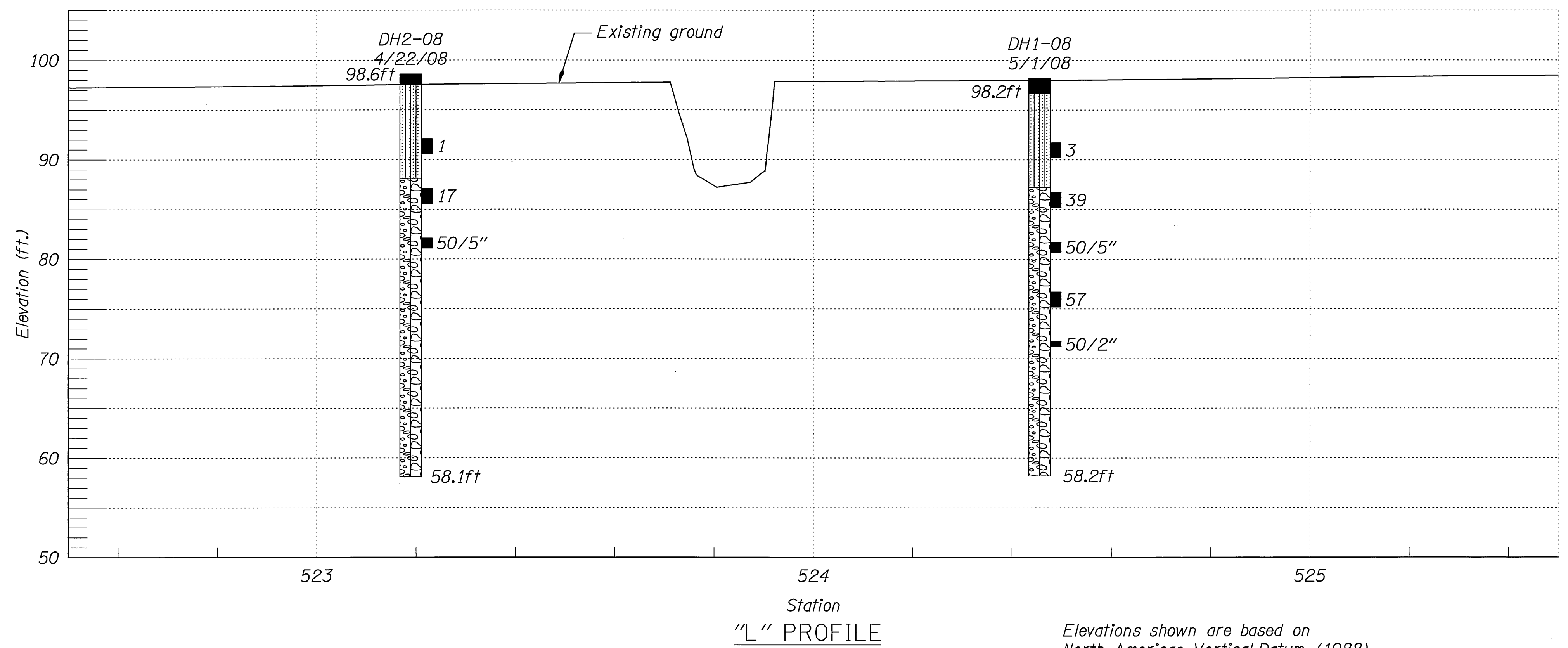


"L" GRADELINE DIAGRAM

	DATE	REVISION	BY	DRAFTER: Sandra Gish			STRUCTURE NO.	VOLMER CREEK, HWY 47 OR26: VOLMER CREEK BRIDGE & JOHNSON CREEK BRIDGE PROJECT SUNSET HIGHWAY (M.P. 2.24) CLATSOP CO.	SHEET
				DESIGNER: Ron Blacketer, P.E.			21188		2
ACCOMPANIED BY DWGS. See dwg. 84057				CHECKER: Susan E. Kocher, P.E.			DATE	GENERAL NOTES AND GRADELINE DIAGRAM	OF
			REVIEWER: Al Heyn, P.E.	Al Heyn, P.E.		REGION 2 TECH CENTER	JULY 2010		12
							CALC. BOOK	DRAWING NO.	
							6231	84058	



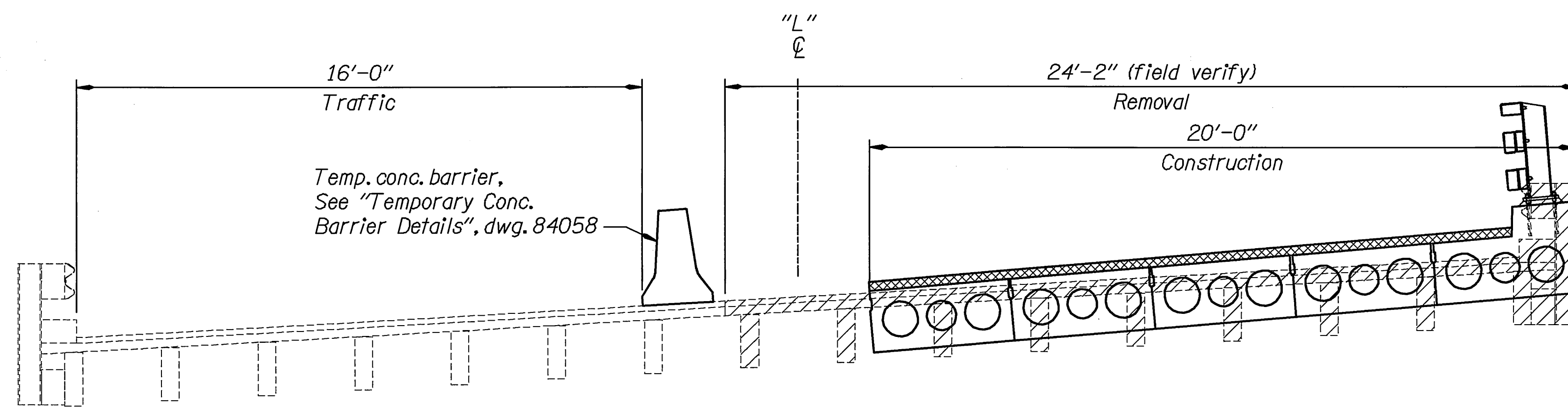
- Unit Description
- Asphalt Concrete and Aggregate Base (Fill)
 - Silty SAND with some gravel to sandy SILT with some gravel and varying amounts of organics, SM to MH, orange brown and grey, medium plasticity, wet, very soft to medium stiff, gravel to 3" diameter (Fill)
 - GRAVEL with some sand and silt and cobbles to sandy GRAVEL with some silt, GP-GM, grey and orange brown, low plasticity to non plastic, wet, medium dense to very dense, cobbles to 6" diameter (Alluvium)



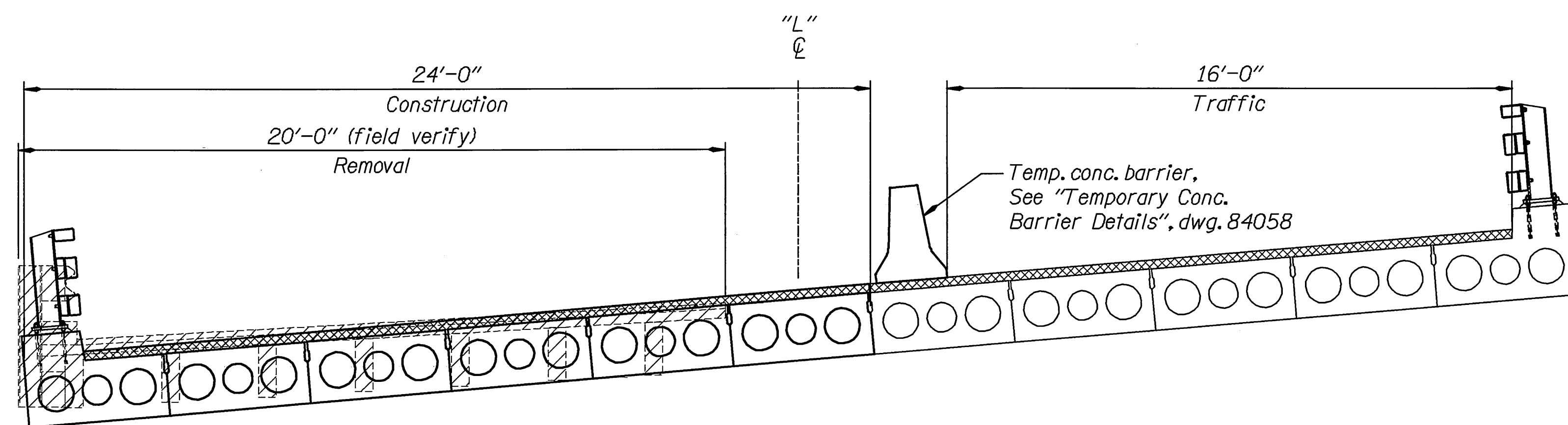
- Legend
- 24 ■ = Standard Penetration Test - N Value
 - U-1 □ = Undisturbed Sample

Geotechnical data shown on this drawing are a consolidation of information and/or revision in terminology from the drill logs. The drill logs used in compiling this drawing are available upon request. Contractor shall refer to geotechnical reports and drill logs and information contained therein.

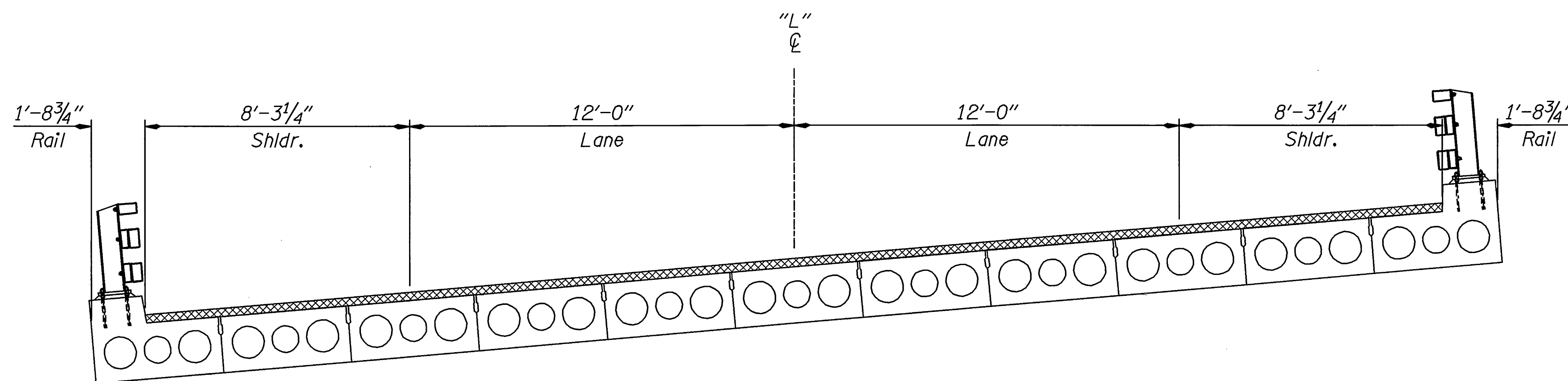
▲	DATE	REVISION	BY	DRAFTER: Michael Skelton			STRUCTURE NO.	VOLMER CREEK, HWY 47 OR26: VOLMER CREEK BRIDGE & JOHNSON CREEK BRIDGE PROJECT SUNSET HIGHWAY (M.P. 2.24) CLATSOP CO.	SHEET
				DESIGNER: Michael Tardif			21188		3
ACCOMPANIED BY DWGS. See dwg. 84057				CHECKER: ---			DATE	FOUNDATION DATA	OF
				REVIEWER: Dustin Haas			JULY 2010		12
REGION 2 TECH CENTER							CALC. BOOK		DRAWING NO.
									84059



STAGE II



STAGE III



FINAL CONFIGURATION

CONSTRUCTION SEQUENCE

STAGE I: Pile Installation

1. Place temporary traffic control devices and reduce traffic to a single lane.
2. Excavate at Pile Cap locations in the closed lane. Performing these steps simultaneously at both ends of the structure would be preferred.
3. Drive the specified Pipe Pile and Sheet Pile, cut and cap the Pipe Pile at the finished elevations, tie the location of each Pipe Pile with survey to ensure that the voids in the precast cap are cast in the correct location.
4. Backfill, compact, and replace the wearing surface on the first half of the ditch according to Sheet 2C.
5. Move the single lane of traffic to that location.
6. Continue excavating for pile caps on the second half of the road and drive the Pipe Pile and Sheet Pile at that location, cut and cap the Pipe Pile, tie the location of each Pipe Pile with survey to ensure that the voids in the precast cap are cast in the correct location.
7. Backfill, compact, and replace the wearing surface on the second half of the ditch according to Sheet 2C.
8. Remove the temporary traffic control devices and reopen both lanes to traffic.
9. Perform the previous construction steps at both ends of the proposed structure.
10. Fabricate the precast caps per the pipe pile survey data, and have them available for the "in-water" work.

STAGES II & III: Bridge Replacement

1. Return during the "In-water" work period.
2. Place temporary traffic barriers and reduce traffic to a single lane in the westbound lane.
3. Remove the first half of the existing bridge structure in the eastbound lane, utilize temporary shoring as required.
4. Excavate and expose the previously driven pipe pile in preparation for placement of the precast pile cap.
5. Perform channel reconstruction and place required riprap, provide temporary bracing for the sheet pile wall as required, do not use the pipe pile for the temporary bracing of the sheet pile wall.
6. Place the first half of the pile cap and verify its position, to ensure proper clearance for placement of the bridge slabs, prior to grouting the cap.
7. Brace and grout the pile cap per the drawings and specifications. Repeat at opposite end of structure.
8. Place the first half of the precast Bridge Slabs per the drawings.
9. Place the first half of the precast End Panel Sleeper Slab per the drawings.
10. Place the first half of the precast End Panel Slabs per the drawings.
11. The installation of the Bridge Rail and Shear Lugs should be coordinated with the placement of the precast slabs to prevent delays in opening the first half of the bridge to traffic.
12. Perform the required grouting of the first half of the bridge.
13. Install waterproofing membrane and wearing surface and move the single lane of traffic to the first half of the bridge.
14. Install second run of concrete barrier for weekend traffic.
15. Perform steps 3 thru 12 for the second half of the bridge structure.
16. Complete the wearing surface and reopen both lanes to traffic.

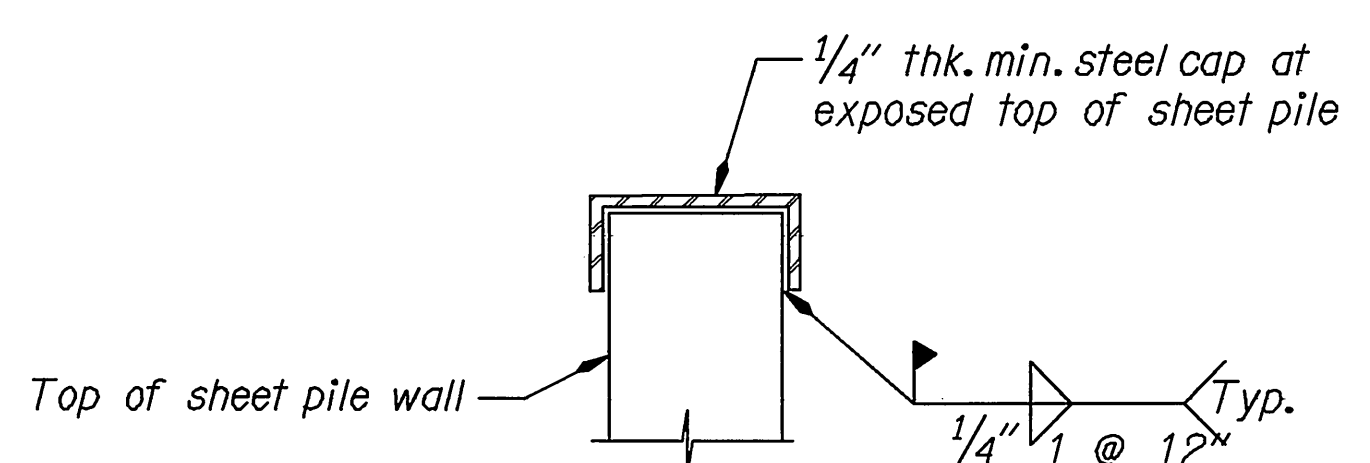
SHORING NOTES:

Provide all shoring as required for construction. The contractor shall determine the actual location, design and limits of all shoring. The locations and limits shown are only provided to alert the contractor that shoring is anticipated.

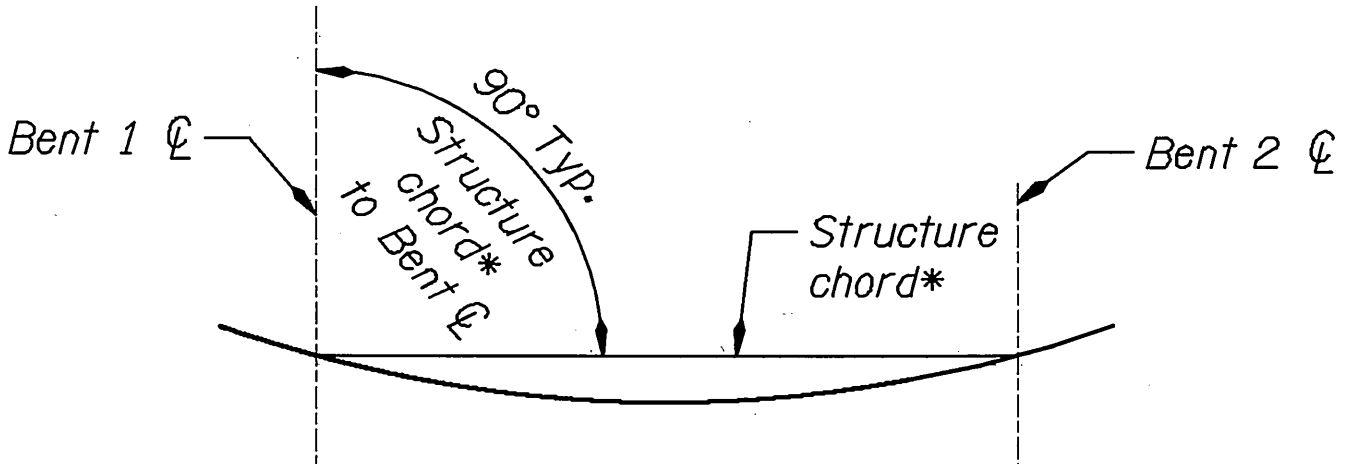
NOTE:

Alternate construction sequences or changes to the above construction sequence must be approved by the Project Manager.

▲	DATE	REVISION	BY	DRAFTER: Sandra Gish			STRUCTURE NO.	VOLMER CREEK, HWY 47 OR26: VOLMER CREEK BRIDGE & JOHNSON CREEK BRIDGE PROJECT SUNSET HIGHWAY (M.P. 2.24) CLATSOP CO.	SHEET
				DESIGNER: Ron Blacketer, P.E.			21188		4
ACCOMPANIED BY DWGS. See dwg. 84057				CHECKER: Susan E. Kocher, P.E.			DATE	CONSTRUCTION SEQUENCE	OF
			REVIEWER: Al Heyn, P.E.	JULY 2010			12		
						REGION 2 TECH CENTER	CALC. BOOK		DRAWING NO.
							6231		84060

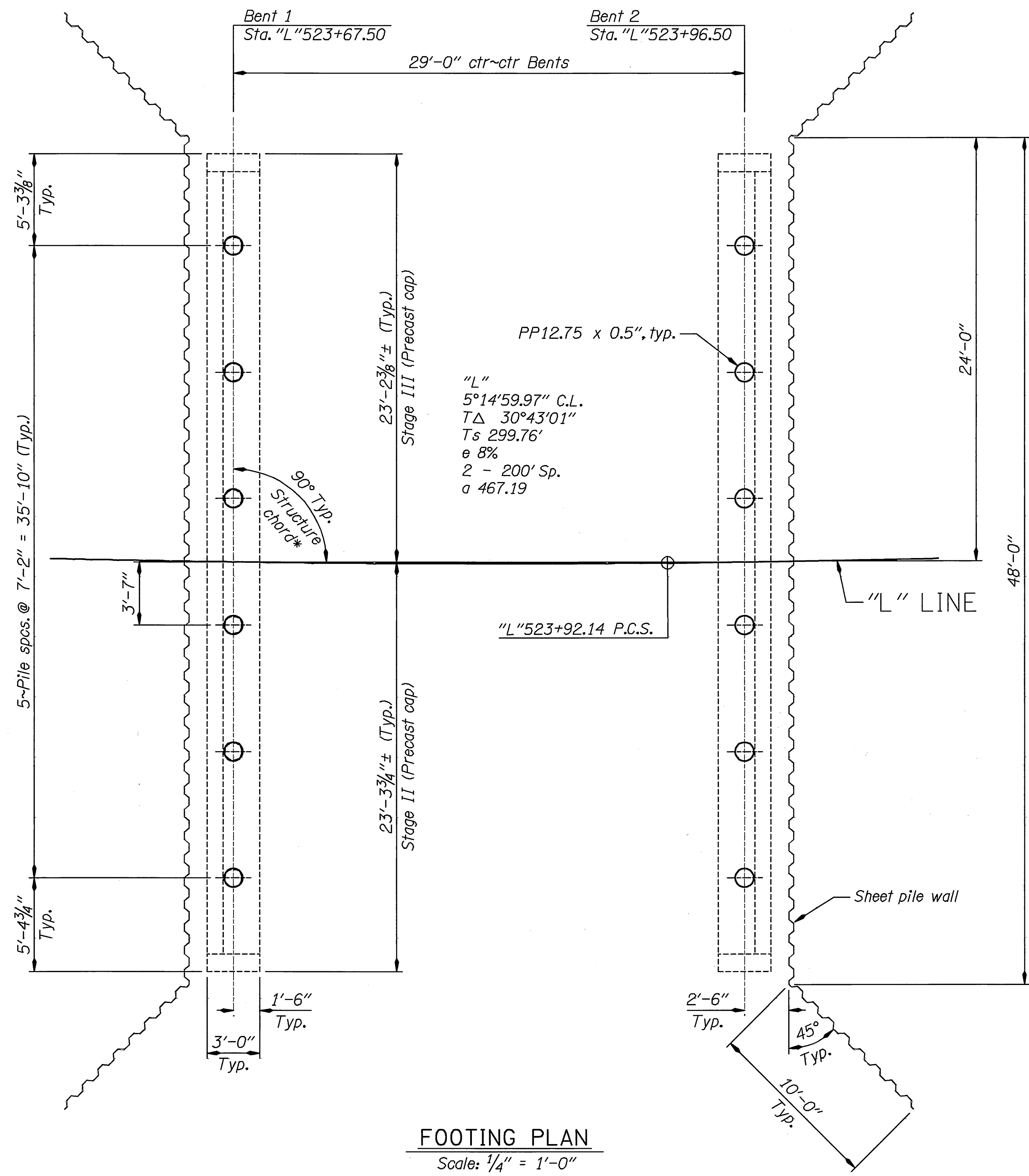


SHEET PILE CAP DETAIL
No Scale



LAYOUT DIAGRAM
No Scale

*Structure Chord = a line from the intersection of the "L" ϕ and Bent 1 ϕ to the intersection of "L" ϕ and Bent 2 ϕ .



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

PILING NOTES:
All piling shall be PP 12.75 x 0.5" ASTM A252 Grade 3 steel with a minimum yield strength of 45 ksi.

A nominal pile resistance of 320 kips should be demonstrated during pile driving by use of a wave equation analysis. To avoid damage to the piles during installation, driving stresses should not exceed 90-percent of the yield strength of the steel.

Pile tip elevations for minimum pile penetration shall be 64.3 ft. for Bent 1 and 65.0 ft. for Bent 2.

Furnish sheet piles made from ASTM A572 steel with a minimum yield strength of 50 ksi and the following geometric properties:
 - Minimum thickness of 0.25 inches
 - Maximum section height of 12 inches
 - Minimum elastic section modulus of 6 in³/ft.

Drive Sheet Pile to a minimum tip elevation of 82.0 ft.

SCALE WARNING

If scale bar doesn't measure one inch then drawing is not to scale

DATE	REVISION	BY	DRAFTER: Sandra Gish	REGISTERED PROFESSIONAL ENGINEER 72562PE RONALD MERLE BLACKETER RENEWED: 12-31-2011	OREGON DEPARTMENT OF TRANSPORTATION	STRUCTURE NO. 21188	VOLMER CREEK, HWY 47 OR26: VOLMER CREEK BRIDGE & JOHNSON CREEK BRIDGE PROJECT SUNSET HIGHWAY (M.P. 2.24) CLATSOP CO.	SHEET 5 OF 12
			DESIGNER: Ron Blacketer, P.E.			DATE JULY 2010		DRAWING NO. 84061
ACCOMPANIED BY DWGS. See dwg. 84057			CHECKER: Susan E. Kocher Susan Kocher, P.E.		REGION 2 TECH CENTER	CALC. BOOK 6231	FOOTING PLAN	
			REVIEWER: Al Heyn Al Heyn, P.E.					

SLAB TABLE

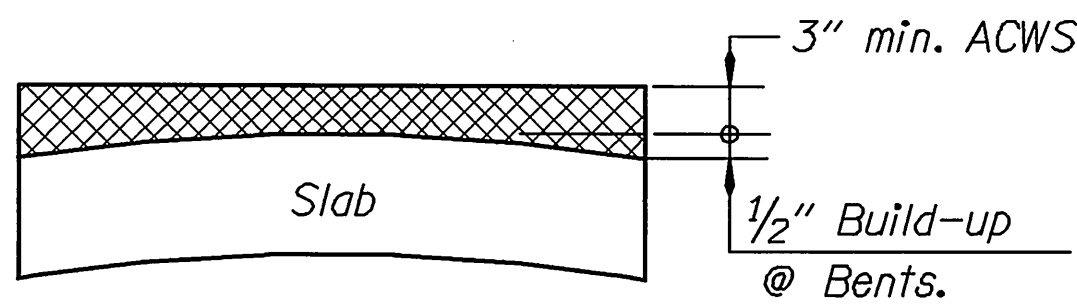
Mark	Length
A	30'-0"
B	30'-0"
1B*	29'-10 1/2"
1C*	29'-10 3/4"
1D*	29'-11"
1E*	29'-11 1/4"
1F*	29'-11 1/2"
1G*	29'-11 3/4"
1H*	30'-0"
1J*	30'-0"
A	30'-0"

*Salvaged

NOTE:

Elevations shown are finish grade at top of AC wearing surface at gutter line and centerline of bent.

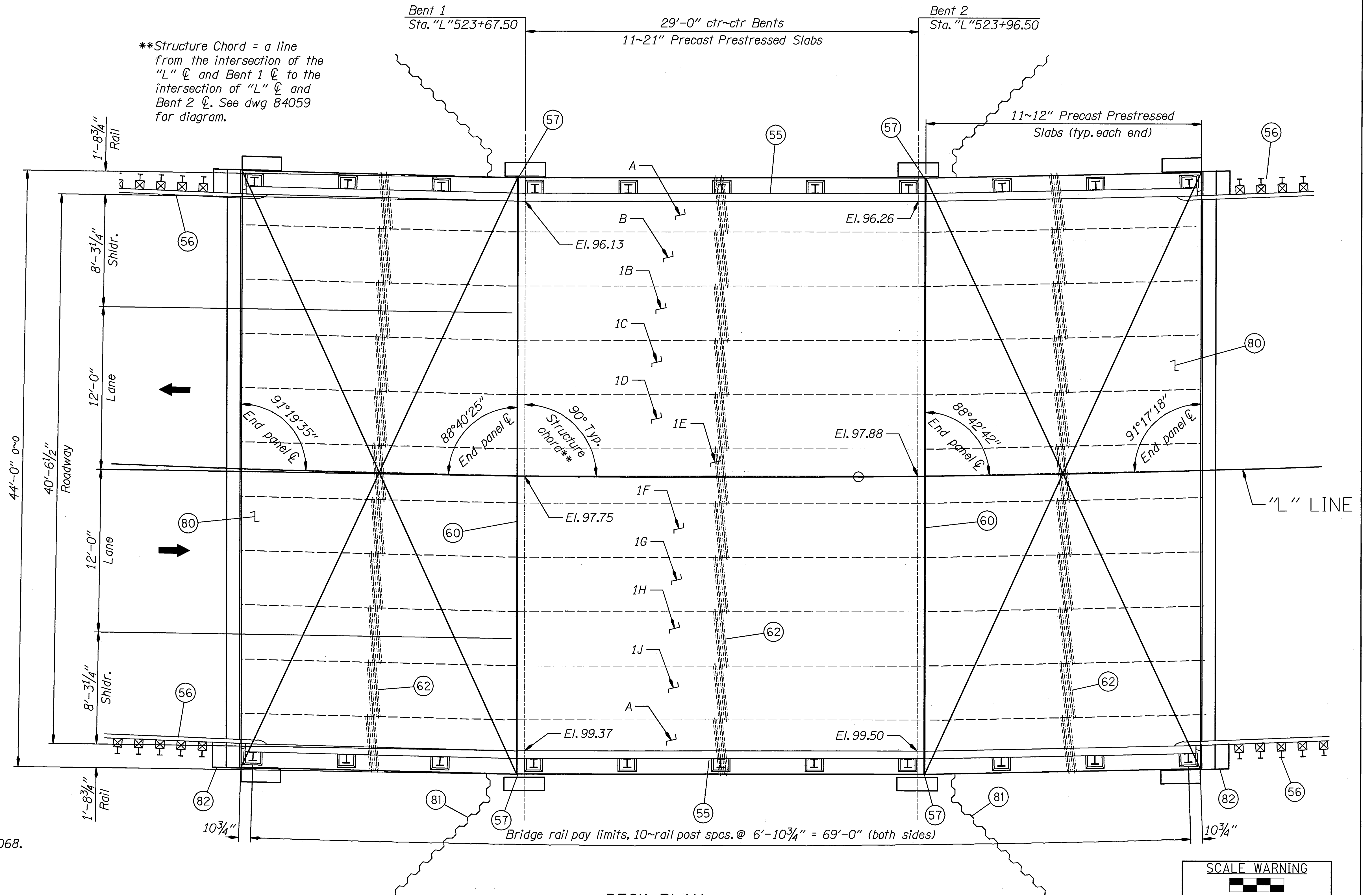
- Min. ACWS----- 3"
- Anticipated camber @ 3 mos.----- 3/4"
- Downward due to ACWS----- -1/4"
- Wearing surface thickness @ Bents----- 3 1/2"



ACWS BUILD - UP DETAIL

DETAIL REFERENCE NUMBERS:

- (55) Standard 3 Tube Curb Mount Rail, see dwg. BR208 for details.
- (56) Std. 3 Tube Curb Mount Rail guardrail transition, see dwg. BR209 for details.
- (57) Provide rail splice per BR208 at joint.
- (60) Deck expansion joint, See Detail "A", dwg. 84065.
- (62) Tie Rod Hole Locations.
- (80) Precast End Panel Slabs at bridge ends, see dwg. 84068.
- (81) Const. sheet pile wall. Cut exposed top of sheet pile wall to match finish grade. Cut sheet pile wall 1'-0" below end panel slab bottom.
- (82) Const. sleeper slab, see dwg. 84068.



DECK PLAN

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

SCALE WARNING
If scale bar doesn't measure one inch then drawing is not to scale

DATE	REVISION	BY	DRAFTER: Sandra Gish	REGISTERED PROFESSIONAL ENGINEER 72562PE	STRUCTURE NO. 21188	VOLMER CREEK, HWY 47 OR26: VOLMER CREEK BRIDGE & JOHNSON CREEK BRIDGE PROJECT SUNSET HIGHWAY (M.P. 2.24) CLATSOP CO.	SHEET 6 OF 12
			DESIGNER: Ron Blacketer, P.E.				
ACCOMPANIED BY DWGS. See dwg. 84057			CHECKER: Susan E. Kocher, P.E.	RENEWED: 12-31-2011	CALC. BOOK 6231	DECK PLAN	
			REVIEWER: Al Heyn, P.E.		REGION 2 TECH CENTER		

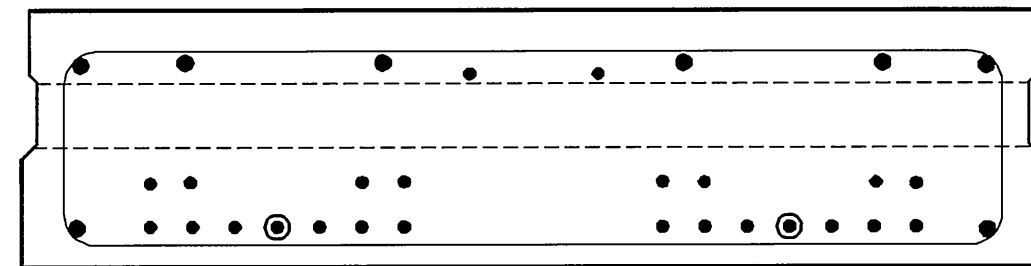
12" PRECAST PRESTRESSED SLAB(S)

Slab No.	No. Slabs Required	Span No.	Horizontal Length 0-0 at slab \bar{c} , ft. (after Shortening)	Skew Angle		Total Strand	Debonded Strands	Distance "Yc" to c.g. strand at midspan, in.	Distance "Yu" to c.g.s. at midspan subtracting top strand, in.	CONCRETE CLASS psi	Min. Concrete Strength Req'd by Design Loading, psi	Minimum Concrete Strength at Transfer of Prestress, psi	Estimated Initial Strand Stress Loss, ksi	Estimated Midspan Deflection					
				Back	Ahead									Upward at Transfer of Prestress	Upward 3 months after transfer of Prestress (No SIDL)	Upward 5 years after transfer of prestress (No SIDL)	Instantaneous Downward Due to SIDL	Downward Due to SIDL	5 yrs. after Loading
12"	22	EP	20.3	1.3	1.3	16	2	3.78	2.99	5000	5000	4000	10.2	0.1875"	0.375"	0.0625"	0.0625"	0.25"	0.125"

21" PRECAST PRESTRESSED SLAB(S)

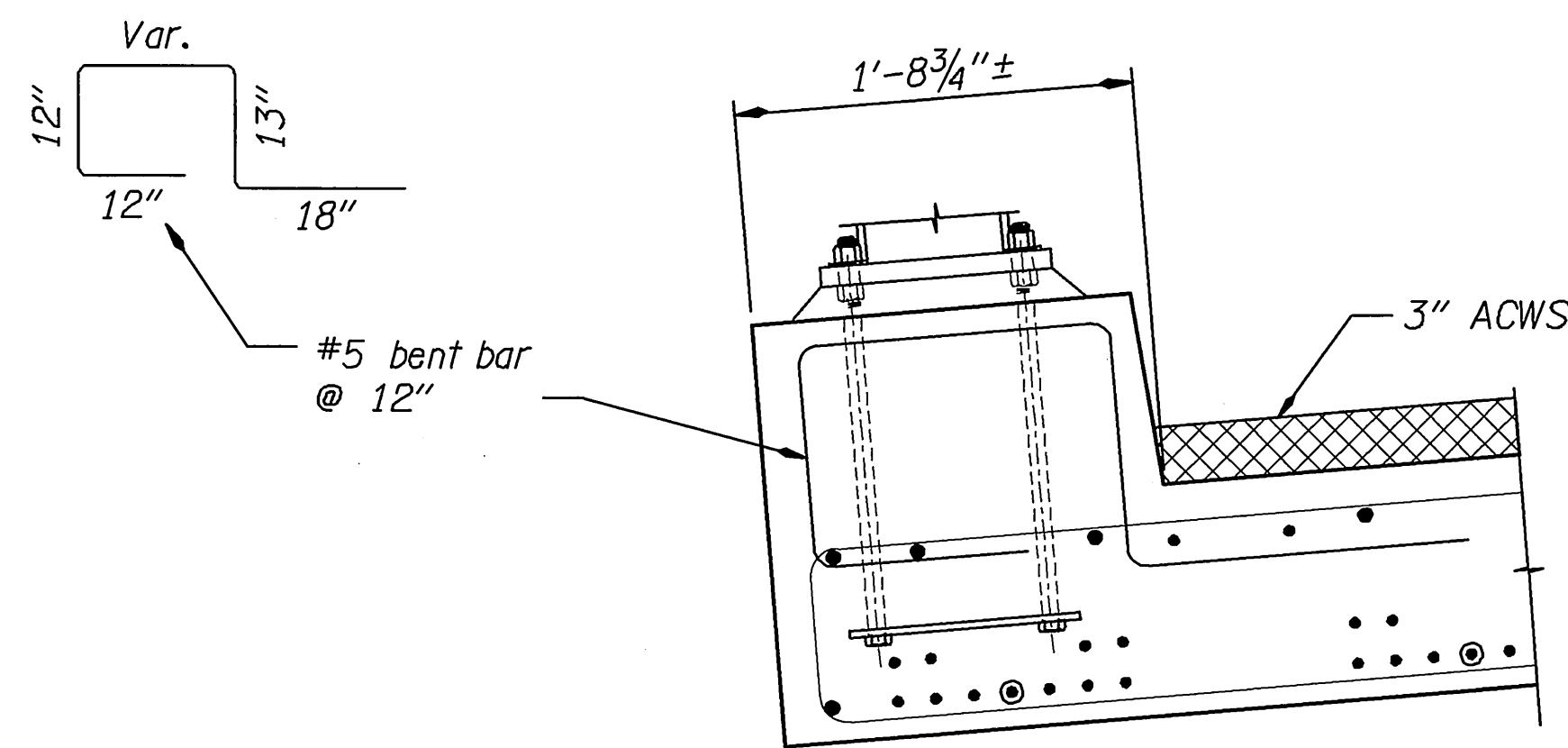
Slab No.	No. Slabs Required	Span No.	Horizontal Length 0-0 at slab \bar{c} , ft. (after Shortening)	Skew Angle		Total Strand	Debonded Strands	Distance "Yc" to c.g. strand at midspan, in.	Distance "Yu" to c.g.s. at midspan subtracting top strand, in.	CONCRETE CLASS psi	Min. Concrete Strength Req'd by Design Loading, psi	Minimum Concrete Strength at Transfer of Prestress, psi	Estimated Initial Strand Stress Loss, ksi	Estimated Midspan Deflection					
				Back	Ahead									Upward at Transfer of Prestress	Upward 3 months after transfer of Prestress (No SIDL)	Upward 5 years after transfer of prestress (No SIDL)	Instantaneous Downward Due to SIDL	Downward Due to SIDL	5 yrs. after Loading
B	1	-	30	0	0	14	-	3.90	2.99	6000	6000	4500	15.5	0.75"	1.5"	1.40"	0.24"	0.26"	0.375"
A	2	-	30	0	0	14	-	3.90	2.99	6000	6000	4500	13.7	0.75"	0.80"	1.32"	0.25"	0.28"	0.375"

Refer to structure no.6510 shop drawings for salvaged slab construction and strand pattern details.



TYPICAL 12" SLAB SECTION

No Scale



12" SLAB WITH CURB DETAIL

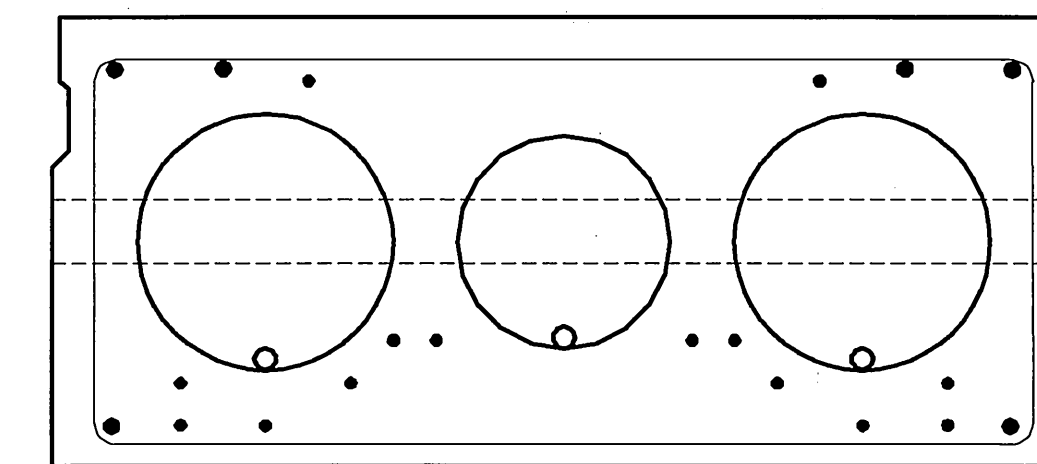
Scale: 1" = 1'-0"

NOTE:
For rail and curb details not shown, see dwg. BR208.

NOTES:

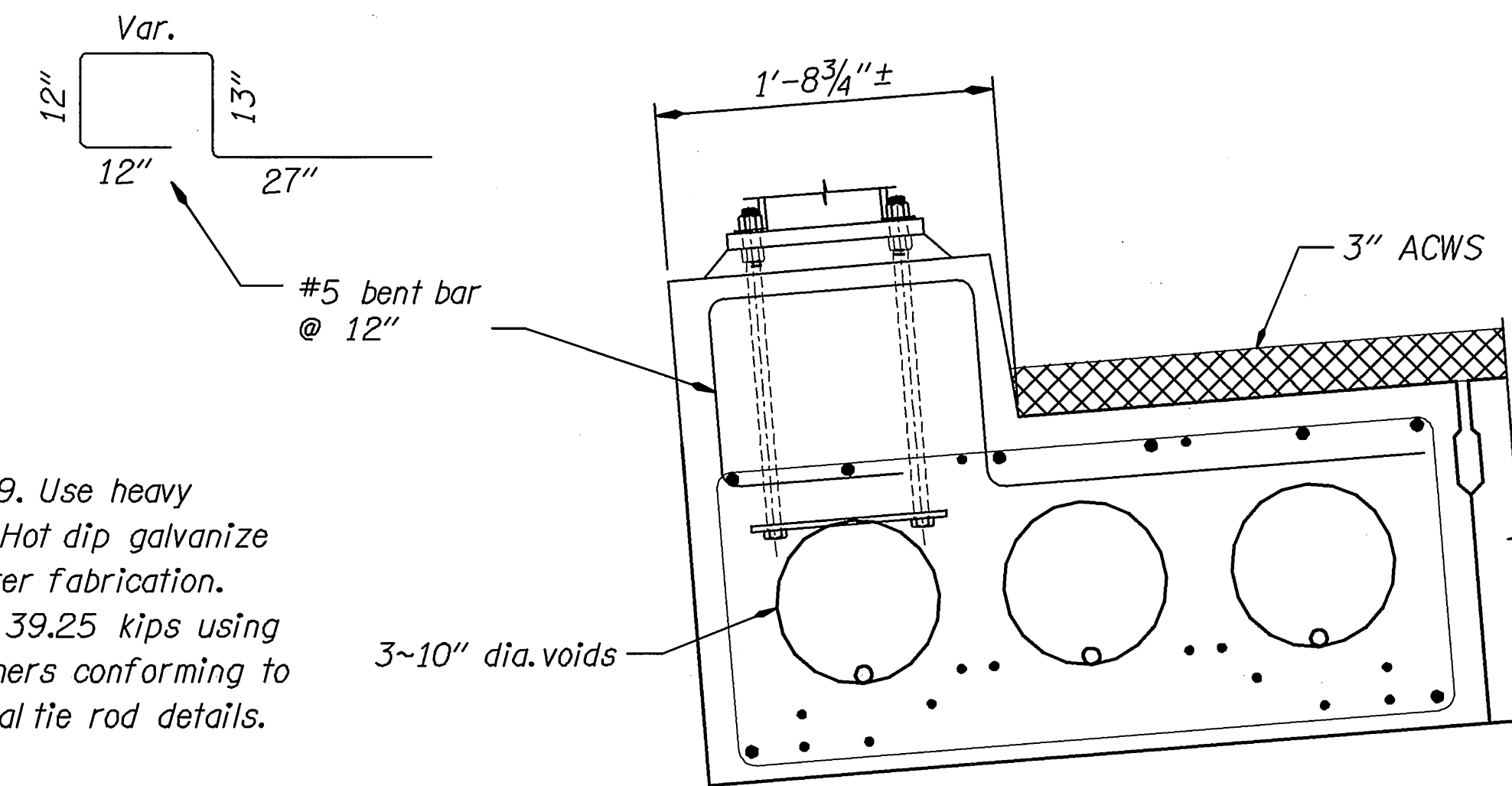
High strength tie rods shall be ASTM A449. Use heavy hexagon nuts conforming to ASTM A563. Hot dip galvanize bolts, tie rods, nuts, washers and Plates after fabrication. Tighten tie rods to a minimum tension of 39.25 kips using mechanically galvanized load indicator washers conforming to ASTM F959. See dwg. BR445 for additional tie rod details.

For prestressed slab details not shown, see dwgs. BR400, BR415 and BR445.



TYPICAL 21" SLAB (B) SECTION

No Scale

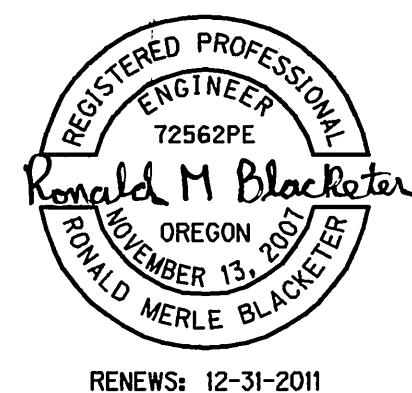


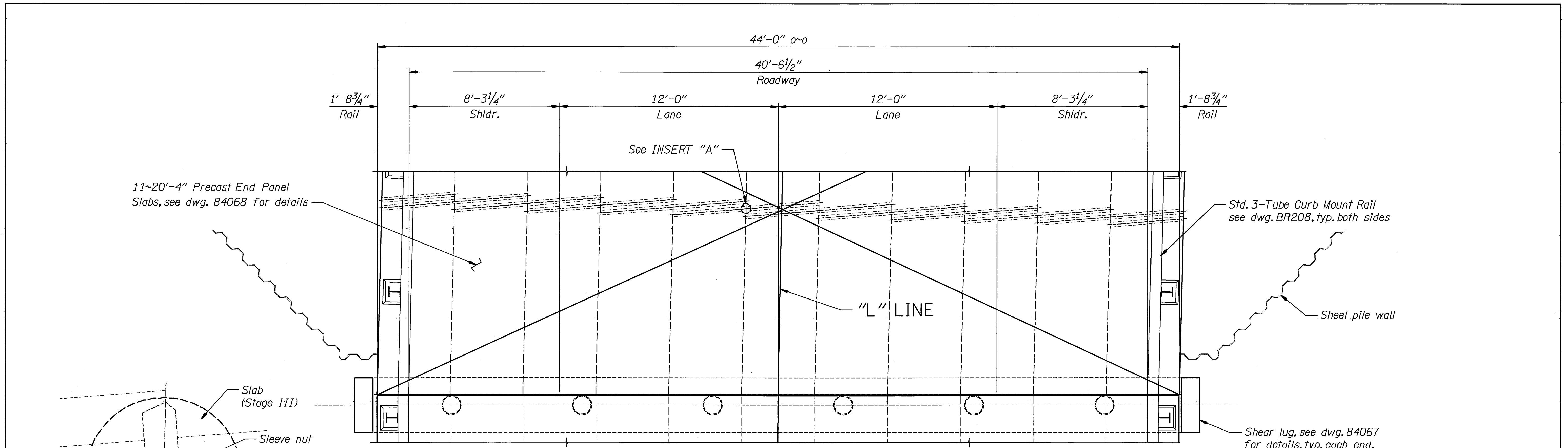
21" SLAB (A) WITH CURB DETAIL

Scale: 1" = 1'-0"

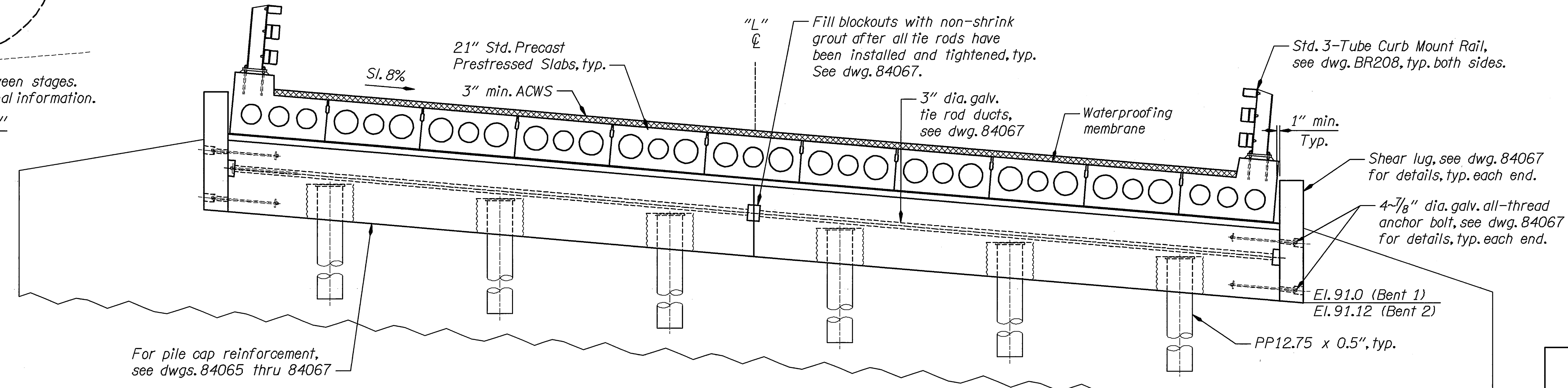
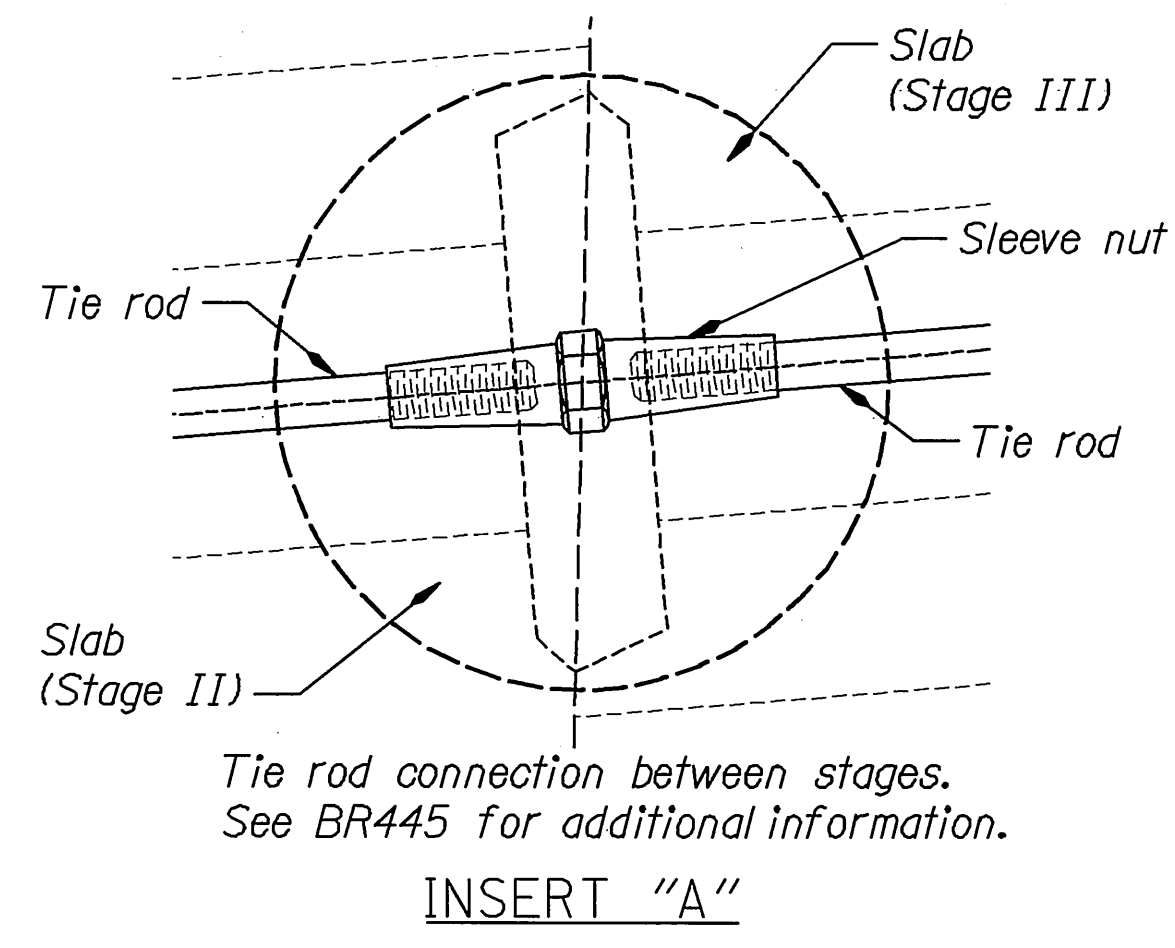
NOTE:
For rail and curb details not shown, see dwg. BR208.

DATE	REVISION	BY	DRAFTER: Sandra Gish	STRUCTURE NO. 21188	VOLMER CREEK, HWY 47 OR26: VOLMER CREEK BRIDGE & JOHNSON CREEK BRIDGE PROJECT SUNSET HIGHWAY (M.P. 2.24) CLATSOP CO.	SHEET 7 OF 12
			DESIGNER: Ron Blacketer, P.E.			
ACCOMPANIED BY DWGS. See dwg. 84057			CHECKER: Susan E. Kocher, P.E.	CALC. BOOK 6231	SLAB DETAILS	DRAWING NO. 84063
			REVIEWER: Al Heyn, P.E.	REGION 2 TECH CENTER		





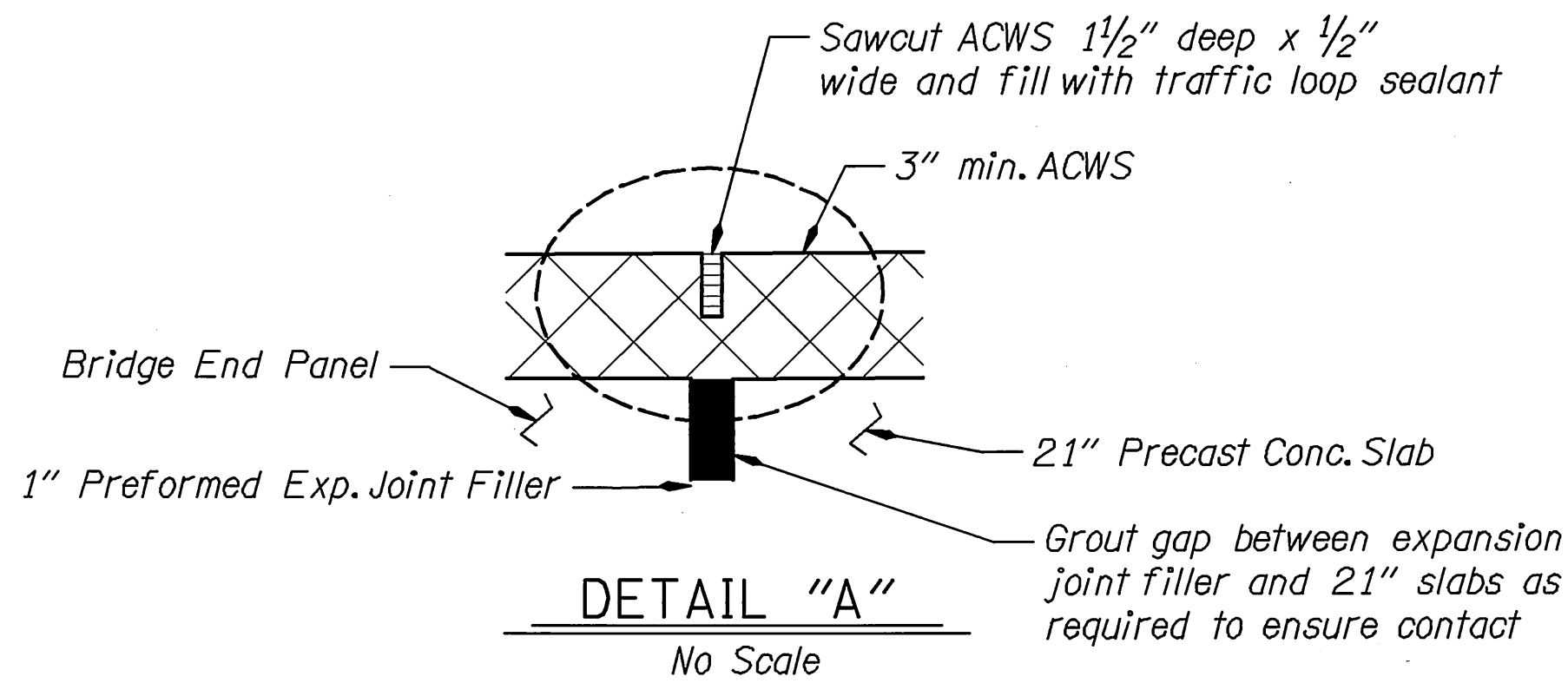
BENT 1 PLAN (BENT 2 SIMILAR) (Looking back on station)
Scale: 3/16" = 1'-0"



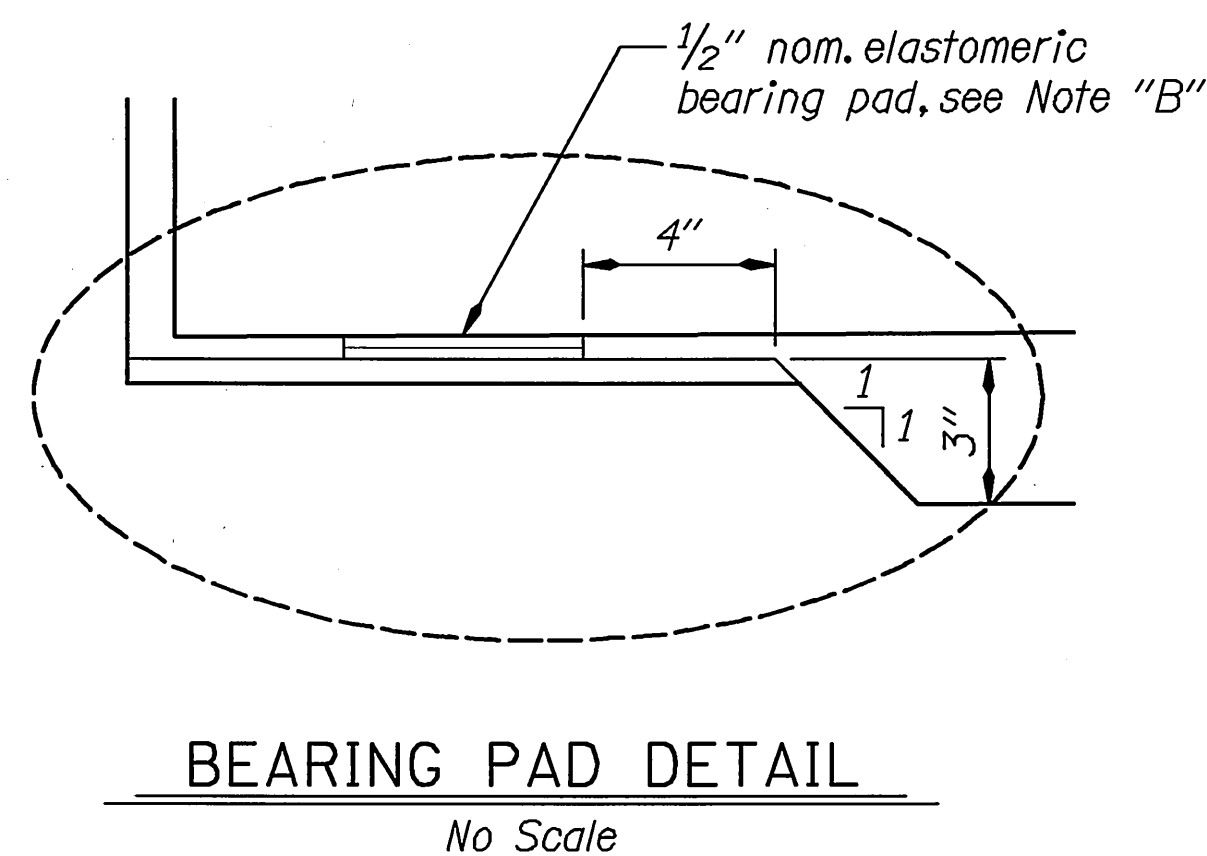
BENT 1 ELEVATION (BENT 2 SIMILAR) (Looking back on station)
Scale: 3/16" = 1'-0"

SCALE WARNING
If scale bar doesn't measure one inch then drawing is not to scale

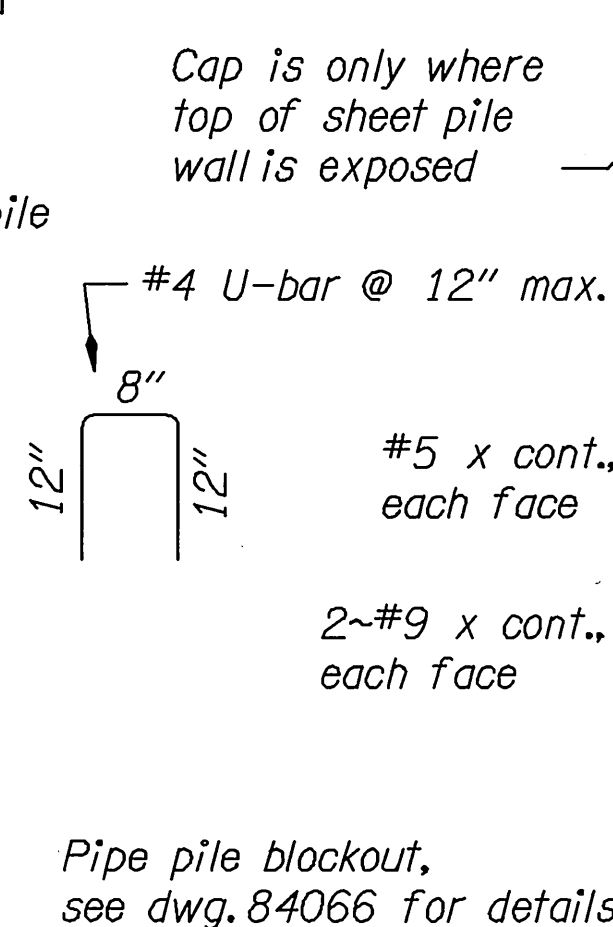
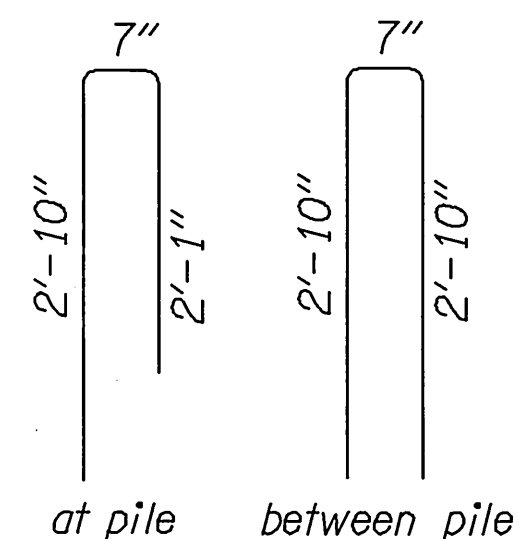
DATE	REVISION	BY	DRAWN: Sandra Gish		STRUCTURE NO. 21188	VOLMER CREEK, HWY 47 OR26: VOLMER CREEK BRIDGE & JOHNSON CREEK BRIDGE PROJECT SUNSET HIGHWAY (M.P. 2.24) CLATSOP CO.	SHEET 8 OF 12
			DESIGNER: Ron Blacketer, P.E.		DATE JULY 2010		DRAWING NO.
ACCOMPANIED BY DWGS. See dwg. 84057			CHECKER: Susan E. Kohler, P.E. Susan Kocher, P.E.		CALC. BOOK 6231	BENT 1 PLAN & ELEVATION (BENT 2 SIMILAR)	84064
			REVIEWER: Al Heyn, P.E.		REGION 2 TECH CENTER		



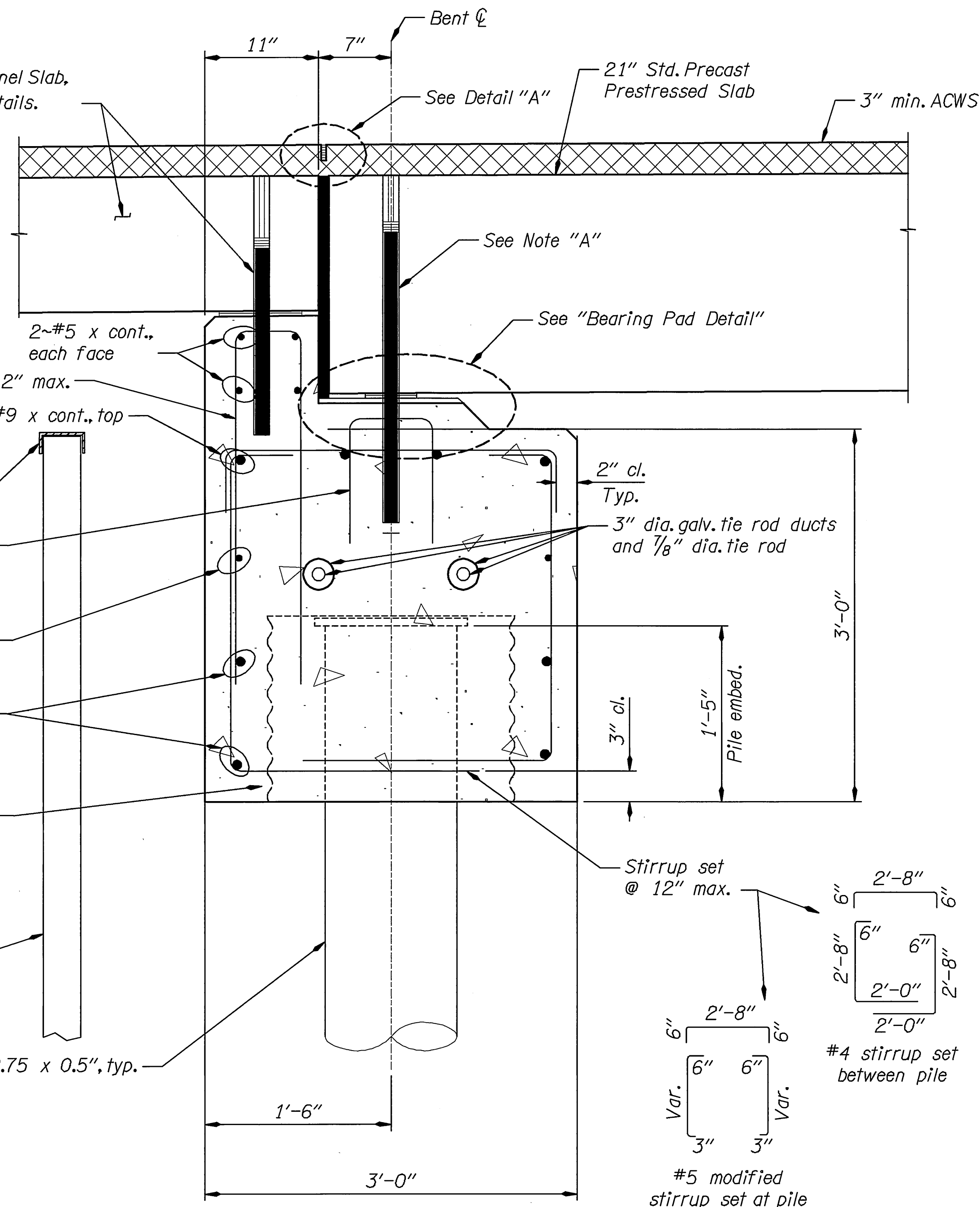
NOTE "A"
1 1/4" dia. x 2'-4" long smooth dowel (A36) at each end of slab. Drill a 1 1/2" dia. hole, 12" deep, into pile cap after slabs are in place and tie rod ends have been tightened. Use non-impact rotary drill. Place 2" dia. x 1" thk. polystyrene plug on top of dowel. Fill remainder of hole with non-shrink grout.



NOTE "B"
Place 1/2" grout layer at Bent cap at bearing locations. Place elastomeric bearing pads and prestressed slabs before 1/2" grout is fully set to insure uniform bearing across full width of slab. If uniform bearing is not achieved, lift slab, remove grout and repeat procedure. Any excess grout protruding above bottom of bearing pads shall be removed immediately after placing slab.

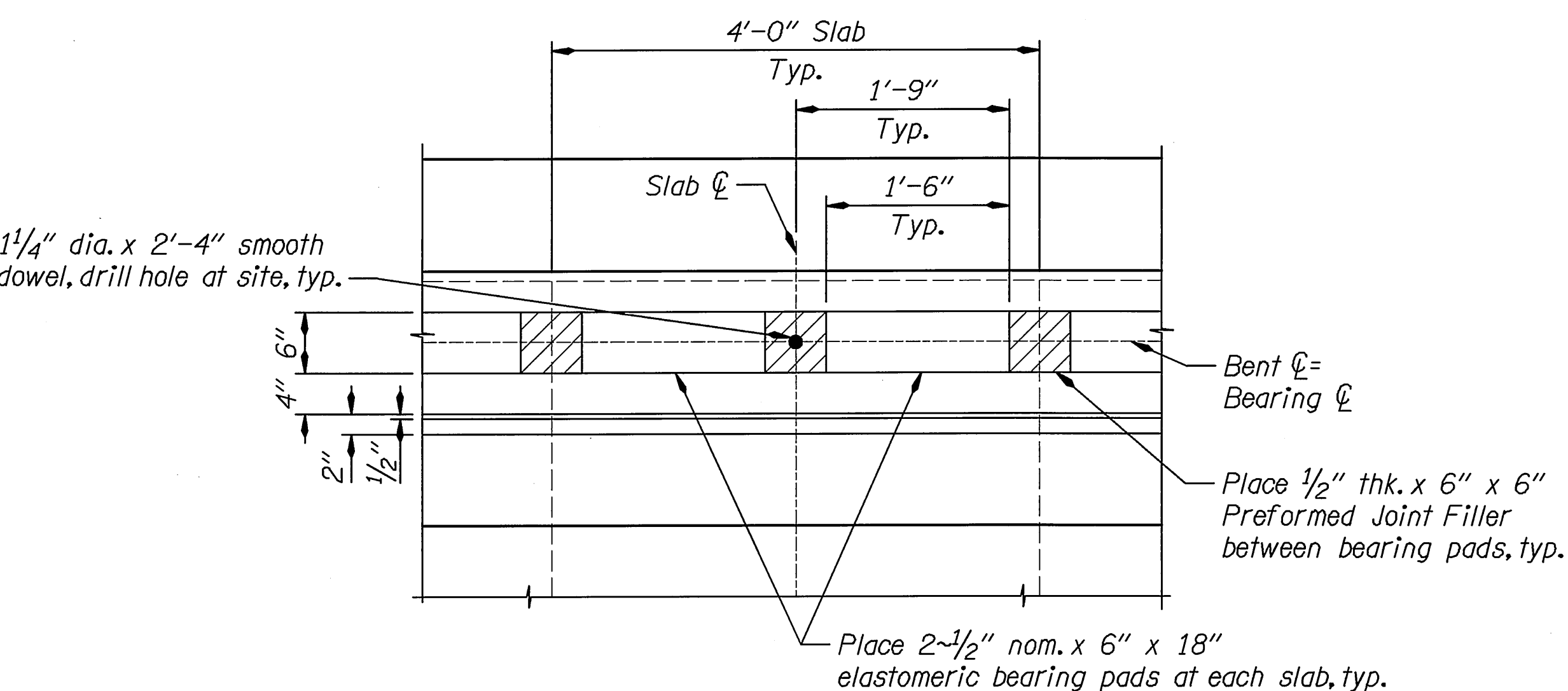


20'-4" Precast End Panel Slab, see dwg. 84068 for details.



BENT 1 SECTION (BENT 2 SIMILAR)

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

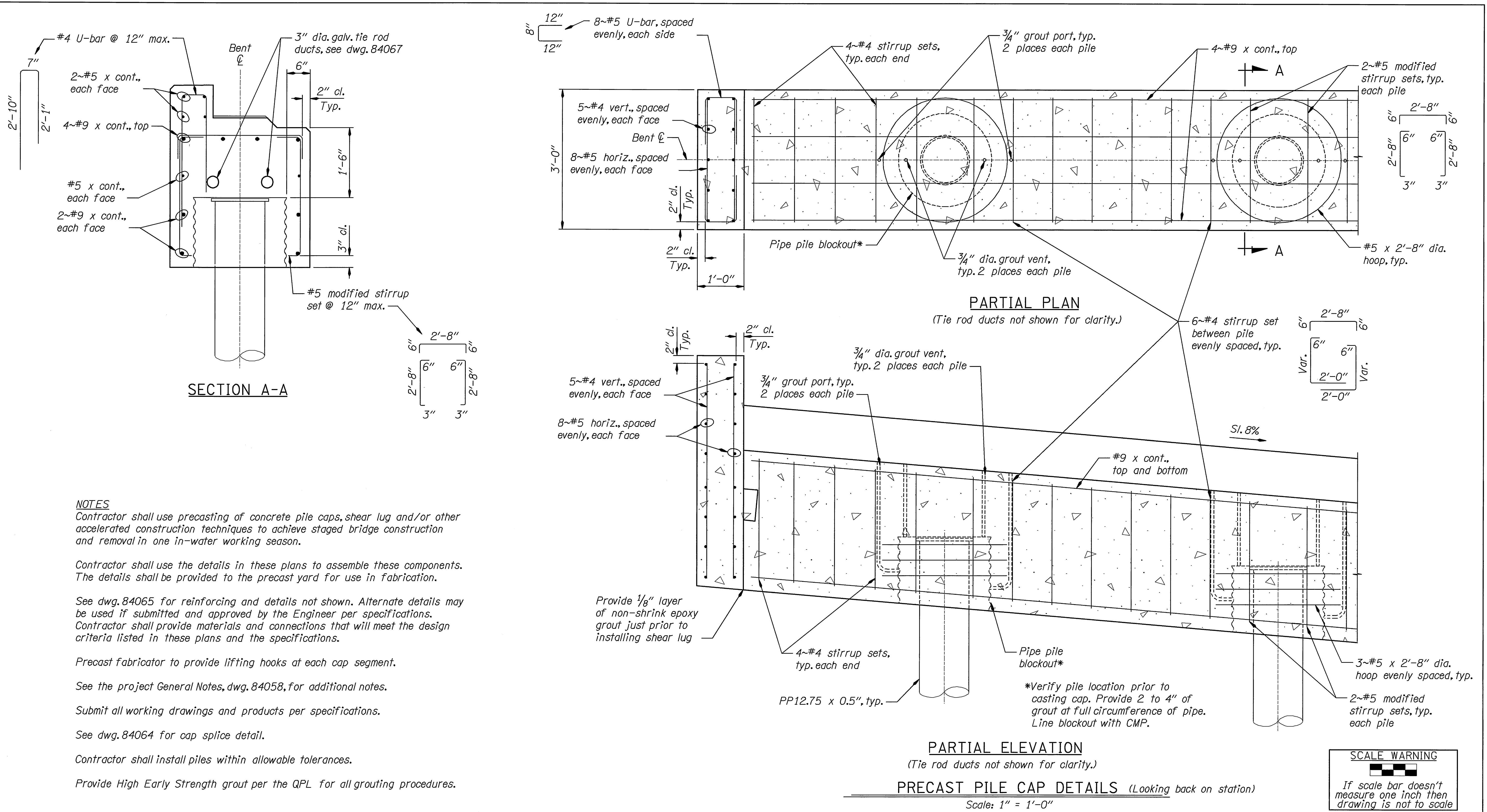


BEARING PAD PLAN

Scale: 3" = 1'-0"

SCALE WARNING
If scale bar doesn't measure one inch then drawing is not to scale

DATE	REVISION	BY	DRAFTER: Sandra Gish	REGISTERED PROFESSIONAL ENGINEER 72562PE Ronald M Blacketer OREGON REGISTERED PROFESSIONAL ENGINEER NUMBER 13, 2007 RONALD MERLE BLACKETER RENEWS: 12-31-2011	STRUCTURE NO. 21188	VOLMER CREEK, HWY 47 OR26: VOLMER CREEK BRIDGE & JOHNSON CREEK BRIDGE PROJECT SUNSET HIGHWAY (M.P. 2.24) CLATSOP CO.	SHEET 9 OF 12
			DESIGNER: Ron Blacketer, P.E.				
ACCOMPANIED BY DWGS. See dwg. 84057			CHECKER: Susan E. Kocher, P.E. Susan Kocher, P.E.	REGION 2 TECH CENTER	CALC. BOOK 6231	BENT 1 SECTION (BENT 2 SIMILAR)	84065
			REVIEWER: Al Heyn, P.E. Al Heyn, P.E.				



NOTES

Contractor shall use precasting of concrete pile caps, shear lug and/or other accelerated construction techniques to achieve staged bridge construction and removal in one in-water working season.

Contractor shall use the details in these plans to assemble these components. The details shall be provided to the precast yard for use in fabrication.

See dwg. 84065 for reinforcing and details not shown. Alternate details may be used if submitted and approved by the Engineer per specifications. Contractor shall provide materials and connections that will meet the design criteria listed in these plans and the specifications.

Precast fabricator to provide lifting hooks at each cap segment.

See the project General Notes, dwg. 84058, for additional notes.

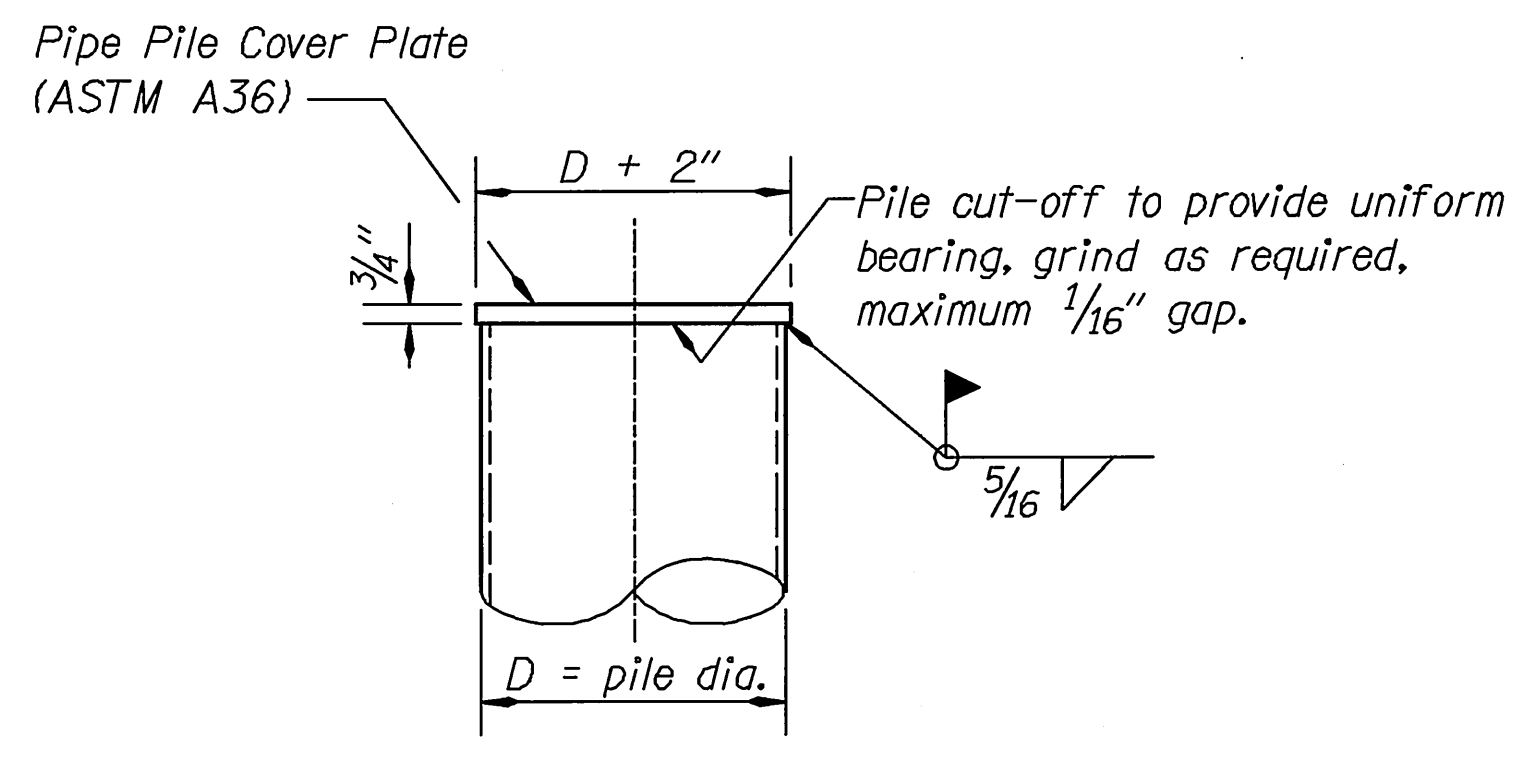
Submit all working drawings and products per specifications.

See dwg. 84064 for cap splice detail.

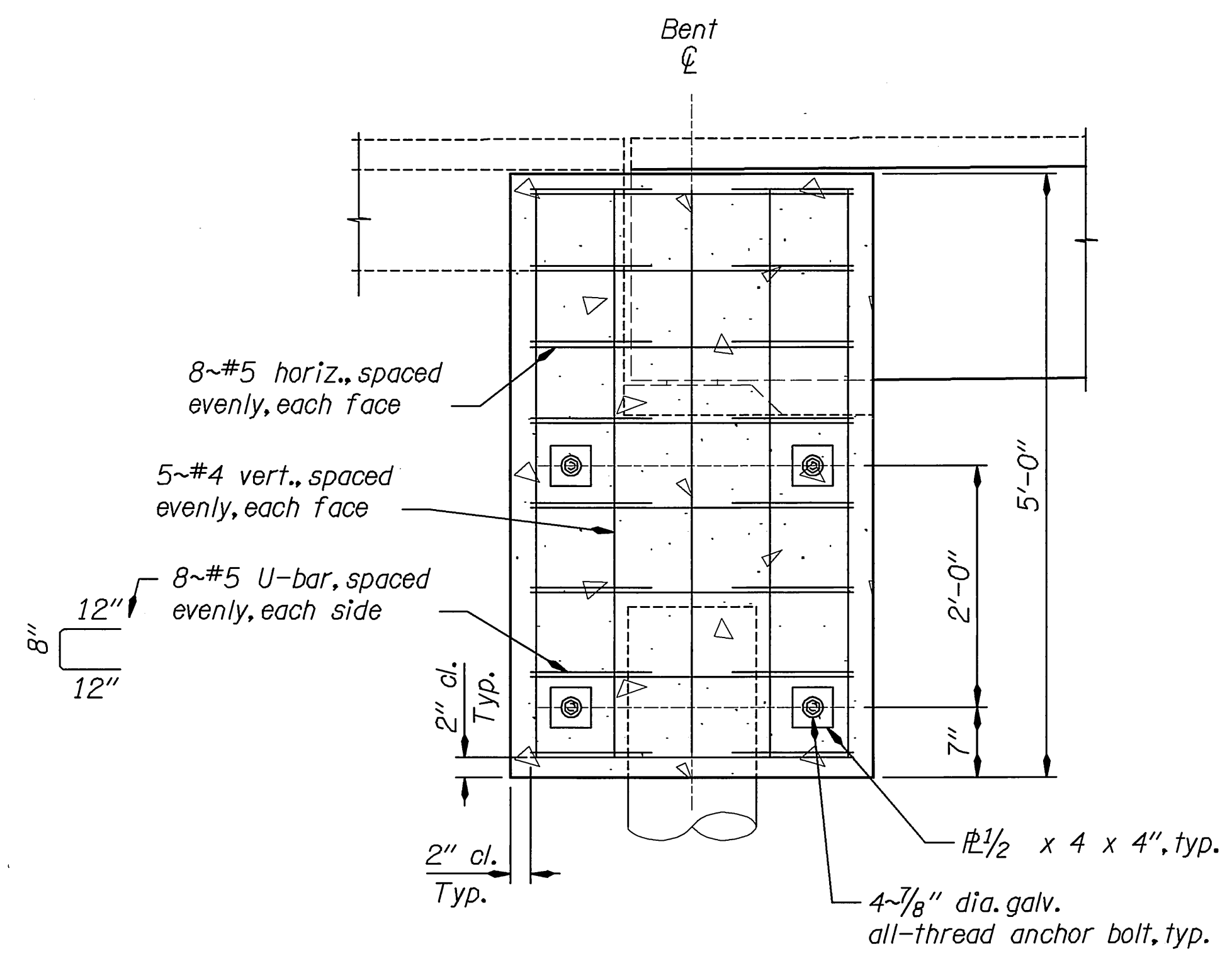
Contractor shall install piles within allowable tolerances.

Provide High Early Strength grout per the QPL for all grouting procedures.

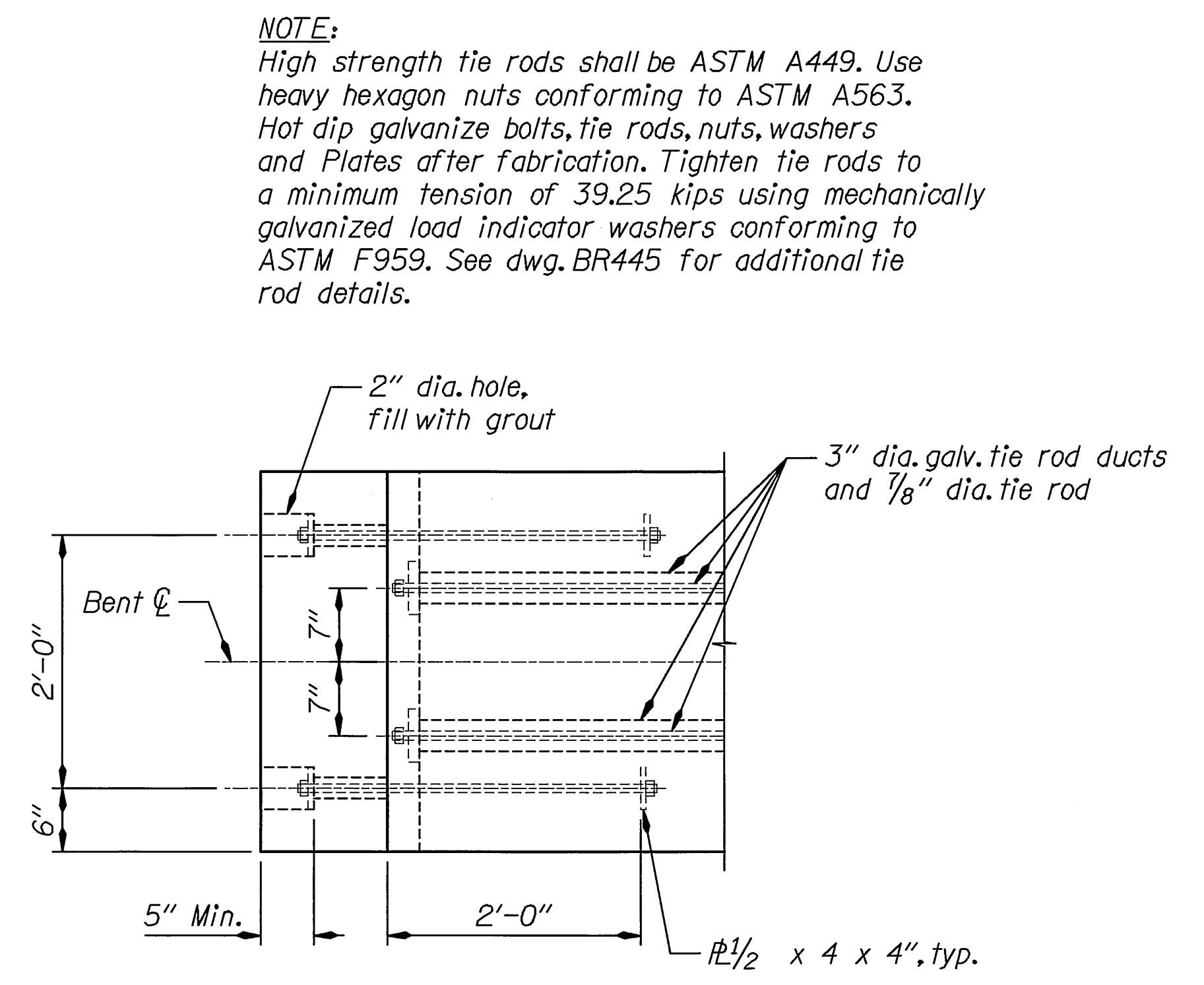
DATE	REVISION	BY	DRAFTER: Sandra Gish	REGISTERED PROFESSIONAL ENGINEER 72562PE Ronald M. Blacketer OREGON NOVEMBER 13, 2007 DONALD MERLE BLACKETER RENEWS: 12-31-2011	STRUCTURE NO. 21188	VOLMER CREEK, HWY 47 OR26: VOLMER CREEK BRIDGE & JOHNSON CREEK BRIDGE PROJECT SUNSET HIGHWAY (M.P. 2.24) CLATSOP CO.	SHEET 10 OF 12
			DESIGNER: Ron Blacketer, P.E.				
ACCOMPANIED BY DWGS. See dwg. 84057			CHECKER: Susan E. Kocher Susan Kocher, P.E.	REGION 2 TECH CENTER	CALC. BOOK 6231	PILE CAP DETAILS	DRAWING NO. 84066
			REVIEWER: Al Heyn Al Heyn, P.E.				



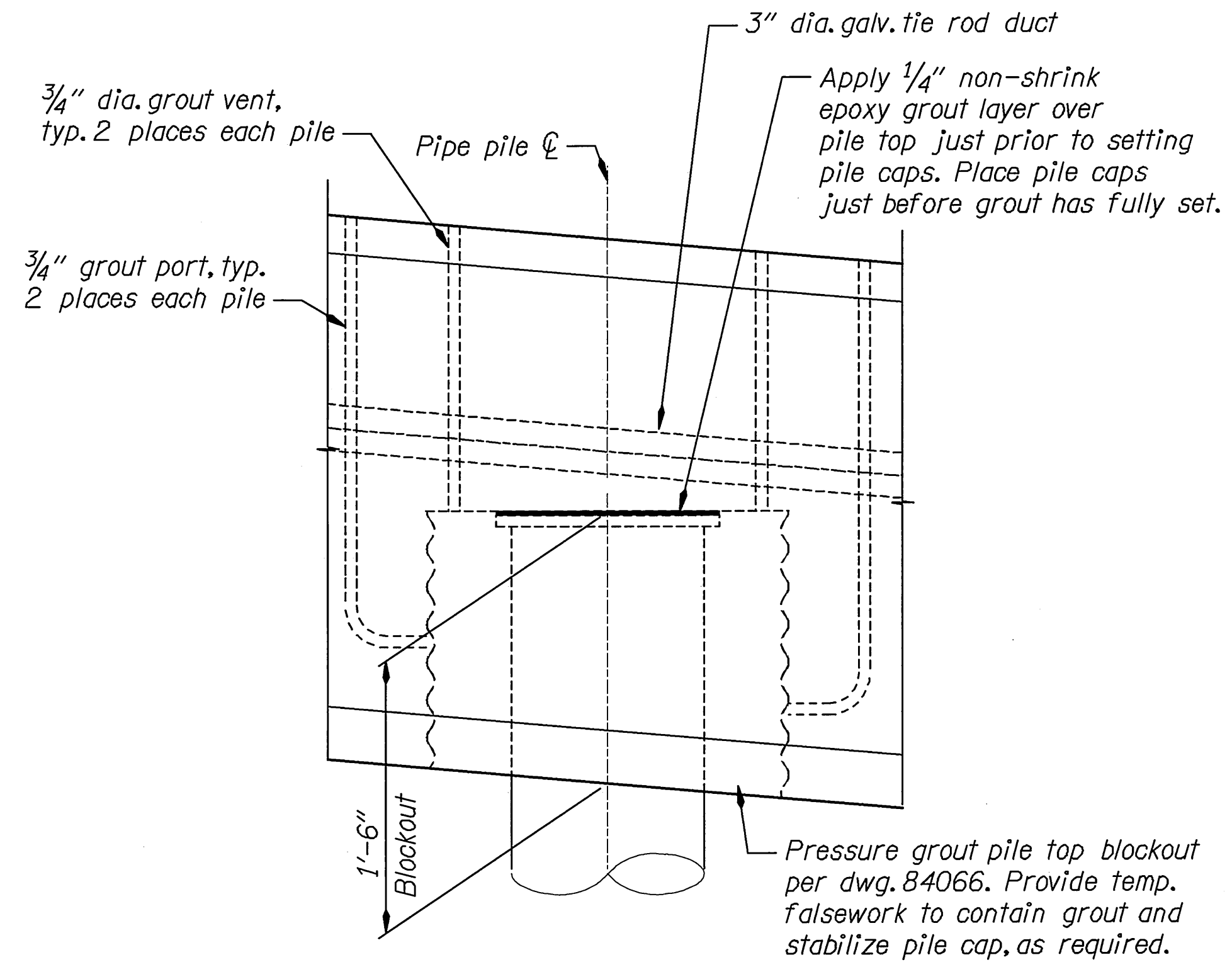
PIPE PILE DETAIL
(Closed End)
No Scale



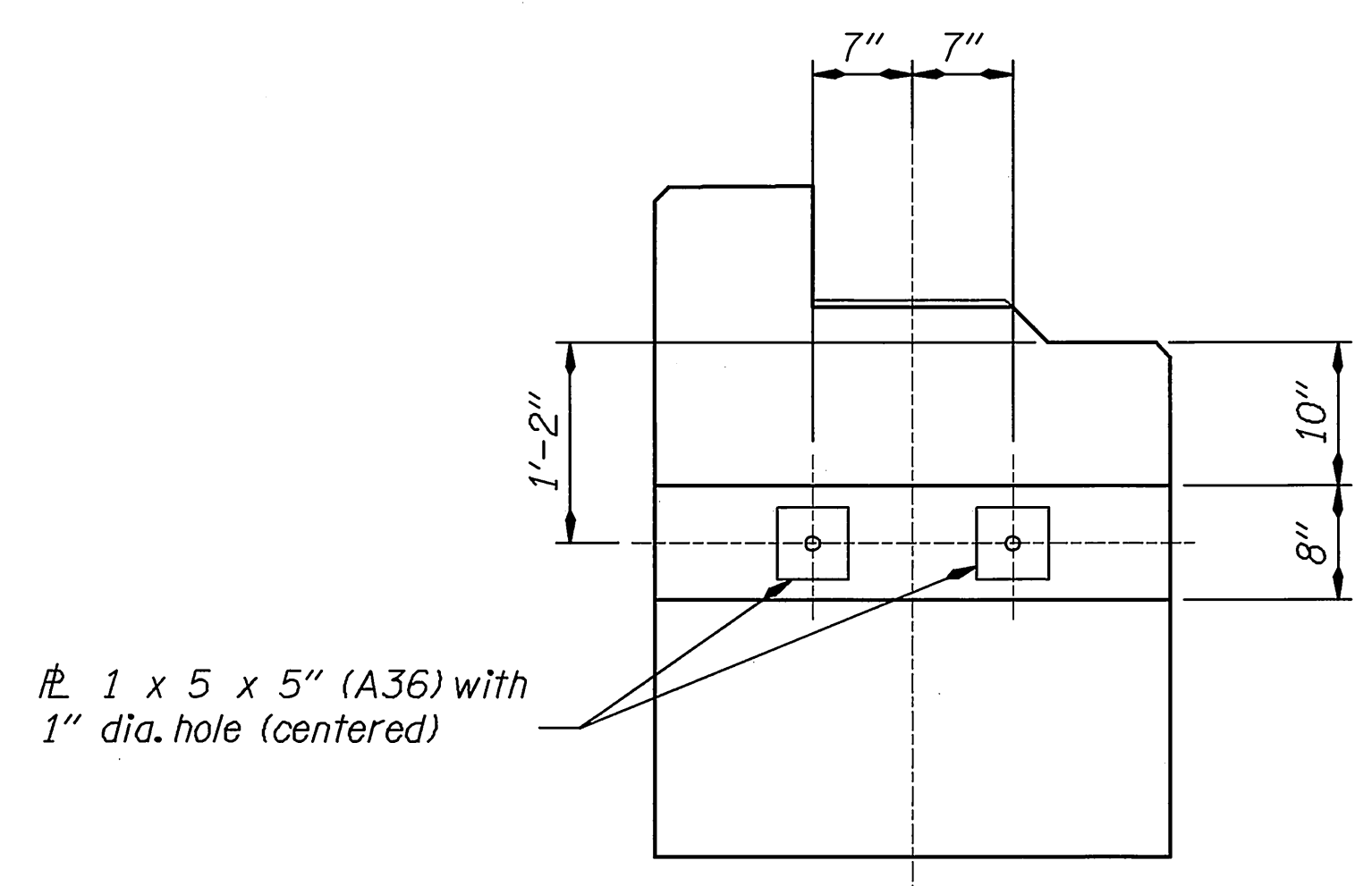
SHEAR LUG ELEVATION
Scale: 1" = 1'-0"



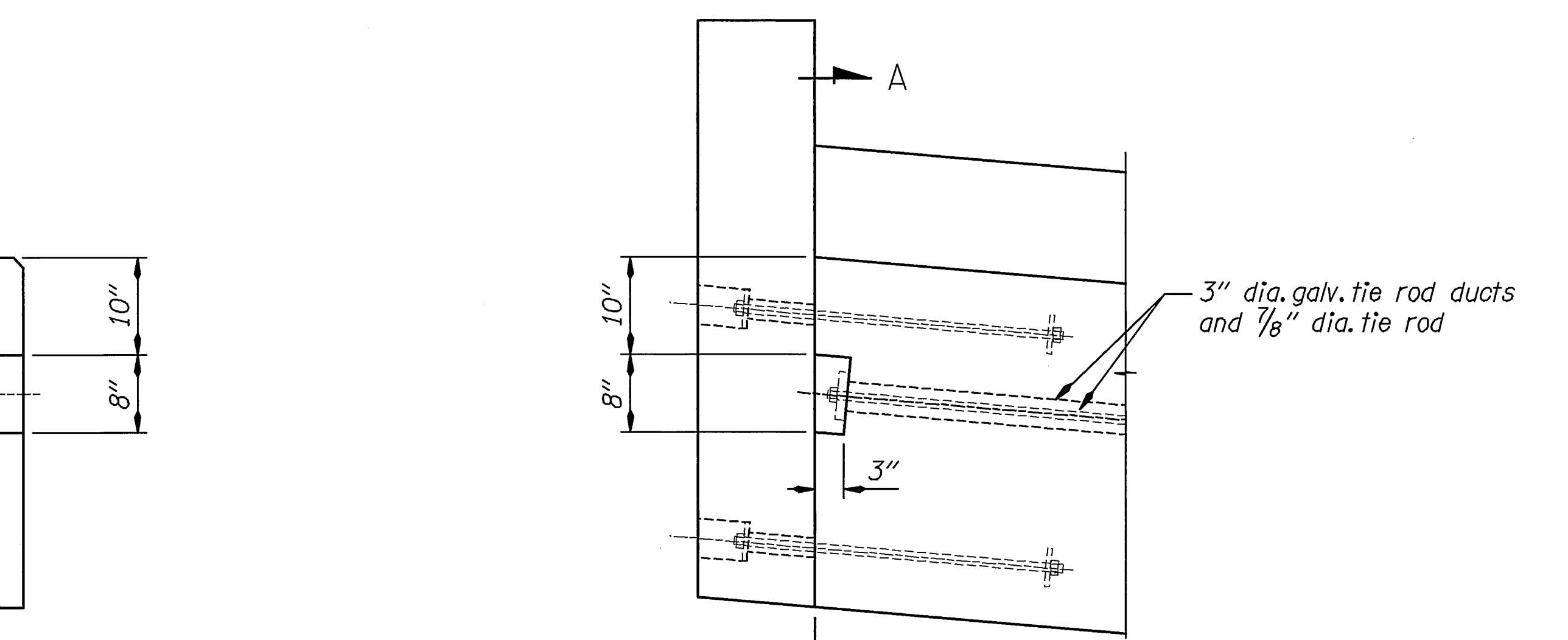
PLAN



PILE TOP CONNECTION DETAIL
Scale: 1 1/2" = 1'-0"



SECTION A-A

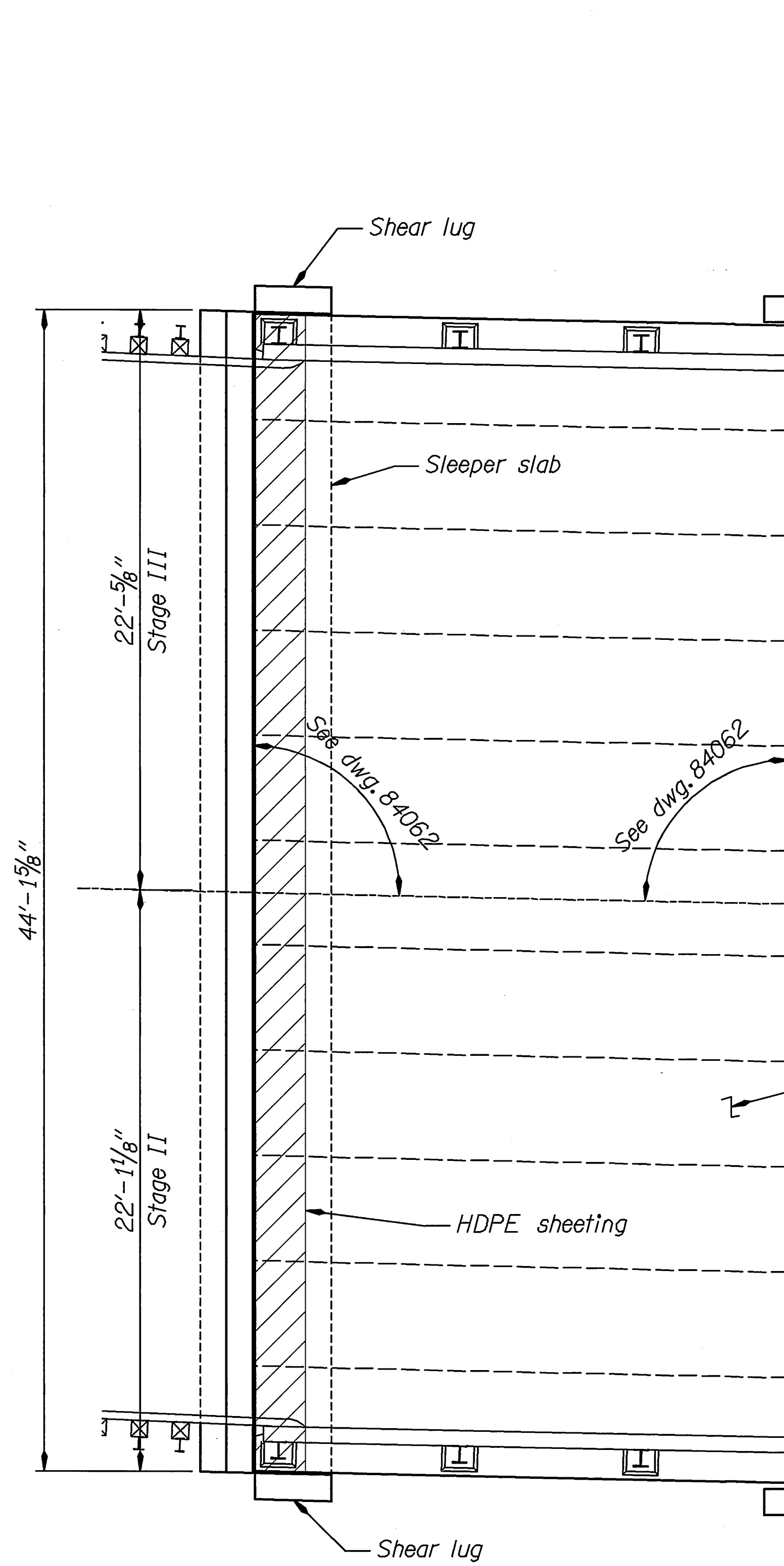


ELEVATION

PRECAST PILE CAP END DETAILS
Scale: 1 1/2" = 1'-0"

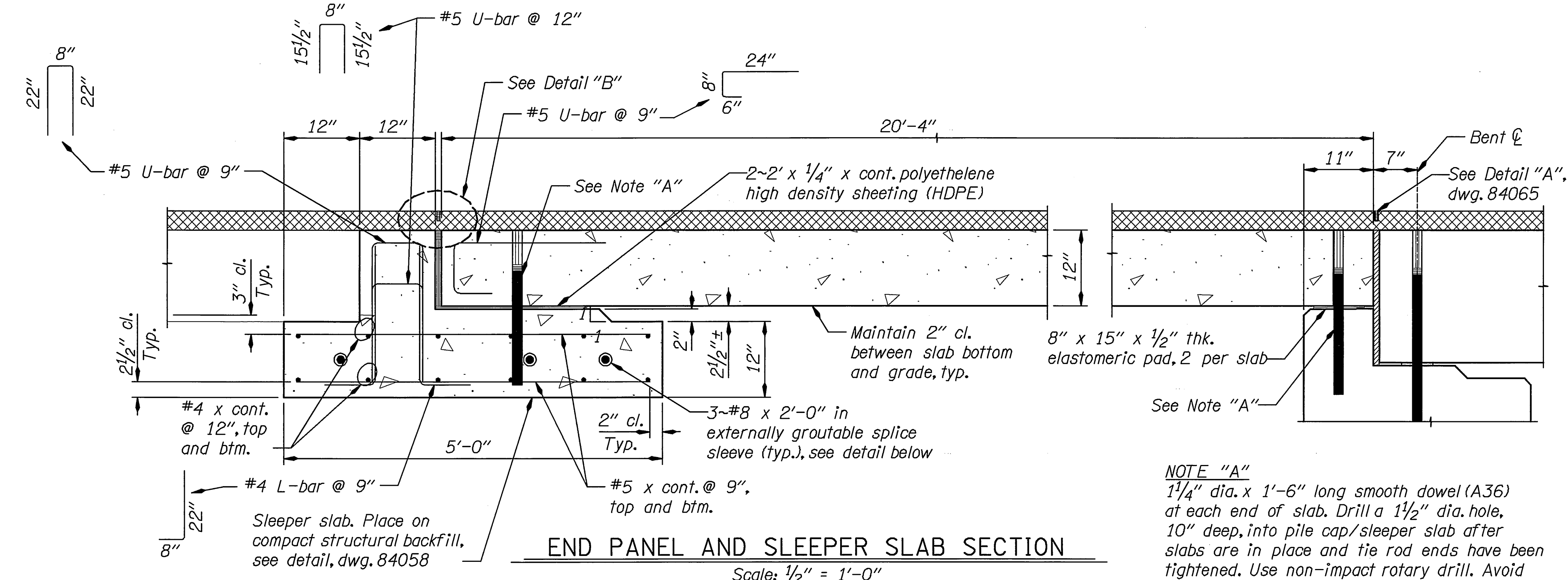
SCALE WARNING
If scale bar doesn't measure one inch then drawing is not to scale

	DATE	REVISION	BY	DRAWER: Sandra Gish			STRUCTURE NO.	VOLMER CREEK, HWY 47 OR26: VOLMER CREEK BRIDGE & JOHNSON CREEK BRIDGE PROJECT SUNSET HIGHWAY (M.P. 2.24) CLATSOP CO.	SHEET
				DESIGNER: Ron Blacketer, P.E.			21188		11
ACCOMPANIED BY DWGS. See dwg. 84057				CHECKER: Susan E. Kocher, P.E.			DATE	PILE CAP DETAILS CONT.	OF
			REVIEWER: Al Heyn, P.E.			JULY 2010	12		
						REGION 2 TECH CENTER	CALC. BOOK		DRAWING NO.
							6231		84067



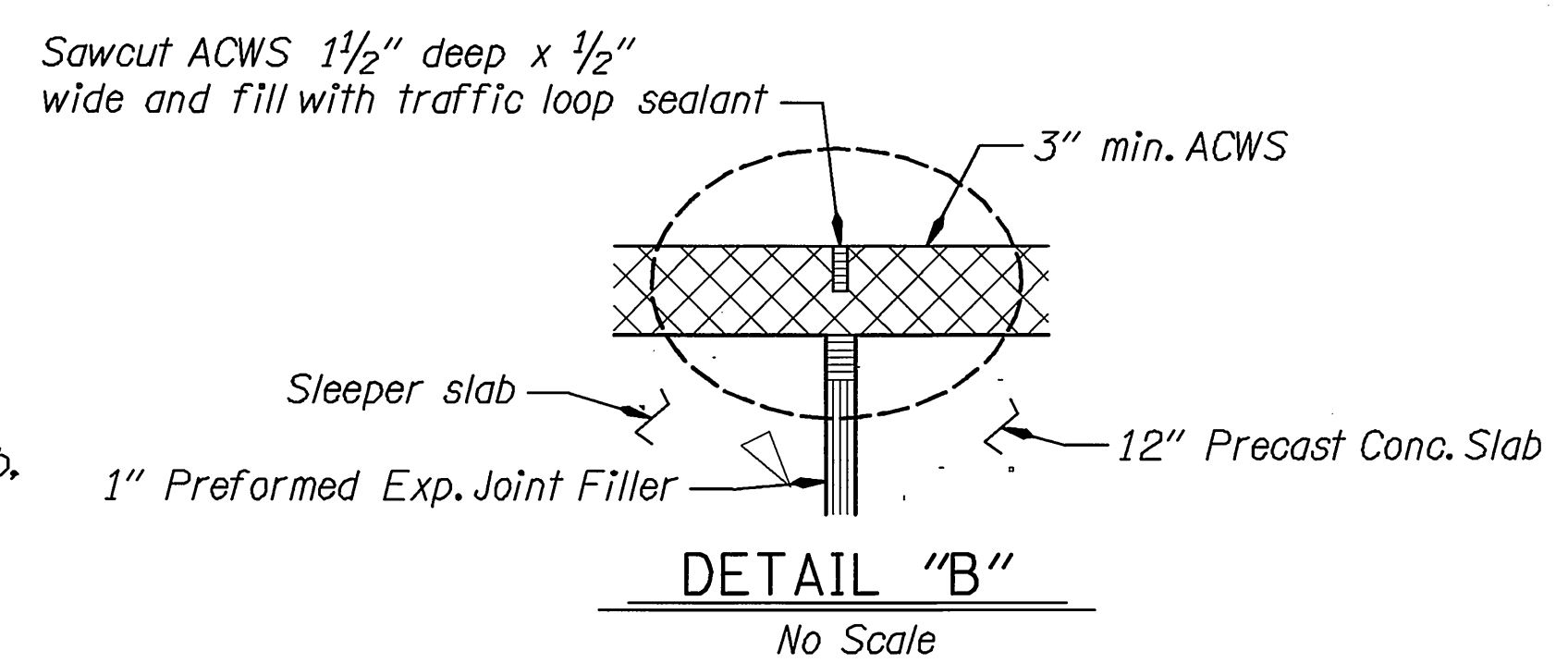
END PANEL AND SLEEPER SLAB PLAN
Scale: 1/4" = 1'-0"

NOTE:
Cross-slope of sleeper slab to match cross-slope of adjacent bent cap.

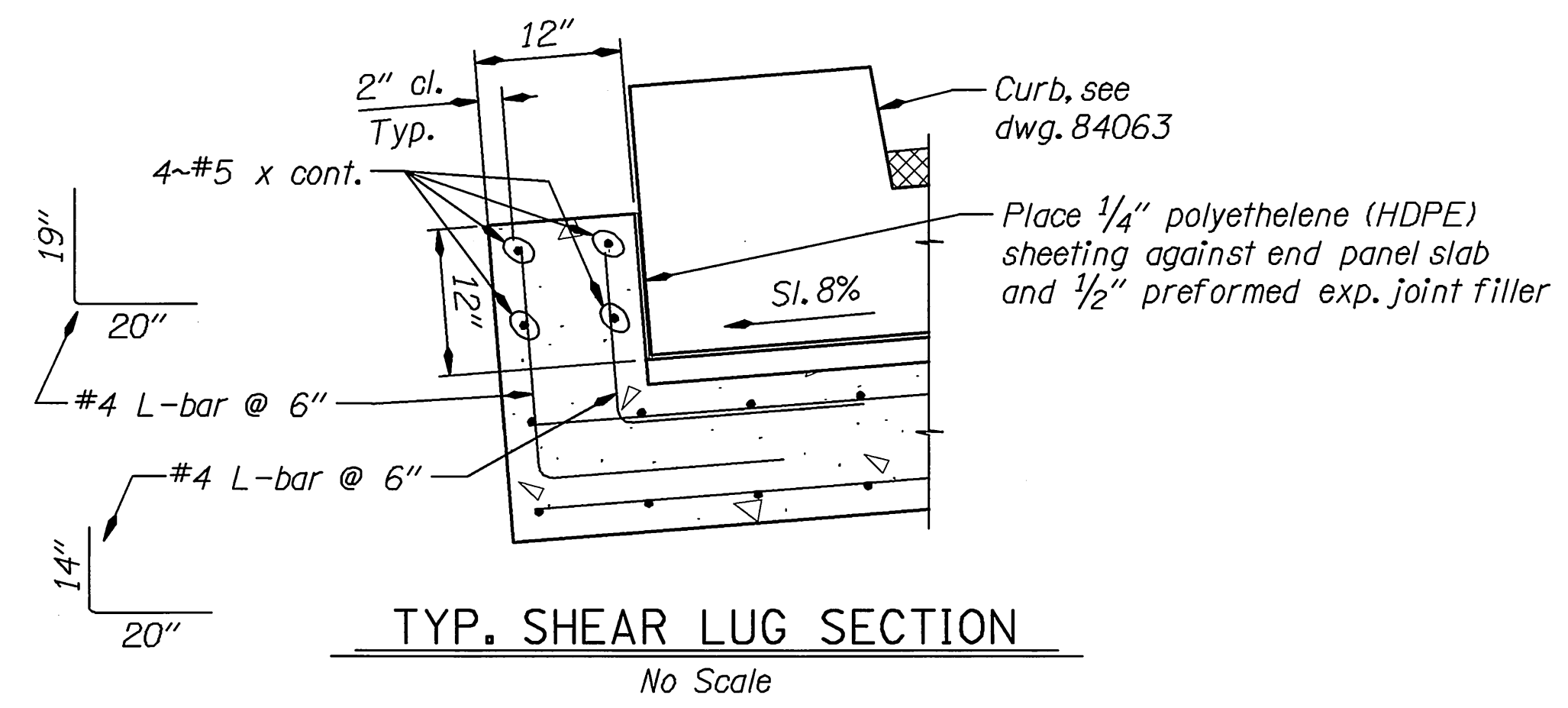


END PANEL AND SLEEPER SLAB SECTION
Scale: 1/2" = 1'-0"

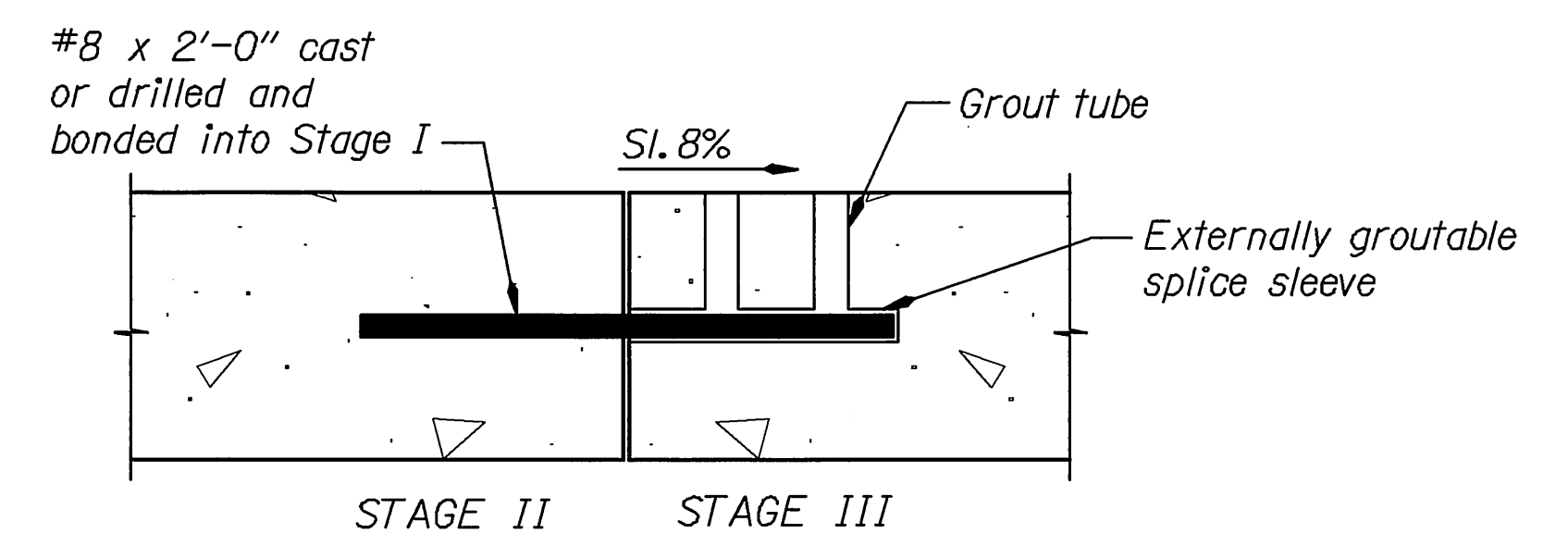
NOTE "A"
1 1/4" dia. x 1'-6" long smooth dowel (A36) at each end of slab. Drill a 1 1/2" dia. hole, 10" deep, into pile cap/sleeper slab after slabs are in place and tie rod ends have been tightened. Use non-impact rotary drill. Avoid all steel reinforcement when drilling. Place 2" dia. x 1" thk. polystyrene plug on top of dowel. Fill remainder of hole with non-shrink grout.



DETAIL "B"
No Scale



TYP. SHEAR LUG SECTION
No Scale



GROUTABLE SPLICE SLEEVE DETAIL
No Scale

NOTE:
See dwg. BR400 for details not shown.

SCALE WARNING
If scale bar doesn't measure one inch then drawing is not to scale

DATE	REVISION	BY	DRAWER: Sandra Gish		STRUCTURE NO. 21188	VOLMER CREEK, HWY 47 OR26: VOLMER CREEK BRIDGE & JOHNSON CREEK BRIDGE PROJECT SUNSET HIGHWAY (M.P. 2.24) CLATSOP CO.	SHEET 12 OF 12
			DESIGNER: Ron Blacketer, P.E.		DATE JULY 2010		
ACCOMPANIED BY DWGS. See dwg. 84057			CHECKER: Susan E. Kocher, P.E.		CALC. BOOK 6231	END PANEL AND SLEEPER SLAB DETAILS	
			REVIEWER: Al Heyn, P.E.		REGION 2 TECH CENTER		