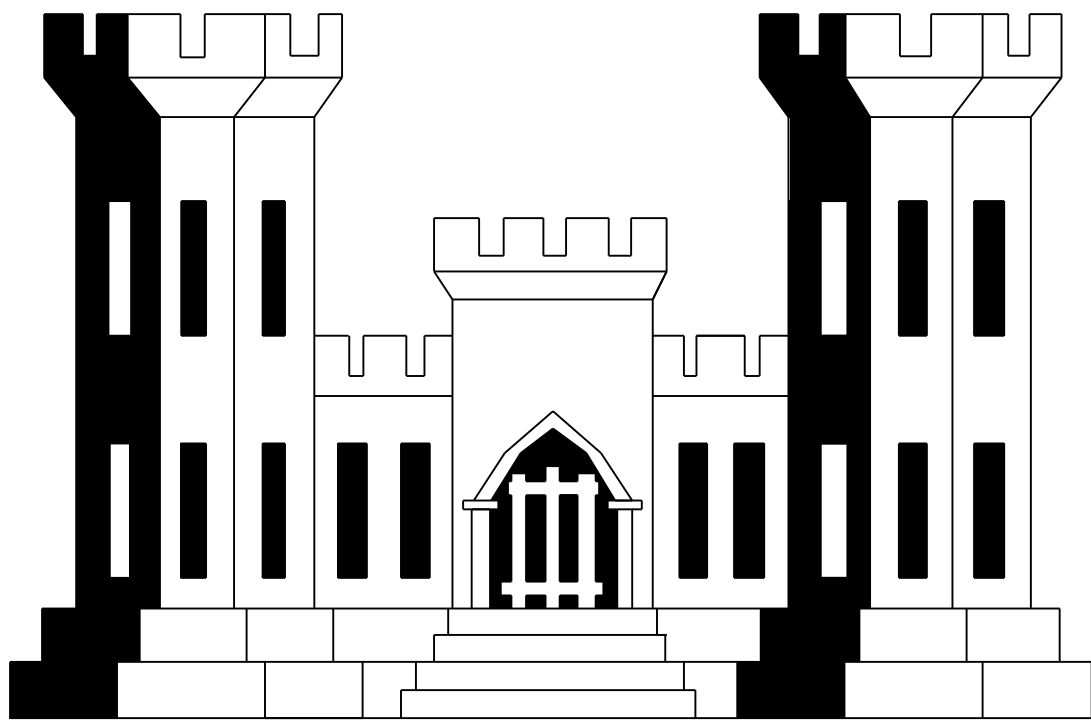


HERBERT HOOVER DIKE REHABILITATION STRUCTURE REPLACEMENT

PLANS
FOR CONSTRUCTION OF

S-288 (HP-1) RECONSTRUCTION

GLADES COUNTY, FLORIDA



DEPARTMENT OF THE ARMY
JACKSONVILLE DISTRICT, CORPS OF ENGINEERS
JACKSONVILLE, FLORIDA

2018

 "INCREASE PROFIT -- SUBMIT VECPS"



TO ACCOMPANY INVITATION
NO. W912EP-18-R-XXXX



A



- G-04**



US Army Corps
of Engineers
Jacksonville District

NOTES:

1. THIS IS A HYDROGRAPHIC AND TOPOGRAPHIC SURVEY FOR THE LAND AND CANAL ADJACENT TO STRUCTURES HP-1, 2, 3, 5, 6 AND 7, ALONG A PORTION OF THE HARNEY POND CANAL APPROXIMATELY 4.5 MILES UPSTREAM FROM LAKE OKEECHOBEE. ALL WORK WAS CONDUCTED WITHIN THE RIGHT OF WAY LIMITS AND/OR FENCING OF THE HARNEY POND CANAL.
2. HORIZONTAL COORDINATES ARE REFERENCED TO THE NORTH AMERICAN DATUM OF 1983 (2007), FLORIDA STATE PLANE COORDINATE SYSTEM, FLORIDA EAST ZONE, US SURVEY FEET. NGS COORDINATES WERE USED TO CONTROL THE SURVEY. THE COORDINATES WERE ESTABLISHED FROM STATIC GPS OBSERVATIONS AND PROCESSING THROUGH THE NATIONAL GEODETIC SURVEYS OPUS WEBSITE.
3. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) US SURVEY FEET.
4. THE CONVERSION FACTOR FROM NAVD88 ELEVATION TO NGVD29 ELEVATION IS +1.34 FEET, NGVD29 ELEVATION = NAVD88 ELEVATION +1.34 FEET.
5. THE INFORMATION DEPICTED BY THIS SURVEY REPRESENTS THE RESULTS OF FIELD WORK COMPLETED BETWEEN 10 DECEMBER 2012 AND 7 FEBRUARY 2013 AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS AT THAT TIME.
6. REFER TO SURVEY 12-211.

pw:\COE-SA\JPWP02JAX.saj.ds.usace.army.mil\SA\JPWDocuments\C&SF\Herbert Hoover Dike Rehabilitation\03-Culvert Rehabilitation\S-288 (HP1)\080 - Plans\03 Survey Mapping\V-01

DEPARTMENT OF THE ARMY CORPS OF ENGINEERS JACKSONVILLE JACKSONVILLE, FLORIDA	MC	DESIGNED BY:	CONTRACT NO.:
	DWN BY:	SOLICITATION NO.:	
	CWH	CONTRACT NO.:	

HERBERT HOOVER DIKE REHABILITATION
STRUCTURE REPLACEMENT
S-288 (HP-1) RECONSTRUCTION
SURVEY & MAPPING
EXISTING CONDITIONS
AND CONSTRUCTION LIMITS PLAN

DRAWING NO.

V-01

LANDSIDE

LAKESIDE

HARNEY POND CANAL C-41

FEDERAL
R.O.W.

EXISTING
CULVERTS

EXISTING
BARBED WIRE
FENCE

EXISTING
BARBED WIRE
FENCE

LIMITS OF
CONSTRUCTION

LIMITS OF
CONSTRUCTION

EXISTING EMBANKMENT ROAD

EXISTING RIPRAP

EXISTING WINGWALL

EXISTING CONCRETE
HEADWALL

EXISTING EMBANKMENT ROAD

EXISTING CONCRETE
BEAM

EXISTING RIPRAP

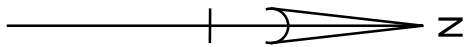
EXISTING WINGWALL

HP-1 CANAL

HP-1

LIMITS OF
CONSTRUCTION

DIRT ROAD



GRAPHIC SCALE

50' 0 50' 100'

8

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SAFETY ON THIS JOB
DEPENDS ON YOU



US Army Corps
of Engineers
Jacksonville District

NOTES:

- ELEVATIONS ARE IN FEET AND TENTHS AND REFER TO NORTH AMERICAN VERTICAL DATUM 1988 (NAVD).
- EXISTING RIPRAP REMOVED TO ACCOMMODATE CONSTRUCTION TO BE STOCKPILED ON SITE FOR GOVERNMENT USE. SEE SHEET G-04 FOR STORAGE AREA.
- BYPASS PUMPING SYSTEM SHALL BE FULLY OPERATIONAL BEFORE BEGINNING INSTALLATION OF THE TEMPORARY COFFERDAM.
- NO PORTION OF THE EXISTING EMBANKMENT SHALL BE DEGRADED OR EXCAVATED UNTIL THE COFFERDAM SYSTEMS ARE IN PLACE, COMPLETE AND APPROVED BY THE CONTRACTING OFFICER'S REPRESENTATIVE.
- REMOVE AND STORE EXISTING GUARDRAIL, FENCE, AND GATE IMPACTED BY HP-1 CONSTRUCTION FOR REINSTALLATION AT PHASE IV RECONSTRUCTION.
- CONTRACTOR SHALL PROVIDE A TURBIDITY CONTROL AND MONITORING PLAN, INCLUDING TURBIDITY BARRIERS PER THE SPECIFICATIONS.
- REFER TO STRUCTURAL DRAWINGS FOR ELEVATIONS OF LANDSIDE AND LAKESIDE DRIVEN PILE COFFERDAM.
- CLEAR AND GRUB AREAS FOR EARTHEN PLUGS AND COFFERDAM PRIOR TO CONSTRUCTION.
- THE BYPASS ROAD WAS DESIGNED FOR ONE-WAY TRAFFIC. CONTRACTOR SHALL CONTROL AND DIRECT TRAFFIC ON THE BYPASS ROAD. CONTRACTOR MAY ELECT TO DESIGN AND CONSTRUCT TURNOUTS. IF SO ELECTED, A TEMPORARY TURNOUT DESIGN PLAN MUST BE SUBMITTED BY THE CONTRACTOR, SEE SPECIFICATION 01 11 00.

LEGEND:



CONCRETE BARRIER

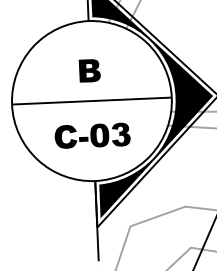
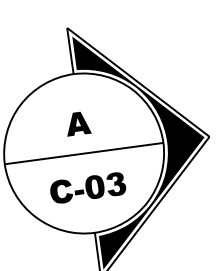
GRAPHIC SCALE

40' 0 40' 80'

LAKESIDE
HARNEY POND CANAL
C-41

LANDSIDE

CENTERLINE
SHEET PILE
N 633119.94
E 970789.00



SHEET PILE COFFERDAM
TOP EL. 17.0
CENTERLINE
SHEET PILE
N 633110.12
E 970862.15

FEDERAL
R.O.W.

TOE OF BYPASS
ROAD/COFFERDAM

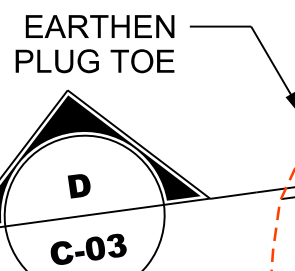
PT STA. 6+87.72
N 970901.74
E 633154.06
EL. 18.50

PC STA. 9+09.43
N 971106.57
E 633238.91
EL. 35.50

PT STA. 10+13.88
N 971208.96
E 633252.26
MATCH EXISTING
ELEVATION

CENTERLINE EARTHEN
PLUG END
N 970953.69
E 633330.44

EARTHEN
PLUG CREST



EARTHEN
PLUG TOE

CENTERLINE
SHEET PILE
N 970863.19
E 633408.36

CENTERLINE
SHEET PILE
N 970857.76
E 633415.40

N 970962.30
E 633394.28

CENTERLINE
SHEET PILE
N 971017.81
E 633387.60

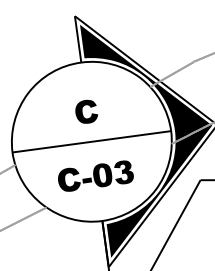
SHEET PILE
COFFERDAM
TOP EL. 25.0

CENTERLINE
SHEET PILE
N 970664.90
E 633441.32

CENTERLINE
SHEET PILE
N 970657.84
E 633435.94

EARTHEN
PLUG CREST

CENTERLINE EARTHEN
PLUG END
N 970545.72
E 633350.26



PT STA. 1+04.46
N 970378.28
E 633337.94
EL. 35.50

PC STA. 0+00.00
N 970283.03
E 633377.83
MATCH EXISTING
ELEVATION

CREST OF BYPASS
ROAD/COFFERDAM

PC STA. 3+28.63
N 970555.41
E 633200.56
EL. 18.50

CONCRETE
BARRIER
SEE SHT. C-03

PC STA. 5+81.69
N 970797.81
E 633140.51
EL. 18.50

PT STA. 4+34.66
N 970652.09
E 633160.07
EL. 18.50

DESIGNED BY:	DRAWING DATE:
W.C. BY:	SOLICITATION NO.:
W.C. BY:	CONTRACT NO.:
W.C. BY:	FILE NUMBER:
W.C. BY:	FILE NAME:
W.C. BY:	FILE NAME:

HERBERT HOOVER DIKE REHABILITATION
STRUCTURE REPLACEMENT
S-288 (HP-1) RECONSTRUCTION
CIVIL
PHASE I - BYPASS ROAD AND COFFERDAM PLAN

DRAWING NO.
C-01

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SAFETY ON THIS JOB
DEPENDS ON YOU



US Army Corps
of Engineers
Jacksonville District

NOTES:

- ELEVATIONS ARE IN FEET AND TENTHS AND REFER TO NORTH AMERICAN VERTICAL DATUM 1988 (NAVD).
- PROPOSED CONTOURS ARE SHOWN BOLD. EXISTING CONTOURS ARE SHOWN DASHED.
- NO PORTION OF THE EXISTING EMBANKMENT SHALL BE DEGRADED OR EXCAVATED UNTIL THE COFFERDAM SYSTEMS ARE IN PLACE, COMPLETE AND APPROVED BY THE COR. THE EMBANKMENT SHALL NOT BE GRADED OUTSIDE THE LIMITS OF THE EARTHEN AND SHEET PILE COFFERDAMS.
- CONTRACTOR SHALL PROVIDE A TURBIDITY CONTROL AND MONITORING PLAN, INCLUDING TURBIDITY BARRIERS PER THE SPECIFICATIONS.

D

C

B

A

Plans05 CivilC-02
Herbert Hoover Dike Rehabilitation
S-288 (HP-1) Reconstruction
PHASE I - BY PASS ROAD AND COFFERDAM
CONTOUR PLAN
CIVIL
C-02

DEPARTMENT OF THE ARMY CORPS OF ENGINEERS JACKSONVILLE DISTRICT JACKSONVILLE, FLORIDA	DESIGNED BY: M.C.	DRAWING DATE:
	D.W. BY: C.D.R.	SOLICITATION NO.:
	BY: C.D.R.	CONTRACT NO.:
	SUBMITTED BY:	FILE NUMBER:
PLOT SCALE: PLOT DATE:		114527-HHDCRHP1-CF-102.DGN
AS SHOWN: 3/13/2018		

HERBERT HOOVER DIKE REHABILITATION
STRUCTURE REPLACEMENT
S-288 (HP-1) RECONSTRUCTION
CIVIL
PHASE I - BY PASS ROAD AND COFFERDAM
CONTOUR PLAN

DRAWING NO.
C-02

LANDSIDE

LAKESIDE
HARNEY POND CANAL
C-41

SHEET PILE COFFERDAM
TOP EL. 17.0

FEDERAL
R.O.W.

TOE OF BYPASS
ROAD/COFFERDAM

CREST OF BYPASS
ROAD/COFFERDAM

TOP OF
EMBANKMENT

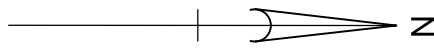
EARTHEN
PLUG TOE

EARTHEN
PLUG CREST

EARTHEN
PLUG TOE

EARTHEN
PLUG CREST

SHEET PILE COFFERDAM
TOP EL. 25.0



GRAPHIC SCALE

40' 0 40' 80'

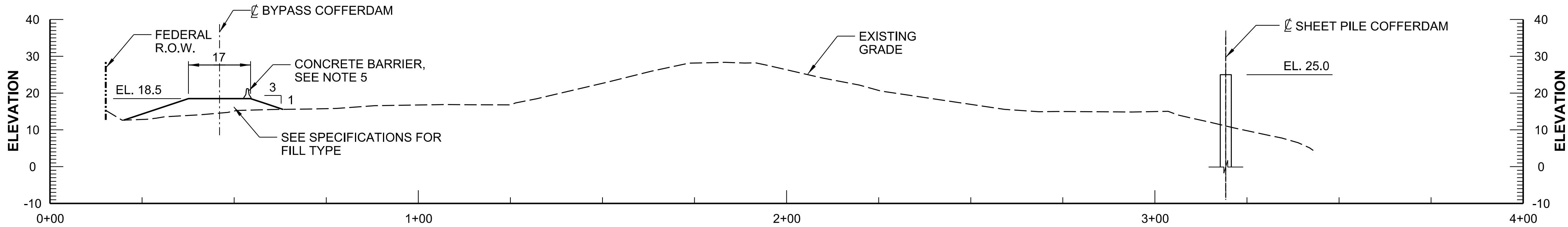


US Army Corps
of Engineers
Jacksonville District

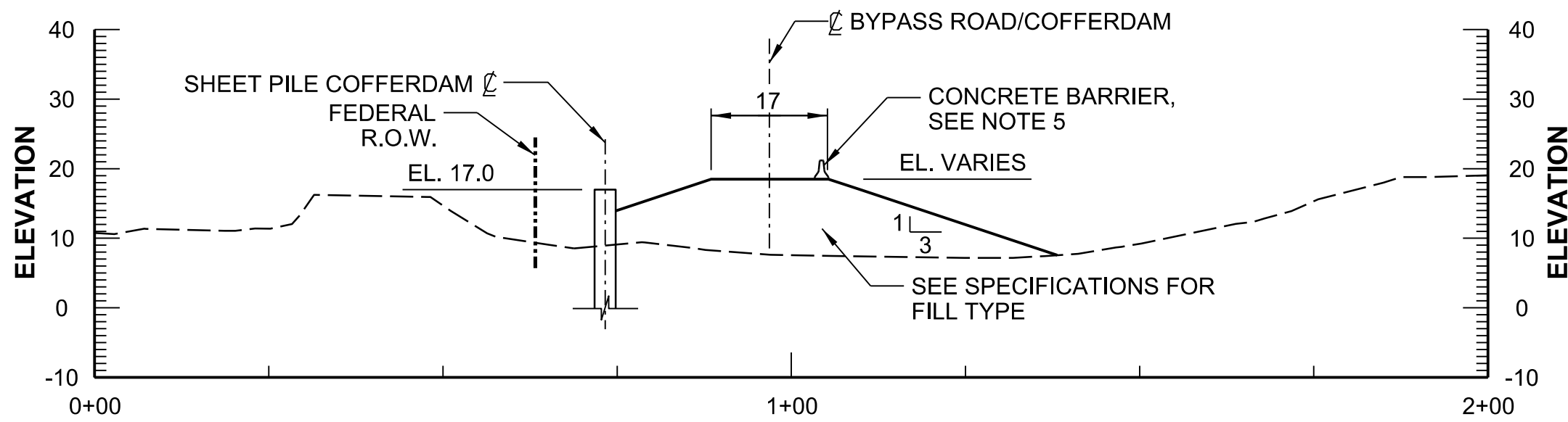
NOTES

- ELEVATIONS ARE IN FEET AND TENTHS AND REFER TO NORTH AMERICAN VERTICAL DATUM 1988 (NAVD).
- REFER TO SPECIFICATIONS FOR OPERATIONAL AND HISTORICAL RANGE OF WATER LEVELS IN LAKE OKEECHOBEE/HARNEY POND CANAL.
- REFER TO STRUCTURAL DRAWINGS FOR ELEVATIONS OF LAND AND LAKE SIDE DRIVEN PILE COFFERDAM.
- REFER TO SPECIFICATIONS FOR PLACEMENT OF FILL IN WET AREAS.
- INSTALL TEMPORARY CONCRETE BARRIERS PER FDOT INDEX #415.

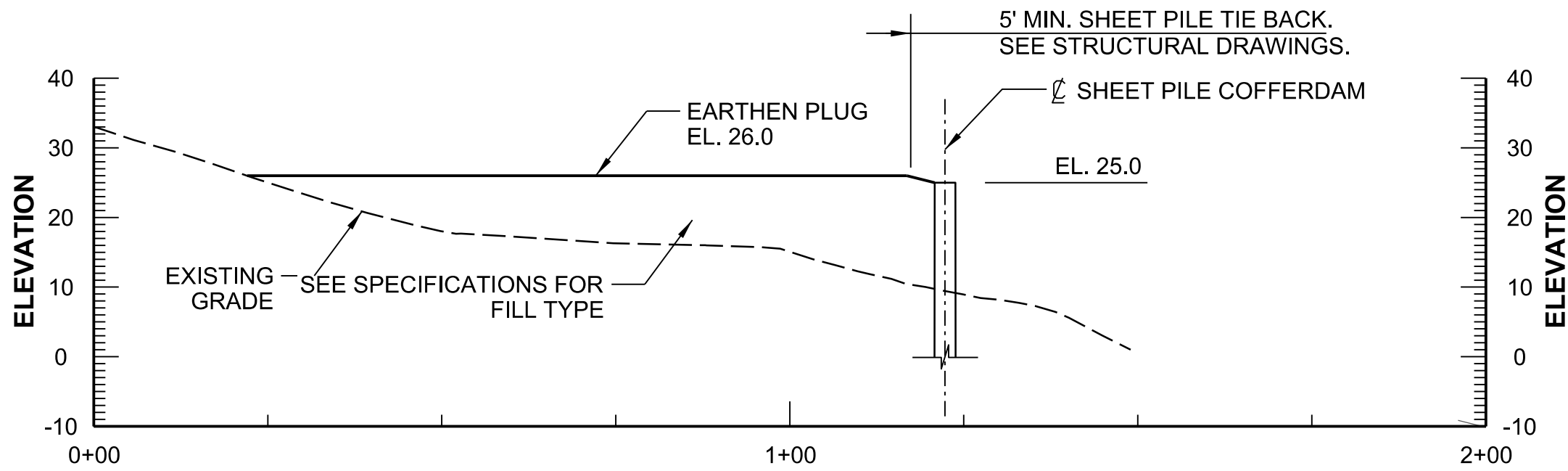
LANDSIDE



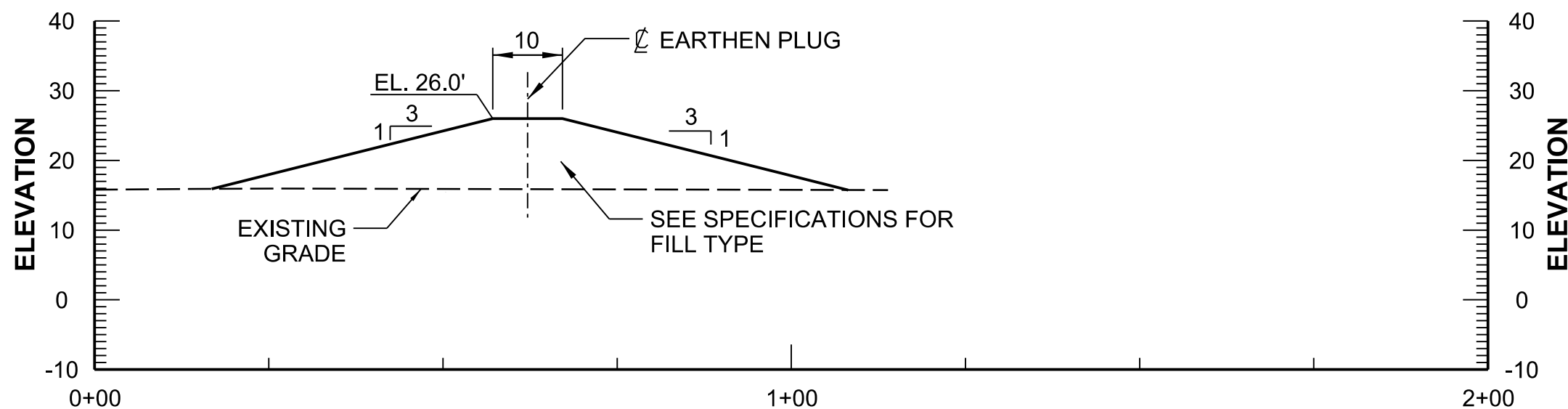
A
C-01 COFFERDAM CROSS SECTION



B
C-01 BYPASS ROAD/COFFERDAM



C
C-01 COFFERDAM AND EARTHEN PLUG CROSS SECTION



D
C-01 EARTHEN PLUG CROSS SECTION



HERBERT HOOVER DIKE REHABILITATION
STRUCTURE REPLACEMENT
S-288 (HP-1) RECONSTRUCTION
CIVIL
PHASE I - COFFERDAM CROSS SECTIONS

DRAWING NO.
C-03

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SAFETY ON THIS JOB
DEPENDS ON YOU

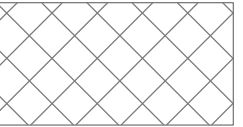


US Army Corps
of Engineers
Jacksonville District

NOTES:

1. ELEVATIONS ARE IN FEET AND TENTHS AND REFER TO NORTH AMERICAN VERTICAL DATUM 1988 (NAVD).
2. CONTRACTOR SHALL PROVIDE A TURBIDITY CONTROL AND MONITORING PLAN, INCLUDING TURBIDITY BARRIERS PER THE SPECIFICATIONS.
3. DEPENDING ON WATER LEVELS AT THE TIME OF CONSTRUCTION, SOME GEOTEXTILE, BEDDING STONE AND RIPRAP INSTALLATION MAY REQUIRE PLACEMENT IN THE WET.
4. CONTRACTOR SHALL ANTICIPATE MULTIPLE APPLICATIONS OF SEED AS REQUIRED TO ESTABLISH GRASS. ANCHORING OF THE RECP IS THE RESPONSIBILITY OF THE CONTRACTOR. ANCHOR IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.

LEGEND



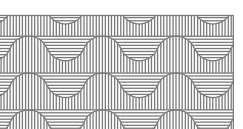
RIPRAP, BEDDING STONE AND
GEOTEXTILE



GEOTEXTILE AND
BEDDING STONE



HPTRM AND SOD



LIMEROCK



RECP (SEE NOTE 4)

LANDSIDE

FEDERAL
R.O.W.

SHEET PILE
COFFERDAM

EXISTNG BARBED
WIRE FENCE

TOP OF
EMBANKMENT

EXISTING
STRUCTURE

EXISTING RIPRAP

EARTHEN PLUG
TOE

EARTHEN PLUG
CREST

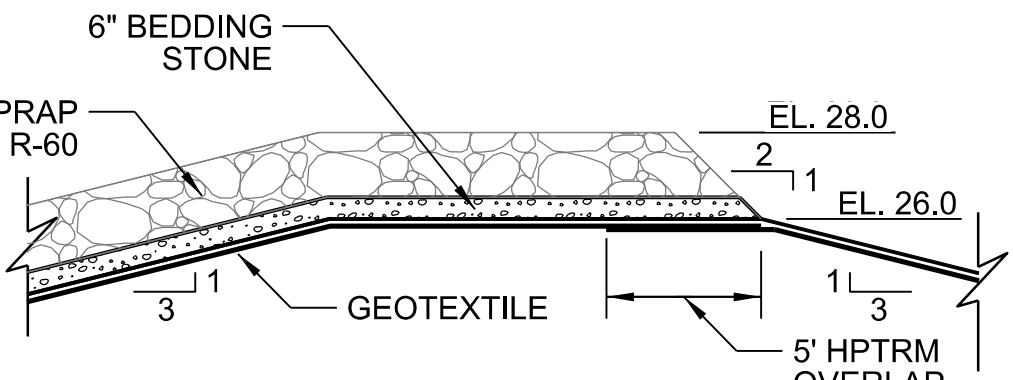
EXISTING
STRUCTURE

SHEET PILE
COFFERDAM

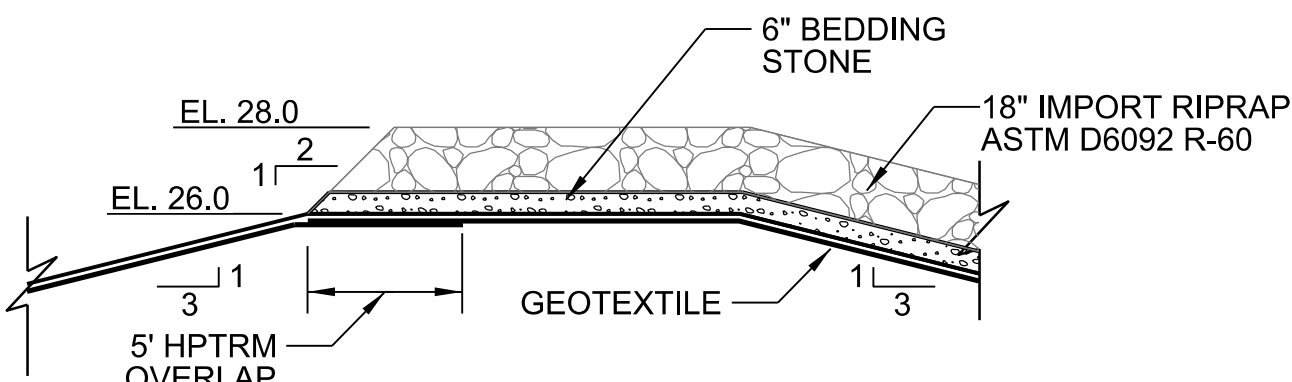
LAKESIDE

COFFERDAM ARMORING PLAN

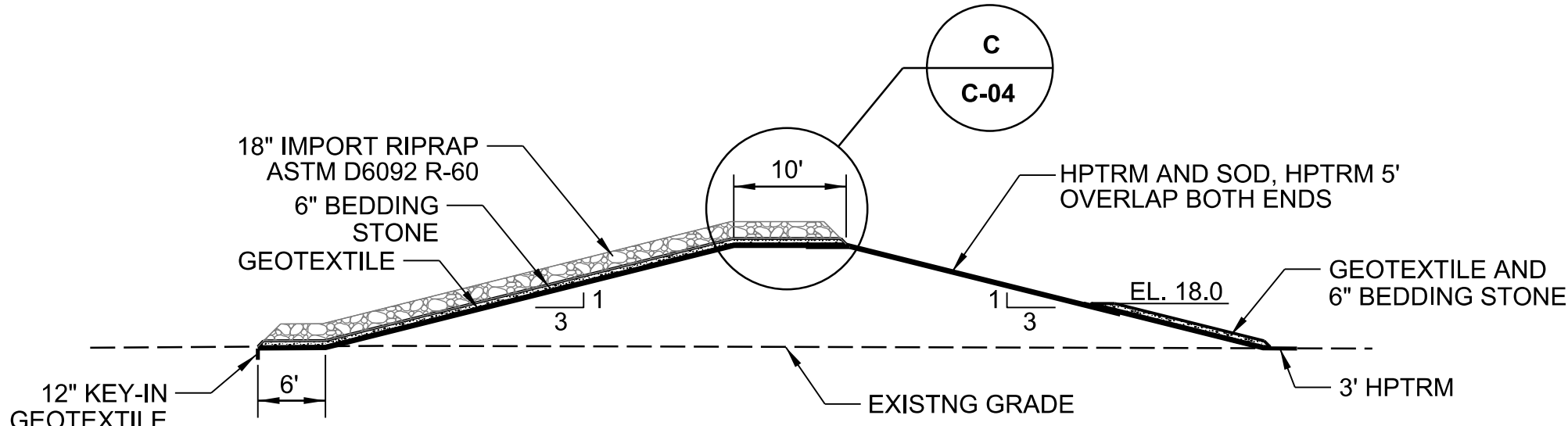
SCALE: A



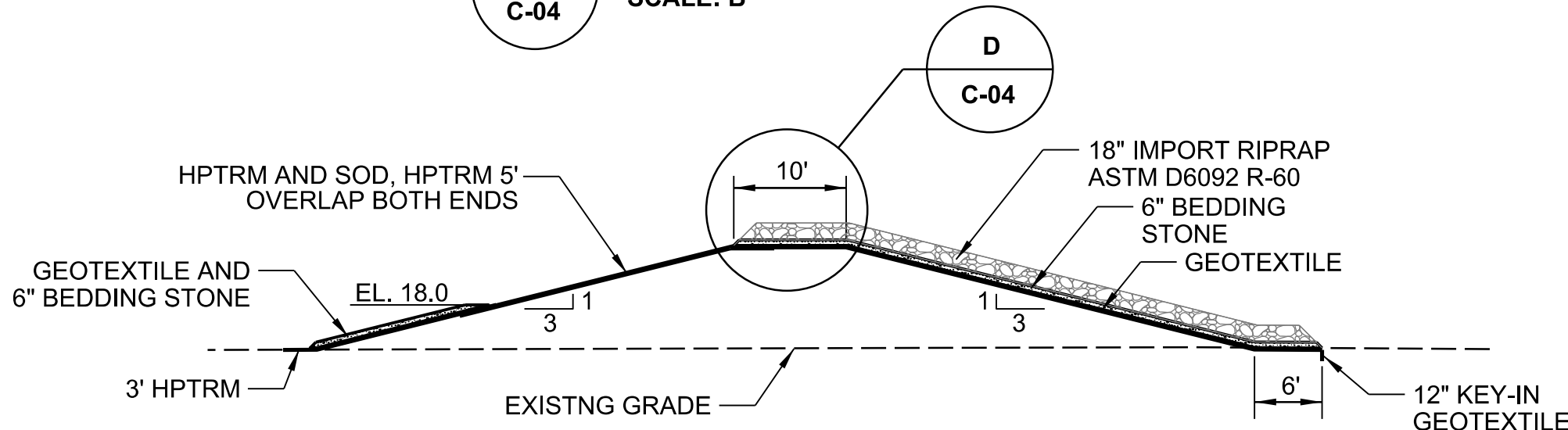
C
SECTION
NOT TO SCALE



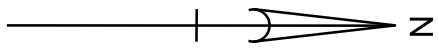
D
SECTION
NOT TO SCALE



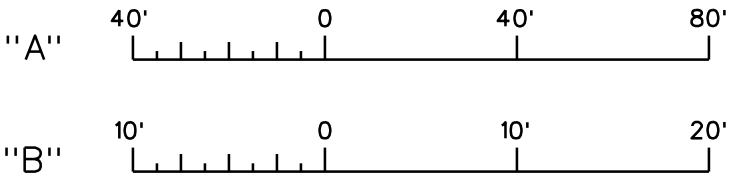
A
PLUG CROSS SECTION
SCALE: B



B
PLUG CROSS SECTION
SCALE: B



GRAPHIC SCALES



HERBERT HOOVER DIKE REHABILITATION
STRUCTURE REPLACEMENT
CIVIL
S-288 (HP-1) RECONSTRUCTION
PHASE I - COFFERDAM ARMORING
PLAN AND SECTIONS

DRAWING NO.

C-04

pw:\COE-SA\JPWP02\JAX.saj.ds.usace.army.mil\SA\JPWP\Documents\C&S\Herbert Hoover Dike Rehabilitation\03-Culvert Rehabilitation\S-288 (HP1)\080 - Plans\05 Civil\C-04

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SAFETY ON THIS JOB
DEPENDS ON YOU



US Army Corps
of Engineers
Jacksonville District

NOTES:

1. ELEVATIONS ARE IN FEET AND TENTHS AND REFER TO NORTH AMERICAN VERTICAL DATUM 1988 (NAVD).
2. SEE AS-BUILT DRAWINGS R-01 THROUGH R-03 FOR LOCATION DETAILS AND DEMOLITION OF EXISTING STRUCTURES.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REQUIRED DEWATERING OF THE CONSTRUCTION SITE. THE REQUIRED DEWATERING PERMITTING IS THE CONTRACTOR'S RESPONSIBILITY. SEE SPECIFICATION SECTIONS 01 57 20 ENVIRONMENTAL PROTECTION AND SECTION 35 41 00 EMBANKMENT CONSTRUCTION.
4. PLAN SHOWS EXCAVATION LIMITS TO REMOVE UNSATISFACTORY MATERIAL FROM BENEATH THE HEADWALL AND WINGWALL. ONCE UNSATISFACTORY MATERIAL IS REMOVED, RESTORE EXCAVATION TEMPLATE TO ELEVATION 0.00 IN ACCORDANCE SPECIFICATION 35 41 00.

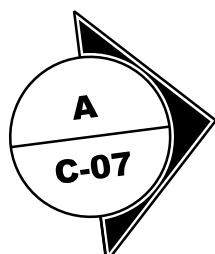
D

C

B

A

LANDSIDE



SHEET PILE COFFERDAM
TOP EL. 17.0

N 970870.00
E 633155.11

EXISTING BYPASS
ROAD/COFFERDAM
(PHASE I)

N 970605.56
E 633214.95

FEDERAL
R.O.W.

SLOPE
TRANSITION

EXCAVATION
WITH 1V : 2H SIDE
SLOPES

SLOPE
TRANSITION

LIMITS OF
EXCAVATION

N 970816.41
E 633202.86
EL. 0.0

N 970792.51
E 633222.50
EL. -8.0

N 970795.20
E 633242.32
EL. -8.0

N 970749.61
E 633248.49
EL. -8.0

N 970751.89
E 633265.34
EL. -8.0

N 970726.82
E 633251.57
EL. -8.0

N 970729.10
E 633268.42
EL. -8.0

N 970683.51
E 633237.25
EL. -8.0

N 970686.19
E 633257.07
EL. -8.0

N 970740.49
E 633352.65
EL. -8.0

N 970742.77
E 633369.50
EL. -8.0

N 970697.19
E 633375.67
EL. -8.0

N 970699.89
E 633395.49
EL. -8.0

N 970675.58
E 633411.36
EL. 0.0

N 970658.66
E 633433.53
EL. 8.0

N 970658.16
E 633429.84
EL. 8.0

N 970871.71
E 633401.16
EL. 8.0

EXCAVATION
WITH 1V : 2H SIDE
SLOPES

SHEET PILE COFFERDAM
TOP EL. 25.0



LAKESIDE



EXISTING EARTHEN PLUG CREST
(PHASE I)

EXISTING EARTHEN PLUG TOE
(PHASE I)

N 970871.93
E 633404.78
EL. 8.0

N 970841.41
E 633389.09
EL. 0.0

N 970806.19
E 633360.92
EL. -8.0

N 970808.88
E 633380.74
EL. -8.0

N 970763.29
E 633349.57
EL. -8.0

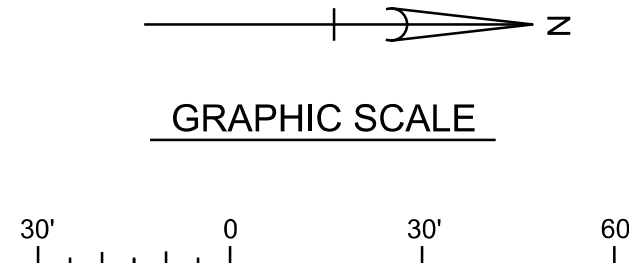
N 970765.56
E 633366.42
EL. -8.0



LIMITS OF
EXCAVATION

EXISTING EARTHEN PLUG TOE
(PHASE I)

EXISTING EARTHEN PLUG CREST
(PHASE I)



DESIGNED BY:	DRAWING DATE:
IN CHARGE:	DATE:
CHECKED BY:	DATE:
CONTRACT NO.:	FILE NUMBER:
SUBMITTED BY:	AS SHOWN:
DATE:	DATE:
FILE NAME:	FILE NAME:
114827-HHDCRPH-05.DGN	

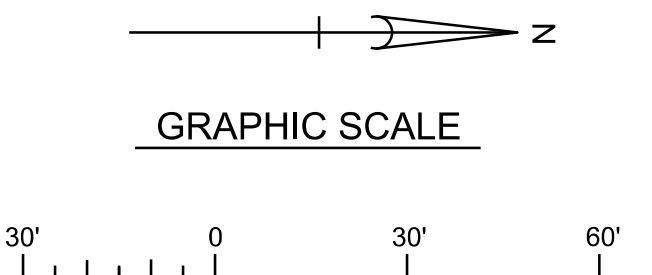
HERBERT HOOVER DIKE REHABILITATION
STRUCTURE REPLACEMENT
S-288 (HP-1) RECONSTRUCTION
CIVIL
PHASE II - EXCAVATION PLAN

DRAWING NO.
C-05

pw:\COE-SA\JPWP02JAX.saj.ds.usace.army.mil\SA\JPWP\Documents\C&SF\Herbert Hoover Dike Rehabilitation\S-288 (HP1)\080 - Plans\05 Civil\C-05

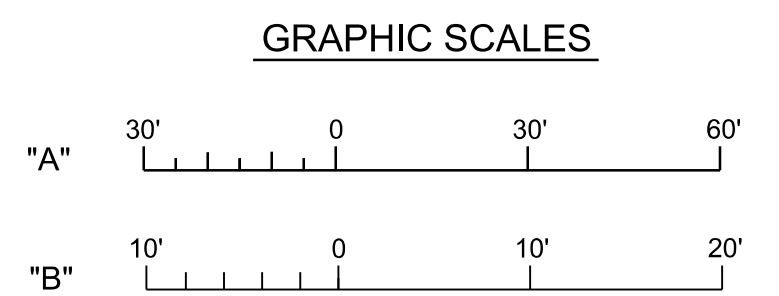


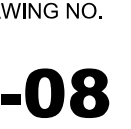
1. ELEVATIONS ARE IN FEET AND TENTHS AND REFER TO NORTH AMERICAN VERTICAL DATUM 1988 (NAVD).
2. EXCAVATION CONTOURS ARE SHOWN BOLD. EXISTING CONTOURS AFTER COFFERDAM CONSTRUCTION ARE SHOWN DASHED.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REQUIRED DEWATERING OF THE CONSTRUCTION SITE. THE REQUIRED DEWATERING PERMITTING IS THE CONTRACTOR'S RESPONSIBILITY. SEE SPECIFICATION SECTIONS 01 57 20 ENVIRONMENTAL PROTECTION AND SECTION 35 41 00 EMBANKMENT CONSTRUCTION.
4. PLAN SHOWS EXCAVATION LIMITS TO REMOVE UNSATISFACTORY MATERIAL FROM BENEATH THE HEADWALL AND WINGWALL. ONCE UNSATISFACTORY MATERIAL IS REMOVED, RESTORE EXCAVATION TEMPLATE TO ELEVATION 0.00 IN ACCORDANCE SPECIFICATION 35 41 00.

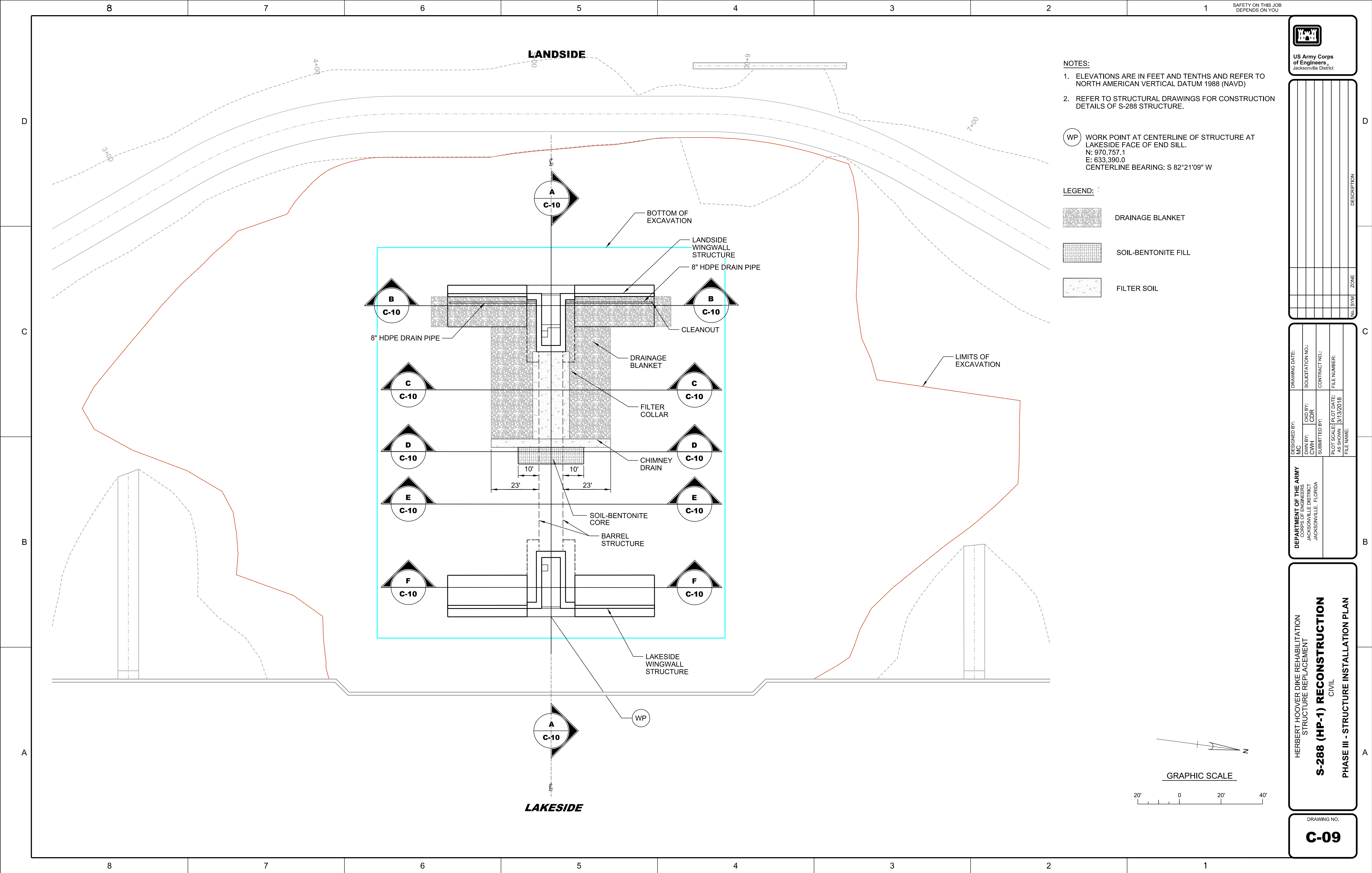




C-07







8

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2

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SAFETY ON THIS JOB
DEPENDS ON YOU

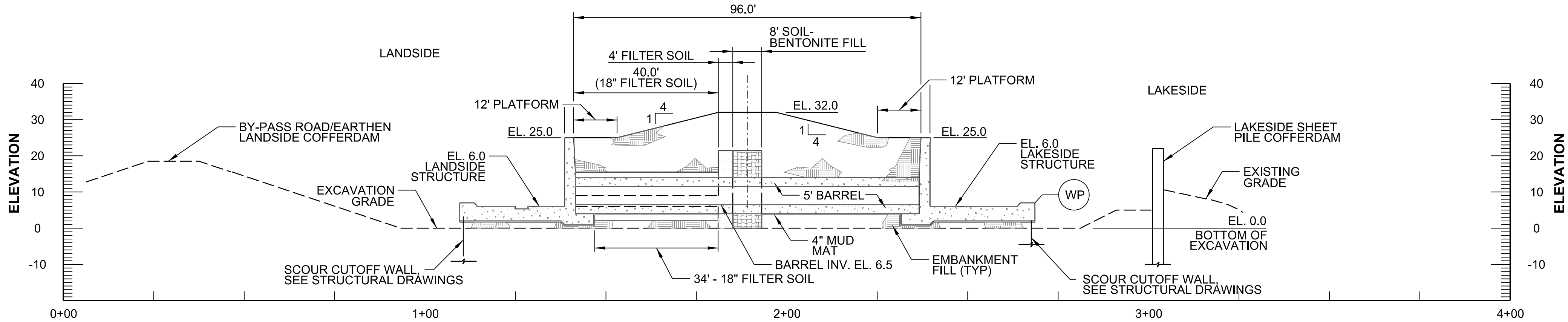


US Army Corps
of Engineers
Jacksonville District

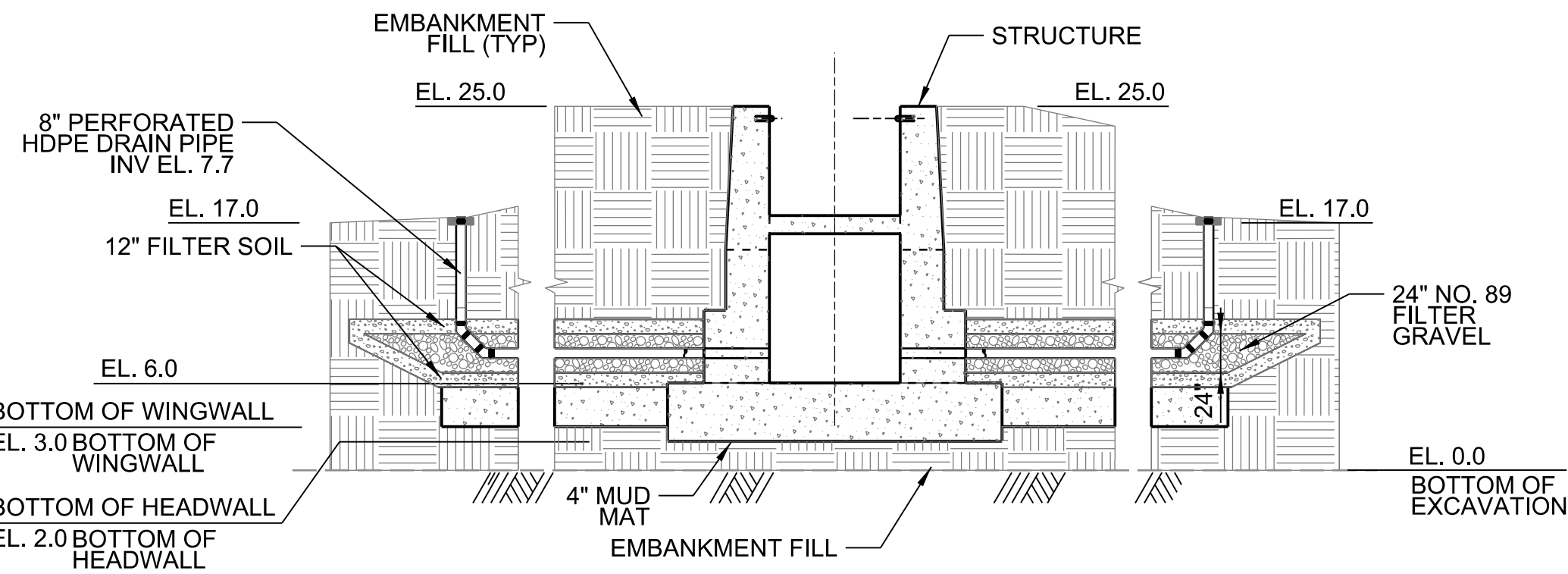
NOTES:

1. ELEVATIONS ARE IN FEET AND TENTHS AND REFER TO NORTH AMERICAN VERTICAL DATUM 1988 (NAVD)
2. REFER TO STRUCTURAL DRAWINGS FOR CONSTRUCTION DETAILS OF S-288 STRUCTURE.
3. DIMENSIONS OF FILTER SOIL ARE MINIMUM VALUES. FINAL DIMENSIONS SHALL BE THAT REQUIRED FOR CONSTRUCTABILITY.
4. ENVELOP No. 89 FILTER GRAVEL WITH 12" OF FILTER SOIL. AT NO INSTANCE WILL No. 89 FILTER GRAVEL BE IN CONTACT WITH EMBANKMENT FILL.

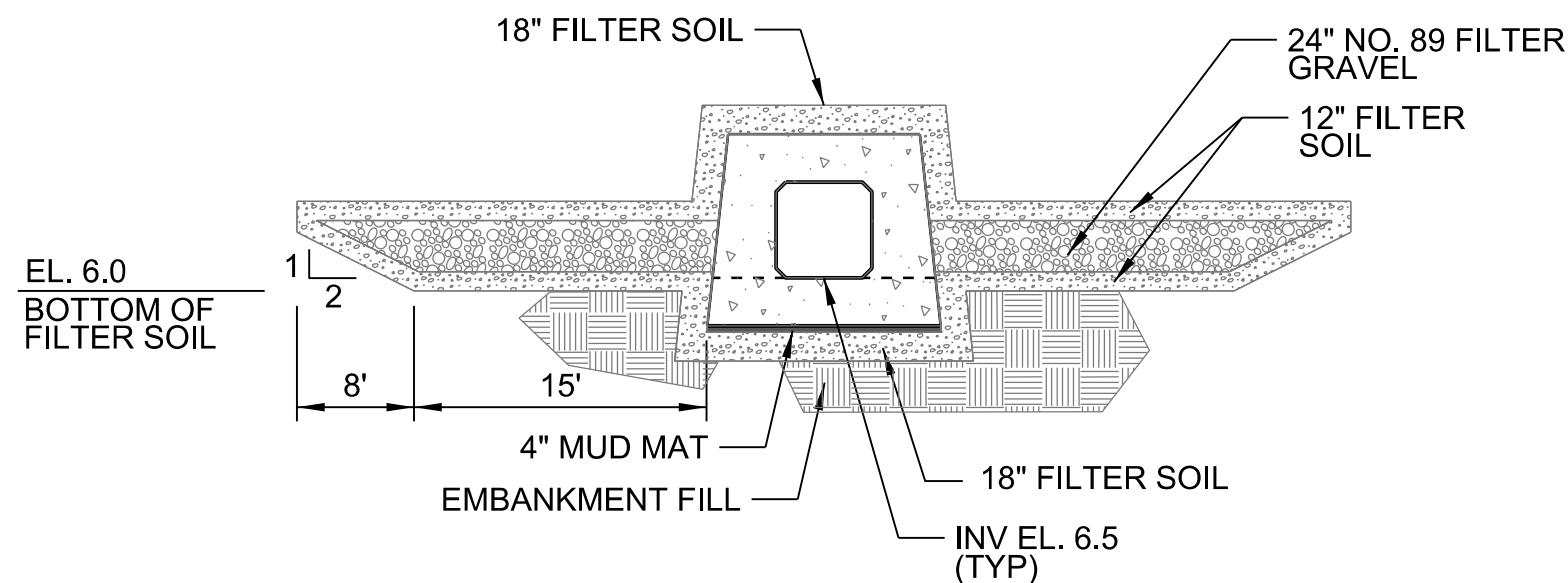
WP SEE SHEET C-09 FOR WORK POINT LOCATION



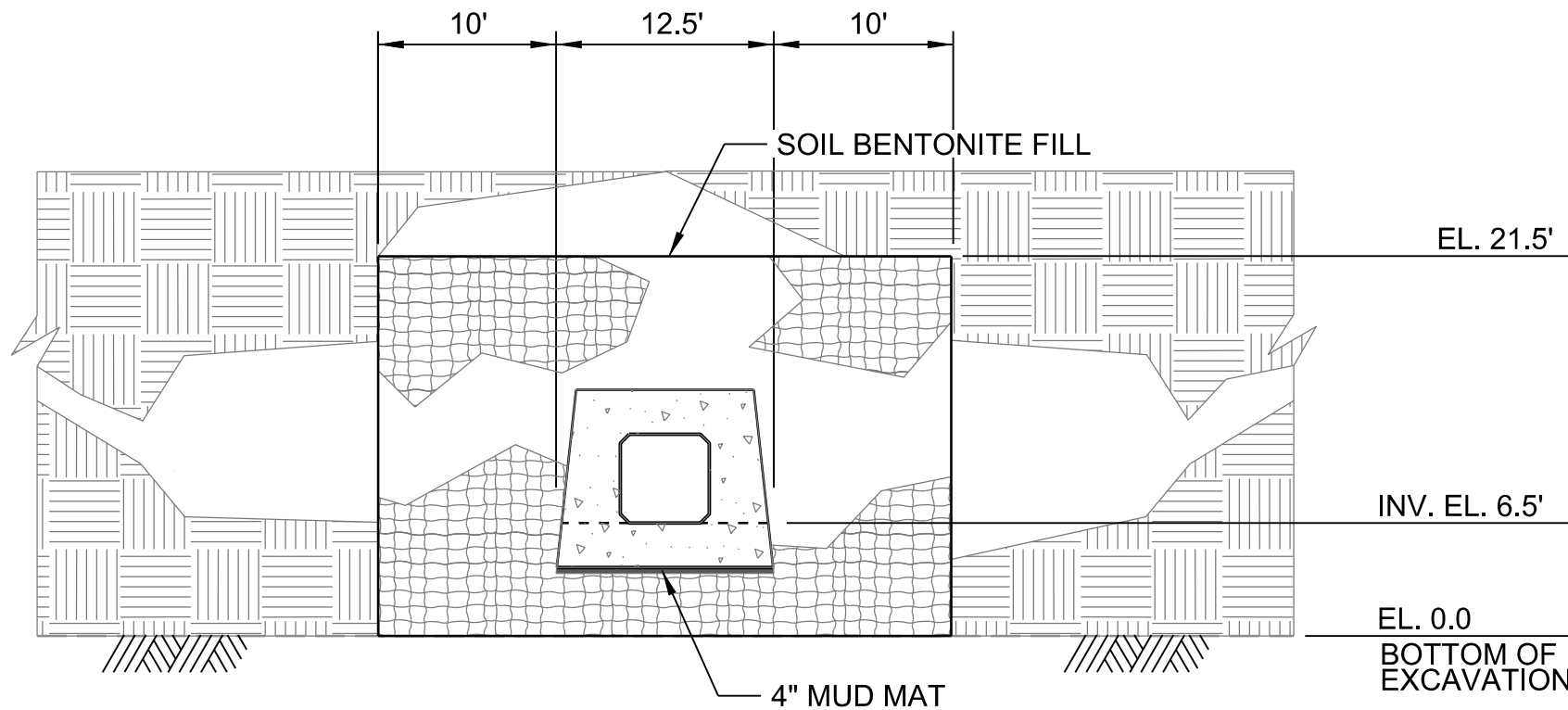
A
C-09 SECTION
SCALE: A



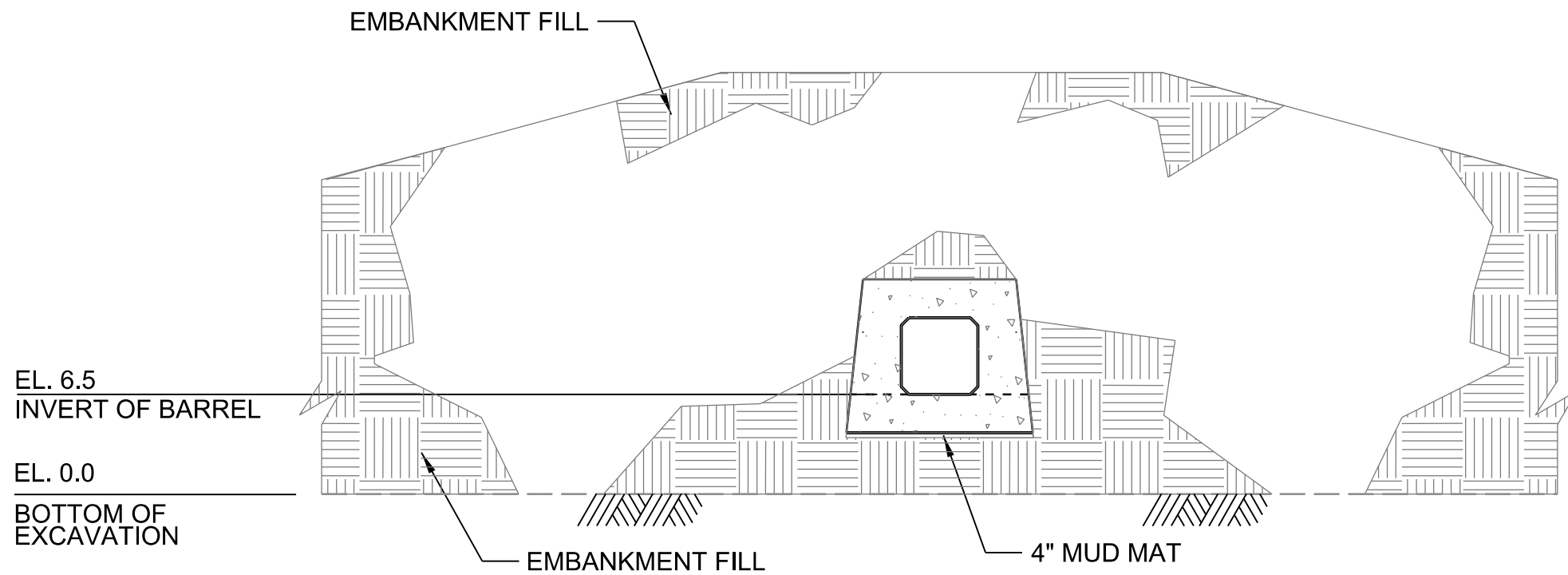
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C-09 SECTION
SCALE: B



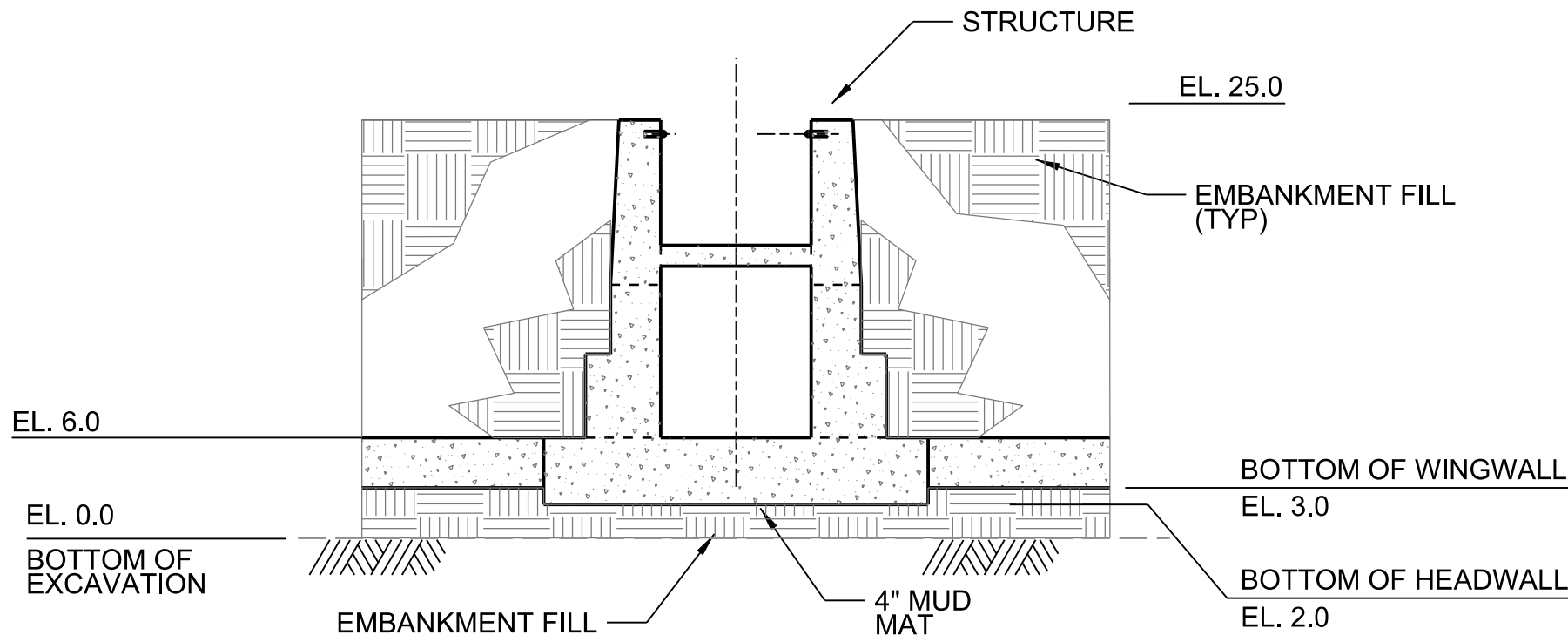
C
C-09 SECTION
SCALE: B



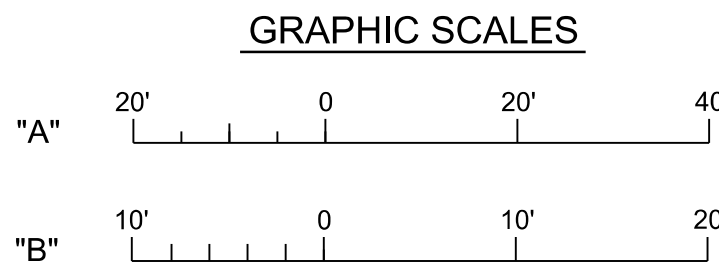
D
C-09 SECTION
SCALE: B



E
C-09 SECTION
SCALE: B



F
C-09 SECTION
SCALE: B



DESIGNED BY: MC	DRAWING DATE:	SOLICITATION NO.:
BY: CIVIL	REV BY: CDR	CONTRACT NO.:
DEPARTMENT OF THE ARMY CORPS OF ENGINEERS JACKSONVILLE DISTRICT JACKSONVILLE, FLORIDA	SUBMITTED BY:	FILE NUMBER:
	PLOT SCALE: AS SHOWN	FILE NAME:

HERBERT HOOVER DIKE REHABILITATION
STRUCTURE REPLACEMENT
S-288 (HP-1) RECONSTRUCTION
PHASE III - STRUCTURE INSTALLATION
CROSS SECTIONS

DRAWING NO.
C-10

8

7

6

5

4

3

2

1

SAFETY ON THIS JOB
DEPENDS ON YOU



US Army Corps
of Engineers
Jacksonville District

D

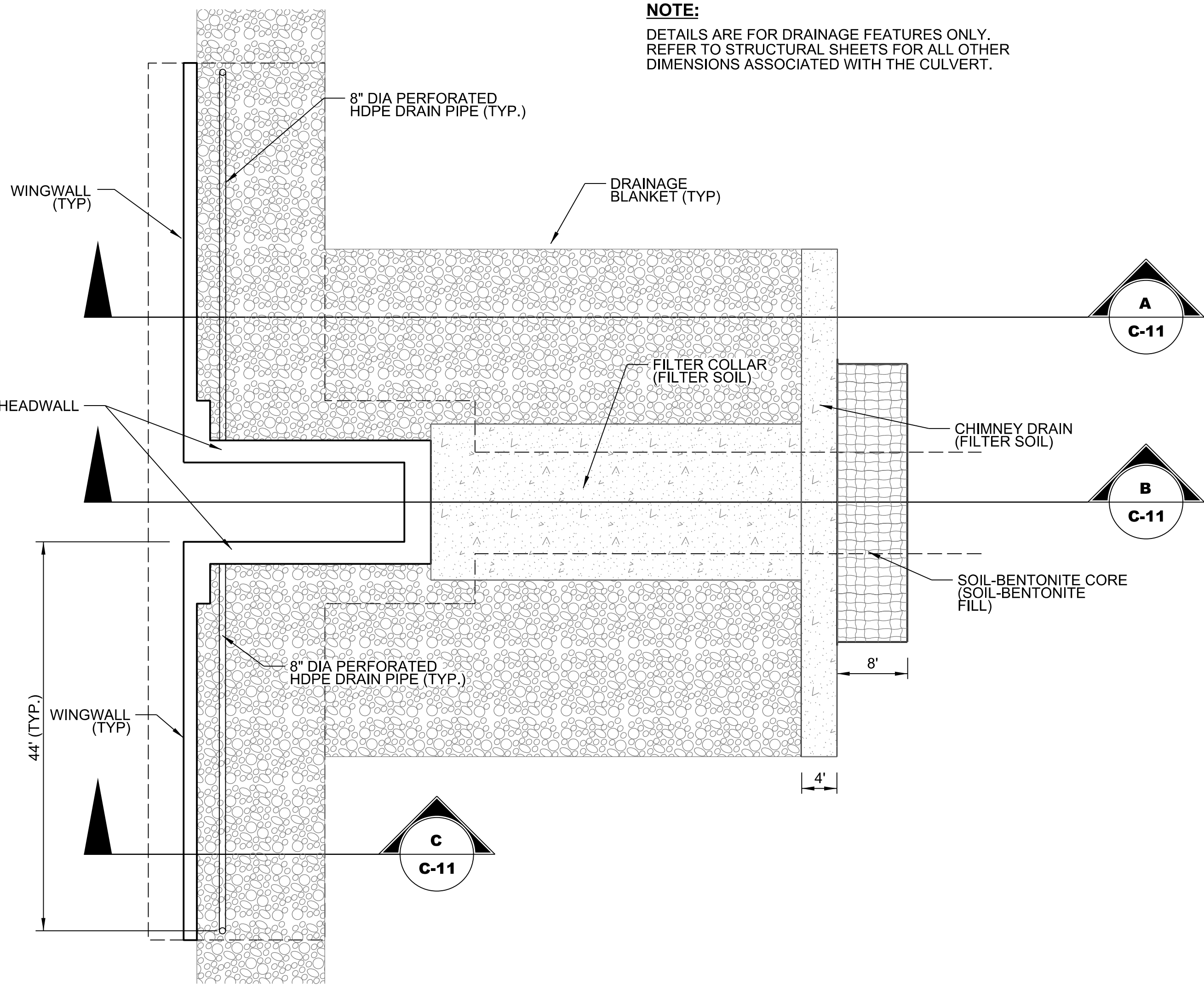
C

B

A

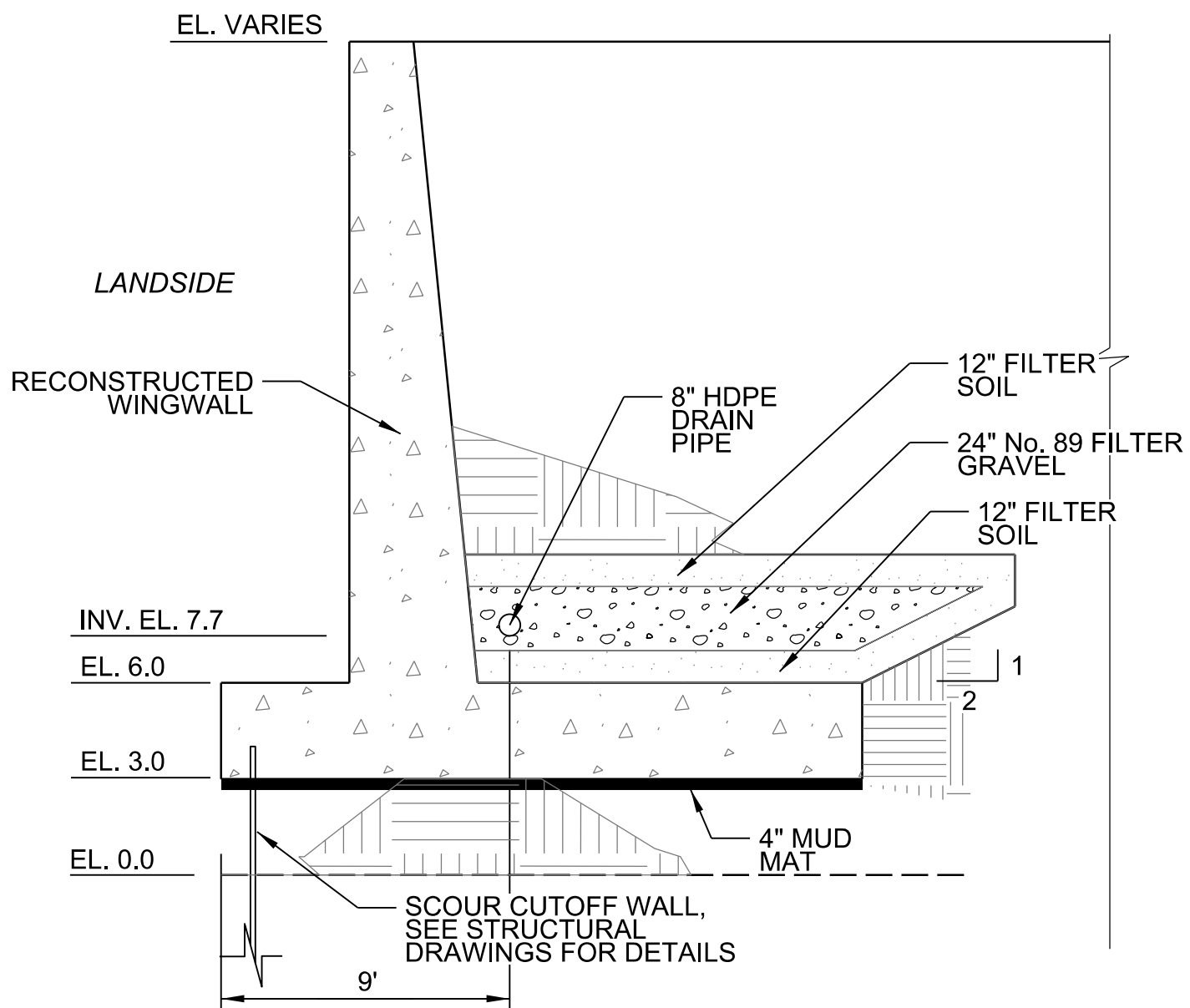
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ZONE
No. SYM
FILE NAME
114627HDCRC3-CF512.DGN
DESIGNED BY: M/C
CHECKED BY: CDR
SUBMITTED BY: AS SHOWN
PLOT SCALE: 3/13/2018
SOLICITATION NO.:
CONTRACT NO.:
FILE NUMBER:
DRAWING DATE:
DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS
JACKSONVILLE DISTRICT
JACKSONVILLE, FLORIDA
HERBERT HOOVER DIKE REHABILITATION
STRUCTURE REPLACEMENT
S-288 (HP-1) RECONSTRUCTION
PHASE III
CIVIL
STRUCTURE INSTALLATION DETAILS - DRAINAGE
DRAWING NO.
C-11

NOTE:
DETAILS ARE FOR DRAINAGE FEATURES ONLY.
REFER TO STRUCTURAL SHEETS FOR ALL OTHER
DIMENSIONS ASSOCIATED WITH THE CULVERT.

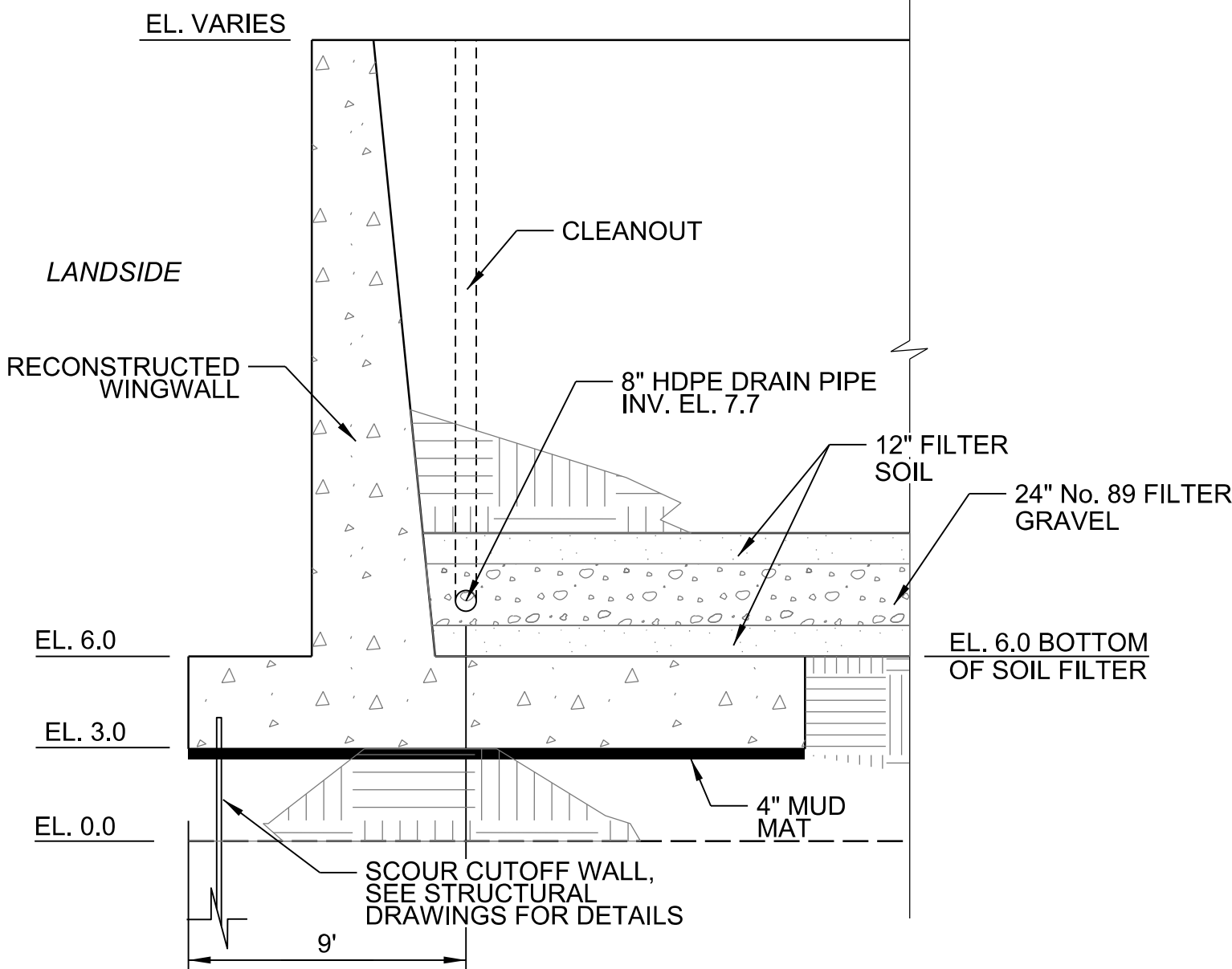


**CHIMNEY DRAIN AND DRAINAGE BLANKET PLAN
AT SPRINGLINE OF 8" HDPE DRAIN PIPE**

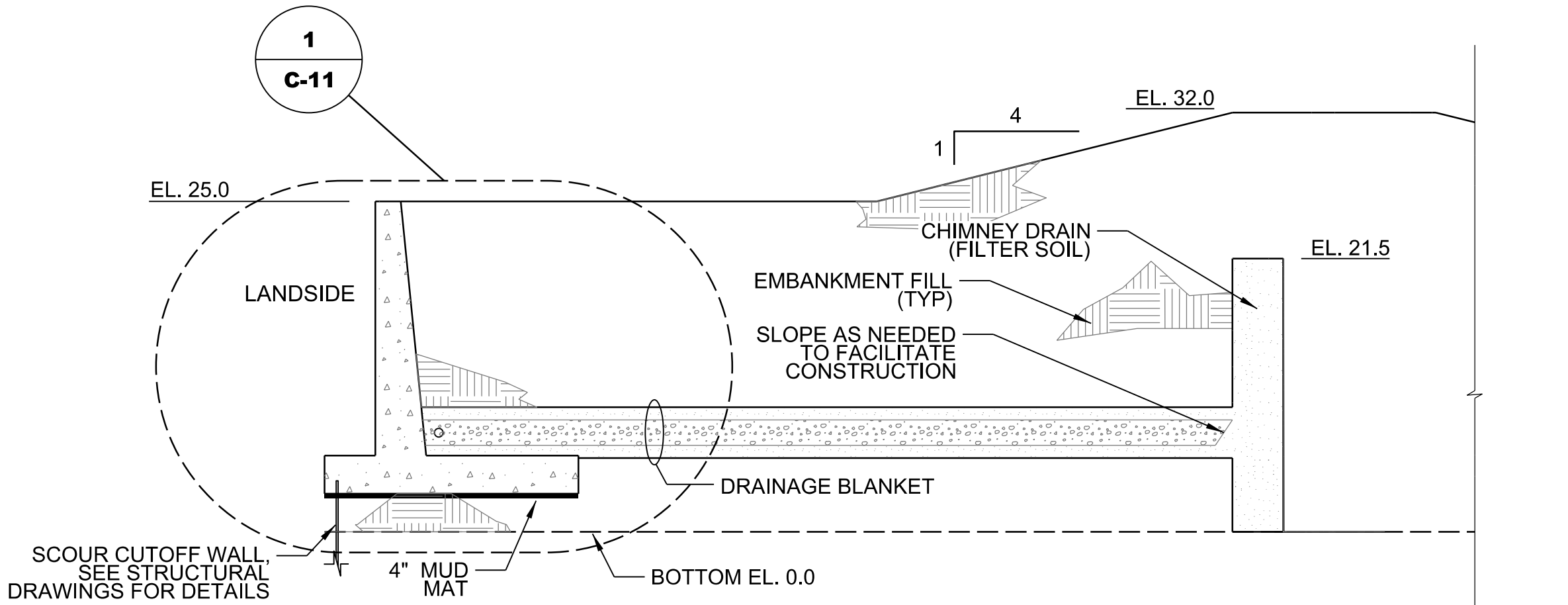
SCALE "B"



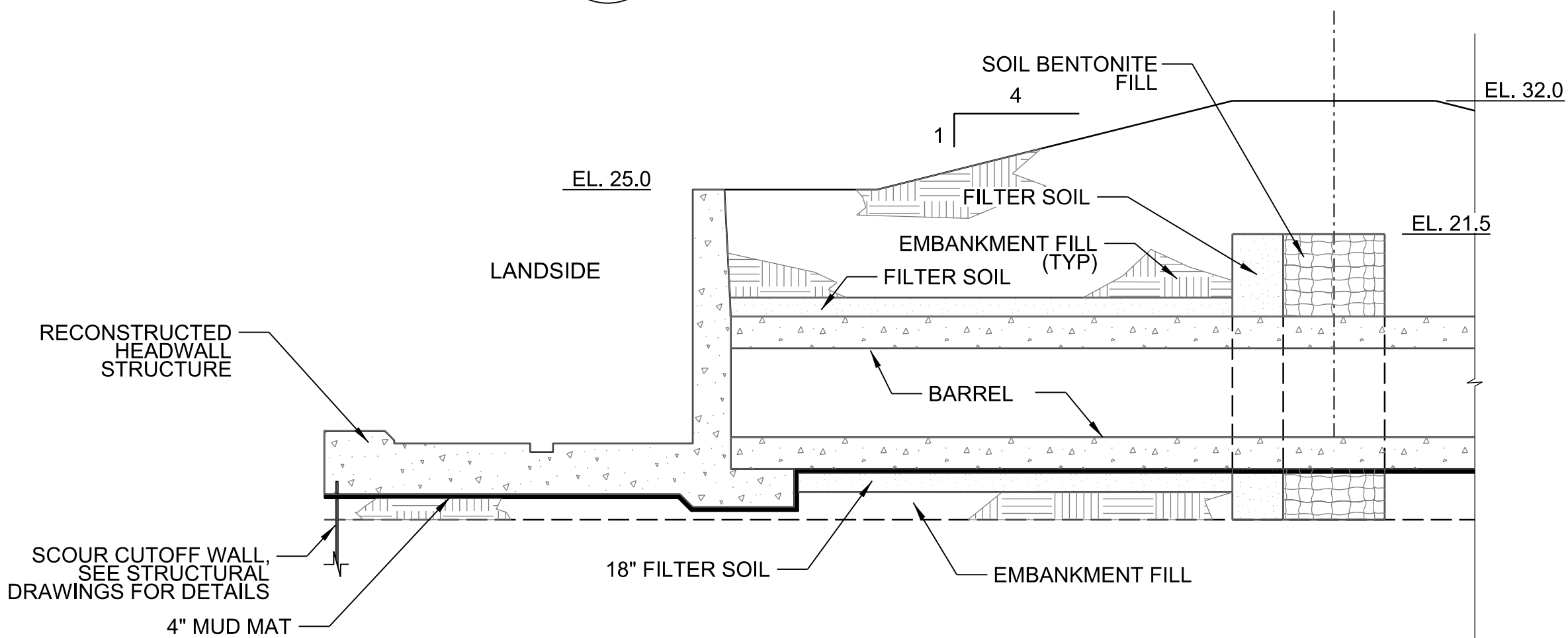
c
C-11
SECTION
SCALE "A"



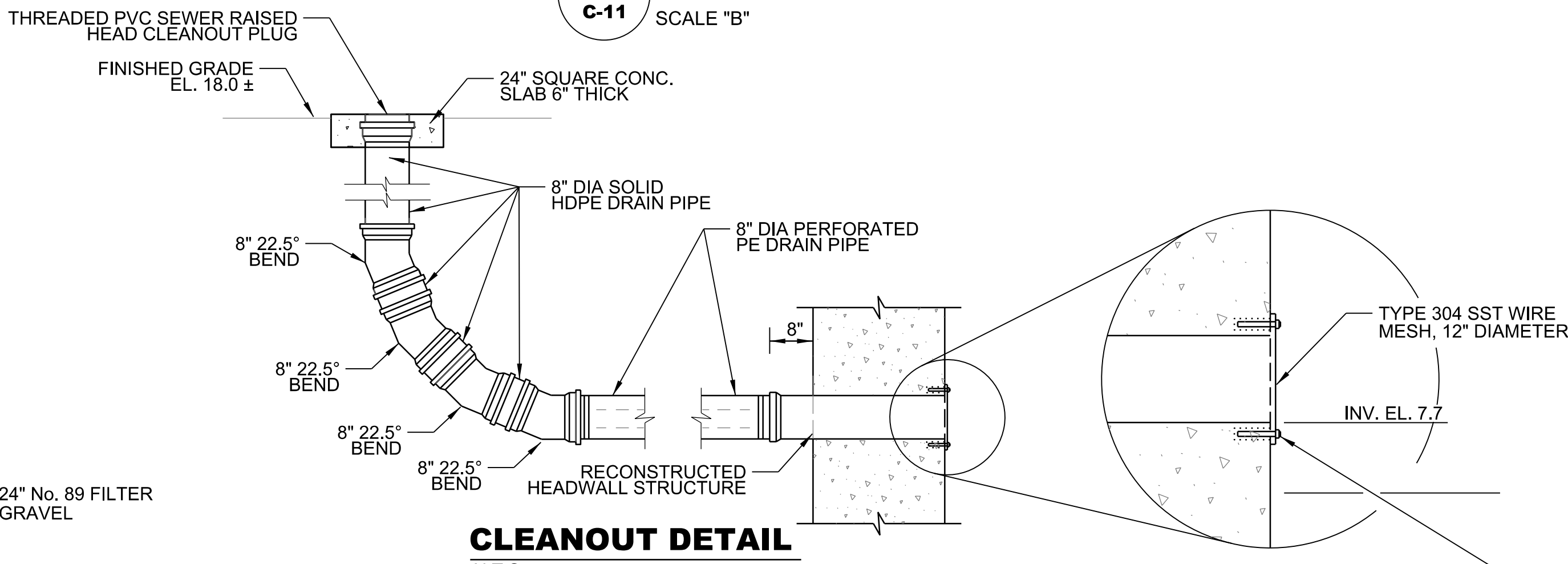
1
C-11
DETAIL
SCALE "A"



A
C-11
SECTION
SCALE "B"

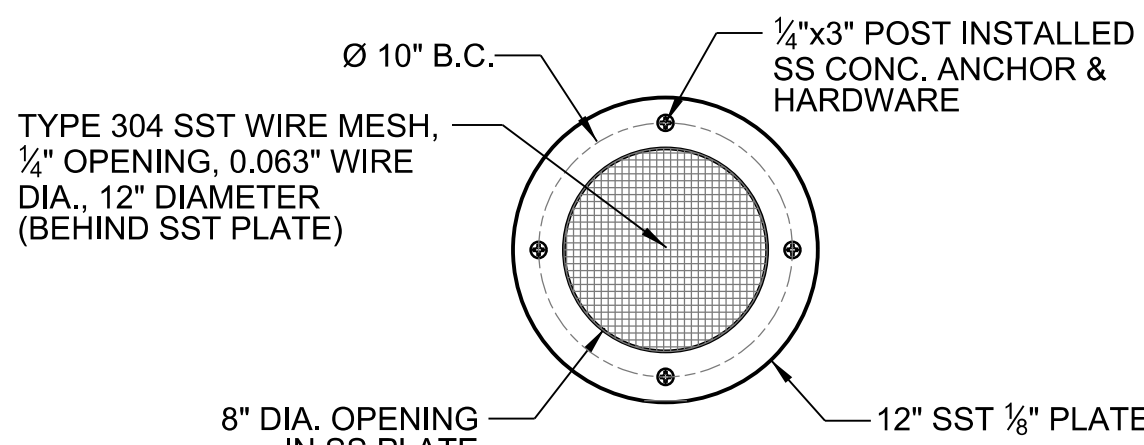


B
C-11
SECTION
SCALE "B"



CLEANOUT DETAIL

N.T.S.

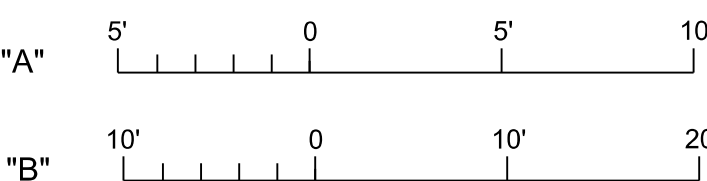


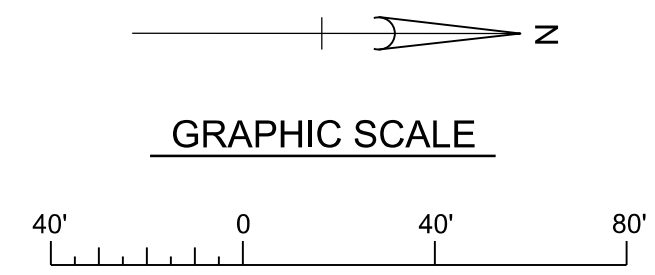
**STAINLESS STEEL
MESH CAP DETAIL**

N.T.S.

1/4" DIA. x 4" ANCHOR BOLTS THREADED
FULL LENGTH WITH HEX NUTS AND
WASHERS SET IN DRILLED HOLES (DIA.
PER BONDING MATERIAL MANUFACTURER'S
RECOMMENDATION) WITH AN ADHESIVE
BONDING SYSTEM IN ACCORDANCE WITH
2013 FDOT STANDARD SPECIFICATIONS
SECTIONS 416 & 937. (TYPICAL)

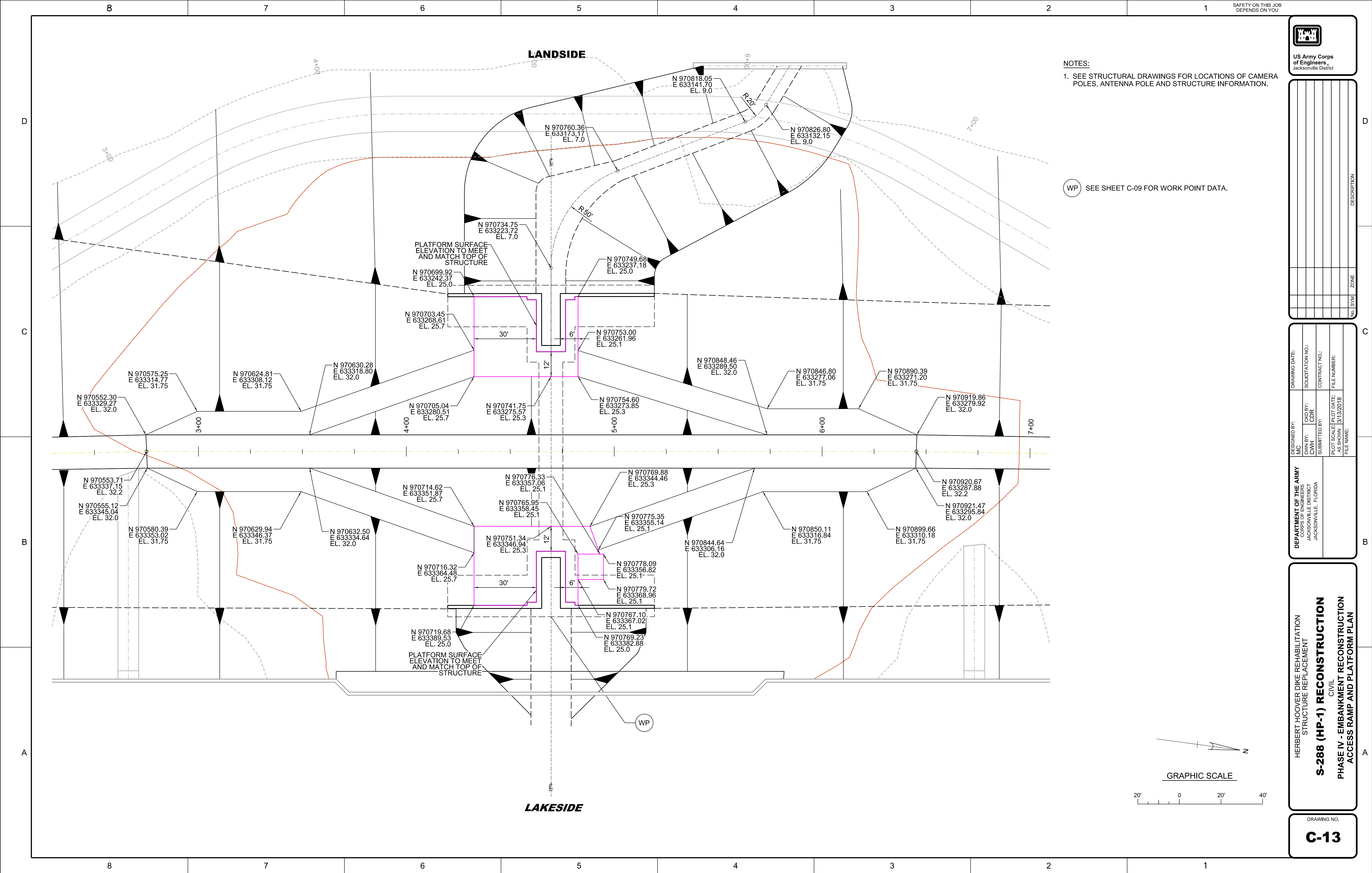
GRAPHIC SCALES





DRAWING NO.

C-12



NOTES:
1. SEE STRUCTURAL DRAWINGS FOR LOCATIONS OF CAMERA
POLES, ANTENNA POLE AND STRUCTURE INFORMATION.

(WP) SEE SHEET C-09 FOR WORK POINT DATA.

US Army Corps
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Jacksonville District

DESIGNED BY:		DRAWING DATE:	
MC	BY:	MC	BY:
CIVIL	CDR	CIVIL	CDR

SOLICITATION NO.:		CONTRACT NO.:	
FILE NO.	FILE NAME	FILE NO.	FILE NAME

PLOT SCALE:		PLOT DATE:	
AS SHOWN	3/13/2018	AS SHOWN	3/13/2018

HERBERT HOOVER DIKE REHABILITATION
STRUCTURE REPLACEMENT

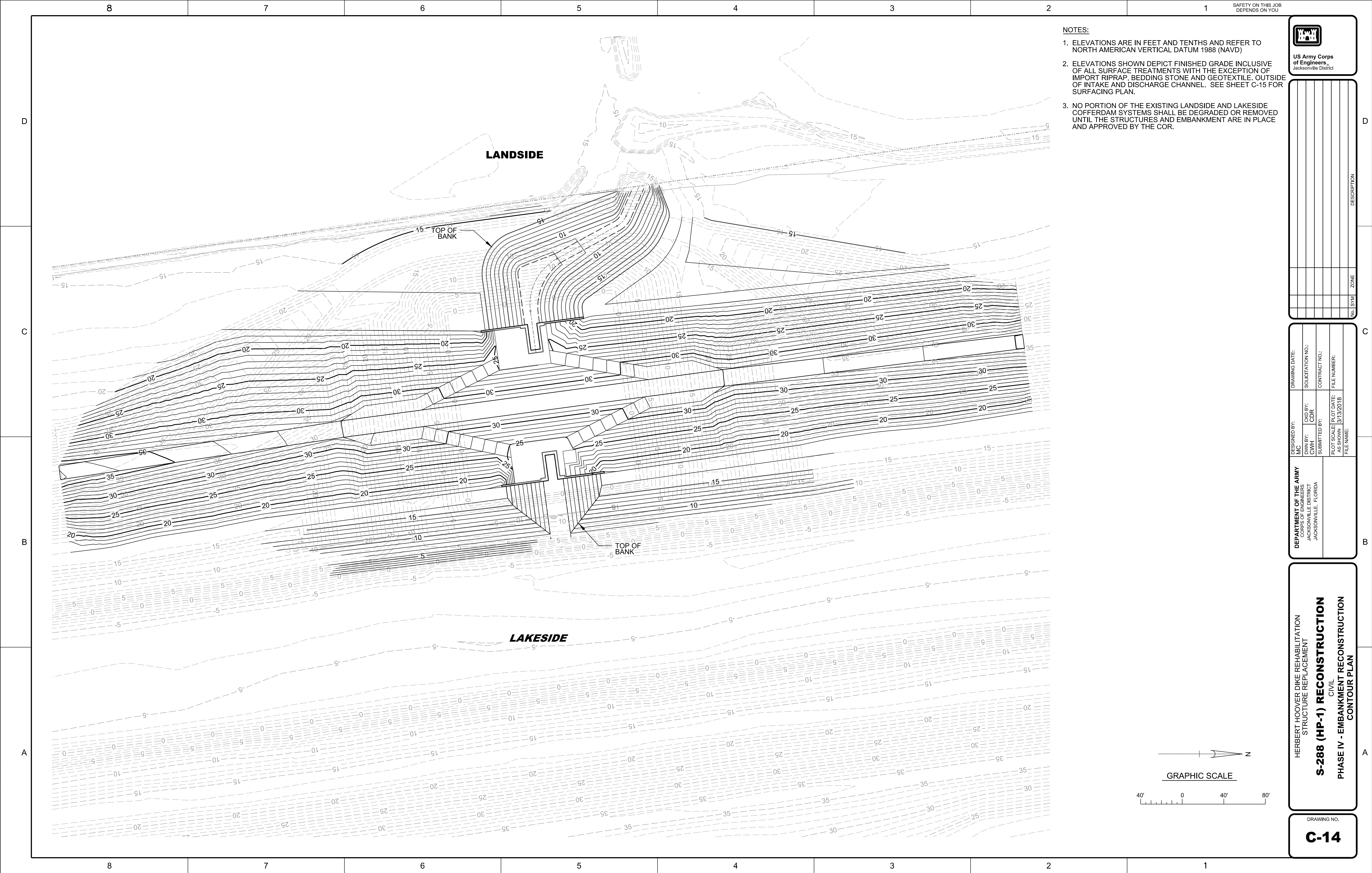
S-288 (HP-1) RECONSTRUCTION

CIVIL

**PHASE IV - EMBANKMENT RECONSTRUCTION
ACCESS RAMP AND PLATFORM PLAN**

DRAWING NO.

C-13



pw:\COE-SA\JPWP02JAX.saj.ds.usace.army.mil\SA\JPWDocuments\C&SF\Herbert Hoover Dike Rehabilitation\03-Culvert Rehabilitation\S-288 (HP1)\080 - Plans\05 Civil\C-14

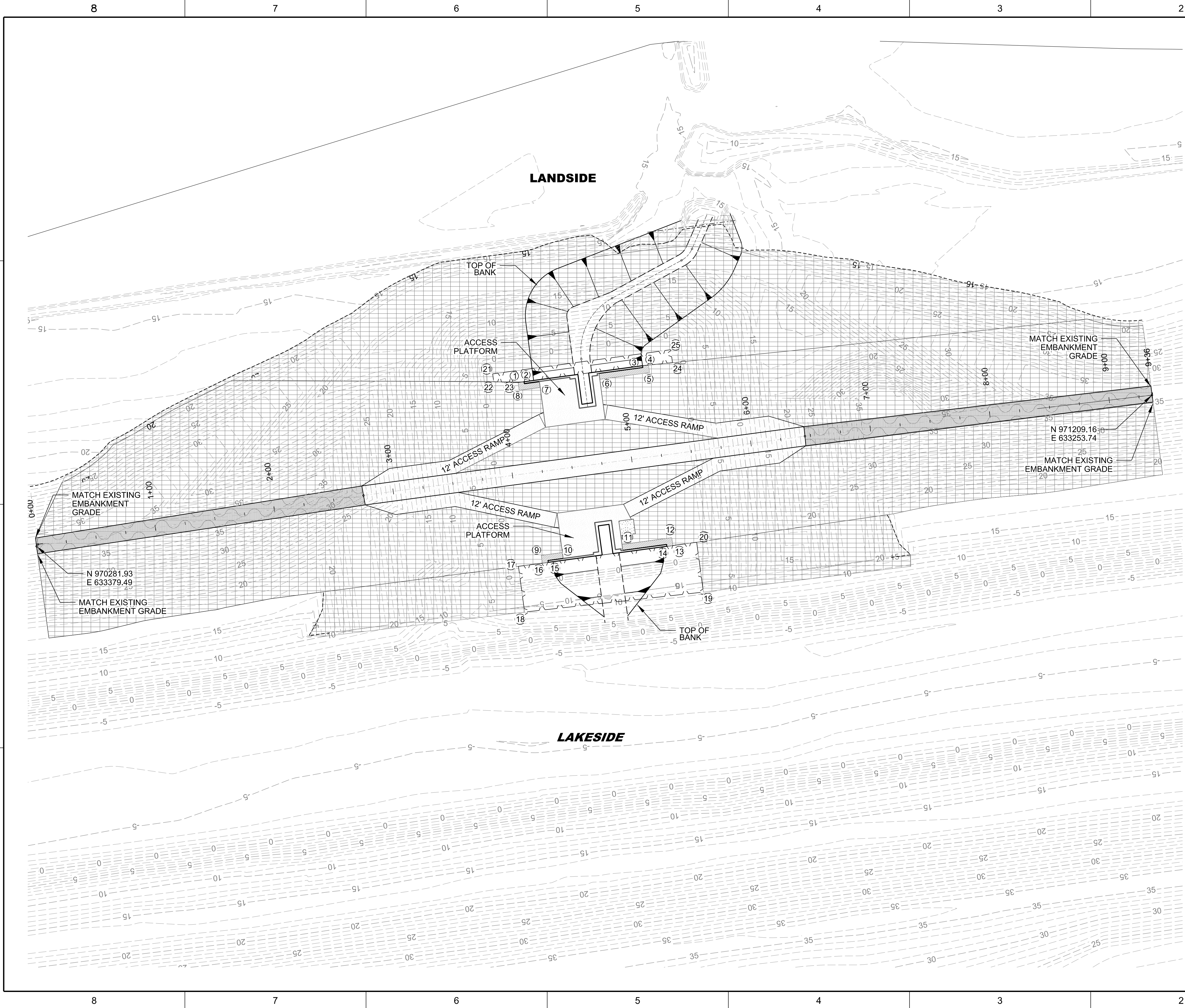
A

DRAWING NO.

C-15

RIPRAP LIMITS		
POINT	NORTHING	EASTING
17	970682.50	633396.10
18	970687.65	633434.15
19	970836.26	633417.52
20	970830.65	633376.06
21	970661.08	633236.04
22	970662.03	633242.64
23	970682.18	633242.79
24	970810.59	633226.72
25	970809.11	633216.02

40' 0 40' 80'





N.T.S.



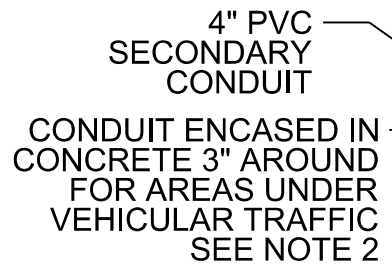
N.T.S.N.T.S.



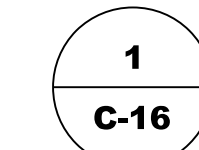
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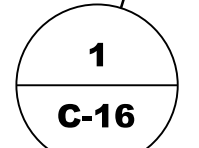
N.T.S.



N.T.S.



N.T.S.
(SEE NOTE 3)

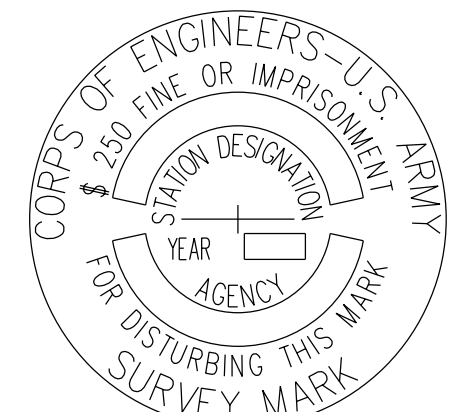


N.T.S.

1. ELEVATIONS ARE IN FEET AND TENTHS AND REFER TO NORTH AMERICAN VERTICAL DATUM 1988 (NAVD).
2. SEE ELECTRICAL PLANS FOR INSTALLATION DETAILS.
3. EXTEND GEOTEXTILE BENCH ANCHOR TRENCH AROUND ENTIRE PERIMETER OF RIPRAP.

[illegible]

DEPARTMENT OF THE ARMY CORPS OF ENGINEERS JACKSONVILLE DISTRICT JACKSONVILLE, FLORIDA	DESIGNED BY:	DRAWING DATE:
	M.C.	
	DWN BY: C&D BY:	SOLICITATION NO.:
	C.W.H. C.D.R.	
	SUBMITTED BY:	CONTRACT NO.:
	PILOT SCALE:	PILOT DATE:
	AS SHOWN:	3/13/2018
114527HHDBRCR1-CF216.DGN		



N.T.S. (SEE STRUCTURAL DRAWINGS FOR PLACEMENT)

HERBERT HOOVER DIKE REHABILITATION
STRUCTURE REPLACEMENT

S-288 (HP-1) RECONSTRUCTION

CIVIL

PHASE IV EMABANKMENT AND PIEZOMETER
RECONSTRUCTION DETAILS

C-16



CONTRACTOR SHALL COORDINATE ALL PIPE AND CONDUIT LOCATIONS THROUGH CONCRETE WITH THE ARCHITECTURAL, CIVIL, ELECTRICAL AND MECHANICAL DRAWINGS PRIOR TO PLACING CONCRETE.

ALL CAST-IN-PLACE AND PRECAST CONCRETE STRUCTURES SHALL BE CONSTRUCTED IN THE "DRY". THE GROUND WATER ELEVATIONS SHALL BE MAINTAINED TWO (2) FEET BELOW THE BOTTOM OF FOUNDATION EXCAVATIONS, AT ALL TIMES, DURING CONSTRUCTION AND INSTALLATION OF A GIVEN STRUCTURE. STRUCTURES ARE DESIGNED TO BE FULLY CONSTRUCTED IN DRY CONDITIONS ONLY.

FOR THE ACCURATE LOCATION AND ORIENTATION OF STRUCTURES, REFER TO THE CIVIL DRAWINGS ONLY. STRUCTURAL DRAWINGS DO NOT NECESSARILY SHOW TRUE LOCATION AND/OR ORIENTATION OF STRUCTURES.

MINIMUM COVER FOR WALLS MANUFACTURED UNDER PLANT CONDITIONS SHALL BE 1 INCH

ALL AUSTENITIC STAINLESS STEEL WELDING SHALL USE 3XXL FILLER METALS AS SPECIFIED IN AWS D1.6, STRUCTURAL WELDING CODE-STAINLESS STEEL.

S-01

\$STAMP\$

1. 4" MUD MAT NOT SHOWN IN S-DRAWINGS, BUT SHALL BE PLACED UNDER HEADWALL, CULVERT, AND WINGWALLS.
2. FOR WORKING POINT (WP) COORDINATES, SEE CIVIL DRAWING C-09.

[illegible]

DEPARTMENT OF THE ARMY	J.S.F.	MARCH 2017
JACKSONVILLE DISTRICT	DWN BY:	SOLICITATION NO.:
JACKSONVILLE, FLORIDA	C.B.G.	SOLICIT #
	SUBMITTED BY:	CONTRACT NO.:
	FEDS	
	PLAT SCORE	FILE NUMBER:
	AS SHOWN	N/A
	FILE NAME:	
	1145627-HDRCRHP1-SS103.DGN	

HERBERT HOOVER DIKE REHABILITATION
STRUCTURE REPLACEMENT

S-288 (HP-1) RECONSTRUCTION
STRUCTURAL
GENERAL PROFILE

S-03



"A" 48" 24" 0 4' 8' 12' 16' 20'

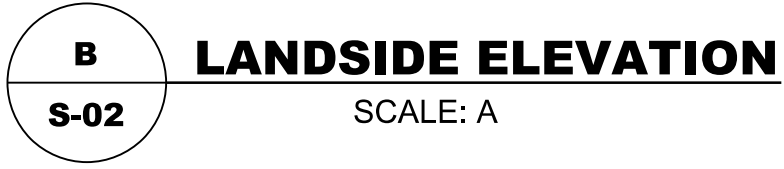
[illegible]

U.S.F.	MARCH 2017
DEPARTMENT OF THE ARMY	
ENGINEER	
JACKSONVILLE DISTRICT	
JACKSONVILLE, FLORIDA	
OWN BY:	ORD BY:
W.E.S.	C.B.G.
PROJECT NO:	CONTRACT NO:
11452ZT-HDRCRHP1	N/A
FILE NUMBER:	FILE NUMBER:
AS SHOWN	3/13/2018
FILE NAME:	
	11452ZT-HDRCRHP1-SS 04.DGN

S-288 (HP-1) RECONSTRUCTION
STRUCTURAL
HEADWALL ELEVATIONS

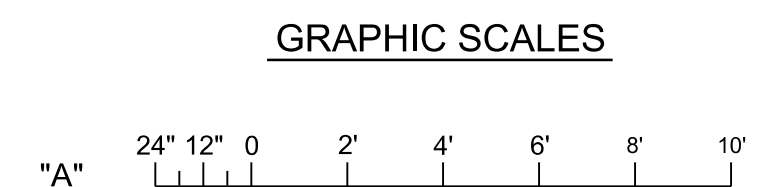
DRAWING NO.

-04



"A" 48" 24" 0 4' 8' 12' 16' 20'

1. DUAL 9" PVC WATERSTOP, REFER TO DWG NO S-56.
2. OPTIONAL CONSTRUCTION JOINT FOR GATE THIMBLE BLOCK OUT PER MANUFACTURER RECOMMENDATIONS AND APPROVED SUBMITTAL. PROVIDE VENT AND GROUT PORTS IN BASE OF THIMBLE.



S-288 (HP-1) RECONSTRUCTION
STRUCTURAL
LAKESIDE HEADWALL
FOUNDATION PLAN AND SECTIONS

S-05





PLAN - TYPICAL BULKHEAD SLOT
SCALE: B



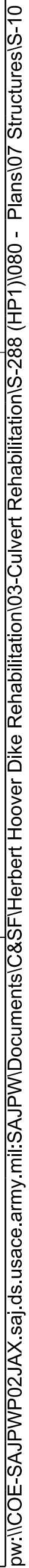
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DEPARTMENT OF THE ARMY JACKSONVILLE DISTRICT JACKSONVILLE, FLORIDA	J.S.F.	MARCH 2017
	DWN BY: C.B.G. SUBMITTED BY: J.S.F. SIGNED BY: J.S.F. DATE: 3/13/2018 FILE NAME: 114527-HDCRHP1-SB108.DGN	SOLICITATION NO.: CONTRACT NO.: N/A N/A N/A N/A

S-08







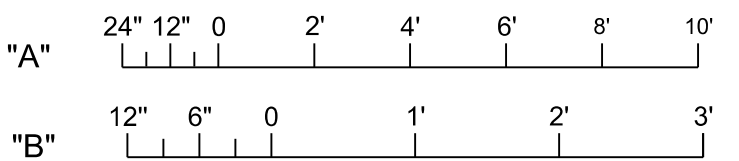
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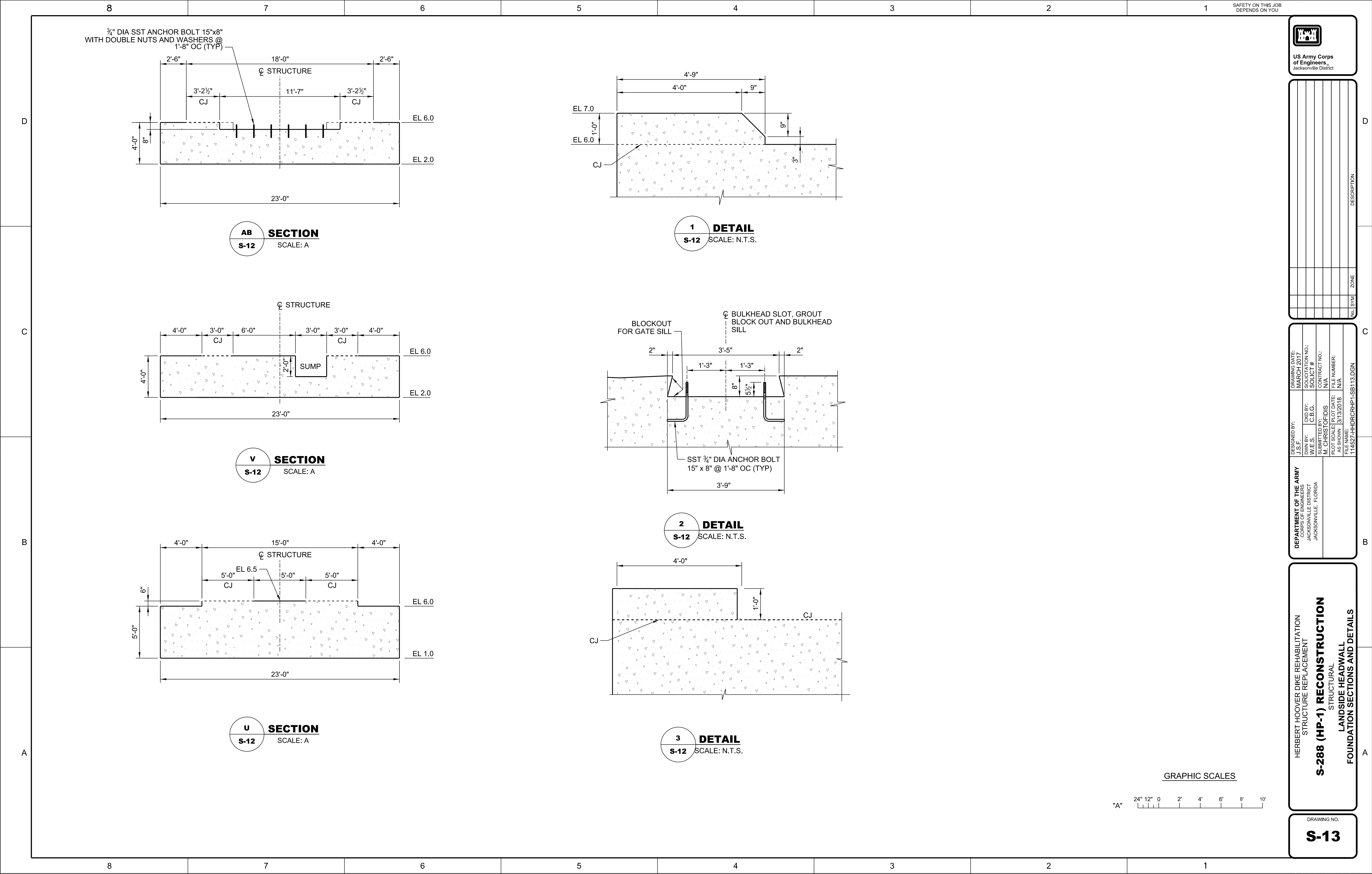
J.S.F.	MARCH 2017
WFE BY:	CUB B:
SUBJECT #:	CUB S:
M. SUBMITTED BY:	N/A
M. CONTRACT NO.:	N/A
PLOT SCALE:	FILE NUMBER:
AS SHOWN:	3/13/2018
N/A	
114627-HHCRHP+SB112.DGN	

S-288 (HP-1) RECONSTRUCTION
STRUCTURAL
LANDSIDE HEADWALL
FOUNDATION PLAN AND SECTIONS

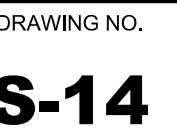
S-12


GRAPHIC SCALES

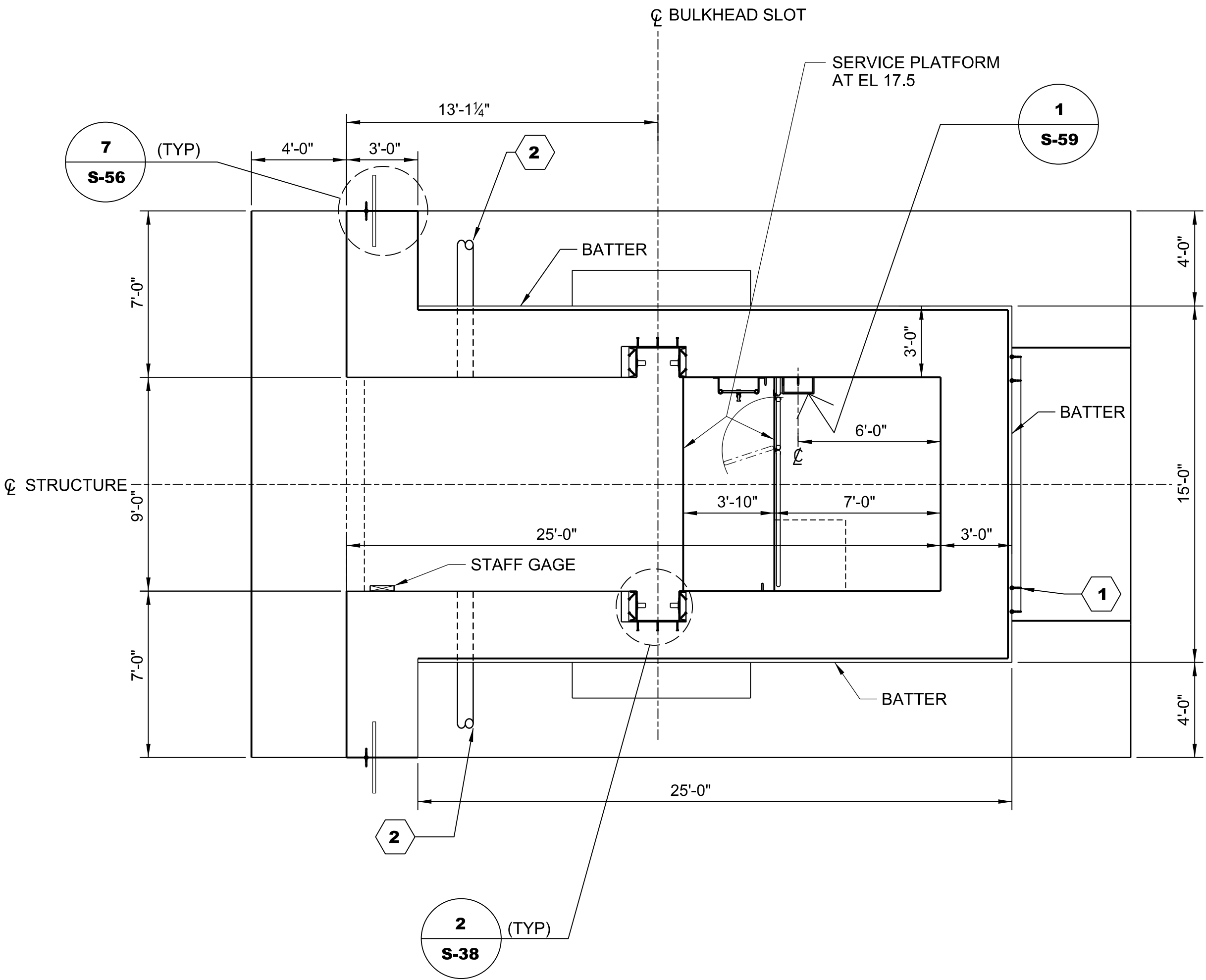




pw:\COE-SA\JPWP02JAX.saj.ds.usace.army.mil\SAJ\PWDocuments\C&SF\Herbert Hoover Dike Rehabilitation\03-Culvert Rehabilitation\S-288 (HP1)\080 - Plans\07 Structures\S-13



"A" 






GRAPHIC SCALES

"A"

"B"

Scale A: A horizontal line with vertical tick marks. Labels above the line are 24", 12", 0, 2', 4', 6', 8', and 10'. The line is divided into 12 equal segments by these marks.

Scale B: A horizontal line with vertical tick marks. Labels above the line are 24", 12", 0, 2', 4', and 6'. The line is divided into 6 equal segments by these marks.



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HERBERT HOOVER DIKE REHABILITATION
STRUCTURE REPLACEMENT

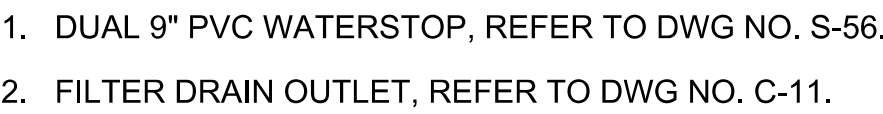
S-288 (HP-1) RECONSTRUCTION

STRUCTURAL

LANDSIDE HEADWALL
PLAN EL 25.0

DRAWING NO.

S-15

[illegible]

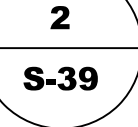
J.S.F.	DWN BY: W.E.S.	OK'D BY: C.B.G.	SOLICITATION NO.: SOLCT #	MARCH 2017
	SEBASTIAN CHRISTOPHS		CONTRACT NO:	
	PLOT SCALE: 1/4" = 1'-0"	PLOT DATE: 3/13/2016	FILE NUMBER:	
	AS SHOWN		N/A	
FILE NAME:			1145627-HDCRHP1-SB316.DGN	

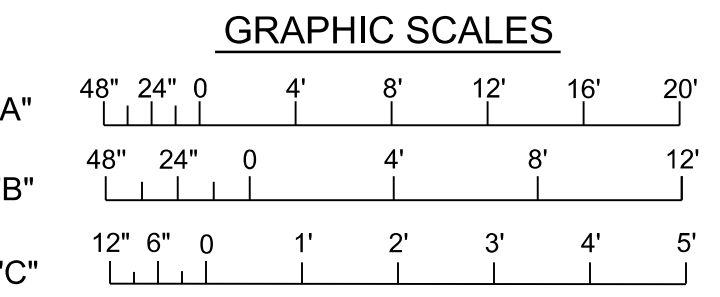
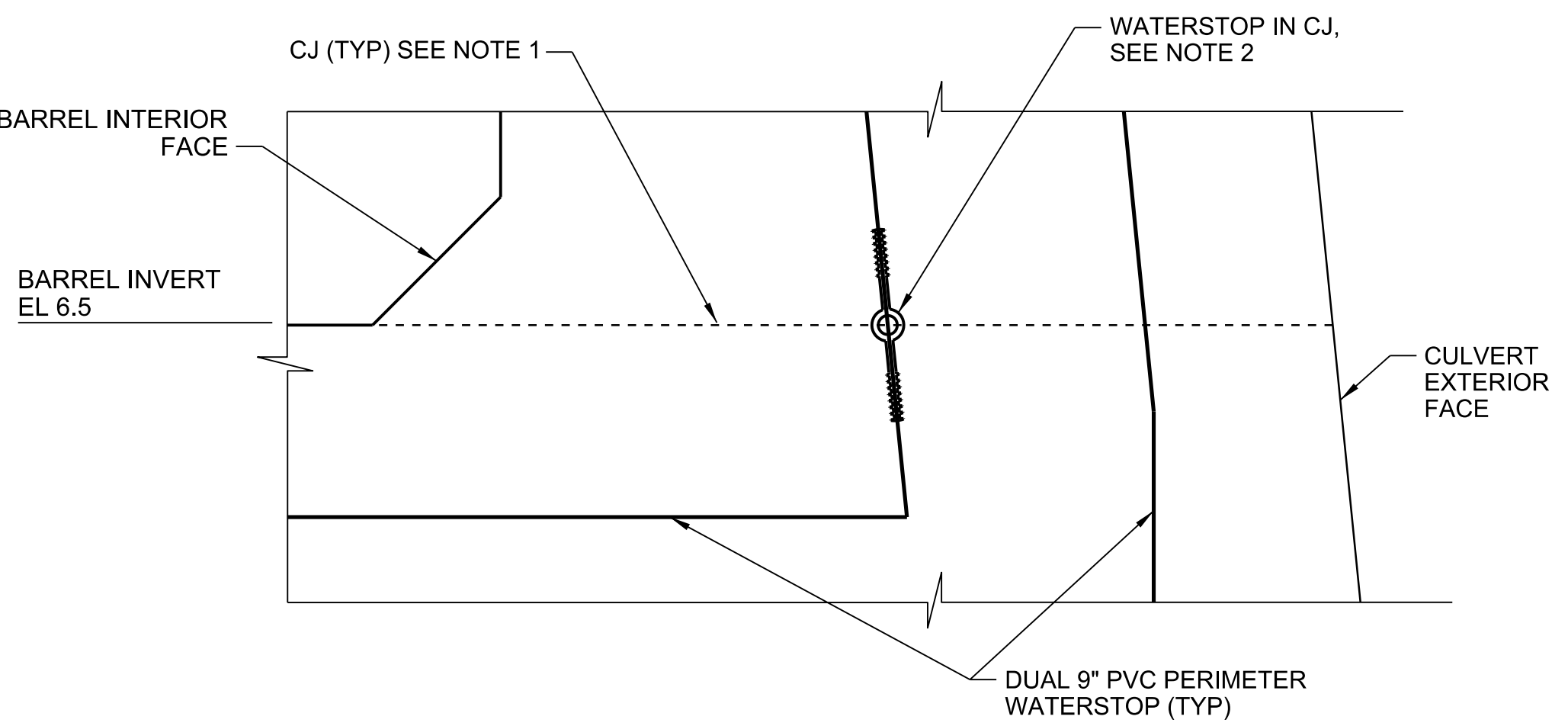
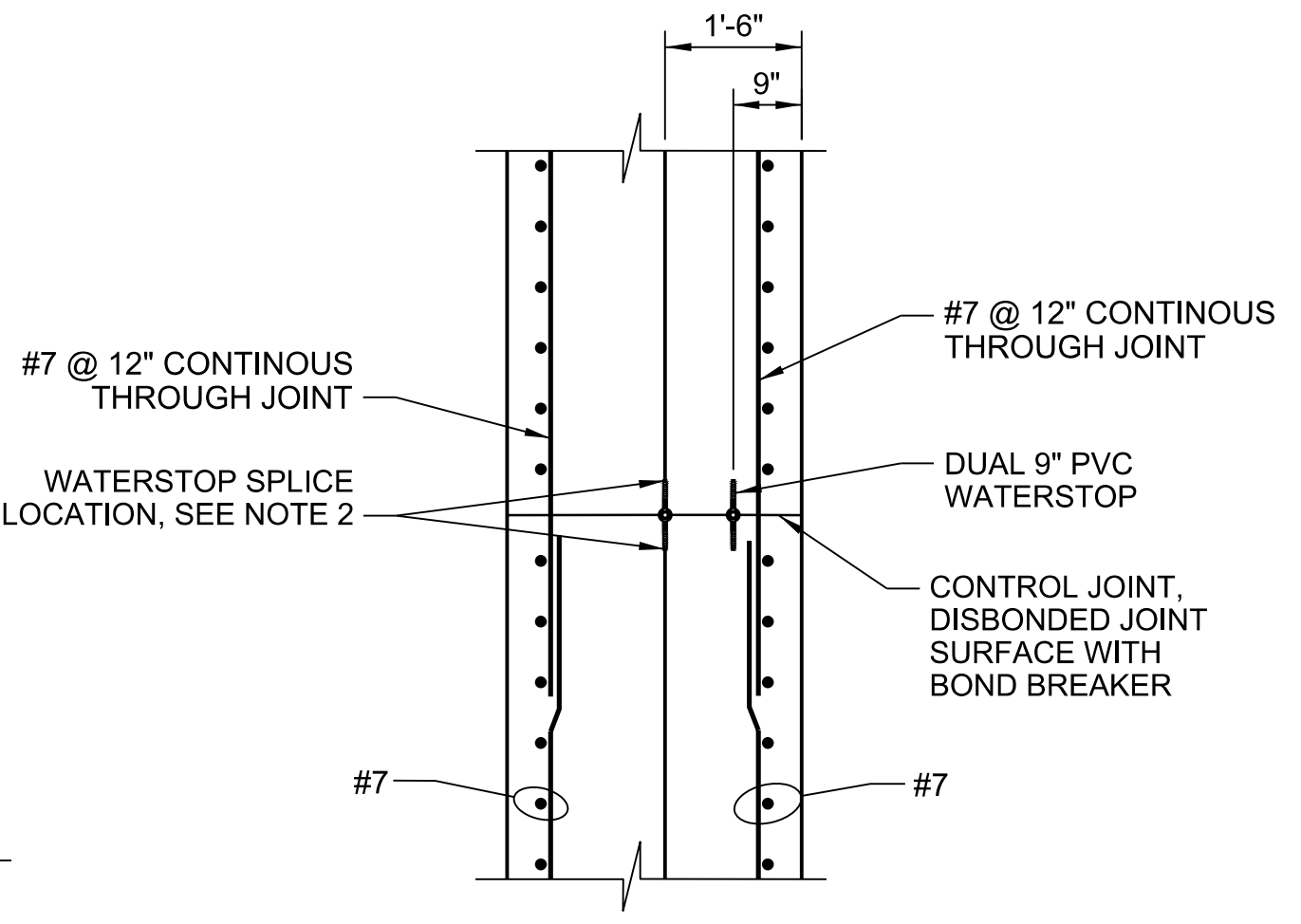
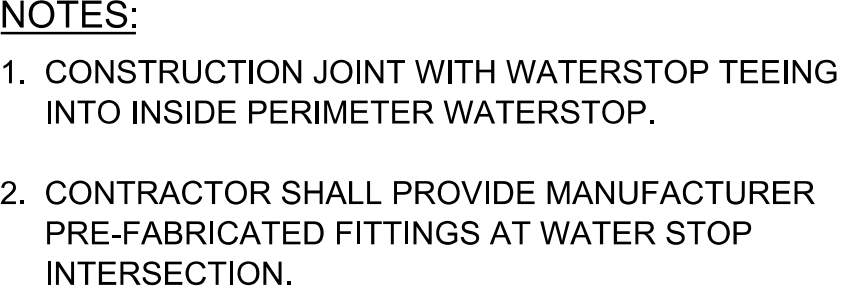
S-288 (HP-1) RECONSTRUCTION
STRUCTURAL
LANDSIDE HEADWALL
SECTIONS

S-16



"A" 

[illegible]



DRAWING NO.

S-19

[illegible]

PROJECT NAME: JACKSONVILLE DISTRICT CORPS OF ENGINEERS JACKSONVILLE, FLORIDA	J.S.F. #: DATE BY: W.F.E. #: C.B.S. #: SUBMITTED BY: M. CHRISTOFIDIS CONTRACT NO.: N/A PLOT SCALE: PLOT DATE: AS SHOWN 3/13/2018 FILE NUMBER: N/A FILE NAME: 114527-HHDCRHP1-SB620.DGN
---	---

S-288 (HP-1) RECONSTRUCTION
STRUCTURAL
OUTLET CONDUIT
CONCRETE ENCASEMENT CONSTRUCTION SEQUENCE

S-20



THERMISTOR PLACEMENT DETAIL

SCALE: NTS



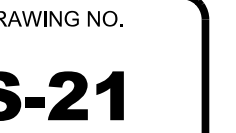
SCALE: A

LEGEND:



GRAPHIC SCALES





GRAPHIC SCALES

"A"

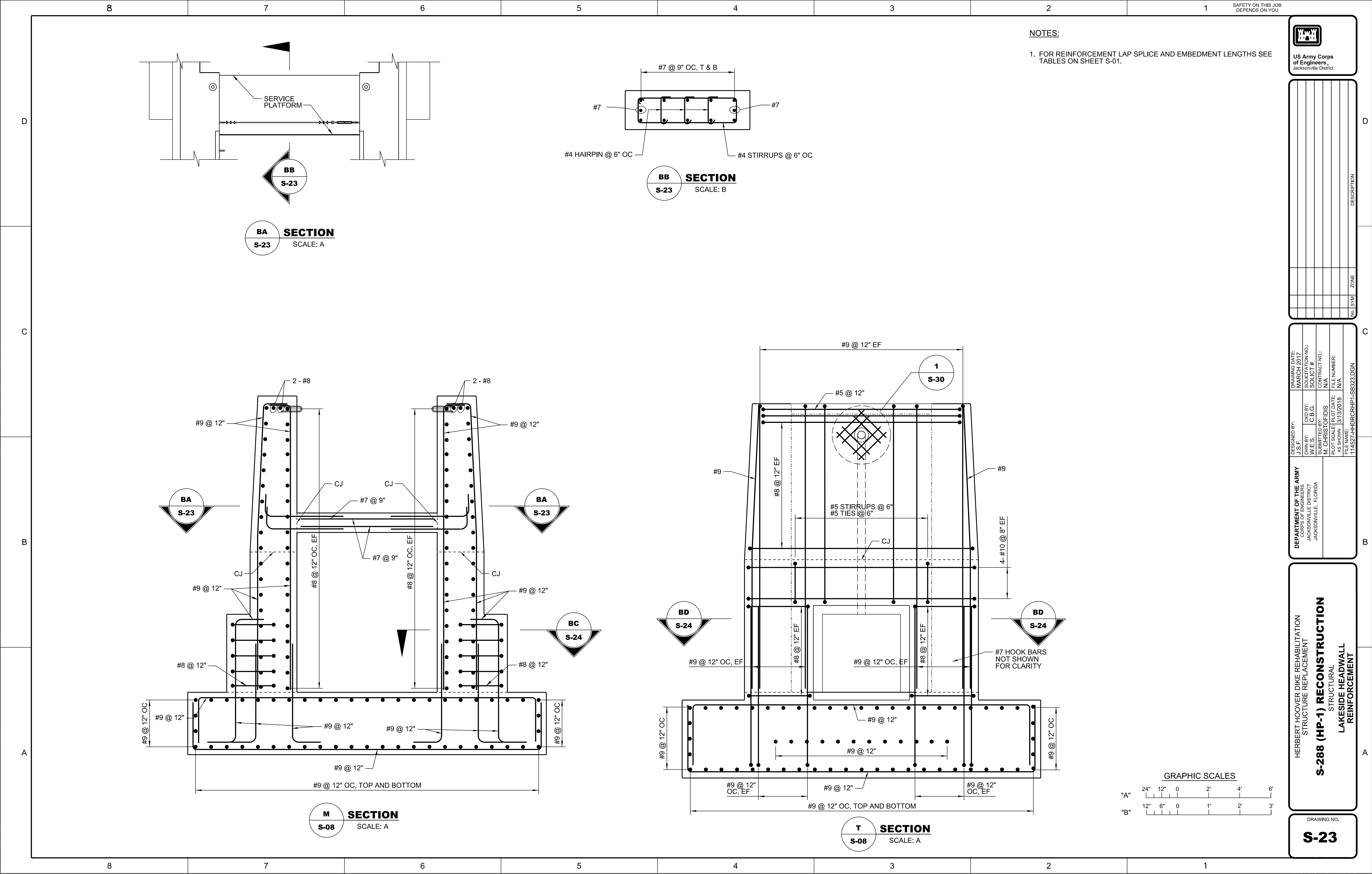
A horizontal line with vertical tick marks at 2-foot intervals. The labels above the line are 24", 12", 0, 2', 4', 6', 8', and 10'. The label "A" is to the left of the 24" mark.

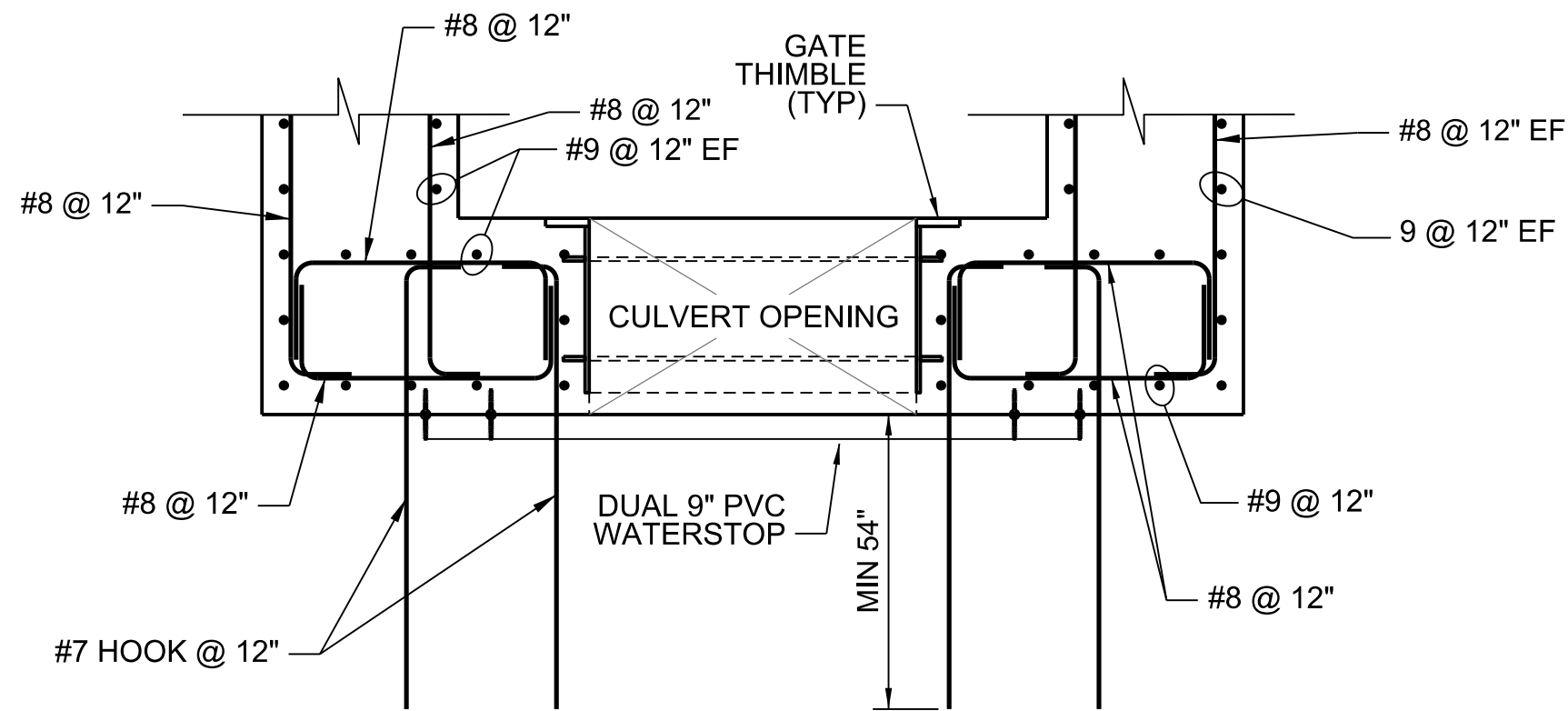


DRAWING NO.

S-22

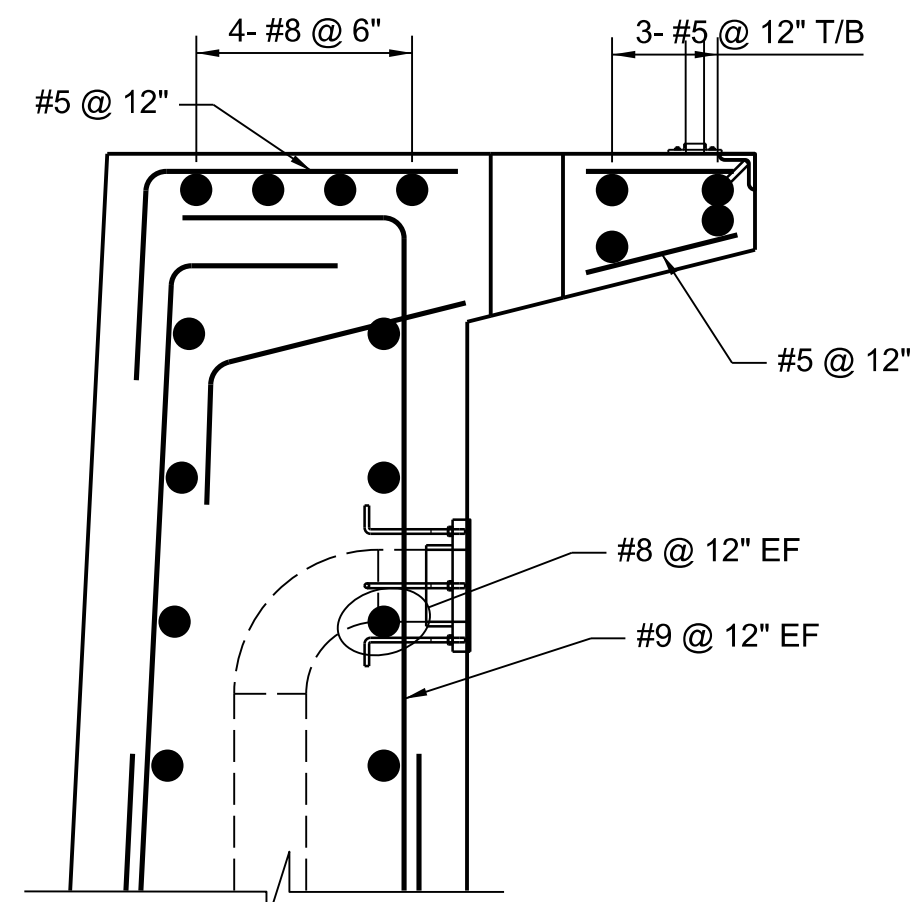
\$STAMP\$





BD
S-23

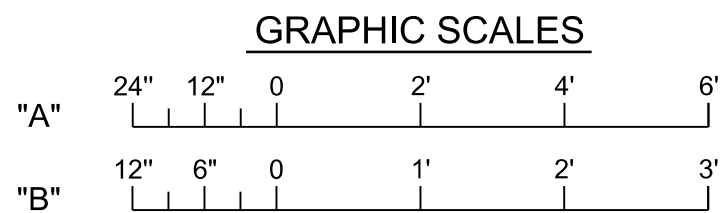
- 
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[illegible]

Technical drawing of a gate structure showing reinforcement details. The drawing includes labels for various components:

- #9 @ 12" EF
- #8 @ 12" EF
- CJ
- #5 STIRRUP @
- #10 (TYP)
- #5 TIE @ 6"
- #7 HOOK @ 12"
- MIN 4'-6"
- WATERSTOP (TYP)
- GATE THIMBLE

1
S-24 **DETAIL**
SCALE: B



Q
S-08

DRAWING NO.

S-24




1. FOR REINFORCEMENT LAP SPLICE AND EMBEDMENT LENGTHS SEE TABLES ON SHEET S-01.
2. FOUNDATION REINFORCEMENT PENETRATES SCOUR CUT OFF WALL. SEE SPECIFICATION 31 41 16 FOR METHODOLOGY TO CUT HOLES IN SHEET PILING.
3. #7 HOOK BARS SHALL MATCH REINFORCEMENT IN CONDUIT.
4. 1 1/2" DIA X 36" LONG SMOOTH DOWEL, SEE DETAIL 7 ON SHEET S-56.




GRAPHIC SCALES

"A"



"B"



DEPARTMENT OF THE ARMY CORPS OF ENGINEERS JACKSONVILLE DISTRICT JACKSONVILLE, FLORIDA	DESIGNED BY:	J.S.F.	DRAWING DATE:	MARCH 2017
	CHECKED BY:	C.B.G.	DATE:	12/1/16
	W.E.S.		SHEET NO.:	1
			SHEET #:	
	SUBMITTED BY:	M. CHRISTOFIDIS	CONTRACT NO.:	N/A
	PLOT SCALE:	1"=30'	FILE NUMBER:	N/A
	PLOT DATE:	3/13/2016	FILE NAME:	114527-HH-DRCHP-B325.DGN

HERBERT HOOVER DIKE REHABILITATION
STRUCTURE REPLACEMENT

S-288 (HP-1) RECONSTRUCTION

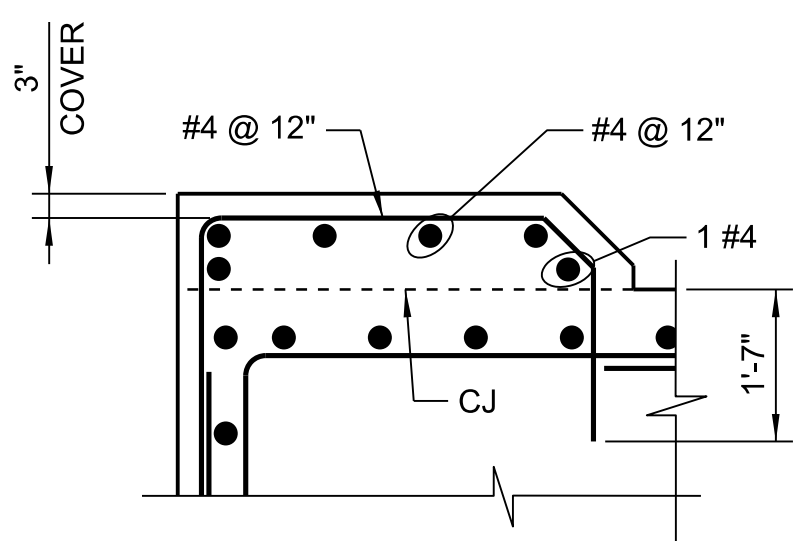
STRUCTURAL
LAKESIDE HEADWALL
REINFORCEMENT

DRAWING NO.

S-25



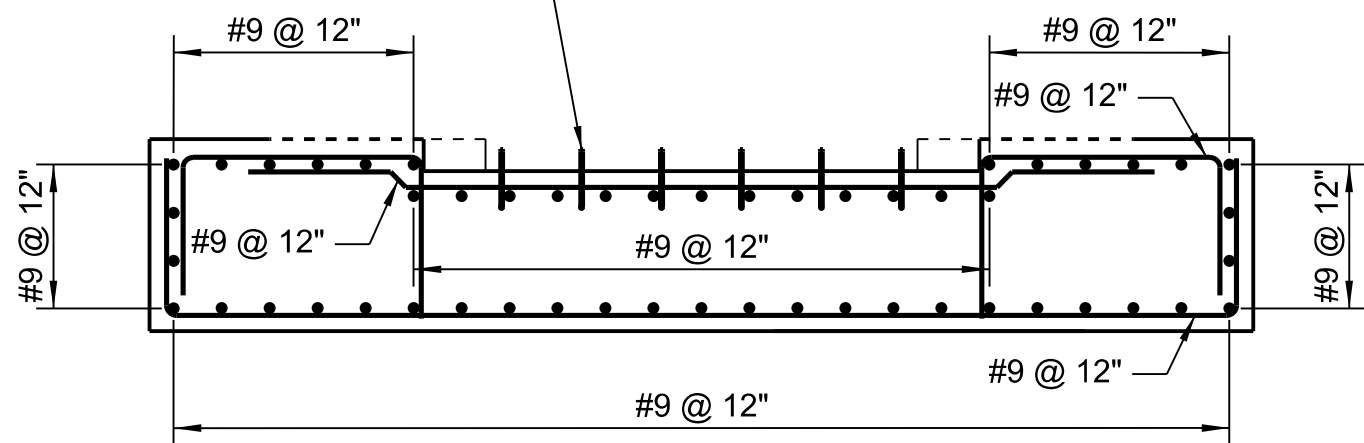
GRAPHIC SCALES



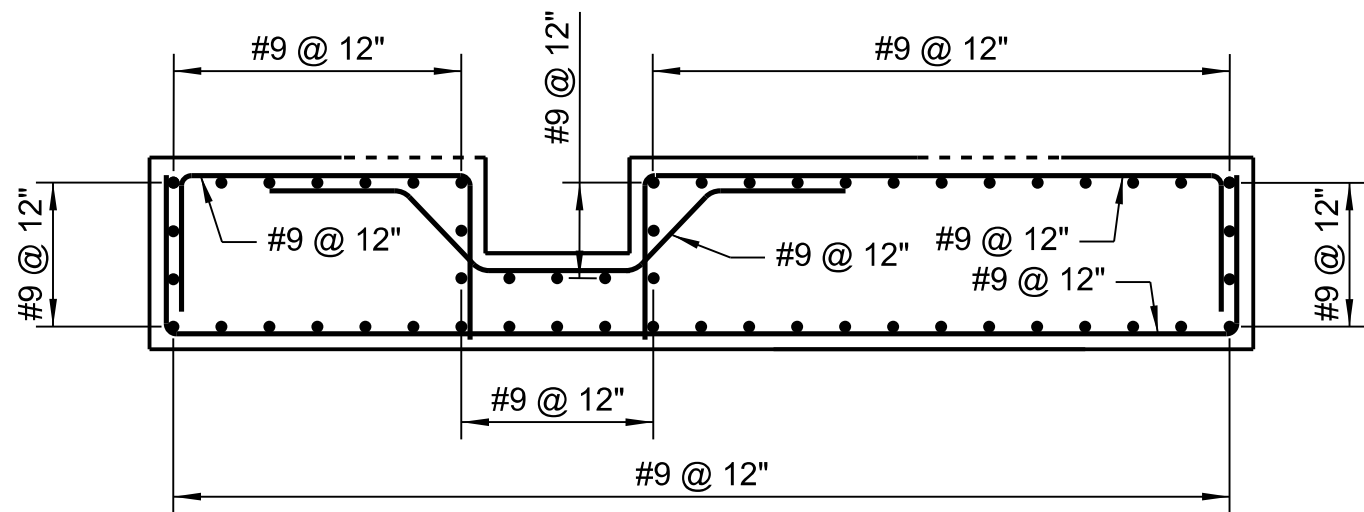
1
S-26

DETAIL
SCALE: B

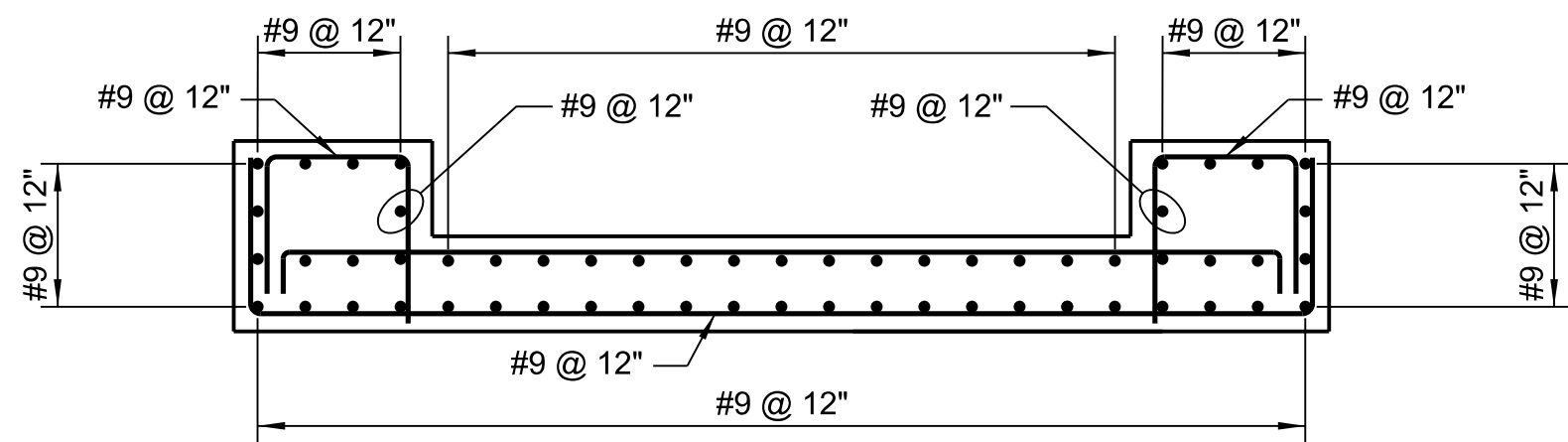
1. FOR REINFORCEMENT LAP SPLICE AND EMBEDMENT LENGTHS SEE TABLES ON SHEET S-01.



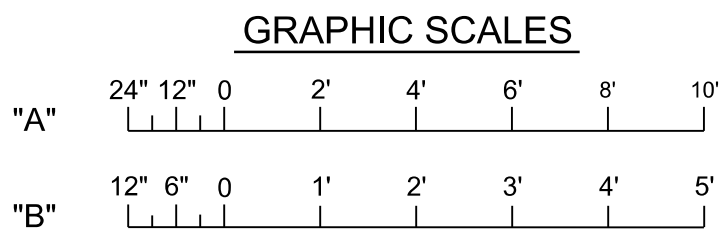
D
S-26



V
S-26



E
S-26

[illegible]

DEPARTMENT OF THE ARMY CORPS OF ENGINEERS JACKSONVILLE DISTRICT JACKSONVILLE, FLORIDA	DESIGNED BY:	J.S.F.	DRAWING DATE:	MARCH 2017
	CHECKED BY:	W.S.	PROJECT NO.:	10000000
	W.S.	C.B.G.	SOLICIT #	
	W.S.	C.B.G.	CONTRACT NO.:	N/A
	SUBMITTED BY:	M. CHRISTOFIDIS	FILE NUMBER:	N/A
	PILOT SCALE:	1"=20'	FILE NAME:	114527-HDRCR1P1-SB127.DGN

S-288 (HP-1) RECONSTRUCTION
STRUCTURAL
LANDSIDE HEADWALL
REINFORCEMENT

S-27

1. FOR REINFORCEMENT LAP SPLICE AND EMBEDMENT LENGTHS SEE TABLES ON SHEET S-01.

[illegible]

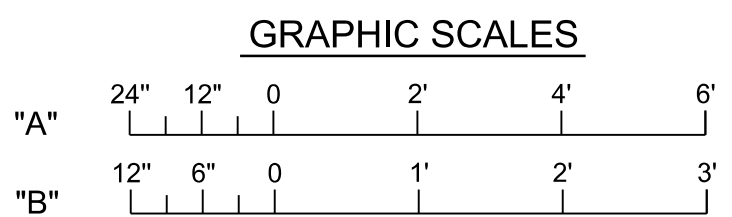
DEPARTMENT OF ARMY	J.S.F.	MARCH 2017
JACKSONVILLE DISTRICT	DWN BY:	SOLICITATION NO:
CORPS OF ENGINEERS	W.E.S.	SOLICIT #
JACKSONVILLE, FLORIDA	C.B.G.	CONTRACT NO:
	CHRISTOPHERS	
	FILE NUMBER:	
	PLOT SCALE: 1/31/2018	
	AS SHOWN	N/A
	FILE NAME:	
		114527-HHDCRHP1-SB3228.DGN

HERBERT HOOVER DIKE REHABILITATION
STRUCTURE REPLACEMENT

S-288 (HP-1) RECONSTRUCTION

STRUCTURAL
LANDSIDE HEADWALL
REINFORCEMENT

S-28



DRAWING NO.

S-29

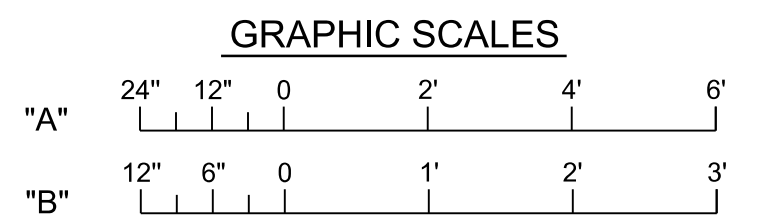
1. FOR REINFORCEMENT LAP SPLICE AND EMBEDMENT LENGTHS SEE TABLES ON SHEET S-01.
2. FOUNDATION REINFORCEMENT PENETRATES SCOUR CUT OFF WALL. SEE SPECIFICATION 31 41 16 FOR METHODOLOGY TO CUT HOLES IN SHEET PILING.
3. #7 HOOK BARS SHALL MATCH REINFORCEMENT IN CONDUIT.
4. 1 1/2" DIA X 36" LONG SMOOTH DOWEL, SEE DETAIL 7 ON SHEET S-56.



1 **DETAIL**
S-30 SCALE: B



\$STAMP\$



S-288 (HP-1) RECONSTRUCTION
STRUCTURAL
LANDSIDE HEADWALL
REINFORCEMENT

S-30

[illegible]

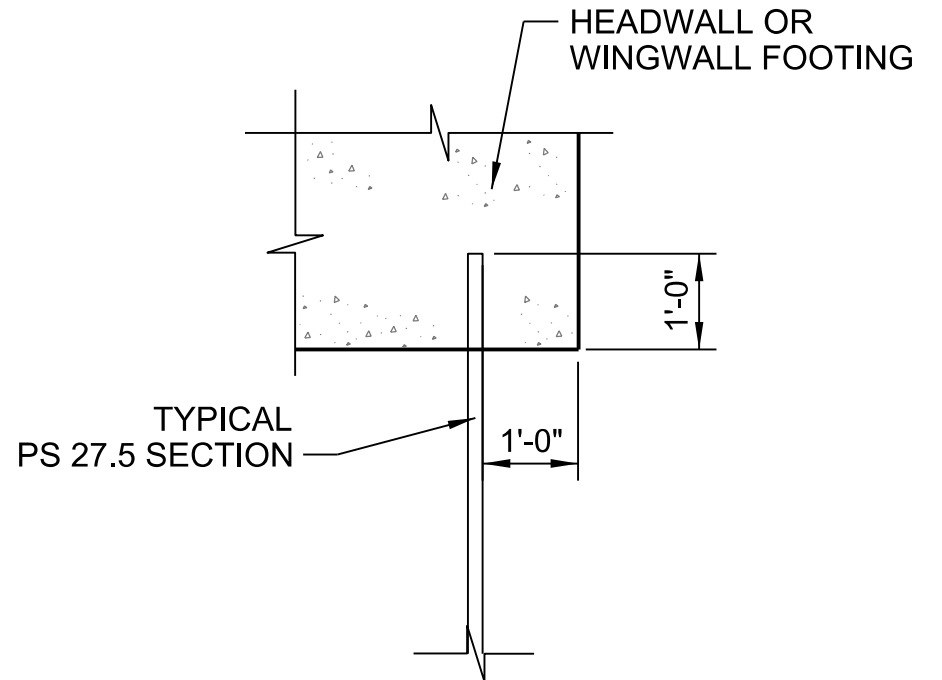
"A"

S-288 (HP-1) RECONSTRUCTION
STRUCTURAL
OUTLET CONDUIT
CULVERT REINFORCEMENT

DRAWING NO.
S-31

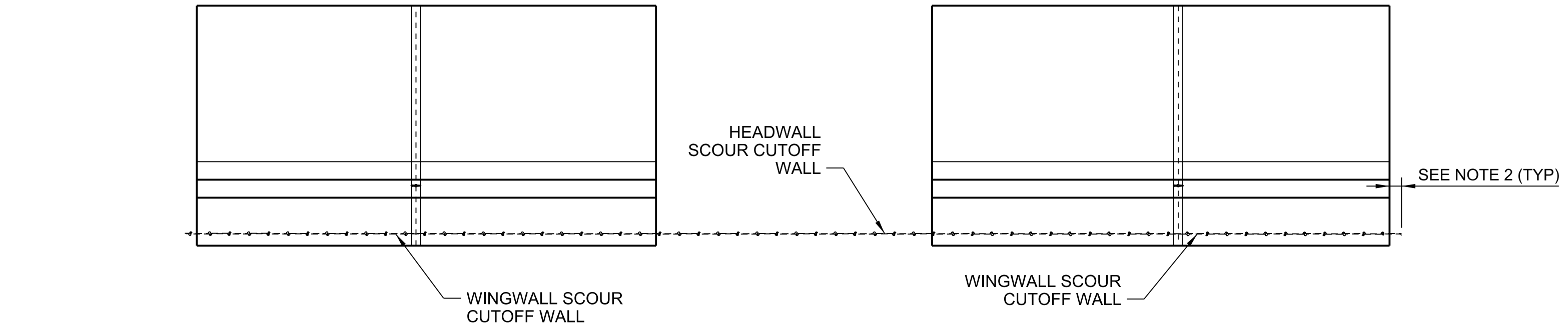


1. FOUNDATION REINFORCEMENT PENETRATES SCOUR CUT-OFF WALL. SEE SPECIFICATION 31 41 16 FOR METHODOLOGY TO CUT HOLES IN SHEET PILING.
2. SCOUR CUTOFF WALL SHALL EXTEND PAST STRUCTURE AT A MINIMUM OF 1'-0".

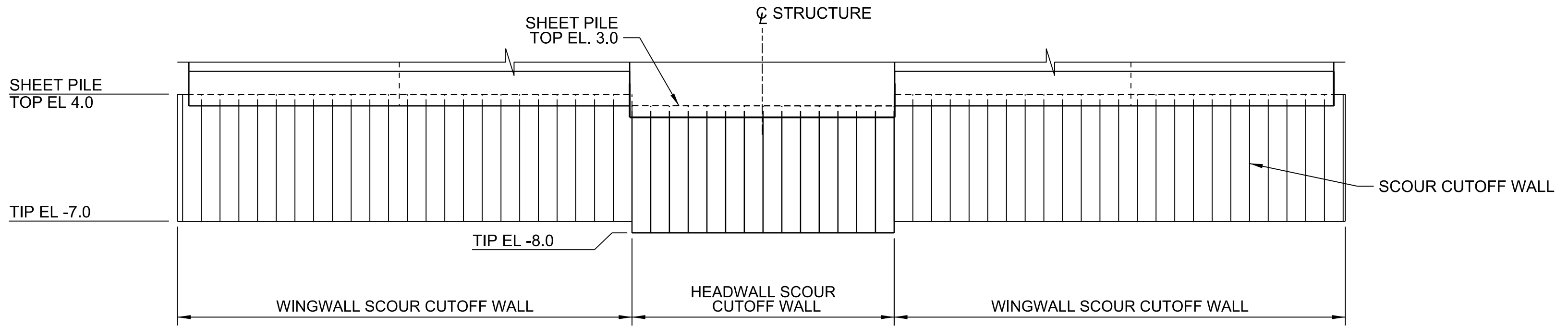


**TYPICAL PS 27.5 SHEETPILE
EMBEDMENT DETAIL**

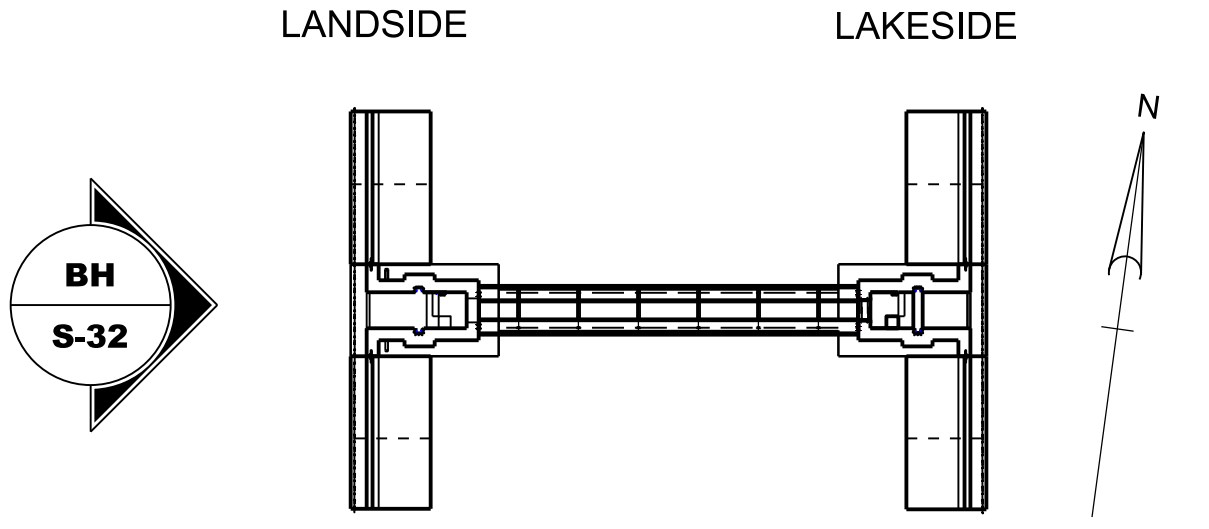
SCALE: N.T.S.



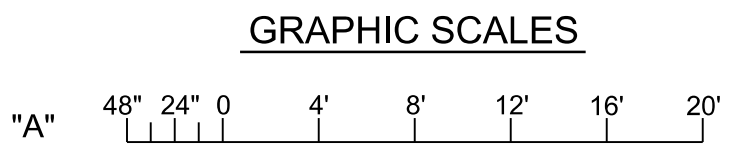
PLAN
SCALE: A



BH
S-32



KEY PLAN
SCALE: N.T.S.



DEPARTMENT OF THE ARMY CORPS OF ENGINEERS JACKSONVILLE DISTRICT JACKSONVILLE, FLORIDA	DATE: 11/15/2017	ISSUED BY: MARCH 2017
	FILE NUMBER: 114527-HDRCRHP-SB232.DGN	FILE NUMBER: N/A
	ASSIGNED TO: 3132018	ASSIGNED TO: N/A
	FILE NAME: 114527-HDRCRHP-SB232.DGN	FILE NAME: N/A

HERBERT HOOVER DIKE REHABILITATION
STRUCTURE REPLACEMENT

S-288 (HP-1) RECONSTRUCTION

STRUCTURAL

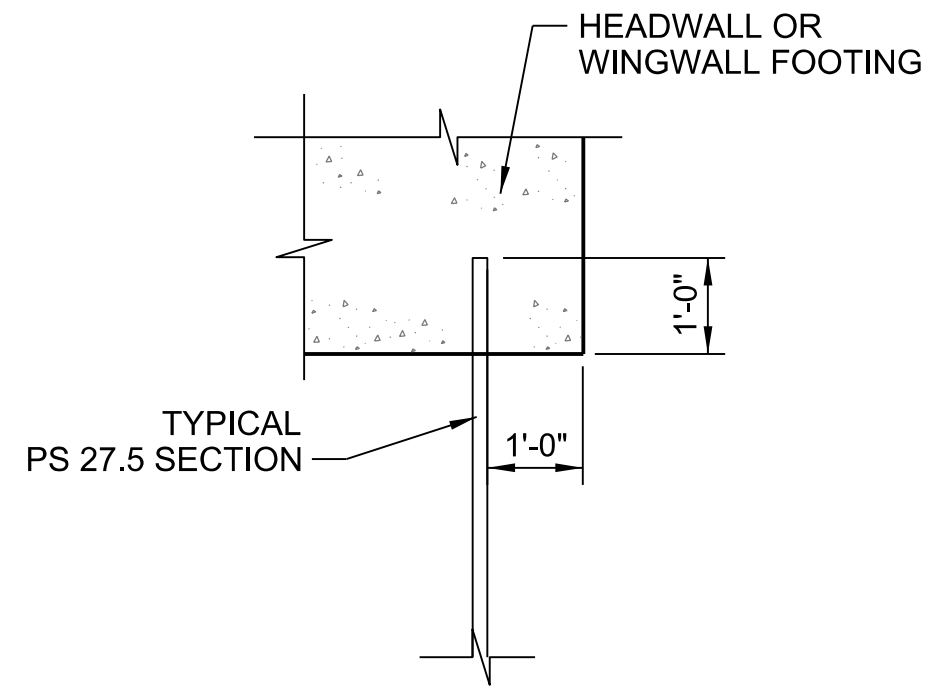
LANDSIDE HEADWALLS
SCOUR CUTOFF WALLS

DRAWING NO.

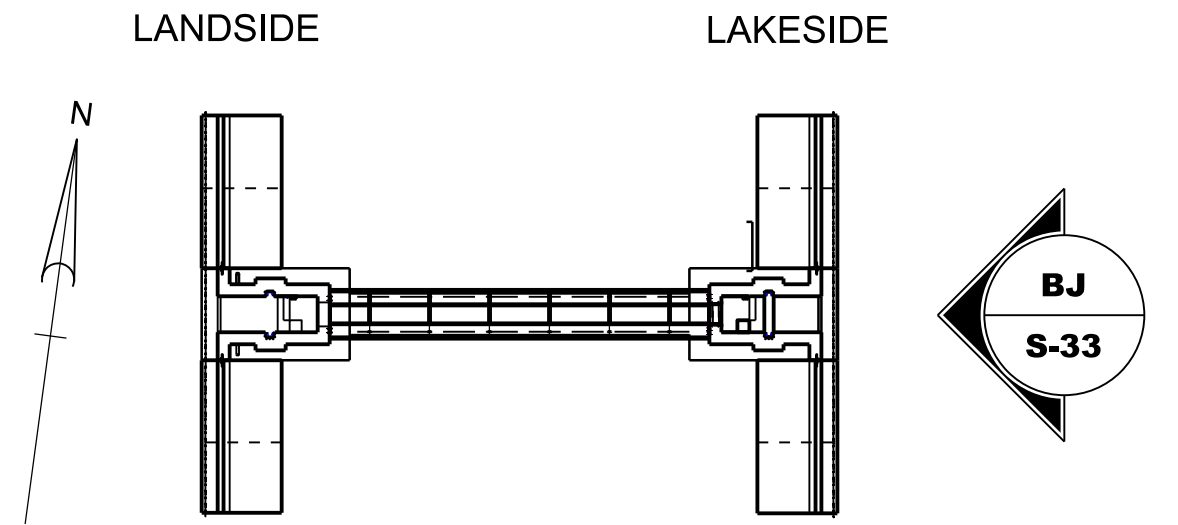
S-32



1. FOUNDATION REINFORCEMENT PENETRATES SCOUR CUT-OFF WALL. SEE SPECIFICATION 31 41 16 FOR METHODOLOGY TO CUT HOLES IN SHEET PILING.
2. SCOUR CUTOFF WALL SHALL EXTEND PAST STRUCTURE AT A MINIMUM OF 1'-0".

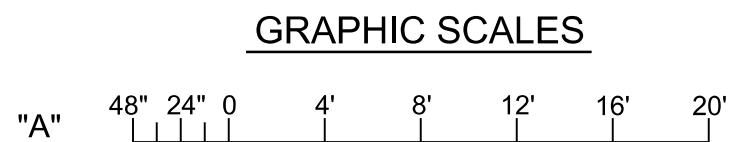


PLAN
SCALE: A



BJ
S-33

ELEVATION
SCALE: A

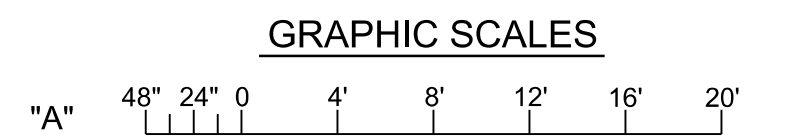


DEPARTMENT OF THE ARMY	DESIGNED BY:	CONTRACT NO.:
CORPS OF ENGINEERS	DRAWN BY:	SUBMITTED BY:
JACKSONVILLE DISTRICT	W.E.S.	M. CHRISTOFIDIS
JACKSONVILLE, FLORIDA	C.B.G.	N/A
		DATE: 3/13/2018
		FILE NAME: 114527-HHDCRHP1-SB233.DGN

S-288 (HP-1) RECONSTRUCTION
STRUCTURAL
LAKESIDE HEADWALLS
SCOUR CUTOFF WALLS

RAWING NO.

S-33

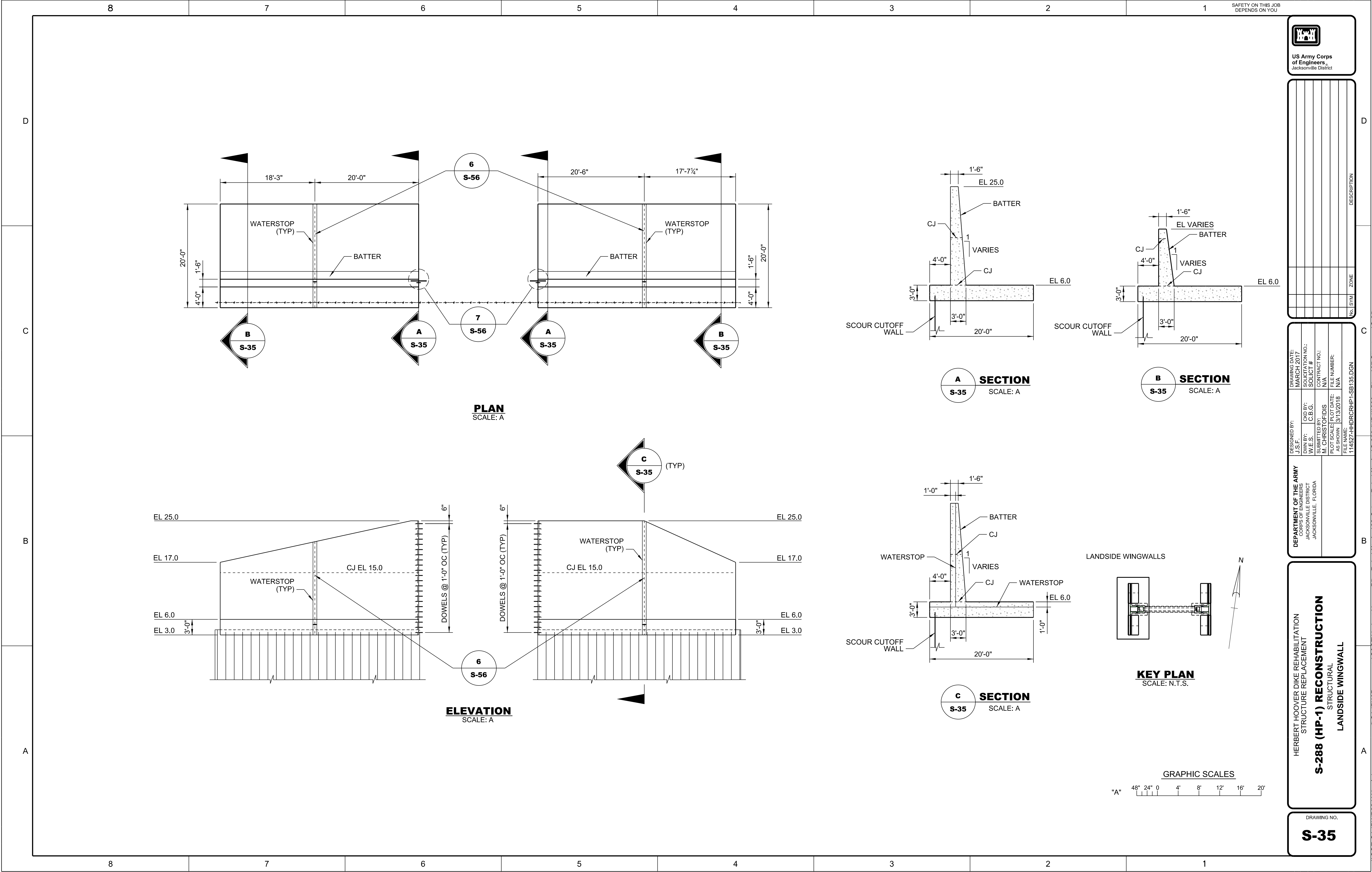


J.S.F.	MARCH 2017
JACKSONVILLE DISTRICT CORPS OF ENGINEERS	PROJECT NO.: N/A
JACKSONVILLE, FLORIDA	SOLICIT #
	C.B.G.
	C.O.D.#
	W.E.S.
	C.B.G.
	CONTRACT NO.:
	N/A
	M. SUBMITTED TO:
	FIDIS
	PLOT SCALE/ PLOT DATE:
	FILE NUMBER:
	N/A
	AS SHOWN: 3/13/2018
	114527-HHDCRHP-LSB13A DGN

S-288 (HP-1) RECONSTRUCTION
STRUCTURAL
LAKESIDE WINGWALL

DRAWING NO.

-34






- NOTES:

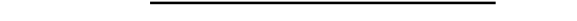


GRAPHIC SCALES

"A"



"B"



DEPARTMENT OF THE ARMY	ISSUED BY:	1 FEBRUARY 2016
CORPS OF ENGINEERS	J.S.F.	
1000 W. 10TH STREET	DWN BY:	
JACKSONVILLE, FLORIDA	W.E.S.	
	C.B.G.	
	SUBMITTED BY:	
	M. CHRISTOPHIDS	
	AS SHOWN	
	FILE NUMBER:	
	FILE NAME:	
	114527-HSDRCKW2-SB136.dgn	

S-288 (HP-1) RECONSTRUCTION
STRUCTURAL
LAKESIDE WINGWALL
REINFORCEMENT

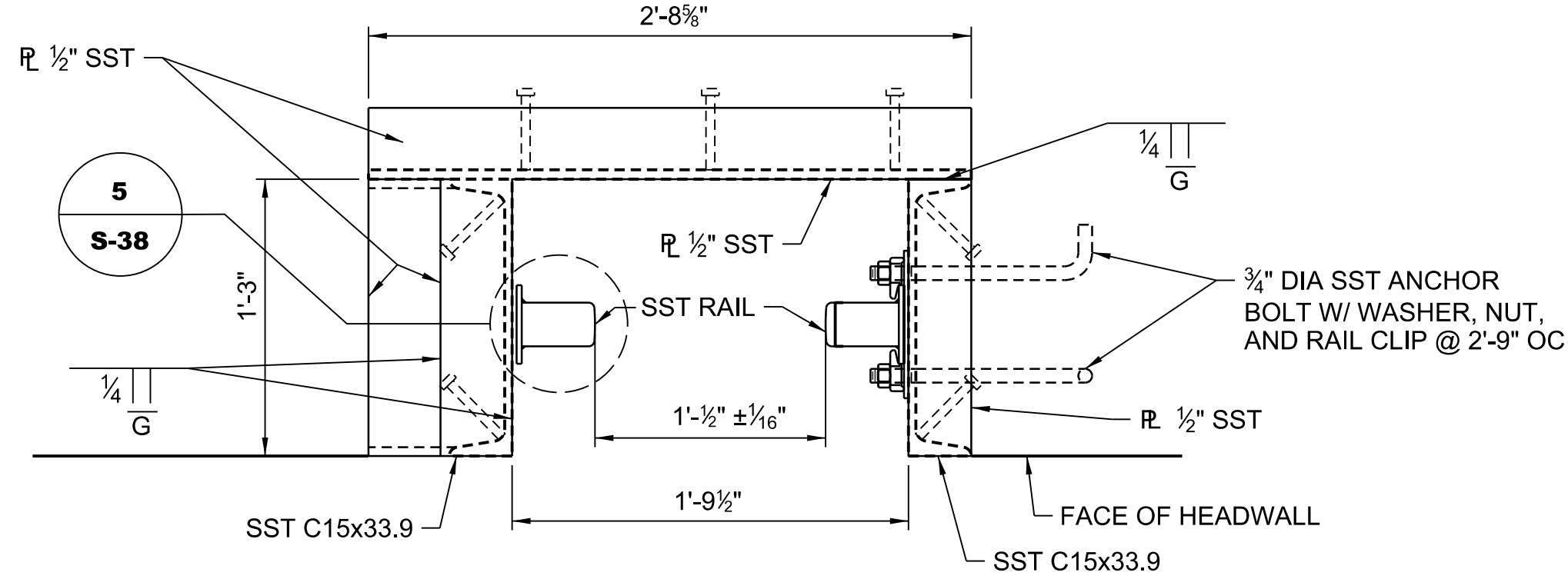
DRAWING NO.

S-36

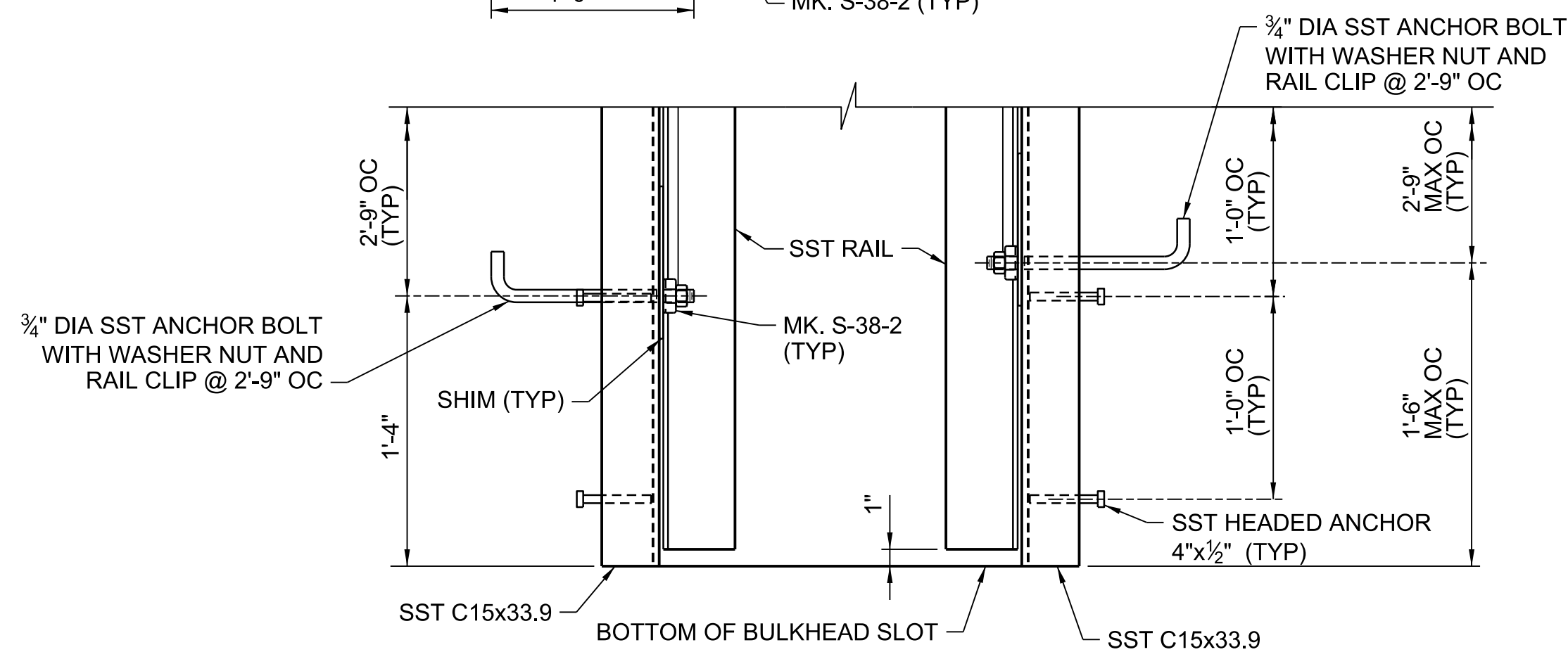
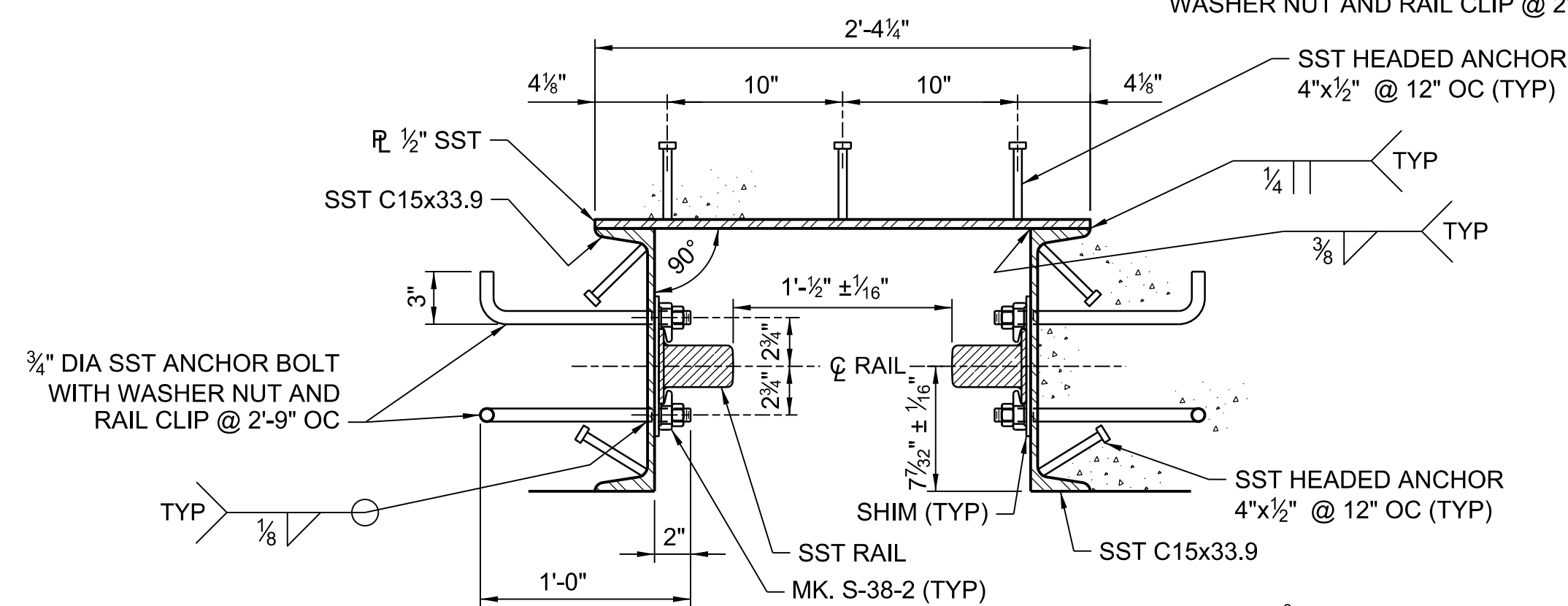
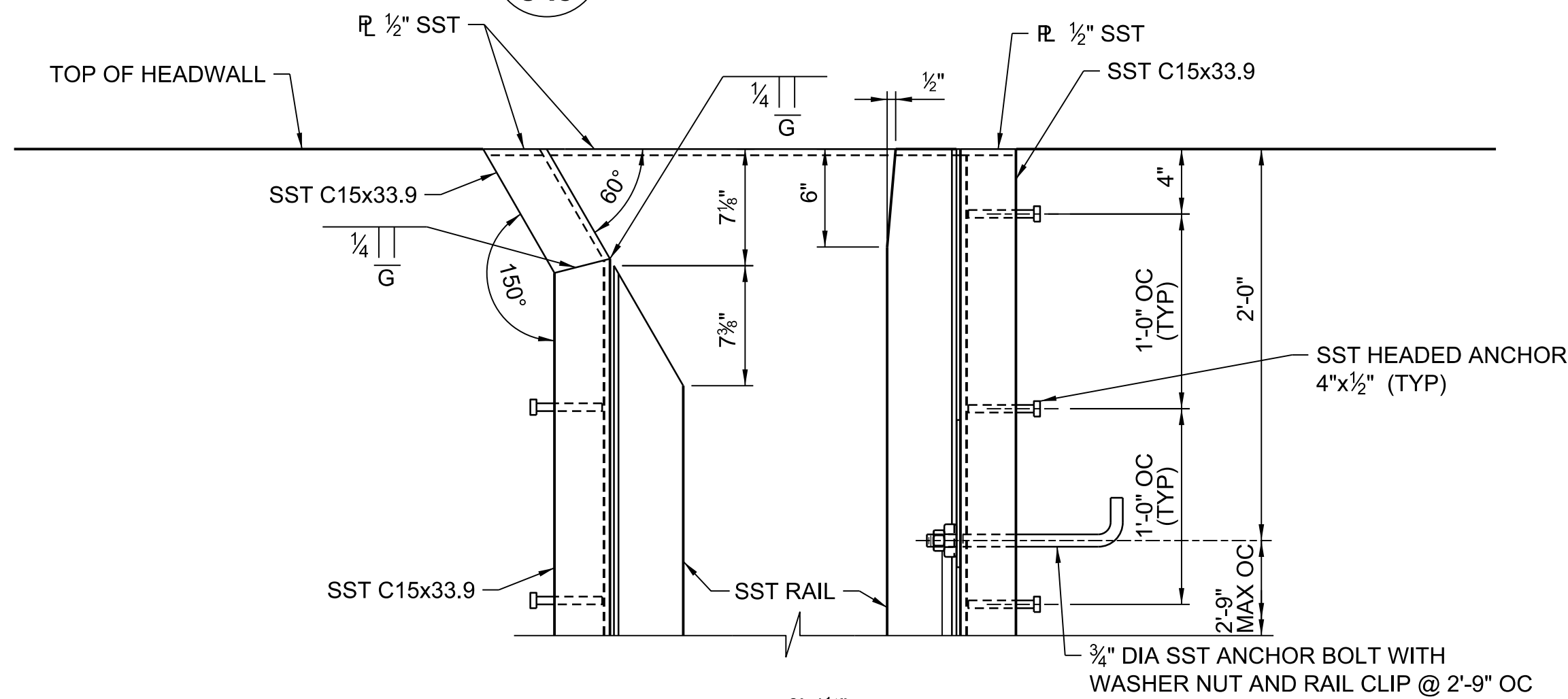
- [illegible]



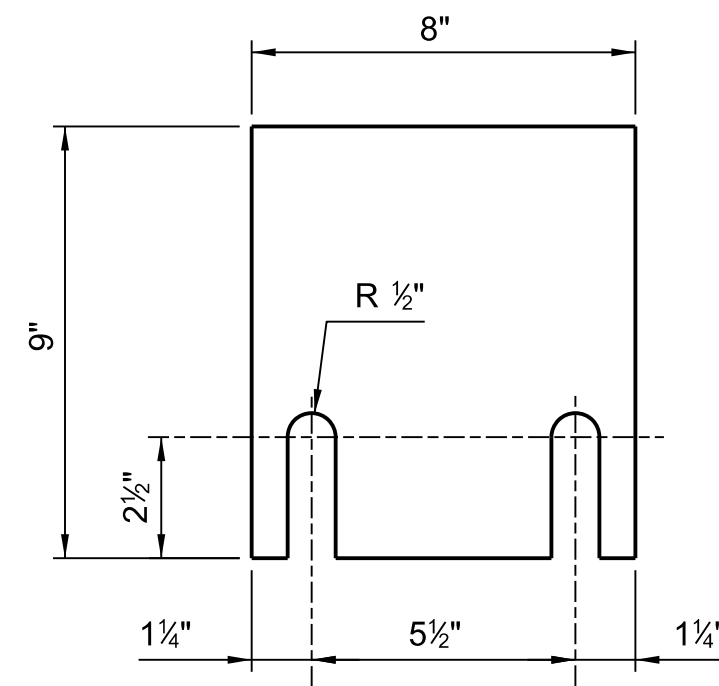
S-37



1 PLAN - BULKHEAD SLOT
S-08 SCALE: NTS
S-15



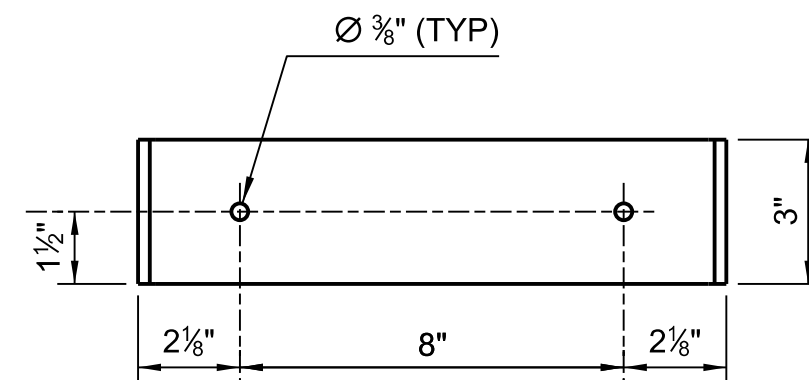
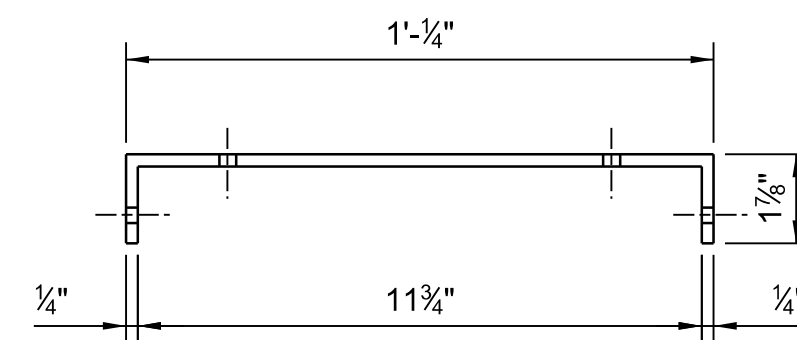
2 **DETAIL**
S-07
S-10
S-14
S-17
SCALE: A



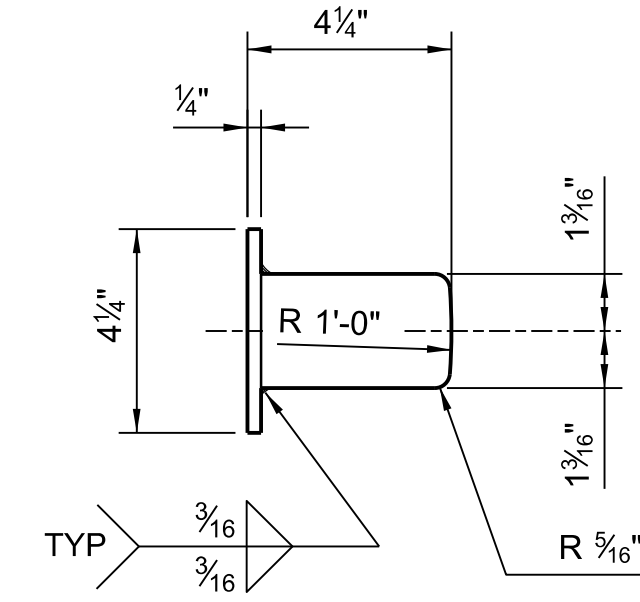
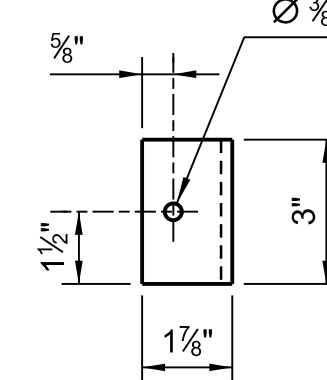
MAT'L: STAINLESS STEEL

CONTRACTOR SHALL PROVIDE 3- $\frac{1}{8}$ " SHIMS
AND 2- $\frac{1}{16}$ " SHIMS FOR EACH PAIR OF
ANCHOR BOLTS.

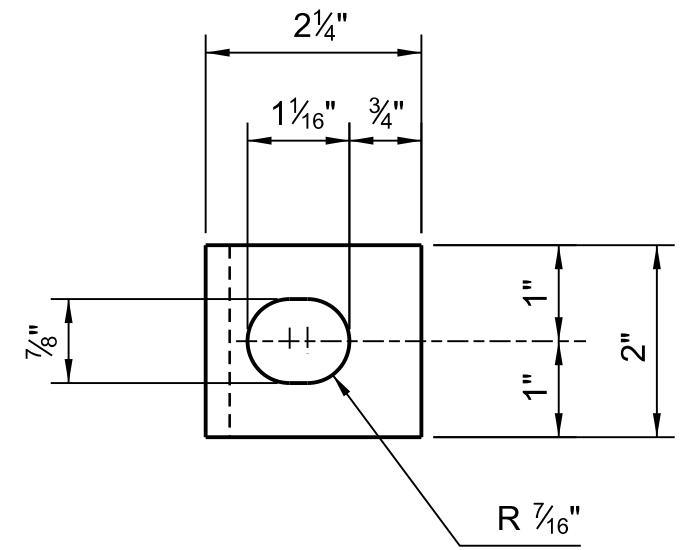
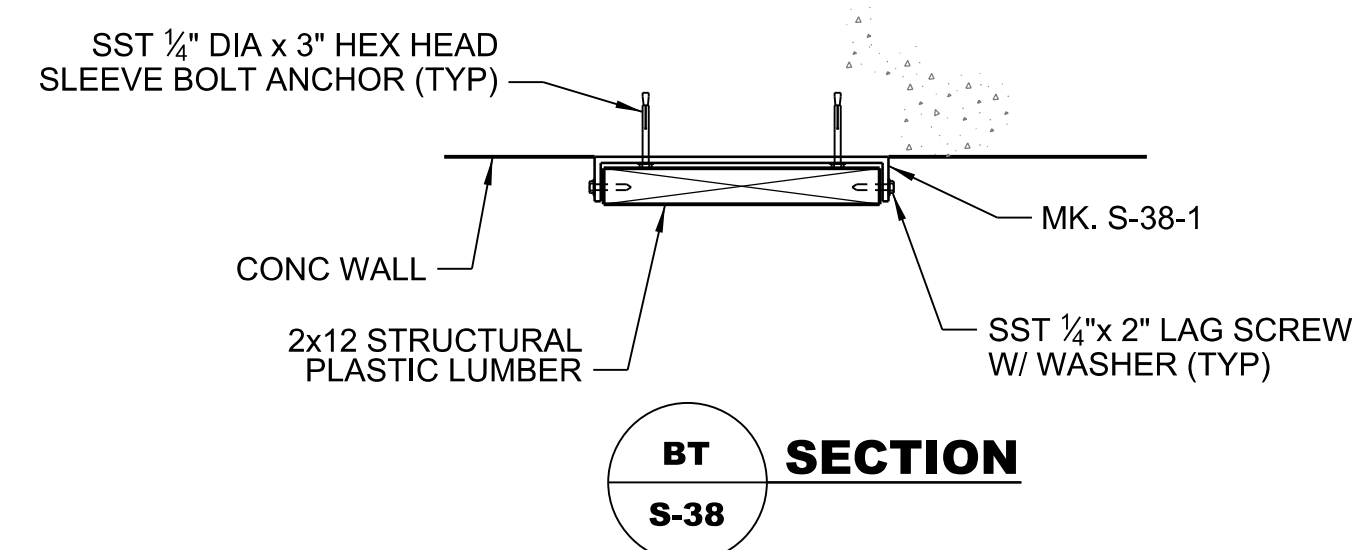
SHIM DETAIL
SCALE: N.T.S.



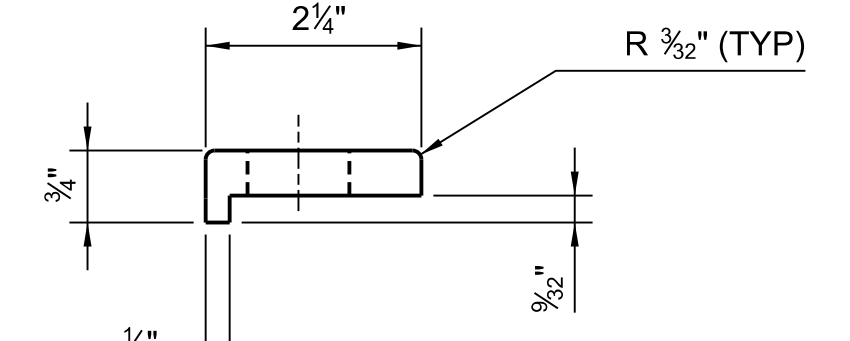
BRACKET	MK. S-38-1
MATL: ¼" SST TYPE 316L	LAKESIDE 5 REQ'D LANDSIDE 5 REQ'D



5	RAIL PROFILE DETAIL
S-38	SCALE: NTS



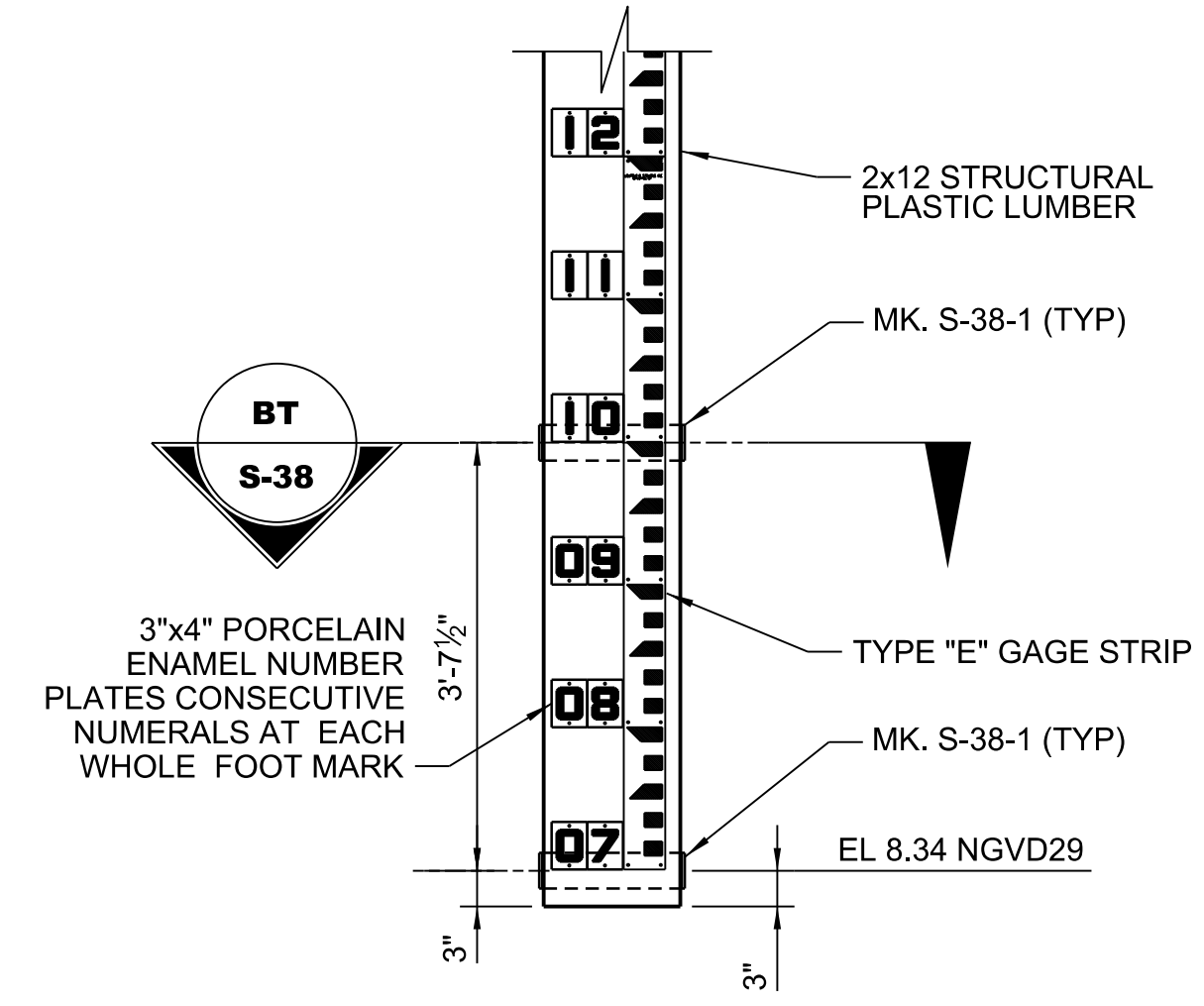
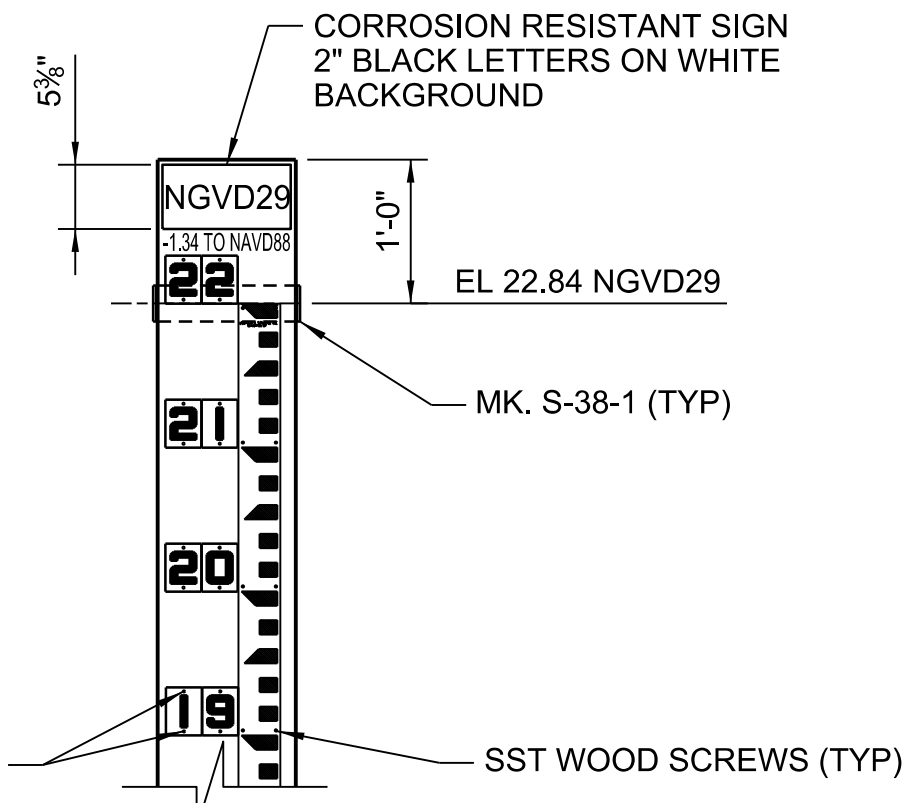
FRONT VIEW



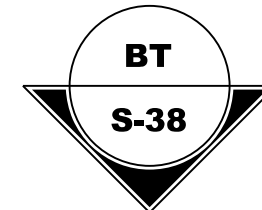
TOP VIEW

RAIL CLIP **MK. S-38-2**

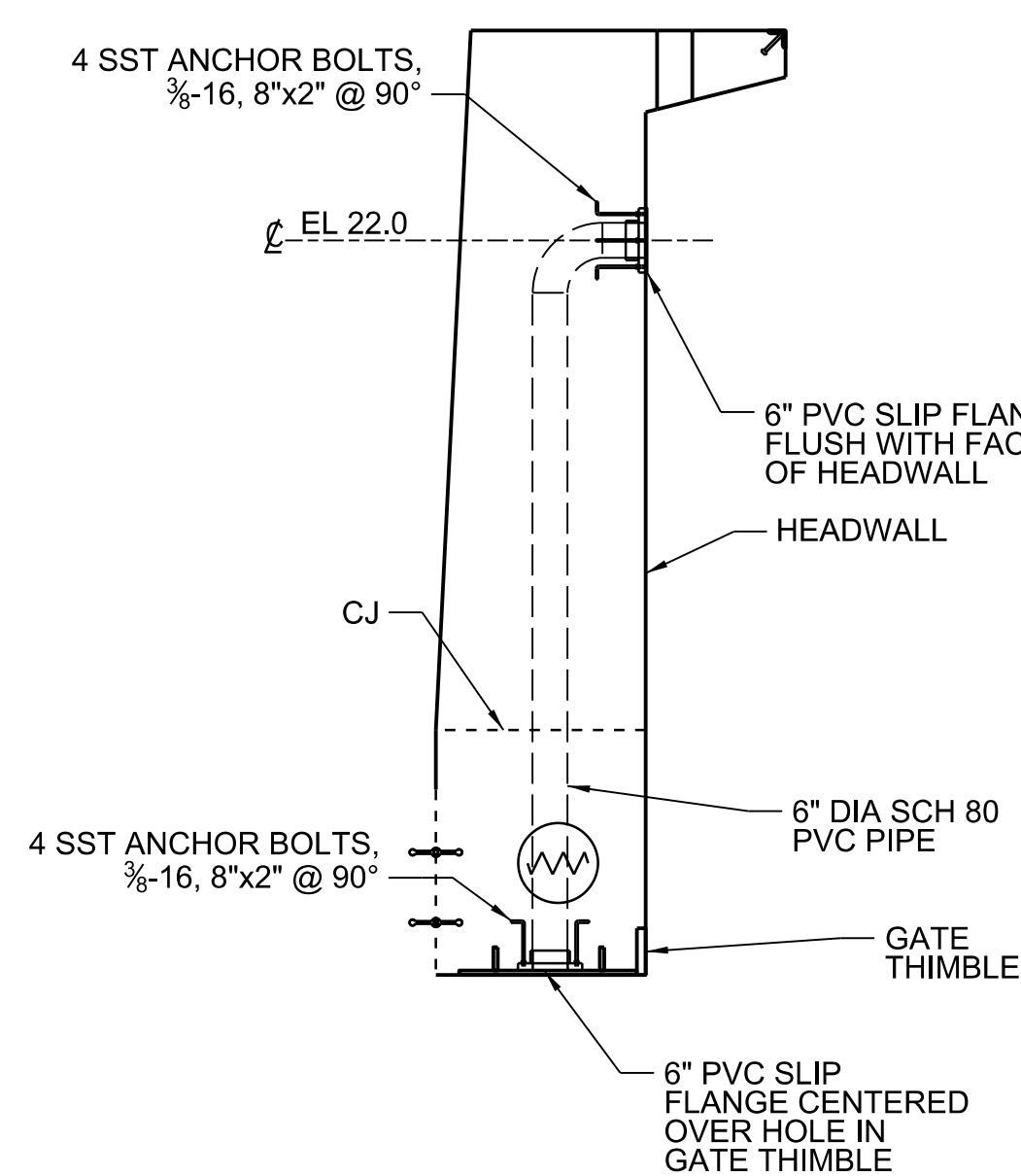
MATL: SST TYPE 316



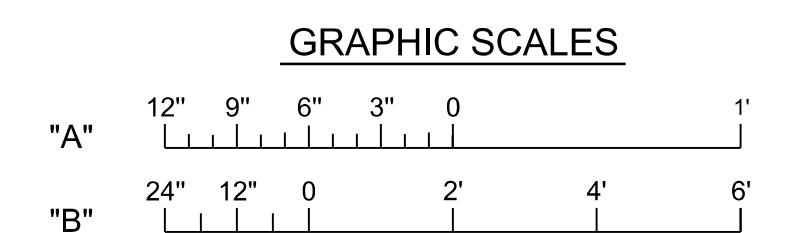
ELEVATION



3 **STAFF GAGE DETAIL**
S-38 SCALE: NTS



4 CULVERT VENT PIPE DETAIL
S-07 SCALE: NTS



S-288 (HP-1) RECONSTRUCTION
STRUCTURAL
BULKHEAD SLOT DETAILS AND METAL FABRICATIONS

DRAWING NO.
6-38

[illegible]

DEPARTMENT OF THE ARMY		MARCH 2017	
ENGINEER		SOLICITATION NO.:	
JACKSONVILLE DISTRICT		C.B.T. #	
JACKSONVILLE, FLORIDA		CONTRACT NO.:	
M. CHRISTOPHER		N/A	
PLOT SCALE		FILE NUMBER:	
AS SHOWN		3/13/2018	
FILE NAME:		N/A	
114527-HHDCRHP1-SF539.DGN			

S-288 (HP-1) RECONSTRUCTION
STRUCTURAL
BULKHEAD SILL AND ARMOUR DETAILS

S-39

2. PUMP GROUT INTO CENTER GROUT HOLES UNTIL GROUT IS SEEN IN ALL HOLES.



Diagram illustrating the cross-section of a parapet wall. The wall is 5'-0" wide and 9'-0" high. The wall is constructed using SST L3x3x1/2 angle iron. A detail callout shows a cross-section of the angle with a 1/4" thickness and a G-grip. A circular logo with "BW" and "S-39" is also present.

QTY REQ'D 1

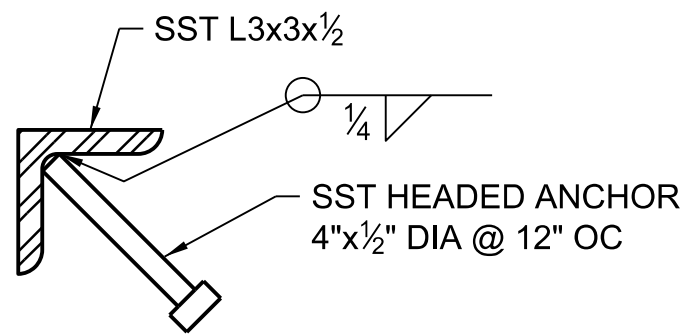


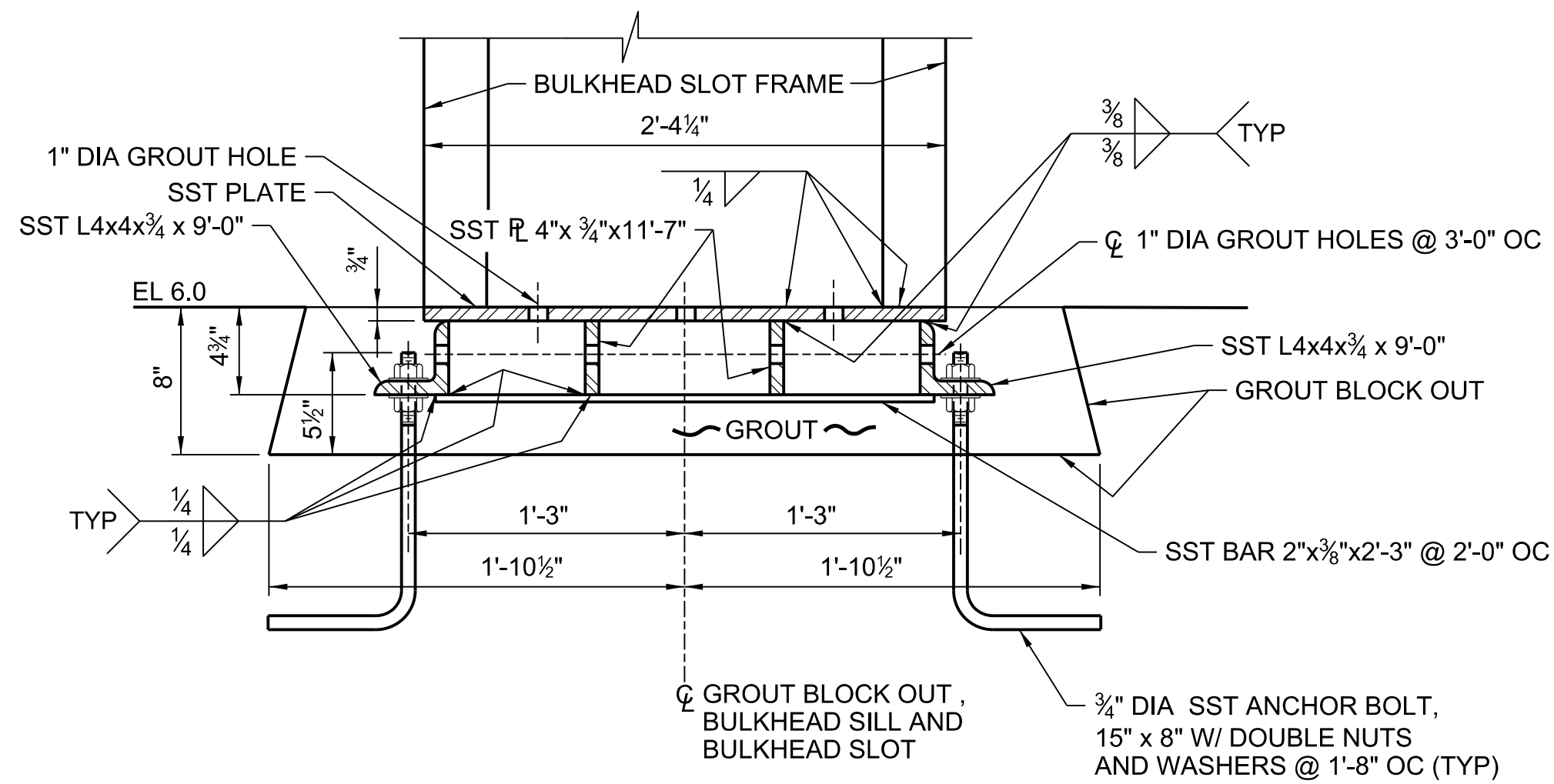
Diagram illustrating the face of the headwall and the MK. S-39-2 sign. The sign is labeled **BX** and **S-39**. The face of the headwall is shown with a width of 4" on the left and 4" on the right. The sign is 6' long, with 6 spaces @ 9" between the vertical lines. The MK. S-39-2 sign is shown below the headwall, with a width of 5'-2" and a height of 1".

NOTE: SUPPORT ANGLE ON OTHER SIDE IS OPPOSITE HAND

Diagram illustrating the top of the operating platform. The platform is 7" wide and 10" high. A 3" dimension is shown for the height of the platform edge. A component labeled 'MK' is indicated by an arrow pointing to the platform edge.

- SST 3/4" DIA ANCHOR
BOLT W/ NUT AND
WASHER @ 9" OC

PLATFORM SUPPORT INSTALLATION DETAIL



BV
S-39

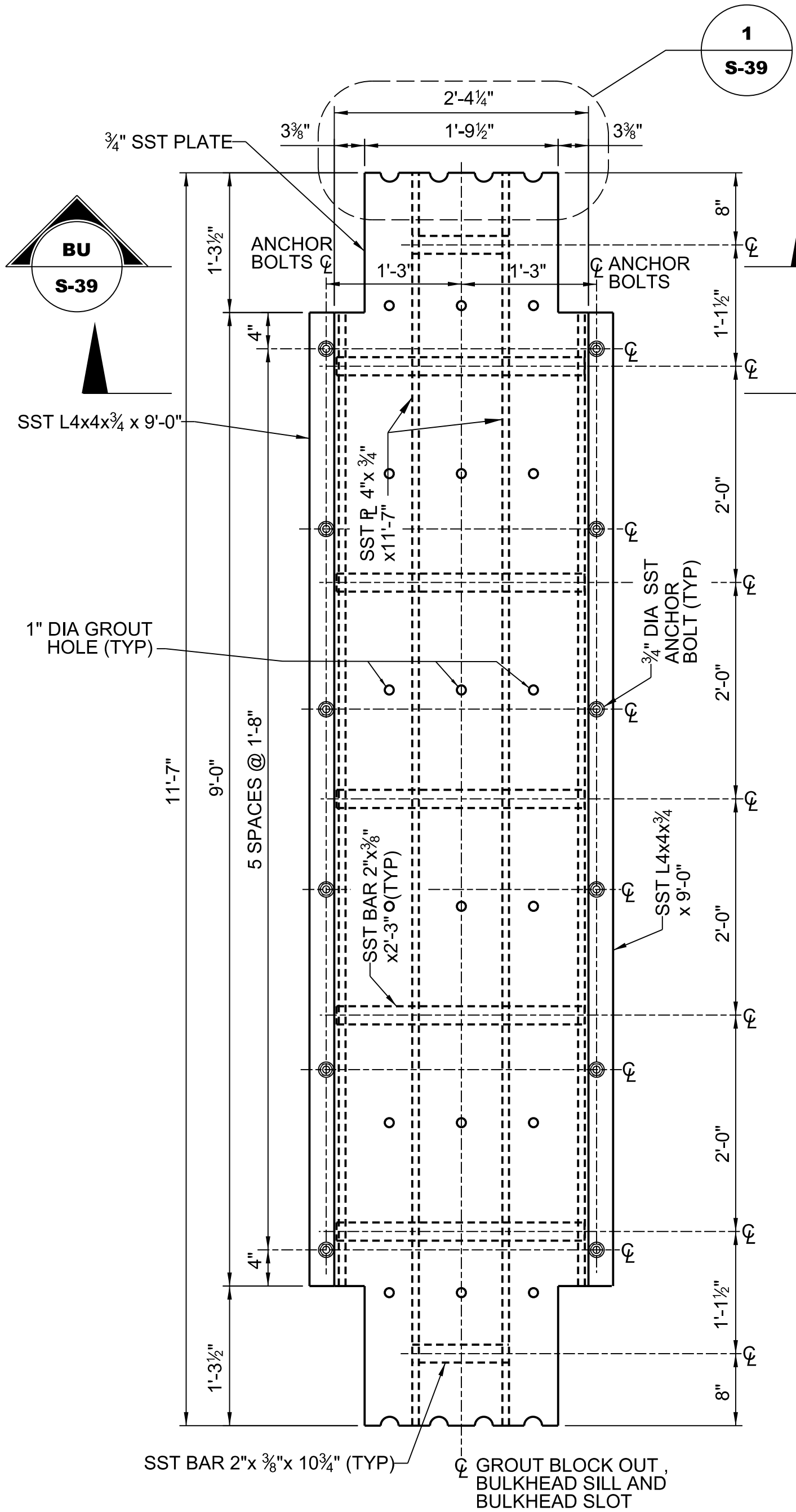
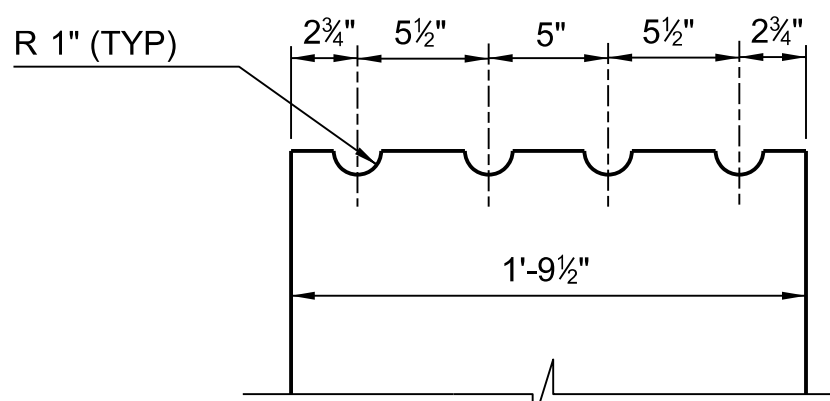


Diagram illustrating the elevation view of a window sill assembly. The assembly consists of an SST PLATE (1'-9 1/2" wide) supported by two SST L 4"x 3/4"x 11'-7" brackets. The brackets are spaced 5 3/8" apart. The assembly is supported by two SST BAR 2"x 3/8"x 10 3/4" brackets. The total width of the assembly is 1'-9 1/2". The height of the assembly is 3/8". The material is specified as SST (Stainless Steel).

BU
S-39



1 **DETAIL**
S-39 SCALE: A



DRAWING NO.

S-40

"A"





1. CONTRACTOR SHALL PROVIDE, BUT NOT INSTALL, 2 HORIZONTAL SAFETY LINES IN ACCORDANCE WITH DETAIL 4 OF DWG NO. S-59. CONTRACTOR SHALL DELIVER THE 2 HORIZONTAL SAFETY LINES TO THE U.S. ARMY CORPS OF ENGINEERS, SOUTH FLORIDA OPERATIONS OFFICE, CLEWISTON FLORIDA.




"A"

S-288 (HP-1) RECONSTRUCTION
STRUCTURAL
LANDSIDE HEADWALL FIXTURES


S-41

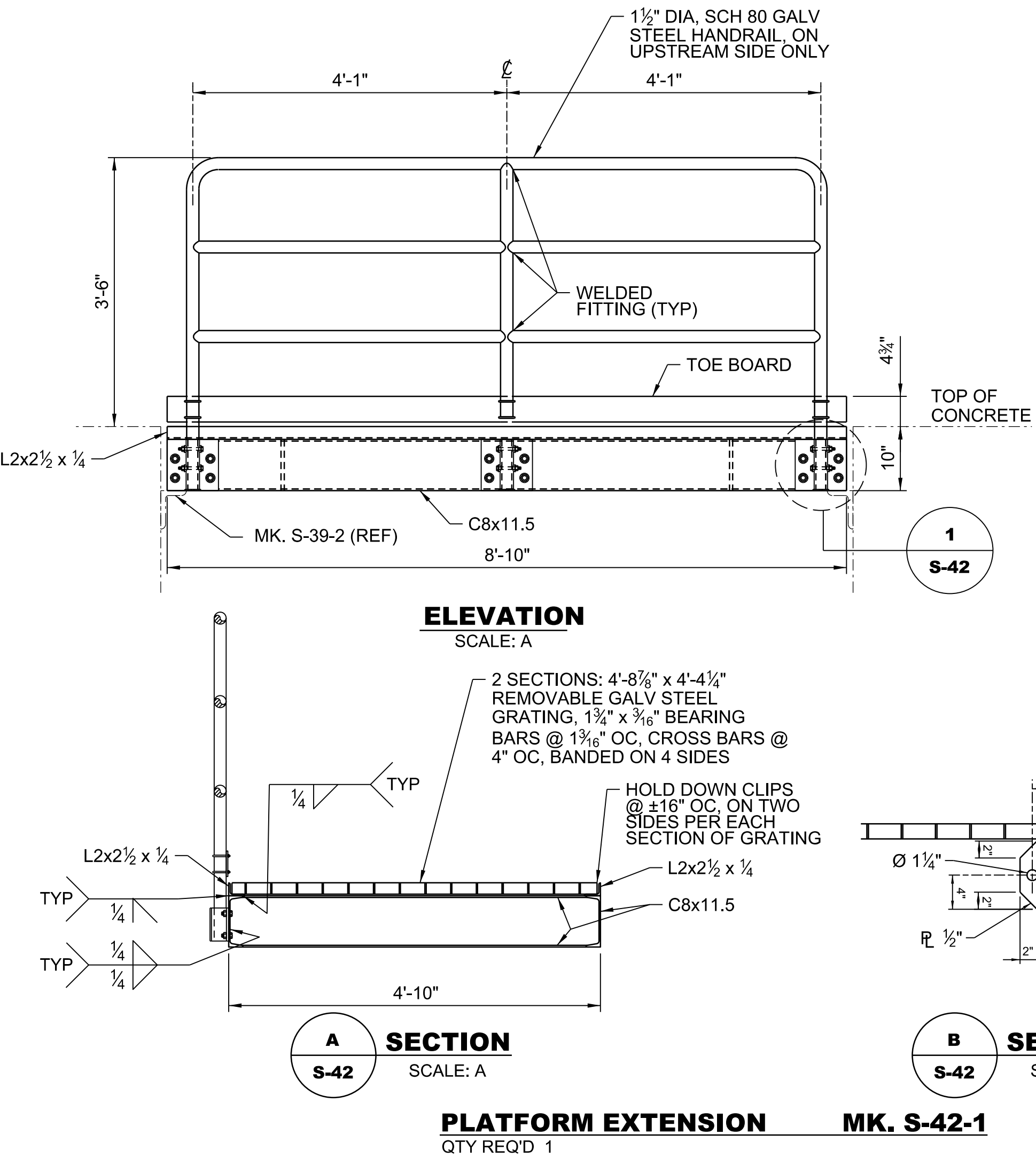
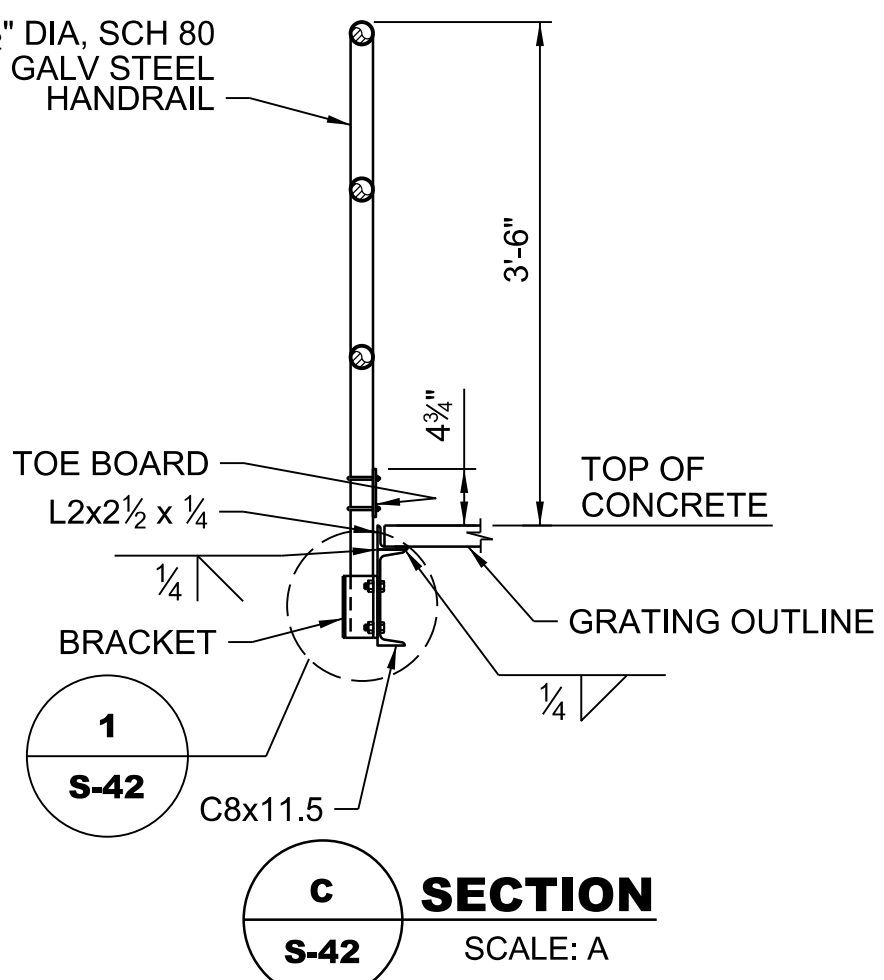
GRAPHIC SCALES

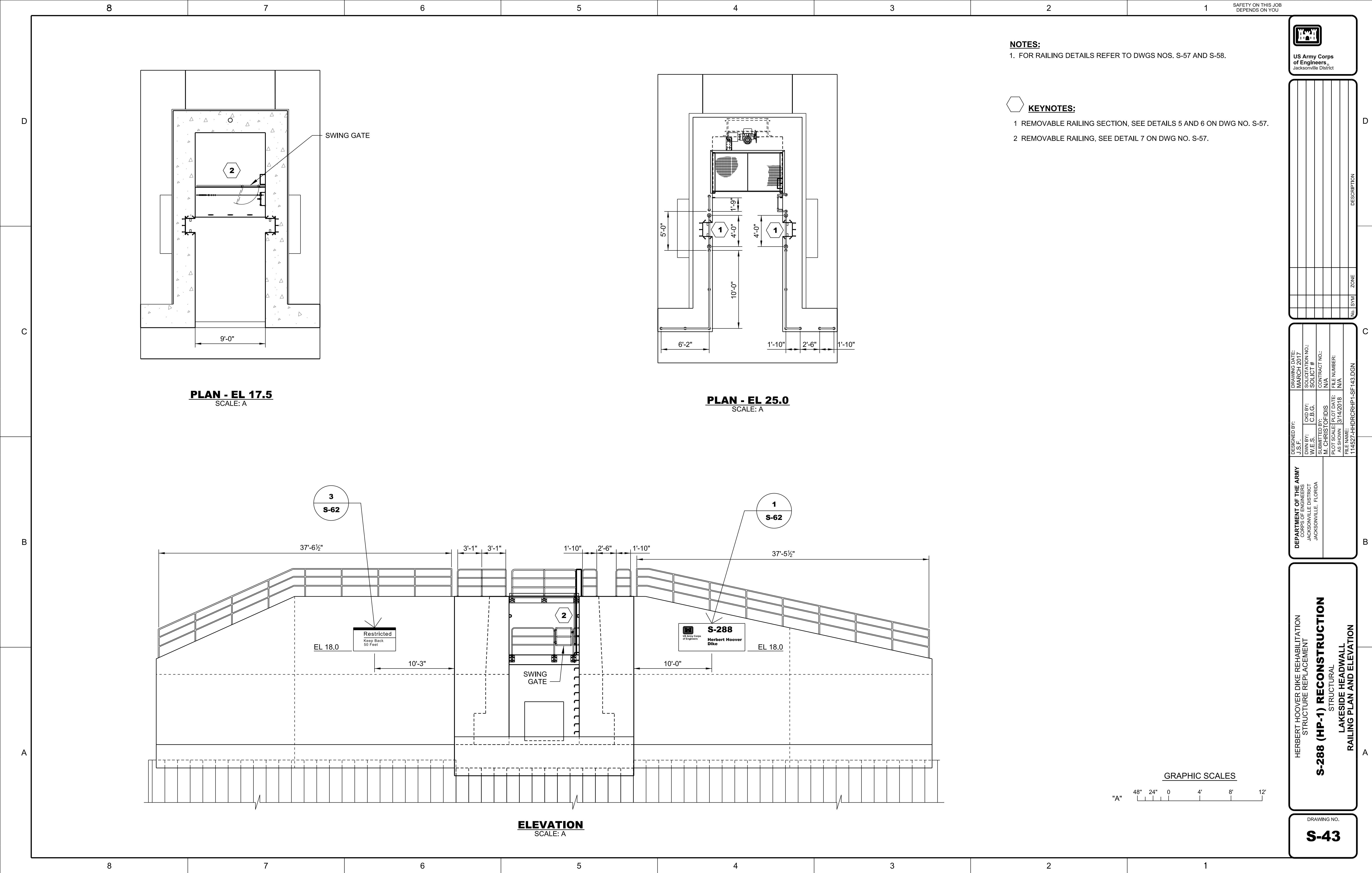
"A"

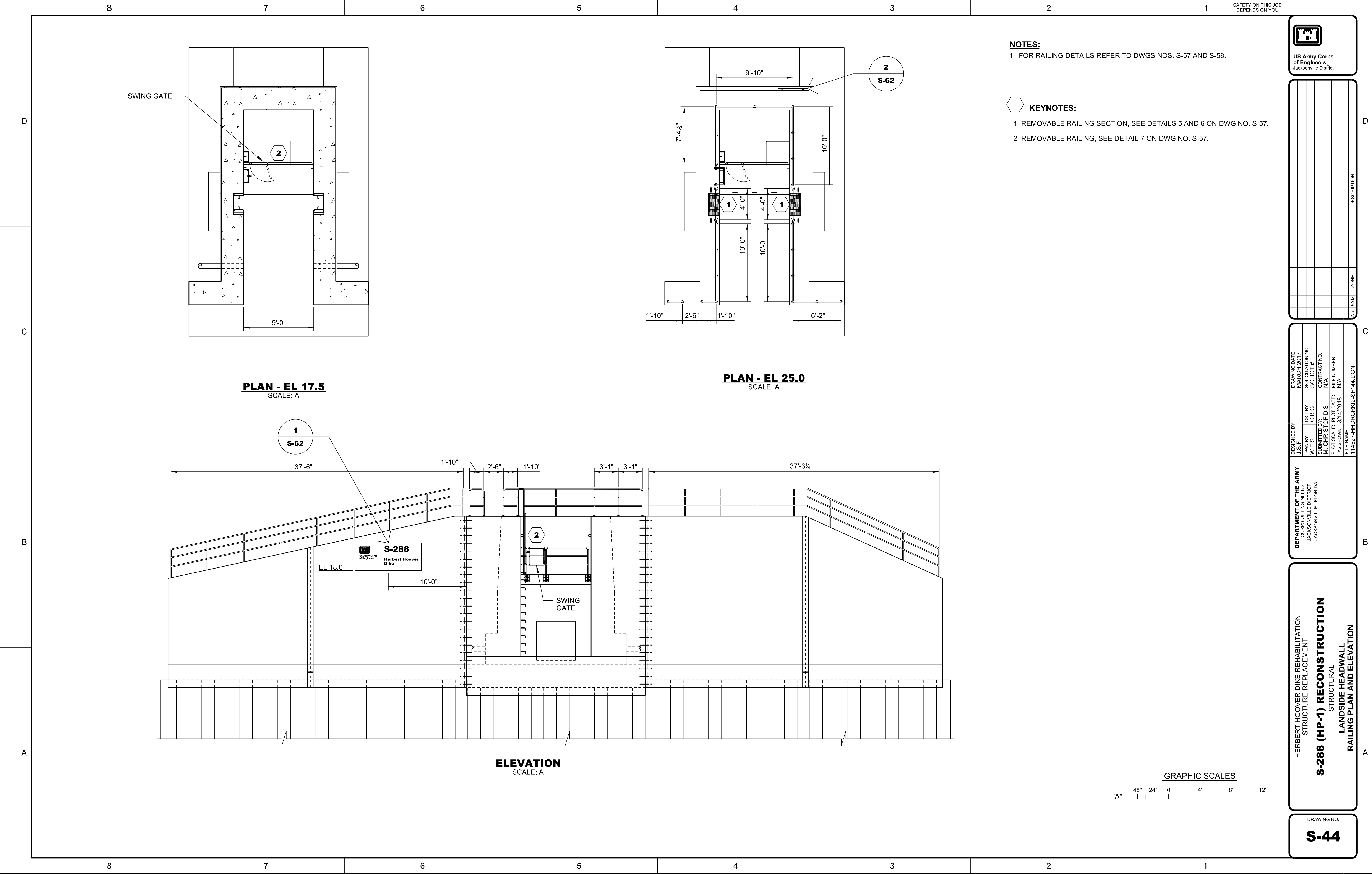


"B"











US Army Corps
of Engineers
Jacksonville District

D

DESCRIPTION
ZONE
No. BYW

C

B

A

DESIGNED BY: J.S.F.	DESIGNED BY: J.S.F.	DESIGNED BY: J.S.F.	DESIGNED BY: J.S.F.
DATE: MARCH 2017	DATE: MARCH 2017	DATE: MARCH 2017	DATE: MARCH 2017
BY: C.D.G.	BY: C.D.G.	BY: C.D.G.	BY: C.D.G.
FOR: SOLICITATION NO.	FOR: SOLICITATION NO.	FOR: SOLICITATION NO.	FOR: SOLICITATION NO.
CONTRACT NO.:	CONTRACT NO.:	CONTRACT NO.:	CONTRACT NO.:
FILE NAME:	FILE NAME:	FILE NAME:	FILE NAME:
114627-HDRCRHP1-SC545.dgn	114627-HDRCRHP1-SC545.dgn	114627-HDRCRHP1-SC545.dgn	114627-HDRCRHP1-SC545.dgn

HERBERT HOOVER DIKE REHABILITATION
STRUCTURE REPLACEMENT
S-288 (HP-1) RECONSTRUCTION
STRUCTURES
TYPICAL DETAILS
MANATEE SCREEN PLAN AND SECTIONS

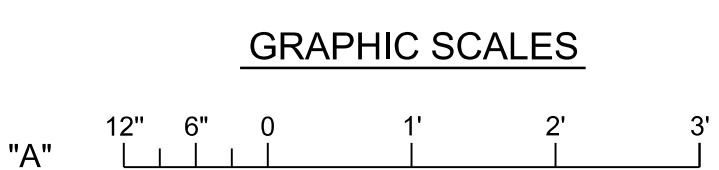
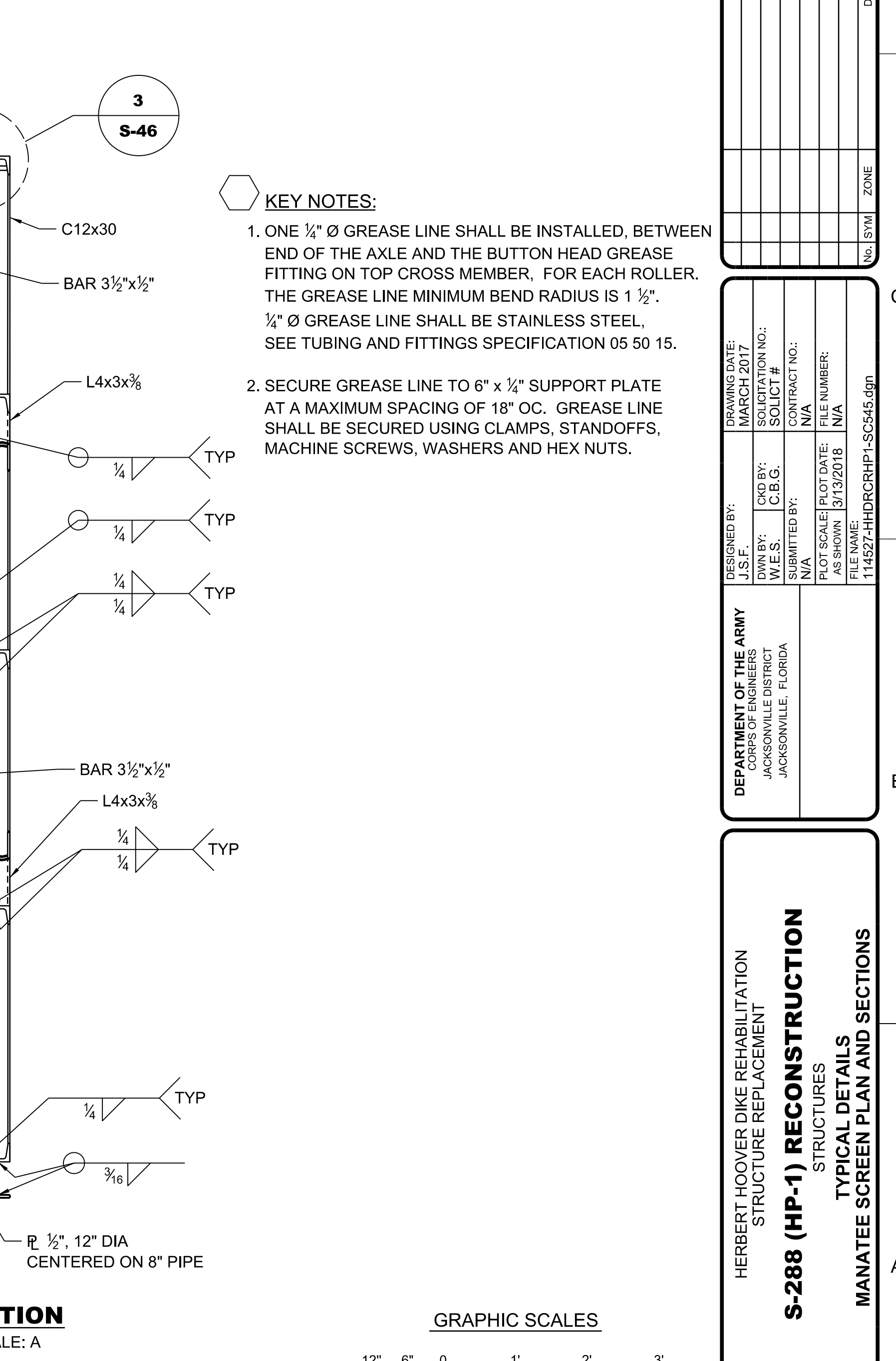
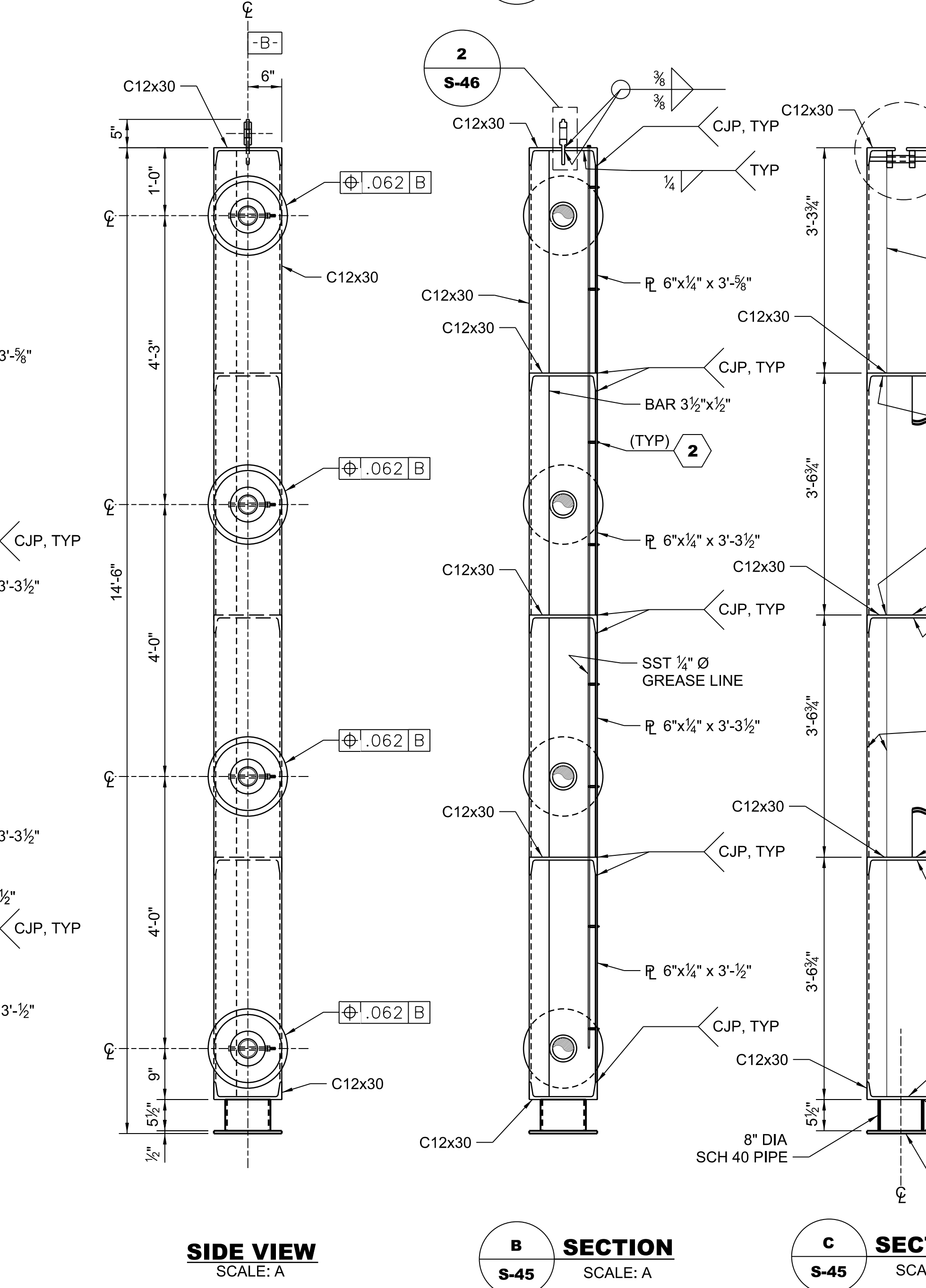
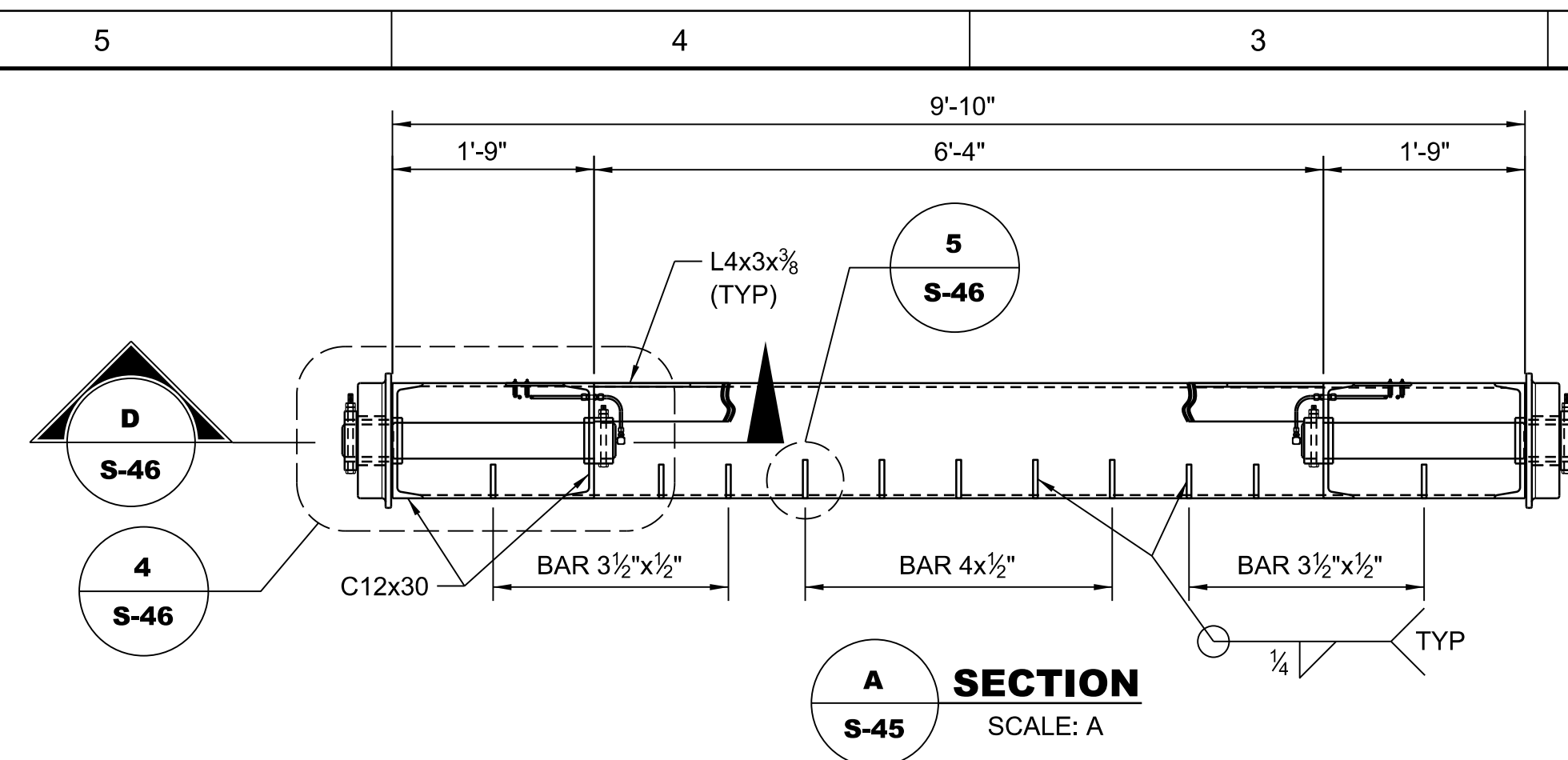
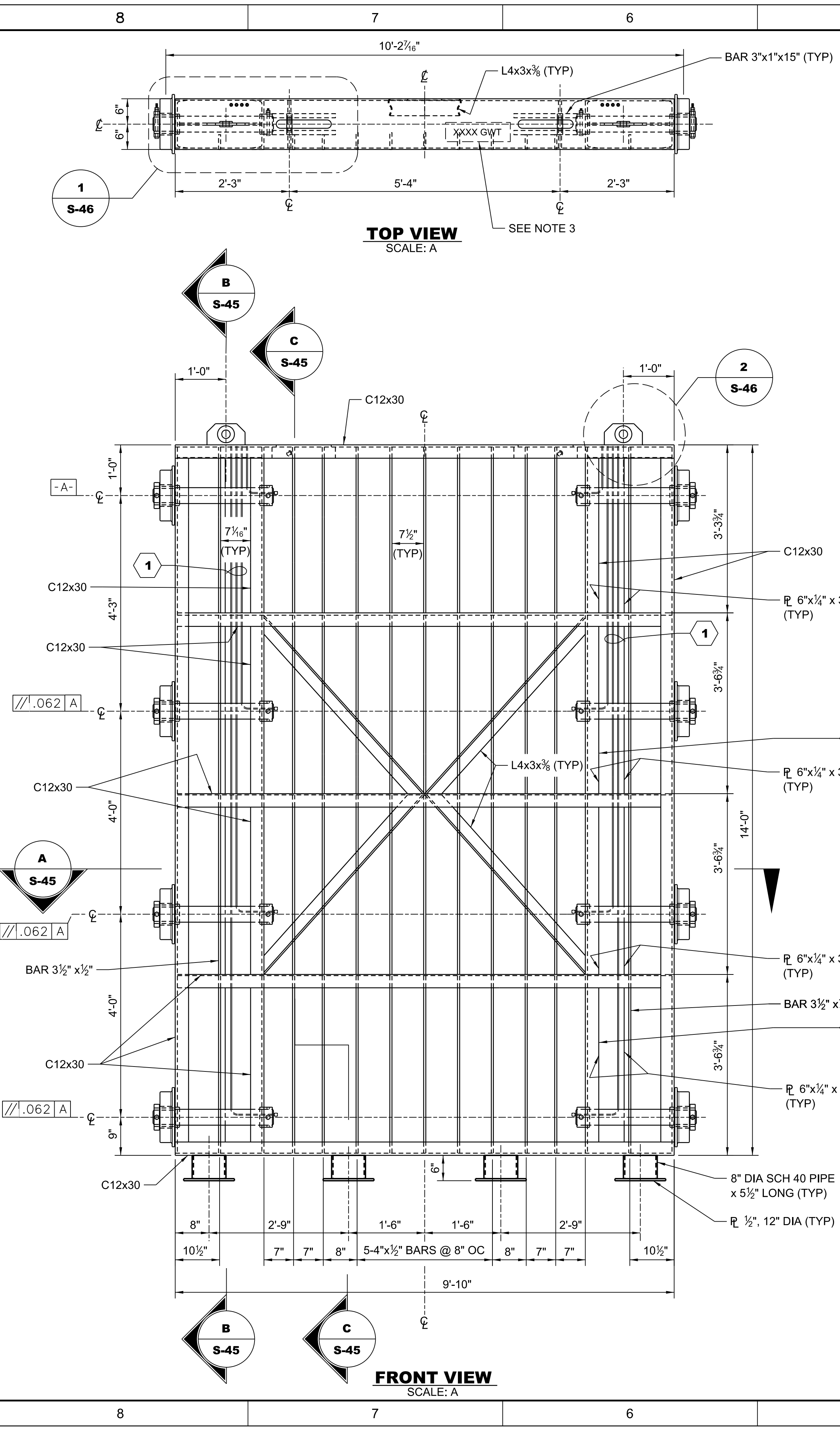
DRAWING NO.
S-45

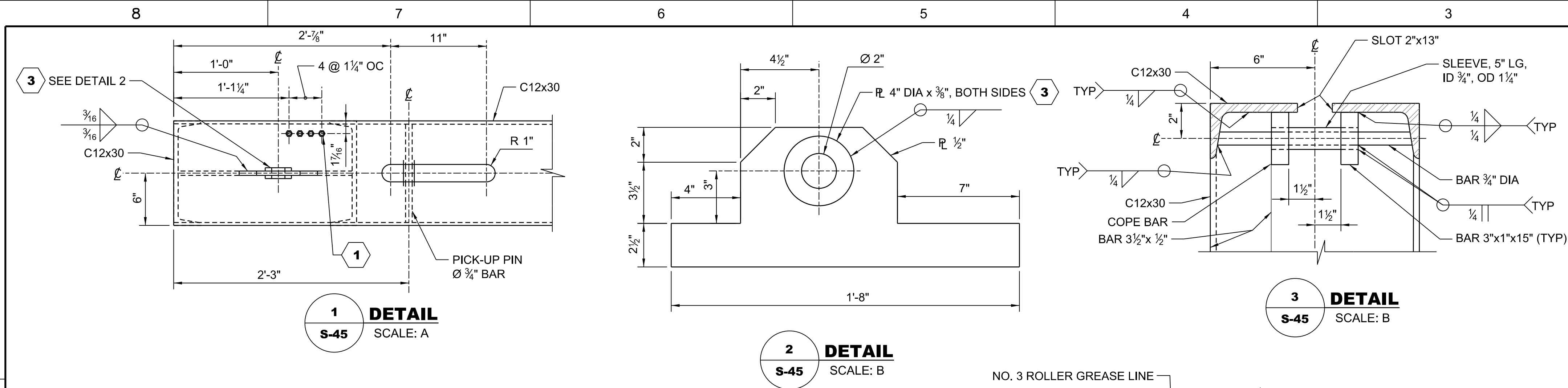
NOTES:

1. ALL STRUCTURAL STEEL AND SHAPES, TUBING, BARS, PIPE AND PLATE, SHALL BE TYPE 316L STAINLESS STEEL, SEE SPEC 35 20 17.
2. ALL HARDWARE ITEMS, TUBING, FASTENERS AND FITTINGS USED SHALL BE STAINLESS STEEL, UNLESS OTHERWISE SPECIFIED. SEE SPEC 35 20 17.
3. CONTRACTOR SHALL WEIGH THE COMPLETED ASSEMBLY AND MARK THE GROSS WEIGHT WITH THE FORMAT "XXXX GWT", USING A RAISED WELD BEAD WHERE INDICATED.
4. TOTAL ESTIMATE WEIGHT 5,500lbs.
5. REFER TO SPECIFICATION 35 20 17 VERTICAL LIFT ROLLER GATES.
6. A TOTAL NUMBER OF TWO (2) MANATEE SCREENS ARE REQUIRED FOR THIS PROJECT.

KEY NOTES:

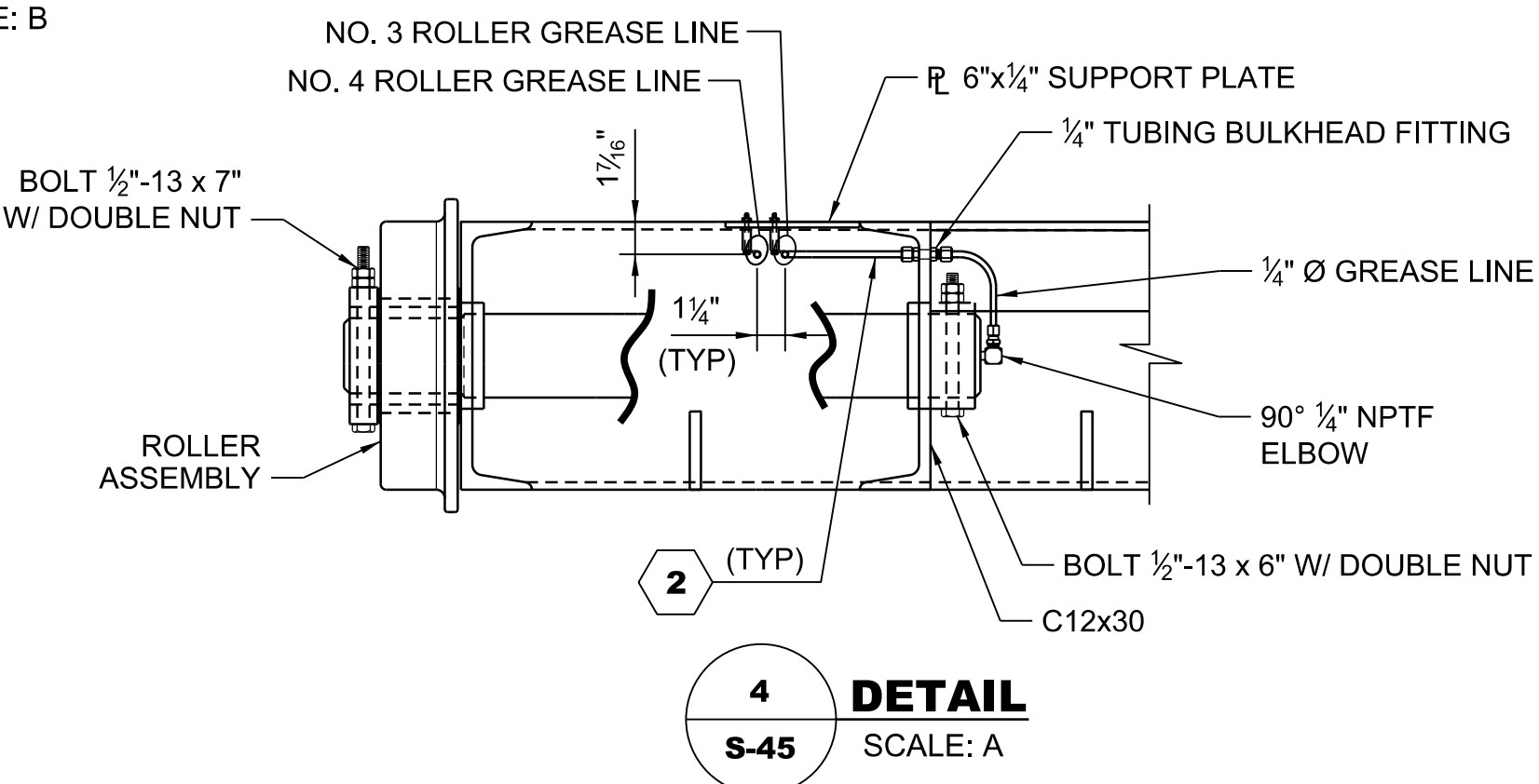
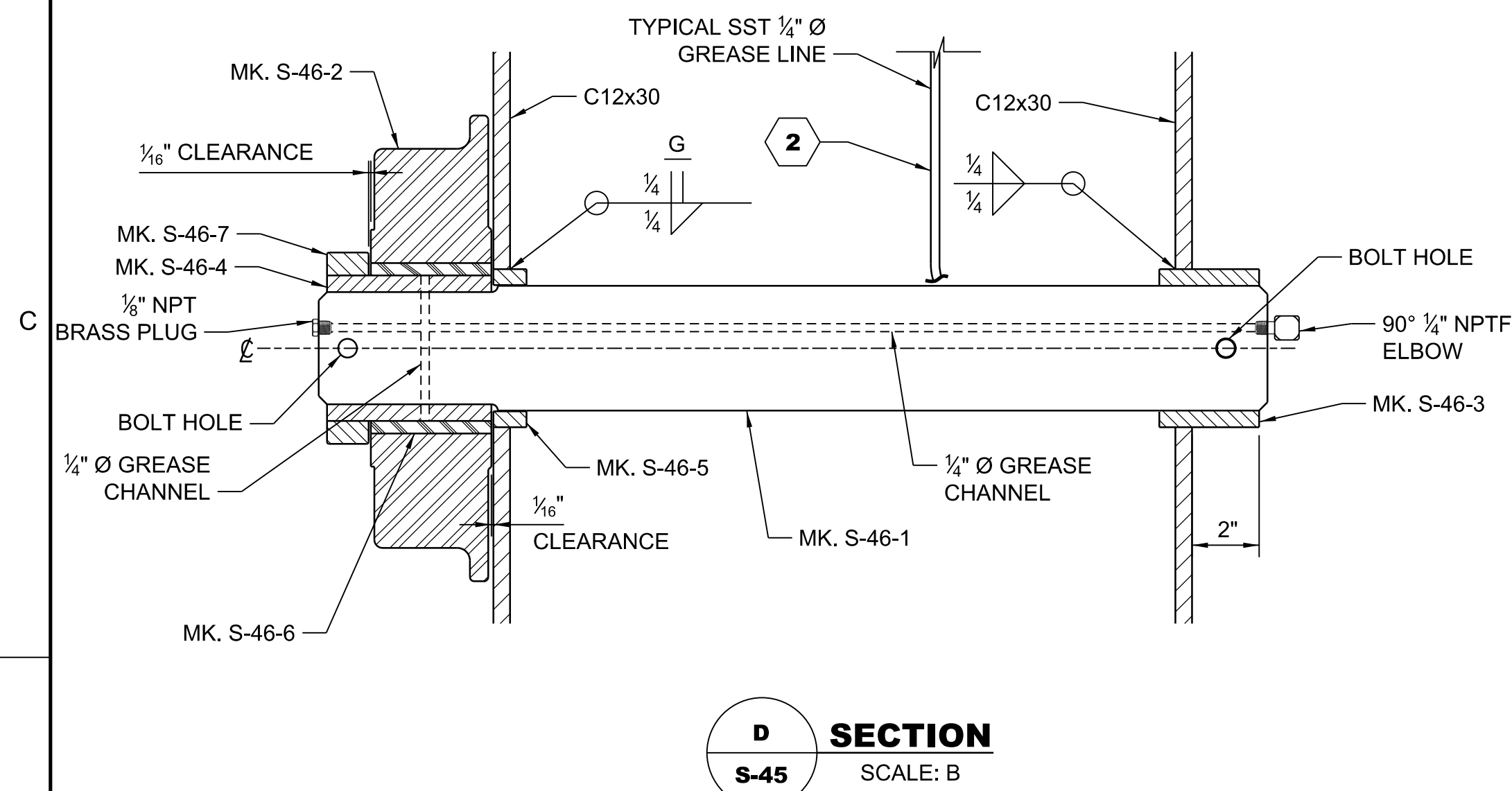
1. ONE 1/4" Ø GREASE LINE SHALL BE INSTALLED, BETWEEN END OF THE AXLE AND THE BUTTON HEAD GREASE FITTING ON TOP CROSS MEMBER, FOR EACH ROLLER. THE GREASE LINE MINIMUM BEND RADIUS IS 1 1/2". 1/4" Ø GREASE LINE SHALL BE STAINLESS STEEL, SEE TUBING AND FITTINGS SPECIFICATION 05 50 15.
2. SECURE GREASE LINE TO 6" x 1/4" SUPPORT PLATE AT A MAXIMUM SPACING OF 18" OC. GREASE LINE SHALL BE SECURED USING CLAMPS, STANDOFFS, MACHINE SCREWS, WASHERS AND HEX NUTS.





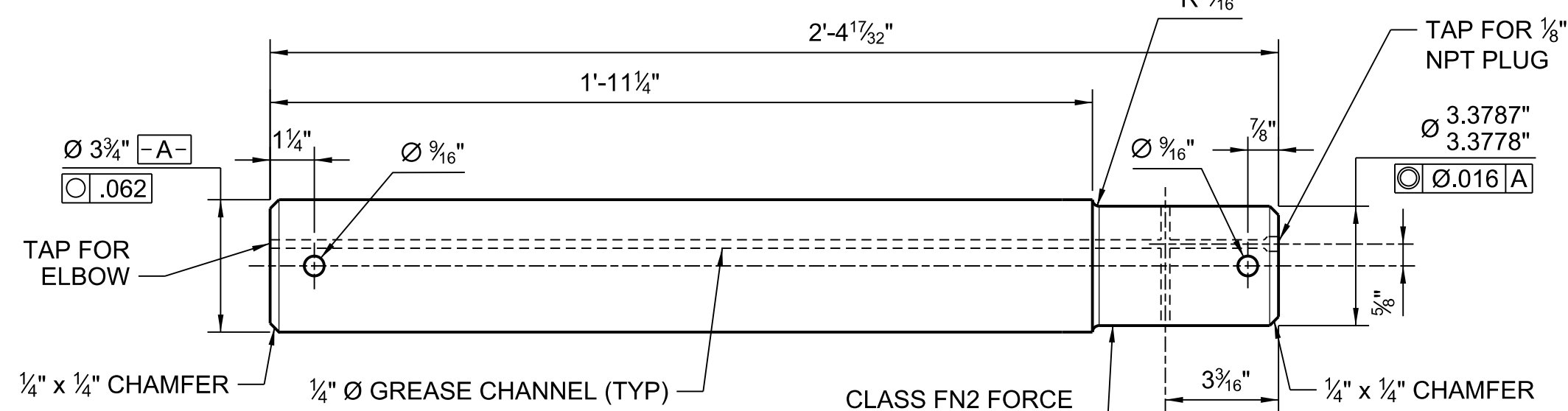
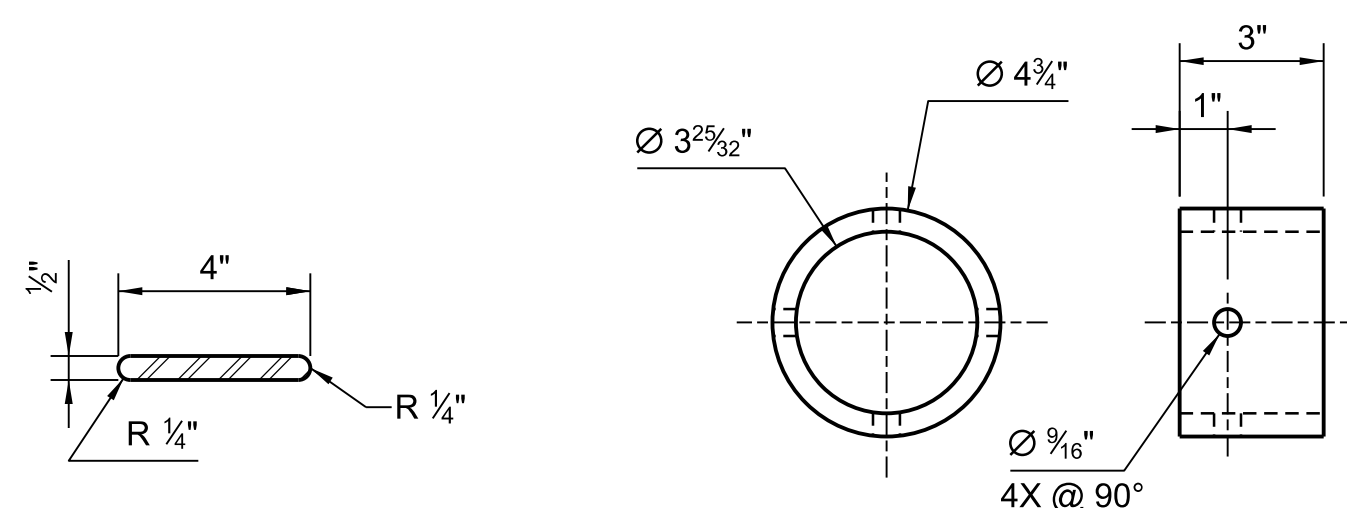
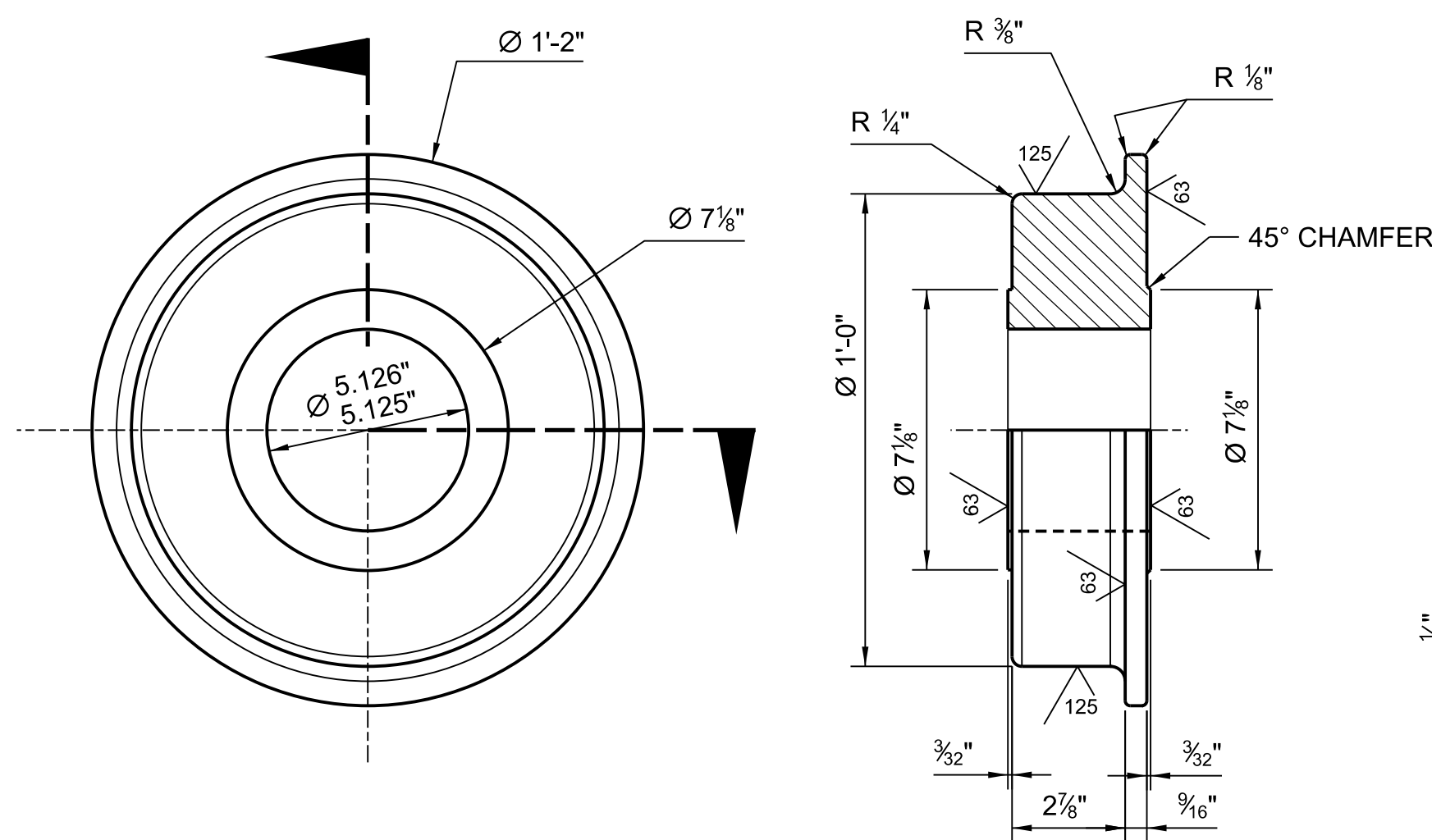
NOTES:

1. ALL DIMENSIONS SHOWN IN A SCALED DETAIL OR SECTION ARE ± 0.062 INCH. ALL OTHER DIMENSIONS ARE ± 0.016 INCH UNLESS OTHERWISE SPECIFIED.
2. ALL HARDWARE AND FASTENERS USED SHALL BE STAINLESS STEEL. SEE SPEC 35 20 17.
3. ALL SURFACE FINISH MARKS ARE SHOWN IN MICRO INCHES.
4. QUANTITIES SHOWN HEREIN ARE FOR ONE MANATEE SCREEN.



KEY NOTES:

1. TYPICAL ¼" NPTF BUTTON HEAD GREASE FITTING, ALEMITE NO. A1186 OR EQUAL.
2. ONE GREASE LINE SHALL BE INSTALLED BETWEEN END OF THE AXLE AND THE BUTTON HEAD GREASE FITTING ON TOP CROSS MEMBER. FOR EACH ROLLER, SECURE LINE TO SUPPORT PLATE AT A MAXIMUM SPACING OF 18" OC. GREASE LINE SHALL BE SECURED USING CLAMPS, STANDOFFS, MACHINE SCREWS AND HEX NUTS. THE GREASE LINE MINIMUM BEND RADIUS IS 1½".
3. INSTALL BOTH REINFORCING RINGS AFTER LIFTING EYE IS INSTALLED IN THE TOP CROSS MEMBER.



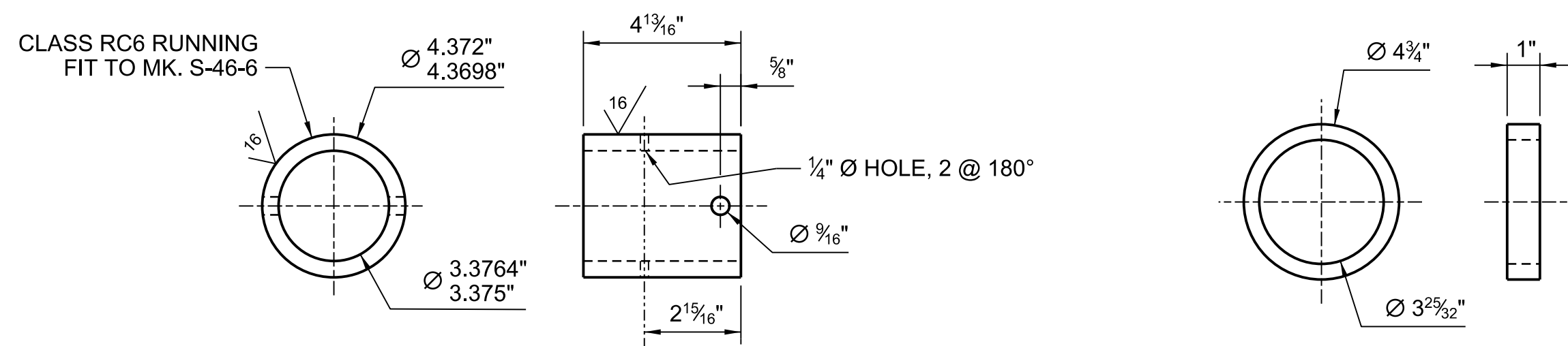
AXLE **MK. S-46-1**

MATL: ASTM A 276, UNS S21800 8 REQ'D.

ROLLER **MK. S-46-2**
 ASTM A743, GRADE CA28MWV 8 REQ'D.

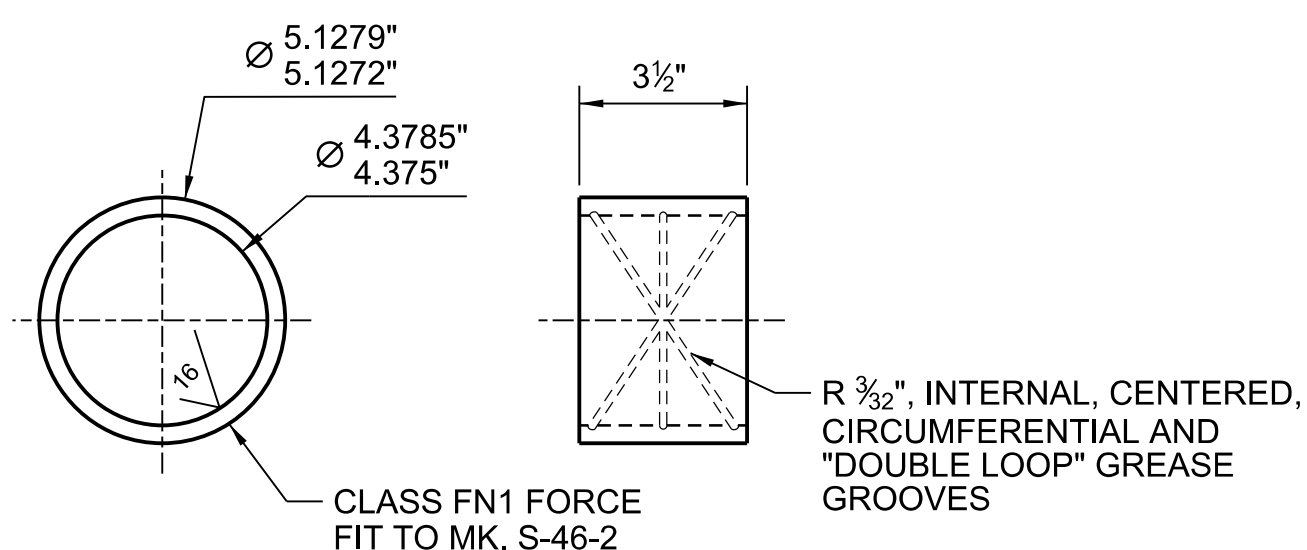
SLEEVE MK. S-46-3

MATL: 316L STAINLESS STEEL 8 REQ'D.



SLEEVE MK. S-46-4

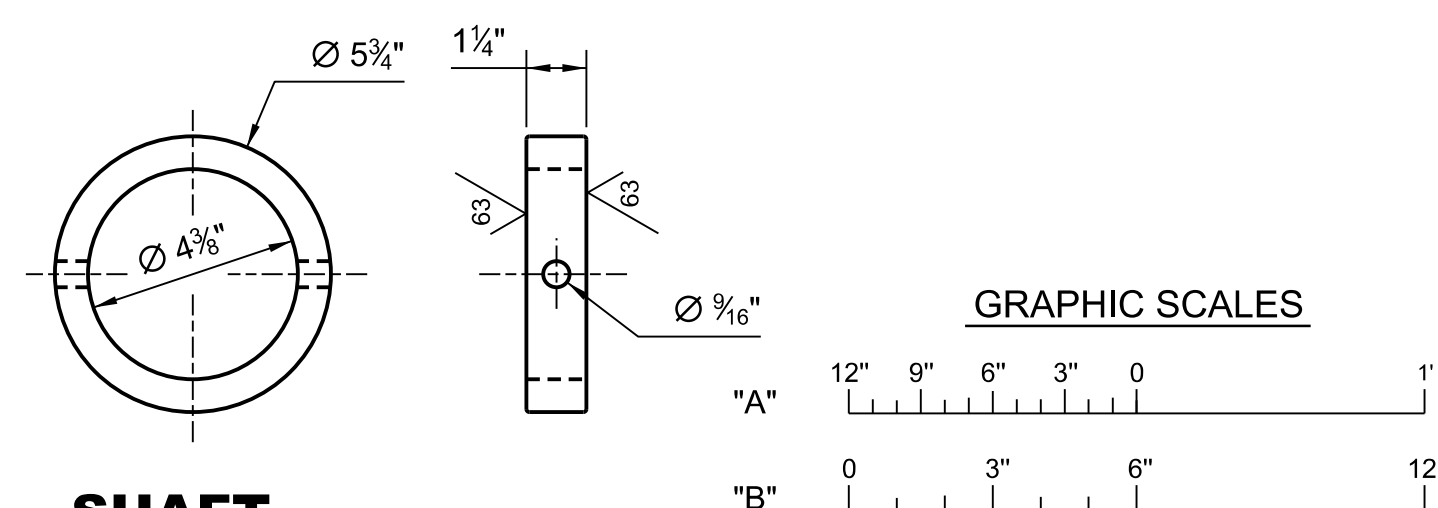
MATL: ASTM A276, UNS S21800 STAINLESS STEEL 8 REQ'D.



SLEEVE MK. S-46-5

MATL: 316L STAINLESS STEEL 8 REQ'D.

BUSHING MK. S-46-6
 MATL: UNS C95400 8 REQ'D.



SHAFT "E"
COLLAR **MK. S-46-7**
 MATL: 316L STAINLESS STEEL 8 REQ'D.

DESIGNED BY: J.S.F. DRAWING DATE: MARCH 2017
DWN BY: C.D. BY: SOLICITATION NO.:
W.E.S. C.B.G. SOLICIT #:
M. CHRISTOFIDIS CONTRACT NO.:
PLOT SCALE: PLOT DATE: N/A
AS SHOWN: 3/13/2018 FILE NUMBER:
1145527-HHDCRHP1-N/C-646.dgn

HERBERT HOOVER DIKE REHABILITATION
STRUCTURE REPLACEMENT

S-288 (HP-1) RECONSTRUCTION
STRUCTURES

TYPICAL DETAILS
MANATEE SCREEN DETAILS AND PARTS

DRAWING NO.

S-46



7. ALL WELDING (INCLUDING QUALIFICATIONS, FABRICATIONS AND INSPECTIONS) SHALL BE IN ACCORDANCE WITH AWS D1.6.

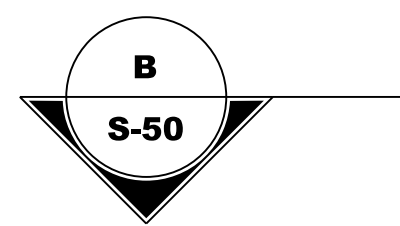


\$STAMP\$

DRAWING NO.

S-48





GRAPHIC SCALES

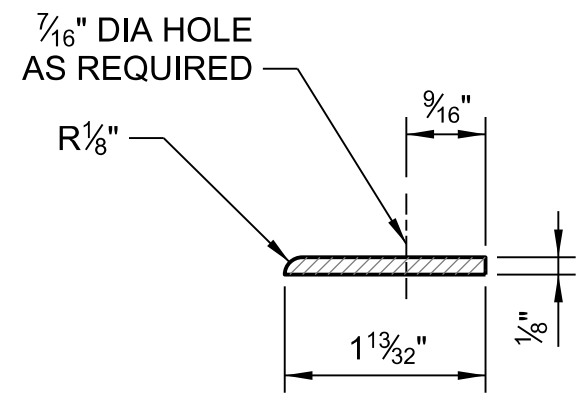
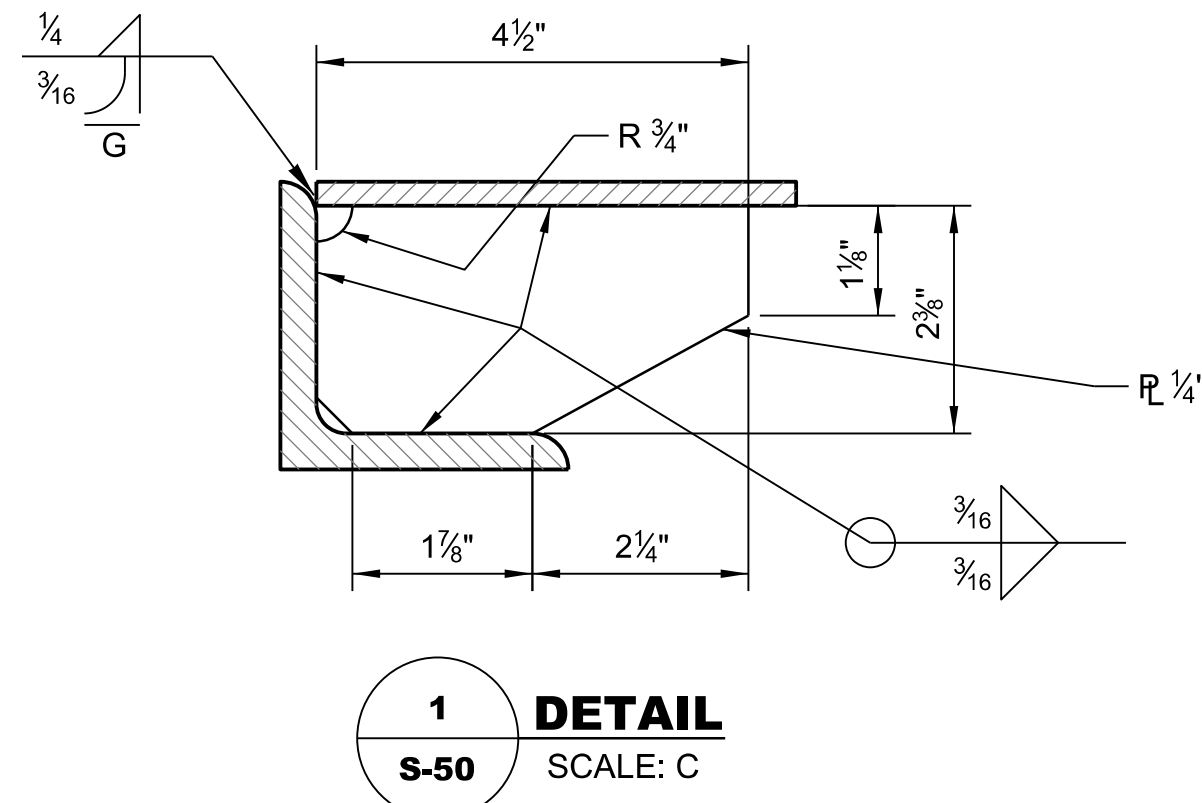
"A"

"B"

Scale A: A horizontal line with tick marks at 12", 6", 0, 1', 2', and 3'. The labels are positioned above the line.

Scale B: A horizontal line with tick marks at 24", 12", 0, 2', 4', and 6'. The labels are positioned above the line.

DRAWING NO.
S-49



SECTION S-49
SCALE: B

POST INSTALLED ADHESIVE ANCHOR, 5/8" x 12" ANCHOR ROD W/ WASHER AND NUT @ 16" OC

10" MIN EMBEDMENT

2"

1/4" THK GASKET

FACE OF WALL

5" x 1/4" x 16'-2"

STIFFENER 1/4" @ 8" OC

1/4"

3/16"

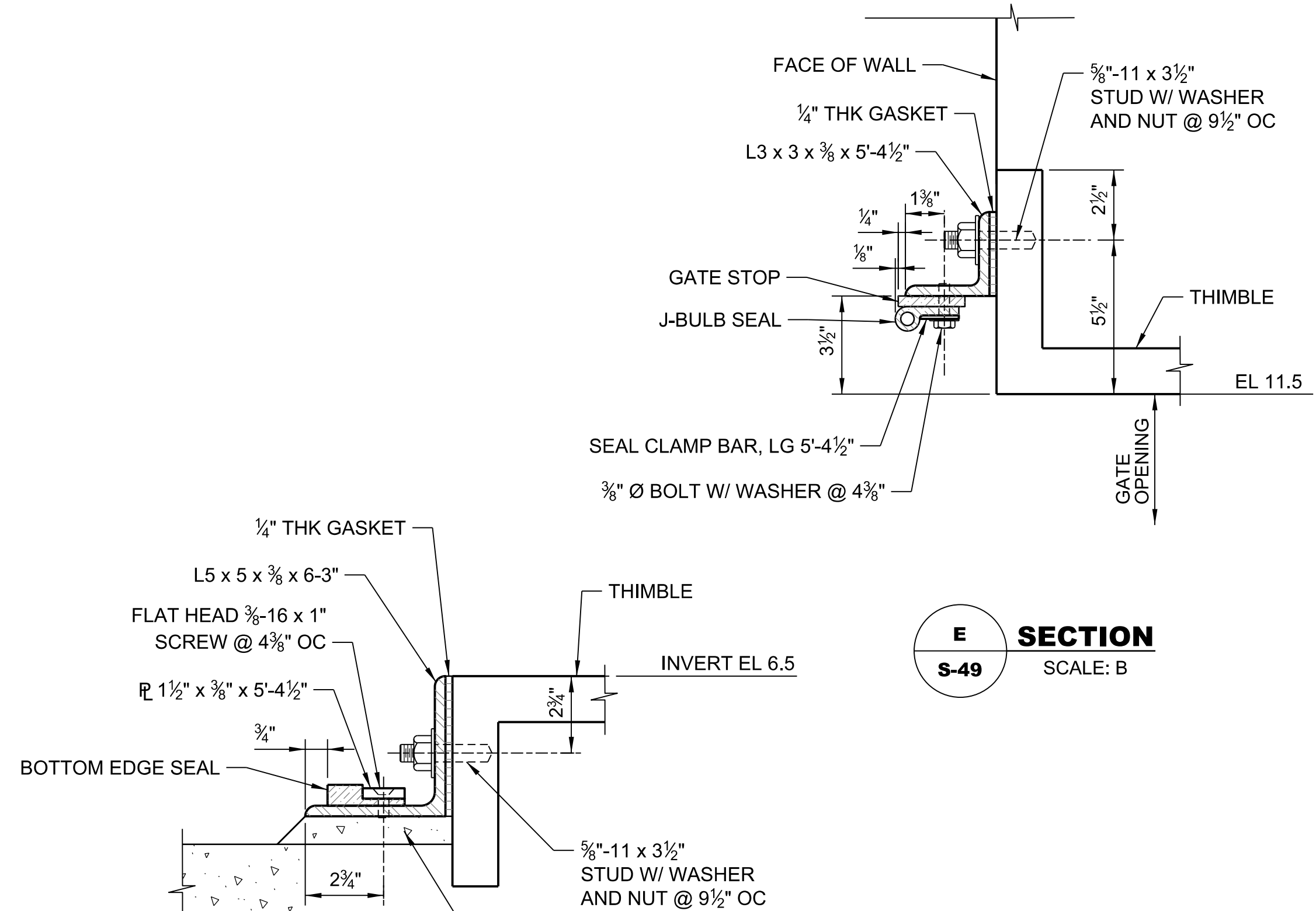
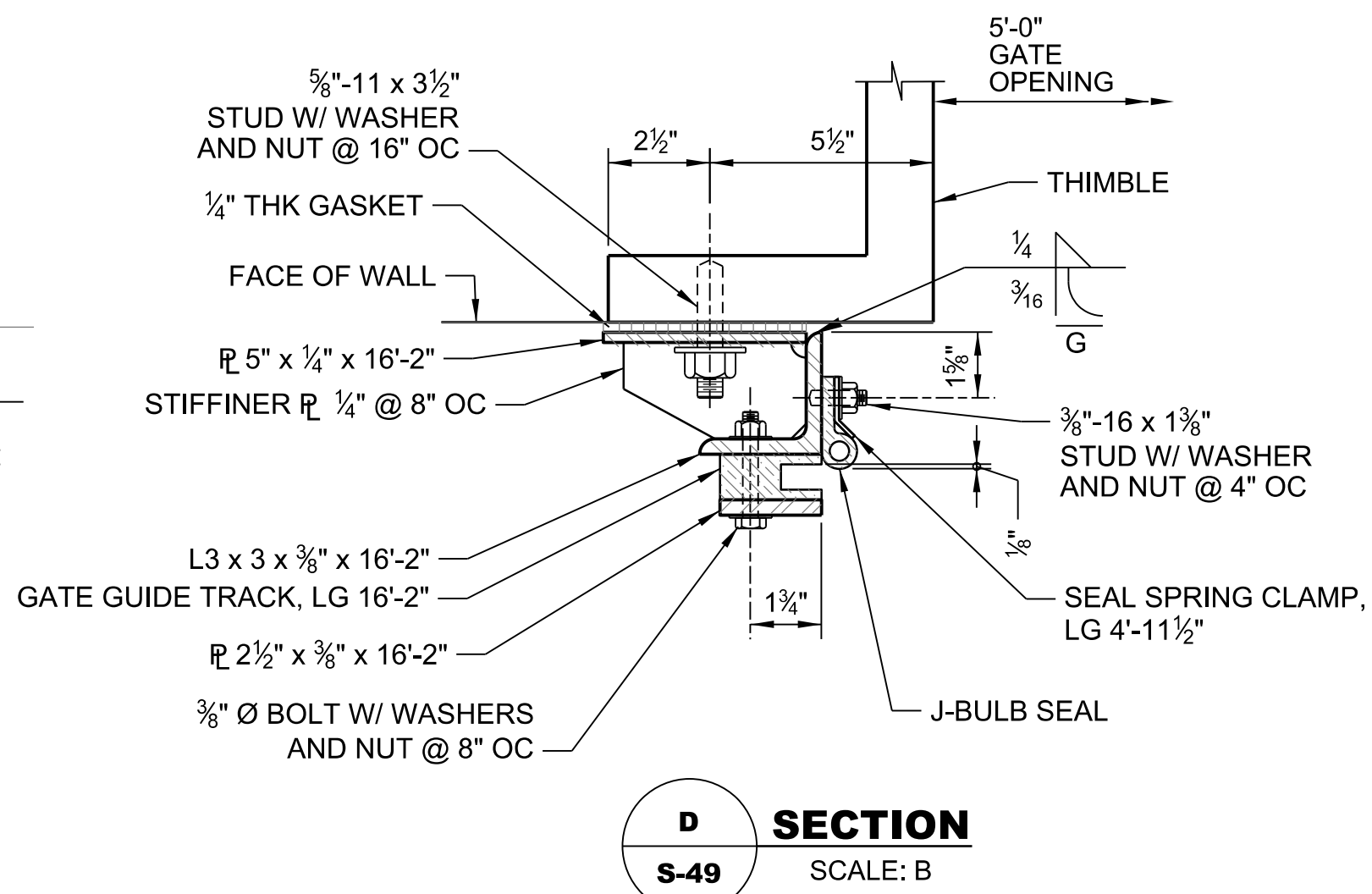
1 3/4"

3/8" Ø BOLT W/ WASHERS AND NUT @ 8" OC

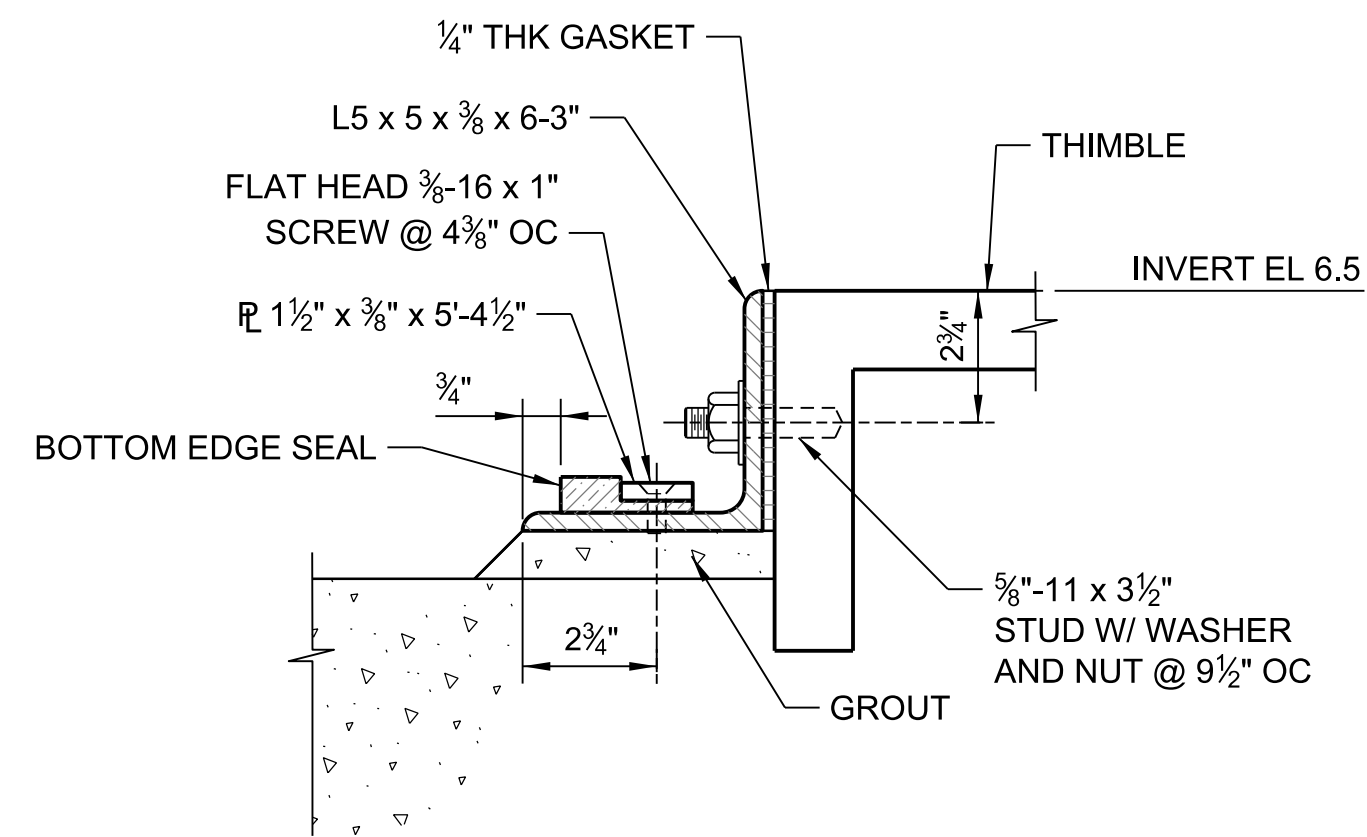
2 1/2" x 3/8" x 16'-2"

GATE GUIDE TRACK, LG 16'-2"

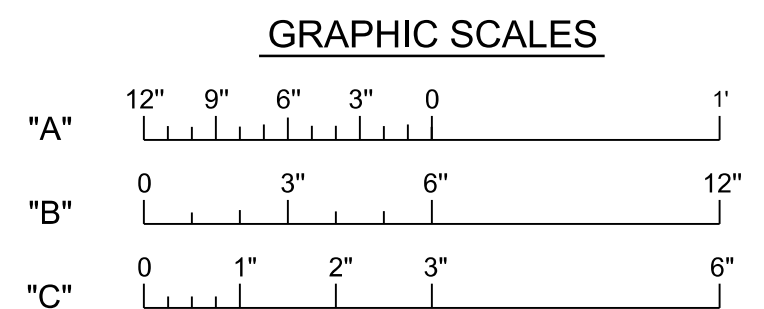
L3 x 3 x 3/8" x 16'-2"



E
S-49



F
S-49



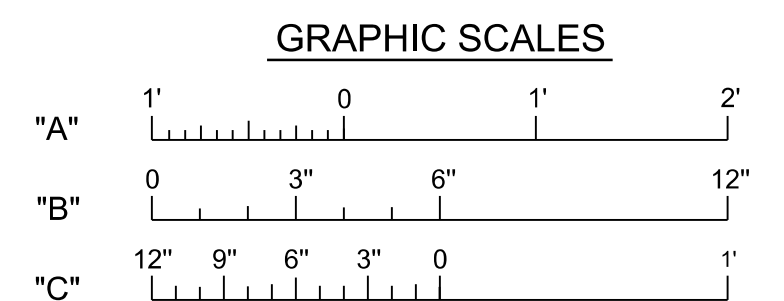
DEPARTMENT OF THE ARMY CORPS OF ENGINEERS JACKSONVILLE DISTRICT JACKSONVILLE, FLORIDA	DESIGNED BY:	DRAWING DATE:
	J.S.F.	MARCH 2017
	DWN BY:	SOLICITATION NO.:
	W.E.S.	SOLICIT #
	C.B.G.	
	CONTRACT NO.:	
	N/A	
	FILE NUMBER:	
	N/A	
	PLOT SCALE:	PLOT DATE:
	AS SHOWN	3/13/2018
	114527-HHDCRHP1-SF550.DGN	

HERBERT HOOVER DIKE REHABILITATION
STRUCTURE REPLACEMENT

S-288 (HP-1) RECONSTRUCTION
STRUCTURAL

60"x60" COMBINATION GATE
FRAME ASSEMBLY ELEVATION AND SECTIONS

DRAWING NO.
S-50



DEPARTMENT OF THE ARMY CORPS OF ENGINEERS JACKSONVILLE DISTRICT JACKSONVILLE, FLORIDA	J.S.F.	MARCH 2017
	DWN BY: W.E.S.	SOLICITATION NO.: SOLICIT #
	C.B.G.	
	SUBMITTED BY: M. CHRISTOFIDIS	CONTRACT NO.: N/A
	PLOT SCALE: PLOT DATE: AS SHOWN 3/13/2018	FILE NUMBER: N/A
	FILE NAME:	114527-HDRORHP1-SF551.DGN

S-288 (HP-1) RECONSTRUCTION
STRUCTURAL
60"x60" COMBINATION GATE
HERBERT HOOVER DIKE REHABILITATION
STRUCTURE REPLACEMENT
SLIDE GATE ASSEMBLY, ELEVATION AND SECTIONS

DRAWING NO.
S-51

[illegible]

DEPT OF ARMY	J.S.F.	MARCH 2017
CORPS ENGINEERS	DWN BY:	SOLICITATION NO.:
JACKSONVILLE DISTRICT	CDK BY:	CONTRACT NO.:
JACKSONVILLE, FLORIDA	SHRUBB BY:	N/A
	M. CORFIDIS	FILE NUMBER:
	PLOT SCALE:	PLOT DATE:
	AS SHOWN	3/13/2018
		11452Z+HDCRRIP+SF552 DGN

S-288 (HP-1) RECONSTRUCTION
STRUCTURAL
60"x60" COMBINATION GATE
HERBERT HOOVER DIKE REHABILITATION
STRUCTURE REPLACEMENT
SLIDE GATE ASSEMBLY, ELEVATION AND SECTIONS

S-52

Number line A shows a scale from 0 to 12 inches, with major markings at 0, 3, 6, and 12. Number line B shows a scale from 12 inches down to 0 inches, with major markings at 12, 9, 6, 3, and 0, and a final marking at 1 foot.

[illegible]

J.S.F.	MARCH 2017
DWN BY:	CND BY:
JACKSONVILLE DISTRICT JACKSONVILLE, FLORIDA	C.B.G.
SUBMITTED BY:	CONTRACT NO.:
N/A	N/A
PLOT SCALE:	PLOT DATE:
AS SHOWN	3/13/2018
FILE NUMBER:	N/A
FILE NAME:	
11452-CHDRCPW1-SF563.DGN	

S-288 (HP-1) RECONSTRUCTION
STRUCTURAL
60"x60" COMBINATION GATE
FLAP GATE ASSEMBLY

DRAWING NO.

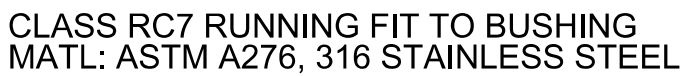
S-53

1. WELD THE ANGLES AND BAR.
2. NDT SHALL BE PERFORMED BEFORE WELDING THE SKIN PLATE TO ANGLE ASSEMBLY.
3. WELD THE ANGLE ASSEMBLY TO THE SKIN PLATE.

"A" 1' 0 1' 2'



"B" 0 3'' 6'' 12''

"C" 12'' 9'' 6'' 3'' 0 1'

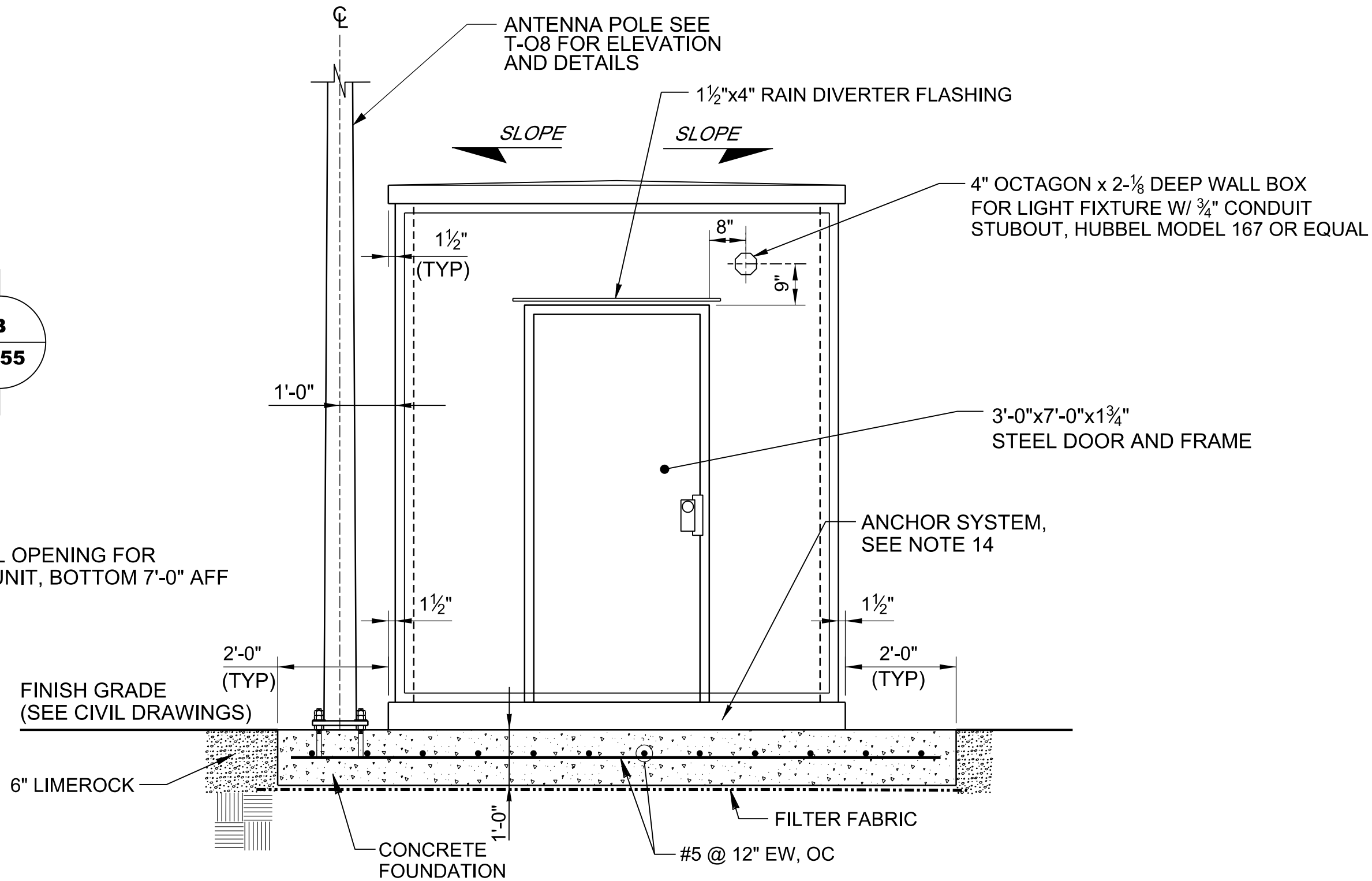


\$STAMPS\$

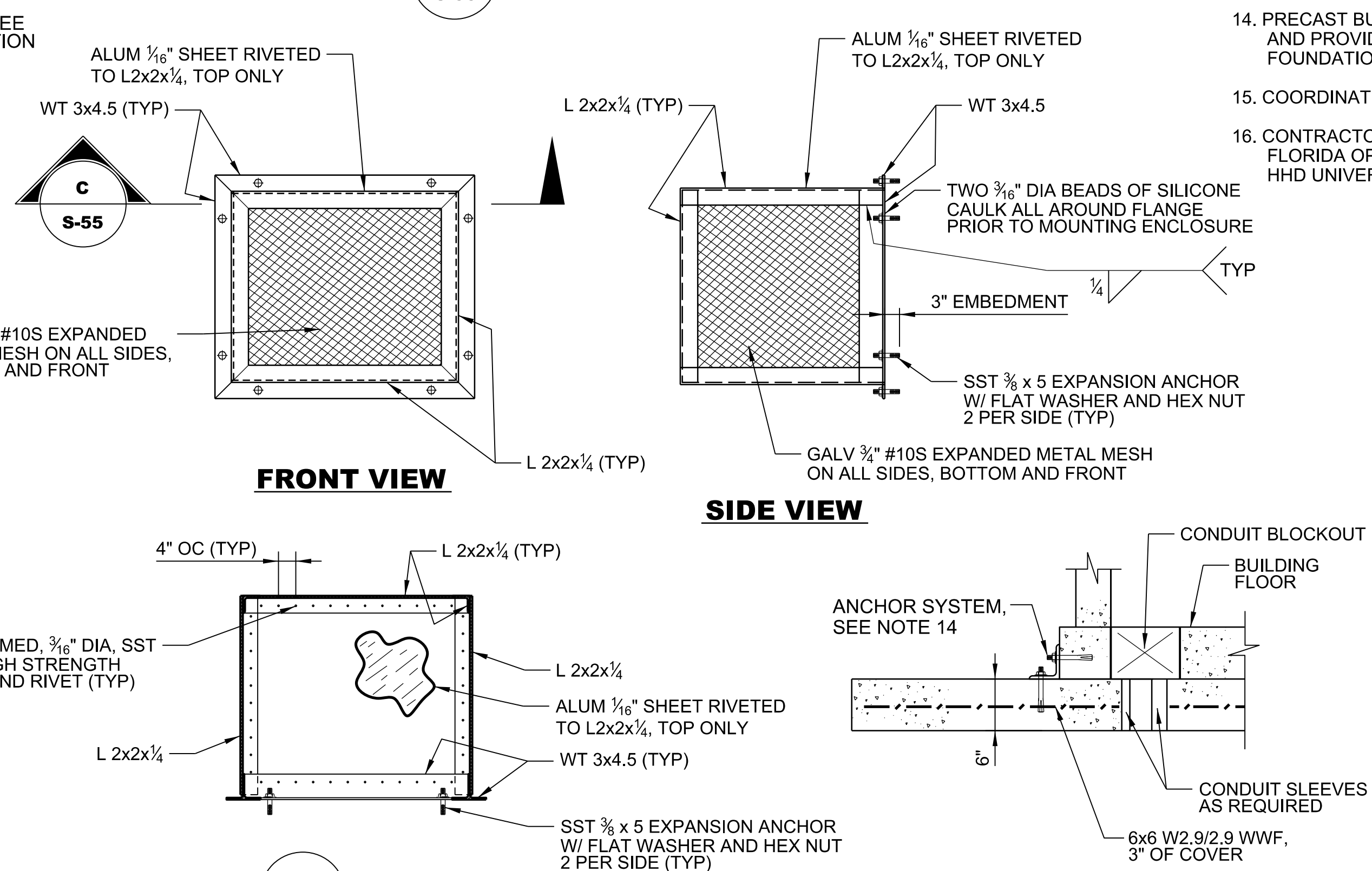
1. BUILDING DIMENSIONS ARE NOMINAL. EXACT DIMENSIONS ARE TO BE DETERMINED BY THE BUILDING MANUFACTURER. FOR PRECAST BUILDING REQUIREMENTS, SEE SPECIFICATIONS, SECTION 13 34 23, PRECAST CONCRETE BUILDING.
2. ALL EXTERIOR DOORS SHALL BE A 20 MINUTE, GRADE 4, FORCED ENTRY RESISTANT, ANSI/NAAMM HMMMA 862-03 STEEL DOOR AND FRAME.
3. COORDINATE ROUGH OPENING DIMENSIONS FOR, A/C UNIT, LOUVERS AND DOORS WITH MANUFACTURERS.
4. FOR CONTROL BUILDING ELECTRICAL FLOOR PLAN SEE DWG NO. E-04.
5. WIND PRESSURES AND MISSILE IMPACT LOADS FOR DOOR DESIGN SHALL BE DETERMINED IN ACCORDANCE WITH THE SPECIFICATIONS.
6. PRECAST BUILDING SHALL HAVE TROWEL FINISH. INTERIOR FINISH SCHEDULE FOR WALLS AND CEILING SHALL BE SMOOTH STEEL TROWEL.
7. ALUMINUM IN CONTACT WITH CONCRETE OR STEEL SHALL BE PROTECTED FROM GALVANIC OR CORROSIVE ACTION. FOR COATING DETAILS, REFER TO SPECIFICATION, SECTION 05 50 14, STRUCTURAL METAL FABRICATIONS.
8. CONTRACTOR SHALL PROVIDE AND INSTALL STAINLESS STEEL HOOK AND LATCH HARDWARE TO HOLD DOORS OPEN.
9. PROVIDE 1 FIRE EXTINGUISHER, WALL BRACKETS AND SIGNAGE. FIRE EXTINGUISHERS SHALL BE THE CO₂ TYPE UNLESS OTHERWISE NOTED, CAPABLE OF EXTINGUISHING CLASS B AND C HAZARDS. HAVE MINIMUM WEIGHT OF 10 POUNDS AND COMPLIANT WITH UL 299. FIRE EXTINGUISHERS SHALL BE LOCATED AS SHOWN ON THIS DRAWING. TOP OF FIRE EXTINGUISHER SHALL NOT BE LOCATED GREATER THAN FOUR FEET ABOVE FLOOR LEVEL. ONE SIGN SHALL BE LOCATED AT CEILING LEVEL ABOVE TOP OF EACH FIRE EXTINGUISHER. EACH SIGN SHALL READ "FIRE EXTINGUISHER" AND INCLUDE A DOWNWARD POINTING ARROW. SIGNS SHALL BE CONSTRUCTED OF POLYETHYLENE OR ACRYLIC MATERIAL.
10. MINIMUM ROOF THICKNESS SHALL BE 3 1/2 INCHES AND ROOF SLOPE SHALL HAVE A PITCH OF 1 INCH IN 6 FEET.
11. FLOORS SHALL HAVE A MINIMUM THICKNESS OF 6 INCHES.
12. PRECAST CONCRETE FLOOR BLOCKOUTS FOR CONDUIT PENETRATIONS SHALL BE FILLED ON SITE WITH NON-SHRINK GROUT AFTER CONDUIT INSTALLATION IS COMPLETED.
13. CONTRACTOR SHALL FURNISH A FIRST AID KIT FOR THE CONTROL ROOM. FIRST AID KIT SHALL MEET THE REQUIREMENTS OF ANSI Z 308.1-2003, MINIMUM REQUIREMENTS FOR WORKPLACE FIRST AID KITS. FIRST AID KIT SHALL BE WALL MOUNTED, 3'-6" TO 5'-0" ABOVE THE FLOOR.
14. PRECAST BUILDING MANUFACTURER SHALL DESIGN AND PROVIDE ANCHORAGE BETWEEN CONCRETE FOUNDATION AND PRECAST BUILDING.
15. COORDINATE FINAL LOCATION OF THE A/C UNIT WITH MANUFACTURERS.
16. CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH THE SOUTH FLORIDA OPERATIONS OFFICE TO KEY THE CONTROL BUILDINGS WITH HHD UNIVERSAL KEY.

 CO2, FIRE EXTINGUISHER
 FIRST AID KIT

S-288 (HP-1) RECONSTRUCTION
STRUCTURAL
TYPICAL CONTROL BUILDING - PLAN AND SECTIONS

DRAWING NO.
S-55

A
S-55

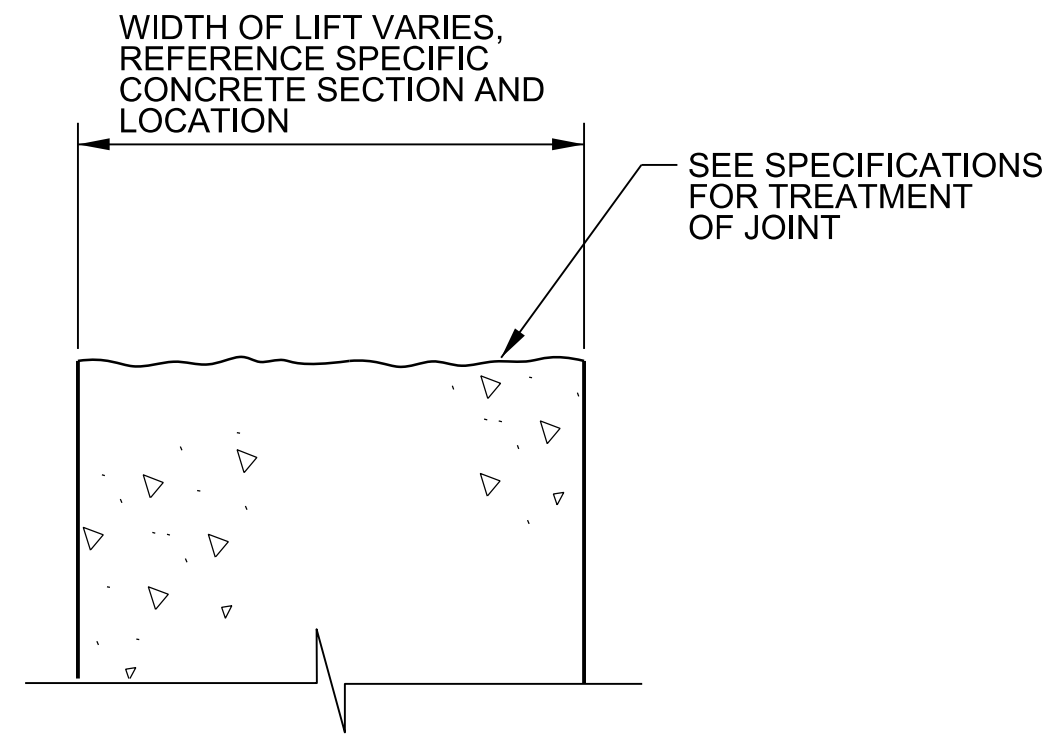


c **SECTION**
S-55 SCALE: N.T.S.

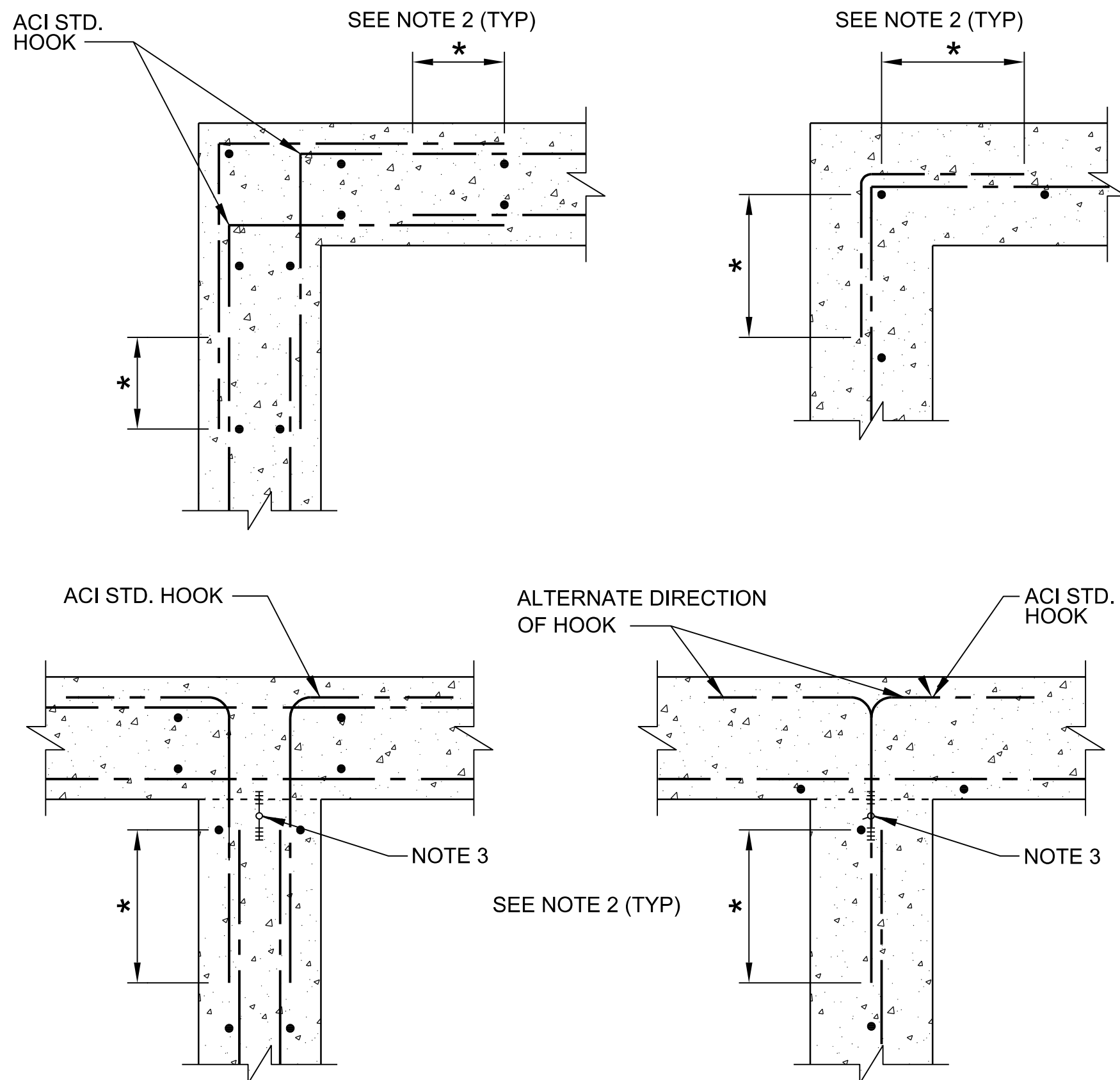
1 **DETAIL**
S-55 SCALE: N.T.S.

D SECTION
S-55 SCALE: N.T.S.

"A" 12" 6" 0 1' 2' 3' 4' 5'

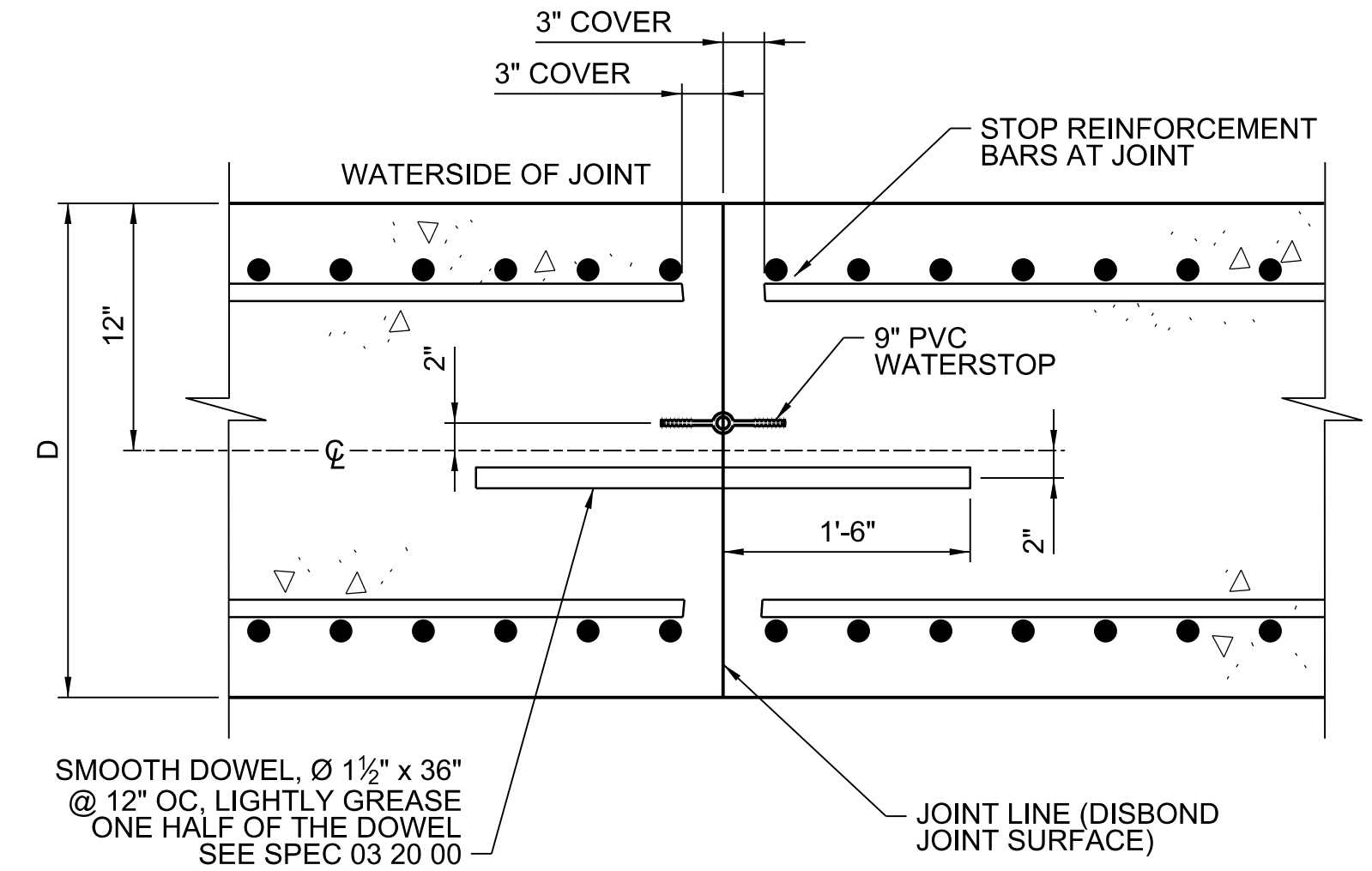


4 TYPICAL HORIZONTAL AND VERTICAL CONSTRUCTION JOINT DETAIL
SCALE: N.T.S.

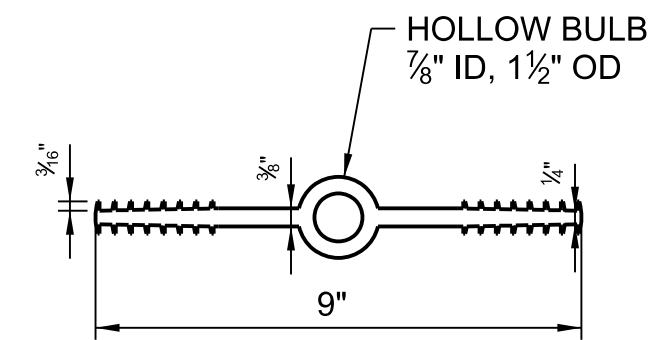


1. USE AT ALL CORNERS FOR ALL CONCRETE MEMBERS INCLUDING THICKENED SLAB ON GRADE, WALLS, CURBS, BEAMS, GRADE BEAMS AND SLABS, UNLESS INDICATED OTHERWISE.
2. * TYPICAL CONCRETE REINFORCEMENT LAP SPLICE PER ACI 318-02.
3. WATERSTOP LOCATION, IF REQUIRED.

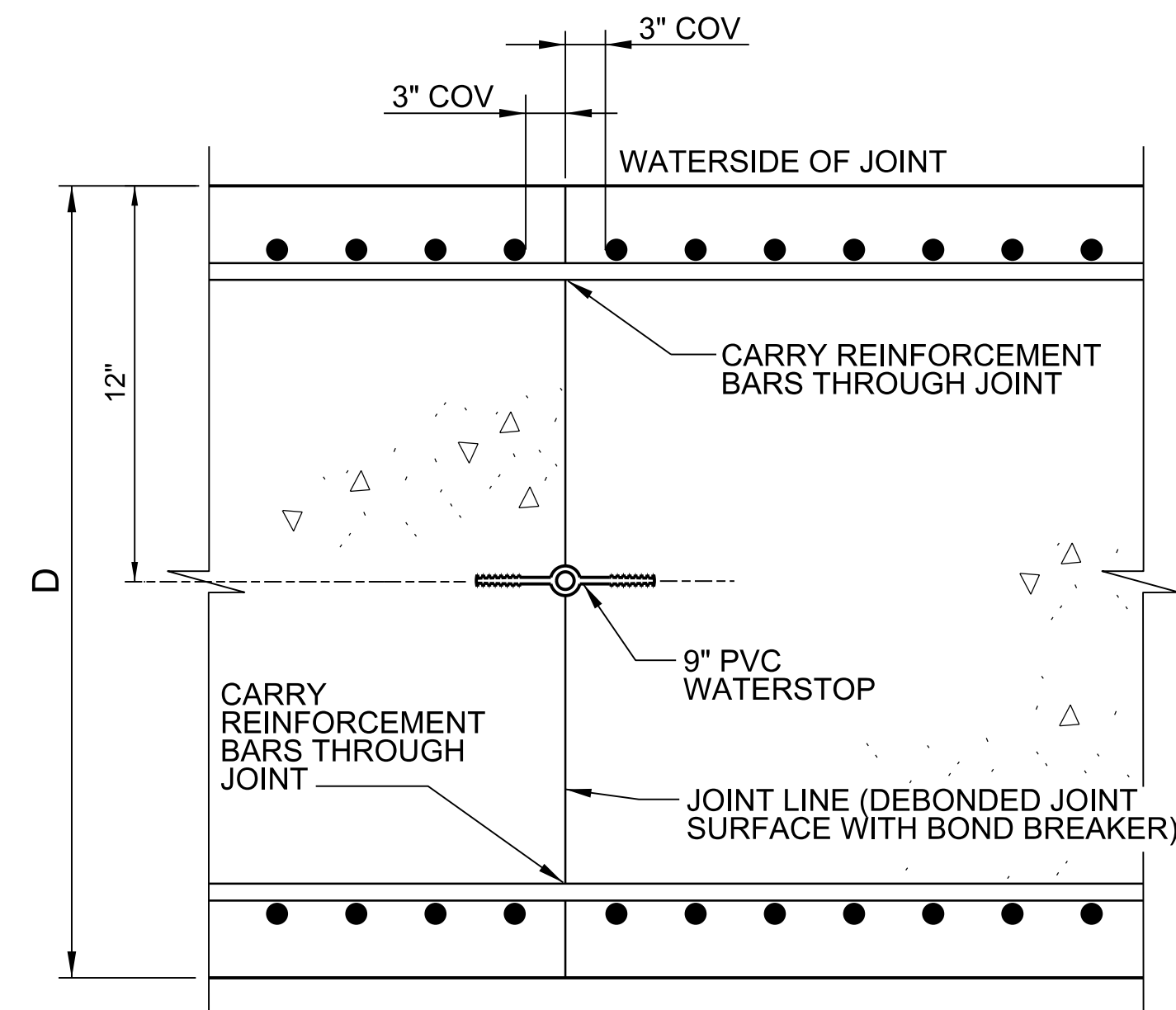
1 TYPICAL CORNER BAR DETAILS
SCALE: N.T.S.



7 TYPICAL DOWELED JOINT
SCALE: N.T.S.



8 TYPICAL 9" PVC WATERSTOP
SCALE: N.T.S.



6 VERTICAL CONTROL JOINT
SCALE: N.T.S.



3. GROUNDING SHALL BE PROVIDED.



7 **GATE LATCH DETAIL**
S-58 SCALE: N.T.S.



S-288 (HP-1) RECONSTRUCTION
STRUCTURAL
TYPICAL HANDRAIL DETAILS

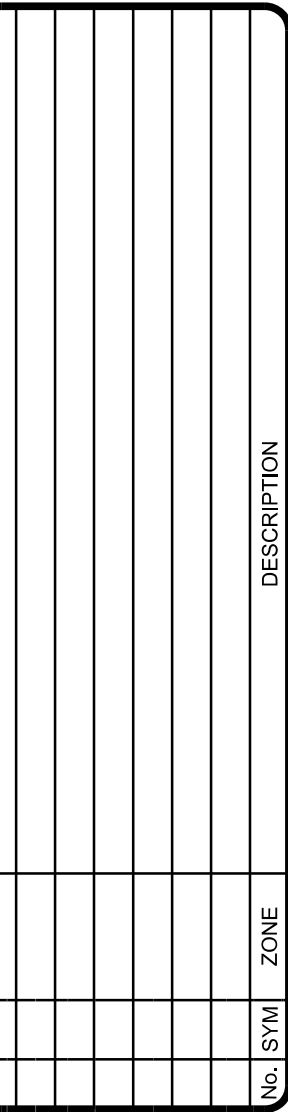


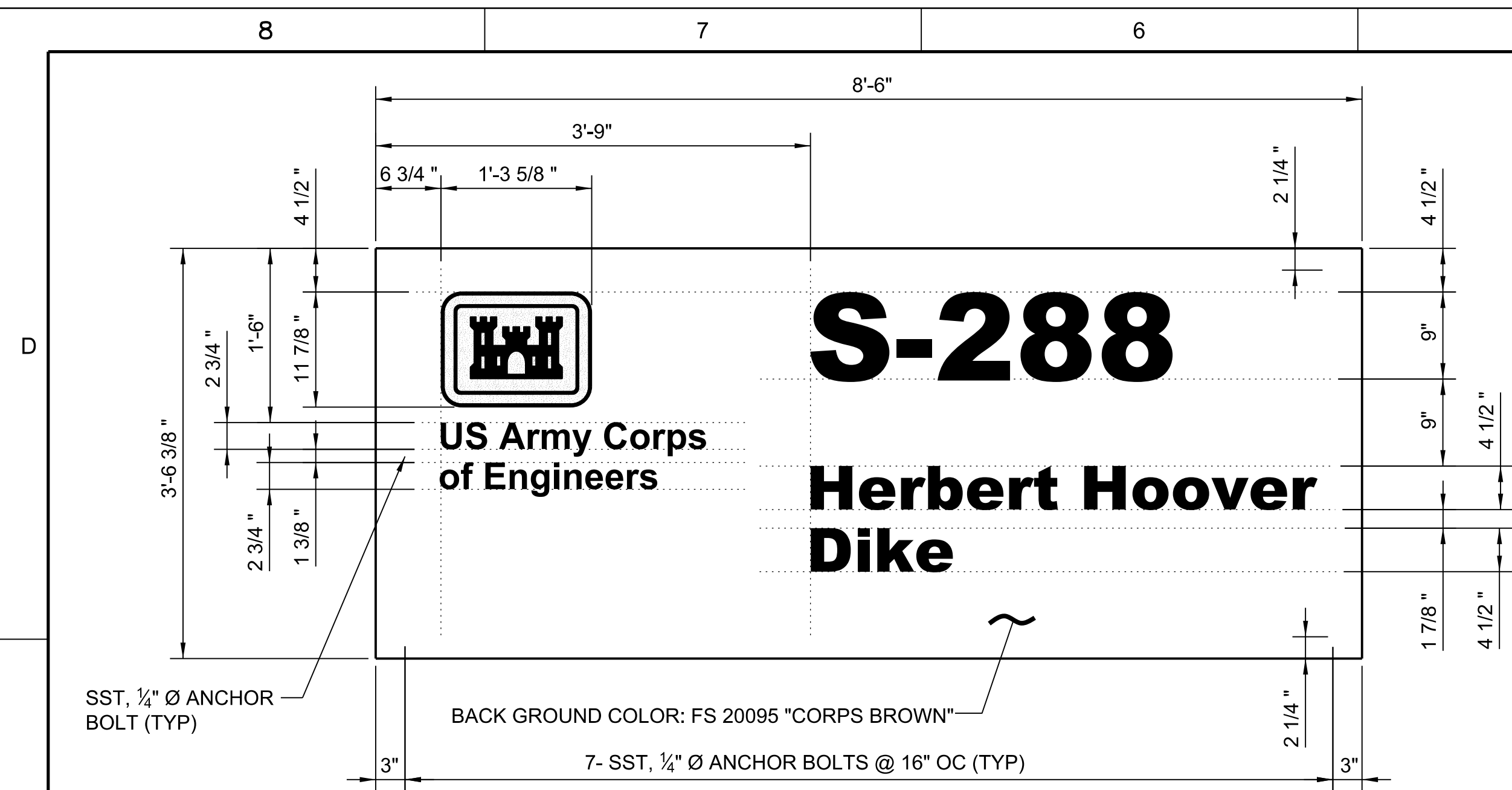
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SCALE: N.T.S.

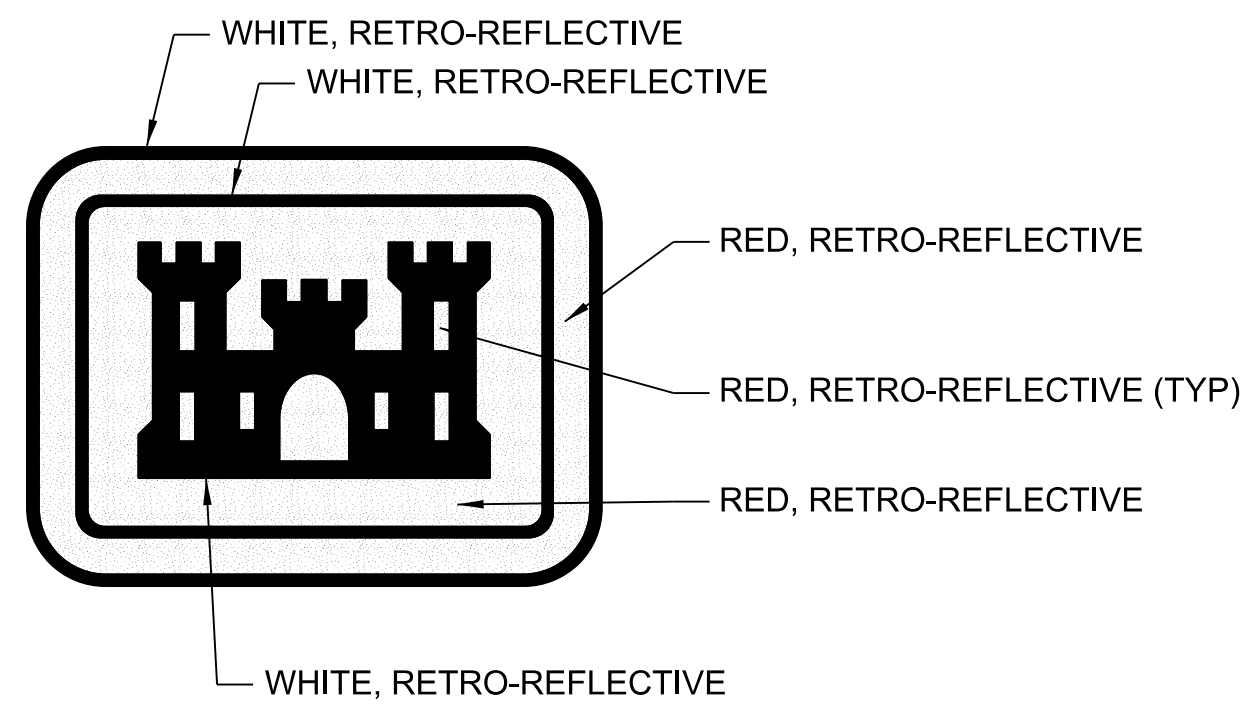
8. CONTRACTOR SHALL VERIFY DIMENSION .



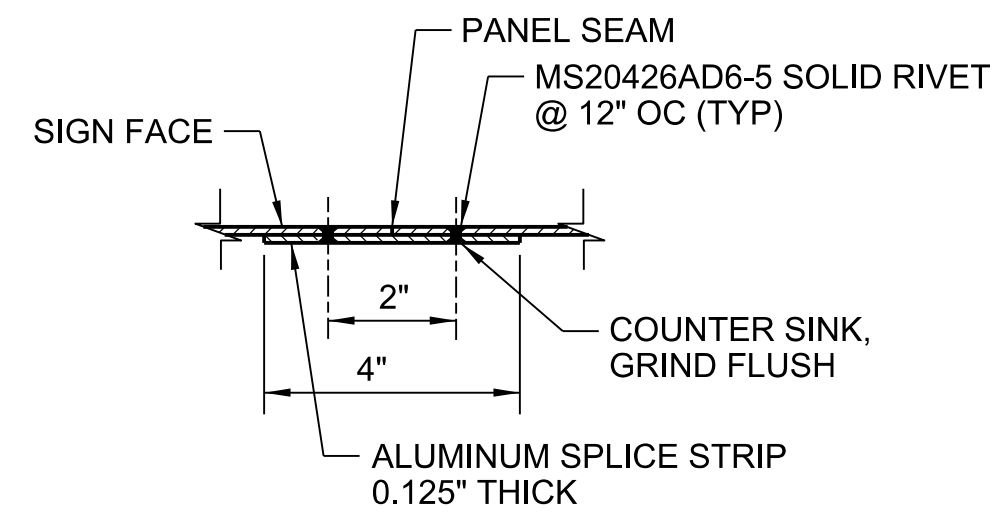




1 **LAKESIDE AND LANDSIDE
STRUCTURE IDENTIFICATION SIGN PANEL**
SCALE: N.T.S.

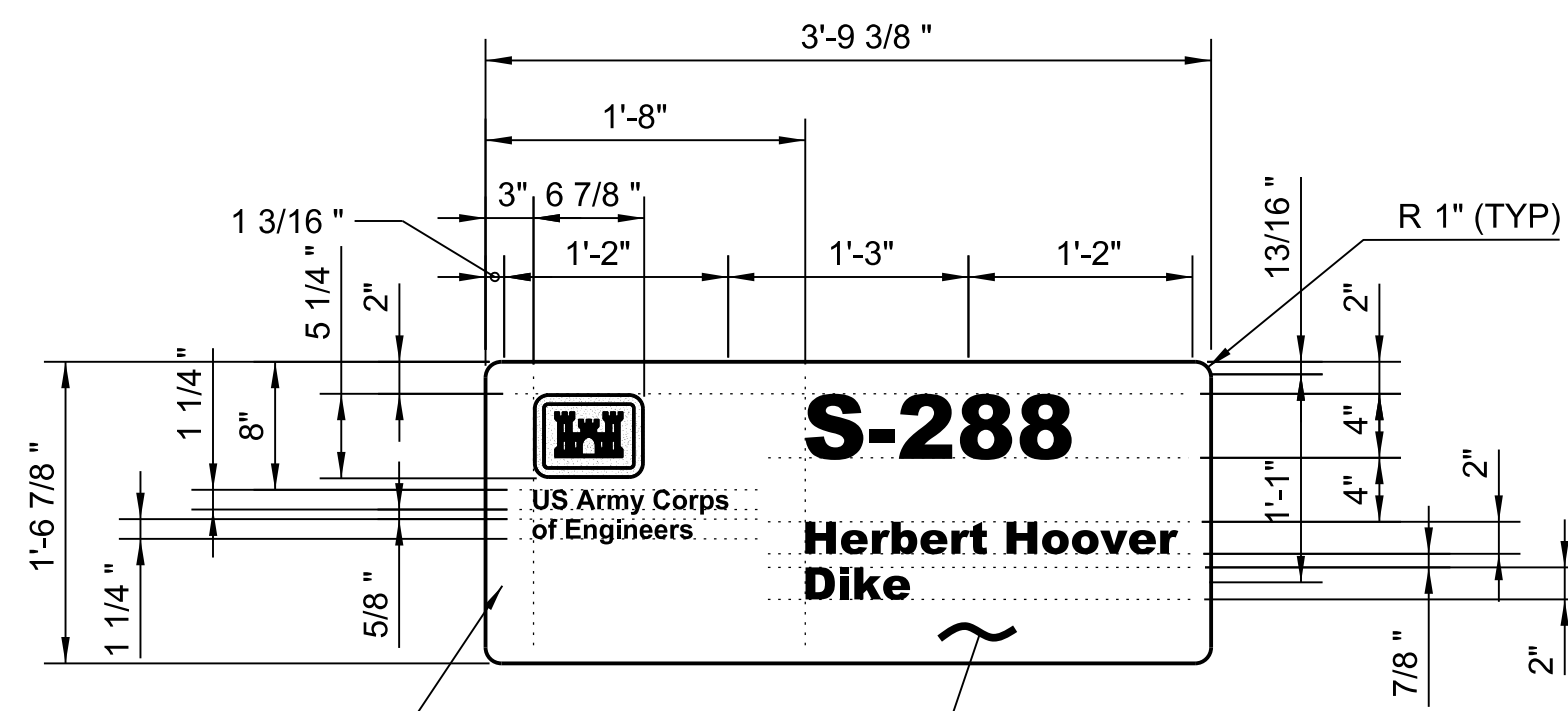


CORPS OF ENGINEERS LOGO DETAIL
SCALE: N.T.S.

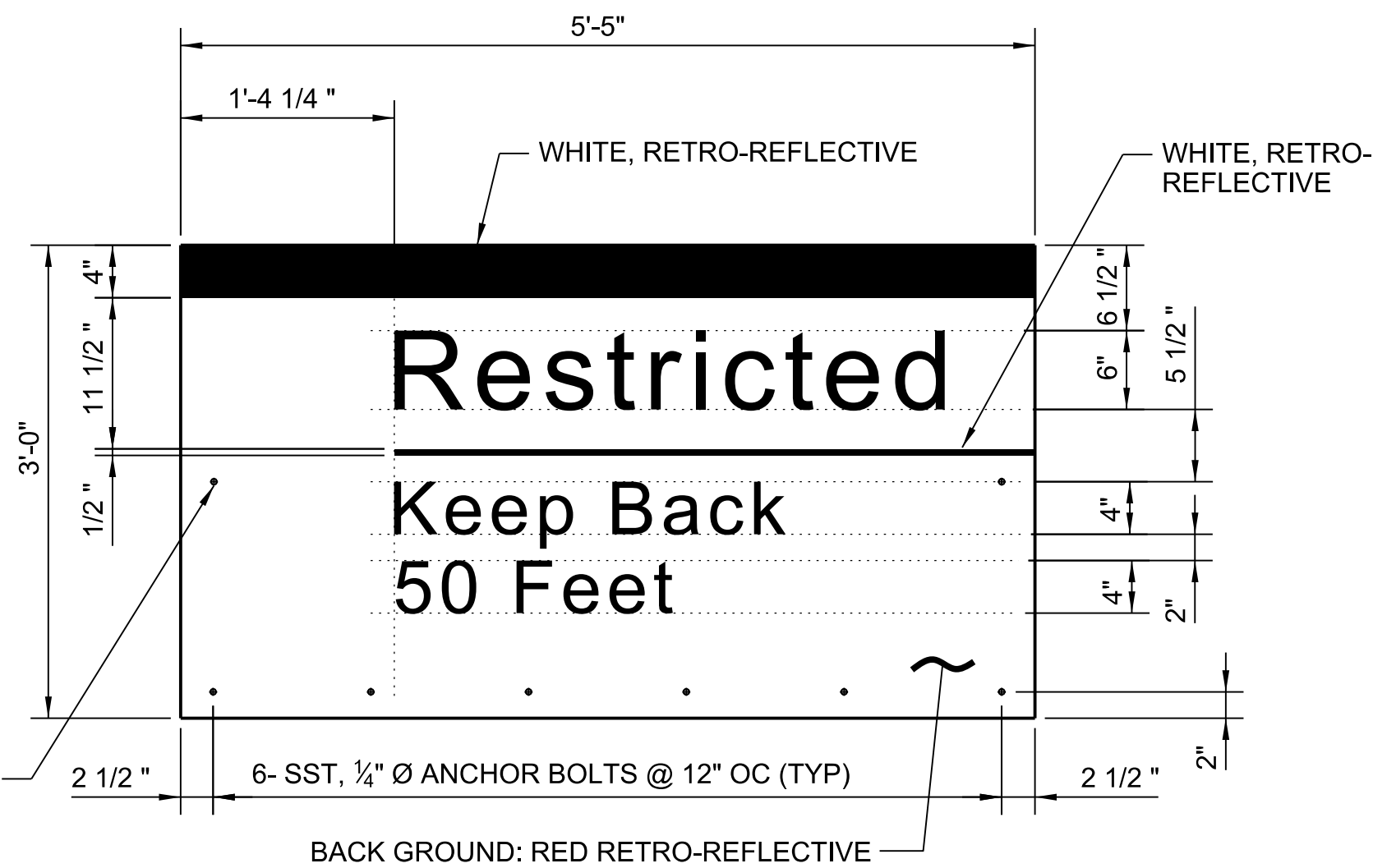


**OPTIONAL SIGN
PANEL SPLICE DETAIL**

SCALE: N.T.S.

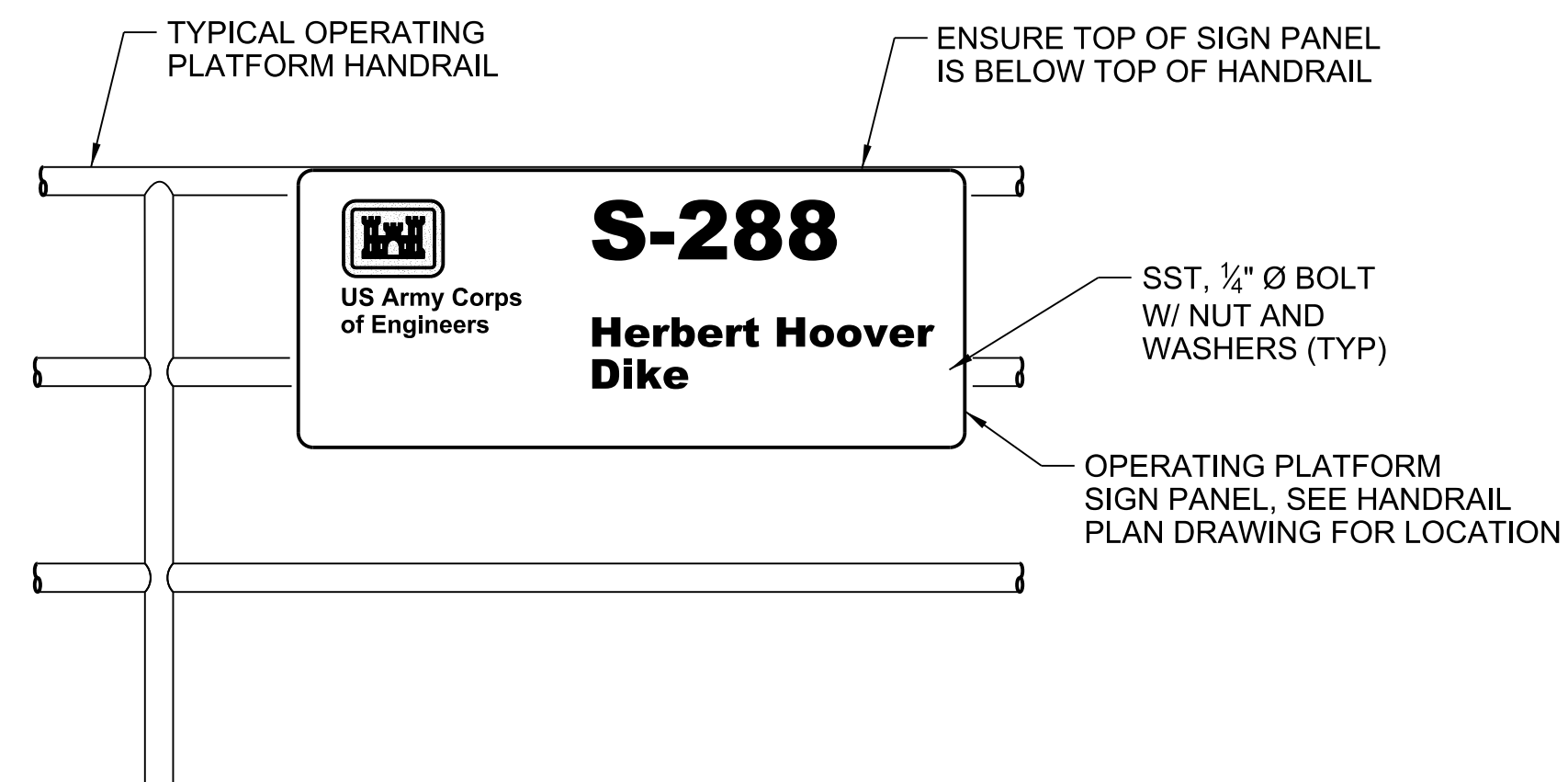


2 OPERATING PLATFORM SIGN PANEL
SCALE: N.T.S.



3 WATERWAY SIGN No.1

SCALE: N.T.S.



**OPERATING PLATFORM
SIGN PANEL INSTALLATION DETAIL**

SCALE: N.T.S.

GENERAL NOTES:

1. FOR CORPS OF ENGINEERS LOGO SPECIFICATIONS AND GRAPHIC DETAILS, REFER TO U.S. ARMY CORPS OF ENGINEERS, ENGINEERING PAMPHLET, EP 310-1-6, U.S. ARMY CORPS OF ENGINEERS GRAPHIC STANDARDS MANUAL.
2. DOTTED LINES SHOWN IN SIGN PANEL DETAILS ARE FOR LAYOUT PURPOSES ONLY AND SHALL NOT BE INCLUDED IN THE FINISHED SIGN.
3. REFER TO FEDERAL STANDARD 595-C FAN DECK FOR "FS" COLOR NUMBER SAMPLES.

MATERIAL NOTES:

1. RETRO-REFLECTIVE SHEETING SHALL BE DIAMOND GRADE, CONFORMING TO ASTM D 4956-04, TYPE IX
2. ALL RETRO-REFLECTIVE SHEETING USED SHALL BE FROM THE SAME MANUFACTURER.
3. SIGN PANELS SHALL BE FABRICATED FROM ALUMINUM 6061-T6 ALLOY, PANELS SHALL BE 0.125 INCHES THICK.

TYPOGRAPHY TABLE		
SIGN LEGEND	FONT	COLOR
US ARMY CORPS OF ENGINEERS	HELVETICA MEDIUM	WHITE RETRO-REFLECTIVE
S-288	HELVETICA BOLD	WHITE RETRO-REFLECTIVE
HERBERT HOOVER DIKE	HELVETICA BOLD	WHITE RETRO-REFLECTIVE
RESTRICTED	HELVETICA MEDIUM	WHITE RETRO-REFLECTIVE
KEEP BACK 50 FT	HELVETICA MEDIUM	WHITE RETRO-REFLECTIVE

DEPARTMENT OF THE ARMY CORPS OF ENGINEERS JACKSONVILLE, FLORIDA	DATE PREPARED BY: J.S.F.		DATE: MARCH 2017	
	DWN BY:		SOLICITATION NO.:	
	C.B.G.		SOLICIT #:	
	SUBMITTED BY:		CONTRACT NO.:	
	DOWNSHIP:		FILE NUMBER:	
	PLOT SCALES:		N/A	
	PLOT DATE:		AS SHOWN: 3/13/2018	
	FILE NAME:			
	114527-HHDCRHP1-SC562.DGN			

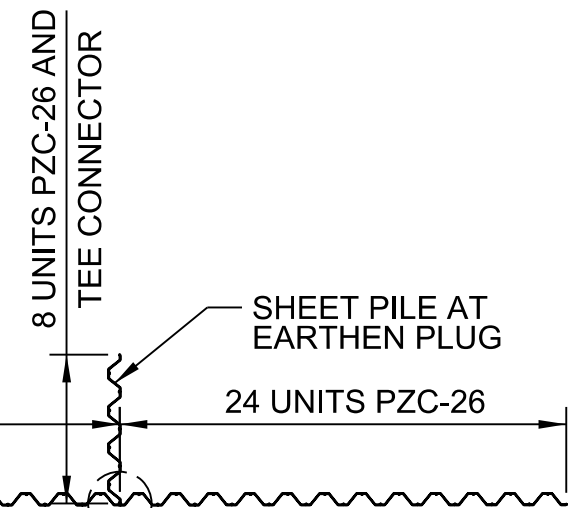
HERBERT HOOVER DIKE REHABILITATION
STRUCTURE REPLACEMENT

S-288 (HP-1) RECONSTRUCTION
STRUCTURAL

SIGN DETAILS

DRAWING NO.

6-62



ELEVATION LAKESIDE
SCALE: N.T.S.

2

- S-63**

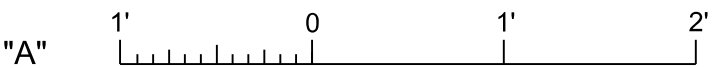


- ## M-01



SCALE: A

"A"




1. ALL MACHINE SCREWS USED SHALL BE STAINLESS STEEL AND TAMPER RESISTANT TYPE, W/ STAINLESS STEEL WASHERS AND STAINLESS STEEL SELF-LOCKING HEX NUTS.
2. ALL BOLTS, NUTS, AND WASHERS SHALL BE STAINLESS STEEL.
3. PIANO HINGE SHALL BE MOUNTED TO ENCLOSURE WITH NO. 10 MACHINE SCREWS @ 4" OC IN BOTH LEAFS.
4. MATERIAL QUANTITIES SHOWN ARE FOR ONLY ONE STILLING WELL. THERE ARE TWO STILLING WELLS ON THIS STRUCTURE.
5. FOR ELECTRONIC COMPONENTS SEE KEY NOTES ON DWG M-03.
6. AN ADDITIONAL PARTS LIST IS ON KEY NOTE TABLE ON DWG. M-03.
7. DETAIL 1 IS TYPICAL FOR LAKESIDE AND LANDSIDE STILLING WELLS.
8. FOR FEATURES NOTED USING A CIRCLE CALLOUT (#), REFER TO DRAWING M-02 FOR THE SCHEDULE.

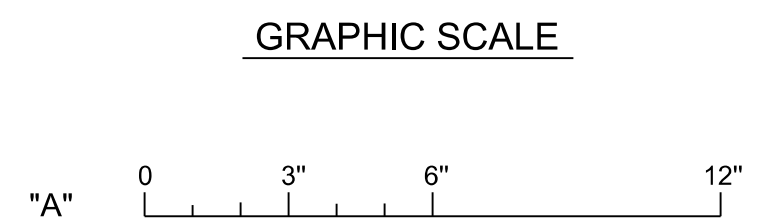
DEPARTMENT OF THE ARMY CORPS OF ENGINEERS JACKSONVILLE DISTRICT JACKSONVILLE, FLORIDA	M.D.		APRIL 2017
	DRAWN BY: J.D.H.	CKO BY: S.J.P.	SOLICITATION NO.:
	SUBMITTED BY:		CONTRACT NO.:
	PLOT SCALE: AS SHOWN	PLOT DATE: 3/13/2018	FILE NUMBER:

S-288 (HP-1) RECONSTRUCTION
MECHANICAL
STILLING WELL
SECTIONS AND DETAILS


M-02



"A" 



KEY NOTES:

	QUANTITY PER STILLING WELL	DESCRIPTION	MODEL/NAME	REMARKS
1	1	ALUMINUM ENCODER ENCLOSURE	SEE DRAWING M-02	
2	1	4" X 4" X 2" PLASTIC NEMA 4 JUNCTION BOX		
3	1 SUTRON	INCREMENTAL ENCODER	SUTRON 56-0540	
4	==	INSTRUMENT ISOLATION BOARD	STARBOARD, OR EQUAL	
5	3	½" STRAIGHT STRAIN RELIEF CORD CONNECTOR	THOMAS AND BETTS #2672 OR EQUAL	
6	1	4 PIN CONNECTOR	CONXALL CXS3106A14S2S300	
7	==		--	
8	1	⅝" X 12" SS AIRCRAFT CABLE WITH SS CRIMP SLEEVES (2)		
9	AS REQUIRED	1" CONDUIT AND FITTINGS		
10	AS REQUIRED	SENSOR WIRE		
11	==			
12	==		--	
13	==		--	
14	1 SUTRON	INCREMENTAL ENCODER PULLEY: 4" DIAMETER, INSULATED	HIF - 5306002 OR EQUAL	
15	1 (CR1000 OPTION)	13.5"W X 18"D X 8.2"H NEMA 4X,WHITE,FRP,CR10 ENCLOSURE	CAMPBELL SCIENTIFIC ENC 12/14 #13719	NOT SHOWN
16	1 (CR1000 OPTION)	40 AH BATTERY		NOT SHOWN
17		TAPE INDICATOR: INSIDE GAGE 5307015	HYDRAULIC INSTRUMENTATION FACILITY USGS	
18	1 (BALLUFF OPTION)	LINEAR POSITION TRANSDUCER	BALLUFF BTL-5-E17-M3048-2-SU034-K05 OR EQUAL	NOT SHOWN
19	1	S.S. FLOAT TAPE: MARKED INCREMENTS OF 0.01 FT.	DESIGN ANALYSIS H-262-25 OR EQUAL	
20	1	S.S. FLAT WEIGHT: 10 OZ. MIN.	DESIGN ANALYSIS H-262-10 OR EQUAL	
21	2	FLOAT END AND WEIGHT HOOKS	HIF 530612 OR EQUAL	
22	1	FLOAT		
23	1	VENTED PRESSURE TRANSDUCER FOR WATER LEVEL MEASUREMENT WITH CABLE CLAMP	SUTRON OTT-PLS	SDI-12 OUTPUT
24	1	SURVEY ELEVATION TAG. SURVEY ELEVATION REFERENCED TO NAVD88, +1.18 TO NGVD29.		SCRIB ELEVATION AND DATUM 1/8" HIGH LETTERS.

S-288 (HP-1) RECONSTRUCTION
HERBERT HOOVER DIKE REHABILITATION
STRUCTURE REPLACEMENT

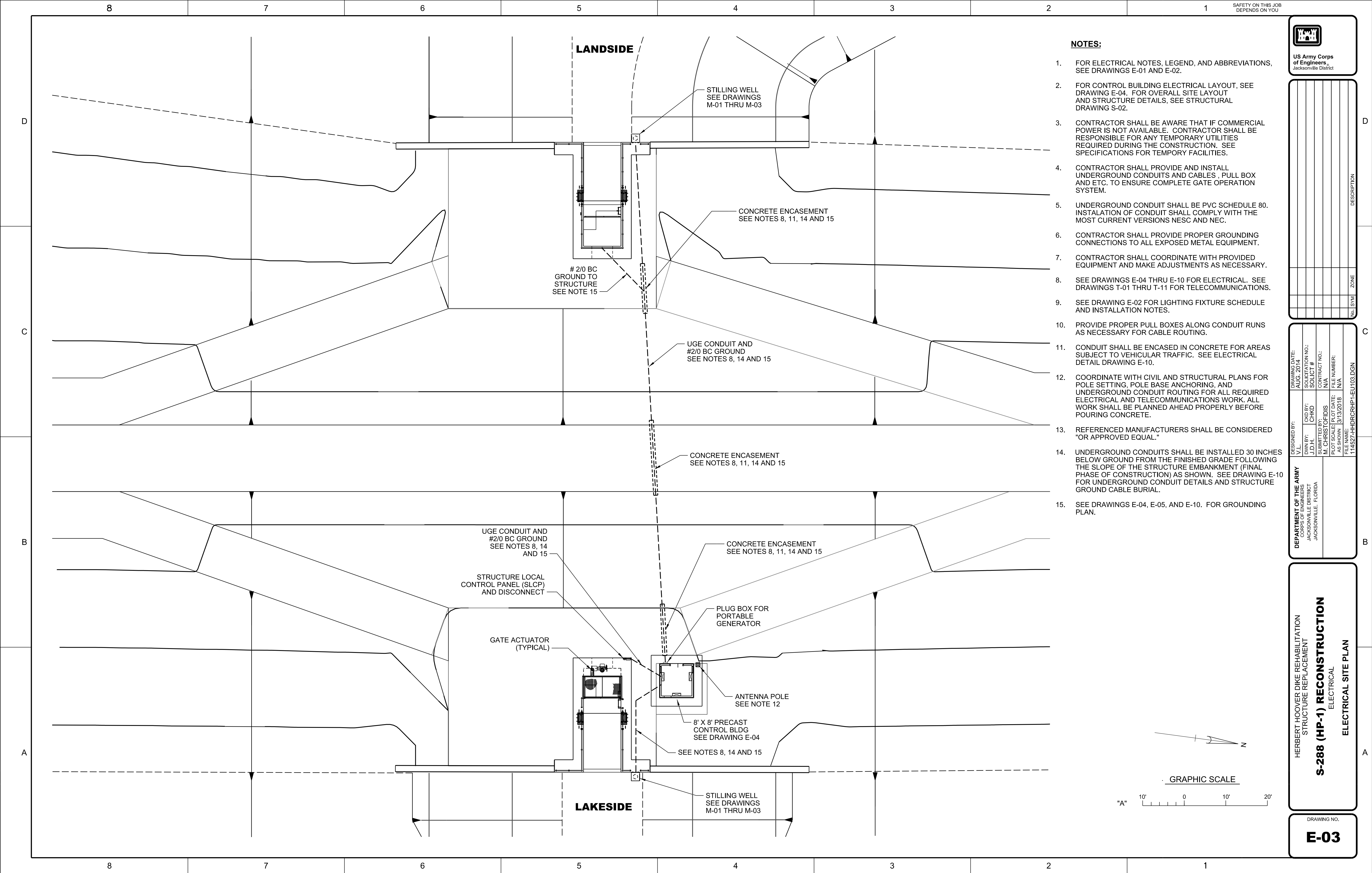
DRAWING NO.
1-03

(NOT ALL SYMBOLS WILL APPLY TO THIS PROJECT)

TRANSFORMER



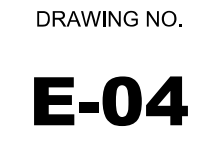
[illegible]



pw:\COE-SA\JPWP02JAX.saj.ds.usace.army.mil\SAJ\PWDocuments\C&SF\Herbert Hoover Dike Rehabilitation\03-Culvert Rehabilitation\S-288 (HP1)\080 - Plans\15 Electrical\E-03



1. FURNISH AND INSTALL A 3-POLE, 240VAC, 100A, MANUALLY OPERATED, DOUBLE THROW TRANSFER SWITCH IN A NEMA TYPE 1 ENCLOSURE.
2. PROVIDE A 240V, 30A, 1-PH, MARINE-GRADED MALE TYPE PLUG WITH COVER, NEMA L14-30P, FOR PORTABLE GENERATOR. PLUG BOX SHALL BE NEMA 3R ENCLOSURE.
3. FURNISH AND INSTALL A 100A, 1-PHASE, 3-WIRE, NEMA 1 PANEL WITH 60A MAIN BREAKER AND 20 POSITIONS, MINIMUM SHORT CIRCUIT CURRENT RATING OF 22KA (RMS SYMMETRICAL). SEE PANEL BOARD SCHEDULE FOR FEEDER BREAKER REQUIREMENTS. FILL ALL SPARE SPACES WITH 1-POLE, 20A BREAKERS. AS SHOWN ON DRAWING E-08.
4. PROVIDE COPPER GROUND BAR (0.25" X 4" X 12") FOR ALL GROUNDING TO EQUIPMENT ENCLOSURES, PANELS, AND CABINETS, SEE GROUNDING BUSBAR DETAIL ON DRAWING E-09.
5. SEE MECHANICAL DRAWINGS M-01 THRU M-03 FOR STILLING WELL DETAILS.
6. PROVIDE AND INSTALL A WALL MOUNTED A/C UNIT WITH 8,000 BTUH COOLING CAPACITY AND MINIMUM 10 ENERGY EFFICIENCY RATING (EER). THE UNIT SHALL HAVE THREE COOLING AND FAN SPEED SETTINGS AND DIGITAL THERMOSTAT. PROVIDE STAINLESS STEEL VANDAL-PROOF GUARD CAGE. SEE STRUCTURAL DRAWING S-55 FOR GUARD CAGE DETAILS AND COORDINATE WITH PROVIDED A/C EQUIPMENT FOR WALL OPENING DIMENSIONS.





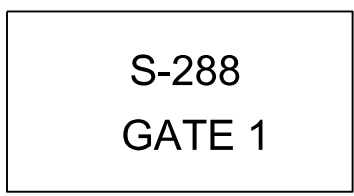
- GENERAL NOTE:**
- ** THE CONTRACTOR SHALL COORDINATE DESIGN WITH EQUIPMENT PROVIDED**



HERBERT HOOVER DIKE REHABILITATION
STRUCTURE REPLACEMENT

S-288 (HP-1) RECONSTRUCTION
ELECTRICAL

OPERATING PLATFORM DETAILS

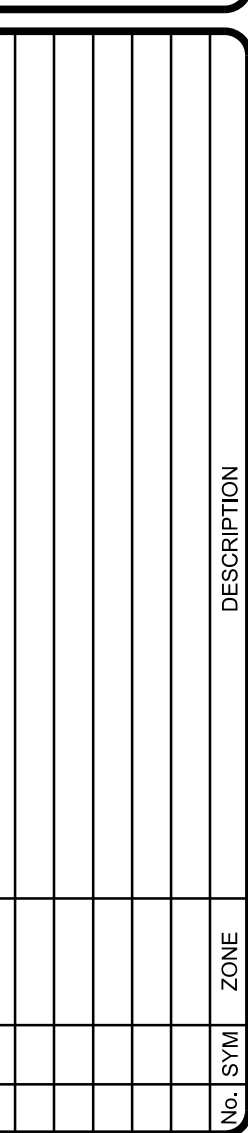


CONTROL PANEL SCHEMATIC

SCALE: N.T.S.



O.L. THERMAL OVERLOAD CONTACT WITH STARTER



JACKSONVILLE DISTRICT JACKSONVILLE, FLORIDA	DWN BY: CKD BY: J.D.H. J.S.P. SUBMITTED BY: SOLICITATION NO.: CONTRACT NO.: PLOT SCALE: PLOT DATE: AS SHOWN 3/13/2018 FILE NUMBER: FILE NAME: 114527-HH-DRCHP-EI607
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STRUCTURE REPLACEMENT
S-288 (HP-1) RECONSTRUCTION
ELECTRICAL
CONTROL SCHEMATIC

E-07



DRAWING NO.

E-09

SCALE: A

1. ALL ELECTRICAL WORK SHALL COMPLY WITH THE NEC REQUIREMENTS.
2. LOADINGS FOR PULL BOX SHALL COMPLY WITH ANSI/SCTE 77 AND SHALL COMPLY WITH ANSI TIER 15 TEST PROVISIONS USE STRONGWELL QUAZITE CATALOGUE #PG2436BA24 FOR PULL BOX AND PG2436HGOO FOR PULL BOX COVER OR APPROVED EQUAL.



DEPARTMENT OF THE ARMY		APRIL 2017	
ARMY ENGINEER DISTRICT		SOLICITATION NO.:	
JACKSONVILLE DISTRICT		J.E.P.	
JACKSONVILLE, FLORIDA		CONTRACT NO.:	
SUBMITTED BY:		FILE NUMBER:	
D.W. BY: CKD BY:		PLOT SCALE: PLOT DATE:	
3/13/2018		AS SHOWN: 3/13/2018	
114527-HHDCRHP-EG510.DGN			

HERBERT HOOVER DIKE REHABILITATION
STRUCTURE REPLACEMENT

S-288 (HP-1) RECONSTRUCTION
ELECTRICAL
ELECTRICAL DETAILS
SHEET 2

DRAWING NO.
E-10

TYPICAL MONITORING SYSTEM DIAGRAM
SCALE: N.T.S.

Г-02

NOTES:

- CONTRACTOR SHALL COORDINATE WITH EQUIPMENT PROVIDED.
- PROVIDE SURGE SUPPRESSION FOR ALL CABLES BETWEEN CAMERAS AND POE'S. SURGE SUPPRESSION SHALL MEET UL 497B. SURGE SUPPRESSION SHALL DISSIPATE 3,000 W/PAIR.
- REFERENCED ITEMS: 1A THRU 2M, 3D, 3G, 3J, 5A, 5B, 5C, 5F, 6A, AND 6E SHALL BE MANUFACTURERS AS SHOWN "OR APPROVED EQUAL."



US Army Corps
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Jacksonville District

SUTRON SYSTEM COMPONENTS

REF #	MANUFACTURER	PART #	DESCRIPTION
1A	HOFFMAN	A604816SSLP, ADP2	48H"x36W"x12D" STAINLESS STEEL ENCLOSURE WITH INTERIOR DOOR POCKET, POWDER COAT EXTERIOR WHITE
1B	CROUSE HINDS	CGFP193	GALVANIZED STEEL CORD GRIP FOR 3/8" CORD
1C	POREX	INTERSTATE SPECIALTY PRODUCTS #5541	3/8" DIA. X 1" LONG HYDROPHOBIC FILTER MATERIAL
1D	PANDUIT	F1.5X1.5LG6	1-1/2"x1-1/2" WIREWAY
1E	PANDUIT	C1.5LG6	1-1/2" WIREWAY COVER
1F	BURNDY	KC17B1	TYPE SP SERVICE GRD POST CONNECTOR
1G	HOFFMAN	A-30P24	BACK PANEL
1H	ILSCO	N1186-B	DUAL RATED GROUND BAR
1I	PANDUIT	F1X1LG6	1"x1" WIREWAY
1J	PANDUIT	C1LG6	1" WIREWAY COVER
2A	PHOENIX CONTACT	08 01 73 3	DIN RAIL
2B	PHOENIX CONTACT	30 04 36 2	TERMINAL BLOCK
2C	PHOENIX CONTACT	30 03 02 0	TERMINAL BLOCK END COVER
2D	PHOENIX CONTACT	08 00 88 6	END CLAMPS
2E	PHOENIX CONTACT	08 00 30 7	TERMINAL STRIP MARKER
2F	PHOENIX CONTACT	30 04 03 2	KNIFE DISCONNECT
2G	PHOENIX CONTACT	55 31 72 3	10AMP CIRCUIT BREAKER-1 POLE
2H	PHOENIX CONTACT	13 02 21 5	PARTITION PLATE
2I	PHOENIX CONTACT	02 03 25 0	FIXED BRIDGE
2J	PHOENIX CONTACT	28 56 12 6	PLUGTRAB BASE
2K	PHOENIX CONTACT	28 58 04 3	PLUGTRAB PLUG
2L	PHOENIX CONTACT	28 56 11 3	PLUGTRAB BASE
2M	PHOENIX CONTACT	28 56 03 2	PLUGTRAB PLUG
3A	SUTRON	XPRT2	MEASUREMENT AND CONTROL MODULE (DATA LOGGER)
3B	SUTRON	SATLINK-3, MODEL SL3-1	TRANSMITTER
3C	SUTRON	6461-1242-1	POWER TERMINATION
3D	MORNINGSTAR	SS-10L	SOLAR CONTROLLER
3E	SUTRON	8080-0003	ANALOG I/O MODULE
3F	SUTRON	6461-1241	SDI-12 TERMINATION
3G	POWER SONIC	PSC-12800A	POWER SUPPLY
3H	N/A	N/A	GATE POSITION INDICATOR IN GATE ACTUATOR
3I	SUTRON	56-0540	STILLING WELL SDI-12 SHAFT ENCODER
3J	JEWELL INSTRUMENTS	A906-ST-BD-V	IN-PLACE INCLINOMETER (IPI)
3K	N/A	N/A	GATE POSITION INDICATOR IN GATE ACTUATOR
4A	SUTRON	5000-0081	YAGI GOES SATELLITE ANTENNA
4B	SUTRON	5000-0170	JAM RESISTANT GPS ANTENNA
4C	SUTRON	8111-1113-1	RF COAX LIGHTNING PROTECTOR
4D	N/A	N/A	LIGHTNING PROTECTOR
4E	SUTRON	6411-1162	ANTENNA CABLE
4F	SUTRON	6411-1561	ANTENNA CABLE
5A	TOYO BATTERY CO.	6GFM55	12 VOLT 50 AH BATTERIES
5B	N/A	N/A	N/A
5C	BP SOLAR	BP 350	50 WATT SOLAR PANELS
5D	CRADLEPOINT	AER1600LP6-NA-M	CRADLEPOINT AER1600LP6 OR APPROVED EQUAL
5E	N/A	N/A	SOLAR PANEL ROOF MOUNTING BRACKET
5F	GE	GE iNET-II 900	GE iNET-II 900 RADIO OR APPROVED EQUAL
6A	PHOENIX CONTACT	N/A	3.5AMP CIRCUIT BREAKER-1 POLE
6B	PHOENIX CONTACT	09 15 06 9	10 AMP CIRCUIT BKR - 2 POLE W/ AUX CONTACTS
6C	FURNISHED BY CONTRACTOR	N/A	4 COND. #14 AWG SIS CONDUCTORS
6D	FURNISHED BY CONTRACTOR	N/A	6 COND. #14 AWG SIS CONDUCTORS
6E	HOFFMAN	A-VK33	4" X 4" LOUVER WITH FILTER
6F	WIEGMANN	RSC161610	16" X 16" X 10" NEMA 3R ENCLOSURE
6G	N/A	N/A	AC QUAD RECEPTACLE

SUTRON ENCLOSURE LAYOUT
SCALE: N.T.S.

HERBERT HOOVER DIKE REHABILITATION
STRUCTURE REPLACEMENT
S-288 (HP-1) RECONSTRUCTION
TELECOMMUNICATIONS
SUTRON SYSTEM COMPONENTS

DRAWING NO.
T-03



CONTINUED ON SHEET T-05

- 
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Jacksonville District

[illegible]

DEPARTMENT OF THE ARMY	
CORPS OF ENGINEERS	
JACKSONVILLE, FLORIDA	
ISSUED BY:	
V.I.	OCTOBER 2015
SOLICITATION NO.:	
DWN BY:	CMD BY:
J.D.H.	G.D.
SUBMITTED BY:	
	CONTRACT NO.:
PILOT SCALE:	PILOT DATE:
AS SHOWN:	3/13/2018
FILE NAME:	
114527-HHDCRIP1-TS804.DGN	

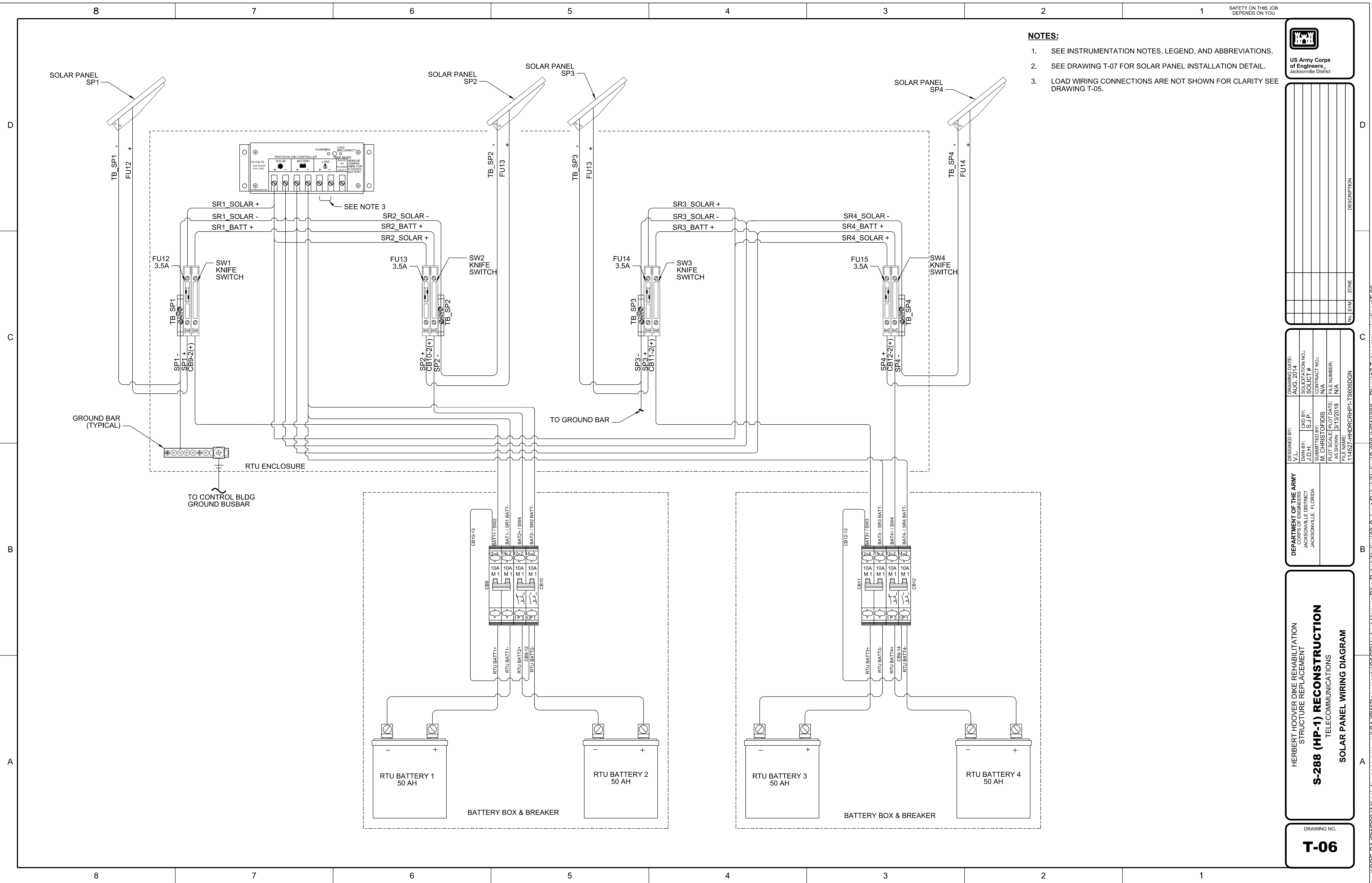
HERBERT HOOVER DIKE REHABILITATION
STRUCTURE REPLACEMENT

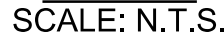
S-288 (HP-1) RECONSTRUCTION
TELECOMMUNICATIONS

SUTRON PANEL WIRING DIAGRAM
SHEET 1

DRAWING NO.
T-04







SOLAR POWER COMPONENTS

- U.S. Army Corps
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HERBERT HOOVER DIKE REHABILITATION
STRUCTURE REPLACEMENT

S-288 (HP-1) RECONSTRUCTION

TELECOMMUNICATIONS
SOLAR POWER PANEL
INSTALLATION DETAIL



- DRAWING NO.
- T-08**



US Army Corps
of Engineers
Jacksonville District

D

DESCRIPTION

No. SYM ZONE

C

DESIGNED BY: V.L. DRA: APRIL 2017
DRAWN BY: J.S. SVP: SOLICITATION NO.:
SUBMITTED BY: J.S. SVP: CONTRACT NO.:
PLOT SCALE: 1/8" = 1'-0" FILE NUMBER:
FILE NAME: 114627-HDRGRHP1-TS05.DGN

B

HERBERT HOOVER DIKE REHABILITATION
STRUCTURE REPLACEMENT
S-288 (HP-1) RECONSTRUCTION
TELECOMMUNICATIONS
INCLINOMETER INSTALLATION DETAIL

DRAWING NO.

T-09

pw:\COE-SA\JPWP02JAX.saj.ds.usace.army.mil\SAJ\PWDocuments\C&S\Herbert Hoover Dike Rehabilitation\03-Culvert Rehabilitation\S-288 (HP1)\080 - Plans\17-Telecommunications\T-09

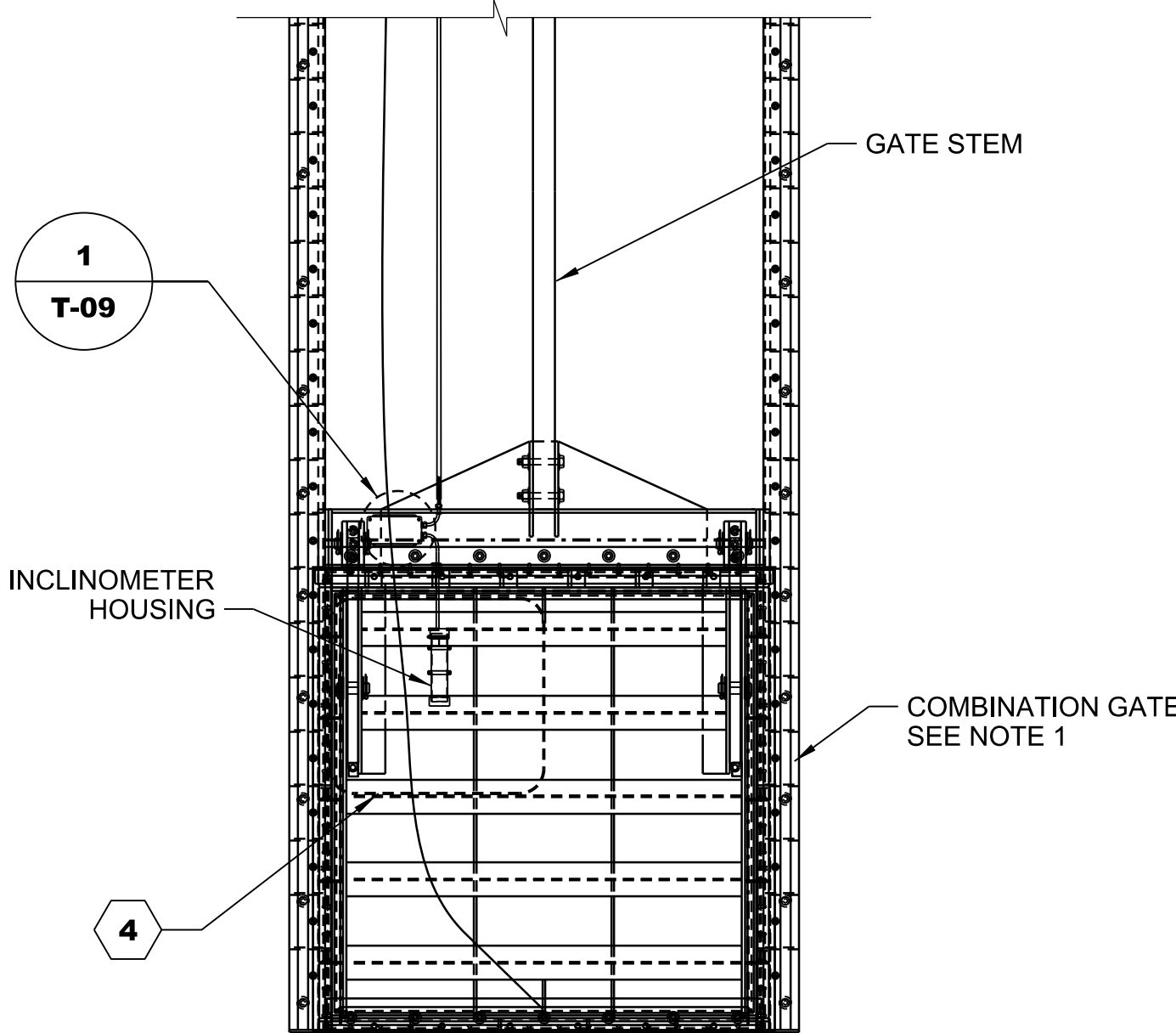
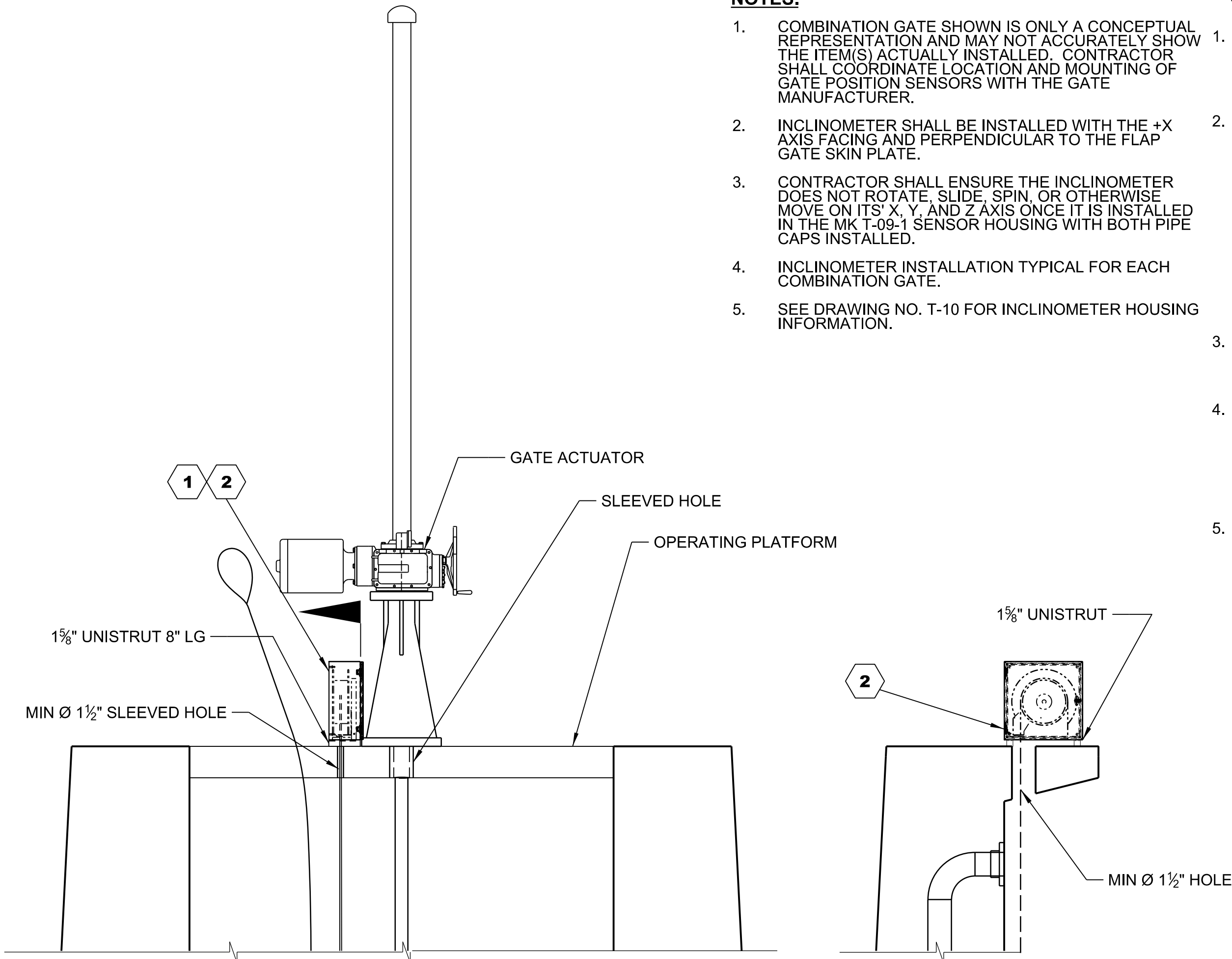
NOTES:

- COMBINATION GATE SHOWN IS ONLY A CONCEPTUAL REPRESENTATION AND MAY NOT ACCURATELY SHOW THE ITEM(S) ACTUALLY INSTALLED. CONTRACTOR SHALL COORDINATE LOCATION AND MOUNTING OF GATE POSITION SENSORS WITH THE GATE MANUFACTURER.
- INCLINOMETER SHALL BE INSTALLED WITH THE +X AXIS FACING AND PERPENDICULAR TO THE FLAP GATE SKIN PLATE.
- CONTRACTOR SHALL ENSURE THE INCLINOMETER DOES NOT ROTATE, SLIDE, SPIN, OR OTHERWISE MOVE ON ITS X, Y, AND Z AXIS ONCE IT IS INSTALLED IN THE MK-T-09-1 SENSOR HOUSING WITH BOTH PIPE CAPS INSTALLED.
- INCLINOMETER INSTALLATION TYPICAL FOR EACH COMBINATION GATE.
- SEE DRAWING NO. T-10 FOR INCLINOMETER HOUSING INFORMATION.

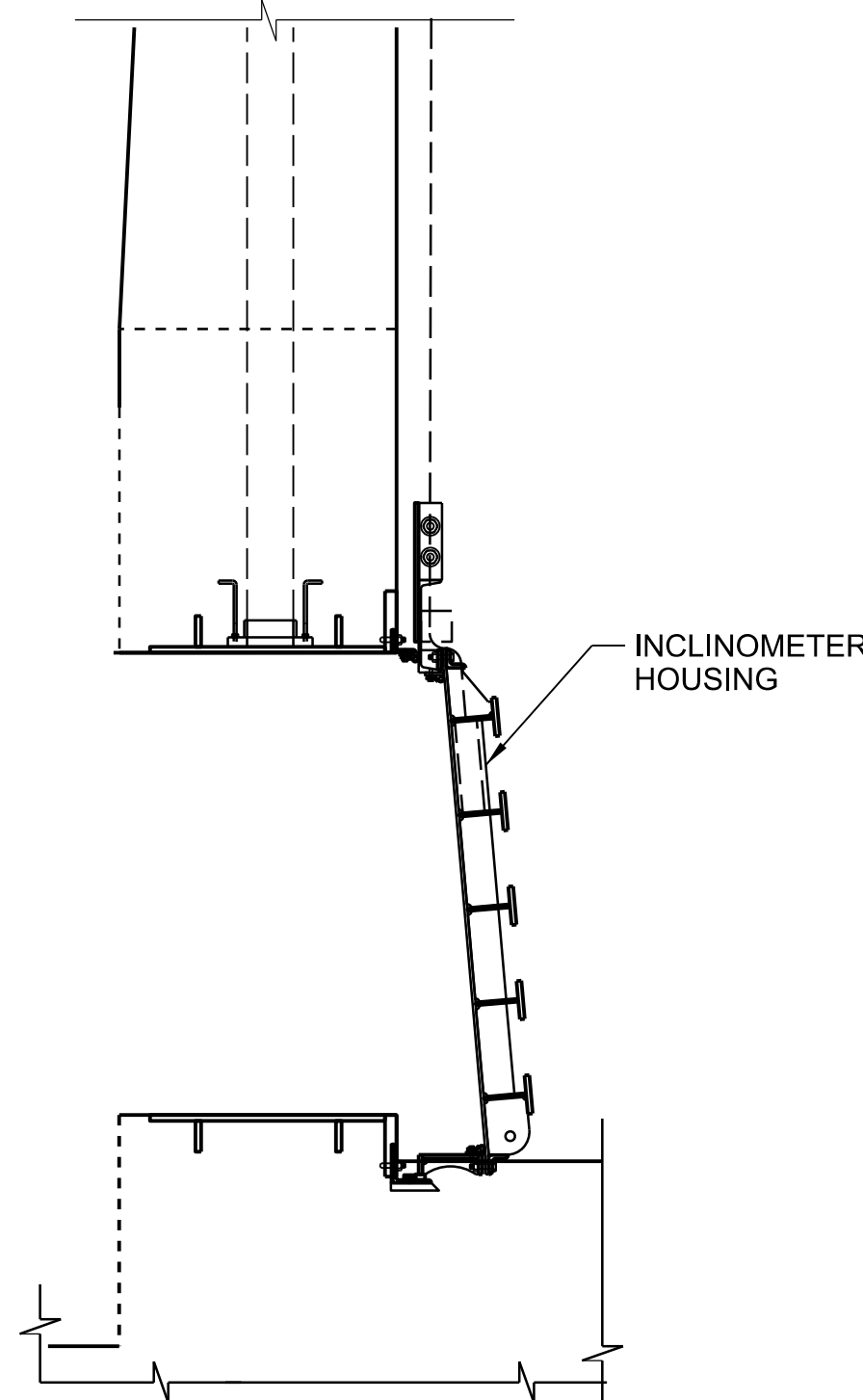


KEY NOTES:

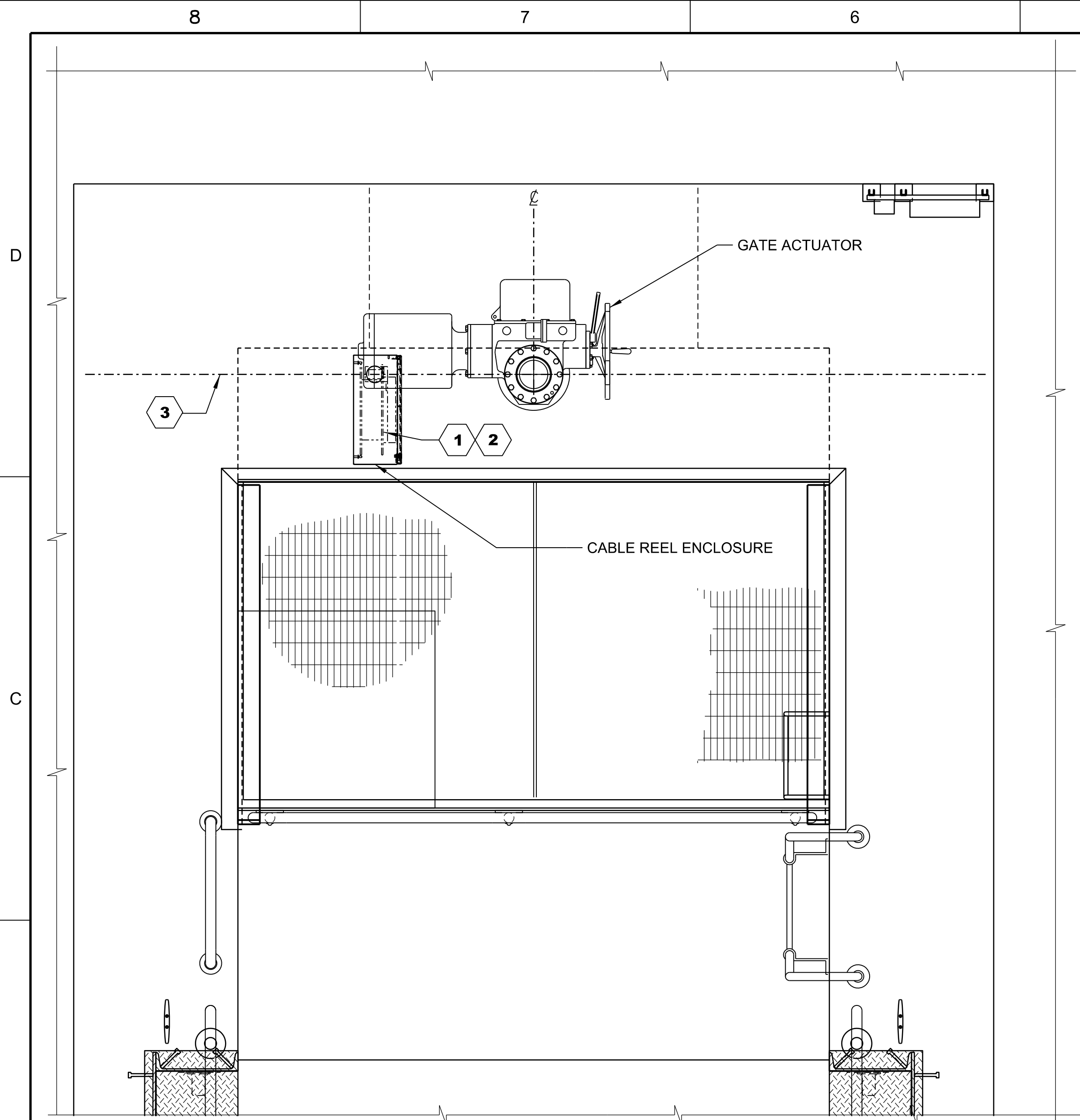
- INCLINOMETER CABLE REEL ENCLOSURE SHALL BE MOUNTED ON SIDE OF GATE ACTUATOR OPPOSITE OF HAND CRANK.
- CABLE REEL ENCLOSURE ASSEMBLY CONSISTS OF A NEMA 4X SST ENCLOSURE THAT IS LARGE ENOUGH TO ACCOMMODATE THE CABLE REEL, BUT SHALL BE NO LARGER THAN 24" W X 24" L X 12" D OF OVERALL DIMENSIONS. PROVIDE A SPRING DRIVEN CABLE REEL WITH BOTTOM WIND DIRECTION AND CONSTANT TENSION DEVICE WITHOUT A LATCH PAWL. THE SPRING DRIVEN CABLE REEL SHALL BE CAPABLE OF HOLDING 30 FEET OF FLEXIBLE HEAVY-DUTY TPE JACKET CABLE.
- THE GATE ACTUATOR STEM AND INCLINOMETER CABLE SHALL BE CENTERED ON THE SAME ALIGNMENT.
- INCLINOMETER SHALL BE INSTALLED WITHIN THIS QUADRANT OF THE FLAP GATE. CONTRACTOR SHALL COORDINATE THE SPECIFIC LOCATION AND ORIENTATION OF THE INCLINOMETER WITH THE GATE MANUFACTURER.
- HEAVY-DUTY SUBMERSIBLE TYPE 316 SST NEMA 6P (IP68) 4" W X 8" L X 4" D ENCLOSURE SHALL BE CAPABLE OF BEING SUBMERGED IN WATER AND SUSTAINING WATERPROOF CONNECTIONS TO REEL CABLES. INSTALL ENCLOSURE WITHIN THE FLAT SURFACE OF THE U-SHAPED SST UPPER SLIDE GATE FRAME AS SHOWN. MAKE ANY NECESSARY ADJUSTMENT OF ENCLOSURE INSTALLATION TO ALIGN WITH CABLE REEL LOCATION TO ENSURE NO INTERFERENCE WITH GATE OPERATIONS AND NO OBSTRUCTION TO CABLE REEL FUNCTIONING IN EITHER DIRECTION. APPROPRIATE TERMINAL BLOCK SHALL BE USED FOR ALL CABLE CONNECTIONS. ALL REQUIRED ACCESSORIES, E.G., STRAIN RELIEF FITTING, WATERPROOF FITTING OR SEALANT, ETC. AND MANUFACTURER'S RECOMMENDED INSTALLATION METHODS SHALL BE UTILIZED APPROPRIATELY. CONTRACTOR SHALL TEST AND VERIFY CABLE CONNECTIONS INSIDE ENCLOSURE VIGOROUSLY TO MAKE SURE NO WATER INTRUSION CAN OCCUR. ALL THE CONNECTIONS SHALL BE VERIFIED WITH THE FIELD OFFICE.



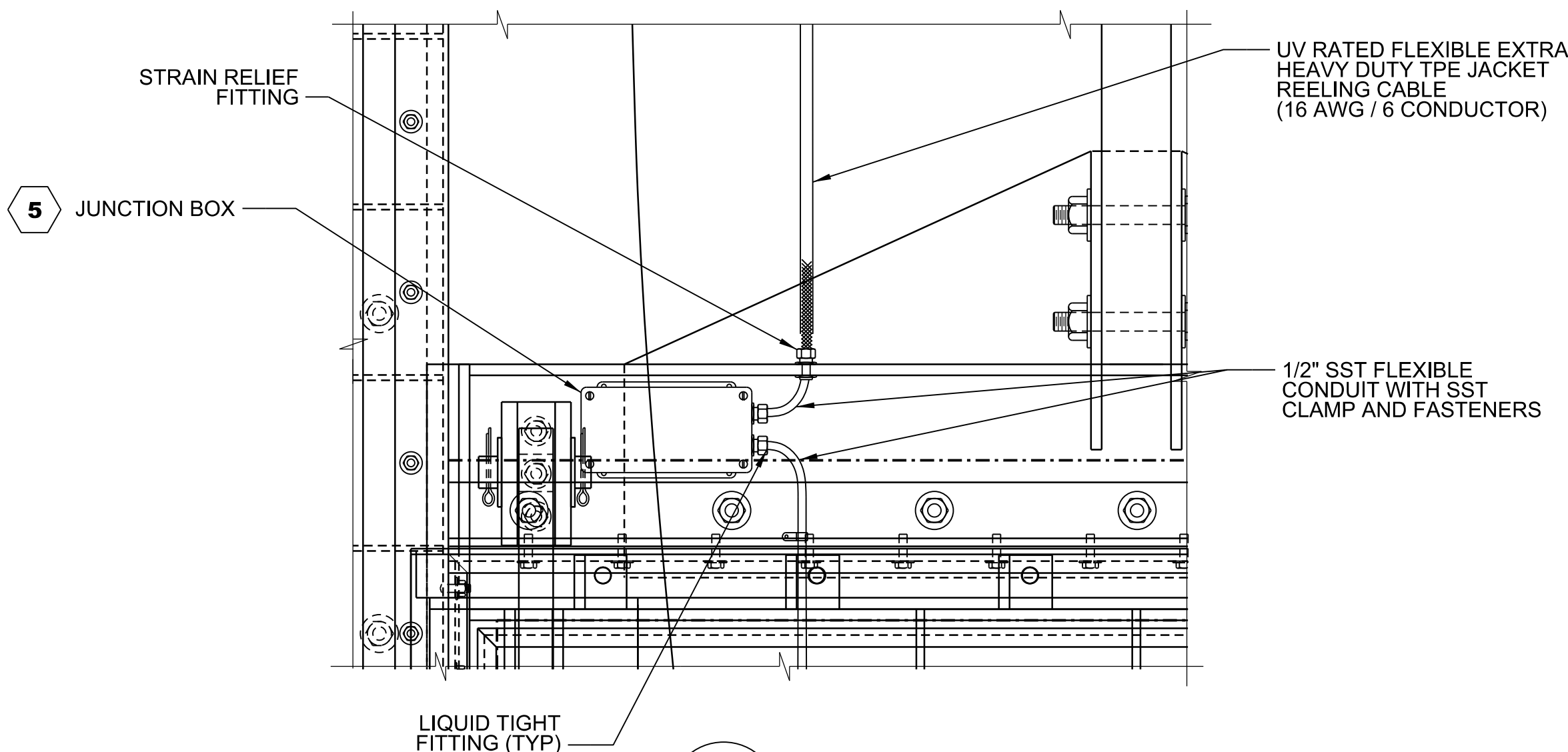
FRONT ELEVATION
SCALE: N.T.S.



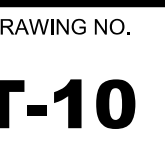
SECTION
SCALE: N.T.S.



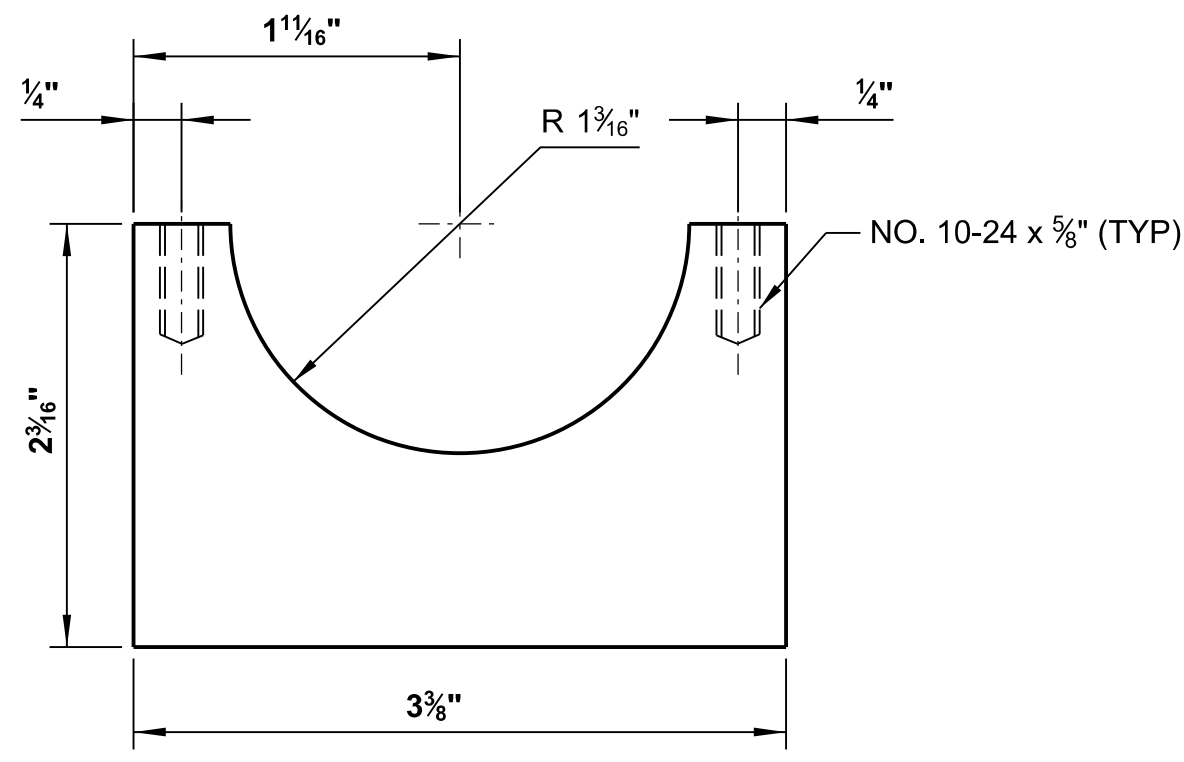
INCLINOMETER PLAN
SCALE: N.T.S.



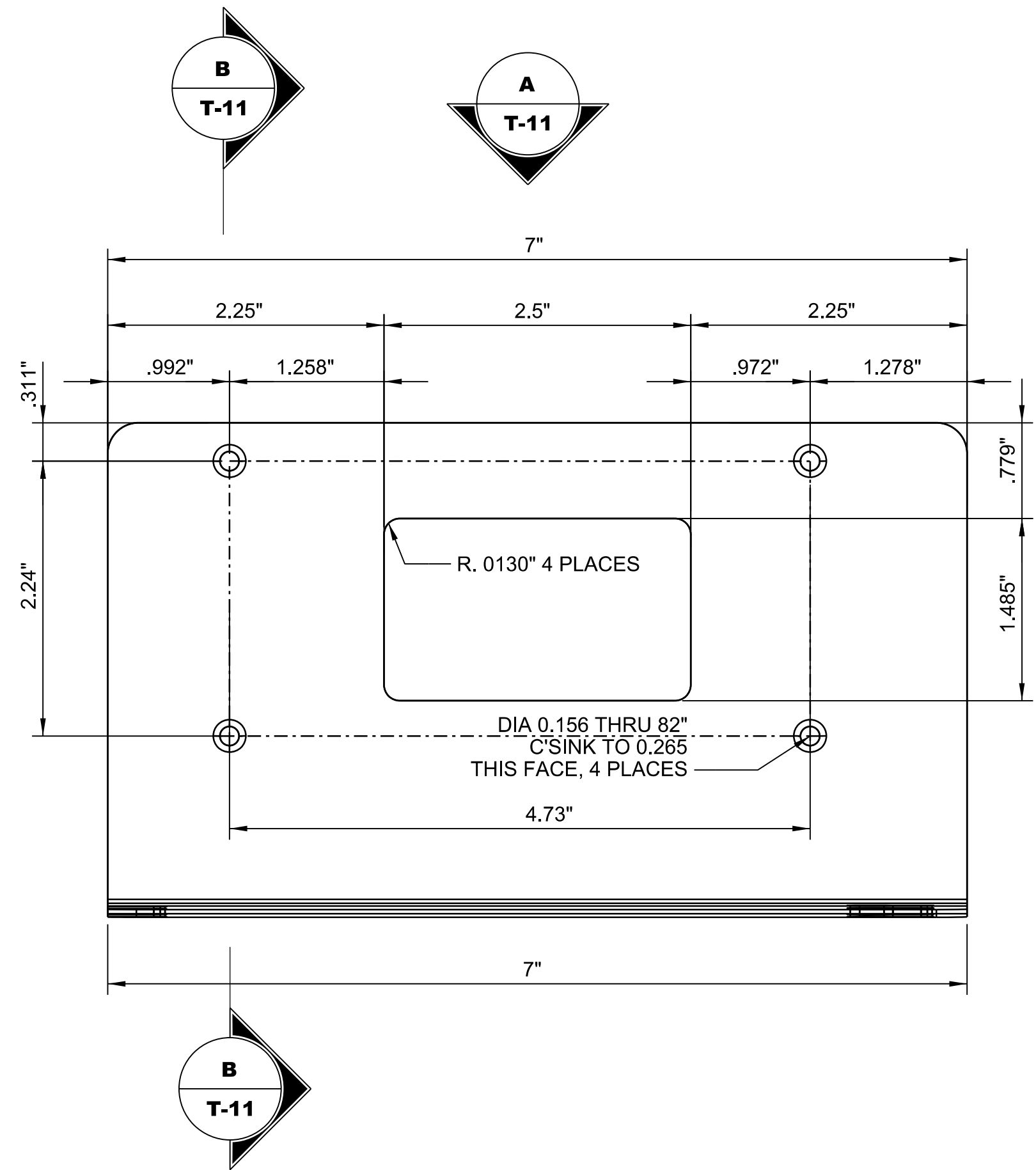
DETAIL
SCALE: N.T.S.



- CLAMP BASE MK. T-10-2**
MATL: TYPE 304 SST 2 REQ'D.

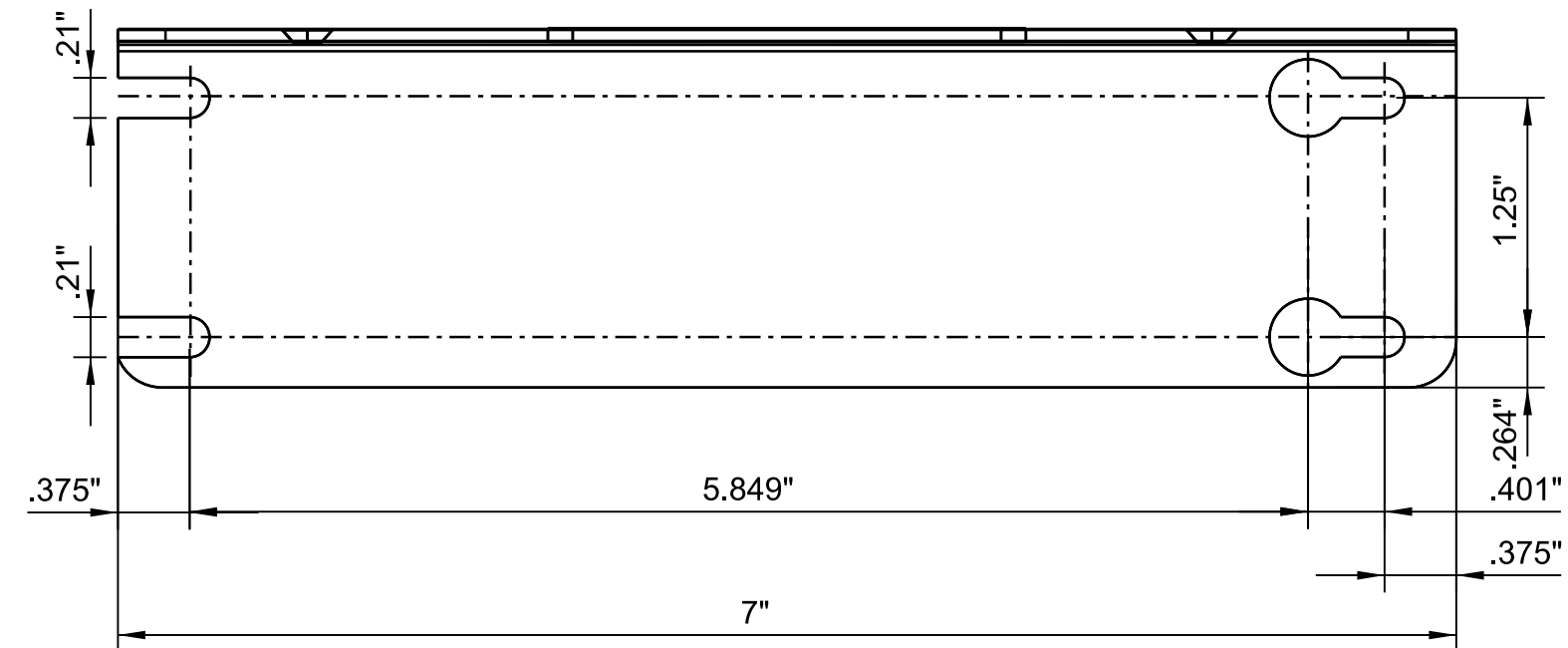


2. DRAWING SHOWN IS CONCEPT DRAWING. DESIGN AND FABRICATE BRACKET FOR GE MDS iNET-II 900 RADIO.

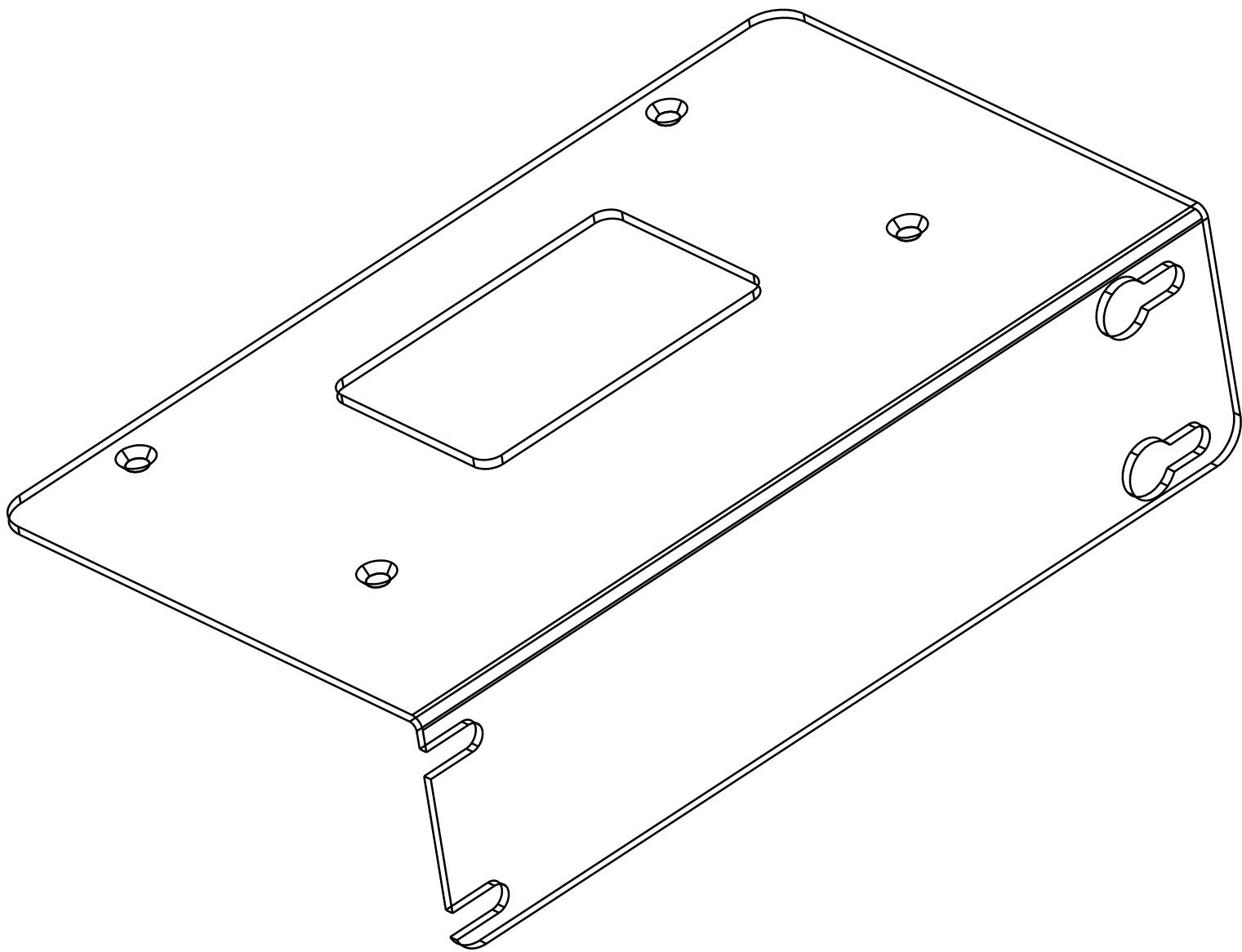


RTU BRACKET PLAN

SCALE: A

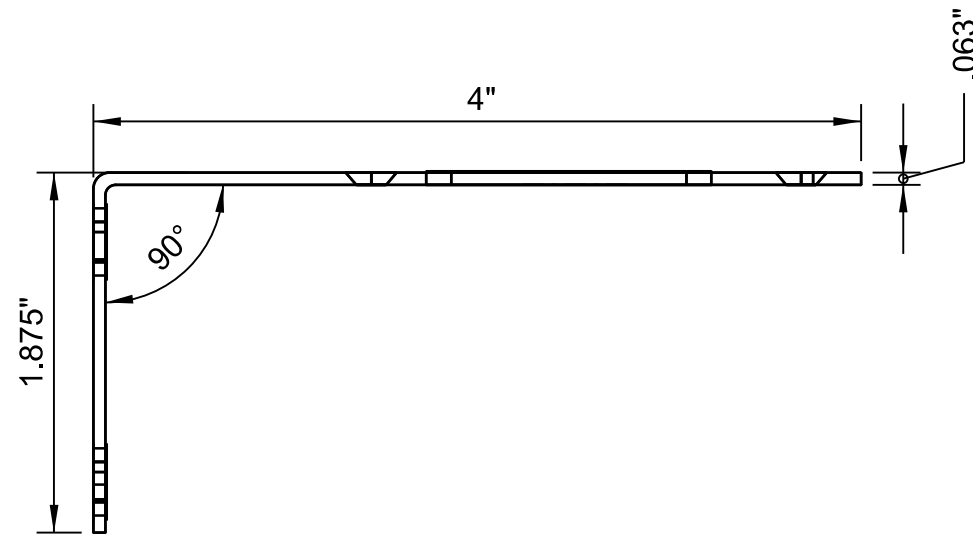


A **ELEVATION A**
T-11



RTU BRACKET ISOMETRIC PLAN

SCALE: A



B
T-11



A





US Army Corps
of Engineers
Jacksonville District

NOTES:

1. THREE-QUARTER SIZED DRAWING SHOWN IS A CONTRACT
DRAWING FROM A PREVIOUS PROJECT(S) AND MAY NOT
REPRESENT CURRENT CONDITIONS. THIS DRAWING IS
INCLUDED FOR REFERENCE ONLY. THIS REFERENCE
DRAWING IS NOT TO SCALE AND SHALL NOT BE USED TO
DETERMINE LINEAR OR ANGULAR MEASUREMENTS. THE
CONTRACTOR IS RESPONSIBLE FOR VERIFYING REFERENCE
DRAWING INFORMATION USED DURING THE PERFORMANCE
OF THIS CONTRACT. ALL KEY NOTES, GENERAL NOTES, AND
NEW DETAILS SHOWN BESIDE OR BELOW THE REFERENCE
DRAWING SHALL APPLY TO THIS CONTRACT.

D

C

B

A

HERBERT HOOVER DIKE REHABILITATION
STRUCTURE REPLACEMENT
S-288 (HP-1) RECONSTRUCTION
RESOURCE
HP_Culverts_Sheet_2_DO_463-25,182-1

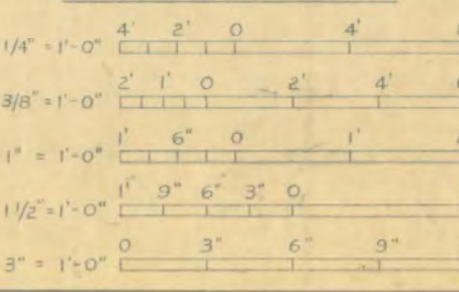
DRAWING NO.
R-02

DESIGNED BY: J.S.F.	DRAWING DATE: MAY 2017
CHECKED BY: J.W.E.	SOLICITATION NO.:
APPROVED BY: J.W.E.	CONTRACT NO.:
DEPARTMENT OF THE ARMY CORPS OF ENGINEERS JACKSONVILLE DISTRICT JACKSONVILLE, FLORIDA	FILE NUMBER: 114527-HHRCRHP1-R-02 DGN

REVISION	DATE	DESCRIPTION	BY
14	3-2-59	Revised culvert #1, #2, #3, #5, #6. Revised headwall & wingwall elevations. Revised headwall & hoist beams for Culv. #2 & #6.	J.S.F.
15	10-22-58	Revised headwall & hoist beams for Culv. #2 & #6.	J.S.F.

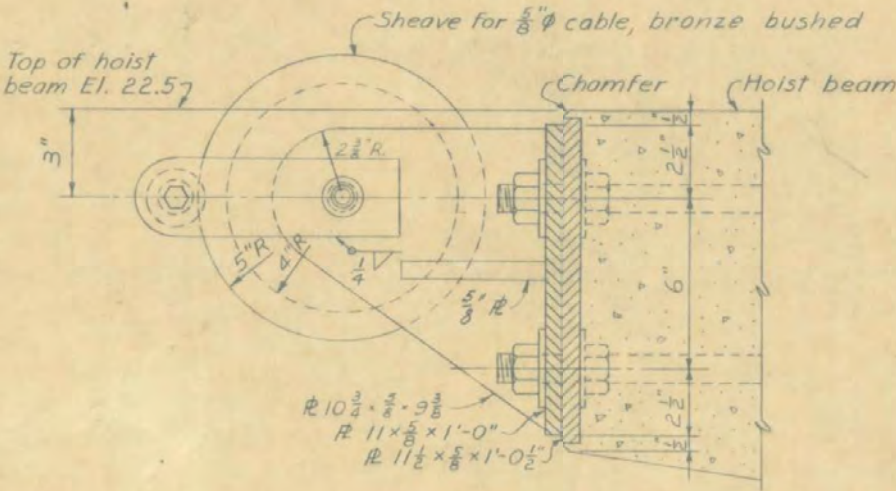
DR. BY: J.N.D.	TO: CENTRAL & SOUTHERN FLORIDA PROJECT
CHKD BY: J.W.E.	FOR FLOOD CONTROL AND OTHER PURPOSES
PREPARED BY: J.S.F.	CANAL 41
SUBMITTED BY: J.S.F.	CULVERTS NO. 1-6
APPROVAL RECOMMENDED: J.S.F.	DETAILS
APPROVED: J.S.F.	AUG 1958
TO ACCOMPANY INVITATION NO. CH. ENR. 48-183-59-24	DATED: 29 OCT. 1958
FILE NO. 463-25,182-22	

GRAPHIC SCALES



VL

SECTION C-C
SHEAVE BRACKET

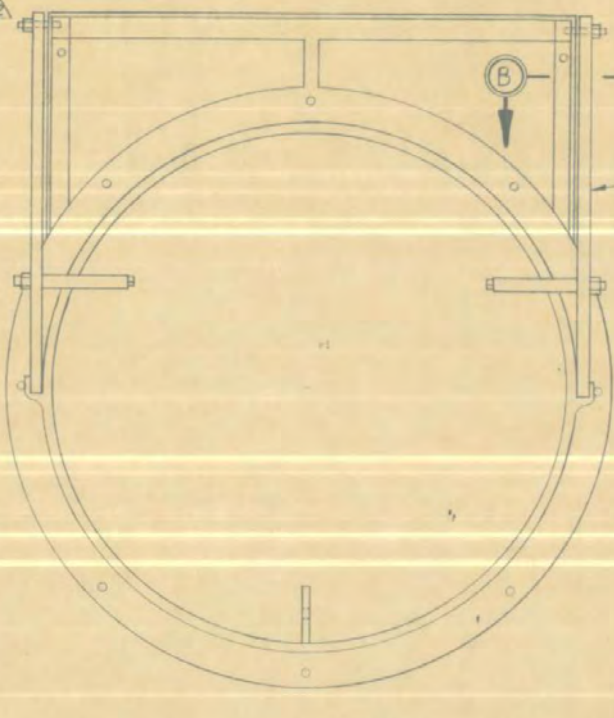


NOTES:
1. All material noted on this sheet as corrosion resisting shall be corrosion resisting steel, type 304, unless specified otherwise.

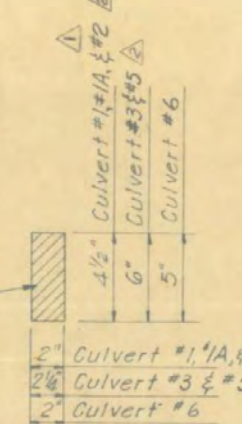
RECEIVED

JUL 1 1960
DRAFTING ROOM
C&SFCD

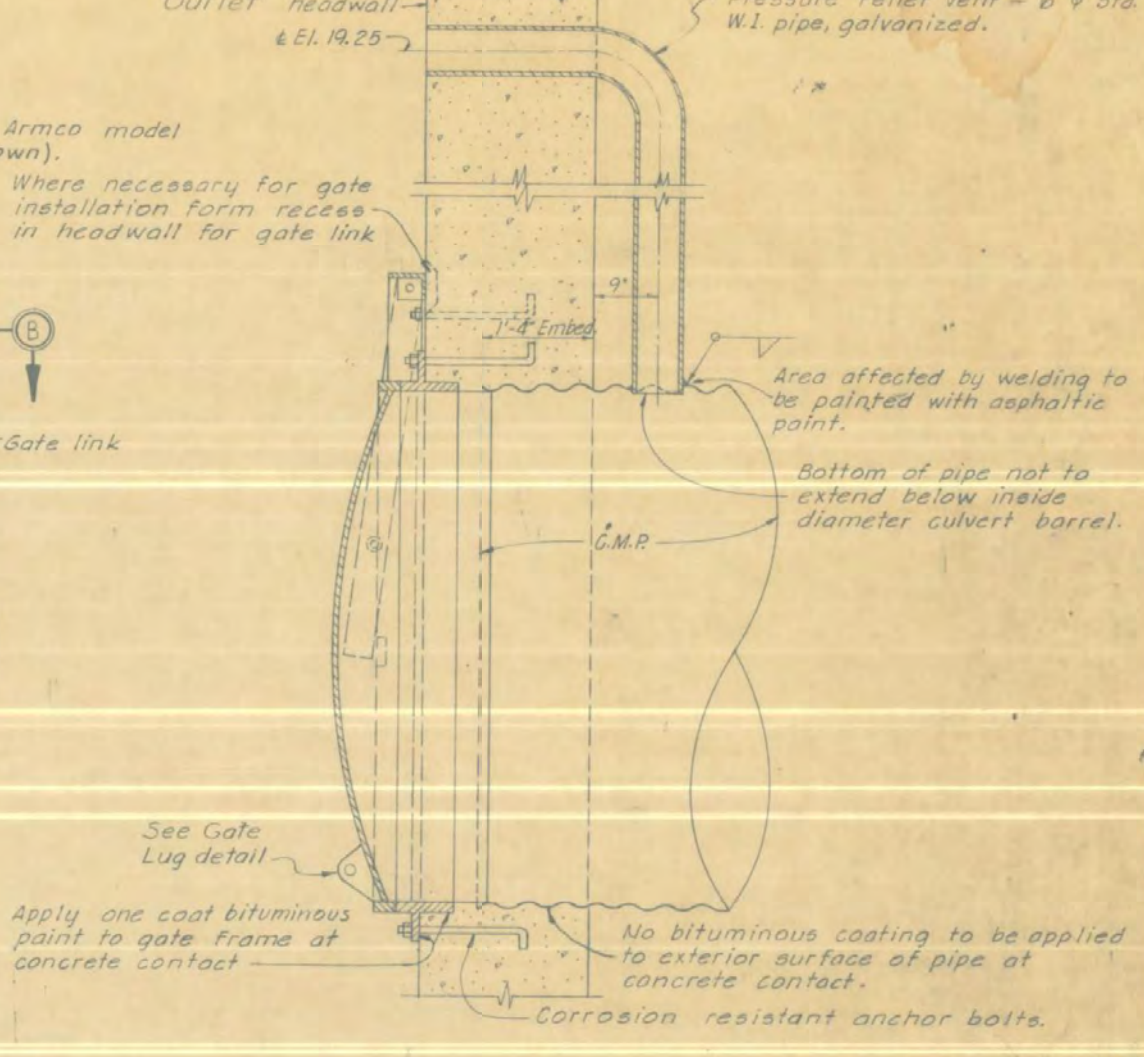
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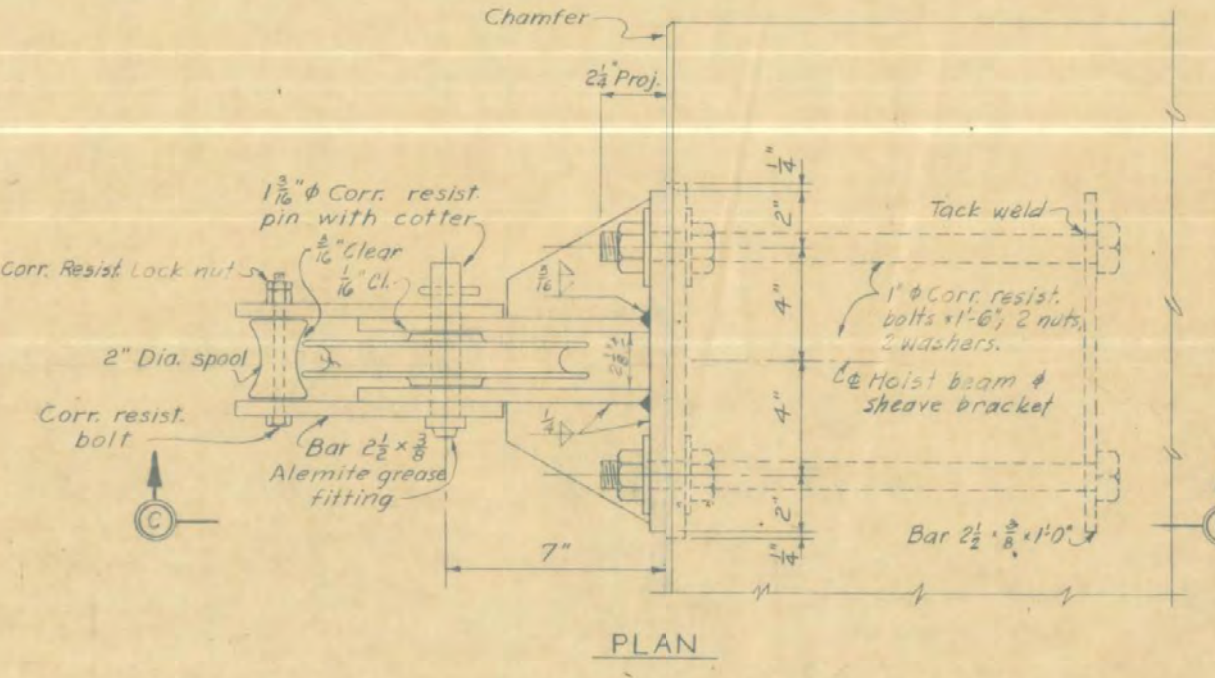
SECTION B-B
(Frame not shown)



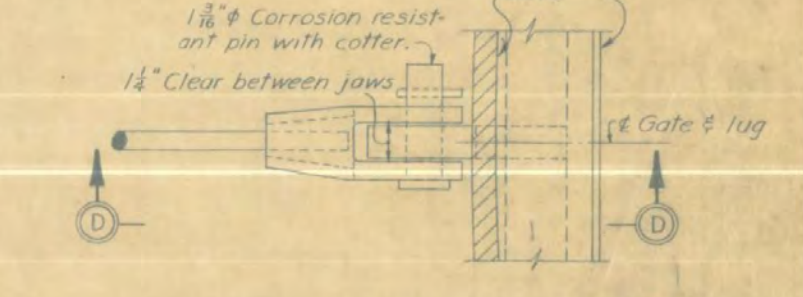
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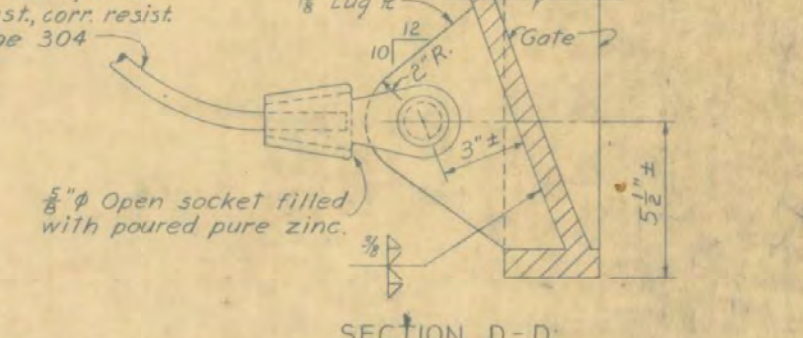
GATE DETAILS
NO SCALE



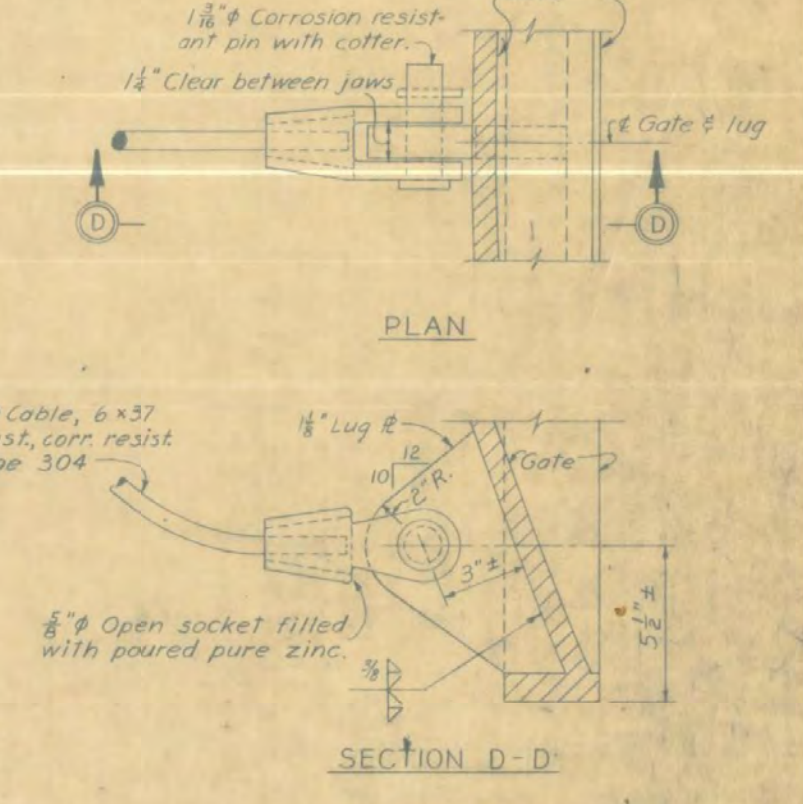
PLAN



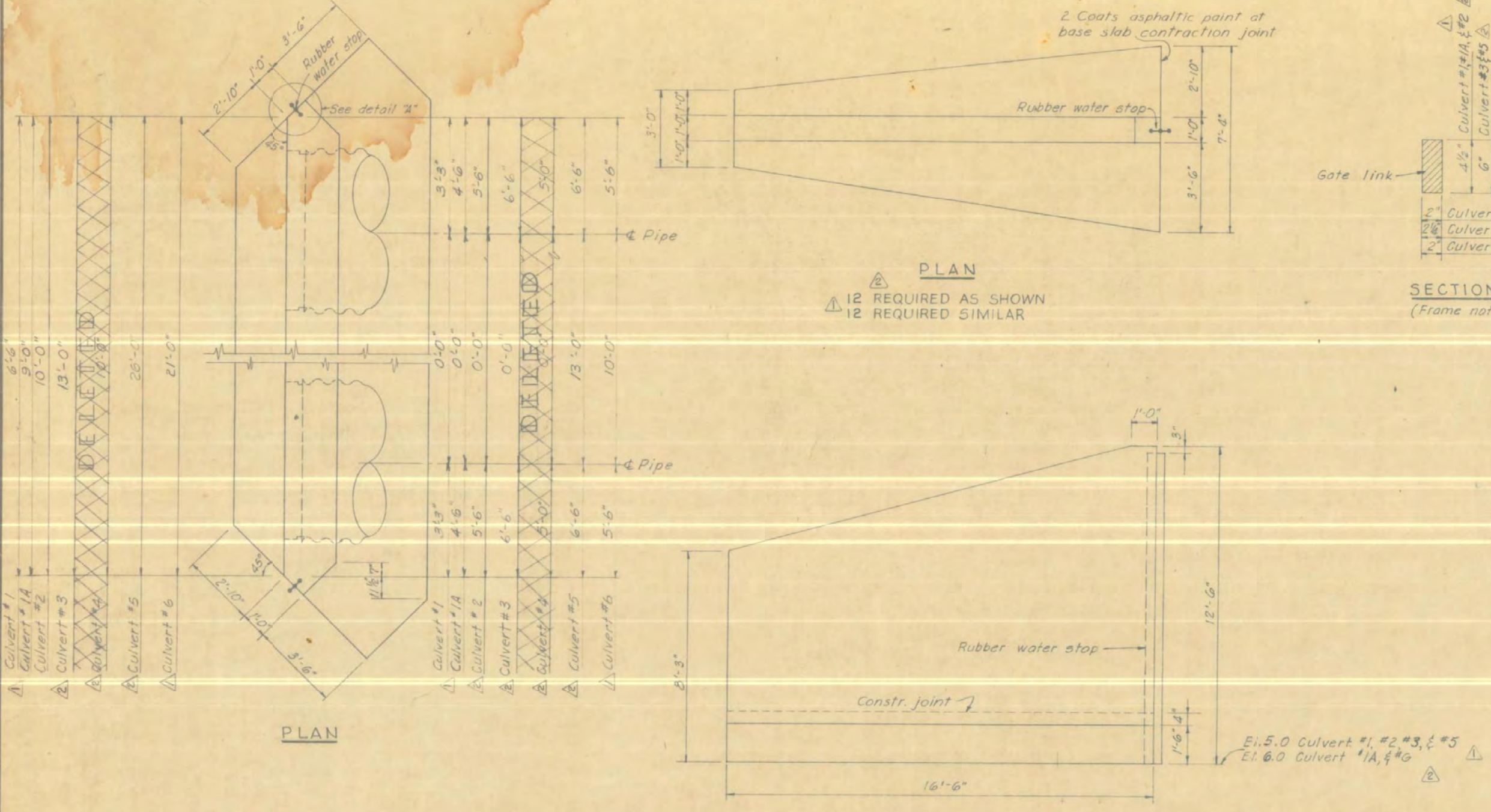
SECTION D-D



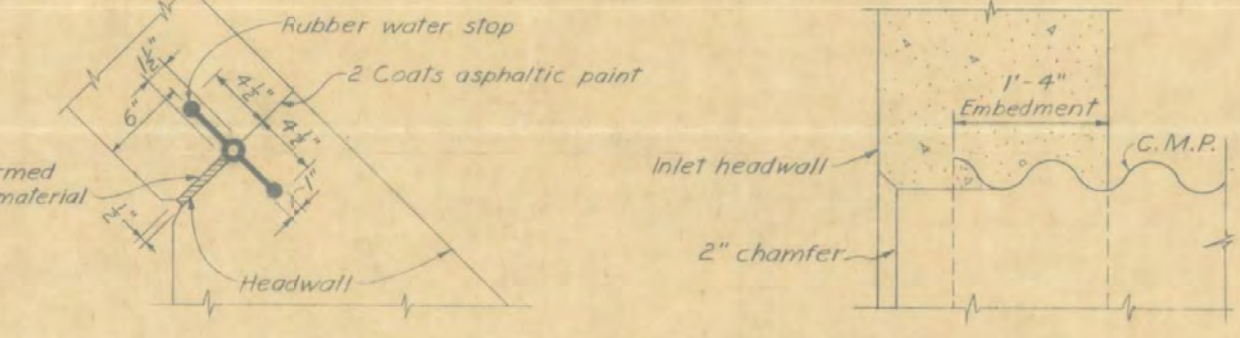
GATE LUG
SCALE: 3" = 1'-0"



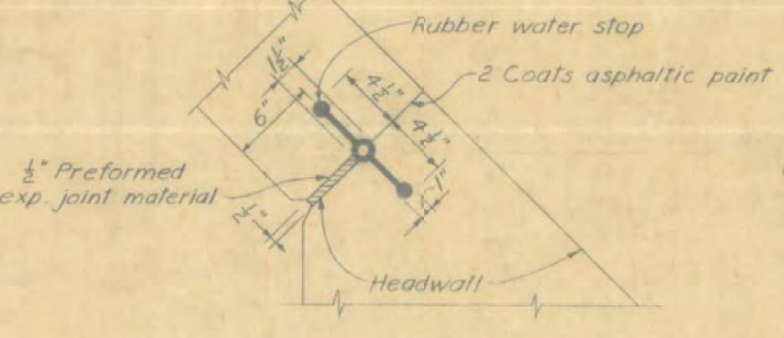
PLAN



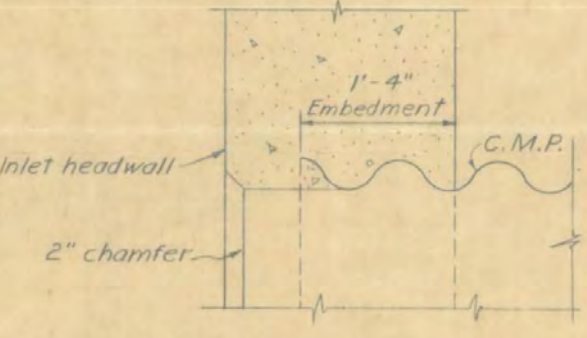
ELEVATION
WINGWALLS
SCALE: 3/8" = 1'-0"



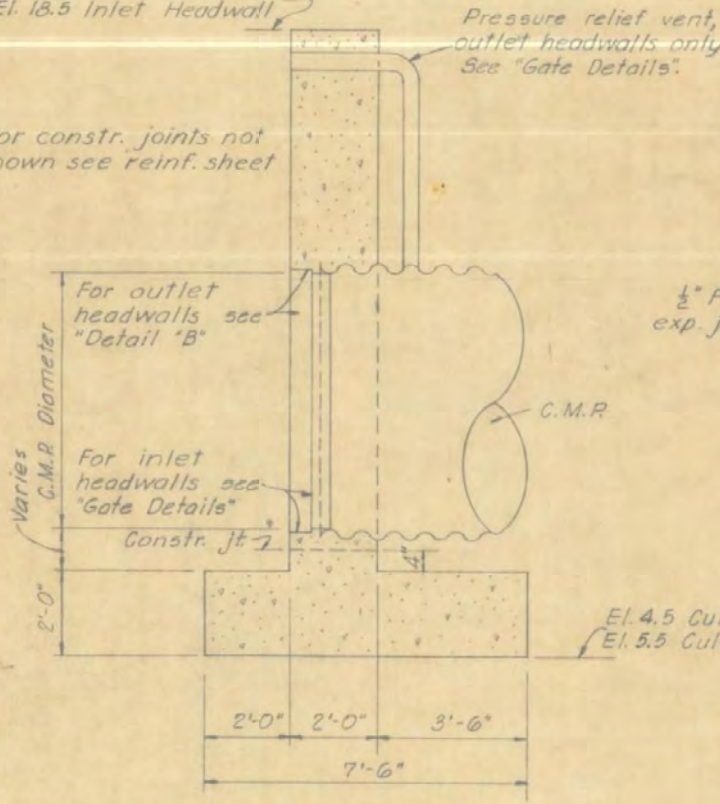
DETAIL A
SCALE: 1 1/2" = 1'-0"



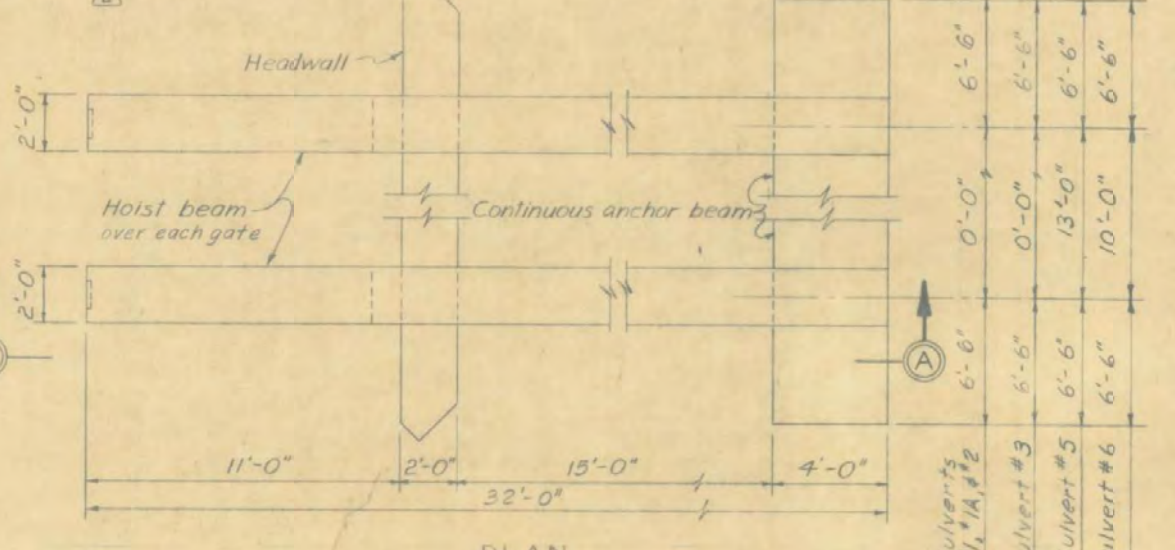
DETAIL B
SCALE: 1" = 1'-0"



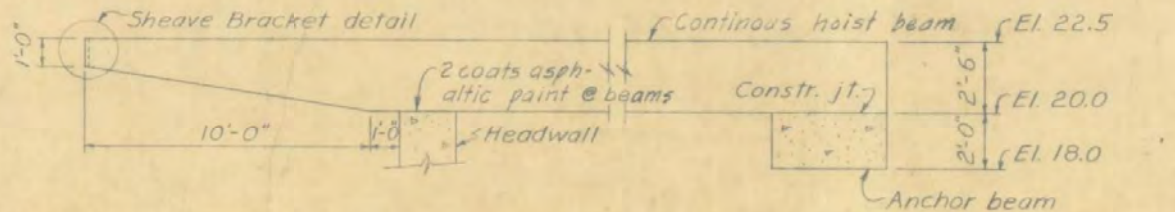
SECTION
HEADWALLS
NO SCALE



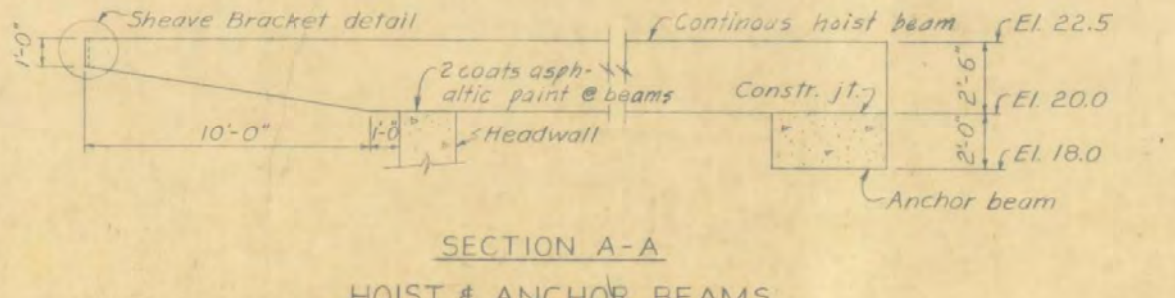
PLAN



SECTION A-A



HOIST & ANCHOR BEAMS
SCALE: 1/4" = 1'-0"



A

R-03

