

UPDATED 12 JUN 08

12.0 TYPICAL DRAWINGS AND DETAILS

C

- B**

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- ALLOWANCES MUST BE MADE FOR MACHINING.
6. ITEMS MARKED C.R.S. SHALL BE CORROSION-RESISTANT STEEL (STAINLESS STEEL), SEE SPECIFICATIONS.
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- The diagram illustrates a cross-section of a concrete slab. A horizontal line at the top is labeled "FACE OF CONCRETE". Below it, a horizontal bar is labeled "SECONDARY REINFORCEMENT". At the bottom, two circular cross-sections of reinforcement bars are labeled "PRIMARY REINFORCEMENT". The distance between the centers of these two primary reinforcement bars is labeled "SPACING". To the right of the slab, three vertical dimension lines indicate concrete thickness requirements for different reinforcement configurations:
- For a secondary reinforcement bar with a primary reinforcement bar below it: "2" (MIN)" and "CONCRETE SECTION EQUAL TO OR LESS THAN 12" IN THICKNESS".
 - For a secondary reinforcement bar with a primary reinforcement bar below it and a secondary reinforcement bar above it: "3" (MIN)" and "CONCRETE SECTION GREATER THAN 12" AND LESS THAN 24" IN THICKNESS".
 - For a secondary reinforcement bar with a primary reinforcement bar below it and a secondary reinforcement bar above it, and a secondary reinforcement bar above that: "4" (MIN)" and "CONCRETE SECTION EQUAL TO OR GREATER THAN 24" IN THICKNESS".

NTS

SECTION OR DETAIL IDENTIFICATION

SECTION WITHIN VOLUMES

- SECTION WITHIN VOLUMES

DWG. NO. WHERE
SECTION OR DETAIL
TAKEN

DWG. NO. WHERE
SECTION OR DETAIL
DRAWN

SECTION OR DETAIL
IDENTIFICATION,
TAKEN AND DRAWN
ON SAME DWG.

1. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH (f_c) OF XXXX PSI AT 28 DAYS, 90 DAYS IF POZZOLAN IS USED, UNLESS OTHERWISE NOTED.
2. STABILIZATION SLAB CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH (f_c) OF 2500 PSI AT 28 DAYS, 90 DAYS IS POZZOLAN IS USED.
3. REINFORCING STEEL SHALL HAVE A MINIMUM YIELD STRENGTH (F_y) OF 60,000 PSI.
4. REINFORCING SHALL BE SPACED TO MISS RECESSES FOR GATE LATCHES.
5. CONSTRUCTION JOINTS SHALL BE PROVIDED WHERE SHOWN ON THE DRAWINGS. WHERE NOT SHOWN, CONSTRUCTION JOINTS SHALL BE PLACED AT LOCATIONS LEAST LIKELY TO IMPAIR THE INTEGRITY OF THE CONCRETE STRUCTURE. THESE ADDITIONAL CONSTRUCTION JOINT LOCATIONS SHALL BE APPROVED BY THE CONTRACTING OFFICER.
6. UNLESS OTHERWISE NOTED, PROVIDE $\frac{3}{4}$ " CHAMFER AT ALL EXPOSED JOINTS, EDGES, EXTERNAL CORNERS, AND VERTICAL EXPANSION JOINTS.
7. RESERVED
8. ALL BENDS OF REINFORCEMENT AND ALL BAR SPACERS AND SUPPORTS SHALL BE IN ACCORDANCE WITH SP-66, AMERICAN CONCRETE INSTITUTE DETAILING MANUAL - 1994.
9. REINFORCING BAR DESIGNATION NUMBERS CONFORM TO THE NUMBERING SYSTEM OF THE CONCRETE REINFORCING STEEL INSTITUTE.
10. REINFORCING BARS SHALL BE CONTINUOUS AT ALL CORNERS UNLESS OTHERWISE NOTED.
11. REINFORCEMENT, WHERE NECESSARY TO AVOID OPENINGS, PIPES, EMBEDDED ITEMS AND OTHER OBSTRUCTIONS, SHALL BE BENT OR SHIFTED AS DIRECTED BY THE CONTRACTING OFFICER.
12. THE EMBEDMENT AND SPLICE TABLE SHALL BE USED IN DETERMINING LAP SPLICES AND EMBEDMENT LENGTHS WHERE LENGTHS ARE NOT OTHERWISE INDICATED. SPLICE LENGTHS SHALL BE BASED ON THE SMALLER BAR BEING LAPPED. THE CONTRACTOR WILL BE ALLOWED TO MAKE SPLICES IN ADDITION TO THOSE INDICATED IN THE DRAWINGS, WHERE ESSENTIAL TO CONSTRUCTIBILITY, SUBJECT TO APPROVAL BY THE CONTRACTING OFFICER. SPLICES OTHER THAN THOSE SHOWN ON THE DRAWINGS AND OTHER THAN ANY ADDITIONAL SPLICES REQUIRED BY THE CONTRACTING OFFICER, WILL BE AT THE CONTRACTOR'S EXPENSE.
13. ALL EXTERIOR FORMED SURFACES NOT COVERED BY BACKFILL SHALL BE CLASS "A" FINISH AND SURFACES COVERED BY BACKFILL SHALL BE CLASS "D" FINISH, UNLESS OTHERWISE NOTED.
14. FOR "T-WALL" CONCRETE PLACEMENT, THE CONTRACTOR SHALL EITHER PLACE A CONSTRUCTION JOINT AT APPROXIMATELY MID-WALL HEIGHT OR SHALL EMPLOY TEMPORARY "WINDOWS" IN THE FORMS TO FACILITATE CONCRETE PLACEMENT AND CONSOLIDATION.

BAR SIZE	BASIC TABLE				ALTERNATE TABLE			
	MINIMUM EMBEDMENT LENGTH, INCHES		MINIMUM LAP LENGTH INCHES		MINIMUM EMBEDMENT LENGTH, INCHES		MINIMUM LAP LENGTH INCHES	
	TOP	OTHER	TOP	OTHER	TOP	OTHER	TOP	OTHER
3	21	16	28	21	13	12	17	13
4	28	22	37	28	17	13	22	17
5	36	27	46	36	21	16	28	21
6	43	33	56	43	26	20	33	26
7	62	48	81	62	37	29	49	37
8	71	55	93	71	43	33	44	43
9	80	62	104	80	48	37	50	48
10	89	68	116	89	53	41	56	53
11	98	75	127	98	59	45	61	59

BAR SIZE	BASIC TABLE				ALTERNATE TABLE			
	MINIMUM EMBEDMENT LENGTH, INCHES		MINIMUM LAP LENGTH INCHES		MINIMUM EMBEDMENT LENGTH, INCHES		MINIMUM LAP LENGTH INCHES	
	TOP	OTHER	TOP	OTHER	TOP	OTHER	TOP	OTHER
3	18	14	24	18	12	12	14	12
4	25	19	32	25	15	12	19	15
5	31	24	40	31	18	14	24	18
6	37	28	48	37	22	17	29	22
7	54	42	70	54	32	25	42	32
8	62	47	80	62	37	28	48	37
9	69	53	90	69	42	32	54	42
10	77	59	100	77	46	36	60	46
11	85	65	110	85	51	39	66	51

1. USE THE BASIC TABLE IF ALL THE FOLLOWING CONDITIONS ARE MET:
 - A) CENTER-TO-CENTER BAR SPACING Laterally IS AT LEAST 3 BAR DIAMETERS.
 - B) DISTANCE FROM THE CENTER OF A BAR TO THE NEAREST CONCRETE SURFACE MUST BE AT LEAST 2 BAR DIAMETERS.
2. THE ALTERNATE TABLE MAY BE USED IF ALL OF THE FOLLOWING CONDITIONS ARE MET:
 - A) CENTER-TO-CENTER BAR SPACING Laterally IS AT LEAST 5 BAR DIAMETERS.
 - B) DISTANCE FROM THE CENTER OF A BAR TO THE NEAREST CONCRETE SURFACE MUST BE AT LEAST 2.5 BAR DIAMETERS.
3. IF CONCRETE COVER OR EDGE DISTANCE IS LESS THAN 1 BAR DIAMETER OF THE CENTER-TO-CENTER BAR SPACING Laterally IS LESS THAN 3 BAR DIAMETERS, SEE ACI 318 FOR APPROPRIATE GUIDANCE.
4. TOP BARS ARE HORIZONTAL BARS AND BARS INCLINED LESS THAN 45 DEGREES WITH RESPECT TO A HORIZONTAL PLANE WHICH ARE PLACED SUCH THAT MORE THAN 12 INCHES OF CONCRETE IS CAST IN THE MEMBER BELOW THE BAR.
5. THE TABLES SHOWN ABOVE ARE FOR NORMAL WEIGHT CONCRETE AND UNCOATED REINFORCING BARS. IF EPOXY-COATED BARS ARE USED, SEE ACI 318 FOR ADDITIONAL CONSIDERATIONS.

ALT. SP.	= ALTERNATE SPACING
AZ	= AZIMUTH
B/L	= BASELINE
BF	= BOTTOM FACE
BL	= BOTTOM LAYER
C	= CENTER
CB	= CATCH BASIN
C.I.	= CAST IRON
CJ	= CONSTRUCTION JOINT
CL	= CLEAR COVER
C/L OR $\mathbb{C}$	= CENTER LINE
C.R.S.	= CORROSION-RESISTANT STEEL
$\emptyset$	= DIAMETER
D	= DRAIN
D.I.	= DROP INLET
D.P.	= DRAIN PIPE
D/S	= DOWNSTREAM
D.V.	= DRAIN VALVE
D.V. MH.	= DRAIN VALVE MANHOLE
E	= ELECTRICAL
EF	= EACH FACE
EL.	= ELEVATION
ES	= EQUALLY SPACED
F.H.	= FIRE HYDRANT
FF	= FAR FACE
FS	= FAR SIDE
G	= GAS
H.S.	= HIGH STRENGTH
LP	= LIGHT POLE
LS	= LIGHT STANDARD
MH	= MANHOLE
NF	= NEAR FACE
NS	= NEAR SIDE
N.T.S.	= NOT TO SCALE
O.C.	= ON CENTER
OPT.	= OPTIONAL
OS	= OFFSET
P	= POWER
P.C.	= POINT OF CURVATURE
P.T.	= POINT OF TANGENCY
S	= SEWER
SB/L	= SUBBASELINE
S.C.O.	= SEWER CLEANOUT
STD. HK.	= STANDARD HOOK
STA.	= STATION
T	= TELEPHONE
TD	= TRENCH DRAIN
TF	= TOP FACE
TEL.M.H.	= TELEPHONE MANHOLE
TL	= TOP LAYER
TP	= TEST PILE
U.O.N.	= UNLESS OTHERWISE NOTED
U/S	= UPSTREAM
W	= WATER
W/L	= WALL LINE
W.M.	= WATER METER
W.V.	= WATER VALVE



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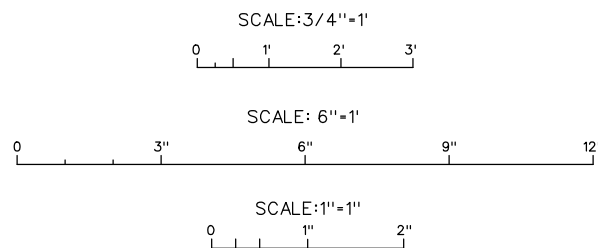
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U.S. ARMY CORPS OF ENGINEERS NEW ORLEANS DISTRICT NEW ORLEANS, LOUISIANA	DESIGNED BY: USACE - NEW ORLEANS		DATE: MAY 2008
	DWN BY:	CKD BY:	SOLICITATION NO.:
	SUBMITTED BY:		CONTRACT NO.:
	PLOT SCALE: 12" = 1'	PLOT DATE:	FILE NUMBER: ARE TYPICALS
	SIZE:	FILE NAME:	

USACE - NEW ORLEANS HURRICANE DESIGN GUIDELINES A/E TYPICAL DRAWINGS

GENERAL DRAWINGS
GENERAL NOTES

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SCALE: 1" = 1'-0"

SCALE: 1" = 1' - 0"

SCALE: 1" = 1' - 0"

PLAN

ELEVATION

W BEAM TERMINAL CONNECTOR

SCALE: 1 $\frac{1}{2}$ " = 1' - 0"

NOTE:

ALL RAIL COMPONENTS EXCEPT THE W AND THRIE BEAM TERMINAL CONNECTORS SHALL MEET AASHTO M-180, CLASS A METAL THICKNESS WITH A TYPE II COATING. THE W BEAM AND THRIE BEAM TERMINAL CONNECTORS SHALL BE CLASS B METAL THICKNESS WITH TYPE II COATING.

NOTE: LAP IN DIRECTION OF TRAFFIC.

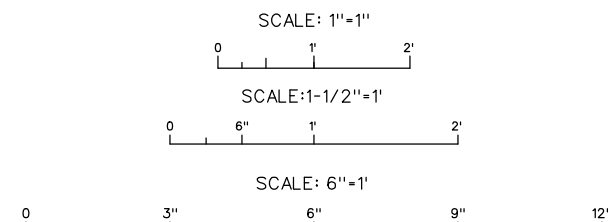
ELEVATION

W BEAM SPLICE DETAIL - W6 POST

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

W BEAM END SECTION (ROUNDED)

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



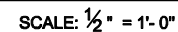


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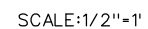


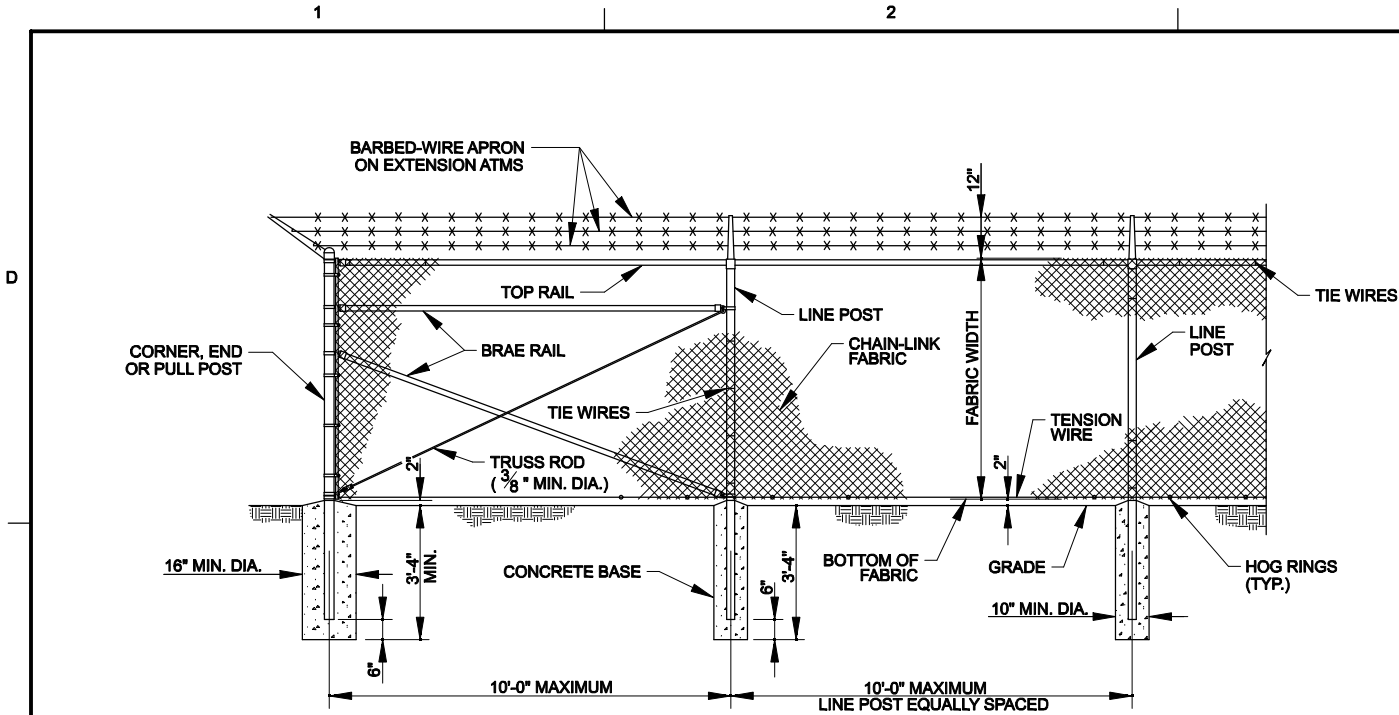


SCALE: $\frac{1}{2}$ " = 1'-0"



1. ALL FORM TIE BOLTS SHALL BE PLACED IN THE VALLEY OF THE FRACTURED FIN TEXTURE (I.E., BETWEEN ADJACENT FIN).
2. CONTRACTOR SHALL MAKE ALL EFFORTS TO MINIMIZE THE OCCURRENCE OF BUTT JOINTS. CONTRACTOR SHALL SUBMIT, FOR PRIOR APPROVAL, DRAWINGS SHOWING THE LOCATION OF ALL BUTT JOINTS IN FORMS USED FOR CONSTRUCTION.
3. NO ARCHITECTURAL FINISH ON CANAL SIDE.



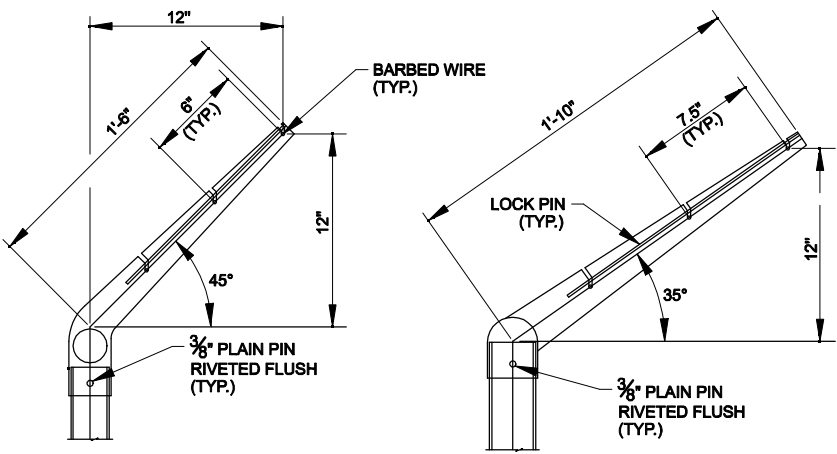


CHAIN - LINK SECURITY FENCE DETAIL

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FENCE NOTES

- FENCE HEIGHT = 8'-0" W/ BARBED WIRES.
- DOUBLE SWING GATE = 8'-0" HIGH W/ BARBED WIRES.
- FENCE FABRIC SHALL BE 2" HOT-DIP GALVANIZED STEEL MESH, HEIGHT OF 96", 34-1/2 DIAMOND COUNT WITH TWISTED EDGES. FABRIC SHALL COMPLY WITH THE CHAIN LINK FENCE MANUFACTURER'S INSTITUTE (CLFMI) "STANDARD GUIDE FOR METALLIC-COATED STEEL CHAIN LINK FENCE AND FABRIC". TOP SELVAGE SHALL BE TWISTED AND BOTTOM SELVAGE SHALL BE KNUCKLED.
- FENCE FABRIC TO BE CONNECTED TO POST END, CORNER AND GATE WITH 1/4" X 3/4" GALVANIZED STEEL TENSION BARS AND #14 GAGE (MIN.) X 1 GALVANIZED STEEL TENSION BANDS SPACED 15" O.C. SPACED 15" O.C. (MAX.). TOP AND BOTTOM EDGE TO BE TIED (MAX) TO THE CONTINUOUS #6 GAGE TENSION WIRE WITH #9 GAGE ALUMINUM HOG RINGS SPACED 24" O.C. (MAX.). FABRIC TO BE ATTACHED TO LINE POST WITH #9 GAGE ALUMINUM TIE WIRES SPACED 15" O.C. (MAX.).
- STEEL FENCE POST:
 - LINE POSTS: TYPE I, ROUND 2.375 INCH O.D. (3.65 LBS. PER FT.) HOT-DIP GALVANIZED INSIDE AND OUT, SPACED AS SHOWN ON DRAWINGS.
 - END CORNER OR PULL POSTS: TYPE I, ROUND 2.375 INCH O.D. (3.65 LBS. PER FT.) HOT-DIP GALVANIZED INSIDE AND OUT. GATE POSTS SHALL HAVE DOME STYLE POST CAPS.
 - TOP RAILS: 1.625 INCH O.D. (2.27 LBS. PER FT.) HOT-DIP GALVANIZED INSIDE AND OUT.
- BRACING FOR END, CORNER AND GATE POSTS SHALL BE 1 1/4" STEEL PIPE (SCH. 40) (1.66" O.D.) HOT-DIP GALVANIZED INSIDE AND OUT. BRACING PIPE TO EXTEND FROM END, CORNER AND GATE POSTS TO FIRST LINE POST. PROVIDE 3/8" Ø GALVANIZED ADJUSTABLE TRUSS ROD FROM THE END OF THE BRACE AND FASTENED TO THE END OF THE BRACE AND FASTENED TO EACH POST WITH GALVANIZED PRESSED STEEL FITTINGS.
- BOTTOM TENSION WIRE SHALL BE CONTINUOUS #6 GAGE GALVANIZED COIL SPRING TENSION WIRE.
- BARBED WIRE SHALL BE THREE STRANDS, FOUR POINT PATTERN, EACH STRAND COMPOSED OF TWO TWISTED 12 1/2 GAGE STEEL LINE WIRES, GALVANIZED AFTER TWISTING.
- BARBED WIRE ARMS SHALL BE PRESSED STEEL OR MALLEABLE IRON, AND HOT-DIP GALVANIZED. EACH ARM SHALL CARRY THREE (3) BARBED WIRES SECURELY FASTENED. ARMS SHALL BE SECURELY FASTENED TO ALL POST AND SET AT 45° ANGLE OUTSIDE OF THE FENCE LINE.
- GATE POST SHALL BE EXTENDED TO RECEIVE THREE (3) STRANDS OF BARBED WIRE, FASTENED BY TENSION BANDS AND SHALL BE CAPPED.
- ALL FITTINGS SHALL BE MALLEABLE IRON OR HEAVY PRESSED STEEL CONSTRUCTION AND HOT-DIP GALVANIZED.
- GATES SHALL HAVE WELDED FRAMES USING TYPE I, ROUND 2.375 INCH O.D. (3.65 LBS. PER FT.) HOT-DIP GALVANIZED INSIDE AND OUT (AFTER FABRICATION). PROVIDE HORIZ. BRACE USING 1 1/2" STEEL PIPE (SCH. 40) (1.90" O.D.) HOT-DIP GALVANIZED INSIDE AND OUT AND SPACED MIDWAY BETWEEN THE TOP RAIL AND BOTTOM RAIL. VERTICAL MEMBERS SHALL BE EXTENDED TO RECEIVE THREE (3) STRANDS OF BARBED WIRE AND SHALL BE CAPPED.
- GATE FABRIC SHALL BE THE SAME AS FENCE FABRIC. PROVIDE TENSION BARS AND TENSION BANDS. ALSO #9 GAGE ALUMINUM TIE WIRES AT TOP AND BOTTOM EDGES, SPACED 12" O.C. (MAX.).
- ALL GATES SHALL BE FURNISHED COMPLETE WITH HEAVY DUTY HINGES CAPABLE OF SWING 90° IN AND OUT, CENTER GATE STOP AND DOUBLE GATE LATCH WITH PROVISIONS FOR A PADLOCK AND A DROP ROD OR PLUNGER BAR ARRANGED TO ENGAGE THE GATE STOP. LOCKING DEVICES SHALL BE CONSTRUCTED SO THAT THE CENTER DROP ROD OR PLUNGER BAR CANNOT BE RAISED WHEN THE GATE IS LOCKED.
- CONTRACTOR SHALL NOT BEGIN INSTALLATION AND ERECTION BEFORE FINAL GRADING IS COMPLETED, UNLESS OTHERWISE APPROVED BY THE CONTRACTING OFFICER.
- CONTRACTOR SHALL SUBMIT FOR APPROVAL THE PROPOSED SECURITY FENCE LAYOUT SHOWING ALL GATE HARDWARE.

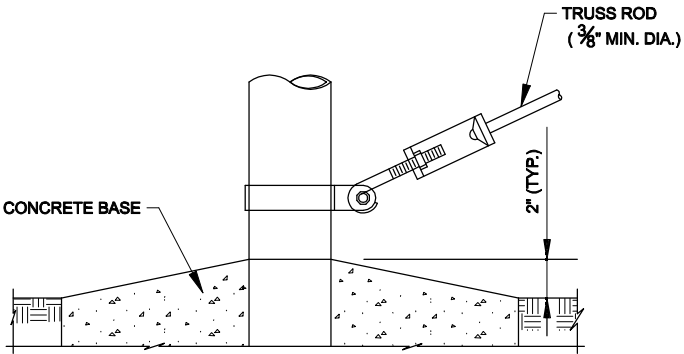


LINE POST

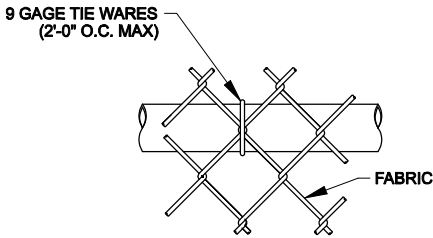
CORNER POST

EXTENSION ARM DETAILS

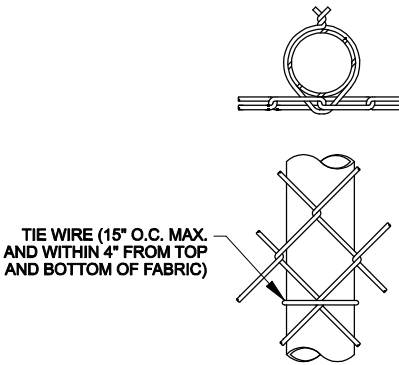
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TRUSS ROD AND BAND



TOP OR BRACE RAIL ATTACHMENT

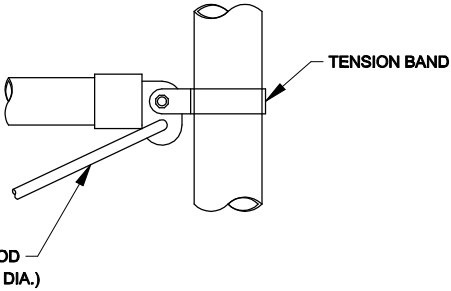


ROUND POST

LINE POST ATTACHMENTS

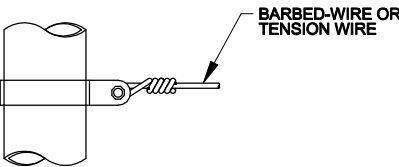
NOTES:

- DETAILS SHOWN ARE TO CLARIFY REQUIREMENTS AND ARE NOT INTENDED TO LIMIT OTHER TYPES OF FENCE SECTIONS AND METHODS OF INSTALLATION.
- WIRE TIES, RAILS, POSTS, AND BRACES SHALL BE CONSTRUCTED ON THE SECURE SIDE OF THE FENCE ALIGNMENT. CHAIN-LINK FABRIC SHALL BE PLACED ON THE OPPOSITE SIDE OF THE SECURE AREA.
- FENCE FRAMEWORK AND ACCESSORIES SHALL COMPLY WITH CLFMI "INDUSTRIAL STEEL GUIDE FOR FENCE RAILS, POSTS, GATES AND ACCESSORIES", AND SHALL BE AS SPECIFIED BELOW AND CONFORM TO THE LATEST REQUIREMENTS OF ASTM F 626.

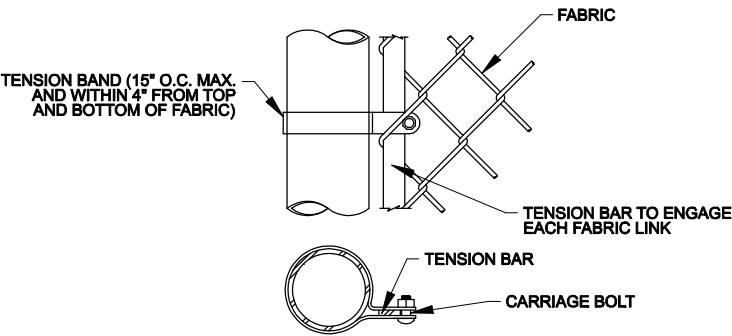


ROUND POST

BRACE RAIL CLAMP DETAILS



TENSION BAND DETAIL



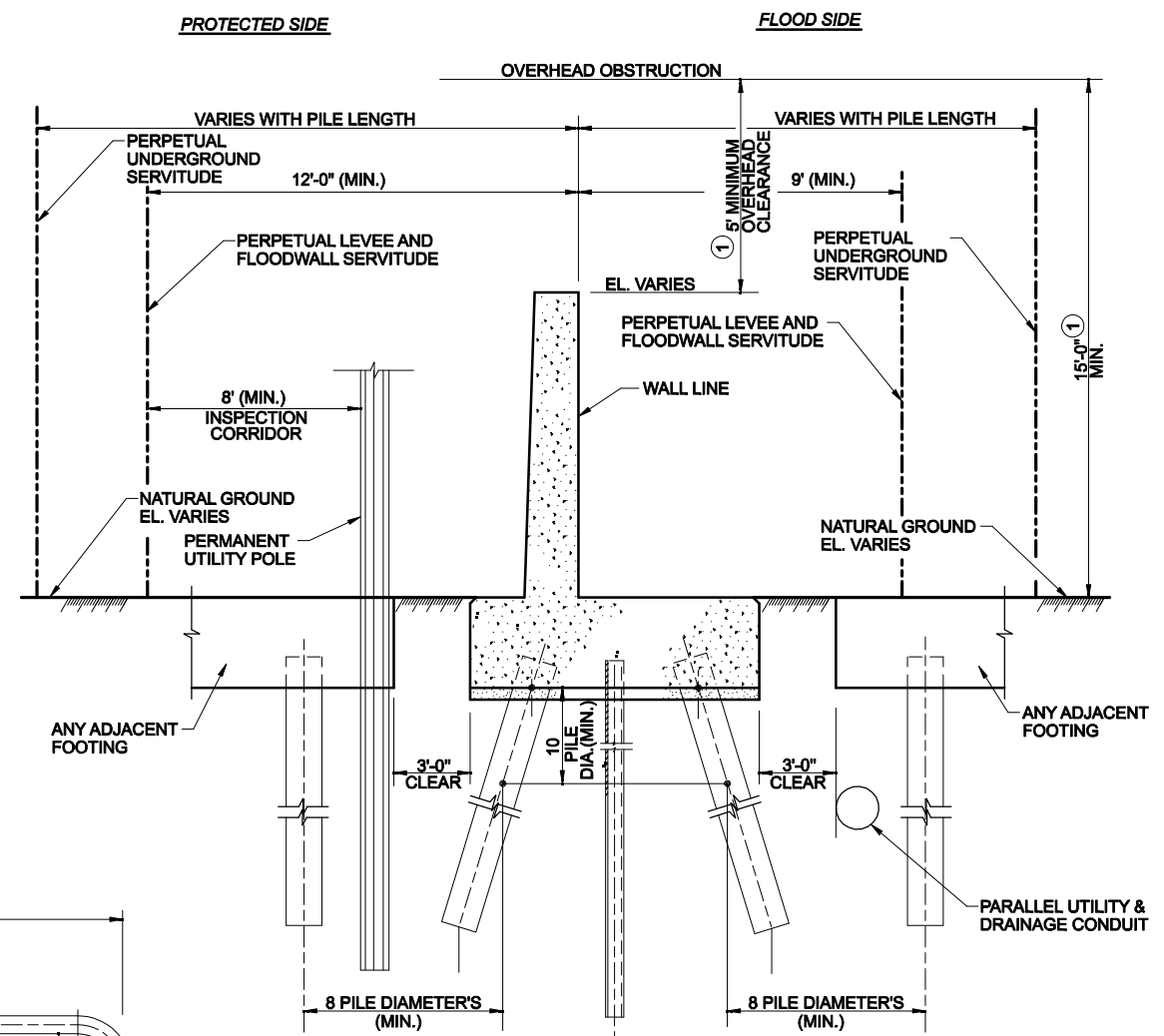
END OR GATE POST DETAIL

FASTENING DETAILS



US ARMY CORPS OF ENGINEERS
NEW ORLEANS DISTRICT
HURRICANE DESIGN GUIDELINES
AE TYPICAL DRAWINGS
GENERAL DRAWINGS
FENCING DETAILS

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NTS



0 1' 3' 6'

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U.S. ARMY CORPS OF ENGINEERS NEW ORLEANS DISTRICT NEW ORLEANS, LOUISIANA		DYN BY:	CMD BY:	SOLICITATION NO.: MAY 2008
		SUBMITTED BY:		CONTRACT NO.:
			PLOT SCALE: 3/8" = 1'	FILE NUMBER: AE-TYPICALS
		SIZE: ANSI D	FILE NAME: AE-TYPOLDGN	

USACE - NEW ORLEANS
HURRICANE DESIGN GUIDELINES
A/E TYPICAL DRAWINGS

GENERAL DRAWINGS

PERPETUAL FLOODWALL SERVITUDE

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NOTES

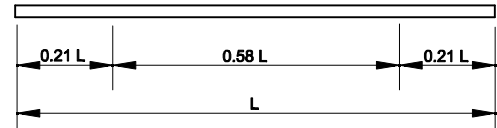
1. ONLY 5,000 OR 6,000 PSI CONCRETE SHALL BE USED FOR PRESTRESSED CONCRETE PILES.

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The diagram illustrates a horizontal line segment of total length L . A vertical line divides this segment into two parts: a left part of length $0.3L$ and a right part of length $0.7L$. Arrows on the horizontal line indicate a direction from left to right. The total length L is labeled below the entire segment.

1 POINT PICKUP ($L \leq 60'$) 16" X 16" PILE



2 POINT PICKUP ($L \leq 86'$) 16" X 16" PILE

1. PICKUP POINTS TO BE PLAINLY MARKED ON PILES
2. PICKUP POINTS SHOWN FOR 5,000 PSI CONCRETE ONLY

NOTE:

EXACT LENGTHS OF PRESTRESSED CONCRETE SHALL BE DETERMINED AFTER PILE TEST ARE CONDUCTED. LENGTHS SHOWN ARE FOR ESTIMATING PURPOSES ONLY.

1. ONLY 5,000 OR 6,000 PSI CONCRETE SHALL BE USED FOR PRESTRESSED CONCRETE PILES.

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NEW ORLEANS DISTRICT NEW ORLEANS, LOUISIANA	SOLICITATION NO.:	
	DWN BY:	ORD BY:
	SUBMITTED BY:	
	CONTRACT NO.:	
	PLOT SCALE:	PLOT DATE:
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HURRICANE DESIGN GUIDELINES AVE TYPICAL DRAWINGS

**SHEET
IDENTIFICATION
X-00**



A



1. DIAL GAGE SHOULD BE ATTACHED TO THE PILE WITH THE STEM RESTING ON THE REFERENCE BEAM IN THE COMPRESSED POSITION AND ON THAT SIDE OF THE REFERENCE BEAM WHERE THE MOVEMENT WILL BE AWAY FROM THE BEAM.
2. READINGS ON THE OPPOSITE SIDES OF THE PILE ARE NECESSARY.
3. A TARPULIN OF MINIMUM DIMENSION 12' X 12' SHALL BE INSTALLED BY THE CONTRACTOR TO PROTECT THE MEASURING EQUIPMENT FROM THE DIRECT EFFECTS OF THE WEATHER.
4. IF STEEL REFERENCE BEAMS ARE USED, ONE END OF EACH BEAM SHALL BE FREE TO MOVE AS THE LENGTH OF THE BEAMS CHANGE WITH TEMPERATURE VARIATIONS.
5. DESIGN OF THE TEST APPARATUS PILE SET-UP IS THE RESPONSIBILITY OF THE CONTRACTOR AND MUST BE SUBMITTED TO THE CONTRACTING OFFICER FOR APPROVAL.



THE LOADING FRAME AND TEST APPARATUS
IS FOR ILLUSTRATION PURPOSES ONLY,
UNLESS NOTED MANDATORY.

**SHEET
IDENTIFICATION
X-00**



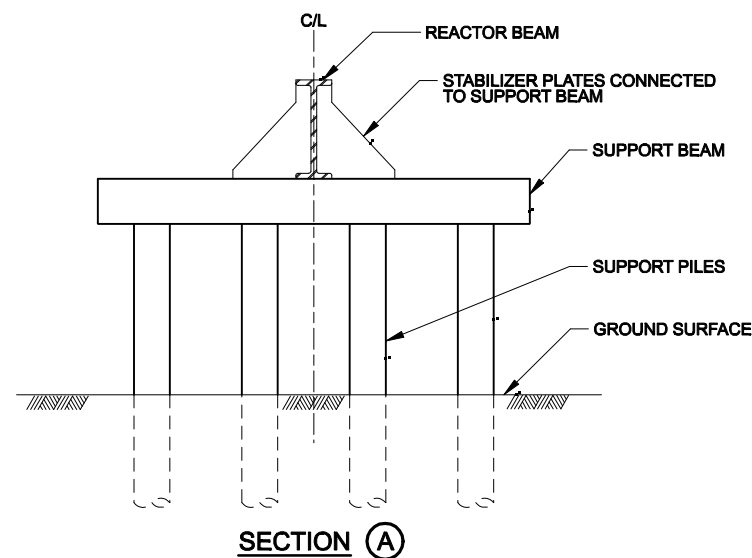
MANDATORY LOADING FRAME NOTE:

1. DESIGN OF THE LOADING FRAME IS THE RESPONSIBILITY OF THE CONTRACTOR AND MUST BE SUBMITTED TO THE CONTRACTING OFFICER FOR APPROVAL.



MANDATORY TEST APPARATUS NOTES:

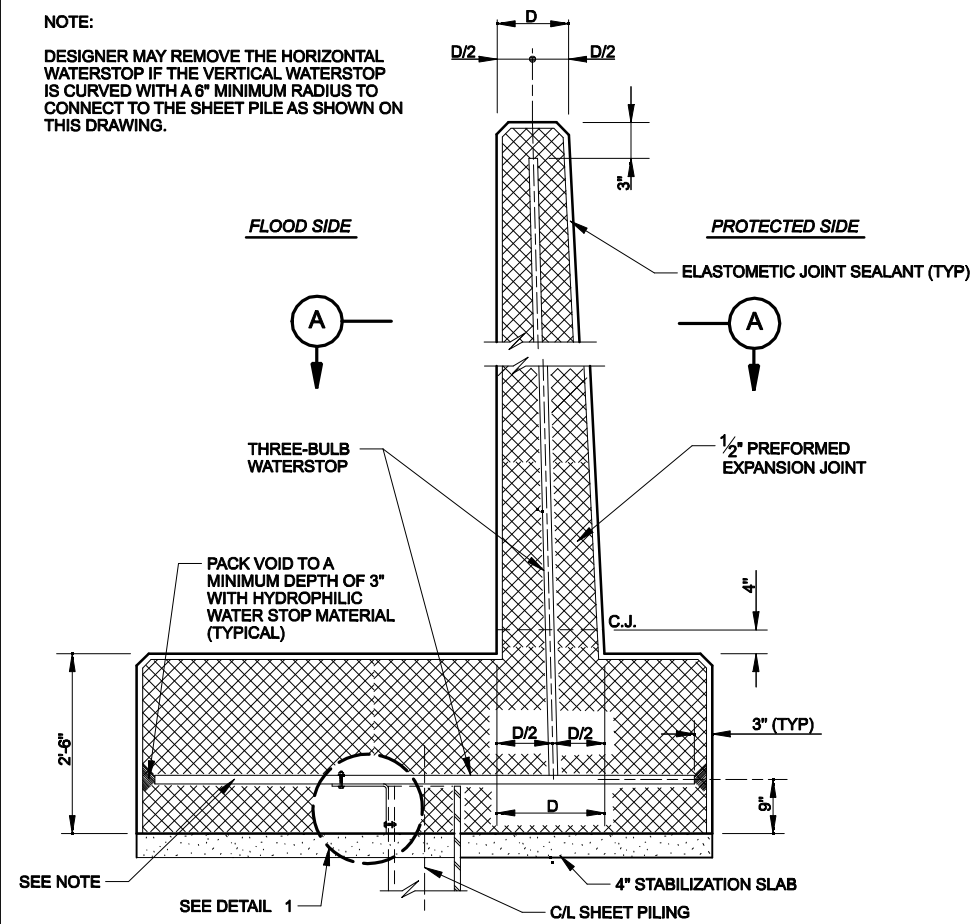
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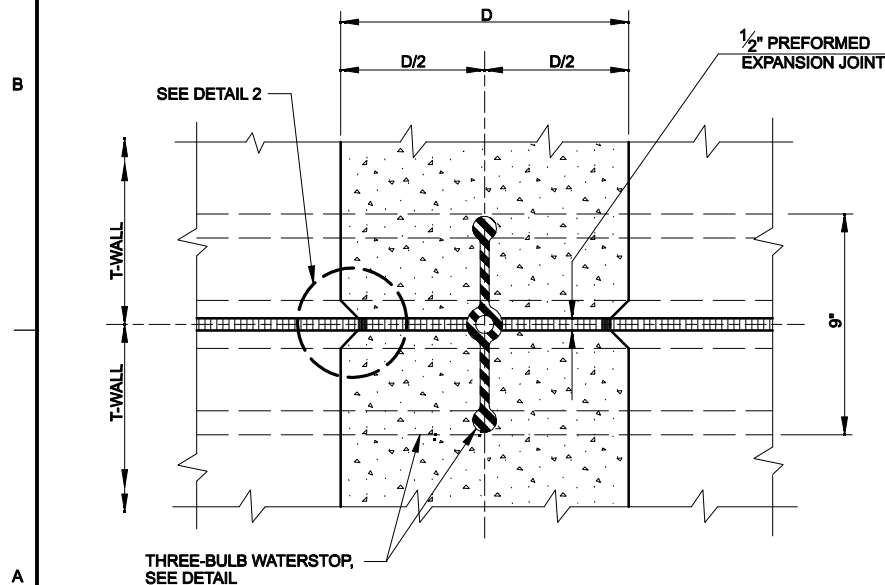


NOTE:
DESIGNER MAY REMOVE THE HORIZONTAL WATERSTOP IF THE VERTICAL WATERSTOP IS CURVED WITH A 6" MINIMUM RADIUS TO CONNECT TO THE SHEET PILE AS SHOWN ON THIS DRAWING.



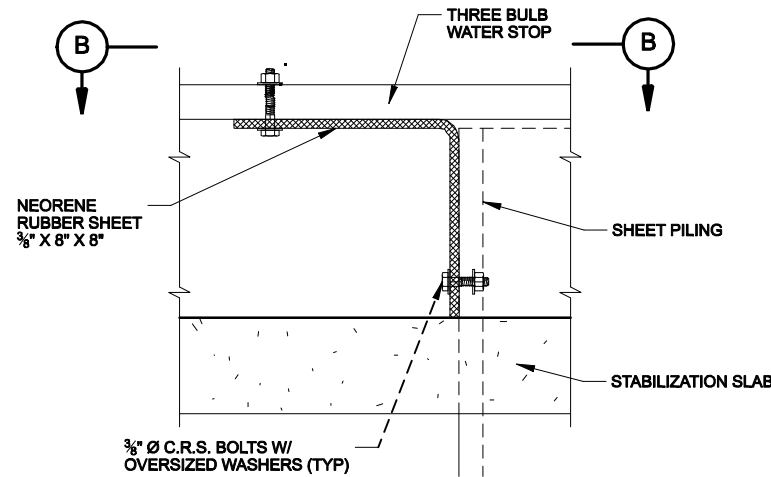
TYPICAL T-WALL JOINT

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

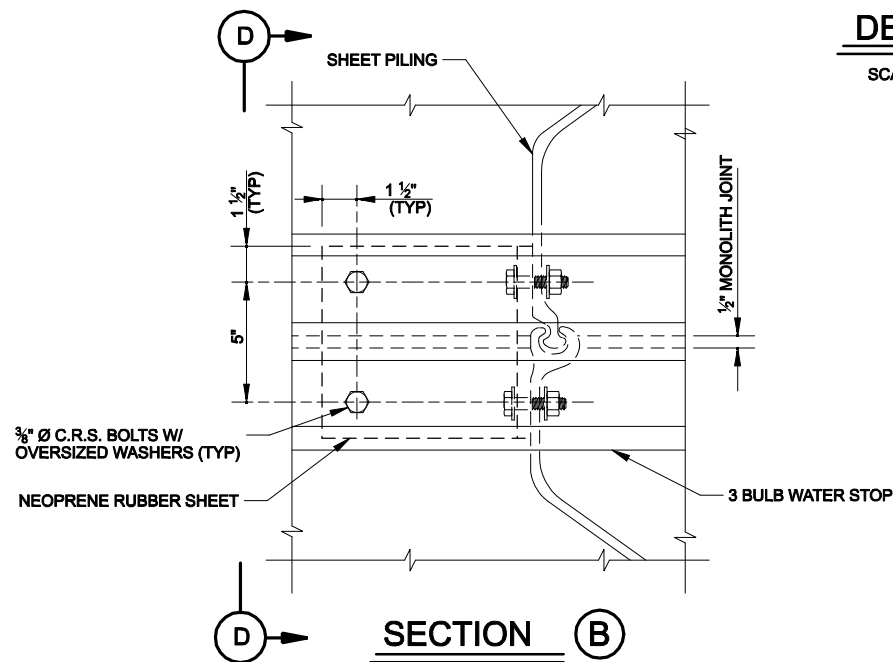


SECTION A

SCALE: 3" = 1'-0"

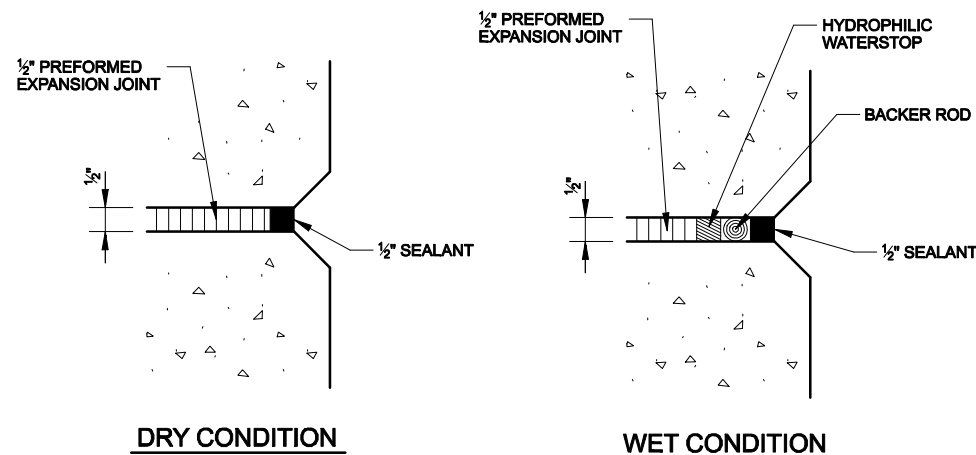


**SHEETPILE INTERLOCK
ALIGNED WITH THE WALL JOINT**



SECTION B

SCALE: 3" = 1'-0"

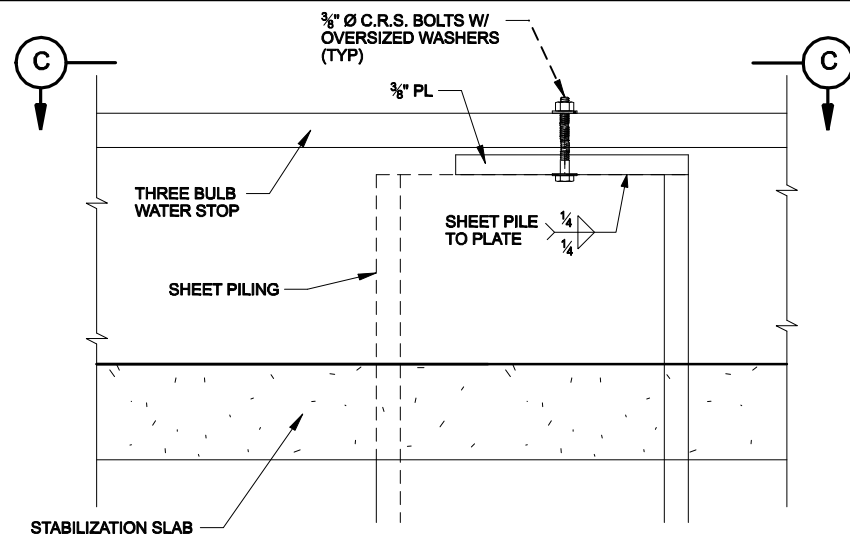


DRY CONDITION

WET CONDITION

DETAIL 2

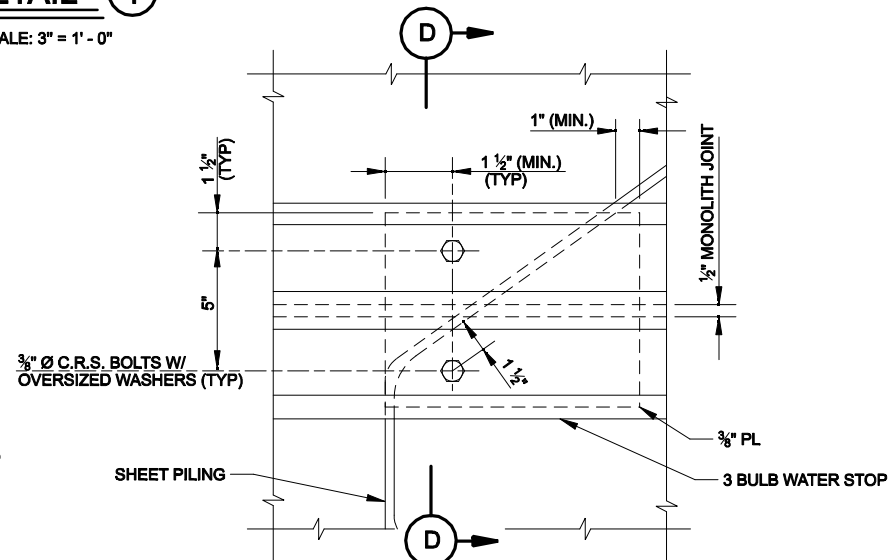
SCALE: 3" = 1'-0"



**SHEETPILE INTERLOCK
UNALIGNED WITH THE WALL JOINT**

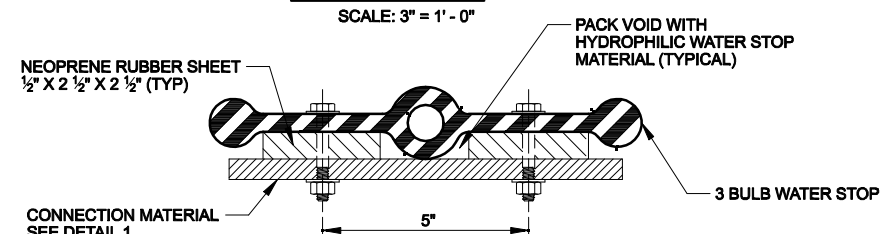
DETAIL 1

SCALE: 3" = 1'-0"



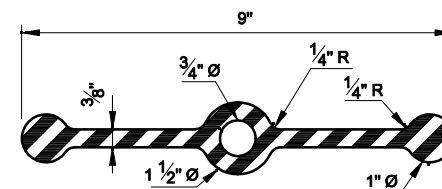
SECTION C

SCALE: 3" = 1'-0"



SECTION D

N.T.S.

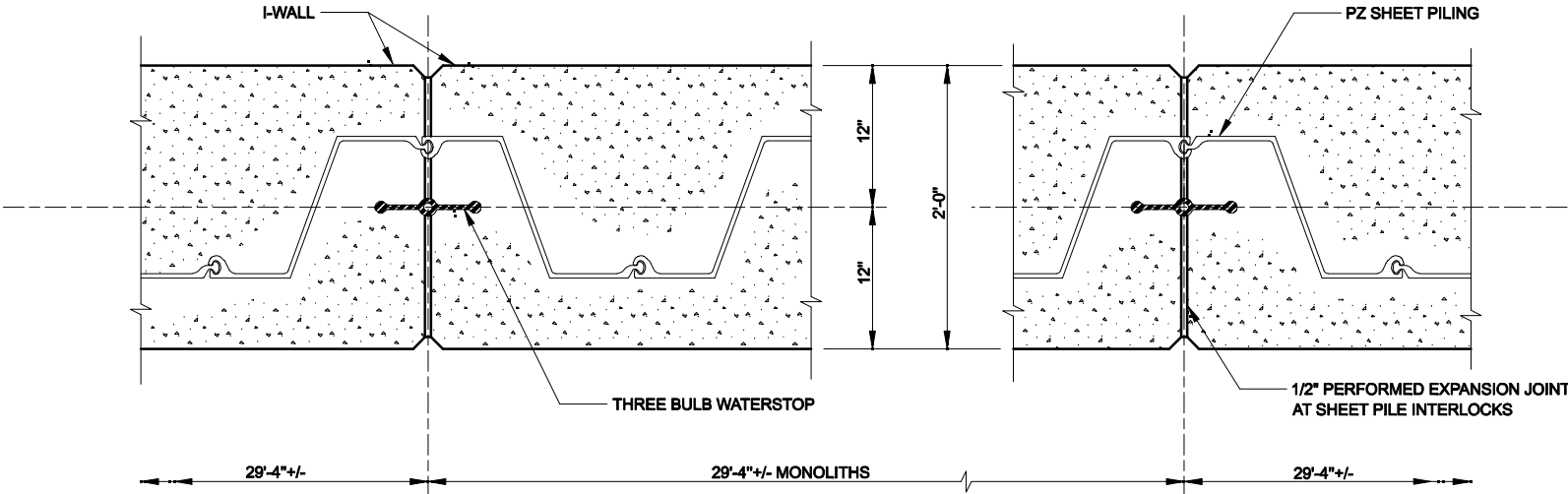


THREE-BULB WATERSTOP

SCALE: 1" = 1'-0"

 US Army Corps of Engineers NEW ORLEANS DISTRICT	
DESIGNED BY: USACE - NEW ORLEANS DWN BY: NEW ORLEANS DISTRICT NEW ORLEANS, LOUISIANA	DATE: MAY 2008 SOLICITATION NO.: CONTRACT NO.: PLOT SCALE: 12" = 1' FILE NUMBER: AE-TYPICALS FILE NAME: AE-TYP2008.DGN SIZE: ANSI D
USACE - NEW ORLEANS HURRICANE DESIGN GUIDELINES AE TYPICAL DRAWINGS WALL JOINTS & POSITIVE CUT-OFF	
SHEET IDENTIFICATION X-00	

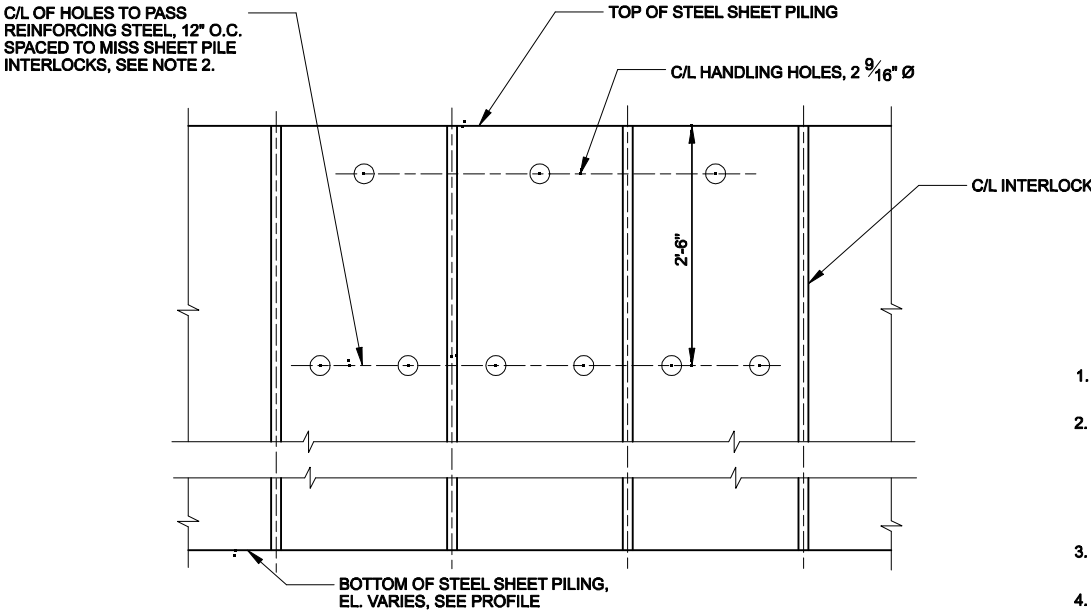
D



TYPICAL I-WALL MONOLITH SHEET PILE INTERLOCKS

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

NOTE:
 I-WALL MONOLITHS SHALL BE 29'-4" +/- UNLESS OTHERWISE INDICATED ON THE PROFILE. EACH MONOLITH SHALL END AT THE CENTER OF THE NEAREST SHEET PILE INTERLOCK.

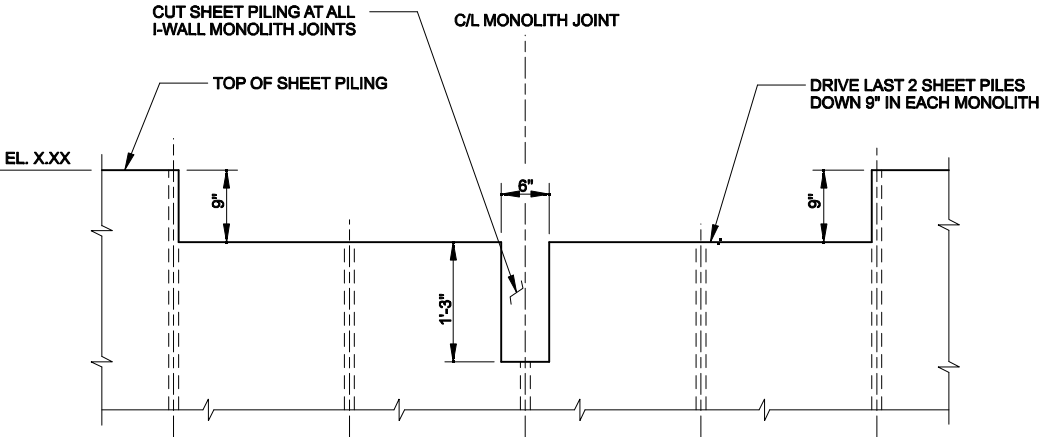


ELEVATION

DETAILS OF HOLES IN SHEET PILING

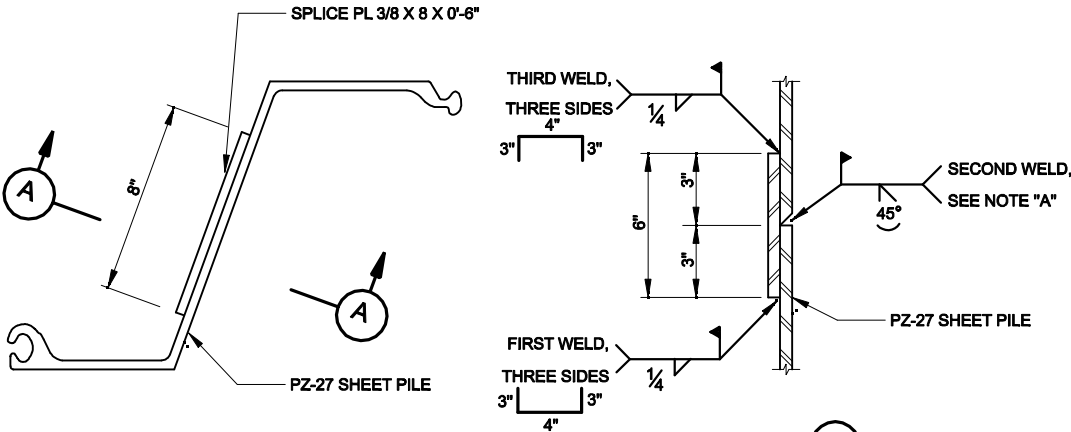
SHEET PILE NOTES

1. A MINIMUM OF 6 INCHES OF CONCRETE COVER SHALL BE PROVIDED OVER SHEET PILING AT ALL POINTS.
2. HOLES CUT INTO STEEL PILING FOR PASSING REINFORCING BARS SHALL NOT EXCEED 2" Ø WHERE HOLES FALL WITHIN THE WEB OF THE STEEL SHEET PILE, THE HOLE SHALL BE SLOTTED 4" HORIZONTALLY TO ACCOMMODATE PASSING THE REINFORCING BARS. REINFORCING BARS SHALL BE MOVED TO MISS SHEET PILE INTERLOCKS.
3. MONOLITH JOINTS SHALL BE LOCATED A MINIMUM OF 5 FEET FROM POINTS OF INTERSECTION.
4. ANY SUBSTITUTIONS SHALL BE SUBMITTED TO THE CONTRACTING OFFICER REPRESENTATIVE FOR APPROVAL.
5. STEEL SHEET PILE SURFACE PREPARATION AND PAINTING SHALL BE IN ACCORDANCE WITH SECTION 09940 OF THE SPECIFICATIONS.
6. STATIONS FOR SPECIAL Z-PILE TEES ARE APPROXIMATE.



SHEET PILING DETAILS
 I-WALL MONOLITH JOINTS

SCALE: 1" = 1' - 0"



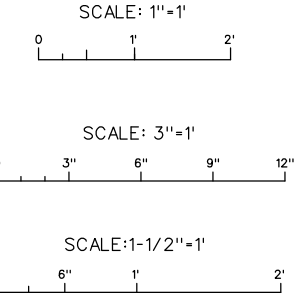
PLAN

SECTION A

SHEET PILE SPLICE DETAIL

SCALE: 3" = 1' - 0"

NOTE "A":
 GROOVE WELD SHALL EXTEND THE FULL LENGTH OF THE SHEET PILE WEB AND FLANGES EXCLUDING THE INTERLOCKS.



DATE	APPR	DATE	DESCRIPTION	MARK

DESIGNED BY: USACE - NEW ORLEANS	DATE: MAY 2008	SOLICITATION NO.:	CONTRACT NO.:
DWN BY:	CAD BY:	FILE NUMBER: A/E TYPICALS	FILE NAME: A/E-TYPE1.DGN
SUBMITTED BY:	PLOT SCALE: 3" = 1'	SIZE: ANSI D	

USACE - NEW ORLEANS HURRICANE DESIGN GUIDELINES A/E TYPICAL DRAWINGS	WALL JOINTS SHEET PILE DETAILS (1 OF 2)
--	---

SHEET IDENTIFICATION X-00



U.S. ARMY CORPS OF ENGINEERS NEW ORLEANS DISTRICT NEW ORLEANS, LOUISIANA	OWN BY:	CRD BY:	SOLICITATION NO.: MAY 2008
	SUBMITTED BY:		
	PLOT SCALE: 2" = 1'		FILE NUMBER: AE TYPICALS
	SIZE:		FILE NAME:

USACE - NEW ORLEANS HURRICANE DESIGN GUIDELINES A/E TYPICAL DRAWINGS

WALL JOINTS
SHEET PILE DETAILS
(2 OF 2)

**SHEET
IDENTIFICATION
X-00**



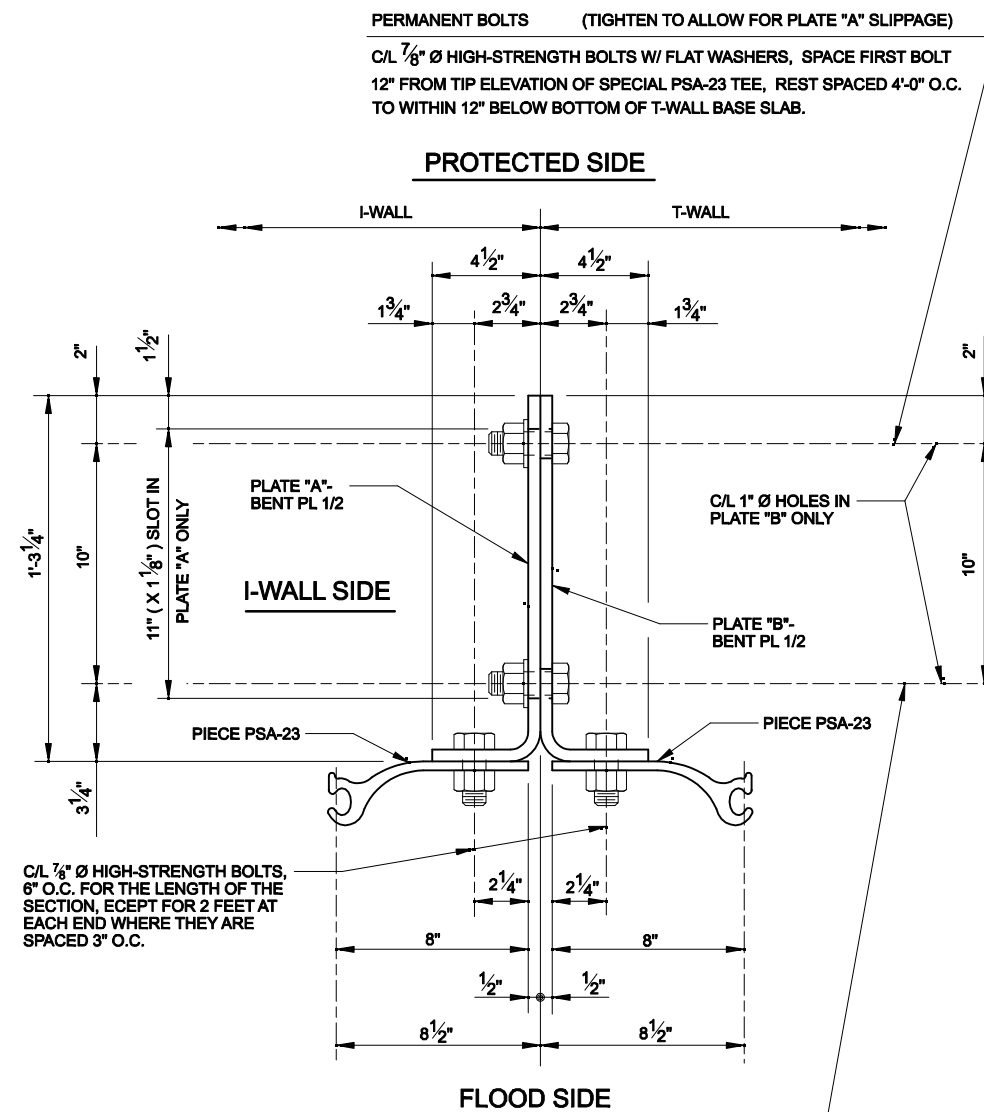
STA. XXX+XX.XX W/L

ELEVATION OF SPECIAL PSA-23 TEE
SHOWING BENT PLATES BOLT SPACING

SCALE: HORIZ. $\frac{3}{4}" = 1' - 0"$
VERT. $\frac{3}{8}" = 1' - 0"$

LEGEND

P = PERMANENT BOLT
T = TEMPORARY BOLT
S = SLOTTED HOLE
(PLATE "A" ONLY)



TEMPORARY DRIVING BOLTS

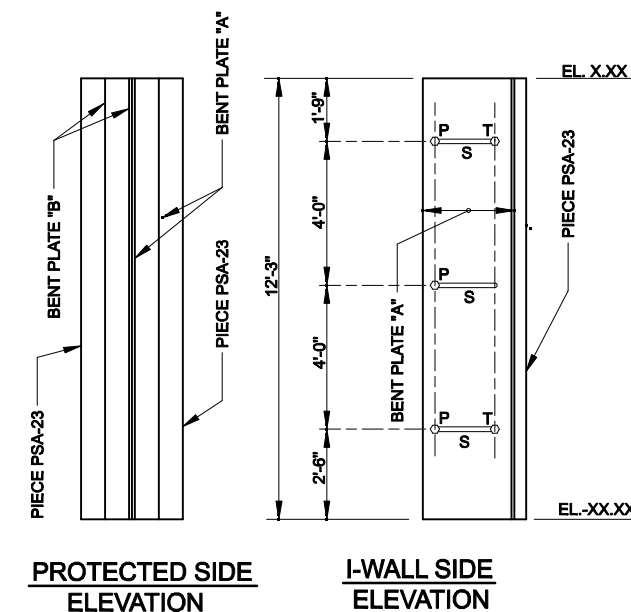
CL 7/8" Ø HIGH-STRENGTH BOLTS W/ FLAT WASHERS, SPACE FIRST BOLT 5'-0" FROM TIP ELEVATION OF SPECIAL PSA-23 TEE, REST SPACED 8'-0" TO WITHIN 12" BELOW BOTTOM OF T-WALL BASE SLAB. THESE BOLTS ARE TO BE REMOVED WHEN EACH BOLT IS APPROXIMATELY 6" ABOVE GROUND LINE AS SPECIAL PSA-23 TEE IS DRIVEN, SO THAT UPON COMPLETION OF DRIVING NO TEMPORARY BOLTS REMAIN.

DETAIL ①
SPECIAL PSA-23 TEE

SCALE: 3" = 1' - 0"

NOTE:

**7/8" Ø HIGH-STRENGTH BOLTS SHALL BE
HEAVY HEX BOLTS, ASTM A325M, TYPE 3 W/
HEAVY HEX NUTS, ASTM A563, GRADE C3,
PLAIN, WEATHERING STEEL AND
HARDENED STEEL WASHERS (WHERE REQUIRED),
ASTM F436, PLAIN, TYPE 3 (WEATHERING STEEL).**



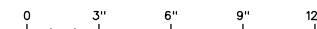
PROTECTED SIDE I-WALL SIDE
ELEVATION ELEVATION

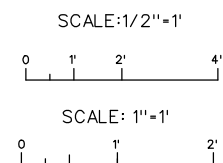
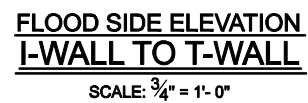
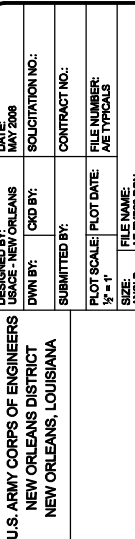
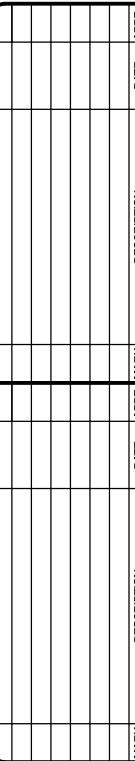
STA. XXX+XX.XX W/L - SHOWN
STA. XXX+XX.XX W/L - OPPOSITE HAND

ELEVATION OF SPECIAL PSA-23 TEE
SHOWING BENT PLATES BOLT SPACING

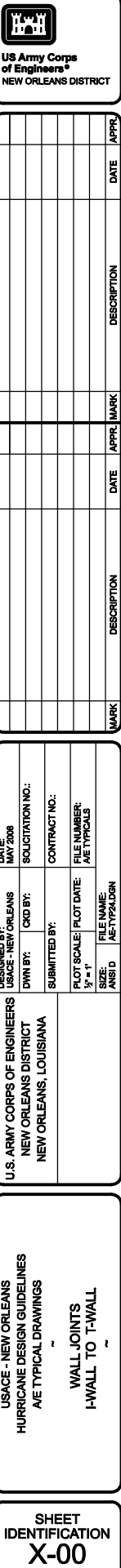
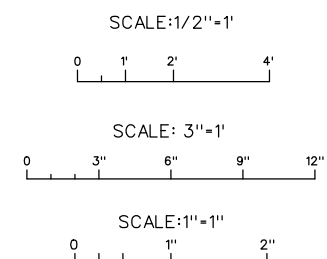
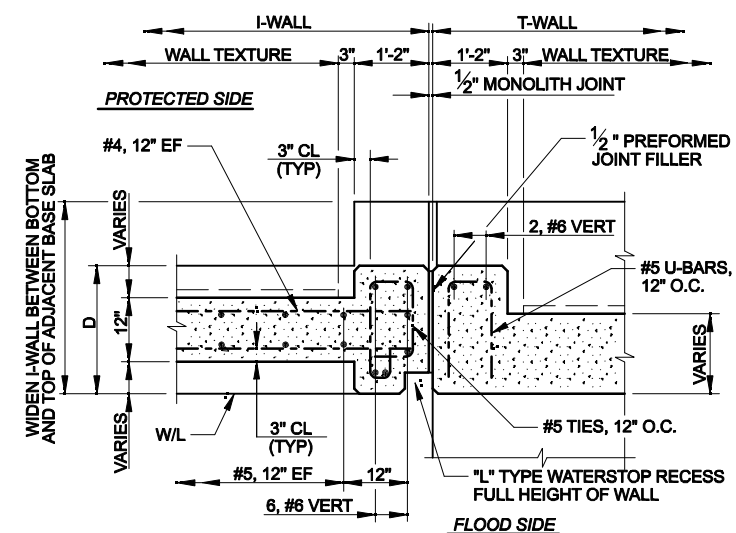
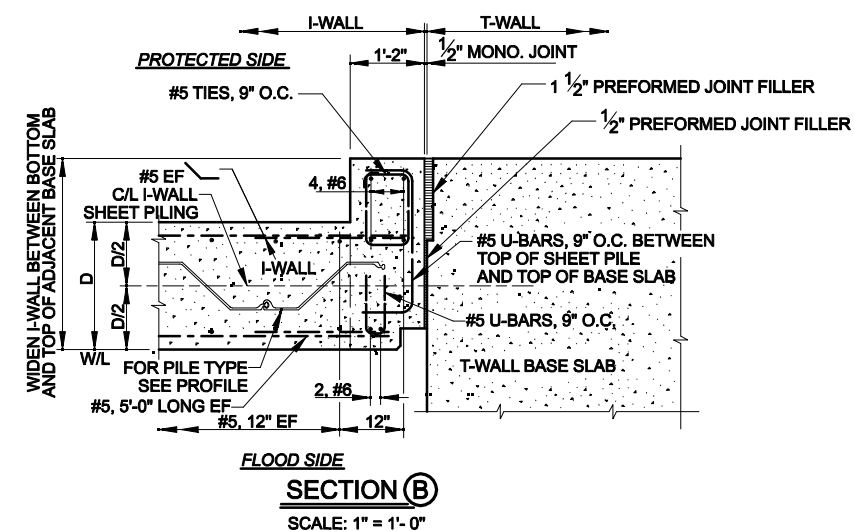
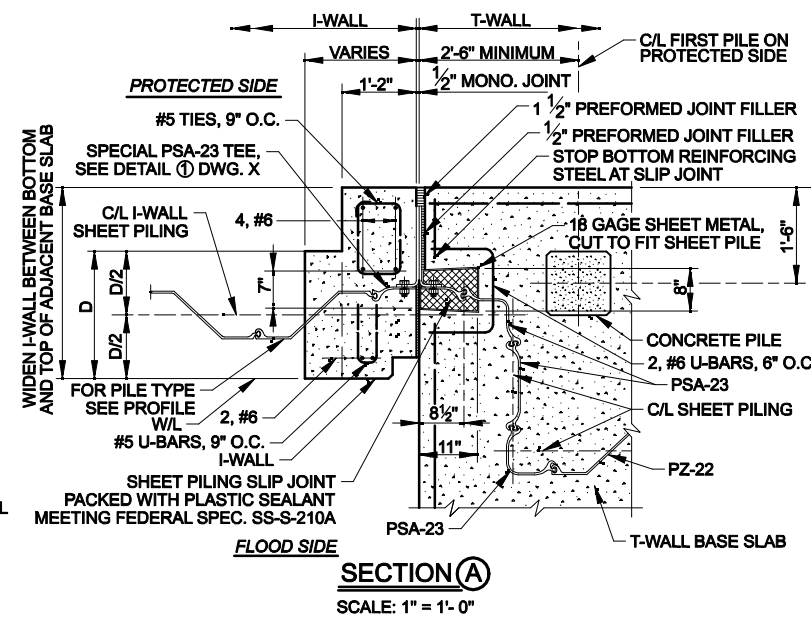
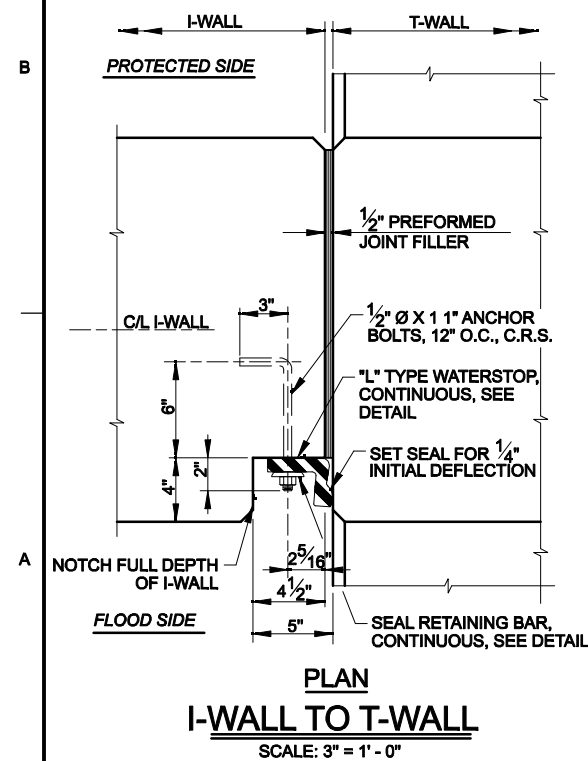
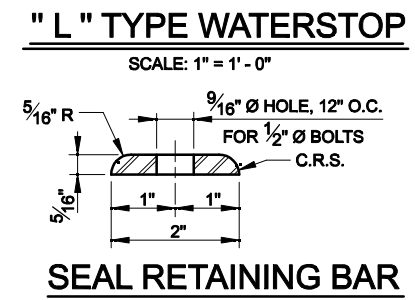
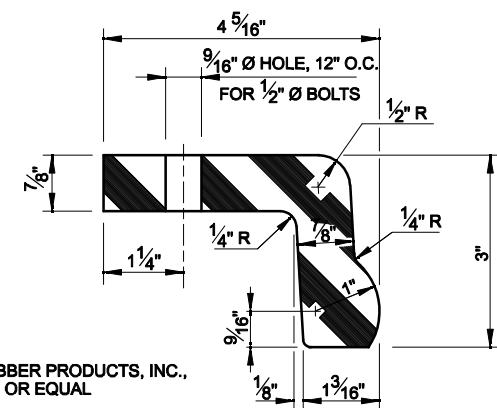
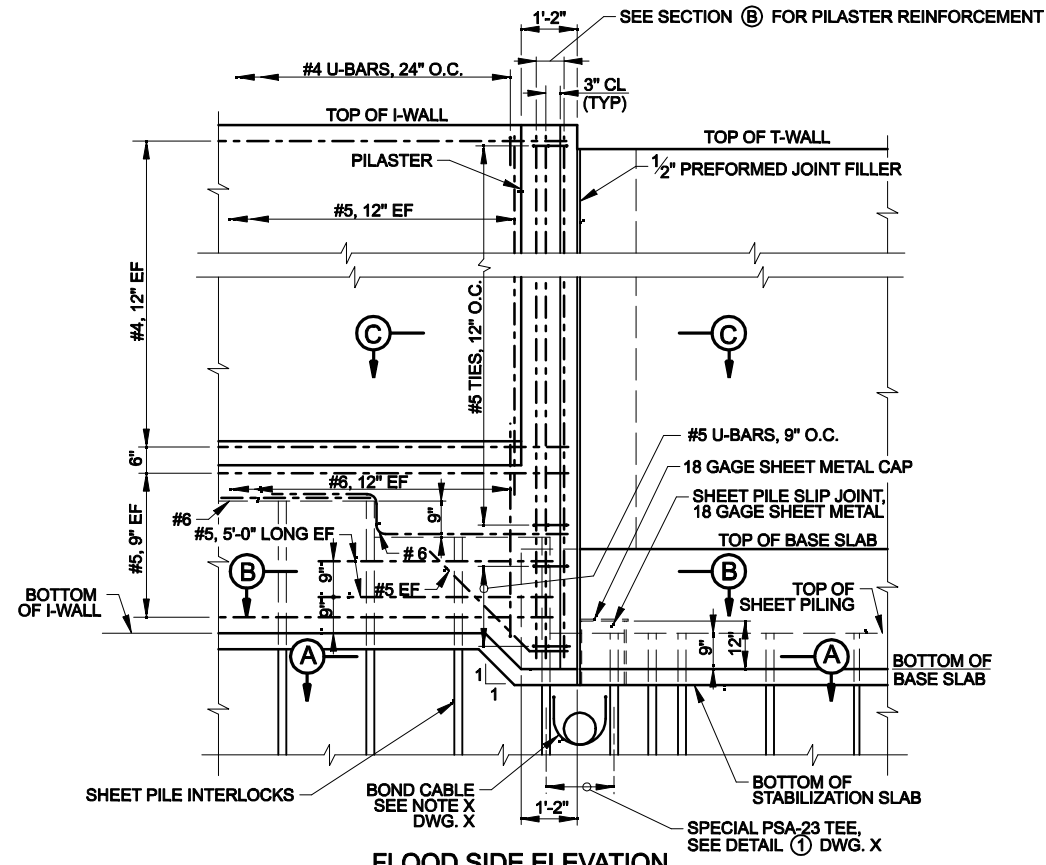
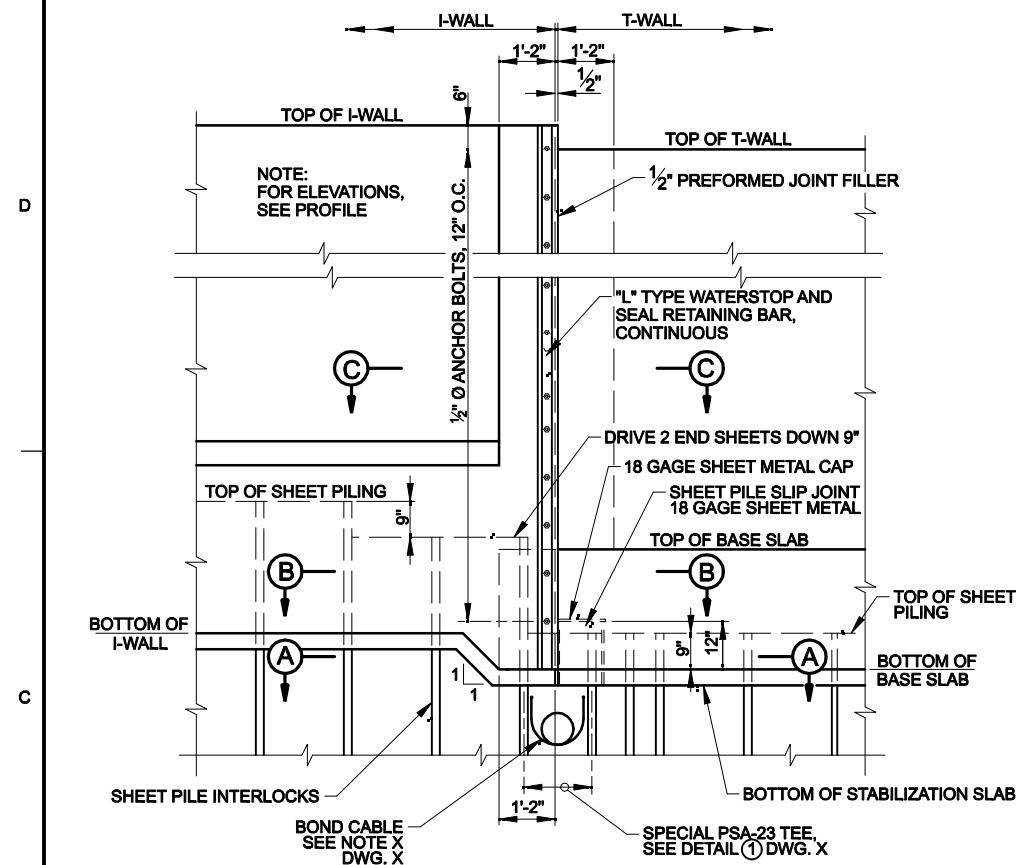
SCALE: HORIZ. $\frac{3}{4}" = 1'-0"$
VERT. $\frac{3}{8}" = 1'-0"$

SCALE: 3"=1'



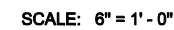








SCALE: 1 1/2" = 1' - 0"



SCALE: 6" = 1' - 0"



SCALE: 3" = 1' - 0"

ALL PLATES 1/2"
UNLESS OTHERWISE NOTED



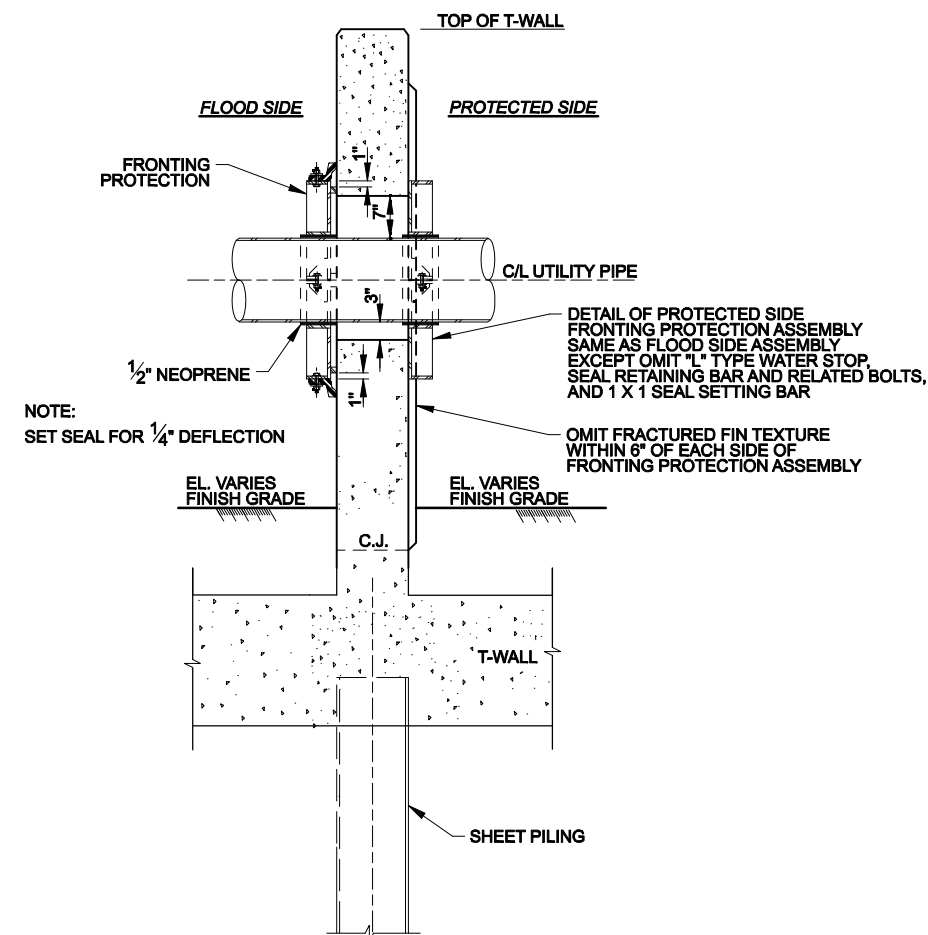
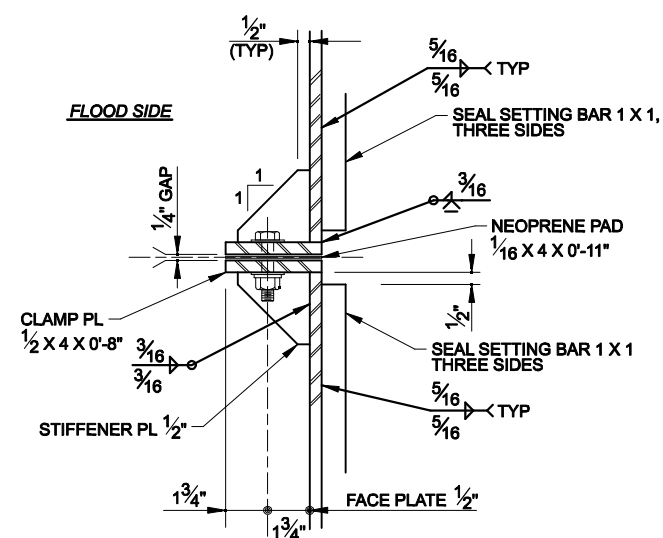
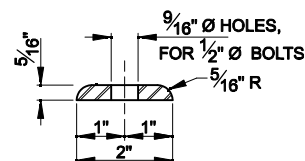
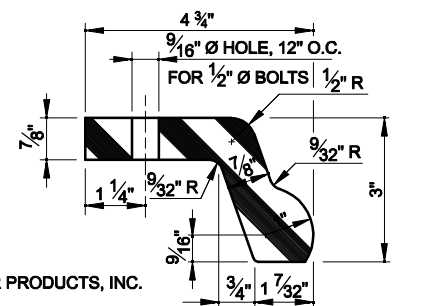
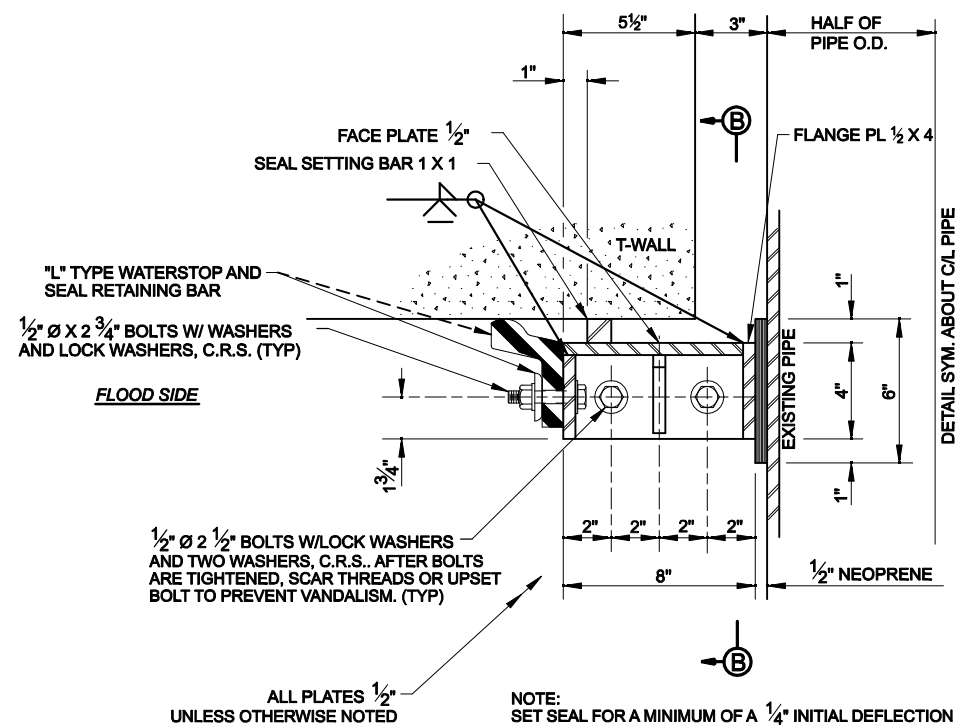
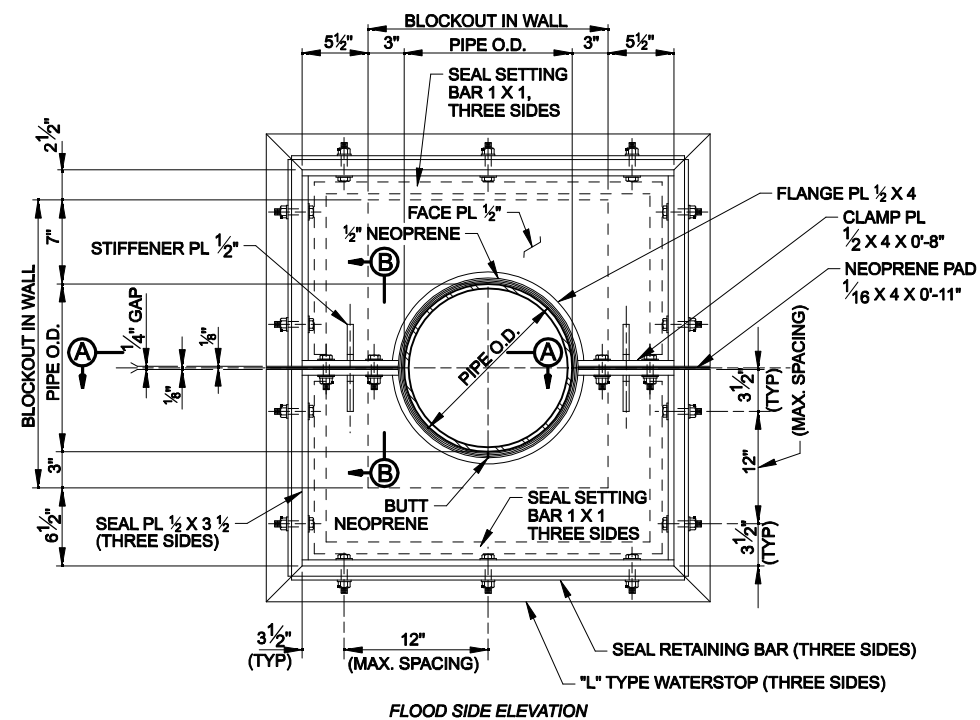
SCALE: 3" = 1' - 0"

-



NTS

12-18

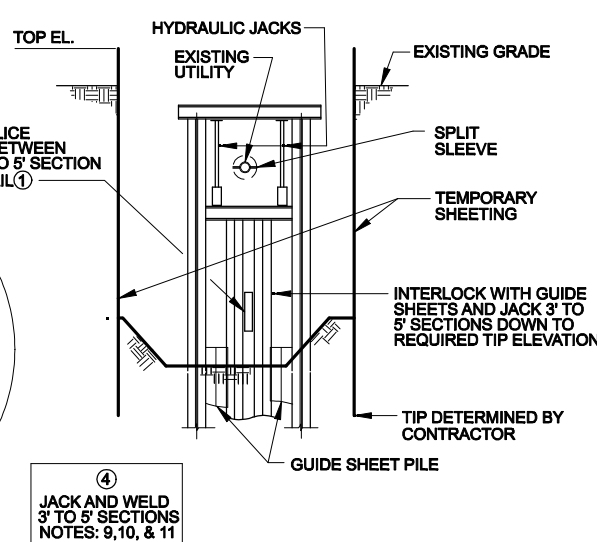


- NOTES:**

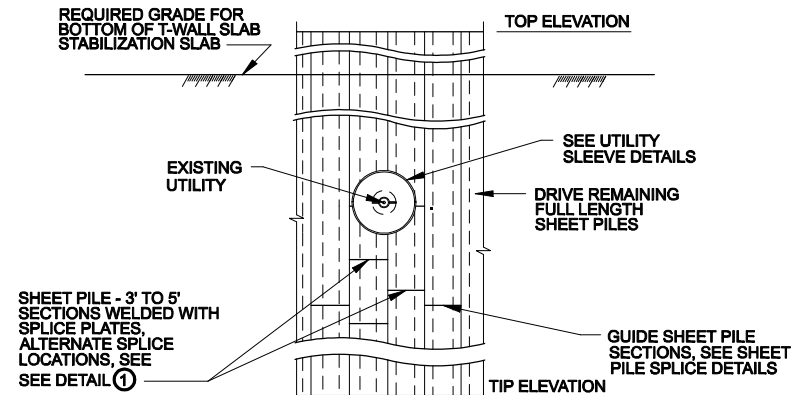
1. THIS DETAIL WAS DRAWN FOR A 14" O.D. PIPE.
2. THIS DETAIL IS BASED ON THE NEW WALL FACE BEING PERPENDICULAR TO THE PIPE.
3. GAS AND PETROLEUM PIPELINES MAY REQUIRE THAT A 1.5" MINIMUM CONCRETE COATING BE APPLIED BEFORE THE SLEEVE IS INSTALLED.
4. ALL MATERIAL FOR FRONTING PROTECTION SHALL BE ALUMINUM, UNLESS OTHERWISE NOTED.
5. ALL STRUCTURAL ALUMINUM PLATES SHALL BE ASTM B 209, TYPE 6061-T6
6. ALL CORROSION-RESISTANT STEEL (C.R.S.) SHALL BE TYPE 316.
7. WELDS SHOWN ARE TYPICAL FOR SIMILAR JOINTS AND ALL WELDS ON WALL SIDE OF FACE PLATE SHALL BE FLUSH WITH BASE METAL.
8. AFTER THE TWO FRAMES ARE LOOSELY CLAMPED ON THE PIPE, THE TOTAL ASSEMBLY SHALL BE PUSHED AGAINST THE WALL, SETTING THE SEALS, THEN TIGHTEN CLAMP PLATES TO CLOSE THE 1/4" GAP
9. UPON COMPLETION OF THE ASSEMBLY, APPLY A ANAEROBIC ADHESIVE (LOCTITE THREADLOCKER 290 OR EQUAL) TO ALL NUT AND BOLT JUNCTURES.

- SCALE: $3/4" = 1'$
- 0 1' 2' 3'
- SCALE: $1-1/2" = 1'$
- 0 6" 1' 2'
- SCALE: $6" = 1'$
- 0 3" 6" 9" 12"

USACE - NEW ORLEANS HURRICANE DESIGN GUIDELINES A/E TYPICAL DRAWINGS		UTILITY DETAILS T-WALL PENETRATION	
U.S. ARMY CORPS OF ENGINEERS NEW ORLEANS DISTRICT NEW ORLEANS, LOUISIANA		DESIGNED BY: DWN BY:	DATE: MAY 2008
SUBMITTED BY:		CHKD BY:	SOLICITATION NO.:
PLOT SCALE: 1.5" = 1'		CONTRACT NO.:	FILE NUMBER: A/E TYPICALS
SIZE:		FILE NAME:	



**TIP ELEVATION OF H-PILES
TO BE DETERMINED BY CONTRACTOR**



PLAN

THIRD WELD, THREE SIDES

4" 3" 3"

6" 3" 3"

1/4"

PZ-22 SHEET PILE

45°

SECOND WELD SEE NOTE "A"

FIRST WELD, THREE SIDES

3" 3" 4"

NOTE "A":
GROOVE WELD SHALL EXTEND THE FULL LENGTH OF THE SHEET PILE WEB AND FLANGES EXCLUDING THE INTERLOCKS.

SPLICE PLATE NOTE:
TWO SPLICE PLATES PER SHEET PILE MINIMUM ON ANY SHEET PILE SPLICE.

1. ANY PIPELINE PENETRATION THRU THE FLOOD PROTECTION SHALL CONFORM TO USACE PERMIT STANDARDS DRAWINGS 5A THRU 5C, FILE NUMBER H-8-29027, DATED OCTOBER 2002, AS SHOWN ON DRAWING 13.
2. STEEL PIPE SLEEVES SHALL BE ASTM A53, TYPE S, GRADE B, PLAIN END. FOR OUTER EDGES WITH DIAMETER LESS THAN OR EQUAL TO 24 INCHES.

1. RESERVED
2. CONTRACTOR FOR THE UTILITY SHALL LOCATE, MARK, EXCAVATE AND EXPOSE THE UTILITY AS NECESSARY FOR PLACEMENT OF THE SPLIT SLEEVE CARRIER.
MARKERS PLACED FOR THE UTILITY SHALL BE CLEARLY VISIBLE, SO THE CONTRACTOR CAN CLEARLY LOCATE THE UTILITY DURING CONSTRUCTION. PERMANENT MARKERS SHALL BE PLACED BY THE CONTRACTOR FOR THE UTILITY AFTER COMPLETION OF THE CONSTRUCTION PROJECT.
3. CONTRACTOR FOR THE UTILITY SHALL PLACE THE UTILITY IN THE SPLIT-SLEEVE CARRIER PRIOR TO ANY WORK BY THE CONTRACTOR.
THE CONTRACTOR MAY BE REQUIRED BY THE UTILITY OWNER TO SUPPORT THE UTILITY WITHIN THE EXCAVATION.
4. THE CONTRACTOR IS RESPONSIBLE FOR ALL CONSTRUCTION ACTIVITIES REGARDING EXCAVATING FOR AND DRIVING OF THE SHEET PILE AND PLACING THE RELOCATION/UTILITY THROUGH THE SHEET PILE WALL.
5. THE CONTRACTOR SHALL EXCAVATE THE EXISTING GROUND TO AN ELEVATION 4'-6" BELOW OF THE INVERT OF THE PIPELINE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN OF THE EXCAVATION. THE DESIGN SHALL BE STAMPED BY A REGISTERED ENGINEER, LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED.
6. THE CONTRACTOR SHALL DRIVE TWO (2) SHEET PILE GUIDES AS SHOWN IN SEQUENCE ② ABOVE.
7. THE CONTRACTOR SHALL DRIVE H-PILES TO A DEPTH DETERMINED BY DESIGN CALCULATIONS.
8. THE CONTRACTOR SHALL WELD A WIDE FLANGE (WF) CROSS BEAM TO THE TOP OF THE H-PILES AND INSTALL WIDE FLANGE (WF) JACKING BEAM WITH HYDRAULIC JACKS SUPPORTED BY THE CROSS BEAM.

9. THE CONTRACTOR SHALL INTERLOCK 3' TO 5' LENGTH SHEET PILES AND JACK BETWEEN SHEET PILE GUIDES AS SHOWN IN SEQUENCE ④.
10. AFTER THE FIRST 3' TO 5' PANEL HAS BEEN DRIVEN, RAILROAD GATE CONTRACTOR SHALL WELD THE NEXT 3' TO 5' PANEL TO THE PREVIOUS PANEL USING SPLICE PLATES (SEE DETAIL ①).
11. RAILROAD GATE CONTRACTOR SHALL REPEAT STEPS IN NOTES 9 AND 10 UNTIL THE SHEET PILING BELOW THE PIPELINE IS DRIVEN TO AN ELEVATION REQUIRED FOR PLACEMENT OF SHEET PILES WHICH ARE NECESSARY FOR PLACEMENT OF OUTER SLEEVE.
12. THE CONTRACTOR SHALL REMOVE JACKING FRAME.
13. ALL SHEET PILE ABOVE AN ELEVATION TWO (2) FEET BELOW THE EXCAVATION SHALL BE PAINTED IN ACCORDANCE WITH SPECIFICATION 09940. THE HORIZONTAL LIMITS OF PAINTING SHALL BE TWO (2) FEET BEYOND THE EDGE OF THE EXCAVATION.
14. THE CONTRACTOR SHALL INSTALL SHEET PILING NECESSARY TO PLACE SLEEVE, AND AFTER SLEEVE PLACEMENT IS COMPLETE, PLACE THE REMAINING SHEET PILE.
15. THE CONTRACTOR SHALL INSTALL SHEET PILING TO GRADE AS REQUIRED BY USAGE.
NOTE: IF PILING BELOW THE UTILITY IS DRAGGED DOWNWARD DURING DRIVING OF ADJACENT PILING, CONTRACTOR SHALL ADD LENGTH BY WELDING NEW PILING TO REQUIRED GRADE. DO NOT PULL SHEET PILE UP TO GRADE.
16. THE CONTRACTOR SHALL BACKFILL THE EXCAVATION WITH THE SAME MATERIAL EXCAVATED TO THE REQUIRED GRADE. THE MATERIAL SHALL BE REPLACED WITHOUT COMPACTION AND AS CLOSE TO ITS IN-SITU STATE AS POSSIBLE. AT NO TIME SHALL THE SHEET PILE BE PULLED TO GRADE IF IT HAS MOVED.

SLEEVE SCHEDULE	
SHEET PILE DEPTH "D"	SLEEVE LENGTH
12" OR LESS	3'-0"
GREATER THAN 12"	3'-4"

WELD NOTE:
WELDS SHOWN ON SECTION (B)

[illegible]

U.S. ARMY CORPS OF ENGINEERS NEW ORLEANS DISTRICT NEW ORLEANS, LOUISIANA	DESIGNED BY: DANCE - NEW ORLEANS		DATES: MAY 2008	
	DOWN BY:	OXD BY:	SOLICITATION NO.:	
	SUBMITTED BY:		CONTRACT NO.:	
	PLOT SCALE:	PLOT DATE:	FILE NUMBER:	
	N.T.S.		A/E TYPICALS	
	SIZE:	FILE NAME:		

USACE - NEW ORLEANS
HURRICANE DESIGN GUIDELINES
A/E TYPICAL DRAWINGS

**SHEET
IDENTIFICATION
X-00**

[illegible]

NEW ORLEANS DISTRICT NEW ORLEANS, LOUISIANA	DWN BY:	CMD BY:	SOLICITATION NO.:
	SUBMITTED BY:		
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	9" = 1"		AETYPICALS
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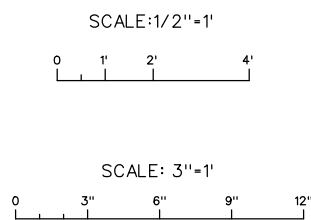
HURRICANE DESIGN GUIDELINES
A/E TYPICAL DRAWINGS

UTILITY DETAILS
SPliced SHEET PILE LAYOUTS

**SHEET
IDENTIFICATION
X-00**



DETAIL ②
SCALE: 3" = 1'-0"





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

C



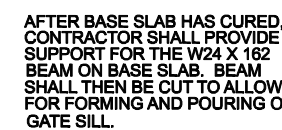
SCALE: $\frac{3}{8}$ " = 1'-0"

1. $\frac{3}{4}$ " $\varnothing$ x 13" HEX BOLT (THREADED 4") AND NUT W/ EVER TIGHT WASHER, EVER TIGHT SPRING AND OFFSET SHOE TYPE A (X = 2", Y = $\frac{1}{2}$ "), AS MFD. BY LEWIS BOLT AND NUT CO., WAYZATA, MINNESOTA OR EQUAL
2. $\frac{5}{8}$ " $\varnothing$ x 10" WASHER HEAD TIMBER DRIVE SPIKE AS MFD. BY LEWIS BOLT AND NUT CO., WAYZATA, MINNESOTA OR EQUAL
3. H-PILES MAY BE SPLICE, SEE DWG. XX FOR DETAILS.
4. SEE DRAWING XX FOR ALL SWING GATE MONOLITH DIMENSIONS



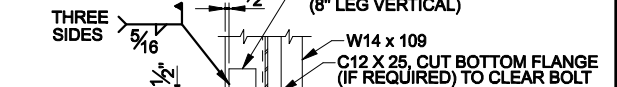
SCALE: $\frac{1}{4}" = 1'-0"$

1 1/4" Ø X 18" LONG TRUBOLT WEDGE ANCHOR
W/ NUT AND WASHER AS MFD. BY
ITW RAMSET/REDHEAD, WOOD DALE, ILLINOIS
OR EQUAL. ONE SIDE OF W24 X 162, SEE PLAN



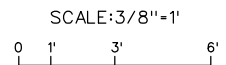
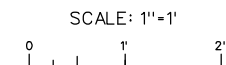
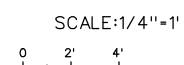
SCALE: $\frac{1}{4}'' = 1'-0''$

DETAIL ①
SCALE: 1"=1'-0"



PLAN (A)
SCALE: 1"=1'-0"

1. FOR GENERAL NOTES, SEE DWG. 2.
2. EXTENDED DRAINAGE PIPE TO FACE OF EMBANKMENT SLOPE, PROTECT WITH 12" SOIL BLANKET.

[illegible]

U.S. ARMY CORPS OF ENGINEERS NEW ORLEANS DISTRICT NEW ORLEANS, LOUISIANA	URPOSE - NEW ORLEANS	MAY 2006
	DWN BY:	
	QID BY:	
	SUBMITTED BY:	CONTRACT NO.:
	PLOT SCALE: PLOT DATE:	FILE NUMBER: A/E TYPICALS
	SIZE: 1/8" = 1'	FILE NAME: A/E-TYP40.DGN
	ANSI D	

**HURRICANE DESIGN GUIDELINES
A/E TYPICAL DRAWINGS**

CONSTRUCTION FALSEWORK DETAILS

**SHEET
IDENTIFICATION
X-00**



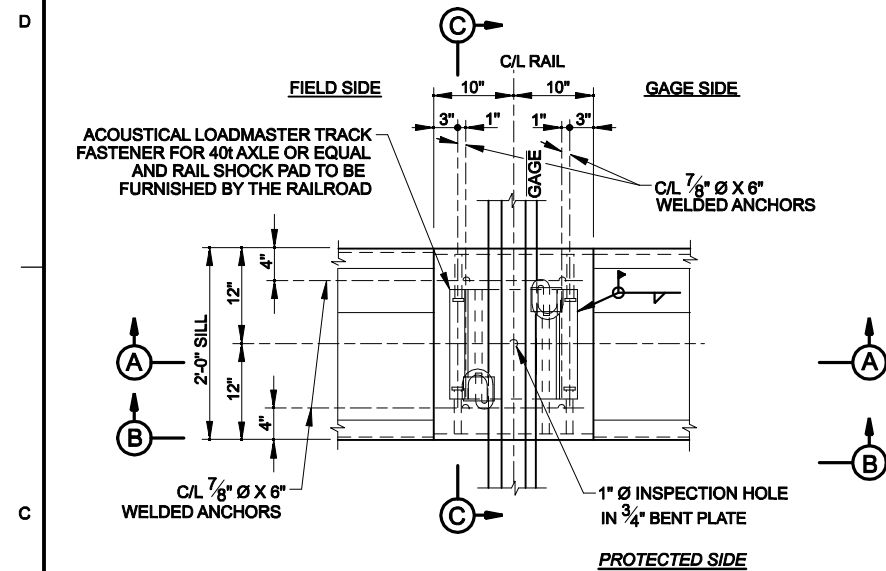
**US Army Corps
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NEW ORLEANS DISTRICT

[illegible]

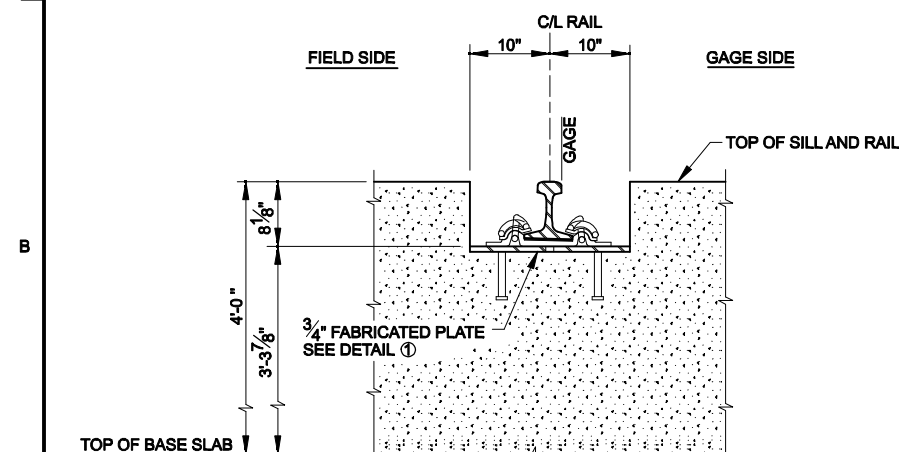
U.S. ARMY CORPS OF ENGINEERS NEW ORLEANS DISTRICT NEW ORLEANS, LOUISIANA	ISSUED BY: NEW ORLEANS	DATE: MAY 2008
	OWN BY: CRD BY:	SOLICITATION NO.:
	SUBMITTED BY:	CONTRACT NO.:
		FILE NUMBER: AETYPICALS
		FILE NAME:

USACE - NEW ORLEANS
HURRICANE DESIGN GUIDELINES
A/E TYPICAL DRAWINGS

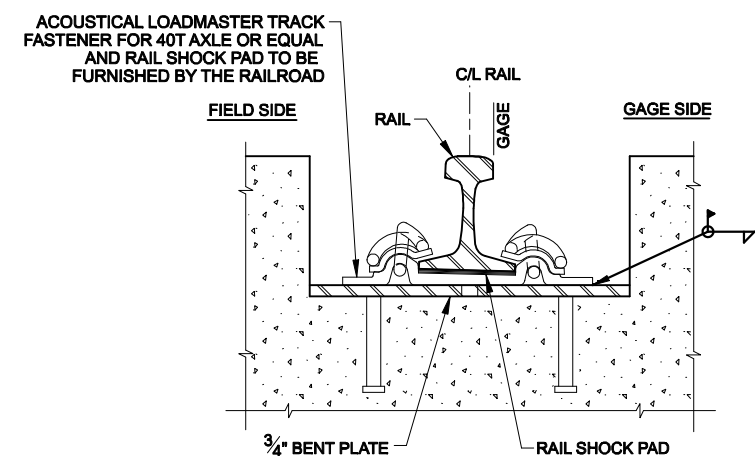
**SHEET
IDENTIFICATION
X-00**



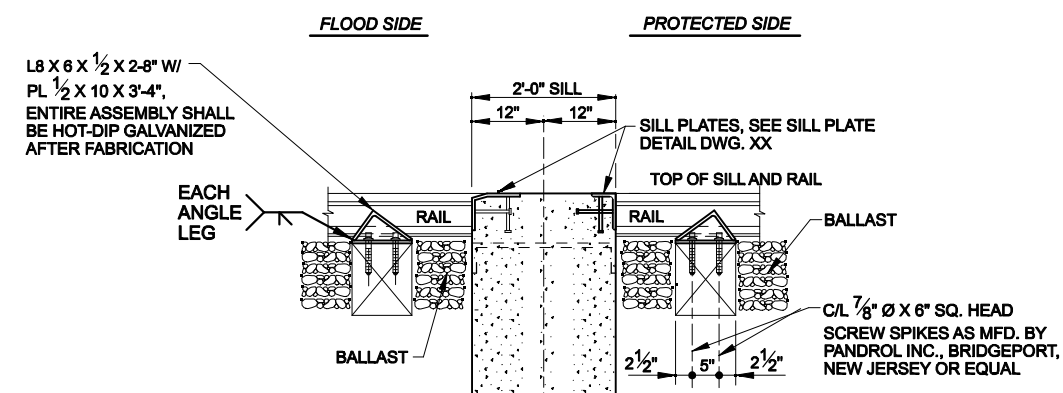
PLAN
SCALE: 1" = 1' - 0"



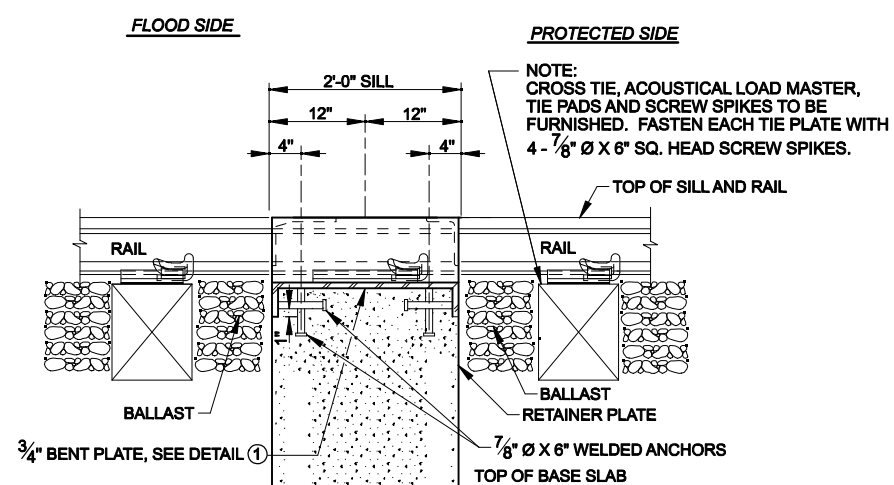
SECTION (A)
SCALE: 1" = 1' - 0"



RAIL AND COMPONENT PARTS DETAIL



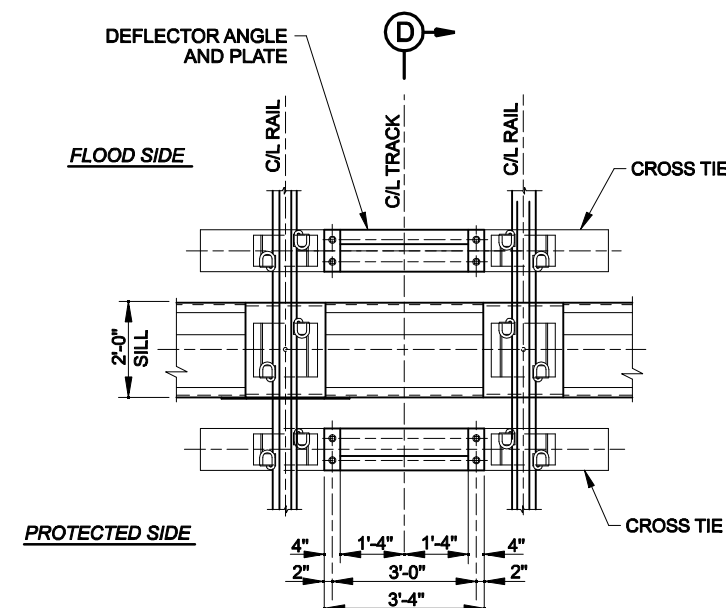
SECTION (D)
SCALE: 1" = 1'-0"



RAIL ASSEMBLY

SCALE: 1" = 1' - 0"

SECTION ©

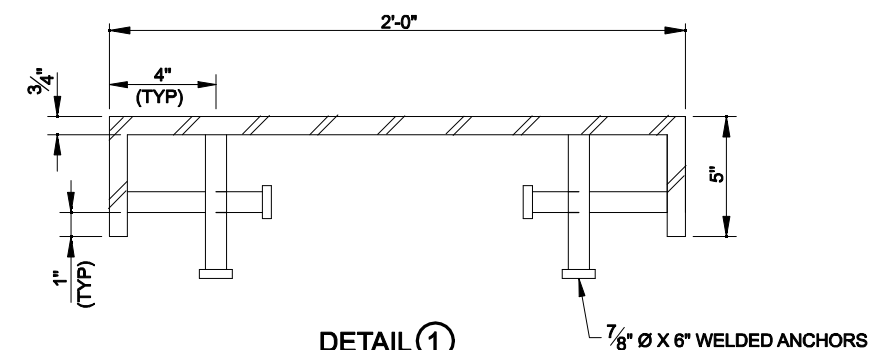


 DEFLECTOR ANGLE AND PLATE
TO BE PLACED ON FIRST TIE
EACH SIDE OF SILL.

PLAN

DEFLECTOR ANGLE AND PLATE DETAIL

SCALE: $\frac{1}{2}" = 1'-0"$



DETAIL ①
SCALE: 3" = 1' - 0"

SCALE: 1/2"=1'

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

SCALE: 1"=1'

0 1'

SCALE: 3"=1

0 3" 6" 9"



SECTION 

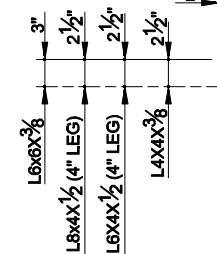


DETAIL



SECTION

B
X X



ANGLE DETAIL

L4X4X $\frac{3}{8}$ W/1 $\frac{1}{2}$ "X6" WELDED
ANCHORS, 12" O.C. STAGGERED

L6X4X1 $\frac{1}{2}$ W/1 $\frac{1}{2}$ "X6" WELDED
ANCHORS, 12" O.C. STAGGERED

L8X4X1 $\frac{1}{2}$ W/1 $\frac{1}{2}$ "X6" WELDED
ANCHORS, 12" O.C. STAGGERED

L6X6X $\frac{3}{8}$ W/1/2"X6" WELDED
ANCHORS, 12" O.C. STAGGERED

ENTIRE ANGLE ASSEMBLY TO BE
HOT-DIP GALVANIZED AFTER
FABRICATION.

0 1' 2' 3

0 1' 2'

[illegible]

U.S. ARMY CORPS OF ENGINEERS NEW ORLEANS DISTRICT NEW ORLEANS, LOUISIANA	SUBMITTED BY:		CONTRACT NO.:
	DWN BY:	ORD BY:	SOLICITATION NO.:
	PLOT SCALE: $\frac{1}{2} = 1'$		FILE NUMBER: AETYPICALS
	SIZE:		FILE NAME:

USACE - NEW ORLEANS HURRICANE DESIGN GUIDELINES A/E TYPICAL DRAWINGS

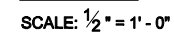
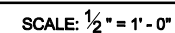
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IDENTIFICATION
X-00**

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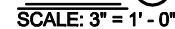
U.S. ARMY CORPS OF ENGINEERS NEW ORLEANS DISTRICT NEW ORLEANS, LOUISIANA	OWN BY:	CRD BY:	SOLUTION NO.: MAY 2008
	SUBMITTED BY:		
	PLOT SCALE: 1/2" = 1'		FILE NUMBER: AE TYPICALS
	SIZE:	FILE NAME:	

USACE - NEW ORLEANS
HURRICANE DESIGN GUIDELINES
A/E TYPICAL DRAWINGS

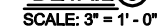
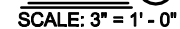
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IDENTIFICATION
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NO SPLICING OF THE W33 X 118 OR W24 X 55 BEAMS SHALL BE ALLOWED.

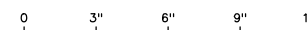


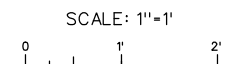
FOR BOTTOM ROLLER GATE SECTIONS, SEE DWG. XX
FOR BOTTOM ROLLER GATE SEAL SUPPORT DETAILS, SEE DWG. XX
FOR BOTTOM ROLLER GATE SEAL DETAILS, SEE DWG. XX
FOR CASTER ASSEMBLY AND DETAILS, SEE DWG. XX

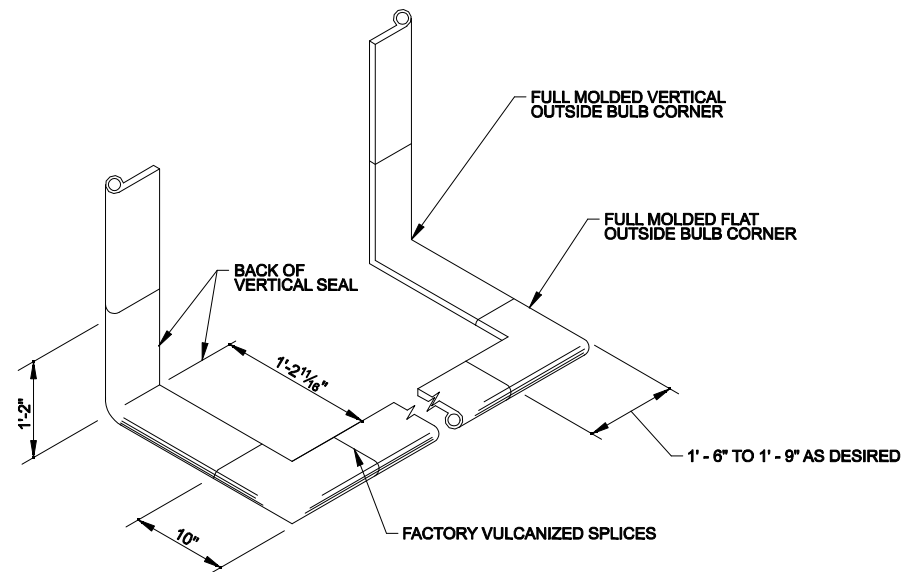
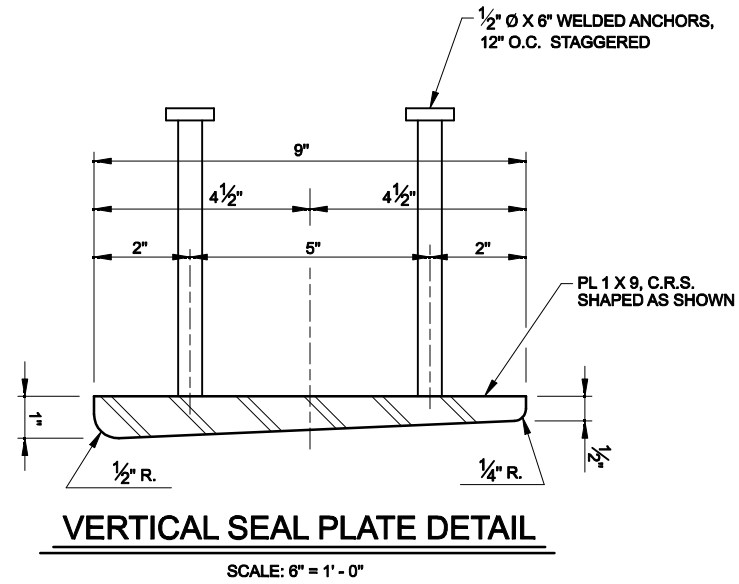


SCALE:1/2"=1'

SCALE: 3"=1'





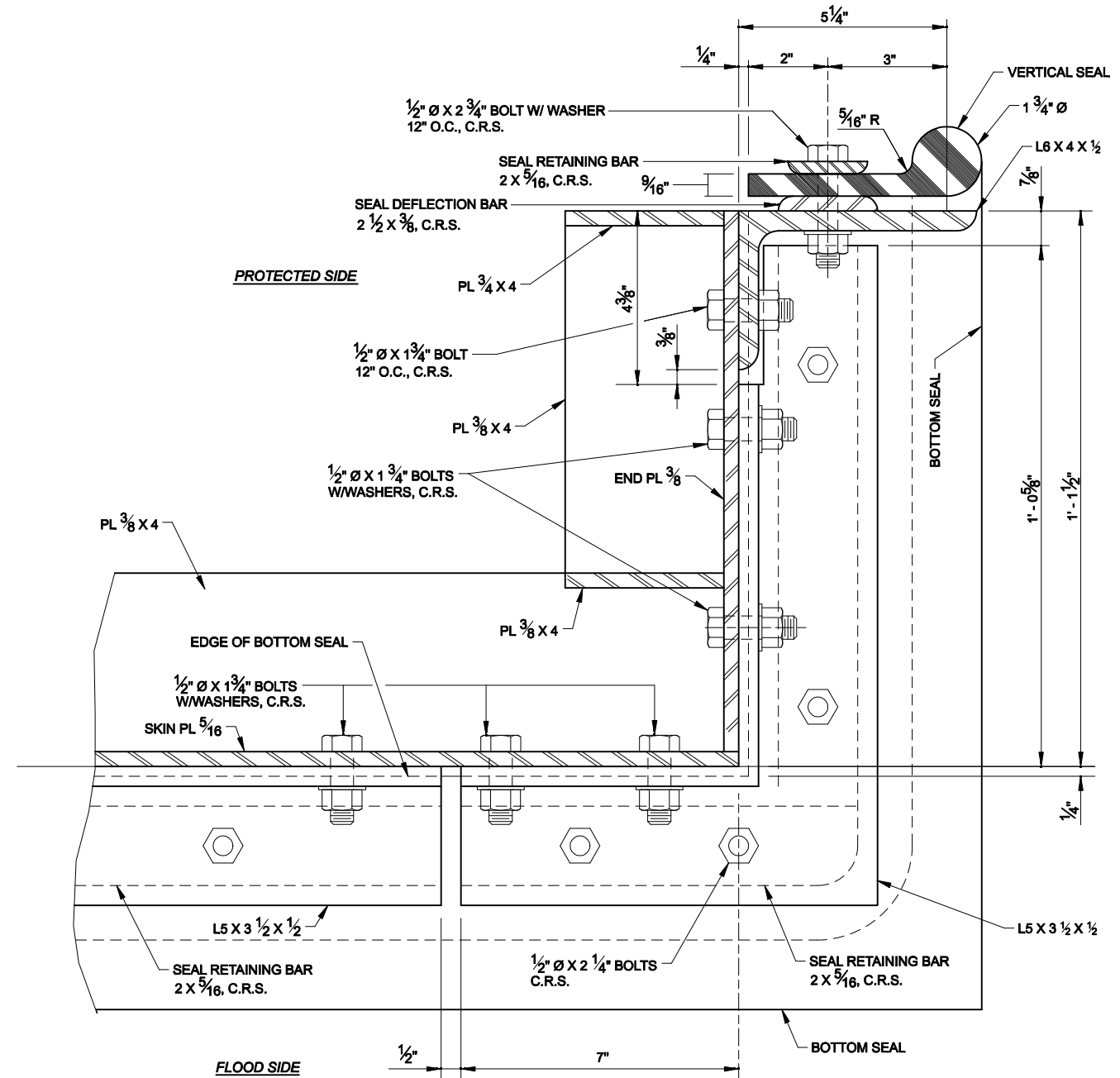


TYPICAL GATE SEAL

NOT TO SCALE

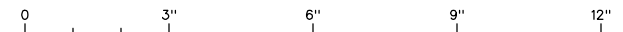
REFERENCE DRAWINGS
FOR BOTTOM ROLLER GATE SEAL SUPPORT DETAILS, SEE DWG. XX

- NOTE:**
- 1. ALL INDIVIDUAL 90° CORNER INTERSECTIONS WILL BE FULLY MOLDED.**
 - 2. ALL SPLICES WILL BE FACTORY MADE IN HEAVY STEEL PRESS TYPE MOLDS UNDER PRESSURE AND HEAT.**
 - 3. ALL SPLICE JOINTS MUST DEVELOP A STRENGTH OF AT LEAST 50% OF THE MINIMUM TENSILE STRENGTH REQUIRED OF THE RUBBER.**



VERTICAL SEAL
PLAN AT END OF GATE BELOW W33X118
SCALE: 6" = 1' - 0"

SCALE: 6"=1'

[illegible]

NEW ORLEANS DISTRICT NEW ORLEANS, LOUISIANA	DWN BY:		CRD BY:		SOLICITATION NO.:	
	SUBMITTED BY:				CONTRACT NO.:	
	PLOT SCALE:		PLOT DATE:		FILE NUMBER:	
	S.F.:		S.F.:		ACT-TYPICALS	
	ANSD		FILE NAME:			
			ACT-TYPICALS			

HURRICANE DESIGN GUIDELINES A/E TYPICAL DRAWINGS

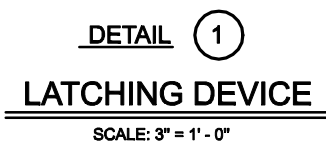
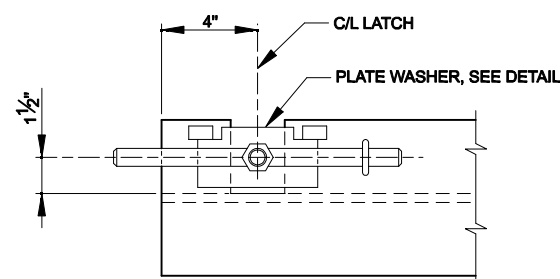
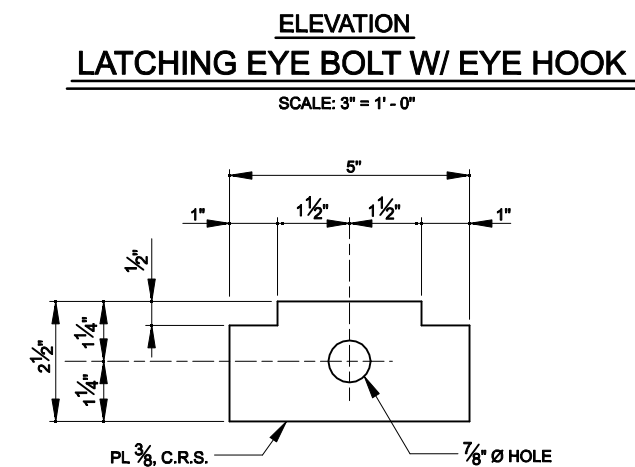
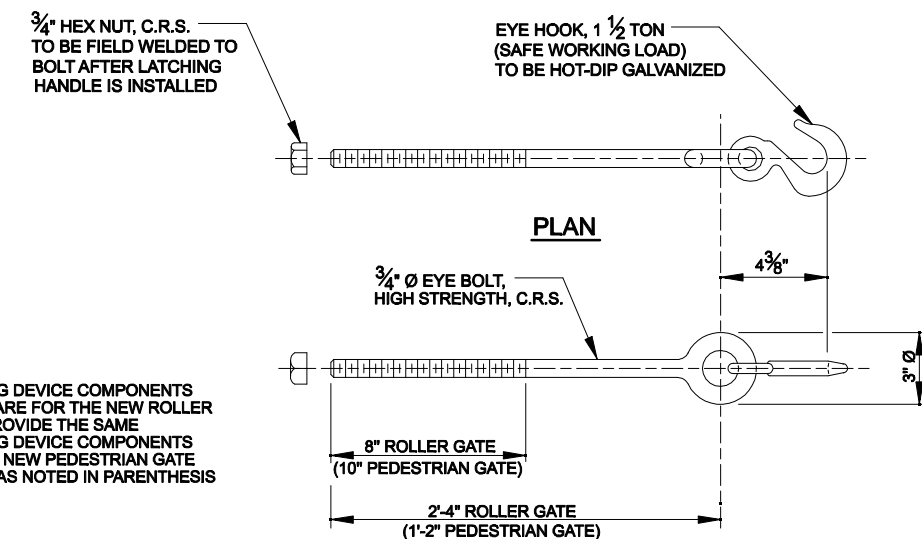
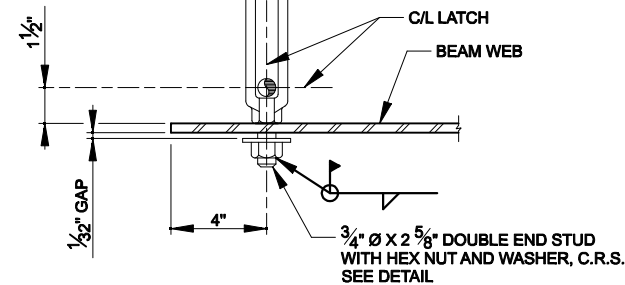
**SEAL DETAILS
(2 OF 2)**

**SHEET
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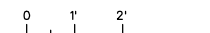


U.S. ARMY CORPS OF ENGINEERS NEW ORLEANS DISTRICT NEW ORLEANS, LOUISIANA	OWN BY:		CRO BY:		SOLICITATION NO.:	
	USACE - NEW ORLEANS		USACE - NEW ORLEANS		MAY 2008	
	SUBMITTED BY:		PLOT SCALE:		FILE NUMBER:	
	12" = 1"		PLOT DATE:		AE TYPICALS	
	SIZE:		FILE NAME:			

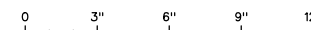
**SHEET
IDENTIFICATION
X-00**



SCALE:1/2"=1'



SCALE: 3"=1'

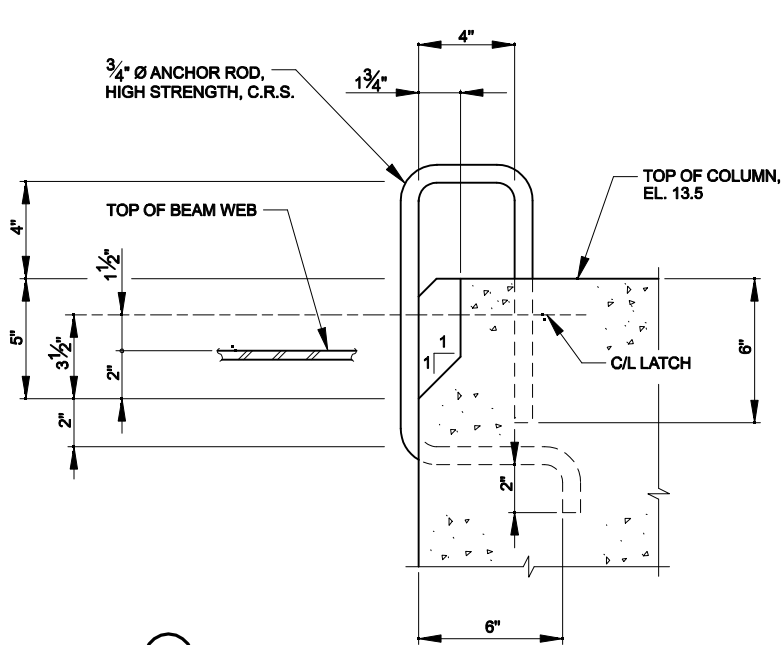
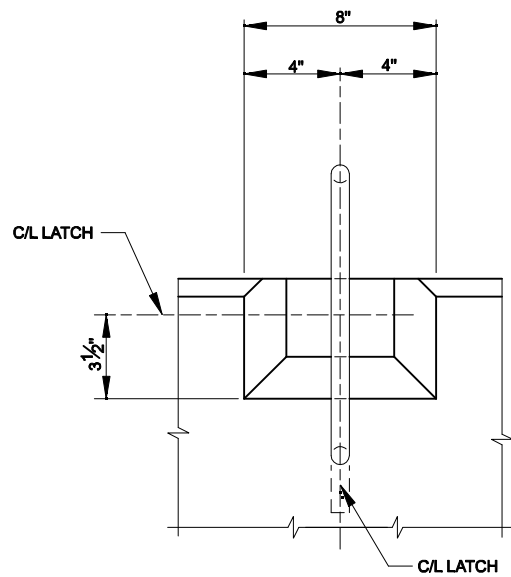


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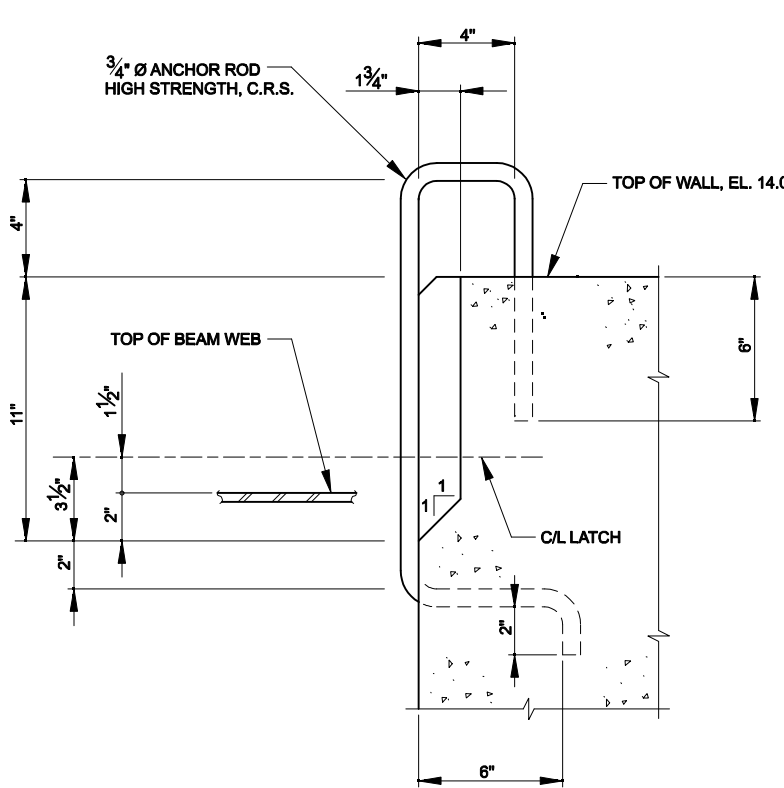
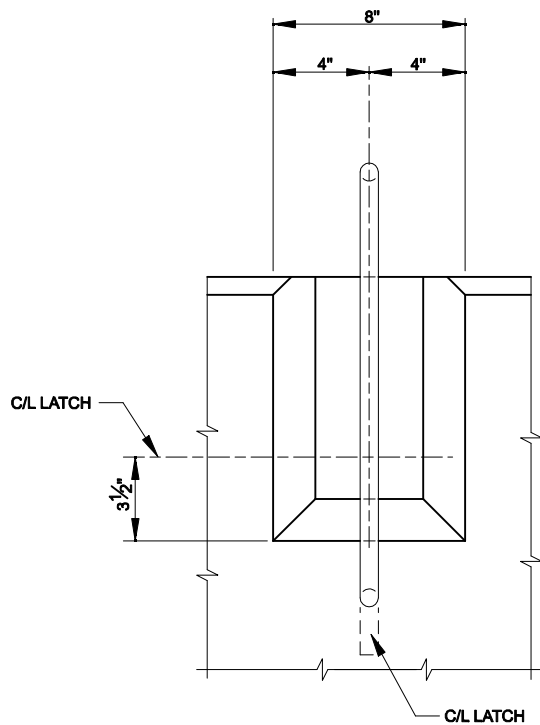
C

B

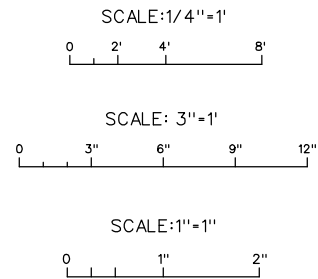
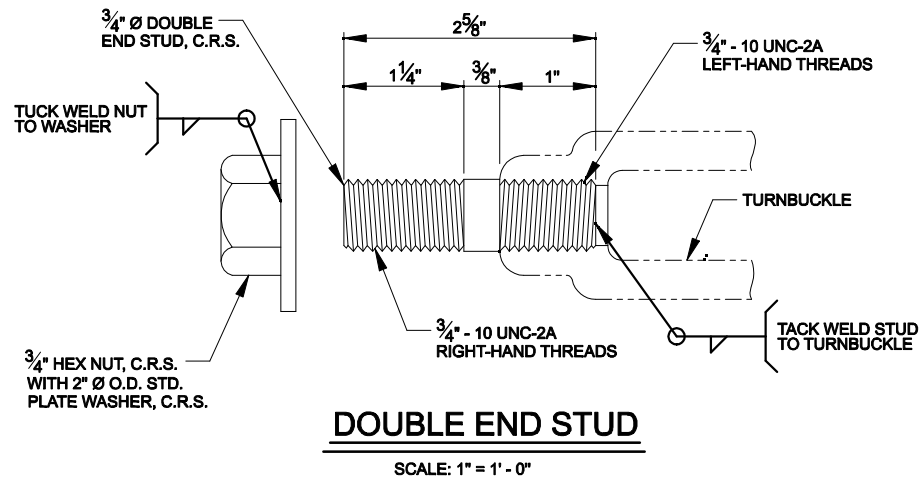
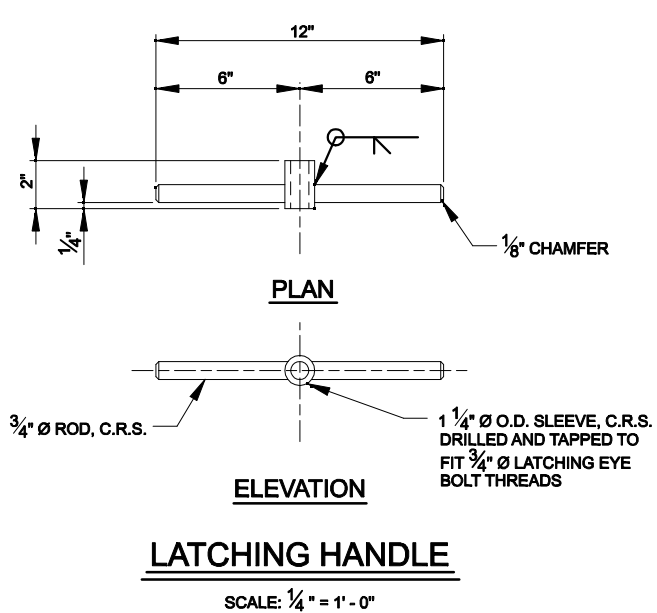
A



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



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



DATE	DESCRIPTION	DATE	APPR.

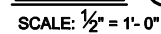
DESIGNED BY: USACE - NEW ORLEANS	DATE: MAY 2008	SOLICITATION NO.:
DWN BY:	FILE NO.:	CONTRACT NO.:
SUBMITTED BY:	FILE NAME:	FILE NUMBER:

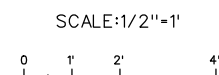
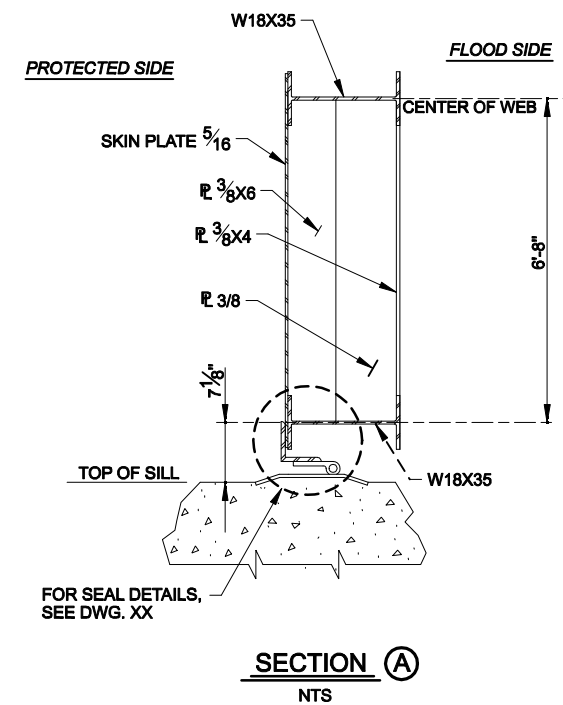
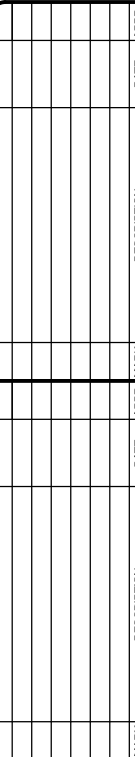
USACE - NEW ORLEANS
HURRICANE DESIGN GUIDELINES
AE TYPICAL DRAWINGS

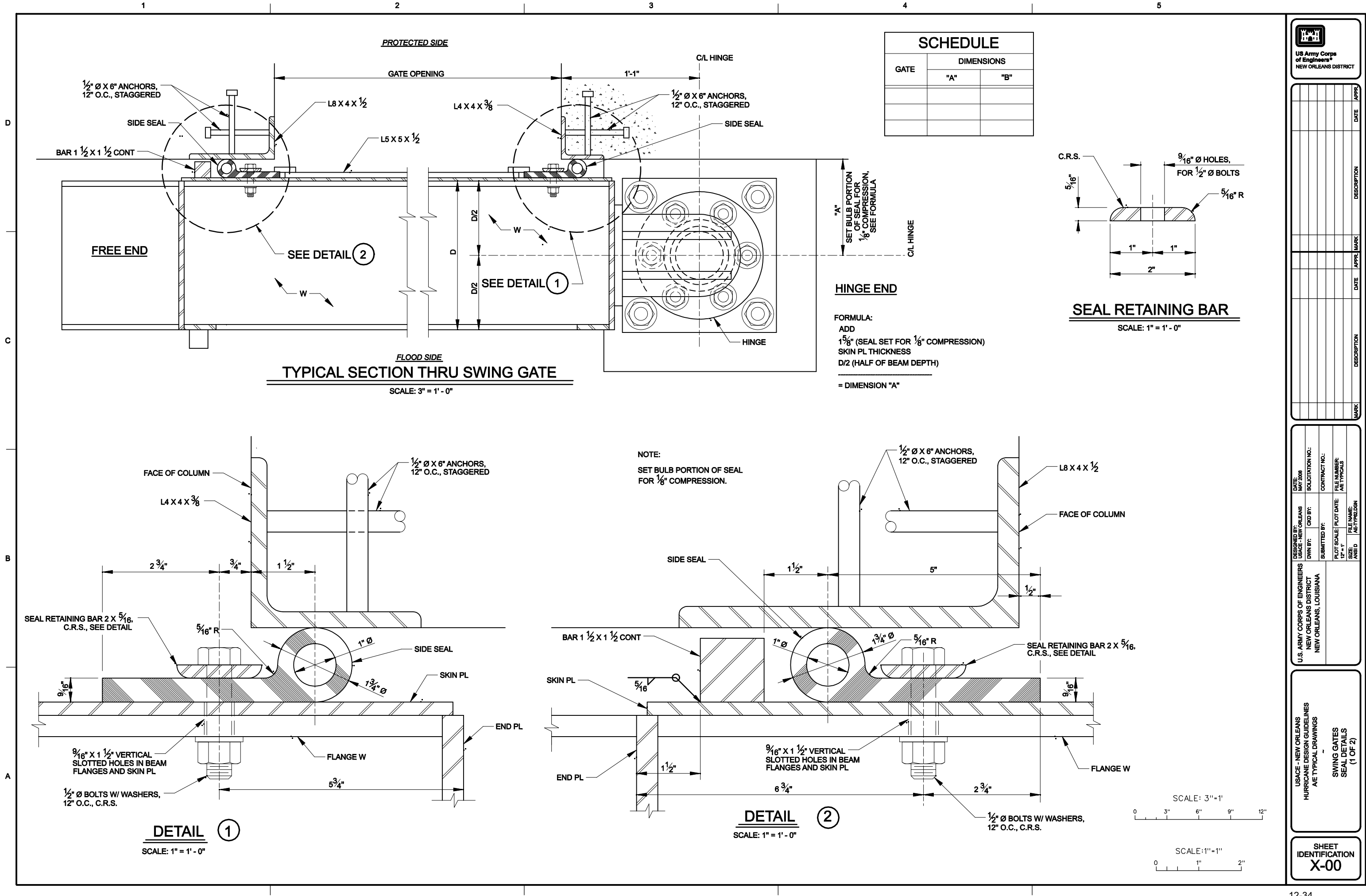
ROLLER GATES
LATCHING DETAILS
(2 OF 2)

SHEET
IDENTIFICATION
X-00











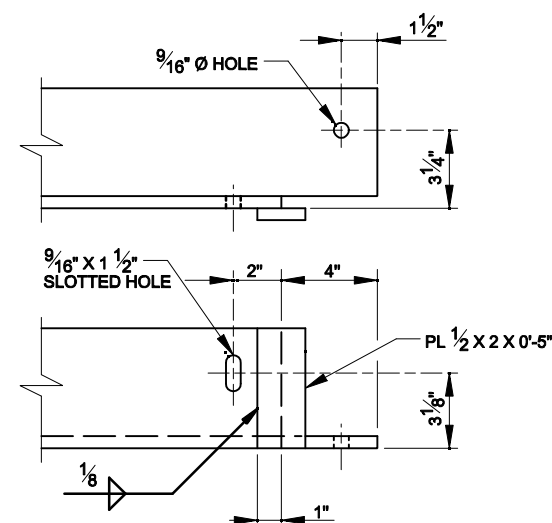
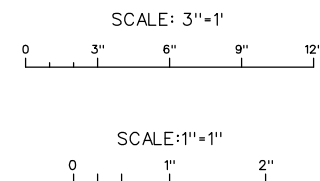
SECTION (B)
SCALE: 1" = 1' - 0"

END ELEVATION - PROTECTED SIDE

SCALE: 3" = 1' - 0"

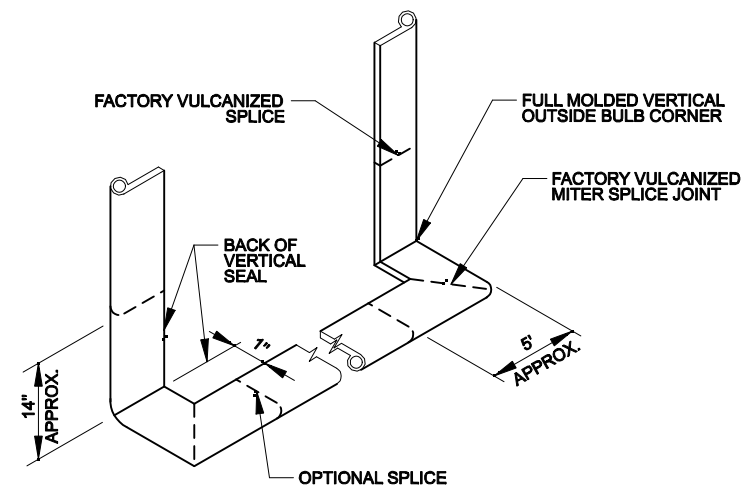
SECTION (A)

- NOTES:**
- 1. FOR GENERAL NOTES, SEE DWG. X.**
 - 2. ALL SPLICES WILL BE FACTORY MADE IN HEAVY STEEL PRESS TYPE MOLDS UNDER PRESSURE AD HEAT.**
 - 3. ALL SPlice JOINTS MUST DEVELOP STRENGTH OF AT LEAST 50% OF THE MINIMUM TENSILE STRENGTH REQUIRED OF THE RUBBER.**
 - 4. SEAL CLAMP ANGLES SHALL BE PAINTED ON ALL SIDES PRIOR TO ASSEMBLY.**
 - 5 AFTER ASSEMBLY AND SEAL ADJUSTMENTS ARE MADE, ALL GAPS IN SEALS AND SEAL SUPPORTS SHALL BE SEALED WITH A SILICONE RUBBER SEALANT TO PROVIDE WATERTIGHT JOINTS.**



END OF L5 X 5 X 1 / 2

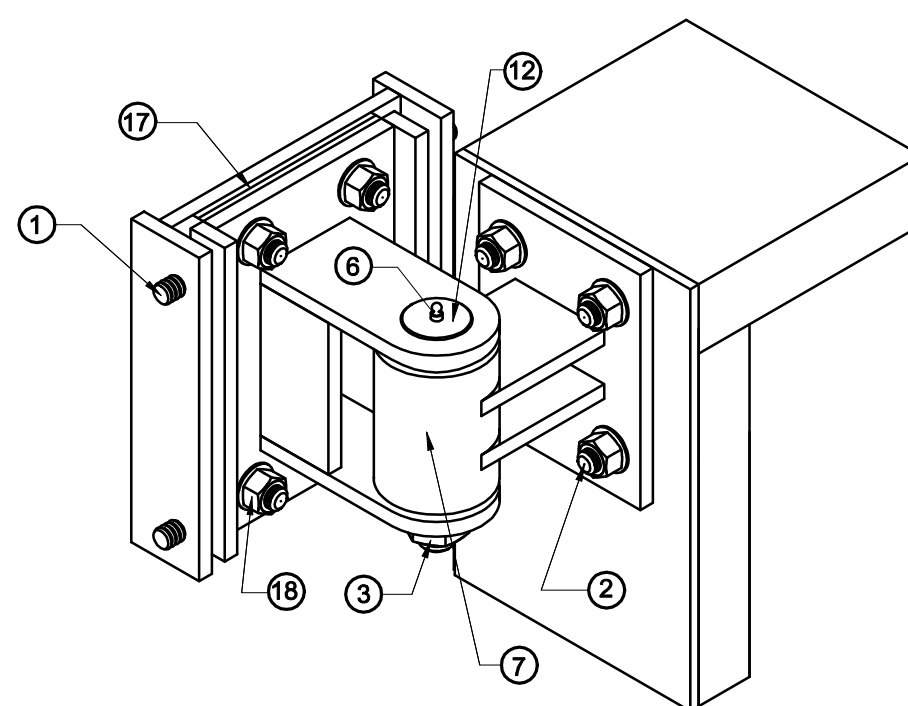
SCALE: 3" = 1' - 0"



CORNER DETAIL, TYPICAL BOTH SIDES

TYPICAL GATE SEAL

NTS

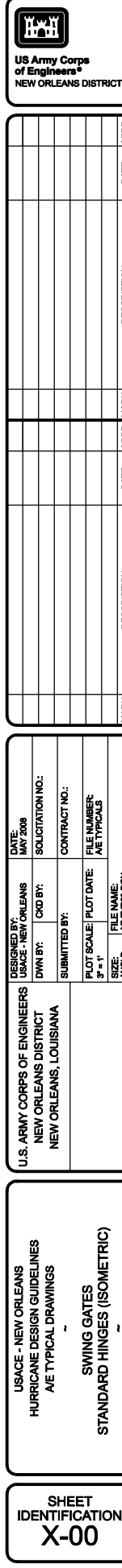


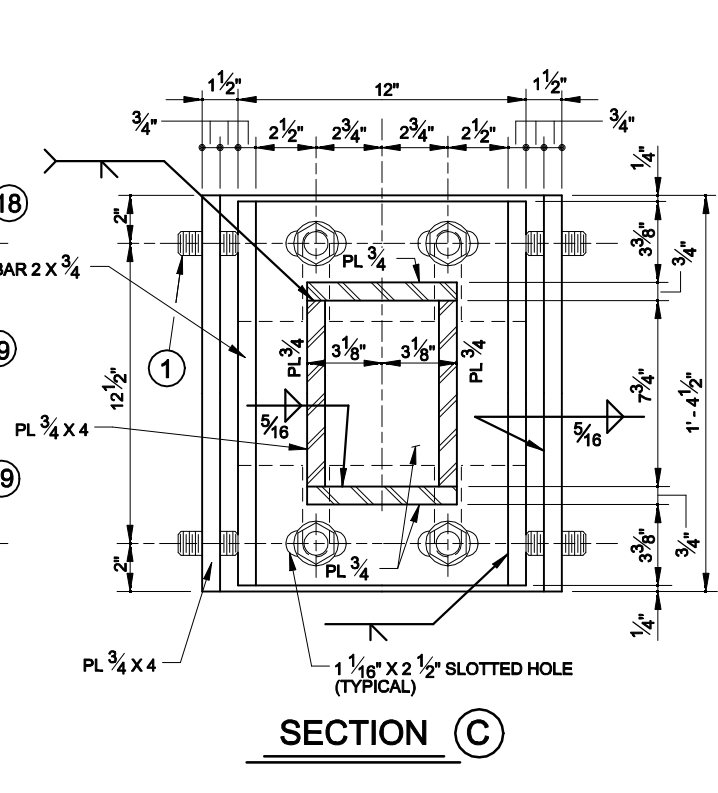
SCALE: 3" = 1' - 0"

SCALE: 3" = 1' - 0"

FOR GENERAL NOTES, SEE DWG. 2
FOR PLAN AND PROFILE, SEE DWGS.
FOR SWING GATE MONOLITH DETAILS, SEE DWG.
FOR SWING GATE DETAILS, SEE DWGS.
FOR SWING GATE HINGE DETAILS, SEE DWGS.

SCALE: 3"=1'





DIMENSION "A" :
SEE SWING GATE SEAL DETAILS
DWGS. AETYP03.DGN AND
AETYP03R.DGN.

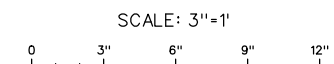
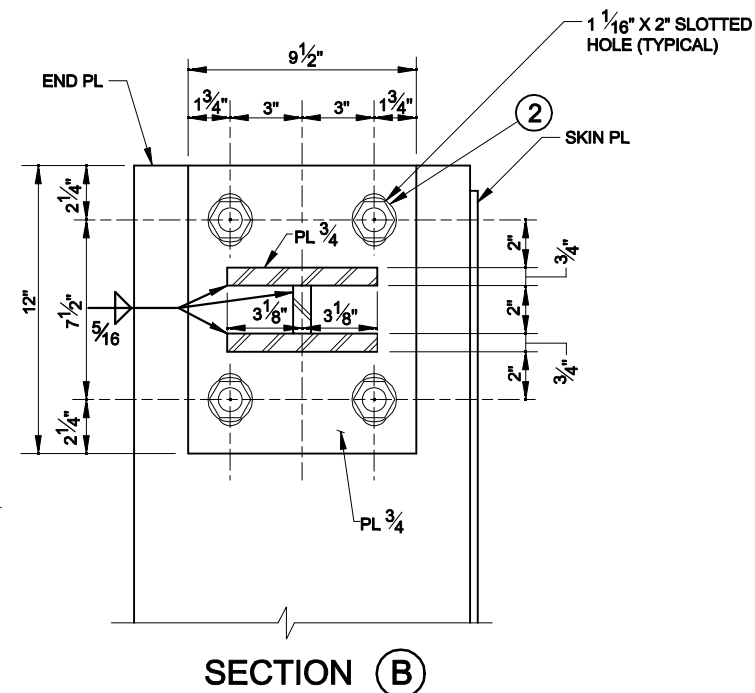
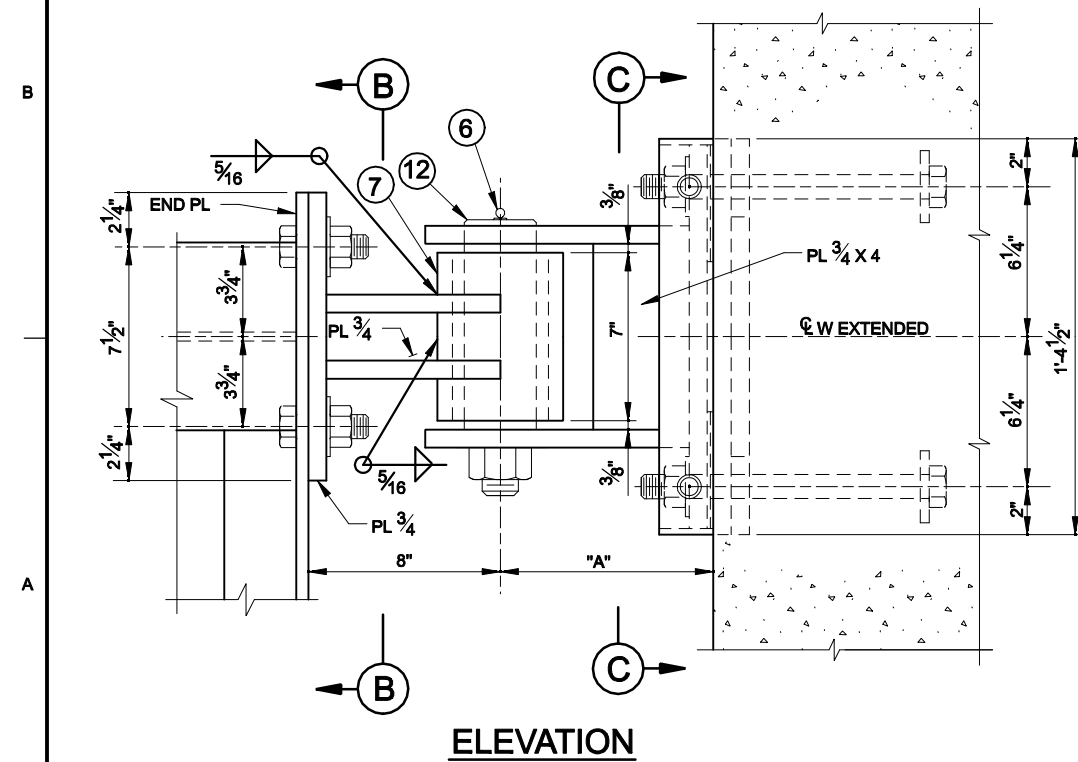
NOTE:
WELDS SHOWN ARE TYPICAL FOR
SIMILAR JOINTS WHERE NOT SHOWN.

NOTE:

10 DENOTES MARK NUMBERS, SEE PLATE

REFERENCE DRAWINGS

FOR GENERAL NOTES, SEE DWG. XX
FOR PLAN AND PROFILE, SEE DWGS. XX
FOR SWING GATE MONOLITH DETAILS, SEE DWG. XX
FOR SWING GATE SEAL DETAILS, SEE DWG. XX
FOR MISCELLANEOUS DETAILS, SEE DWG. XX



**U.S. Army Corps
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NEW ORLEANS DISTRICT

[illegible]

U.S. ARMY CORPS OF ENGINEERS NEW ORLEANS DISTRICT NEW ORLEANS, LOUISIANA	SUBMITTED BY:		CONTRACT NO.:	
	DWY BY:	CAD BY:		
	PLOT SCALE: 3" = 1'		FILE NUMBER:	
	SIZE:	FILE NAME:	AE TYPICALS	
	AND B:			

HURRICANE DESIGN GUIDELINES A/E TYPICAL DRAWINGS

SWING GATES
HINGE SECTIONS
(1 OF 2)

**SHEET
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SECTION (D)

0 3" 6" 9" 12"



LOWER HINGE



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NEW ORLEANS DISTRICT

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U.S. ARMY CORPS OF ENGINEERS NEW ORLEANS DISTRICT NEW ORLEANS, LOUISIANA	DYN BY:	CND BY:	SOLICITATION NO.: MAY 2008
	SUBMITTED BY:	CONTRACT NO.:	
	PLOT SCALE: 3" = 1'	PLOT DATE:	FILE NUMBER: AE-TYPALGN
	SIZE: ANSI D	FILE NAME:	

USACE - NEW ORLEANS
HURRICANE DESIGN GUIDELINES
A/E TYPICAL DRAWINGS

2

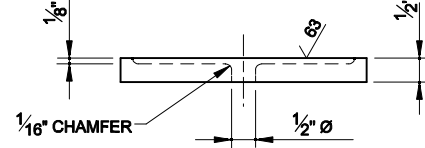
SWING GATES
HINGE SECTIONS
(2 OF 2)

**SHEET
IDENTIFICATION
X-00**

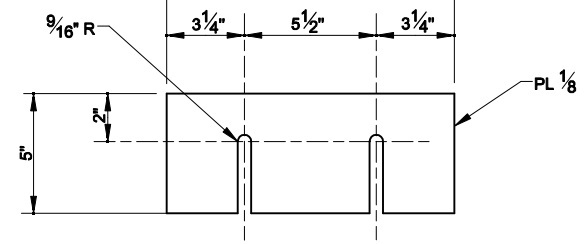




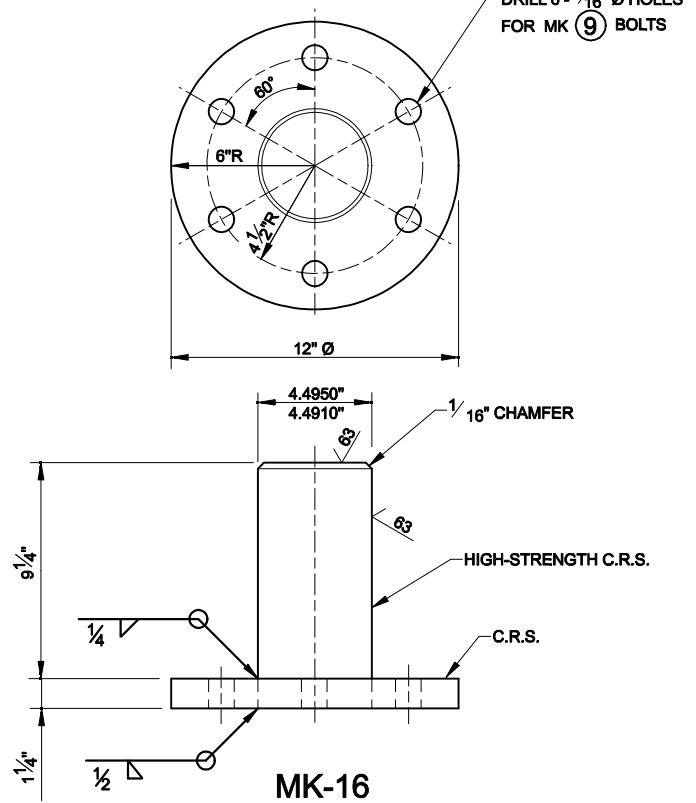
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SCALE: 6" = 1'-0"



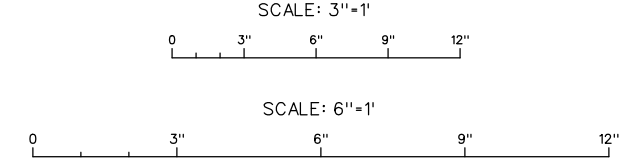
SCALE: 3" = 1'-0"



SCALE: 3" = 1'-0"

REFERENCE DRAWINGS

FOR GENERAL NOTES, SEE DWG. XX
FOR PLAN AND PROFILE, SEE DWGS. XX
FOR SWING GATE MONOLITH DETAILS, SEE DWG XX
FOR SWING GATE DETAILS, SEE DWGS. XXX
FOR MARK NUMBERS, SEE DWG. XXX

[illegible]

U.S. ARMY CORPS OF ENGINEERS NEW ORLEANS DISTRICT NEW ORLEANS, LOUISIANA	DESIGNED BY:	DATE:
	DWN BY: CKD BY:	MAY 2008
	SUBMITTED BY:	SOLICITATION NO.:
		CONTRACT NO.:
	PLOT SCALE:	FILE NUMBER:
	3" = 1"	AE TYPICALS
	SIZE:	
	FILE NAME:	
	ANSI D	AE-TYPEDGN

USACE - NEW ORLEANS
HURRICANE DESIGN GUIDELINES
AVE TYPICAL DRAWINGS

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SWING GATES
HINGE DETAILS
(2 OF 2)

**SHEET
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X-00**

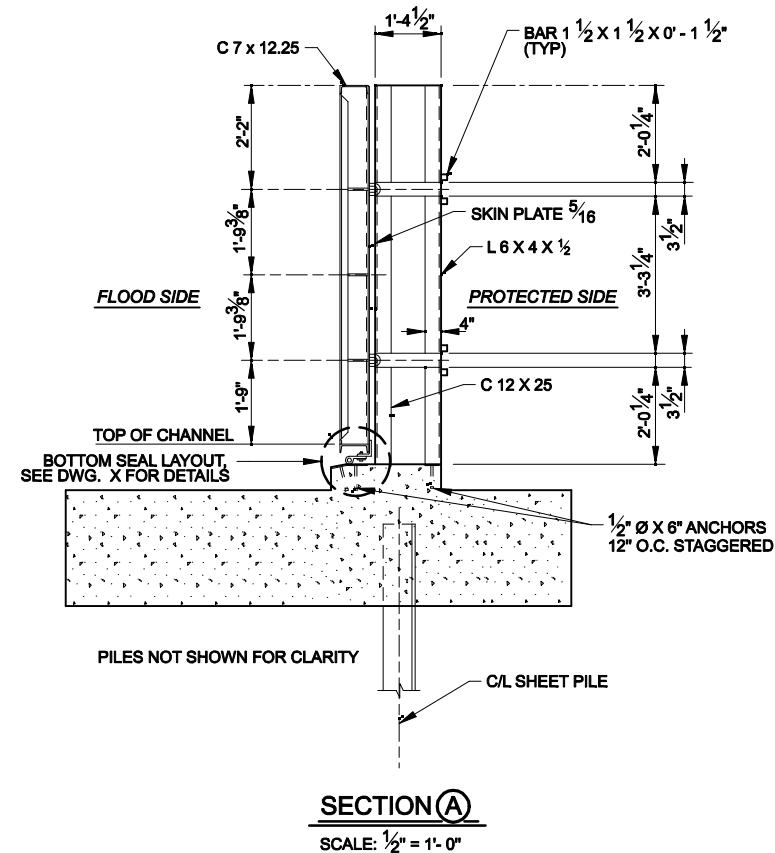
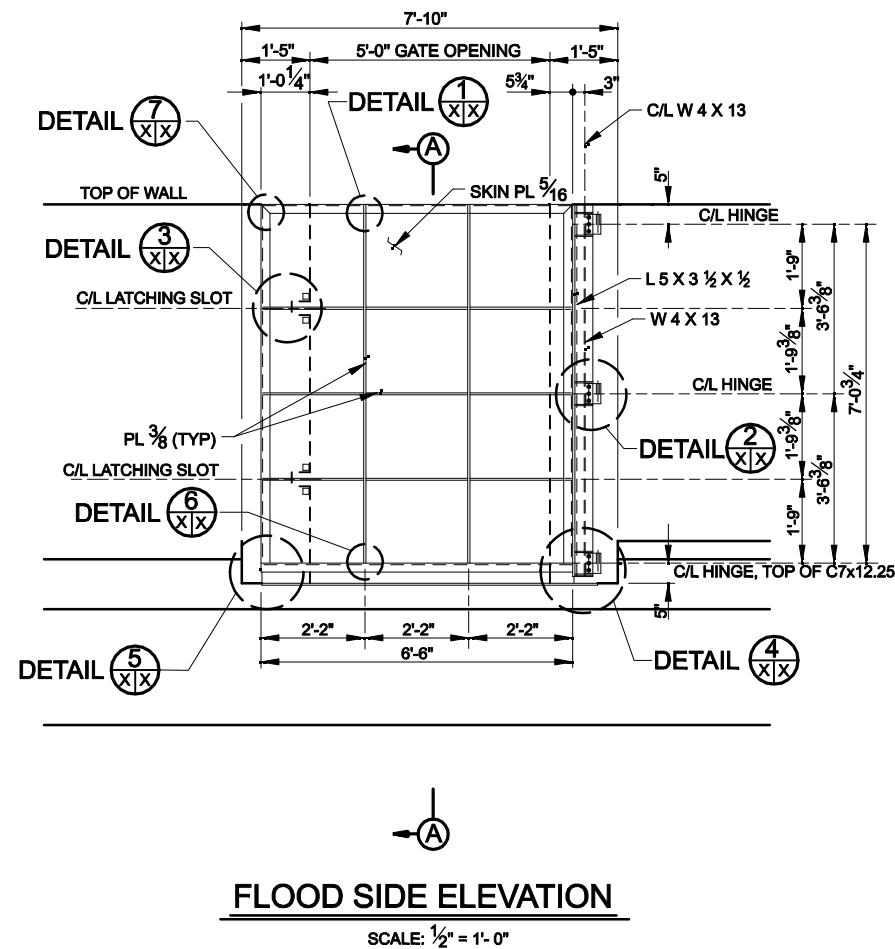
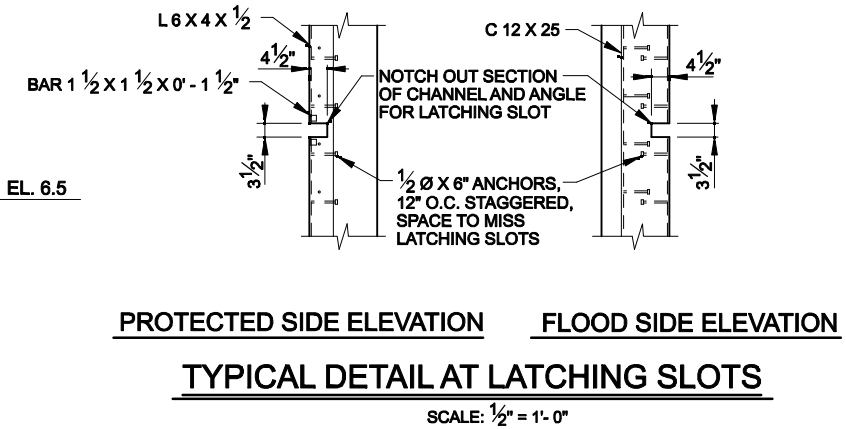
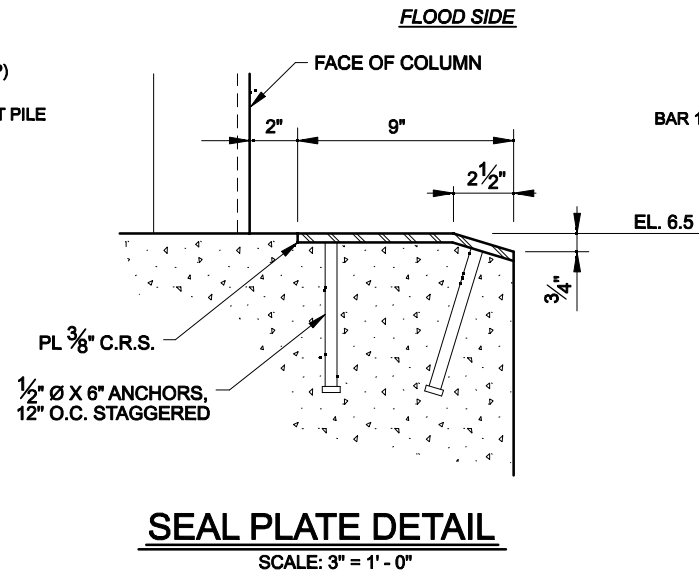
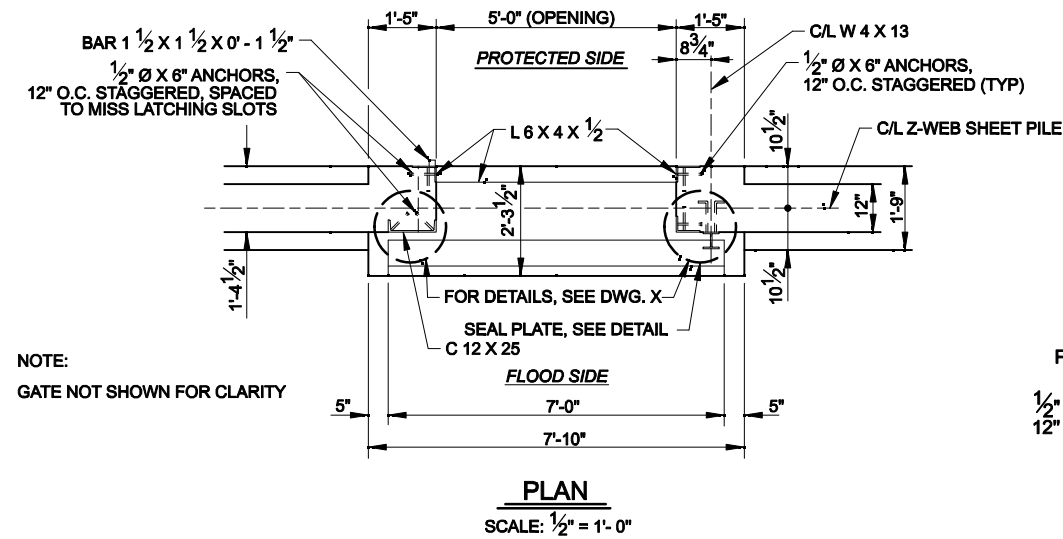
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J.C. HENRI & SONS ENGINEERS NEW ORLEANS DISTRICT NEW ORLEANS, LOUISIANA	SUBMITTED BY:		CONTRACT NO.:	
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	SIZE: 11" X 17"	SIZE: 11" X 17"	FILE NAME:	
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HURRICANE DESIGN GUIDELINES
A/E TYPICAL DRAWINGS

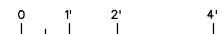
PEDESTRIAN GATES
MASONRY

**SHEET
IDENTIFICATION
X-00**

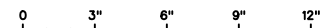


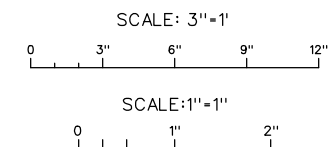
- NOTES:**
1. FOR GENERAL NOTES SEE DWG. X AND X.
 2. FOR GATE MONOLITH REINFORCING SEE DWG. X.
 3. FOR SEAL DETAILS, SEE DWG. X.
 4. CONTRACTOR MAY PROPOSE USE OF A MANUFACTURED GATE, GATE TYPE SUBJECT TO APPROVAL BY CONTRACTING OFFICER.

SCALE: 1/2"=1'



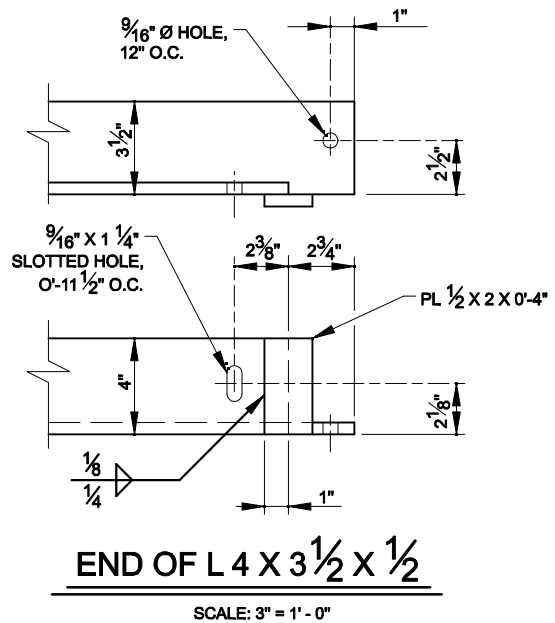
SCALE: 3"=1'







**SHEET
IDENTIFICATION
X-00**



NOTES:

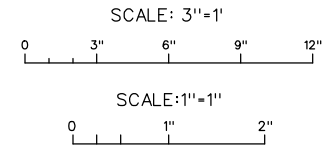
FOR GENERAL NOTES, SEE DWG. X.

ALL SPLICES WILL BE FACTORY MADE IN HEAVY STEEL PRESS TYPE MOLDS UNDER PRESSURE AND HEAT.

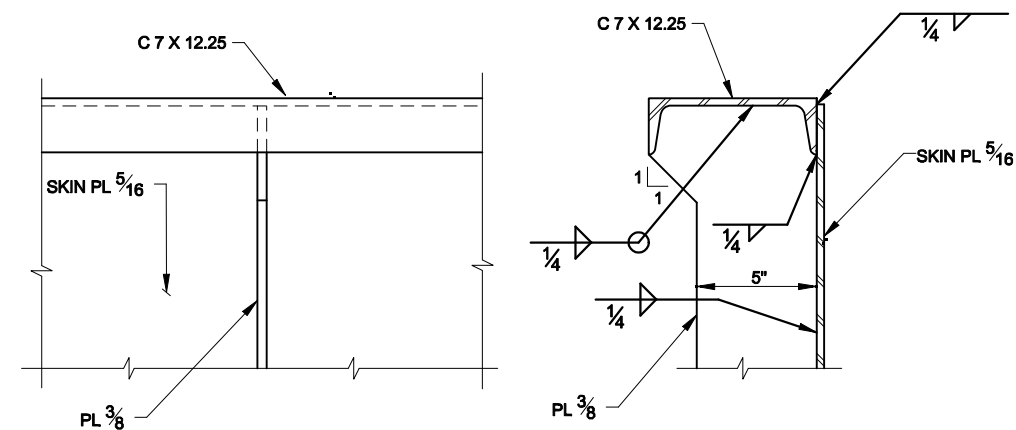
ALL SPLICE JOINTS MUST DEVELOP STRENGTH OF AT LEAST 50% OF THE MINIMUM TENSILE STRENGTH REQUIRED OF THE RUBBER.

SEAL CLAMP ANGLES SHALL BE PAINTED ON ALL SIDES PRIOR TO ASSEMBLY.

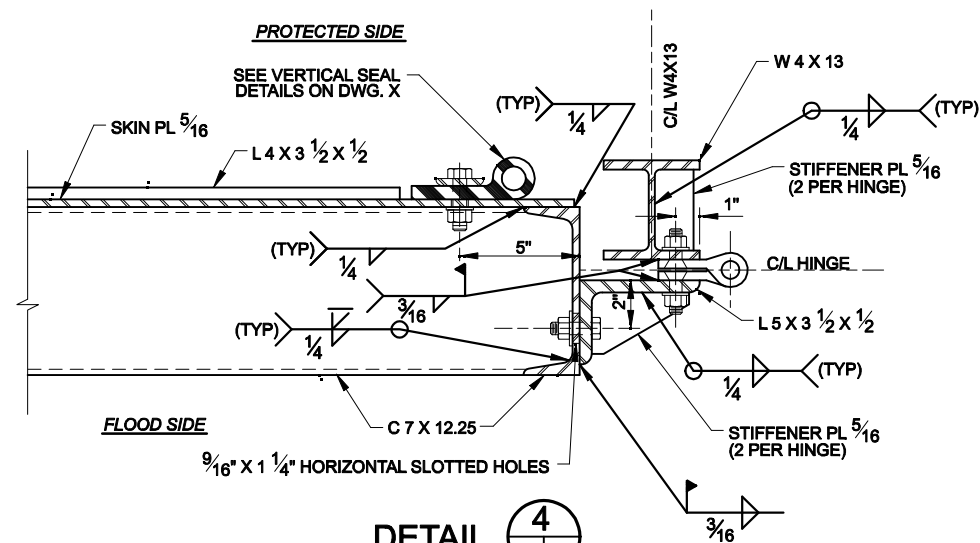
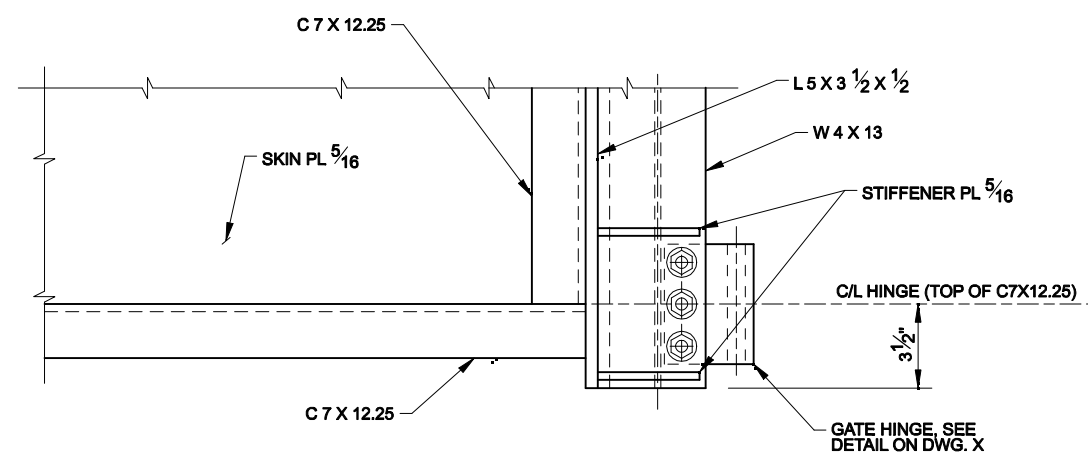
AFTER ASSEMBLY AND SEAL ADJUSTMENTS ARE MADE, ALL GAP IN SEALS AND SEAL SUPPORTS SHALL BE SEALED WITH A SILICONE RUBBER SEALANT TO PROVIDE WATERTIGHT JOINTS.



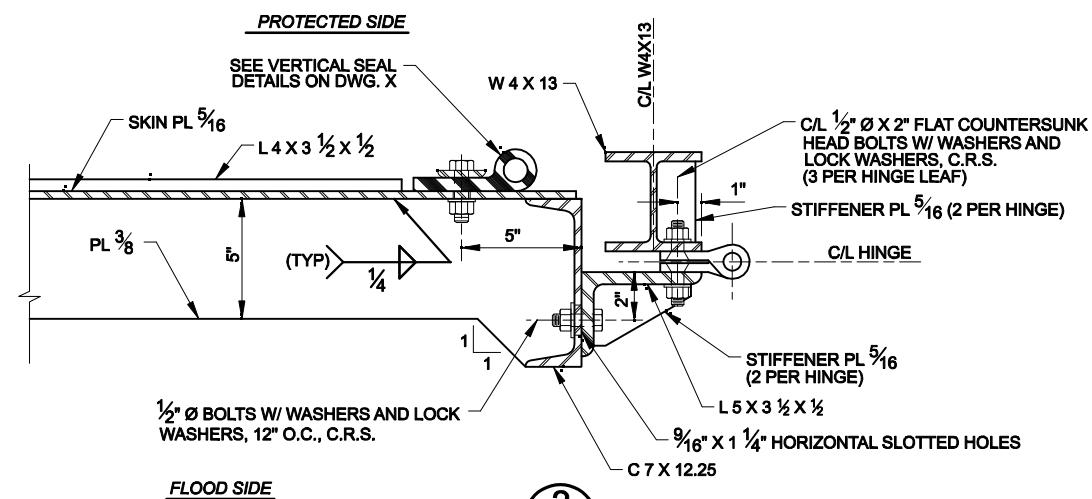
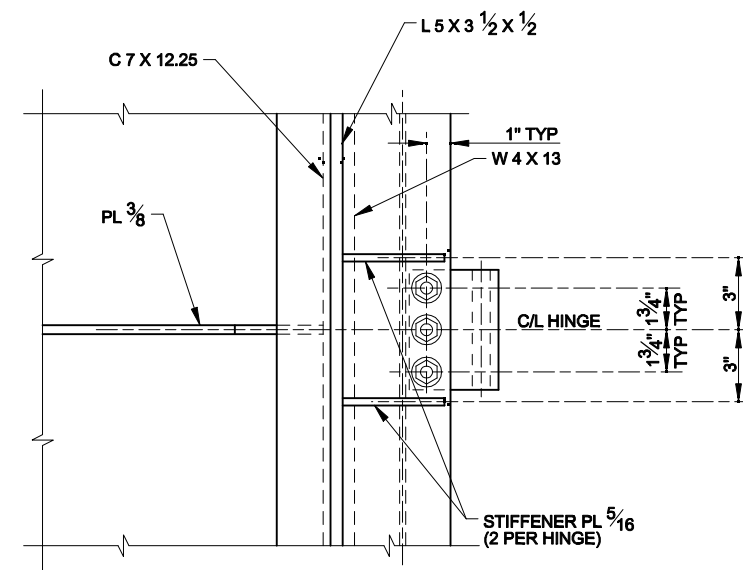
A



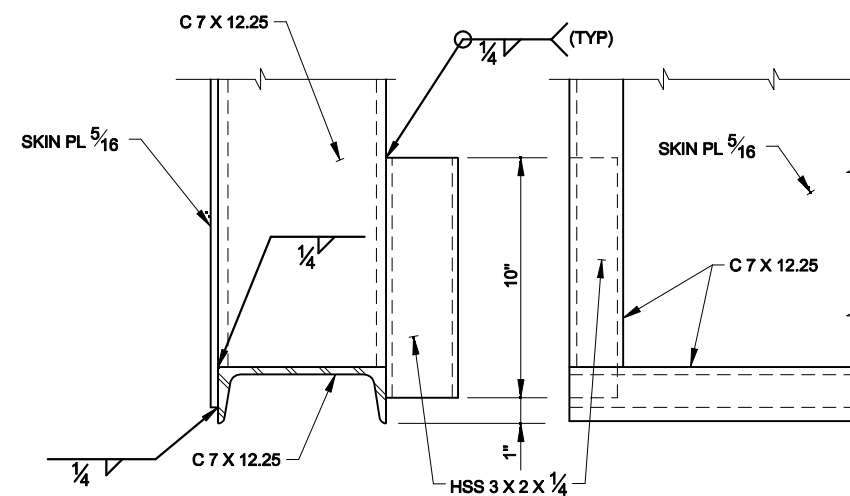
DETAIL 



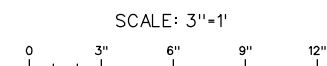
DETAIL 



DETAIL 



DETAIL 

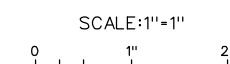
[illegible]

U.S. ARMY CORPS OF ENGINEERS NEW ORLEANS DISTRICT NEW ORLEANS, LOUISIANA	DESIGNED BY:	DATE:
	ISSUED - NEW ORLEANS	MAY 2008
	DWN BY:	SOLICITATION NO.:
	CRD BY:	CONTRACT NO.:
	SUBMITTED BY:	FILE NUMBER:
	PILOT DATE:	ARE TYPICAL
	SIZE:	FILE NAME:

USACE - NEW ORLEANS
HURRICANE DESIGN GUIDELINES
A/E TYPICAL DRAWINGS

PEDESTRIAN GATES
HINGE DETAILS
PROTECTED SIDE OPTION (1 OF 2)

**SHEET
IDENTIFICATION
X-00**

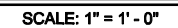


A



0 3" 6" 9" 12"

**SHEET
IDENTIFICATION
X-00**



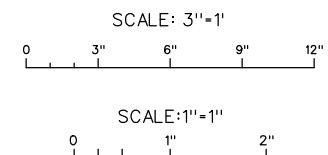
AFTER ASSEMBLY AND SEAL ADJUSTMENTS ARE MADE, ALL GAPS IN SEALS AND SEAL SUPPORTS SHALL BE SEALED WITH A SILICONE RUBBER SEALANT TO PROVIDE WATERTIGHT JOINTS.

0 3" 6" 9" 12"

A horizontal number line with tick marks at 0, 1", and 2". The segment between 0 and 1" is divided into four equal parts by three tick marks.

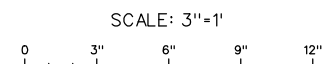


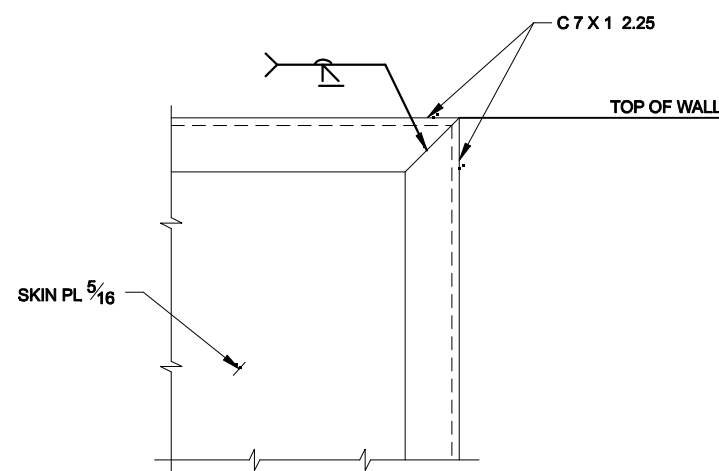
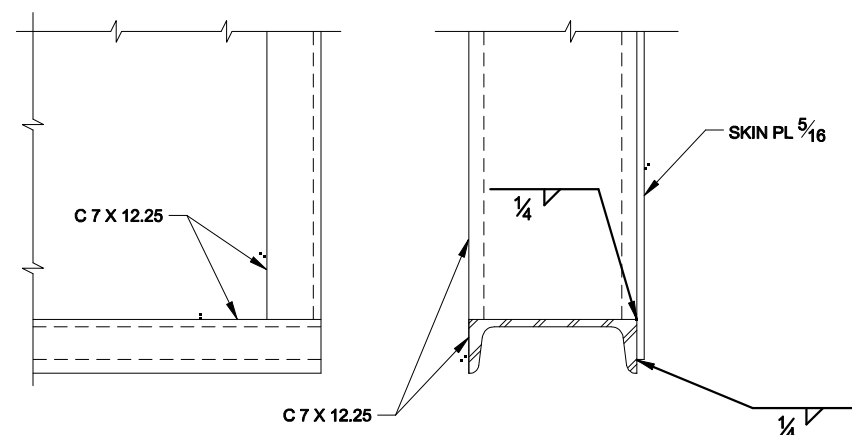
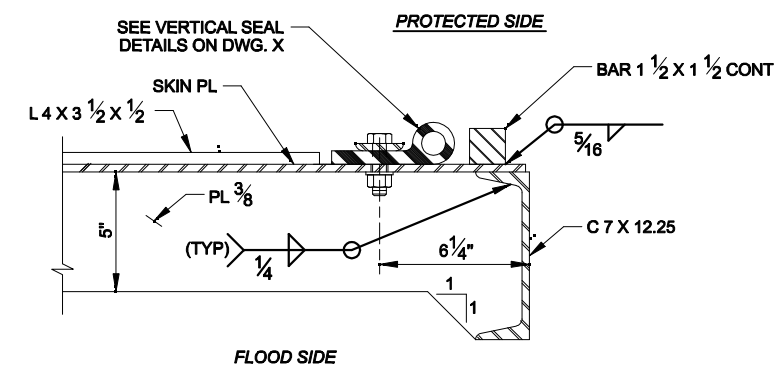
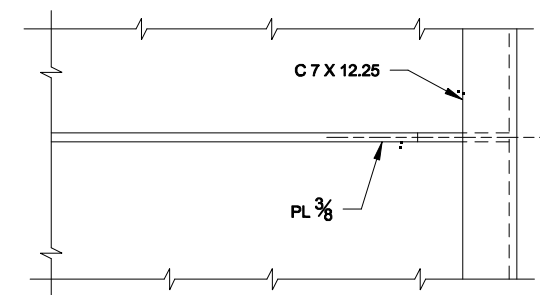
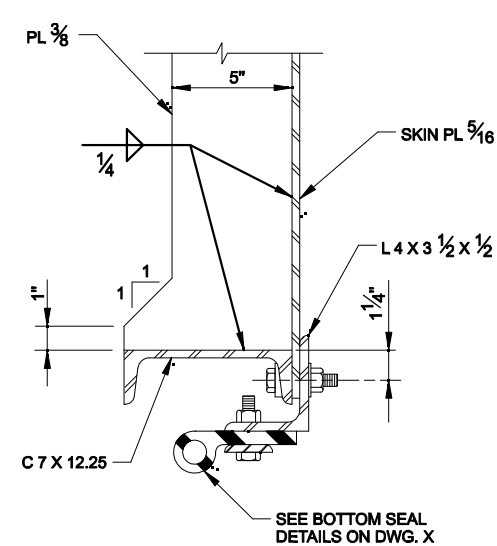
SECTION (B)
SCALE: 1" = 1' - 0"





FOR GENERAL NOTES, SEE DWG. X.
FOR PLAN AND PROFILE, SEE DWGS. X, X, AND X.
FOR TYPICAL WALL SECTIONS, SEE DWG. X.
FOR GATE MONOLITH MASONRY DETAILS, SEE DWG. X.
FOR SEAL DETAILS, SEE DWG. X.
FOR MISCELLANEOUS DETAILS, SEE DWG. X.





NOTE:
SEAL ASSEMBLY SHOWN IN SOME
VIEWS FOR ORIENTATION ONLY.

REFERENCE DRAWINGS

FOR GENERAL NOTES, SEE DWG. X.

FOR PLAN AND PROFILE, SEE DWGS. X, X, AND X.

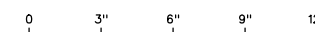
FOR TYPICAL WALL SECTIONS, SEE DWG. X.

FOR GATE MONOLITH MASONRY DETAILS, SEE DWG. X.

FOR SEAL DETAILS, SEE DWG. X.

FOR MISCELLANEOUS DETAILS, SEE DWG. X.

SCALE: 3"=1'





**SHEET
IDENTIFICATION
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PLAN

SECTION AT C/L OF LATCHING DEVICE

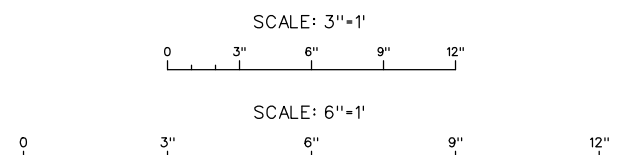
LATCHING HANDLE

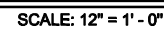
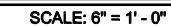
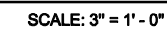
ELEVATION
SCALE: 6" = 1' - 0"

SECTION (A)
SCALE: 3" = 1' - 0"

REFERENCE DRAWINGS

FOR GENERAL NOTES, SEE DWG. X.
FOR PLAN AND PROFILE, SEE DWGS. X, X, AND X.
FOR TYPICAL WALL SECTIONS, SEE DWG. X.
FOR GATE MONOLITH MASONRY DETAILS, SEE DWG. X.
FOR MISCELLANEOUS DETAILS, SEE DWG. X.





2-55