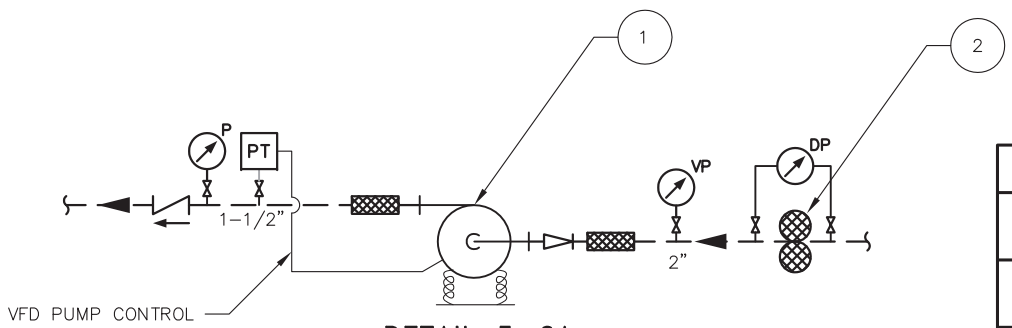
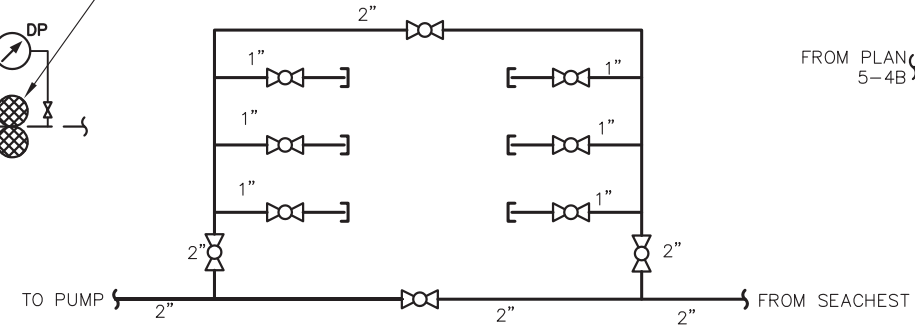


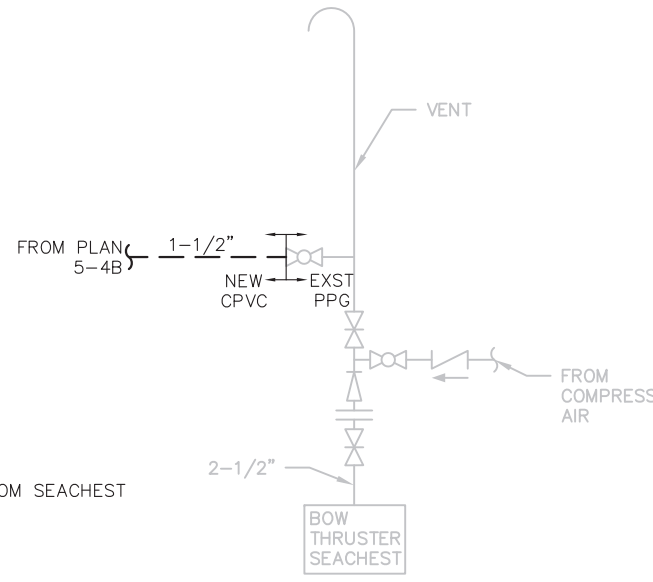
**PLAN 5-4B**  
2ND PLATFORM  
UNCONTAMINATED SEAWATER  
NEW PIPING



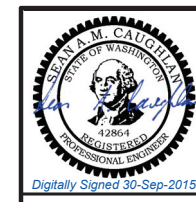
**DETAIL 5-6A**  
UNCONTAMINATED SEAWATER  
PUMP ASSEMBLY  
NEW CPVC PIPING



**DETAIL 5-4A**  
UNCONTAMINATED SEAWATER  
SENSOR MANIFOLD  
(NEW PIPING)



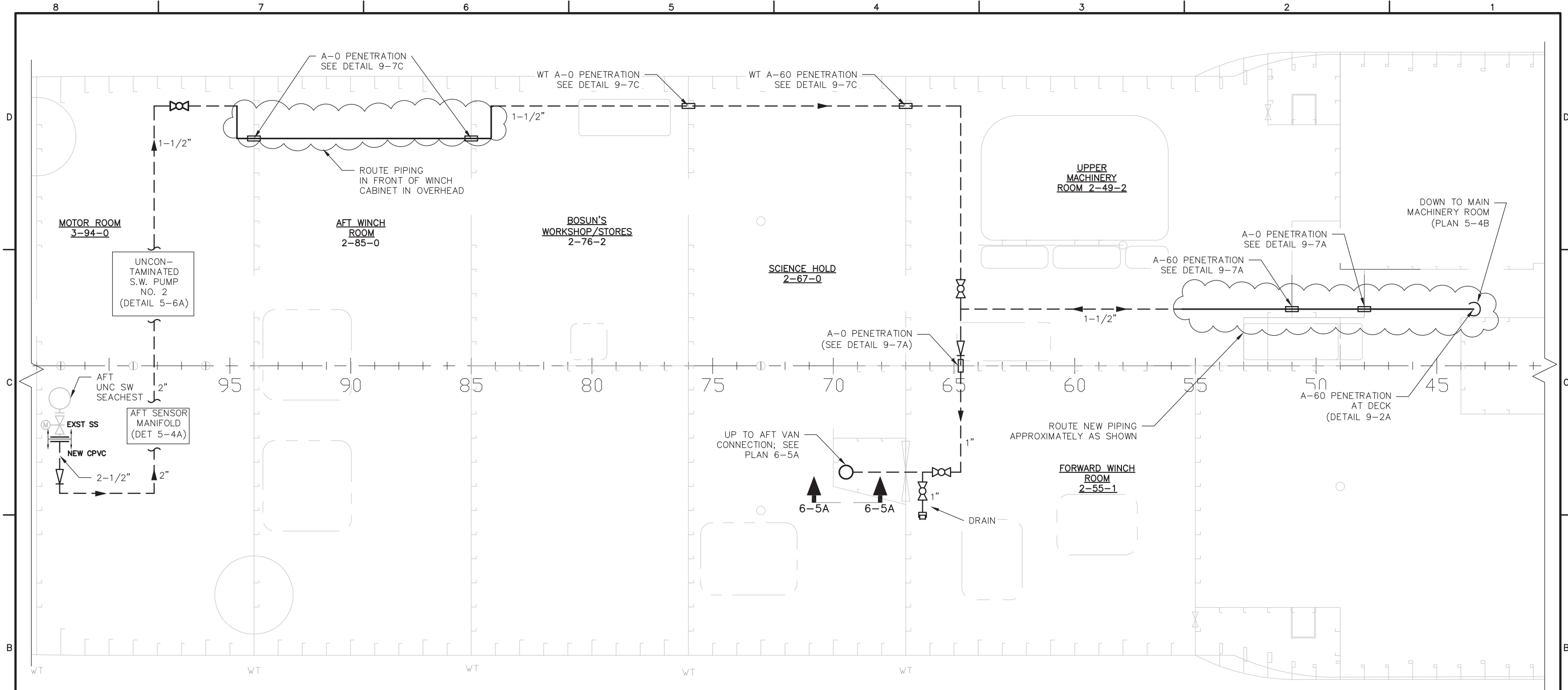
**DETAIL 5-3A**  
SEACHEST VENT TIE-IN



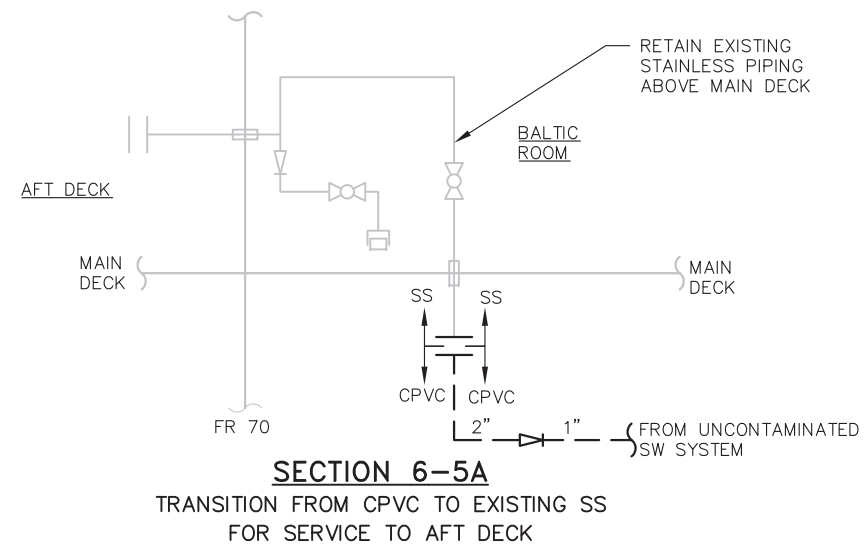
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**R/V SIKULIAQ 2015 MODIFICATIONS**  
UNCONT. SW PPG REPLACEMENT - STAINLESS TO CPVC  
2ND PLATFORM - NEW PIPING

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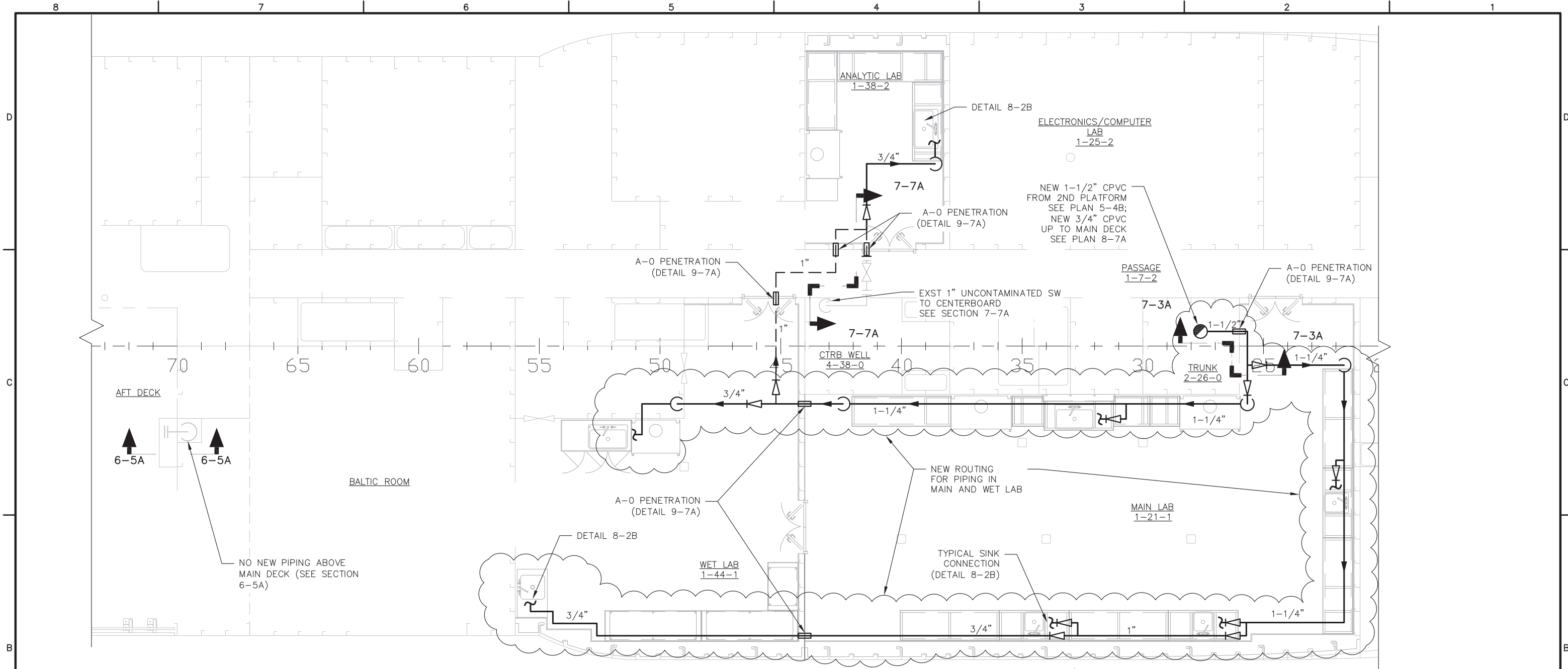
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Scale AS NOTED	Drawing Number SY15-WP2-07096-523-01	Sheet of 5 of 9	Revision -



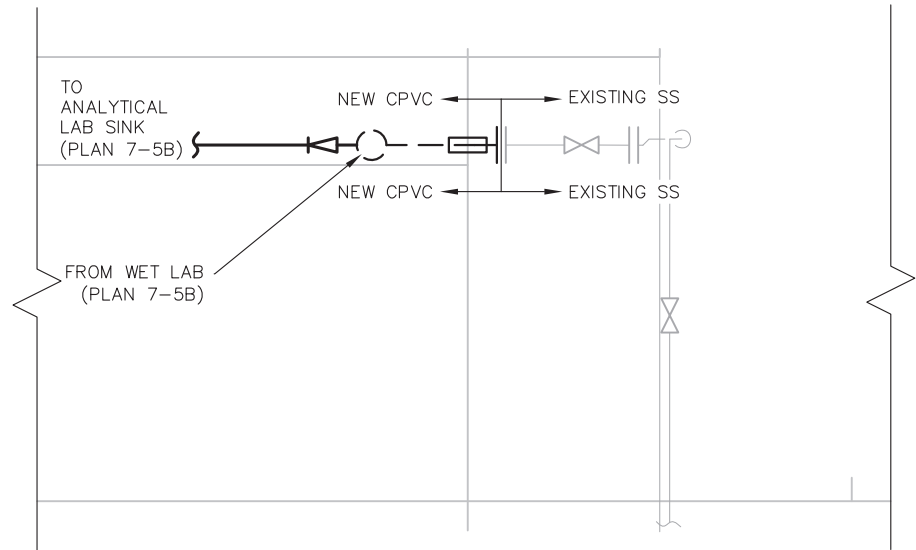
**PLAN 6-4A**  
 1ST PLATFORM  
 UNCONTAMINATED SEAWATER -  
 NEW PIPING



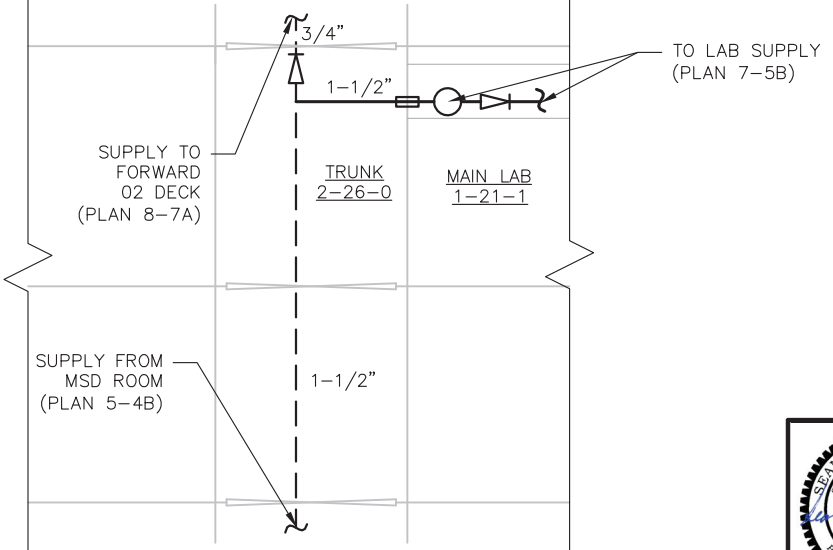
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	<b>R/V SIKULIAQ 2015 MODIFICATIONS</b> UNCONT. SW PPG REPLACEMENT - STAINLESS TO CPVC 1ST PLATFORM - NEW PIPING		
		INNOVATIVE MARINE SOLUTIONS 1201 WESTERN AVENUE, SUITE 200 SEATTLE, WASHINGTON 98101-2953 T 206.624.7850 GLOSTEN.COM	
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Scale AS NOTED	Drawing Number SY15-WP2-07096-523-01	Sheet of 6 of 9	Revision -



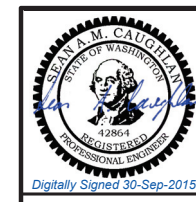
**PLAN 7-5B**  
 MAIN DECK  
 UNCONTAMINATED  
 SEAWATER SCHEMATIC



**SECTION 7-7A**  
 CONNECTION TO EXISTING  
 OVERBOARD PIPING

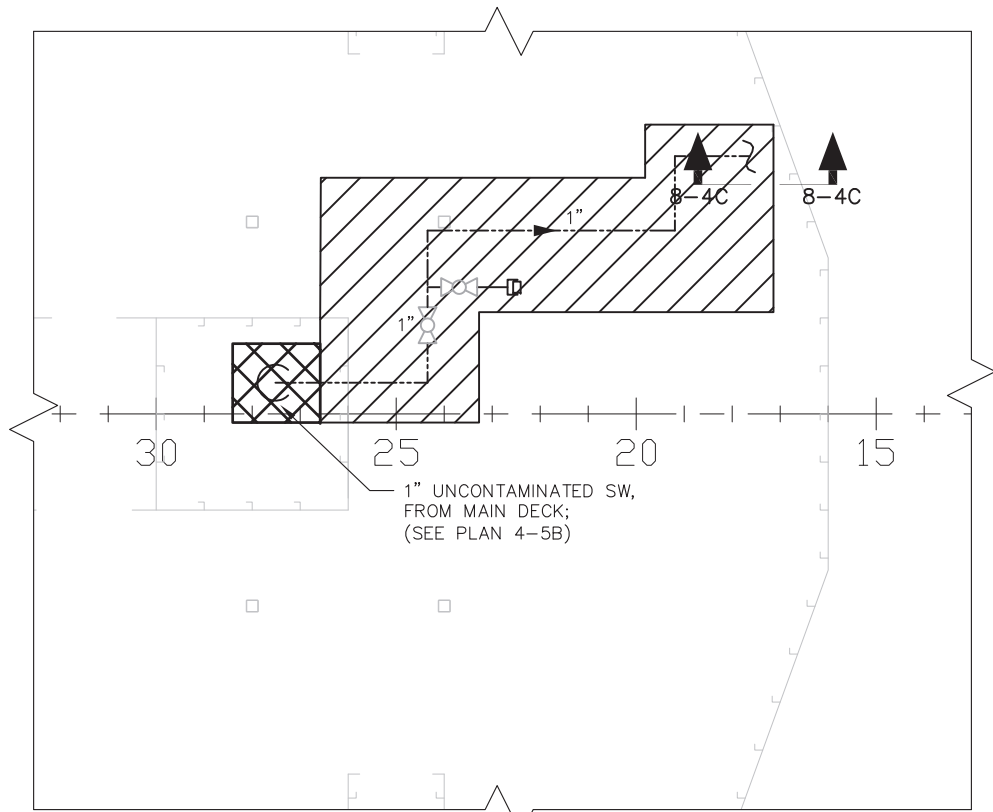


**SECTION 7-3A**  
 NEW CPVC  
 UNCONTAMINATED SEAWATER  
 PIPING IN TRUNK

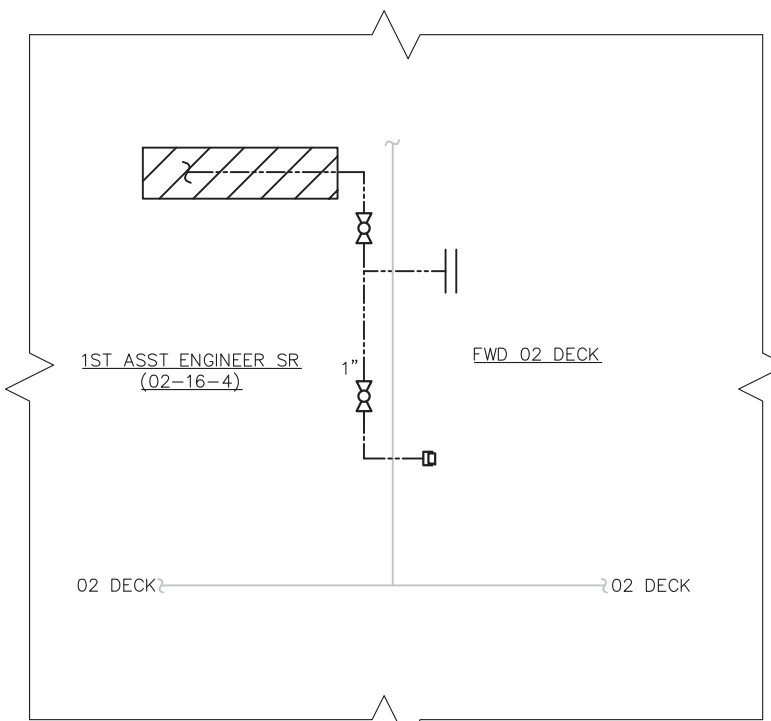


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 UNCONT. SW PPG REPLACEMENT - STAINLESS TO CPVC  
 MAIN DECK - NEW PIPING

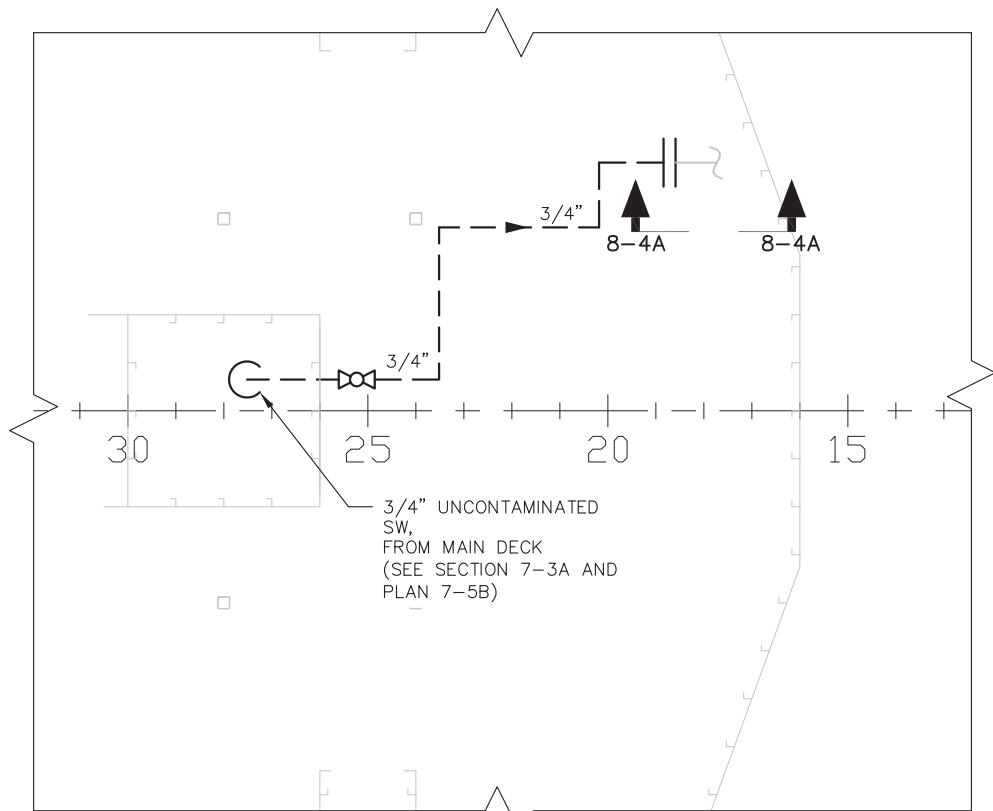
<b>Glosten</b>		INNOVATIVE MARINE SOLUTIONS		1201 WESTERN AVENUE, SUITE 200 SEATTLE, WASHINGTON 98101-2953 T 206.824.7850 GLOSTEN.COM	
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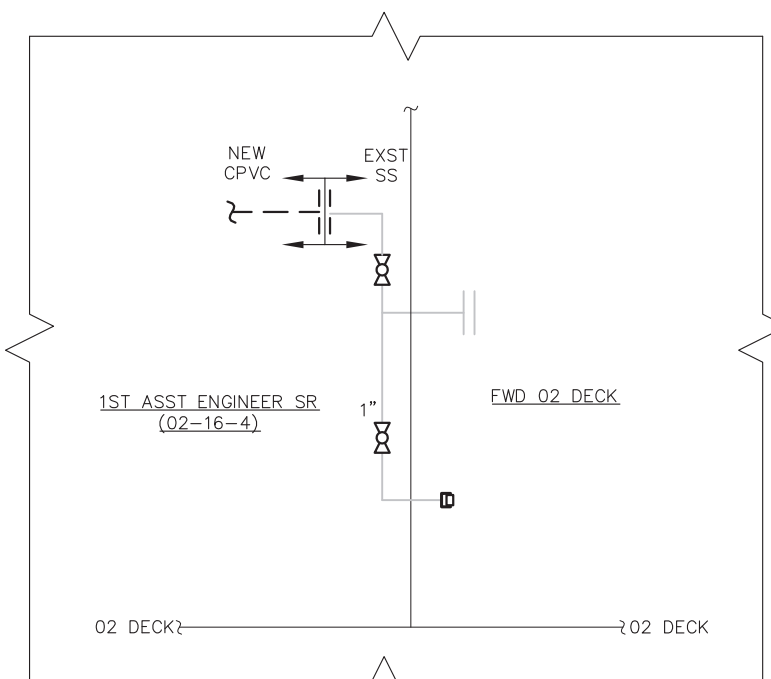
**PLAN 8-7C**  
O2 LEVEL  
FWD VAN CONNECTION  
PIPING REMOVALS



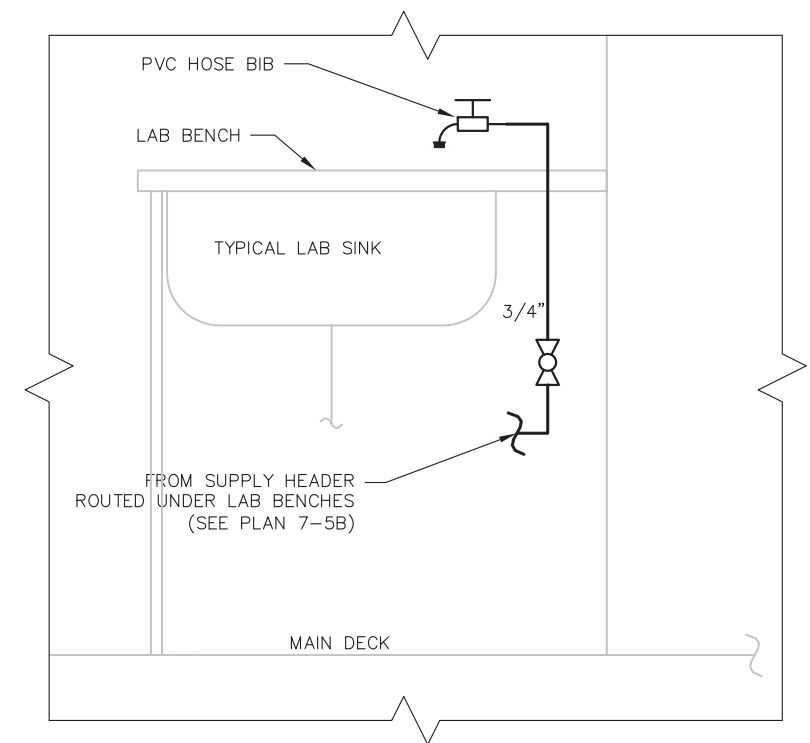
**SECTION 8-4C**  
UNCONTAMINATED SW SUPPLY  
TO O2 LEVEL  
VAN CONNECTION - REMOVALS



**PLAN 8-7A**  
O2 LEVEL  
FWD VAN CONNECTION  
NEW CPVC PIPING



**SECTION 8-4A**  
UNCONTAMINATED SW SUPPLY  
TO VAN O2 LEVEL  
VAN CONNECTION - CONNECTION TO NEW PIPE



**DETAIL 8-2B**  
UNCONTAMINATED SW SUPPLY  
TO LAB SINKS  
(SEE GENERAL NOTE 13)



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UNCONT. SW PPG REPLACEMENT - STAINLESS TO CPVC  
O2 DECK PIPING AND DETAILS

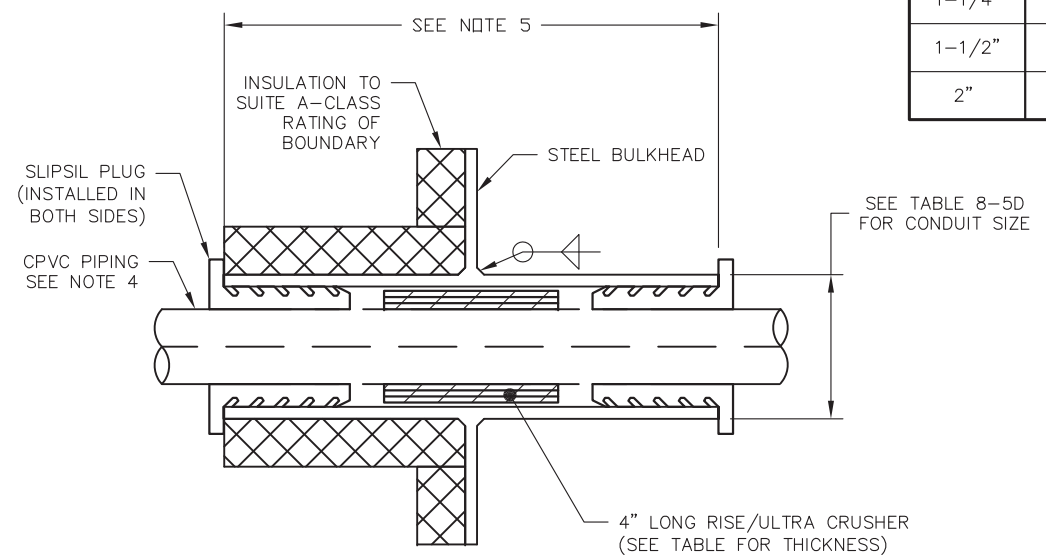
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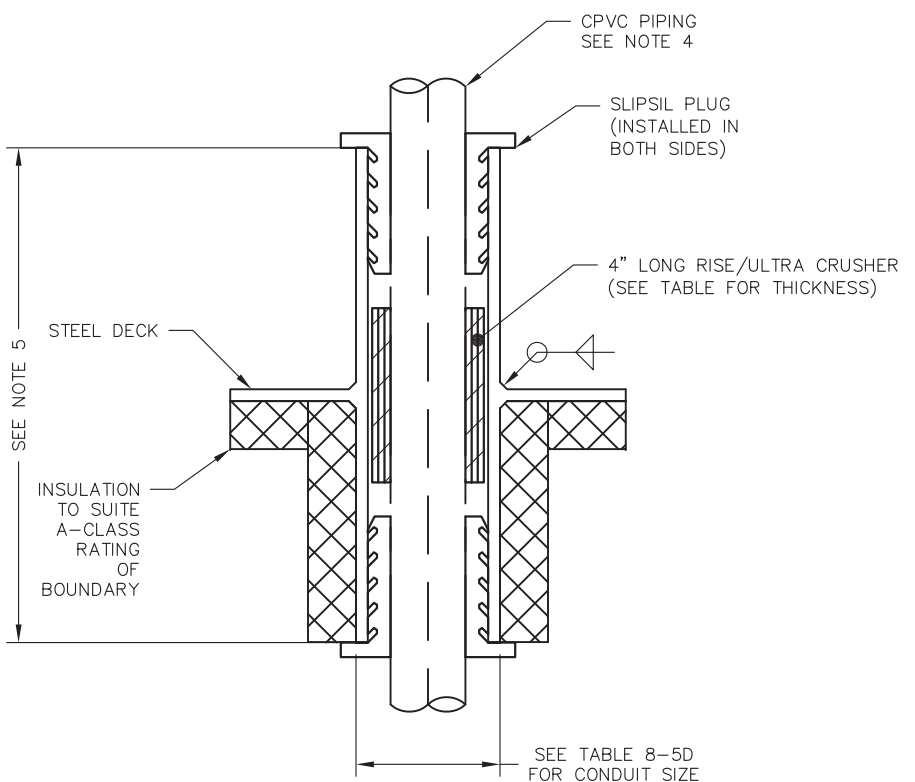
TABLE 8-5D				TABLE 8-3D		
WATERTIGHT, A-CLASS PENETRATIONS				A-CLASS PENETRATIONS		
PIPE SIZE	CONDUIT SIZE (SCH 80 STEEL)	CRUSHER THICKNESS	SLIPSIL PLUG TYPE	PIPE SIZE	CONDUIT SIZE (SCH 80 STEEL)	CRUSHER THICKNESS
1/2"	1-1/2"	1/4"	40/20-22	1/2"	1-1/2"	1/8"
3/4"	2"	5/16"	50/26-28	3/4"	2"	3/16"
1"	2-1/2"	3/8"	60/32-34	1"	2-1/2"	3/16"
1-1/4"	3"	7/16"	75/42-44	1-1/4"	3"	3/16"
1-1/2"	3"	1/2"	75/48-50	1-1/2"	3"	1/4"
2"	3-1/2"	5/8"	82/60	2"	3-1/2"	1/4"

**NOTES**

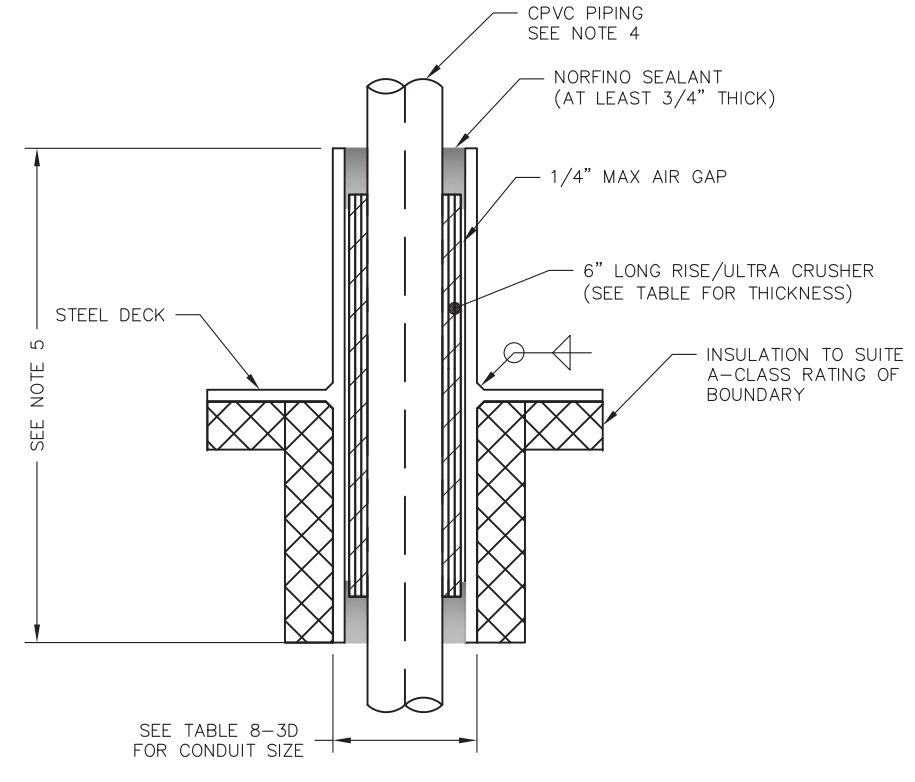
1. INCLUDES ALL A-CLASS BULKHEAD RATINGS BETWEEN A-0 AND A-60.
2. A-CLASS PENETRATION DETAILS BASED ON DNV EC TYPE EXAMINATION CERTIFICATE NO. MED-B-8559.
3. WATERTIGHT PENETRATION DETAILS BASED ON DNV EC TYPE EXAMINATION CERTIFICATE NO. MED-B-8562.
4. CPVC PIPING SHALL BE GEORG FISCHER SEACOR, SCHEDULE 80, MEETING LOW FLAME SPREAD, AND SMOKE AND TOXICITY REQUIREMENTS OF FTP CODE ANNEX 1, PARTS 2 AND 5 (USCG APPROVAL NUMBER: 164.141/36/0).
5. CONDUIT LENGTH: A-0 = 10", A-15 TO A-60 = 8"



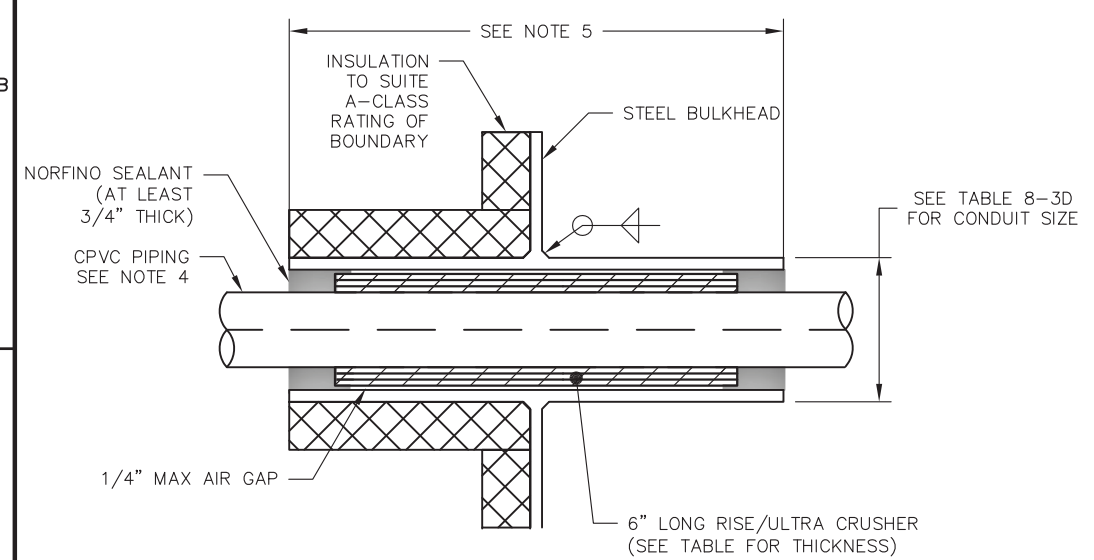
**DETAIL 9-7C**  
WATERTIGHT, A-CLASS BULKHEAD PENETRATION  
CPVC PIPING W/ SLIPSIL & CRUSHER SLEEVE  
(SEE NOTES 1, 3, & TABLE 8-5D)



**DETAIL 9-4A**  
WATERTIGHT, A-CLASS DECK PENETRATION  
CPVC PIPING W/ SLIPSIL & CRUSHER SLEEVE  
(SEE NOTES 1, 3, & TABLE 8-5D)



**DETAIL 9-2A**  
A-CLASS DECK PENETRATION  
CPVC PIPING W/ NOFIRNO SEALANT & CRUSHER SLEEVE  
(SEE NOTES 1, 4, & TABLE 8-3D)



**DETAIL 9-7A**  
A-CLASS BULKHEAD PENETRATION  
CPVC PIPING W/ NOFIRNO SEALANT & CRUSHER SLEEVE  
(SEE NOTES 1, 4, & TABLE 8-3D)

SEAN A. M. CAUGHLIN  
STATE OF WASHINGTON  
REGISTERED PROFESSIONAL ENGINEER  
42864  
Digitally Signed 30-Sep-2015

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UNCONT. SW PPG REPLACEMENT - STAINLESS TO CPVC  
PENETRATION DETAILS

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