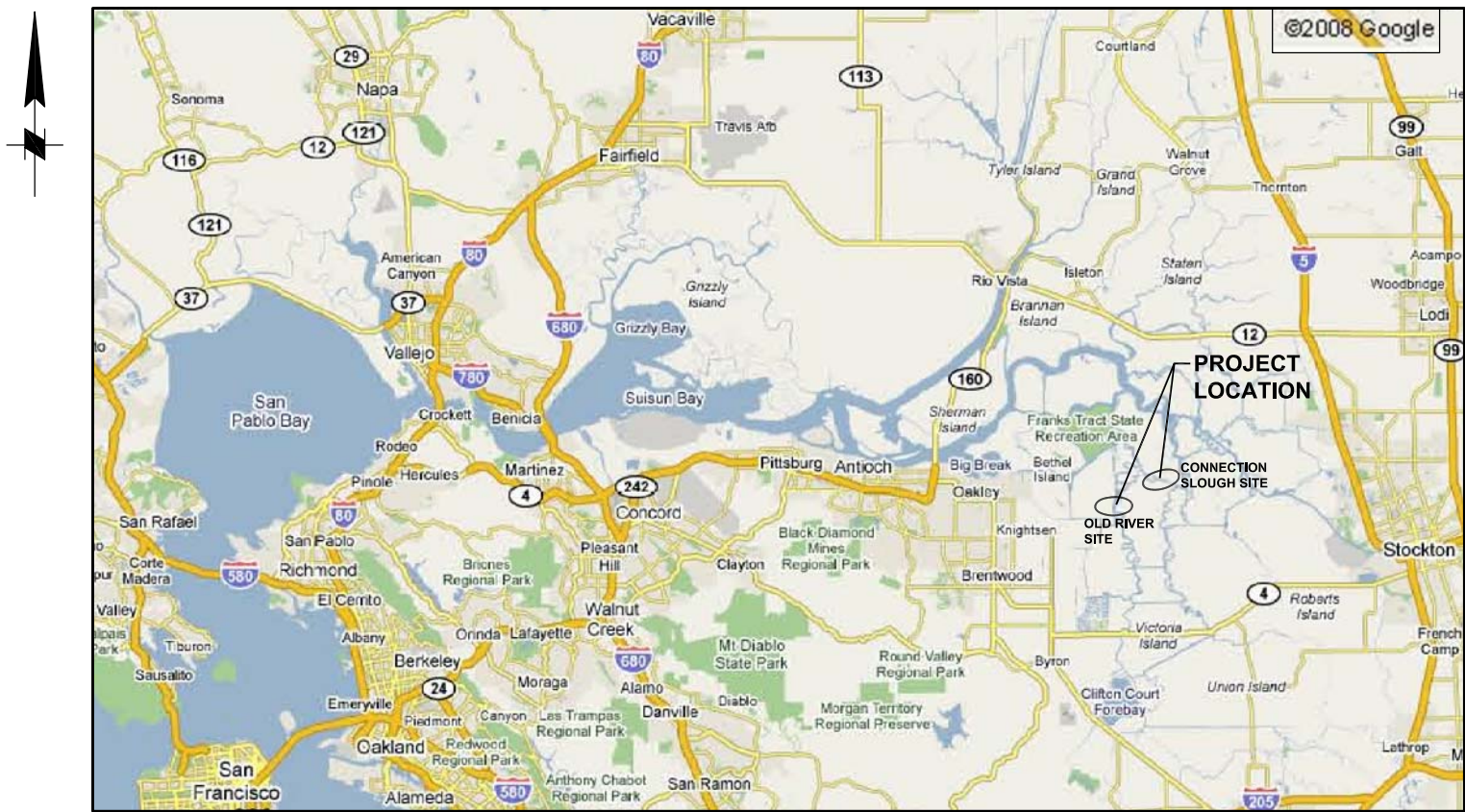


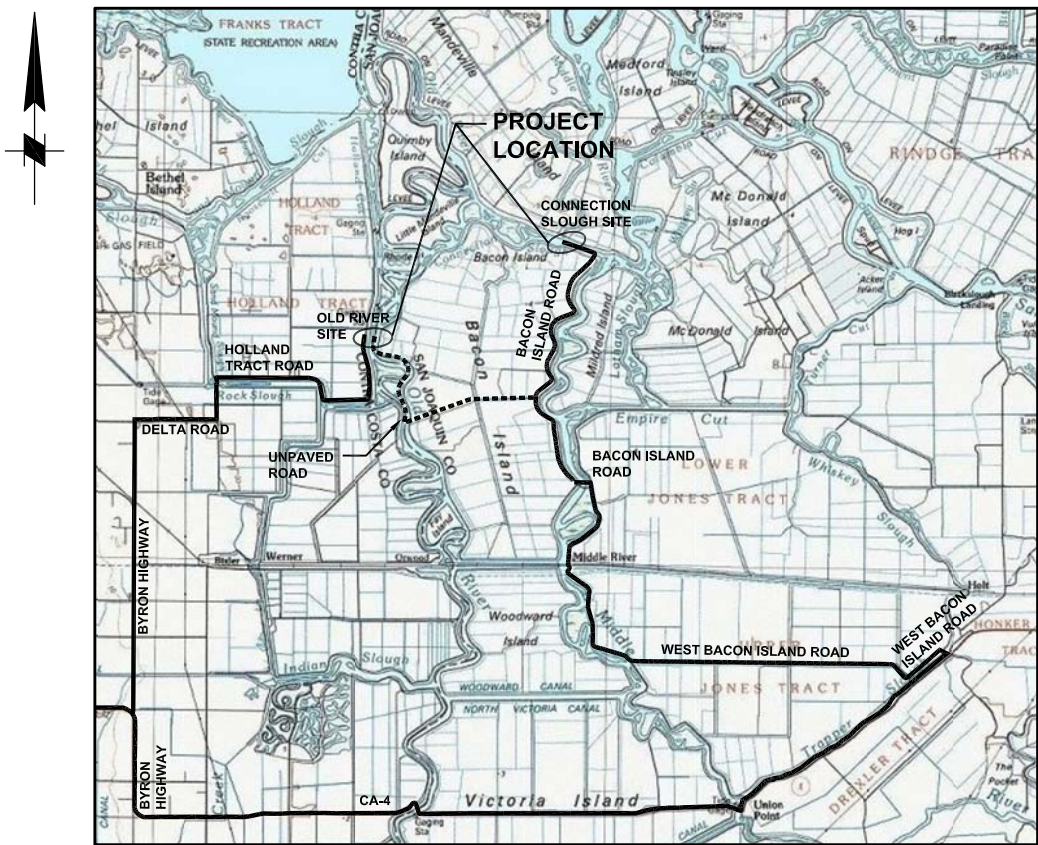
95% Design Plans for Old River Site and Connection Slough Sites

TWO GATE FISH PROTECTION PLAN

BACON ISLAND, CALIFORNIA



VICINITY MAP
NTS



LOCATION MAP
NTS

TECHNICAL REVIEWERS		 1121 L Street, Suite 1050 Sacramento, California 95814-3944 (916) 447-7357 x203
CIVIL _____ (NAME)	STRUCTURAL _____ (NAME)	
ELECTRICAL _____ (NAME)	MECHANICAL _____ (NAME)	
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
								SHEET 1 OF 75
						DSGN TDB DR AB CHK GTH JOB NO. 6097-03 SUBMITTED BY RMR TITLE	TITLE SHEET	G1

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29	C32	CONNECTION SLOUGH, DREDGING – PLAN AND SECTION
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31	C34	CONNECTION SLOUGH, BARGE–ROCK FILL PLAN AND SECTIONS
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52	C59	GATE STRUCTURAL DETAILS, SHEET 4
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72	C79	ELECTRICAL SYSTEM DIAGRAM
73	C80	HYDRAULICS SYSTEM DIAGRAM
74	C81	DREDGED MATERIAL DISPOSAL SITE
75	C82	MISCELLANEOUS DETAILS

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								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

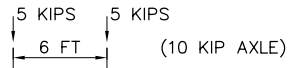
PROJECT ELEVATIONS ARE BASED ON NAVD’88.

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

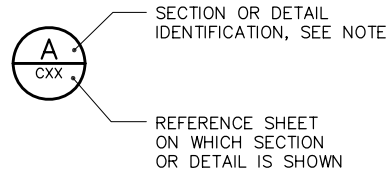
SHIP IMPACT: DOLPHINS/MONOPILES: ACCIDENTAL IMPACT 95 KIP LOAD
AT EL +7.0’

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

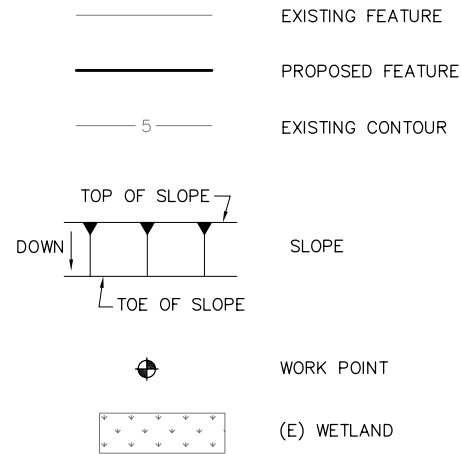
&	AND	NAD	NORTH AMERICAN DATUM
#	NUMBER	NAVD	NORTH AMERICAN VERTICAL DATUM
%	PERCENT	NTS	NOT TO SCALE
APPROX	APPROXIMATE	OC	ON CENTER
ASTM	ASTM INTERNATIONAL	OD	OUTSIDE DIAMETER
C/C	CENTER TO CENTER	OG	ORIGINAL GROUND
CJP	COMPLETE JOINT PENETRATION	OPP	OPPOSITE
℄	CENTER LINE	PC/PS	PRECAST/PRESTRESSED
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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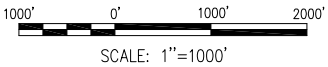
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REVISION	DESCRIPTION	BY	DATE			 2001 N. Main Street, Suite 360 Walnut Creek, California 94596 (925) 944-5411	TWO GATE FISH PROTECTION PLAN		DATE 08/07/09		
									SHEET 3 OF 75		
						DSGN	TDB	DR	AB	CHK	GTH
						JOB NO.	6097-03	SUBMITTED BY	RMR	TITLE	
						ABBREVIATIONS, LEGEND AND GENERAL NOTES					G3

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PROJECT GENERAL PLAN
SCALE: 1"= 1000'



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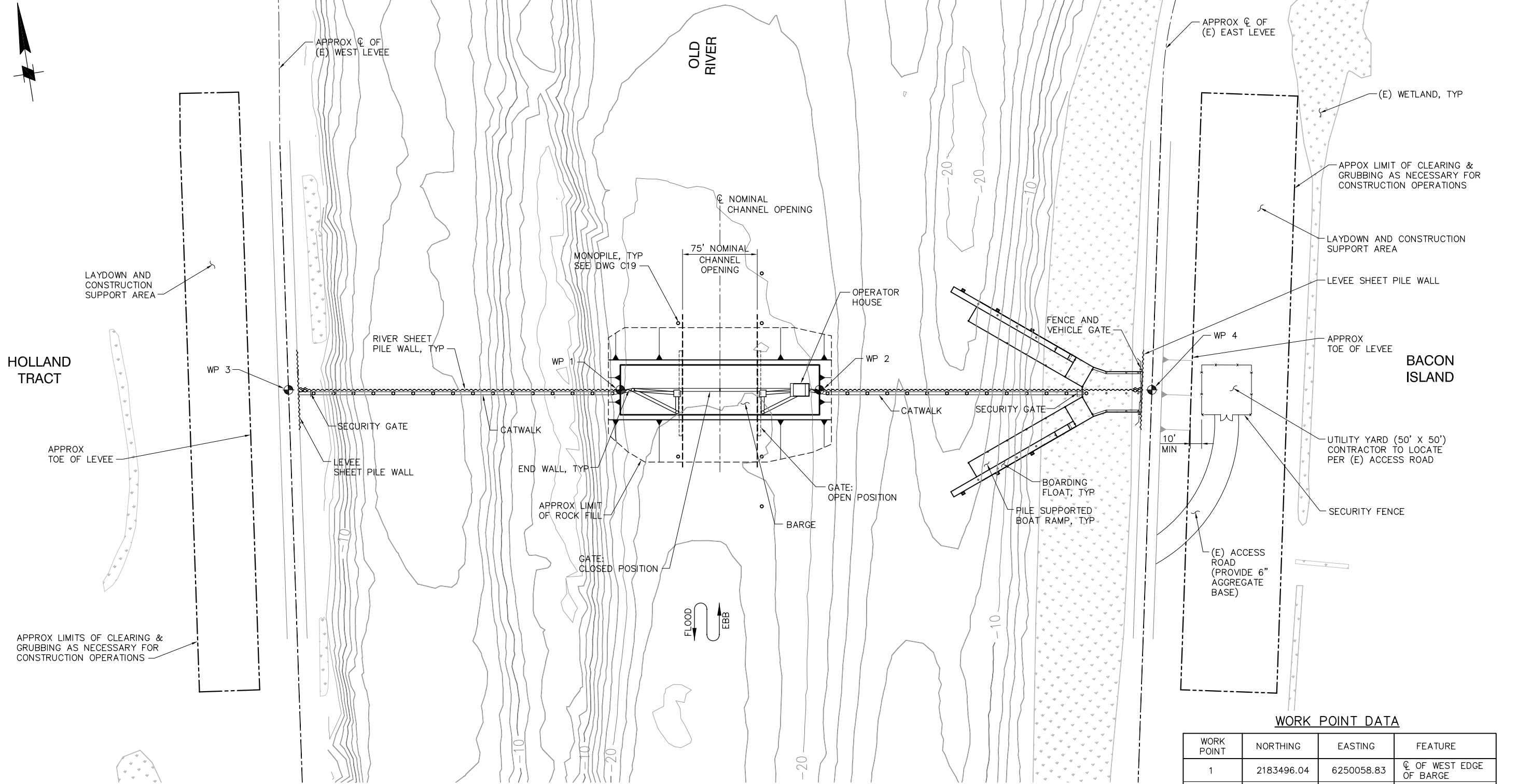
REVISION	DESCRIPTION	BY	DATE

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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

P:\6097-03 SWC GATE DESIGN\CADD\DWG\609703-C1.DWG 8/5/2009 10:08 AM



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



2001 N. Main Street, Suite 360
Walnut Creek, California 94596
(925) 944-5411

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

TWO GATE FISH PROTECTION PLAN

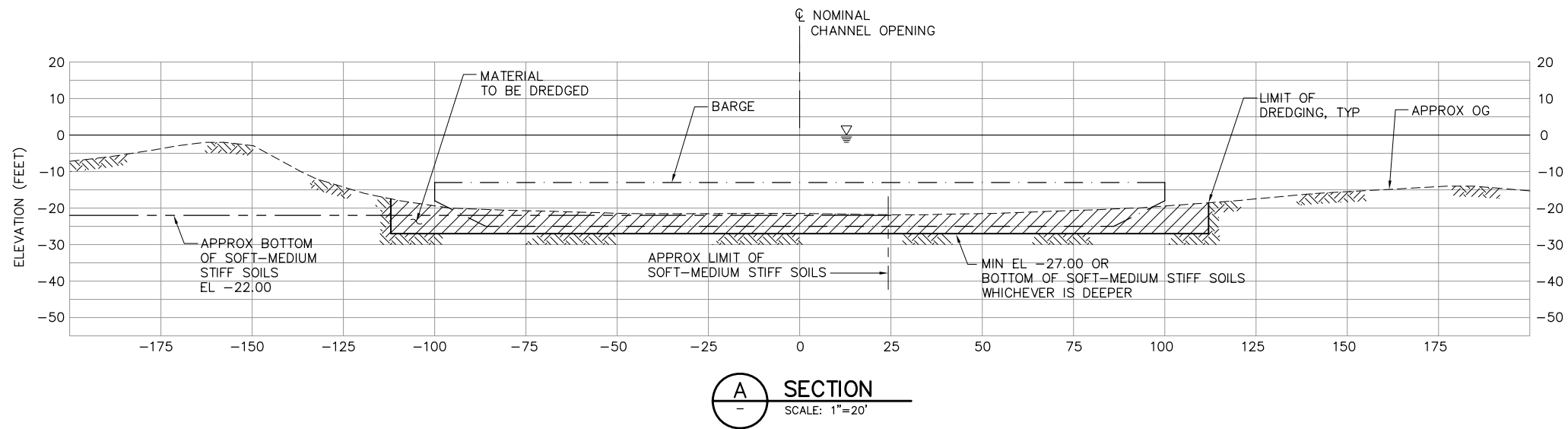
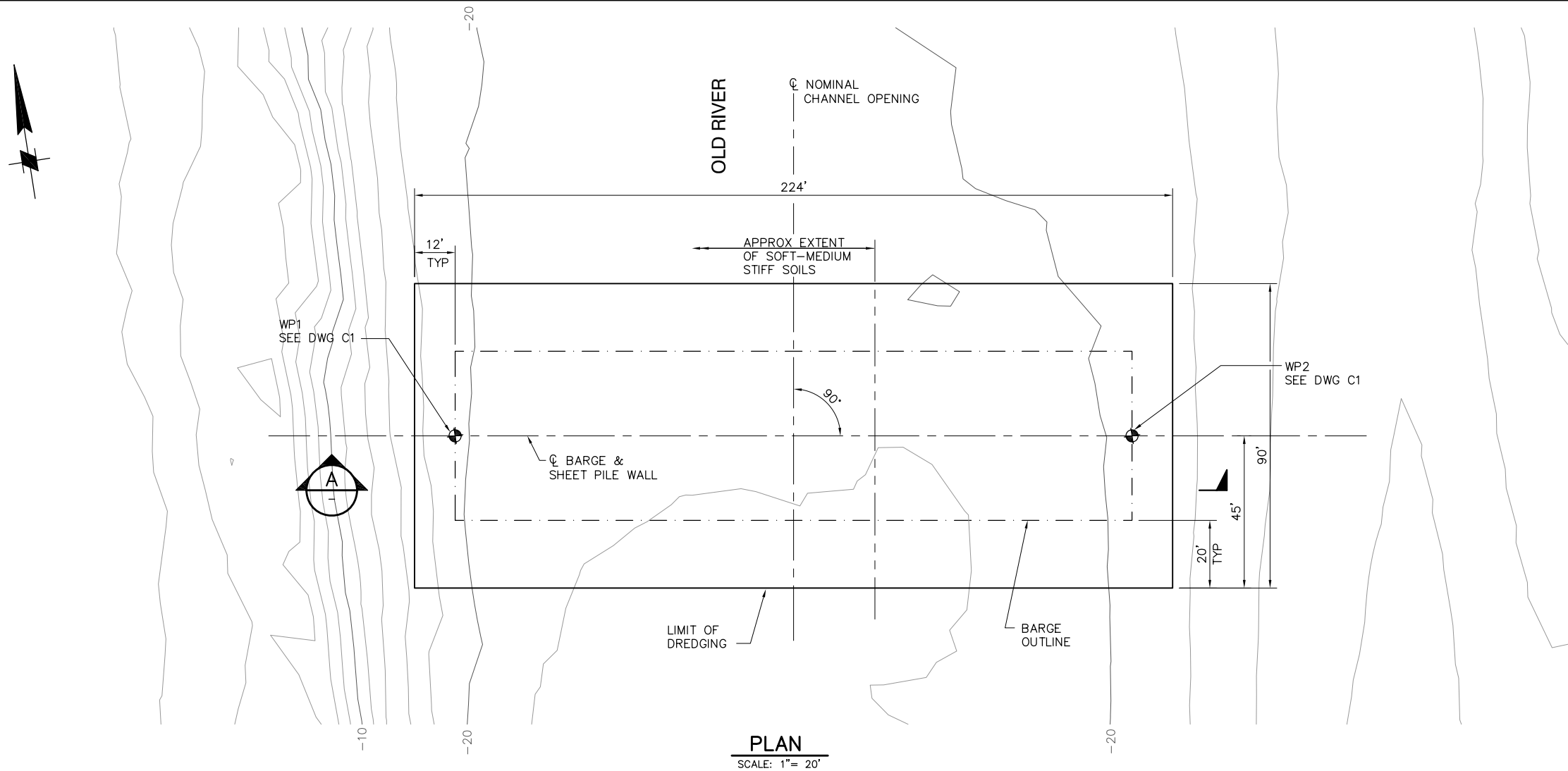
**OLD RIVER
SITE PLAN**

DATE 08/07/09

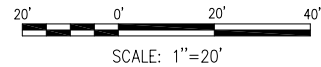
SHEET 5 OF 75

C1

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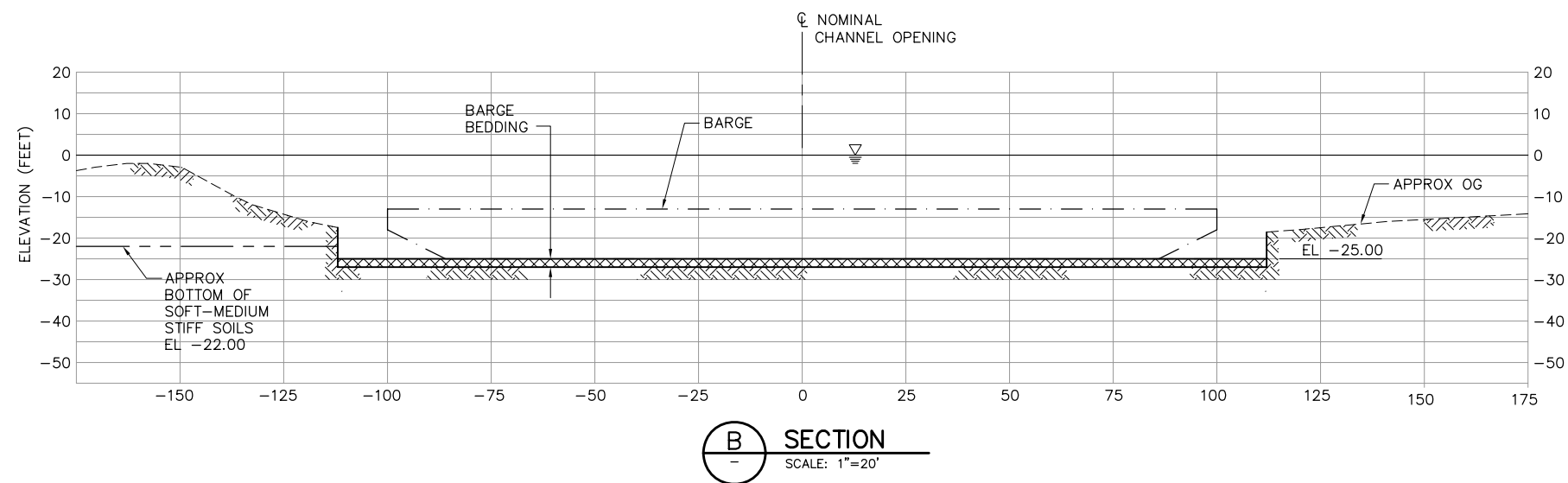
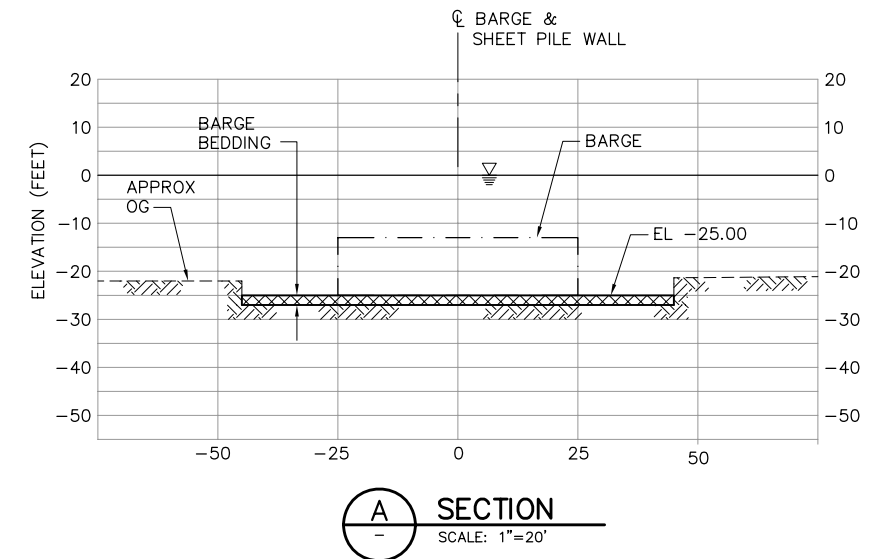
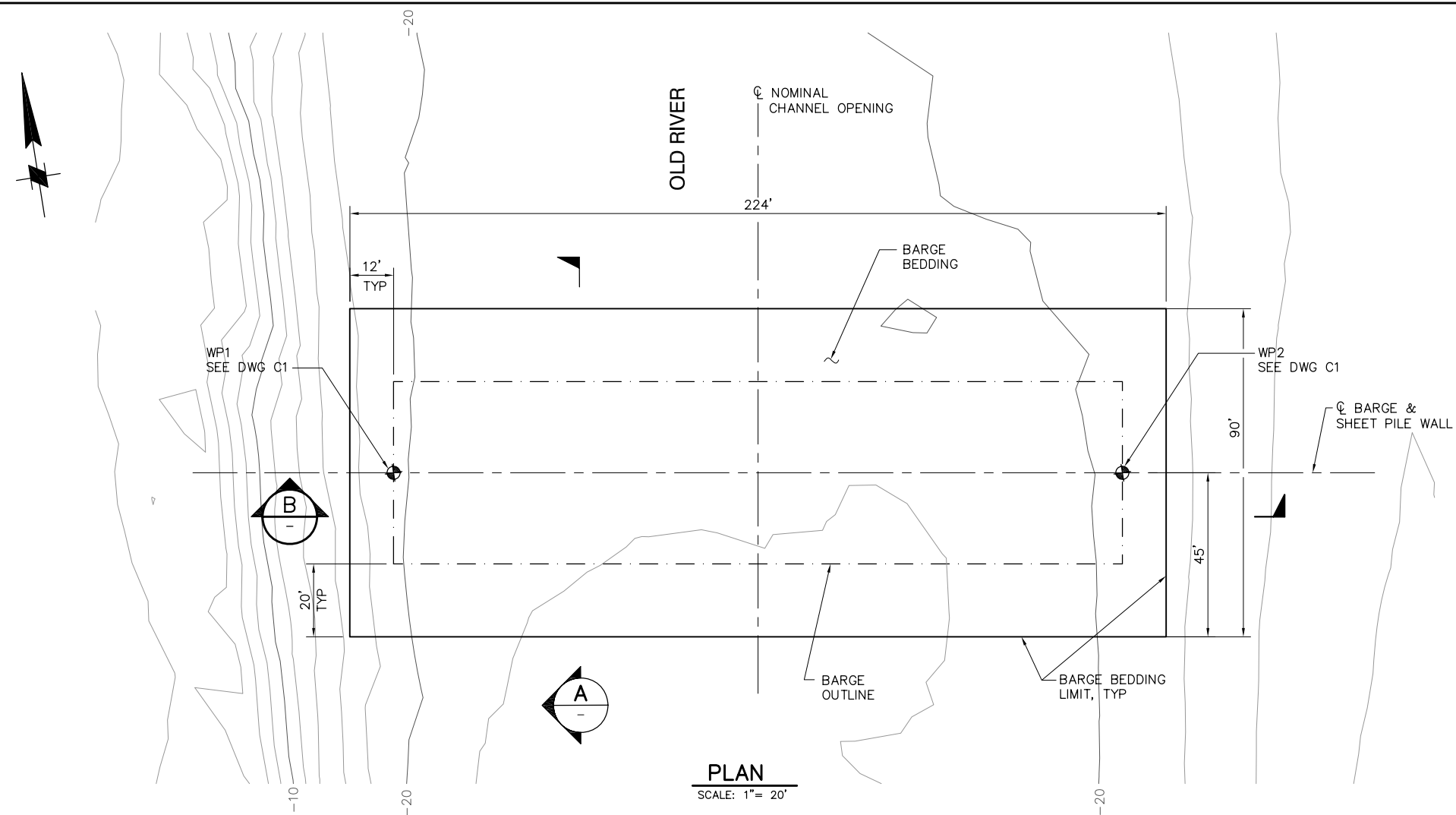
NOTE:
GATE AND ALL OTHER FEATURES
NOT SHOWN FOR CLARITY.



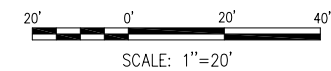
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								SHEET 6 OF 75
							OLD RIVER DREDGING PLAN AND SECTION	C2



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

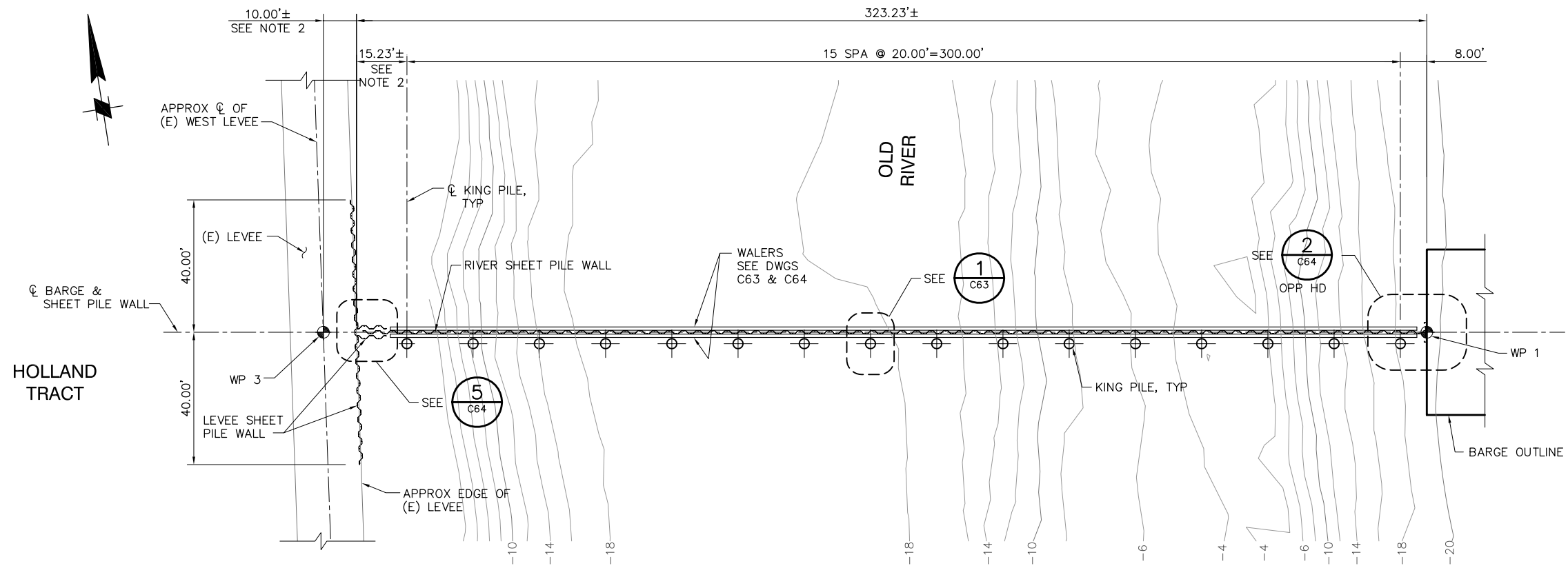


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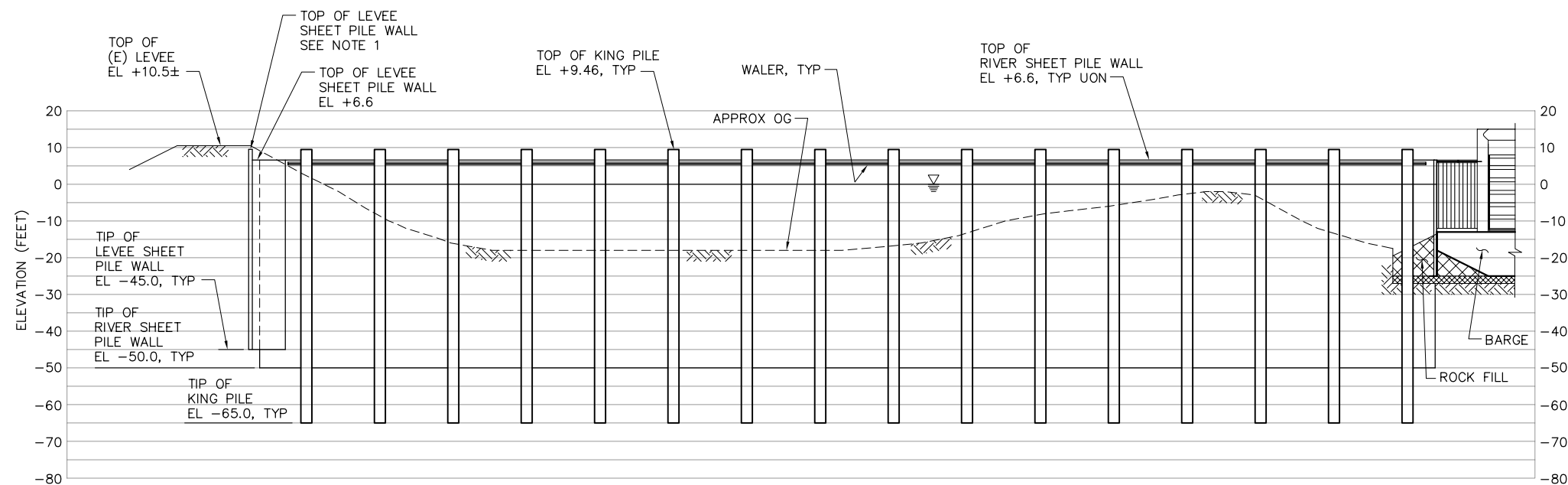
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							SHEET 7 OF 75
				DSGN TDB DR AB CHK GTH	OLD RIVER BARGE BEDDING PLAN AND SECTIONS		C3
				JOB NO. 6097-03 SUBMITTED BY RMR TITLE			

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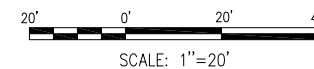
PLAN
SCALE: 1"= 20'

NOTE:
CATWALK NOT SHOWN
FOR CLARITY.



ELEVATION
SCALE: 1"= 20'

NOTE:
CATWALK NOT SHOWN
FOR CLARITY.



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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.

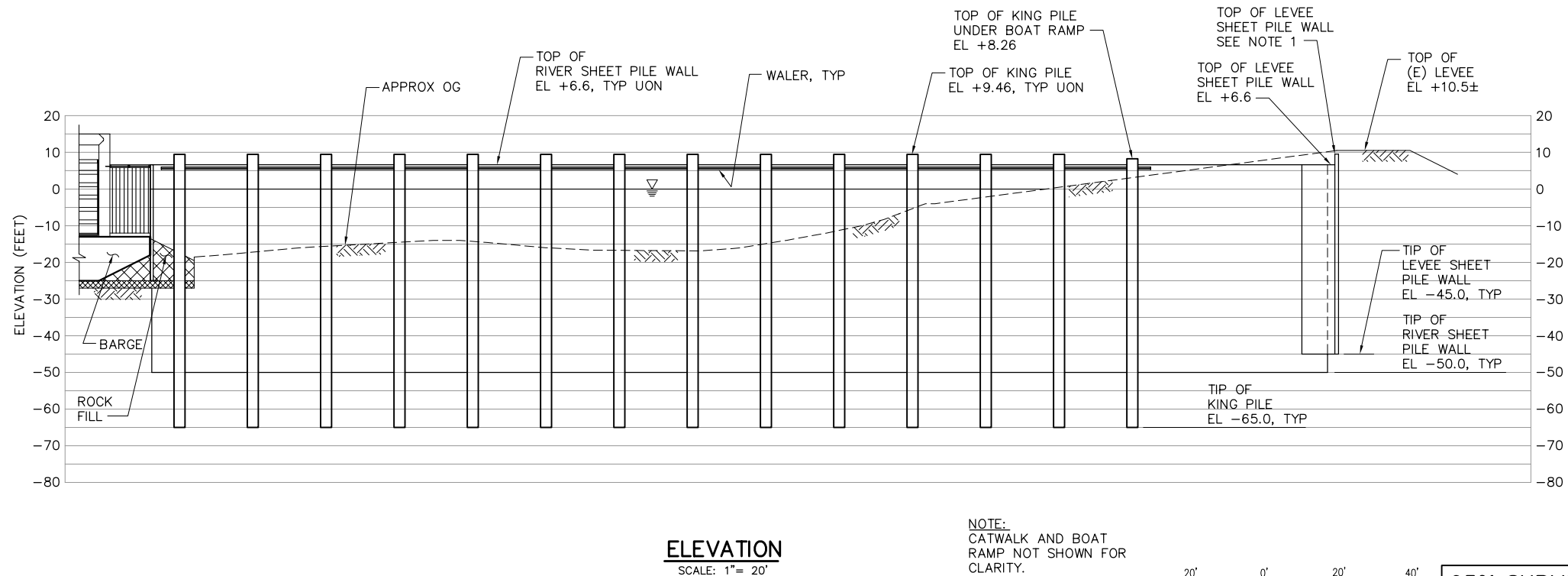
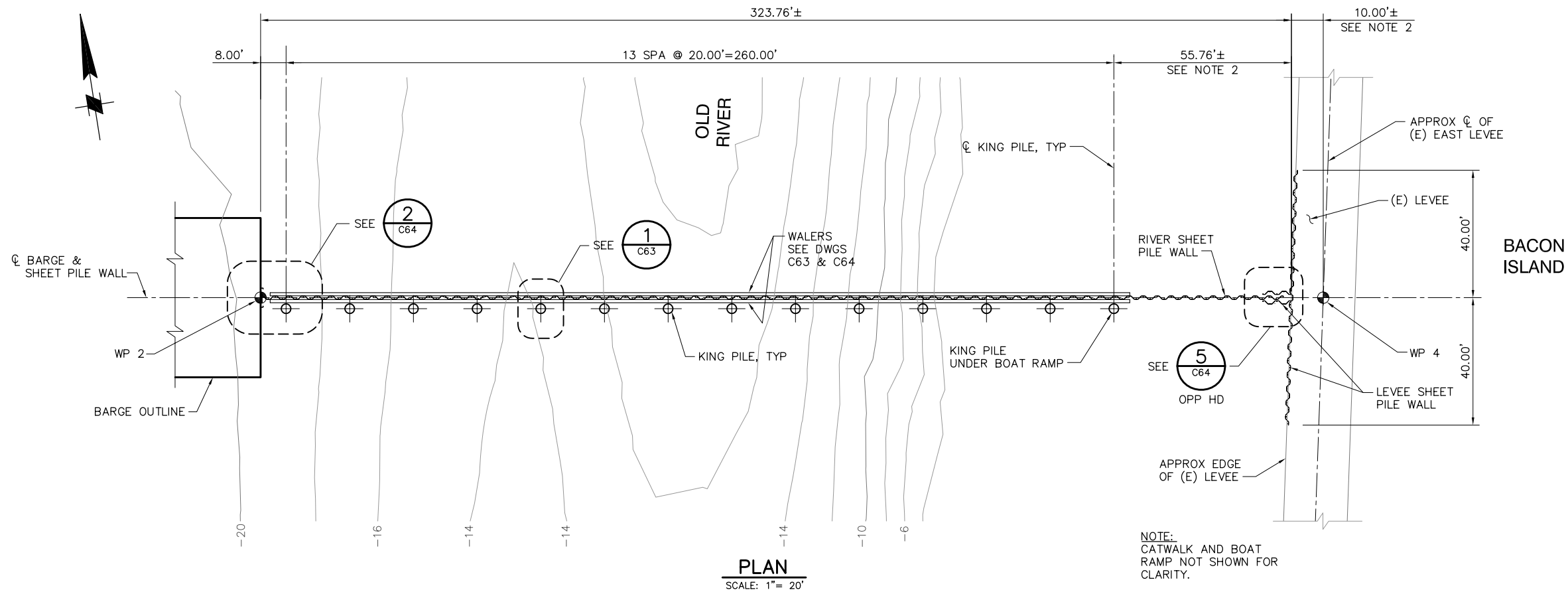
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REVISION	DESCRIPTION	BY	DATE

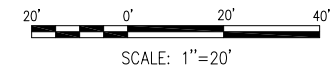
		2001 N. Main Street, Suite 360 Walnut Creek, California 94596 (925) 944-5411	
DSGN	JMB	DR	EP
JOB NO.	6097-03	SUBMITTED BY	RMR
CHK	TDB	TITLE	

TWO GATE FISH PROTECTION PLAN	
OLD RIVER SHEET PILE WALL ARRANGEMENT PLAN AND ELEVATION, SHEET 1	

DATE	08/07/09
SHEET	9 OF 75
C5	



NOTE:
CATWALK AND BOAT
RAMP NOT SHOWN FOR
CLARITY.



95% SUBMITTAL

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.

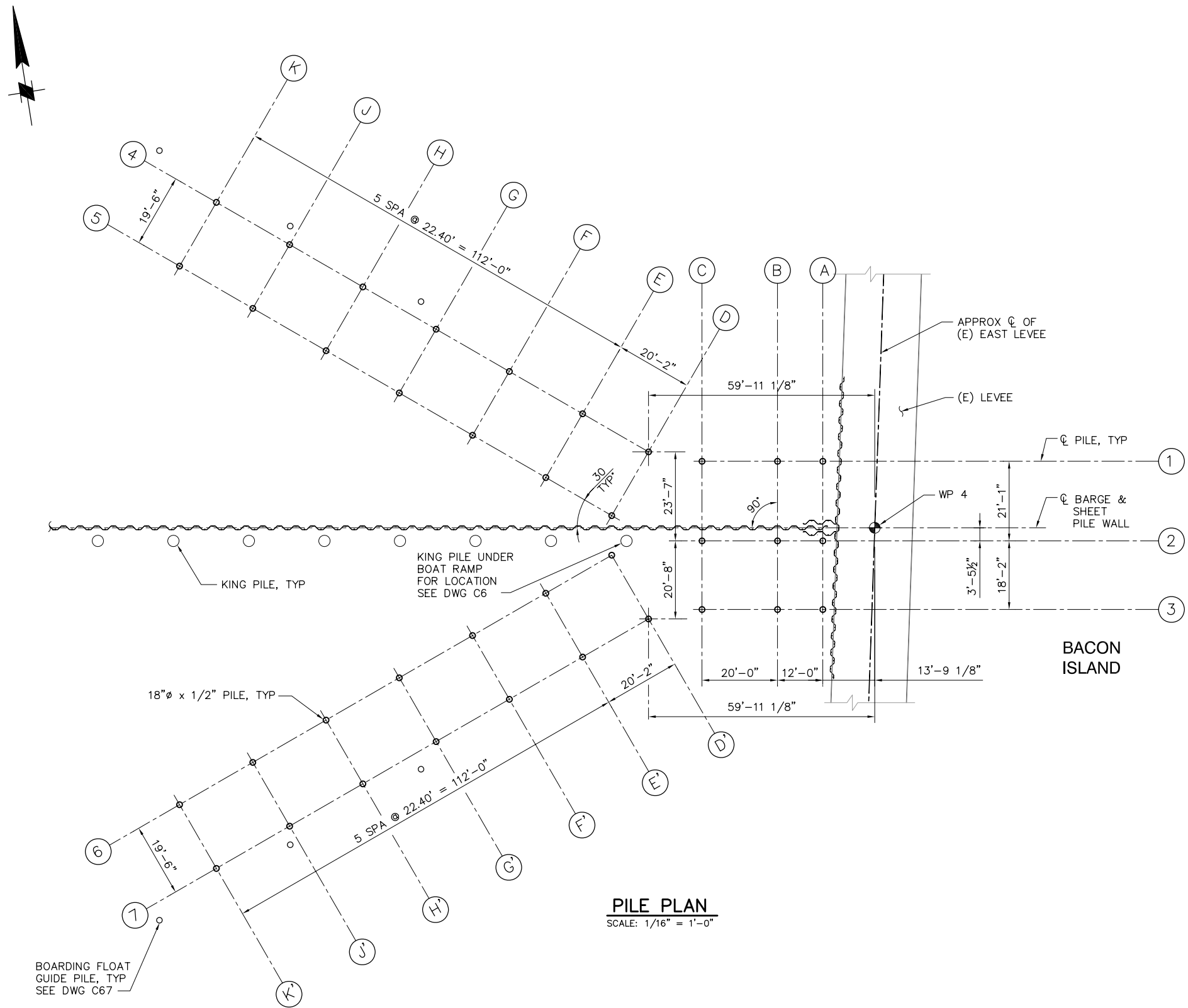
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TWO GATE FISH PROTECTION PLAN		DATE 08/07/09
OLD RIVER SHEET PILE WALL ARRANGEMENT PLAN AND ELEVATION, SHEET 2		SHEET 10 OF 75
		C6

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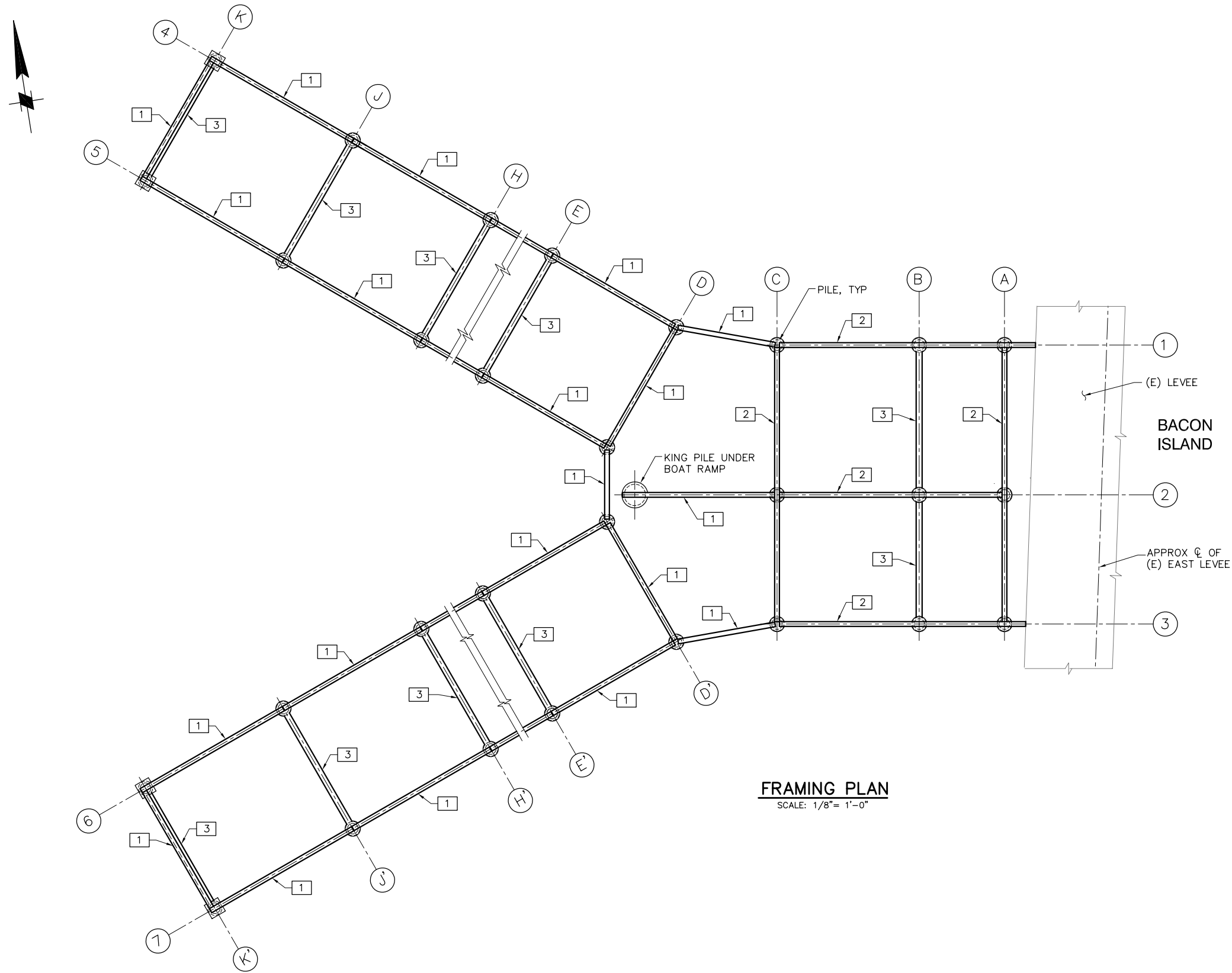
REVISION	DESCRIPTION	BY	DATE

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

TWO GATE FISH PROTECTION PLAN
OLD RIVER BOAT RAMP PILE PLAN

DATE 08/07/09
SHEET 12 OF 75
C7.1

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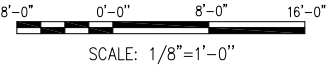
FRAMING PLAN
SCALE: 1/8"= 1'-0"

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.



95% SUBMITTAL

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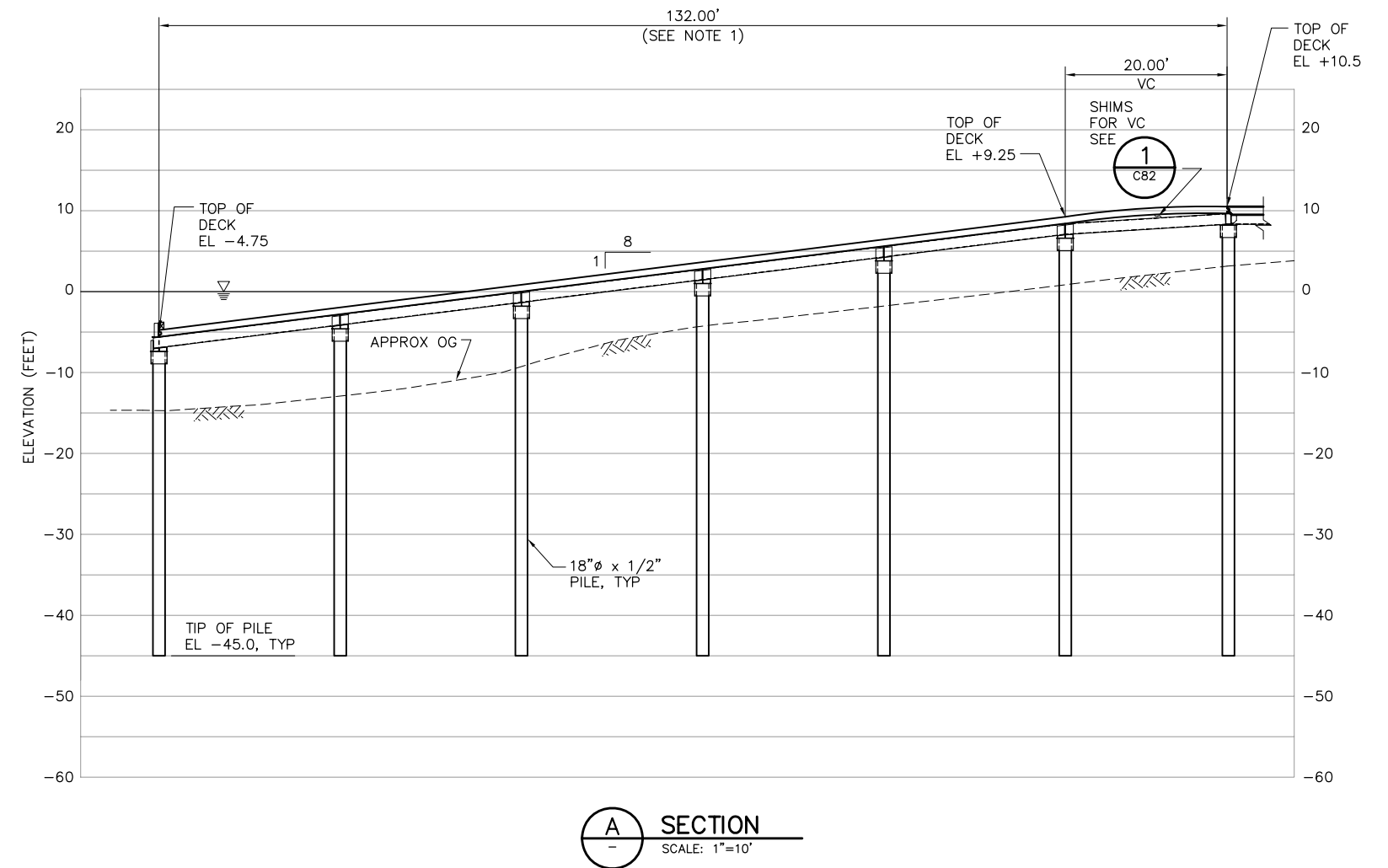
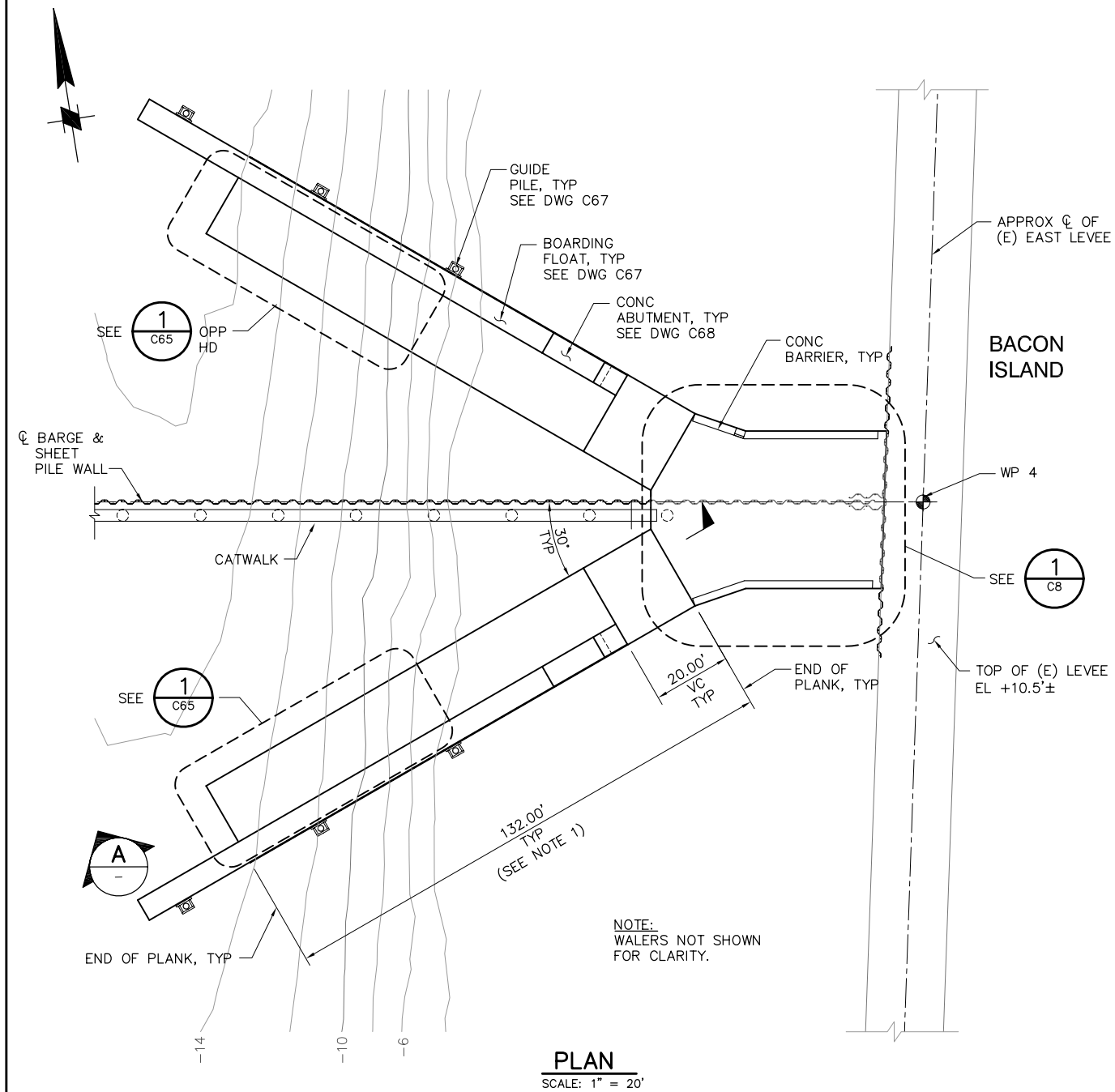
REVISION	DESCRIPTION	BY	DATE

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

TWO GATE FISH PROTECTION PLAN
OLD RIVER BOAT RAMP FRAMING PLAN

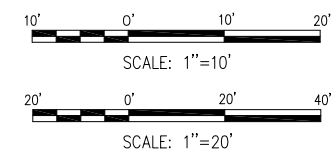
DATE 08/07/09
SHEET 13 OF 75
C7.2

P:\6097-03 SWC GATE DESIGN\CADD\DWG\609703-C7.DWG 8/5/2009 10:14 AM



NOTES:

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



95% SUBMITTAL

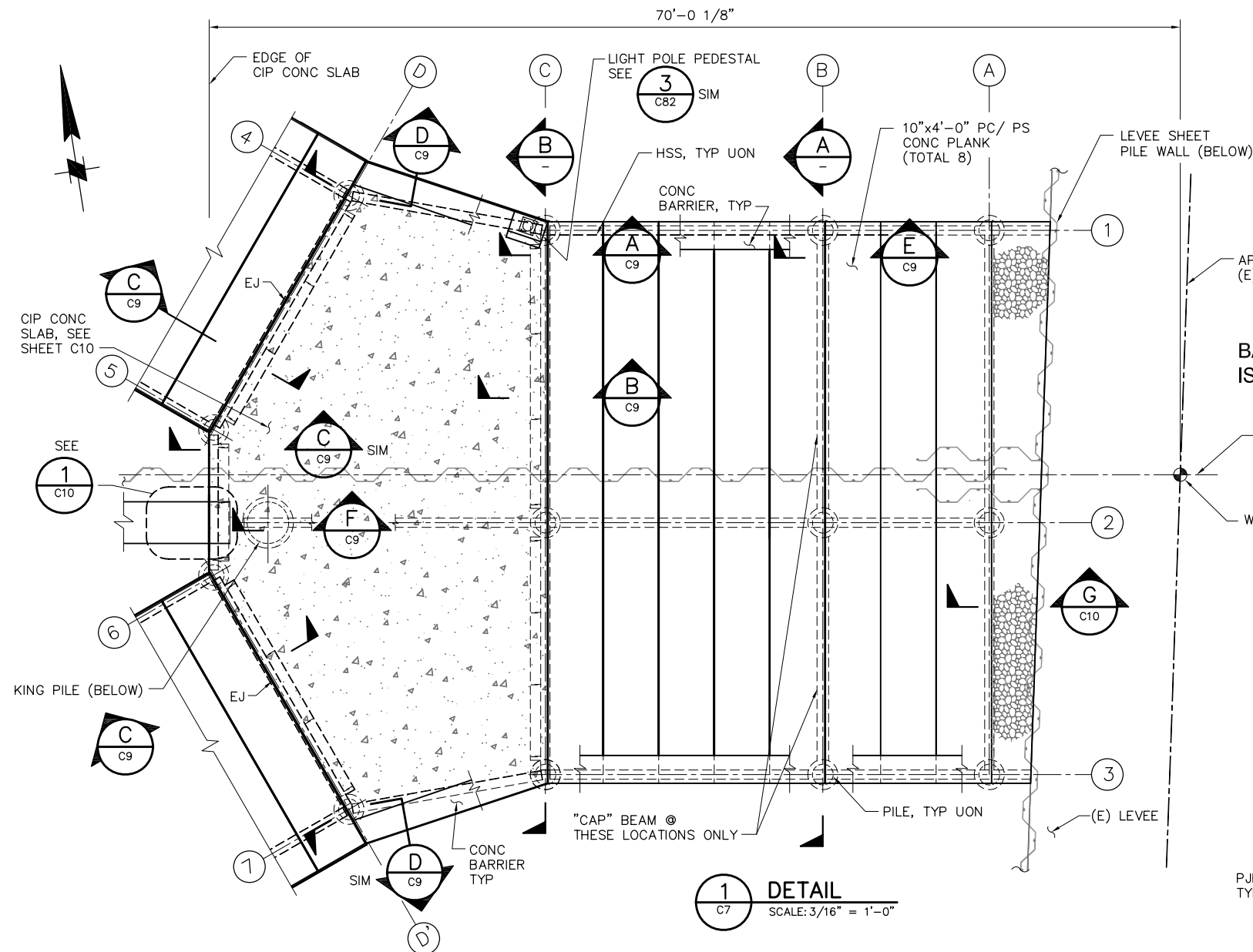
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REVISION	DESCRIPTION	BY	DATE

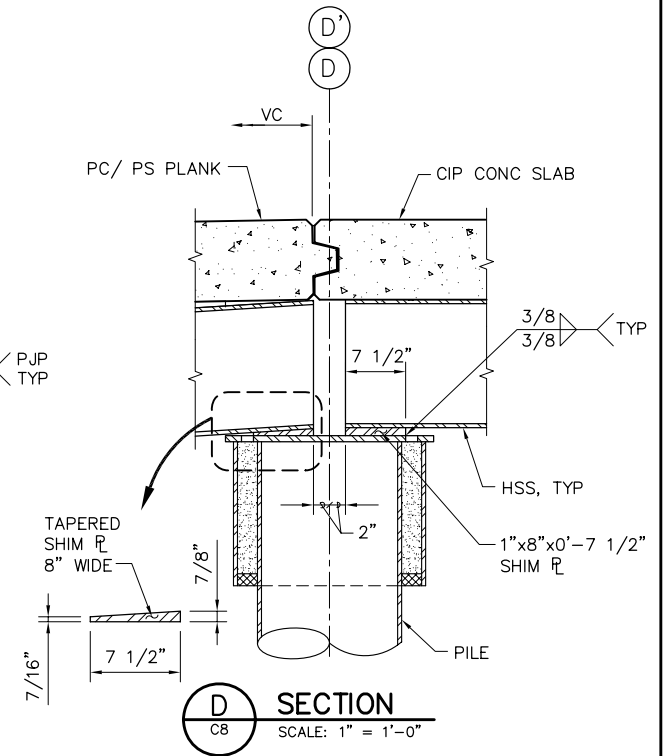
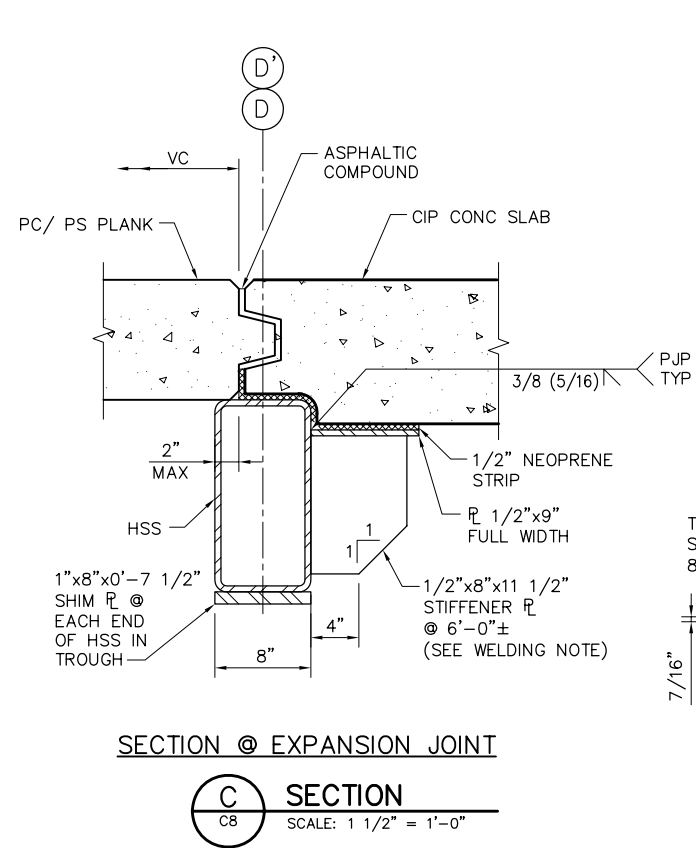
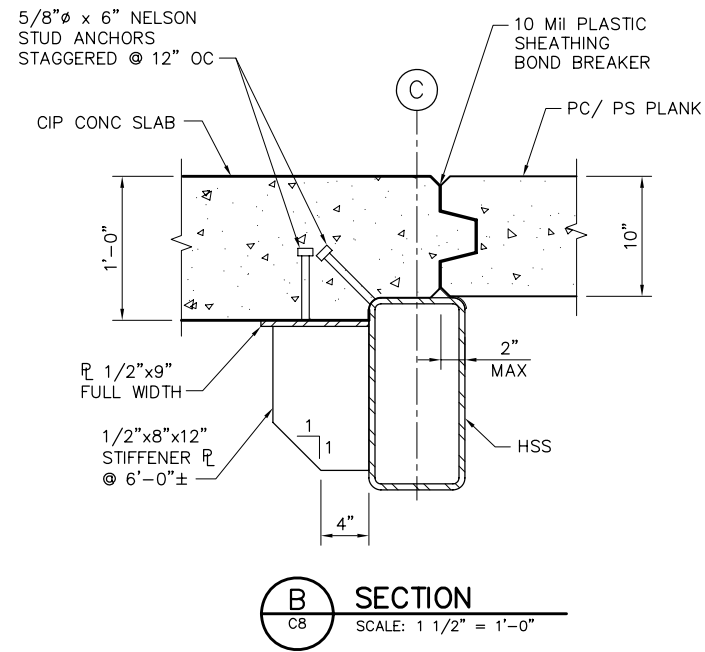
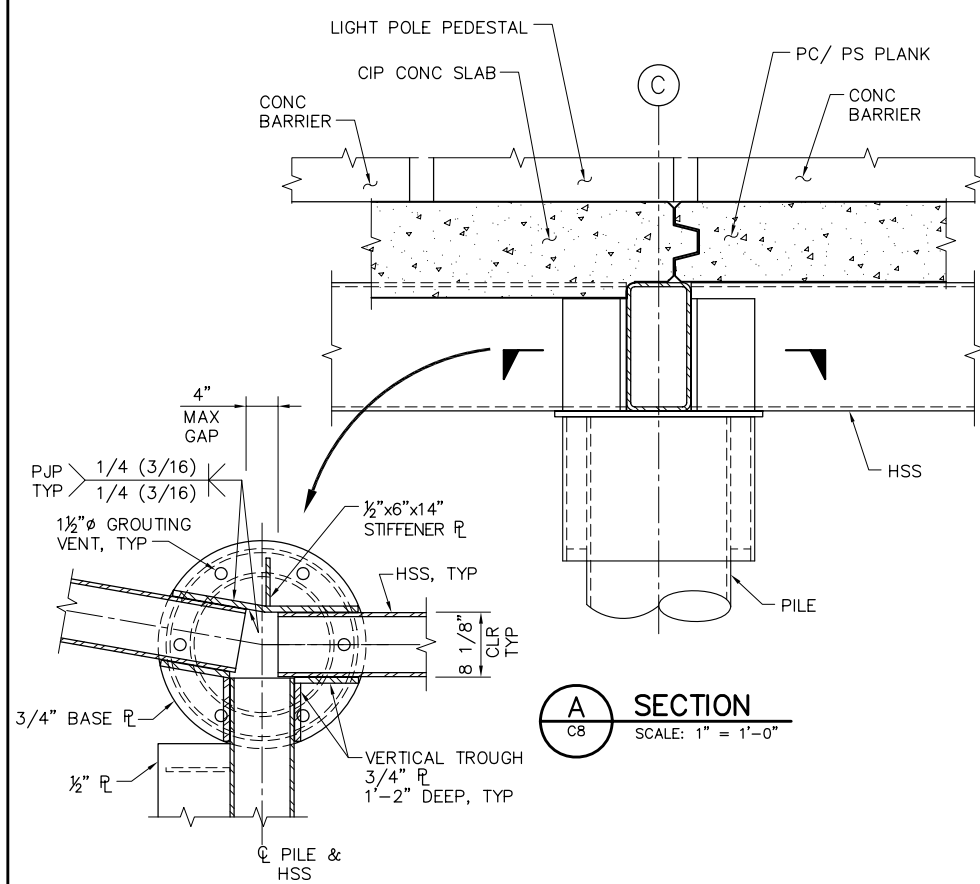
 Moffatt & Nichol				2001 N. Main Street, Suite 360 Walnut Creek, California 94596 (925) 944-5411			
DSGN	JMB	DR	EP	CHK	TDB		
JOB NO.	6097-03	SUBMITTED BY	RMR	TITLE			

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

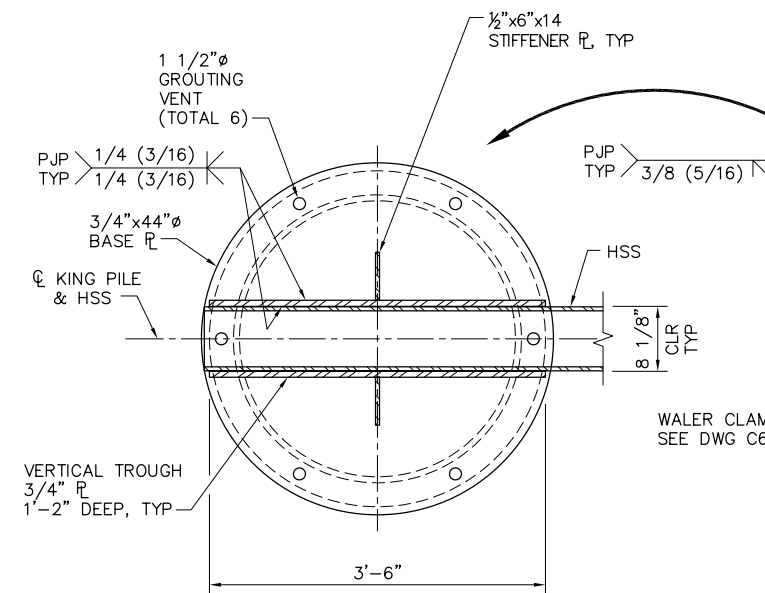
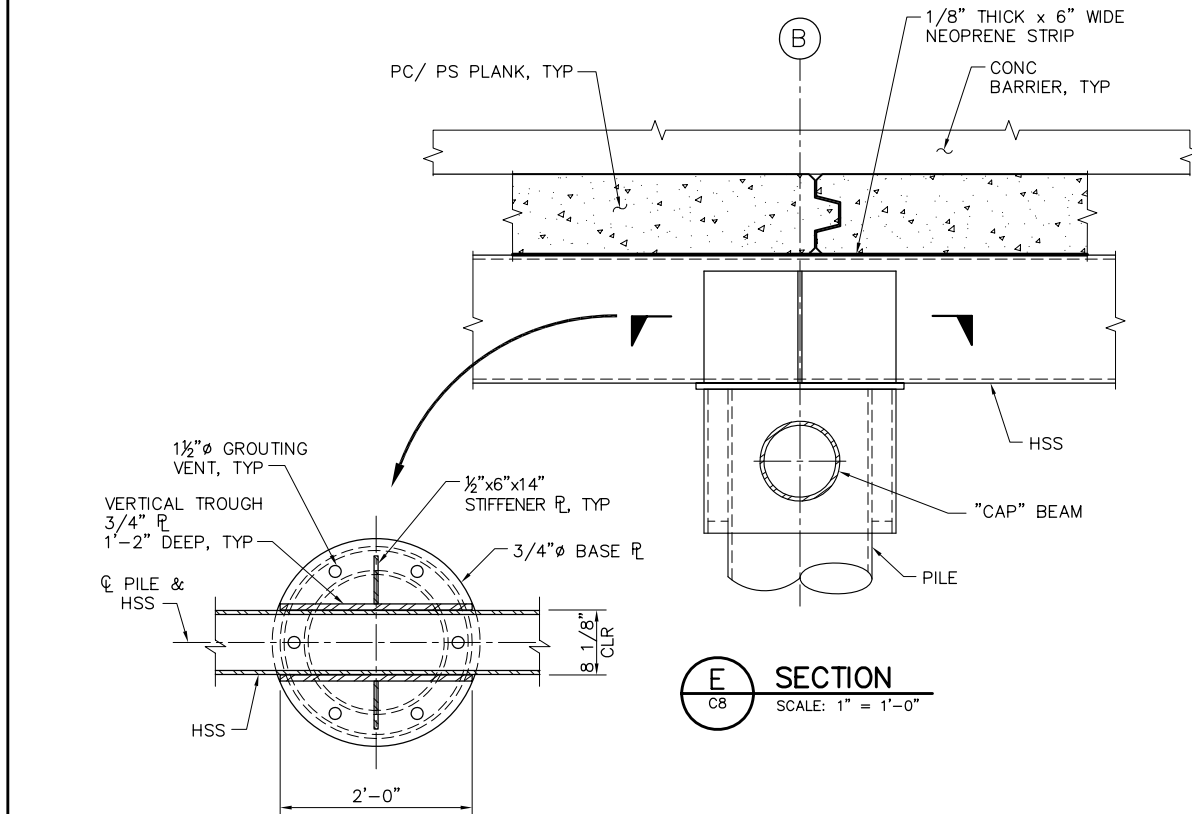
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WELDING NOTE:
ALL STIFFENER PLATES SHALL HAVE DOUBLE SIDED 1/4" FILLET WELDS UON.



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

95% SUBMITTAL

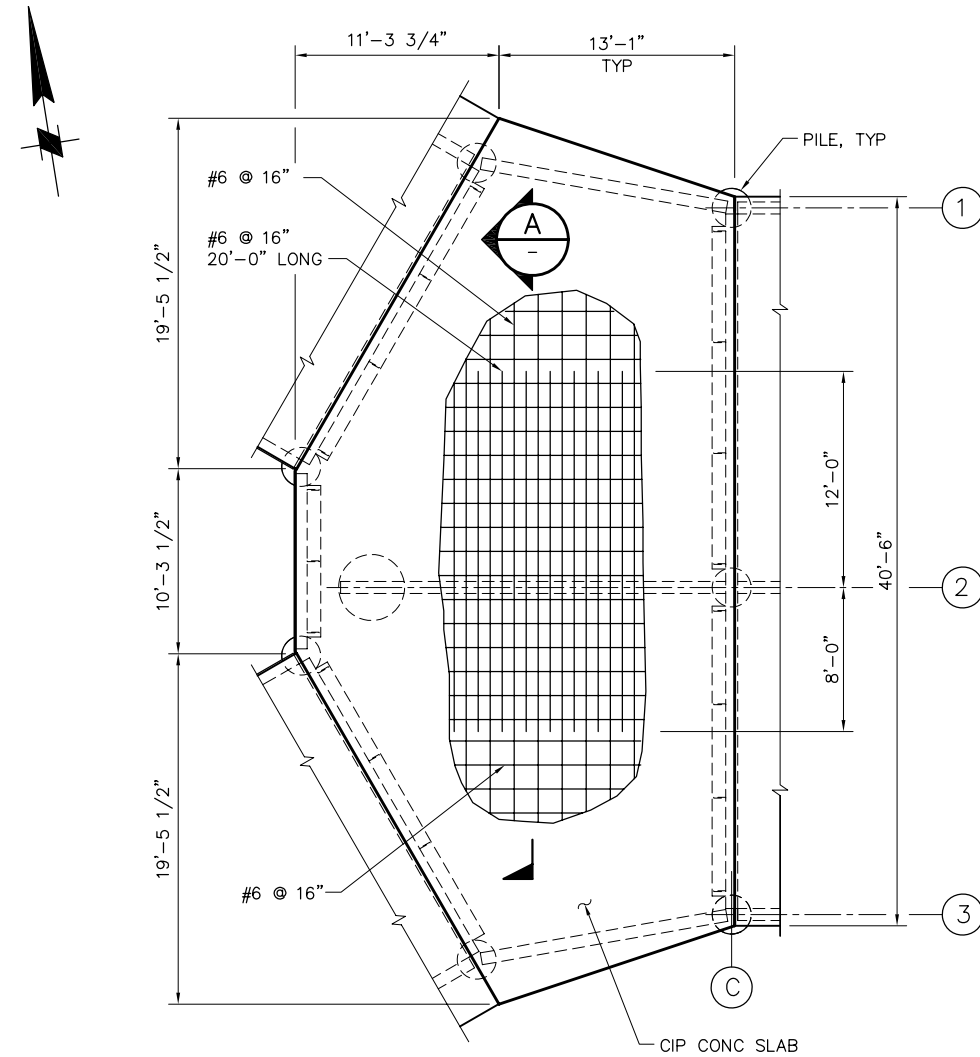
IF SHEET IS LESS THAN 22" x 34"
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SCALE REDUCED ACCORDINGLY.

REVISION	DESCRIPTION	BY	DATE

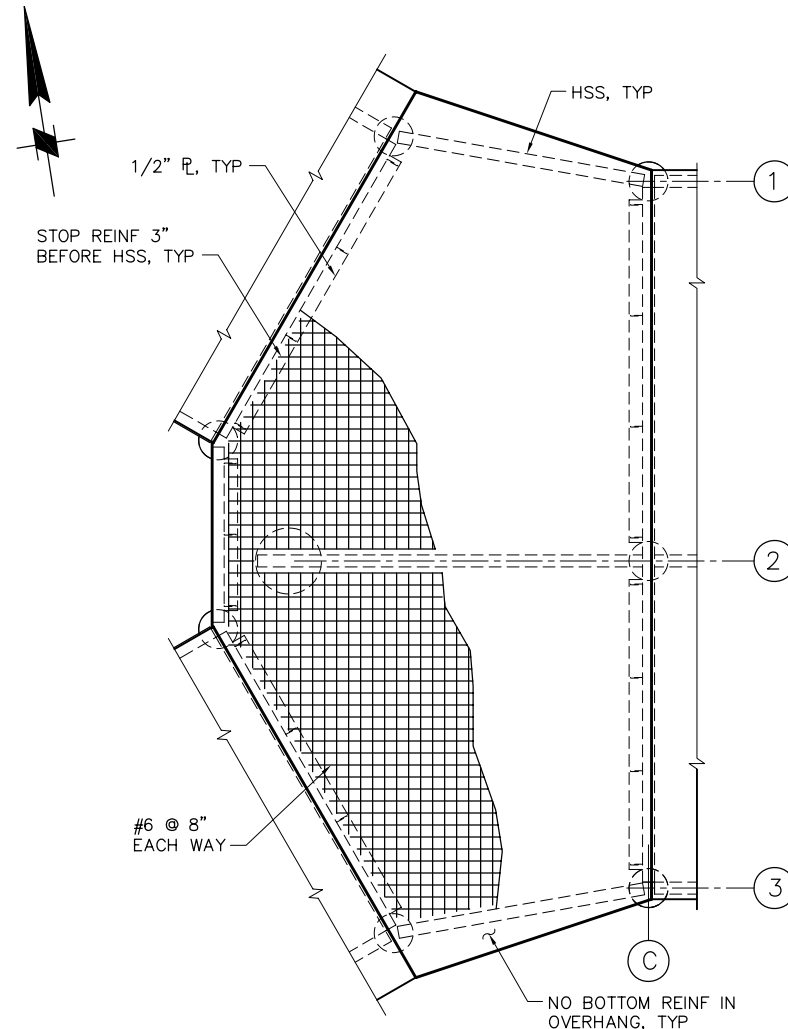
 Moffatt & Nichol		2001 N. Main Street, Suite 360 Walnut Creek, California 94596 (925) 944-5411	
DSGN	JMB	DR	EP
JOB NO.	6097-03	SUBMITTED BY	RMR

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

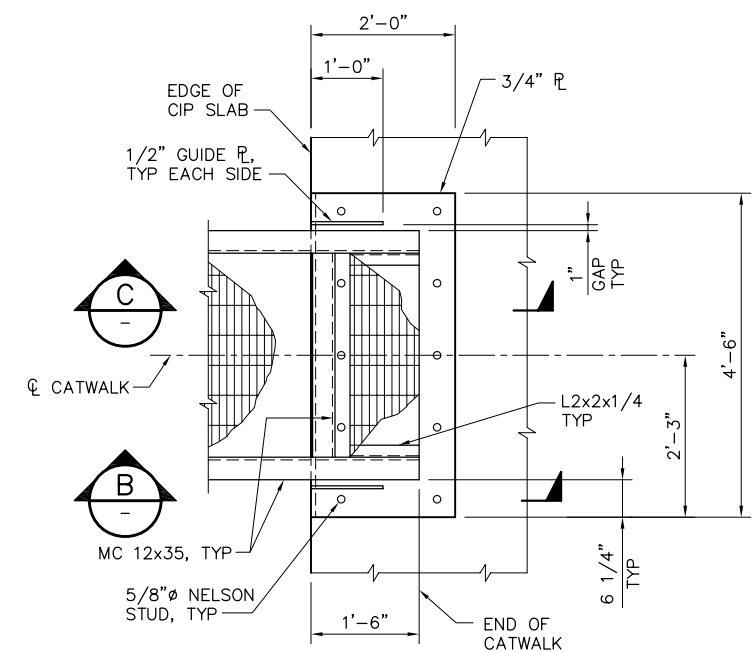
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TOP SLAB REINFORCEMENT

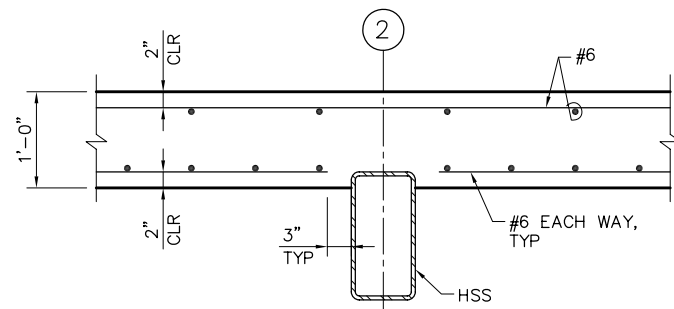


BOTTOM SLAB REINFORCEMENT

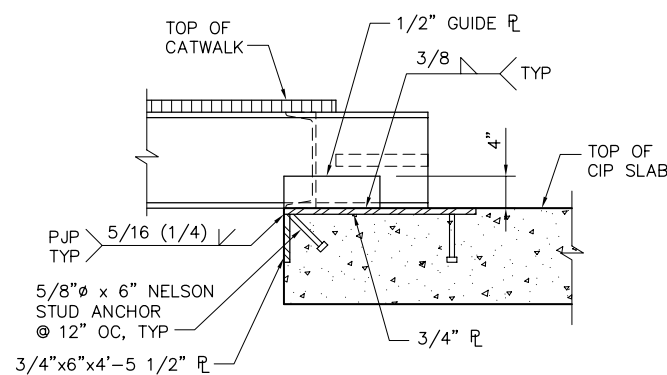


PLAN AT END OF CATWALK

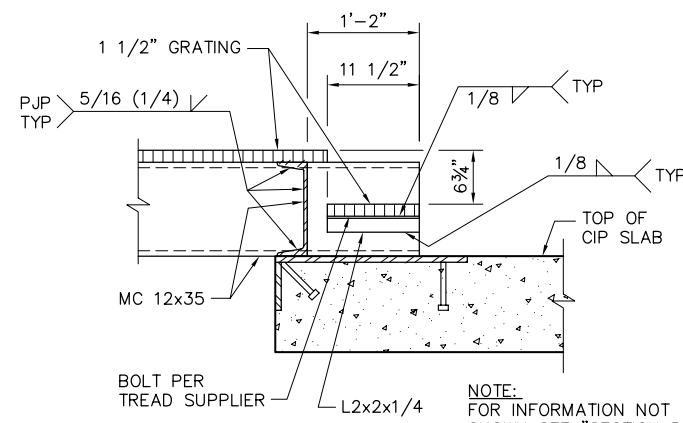
1 DETAIL
C8 SCALE: 3/4" = 1'-0"



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

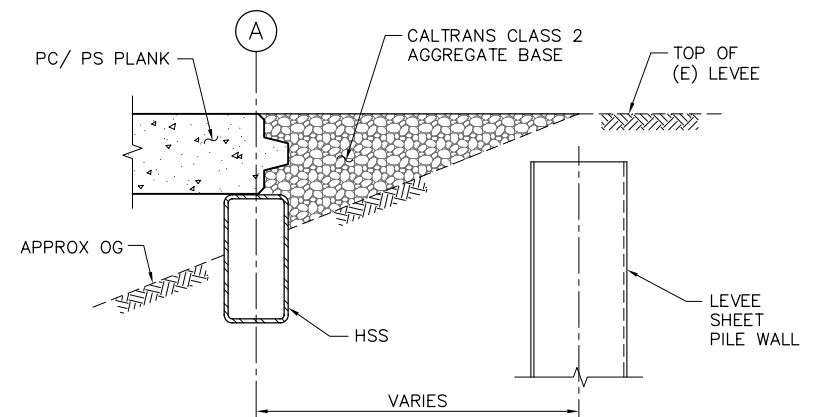


B SECTION
SCALE: 1" = 1'-0"

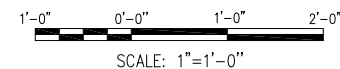


C SECTION
SCALE: 1" = 1'-0"

NOTE:
FOR INFORMATION NOT
SHOWN SEE "SECTION B"
THIS SHEET.



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



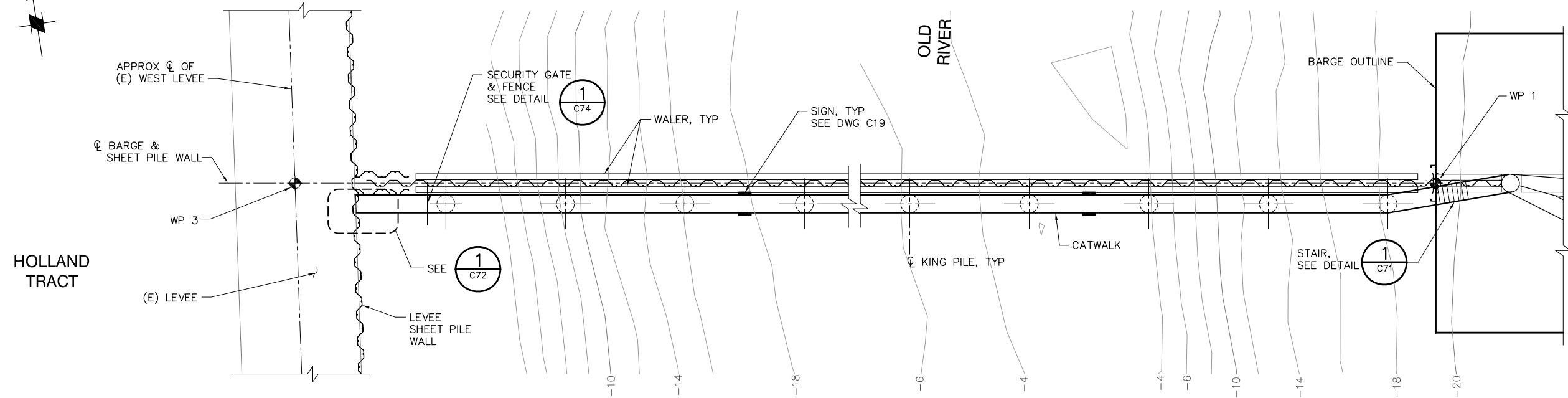
95% SUBMITTAL

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SCALE REDUCED ACCORDINGLY.

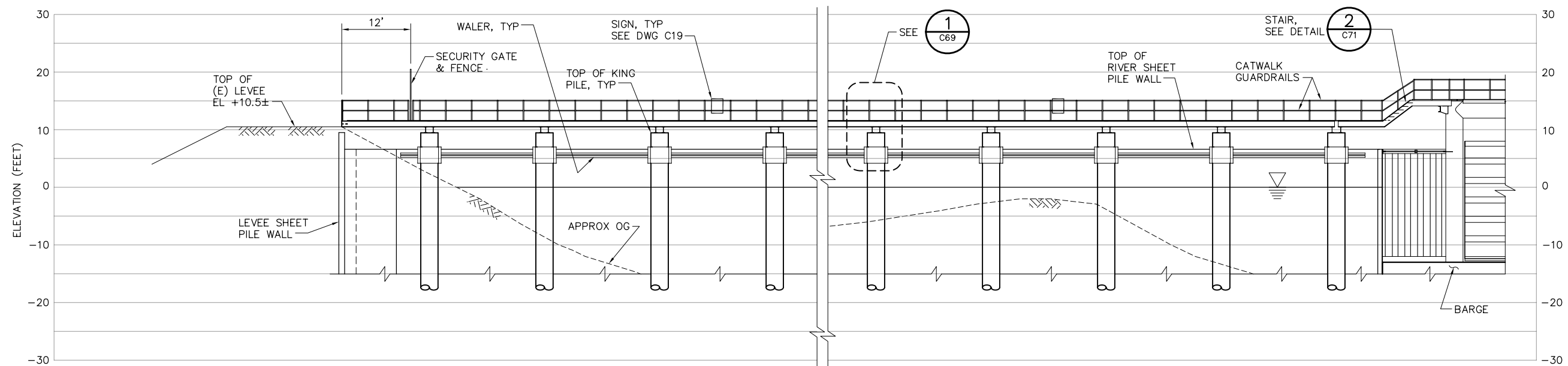
REVISION	DESCRIPTION	BY	DATE

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

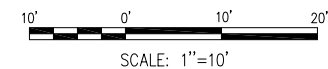
TWO GATE FISH PROTECTION PLAN		DATE	08/07/09
OLD RIVER BOAT RAMP DETAILS AND SECTIONS SHEET 3		SHEET	16 OF 75
C10			



PLAN
SCALE: 1"= 10'



ELEVATION
SCALE: 1"= 10'



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SCALE REDUCED ACCORDINGLY.

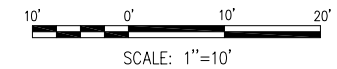
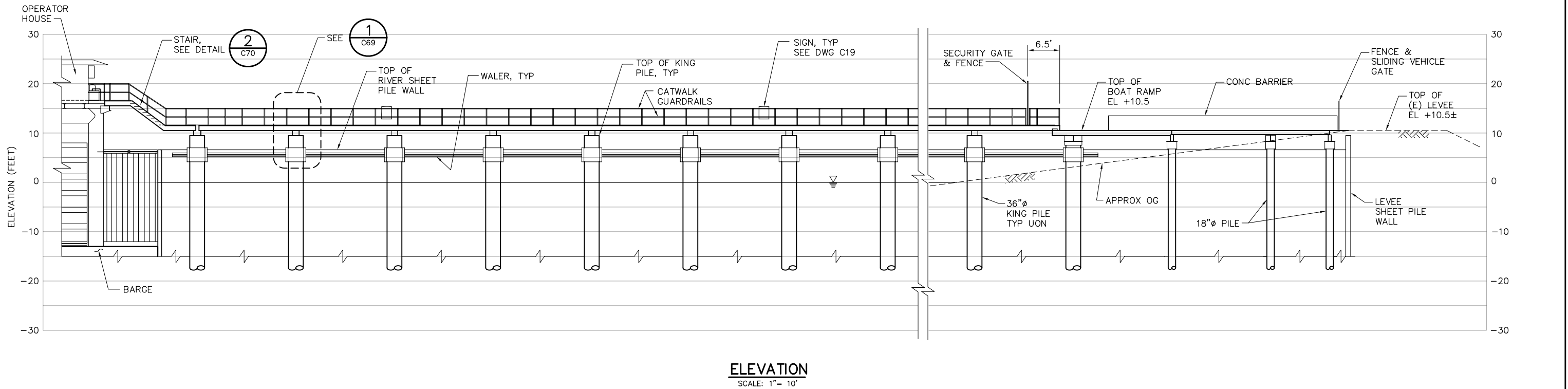
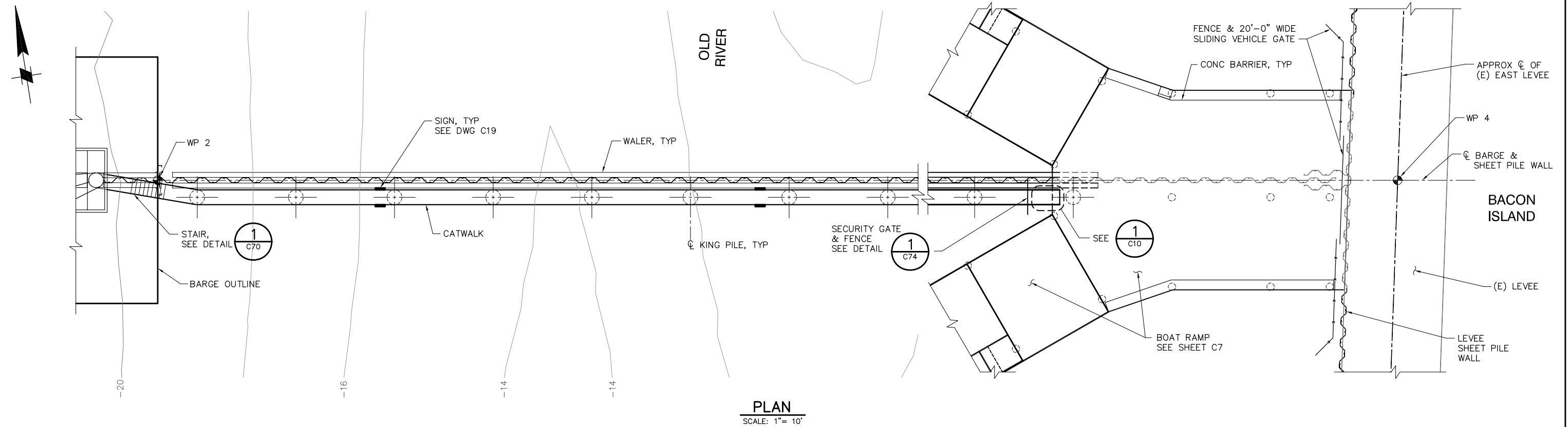
REVISION	DESCRIPTION	BY	DATE

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

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

P:\6097-03 SWC GATE DESIGN\CADD\DWG\609703-C13.DWG 7/23/2009 4:33 PM



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'

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REVISION	DESCRIPTION	BY	DATE



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JOB NO.	6097-03	SUBMITTED BY	RMR	TITLE	

TWO GATE FISH PROTECTION PLAN

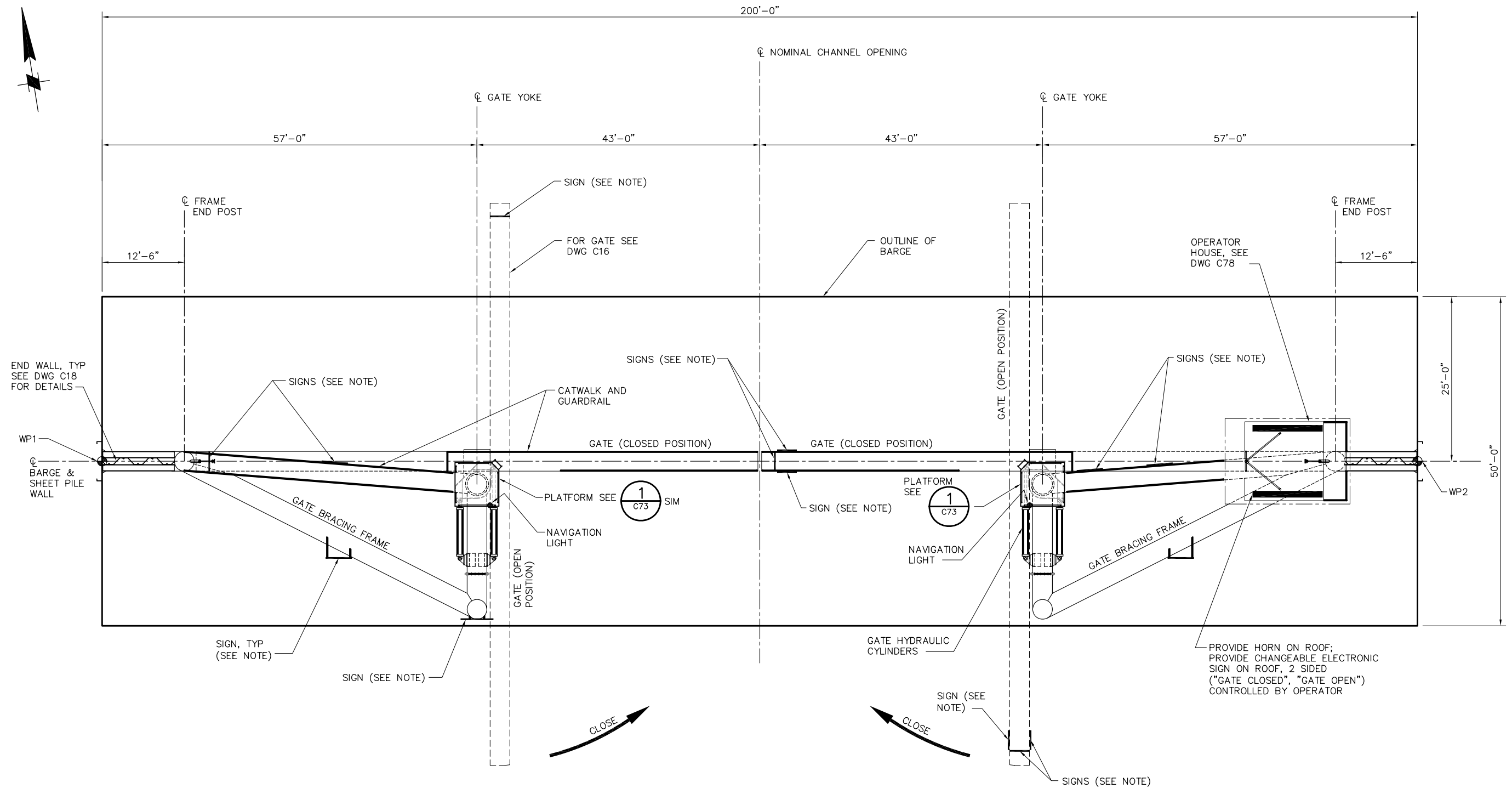
DATE 08/07/09

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

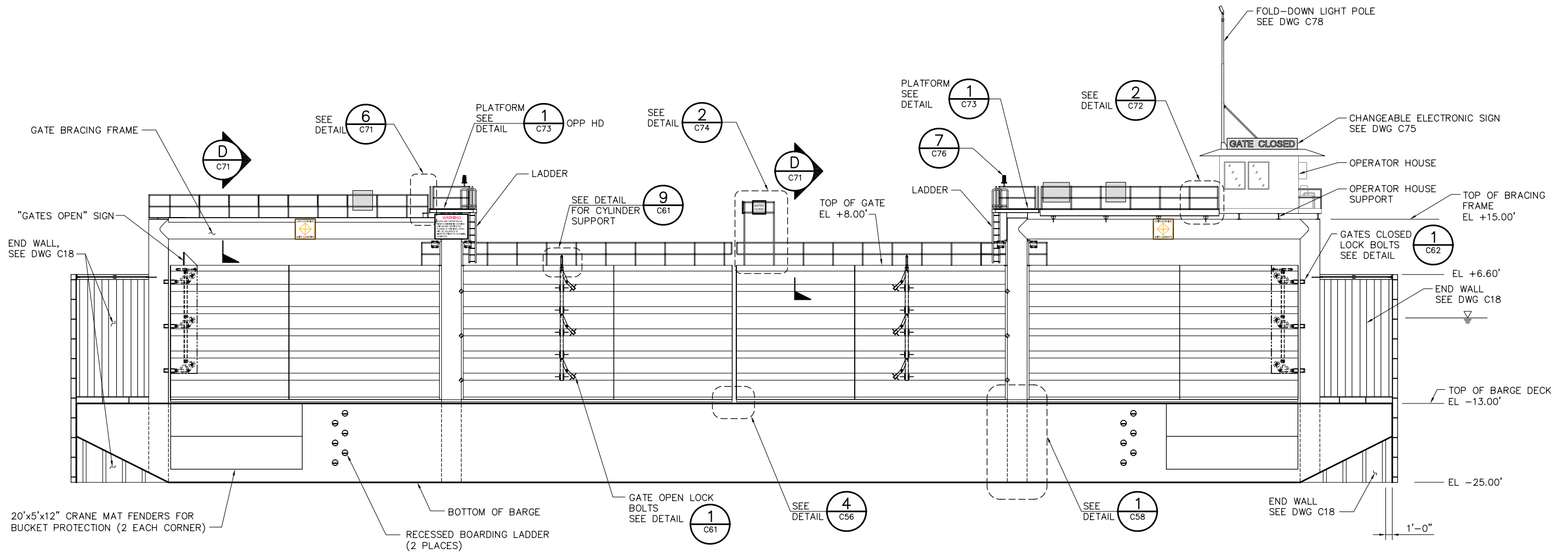
IF SHEET IS LESS THAN 22" x 34"
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SCALE REDUCED ACCORDINGLY.

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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 BARGE GENERAL ARRANGEMENT PLAN		SHEET	20 OF 75
C14			

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

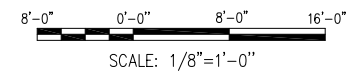


ELEVATION
SCALE: 1/8"= 1'-0"

NOTE: GATES SHOWN IN CLOSED POSITION

NOTES:

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

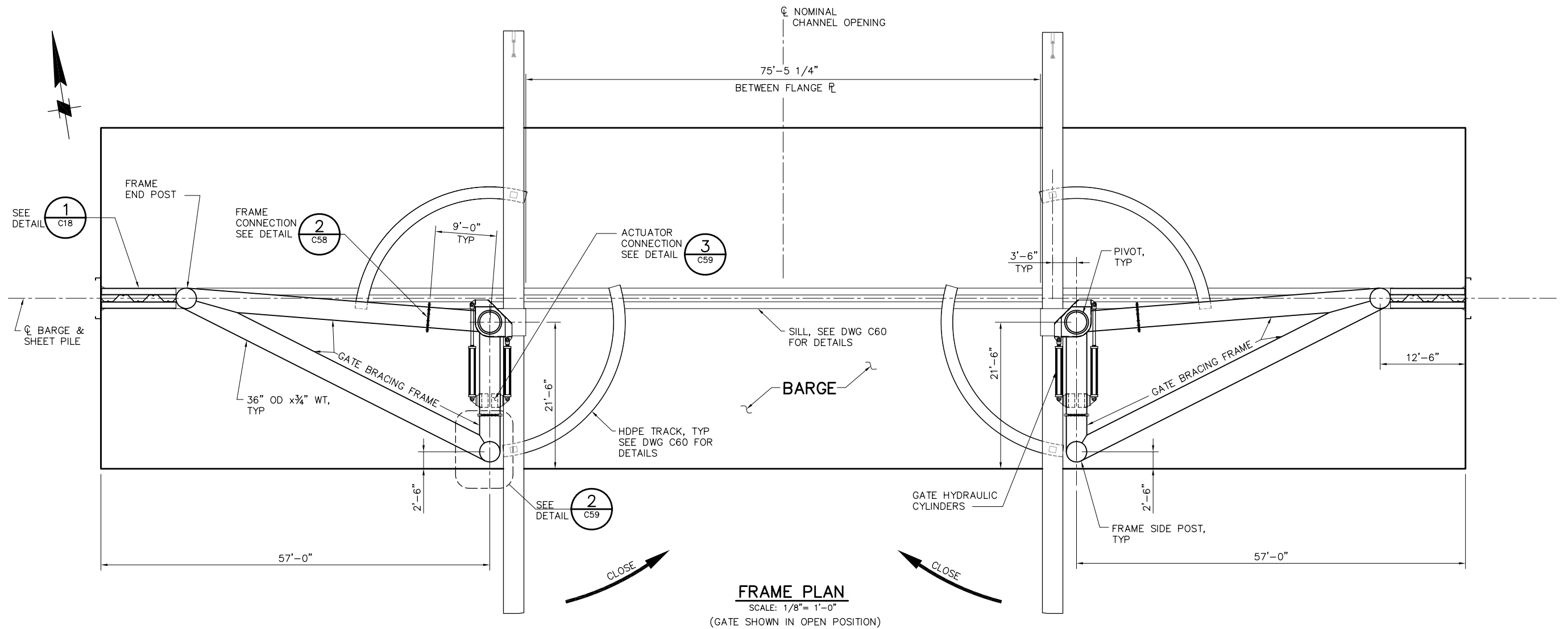


95% SUBMITTAL

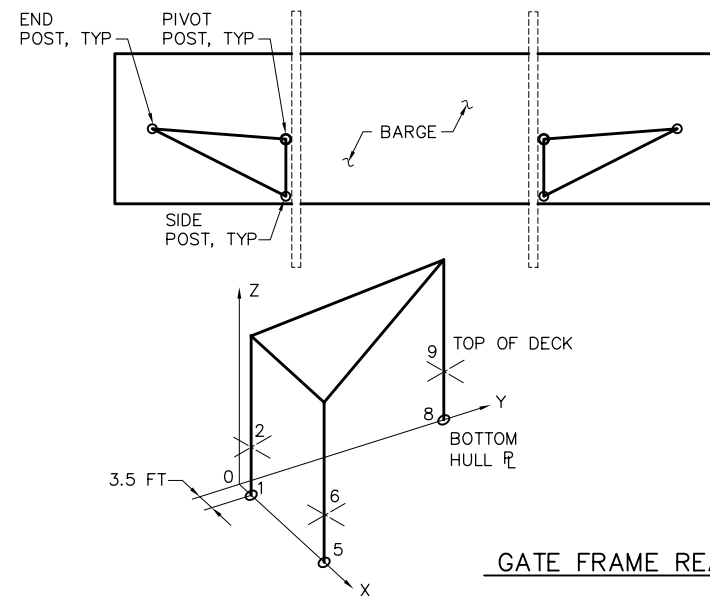
IF SHEET IS LESS THAN 22" x 34"
IT IS A REDUCED PRINT -
SCALE REDUCED ACCORDINGLY.

REVISION	DESCRIPTION	BY	DATE				TWO GATE FISH PROTECTION PLAN		DATE 08/07/09
							OLD RIVER BARGE GENERAL ARRANGEMENT ELEVATION		SHEET 21 OF 75
									C15
							DSGN JMB	DR AB	CHK TDB
							JOB NO. 6097-03	SUBMITTED BY RMR	TITLE

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



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



GATE FRAME REACTIONS

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.

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

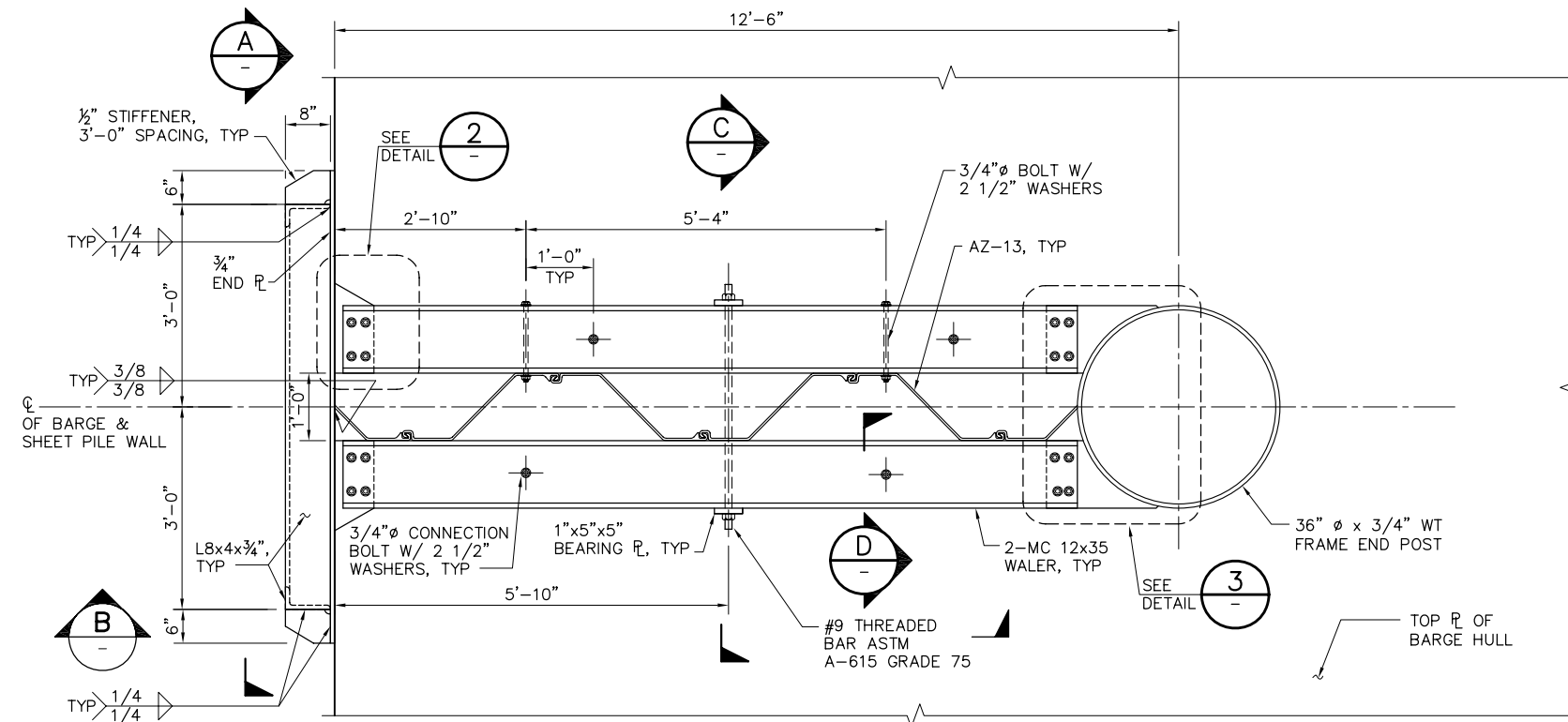
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JOB NO.	6097-03	SUBMITTED BY	RMR
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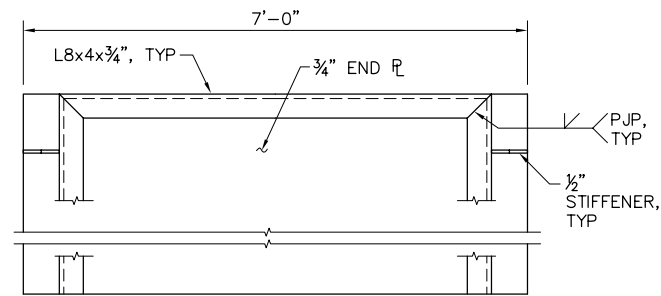
TWO GATE FISH PROTECTION PLAN		DATE	08/07/09
OLD RIVER GATE FRAMING LAYOUT		SHEET	23 OF 75
			C17

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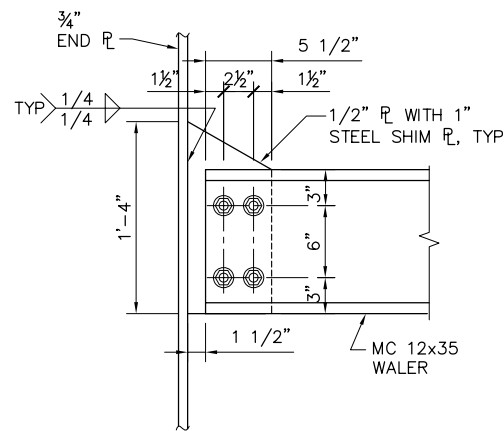


PLAN

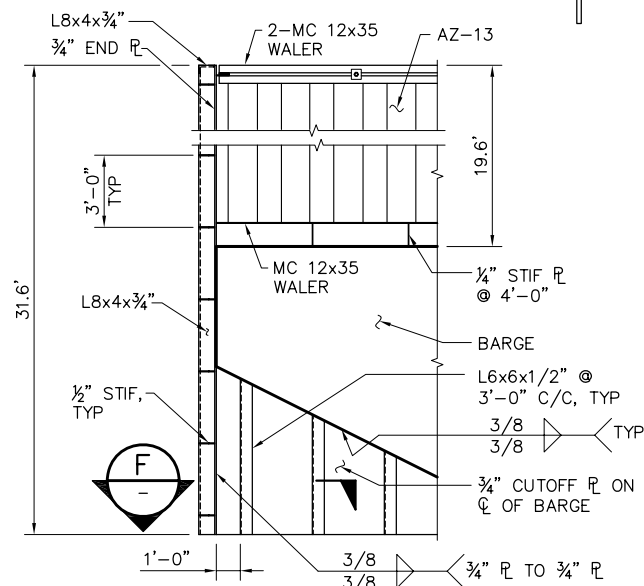
1 DETAIL
C17
SCALE: 3/4" = 1'-0"



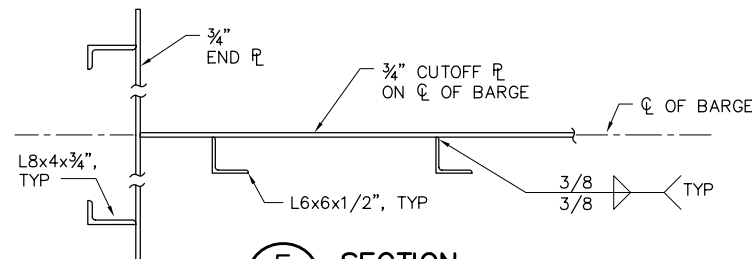
A SECTION
SCALE: 3/4" = 1'-0"



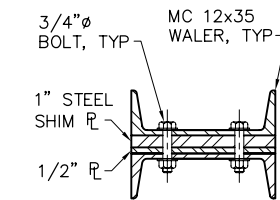
2 DETAIL
SCALE: 1 1/2" = 1'-0"



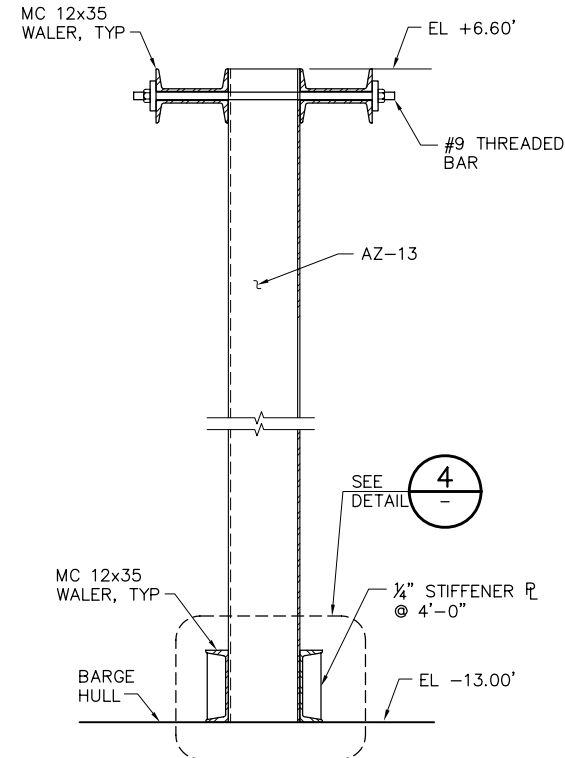
B SECTION
SCALE: 1/4" = 1'-0"



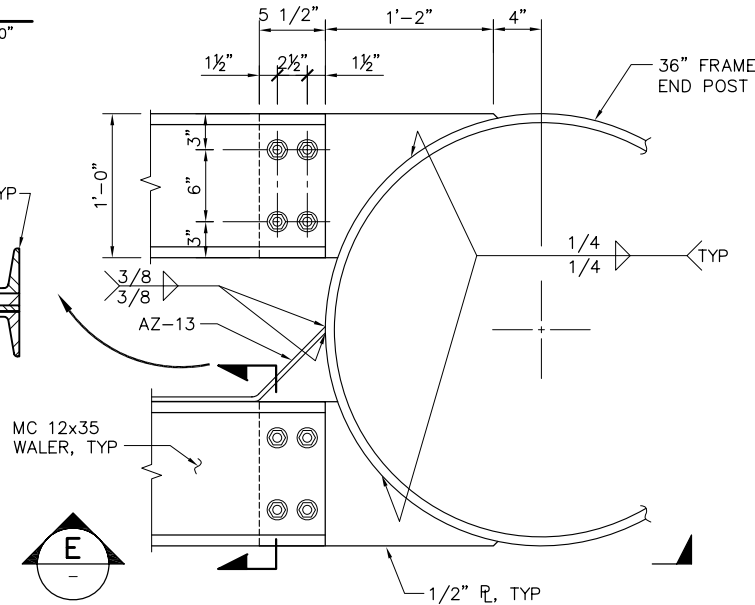
F SECTION
SCALE: 3/4" = 1'-0"



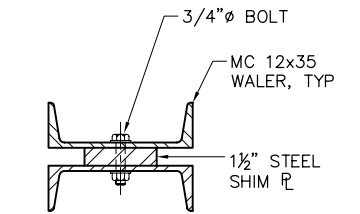
NOTE:
ALL BOLTS ARE ASTM A-307 U.O.N.



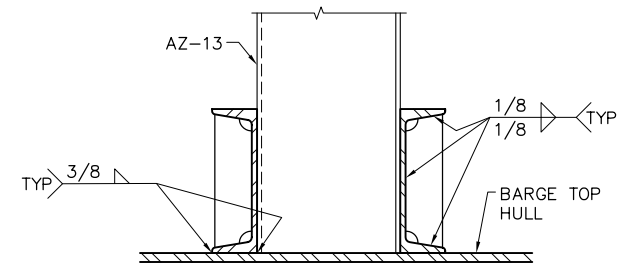
C SECTION
SCALE: 3/4" = 1'-0"



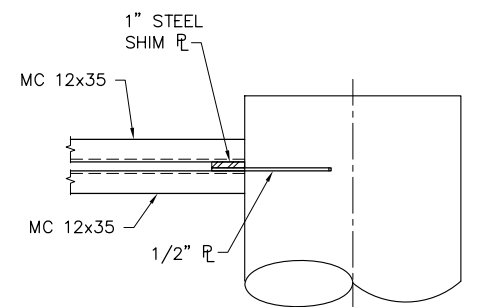
3 DETAIL
SCALE: 1 1/2" = 1'-0"



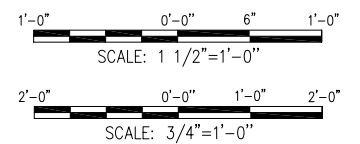
D SECTION
SCALE: 1 1/2" = 1'-0"



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



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



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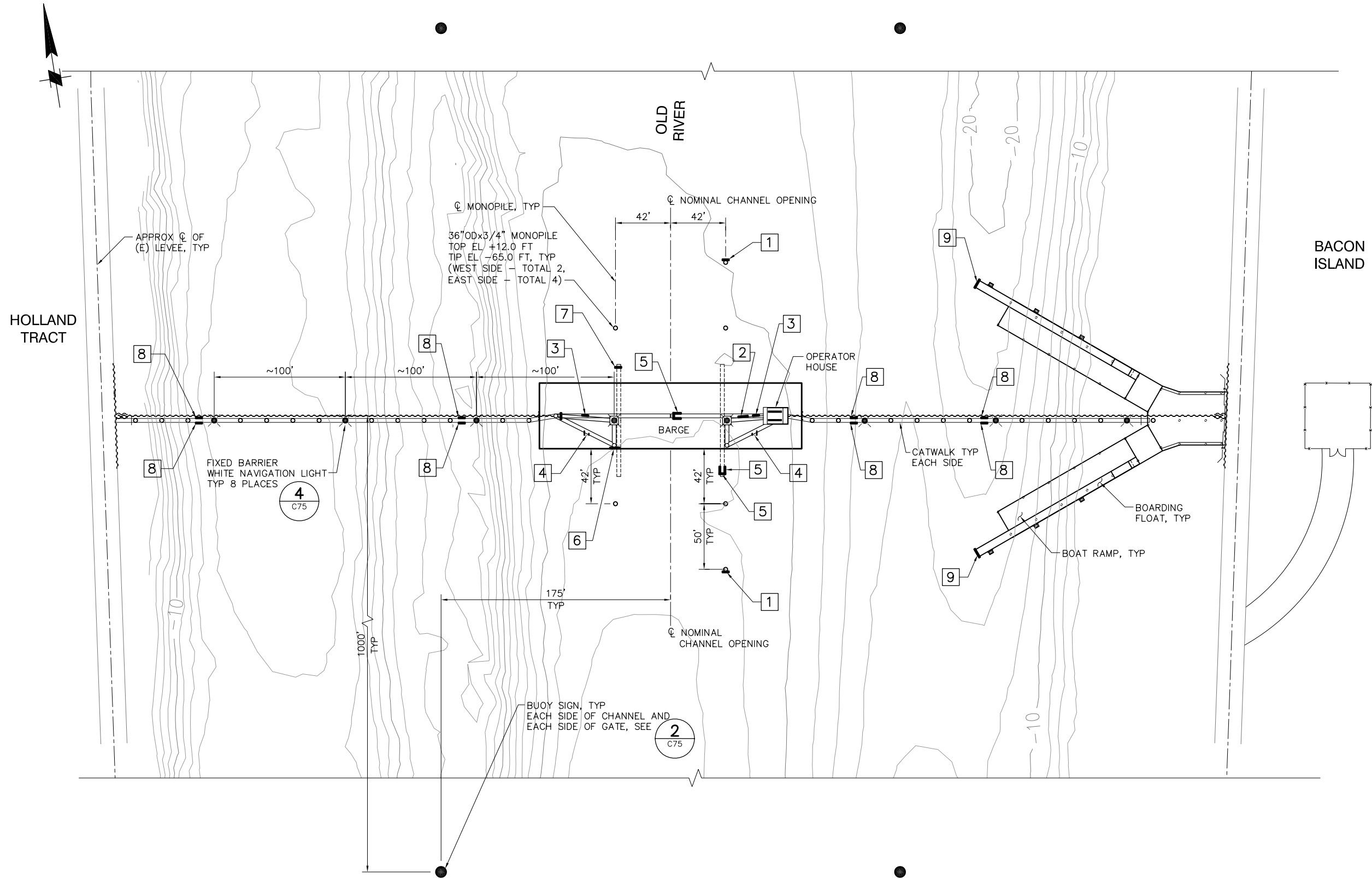
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JOB NO.	6097-03	SUBMITTED BY	RMR
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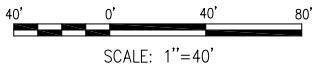
TWO GATE FISH PROTECTION PLAN		DATE 08/07/09
OLD RIVER END WALL SCANTLINGS		SHEET 24 OF 75
		C18

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



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

PLAN
SCALE: 1"= 40'



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JOB NO.	6097-03	SUBMITTED BY	RMR	TITLE	

TWO GATE FISH PROTECTION PLAN

DATE 08/07/09

SHEET 25 OF 75

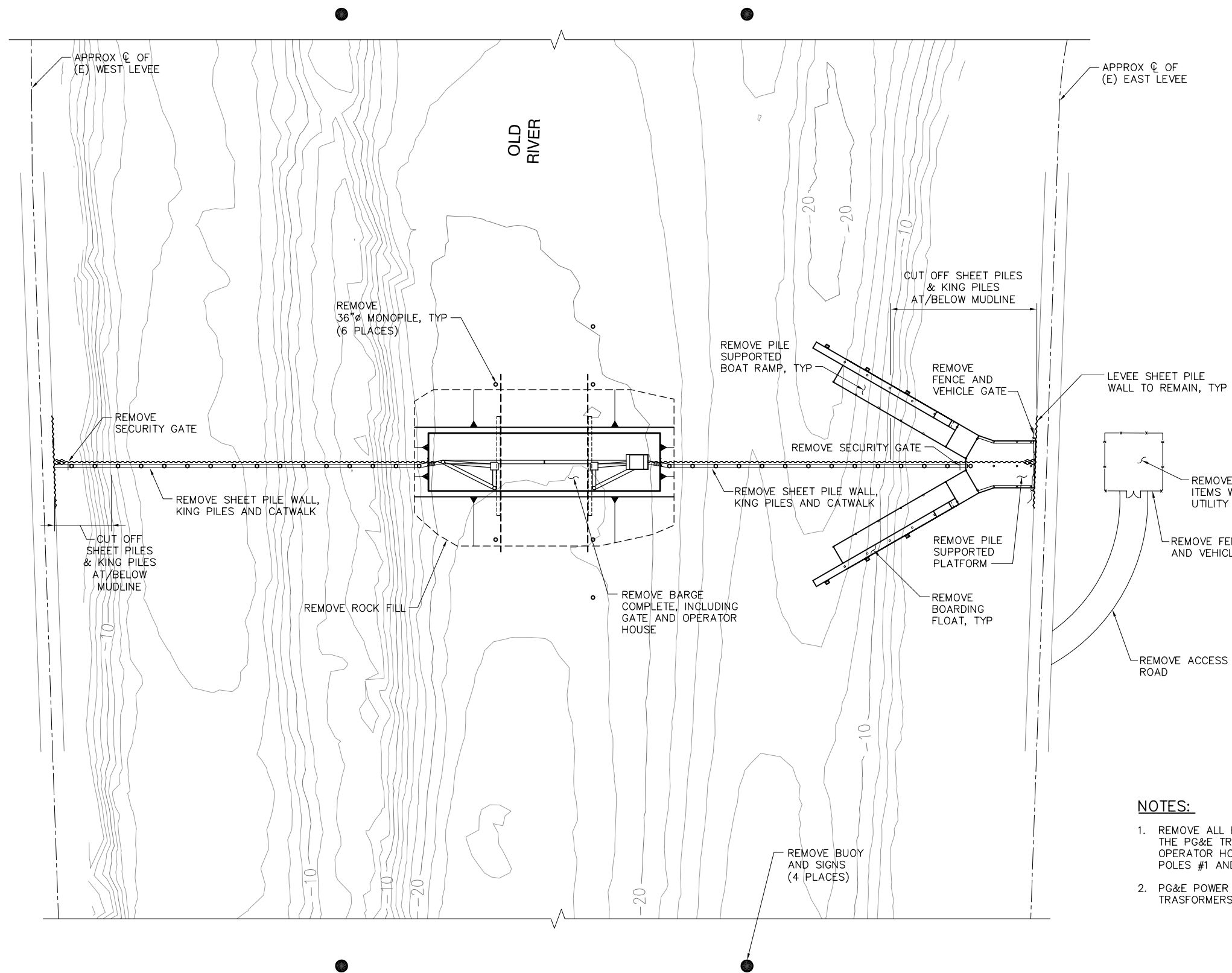
OLD RIVER
AIDS TO NAVIGATION PLAN

C19

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HOLLAND
TRACT

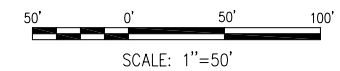


BACON
ISLAND

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

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SCALE REDUCED ACCORDINGLY.

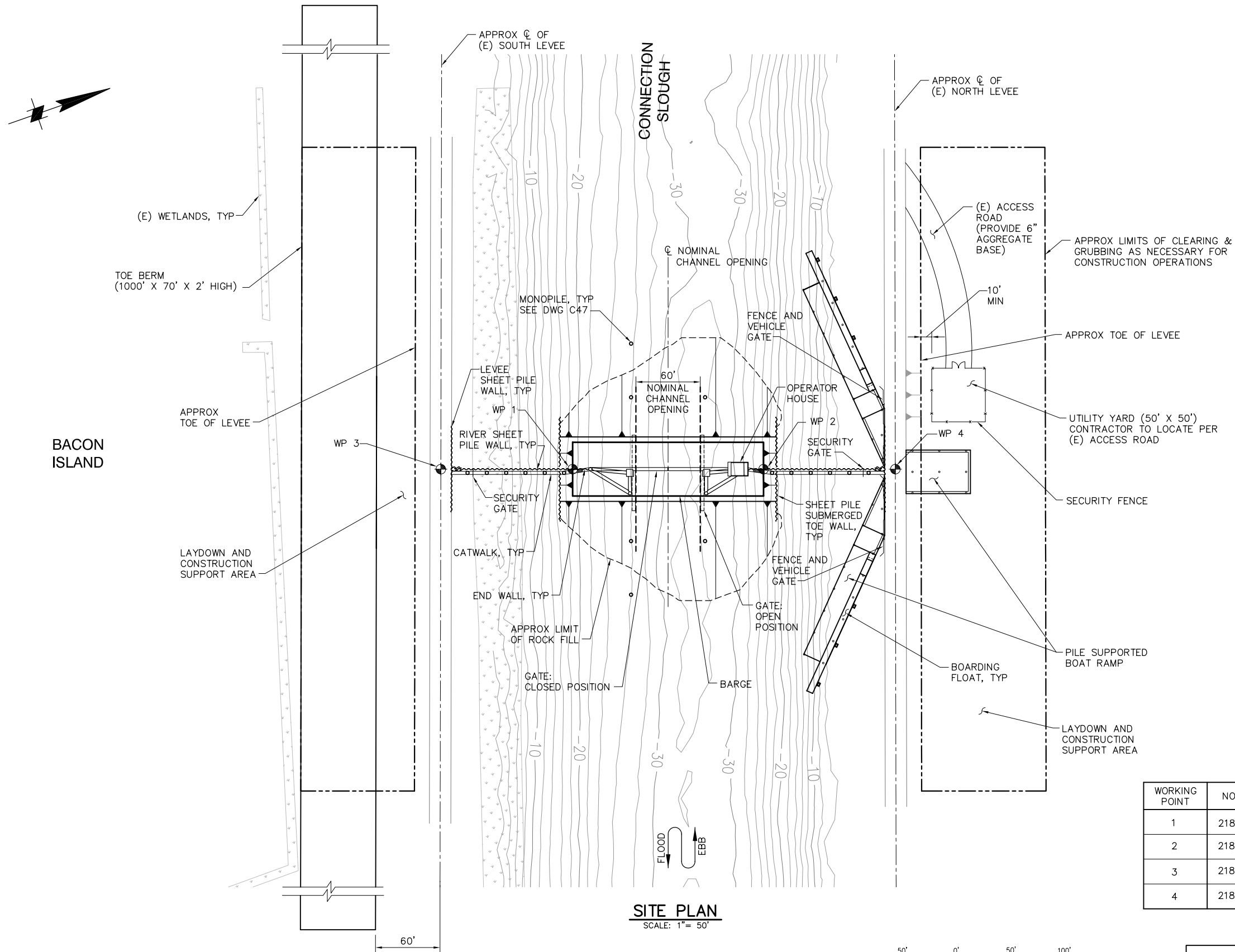
REVISION	DESCRIPTION	BY	DATE

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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

P:\6097-03 SWC GATE DESIGN\CADD\DWG\609703-C31.DWG 8/6/2009 8:52 AM



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

95% SUBMITTAL

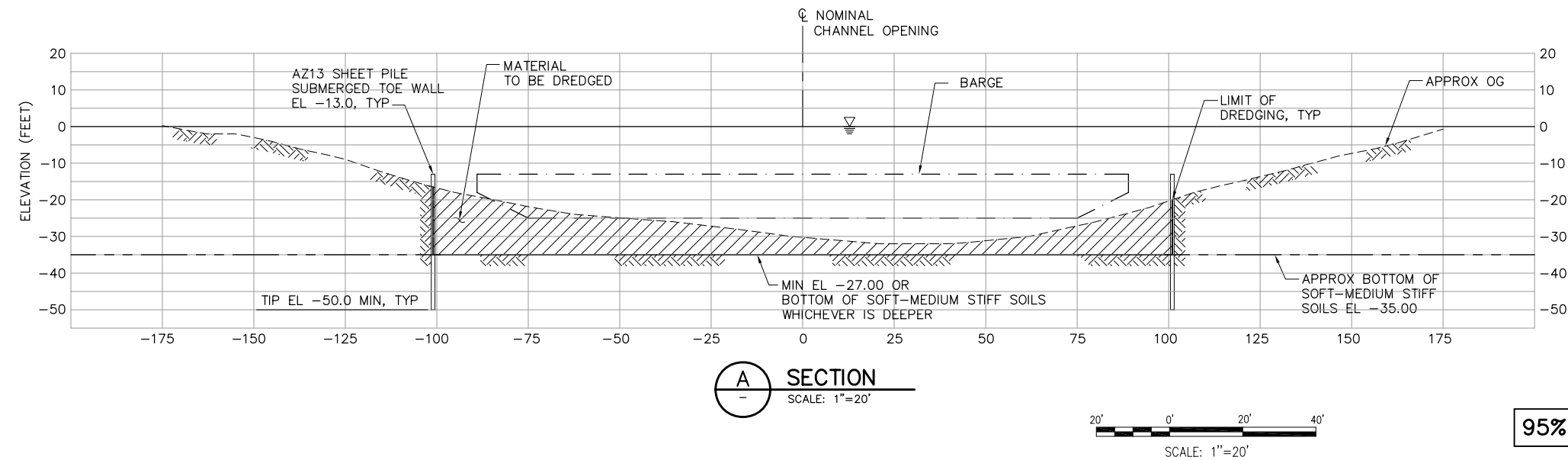
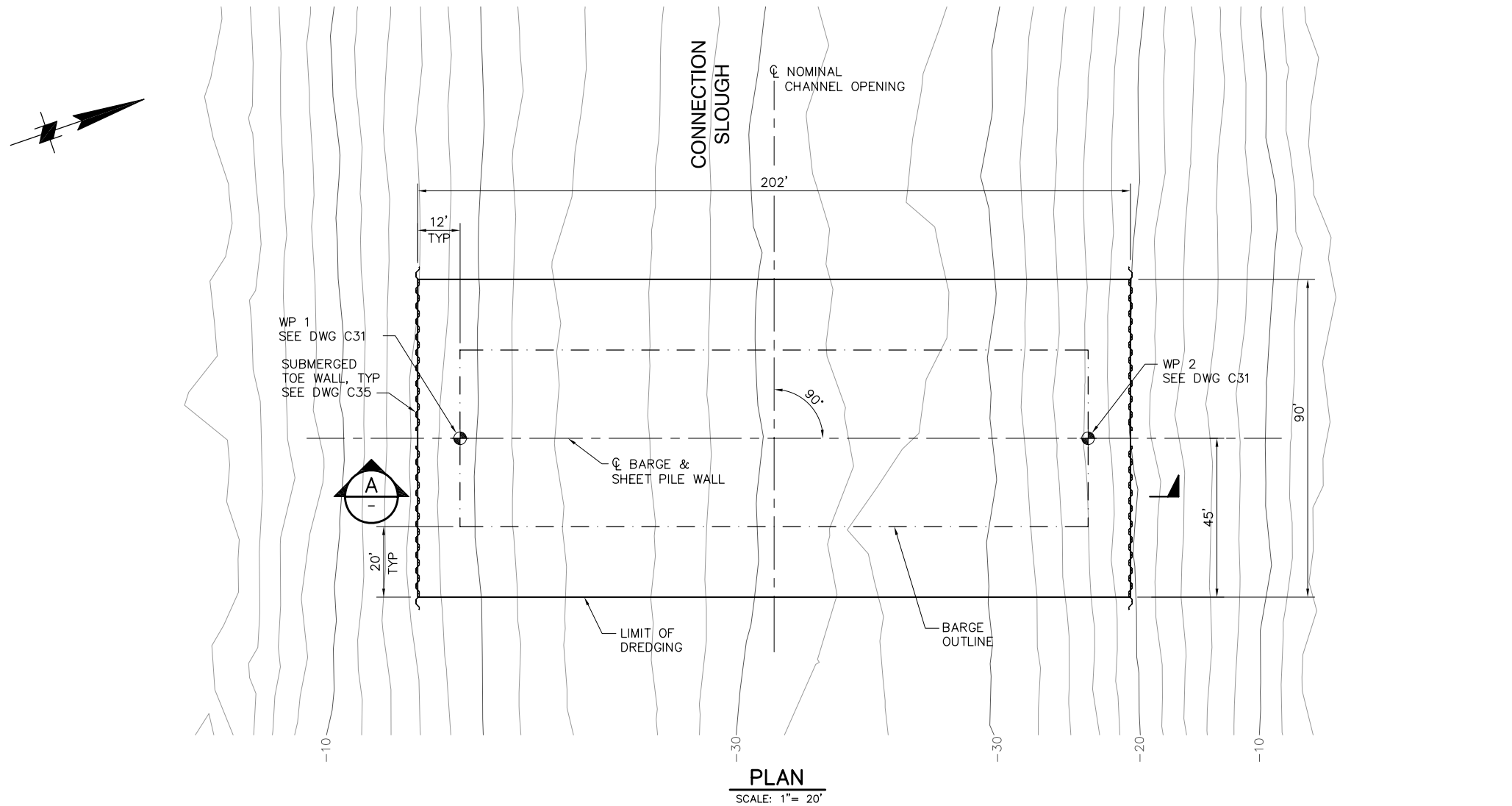
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JOB NO.	6097-03	SUBMITTED BY	RMR
CHK	GTH	TITLE	

TWO GATE FISH PROTECTION PLAN		DATE 08/07/09
CONNECTION SLOUGH SITE PLAN		SHEET 28 OF 75
		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.

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SCALE REDUCED ACCORDINGLY.

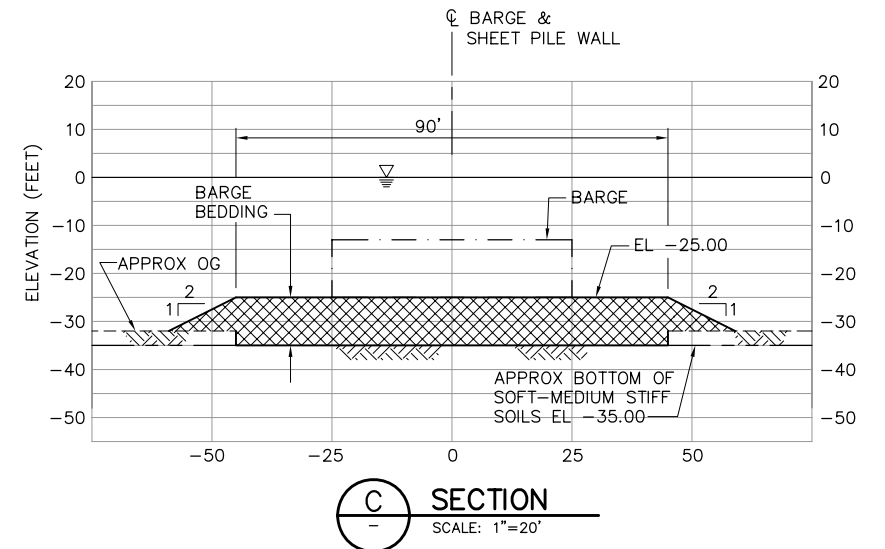
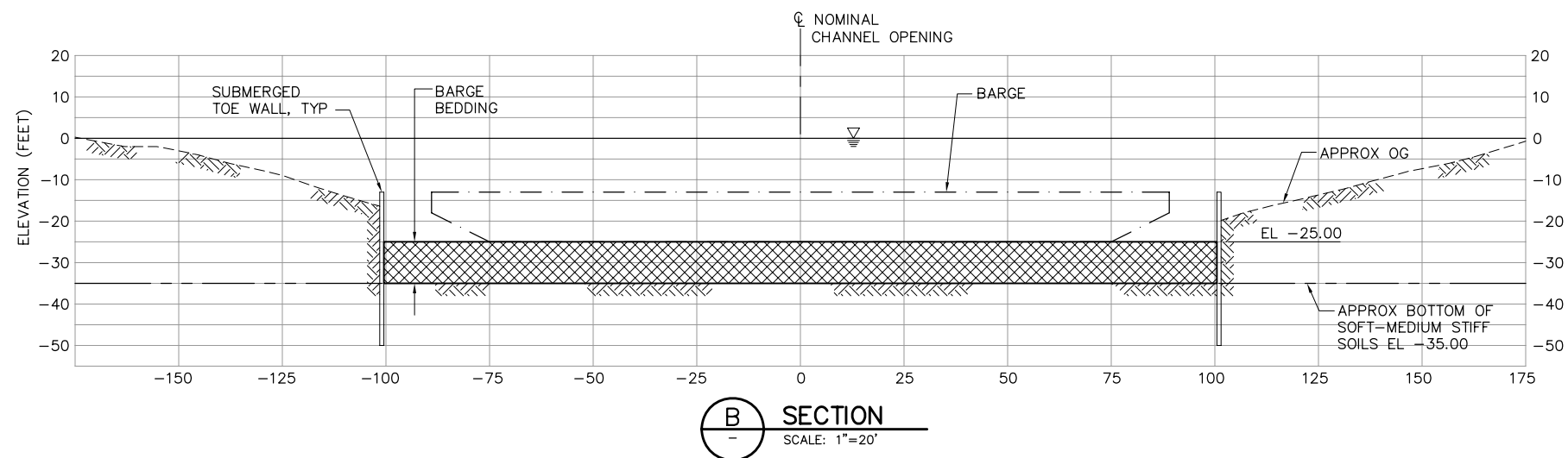
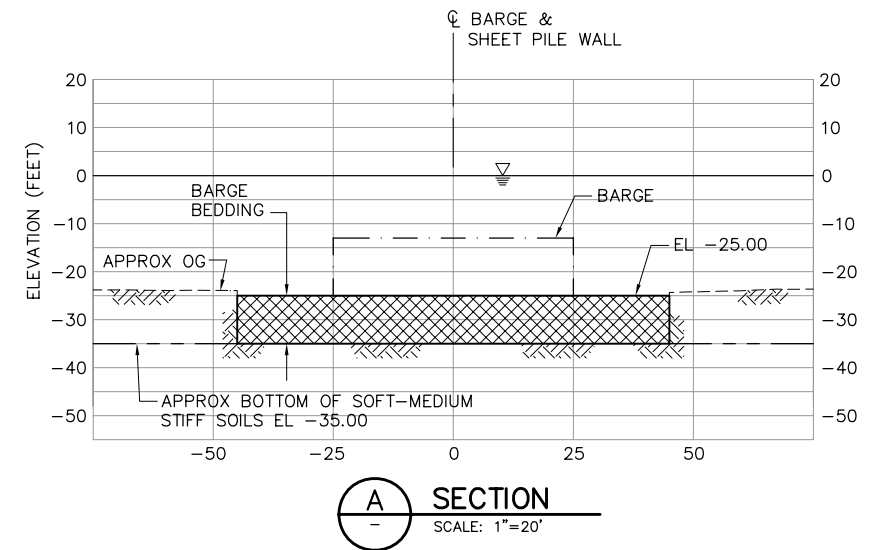
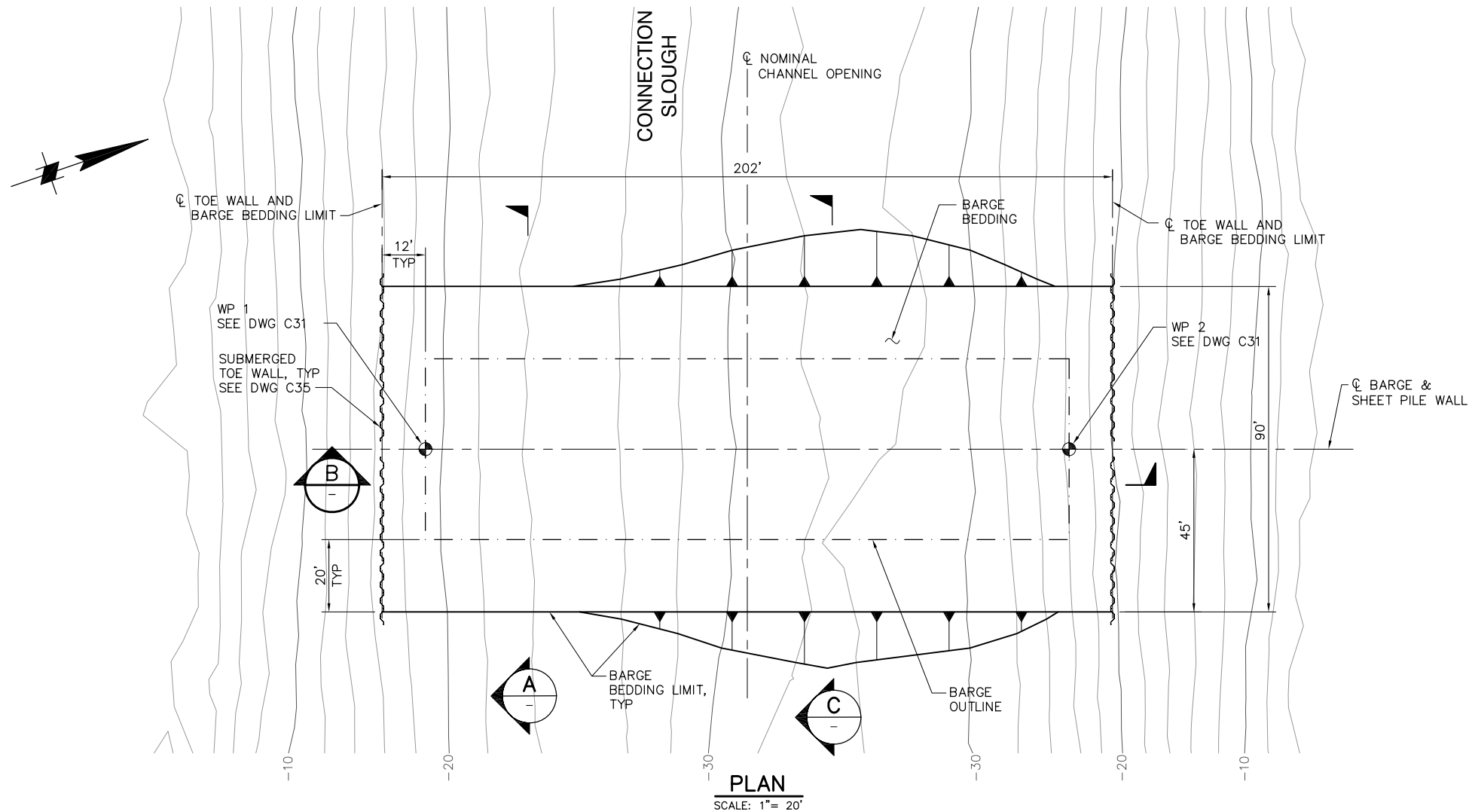
REVISION	DESCRIPTION	BY	DATE

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

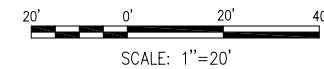
TWO GATE FISH PROTECTION PLAN	
CONNECTION SLOUGH DREDGING PLAN AND SECTION	

DATE	08/07/09
SHEET	29 OF 75
C32	

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NOTE:
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NOT SHOWN FOR CLARITY.



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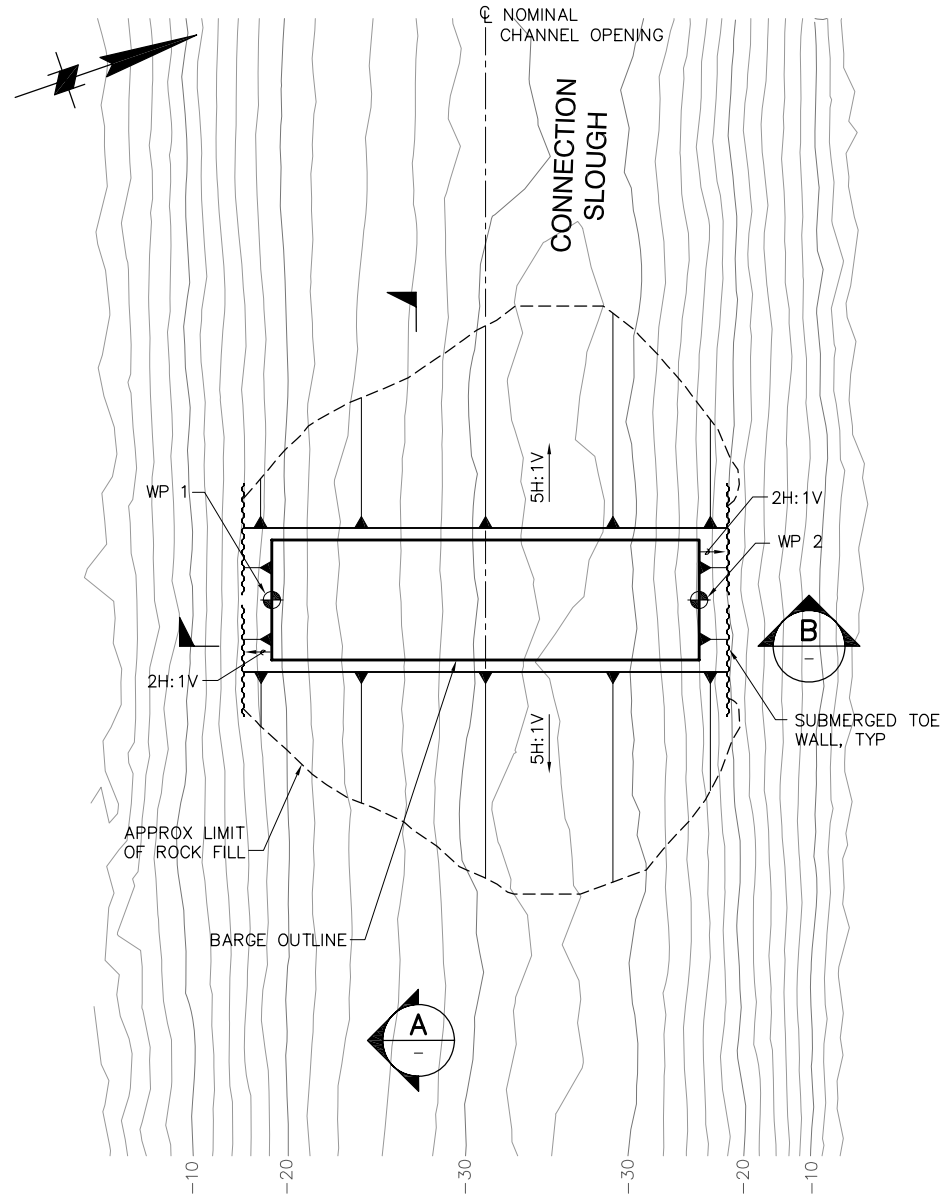
REVISION	DESCRIPTION	BY	DATE

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

TWO GATE FISH PROTECTION PLAN		DATE	08/07/09
CONNECTION SLOUGH, BARGE BEDDING PLAN		SHEET	30 OF 75
			C33

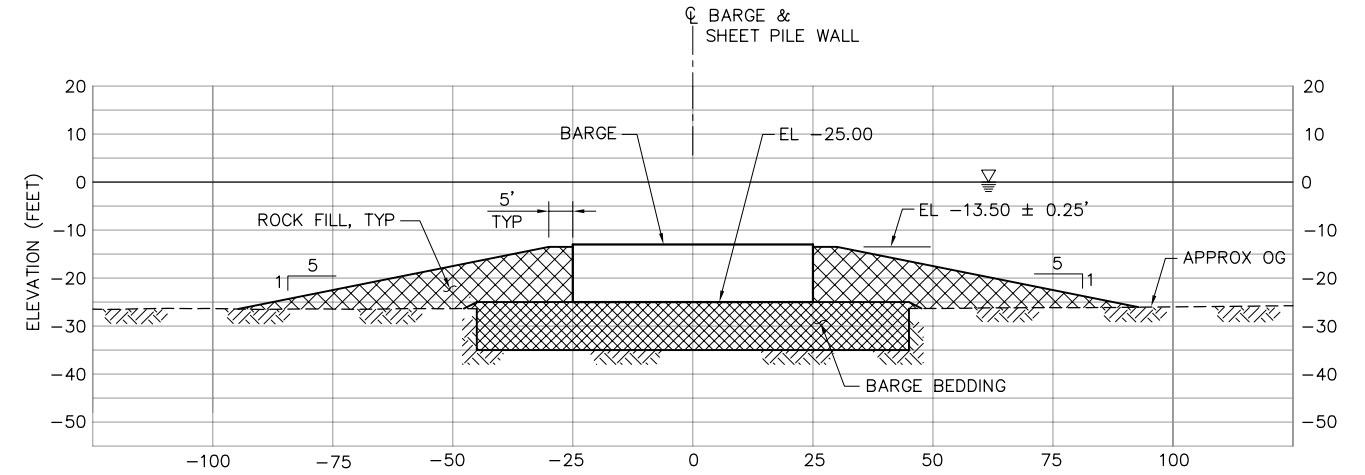
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BACON
ISLAND

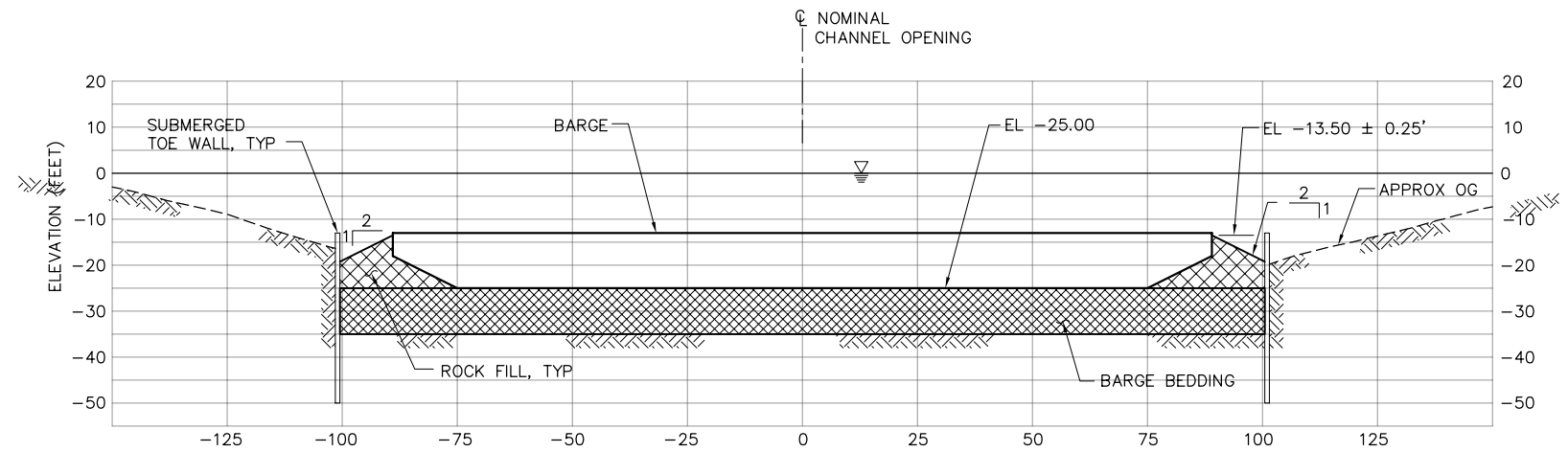


PLAN
SCALE: 1"= 40'

MANDEVILLE
ISLAND



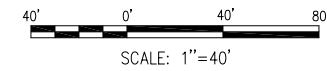
SECTION
SCALE: 1"=20'



SECTION
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

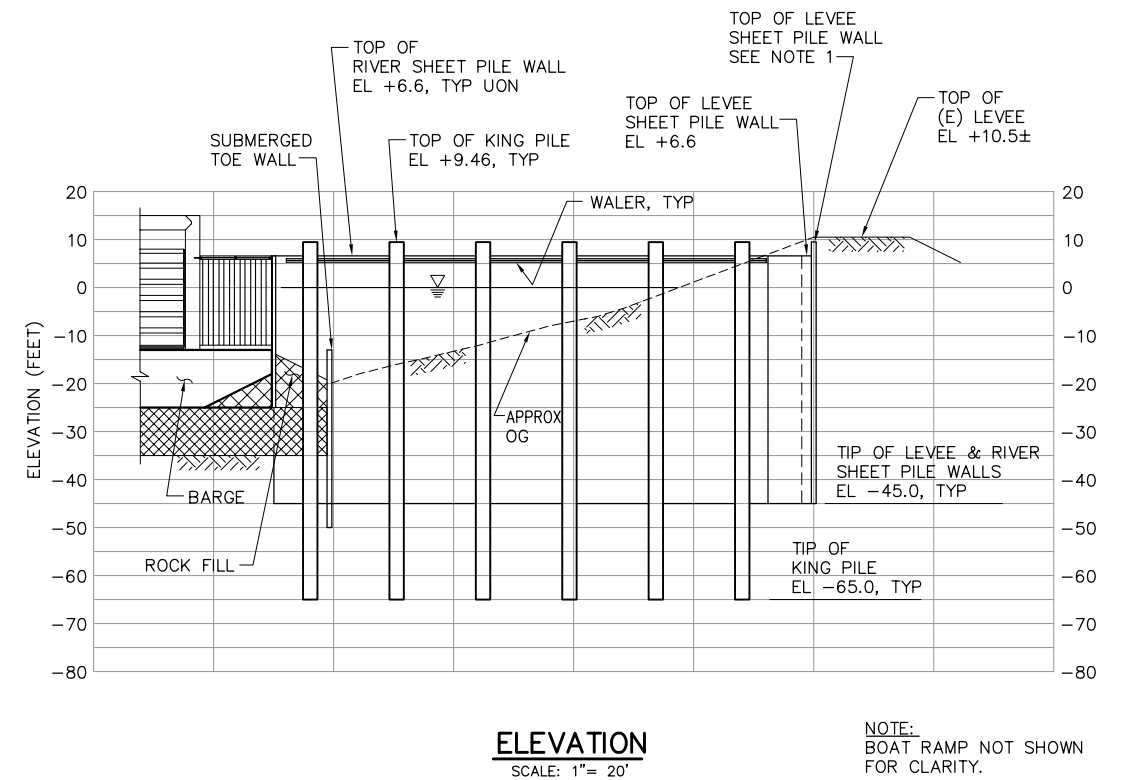
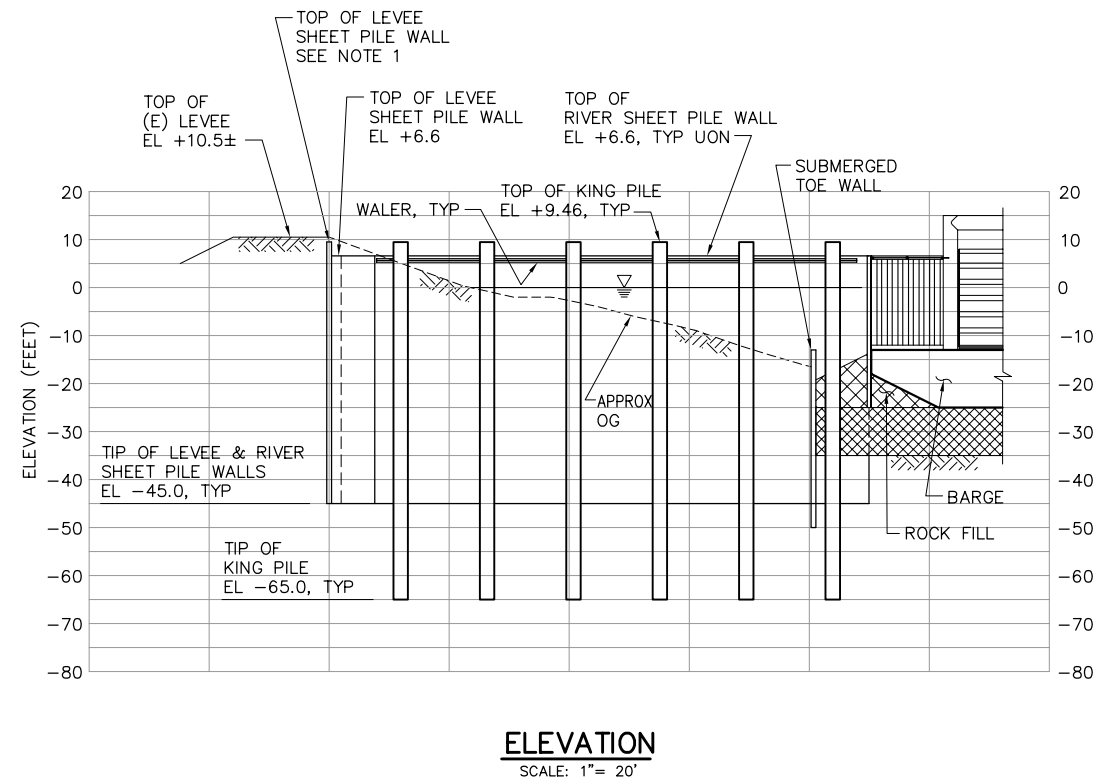
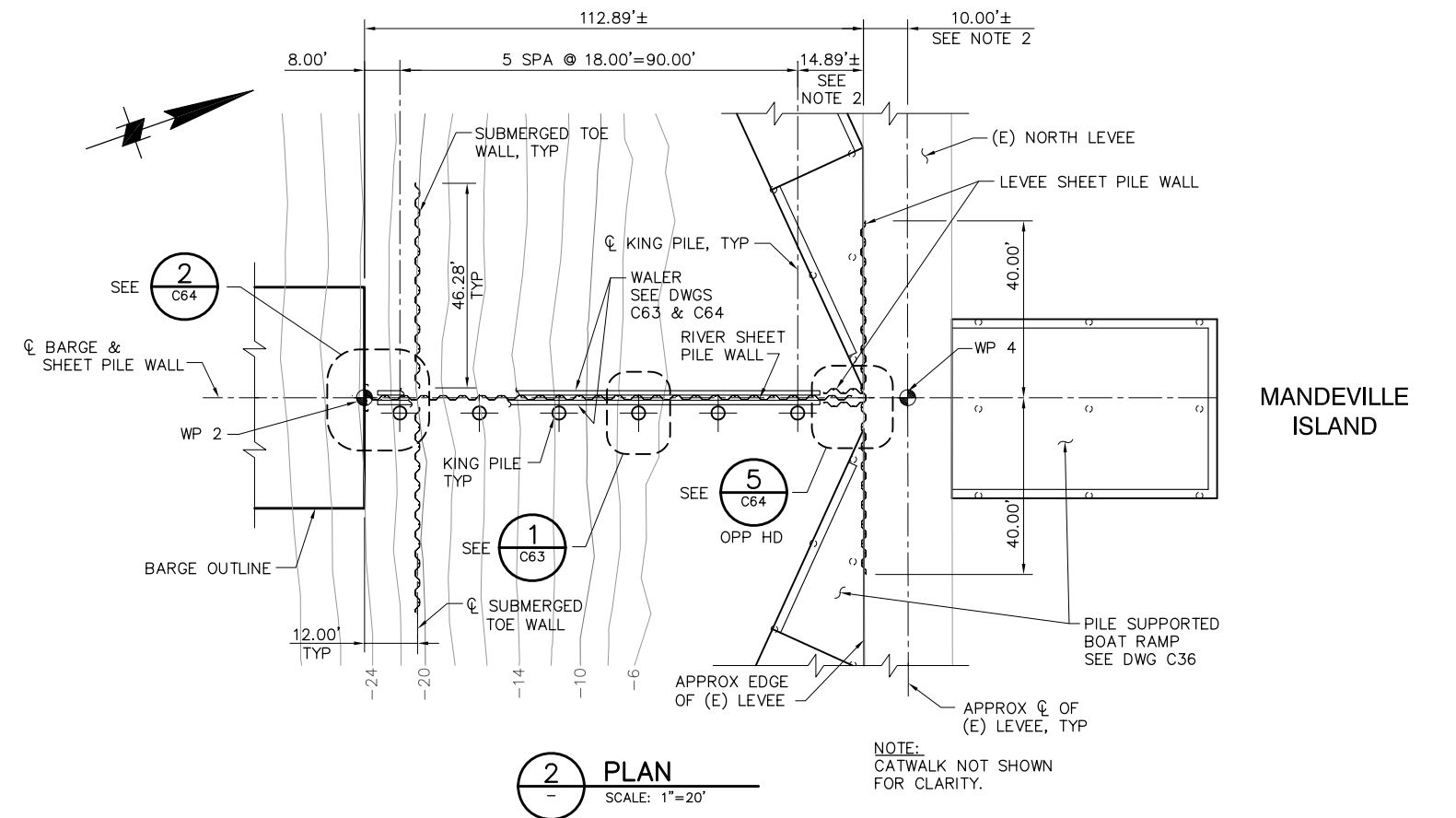
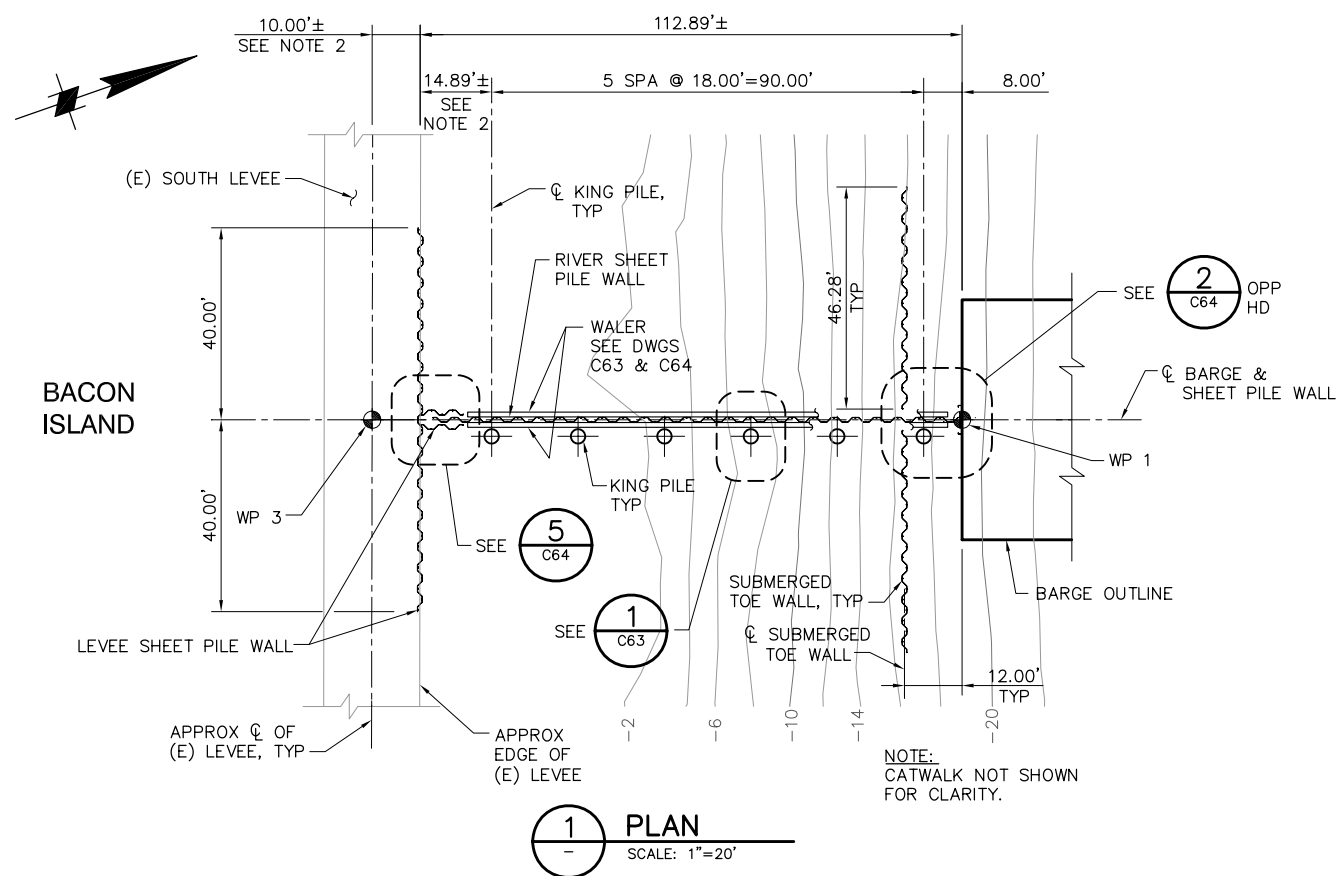
IF SHEET IS LESS THAN 22" x 34"
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SCALE REDUCED ACCORDINGLY.

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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 BARGE - ROCK FILL PLAN AND SECTIONS		SHEET	31 OF 75
			C34

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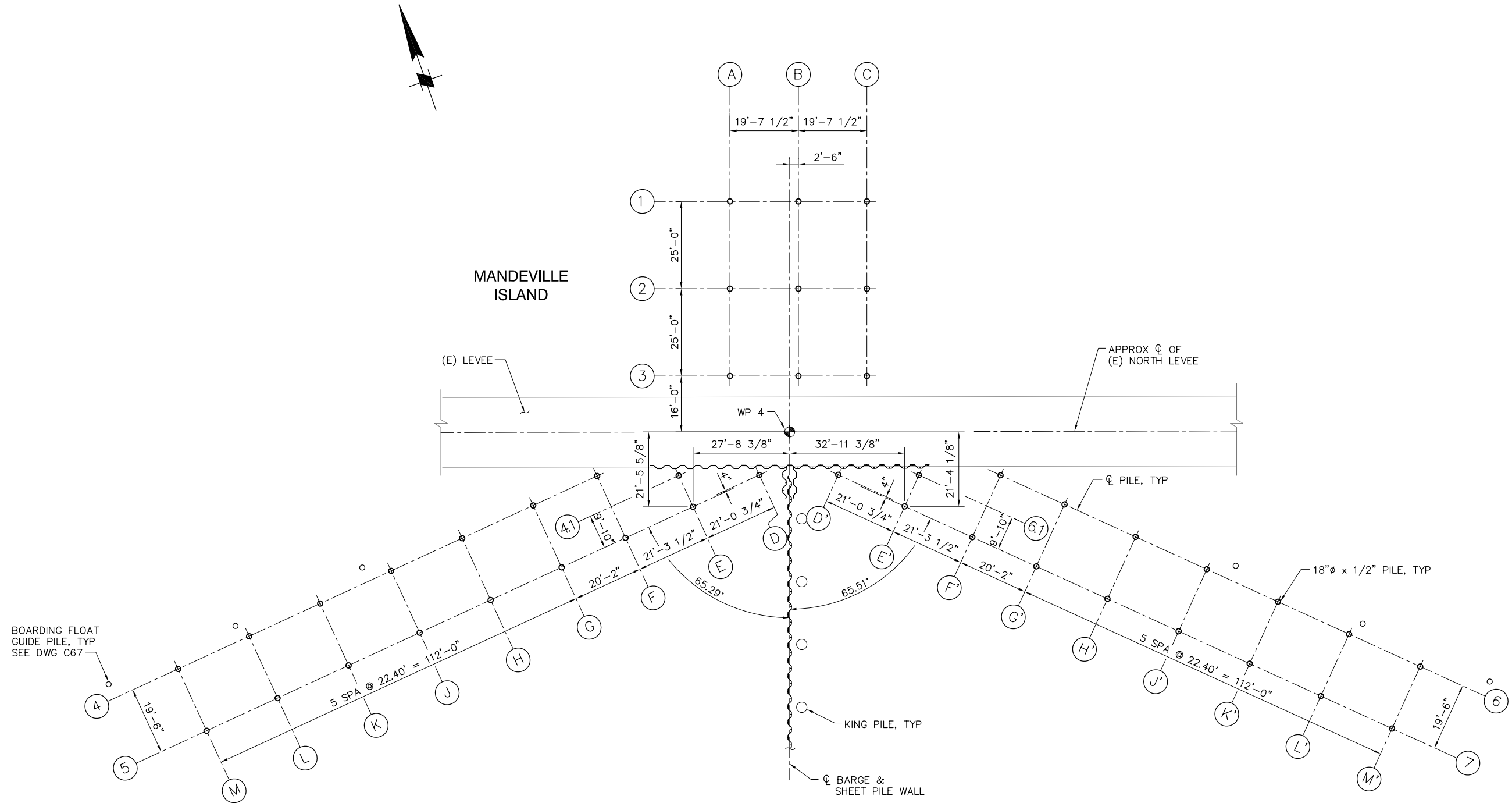
- NOTES:**
1. TOP OF LEVEE SHEET PILE WALL SHALL BE 6" BELOW TOP OF (E) LEVEE UON.
 2. LEVEE SHEET PILE WALL TO BE LOCATED 1 FT MIN OFF THE EDGE OF (E) ROAD SURFACE.

REVISION	DESCRIPTION	BY	DATE

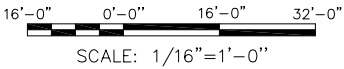
 Moffatt & Nichol		2001 N. Main Street, Suite 360 Walnut Creek, California 94596 (925) 944-5411	
DSGN	JMB	DR	EP/AB
JOB NO.	6097-03	SUBMITTED BY	RMR
CHK	TDB	TITLE	

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

P:\6097-03 SWC GATE DESIGN\CADD\DWG\609703-C36.1.DWG 8/6/2009 9:31 AM



PILE PLAN
SCALE: 1/16" = 1'-0"



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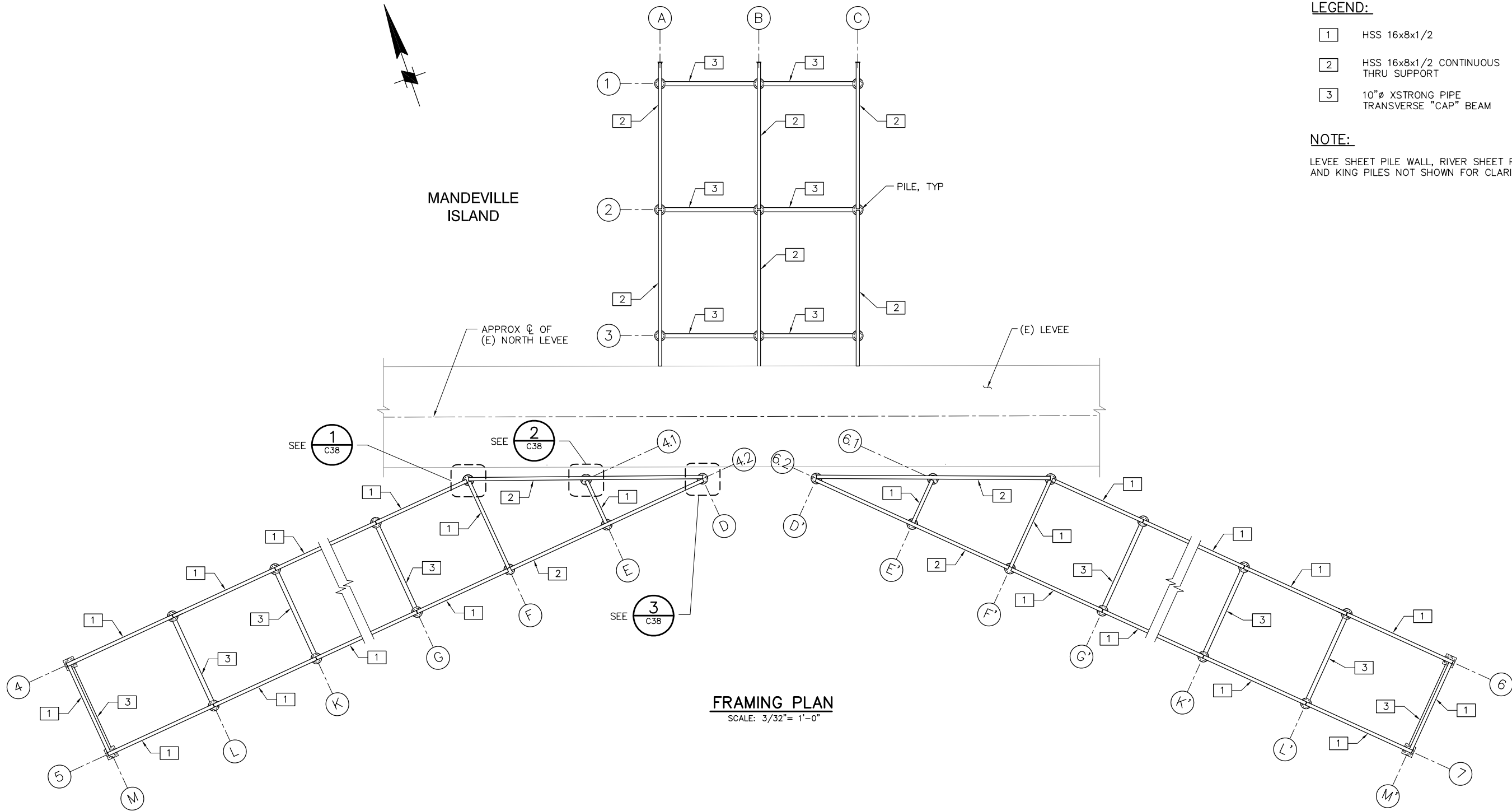
REVISION	DESCRIPTION	BY	DATE

		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
CONNECTION SLOUGH BOAT RAMP PILE PLAN

DATE 08/07/09
SHEET 34 OF 75
C36.1

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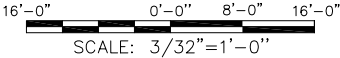


LEGEND:

- 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

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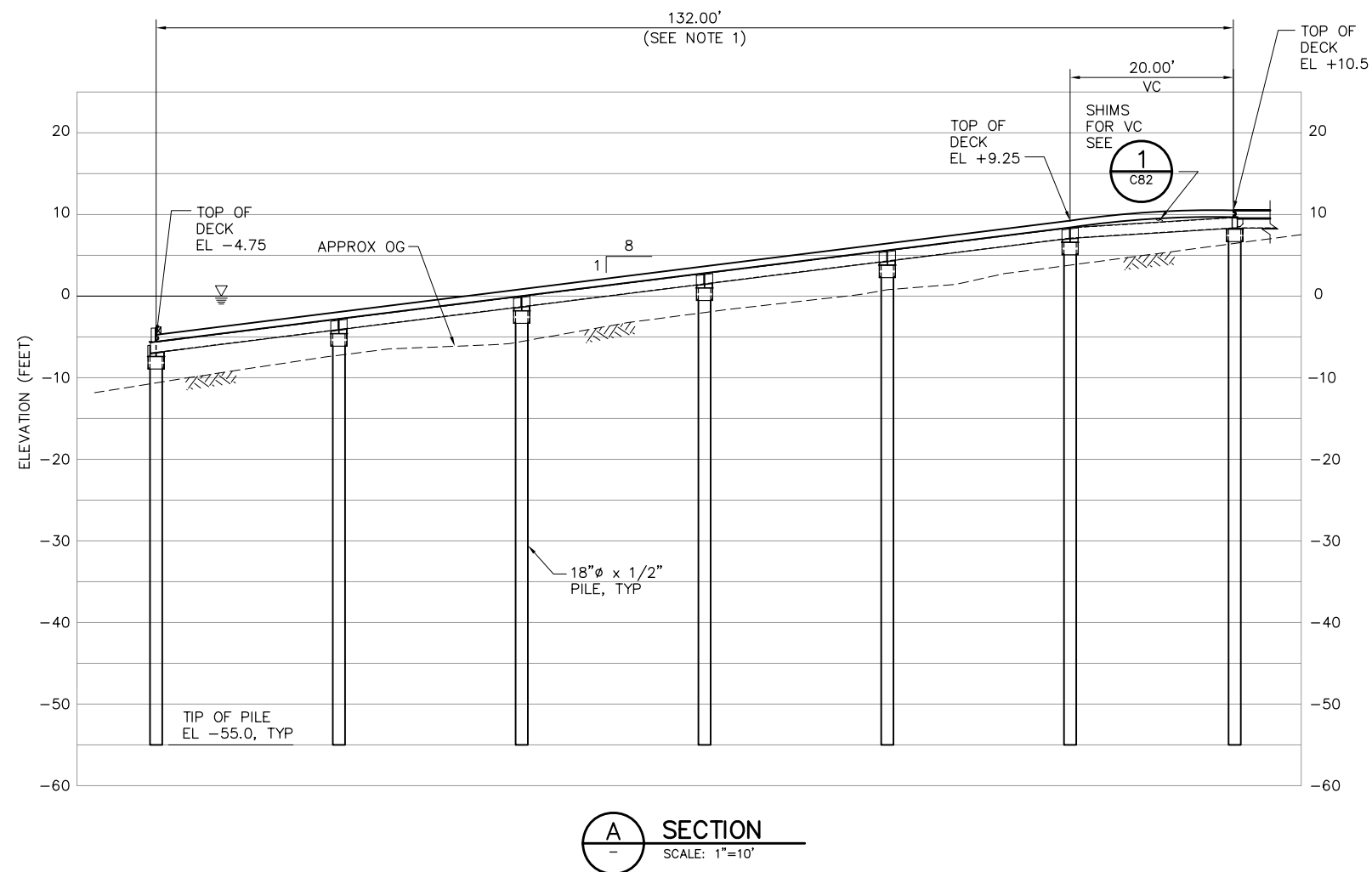
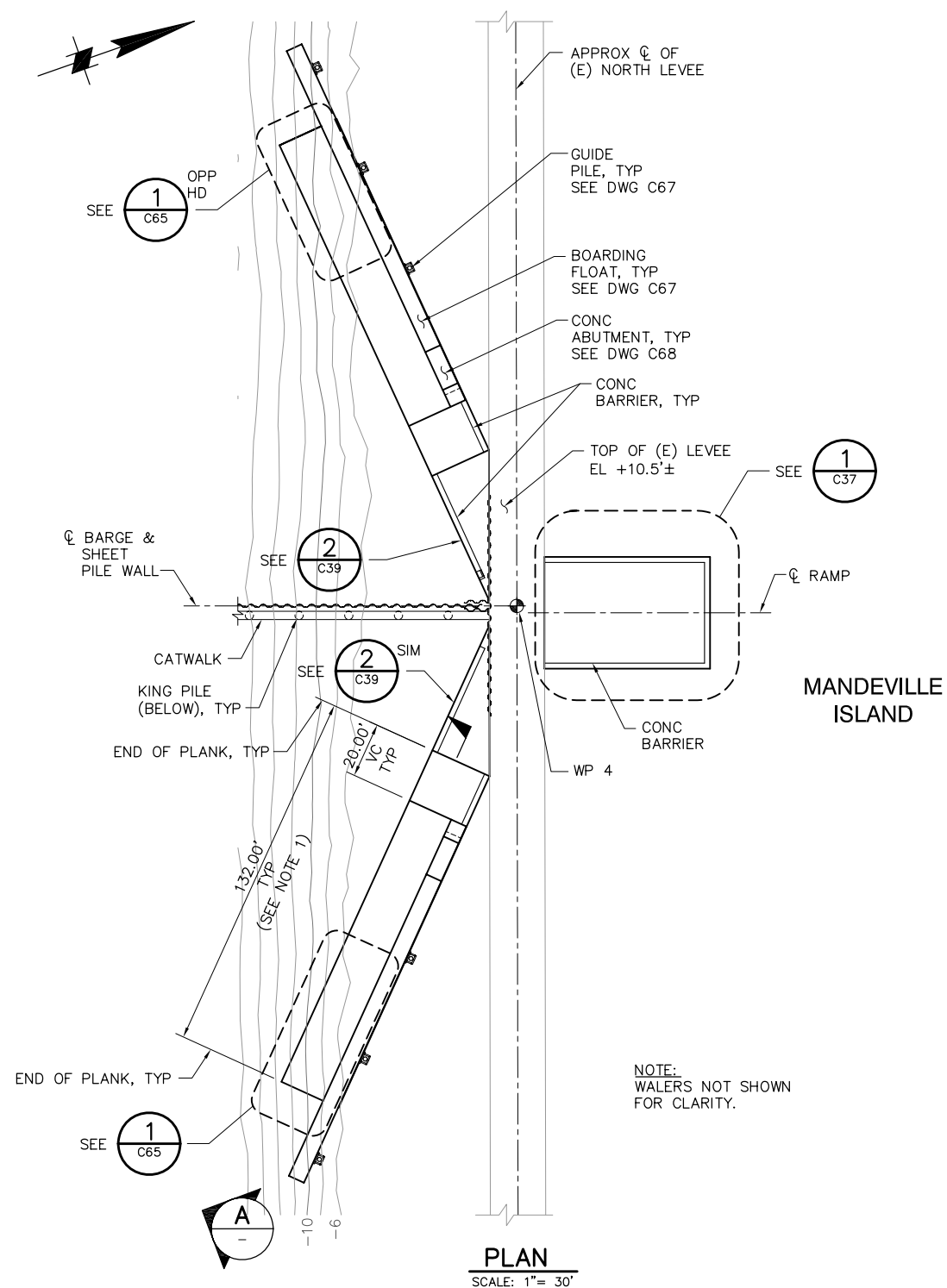
REVISION	DESCRIPTION	BY	DATE

		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
CONNECTION SLOUGH BOAT RAMP FRAMING PLAN

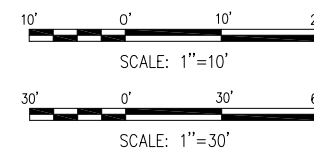
DATE 08/07/09
SHEET 35 OF 75
C36.2

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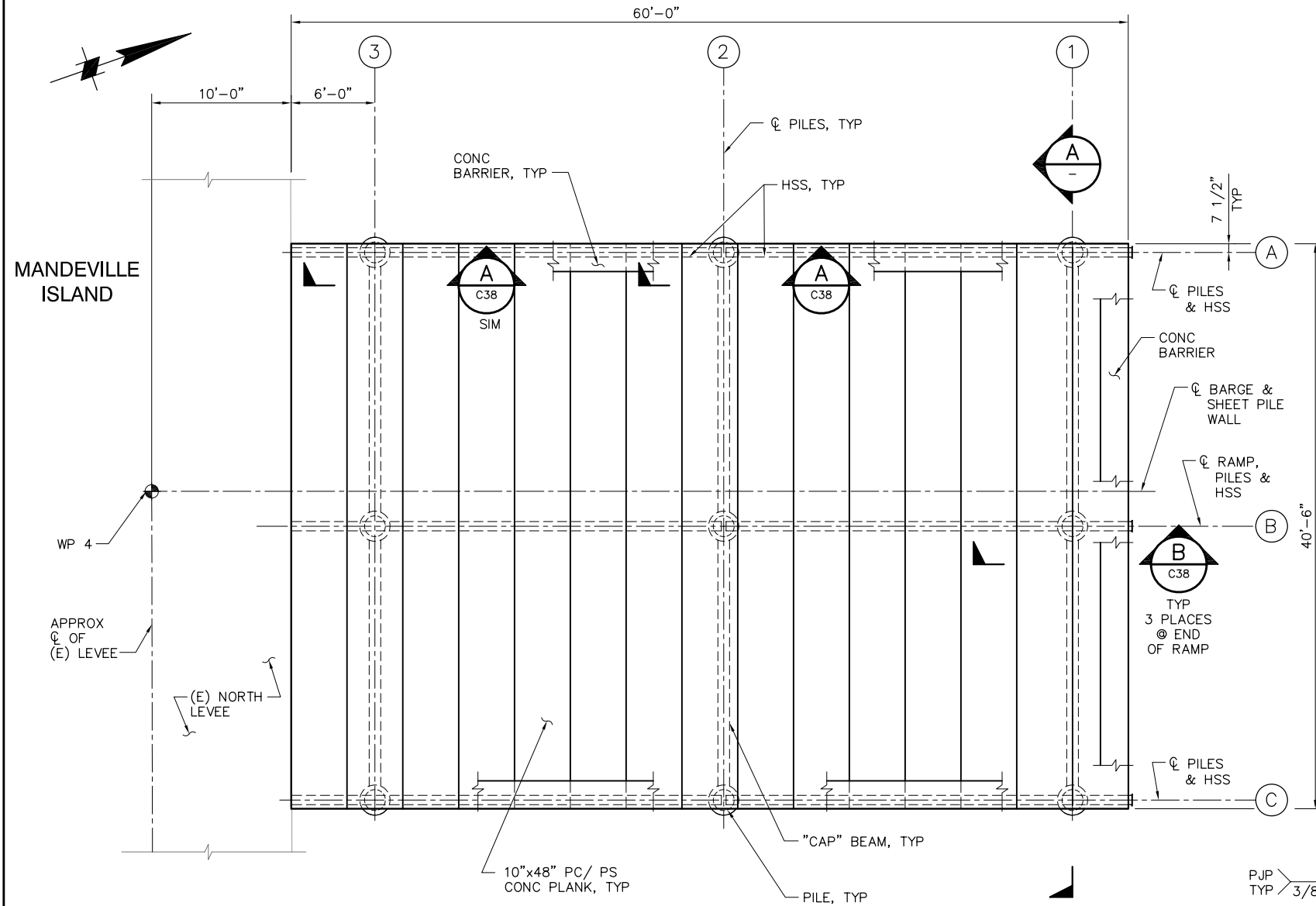
IF SHEET IS LESS THAN 22" x 34"
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REVISION	DESCRIPTION	BY	DATE

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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 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"

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IF SHEET IS LESS THAN 22" x 34"
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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



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



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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	CHK	TDB
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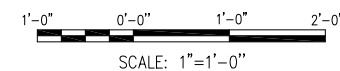
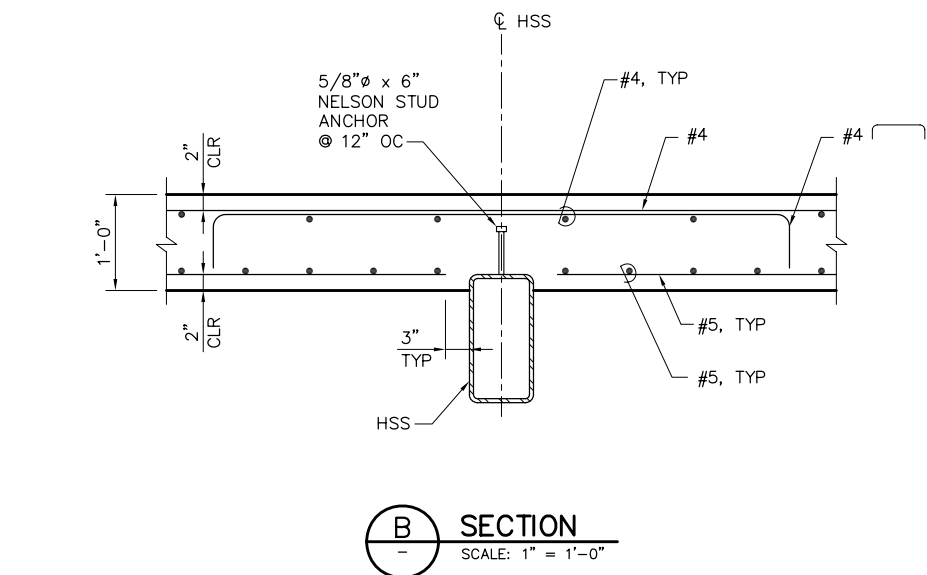
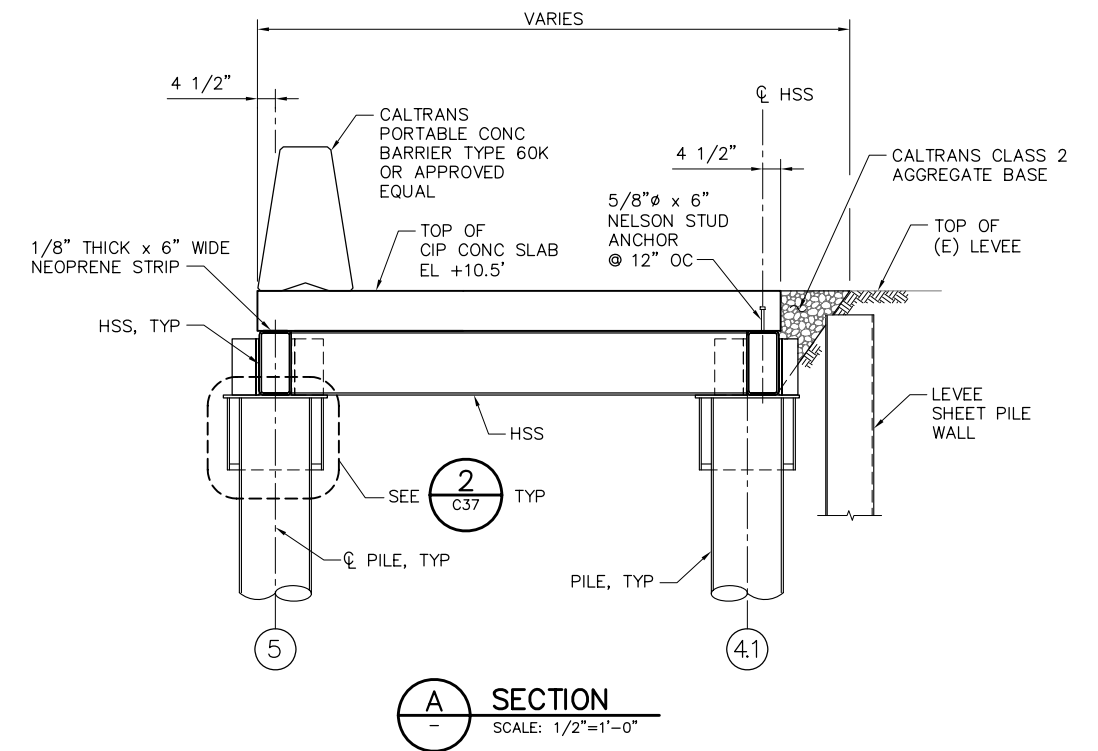
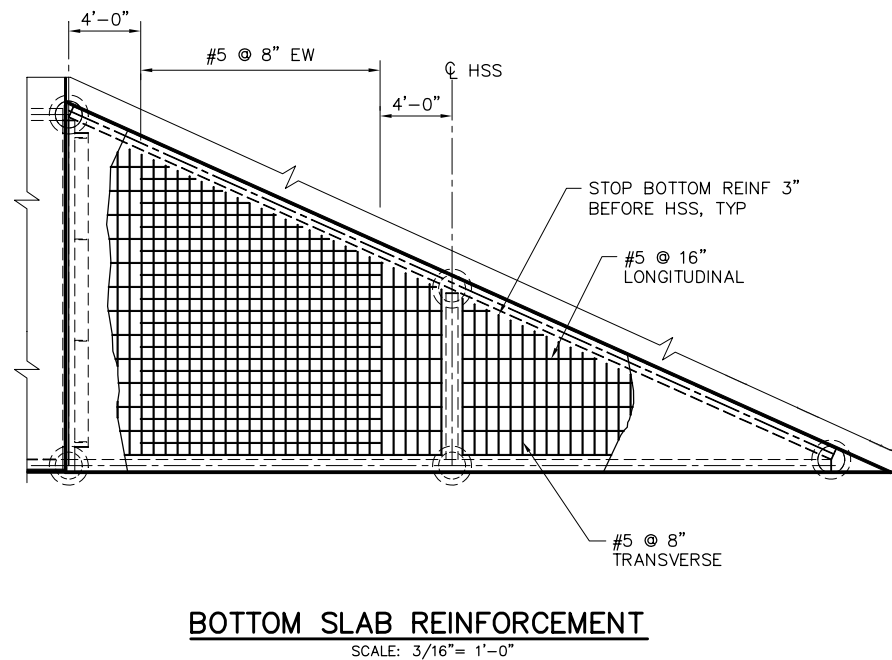
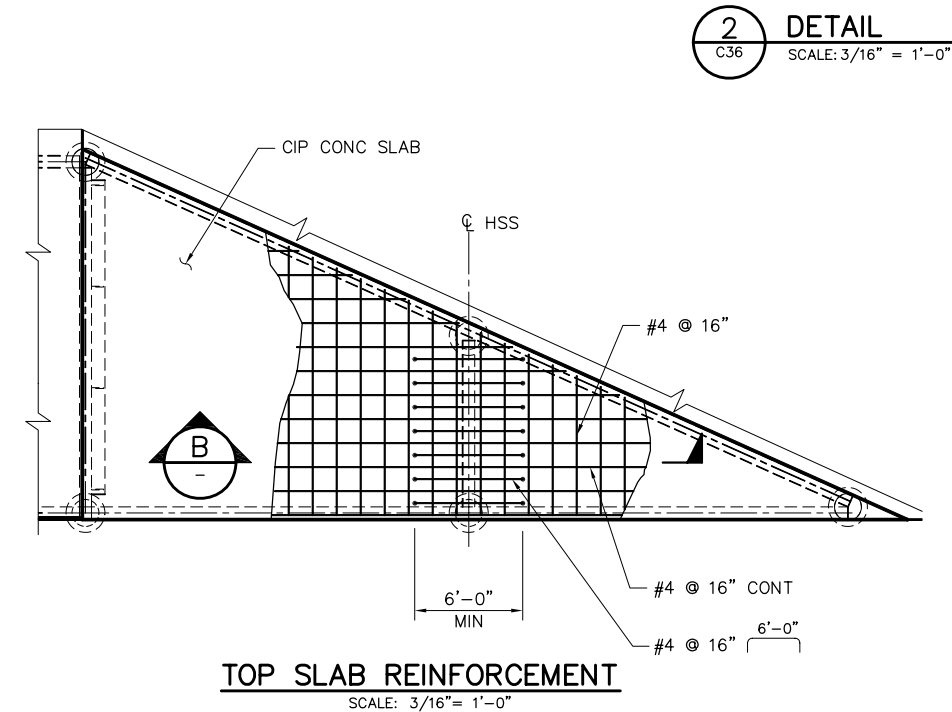
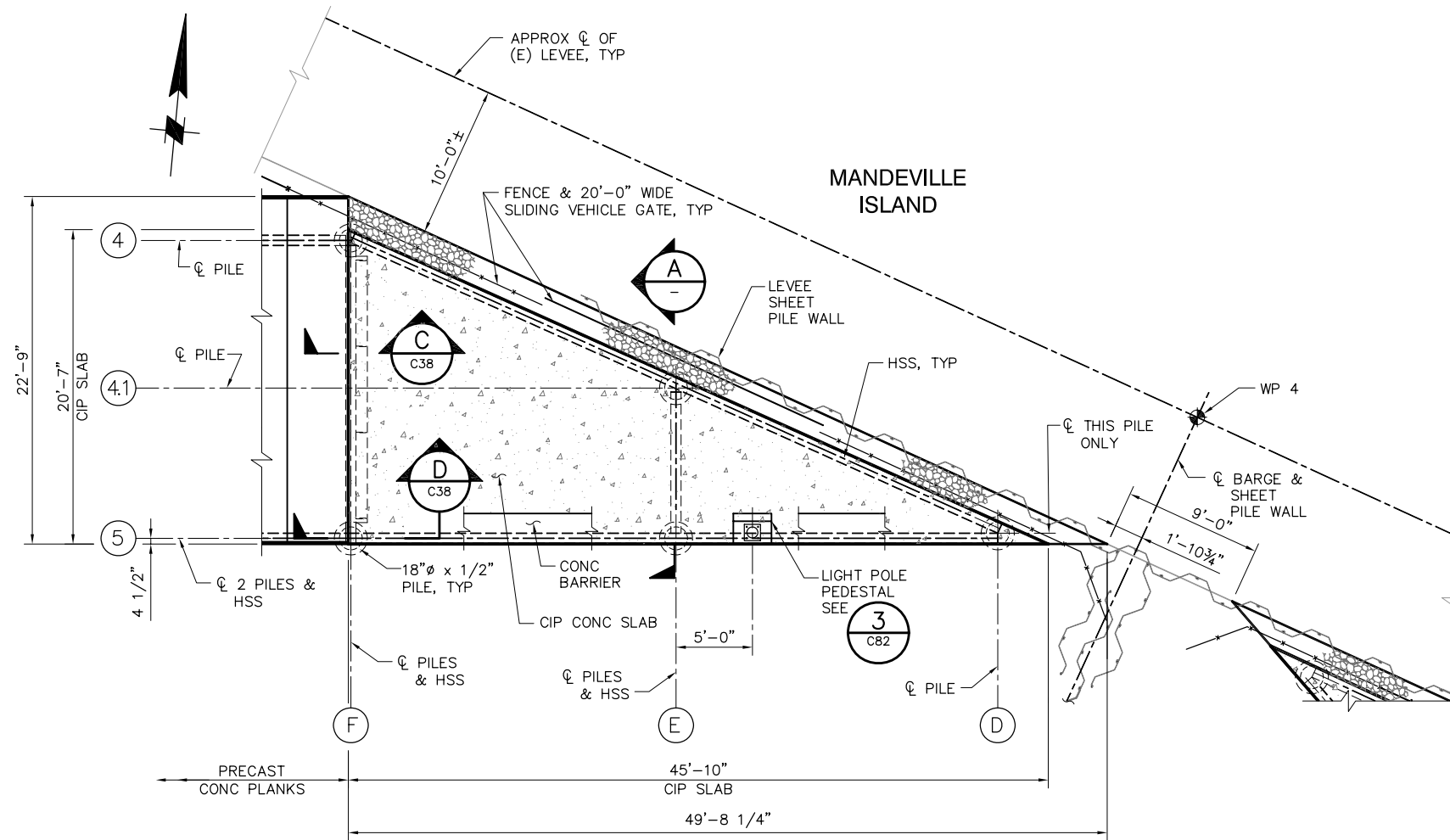
JOB NO.	6097-03	SUBMITTED BY	RMR	TITLE	
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CONNECTION SLOUGH
BOAT RAMP DETAILS AND SECTIONS
SHEET 2

SHEET 37 OF 75

C38

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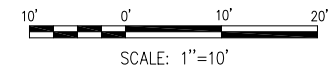
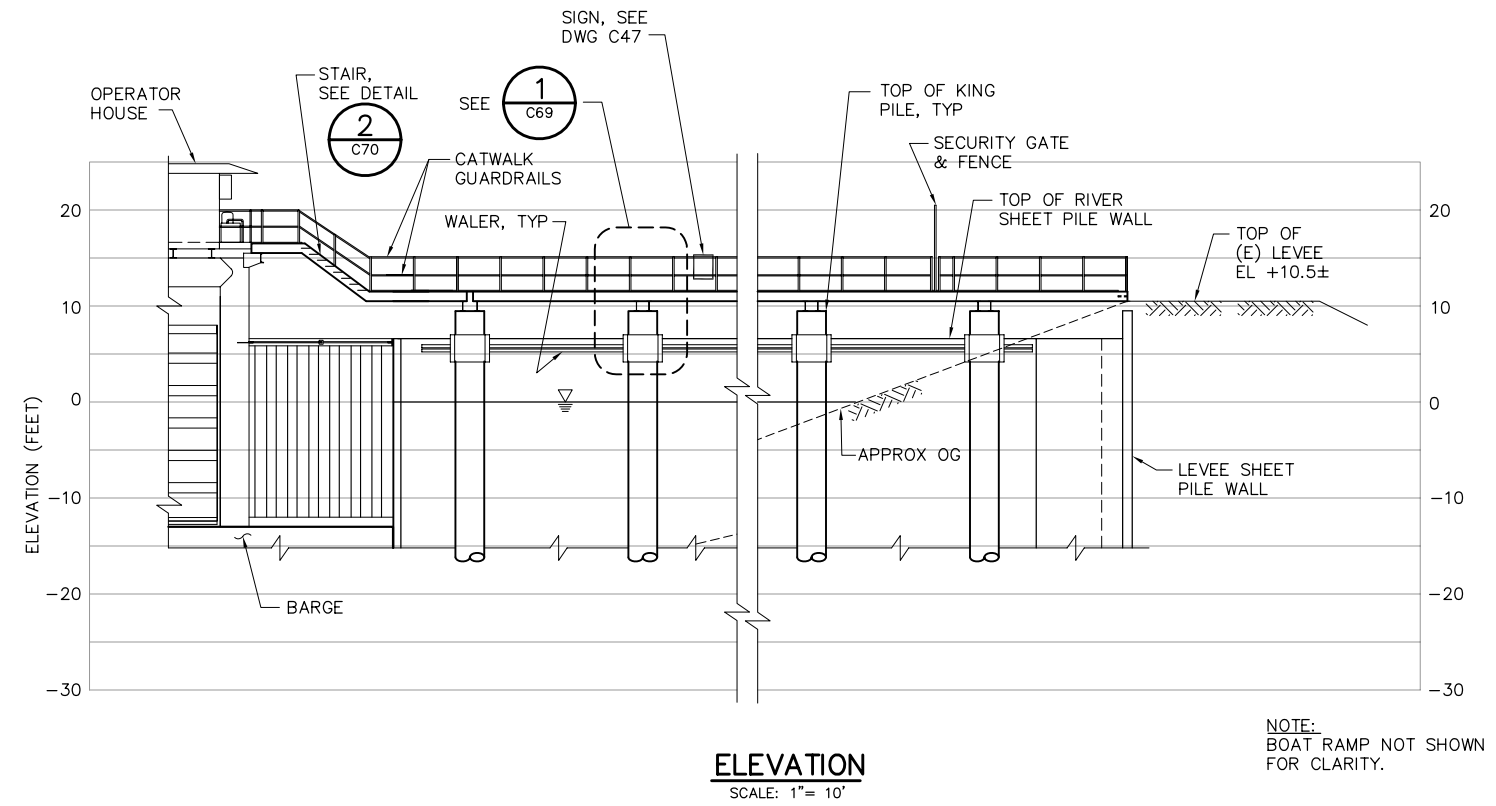
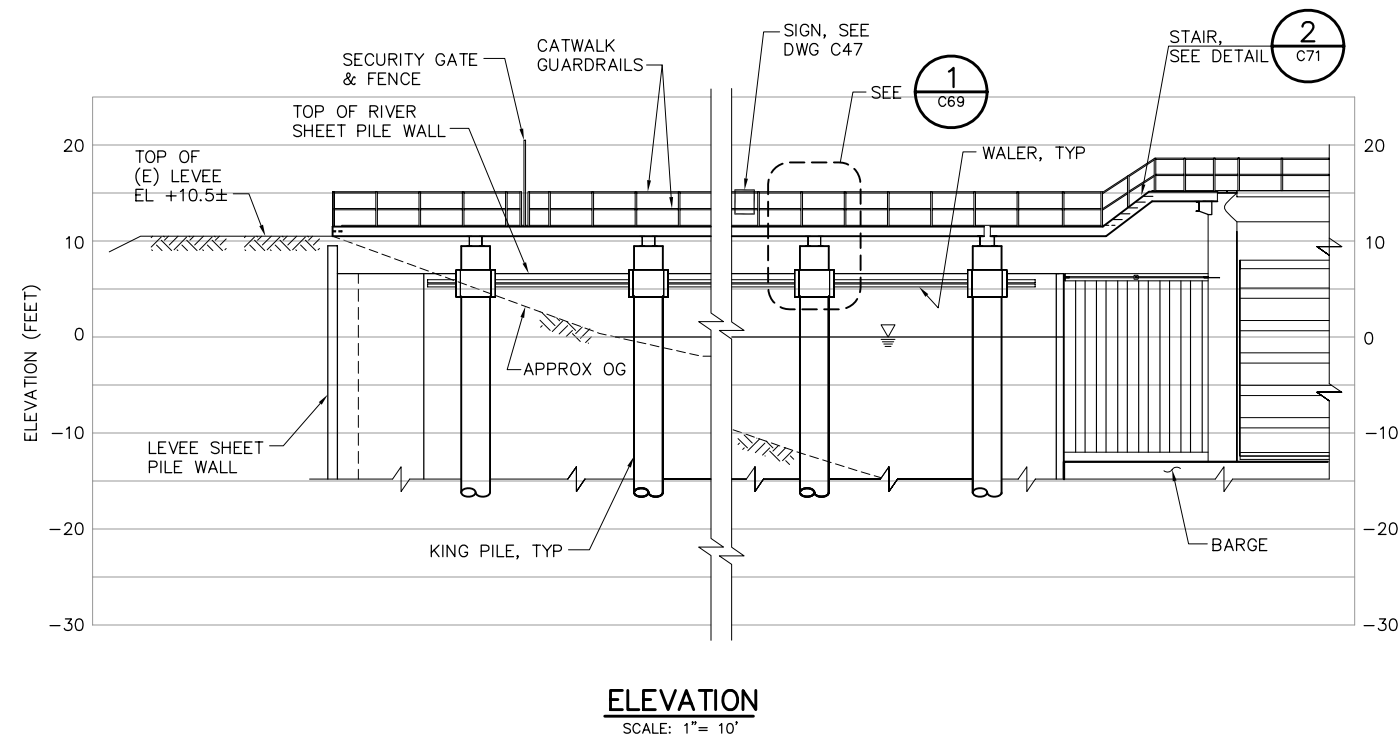
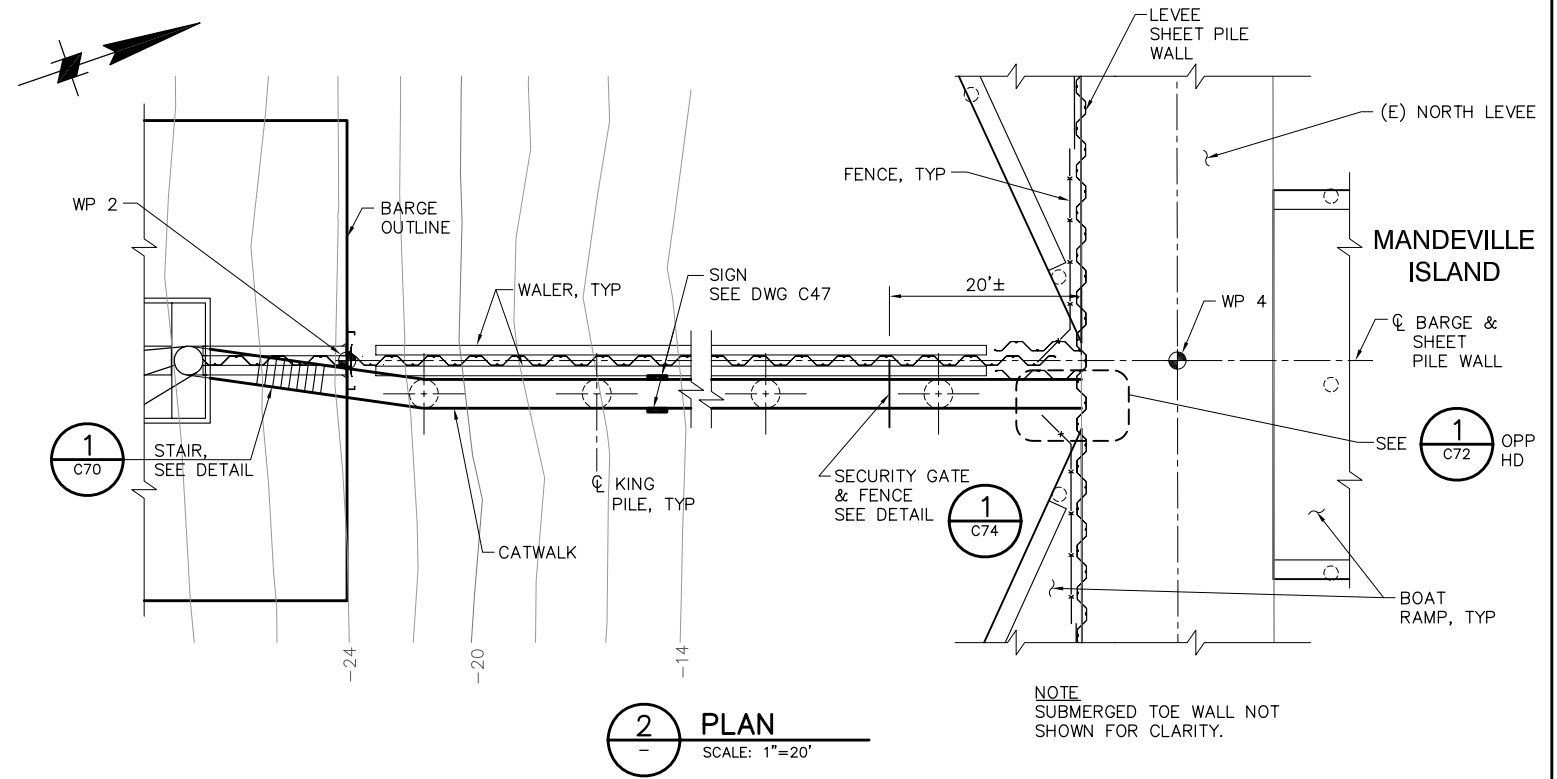
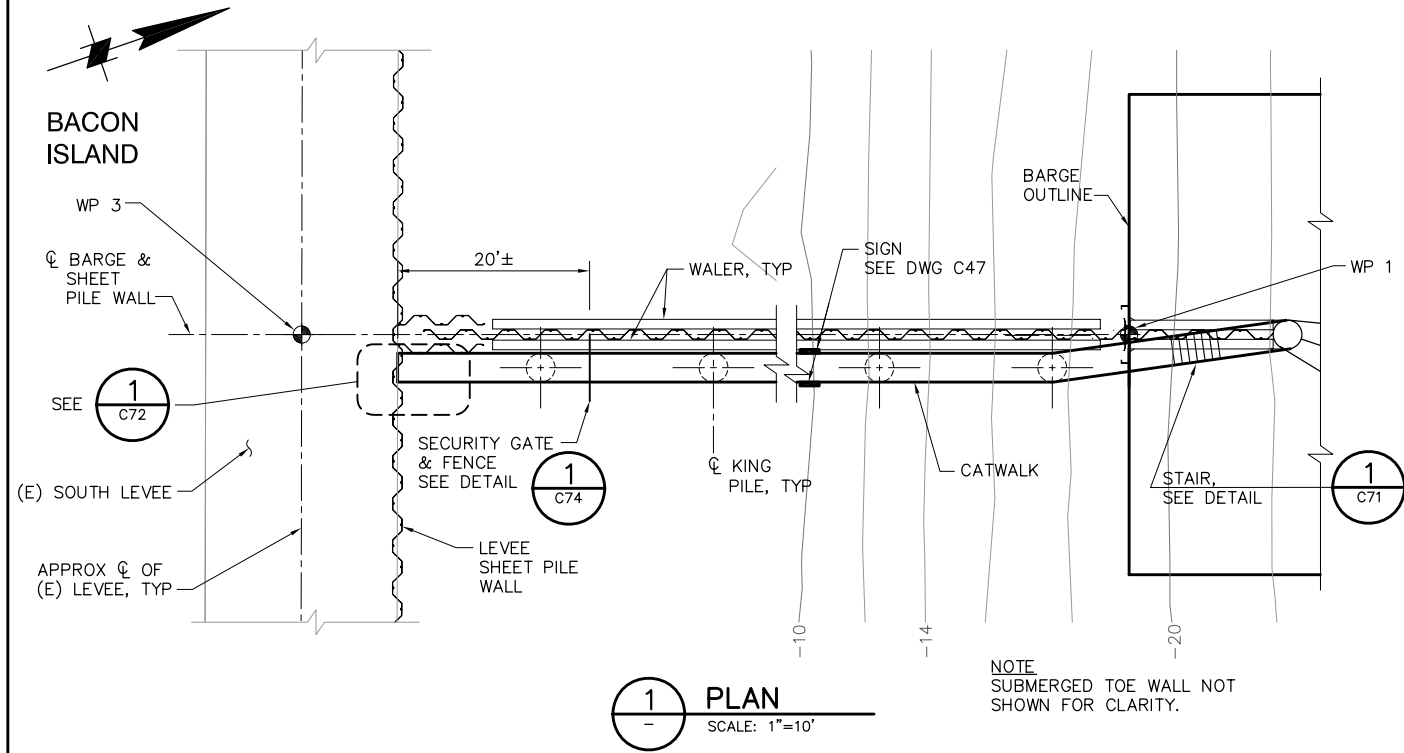
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DSGN	JMB	DR	EP
JOB NO.	6097-03	SUBMITTED BY	RMR
CHK	TDB	TITLE	

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

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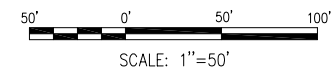
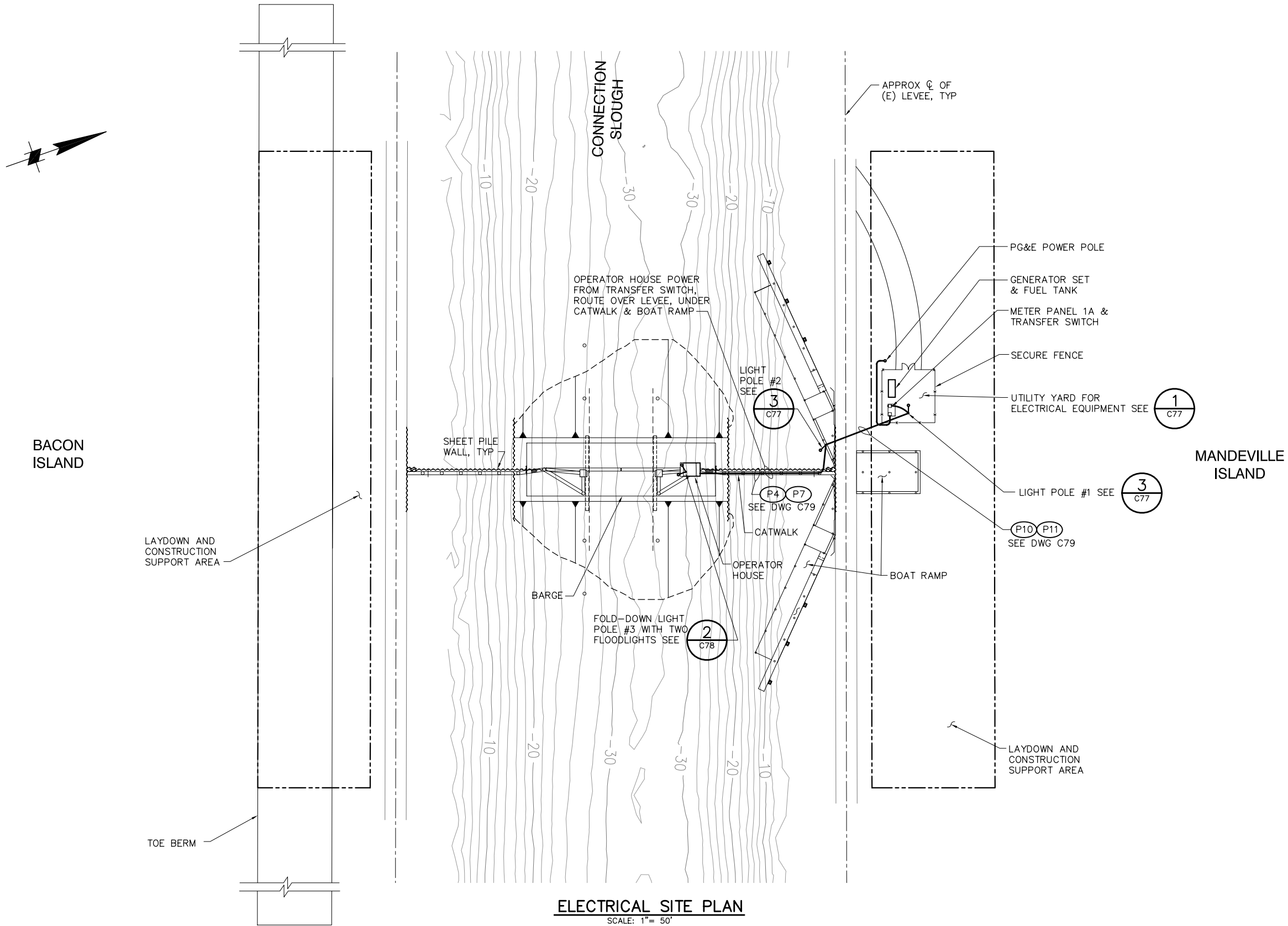
IF SHEET IS LESS THAN 22" x 34"
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REVISION	DESCRIPTION	BY	DATE

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

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

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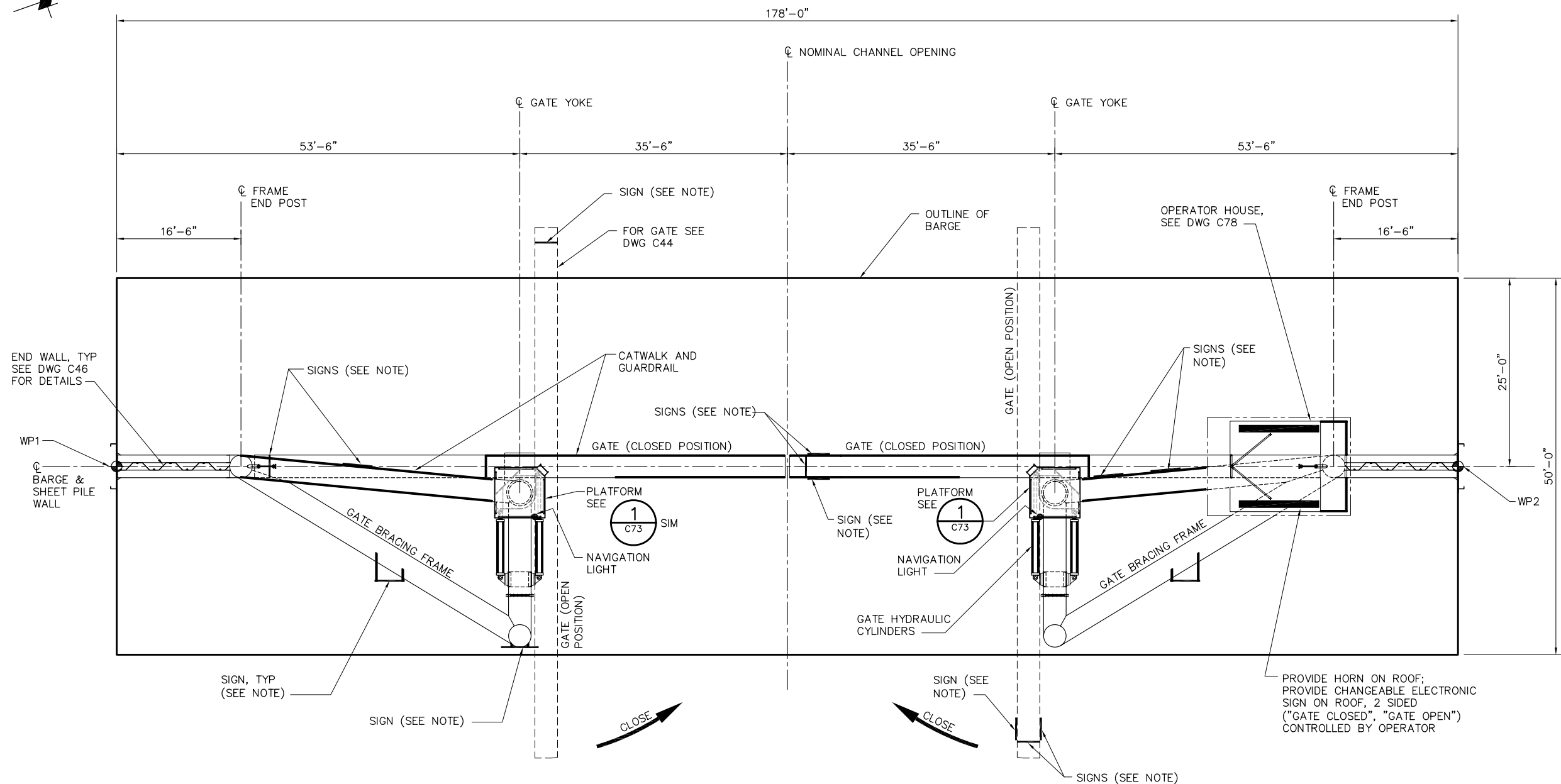
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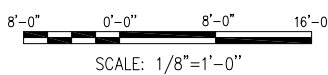
 2001 N. Main Street, Suite 360 Walnut Creek, California 94596 (925) 944-5411		
DSGN	DM	DR
JOB NO.	6097-03	SUBMITTED BY
CHK	AB	CBS
TITLE	RMR	

TWO GATE FISH PROTECTION PLAN	DATE 08/07/09
CONNECTION SLOUGH ELECTRICAL SITE PLAN	SHEET 40 OF 75
	C41



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

NOTE:
FOR SIGNAGE, SEE DRAWING C47.



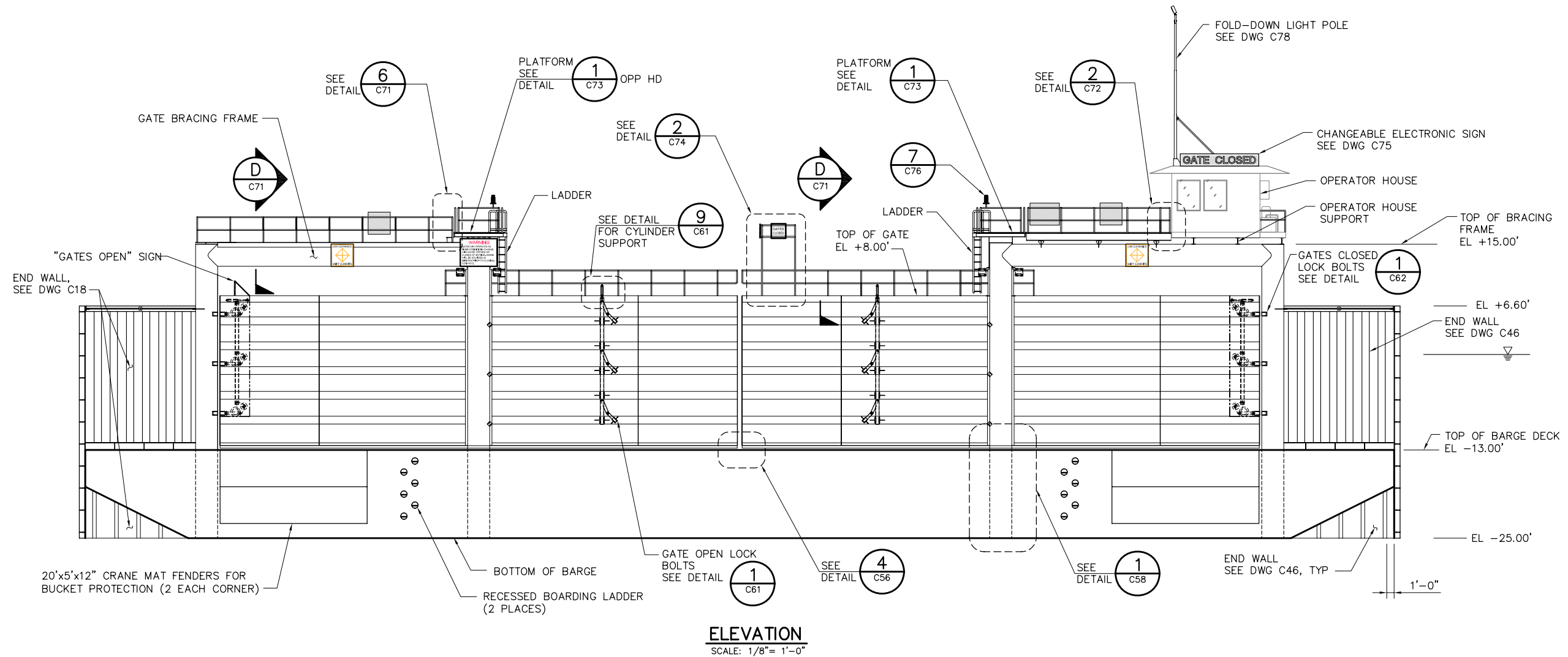
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IT IS A REDUCED PRINT -
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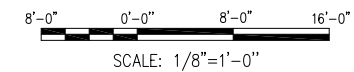
REVISION	DESCRIPTION	BY	DATE			Moffatt & Nichol 2001 N. Main Street, Suite 360 Walnut Creek, California 94596 (925) 944-5411	TWO GATE FISH PROTECTION PLAN		DATE 08/07/09	
									SHEET 41 OF 75	
									CONNECTION SLOUGH BARGE GENERAL ARRANGEMENT PLAN	
				DSGN CBS	DR AB	CHK TDB	C42			
				JOB NO. 6097-03	SUBMITTED BY RMR	TITLE				

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NOTES:

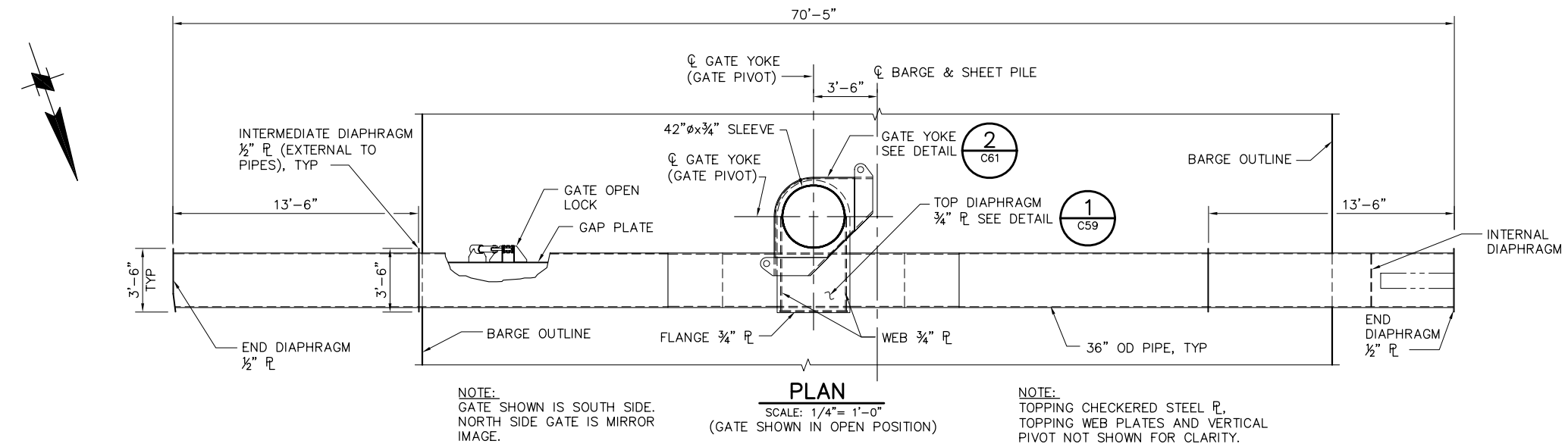
1. FOR SIGNAGE SEE DRAWING C47.
2. FOR CATWALK STAIRWAY SEE DRAWING C40.



95% SUBMITTAL

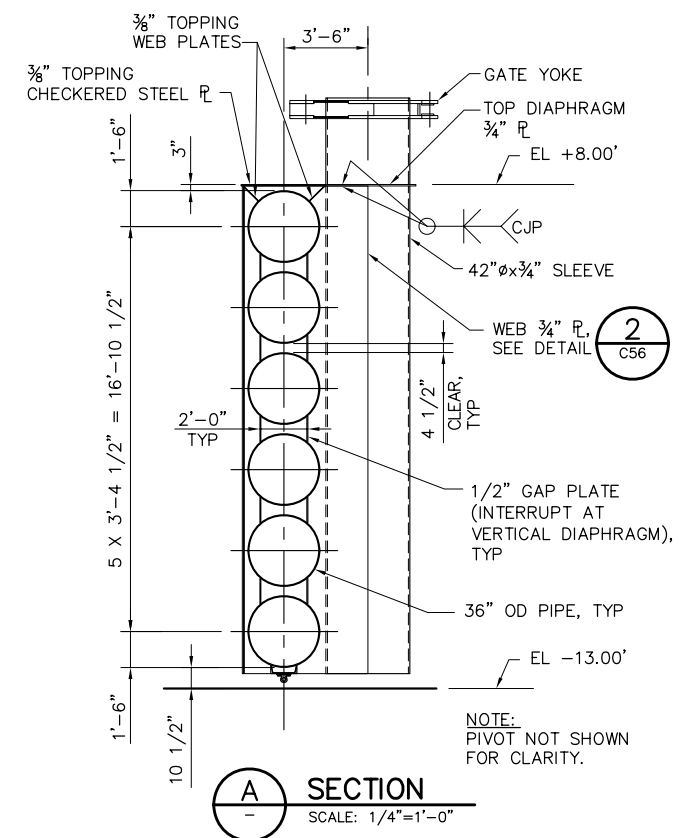
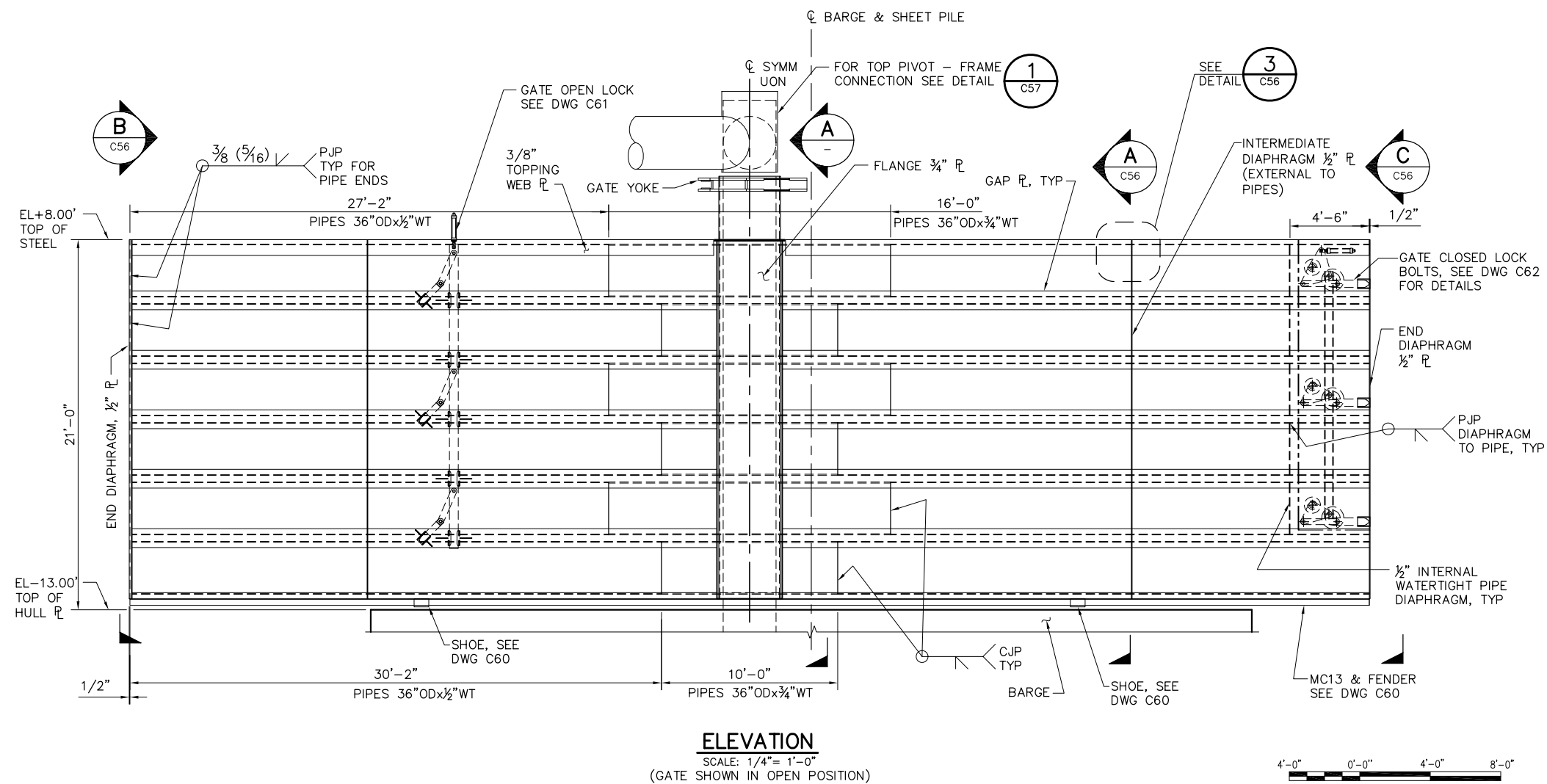
IF SHEET IS LESS THAN 22" x 34"
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SCALE REDUCED ACCORDINGLY.

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
							DSGNJMBDRABCHKTDB JOB NO. 6097-03SUBMITTED BY RMRTITLE			CONNECTION SLOUGH BARGE GENERAL ARRANGEMENT ELEVATION		SHEET 42 OF 75
												C43



- WELDING NOTES:

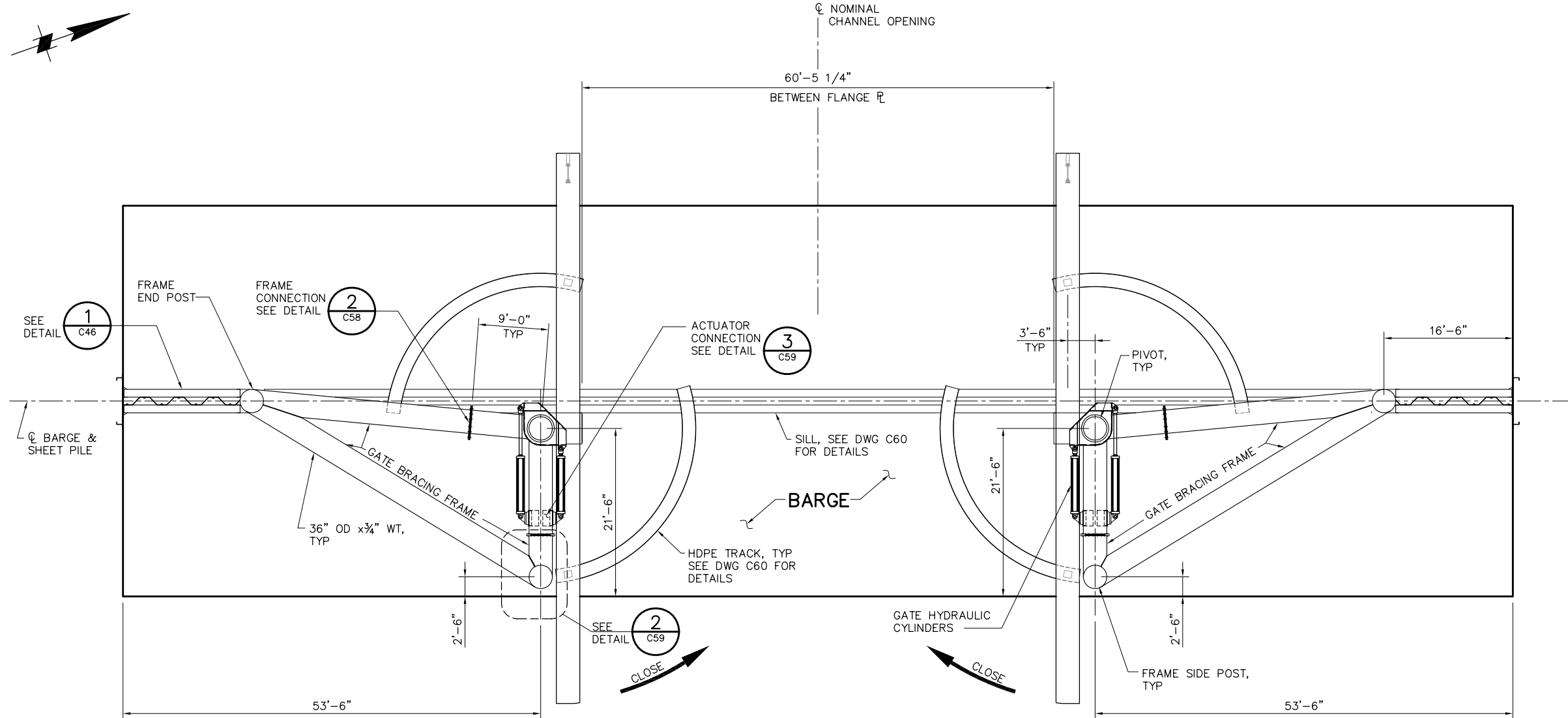
1. ALL GATE AND PIPE FRAMING STRUCTURAL WELDS SHALL BE COMPETE JOINT PENETRATION (CJP) WELDS UON.
2. BACKING BARS SHALL NOT BE LEFT IN PLACE
3. ALL WELDS SHALL BE PREQUALIFIED.
4. ALL WELDING AND NON-DESTRUCTIVE TESTING (N.D.T.) INSPECTIONS SHALL BE IN ACCORDANCE WITH AWS-D1.1.



95% SUBMITTAL

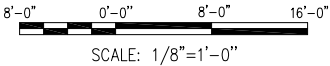
IF SHEET IS LESS THAN 22" x 34"
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REVISION	DESCRIPTION	BY	DATE	Moffatt & Nichol 2001 N. Main Street, Suite 360 Walnut Creek, California 94596 (925) 944-5411	TWO GATE FISH PROTECTION PLAN		DATE 08/07/09
							SHEET 43 OF 75
					CONNECTION SLOUGH GATE SCANTLINGS		C44
DSGN JMB		DR AB		CHK CBS			
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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 IT IS A REDUCED PRINT -
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REVISION	DESCRIPTION	BY	DATE



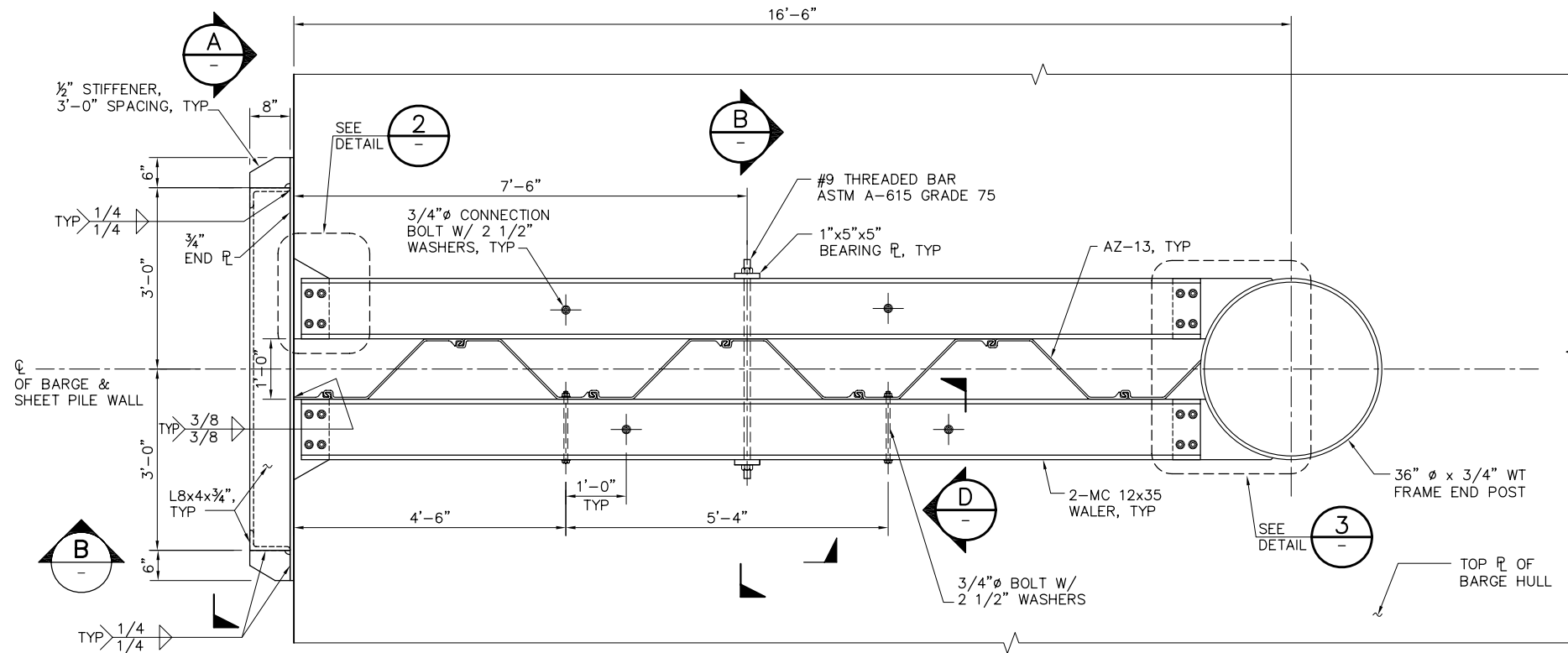
2001 N. Main Street, Suite 360
 Walnut Creek, California 94596
 (925) 944-5411

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

TWO GATE FISH PROTECTION PLAN	DATE	08/07/09
	SHEET	44 OF 75
CONNECTION SLOUGH GATE FRAMING LAYOUT	C45	

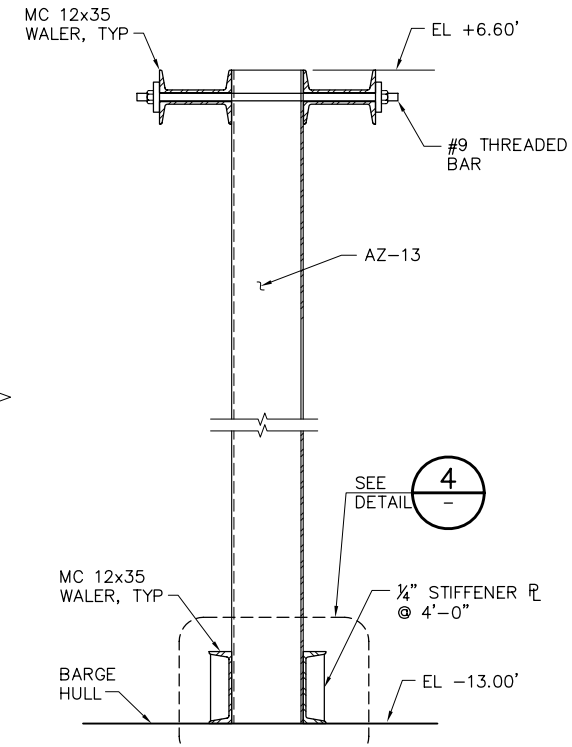
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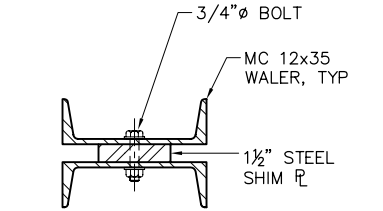


PLAN

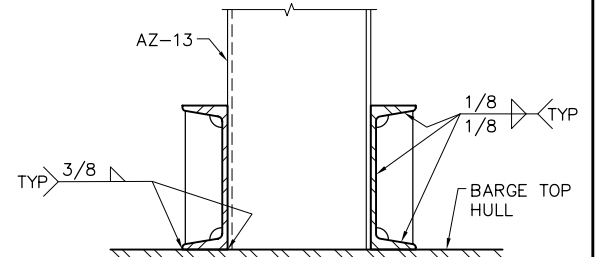
1 DETAIL
SCALE: 3/4" = 1'-0"



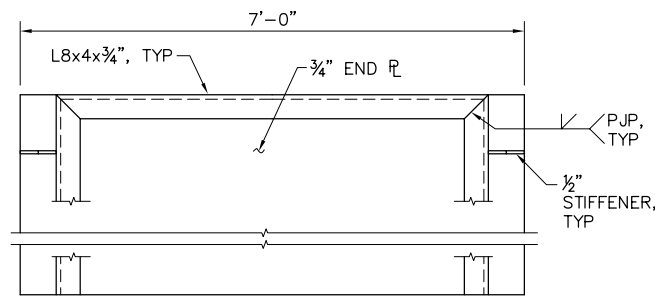
C SECTION
SCALE: 3/4" = 1'-0"



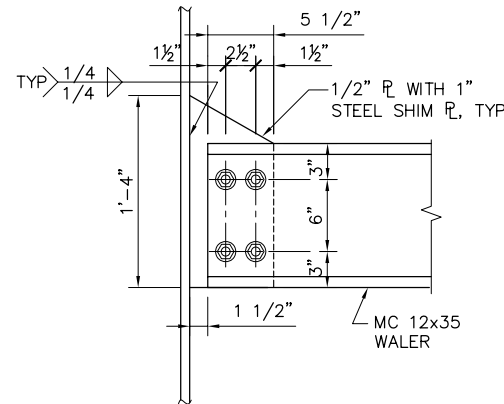
D SECTION
SCALE: 1 1/2" = 1'-0"



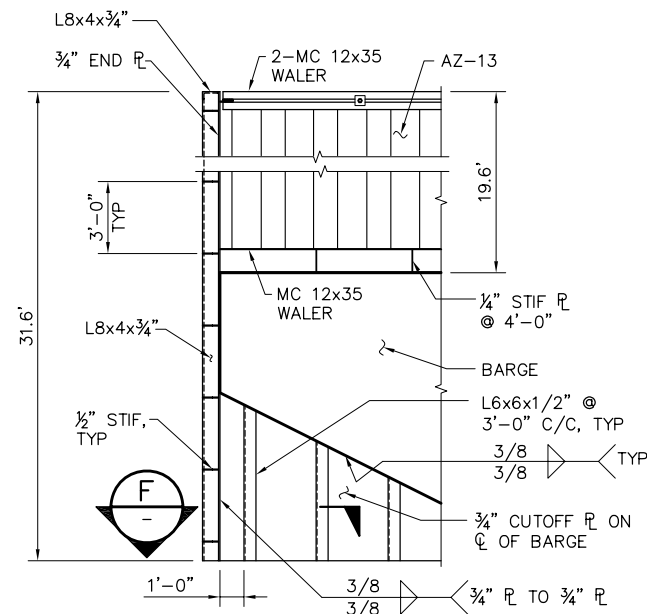
4 DETAIL
SCALE: 1 1/2" = 1'-0"



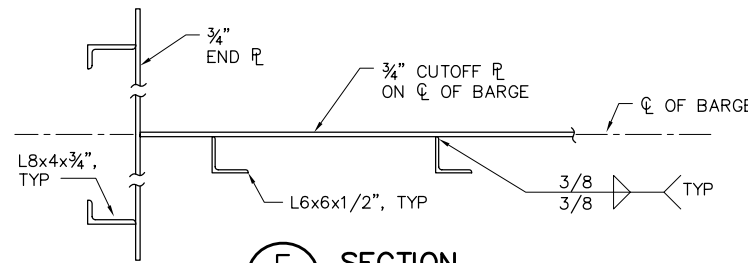
A SECTION
SCALE: 3/4" = 1'-0"



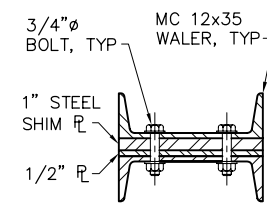
2 DETAIL
SCALE: 1 1/2" = 1'-0"



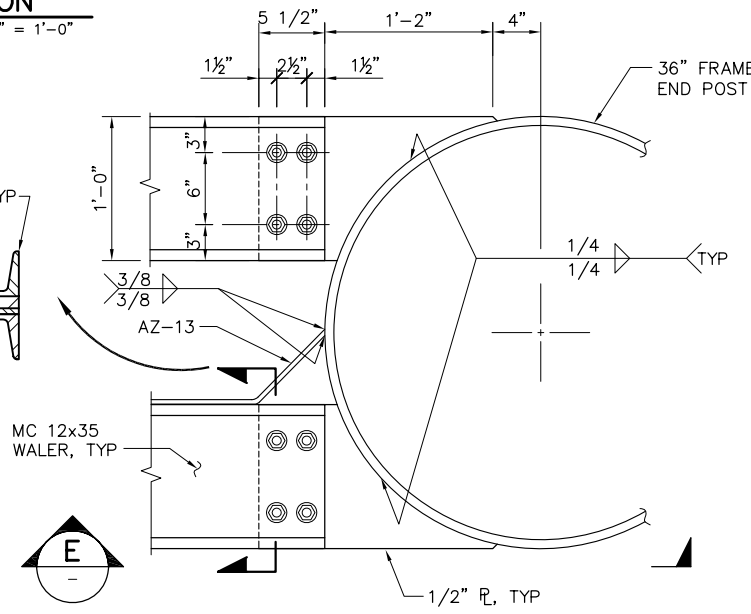
B SECTION
SCALE: 1/4" = 1'-0"



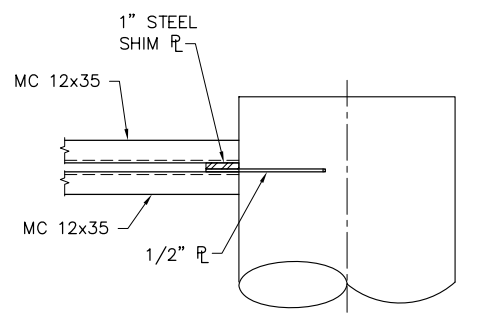
F SECTION
SCALE: 3/4" = 1'-0"



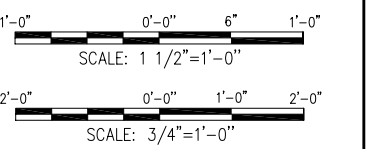
E SECTION
SCALE: 1 1/2" = 1'-0"



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



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



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

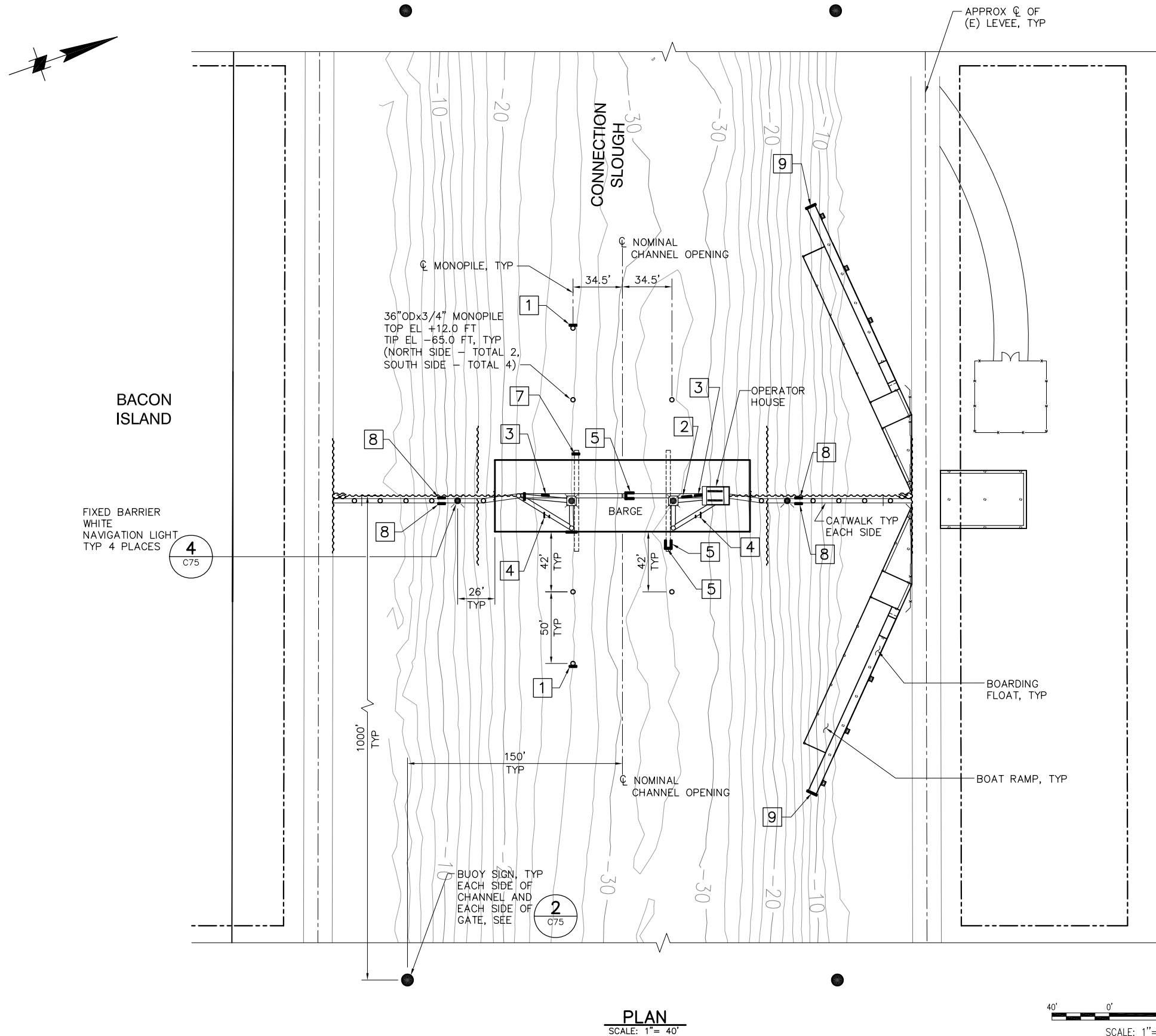
95% SUBMITTAL IF SHEET IS LESS THAN 22" x 34" IT IS A REDUCED PRINT - SCALE REDUCED ACCORDINGLY.

REVISION	DESCRIPTION	BY	DATE

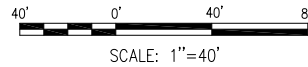
		2001 N. Main Street, Suite 360 Walnut Creek, California 94596 (925) 944-5411	
DSGN	JMB	DR	AB
JOB NO.	6097-03	SUBMITTED BY	RMR
CHK	TDB	TITLE	

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

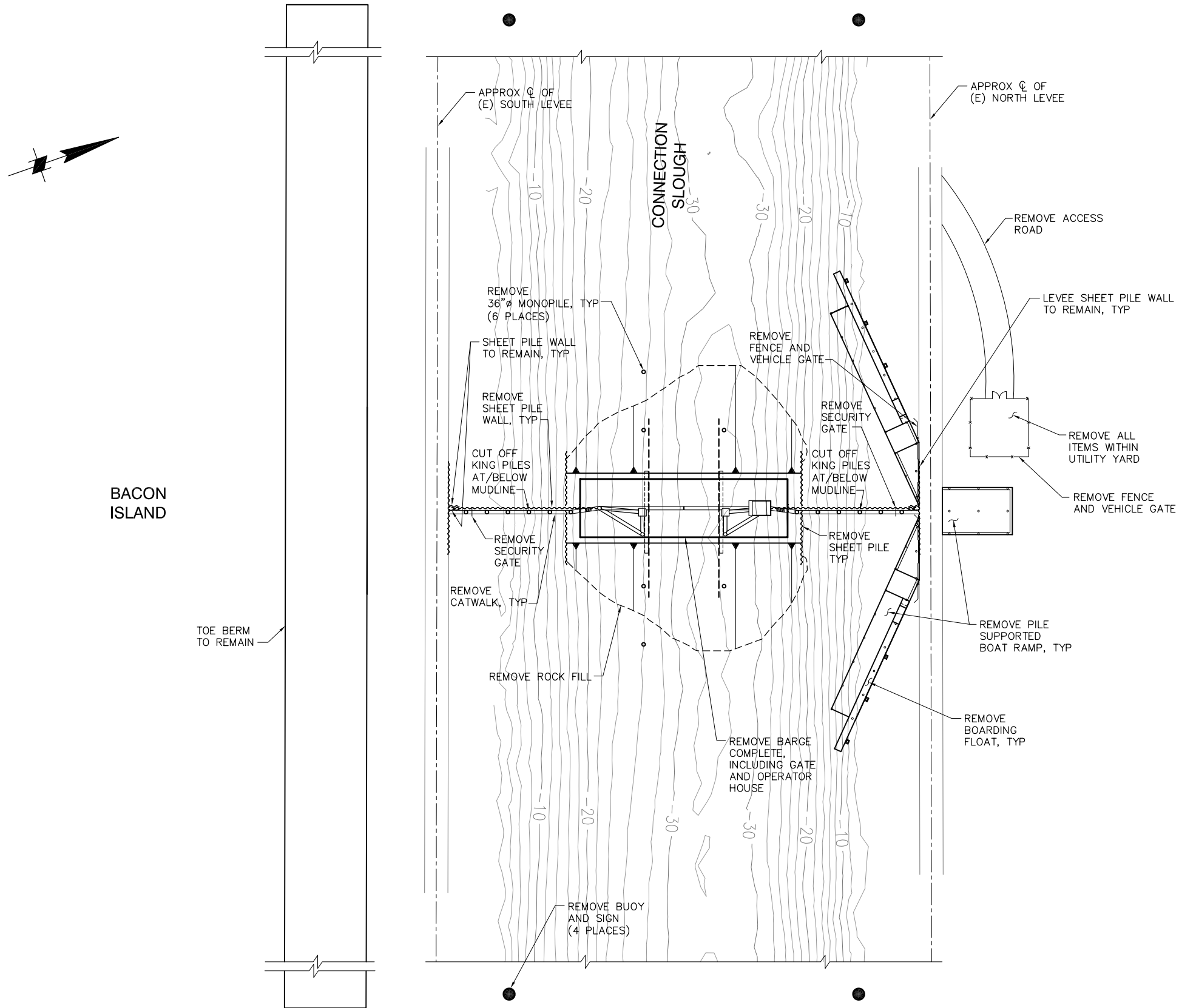
IF SHEET IS LESS THAN 22" x 34"
IT IS A REDUCED PRINT -
SCALE REDUCED ACCORDINGLY.

REVISION	DESCRIPTION	BY	DATE

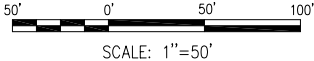
 Moffatt & Nichol		2001 N. Main Street, Suite 360 Walnut Creek, California 94596 (925) 944-5411	
DSGN	RBD	DR	AB
JOB NO.	6097-03	SUBMITTED BY	RMR
CHK	TDB	TITLE	

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.

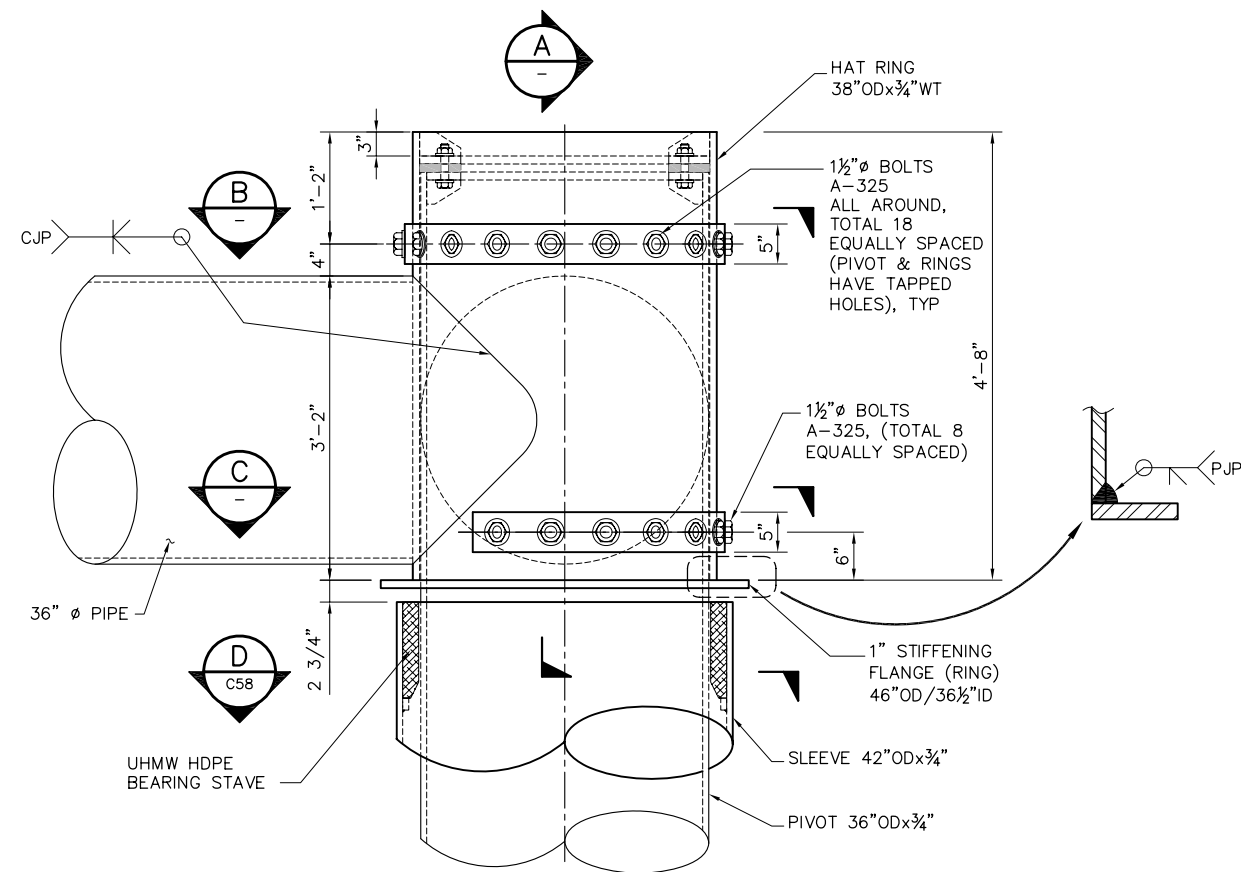
REVISION	DESCRIPTION	BY	DATE

 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	

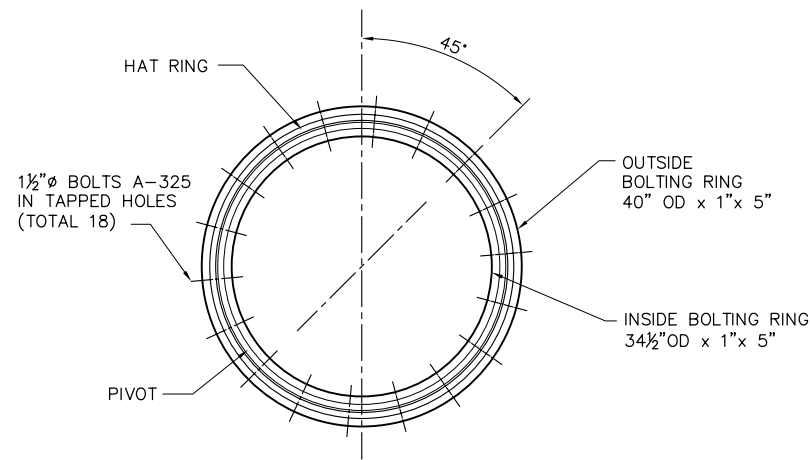
TWO GATE FISH PROTECTION PLAN
CONNECTION SLOUGH REMOVAL PLAN

DATE 08/07/09
SHEET 48 OF 75
C49

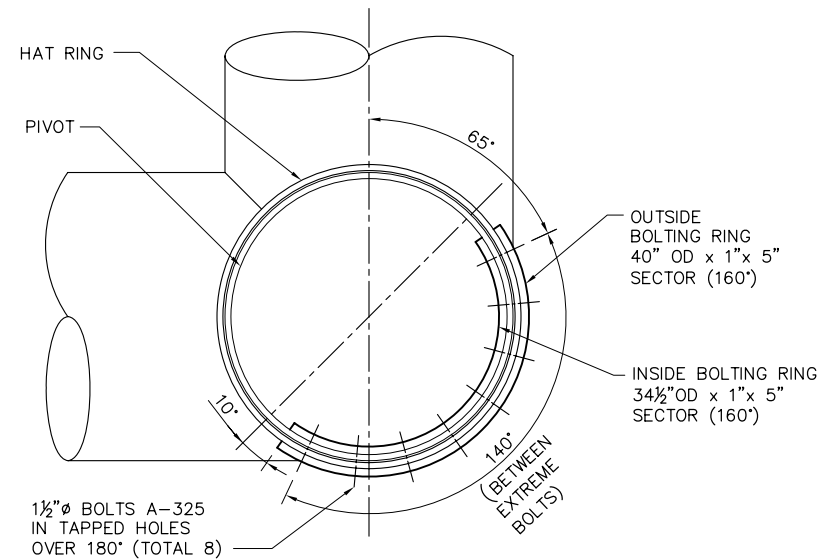
P:\6097-03 SWC GATE DESIGN\CADD\DWG\609703-C57.DWG 7/24/2009 10:01 AM



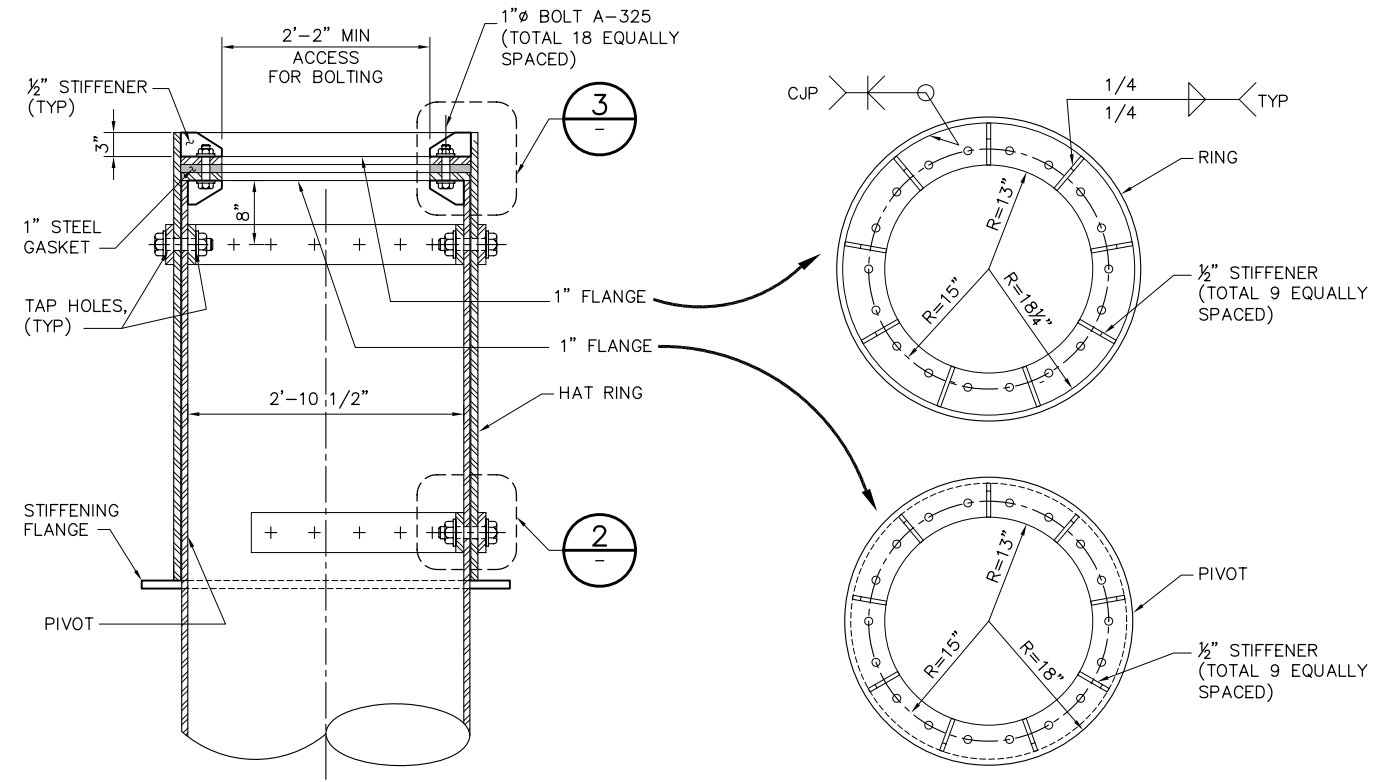
1 TOP PIVOT - FRAME CONNECTION
C16 SCALE: 1" = 1'-0"



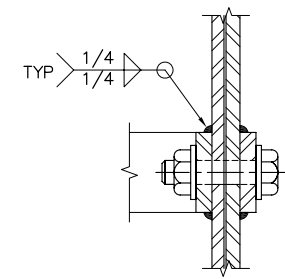
B SECTION
SCALE: 1" = 1'-0"



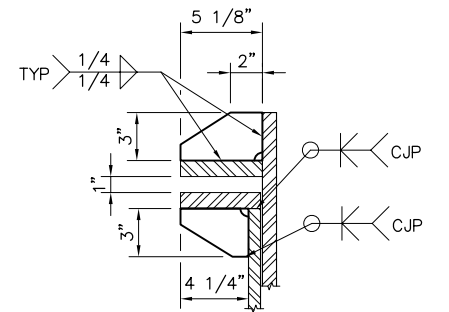
C SECTION
SCALE: 1" = 1'-0"



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

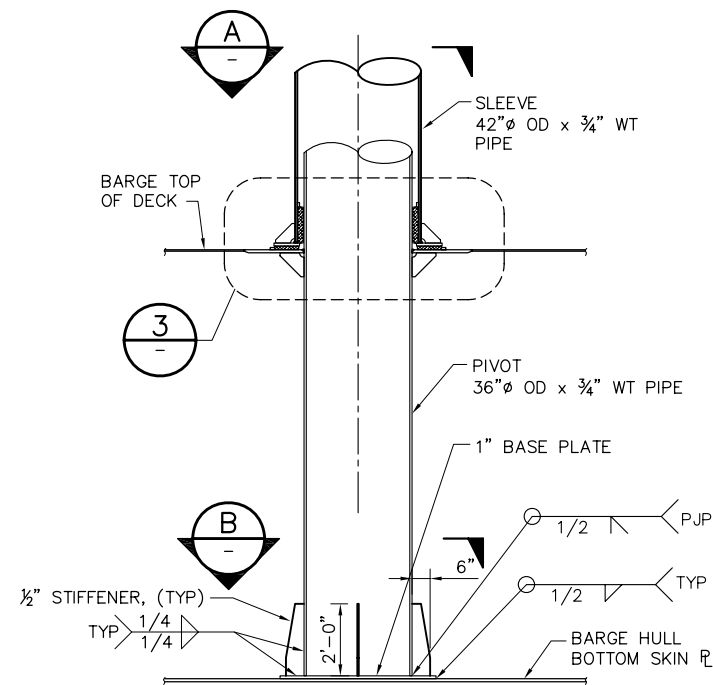
IF SHEET IS LESS THAN 22" x 34"
IT IS A REDUCED PRINT -
SCALE REDUCED ACCORDINGLY.

REVISION	DESCRIPTION	BY	DATE

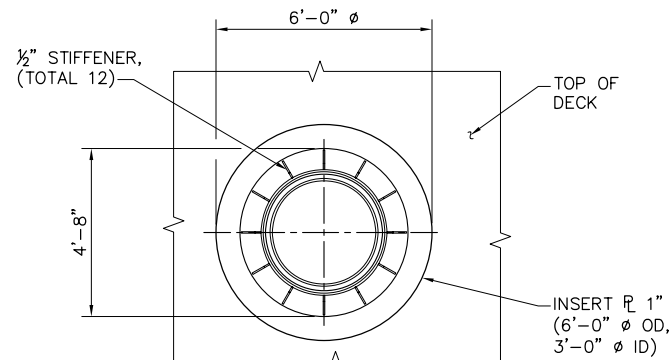
 Moffatt & Nichol		2001 N. Main Street, Suite 360 Walnut Creek, California 94596 (925) 944-5411	
DSGN	JMB/CBS	DR	AB
JOB NO.	6097-03	SUBMITTED BY	RMR
CHK	TDB	TITLE	

TWO GATE FISH PROTECTION PLAN		DATE	08/07/09
GATE STRUCTURAL DETAILS SHEET 2		SHEET	50 OF 75
			C57

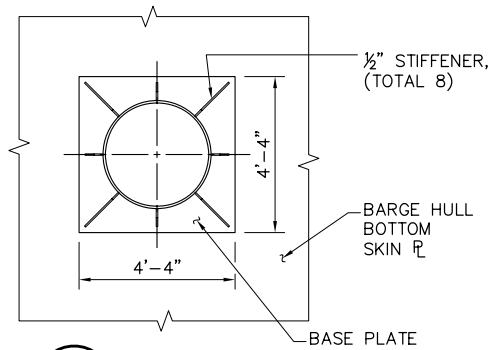
P:\6097-03 SWC GATE DESIGN\CADD\DWG\609703-C58.DWG 8/5/2009 12:27 PM



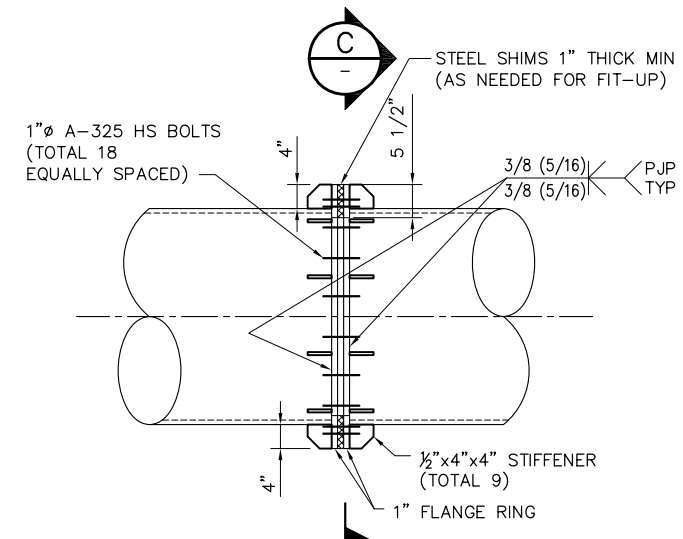
1 FRAMING PIVOT CONNECTION
C15 SCALE: 3/8" = 1'-0"
C43



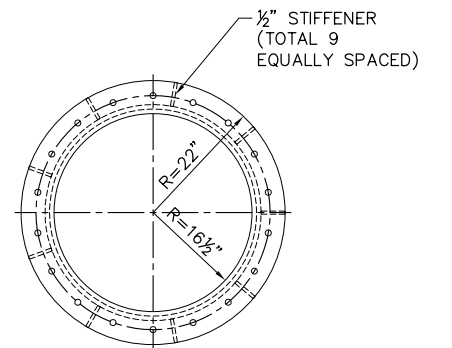
A SECTION
SCALE: 3/8" = 1'-0"



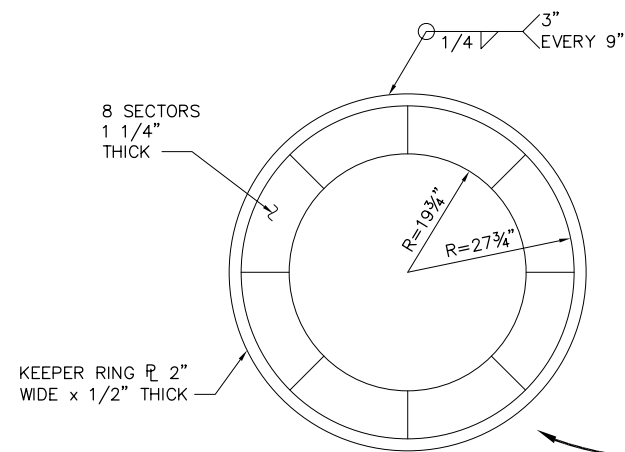
B SECTION
SCALE: 3/8" = 1'-0"
C59



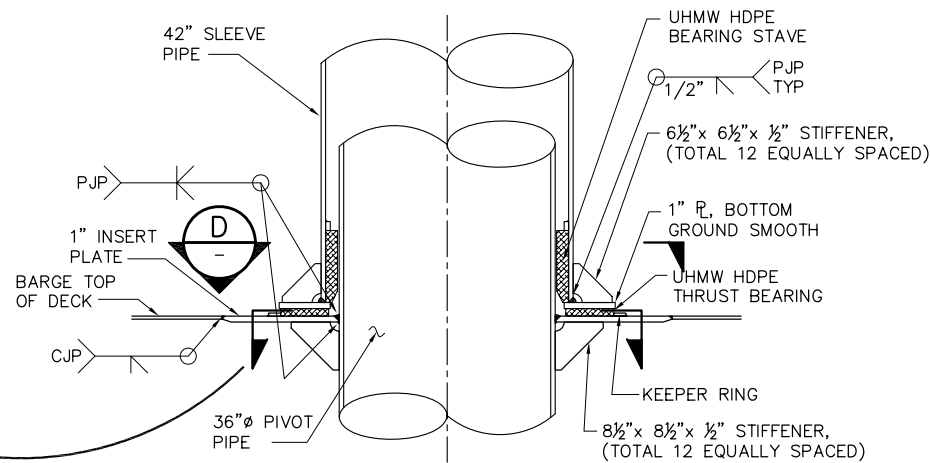
2 FRAME CONNECTION
C17 SCALE: 3/4" = 1'-0"
C45, C59



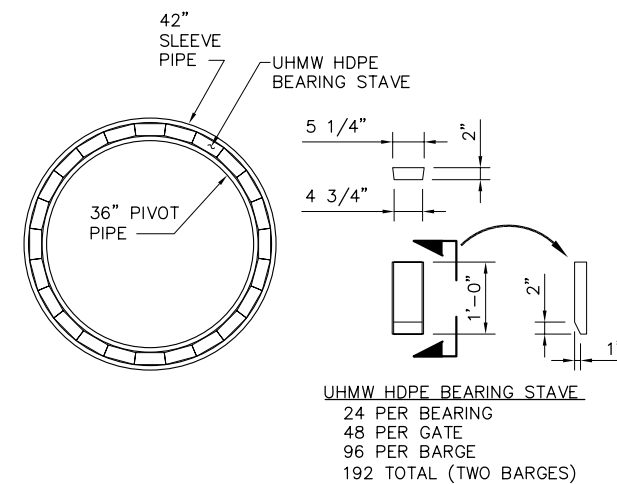
C SECTION
SCALE: 3/4" = 1'-0"



UHMW HDPE THRUST BEARING



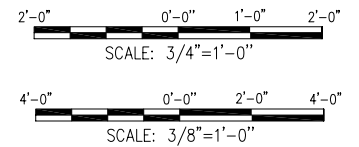
3 DETAIL
SCALE: 3/4" = 1'-0"



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

NOTES:

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



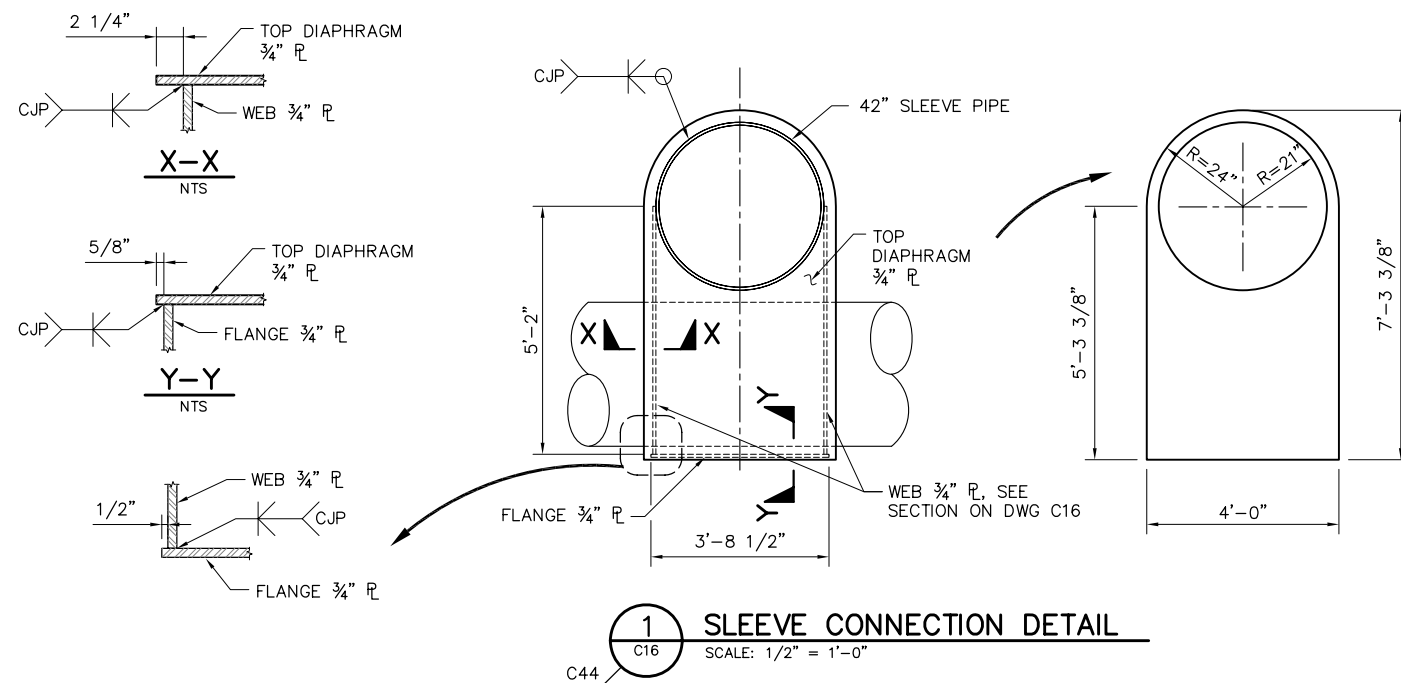
95% SUBMITTAL

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

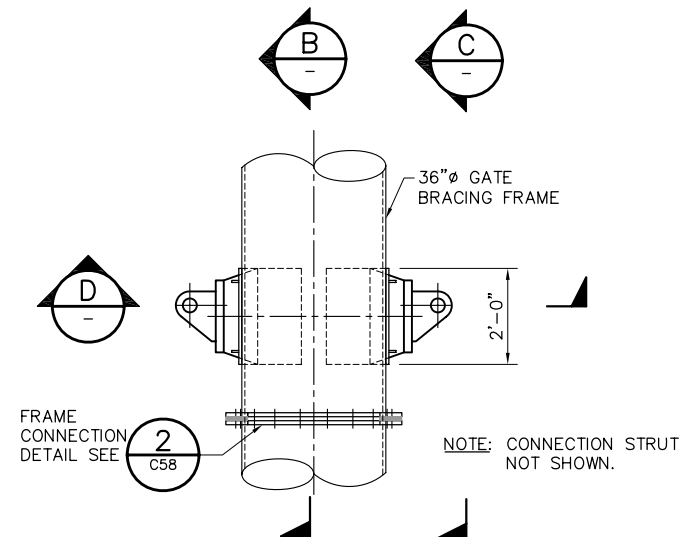
REVISION	DESCRIPTION	BY	DATE

 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	

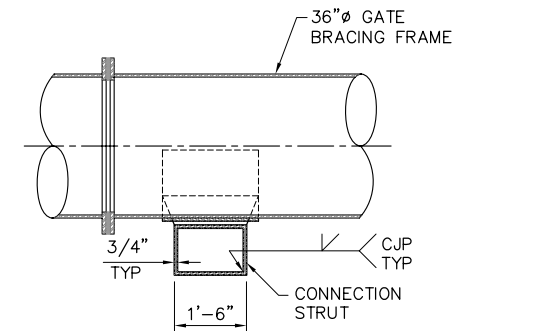
TWO GATE FISH PROTECTION PLAN		DATE	08/07/09
GATE STRUCTURAL DETAILS SHEET 3		SHEET	51 OF 75
			C58



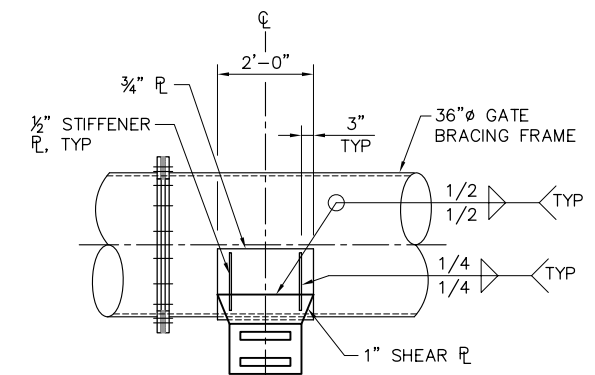
1 SLEEVE CONNECTION DETAIL



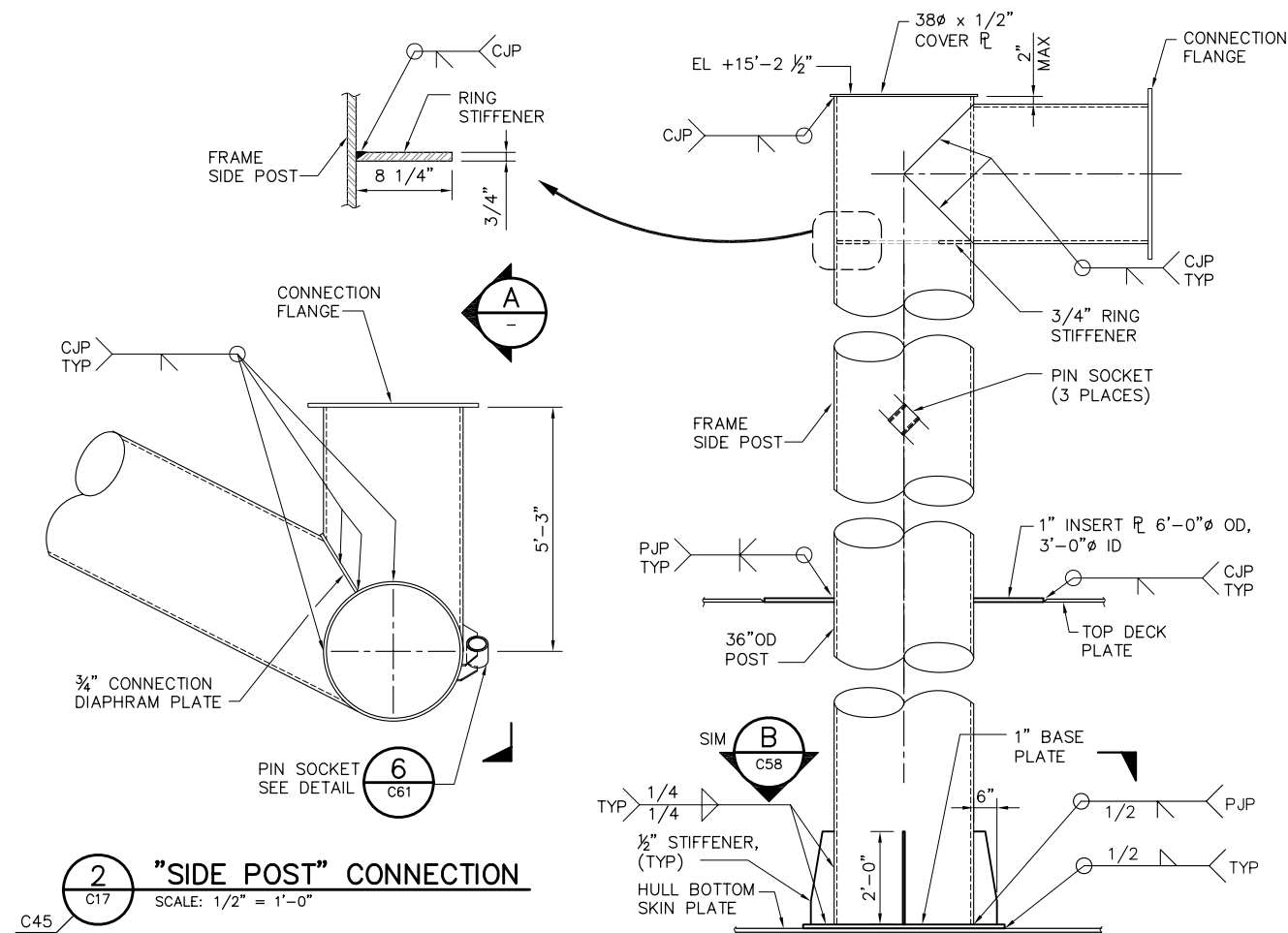
3 ACTUATOR CONNECTION DETAIL



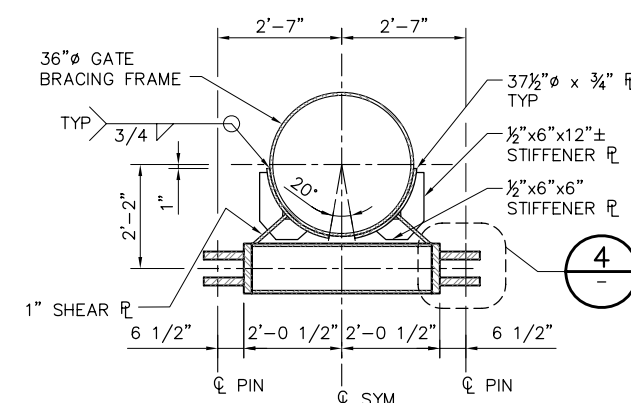
B SECTION
- SCALE: 1/2" = 1'-0"



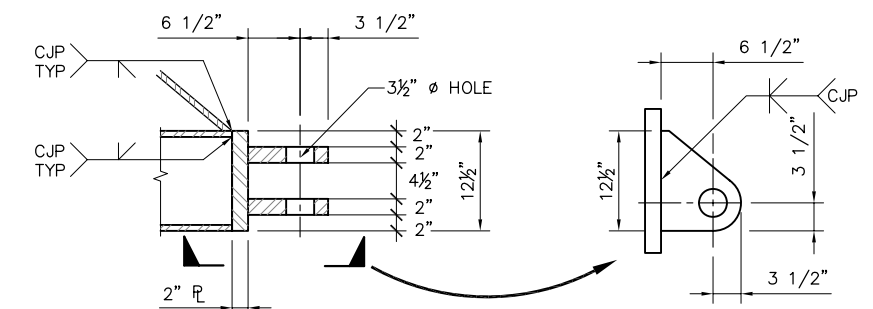
C SECTION
SCALE: 1/2" = 1'-0"



2 "SIDE POST" CONNECTION

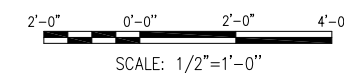


D SECTION
SCALE: 1/2" = 1'-0"



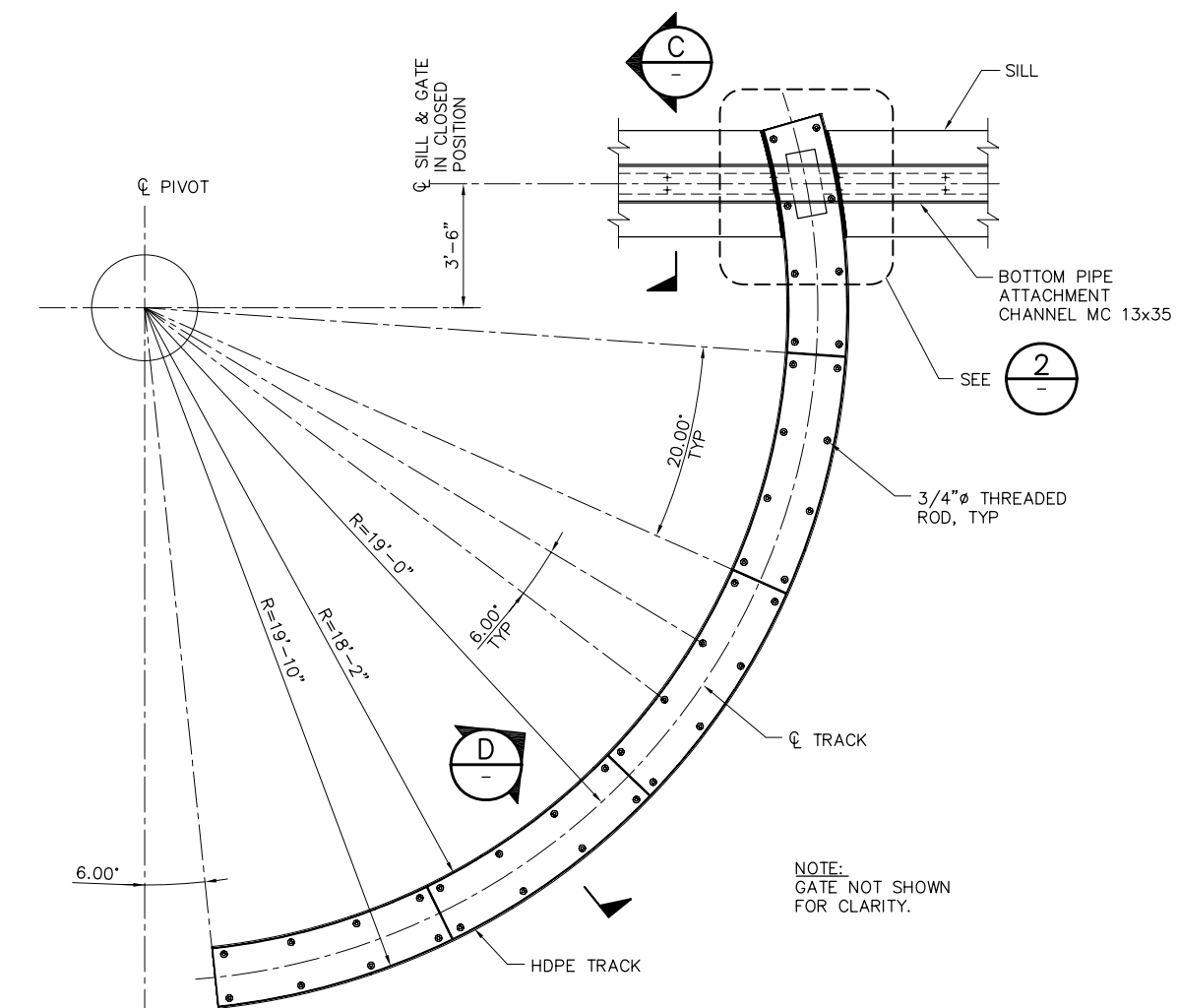
4
-
DETAIL
SCALE: 1"=1'-0"

A **ELEVATION**
— SCALE: 1/2" = 1'-0"

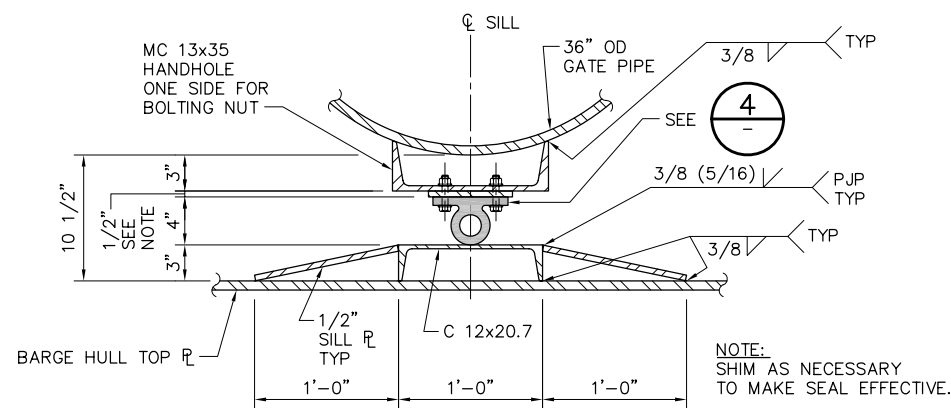


95% SUBMITTAL IF SHEET IS LESS THAN 22" x 34"
IT IS A REDUCED PRINT –
SCALE REDUCED ACCORDINGLY.

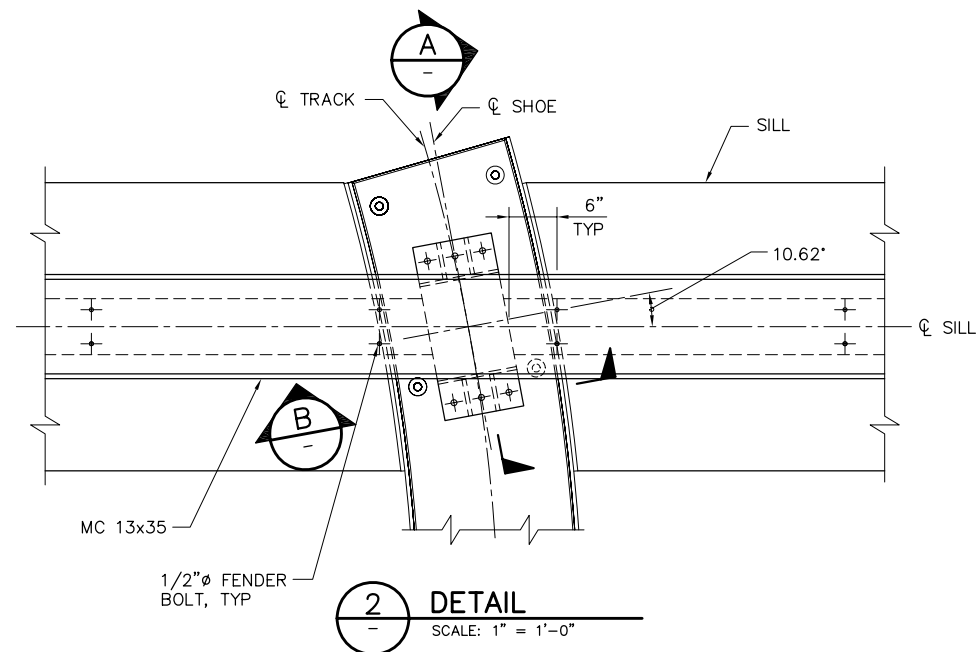
REVISION	DESCRIPTION	BY	DATE	Moffatt & Nichol 2001 N. Main Street, Suite 360 Walnut Creek, California 94596 (925) 944-5411	TWO GATE FISH PROTECTION PLAN		DATE 08/07/09	
					SHEET 52 OF 75			
				DSGN	DR	CHK	GATE STRUCTURAL DETAILS, SHEET 4	C59
				JMB	AB	CBS		
				JOB NO.	SUBMITTED BY	TITLE		
				6097-03	RMR			



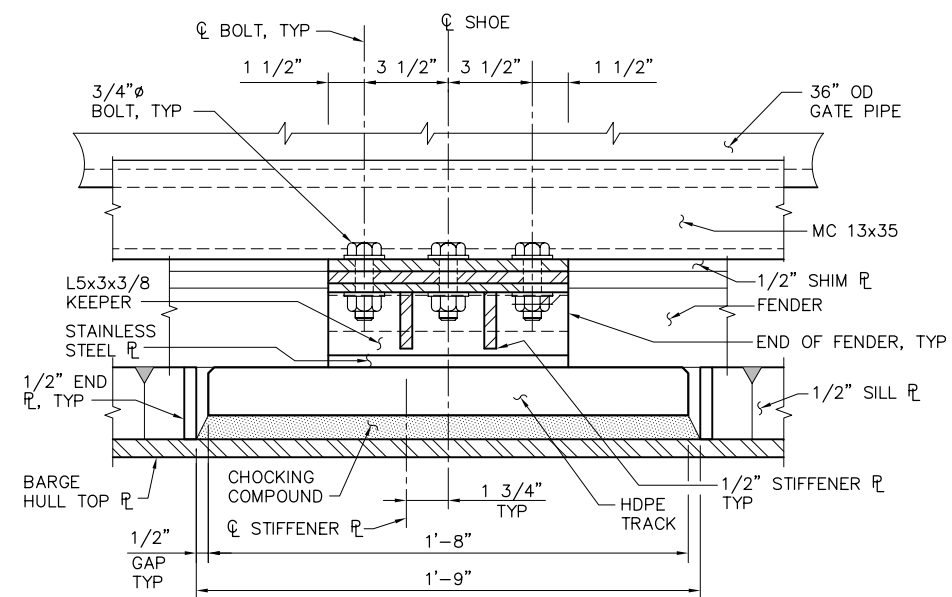
1 TRACK DETAIL
SCALE: 3/8" = 1'-0"



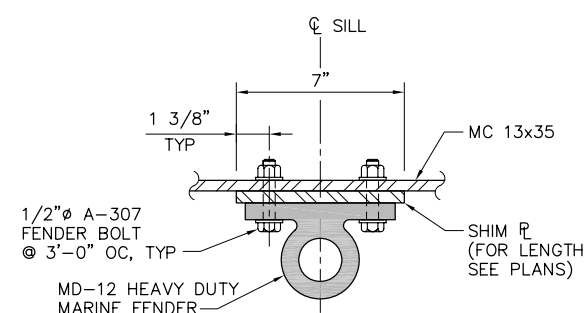
C **SECTION**
— SCALE: 1 1/2" = 1'-0"



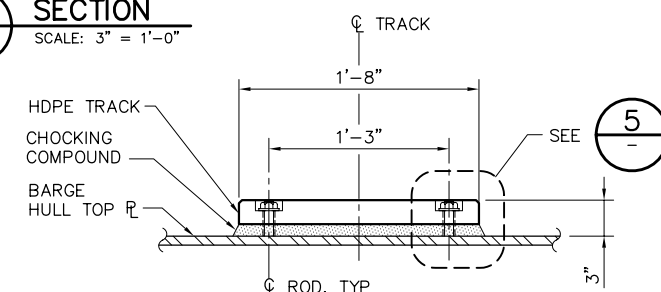
2 DETAIL
SCALE: 1" = 1'-0"



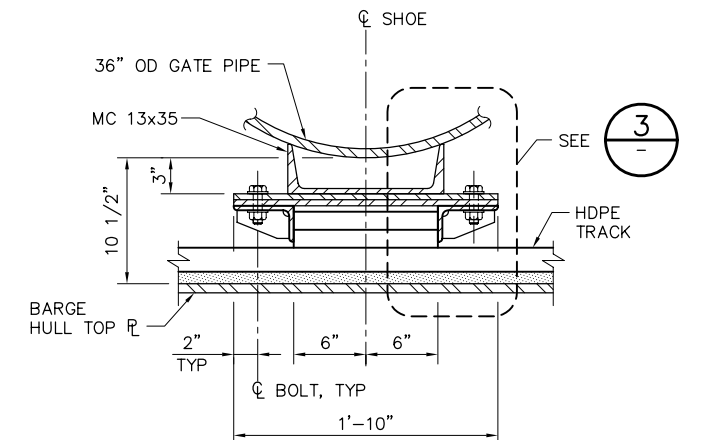
B SECTION
SCALE: 3" = 1'-0"



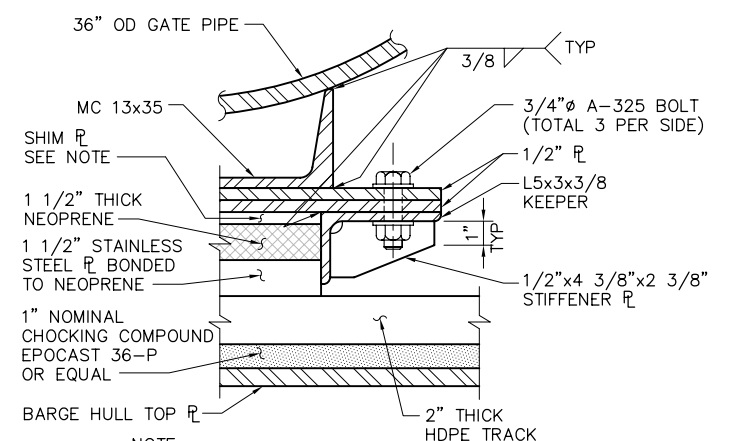
4 DETAIL
SCALE: 3" = 1'-0"



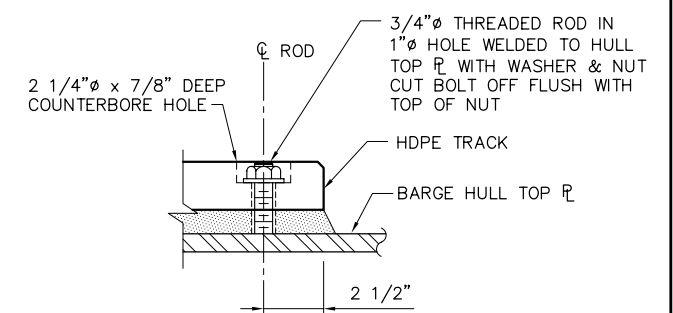
D SECTION
SCALE: 1 1/2" = 1'-0"



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

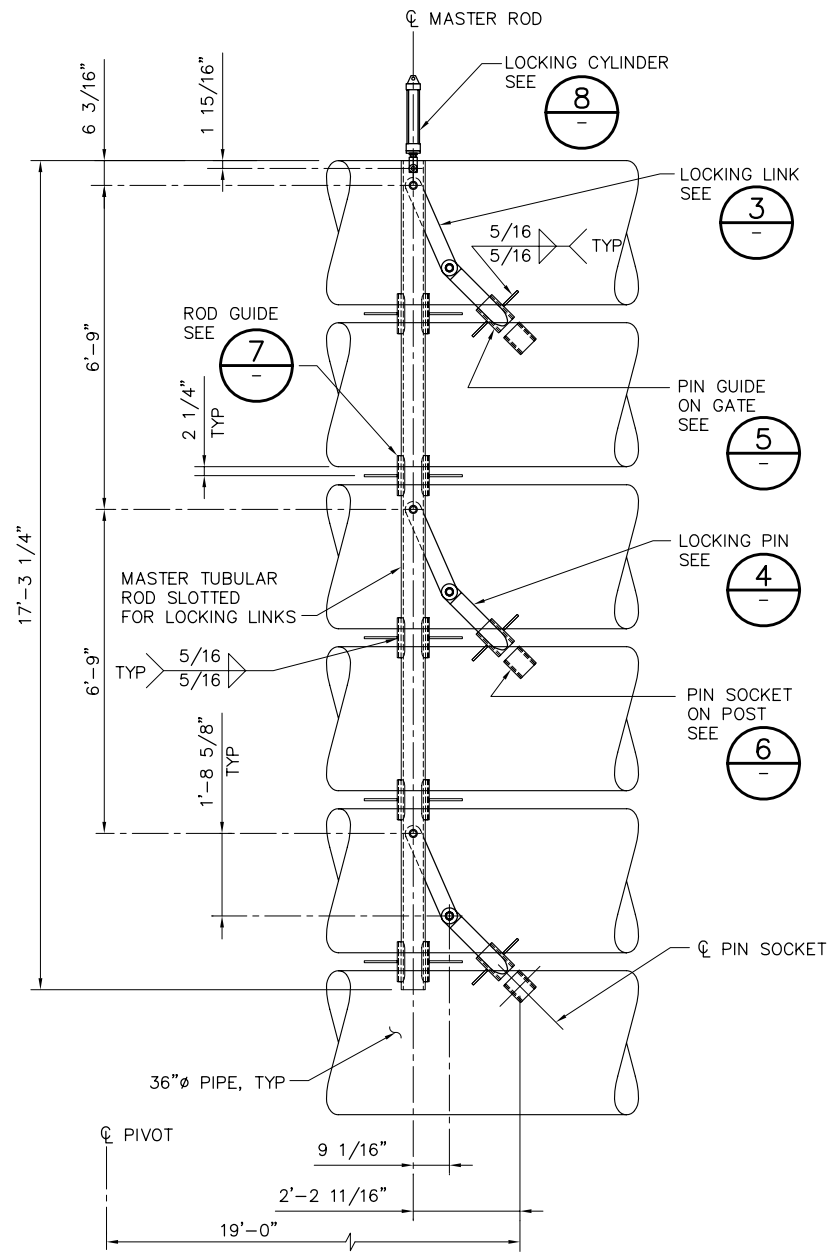
2001 N. Main Street, Suite 360
Walnut Creek, California 94596

(925) 944-5411

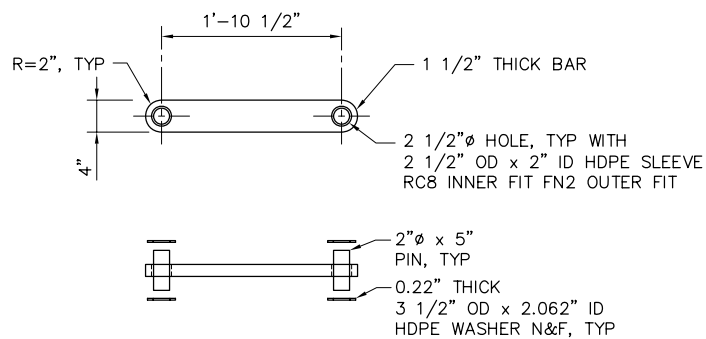
DSGN	JMB	DR	EP / AB	CHK	CBS
JOB NO.	6097-03	SUBMITTED BY	RMR	TITLE	

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

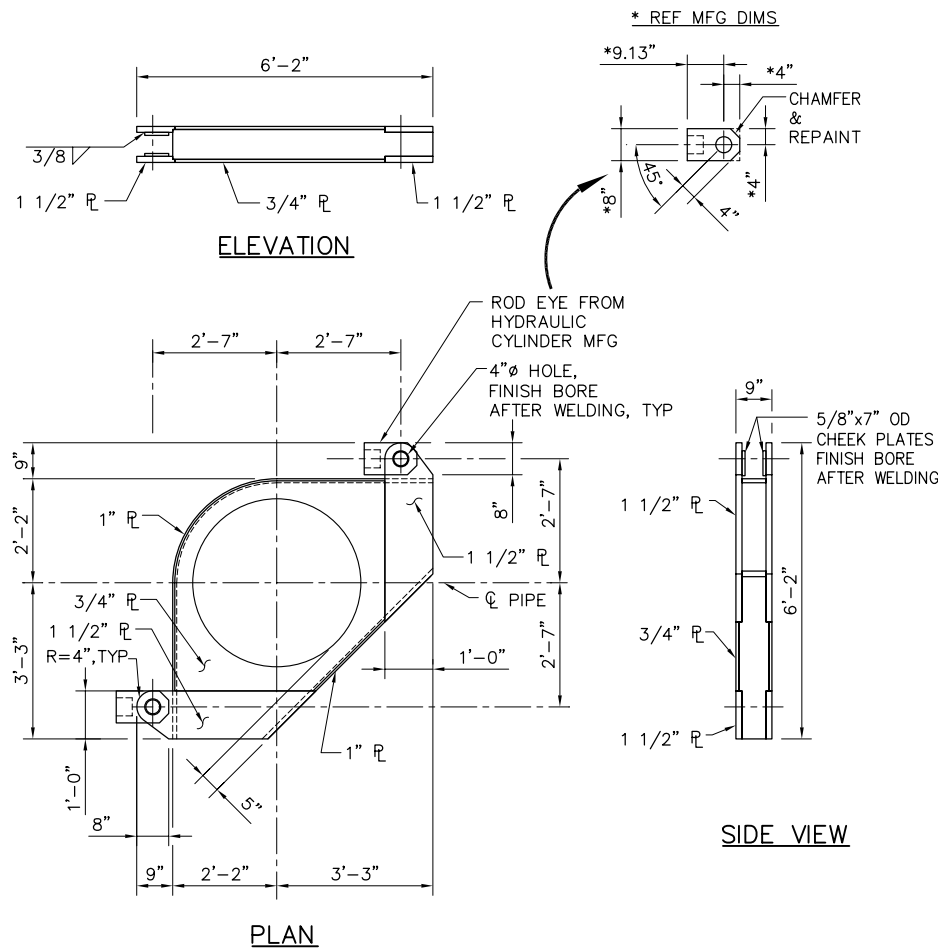
P:\6097-03 SMC GATE DESIGN\CADD\DWG\609703-C61.DWG 7/30/2009 12:03 PM



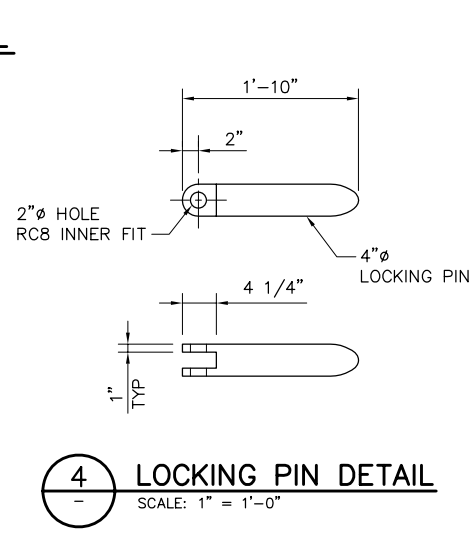
1 GATE OPEN LOCK (UNLOCKED) DETAIL
C15 SCALE: 1/2" = 1'-0"



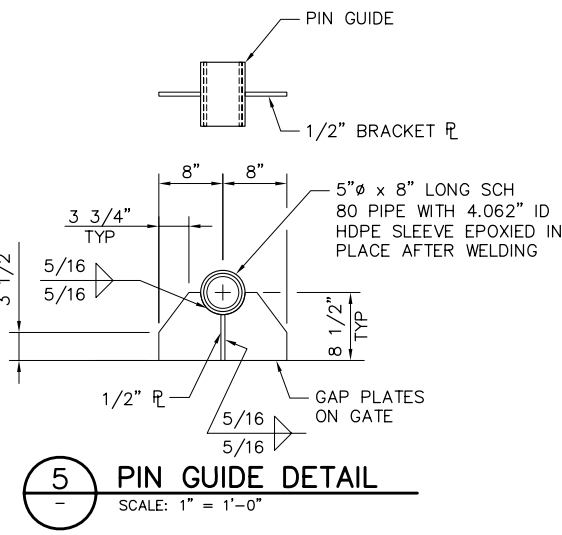
3 LOCKING LINK DETAIL
SCALE: 1" = 1'-0"



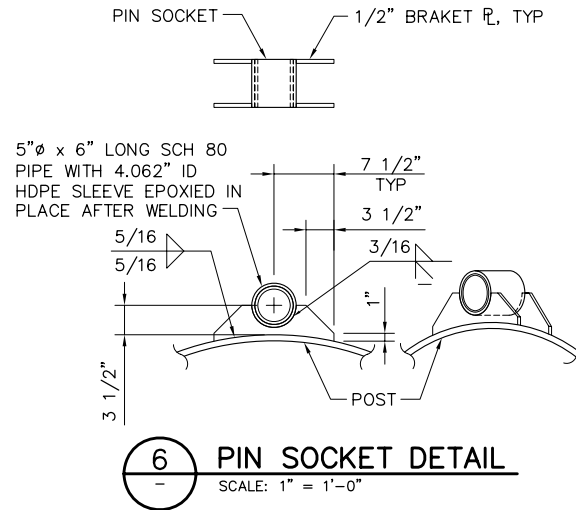
2 GATE YOKE DETAIL
C16 SCALE: 1/2" = 1'-0"



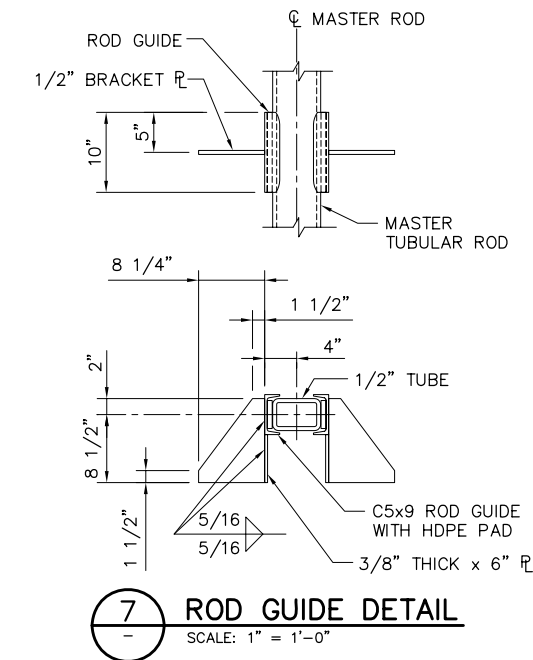
4 LOCKING PIN DETAIL
SCALE: 1" = 1'-0"



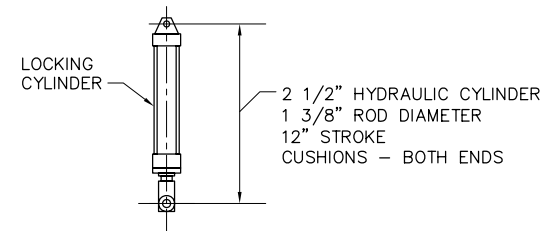
5 PIN GUIDE DETAIL
SCALE: 1" = 1'-0"



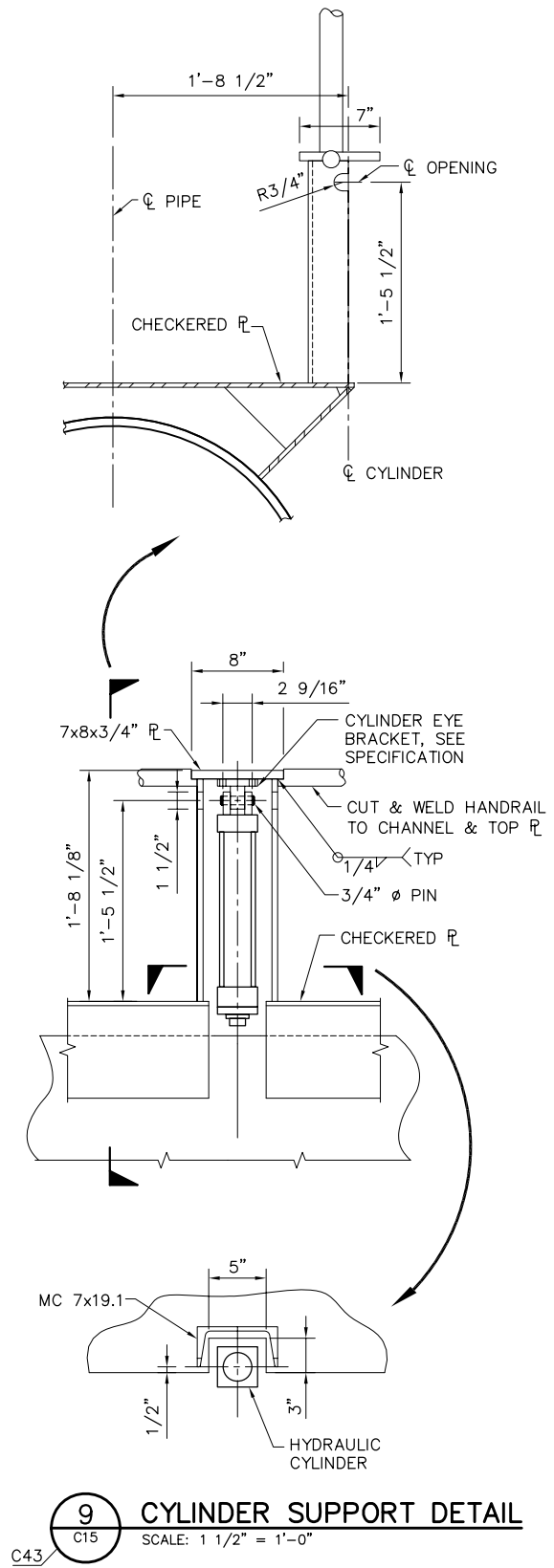
6 PIN SOCKET DETAIL
SCALE: 1" = 1'-0"



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



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



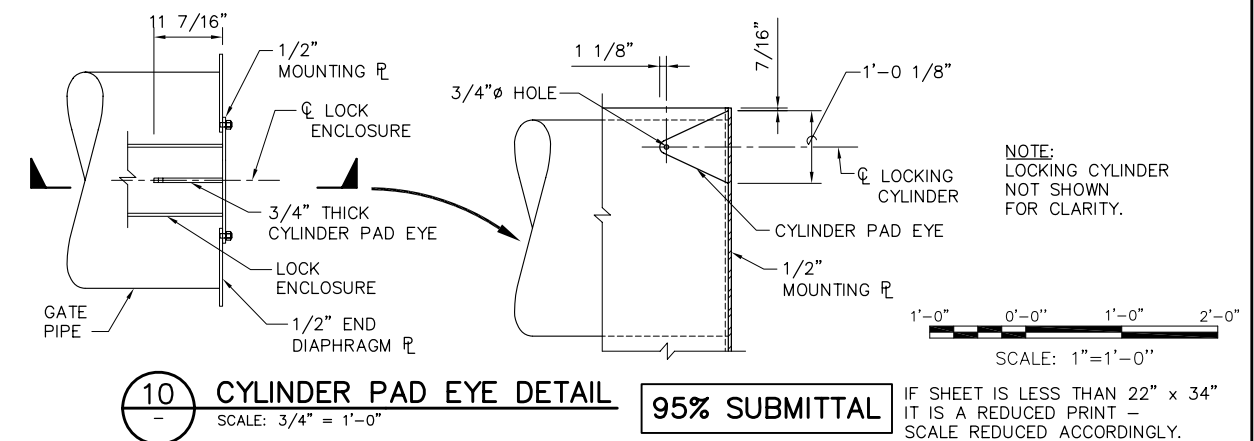
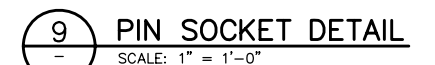
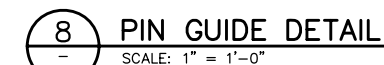
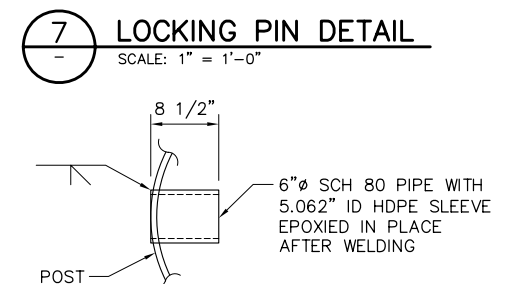
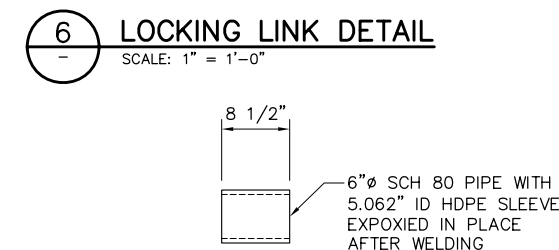
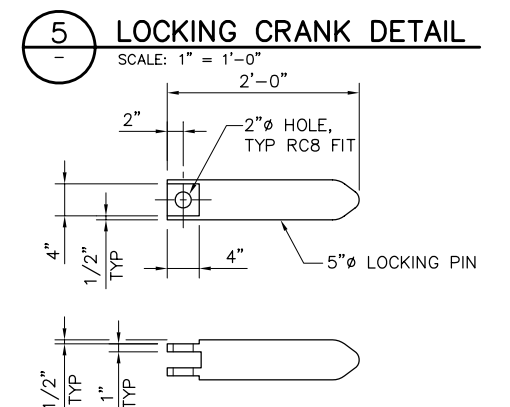
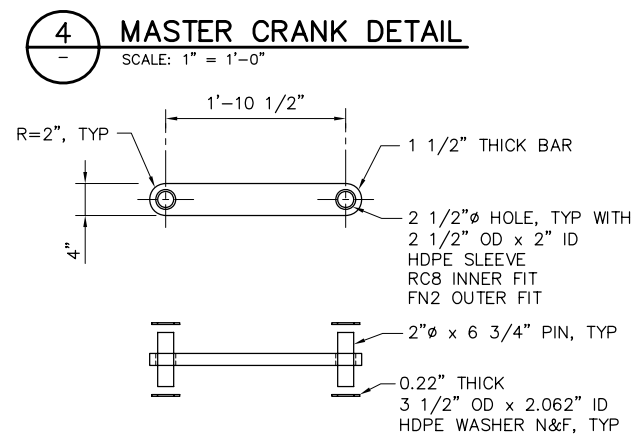
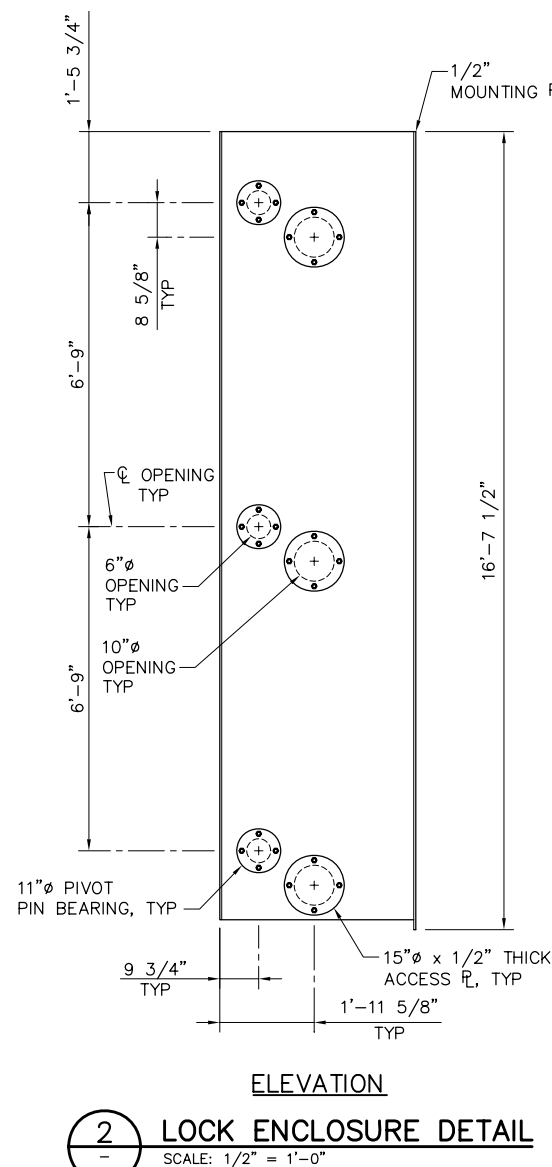
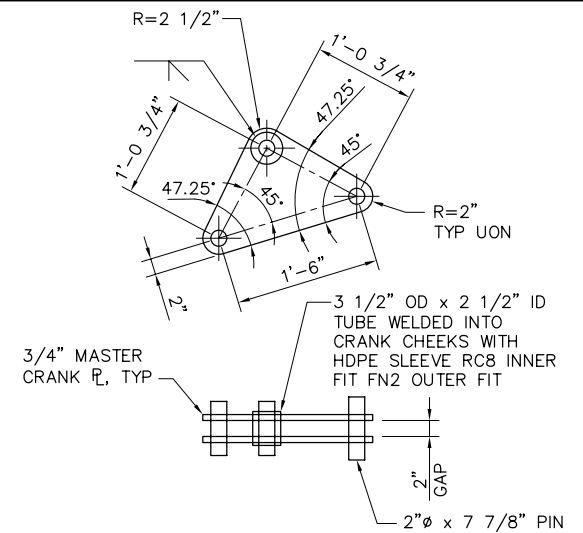
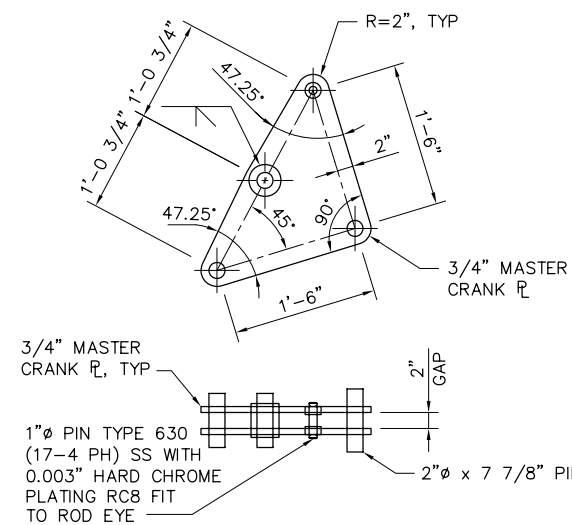
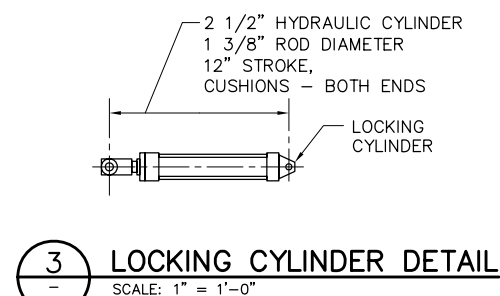
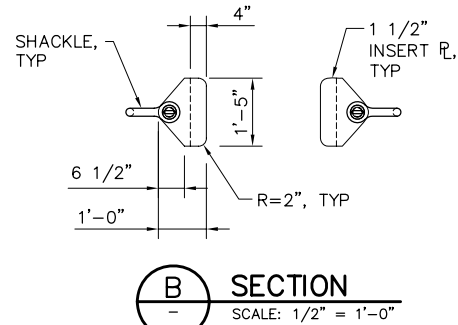
9 CYLINDER SUPPORT DETAIL
C15 SCALE: 1 1/2" = 1'-0"

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

REVISION	DESCRIPTION	BY	DATE

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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



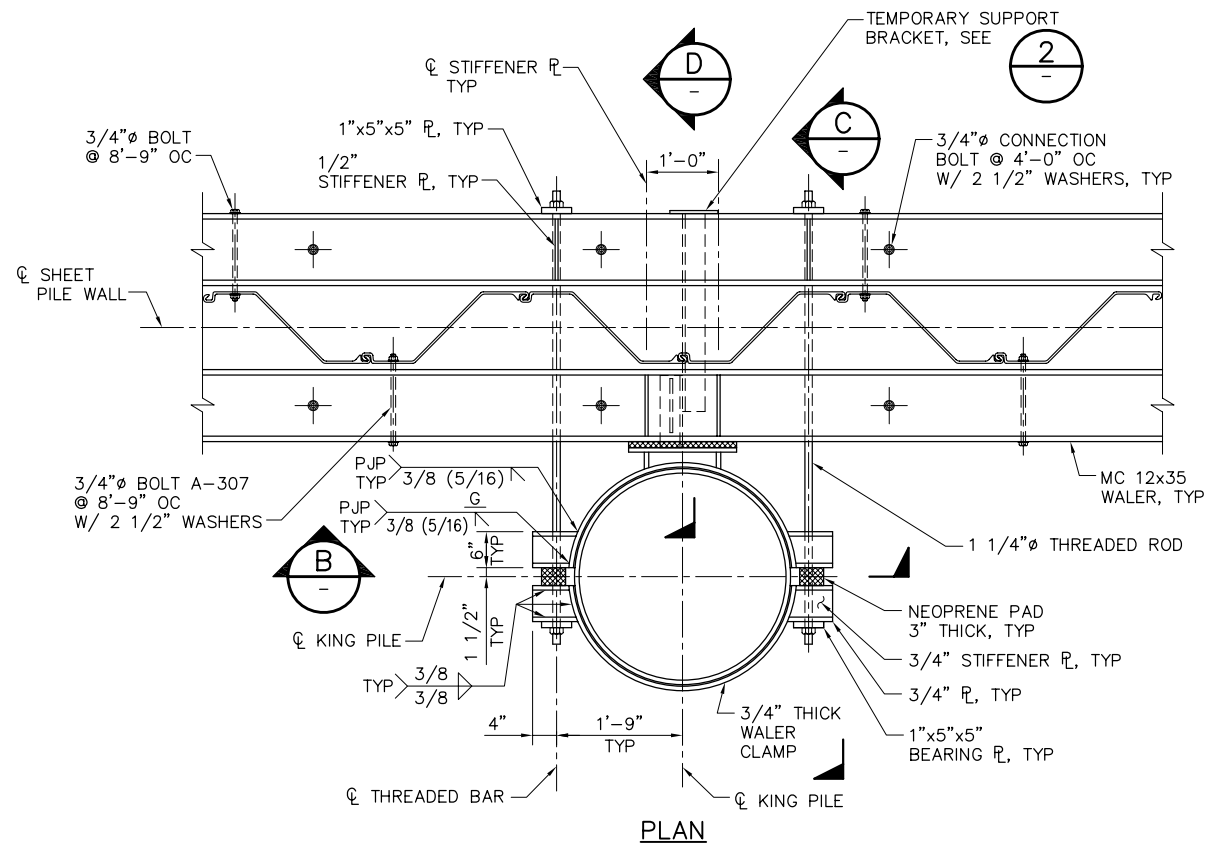
REVISION	DESCRIPTION	BY	DATE

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

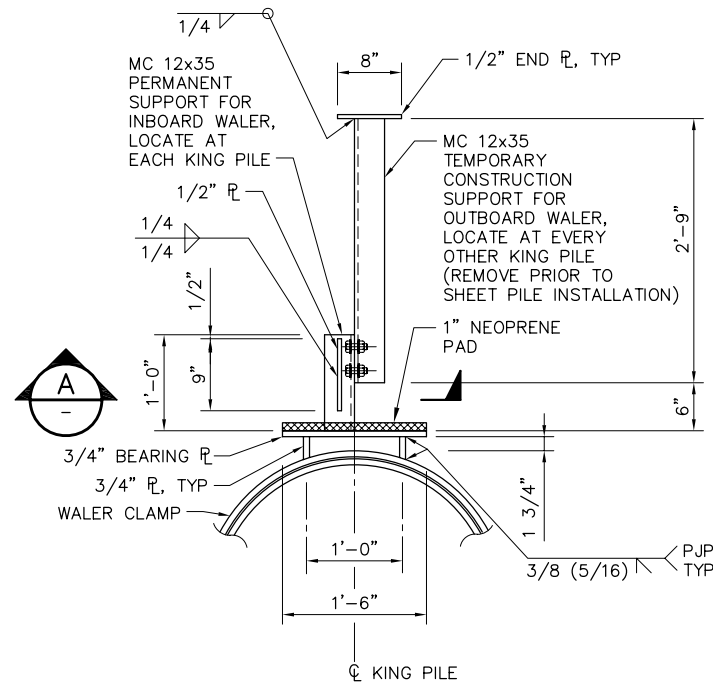
SHEET 55 OF 75

C62

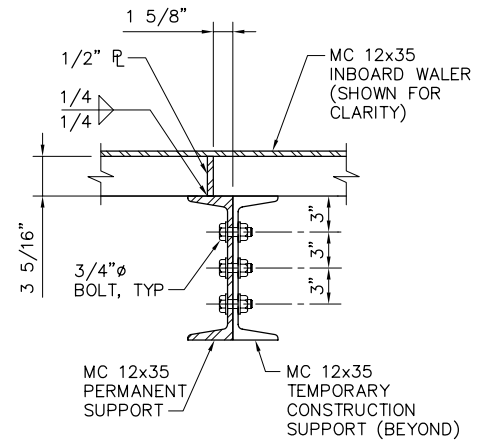
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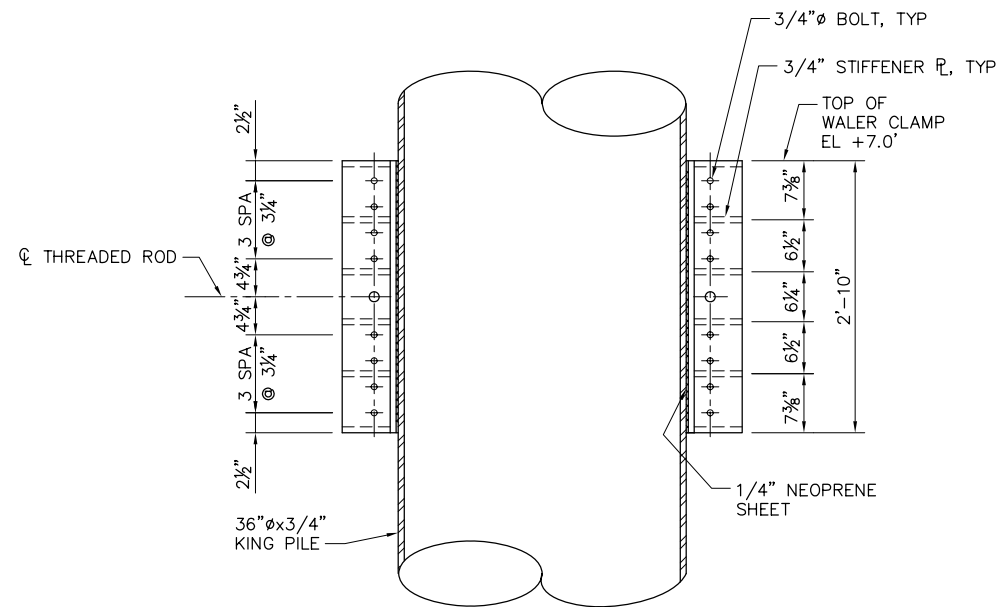
1 DETAIL
SCALE: 3/4" = 1'-0"



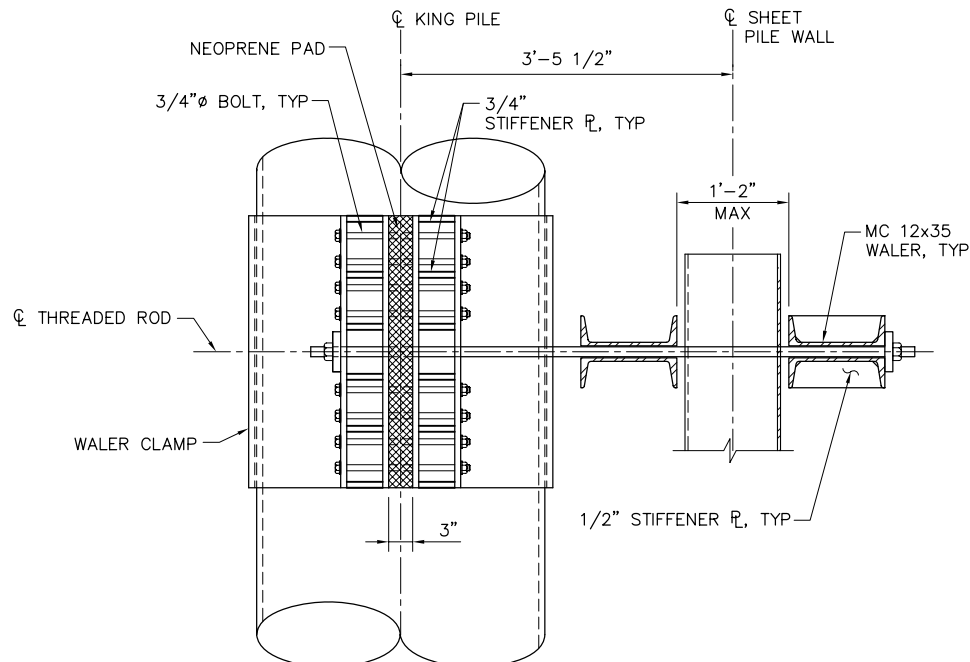
2 DETAIL
SCALE: 1" = 1'-0"



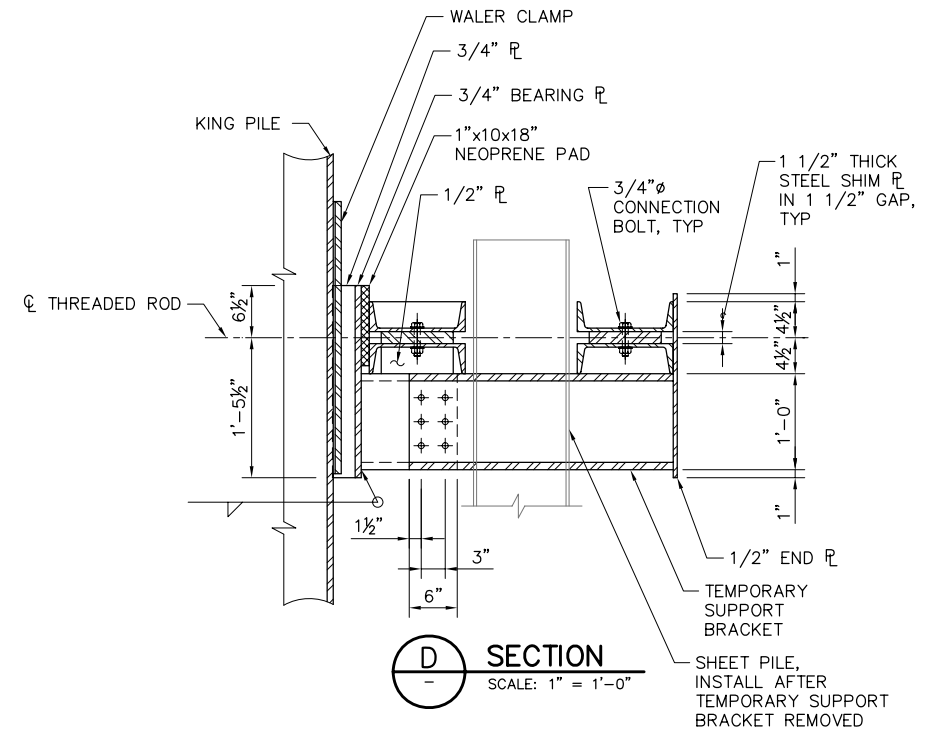
A SECTION
SCALE: 1 1/2" = 1'-0"



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"

95% SUBMITTAL

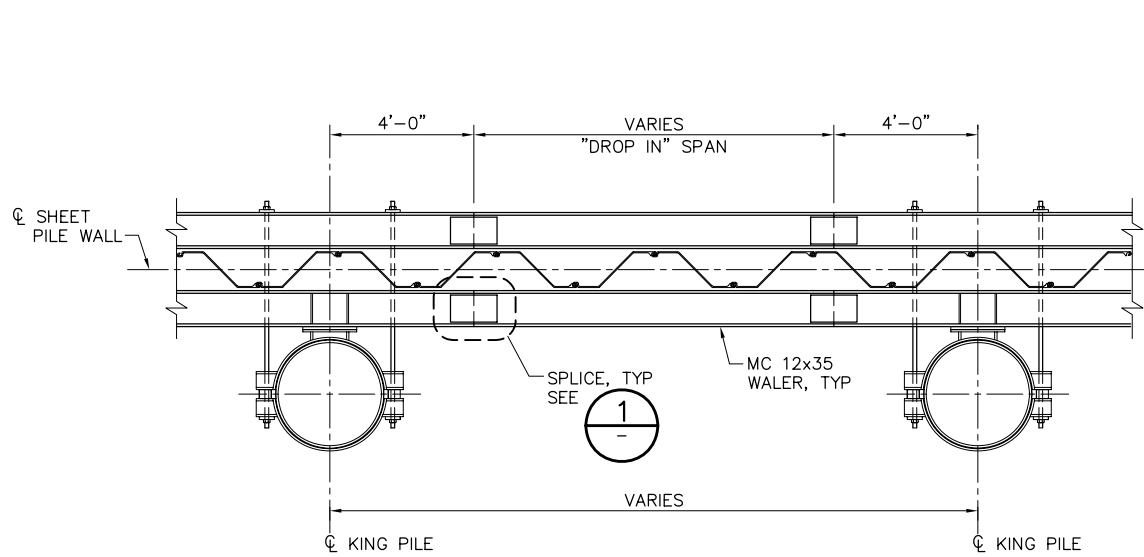
IF SHEET IS LESS THAN 22" x 34"
IT IS A REDUCED PRINT -
SCALE REDUCED ACCORDINGLY.

REVISION	DESCRIPTION	BY	DATE

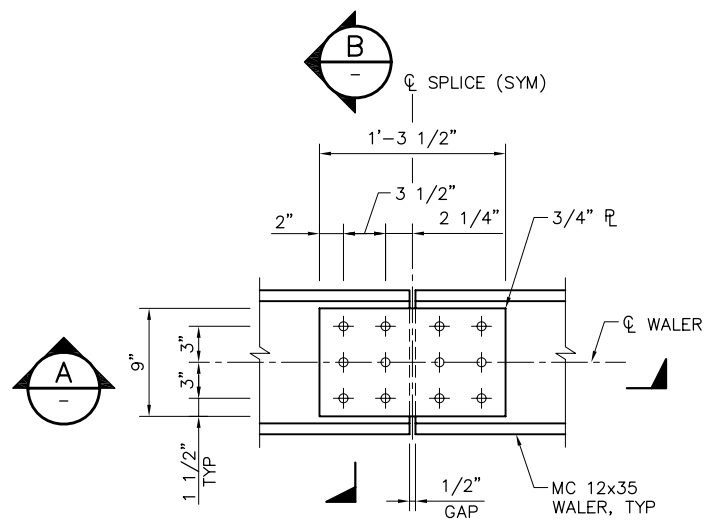
		2001 N. Main Street, Suite 360 Walnut Creek, California 94596 (925) 944-5411	
DSGN	JMB	DR	EP
JOB NO.	6097-03	SUBMITTED BY	RMR
CHK	TDB	TITLE	

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

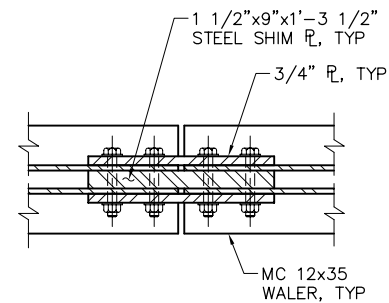
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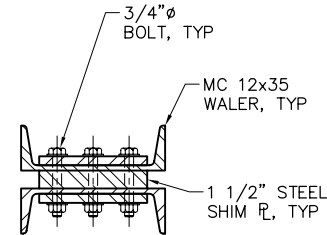
PLAN
TYPICAL WALER SPLICE DETAIL (SEE NOTE 1)
SCALE: 3/4" = 1'-0"



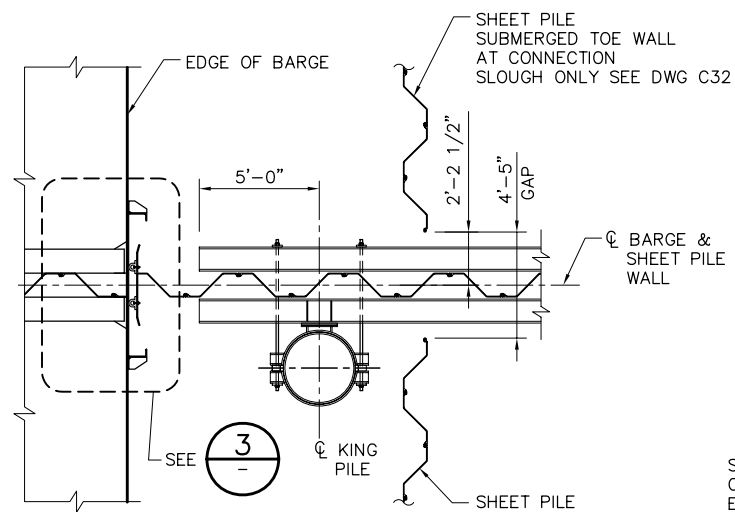
PLAN
1 DETAIL
SCALE: 1 1/2" = 1'-0"



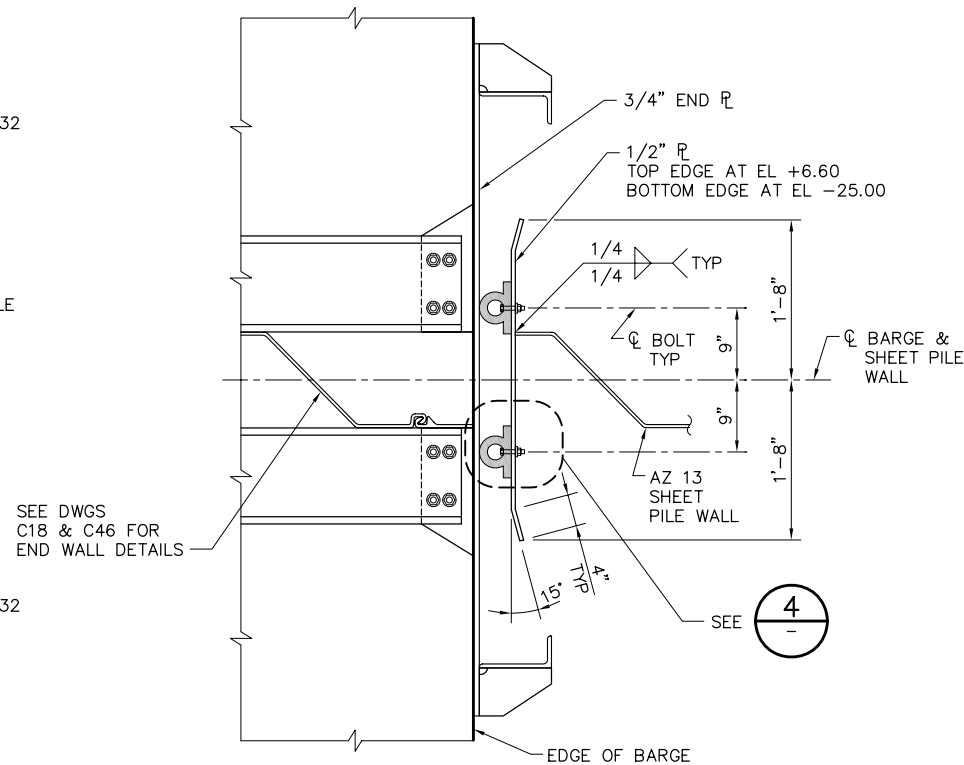
A SECTION
SCALE: 1 1/2" = 1'-0"



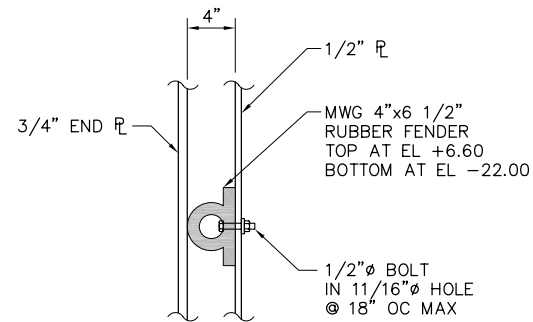
B SECTION
SCALE: 1 1/2" = 1'-0"



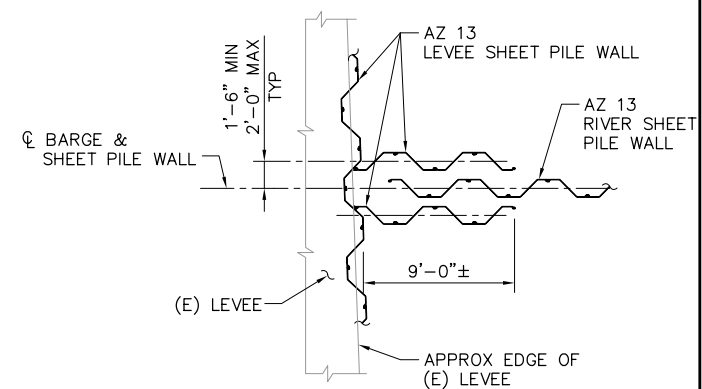
PLAN
2 DETAIL
SCALE: 1/4" = 1'-0"



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



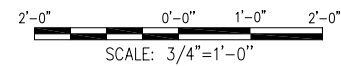
4 DETAIL
SCALE: 1 1/2" = 1'-0"



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

NOTES:

- LOCATE WALER SPLICES AS REQUIRED.



95% SUBMITTAL

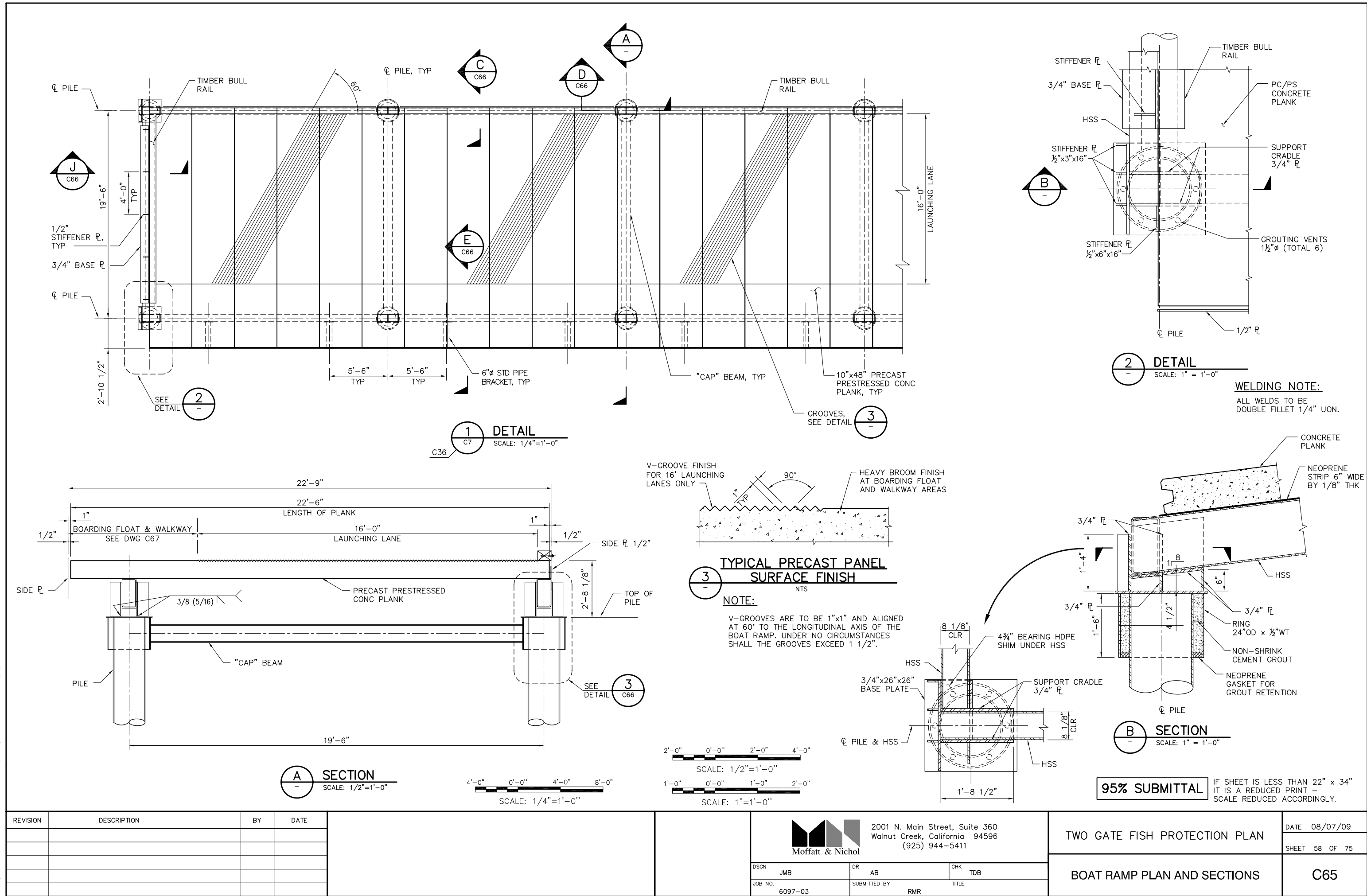
IF SHEET IS LESS THAN 22" x 34"
IT IS A REDUCED PRINT -
SCALE REDUCED ACCORDINGLY.

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JOB NO.	6097-03	SUBMITTED BY	RMR
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TWO GATE FISH PROTECTION PLAN		DATE 08/07/09
SHEET PILE WALL DETAILS SHEET 2		SHEET 57 OF 75
C64		

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



REVISION	DESCRIPTION	BY	DATE

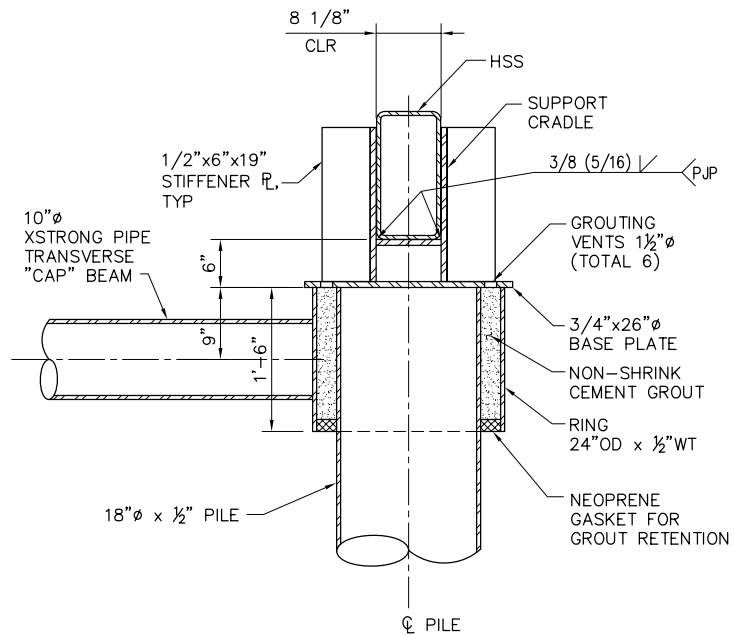


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(925) 944-5411

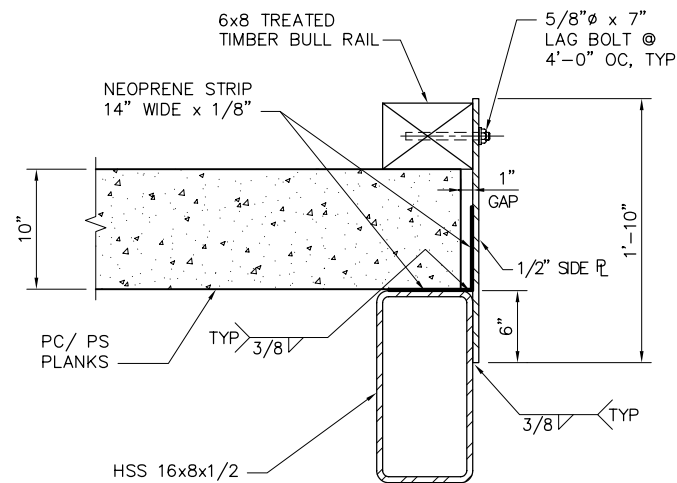
DSGN	JMB	DR	AB	CHK	TDB
JOB NO.	6097-03	SUBMITTED BY	RMR	TITLE	

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

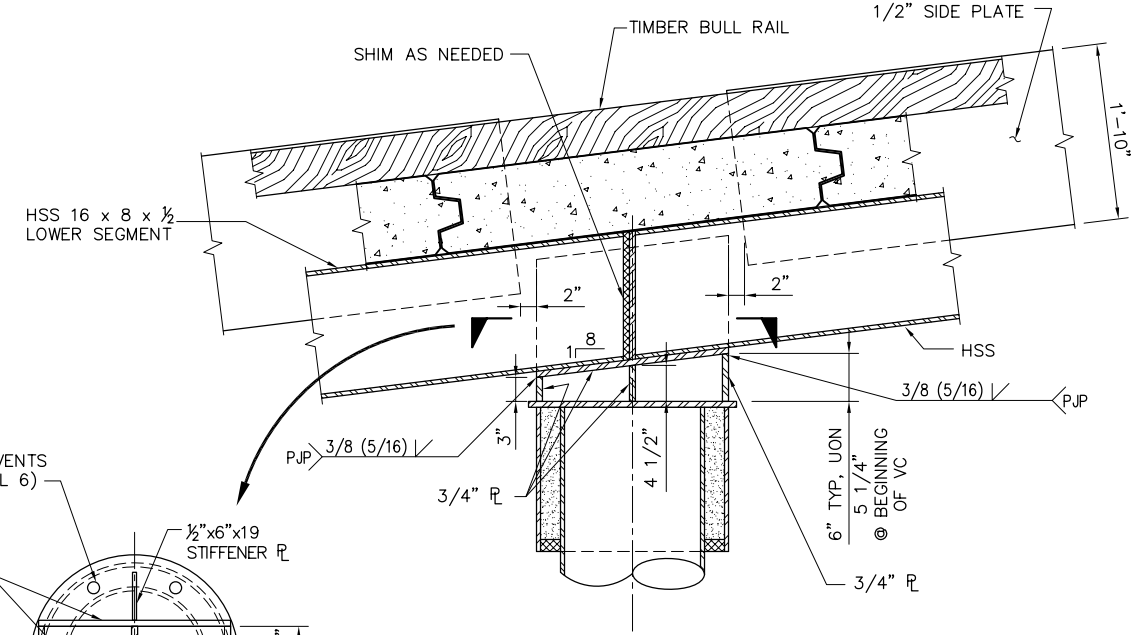
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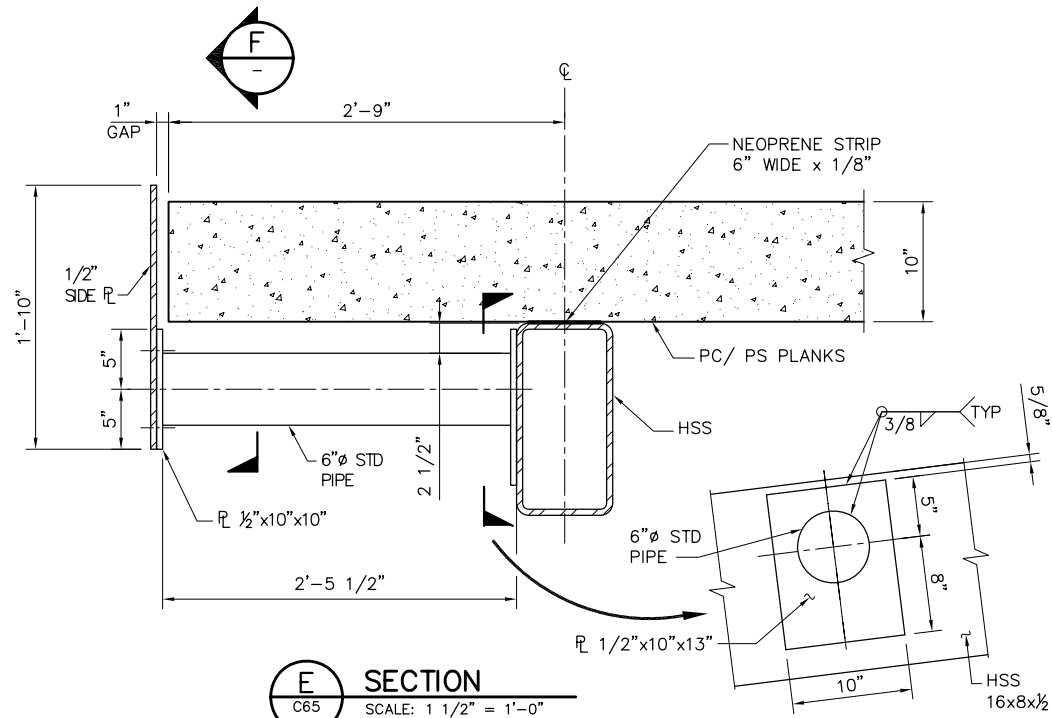
3 DETAIL
C65 SCALE: 1" = 1'-0"



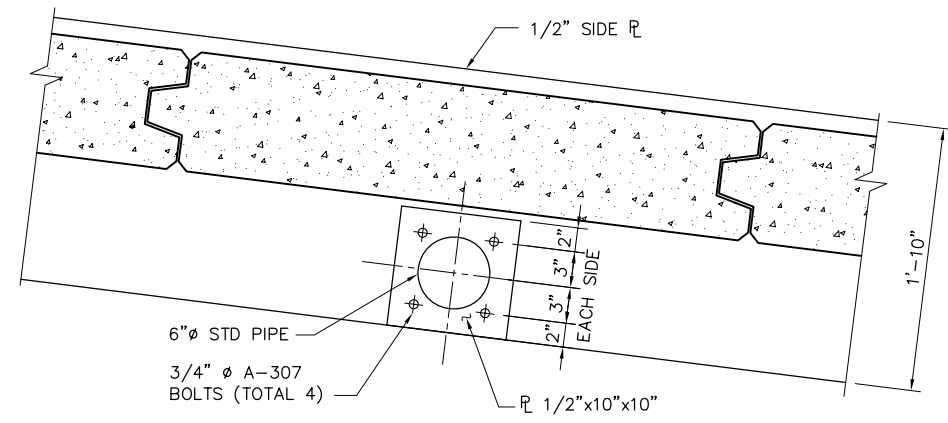
C SECTION
C65 SCALE: 1 1/2" = 1'-0"



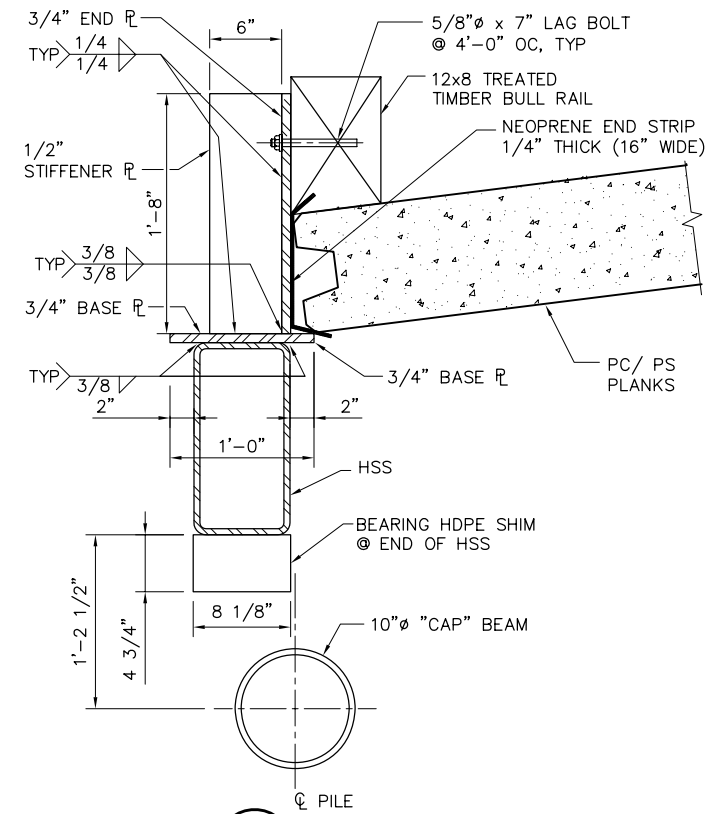
D SECTION
C65 SCALE: 1" = 1'-0"



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.

95% SUBMITTAL

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

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

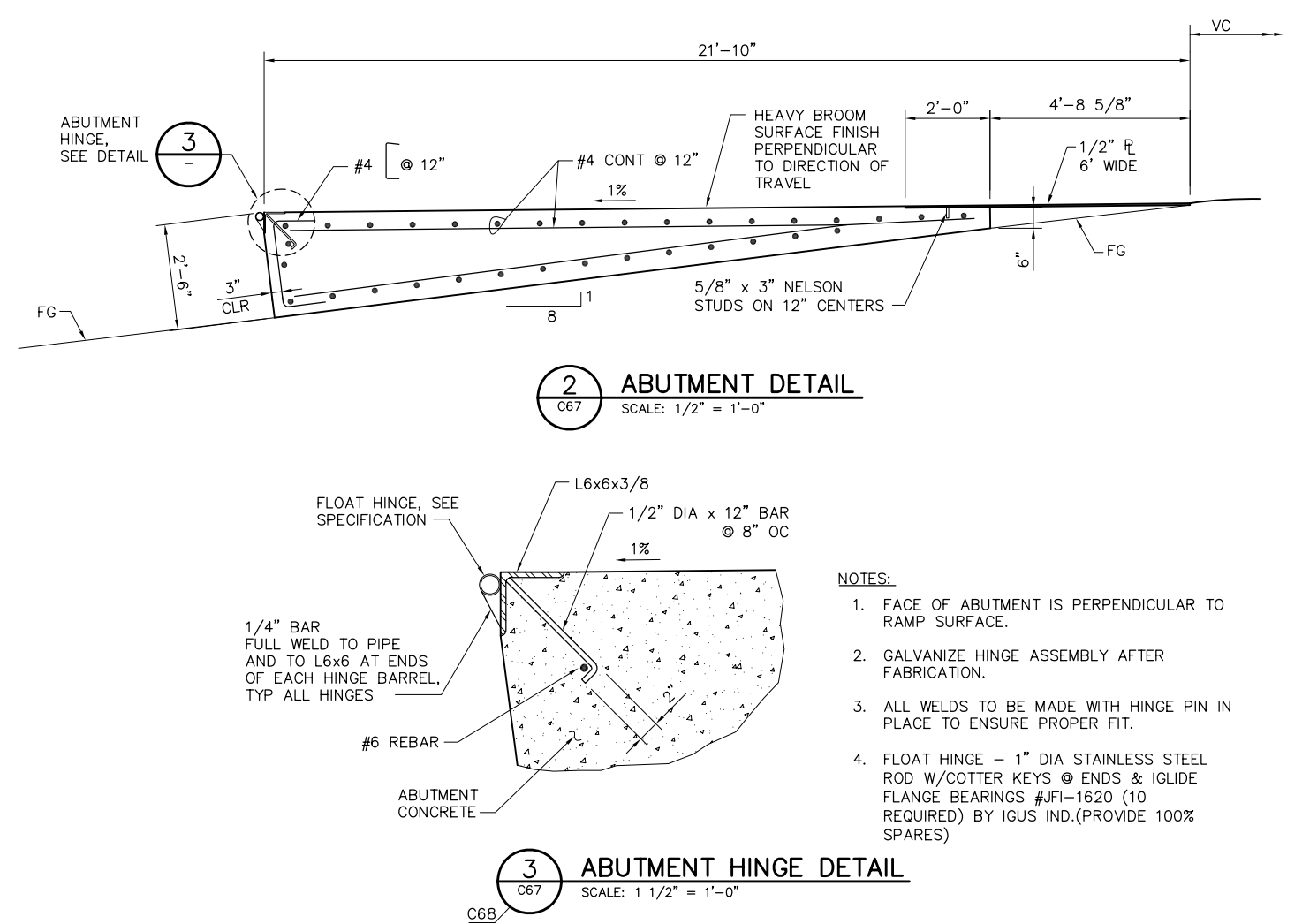
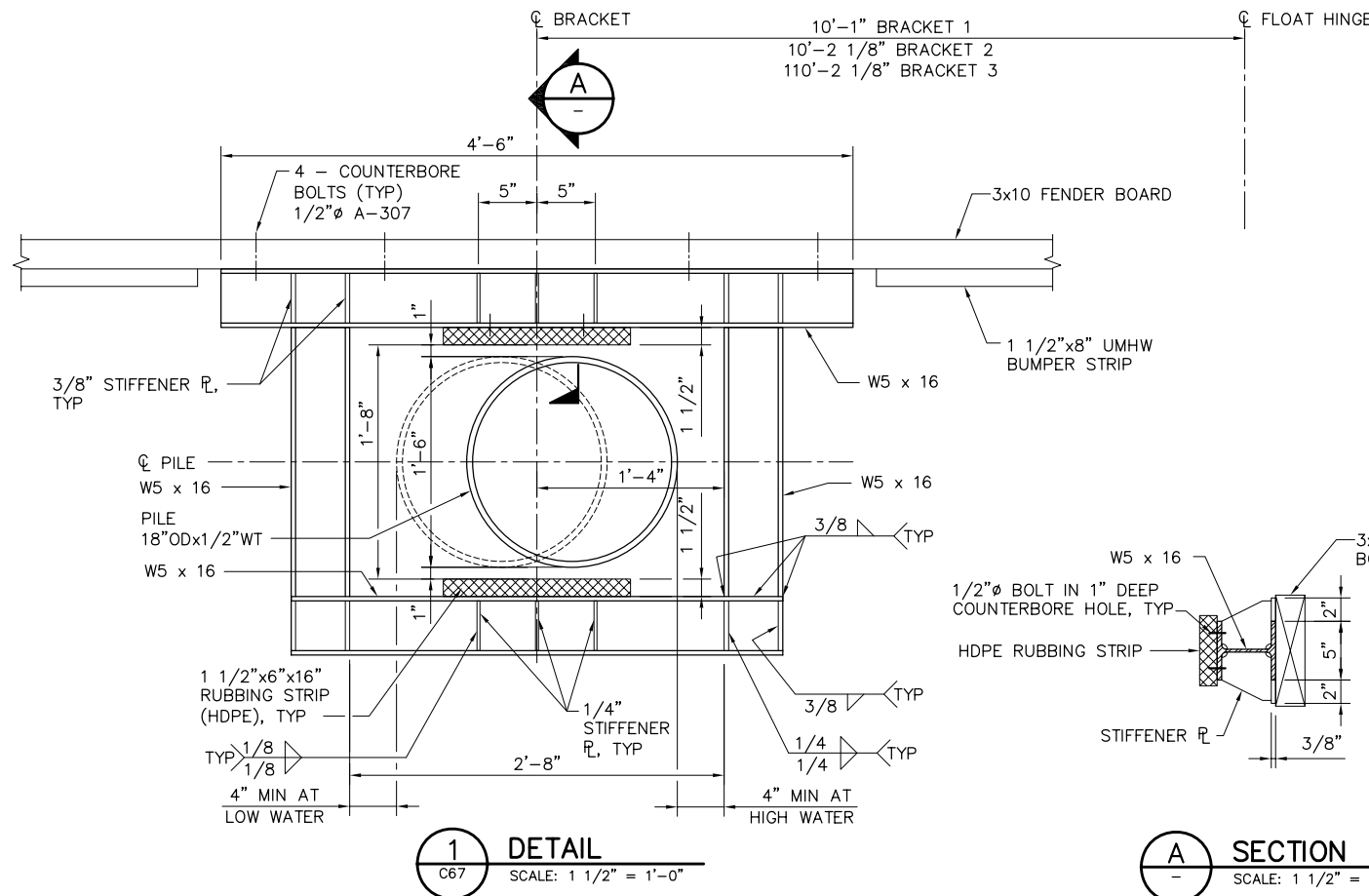
1'-0" 0'-0" 6" 1'-0"
SCALE: 1 1/2" = 1'-0"

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

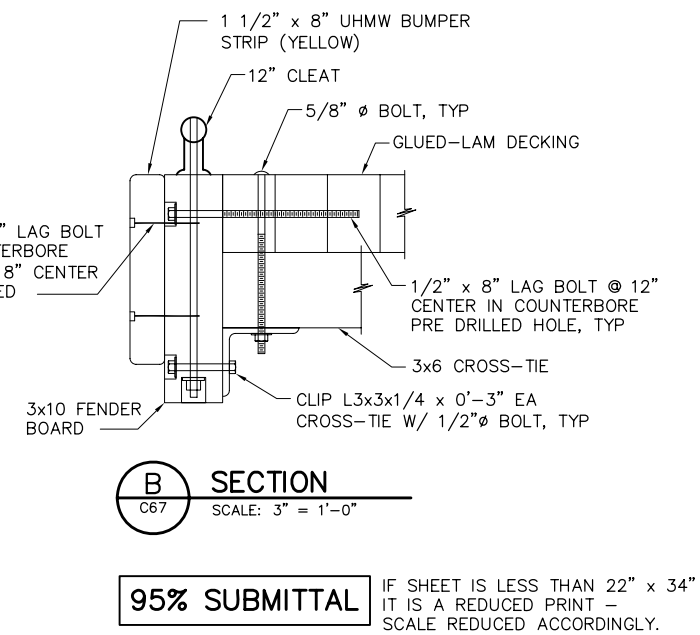
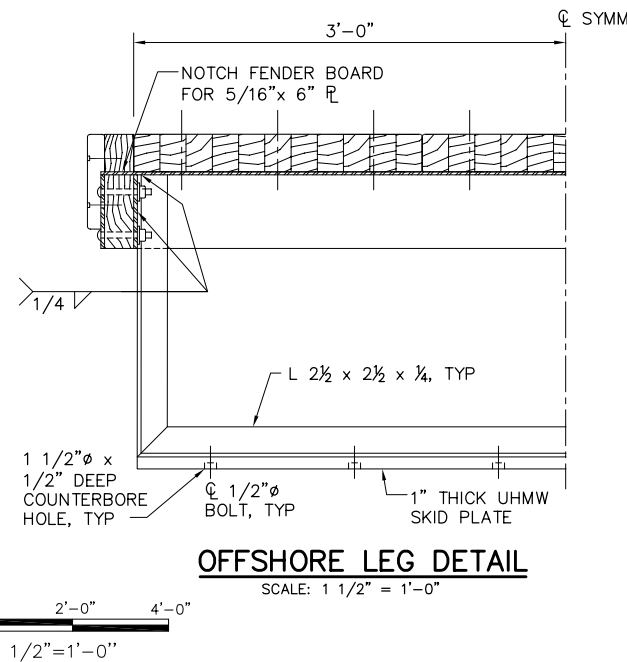
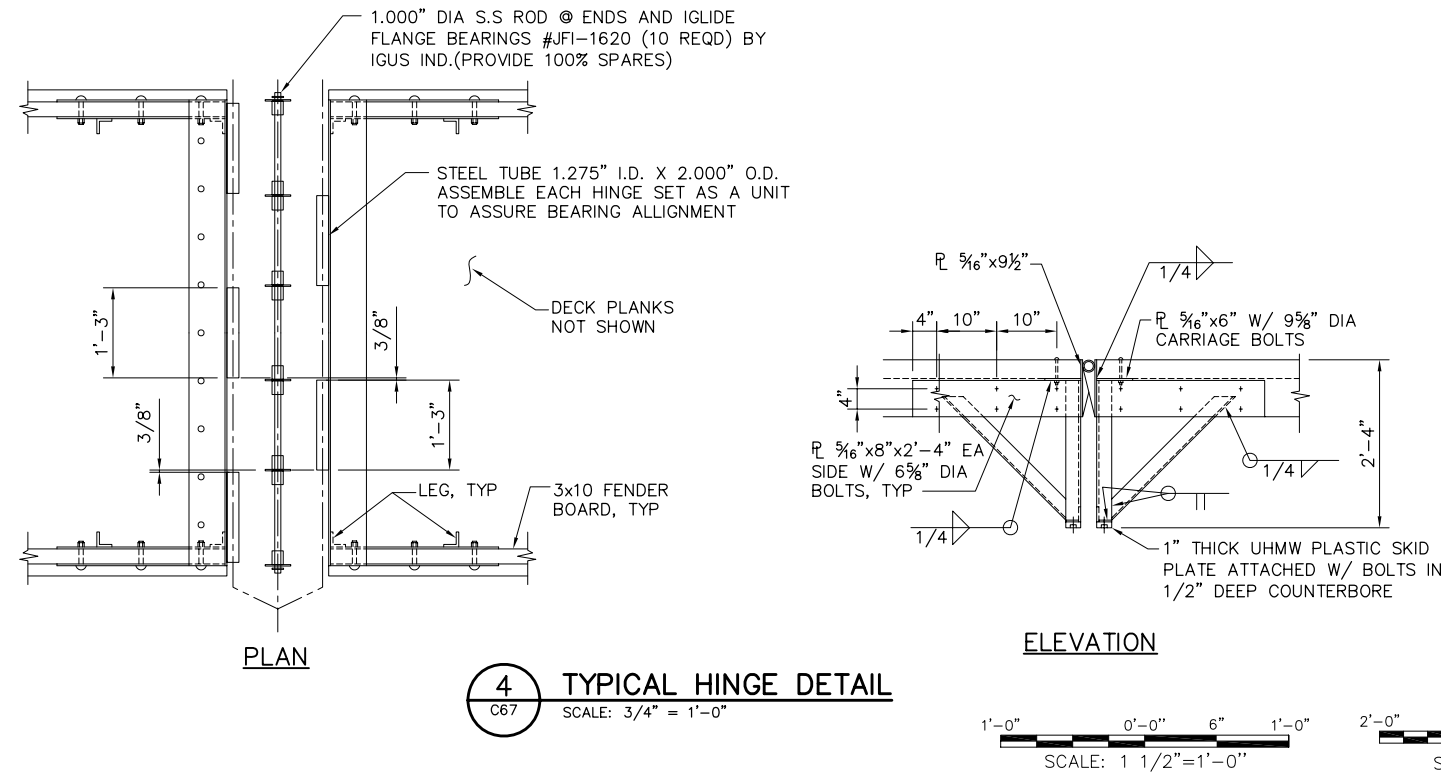
TWO GATE FISH PROTECTION PLAN		DATE	08/07/09
BOAT RAMP DETAILS		SHEET	59 OF 75
			C66

P:\6097-03 SWC GATE DESIGN\CADD\DWG\609703-C68.DWG 7/27/2009 8:41 AM



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)



95% SUBMITTAL

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

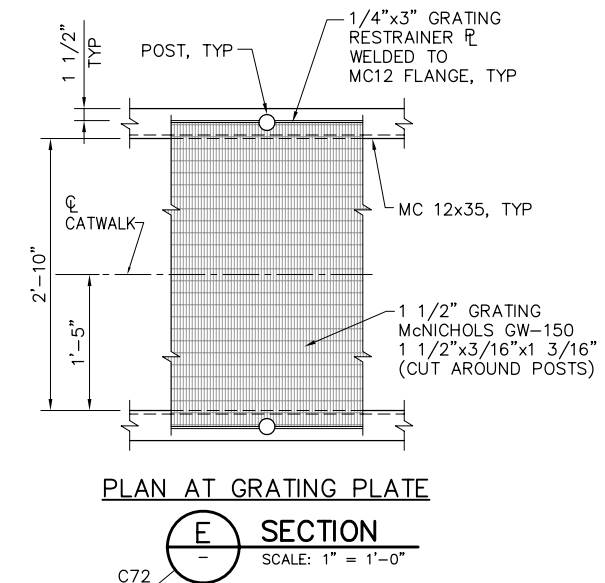
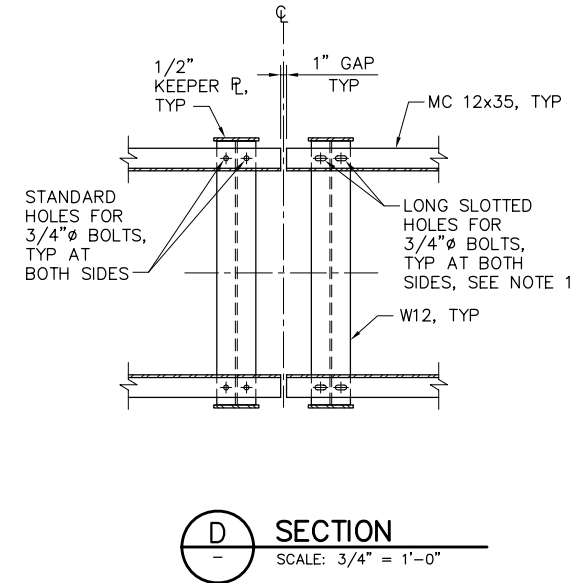
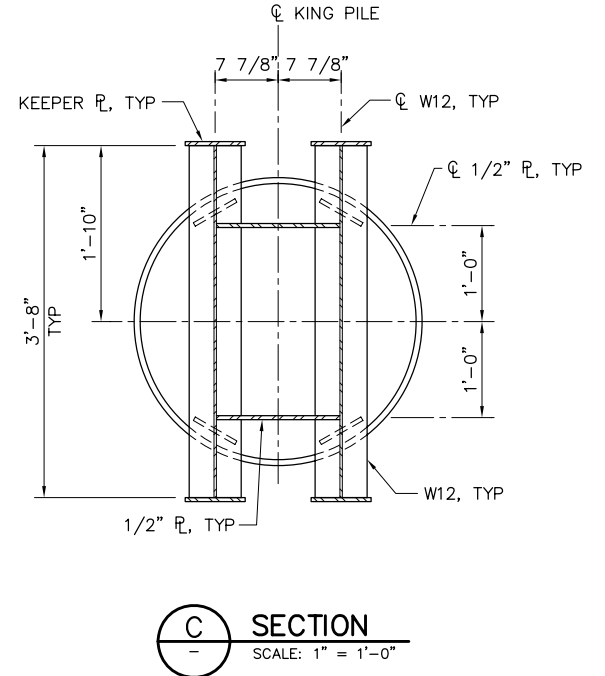
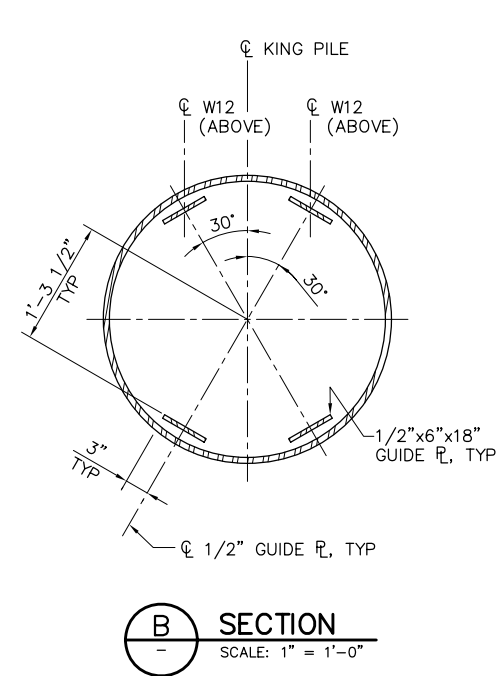
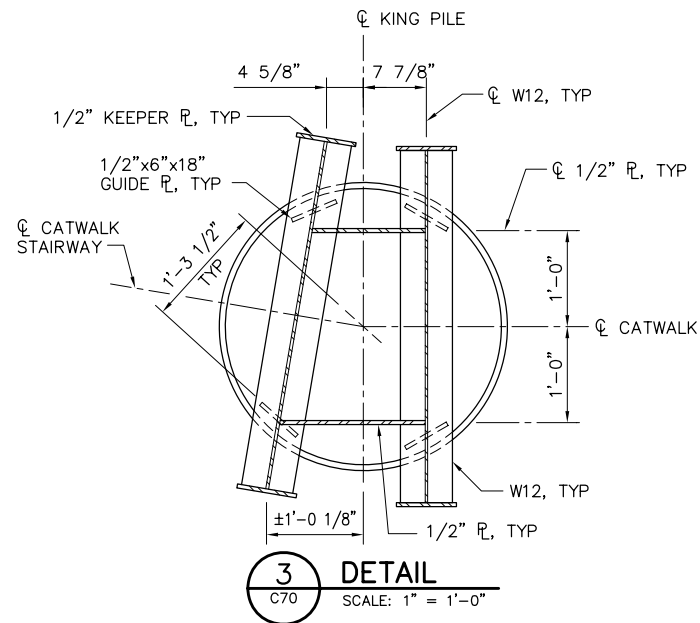
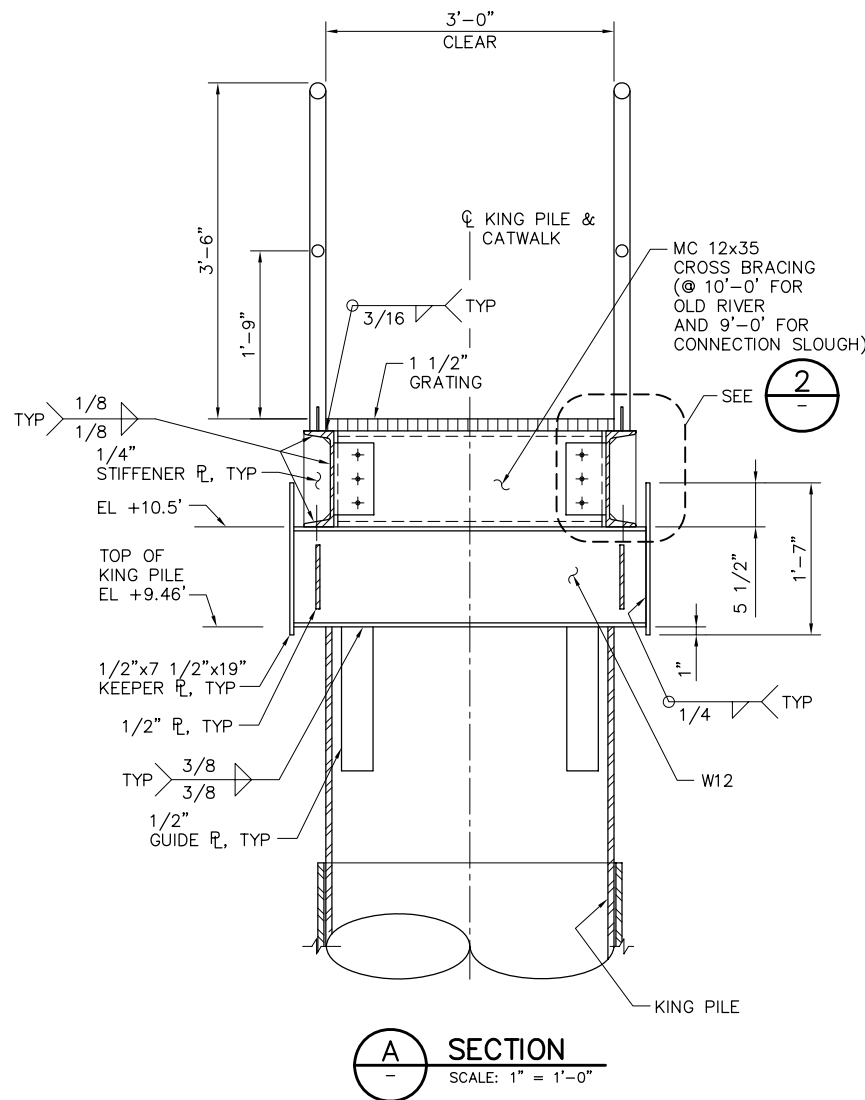
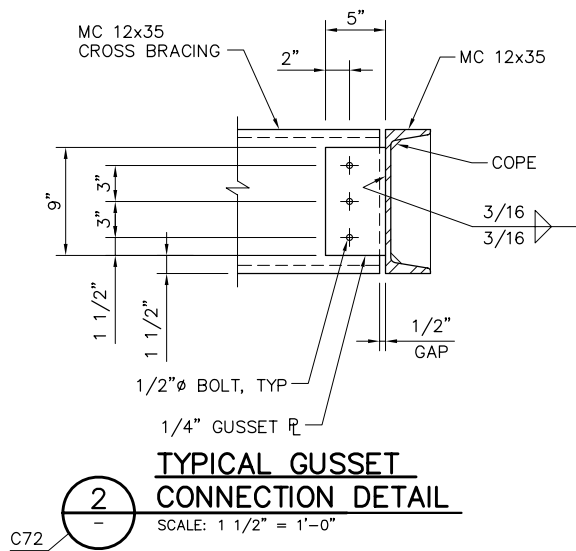
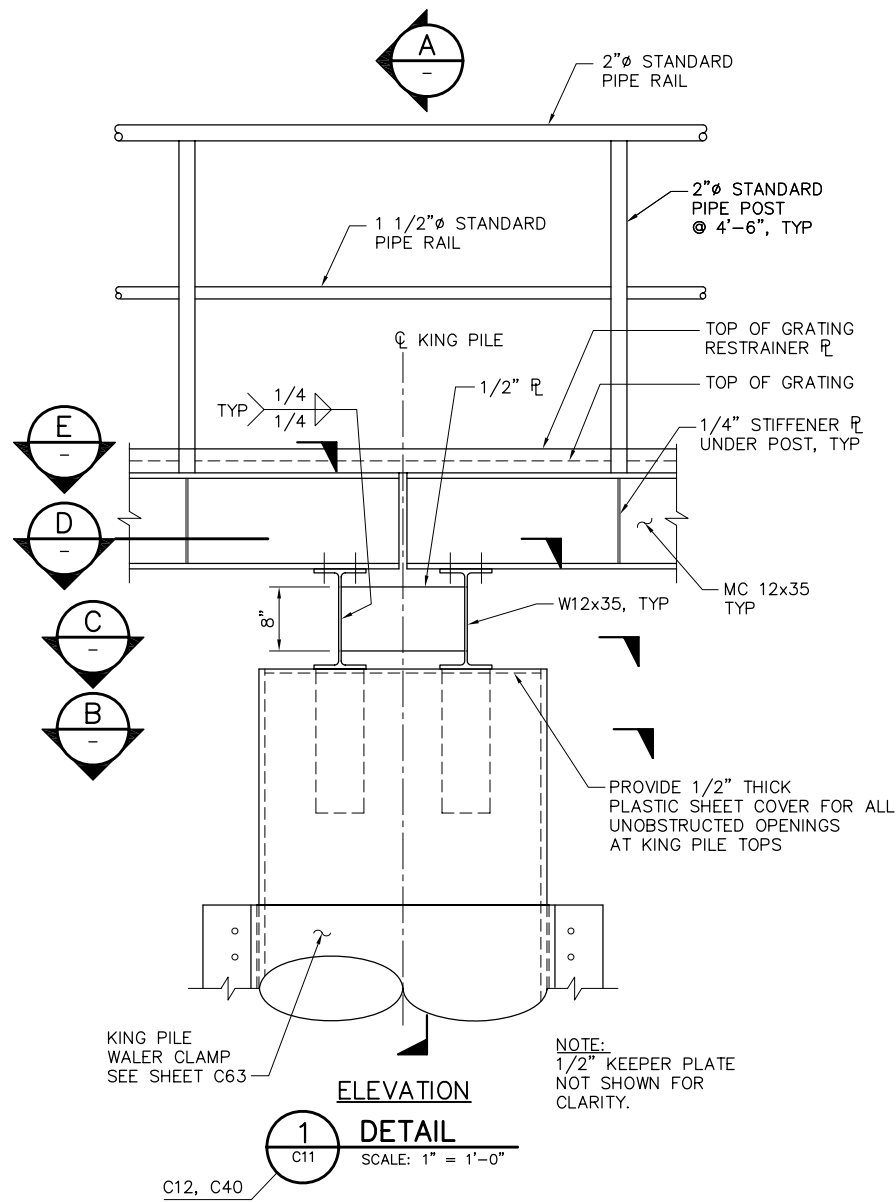
REVISION	DESCRIPTION	BY	DATE

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

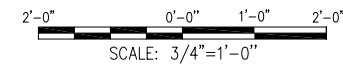
TWO GATE FISH PROTECTION PLAN		DATE	08/07/09
BOARDING FLOAT DETAILS		SHEET	61 OF 75

C68

P:\6097-03 SWC GATE DESIGN\CADD\DWG\609703-C69.DWG 7/24/2009 10:47 AM



- 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.

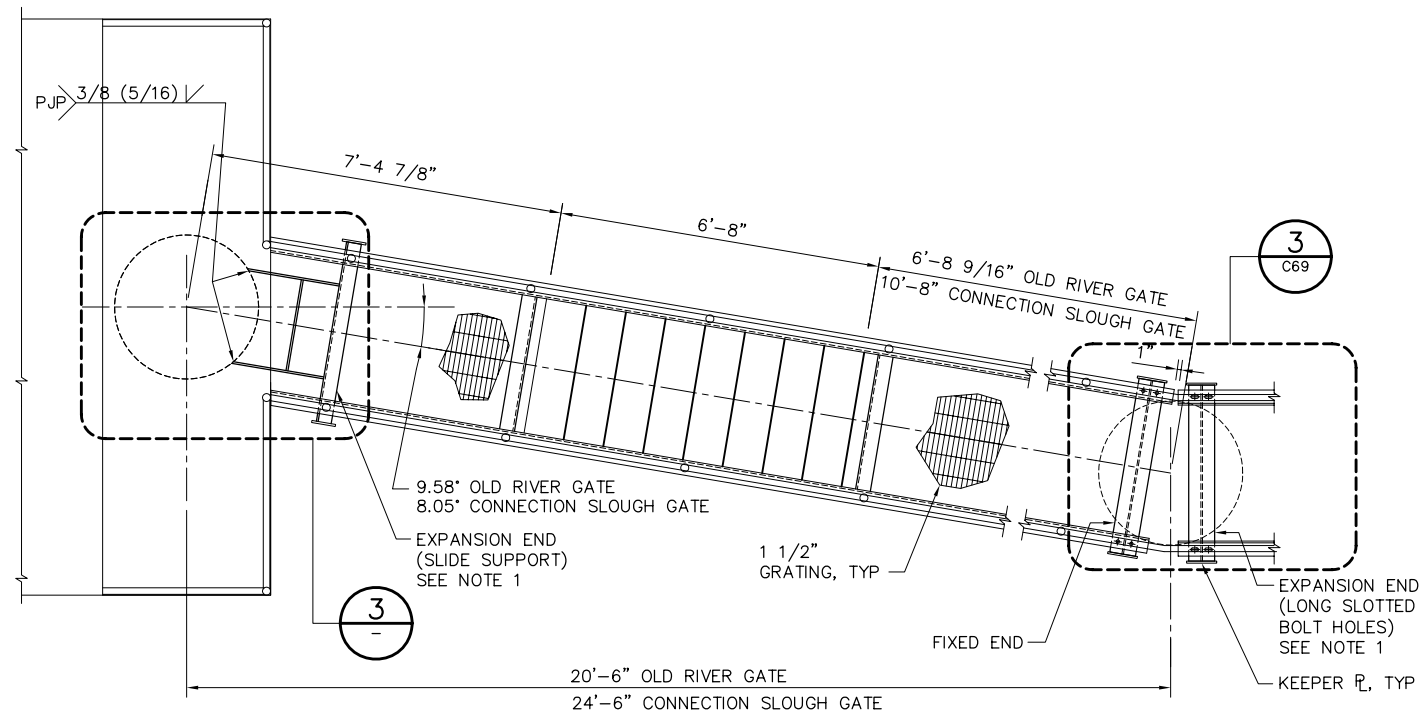


95% SUBMITTAL IF SHEET IS LESS THAN 22" x 34" IT IS A REDUCED PRINT - SCALE REDUCED ACCORDINGLY.

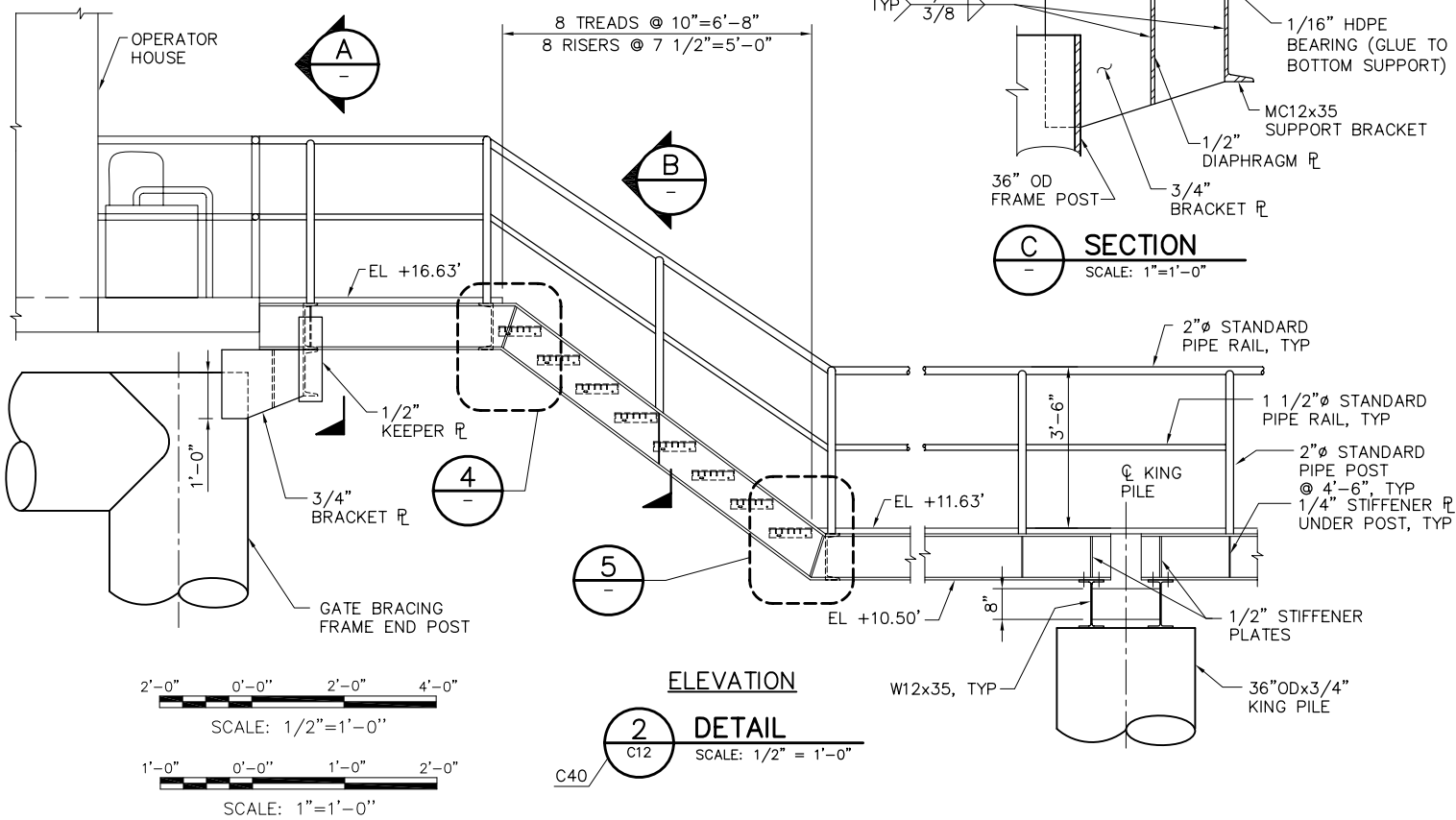
REVISION	DESCRIPTION	BY	DATE

			 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 62 OF 75
			DSGN JMB		DR EP/AB		CHK TDB	CATWALK DETAILS SHEET 1
JOB NO. 6097-03		SUBMITTED BY RMR		TITLE				

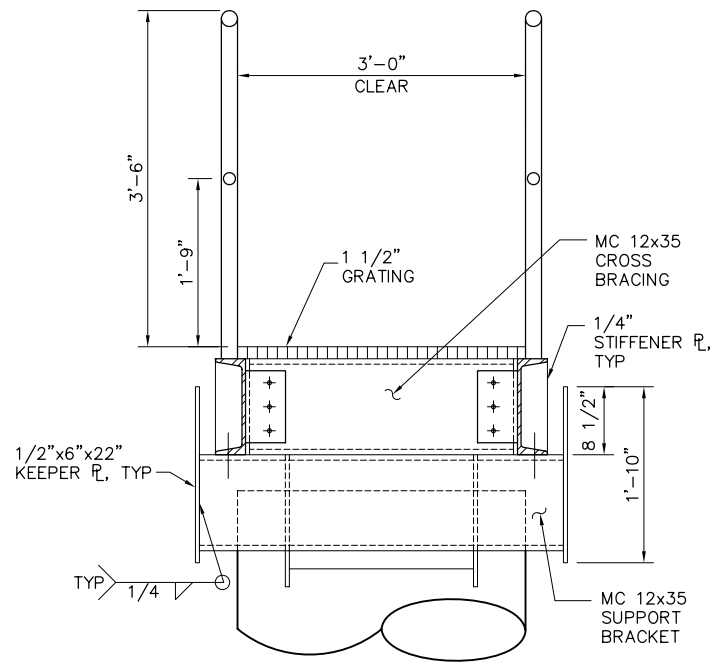
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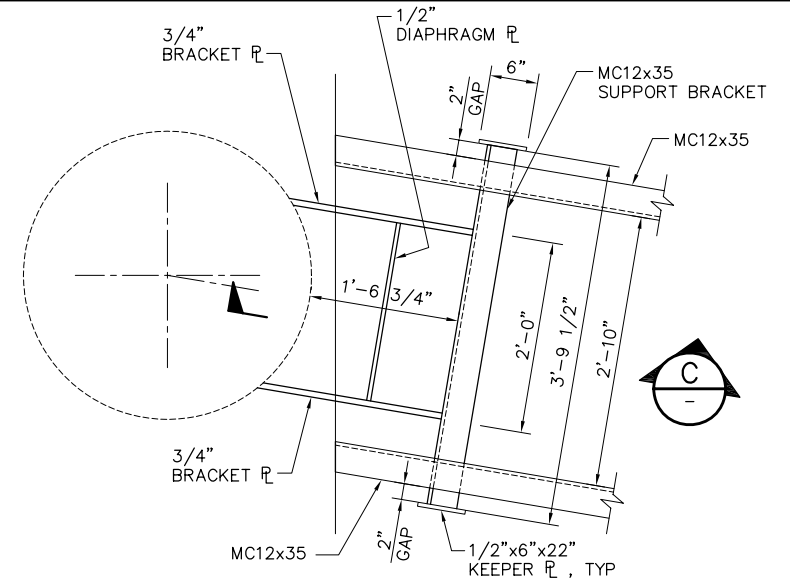
PLAN
1 DETAIL
C12 SCALE: 1/2" = 1'-0"



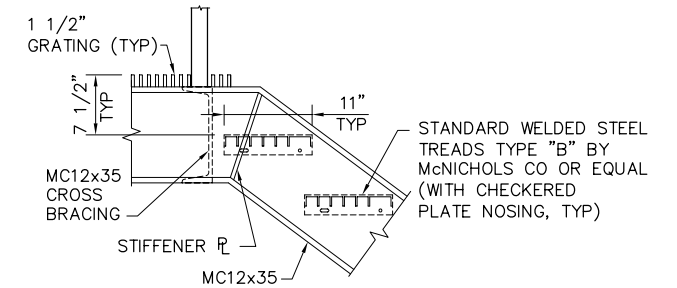
ELEVATION
2 DETAIL
C12 SCALE: 1/2" = 1'-0"



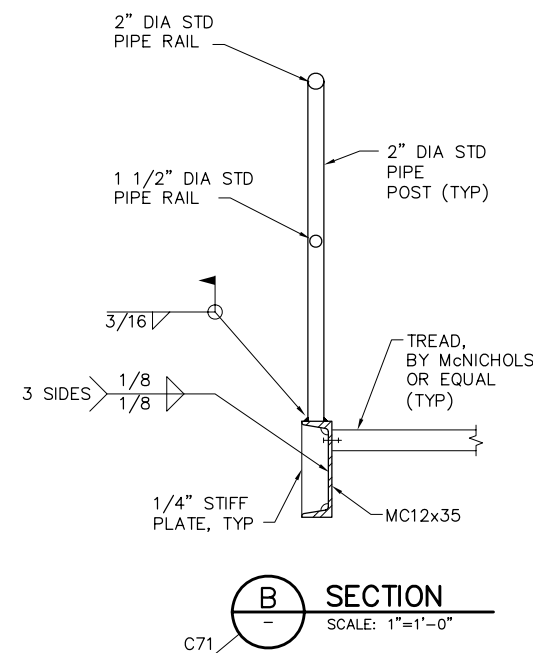
A SECTION
SCALE: 1" = 1'-0"



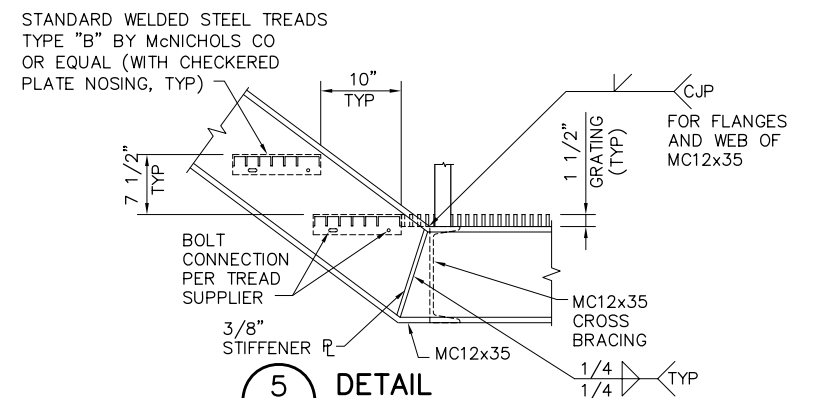
3 DETAIL
SCALE: 1" = 1'-0"



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



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



5 DETAIL
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

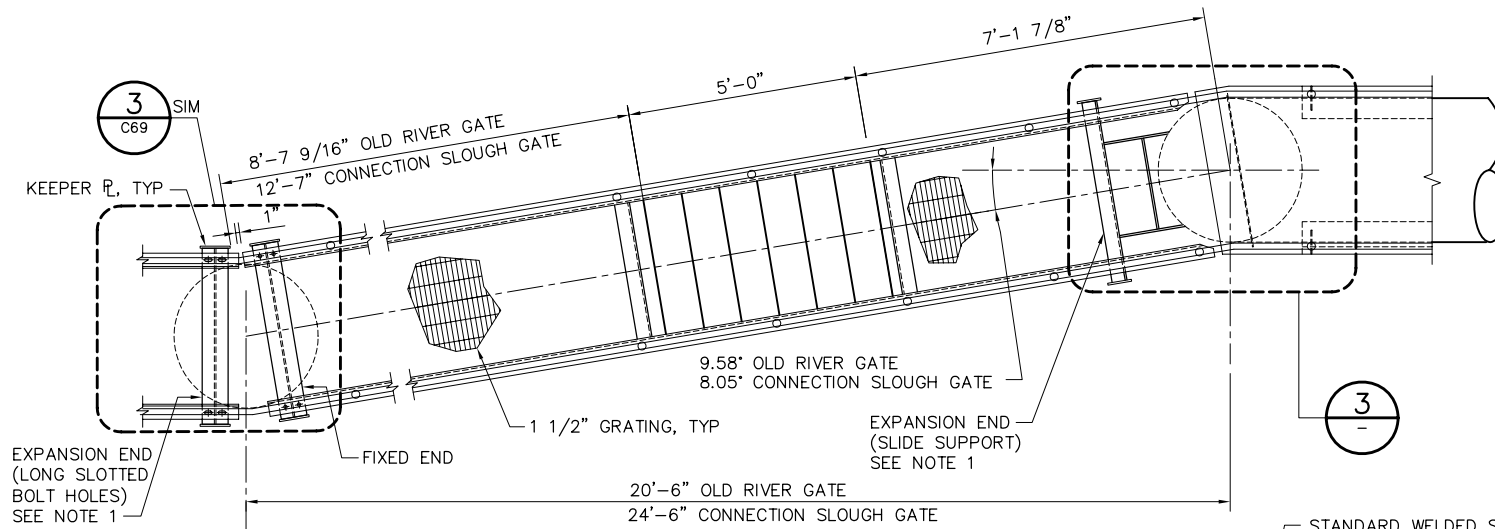
IF SHEET IS LESS THAN 22" x 34" IT IS A REDUCED PRINT - SCALE REDUCED ACCORDINGLY.

REVISION	DESCRIPTION	BY	DATE

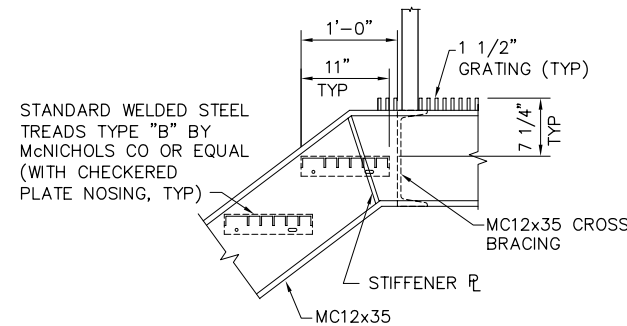
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DSGN	JMB	DR	AB/EP
JOB NO.	6097-03	SUBMITTED BY	RMR
CHK	TDB	TITLE	

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

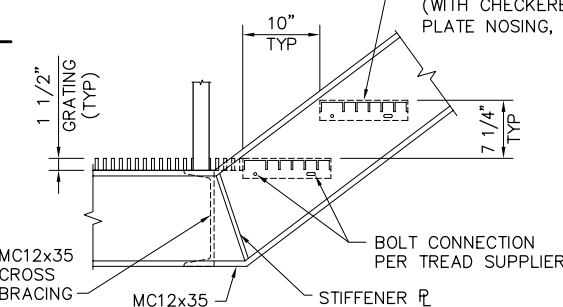
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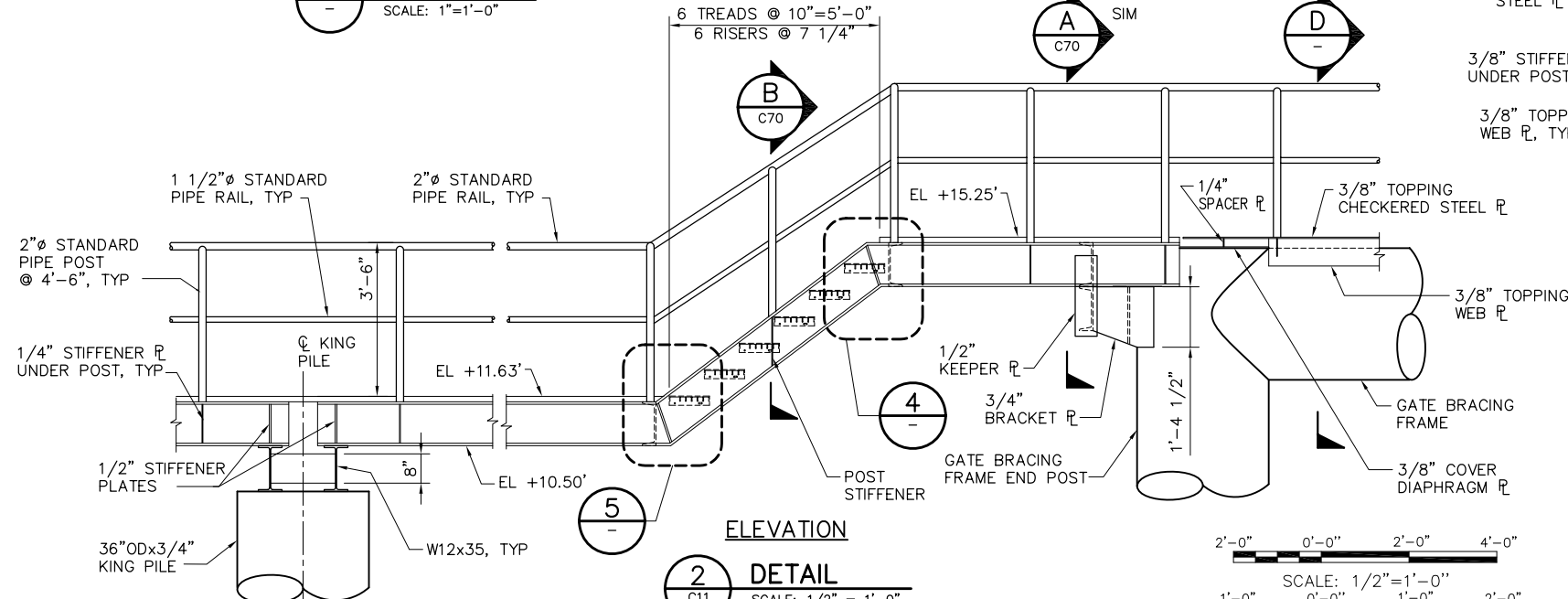
1 C11
SCALE: 1/2" = 1'-0"



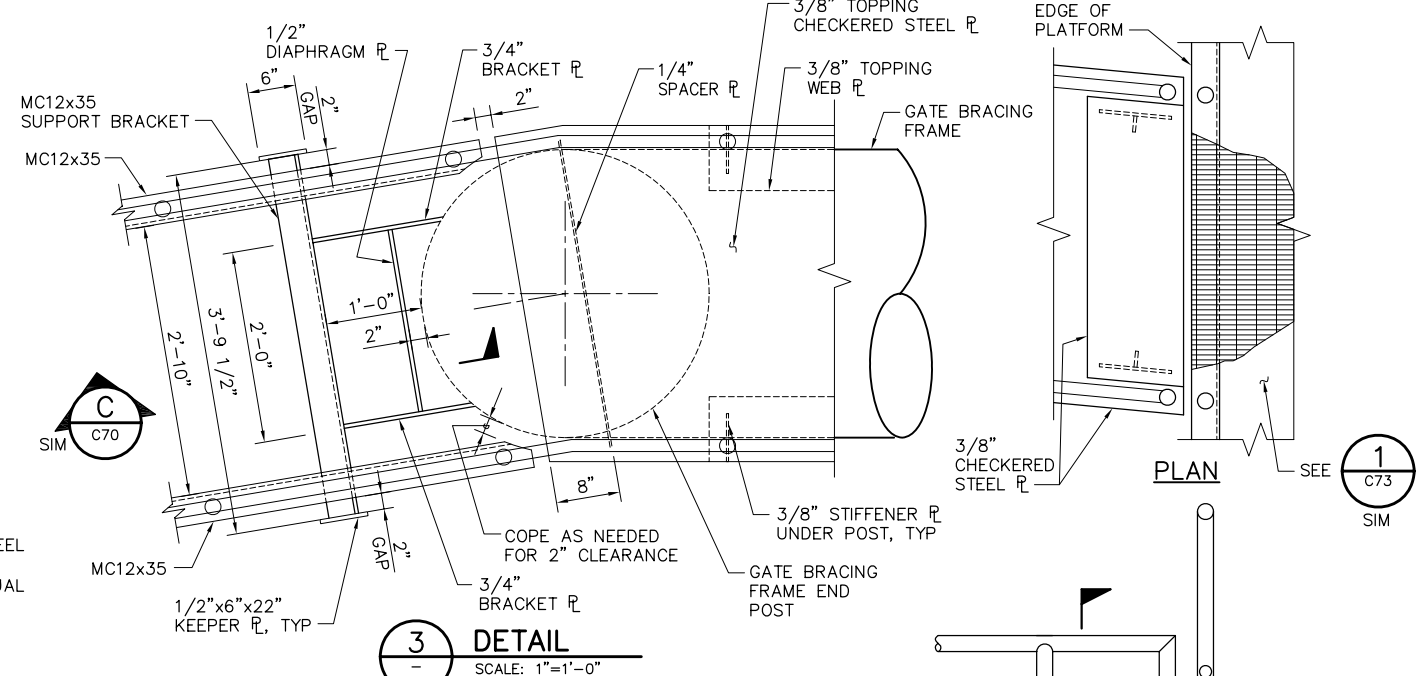
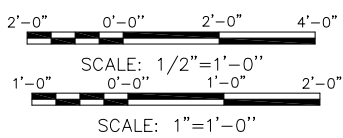
4
SCALE: 1"=1'-0"



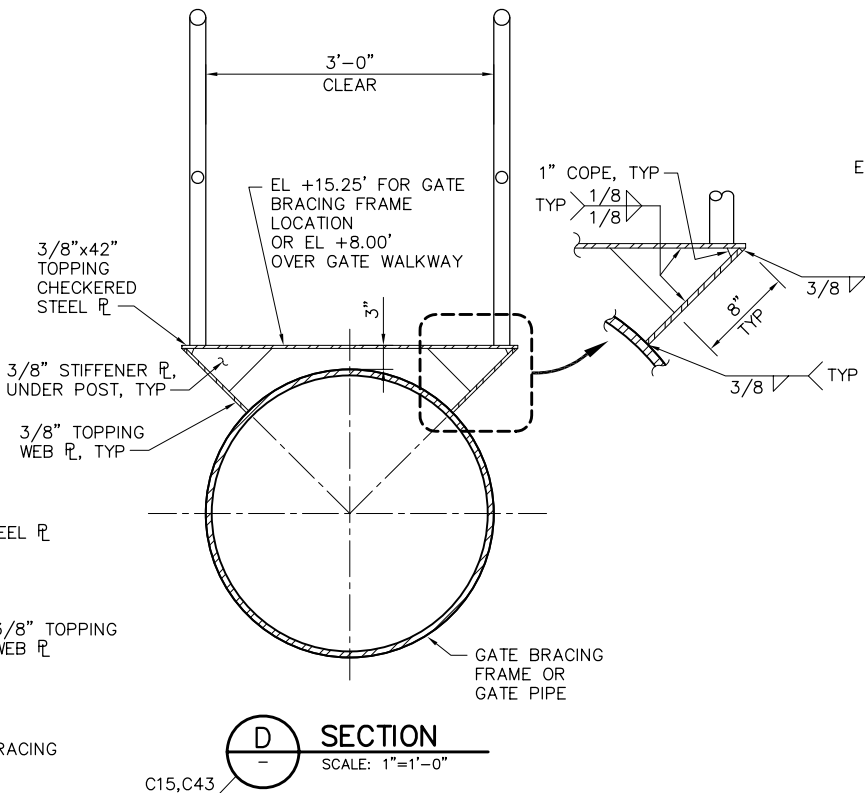
5
SCALE: 1"=1'-0"



2 C11
SCALE: 1/2" = 1'-0"



3
SCALE: 1"=1'-0"

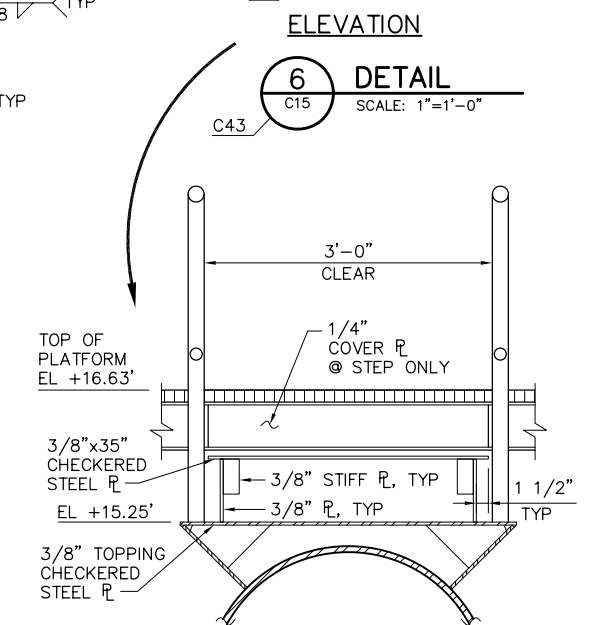


NOTES:

- PROVIDE 1/16" THICK HDPE SLIDE/BEARING PLATE AT EXPANSION ENDS AT UNDERSIDE OF MC12x35.
- FOR WELD INFORMATION SEE DWGS C69 AND C70.

95% SUBMITTAL

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



6 C15
SCALE: 1"=1'-0"

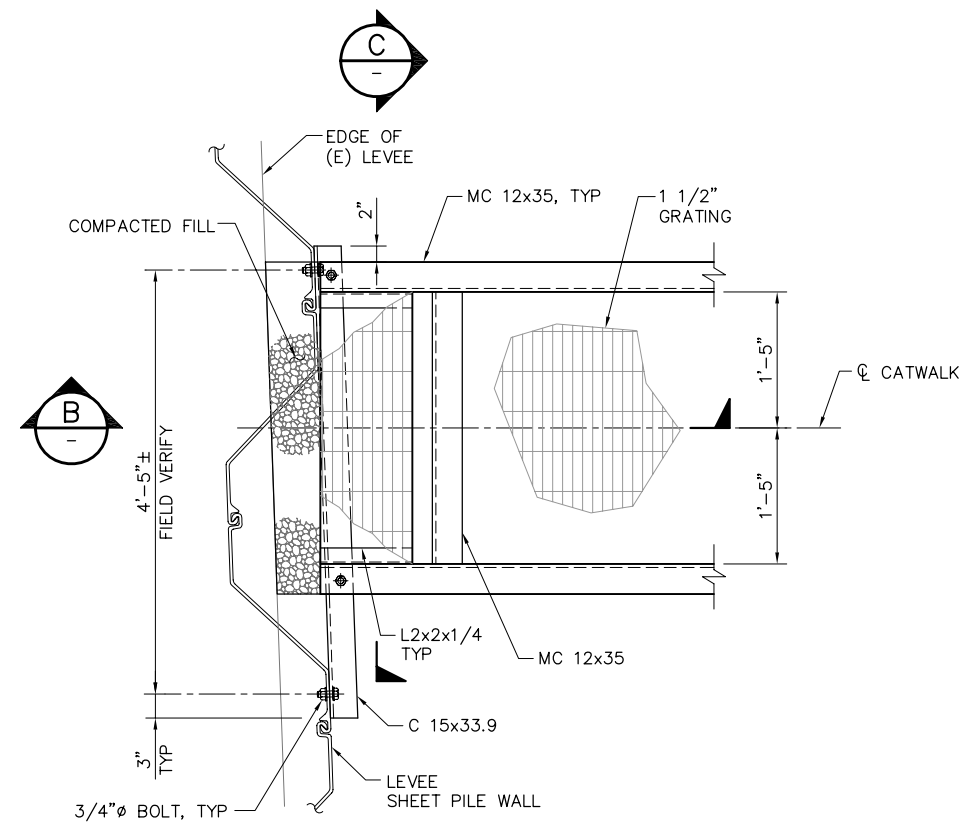
REVISION	DESCRIPTION	BY	DATE

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

TWO GATE FISH PROTECTION PLAN		DATE	08/07/09
CATWALK DETAILS SHEET 3		SHEET	64 OF 75

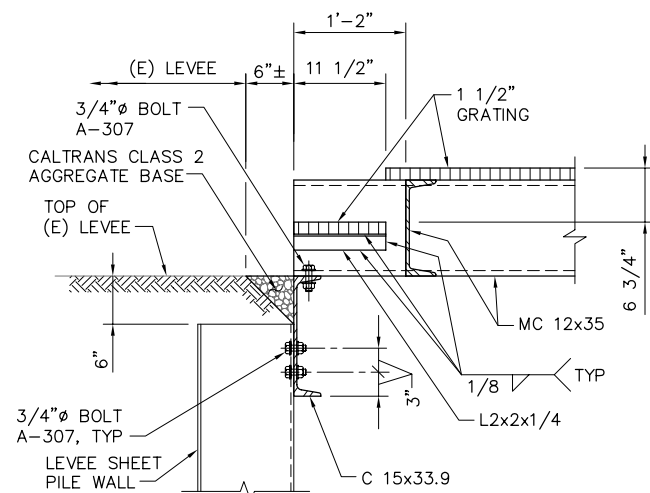
C71

P:\6097-03 SWC GATE DESIGN\CADD\DWG\609703-C72.DWG 7/24/2009 10:57 AM

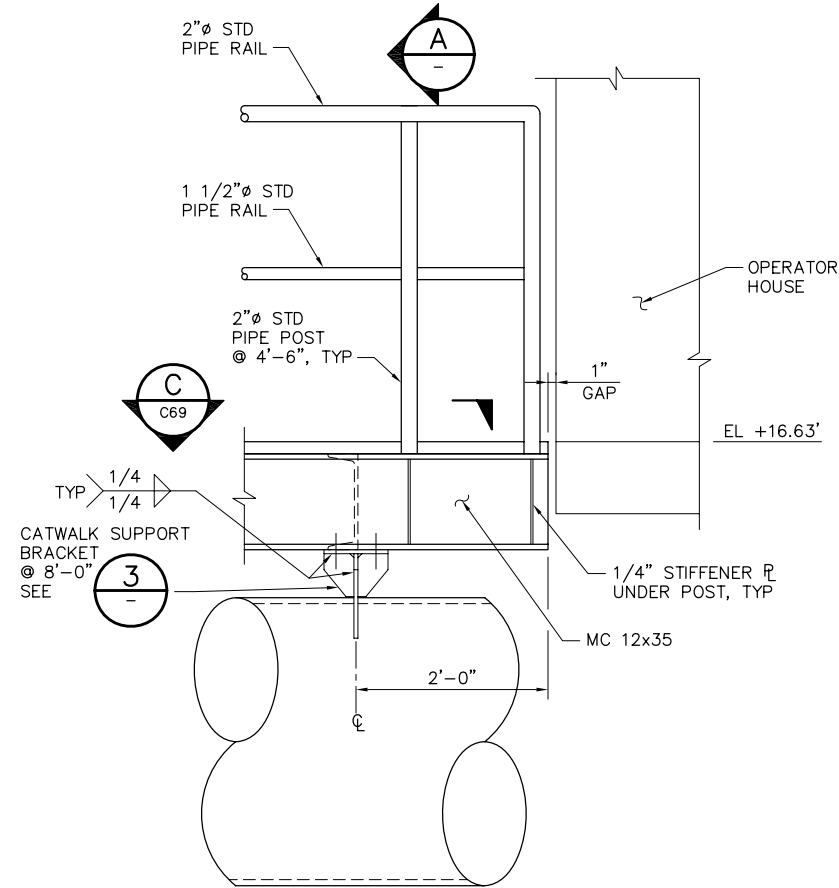


PLAN AT END OF CATWALK

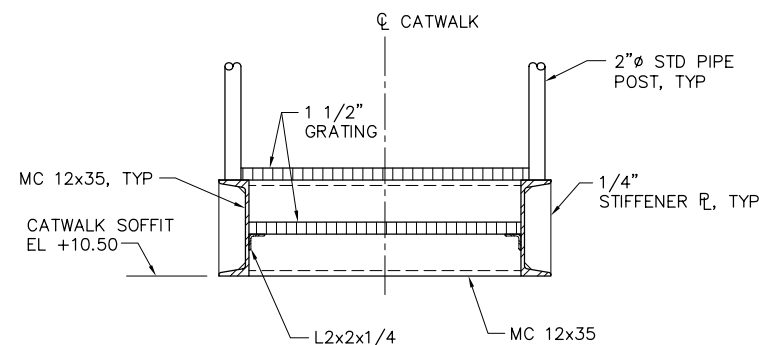
1 **DETAIL**
C11 SCALE: 1" = 1'-0"



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



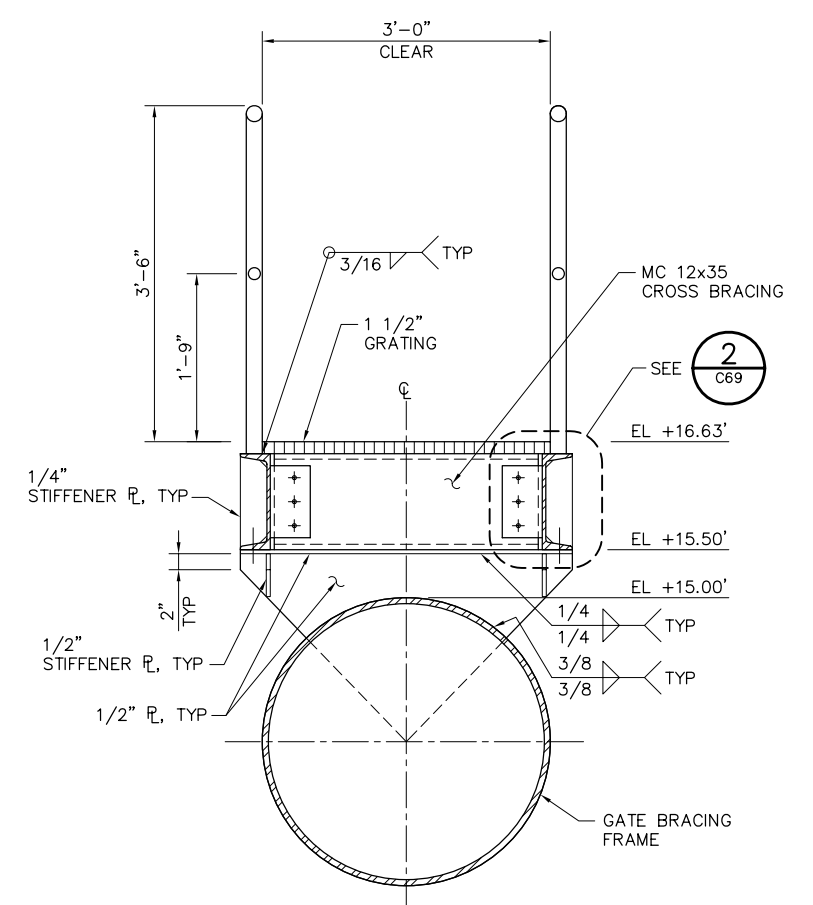
2 **DETAIL**
C15 SCALE: 1"=1'-0"



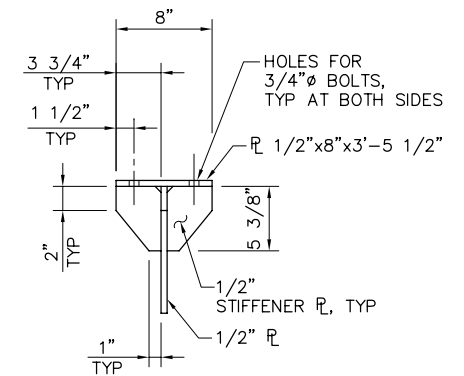
C **SECTION**
SCALE: 1" = 1'-0"

NOTE:

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



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



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

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

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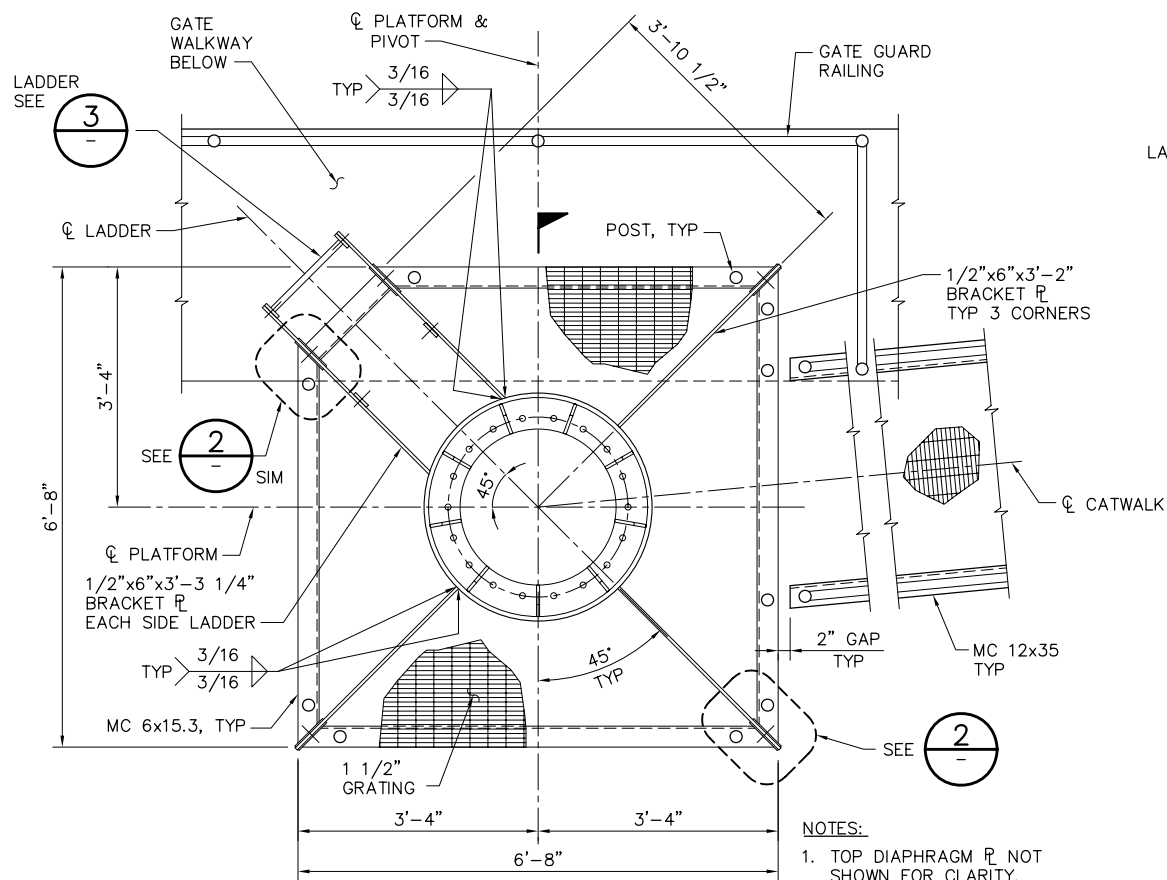
IF SHEET IS LESS THAN 22" x 34"
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SCALE REDUCED ACCORDINGLY.

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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

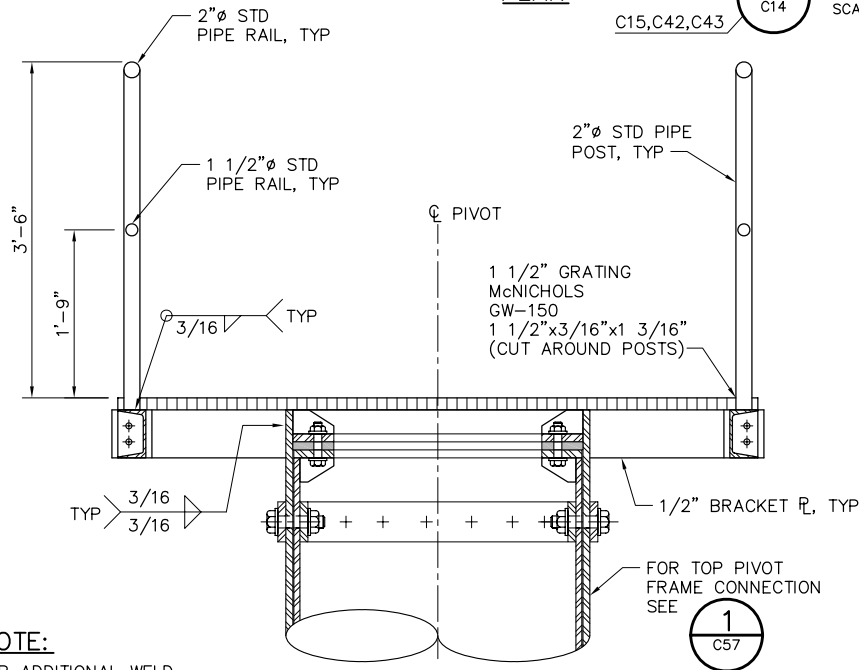
P:\6097-03 SVC GATE DESIGN\CADD\DWG\609703-C73.DWG 7/24/2009 5:11 PM



- NOTES:
1. TOP DIAPHRAGM PL NOT SHOWN FOR CLARITY.
 2. NAVIGATION LIGHT NOT SHOWN FOR CLARITY.
 3. GRATING TO BE FASTENED TO MC 6x15.3 BY STD CLIPS.

PLAN

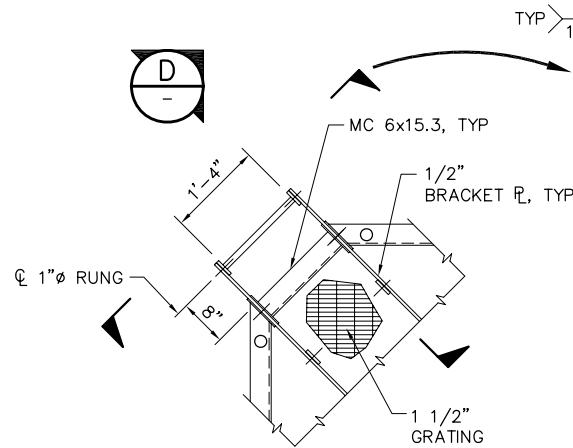
1 PLATFORM DETAIL
C14 SCALE: 3/4" = 1'-0"



NOTE:
FOR ADDITIONAL WELD
INFORMATION SEE DWGS C69
THROUGH C72.

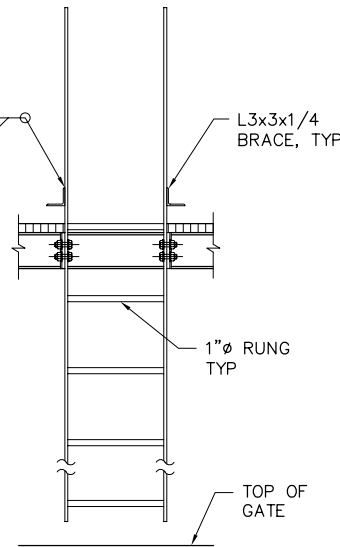
C SECTION
SCALE: 1" = 1'-0"

1 C57

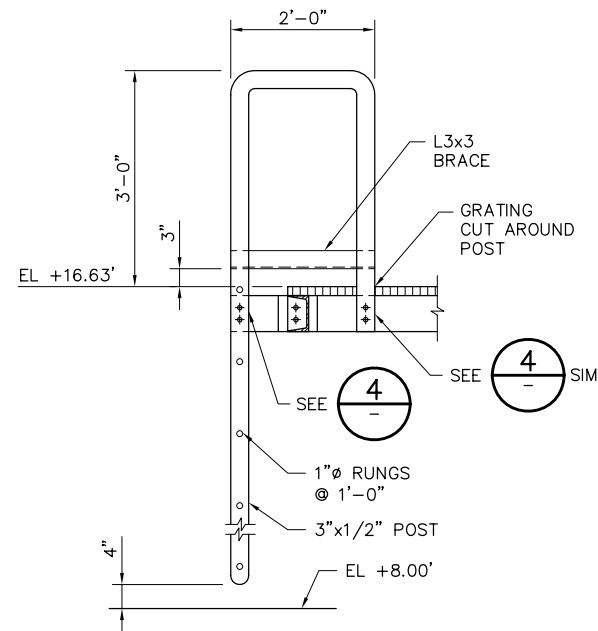


PLAN

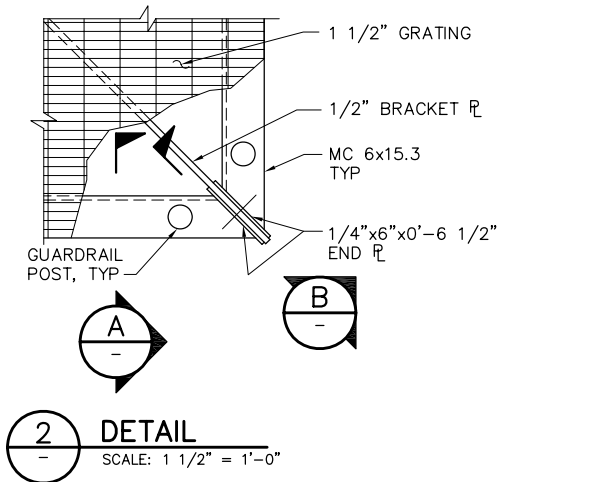
3 LADDER DETAIL
SCALE: 3/4" = 1'-0"



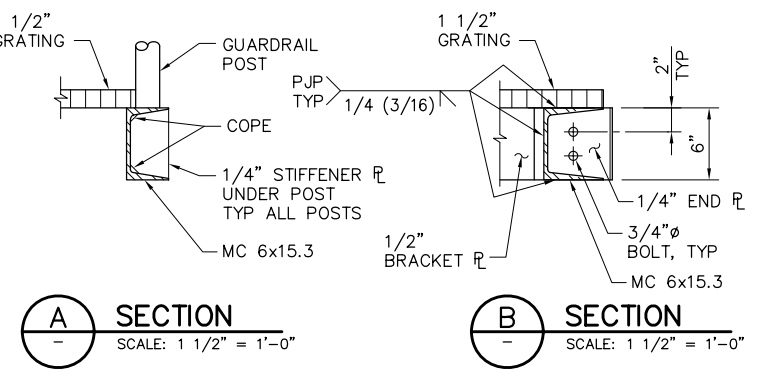
ELEVATION



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



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



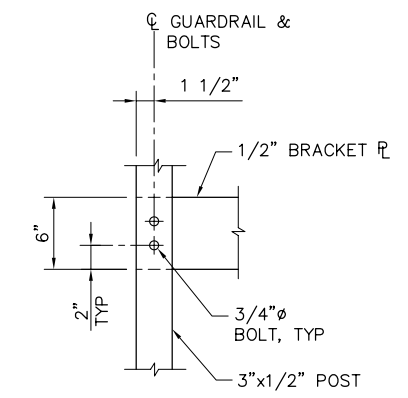
A SECTION
SCALE: 1 1/2" = 1'-0"

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

PLAN

ELEVATION

SECTION



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

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

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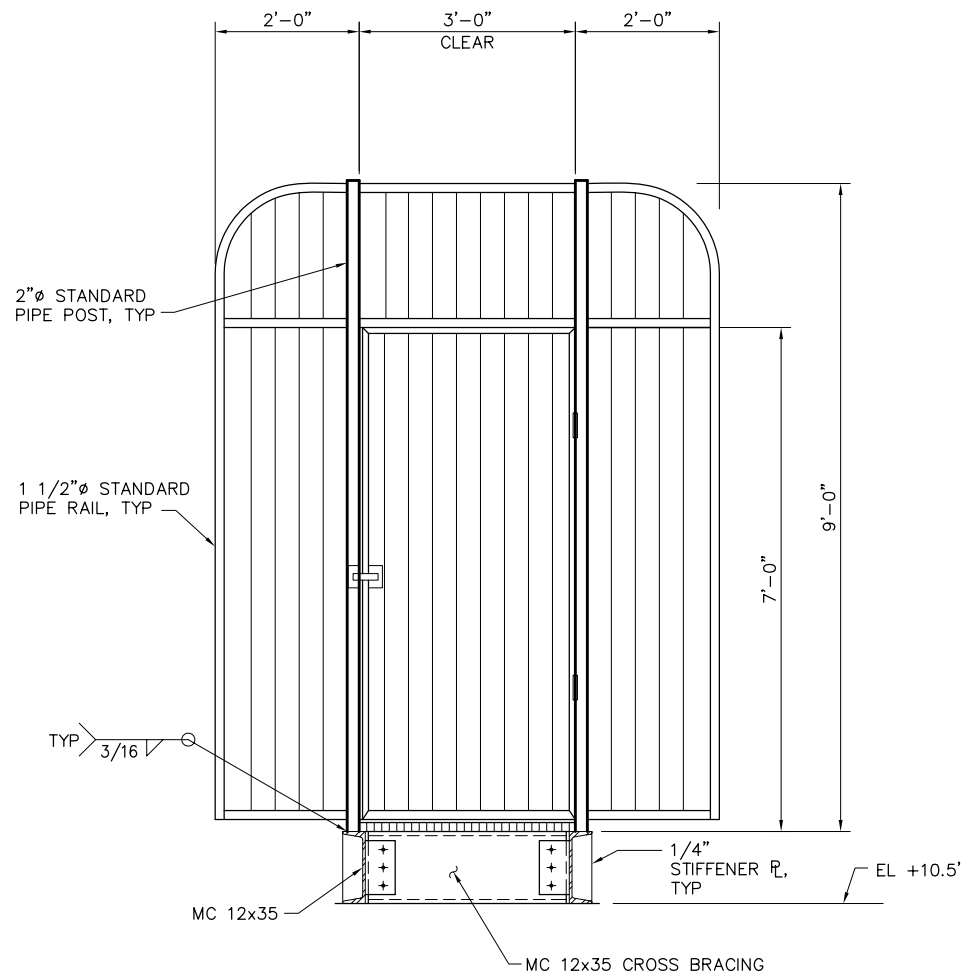
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TWO GATE FISH PROTECTION PLAN		DATE	08/07/09
CATWALK DETAILS SHEET 5		SHEET	66 OF 75
			C73

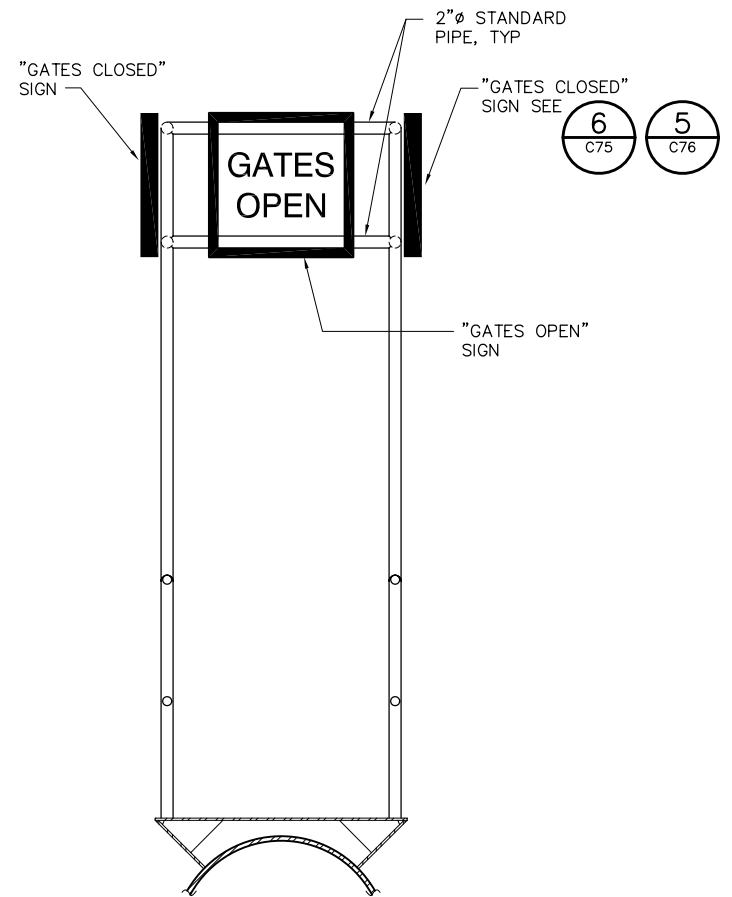
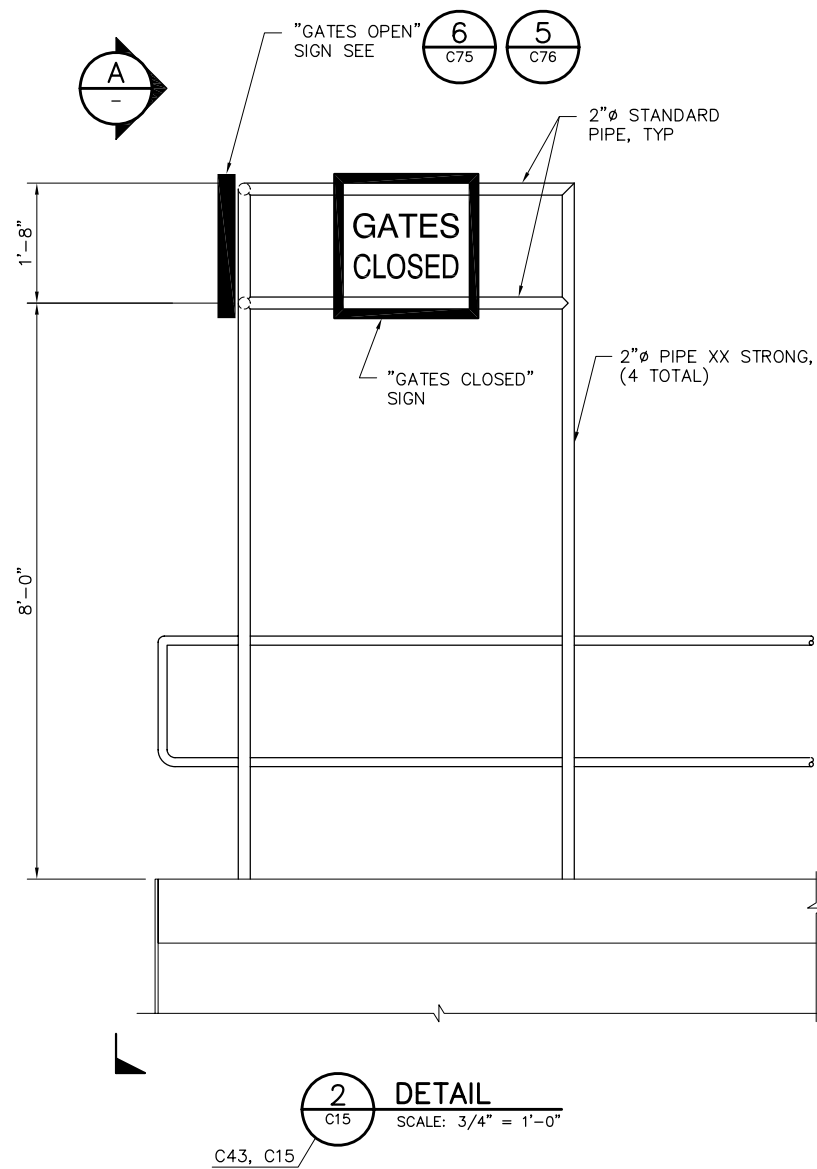
P:\6097-03 SWC GATE DESIGN\CADD\DWG\609703-C74.DWG 7/24/2009 10:51 AM



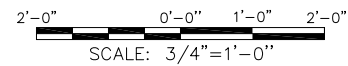
NOTE:
SECURITY GATE SHALL PROVIDE
A MINIMUM 36" CLEAR OPENING,
SHALL BE AUTOMATICALLY
CLOSING, AND SHALL INCLUDE
A LOCKABLE LATCH.

SECURITY GATE ELEVATION

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



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



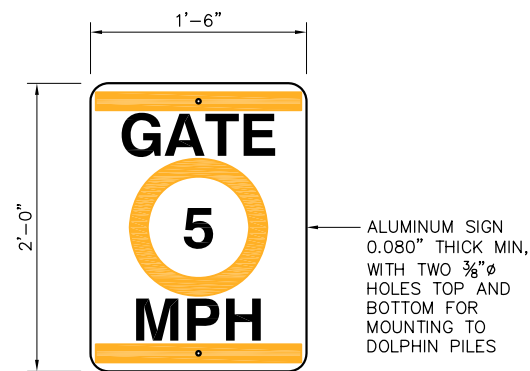
95% SUBMITTAL

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REVISION	DESCRIPTION	BY	DATE

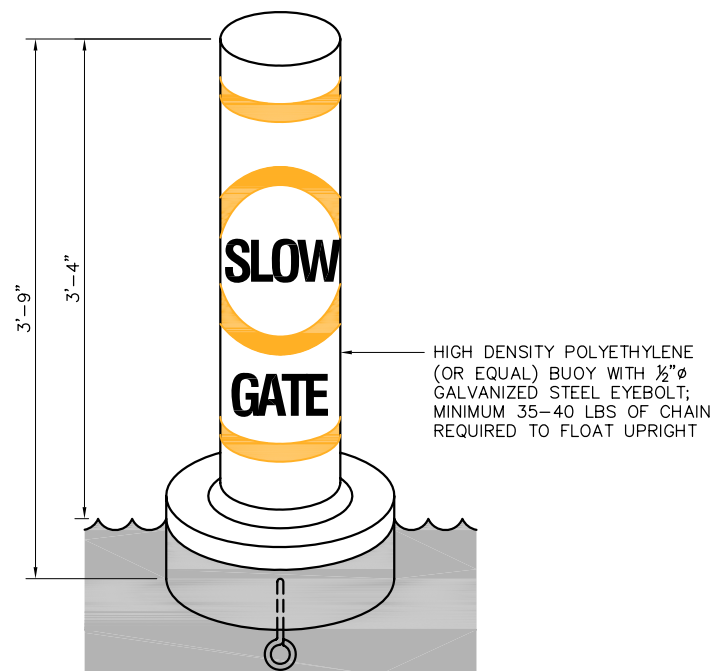
 Moffatt & Nichol		2001 N. Main Street, Suite 360 Walnut Creek, California 94596 (925) 944-5411	
DSGN	JMB	DR	AB
JOB NO.	6097-03	SUBMITTED BY	RMR
CHK	TDB	TITLE	

TWO GATE FISH PROTECTION PLAN	DATE 08/07/09
CATWALK DETAILS SHEET 6	SHEET 67 OF 75
	C74



SIGNBOARD ON PILE, ORANGE
ON WHITE WITH BLACK LETTERS

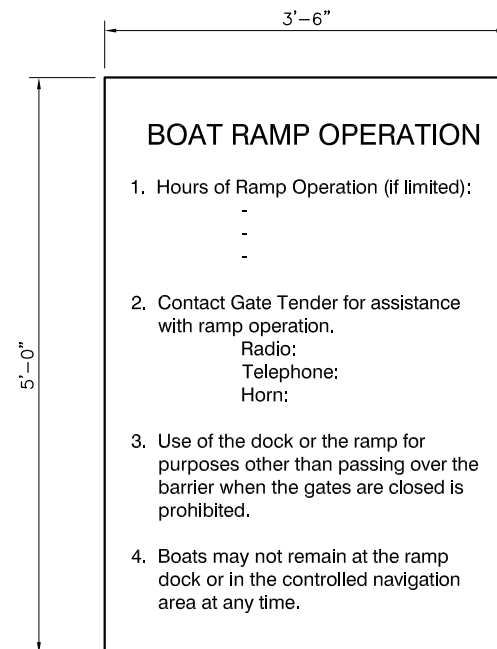
1 GATE 5 MPH SIGN
C19 SCALE: 1/8" = 1'-0"
C47



ORANGE ON WHITE WITH BLACK
LETTERS

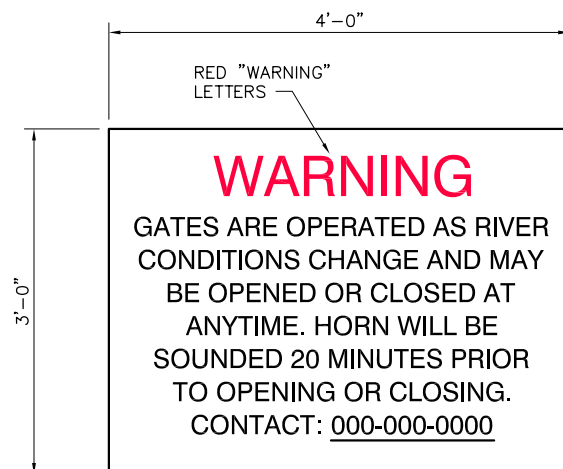
NOTE:
45' OF 1/2" OPEN LINK CHAIN
WITH 25 LB DANFORTH
STANDARD ANCHOR.

2 SLOW GATE SIGN
C19 SCALE: 1/8" = 1'-0"
C47



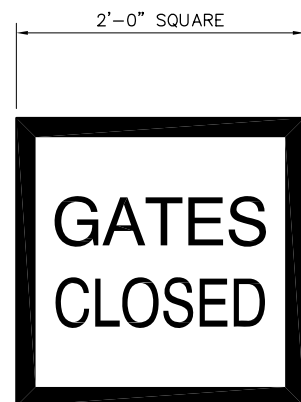
BLACK LETTERS ON WHITE
PAINTED ALUMINUM BOARD

3 BOAT RAMP DOCK SIGN
C19 SCALE: NONE
C47

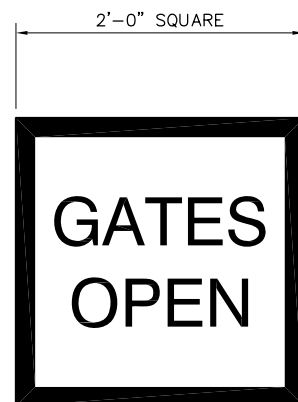


BLACK LETTERS ON WHITE PAINTED
ALUMINUM BOARD
CONTACT NUMBER TO BE PROVIDED BY OWNER

5 GATE WARNING SIGN
C19 SCALE: NONE
C47

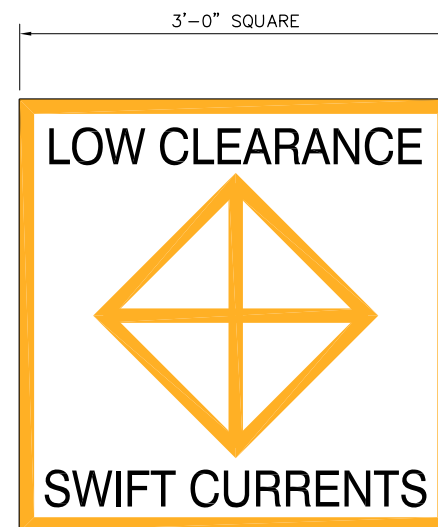


BLACK LETTERS AND BORDER ON
WHITE PAINTED ALUMINUM BOARD



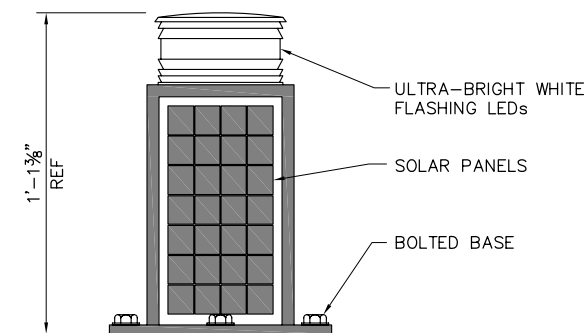
BLACK LETTERS AND BORDER ON
WHITE PAINTED ALUMINUM BOARD

6 GATE POSITION SIGNS
C19 SCALE: 1/8" = 1'-0"
C47, C74



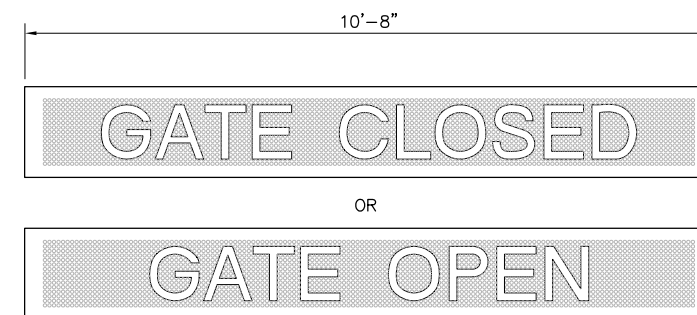
ORANGE SYMBOL AND BORDER,
BLACK LETTERS ON WHITE
PAINTED ALUMINUM BOARD

7 DANGER SIGN
C19 SCALE: 1/8" = 1'-0"
C47



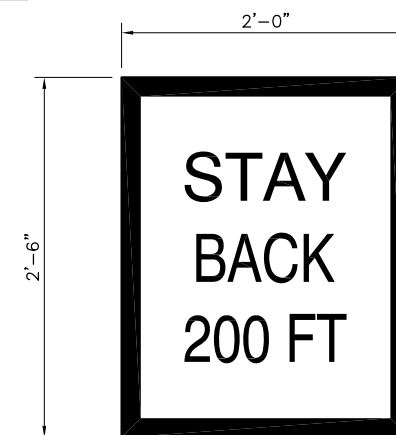
NAVIGATION LIGHT;
ATOP GATE PLATFORM AND ALONG SHEET PILE WHERE NOTED.
CARMANAH MODEL M702-5GPS OR EQUAL - SEE SPECIFICATIONS.

4 NAVIGATION LIGHT
C19 SCALE: NONE
C47, C76



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
C47



NOTE:
SEE DRAWING C76 FOR SIGN
MOUNTING DETAILS.

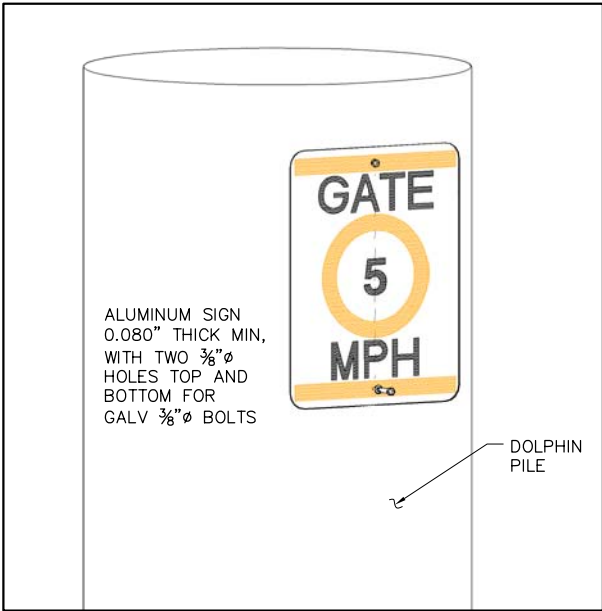
BLACK LETTERS AND BORDER ON WHITE PAINTED
ALUMINUM BOARD

9 STAY BACK WARNING SIGN
C19 SCALE: 1/8" = 1'-0"
C47

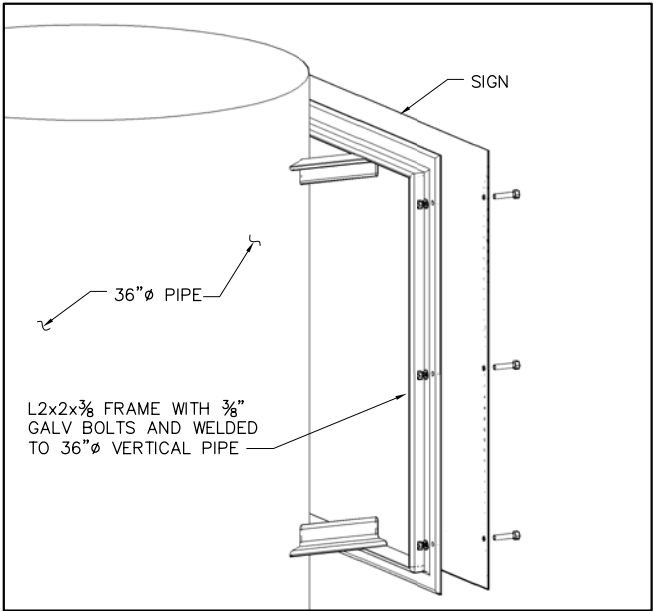
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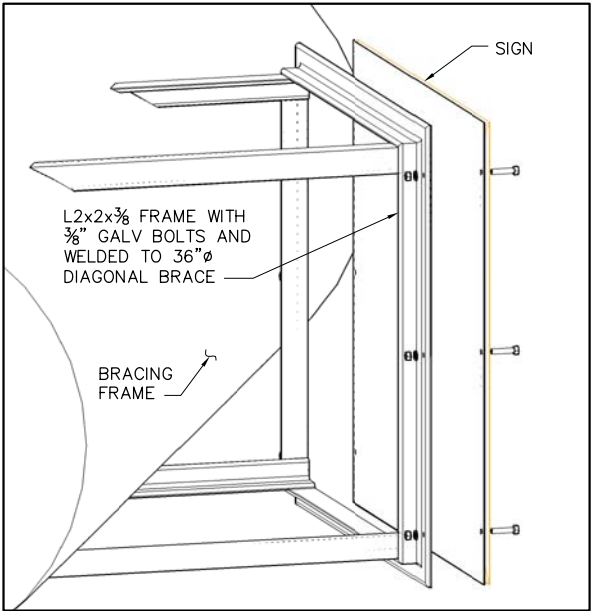
REVISION	DESCRIPTION	BY	DATE			 2001 N. Main Street, Suite 360 Walnut Creek, California 94596 (925) 944-5411	TWO GATE FISH PROTECTION PLAN		DATE 08/07/09		
								SHEET 68 OF 75			
				DSGN	RBD	DR	TAE/AB	CHK	TDB	AIDS TO NAVIGATION DETAILS, SHEET 1	C75
				JOB NO.	6097-03	SUBMITTED BY		RMR	TITLE		



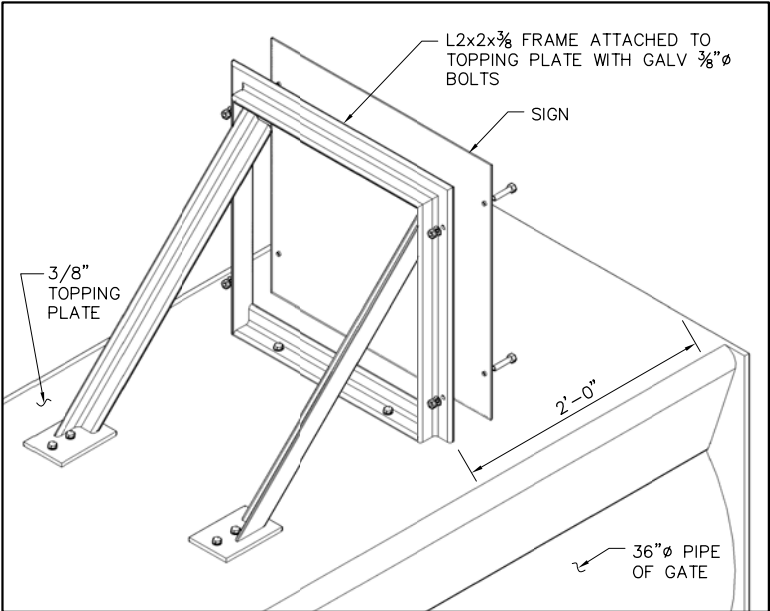
1 SIGN MOUNTING DETAIL
C19 SCALE: NONE
C47



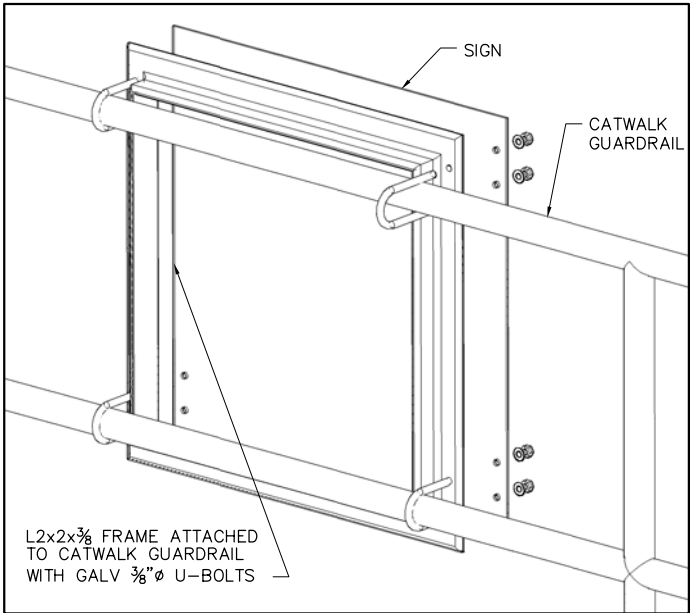
2 SIGN MOUNTING DETAIL
C19 SCALE: NONE
C47



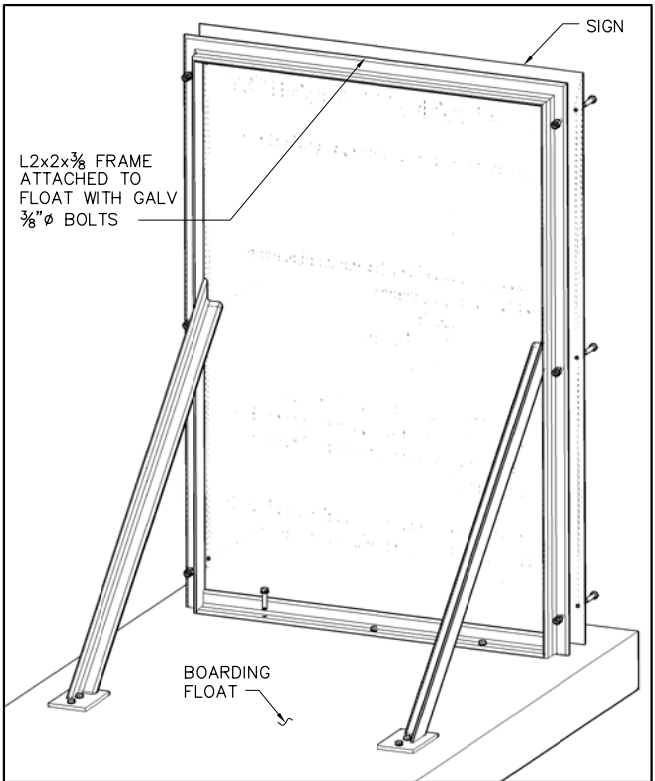
3 SIGN MOUNTING DETAIL
C19 SCALE: NONE
C47



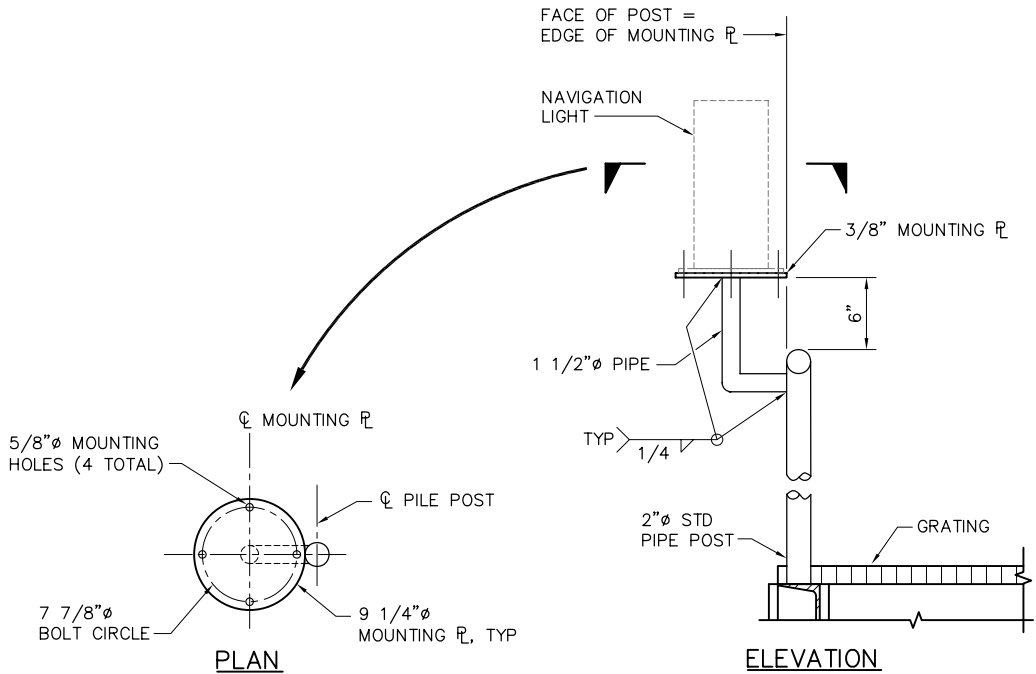
4 SIGN MOUNTING DETAIL
C19 SCALE: NONE
C47



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\"/>

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IF SHEET IS LESS THAN 22\"/>

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Walnut Creek, California 94596
(925) 944-5411

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JOB NO.	6097-03	SUBMITTED BY	RMR	TITLE	

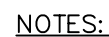
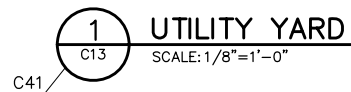
TWO GATE FISH PROTECTION PLAN

DATE 08/07/09

SHEET 69 OF 75

AIDS TO NAVIGATION DETAILS
SHEET 2

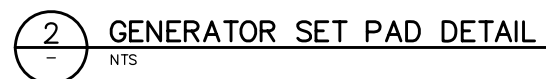
C76



- SERVICE PANEL AND
TRANSFER SWITCH ELEVATION**



- ① PUMPCO GALV. STEEL LIGHT POLE
- ② VERIFY BOLT CIRCLE & SPACING DIMENSIONS WITH MFG.
- ③ FOR FOUNDATION SEE DWG C82.
- ④ OVERHEAD LINE SHALL COMPLY TO STATE OF CALIFORNIA
GENERAL ORDER NO. 95. BASIC MINIMUM ALLOWABLE VERTICAL
CLEARANCE TO GROUND.



GENERAL NOTES:

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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DM	AB/EP	CBS
JOB NO.	SUBMITTED BY	TITLE
6097-03	RMR	

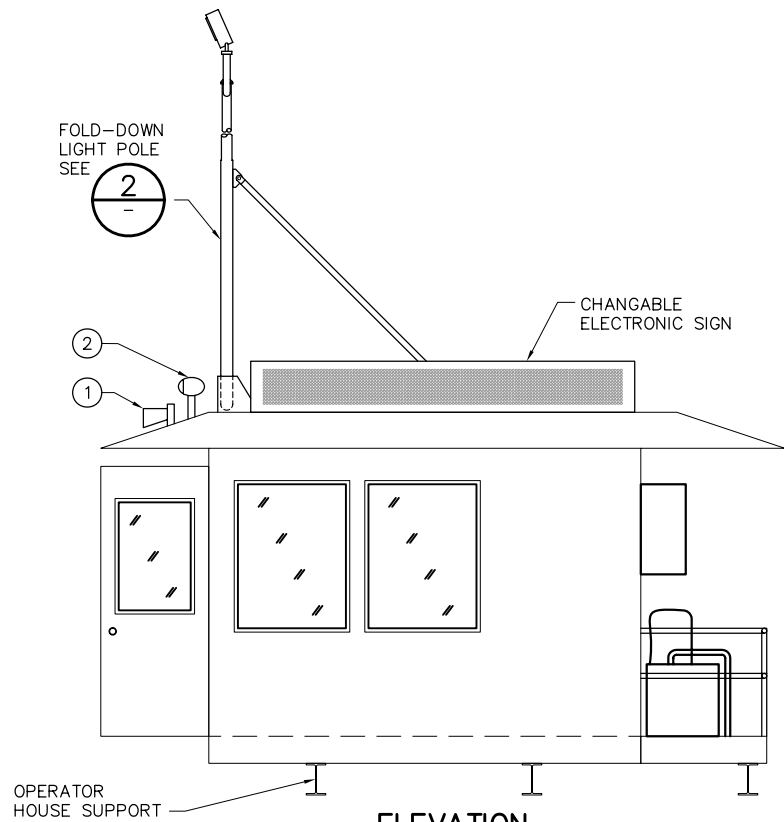
TWO GATE FISH PROTECTION PLAN

UTILITY YARD DETAILS

DATE 08/07/09

SHEET 70 OF 75

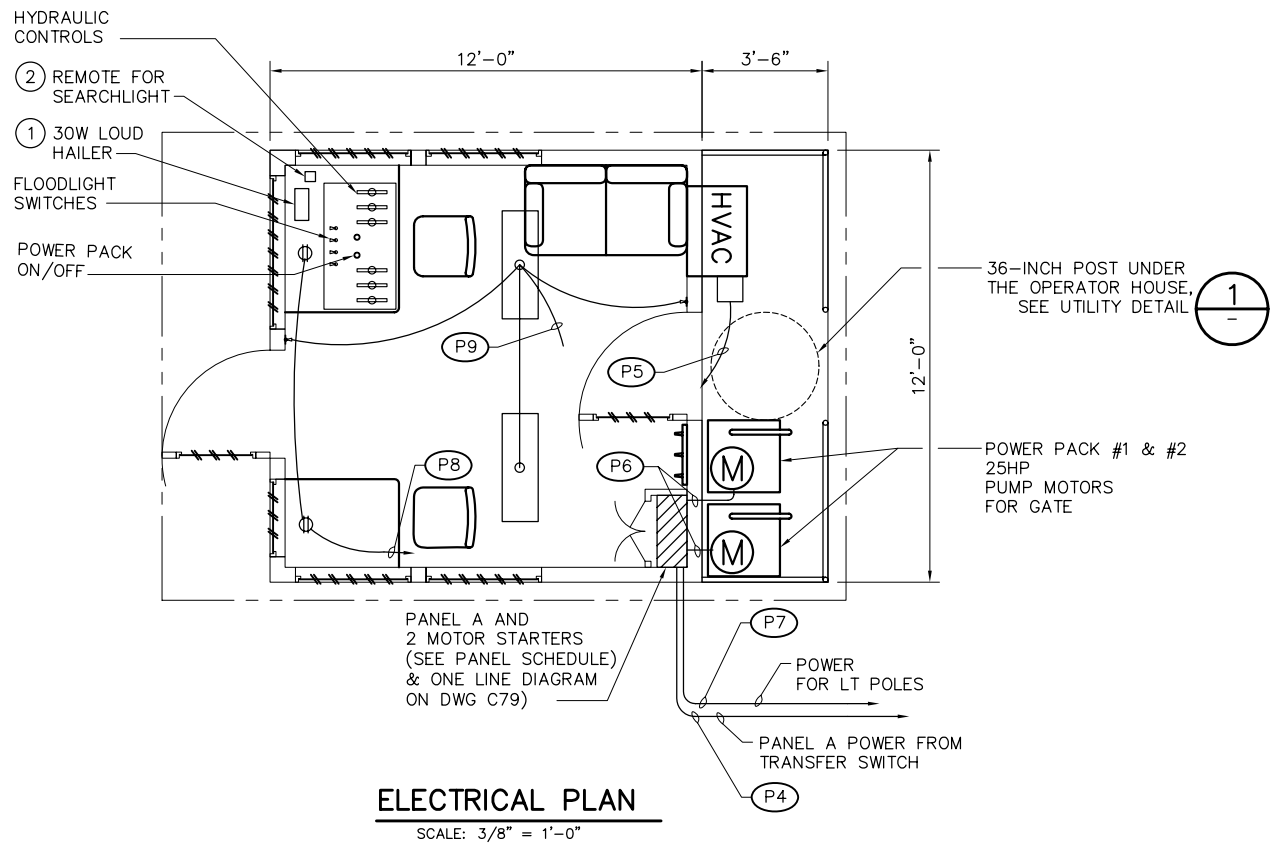
C77



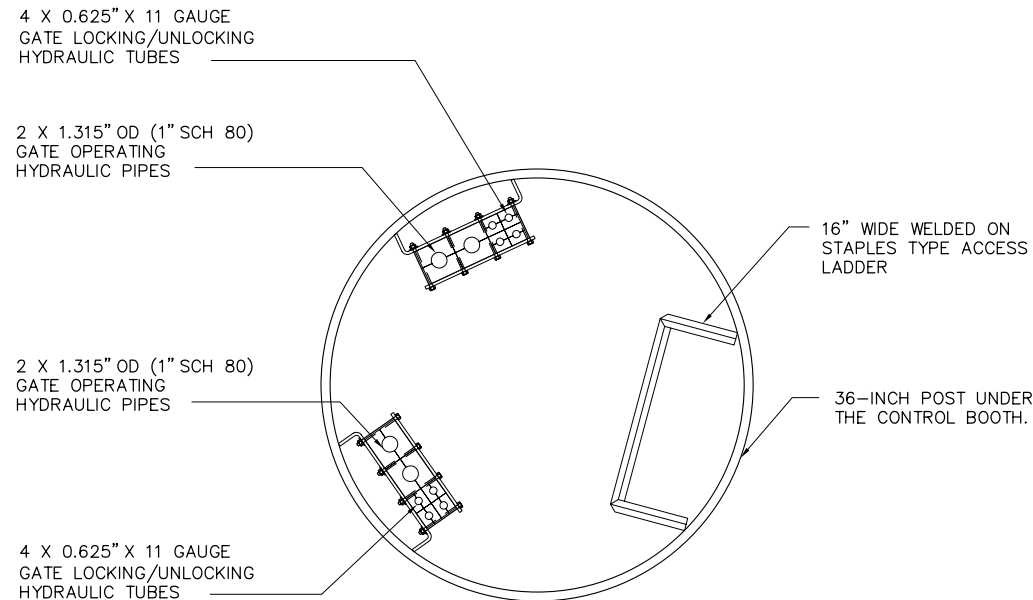
ELEVATION
SCALE: 3/8" = 1'-0"

NOTES:

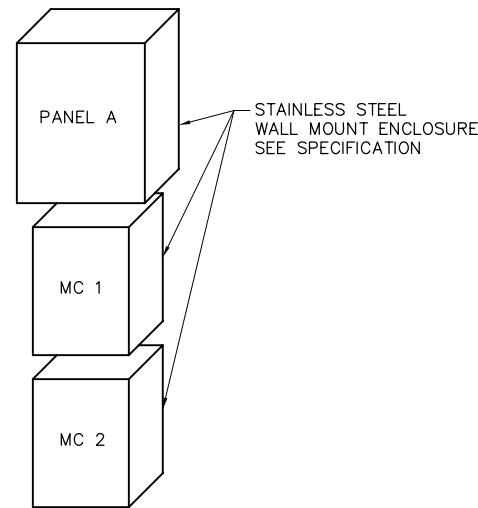
- 1 SECO HAILER HORN
40 HMS, 15 WITH
STANDARD HORIZON
30W LOUD HAILER
MFG #VLH-3000
- 2 REMOTE CONTROLLED SEARCHLIGHT.
ACR ELECTRONICS
MFG #RCL-75 SPOTLIGHT
AND 17' L CABLE HARNESS



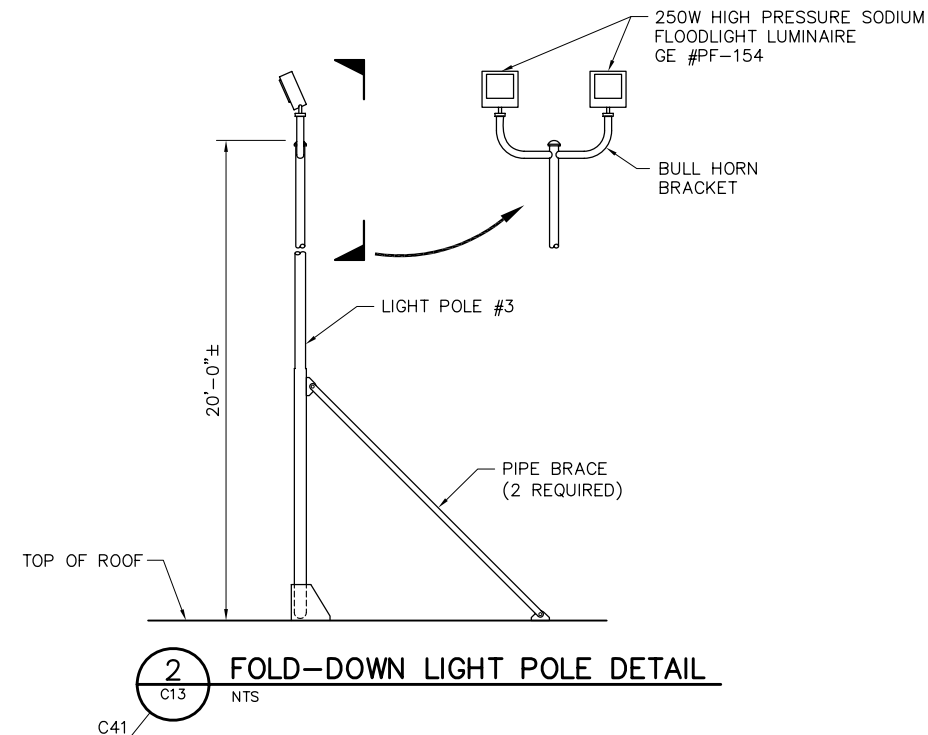
ELECTRICAL PLAN
SCALE: 3/8" = 1'-0"



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



ELECTRICAL CABINET ARRANGEMENT
NTS



FOLD-DOWN LIGHT POLE DETAIL

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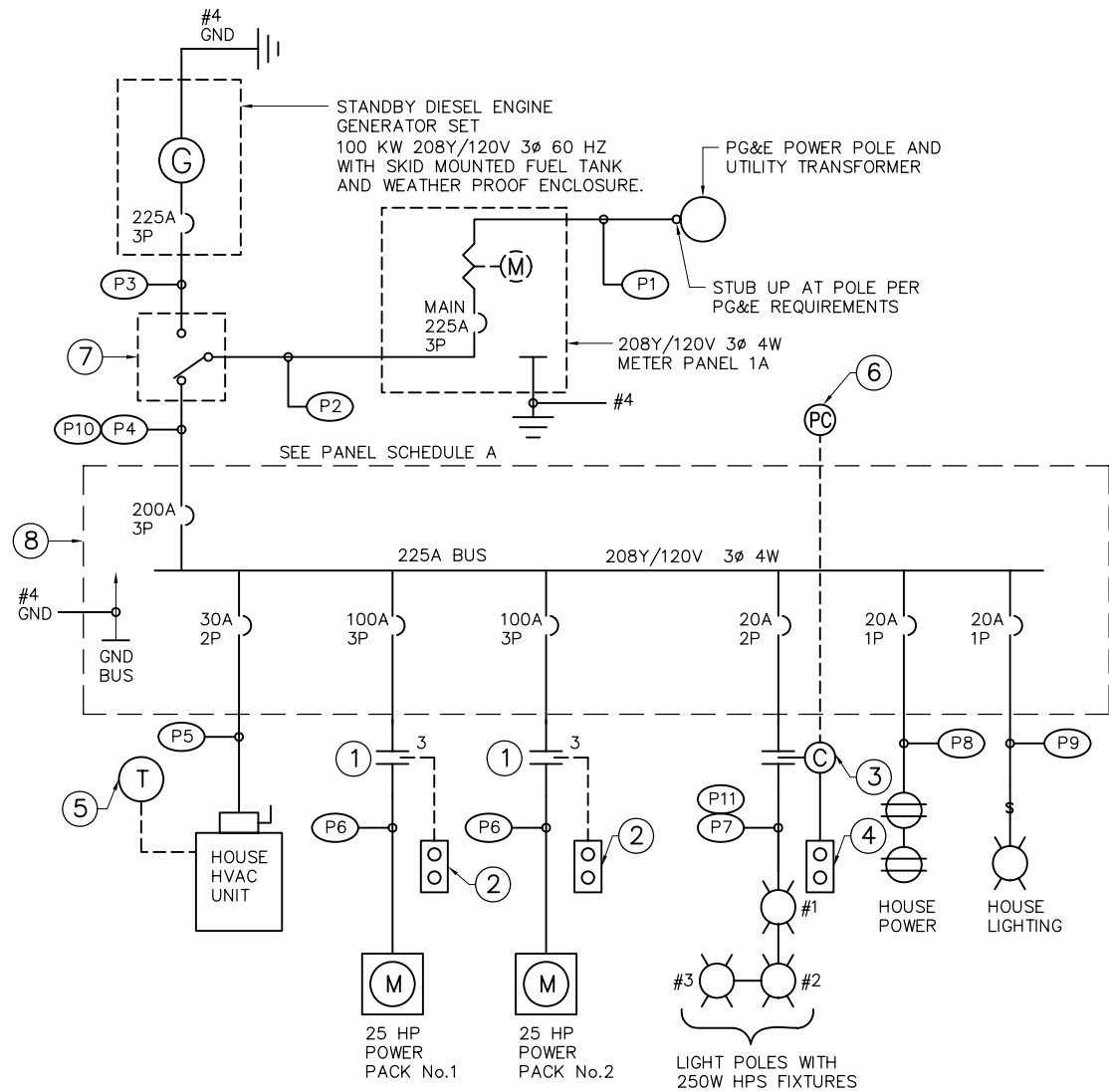
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JOB NO.	6097-03	SUBMITTED BY	RMR
CHK	TDB	TITLE	

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					BKR/ POLE	A B C			BKR/ POLE	VOLT-AMPS			OUTLETS			SEE NOTE	LOADS						
			LTG	REC	MISC	A	B	C	CKT							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																													
<u>NOTES:</u> 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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REVISION	DESCRIPTION	BY	DATE				TWO GATE FISH PROTECTION PLAN		DATE 08/07/09
									SHEET 72 OF 75
							ELECTRICAL SYSTEM DIAGRAM		C79

Moffatt & Nichol

DSGN

DM

DR

AB/EP

CHK

CBS

JOB NO.

6097-03

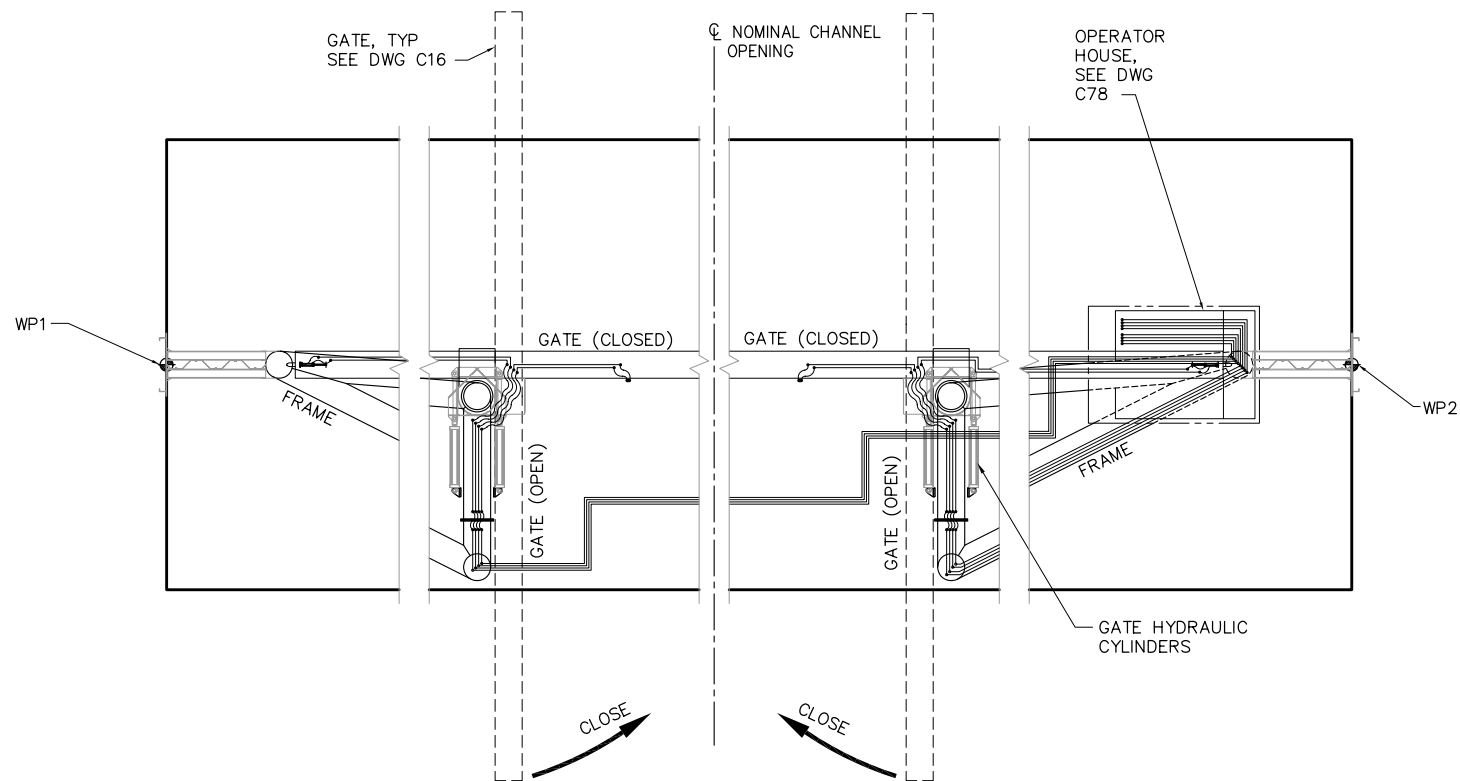
SUBMITTED BY

RMR

TITLE

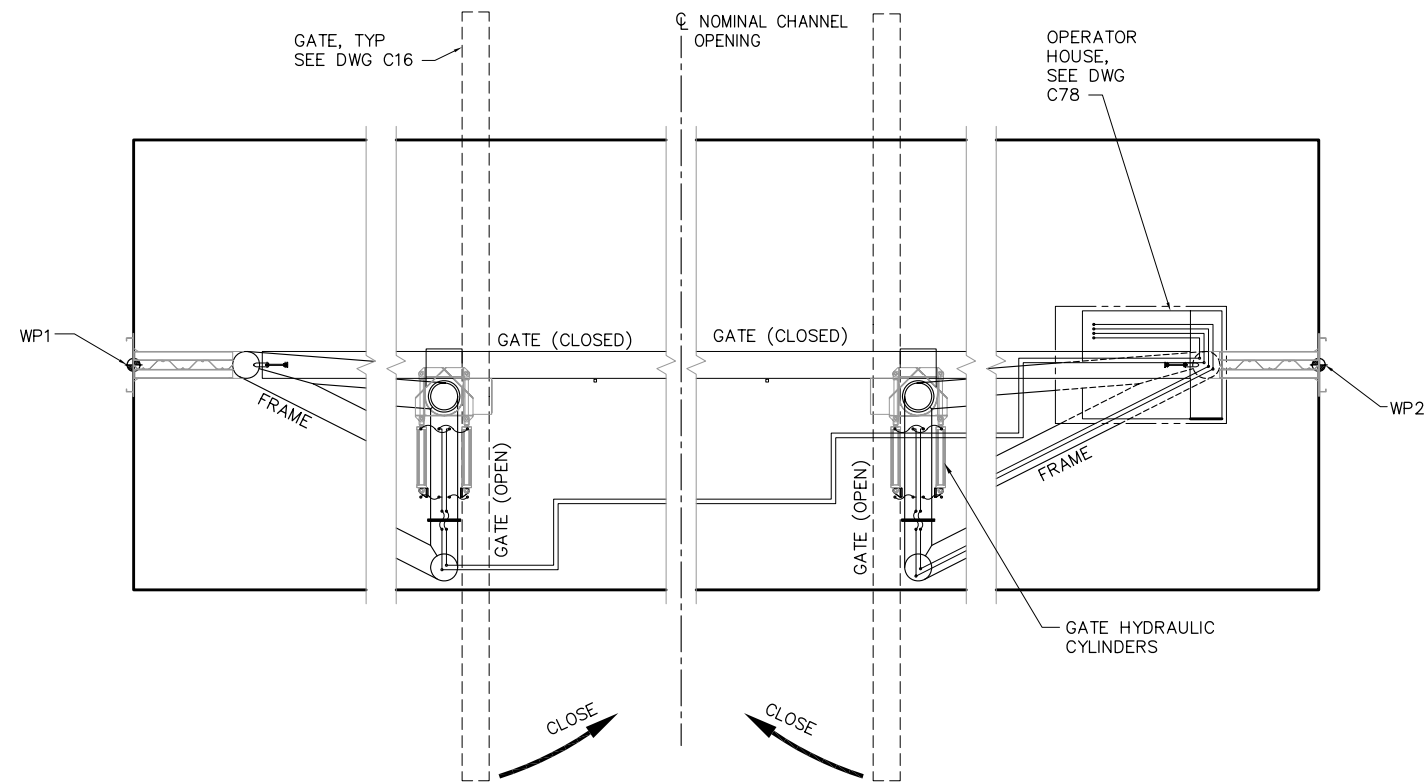
2001 N. Main Street, Suite 360
Walnut Creek, California 94596
(925) 944-5411

P:\6097-03 SWC GATE DESIGN\CADD\DWG\609703-C80.DWG 7/24/2009 10:53 AM



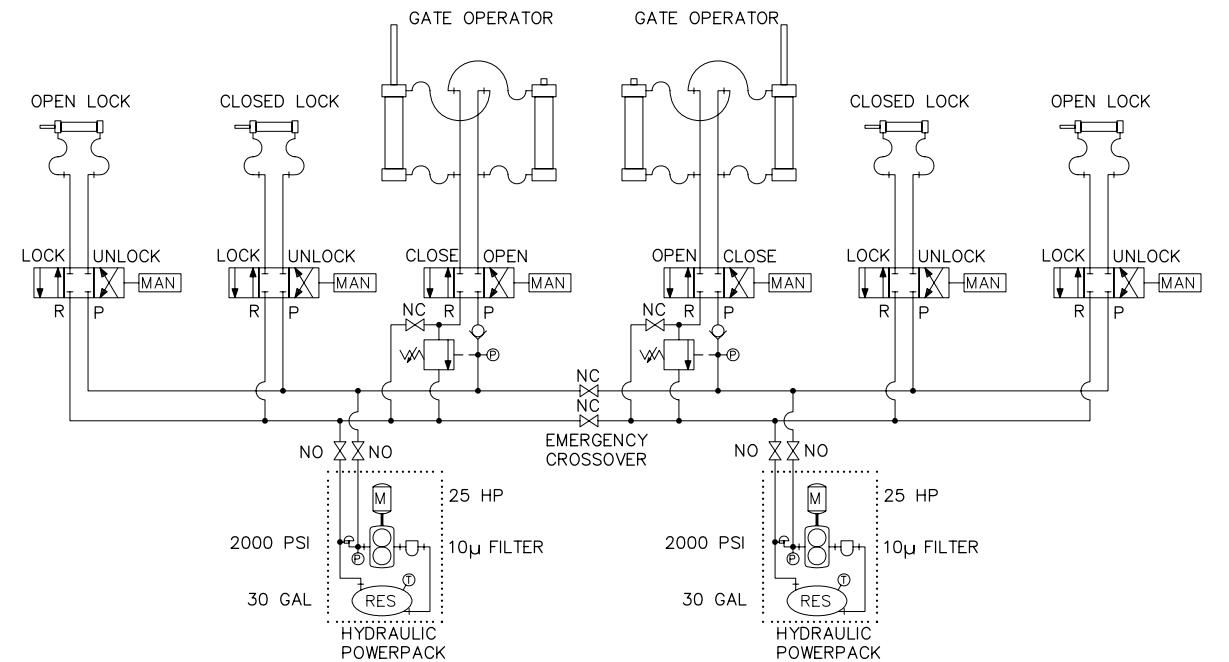
GATE LOCKING HYDRAULIC DIAGRAM

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



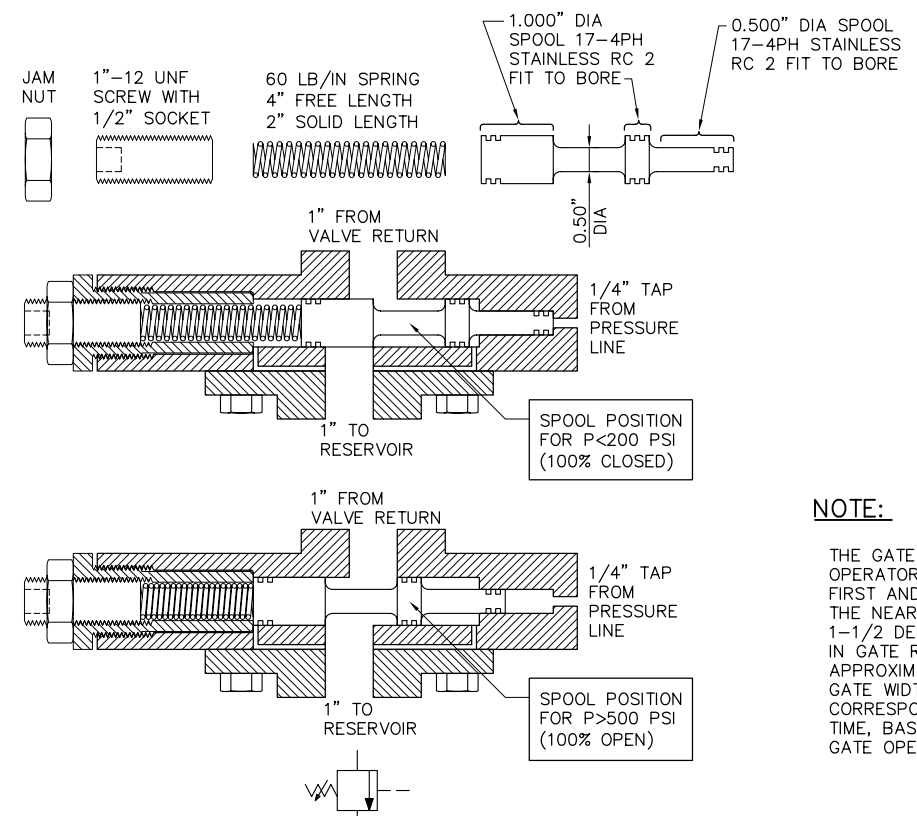
GATE OPERATOR HYDRAULIC DIAGRAM

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.)

95% SUBMITTAL

IF SHEET IS LESS THAN 22" x 34"
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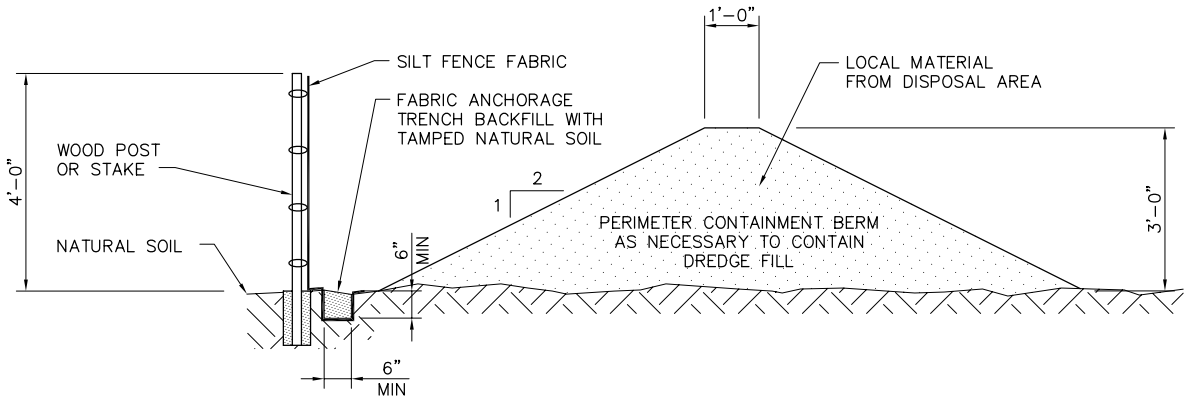
TWO GATE FISH PROTECTION PLAN		DATE	08/07/09
HYDRAULICS SYSTEM DIAGRAM		SHEET	73 OF 75

C80

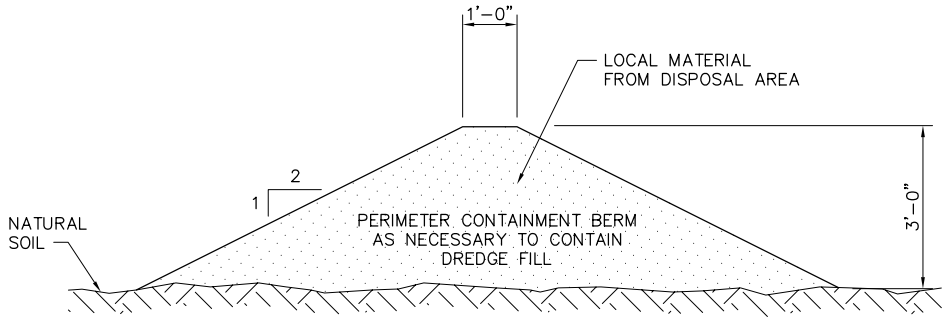
P:\6097-03 SWC GATE DESIGN\CADD\DWG\609703-C81.DWG 8/7/2009 10:54 AM



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.

95% SUBMITTAL IF SHEET IS LESS THAN 22" x 34"
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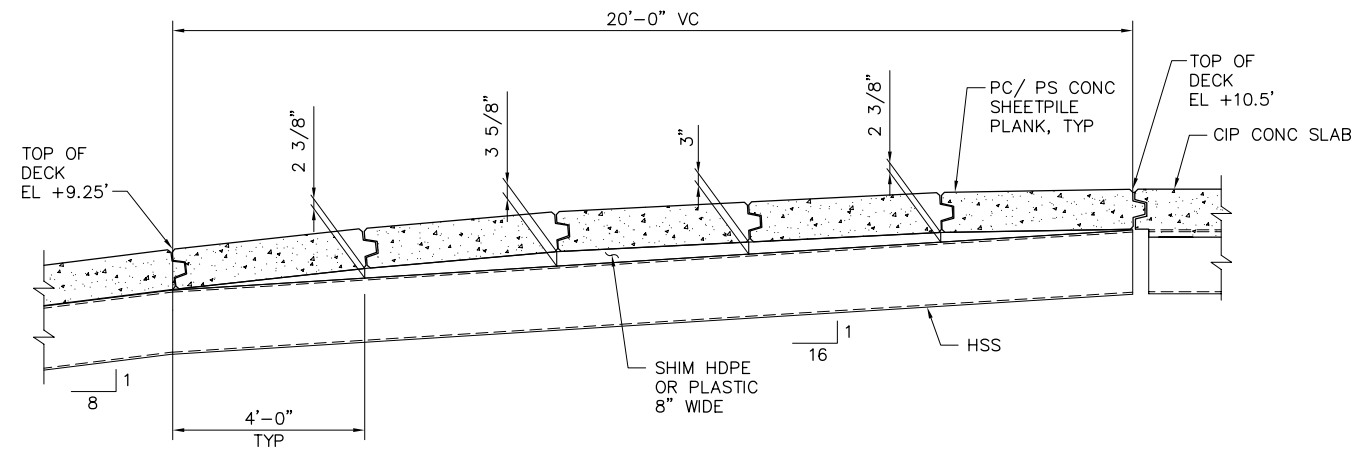
REVISION	DESCRIPTION	BY	DATE

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

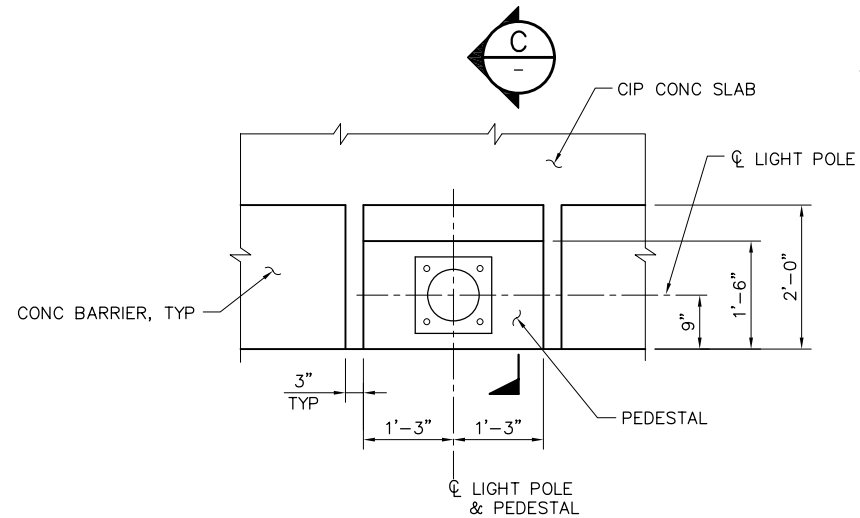
TWO GATE FISH PROTECTION PLAN
DREDGED MATERIAL DISPOSAL SITE

DATE 08/07/09
SHEET 74 OF 75
C81

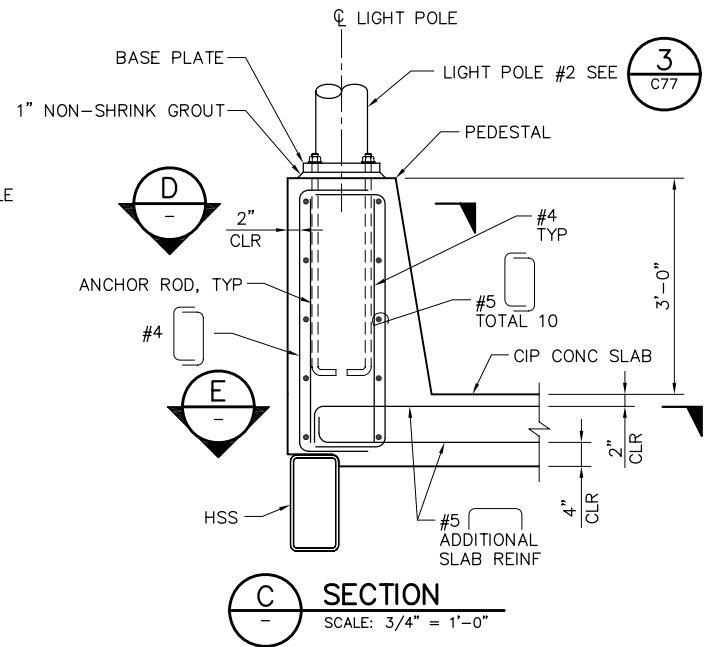
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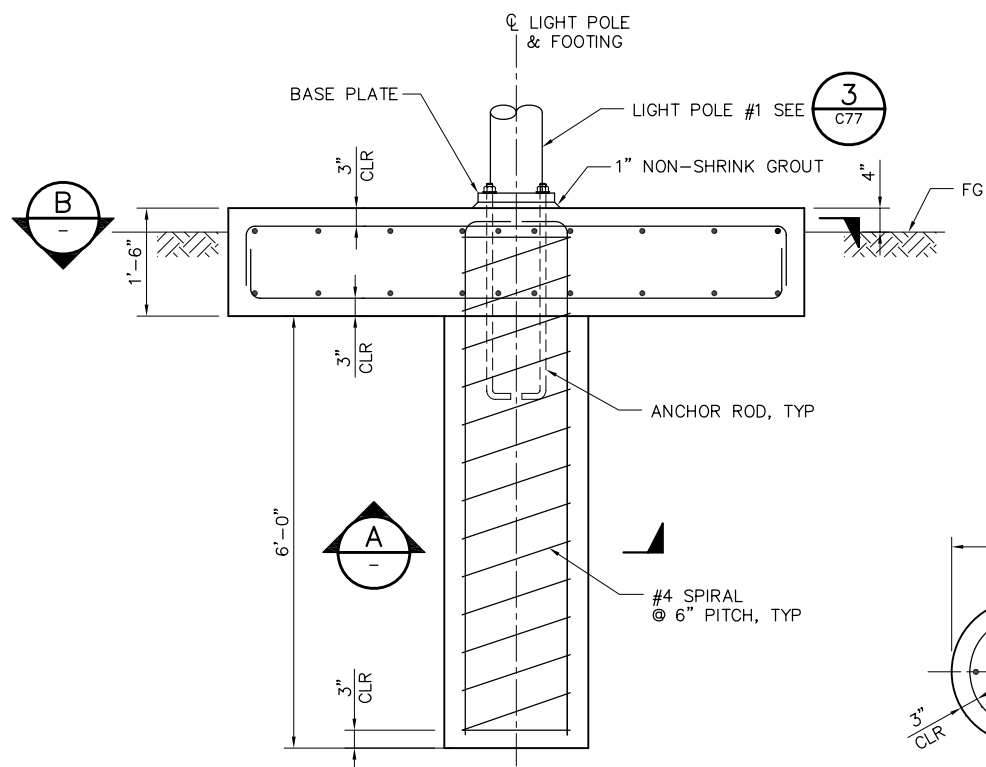
1 DETAIL
C7 SCALE: 1/2" = 1'-0"
C36



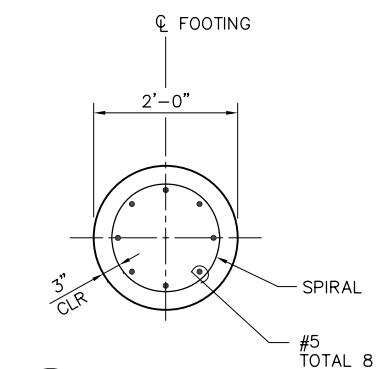
3 DETAIL
C39 SCALE: 3/4" = 1'-0"
C8



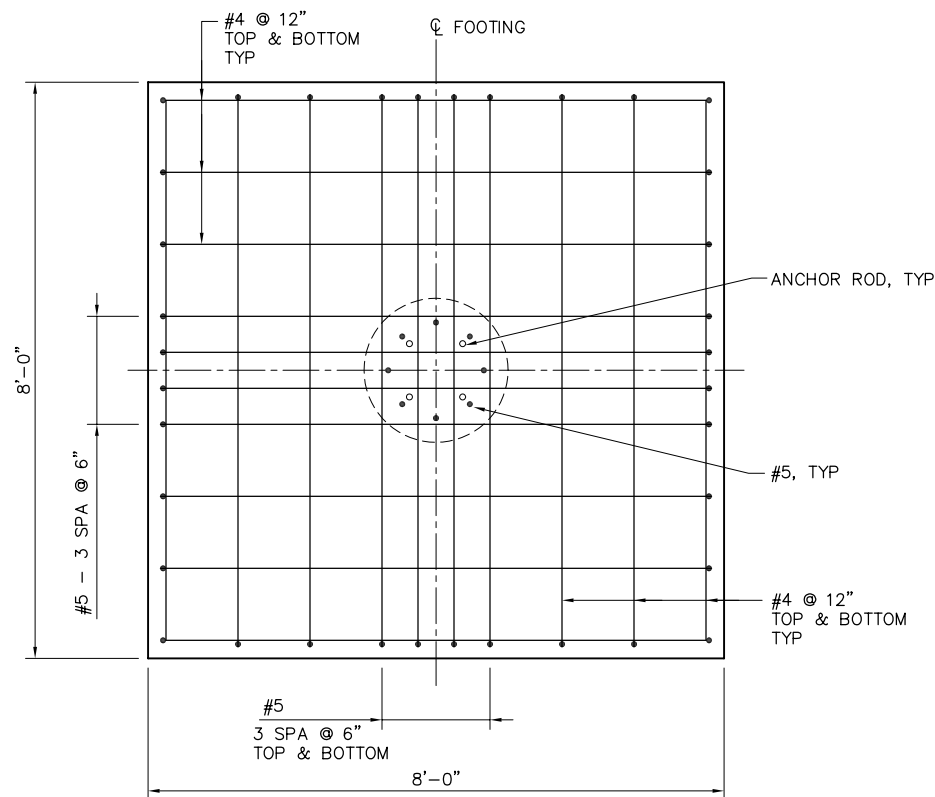
C SECTION
SCALE: 3/4" = 1'-0"



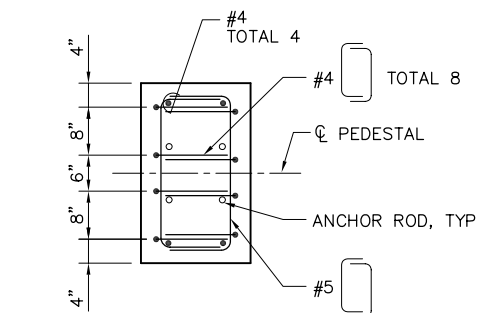
2 DETAIL
C77 SCALE: 3/4" = 1'-0"



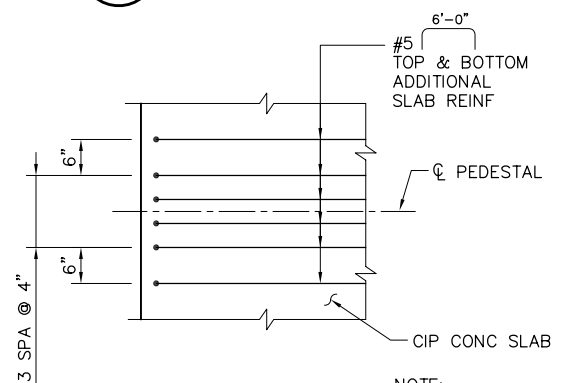
A SECTION
SCALE: 3/4" = 1'-0"



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

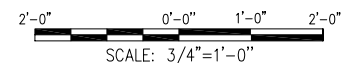


D SECTION
SCALE: 3/4" = 1'-0"



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

NOTE:
PEDESTAL REINFORCEMENT
NOT SHOWN FOR CLARITY.



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TWO GATE FISH PROTECTION PLAN		DATE	08/07/09
MISCELLANEOUS DETAILS		SHEET	75 OF 75

C82