

Napa County Flood Control and Water Conservation District

DONALD G. RIDENHOUR, P.E.
DISTRICT ENGINEER

REGULAR MEETING AGENDA

TECHNICAL ADVISORY PANEL

Wednesday
March 25, 2009
5:30 P.M.

804 FIRST STREET
NAPA, CA 94559

The Meeting Room is wheelchair accessible. Assistive listening devices and interpreters are available through the Clerk of the Board of the Napa County Board of Supervisors. Requests for disability related modifications or accommodations, aids or services may be made to the Clerk of the Board's office no less than 72 hours prior to the meeting date by contacting (707) 253-4580 (253-6088TDD).

- I. Call to Order; Roll Call.
- II. **Public Comment – In this time period, anyone may comment to the Panel regarding any subject over which the Panel has jurisdiction but which is *not* on today's agenda or request consideration to place an item on a future agenda. Time limitations will be three minutes per speaker. No action will be taken by the Panel as a result of any item presented at this time. Agenda items will be considered in the following order: 1) Staff Report; 2) Public comment; 3) Panel Discussion/Action.**
- III. Approve Minutes of the February 25, 2009 Regular Meeting.
- IV. Review of Value Engineering Concept for the Bypass Rail Bridge Relocation Project.
- V. Agenda Items for Future Meetings.
- VI. General Comments from the Panel. (This is an opportunity for Panel members to informally discuss items and ask questions.)
- VII. Confirm Next Meeting Date of April 29, 2009.
- VIII. Adjourn.



Agenda Item III.

**TECHNICAL ADVISORY PANEL
AGENDA REPORT**

DATE: March 25, 2009

SUBJECT: Approve Minutes of the February 25, 2009 Regular Meeting

**MINUTES OF THE
NAPA COUNTY TECHNICAL ADVISORY PANEL
REGULAR MEETING**

❖
Wednesday, February 25, 2009
5:30 p.m.

- I. Roll Call; Call to Order.
The Napa County Technical Advisory Panel met during regular session on Wednesday, February 25, 2009 at 5:30 p.m. with the following members present: Phill Blake; Dennis Rinehart; Vice-Chairperson Chip Bouril; Chris Craiker; Bill Bennett; Dennis Scherzinger; Chairperson Rolf Ohlemutz; and Barbara Stafford. Bob Zlomke arrived during Item IV.

- II. Public Comment.
None.

- III. Approve Minutes of the January 28, 2009 Regular Meeting.
Minutes approved.

BB PB CB CC RO DR DS BS BZ
A

- IV. Review of 65% Design Level Plans for the Napa Creek Box Culverts and Roadway Modifications.
Julie Lucido, Project Manager, noted the plans contained in the agenda packet represented design features that are not part of the design negotiation with the resource agencies. The Panel's comments on these plans will be forwarded to the design team and will be addressed when the Panel is presented with the 100% plans for further comments and a finding of consistency. Comments received for the 100% plans will be forwarded to the design team for the final back-check plans. Ms. Lucido added that it is expected that revised concepts related to bank stabilization would be brought to the Panel for review in April, but it is very dependent on the resource agencies' and working group's progress. Ms. Lucido turned the item over to the design team of Bert Brown, Project Manager, and Will Hall, Civil Design Lead, U.S. Army Corps of Engineers, and Jeff Crovitz, Design Consultant, MGE Engineering. The design team went over the plans contained in the agenda packet and via projector. The item was opened for discussion.

- V. Agenda Items for Future Meetings.
Value Engineering concept for the Bypass Rail Bridge Relocation Project.

- VI. General Comments from the Panel. (This is an opportunity for Panel members to informally discuss items and ask questions.)
None.

- VII. Confirm Next Meeting Date of March 25, 2009.
Meeting date confirmed.

VIII. Adjourn.

**Adjourned to the next Regular Meeting of the Technical Advisory Panel on
Wednesday, March 25, 2009, at 5:30 p.m. The meeting will be held at the Flood
Control District Conference Room.**

ROLF OHLEMUTZ
Chairperson

ATTEST:

JULIE LUCIDO
Secretary

By: _____
GREG MORGAN
Supervising Office Assistant

KEY

Vote: BB = Bill Bennett; PB = Phill Blake; CB = Chip Bouril; CC = Chris Craiker RO = Rolf Ohlemutz;
DR = Dennis Rinehart; DS = Dennis Scherzinger; BS = Barbara Stafford; BZ = Bob Zlomke

Notations under Vote: N = No; X = Excused; A = Abstained



Agenda Item IV.

TECHNICAL ADVISORY PANEL AGENDA REPORT

DATE: March 25, 2009

**SUBJECT: Discussion of Value Engineering Concept for the
Bypass Rail Bridge Relocation Project**

STAFF: Julie Lucido, Project Manager

DISCUSSION:

A Value Engineering (VE) proposal was made by the Army Corps' contractor, suggesting that a significant cost savings could be achieved by replacing the as-designed concrete trough girder bridges with steel box girder bridges. The proposal consisted of conceptual plans for both the River Bridge and the Dry Bypass Bridge. In addition, comparative quantities were submitted by the contractor for the current design and the proposed VE design. Design calculations have not been provided to date.

The VE process is laid out within the Army Corps' construction contract. The contract clause allows for a contractor to submit a proposal that will reduce the contract cost without impairing essential functions or characteristics.

Several plan sheets of the conceptual design from each bridge are attached. Additionally, concept renderings for possible aesthetic features for a steel Dry Bypass Bridge are included in this packet.

Based on preliminary review, the following items have been identified that will have to be addressed as part of the contractor's final proposal:

- 1) Review of structural calculations and design;
- 2) Review of the potential for increased maintenance costs;
- 3) Review of any environmental issues related to larger diameter piles in the Napa River;
- 4) Incorporation of aesthetic recommendations.

Comments generated from the Panel's discussion will be forwarded to the Army Corps.

REQUESTED ACTION:

Discussion and comment.

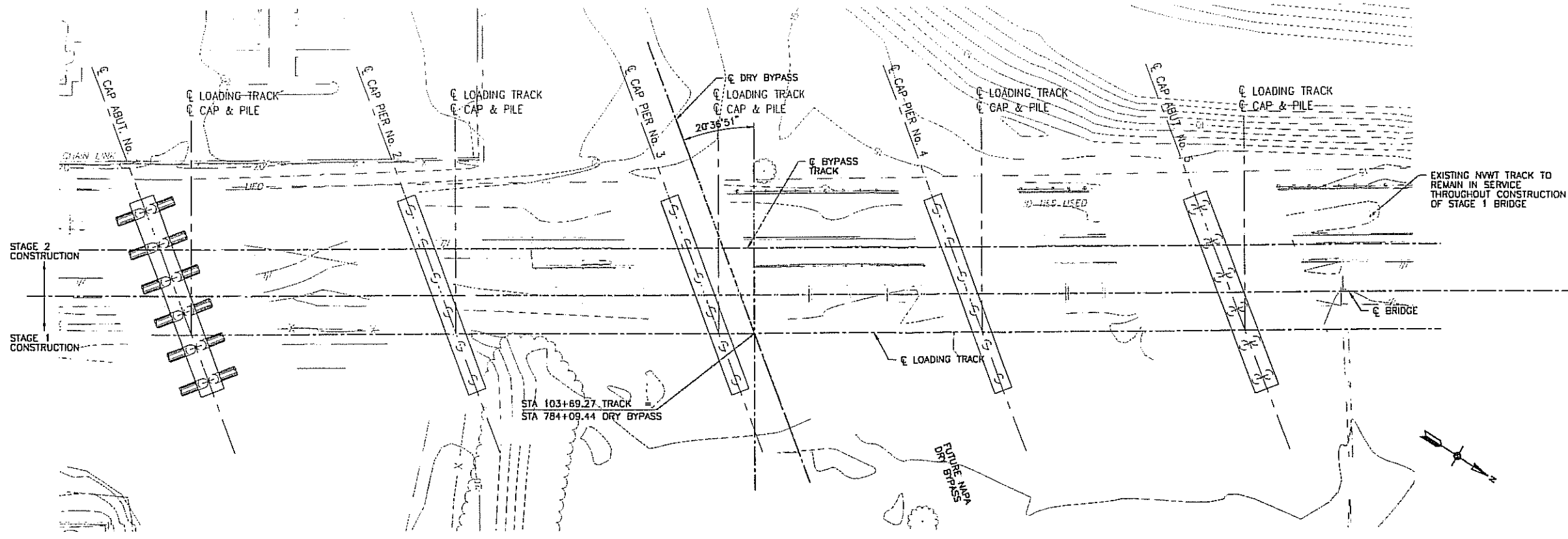
Preliminary
Comparative Quantities

CURRENT DESIGN

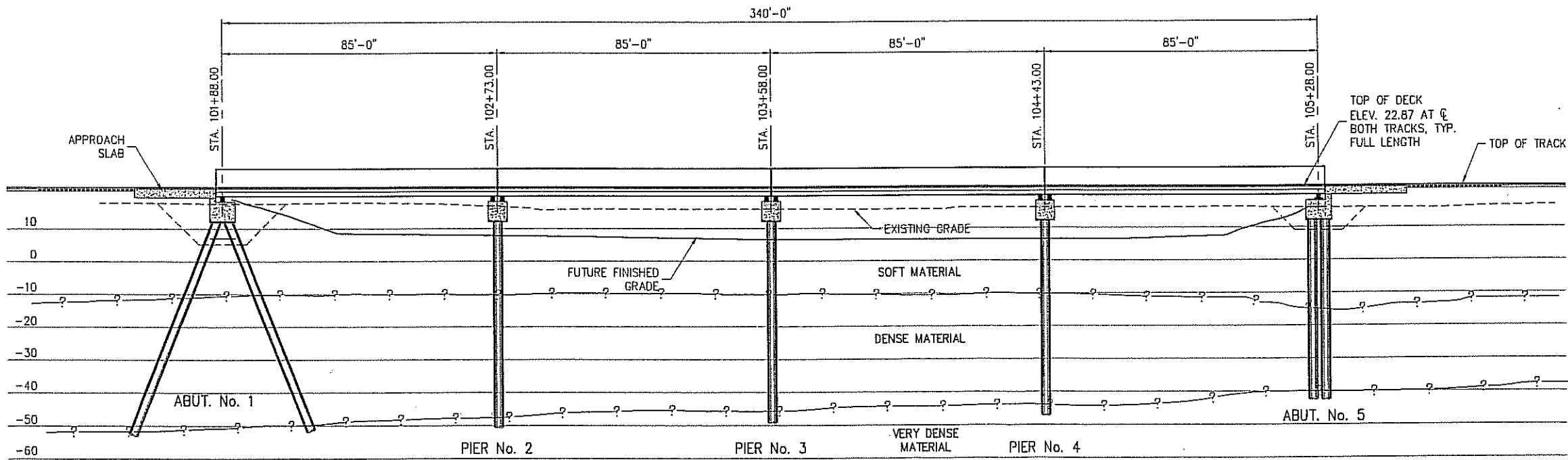
PROPOSED VE DESIGN

Item	Quantity	Unit	Item	Quantity	Unit
Foundations					
Permanent Structure			Permanent Structure		
Piles Driven, Steel	876	ea	Piles Driven Steel	60	ea
Piles Furnished, Steel	39,060	lf	Piles Furnished, Steel	7,200	lf
Concrete Cap, River Bridge	2,000	cy	Concrete Cap, Below Water	-	cy
Concrete Seal Cap, River Bridge	635	cy	Concrete Seal Cap, Below Water	-	cy
Concrete Cap and Seal (All Others)	6,500	cy	Concrete Cap and Pier	820	cy
Pier Concrete	1,300	cy			
Combined Weight (4050/cy)	42,261,750	lbs	Pile Weight	2,150,000	lbs
Excavation	23,000	cy	Excavation	400	cy
Backfill	14,000	cy	Backfill	200	cy
Estimated Concrete Truck Trips	1,160	ea	Estimated Truck Trips	185	ea
Temporary Structure			Temporary Structure		
Piles Driven, Steel (Trestle)	10	ea	Piles Driven, Steel (Trestle)	10	ea
Piles Furnished, Steel (Trestle)	650	lf	Piles Furnished, Steel (Trestle)	650	lf
Cofferdam Sheet Piles	1,664	lf	Cofferdam Sheet Piles	-	lf
Cofferdam Sheet Piles, River Area	358	lf	Cofferdam Sheet Piles, River Area	-	lf
Upriver Flow Area	800	sf	Upriver Flow Area	60	sf
Estimated Pile Truck Trips	122	ea	Estimated Truck Trips	50	ea

Item	Quantity	Unit	Item	Quantity	Unit
Super Structure					
Permanent Structure			Permanent Structure		
Concrete Girders	1,600	cy	Steel Girders & Deck	3,000,000	lbs
Concrete Deck	2,300	cy	Concrete Deck	660	cy
Super Structure Weight (4050/cy)	15,795,000	lbs	Super Structure Weight (girders & deck)	5,673,000	lbs
Temporary Structure			Temporary Structure		
Piles Furnished, Steel (FW)	12	ea	Piles Furnished, Steel (FW)	-	ea
Piles Furnished, Steel (FW)	780	lf	Piles Furnished, Steel (FW)	-	lf
Shoring Structure (FW)	25,000	sf	Shoring Structure (FW)	-	sf



PLAN



ELEVATION

9/24/08 Proposals 2008 Proposal Files\08S102 - Napa Valley Train Bridge Drawings\DRY BYPASS BRIDGE\08S102-03.dwg



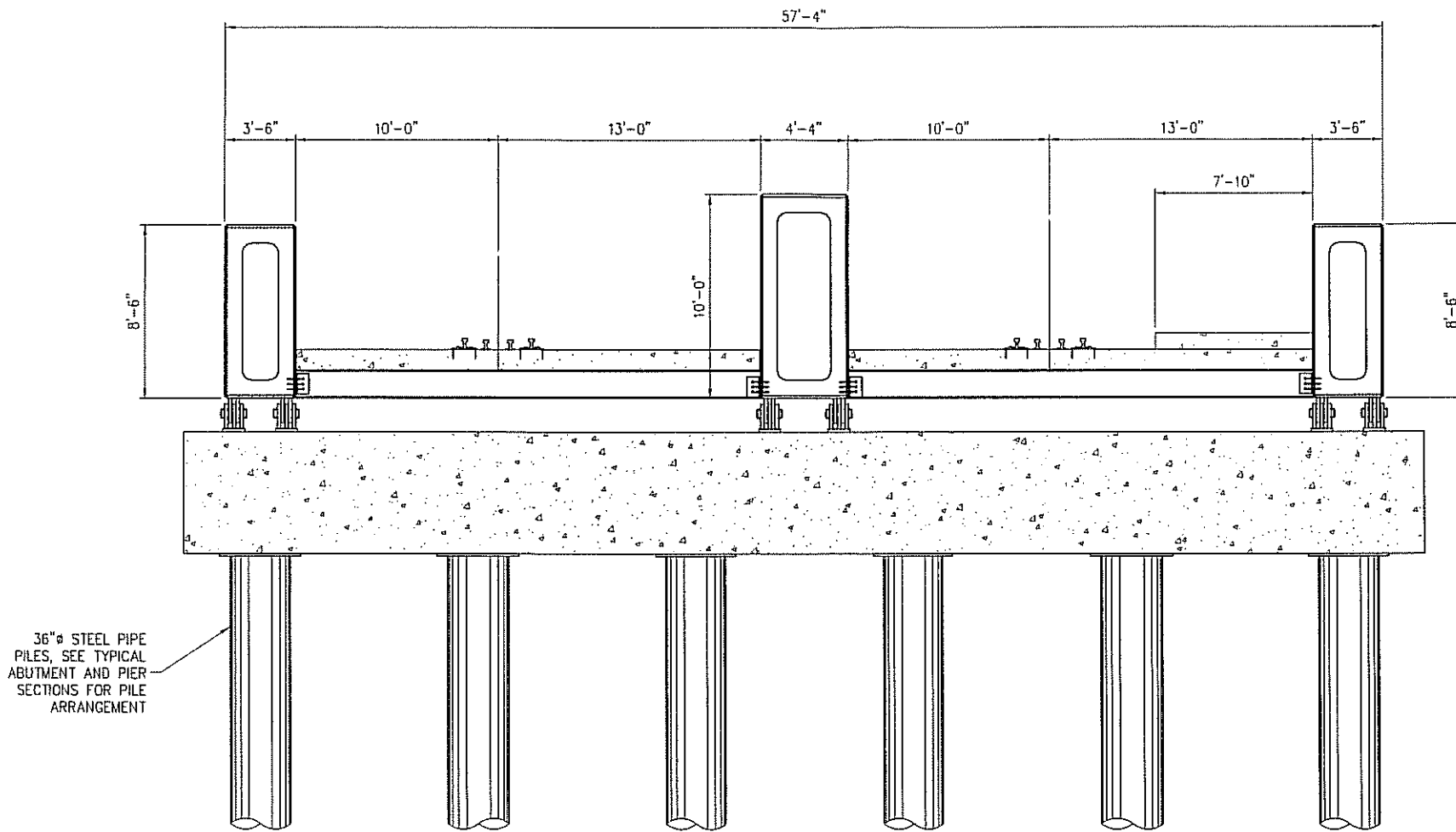
811 First Avenue, Suite 570
 Seattle, Washington 98104
 Phone: 206-624-1387
 Fax: 206-624-1388
 Email: mail@pndengineers.com

PND ENGINEERS, INC. IS NOT RESPONSIBLE FOR SAFETY PROGRAMS, METHODS OR PROCEDURES OF OPERATION, OR THE CONSTRUCTION OF THE DESIGN SHOWN ON THESE DRAWINGS. WHERE SPECIFICATIONS ARE GENERAL OR NOT CALLED OUT, THE SPECIFICATIONS SHALL CONFORM TO STANDARDS OF INDUSTRY. DRAWINGS ARE FOR USE ON THIS PROJECT ONLY AND ARE NOT INTENDED FOR REUSE WITHOUT WRITTEN APPROVAL FROM PND. DRAWINGS ARE ALSO NOT TO BE USED IN ANY MANNER THAT WOULD CONSTITUTE A DETRIMENT DIRECTLY OR INDIRECTLY TO PND.

REVISIONS	
REV	DESCRIPTION

PROJECT:		VALUE ENGINEERING DRY BYPASS BRIDGE	
TITLE:		PLAN AND PROFILE	
DESIGNED BY:	DP	PROJECT NO:	08S102
DRAWN BY:	DRH	DATE:	SEPT. 2008
CHECKED BY:		SCALE:	NOTED
SHEET NO:			3 OF 7

9/23/08 Proposals\2008 Proposals Files\085102 - Napa Valley Train Bridge\Drawings\DRY BYPASS BRIDGE\085102-04.dwg



TYPICAL SECTION



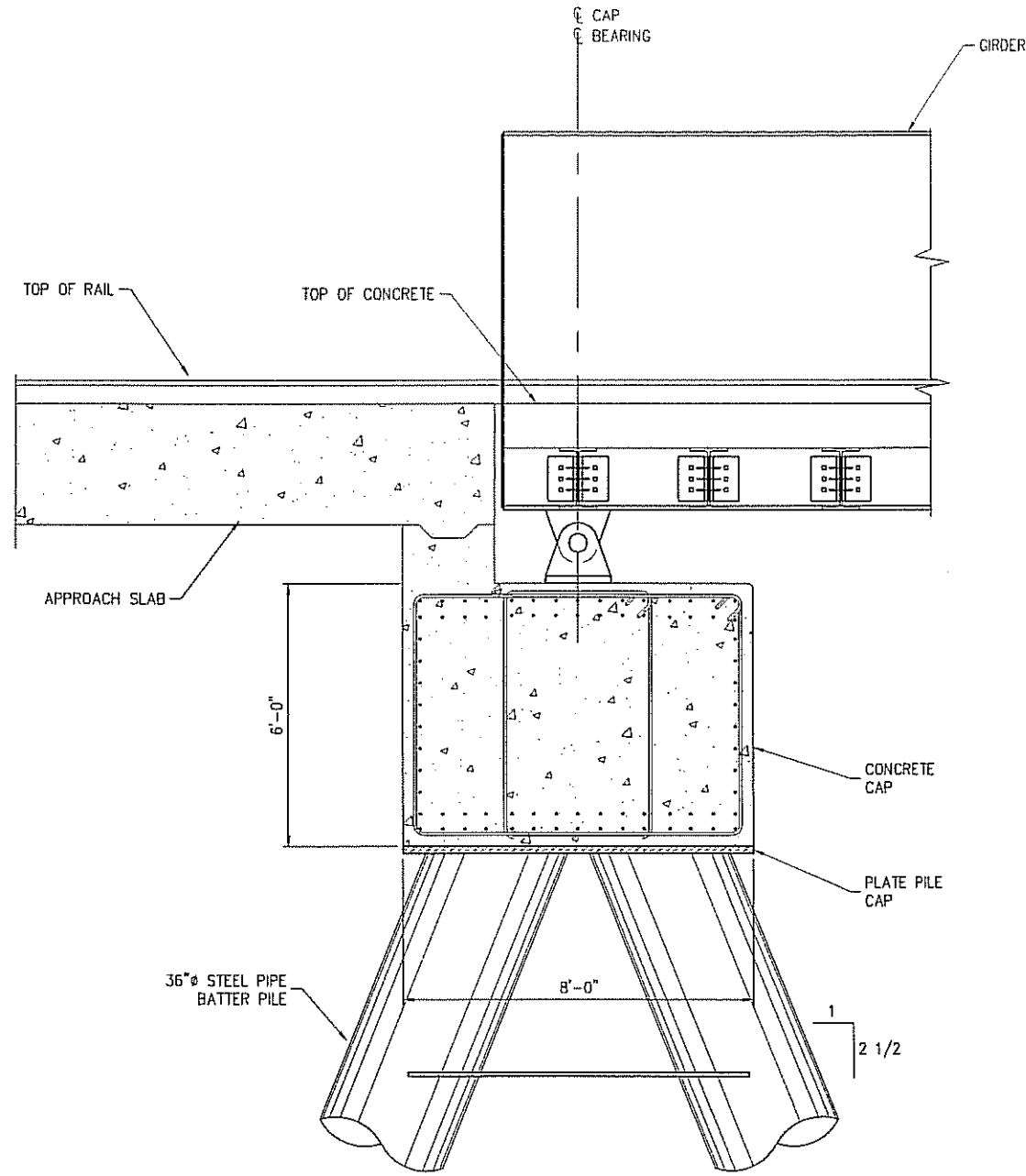
811 First Avenue, Suite 570
 Seattle, Washington 98104
 Phone: 206-624-1387
 Fax: 206-624-1388
 Email: mail@pndengineers.com

PND ENGINEERS, INC. IS NOT RESPONSIBLE FOR SAFETY PROGRAMS, METHODS OR PROCEDURES OF OPERATION, OR THE CONSTRUCTION OF THE DESIGN SHOWN ON THESE DRAWINGS. WHERE SPECIFICATIONS ARE GENERAL OR NOT CALLED OUT, THE SPECIFICATIONS SHALL CONFORM TO STANDARDS OF INDUSTRY. DRAWINGS ARE FOR USE ON THIS PROJECT ONLY AND ARE NOT INTENDED FOR REUSE WITHOUT WRITTEN APPROVAL FROM PND. DRAWINGS ARE ALSO NOT TO BE USED IN ANY MANNER THAT WOULD CONSTITUTE A DETRIMENT DIRECTLY OR INDIRECTLY TO PND.

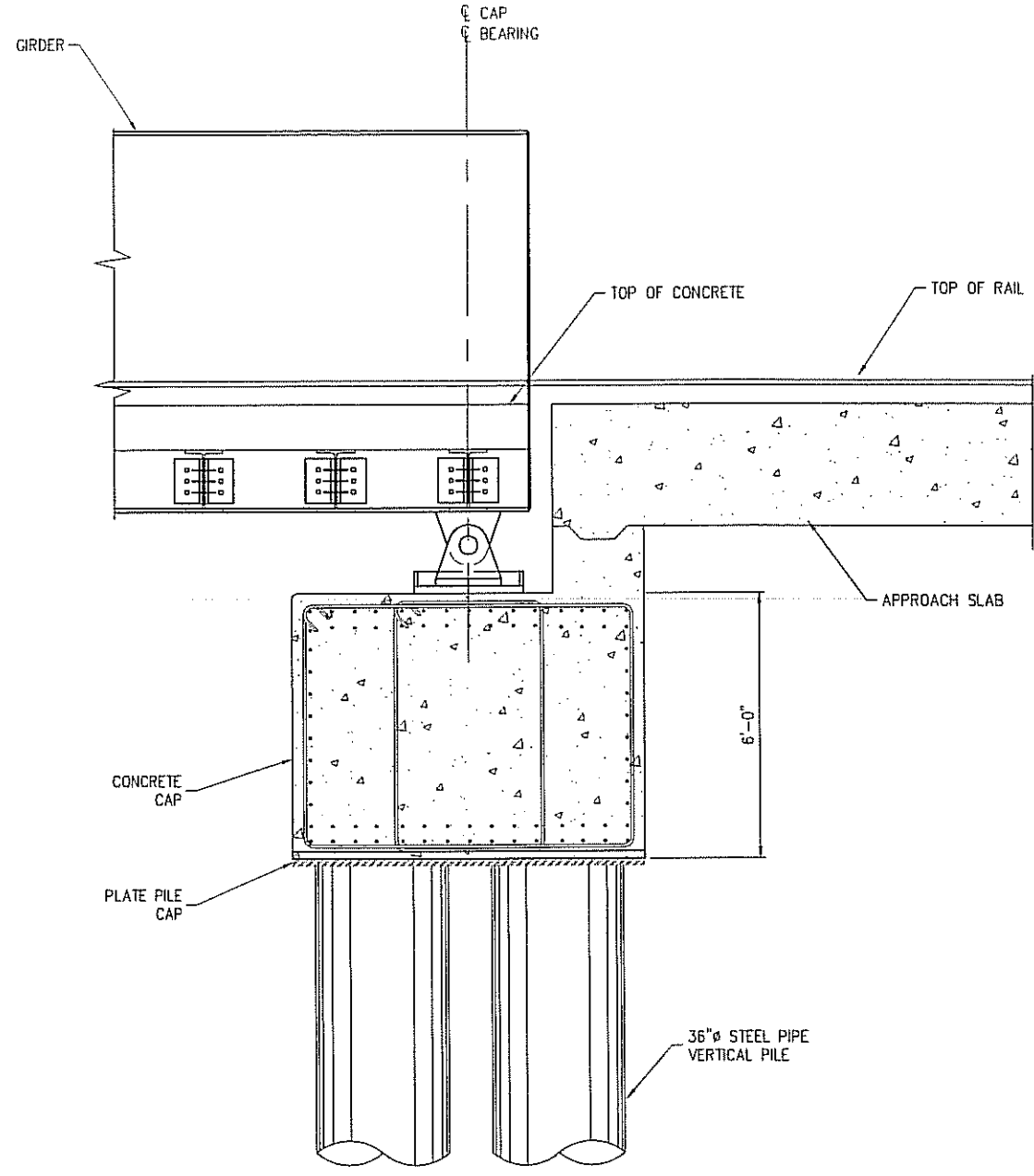
REVISIONS		
REV	DATE	DESCRIPTION

PROJECT: VALUE ENGINEERING DRY BYPASS BRIDGE			
TITLE: TYPICAL SECTION			
DESIGNED BY:	DP	PROJECT NO:	085102
DRAWN BY:	DRH	DATE:	SEPT. 2008
CHECKED BY:		SCALE:	NOTED
SHEET NO:			4 OF 7

9/25/08 Proposals\2008 Proposals Files\085102 - Napa Valley Train Bridge Drawings\DRY BYPASS BRIDGE\085102-05.dwg



**ABUTMENT No 1
TYPICAL SECTION**



**ABUTMENT No 5
TYPICAL SECTION**



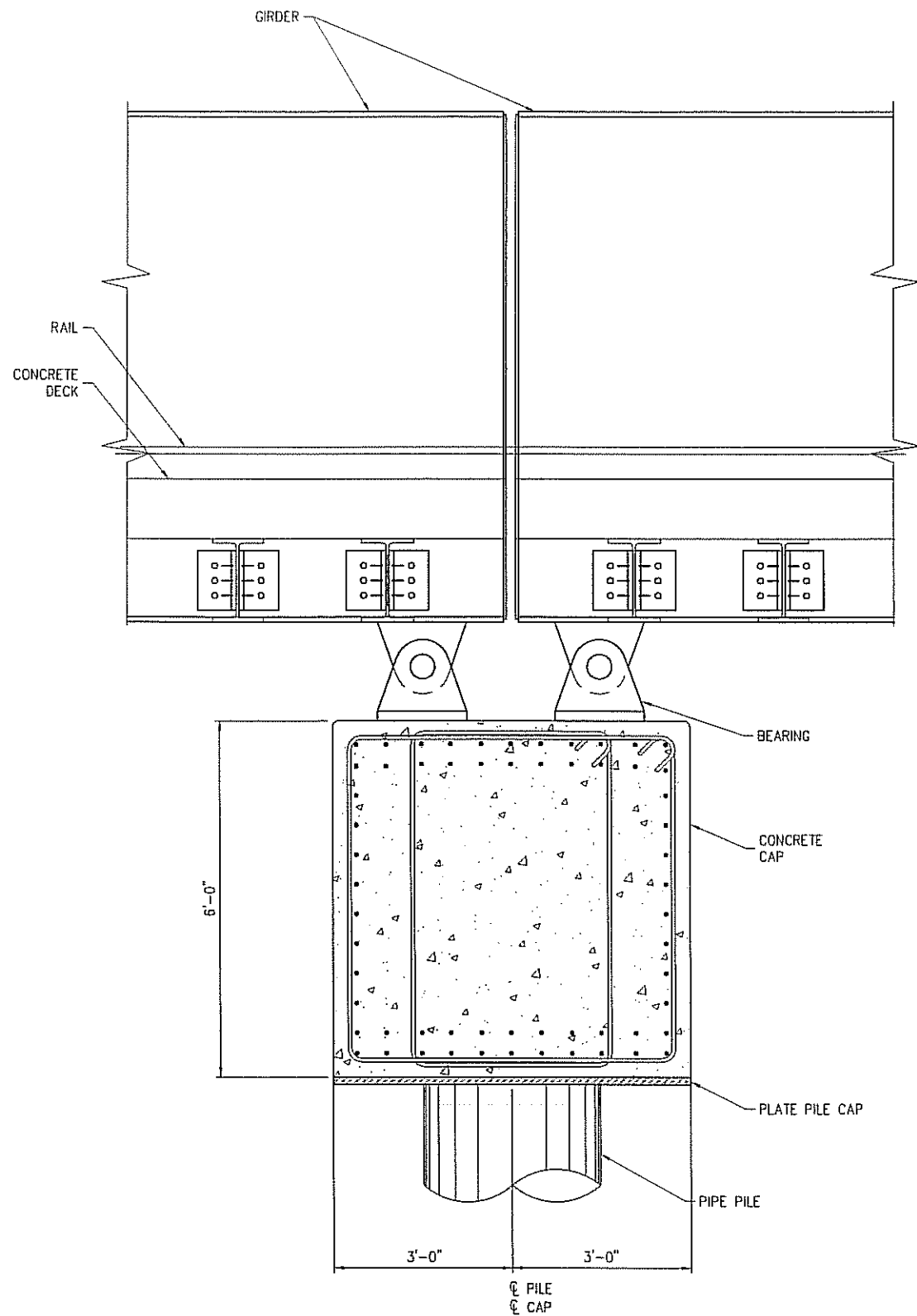
811 First Avenue, Suite 570
Seattle, Washington 98104
Phone: 206-624-1387
Fax: 206-624-1388
Email: mail@pndengineers.com

PND ENGINEERS, INC. IS NOT RESPONSIBLE FOR SAFETY PROGRAMS, METHODS OR PROCEDURES OF OPERATION, OR THE CONSTRUCTION OF THE DESIGN SHOWN ON THESE DRAWINGS. WHERE SPECIFICATIONS ARE GENERAL OR NOT CALLED OUT, THE SPECIFICATIONS SHALL CONFORM TO STANDARDS OF INDUSTRY. DRAWINGS ARE FOR USE ON THIS PROJECT ONLY AND ARE NOT INTENDED FOR REUSE WITHOUT WRITTEN APPROVAL FROM PND. DRAWINGS ARE ALSO NOT TO BE USED IN ANY MANNER THAT WOULD CONSTITUTE A DETRIMENT DIRECTLY OR INDIRECTLY TO PND.

REVISIONS		
REV	DATE	DESCRIPTION

PROJECT: VALUE ENGINEERING DRY BYPASS BRIDGE			
TITLE: ABUTMENT No 1 & No 5			
DESIGNED BY:	DP	PROJECT NO:	085102
DRAWN BY:	DRH	DATE:	SEPT. 2008
CHECKED BY:		SCALE:	NOTED
SHEET NO:			5 OF 7

9/25/08 Proposals\2008 Proposals Files\08S102 - Napa Valley Train Bridge Drawings\DRY BYPASS BRIDGE\08S102-06.dwg



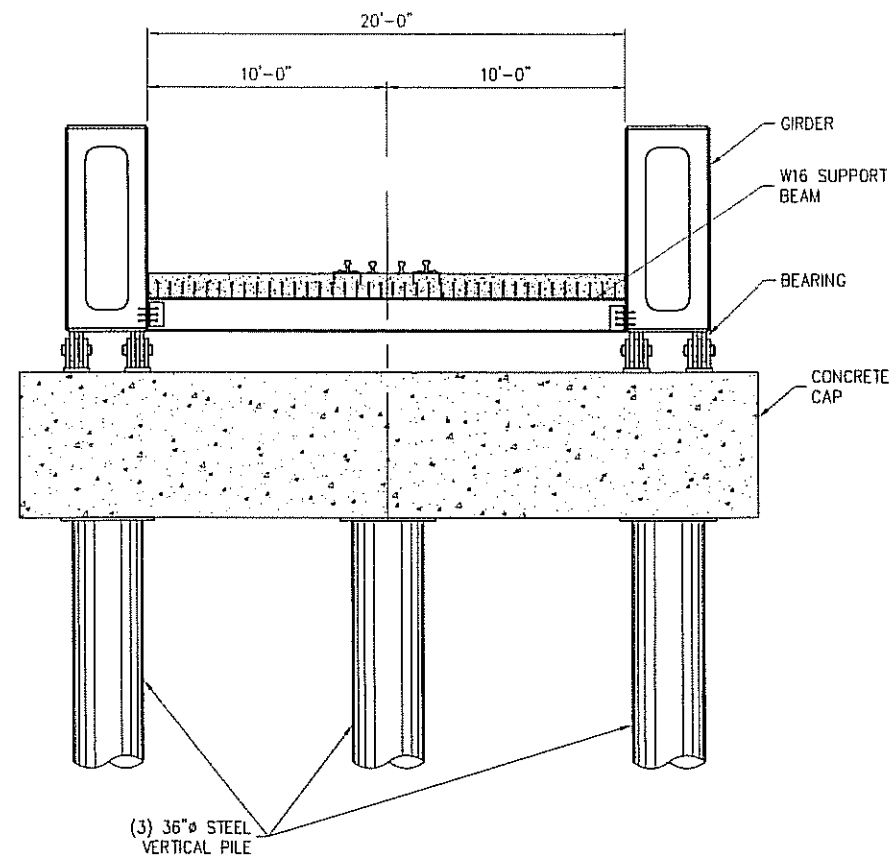
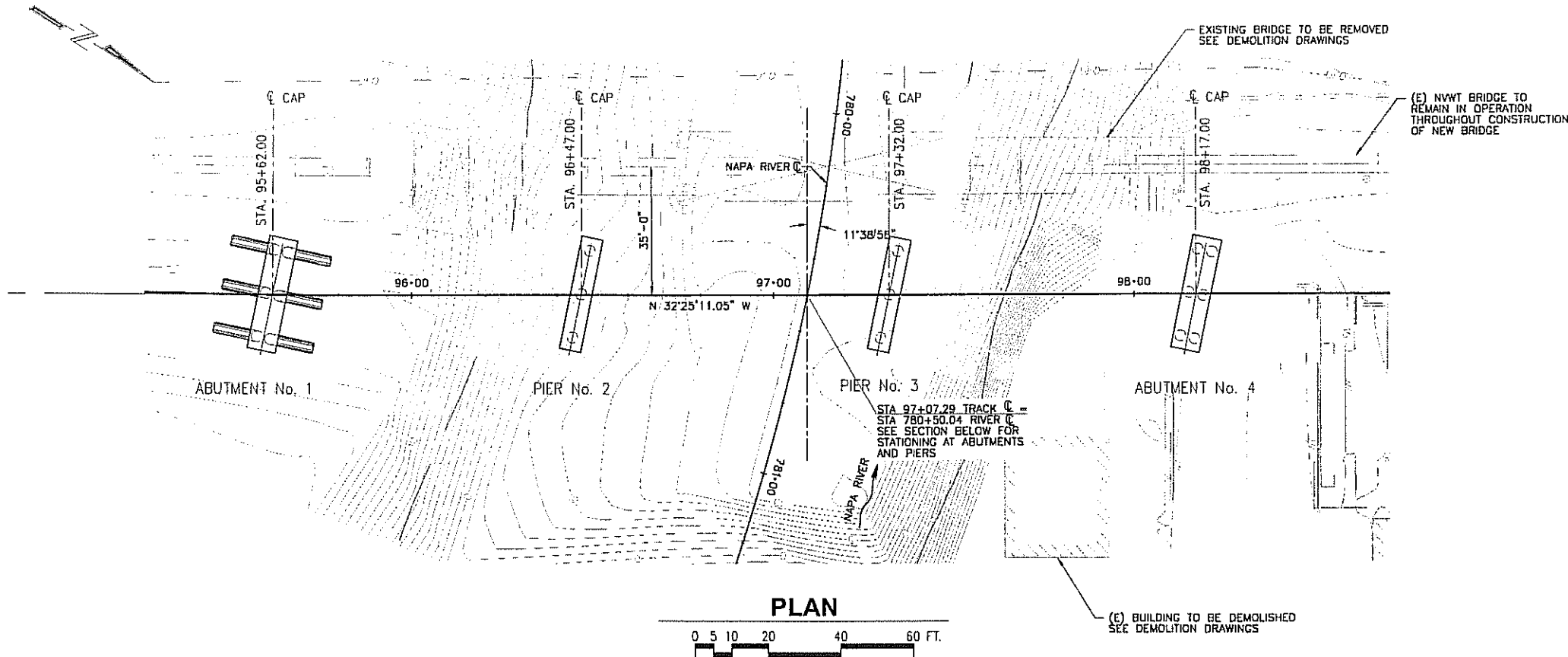
**PIER No. 2, 3 & 4
TYPICAL SECTION**



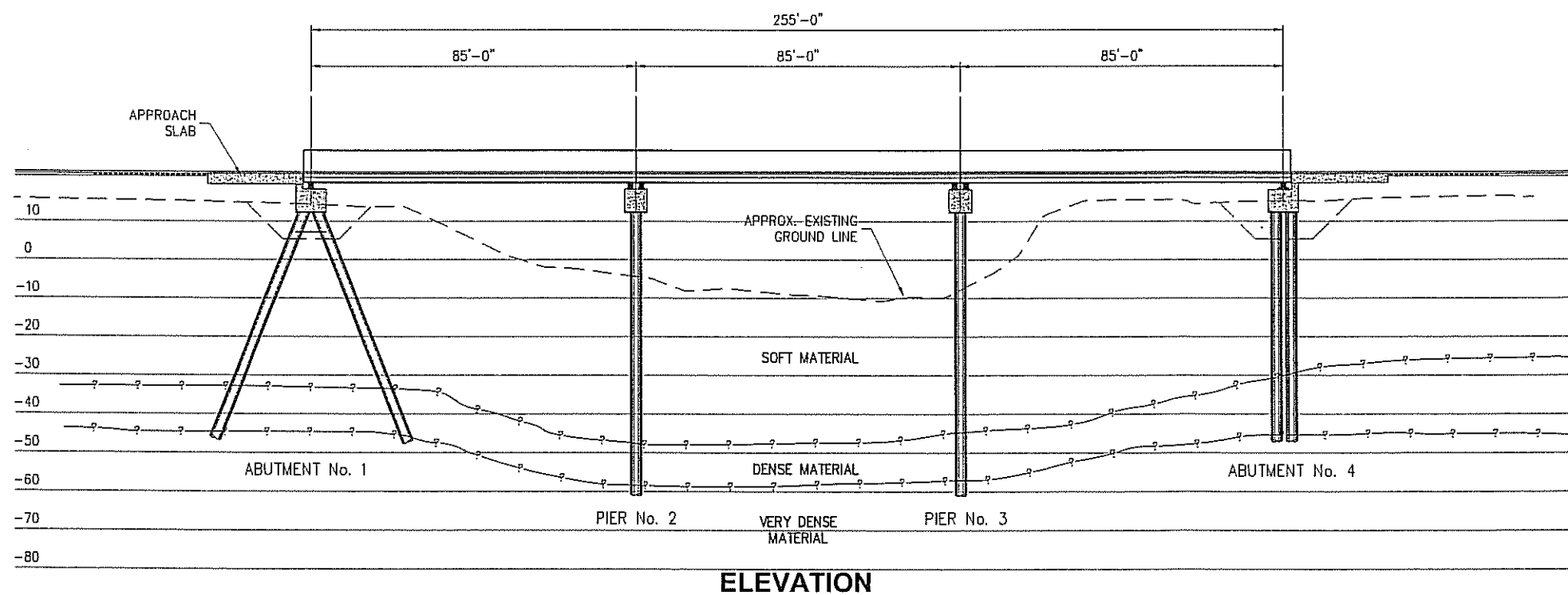
811 First Avenue, Suite 570
Seattle, Washington 98104
Phone: 206-624-1387
Fax: 206-624-1388
Email: mail@pndengineers.com

PND ENGINEERS, INC. IS NOT RESPONSIBLE FOR SAFETY PROGRAMS, METHODS OR PROCEDURES OF OPERATION, OR THE CONSTRUCTION OF THE DESIGN SHOWN ON THESE DRAWINGS. WHERE SPECIFICATIONS ARE GENERAL OR NOT CALLED OUT, THE SPECIFICATIONS SHALL CONFORM TO STANDARDS OF INDUSTRY. DRAWINGS ARE FOR USE ON THIS PROJECT ONLY AND ARE NOT INTENDED FOR REUSE WITHOUT WRITTEN APPROVAL FROM PND. DRAWINGS ARE ALSO NOT TO BE USED IN ANY MANNER THAT WOULD CONSTITUTE A DETRIMENT DIRECTLY OR INDIRECTLY TO PND.

REVISIONS			PROJECT: VALUE ENGINEERING DRY BYPASS BRIDGE			
			TITLE: PIER No. 2, 3 & 4			
			DESIGNED BY:	DP	PROJECT NO:	08S102 SHEET NO:
			DRAWN BY:	DRH	DATE:	SEPT. 2008
			CHECKED BY:		SCALE:	NOTED
REV	DATE	DESCRIPTION				6 OF 7



**TYPICAL SECTION
AT PIER No. 2 & 3**



ELEVATION

9/23/08 Proposals\2008 Proposal Files\Napa Valley Train Bridge\Drawings\085102-02.dwg



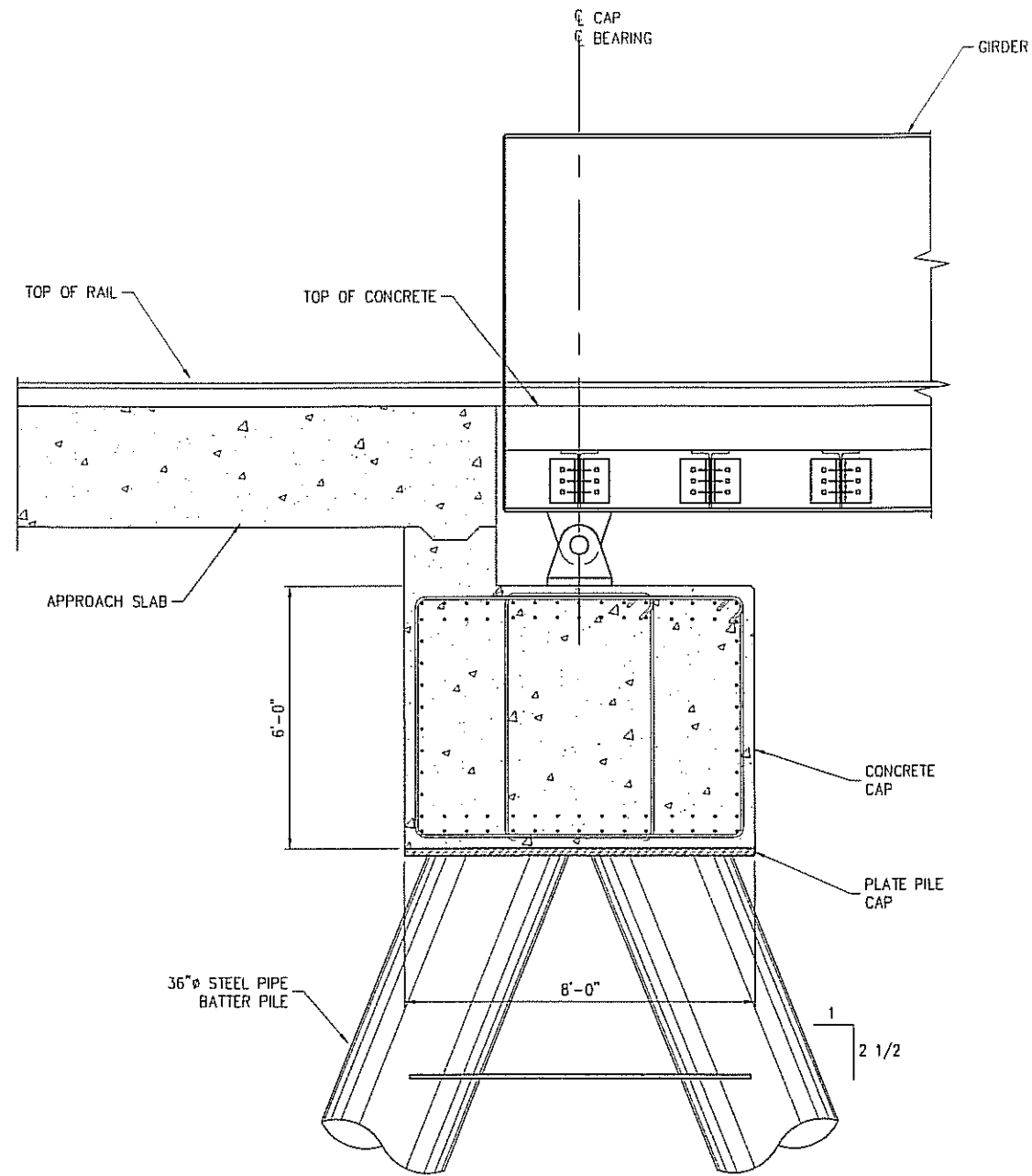
811 First Avenue, Suite 570
Seattle, Washington 98104
Phone: 206-624-1387
Fax: 206-624-1388
Email: mail@pndengineers.com

PND ENGINEERS, INC. IS NOT RESPONSIBLE FOR SAFETY PROGRAMS, METHODS OR PROCEDURES OF OPERATION, OR THE CONSTRUCTION OF THE DESIGN SHOWN ON THESE DRAWINGS. WHERE SPECIFICATIONS ARE GENERAL OR NOT CALLED OUT, THE SPECIFICATIONS SHALL CONFORM TO STANDARDS OF INDUSTRY. DRAWINGS ARE FOR USE ON THIS PROJECT ONLY AND ARE NOT INTENDED FOR REUSE WITHOUT WRITTEN APPROVAL FROM PND. DRAWINGS ARE ALSO NOT TO BE USED IN ANY MANNER THAT WOULD CONSTITUTE A DETRIMENT DIRECTLY OR INDIRECTLY TO PND.

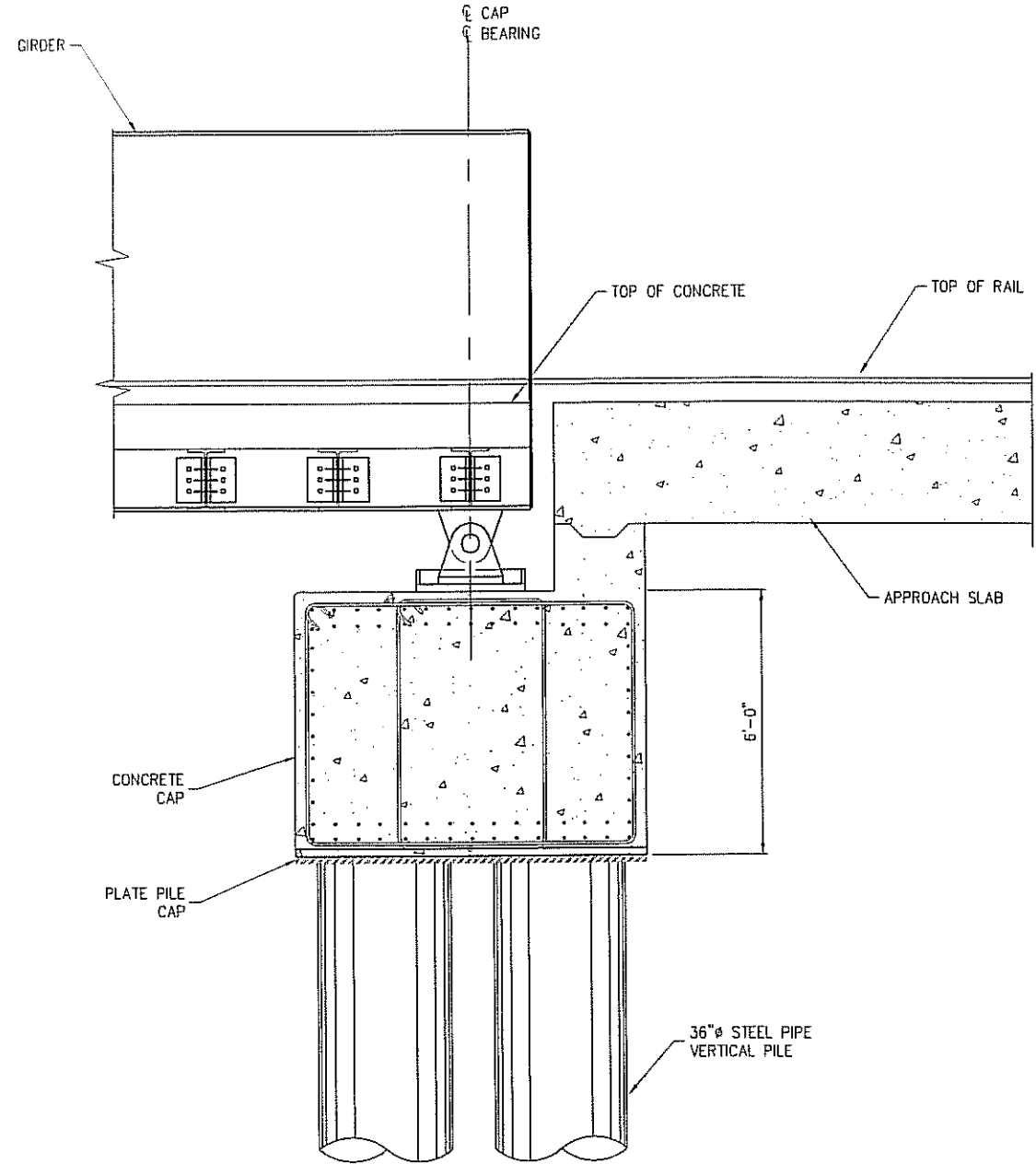
REVISIONS	
REV	DESCRIPTION

PROJECT:		VALUE ENGINEERING RIVER BRIDGE	
TITLE:		PLAN AND PROFILE	
DESIGNED BY:	DP	PROJECT NO.:	085102
DRAWN BY:	DRH	DATE:	SEPT. 2008
CHECKED BY:		SCALE:	NOTED
SHEET NO.:			3 OF 6

9/26/08 Proposals\2008 Proposals\Files\085102 - Napa Valley Train Bridge Drawings\River Bridge\085102-04.dwg



**ABUTMENT No 1
TYPICAL SECTION**



**ABUTMENT No 4
TYPICAL SECTION**

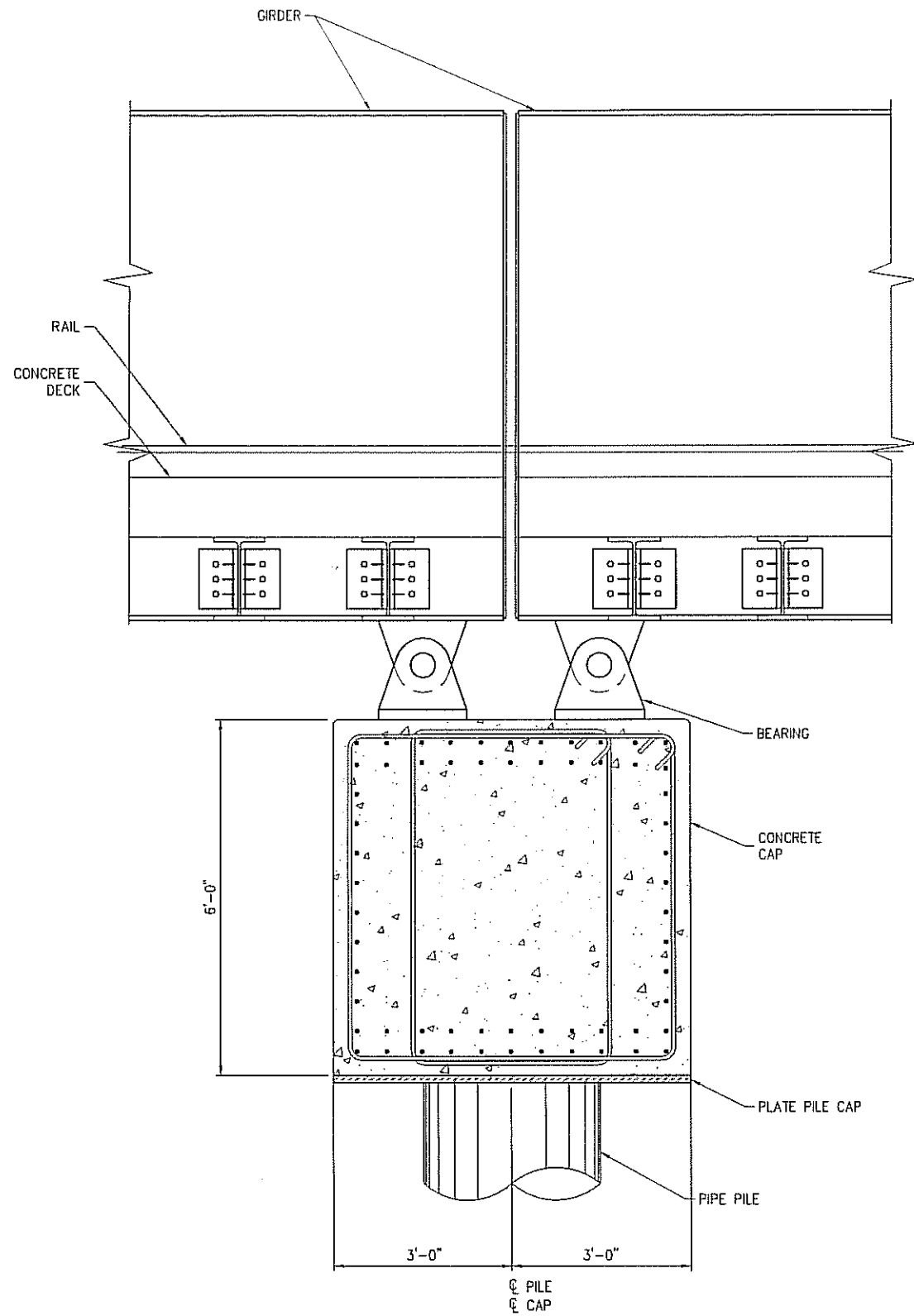


811 First Avenue, Suite 570
Seattle, Washington 98104
Phone: 206-624-1387
Fax: 206-624-1388
Email: mail@pndengineers.com

PND ENGINEERS, INC. IS NOT RESPONSIBLE FOR SAFETY PROGRAMS, METHODS OR PROCEDURES OF OPERATION, OR THE CONSTRUCTION OF THE DESIGN SHOWN ON THESE DRAWINGS. WHERE SPECIFICATIONS ARE GENERAL OR NOT CALLED OUT, THE SPECIFICATIONS SHALL CONFORM TO STANDARDS OF INDUSTRY. DRAWINGS ARE FOR USE ON THIS PROJECT ONLY AND ARE NOT INTENDED FOR REUSE WITHOUT WRITTEN APPROVAL FROM PND. DRAWINGS ARE ALSO NOT TO BE USED IN ANY MANNER THAT WOULD CONSTITUTE A DETRIMENT DIRECTLY OR INDIRECTLY TO PND.

REVISIONS		
REV	DATE	DESCRIPTION

PROJECT: VALUE ENGINEERING RIVER BRIDGE			
TITLE: ABUTMENT No 1 & No 5			
DESIGNED BY:	DP	PROJECT NO:	085102
DRAWN BY:	DRH	DATE:	SEPT. 2008
CHECKED BY:		SCALE:	NOTED
SHEET NO:			4 OF 6



**PIER No. 2, 3 & 4
TYPICAL SECTION**

9/26/08 Proposals\2008 Proposals\Napa Valley Train Bridge\Drawings\River Bridge\08S102-05.dwg



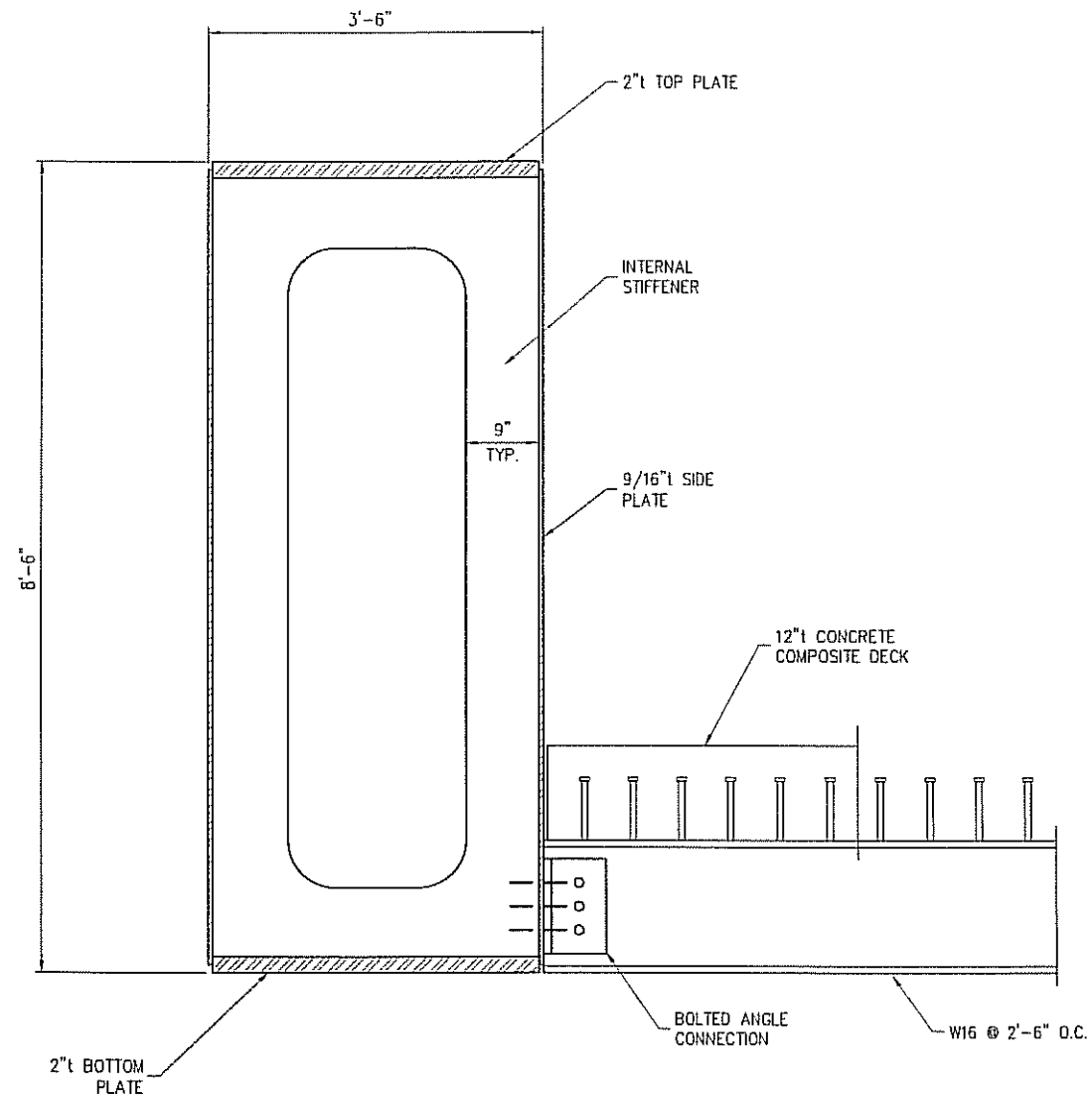
811 First Avenue, Suite 570
Seattle, Washington 98104
Phone: 206-624-1387
Fax: 206-624-1388
Email: mail@pndengineers.com

PND ENGINEERS, INC. IS NOT RESPONSIBLE FOR SAFETY PROGRAMS, METHODS OR PROCEDURES OF OPERATION, OR THE CONSTRUCTION OF THE DESIGN SHOWN ON THESE DRAWINGS. WHERE SPECIFICATIONS ARE GENERAL OR NOT CALLED OUT, THE SPECIFICATIONS SHALL CONFORM TO STANDARDS OF INDUSTRY. DRAWINGS ARE FOR USE ON THIS PROJECT ONLY AND ARE NOT INTENDED FOR REUSE WITHOUT WRITTEN APPROVAL FROM PND. DRAWINGS ARE ALSO NOT TO BE USED IN ANY MANNER THAT WOULD CONSTITUTE A DETRIMENT DIRECTLY OR INDIRECTLY TO PND.

REVISIONS		
REV	DATE	DESCRIPTION

PROJECT: VALUE ENGINEERING RIVER BRIDGE			
TITLE: PIER No. 2, 3 & 4			
DESIGNED BY:	DP	PROJECT NO:	08S102
DRAWN BY:	DRH	DATE:	SEPT. 2008
CHECKED BY:		SCALE:	NOTED
			SHEET NO: 5 OF 6

9/26/08 Proposals\2008 Proposals Files\085102 - Napa Valley Train Bridge\Drawings\RIVER BRIDGE\085102-06.dwg



TYPICAL GIRDER SECTION



811 First Avenue, Suite 570
 Seattle, Washington 98104
 Phone: 206-624-1387
 Fax: 206-624-1388
 Email: mail@pndengineers.com

PND ENGINEERS, INC. IS NOT RESPONSIBLE FOR SAFETY PROGRAMS, METHODS OR PROCEDURES OF OPERATION, OR THE CONSTRUCTION OF THE DESIGN SHOWN ON THESE DRAWINGS. WHERE SPECIFICATIONS ARE GENERAL OR NOT CALLED OUT, THE SPECIFICATIONS SHALL CONFORM TO STANDARDS OF INDUSTRY. DRAWINGS ARE FOR USE ON THIS PROJECT ONLY AND ARE NOT INTENDED FOR REUSE WITHOUT WRITTEN APPROVAL FROM PND. DRAWINGS ARE ALSO NOT TO BE USED IN ANY MANNER THAT WOULD CONSTITUTE A DETRIMENT DIRECTLY OR INDIRECTLY TO PND.

REVISIONS		
REV	DATE	DESCRIPTION

PROJECT: VALUE ENGINEERING RIVER BRIDGE			
TITLE: TYPICAL GIRDER SECTION			
DESIGNED BY:	DP	PROJECT NO:	085102
DRAWN BY:	DRH	DATE:	SEPT. 2008
CHECKED BY:		SCALE:	NOTED
SHEET NO:			6 OF 6

