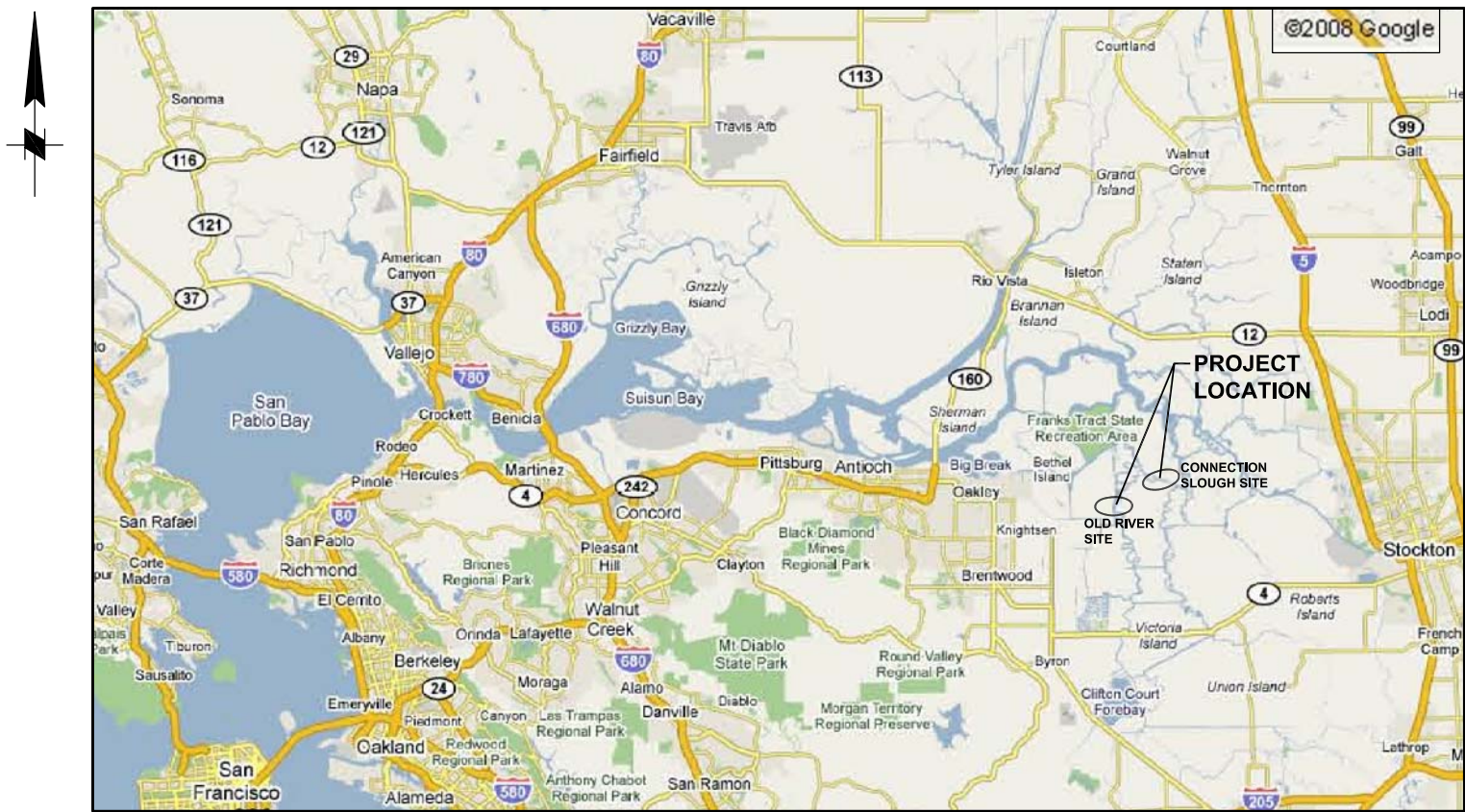


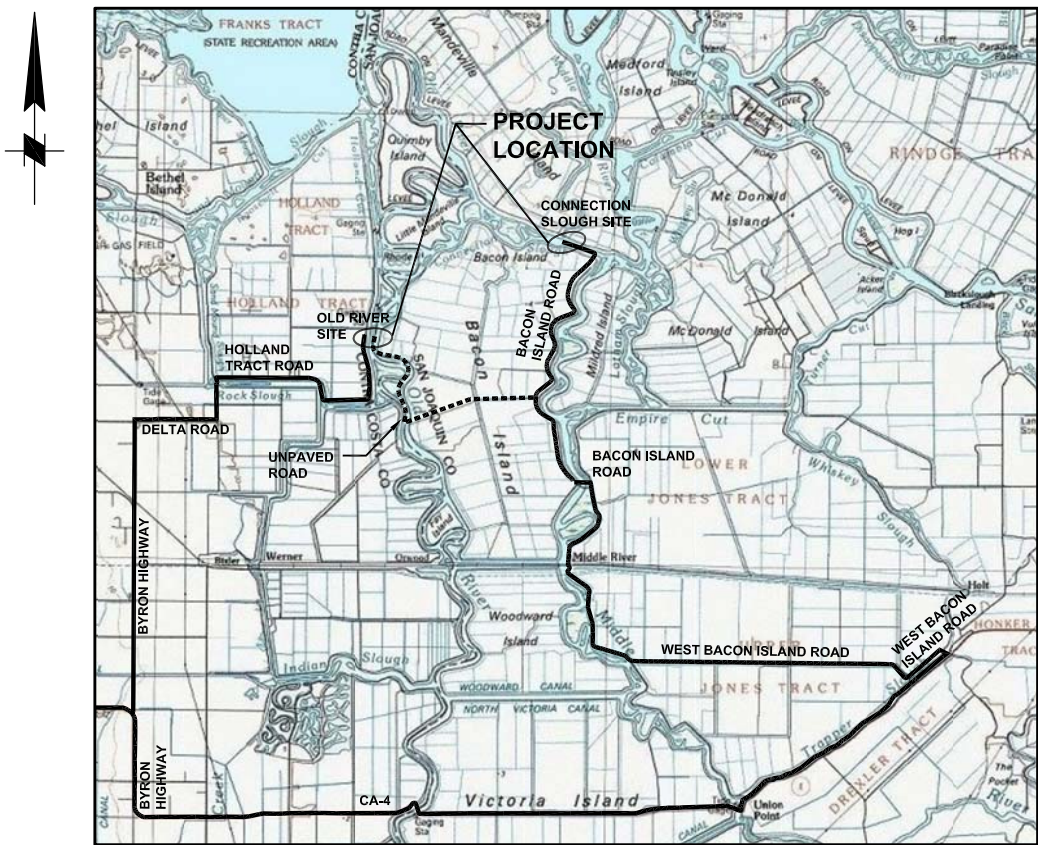
95% Design Plans for Old River Site and Connection Slough Sites

TWO GATE FISH PROTECTION PLAN

BACON ISLAND, CALIFORNIA



VICINITY MAP
NTS



LOCATION MAP
NTS

TECHNICAL REVIEWERS			
CIVIL _____ (NAME)		STRUCTURAL _____ (NAME)	
ELECTRICAL _____ (NAME)		MECHANICAL _____ (NAME)	



1121 L Street, Suite 1050
Sacramento, California 95814-3944
(916) 447-7357 x203

APPROVED _____
DENNIS G. MAJORS

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SCALE REDUCED ACCORDINGLY.

REVISION	DESCRIPTION	BY	DATE			 2001 N. Main Street, Suite 360 Walnut Creek, California 94596 (925) 944-5411	TWO GATE FISH PROTECTION PLAN		DATE 08/07/09
							TITLE SHEET		SHEET 1 OF 75
									G1
						DSGN TDB DR AB CHK GTH JOB NO. 6097-03 SUBMITTED BY RMR TITLE			

P:\6097-03 SWC GATE DESIGN\CADD\DWG\609703-G2.DWG 7/30/2009 2:12 PM

INDEX OF DRAWINGS

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		<u>GENERAL</u>
1	G1	TITLE SHEET
2	G2	INDEX OF DRAWINGS
3	G3	GENERAL NOTES, ABBREVIATIONS AND LEGEND
4	G4	PROJECT GENERAL PLAN
		<u>OLD RIVER</u>
5	C1	OLD RIVER, SITE PLAN
6	C2	OLD RIVER, DREDGING PLAN AND SECTION
7	C3	OLD RIVER, BARGE BEDDING PLAN AND SECTIONS
8	C4	OLD RIVER, BARGE – ROCK FILL PLAN AND SECTIONS
9	C5	OLD RIVER, SHEET PILE WALL ARRANGEMENT PLAN AND ELEVATION, SHEET 1
10	C6	OLD RIVER SHEET PILE WALL ARRANGEMENT PLAN AND ELEVATION, SHEET 2
11	C7	OLD RIVER, BOAT RAMP PLAN AND SECTION
12	C7.1	OLD RIVER, BOAT RAMP PILE PLAN
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14	C8	OLD RIVER, BOAT RAMP DETAILS AND SECTIONS, SHEET 1
15	C9	OLD RIVER, BOAT RAMP DETAILS AND SECTIONS, SHEET 2
16	C10	OLD RIVER, BOAT RAMP DETAILS AND SECTIONS, SHEET 3
17	C11	OLD RIVER, CATWALK PLAN AND ELEVATION, SHEET 1
18	C12	OLD RIVER, CATWALK PLAN AND ELEVATION, SHEET 2
19	C13	OLD RIVER, ELECTRICAL SITE PLAN
20	C14	OLD RIVER, BARGE GENERAL ARRANGEMENT PLAN
21	C15	OLD RIVER, BARGE GENERAL ARRANGEMENT ELEVATION
22	C16	OLD RIVER, GATE SCANTLINGS
23	C17	OLD RIVER, GATE FRAMING LAYOUT
24	C18	OLD RIVER, END WALL SCANTLINGS
25	C19	OLD RIVER, AIDS TO NAVIGATION PLAN
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27	C21	OLD RIVER, REMOVAL PLAN

SHEET NUMBER	DRAWING NUMBER	DESCRIPTION
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28	C31	CONNECTION SLOUGH, SITE PLAN
29	C32	CONNECTION SLOUGH, DREDGING – PLAN AND SECTION
30	C33	CONNECTION SLOUGH, BARGE BEDDING PLAN
31	C34	CONNECTION SLOUGH, BARGE–ROCK FILL PLAN AND SECTIONS
32	C35	CONNECTION SLOUGH, SHEET PILE WALL ARRANGEMENT PLAN AND ELEVATION
33	C36	CONNECTION SLOUGH, BOAT RAMP PLAN AND SECTION
34	C36.1	CONNECTION SLOUGH, BOAT RAMP PILE PLAN
35	C36.2	CONNECTION SLOUGH, BOAT RAMP FRAMING PLAN
36	C37	CONNECTION SLOUGH, BOAT RAMP DETAILS AND SECTIONS, SHEET 1
37	C38	CONNECTION SLOUGH, BOAT RAMP DETAILS AND SECTIONS, SHEET 2
38	C39	CONNECTION SLOUGH, BOAT RAMP DETAILS AND SECTIONS, SHEET 3
39	C40	CONNECTION SLOUGH, CATWALK – PLAN AND ELEVATION
40	C41	CONNECTION SLOUGH, ELECTRICAL SITE PLAN
41	C42	CONNECTION SLOUGH, BARGE GENERAL ARRANGEMENT PLAN
42	C43	CONNECTION SLOUGH, BARGE GENERAL ARRANGEMENT ELEVATION
43	C44	CONNECTION SLOUGH, GATE SCANTLINGS
44	C45	CONNECTION SLOUGH, GATE FRAMING LAYOUT
45	C46	CONNECTION SLOUGH, END WALL SCANTLINGS
46	C47	CONNECTION SLOUGH, AIDS TO NAVIGATION PLAN
47	C48	NOT USED
48	C49	CONNECTION SLOUGH, REMOVAL PLAN

SHEET NUMBER	DRAWING NUMBER	DESCRIPTION
		<u>COMMON DETAILS</u>
49	C56	GATE STRUCTURAL DETAILS, SHEET 1
50	C57	GATE STRUCTURAL DETAILS, SHEET 2
51	C58	GATE STRUCTURAL DETAILS, SHEET 3
52	C59	GATE STRUCTURAL DETAILS, SHEET 4
53	C60	GATE STRUCTURAL DETAILS, SHEET 5
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55	C62	GATE MECHANICAL DETAILS, SHEET 2
56	C63	SHEET PILE WALL DETAILS, SHEET 1
57	C64	SHEET PILE WALL DETAILS, SHEET 2
58	C65	BOAT RAMP PLAN AND SECTIONS
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60	C67	BOARDING FLOAT PLAN AND ELEVATION
61	C68	BOARDING FLOAT DETAILS
62	C69	CATWALK DETAILS, SHEET 1
63	C70	CATWALK DETAILS, SHEET 2
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70	C77	UTILITY YARD DETAILS
71	C78	OPERATOR HOUSE EQUIPMENT AND DETAILS
72	C79	ELECTRICAL SYSTEM DIAGRAM
73	C80	HYDRAULICS SYSTEM DIAGRAM
74	C81	DREDGED MATERIAL DISPOSAL SITE
75	C82	MISCELLANEOUS DETAILS

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REVISION	DESCRIPTION	BY	DATE			 2001 N. Main Street, Suite 360 Walnut Creek, California 94596 (925) 944-5411	TWO GATE FISH PROTECTION PLAN		DATE 08/07/09
									SHEET 2 OF 75
							INDEX OF DRAWINGS	G2	
DSGN		DR		CHK					
TDB		AB		GTH					
JOB NO.		SUBMITTED BY		TITLE					
6097-03		RMR							

GENERAL NOTES

1. BATHYMETRY SURVEYED BY ENVIRONMENTAL DATA SOLUTIONS ON JUNE 23, 2008 AND REPRESENTS CONDITIONS ON THAT DATE.
2. KING PILE TYPE (36 INCH OD x 0.75 INCH WT) AND SPACING SHOWN ON THE PLANS WILL BE ADJUSTED ON THE BASIS OF IN-SITU SOIL BORING DATA AS SOON AS THIS INFORMATION BECOMES AVAILABLE.

VERTICAL DATUM

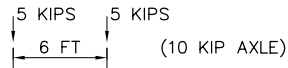
PROJECT ELEVATIONS ARE BASED ON NAVD’88.

HORIZONTAL DATUM

PROJECT COORDINATES ARE BASED ON THE CALIFORNIA STATE PLANE COORDINATE SYSTEM NAD 1983, ZONE 3.

DESIGN CONDITIONS

LIVE LOADS: CATWALK: 100 PSF
BOAT RAMP: 5,000 LBS
CONCENTRATED WHEEL LOAD (TOTAL 2 PER AXLE)



WATER ELEVATION: GATES AND SHEET PILES/ KING PILES/ ABUTMENT WALL:
DIFFERENTIAL WATER ELEVATION = 3.6 FT

EARTHQUAKE: QUASI – STATIC LATERAL SEISMIC
ACCELERATION, SA = 0.3g BASED ON 2006 IBC

CURRENT: CURRENT OF 2 KNOTS (3.4 FT/SEC) FREE STREAM VELOCITY

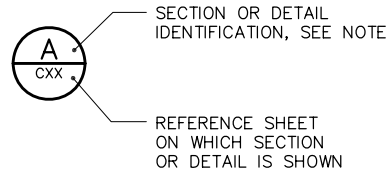
SHIP IMPACT: DOLPHINS/MONOPILES: ACCIDENTAL IMPACT 95 KIP LOAD
AT EL +7.0’

OPERATING LOAD: GATE/ FRAME: HYDRAULIC ACTUATORS (PISTON FORCES)
 $F_1 = +157.1 \text{ KIP}$ $F_2 = -125.3 \text{ KIP}$
 $F_1 = -125.3 \text{ KIP}$ $F_2 = +157.1 \text{ KIP}$
(COMPRESSION +, TENSION –)

ABBREVIATIONS

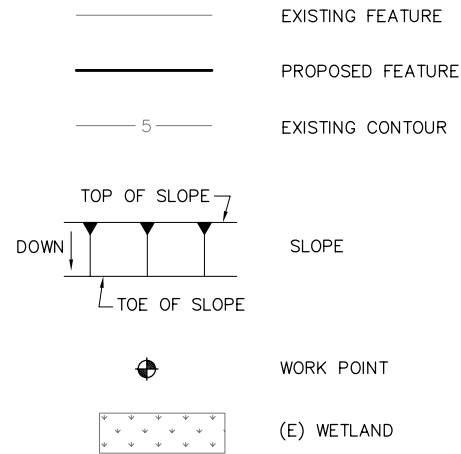
&	AND	NAD	NORTH AMERICAN DATUM
#	NUMBER	NAVD	NORTH AMERICAN VERTICAL DATUM
%	PERCENT	NTS	NOT TO SCALE
APPROX	APPROXIMATE	OC	ON CENTER
ASTM	ASTM INTERNATIONAL	OD	OUTSIDE DIAMETER
C/C	CENTER TO CENTER	OG	ORIGINAL GROUND
CJP	COMPLETE JOINT PENETRATION	OPP	OPPOSITE
℄	CENTER LINE	PC/PS	PRECAST/PRESTRESSED
CIP	CAST-IN-PLACE	℄	PLATE
CLR	CLEAR	PJP	PARTIAL JOINT PENETRATION
CONC	CONCRETE	PSF	POUNDS PER SQUARE FOOT
CONT	CONTINUOUS	REF	REFERENCE
DIA, ∅	DIAMETER	REINF	REINFORCEMENT
DIMS	DIMENSIONS	SA	SEISMIC ACCELERATION
DWG	DRAWING	SCH	SCHEDULE
DWT	DEAD WEIGHT	SIM	SIMILAR
(E)	EXISTING	SPA	SPACES
EL	ELEVATION	STD	STANDARD
EJ	EXPANSION JOINT	STIF	STIFFENER
EW	EACH WAY	SYMM	SYMMETRICAL
FG	FINISH GRADE	THRU	THROUGH
FT	FOOT OR FEET	TYP	TYPICAL
GALV	GALVANIZED	UHMW	ULTRA HIGH MOLECULAR WEIGHT
H	HORIZONTAL	UON	UNLESS OTHERWISE NOTED
HD	HEAD	V	VERTICAL
HDPE	HIGH DENSITY POLYETHYLENE	VC	VERTICAL CURVE
HW	HIGH WATER	WP	WORK POINT
IBC	INTERNATIONAL BUILDING CODE	WT	WALL THICKNESS
ID	INSIDE DIAMETER	W/	WITH
INFO	INFORMATION		
LB	POUND		
LW	LOW WATER		
MAX	MAXIMUM		
MFG	MANUFACTURING		
MIN	MINIMUM		

CROSS-REFERENCE LEGEND



NOTE: LETTER INDICATES SECTION; NUMBER INDICATES DETAIL. WHERE THERE IS NO REFERENCE SHEET INDICATED, IT MEANS THE DETAIL OR SECTION IS TAKEN AND SHOWN ON THE SAME SHEET.

LEGEND



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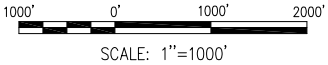
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REVISION	DESCRIPTION	BY	DATE			 2001 N. Main Street, Suite 360 Walnut Creek, California 94596 (925) 944-5411	TWO GATE FISH PROTECTION PLAN		DATE 08/07/09		
									SHEET 3 OF 75		
						DSGN	TDB	DR	AB	CHK	GTH
						JOB NO.	6097-03	SUBMITTED BY	RMR	TITLE	
						ABBREVIATIONS, LEGEND AND GENERAL NOTES					

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PROJECT GENERAL PLAN
SCALE: 1"= 1000'



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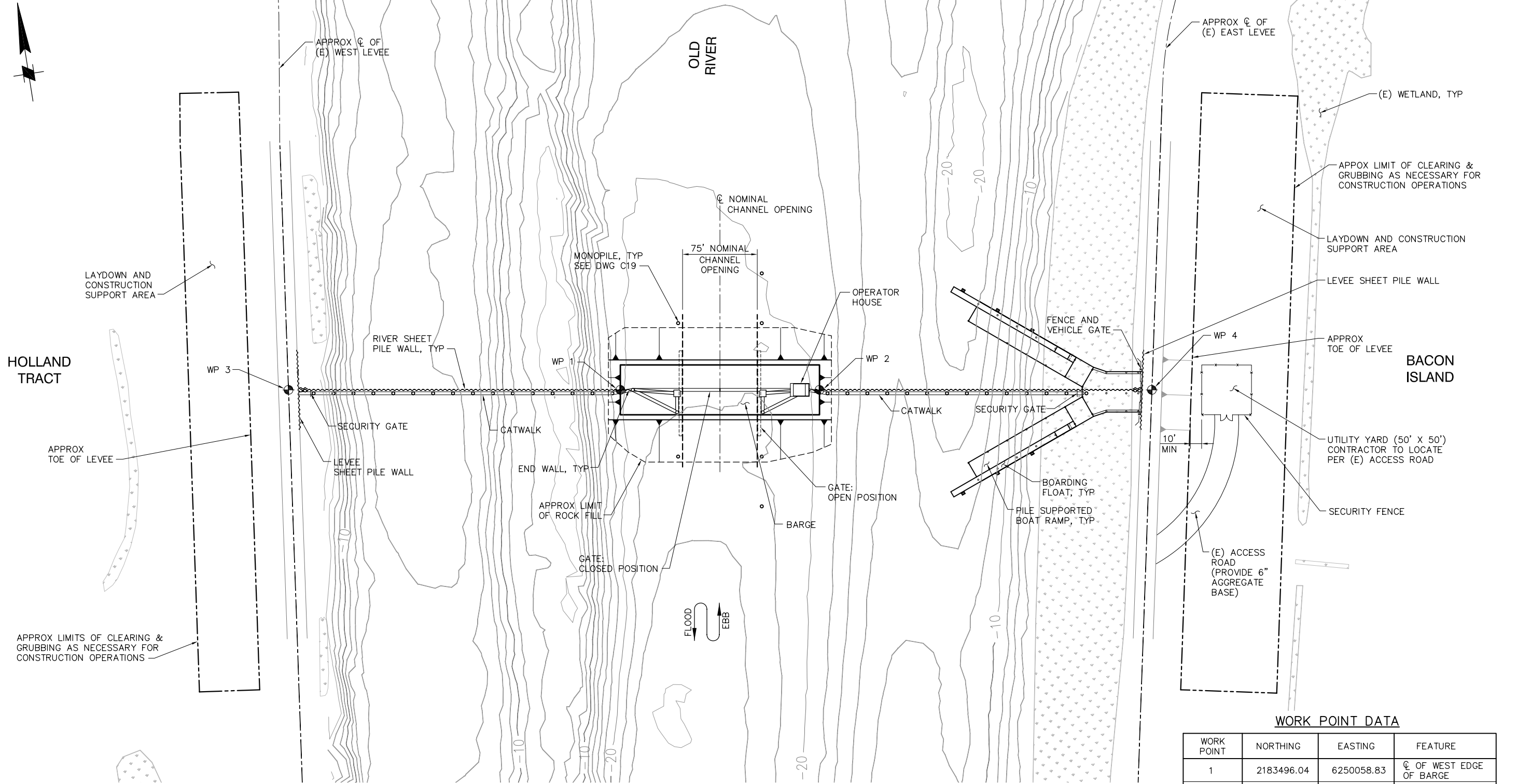
REVISION	DESCRIPTION	BY	DATE

 Moffatt & Nichol		2001 N. Main Street, Suite 360 Walnut Creek, California 94596 (925) 944-5411	
DSGN	TDB	DR	EP
JOB NO.	6097-03	SUBMITTED BY	RMR
CHK	GTH	TITLE	

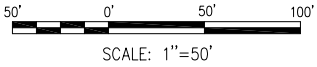
TWO GATE FISH PROTECTION PLAN	
PROJECT GENERAL PLAN	

DATE	08/07/09
SHEET	4 OF 75
G4	

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SITE PLAN
SCALE: 1"= 50'



WORK POINT DATA

WORK POINT	NORTHING	EASTING	FEATURE
1	2183496.04	6250058.83	CL OF WEST EDGE OF BARGE
2	2183465.50	6250256.48	CL OF EAST EDGE OF BARGE
3	2183546.94	6249729.50	CL OF WEST LEVEE AND GATE
4	2183414.53	6250586.33	CL OF EAST LEVEE AND GATE

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REVISION	DESCRIPTION	BY	DATE



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DSGN	TDB	DR	EP	CHK	GTH
JOB NO.	6097-03	SUBMITTED BY	RMR	TITLE	

TWO GATE FISH PROTECTION PLAN

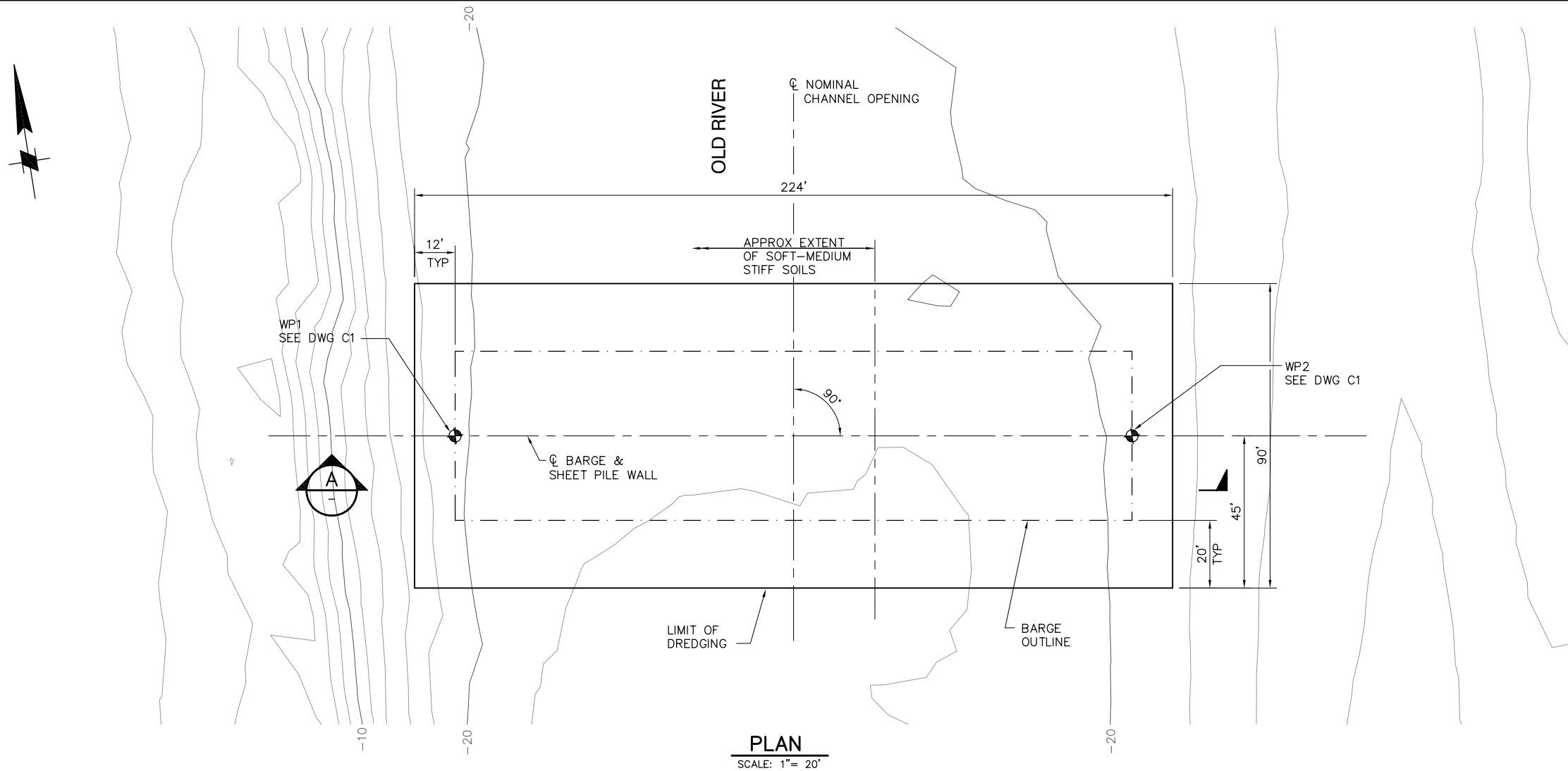
OLD RIVER
SITE PLAN

DATE 08/07/09

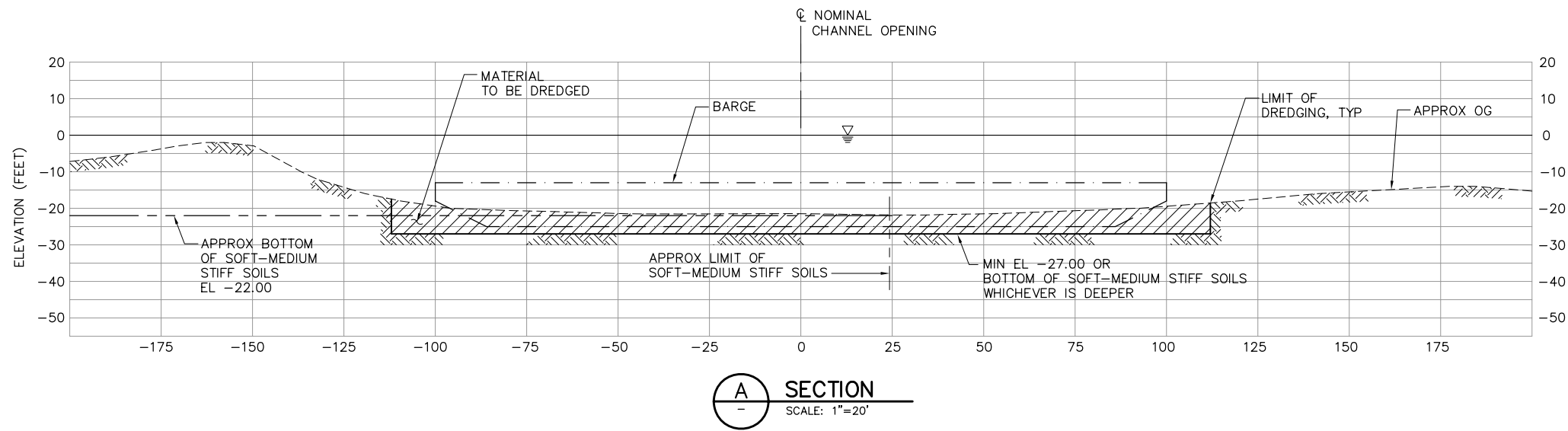
SHEET 5 OF 75

C1

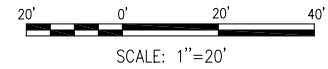
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PLAN
SCALE: 1"= 20'



A SECTION
SCALE: 1"=20'



SCALE: 1"=20'

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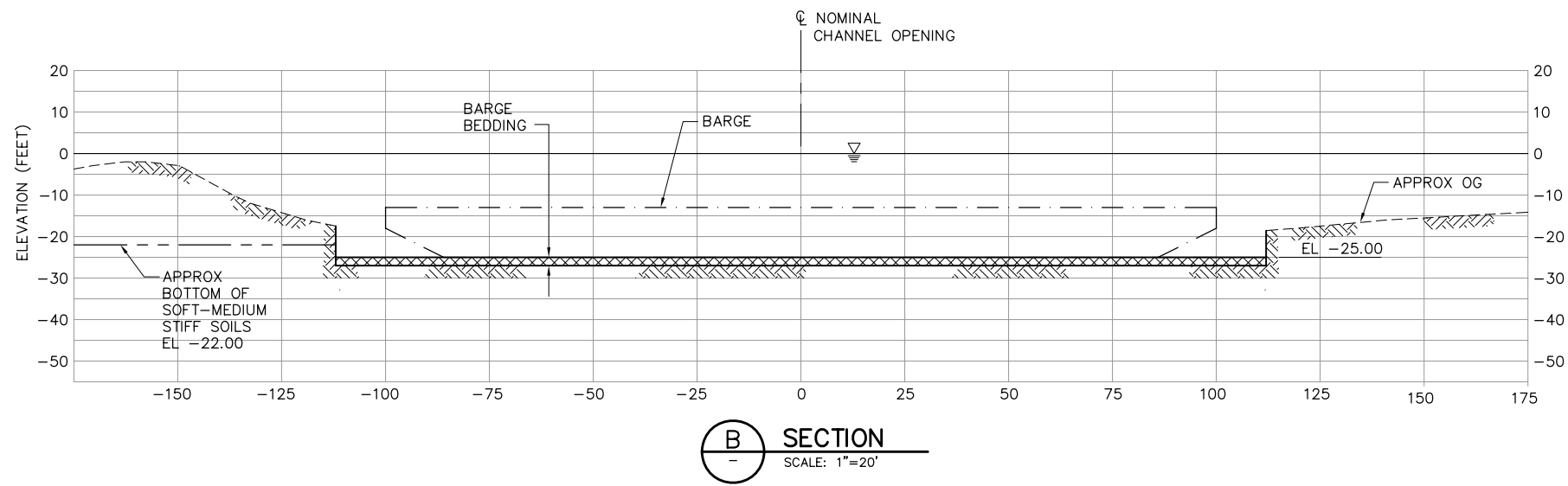
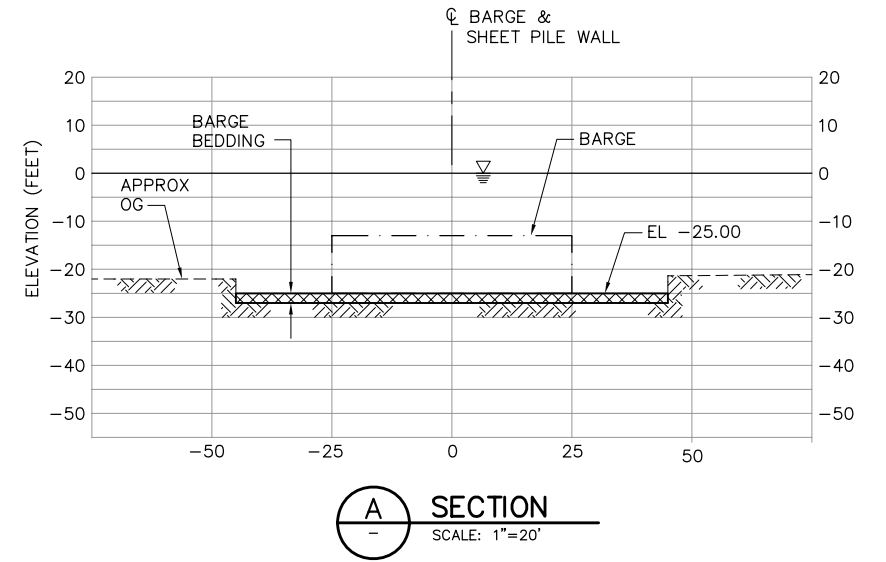
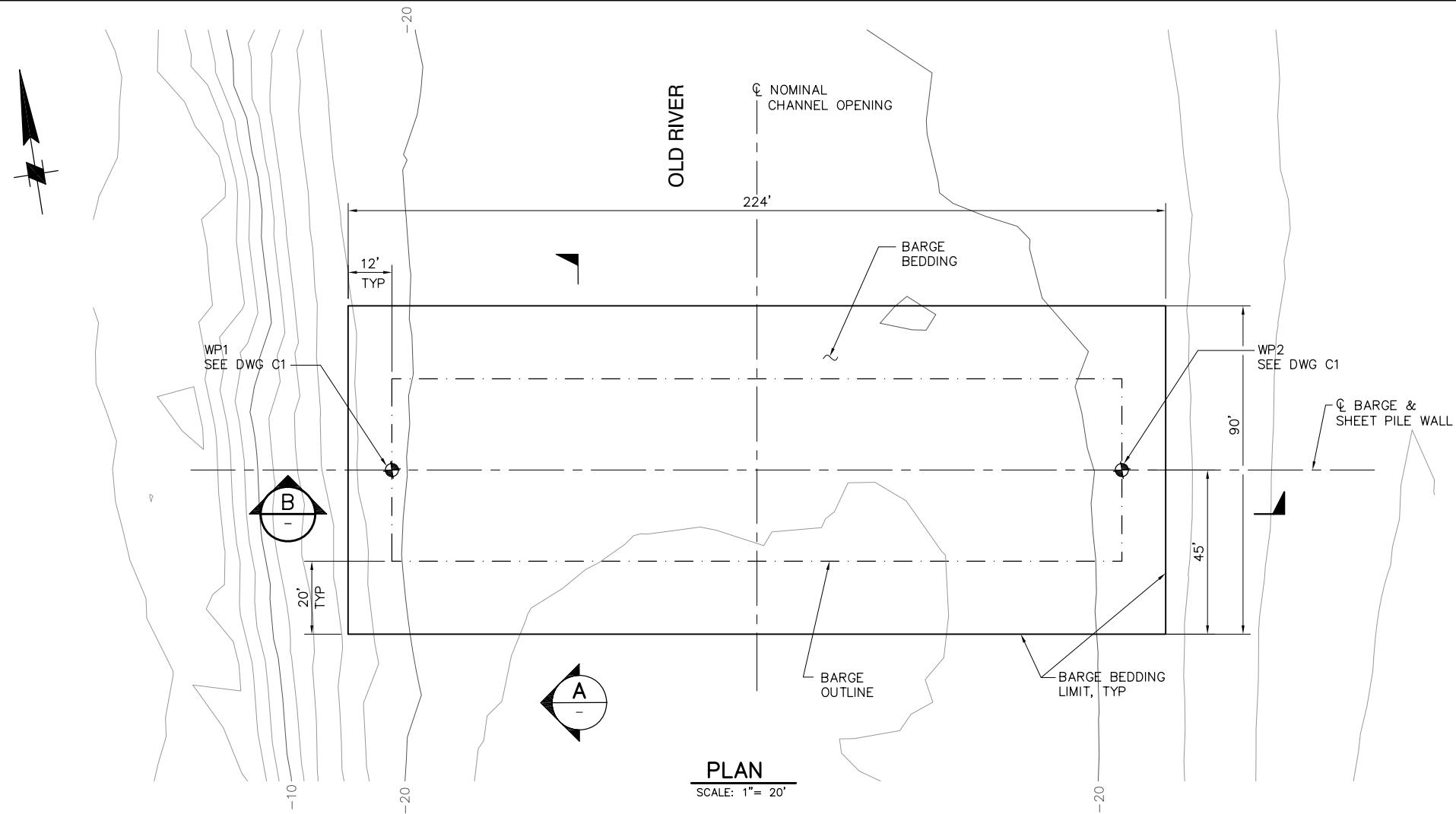
NOTE:
GATE AND ALL OTHER FEATURES
NOT SHOWN FOR CLARITY.

REVISION	DESCRIPTION	BY	DATE				TWO GATE FISH PROTECTION PLAN		DATE 08/07/09
							OLD RIVER DREDGING PLAN AND SECTION		SHEET 6 OF 75
							C2		

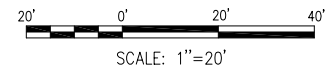
2001 N. Main Street, Suite 360
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(925) 944-5411

DSGN	TDB	DR	AB	CHK	GTH
JOB NO.	6097-03	SUBMITTED BY	RMR	TITLE	

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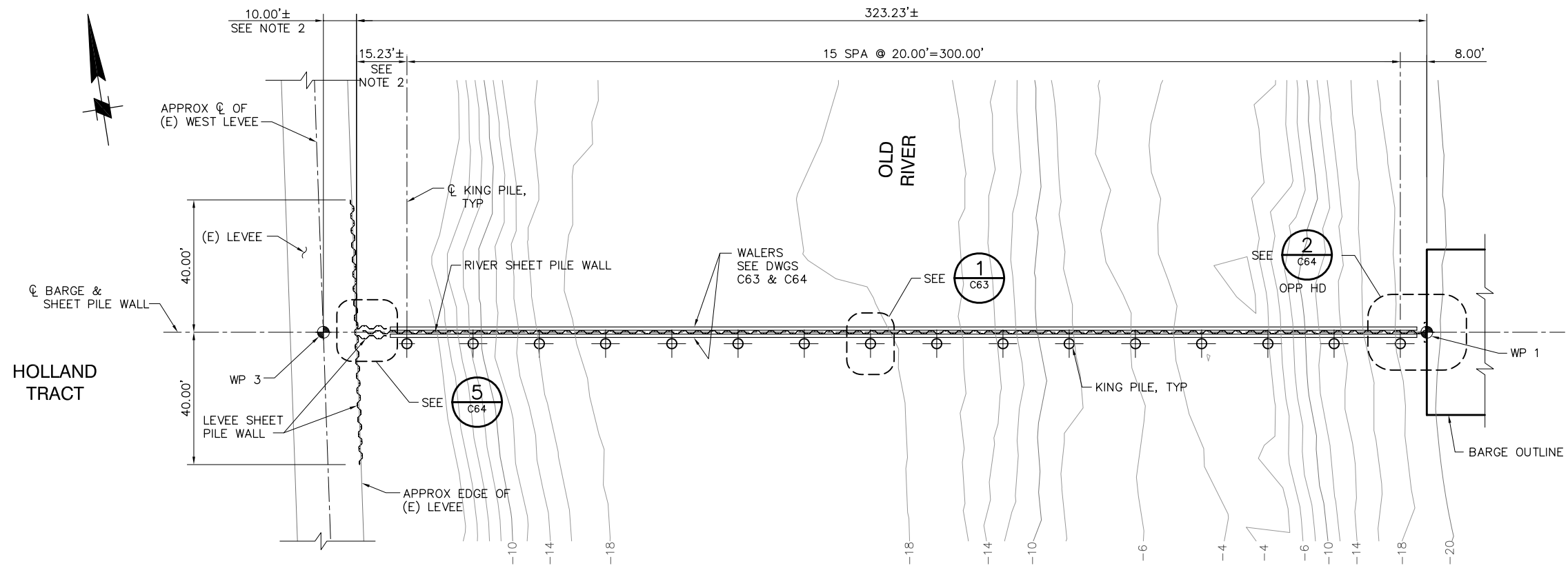


NOTE:
GATE AND ALL OTHER FEATURES
NOT SHOWN FOR CLARITY.



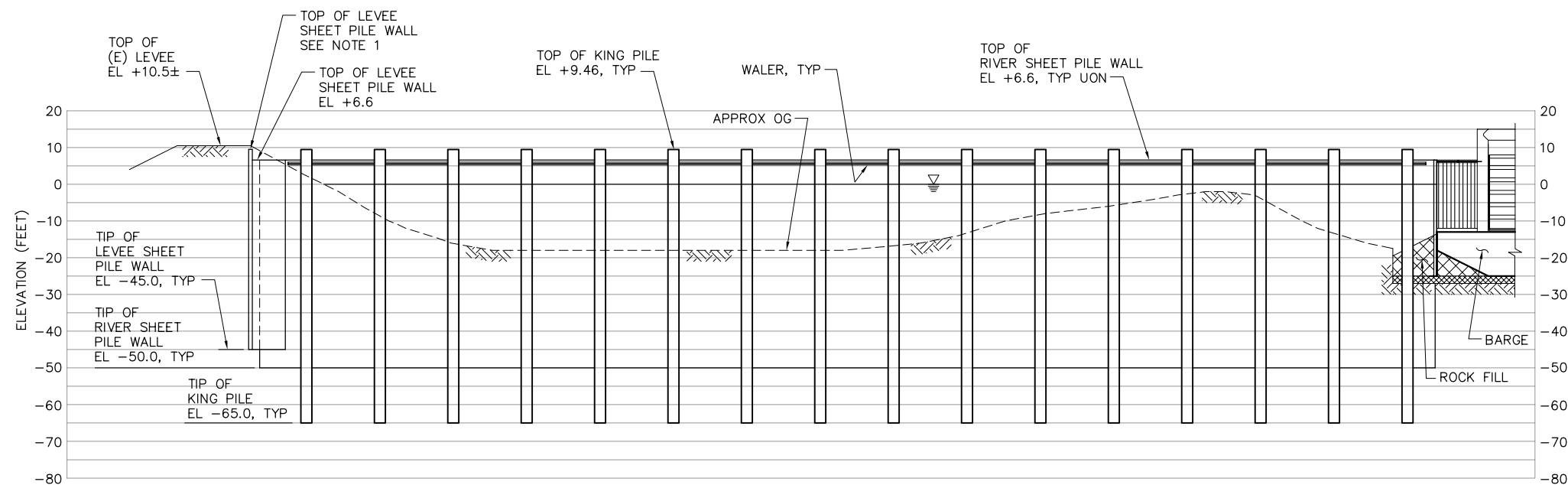
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REVISION	DESCRIPTION	BY	DATE						TWO GATE FISH PROTECTION PLAN		DATE 08/07/09
									SHEET 7 OF 75		
									OLD RIVER BARGE BEDDING PLAN AND SECTIONS		C3
							 2001 N. Main Street, Suite 360 Walnut Creek, California 94596 (925) 944-5411				
							DSGN TDB	DR AB	CHK GTH		
							JOB NO. 6097-03	SUBMITTED BY RMR	TITLE		



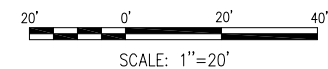
PLAN
SCALE: 1"= 20'

NOTE:
CATWALK NOT SHOWN
FOR CLARITY.



ELEVATION
SCALE: 1"= 20'

NOTE:
CATWALK NOT SHOWN
FOR CLARITY.



95% SUBMITTAL

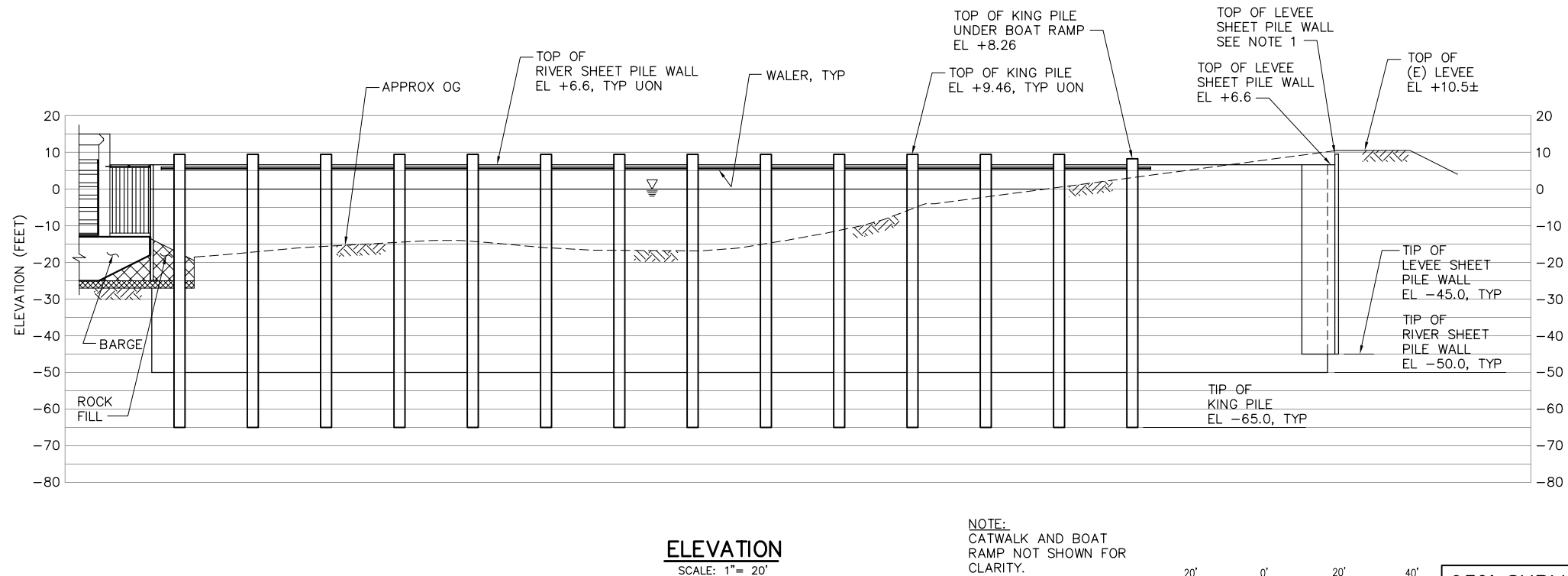
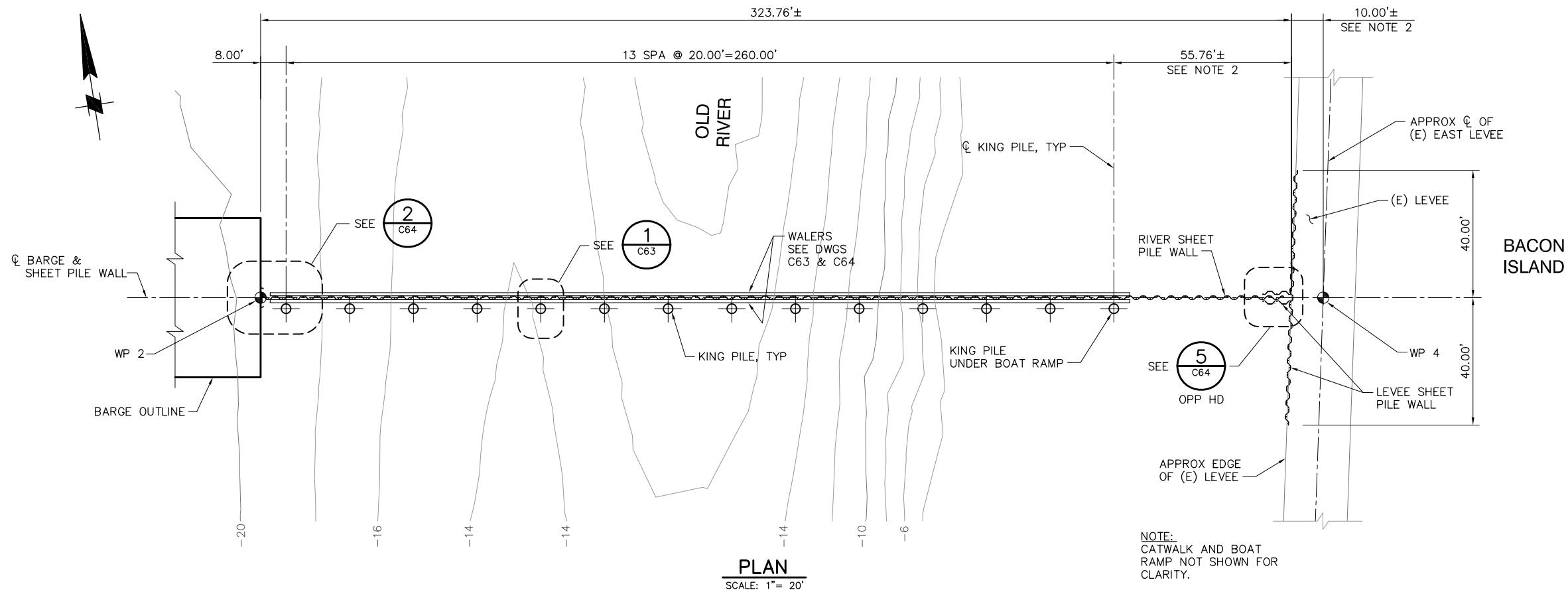
IF SHEET IS LESS THAN 22" x 34"
IT IS A REDUCED PRINT -
SCALE REDUCED ACCORDINGLY.

NOTES:

1. TOP OF LEVEE SHEET PILE WALL SHALL BE 6" BELOW TOP OF (E) LEVEE UON.
2. LEVEE SHEET PILE WALL TO BE LOCATED 1 FT MIN OFF THE EDGE OF (E) ROAD SURFACE.

P:\6097-03 SWC GATE DESIGN\CADD\DWG\609703-C5.DWG 7/28/2009 10:38 AM

REVISION	DESCRIPTION	BY	DATE			 2001 N. Main Street, Suite 360 Walnut Creek, California 94596 (925) 944-5411	TWO GATE FISH PROTECTION PLAN		DATE 08/07/09		
											SHEET 9 OF 75
				DSGN JMB	DR EP	CHK TDB	OLD RIVER SHEET PILE WALL ARRANGEMENT PLAN AND ELEVATION, SHEET 1		C5		
				JOB NO. 6097-03	SUBMITTED BY RMR	TITLE					



NOTES:

1. TOP OF LEVEE SHEET PILE WALL SHALL BE 6" BELOW TOP OF (E) LEVEE UON.
2. LEVEE SHEET PILE WALL TO BE LOCATED 1 FT MIN OFF THE EDGE OF (E) ROAD SURFACE.

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DSGN	JMB	DR	EP	CHK	TDB
JOB NO.	6097-03	SUBMITTED BY	RMR	TITLE	

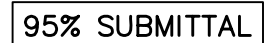
TWO GATE FISH PROTECTION PLAN

OLD RIVER
SHEET PILE WALL ARRANGEMENT
PLAN AND ELEVATION, SHEET 2

DATE 08/07/09

SHEET 10 OF 75

C6

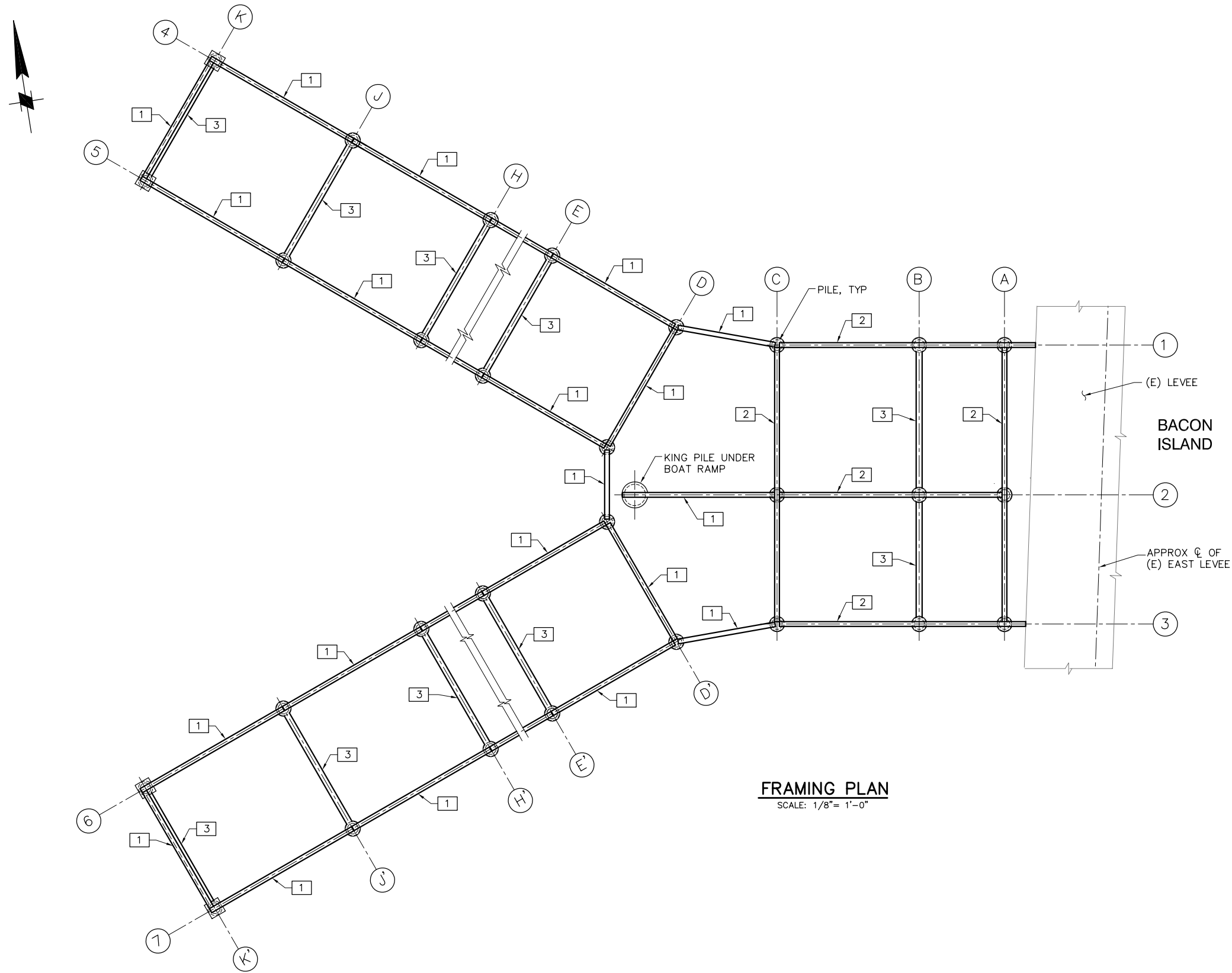


REVISION	DESCRIPTION	BY	DATE



C7.1

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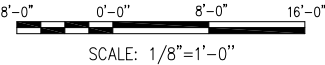
FRAMING PLAN
SCALE: 1/8"= 1'-0"

LEGEND:

- 1 HSS 16x8x1/2
- 2 HSS 16x8x1/2 CONTINUOUS THRU SUPPORT
- 3 10"Ø XSTRONG PIPE TRANSVERSE "CAP" BEAM

NOTE:

LEVEE SHEET PILE WALL, RIVER SHEET PILE WALL AND KING PILES NOT SHOWN FOR CLARITY.



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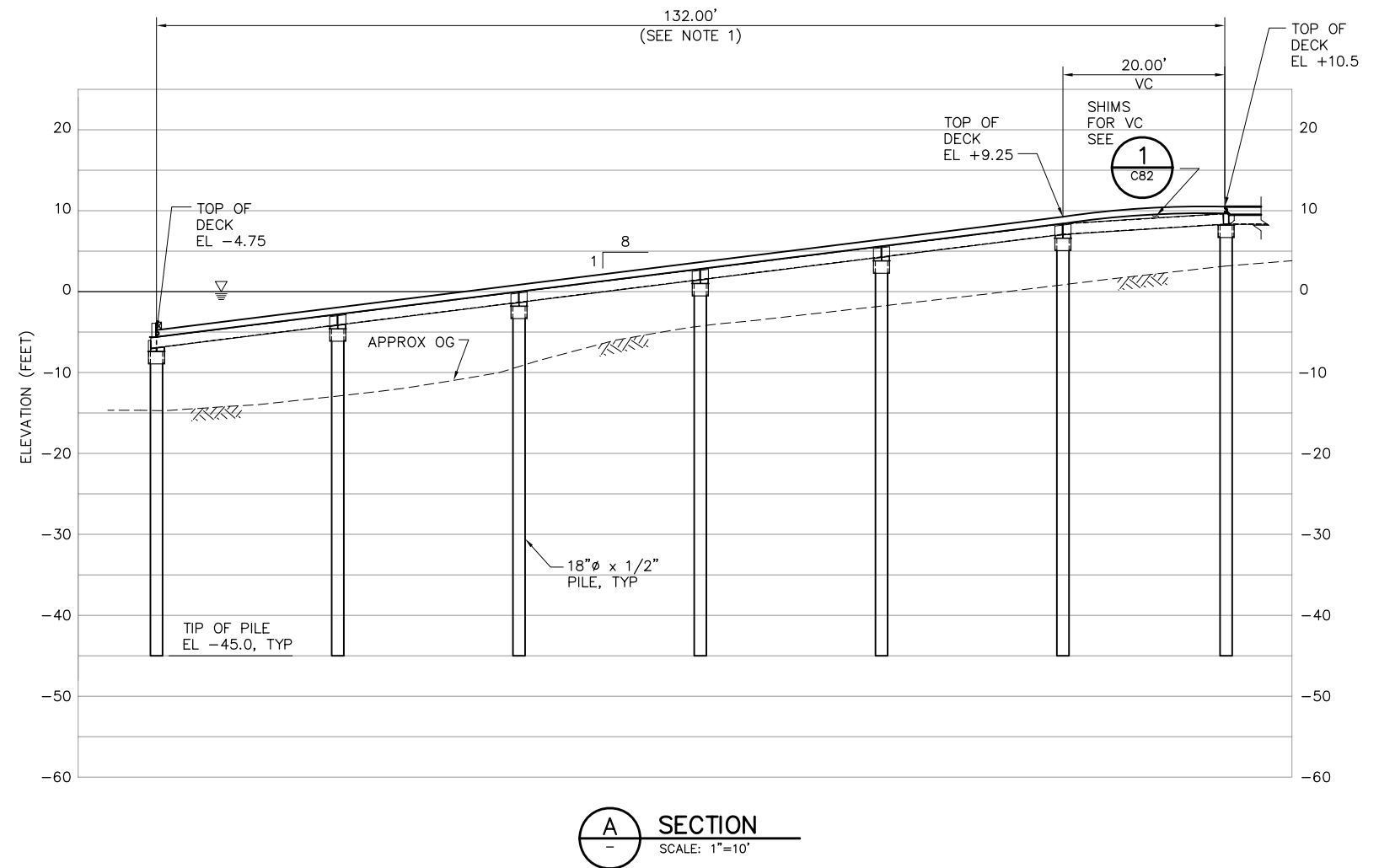
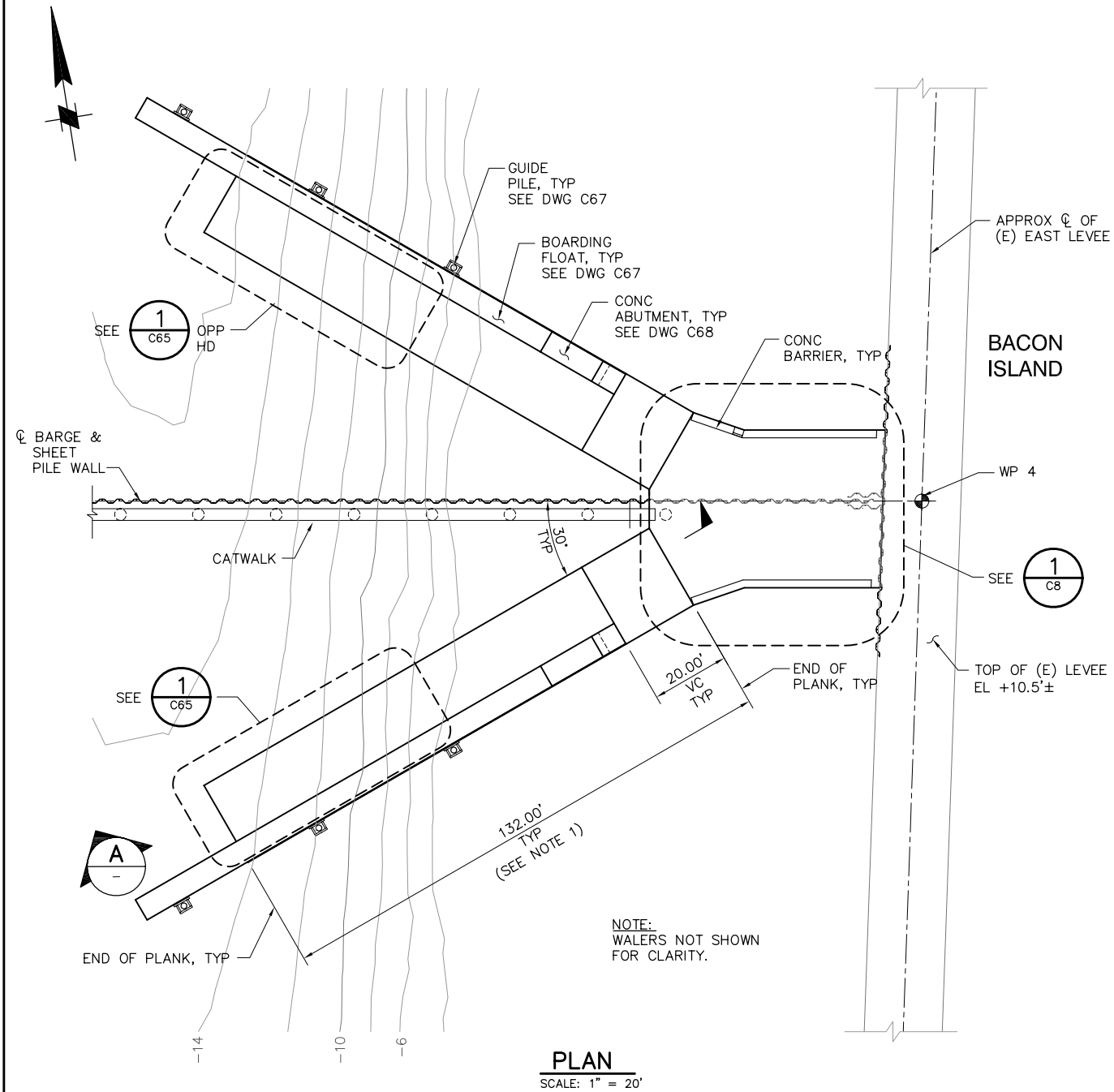
REVISION	DESCRIPTION	BY	DATE

 Moffatt & Nichol		2001 N. Main Street, Suite 360 Walnut Creek, California 94596 (925) 944-5411	
DSGN	JMB	DR	EP
JOB NO.	6097-03	SUBMITTED BY	RMR
CHK	TDB	TITLE	

TWO GATE FISH PROTECTION PLAN
OLD RIVER BOAT RAMP FRAMING PLAN

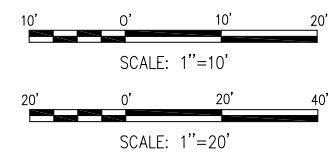
DATE 08/07/09
SHEET 13 OF 75
C7.2

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NOTES:

1. TRUE LENGTH OF RAMP ACCOUNTS FOR AN
AVERAGE GAP OF 3/8" PER PLANK JOINT.



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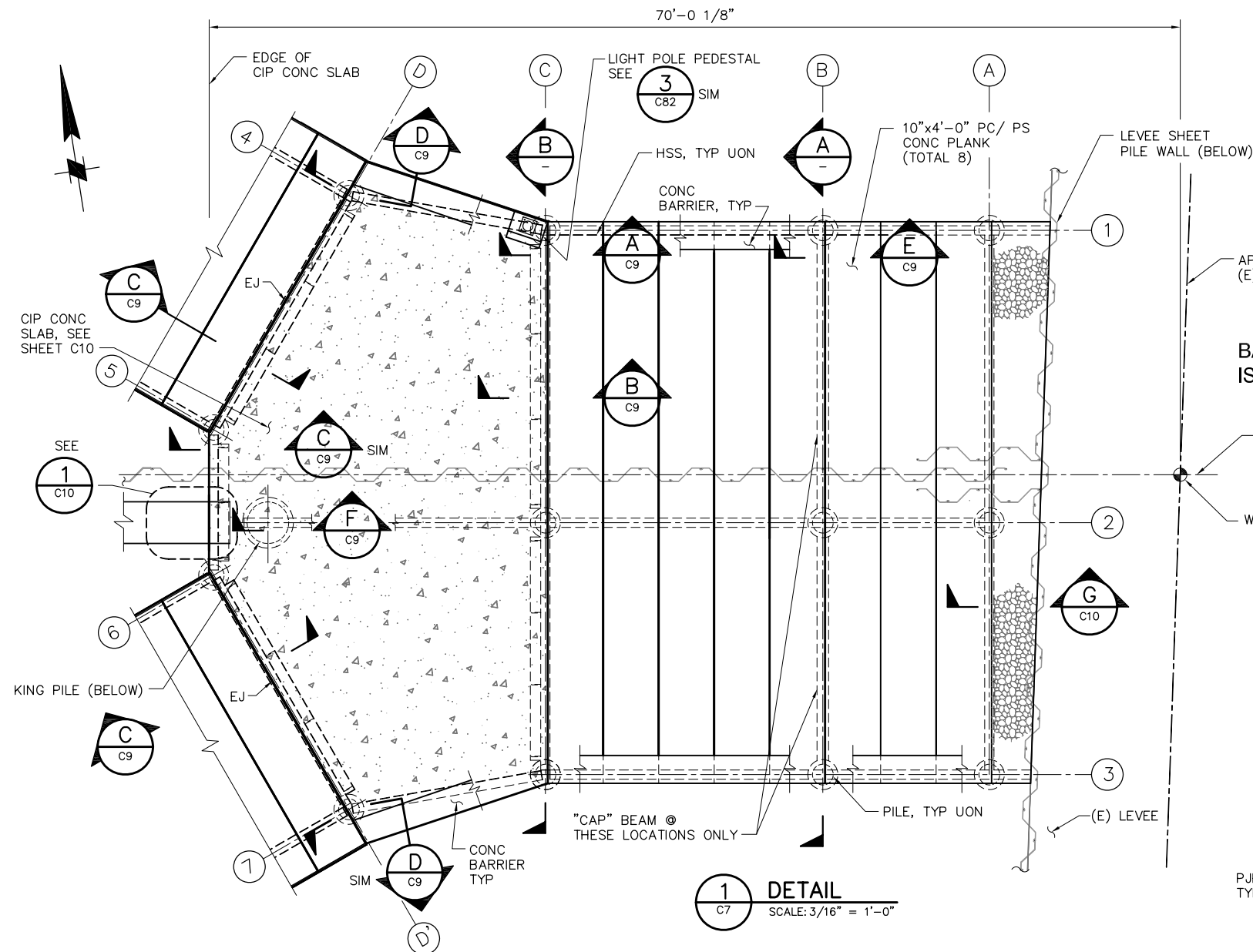
IF SHEET IS LESS THAN 22" x 34"
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REVISION	DESCRIPTION	BY	DATE

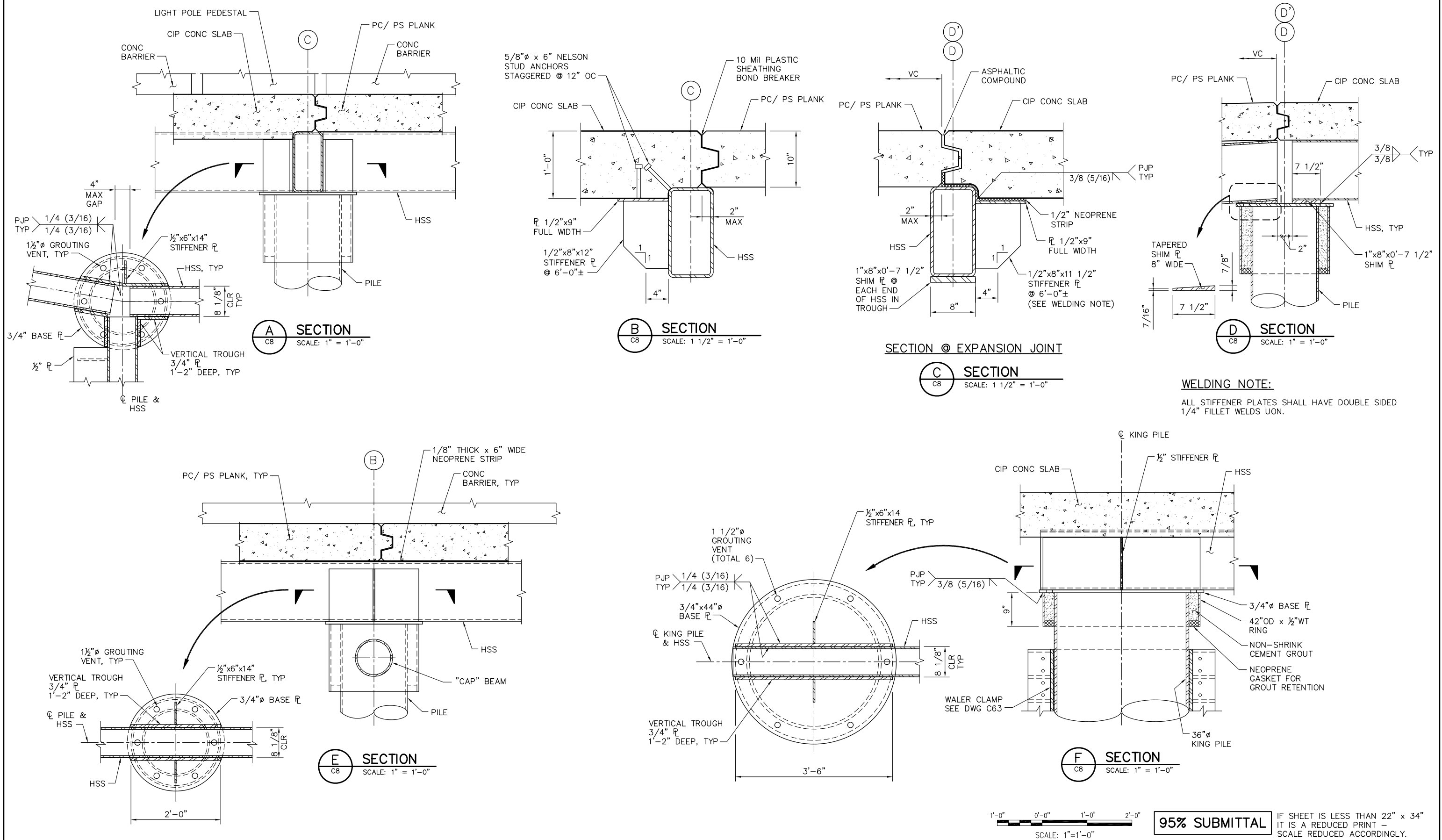
 Moffatt & Nichol		2001 N. Main Street, Suite 360 Walnut Creek, California 94596 (925) 944-5411	
DSGN	JMB	DR	CHK
		EP	TDB
JOB NO.	6097-03	SUBMITTED BY	TITLE
		RMR	

TWO GATE FISH PROTECTION PLAN		DATE	08/07/09
OLD RIVER BOAT RAMP PLAN AND SECTION		SHEET	11 OF 75
			C7

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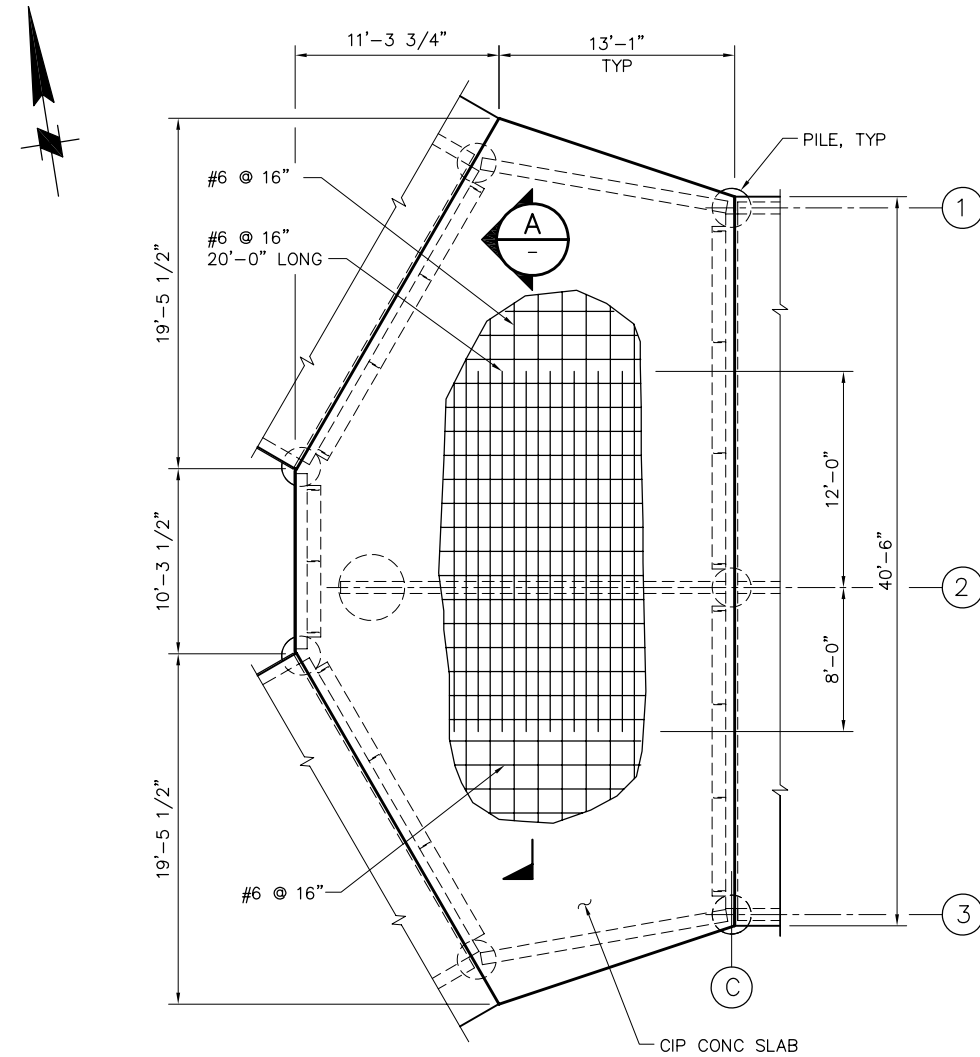


REVISION	DESCRIPTION	BY	DATE

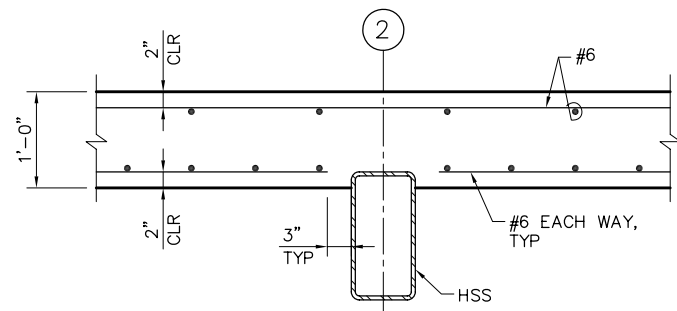
 2001 N. Main Street, Suite 360 Walnut Creek, California 94596 (925) 944-5411	
DSGN JMB	DR EP
JOB NO. 6097-03	SUBMITTED BY RMR
CHK TDB	TITLE

TWO GATE FISH PROTECTION PLAN OLD RIVER BOAT RAMP DETAILS AND SECTIONS SHEET 2	DATE 08/07/09
	SHEET 15 OF 75
C9	

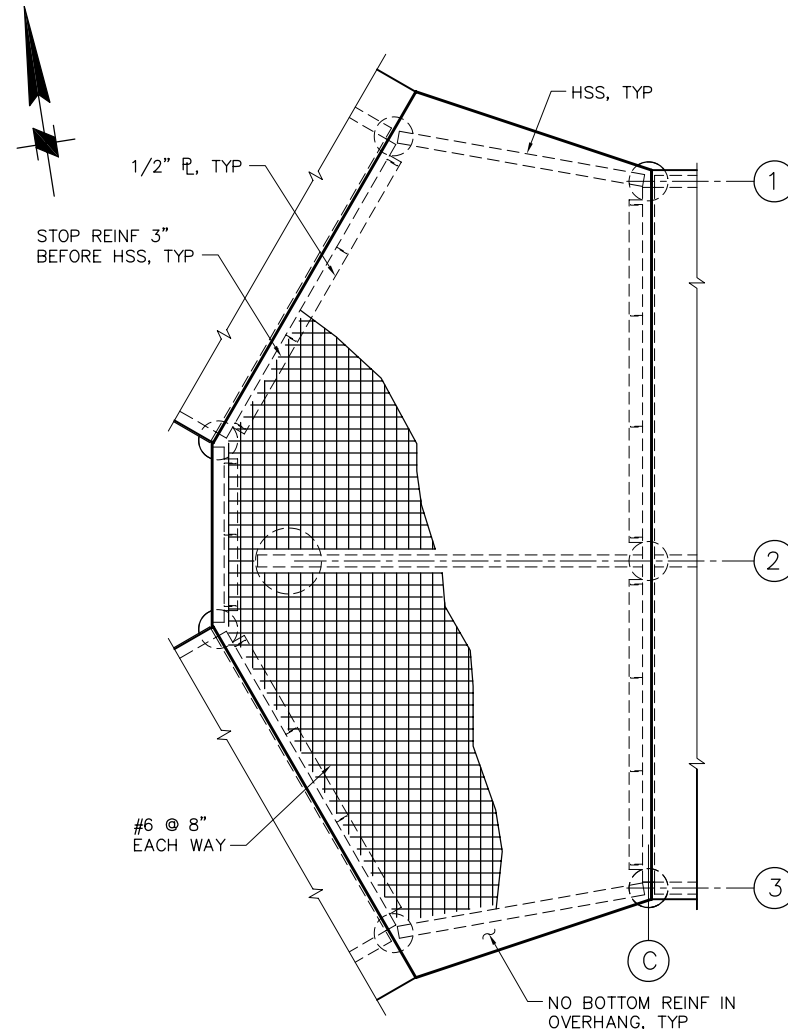
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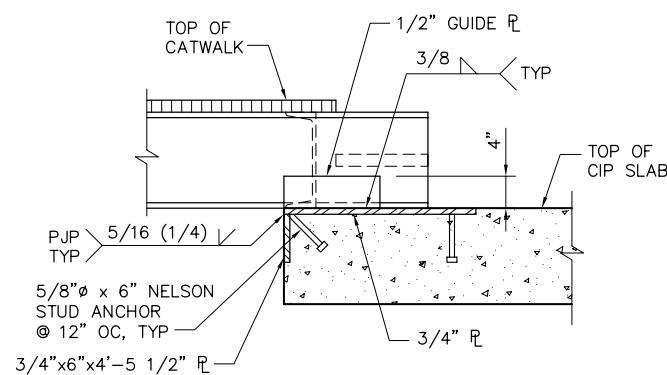
TOP SLAB REINFORCEMENT
SCALE: 3/16" = 1'-0"



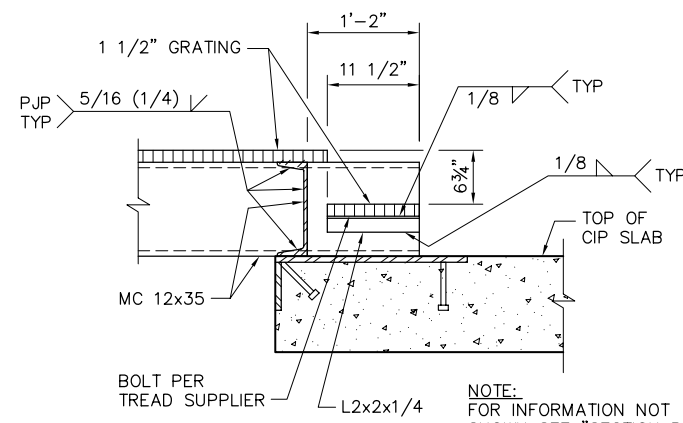
SECTION A
SCALE: 1" = 1'-0"



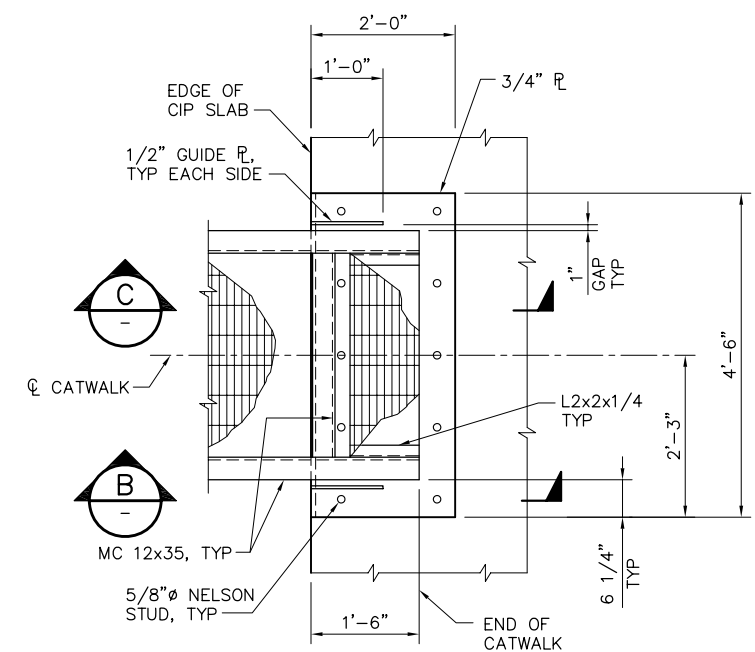
BOTTOM SLAB REINFORCEMENT
SCALE: 3/16" = 1'-0"



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

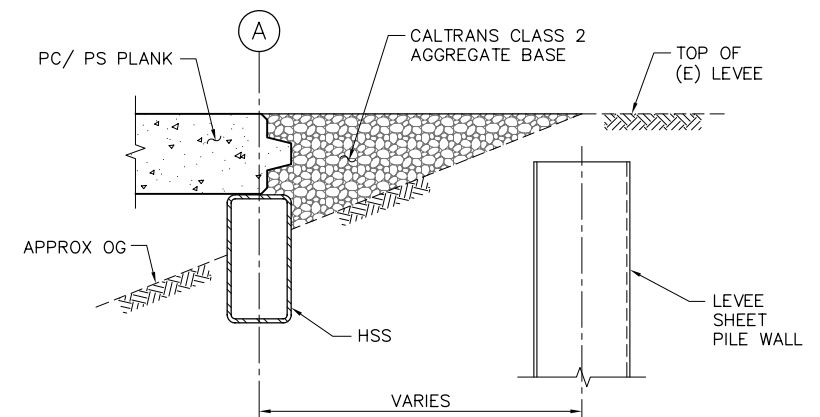


SECTION C
SCALE: 1" = 1'-0"

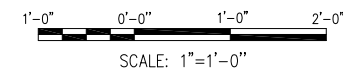


PLAN AT END OF CATWALK

1
C8
SCALE: 3/4" = 1'-0"



SECTION G
SCALE: 1" = 1'-0"



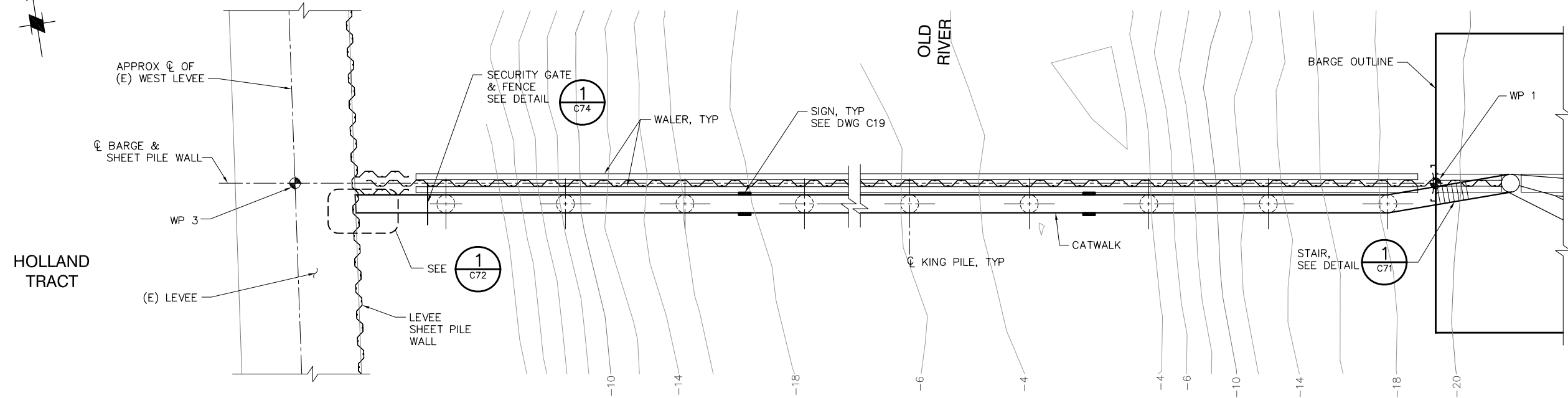
95% SUBMITTAL

IF SHEET IS LESS THAN 22" x 34"
IT IS A REDUCED PRINT -
SCALE REDUCED ACCORDINGLY.

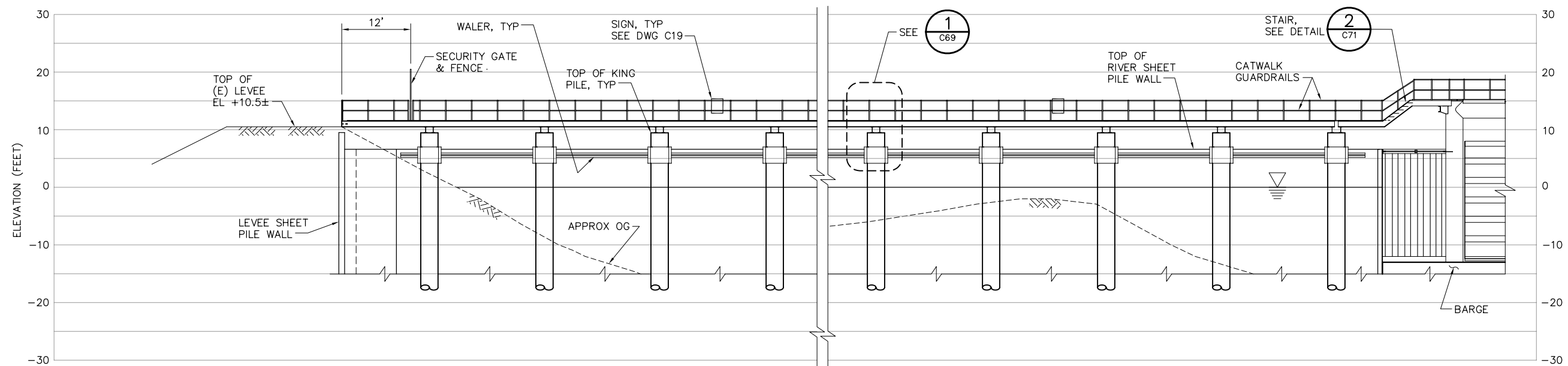
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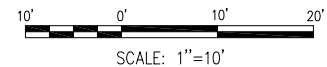
TWO GATE FISH PROTECTION PLAN		DATE	08/07/09
OLD RIVER BOAT RAMP DETAILS AND SECTIONS SHEET 3		SHEET	16 OF 75
			C10



PLAN
SCALE: 1"= 10'



ELEVATION
SCALE: 1"= 10'



95% SUBMITTAL

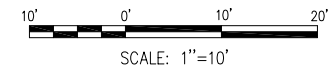
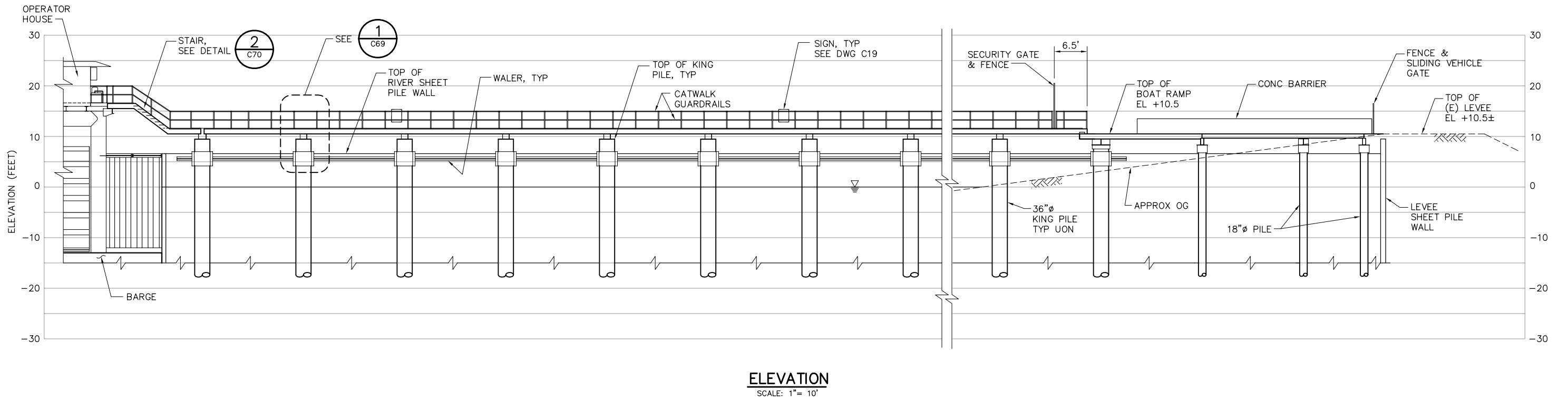
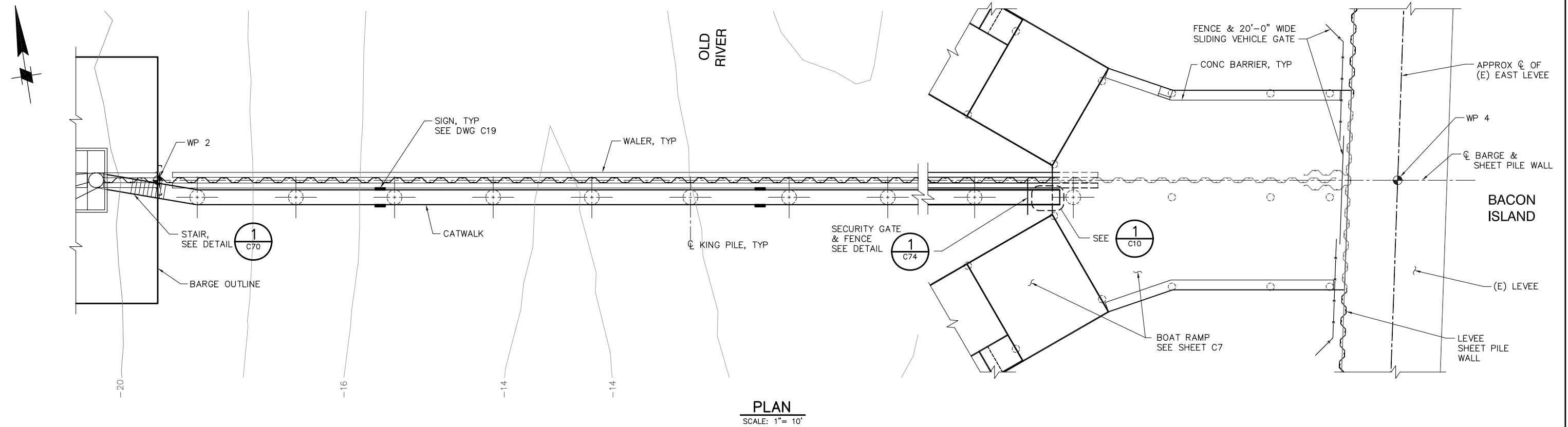
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TWO GATE FISH PROTECTION PLAN		DATE 08/07/09
OLD RIVER CATWALK PLAN AND ELEVATION, SHEET 1		SHEET 17 OF 75
		C11

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JOB NO.	6097-03	SUBMITTED BY	RMR
CHK	TDB	TITLE	

TWO GATE FISH PROTECTION PLAN		DATE	08/07/09
OLD RIVER CATWALK PLAN AND ELEVATION, SHEET 2		SHEET	18 OF 75
			C12

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HOLLAND TRACT

LAYDOWN AND
CONSTRUCTION
SUPPORT AREA

APPROX. CL OF
(E) LEVEE, TYP

SHEET PILE WALL, TYP

OLD RIVER

OPERATOR HOUSE

CATWALK

FOLD-DOWN LIGHT
POLE #3 WITH TWO
FLOODLIGHTS SEE

2
C78

BARGE

OPERATOR HOUSE POWER
FROM TRANSFER SWITCH,
ROUTE OVER LEVEE, UNDER
CATWALK & BOAT RAMP

LIGHT POLE #2 SEE

3
C77

P4 P7
SEE DWG C79

BOAT RAMP

GENERATOR SET
& FUEL TANK

BOARDING
FLOAT, TYP

LAYDOWN AND
CONSTRUCTION
SUPPORT AREA

P10 P11
SEE DWG C79

(E) PG&E POWER POLE

METER PANEL 1A &
TRANSFER SWITCH

LIGHT POLE #1 SEE

3
C77

UTILITY YARD FOR
ELECTRICAL EQUIPMENT SEE

1
C77

BACON
ISLAND

SECURITY FENCE

ELECTRICAL SITE PLAN

SCALE: 1"= 50'



SCALE: 1"=50'

95% SUBMITTAL

IF SHEET IS LESS THAN 22" x 34"
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SCALE REDUCED ACCORDINGLY.

REVISION	DESCRIPTION	BY	DATE



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TWO GATE FISH PROTECTION PLAN

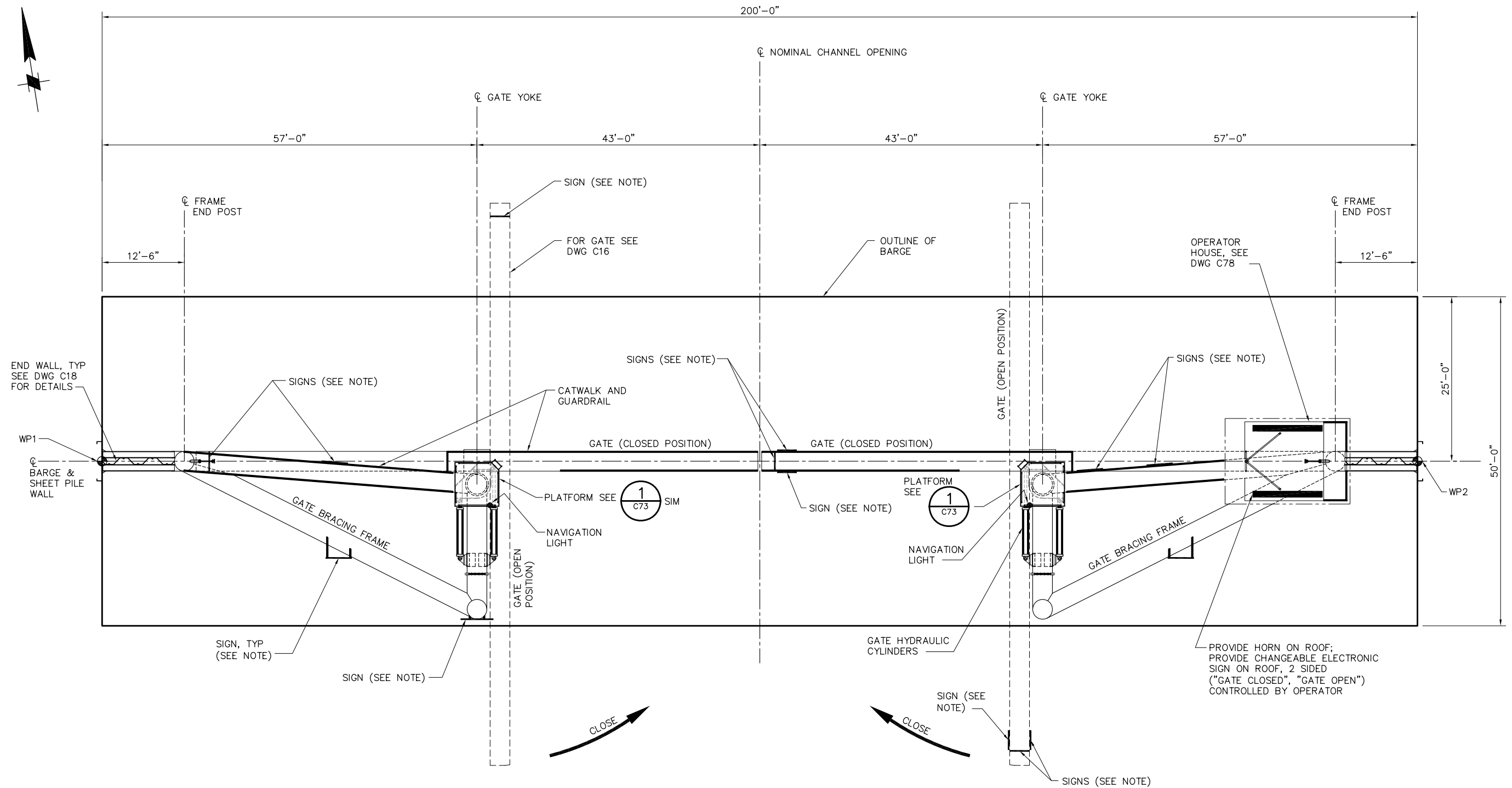
DATE 08/07/09

SHEET 19 OF 75

OLD RIVER
ELECTRICAL SITE PLAN

C13

P:\6097-03 SWC GATE DESIGN\CADD\DWG\609703-C14.DWG 8/7/2009 9:21 AM



BARGE PLAN
SCALE: 1/8"=1'-0"

NOTE:
FOR SIGNAGE, SEE DRAWING C19.

8'-0" 0'-0" 8'-0" 16'-0"
SCALE: 1/8"=1'-0"

95% SUBMITTAL

IF SHEET IS LESS THAN 22" x 34"
IT IS A REDUCED PRINT -
SCALE REDUCED ACCORDINGLY.

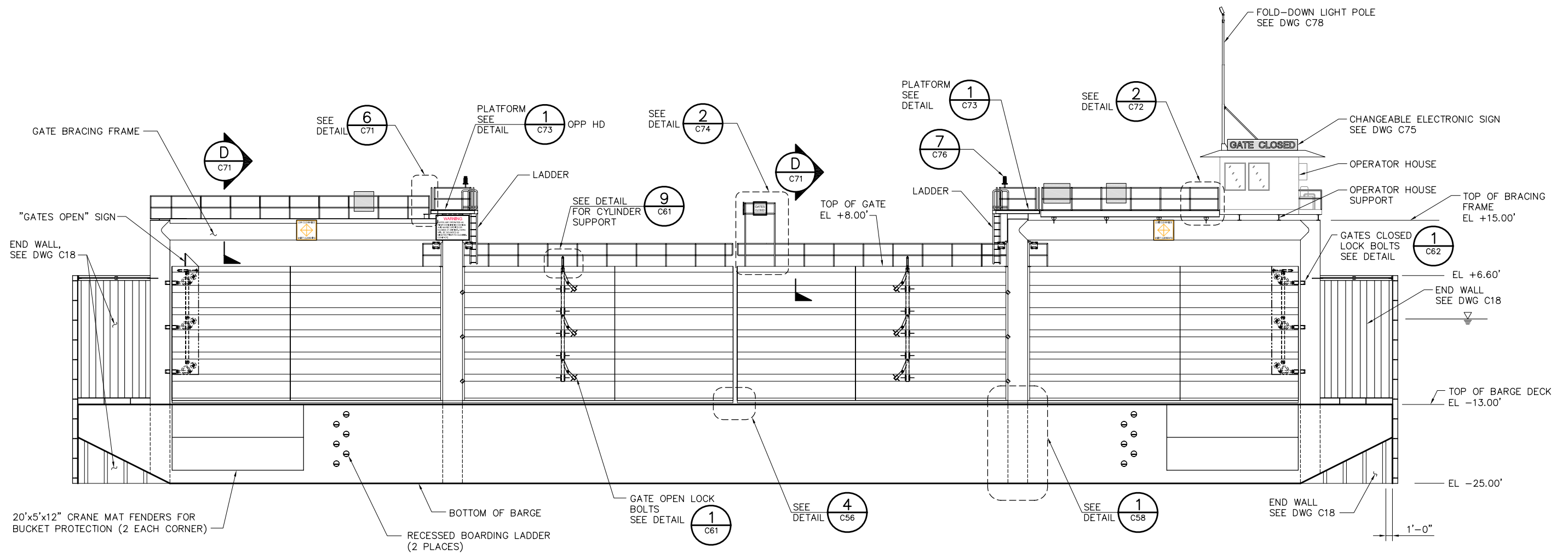
REVISION	DESCRIPTION	BY	DATE

 Moffatt & Nichol		2001 N. Main Street, Suite 360 Walnut Creek, California 94596 (925) 944-5411	
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JOB NO.	6097-03	SUBMITTED BY	RMR
CHK	TDB	TITLE	

TWO GATE FISH PROTECTION PLAN
OLD RIVER BARGE GENERAL ARRANGEMENT PLAN

DATE 08/07/09
SHEET 20 OF 75
C14

P:\6097-03 SWC GATE DESIGN\CADD\DWG\609703-C15.DWG 8/7/2009 9:23 AM



ELEVATION
SCALE: 1/8"= 1'-0"

NOTE: GATES SHOWN IN CLOSED POSITION

NOTES:

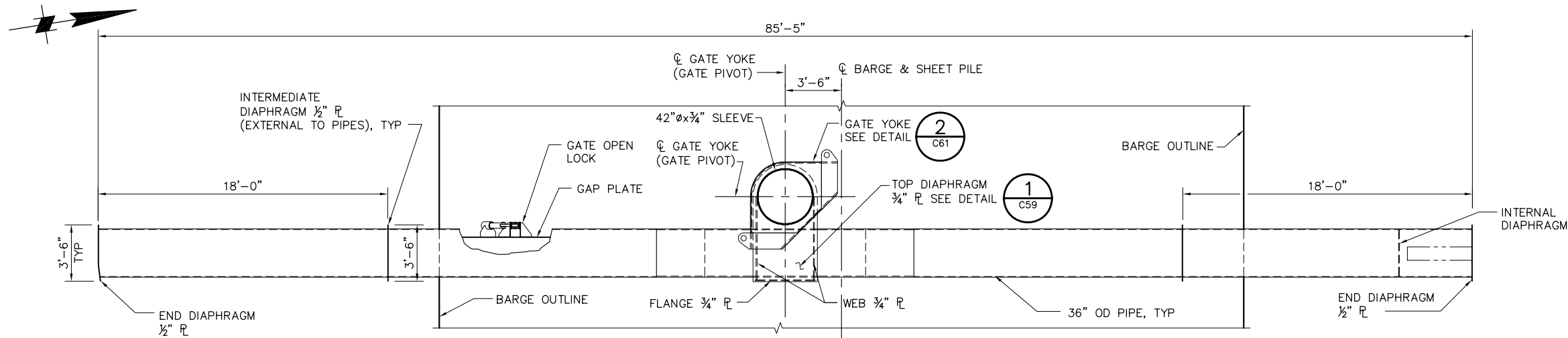
1. FOR SIGNAGE SEE DRAWING C19.
2. FOR CATWALK STAIRWAY SEE DRAWINGS C11 AND C12.

8'-0" 0'-0" 8'-0" 16'-0"
SCALE: 1/8"=1'-0"

95% SUBMITTAL

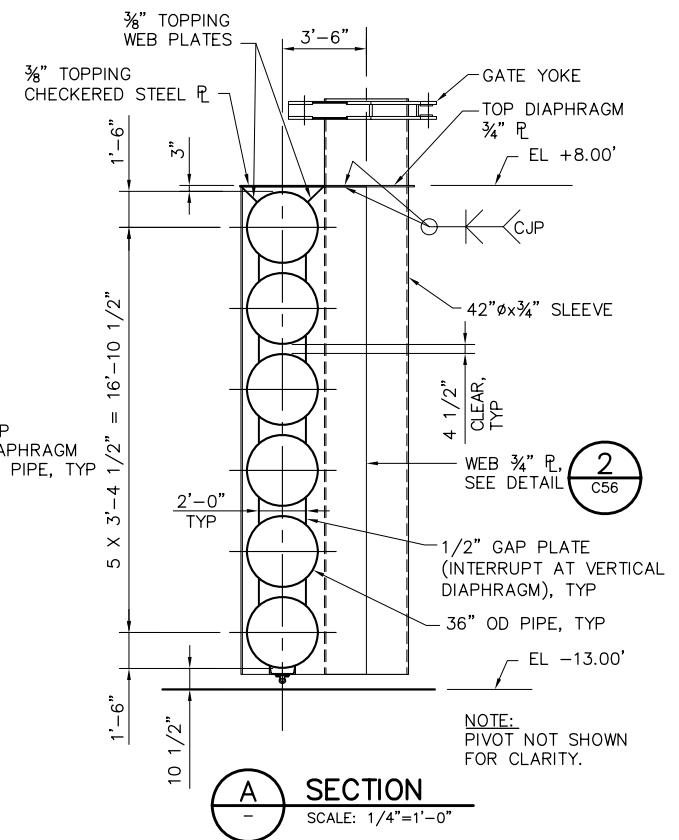
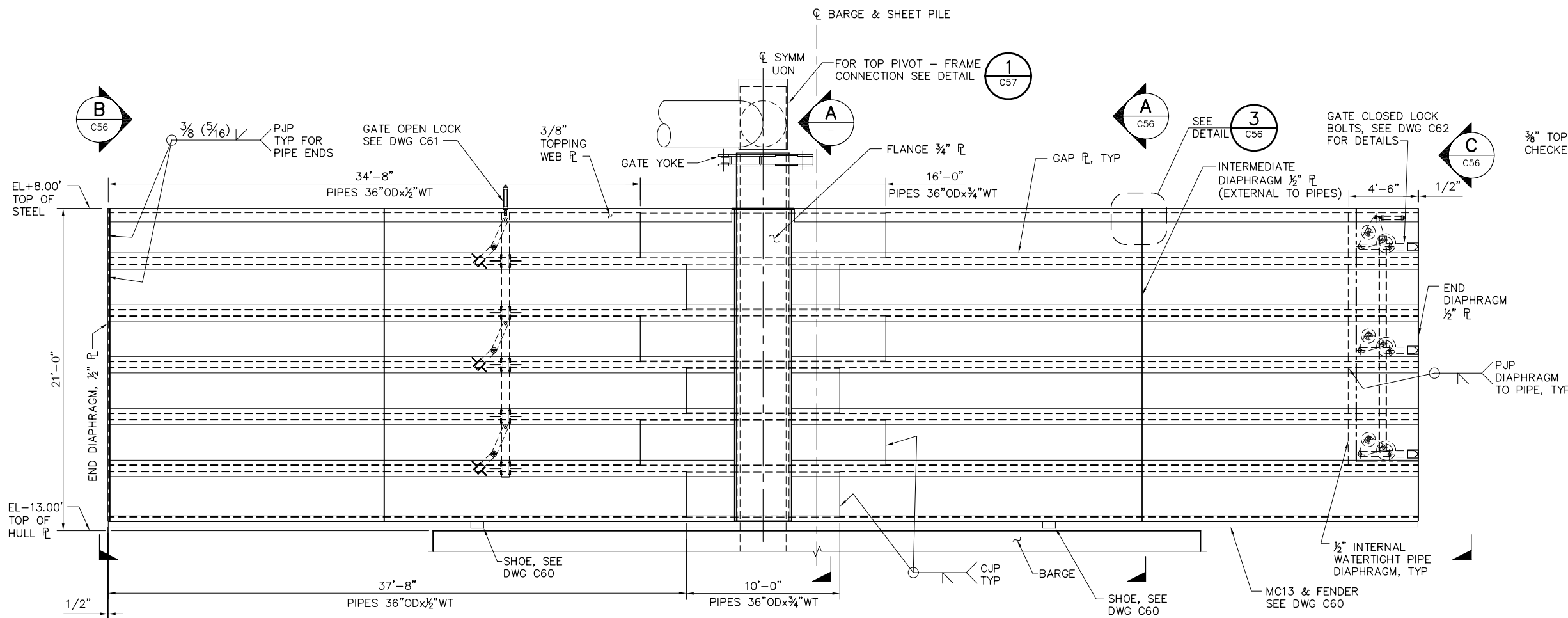
IF SHEET IS LESS THAN 22" x 34"
IT IS A REDUCED PRINT -
SCALE REDUCED ACCORDINGLY.

REVISION	DESCRIPTION	BY	DATE				Moffatt & Nichol 2001 N. Main Street, Suite 360 Walnut Creek, California 94596 (925) 944-5411			TWO GATE FISH PROTECTION PLAN		DATE 08/07/09
										SHEET 21 OF 75		
										C15		
			</									



NOTE:
GATE SHOWN IS WEST SIDE.
EAST SIDE GATE IS MIRROR
IMAGE.

NOTE:
TOPPING CHECKERED STEEL R,
TOPPING WEB PLATES AND VERTICAL
PIVOT NOT SHOWN FOR CLARITY.



WELDING NOTES:

1. ALL GATE AND PIPE FRAMING STRUCTURAL WELDS SHALL BE COMPLETE JOINT PENETRATION (CJP) WELDS UON.
2. BACKING BARS SHALL NOT BE LEFT IN PLACE
3. ALL WELDS SHALL BE PREQUALIFIED.
4. ALL WELDING AND NON-DESTRUCTIVE TESTING (N.D.T.) INSPECTIONS SHALL BE IN ACCORDANCE WITH AWS-D1.1.

P:\6097-03 SWC GATE DESIGN\CADD\DWG\609703-C16.DWG 8/6/2009 8:34 AM

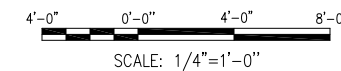
REVISION	DESCRIPTION	BY	DATE

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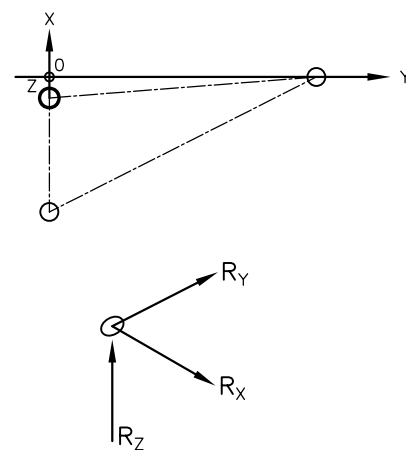
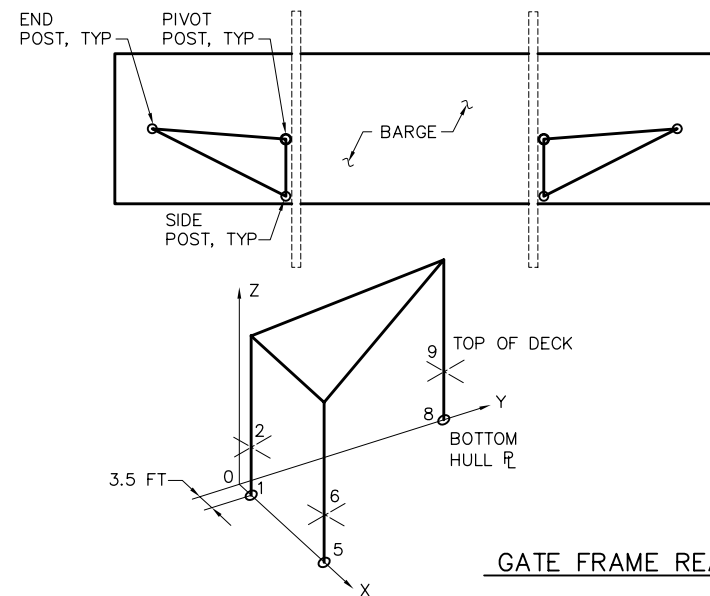
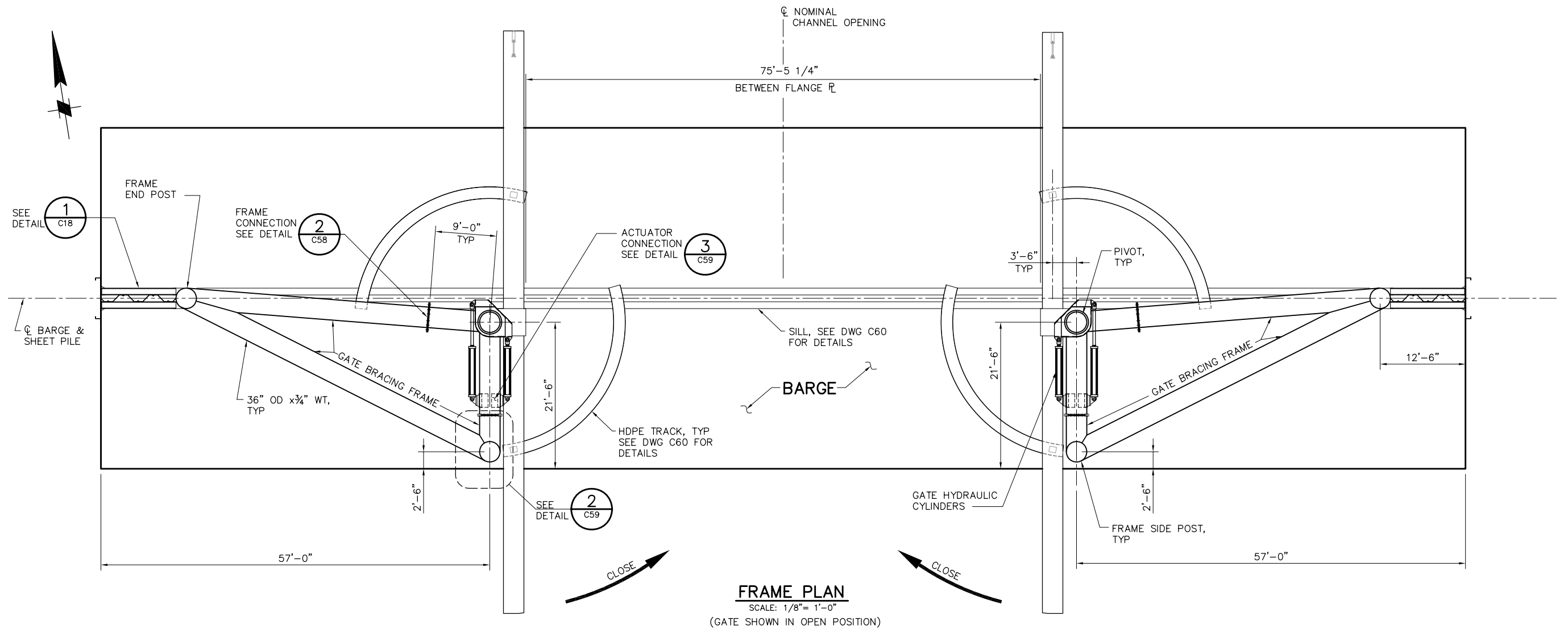
TWO GATE FISH PROTECTION PLAN		DATE	08/07/09
OLD RIVER GATE SCANTLINGS		SHEET	22 OF 75
			C16

95% SUBMITTAL

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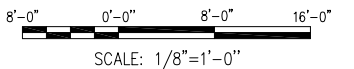
P:\6097-03 SWC GATE DESIGN\CADD\DWG\609703-C17.DWG 8/6/2009 11:24 AM



SERVICE LOAD REACTIONS (INCLUDES A 1.2 FACTOR)
(FOR LRFD USE A 1.6 FACTOR WITH THESE REACTIONS)

LOCATION ON BARGE	NODE	R _X (KIP)	R _Y (KIP)	R _Z (KIP)	DESCRIPTION
BOTTOM HULL $\bar{L}$	1	+130 -130	+30 -30	+200 -50	PIVOT
	5	+100 -100	-30 +30	-55 +170	SIDE POST
	8	+50 -50	+30 -30	+100	END POST
TOP OF DECK	2	+500 -500	-50 +50	0	PIVOT
	6	+200 -200	-50 +50	0	SIDE POST
	9	+100 -100	-50 +50	0	END POST

NOTE: CONTRACTOR SHALL PROVIDE A BARGE ADEQUATE TO SUPPORT THESE LOADS.



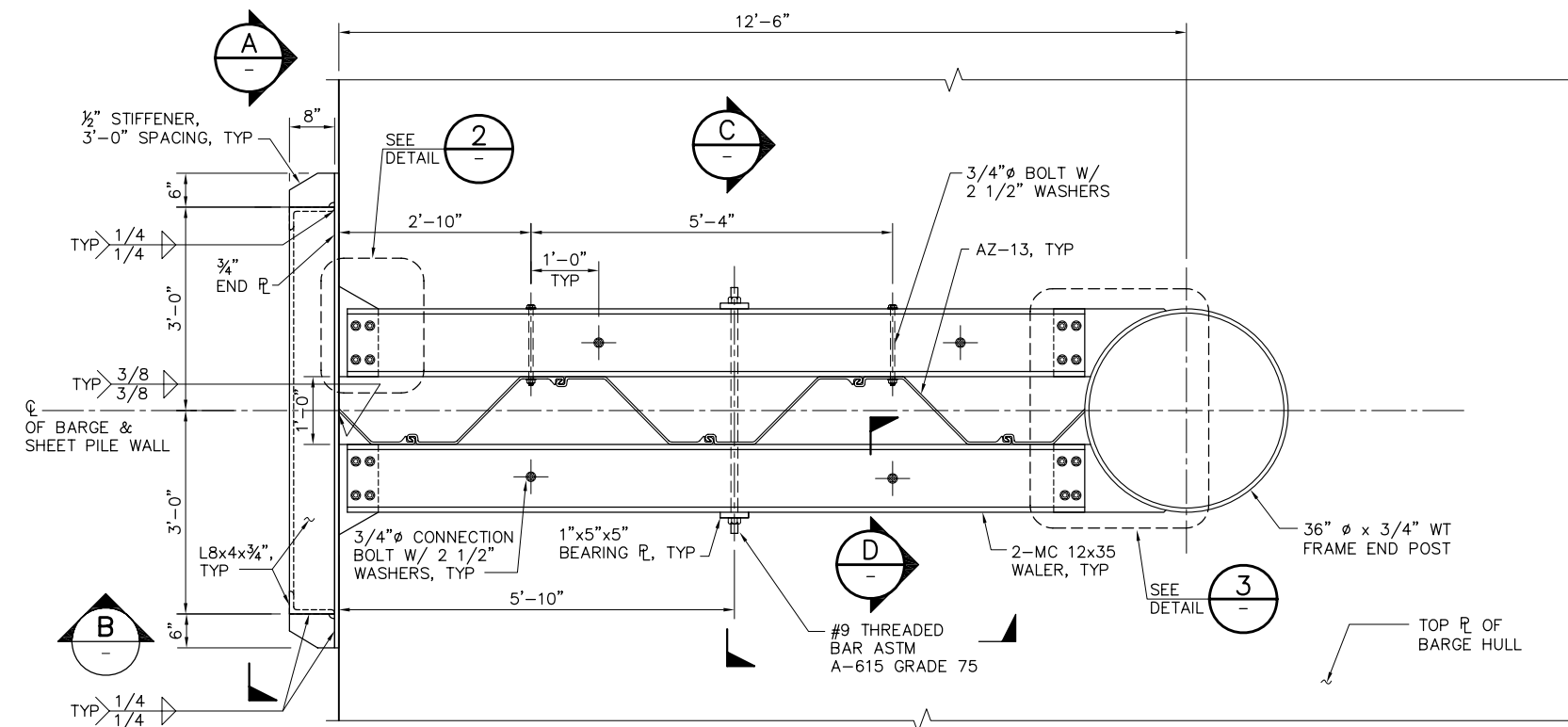
95% SUBMITTAL IF SHEET IS LESS THAN 22" x 34"
IT IS A REDUCED PRINT -
SCALE REDUCED ACCORDINGLY.

REVISION	DESCRIPTION	BY	DATE

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JOB NO.	6097-03	SUBMITTED BY	RMR
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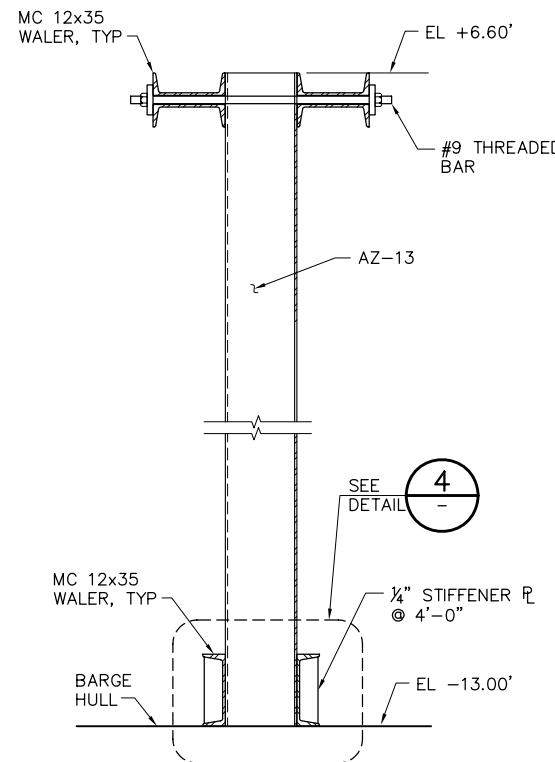
TWO GATE FISH PROTECTION PLAN		DATE	08/07/09
OLD RIVER GATE FRAMING LAYOUT		SHEET	23 OF 75
			C17

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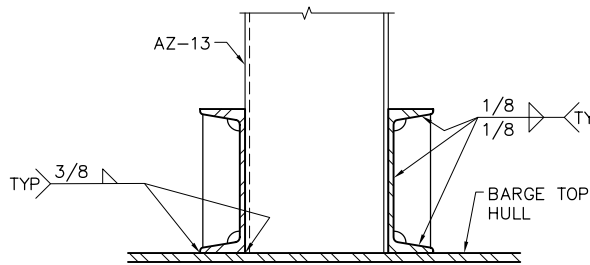
PLAN

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

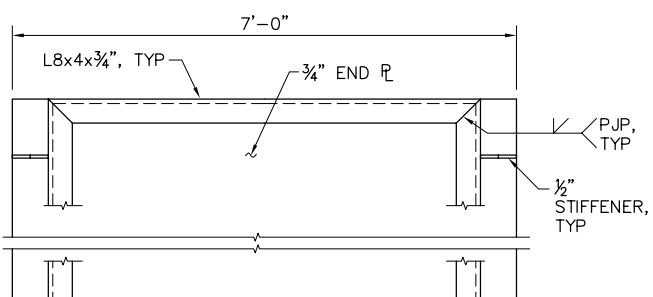


C SECTION
SCALE: 3/4" = 1'-0"

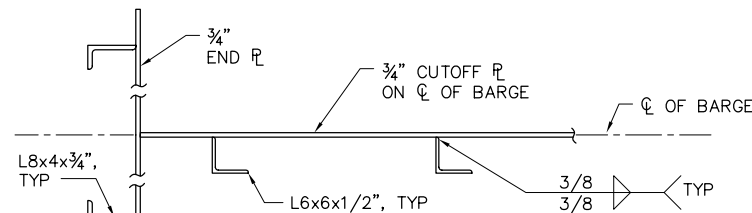
D SECTION
SCALE: 1 1/2" = 1'-0"



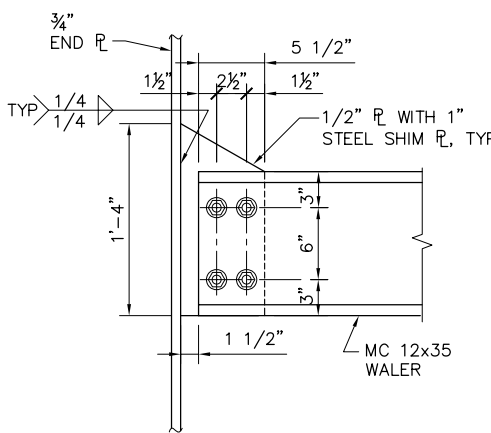
4 DETAIL
SCALE: 1 1/2" = 1'-0"



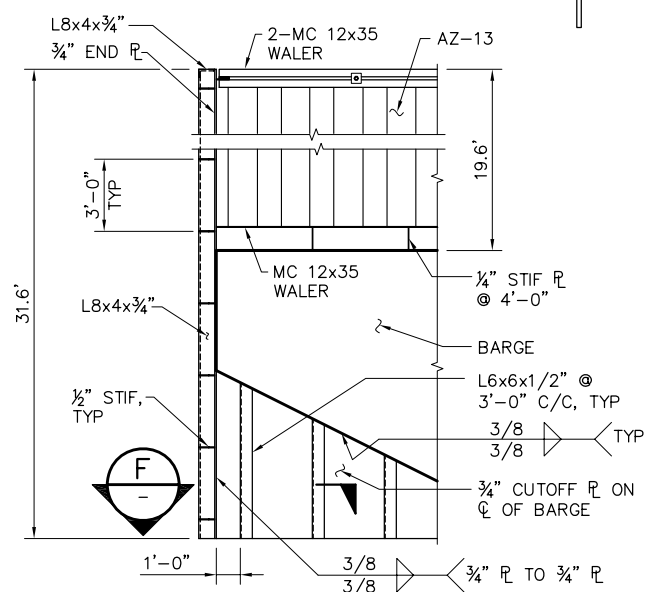
A SECTION
SCALE: 3/4" = 1'-0"



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

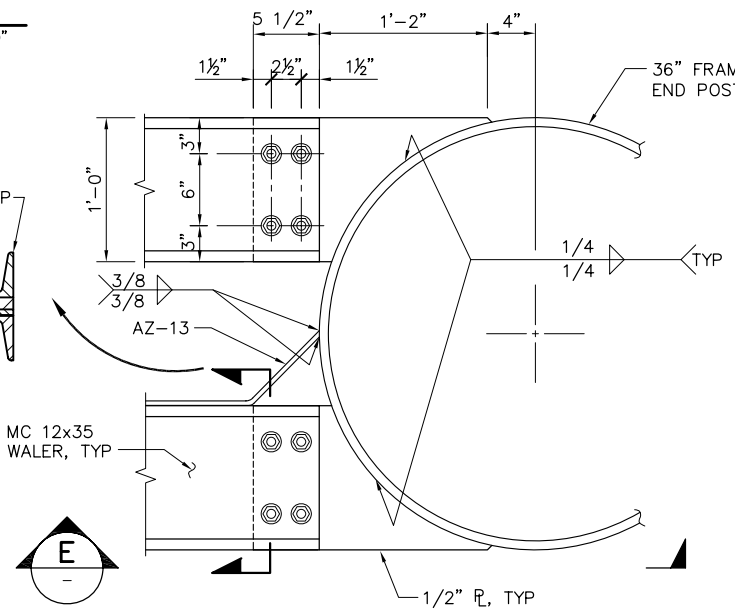


2 DETAIL
SCALE: 1 1/2" = 1'-0"

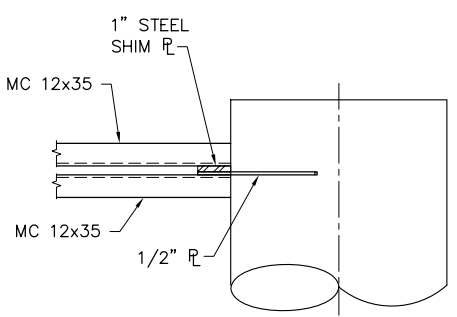


B SECTION
SCALE: 1/4" = 1'-0"

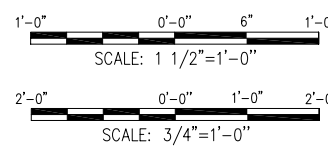
NOTE:
ALL BOLTS ARE ASTM A-307 U.O.N.



3 DETAIL
SCALE: 1 1/2" = 1'-0"



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



95% SUBMITTAL

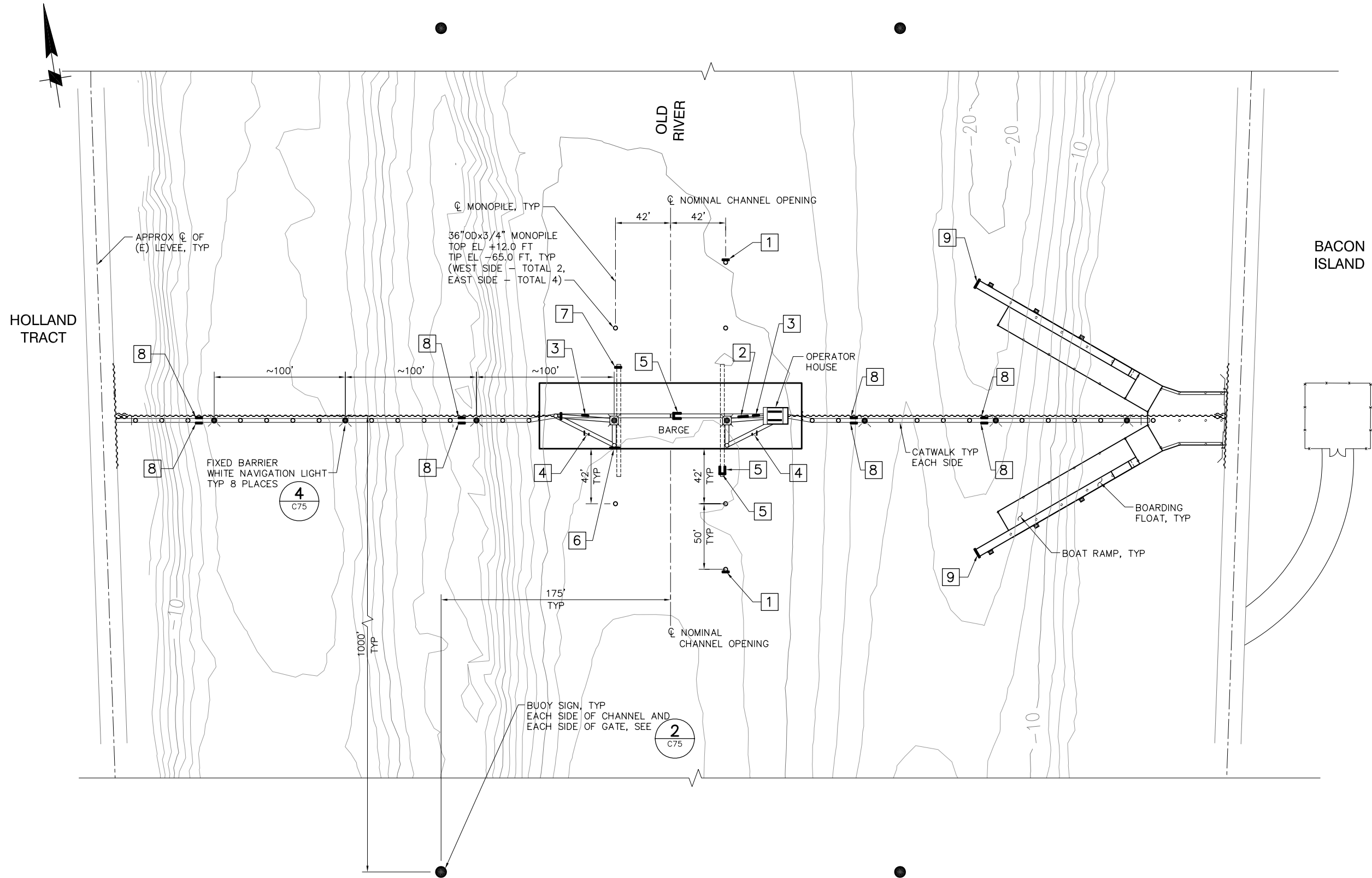
IF SHEET IS LESS THAN 22" x 34"
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REVISION	DESCRIPTION	BY	DATE

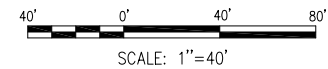
		2001 N. Main Street, Suite 360 Walnut Creek, California 94596 (925) 944-5411	
DSGN	JMB	DR	AB
JOB NO.	6097-03	SUBMITTED BY	RMR
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TWO GATE FISH PROTECTION PLAN		DATE	08/07/09
OLD RIVER END WALL SCANTLINGS		SHEET	24 OF 75
			C18

P:\6097-03 SWC GATE DESIGN\CADD\DWG\609703-C19.DWG 8/7/2009 9:26 AM



PLAN
SCALE: 1"= 40'



95% SUBMITTAL

IF SHEET IS LESS THAN 22" x 34"
IT IS A REDUCED PRINT -
SCALE REDUCED ACCORDINGLY.

SIGN DATA

LOCATION	SIGN	SIGN DETAIL	SIGN MOUNTING DETAIL
1	GATE 5 MPH	1 C75	1 C76
2	GATE WARNING SIGN	5 C75	5 C76
3	DANGER SIGN	7 C75	5 C76
4	DANGER SIGN	7 C75	3 C76
5	GATE POSITION SIGNS "GATES OPEN" "GATES CLOSED"	6 C75	2 C74
6	GATE WARNING SIGN	5 C75	2 C76
7	GATE POSITION SIGN "GATES OPEN"	6 C75	4 C76
8	STAY BACK WARNING SIGN	9 C75	5 C76
9	BOAT RAMP DOCK SIGN	3 C75	6 C76

REVISION	DESCRIPTION	BY	DATE

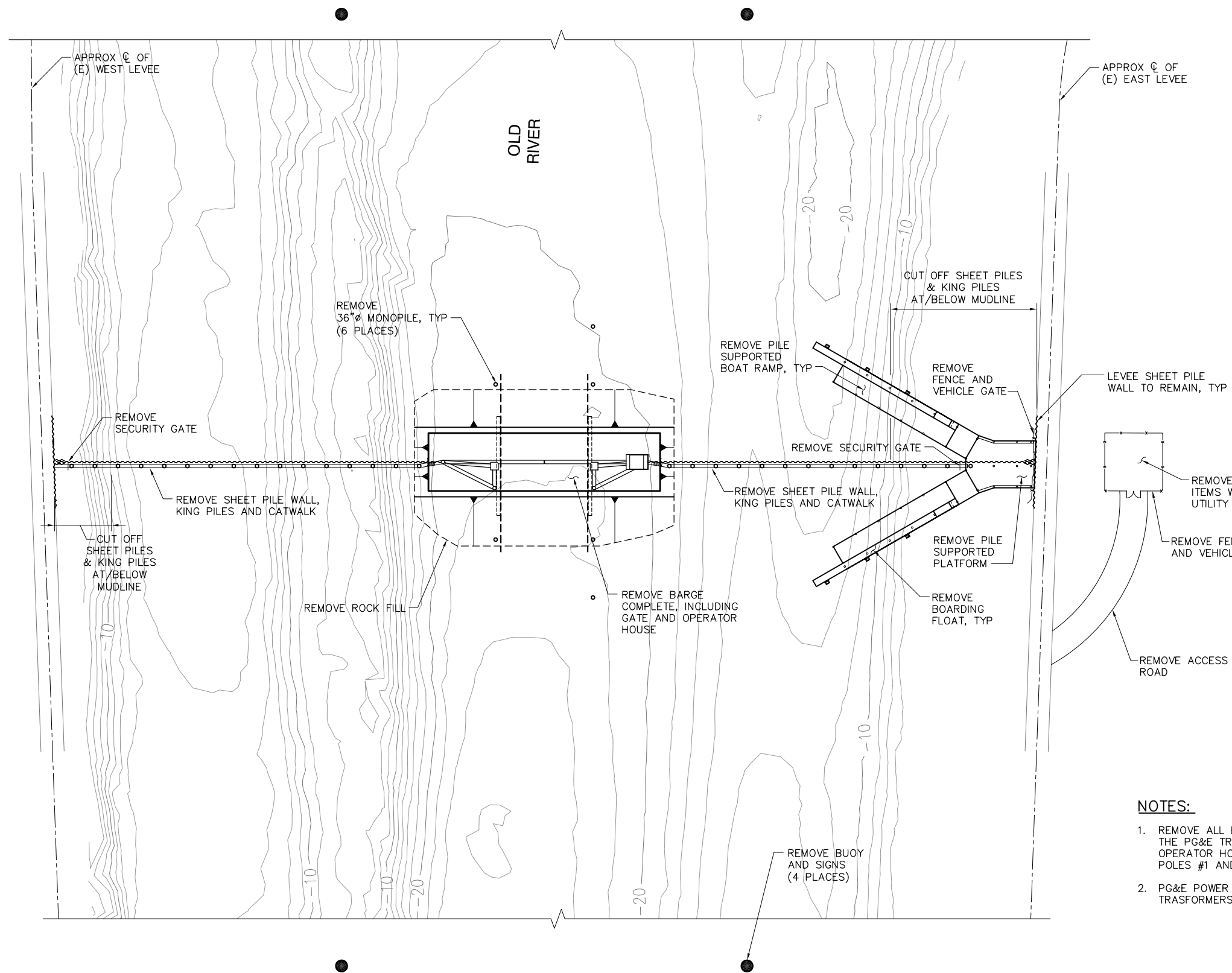
 Moffatt & Nichol		2001 N. Main Street, Suite 360 Walnut Creek, California 94596 (925) 944-5411	
DSGN	RBD	DR	AB
JOB NO.	6097-03	SUBMITTED BY	RMR
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TWO GATE FISH PROTECTION PLAN		DATE	08/07/09
OLD RIVER AIDS TO NAVIGATION PLAN		SHEET	25 OF 75
			C19

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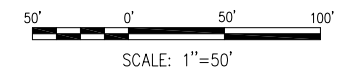
HOLLAND
TRACT



NOTES:

1. REMOVE ALL ELECTRICAL WIRING FROM THE PG&E TRANSFORMERS TO THE OPERATOR HOUSE. REMOVE LIGHT POLES #1 AND #2.
2. PG&E POWER POLE AND TRASFORMERS TO REMAIN.

REMOVAL PLAN
SCALE: 1"= 50'



95% SUBMITTAL

IF SHEET IS LESS THAN 22" x 34"
IT IS A REDUCED PRINT -
SCALE REDUCED ACCORDINGLY.

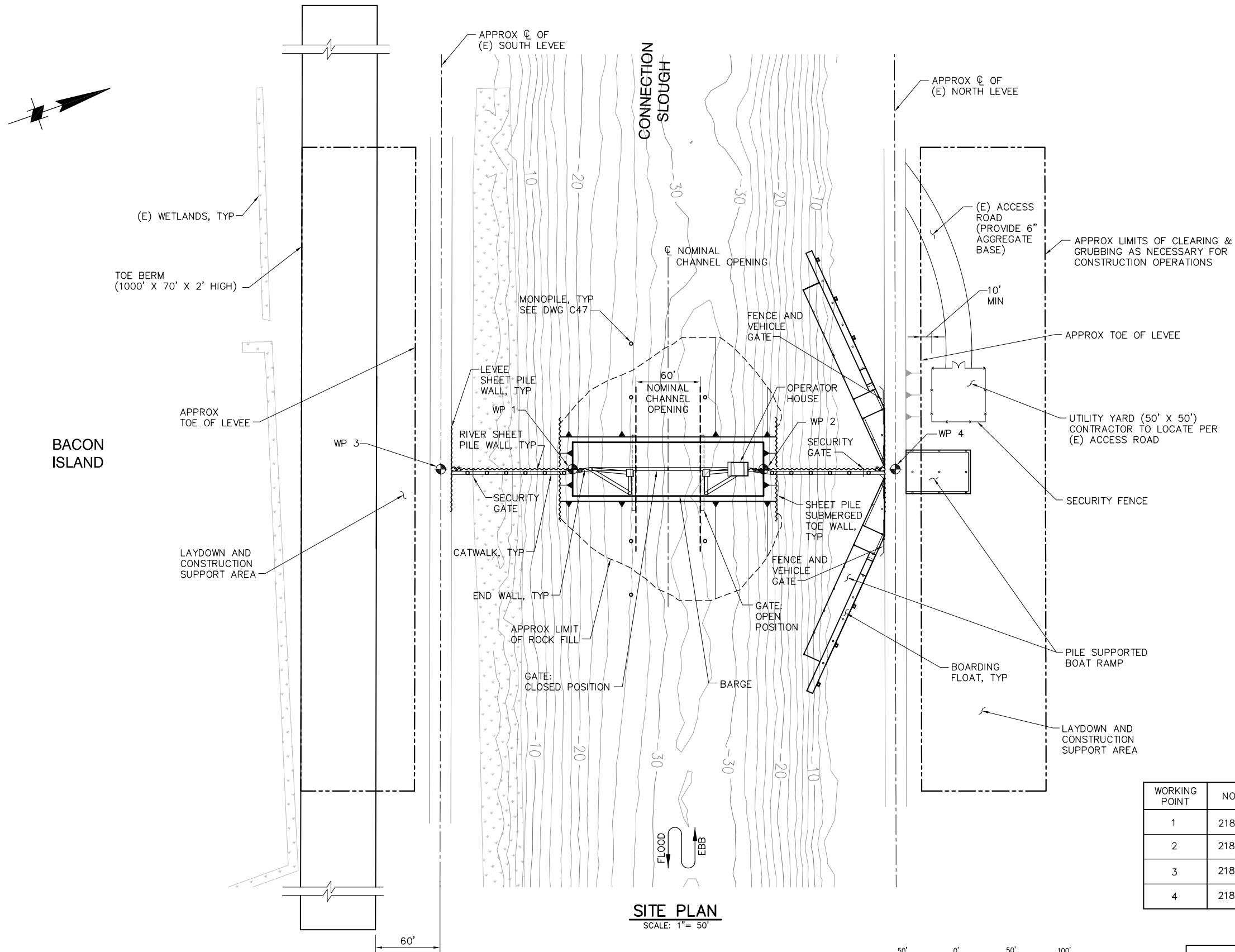
REVISION	DESCRIPTION	BY	DATE

 Moffatt & Nichol		2001 N. Main Street, Suite 360 Walnut Creek, California 94596 (925) 944-5411	
DSGN	TDB	DR	EP
JOB NO.	6097-03	SUBMITTED BY	RMR
CHK	GTH	TITLE	

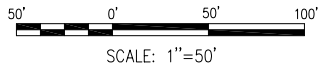
TWO GATE FISH PROTECTION PLAN
OLD RIVER REMOVAL PLAN

DATE 08/07/09
SHEET 27 OF 75
C21

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SITE PLAN
SCALE: 1"= 50'



WORK POINT DATA

WORKING POINT	NORTHING	EASTING	FEATURE
1	2189371.89	6265762.17	CL OF SOUTH SIDE OF BARGE
2	2189539.90	6265820.98	CL OF NORTH SIDE OF BARGE
3	2189255.91	6265721.56	CL OF SOUTH LEVEE AND GATE
4	2189655.88	6265861.59	CL OF NORTH LEVEE AND GATE

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IT IS A REDUCED PRINT -
SCALE REDUCED ACCORDINGLY.

REVISION	DESCRIPTION	BY	DATE



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DSGN	TDB	DR	EP	CHK	GTH
JOB NO.	6097-03	SUBMITTED BY	RMR	TITLE	

TWO GATE FISH PROTECTION PLAN

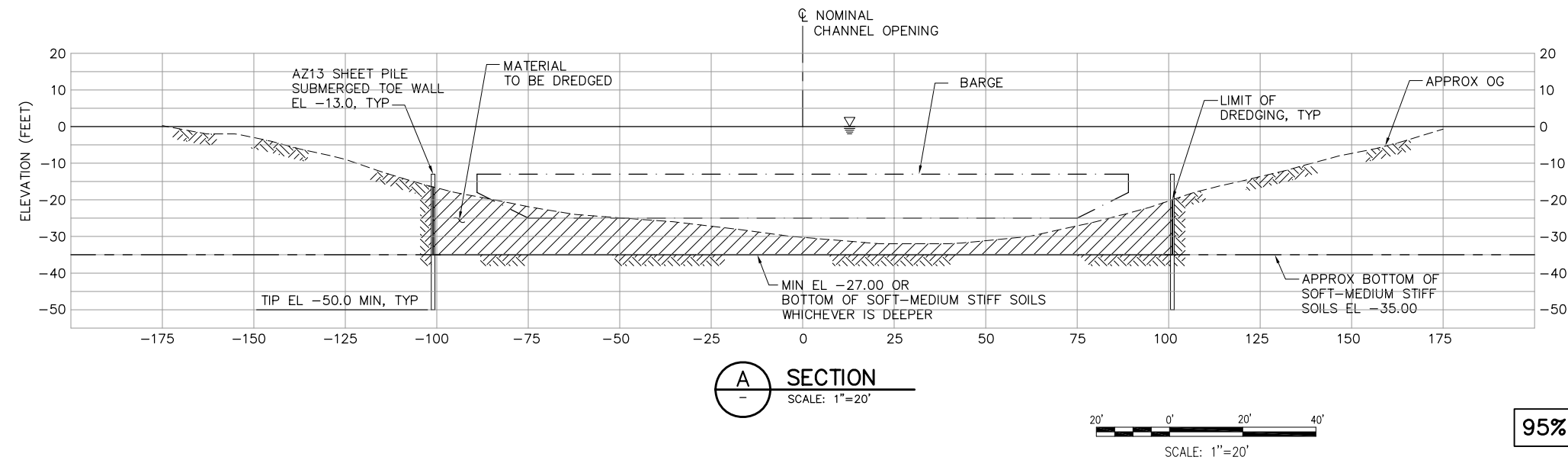
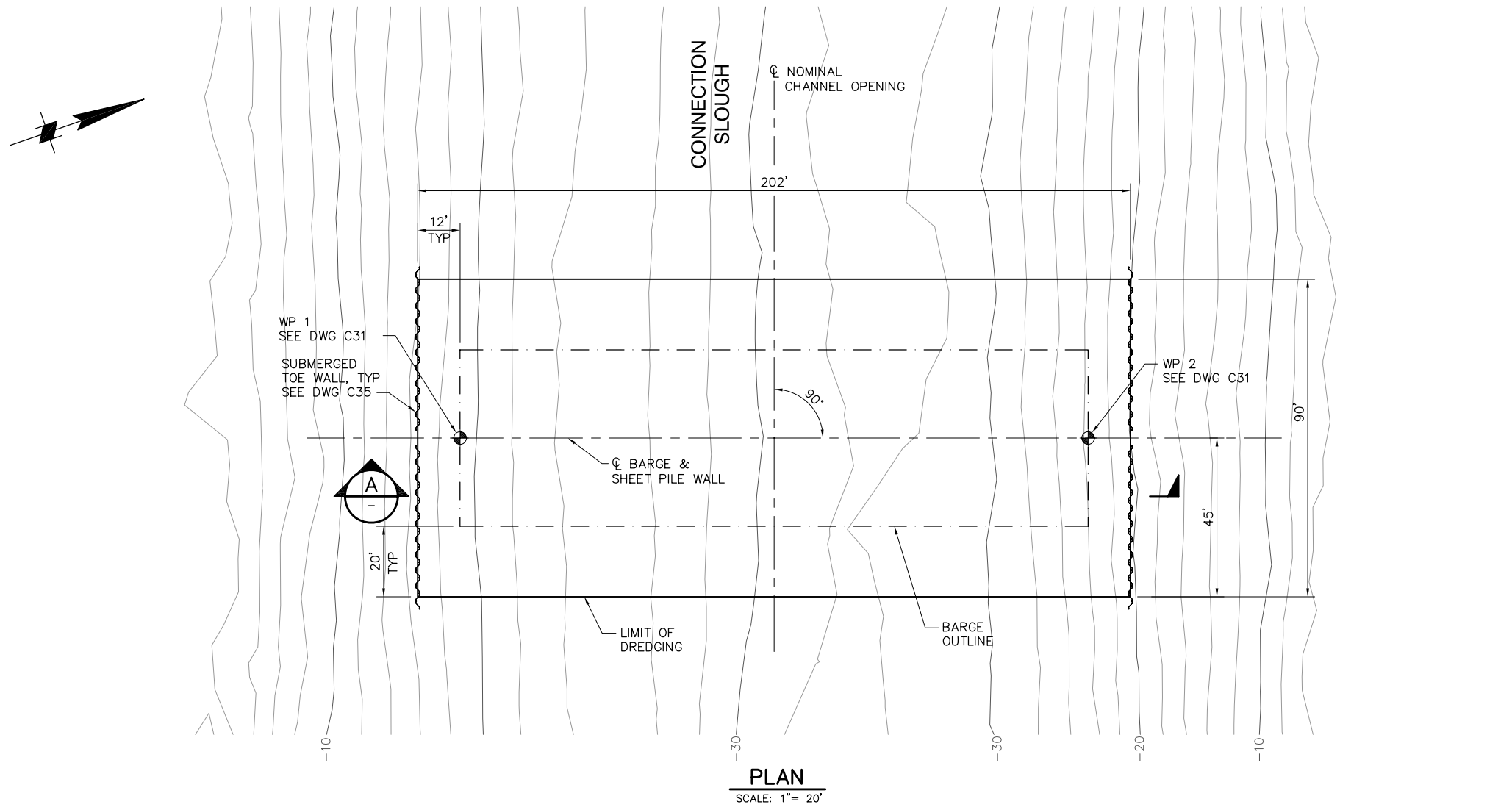
DATE 08/07/09

SHEET 28 OF 75

**CONNECTION SLOUGH
SITE PLAN**

C31

P:\6097-03 SWC GATE DESIGN\CADD\DWG\609703-C32.DWG 7/28/2009 1:59 PM



NOTE:
GATE AND ALL OTHER FEATURES
NOT SHOWN FOR CLARITY.

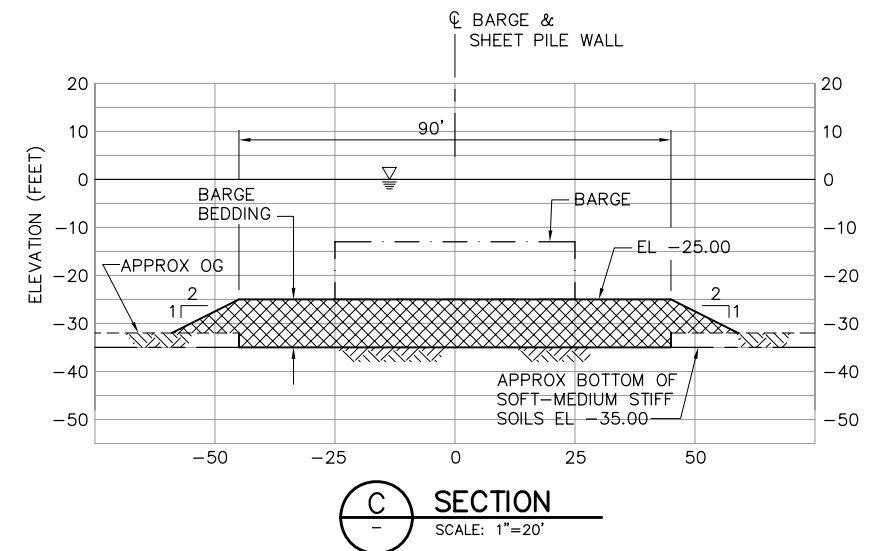
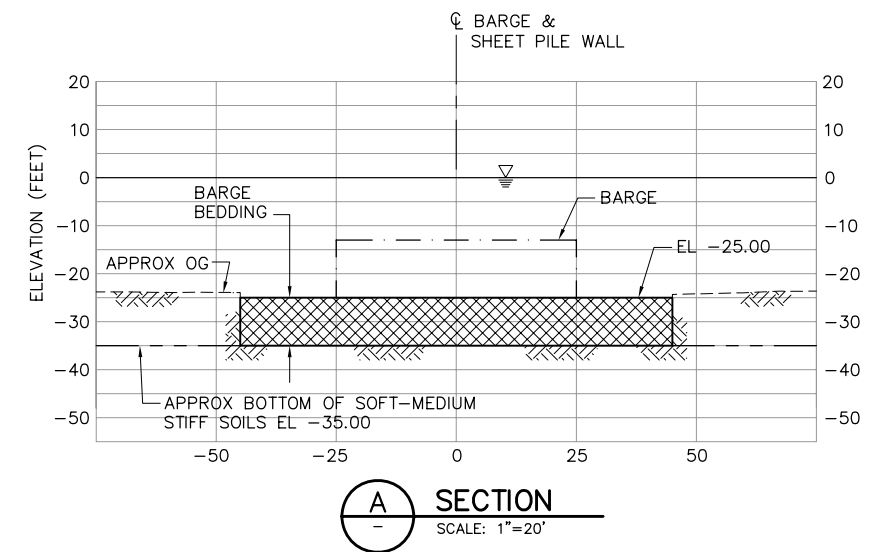
95% SUBMITTAL IF SHEET IS LESS THAN 22" x 34"
IT IS A REDUCED PRINT -
SCALE REDUCED ACCORDINGLY.

REVISION	DESCRIPTION	BY	DATE

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DSGN	TDB	DR	EP/AB
JOB NO.	6097-03	SUBMITTED BY	RMR
CHK	GTH	TITLE	

TWO GATE FISH PROTECTION PLAN	
CONNECTION SLOUGH DREDGING PLAN AND SECTION	

DATE	08/07/09
SHEET	29 OF 75
C32	



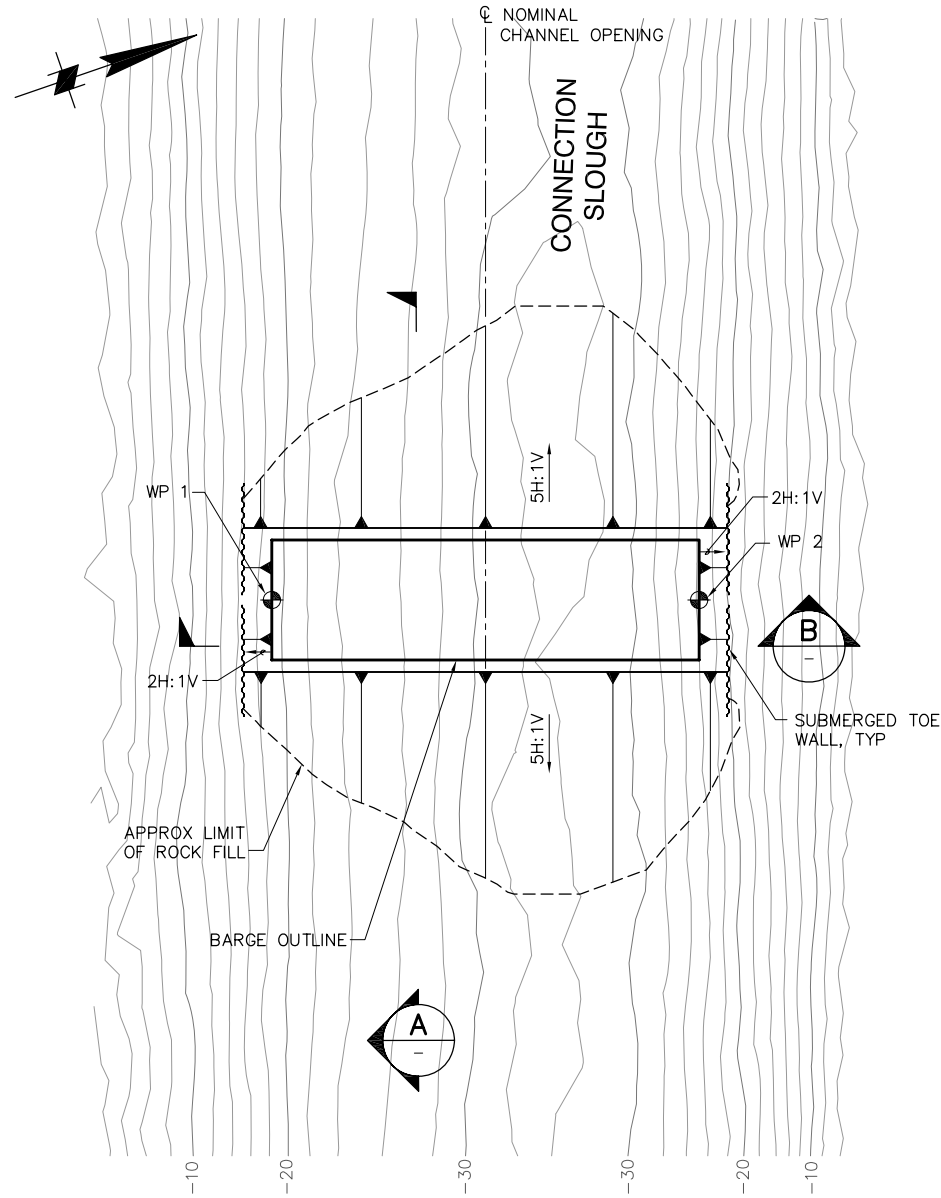
IF SHEET IS LESS THAN 22" x 34"
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REVISION	DESCRIPTION	BY	DATE	Moffatt & Nichol 2001 N. Main Street, Suite 360 Walnut Creek, California 94596 (925) 944-5411				TWO GATE FISH PROTECTION PLAN		DATE 08/07/09
										SHEET 30 OF 75
DSGN		TDB		DR	EP/AB	CHK	GTH	CONNECTION SLOUGH, BARGE BEDDING PLAN	C33	
JOB NO. 6097-03		SUBMITTED BY RMR		TITLE						

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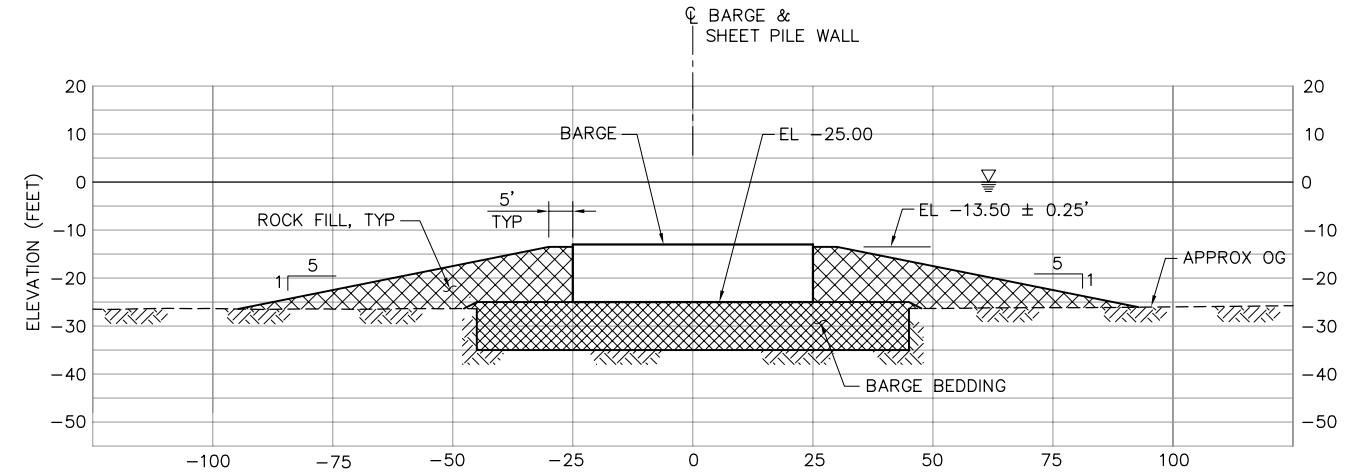
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BACON
ISLAND

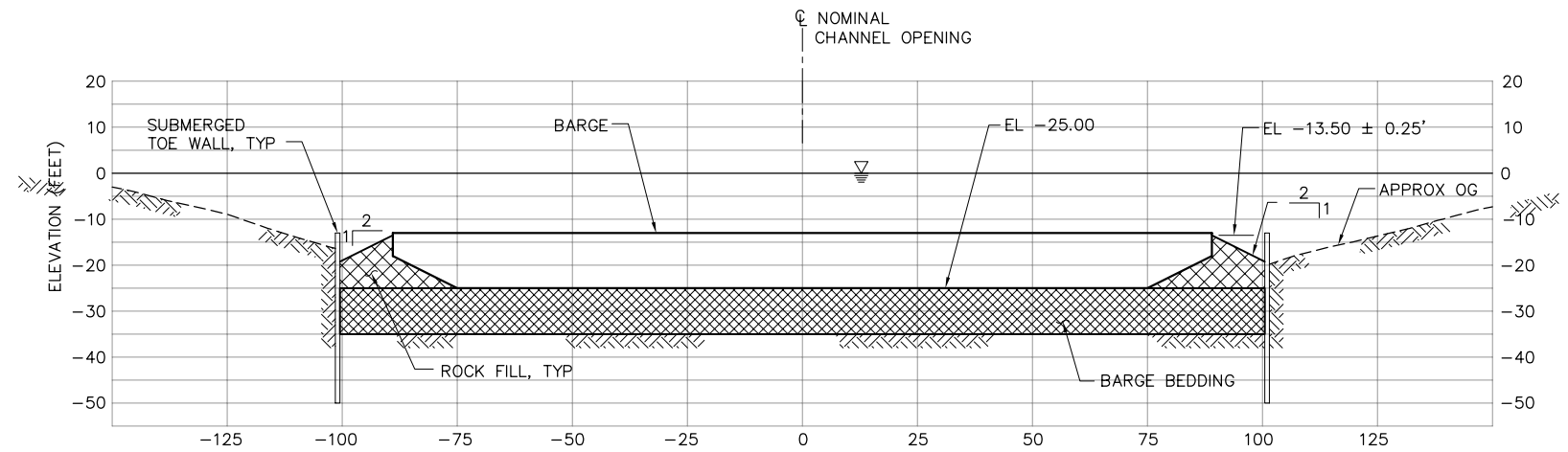


PLAN
SCALE: 1"= 40'

MANDEVILLE
ISLAND



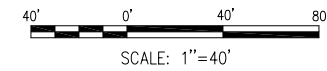
SECTION A
SCALE: 1"=20'



SECTION B
SCALE: 1"=20'

NOTES:

1. KING PILES AND SHEET PILES NEAR BARGE SHALL BE PLACED BEFORE ROCK FILL.
2. GATE AND ALL OTHER FEATURES NOT SHOWN FOR CLARITY.



95% SUBMITTAL

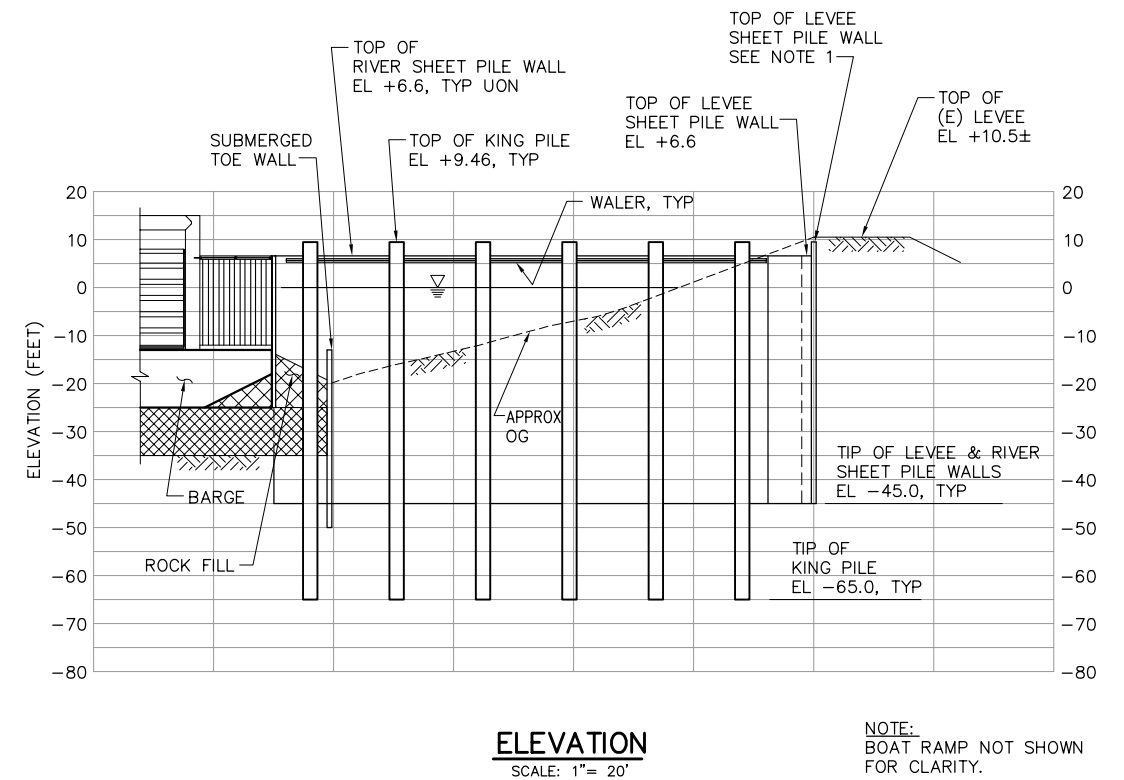
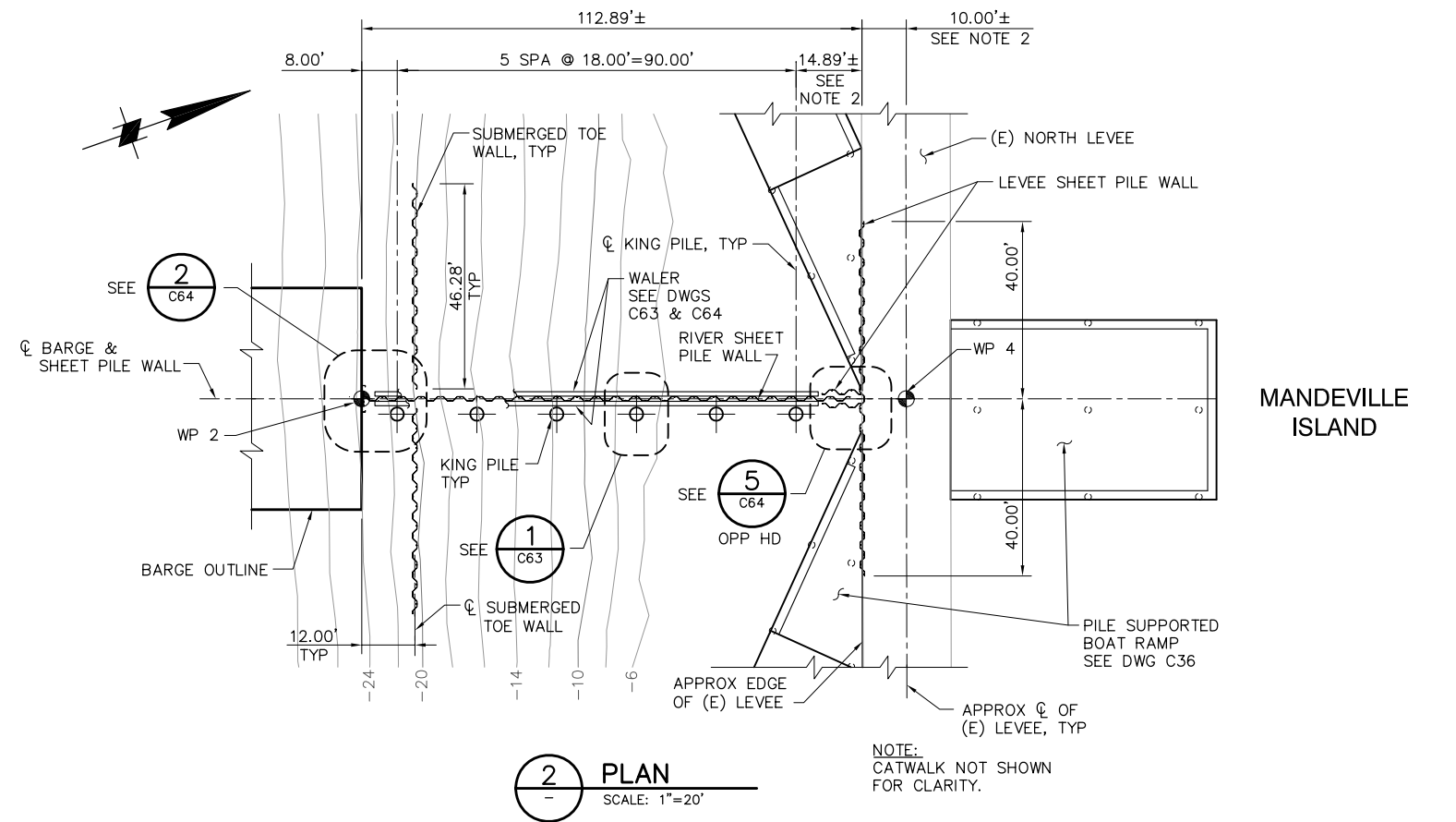
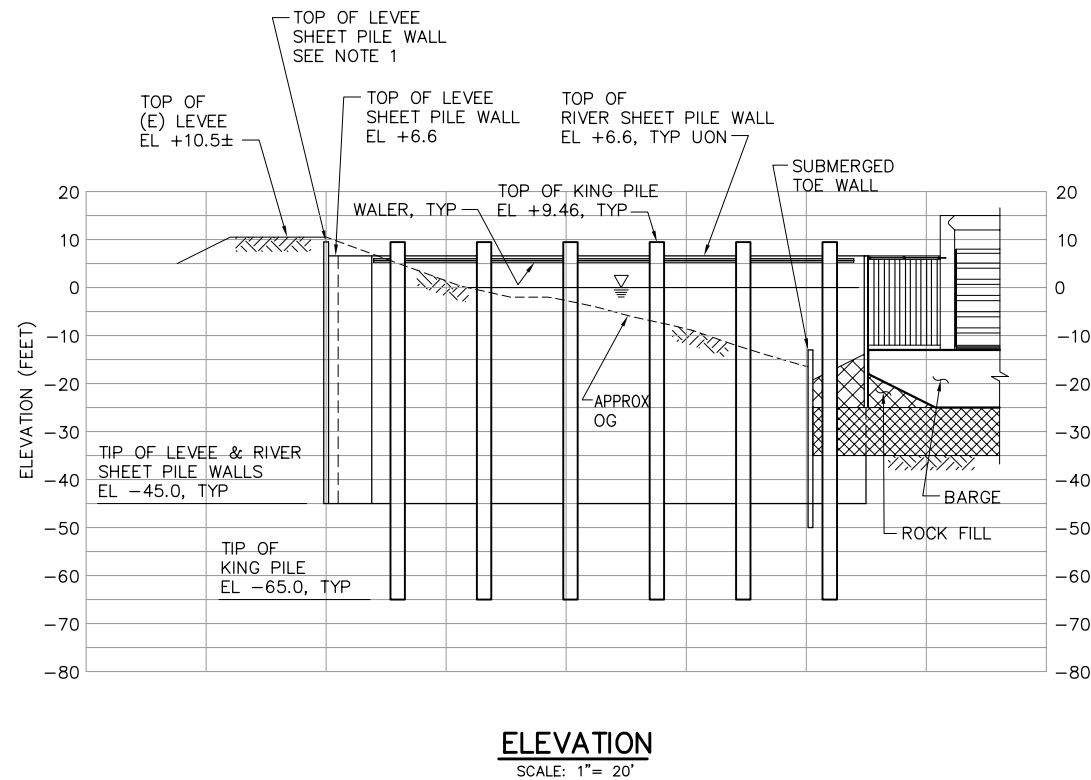
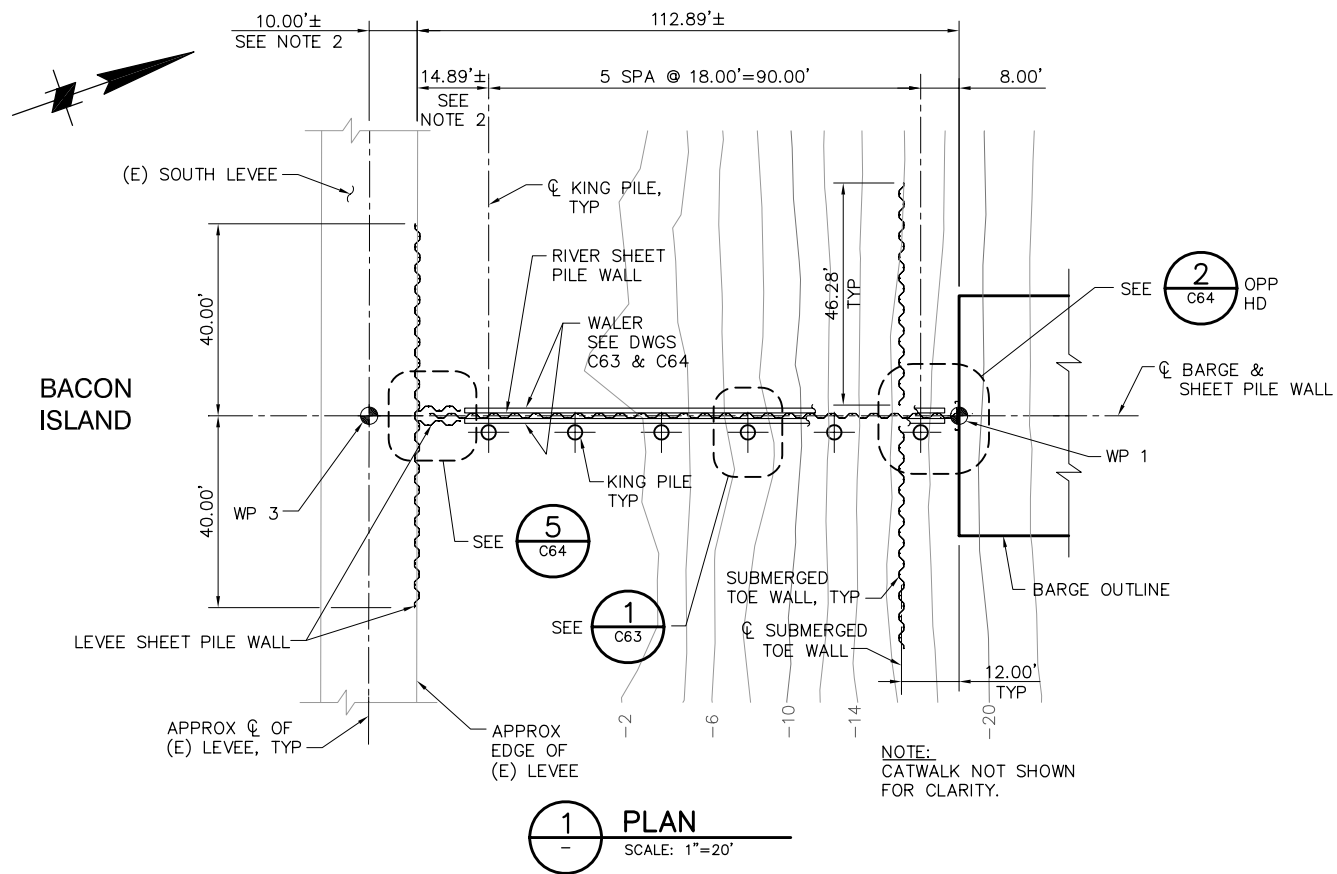
IF SHEET IS LESS THAN 22" x 34"
IT IS A REDUCED PRINT -
SCALE REDUCED ACCORDINGLY.

REVISION	DESCRIPTION	BY	DATE

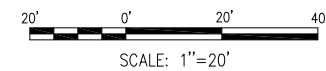
 Moffatt & Nichol		2001 N. Main Street, Suite 360 Walnut Creek, California 94596 (925) 944-5411	
DSGN	JMB	DR	EP/AB
JOB NO.	6097-03	SUBMITTED BY	RMR
CHK	TDB	TITLE	

TWO GATE FISH PROTECTION PLAN		DATE 08/07/09
CONNECTION SLOUGH BARGE - ROCK FILL PLAN AND SECTIONS		SHEET 31 OF 75
		C34

P:\6097-03 SWC GATE DESIGN\CADD\DWG\609703-C35.DWG 8/6/2009 9:15 AM



- NOTES:**
1. TOP OF LEVEE SHEET PILE WALL SHALL BE 6" BELOW TOP OF (E) LEVEE UON.
 2. LEVEE SHEET PILE WALL TO BE LOCATED 1 FT MIN OFF THE EDGE OF (E) ROAD SURFACE.



95% SUBMITTAL

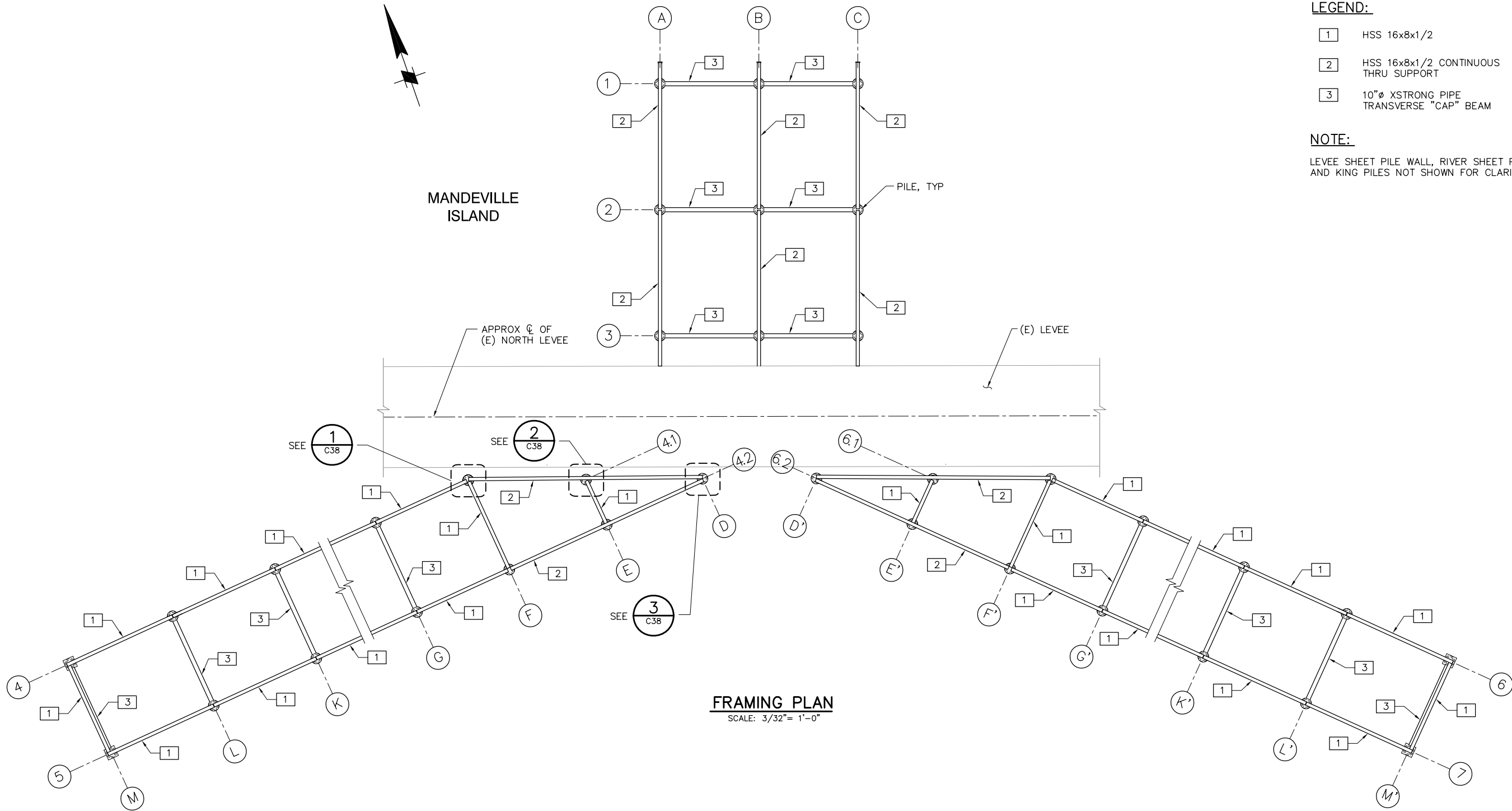
IF SHEET IS LESS THAN 22" x 34"
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SCALE REDUCED ACCORDINGLY.

REVISION	DESCRIPTION	BY	DATE

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JOB NO.	6097-03	SUBMITTED BY	RMR

TWO GATE FISH PROTECTION PLAN		DATE 08/07/09
CONNECTION SLOUGH SHEET PILE WALL ARRANGEMENT PLAN AND ELEVATION		SHEET 32 OF 75
C35		

P:\6097-03 SWC GATE DESIGN\CADD\DWG\609703-C36.2.DWG 8/5/2009 4:16 PM



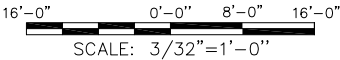
FRAMING PLAN
SCALE: 3/32"= 1'-0"

LEGEND:

- 1 HSS 16x8x1/2
- 2 HSS 16x8x1/2 CONTINUOUS THRU SUPPORT
- 3 10"Ø XSTRONG PIPE TRANSVERSE "CAP" BEAM

NOTE:

LEVEE SHEET PILE WALL, RIVER SHEET PILE WALL AND KING PILES NOT SHOWN FOR CLARITY.



95% SUBMITTAL

IF SHEET IS LESS THAN 22" x 34"
IT IS A REDUCED PRINT -
SCALE REDUCED ACCORDINGLY.

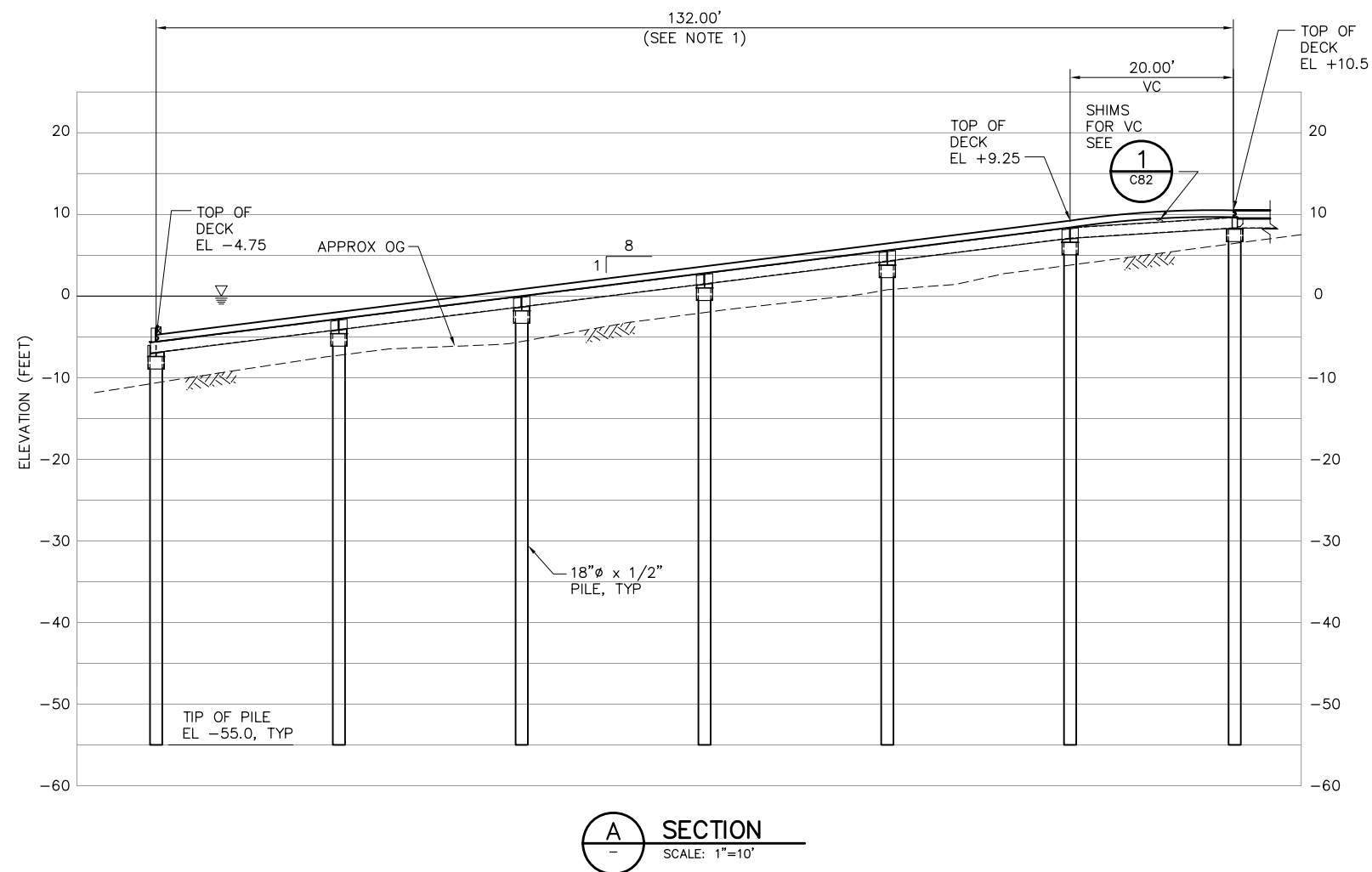
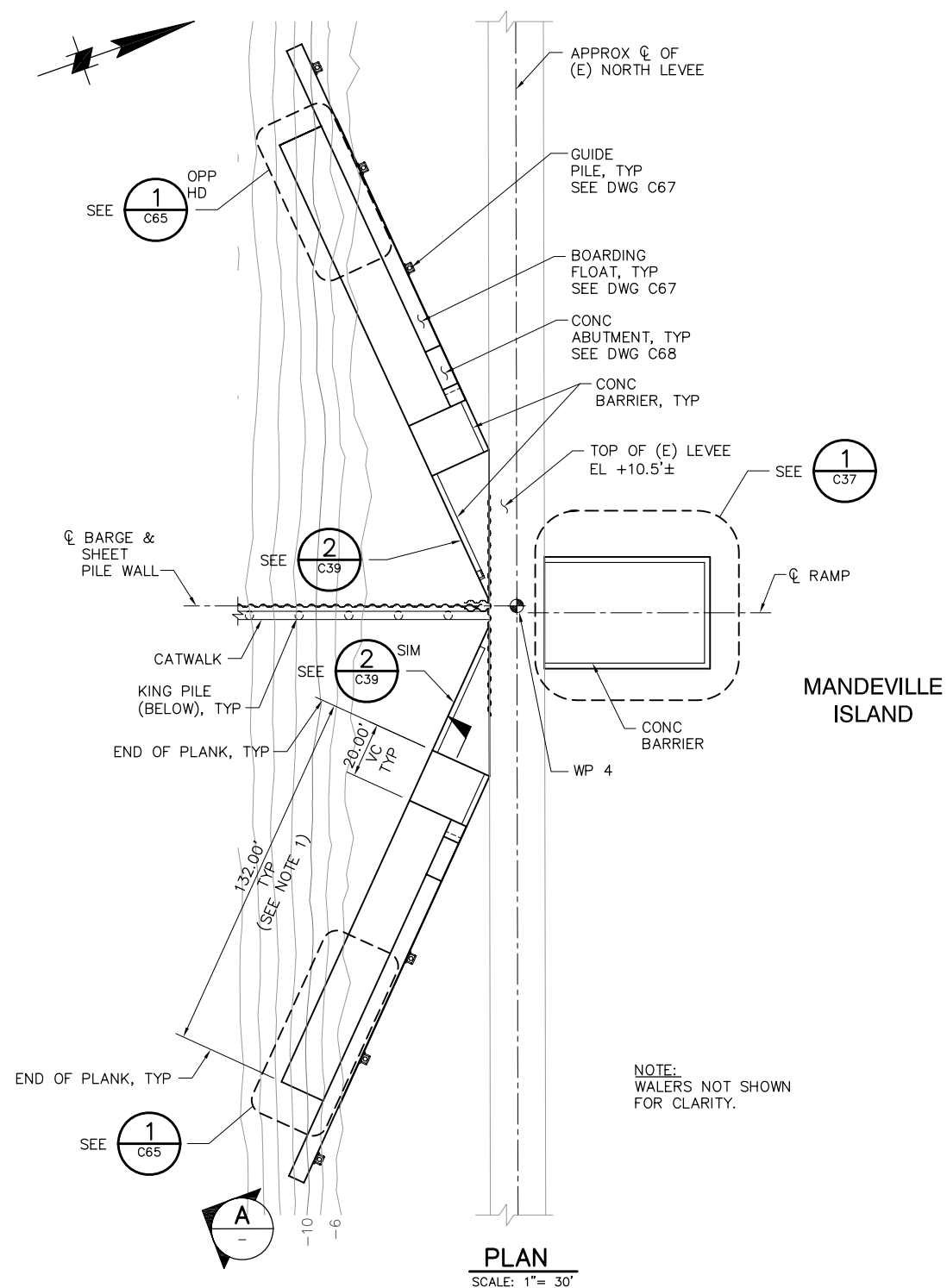
REVISION	DESCRIPTION	BY	DATE

		2001 N. Main Street, Suite 360 Walnut Creek, California 94596 (925) 944-5411	
DSGN	JMB	DR	EP
JOB NO.	6097-03	SUBMITTED BY	RMR
CHK	TDB	TITLE	

TWO GATE FISH PROTECTION PLAN	
CONNECTION SLOUGH BOAT RAMP FRAMING PLAN	

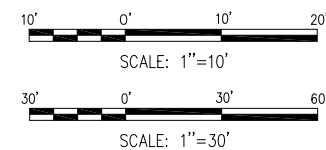
DATE 08/07/09
SHEET 35 OF 75
C36.2

P:\6097-03 SWC GATE DESIGN\CADD\DWG\609703-C36.DWG 8/6/2009 9:26 AM



NOTES:

1. TRUE LENGTH OF RAMP ACCOUNTS FOR AN AVERAGE GAP OF 3/8" PER PLANK JOINT.



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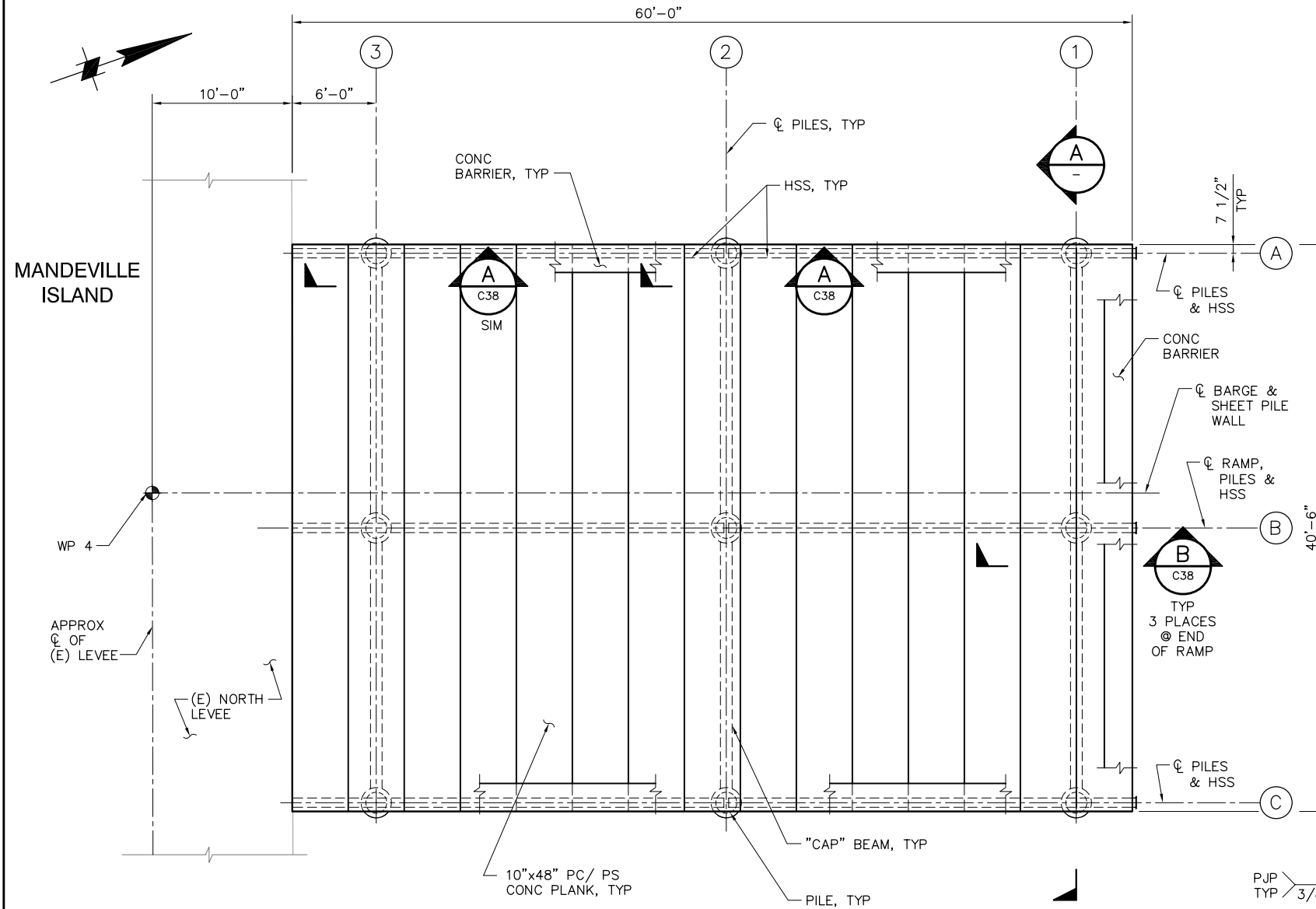
IF SHEET IS LESS THAN 22" x 34"
IT IS A REDUCED PRINT -
SCALE REDUCED ACCORDINGLY.

REVISION	DESCRIPTION	BY	DATE

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DSGN	JMB	DR	EP
JOB NO.	6097-03	SUBMITTED BY	RMR
CHK	TDB	TITLE	

TWO GATE FISH PROTECTION PLAN		DATE	08/07/09
CONNECTION SLOUGH BOAT RAMP PLAN AND SECTION		SHEET	33 OF 75
C36			

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NOTES:

- ALL PC/PS PLANKS SHALL BEAR ON/AGAINST NEOPRENE "UNDERLAYMENT" BEARING STRIP WITH A MINIMUM 1/8" THICKNESS.

WELDING NOTE:

ALL STIFFENER PLATES SHALL HAVE DOUBLE SIDED 1/4" FILLET WELDS UON.

1'-0" 0'-0" 1'-0" 2'-0"
SCALE: 1"=1'-0"

95% SUBMITTAL

IF SHEET IS LESS THAN 22" x 34"
IT IS A REDUCED PRINT -
SCALE REDUCED ACCORDINGLY.

REVISION	DESCRIPTION	BY	DATE

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DSGN	JMB	DR	EP
JOB NO.	6097-03	SUBMITTED BY	RMR
CHK	TDB	TITLE	

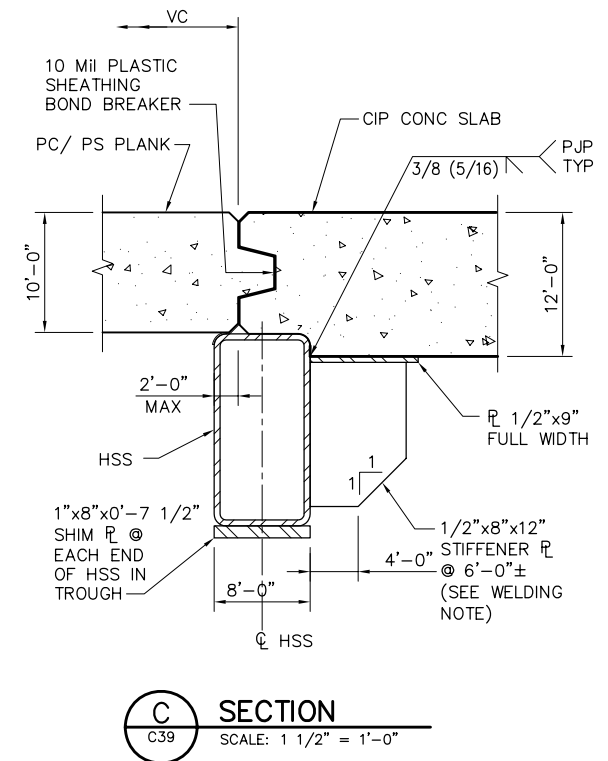
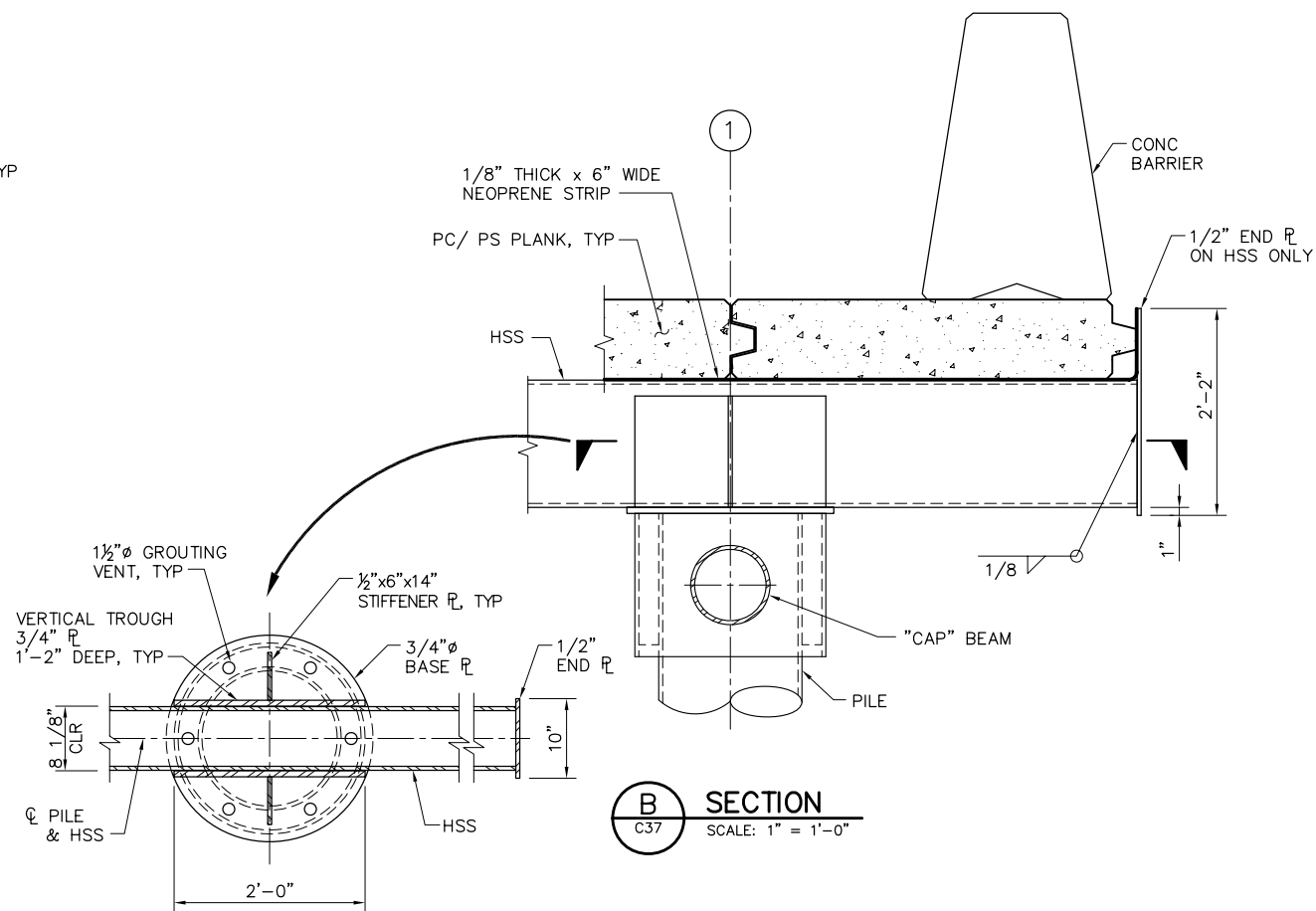
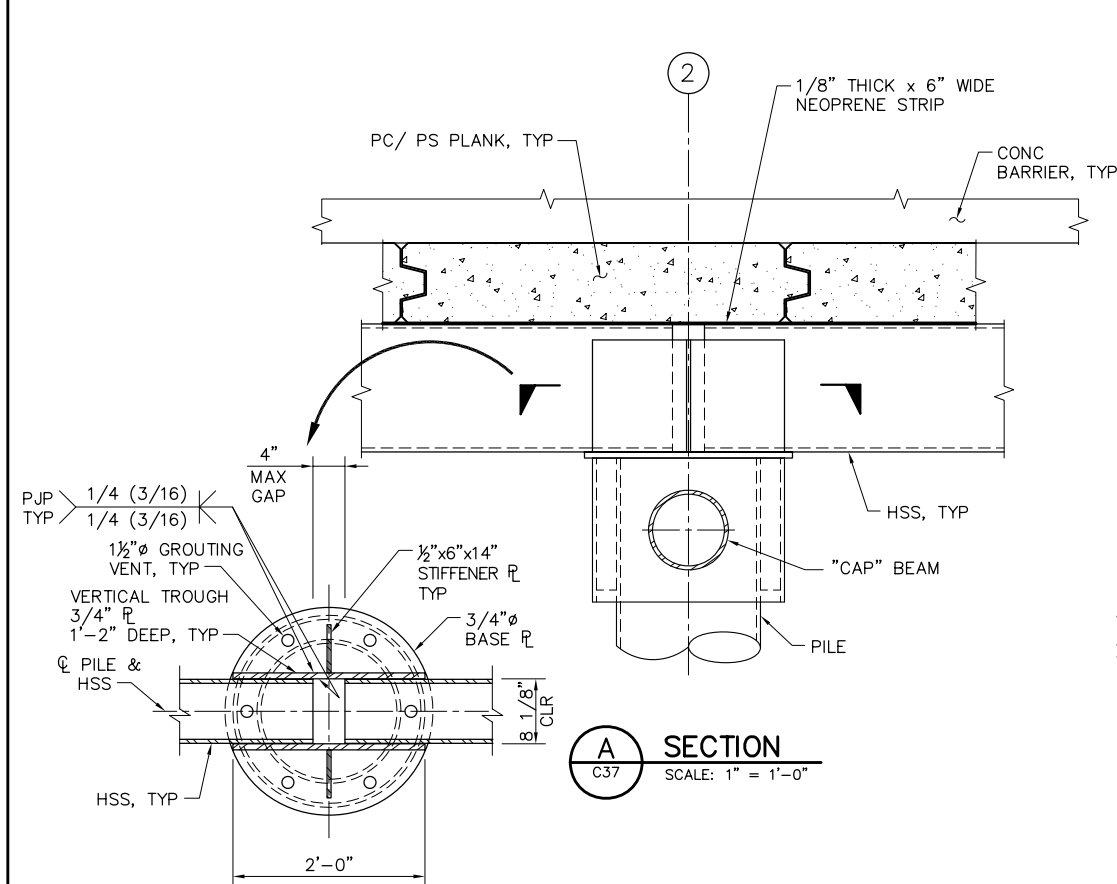
TWO GATE FISH PROTECTION PLAN

CONNECTION SLOUGH
BOAT RAMP DETAILS AND SECTIONS
SHEET 1

DATE 08/07/09

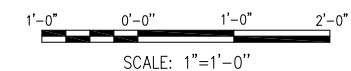
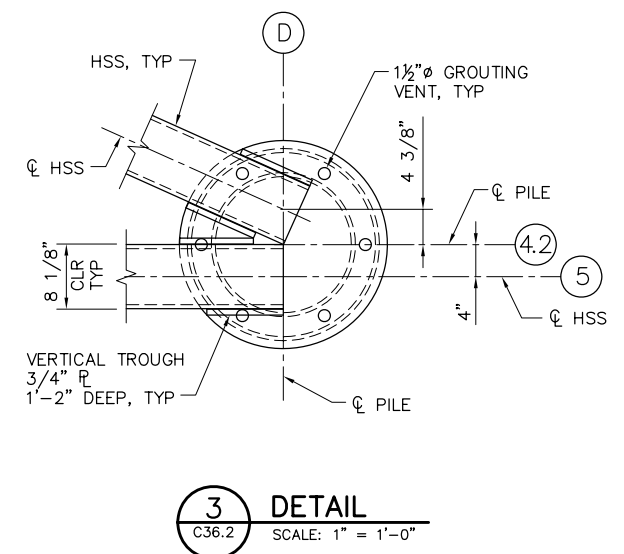
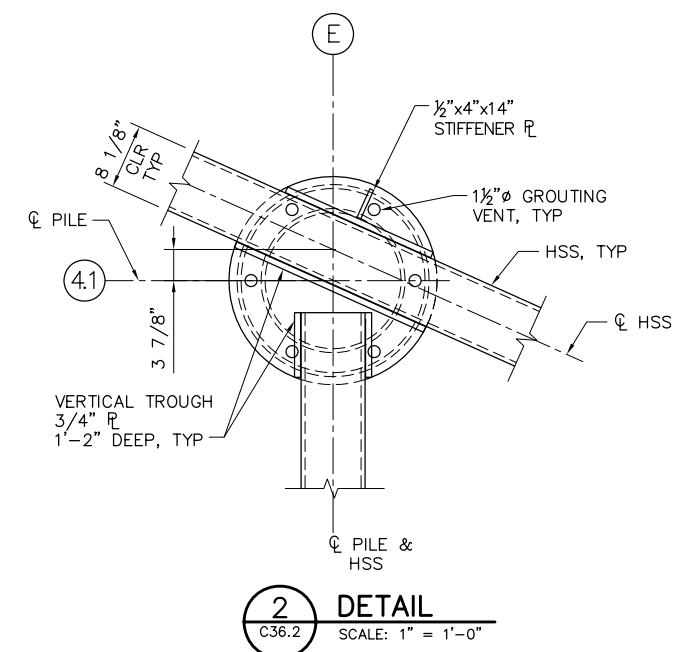
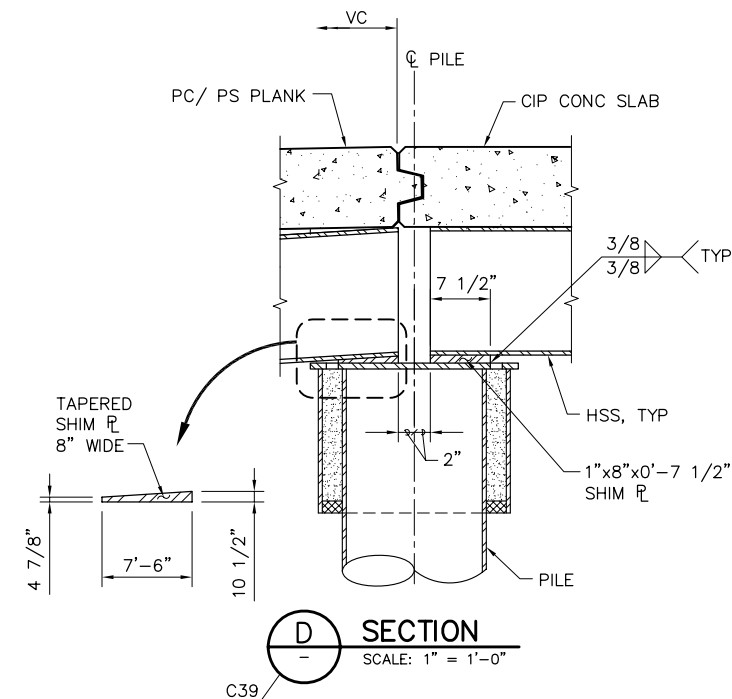
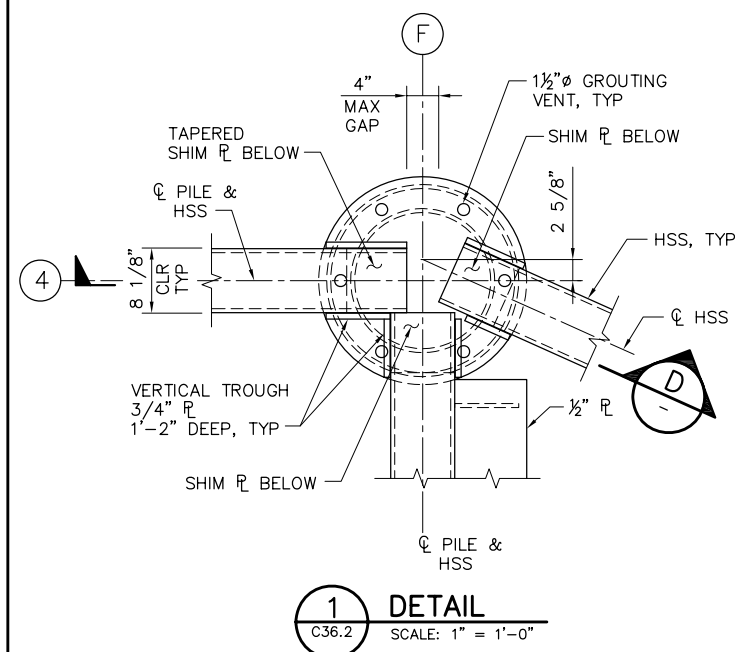
SHEET 36 OF 75

C37



WELDING NOTE:

ALL STIFFENER PLATES SHALL HAVE DOUBLE SIDED
1/4" FILLET WELDS UON.



95% SUBMITTAL

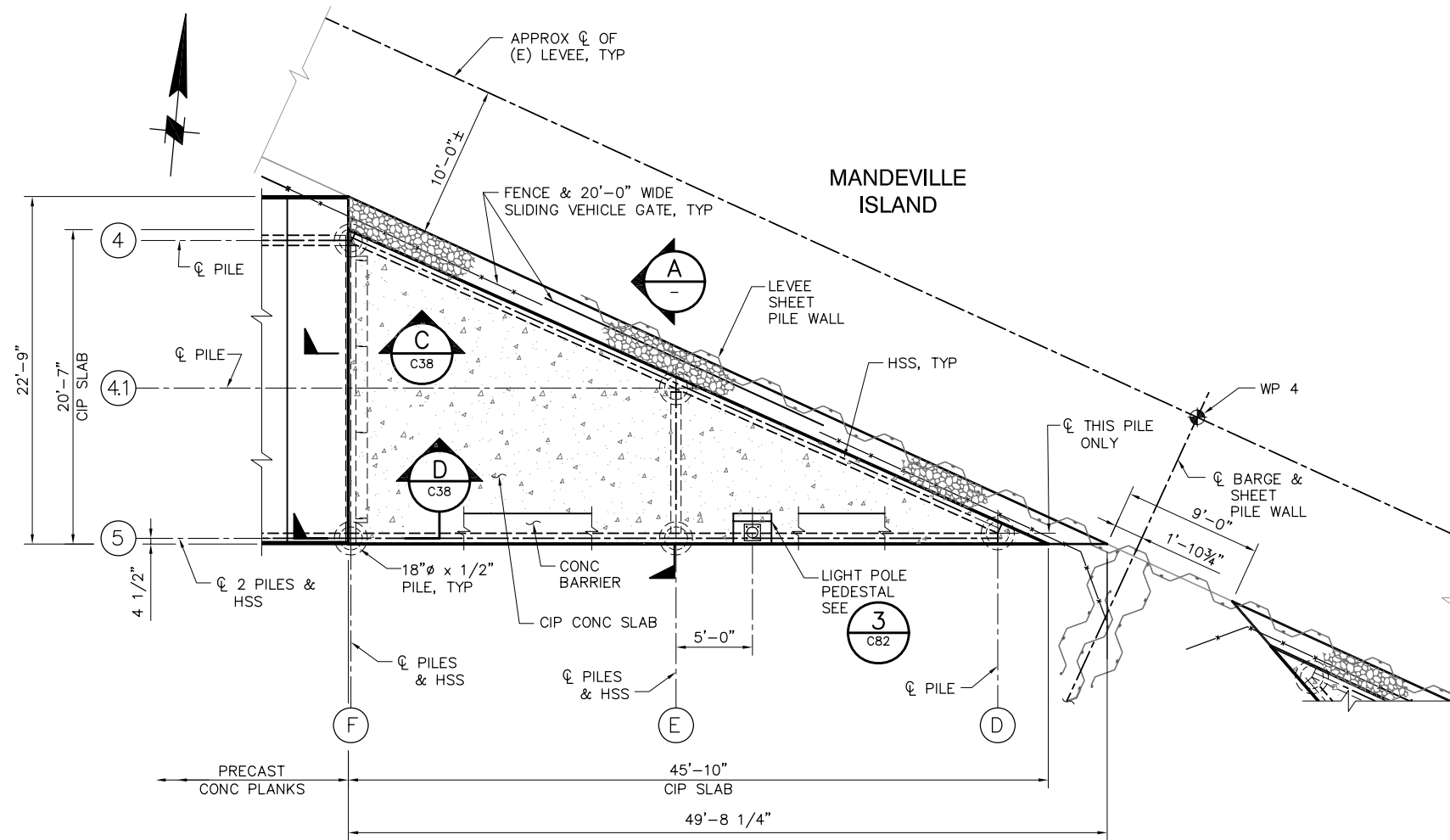
IF SHEET IS LESS THAN 22" x 34"
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SCALE REDUCED ACCORDINGLY.

REVISION	DESCRIPTION	BY	DATE

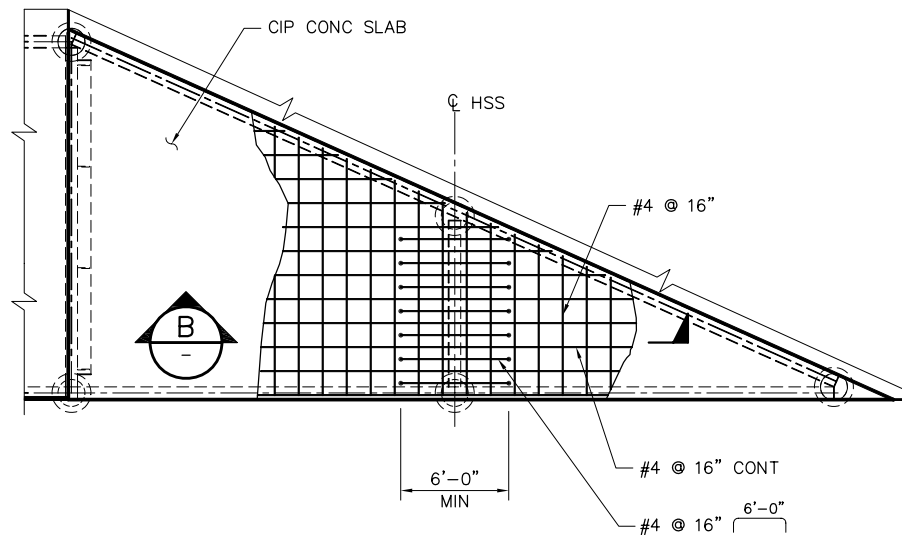
 2001 N. Main Street, Suite 360 Walnut Creek, California 94596 (925) 944-5411		
DSGN JMB	DR EP	CHK TDB
JOB NO. 6097-03	SUBMITTED BY RMR	
TITLE REVISIONS		

TWO GATE FISH PROTECTION PLAN	DATE 08/07/09
	SHEET 37 OF 75
CONNECTION SLOUGH BOAT RAMP DETAILS AND SECTIONS SHEET 2	C38

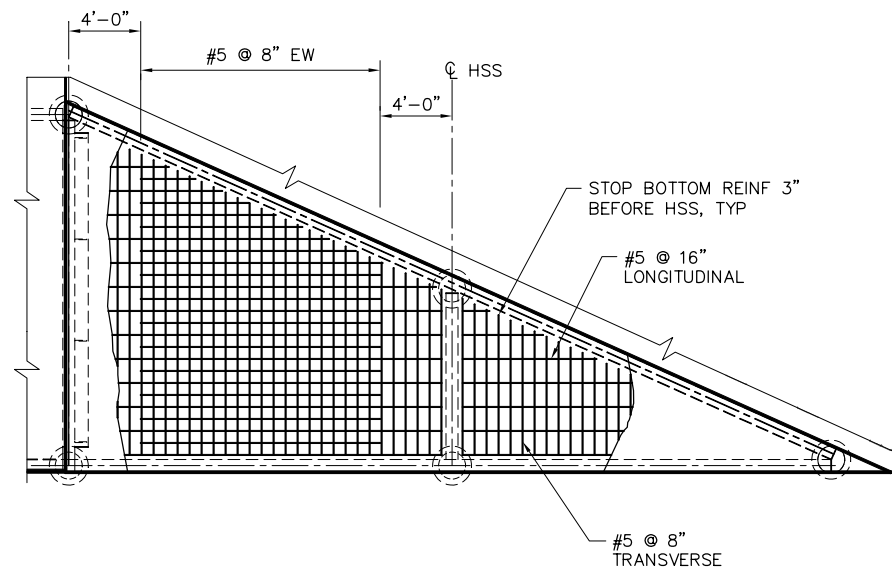
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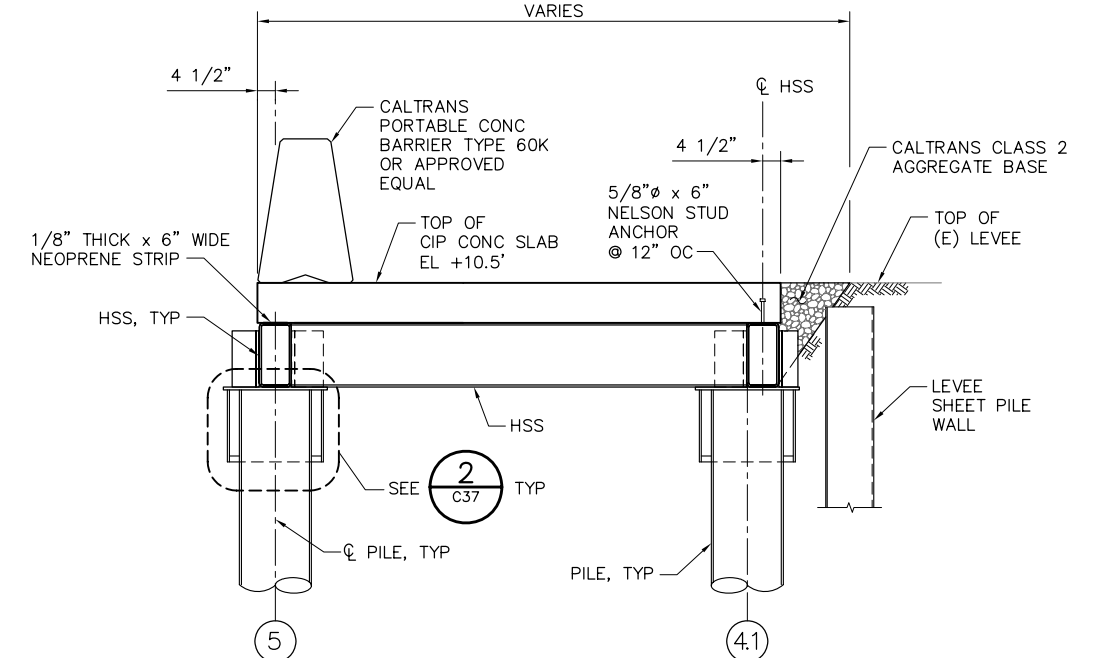
2 DETAIL
C36 SCALE: 3/16" = 1'-0"



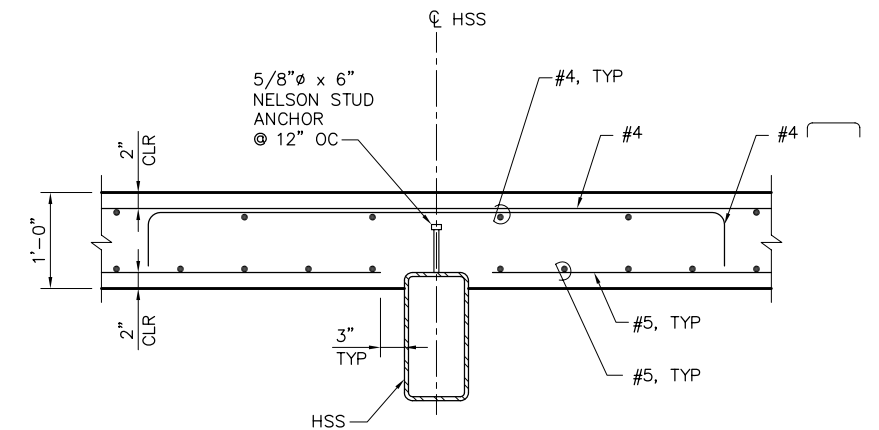
TOP SLAB REINFORCEMENT
SCALE: 3/16" = 1'-0"



BOTTOM SLAB REINFORCEMENT
SCALE: 3/16" = 1'-0"



A SECTION
SCALE: 1/2" = 1'-0"



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

1'-0" 0'-0" 1'-0" 2'-0"
SCALE: 1" = 1'-0"

95% SUBMITTAL

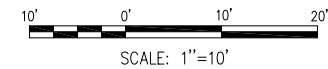
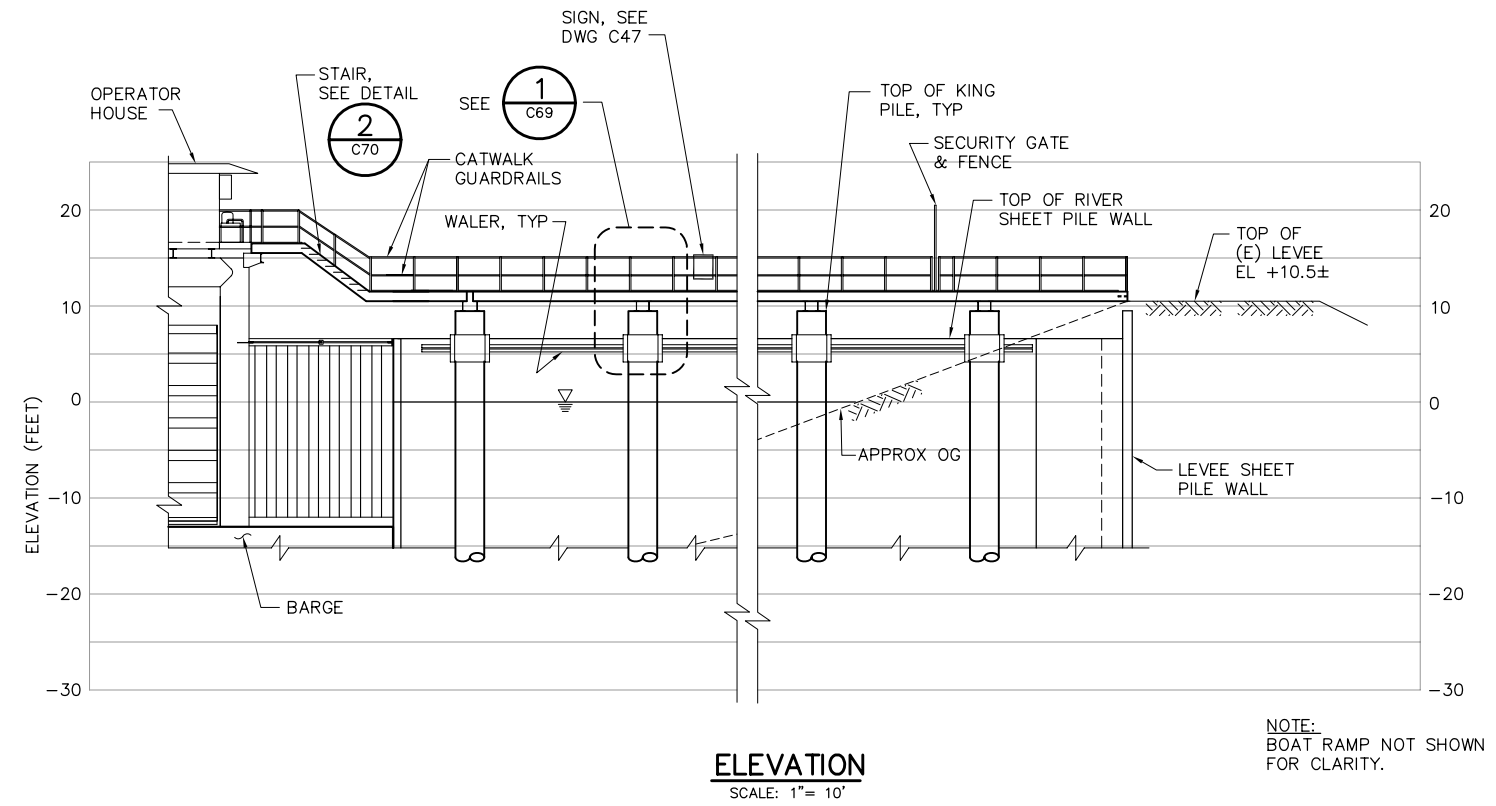
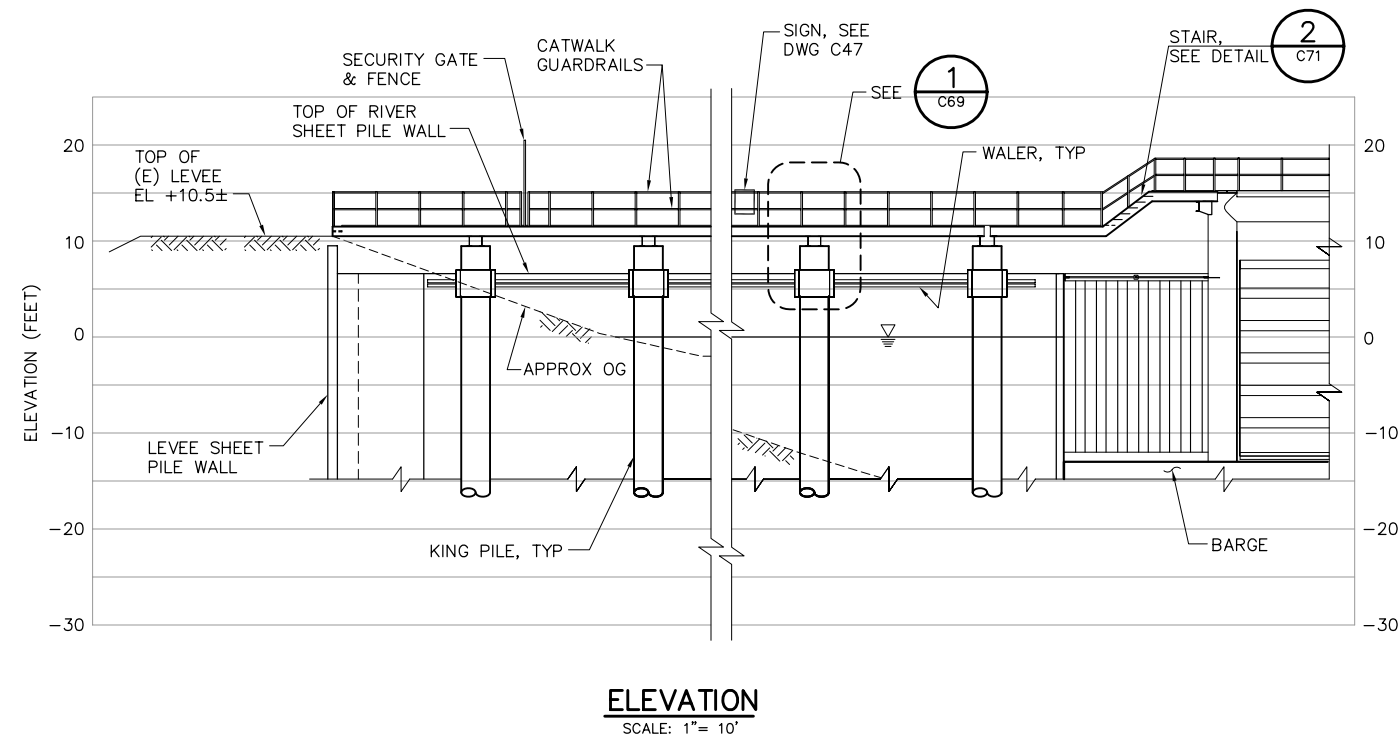
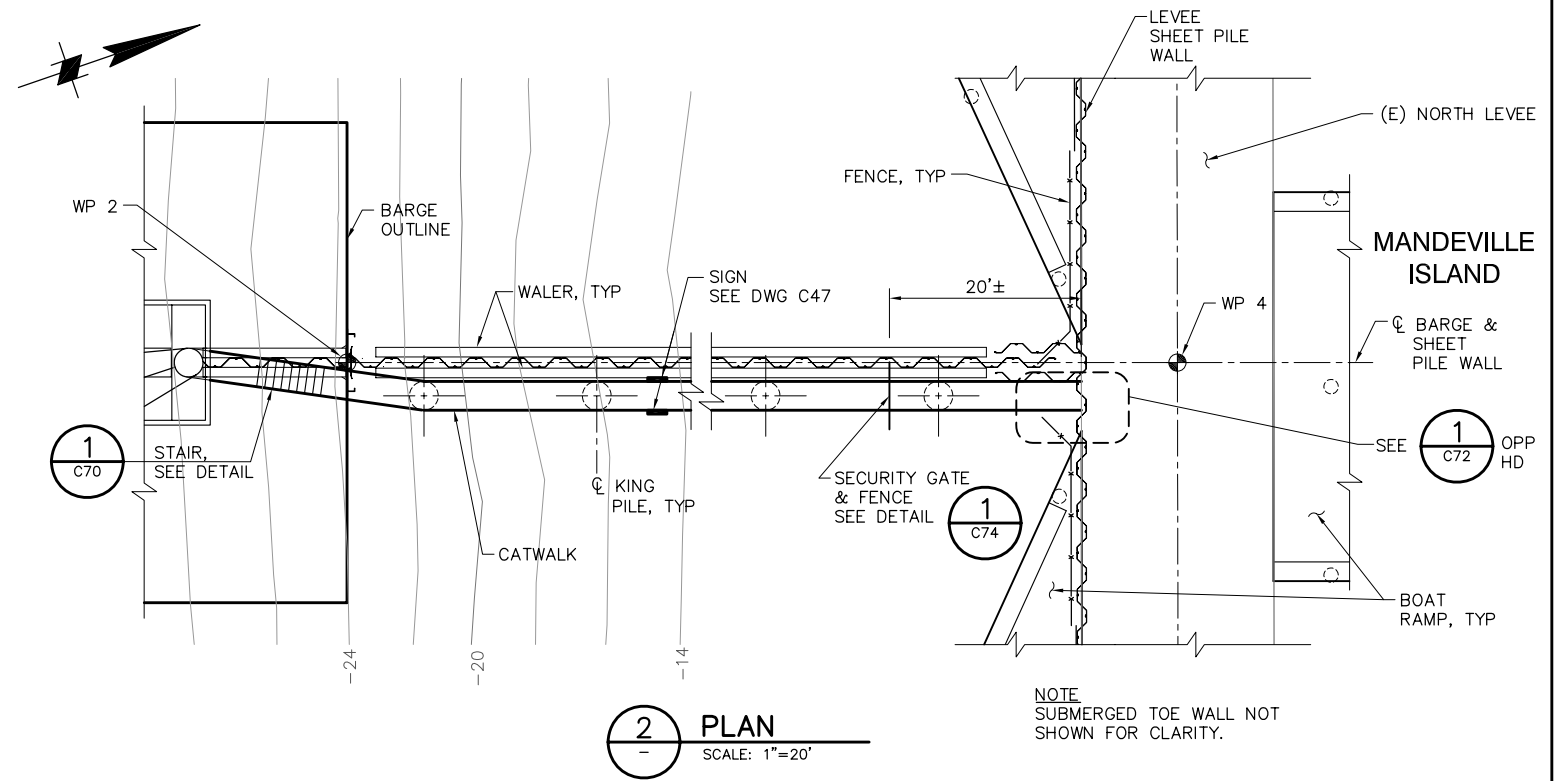
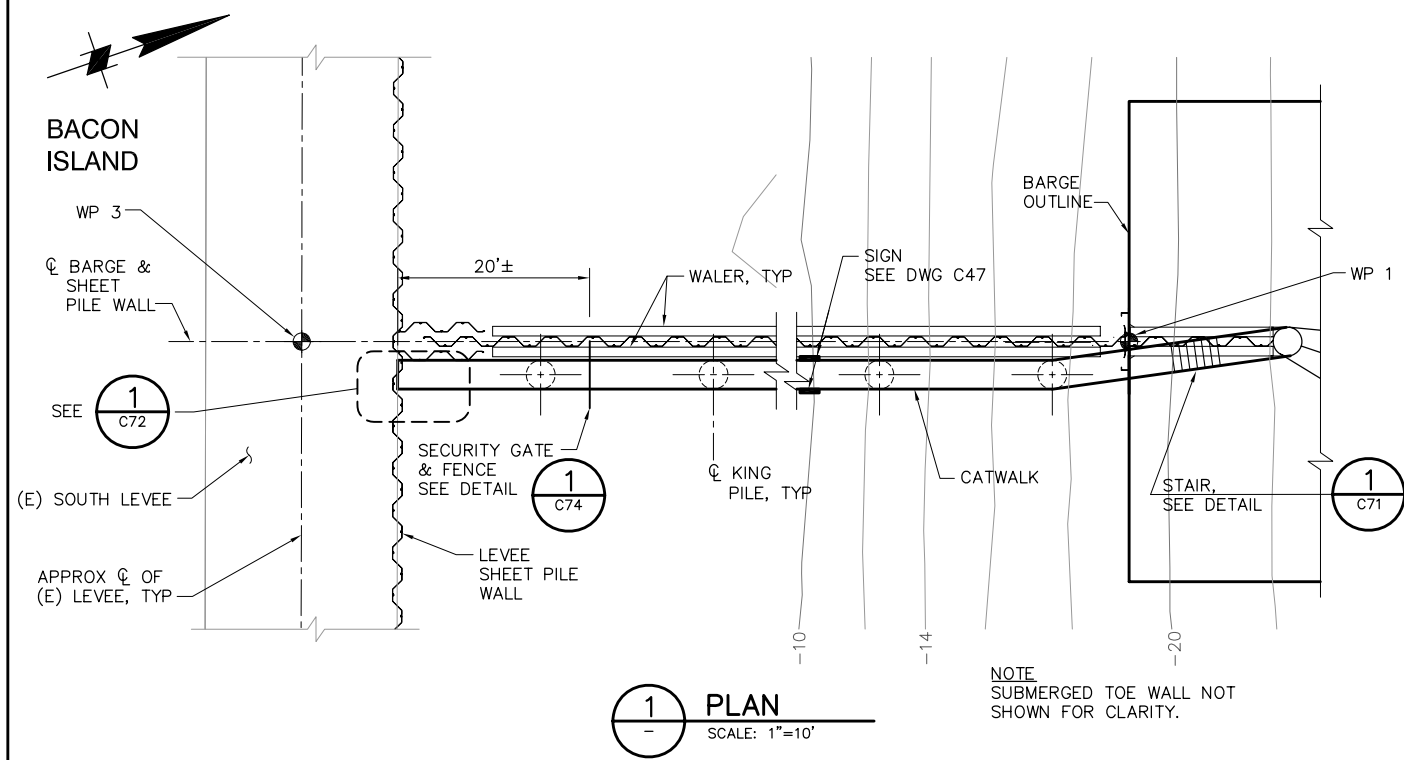
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JOB NO.	6097-03	SUBMITTED BY	RMR
CHK	TDB	TITLE	

TWO GATE FISH PROTECTION PLAN		DATE	08/07/09
CONNECTION SLOUGH BOAT RAMP DETAILS AND SECTIONS SHEET 3		SHEET	38 OF 75
			C39

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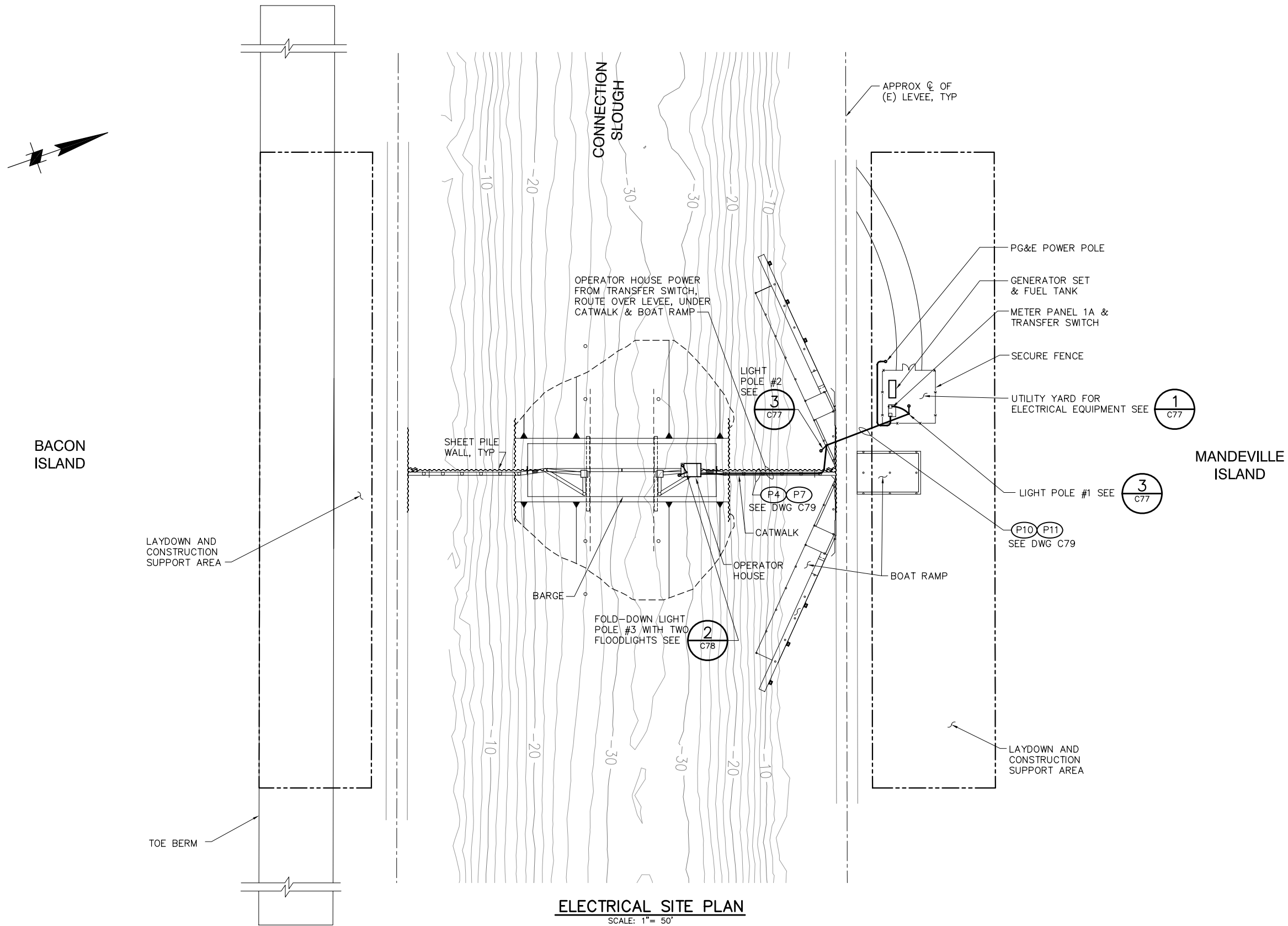
IF SHEET IS LESS THAN 22" x 34"
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REVISION	DESCRIPTION	BY	DATE

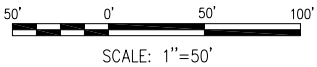
 Moffatt & Nichol				2001 N. Main Street, Suite 360 Walnut Creek, California 94596 (925) 944-5411			
DSGN	JMB	DR	EP/AB	CHK	TDB		
JOB NO.	6097-03	SUBMITTED BY	RMR	TITLE			

TWO GATE FISH PROTECTION PLAN		DATE	08/07/09
CONNECTION SLOUGH CATWALK PLAN AND ELEVATION		SHEET	39 OF 75
			C40

P:\6097-03 SWC GATE DESIGN\CADD\DWG\609703-C41.DWG 8/4/2009 4:39 PM



ELECTRICAL SITE PLAN
SCALE: 1"= 50'



SCALE: 1"=50'

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SCALE REDUCED ACCORDINGLY.

REVISION	DESCRIPTION	BY	DATE

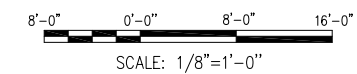
 Moffatt & Nichol		2001 N. Main Street, Suite 360 Walnut Creek, California 94596 (925) 944-5411	
DSGN	DM	DR	AB
JOB NO.	6097-03	SUBMITTED BY	RMR
CHK	CBS	TITLE	

TWO GATE FISH PROTECTION PLAN
CONNECTION SLOUGH ELECTRICAL SITE PLAN

DATE 08/07/09
SHEET 40 OF 75
C41

NOTES:

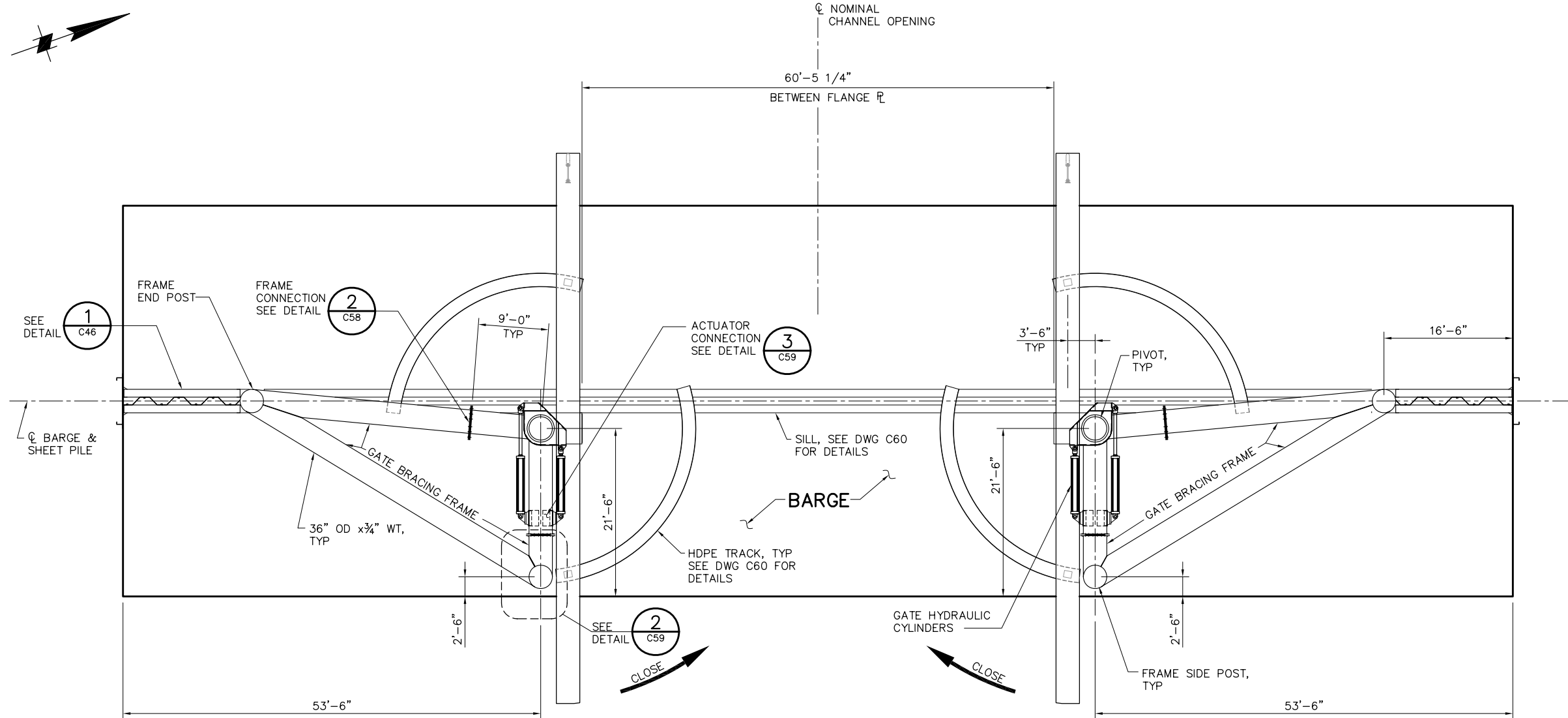
1. FOR SIGNAGE SEE DRAWING C47.
2. FOR CATWALK STAIRWAY SEE DRAWING C40.



95% SUBMITTAL

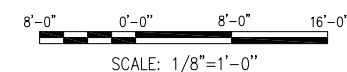
IF SHEET IS LESS THAN 22" x 34"
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REVISION	DESCRIPTION	BY	DATE	Moffatt & Nichol 2001 N. Main Street, Suite 360 Walnut Creek, California 94596 (925) 944-5411	TWO GATE FISH PROTECTION PLAN		DATE 08/07/09	
							SHEET 42 OF 75	
				DSGN JMB	DR AB	CHK TDB	CONNECTION SLOUGH BARGE GENERAL ARRANGEMENT ELEVATION	C43
				JOB NO. 6097-03	SUBMITTED BY RMR	TITLE		



FRAME PLAN
 SCALE: 1/8"= 1'-0"
 (GATE SHOWN IN OPEN POSITION)

NOTE:
 FOR GATE FRAME REATIONS SEE DWG C17.

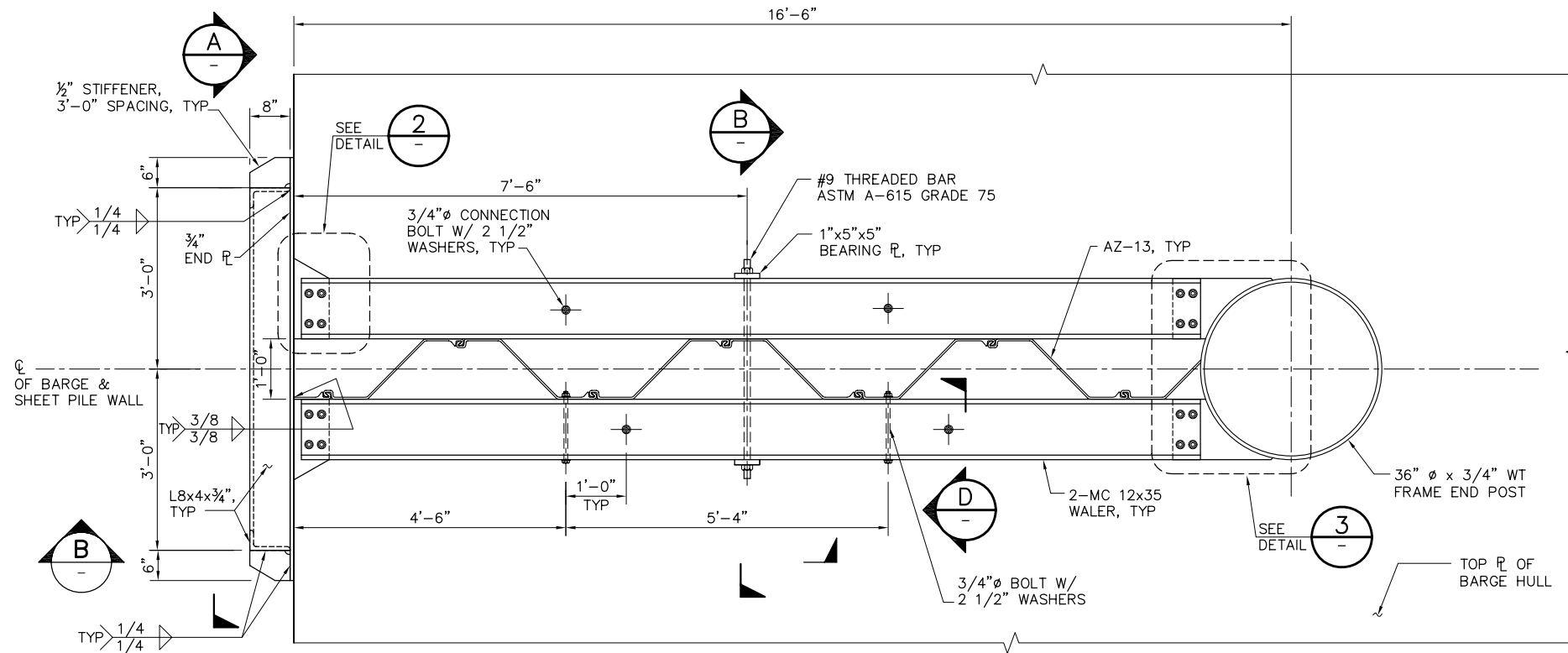


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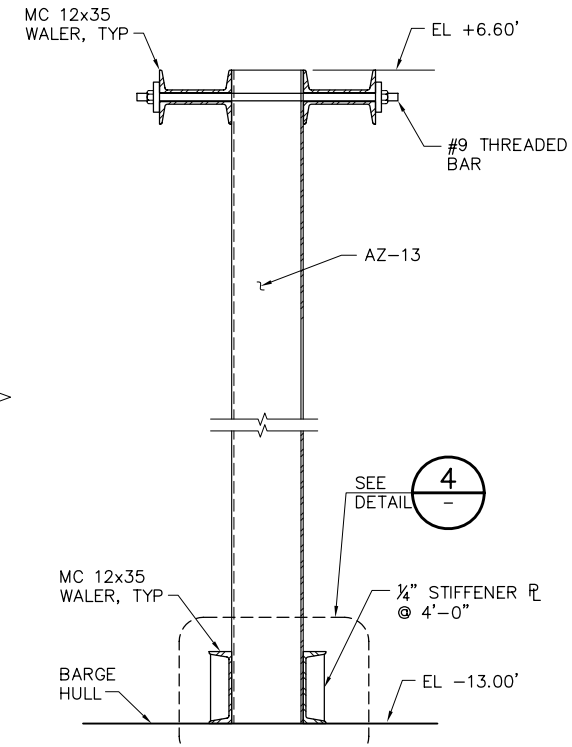
REVISION	DESCRIPTION	BY	DATE			 2001 N. Main Street, Suite 360 Walnut Creek, California 94596 (925) 944-5411	TWO GATE FISH PROTECTION PLAN		DATE 08/07/09		
									CONNECTION SLOUGH GATE FRAMING LAYOUT		SHEET 44 OF 75
				DSGN	CBS	DR	AB	CHK	TDB		
				JOB NO.	6097-03	SUBMITTED BY		TITLE			
						RMR					

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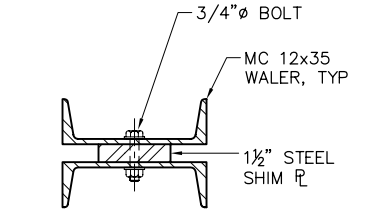


PLAN

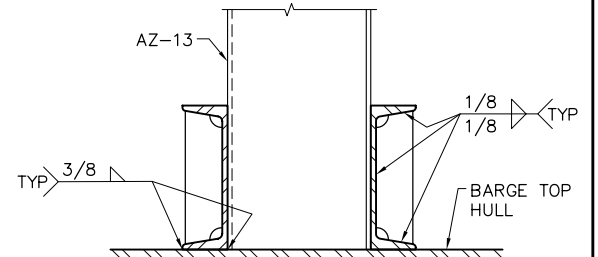
1 DETAIL
SCALE: 3/4" = 1'-0"



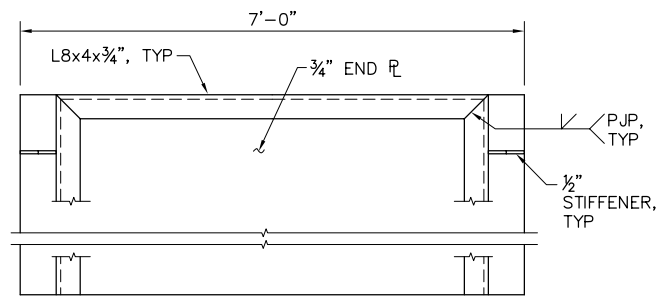
C SECTION
SCALE: 3/4" = 1'-0"



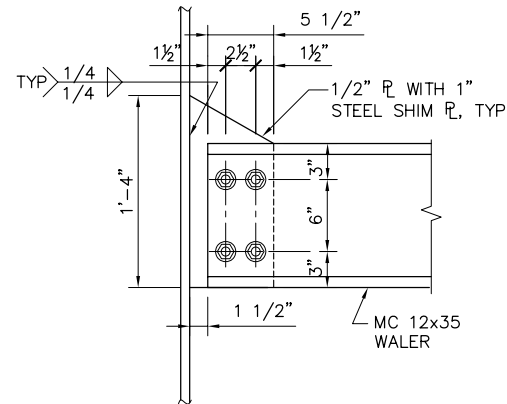
D SECTION
SCALE: 1 1/2" = 1'-0"



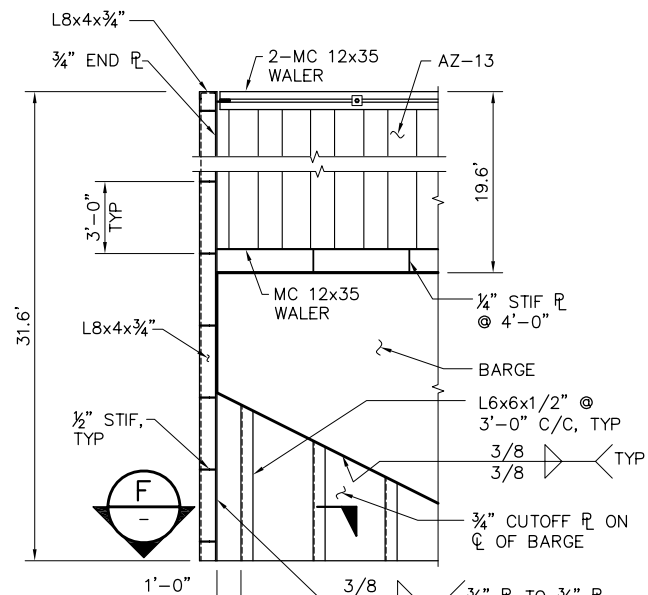
4 DETAIL
SCALE: 1 1/2" = 1'-0"



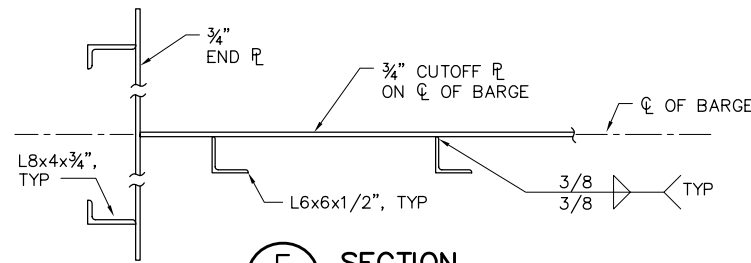
A SECTION
SCALE: 3/4" = 1'-0"



2 DETAIL
SCALE: 1 1/2" = 1'-0"

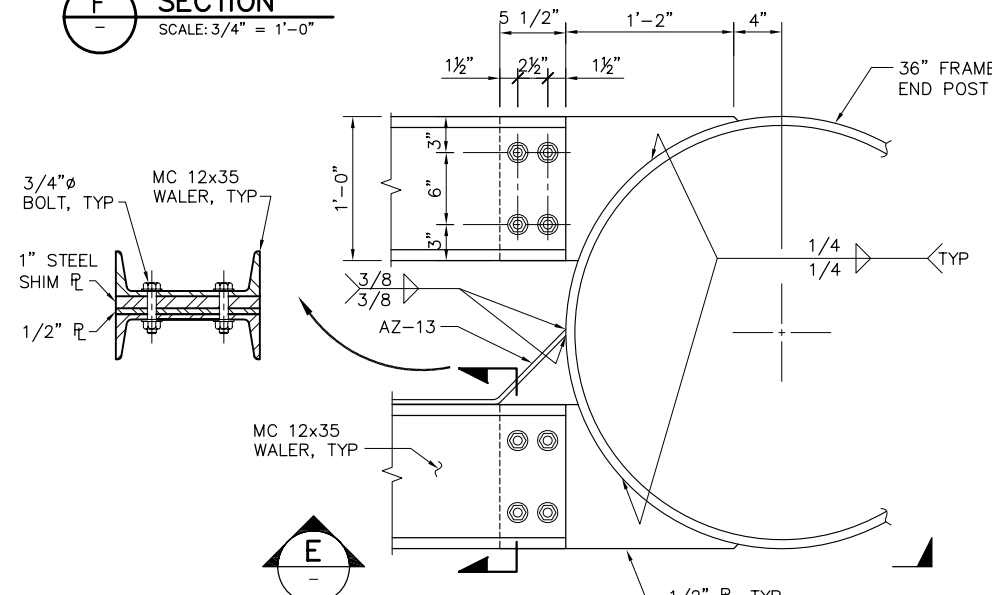


B SECTION
SCALE: 1/4" = 1'-0"

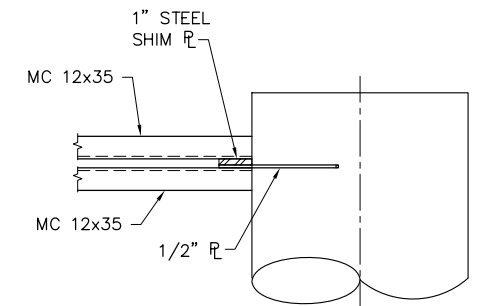


F SECTION
SCALE: 3/4" = 1'-0"

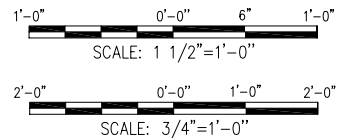
NOTE:
ALL BOLTS ARE ASTM A-307 U.O.N.



3 DETAIL
SCALE: 1 1/2" = 1'-0"



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



95% SUBMITTAL

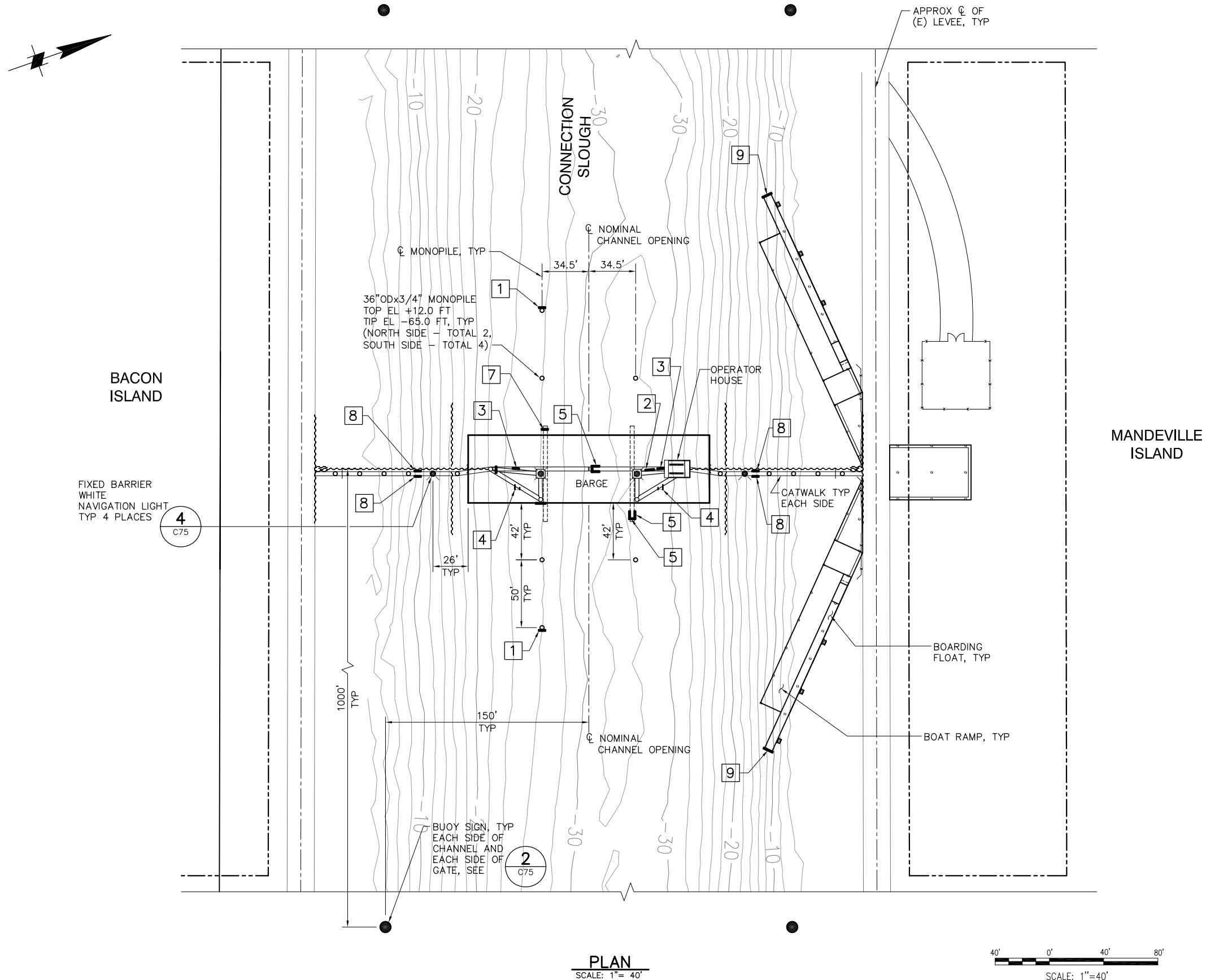
IF SHEET IS LESS THAN 22" x 34"
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SCALE REDUCED ACCORDINGLY.

REVISION	DESCRIPTION	BY	DATE

 Moffatt & Nichol		2001 N. Main Street, Suite 360 Walnut Creek, California 94596 (925) 944-5411	
DSGN	JMB	DR	AB
JOB NO.	6097-03	SUBMITTED BY	RMR
CHK	TDB	TITLE	

TWO GATE FISH PROTECTION PLAN		DATE 08/07/09
CONNECTION SLOUGH END WALL SCANTLINGS		SHEET 45 OF 75
C46		

P:\6097-03 SWC GATE DESIGN\CADD\DWG\609703-C47.DWG 8/7/2009 10:20 AM



PLAN
SCALE: 1" = 40'

SIGN DATA

LOCATION	SIGN	SIGN DETAIL	SIGN MOUNTING DETAIL
1	GATE 5 MPH	1 C75	1 C76
2	GATE WARNING SIGN	5 C75	5 C76
3	DANGER SIGN	7 C75	5 C76
4	DANGER SIGN	7 C75	3 C76
5	GATE POSITION SIGNS "GATES OPEN" "GATES CLOSED"	6 C75	2 C74
6	GATE WARNING SIGN	5 C75	2 C76
7	GATE POSITION SIGN "GATES OPEN"	6 C75	4 C76
8	STAY BACK WARNING SIGN	9 C75	5 C76
9	BOAT RAMP DOCK SIGN	3 C75	6 C76

95% SUBMITTAL

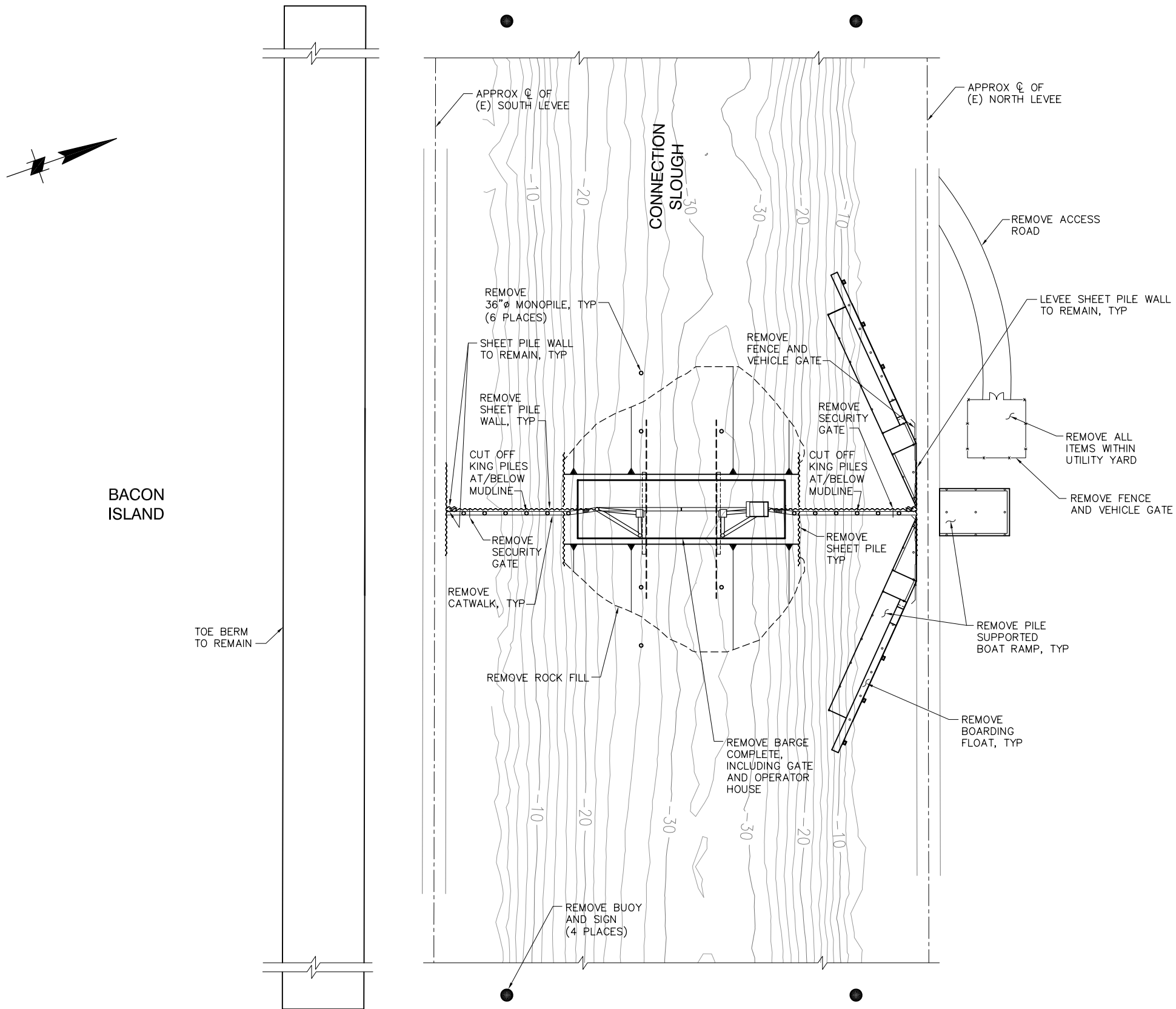
IF SHEET IS LESS THAN 22" x 34"
IT IS A REDUCED PRINT -
SCALE REDUCED ACCORDINGLY.

REVISION	DESCRIPTION	BY	DATE

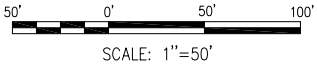
 Moffatt & Nichol		2001 N. Main Street, Suite 360 Walnut Creek, California 94596 (925) 944-5411	
DSGN	RBD	DR	AB
JOB NO.	6097-03	SUBMITTED BY	RMR
CHK	TDB	TITLE	

TWO GATE FISH PROTECTION PLAN		DATE 08/07/09
CONNECTION SLOUGH AIDS TO NAVIGATION PLAN		SHEET 46 OF 75
		C47

P:\6097-03 SWC GATE DESIGN\CADD\DWG\609703-C49.DWG 8/5/2009 2:37 PM



REMOVAL PLAN
SCALE: 1"= 50'



SCALE: 1"=50'

NOTES:

1. REMOVE ALL ELECTRICAL WIRING FROM THE PG&E TRANSFORMERS TO THE OPERATOR HOUSE. REMOVE LIGHT POLES #1 AND #2.
2. PG&E POWER POLE AND TRASFORMERS TO REMAIN.

95% SUBMITTAL

IF SHEET IS LESS THAN 22" x 34"
IT IS A REDUCED PRINT -
SCALE REDUCED ACCORDINGLY.

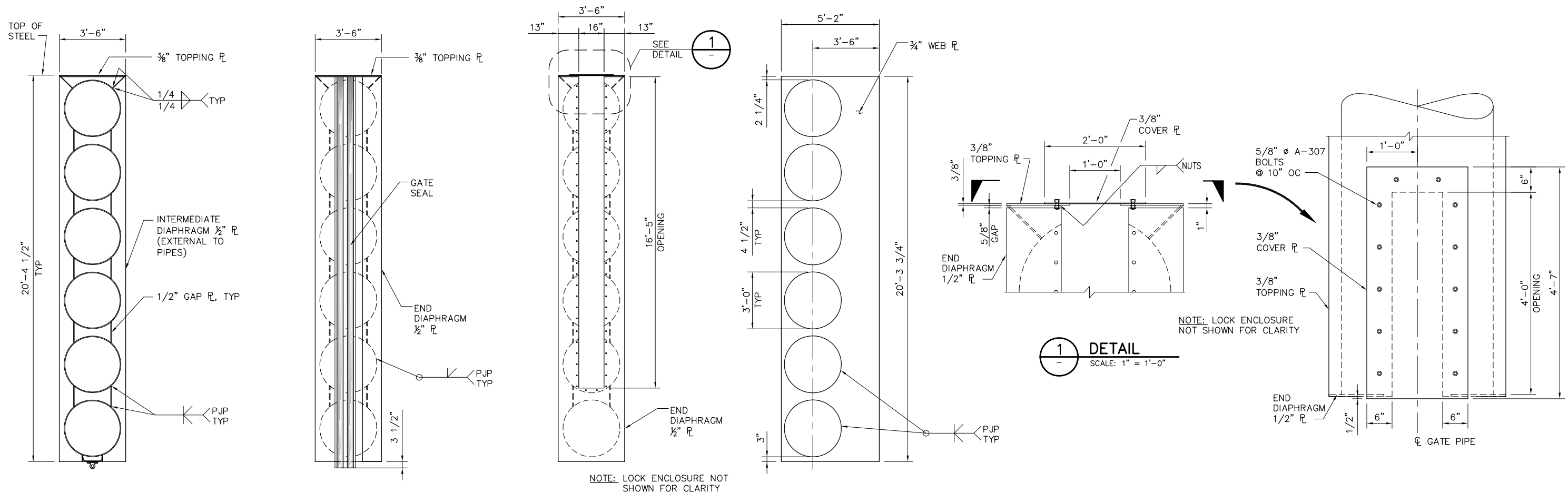
REVISION	DESCRIPTION	BY	DATE

 2001 N. Main Street, Suite 360 Walnut Creek, California 94596 (925) 944-5411	
DSGN	TDB
JOB NO.	6097-03
DR	EP
SUBMITTED BY	RMR
CHK	GTH
TITLE	

TWO GATE FISH PROTECTION PLAN
CONNECTION SLOUGH REMOVAL PLAN

DATE 08/07/09
SHEET 48 OF 75
C49

P:\6097-03 SWC GATE DESIGN\CADD\DWG\609703-C56.DWG 7/24/2009 2:17 PM

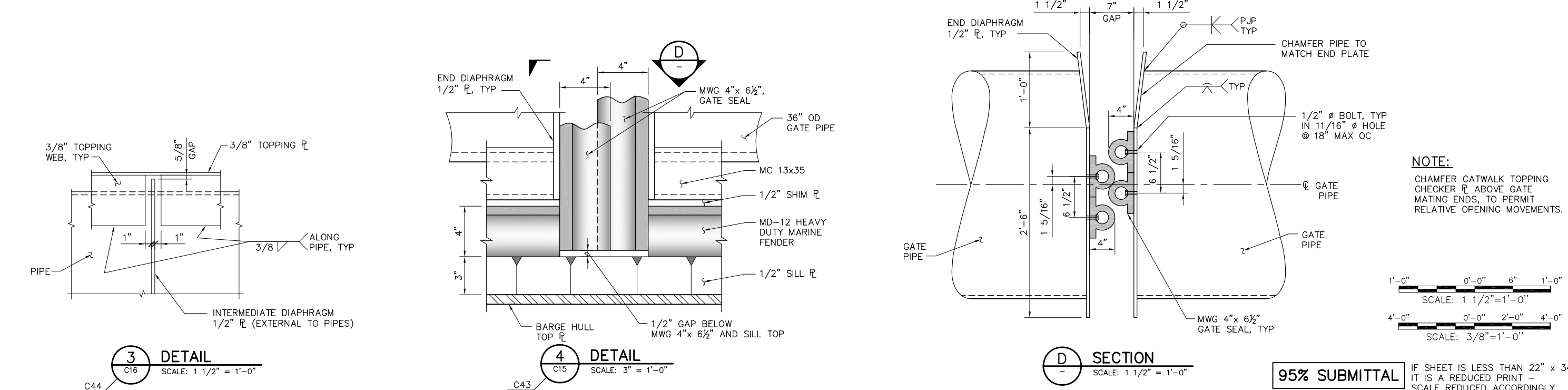


A SECTION
C16 SCALE: 3/8"=1'-0"
C44

B ELEVATION
C16 SCALE: 3/8"=1'-0"
C44

C ELEVATION
C16 SCALE: 3/8"=1'-0"
C44

2 WEB PLATE DETAIL
C16 SCALE: 3/8"=1'-0"
C44



3 DETAIL
C16 SCALE: 1 1/2" = 1'-0"
C44

4 DETAIL
C15 SCALE: 3" = 1'-0"
C43

D SECTION
SCALE: 1 1/2" = 1'-0"

NOTE:
CHAMFER CATWALK TOPPING CHECKER PLATE ABOVE GATE MATING ENDS, TO PERMIT RELATIVE OPENING MOVEMENTS.

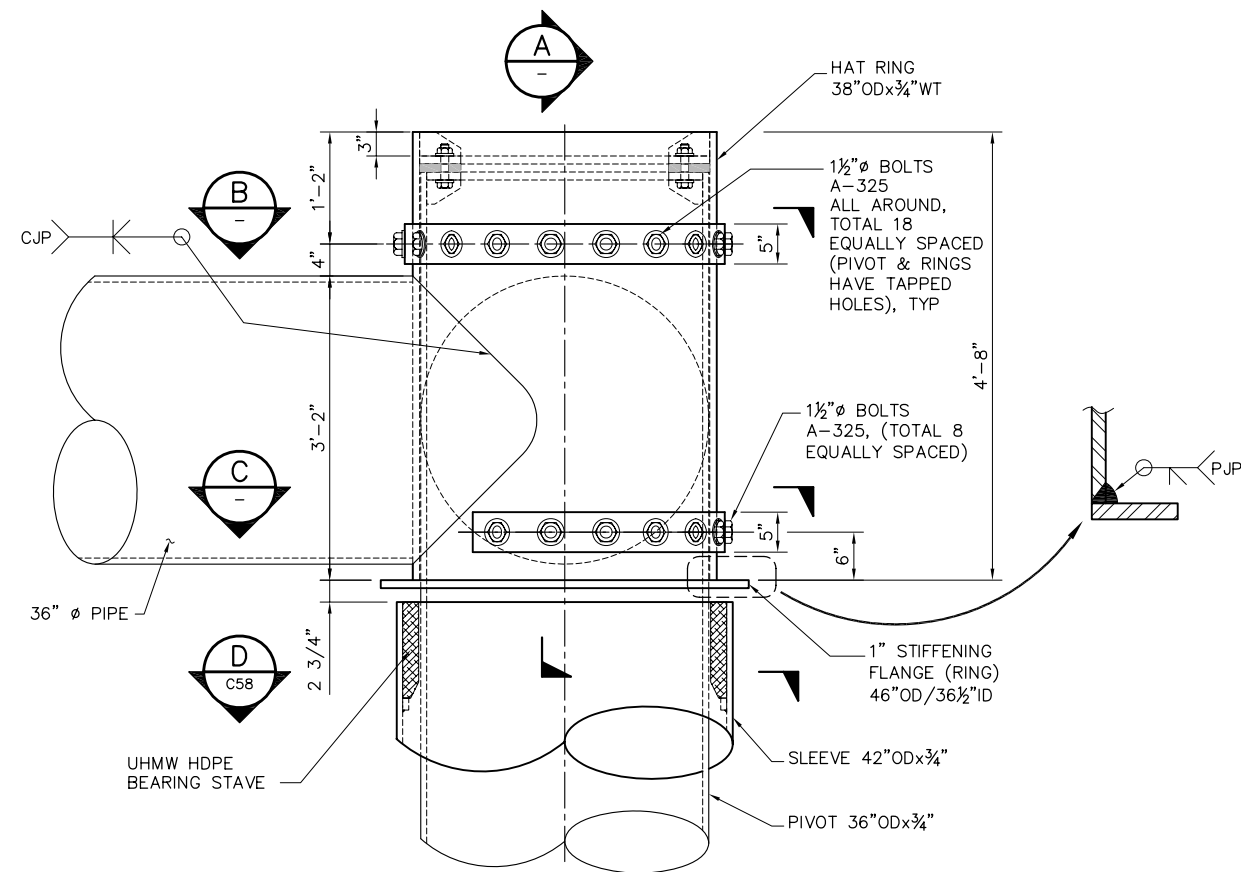
95% SUBMITTAL

SCALE: 1 1/2"=1'-0"
SCALE: 3/8"=1'-0"

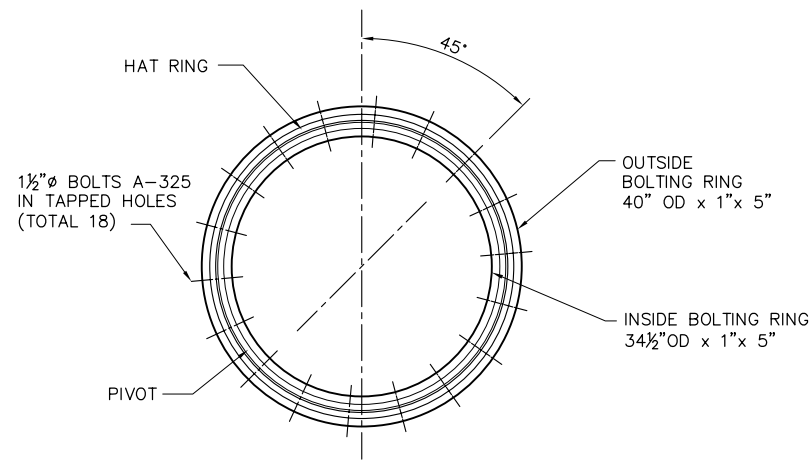
REVISION	DESCRIPTION	BY	DATE

			 2001 N. Main Street, Suite 360 Walnut Creek, California 94596 (925) 944-5411			TWO GATE FISH PROTECTION PLAN		DATE 08/07/09	
								SHEET 49 OF 75	
			DSGN JMB			DR AB	CHK TDB	GATE STRUCTURAL DETAILS , SHEET 1	C56
			JOB NO. 6097-03			SUBMITTED BY RMR TITLE			

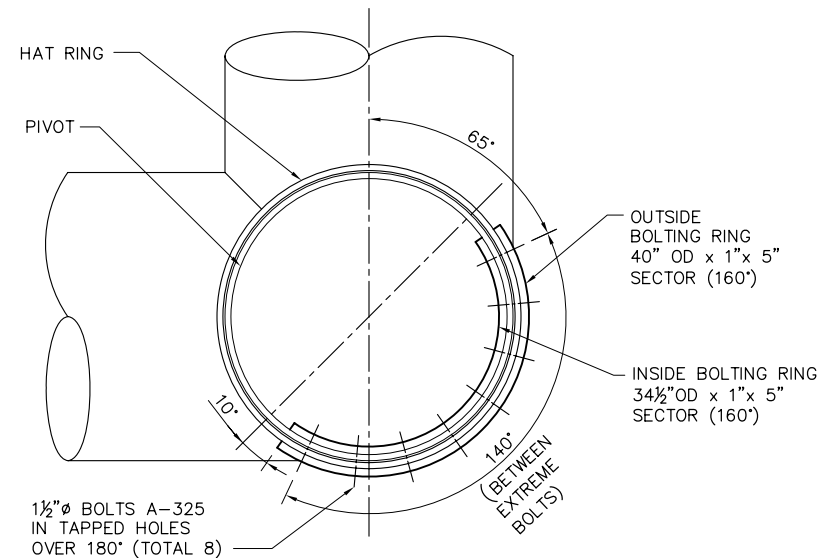
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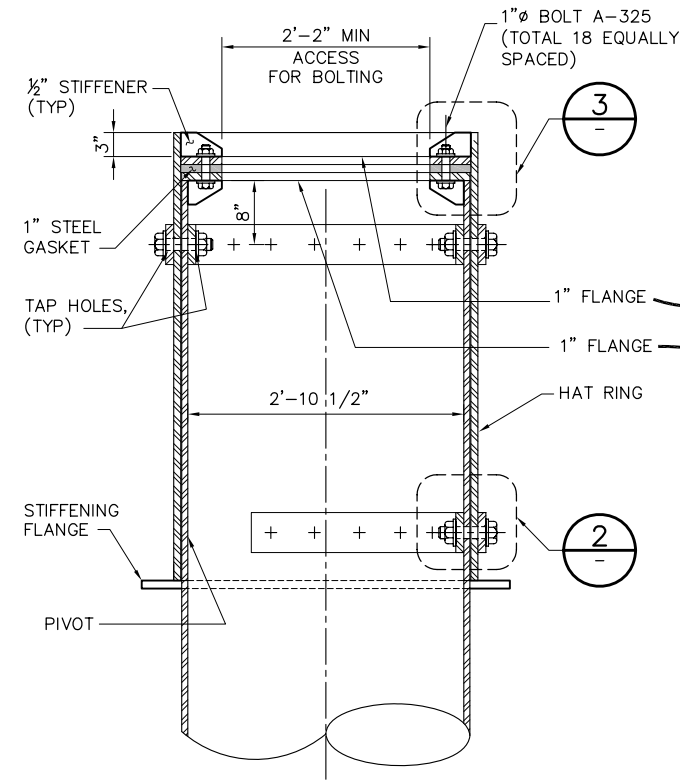
1 TOP PIVOT - FRAME CONNECTION
C16 SCALE: 1" = 1'-0"



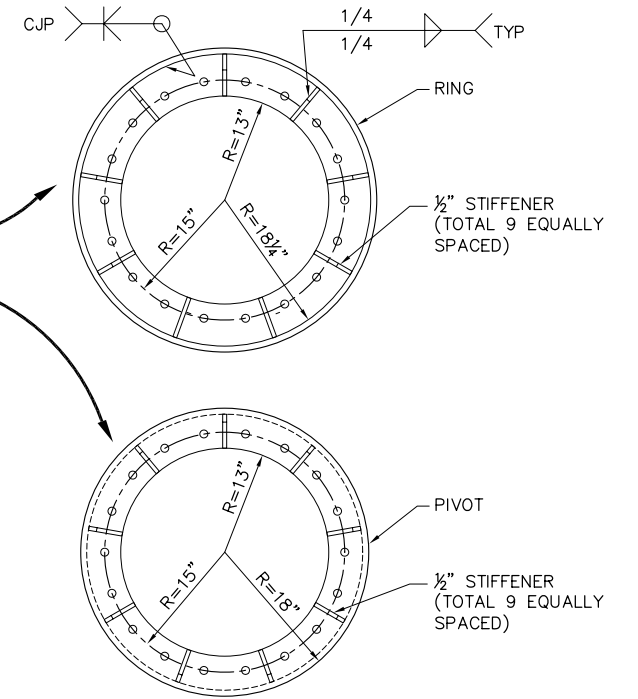
B SECTION
SCALE: 1" = 1'-0"



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



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



2 DETAIL
NTS

3 DETAIL
NTS

NOTES:

- ALL STIFFENER WELDS SHALL BE SYMMETRICAL 1/4" MIN. FILLET WELDS U.N.O.

1'-0" 0'-0" 1'-0" 2'-0"
SCALE: 1"=1'-0"

95% SUBMITTAL

IF SHEET IS LESS THAN 22" x 34"
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SCALE REDUCED ACCORDINGLY.

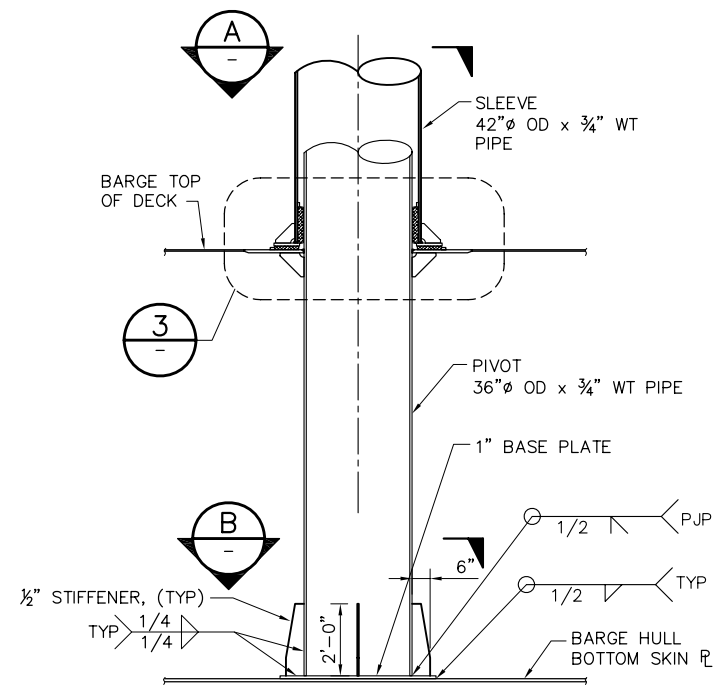
REVISION	DESCRIPTION	BY	DATE

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DSGN	JMB/CBS	DR	AB
JOB NO.	6097-03	SUBMITTED BY	RMR
CHK	TDB	TITLE	

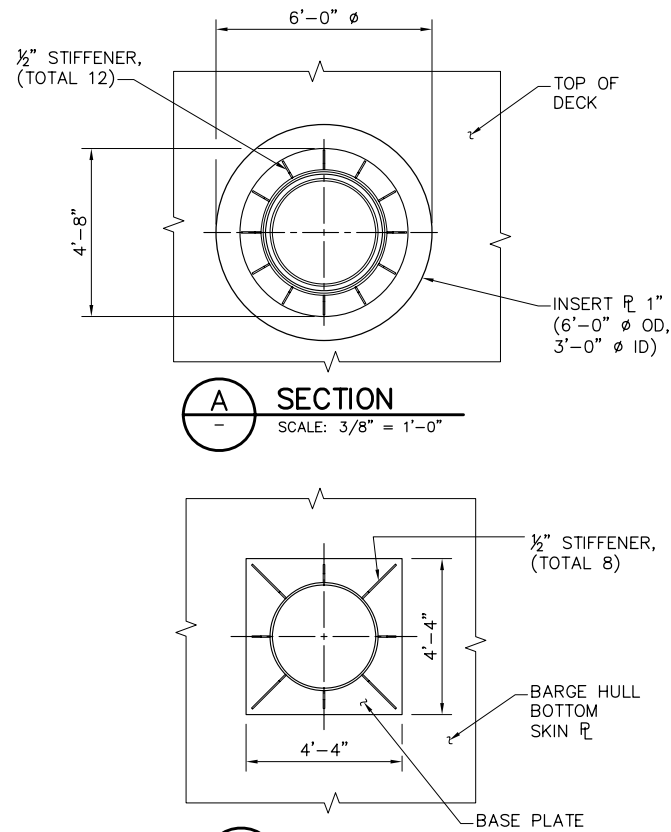
TWO GATE FISH PROTECTION PLAN		DATE	08/07/09
GATE STRUCTURAL DETAILS SHEET 2		SHEET	50 OF 75

C57

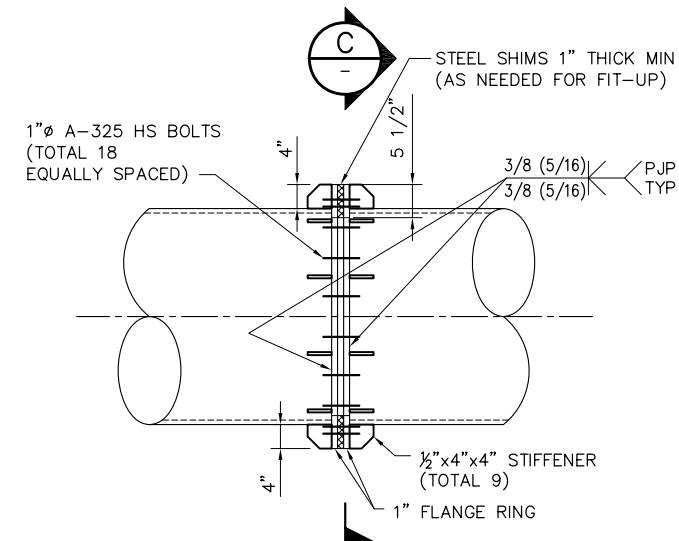
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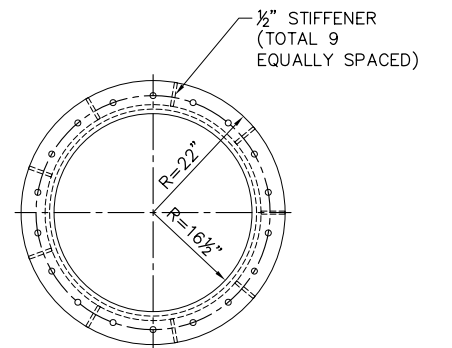
1 FRAMING PIVOT CONNECTION
C15 SCALE: 3/8" = 1'-0"
C43



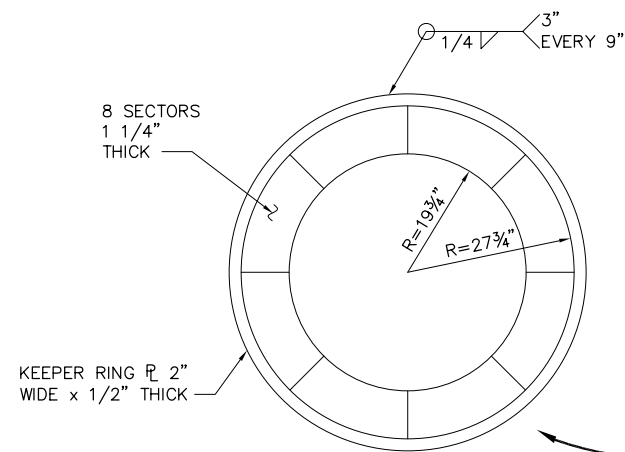
A SECTION
SCALE: 3/8" = 1'-0"
B SECTION
SCALE: 3/8" = 1'-0"
C59



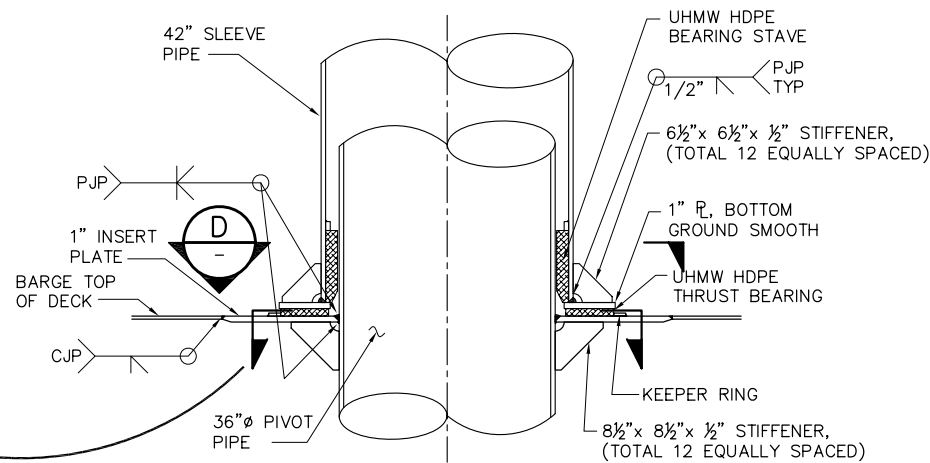
2 FRAME CONNECTION
C17 SCALE: 3/4" = 1'-0"
C45, C59



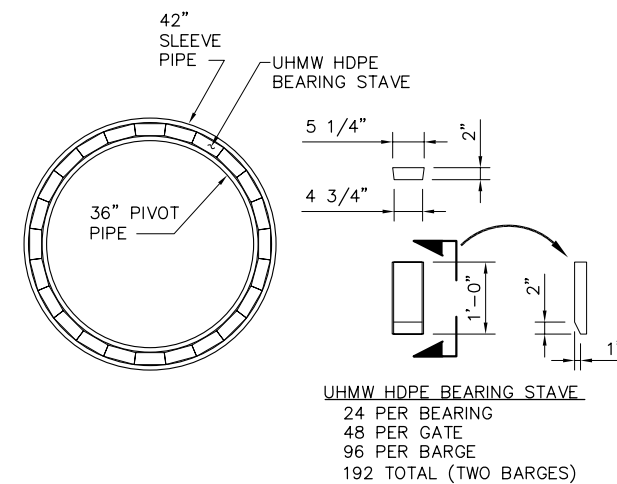
C SECTION
SCALE: 3/4" = 1'-0"



UHMW HDPE THRUST BEARING



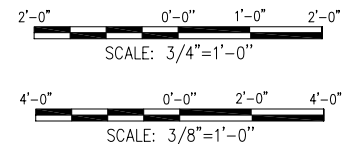
3 DETAIL
SCALE: 3/4" = 1'-0"



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

NOTES:

1. ALL STIFFENER WELDS SHALL BE SYMMETRICAL 1/4" MIN. FILLET WELDS U.N.O.



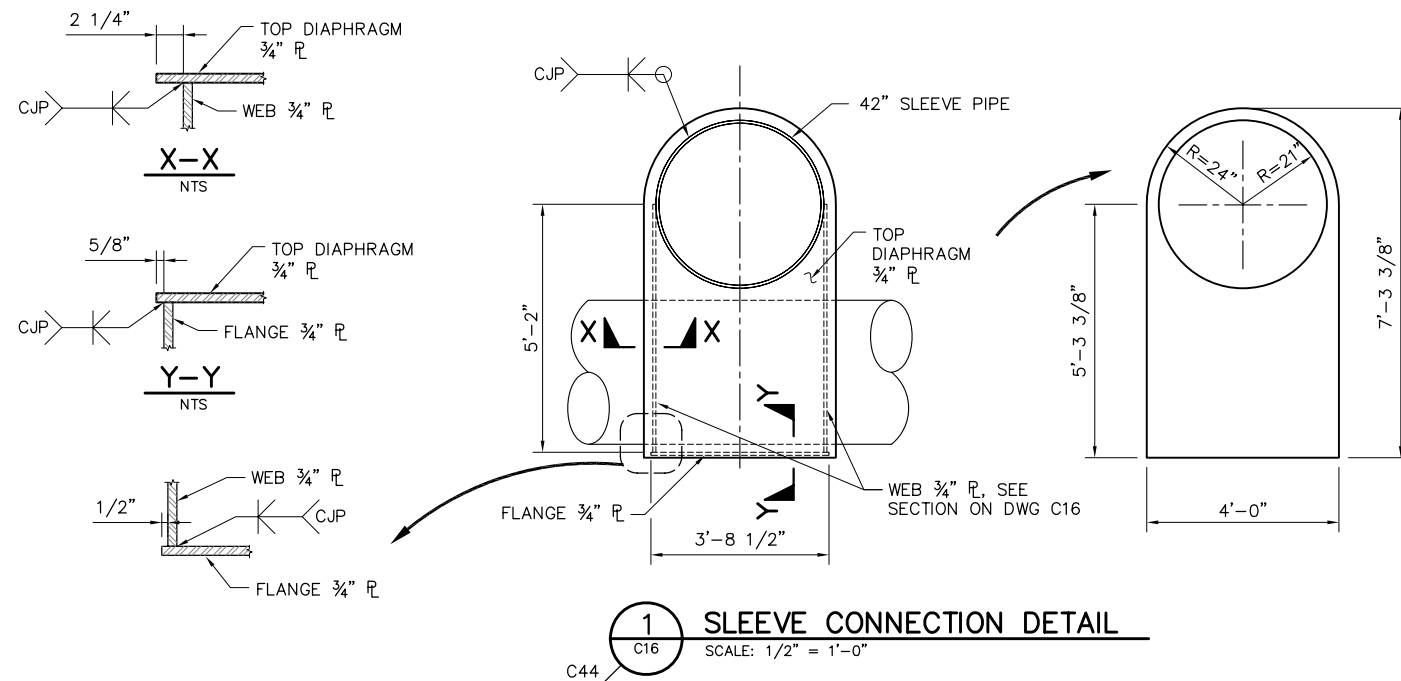
95% SUBMITTAL

IF SHEET IS LESS THAN 22" x 34"
IT IS A REDUCED PRINT -
SCALE REDUCED ACCORDINGLY.

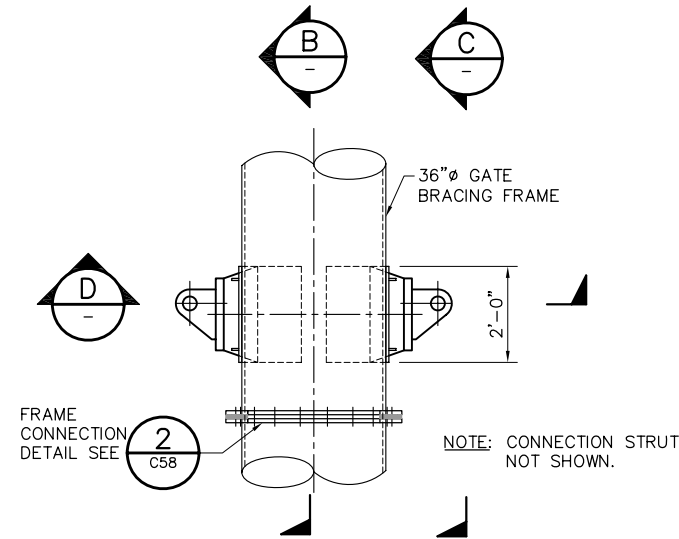
REVISION	DESCRIPTION	BY	DATE

 Moffatt & Nichol		2001 N. Main Street, Suite 360 Walnut Creek, California 94596 (925) 944-5411	
DSGN	JMB/CBS	DR	AB
JOB NO.	6097-03	SUBMITTED BY	RMR
CHK	TDB	TITLE	

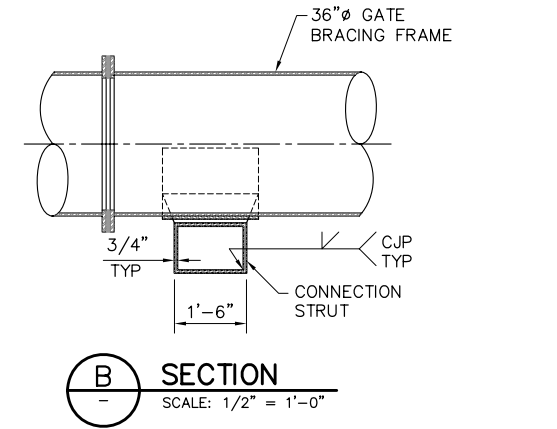
TWO GATE FISH PROTECTION PLAN		DATE	08/07/09
GATE STRUCTURAL DETAILS SHEET 3		SHEET	51 OF 75
			C58



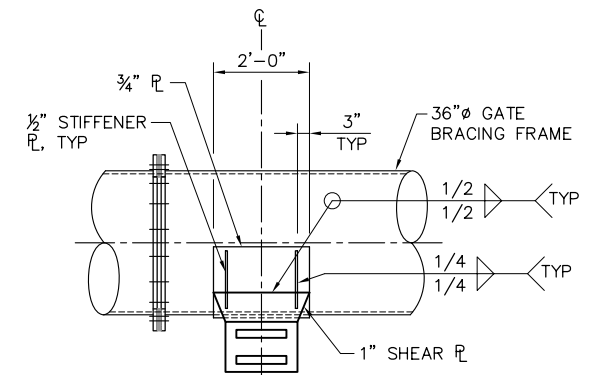
1 SLEEVE CONNECTION DETAIL



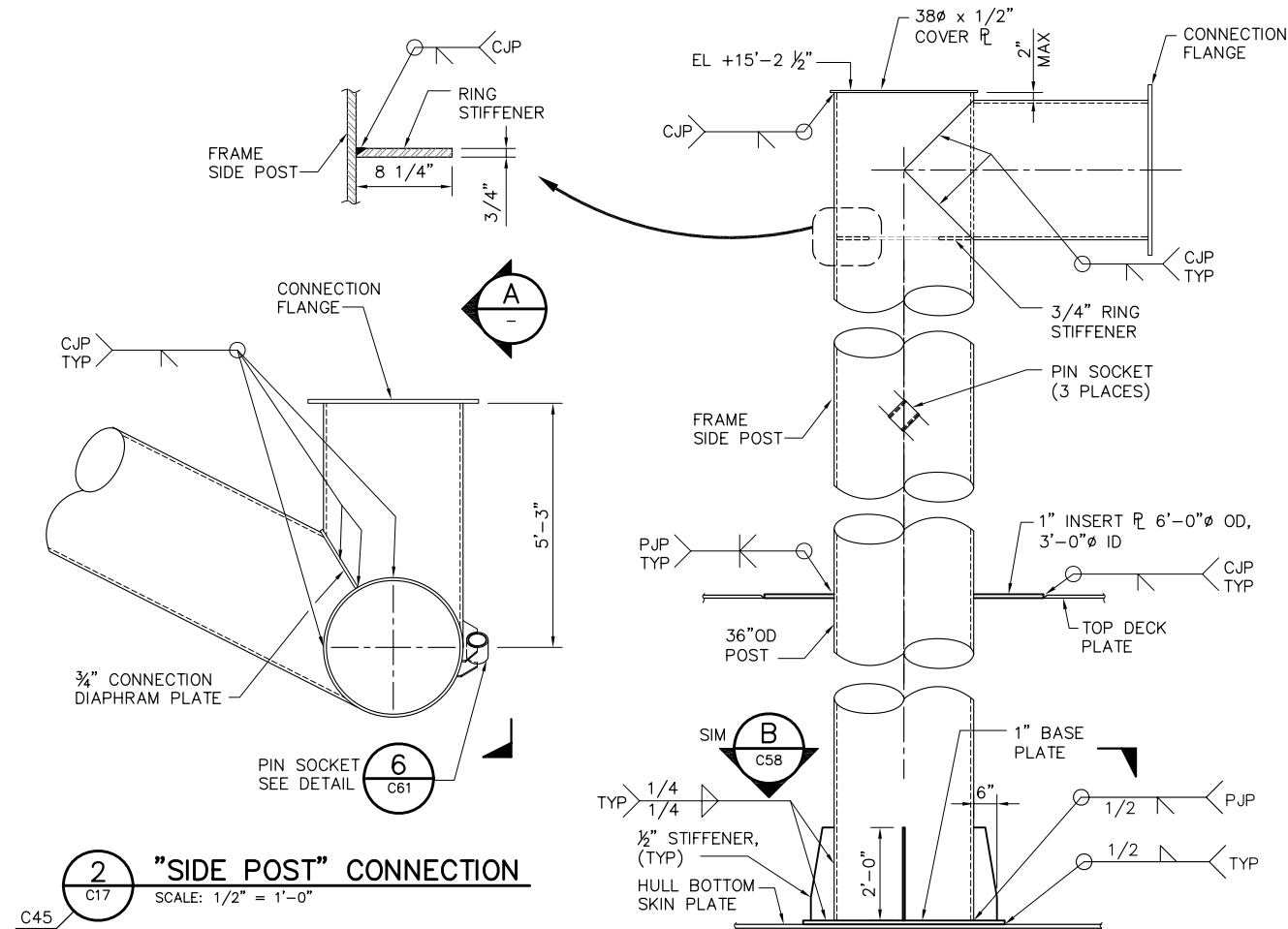
3 ACTUATOR CONNECTION DETAIL



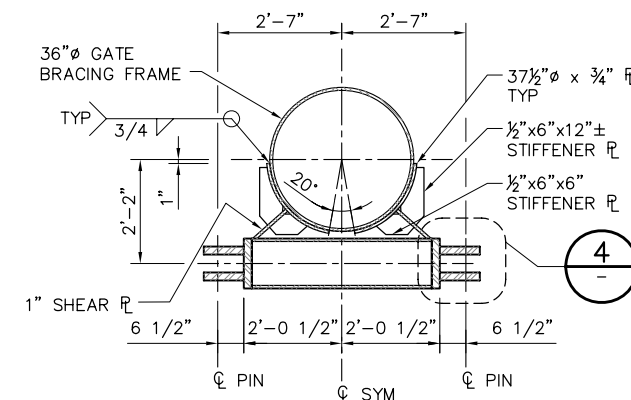
B SECTION
— SCALE: 1/2" = 1'-0"



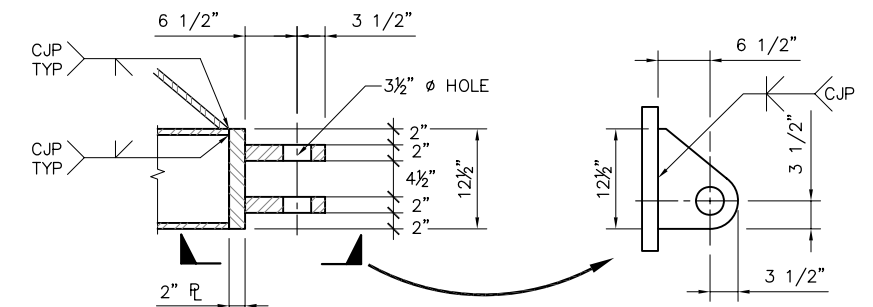
C **SECTION**
— SCALE: 1/2" = 1'-0"



2 "SIDE POST" CONNECTION

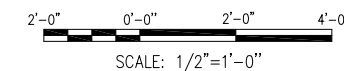


D SECTION
SCALE: 1/2" = 1'-0"



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

ELEVATION
SCALE: 1/2" = 1'-0"



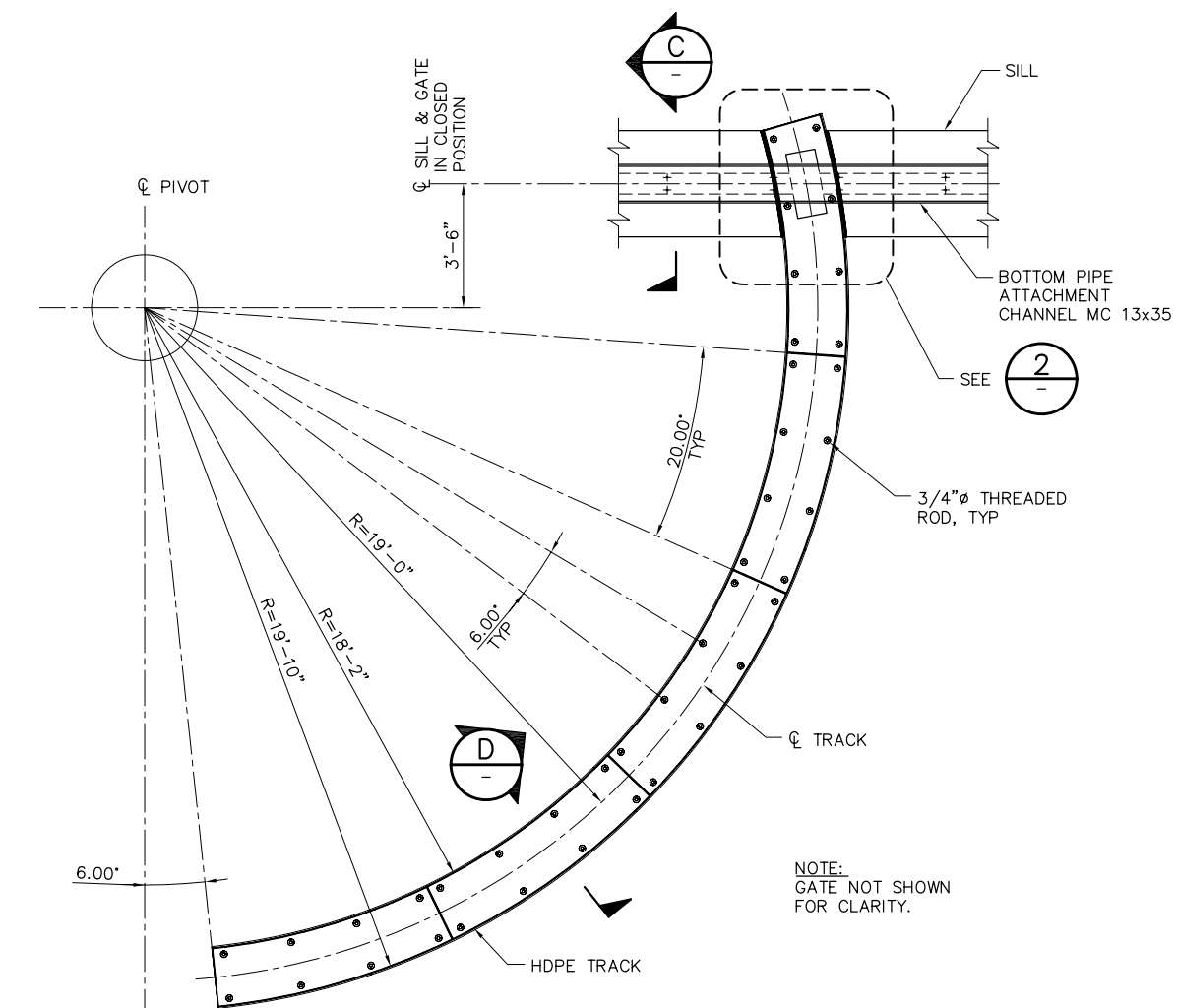
95% SUBMITTAL

IF SHEET IS LESS THAN 22" x 34"
IT IS A REDUCED PRINT –
SCALE REDUCED ACCORDINGLY.

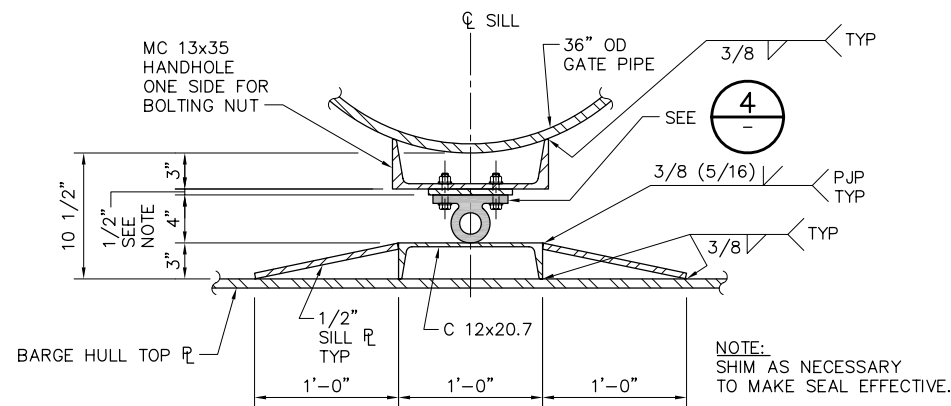
REVISION	DESCRIPTION	BY	DATE

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DSGN	JMB	DR	CHK
		AB	CBS
JOB NO.	6097-03	SUBMITTED BY	TITLE
		RMR	

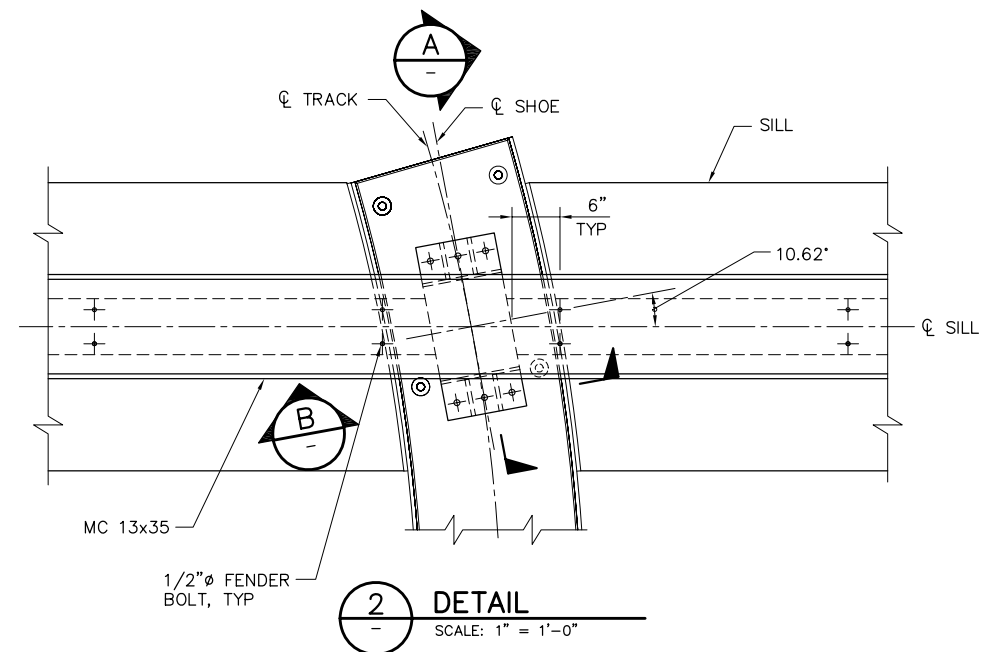
TWO GATE FISH PROTECTION PLAN	DATE 08/07/09
	SHEET 52 OF 75
GATE STRUCTURAL DETAILS, SHEET 4	C59



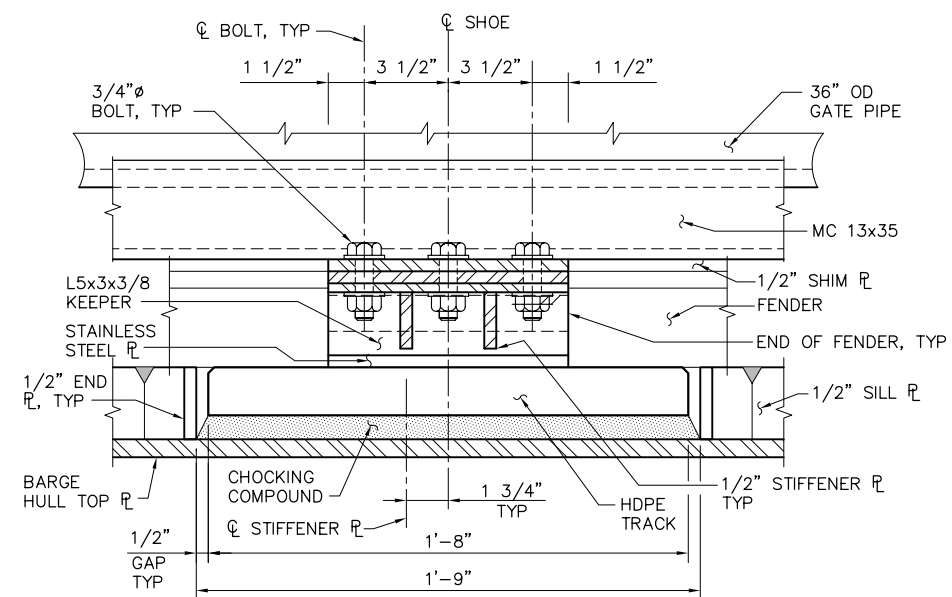
1 TRACK DETAIL
SCALE: 3/8" = 1'-0"



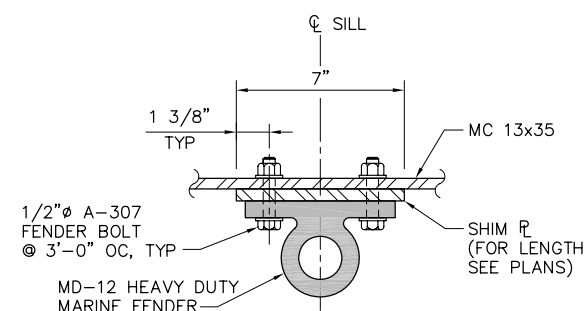
C SECTION
SCALE: 1 1/2" = 1'-0"



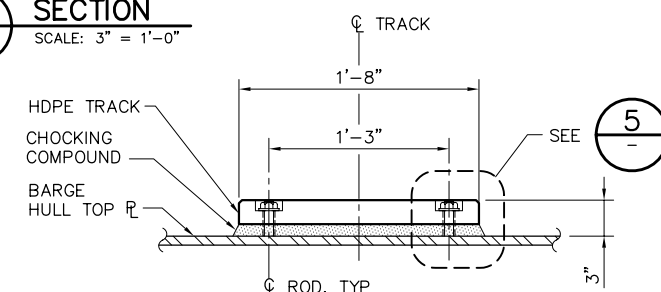
2 DETAIL
SCALE: 1" = 1'-0"



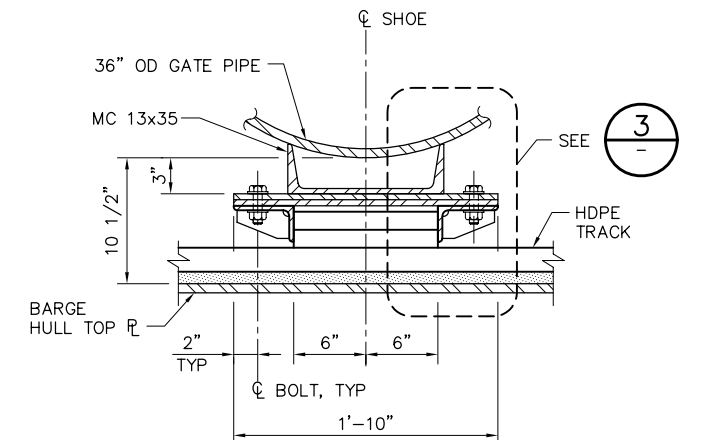
B SECTION
SCALE: 3" = 1'-0"



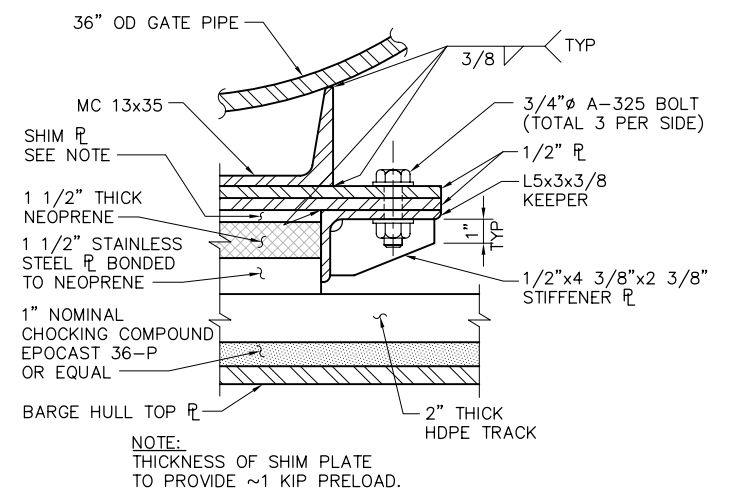
4 DETAIL
SCALE: 3" = 1'-0"



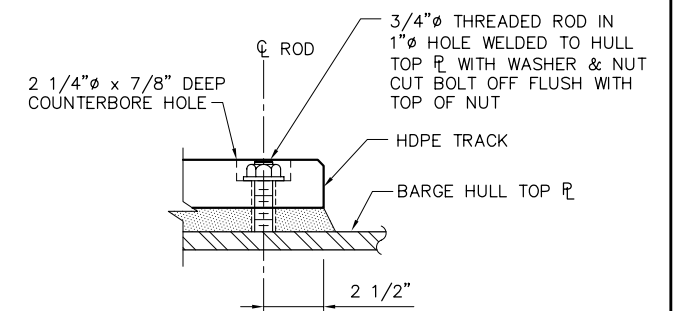
D SECTION
SCALE: 1 1/2" = 1'-0"



SECTION
SCALE: 1 1/2" = 1'-0"



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



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

95% SUBMITTAL IF SHEET IS LESS THAN 22" x 34"
IT IS A REDUCED PRINT –
SCALE REDUCED ACCORDINGLY.

REVISION	DESCRIPTION	BY	DATE

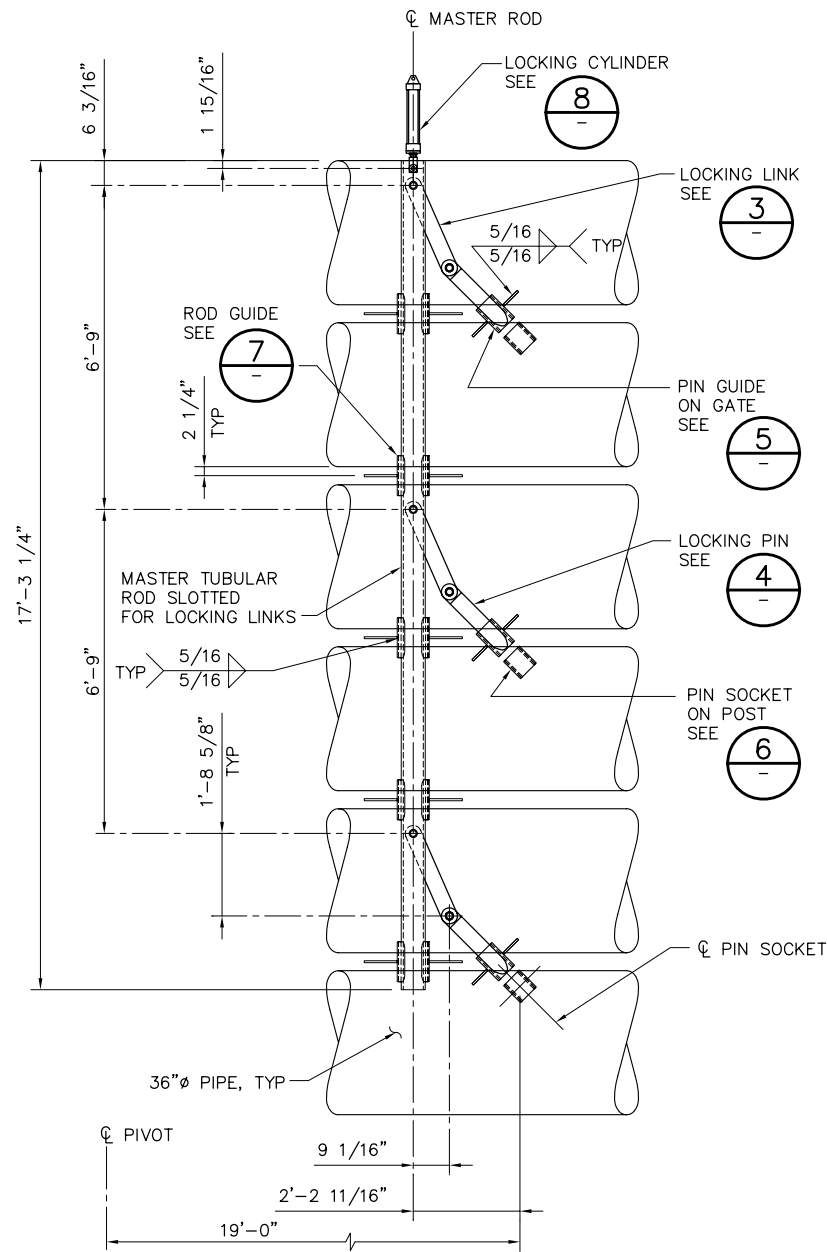
Moffatt & Nichol

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Walnut Creek, California 94596
(925) 944-5411

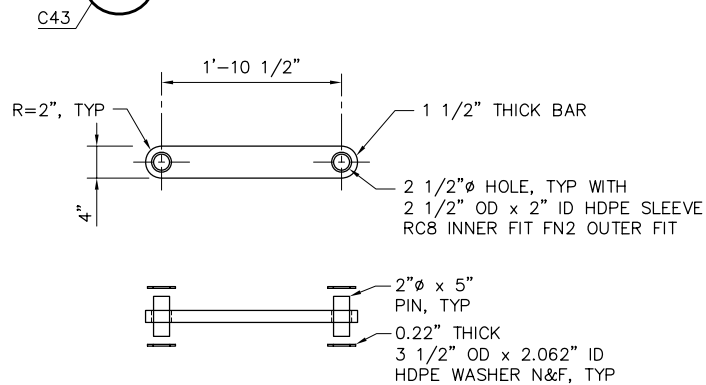
DSGN	JMB	DR	EP / AB	CHK	CBS
JOB NO.	6097-03	SUBMITTED BY	RMR	TITLE	

TWO GATE FISH PROTECTION PLAN	DATE 08/07/09
	SHEET 53 OF 75
GATE STRUCTURAL DETAILS, SHEET 5	C60

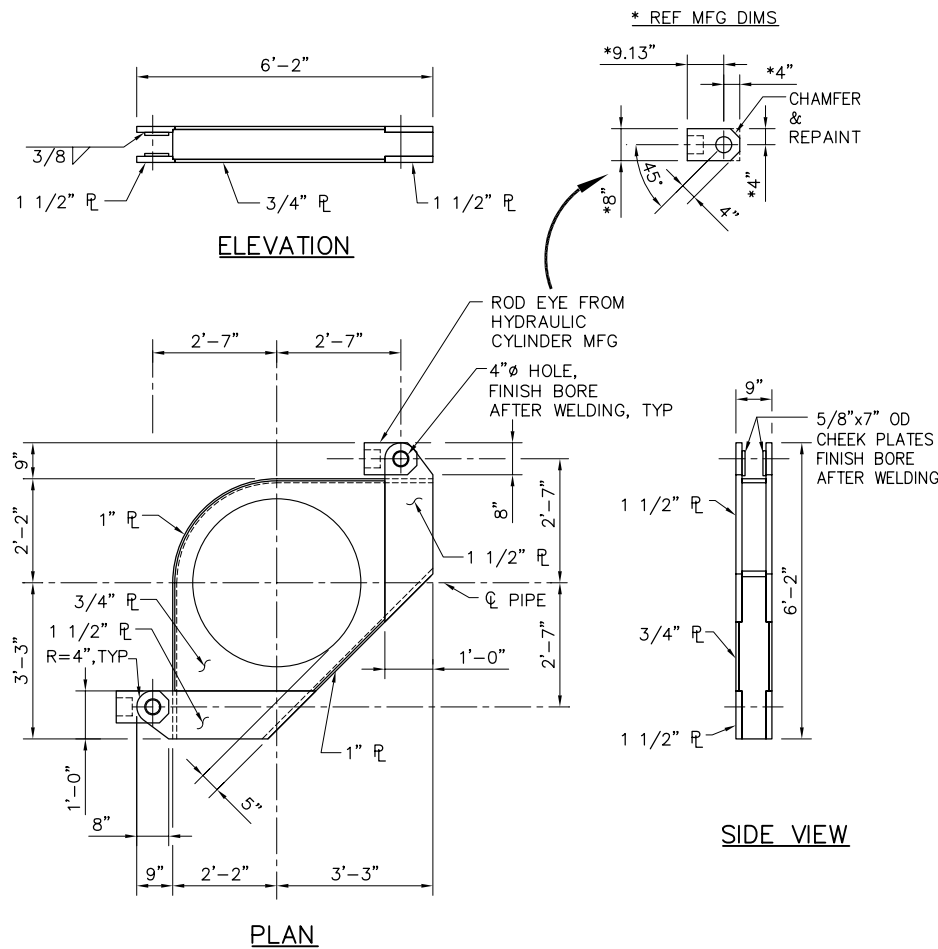
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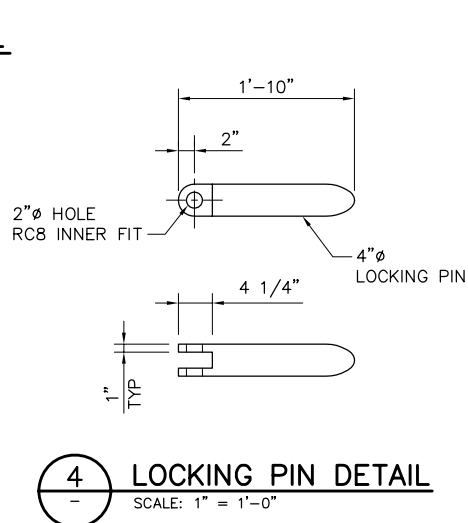
1 GATE OPEN LOCK (UNLOCKED) DETAIL
SCALE: 1/2" = 1'-0"



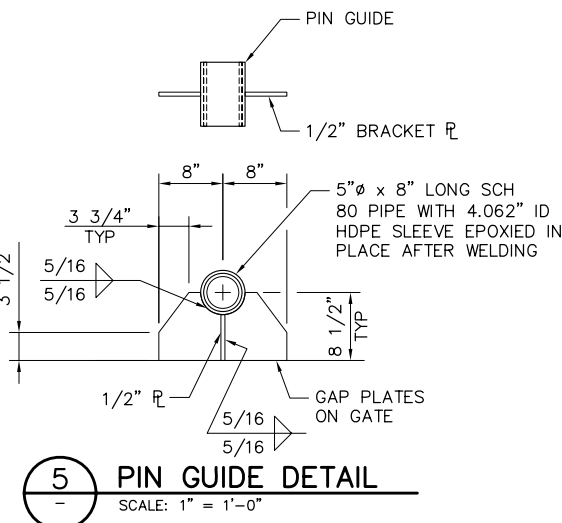
3 LOCKING LINK DETAIL
SCALE: 1" = 1'-0"



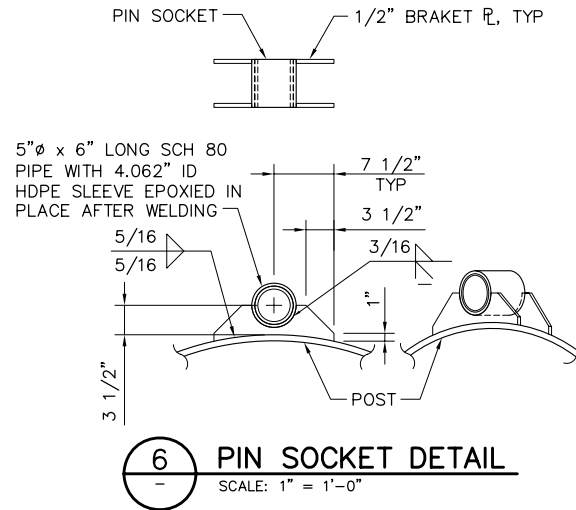
2 GATE YOKE DETAIL
SCALE: 1/2" = 1'-0"



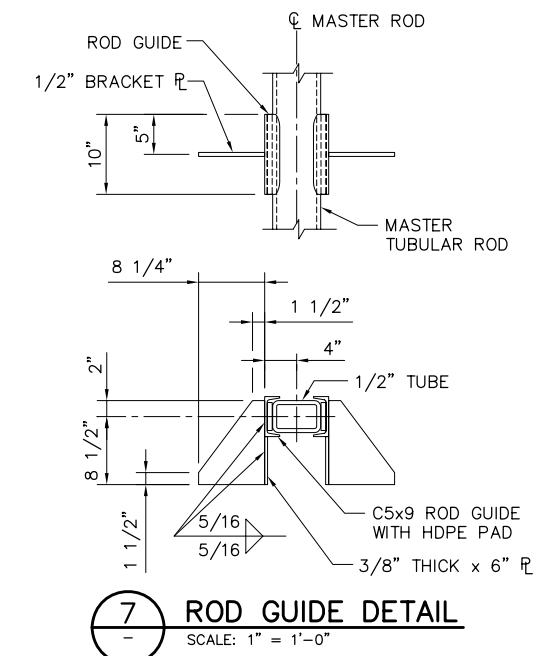
4 LOCKING PIN DETAIL
SCALE: 1" = 1'-0"



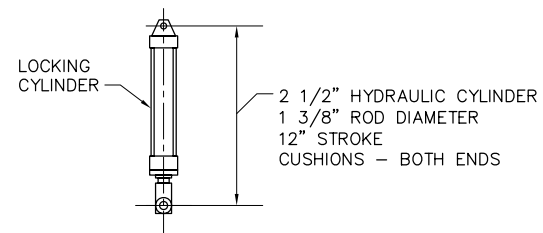
5 PIN GUIDE DETAIL
SCALE: 1" = 1'-0"



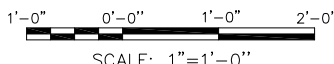
6 PIN SOCKET DETAIL
SCALE: 1" = 1'-0"



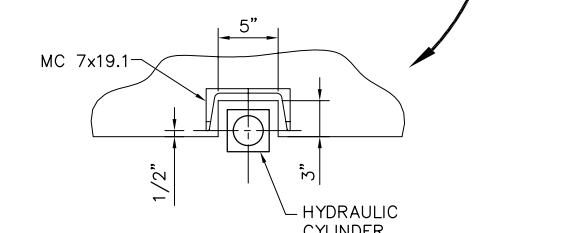
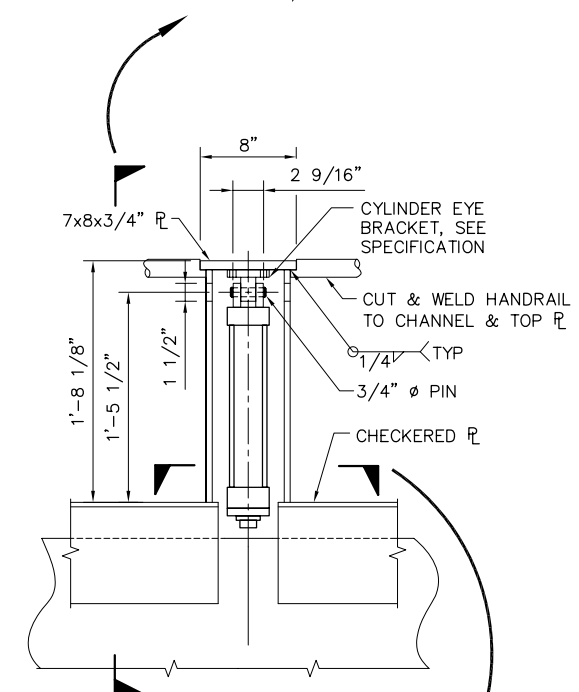
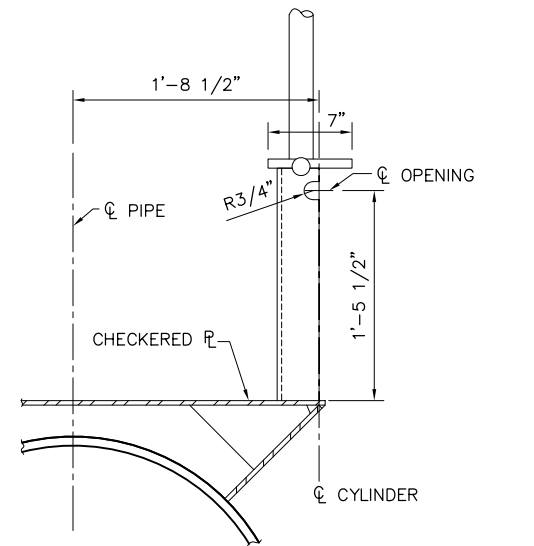
7 ROD GUIDE DETAIL
SCALE: 1" = 1'-0"



8 LOCKING CYLINDER DETAIL
SCALE: 1" = 1'-0"



SCALE: 1"=1'-0"



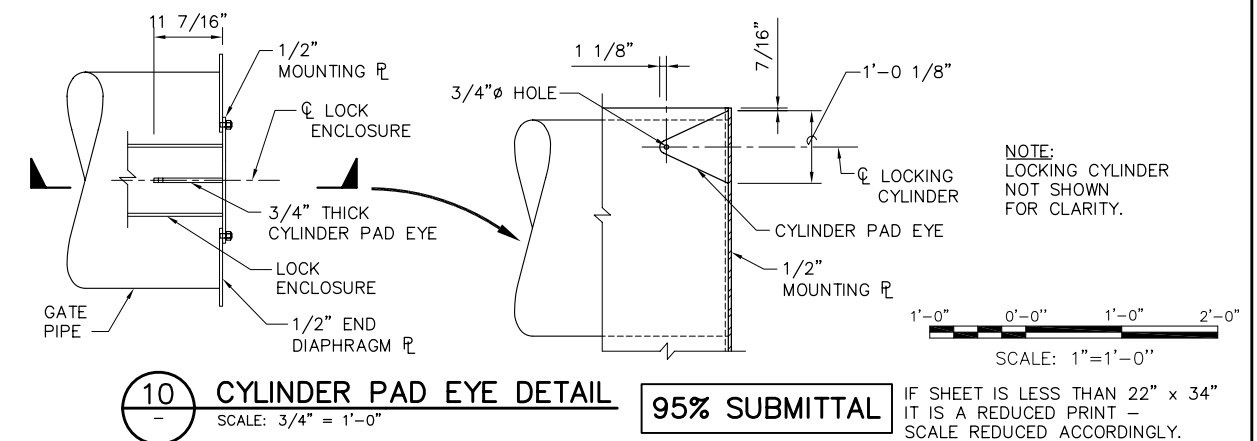
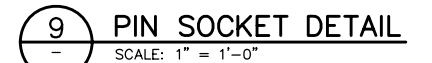
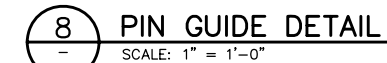
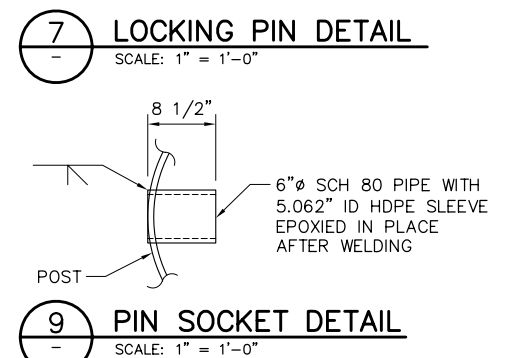
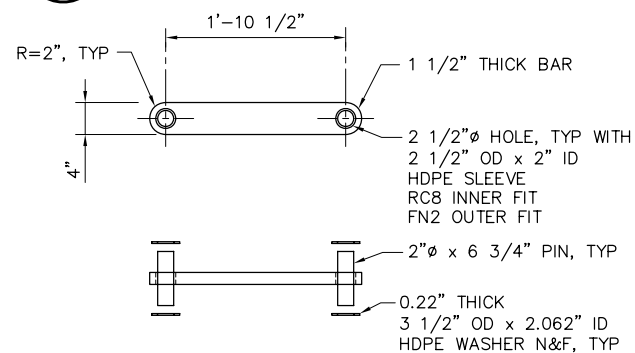
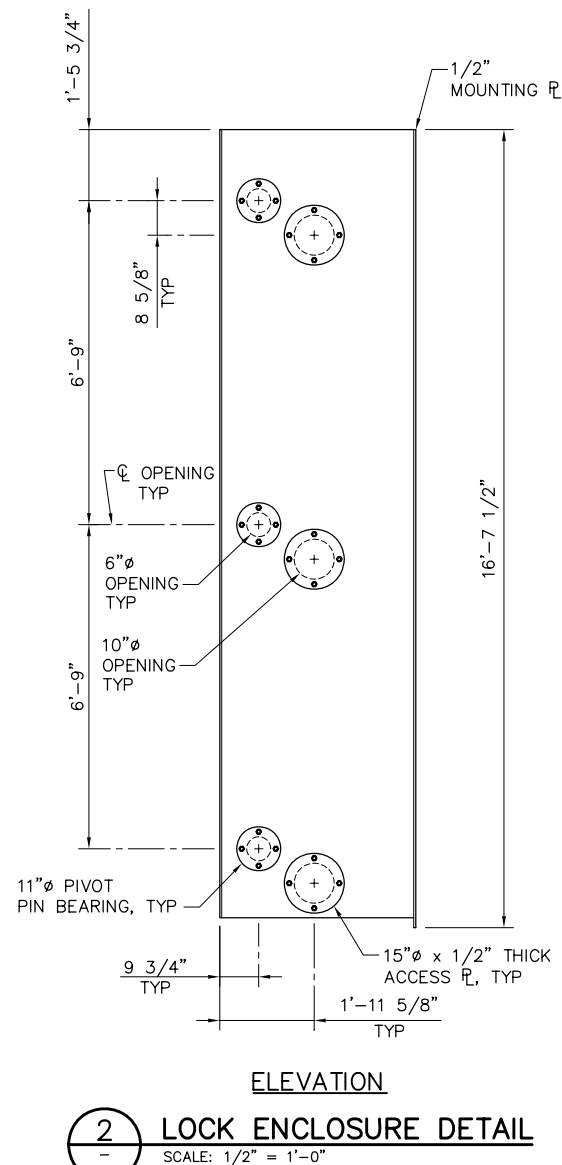
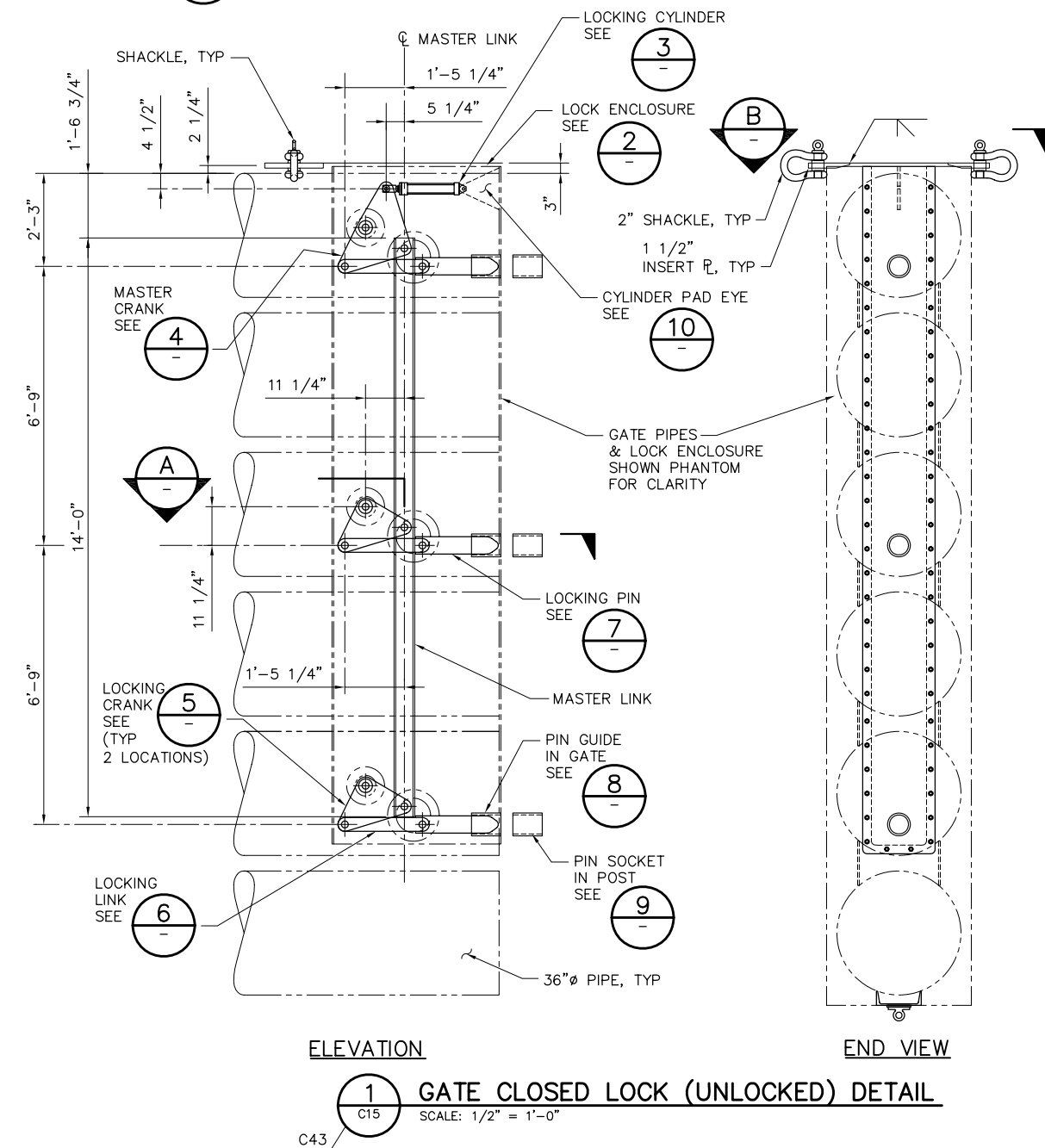
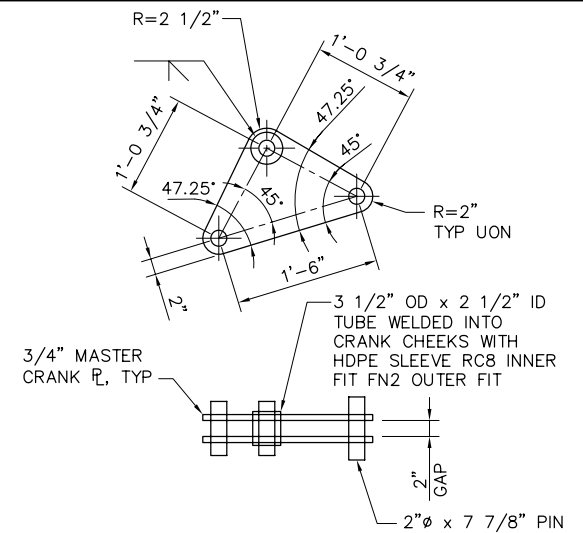
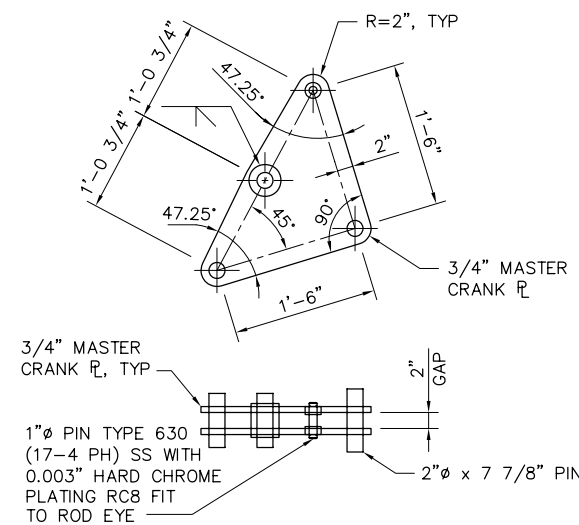
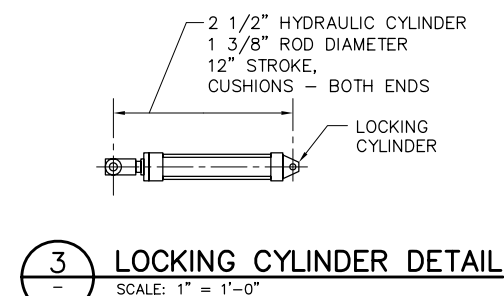
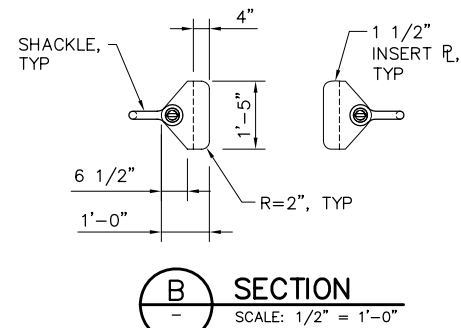
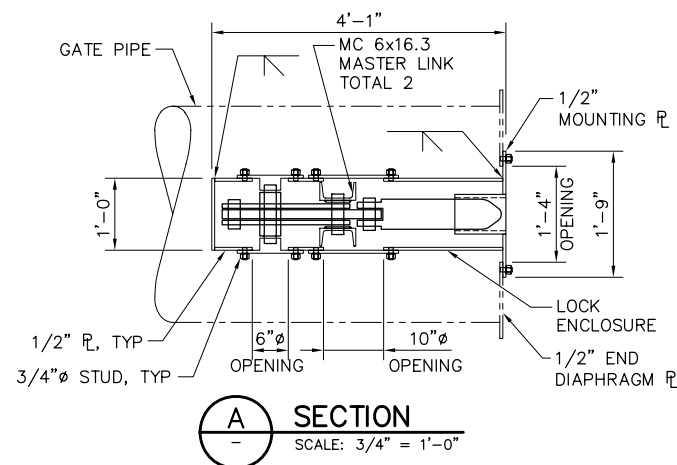
9 CYLINDER SUPPORT DETAIL
SCALE: 1 1/2" = 1'-0"

95% SUBMITTAL IF SHEET IS LESS THAN 22" x 34" IT IS A REDUCED PRINT - SCALE REDUCED ACCORDINGLY.

REVISION	DESCRIPTION	BY	DATE

		2001 N. Main Street, Suite 360 Walnut Creek, California 94596 (925) 944-5411	
DSGN	CBS	DR	CBS/EP
JOB NO.	6097-03	SUBMITTED BY	RMR
CHK	TDB	TITLE	

TWO GATE FISH PROTECTION PLAN		DATE	08/07/09
GATE MECHANICAL DETAILS SHEET 1		SHEET	54 OF 75
			C61



REVISION	DESCRIPTION	BY	DATE



Moffatt & Nichol

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(925) 944-5411

DSGN	DR	CHK
CBS	EP/AB	TDB
JOB NO.	SUBMITTED BY	TITLE
6097-03	RMR	

TWO GATE FISH PROTECTION PLAN

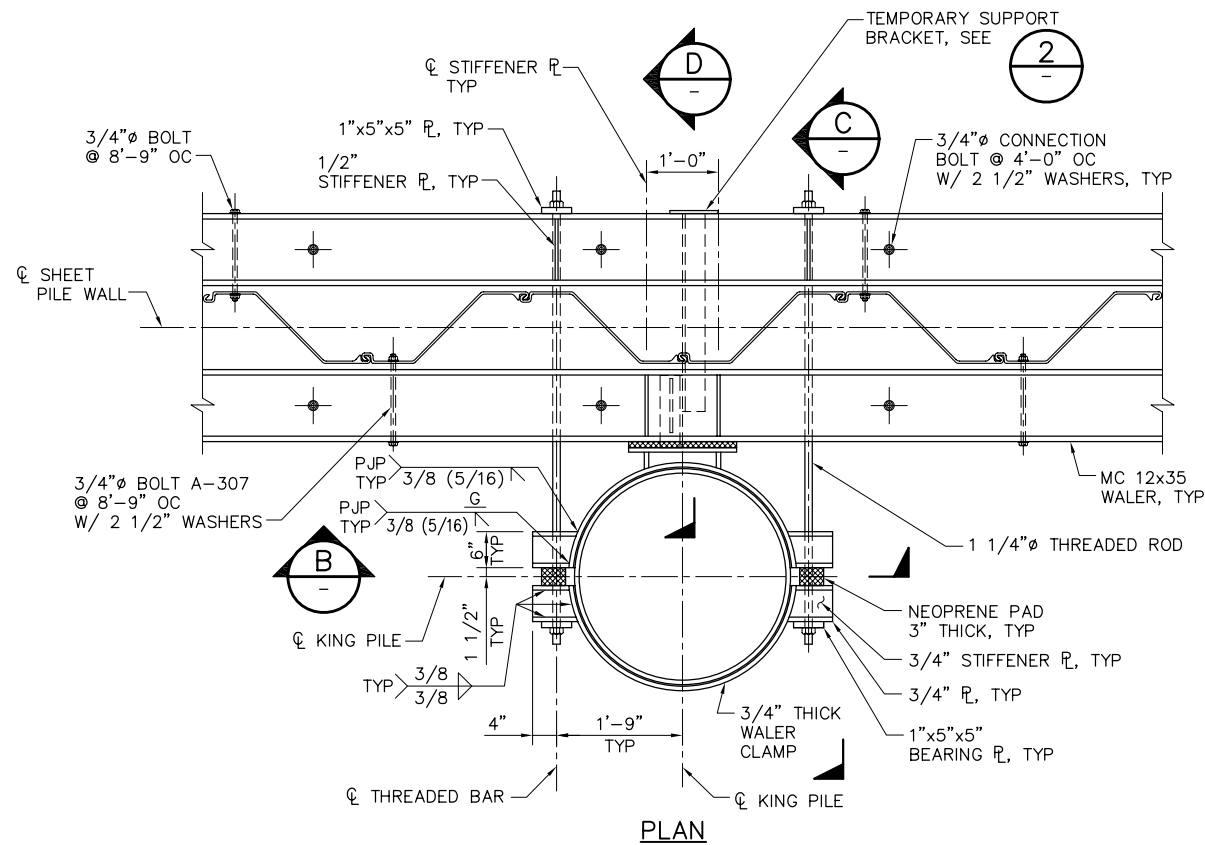
DATE 08/07/09

SHEET 55 OF 75

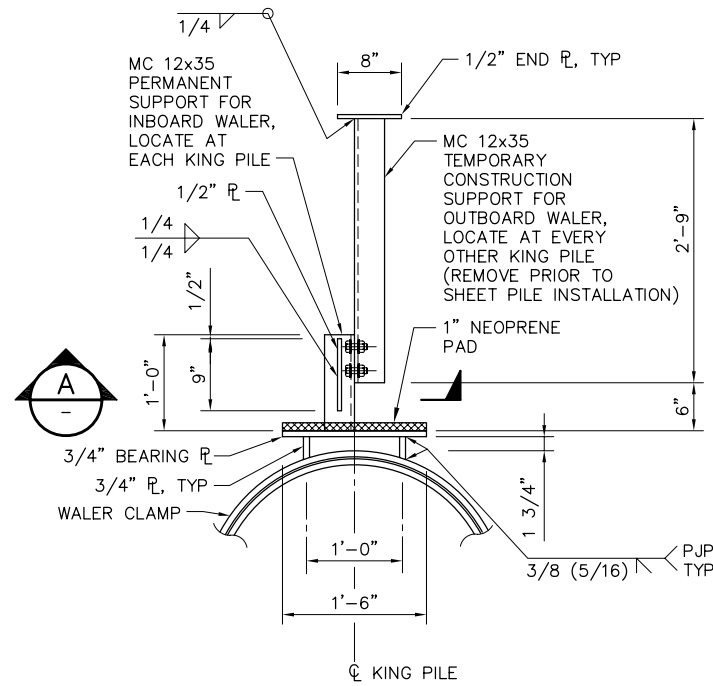
GATE MECHANICAL DETAILS
SHEET 2

C62

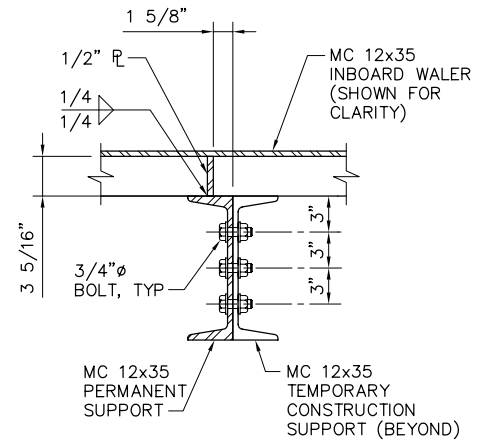
P:\6097-03 SWC GATE DESIGN\CADD\DWG\609703-C63.DWG 7/27/2009 8:42 AM



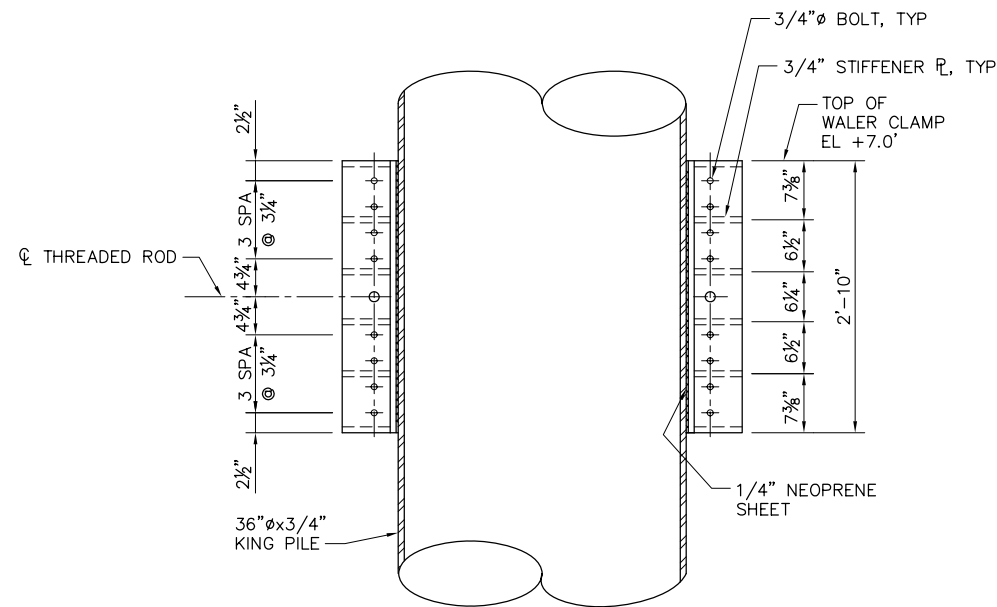
1 DETAIL
SCALE: 3/4" = 1'-0"



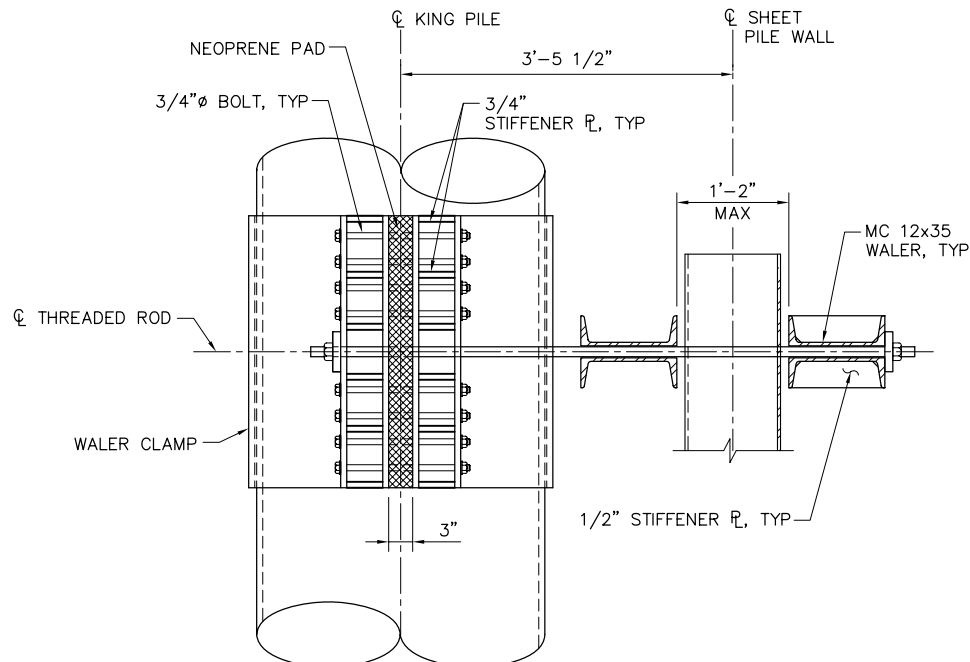
2 DETAIL
SCALE: 1" = 1'-0"



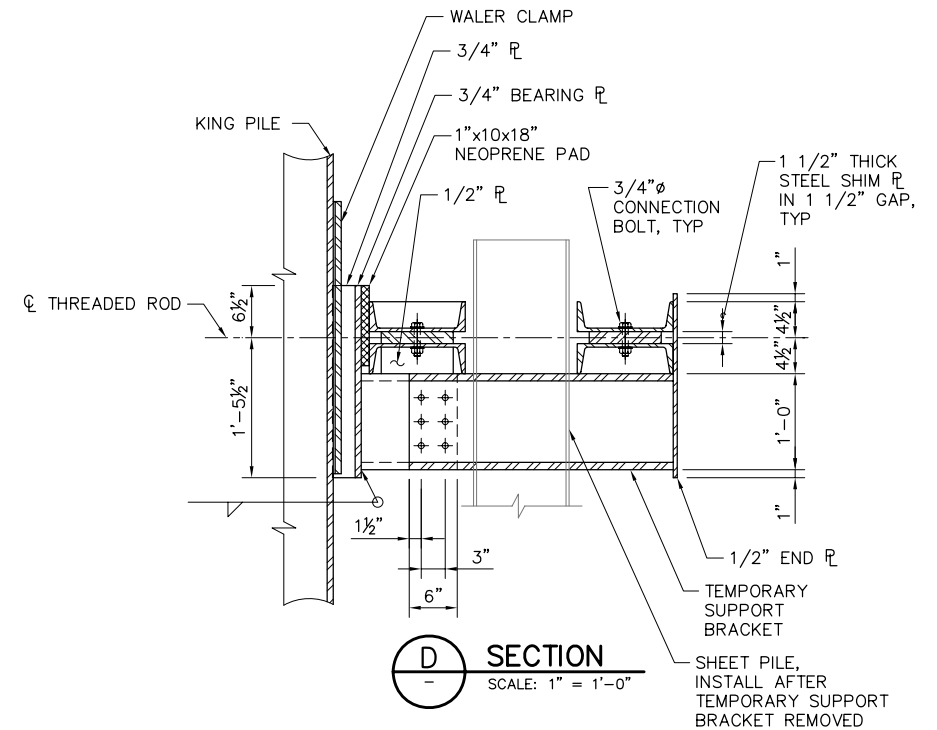
A SECTION
SCALE: 1 1/2" = 1'-0"



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



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



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

2'-0" 0'-0" 1'-0" 2'-0"
SCALE: 3/4" = 1'-0"

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IF SHEET IS LESS THAN 22" x 34"
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SCALE REDUCED ACCORDINGLY.

REVISION	DESCRIPTION	BY	DATE

 Moffatt & Nichol 2001 N. Main Street, Suite 360 Walnut Creek, California 94596 (925) 944-5411			
DSGN	JMB	DR	EP
JOB NO.	6097-03	SUBMITTED BY	RMR
CHK	TDB	TITLE	

TWO GATE FISH PROTECTION PLAN		DATE 08/07/09
SHEET PILE WALL DETAILS SHEET 1		SHEET 56 OF 75
C63		

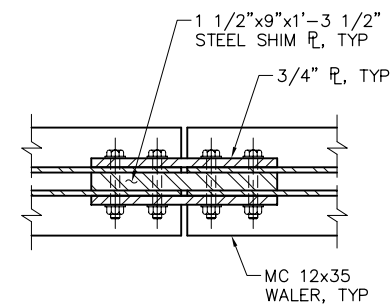
Technical drawing of a bridge deck cross-section. The drawing shows a central splice area with a 3/4" thick plate. The splice is labeled "SPLICE (SYM)". The deck is supported by MC 12x35 WALERS, TYP. The drawing includes dimensions for the splice area (1'-3 1/2" total width, 3 1/2" splice width, 2 1/4" waler width) and the waler spacing (9" total height, 3" waler height, 1 1/2" TYP waler height). Section lines A-A and B-B are indicated.

PLAN

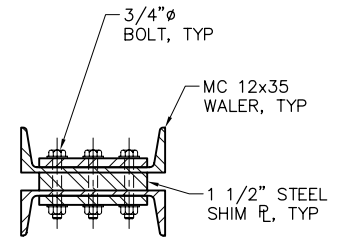
1

DETAIL

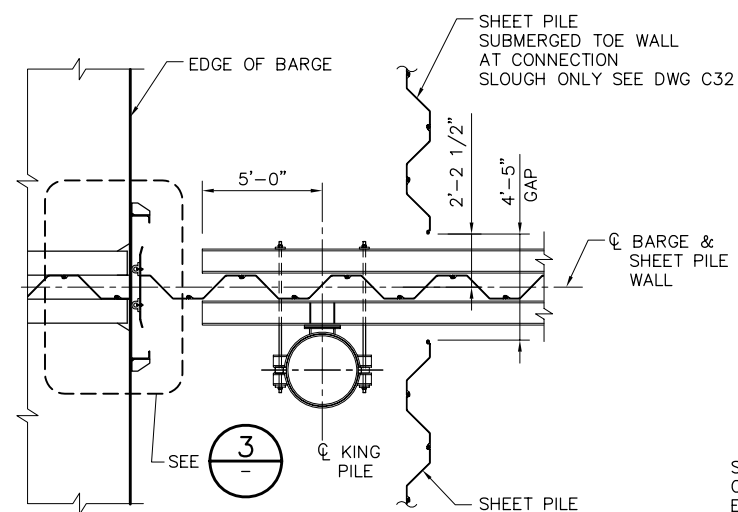
SCALE: 1 1/2" = 1'-0"



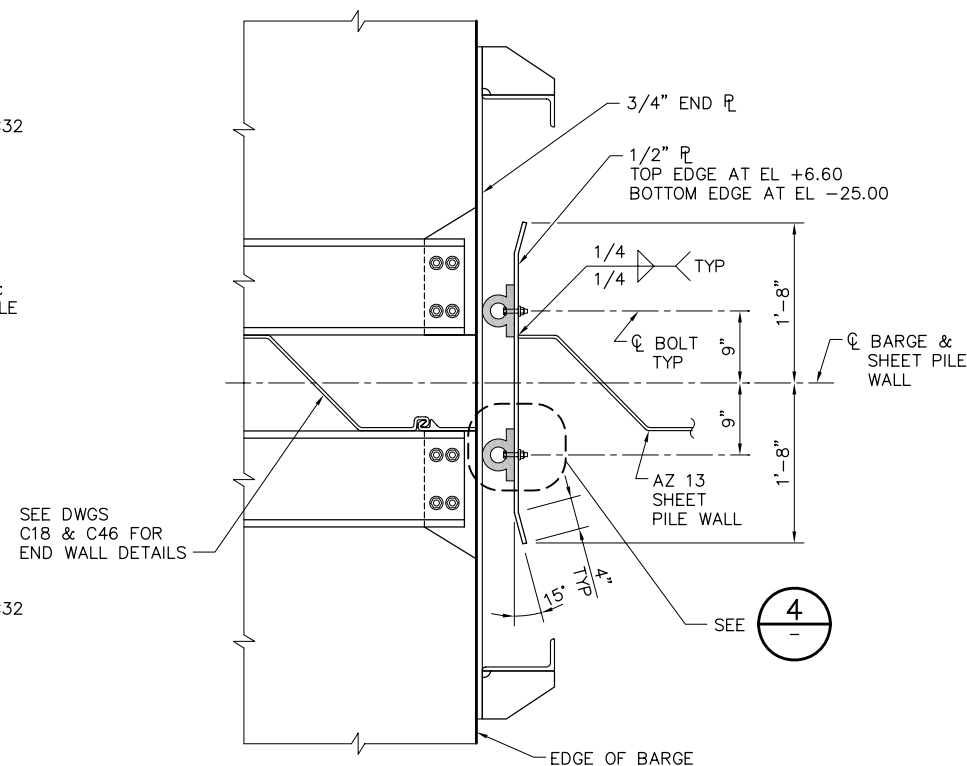
A SECTION
SCALE: 1 1/2" = 1'-0"



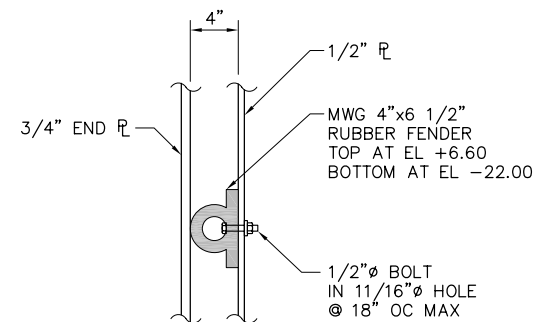
B SECTION
— SCALE: 1 1/2" = 1'-0"



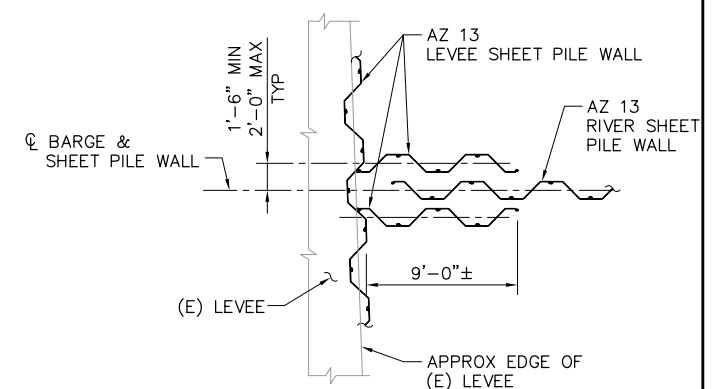
PLAN
DETAIL
SCALE: 1/4" = 1'-0"



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



4
-
DETAIL
SCALE: 1 1/2" = 1'-0"



5
C35

DETAIL

SCALE: $\frac{3}{16}" = 1'-0"$

C5, C6

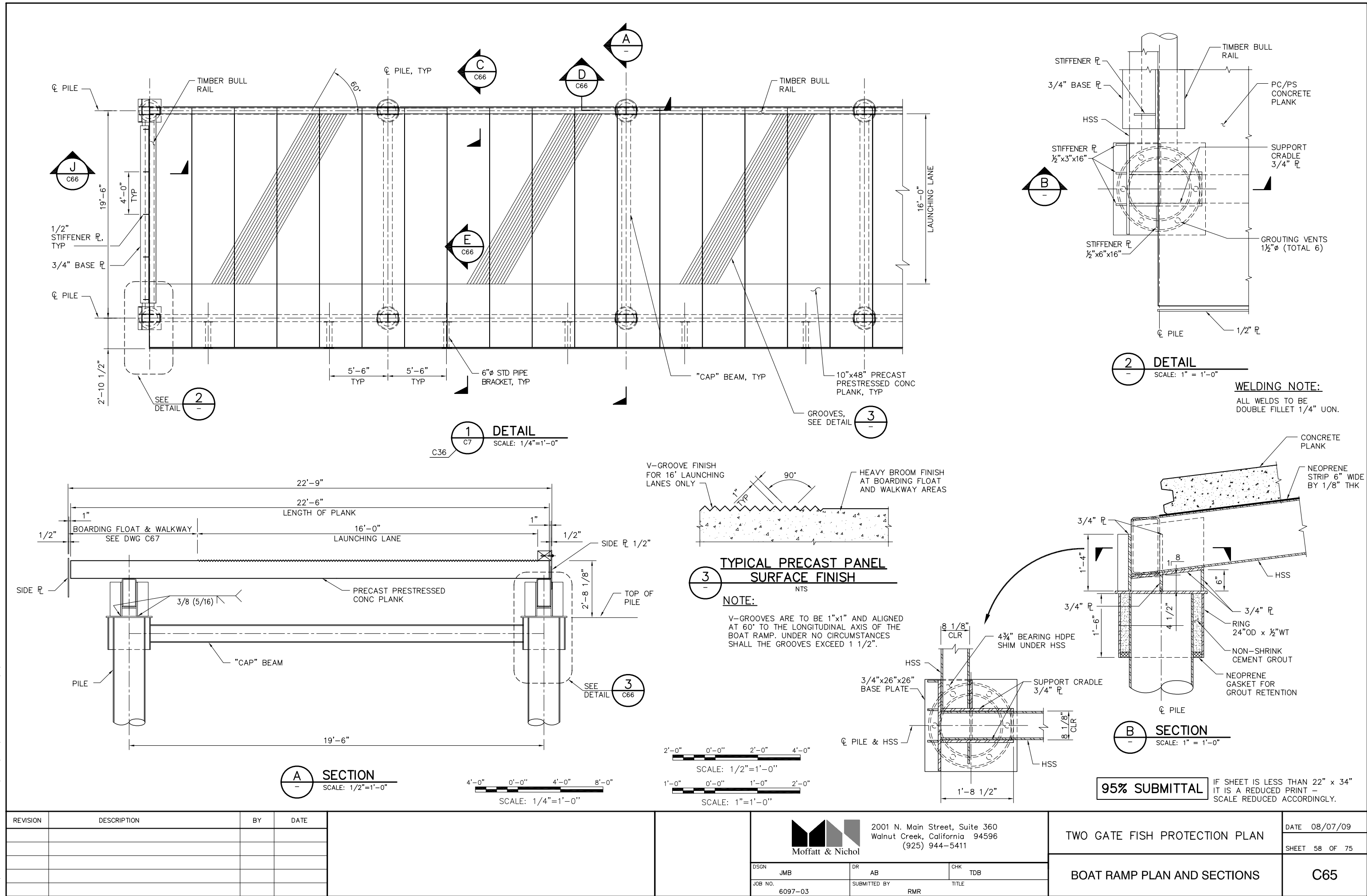
2'-0" 0'-0" 1'-0" 2'-0"

SCALE: $\frac{3}{4}" = 1'-0"$

IF SHEET IS LESS THAN 22" x 34"
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SCALE REDUCED ACCORDINGLY.

REVISION	DESCRIPTION	BY	DATE			 2001 N. Main Street, Suite 360 Walnut Creek, California 94596 (925) 944-5411	TWO GATE FISH PROTECTION PLAN		DATE 08/07/09					
									SHEET 57 OF 75					
									SHEET PILE WALL DETAILS SHEET 2	C64				
							DSGN	JMB			DR	EP	CHK	TDB
							JOB NO.	6097-03			SUBMITTED BY	RMR	TITLE	

P:\6097-03 SWC GATE DESIGN\CADD\DWG\609703-C65.DWG 8/6/2009 10:47 AM



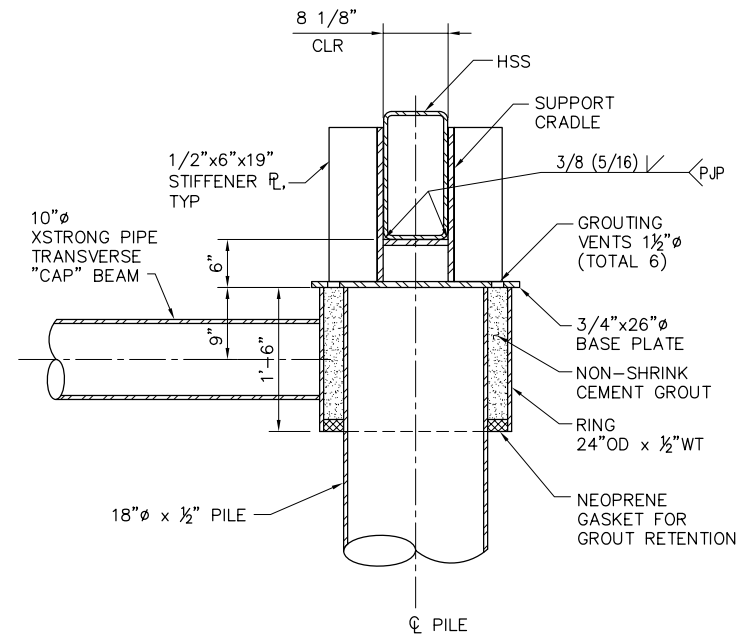
REVISION	DESCRIPTION	BY	DATE

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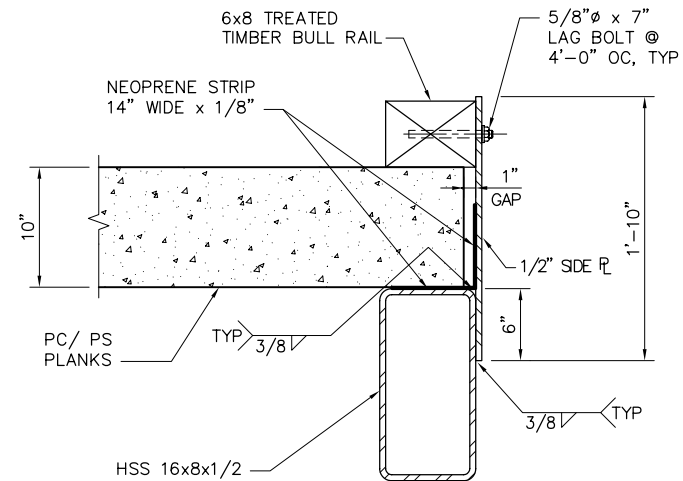
DSGN	JMB	DR	AB	CHK	TDB
JOB NO.	6097-03	SUBMITTED BY	RMR	TITLE	

TWO GATE FISH PROTECTION PLAN	DATE 08/07/09
BOAT RAMP PLAN AND SECTIONS	SHEET 58 OF 75
C65	

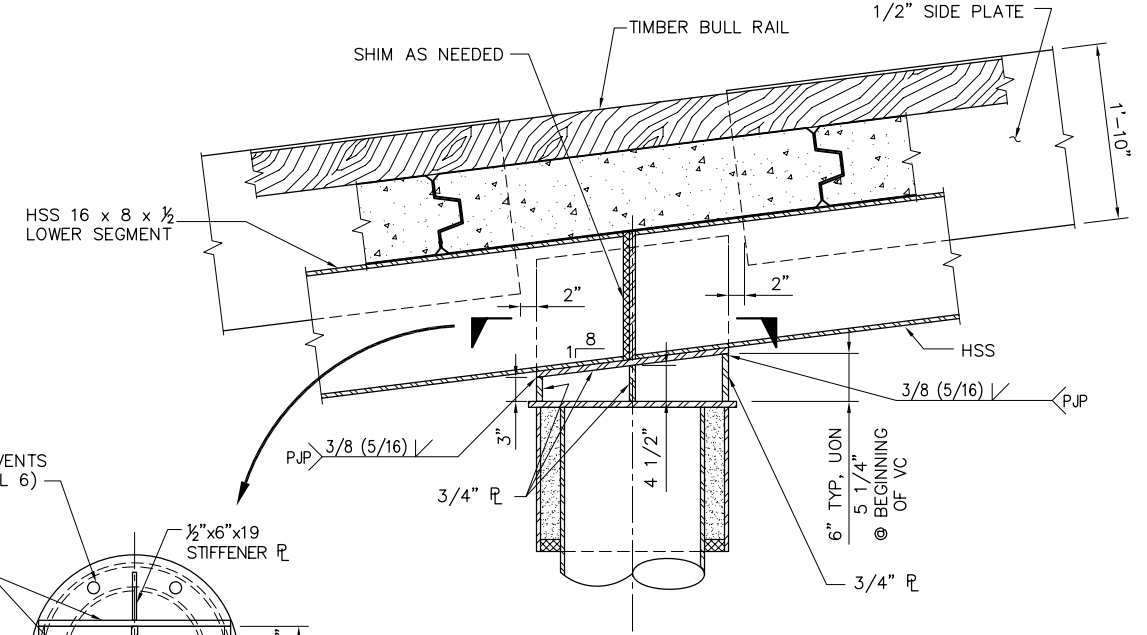
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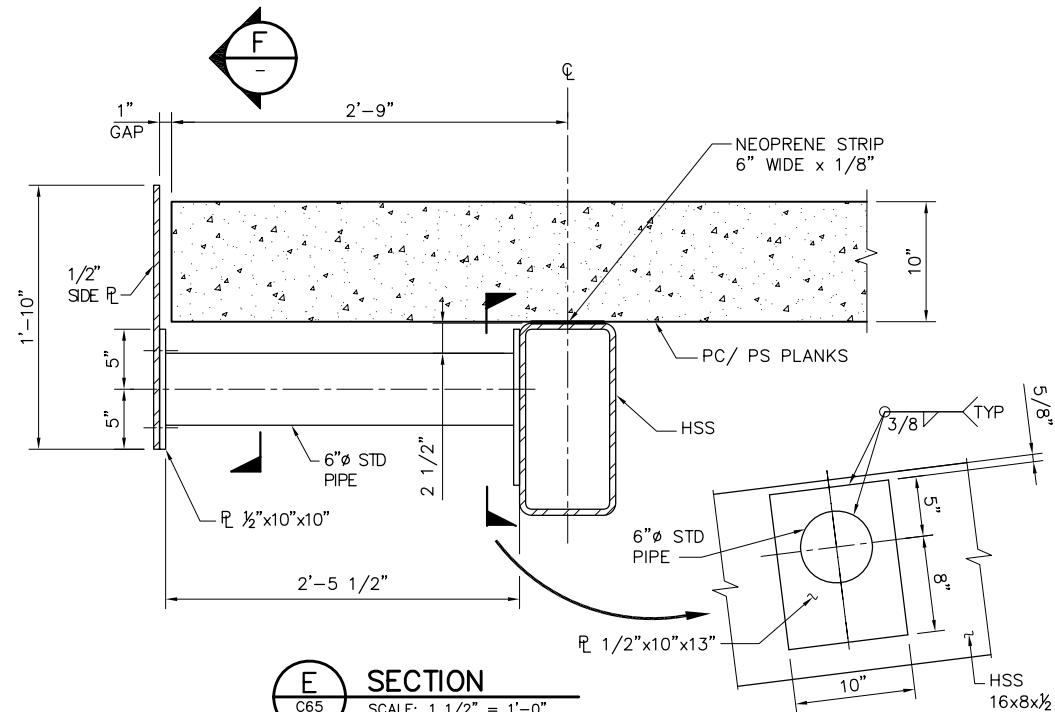
3 DETAIL
C65 SCALE: 1" = 1'-0"



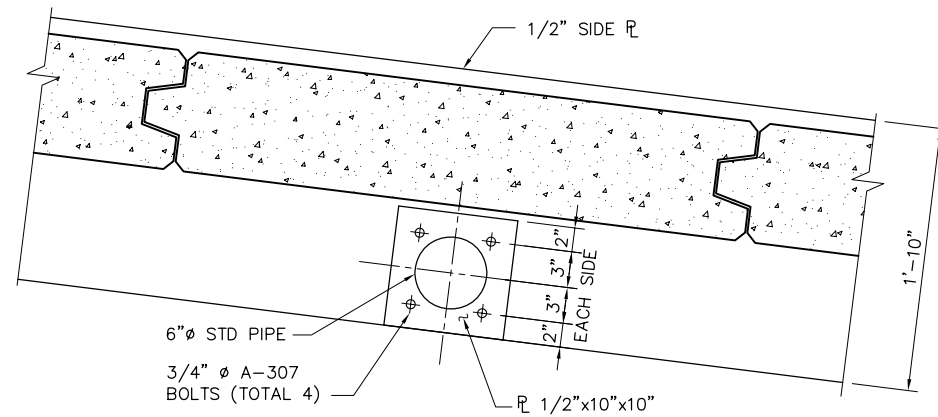
C SECTION
C65 SCALE: 1 1/2" = 1'-0"



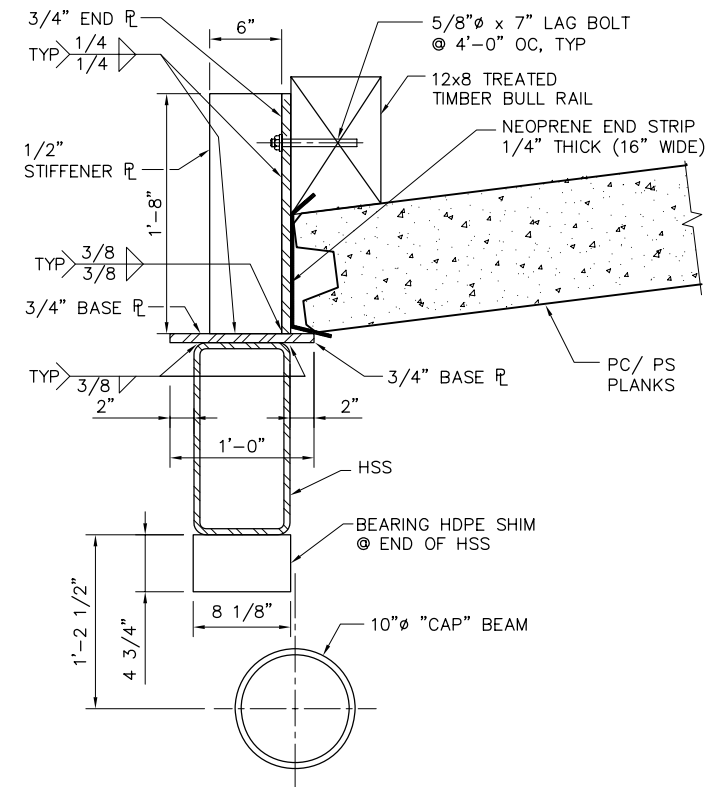
D SECTION
C65 SCALE: 1" = 1'-0"



E SECTION
C65 SCALE: 1 1/2" = 1'-0"



F SECTION
SCALE: 1 1/2" = 1'-0"



J SECTION
65 SCALE: 1 1/2" = 1'-0"

NOTE:
NEOPRENE STRIPS SHALL BE
PREGLUED TO CONCRETE PLANKS.

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SCALE REDUCED ACCORDINGLY.

1'-0" 0'-0" 1'-0" 2'-0"
SCALE: 1" = 1'-0"

1'-0" 0'-0" 6" 1'-0"
SCALE: 1 1/2" = 1'-0"

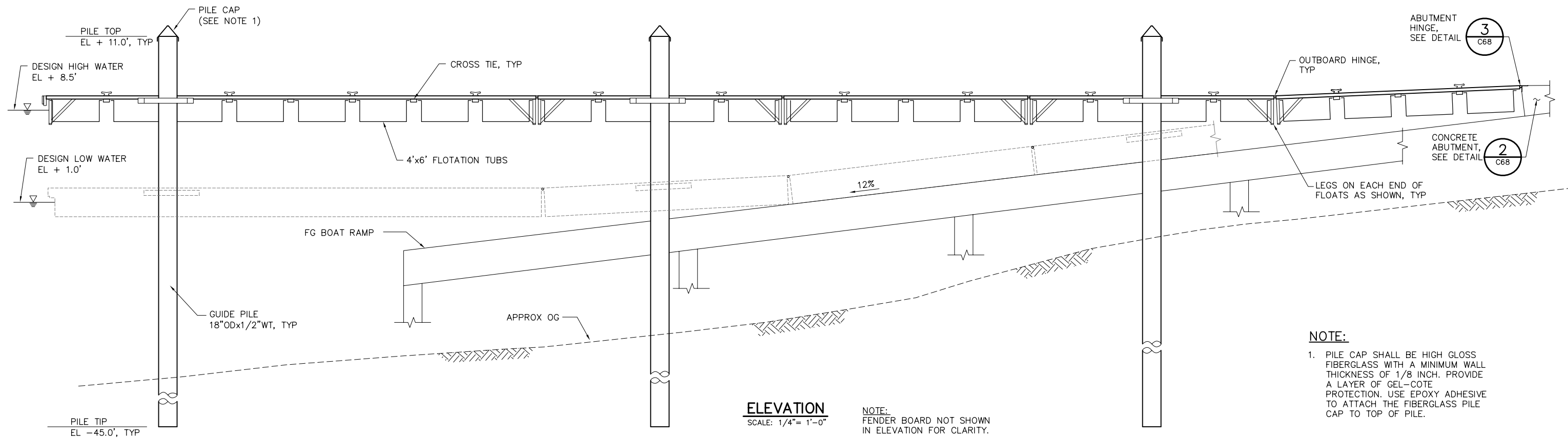
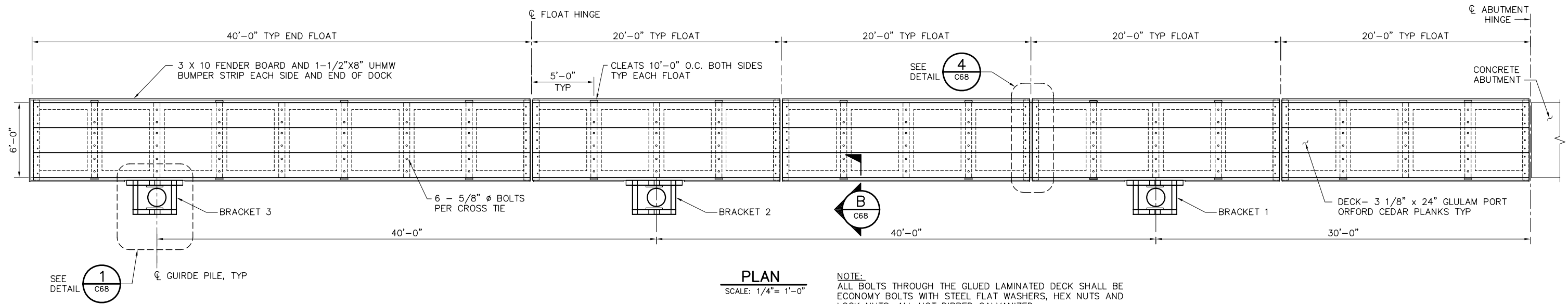
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JOB NO.	6097-03	SUBMITTED BY	RMR
CHK	TDB	TITLE	

TWO GATE FISH PROTECTION PLAN		DATE	08/07/09
BOAT RAMP DETAILS		SHEET	59 OF 75

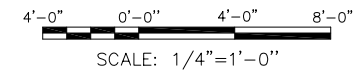
C66

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NOTE:

- PILE CAP SHALL BE HIGH GLOSS FIBERGLASS WITH A MINIMUM WALL THICKNESS OF 1/8 INCH. PROVIDE A LAYER OF GEL-COTE PROTECTION. USE EPOXY ADHESIVE TO ATTACH THE FIBERGLASS PILE CAP TO TOP OF PILE.



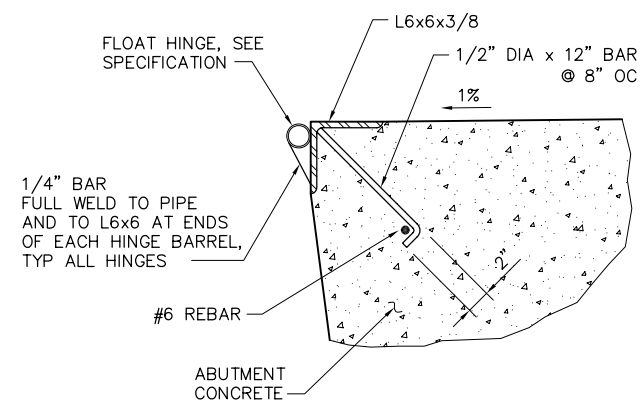
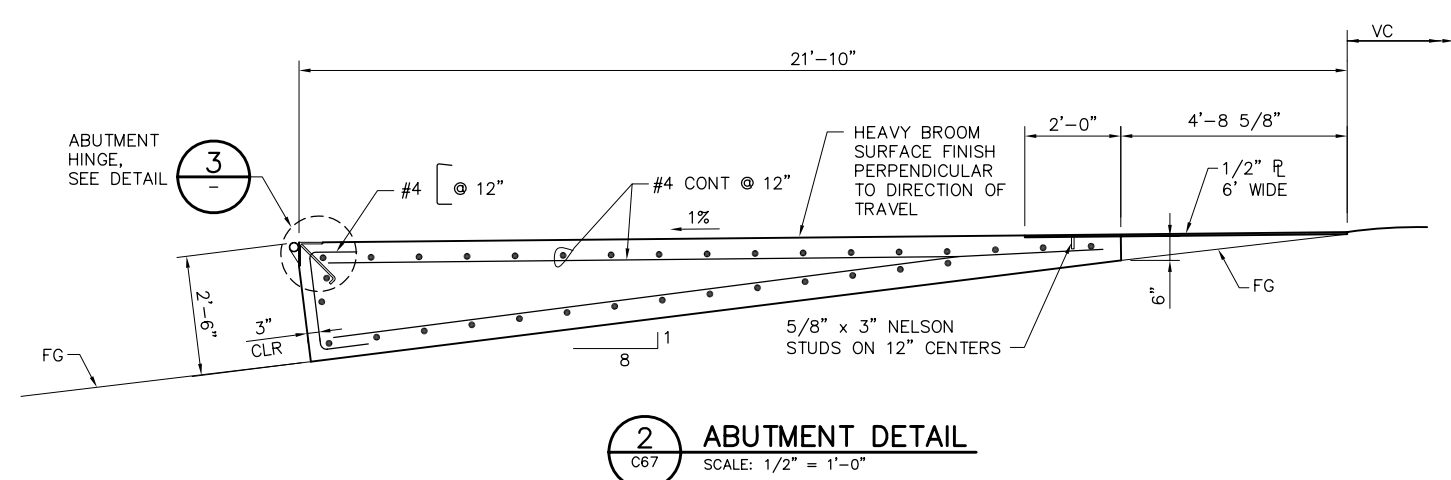
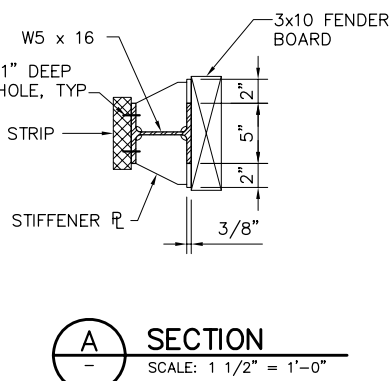
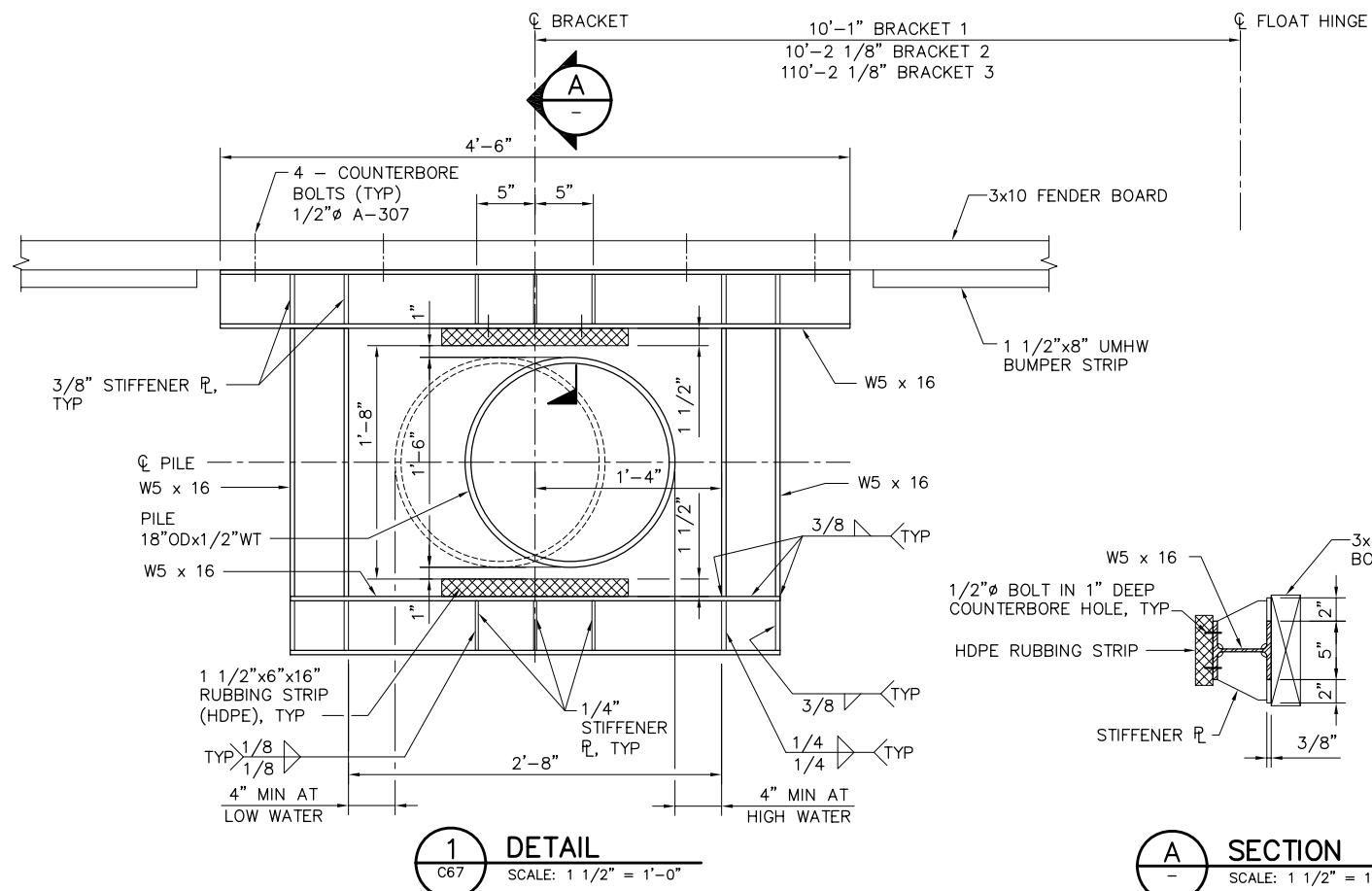
95% SUBMITTAL

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SCALE REDUCED ACCORDINGLY.

REVISION	DESCRIPTION	BY	DATE

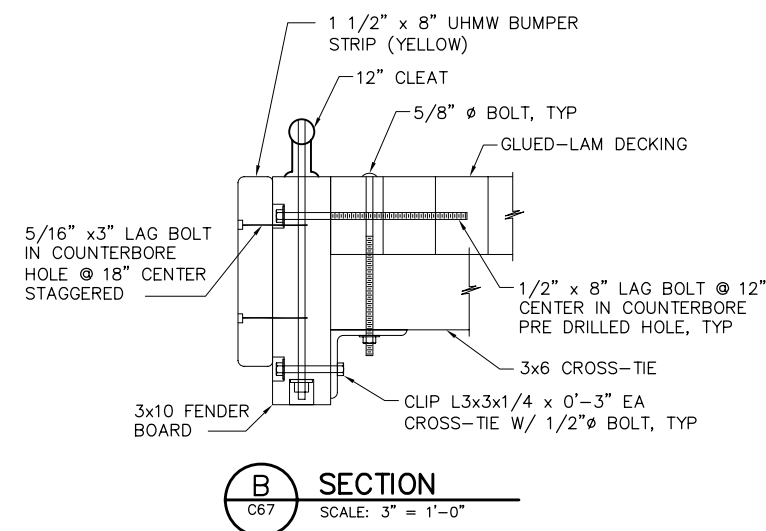
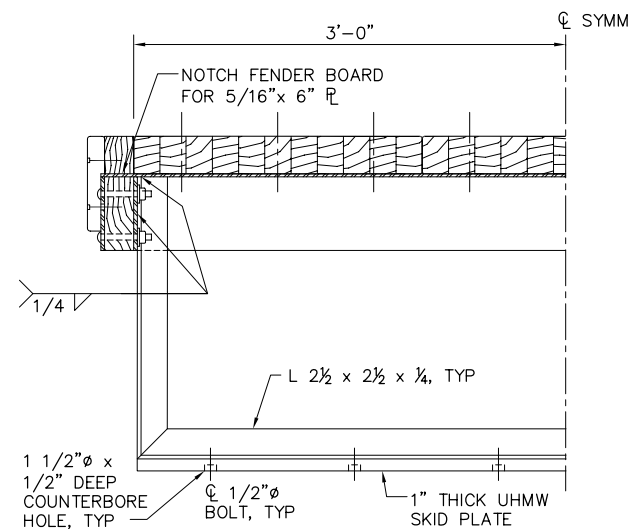
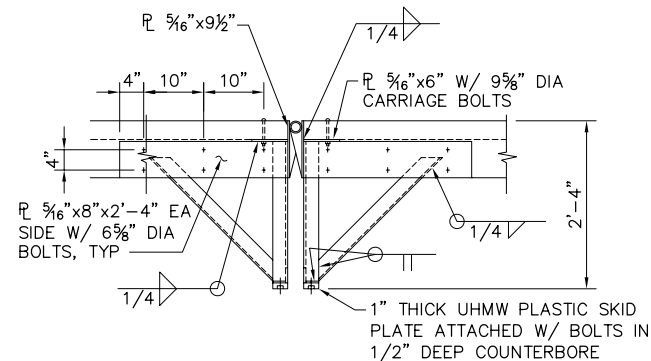
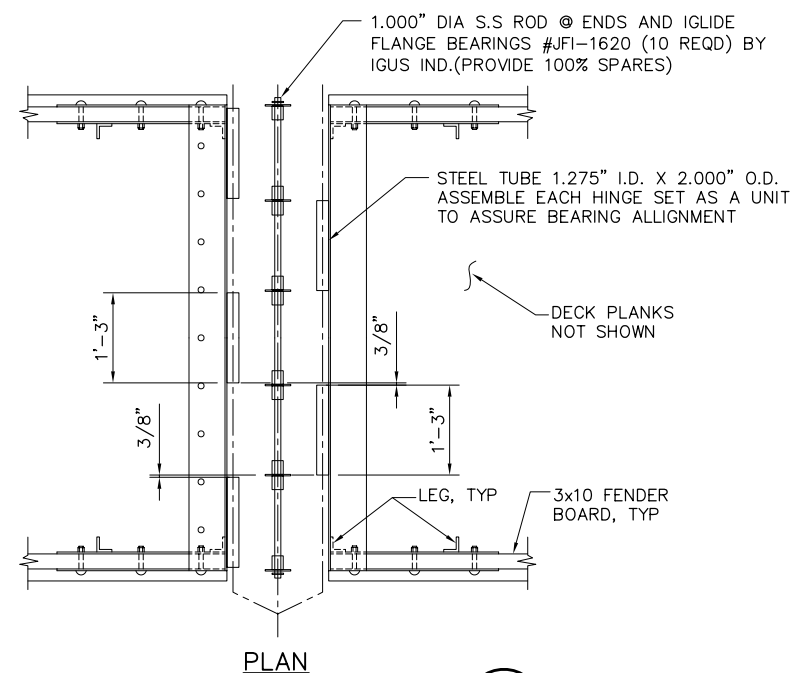
 2001 N. Main Street, Suite 360 Walnut Creek, California 94596 (925) 944-5411			
DSGN	JMB	DR	AB
JOB NO.	6097-03	SUBMITTED BY	RMR
CHK	TDB	TITLE	

TWO GATE FISH PROTECTION PLAN		DATE 08/07/09
BOARDING FLOAT PLAN AND ELEVATION		SHEET 60 OF 75
		C67



- NOTES:

1. FACE OF ABUTMENT IS PERPENDICULAR TO RAMP SURFACE.
2. GALVANIZE HINGE ASSEMBLY AFTER FABRICATION.
3. ALL WELDS TO BE MADE WITH HINGE PIN IN PLACE TO ENSURE PROPER FIT.
4. FLOAT HINGE — 1" DIA STAINLESS STEEL ROD W/COTTER KEYS @ ENDS & IGLIDE FLANGE BEARINGS #JFI-1620 (10 REQUIRED) BY IGUS IND.(PROVIDE 100% SPARES)



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JOB NO.	6097-03	SUBMITTED BY	RMR	TITLE	



Moffatt & Nichol

2001 N. Main Street, Suite 360
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(925) 944-5411

TWO GATE FISH PROTECTION PLAN

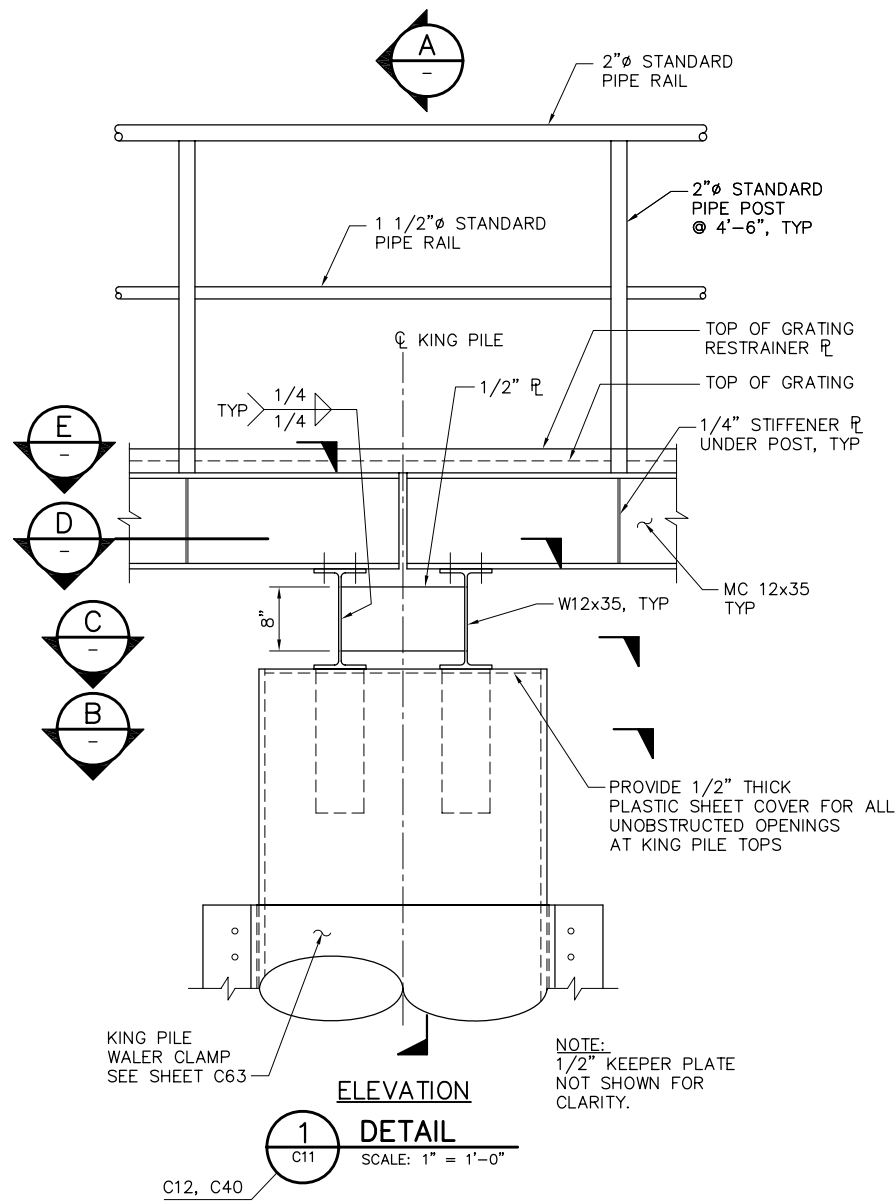
DATE 08/07/09

SHEET 61 OF 75

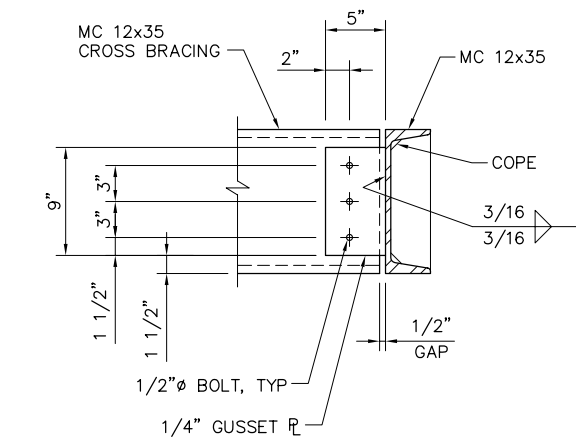
BOARDING FLOAT DETAILS

C68

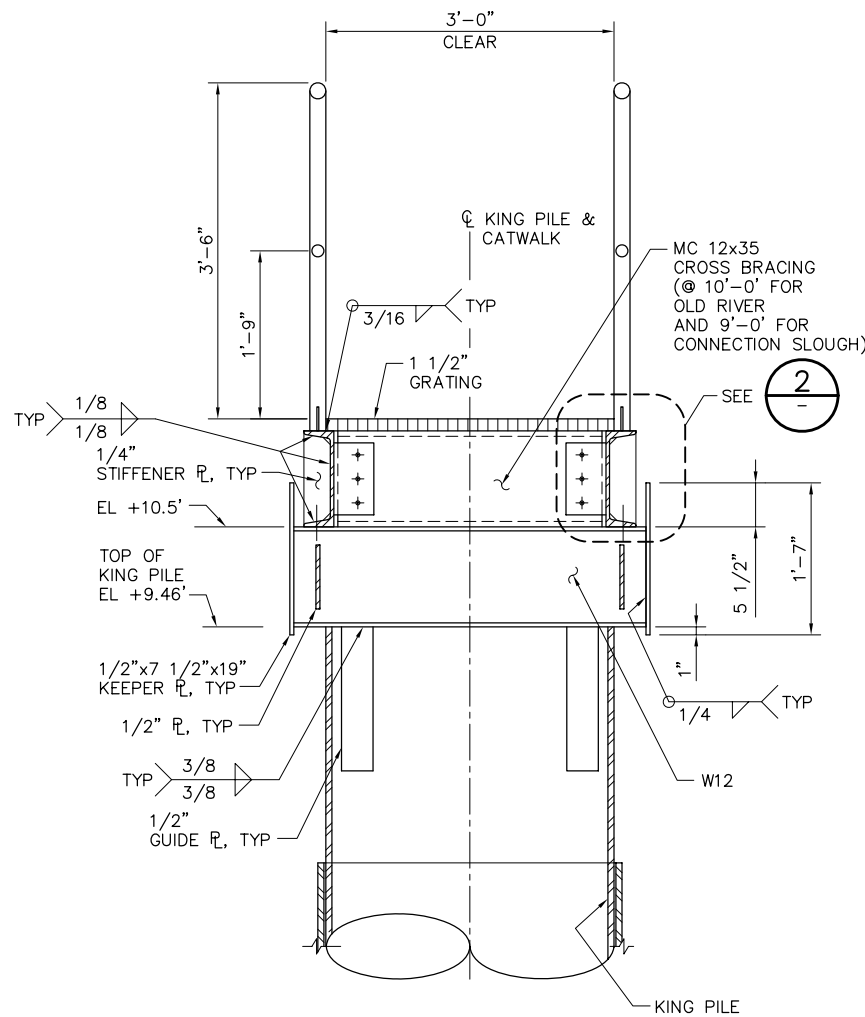
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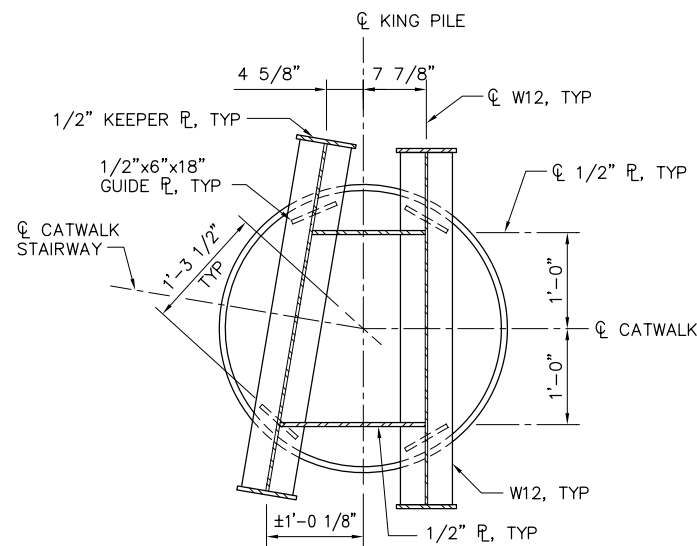
1 DETAIL
SCALE: 1" = 1'-0"



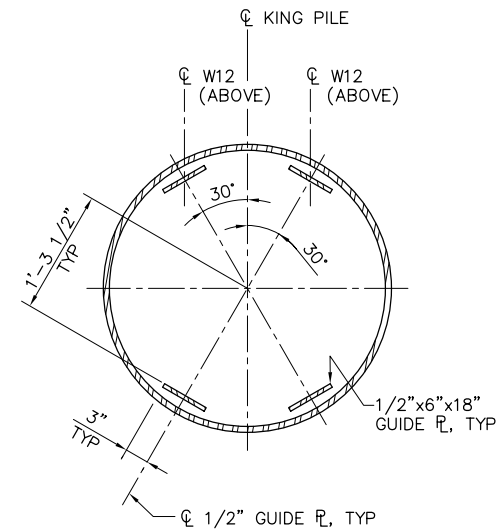
2
SCALE: 1 1/2" = 1'-0"



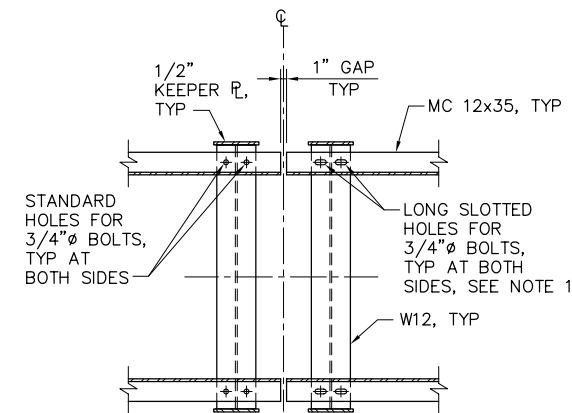
A SECTION
SCALE: 1" = 1'-0"



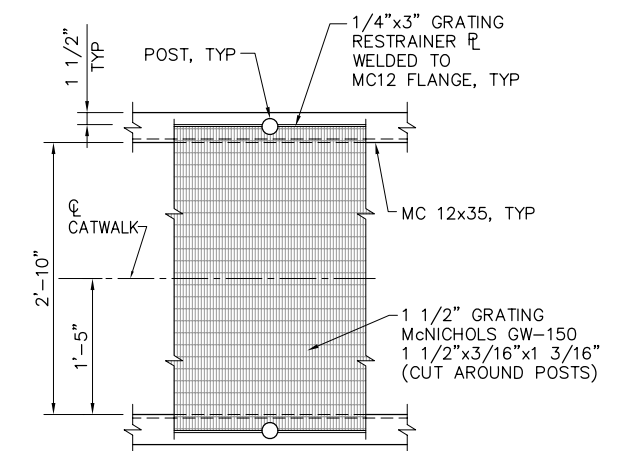
3 DETAIL
SCALE: 1" = 1'-0"



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



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

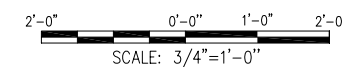


PLAN AT GRATING PLATE

E SECTION
SCALE: 1" = 1'-0"

NOTES:

1. PROVIDE 1/16" THICK SLIDE PAD (HDPE OR EQUIVALENT) AT EXPANSION SUPPORTS WHERE LONG SLOTTED HOLES PERMIT EXPANSION.
2. FOR ADDITIONAL WELD INFORMATION SEE DWGS C70 AND C71.



95% SUBMITTAL

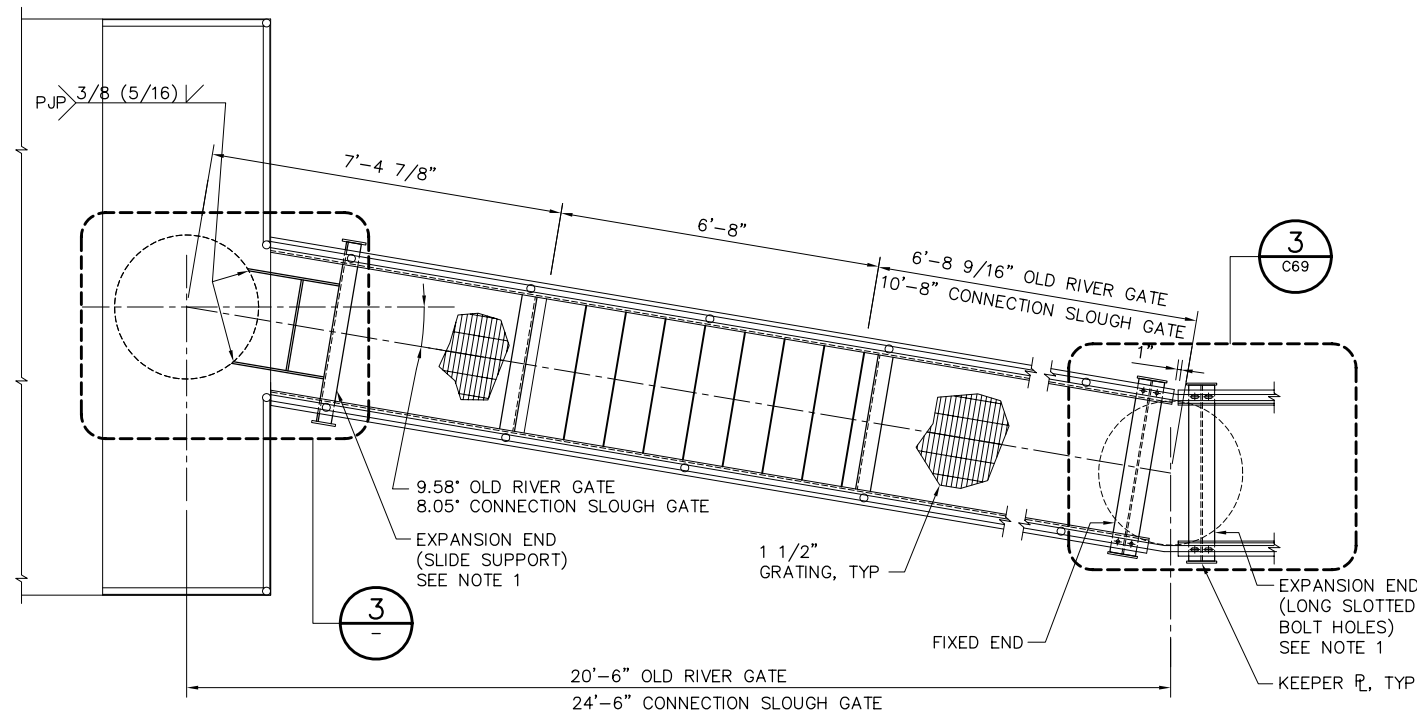
IF SHEET IS LESS THAN 22" x 34" IT IS A REDUCED PRINT - SCALE REDUCED ACCORDINGLY.

REVISION	DESCRIPTION	BY	DATE

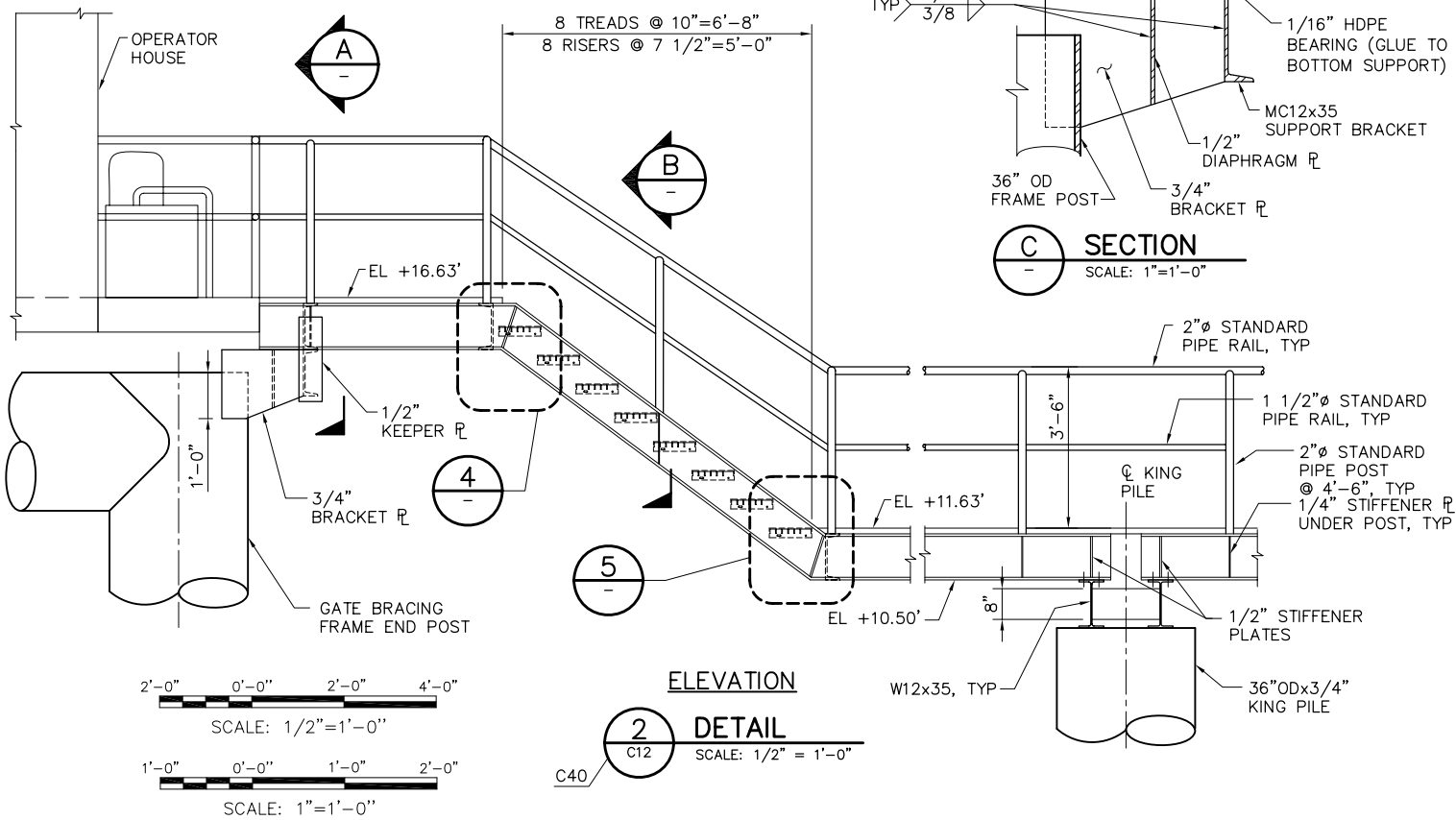
		2001 N. Main Street, Suite 360 Walnut Creek, California 94596 (925) 944-5411	
DSGN	JMB	DR	EP/AB
JOB NO.	6097-03	SUBMITTED BY	RMR
CHK	TDB	TITLE	

TWO GATE FISH PROTECTION PLAN		DATE 08/07/09
CATWALK DETAILS SHEET 1		SHEET 62 OF 75
C69		

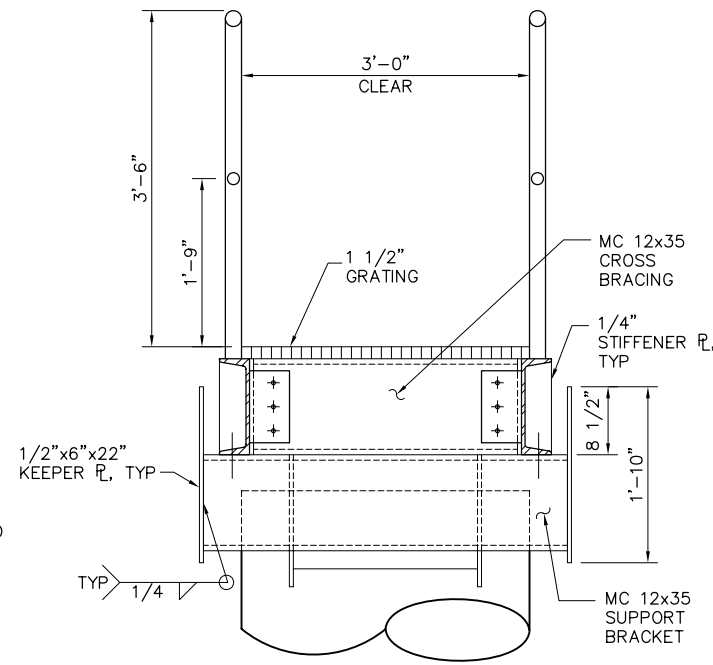
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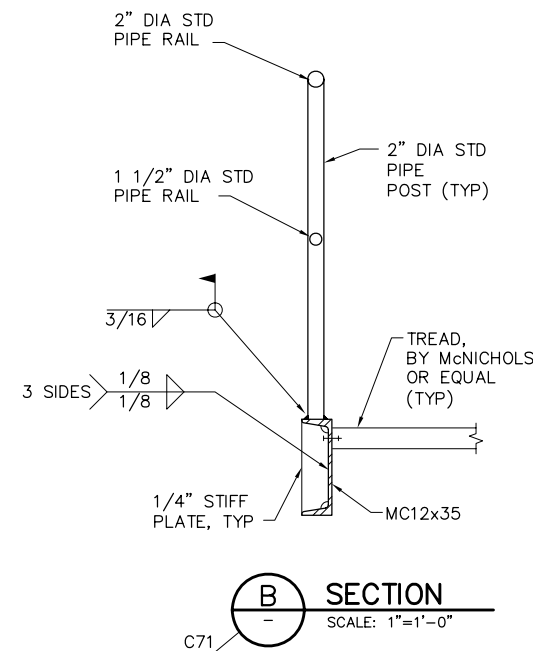
PLAN
1
C12
SCALE: 1/2" = 1'-0"



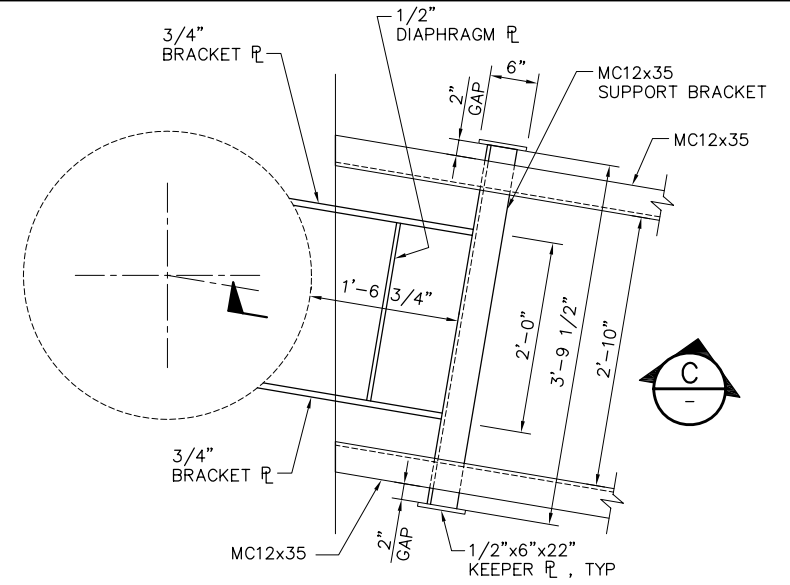
ELEVATION
2
C12
SCALE: 1/2" = 1'-0"



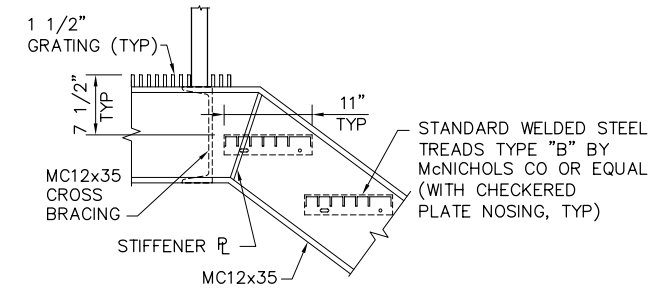
SECTION
A
SCALE: 1"=1'-0"



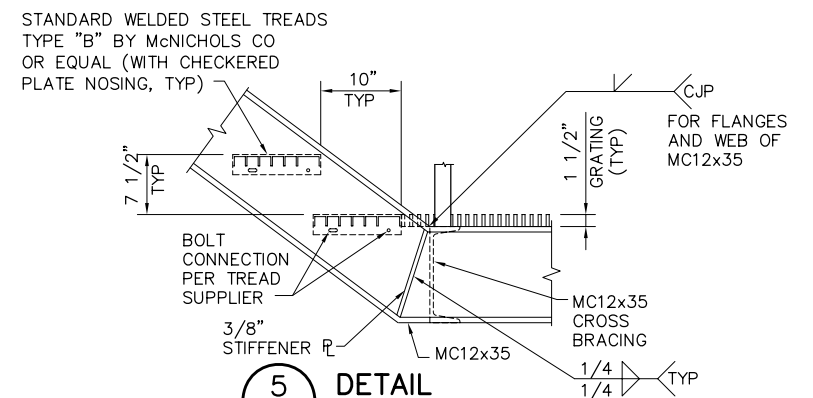
SECTION
B
SCALE: 1"=1'-0"



3
SCALE: 1"=1'-0"



4
SCALE: 1"=1'-0"



5
SCALE: 1"=1'-0"

NOTES:

1. PROVIDE 1/16" THICK HDPE SLIDE/BEARING PLATE AT EXPANSION ENDS AT UNDERSIDE OF MC12x35.
2. FOR ADDITIONAL WELD INFORMATION SEE DWGS C69 AND C71.

95% SUBMITTAL

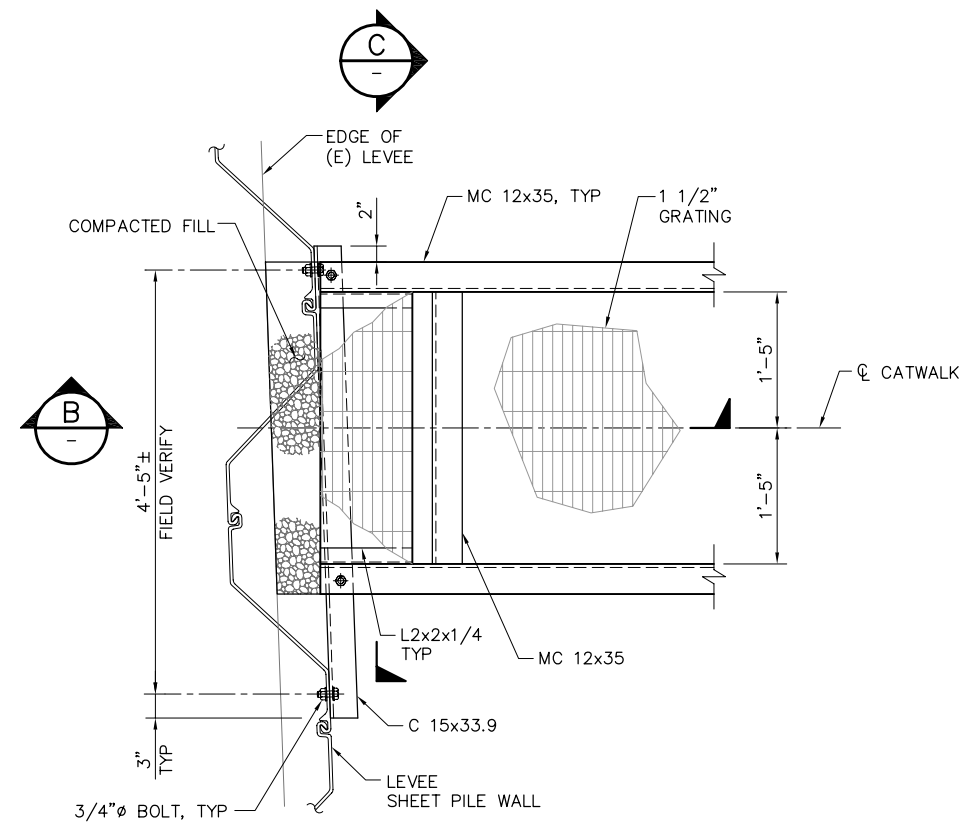
IF SHEET IS LESS THAN 22" x 34"
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REVISION	DESCRIPTION	BY	DATE

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DSGN	JMB	DR	AB/EP
JOB NO.	6097-03	SUBMITTED BY	RMR
CHK	TDB	TITLE	

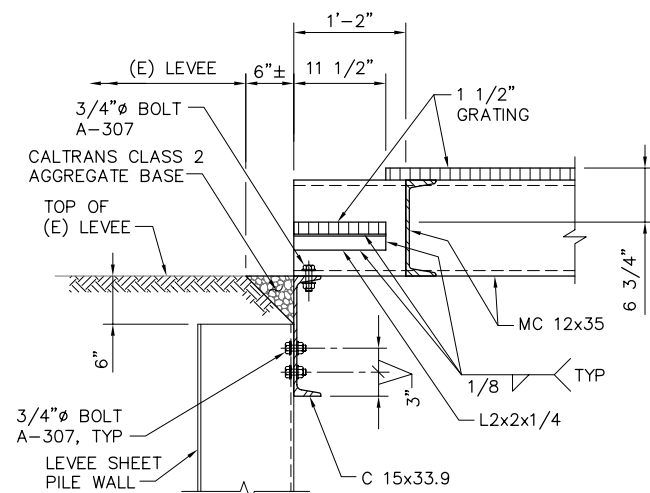
TWO GATE FISH PROTECTION PLAN		DATE	08/07/09
CATWALK DETAILS SHEET 2		SHEET	63 OF 75
			C70

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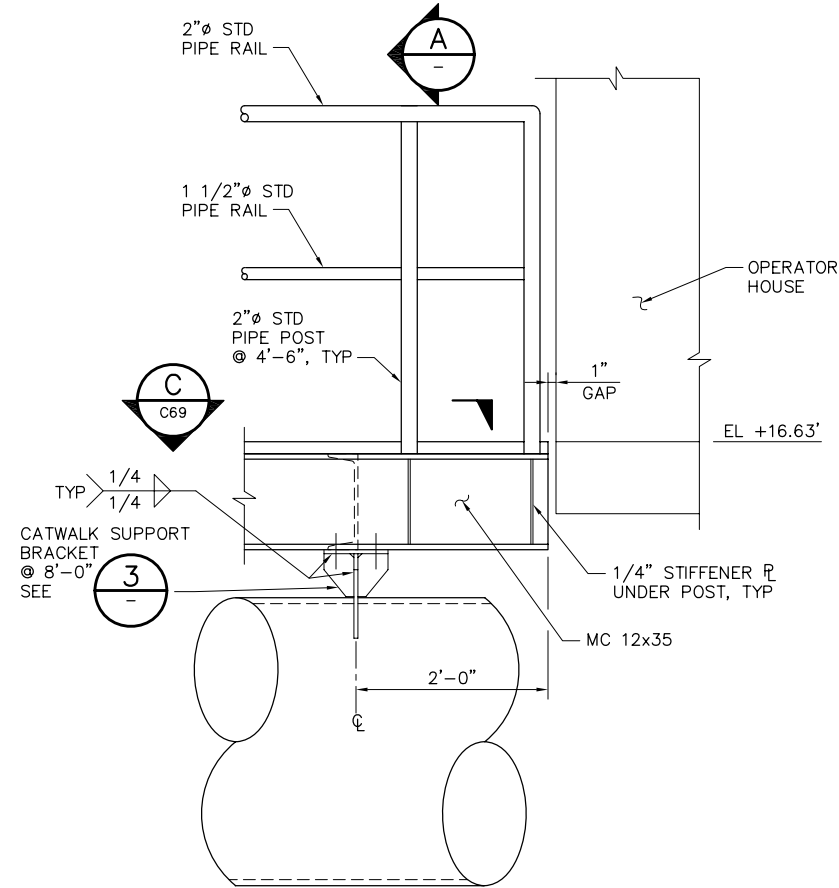


PLAN AT END OF CATWALK

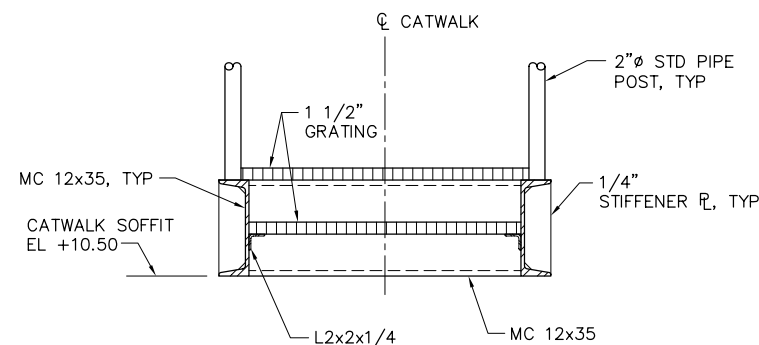
1 **DETAIL**
C11 SCALE: 1" = 1'-0"
C40



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



2 **DETAIL**
C15 SCALE: 1"=1'-0"
C43



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

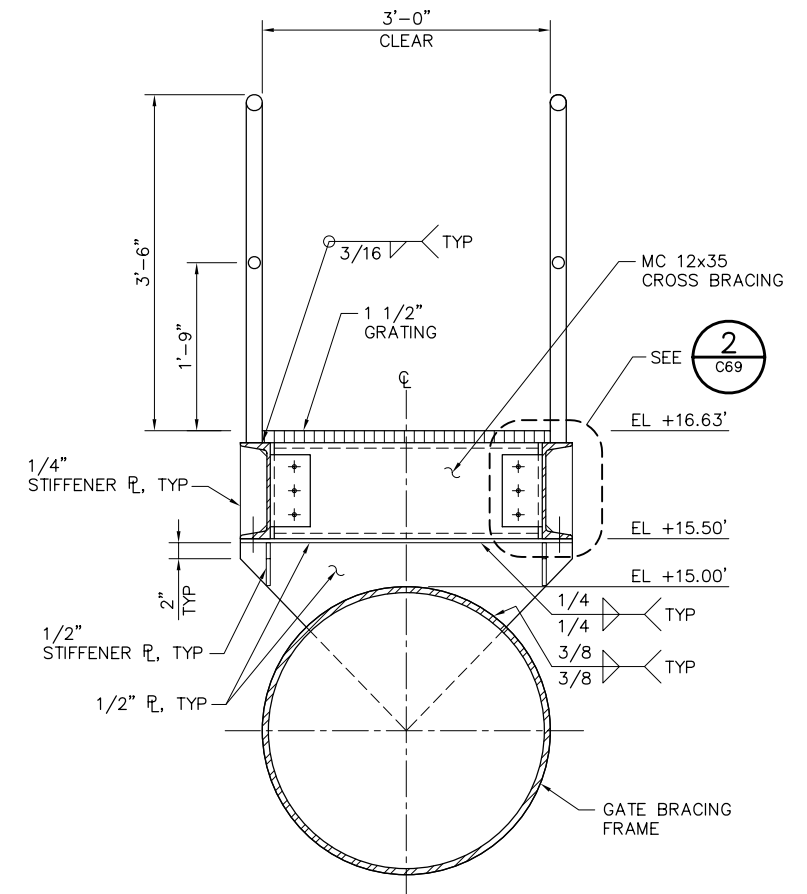
NOTE:

FOR ADDITIONAL WELD INFORMATION SEE DWGS C69, C70 AND C71.

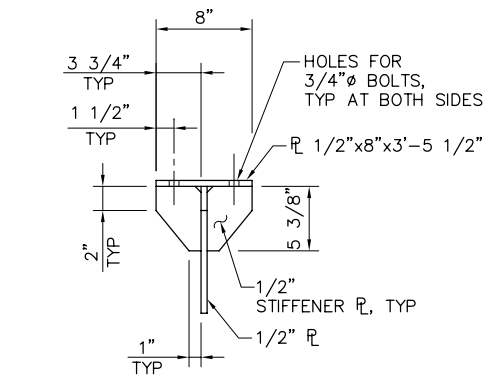
1'-0" 0'-0" 1'-0" 2'-0"
SCALE: 1"=1'-0"

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IF SHEET IS LESS THAN 22" x 34"
IT IS A REDUCED PRINT -
SCALE REDUCED ACCORDINGLY.



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



3 **DETAIL**
C73 SCALE: 1"=1'-0"

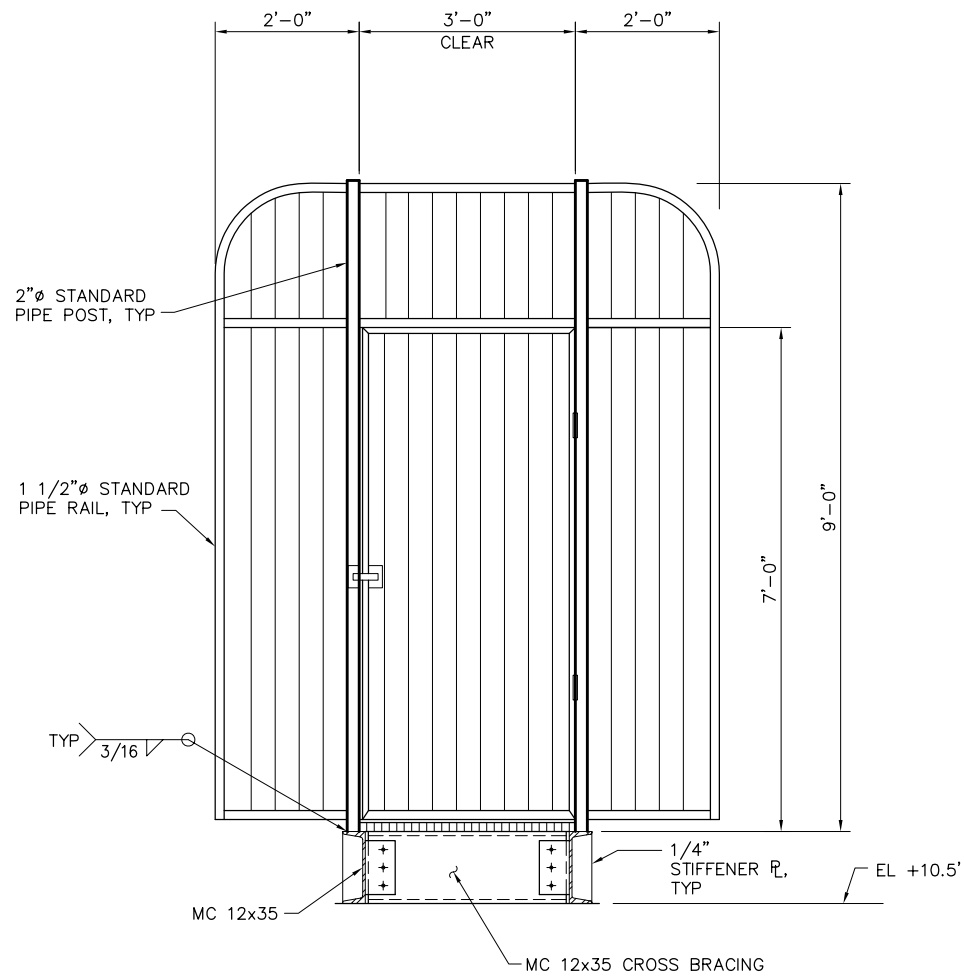
REVISION	DESCRIPTION	BY	DATE

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DSGN	JMB	DR	EP
JOB NO.	6097-03	SUBMITTED BY	RMR
CHK	TDB	TITLE	

TWO GATE FISH PROTECTION PLAN		DATE	08/07/09
CATWALK DETAILS SHEET 4		SHEET	65 OF 75

C72

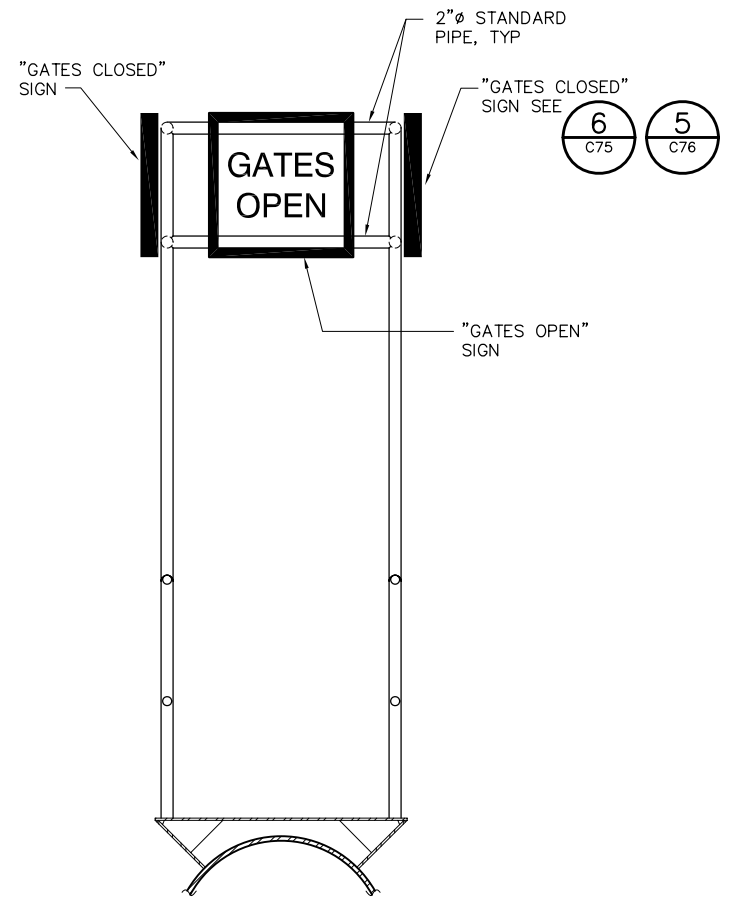
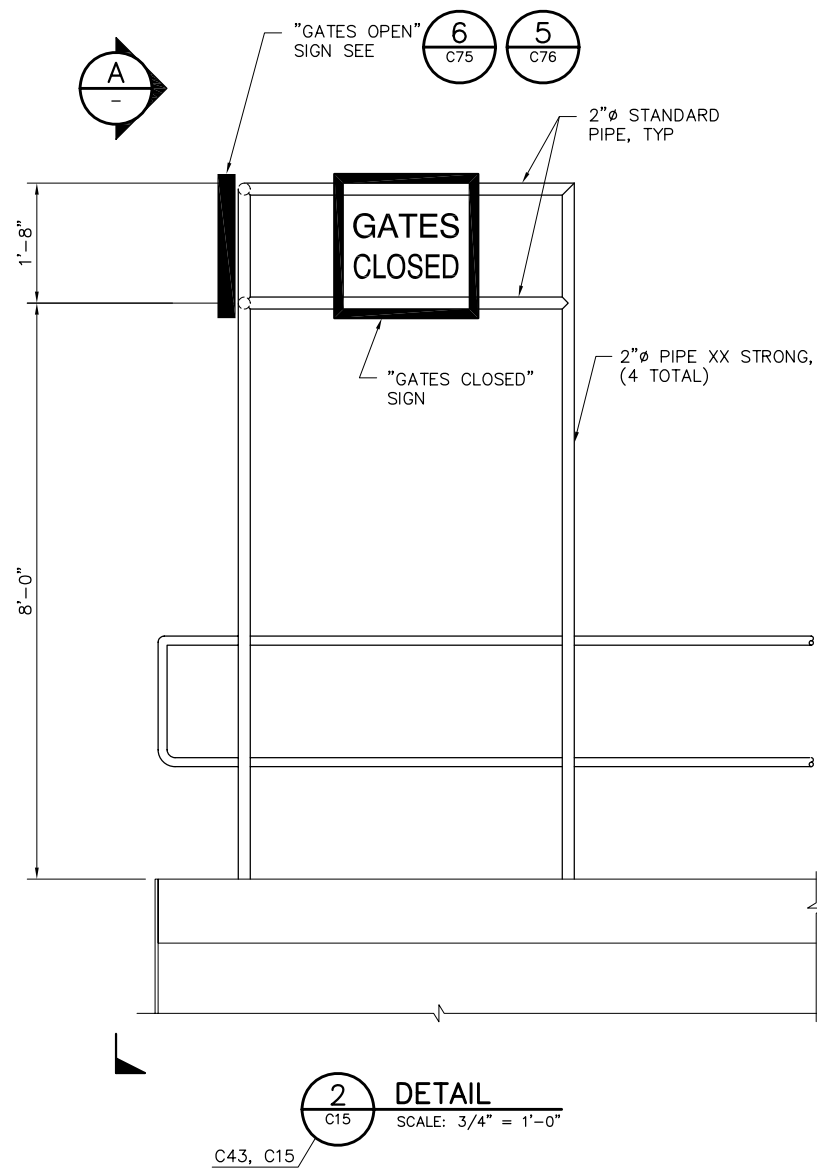
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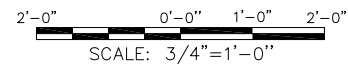
NOTE:
SECURITY GATE SHALL PROVIDE
A MINIMUM 36" CLEAR OPENING,
SHALL BE AUTOMATICALLY
CLOSING, AND SHALL INCLUDE
A LOCKABLE LATCH.

SECURITY GATE ELEVATION

1
C11
SCALE: 3/4" = 1'-0"



NOTE:
FOR ADDITIONAL WELD INFORMATION
SEE DWGS C68 THROUGH C73.

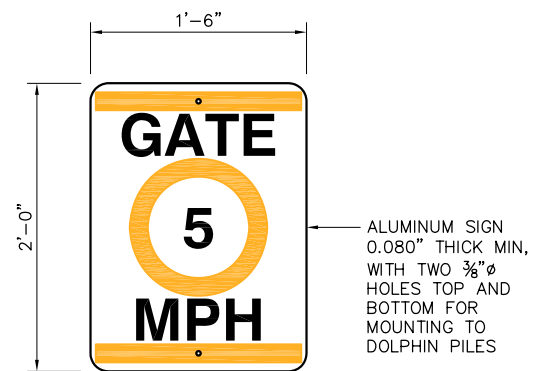


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IT IS A REDUCED PRINT -
SCALE REDUCED ACCORDINGLY.

REVISION	DESCRIPTION	BY	DATE

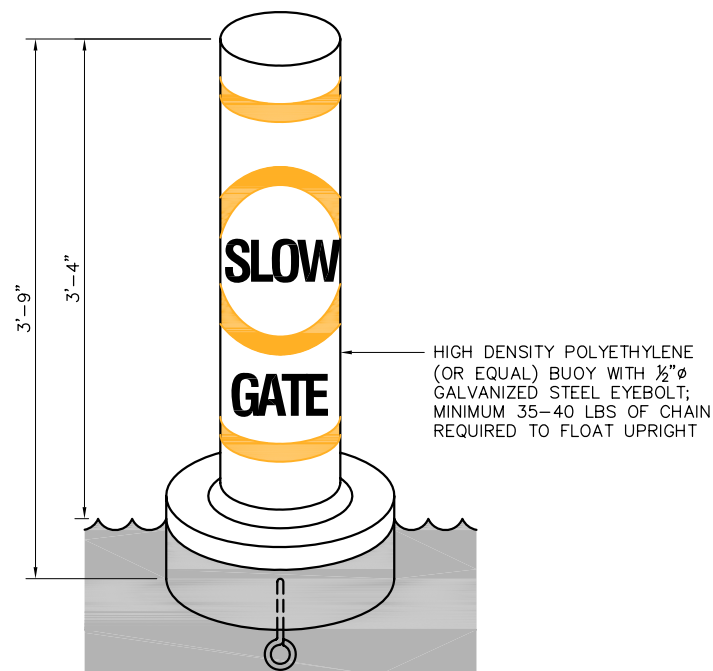
Moffatt & Nichol	2001 N. Main Street, Suite 360 Walnut Creek, California 94596 (925) 944-5411		TWO GATE FISH PROTECTION PLAN		DATE 08/07/09
	DSGN JMB	DR AB	CHK TDB	CATWALK DETAILS SHEET 6	SHEET 67 OF 75
	JOB NO. 6097-03	SUBMITTED BY RMR	TITLE		C74



ALUMINUM SIGN
0.080" THICK MIN,
WITH TWO 3/8"Ø
HOLES TOP AND
BOTTOM FOR
MOUNTING TO
DOLPHIN PILES

SIGNBOARD ON PILE, ORANGE
ON WHITE WITH BLACK LETTERS

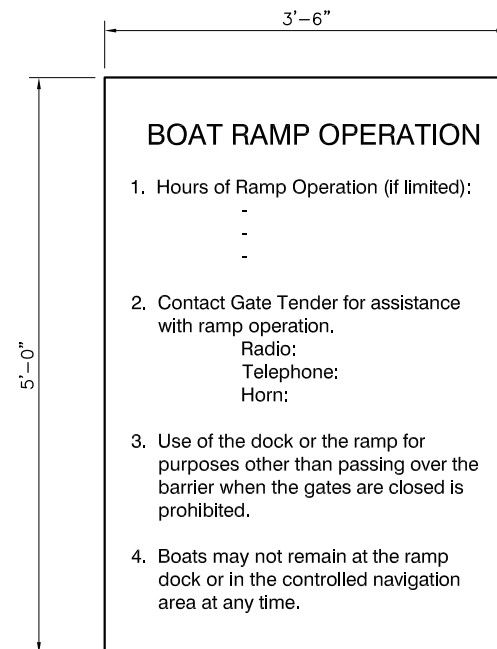
1 GATE 5 MPH SIGN
C19 SCALE: 1/8" = 1'-0"



ORANGE ON WHITE WITH BLACK
LETTERS

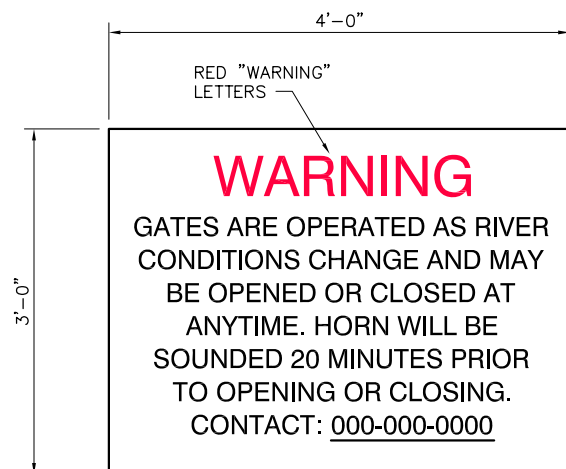
NOTE:
45' OF 1/2" OPEN LINK CHAIN
WITH 25 LB DANFORTH
STANDARD ANCHOR.

2 SLOW GATE SIGN
C19 SCALE: 1/8" = 1'-0"



BLACK LETTERS ON WHITE
PAINTED ALUMINUM BOARD

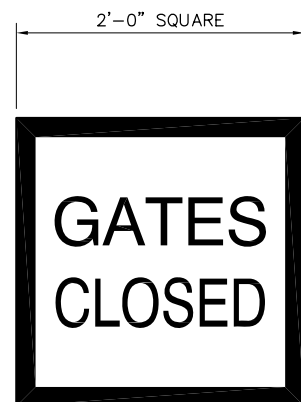
3 BOAT RAMP DOCK SIGN
C19 SCALE: NONE



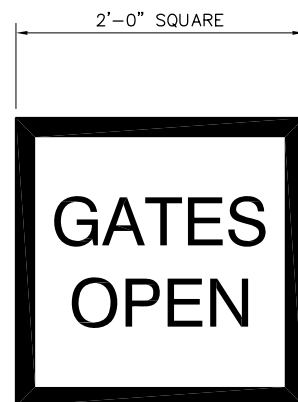
RED "WARNING"
LETTERS

BLACK LETTERS ON WHITE PAINTED
ALUMINUM BOARD
CONTACT NUMBER TO BE PROVIDED BY OWNER

5 GATE WARNING SIGN
C19 SCALE: NONE

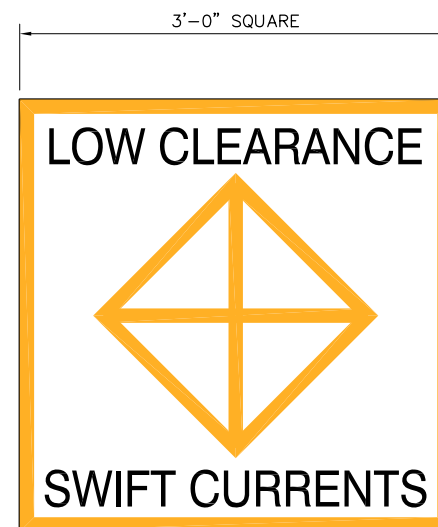


BLACK LETTERS AND BORDER ON
WHITE PAINTED ALUMINUM BOARD



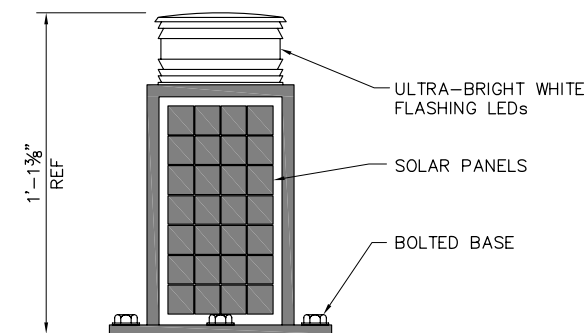
BLACK LETTERS AND BORDER ON
WHITE PAINTED ALUMINUM BOARD

6 GATE POSITION SIGNS
C19 SCALE: 1/8" = 1'-0"



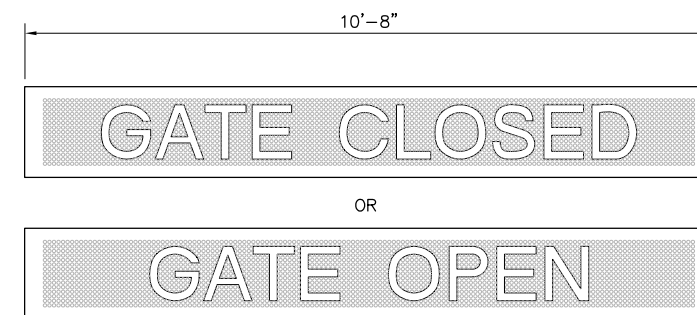
ORANGE SYMBOL AND BORDER,
BLACK LETTERS ON WHITE
PAINTED ALUMINUM BOARD

7 DANGER SIGN
C19 SCALE: 1/8" = 1'-0"



NAVIGATION LIGHT;
ATOP GATE PLATFORM AND ALONG SHEET PILE WHERE NOTED.
CARMANAH MODEL M702-5GPS OR EQUAL - SEE SPECIFICATIONS.

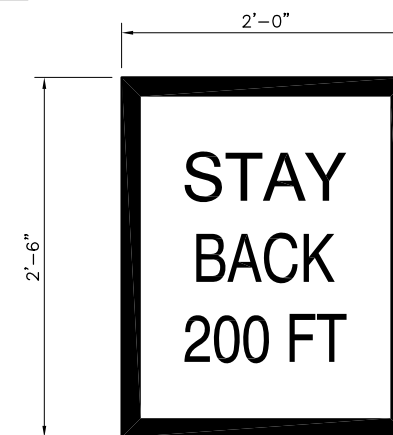
4 NAVIGATION LIGHT
C19 SCALE: NONE



OR

CHANGEABLE ELECTRIC MESSAGEBOARD 12 LETTER, 12" HIGH,
VISIBLE FROM 600', MOUNTED ON OPERATOR HOUSE ROOF
ONE EACH FACING UPSTREAM & DOWNSTREAM.
MODEL PDR0112-12 FROM GRANDWELL DISPLAYS OR EQUAL

8 ELECTRONIC MESSAGE SIGN
C19 SCALE: NONE



NOTE:
SEE DRAWING C76 FOR SIGN
MOUNTING DETAILS.

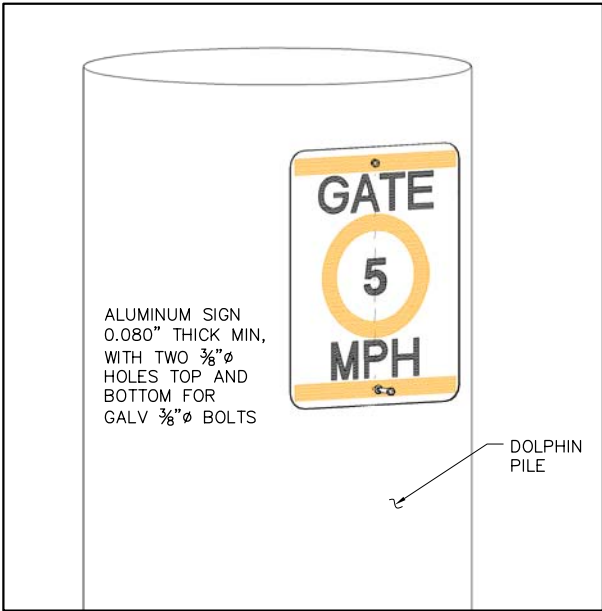
BLACK LETTERS AND BORDER ON WHITE PAINTED
ALUMINUM BOARD

9 STAY BACK WARNING SIGN
C19 SCALE: 1/8" = 1'-0"

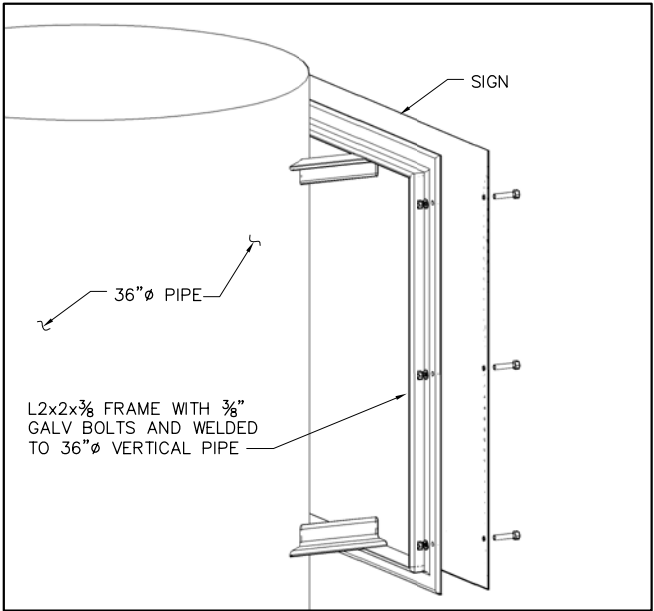
95% SUBMITTAL

IF SHEET IS LESS THAN 22" x 34"
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SCALE REDUCED ACCORDINGLY.

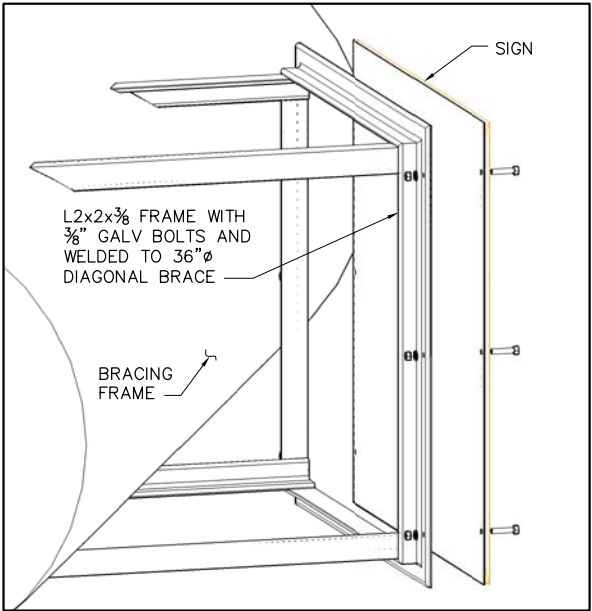
REVISION	DESCRIPTION	BY	DATE					 2001 N. Main Street, Suite 360 Walnut Creek, California 94596 (925) 944-5411				TWO GATE FISH PROTECTION PLAN		DATE 08/07/09	
														SHEET 68 OF 75	
								DSGN RBD		DR TAE/AB		CHK TDB		AIDS TO NAVIGATION DETAILS, SHEET 1	C75
								JOB NO. 6097-03		SUBMITTED BY RMR		TITLE			



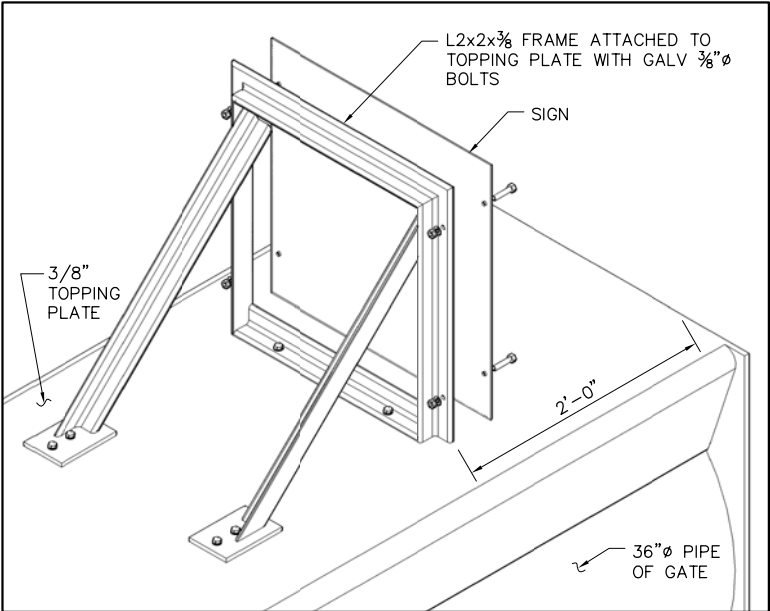
1 SIGN MOUNTING DETAIL
C19 SCALE: NONE
C47



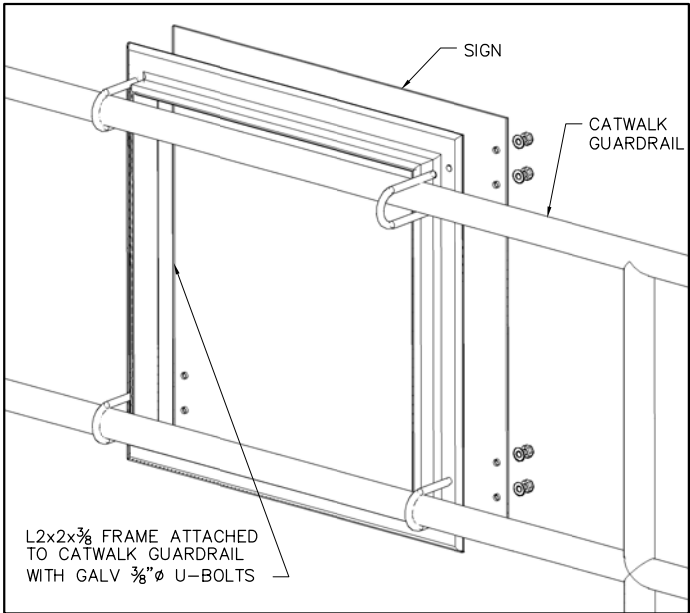
2 SIGN MOUNTING DETAIL
C19 SCALE: NONE
C47



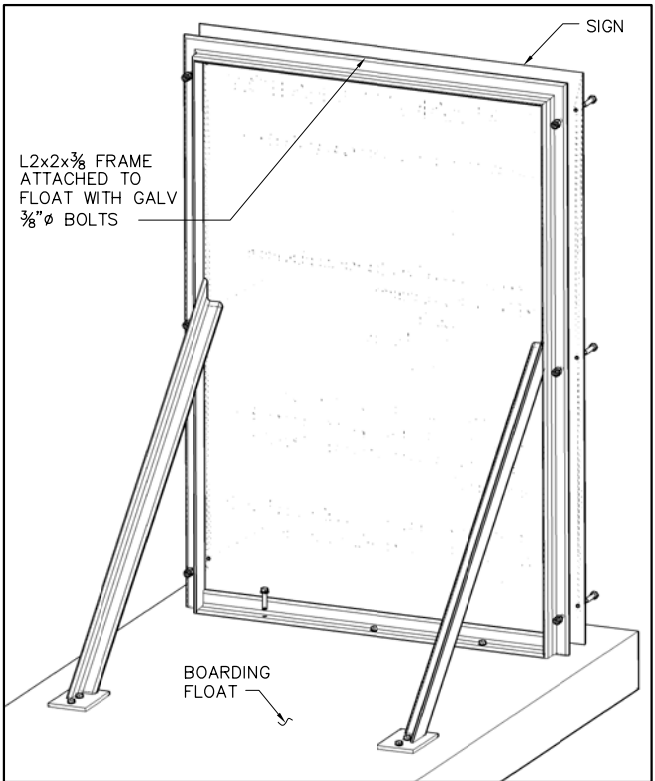
3 SIGN MOUNTING DETAIL
C19 SCALE: NONE
C47



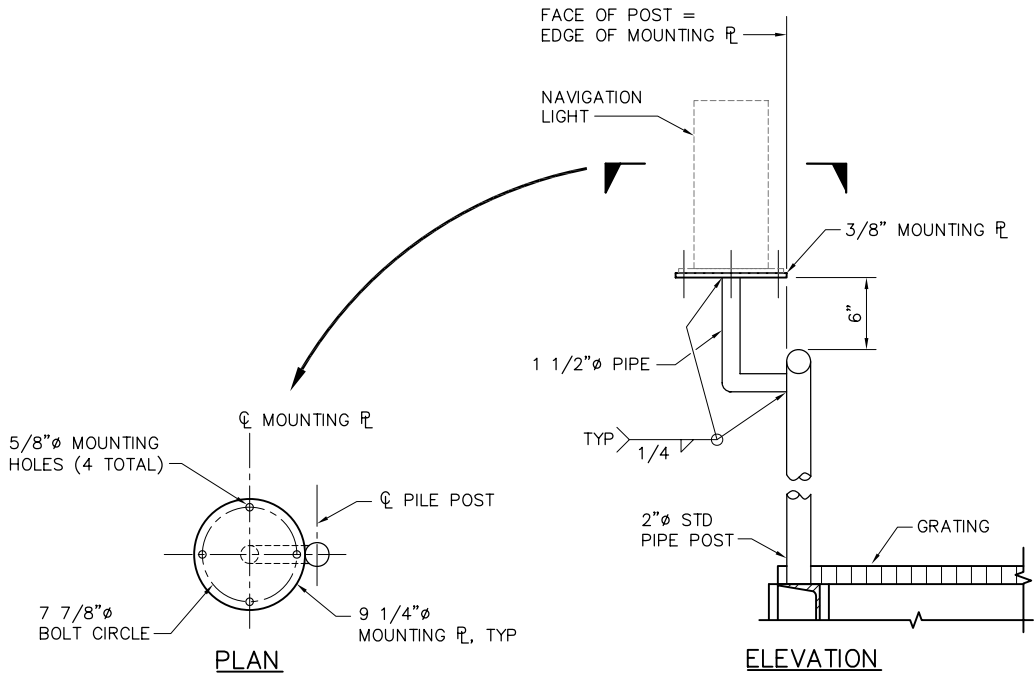
4 SIGN MOUNTING DETAIL
C19 SCALE: NONE
C47



5 SIGNAGE MOUNTING DETAIL
C19 SCALE: NONE
C47



6 BOAT RAMP DOCK SIGN
C19 SCALE: NONE
C47



7 TYPICAL NAVIGATION LIGHT MOUNTING DETAIL
C15 SCALE: 1 1/2\"/>

95% SUBMITTAL

IF SHEET IS LESS THAN 22\"/>

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JOB NO.	6097-03	SUBMITTED BY	RMR	TITLE	

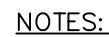
TWO GATE FISH PROTECTION PLAN

DATE 08/07/09

SHEET 69 OF 75

AIDS TO NAVIGATION DETAILS
SHEET 2

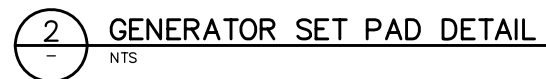
C76



-  SERVICE PANEL AND
TRANSFER SWITCH ELEVATION
NTS



- 3 AREA LIGHT POLE
C13 NTS
C82



1. PROVIDE AND INSTALL MIN 20'-0"L, 1-#3/0 MIN. BARE COPPER UFER GROUND WIRE 2" ABOVE BOTTOM OF PAD. BOND TO ELECTRICAL EQUIPMENT.
2. ANCHOR EQUIPMENT TO CONCRETE PAD WITH ANCHORS PER EQUIPMENT MANUFACTURER'S INSTALLATION INSTRUCTIONS.
3. PROVIDE 6'-0" MIN. CLEAR WORKING SPACE AROUND EQUIPMENT.
4. STUB CONDUITS IN EQUIPMENT AT LOCATIONS PROVIDED BY EQUIPMENT MANUFACTURERS INSTALLATION INSTRUCTIONS. COORDINATE EXACT LOCATION WITH MANUFACTURERS INSTALLATION INSTRUCTIONS.
5. ALL UNDER GROUND CONDUIT SHALL BE SCH 40 PVC 36" BELOW FINISH GRADE.

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Moffatt & Nichol

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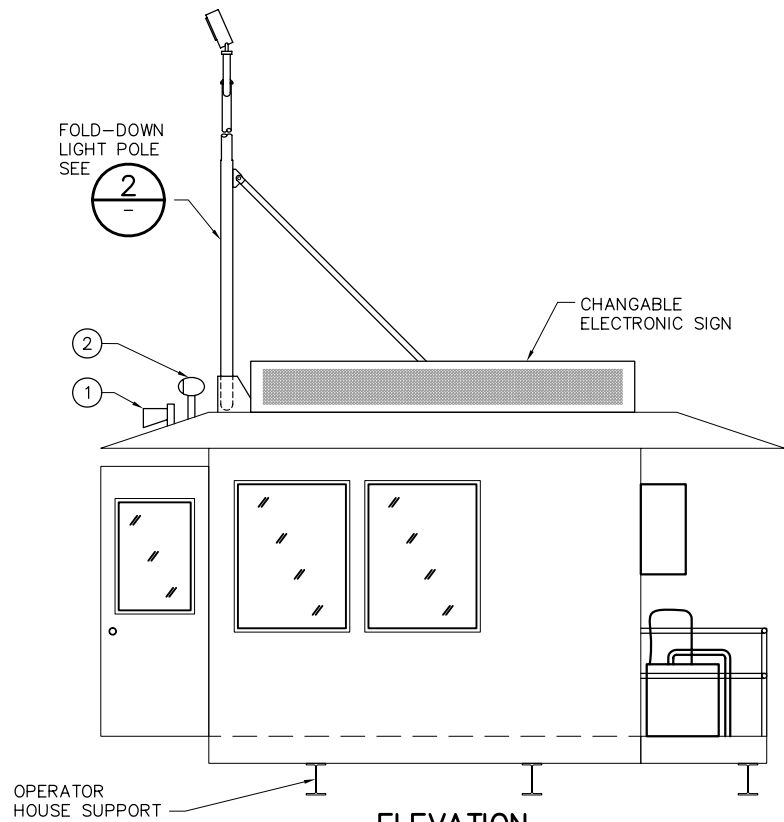
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DM	AB/EP	CBS

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6097-03	RMR	

C77

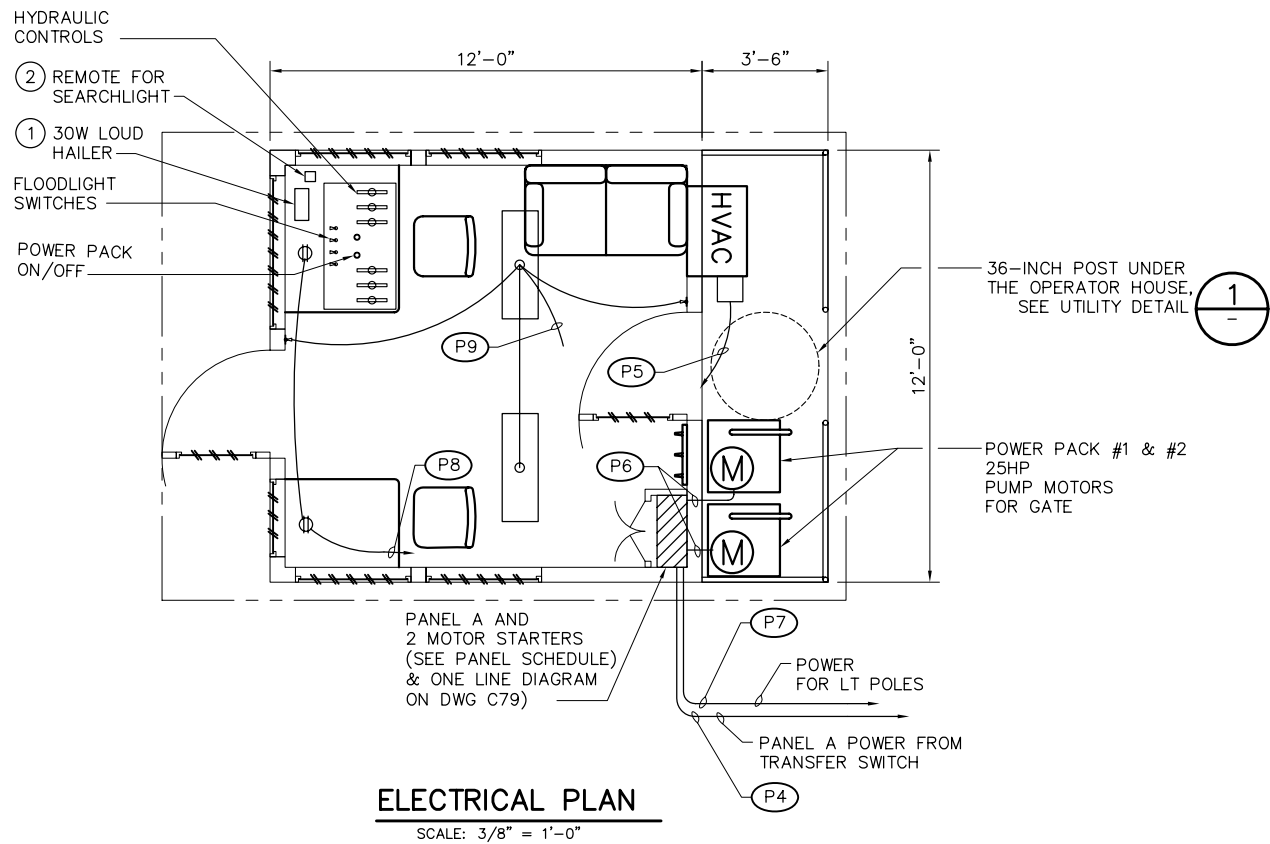
IF SHEET IS LESS THAN 22" x 34"
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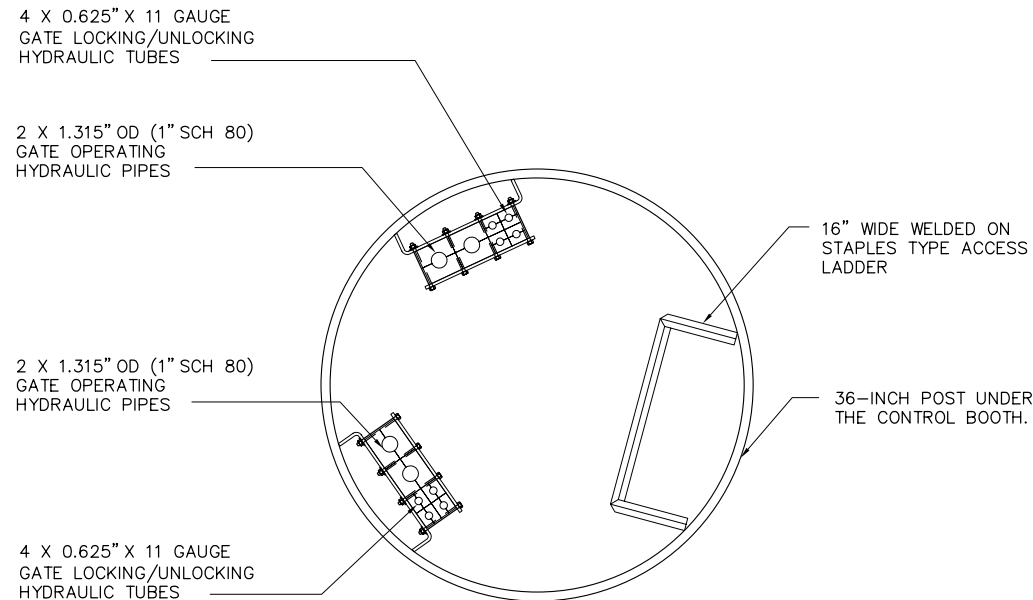
ELEVATION
SCALE: 3/8" = 1'-0"

NOTES:

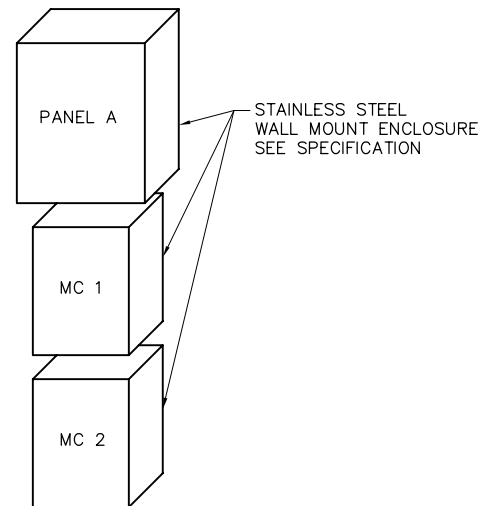
- 1 SECO HAILER HORN
40 HMS, 15 WITH
STANDARD HORIZON
30W LOUD HAILER
MFG #VLH-3000
- 2 REMOTE CONTROLLED SEARCHLIGHT.
ACR ELECTRONICS
MFG #RCL-75 SPOTLIGHT
AND 17' L CABLE HARNESS



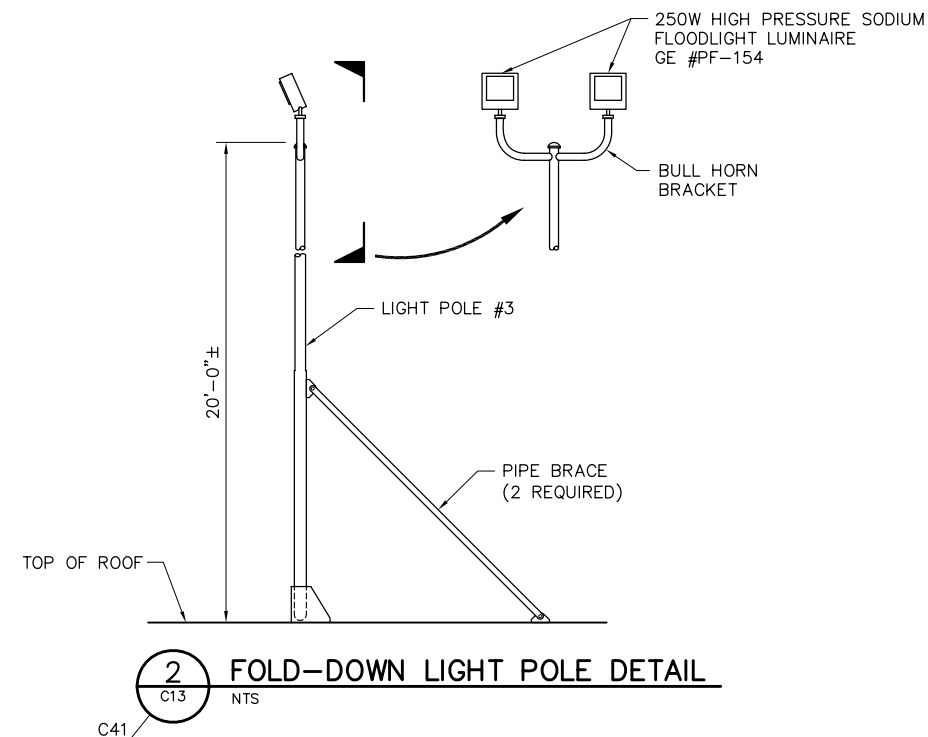
ELECTRICAL PLAN
SCALE: 3/8" = 1'-0"



1 UTILITY DETAIL
SCALE: 1 1/2" = 1'-0"



**ELECTRICAL CABINET
ARRANGEMENT**
NTS



FOLD-DOWN LIGHT POLE DETAIL

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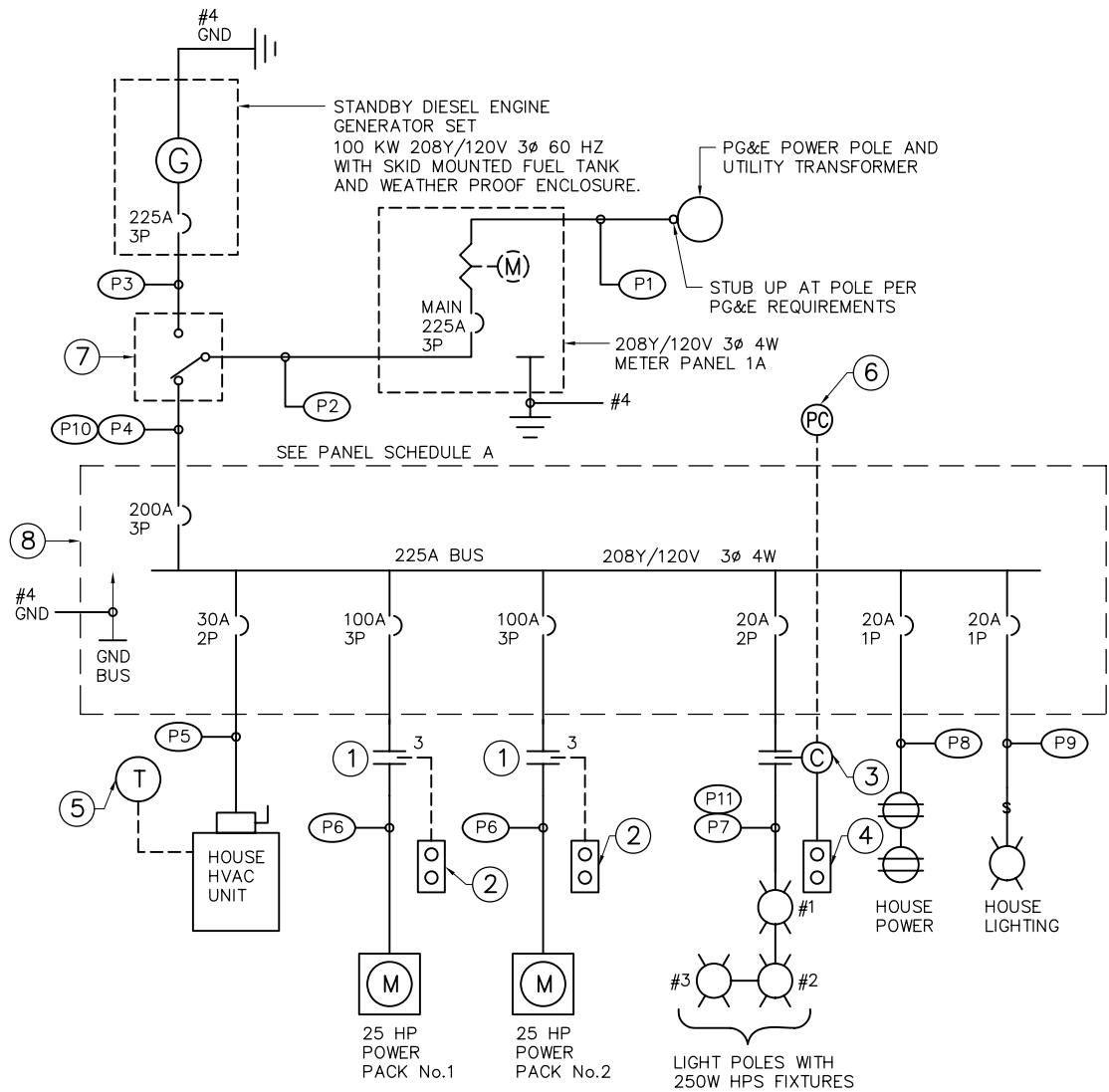
P:\6097-03 SWC GATE DESIGN\CADD\DWG\609703-C78.DWG 7/24/2009 10:52 AM

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CHK	TDB	TITLE	

TWO GATE FISH PROTECTION PLAN		DATE	08/07/09
OPERATOR HOUSE EQUIPMENT AND DETAILS		SHEET	71 OF 75
			C78

P:\6097-03 SWC GATE DESIGN\CADD\DWG\609703-C79.DWG 7/24/2009 10:53 AM



ONE LINE DIAGRAM
N.T.S.

NOTES:

- ① NEMA SIZE 3 COMBINATION MOTOR STARTER
- ② POWER PACK ON/OFF CONTROL IN OPERATOR HOUSE
- ③ 30A LIGHTING CONTACTOR
- ④ FLOOD LIGHT CONTROL. HAND OFF AUTO IN OPERATOR HOUSE
- ⑤ THERMOSTAT CONTROL IN OPERATOR HOUSE
- ⑥ PHOTO CELL LOCATED ON TOP OF OPERATOR HOUSE
- ⑦ 225A - 4W 208Y/120V 3PH. 4 POLE NONAUTOMATIC TRANSFER SWITCH IN A NEMA 3R ENCLOSURE
- ⑧ PANEL "A" LOCATED IN OPERATOR HOUSE

PANEL: A

LOCATION : CONTROL HOUSE					VOLTAGE/PHASE : 208Y/120V, 3Ø, 4W										FED FROM : PANEL 1A							
					BUS AMPS : 225A										MINIMUM BUS BRACING : 10 KA							
MOUNTING : SURFACE					MAIN BREAKER : 200A 3P																	
LOADS	SEE NOTE	OUTLETS			VOLT-AMPS			CKT	BKR/ POLE	A B C			BKR/ POLE	CKT	VOLT-AMPS			OUTLETS			SEE NOTE	LOADS
		LTG	REC	MISC	A	B	C								A	B	C	MISC	REC	LTG		
POWER PACK #1	1			1	9360			1	100/3	*-----	20/2	2	500						4	2	OUT SIDE LIGHTS	
25 HP MOTOR						9360		3	.	*-----	.	4		500								
							9360	5	.	-----*	20/1	6				720		2			HOUSE RECEPT	
POWER PACK #2	1			1	9360			7	100/3	*-----	20/1	8	200						2		HOUSE LIGHTS	
25 HP MOTOR						9360		9	.	*-----		10									SPACE	
							9360	11	.	-----*		12									SPACE	
HOUSE				1	2000			13	30/2	*-----		14									SPACE	
HVAC UNIT						2000		15	.	*-----		16									SPACE	
SPARE								17	20/1	-----*		18									SPACE	
SPARE								19	20/1	*-----		20									SPACE	
SPARE								21	20/1	*-----		22									SPACE	
SPARE								23	20/1	-----*		24									SPACE	
TOTAL ØA = 21420 VOLT-AMPS TOTAL ØB = 21220 VOLT-AMPS TOTAL ØC = 19440 VOLT-AMPS LCL = 300 VOLT-AMPS TOTAL = 62380 VA @ 208V, 3Ø 173.3 AMPS NOTES: 1. CONTROLLED BY SIZE 3 MOTOR STARTER 2. CONTROLLED BY PHOTOCELL AND HAND-OFF-AUTO SWITCH																						

CONDUIT AND FEEDER SCHEDULE

	CONDUIT	CONDUCTOR	REMARKS
P1	3" PVC	PULL ROPE	CONDUCTORS BY PG&E
P2	3" PVC	4 #4/0 & 1 #4 GND	TO TRANSFER SWITCH
P3	3" PVC	4 #4/0 & 1 #4 GND	TO TRANSFER SWITCH
P4	3" PVC	4 #4/0 & 1 #4 GND	SURVING PANEL A
P5	1" PVC	2 #10 & 1 #4 GND	HVAC
P6	1 1/4" PVC	3 #2 & 1 #2 GND	POWER PACK #1 & #2
P7	1" PVC	2 #8 & 1 #8 GND	AREA LIGHTING
P8	1/2" PVC	2 #12 & 1 #12 GND	HOUSE POWER
P9	1/2" PVC	2 #12 & 1 #12 GND	HOUSE LIGHTING
* P10	-	3 #4/0 & 1 #4/0 NET	OVERHEAD CABLE
* P11	-	2 #1/0 & 1 #1/0 NET	OVERHEAD CABLE

* PAC 600V PARALLEL AERIAL CABLE ALUMINUM HD POLY 75° C.

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JOB NO. 6097-03	SUBMITTED BY RMR	TITLE

TWO GATE FISH PROTECTION PLAN

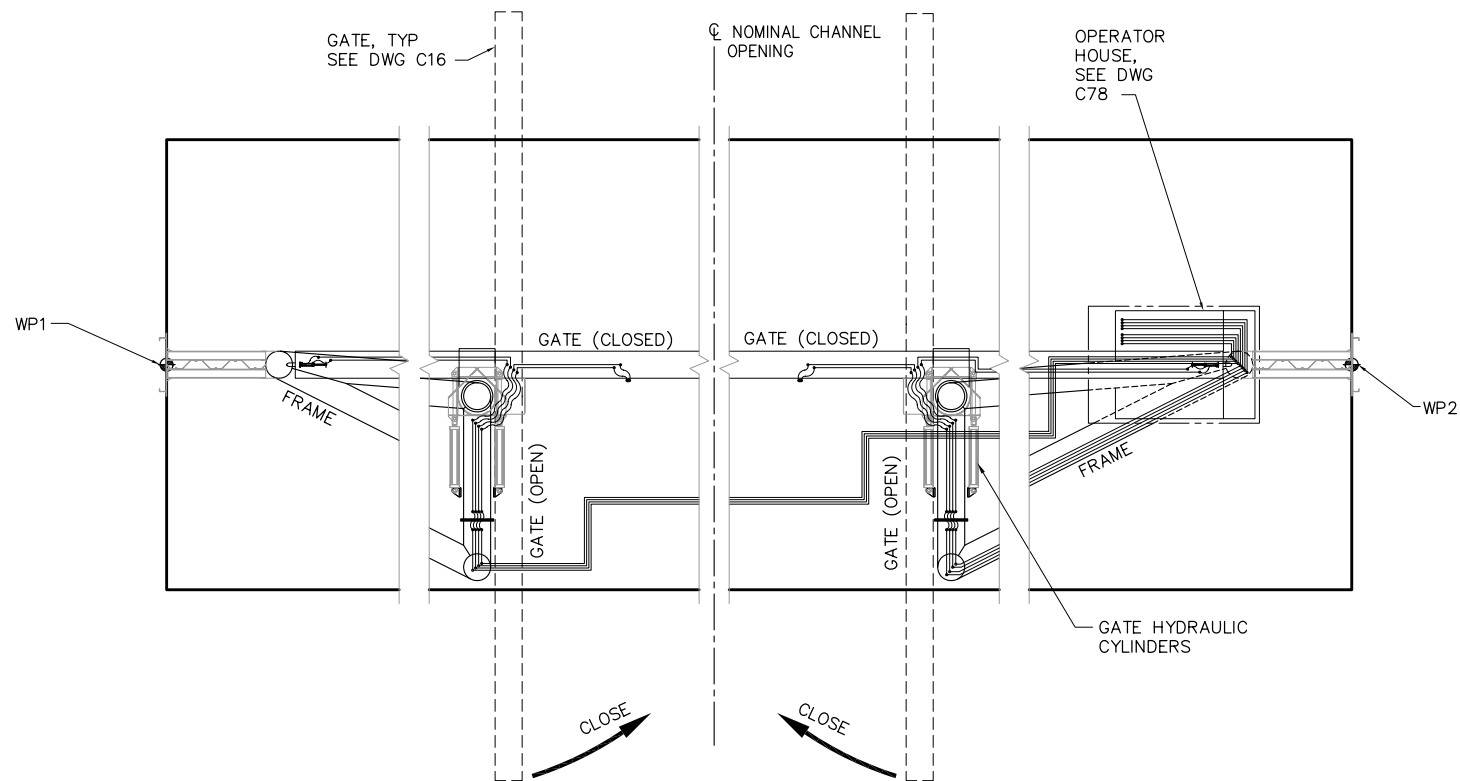
DATE 08/07/09

SHEET 72 OF 75

ELECTRICAL SYSTEM DIAGRAM

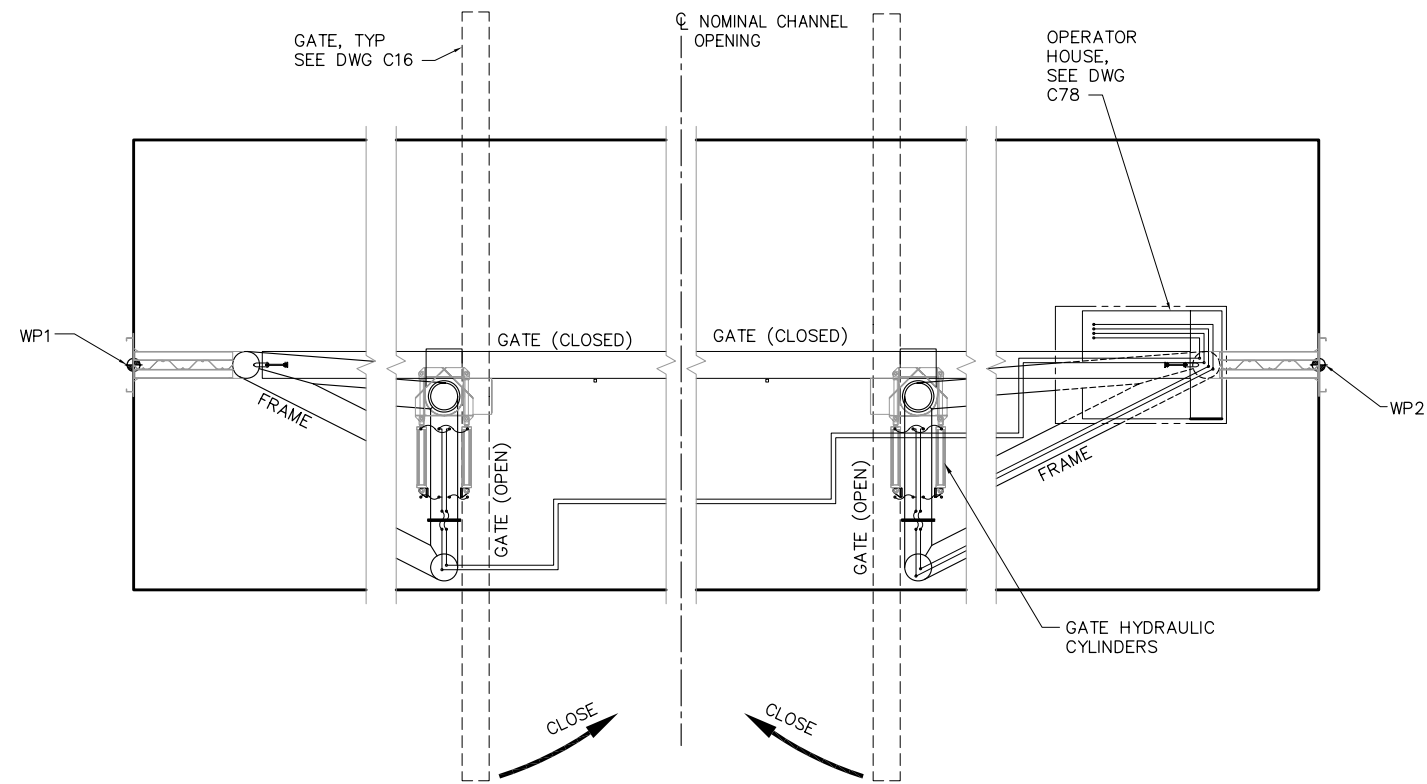
C79

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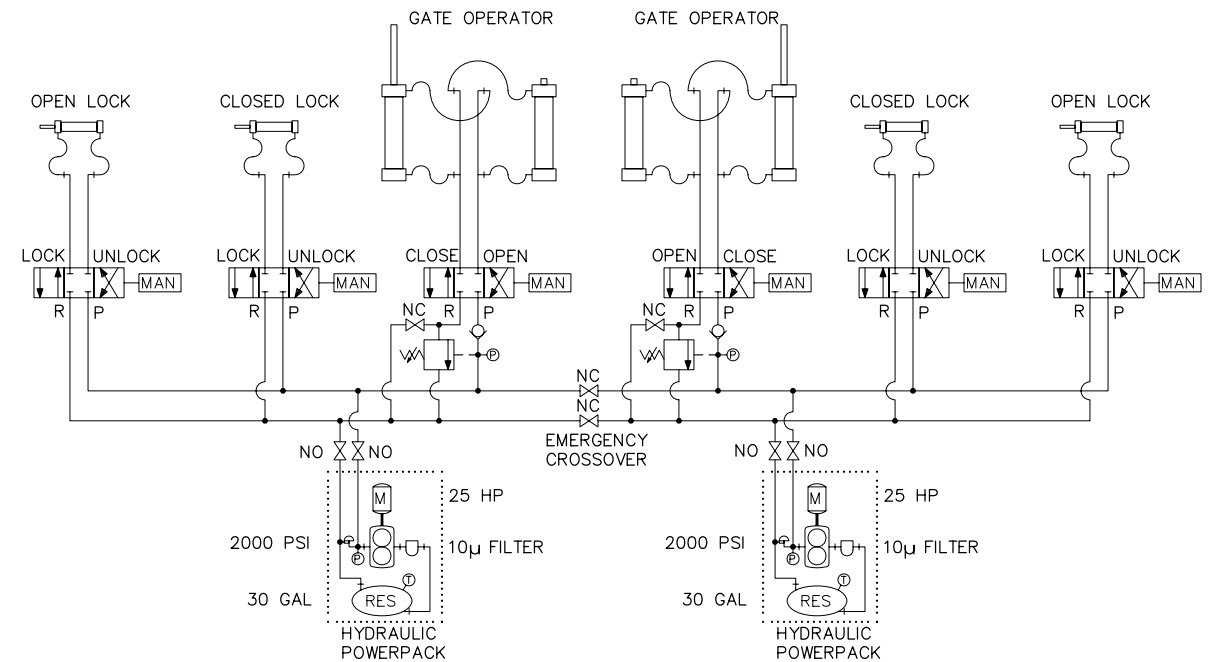
GATE LOCKING HYDRAULIC DIAGRAM

SCALE: 3/32" = 1'-0"



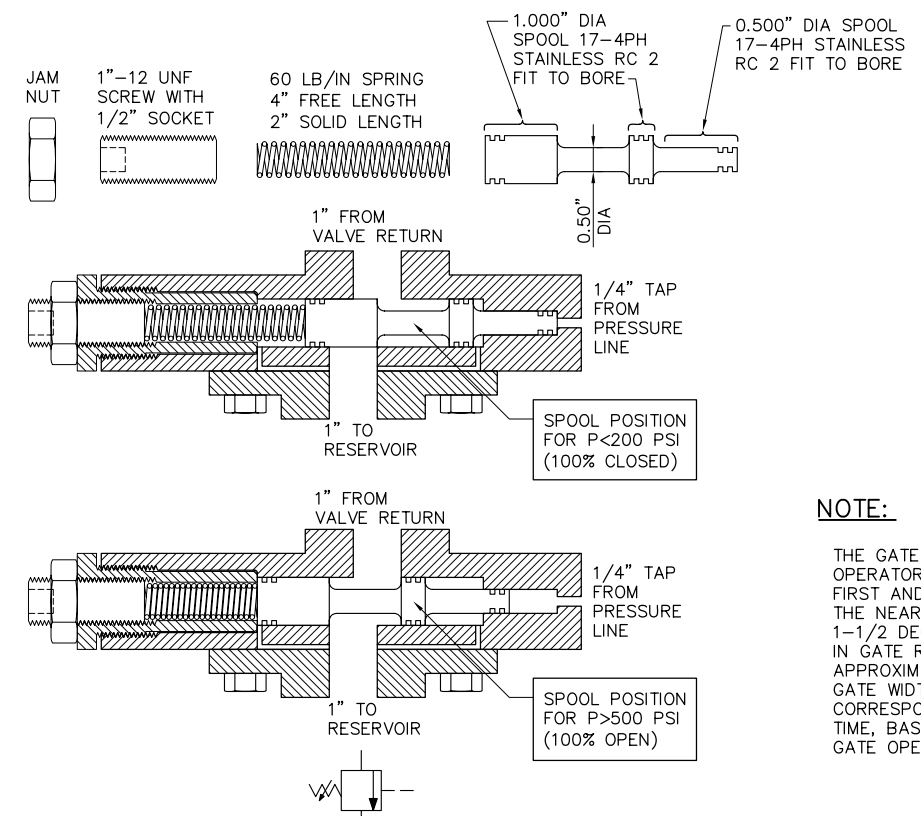
GATE OPERATOR HYDRAULIC DIAGRAM

SCALE: 3/32" = 1'-0"



HYDRAULIC SYSTEM SCHEMATIC

NTS



TYPICAL BRAKE VALVE

(EXTERNALLY PILOTED COUNTERBALANCE VALVE)

NTS

NOTE:

THE GATE FARTHEST FROM THE OPERATOR HOUSE MUST BEGIN OPENING FIRST AND CLOSE SLIGHTLY LATER THAN THE NEAR GATE WITH APPROXIMATELY 1-1/2 DEGREES MAXIMUM DIFFERENCE IN GATE ROTATION. (1-1/2 DEGREES IS APPROXIMATELY ONE-HALF OF THE GATE WIDTH LEAD OR LAG, AND CORRESPONDS TO A 4 SECOND DELAY TIME, BASED ON A 4 MINUTE TOTAL GATE OPENING TIME.)

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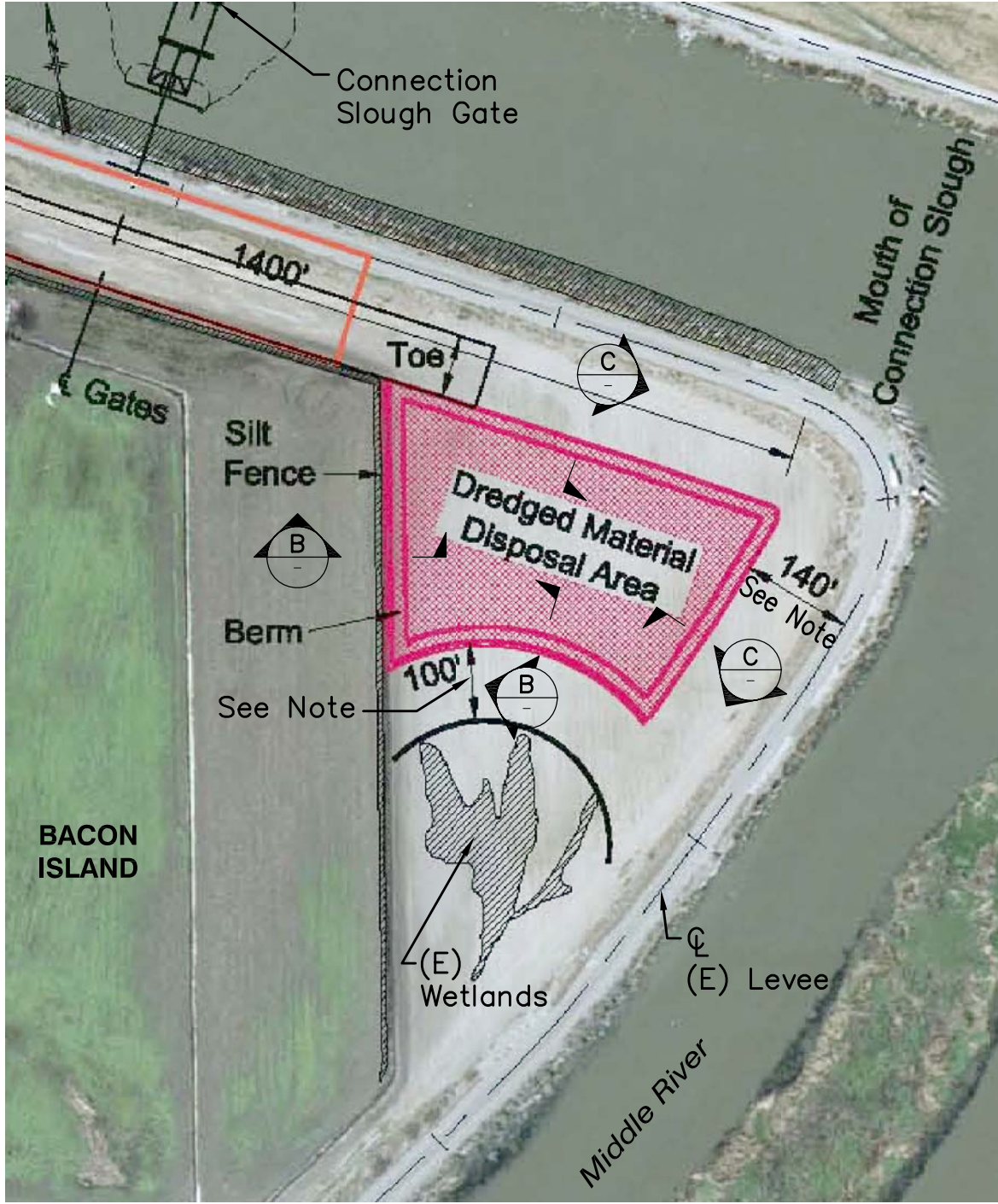
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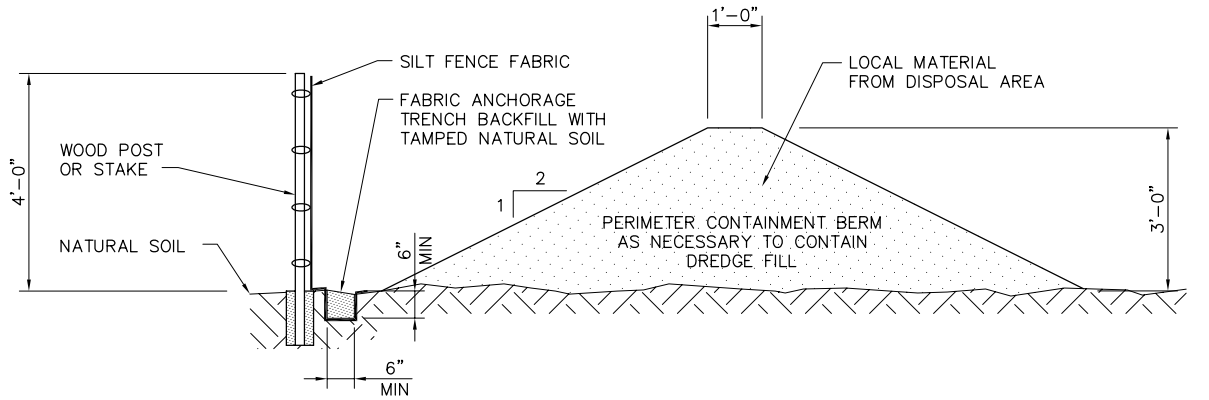
TWO GATE FISH PROTECTION PLAN		DATE	08/07/09
HYDRAULICS SYSTEM DIAGRAM		SHEET	73 OF 75

C80

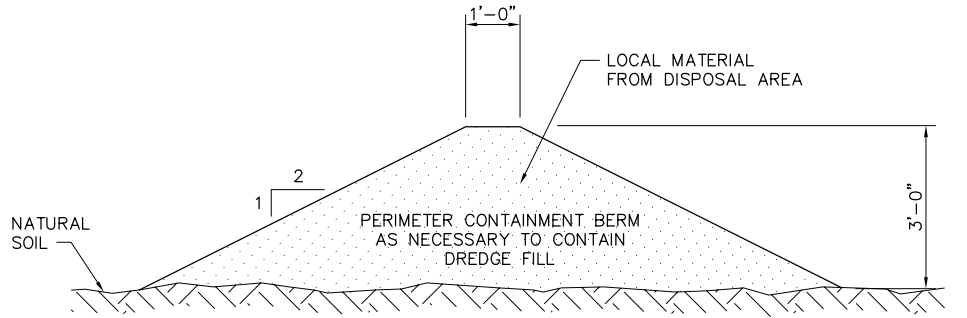
P:\6097-03 SWC GATE DESIGN\CADD\DWG\609703-C81.DWG 8/7/2009 10:54 AM



A DISPOSAL SITE PLAN
NTS
NOTE: SEE DWG G4 FOR LOCATION.



B SECTION
SCALE: NONE



C SECTION
SCALE: NONE

NOTE:
NO DREDGE MATERIAL SHALL BE PLACED WITHIN 140'
OF THE LEVEE CENTERLINE AND 100' OF THE WETLANDS.

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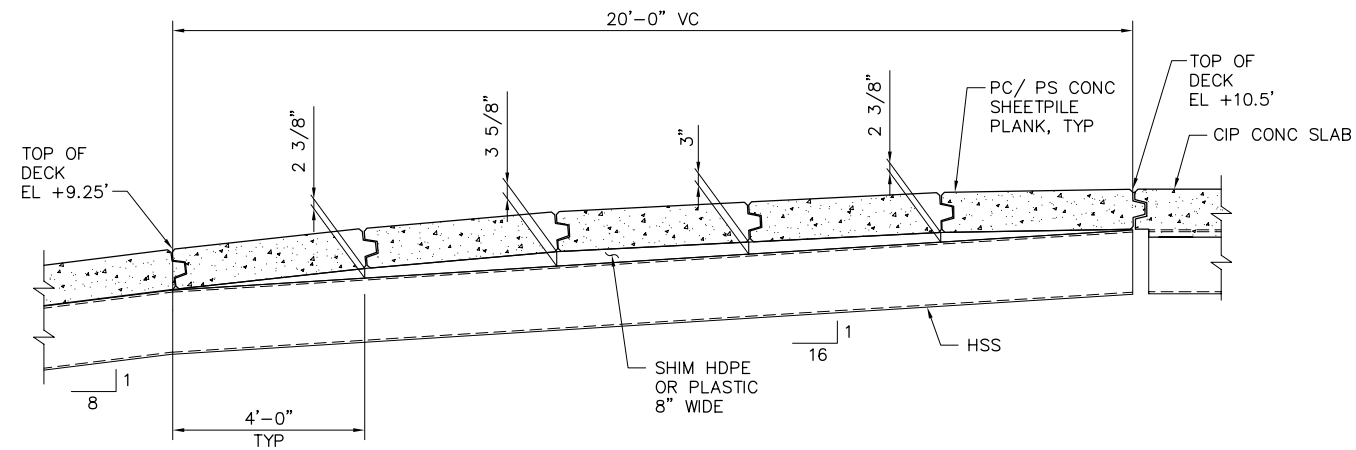
REVISION	DESCRIPTION	BY	DATE

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DSGN	TDB	DR
JOB NO.	6097-03	TAE/AB
		CHK
		GTH
		SUBMITTED BY
		RMR
		TITLE

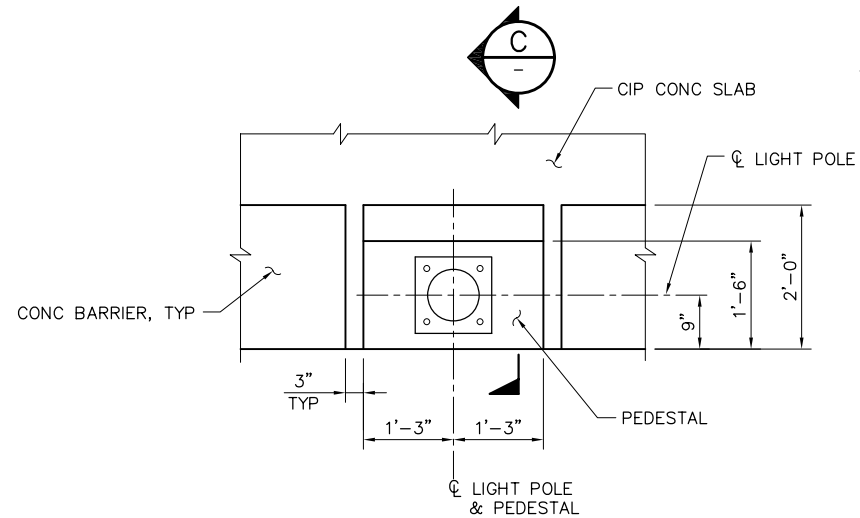
TWO GATE FISH PROTECTION PLAN
DREDGED MATERIAL DISPOSAL SITE

DATE 08/07/09
SHEET 74 OF 75
C81

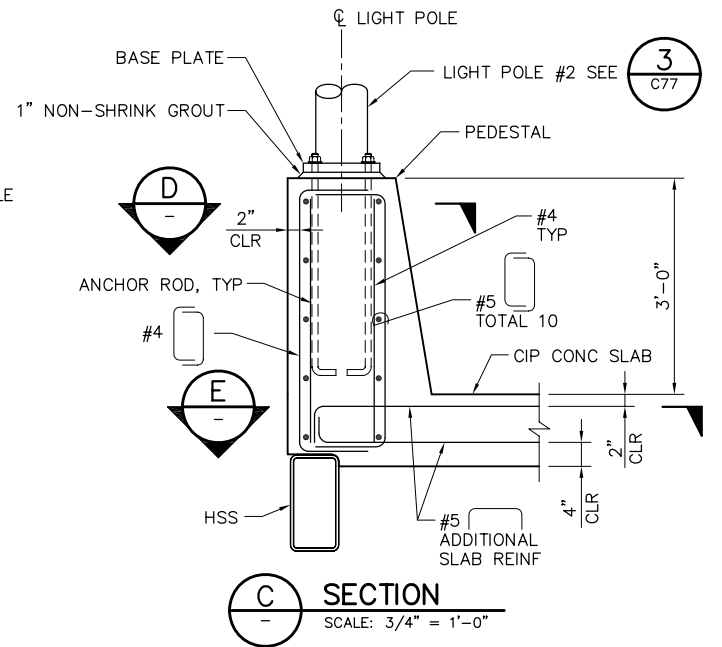
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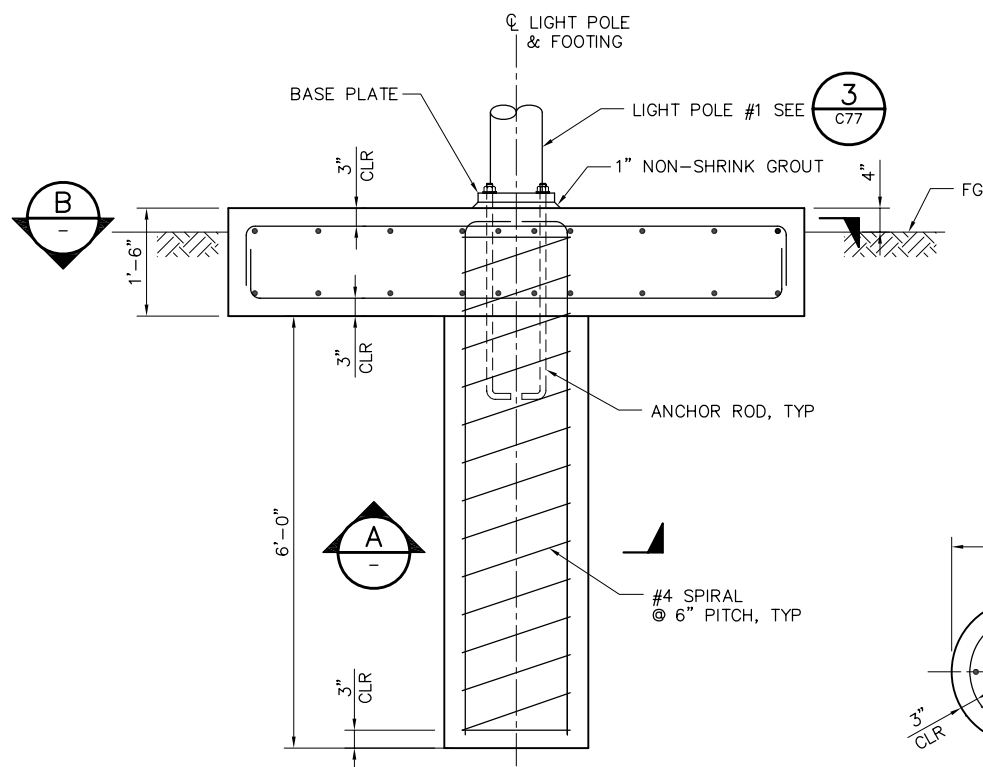
1
C7
DETAIL
SCALE: 1/2" = 1'-0"



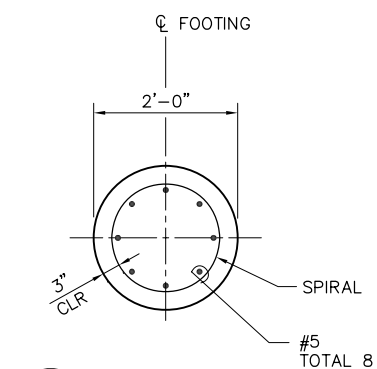
3
C39
DETAIL
SCALE: 3/4" = 1'-0"



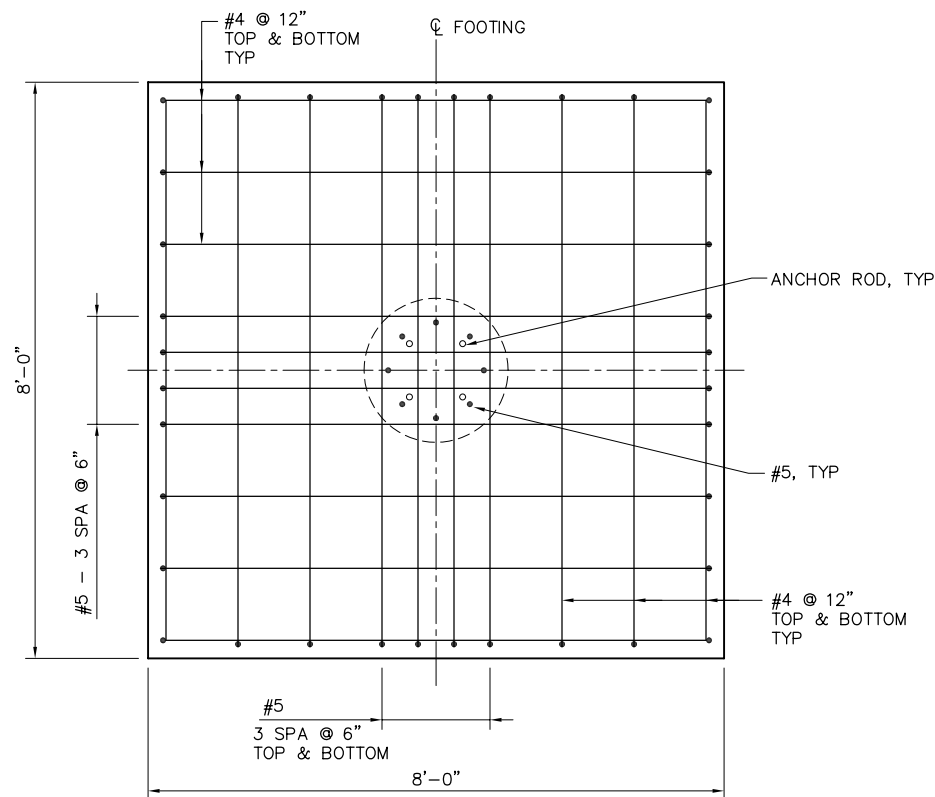
C
SECTION
SCALE: 3/4" = 1'-0"



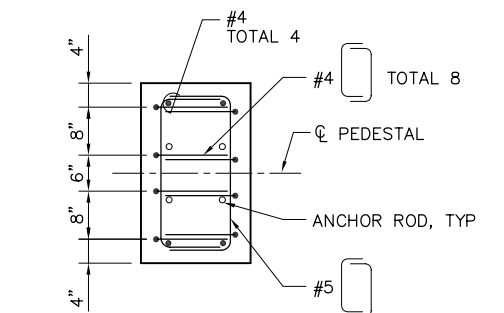
2
C77
DETAIL
SCALE: 3/4" = 1'-0"



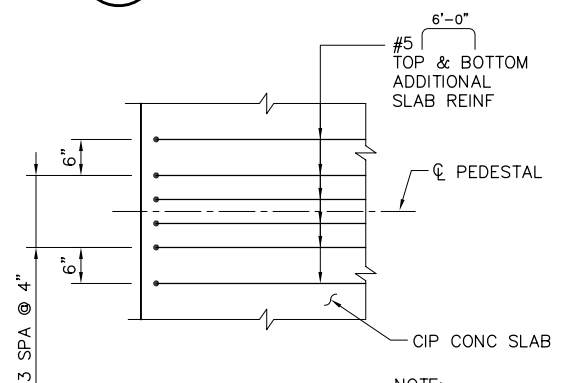
A
SECTION
SCALE: 3/4" = 1'-0"



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

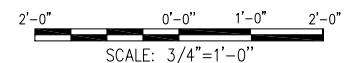


D
SECTION
SCALE: 3/4" = 1'-0"



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

NOTE:
PEDESTAL REINFORCEMENT
NOT SHOWN FOR CLARITY.



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TWO GATE FISH PROTECTION PLAN
MISCELLANEOUS DETAILS

DATE 08/07/09
SHEET 75 OF 75
C82