



**McMILLEN, LLC**

PACIFICORP ENERGY  
LEWIS RIVER  
CLEAR CREEK ACCLIMATION POND

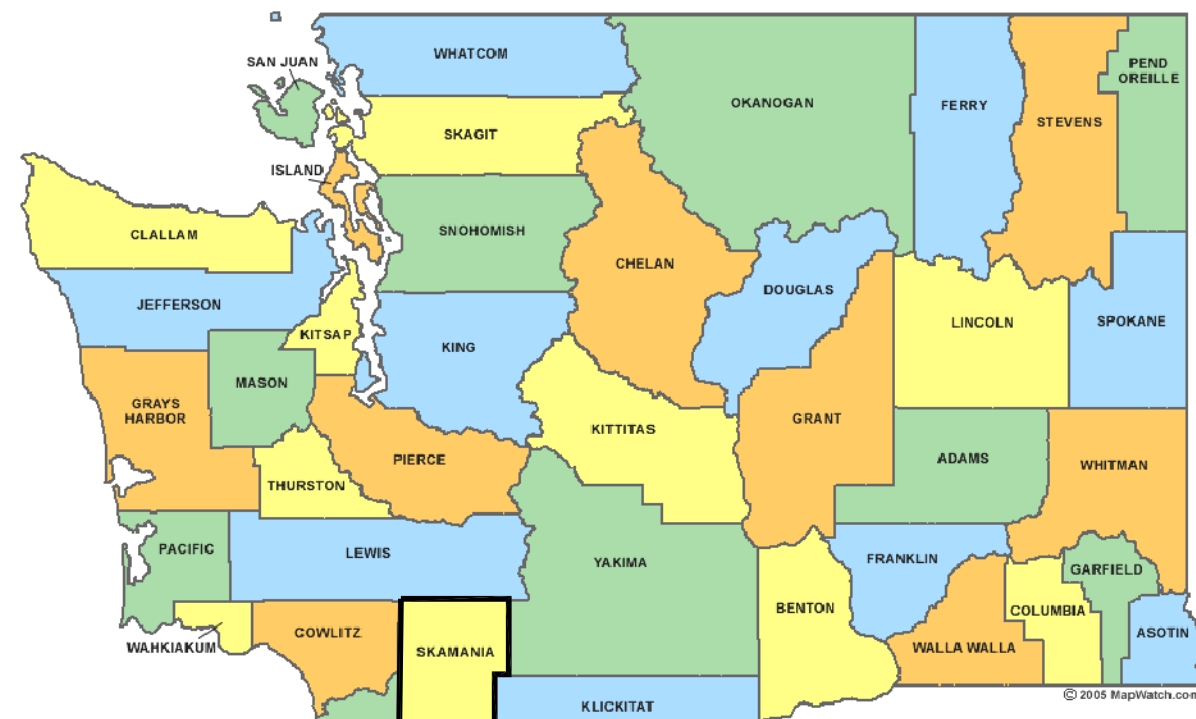
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VOLUME III - CONSTRUCTION DRAWINGS  
JUNE 2011

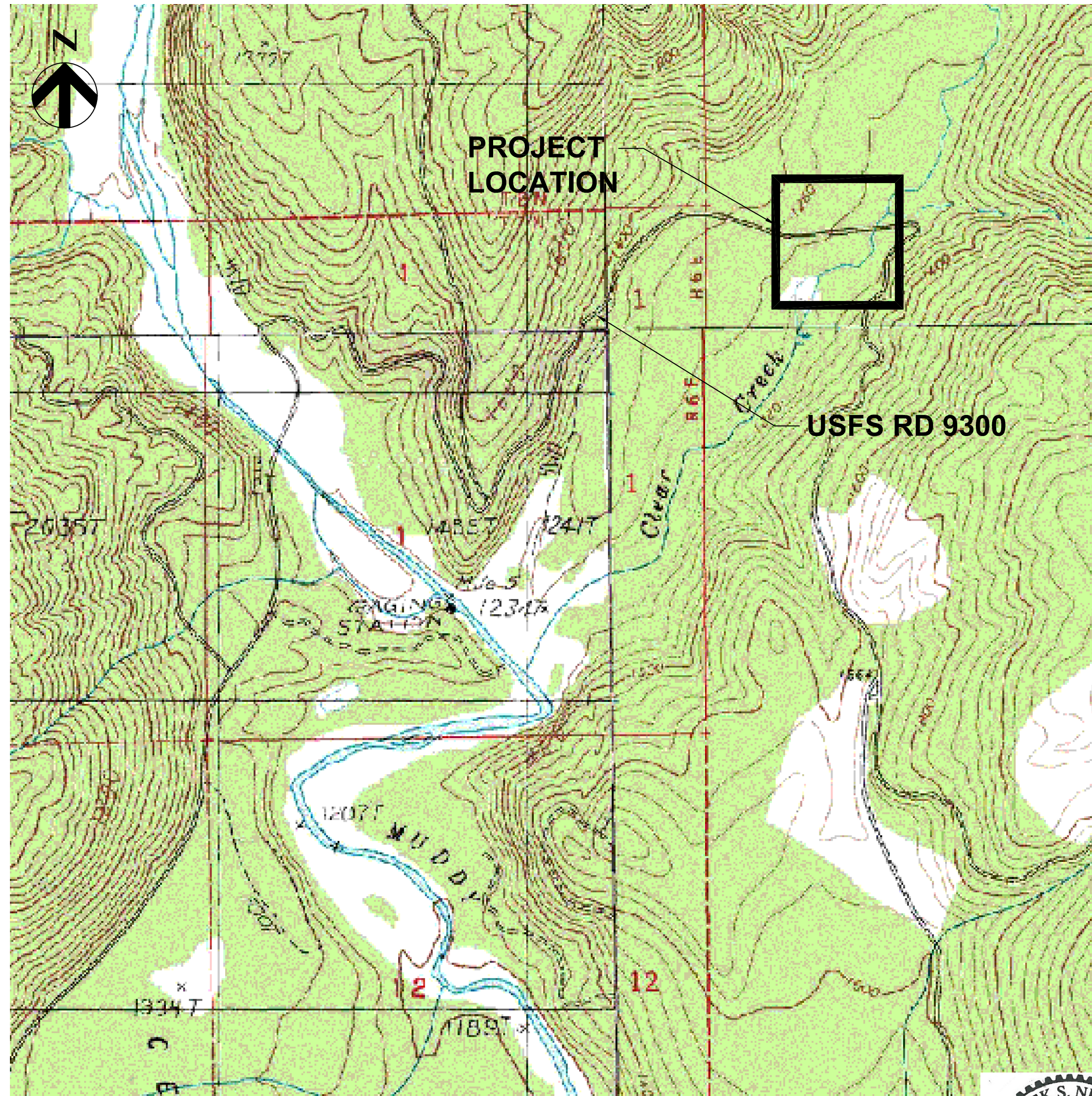
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*ISSUED FOR CONSTRUCTION*

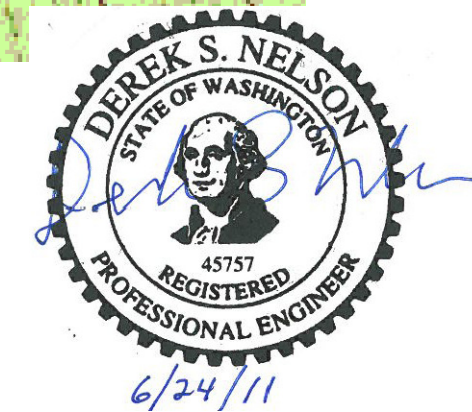
# PACIFICORP ENERGY LEWIS RIVER CLEAR CREEK ACCLIMATION POND



SKAMANIA COUNTY  
**LOCATION MAP**  
NTS



PROJECT LIMITS  
SECTION 6, TOWNSHIP 7N, RANGE 7E  
WILLAMETTE MERIDIAN  
SKAMANIA COUNTY, WASHINGTON



**McMILLEN, LLC**

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DWG NO.	DESCRIPTION
<b>GENERAL</b>	
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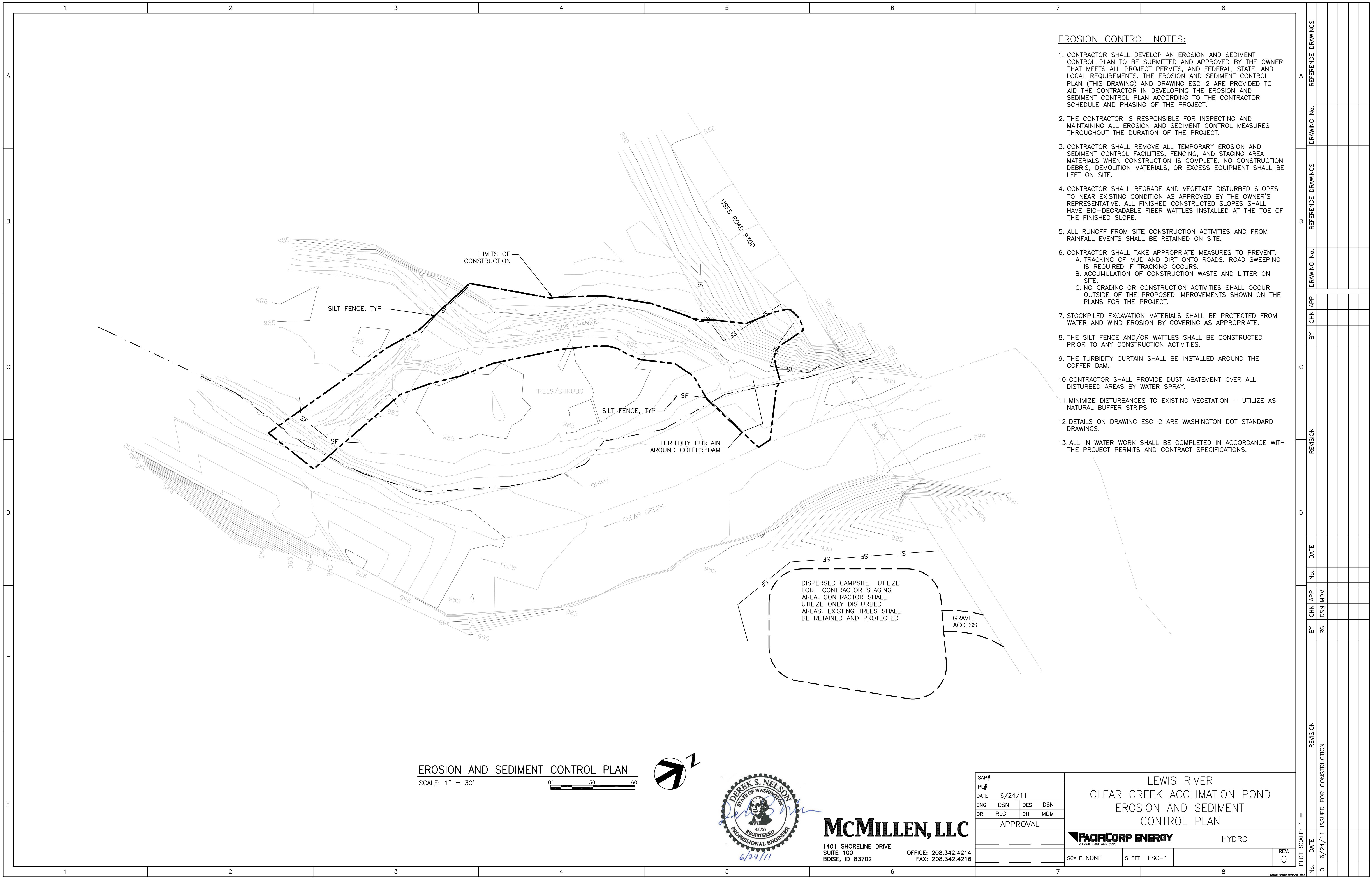


**VICINITY MAP**  
NTS

SAP#	LEWIS RIVER		
PL#	CLEAR CREEK ACCLIMATION POND		
DATE	6/24/11		
ENG	DSN	DES	DSN
DR	RLG	CH	MDM
APPROVAL			
SCALE: NONE		SHEET	G-1
PLOT SCALE: 1" =		REV.	0
DATE		6/24/11	
ISSUED FOR CONSTRUCTION		HYDRO	

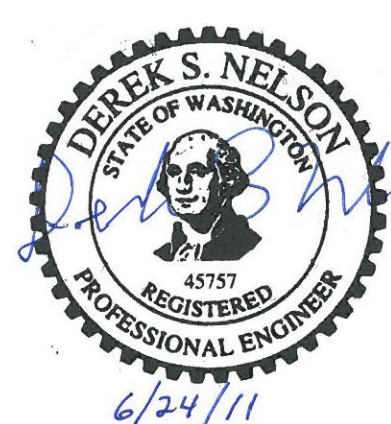
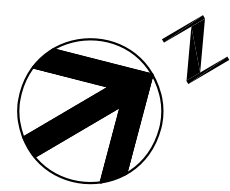
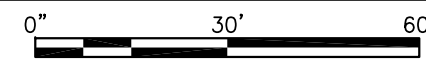
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C	CHK APP	BY	CHK APP	BY	CHK APP	BY	CHK APP
D	REVISION	No.	DATE	No.	DATE	No.	DATE
E	CHK APP	BY	CHK APP	BY	CHK APP	BY	CHK APP
F	ISSUED FOR CONSTRUCTION	DATE	ISSUED FOR CONSTRUCTION	DATE	ISSUED FOR CONSTRUCTION	DATE	ISSUED FOR CONSTRUCTION





- EROSION CONTROL NOTES:**
- CONTRACTOR SHALL DEVELOP AN EROSION AND SEDIMENT CONTROL PLAN TO BE SUBMITTED AND APPROVED BY THE OWNER THAT MEETS ALL PROJECT PERMITS, AND FEDERAL, STATE, AND LOCAL REQUIREMENTS. THE EROSION AND SEDIMENT CONTROL PLAN (THIS DRAWING) AND DRAWING ESC-2 ARE PROVIDED TO AID THE CONTRACTOR IN DEVELOPING THE EROSION AND SEDIMENT CONTROL PLAN ACCORDING TO THE CONTRACTOR SCHEDULE AND PHASING OF THE PROJECT.
  - THE CONTRACTOR IS RESPONSIBLE FOR INSPECTING AND MAINTAINING ALL EROSION AND SEDIMENT CONTROL MEASURES THROUGHOUT THE DURATION OF THE PROJECT.
  - CONTRACTOR SHALL REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL FACILITIES, FENCING, AND STAGING AREA MATERIALS WHEN CONSTRUCTION IS COMPLETE. NO CONSTRUCTION DEBRIS, DEMOLITION MATERIALS, OR EXCESS EQUIPMENT SHALL BE LEFT ON SITE.
  - CONTRACTOR SHALL REGRADE AND VEGETATE DISTURBED SLOPES TO NEAR EXISTING CONDITION AS APPROVED BY THE OWNER'S REPRESENTATIVE. ALL FINISHED CONSTRUCTED SLOPES SHALL HAVE BIO-DEGRADABLE FIBER WATTLES INSTALLED AT THE TOE OF THE FINISHED SLOPE.
  - ALL RUNOFF FROM SITE CONSTRUCTION ACTIVITIES AND FROM RAINFALL EVENTS SHALL BE RETAINED ON SITE.
  - CONTRACTOR SHALL TAKE APPROPRIATE MEASURES TO PREVENT:
    - TRACKING OF MUD AND DIRT ONTO ROADS. ROAD SWEEPING IS REQUIRED IF TRACKING OCCURS.
    - ACCUMULATION OF CONSTRUCTION WASTE AND LITTER ON SITE.
    - NO GRADING OR CONSTRUCTION ACTIVITIES SHALL OCCUR OUTSIDE OF THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS FOR THE PROJECT.
  - STOCKPILED EXCAVATION MATERIALS SHALL BE PROTECTED FROM WATER AND WIND EROSION BY COVERING AS APPROPRIATE.
  - THE SILT FENCE AND/OR WATTLES SHALL BE CONSTRUCTED PRIOR TO ANY CONSTRUCTION ACTIVITIES.
  - THE TURBIDITY CURTAIN SHALL BE INSTALLED AROUND THE COFFER DAM.
  - CONTRACTOR SHALL PROVIDE DUST ABATEMENT OVER ALL DISTURBED AREAS BY WATER SPRAY.
  - MINIMIZE DISTURBANCES TO EXISTING VEGETATION - UTILIZE AS NATURAL BUFFER STRIPS.
  - DETAILS ON DRAWING ESC-2 ARE WASHINGTON DOT STANDARD DRAWINGS.
  - ALL IN WATER WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE PROJECT PERMITS AND CONTRACT SPECIFICATIONS.

**EROSION AND SEDIMENT CONTROL PLAN**  
 SCALE: 1" = 30'



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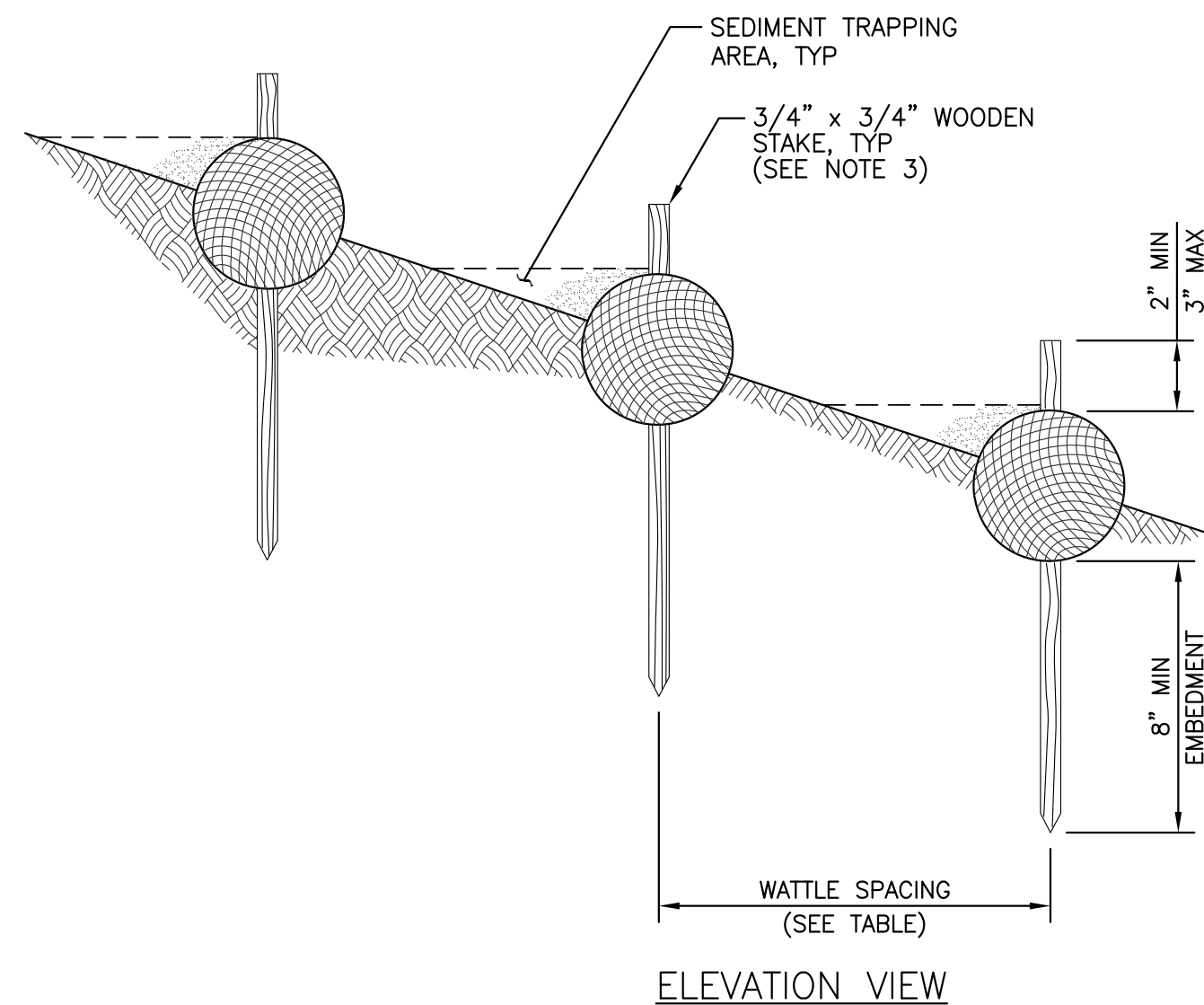
SAP#	
PL#	
DATE	6/24/11
ENG	DSN DES DSN
DR	RLG CH MDM
APPROVAL	

LEWIS RIVER  
 CLEAR CREEK ACCLIMATION POND  
 EROSION AND SEDIMENT  
 CONTROL PLAN

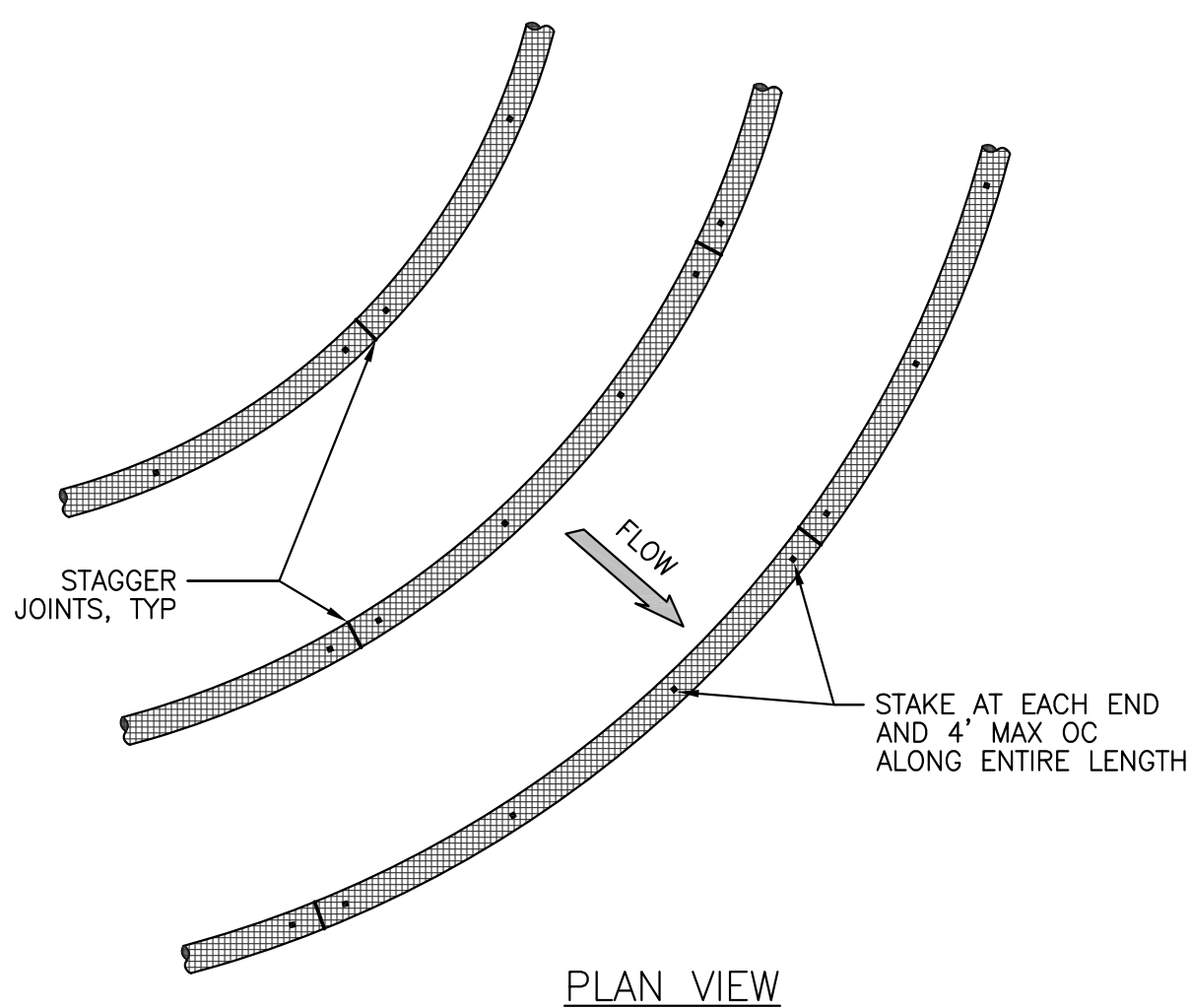
**PACIFICORP ENERGY** HYDRO

SCALE: NONE SHEET ESC-1 REV. 0

A	REFERENCE DRAWINGS						
	DRAWING No.						
B	REFERENCE DRAWINGS						
	DRAWING No.						
C	CHK APP						
	BY						
D	REVISION						
	No. DATE						
E	CHK APP						
	BY RG DSN MDM						
F	REVISION						
	No. DATE						



- NOTES**
1. INSTALL WATTLES ALONG CONTOURS.
  2. WATTLES SHALL BE INSPECTED REGULARLY, AND IMMEDIATELY AFTER A RUNOFF PRODUCING RAINFALL, TO ENSURE THEY REMAIN THOROUGHLY ENTRENCHED AND IN CONTACT WITH THE SOIL.
  3. LIVE STAKES MAY BE USED FOR PERMANENT INSTALLATIONS.
  4. INSTALL WATTLES SNUGLY INTO THE TRENCH. ABUT ADJACENT WATTLES TIGHTLY, END TO END, WITHOUT OVERLAPPING THE ENDS.
  5. PILOT HOLES MAY BE DRIVEN THROUGH THE WATTLE AND INTO THE SOIL, WHEN SOIL CONDITIONS REQUIRE.
  6. INSTALL AT TOE OF SLOPES. SLOPES GREATER THAN 15' IN LENGTH SHALL HAVE A WATTLE INSTALLED MID SLOPE.
  7. WATTLES SHALL MEET WSDOT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION, 2008 REQUIREMENTS.

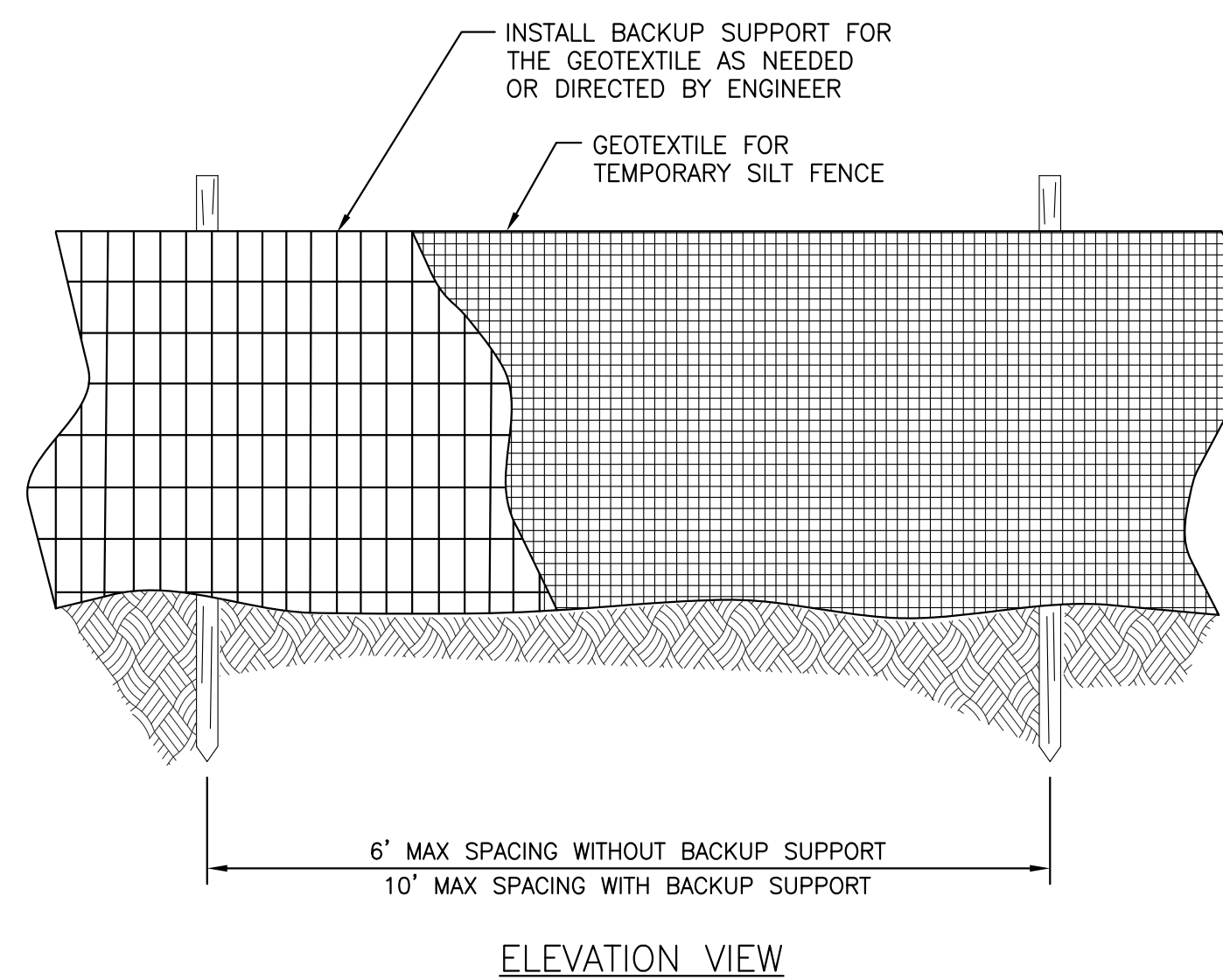


**WATTLE SPACING TABLE**

SLOPE	MAXIMUM SPACING
1:1	10 FEET
2:1	20 FEET
3:1	30 FEET
4:1	40 FEET
>4:1	80 FEET

**WSDOT WATTLE INSTALLATION ON SLOPE**  
SCALE: NTS

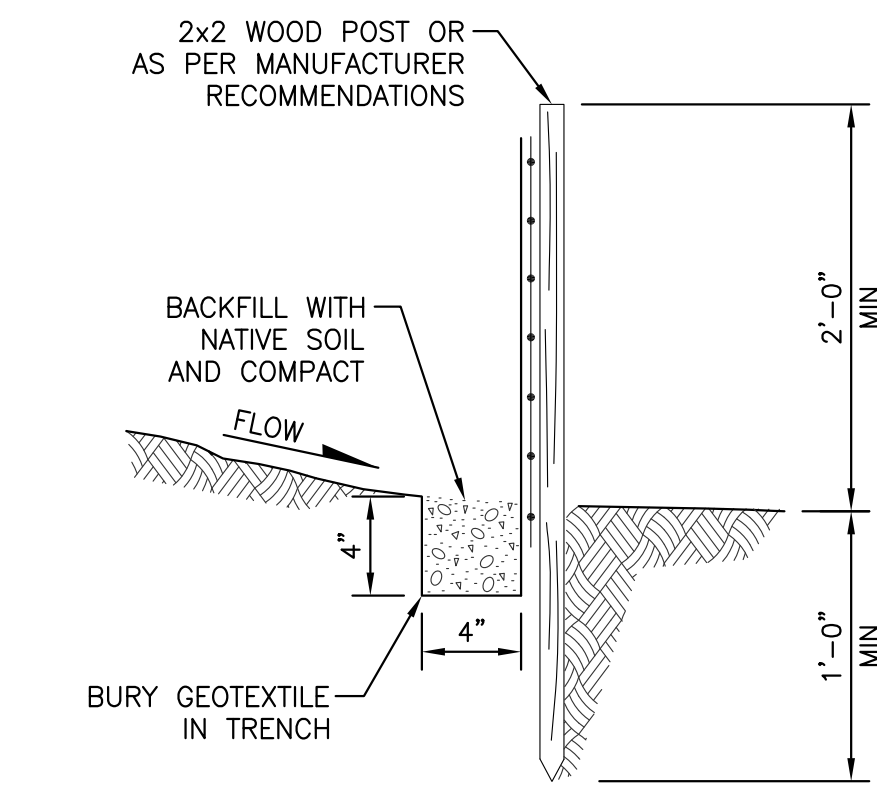
1



- NOTE:**
1. MAXIMIZE DETENTION OF STORM WATER BY PLACING FENCE AS FAR AWAY FROM THE TOE OF SLOPE AS POSSIBLE WITHOUT ENCRUCHING ON SENSITIVE AREAS OR OUTSIDE OF THE CLEARING BOUNDARIES.
  2. INSTALL SILT FENCING ALONG CONTOURS WHENEVER POSSIBLE.
  3. INSTALL THE ENDS OF THE SILT FENCE TO POINT SLIGHTLY UP-SLOPE TO PREVENT SEDIMENT FROM FLOWING AROUND THE ENDS OF THE FENCE.
  4. PERFORM MAINTENANCE WHEN ACCUMULATED SILT EXCEEDS 12" DEPTH

**WSDOT SILT FENCE**  
SCALE: NTS

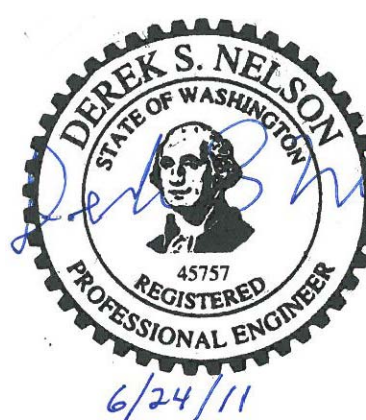
2



**SECTION**  
SCALE: NTS

A

- GENERAL NOTES:**
1. REFERENCE SPECIFICATION SECTION 31 35 26, EROSION CONTROL BARRIER FOR MATERIAL SPECIFICATIONS.
  2. REFERENCE SPECIFICATION SECTION 31 35 28, EROSION CONTROL, FOR REQUIREMENTS ON ALL DISTURBED AREAS THAT ARE NOT TO BE PAVED OR OTHERWISE TREATED AREAS WITHIN THE GPNF INCLUDING SEEDING, FERTILIZER, AND MULCH.



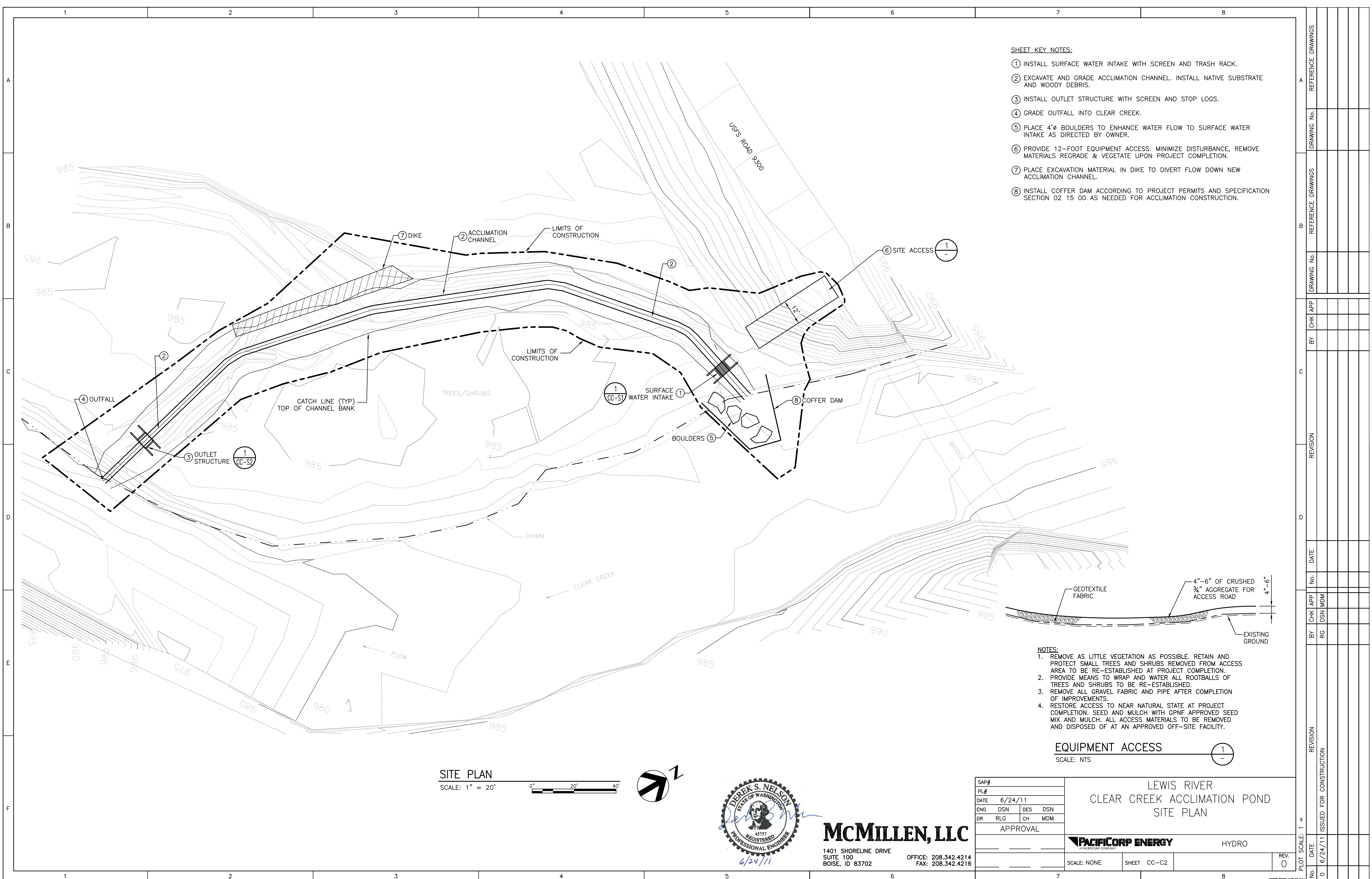
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SAP#	PL#	LEWIS RIVER CLEAR CREEK ACCLIMATION POND EROSION AND SEDIMENT CONTROL DETAILS	
DATE 6/24/11	ENG DSN	DES DSN	DR RLG
CH MDM	APPROVAL		
SCALE: NONE	SHEET ESC-2	REV. 0	HYDRO

REVISION	DATE	BY	CHK APP	DRAWING No.	REFERENCE DRAWINGS
0	6/24/11	RG	DSN MDM		



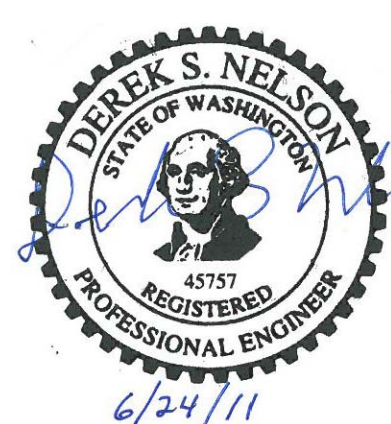


- SHEET KEY NOTES:**
- ① INSTALL SURFACE WATER INTAKE WITH SCREEN AND TRASH RACK.
  - ② EXCAVATE AND GRADE ACCLIMATION CHANNEL. INSTALL NATIVE SUBSTRATE AND WOODY DEBRIS.
  - ③ INSTALL OUTLET STRUCTURE WITH SCREEN AND STOP LOGS.
  - ④ GRADE OUTFALL INTO CLEAR CREEK.
  - ⑤ PLACE 4'Ø BOULDERS TO ENHANCE WATER FLOW TO SURFACE WATER INTAKE AS DIRECTED BY OWNER.
  - ⑥ PROVIDE 12-FOOT EQUIPMENT ACCESS. MINIMIZE DISTURBANCE, REMOVE MATERIALS REGRADE & VEGETATE UPON PROJECT COMPLETION.
  - ⑦ PLACE EXCAVATION MATERIAL IN DIKE TO DIVERT FLOW DOWN NEW ACCLIMATION CHANNEL.
  - ⑧ INSTALL COFFER DAM ACCORDING TO PROJECT PERMITS AND SPECIFICATION SECTION 02 15 00 AS NEEDED FOR ACCLIMATION CONSTRUCTION.

- NOTES:**
- 1. REMOVE AS LITTLE VEGETATION AS POSSIBLE. RETAIN AND PROTECT SMALL TREES AND SHRUBS REMOVED FROM ACCESS AREA TO BE RE-ESTABLISHED AT PROJECT COMPLETION.
  - 2. PROVIDE MEANS TO WRAP AND WATER ALL ROOTBALLS OF TREES AND SHRUBS TO BE RE-ESTABLISHED.
  - 3. REMOVE ALL GRAVEL FABRIC AND PIPE AFTER COMPLETION OF IMPROVEMENTS.
  - 4. RESTORE ACCESS TO NEAR NATURAL STATE AT PROJECT COMPLETION. SEED AND MULCH WITH GPNF APPROVED SEED MIX AND MULCH. ALL ACCESS MATERIALS TO BE REMOVED AND DISPOSED OF AT AN APPROVED OFF-SITE FACILITY.

**EQUIPMENT ACCESS**  
SCALE: NTS

**SITE PLAN**  
SCALE: 1" = 20'



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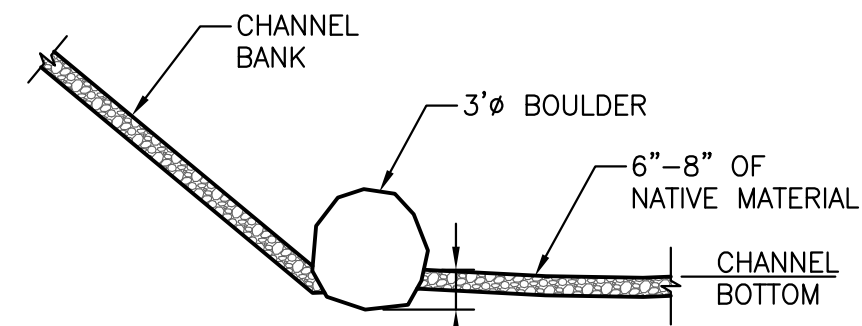
SAP#	
PL#	
DATE	6/24/11
ENG	DSN DES DSN
DR	RLG CH MDM
APPROVAL	

LEWIS RIVER CLEAR CREEK ACCLIMATION POND SITE PLAN	
<b>PACIFICORP ENERGY</b> A PLANNING COMPANY	
HYDRO	
SCALE: NONE	SHEET CC-C2
PLOT SCALE: 1" =	REV. 0

REFERENCE DRAWINGS	DRAWING No.								
REFERENCE DRAWINGS	DRAWING No.								
REVISION	BY	CHK APP	DATE	No.					
REVISION	BY	CHK APP	DATE	No.	RG	DSN	MDM		
REVISION	BY	CHK APP	DATE	No.					
REVISION	BY	CHK APP	DATE	No.					





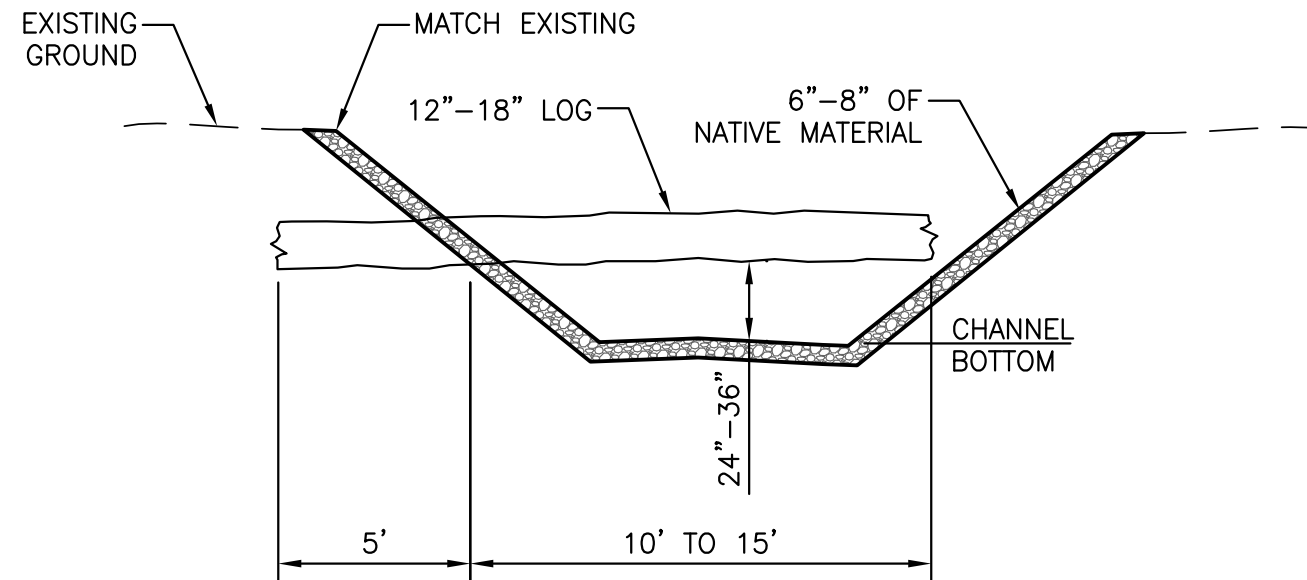


NOTE:  
ALTERNATE SIDES FOR BOULDER INSTALLATION  
AS DIRECT BY OWNER REPRESENTATIVE.

**HABITAT BOULDERS**

SCALE: NTS

1  
CC-C3

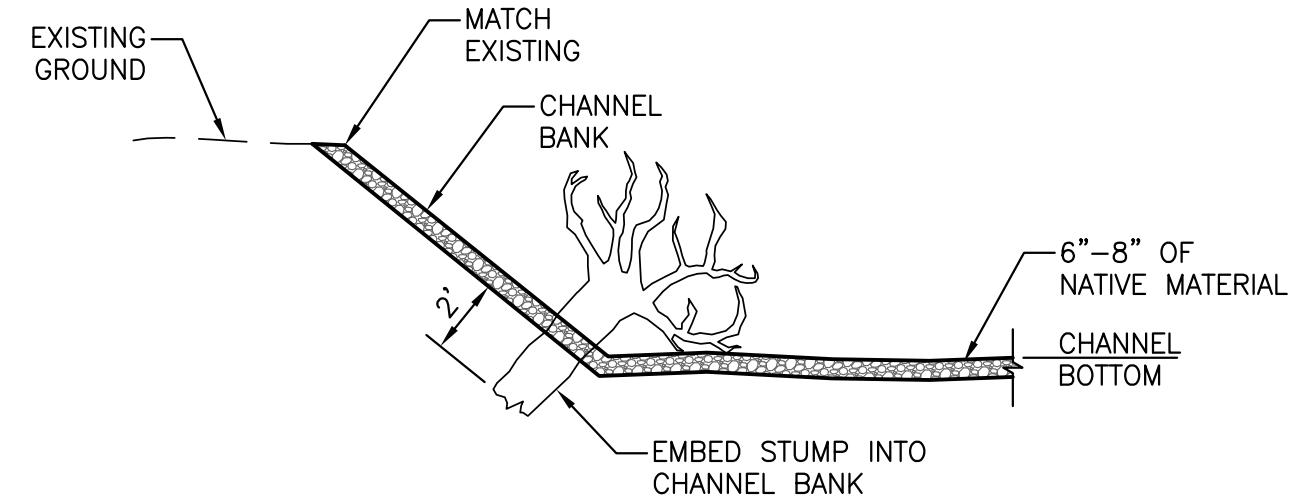


NOTE:  
ALTERNATE SIDES FOR LOG INSTALLATION AS  
DIRECT BY OWNER REPRESENTATIVE.

**HABITAT LOGS**

SCALE: NTS

2  
CC-C3

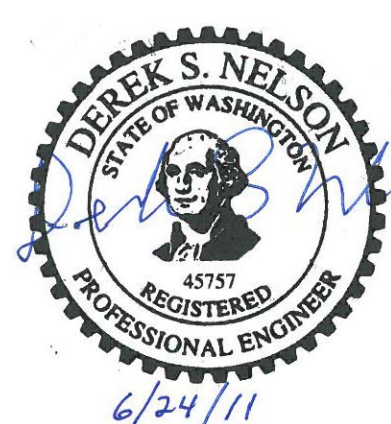


NOTE:  
ALTERNATE SIDES FOR ROOT WAD INSTALLATION  
AS DIRECT BY OWNER REPRESENTATIVE.

**ROOT WAD**

SCALE: NTS

3  
CC-C3



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PL#	CLEAR CREEK ACCLIMATION POND		
DATE	6/24/11	ACCLIMATION DETAILS	
ENG	DSN	DES	DSN
DR	RLG	CH	MDM
APPROVAL			
PACIFICORP ENERGY		HYDRO	
SCALE: NONE	SHEET CC-C4	REV. 0	

PLOT SCALE: 1 =	DATE	REVISION	BY		CHK APP	DRAWING No.	REFERENCE DRAWINGS
			RG	DSN MDM			
0	6/24/11	ISSUED FOR CONSTRUCTION					

# STRUCTURAL NOTES:

**1) GENERAL:**

A. IBC = 2009 INTERNATIONAL BUILDING CODE

B. CONSTRUCTION DOCUMENTS:

1. THE CONTRACTOR SHALL REVIEW THE APPROVED CONSTRUCTION DOCUMENTS AND NOTIFY THE ENGINEER OF ANY ERRORS OR DISCREPANCIES PRIOR TO THE START OF CONSTRUCTION.
2. THE CONTRACTOR SHALL FURNISH AND INSTALL EVERYTHING REQUIRED TO PROVIDE A COMPLETE STRUCTURE AS SHOWN HEREIN. IF THERE IS AN OMISSION ON THE PLANS, SUCH OMISSION SHALL NOT BE CONSTRUED TO MEAN THAT THE CONTRACTOR IS NOT REQUIRED TO FURNISH OR PROVIDE EVERYTHING THAT IS NECESSARY TO COMPLETE THE PROJECT TO THE MINIMUM REQUIREMENTS OF THE 2009 INTERNATIONAL BUILDING CODE AND ALL OTHER SPECIFICATIONS, CODES AND STANDARDS NOTED ON THE APPROVED CONSTRUCTION DOCUMENTS.
3. THE CONTRACTOR SHALL NOTIFY THE OWNER IMMEDIATELY IF ANY UNIDENTIFIED EXISTING UNDERGROUND UTILITIES ARE DISCOVERED. THE ENGINEER IS NOT RESPONSIBLE FOR THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES WHETHER OR NOT SHOWN ON THE DRAWINGS.
4. THE STRUCTURAL CONSTRUCTION DRAWINGS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT ARE NOT LIMITED TO, BRACING AND/OR SHORING FOR LOADS DUE TO CONSTRUCTION EQUIPMENT, ETC. CONTRACTOR AT HIS/HER OWN EXPENSE SHALL ENGAGE PROPERLY QUALIFIED PERSONS TO DESIGN BRACING, SHORING, ETC. OBSERVATION VISITS TO THE SITE BY THE ENGINEER SHALL NOT INCLUDE OBSERVATION OF THE ABOVE NOTED ITEMS.
5. UNDER NO CIRCUMSTANCES CAN STRUCTURAL COMPONENTS BE SUBSTITUTED, OMITTED, OR ALTERED FROM THE APPROVED SET OF CONSTRUCTION DOCUMENTS WITHOUT WRITTEN APPROVAL FROM THE ENGINEER.

C. DIMENSIONS AND NOTATIONS:

1. WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS. DO NOT SCALE DRAWINGS.
2. ABBREVIATIONS USED ON THE APPROVED CONSTRUCTION DOCUMENTS SHALL BE CONSIDERED TYPICAL ABBREVIATIONS FOR THE INDUSTRY. THE CONTRACTOR SHALL BE RESPONSIBLE TO NOTIFY THE ENGINEER IMMEDIATELY OF ANY ABBREVIATIONS THAT ARE UNKNOWN TO THE CONTRACTOR.

D. SHOP DRAWINGS:

1. SHOP DRAWINGS, AS REQUIRED PER THESE STRUCTURAL NOTES, SHALL BE SUBMITTED TO THE ENGINEER IN A TIMELY FASHION PRIOR TO FABRICATION TO ALLOW FOR PROPER REVIEW AS REQUIRED PER IBC SECTION 107.3.4.2.
2. SHOP DRAWING ITEMS SHALL NOT BE INSTALLED UNTIL THE CONSTRUCTION DOCUMENTS HAVE BEEN APPROVED BY THE BUILDING OFFICIAL AND SHOP DRAWINGS HAVE BEEN APPROVED BY THE ENGINEER PER IBC SECTION 107.3.4.2.
3. DURING SHOP DRAWING REVIEW, DIMENSIONS AND QUANTITIES ARE NOT REVIEWED BY THE ENGINEER AND MUST BE VERIFIED BY THE CONTRACTOR. THE CONTRACTOR SHALL REVIEW AND STAMP SHOP DRAWINGS PRIOR TO REVIEW BY ENGINEER.

E. SPECIAL INSPECTION:

1. THE OWNER SHALL EMPLOY A SPECIAL INSPECTION SERVICE AS REQUIRED PER THESE STRUCTURAL NOTES.

F. TYPICAL NOTES AND DETAILS:

1. SPECIFIC NOTES AND DETAILS SHALL TAKE PRECEDENCE OVER STANDARD TYPICAL NOTES AND DETAILS.
2. STANDARD TYPICAL NOTES AND DETAILS ARE TO BE USED WHEN REFERRED TO OR WHEN NO OTHER MORE RESTRICTIVE OR DIFFERENT DETAILS ARE SHOWN ON THE DRAWINGS.
3. WORK NOT PARTICULARLY SHOWN OR SPECIFIED SHALL BE THE SAME AS SIMILAR PARTS THAT ARE SHOWN OR SPECIFIED.

G. CODE REQUIREMENTS:

1. ALL WORK SHALL CONFORM TO THE MINIMUM STANDARDS OF THE FOLLOWING CODES:
  - 2009 INTERNATIONAL BUILDING CODE (IBC)
  - ANY OTHER REGULATING AGENCIES WHICH MAY HAVE AUTHORITY OVER ANY PORTION OF THE WORK, INCLUDING THE STATE OF WASHINGTON.
2. SPECIFICATIONS, CODES AND STANDARDS NOTED SHALL BE OF THE LATEST APPROVED ISSUE, INCLUDING SUPPLEMENTS, UNLESS NOTED OTHERWISE.
3. CONTRACTOR SHALL BE PROPERLY REGISTERED IN THE STATE OF WASHINGTON PER WASHINGTON STATE LAW.

**2) DESIGN CRITERIA:**

A. IBC

B. DESIGN LOADS:

1. HYDROSTATIC:
  - A) LIVE LOAD = 62.4 PCF
2. BACKFILL:
  - A) LIVE LOAD = 45 PCF (EQUIVALENT FLUID PRESSURE)
3. ALUMINUM LIDS:
  - A) LIVE LOAD = 80 PSF
  - B) SNOW LOAD = 100 PSF

**3) FOUNDATIONS:**

A. MAXIMUM ALLOWABLE FOUNDATION SOIL BEARING PRESSURE = 1500 PSF.

B. FOR FROST PROTECTION, THE BOTTOM OF ALL EXTERIOR FOOTINGS SHALL BE 24 INCHES MINIMUM BELOW ADJACENT FINISHED GRADE, UNO.

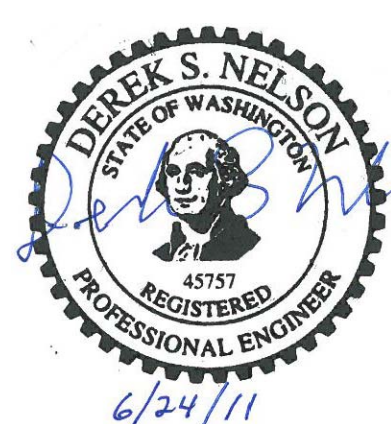
C. STRUCTURAL BACKFILL SHALL BE COMPACTED TO 95 PERCENT OF THE MAXIMUM DENSITY AS DETERMINED BY ASTM D1557. BRACE WALLS AND PIERS AS REQUIRED DURING BACKFILLING OPERATIONS.

**4) TESTING:**

A. CONCRETE TESTING REQUIRED:

1. STRENGTH TEST
2. SLUMP TEST
3. AIR CONTENT TEST
4. CONCRETE TEMPERATURE TEST
5. CONCRETE SHRINKAGE TEST

F



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LEWIS RIVER  
CLEAR CREEK ACCLIMATION POND  
STANDARD STRUCTURAL NOTES



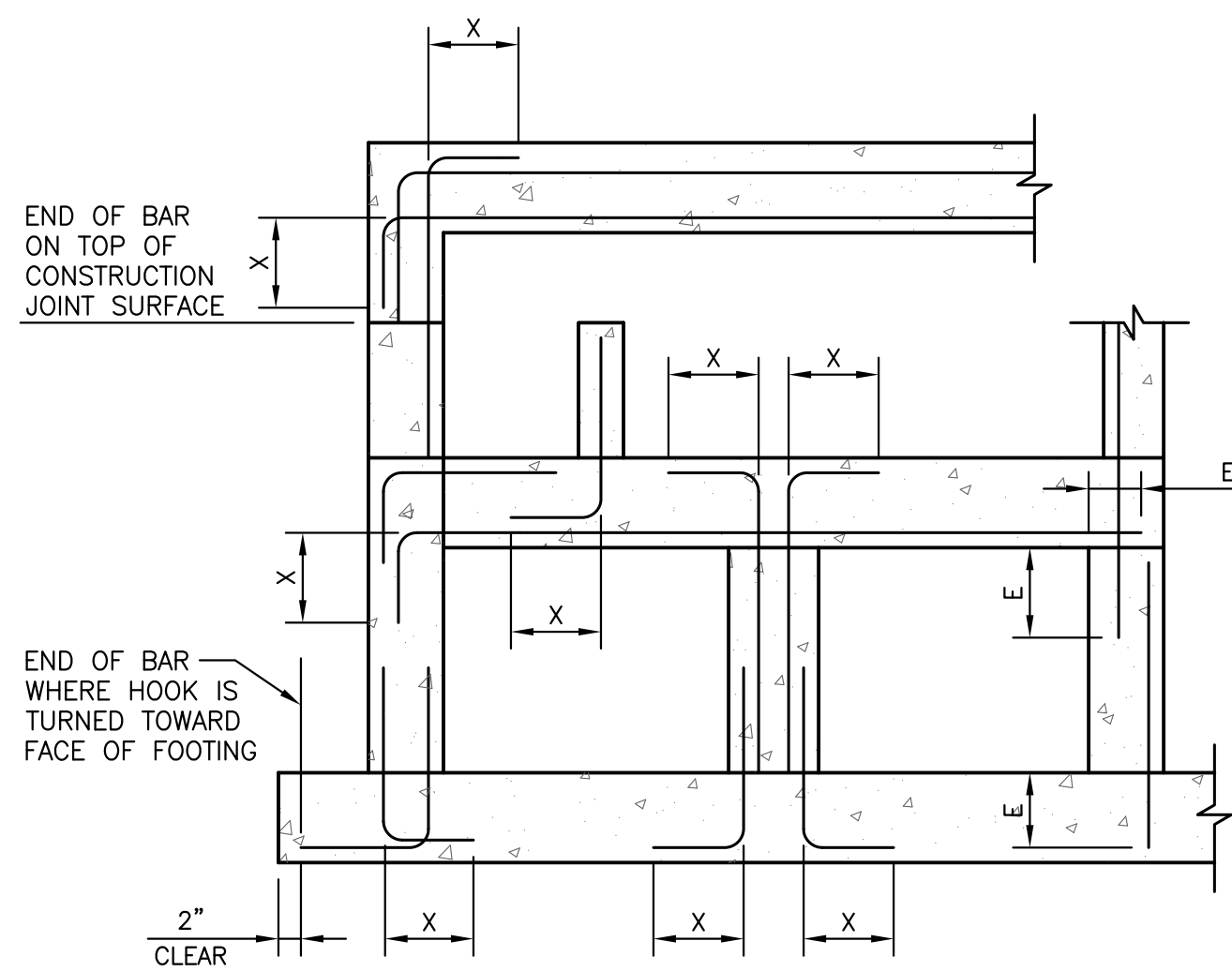
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SCALE: NONE	SHEET	GS-1	REV. 0
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	DATE								
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	RG								

PLOT SCALE: 1 =

No. DATE REVISION  
0 6/24/11 ISSUED FOR CONSTRUCTION



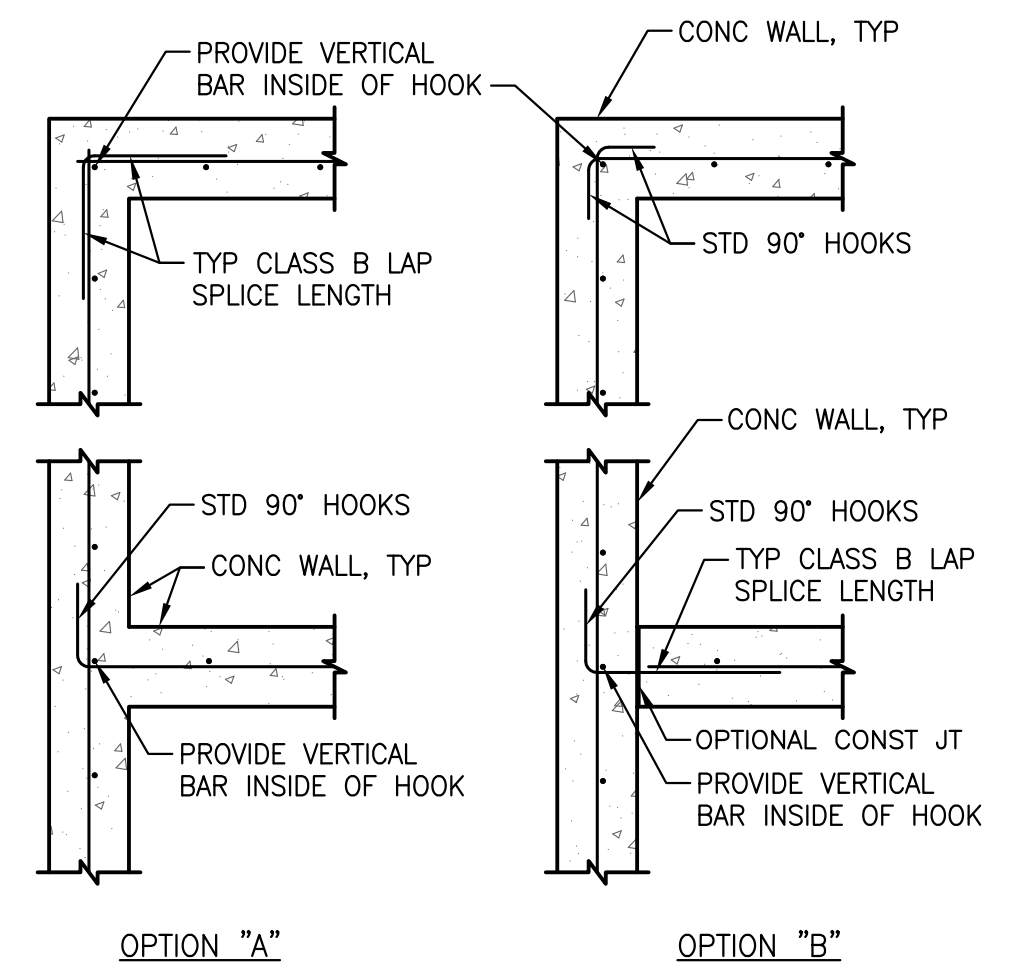
SECTION

LENGTH (x)		
BAR SIZE	HOOK X	EMBEDMENT E
#3	6"	12" (16")
#4	8"	12" (16")
#5	10"	15" (20")
#6	12"	22" (28")
#7	14"	37" (48")
#8	16"	48" (62")
#9	19"	61" (79")
#10	22"	77" (100")
#11	24"	95" (123")

\* USE LENGTH IN PARENTHESIS FOR WALL HORIZONTAL REBARS AND SLAB BARS WITH 12" OR MORE OF FRESH CONCRETE UNDERNEATH

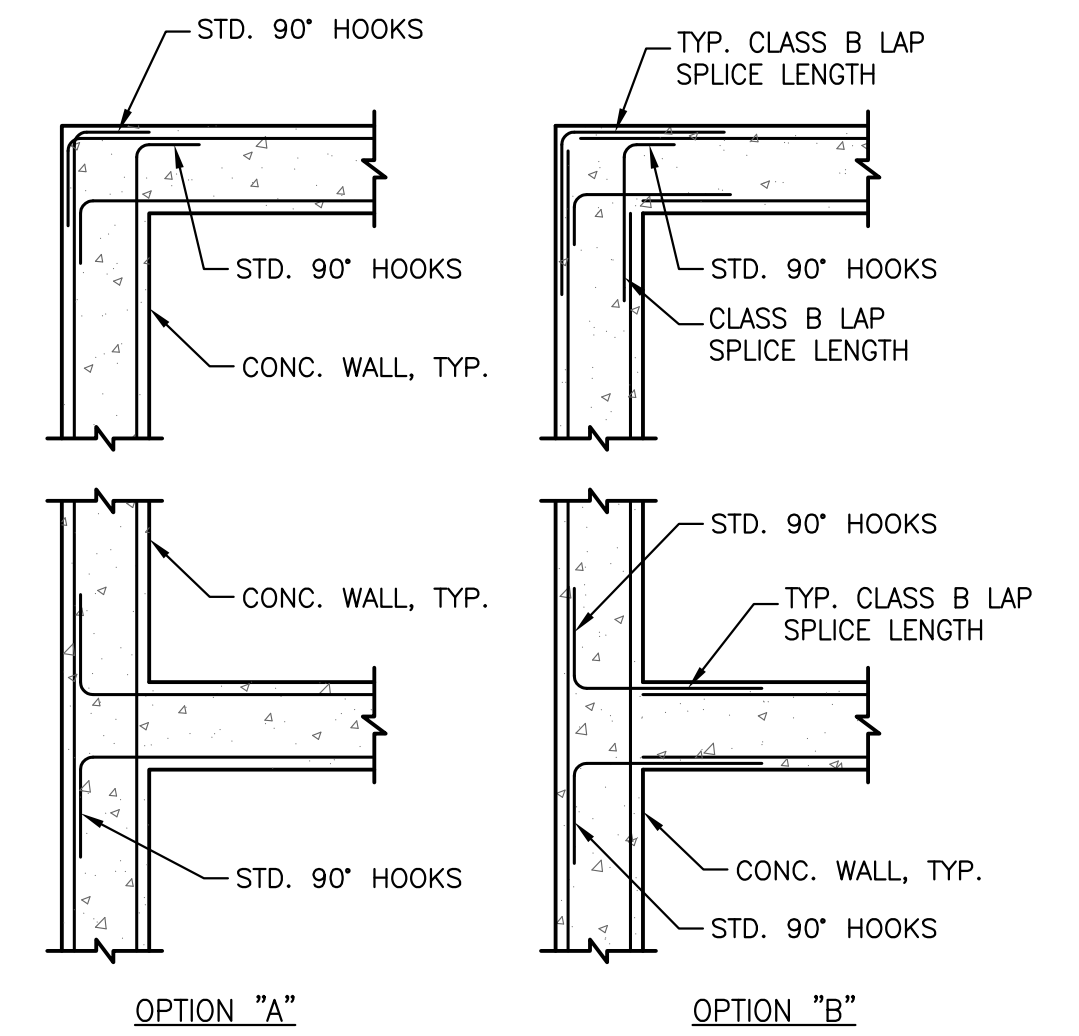
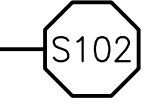
- NOTES:
- THE TABLES SHOWN ARE FOR  $f'c=4000psi$ ,  $f_y=60,000psi$ , 1.5" MIN CONCRETE COVER AND 3" MIN BAR SPACING.
  - MULTIPLY THE LAP AND E SHOWN IN THESE TABLES BY 1.5 FOR EPOXY COATED REINFORCING.
  - UNLESS NOTED OTHERWISE USE REBAR COUPLERS FOR SPLICES OF #11 AND LARGER BARS.
  - ALL DOWEL BARS SHALL EXTEND AN EMBEDMENT LENGTH E INTO ANOTHER MEMBER OR ACROSS A CONSTRUCTION JOINT UNLESS SHOWN TO SPLICE WITH OTHER BARS OR TO EXTEND TO THE FAR FACE OF THE MEMBER AND END WITH A STANDARD HOOK.

STANDARD 90° BAR HOOKS AND EMBEDMENT LENGTHS  
SCALE: NTS



NOTE:  
CORNER & INTERSECTION BARS TO MATCH SIZE & SPA OF HORIZ BARS. CENTER VERTICAL BARS IN WALL UNLESS NOTED OTHERWISE. REFER TO OTHER DETAILS FOR REQUIRED BAR SIZE AND SPACING.

CONCRETE WALL REINF FOR (1) MAT OF REINF  
SCALE: NTS



NOTES:  
1. CORNER & INTERSECTION BARS TO MATCH SIZE & SPACING OF HORIZONTAL BARS.  
2. REFER TO OTHER DETAILS & GENERAL NOTES FOR BAR CLEARANCE REQUIREMENTS.  
3. REFER TO OTHER SECTIONS & DETAILS FOR REQUIRED BAR SIZE AND SPACING.  
4. VERTICAL BARS NOT SHOWN FOR CLARITY, REFER TO OTHER DETAILS.

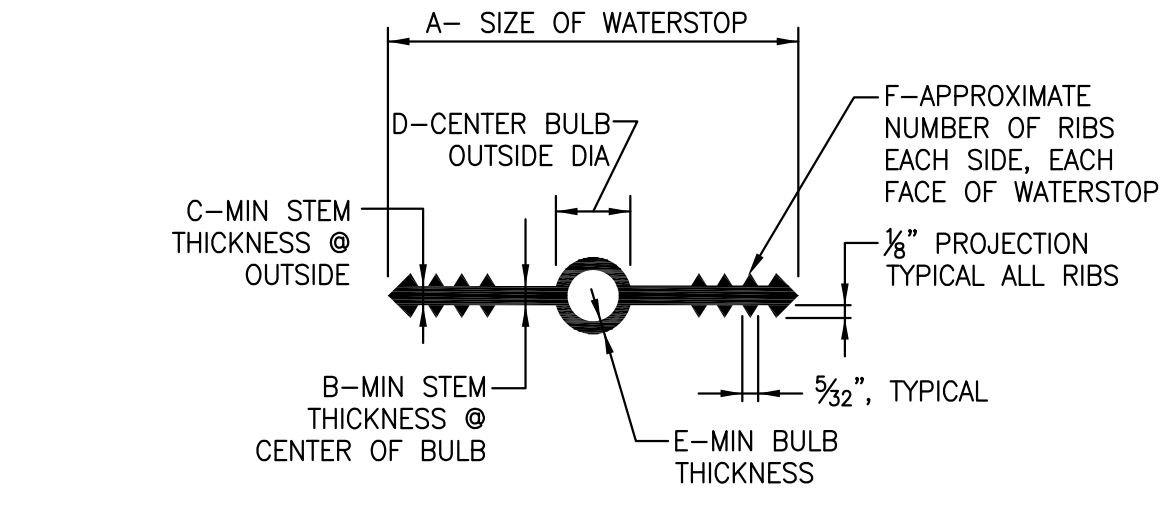
CONCRETE WALL REINF. FOR (2) MAT OF REINF.  
SCALE: NTS



TYPICAL LAP SPLICE LENGTHS IN INCHES, PER ACI 350									
BAR SIZE	LAP CLASS	$f'c=3,000 psi$		$f'c=4,000 psi$		$f'c=5,000 psi$		$f'c=6,000 psi$	
		CAT 1	CAT 2	CAT 1	CAT 2	CAT 1	CAT 2	CAT 1	CAT 2
#3	A	16	25	14	21	13	19	12	17
	B	21	32	19	28	17	25	15	23
#4	A	22	33	19	28	17	25	15	23
	B	28	43	25	37	22	33	20	30
#5	A	27	41	24	36	21	32	19	29
	B	36	53	31	46	28	41	25	38
#6	A	33	49	28	43	25	38	23	35
	B	43	64	37	55	33	50	30	45
#7	A	48	72	42	62	37	56	34	51
	B	62	93	54	81	48	72	44	66
#8	A	55	82	47	71	42	64	39	58
	B	71	106	61	92	55	83	50	76
#9	A	62	92	53	80	48	72	44	65
	B	80	120	69	104	62	93	57	85

- NOTES:
- FOR GRADE 60 REINFORCING STEEL BARS.
  - ALL LAP SPLICES SHALL BE CLASS B, UNLESS NOTED OTHERWISE.
  - CATEGORY 1: CLEAR COVER  $\geq db$  & CLR SPACING  $\geq db$ , AND STIRRUPS OR TIES THROUGHOUT  $L_d$  ARE PROVIDED.  
CATEGORY 2: CLEAR COVER  $< db$  OR CLR SPACING  $< 2db$ .  
CATEGORY 1: CLEAR COVER  $\geq db$  & CLR SPACING  $\geq 2db$ .
  - FOR TOP BARS MULTIPLY LAP LENGTH LISTED BY 1.30 TOP BARS ARE HORIZONTAL BARS WITH MORE THAN 12" OF CONCRETE CAST BELOW THE BARS.
  - MODIFY ABOVE VALUES FOR LIGHT-WEIGHT CONCRETE.

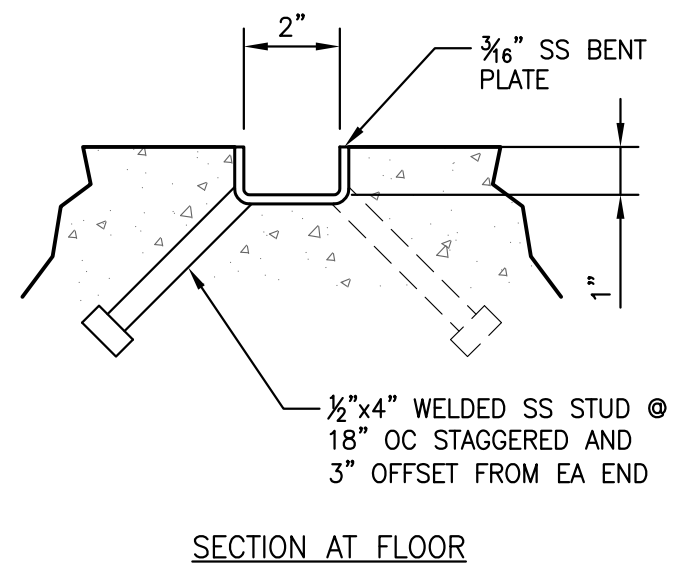
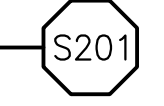
LAP SPLICE SCHEDULE  
SCALE: NTS



SIZE	A	B	C	D	E	F
4"x 3/16"	4"	3/16"	3/16"	3/4"	1/4"	4
6"x 3/8"	6"	3/8"	3/8"	7/8"	1/4"	6

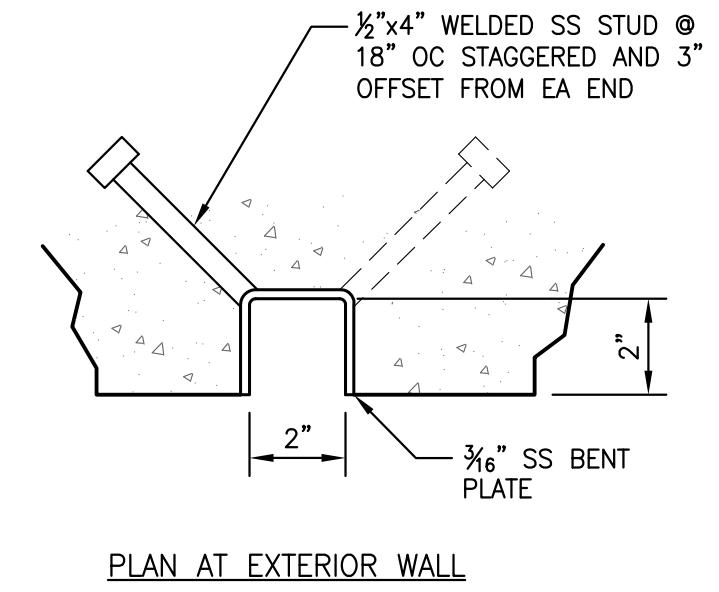
- NOTES:
- MATERIAL QUALITY PER SPECIFICATIONS.
  - DIMENSION REQUIREMENTS INDICATED SHOULD BE GIVEN TO SUPPLIERS PRIOR TO PLACING ORDERS.
  - NON-ROUND CENTER BULBS SHALL HAVE A MINIMUM OUTSIDE DIMENSION OF "D".

PVC WATERSTOP DETAIL  
SCALE: NTS



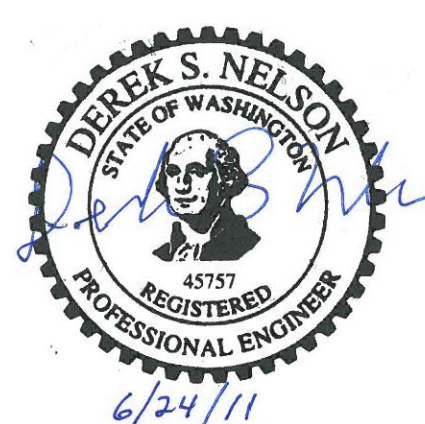
SECTION AT FLOOR

FLOOR GUIDE SLOT DETAIL  
SCALE: 3" = 1'-0"



PLAN AT EXTERIOR WALL

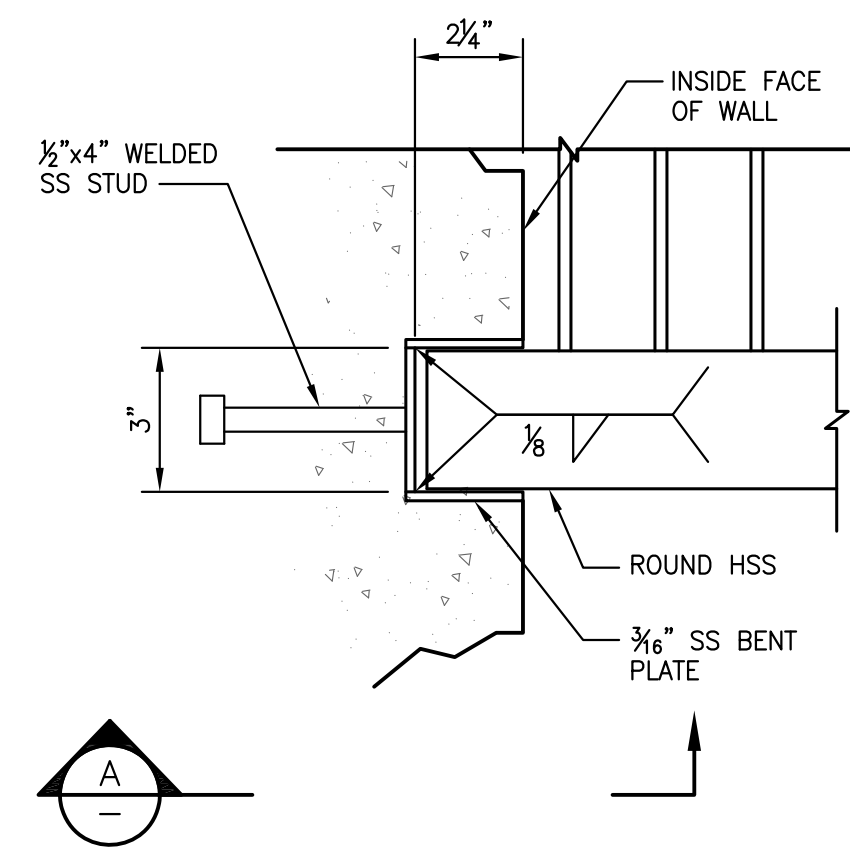
WALL GUIDE SLOT DETAIL  
SCALE: 3" = 1'-0"



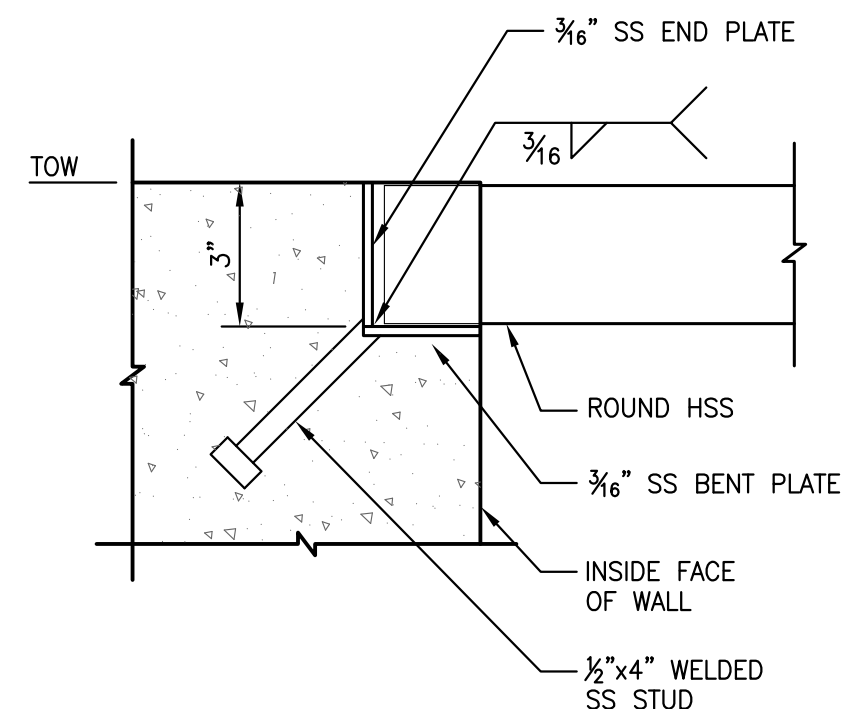
**McMILLEN, LLC**  
1401 SHORELINE DRIVE  
SUITE 100  
BOISE, ID 83702  
OFFICE: 208.342.4214  
FAX: 208.342.4216

SAP#	LEWIS RIVER		
PL#	CLEAR CREEK ACCLIMATION POND		
DATE	6/24/11	DES	DSN
ENG	RLG	CH	MDM
DR	APPROVAL		
HYDRO			
SCALE: NONE	SHEET	GS-2	REV. 0

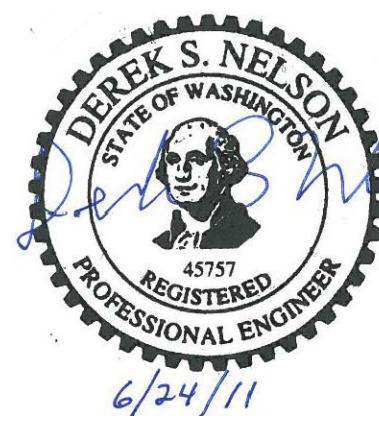
PLOT SCALE: 1 =	NO.	DATE	BY	CHK	APP	REVISION	
						NO.	DATE
0	6/24/11	ISSUED FOR CONSTRUCTION	RG	DSN	MDM		



WALL TRASH RACK SLOT DETAIL -- PLAN S303  
SCALE: 3" = 1'-0"



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



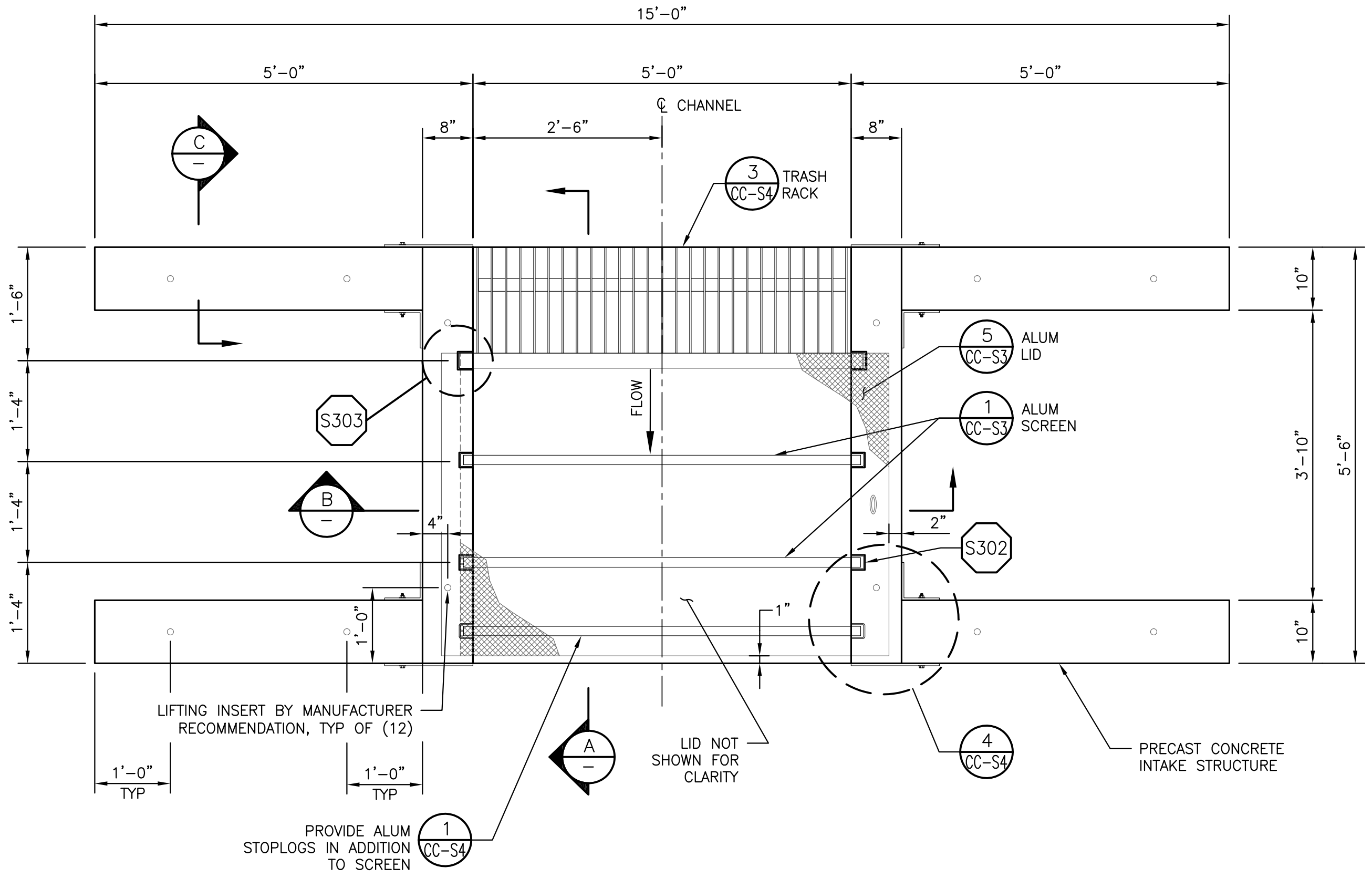
**McMILLEN, LLC**

1401 SHORELINE DRIVE  
SUITE 100  
BOISE, ID 83702  
OFFICE: 208.342.4214  
FAX: 208.342.4216

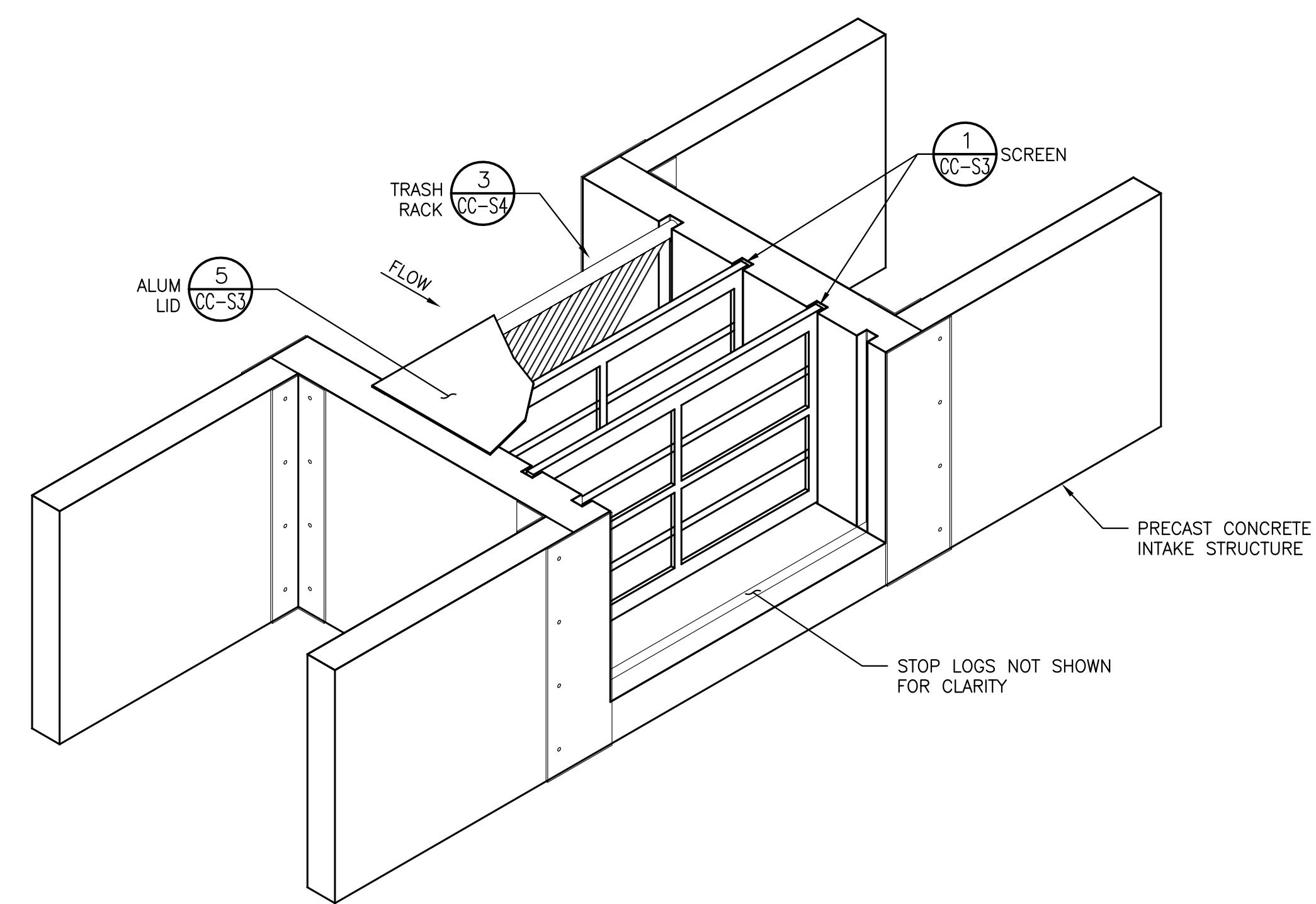
SAP#		LEWIS RIVER	
PL#		CLEAR CREEK ACCLIMATION POND	
DATE 6/24/11		STANDARD	
ENG DSN	DES DSN	STRUCTURAL DETAILS 2	
DR RLG	CH MDM	HYDRO	
APPROVAL		PACIFICORP ENERGY	
		SCALE: NONE SHEET GS-3	
		REV. 0	

A	REFERENCE DRAWINGS						
	DRAWING No.						
B	REFERENCE DRAWINGS						
	DRAWING No.						
C	CHK APP						
	BY						
D	REVISION						
	DATE						
E	CHK APP						
	BY						
F	REVISION						
	DATE						

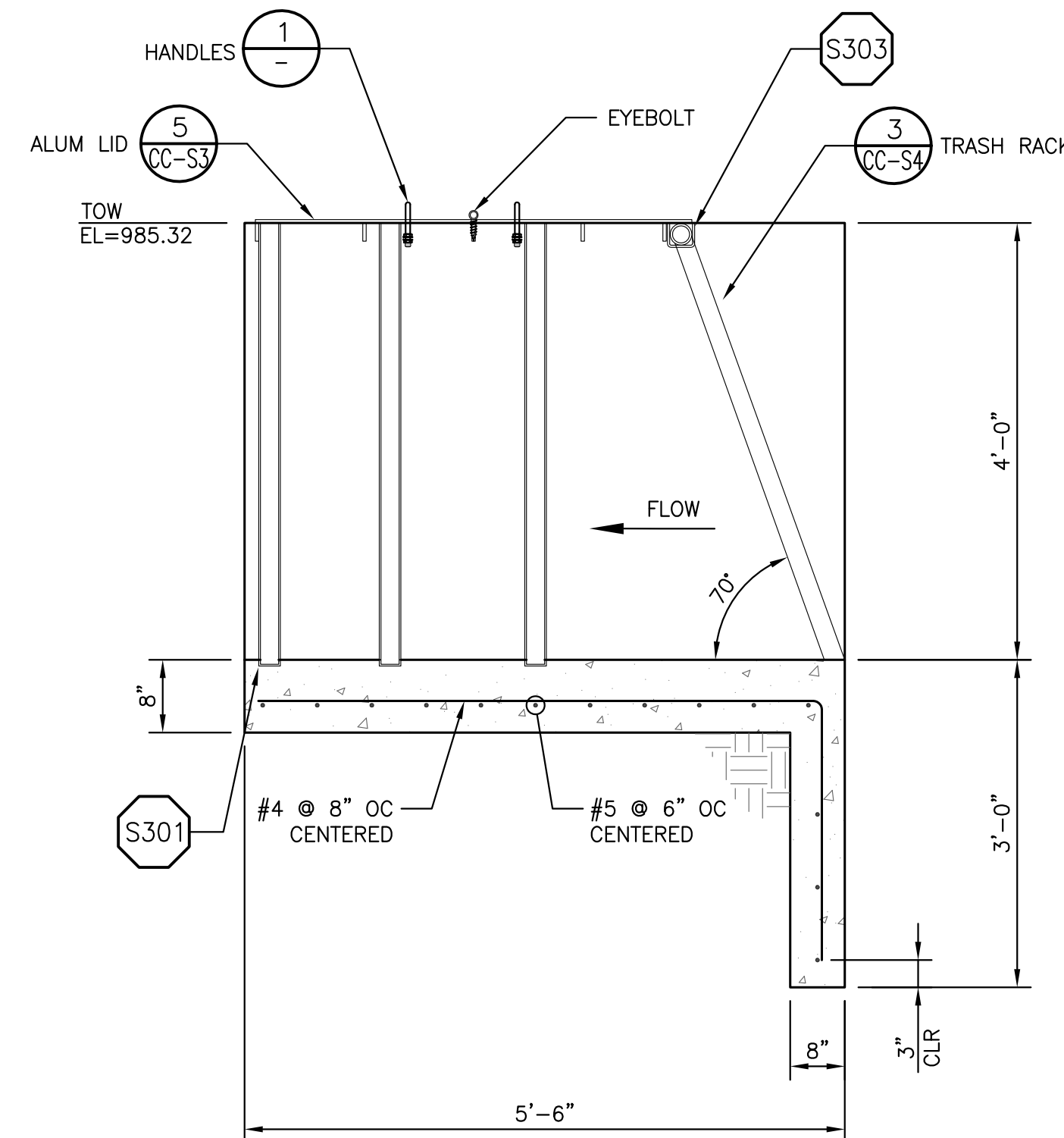
PLOT SCALE: 1" = 1'-0"  
No. DATE 6/24/11 ISSUED FOR CONSTRUCTION



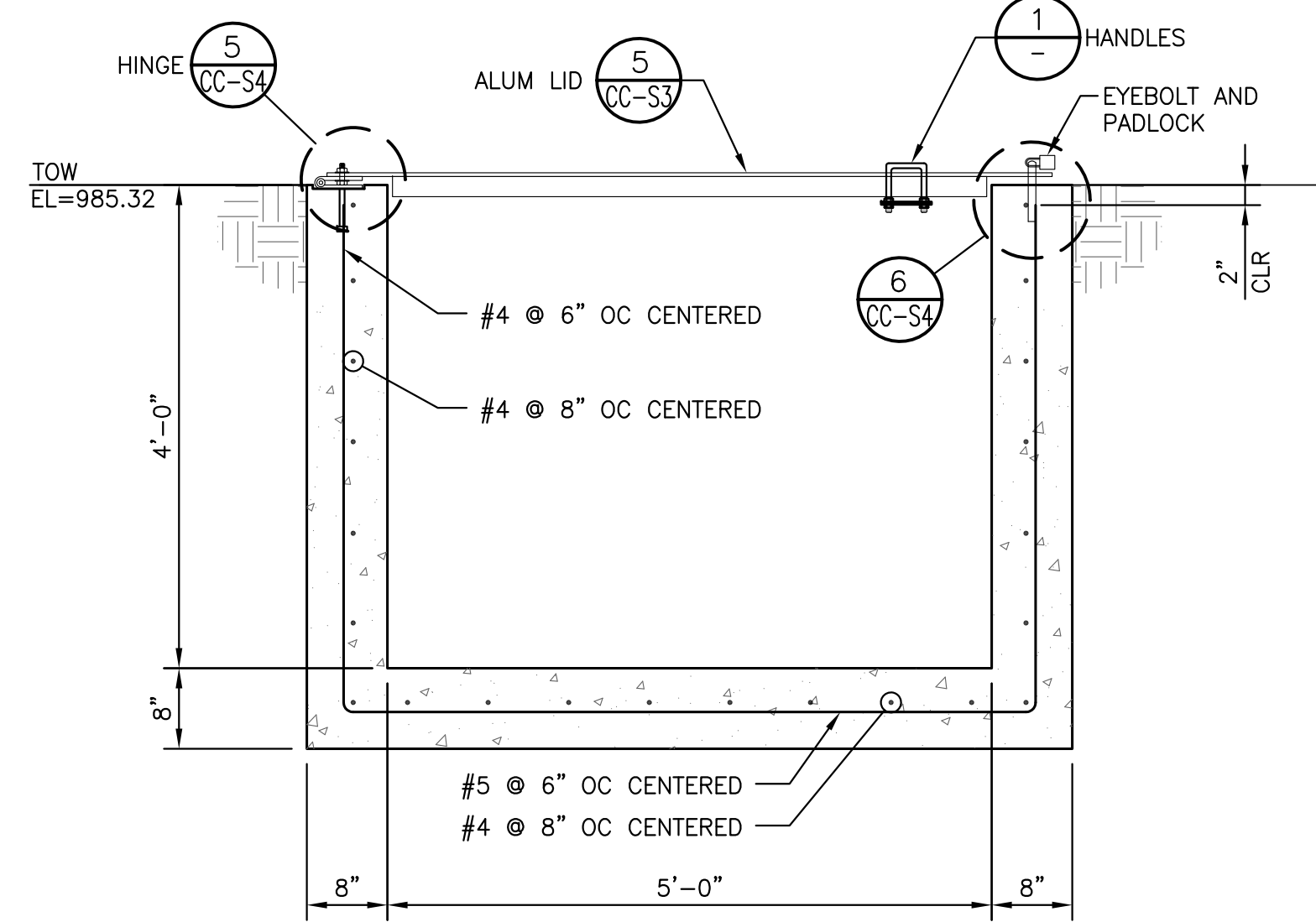
**INTAKE STRUCTURE PLAN**  
SCALE: 3/4" = 1'-0"



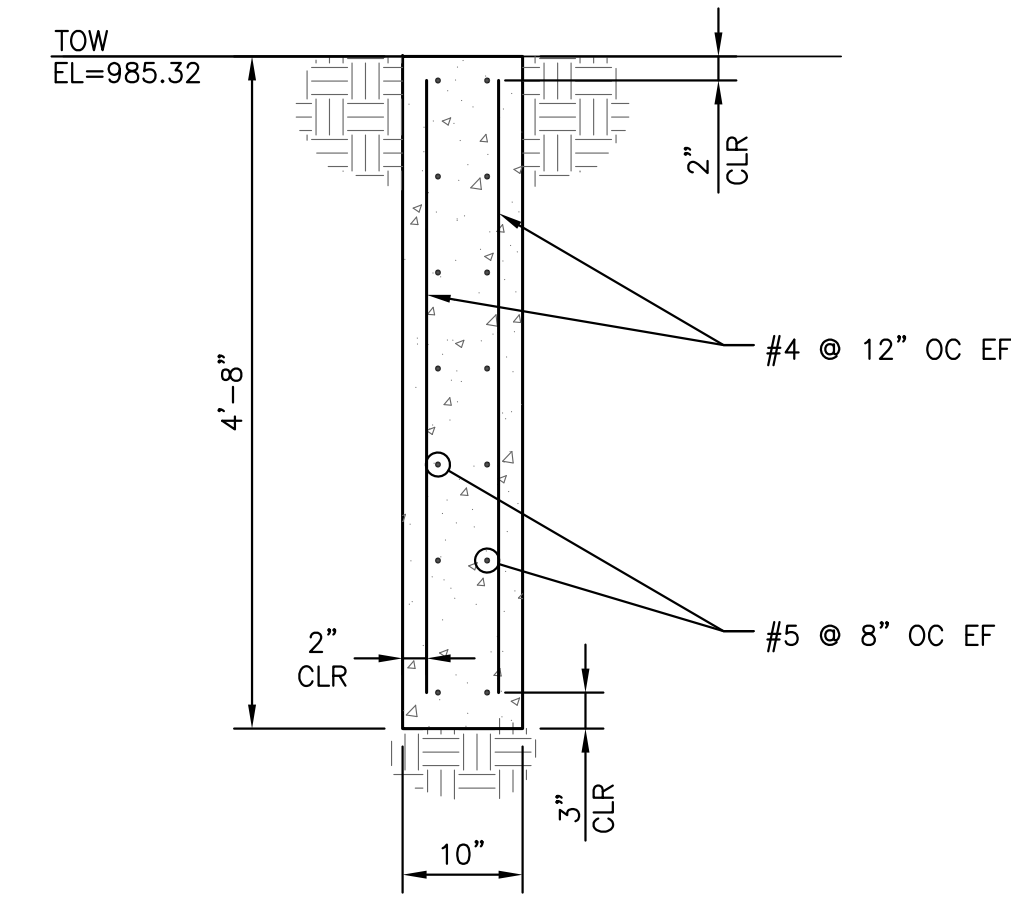
**ISOMETRIC**  
SCALE: NONE



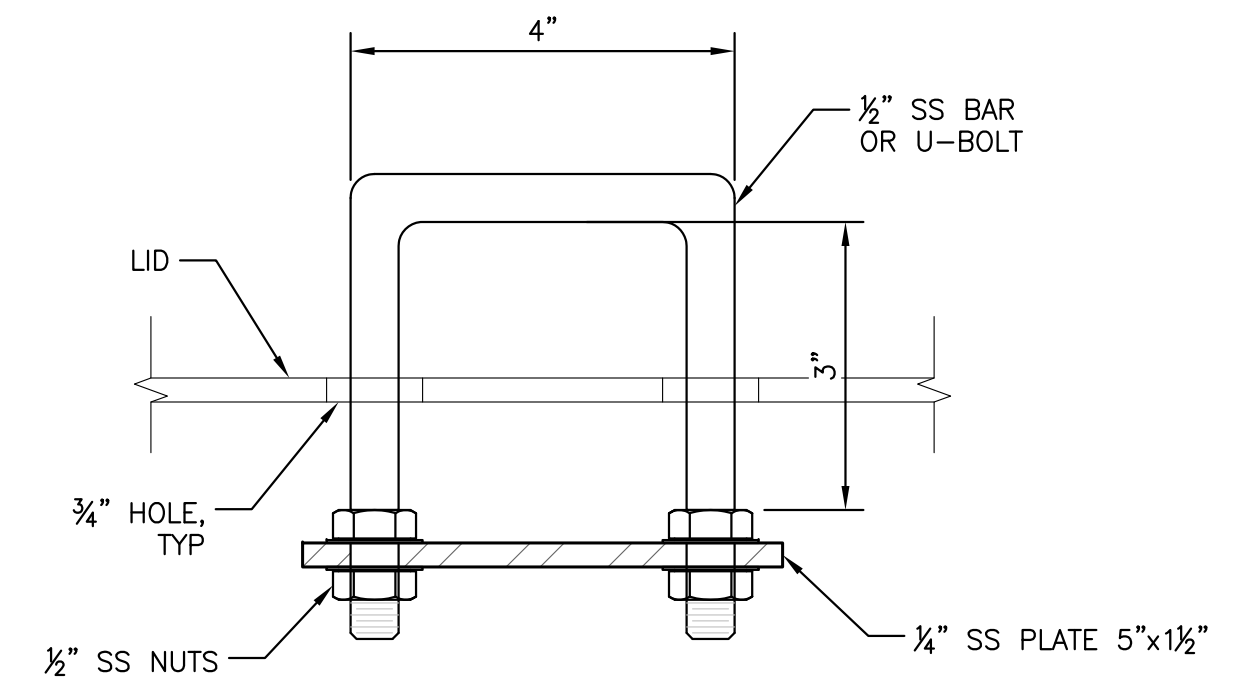
**SECTION A-A**  
SCALE: 3/4" = 1'-0"



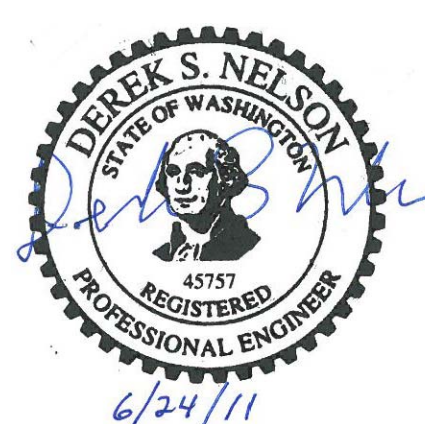
**SECTION B-B**  
SCALE: 3/4" = 1'-0"



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



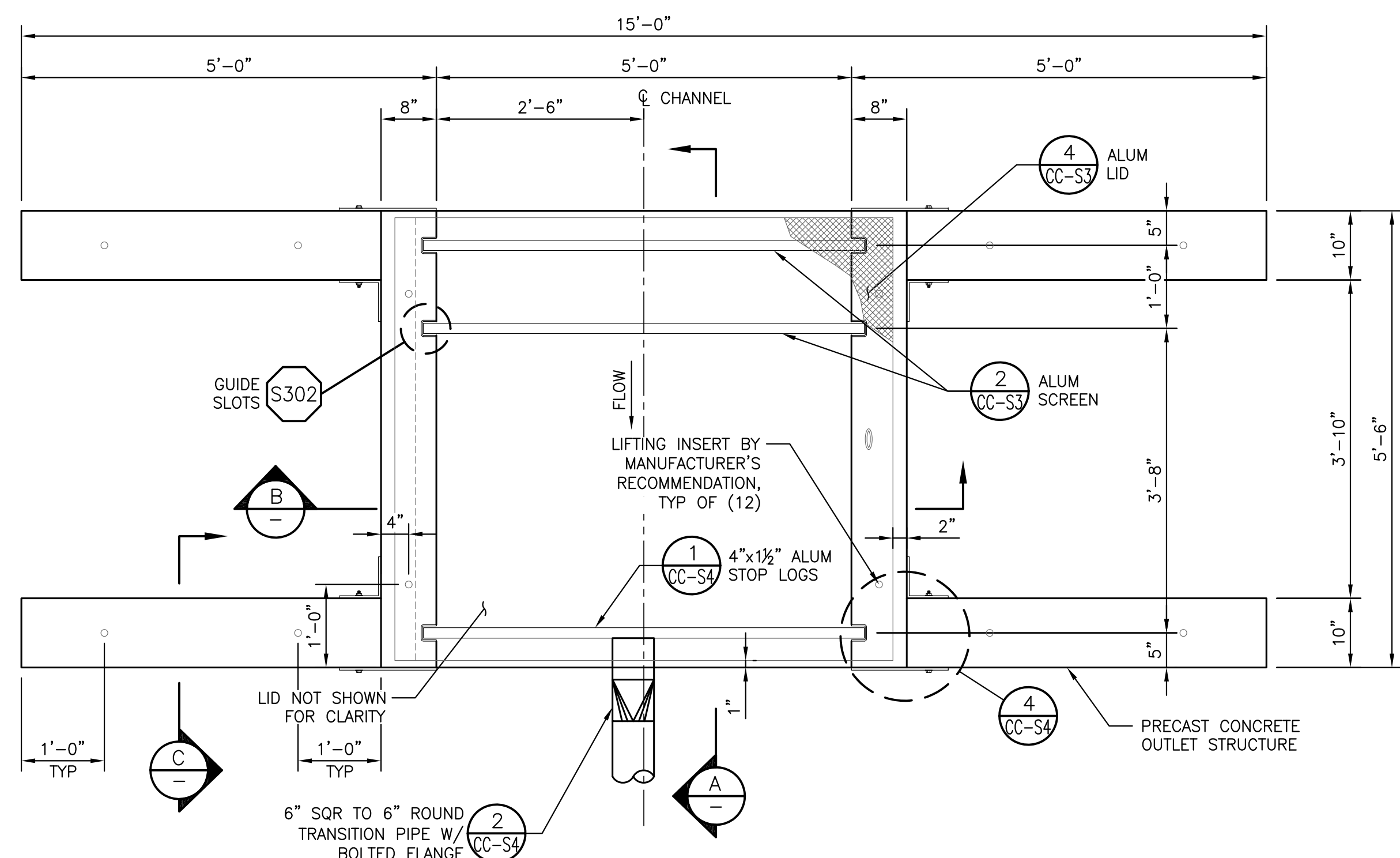
**HANDLE 1-1**  
SCALE: 6" = 1'-0"



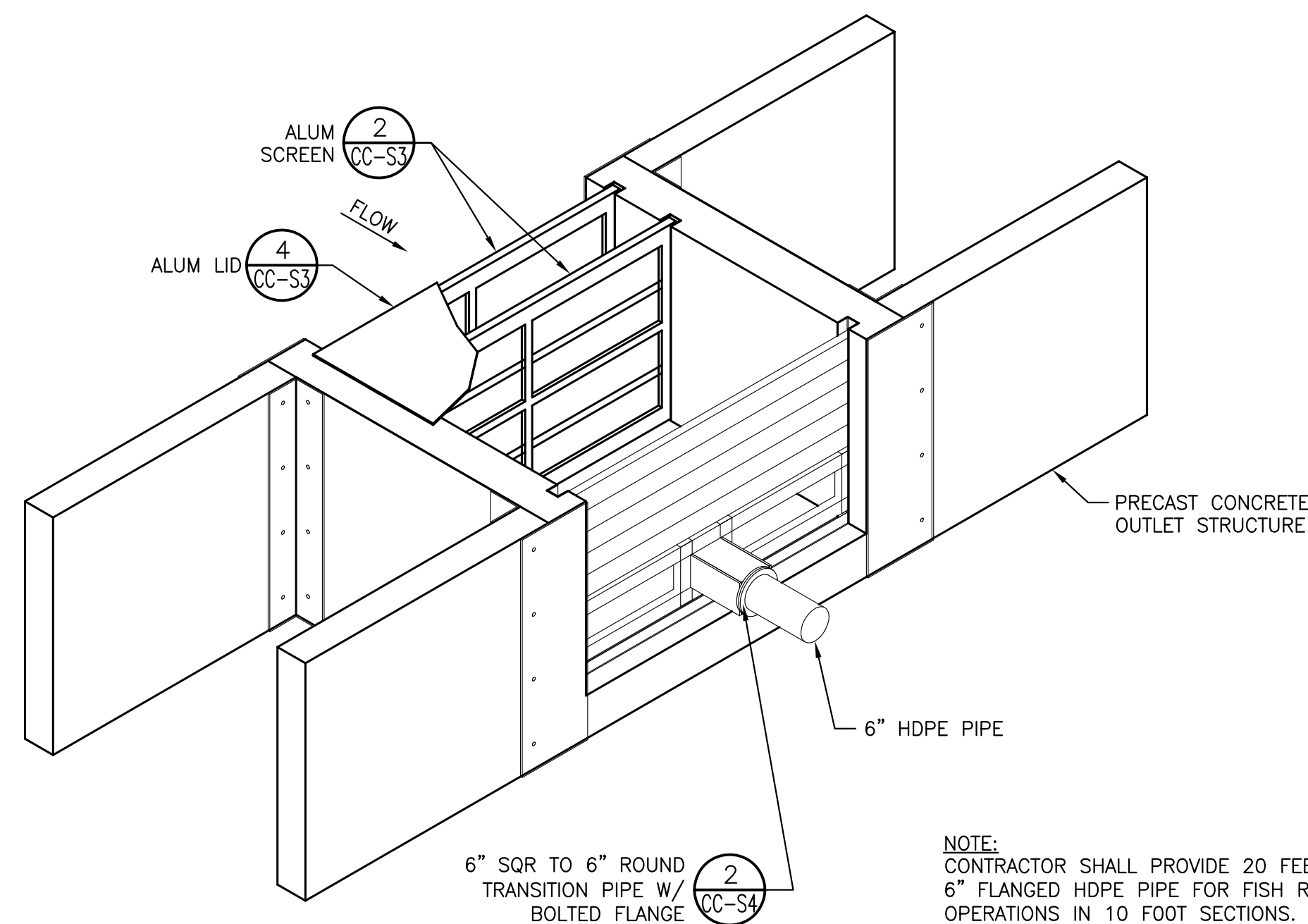
**McMILLEN, LLC**  
1401 SHORELINE DRIVE  
SUITE 100  
BOISE, ID 83702  
OFFICE: 208.342.4214  
FAX: 208.342.4216

SAP#	LEWIS RIVER		
PL#	CLEAR CREEK ACCLIMATION POND		
DATE	6/24/11	INTAKE STRUCTURE	
ENG	DSN	DES	DSN
DR	RLG	CH	MDM
APPROVAL			
PACIFICORP ENERGY		HYDRO	
SCALE: AS NOTED	SHEET	CC-S1	REV. 0

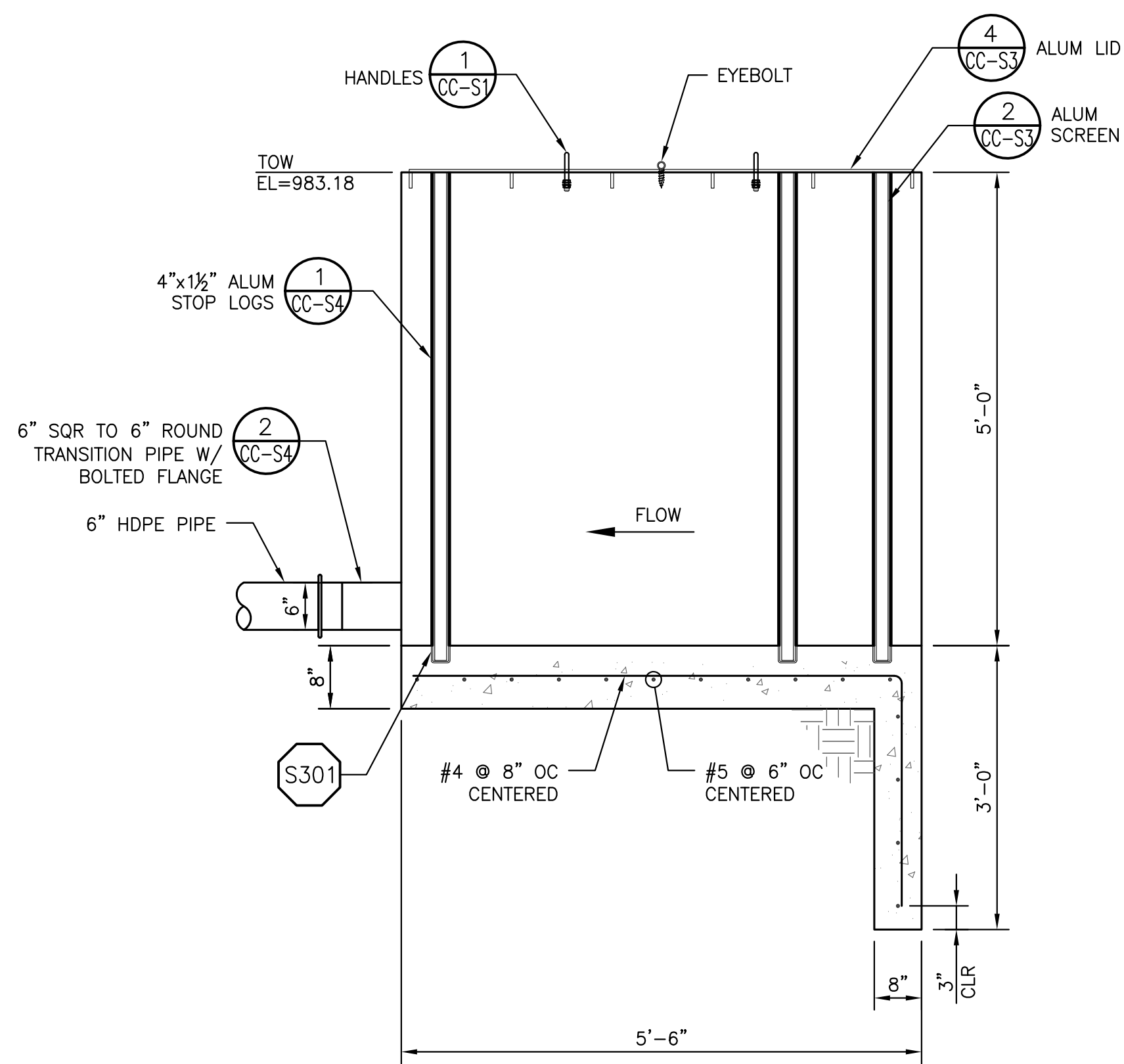
REVISION	DATE	BY	CHK APP	REVISION	DATE	BY	CHK APP
0	6/24/11	RG	DSN MDM	REFERENCE DRAWINGS			
1				DRAWING No.			
				BY			
				CHK APP			
				DRAWING No.			
				REFERENCE DRAWINGS			



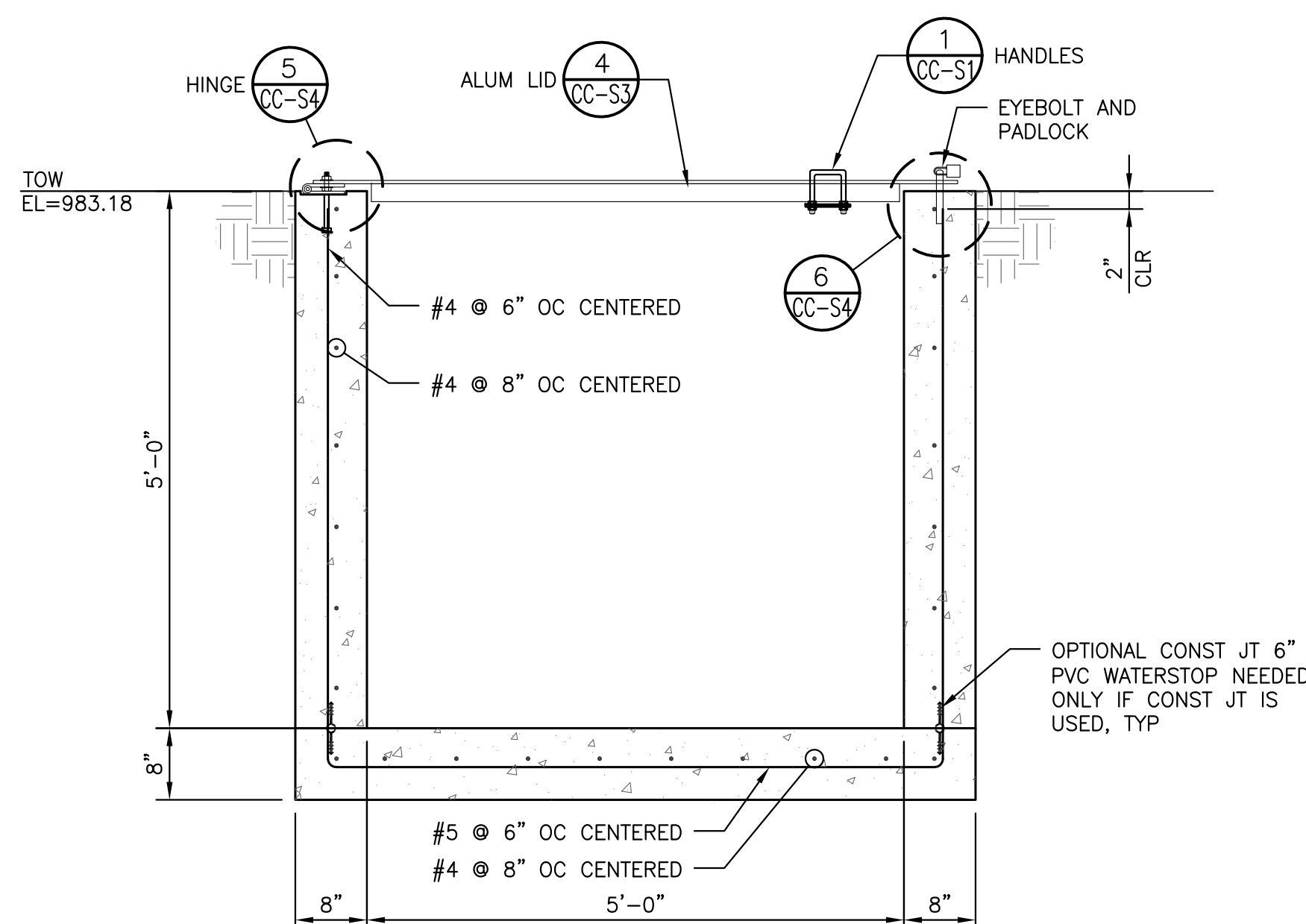
**OUTLET STRUCTURE PLAN**  
SCALE: 1" = 1'-0"



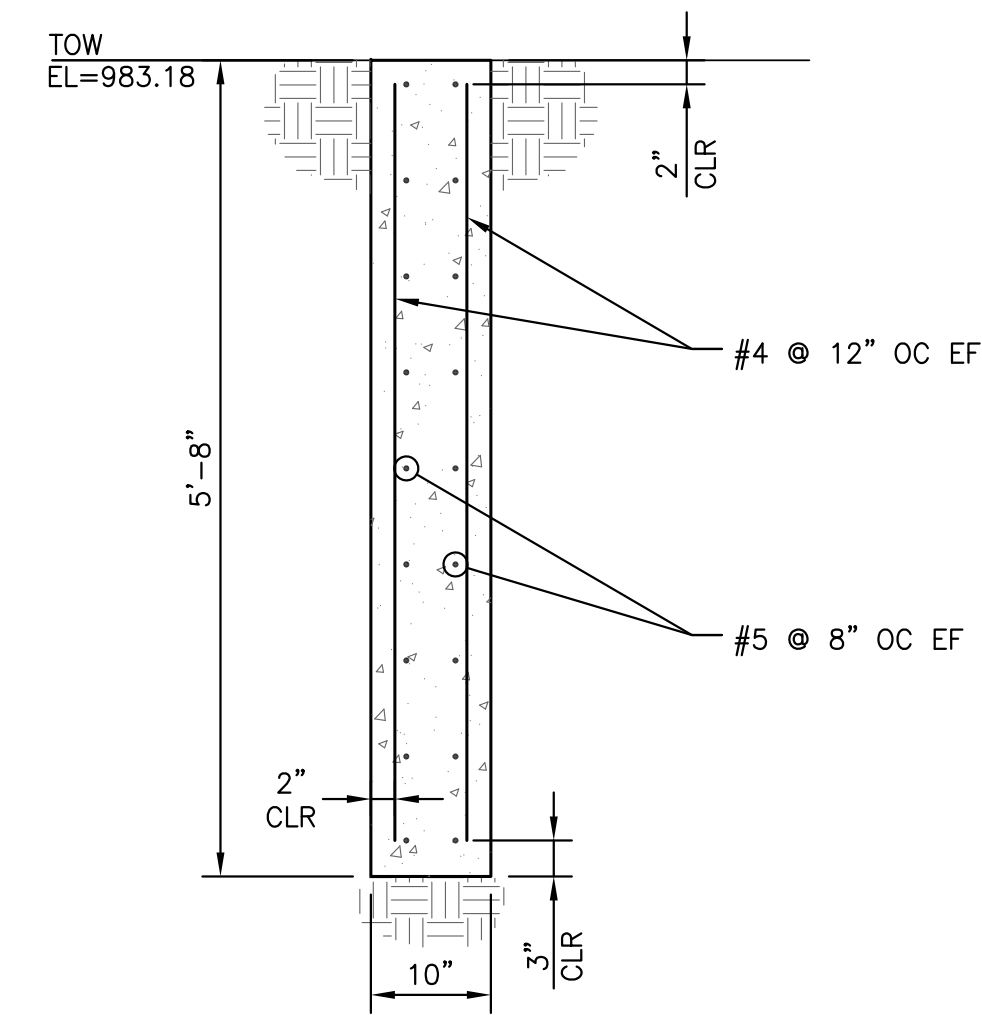
**ISOMETRIC**  
SCALE: NONE



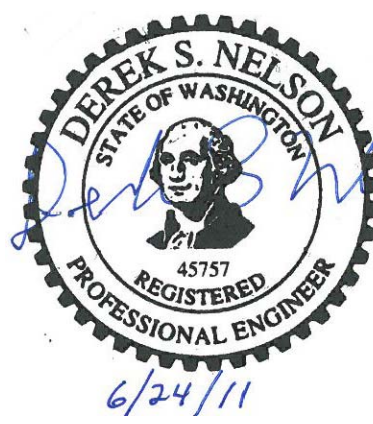
**SECTION A-A**  
SCALE: 3/4" = 1'-0"



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



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



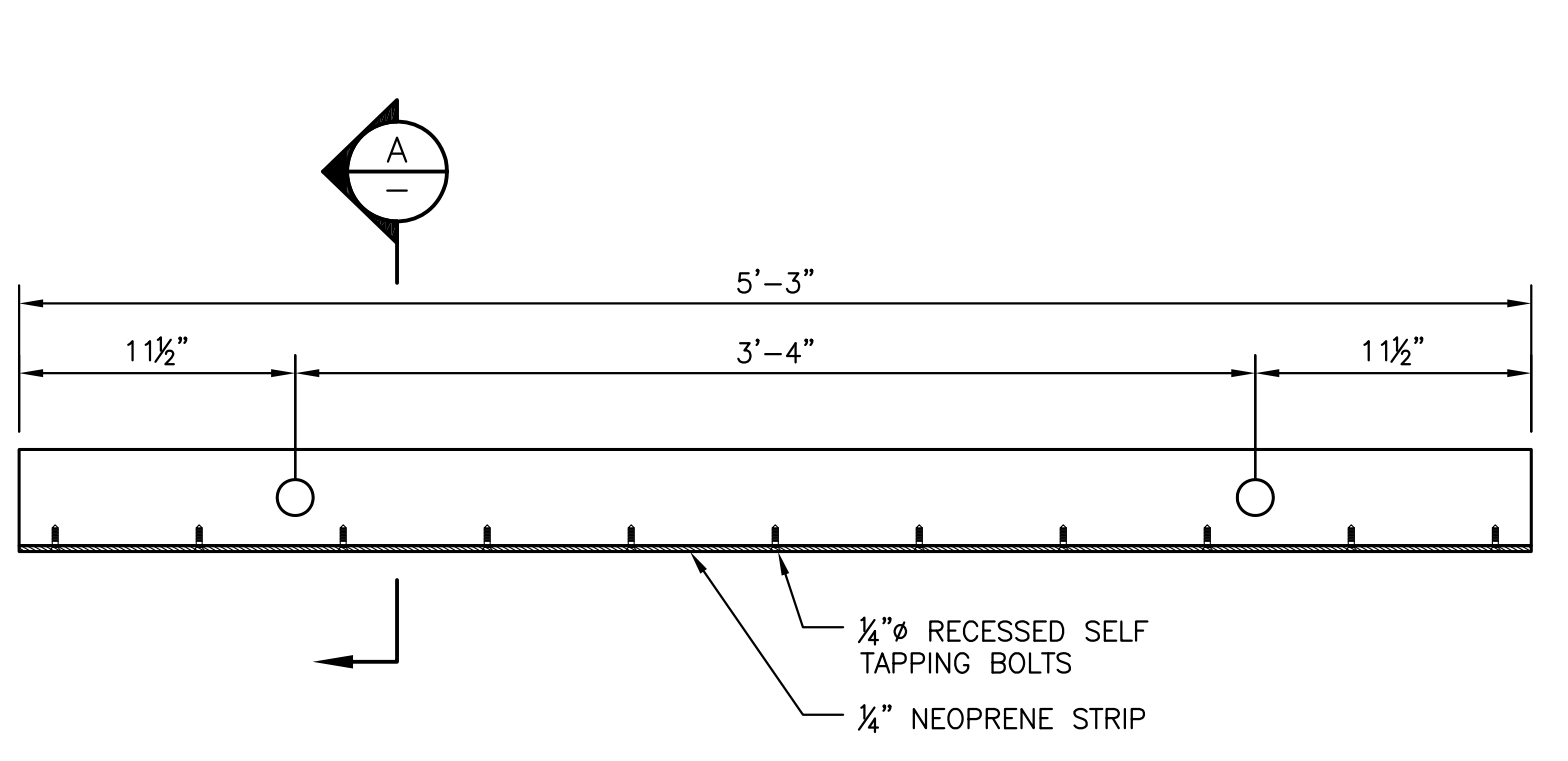
**McMILLEN, LLC**

1401 SHORELINE DRIVE  
SUITE 100  
BOISE, ID 83702  
OFFICE: 208.342.4214  
FAX: 208.342.4216

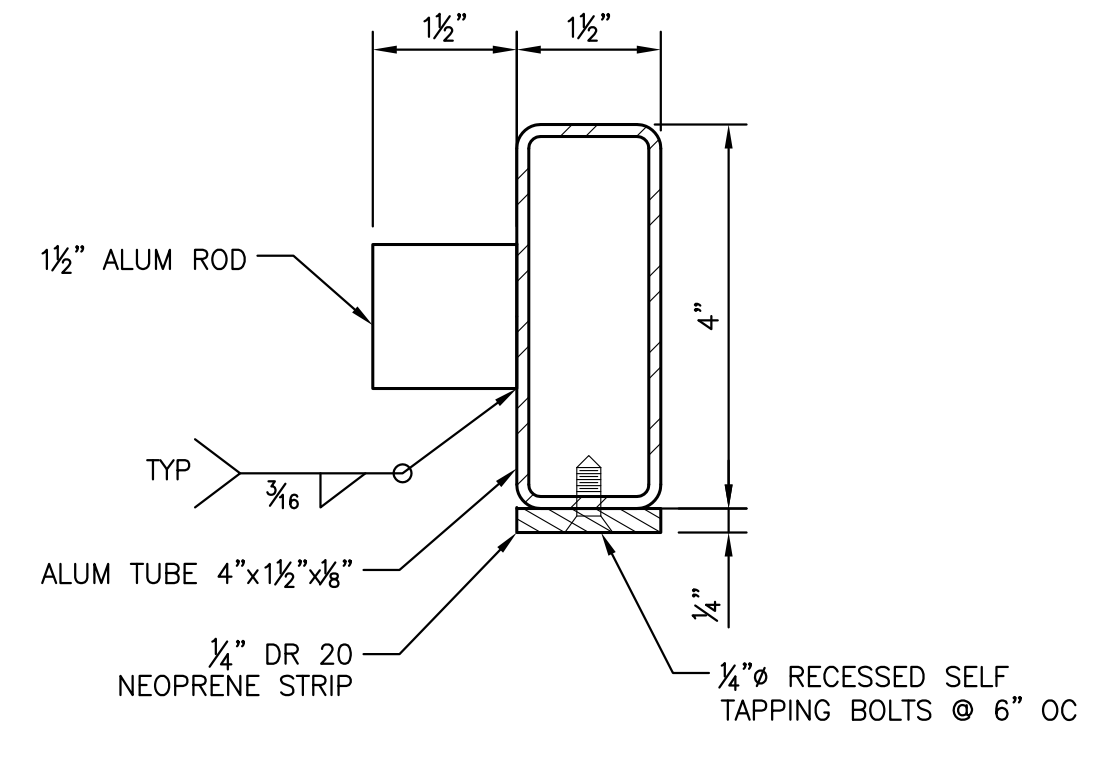
SAP#	LEWIS RIVER			
PL#	CLEAR CREEK ACCLIMATION PONDS			
DATE	6/24/11	OUTLET STRUCTURE		
ENG	DSN	DES	DSN	PLAN, SECTION AND ISOMETRIC
DR	RLG	CH	MDM	
APPROVAL				
PACIFICORP ENERGY				HYDRO
SCALE: AS NOTED	SHEET	CC-S2	REV.	0

NO.	DATE	REVISION	BY	CHK APP	DATE	REVISION	BY	CHK APP	DRAWING No.	REFERENCE DRAWINGS
0	6/24/11	ISSUED FOR CONSTRUCTION	RG	DSN	MDM					

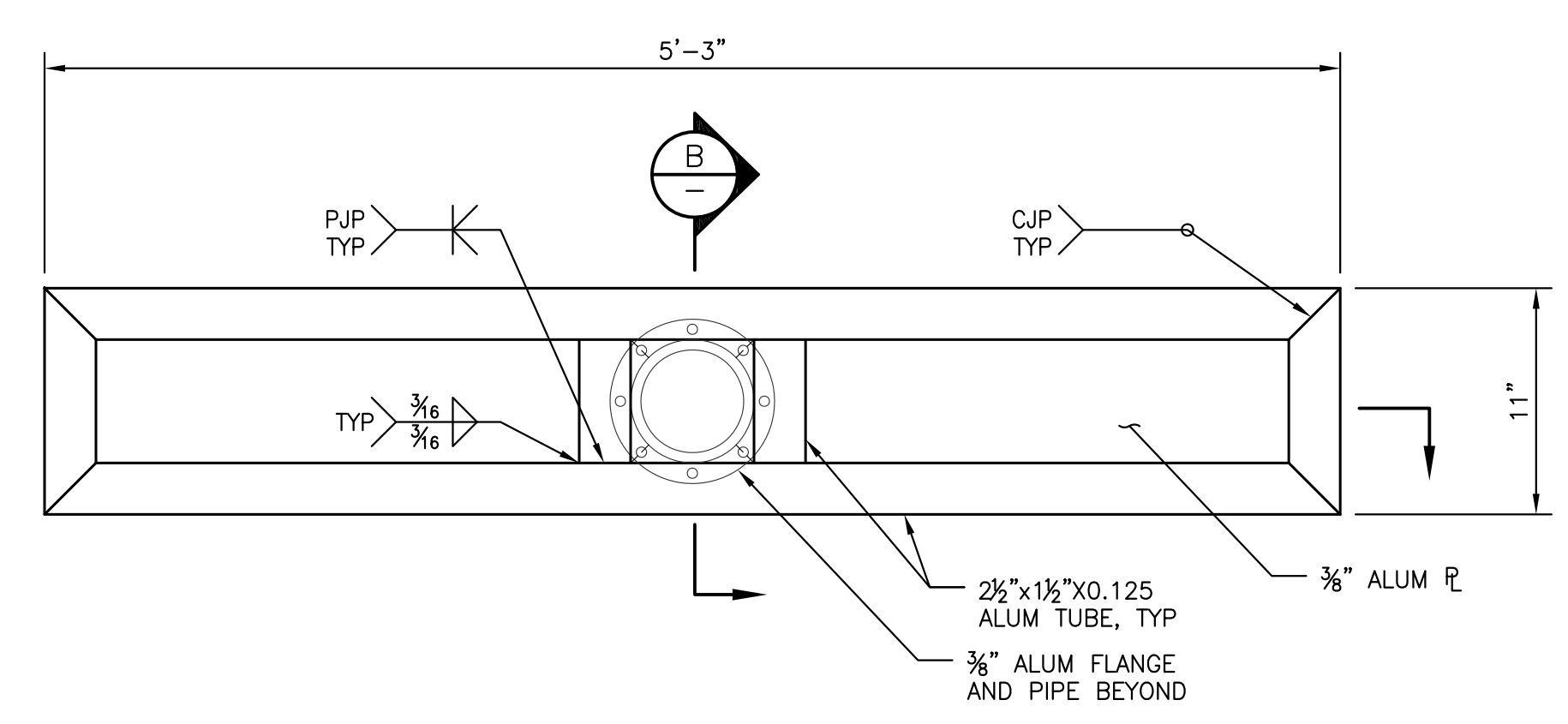




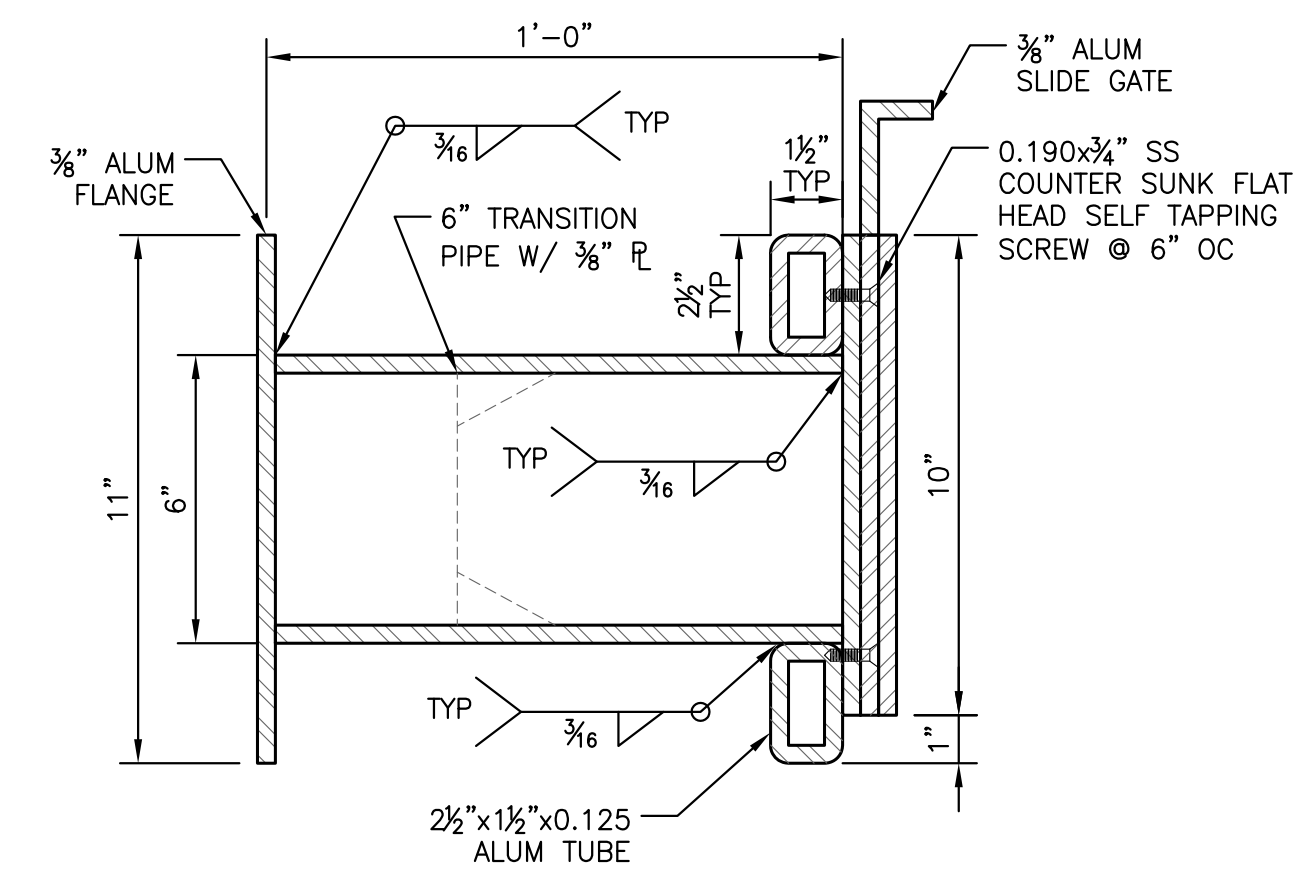
**STOPLOG DETAIL (24 REQ'D)**  
SCALE: 1 1/2" = 1'-0"  
CC-S2



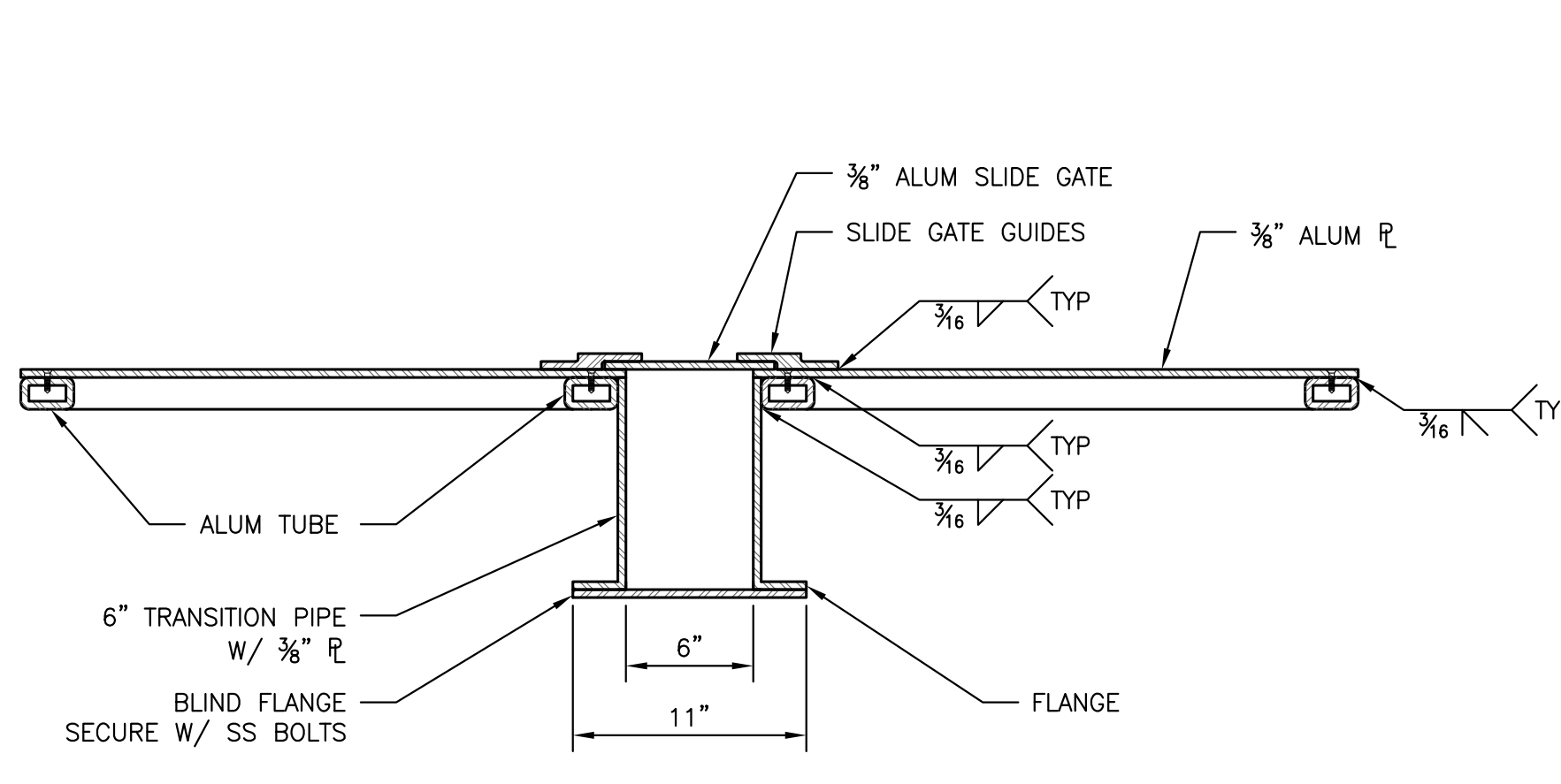
**SECTION**  
SCALE: 6" = 1'-0"  
A



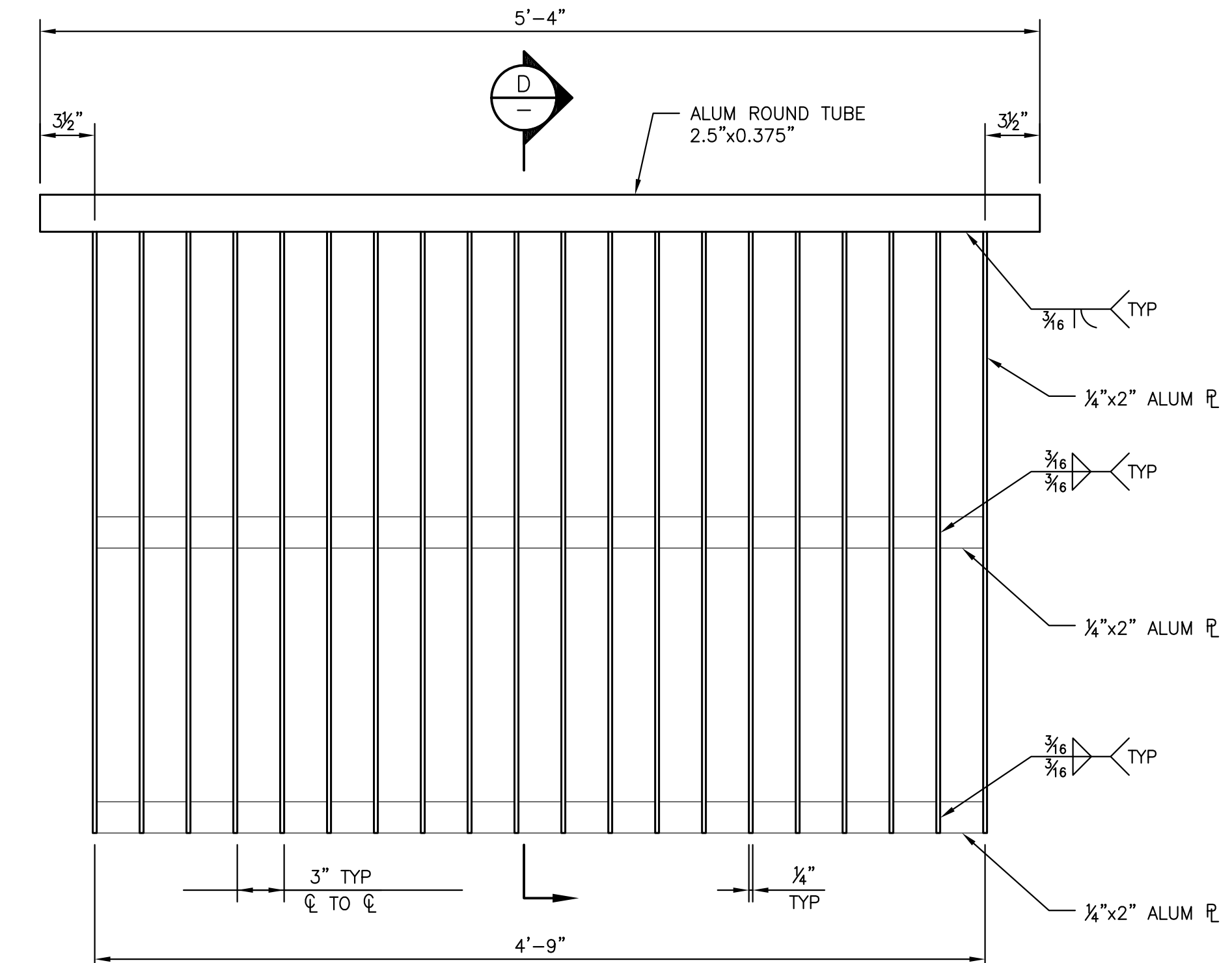
**TRANSITION PIPE STOPLOG DETAIL**  
SCALE: 1 1/2" = 1'-0"  
CC-S2



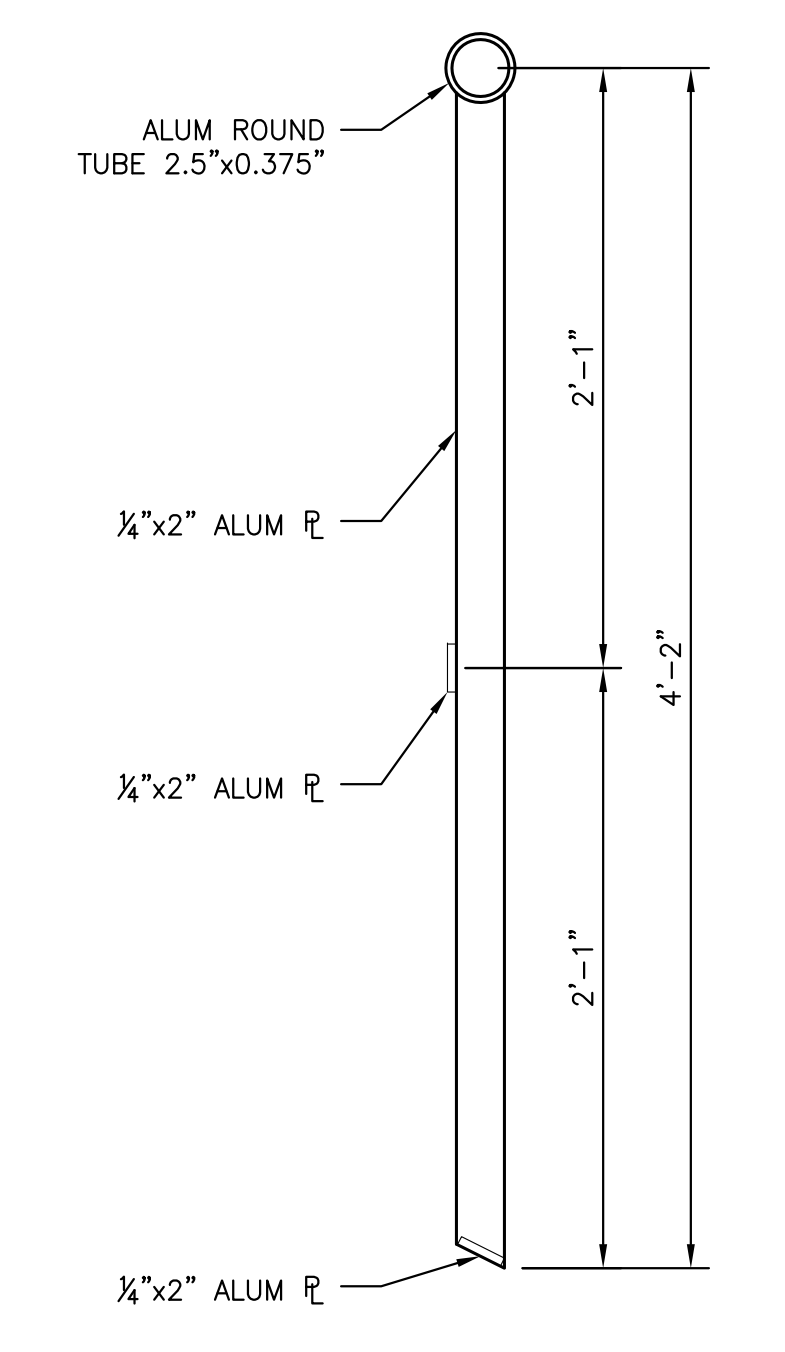
**SECTION**  
SCALE: 3" = 1'-0"  
B



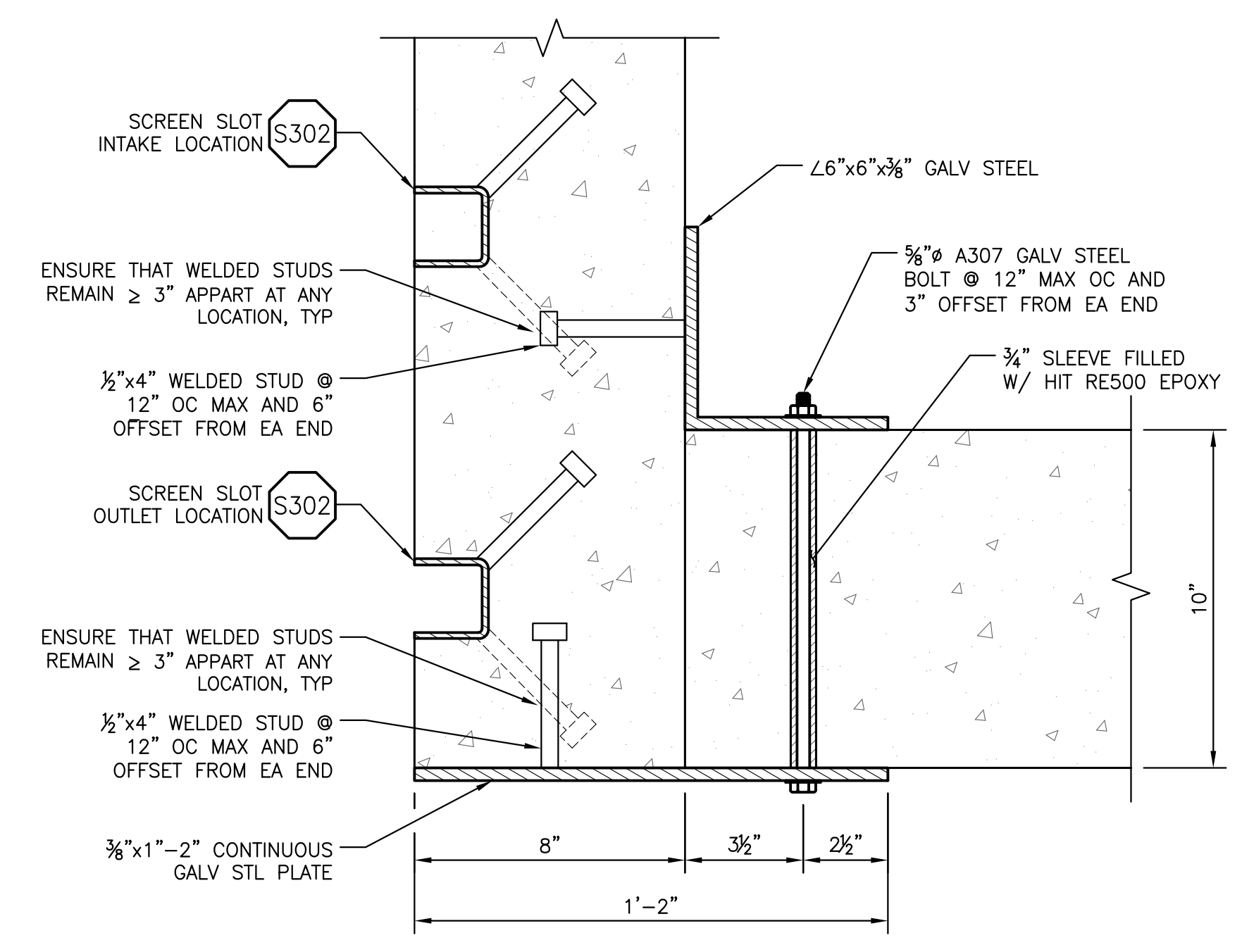
**SECTION**  
SCALE: 1 1/2" = 1'-0"  
C



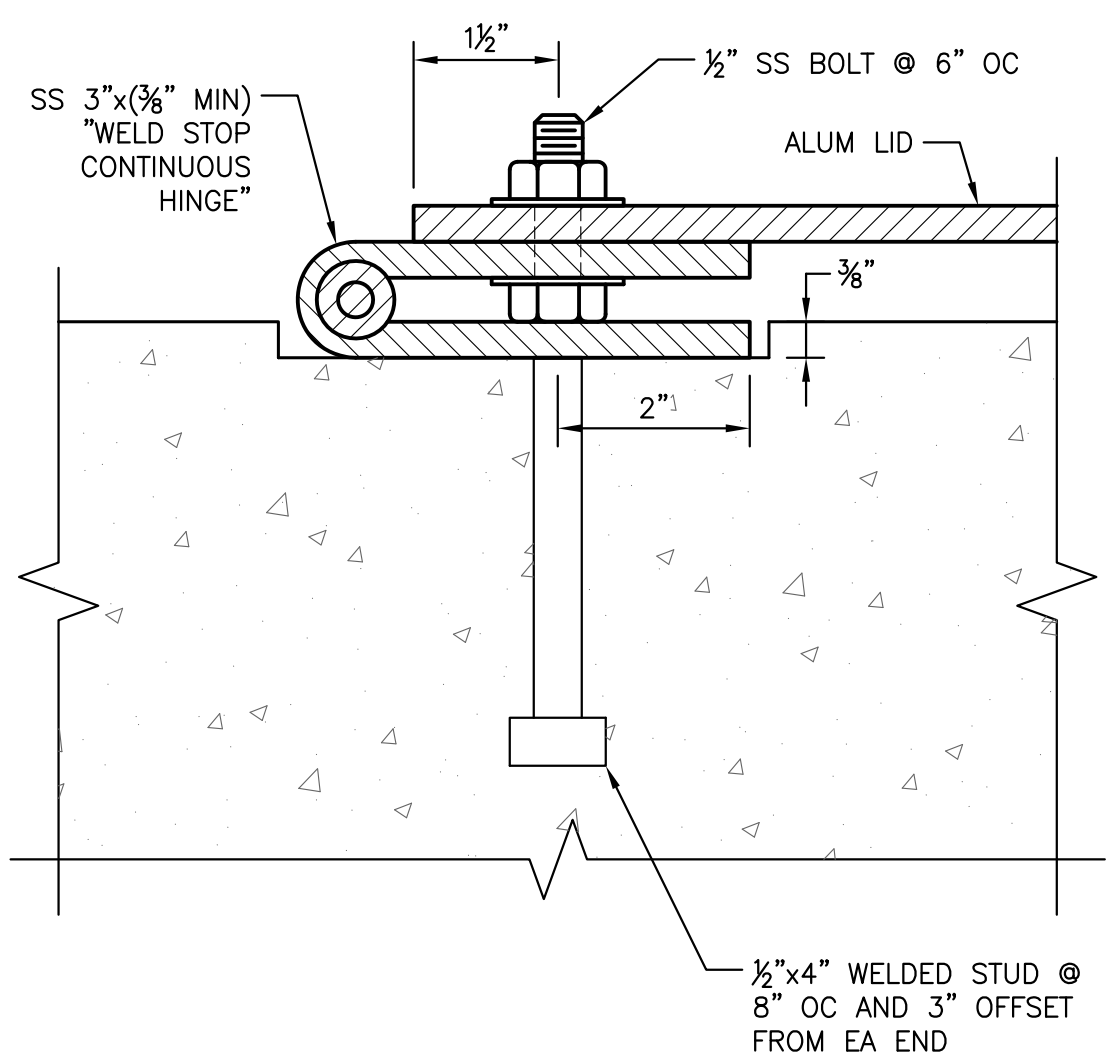
**TRASH RACK DETAIL**  
SCALE: 1 1/2" = 1'-0"  
CC-S1



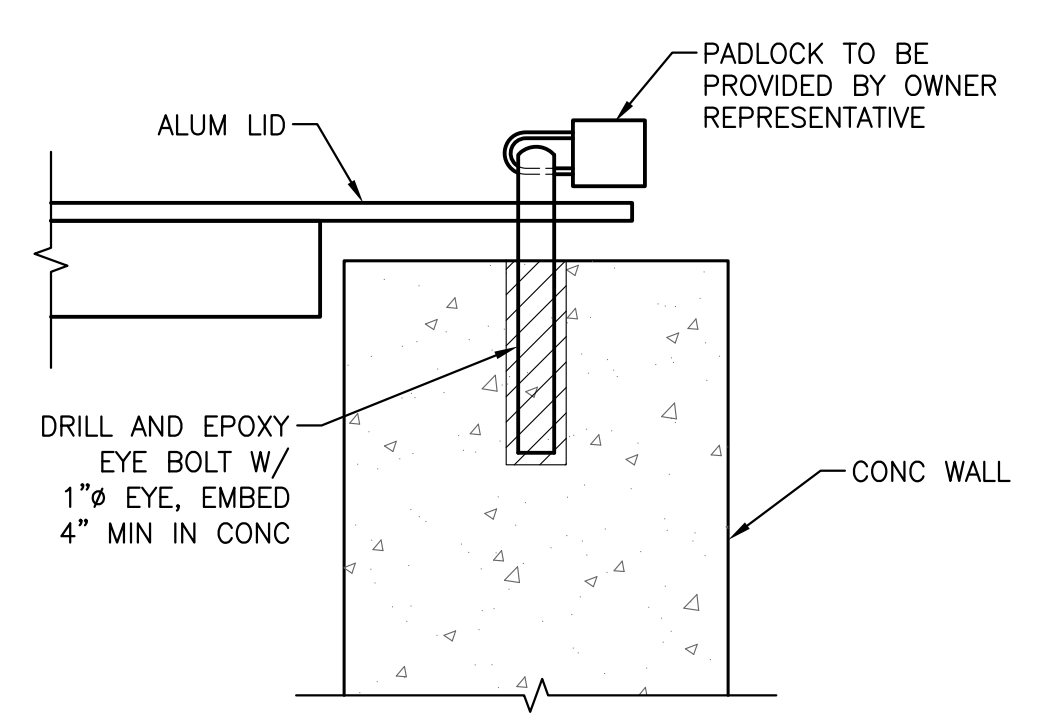
**SECTION**  
SCALE: 1 1/2" = 1'-0"  
D



**DETAIL - PLAN**  
SCALE: 3" = 1'-0"  
CC-S1



**HINGE DETAIL**  
SCALE: 6" = 1'-0"  
CC-S1



**EYE BOLT DETAIL**  
SCALE: 3" = 1'-0"  
CC-S1



**McMILLEN, LLC**  
1401 SHORELINE DRIVE  
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BOISE, ID 83702  
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FAX: 208.342.4216

SAP#	PL#	DATE	6/24/11
ENG	DSN	DES	DSN
DR	RLG	CH	MDM
APPROVAL			
LEWIS RIVER CLEAR CREEK ACCLIMATION POND STOPLOG PLAN AND SECTIONS AND TRASH RACK			
PACIFICORP ENERGY			HYDRO
SCALE: AS NOTED	SHEET	CC-S4	REV. 0

NO.	DATE	REVISION	BY	CHK	APP	DRAWING No.	REFERENCE DRAWINGS
0	6/24/11	ISSUED FOR CONSTRUCTION	RG	DSN	MDM		