

General Notes

Provide all materials and perform all work according to the 2002 Oregon Standard Specifications for Construction.

Bridge is designed with an allowance of 50 psf. for future wearing surface and all of the following- Live Loads according to the current AASHTO LRFD Bridge Design Specifications:

Service and Strength-I Limit States:

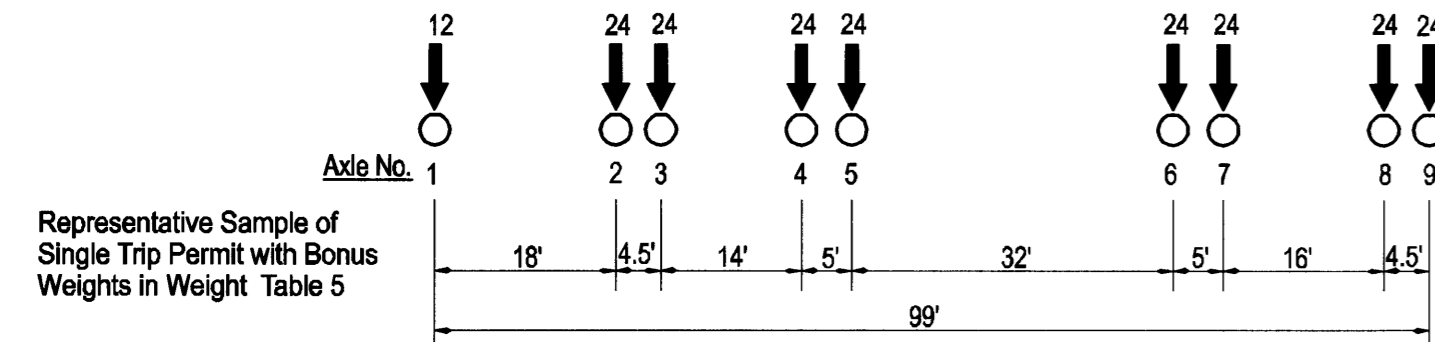
HL-93: Design truck (or trucks per LRFD 3.6.1.3) or the tandem and the design lane load.

Strength II Limit State:

ODOT OR-STP-5BW permit truck

Type OR-STP-5BW

9 Axle Vehicle
Gross Weight = 204K

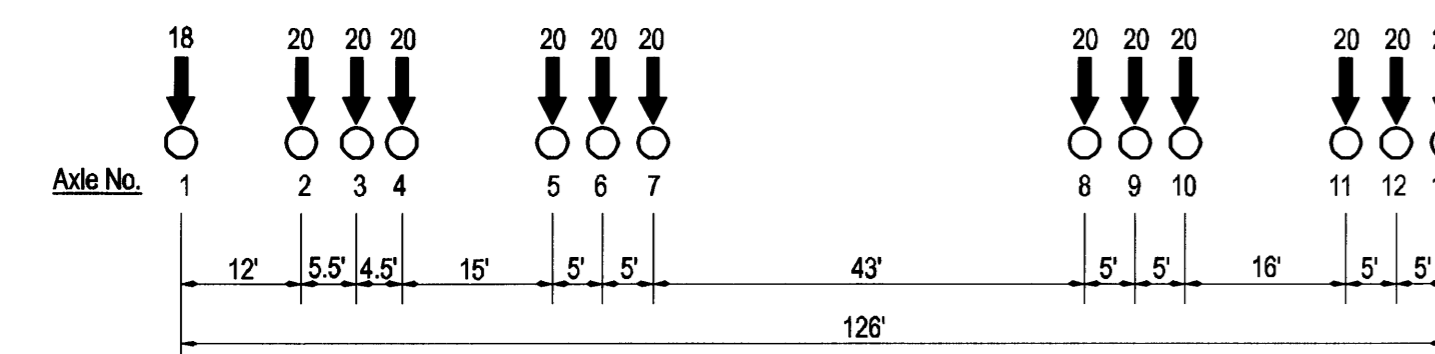


ODOT OR-STP-5C permit truck

Type OR-STP-5C

13 Axle Vehicle
Gross Weight = 258K

Representative Sample of Single Trip Permit in Weight Table 5



All reinforcing steel according to ASTM Specifications ASTM 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										
Bar Size	#3	#4	#5	#6	#7	#8	#9	#10	#11	#14 & #18
Uncoated	1'-0"	1'-4"	1'-8"	2'-0"	2'-8"	3'-6"	4'-4"	5'-7"	6'-9"	Not permitted
Coated	1'-5"	1'-10"	2'-4"	2'-10"	3'-9"	4'-11"	6'-1"	7'-10"	9'-6"	Not permitted

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

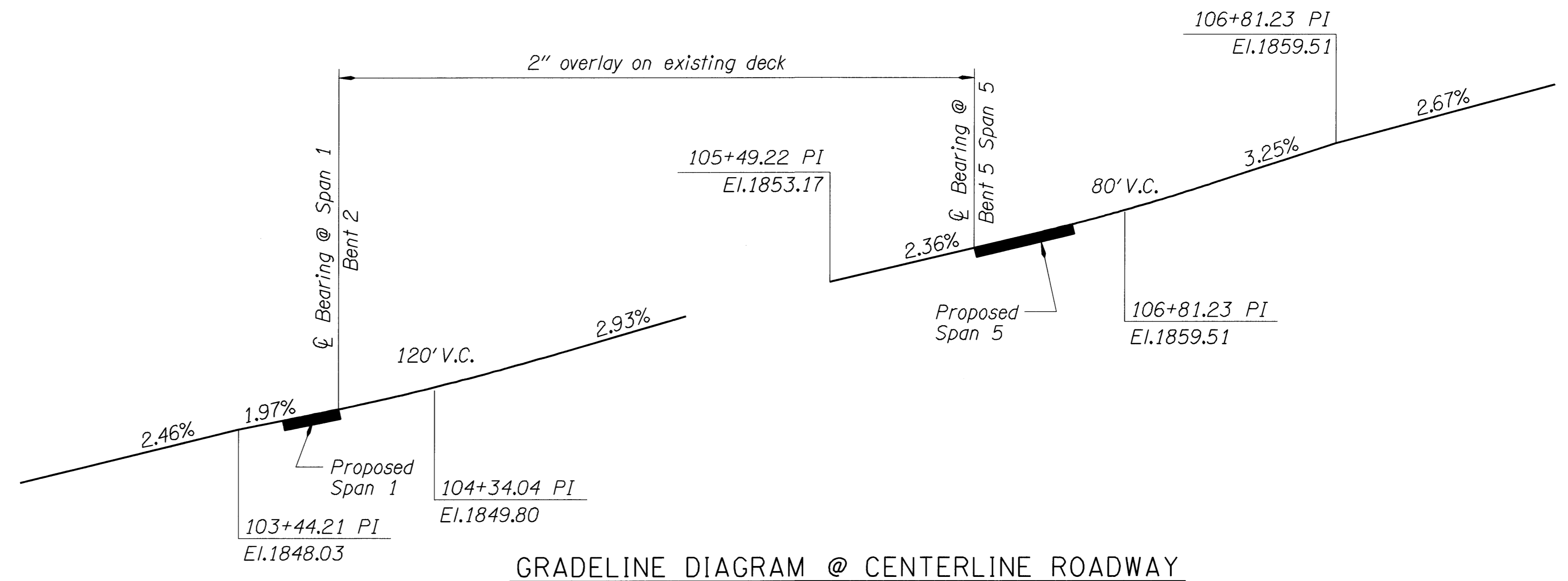
Use epoxy coated reinforcing steel in the top of precast prestressed slabs and bridge end panel. This includes top longitudinal and transverse bars, and all bars extending into the sidewalk, curb and parapet.

Provide Class HPC 4350 - 3/4" concrete end panel.
Provide Class 4350 - 1 1/2", 1, 3/4" concrete in caps, walls.
Provide Class 5000 - 3/4" concrete in precast prestressed beams according to detail plans.
Provide class 3600 - 3/4" conc. for all other conc. members.
Minimum strength for microsilica concrete shall be 3600 psi. at 7 days.
Minimum strength for grout (from QPL) in caps shall be 3000 psi. at 7 day.
See dwg. 74921. The minimum strength of concrete at transfer of prestress is 4,000 psi.
Provide prestressed steel according to detail plans.

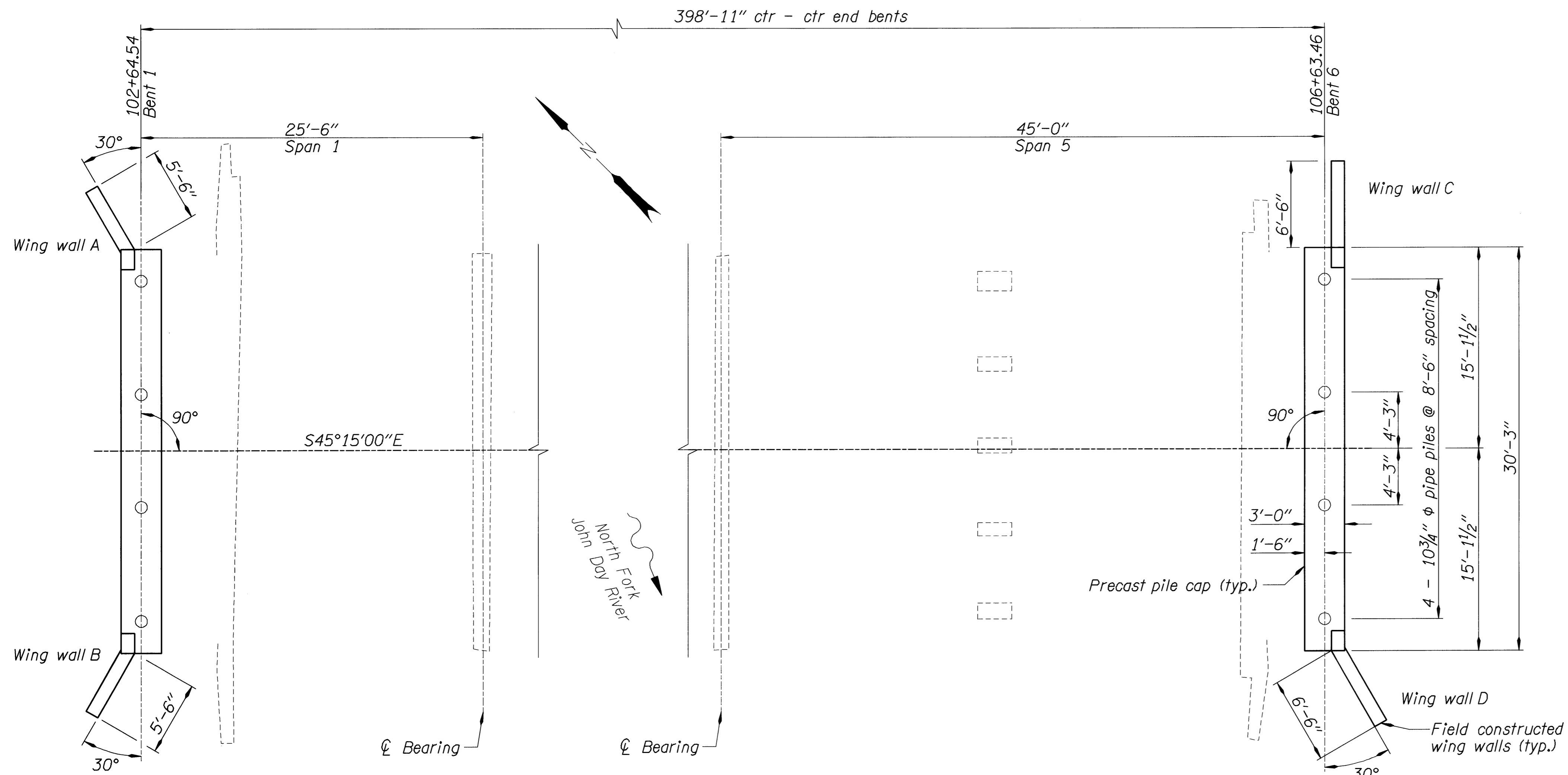
Provide structural steel according to ASTM Specifications A36 in accordance with detail plans. Perform all welding according to the latest edition of the AWS Structural Welding Code (AWS D1.1). Provide a Certified Welding Inspector to certify the workmanship of all field welds. Hot-dip galvanize all bolts, washers, nuts and structural steel after fabrication. Provide fully threaded anchor rods for resin bonded anchors according to AASHTO specification M 314, Grade 105. Select a "High Strength" resin from the department's Qualified Products List.

All structural steel including fasteners shall be hot-dip galvanized after fabrication, except as noted. Galvanized-Control Silicon means silicon content of 0 to 0.04% or 0.15% to 0.25%.

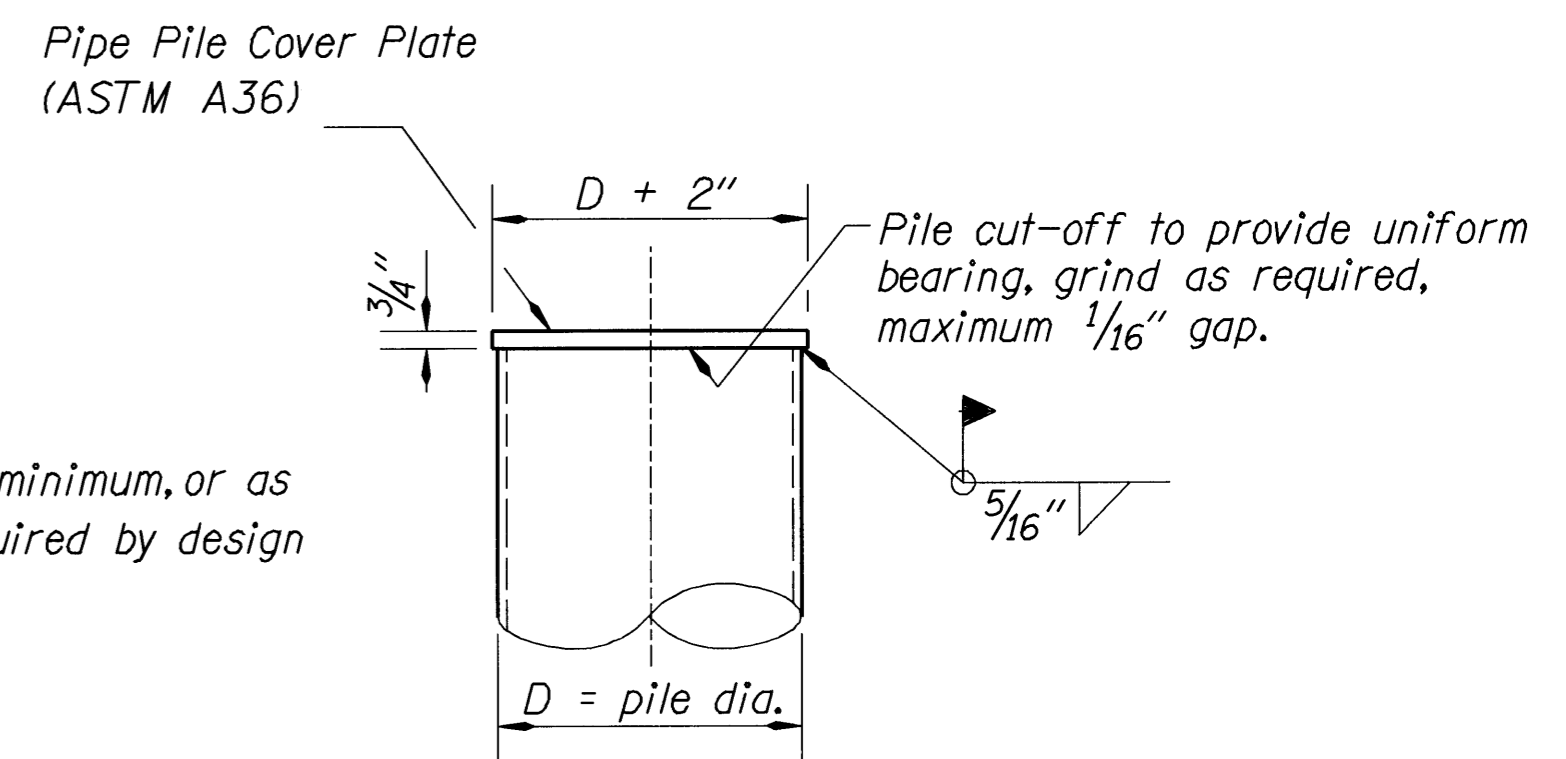
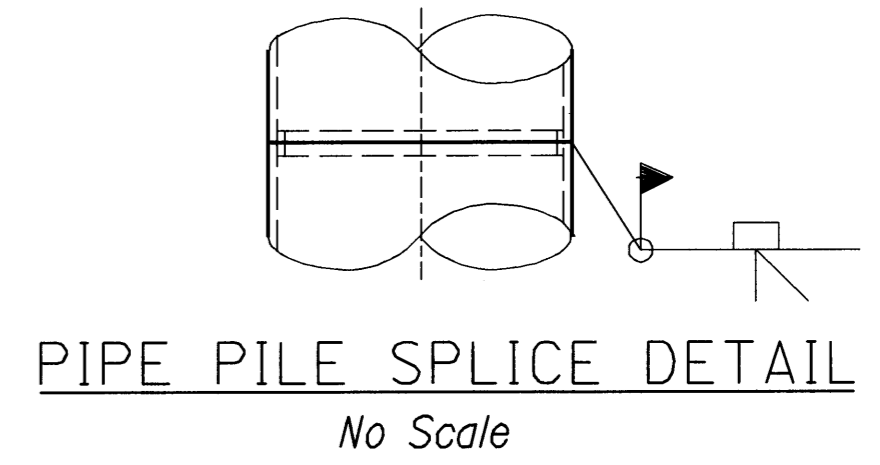
See Footing Plan for foundation design notes.



	DATE	REVISION	BY	DRAFTER: <i>Mindy Nash</i>			STRUCTURE NO.	NORTH FORK JOHN DAY RIVER, HWY 5 (KIMBERLY) OR 19/ OR 402: NORTH FORK JOHN DAY RIVER (KIMBERLY - MONUMENT) BRIDGE SEC. KIMBERLY - LONG CREEK HIGHWAY GRANT COUNTY	SHEET
				CHECKER: <i>Ron Jee/In-Tae Lee</i>			02398		2
				REVIEWER: <i>Mark Hanson</i>			DATE		OF
							0CT-2006		15
							CALC. BOOK	DRAWING NO.	
							5509	74912	
GENERAL NOTES									



FOOTING PLAN
Scale: 3/16" = 1"

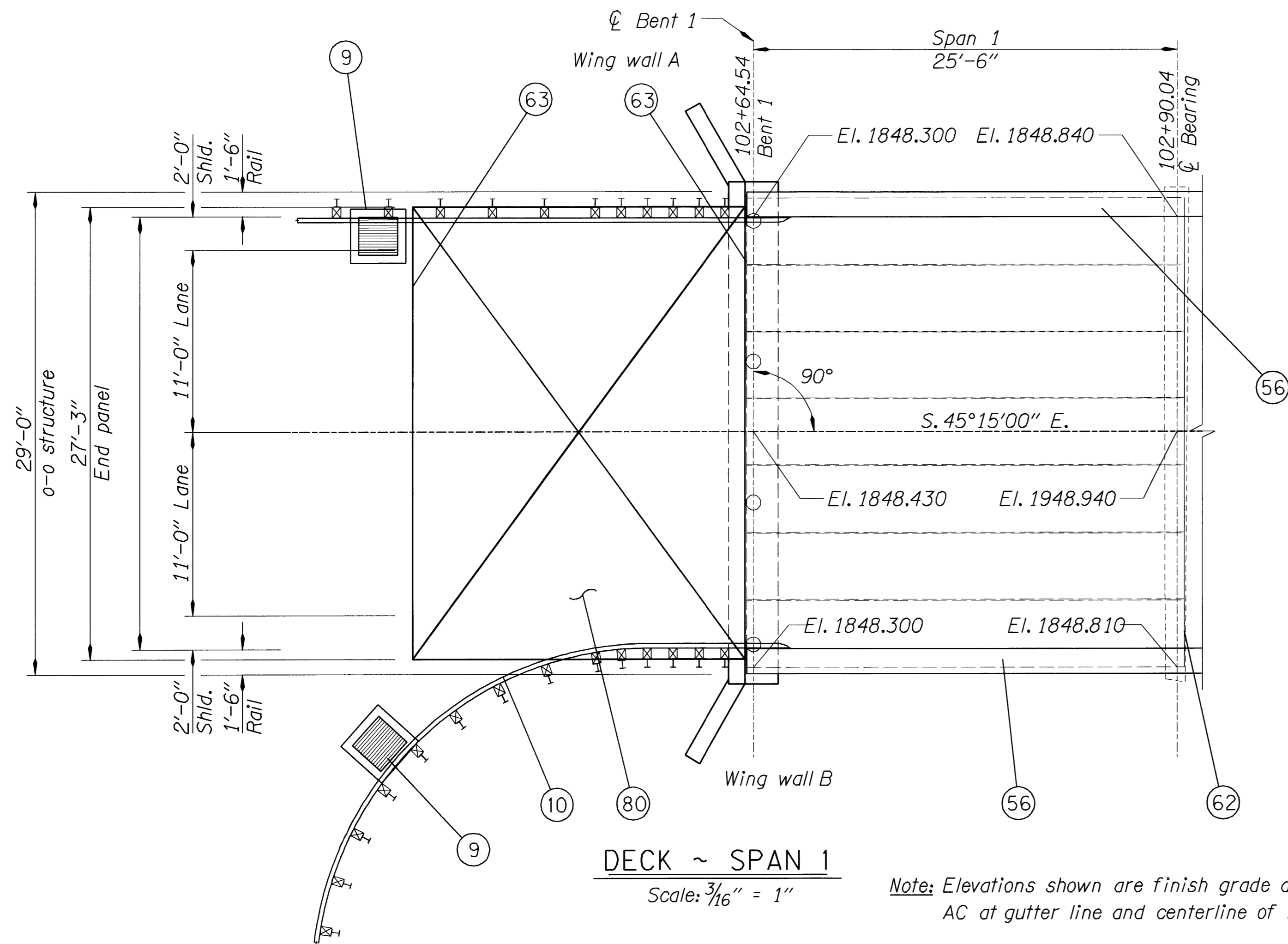


FOUNDATION NOTES:
Provide PP10.750x0.500 ASTM A252, Grade 3 piling.
Provide reinforced tips. See Special Provisions.
Drive all piles to the specified ultimate capacity using driving criteria developed from the ODOT Wave Equation.

Bent	Number of Piles	Pile Section	Required Ultimate Capacity, kips	Tip Elevation for Minimum Penetration, ft.	Estimated Tip Elevation, ft.
1	4	PP10 3/4 x 0.5	273	1819	1799
6	4	PP10 3/4 x 0.5	378	1842	1840

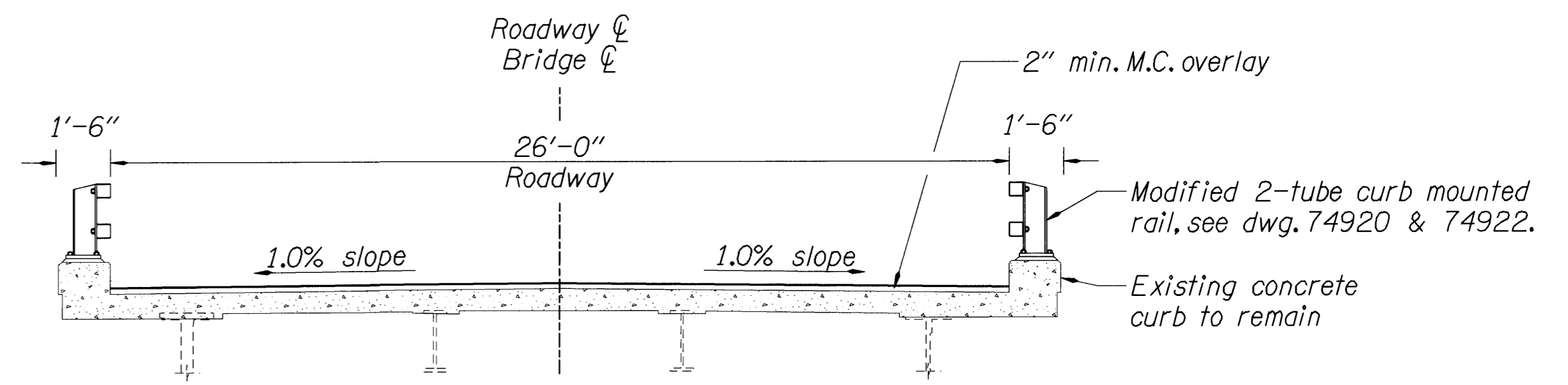
Shallow bedrock is present at Bent 6. It is anticipated that preboring will be required to install the piles at Bent 6 to the minimum pile penetration depth. See Special Provisions.

▲	DATE	REVISION	BY	DRAFTER: <i>Mindy Nash</i>			STRUCTURE NO. 02398	NORTH FORK JOHN DAY RIVER, HWY 5 (KIMBERLY) OR 19/ OR 402: NORTH FORK JOHN DAY RIVER (KIMBERLY - MONUMENT) BRIDGE SEC. KIMBERLY - LONG CREEK HIGHWAY GRANT COUNTY	SHEET 5 OF 15
				CHECKER: <i>Ron Jee/In-Tae Lee</i>		DATE OCT-2006	DRAWING NO.		
				REVIEWER: <i>Mark Hanson</i>		CALC. BOOK 5509	74913		

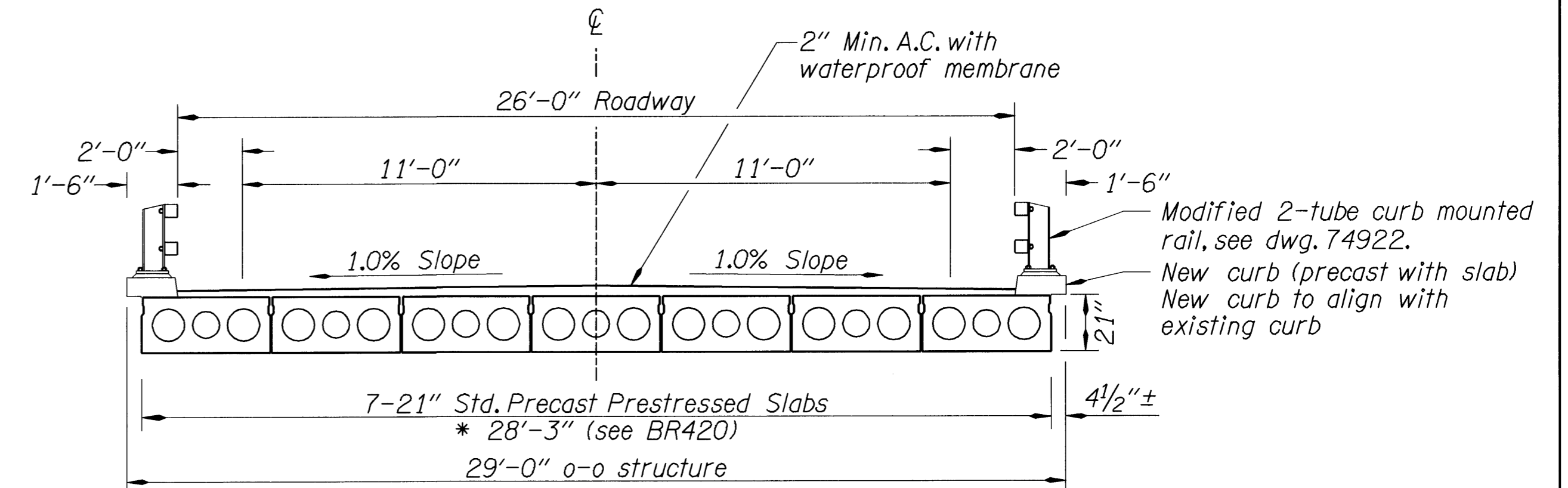


DECK ~ SPAN 1
Scale: 3/16" = 1"

Note: Elevations shown are finish grade at top of AC at gutter line and centerline of bent.



EXISTING DECK TYPICAL
Scale: 1/8" = 1'-0"



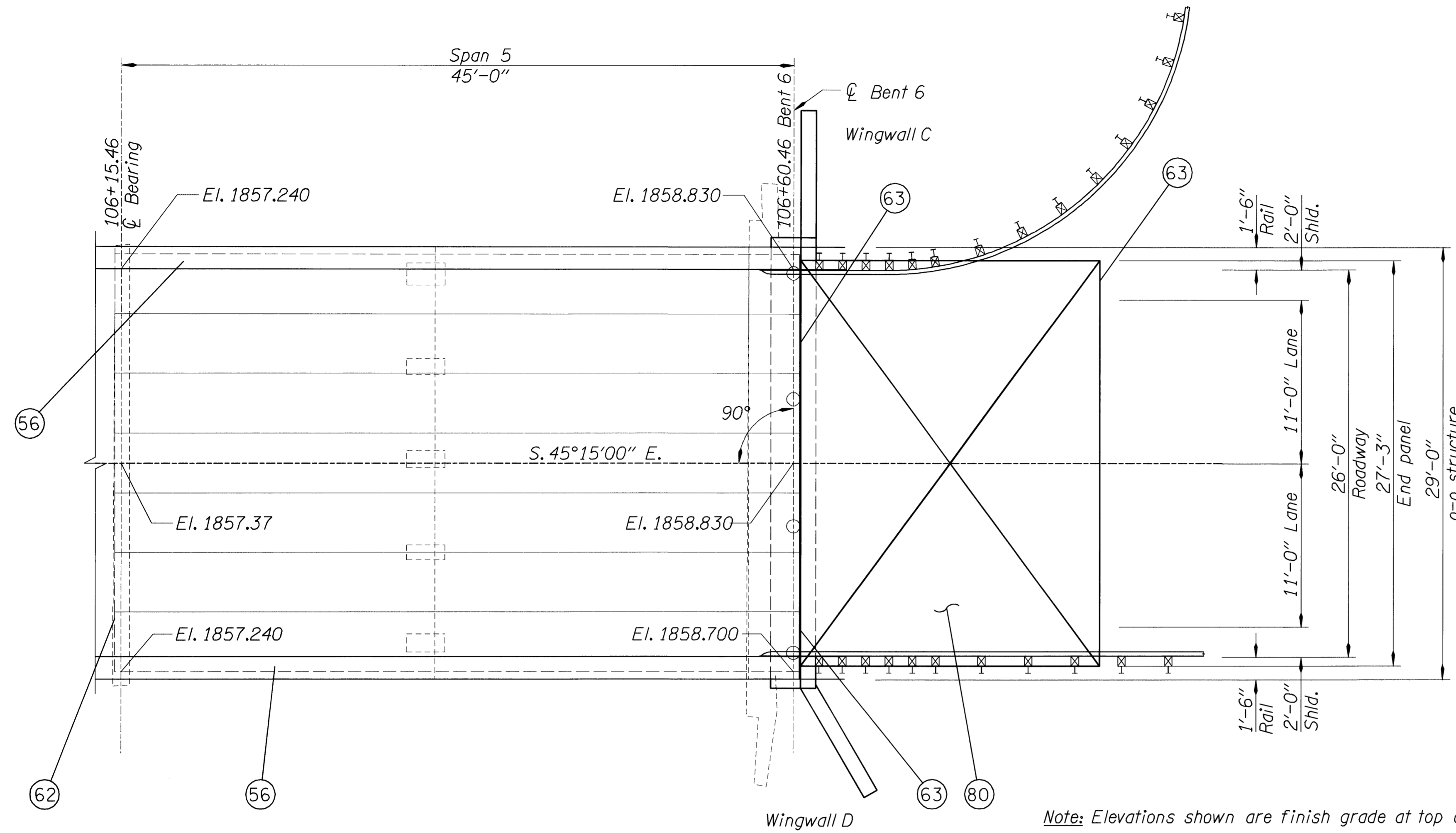
SPAN 1 ~ TYPICAL
Scale: 1/8" = 1'

* This dim. includes 1/2" variation in dimension of per slab.

DETAIL REFERENCE NUMBERS:

- ⑨ - Inlet see roadway dwg 2B.
- ⑩ - Drainage curb on end panel and asphalt pavement between bridge rail and inlet.
- ⑤⑥ - Modified 2-tube curbs mounted bridge rail, see dwg. 74922.
- ⑥② - Asphaltic plug joint seal, see dwg. 74920.
- ⑥③ - Sawcut 1 1/2" deep, fill with poured joint filler, see dwg. 74920.
- ⑧① - 20'-4" reinforced concrete bridge "end panel" at bent 1, see dwg. BR165

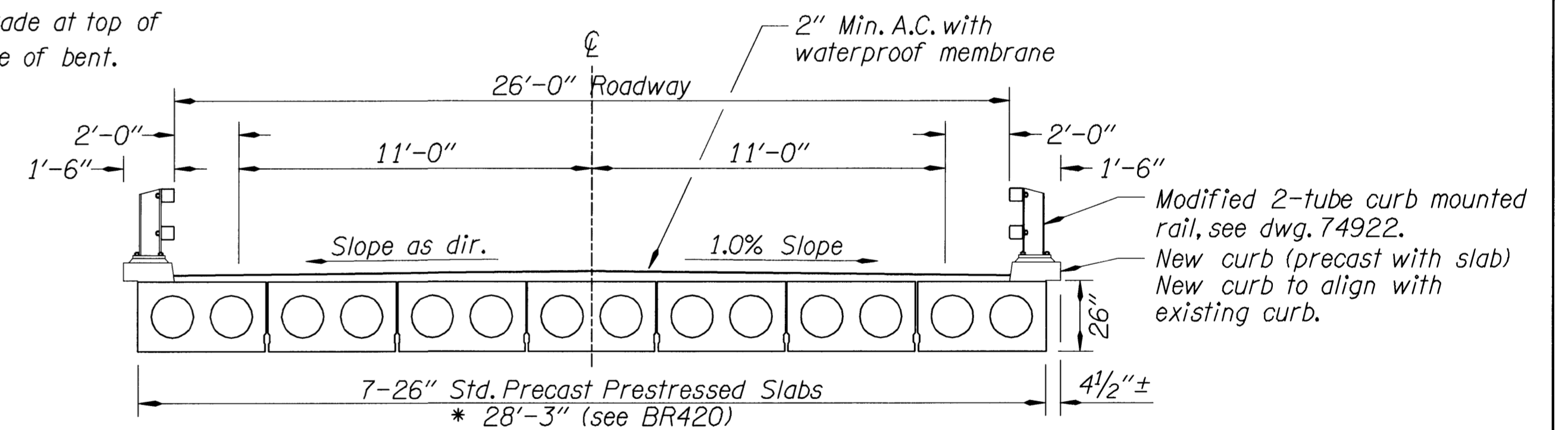
	DATE	REVISION	BY	DRAFTER: <i>Mindy Nash</i> CHECKER: <i>Ron Jee/In-Tae Lee</i> REVIEWER: <i>Mark Hanson</i>			STRUCTURE NO.	NORTH FORK JOHN DAY RIVER, HWY 5 (KIMBERLY) OR 19/ OR 402: NORTH FORK JOHN DAY RIVER (KIMBERLY - MONUMENT) BRIDGE SEC. KIMBERLY - LONG CREEK HIGHWAY GRANT COUNTY	SHEET
							02398		6
							DATE		OF
							OCT-2006		15
							CALC. BOOK	DRAWING NO.	
							5509	74914	
							DECK PLAN ~ SPAN 1		



Note:
For Detail Reference Numbers, see dwg. 74914 for details.

Note: Elevations shown are finish grade at top of AC at gutter line and centerline of bent.

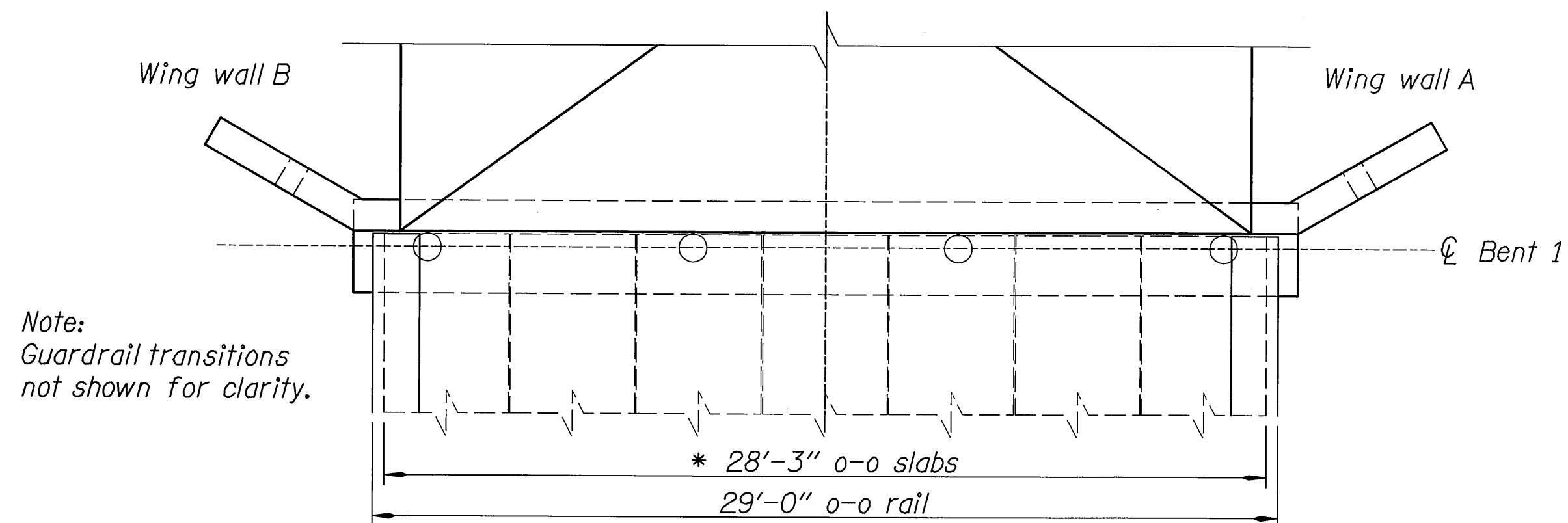
DECK ~ SPAN 5
Scale: 3/16" = 1"



SPAN 5 ~ TYPICAL
Scale: 1/8" = 1'

* This dim. includes 1/2" variation in dimension of per slab.

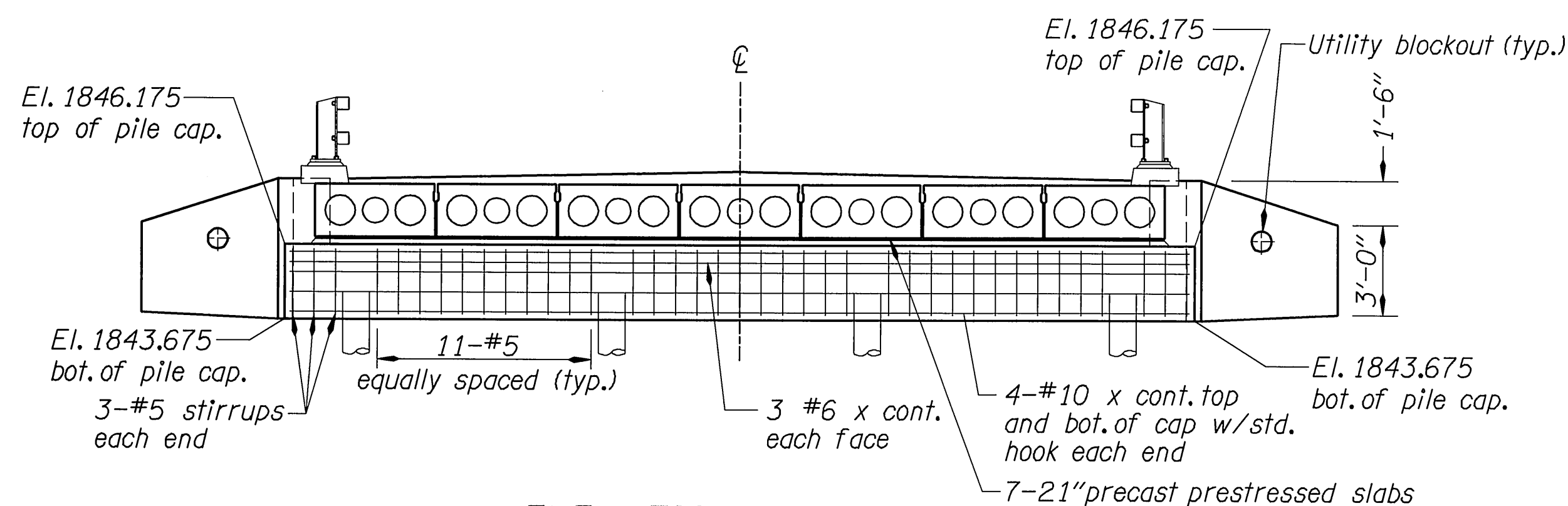
▲	DATE	REVISION	BY	DRAFTER: Mindy Nash			STRUCTURE NO.	NORTH FORK JOHN DAY RIVER, HWY 5 (KIMBERLY) OR 19/ OR 402: NORTH FORK JOHN DAY RIVER (KIMBERLY - MONUMENT) BRIDGE SEC. KIMBERLY - LONG CREEK HIGHWAY GRANT COUNTY	SHEET
				CHECKER: Ron Jee/In-Tae Lee			02398		7
				REVIEWER: Mark Hanson			DATE		OF
							5509		15
							DECK PLAN ~ SPAN 5	DRAWING NO.	74915



PLAN ~ Bent 1

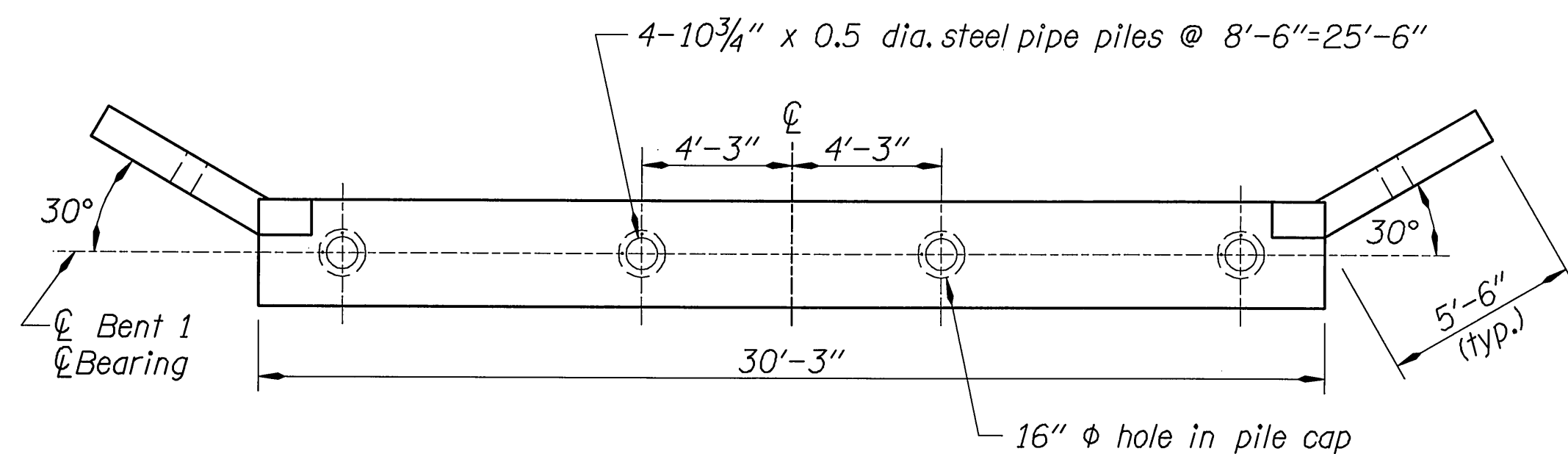
(Looking back on line)
Scale: 1/4" = 1'

* Dimension includes 1/2" variation in width per precast prestressed slab.



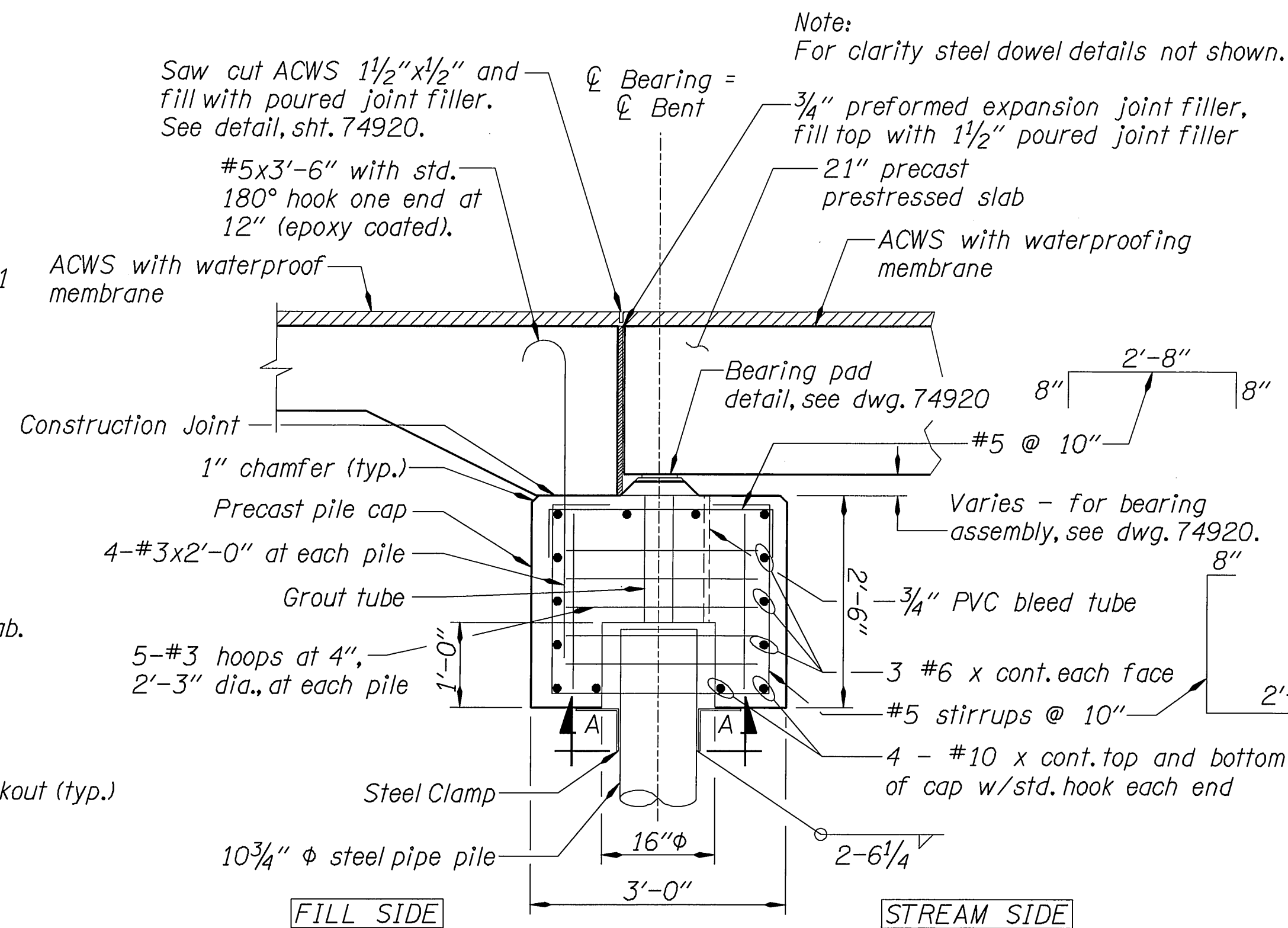
ELEVATION ~ Bent 1

(Looking back on line)
Scale: 1/4" = 1'



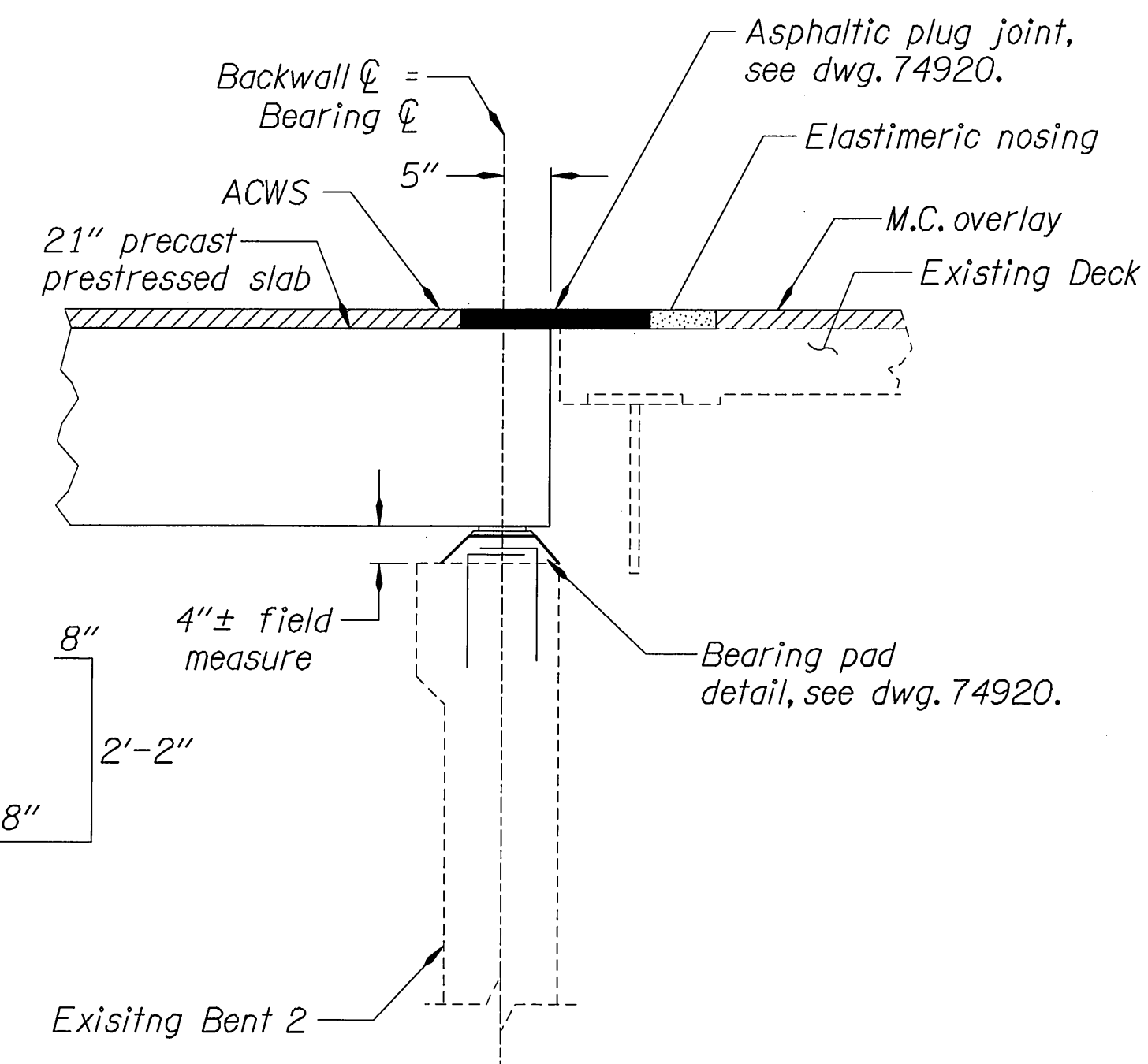
FOOTING PLAN ~ Bent 1

(Looking back on line)
Scale: 1/4" = 1'



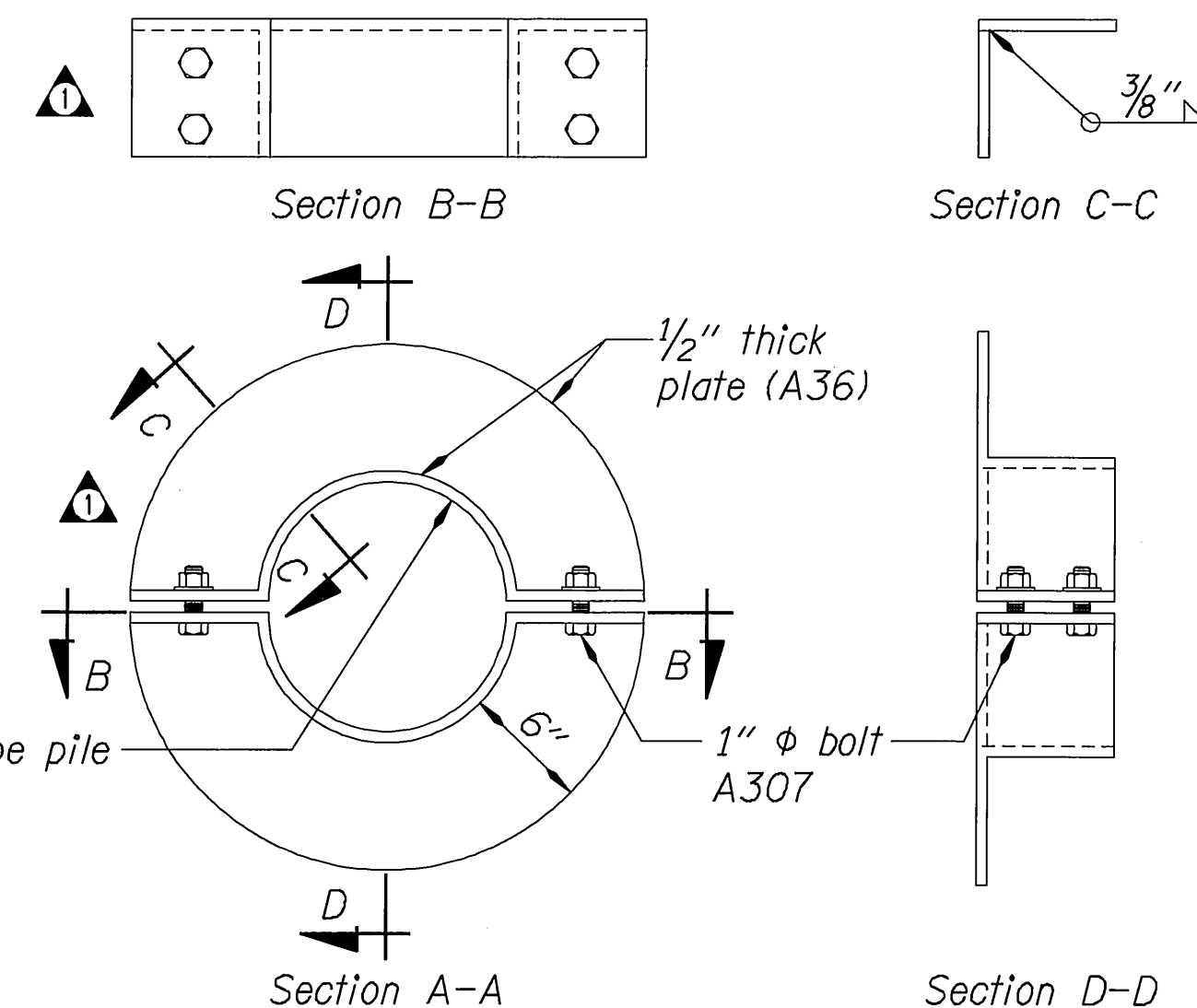
TYPICAL SECTION ~ Bent 1

Scale: 3/4" = 1'



DETAIL ~ Bent 2

Scale: 3/4" = 1'

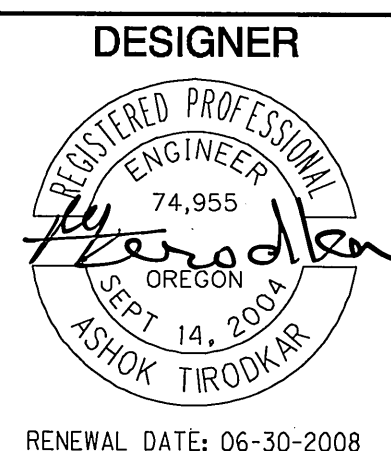


STEEL CLAMP ~ DETAIL

Scale: 1 1/2" = 1'

Note: Contractor to design lift system for precast pile cap.

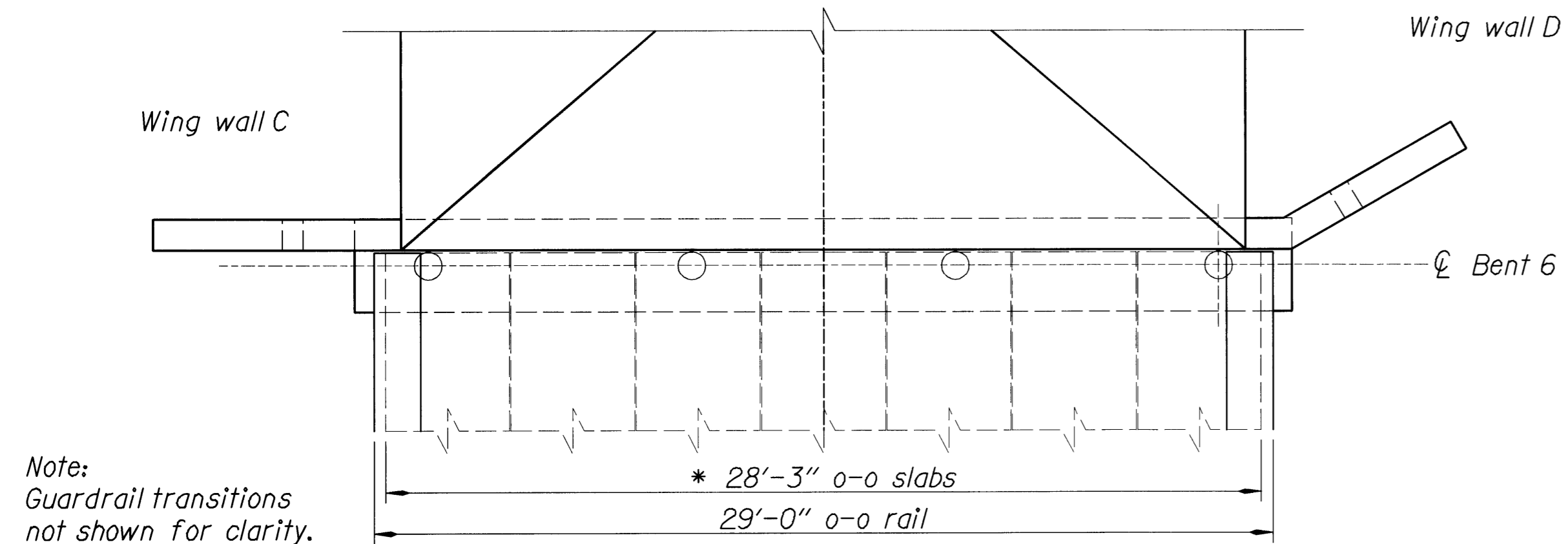
DATE	REVISION	BY	DESIGNER
11/20/06	Steel clamp detail, bolt locations.	MN	Mindy Nash
			Ron. Jee / In-Tae Lee
			Mark Hanson



STRUCTURE NO.	DATE	CALC. BOOK	SHEET	DRAWING NO.
02398	OCT-2006	5509	8 OF 15	74916

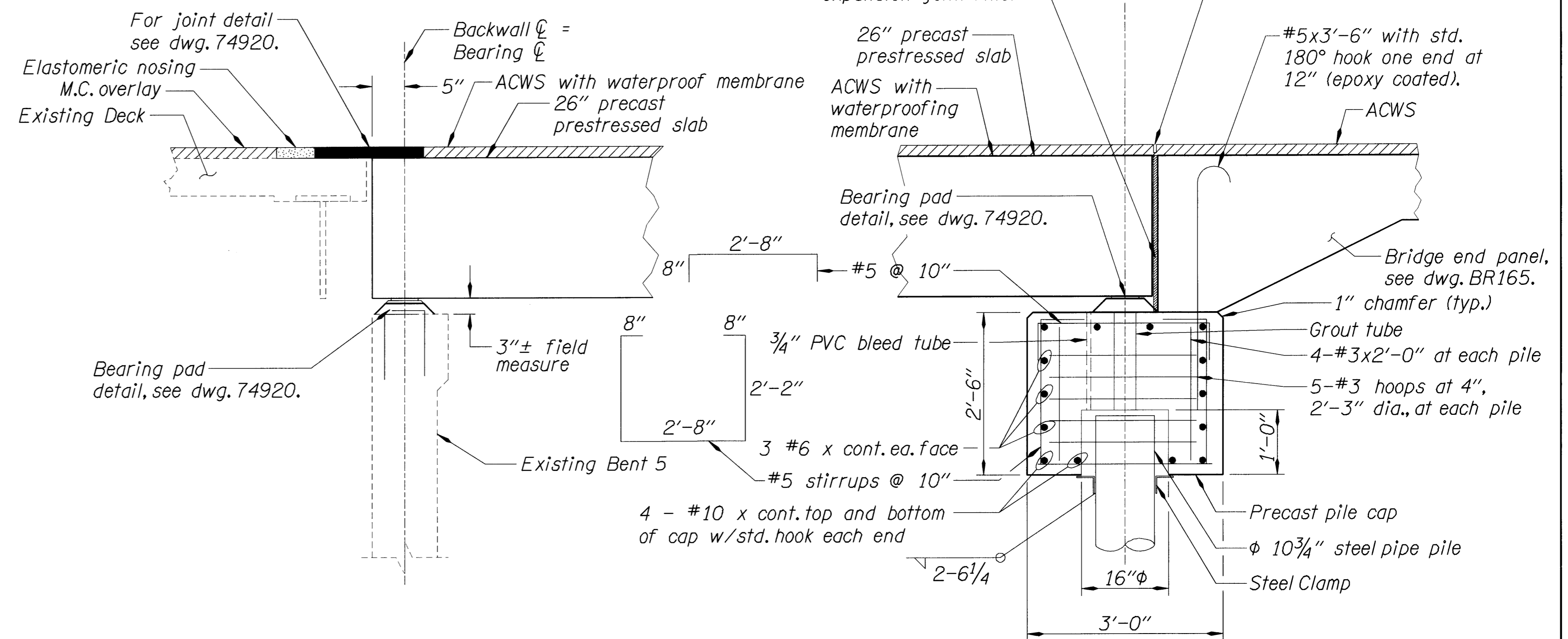
NORTH FORK JOHN DAY RIVER, HWY 5 (KIMBERLY)
OR 19/ OR 402: NORTH FORK JOHN DAY RIVER
(KIMBERLY - MONUMENT) BRIDGE SEC.
KIMBERLY - LONG CREEK HIGHWAY
GRANT COUNTY

BENT 1 & 2 DETAILS



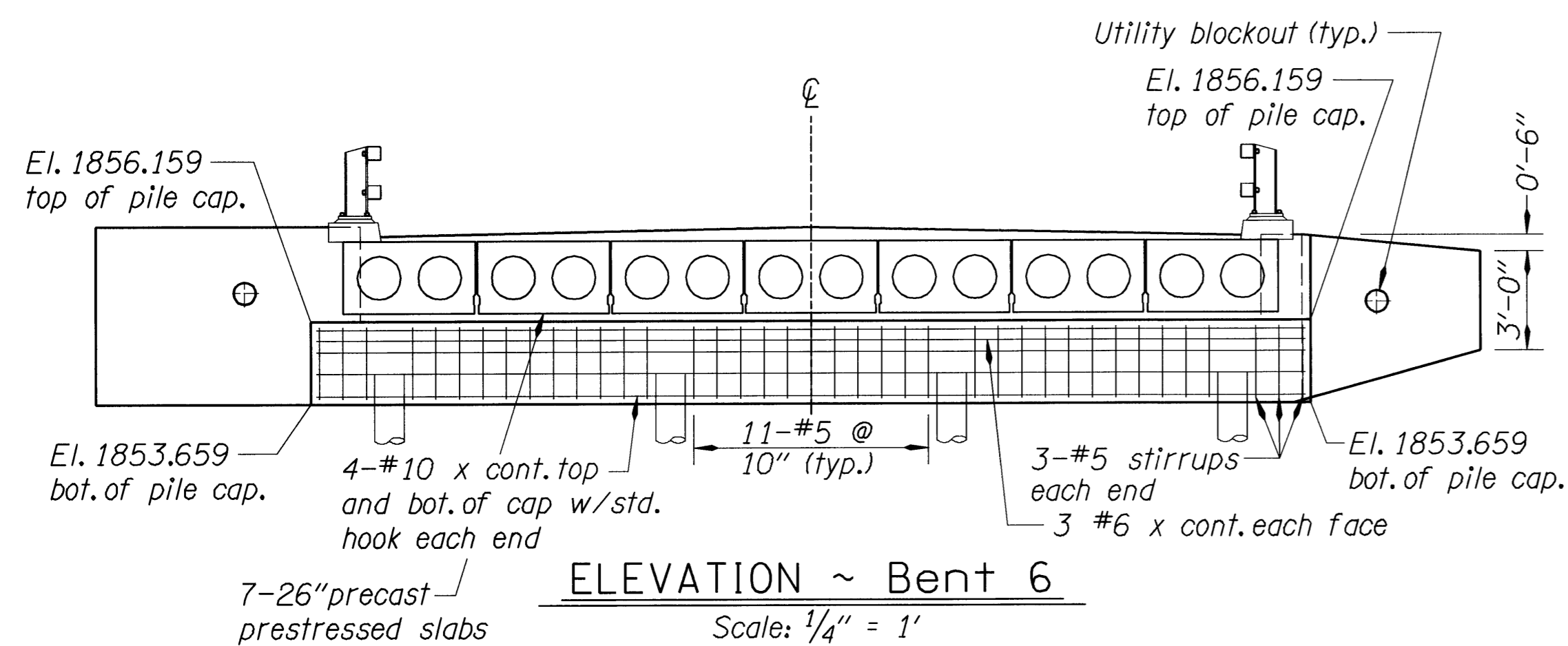
PLAN ~ Bent 6
Scale: 1/4" = 1'

* Dimension includes 1/2" variation in width per precast prestressed slab.

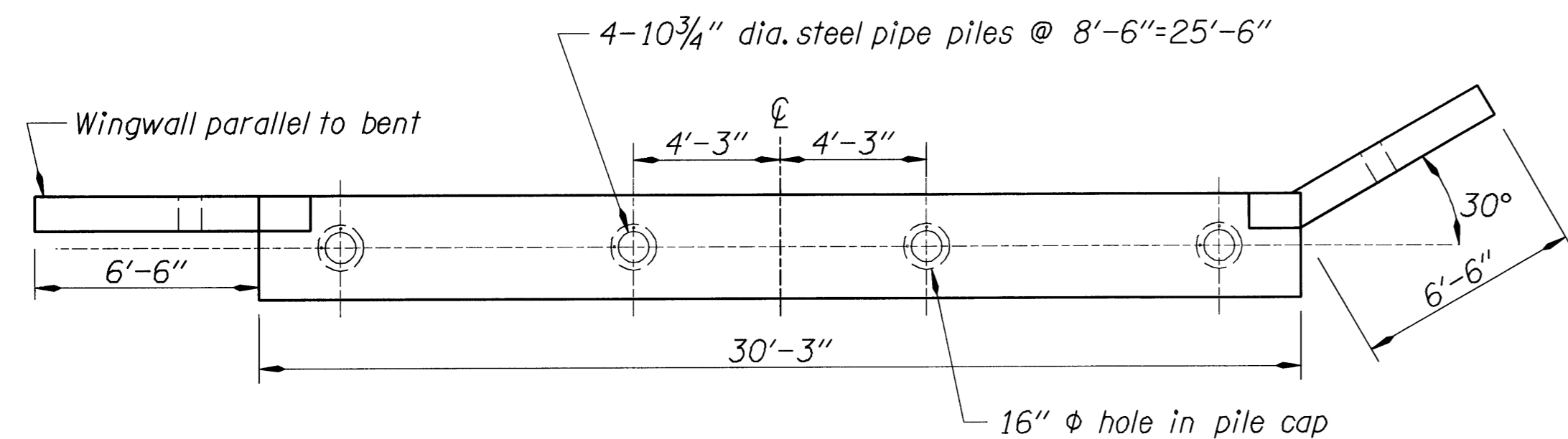


DETAIL ~ Bent 5
Scale: 3/4" = 1'

DETAIL ~ Bent 6
Scale: 3/4" = 1'

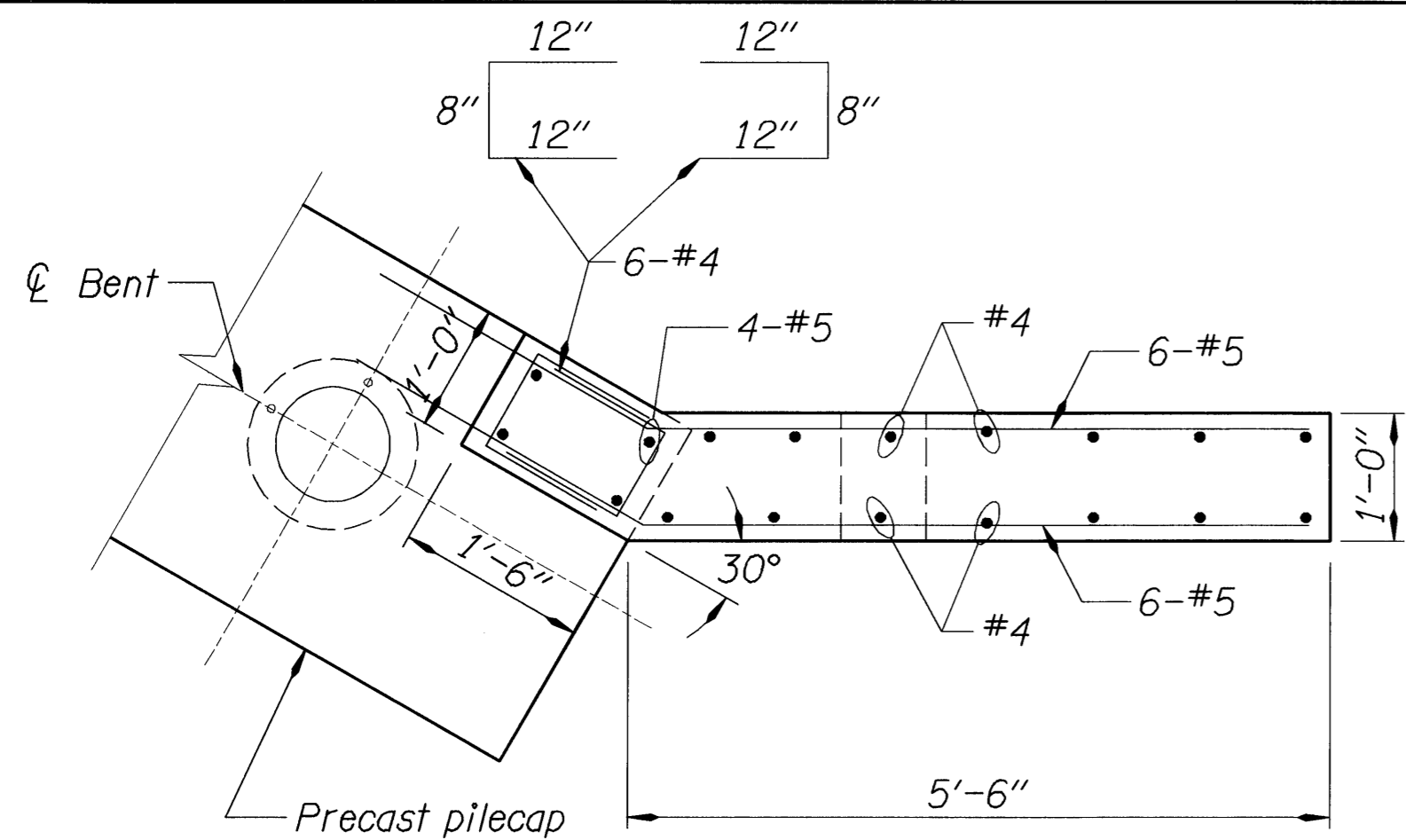


ELEVATION ~ Bent 6
Scale: 1/4" = 1'



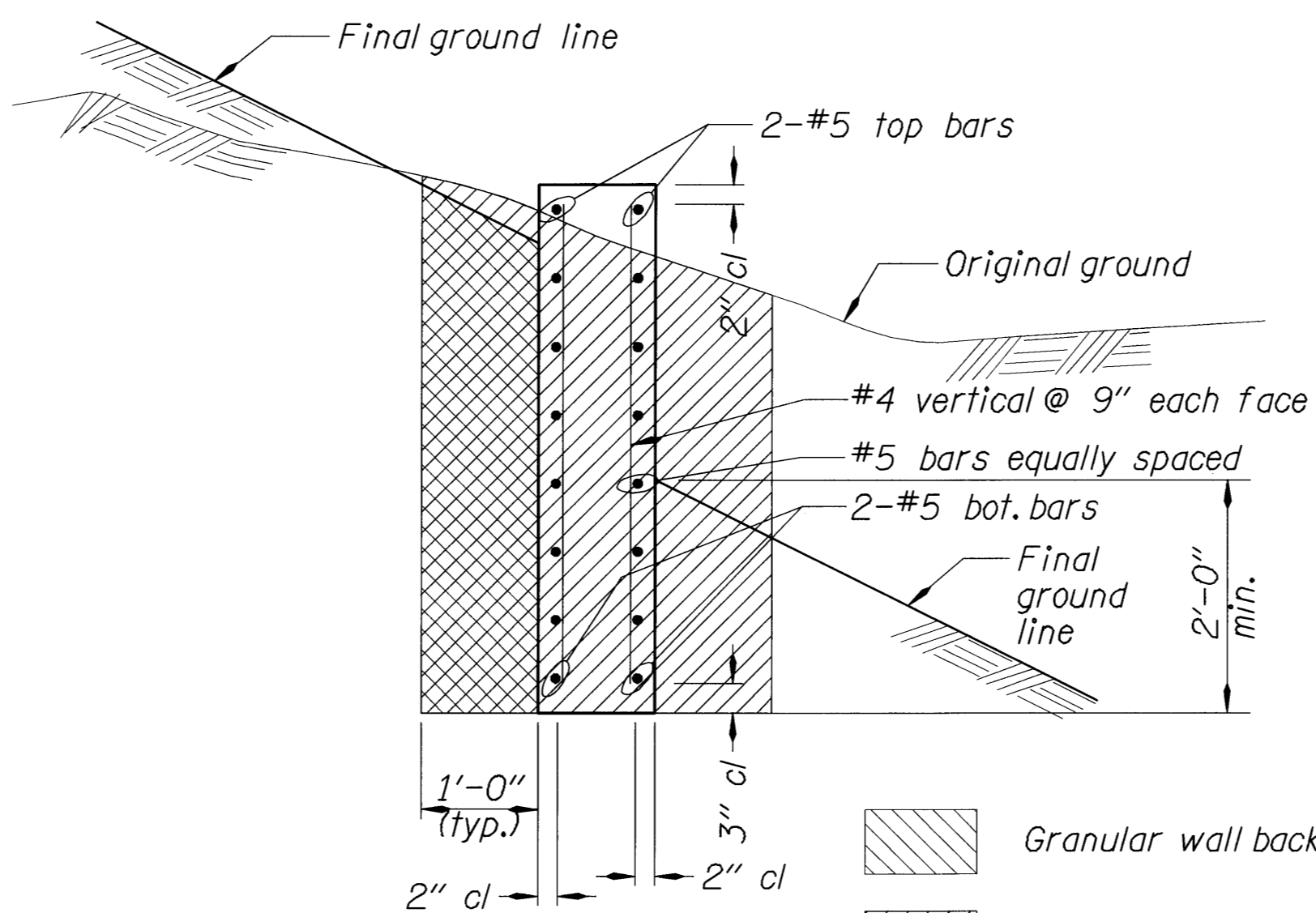
FOOTING PLAN ~ Bent 6
Scale: 1/4" = 1'

	DATE	REVISION	BY	DESIGNER RENEWAL DATE: 06-30-2008		STRUCTURE NO.	NORTH FORK JOHN DAY RIVER, HWY 5 (KIMBERLY) OR 19/ OR 402: NORTH FORK JOHN DAY RIVER (KIMBERLY - MONUMENT) BRIDGE SEC. KIMBERLY - LONG CREEK HIGHWAY GRANT COUNTY	SHEET	
								02398	9
								DATE	15
								OCT-2006	DRAWING NO.
						5509	BENT 5 & 6 DETAILS	74917	



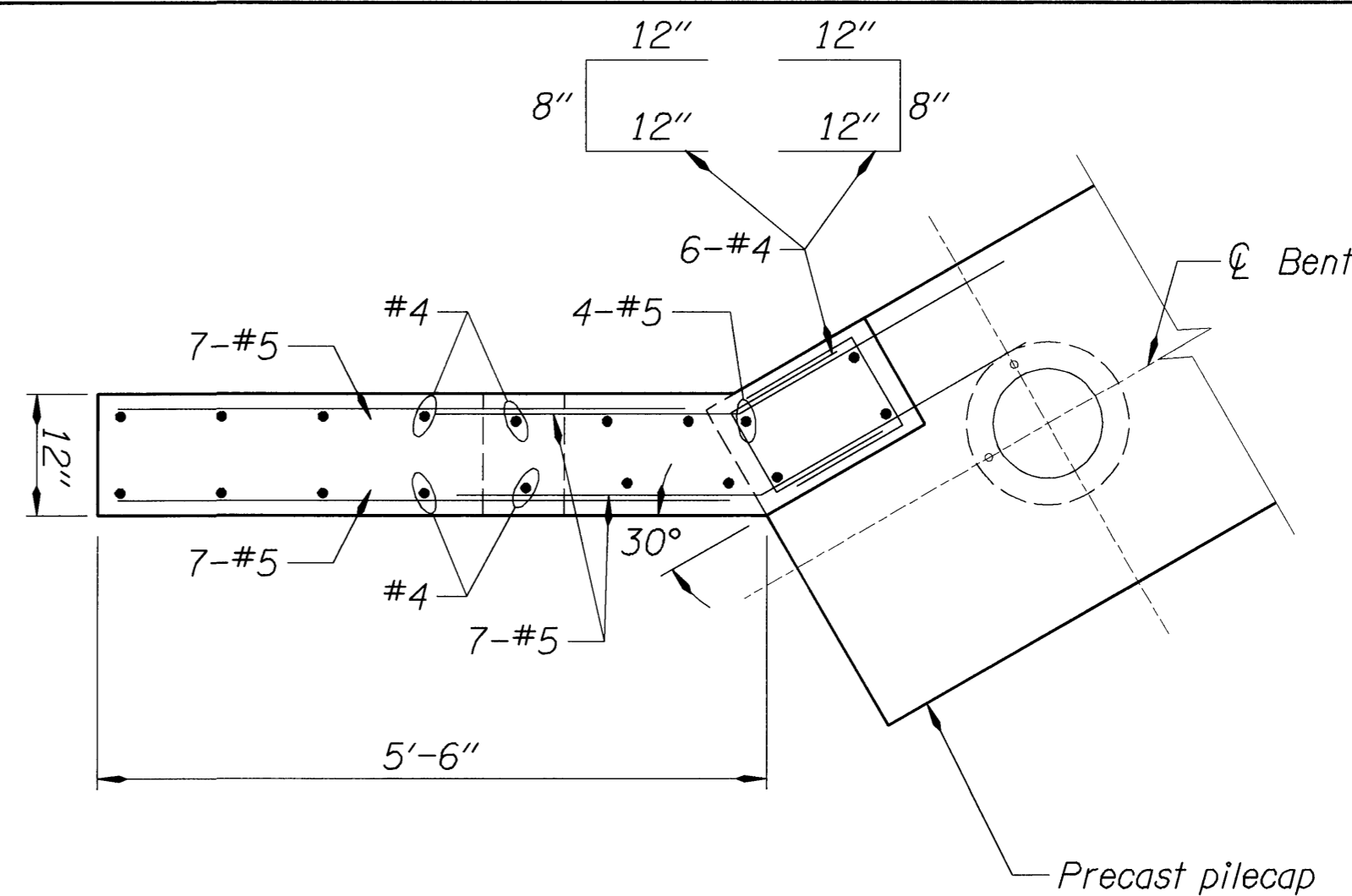
PLAN ~ Wing Wall A

Scale: 3/4" = 1'



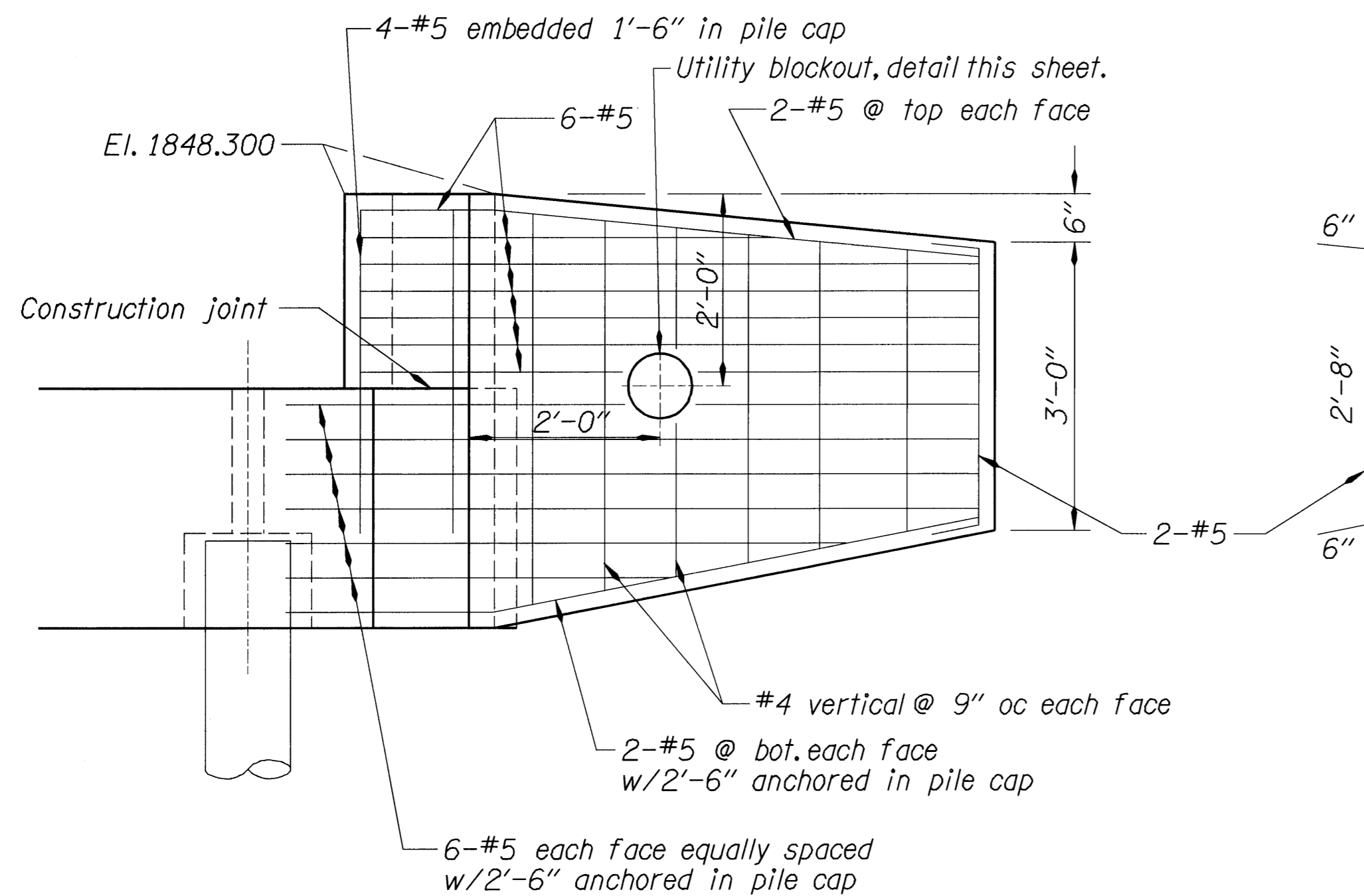
SECTION

Scale: 3/4" = 1'



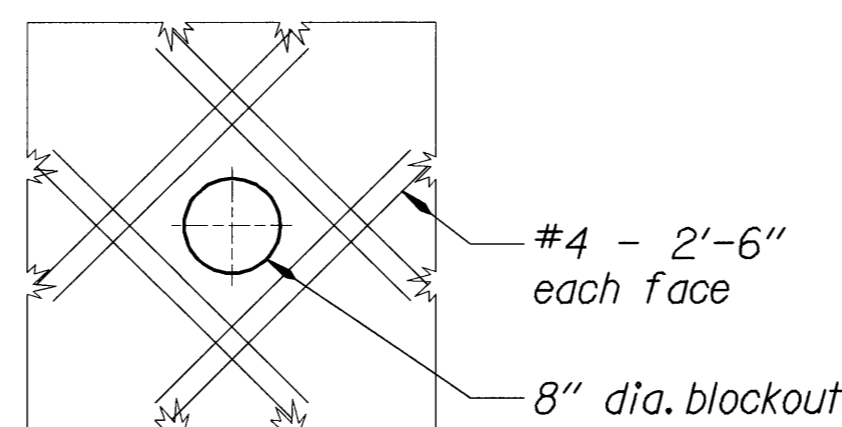
PLAN ~ Wing Wall B

Scale: 3/4" = 1'



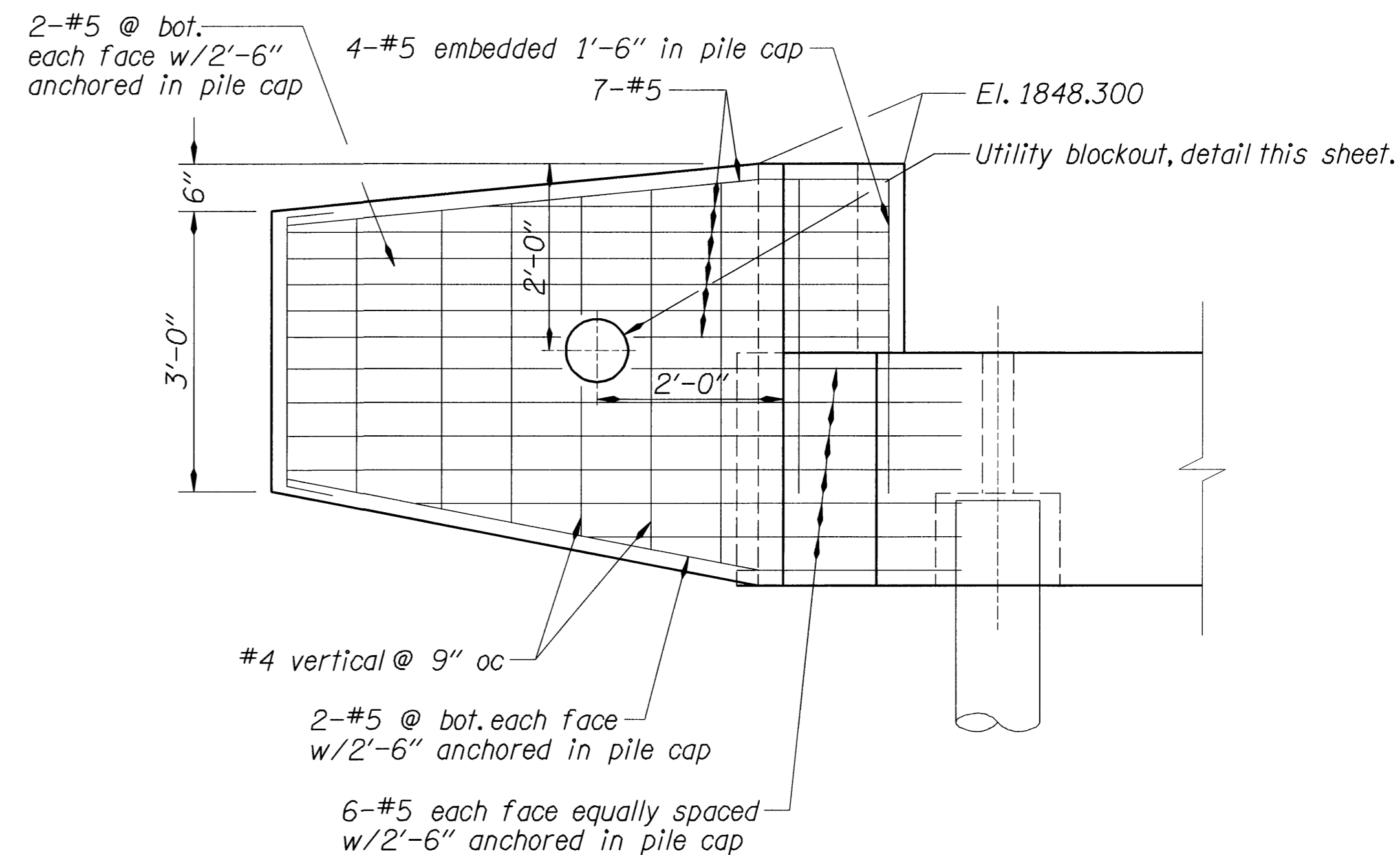
ELEVATION ~ Wing Wall A

Scale: 3/4" = 1'



UTILITY BLOCKOUT DETAIL

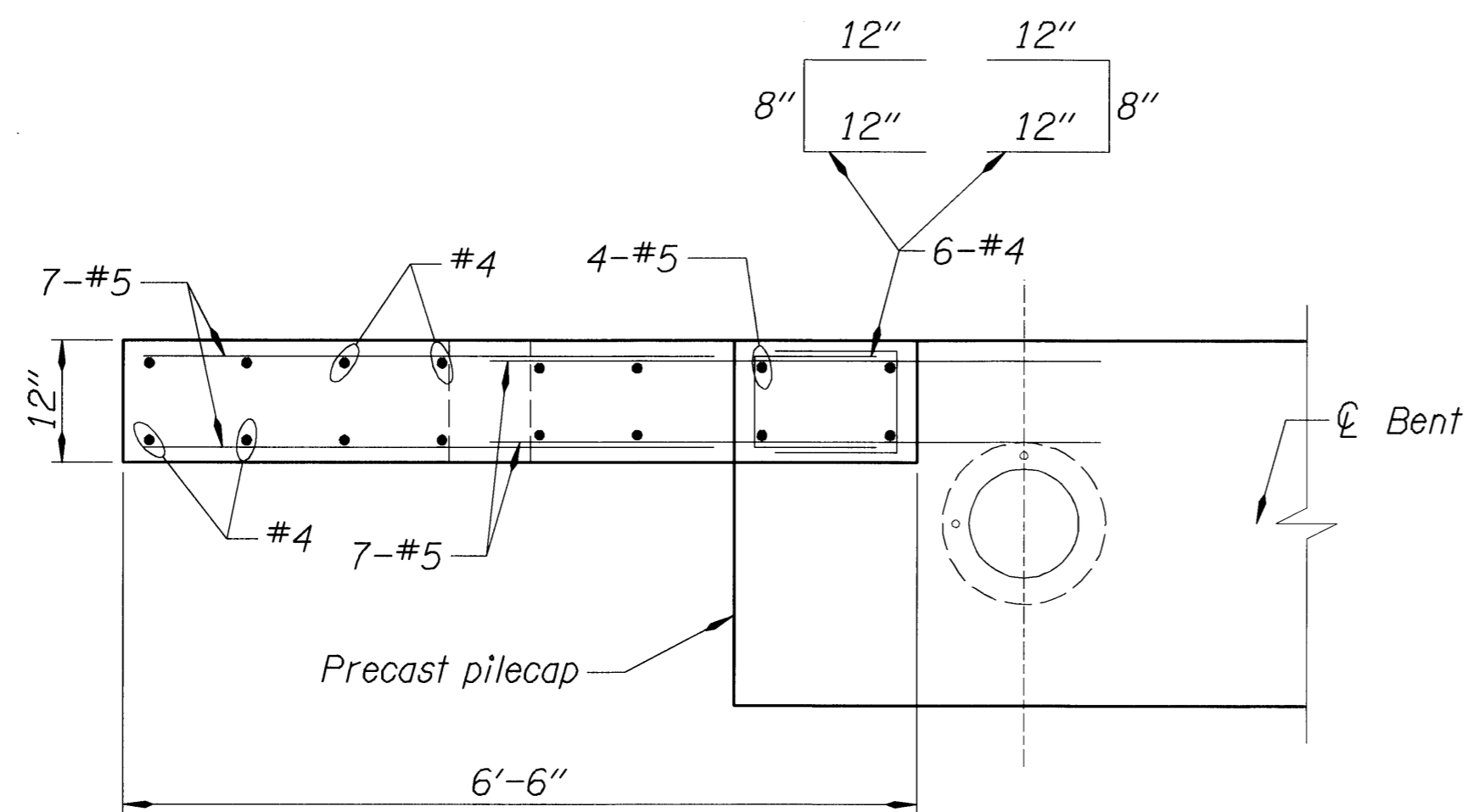
Scale: 3/4" = 1'



ELEVATION ~ Wing Wall B

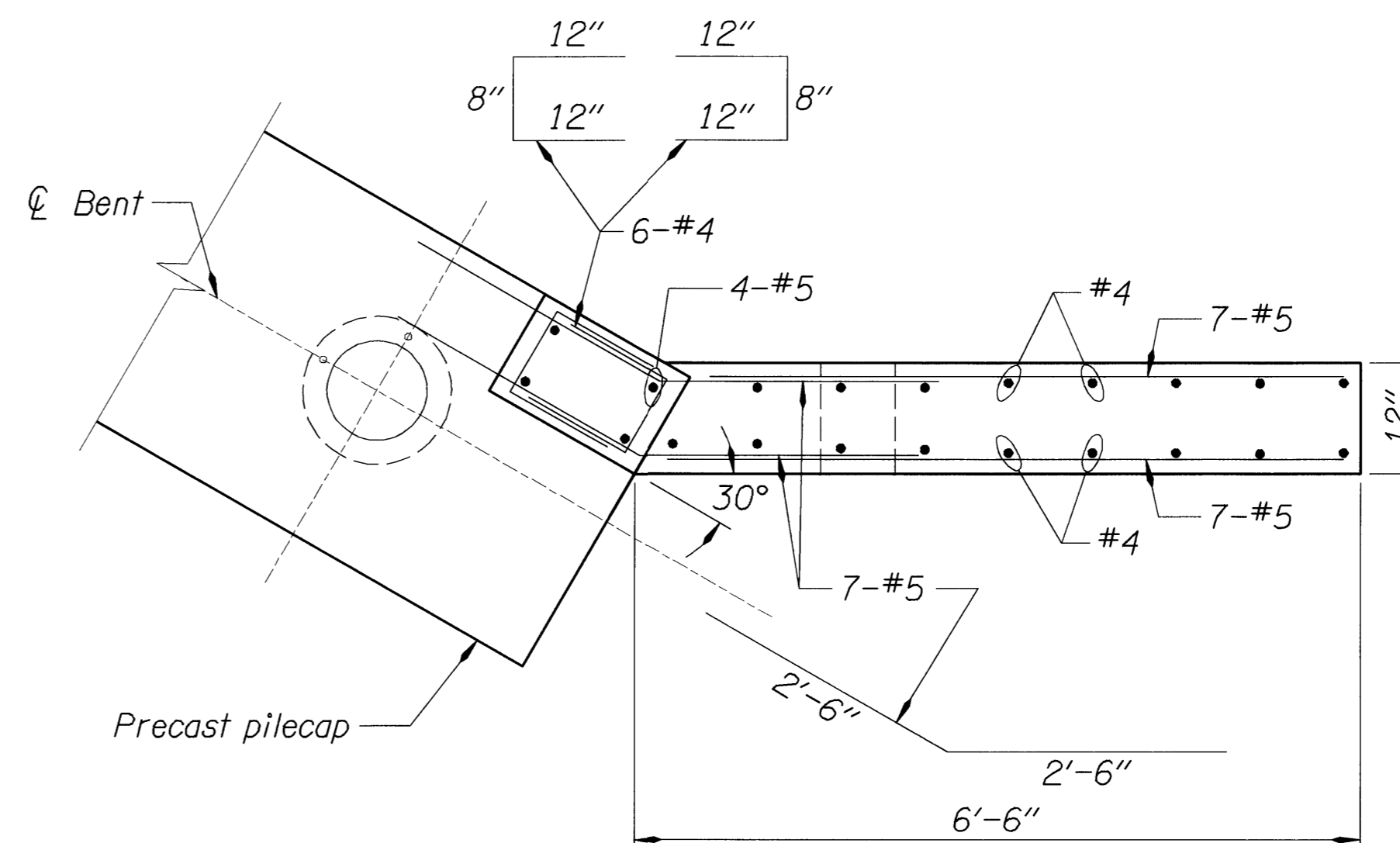
Scale: 3/4" = 1'

	DATE	REVISION	BY	DESIGNER		STRUCTURE NO.	NORTH FORK JOHN DAY RIVER, HWY 5 (KIMBERLY) OR 19/ OR 402: NORTH FORK JOHN DAY RIVER (KIMBERLY - MONUMENT) BRIDGE SEC. KIMBERLY - LONG CREEK HIGHWAY GRANT COUNTY	SHEET
				DRAFTER: Mindy Nash		02398		10
				CHECKER: Ron Jee/In-Tae Lee		DATE		OF
				REVIEWER: Mark Hanson		OCT-2006		15
				RENEWAL DATE: 06-30-2008	5509	DRAWING NO.		
						WINGWALL DETAILS		74918



PLAN ~ Wing Wall C

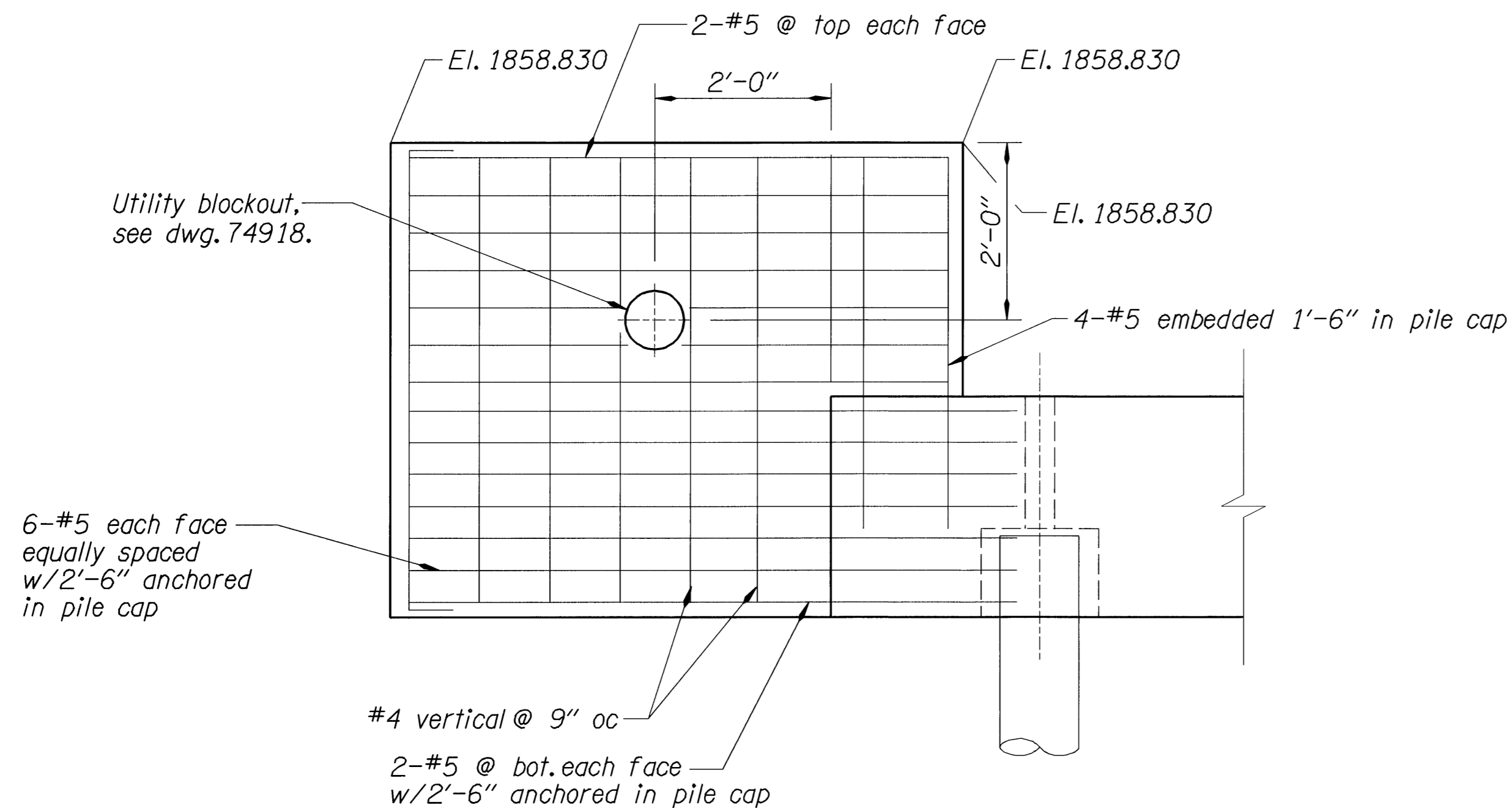
Scale: 3/4" = 1'



PLAN ~ Wing Wall D

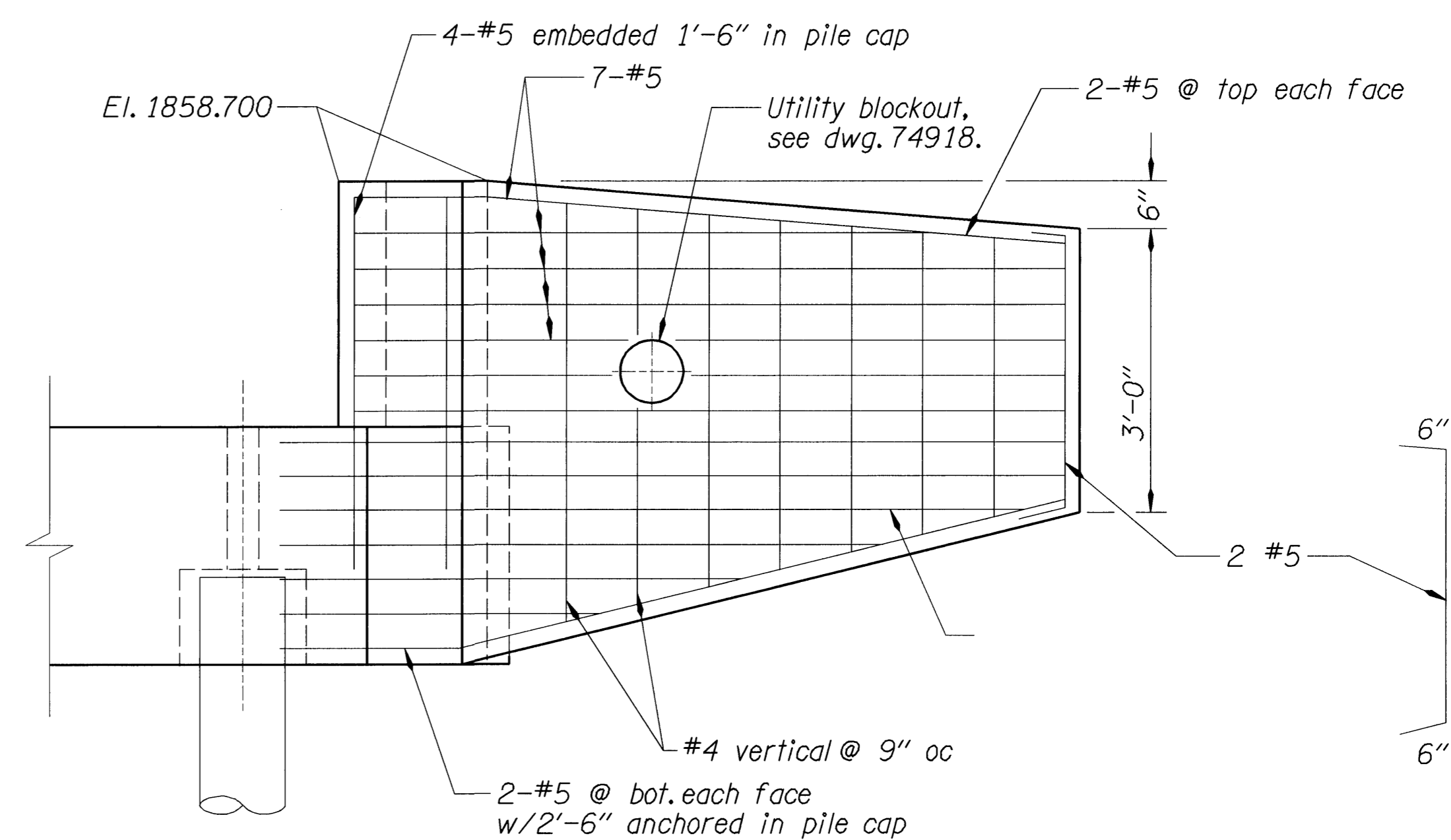
Scale: 3/4" = 1'

Note:
For wing wall section,
see dwg. 74918



ELEVATION ~ Wing Wall C

Scale: 3/4" = 1'

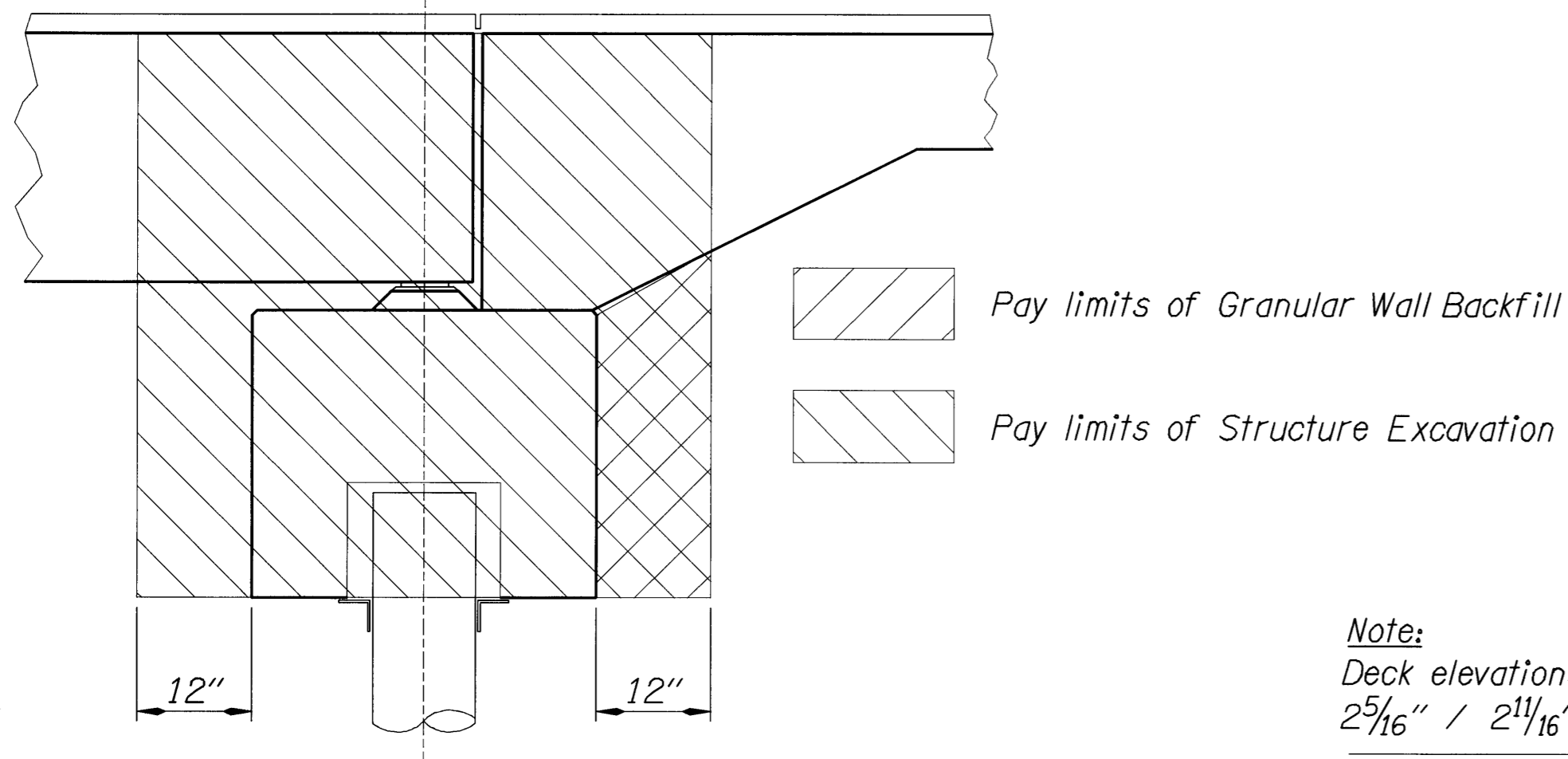


ELEVATION ~ Wing Wall D

Scale: 3/4" = 1'

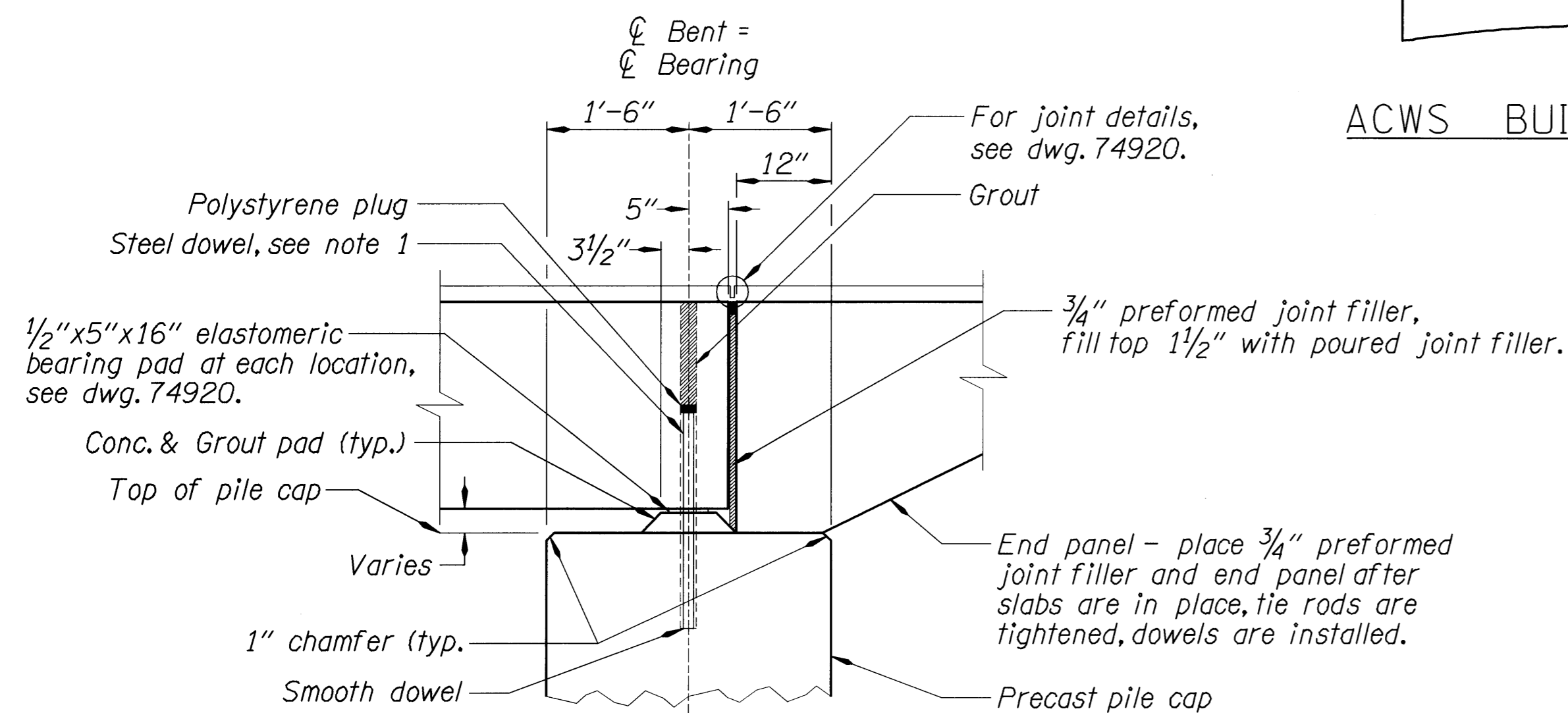
	DATE	REVISION	BY	DESIGNER		STRUCTURE NO.	NORTH FORK JOHN DAY RIVER, HWY 5 (KIMBERLY) OR 19/ OR 402: NORTH FORK JOHN DAY RIVER (KIMBERLY - MONUMENT) BRIDGE SEC. KIMBERLY - LONG CREEK HIGHWAY GRANT COUNTY	SHEET
				DRAFTER: Mindy Nash		02398		11
				CHECKER: Ron Jee/In-Tae Lee		OCT-2006		OF
				REVIEWER: Mark Hanson		5509		15
				RENEWAL DATE: 06-30-2008				DRAWING NO.
								74919

xxx STANDARD PRECAST PRESTRESSED SLAB(S)



PAY LIMITS FOR STRUCTURE EXCAVATION AND GRANULAR BACKFILL

Scale: 3/4" = 1'



Note:

- 1 1/4" dia. x 2'-3" smooth, steel (H307) dowel at each end of slab. Drill 2" dia. hole, 12" depth, into pile cap after slabs are in place and slab tie rods have been tightened. Use non-impact type drill. Place 2" dia. x 1" thk. polystyrene plug on top of dowel and fill remainder of hole with non-shrink grout.

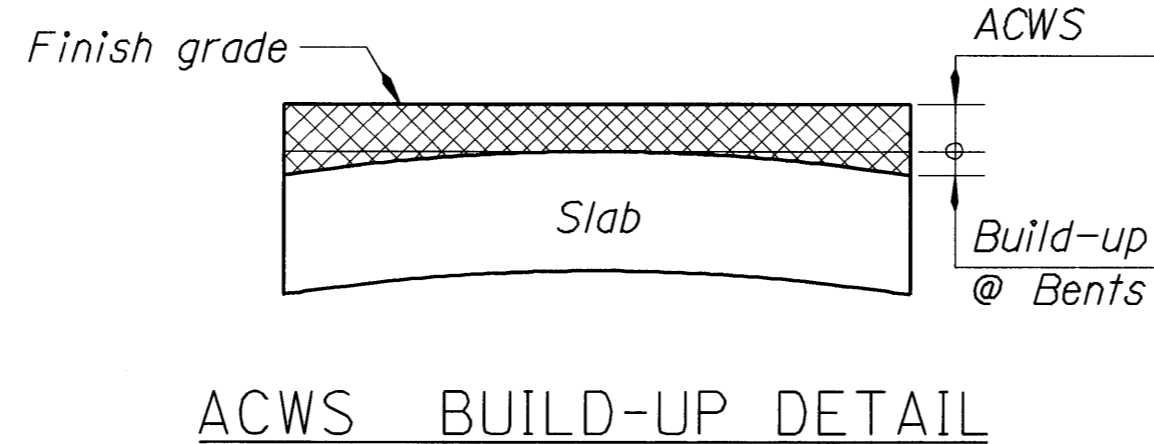
CONCRETE BEARING PAD DETAIL ~ BENT 6 (BENT 1 SIMILAR)

Scale: 3/4" = 1'

Note:

Deck elevations shown are top of concrete slab, 2 5/16" / 2 1/16" below finish grade as calculated below:

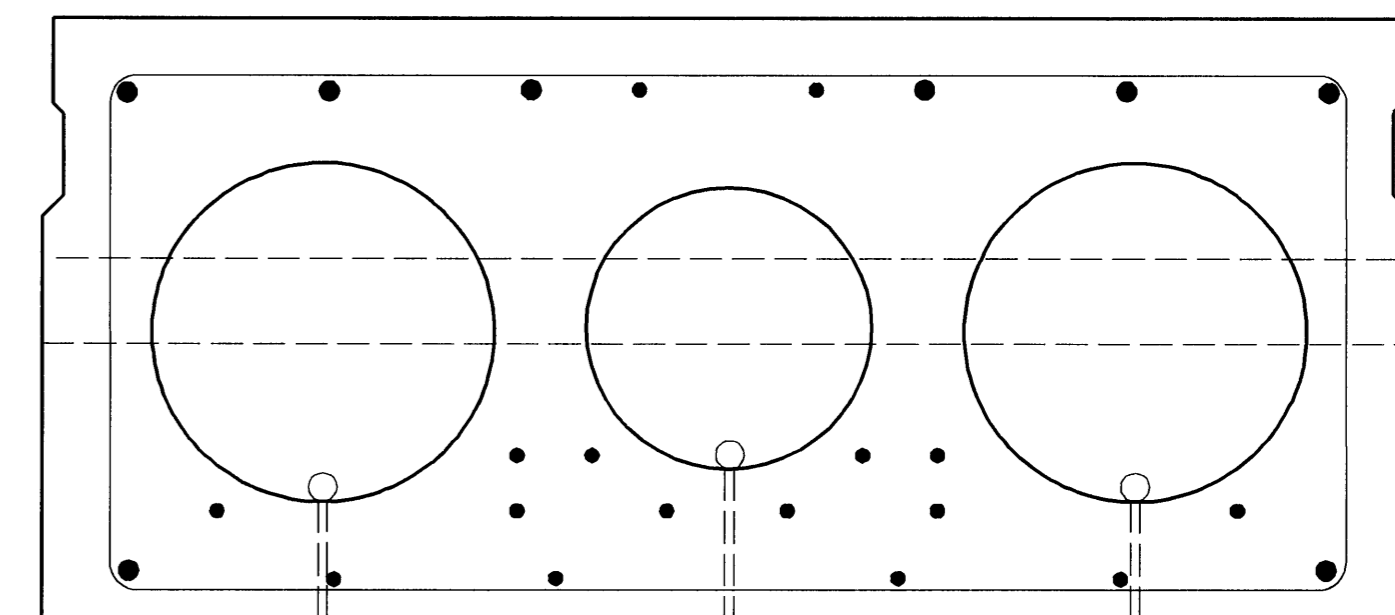
Min. ACWS-----	2"	2"
Anticipated camber @ 3 mos.-----	3/8"	15/16"
Downward due to ACWS-----	-1/16"	-1/4"
Wearing surface thickness @ Bents---	2 5/16"	2 1/16"
Finish grade	ACWS	Build-up @ Bents
	2" min.	2" min.
	5/16"	1 1/16"



ACWS BUILD-UP DETAIL

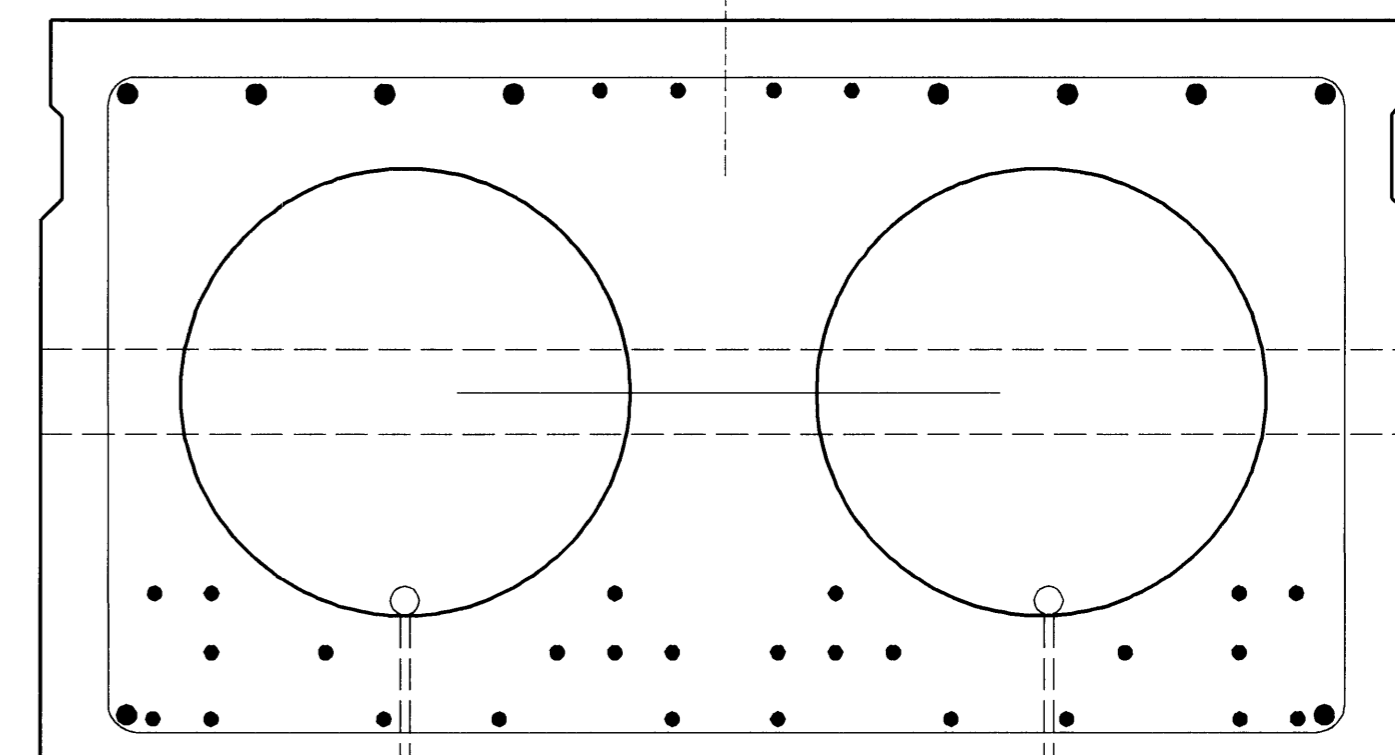
Slab No.	No. Slabs Required	Span No.	Horizontal Length 0-0 at slab ϕ , ft. (after Shortening)	Skew Angle		Total Strand	Debonded Strands	Distance "Yc" to c.g. strand at midspan, in.	Distance "Yu" to c.g.s. at midspan subtracting top strand, in.	CONCRETE CLASS psi	Min. Concrete Strength Req'd by Design 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	Estimated Shortening 2 weeks after Transfer of Prestress
S1	2	7	1	25.17	0	0	16	0	5.63	3.86	5000	5000	4000	8.4	3/16	3/8	7/16	1/16	1/4	1/8
S5	6	7	5	44.67	0	0	30	0	6.14	3.54	5000	5000	4000	11.6	9/16	15/16	1 1/16	1/4	13/16	3/8

The superimposed dead load (SIDL) is 50 lbs./ft². which includes the present wearing surface, bridge rails, utilities.



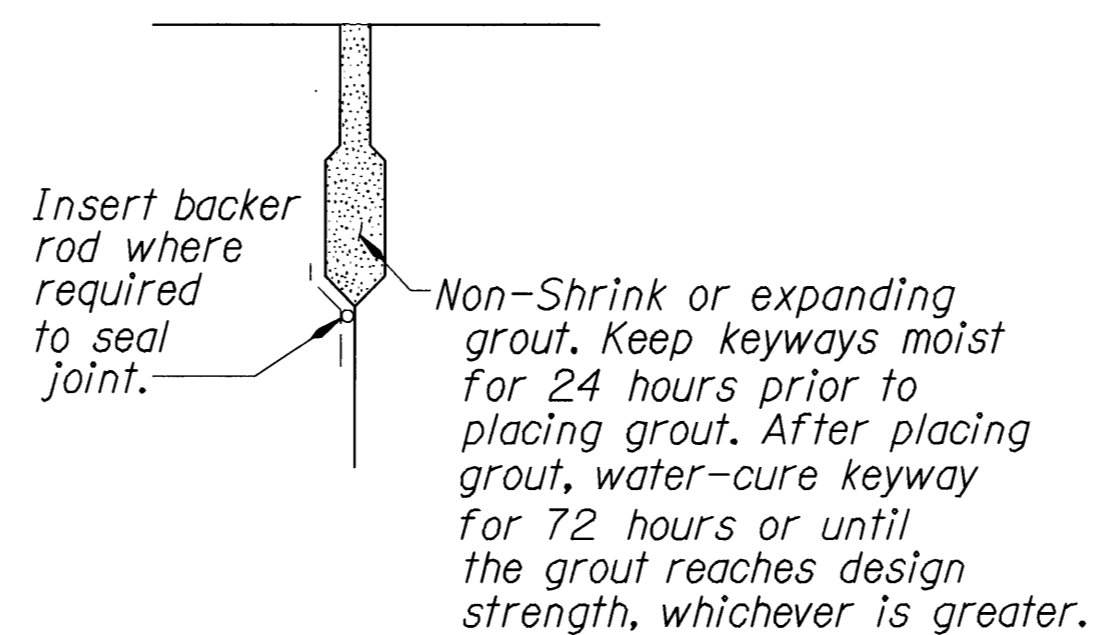
TYPICAL SECTION 21" SLAB

(DWG. No. BR415)



TYPICAL SECTION 26" SLAB

(DWG. No. BR420)

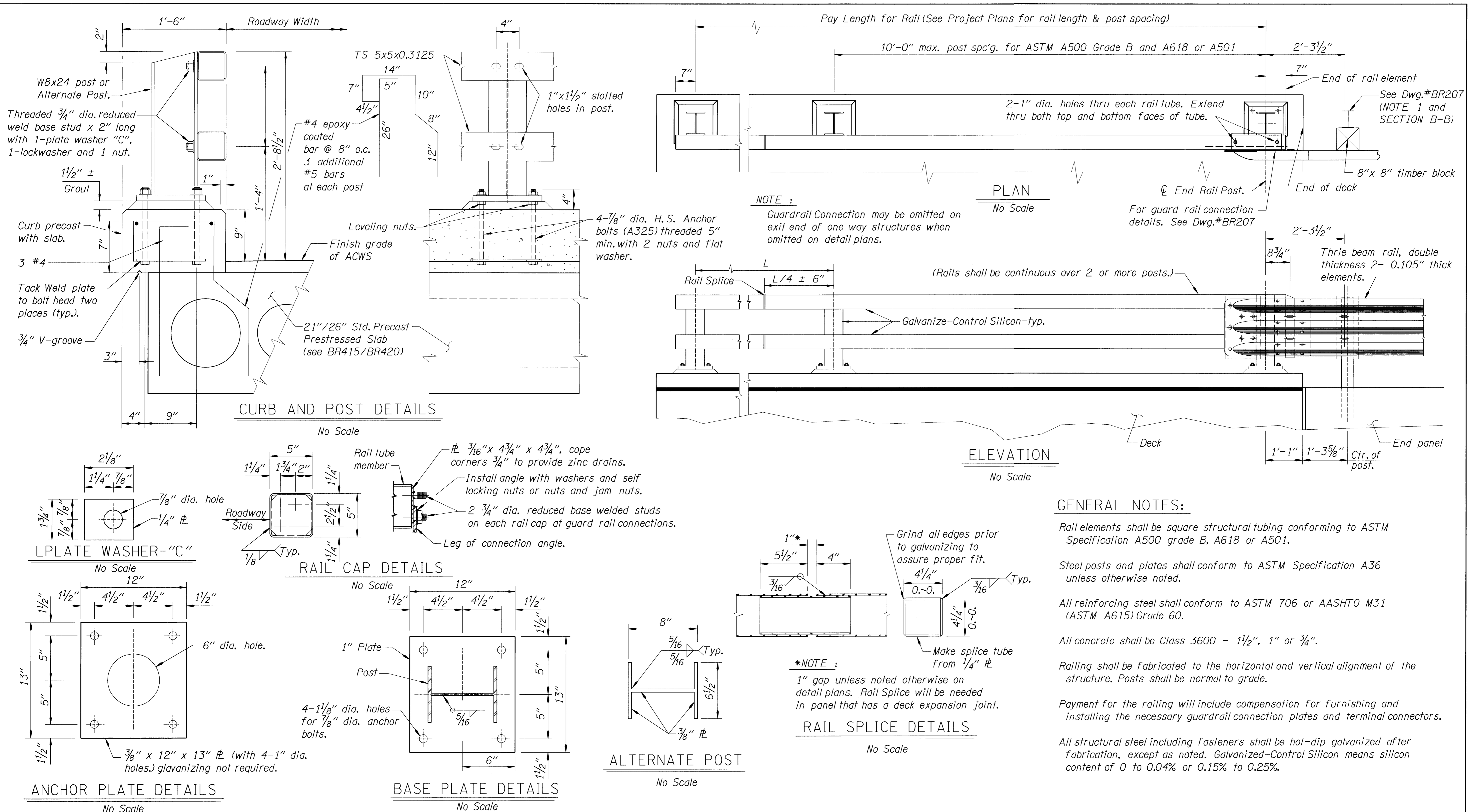


SLAB SHEAR-KEY DETAIL

No Scale

Note: After forms are removed from slabs, sandblast keyways to remove residual form oil and other foreign material.

	DRAFTER: <i>Mindy Nash</i> CHECKER: <i>Ron Jee/In-Tae Lee</i> REVIEWER: <i>Mark Hanson</i>			STRUCTURE NO. 02398 DATE OCT-2006 CALC. BOOK 5509	NORTH FORK JOHN DAY RIVER, HWY 5 (KIMBERLY) OR 19/ OR 402: NORTH FORK JOHN DAY RIVER (KIMBERLY - MONUMENT) BRIDGE SEC. KIMBERLY - LONG CREEK HIGHWAY GRANT COUNTY STANDARD PRESTRESSED SLAB SCHEDULE & DETAILS	SHEET 13 OF 15 DRAWING NO. 74921	
	REVISION:			RENEWAL DATE: 06-30-2008		DATE:	SHEET:
	BY:			DESIGNER:		STRUCTURE NO.:	SHEET:



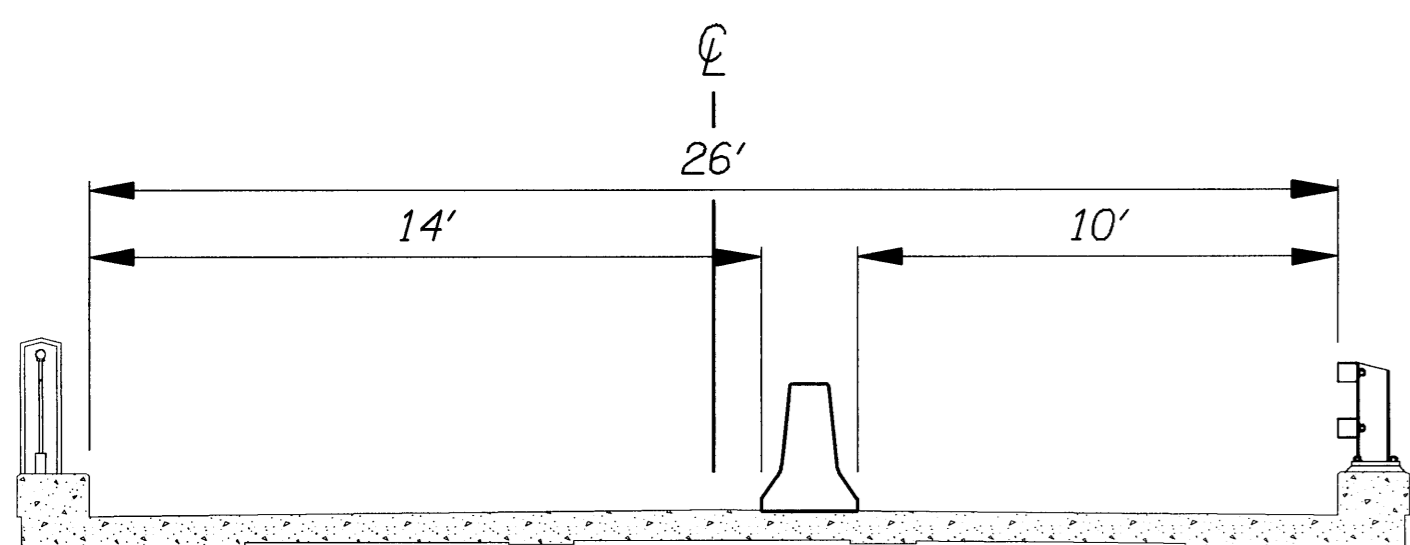
	DATE	REVISION	BY	DRAFTER: <i>Mindy Nash</i> CHECKER: <i>Ron Jee/In-Tae Lee</i> REVIEWER: <i>Mark Hanson</i>			STRUCTURE NO.	NORTH FORK JOHN DAY RIVER, HWY 5 (KIMBERLY) OR 19/ OR 402: NORTH FORK JOHN DAY RIVER (KIMBERLY - MONUMENT) BRIDGE SEC. KIMBERLY - LONG CREEK HIGHWAY GRANT COUNTY	SHEET	14 OF 15 DRAWING NO. 74922	
							DATE		OCT-2006		
							CALC. BOOK		5509		

Stage I

Central Spans Work:

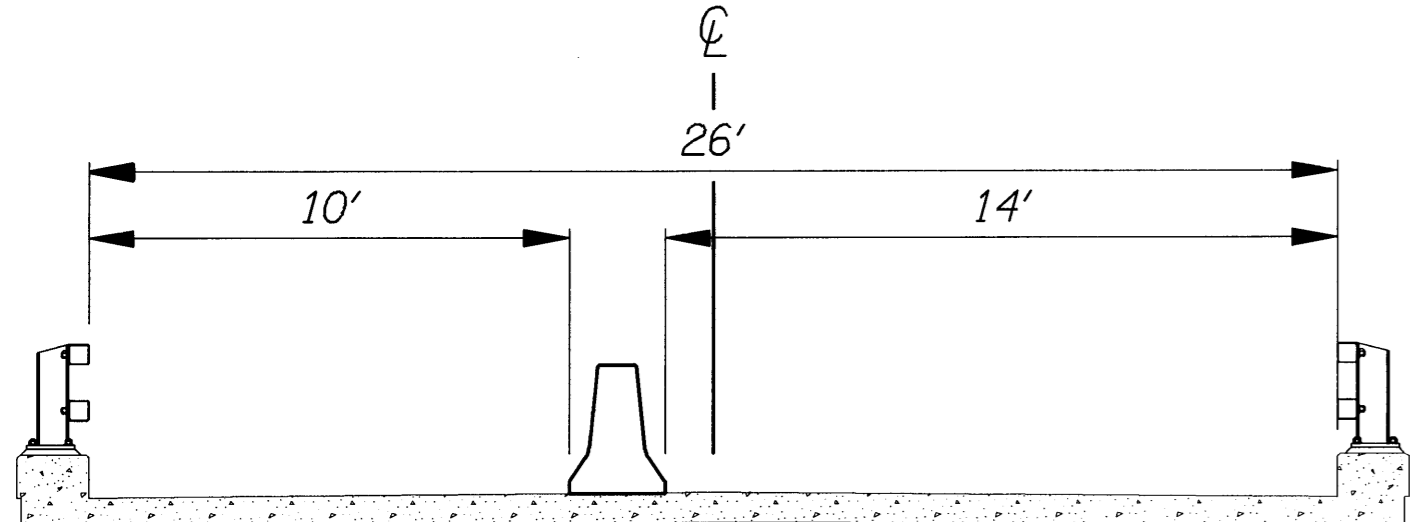
Bridge Rail Replacement: Single lane, two-way, controlled

West side replacement
Traffic on East lane. Lane width 14'-0", single-lane controlled. Use temporary concrete traffic barrier



Stage II
East side replacement

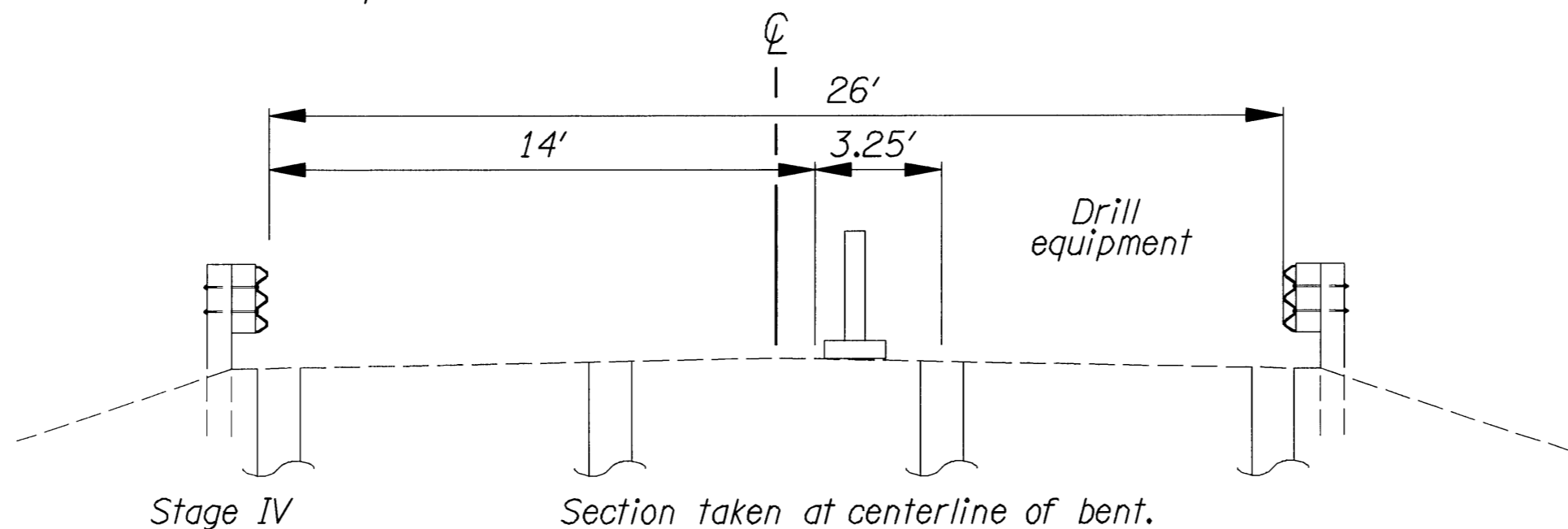
Traffic on West lane. Lane width 14'-0", single-lane controlled. Use temporary concrete traffic barrier



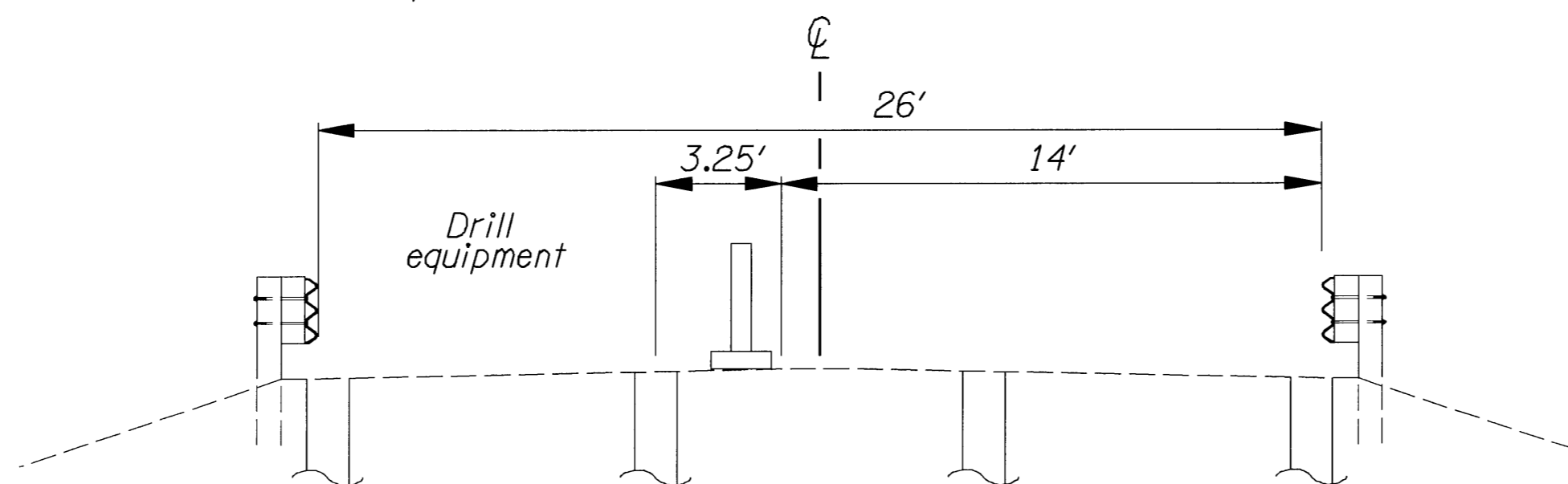
Stage III
Abutment Construction: Single lane, two-way, controlled

North Abutment Work: (New abutments are located out side of the existing abutments)

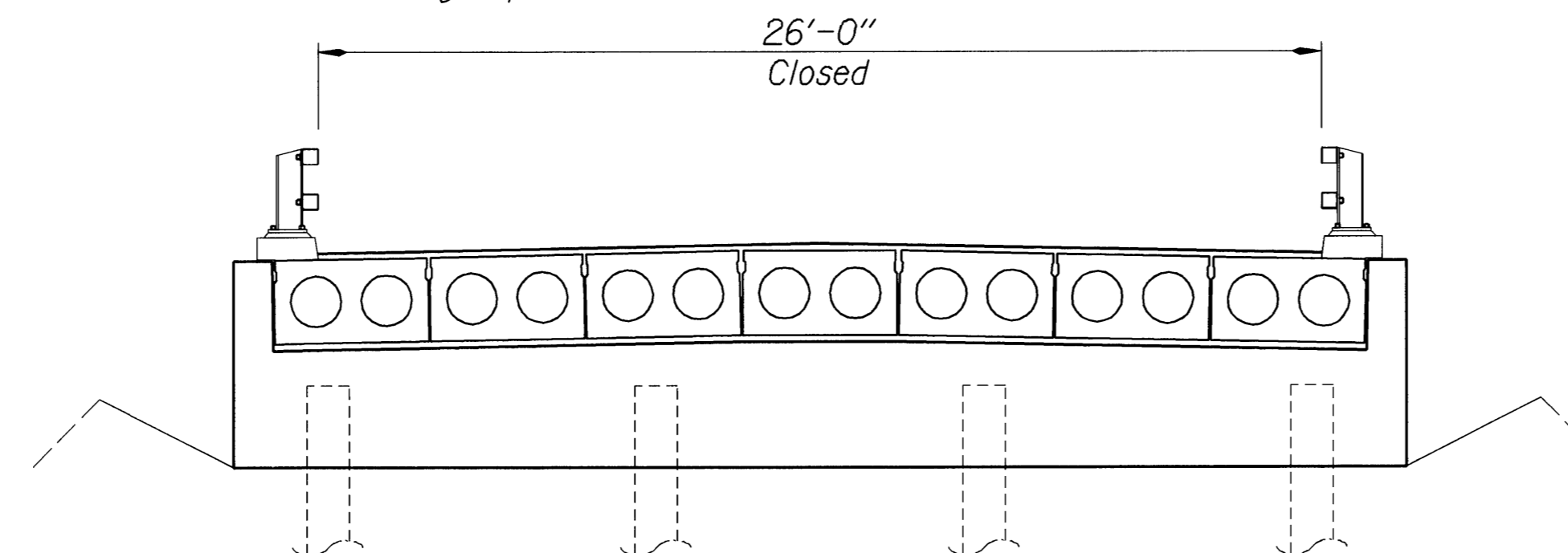
West side
Traffic on East lane. Lane width 14'-0", single-lane controlled. Use tubular marker. Drive piles; pile cut-off; cover with steel plate (contractor designed)
Open West lane for traffic



East side
Traffic on West lane. Lane width 14'-0", single-lane controlled. Use temporary tubular marker
Drive piles; pile cut-off; cover with steel plate (contractor designed)
Open East lane for traffic

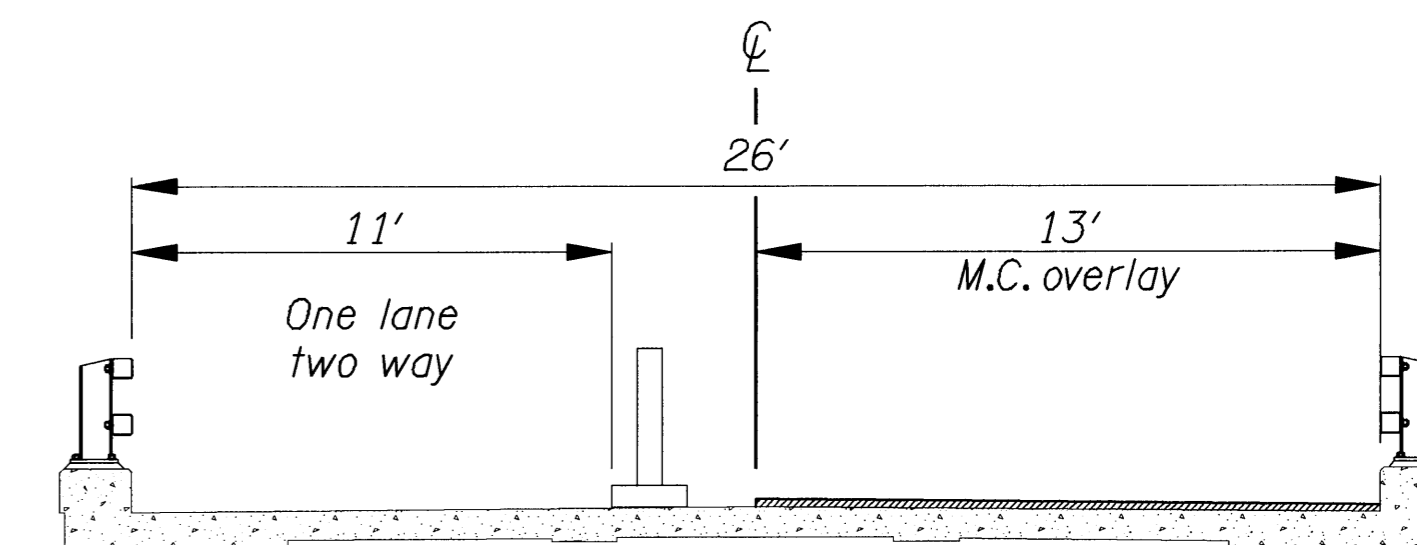
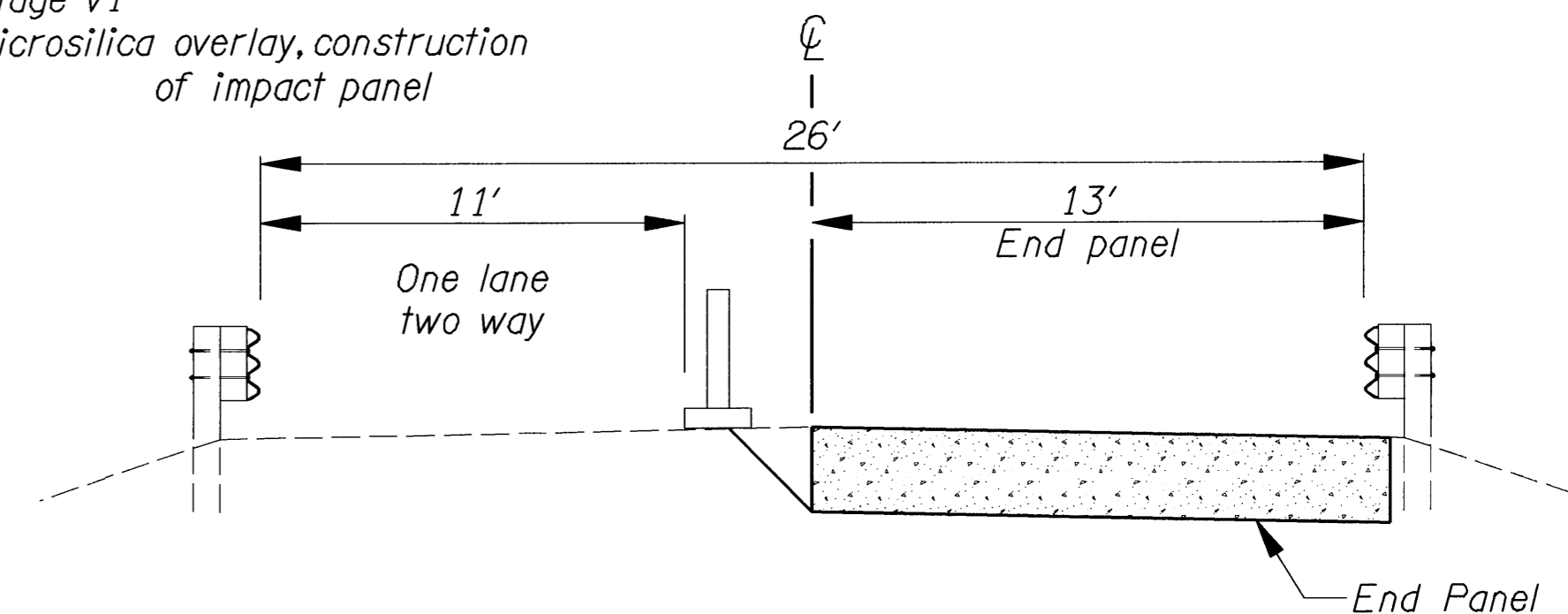


Stage V
Precast Prestressed Slab Construction:
North side - Bridge closed (5 days)
Demolition of existing bridge
Modification work on pier - survey; set precast concrete bent
Erect slabs (with precast curb to receive rail)
Open West lane for traffic
Grout slabs - East lane
Open East lane
Grout slabs - West lane
Bridge open for traffic

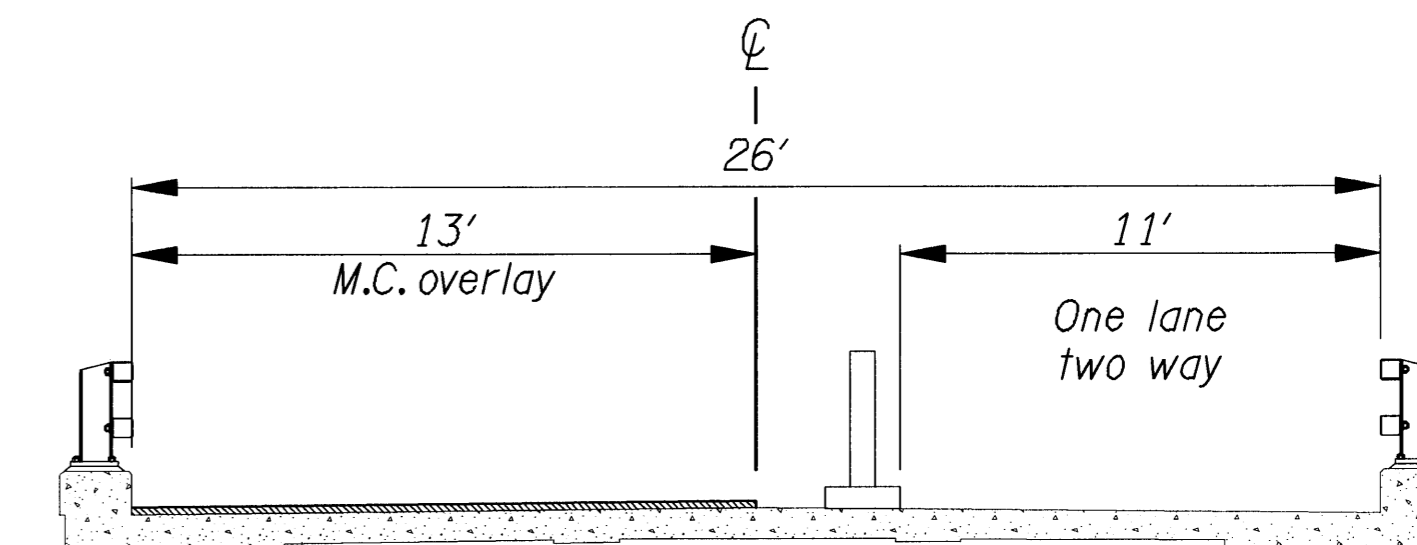
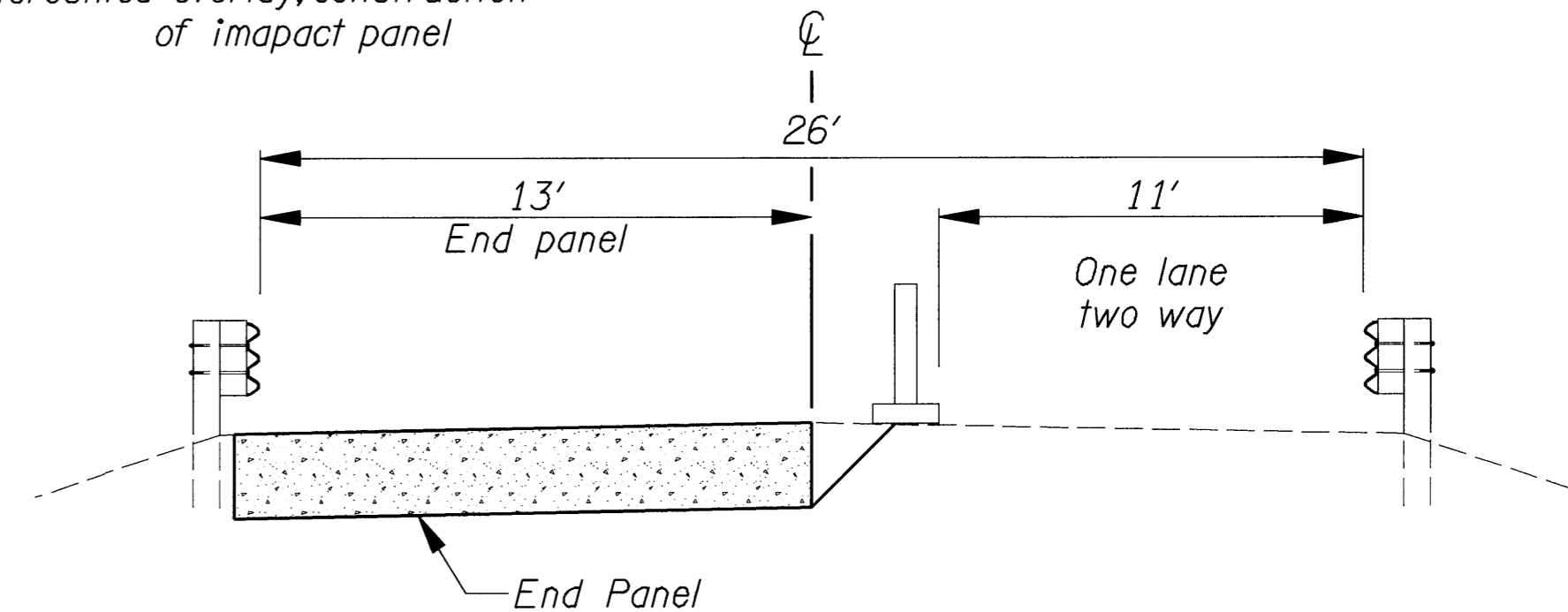


South Abutment Work: (New abutments are located out side of the existing abutments)
Same traffic arrangement repeated

Stage VI
Microsilica overlay, construction of impact panel



Stage VII
Microsilica overlay, construction of impact panel



	DATE	REVISION	BY	DRAFTER: <i>Mindy Nash</i> CHECKER: <i>Ron Jee/In-Tae Lee</i> REVIEWER: <i>[Signature]</i> Reviewer Name Here	DESIGNER RENEWAL DATE: 06-30-2008		STRUCTURE NO.	NORTH FORK JOHN DAY RIVER, HWY 5 (KIMBERLY) OR 19/ OR 402: NORTH FORK JOHN DAY RIVER (KIMBERLY - MONUMENT) BRIDGE SEC. KIMBERLY - LONG CREEK HIGHWAY GRANT COUNTY	SHEET	DRAWING NO.
							02398		15	
							DATE		OF	
							OCT-2006		15	
							CALC. BOOK	STAGING	74923	
							5509			