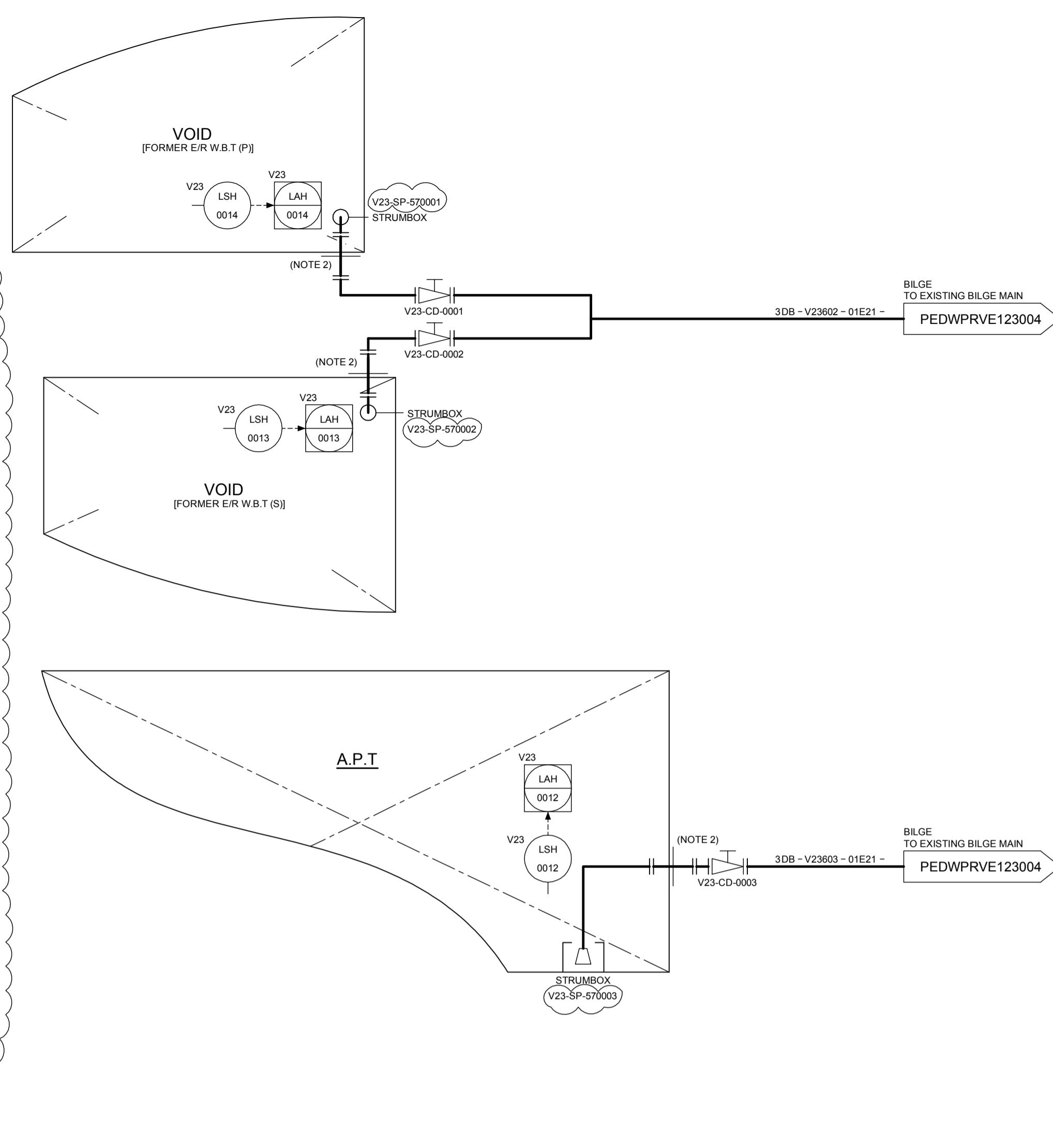
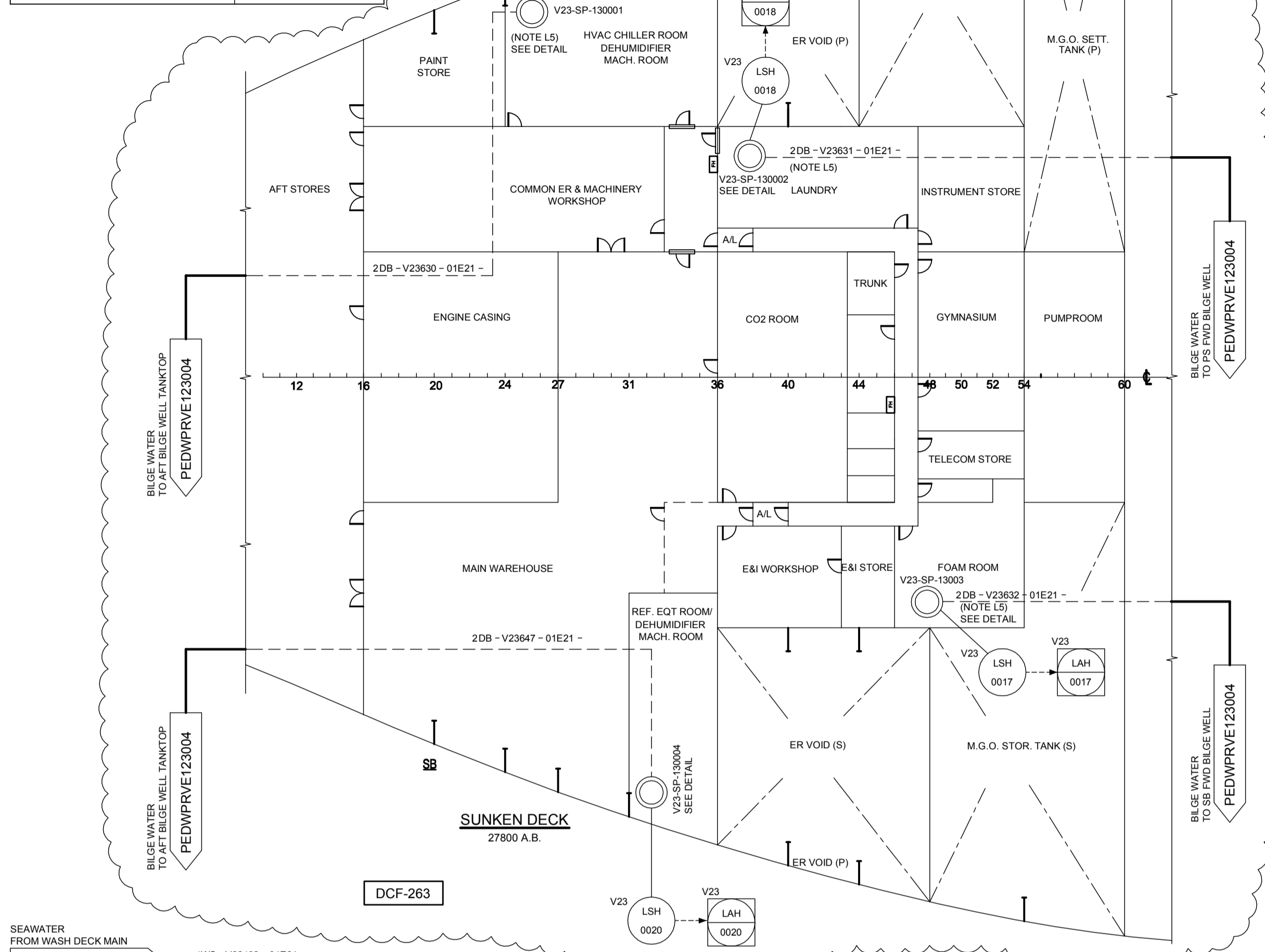


M-V2301/02 BILGE EJECTOR (NEW)	
TYPE	STRIPPING EJECTOR
MEDIUM	SEAWATER
DESIGN CAPACITY	28 m³/h
OPERATING TEMP.	26 °C
SUCTION LIFT	5 mWC
DISCHARGE HEAD	40 mWC
DRIVER	SEAWATER
DRIVING LIQUID CONSUMPTION	135 m³/h @ 7 bar



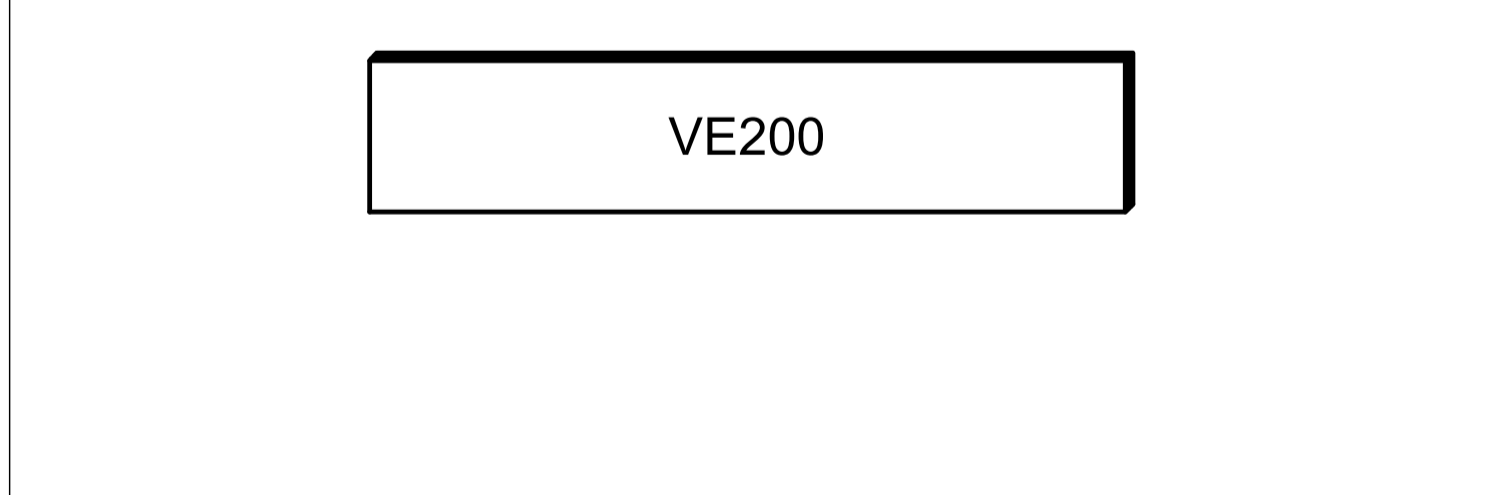
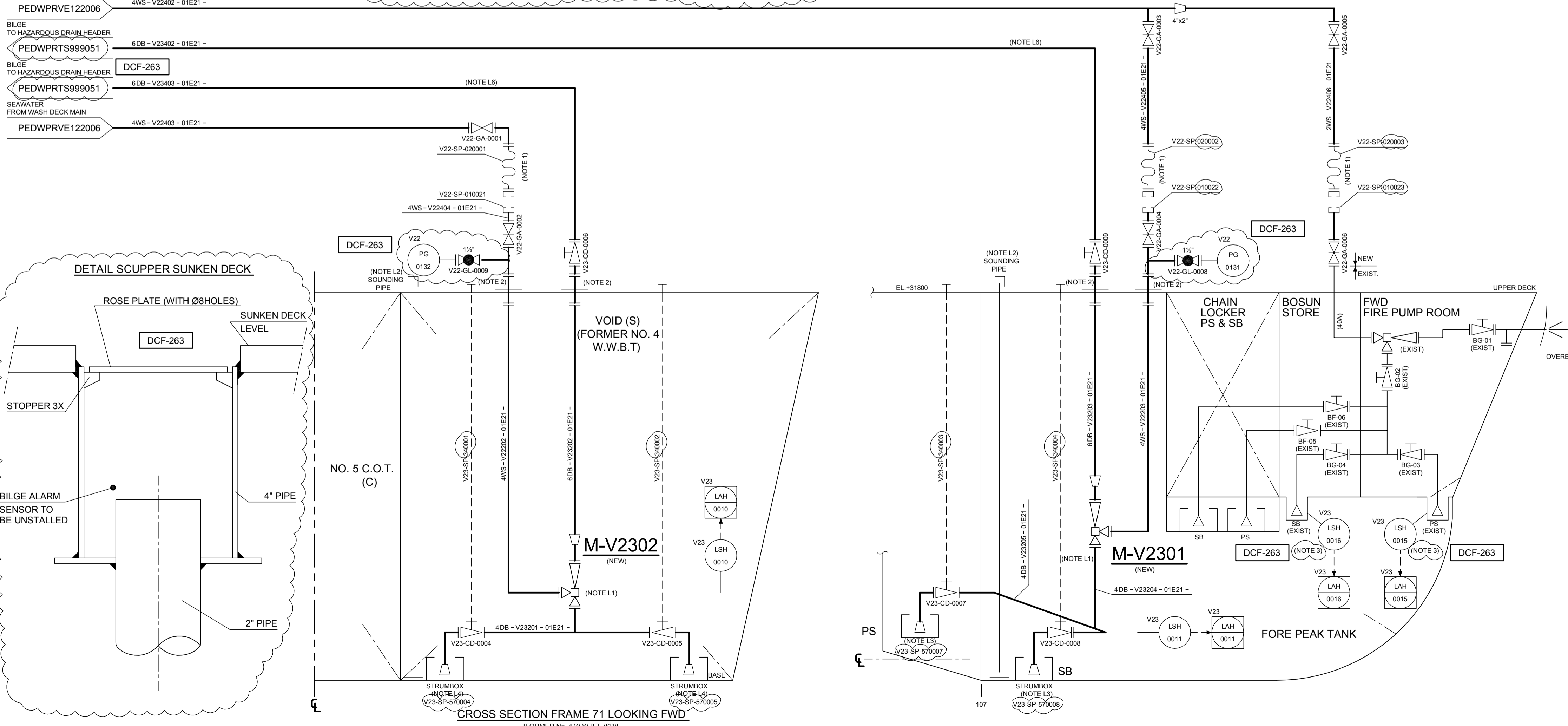
GENERAL NOTES	
ID	DESCRIPTION
1	HOSE TO BE DISCONNECTED WHEN EJECTORS ARE NOT IN USE, IN ORDER TO PREVENT LEAKAGE OF WATER TO VOID OR HYDROCARBON GAS TO ENGINE ROOM.
2	DECK / HULL PENETRATION OF GALVANIZED STEEL
3	EXISTING INSTRUMENT

LAYOUT NOTES	
ID	DESCRIPTION
L1	SUCTION PIPE IS AS SHORT AS POSSIBLE AND THE ELEVATION OF EJECTOR AS LOW AS POSSIBLE (TO A MAX OF 3m FROM B.L.)
L2	ENSURE THAT SOUNDING PIPES ARE VERTICAL FROM UPPERDECK TO THE BOTTOM OF THE VOID. ON THE BOTTOM INSTALL STRIKE PLATE TO AVOID DAMAGE OF TANK BODOM
L3	BILGE SUCTION ON BOTH SIDES OF CENTERLINE, FWD OF FR.107
L4	BILGE SUCTIONS FORWARD OF FRAME 71, ONE NEAR LONGIT, BULKHEAD AND ONE NEAR HULL
L5	SCUPPER TO BE INSTALLED ON A LOCATION WHERE LEAKAGE CAN BE EXPECTED
L6	DISCHARGE LINES FROM BILGE EJECTORS MUST BE ROUTED IN SUCH A WAY THAT EXCESSIVE BACK PRESSURES WILL BE AVOIDED

REFERENCE DOCUMENTS		
ID	SBM DOC. NUMBER	DESCRIPTION
1	PEDWPRPG999003	FPSO - PIPING LEGEND - P&ID
2	PEDWPRPG999004	FPSO - PIPING IDENTIFICATION LEGEND - P&ID
3	PEDWPRPG999005	FPSO - INSTRUMENTATION LEGEND - P&ID
4	PEDWPRPG999006	FPSO - EQUIPMENT LEGEND - P&ID
5	PEDWPRPG999007	FPSO - TYPICAL DETAILS - P&ID 1
6	PEDWPRPG999008	FPSO - TYPICAL DETAILS - P&ID 2
7	PEDWPRPG999009	FPSO - TYPICAL DETAILS - P&ID 3

EXISTING VESSEL DRAWINGS		
ID	DESCRIPTION	DESCRIPTION
1	OT70028 - DNE58053	HULL PIPING DIAGRAM EXCEPT LIVING QUARTER A. PIPING DIAGRAM OF DRAINAGE AND SCUPPER SYSTEM (22/25)

LEGEND	
	NEW PIPELINES (CONVERSION)
	EXISTING PIPELINES
	NEW VALVES (CONVERSION)
	EXISTING VALVES
	CLOUD INDICATING ITEM ON HOLD
	CLOUD INDICATING CHANGES FROM PREVIOUS REVISION
	SCUPPER ON SUNKEN DECK (NEW)



Revision	Date (dd-MMM-yy)	Description of revision	Prepared by	Engineering checked by	Approved by	Approved by EPM
A1	02-NOV-12	APPROVED FOR CONSTRUCTION	Saf	Klo	Bob	Son
V1	02-MAR-12	VALID FOR CONSTRUCTION	Ere	Klo	Bob	Boo
C1	28-FEB-12	FOR COMMENTS AND/OR APPROVAL	Ere	Klo	Bob	Boo
I1	23-NOV-11	INTER DISCIPLINARY CHECK	Stf	Klo	Bob	Smc

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**SBM OFFSHORE**

**PETROBRAS NETHERLANDS B.V.**

Client: **PETROBRAS NETHERLANDS BV**

Project: **FPSO CIDADE DE ILHABELA**

Title: **VESSEL BILGE SYSTEM VOID SPACES P&ID**

Format: **A1** Projection Method: Scale: **N.T.S.** Project Number: **HI 39520** Document Number: **PEDWPRVE123003** Sheet No./Sheets: **1 / 1** Revision: **A1**