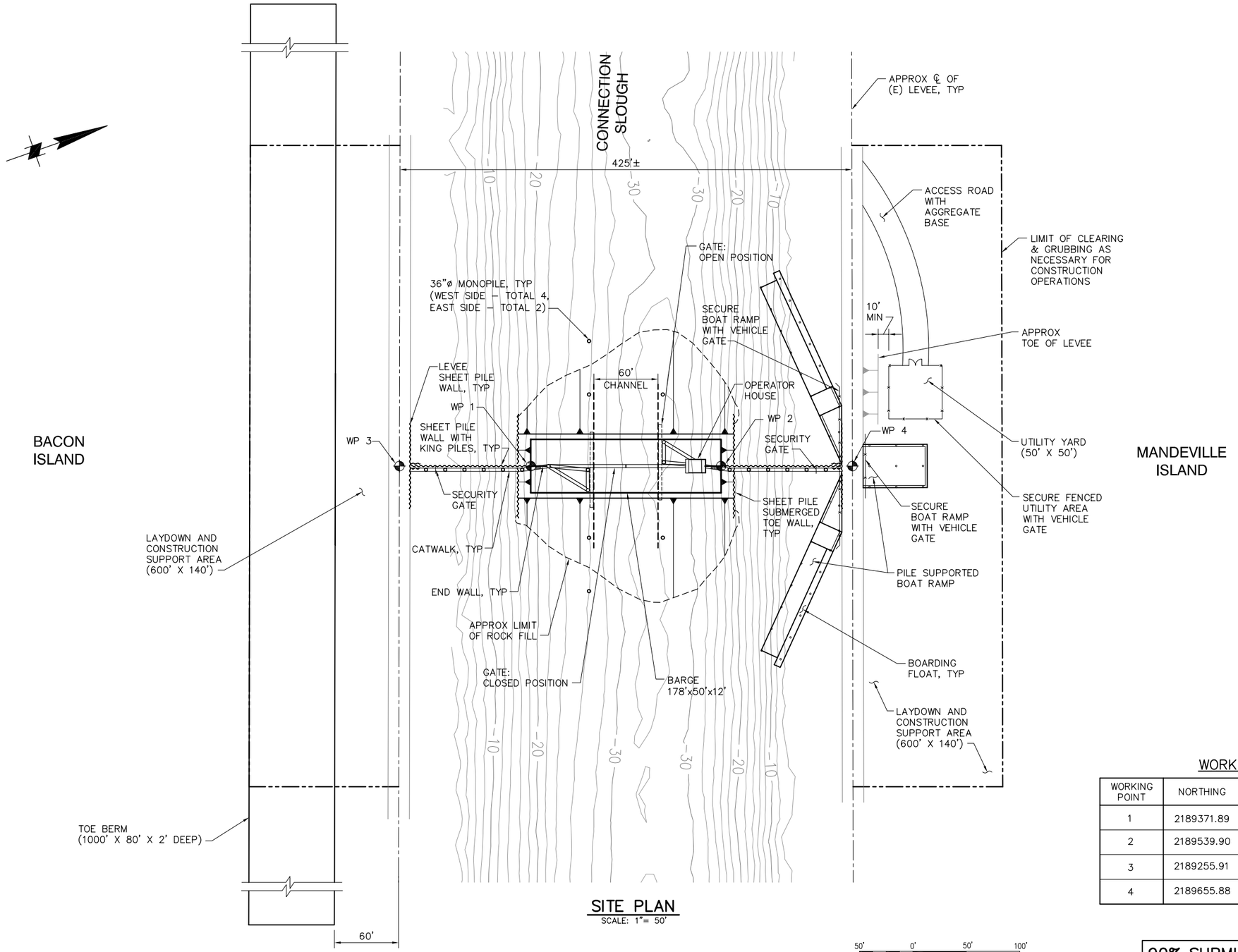


SITE PLAN
SCALE: 1"= 50'

50' 0' 50' 100'
SCALE: 1"=50'

WORK POINT DATA

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

90% 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	DR	CHK
TDB	EP	GTH
JOB NO. 6097-03	SUBMITTED BY RMR	TITLE

TWO GATE FISH PROTECTION PLAN

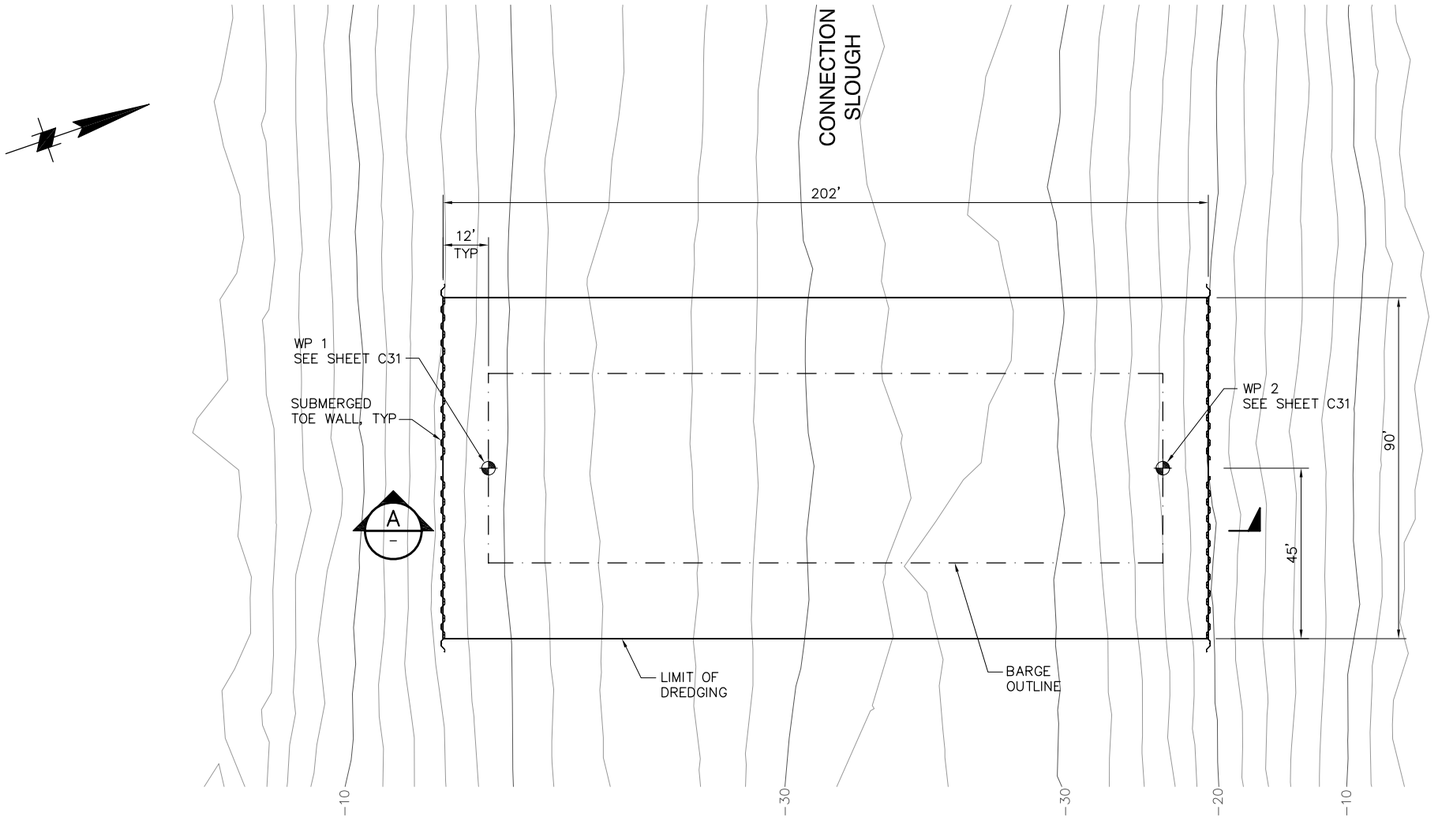
DATE 12/09/08

SHEET 25 OF 65

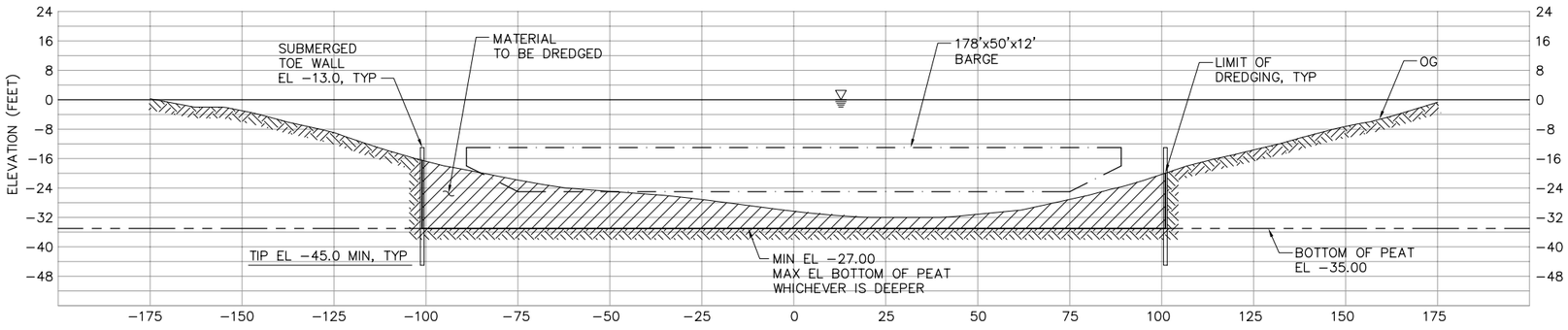
CONNECTION SLOUGH SITE PLAN

C31

P:\6097-03 SWC GATE DESIGN\CADD\DWG\609703-C31.DWG 12/8/2008 1:41 PM



PLAN
SCALE: 1"= 20'



A – SECTION
SCALE: 1"=20'

20' 0' 20' 40'
SCALE: 1"=20'

90% SUBMITTAL

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

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DSGN	DR	CHK
TDB	EP	GTH

JOB NO.	SUBMITTED BY	TITLE
6097-03	RMR	

TWO GATE FISH PROTECTION PLAN

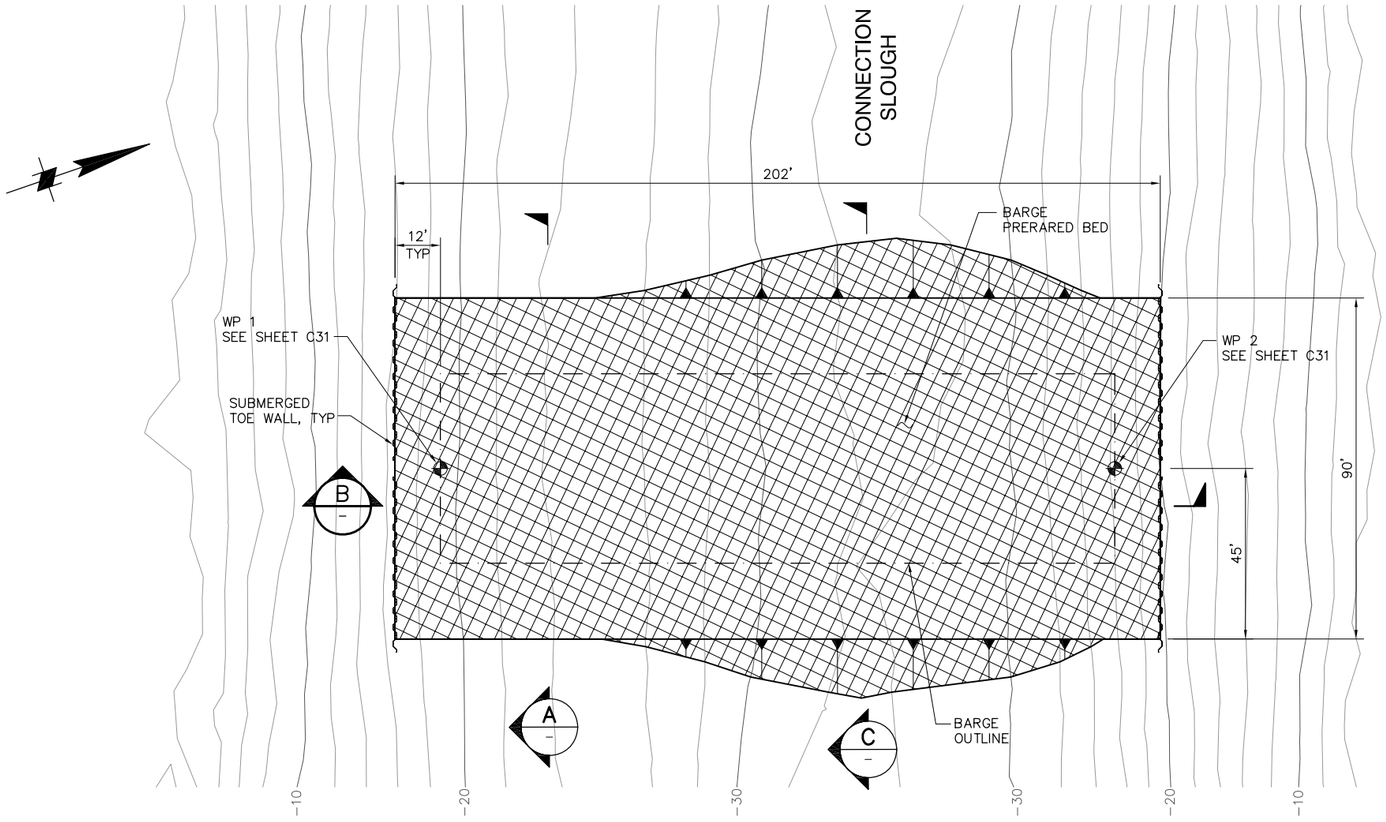
DATE 12/09/08

SHEET 26 OF 65

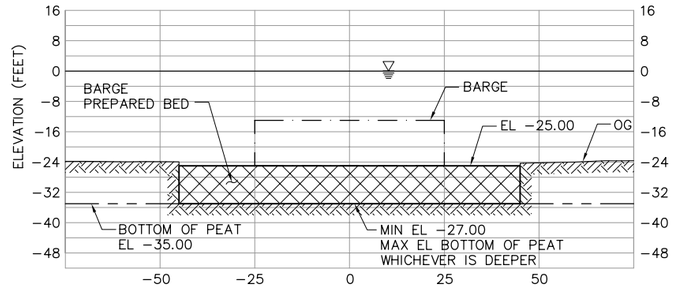
CONNECTION SLOUGH DREDGING PLAN AND SECTION

C32

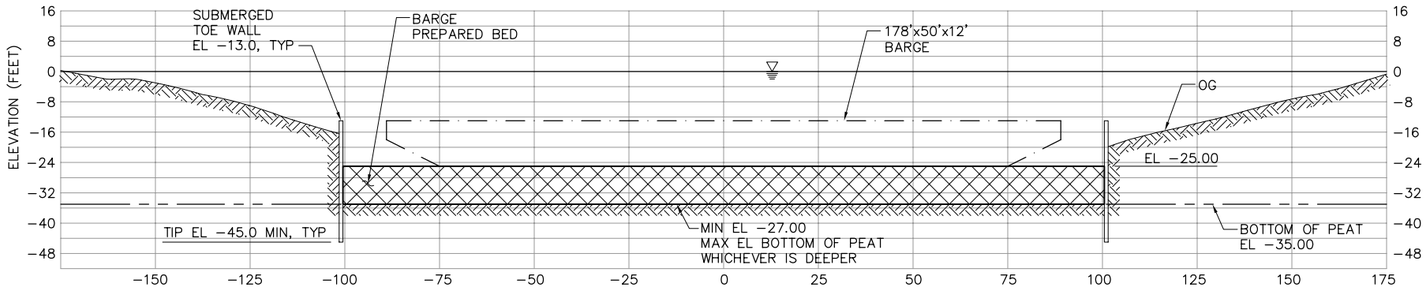
P:\6097-03 SWC GATE DESIGN\CADD\DWG\609703-C32.DWG 12/8/2008 1:41 PM



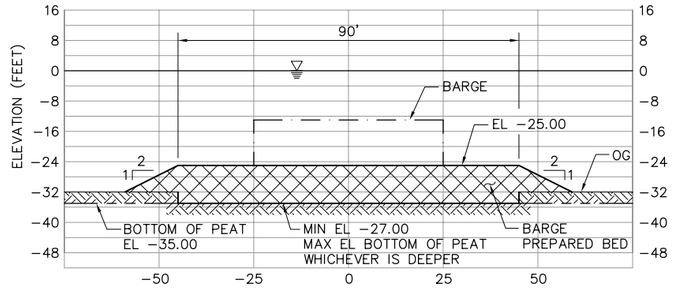
PLAN
SCALE: 1"= 20'



A SECTION
SCALE: 1"=20'



B SECTION
SCALE: 1"=20'



C SECTION
SCALE: 1"=20'

20' 0' 20' 40'
SCALE: 1"=20'

90% SUBMITTAL IF SHEET IS LESS THAN 22" x 34" IT IS A REDUCED PRINT – SCALE REDUCED ACCORDINGLY.

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

TWO GATE FISH PROTECTION PLAN

CONNECTION SLOUGH
BARGE PREPARED BED

DATE 12/09/08

SHEET 27 OF 65

C33

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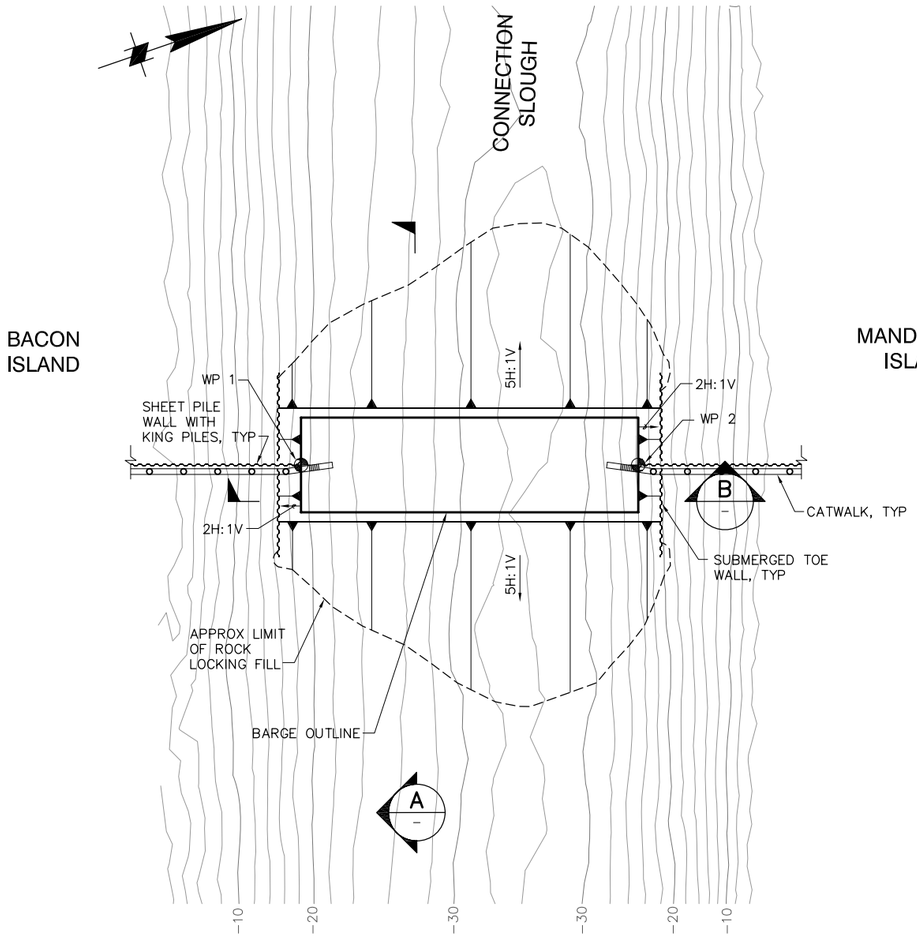
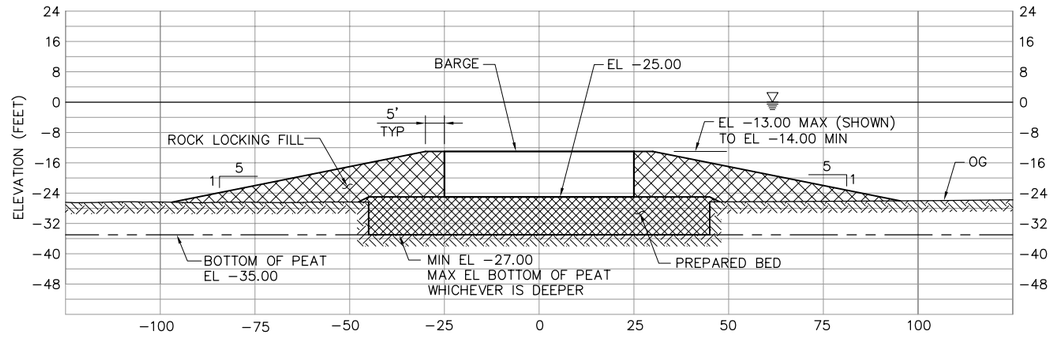
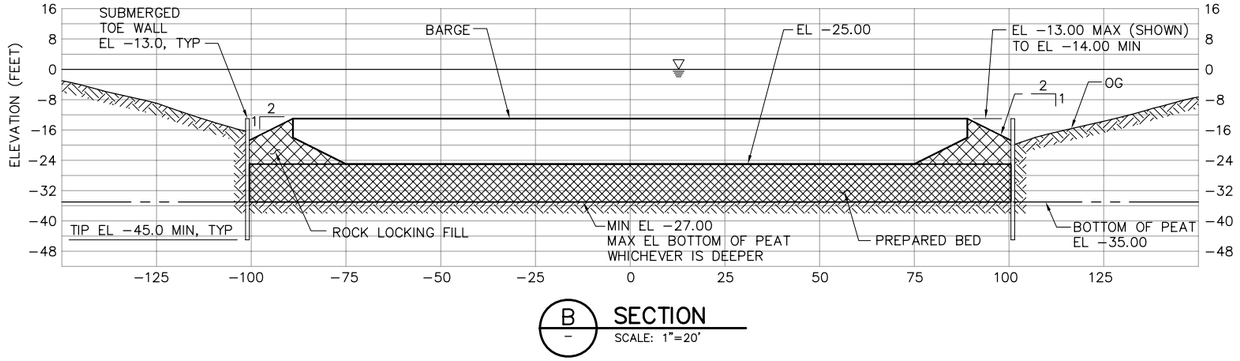


NOTE:
GATE NOT SHOWN FOR CLARITY.

PLAN
SCALE: 1"= 40'



A — SECTION
SCALE: 1"=20'



B — SECTION
SCALE: 1"=20'

NOTE:
KING PILES AND SHEET PILES NEAR BARGE SHALL BE PLACED BEFORE ROCK LOCKING FILL.

40' 0' 40' 80'
SCALE: 1"=40'

90% SUBMITTAL IF SHEET IS LESS THAN 22" x 34" IT IS A REDUCED PRINT – SCALE REDUCED ACCORDINGLY.

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JMB	EP	TDB

JOB NO.	SUBMITTED BY	TITLE
6097-03	RMR	

TWO GATE FISH PROTECTION PLAN

DATE 12/09/08

SHEET 28 OF 65

CONNECTION SLOUGH APPROACH RAMP PLAN AND SECTIONS

C34

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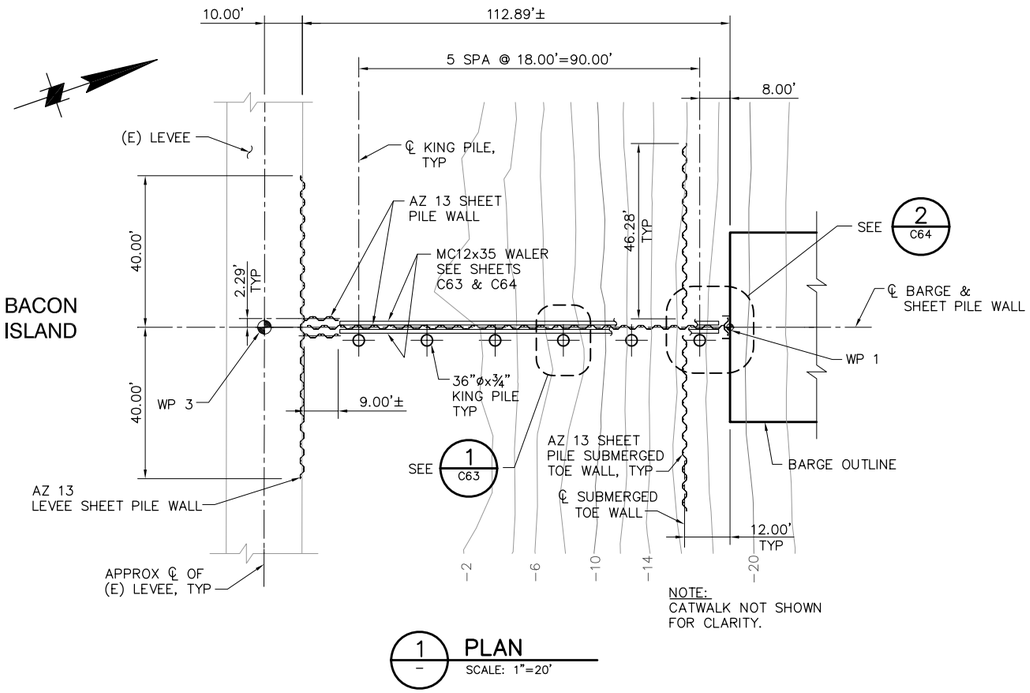
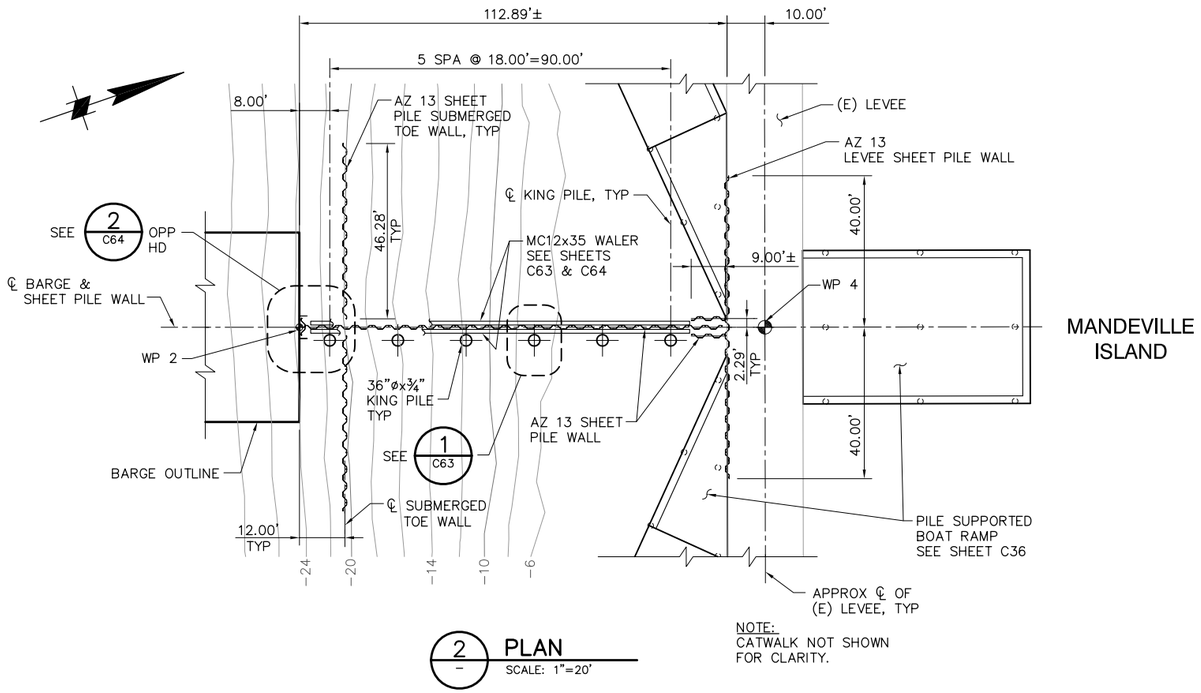
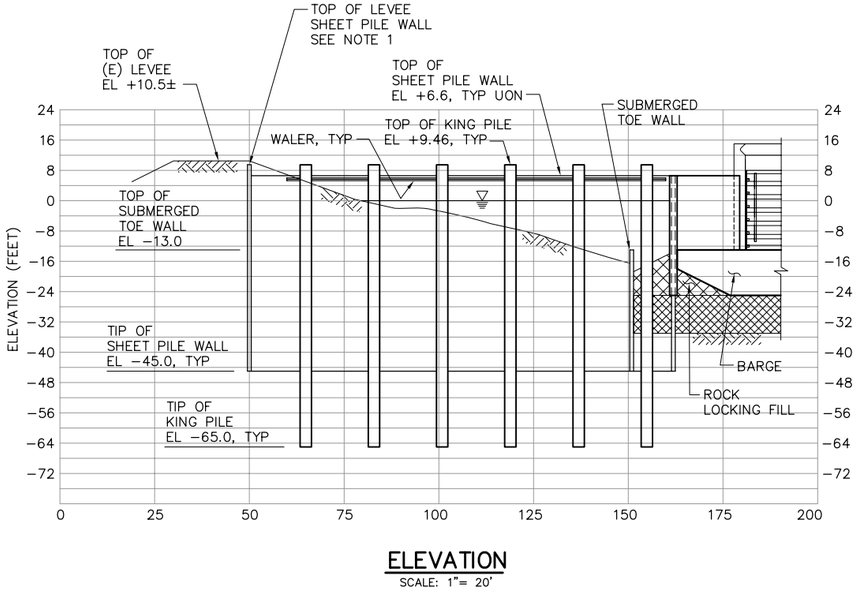


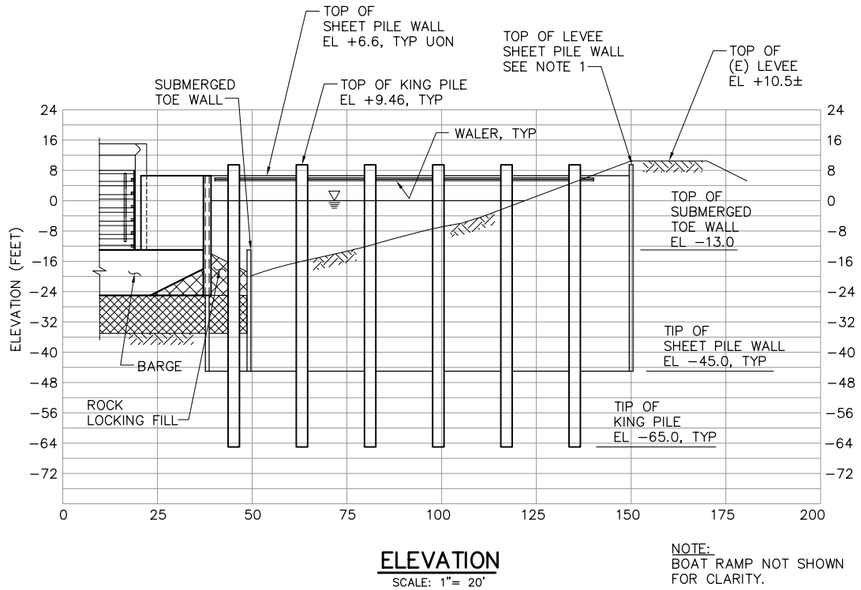
1 PLAN
SCALE: 1"=20'



2 PLAN
SCALE: 1"=20'



ELEVATION
SCALE: 1"= 20'



ELEVATION
SCALE: 1"= 20'

NOTE:
BOAT RAMP NOT SHOWN FOR CLARITY.

NOTES:

1. TOP OF LEVEE SHEET PILE WALL SHALL BE 6" BELOW TOP OF (E) LEVEE.

20' 0' 20' 40'
SCALE: 1"=20'

90% SUBMITTAL

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

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TWO GATE FISH PROTECTION PLAN

DATE 12/09/08

SHEET 29 OF 65

CONNECTION SLOUGH
SHEET PILE WALL ARRANGEMENT
PLAN AND ELEVATION

C35

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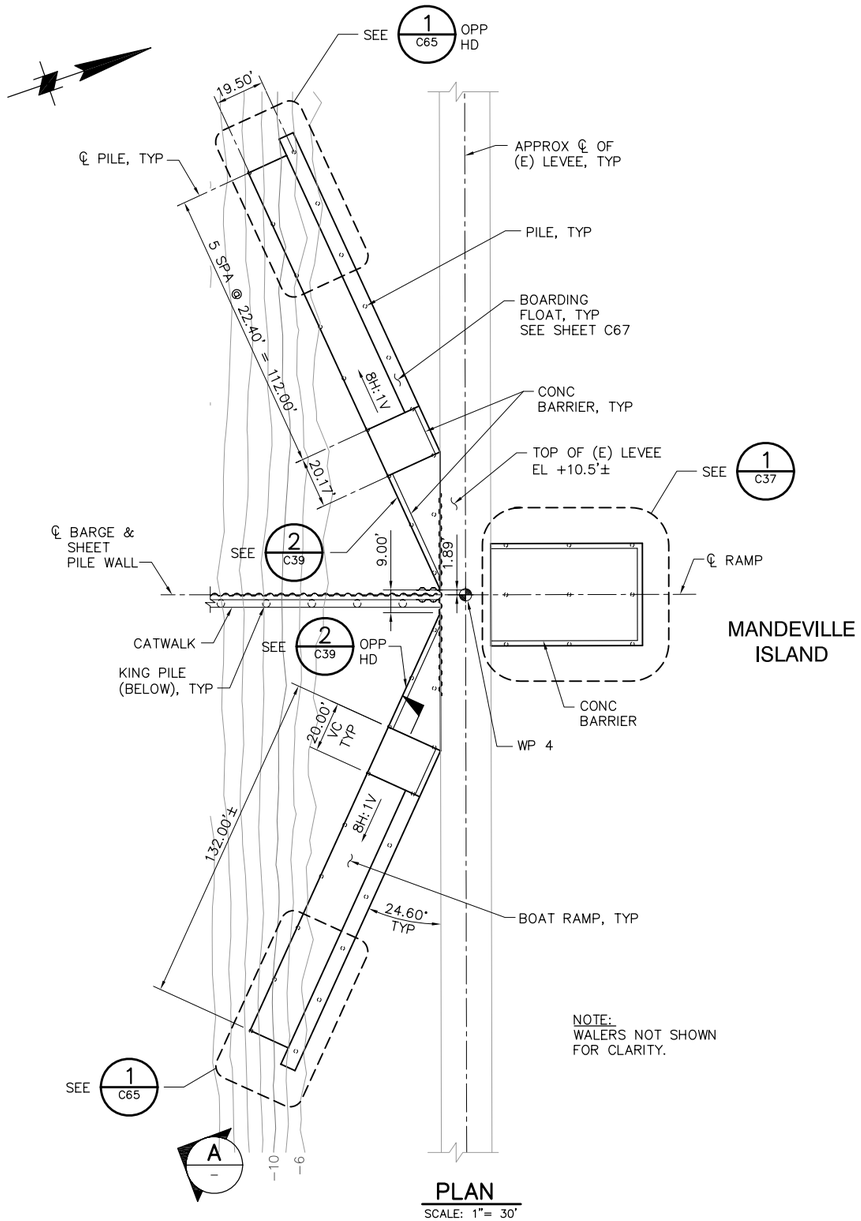
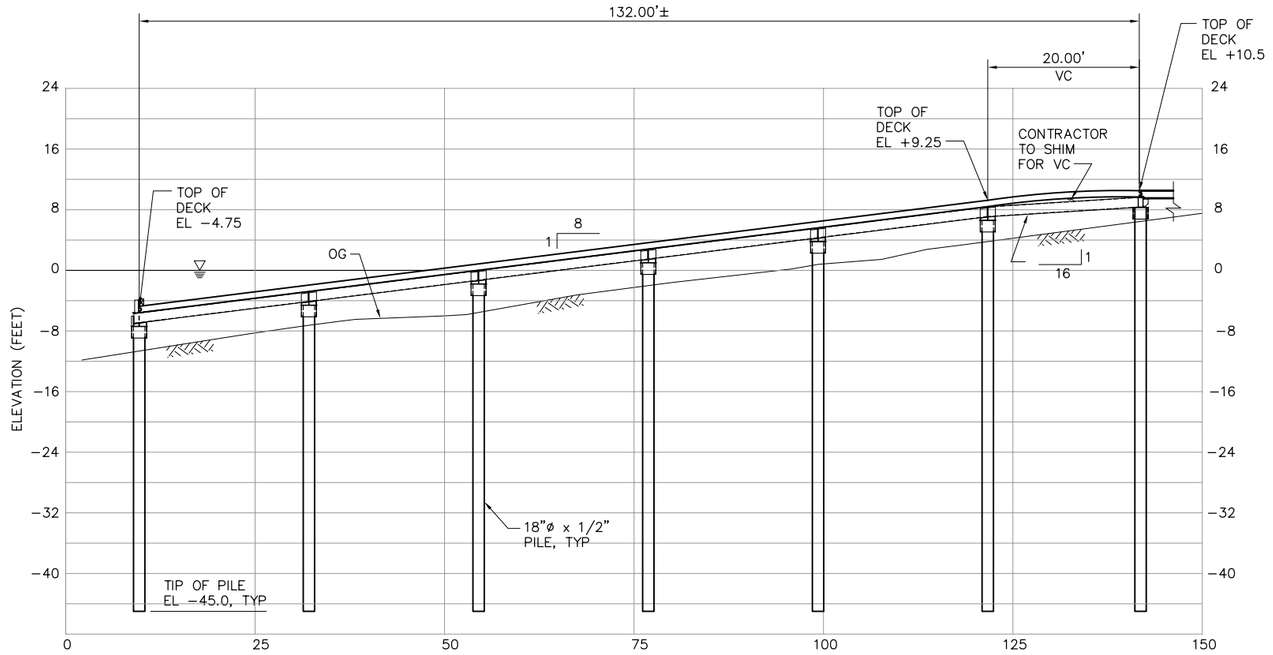


MANDEVILLE ISLAND

NOTE:
WALERS NOT SHOWN FOR CLARITY.

PLAN
SCALE: 1"= 30'



A SECTION
SCALE: 1"=10'

30' 0' 30' 60'
SCALE: 1"=30'

90% SUBMITTAL IF SHEET IS LESS THAN 22" x 34" IT IS A REDUCED PRINT – SCALE REDUCED ACCORDINGLY.

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TWO GATE FISH PROTECTION PLAN

CONNECTION SLOUGH
BOAT RAMP PLAN AND SECTIONS
SHEET 1

DATE 12/09/08

SHEET 30 OF 65

C36

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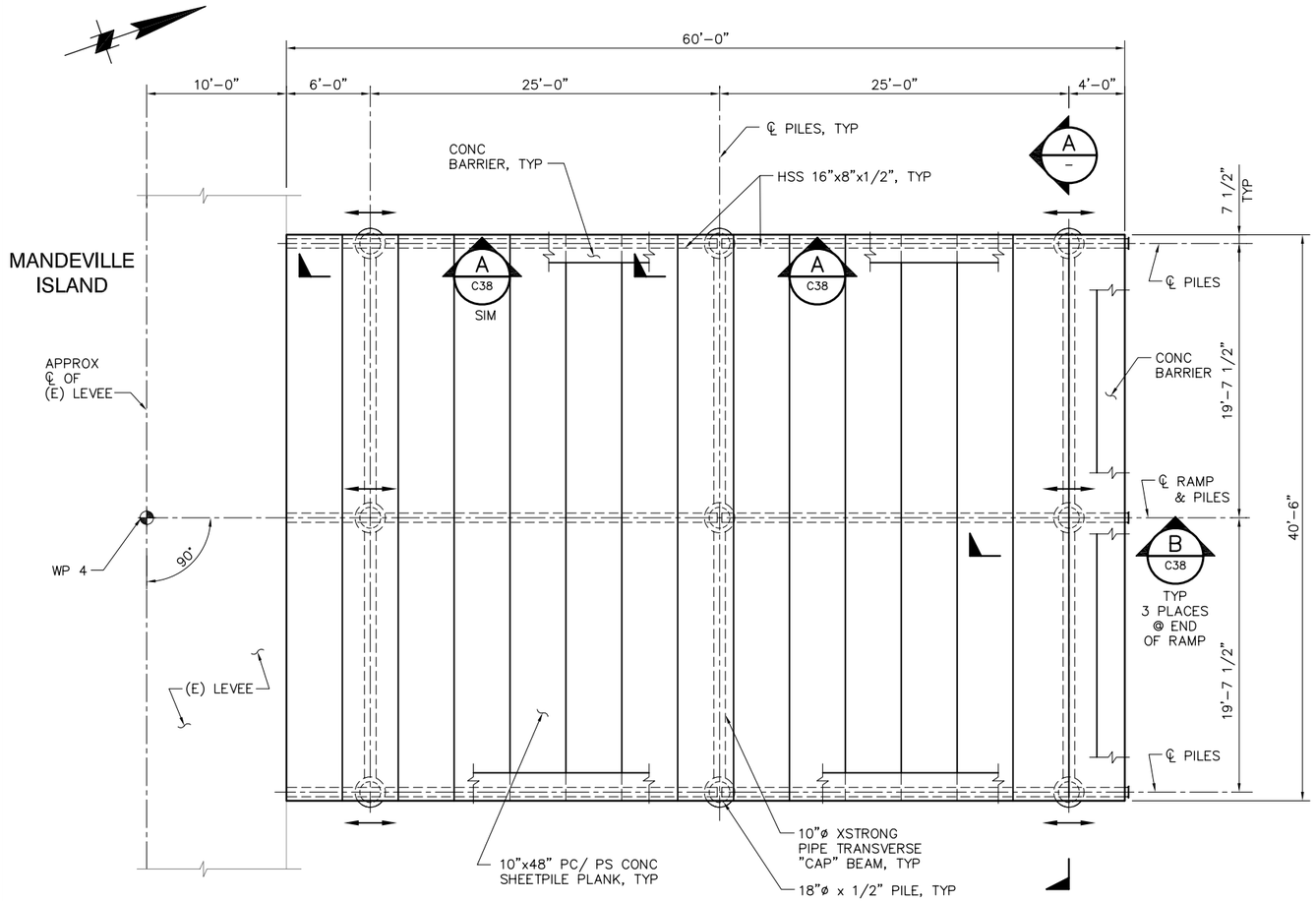
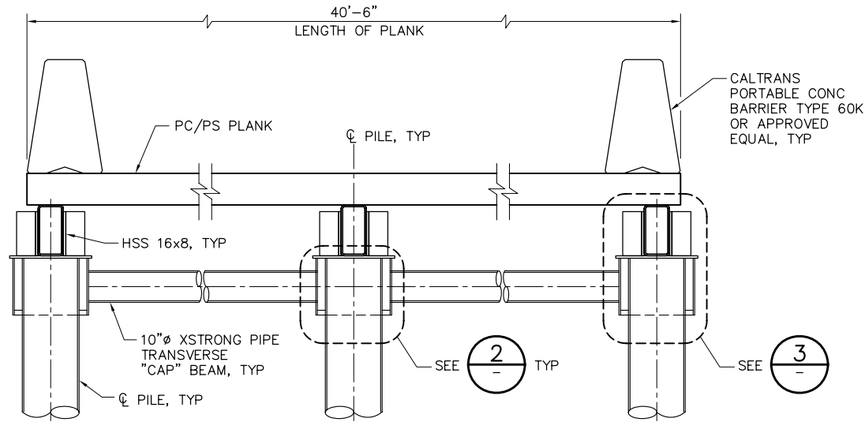
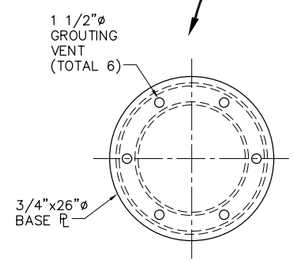
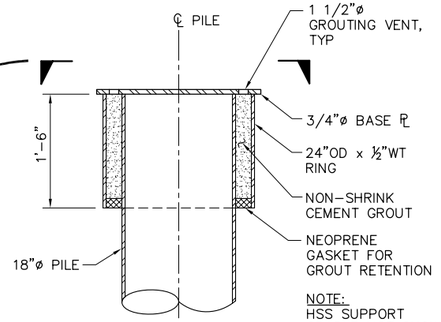


1 C36 **DETAIL**
SCALE: 3/16" = 1'–0"



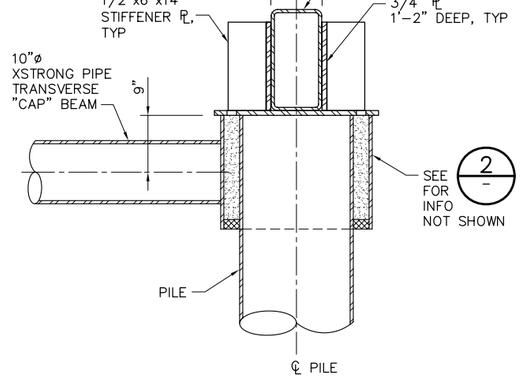
A – **SECTION**
SCALE: 1/2"=1'–0"





TYPICAL PILE CAP FOR 18"ø PILE

2 – **DETAIL**
SCALE: 1" = 1'–0"
C39



3 – **DETAIL**
SCALE: 1" = 1'–0"

NOTES:

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

LEGEND

HSS 16x8x1/2 CONTINUOUS THRU SUPPORT

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

90% SUBMITTAL IF SHEET IS LESS THAN 22" x 34" IT IS A REDUCED PRINT – SCALE REDUCED ACCORDINGLY.

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TWO GATE FISH PROTECTION PLAN

DATE 12/09/08

SHEET 31 OF 65

CONNECTION SLOUGH
BOAT RAMP PLAN AND SECTIONS
SHEET 2

C37

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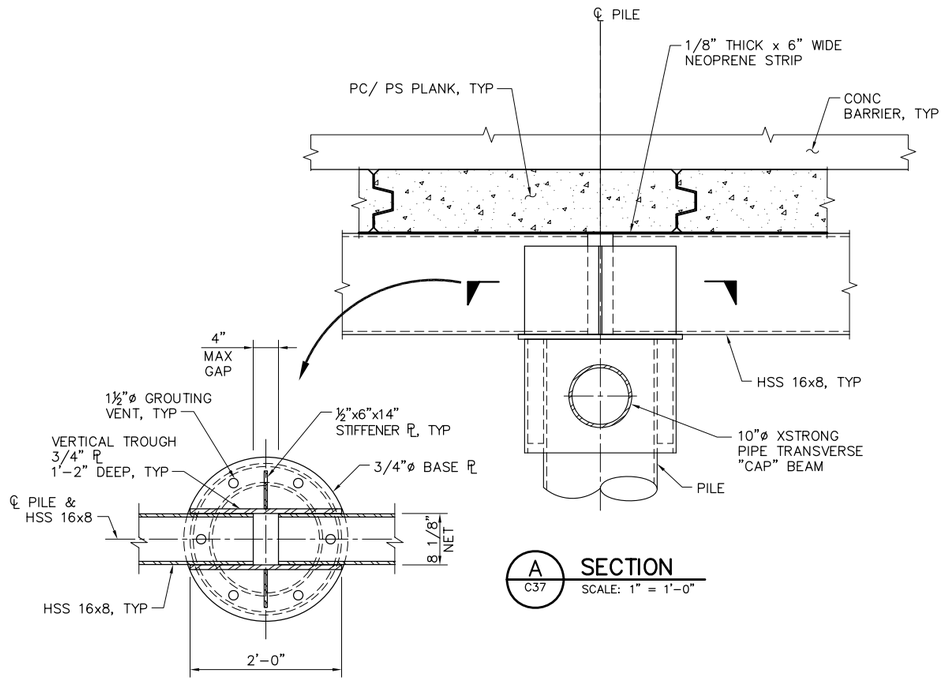
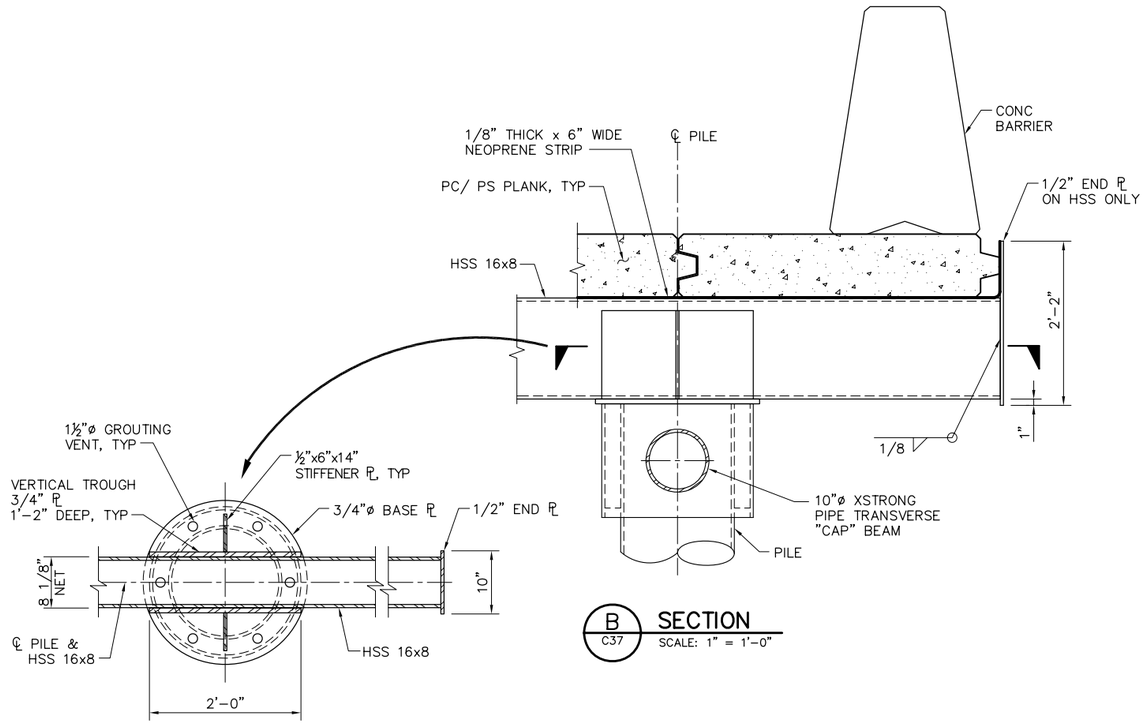
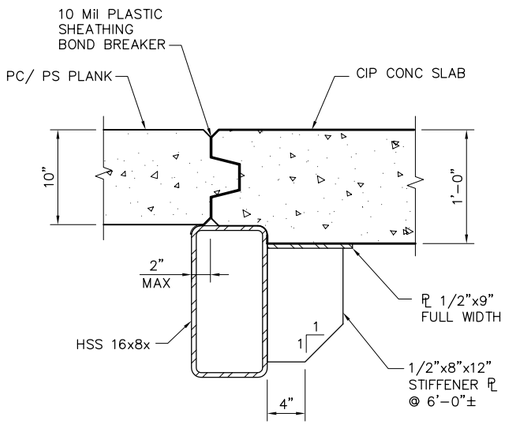


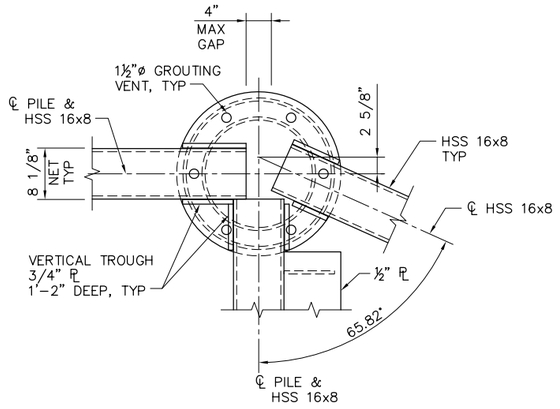
A C37 **SECTION**
SCALE: 1" = 1'-0"



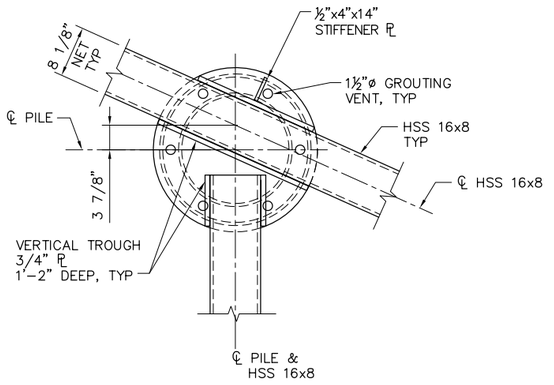
B C37 **SECTION**
SCALE: 1" = 1'-0"



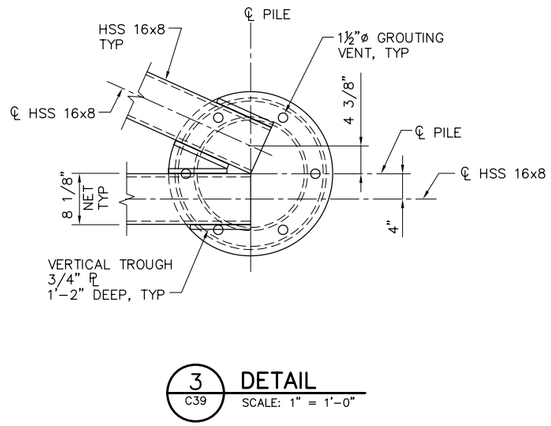
C C39 **SECTION**
SCALE: 1 1/2" = 1'-0"



1 C39 **DETAIL**
SCALE: 1" = 1'-0"



2 C39 **DETAIL**
SCALE: 1" = 1'-0"



3 C39 **DETAIL**
SCALE: 1" = 1'-0"

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

90% SUBMITTAL

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TWO GATE FISH PROTECTION PLAN

DATE 12/09/08

SHEET 32 OF 65

CONNECTION SLOUGH
BOAT RAMP PLAN AND SECTIONS
SHEET 3

C38

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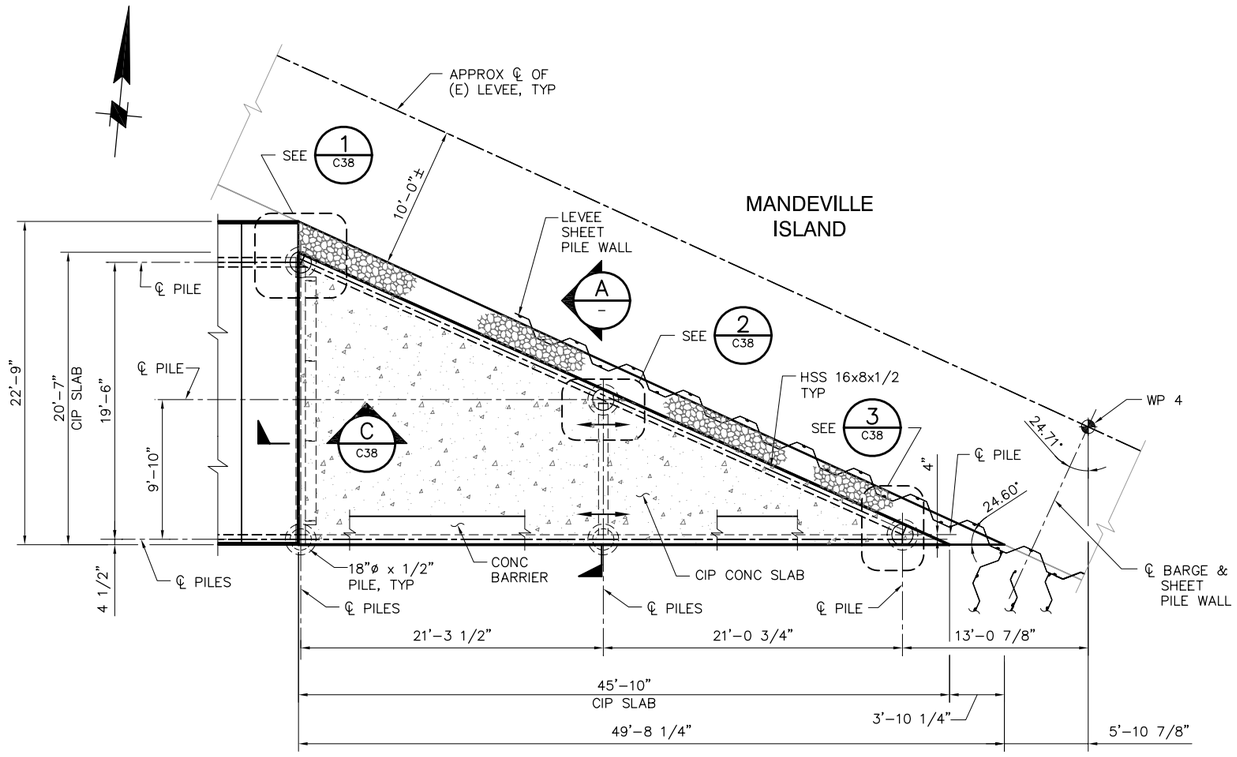
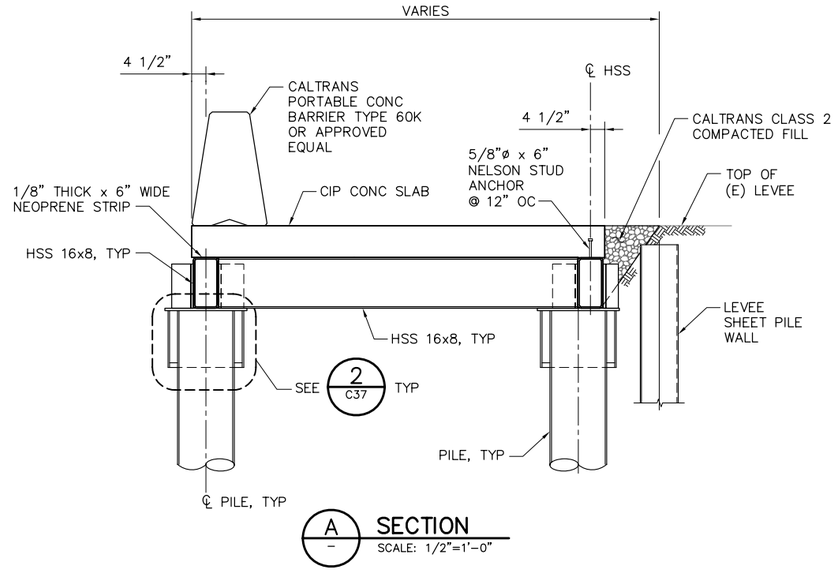


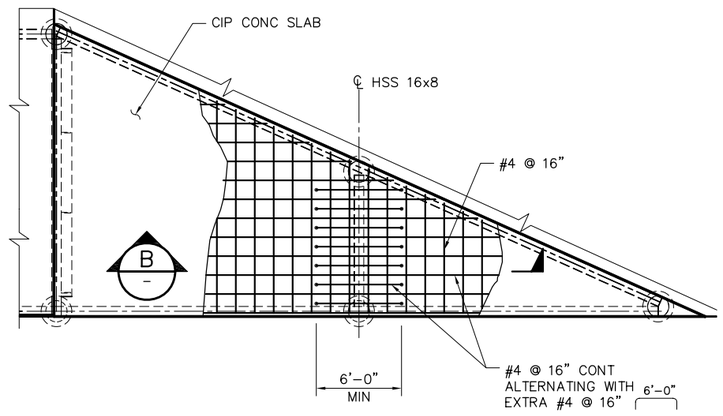
2 C36 **DETAIL**
SCALE: 3/16" = 1'-0"

LEGEND

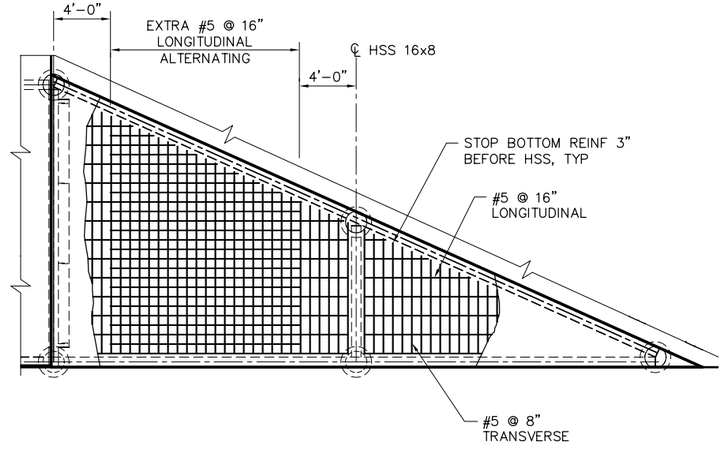
HSS 16x8x1/2 CONTINUOUS THRU SUPPORT



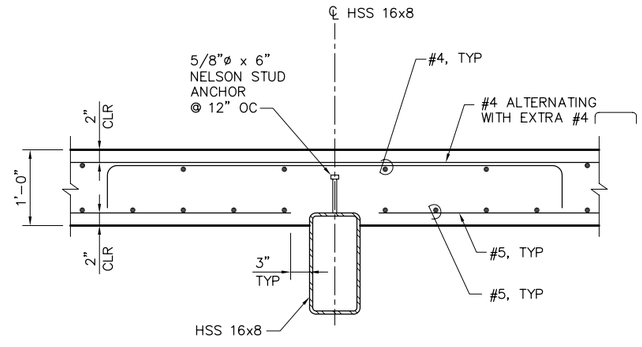
A – **SECTION**
SCALE: 1/2"=1'-0"



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



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



B – **SECTION**
SCALE: 1" = 1'-0"

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

90% SUBMITTAL

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

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JOB NO.	SUBMITTED BY	TITLE
6097-03	RMR	

TWO GATE FISH PROTECTION PLAN

DATE 12/09/08

SHEET 33 OF 65

CONNECTION SLOUGH
BOAT RAMP PLAN AND SECTIONS
SHEET 4

C39

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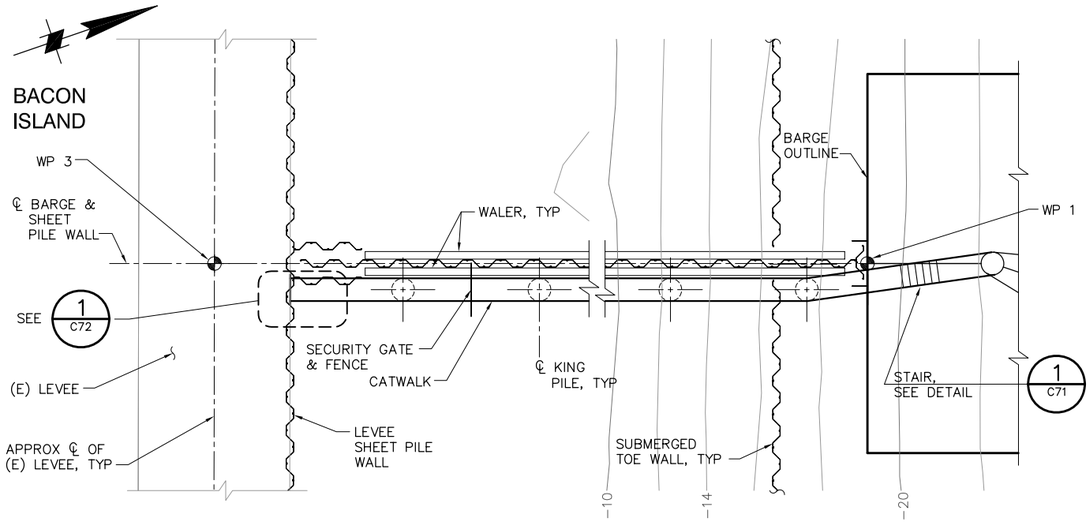
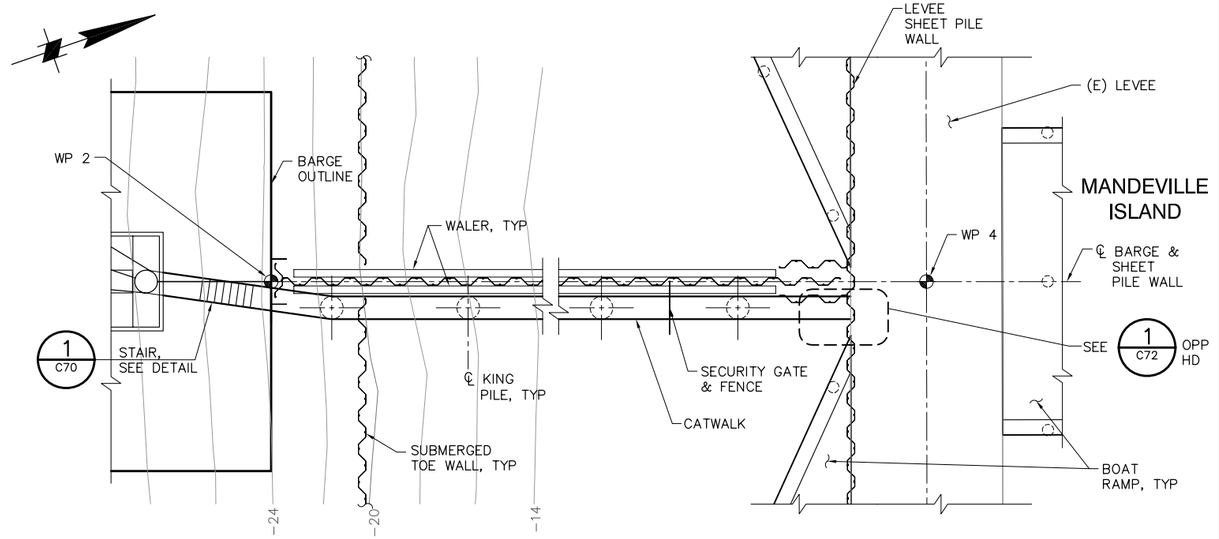
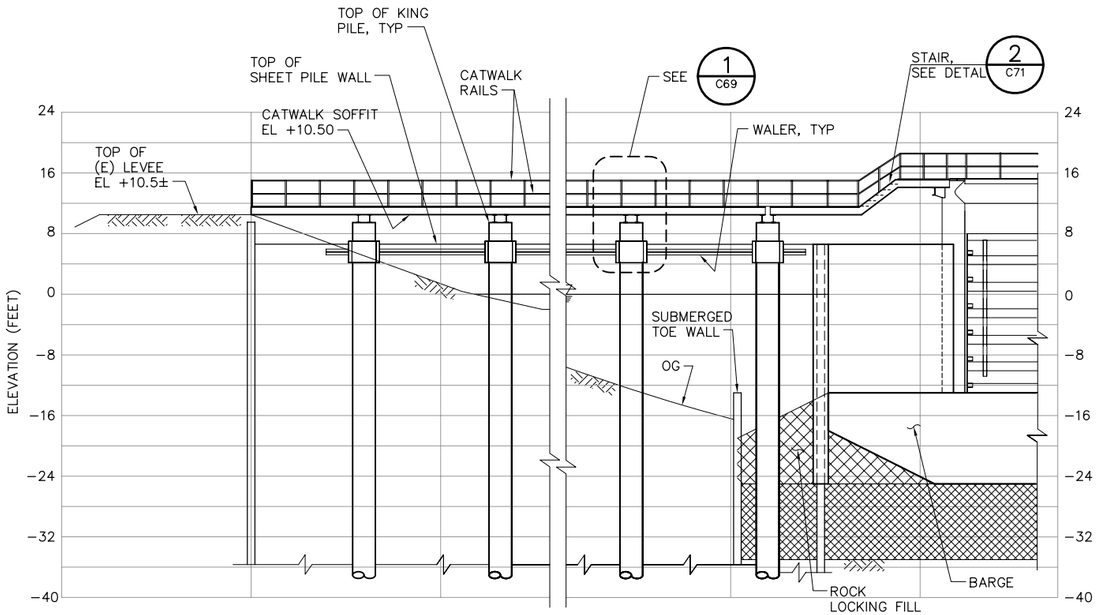


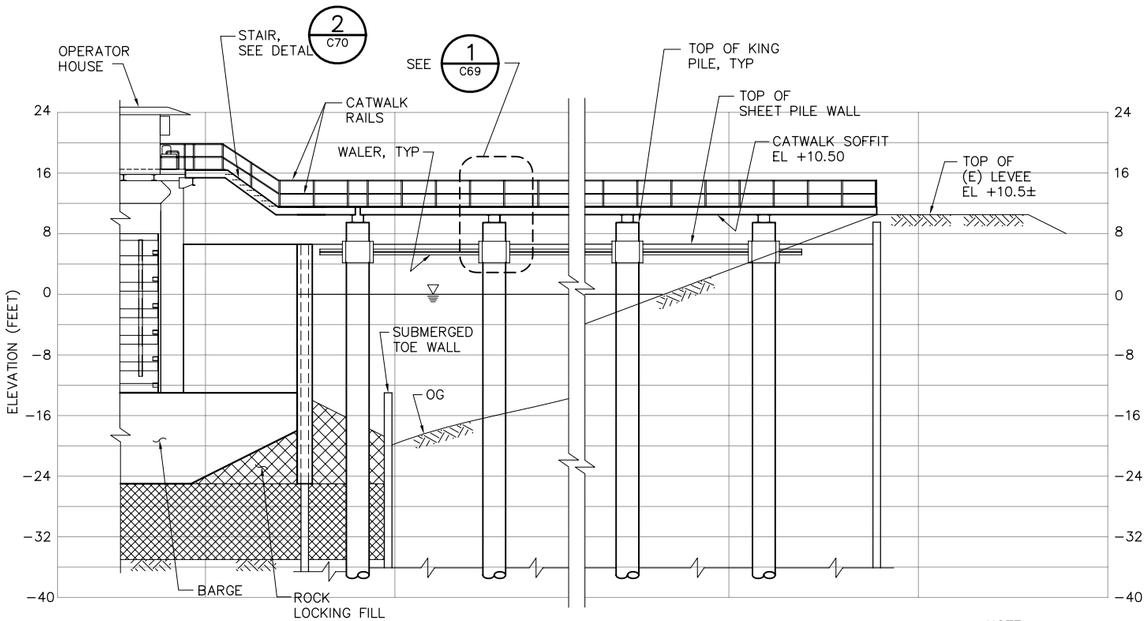
1 – PLAN
SCALE: 1"=10'



2 – PLAN
SCALE: 1"=20'



ELEVATION
SCALE: 1"= 10'



ELEVATION
SCALE: 1"= 10'

NOTE:
BOAT RAMP NOT SHOWN FOR CLARITY.

10' 0' 10' 20'
SCALE: 1"=10'

90% SUBMITTAL IF SHEET IS LESS THAN 22" x 34" IT IS A REDUCED PRINT – SCALE REDUCED ACCORDINGLY.

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(925) 944-5411

DSGN	DR	CHK
JMB	EP	TDB

JOB NO.	SUBMITTED BY	TITLE
6097-03	RMR	

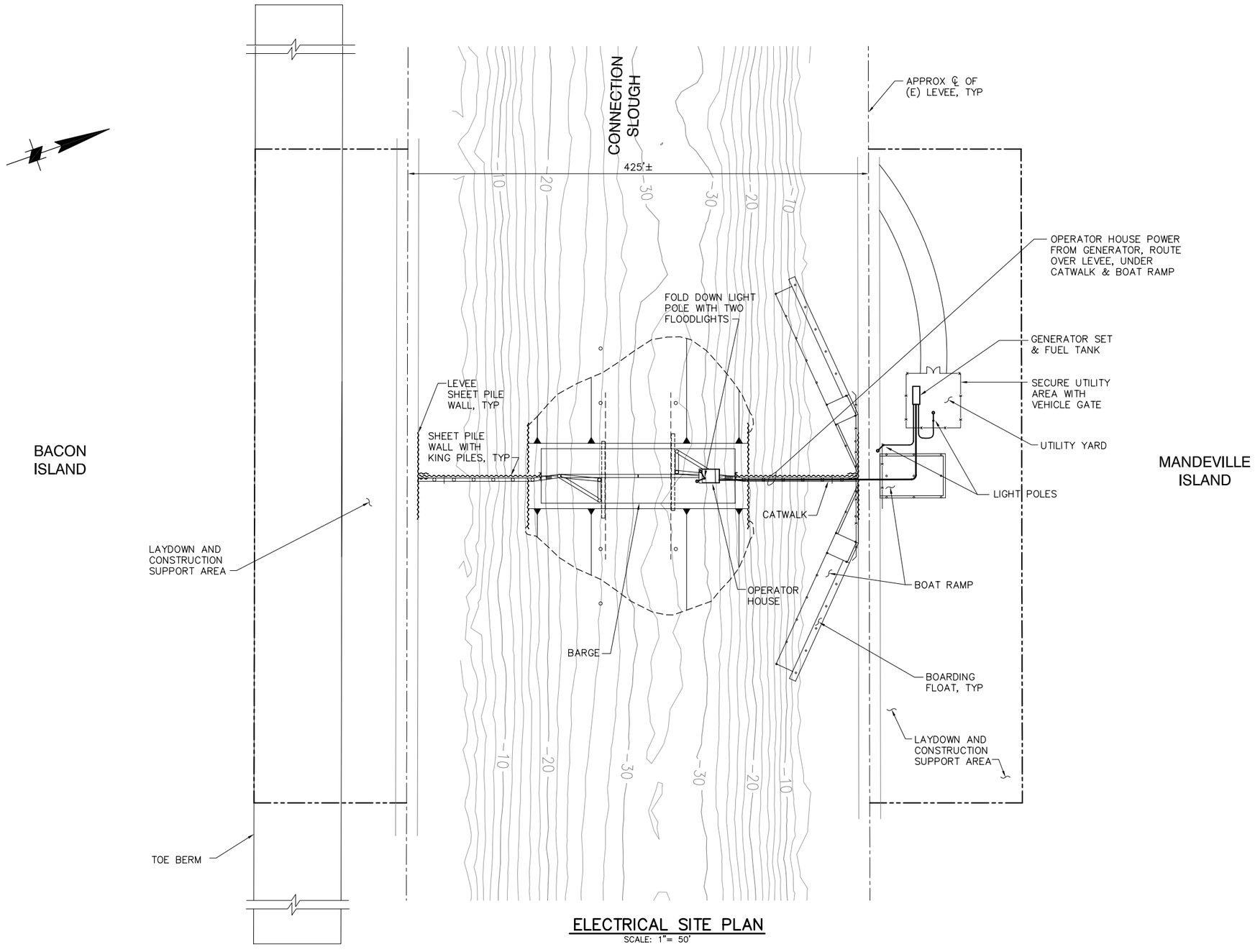
TWO GATE FISH PROTECTION PLAN

DATE 12/09/08
SHEET 34 OF 65

CONNECTION SLOUGH CATWALK PLAN AND ELEVATION

C40

P:\6097-03 SWC GATE DESIGN\CADD\DWG\609703-C40.DWG 12/8/2008 1:56 PM



ELECTRICAL SITE PLAN

SCALE: 1"= 50'

50' 0' 50' 100'

SCALE: 1"=50'

90% SUBMITTAL IF SHEET IS LESS THAN 22" x 34" IT IS A REDUCED PRINT – SCALE REDUCED ACCORDINGLY.

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DM	AB	CBS

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TWO GATE FISH PROTECTION PLAN

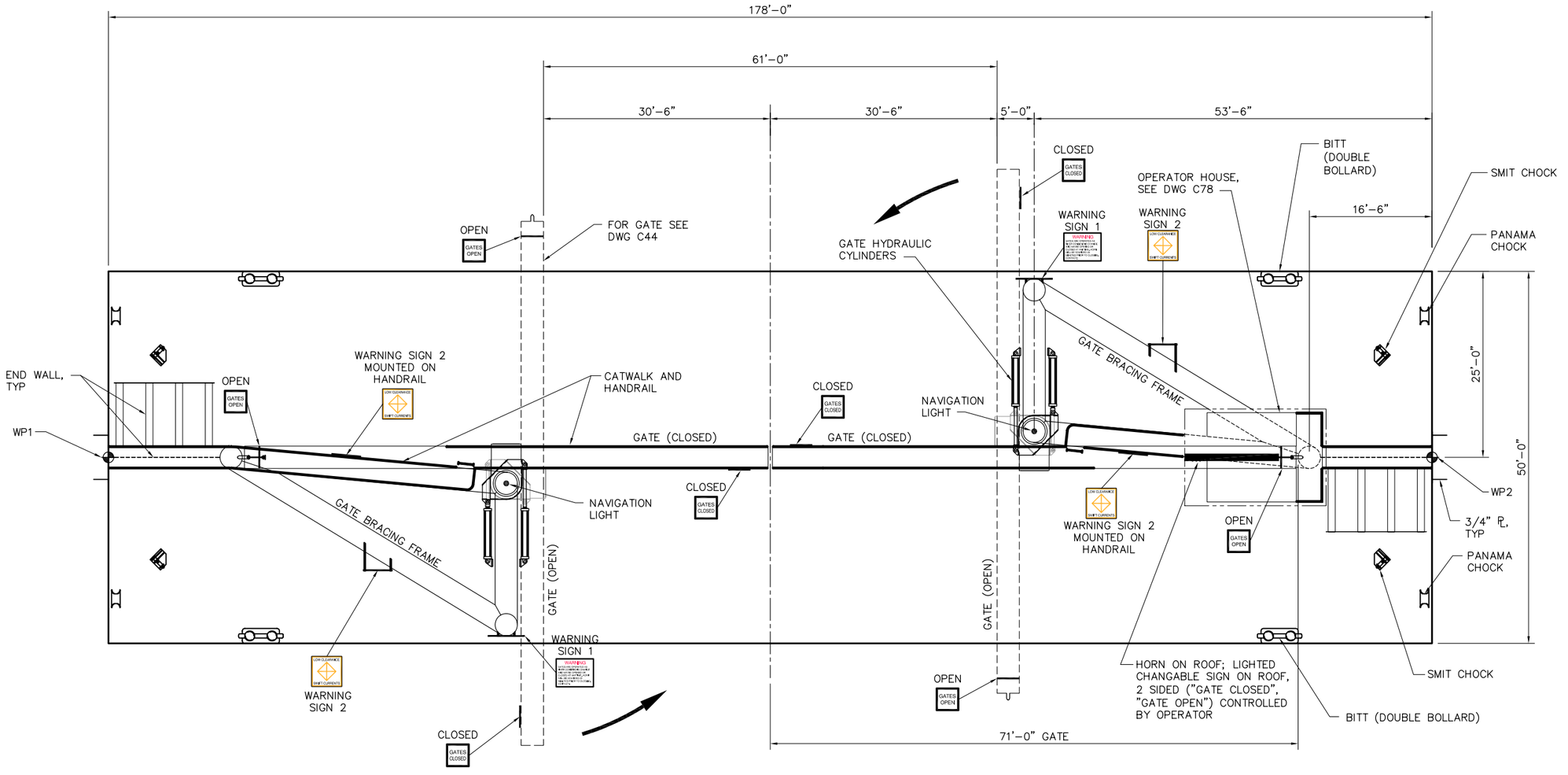
CONNECTION SLOUGH ELECTRICAL SITE PLAN

DATE 12/09/08

SHEET 35 OF 65

C41

P:\6097-03 SWC GATE DESIGN\CADD\DWG\609703-C41.DWG 12/8/2008 1:58 PM



BARGE PLAN

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

NOTE:

1. FOR SIGNAGE, SEE DRAWING C75.
2. FOR SIGNAGE MOUNTING SEE DRAWING C76.

8'-0" 0'-0" 8'-0" 16'-0"

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

90% SUBMITTAL IF SHEET IS LESS THAN 22" x 34" IT IS A REDUCED PRINT – SCALE REDUCED ACCORDINGLY.

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TWO GATE FISH PROTECTION PLAN

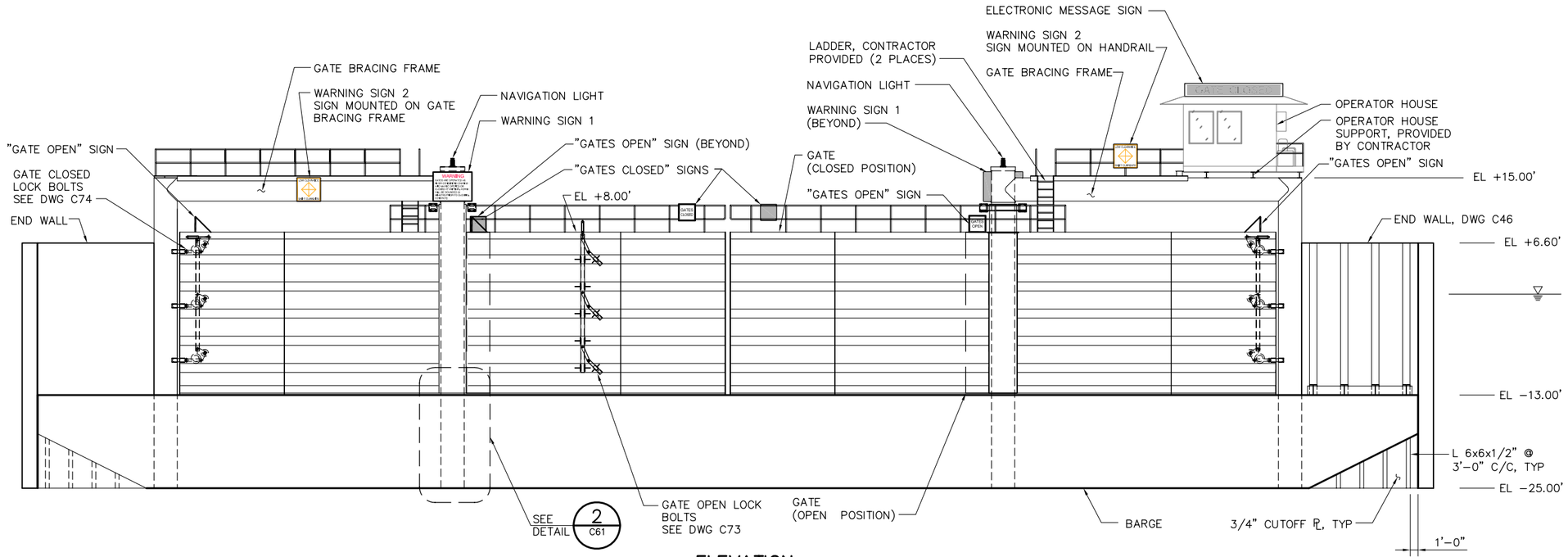
DATE 12/09/08

SHEET 36 OF 65

CONNECTION SLOUGH BARGE GENERAL ARRANGEMENT PLAN

C42

P:\6097-03 SWC GATE DESIGN\CADD\DWG\609703-C42.DWG 12/4/2008 2:53 PM



ELEVATION

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

NOTES:

1. FOR SIGNAGE, SEE DRAWING C75.
2. FOR SIGNAGE MOUNTING SEE DRAWING C76.

8'-0" 0'-0" 8'-0" 16'-0"

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

90% SUBMITTAL IF SHEET IS LESS THAN 22" x 34" IT IS A REDUCED PRINT – SCALE REDUCED ACCORDINGLY.

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TWO GATE FISH PROTECTION PLAN

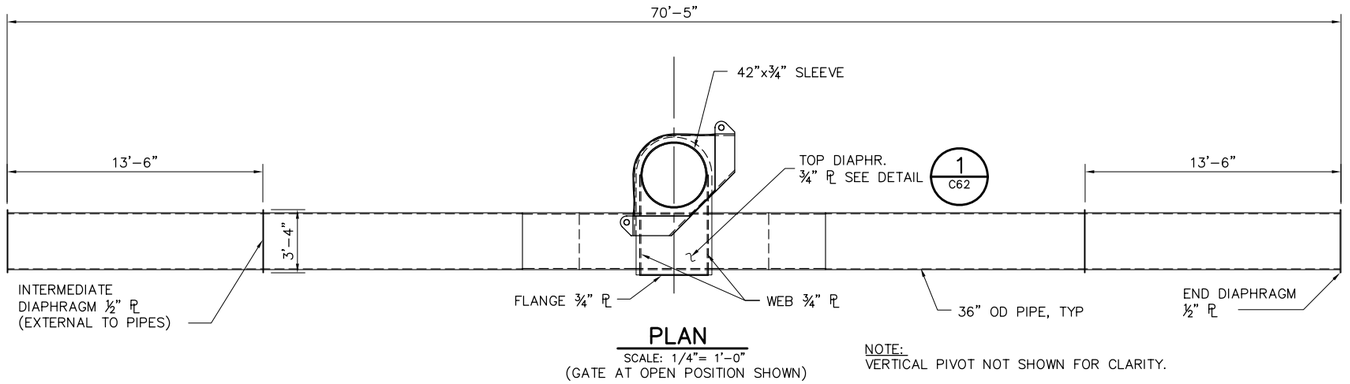
CONNECTION SLOUGH
BARGE GENERAL ARRANGEMENT
ELEVATION

DATE 12/09/08

SHEET 37 OF 65

C43

P:\6097-03 SWC GATE DESIGN\CADD\DWG\609703-C43.DWG 12/8/2008 11:04 AM



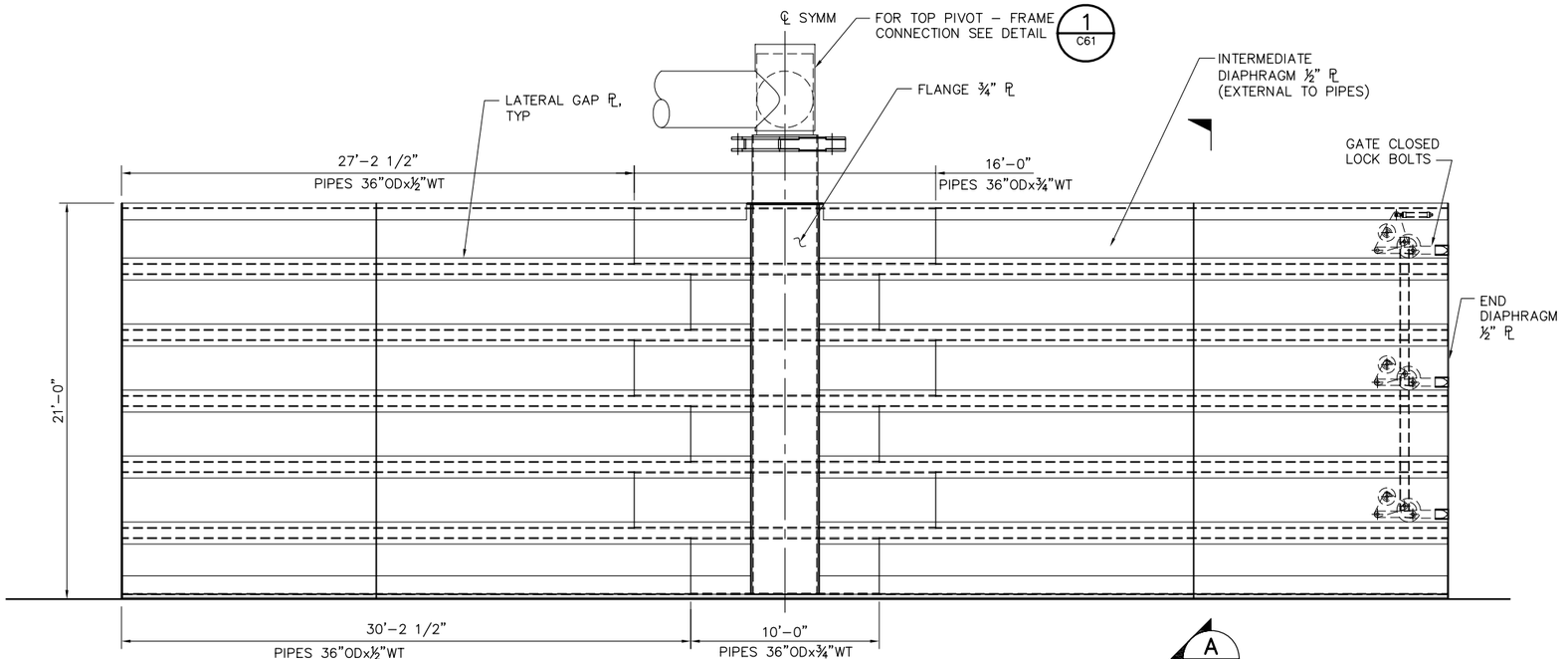
PLAN

SCALE: 1/4"= 1'-0"
(GATE AT OPEN POSITION SHOWN)

NOTE:
VERTICAL PIVOT NOT SHOWN FOR CLARITY.

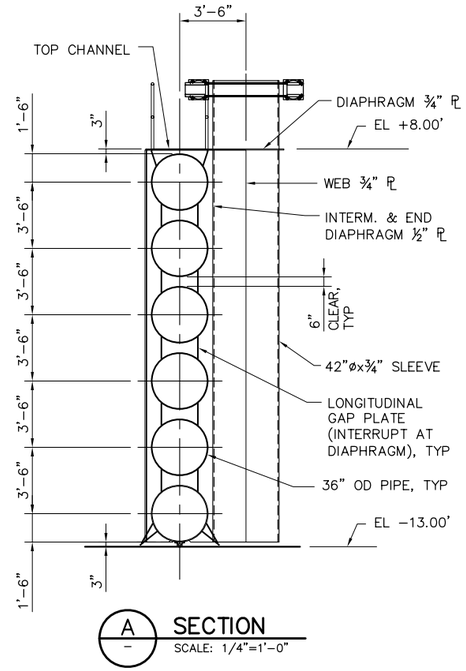
NOTE:

BOTTOM GATE PIPE (36"ø) SHALL NOT BE BUOYANT. ONLY UPPER FIVE GATE PIPES SHALL BE BUOYANT.



ELEVATION

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



A
–
SECTION
SCALE: 1/4"=1'-0"

4'-0" 0'-0" 4'-0" 8'-0"
SCALE: 1/4"=1'-0"

90% SUBMITTAL IF SHEET IS LESS THAN 22" x 34" IT IS A REDUCED PRINT – SCALE REDUCED ACCORDINGLY.

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TWO GATE FISH PROTECTION PLAN

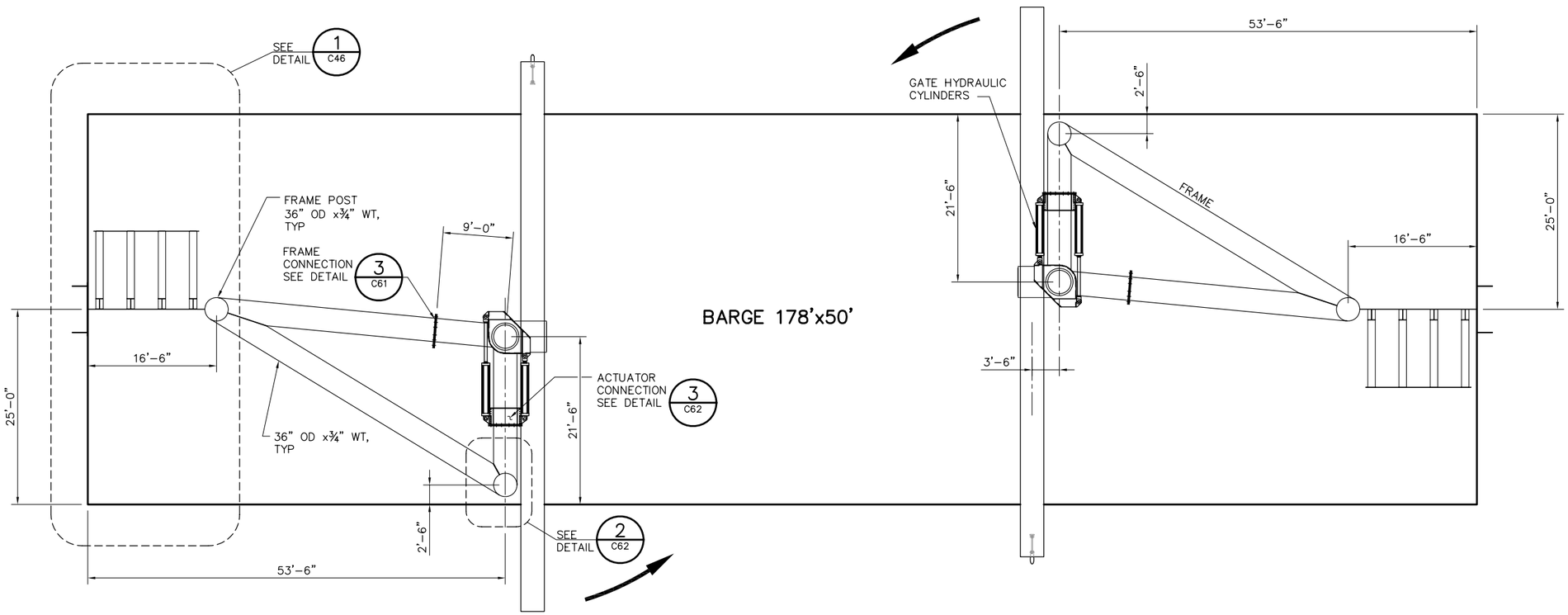
CONNECTION SLOUGH GATE SCANTLINGS

DATE 12/09/08

SHEET 38 OF 65

C44

P:\6097-03 SWC GATE DESIGN\CADD\DWG\609703-C44.DWG 12/8/2008 11:05 AM



FRAME PLAN

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

8'-0" 0'-0" 8'-0" 16'-0"

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

90% SUBMITTAL IF SHEET IS LESS THAN 22" x 34" IT IS A REDUCED PRINT – SCALE REDUCED ACCORDINGLY.

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TWO GATE FISH PROTECTION PLAN

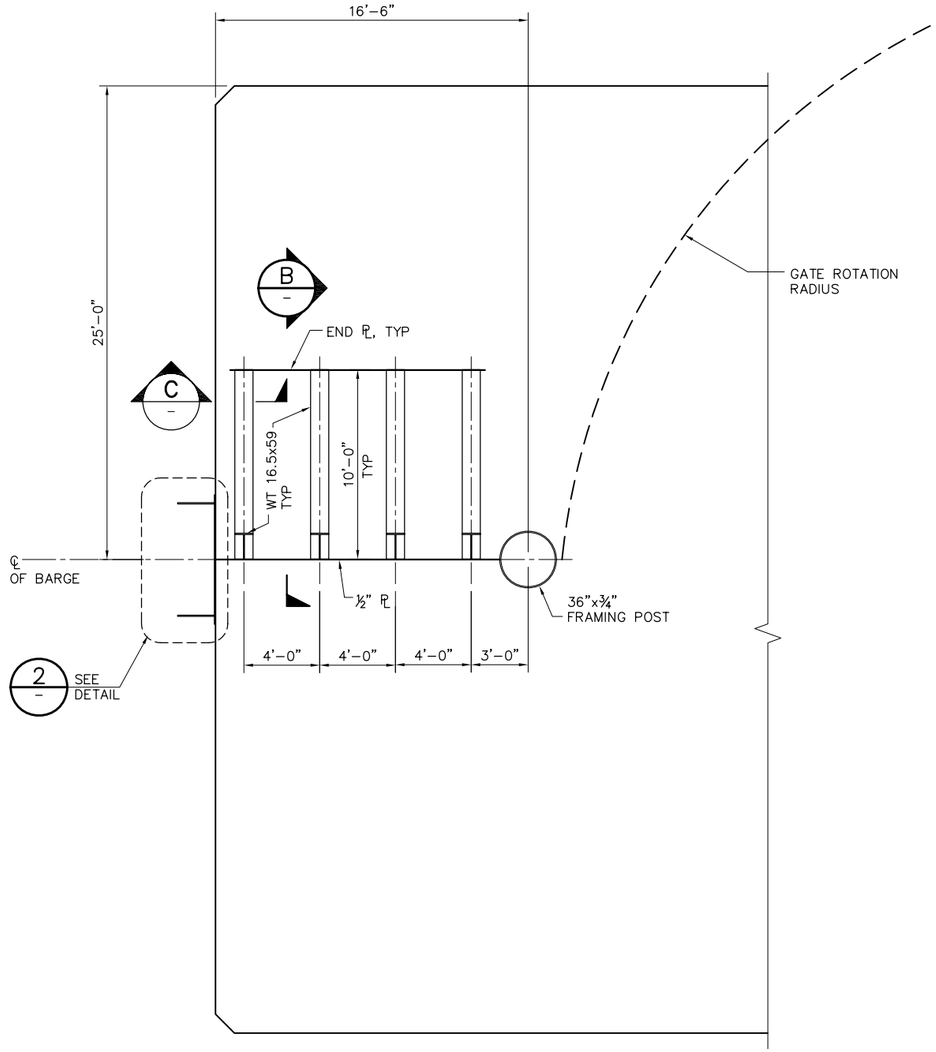
CONNECTION SLOUGH GATE FRAMING LAYOUT

DATE 12/09/08

SHEET 39 OF 65

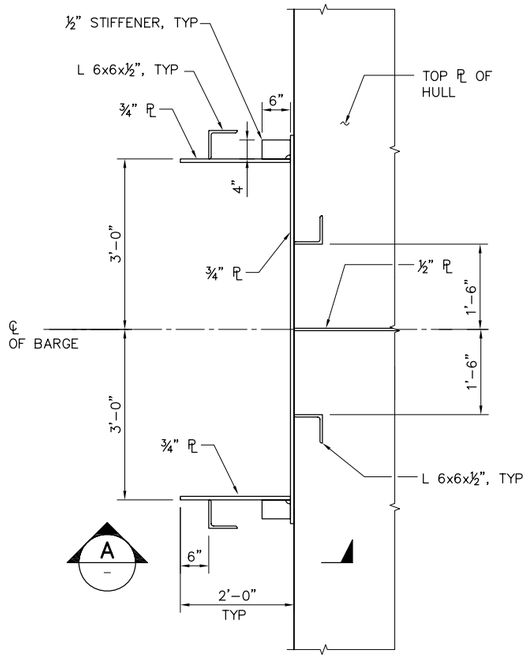
C45

P:\6097-03 SWC GATE DESIGN\CADD\DWG\609703-C45.DWG 12/3/2008 11:16 AM

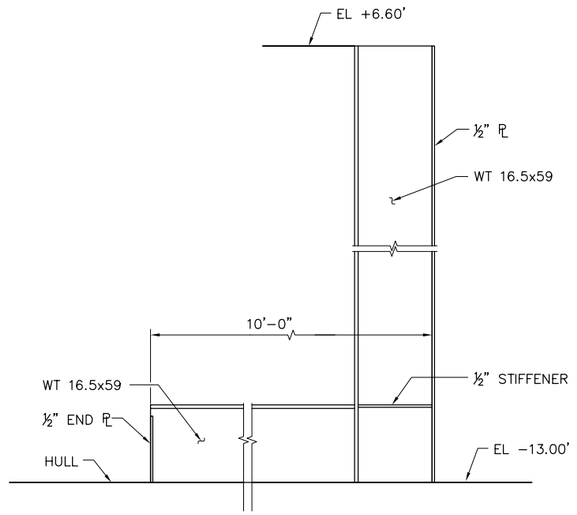


PLAN

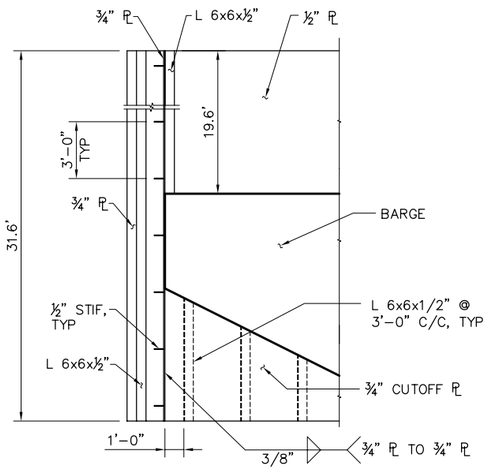
1 / C45 DETAIL
SCALE: 1/4" = 1'–0"



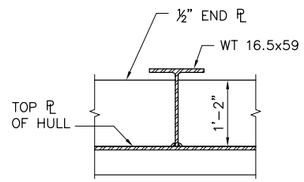
2 DETAIL
SCALE: 3/4" = 1'–0"



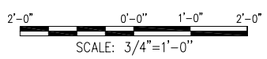
B SECTION
SCALE: 3/4"=1'–0"



A SECTION
SCALE: 1/4" = 1'–0"



C SECTION
SCALE: 3/4"=1'–0"



SCALE: 3/4"=1'–0"

SCALE: 1/4"=1'–0"

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TWO GATE FISH PROTECTION PLAN

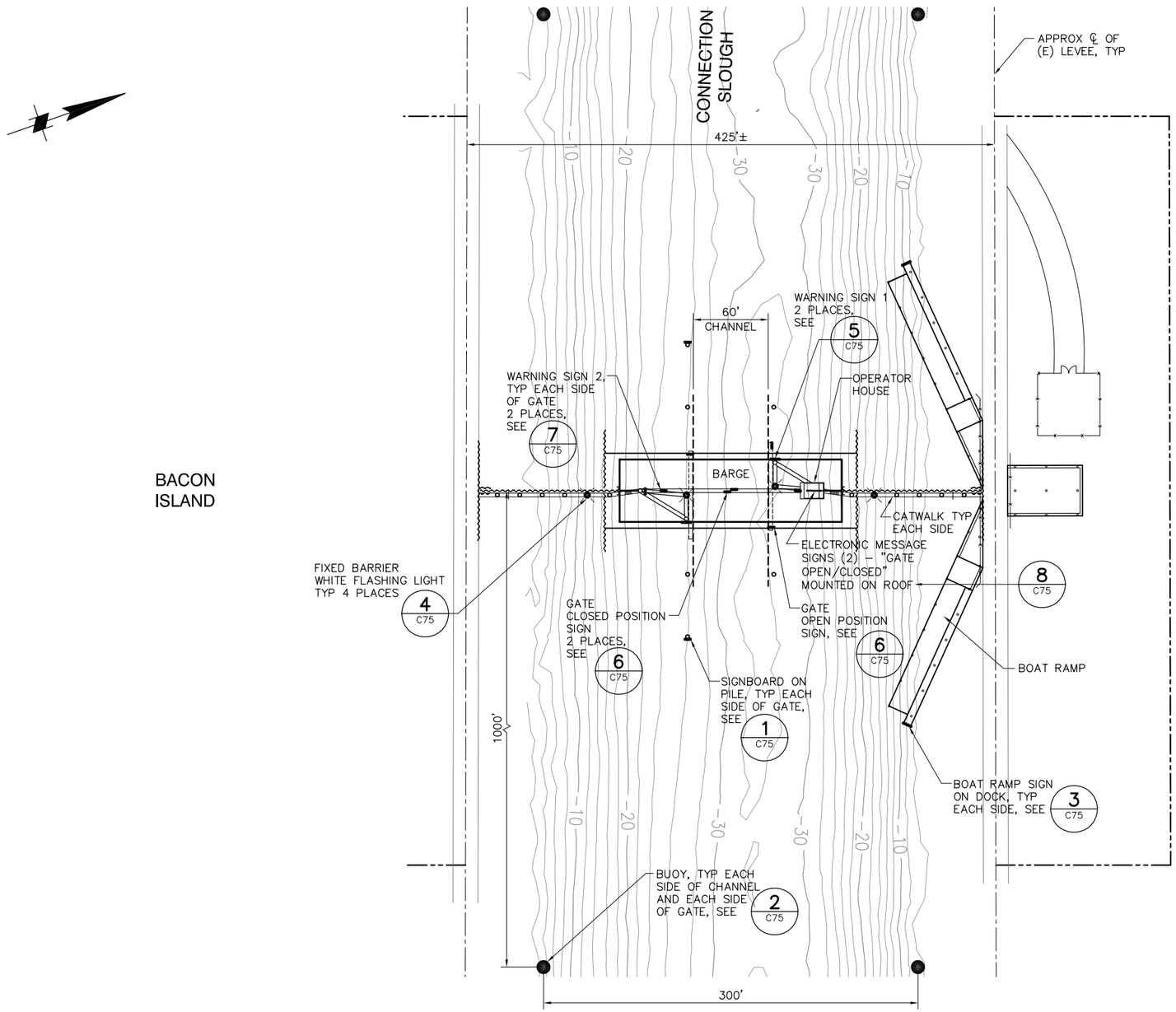
DATE 12/09/08

SHEET 40 OF 65

CONNECTION SLOUGH END WALL SCANTLINGS

C46

P:\6097–03 SWC GATE DESIGN\CADD\DWG\609703–C46.DWG 12/3/2008 11:07 AM



BACON ISLAND

MANDEVILLE ISLAND

SITE PLAN

SCALE: 1"= 50'

50' 0' 50' 100'

SCALE: 1"=50'

90% SUBMITTAL IF SHEET IS LESS THAN 22" x 34" IT IS A REDUCED PRINT – SCALE REDUCED ACCORDINGLY.

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RBD	TAE	TDB

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TWO GATE FISH PROTECTION PLAN

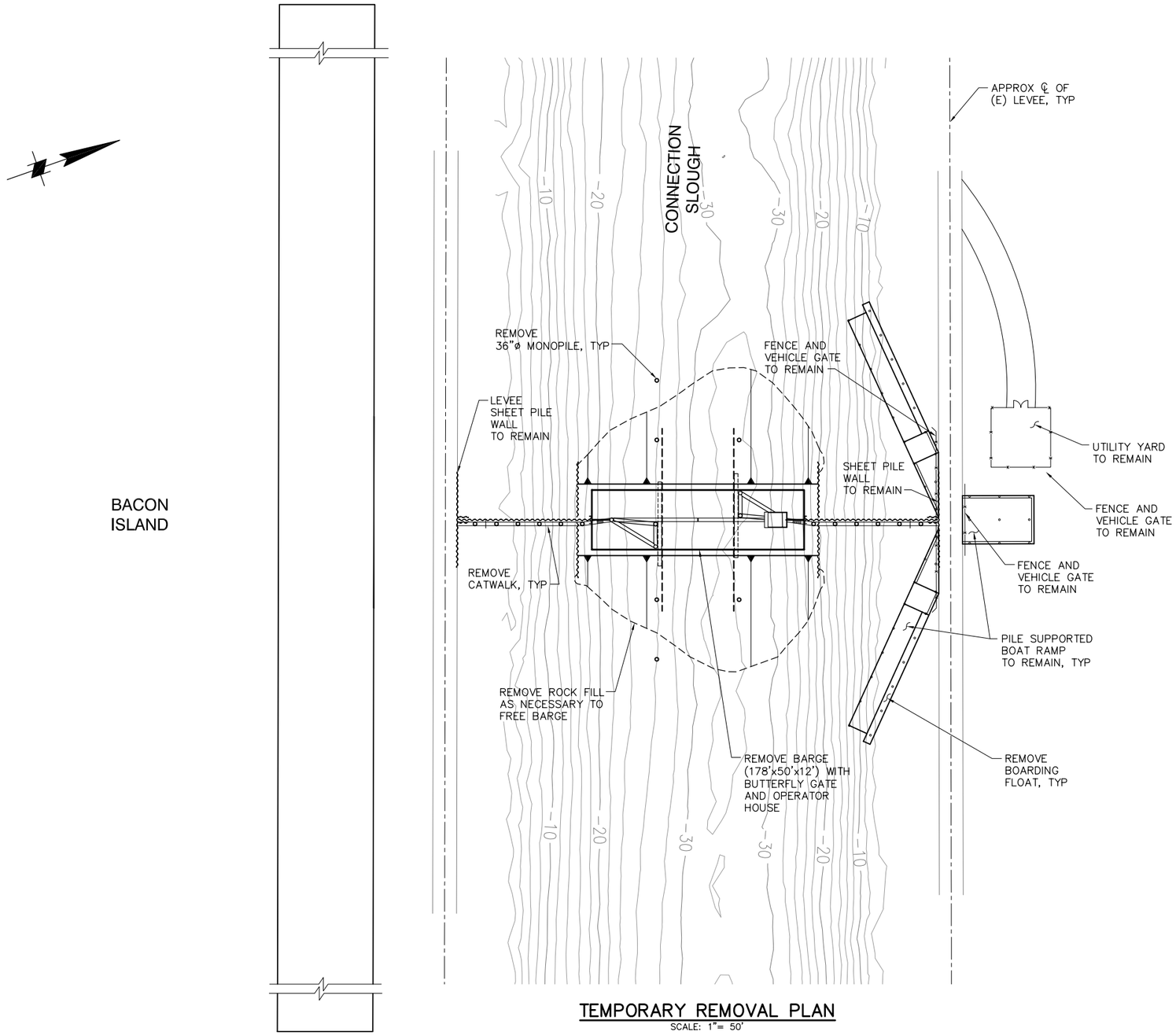
CONNECTION SLOUGH AIDS TO NAVIGATION PLAN

DATE 12/09/08

SHEET 41 OF 65

C47

P:\6097-03 SWC GATE DESIGN\CADD\DWG\609703-C47.DWG 12/8/2008 2:01 PM



TEMPORARY REMOVAL PLAN
SCALE: 1"= 50'

50' 0' 50' 100'
SCALE: 1"=50'

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TWO GATE FISH PROTECTION PLAN

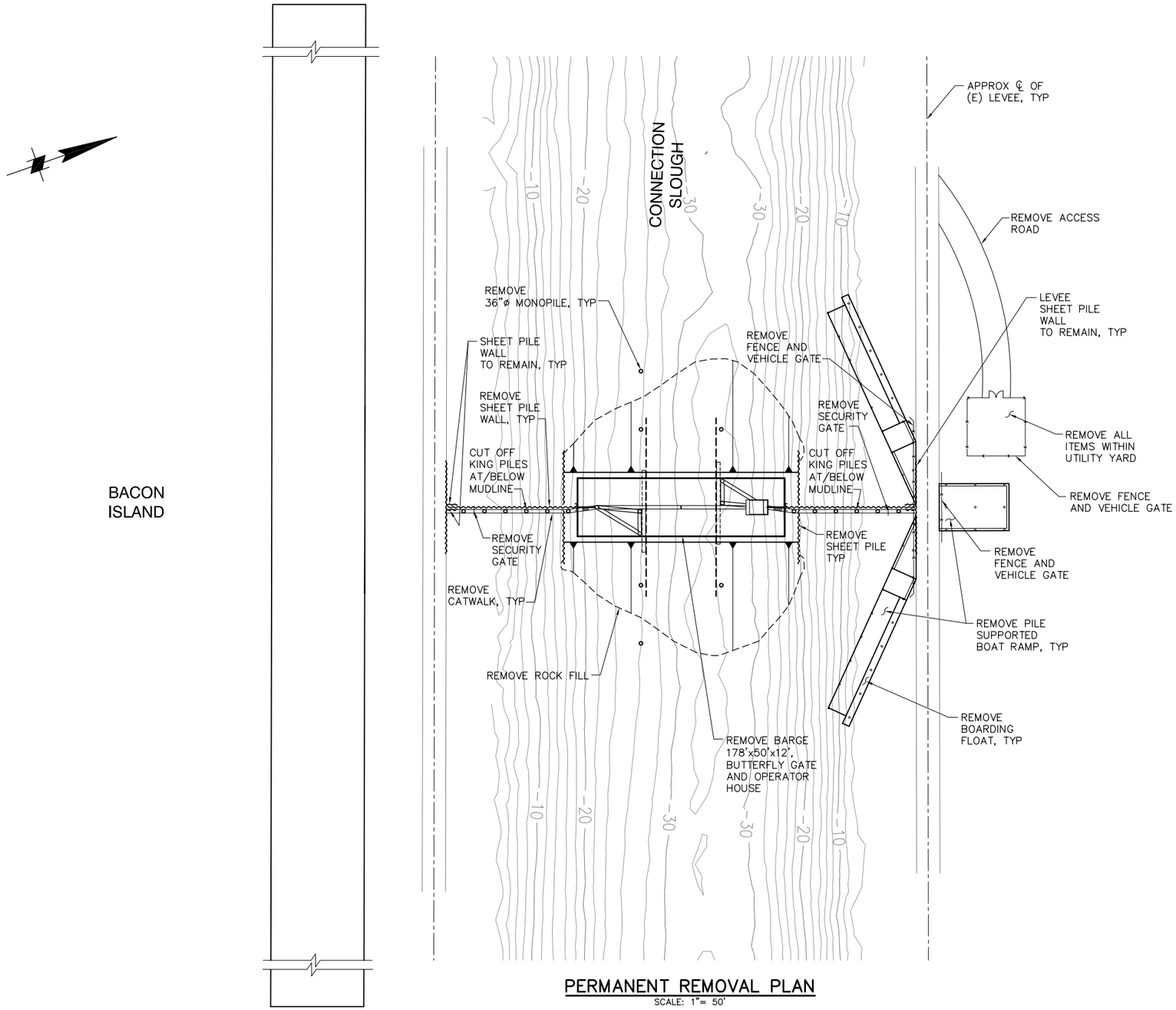
DATE 12/09/08

SHEET 42 OF 65

CONNECTION SLOUGH
TEMPORARY REMOVAL PLAN

C48

P:\6097-03 SWC GATE DESIGN\CADD\DWG\609703-C48.DWG 12/8/2008 2:02 PM



PERMANENT REMOVAL PLAN

SCALE: 1"= 50'

50' 0' 50' 100'

SCALE: 1"=50'

90% SUBMITTAL IF SHEET IS LESS THAN 22" x 34" IT IS A REDUCED PRINT – SCALE REDUCED ACCORDINGLY.

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TWO GATE FISH PROTECTION PLAN

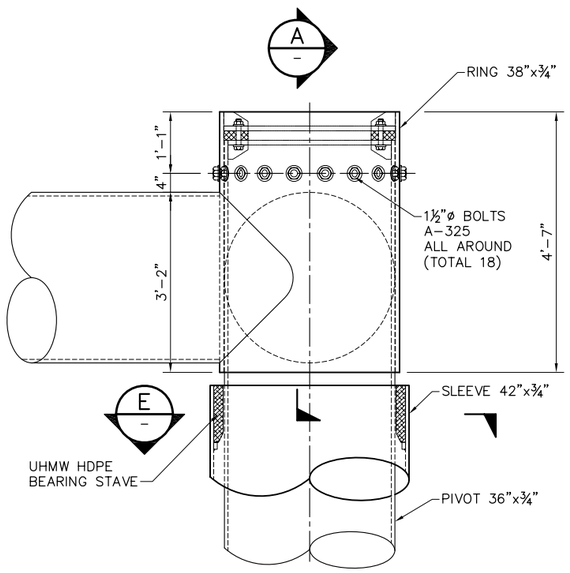
DATE 12/09/08

SHEET 43 OF 65

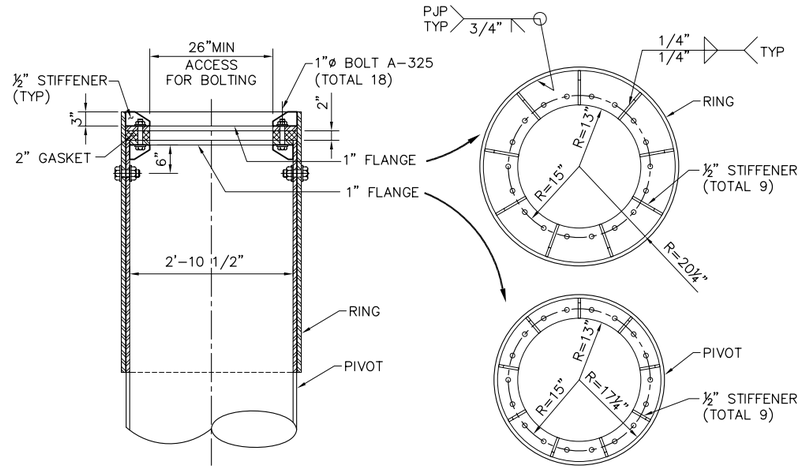
CONNECTION SLOUGH
PERMANENT REMOVAL PLAN

C49

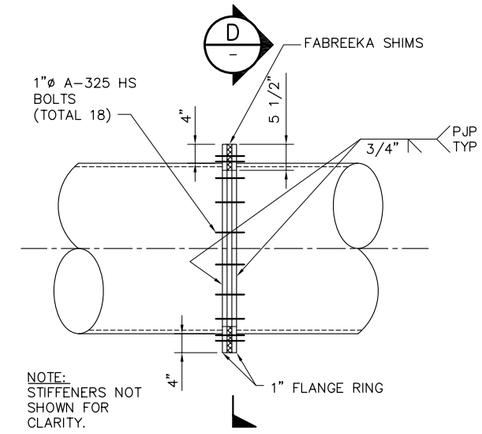
P:\6097-03 SWC GATE DESIGN\CADD\DWG\609703-C49.DWG 12/8/2008 3:27 PM



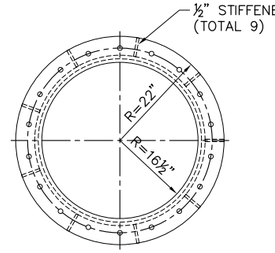
1 C16 TOP PIVOT – FRAME CONNECTION
SCALE: 3/4" = 1'-0"
C44



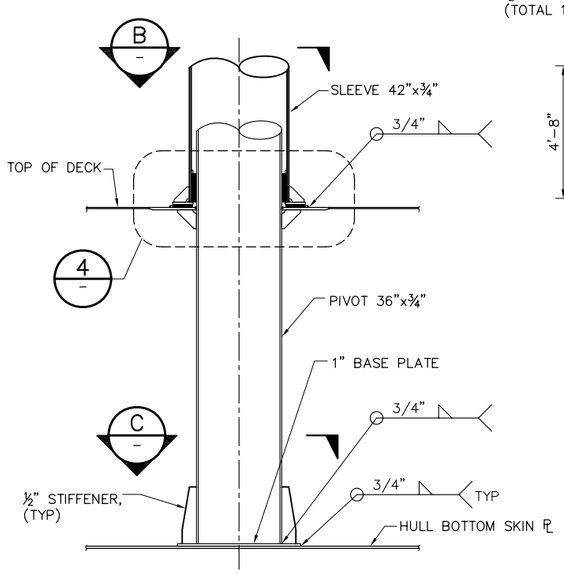
A SECTION
SCALE: 3/4" = 1'-0"



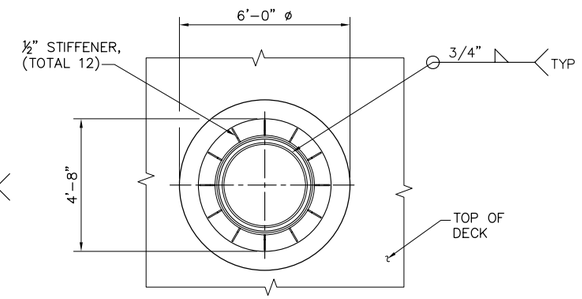
3 C17 FRAME CONNECTION
SCALE: 3/4" = 1'-0"
C45,C62



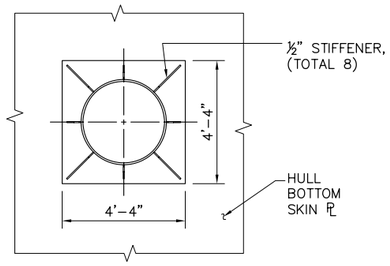
D SECTION
SCALE: 3/4" = 1'-0"



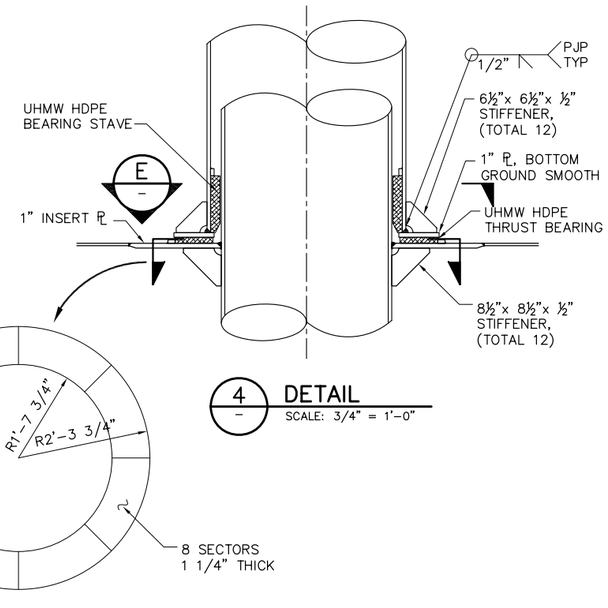
2 C15 FRAMIMG PIVOT CONNECTION
SCALE: 3/8" = 1'-0"
C43



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

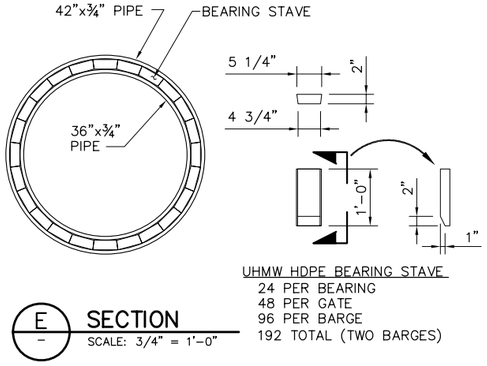


C SECTION
SCALE: 3/8" = 1'-0"
C62



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

UHMW HDPE
THRUST BEARING



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

UHMW HDPE BEARING STAVE
24 PER BEARING
48 PER GATE
96 PER BARGE
192 TOTAL (TWO BARGES)

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

4'-0" 0'-0" 2'-0" 4'-0"
SCALE: 3/8"=1'-0"

NOTES:

1. ALL STIFFENER WELDS SHALL BE SYMMETRICAL ¼" MIN. FILLET WELDS U.N.O.

90% SUBMITTAL IF SHEET IS LESS THAN 22" x 34" IT IS A REDUCED PRINT – SCALE REDUCED ACCORDINGLY.

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

TWO GATE FISH PROTECTION PLAN

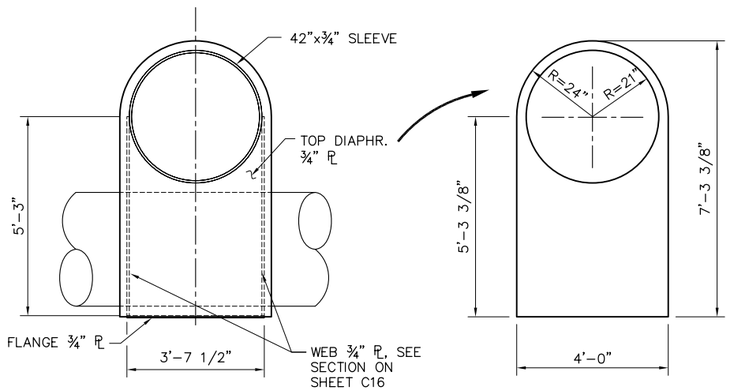
GATE STRUCTURAL DETAILS
SHEET 1

DATE 12/09/08

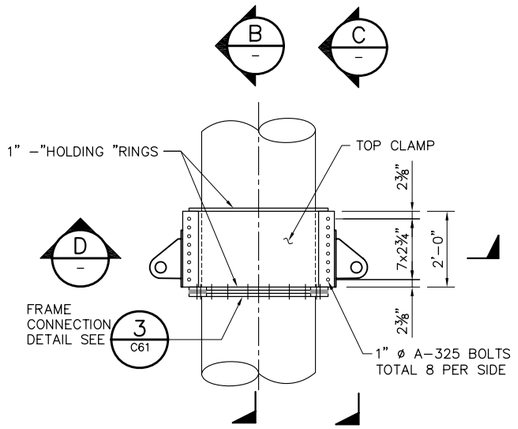
SHEET 44 OF 65

C61

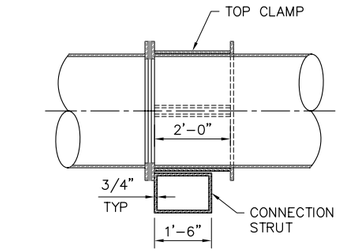
P:\6097-03 SWC GATE DESIGN\CADD\DWG\609703-C61.DWG 12/8/2008 11:11 AM



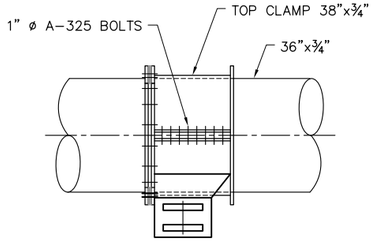
1 / C16 — **SLEEVE CONNECTION DETAIL**
SCALE: 1/2" = 1'-0"
C44



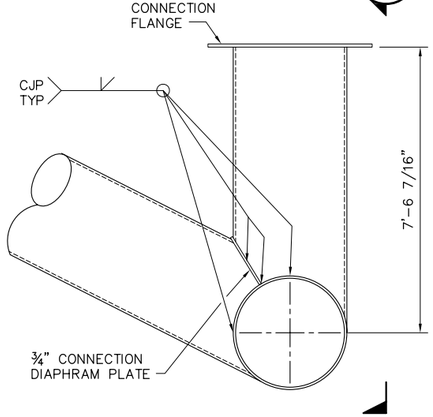
3 / C17 — **ACTUATOR CONNECTION DETAIL**
SCALE: 1/2" = 1'-0"
C45



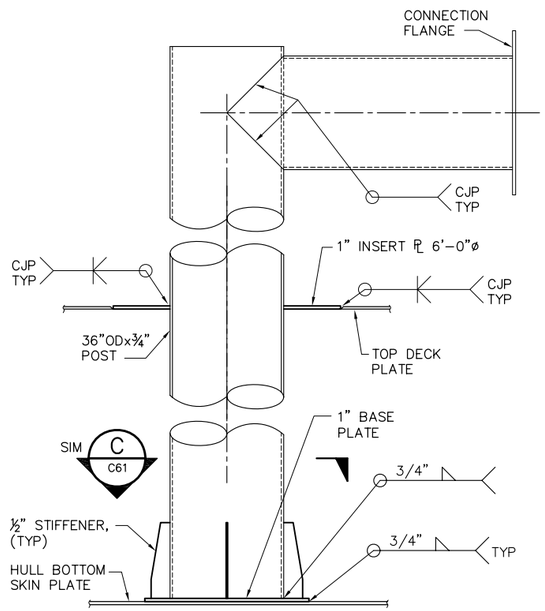
B – **SECTION**
SCALE: 1/2" = 1'-0"



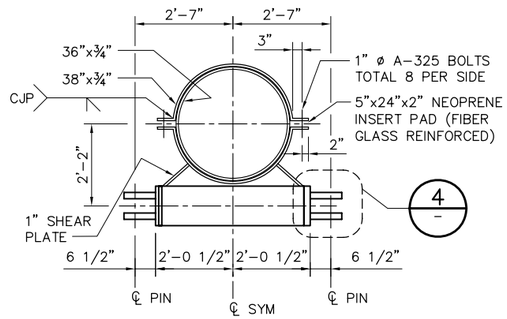
C – **SECTION**
SCALE: 1/2" = 1'-0"



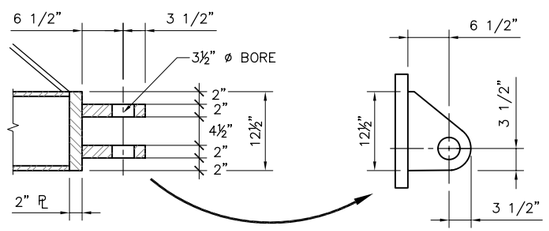
2 / C17 — **"SIDE POST" CONNECTION**
SCALE: 1/2" = 1'-0"
C45



A – **ELEVATION**
SCALE: 1/2" = 1'-0"



D – **SECTION**
SCALE: 1/2" = 1'-0"



4 – **DETAIL**
SCALE: 1"=1'-0"

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

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Walnut Creek, California 94596
(925) 944-5411

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

TWO GATE FISH PROTECTION PLAN

DATE 12/09/08

SHEET 45 OF 65

GATE STRUCTURAL DETAILS, SHEET 2

C62

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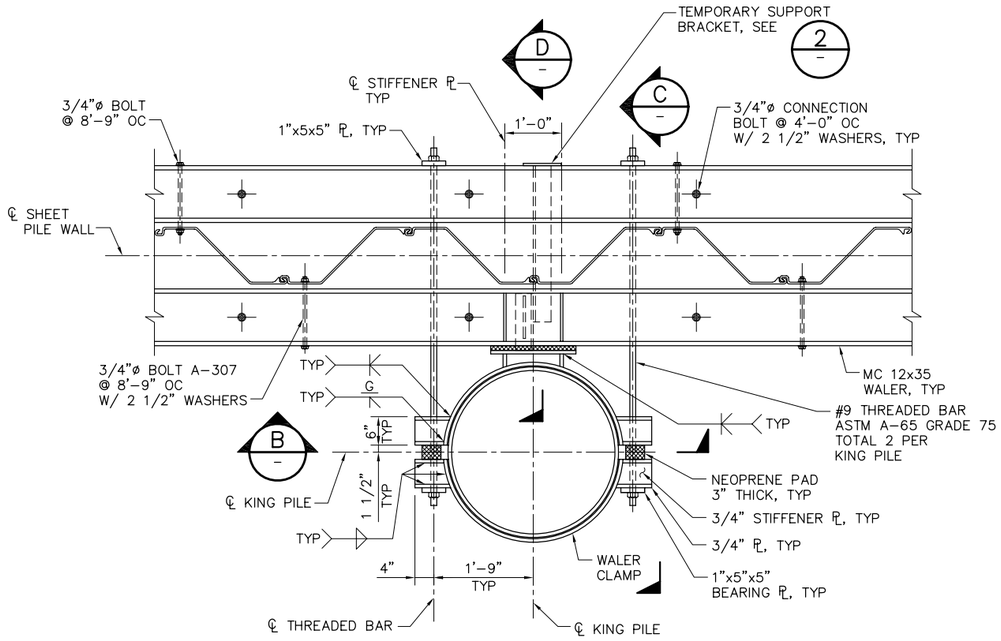
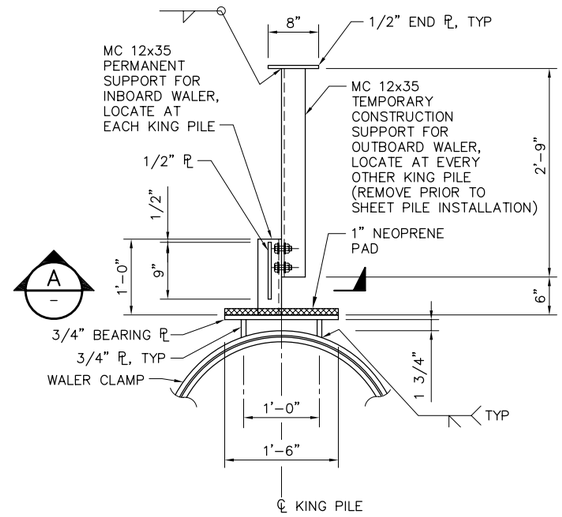


PLAN

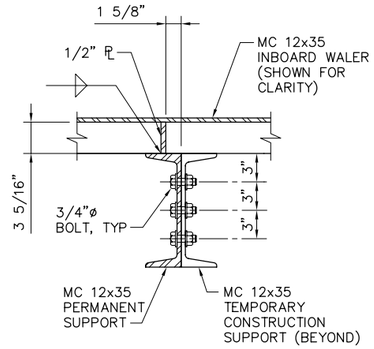
1 C36 **DETAIL**
SCALE: 3/4" = 1'–0"

C7, C8

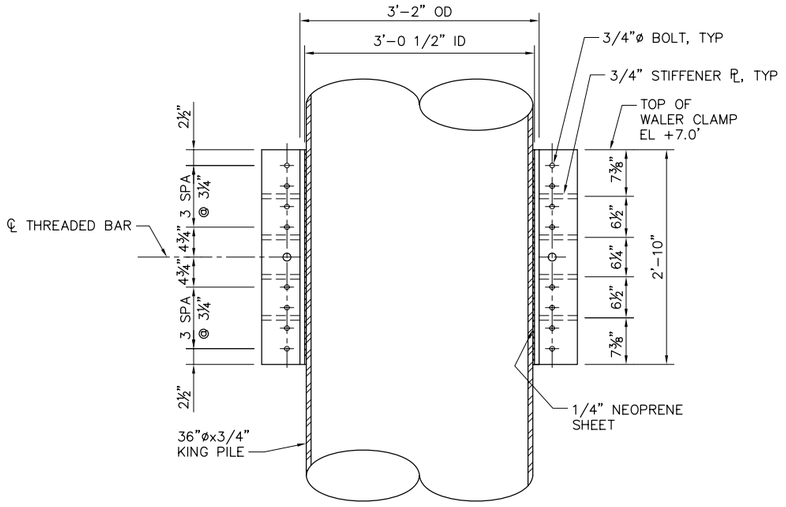


PLAN

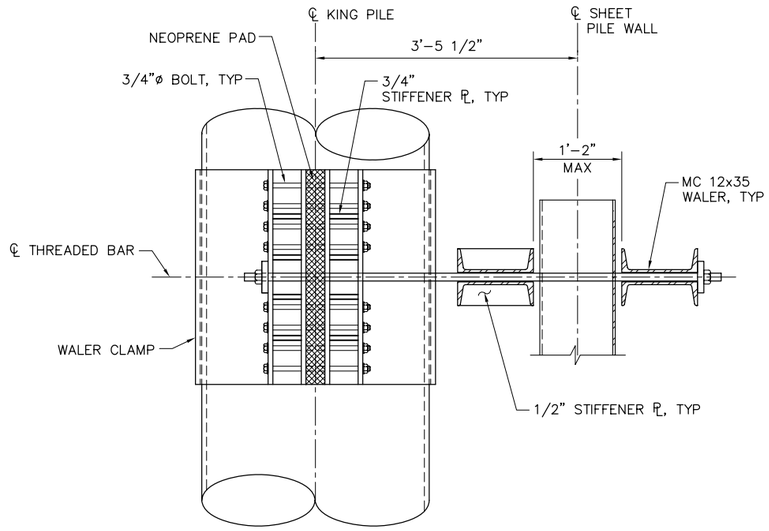
2 **DETAIL**
SCALE: 1" = 1'–0"



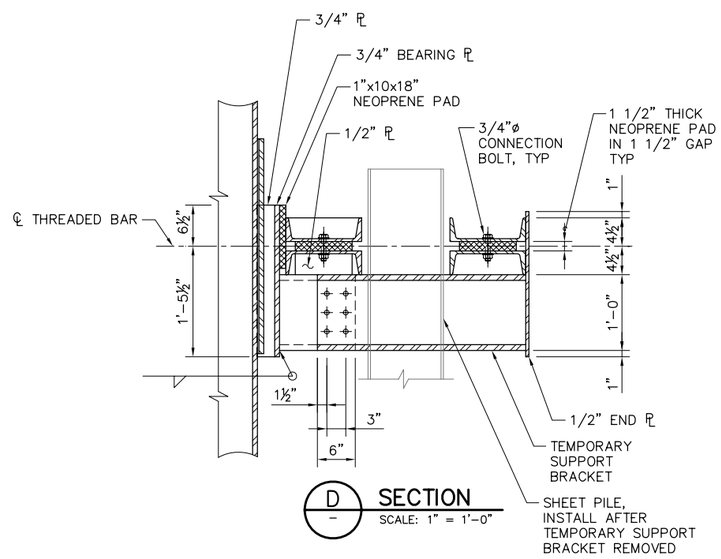
A **SECTION**
SCALE: 1 1/2" = 1'–0"



B **SECTION**
SCALE: 1" = 1'–0"



C **SECTION**
SCALE: 1" = 1'–0"



D **SECTION**
SCALE: 1" = 1'–0"

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

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TWO GATE FISH PROTECTION PLAN

DATE 12/09/08

SHEET 46 OF 65

SHEET PILE WALL DETAILS SHEET 1

C63

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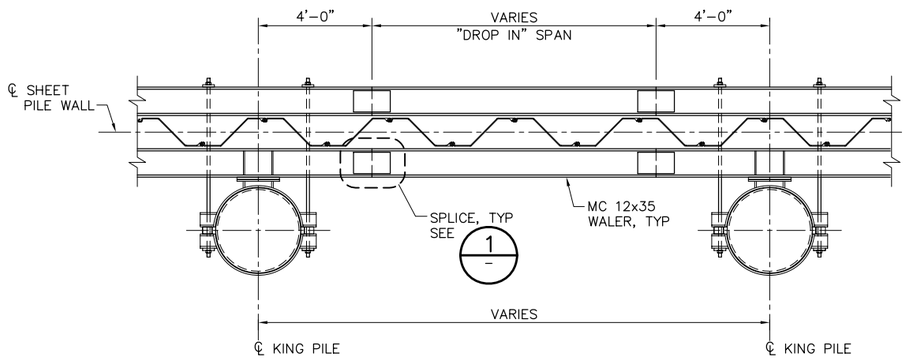
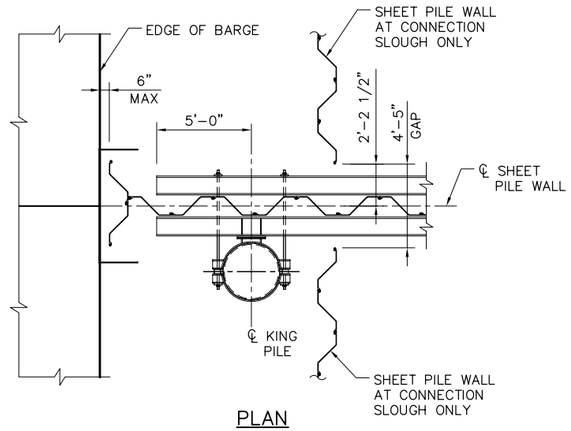


PLAN

TYPICAL WALER SPLICE DETAIL (SEE NOTE)

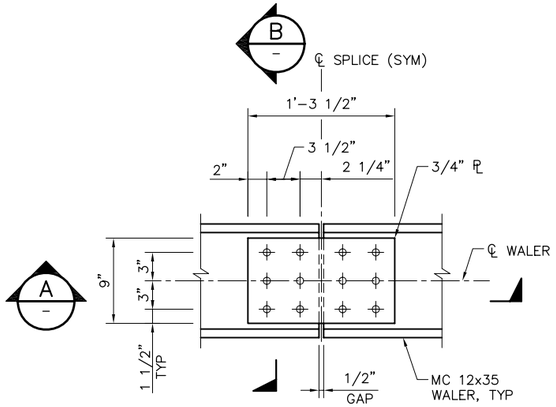
SCALE: 3/4"= 1'-0"



PLAN

2 / C35 — C5, C6 — **DETAIL**

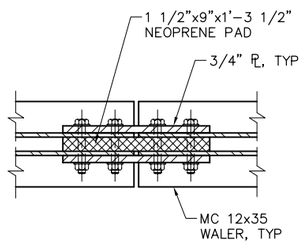
SCALE: 1/4" = 1'-0"



PLAN

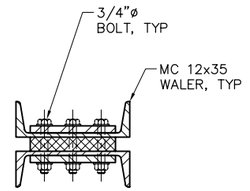
1 — **DETAIL**

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



A — **SECTION**

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

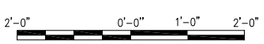


B — **SECTION**

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

NOTE:

LOCATE WALER SPLICES AS REQUIRED.



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

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TWO GATE FISH PROTECTION PLAN

DATE 12/09/08

SHEET PILE WALL DETAILS
SHEET 2

C64

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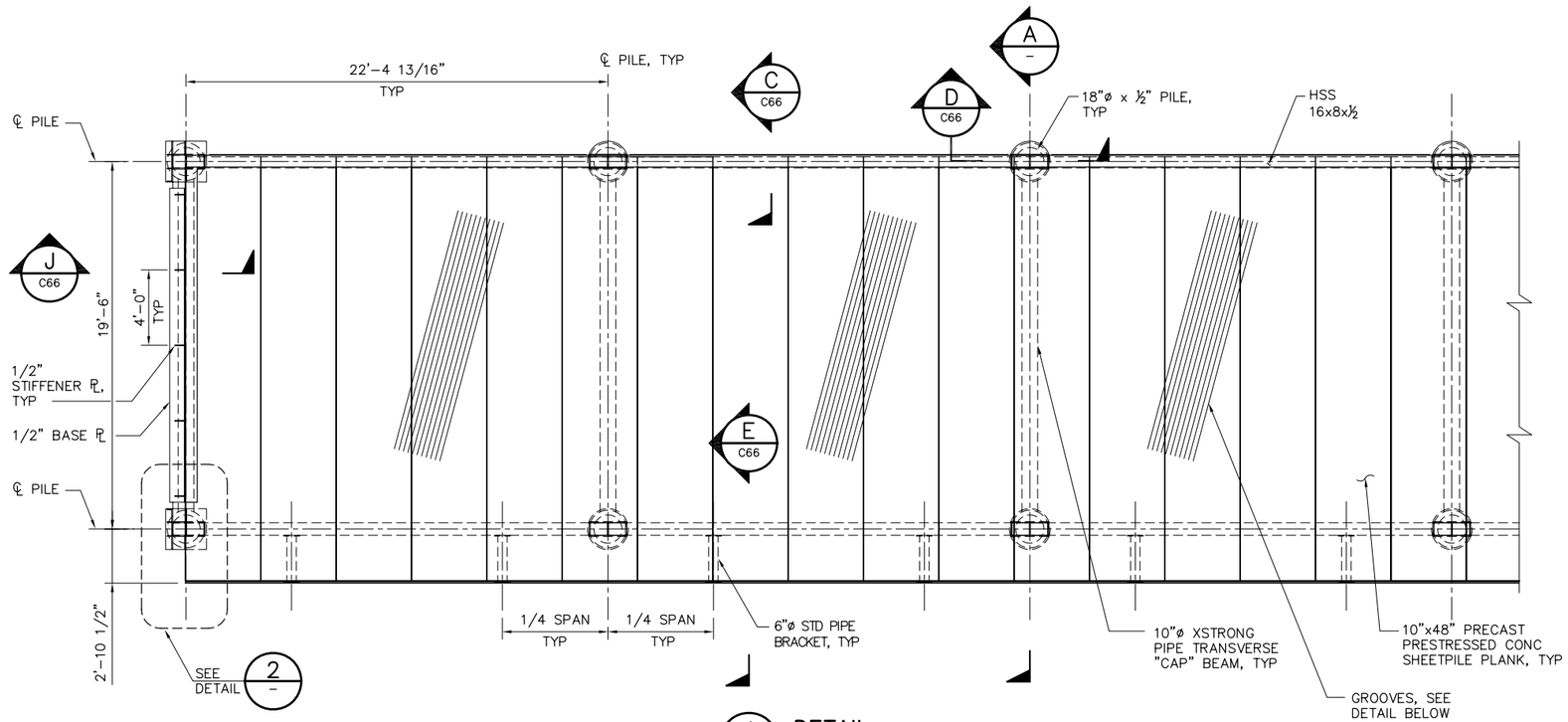
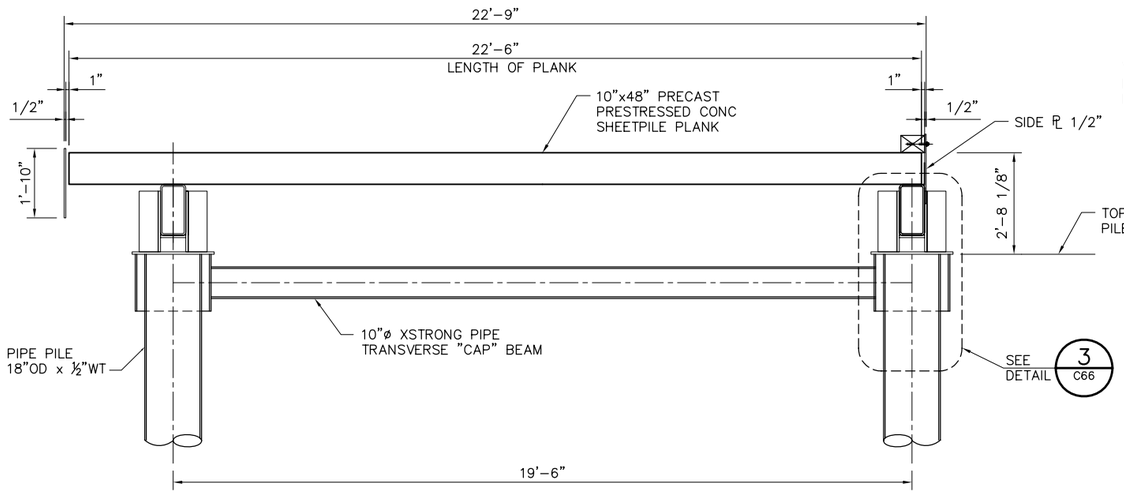
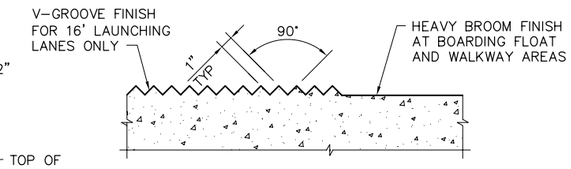


1 C7 **DETAIL** SCALE: 1/4"=1'-0"

C36



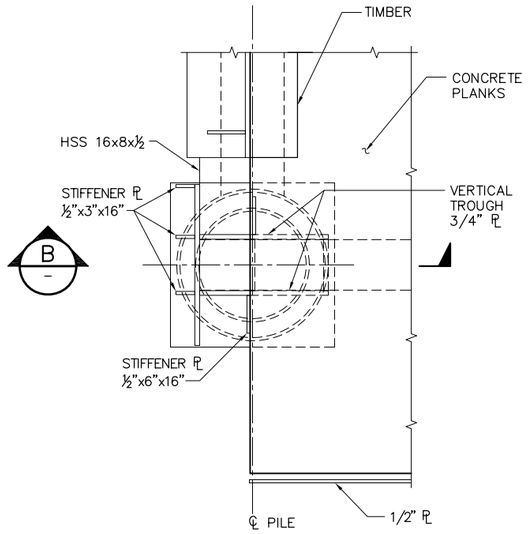
A – **SECTION** SCALE: 1/2"=1'-0"



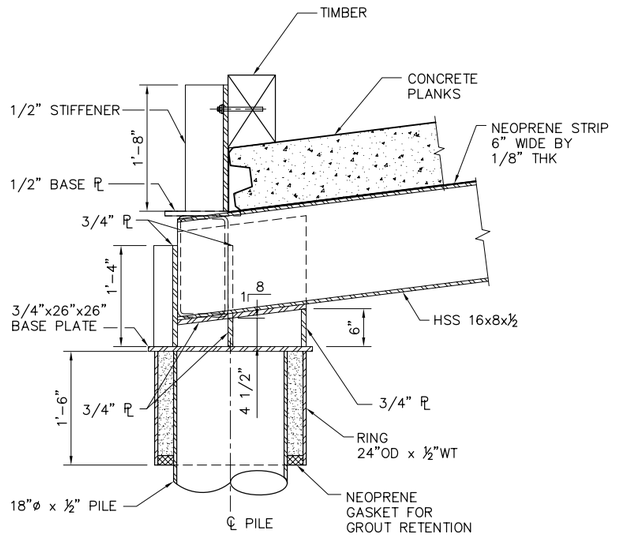
TYPICAL PRECAST PANEL SURFACE FINISH
NTS

NOTE:

V-GROOVES ARE TO BE 1"x1" AND ALIGNED AT 60° TO THE LONGITUDINAL AXIS OF THE BOAT RAMP. UNDER NO CIRCUMSTANCES SHALL THE GROOVES EXCEED 1 1/2".



2 – **DETAIL** SCALE: 1" = 1'-0"



B – **SECTION** SCALE: 1" = 1'-0"

4'-0" 0'-0" 4'-0" 8'-0"
SCALE: 1/4"=1'-0"

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

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

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TWO GATE FISH PROTECTION PLAN

DATE 12/09/08

SHEET 48 OF 65

BOAT RAMP PLAN AND SECTIONS

C65

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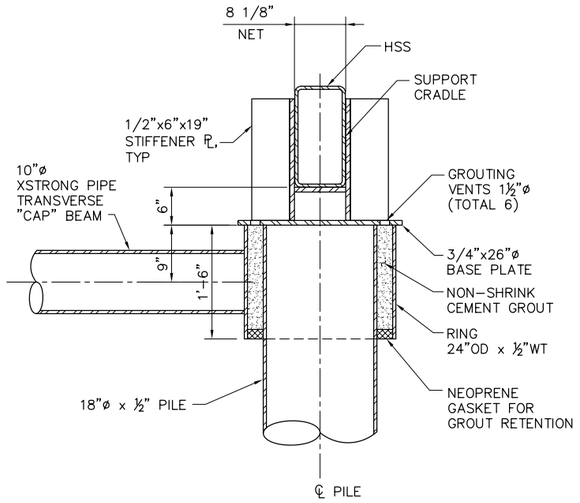
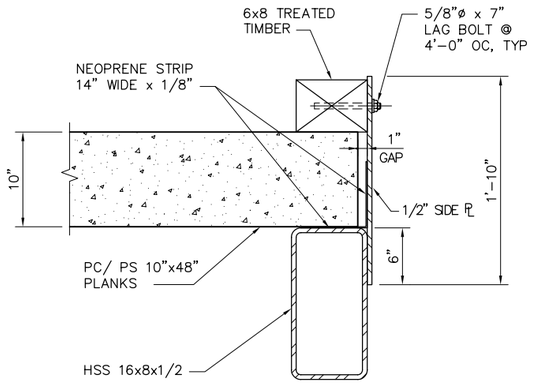
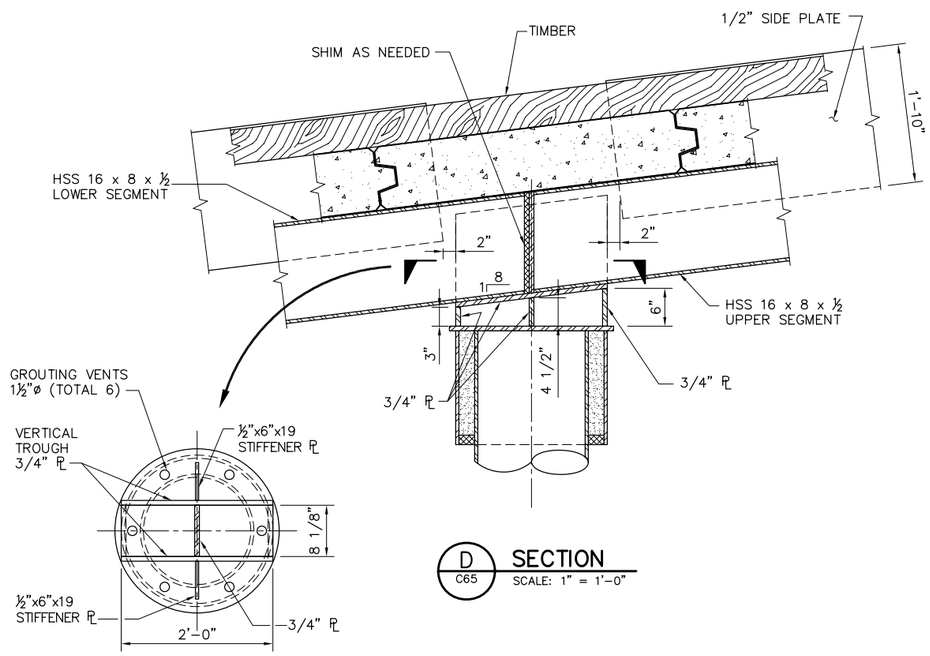


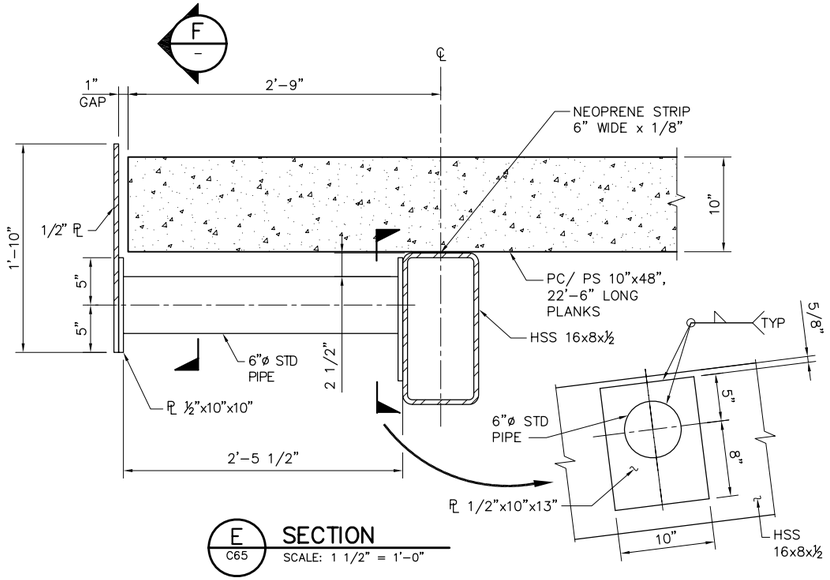
3 / C65 **DETAIL**
SCALE: 1" = 1'-0"



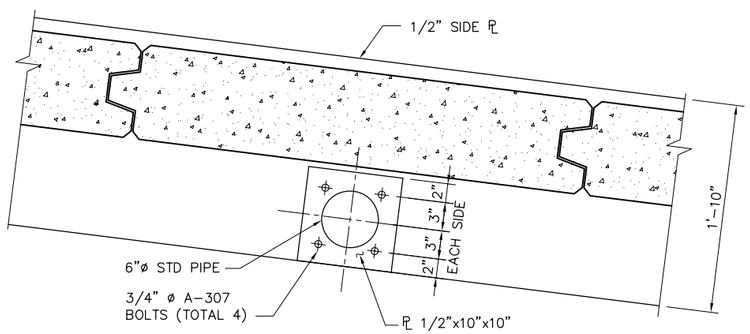
C / C65 **SECTION**
SCALE: 1 1/2" = 1'-0"



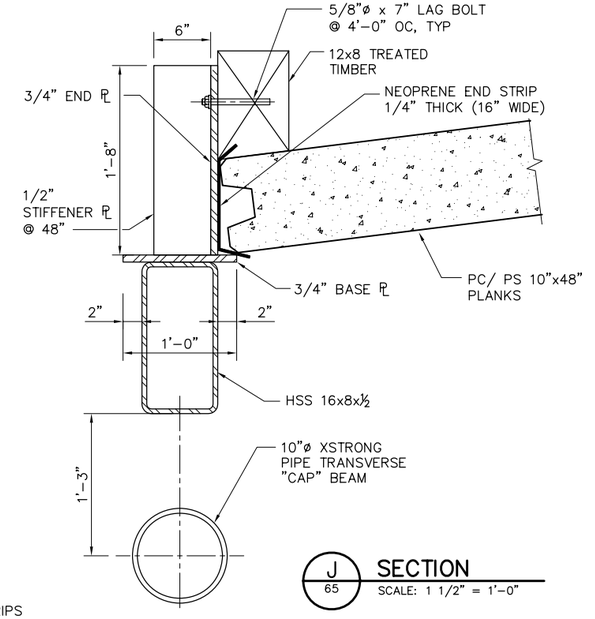
D / C65 **SECTION**
SCALE: 1" = 1'-0"



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



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



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

NOTE:
NEOPRENE STRIPS
ARE PREGLUED
TO CONCRETE PLANKS.

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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TWO GATE FISH PROTECTION PLAN

DATE 12/09/08

SHEET 49 OF 65

BOAT RAMP DETAILS

C66

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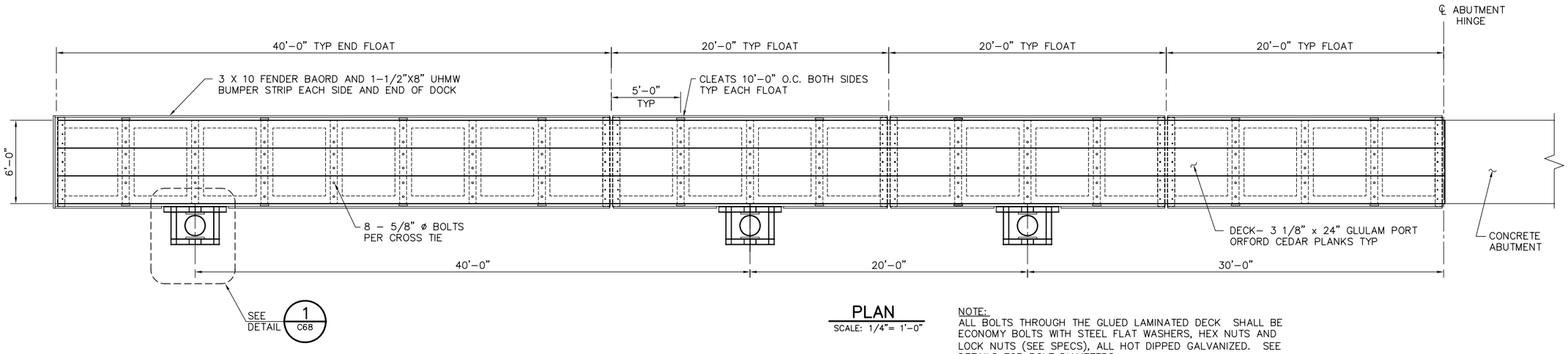
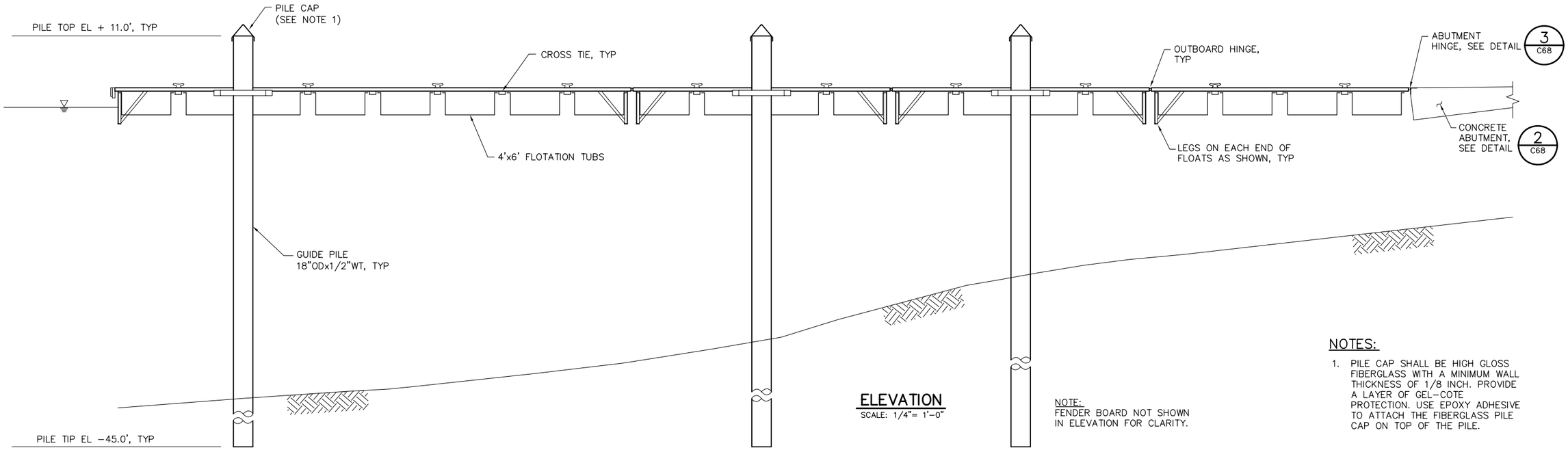


PLAN
SCALE: 1/4"= 1'–0"

NOTE:
ALL BOLTS THROUGH THE GLUED LAMINATED DECK SHALL BE ECONOMY BOLTS WITH STEEL FLAT WASHERS, HEX NUTS AND LOCK NUTS (SEE SPECS), ALL HOT DIPPED GALVANIZED. SEE DETAILS FOR BOLT DIAMETERS.



ELEVATION
SCALE: 1/4"= 1'–0"

NOTE:
FENDER BOARD NOT SHOWN IN ELEVATION FOR CLARITY.

NOTES:

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

4'–0" 0'–0" 4'–0" 8'–0"
SCALE: 1/4"=1'–0"

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TWO GATE FISH PROTECTION PLAN

DATE 12/09/08

SHEET 50 OF 65

BOARDING FLOAT PLAN AND ELEVATION

C67

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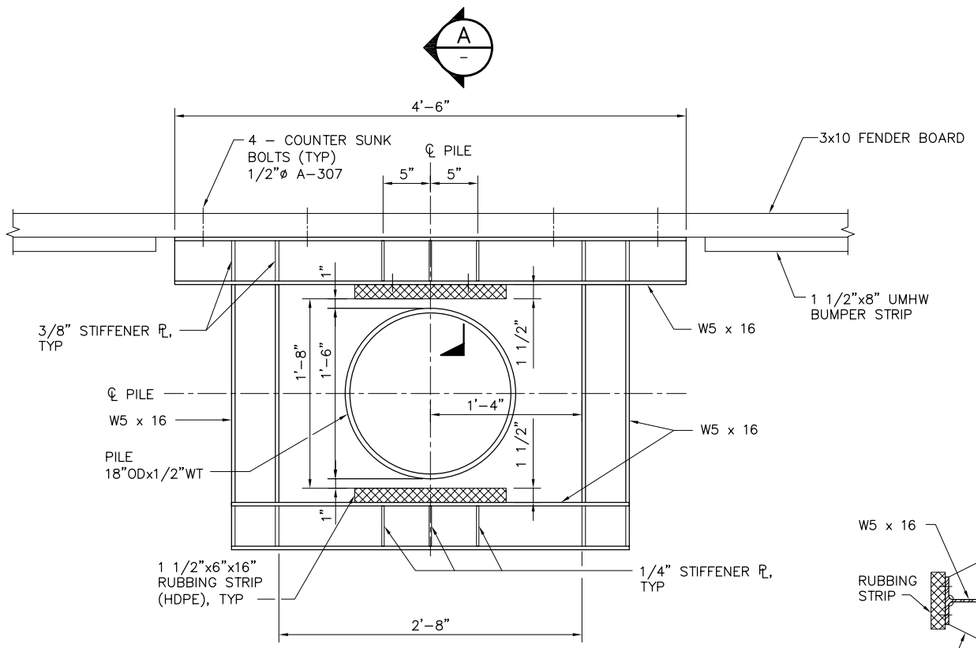
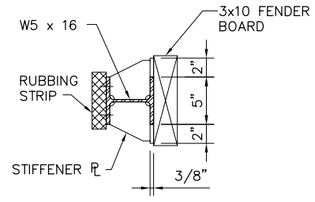
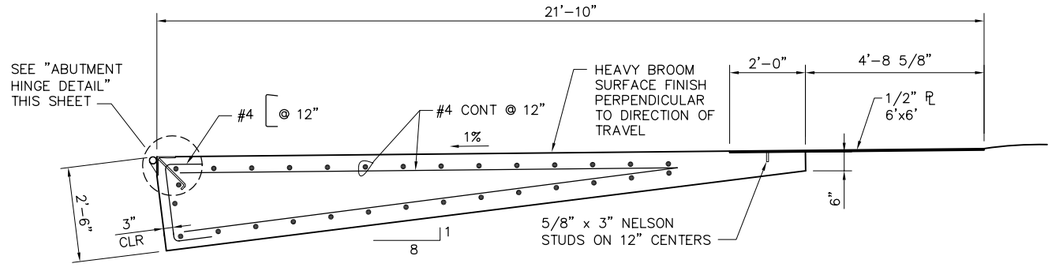


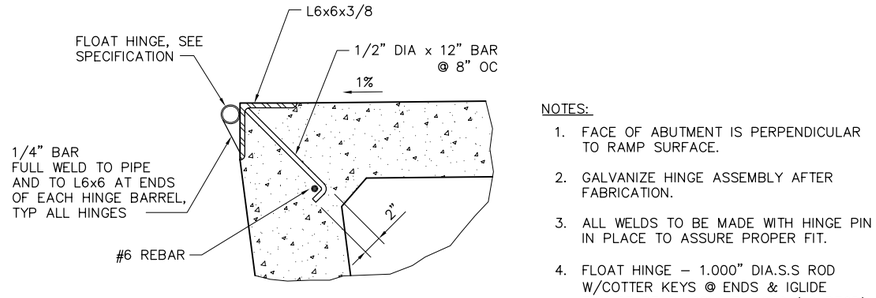
1 C67 **DETAIL**
SCALE: 1 1/2" = 1'–0"



A – **SECTION**
SCALE: 1 1/2" = 1'–0"



2 C67 **ABUTMENT DETAIL**
SCALE: 1/2" = 1'–0"



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 ASSURE PROPER FIT.
4. FLOAT HINGE – 1.000" DIA.S.S ROD W/COTTER KEYS @ ENDS & IGLIDE FLANGE BEARINGS #JFI–1620 (10 REQD) BY IGUS IND.(PROVIDE 100% SPARES)

3 C67 **ABUTMENT HINGE DETAIL**
SCALE: 1 1/2" = 1'–0"

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

2'–0" 0'–0" 2'–0" 4'–0"
SCALE: 1/2"=1'–0"

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TWO GATE FISH PROTECTION PLAN

DATE 12/09/08

SHEET 51 OF 65

BOARDING FLOAT DETAILS

C68

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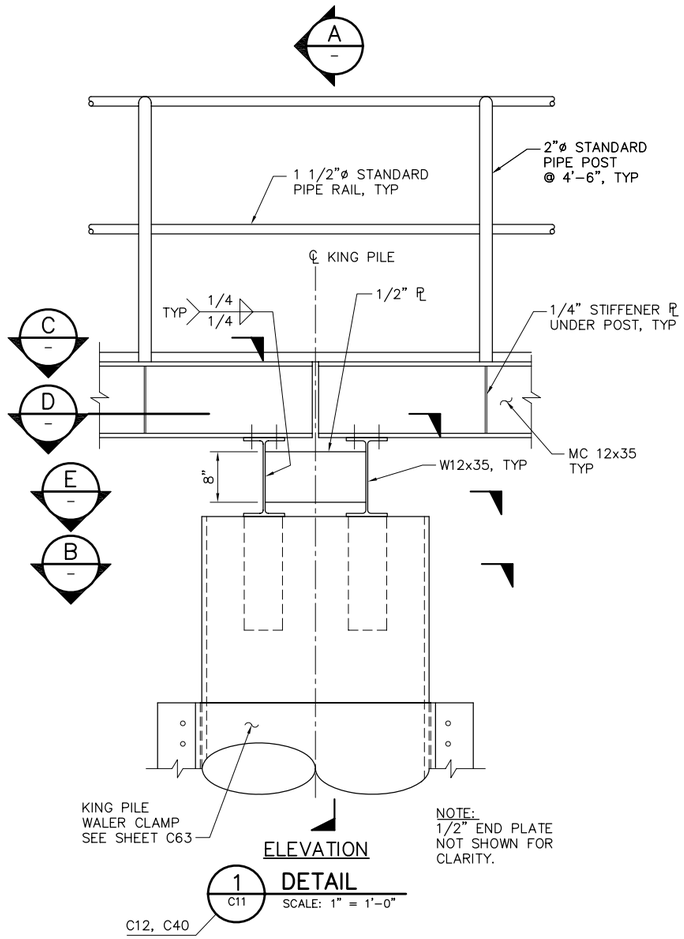
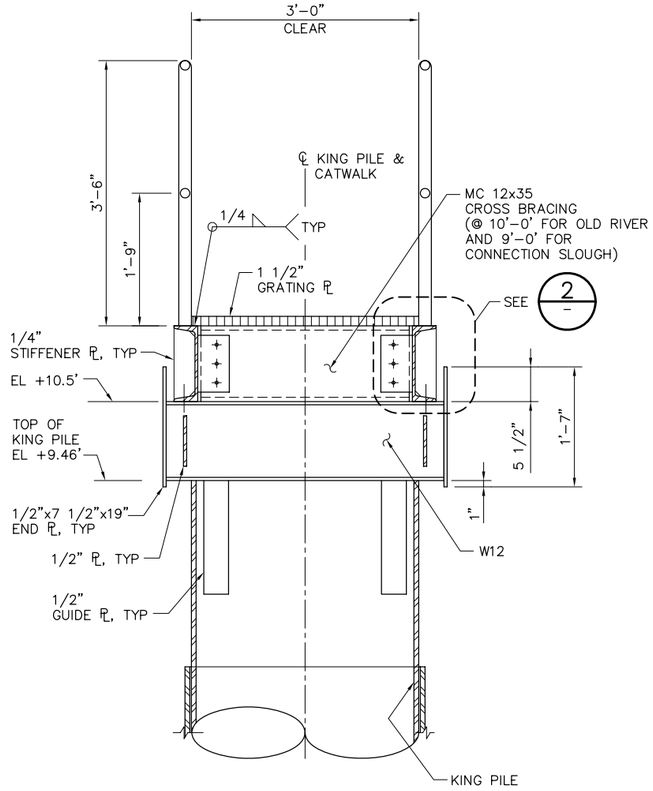
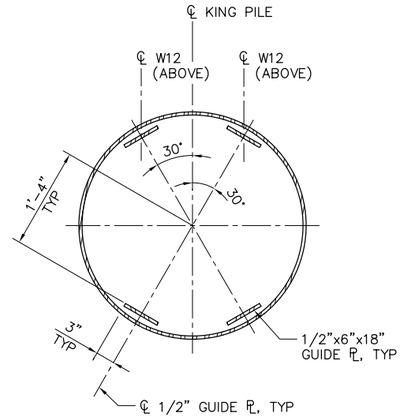


ELEVATION

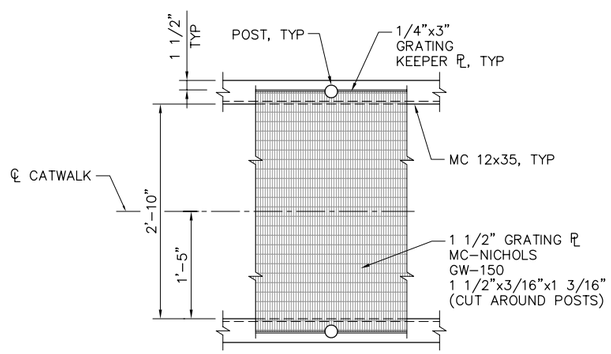
1 / C11 DETAIL
SCALE: 1" = 1'-0"



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

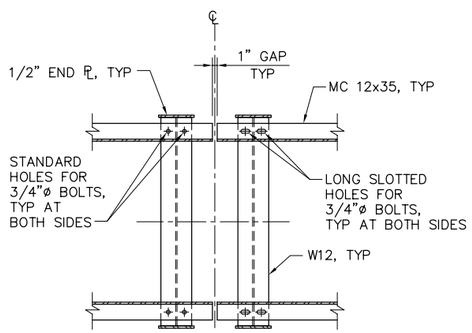


B SECTION
SCALE: 1" = 1'-0"

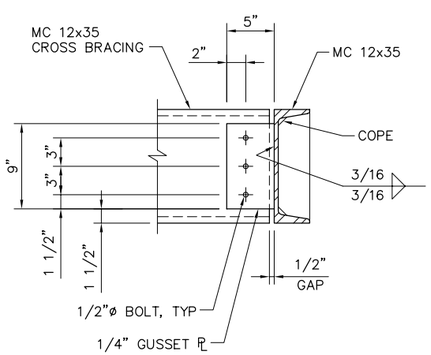


PLAN AT GRATING PLATE

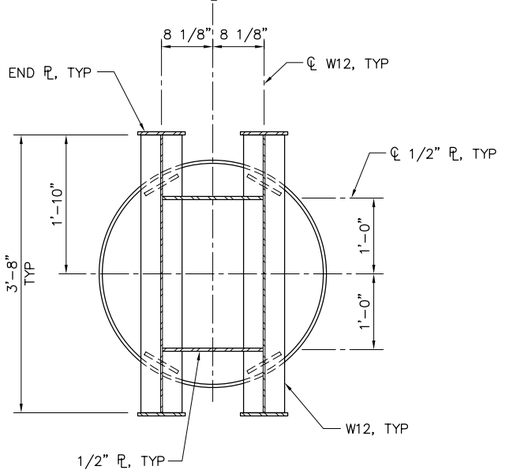
C SECTION
SCALE: 1" = 1'-0"



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



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



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

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

90% SUBMITTAL

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

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(925) 944-5411

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

TWO GATE FISH PROTECTION PLAN

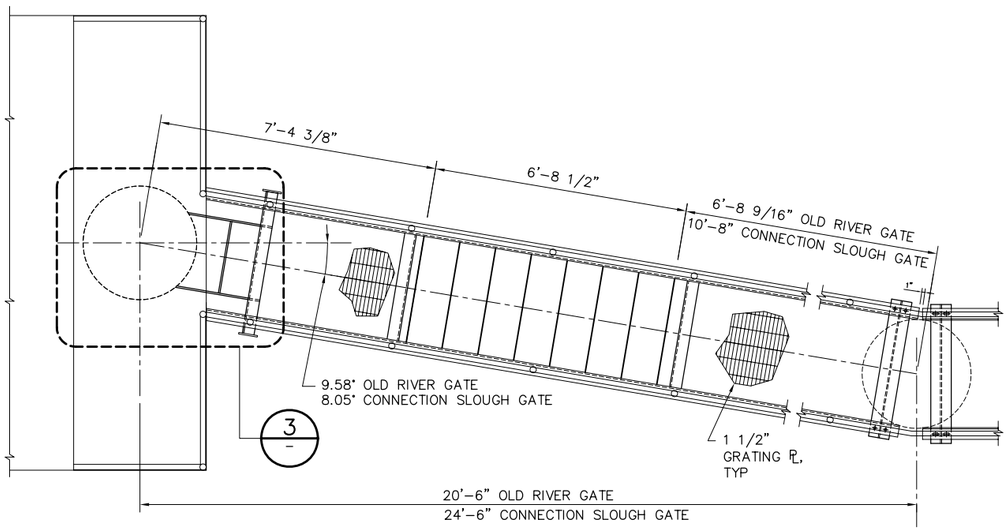
DATE 12/09/08

SHEET 52 OF 65

CATWALK DETAILS SHEET 1

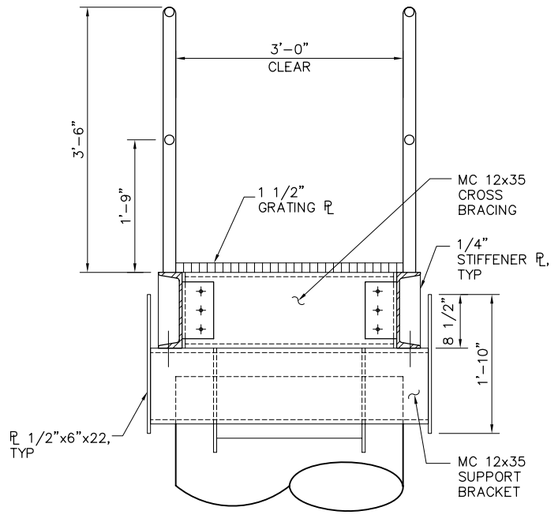
C69

P:\6097-03 SWC GATE DESIGN\CADD\DWG\609703-C69.DWG 12/8/2008 2:13 PM

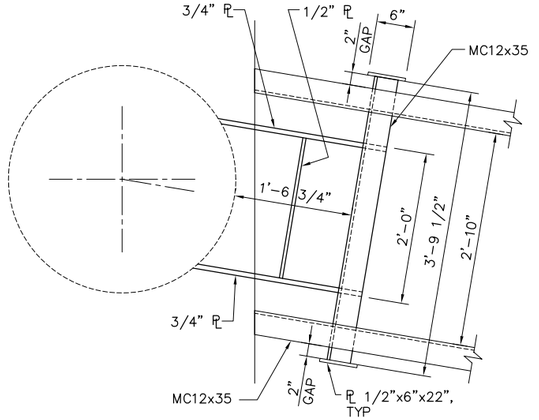


PLAN

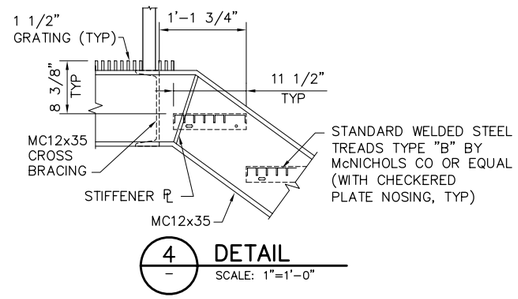
1 C12 DETAIL
SCALE: 1/2" = 1'-0"
C40



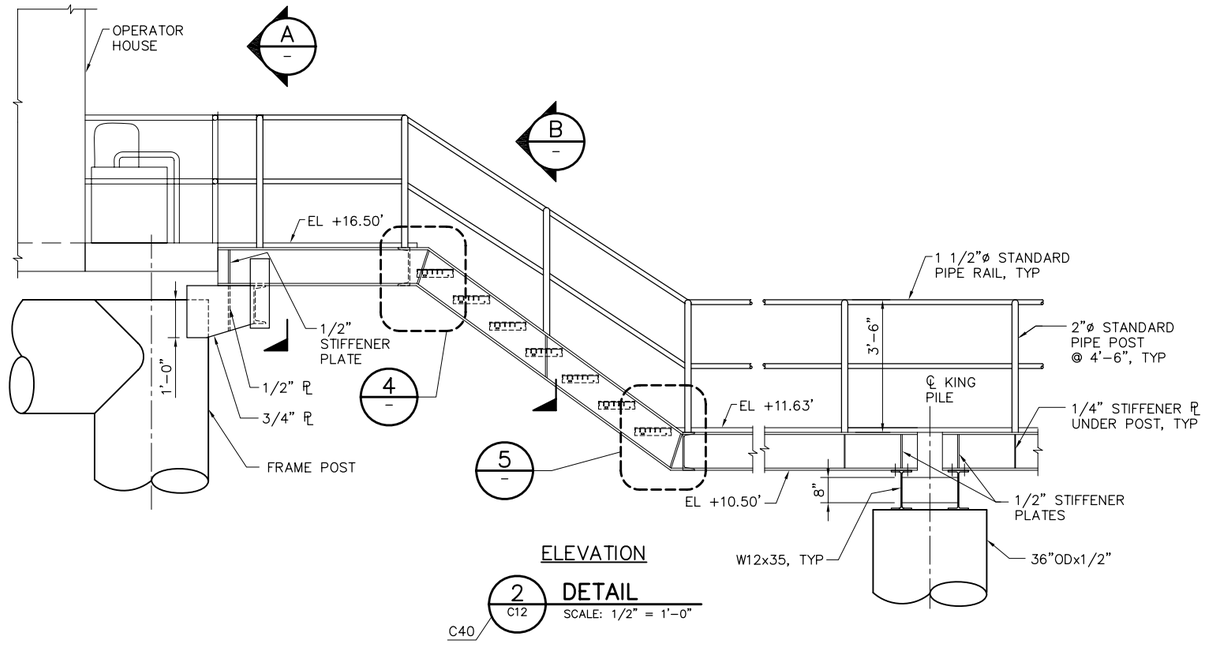
A SECTION
SCALE: 1"=1'-0"



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

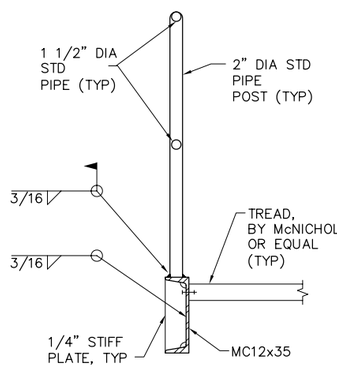


4 DETAIL
SCALE: 1"=1'-0"

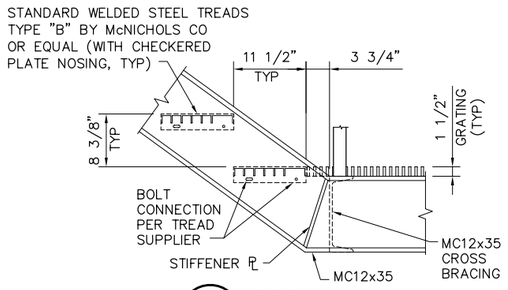


ELEVATION

2 C12 DETAIL
SCALE: 1/2" = 1'-0"
C40



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



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

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

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

90% SUBMITTAL IF SHEET IS LESS THAN 22" x 34" IT IS A REDUCED PRINT – SCALE REDUCED ACCORDINGLY.

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JOB NO.	SUBMITTED BY	TITLE
6097-03	RMR	

TWO GATE FISH PROTECTION PLAN

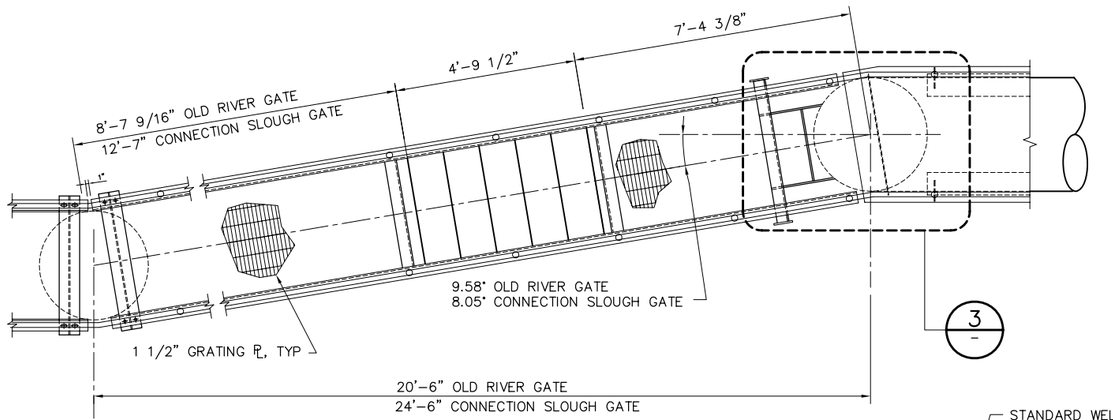
DATE 12/09/08

SHEET 53 OF 65

CATWALK DETAILS SHEET 2

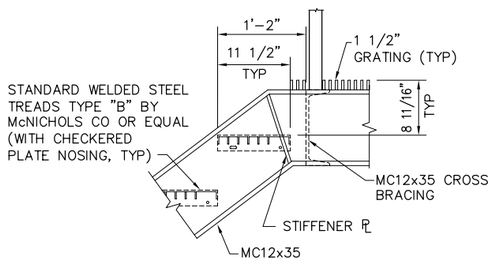
C70

P:\6097-03 SWC GATE DESIGN\CADD\DWG\609703-C70.DWG 12/8/2008 2:14 PM

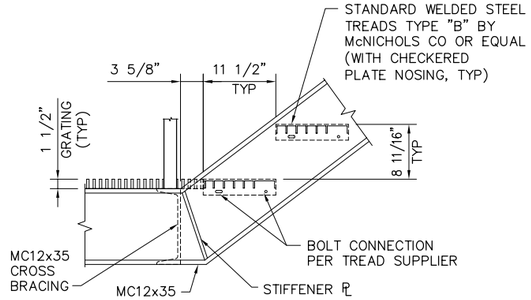


PLAN

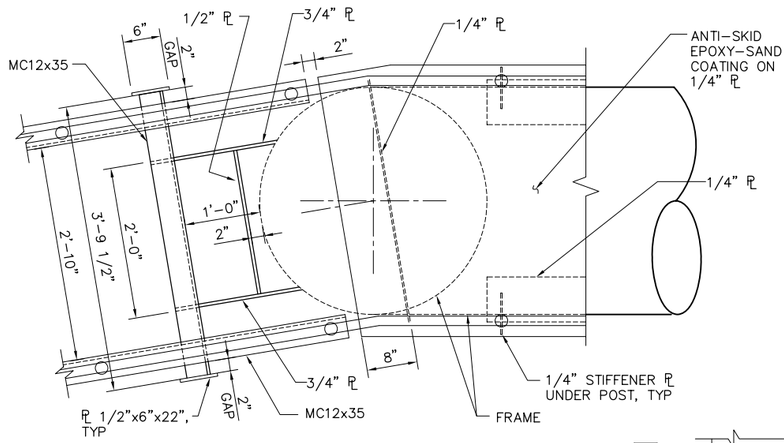
1 / C11 DETAIL
SCALE: 1/2" = 1'-0"
C40



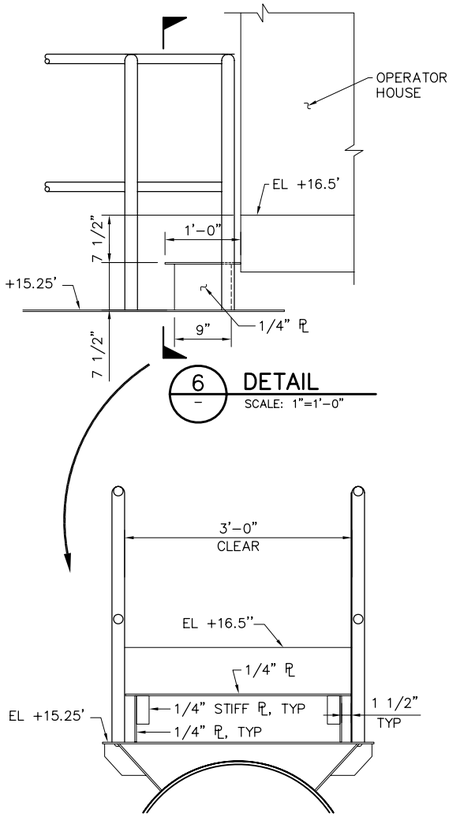
4 / – DETAIL
SCALE: 1"=1'-0"

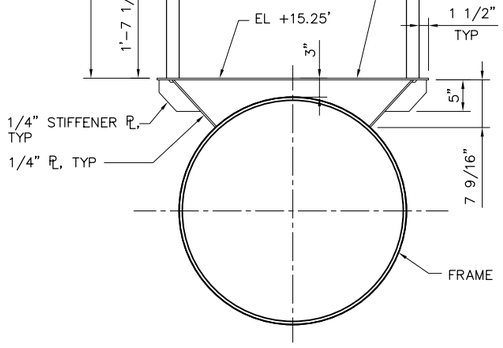


5 / – DETAIL
SCALE: 1"=1'-0"

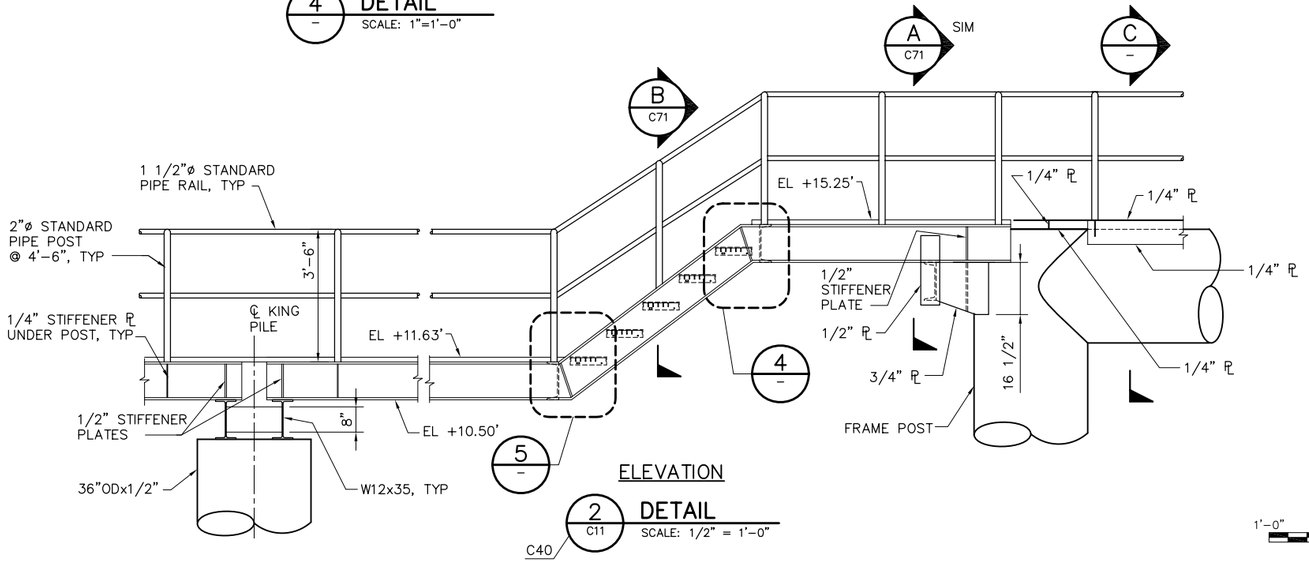


3 / – DETAIL
SCALE: 1"=1'-0"





C / – SECTION
SCALE: 1"=1'-0"



ELEVATION

2 / C11 DETAIL
SCALE: 1/2" = 1'-0"
C40

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

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

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TWO GATE FISH PROTECTION PLAN

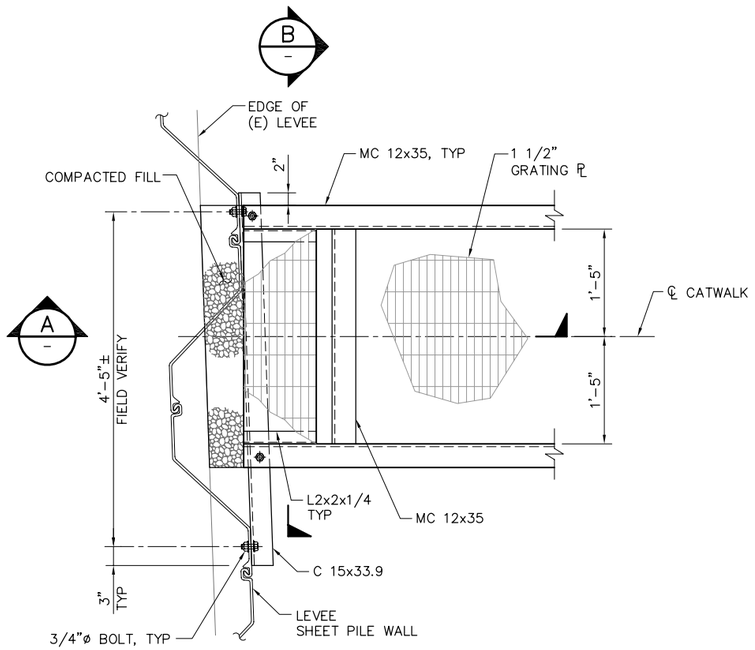
DATE 12/09/08

SHEET 54 OF 65

CATWALK DETAILS SHEET 3

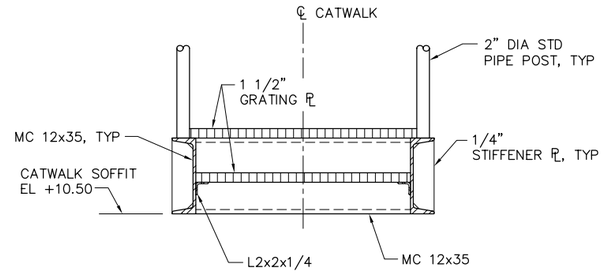
C71

P:\6097-03 SWC GATE DESIGN\CADD\DWG\609703-C71.DWG 12/8/2008 2:15 PM

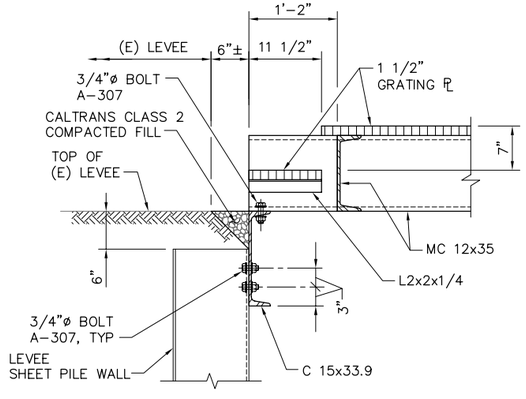


PLAN AT END OF CATWALK

1 / C11 DETAIL
SCALE: 3/4" = 1'-0"
C40



B / – SECTION
SCALE: 1" = 1'-0"



A / – SECTION
SCALE: 1" = 1'-0"

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

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JOB NO.	SUBMITTED BY	TITLE
6097-03	RMR	

TWO GATE FISH PROTECTION PLAN

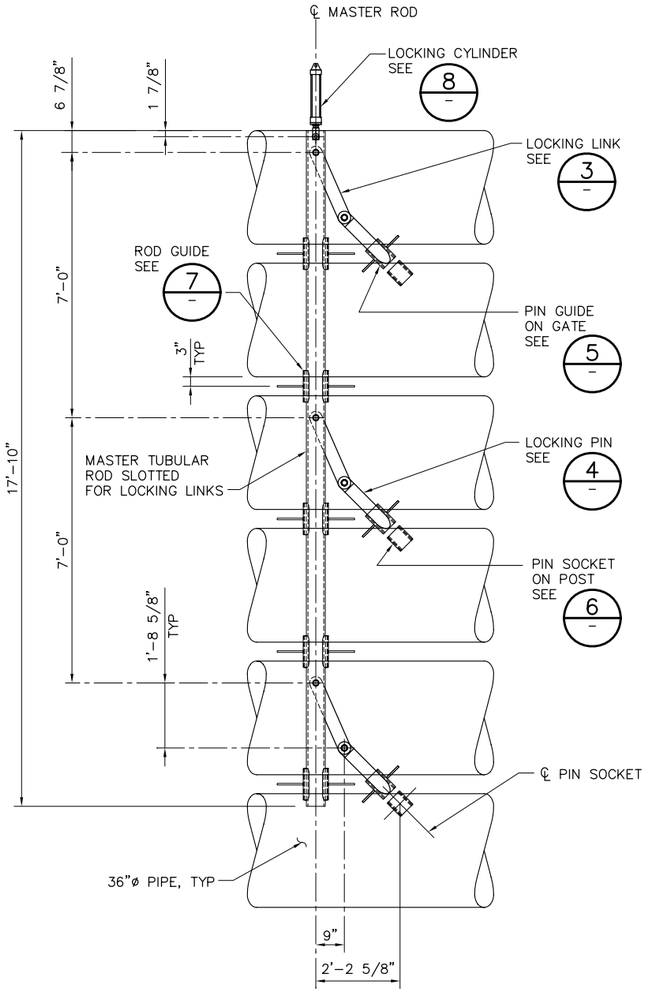
CATWALK DETAILS
SHEET 4

DATE 12/09/08

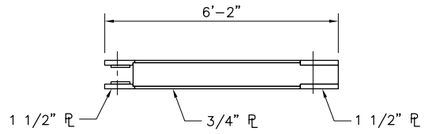
SHEET 55 OF 65

C72

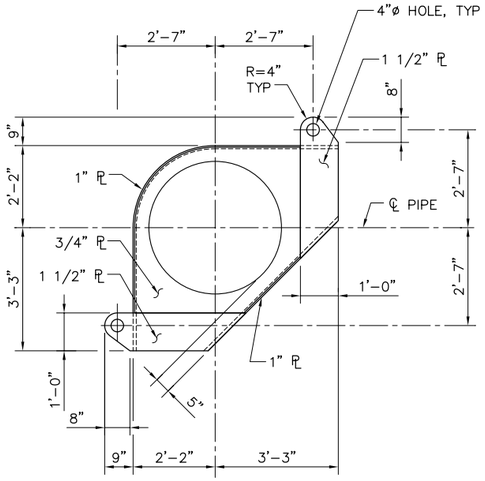
P:\6097-03 SWC GATE DESIGN\CADD\DWG\609703-C72.DWG 12/8/2008 2:15 PM



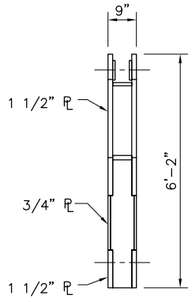
1 GATE OPEN LOCK (UNLOCKED) DETAIL
SCALE: 1/2" = 1'-0"



ELEVATION

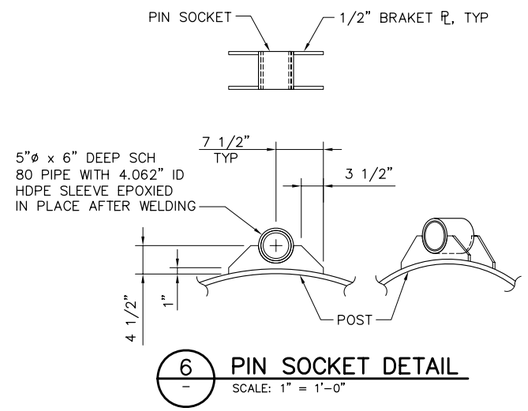


PLAN

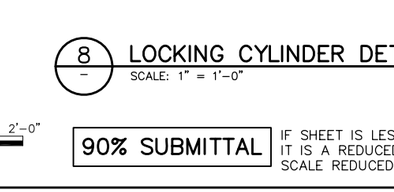


SIDE VIEW

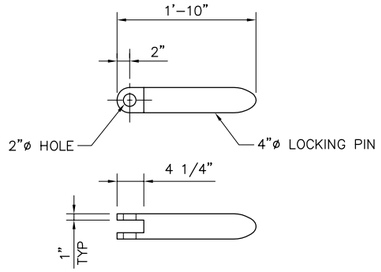
2 GATE ROTATOR YOKE DETAIL
SCALE: 1/2" = 1'-0"



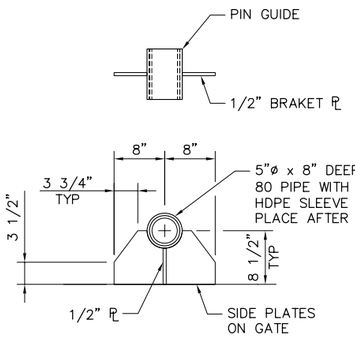
6 PIN SOCKET DETAIL
SCALE: 1" = 1'-0"



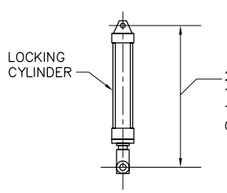
7 ROD GUIDE DETAIL
SCALE: 1" = 1'-0"



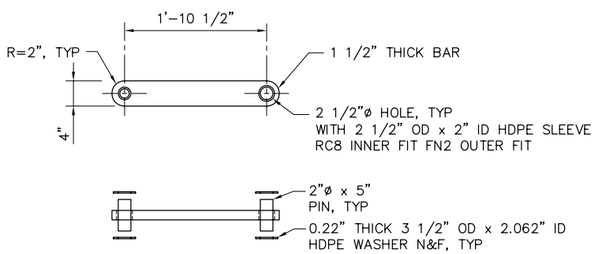
4 LOCKING PIN DETAIL
SCALE: 1" = 1'-0"



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



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



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

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

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6097-03	RMR	

TWO GATE FISH PROTECTION PLAN

GATE MECHANICAL DETAILS SHEET 1

DATE 12/09/08

SHEET 56 OF 65

C73

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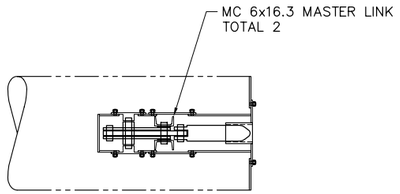
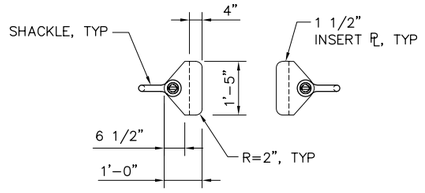
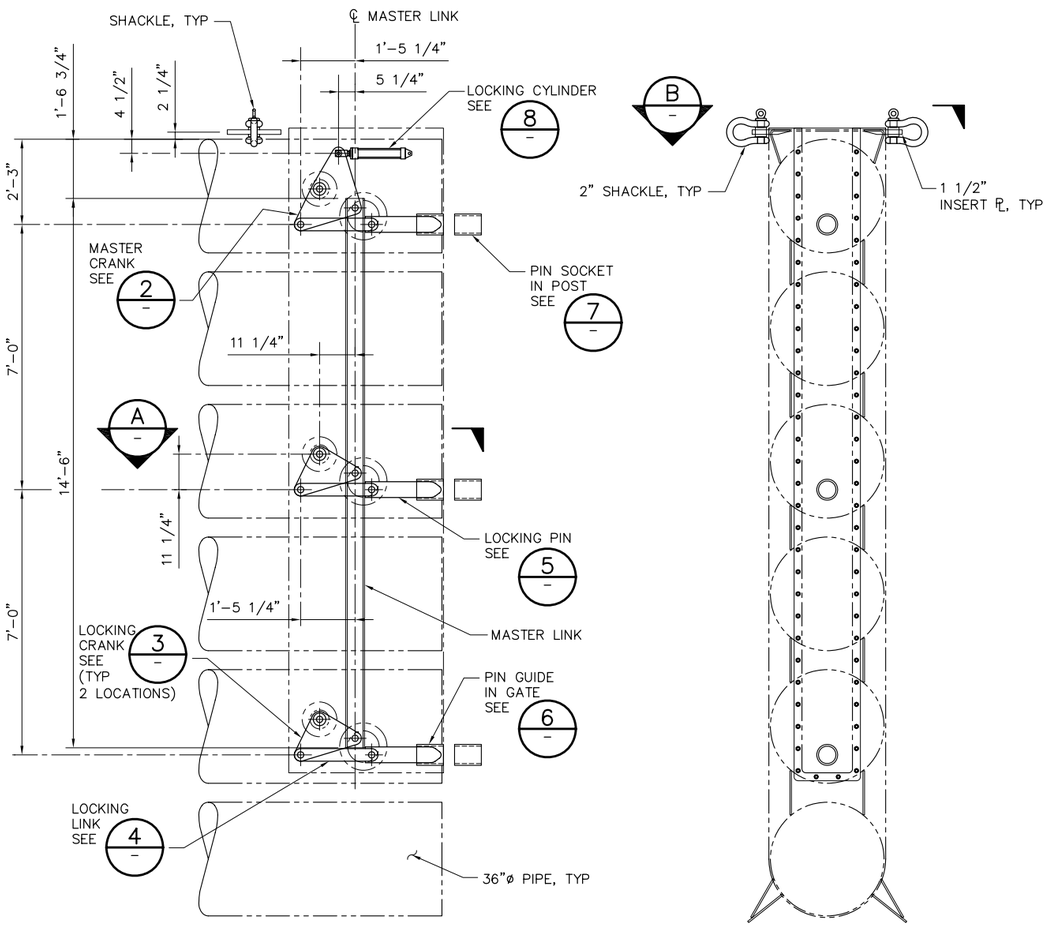


A — SECTION
SCALE: 1/2" = 1'–0"



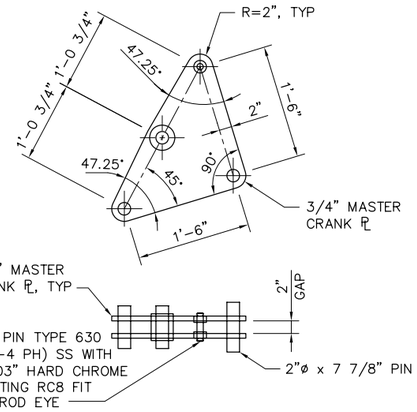
B — SECTION
SCALE: 1/2" = 1'–0"



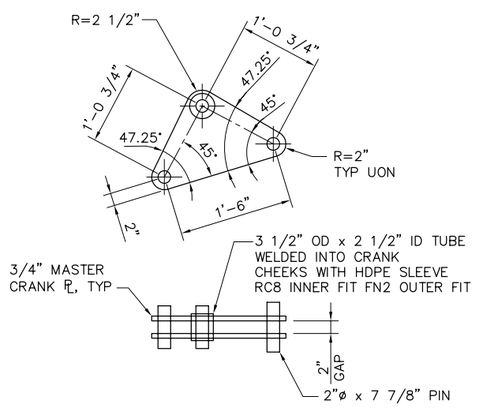
ELEVATION

SIDE VIEW

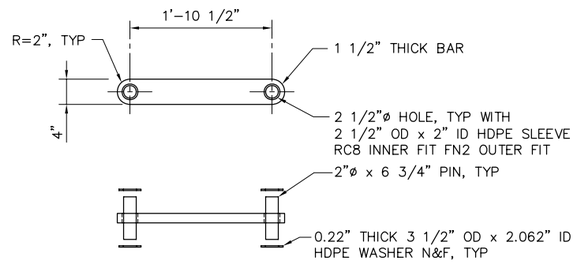
1 — GATE CLOSED LOCK (UNLOCKED) DETAIL
SCALE: 1/2" = 1'–0"



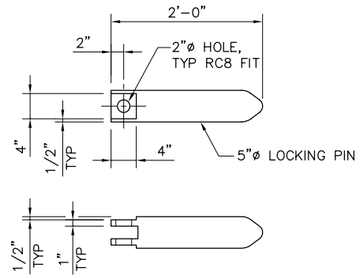
2 — MASTER CRANK DETAIL
SCALE: 1" = 1'–0"



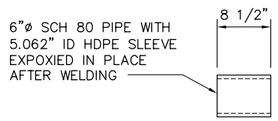
3 — LOCKING CRANK DETAIL
SCALE: 1" = 1'–0"



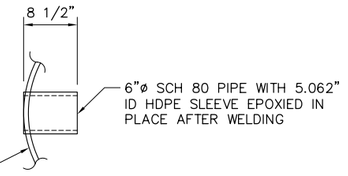
4 — LOCKING LINK DETAIL
SCALE: 1" = 1'–0"



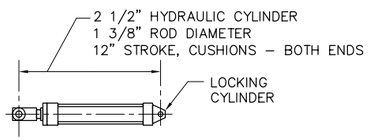
5 — LOCKING PIN DETAIL
SCALE: 1" = 1'–0"



6 — PIN GUIDE DETAIL
SCALE: 1" = 1'–0"



7 — PIN SOCKET DETAIL
SCALE: 1" = 1'–0"



8 — LOCKING CYLINDER DETAIL
SCALE: 1" = 1'–0"

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

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TWO GATE FISH PROTECTION PLAN

DATE 12/09/08

SHEET 57 OF 65

GATE MECHANICAL DETAILS SHEET 2

C74

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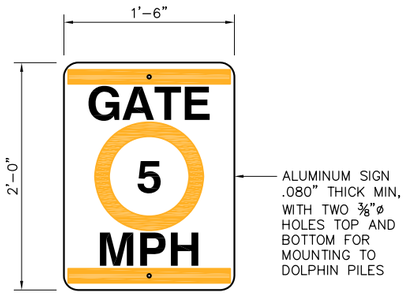
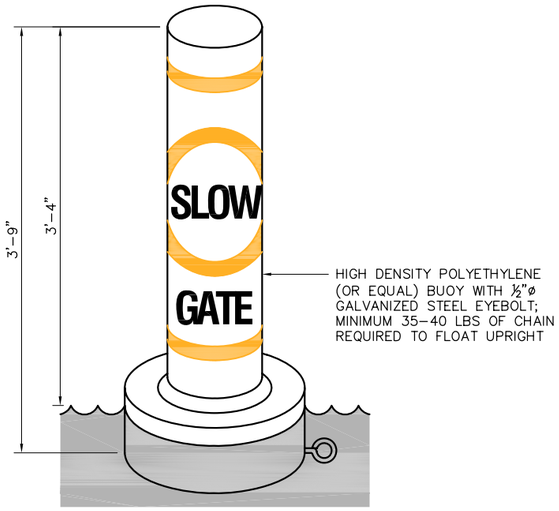


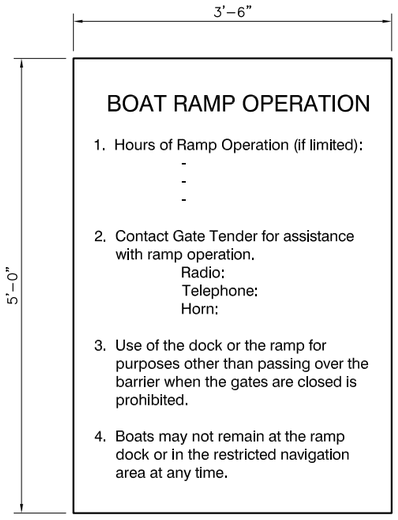
SIGNBOARD ON PILE, ORANGE ON WHITE WITH BLACK LETTERS

1 C19 / C47 DOLPHIN PILE SIGN
SCALE: 1/8" = 1'-0"



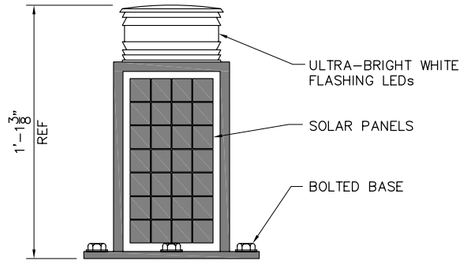
ORANGE ON WHITE WITH BLACK LETTERS

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



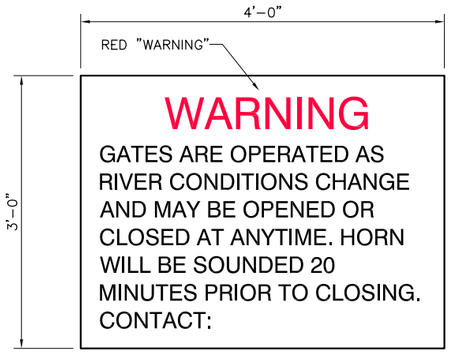
BLACK LETTERS ON WHITE PAINTED ALUMINUM BOARD

3 C19 / C47 BOAT RAMP DOCK SIGN
SCALE: NONE



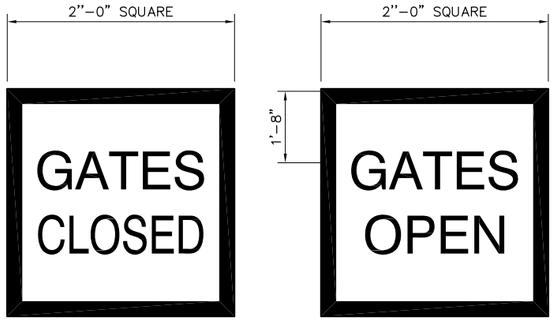
OBSTRUCTION LIGHT; MOUNTED ATOP GATE PIVOT AND ALONG SHEET PILE WHERE NOTED
CARMANAH MODEL M702-5GPS OR EQUAL

4 C19 / C47 OBSTRUCTION LIGHT
SCALE: NONE



BLACK LETTERS ON WHITE PAINTED ALUMINUM BOARD

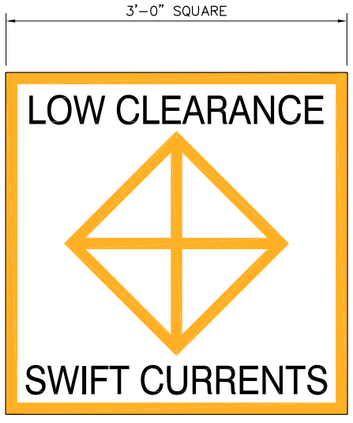
5 C19 / C47 GATE WARNING SIGN 1
SCALE: NONE



BLACK LETTERS AND BORDER ON WHITE PAINTED ALUMINUM BOARD

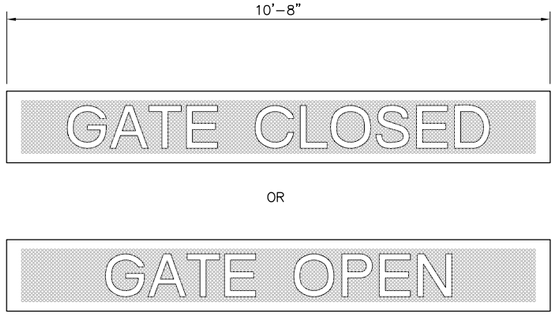
BLACK LETTERS AND BORDER ON WHITE PAINTED ALUMINUM BOARD

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



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

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



PROGRAMMABLE 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 C19 / C47 ELECTRONIC MESSAGE SIGN
SCALE: NONE

NOTE:

SEE DRAWING C76 FOR SIGN MOUNTING DETAILS.

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TWO GATE FISH PROTECTION PLAN

DATE 12/09/08

SHEET 58 OF 65

AIDS TO NAVIGATION
DETAILS, SHEET 1

C75

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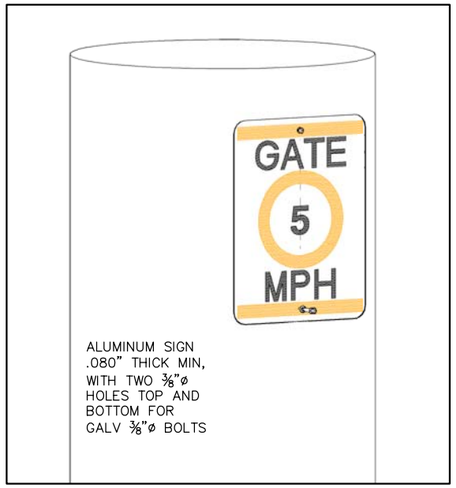
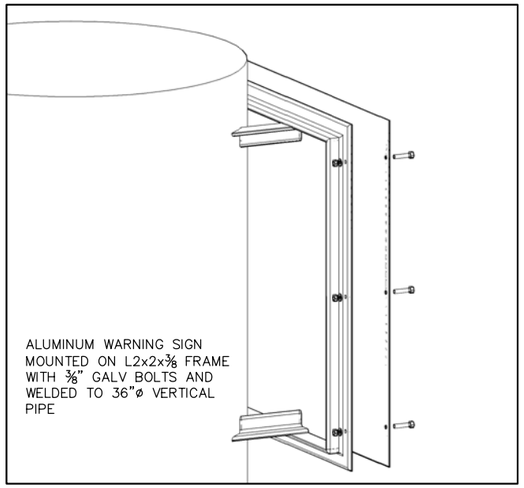
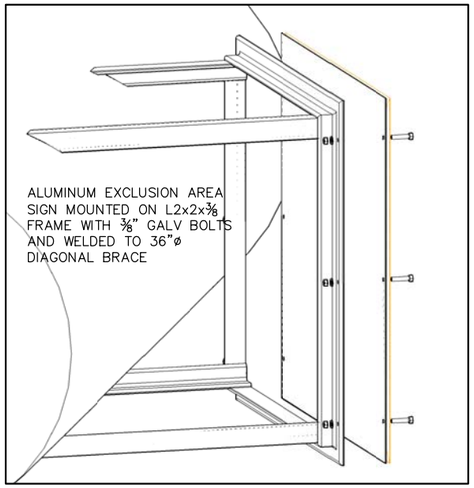


1 C75 DOLPHIN PILE SIGN
SCALE: NONE

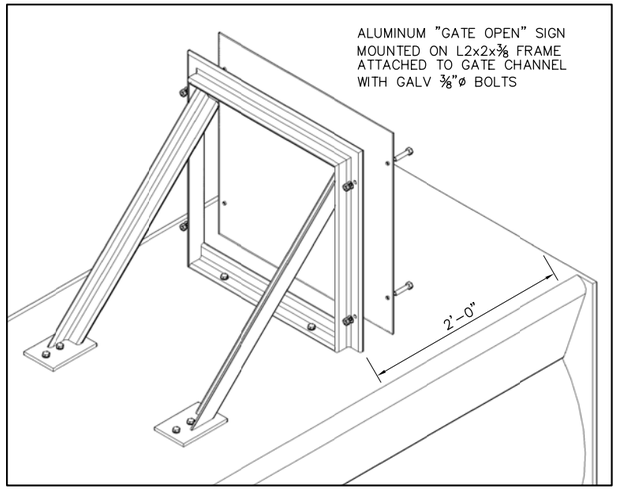


2 C75 GATE WARNING SIGN 1
SCALE: NONE

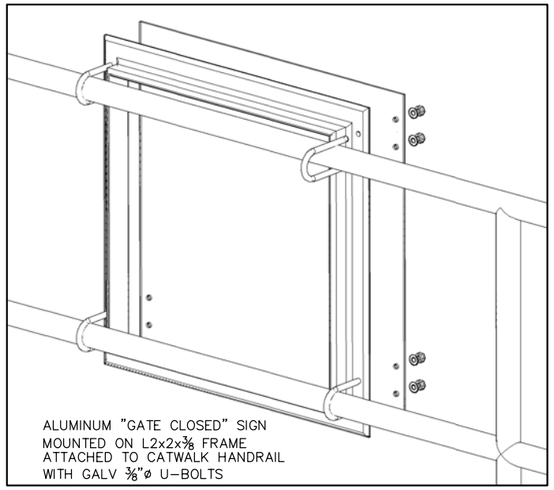


NOTE: EXCLUSION AREA SIGN SHOWN ON BRACE; SIGN ON OTHER SIDE OF GATE IS MOUNTED ON THE HANDRAIL SIMILAR TO DETAIL 5.

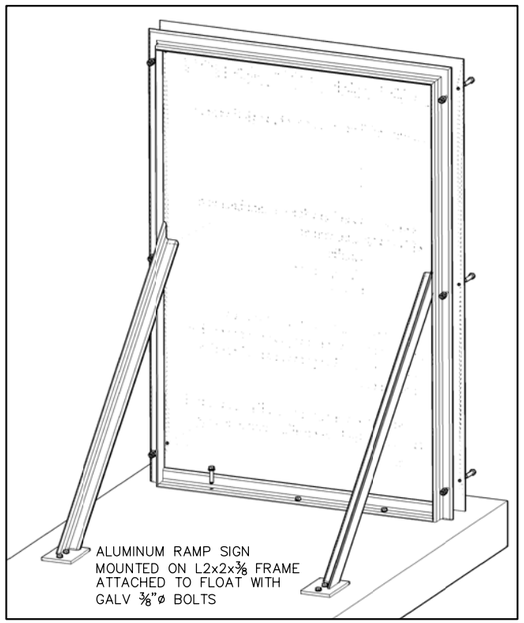
3 C75 GATE WARNING SIGN 2
SCALE: NONE



4 C75 GATE OPEN SIGN
SCALE: NONE



5 C75 GATE CLOSED SIGN
SCALE: NONE



6 C75 BOAT RAMP DOCK SIGN
SCALE: NONE

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TWO GATE FISH PROTECTION PLAN

AIDS TO NAVIGATION
DETAILS, SHEET 2

DATE 12/09/08
SHEET 59 OF 65
C76

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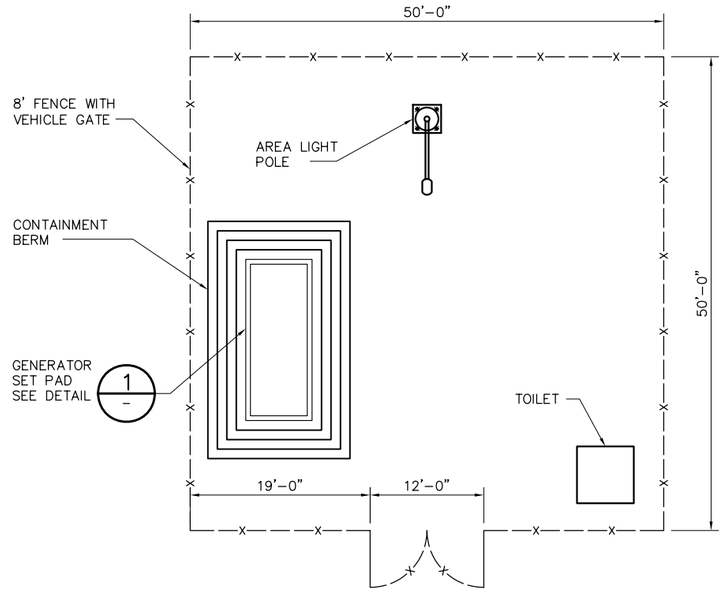
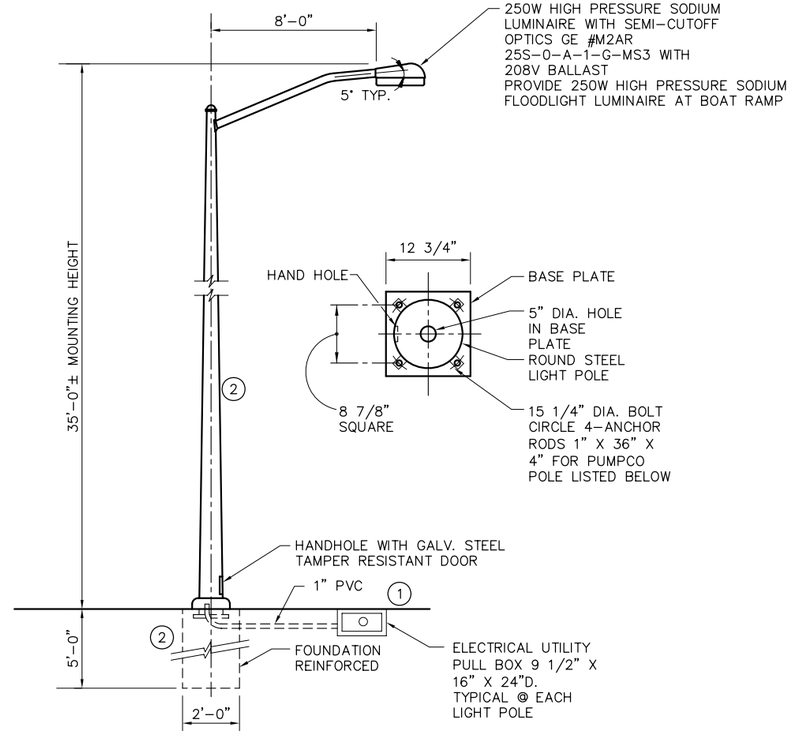


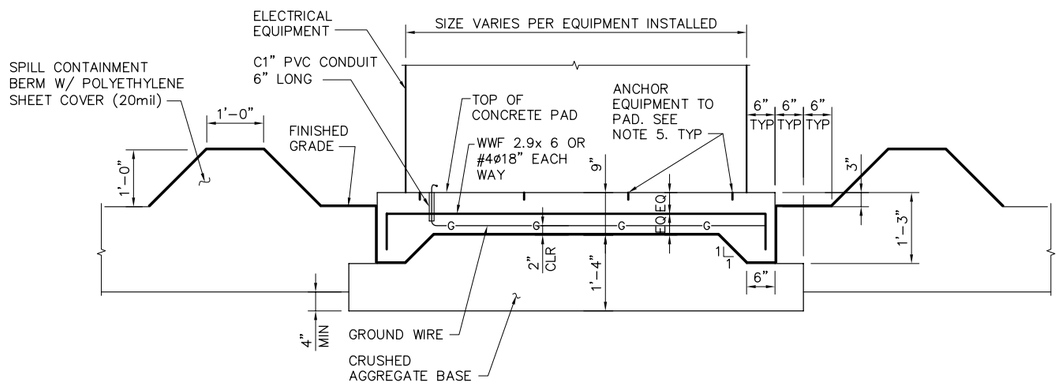
-/- UTILITY YARD
SCALE: 1/8"=1'-0"



NOTES:

1. PUMPCO STEEL LIGHT POLE, SINGLE DAVIT
2. VERIFY BOLT CIRCLE & SPACING DIMENSIONS WITH MFG.

AREA LIGHT POLE
NTS



1/- GENERATOR SET PAD DETAIL
NTS

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. CONCRETE SHALL BE CLASS 560-C-3250 WITH A MAXIMUM SLUMP OF 5", UNLESS OTHERWISE NOTED ON THE PLANS.
3. WELDED WORE FABRIC SHALL BE DEFORMED WIRE ASTM A496 OR 494, GRADE 60.
4. REINFORCING STEEL SHALL BE DEFORMED REBARS ASTM A615 OR ASTM A706, GRADE 60. PLACING OF REINFORCEMENT AND SPLICING LENGTH SHALL CONFORM TO ACI CODE 318-13.
5. ANCHOR EQUIPMENT TO CONCRETE PAD WITH ANCHORS PER EQUIPMENT MANUFACTURER'S INSTALLATION INSTRUCTIONS.
6. PROVIDE 6'-0" MIN. CLEAR WORKING SPACE AROUND EQUIPMENT.
7. STUB CONDUITS IN EQUIPMENT AT LOCATIONS PROVIDED BY EQUIPMENT MANUFACTURERS INSTALLATION INSTRUCTIONS. COORDINATE EXACT LOCATION WITH MANUFACTURERS INSTALLATION INSTRUCTIONS.

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TWO GATE FISH PROTECTION PLAN

DATE 12/09/08

SHEET 60 OF 65

UTILITY YARD DETAILS

C77

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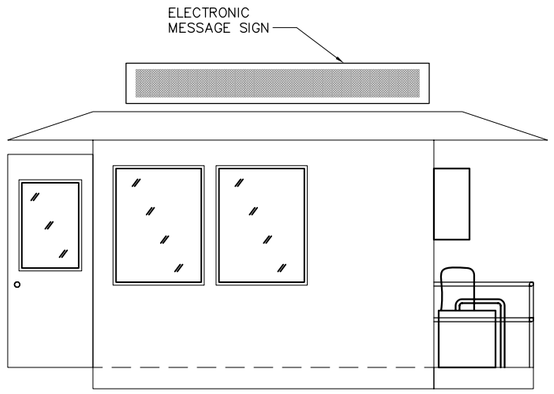
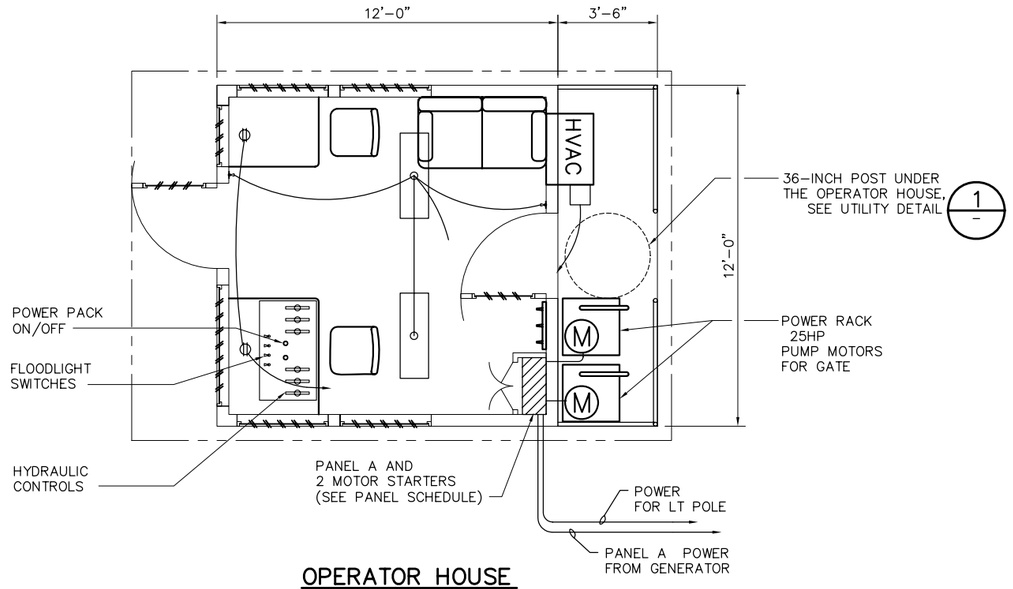
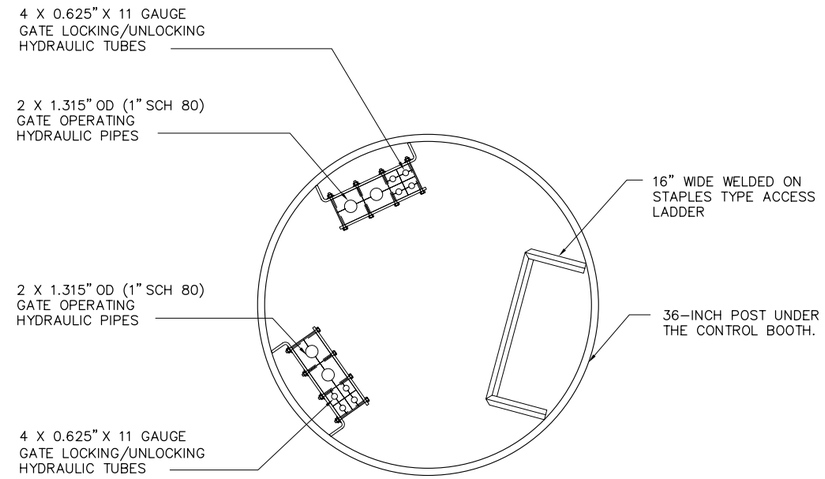


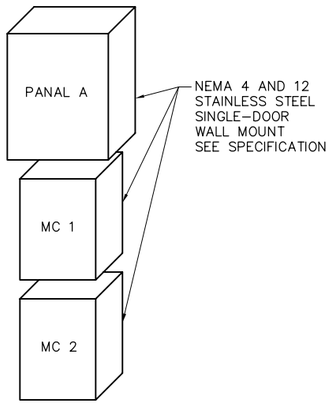
ELEVATION
SCALE: 3/8" = 1'-0"



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



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



ELECTRICAL CABINET ARRANGEMENT
NTS

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TWO GATE FISH PROTECTION PLAN

DATE 12/09/08

SHEET 61 OF 65

OPERATOR HOUSE EQUIPMENT AND DETAILS

C78

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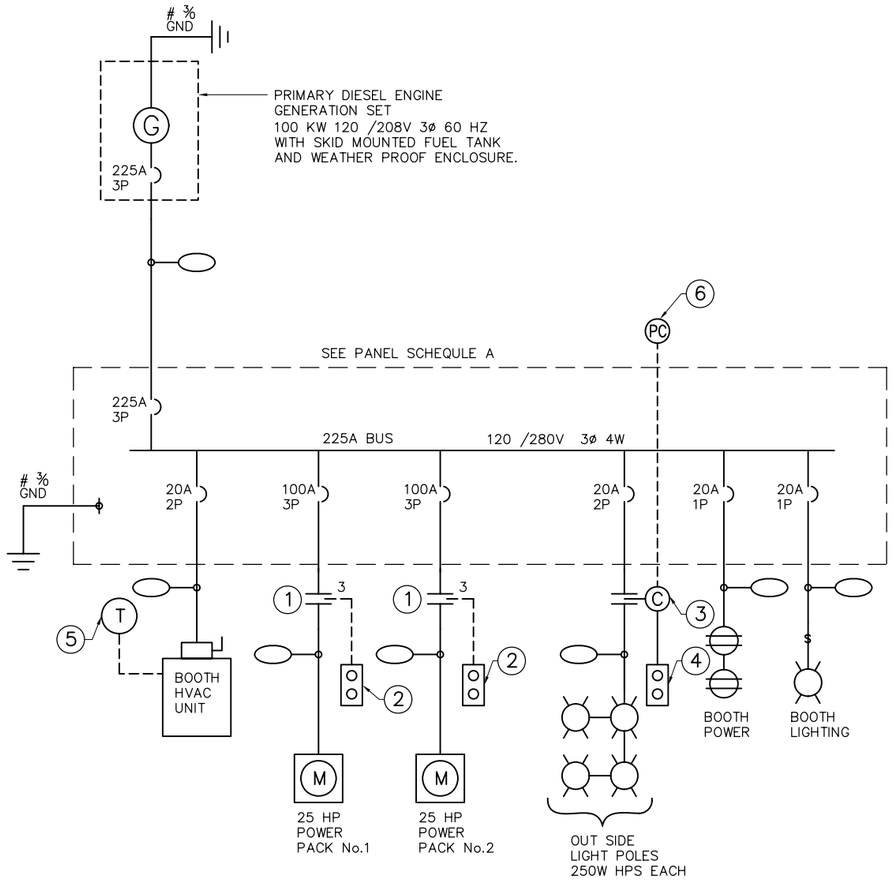

ONE LINE DIAGRAM

N.T.S.

PANEL: A

LOCATION : CONTROL BOOTH — **VOLTAGE/PHASE :** 208V/120V, 3Ø, 4W — **FED FROM :** GENERATOR

MOUNTING : SURFACE — **BUS AMPS :** 225A — **MINIMUM BUS BRACING :** 10 KA

MAIN BREAKER : 225A 3P

LOADS	SEE NOTE	OUTLETS LTG	OUTLETS REC	OUTLETS MISC	VOLT-AMPS A	VOLT-AMPS B	VOLT-AMPS C	CKT	BKR/ POLE	A B C	BKR/ POLE	CKT	VOLT-AMPS A	VOLT-AMPS B	VOLT-AMPS C	OUTLETS MISC	OUTLETS REC	OUTLETS LTG	SEE NOTE	LOADS
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			BOOTH RECEPT
POWER PACK #2	1			1	9360			7	100/3	*--------	20/1	8	200					2		BOOTH LIGHTS
25 HP MOTOR						9360		9	.	----*----		10								SPACE
							9360	11	.	--------*		12								SPACE
BOOTH				1	2000			13	30/2	*--------		14								SPACE
HVAC UNIT						2000		15	.	----*----		16								SPACE
SPARE								17	20/1	--------*		18								SPACE
SPARE								19	20/1	*--------		20								SPACE
SPARE								21	20/1	----*----		22								SPACE
SPARE								23	20/1	--------*		24								SPACE

TOTAL ØA = 21420 VOLT-AMPS
TOTAL ØB = 21220 VOLT-AMPS
TOTAL ØC = 19440 VOLT-AMPS
LCL = 300 VOLT-AMPS

TOTAL = 62380 VA @ 208V, 3Ø 173.3 AMPS

NOTES: 1. CONTROLED BY SIZE 3 MOTOR STARTER
2. CONTROLED BY PHOTOCELL AND HAND-OFF-AUTO SWITCH

NOTES:

1. SIZE 3 MOTOR STARTER
2. POWER PACK ON OFF CONTROL IN BOOTH
3. 30A LIGHTING CONTROL
4. FLOOD LIGHT CONTROL. HAND OFF AUTO IN BOOTH
5. THERMOSTAT CONTROL IN BOOTH
6. PHOTO CELL LOCATED ON TOP OF BOOTH.

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TWO GATE FISH PROTECTION PLAN

DATE 12/09/08

SHEET 62 OF 65

ELECTRICAL SYSTEM DIAGRAM

C79

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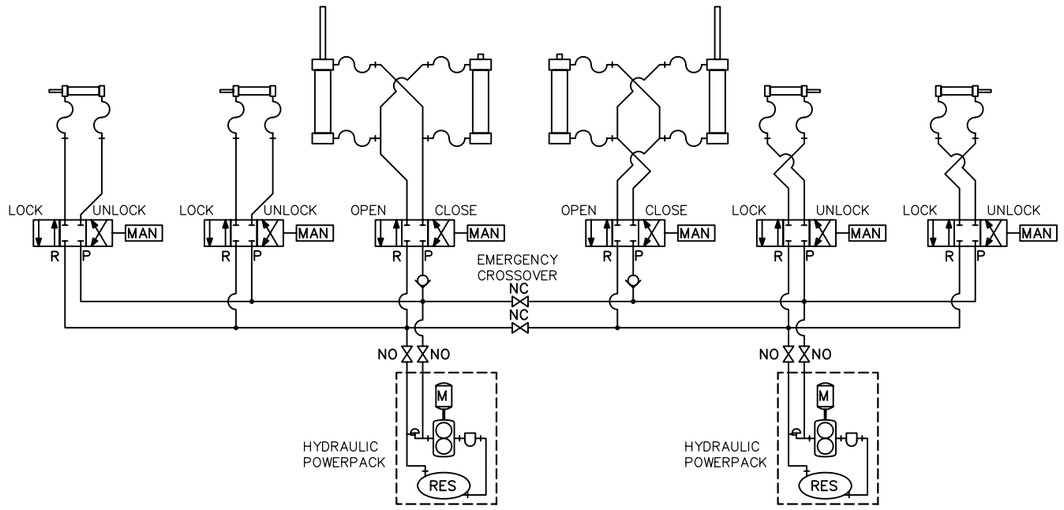

HYDRAULICS DIAGRAM

N.T.S.

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TWO GATE FISH PROTECTION PLAN

HYDRAULICS SYSTEM DIAGRAM

DATE 12/09/08

SHEET 63 OF 65

C80

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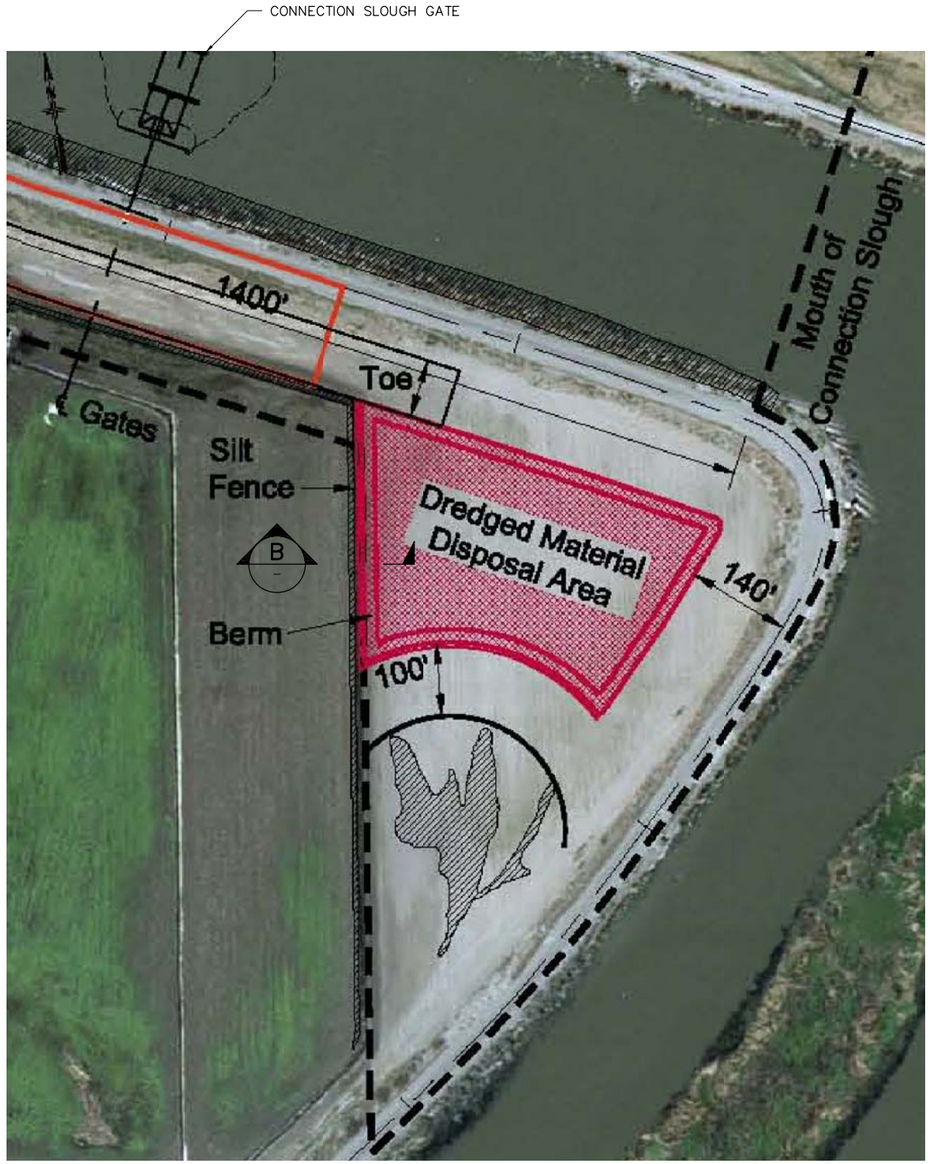
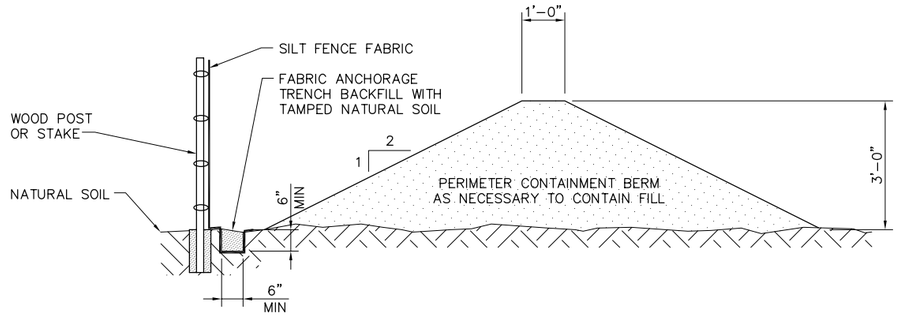


A — SITE PLAN
SCALE: NONE



B — SECTION
SCALE: NONE

NOTE:

NO DREDGE MATERIAL SHALL BE PLACED WITHIN 140' OF THE LEVEE CENTERLINE.

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TDB	TAE	GTH

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TWO GATE FISH PROTECTION PLAN

DREDGED MATERIAL DISPOSAL SITE

DATE 12/09/08

SHEET 64 OF 65

C81

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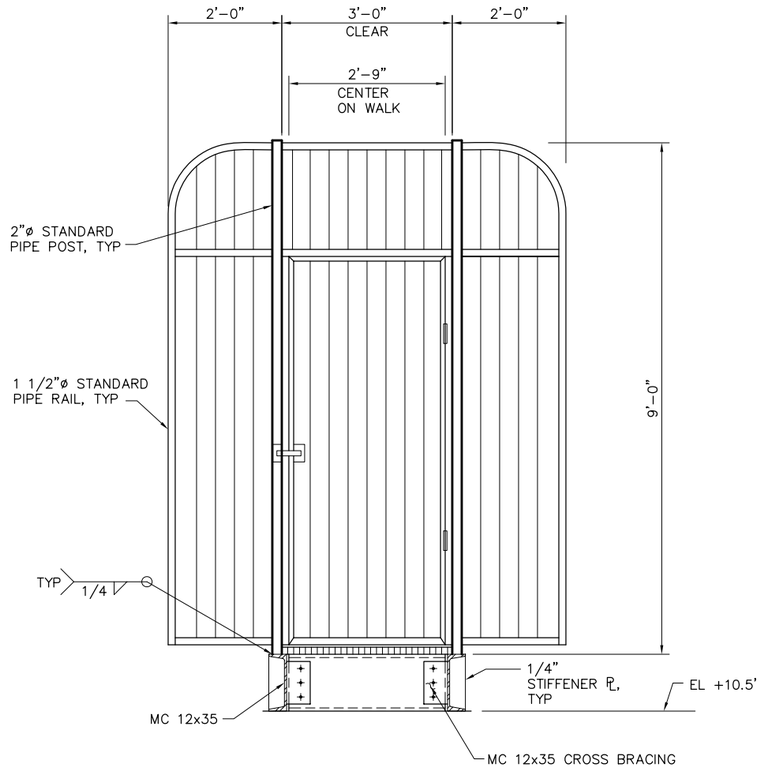

NOTE:
SECURITY GATE SHALL PROVIDE A MINIMUM 36" CLEAR OPENING, SHALL BE AUTOMATICALLY CLOSING, AND SHALL INCLUDE A LOCKABLE LATCH.

SECURITY GATE ELEVATION

1 — DETAIL
SCALE: 3/4" = 1'-0"

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TWO GATE FISH PROTECTION PLAN

DATE 12/09/08

SHEET 65 OF 65

MISCELLANEOUS DETAILS

C82

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