

**FABRICATION, INSTALLATION OF NEW PONTOON AND
REPAIR AND MAINTENANCE OF EXISTING PONTOON FOR
RORO/ROPAX FACILITY AT GHOGHA- GUJARAT**

(DPA/RORO/2024, Dated: _/_/2024)

PART 3 – TECHNICAL DOCUMENTS

TENDER



FOR

**FABRICATION, INSTALLATION OF NEW
PONTOON AND REPAIR AND MAINTENANCE
OF EXISTING PONTOON FOR RORO/ROPAX
FACILITY AT GHOGHA- GUJARAT**

**VOLUME VI
TENDER DRAWINGS**



**DEENDAYAL PORT AUTHORITY
ADMINISTRATIVE OFFICE BUILDING
POST BOX NO. 50
GANDHIDHAM (KUTCH)
GUJARAT - 370201**

1		2		3		4		5		6	
A	LIST OF DRAWINGS										
	S.NO.	DRAWING NO.		DESCRIPTIONS			DATE		REV		
	GENERAL										
	1	IITM-DPA-GHOGHA-DWG-001-01		DRAWING LIST (SHEET 1 OF 2)			01.02.2024		A		
	2	IITM-DPA-GHOGHA-DWG-001-02		DRAWING LIST (SHEET 2 OF 2)			01.02.2024		A		
	3	IITM-DPA-GHOGHA-DWG-002-01		GENERAL NOTES (SHEET 1 OF 2)			01.02.2024		A		
	4	IITM-DPA-GHOGHA-DWG-002-02		GENERAL NOTES (SHEET 2 OF 2)			01.02.2024		A		
	5	IITM-DPA-GHOGHA-DWG-003-01		TYPICAL WELDING DETAILS (SHEET 1 OF 3)			01.02.2024		A		
	6	IITM-DPA-GHOGHA-DWG-003-02		TYPICAL WELDING DETAILS (SHEET 2 OF 3)			01.02.2024		A		
	7	IITM-DPA-GHOGHA-DWG-003-03		TYPICAL WELDING DETAILS (SHEET 3 OF 3)			01.02.2024		A		
	8	IITM-DPA-GHOGHA-DWG-004		OVERALL LAYOUT OF EXISTING RO-RO FACILITIES			01.02.2024		A		
	9	IITM-DPA-GHOGHA-DWG-005-01		LAYOUT & SECTIONS OF EXISTING RO-RO FACILITIES (SHEET 1 OF 5)			01.02.2024		A		
	10	IITM-DPA-GHOGHA-DWG-005-02		LAYOUT & SECTIONS OF EXISTING RO-RO FACILITIES (SHEET 2 OF 5)			01.02.2024		A		
	11	IITM-DPA-GHOGHA-DWG-005-03		LAYOUT & SECTIONS OF EXISTING RO-RO FACILITIES (SHEET 3 OF 5)			01.02.2024		A		
	12	IITM-DPA-GHOGHA-DWG-005-04		LAYOUT & SECTIONS OF EXISTING RO-RO FACILITIES (SHEET 4 OF 5)			01.02.2024		A		
	13	IITM-DPA-GHOGHA-DWG-005-05		LAYOUT & SECTIONS OF EXISTING RO-RO FACILITIES (SHEET 5 OF 5)			01.02.2024		A		
	14	IITM-DPA-GHOGHA-DWG-006-01		LAYOUT & SECTIONS OF EXISTING RO-RO JETTY WITH MODIFIED LINKSPAN AND NEW PONTOON (SHEET 1 OF 7)			01.02.2024		A		
	15	IITM-DPA-GHOGHA-DWG-006-02		LAYOUT & SECTIONS OF EXISTING RO-RO JETTY WITH MODIFIED LINKSPAN AND NEW PONTOON (SHEET 2 OF 7)			01.02.2024		A		
	B	16	IITM-DPA-GHOGHA-DWG-006-03		LAYOUT & SECTIONS OF EXISTING RO-RO JETTY WITH MODIFIED LINKSPAN AND NEW PONTOON (SHEET 3 OF 7)			01.02.2024		A	
		17	IITM-DPA-GHOGHA-DWG-006-04		LAYOUT & SECTIONS OF EXISTING RO-RO JETTY WITH MODIFIED LINKSPAN AND NEW PONTOON (SHEET 4 OF 7)			01.02.2024		A	
		18	IITM-DPA-GHOGHA-DWG-006-05		LAYOUT & SECTIONS OF EXISTING RO-RO JETTY WITH MODIFIED LINKSPAN AND NEW PONTOON (SHEET 5 OF 7)			01.02.2024		A	
		19	IITM-DPA-GHOGHA-DWG-006-06		LAYOUT & SECTIONS OF EXISTING RO-RO JETTY WITH MODIFIED LINKSPAN AND NEW PONTOON (SHEET 6 OF 7)			01.02.2024		A	
		20	IITM-DPA-GHOGHA-DWG-006-07		LAYOUT & SECTIONS OF EXISTING RO-RO JETTY WITH MODIFIED LINKSPAN AND NEW PONTOON (SHEET 7 OF 7)			01.02.2024		A	
		21	IITM-DPA-GHOGHA-DWG-007-01		LAYOUT & SECTIONS OF EXISTING RO-RO JETTY WITH MODIFIED LINKSPAN / PONTOON (SHEET 1 OF 7)			01.02.2024		A	
		22	IITM-DPA-GHOGHA-DWG-007-02		LAYOUT & SECTIONS OF EXISTING RO-RO JETTY WITH MODIFIED LINKSPAN / PONTOON (SHEET 2 OF 7)			01.02.2024		A	
		23	IITM-DPA-GHOGHA-DWG-007-03		LAYOUT & SECTIONS OF EXISTING RO-RO JETTY WITH MODIFIED LINKSPAN / PONTOON (SHEET 3 OF 7)			01.02.2024		A	
		24	IITM-DPA-GHOGHA-DWG-007-04		LAYOUT & SECTIONS OF EXISTING RO-RO JETTY WITH MODIFIED LINKSPAN / PONTOON (SHEET 4 OF 7)			01.02.2024		A	
		25	IITM-DPA-GHOGHA-DWG-007-05		LAYOUT & SECTIONS OF EXISTING RO-RO JETTY WITH MODIFIED LINKSPAN / PONTOON (SHEET 5 OF 7)			01.02.2024		A	
	C	26	IITM-DPA-GHOGHA-DWG-007-06		LAYOUT & SECTIONS OF EXISTING RO-RO JETTY WITH MODIFIED LINKSPAN / PONTOON (SHEET 6 OF 7)			01.02.2024		A	
		27	IITM-DPA-GHOGHA-DWG-007-07		LAYOUT & SECTIONS OF EXISTING RO-RO JETTY WITH MODIFIED LINKSPAN / PONTOON (SHEET 7 OF 7)			01.02.2024		A	
		28	IITM-DPA-GHOGHA-DWG-008-01		ERECTION SEQUENCE FOR MODIFIED LINKSPAN AND NEW PONTOON (SHEET 1 OF 5)			01.02.2024		A	
		29	IITM-DPA-GHOGHA-DWG-008-02		ERECTION SEQUENCE FOR MODIFIED LINKSPAN AND NEW PONTOON (SHEET 1 OF 5)			01.02.2024		A	
		30	IITM-DPA-GHOGHA-DWG-008-03		ERECTION SEQUENCE FOR MODIFIED LINKSPAN AND NEW PONTOON (SHEET 1 OF 5)			01.02.2024		A	
31		IITM-DPA-GHOGHA-DWG-008-04		ERECTION SEQUENCE FOR MODIFIED LINKSPAN AND NEW PONTOON (SHEET 1 OF 5)			01.02.2024		A		
32		IITM-DPA-GHOGHA-DWG-008-05		ERECTION SEQUENCE FOR MODIFIED LINKSPAN AND NEW PONTOON (SHEET 1 OF 5)			01.02.2024		A		
33		IITM-DPA-GHOGHA-DWG-009		BOREHOLE LAYOUT			01.02.2024		A		
NEW PONTOON											
34		IITM-DPA-GHOGHA-DWG-101-01		GENERAL ARRANGEMENT OF NEW PONTOON (SHEET 1 OF 3)			01.02.2024		A		
35	IITM-DPA-GHOGHA-DWG-101-02		GENERAL ARRANGEMENT OF NEW PONTOON (SHEET 2 OF 3)			01.02.2024		A			
36	IITM-DPA-GHOGHA-DWG-101-03		GENERAL ARRANGEMENT OF NEW PONTOON (SHEET 3 OF 3)			01.02.2024		A			
37	IITM-DPA-GHOGHA-DWG-102-01		FRAMING AND DETAILS OF NEW PONTOON (SHEET 1 OF 16)			01.02.2024		A			
38	IITM-DPA-GHOGHA-DWG-102-02		FRAMING AND DETAILS OF NEW PONTOON (SHEET 2 OF 16)			01.02.2024		A			
39	IITM-DPA-GHOGHA-DWG-102-03		FRAMING AND DETAILS OF NEW PONTOON (SHEET 3 OF 16)			01.02.2024		A			
40	IITM-DPA-GHOGHA-DWG-102-04		FRAMING AND DETAILS OF NEW PONTOON (SHEET 4 OF 16)			01.02.2024		A			
41	IITM-DPA-GHOGHA-DWG-102-05		FRAMING AND DETAILS OF NEW PONTOON (SHEET 5 OF 16)			01.02.2024		A			
D	LIST OF DRAWINGS										
	S.NO.	DRAWING NO.		DESCRIPTIONS			DATE		REV		
	42	IITM-DPA-GHOGHA-DWG-102-06		FRAMING AND DETAILS OF NEW PONTOON (SHEET 6 OF 16)			01.02.2024		A		
	43	IITM-DPA-GHOGHA-DWG-102-07		FRAMING AND DETAILS OF NEW PONTOON (SHEET 7 OF 16)			01.02.2024		A		
	44	IITM-DPA-GHOGHA-DWG-102-08		FRAMING AND DETAILS OF NEW PONTOON (SHEET 8 OF 16)			01.02.2024		A		
	45	IITM-DPA-GHOGHA-DWG-102-09		FRAMING AND DETAILS OF NEW PONTOON (SHEET 9 OF 16)			01.02.2024		A		
	46	IITM-DPA-GHOGHA-DWG-102-10		FRAMING AND DETAILS OF NEW PONTOON (SHEET 10 OF 16)			01.02.2024		A		
	47	IITM-DPA-GHOGHA-DWG-102-11		FRAMING AND DETAILS OF NEW PONTOON (SHEET 11 OF 16)			01.02.2024		A		
	48	IITM-DPA-GHOGHA-DWG-102-12		FRAMING AND DETAILS OF NEW PONTOON (SHEET 12 OF 16)			01.02.2024		A		
	49	IITM-DPA-GHOGHA-DWG-102-13		FRAMING AND DETAILS OF NEW PONTOON (SHEET 13 OF 16)			01.02.2024		A		
	50	IITM-DPA-GHOGHA-DWG-102-14		FRAMING AND DETAILS OF NEW PONTOON (SHEET 14 OF 16)			01.02.2024		A		
	51	IITM-DPA-GHOGHA-DWG-102-15		FRAMING AND DETAILS OF NEW PONTOON (SHEET 15 OF 16)			01.02.2024		A		
	52	IITM-DPA-GHOGHA-DWG-102-16		FRAMING AND DETAILS OF NEW PONTOON (SHEET 16 OF 16)			01.02.2024		A		
	53	IITM-DPA-GHOGHA-DWG-103-01		GUIDED YOKE DETAILS (SHEET 1 OF 5)			01.02.2024		A		
	54	IITM-DPA-GHOGHA-DWG-103-02		GUIDED YOKE DETAILS (SHEET 2 OF 5)			01.02.2024		A		
	55	IITM-DPA-GHOGHA-DWG-103-03		GUIDED YOKE DETAILS (SHEET 3 OF 5)			01.02.2024		A		
	56	IITM-DPA-GHOGHA-DWG-103-04		GUIDED YOKE DETAILS (SHEET 4 OF 5)			01.02.2024		A		
	57	IITM-DPA-GHOGHA-DWG-103-05		GUIDED YOKE DETAILS (SHEET 5 OF 5)			01.02.2024		A		
	58	IITM-DPA-GHOGHA-DWG-104-01		LINKSPAN SEATING DETAILS (SHEET 1 OF 8)			01.02.2024		A		
	59	IITM-DPA-GHOGHA-DWG-104-02		LINKSPAN SEATING DETAILS (SHEET 2 OF 8)			01.02.2024		A		
	60	IITM-DPA-GHOGHA-DWG-104-03		LINKSPAN SEATING DETAILS (SHEET 3 OF 8)			01.02.2024		A		
	61	IITM-DPA-GHOGHA-DWG-104-04		LINKSPAN SEATING DETAILS (SHEET 4 OF 8)			01.02.2024		A		
	62	IITM-DPA-GHOGHA-DWG-104-05		LINKSPAN SEATING DETAILS (SHEET 5 OF 8)			01.02.2024		A		
	63	IITM-DPA-GHOGHA-DWG-104-06		LINKSPAN SEATING DETAILS (SHEET 6 OF 8)			01.02.2024		A		
	64	IITM-DPA-GHOGHA-DWG-104-07		LINKSPAN SEATING DETAILS (SHEET 7 OF 8)			01.02.2024		A		
	65	IITM-DPA-GHOGHA-DWG-104-08		LINKSPAN SEATING DETAILS (SHEET 8 OF 8)			01.02.2024		A		
	66	IITM-DPA-GHOGHA-DWG-105-01		LAYOUT AND DETAILS OF MANHOLES & COVER PLATES (SHEET 1 OF 6)			01.02.2024		A		
	67	IITM-DPA-GHOGHA-DWG-105-02		LAYOUT AND DETAILS OF MANHOLES & COVER PLATES (SHEET 2 OF 6)			01.02.2024		A		
	68	IITM-DPA-GHOGHA-DWG-105-03		LAYOUT AND DETAILS OF MANHOLES & COVER PLATES (SHEET 3 OF 6)			01.02.2024		A		
	69	IITM-DPA-GHOGHA-DWG-105-04		LAYOUT AND DETAILS OF MANHOLES & COVER PLATES (SHEET 4 OF 6)			01.02.2024		A		
	70	IITM-DPA-GHOGHA-DWG-105-05		LAYOUT AND DETAILS OF MANHOLES & COVER PLATES (SHEET 5 OF 6)			01.02.2024		A		
	71	IITM-DPA-GHOGHA-DWG-105-06		LAYOUT AND DETAILS OF MANHOLES & COVER PLATES (SHEET 6 OF 6)			01.02.2024		A		
	72	IITM-DPA-GHOGHA-DWG-106-01		ANODE DETAILS FOR PONTOON (SHEET 1 OF 3)			01.02.2024		A		
73	IITM-DPA-GHOGHA-DWG-106-02		ANODE DETAILS FOR PONTOON (SHEET 2 OF 3)			01.02.2024		A			
74	IITM-DPA-GHOGHA-DWG-106-03		ANODE DETAILS FOR PONTOON (SHEET 3 OF 3)			01.02.2024		A			
75	IITM-DPA-GHOGHA-DWG-107-01		LAYOUT AND DETAILS OF VENT & BALLAST PIPING (SHEET 1 OF 3)			01.02.2024		A			
76	IITM-DPA-GHOGHA-DWG-107-02		LAYOUT AND DETAILS OF VENT & BALLAST PIPING (SHEET 2 OF 3)			01.02.2024		A			
77	IITM-DPA-GHOGHA-DWG-107-03		LAYOUT AND DETAILS OF VENT & BALLAST PIPING (SHEET 3 OF 3)			01.02.2024		A			
A											
REV.											
DATE											
DESCRIPTION											
DRAWN											
CHECKED											
REVISION											
DESIGN CONSULTANT:											
											
PROF . S . NALLAYARASU											
DEPARTMENT OF OCEAN ENGINEERING											
IIT MADRAS, CHENNAI											
CLIENT:											
											
DEENDAYAL PORT AUTHORITY											
TITLE:											
DRAWING LIST (SHEET 1 OF 2)											
PROJECT:											
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL											
DRAWING NO. IITM-DPA-GHOGHA-DWG-001-01											
DATE: 01.02.2024											
REV: A											
1		2		3		4		5		6	

1

2

3

4

5

6



A

B

C

D

LIST OF DRAWINGS				
S.NO.	DRAWING NO.	DESCRIPTIONS	DATE	REV
78	IITM-DPA-GHOGHA-DWG-108-01	LAYOUT AND DETAILS OF BALLAST/DEBALLAST PUMP (SHEET 1 OF 6)	01.02.2024	A
79	IITM-DPA-GHOGHA-DWG-108-02	LAYOUT AND DETAILS OF BALLAST/DEBALLAST PUMP (SHEET 2 OF 6)	01.02.2024	A
80	IITM-DPA-GHOGHA-DWG-108-03	LAYOUT AND DETAILS OF BALLAST/DEBALLAST PUMP (SHEET 3 OF 6)	01.02.2024	A
81	IITM-DPA-GHOGHA-DWG-108-04	LAYOUT AND DETAILS OF BALLAST/DEBALLAST PUMP (SHEET 4 OF 6)	01.02.2024	A
82	IITM-DPA-GHOGHA-DWG-108-05	LAYOUT AND DETAILS OF BALLAST/DEBALLAST PUMP (SHEET 5 OF 6)	01.02.2024	A
83	IITM-DPA-GHOGHA-DWG-108-06	LAYOUT AND DETAILS OF BALLAST/DEBALLAST PUMP (SHEET 6 OF 6)	01.02.2024	A
84	IITM-DPA-GHOGHA-DWG-109	FIXING DETAILS OF BOLLARD	01.02.2024	A
85	IITM-DPA-GHOGHA-DWG-110-01	LAYOUT AND DETAILS OF PONTOON CRASH BARRIER (SHEET 1 OF 2)	01.02.2024	A
86	IITM-DPA-GHOGHA-DWG-110-02	LAYOUT AND DETAILS OF PONTOON CRASH BARRIER (SHEET 2 OF 2)	01.02.2024	A
87	IITM-DPA-GHOGHA-DWG-111	TESTING PLAN OF TANKS & BULKHEADS	01.02.2024	A
88	IITM-DPA-GHOGHA-DWG-112	PONTOON DRAFT MARKING DETAILS	01.02.2024	A
LINKSPAN SUPPORT FRAME DETAILS				
89	IITM-DPA-GHOGHA-DWG-201-01	LAYOUT & DETAILS OF LINKSPAN SUPPORT FRAME AND PADEYE DETAILS (SHEET 1 OF 7)	01.02.2024	A
90	IITM-DPA-GHOGHA-DWG-201-02	LAYOUT & DETAILS OF LINKSPAN SUPPORT FRAME AND PADEYE DETAILS (SHEET 2 OF 7)	01.02.2024	A
91	IITM-DPA-GHOGHA-DWG-201-03	LAYOUT & DETAILS OF LINKSPAN SUPPORT FRAME AND PADEYE DETAILS (SHEET 3 OF 7)	01.02.2024	A
92	IITM-DPA-GHOGHA-DWG-201-04	LAYOUT & DETAILS OF LINKSPAN SUPPORT FRAME AND PADEYE DETAILS (SHEET 4 OF 7)	01.02.2024	A
93	IITM-DPA-GHOGHA-DWG-201-05	LAYOUT & DETAILS OF LINKSPAN SUPPORT FRAME AND PADEYE DETAILS (SHEET 5 OF 7)	01.02.2024	A
94	IITM-DPA-GHOGHA-DWG-201-06	LAYOUT & DETAILS OF LINKSPAN SUPPORT FRAME AND PADEYE DETAILS (SHEET 6 OF 7)	01.02.2024	A
95	IITM-DPA-GHOGHA-DWG-201-07	LAYOUT & DETAILS OF LINKSPAN SUPPORT FRAME AND PADEYE DETAILS (SHEET 7 OF 7)	01.02.2024	A
96	IITM-DPA-GHOGHA-DWG-202-01	LAYOUT & DETAILS OF STEEL PILES (SHEET 1 OF 2)	01.02.2024	A
97	IITM-DPA-GHOGHA-DWG-202-02	LAYOUT & DETAILS OF STEEL PILES (SHEET 2 OF 2)	01.02.2024	A
98	IITM-DPA-GHOGHA-DWG-203	TYPICAL ANODE DETAILS FOR STEEL PILES	01.02.2024	A
MODIFICATION TO EXISTING PONTOON AND LINKSPAN				
99	IITM-DPA-GHOGHA-DWG-300	DEMOLITION PLAN FOR OLD PONTOON MODIFICATION	01.02.2024	A
100	IITM-DPA-GHOGHA-DWG-301-01	LAYOUT & DETAILS OF OLD PONTOON MODIFICATION (SHEET 1 OF 5)	01.02.2024	A
101	IITM-DPA-GHOGHA-DWG-301-02	LAYOUT & DETAILS OF OLD PONTOON MODIFICATION (SHEET 2 OF 5)	01.02.2024	A
102	IITM-DPA-GHOGHA-DWG-301-03	LAYOUT & DETAILS OF OLD PONTOON MODIFICATION (SHEET 3 OF 5)	01.02.2024	A
103	IITM-DPA-GHOGHA-DWG-301-04	LAYOUT & DETAILS OF OLD PONTOON MODIFICATION (SHEET 4 OF 5)	01.02.2024	A
104	IITM-DPA-GHOGHA-DWG-301-05	LAYOUT & DETAILS OF OLD PONTOON MODIFICATION (SHEET 5 OF 5)	01.02.2024	A
105	IITM-DPA-GHOGHA-DWG-302-01	LINKSPAN SEATING DETAILS (SHEET 1 OF 5)	01.02.2024	A
106	IITM-DPA-GHOGHA-DWG-302-02	LINKSPAN SEATING DETAILS (SHEET 2 OF 5)	01.02.2024	A
107	IITM-DPA-GHOGHA-DWG-302-03	LINKSPAN SEATING DETAILS (SHEET 3 OF 5)	01.02.2024	A
108	IITM-DPA-GHOGHA-DWG-302-04	LINKSPAN SEATING DETAILS (SHEET 4 OF 5)	01.02.2024	A
109	IITM-DPA-GHOGHA-DWG-302-05	LINKSPAN SEATING DETAILS (SHEET 5 OF 5)	01.02.2024	A
110	IITM-DPA-GHOGHA-DWG-303-01	LAYOUT & DETAILS OF NEW STEEL RAMP EXTENSION (SHEET 1 OF 6)	01.02.2024	A
111	IITM-DPA-GHOGHA-DWG-303-02	LAYOUT & DETAILS OF NEW STEEL RAMP EXTENSION (SHEET 2 OF 6)	01.02.2024	A
112	IITM-DPA-GHOGHA-DWG-303-03	LAYOUT & DETAILS OF NEW STEEL RAMP EXTENSION (SHEET 3 OF 6)	01.02.2024	A
113	IITM-DPA-GHOGHA-DWG-303-04	LAYOUT & DETAILS OF NEW STEEL RAMP EXTENSION (SHEET 4 OF 6)	01.02.2024	A
114	IITM-DPA-GHOGHA-DWG-303-05	LAYOUT & DETAILS OF NEW STEEL RAMP EXTENSION (SHEET 5 OF 6)	01.02.2024	A
115	IITM-DPA-GHOGHA-DWG-303-06	LAYOUT & DETAILS OF NEW STEEL RAMP EXTENSION (SHEET 6 OF 6)	01.02.2024	A
116	IITM-DPA-GHOGHA-DWG-401	MEMBER REMOVAL PLAN FOR EXISTING LINKSPAN MODIFICATION	01.02.2024	A
117	IITM-DPA-GHOGHA-DWG-402-01	LINKSPAN MODIFICATION AND DETAILS (SHEET 1 OF 3)	01.02.2024	A
118	IITM-DPA-GHOGHA-DWG-402-02	LINKSPAN MODIFICATION AND DETAILS (SHEET 2 OF 3)	01.02.2024	A
119	IITM-DPA-GHOGHA-DWG-402-03	LINKSPAN MODIFICATION AND DETAILS (SHEET 3 OF 3)	01.02.2024	A
120	IITM-DPA-GHOGHA-DWG-403-01	TRANSITION FLAP DETAILS (SHEET 1 OF 2)	01.02.2024	A
121	IITM-DPA-GHOGHA-DWG-403-02	TRANSITION FLAP DETAILS (SHEET 2 OF 2)	01.02.2024	A
122	IITM-DPA-GHOGHA-DWG-501-01	GENERAL ARRANGEMENT OF TROLLEY (SHEET 1 OF 3)	01.02.2024	A
123	IITM-DPA-GHOGHA-DWG-501-02	GENERAL ARRANGEMENT OF TROLLEY (SHEET 2 OF 3)	01.02.2024	A
124	IITM-DPA-GHOGHA-DWG-501-03	GENERAL ARRANGEMENT OF TROLLEY (SHEET 3 OF 3)	01.02.2024	A
125	IITM-DPA-GHOGHA-DWG-502	GENERAL ARRANGEMENT OF STEEL BRIDGE	01.02.2024	A

A	01.02.2024	ISSUED FOR TENDER	DKV	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:  PROF . S . NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:  DEENDAYAL PORT AUTHORITY				
TITLE: DRAWING LIST (SHEET 2 OF 2)				
PROJECT: MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-001-02		DATE: 01.02.2024		REV: A

1

2

3

4

5

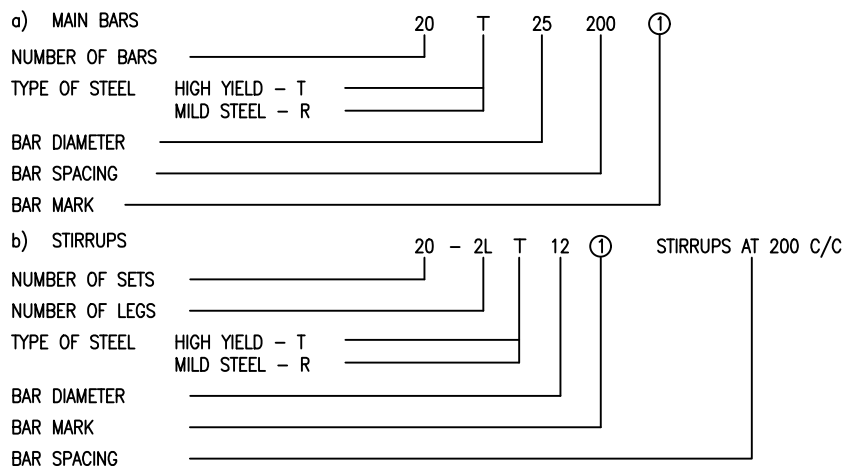
6

GENERAL NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
2. ALL LEVELS ARE IN METRES RELATIVE TO CHART DATUM (EL. $\pm 0.00\text{m}$)
3. ALL DIMENSIONS AND LEVELS SHALL BE CHECKED AND VERIFIED AT THE SITE. ANY DISCREPANCIES SHALL BE REPORTED TO THE NODAL OFFICER IMMEDIATELY AND MODIFIED TO SUIT THE SITE CONDITIONS, FABRICATIONS AND INSTALLATION TOLERANCES. ALL SUCH MODIFICATIONS SHALL BE SUBJECTED TO THE APPROVAL OF THE NODAL OFFICER.
4. ALL CONCRETE USED IN CONSTRUCTION SHALL HAVE CHARACTERISTICS AS PER TABLE BELOW

CAST IN-SITU/ELEMENTS	CONCRETE GRADE	7 DAYS AGE (N/mm ²)	28 DAYS AGE (N/mm ²)
PILE	M40	27	40
DECK RAMP	M30	20	30

5. ALL REINFORCEMENT STEEL SHALL BE HIGH STRENGTH DEFORMED BARS CONFORMING TO IS1786 WITH MINIMUM YIELD STRENGTH OF 500MPa AND 16% ELONGATION WITH CORROSION RESISTANCE ELEMENT.
6. MILD STEEL BARS, IF ANY SPECIFIED, SHALL HAVE A YIELD STRENGTH OF 250MPa AND SHALL BE IN ACCORDANCE WITH IS432 GRADE 1.
7. REINFORCING BARS ARE REFERENCED ON THE REINFORCEMENT DETAIL DRAWING AS FOLLOWS :



8. THE MINIMUM COVER TO ALL REINFORCEMENT SHALL BE AS FOLLOWS OR THE DIAMETER OF THE BAR, WHICHEVER IS THE GREATER, UNLESS NOTED OTHERWISE.

PILES	- 75mm
PILE CAP	- 50mm
BEAM	- 50mm
DECK SLAB	- 50mm
BUILDING/STAIRCASE SLAB	- 30mm

9. THE LAP LENGTH IN REINFORCEMENT SHALL BE EQUIVALENT TO 45 x DIAMETER OF THE BAR FOR PILES AND 42 x DIAMETER OF THE BAR FOR SUPERSTRUCTURE SLABS AND BEAMS UNLESS NOTED OTHERWISE., NOT MORE THAN HALF THE BARS SHALL BE SPLICED AT A SECTION. SPLICES WHERE PROVIDED SHALL BE AS FAR AS POSSIBLE AWAY FROM SECTIONS OF MAXIMUMSTRESS AND SHALL BE STAGGERED.
10. FORMS SHALL BE SELECTED TO ENSURE THAT FAIR FACED AND SMOOTH CONCRETE SURFACES ARE OBTAINED FOR ALL CONCRETE WORK.
11. FOR ALL BOLTS TO BE CAST INTO THE CONCRETE, THE LENGTH OF EMBEDMENT OF ANCHOR BOLTS SHALL NOT BE LESS THAN 250mm UNLESS NOTED OTHERWISE.
12. ALL CONCRETE WORKS SHALL BE IN ACCORDANCE WITH IS456 (LATEST EDITION). THE CEMENT USED SHALL BE PORTLAND SLAG CEMENT CONFORMING TO IS455. THE MINIMUM CEMENT CONTENT FOR PERMANENT WORKS SHALL BE 400 kg/m³ WITH A MAXIMUM WATER CEMENT RATIO OF 0.45. FOR PLAIN CONCRETE, THE MINIMUM CEMENT CONTENT SHALL BE 350 kg/m³ WITH A MAXIMUM WATER CEMENT RATIO OF 0.45.
13. CUTTING, BENDING AND FIXING OF REINFORCEMENTS SHALL BE AS PER IS2502.
14. WELDING OF REINFORCEMENT MS BARS SHALL BE IN ACCORDANCE WITH IS2751 AND FOR DEFORMED BAR AS PER IS9417
15. GROUTING FOR BASE PLATES AND OTHER MISCELLANEOUS STRUCTURES SHALL USE NON-SHRINK GROUT OF PREMIX TYPE WITH A MINIMUM COMPRESSIVE STRENGTH OF 30 N/mm² AT THE END OF 28 DAYS.
16. WHERE CAST-IN-SITU CONCRETE IS TO ACT COMPOSITELY WITH PRECAST CONCRETE, PRECAST CONCRETE SURFACES SHALL BE ROUGHENED IMMEDIATELY AFETR DESHUTTERING TO ENSURE PROPER BONDING WITH CAST-IN-SITU CONCRETE.
17. FOR INSERTS, EMBEDMENTS, ETC FOR ELECTRICAL, MECHANICAL, PIPING AND INSTRUMENTATION WORKS, THE RELEVANT DRAWINGS SHALL BE REFERRED TO.
18. REINFORCEMENT DETAILING SHOULD BE BASED ON IS 13920-2016 AND SP34.

NOTES ON BORED CAST-IN-SITU PILES:



1. ALL BORED CAST-IN-SITU PILES SHALL BE INSTALLED AS PER CONTRACT SPECIFICATION AND IS 2911 (PART 2)
2. PILE LINERS SHALL BE DRIVEN TO REFUSAL OR ATLEAST TO THE DEPTH SHOWN IN DRAWINGS AND SHALL BE OF MINIMUM THICKNESS 6MM.
3. PILES SHALL BE ADEQUATELY BRACED UNTIL SEVEN DAYS AFTER CASTING OF THE SUPER STRUCTURE.
4. REINFORCEMENT SHALL BE AS SHOWN IN CONSTRUCTION DRAWINGS.
5. LAPPING AND SPLICING SHALL BE IN ACCORDANCE WITH IS 456-2000.
6. THE MINIMUM LAP LENGTH FOR HIGH STRENGTH DEFORMED BARS SHALL BE 42 TIMES THE DIAMETER OF BAR.
7. LAPPING / SPLICING OF MAIN REINFORCEMENT BARS SHALL BE AVOIDED AT THE LOCATION OF MAXIMUM STRESSES (BENDING MOMENT) AND SHALL BE AWAY FROM THE SECTIONS WHERE THE BENDING MOMENT IS MORE THAN 50% MOMENT OF RESISTANCE.
8. SPLICING OF REINFORCEMENT BARS SHALL BE DONE USING PHYSICAL LAPPING AND WELDING OF BARS IS NOT ACCEPTABLE UNLESS APPROVED BY AUTHORITY ENGINEER.
9. LAP SPLICING OF MAIN BARS SHALL BE STAGGERED.
10. NOT MORE THAN 50% OF BARS SHALL BE SPLICED AT ANY ONE SECTION.
11. THE DISTANCE BETWEEN THE STAGGERED SPLICES SAHLL NOT BE LESS THAN 1.3 TIMES THAN LAP LENGTH.
12. SPLICING OF BUNDLED BARS SHALL BE STAGGERED. SPLICING OF BUNDLED BARS SHALL BE MADE BY SPLICING ONE BAR AT A TIME. SUCH INDIVIDUAL SPLICES WITHIN A BUNDLE SHALL BE STAGGERED.
13. CONCRETING SHALL START IMMEDIATELY AFTER THE CLEANING OF THE BOTTOM OF PILE SHAFT AND AFTER REINFORCING BARS HAS BEEN INSTALLED. IF THE CONCRETING HAS NOT STARTED AFTER FOUR HOURS OF THE COMPLETION OF THE CLEANING OF THE BOTTOM OF THE BORE HOLE, THE CLEANING SHALL BE REPEATED.
14. CONCRETING OF ALL THE PILES SHALL BE CARRIED OUT USING TREMIE METHOD. NO CONSTRUCTION JOINTS ARE PERMITTED IN THE PILE SHAFT.
15. CONCRETING SHALL BE CARRIED OUT FOR 600MM ABOVE THE CUT-OFF ELEVATION AS SHOWN IN THE CONSTRUCTION DRAWINGS.
16. BEFORE CASTING SUPER STRUCTURE ELEMENTS, THE EXCESS CONCRETE SHALL BE CHIPPED OFF AND REMOVED TO THE CORRECT ELEVATION.
17. THE MINIMUM PILE PENETRATION SHALL BE AS SHOWN IN THE CONSTRUCTION DRAWINGS.
18. THE DEVIATION IN THE LOCATION OF EACH PILE HEAD SHALL NOT EXCEED 10% OF THE PILE DIAMETER OR 75MM WHICHEVER IS SMALLER. THE INCLINATION OF EACH PILE SHALL NOT EXCEED 1% OVER THE TOTAL LENGTH OF PILE. FOR OTHER NOTES PERTAINING TO REINFORCED CONCRETE PILING WORKS, THE RELEVANT PILING DRAWINGS SHALL BE REFERRED TO.

NOTES ON STEEL PILES:

1. NOTE NO.1 TO 11 PERTAINING TO BORED CAST-IN-SITU PILES ARE ALSO APPLICABLE TO STEEL PILES. IN ADDITION, FOLLOWING SPECIAL/ENHANCED REQUIREMENTS APPLY TO STEEL PILES.
2. STEEL PILE SHALL BE FABRICATED IN SHOP WITH CONTROLLED ENVIRONMENT WITH ONLY ONE FIELD SPlice. ALL FABRICATION SHALL BE IN STRICT CONFORMITY WITH API SPEC 2B AND WELDING IN ACCORDANCE WITH AWS D1.1
3. ALL SPLICES FOR STEEL PILE SHALL BE 100% X-RAY TESTED IN ACCORDANCE WITH AWS D1.1
4. THE STEEL PILE SHALL BE FABRICATED USING STRUCTURAL STEEL AS PER IS2062 GRADE E350 OR EQUIVALENT WITH MINIMUM YIELD STRENGTH OF 345 MPa.
5. THE FABRICATION TOLERANCE OF STEEL PILE SHALL BE IN ACCORDANCE WITH THE FOLLOWING:
- a) OUT OF ROUNDEDNESS : <1%
- b) OUT OF VERTICALITY : <1:500
- c) STRAIGHTNESS TOLERANCE : <10mm FOR 1000mm LENGTH
6. THE DEVIATION IN THE LOCATION OF STEEL PILE HEAD SHALL NOT EXCEED 10mm IN ANY DIRECTION. THE INCLINATION OF EACH PILE SHALL NOT EXCEED 1% OVER THE TOTAL LENGTH OF PILE.
7. FOR OTHER NOTES PERTAINING TO REINFORCED CONCRETE PILING WORKS, THE RELEVANT PILING DRAWINGS SHALL BE REFERRED TO.

ABBREVIATIONS

ACC.	ACCORDANCE	LGTH.	LENGTH
APPROX.	APPROXIMATELY	LONGL.	LONGITUDINAL
ARCH.	ARCHITECTURAL	M	METRE
BOT.	BOTTOM	MM	MILLIMETRE
B/S	BOTH SIDES	MAX.	MAXIMUM
BLDG.	BUILDING	MIN.	MINIMUM
C/C	CENTRE TO CENTRE	NO.	NUMBER
COL.	COLUMN	NOS.	NUMBERS
C.O.G.	CENTRE OF GRAVITY	N/S	NEAR SIDE
CONC.	CONCRETE	NOM.	NOMINAL
CTR.	CENTRE	OD	OUTSIDE DIAMETER
DBLR.	DOUBLER	OPP.	OPPOSITE
DIA.	DIAMETER	PERP.	PERPENDICULAR
DIAG.	DIAGONAL	PL.	PLATE
DIM.	DIMENSION	QTY.	QUANTITY
DET.	DETAIL	R	RADIUS
DK.	DECK	REMOV.	REMOVABLE
DWG.	DRAWING	REF.	REFERENCE
EL.	ELEVATION	REV.	REVISION
EQUIPT.	EQUIPMENT	SECT.	SECTION
EXT.	EXTERNAL	SECON.	SECONDARY
EXTG.	EXISTING	SHT.	SHEET
F/S	FAR SIDE	SIM.	SIMILAR
FLR.	FLOOR	SPCS.	SPACES
FRL.	FINISHED ROAD LEVEL	S.S.	STAINLESS STEEL
GEN.	GENERAL	STD.	STANDARD
GR.	GRADE	SUPPT.	SUPPORT
HT.	HEIGHT	SYMM.	SYMMETRY
HORIZ.	HORIZONTAL	TEMP.	TEMPORARY
HR.	HANDRAIL	THK.	THICK.
ID	INSIDE DIAMETER	(TYP.)	TYPICAL
INT.	INTERNAL	U.N.O.	UNLESS NOTED OTHERWISE
L.A.T.	LOWEST ASTRONOMICAL TIDE	U/S	UNDERSIDE
LG.	LONG	VERT.	VERTICAL
		WT.	WEIGHT

A	01.02.2024	ISSUED FOR TENDER	DKV	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF . S . NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
GENERAL NOTES (SHEET 1 OF 2)				
PROJECT: MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-002-01		DATE: 01.02.2024		REV: A

NOTES ON MATERIALS FOR STEEL WORK

1. STEEL MATERIAL AND PAINTING/COATING SHALL CONFIRM TO THE FOLLOWING SPECIFICATIONS:



NO.	APPLICATION	SPECIFICATION	MINIMUM YIELD STRENGTH (MPa)
1	PLATES AND SHAPES FOR FLOATING PONTOON SECONDARY STRUCTURES– HANDRAILS SUPPORTS, COMING, PILE LINERS AND MISCELLANEOUS APPLICATIONS.	IS 2062 E250 QUALITY – C	250
2	PLATES AND SHAPES FOR FLOATING PONTOON :– A. PLATES (BOTTOM, SIDE SHELL, DECK AND BULKHEAD), PRIMARY GIRDERS/WEB FRAMES, ALL SECONDARY MEMBERS & BRACKETS FOR ALL PRIMARY & SECONDARY MEMBERS. B. MANHOLE COVER,HATCH COVERS,CRASH BARRIER,STIFFENING UNDER EQUIPMENT. C. PILE GUIDE SHS 500x500 SECTION. PLATES AND SHAPES FOR LINKSPAN BRIDGE :– A. ROADWAY PLATE IN LINKSPAN BRIDGE, TRANSITION FLAP STRUCTURAL PLATES. B. LONGITUDINAL AND TRANSVERSE GIRDERS AND BRACES IN LINKSPAN BRIDGE, STIFFENER PLATSES IN TRANSITION FLAP STRUCTURE, BRACKETS C. HINGE PLATES AND WING PLATES IN FLAP STRUCTURE. D. MAIN HINGE PLATES, STIFFENER PLATES, SIDE PLATES, VERTICAL AND HORIZONTAL PLATES, CLOSING PLATES AT SLIDING AND HINGE SUPPORT OF BRIDGE STRUCTURE.	ASTM–A131–DH36/ OR EQUIVALENT INDIAN GRADE STEEL (IS 2062 E350 QUALITY – C)	350
3	PLATES FOR ROLLED TUBULARS FOR GUIDE PIN PILES. ø508x16mm, ø508x25mm, ø610x20mm DIAMETER LARGER THAN 406mm. (ROLLED AS PER API SPEC. 2B)	ASTM–A131–DH36	350
4	PLATES FOR ROLLED TUBULARS FOR THROUGH THICKNESS APPLICATION (Z”) ABOVE 19mm THICKNESS INVOLVING PRIMARY ITEMS AT CRITICAL AREAS LIKE TUBULAR JOINT IN FRAMED STEEL STRUCTURE. ø610x25mm, ø610x30mm (ROLLED AS PER API SPEC. 2B) LIFTING PADEYES, LIFTING EYES AND CHEEK PLATES AND OTHER APPLICATIONS REQUIRING THROUGH THICKNESS LOADS TRANSFER.	API 2H GRADE 50Z WITH THROUGH THICKNESS PROPERTY (Z35) AND LOW SULPHUR CONTENT	345
5	SOLID PIN FOR LINKSPAN BEARING SUPPORTS AT BOTH ENDS AND RAMP SUPPORT PINS.	42CrMo4 STEEL PIN	600
6	ANCHORS BOLTS FOR ALL BASE PLATES EMBEDDED INTO RC STRUCTURS.	IS 5624 & IS 1367 PART 3–CLASS 8.8	640
7	STRUCTURAL BOLTS FOR STEEL CONNECTIONS IN PONTOON GUIDE AND LINKSPAN RAMP.	IS 3757 & IS 1367 PART 3–CLASS 8.8	640
8	STEEL GRATING	ASTM A36	250
9	HANDRAIL PIPES	IS 1161 Yst 250	250
10	SACRIFICIAL ANODES	GALVALUM III OR EQUIVALENT	–
11	STEEL TUBULAR MEMBER FOR RAMP	API 5L GRADE B	250
12	PLATES AND SHAPES FOR RAMP	IS 2062 BR–E250	250

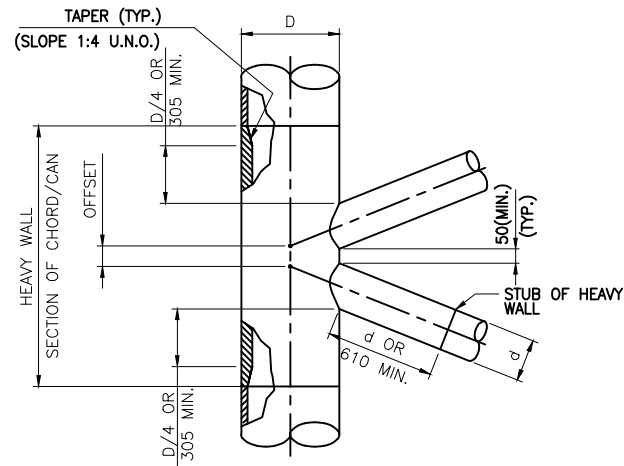
2. STEEL FABRICATION AND ERECTION SHALL BE CARRIED OUT IN ACCORDANCE WITH PROJECT SPECIFICATIONS.

- a. ALL MATERIAL SHALL BE NEW STOCK AND SHALL BE FREE FORM DEFORMATIONS.
- b. ALL STEEL SHALL BE MANUFACTURED BY PROCESS WHICH ENSURE A PRODUCT WHICH IS SUBSTANTIALY FREE OF SEGREGATION.
- c. ALL FABRICATED STRUCTURAL PIPE SHALL CONFORM TO API "SPECIFICATION 2B FOR STRUCTURAL STEEL PIPE",EXCEPT AS MODIFIED BY THIS GENERAL SPECIFICATION.
- d. SPIRALLY WELDED PIPE SHALL NOT BE USED.ERW PIPE MAY BE ALLOWED PROVIDED THAT IT IS SUPPLIED FROM AN API CERTIFIED MANUFACTURER.
- e. ALL SEAMLESS STRUCTURAL PIPE LESS THAN 406mm O.D. SHALL CONFORM TO API 5L SPECIFICATION 5L–GR–X52N, PSL–2,"SPECIFICATION FOR LINE PIPE", EXCEPT AS MODIFIED BY THIS GENERAL SPECIFICATION.
- f. CONTRACTOR SHALL FURNISH THREE (3) CERTIFIED ORIGINAL MILL CERTIFICATES FOR ALL PIPE,STRUCTURAL SHAPES,AND PLATE FOR INTEGRATION INTO THE TRACE OF MATERIAL NOTEBOOK. MILL CERTIFICATES SHALL INCLUDE CHEMICAL ANALYSIS,AND MECHANICAL AND NON–DESTRUCTIVE EXAMINATIONS AND SHALL BE IDENTIFIED BY HEAT NUMBER, PLATE NUMBER, MILL CERTIFICATE NUMBER, PAGE NUMBER, PURCHASE ORDER NUMBER AND MILL IDENTIFICATION.
- g. ALL TESTING MATERIAL SHALL BE WITNESSED BY AN ENGINEER/ENGINEER’S REPRESENTATIVE WHO SHALL ALSO COUNTERSIGN THE MILL CERTIFICATE AND SHALL BE APPROVED BY THE CLASSIFICATION SOCIETY SURVEYOR.
- h. GRATING AND STAIR TREADS SHALL BE STEEL, 32mm X 5mm SERRATED BAR GRATING WITH BEARING BARS AT 30mm ON CENTERS AND CROSS BARS AT 50mm ON CENTER EXCEPT AS MODIFIED ON FABRICATION DRAWINGS. ALL GRATINGS SHALL BE SERRATED AND GALVANISED.

NOTES FOR STEEL LINK SPAN AND PONTOON

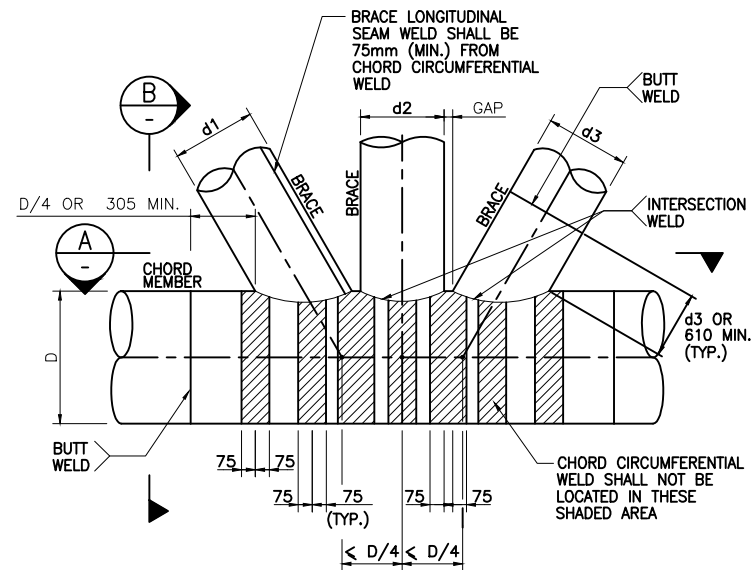
1. ANY DISCREPANCY BETWEEN DRAWINGS, LEVELS AT SITE SHALL BE IMMEDIATELY BROUGHT TO THE NOTICE OF EMPLOYER.
2. DRAWINGS SHALL NOT BE SCALED AND ONLY DIMENSIONS WRITTEN ON THE DRAWING SHALL BE USED.
3. MATERIALS AND WORKMANSHIP SHALL COMPLY WITH PROJECT SPECIFICATIONS.
4. ALL WELDING SHALL BE FULL PENETRATION BUTT WELD U.N.O
5. ALL WELDING INSPECTION INCLUDING VISUAL AND NDT SHALL BE AS PER APPROVED METHOD STATEMENT AND SHALL BE INSPECTED AND APPROVED BY CERTIFYING AGENCY.
6. CONTRACTOR SHALL OBTAIN APPROVAL OF PONTOON AND LINKSPAN FABRICATION FROM CERTIFICATION AGENCY IN ACCORDANCE WITH CONTRACT SPECIFICATIONS.
7. ANY DETAILS MISSING DUE TO UNAVAILABILITY OF EQUIPMENT, PIPING FROM CONTRACTOR SHALL BE ON HOLD UNTIL SUCH INFORMATION IS MADE AVAILABLE AND SHALL NOT PROCEED WITH FABRICATION AND INSTALLATION.
8. ANY DETAILS MISSING DUE TO UNAVAILABILITY OF EQUIPMENT, PIPING FROM CONTRACTOR SHALL BE ON HOLD UNTIL SUCH INFORMATION IS MADE AVAILABLE AND SHALL NOT PROCEED WITH FABRICATION AND INSTALLATION.

A	01.02.2024	ISSUED FOR TENDER	DKV	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:  PROF . S . NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:  DEENDAYAL PORT AUTHORITY				
TITLE: GENERAL NOTES (SHEET 2 OF 2)				
PROJECT: MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM–DPA–GHOGHA–DWG–002–02		DATE: 01.02.2024		REV: A

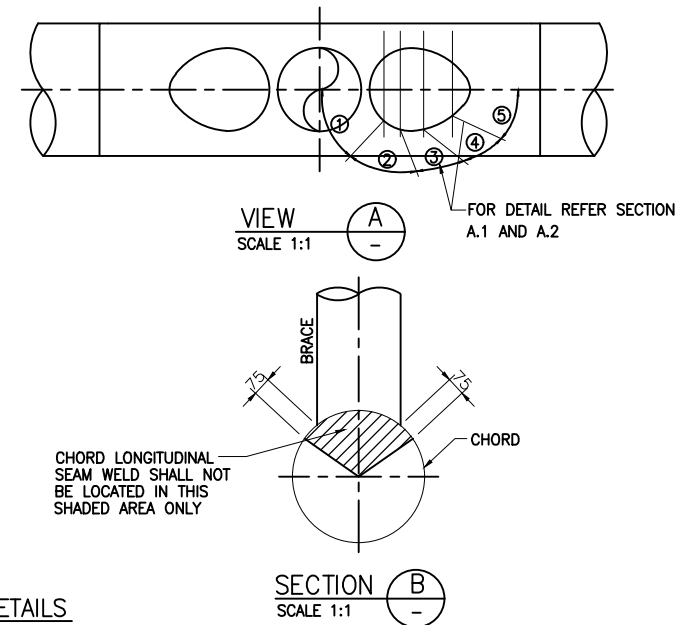


HEAVY WALL JOINT

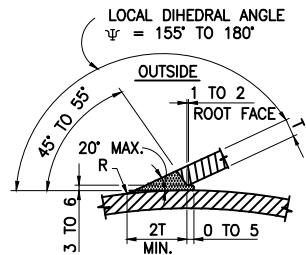
NOTE:
SIMILAR DETAILS IF THE TAPER IS ON THE OUTSIDE OF THE TUBULAR
(INTERNAL DIAMETERS ARE SAME)



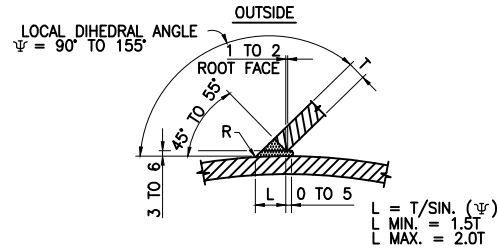
TYPICAL TUBULAR JOINT DETAILS



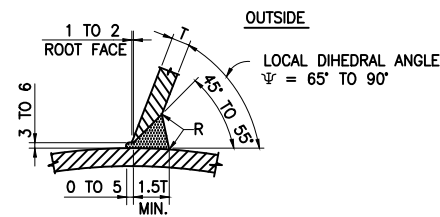
A.1 INTERSECTION WELDING DETAILS – ACCESS FROM ONE SIDE ONLY – (FOR LOCATION REFER VIEW A TYPICAL TUBULAR JOINT DETAILS)



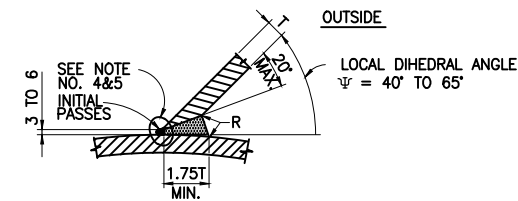
LOCATION 1



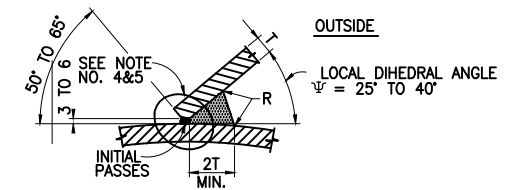
LOCATION 2



LOCATION 3

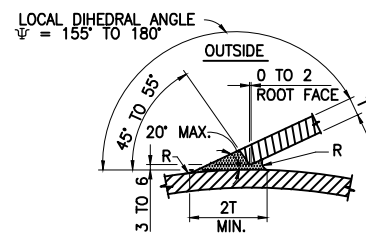


LOCATION 4

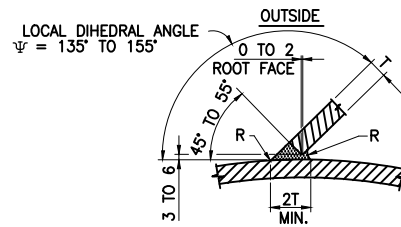


LOCATION 5

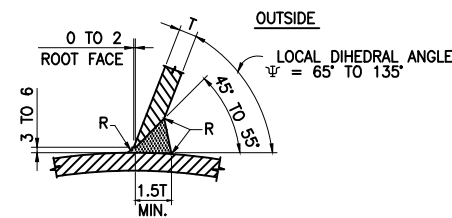
A.2 INTERSECTION WELDING DETAILS – ACCESS FROM BOTH SIDES – (FOR LOCATION REFER VIEW A TYPICAL TUBULAR JOINT DETAILS)



LOCATION 1

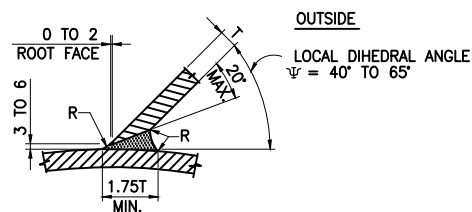


LOCATION 2

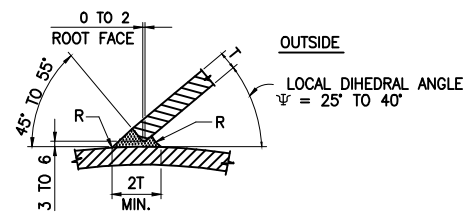


LOCATION 3



$R = T/2$ ($20 \leq T \leq 50$), $R = 25$ (WHERE $T > 50$), $R = 10$ (WHERE $T < 20$)



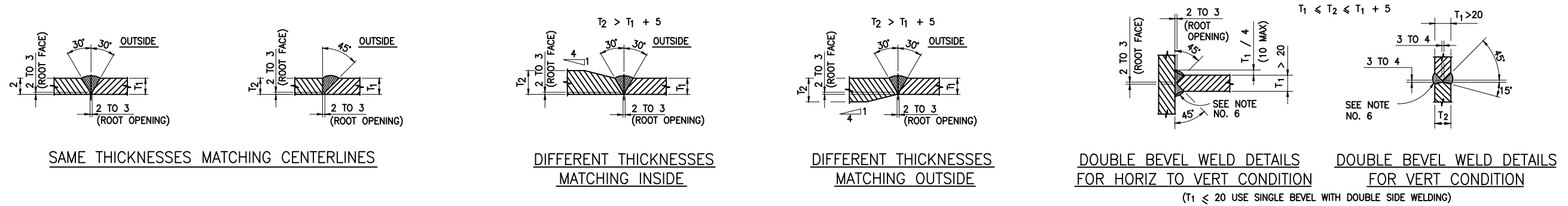
LOCATION 4



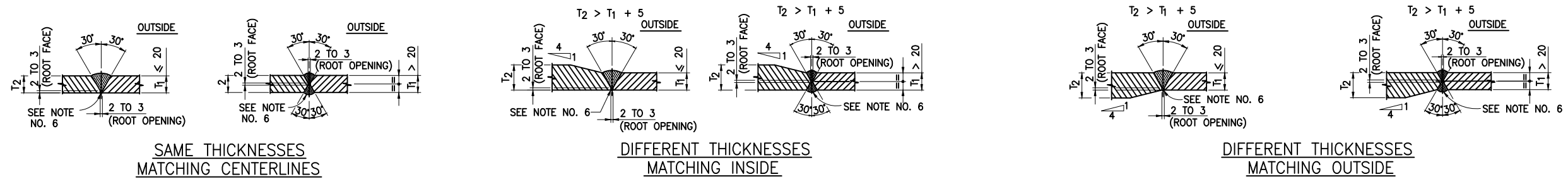
LOCATION 5

A	01.02.2024	ISSUED FOR TENDER	DKV	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF. S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
TYPICAL WELDING DETAILS (SHEET 1 OF 3)				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-003-01		DATE: 01.02.2024		REV: A

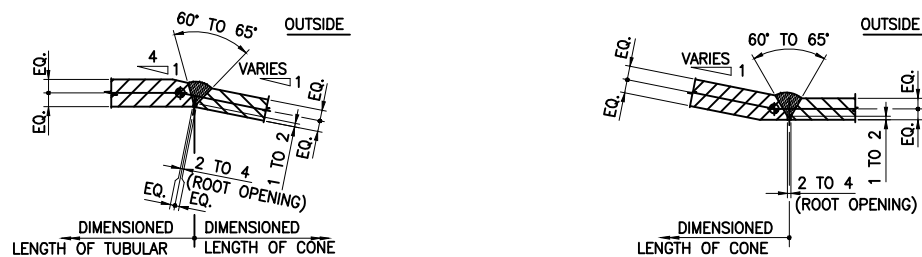
A.3 BUTT WELDING DETAILS – ACCESS FROM ONE SIDE ONLY



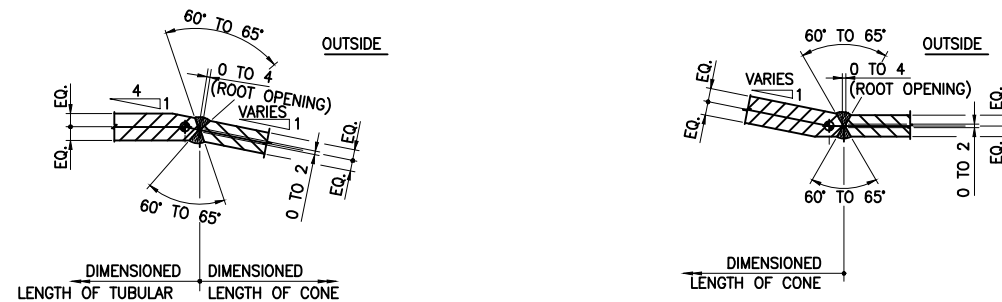
A.4 BUTT WELDING DETAILS – ACCESS FROM BOTH SIDES



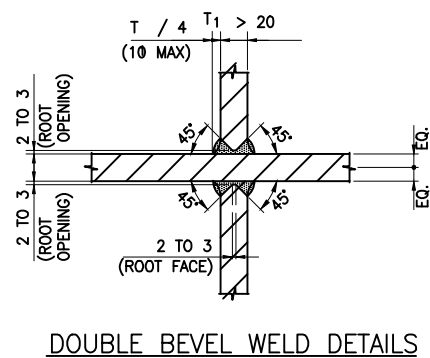
B.1 BUTT WELDING DETAILS – ACCESS FROM ONE SIDE ONLY



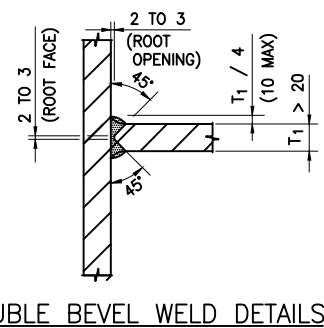
B.2 BUTT WELDING DETAILS – ACCESS FROM BOTH SIDES ONLY



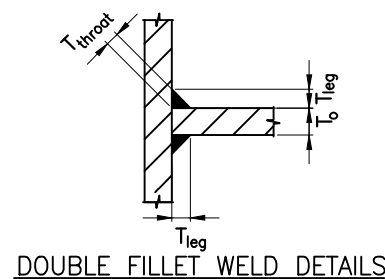
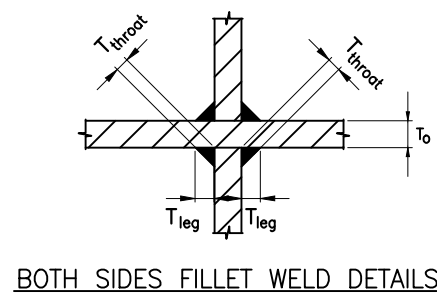
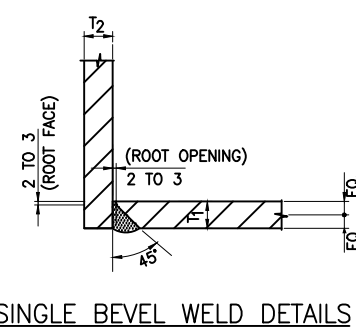
C.1. CRUCIFORM





C.2. T-JUNCTION



C.3. L-JUNCTION



A	01.02.2024	ISSUED FOR TENDER	DKV	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF. S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
TYPICAL WELDING DETAILS (SHEET 2 OF 3)				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-003-02		DATE: 01.02.2024		REV: A

A. WELDING AND INSPECTION REQUIREMENTS FOR STEEL STRUCTURES:



- (a) WELDING OF PLATES AND SHAPES FOR PONTOON SHALL FOLLOW IRS RULES AND REGULATIONS FOR CONSTRUCTION AND CLASSIFICATION OF INLAND WATERWAY VESSELS – JULY 2020
- (b) ALL PLATE JOINING SHALL BE USING BUTT WELDED FROM BOTH SIDES UNLESS NOTED OTHERWISE.
- (c) MINIMUM THICKNESS OF FILLET SHALL NOT BE LESS THAN 6mm.
- (d) FILLET WELDS SHALL BE APPLIED ON BOTH SIDES UNLESS NOTED SPECIFICALLY OTHERWISE.
- (e) THE MINIMUM WELD (FULL PENETRATION / FILLET) SHALL FOLLOW THE TABLE 1 AND SHALL BE CONTINUOUS.
- (f) INSPECTION OF WELDS SHALL BE AS PER PROJECT SPECIFICATIONS AND IRS GUIDELINES.

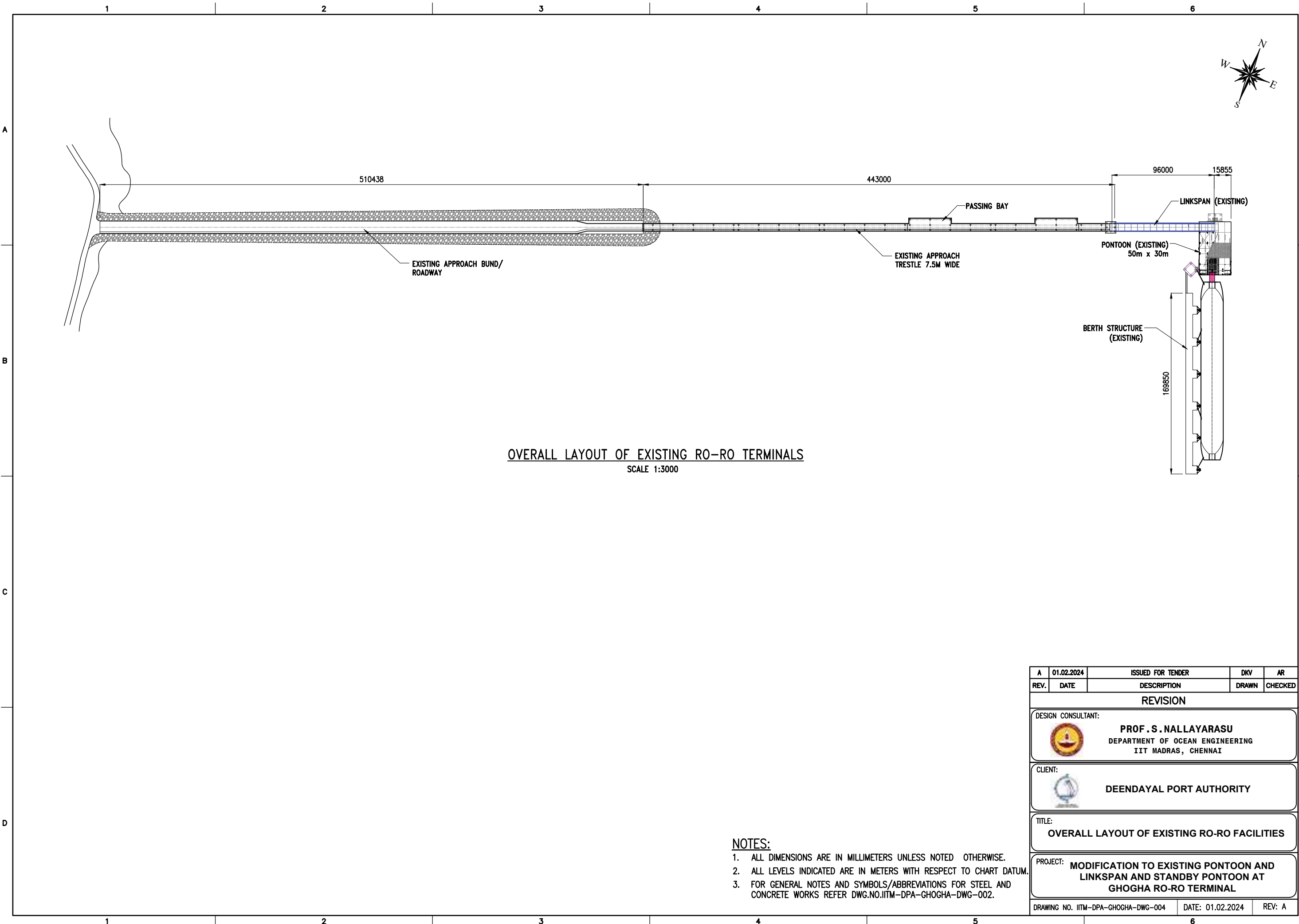
TABLE 1 – MINIMUM WELDING THICKNESS FOR PONTOON AND ACCESSORIES

MEMBER 1	MEMBER 2	TYPE OF WELD (FULL PENETRATION/FILLET)	LEG LENGTH OF FILLET WELD (mm)
TOP DECK PLATE (25mm)	TOP DECK PLATE (25mm)	FP (DOUBLE V BUTT)	–
	STIFFENER (L150X90X10)	FILLET (BOTH SIDES)	8
	GIRDER (T500 X 200 X 10 X 12)	FILLET (BOTH SIDES)	8
	LONGITUDINAL BULKHEAD (12mm)	FILLET (BOTH SIDES)	9
	TRANSVERSE BULKHEAD (12mm)	FILLET (BOTH SIDES)	9
	LONGITUDINAL SIDE SHELL (16mm)	FP (SINGLE V)	–
	TRANSVERSE SIDE SHELL (16mm)	FP (SINGLE V)	–
	BRACKETS	FILLET (BOTH SIDES)	9
BOTTOM DECK PLATE (16mm)	BOTTOM DECK PLATE (16mm)	FP (DOUBLE V BUTT)	–
	STIFFENER (L150X90X10)	FILLET (BOTH SIDES)	8
	GIRDER (T500 X 200 X 10 X 12)	FILLET (BOTH SIDES)	8
	LONGITUDINAL BULKHEAD (12mm)	FILLET (BOTH SIDES)	9
	TRANSVERSE BULKHEAD (12mm)	FILLET (BOTH SIDES)	9
	LONGITUDINAL SIDE SHELL (16mm)	FP (SINGLE V)	–
	TRANSVERSE SIDE SHELL (16mm)	FP (SINGLE V)	–
	BRACKETS	FILLET (BOTH SIDES)	9
LONGITUDINAL BULKHEAD (12mm)	STIFFENER (L150X90X10)	FILLET (BOTH SIDES)	8
	GIRDER (T500 X 200 X 10 X 12)/ (T350 X 150 X10 X 12)	FILLET (BOTH SIDES)	8
	TRANSVERSE BULKHEAD (12mm)	FILLET (BOTH SIDES)	9
	TRANSVERSE SIDE SHELL (16mm)	FP (SINGLE V)	–
	BRACKETS	FILLET (BOTH SIDES)	9
TRANSVERSE BULKHEAD (12mm)	STIFFENER (L150X90X10)	FILLET (BOTH SIDES)	8
	GIRDER (T500 X 200 X 10 X 12)/ (T350 X 150 X 10 X 12)	FILLET (BOTH SIDES)	8
	LONGITUDINAL BULKHEAD (12mm)	FILLET (BOTH SIDES)	9
	LONGITUDINAL SIDE SHELL (16mm)	FP (SINGLE V)	–
	BRACKETS	FILLET (BOTH SIDES)	9
GIRDER WEB (10mm)	GIRDER FLANGE (12mm)	FILLET (BOTH SIDES)	8
	LONGITUDINAL / TRANSVERSE STIFFENERS (L150X90X10)	FILLET (BOTH SIDES)	8
LONGITUDINAL GIRDERS	TRANSVERSE / VERTICAL GIRDERS	FILLET (BOTH SIDES)	9
LONGITUDINAL STIFFENERS (L150x90x10)	TRANSVERSE / VERTICAL STIFFENERS (L150X90X10)	FILLET (BOTH SIDES)	8
SIDE SHELL (16mm) (LONGITUDINAL/TRANSVERSE)	STIFFENER (L150X90X10)	FILLET (BOTH SIDES)	8
	GIRDER (T500 X 200 X 10 X 12)/ (T350 X 150 X 10 X 12)	FILLET (BOTH SIDES)	8
	LONGI./ TRANSVERSE BULKHEAD (12mm)	FILLET (BOTH SIDES)	9
	LONGI. / TRANSVERSE SIDE SHELL (16mm)	FP (SINGLE V)	–
	BRACKETS	FILLET (BOTH SIDES)	9

TABLE 2 – MINIMUM WELDING THICKNESS FOR LINKSPAN AND ACCESSORIES



MEMBER 1	MEMBER 2	TYPE OF WELD (FULL PENETRATION/FILLET)	LEG LENGTH OF FILLET WELD (mm)
TOP / BOTTOM CHORDS (ø610x20 AND ø610x25)	BRACES (PLAN / ELEVATION) (ø406x16 & ø508x25)	FP (SINGLE V)	–
	END CLOSURE PLATES (20mm)	FP (SINGLE V)	–
TOP / BOTTOM CHORDS (ø610x25)	PADEYE PLATES	FP (DOUBLE V)	–
	STIFFENERS	FP (DOUBLE V)	–
BOTTOM CHORD BRACE (ø406x16)	TRANSVERSE WEB (15mm)	FILLET (BOTH SIDES)	12
	STIFFENERS (12mm)	FILLET (BOTH SIDES)	9
ROADWAY DECK PLATE (25mm)	LONGITUDINAL T STIFFENERS WEB (T250x250x12x15)	FILLET (BOTH SIDES)	9
	TRANSVERSE WEB (15mm)	FILLET (BOTH SIDES)	12
	VERTICAL STIFFENERS (12mm)	FILLET (BOTH SIDES)	9
	STIFFENERS	FILLET (BOTH SIDES)	8
	CRASH BARRIER POST	FILLET ALL AROUND	8
TRANSVERSE WEB (15mm)	LONGITUDINAL STIFFENER WEB (T250x250x12x15)	FILLET (BOTH SIDES)	9
	LONGITUDINAL STIFFENER FLANGE (T250x250x12x15)	FILLET (BOTH SIDES)	9

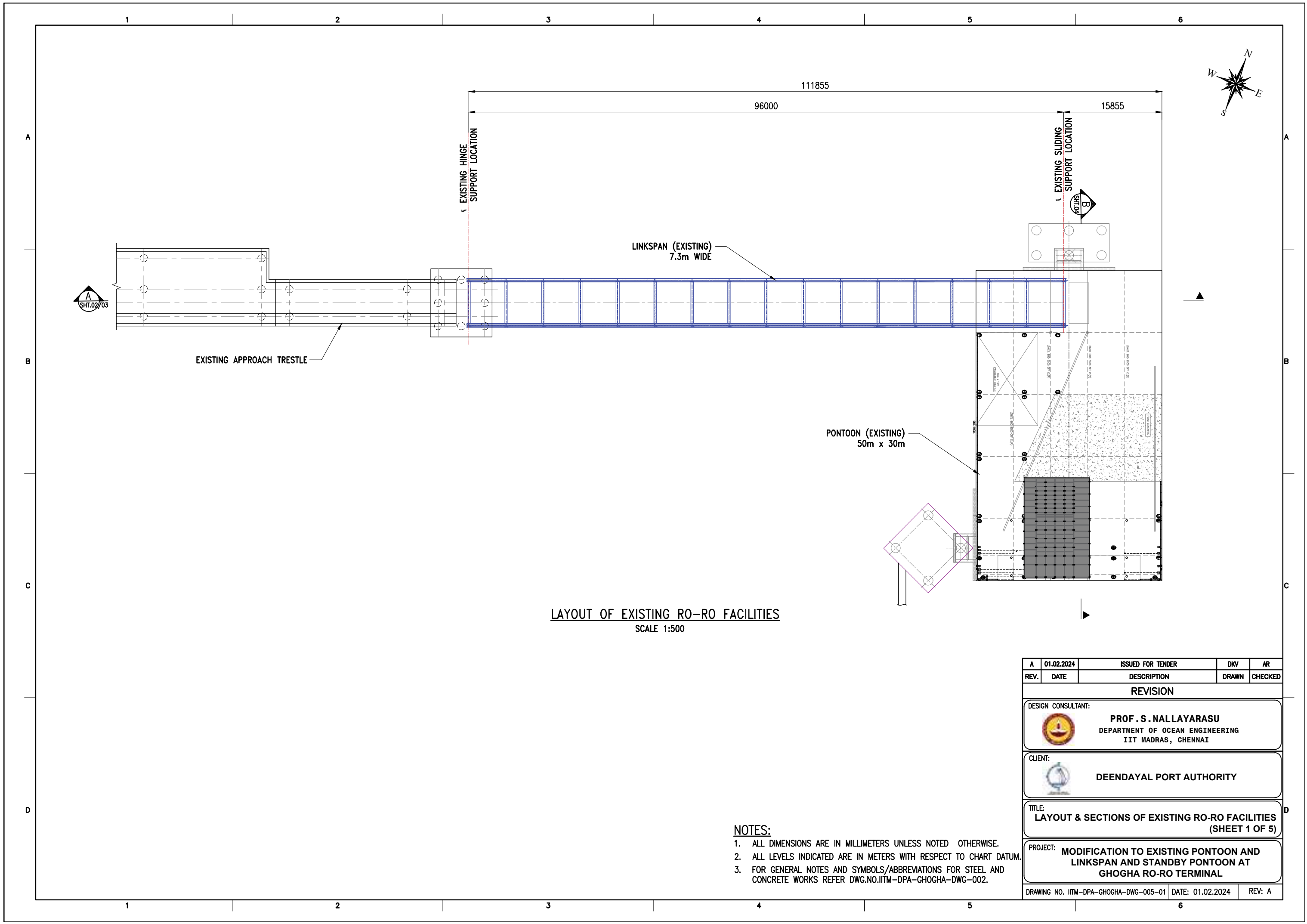
A	01.02.2024	ISSUED FOR TENDER	DKV	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:  PROF. S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:  DEENDAYAL PORT AUTHORITY				
TITLE: TYPICAL WELDING DETAILS (SHEET 3 OF 3)				
PROJECT: MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-003-03		DATE: 01.02.2024	REV: A	

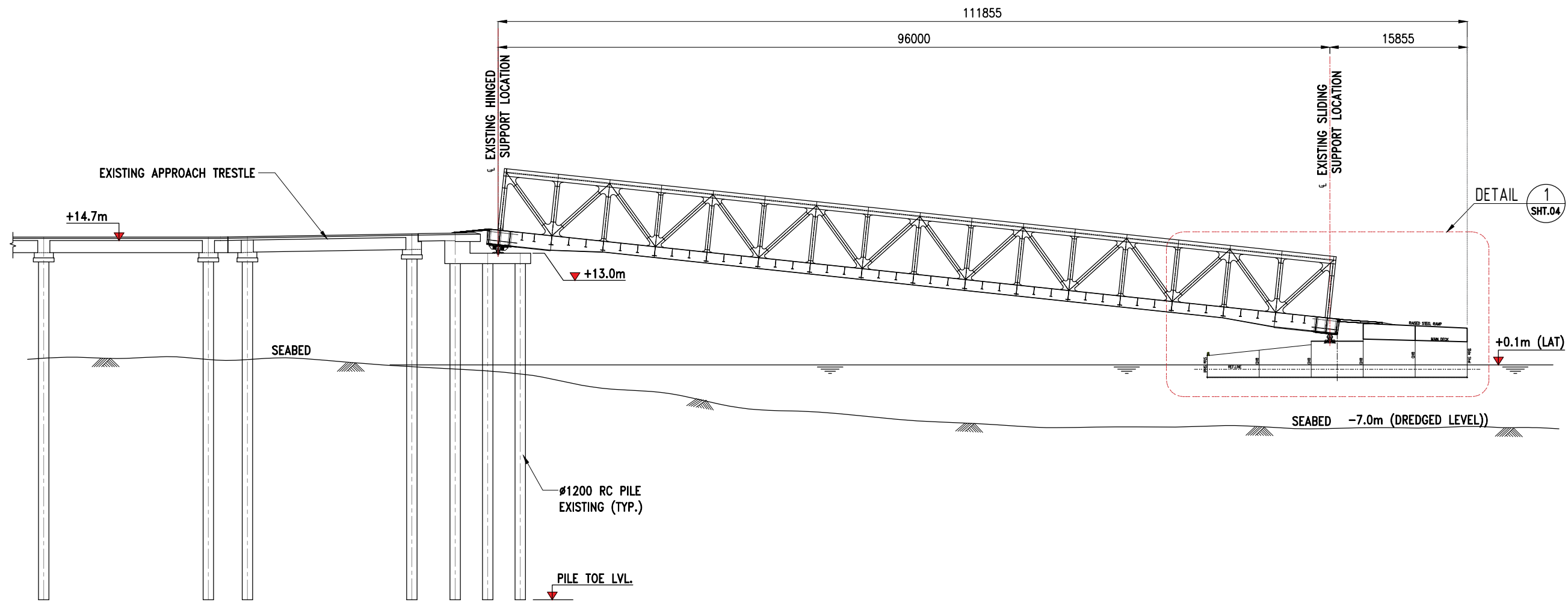


OVERALL LAYOUT OF EXISTING RO-RO TERMINALS
SCALE 1:3000

- NOTES:**
1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
 2. ALL LEVELS INDICATED ARE IN METERS WITH RESPECT TO CHART DATUM.
 3. FOR GENERAL NOTES AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-002.



A	01.02.2024	ISSUED FOR TENDER	DKV	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF . S . NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
OVERALL LAYOUT OF EXISTING RO-RO FACILITIES				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-004			DATE: 01.02.2024	
			REV: A	

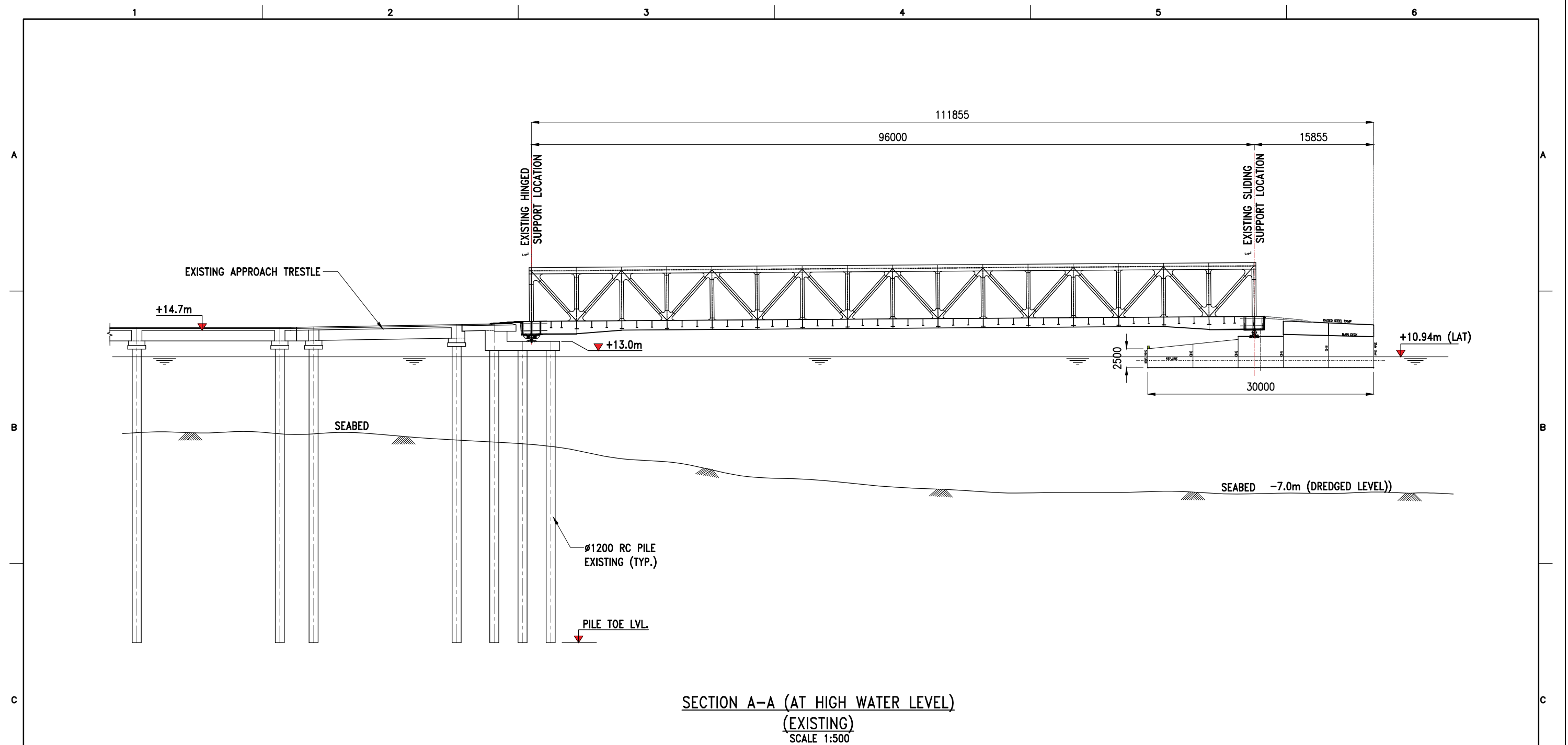






SECTION A-A (AT LOW WATER LEVEL)
(EXISTING)
SCALE 1:500

- NOTES:
- 1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
 - 2. ALL LEVELS INDICATED ARE IN METERS WITH RESPECT TO CHART DATUM.
 - 3. FOR GENERAL NOTES AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-002.

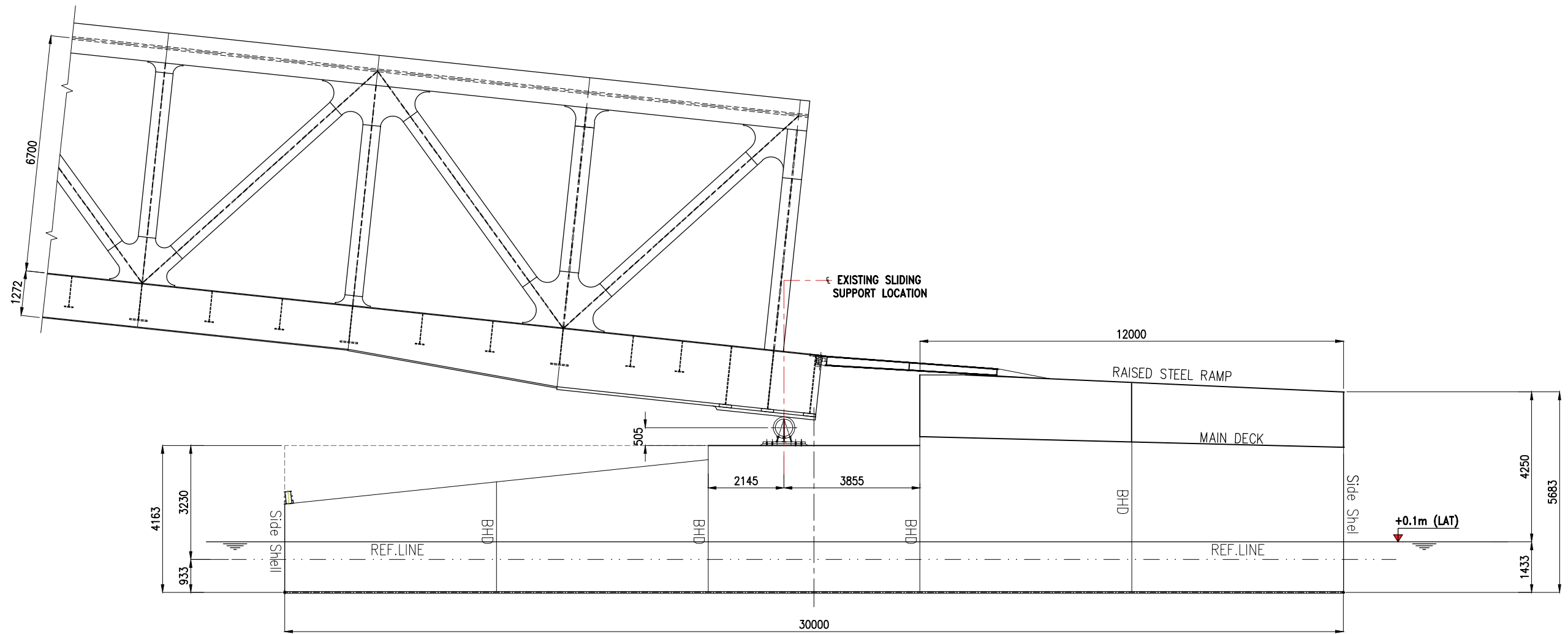
A	01.02.2024	ISSUED FOR TENDER	DKV	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF . S . NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
LAYOUT & SECTIONS OF EXISTING RO-RO FACILITIES (SHEET 2 OF 5)				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-005-02			DATE: 01.02.2024	
			REV: A	



A	01.02.2024	ISSUED FOR TENDER	DKV	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:  PROF. S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:  DEENDAYAL PORT AUTHORITY				
TITLE: LAYOUT & SECTIONS OF EXISTING RO-RO FACILITIES (SHEET 3 OF 5)				
PROJECT: MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-005-03			DATE: 01.02.2024	REV: A

NOTES:



- NOTES:**
1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
 2. ALL LEVELS INDICATED ARE IN METERS WITH RESPECT TO CHART DATUM.
 3. FOR GENERAL NOTES AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO.ITM-DPA-GHOGHA-DWG-002.

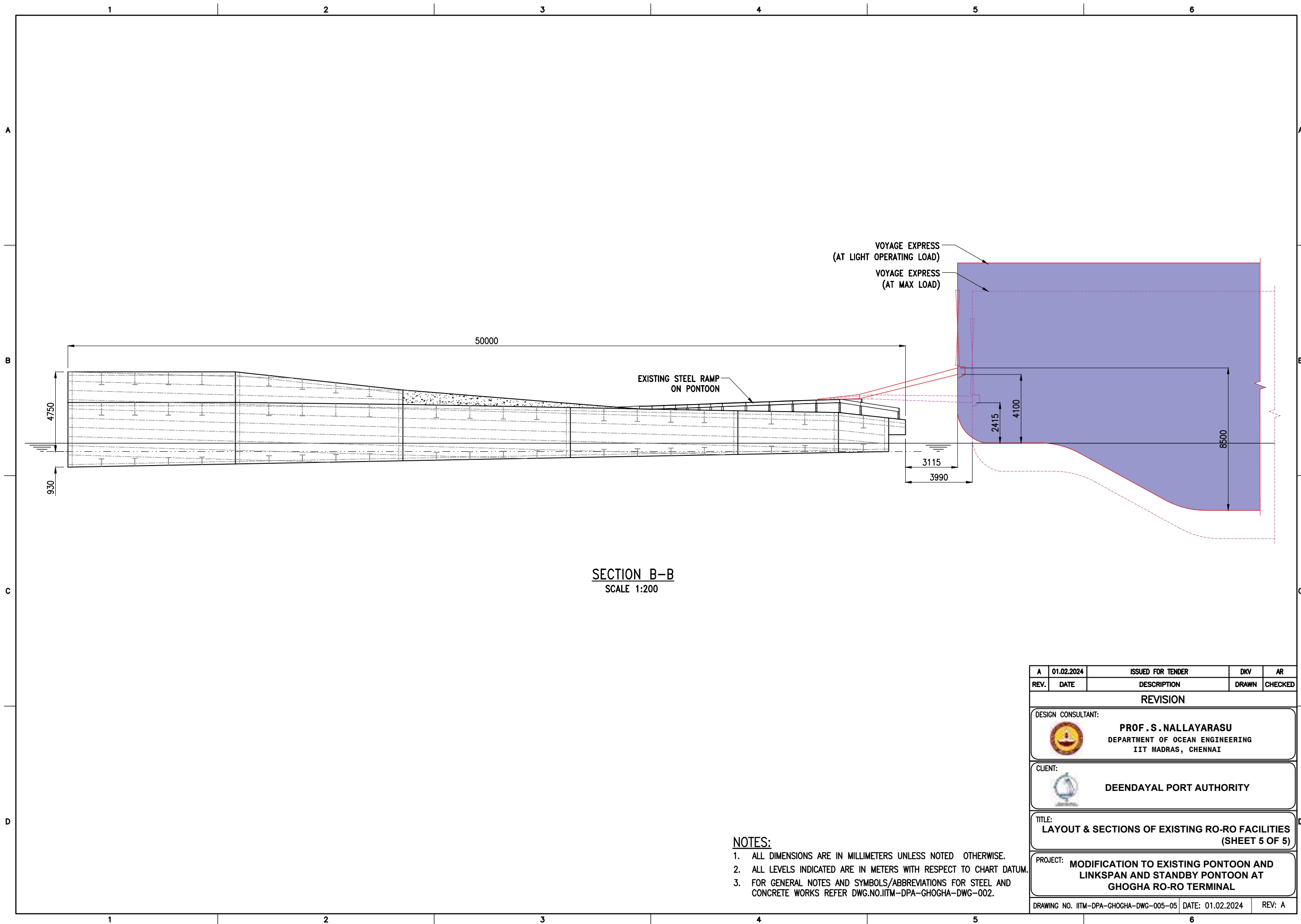


DETAIL 1
SCALE 1:125 SHT.02

NOTES:



1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
2. ALL LEVELS INDICATED ARE IN METERS WITH RESPECT TO CHART DATUM.
3. FOR GENERAL NOTES AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-002.

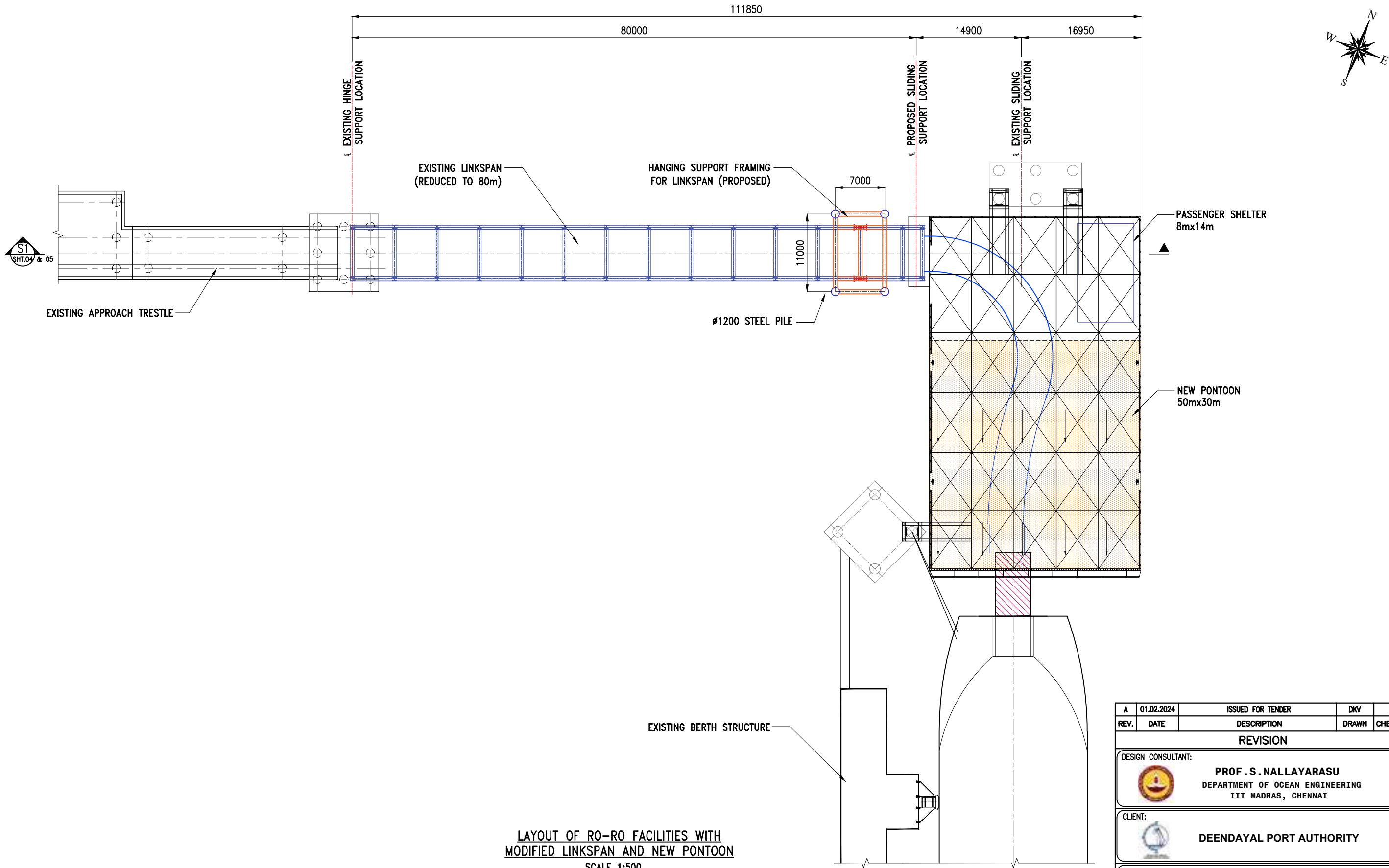
A	01.02.2024	ISSUED FOR TENDER	DKV	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF . S . NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
LAYOUT & SECTION OF EXISTING RO-RO FACILITIES (SHEET 4 OF 5)				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-005-04			DATE: 01.02.2024	
			REV: A	



SECTION B-B
SCALE 1:200

- NOTES:
1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
 2. ALL LEVELS INDICATED ARE IN METERS WITH RESPECT TO CHART DATUM.
 3. FOR GENERAL NOTES AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-002.


A	01.02.2024	ISSUED FOR TENDER	DKV	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF . S . NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
LAYOUT & SECTIONS OF EXISTING RO-RO FACILITIES (SHEET 5 OF 5)				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-005-05			DATE: 01.02.2024	REV: A



LAYOUT OF RO-RO FACILITIES WITH
MODIFIED LINKSPAN AND NEW PONTOON
SCALE 1:500

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
2. ALL LEVELS INDICATED ARE IN METERS WITH RESPECT TO CHART DATUM.
3. FOR GENERAL NOTES AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-002.

A	01.02.2024	ISSUED FOR TENDER	DKV	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF . S . NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
LAYOUT & SECTIONS OF RO-RO JETTY WITH MODIFIED LINKSPAN AND NEW PONTOON (SHEET 1 OF 7)				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-006-01			DATE: 01.02.2024	
			REV: A	

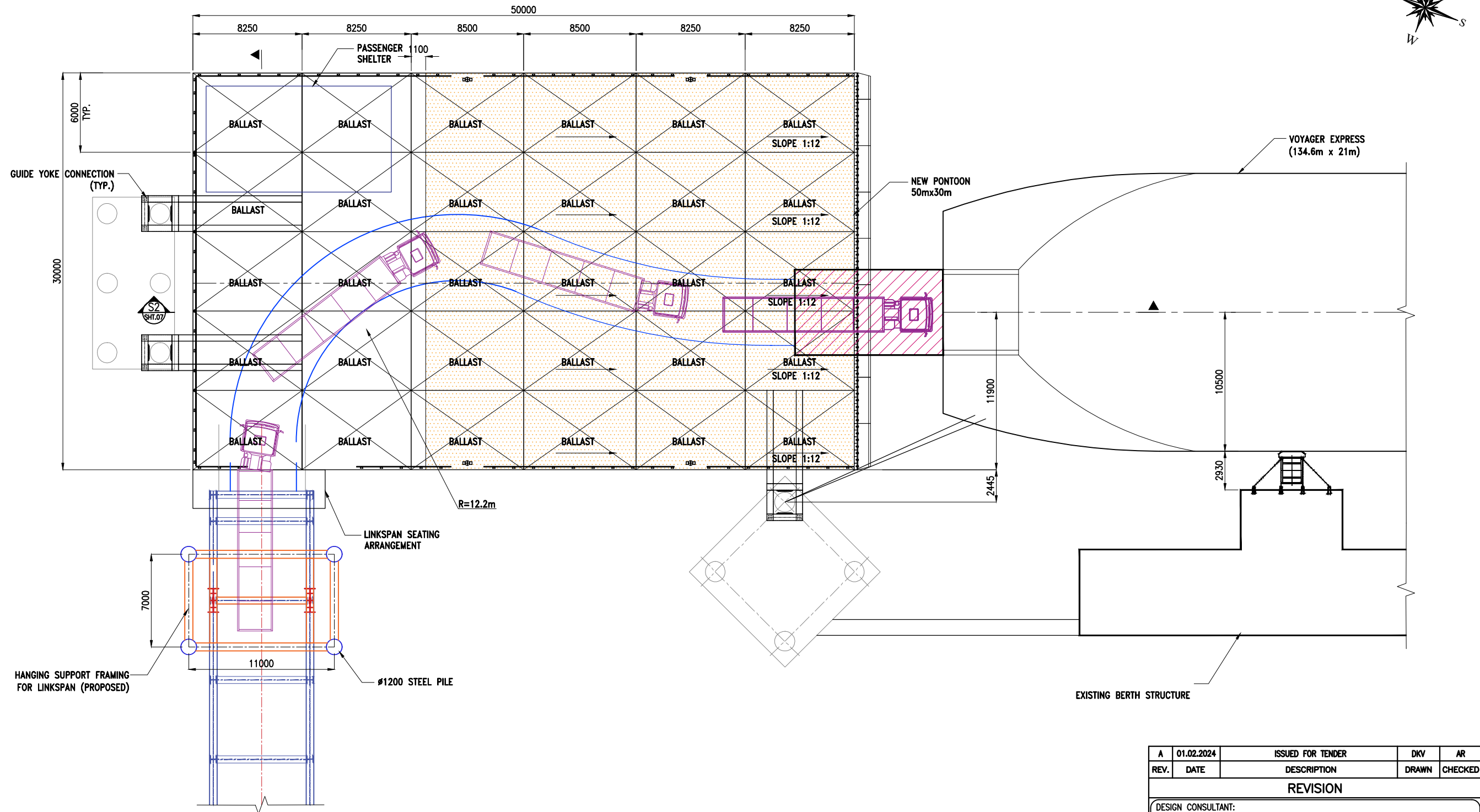
1 2 3 4 5 6

A

B

C



D

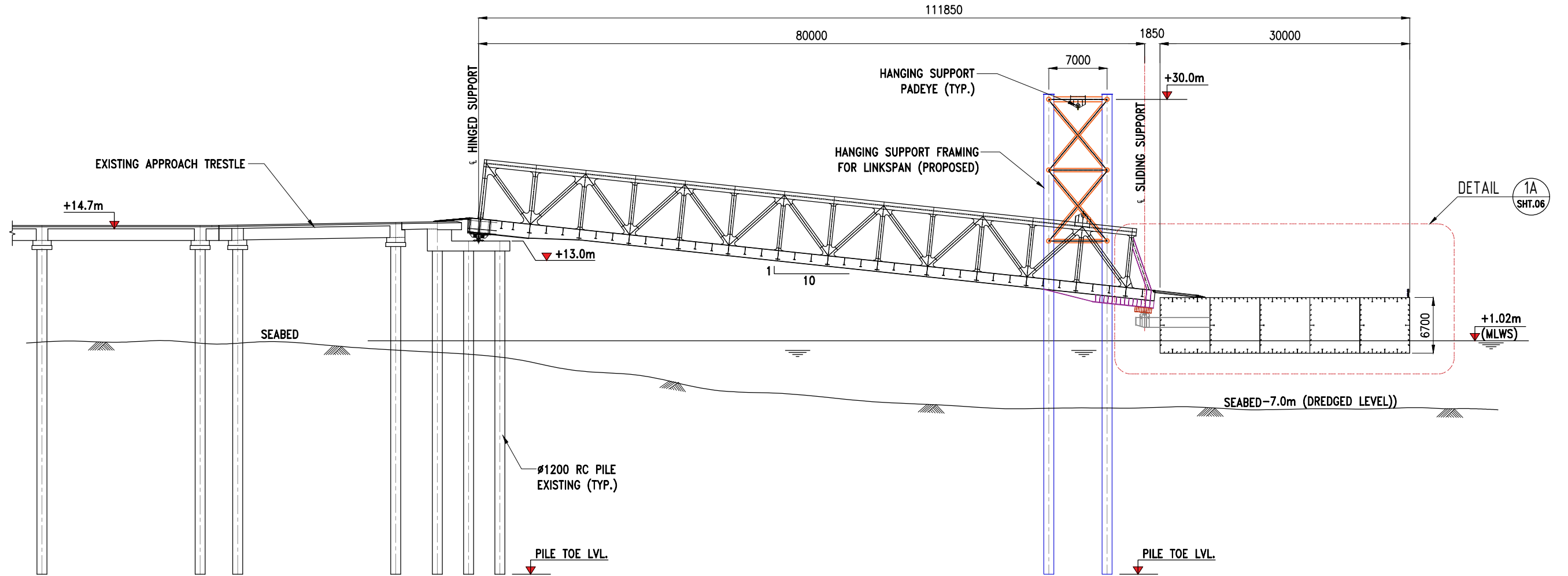


TURNING LAYOUT
(FOR LARGER VESSEL)
SCALE 1:300

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
2. ALL LEVELS INDICATED ARE IN METERS WITH RESPECT TO CHART DATUM.
3. FOR GENERAL NOTES AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-002.



A	01.02.2024	ISSUED FOR TENDER	DKV	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF. S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
LAYOUT & SECTIONS OF RO-RO JETTY WITH MODIFIED LINKSPAN AND NEW PONTOON (SHEET 3 OF 7)				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-006-03			DATE: 01.02.2024	
			REV: A	

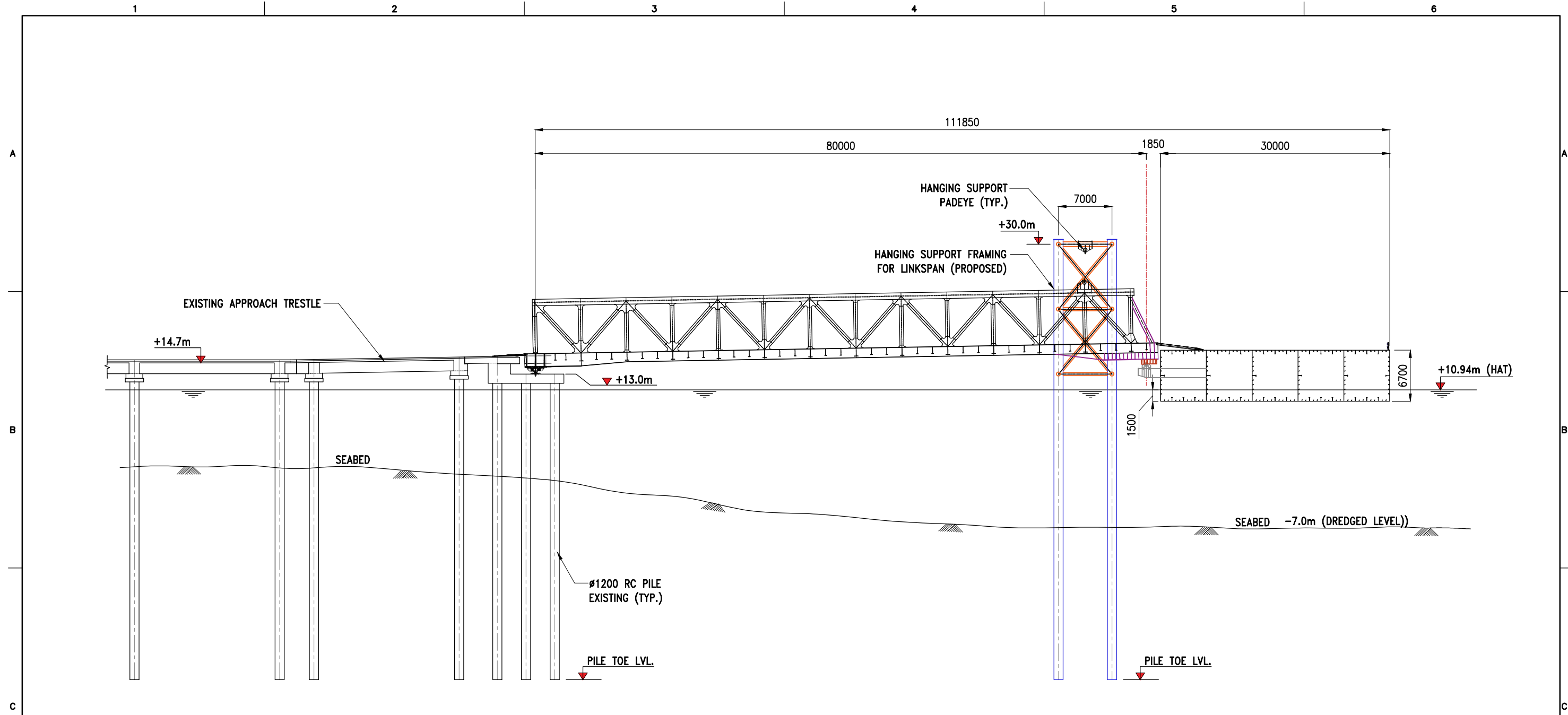


SECTION - S1 (AT LOW WATER LEVEL)
SCALE 1:500

NOTES:



1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
2. ALL LEVELS INDICATED ARE IN METERS WITH RESPECT TO CHART DATUM.
3. FOR GENERAL NOTES AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-002.

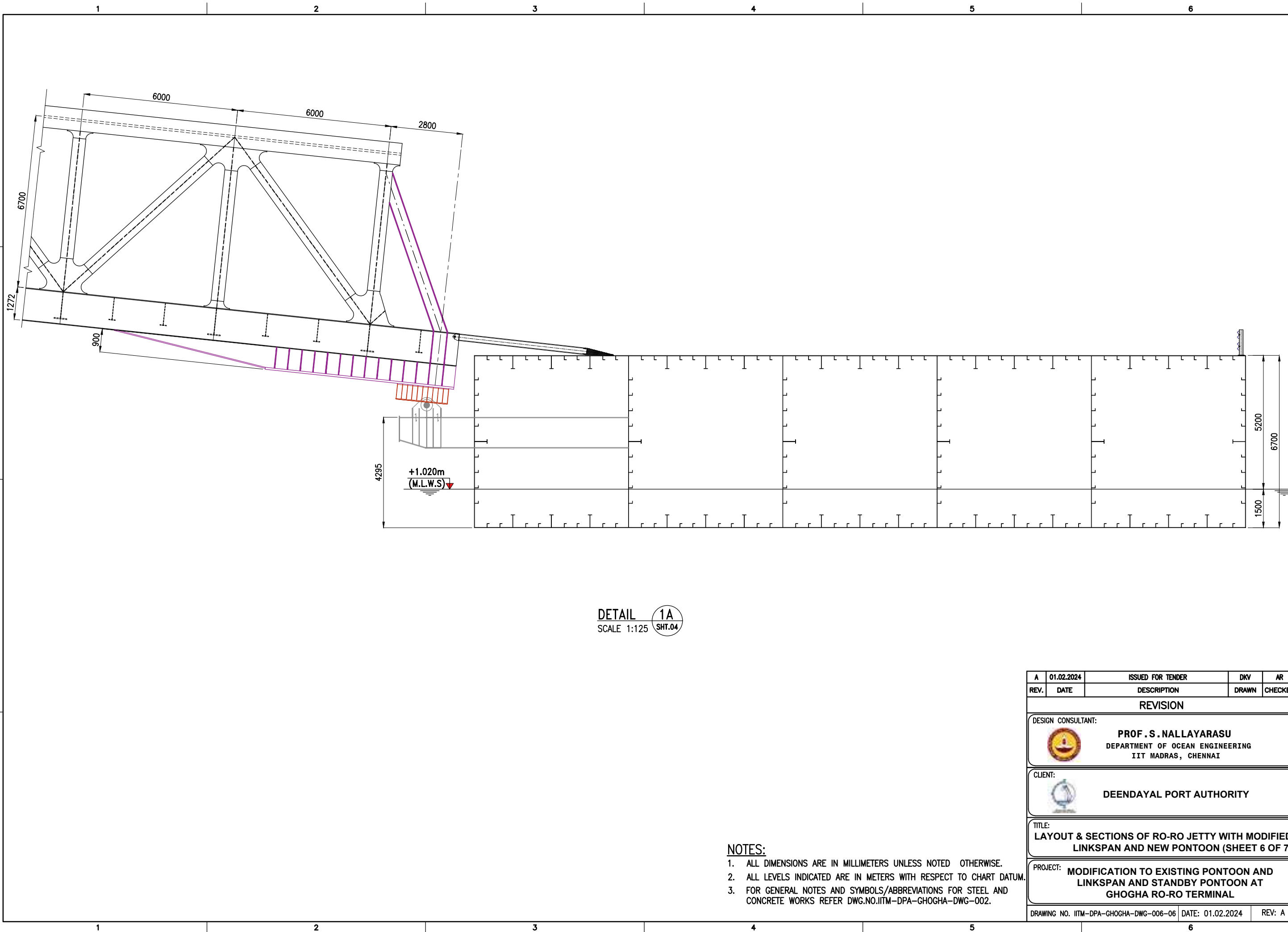
A	01.02.2024	ISSUED FOR TENDER	DKV	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF. S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
LAYOUT & SECTIONS OF RO-RO JETTY WITH MODIFIED LINKSPAN AND NEW PONTOON (SHEET 4 OF 7)				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-006-04			DATE: 01.02.2024	
			REV: A	



SECTION – S1 (AT HIGH WATER LEVEL)
SCALE 1:500



- NOTES:
1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
 2. ALL LEVELS INDICATED ARE IN METERS WITH RESPECT TO CHART DATUM.
 3. FOR GENERAL NOTES AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-002.

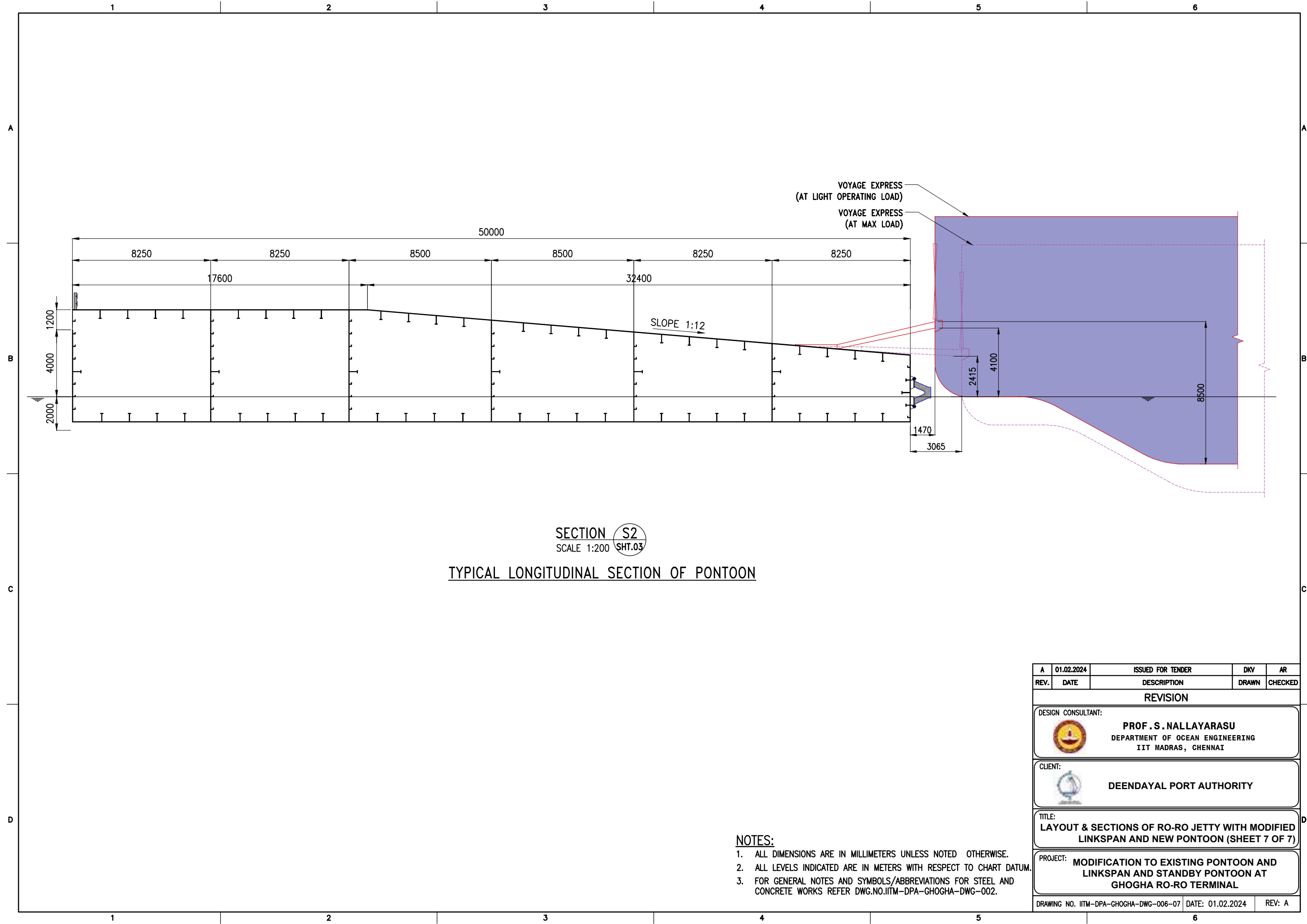
A	01.02.2024	ISSUED FOR TENDER	DKV	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF . S . NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
LAYOUT & SECTIONS OF RO-RO JETTY WITH MODIFIED LINKSPAN AND NEW PONTON (SHEET 5 OF 7)				
PROJECT:				
MODIFICATION TO EXISTING PONTON AND LINKSPAN AND STANDBY PONTON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-006-05			DATE: 01.02.2024	
			REV: A	



DETAIL 1A
SCALE 1:125 SHT.04



- NOTES:
1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
 2. ALL LEVELS INDICATED ARE IN METERS WITH RESPECT TO CHART DATUM.
 3. FOR GENERAL NOTES AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-002.

A	01.02.2024	ISSUED FOR TENDER	DKV	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF . S . NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
LAYOUT & SECTIONS OF RO-RO JETTY WITH MODIFIED LINKSPAN AND NEW PONTOON (SHEET 6 OF 7)				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-006-06			DATE: 01.02.2024	
			REV: A	



SECTION S2
SCALE 1:200 SHT.03
TYPICAL LONGITUDINAL SECTION OF PONTOON

- NOTES:
1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
 2. ALL LEVELS INDICATED ARE IN METERS WITH RESPECT TO CHART DATUM.
 3. FOR GENERAL NOTES AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-002.

A	01.02.2024	ISSUED FOR TENDER	DKV	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF . S . NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
LAYOUT & SECTIONS OF RO-RO JETTY WITH MODIFIED LINKSPAN AND NEW PONTOON (SHEET 7 OF 7)				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-006-07			DATE: 01.02.2024	REV: A



EXISTING APPROACH TRESTLE

EXISTING HINGE
SUPPORT LOCATION

EXISTING LINKSPAN
(REDUCED TO 80m)

HANGING SUPPORT FRAMING
FOR LINKSPAN (PROPOSED)

7000

Ø1200 STEEL PILE

EXTENSION OF
RAISED STEEL RAMP AREA

EXTENSION OF
CONCRETE RAMP AREA

PROPOSED SLIDING
SUPPORT LOCATION

EXISTING SLIDING
SUPPORT LOCATION

PASSENGER SHELTER
8mx10m

CRASH
BARRIER

EXISTING
RAISED STEEL RAMP

EXISTING
CONCRETE RAMP

EXTENSION OF
NEW STEEL RAMP



EXISTING
NEW STEEL RAMP

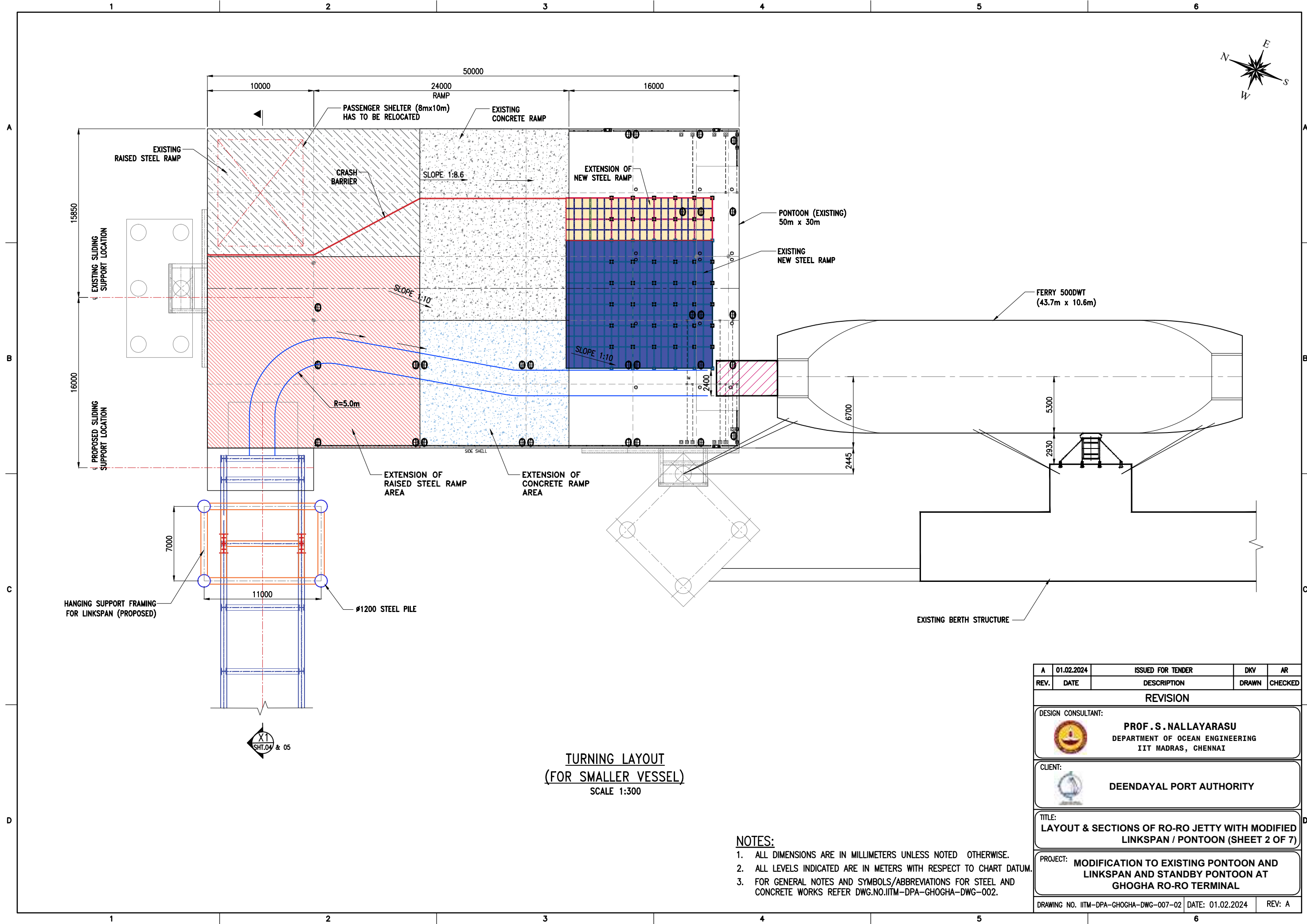
EXISTING BERTH STRUCTURE

LAYOUT OF RO-RO FACILITIES WITH
MODIFIED LINKSPAN / PONTOON
SCALE 1:500

NOTES:



1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
2. ALL LEVELS INDICATED ARE IN METERS WITH RESPECT TO CHART DATUM.
3. FOR GENERAL NOTES AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-002.

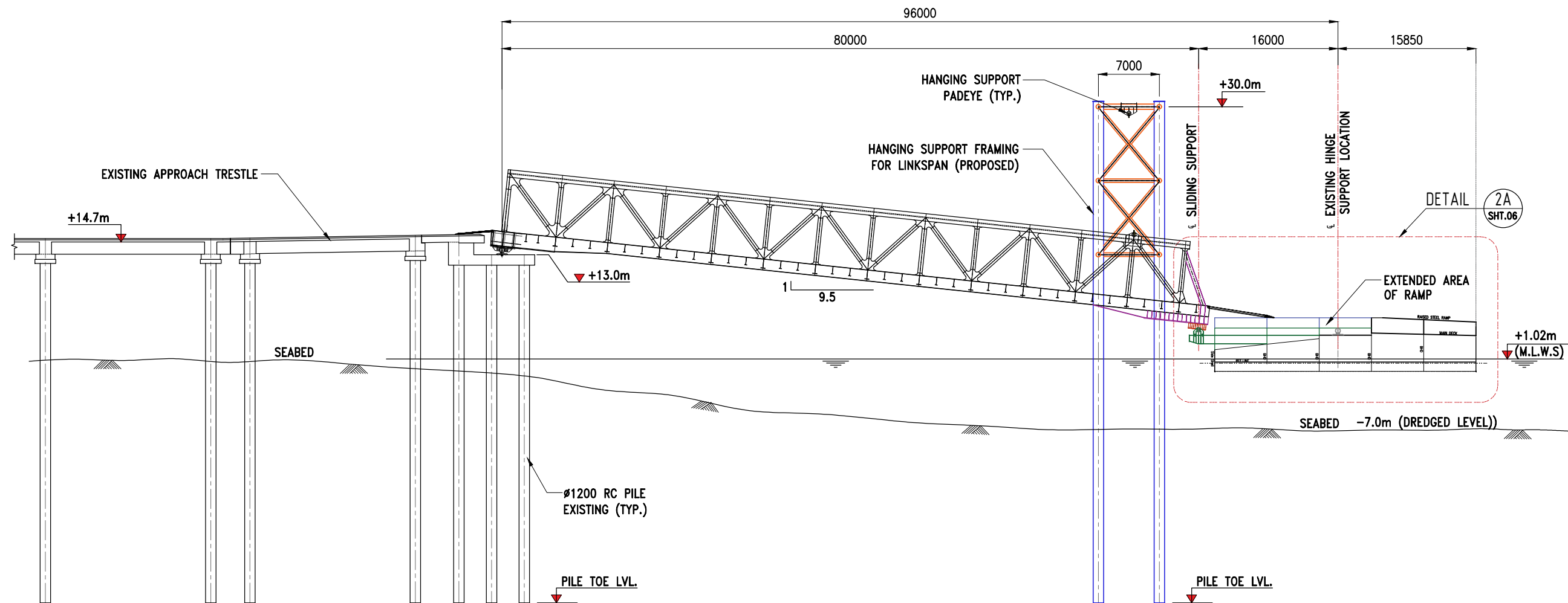
A	01.02.2024	ISSUED FOR TENDER	DKV	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF. S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
LAYOUT & SECTIONS OF RO-RO JETTY WITH MODIFIED LINKSPAN / PONTOON (SHEET 1 OF 7)				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-007-01			DATE: 01.02.2024	REV: A



TURNING LAYOUT
(FOR SMALLER VESSEL)
SCALE 1:300

- NOTES:
1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
 2. ALL LEVELS INDICATED ARE IN METERS WITH RESPECT TO CHART DATUM.
 3. FOR GENERAL NOTES AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-002.



A	01.02.2024	ISSUED FOR TENDER	DKV	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF. S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
LAYOUT & SECTIONS OF RO-RO JETTY WITH MODIFIED LINKSPAN / PONTOON (SHEET 2 OF 7)				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-007-02			DATE: 01.02.2024	
			REV: A	

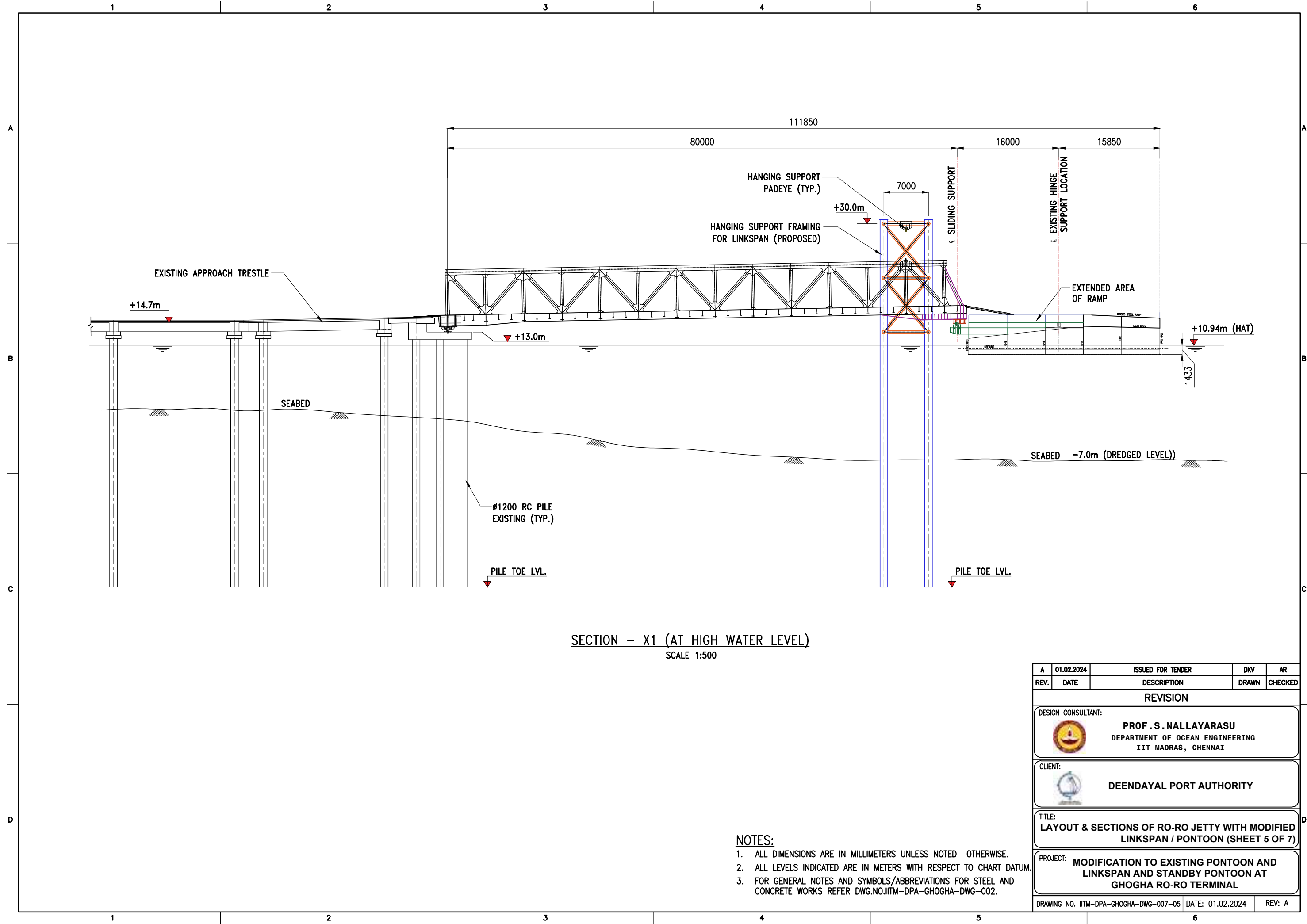


SECTION - X1 (AT LOW WATER LEVEL)
SCALE 1:500

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
2. ALL LEVELS INDICATED ARE IN METERS WITH RESPECT TO CHART DATUM.
3. FOR GENERAL NOTES AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-002.



A	01.02.2024	ISSUED FOR TENDER	DKV	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF. S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
LAYOUT & SECTIONS OF RO-RO JETTY WITH MODIFIED LINKSPAN / PONTOON (SHEET 4 OF 7)				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-007-04			DATE: 01.02.2024	
			REV: A	

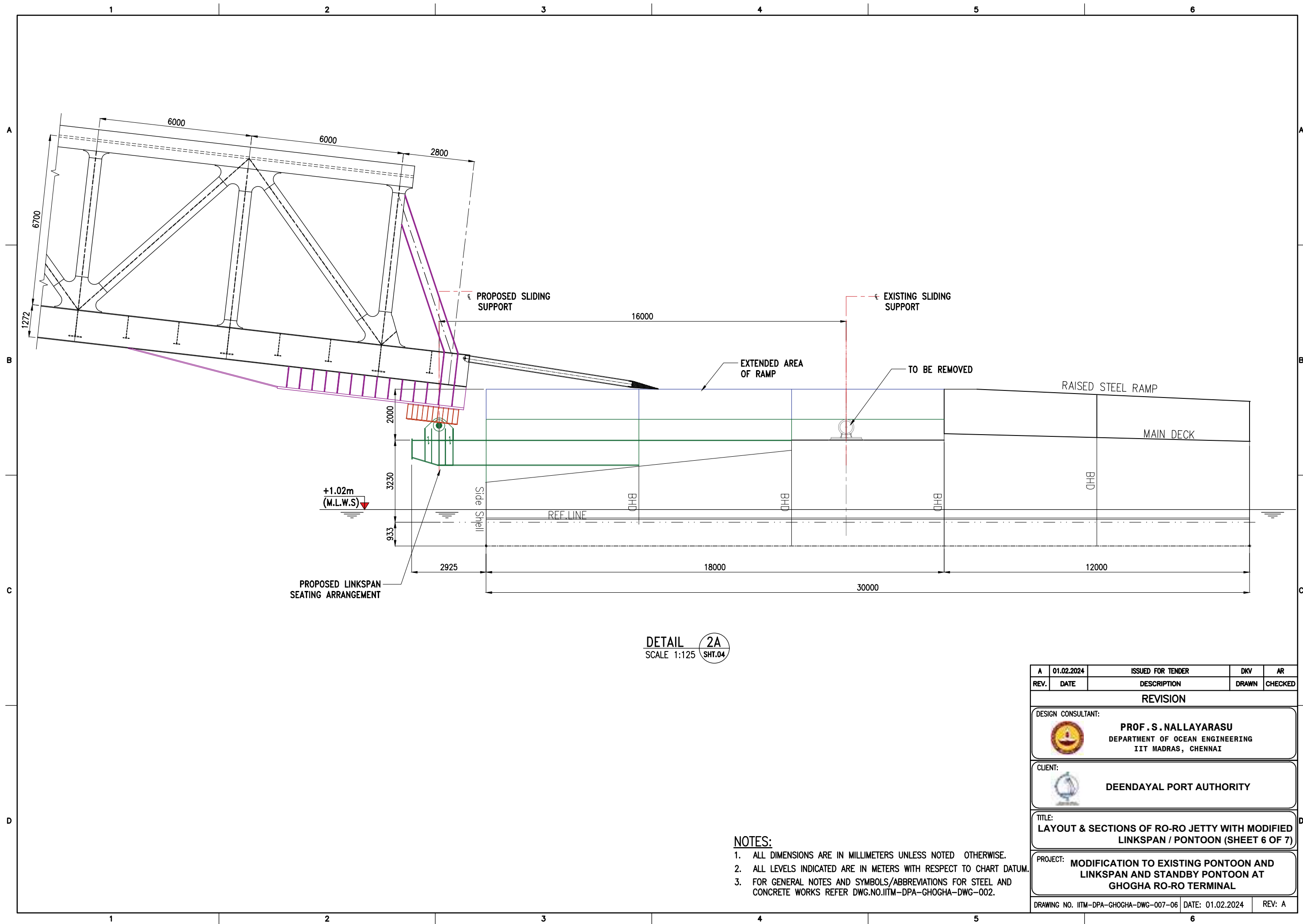




SECTION - X1 (AT HIGH WATER LEVEL)
SCALE 1:500

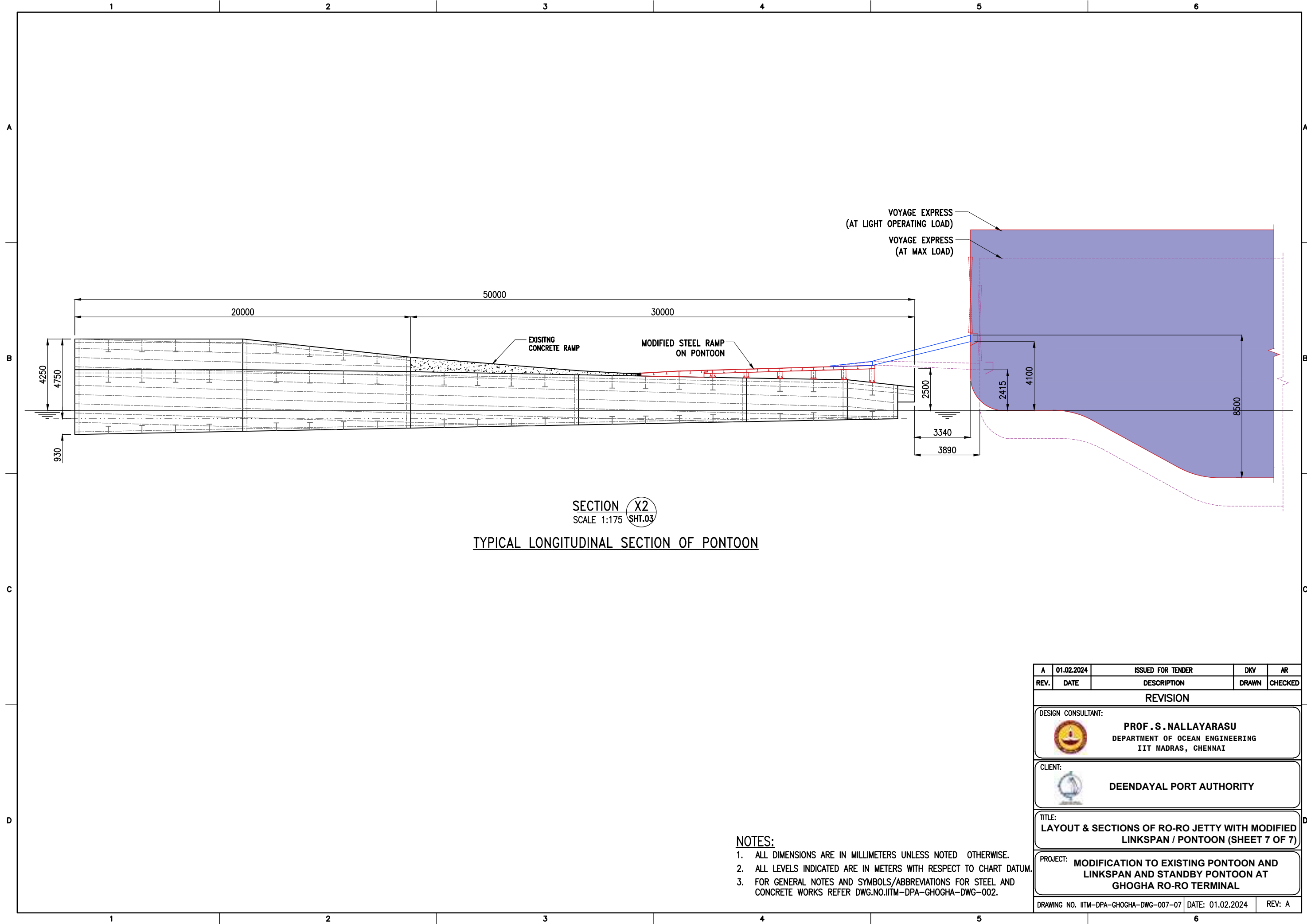
NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
2. ALL LEVELS INDICATED ARE IN METERS WITH RESPECT TO CHART DATUM.
3. FOR GENERAL NOTES AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-002.

A	01.02.2024	ISSUED FOR TENDER	DKV	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF. S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
LAYOUT & SECTIONS OF RO-RO JETTY WITH MODIFIED LINKSPAN / PONTOON (SHEET 5 OF 7)				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-007-05			DATE: 01.02.2024	
			REV: A	





A	01.02.2024	ISSUED FOR TENDER	DKV	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF . S . NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
LAYOUT & SECTIONS OF RO-RO JETTY WITH MODIFIED LINKSPAN / PONTOON (SHEET 6 OF 7)				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-007-06			DATE: 01.02.2024	
			REV: A	

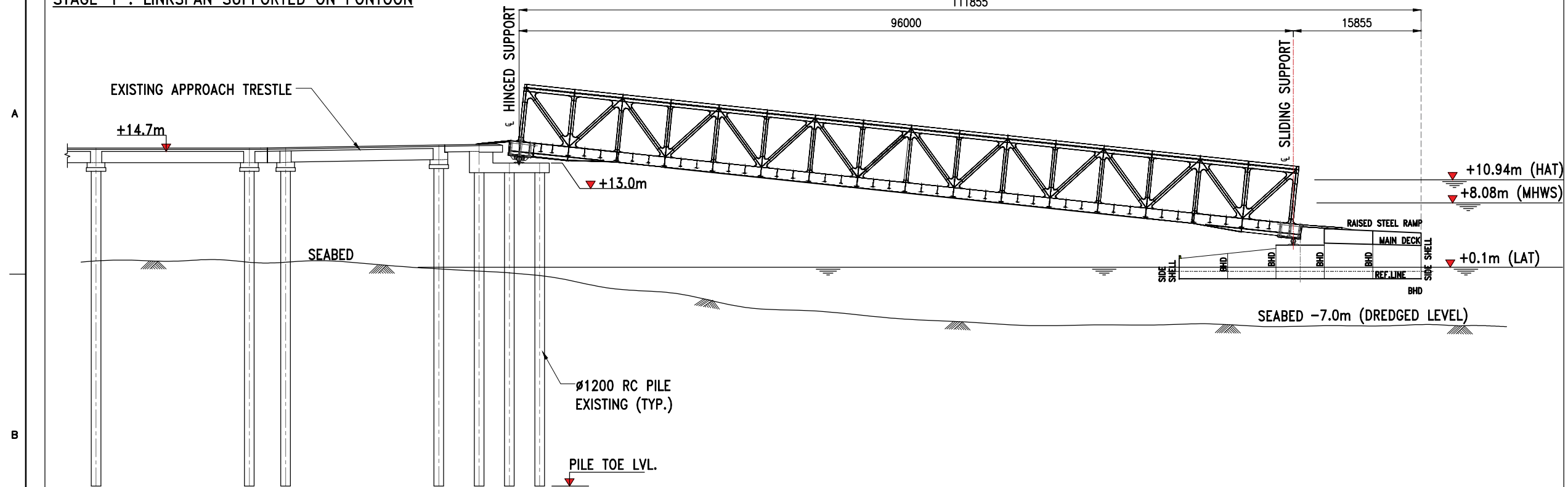


SECTION X2
SCALE 1:175
SHT.03
TYPICAL LONGITUDINAL SECTION OF PONTOON

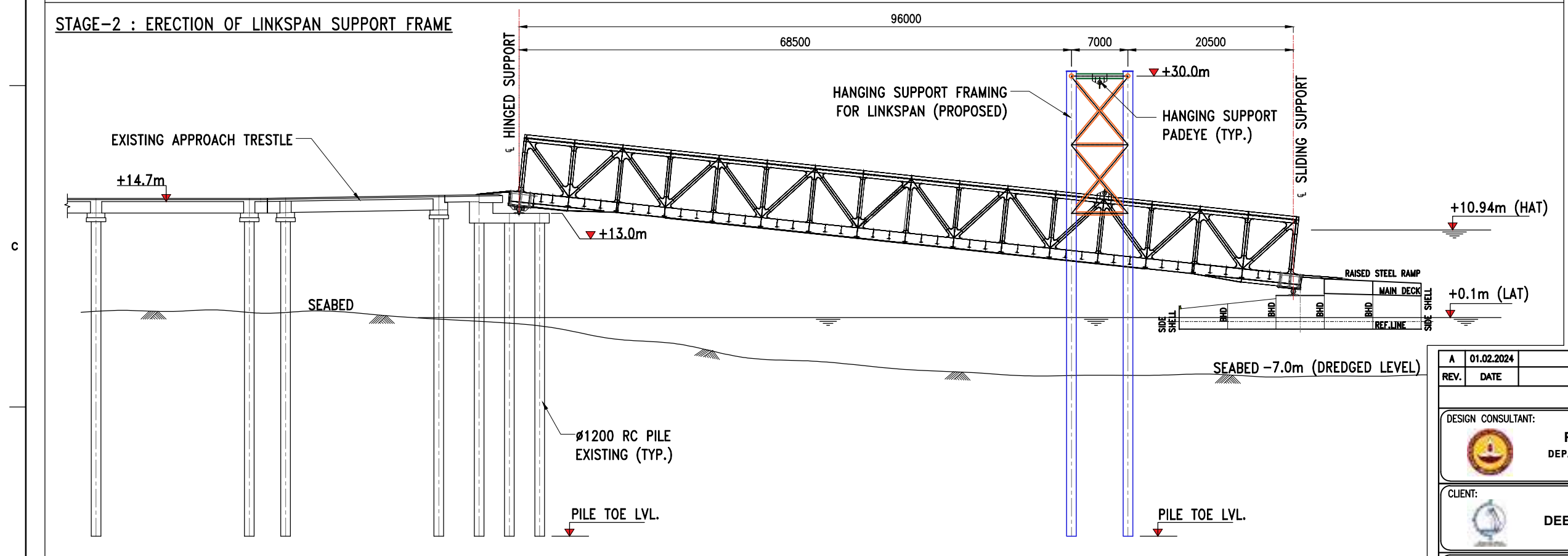
- NOTES:
1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
 2. ALL LEVELS INDICATED ARE IN METERS WITH RESPECT TO CHART DATUM.
 3. FOR GENERAL NOTES AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-002.

A	01.02.2024	ISSUED FOR TENDER	DKV	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF . S . NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
LAYOUT & SECTIONS OF RO-RO JETTY WITH MODIFIED LINKSPAN / PONTOON (SHEET 7 OF 7)				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-007-07			DATE: 01.02.2024	
			REV: A	

STAGE-1 : LINKSPAN SUPPORTED ON PONTOON





STAGE-2 : ERECTION OF LINKSPAN SUPPORT FRAME

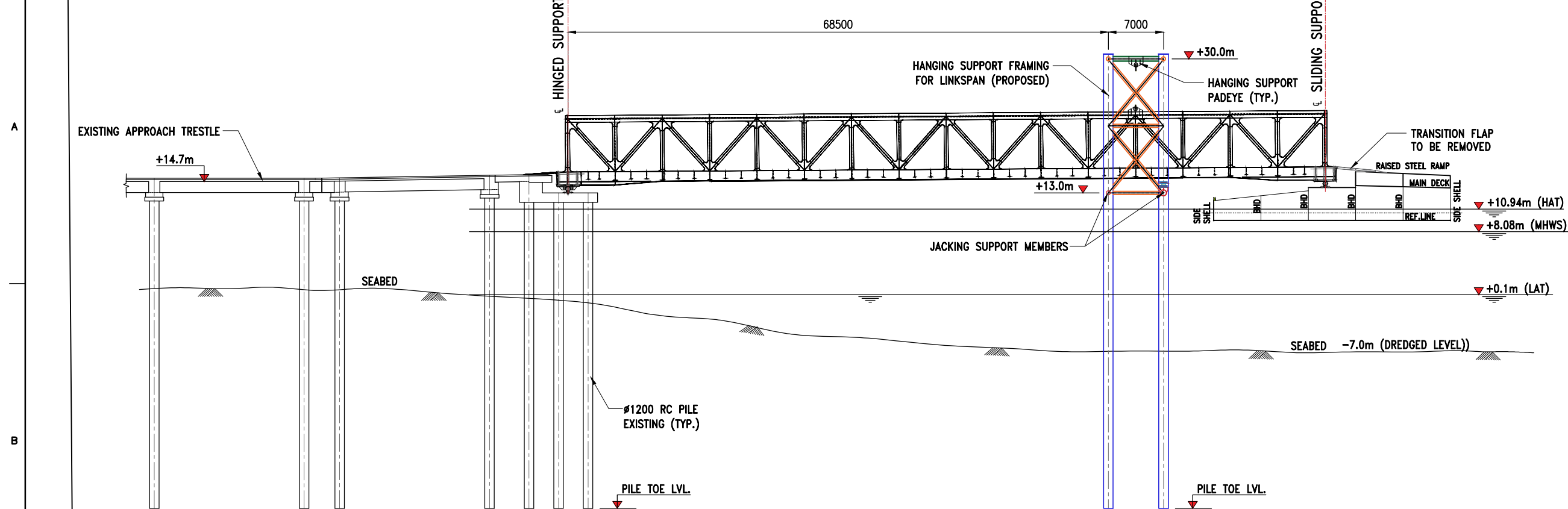


NOTES:

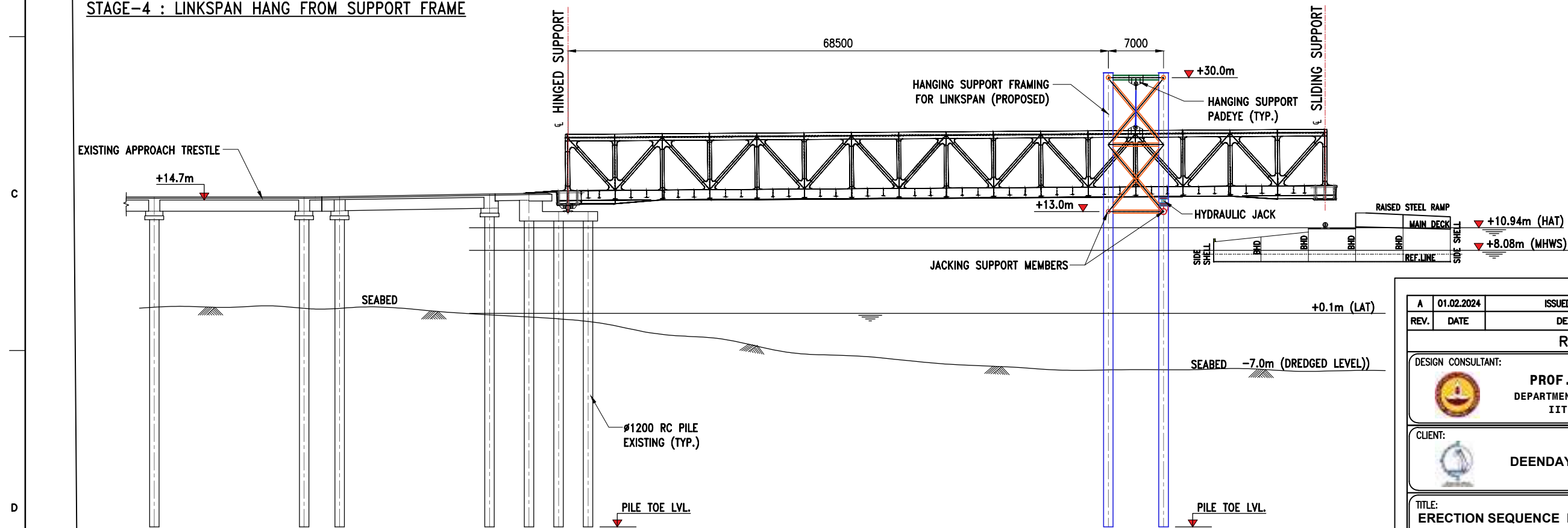
- ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
- ALL LEVELS INDICATED ARE IN METERS WITH RESPECT TO CHART DATUM.
- FOR GENERAL NOTES AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-002.

REV.	DATE	DESCRIPTION	DKV	AR
A	01.02.2024	ISSUED FOR TENDER	DKV	AR
REVISION				
DESIGN CONSULTANT:				
 PROF. S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
ERECTION SEQUENCE FOR MODIFIED LINKSPAN AND NEW PONTOON (SHEET 1 OF 5)				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-008-01			DATE: 01.02.2024	
			REV: A	

STAGE-3 : FIXING OF JACKING SUPPORT MEMBER DURING HAT





STAGE-4 : LINKSPAN HANG FROM SUPPORT FRAME

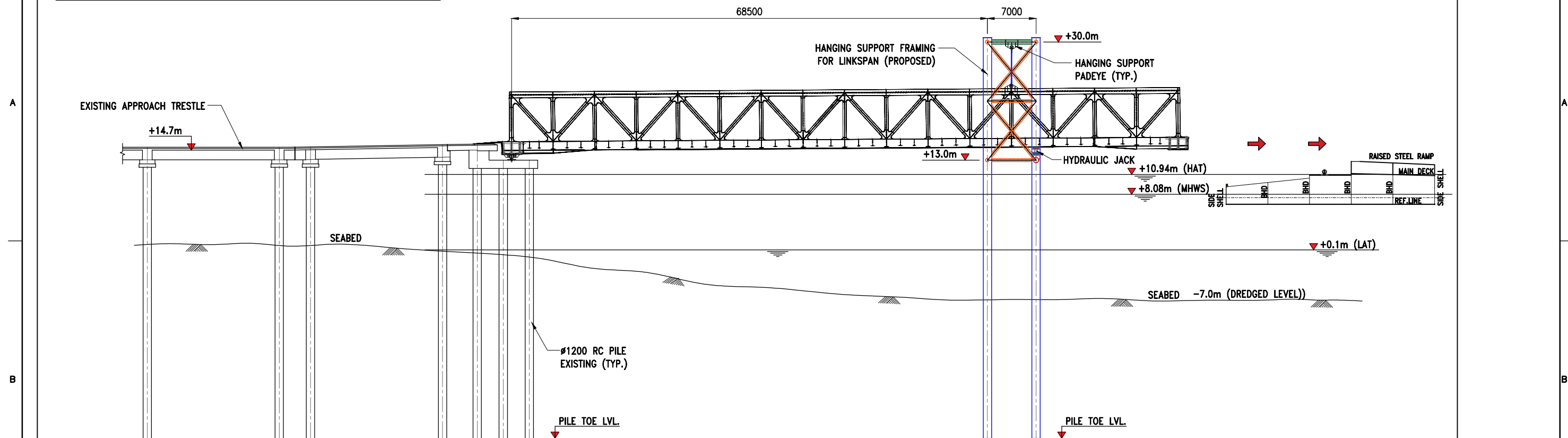


NOTES:

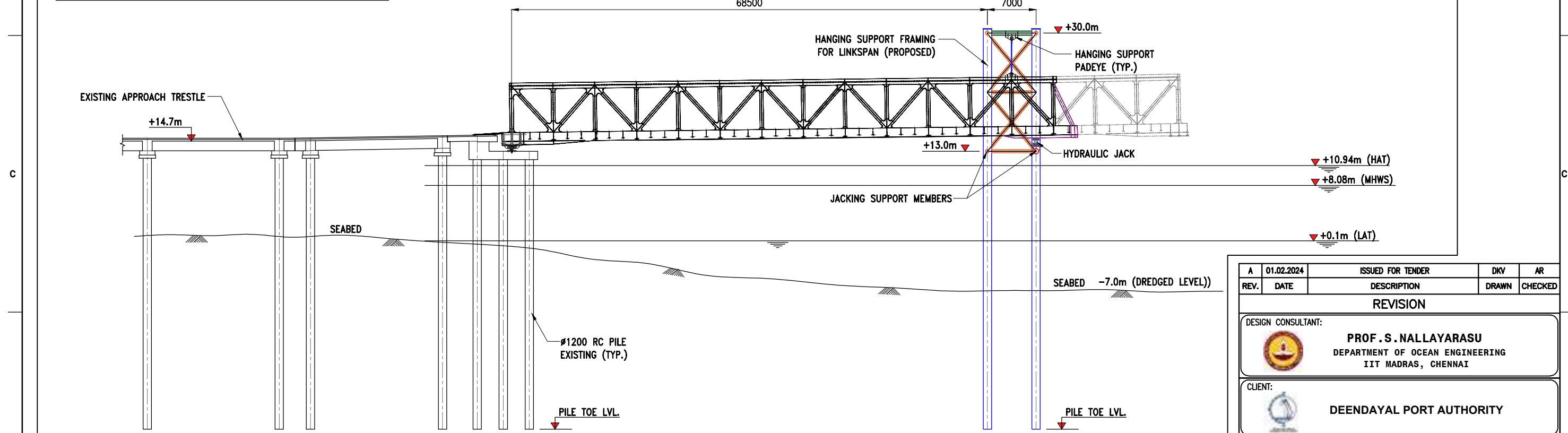
1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
2. ALL LEVELS INDICATED ARE IN METERS WITH RESPECT TO CHART DATUM.
3. FOR GENERAL NOTES AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-002.

REV.	DATE	DESCRIPTION	DKV	AR
A	01.02.2024	ISSUED FOR TENDER	DKV	AR
			DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF. S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
ERECTION SEQUENCE FOR MODIFIED LINKSPAN AND NEW PONTOON (SHEET 2 OF 5)				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-008-02			DATE: 01.02.2024	
			REV: A	

STAGE-5 : MOVING OF PONTOON FOR MODIFICATION WORK





STAGE-6 : CUTTING & MODIFICATION OF LINKSPAN

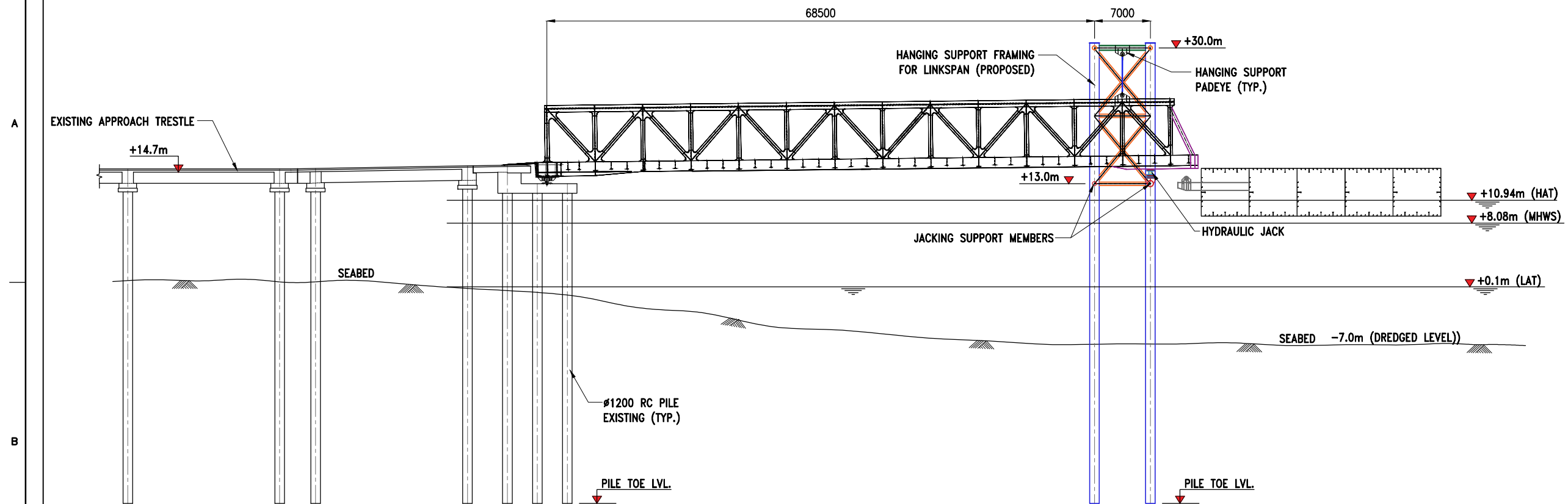


NOTES:

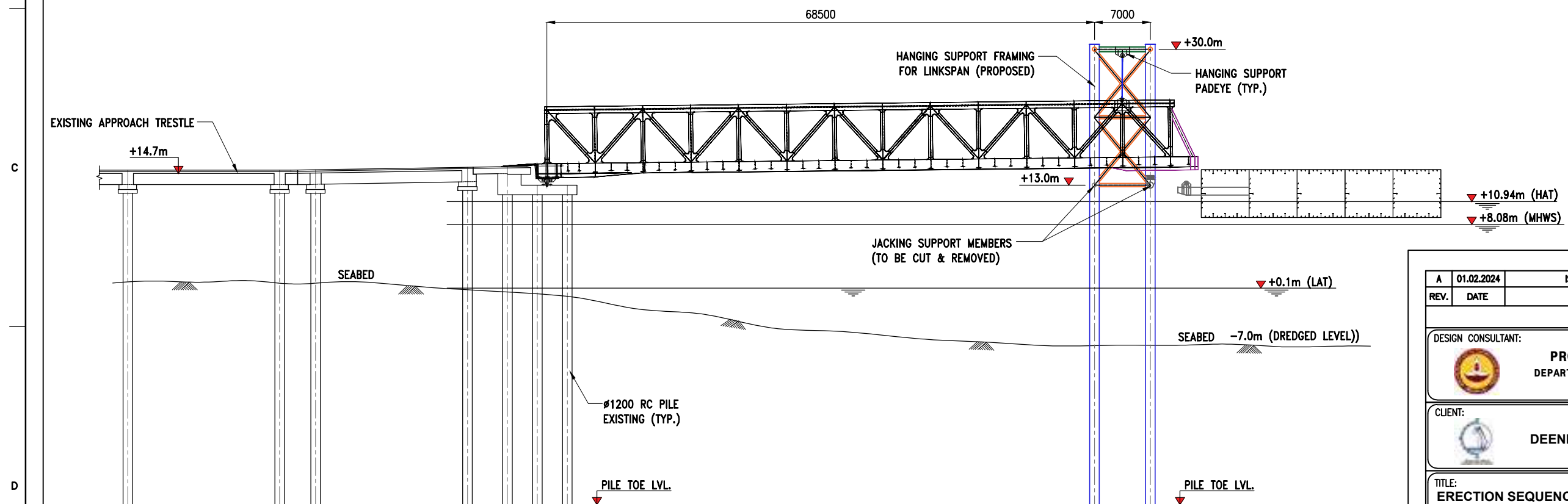
- ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
- ALL LEVELS INDICATED ARE IN METERS WITH RESPECT TO CHART DATUM.
- FOR GENERAL NOTES AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-002.

REV.	DATE	DESCRIPTION	DKV	AR
REVISION				
DESIGN CONSULTANT:				
 PROF. S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
ERECTION SEQUENCE FOR MODIFIED LINKSPAN AND NEW PONTOON (SHEET 3 OF 5)				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-008-03			DATE: 01.02.2024	
			REV: A	

STAGE-7 : FIXING OF NEW PONTOON IN POSITION





STAGE-8 : RELEASING THE HYDRAULIC JACK SUPPORT AND CUTTING & REMOVAL OF SUPPORT MEMBER

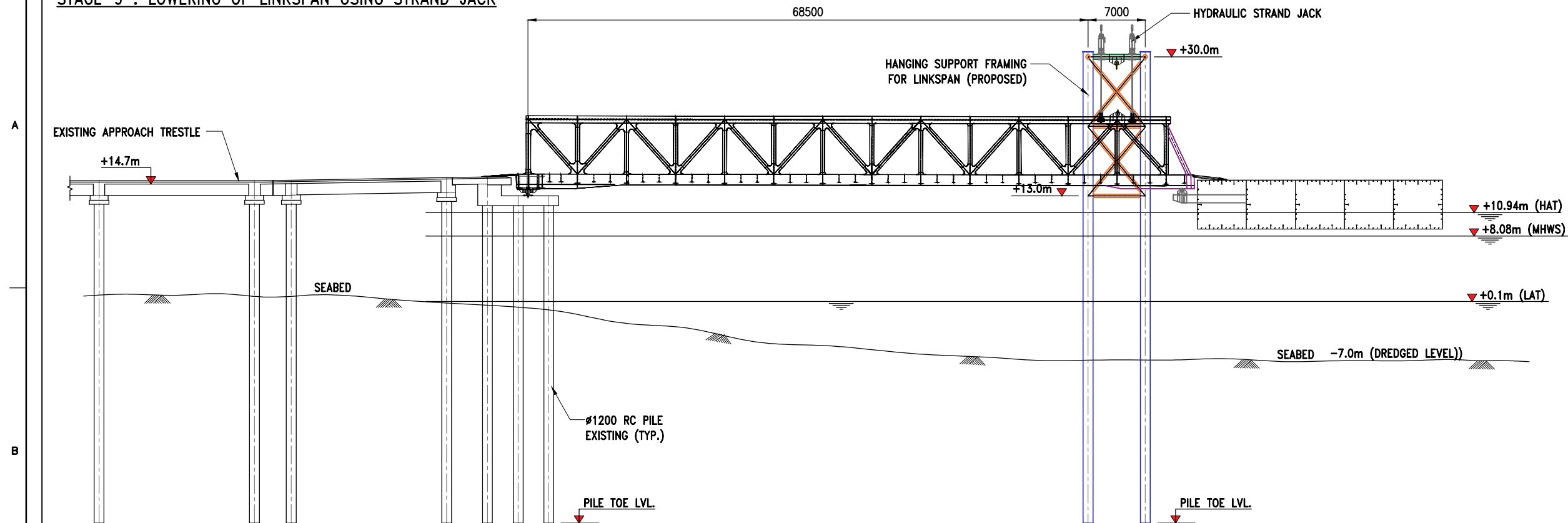


NOTES:

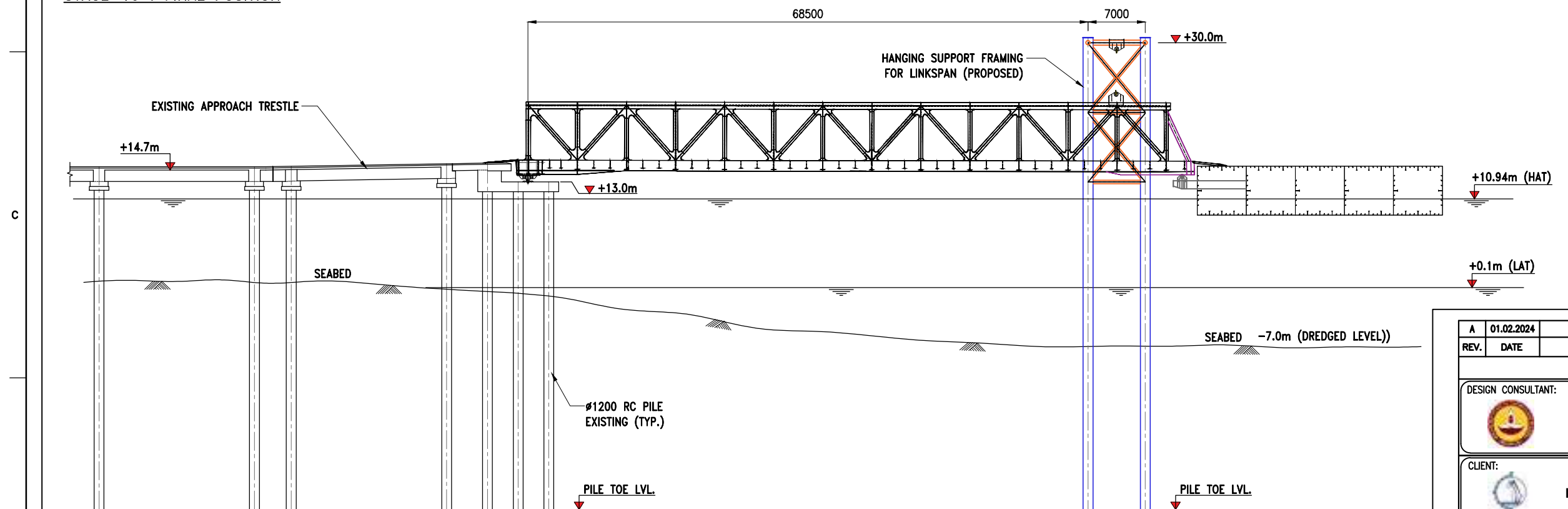
1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
2. ALL LEVELS INDICATED ARE IN METERS WITH RESPECT TO CHART DATUM.
3. FOR GENERAL NOTES AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-002.

A	01.02.2024	ISSUED FOR TENDER	DKV	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF. S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
ERECTION SEQUENCE FOR MODIFIED LINKSPAN AND NEW PONTOON (SHEET 4 OF 5)				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-008-04			DATE: 01.02.2024	
			REV: A	

STAGE-9 : LOWERING OF LINKSPAN USING STRAND JACK





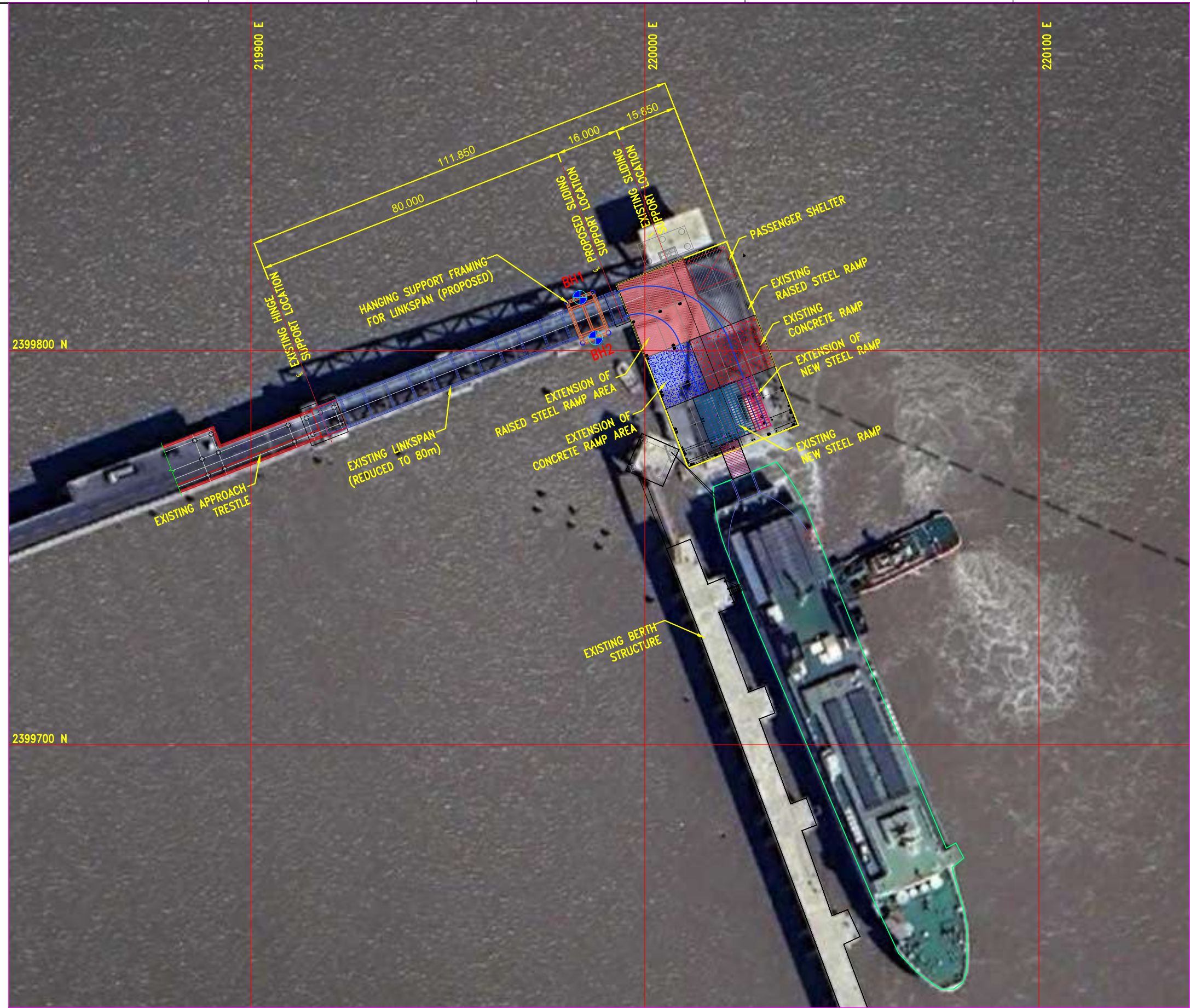
STAGE-10 : FINAL POSITION



NOTES:

- ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
- ALL LEVELS INDICATED ARE IN METERS WITH RESPECT TO CHART DATUM.
- FOR GENERAL NOTES AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-002.

REV.	DATE	DESCRIPTION	DKV	AR
A	01.02.2024	ISSUED FOR TENDER	DKV	AR
REVISION				
DESIGN CONSULTANT:				
 PROF . S . NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
ERECTION SEQUENCE FOR MODIFIED LINKSPAN AND NEW PONTOON (SHEET 5 OF 5)				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-008-05			DATE: 01.02.2024	
			REV: A	





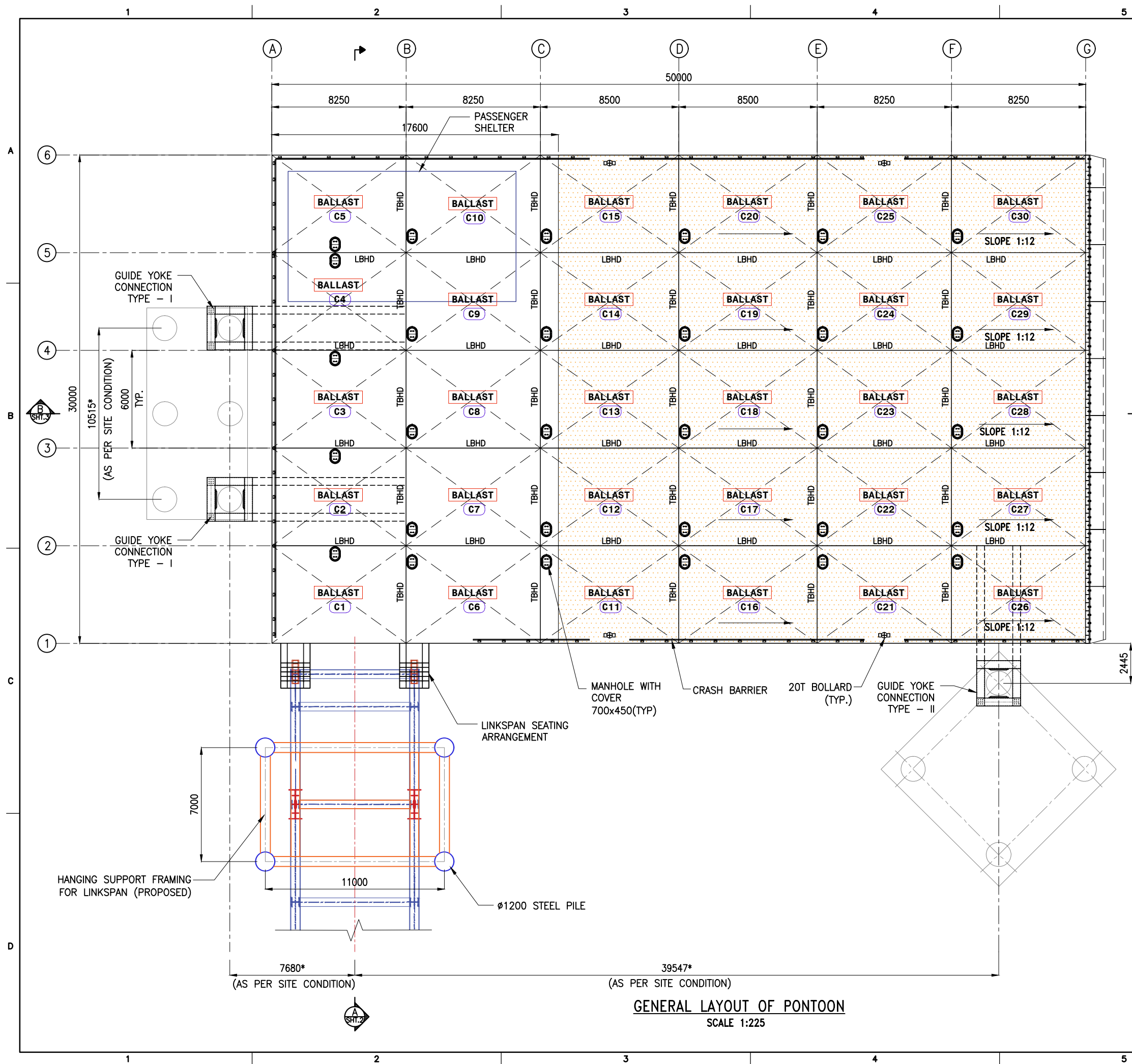
BOREHOLE LAYOUT
(SCALE 1:1)

BOREHOLE CO-ORDINATES

POINT	EASTING (m)	NORTHING (m)
BH1	219983.51 E	2399813.45 N
BH2	219987.51 E	2399803.2 N

- NOTES:**
- 1. ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE.
 - 2. ALL LEVELS ARE IN METRES WITH RESPECT TO CHART DATUM. U.N.O.



A	06.11.2023	ISSUED FOR TENDER	DV	AK
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF . S . NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
BOREHOLE LAYOUT				
PROJECT:				
MODIFICATION TO EXISTING PONTON AND LINKSPAN AND STANDBY PONTON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-009			DATE: 06.11.2023	REV: A

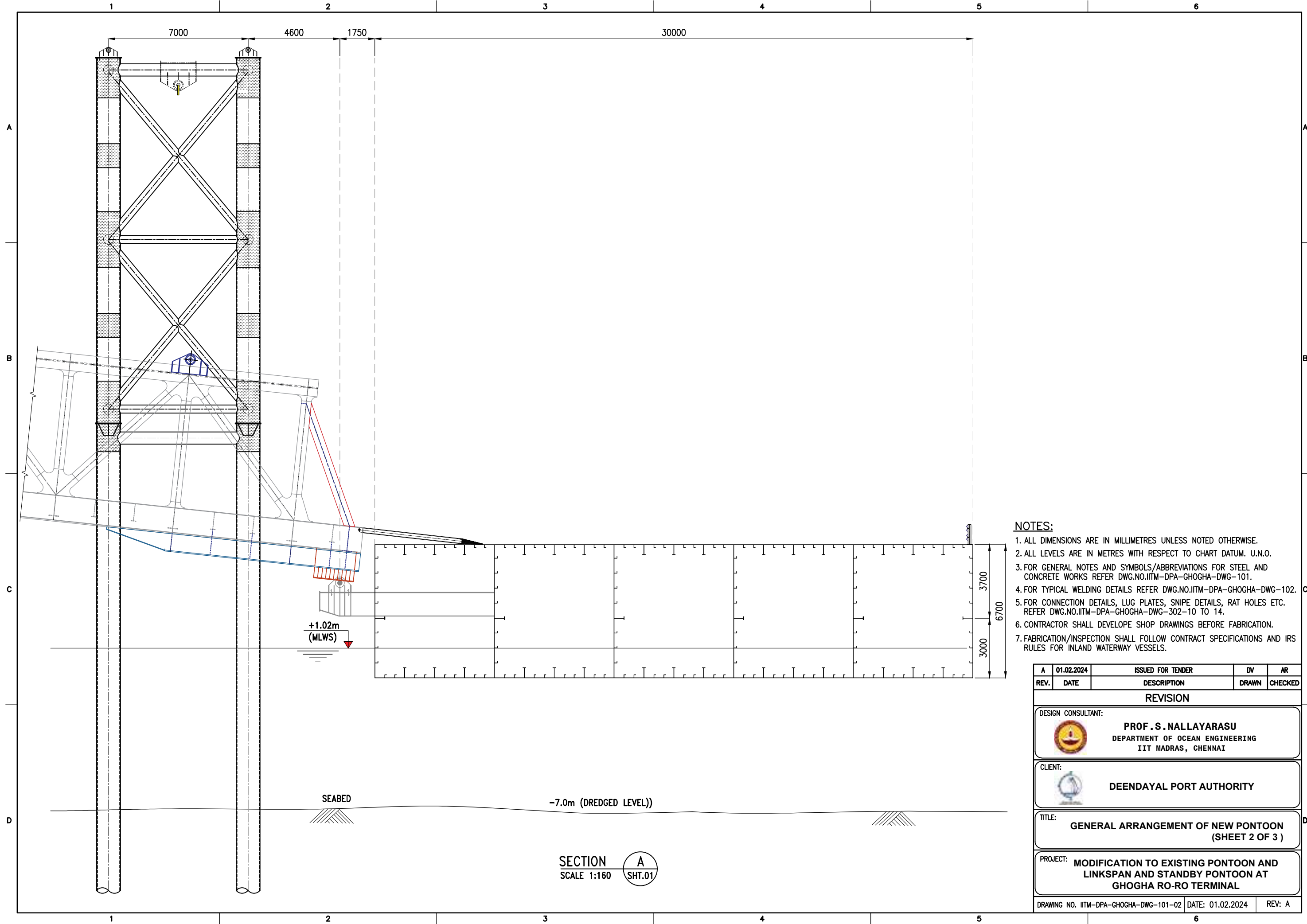


PONTOON DATA:
LENGTH OVERALL : 50m
BREADTH MOULDED : 30m
DEPTH MOULDED : 4.0 to 6.7m
DRAFT MOULDED : 1.5m
FRAME SPACING : 0.5m
DECK LOADING : 1T/m²
TRUCK LOADING : 48T TRAILER
TRUCK 5 AXLES



PLATE THICKNESS:
MAIN DECK : 25mm
BOTTOM DECK : 15mm
SIDE SHELL (LONG.) : 15mm
SIDE SHELL (TRANS.) : 15mm
LONGITUDINAL BHD : 15mm
TRANSVERSE BHD : 15mm

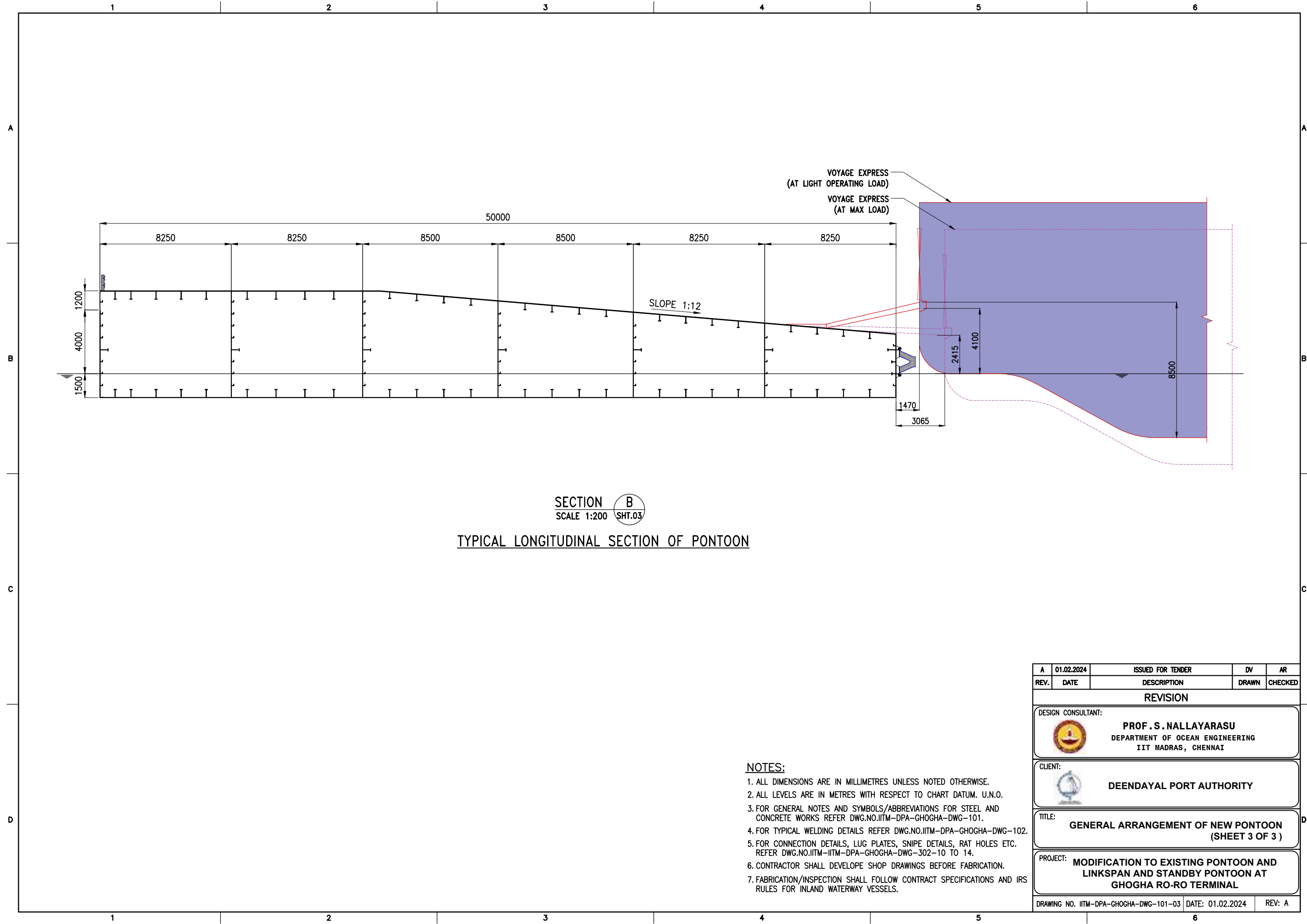
- NOTES:**
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
 2. ALL LEVELS ARE IN METRES WITH RESPECT TO CHART DATUM. U.N.O.
 3. FOR GENERAL NOTES AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-101.
 4. FOR TYPICAL WELDING DETAILS REFER DWG.NO.IITM-JNPT-RORO-DWG-102.
 5. FOR CONNECTION DETAILS, LUG PLATES, SNIPE DETAILS, RAT HOLES ETC. REFER DWG.NO.IITM-IITM-DPA-GHOGHA-DWG-302-10 TO 14.
 6. CONTRACTOR SHALL DEVELOPE SHOP DRAWINGS BEFORE FABRICATION.
 7. FABRICATION/INSPECTION SHALL FOLLOW CONTRACT SPECIFICATIONS AND IRS RULES FOR INLAND WATERWAY VESSELS.
 8. DIMENSION TO BE CHECKED BEFORE CONSTRUCTION.

A	01.02.2024	ISSUED FOR TENDER	DV	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
		PROF. S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI		
CLIENT:				
		DEENDAYAL PORT AUTHORITY		
TITLE:				
GENERAL ARRANGEMENT OF NEW PONTOON (SHEET 1 OF 3)				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-101-01			DATE: 01.02.2024	REV: A





- NOTES:**
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
 2. ALL LEVELS ARE IN METRES WITH RESPECT TO CHART DATUM. U.N.O.
 3. FOR GENERAL NOTES AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-101.
 4. FOR TYPICAL WELDING DETAILS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-102.
 5. FOR CONNECTION DETAILS, LUG PLATES, SNIPE DETAILS, RAT HOLES ETC. REFER DWG.NO.IITM-DPA-GHOGHA-DWG-302-10 TO 14.
 6. CONTRACTOR SHALL DEVELOPE SHOP DRAWINGS BEFORE FABRICATION.
 7. FABRICATION/INSPECTION SHALL FOLLOW CONTRACT SPECIFICATIONS AND IRS RULES FOR INLAND WATERWAY VESSELS.

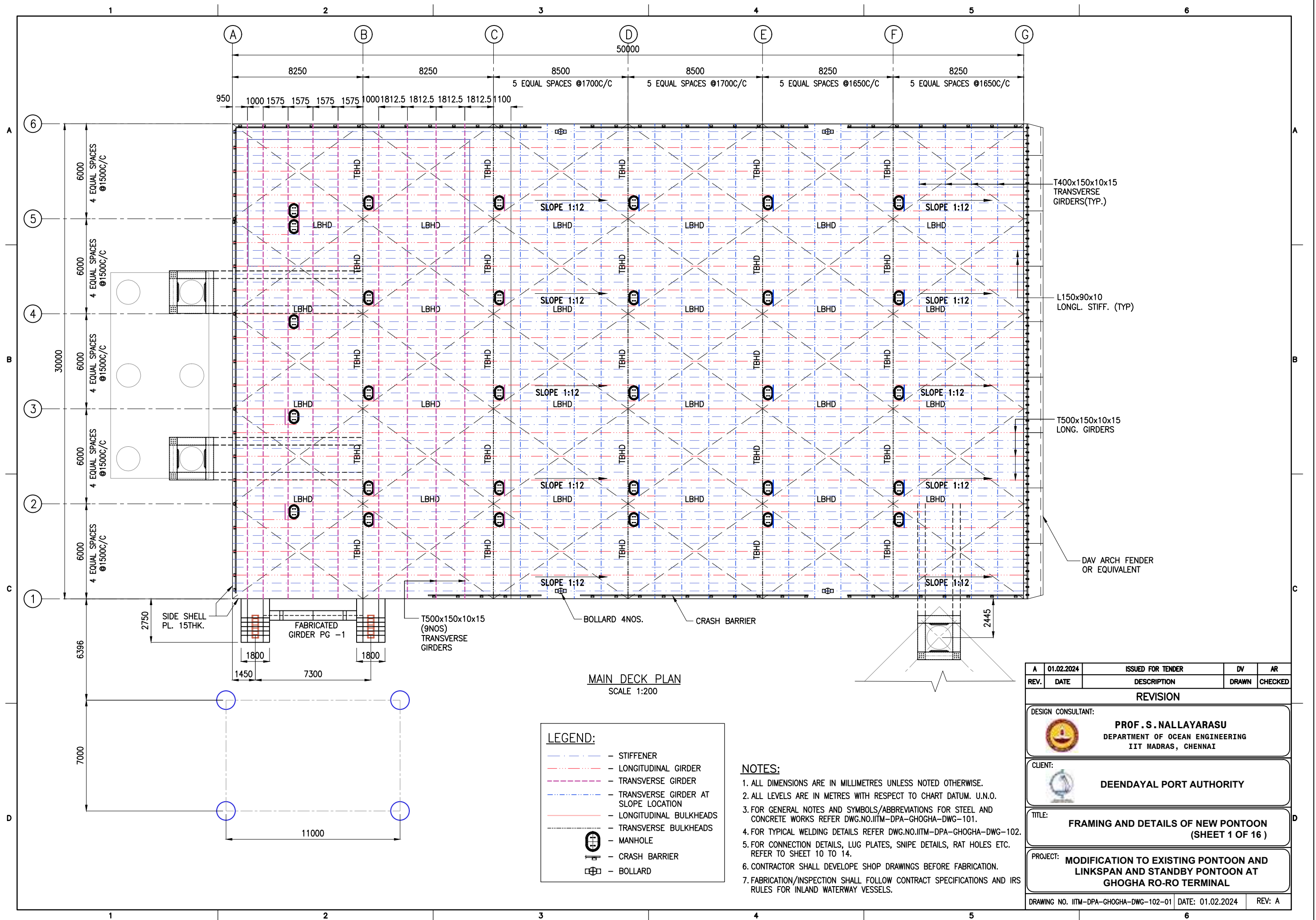
A	01.02.2024	ISSUED FOR TENDER	DV	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF . S . NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
GENERAL ARRANGEMENT OF NEW PONTOON (SHEET 2 OF 3)				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-101-02			DATE: 01.02.2024	
			REV: A	

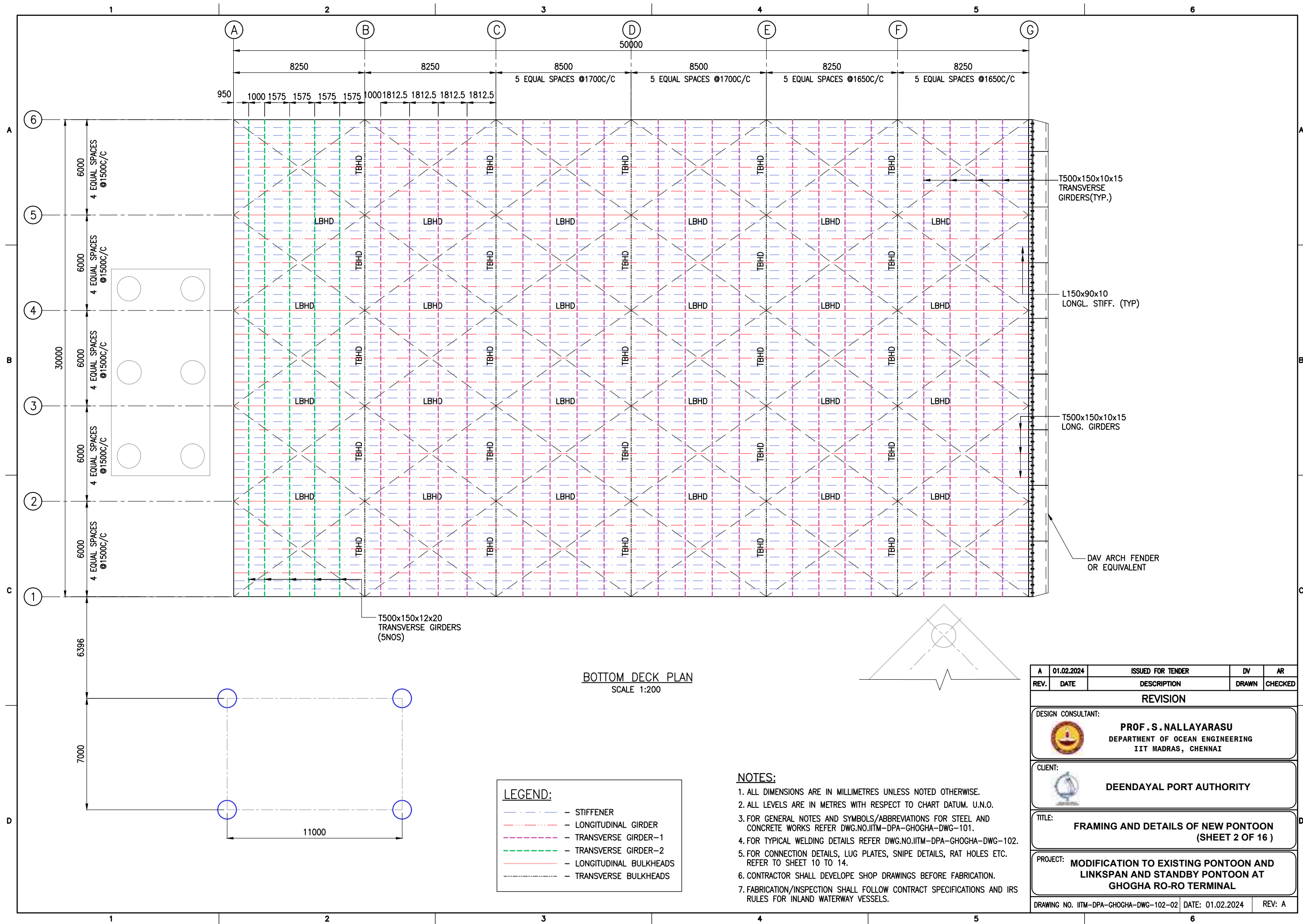


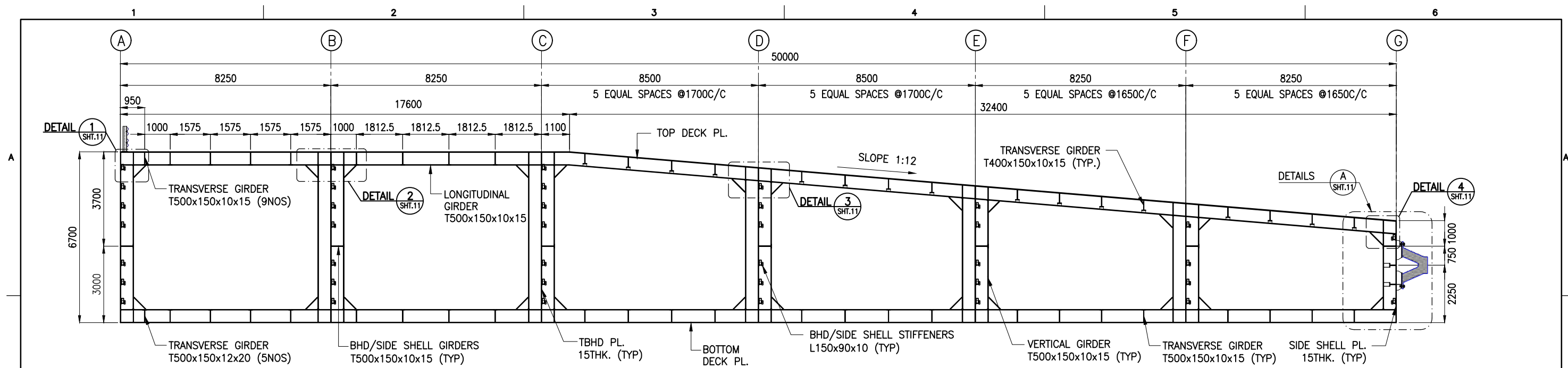
SECTION **B**
SCALE 1:200 SHT.03
TYPICAL LONGITUDINAL SECTION OF PONTOON

- NOTES:**
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
 2. ALL LEVELS ARE IN METRES WITH RESPECT TO CHART DATUM. U.N.O.
 3. FOR GENERAL NOTES AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-101.
 4. FOR TYPICAL WELDING DETAILS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-102.
 5. FOR CONNECTION DETAILS, LUG PLATES, SNIPE DETAILS, RAT HOLES ETC. REFER DWG.NO.IITM-IITM-DPA-GHOGHA-DWG-302-10 TO 14.
 6. CONTRACTOR SHALL DEVELOPE SHOP DRAWINGS BEFORE FABRICATION.
 7. FABRICATION/INSPECTION SHALL FOLLOW CONTRACT SPECIFICATIONS AND IRS RULES FOR INLAND WATERWAY VESSELS.

A	01.02.2024	ISSUED FOR TENDER	DV	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF . S . NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
GENERAL ARRANGEMENT OF NEW PONTOON (SHEET 3 OF 3)				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-101-03			DATE: 01.02.2024	
			REV: A	

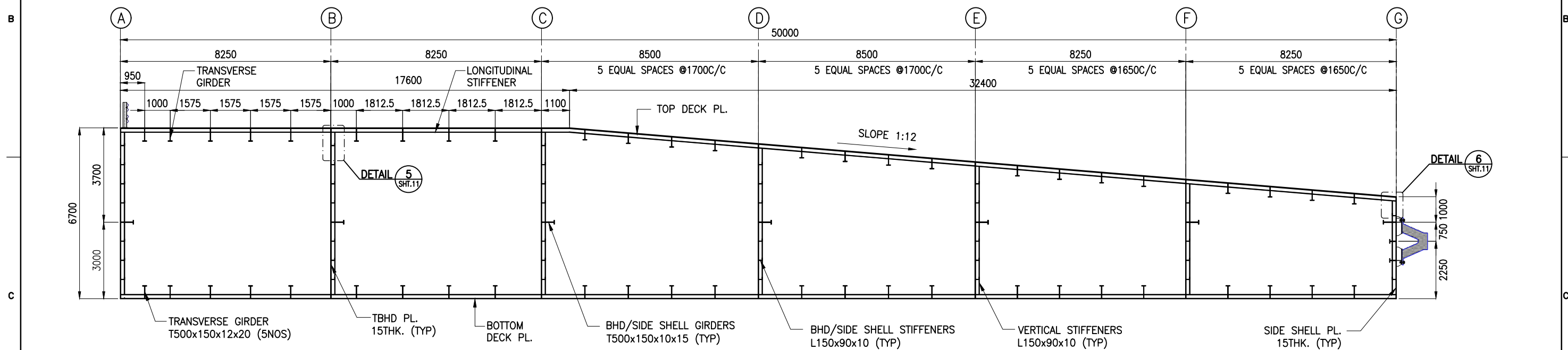






SECTION AT LONGITUDINAL GIRDERS

SCALE 1:150





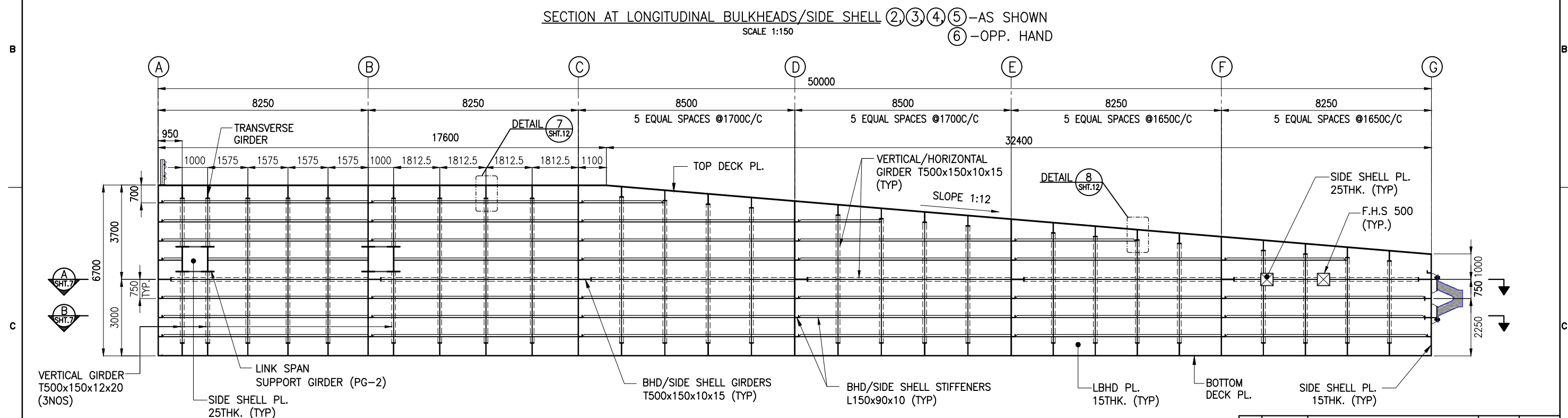
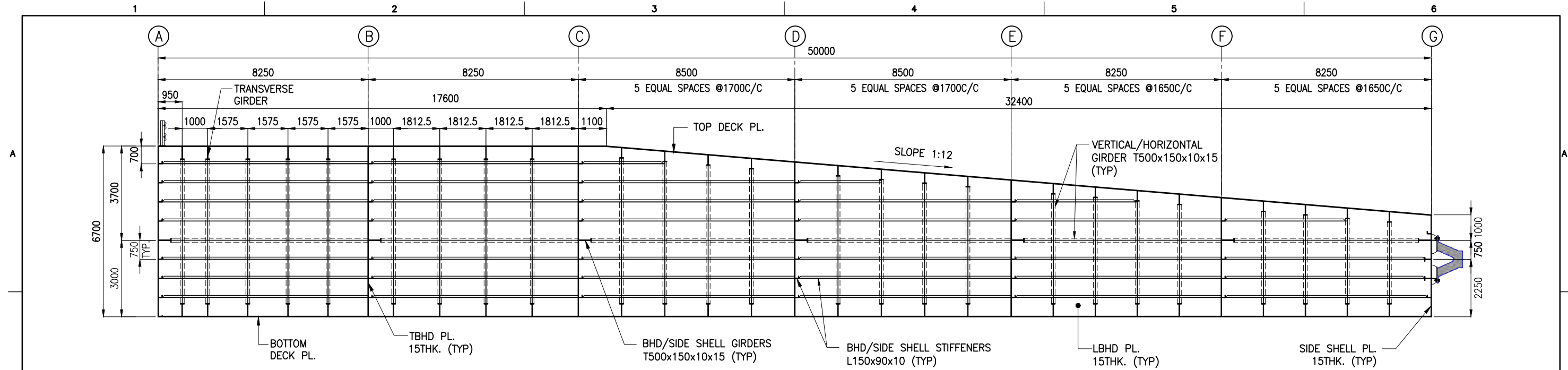
SECTION AT LONGITUDINAL STIFFENERS

SCALE 1:150

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
2. ALL LEVELS ARE IN METRES WITH RESPECT TO CHART DATUM. U.N.O.
3. FOR GENERAL NOTES AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-101.
4. FOR TYPICAL WELDING DETAILS REFER DWG.NO.IITM-JNPT-RORO-DWG-102.
5. FOR CONNECTION DETAILS, LUG PLATES, SNIPE DETAILS, RAT HOLES ETC. REFER TO SHEET 10 TO 14.
6. CONTRACTOR SHALL DEVELOPE SHOP DRAWINGS BEFORE FABRICATION.
7. FABRICATION/INSPECTION SHALL FOLLOW CONTRACT SPECIFICATIONS AND IRS RULES FOR INLAND WATERWAY VESSELS.

REV.	DATE	DESCRIPTION	DRAWN	CHECKED
A	01.02.2024	ISSUED FOR TENDER	DV	AR
REVISION				
DESIGN CONSULTANT:				
 PROF. S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
FRAMING AND DETAILS OF NEW PONTOON (SHEET 3 OF 16)				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-102-03			DATE: 01.02.2024	
			REV: A	





PONTOON GIRDER AND STIFFENER SCHEDULE :

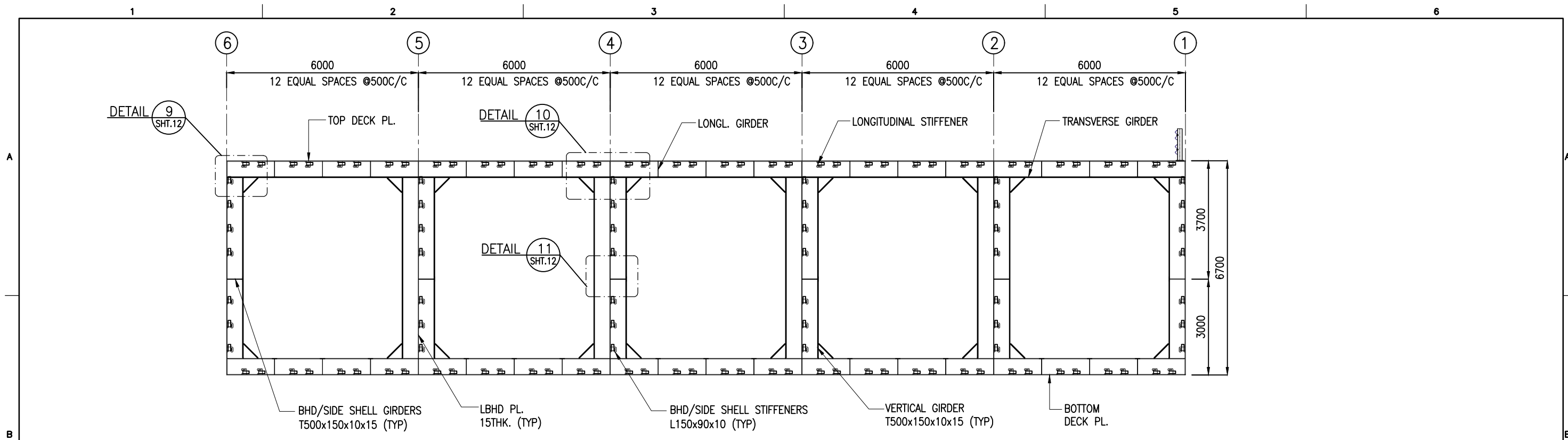
GIRDER	SIZE	TOP	BOTTOM	VERTICAL	HORIZONTAL	REMARKS
LONGITUDINAL GIRDER-1	T500x150x10x15	15 Nos	15 Nos	247 Nos	6 Nos	-
LONGITUDINAL GIRDER-2	T500x150x12x20	-	-	3 Nos	-	LINKSPAN SEATING LOCATION
TRANSVERSE GIRDER-1	T500x150x10x15	9 Nos	20 Nos	180 Nos	7 Nos	-
TRANSVERSE GIRDER-2	T500x150x12x20	-	5 Nos	-	-	AT GRID (A) TO (B)
TRANSVERSE GIRDER-3	T400x150x10x15	16 Nos	-	-	-	TRANSVERSE GIRDER AT SLOPE LOCATION
TRANSVERSE GIRDER-4	T250x150x10x15	-	-	-	2 Nos	AT FENDER LOCATION
STIFFENER						
LONGITUDINAL STIFFENER	L150x90x10	40 Nos	40 Nos	-	42 Nos	-
TRANSVERSE STIFFENER	L150x90x10	-	-	280 Nos	38 Nos	-

SECTION AT LONGITUDINAL SIDE SHELL (1)
SCALE 1:150

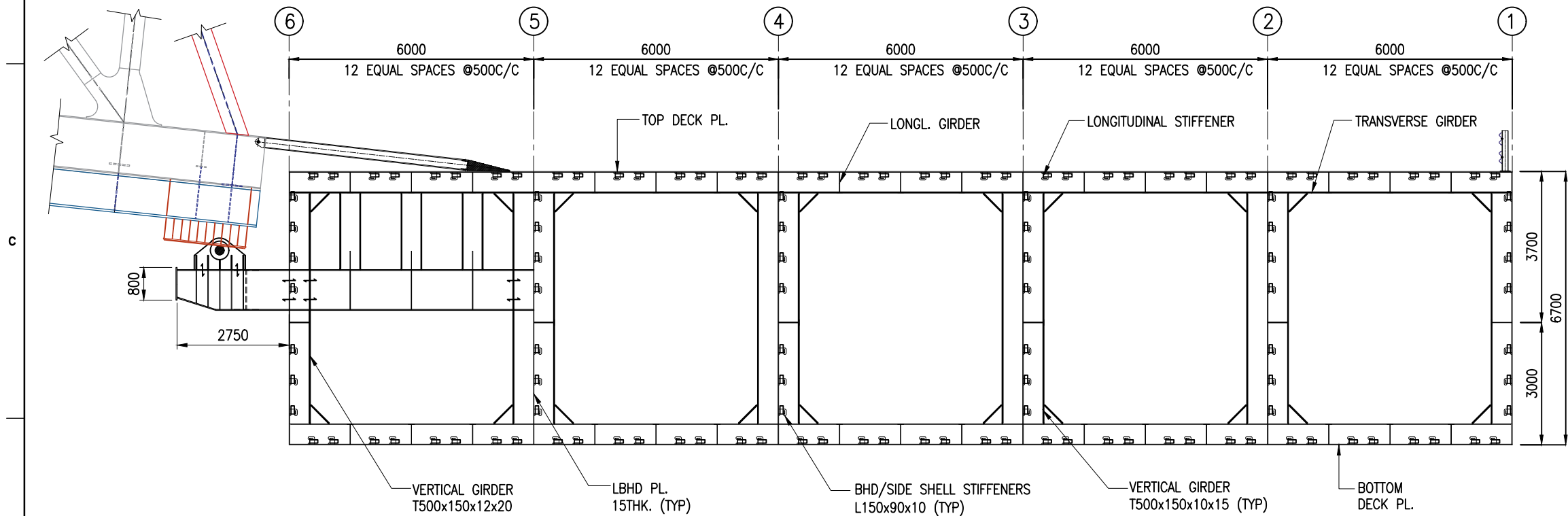
NOTES:

- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
- ALL LEVELS ARE IN METRES WITH RESPECT TO CHART DATUM. U.N.O.
- FOR GENERAL NOTES AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-101.
- FOR TYPICAL WELDING DETAILS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-102.
- FOR CONNECTION DETAILS, LUG PLATES, SNIPE DETAILS, RAT HOLES ETC. REFER TO SHEET 10 TO 14.
- CONTRACTOR SHALL DEVELOPE SHOP DRAWINGS BEFORE FABRICATION.
- FABRICATION/INSPECTION SHALL FOLLOW CONTRACT SPECIFICATIONS AND IRS RULES FOR INLAND WATERWAY VESSELS.

REV.	DATE	DESCRIPTION	DRAWN	CHECKED
A	01.02.2024	ISSUED FOR TENDER	DV	AR
REVISION				
DESIGN CONSULTANT:				
 PROF. S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
FRAMING AND DETAILS OF NEW PONTOON (SHEET 4 OF 16)				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-102-04			DATE: 01.02.2024	REV: A





SECTION AT TRANSVERSE GIRDERS
SCALE 1:120

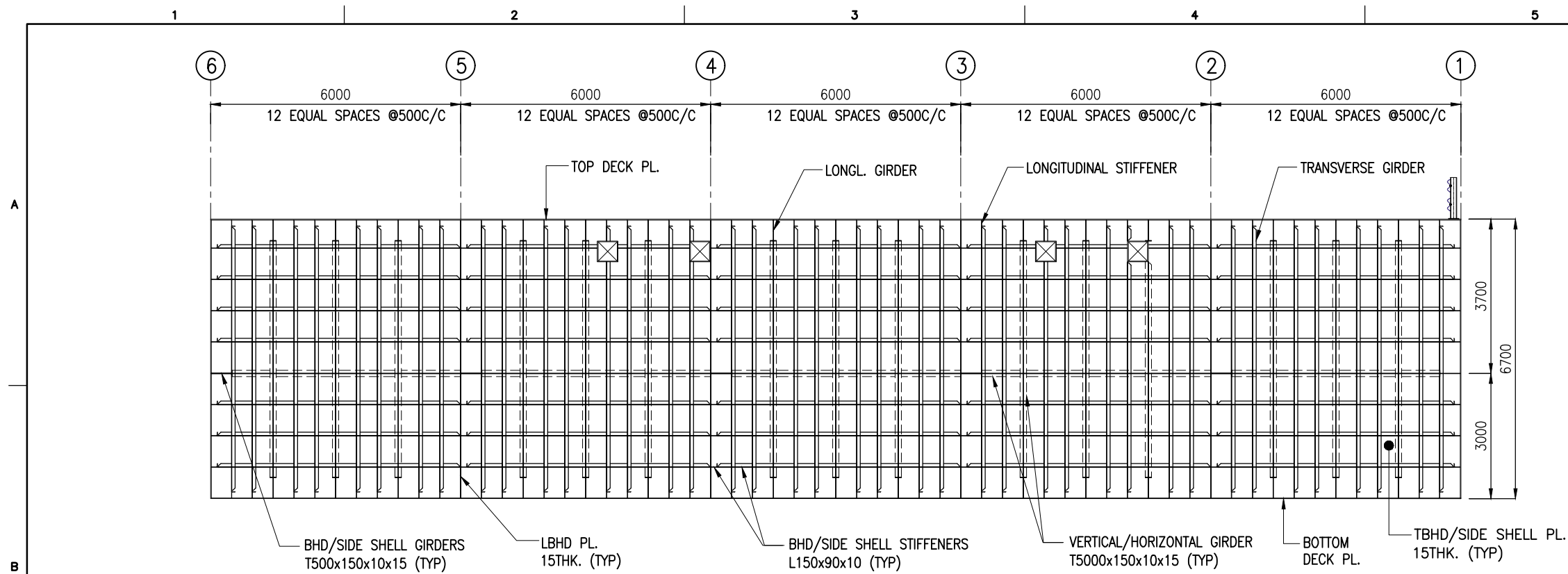


SECTION OF TRANSVERSE GIRDERS AT BRIDGE LOCATION
SCALE 1:120

NOTES:

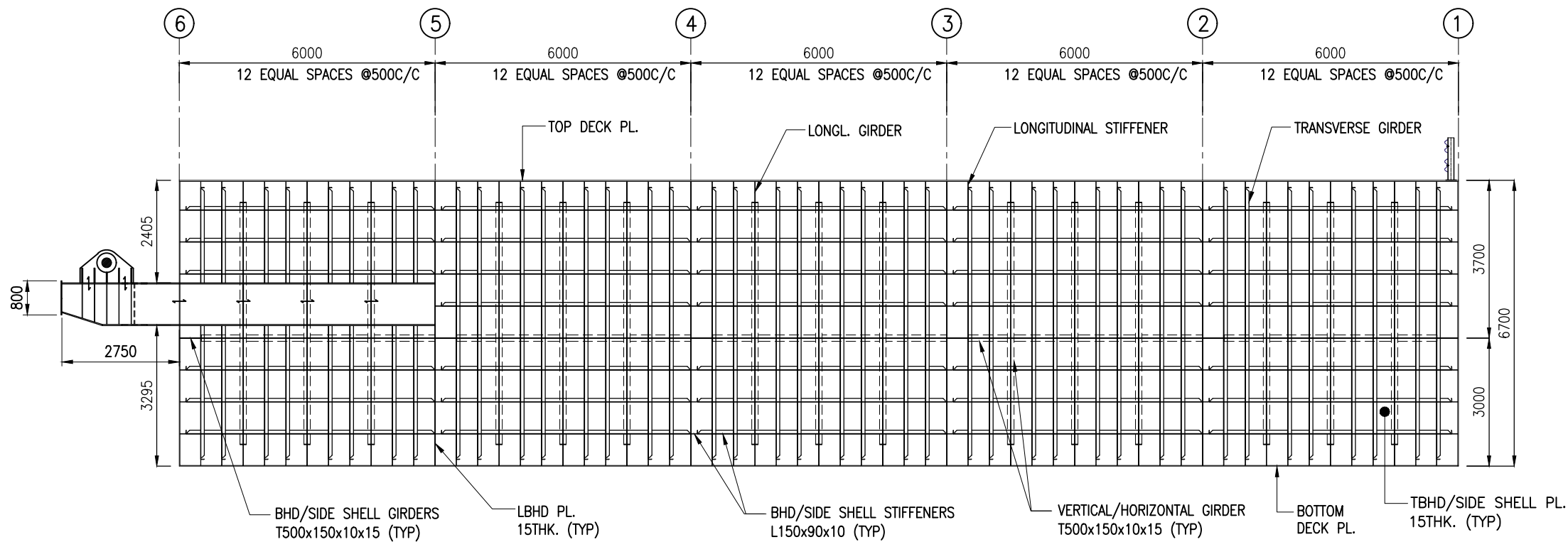
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
2. ALL LEVELS ARE IN METRES WITH RESPECT TO CHART DATUM. U.N.O.
3. FOR GENERAL NOTES AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-101.
4. FOR TYPICAL WELDING DETAILS REFER DWG.NO.IITM-JNPT-RORO-DWG-102.
5. FOR CONNECTION DETAILS, LUG PLATES, SNIPE DETAILS, RAT HOLES ETC. REFER TO SHEET 10 TO 14.
6. CONTRACTOR SHALL DEVELOPE SHOP DRAWINGS BEFORE FABRICATION.
7. FABRICATION/INSPECTION SHALL FOLLOW CONTRACT SPECIFICATIONS AND IRS RULES FOR INLAND WATERWAY VESSELS.

A	01.02.2024	ISSUED FOR TENDER	DV	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF. S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
FRAMING AND DETAILS OF NEW PONTOON (SHEET 5 OF 16)				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-102-05			DATE: 01.02.2024	
			REV: A	



SECTION AT TRANSVERSE SIDE SHELL (A)

SCALE 1:120





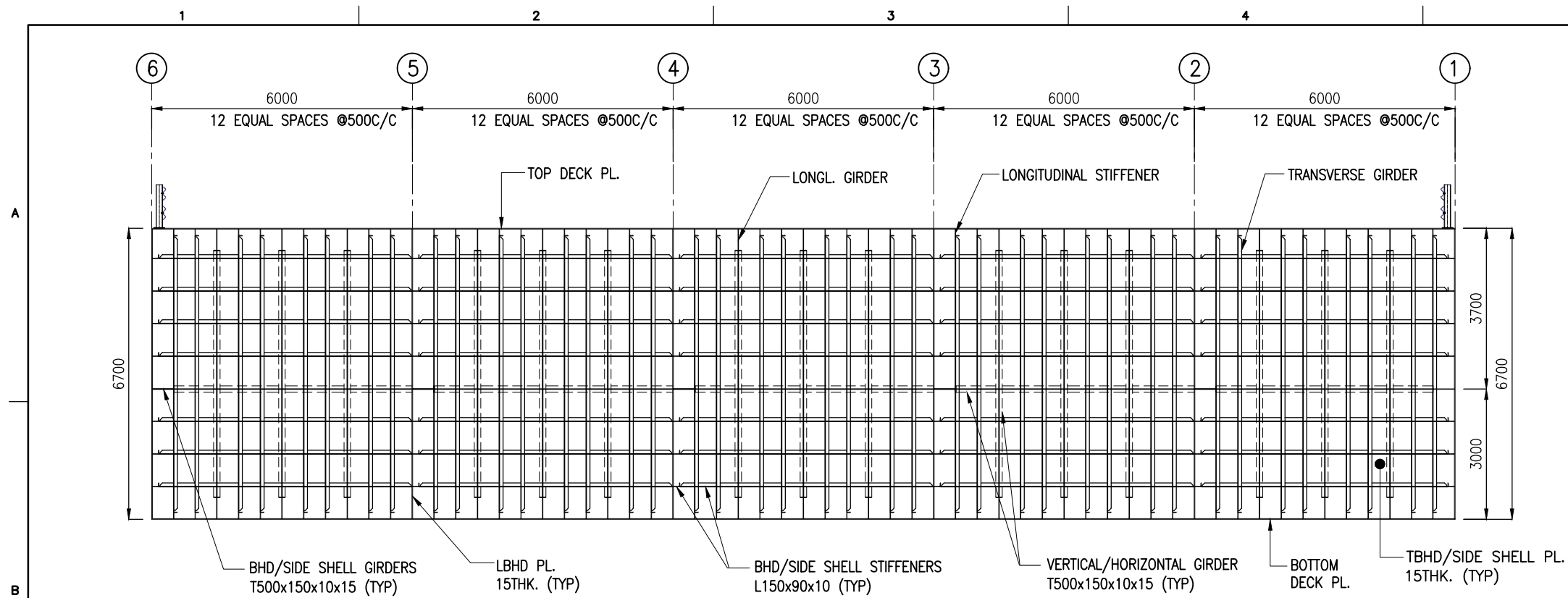
SECTION AT TRANSVERSE BULKHEADS (B)

SCALE 1:120

NOTES:

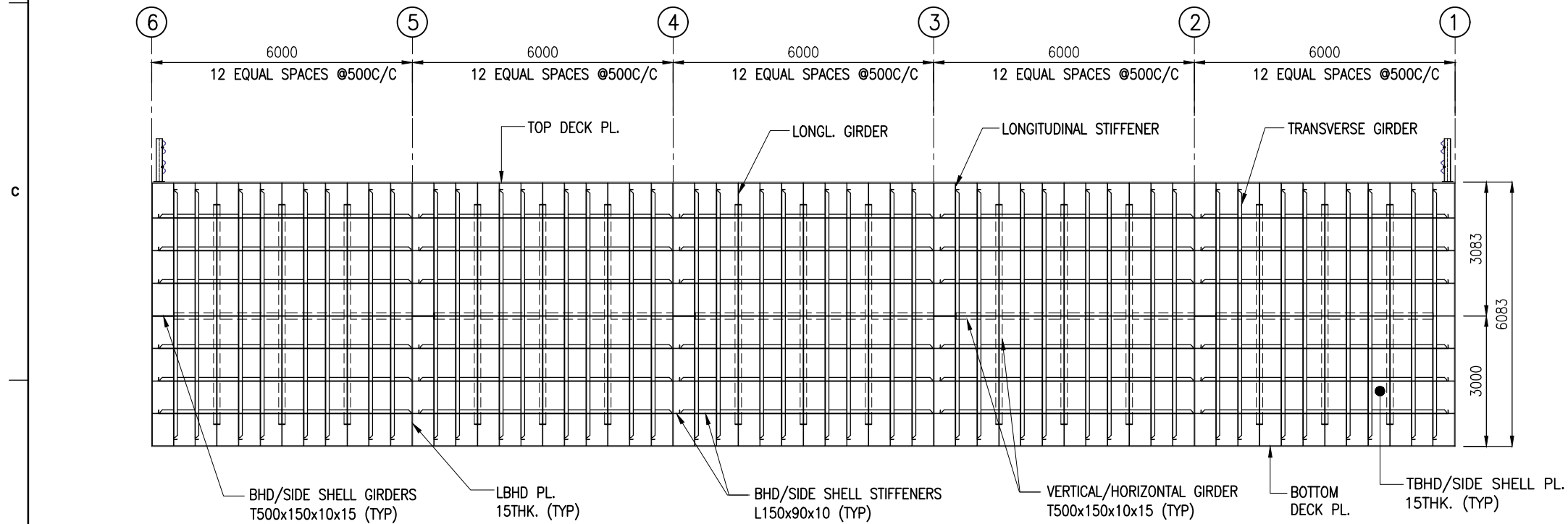
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
2. ALL LEVELS ARE IN METRES WITH RESPECT TO CHART DATUM. U.N.O.
3. FOR GENERAL NOTES, MATERIAL DETAILS AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-101.
4. FOR TYPICAL WELDING DETAILS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-102.
5. FOR CONNECTION DETAILS, LUG PLATES, SNIPE DETAILS, RAT HOLES ETC. REFER TO SHEET 10 TO 14.
6. CONTRACTOR SHALL DEVELOPE SHOP DRAWINGS BEFORE FABRICATION.
7. FABRICATION/INSPECTION SHALL FOLLOW CONTRACT SPECIFICATIONS AND IRS RULES FOR INLAND WATERWAY VESSELS.

REV.	DATE	DESCRIPTION	DRAWN	CHECKED
A	01.02.2024	ISSUED FOR TENDER	DV	AR
REVISION				
DESIGN CONSULTANT:				
 PROF. S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
FRAMING AND DETAILS OF NEW PONTOON (SHEET 6 OF 16)				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-102-06		DATE: 01.02.2024		REV: A



SECTION AT TRANSVERSE BULKHEADS (C)

SCALE 1:120





SECTION AT TRANSVERSE BULKHEADS AND SIDE SHELL (D)

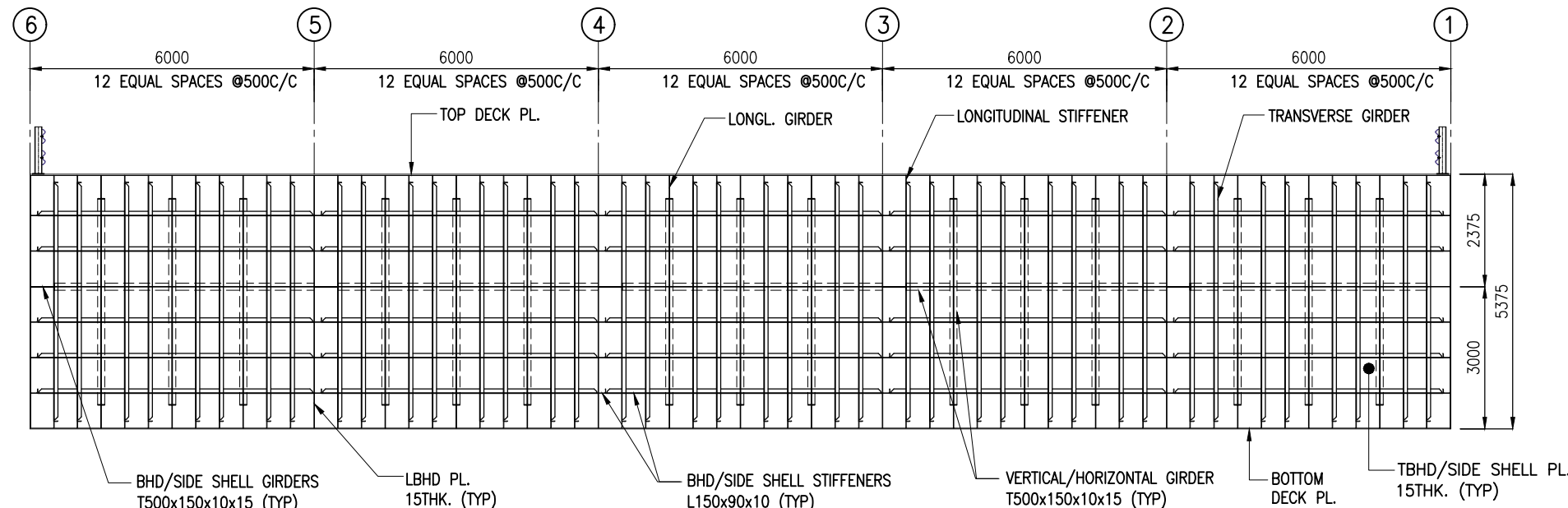
SCALE 1:120

NOTES:

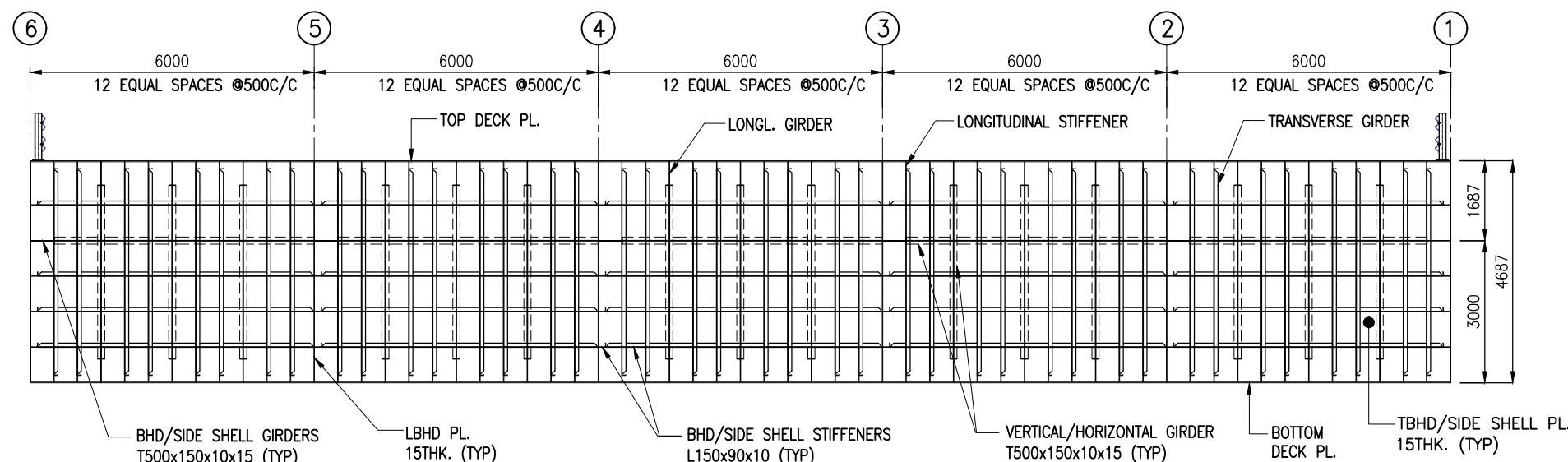
- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
- ALL LEVELS ARE IN METRES WITH RESPECT TO CHART DATUM. U.N.O.
- FOR GENERAL NOTES, MATERIAL DETAILS AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-101.
- FOR TYPICAL WELDING DETAILS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-102.
- FOR CONNECTION DETAILS, LUG PLATES, SNIPE DETAILS, RAT HOLES ETC. REFER TO SHEET 10 TO 14.
- CONTRACTOR SHALL DEVELOPE SHOP DRAWINGS BEFORE FABRICATION.
- FABRICATION/INSPECTION SHALL FOLLOW CONTRACT SPECIFICATIONS AND IRS RULES FOR INLAND WATERWAY VESSELS.

REV.	DATE	DESCRIPTION	DRAWN	CHECKED
A	01.02.2024	ISSUED FOR TENDER	DV	AR
REVISION				
DESIGN CONSULTANT:				
 PROF. S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
FRAMING AND DETAILS OF NEW PONTOON (SHEET 7 OF 16)				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-102-07		DATE: 01.02.2024		REV: A

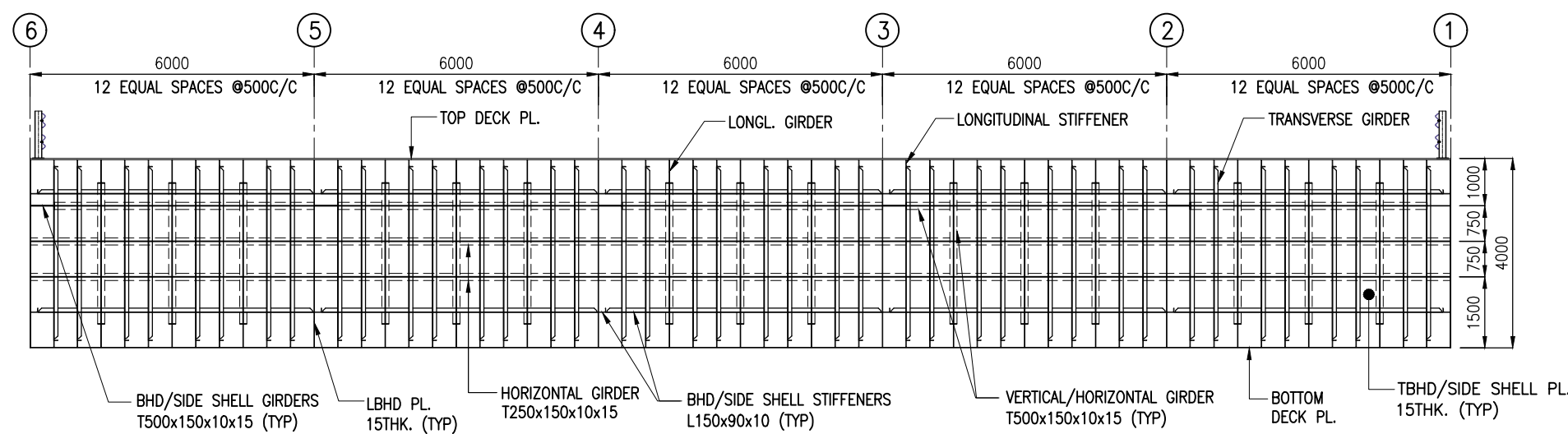
1 2 3 4 5 6



SECTION AT TRANSVERSE BULKHEADS AND SIDE SHELL (E)
SCALE 1:120





SECTION AT TRANSVERSE BULKHEADS AND SIDE SHELL (F)
SCALE 1:120



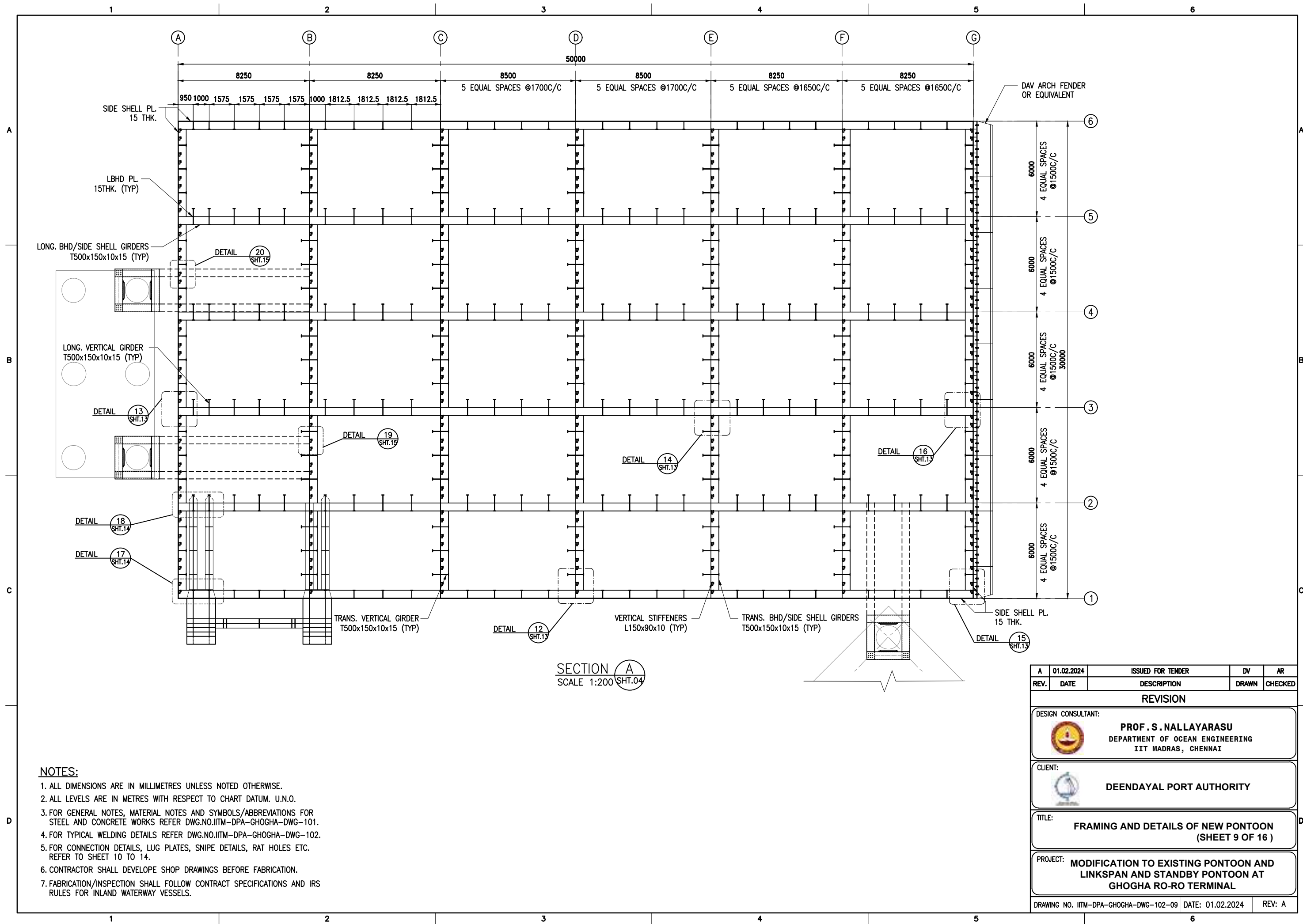
SECTION AT TRANSVERSE BULKHEADS AND SIDE SHELL (G)
SCALE 1:120

NOTES:



1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
2. ALL LEVELS ARE IN METRES WITH RESPECT TO CHART DATUM. U.N.O.
3. FOR GENERAL NOTES, MATERIAL DETAILS AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-101.
4. FOR TYPICAL WELDING DETAILS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-102.
5. FOR CONNECTION DETAILS, LUG PLATES, SNIPE DETAILS, RAT HOLES ETC. REFER TO SHEET 10 TO 14.
6. CONTRACTOR SHALL DEVELOPE SHOP DRAWINGS BEFORE FABRICATION.
7. FABRICATION/INSPECTION SHALL FOLLOW CONTRACT SPECIFICATIONS AND IRS RULES FOR INLAND WATERWAY VESSELS.

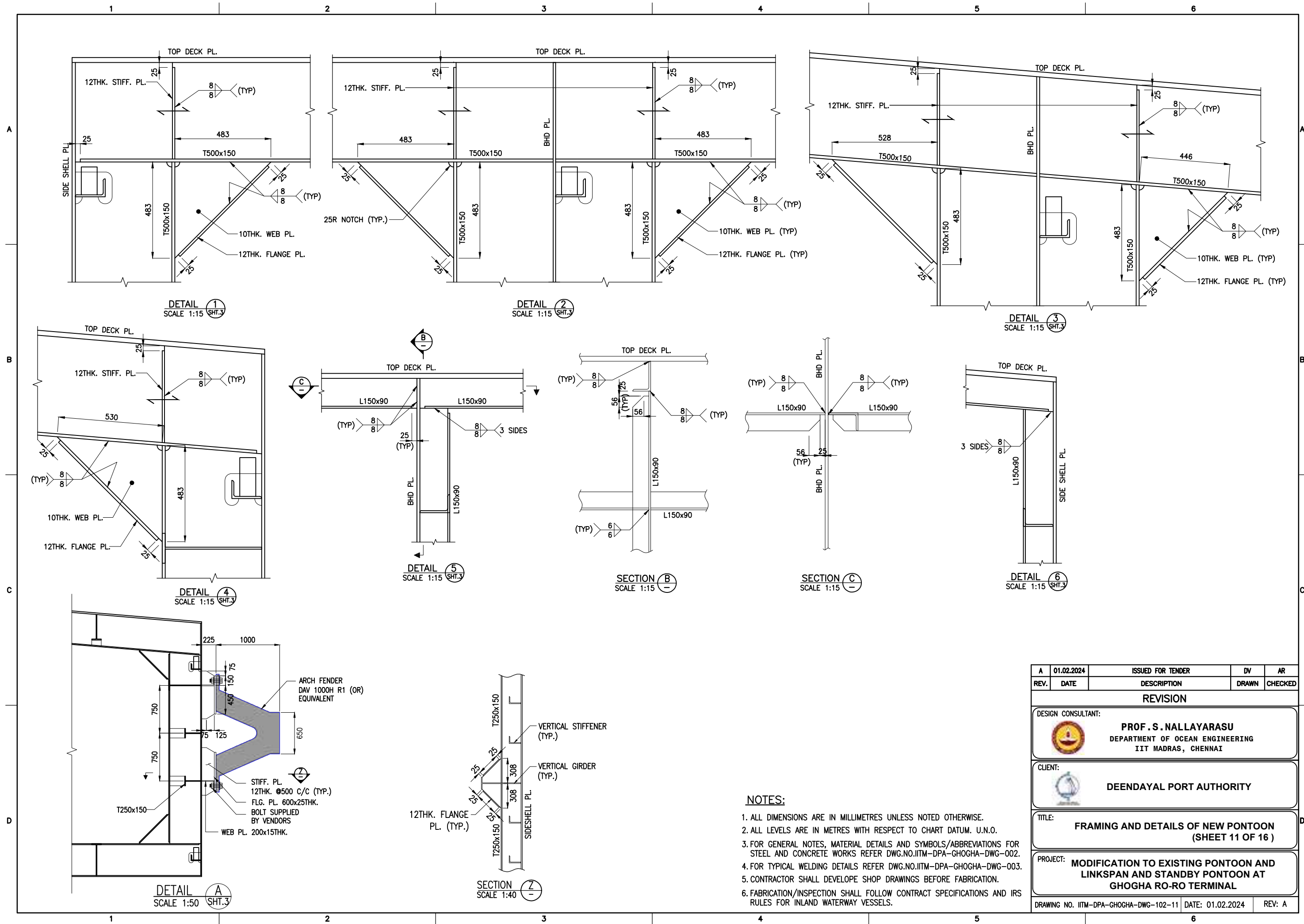
A	01.02.2024	ISSUED FOR TENDER	DV	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF. S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
FRAMING AND DETAILS OF NEW PONTOON (SHEET 8 OF 16)				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-102-08		DATE: 01.02.2024		REV: A



1 2 3 4 5 6

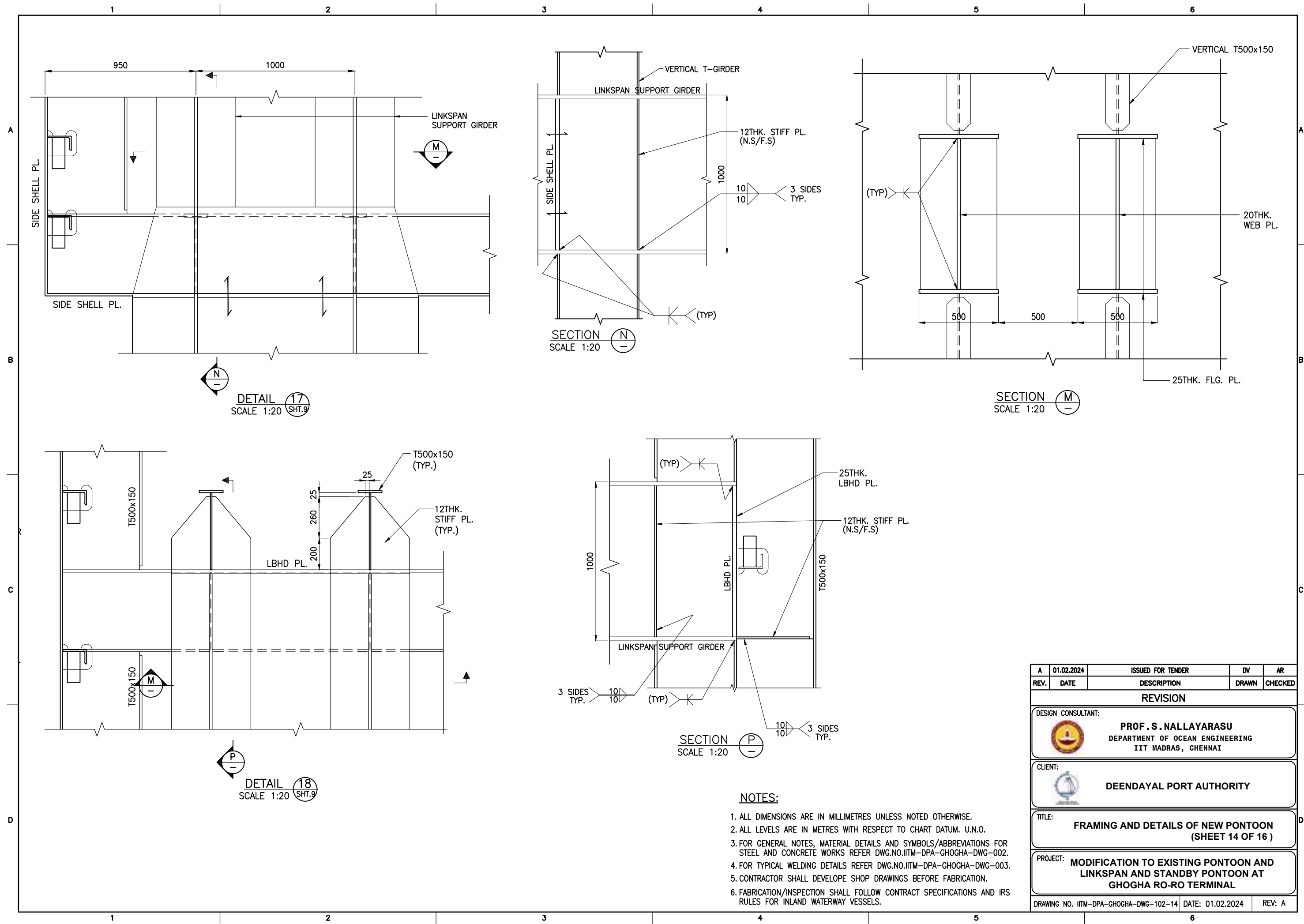


- NOTES:**
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
 2. ALL LEVELS ARE IN METRES WITH RESPECT TO CHART DATUM. U.N.O.
 3. FOR GENERAL NOTES, MATERIAL NOTES AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-101.
 4. FOR TYPICAL WELDING DETAILS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-102.
 5. FOR CONNECTION DETAILS, LUG PLATES, SNIPE DETAILS, RAT HOLES ETC. REFER TO SHEET 10 TO 14.
 6. CONTRACTOR SHALL DEVELOPE SHOP DRAWINGS BEFORE FABRICATION.
 7. FABRICATION/INSPECTION SHALL FOLLOW CONTRACT SPECIFICATIONS AND IRS RULES FOR INLAND WATERWAY VESSELS.

A 01.02.2024		ISSUED FOR TENDER	DV	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF . S . NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
FRAMING AND DETAILS OF NEW PONTOON (SHEET 9 OF 16)				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-102-09		DATE: 01.02.2024	REV: A	





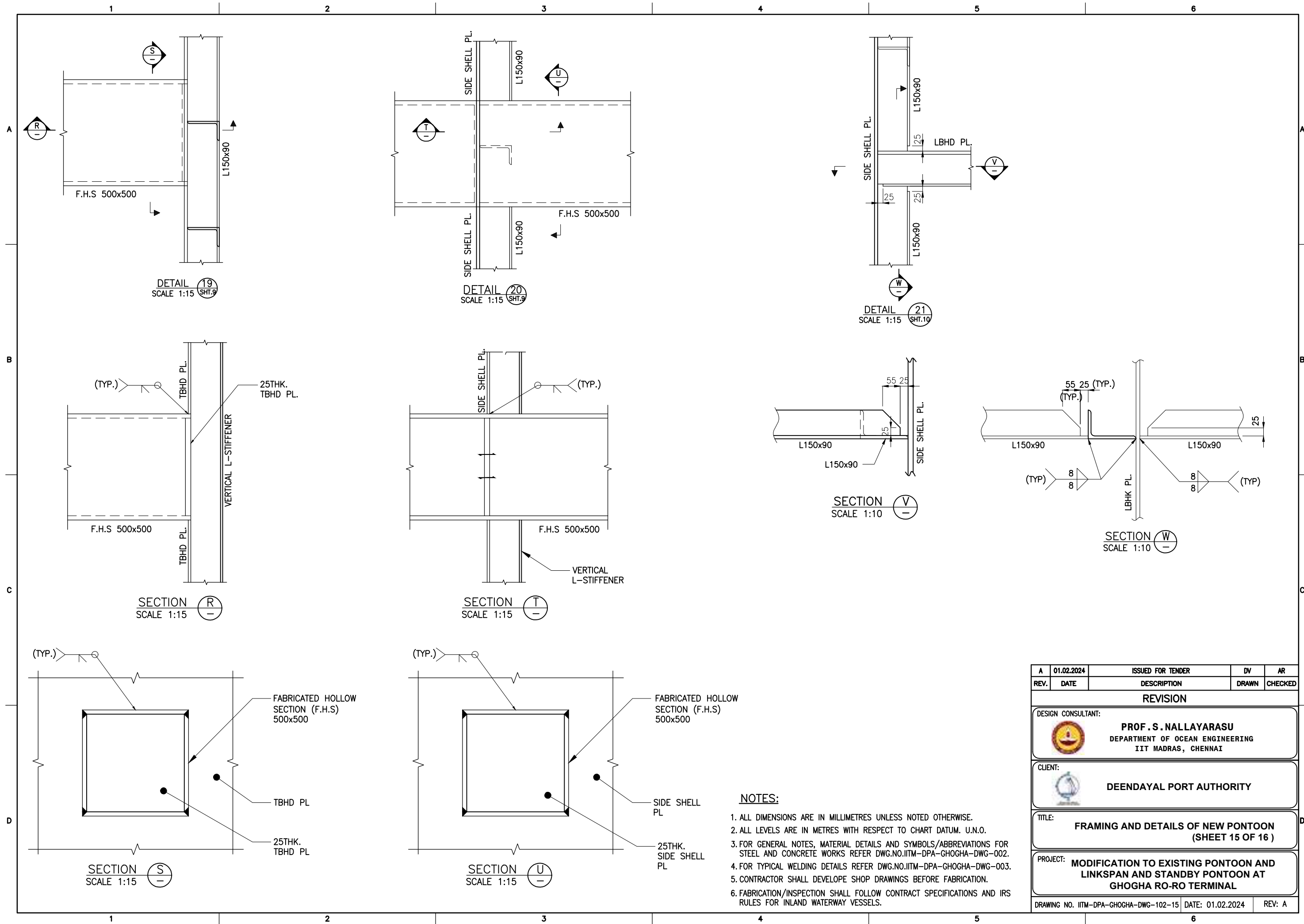
A	01.02.2024	ISSUED FOR TENDER	DV	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF. S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
FRAMING AND DETAILS OF NEW PONTOON (SHEET 11 OF 16)				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-102-11		DATE: 01.02.2024		REV: A





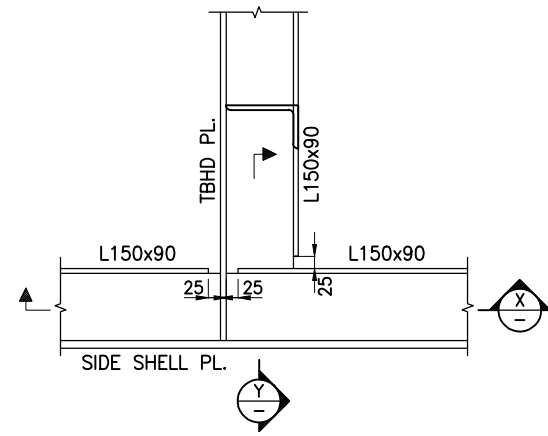
NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
2. ALL LEVELS ARE IN METRES WITH RESPECT TO CHART DATUM. U.N.O.
3. FOR GENERAL NOTES, MATERIAL DETAILS AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-002.
4. FOR TYPICAL WELDING DETAILS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-003.
5. CONTRACTOR SHALL DEVELOPE SHOP DRAWINGS BEFORE FABRICATION.
6. FABRICATION/INSPECTION SHALL FOLLOW CONTRACT SPECIFICATIONS AND IRS RULES FOR INLAND WATERWAY VESSELS.

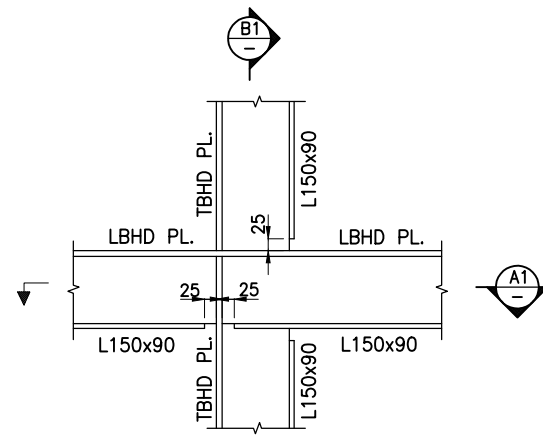
A	01.02.2024	ISSUED FOR TENDER	DV	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF . S . NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
FRAMING AND DETAILS OF NEW PONTOON (SHEET 14 OF 16)				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-102-14		DATE: 01.02.2024		REV: A



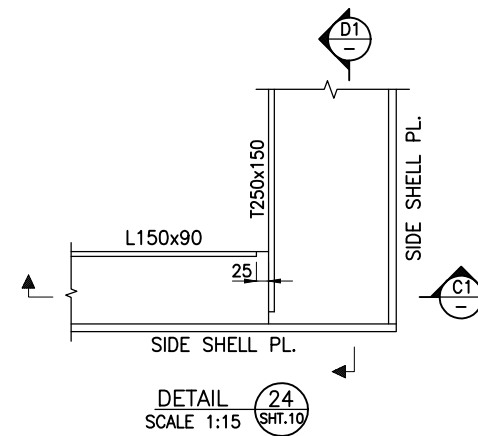
A	01.02.2024	ISSUED FOR TENDER	DV	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF . S . NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
FRAMING AND DETAILS OF NEW PONTOON (SHEET 15 OF 16)				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-102-15			DATE: 01.02.2024	
			REV: A	



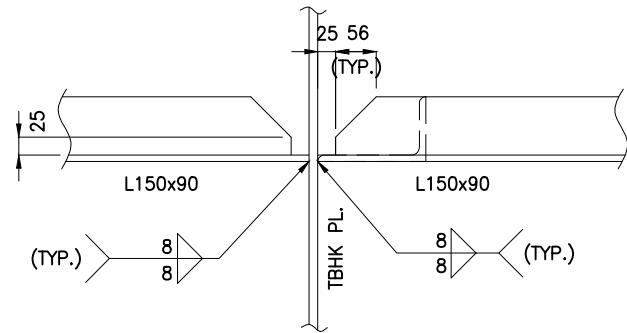
DETAIL 22
SCALE 1:15
SHT.10



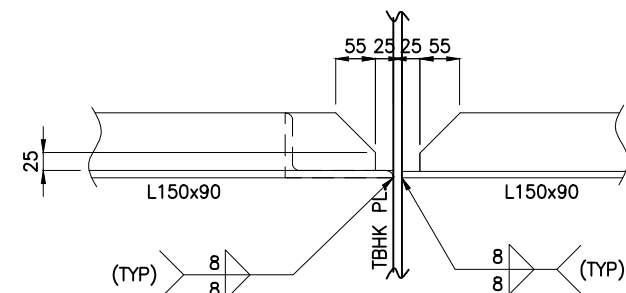
DETAIL 23
SCALE 1:15
SHT.10



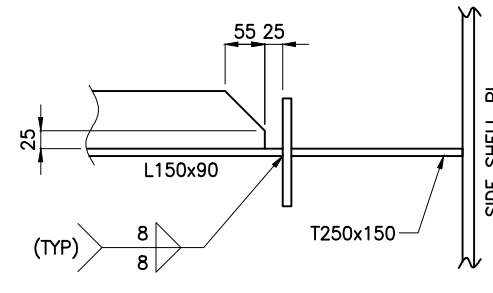
DETAIL 24
SCALE 1:15
SHT.10



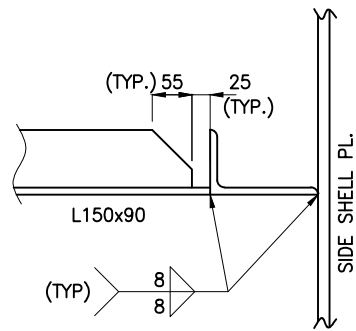
SECTION X
SCALE 1:10



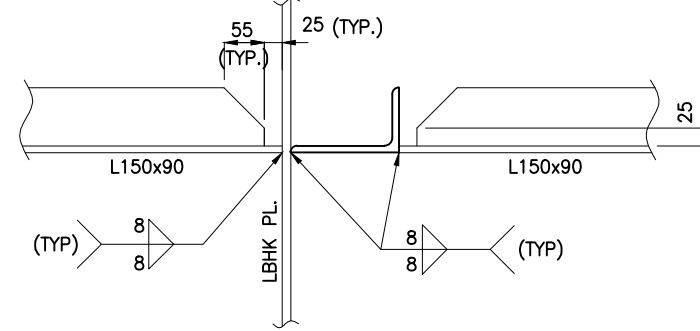
SECTION A1
SCALE 1:10



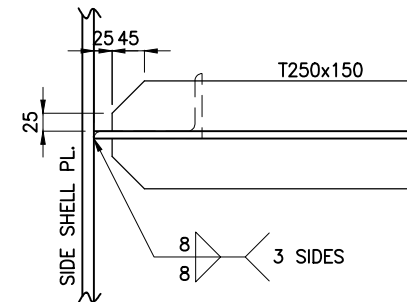
SECTION C1
SCALE 1:10



SECTION Y
SCALE 1:10





SECTION B1
SCALE 1:10

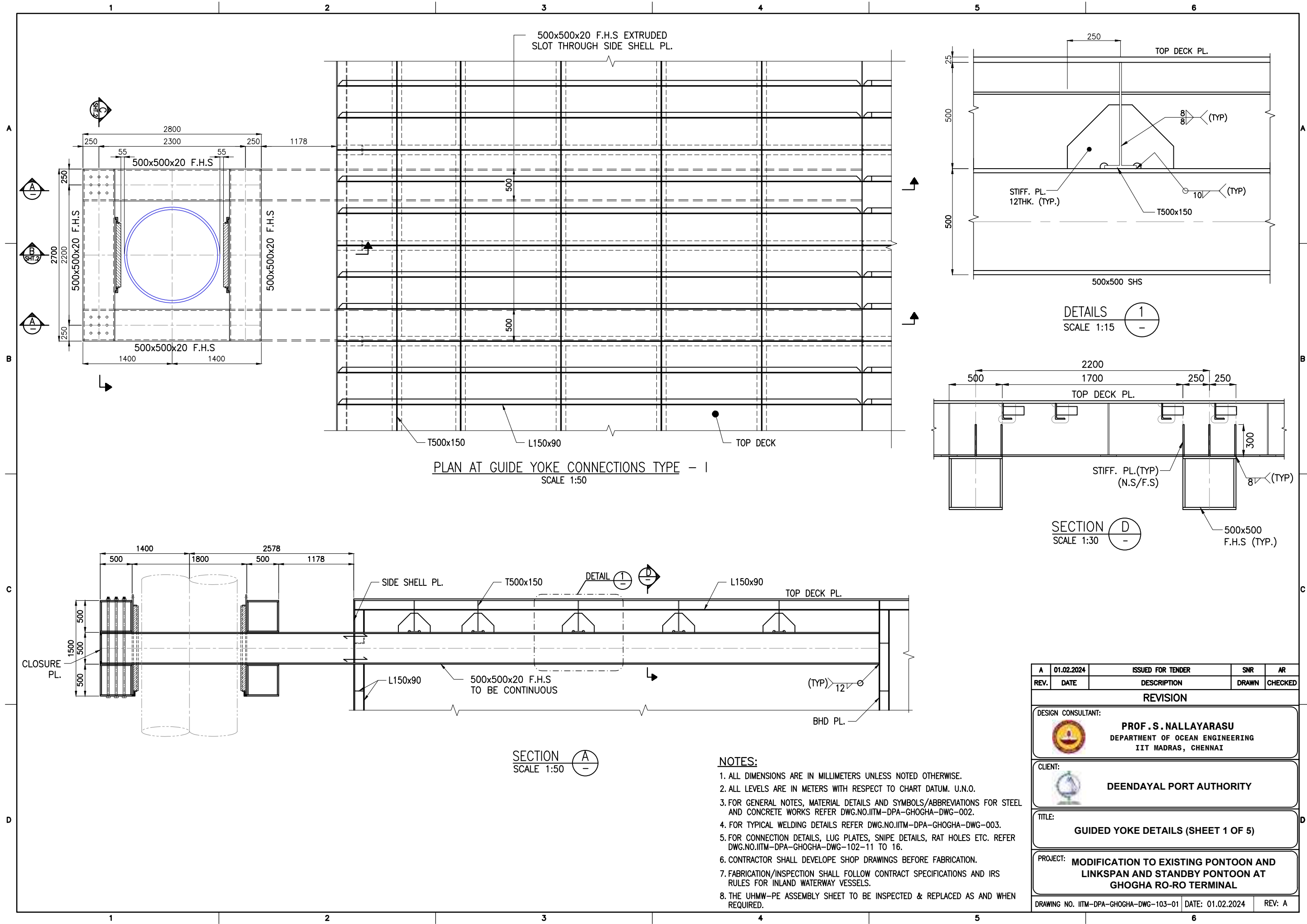


SECTION D1
SCALE 1:10

NOTES:

- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
- ALL LEVELS ARE IN METRES WITH RESPECT TO CHART DATUM. U.N.O.
- FOR GENERAL NOTES, MATERIAL DETAILS AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-002.
- FOR TYPICAL WELDING DETAILS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-003.
- CONTRACTOR SHALL DEVELOPE SHOP DRAWINGS BEFORE FABRICATION.
- FABRICATION/INSPECTION SHALL FOLLOW CONTRACT SPECIFICATIONS AND IRS RULES FOR INLAND WATERWAY VESSELS.

REV.	DATE	DESCRIPTION	DRAWN	CHECKED
A	01.02.2024	ISSUED FOR TENDER	DV	AR
REVISION				
DESIGN CONSULTANT:				
 PROF . S . NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
FRAMING AND DETAILS OF NEW PONTOON (SHEET 16 OF 16)				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-102-16			DATE: 01.02.2024	REV: A



PLAN AT GUIDE YOKE CONNECTIONS TYPE - I
SCALE 1:50



DETAILS 1
SCALE 1:15

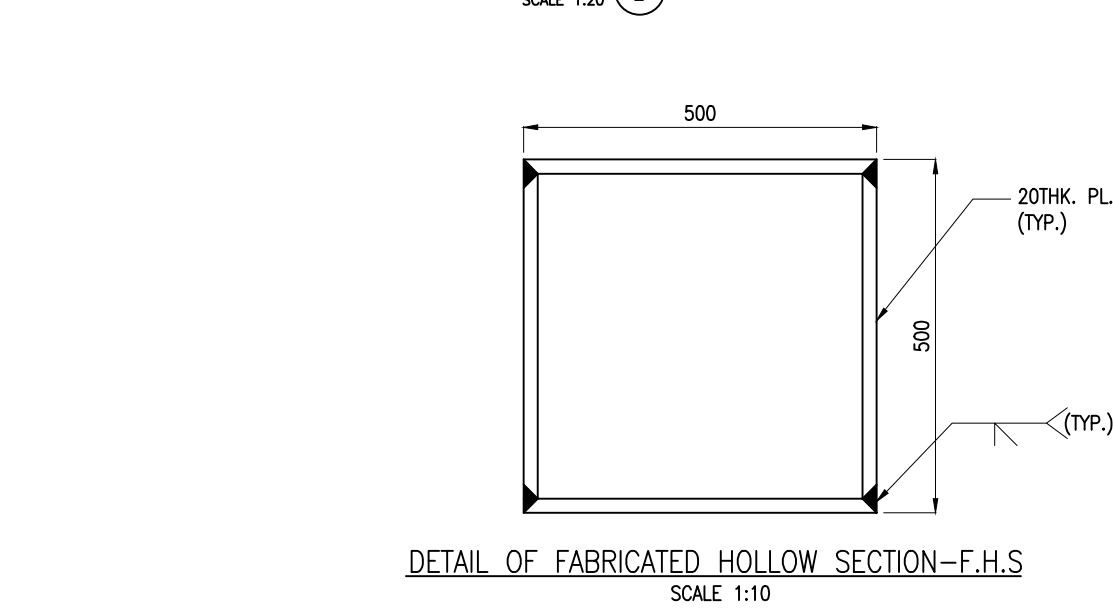
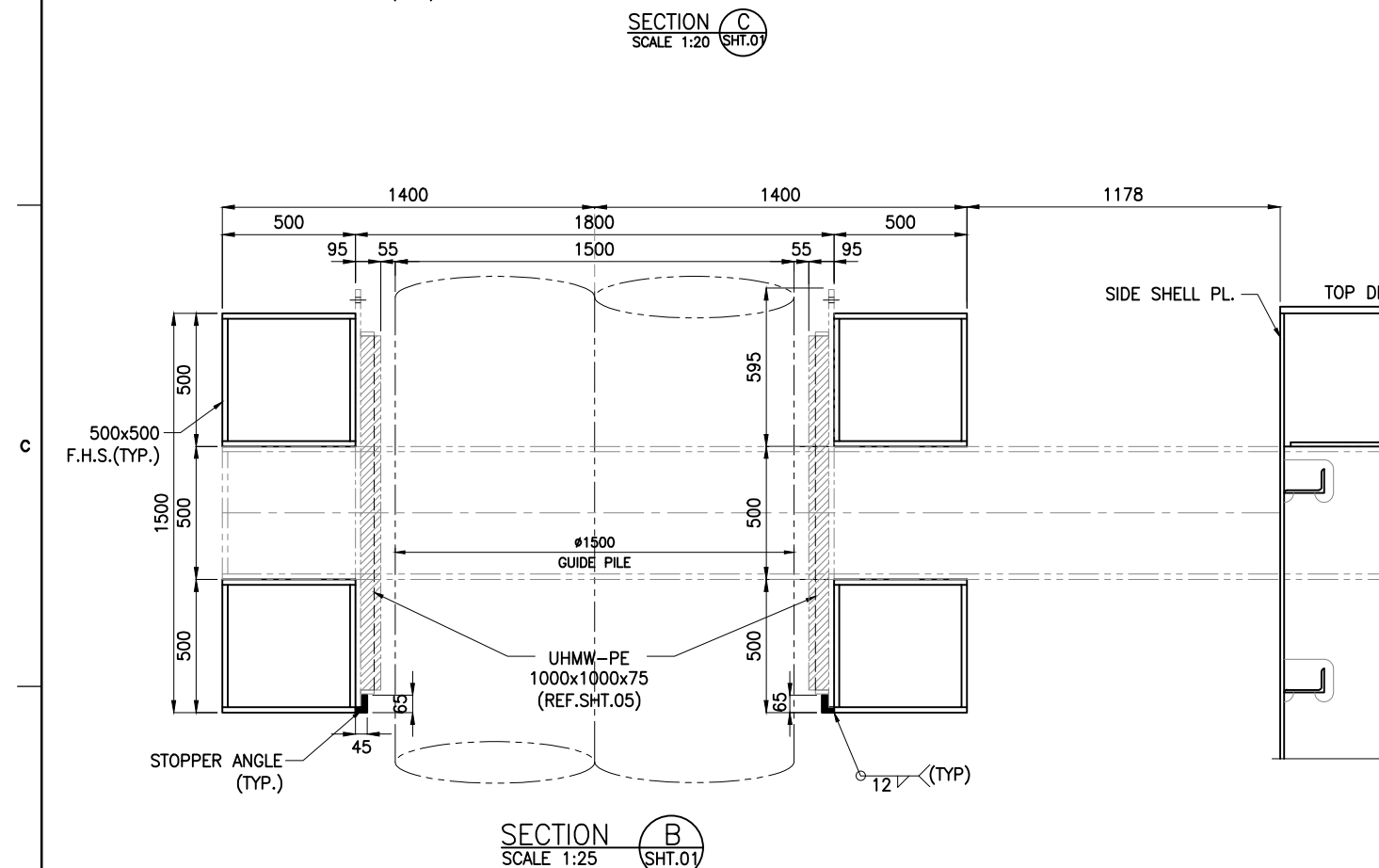
SECTION D
SCALE 1:30

SECTION A
SCALE 1:50



NOTES:

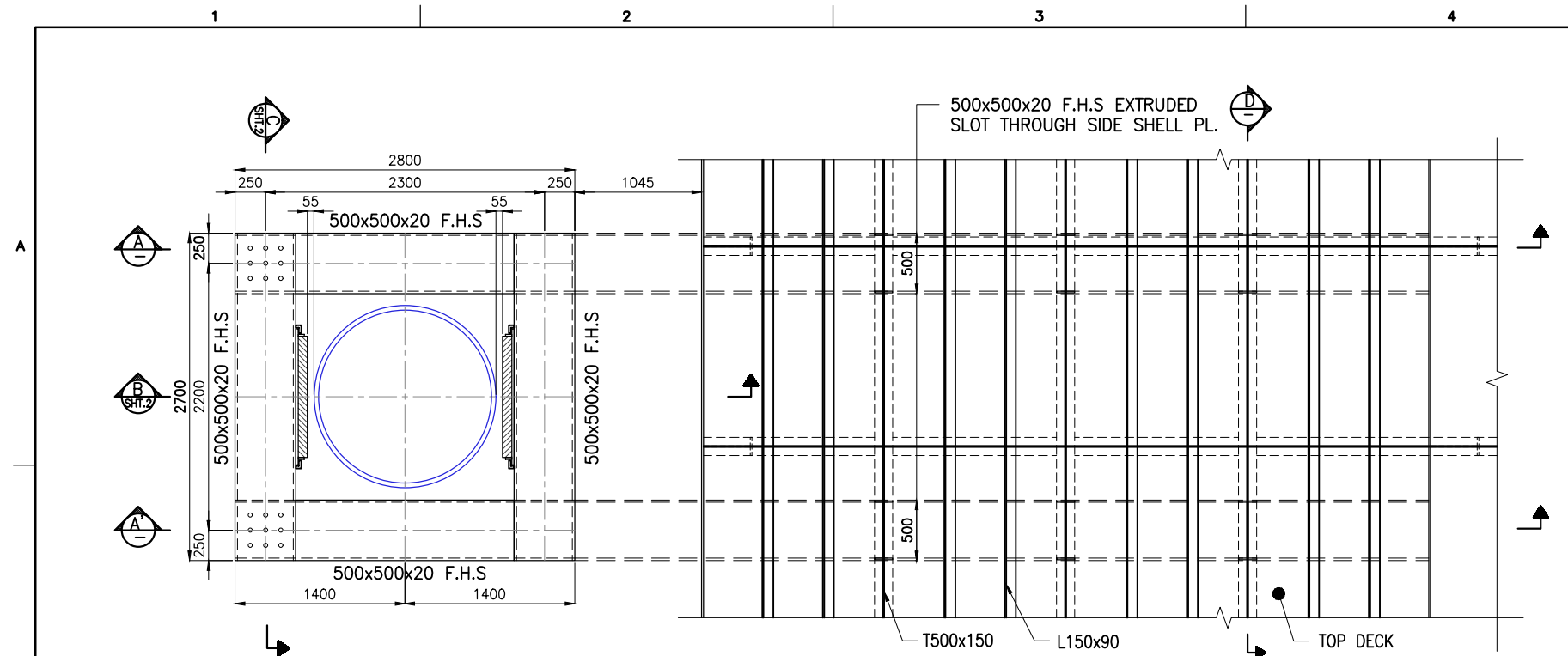
1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
2. ALL LEVELS ARE IN METERS WITH RESPECT TO CHART DATUM. U.N.O.
3. FOR GENERAL NOTES, MATERIAL DETAILS AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-002.
4. FOR TYPICAL WELDING DETAILS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-003.
5. FOR CONNECTION DETAILS, LUG PLATES, SNIPE DETAILS, RAT HOLES ETC. REFER DWG.NO.IITM-DPA-GHOGHA-DWG-102-11 TO 16.
6. CONTRACTOR SHALL DEVELOPE SHOP DRAWINGS BEFORE FABRICATION.
7. FABRICATION/INSPECTION SHALL FOLLOW CONTRACT SPECIFICATIONS AND IRS RULES FOR INLAND WATERWAY VESSELS.
8. THE UHMW-PE ASSEMBLY SHEET TO BE INSPECTED & REPLACED AS AND WHEN REQUIRED.

A	01.02.2024	ISSUED FOR TENDER	SNR	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF .S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
GUIDED YOKE DETAILS (SHEET 1 OF 5)				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-103-01			DATE: 01.02.2024	
			REV: A	

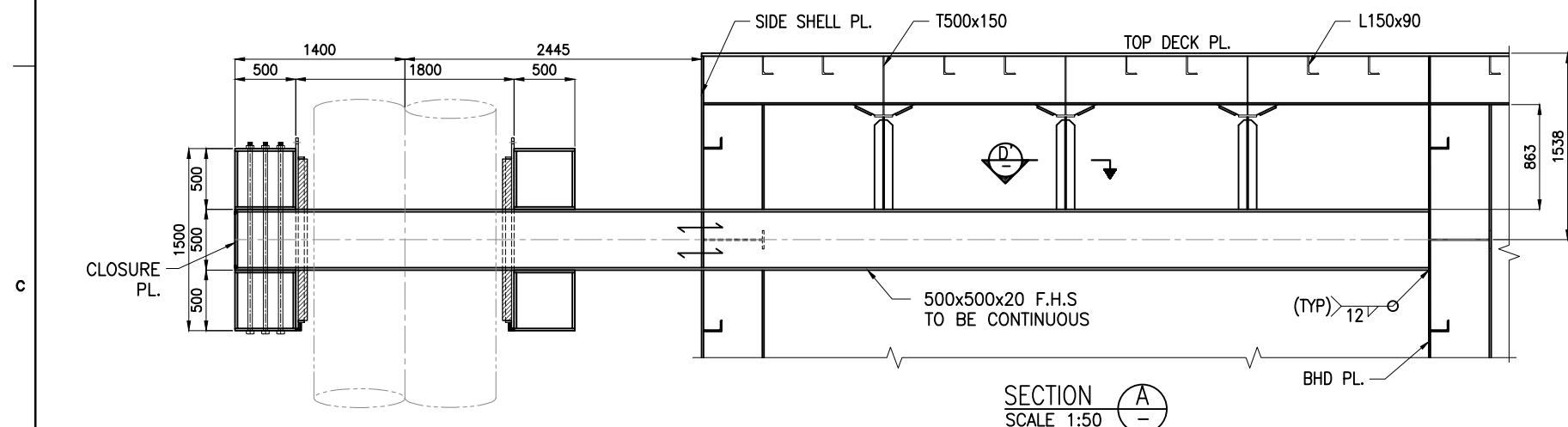


- ## NOTES:
1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
 2. ALL LEVELS ARE IN METERS WITH RESPECT TO CHART DATUM. U.N.O.
 3. FOR GENERAL NOTES, MATERIAL DETAILS AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-002.
 4. FOR TYPICAL WELDING DETAILS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-003.
 5. FOR CONNECTION DETAILS, LUG PLATES, SNIPE DETAILS, RAT HOLES ETC. REFER DWG.NO.IITM-DPA-GHOGHA-DWG-102-11 TO 16.
 6. CONTRACTOR SHALL DEVELOPE SHOP DRAWINGS BEFORE FABRICATION.
 7. FABRICATION/INSPECTION SHALL FOLLOW CONTRACT SPECIFICATIONS AND IRS RULES FOR INLAND WATERWAY VESSELS.
 8. THE UHMW-PE ASSEMBLY SHEET TO BE INSPECTED & REPLACED AS AND WHEN REQUIRED.

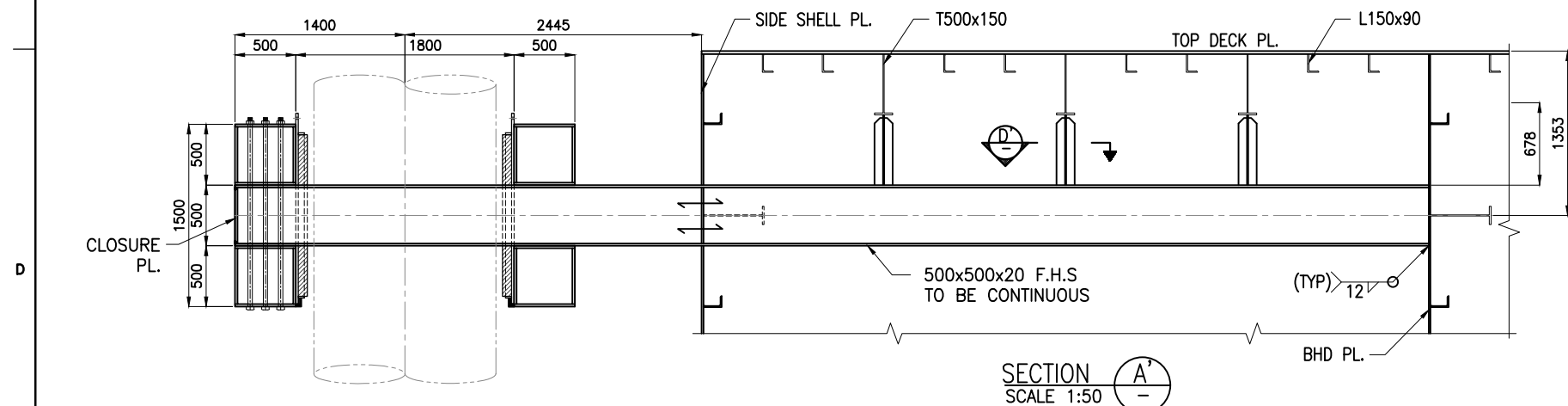
A	01.02.2024	ISSUED FOR TENDER	SNR	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:  PROF. S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:  DEENDAYAL PORT AUTHORITY				
TITLE: GUIDED YOKE DETAILS (SHEET 2 OF 5)				
PROJECT: MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-103-02			DATE: 01.02.2024	REV: A



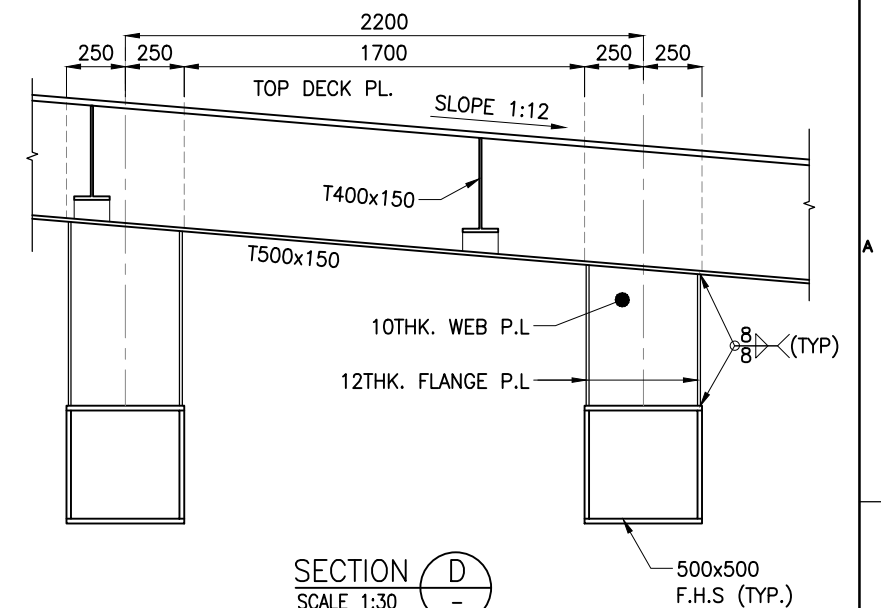
PLAN AT GUIDE YOKE CONNECTIONS TYPE - II
SCALE 1:50



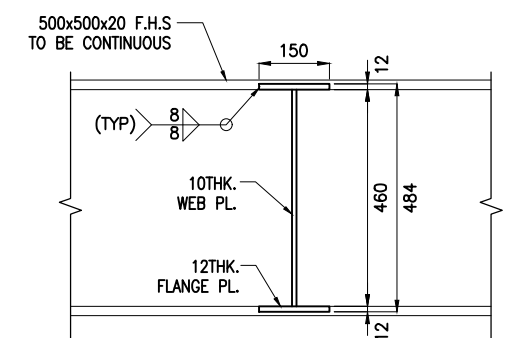
SECTION A-A
SCALE 1:50



SECTION A'-A'
SCALE 1:50





SECTION D-D
SCALE 1:30

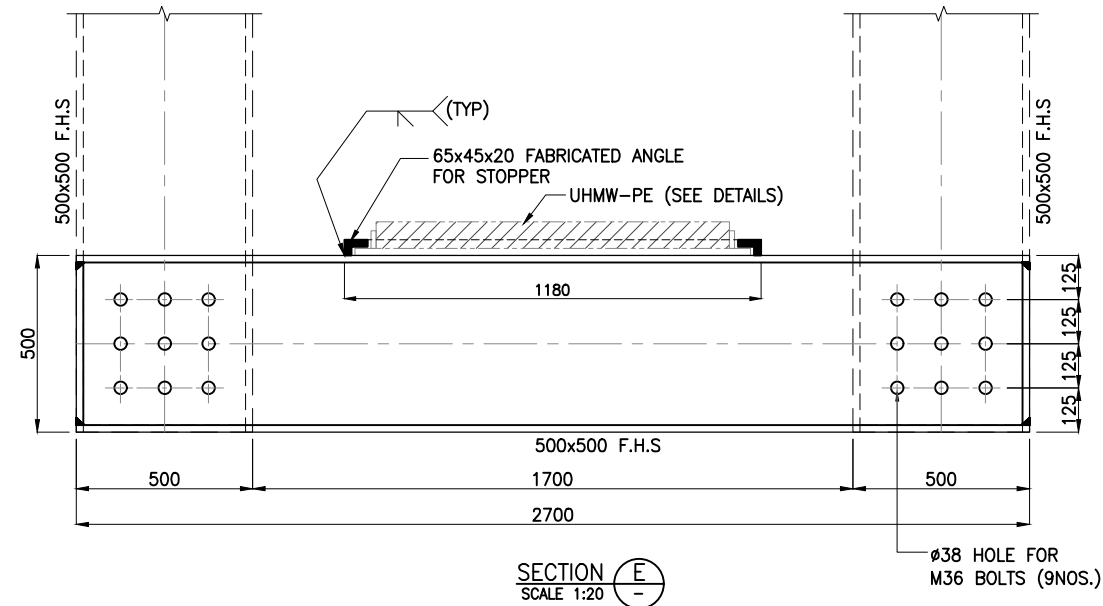
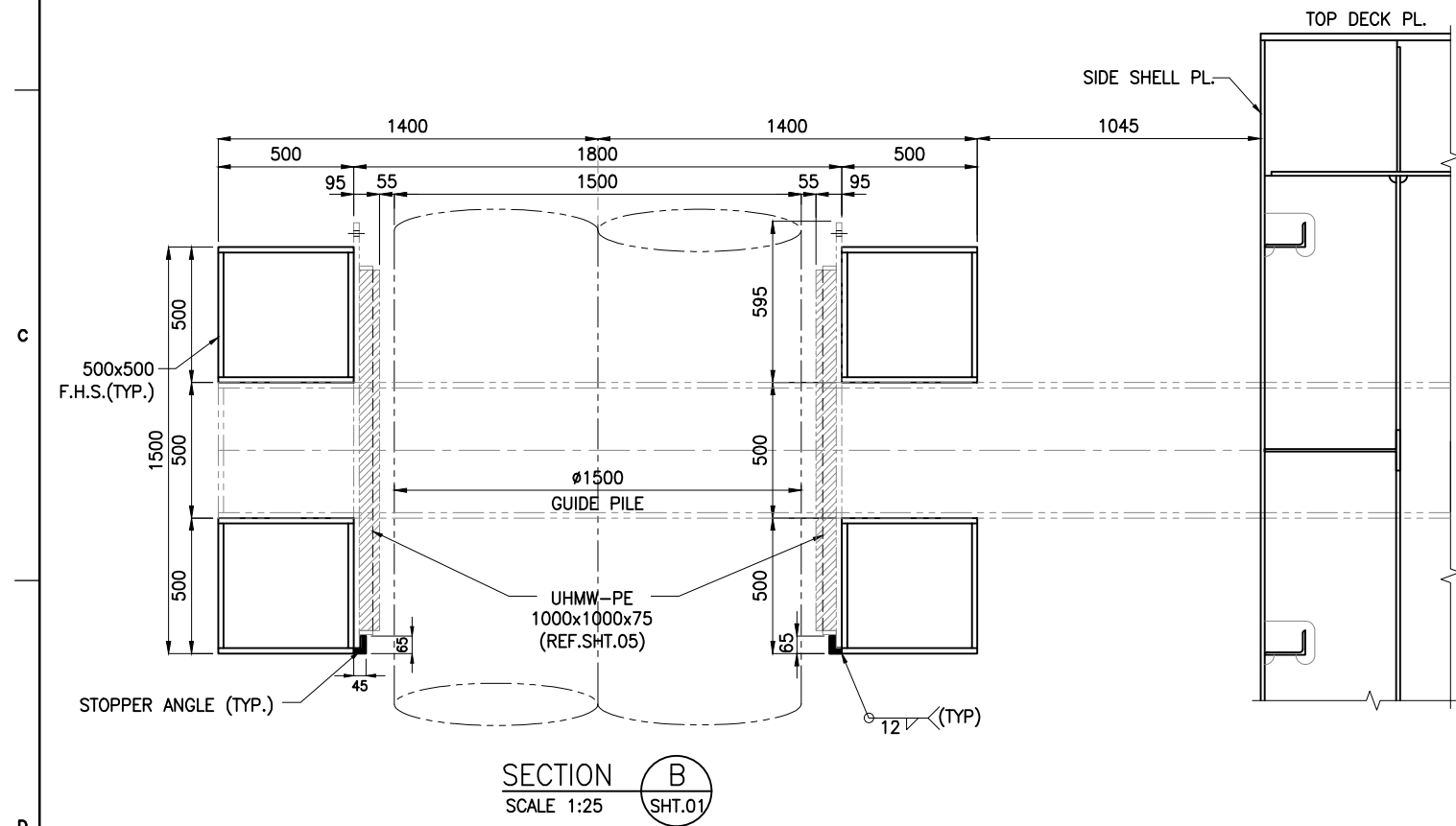
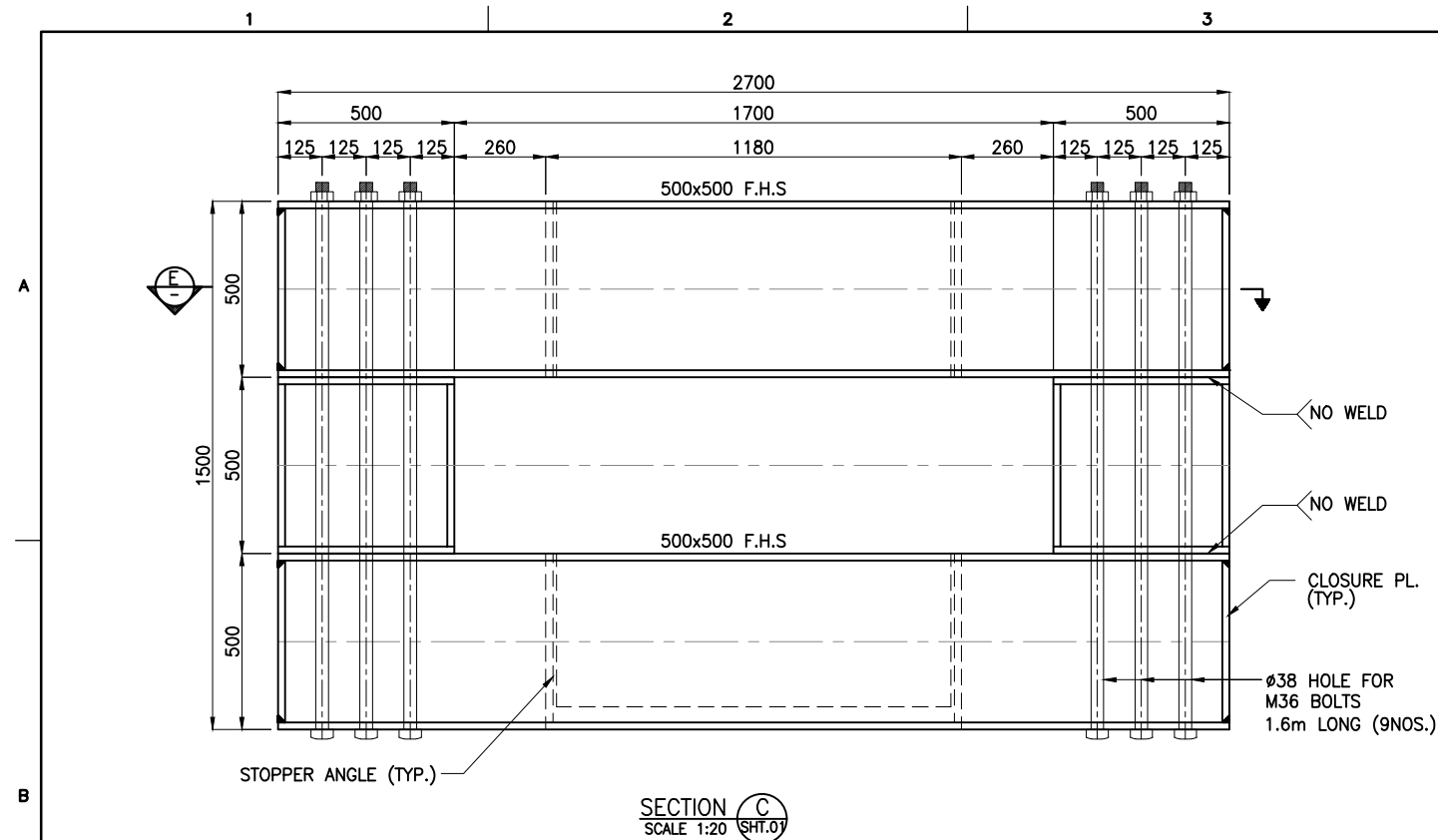


SECTION D'-D'
SCALE 1:15

NOTES:

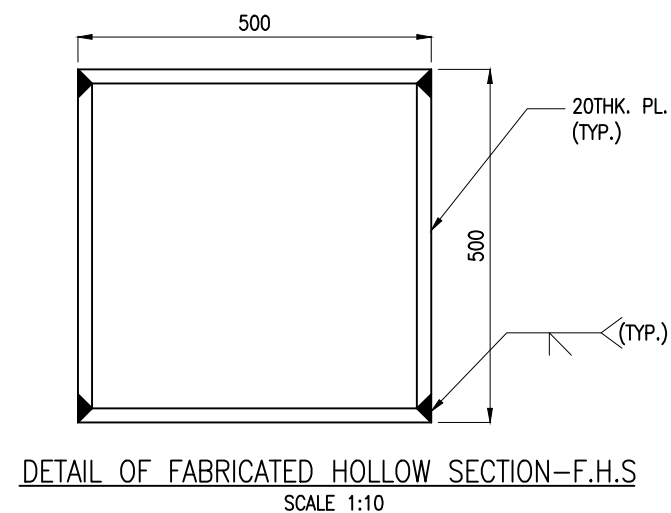
1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
2. ALL LEVELS ARE IN METERS WITH RESPECT TO CHART DATUM. U.N.O.
3. FOR GENERAL NOTES, MATERIAL DETAILS AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-002.
4. FOR TYPICAL WELDING DETAILS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-003.
5. FOR CONNECTION DETAILS, LUG PLATES, SNIPE DETAILS, RAT HOLES ETC. REFER DWG.NO.IITM-DPA-GHOGHA-DWG-102-11 TO 16.
6. CONTRACTOR SHALL DEVELOPE SHOP DRAWINGS BEFORE FABRICATION.
7. FABRICATION/INSPECTION SHALL FOLLOW CONTRACT SPECIFICATIONS AND IRS RULES FOR INLAND WATERWAY VESSELS.
8. THE UHMW-PE ASSEMBLY SHEET TO BE INSPECTED & REPLACED AS AND WHEN REQUIRED.



REV.	DATE	DESCRIPTION	DRAWN	CHECKED
A	01.02.2024	ISSUED FOR TENDER	SNR	AR
REVISION				
DESIGN CONSULTANT:				
 PROF .S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
GUIDED YOKE DETAILS (SHEET 3 OF 5)				
PROJECT:				
MODIFICATION TO EXISTING PONTON AND LINKSPAN AND STANDBY PONTON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-103-03 DATE: 01.02.2024 REV: A				

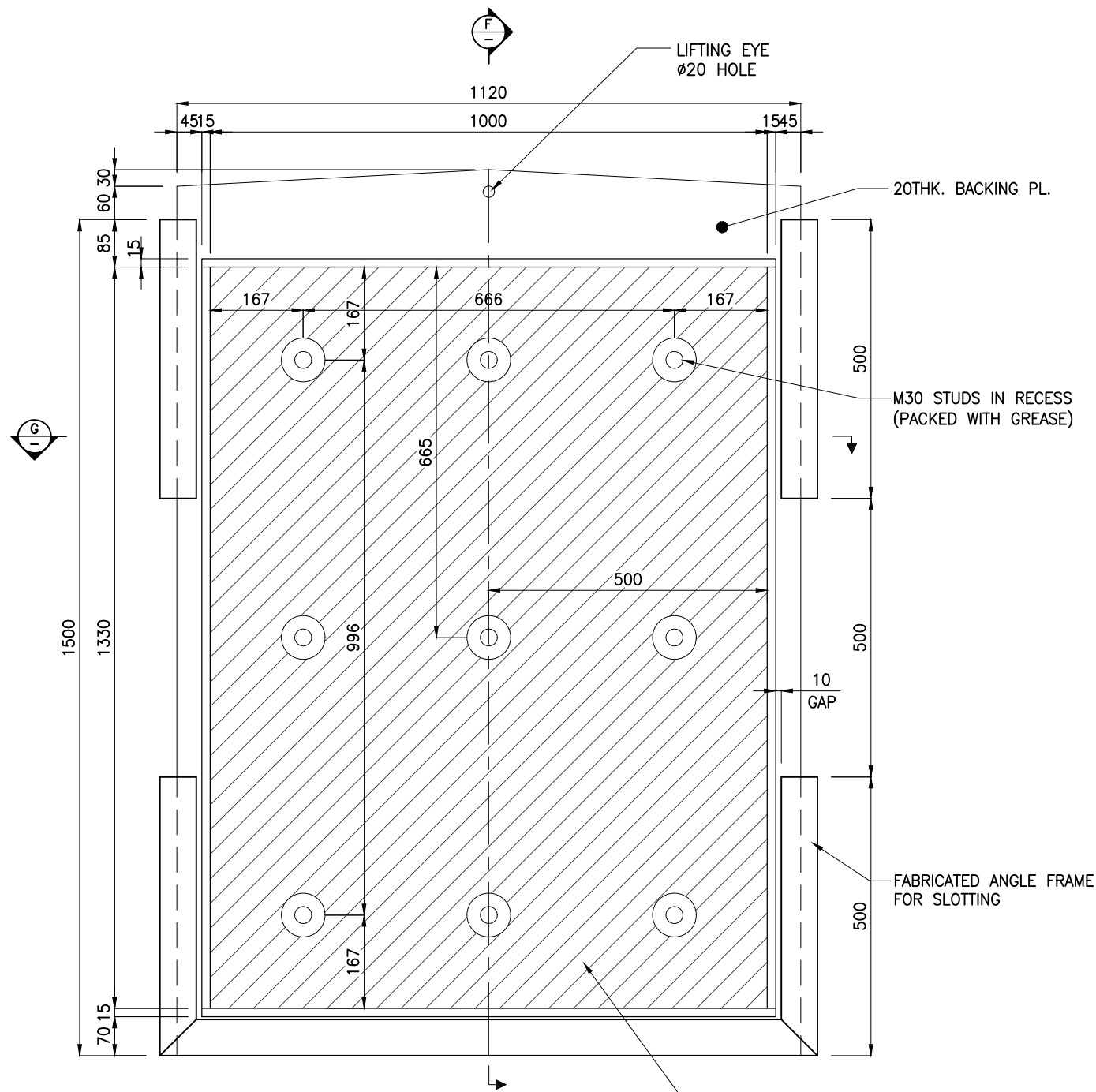


NOTES:

- ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
- ALL LEVELS ARE IN METERS WITH RESPECT TO CHART DATUM. U.N.O.
- FOR GENERAL NOTES, MATERIAL DETAILS AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-002.
- FOR TYPICAL WELDING DETAILS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-003.
- FOR CONNECTION DETAILS, LUG PLATES, SNIPE DETAILS, RAT HOLES ETC. REFER DWG.NO.IITM-DPA-GHOGHA-DWG-102-11 TO 16.
- CONTRACTOR SHALL DEVELOPE SHOP DRAWINGS BEFORE FABRICATION.
- FABRICATION/INSPECTION SHALL FOLLOW CONTRACT SPECIFICATIONS AND IRS RULES FOR INLAND WATERWAY VESSELS.
- THE UHMW-PE ASSEMBLY SHEET TO BE INSPECTED & REPLACED AS AND WHEN REQUIRED.

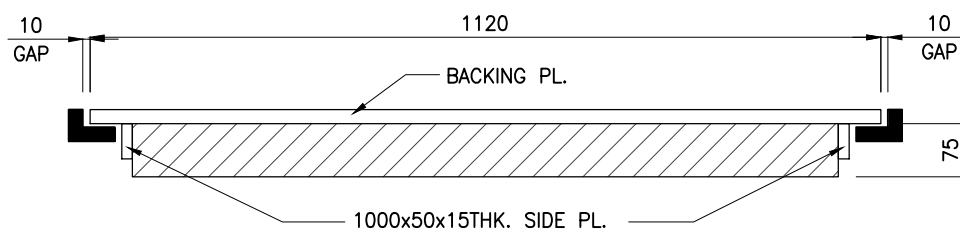


REV.	DATE	DESCRIPTION	DRAWN	CHECKED
A	01.02.2024	ISSUED FOR TENDER	SNR	AR
REVISION				
DESIGN CONSULTANT:				
 PROF .S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
GUIDED YOKE DETAILS (SHEET 4 OF 5)				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-103-04			DATE: 01.02.2024	
			REV: A	

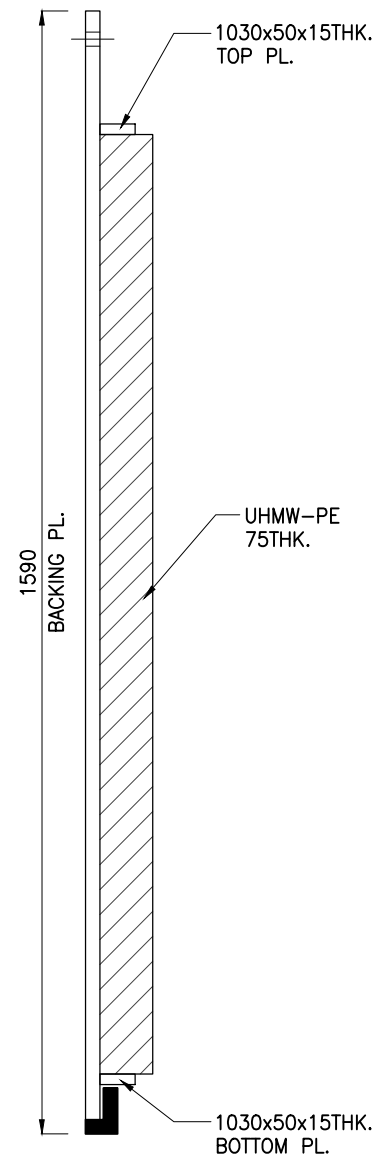


UHMW-PE FRAME DETAIL

UHMW-PE
1000x1000x75





SECTION G
SCALE 1:10

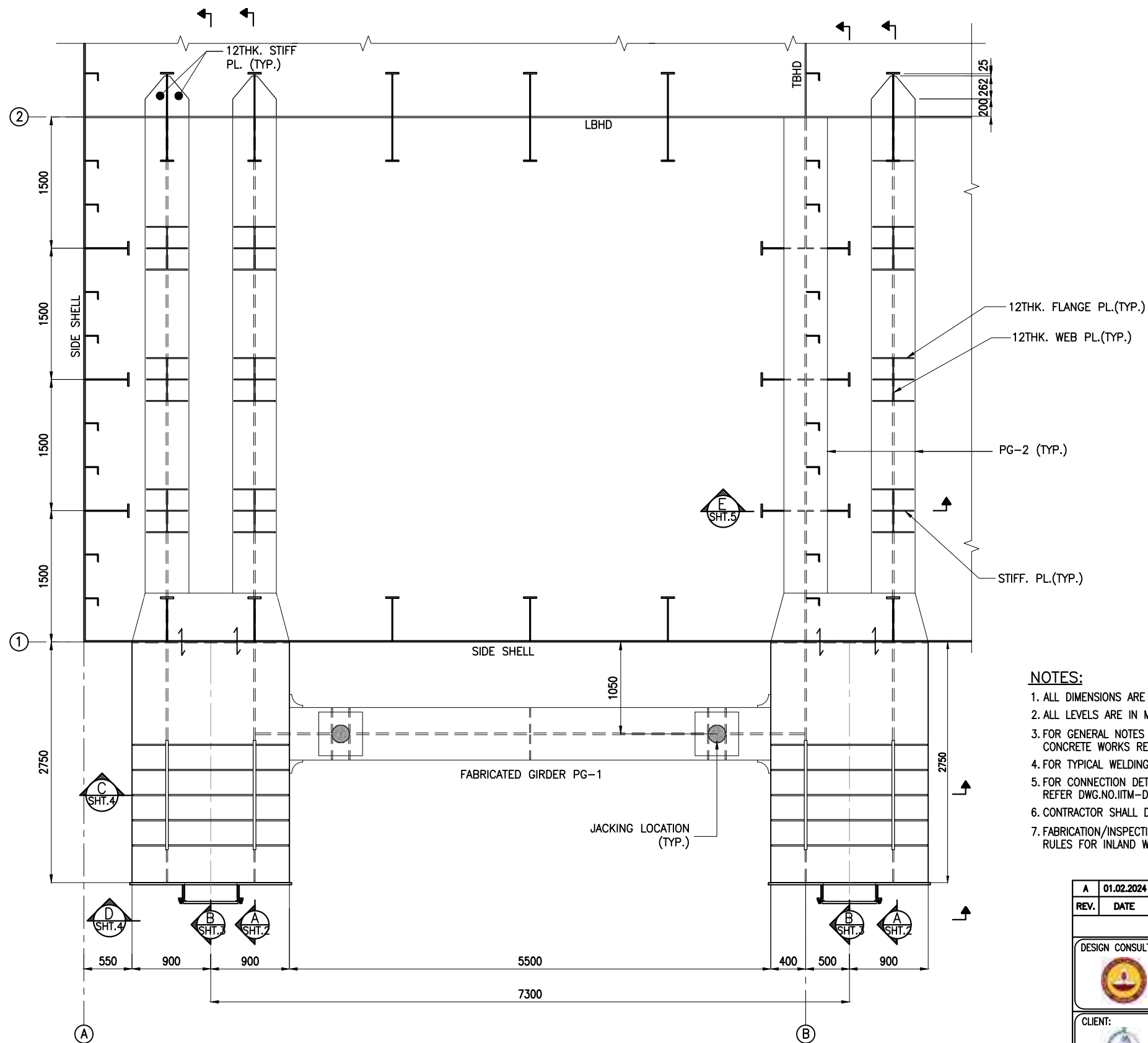


SECTION F
SCALE 1:10



NOTES:

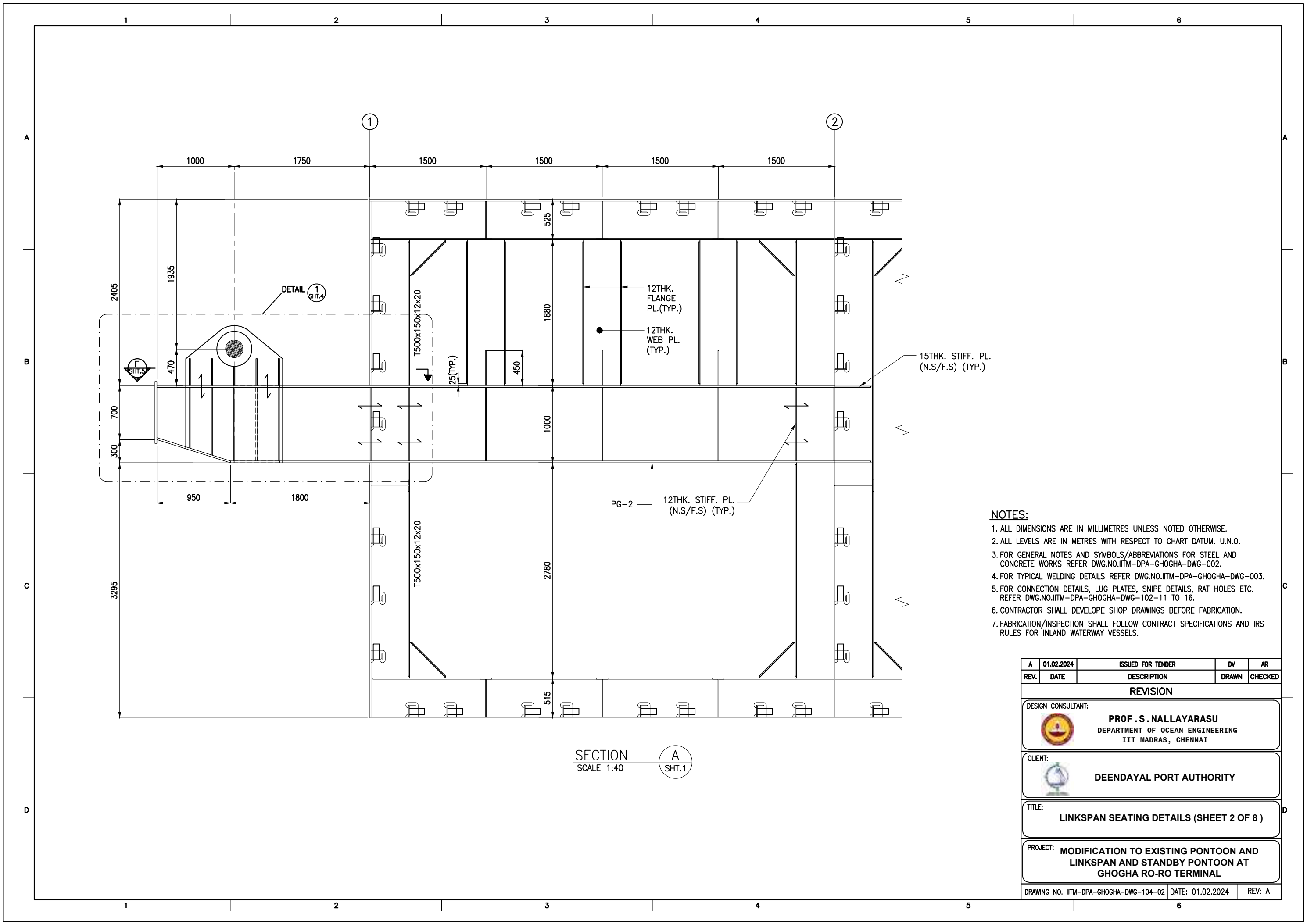
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
2. ALL LEVELS ARE IN METRES WITH RESPECT TO CHART DATUM. U.N.O.
3. FOR GENERAL NOTES AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-002.
4. FOR TYPICAL WELDING DETAILS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-003.

A	01.02.2024	ISSUED FOR TENDER	SNR	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF .S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
GUIDED YOKE DETAILS (SHEET 5 OF 5)				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-103-05			DATE: 01.02.2024	
			REV: A	





PLAN OF LINKSPAN SUPPORT ARRANGEMENT
SCALE 1:50

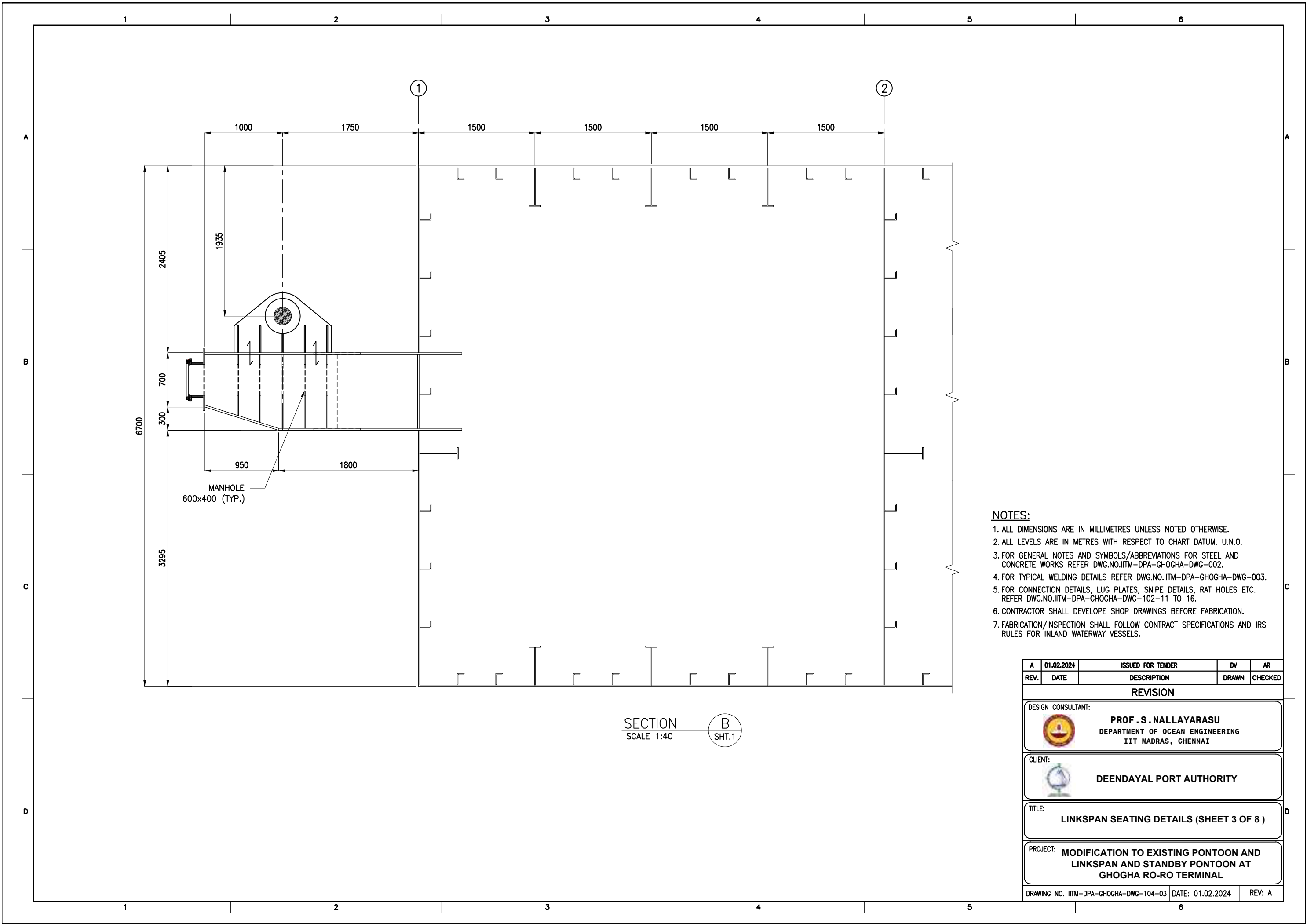
A	01.02.2024	ISSUED FOR TENDER	DV	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF .S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
LINKSPAN SEATING DETAILS (SHEET 1 OF 8)				
PROJECT:				
MODIFICATION TO EXISTING PONTON AND LINKSPAN AND STANDBY PONTON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-104-01		DATE: 01.02.2024		REV: A





NOTES:

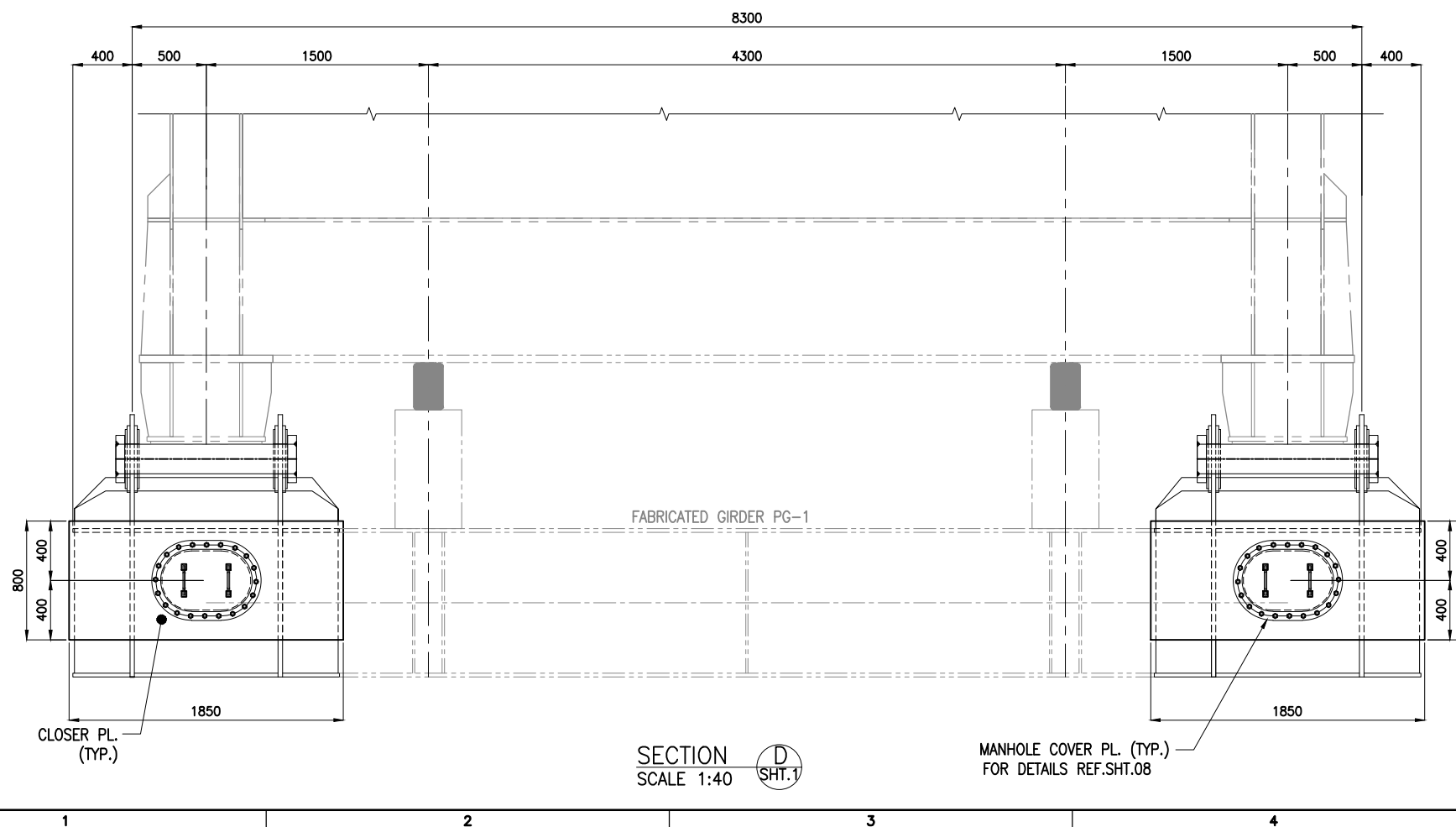
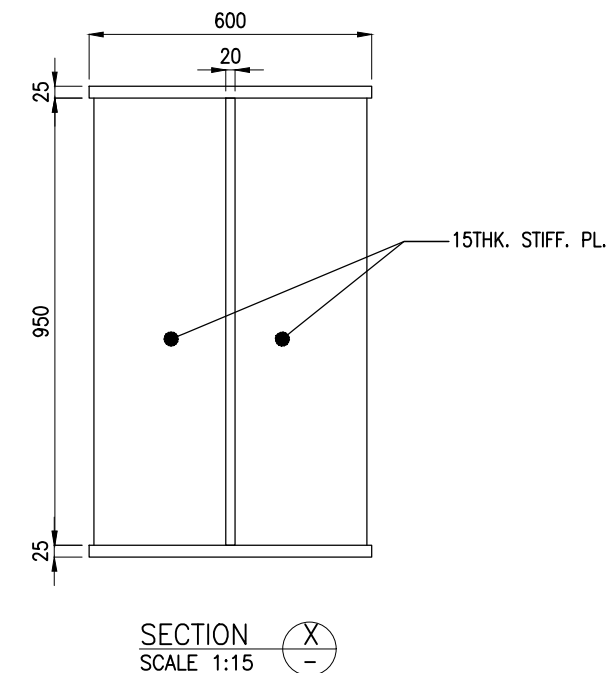
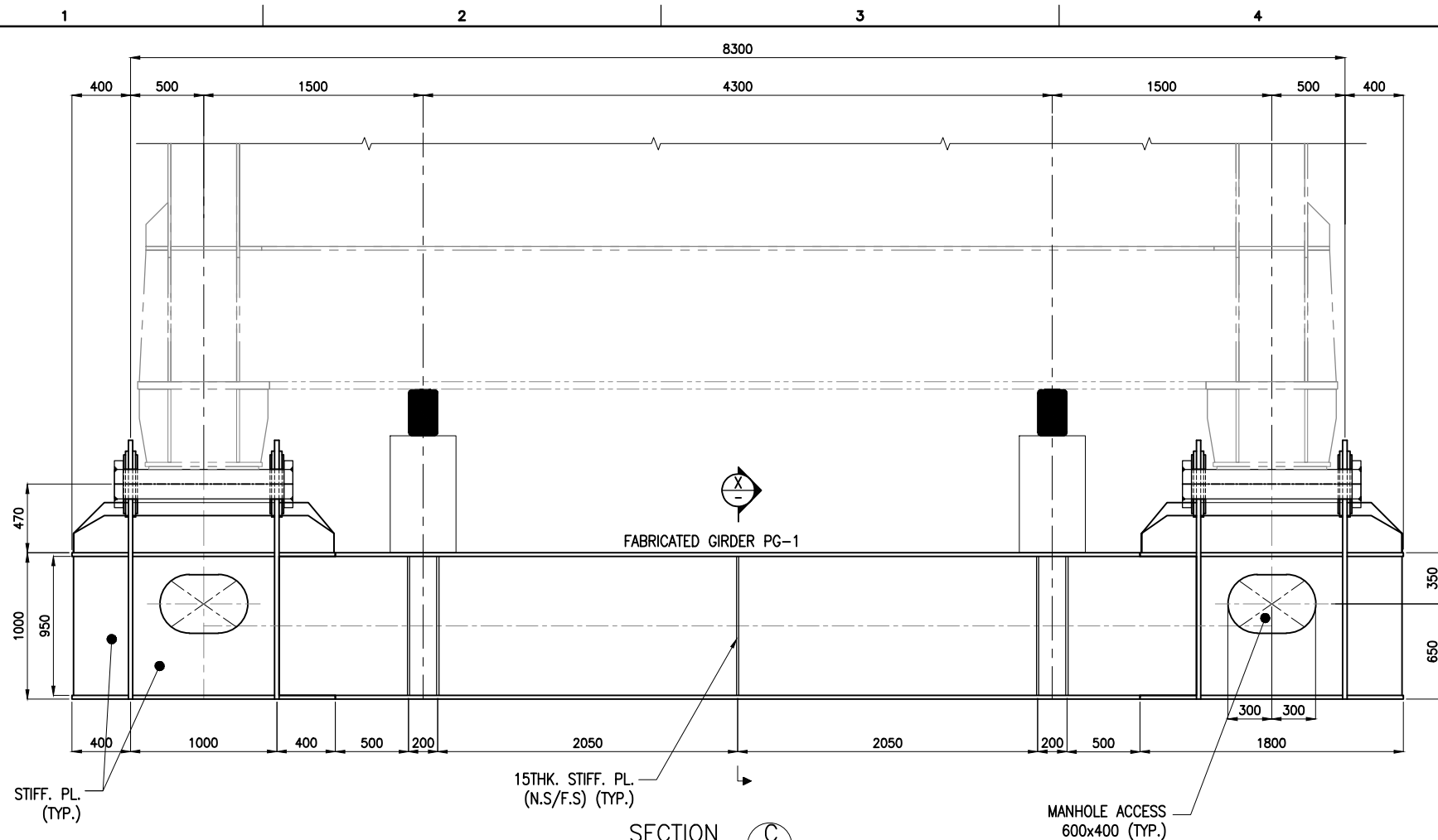
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
2. ALL LEVELS ARE IN METRES WITH RESPECT TO CHART DATUM. U.N.O.
3. FOR GENERAL NOTES AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-002.
4. FOR TYPICAL WELDING DETAILS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-003.
5. FOR CONNECTION DETAILS, LUG PLATES, SNIPE DETAILS, RAT HOLES ETC. REFER DWG.NO.IITM-DPA-GHOGHA-DWG-102-11 TO 16.
6. CONTRACTOR SHALL DEVELOPE SHOP DRAWINGS BEFORE FABRICATION.
7. FABRICATION/INSPECTION SHALL FOLLOW CONTRACT SPECIFICATIONS AND IRS RULES FOR INLAND WATERWAY VESSELS.

A	01.02.2024	ISSUED FOR TENDER	DV	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF .S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
LINKSPAN SEATING DETAILS (SHEET 2 OF 8)				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-104-02		DATE: 01.02.2024		REV: A





- NOTES:**
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
 2. ALL LEVELS ARE IN METRES WITH RESPECT TO CHART DATUM. U.N.O.
 3. FOR GENERAL NOTES AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-002.
 4. FOR TYPICAL WELDING DETAILS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-003.
 5. FOR CONNECTION DETAILS, LUG PLATES, SNIPE DETAILS, RAT HOLES ETC. REFER DWG.NO.IITM-DPA-GHOGHA-DWG-102-11 TO 16.
 6. CONTRACTOR SHALL DEVELOPE SHOP DRAWINGS BEFORE FABRICATION.
 7. FABRICATION/INSPECTION SHALL FOLLOW CONTRACT SPECIFICATIONS AND IRS RULES FOR INLAND WATERWAY VESSELS.

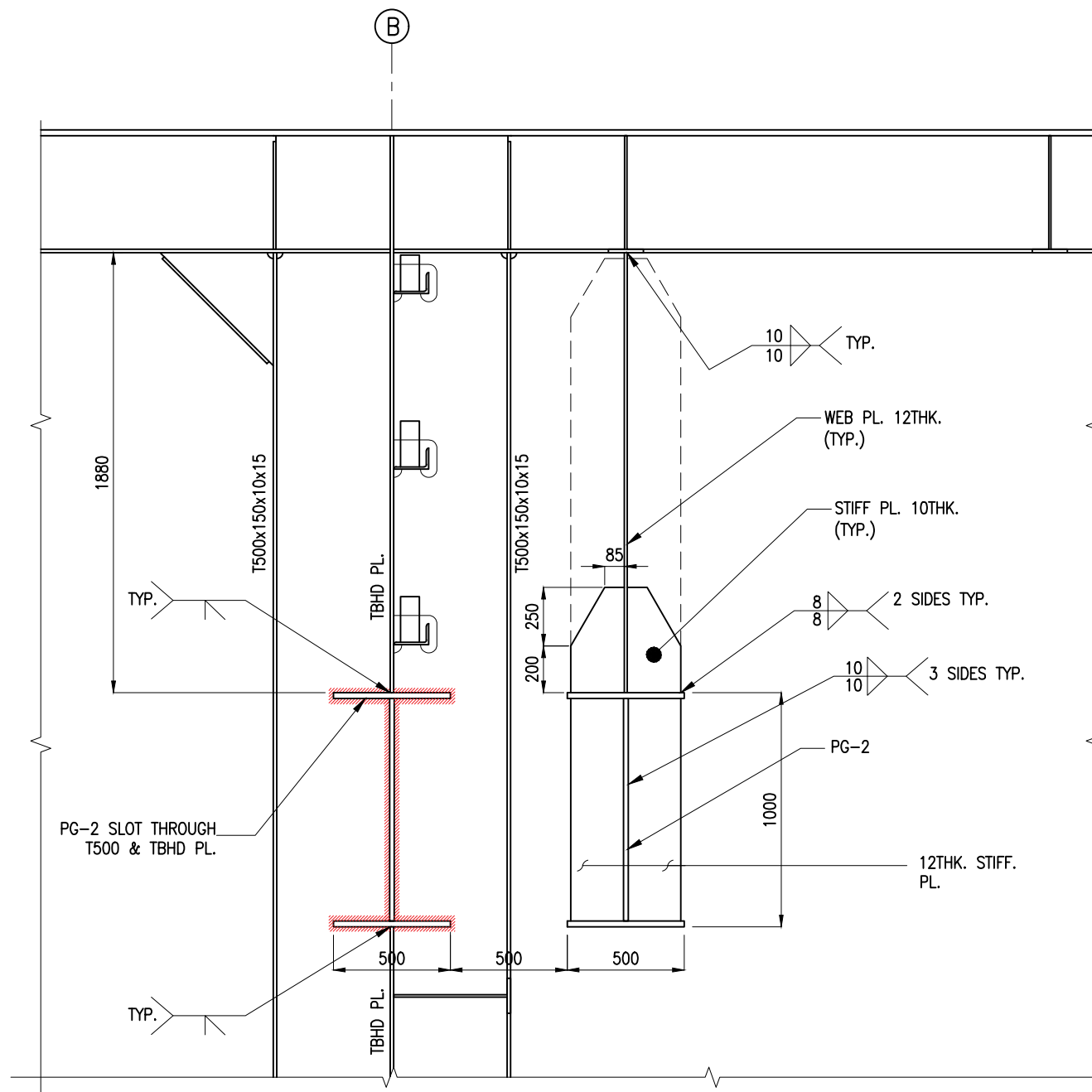
A	01.02.2024	ISSUED FOR TENDER	DV	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF .S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
LINKSPAN SEATING DETAILS (SHEET 3 OF 8)				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-104-03		DATE: 01.02.2024		REV: A



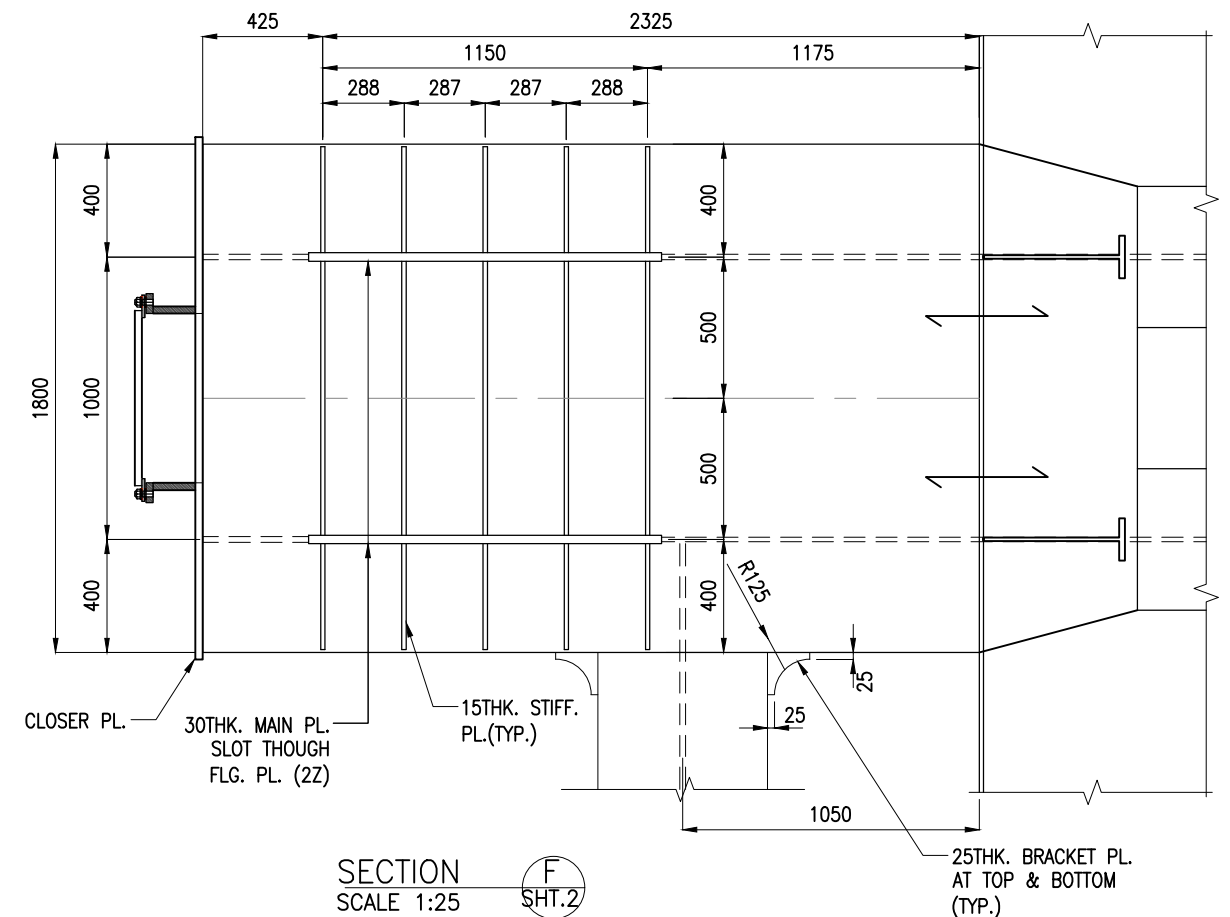
NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
2. ALL LEVELS ARE IN METRES WITH RESPECT TO CHART DATUM. U.N.O.
3. FOR GENERAL NOTES, MATERIAL DETAILS AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-002.
4. FOR TYPICAL WELDING DETAILS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-003.
5. LINE BORING SHALL BE DONE AFTER WELDING OF CHEEK PLATES AND SPACER PLATES.
6. FOR CONNECTION DETAILS, LUG PLATES, SNIPE DETAILS, RAT HOLES ETC. REFER DWG.NO.IITM-DPA-GHOGHA-DWG-102-11 TO 16.
7. CONTRACTOR SHALL DEVELOPE SHOP DRAWINGS BEFORE FABRICATION.
8. FABRICATION/INSPECTION SHALL FOLLOW CONTRACT SPECIFICATIONS AND IRS RULES FOR INLAND WATERWAY VESSELS.

A	01.02.2024	ISSUED FOR TENDER	DV	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF .S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
LINKSPAN SEATING DETAILS (SHEET 4 OF 8)				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-104-04		DATE: 01.02.2024		REV: A





SECTION E
SCALE 1:25

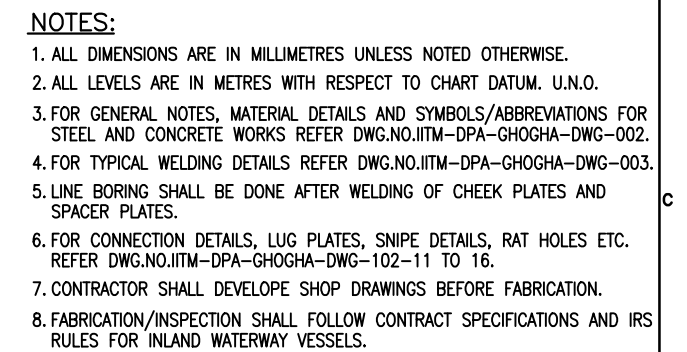
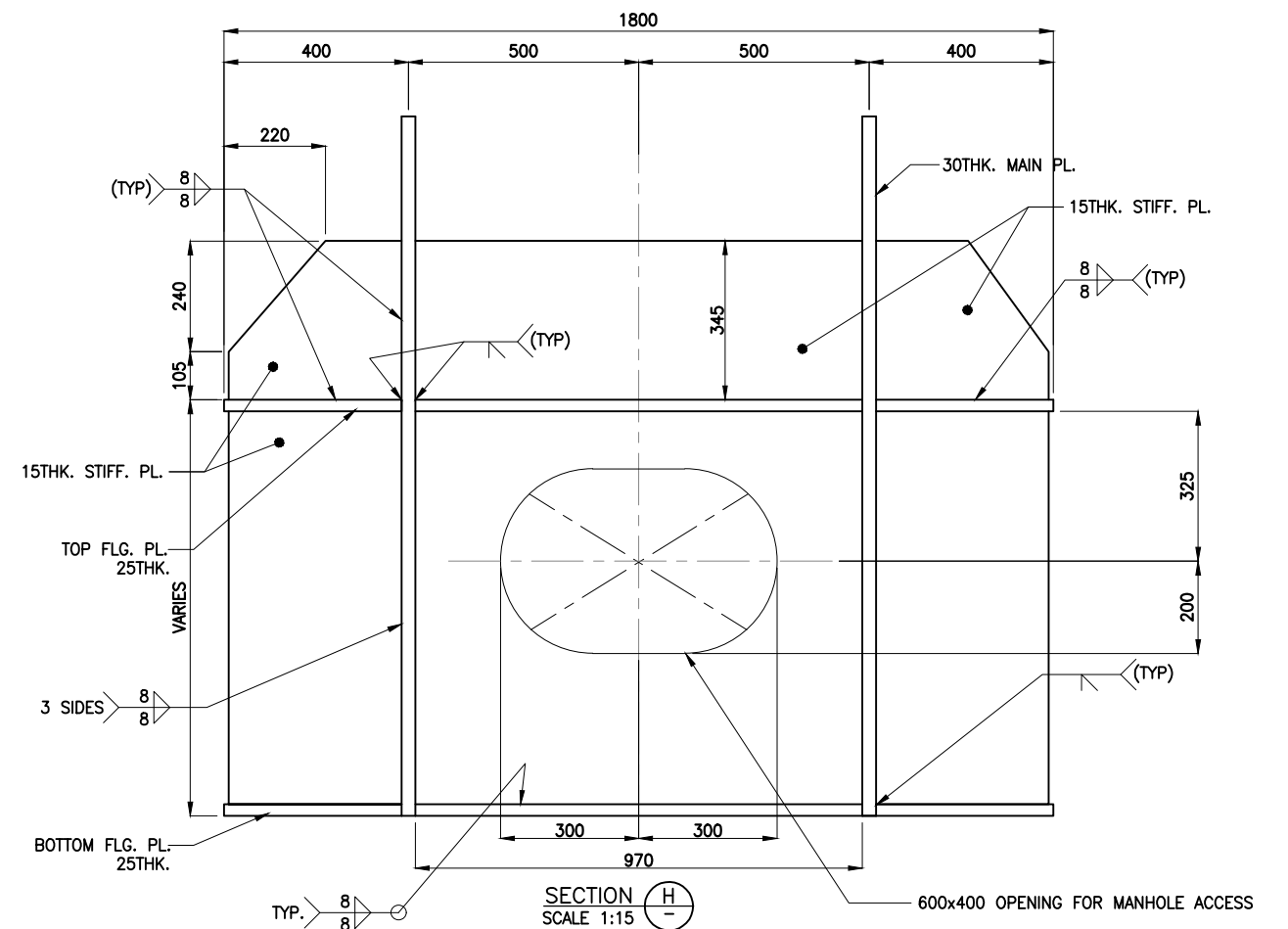




SECTION F
SCALE 1:25

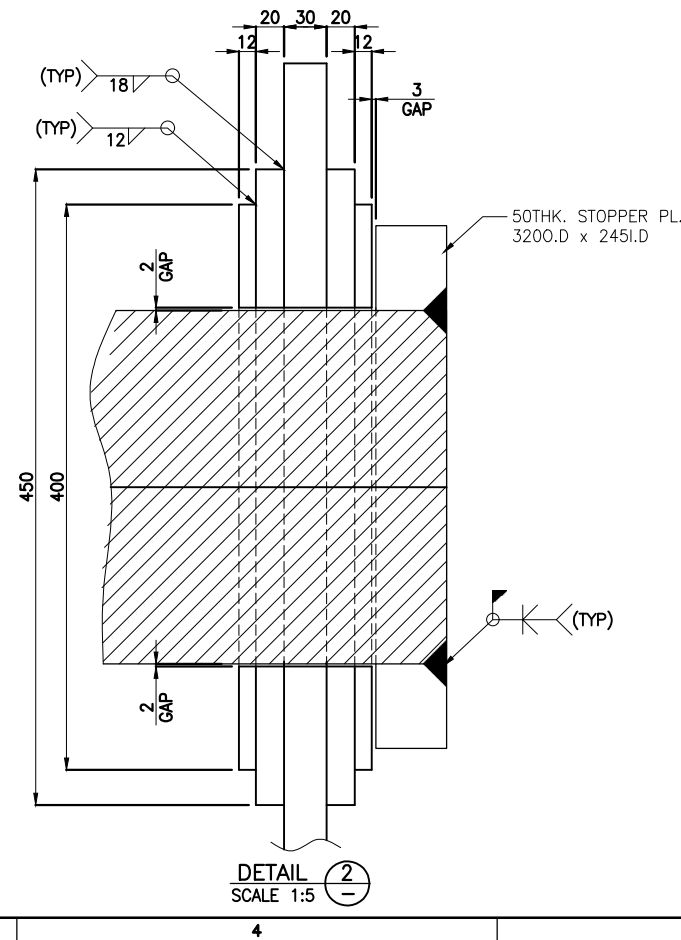
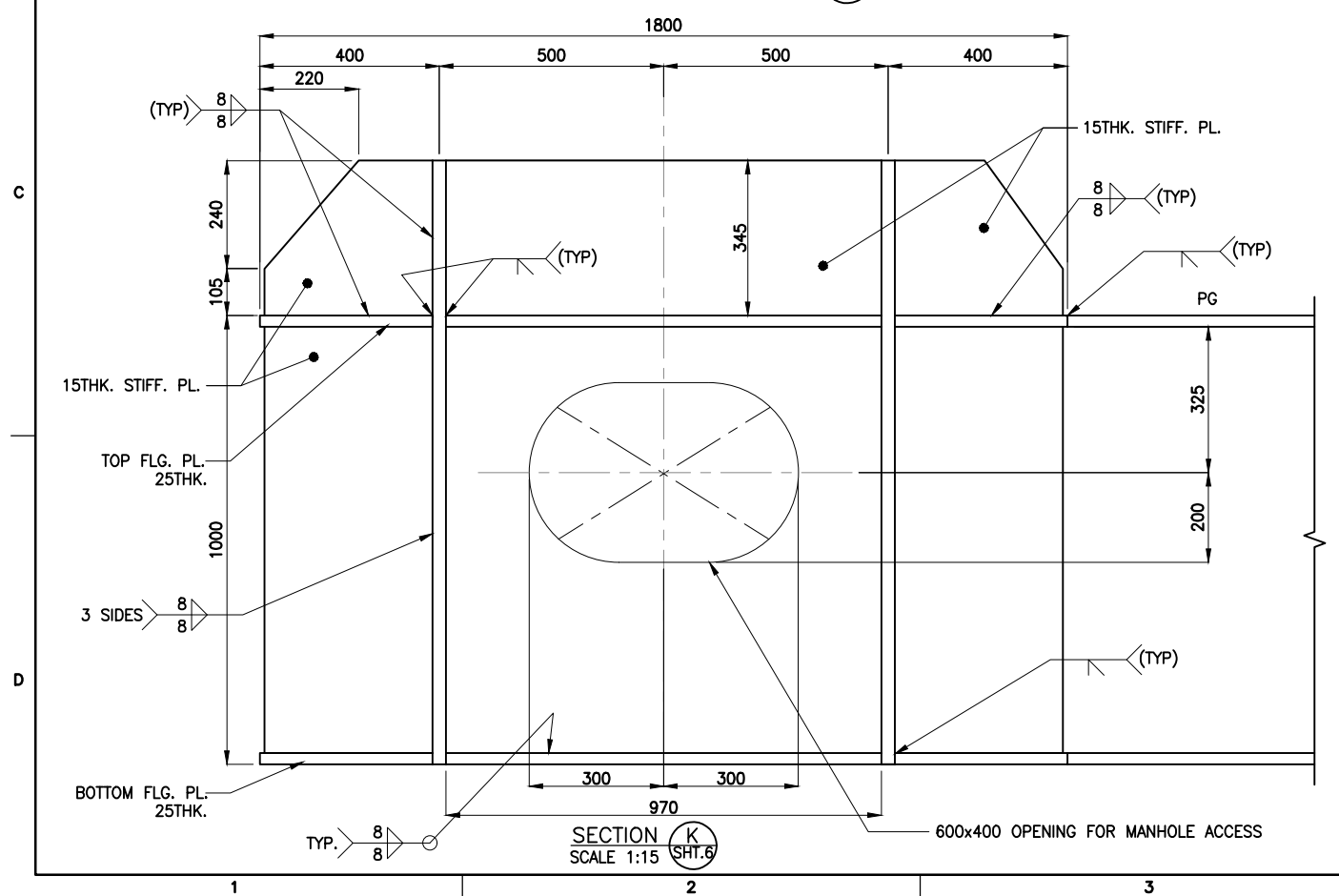
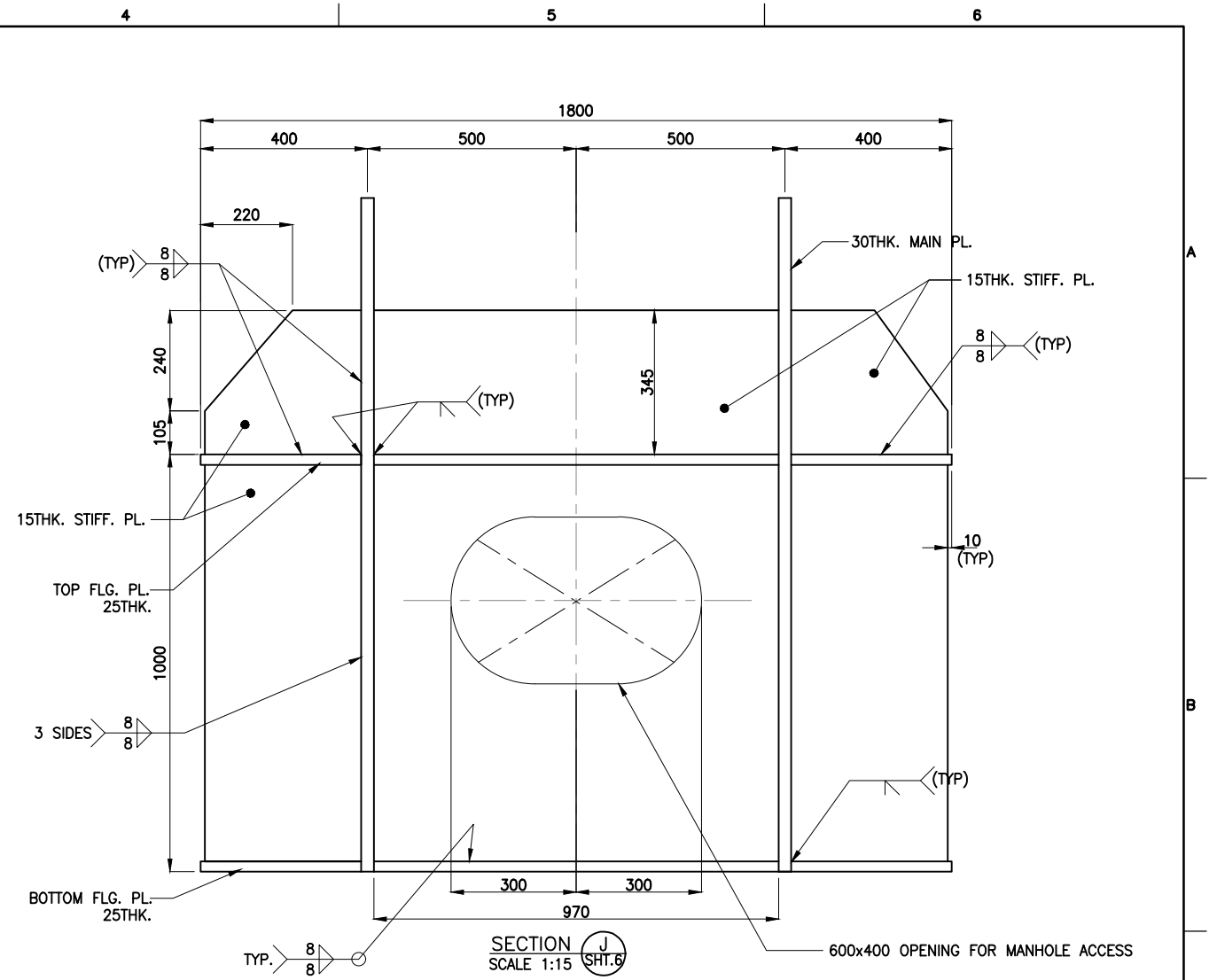
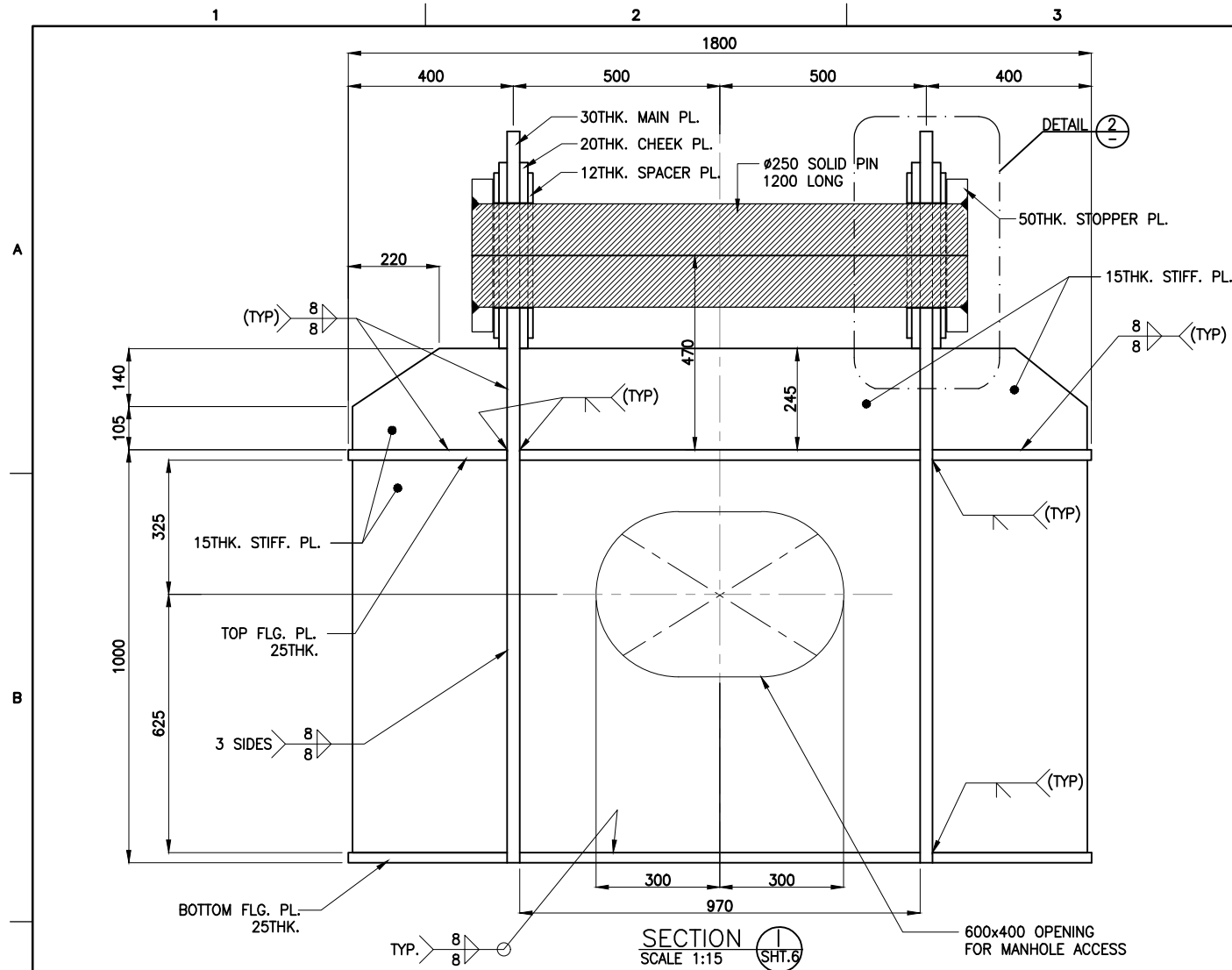
NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
2. ALL LEVELS ARE IN METRES WITH RESPECT TO CHART DATUM. U.N.O.
3. FOR GENERAL NOTES, MATERIAL DETAILS AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-002.
4. FOR TYPICAL WELDING DETAILS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-003.
5. LINE BORING SHALL BE DONE AFTER WELDING OF CHEEK PLATES AND SPACER PLATES.
6. FOR CONNECTION DETAILS, LUG PLATES, SNIPE DETAILS, RAT HOLES ETC. REFER DWG.NO.IITM-DPA-GHOGHA-DWG-102-11 TO 16.
7. CONTRACTOR SHALL DEVELOPE SHOP DRAWINGS BEFORE FABRICATION.
8. FABRICATION/INSPECTION SHALL FOLLOW CONTRACT SPECIFICATIONS AND IRS RULES FOR INLAND WATERWAY VESSELS.



A	01.02.2024	ISSUED FOR TENDER	DV	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF . S . NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
LINKSPAN SEATING DETAILS (SHEET 5 OF 8)				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-104-05 DATE: 01.02.2024 REV: A				

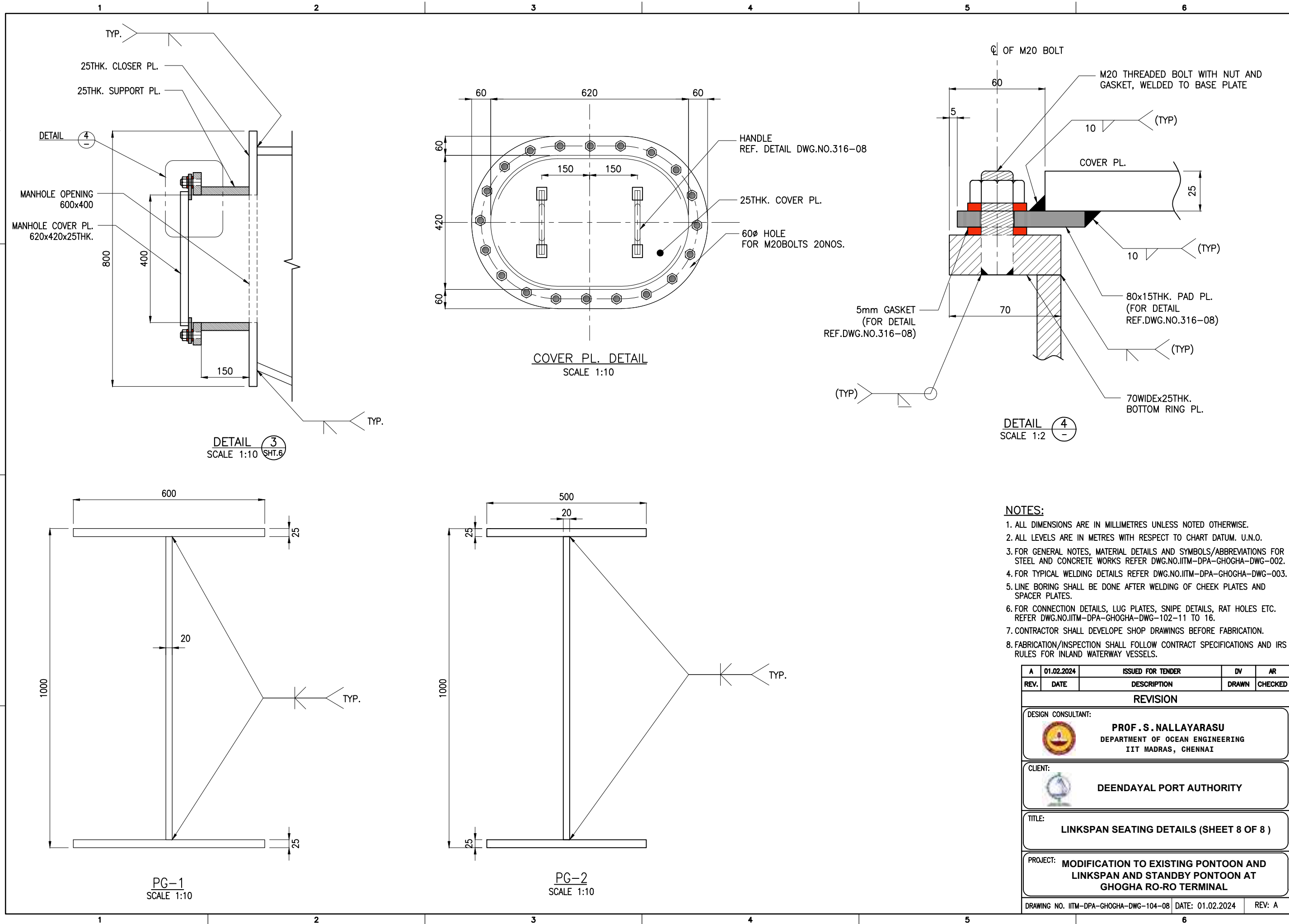


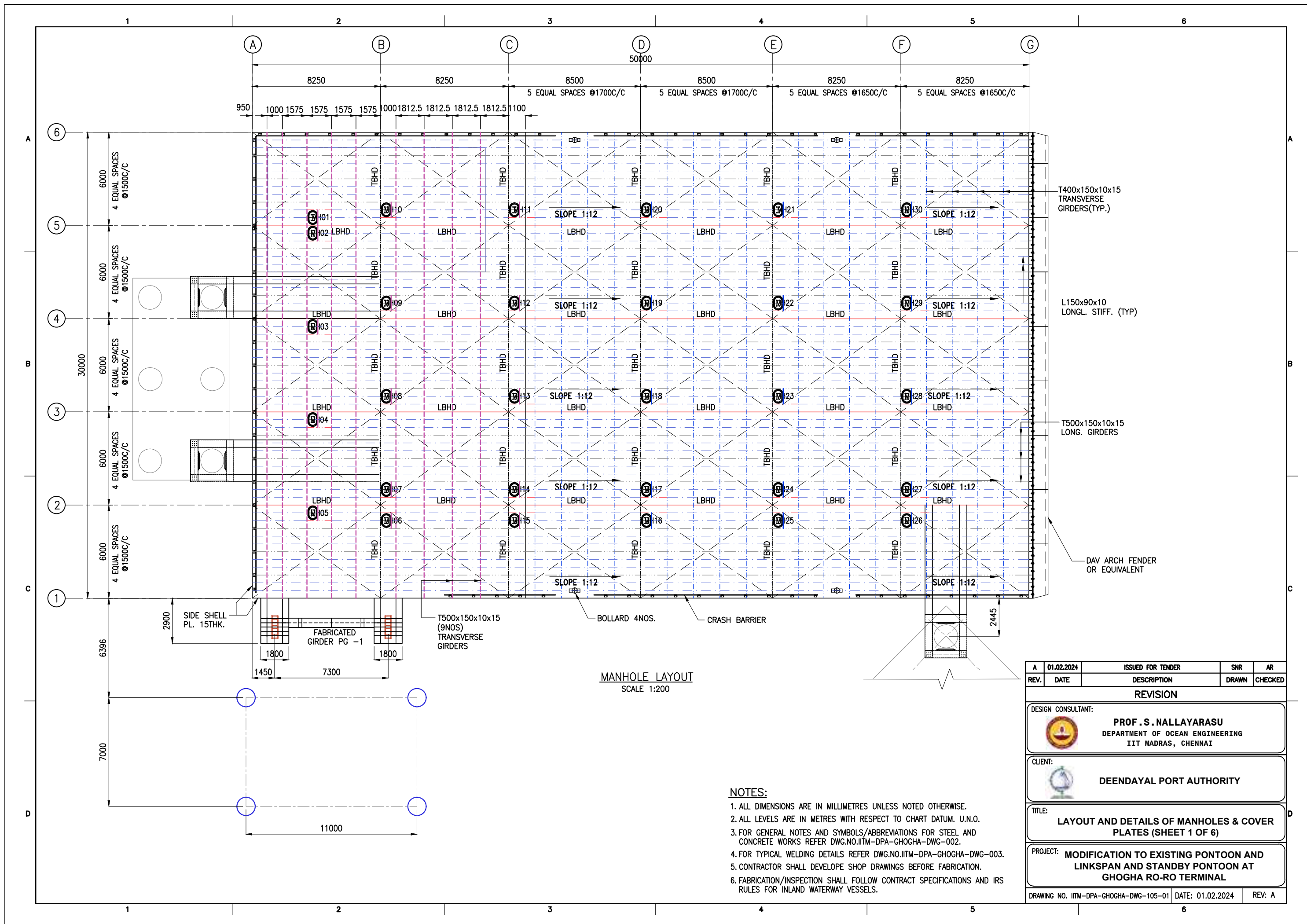
A	01.02.2024	ISSUED FOR TENDER	DV	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:  PROF. S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:  DEENDAYAL PORT AUTHORITY				
TITLE: LINKSPAN SEATING DETAILS (SHEET 6 OF 8)				
PROJECT: MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-104-06		DATE: 01.02.2024	REV: A	



- NOTES:**
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
 2. ALL LEVELS ARE IN METRES WITH RESPECT TO CHART DATUM. U.N.O.
 3. FOR GENERAL NOTES, MATERIAL DETAILS AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-002.
 4. FOR TYPICAL WELDING DETAILS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-003.
 5. LINE BORING SHALL BE DONE AFTER WELDING OF CHEEK PLATES AND SPACER PLATES.
 6. FOR CONNECTION DETAILS, LUG PLATES, SNIPE DETAILS, RAT HOLES ETC. REFER DWG.NO.IITM-DPA-GHOGHA-DWG-102-11 TO 16.
 7. CONTRACTOR SHALL DEVELOPE SHOP DRAWINGS BEFORE FABRICATION.
 8. FABRICATION/INSPECTION SHALL FOLLOW CONTRACT SPECIFICATIONS AND IRS RULES FOR INLAND WATERWAY VESSELS.

A	01.02.2024	ISSUED FOR TENDER	DV	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF .S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
LINKSPAN SEATING DETAILS (SHEET 7 OF 8)				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-104-07 DATE: 01.02.2024 REV: A				





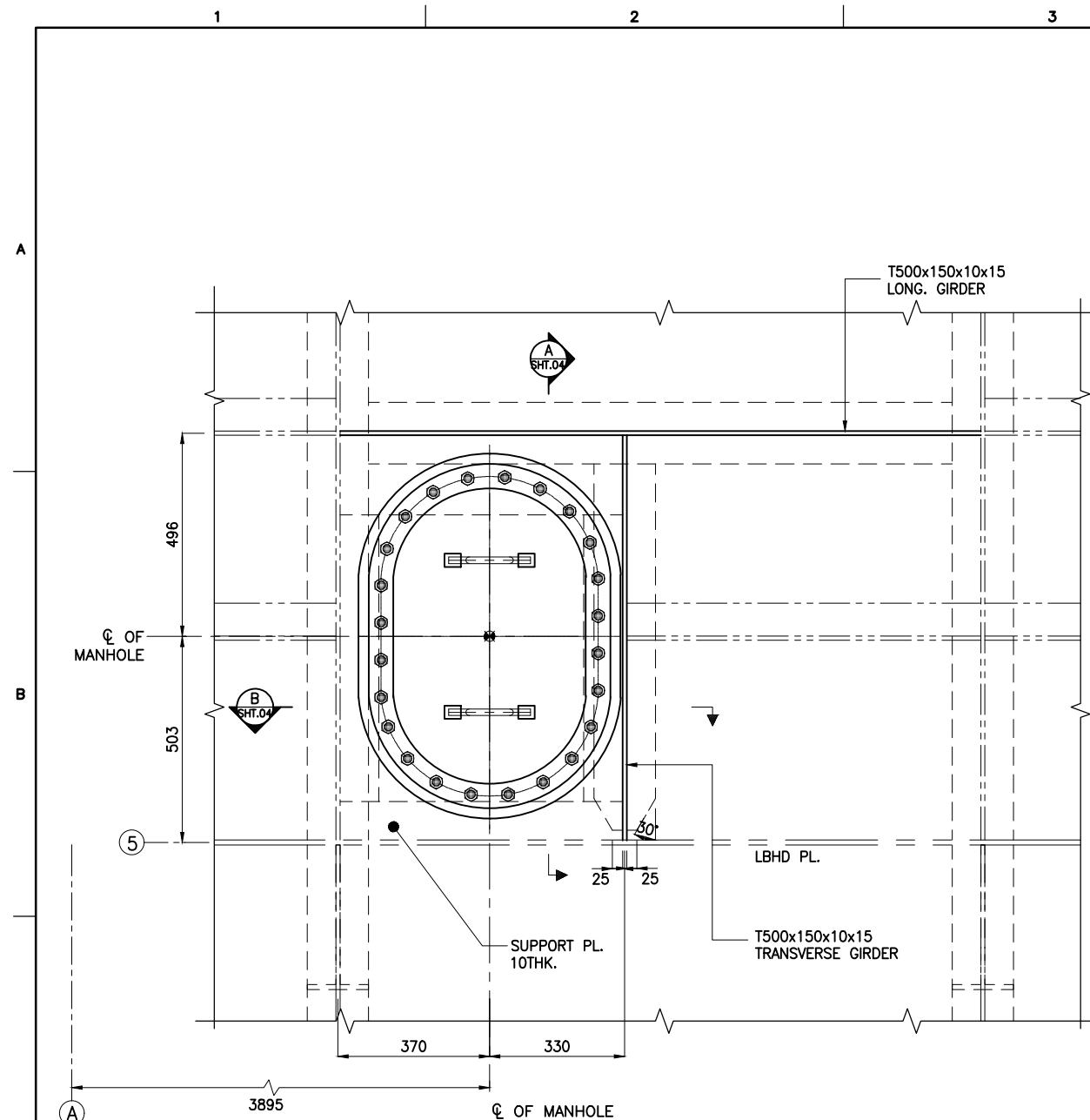


MANHOLE LAYOUT
SCALE 1:200

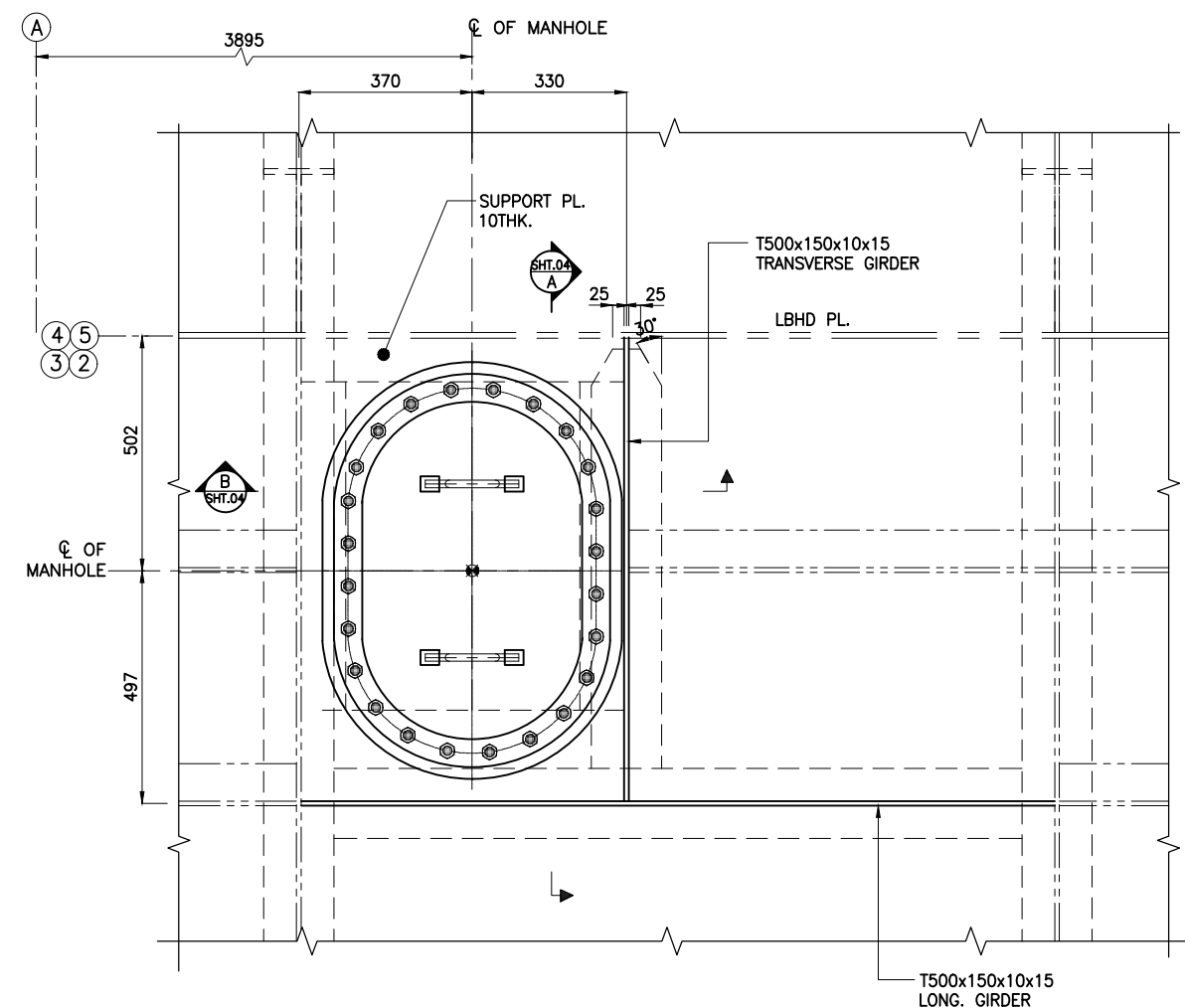
NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
2. ALL LEVELS ARE IN METRES WITH RESPECT TO CHART DATUM. U.N.O.
3. FOR GENERAL NOTES AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-002.
4. FOR TYPICAL WELDING DETAILS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-003.
5. CONTRACTOR SHALL DEVELOPE SHOP DRAWINGS BEFORE FABRICATION.
6. FABRICATION/INSPECTION SHALL FOLLOW CONTRACT SPECIFICATIONS AND IRS RULES FOR INLAND WATERWAY VESSELS.

A	01.02.2024	ISSUED FOR TENDER	SNR	AR
	REV.	DATE	DESCRIPTION	DRAWN CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF .S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
LAYOUT AND DETAILS OF MANHOLES & COVER PLATES (SHEET 1 OF 6)				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-105-01			DATE: 01.02.2024	
			REV: A	





PLAN VIEW FOR MANHOLES – 01
SCALE 1:15

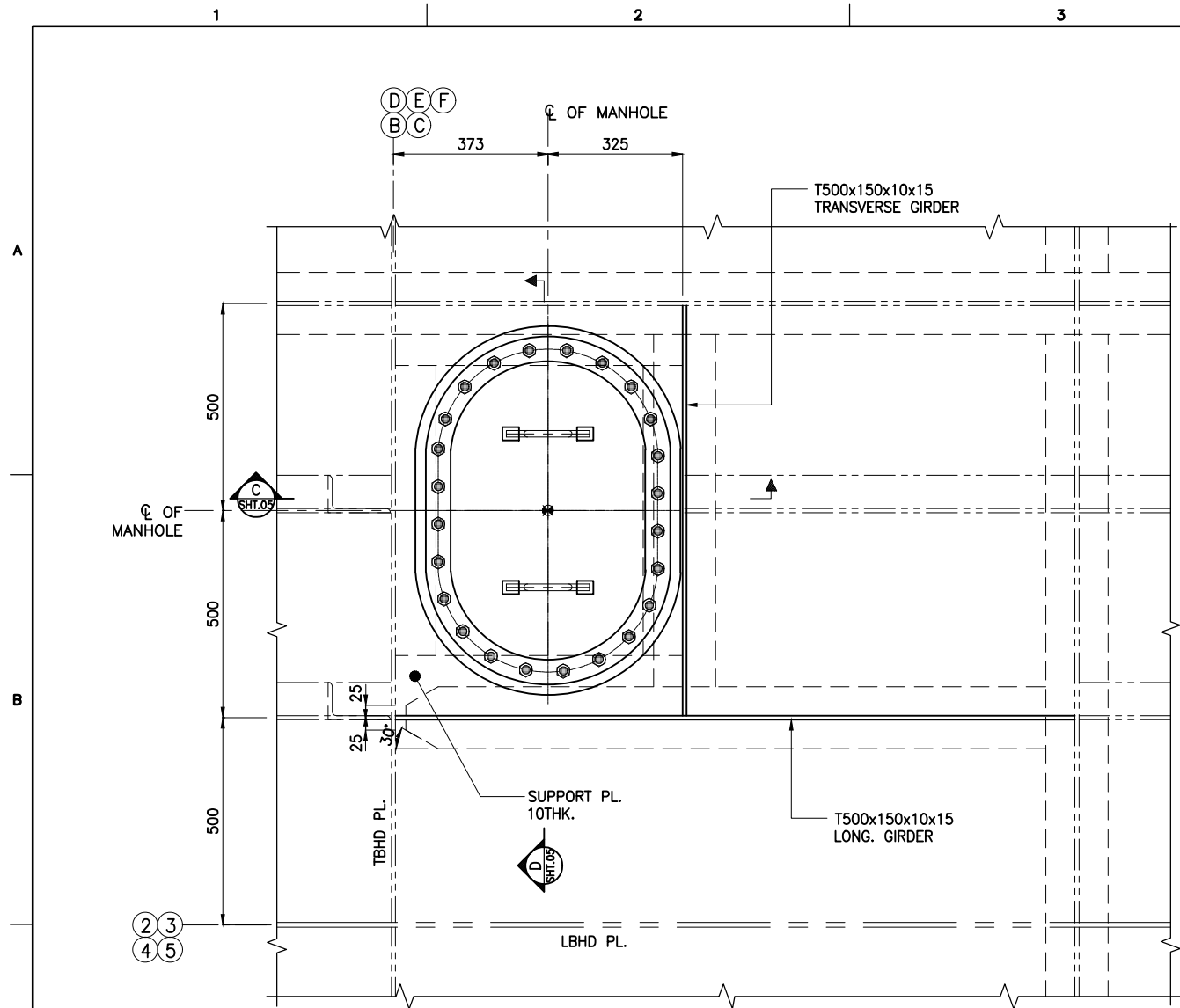


PLAN VIEW FOR MANHOLES – 02 TO 05
SCALE 1:15

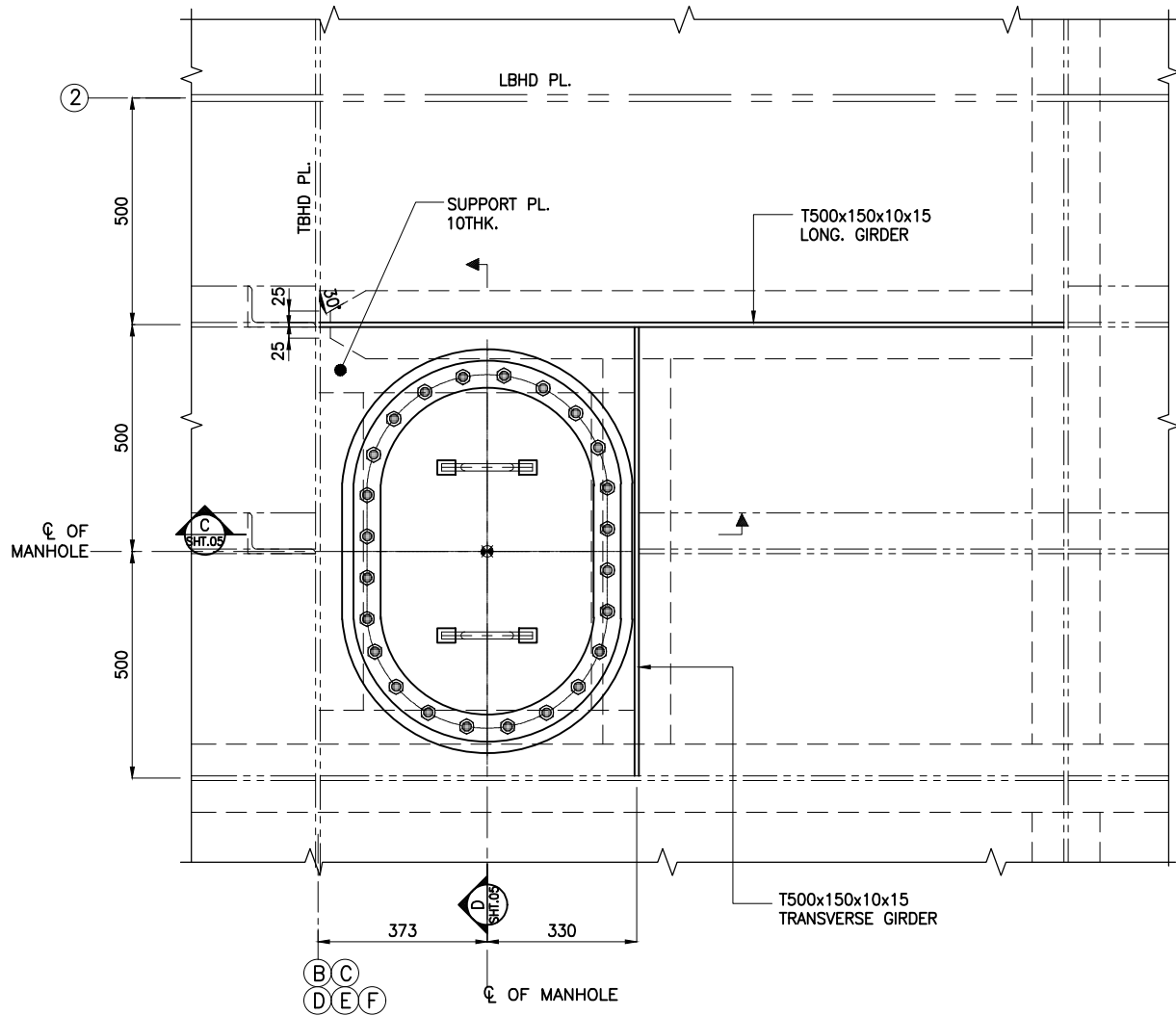
NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
2. ALL LEVELS ARE IN METRES WITH RESPECT TO CHART DATUM. U.N.O.
3. FOR GENERAL NOTES, MATERIAL DETAILS AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-002.
4. FOR TYPICAL WELDING DETAILS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-003.
5. THE WATER TIGHT MANHOLE COVER SHALL BE CERTIFIED TO IACS SC 156 AND SOLLAS GUIDE LINES.
6. CONTRACTOR SHALL DEVELOPE SHOP DRAWINGS BEFORE FABRICATION.
7. FABRICATION/INSPECTION SHALL FOLLOW CONTRACT SPECIFICATIONS AND IRS RULES FOR INLAND WATERWAY VESSELS.

A	01.02.2024	ISSUED FOR TENDER	SNR	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF .S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
LAYOUT AND DETAILS OF MANHOLES & COVER PLATES (SHEET 2 OF 6)				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-105-02			DATE: 01.02.2024	
			REV: A	





PLAN VIEW FOR MANHOLES – (07 TO 10),(11 TO 14),(17 TO 20),
SCALE 1:15 (21 TO 24),(27 TO 30)



PLAN VIEW FOR MANHOLES – 06,15,16,25,26
SCALE 1:15



NOTES:

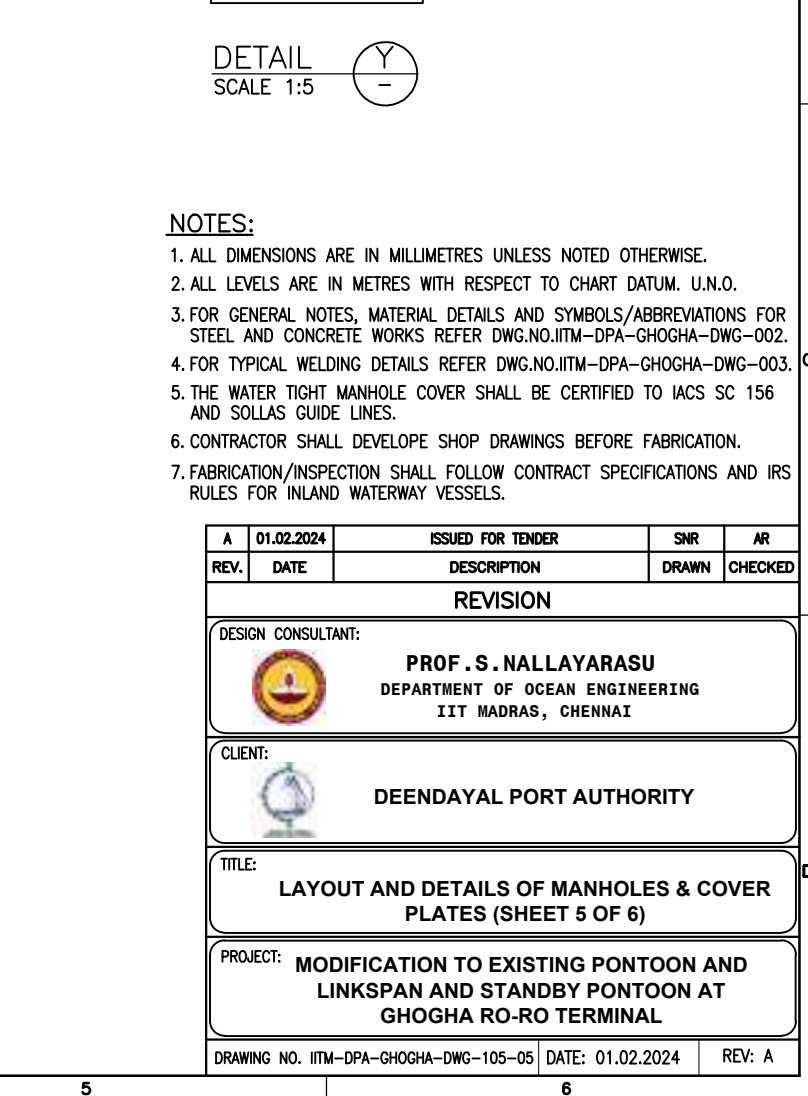
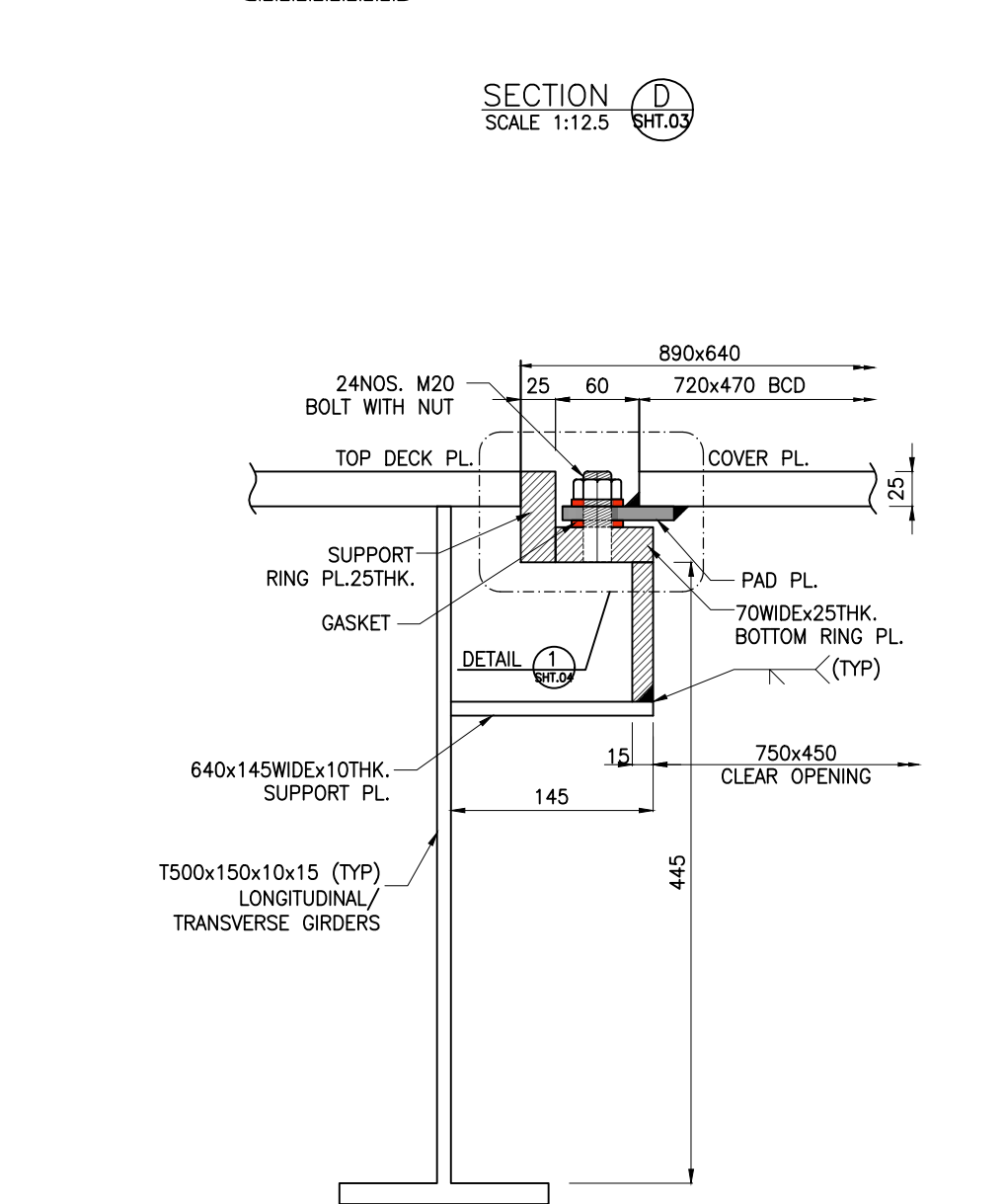
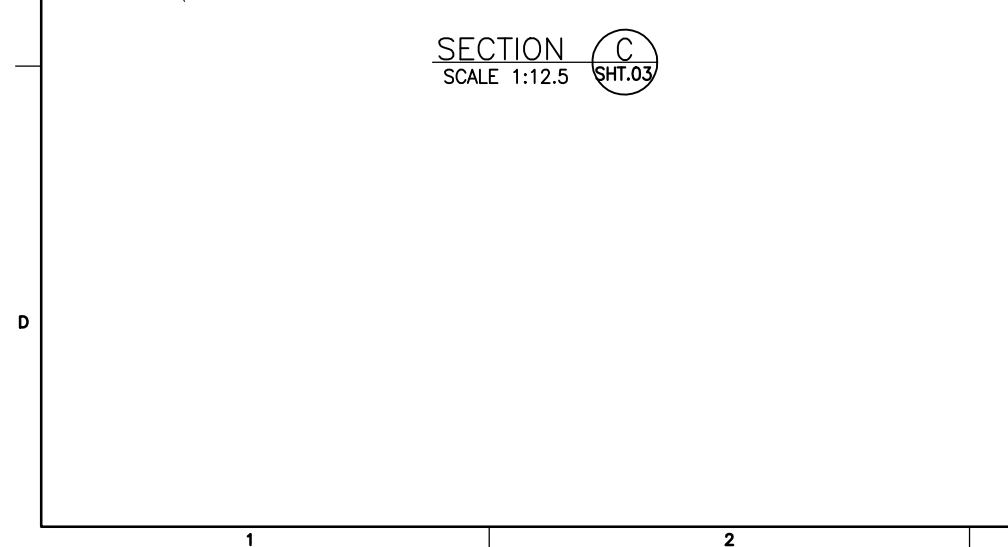
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
2. ALL LEVELS ARE IN METRES WITH RESPECT TO CHART DATUM. U.N.O.
3. FOR GENERAL NOTES, MATERIAL DETAILS AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-002.
4. FOR TYPICAL WELDING DETAILS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-003.
5. THE WATER TIGHT MANHOLE COVER SHALL BE CERTIFIED TO IACS SC 156 AND SOLLAS GUIDE LINES.
6. CONTRACTOR SHALL DEVELOPE SHOP DRAWINGS BEFORE FABRICATION.
7. FABRICATION/INSPECTION SHALL FOLLOW CONTRACT SPECIFICATIONS AND IRS RULES FOR INLAND WATERWAY VESSELS.

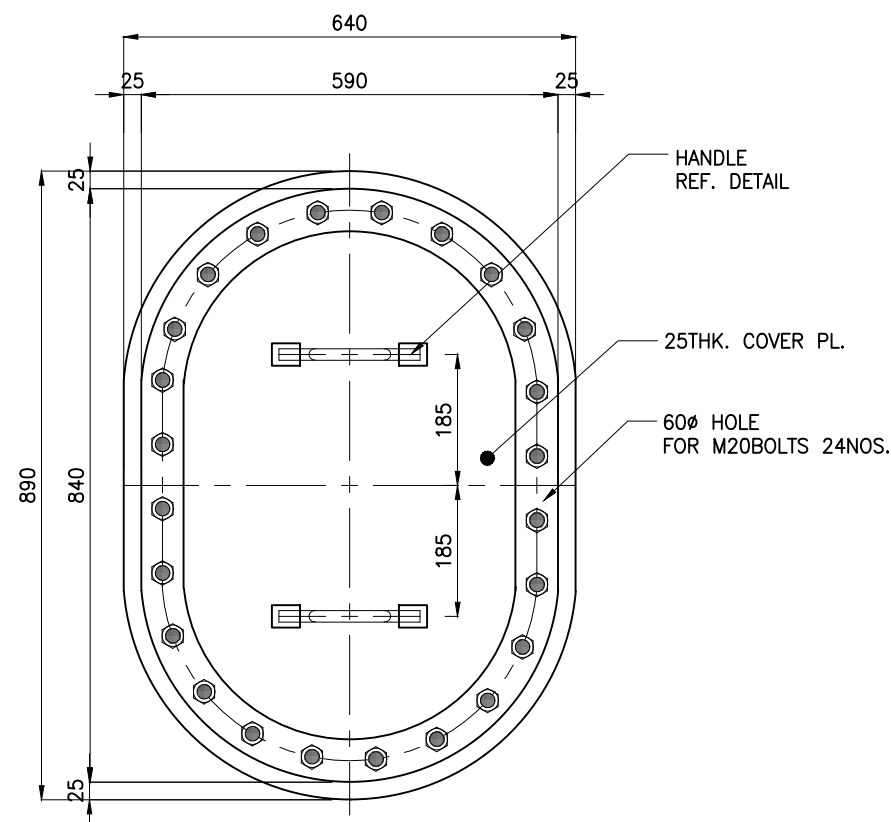
A	01.02.2024	ISSUED FOR TENDER	SNR	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF .S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
LAYOUT AND DETAILS OF MANHOLES & COVER PLATES (SHEET 3 OF 6)				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-105-03			DATE: 01.02.2024	
			REV: A	



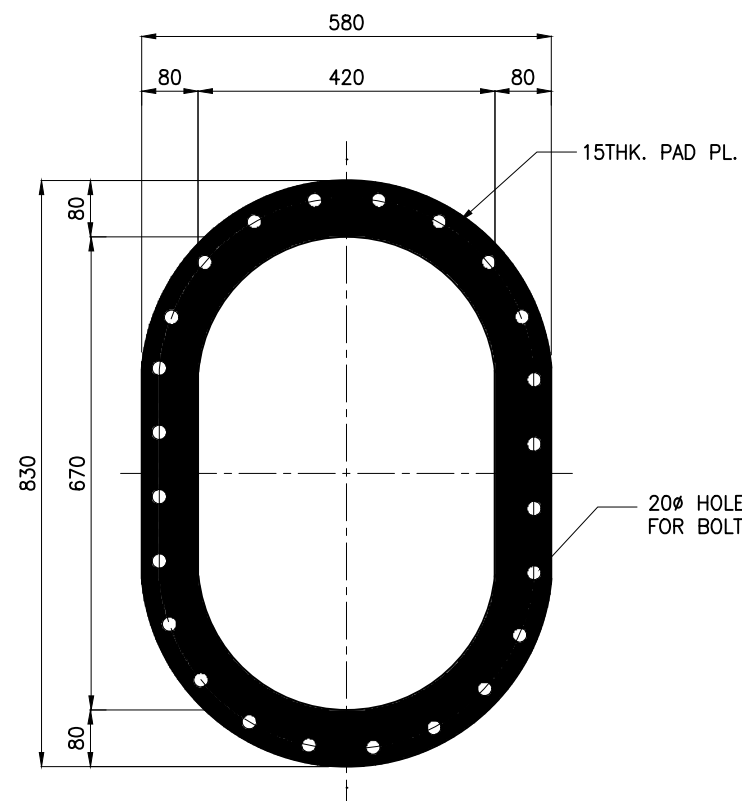
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
2. ALL LEVELS ARE IN METRES WITH RESPECT TO CHART DATUM. U.N.O.
3. FOR GENERAL NOTES, MATERIAL DETAILS AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-002.
4. FOR TYPICAL WELDING DETAILS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-003.
5. THE WATER TIGHT MANHOLE COVER SHALL BE CERTIFIED TO IACS SC 156 AND SOLLAS GUIDE LINES.
6. CONTRACTOR SHALL DEVELOPE SHOP DRAWINGS BEFORE FABRICATION.
7. FABRICATION/INSPECTION SHALL FOLLOW CONTRACT SPECIFICATIONS AND IRS RULES FOR INLAND WATERWAY VESSELS.

A	01.02.2024	ISSUED FOR TENDER	SNR	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
<div>REVISION</div>				
<div> <div>DESIGN CONSULTANT:</div> <div>  <div> <div>PROF . S. NALLAYARASU</div> <div>DEPARTMENT OF OCEAN ENGINEERING</div> <div>IIT MADRAS, CHENNAI</div> </div> </div> </div>				
<div> <div>CLIENT:</div> <div>  <div>DEENDAYAL PORT AUTHORITY</div> </div> </div>				
<div> <div>TITLE:</div> <div>LAYOUT AND DETAILS OF MANHOLES & COVER PLATES (SHEET 4 OF 6)</div> </div>				
<div> <div>PROJECT:</div> <div>MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL</div> </div>				
DRAWING NO. IITM-DPA-GHOGHA-DWG-105-04			DATE: 01.02.2024	REV: A

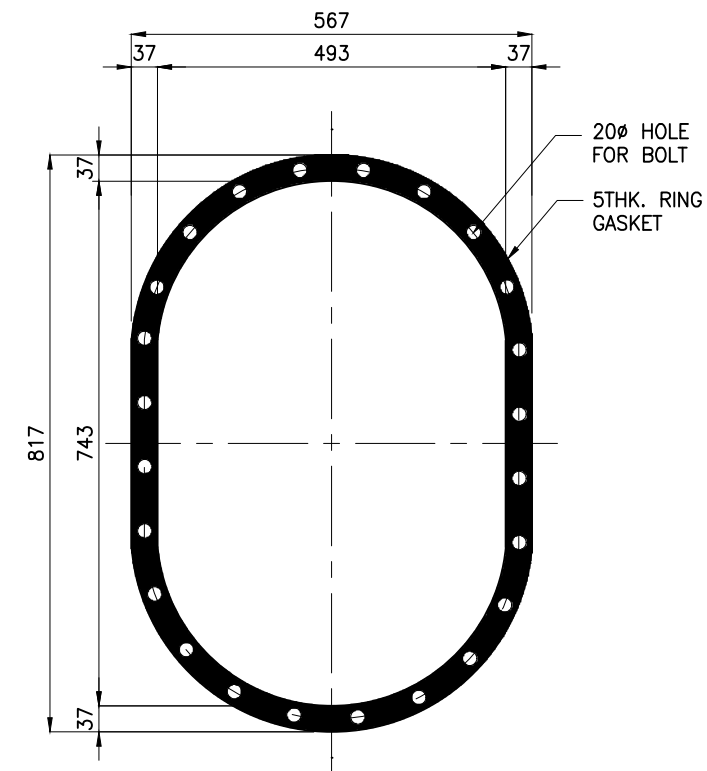




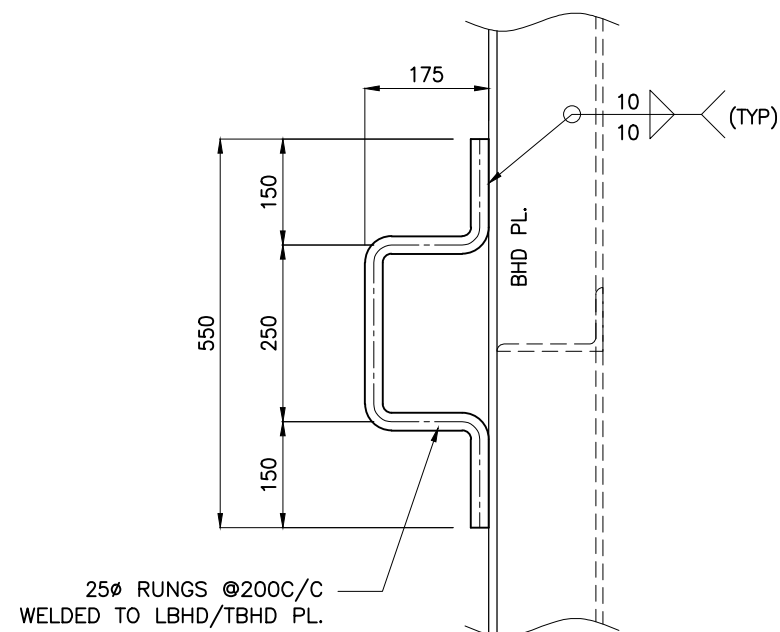
COVER PL. DETAIL
SCALE 1:10



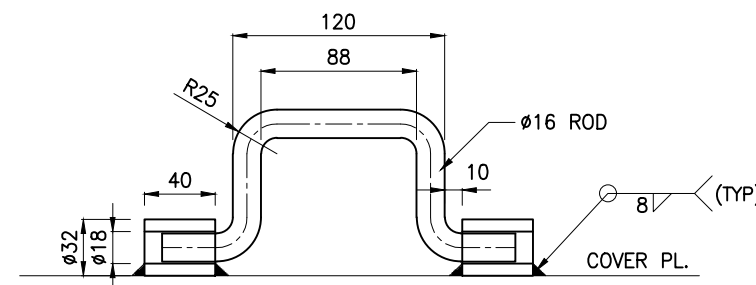
PAD PL. DETAIL
SCALE 1:10



RING GASKET DETAIL
SCALE 1:10





SECTION J
SCALE 1:10 SHT.04&05

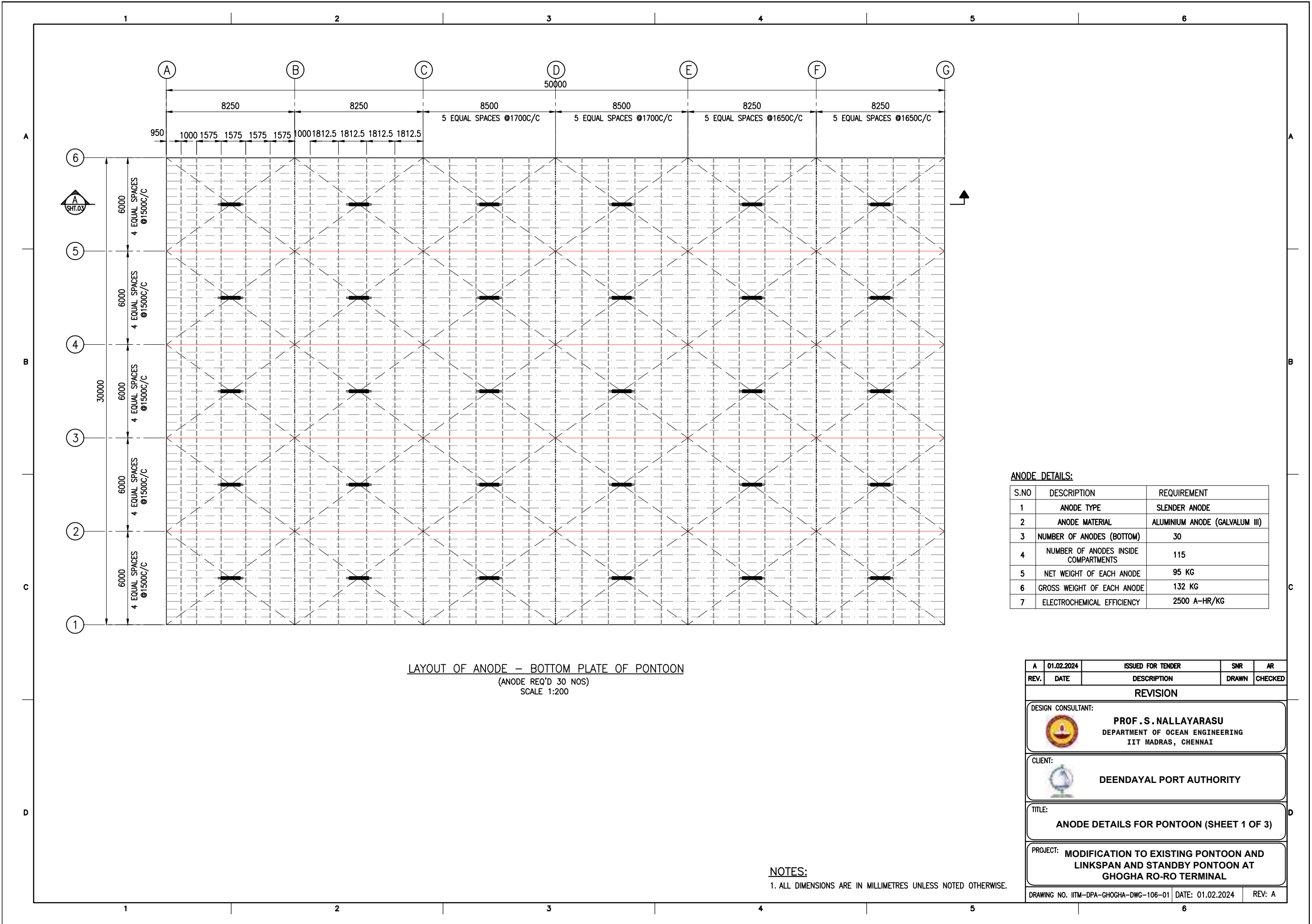


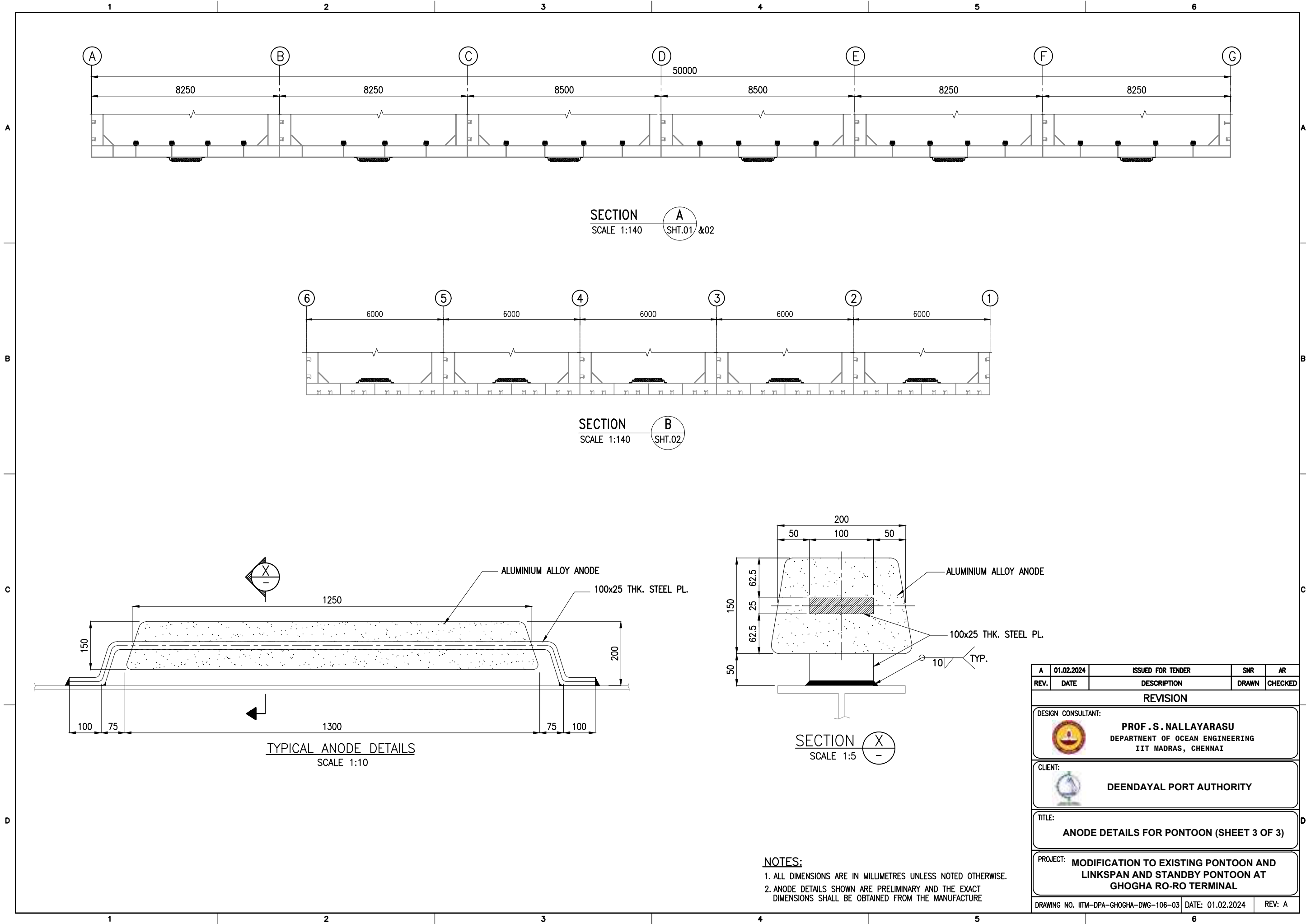
HANDLE DETAILS
SCALE 1:4



NOTES:

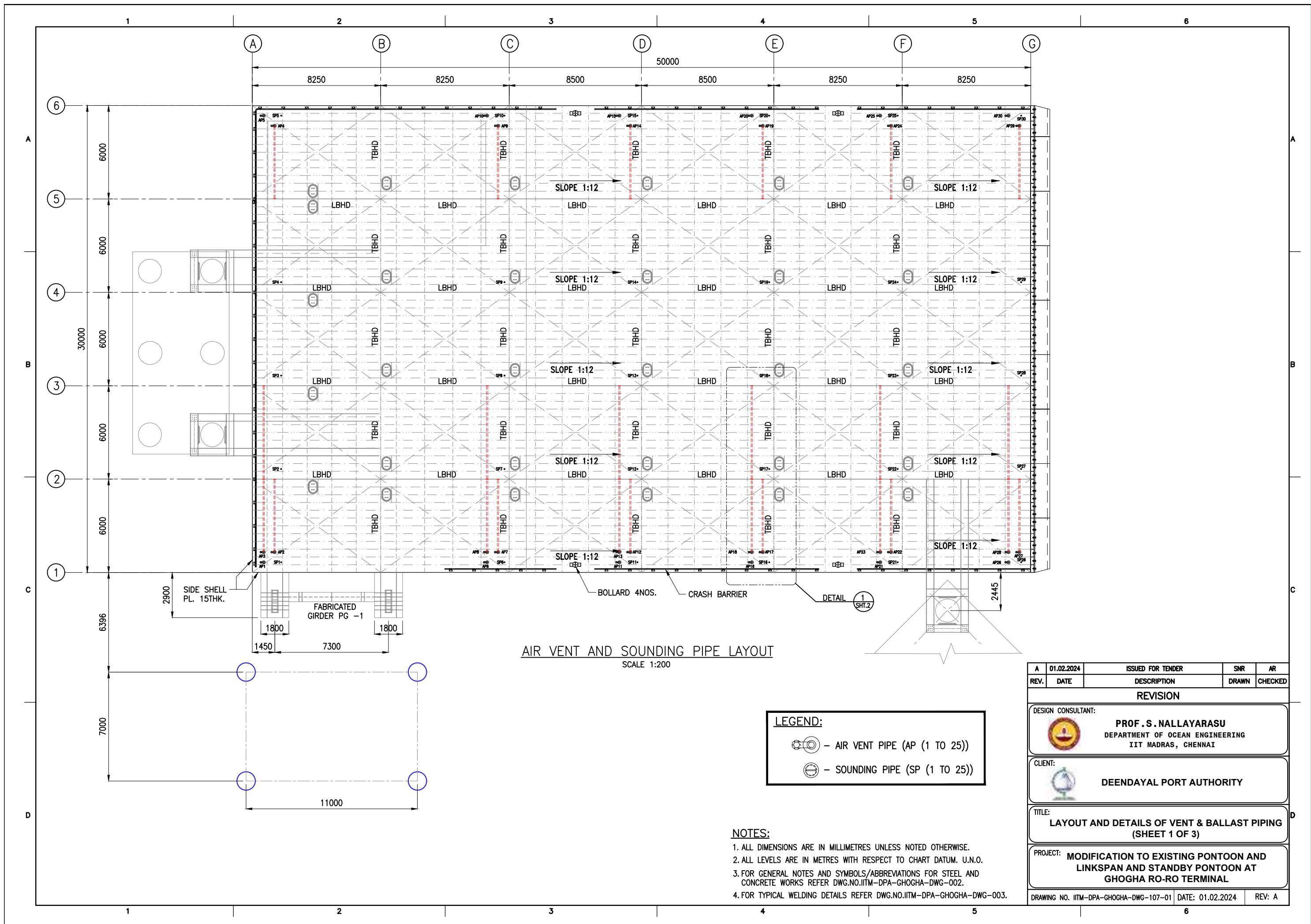
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
2. ALL LEVELS ARE IN METRES WITH RESPECT TO CHART DATUM. U.N.O.
3. FOR GENERAL NOTES, MATERIAL DETAILS AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-002.
4. FOR TYPICAL WELDING DETAILS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-003.
5. THE WATER TIGHT MANHOLE COVER SHALL BE CERTIFIED TO IACS SC 156 AND SOLLAS GUIDE LINES.
6. CONTRACTOR SHALL DEVELOPE SHOP DRAWINGS BEFORE FABRICATION.
7. FABRICATION/INSPECTION SHALL FOLLOW CONTRACT SPECIFICATIONS AND IRS RULES FOR INLAND WATERWAY VESSELS.

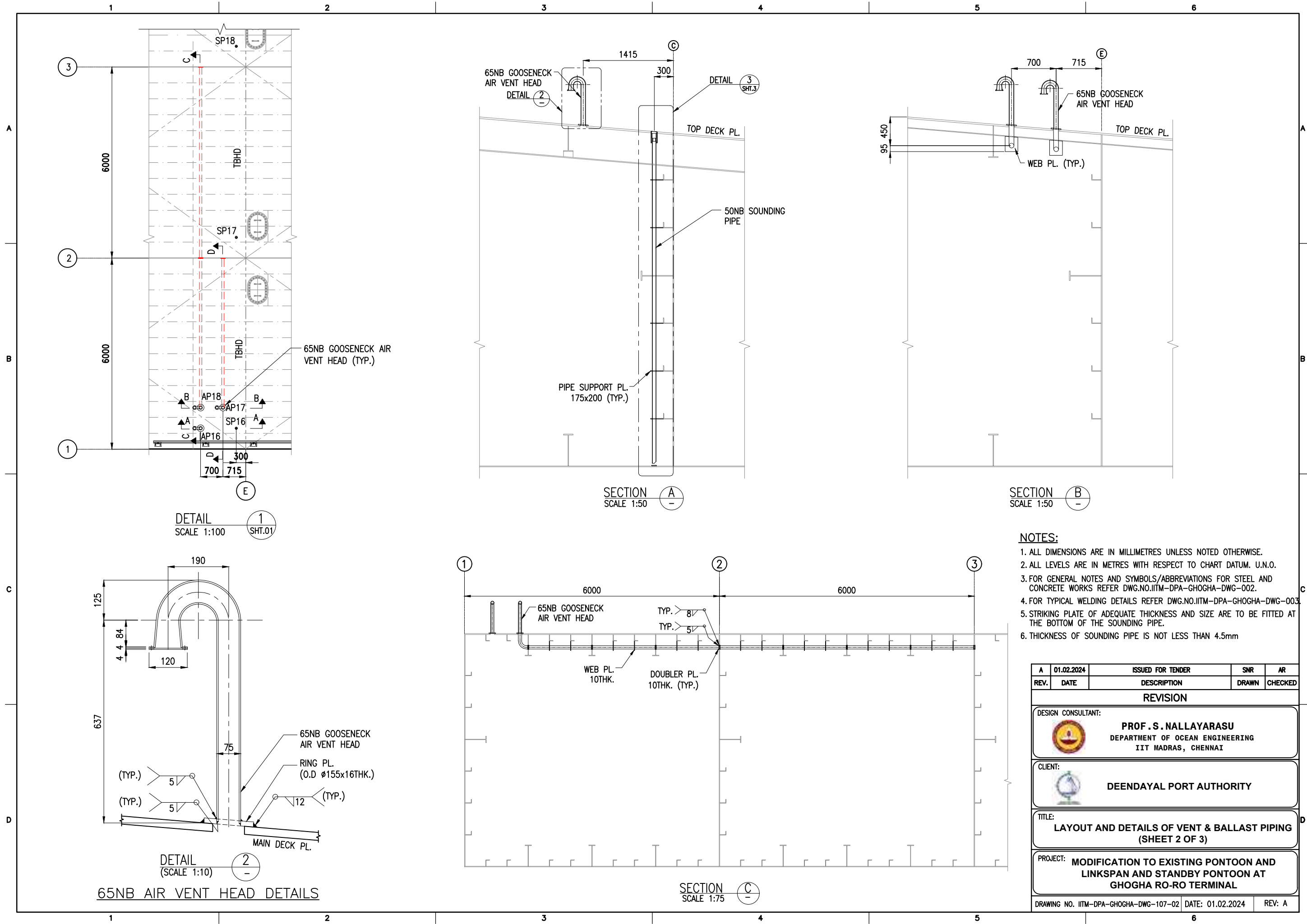
A	01.02.2024	ISSUED FOR TENDER	SNR	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF .S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
LAYOUT AND DETAILS OF MANHOLES & COVER PLATES (SHEET 6 OF 6)				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-105-06			DATE: 01.02.2024	
			REV: A	

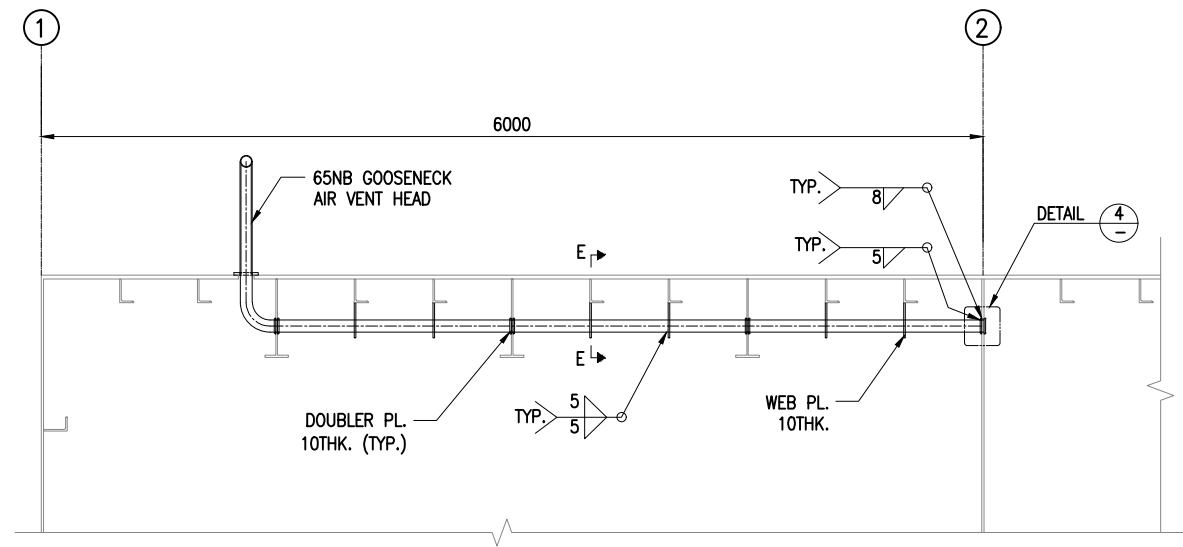




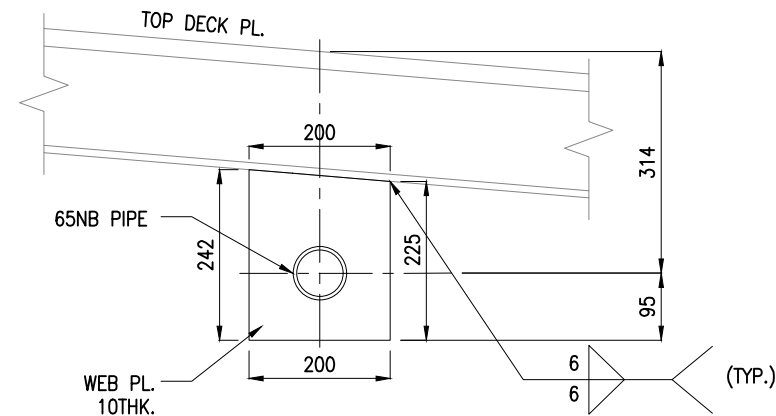
A	01.02.2024	ISSUED FOR TENDER	SNR	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:  PROF .S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:  DEENDAYAL PORT AUTHORITY				
TITLE: ANODE DETAILS FOR PONTOON (SHEET 3 OF 3)				
PROJECT: MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-106-03			DATE: 01.02.2024	
			REV: A	



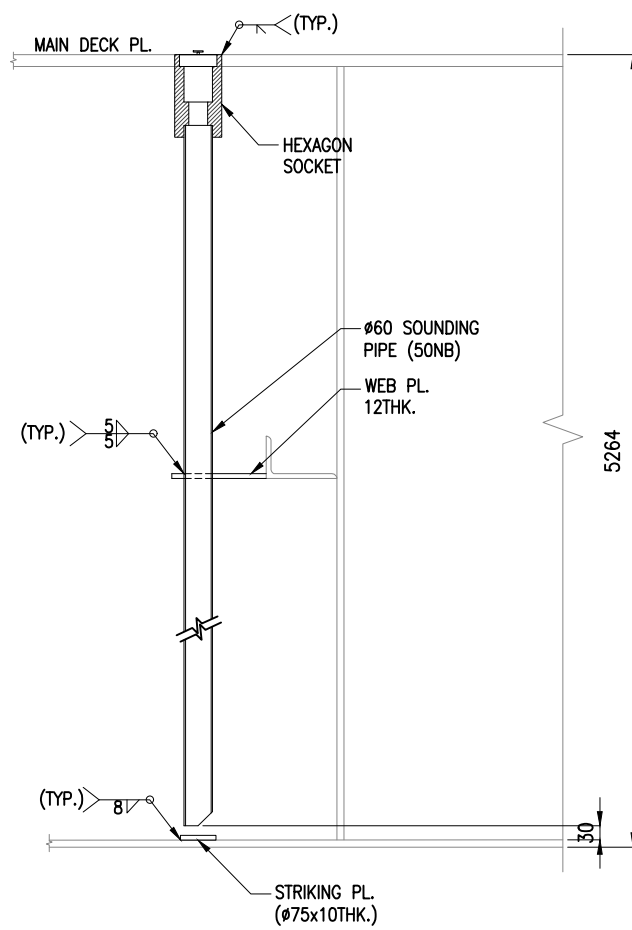




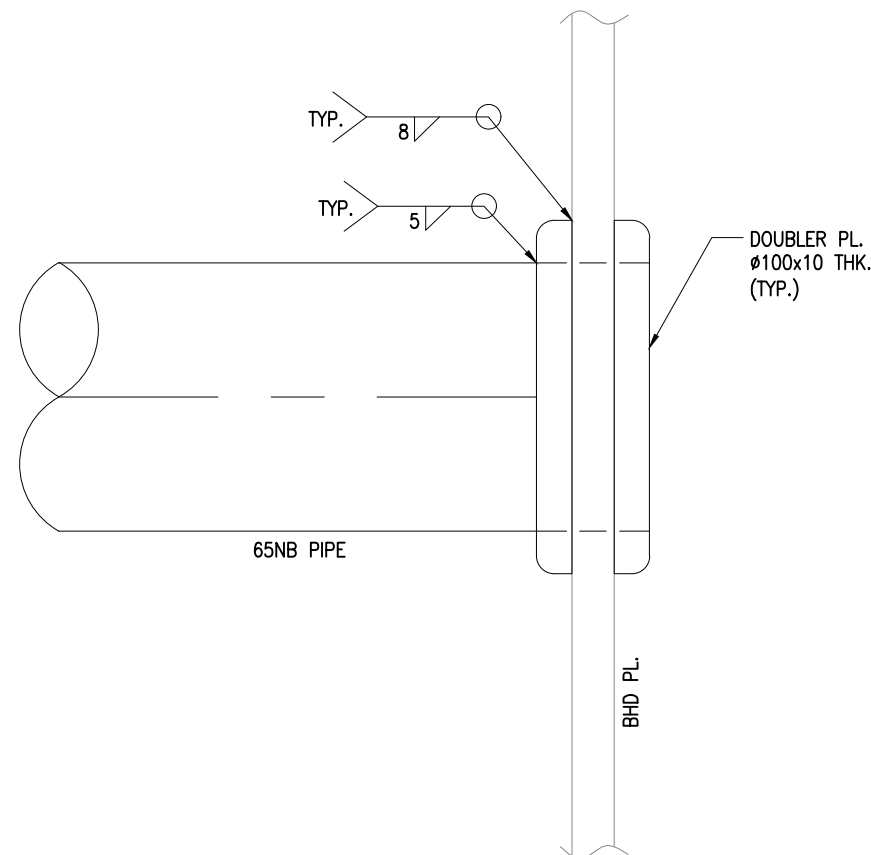
SECTION D
SCALE 1:45



SECTION E
SCALE 1:10





DETAIL 3
(SCALE 1:15)
50NB SOUNDING PIPE DETAILS

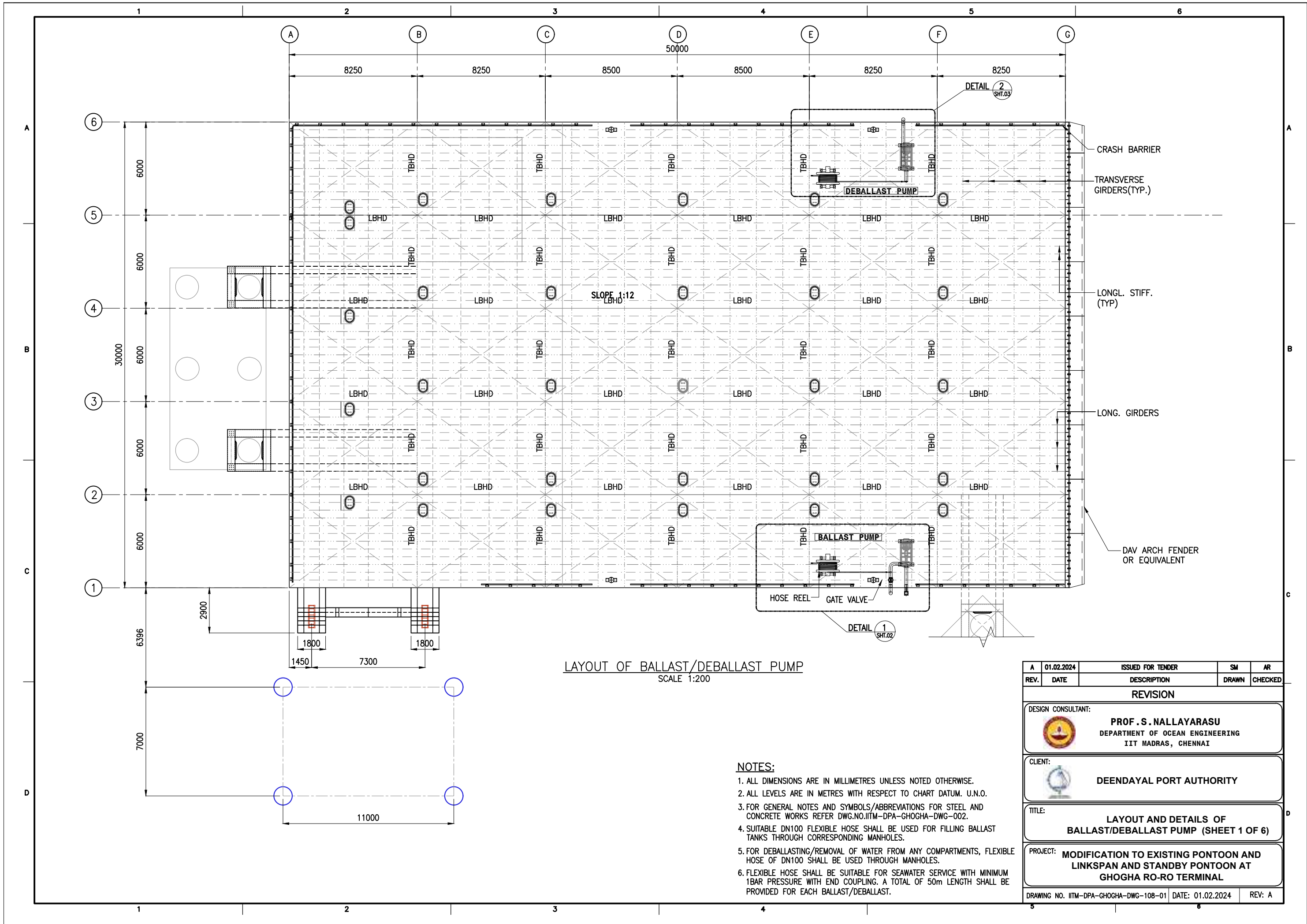


DETAIL 4
SCALE 1:2

NOTES:


1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
2. ALL LEVELS ARE IN METRES WITH RESPECT TO CHART DATUM. U.N.O.
3. FOR GENERAL NOTES AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-002.
4. FOR TYPICAL WELDING DETAILS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-003.
5. STRIKING PLATE OF ADEQUATE THICKNESS AND SIZE ARE TO BE FITTED AT THE BOTTOM OF THE SOUNDING PIPE.
6. THICKNESS OF SOUNDING PIPE IS NOT LESS THAN 4.5mm

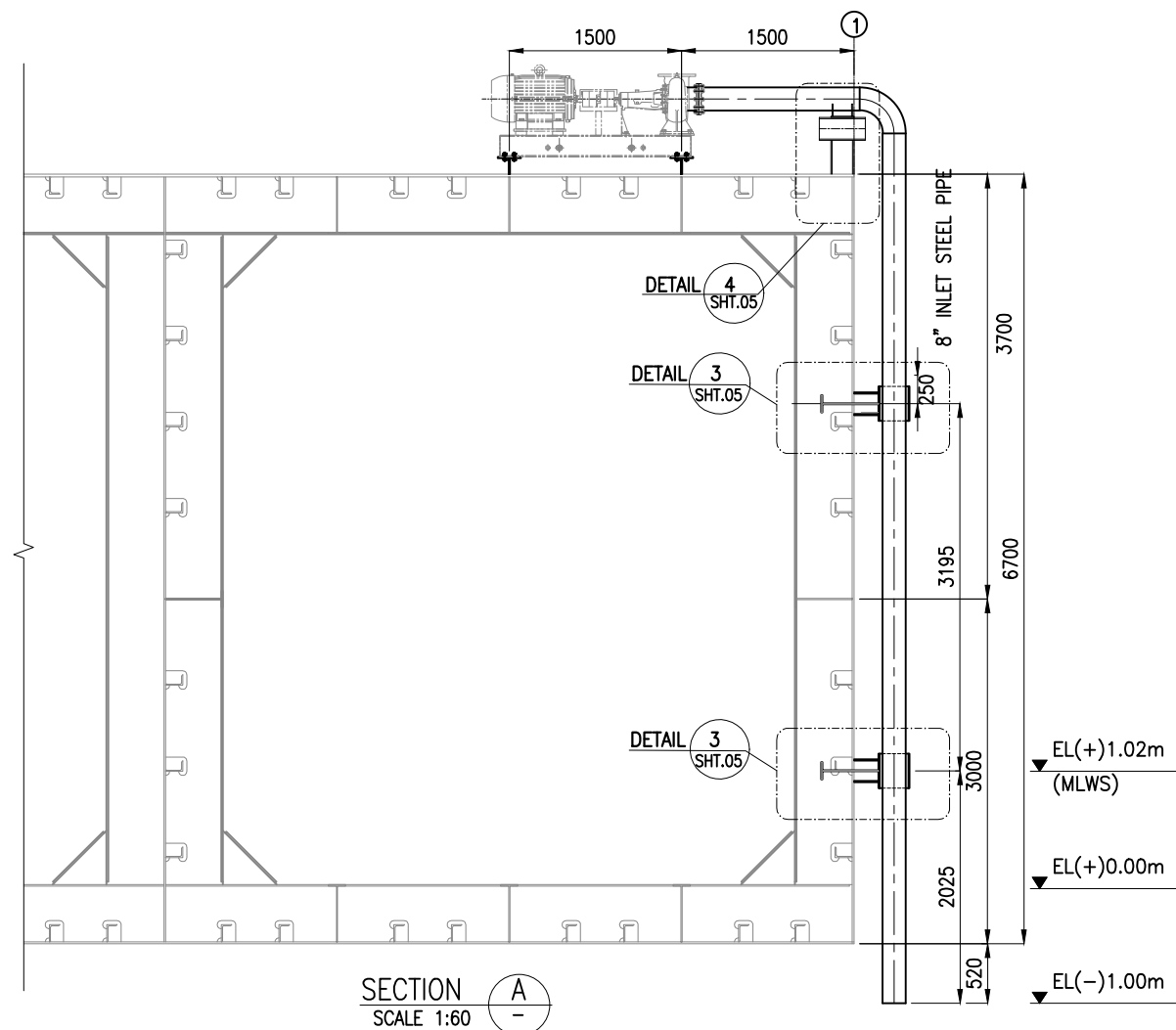
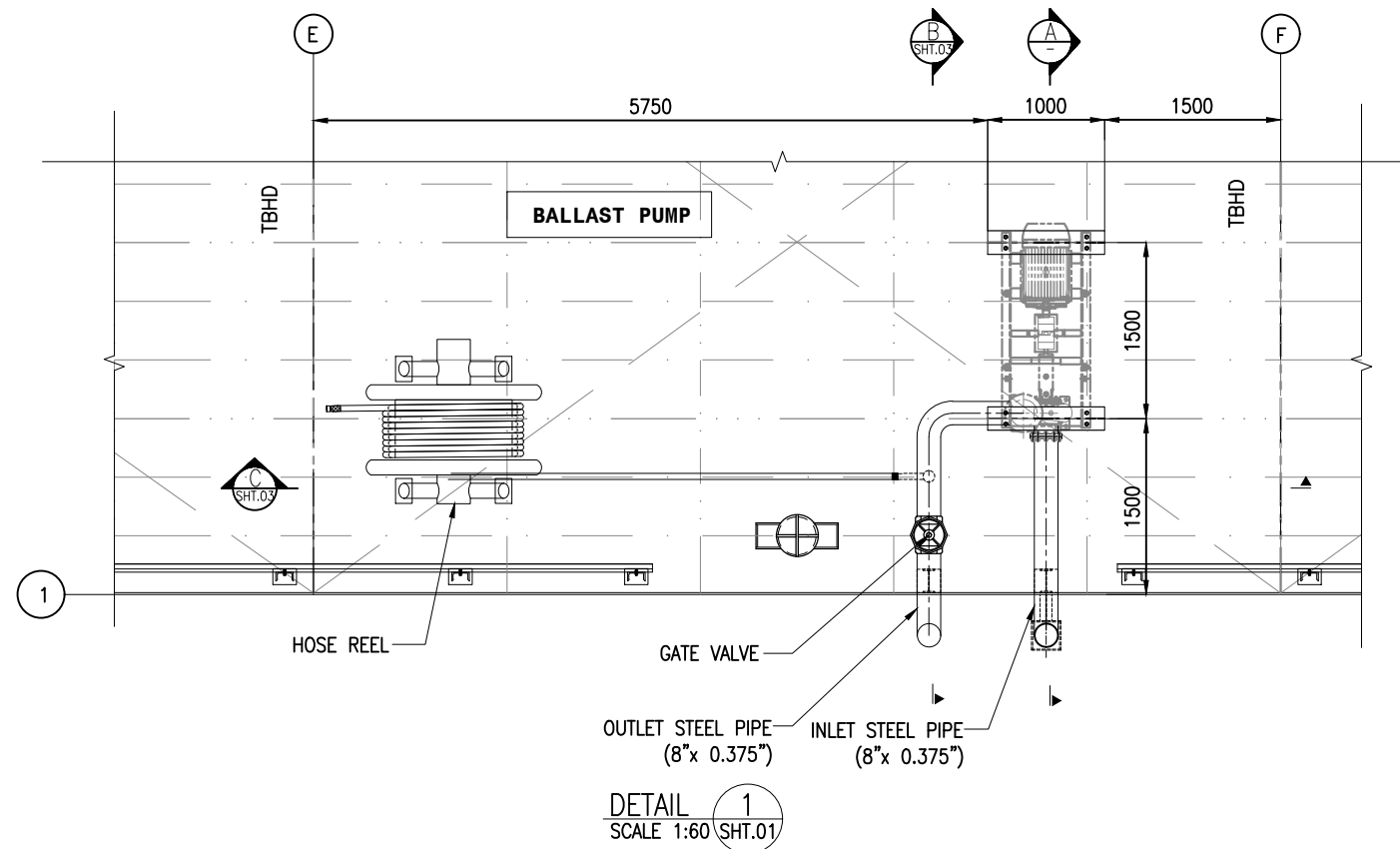
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
A	01.02.2024	ISSUED FOR TENDER	SNR	AR
REVISION				
DESIGN CONSULTANT:				
 PROF .S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
LAYOUT AND DETAILS OF VENT & BALLAST PIPING (SHEET 3 OF 3)				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-107-03			DATE: 01.02.2024	
			REV: A	



LAYOUT OF BALLAST/DEBALLAST PUMP
SCALE 1:200


- NOTES:**
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
 2. ALL LEVELS ARE IN METRES WITH RESPECT TO CHART DATUM. U.N.O.
 3. FOR GENERAL NOTES AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO.ITM-DPA-GHOGHA-DWG-002.
 4. SUITABLE DN100 FLEXIBLE HOSE SHALL BE USED FOR FILLING BALLAST TANKS THROUGH CORRESPONDING MANHOLES.
 5. FOR DEBALLASTING/REMOVAL OF WATER FROM ANY COMPARTMENTS, FLEXIBLE HOSE OF DN100 SHALL BE USED THROUGH MANHOLES.
 6. FLEXIBLE HOSE SHALL BE SUITABLE FOR SEAWATER SERVICE WITH MINIMUM 1BAR PRESSURE WITH END COUPLING. A TOTAL OF 50m LENGTH SHALL BE PROVIDED FOR EACH BALLAST/DEBALLAST.

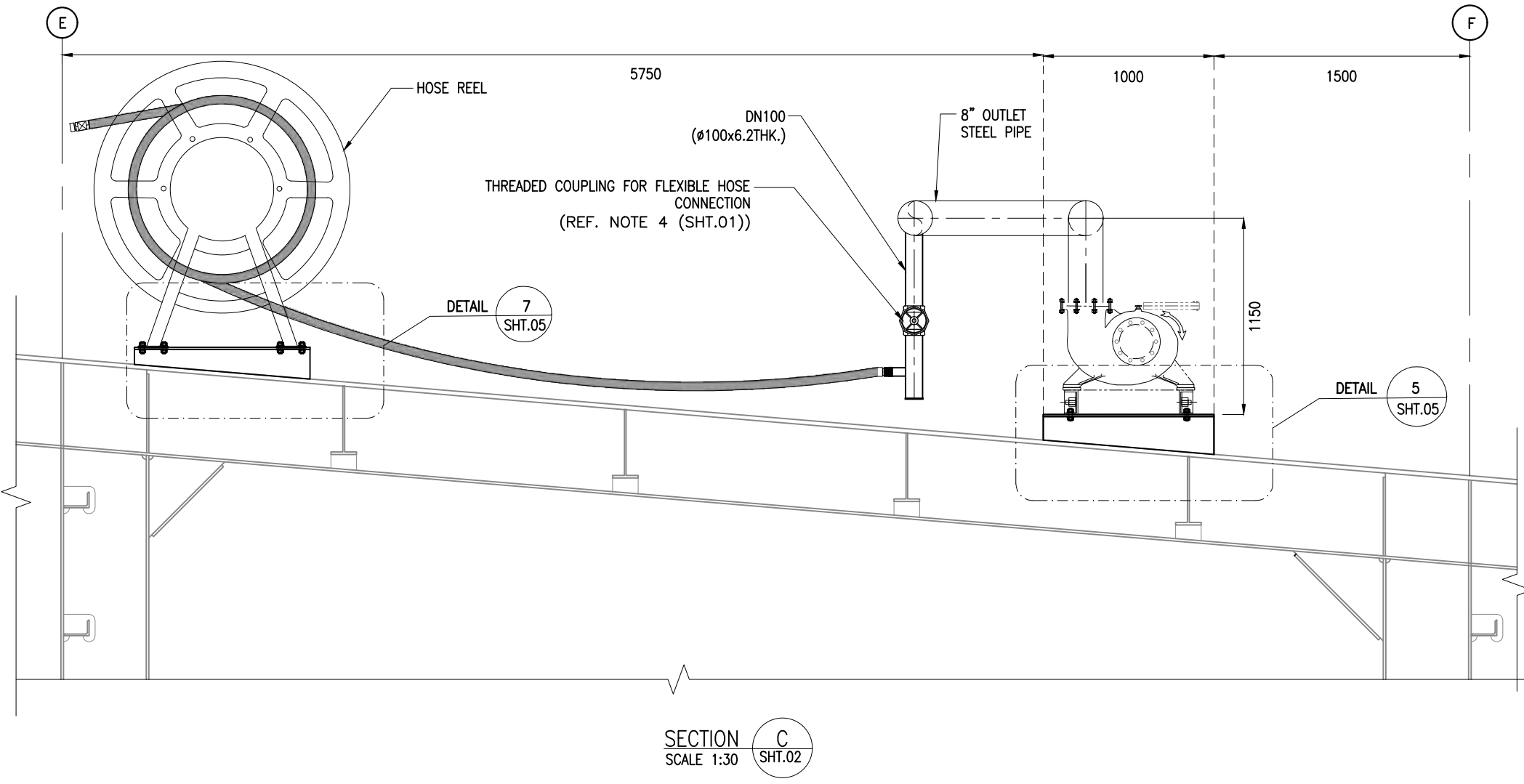
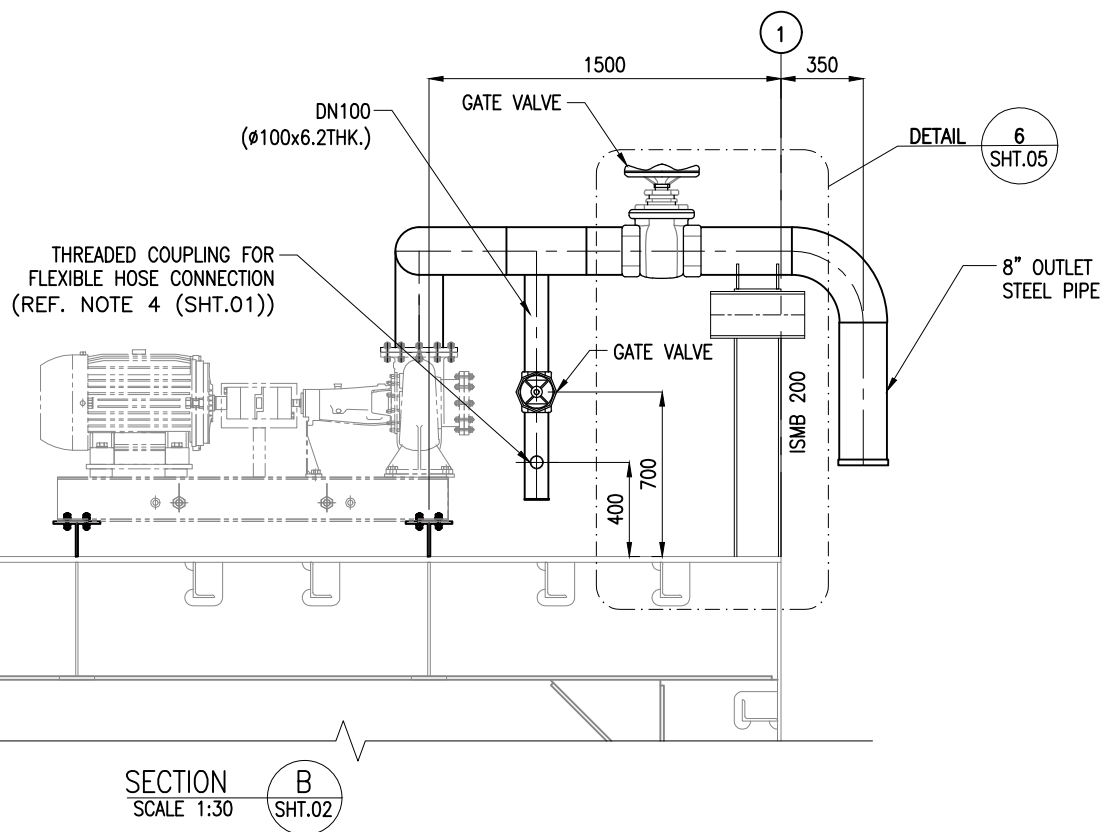
A	01.02.2024	ISSUED FOR TENDER	SM	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF. S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
LAYOUT AND DETAILS OF BALLAST/DEBALLAST PUMP (SHEET 1 OF 6)				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. ITM-DPA-GHOGHA-DWG-108-01				DATE: 01.02.2024
REV: A				





NOTES:

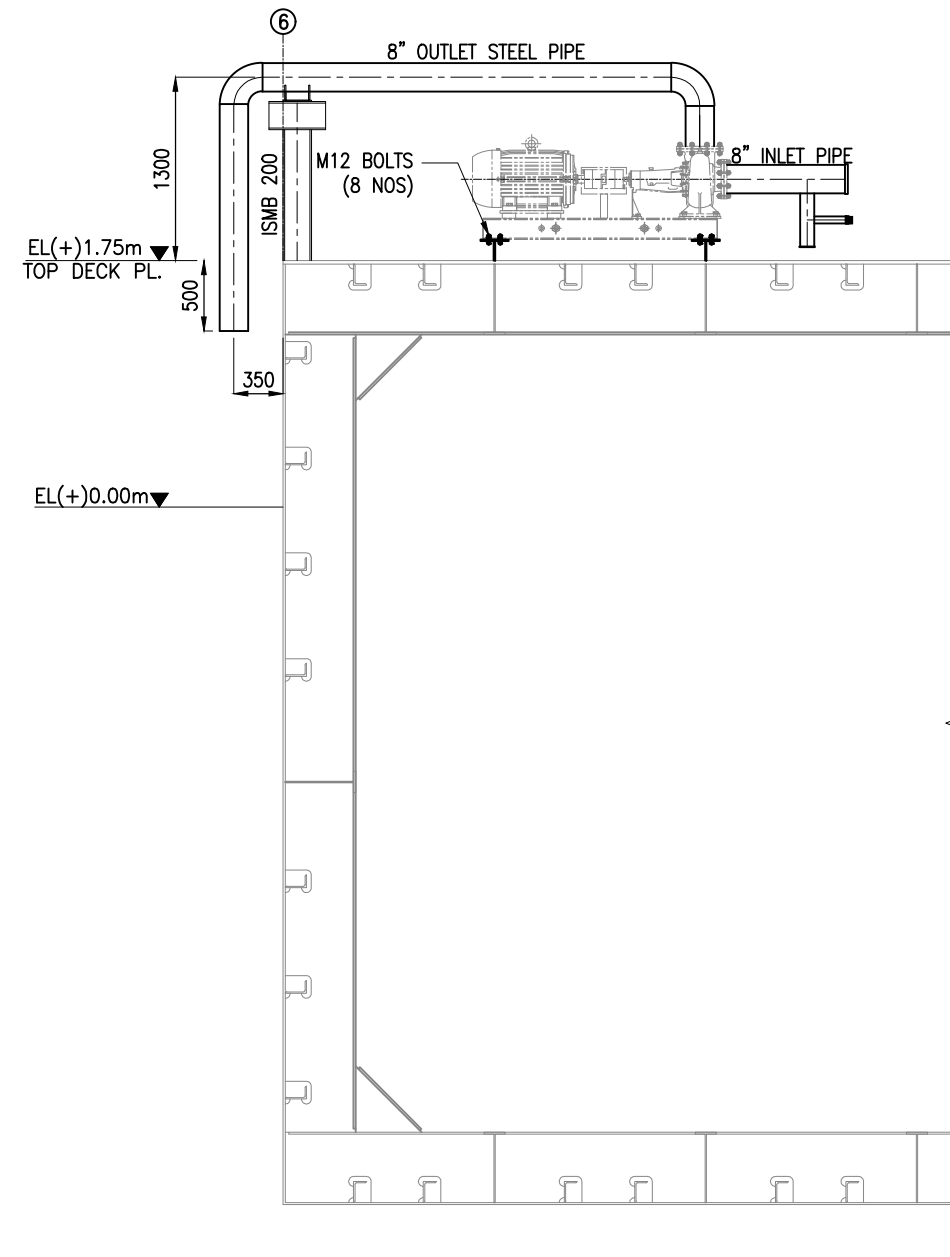
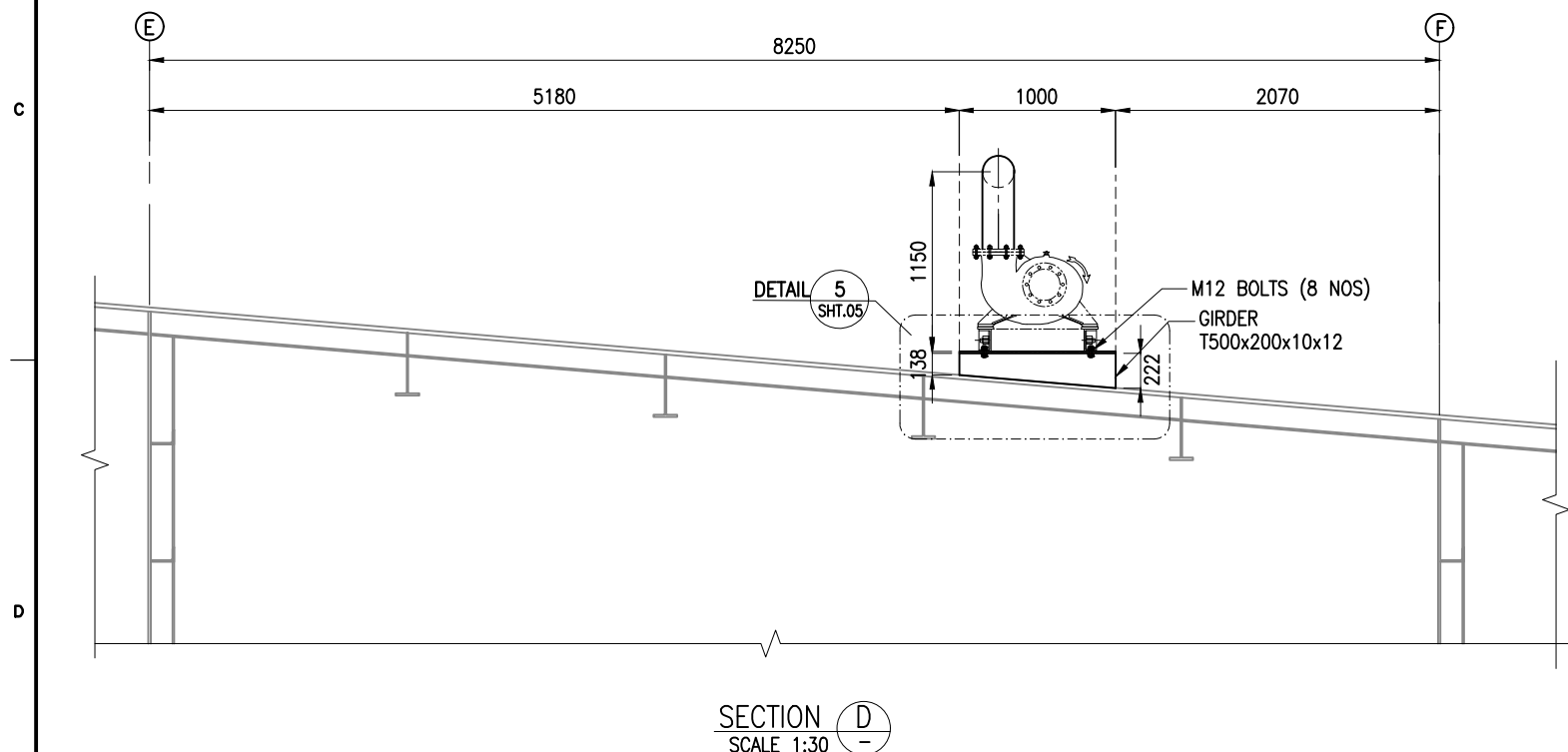
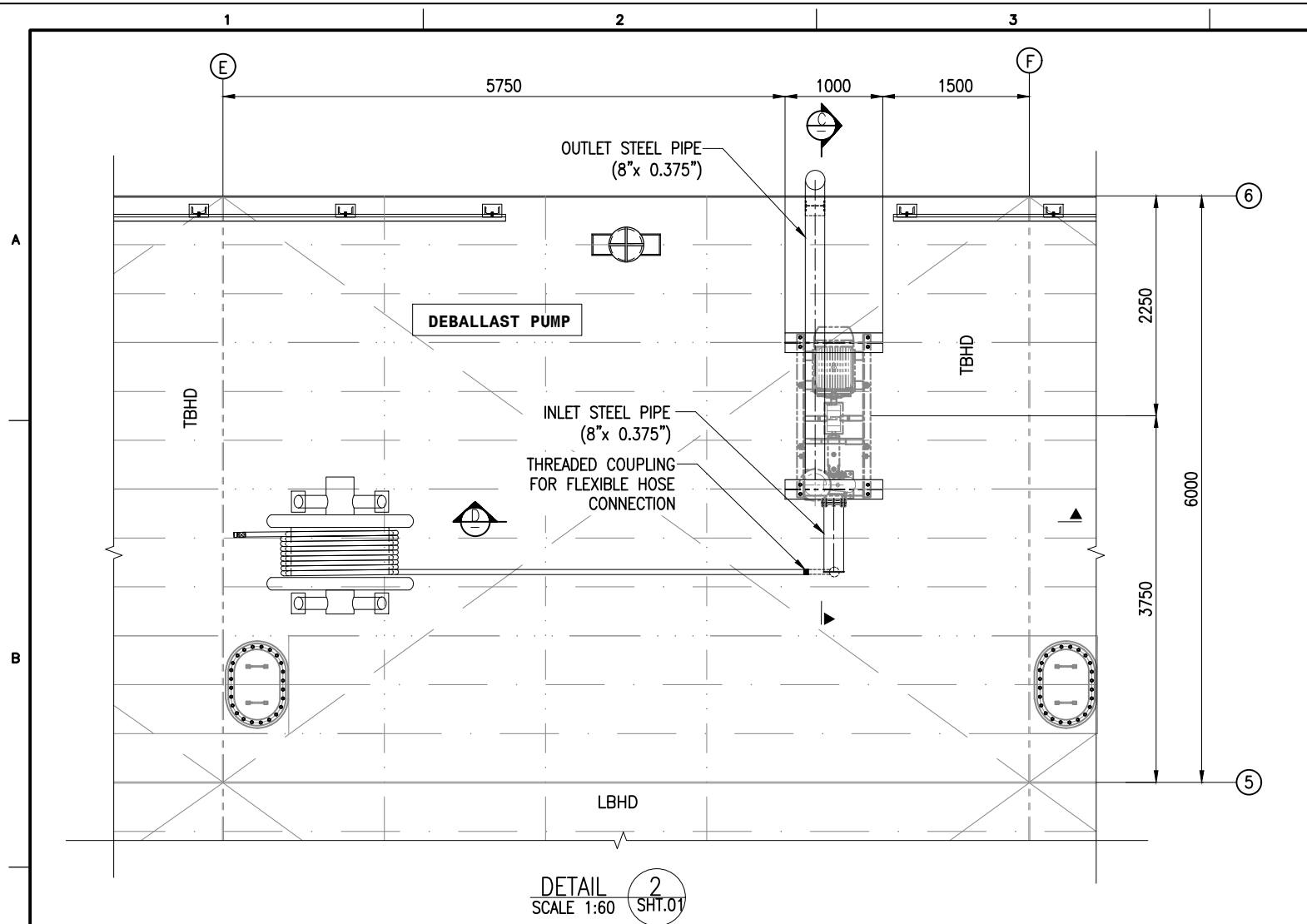
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
2. ALL LEVELS ARE IN METRES WITH RESPECT TO CHART DATUM. U.N.O.
3. FOR GENERAL NOTES AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO.ITM-DPA-GHOGHA-DWG-002.

A	01.02.2024	ISSUED FOR TENDER	SM	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF. S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
LAYOUT AND DETAILS OF BALLAST/DEBALLAST PUMP (SHEET 2 OF 6)				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. ITM-DPA-GHOGHA-DWG-108-02		DATE: 01.02.2024		REV: A





- NOTES:**
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
 2. ALL LEVELS ARE IN METRES WITH RESPECT TO CHART DATUM. U.N.O.
 3. FOR GENERAL NOTES AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-002.

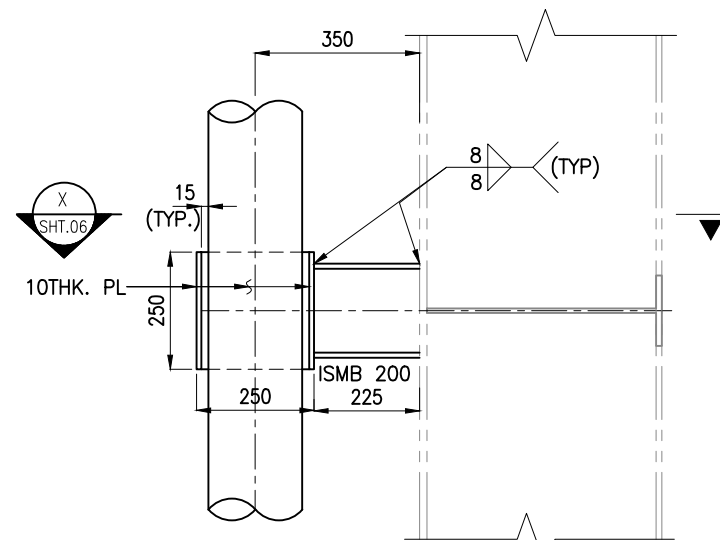
A	01.02.2024	ISSUED FOR TENDER	SM	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
		PROF . S . NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI		
CLIENT:				
		DEENDAYAL PORT AUTHORITY		
TITLE:				
LAYOUT AND DETAILS OF BALLAST/DEBALLAST PUMP (SHEET 3 OF 6)				
PROJECT: MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-108-03		DATE: 01.02.2024		REV: A



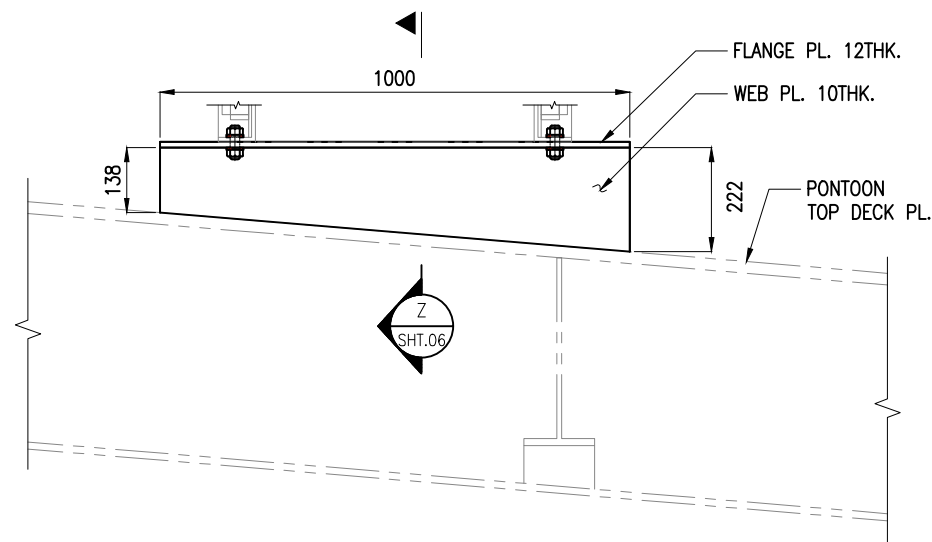
NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
2. ALL LEVELS ARE IN METRES WITH RESPECT TO CHART DATUM. U.N.O.
3. FOR GENERAL NOTES AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO.ITM-DPA-GHOGHA-DWG-002.

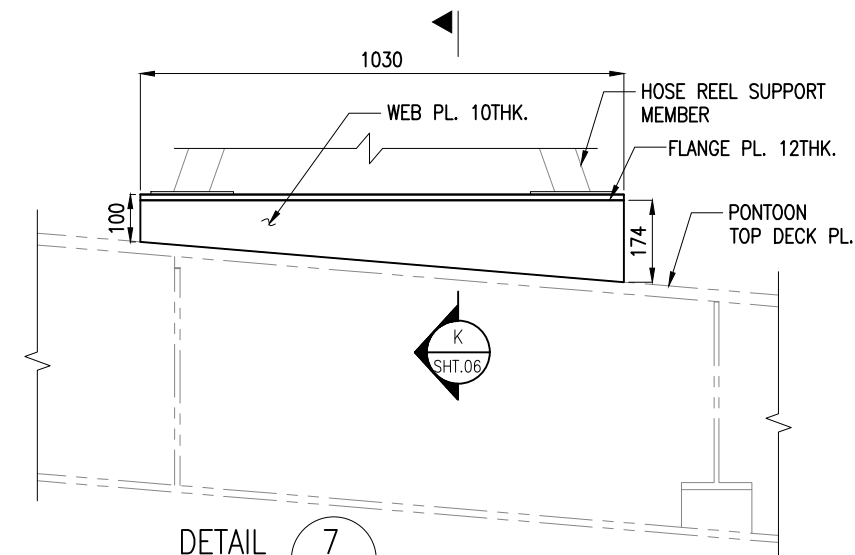
A	01.02.2024	ISSUED FOR TENDER	SM	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF. S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
LAYOUT AND DETAILS OF BALLAST/DEBALLAST PUMP (SHEET 4 OF 6)				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. ITM-DPA-GHOGHA-DWG-108-04				DATE: 01.02.2024
REV: A				



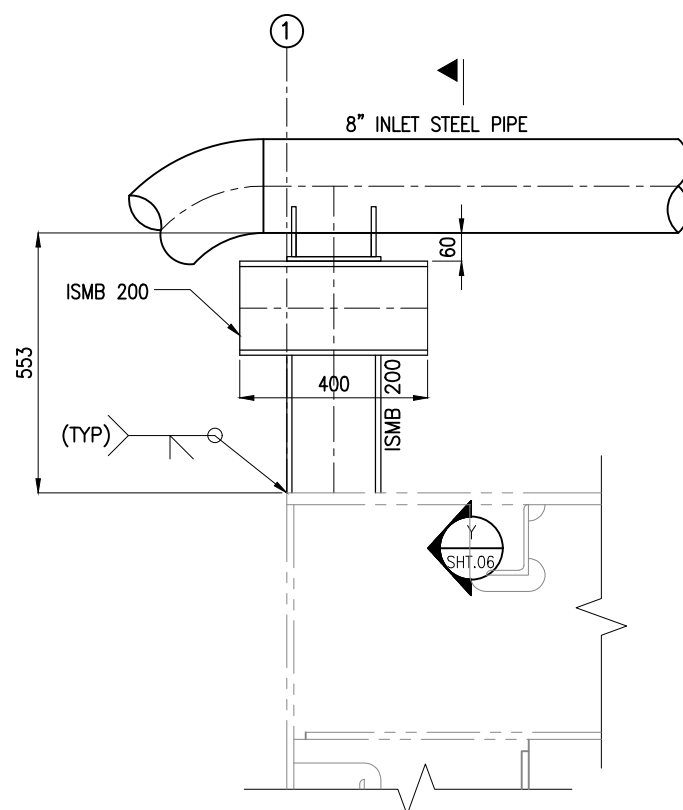
DETAIL 3
SCALE 1:15 SHT.02



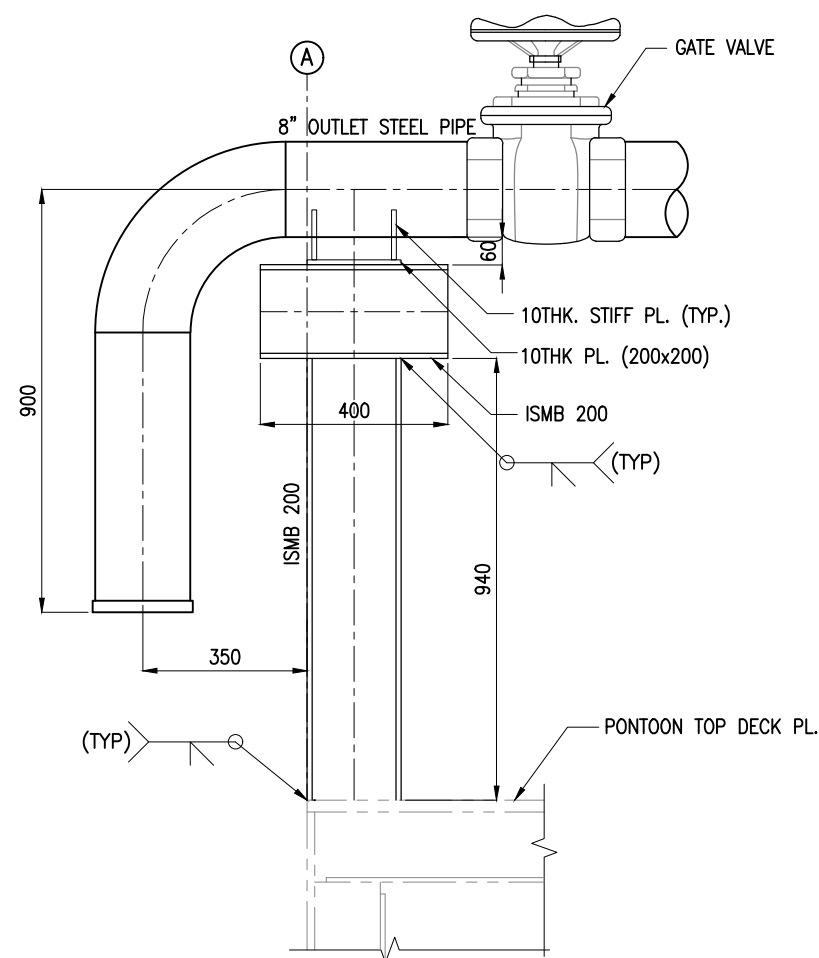
DETAIL 5
SCALE 1:15 SHT.03 & 04



DETAIL 7
SCALE 1:15 SHT.03





DETAIL 4
SCALE 1:15 SHT.02

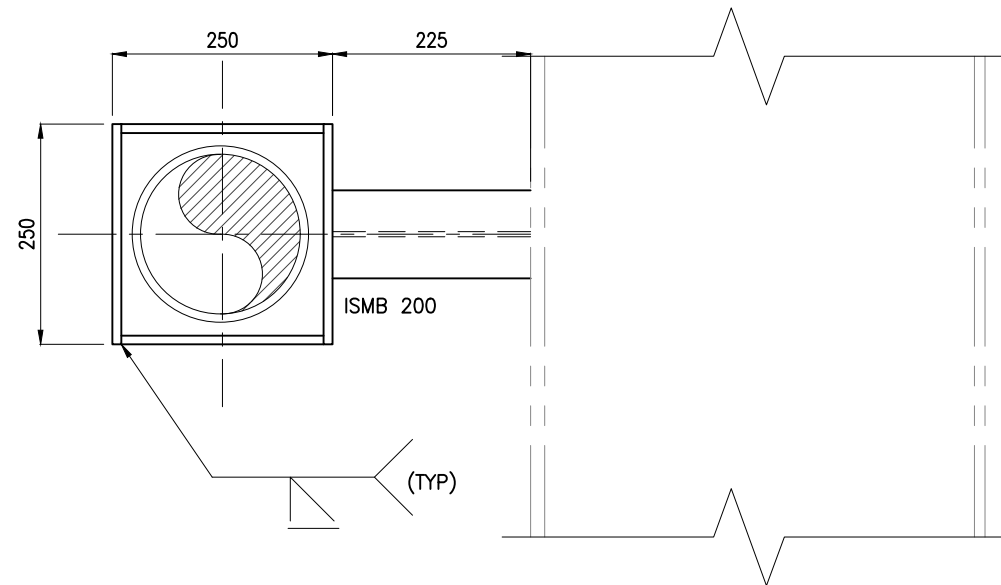


DETAIL 6
SCALE 1:15 SHT.03

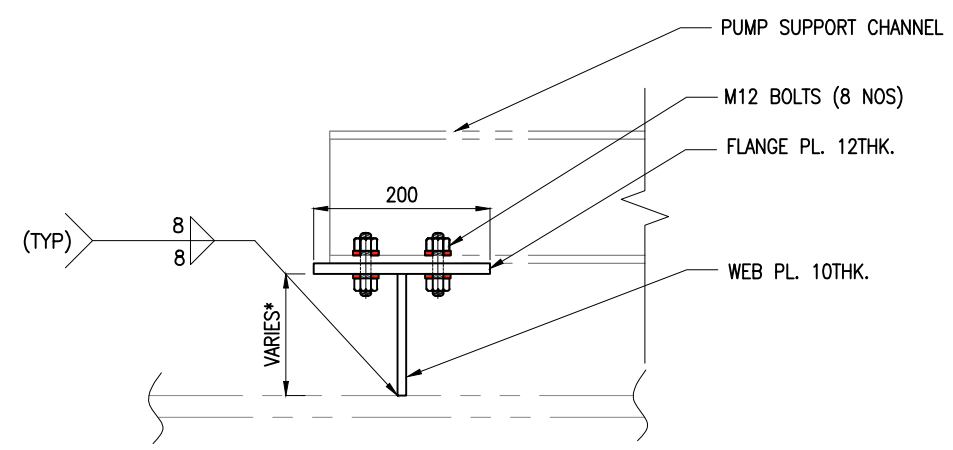
NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
2. ALL LEVELS ARE IN METRES WITH RESPECT TO CHART DATUM. U.N.O.
3. FOR GENERAL NOTES AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-002.
4. FOR TYPICAL WELDING DETAILS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-003.

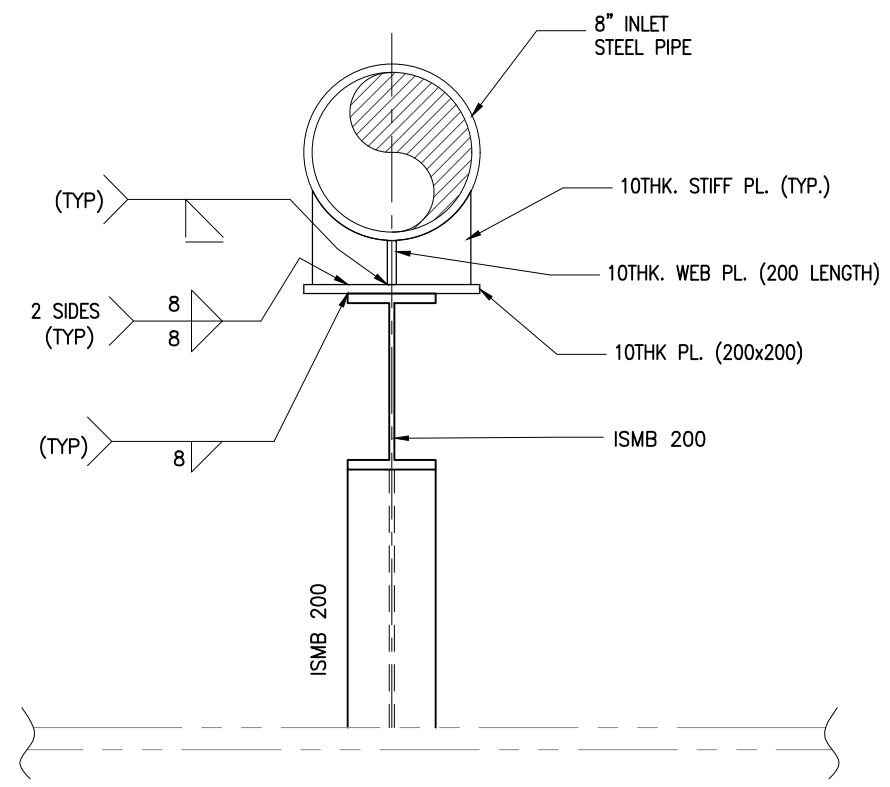
A	01.02.2024	ISSUED FOR TENDER	SM	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF. S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
LAYOUT AND DETAILS OF BALLAST/DEBALLAST PUMP (SHEET 5 OF 6)				
PROJECT:				
MODIFICATION TO EXISTING PONTON AND LINKSPAN AND STANDBY PONTON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-108-05				DATE: 01.02.2024
				REV: A



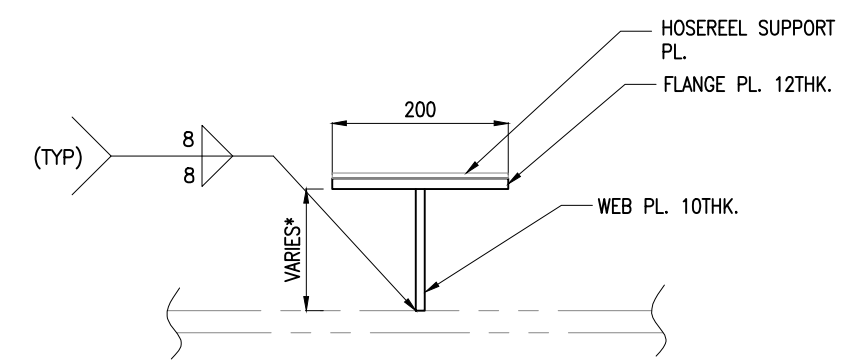
SECTION X
SCALE 1:8
SHT.05



SECTION Z
SCALE 1:8
SHT.05





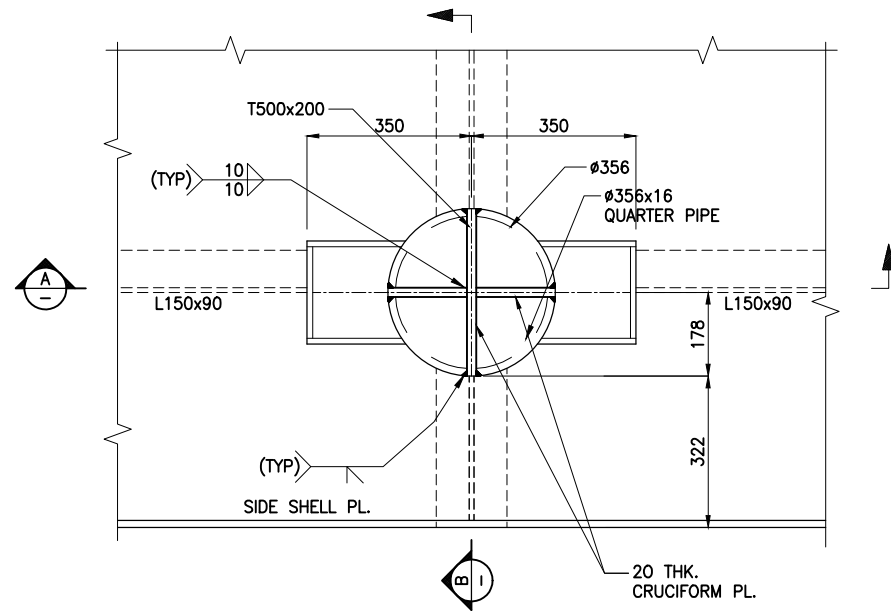
SECTION Y
SCALE 1:8
SHT.05



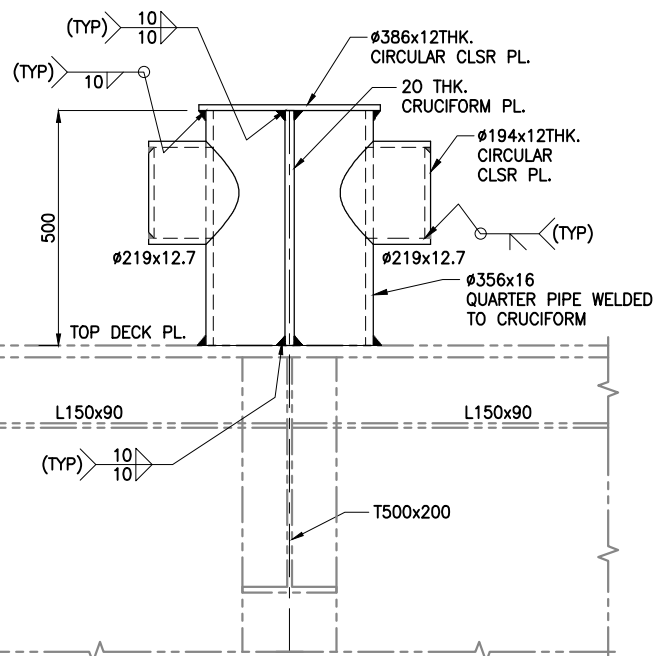
SECTION K
SCALE 1:8
SHT.05

- NOTES:**
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
 2. ALL LEVELS ARE IN METRES WITH RESPECT TO CHART DATUM. U.N.O.
 3. FOR GENERAL NOTES AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-002.
 4. FOR TYPICAL WELDING DETAILS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-003.

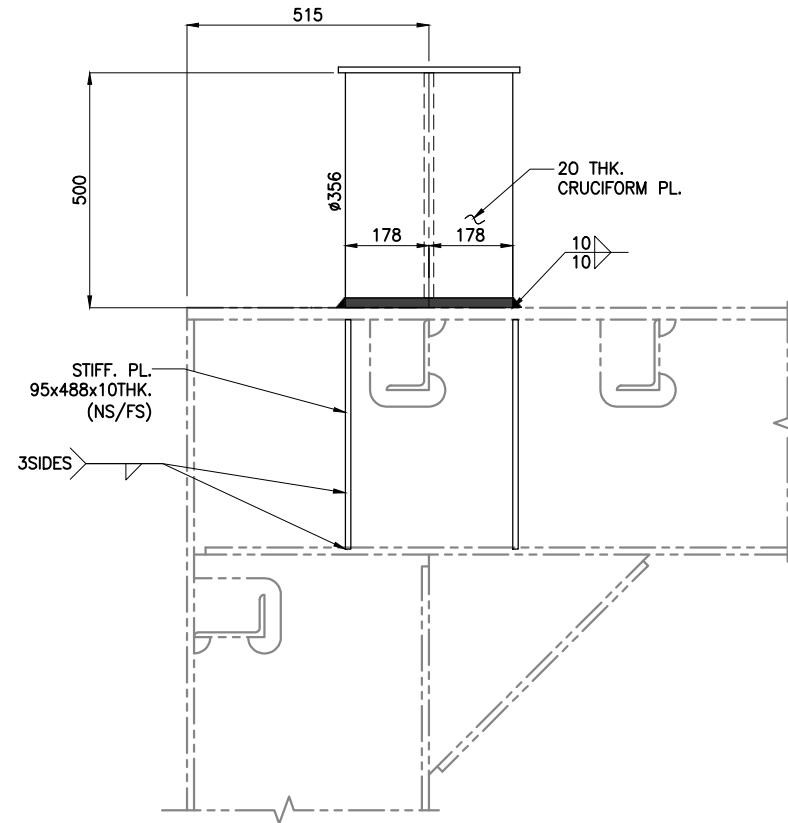
A	01.02.2024	ISSUED FOR TENDER	SM	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF. S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
LAYOUT AND DETAILS OF BALLAST/DEBALLAST PUMP (SHEET 6 OF 6)				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-108-06 DATE: 01.02.2024 REV: A				



PLAN -- BOLLARD DETAIL
SCALE 1:15





SECTION A-A
SCALE 1:15

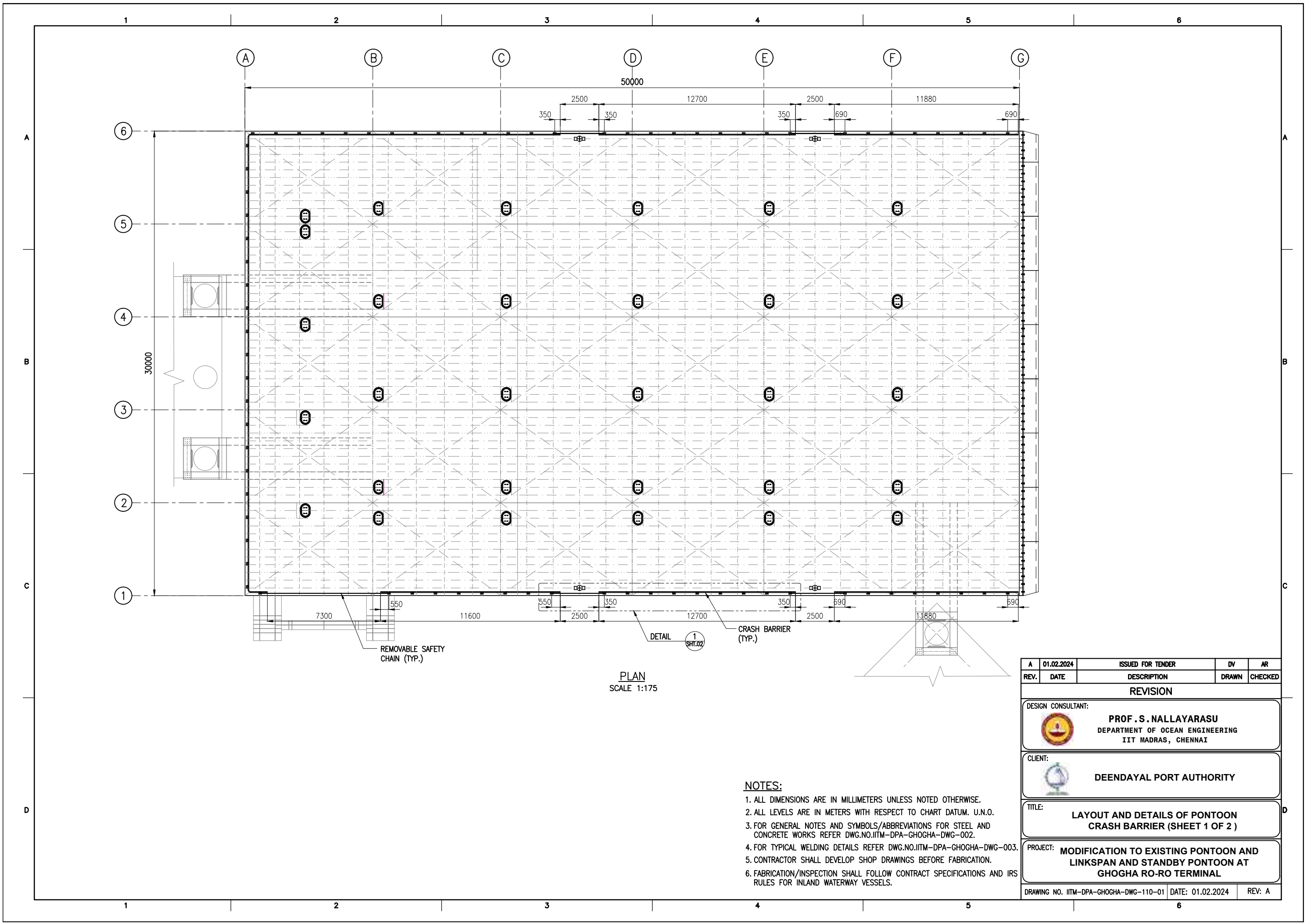


SECTION B-B
SCALE 1:15

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
2. ALL LEVELS ARE IN METERS WITH RESPECT TO CHART DATUM. U.N.O.
3. FOR GENERAL NOTES, MATERIAL DETAILS AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-002
4. FOR TYPICAL WELDING DETAILS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-003.
5. CONTRACTOR SHALL DEVELOP SHOP DRAWINGS BEFORE FABRICATION.
6. FABRICATION/INSPECTION SHALL FOLLOW CONTRACT SPECIFICATIONS AND IRS RULES FOR INLAND WATERWAY VESSELS.



REV.	DATE	DESCRIPTION	DRAWN	CHECKED
A	01.02.2024	ISSUED FOR TENDER	SM	AR
REVISION				
DESIGN CONSULTANT:				
 PROF. S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
FIXING DETAILS OF BOLLARD				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-109			DATE: 01.02.2024	
			REV: A	

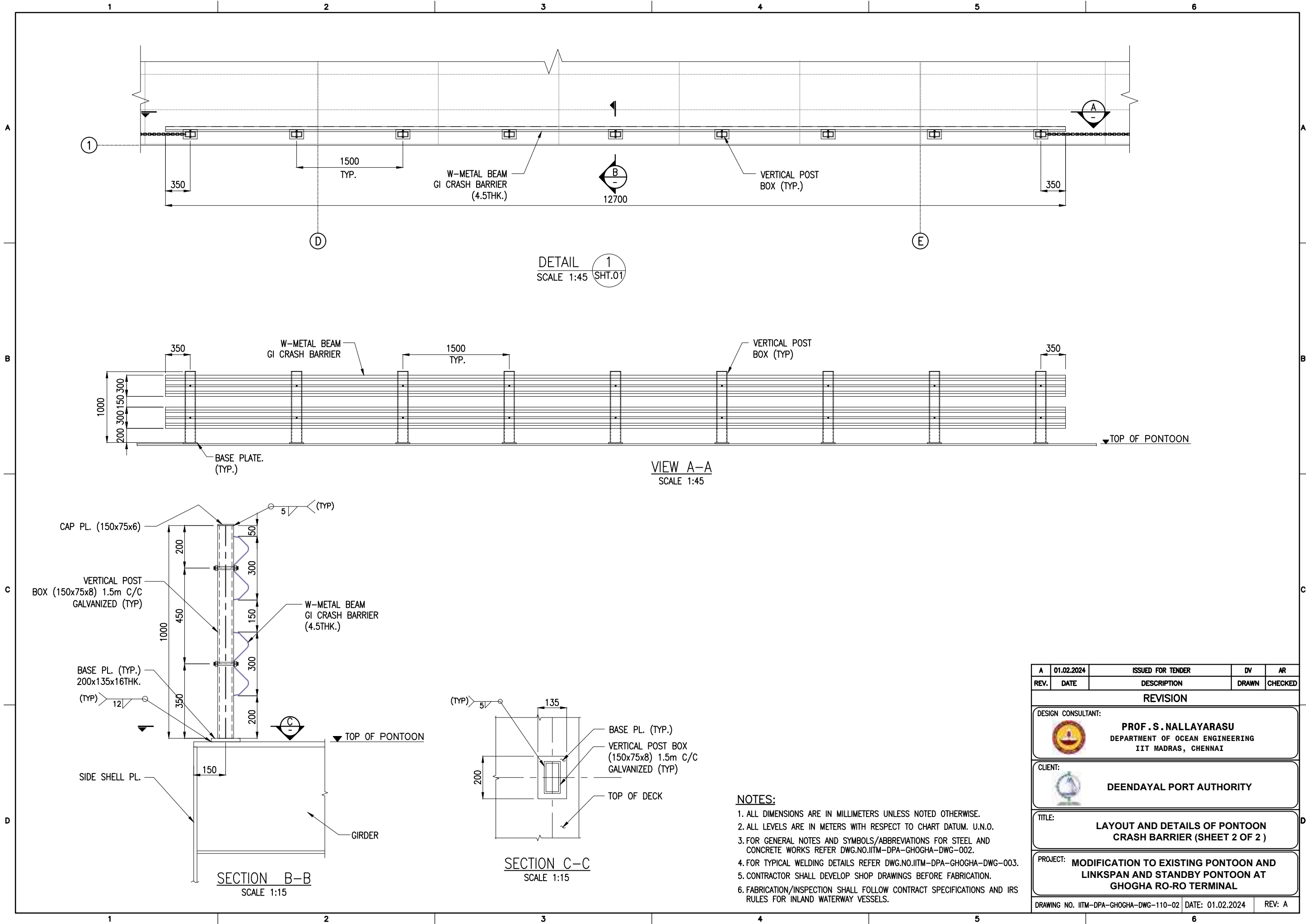


PLAN
SCALE 1:175

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
2. ALL LEVELS ARE IN METERS WITH RESPECT TO CHART DATUM. U.N.O.
3. FOR GENERAL NOTES AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO.IITM-DPA-GHOCHA-DWG-002.
4. FOR TYPICAL WELDING DETAILS REFER DWG.NO.IITM-DPA-GHOCHA-DWG-003.
5. CONTRACTOR SHALL DEVELOP SHOP DRAWINGS BEFORE FABRICATION.
6. FABRICATION/INSPECTION SHALL FOLLOW CONTRACT SPECIFICATIONS AND IRS RULES FOR INLAND WATERWAY VESSELS.

A	01.02.2024	ISSUED FOR TENDER		DV	AR
	REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION					
DESIGN CONSULTANT:					
 PROF .S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI					
CLIENT:					
 DEENDAYAL PORT AUTHORITY					
TITLE:					
LAYOUT AND DETAILS OF PONTOON CRASH BARRIER (SHEET 1 OF 2)					
PROJECT:					
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL					
DRAWING NO. IITM-DPA-GHOCHA-DWG-110-01			DATE: 01.02.2024		REV: A





DETAIL 1
SCALE 1:45 SHT.01

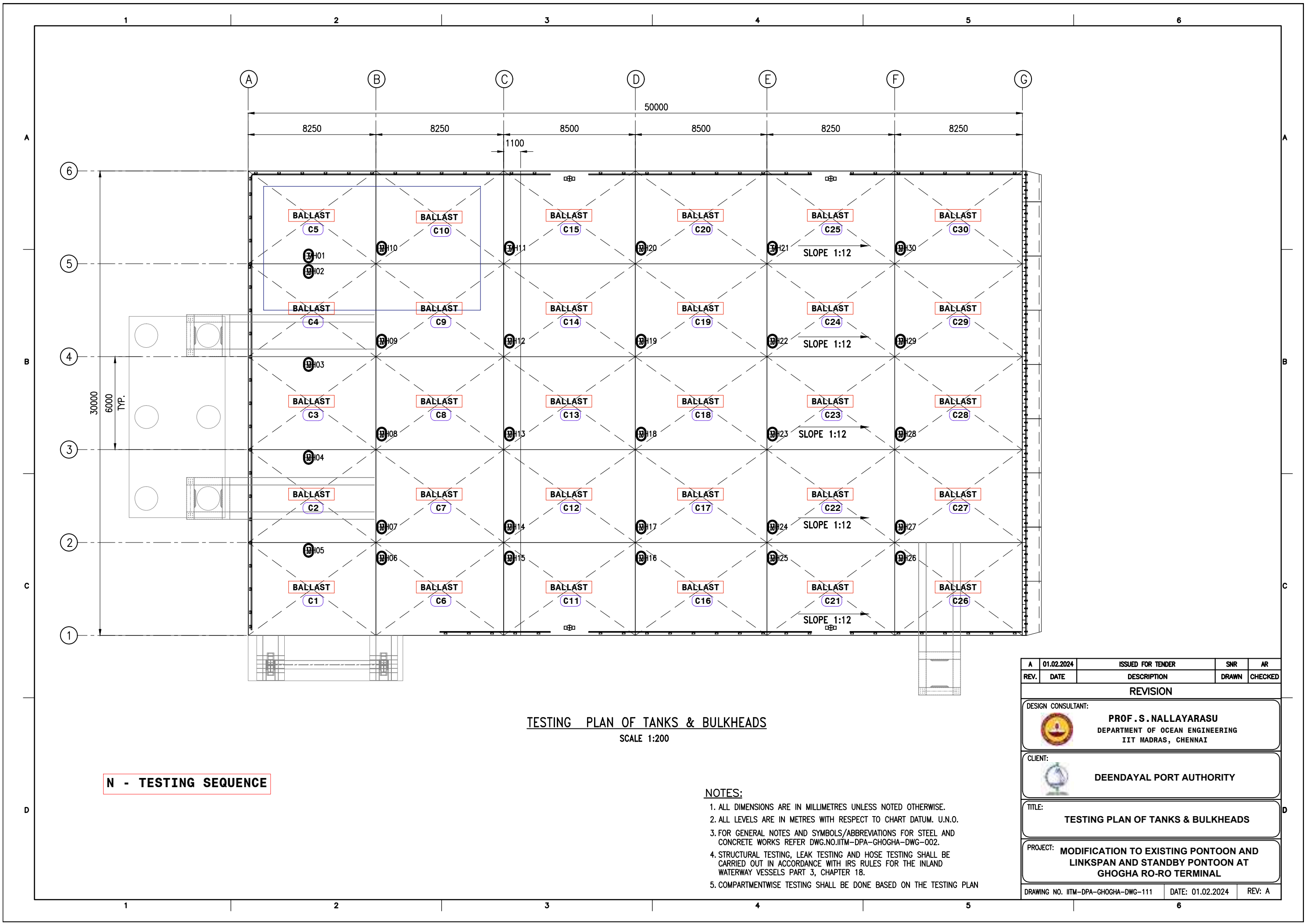
VIEW A-A
SCALE 1:45

SECTION B-B
SCALE 1:15

SECTION C-C
SCALE 1:15

- NOTES:**
1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
 2. ALL LEVELS ARE IN METERS WITH RESPECT TO CHART DATUM. U.N.O.
 3. FOR GENERAL NOTES AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-002.
 4. FOR TYPICAL WELDING DETAILS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-003.
 5. CONTRACTOR SHALL DEVELOP SHOP DRAWINGS BEFORE FABRICATION.
 6. FABRICATION/INSPECTION SHALL FOLLOW CONTRACT SPECIFICATIONS AND IRS RULES FOR INLAND WATERWAY VESSELS.


A	01.02.2024	ISSUED FOR TENDER	DV	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:  PROF .S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:  DEENDAYAL PORT AUTHORITY				
TITLE: LAYOUT AND DETAILS OF PONTOON CRASH BARRIER (SHEET 2 OF 2)				
PROJECT: MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-110-02			DATE: 01.02.2024	
			REV: A	

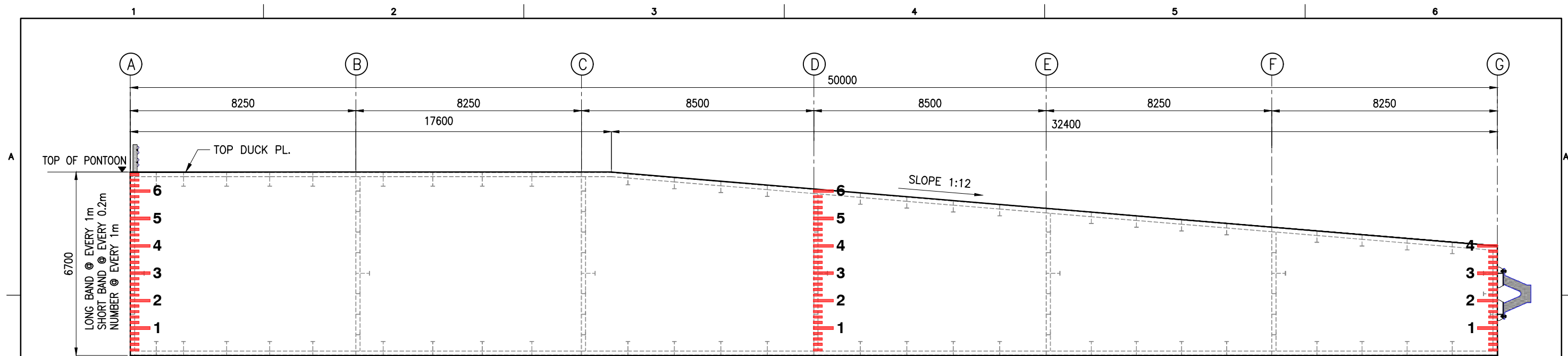


TESTING PLAN OF TANKS & BULKHEADS
SCALE 1:200

N - TESTING SEQUENCE

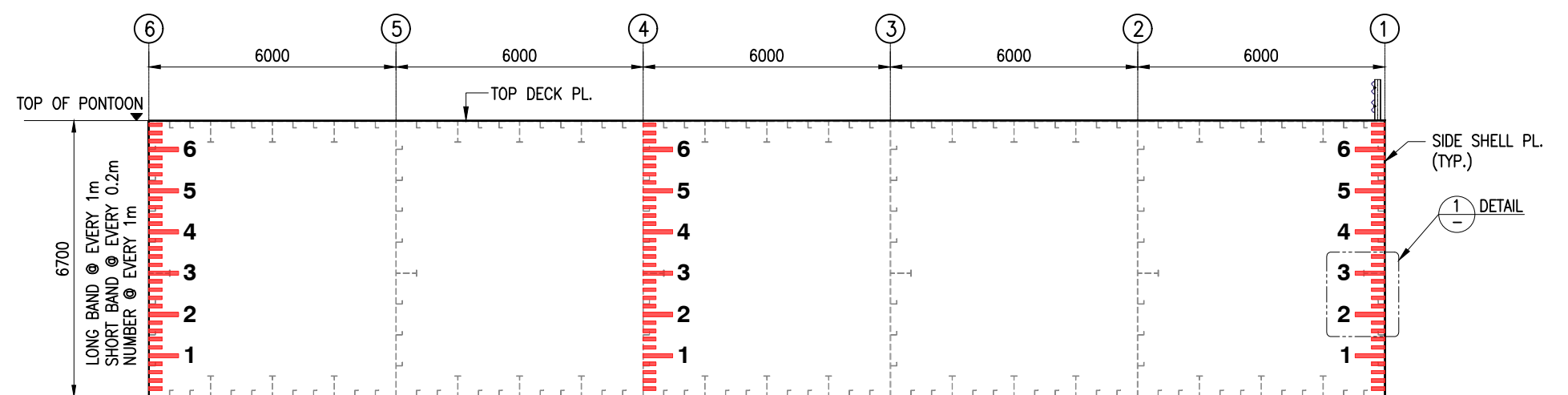
- NOTES:
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
 2. ALL LEVELS ARE IN METRES WITH RESPECT TO CHART DATUM. U.N.O.
 3. FOR GENERAL NOTES AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-002.
 4. STRUCTURAL TESTING, LEAK TESTING AND HOSE TESTING SHALL BE CARRIED OUT IN ACCORDANCE WITH IRS RULES FOR THE INLAND WATERWAY VESSELS PART 3, CHAPTER 18.
 5. COMPARTMENTWISE TESTING SHALL BE DONE BASED ON THE TESTING PLAN

A	01.02.2024	ISSUED FOR TENDER	SNR	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF . S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
TESTING PLAN OF TANKS & BULKHEADS				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-111			DATE: 01.02.2024	
			REV: A	



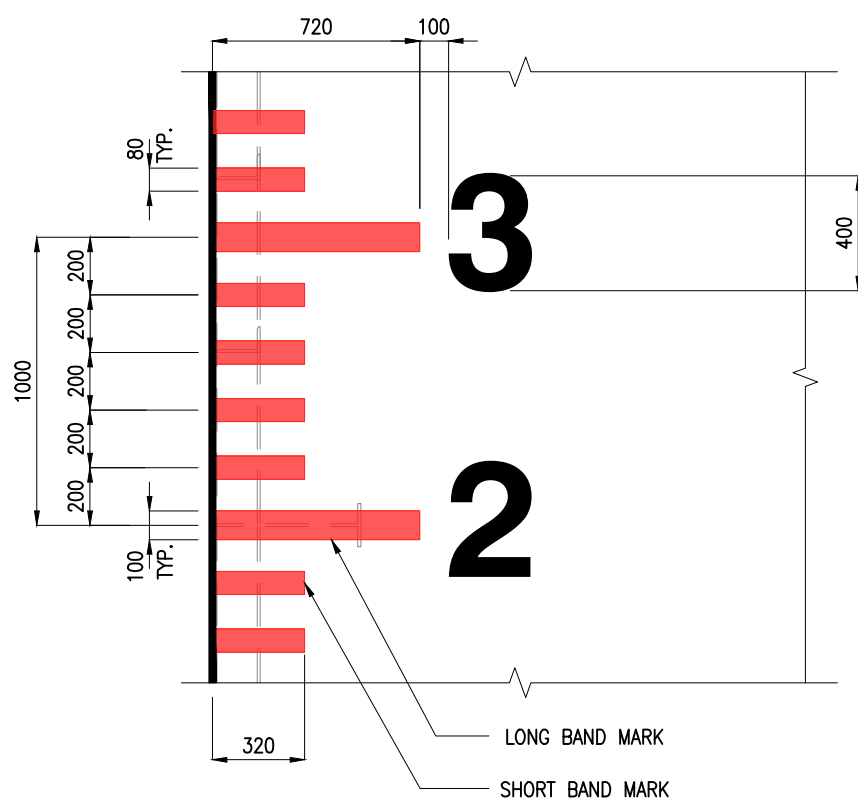
DRAFT MARKING DETAILS – LONGITUDINAL ELEVATION

SCALE 1:140



DRAFT MARKING DETAILS – TRANSVERSE ELEVATION

SCALE 1:140





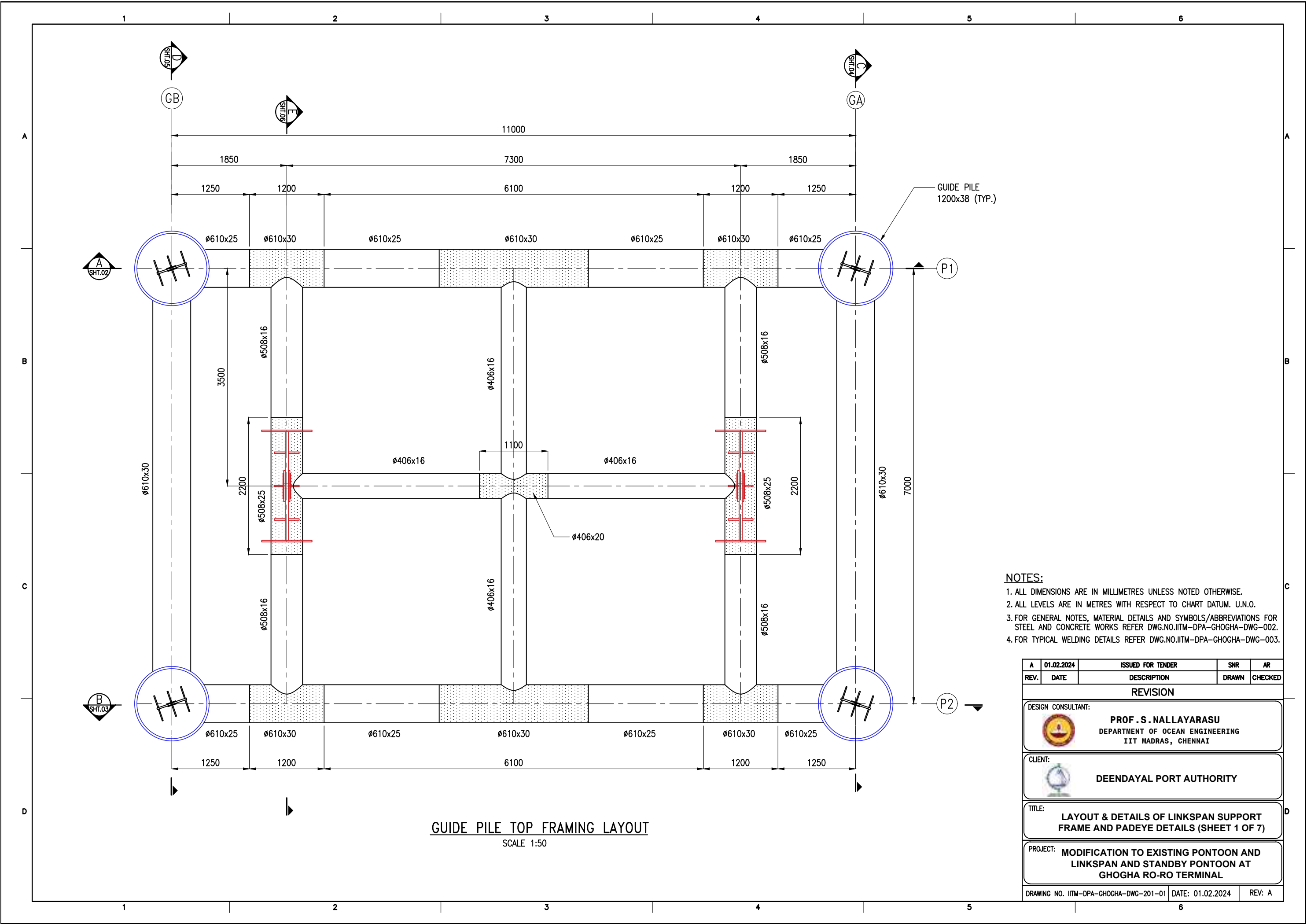
DETAIL 1
(SCALE 1:25)

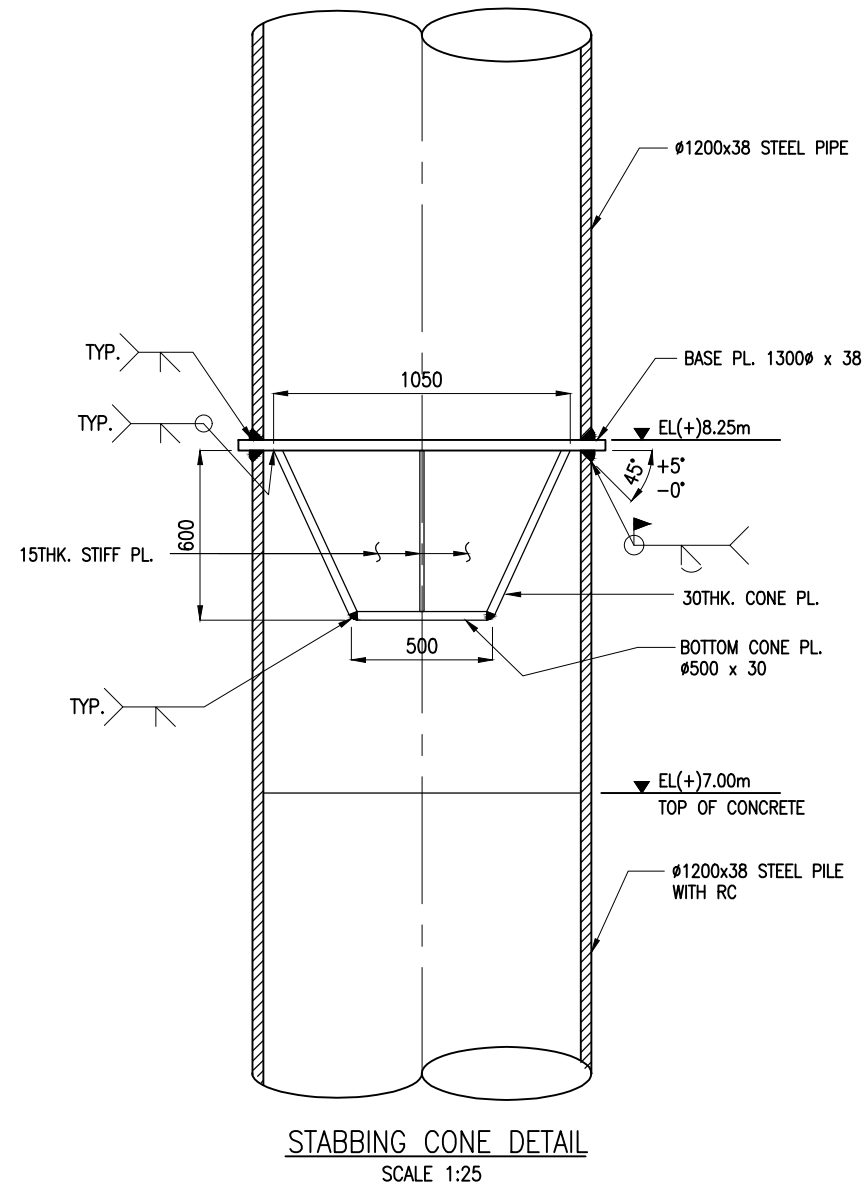
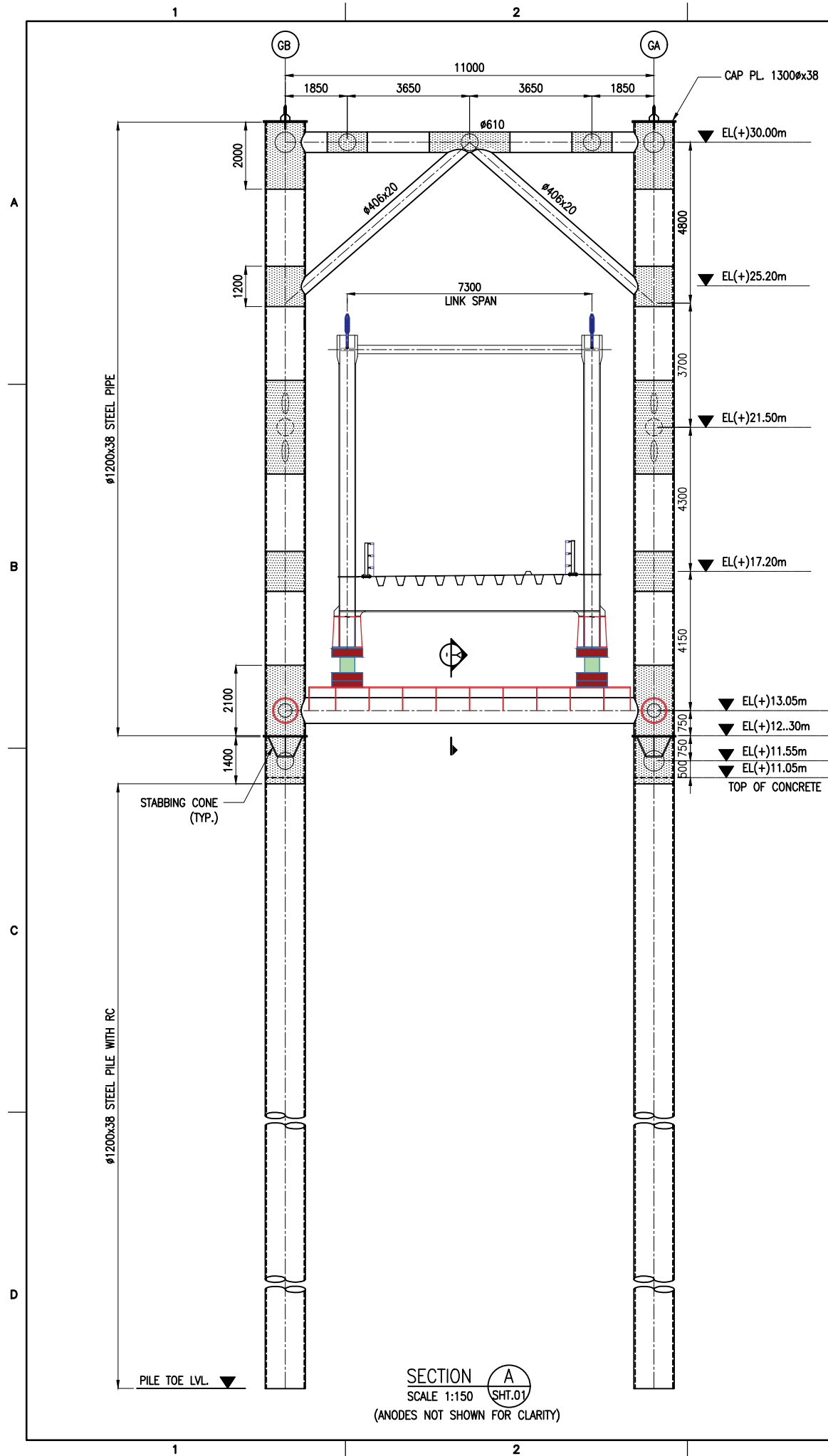
LENGTH (OA) :	50.00 m
LENGTH (BP) :	50.00 m
BREADTH (MLD) :	30.00 m
DEPTH (MLD) :	4.0 TO 6.7 m
DRAFT (MLD) :	0.5 m

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
2. ALL LEVELS ARE IN METERS WITH RESPECT TO CHART DATUM. U.N.O.
3. FOR GENERAL NOTES AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-002.
4. ALL MARKING ON PONTOON ARE PAINTED USING WHITE INTENSITY REFLECTED PAINT.
5. APART FROM THE SPECIFIED MARKING, THE PONTOON ARE NOT PAINTED.

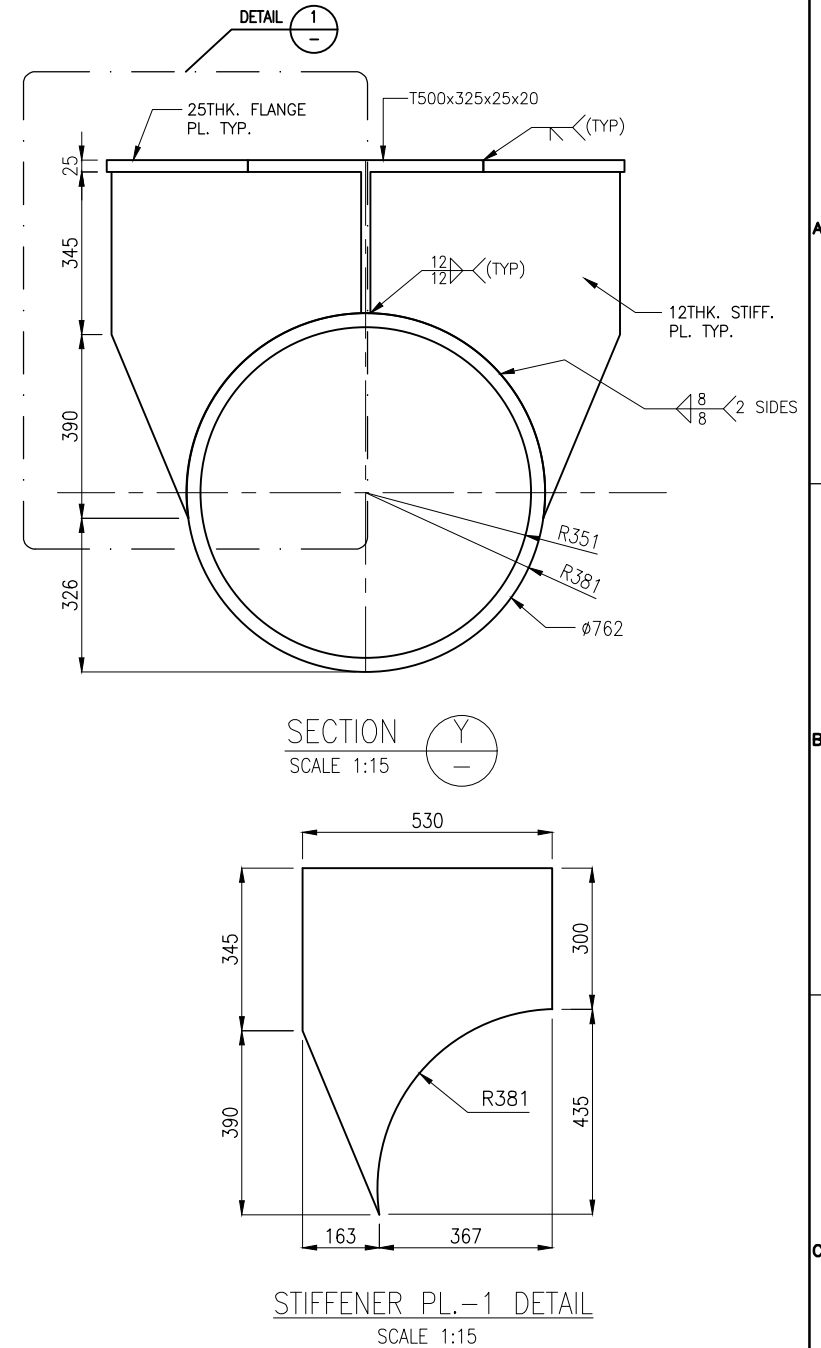
A	01.02.2024	ISSUED FOR TENDER	DKV	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF . S . NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
PONTOON DRAFT MARKING DETAILS				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-112			DATE: 01.02.2024	REV: A



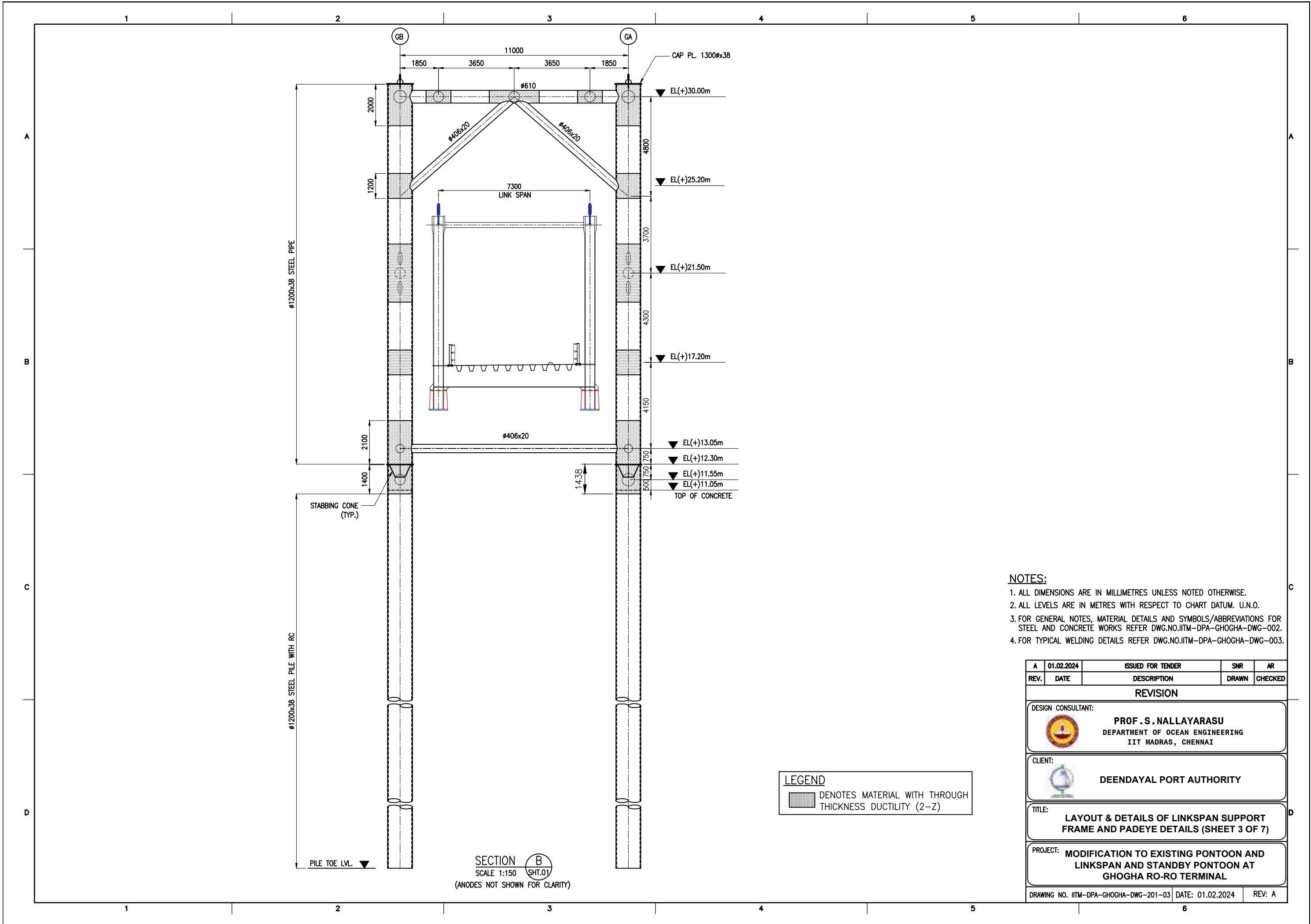


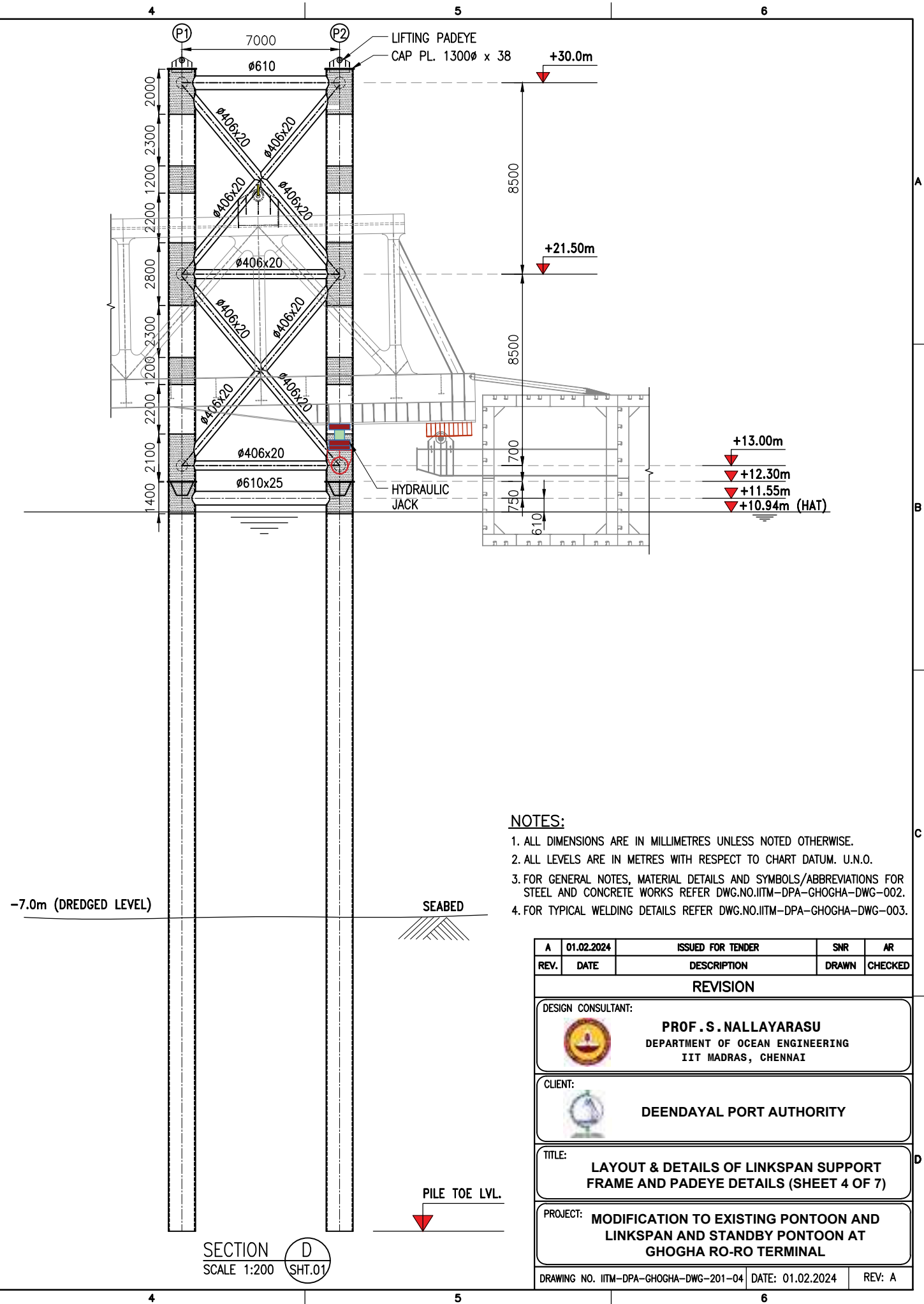
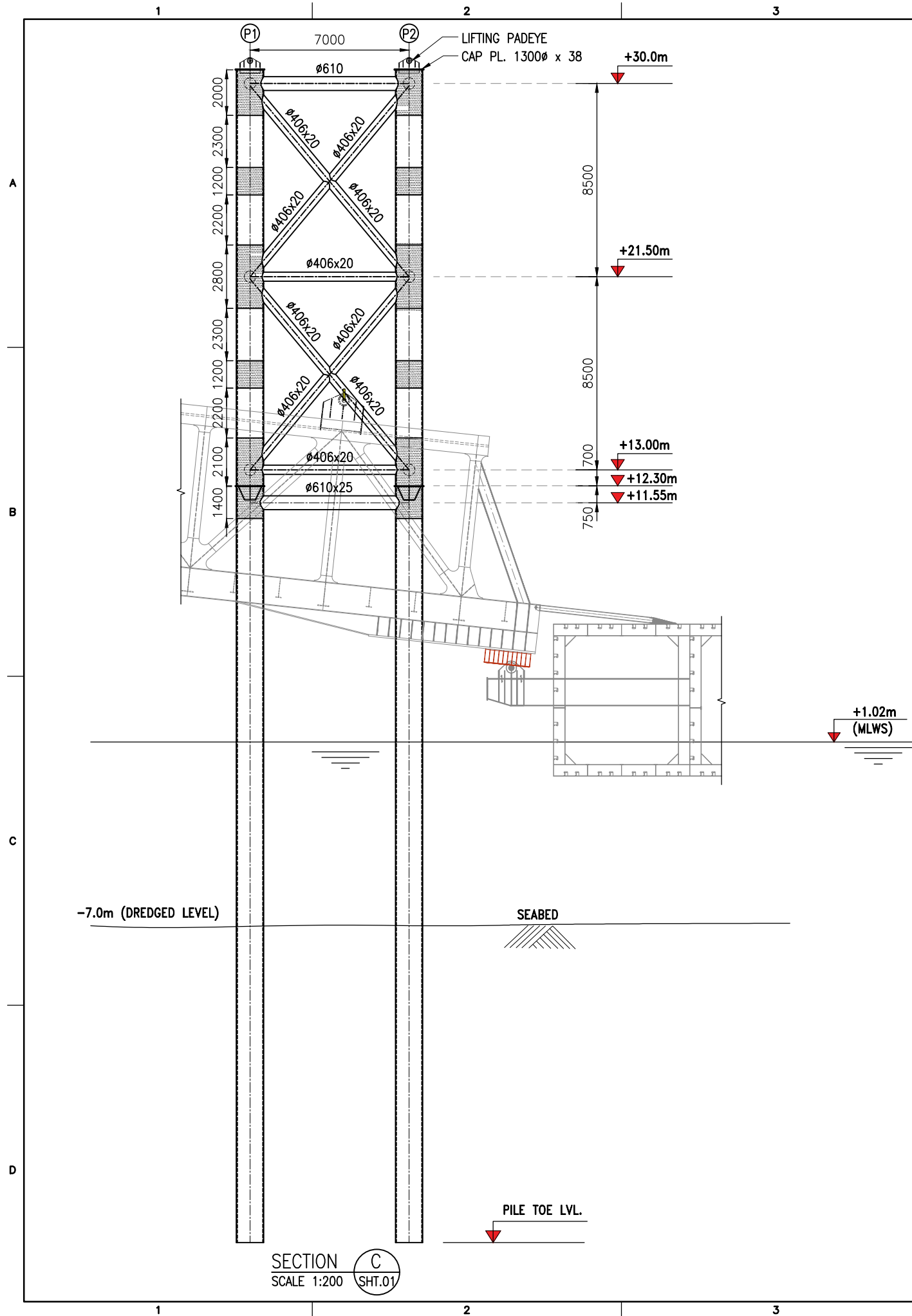
LEGEND	
	DENOTES MATERIAL WITH THROUGH THICKNESS DUCTILITY (2-Z)

- NOTES:**
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
 2. ALL LEVELS ARE IN METRES WITH RESPECT TO CHART DATUM. U.N.O.
 3. FOR GENERAL NOTES, MATERIAL DETAILS AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-002.
 4. FOR TYPICAL WELDING DETAILS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-003.





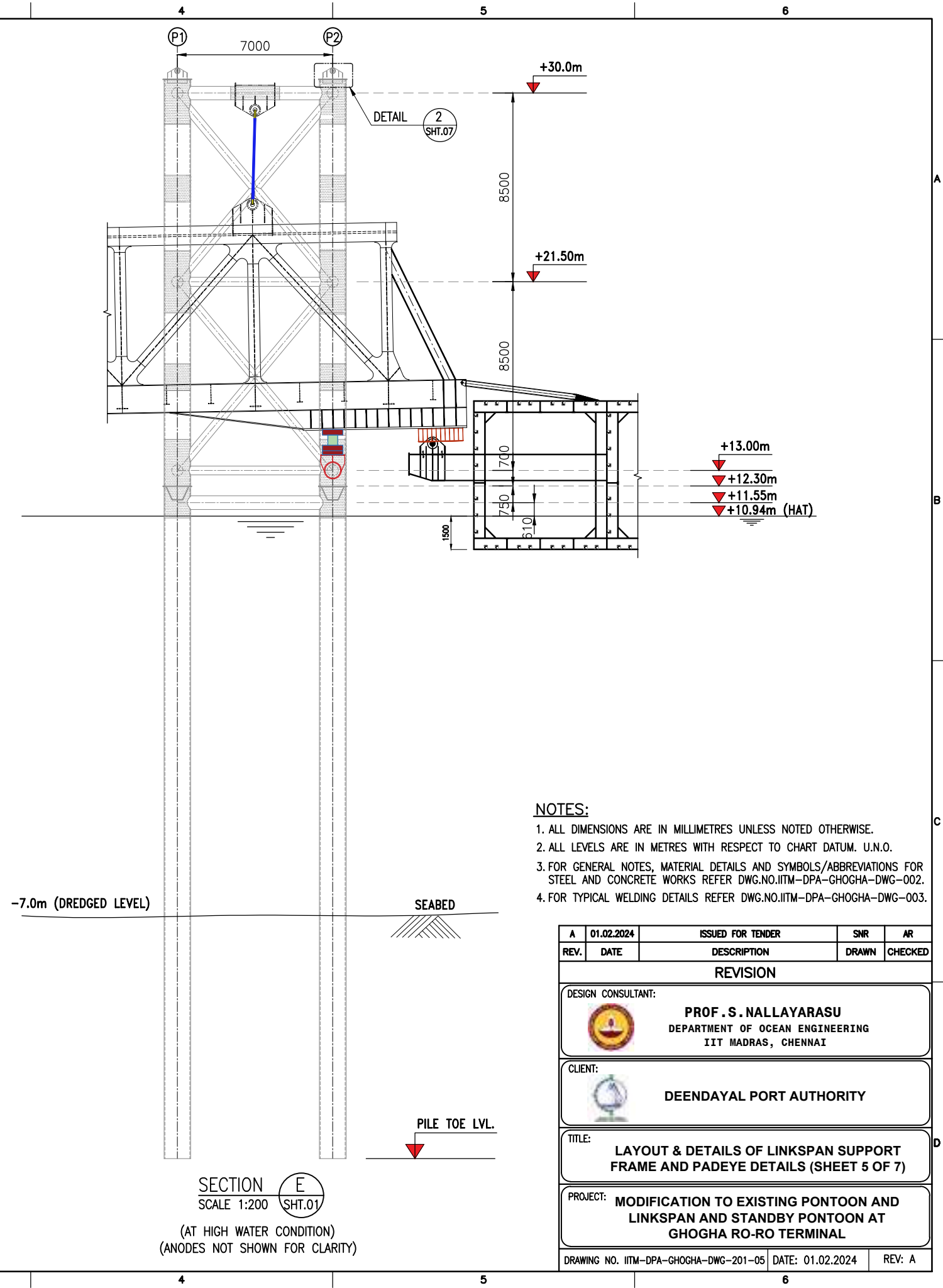
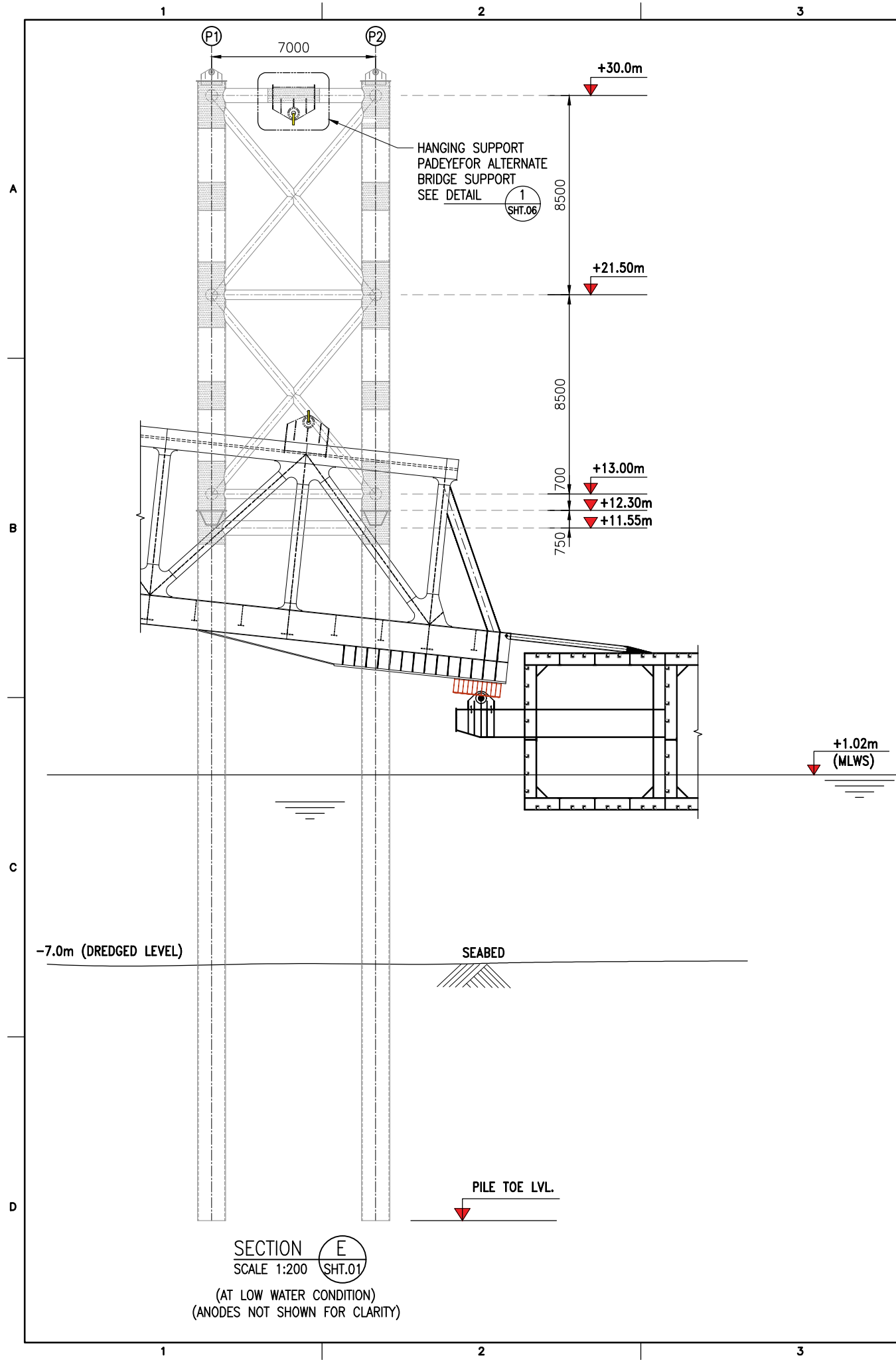
A	01.02.2024	ISSUED FOR TENDER	SNR	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF .S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
LAYOUT & DETAILS OF LINKSPAN SUPPORT FRAME AND PADEYE DETAILS (SHEET 2 OF 7)				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-201-02			DATE: 01.02.2024	
			REV: A	







- NOTES:
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
 2. ALL LEVELS ARE IN METRES WITH RESPECT TO CHART DATUM. U.N.O.
 3. FOR GENERAL NOTES, MATERIAL DETAILS AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-002.
 4. FOR TYPICAL WELDING DETAILS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-003.

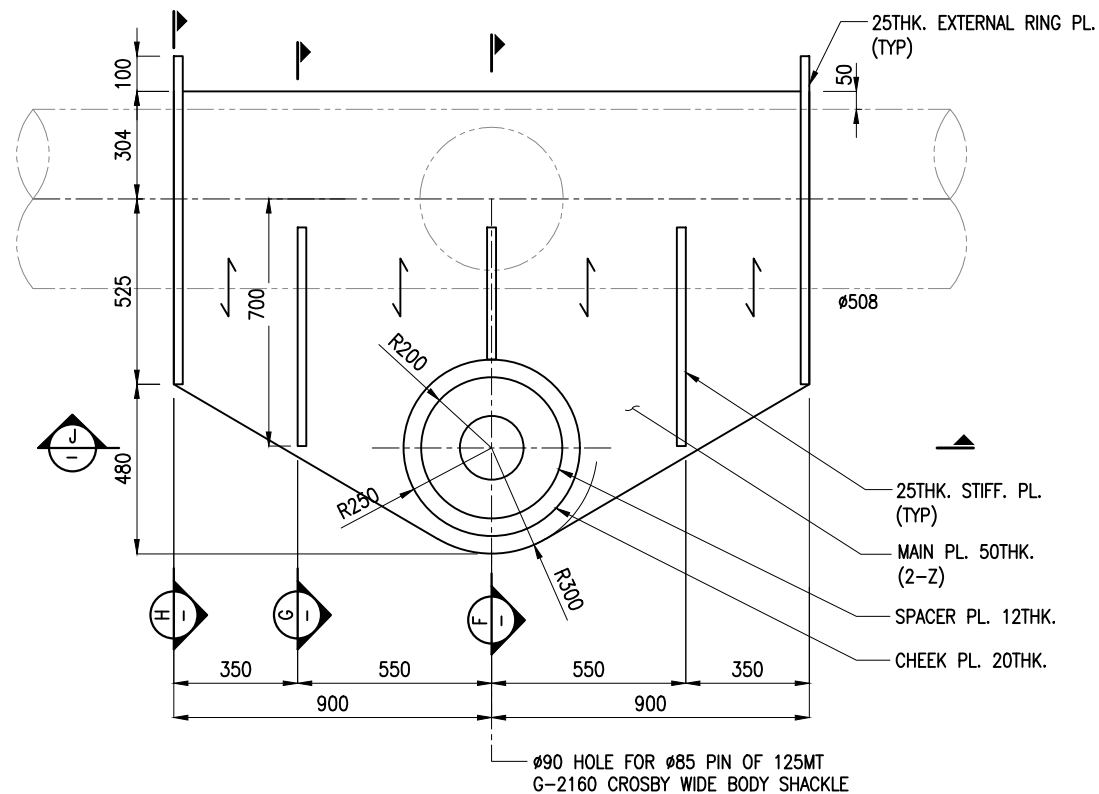
A	01.02.2024	ISSUED FOR TENDER		SNR	AR
	REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION					
DESIGN CONSULTANT:					
 PROF .S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI					
CLIENT:					
 DEENDAYAL PORT AUTHORITY					
TITLE:					
LAYOUT & DETAILS OF LINKSPAN SUPPORT FRAME AND PADEYE DETAILS (SHEET 4 OF 7)					
PROJECT:					
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL					
DRAWING NO. IITM-DPA-GHOGHA-DWG-201-04			DATE: 01.02.2024		REV: A



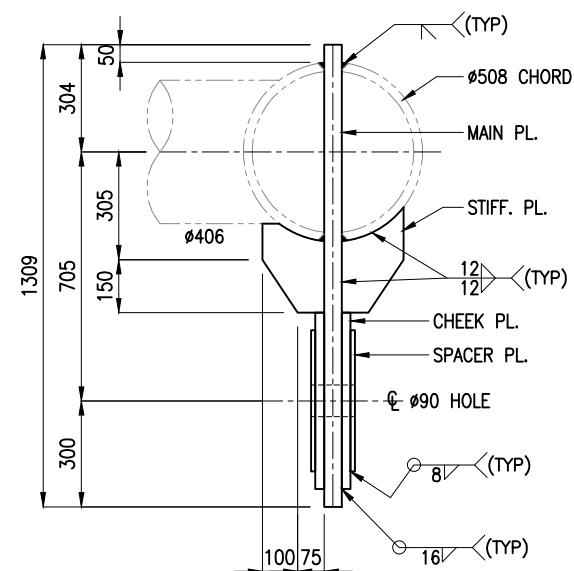
NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
2. ALL LEVELS ARE IN METRES WITH RESPECT TO CHART DATUM. U.N.O.
3. FOR GENERAL NOTES, MATERIAL DETAILS AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-002.
4. FOR TYPICAL WELDING DETAILS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-003.

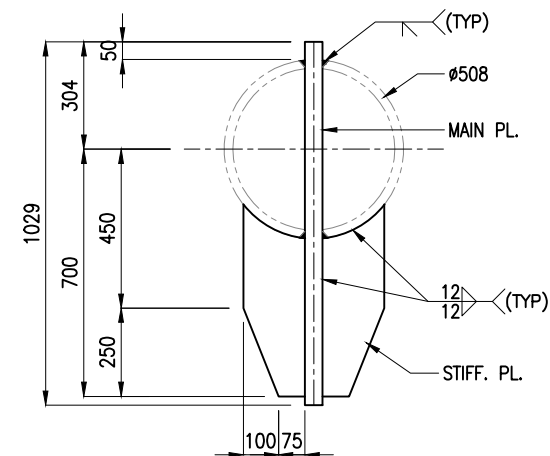
A	01.02.2024	ISSUED FOR TENDER	SNR	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF. S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
LAYOUT & DETAILS OF LINKSPAN SUPPORT FRAME AND PAIDEYE DETAILS (SHEET 5 OF 7)				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-201-05			DATE: 01.02.2024	
			REV: A	



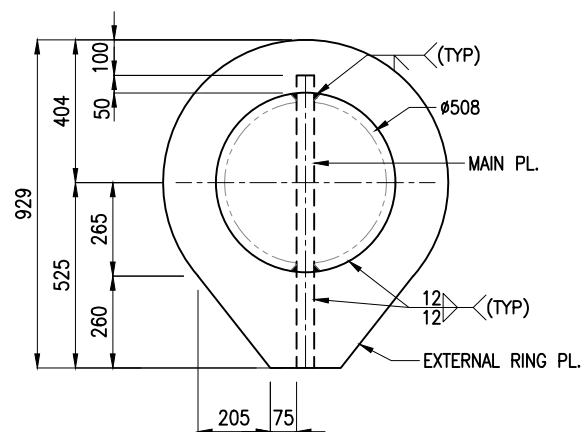
DETAIL - 1
SCALE 1:20



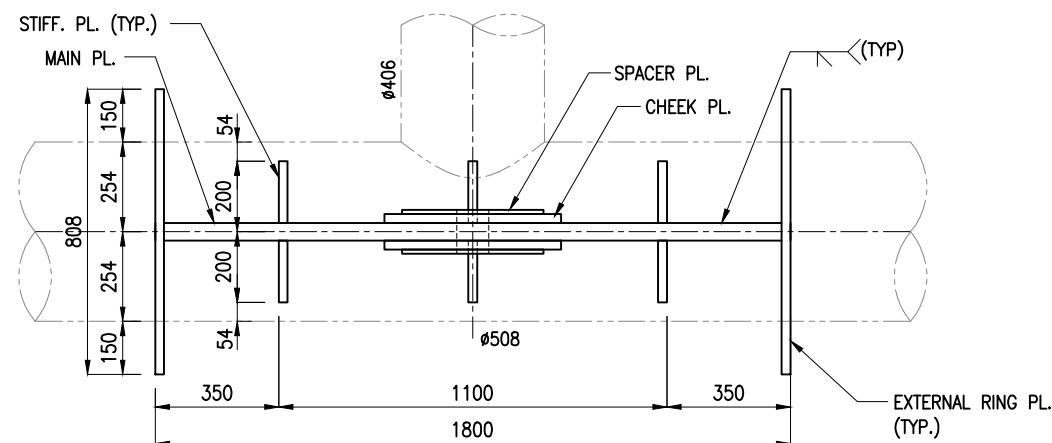
SECTION F
SCALE 1:20



SECTION G
SCALE 1:20





SECTION H
SCALE 1:20

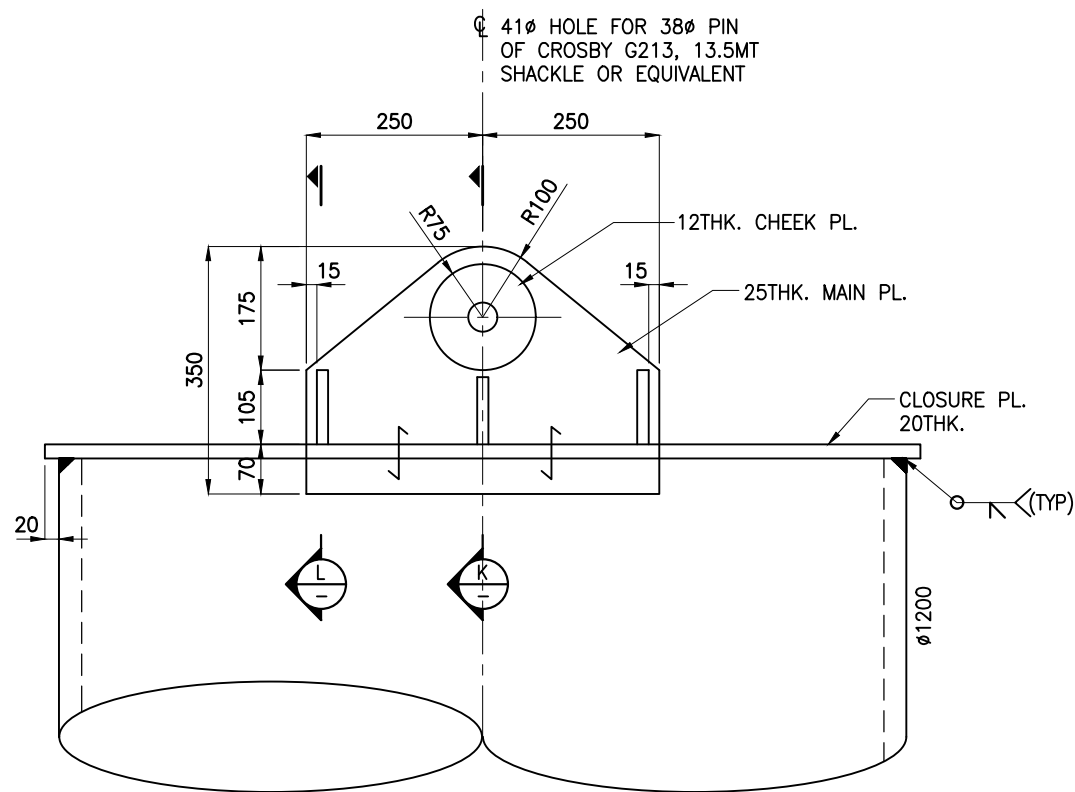


SECTION J
SCALE 1:20

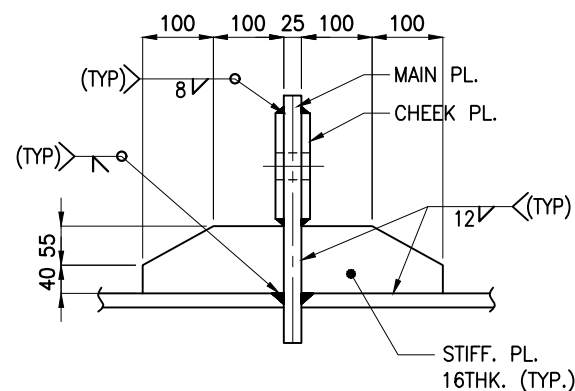
NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
2. ALL LEVELS ARE IN METRES WITH RESPECT TO CHART DATUM. U.N.O.
3. FOR GENERAL NOTES, MATERIAL DETAILS AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-002.
4. FOR TYPICAL WELDING DETAILS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-003.

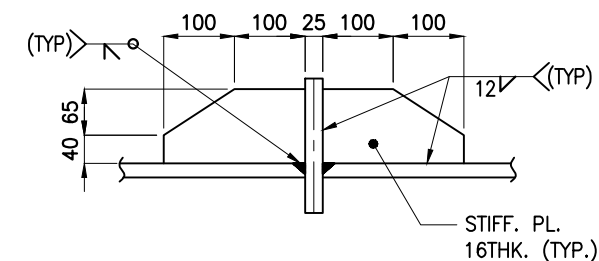
A	01.02.2024	ISSUED FOR TENDER	SNR	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF . S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
LAYOUT & DETAILS OF LINKSPAN SUPPORT FRAME AND PADEYE DETAILS (SHEET 6 OF 7)				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-201-06			DATE: 01.02.2024	REV: A



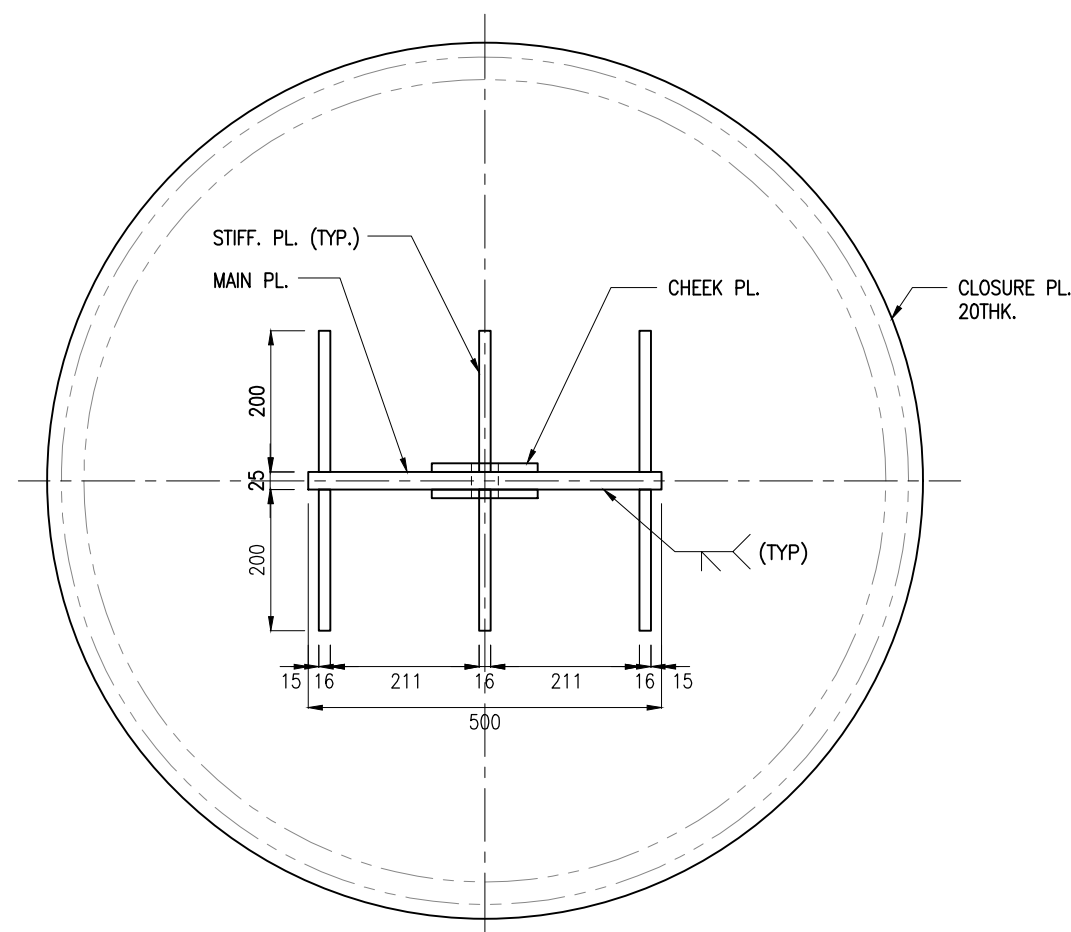
DETAIL - 2
SCALE 1:10



SECTION K
SCALE 1:10




SECTION L
SCALE 1:10

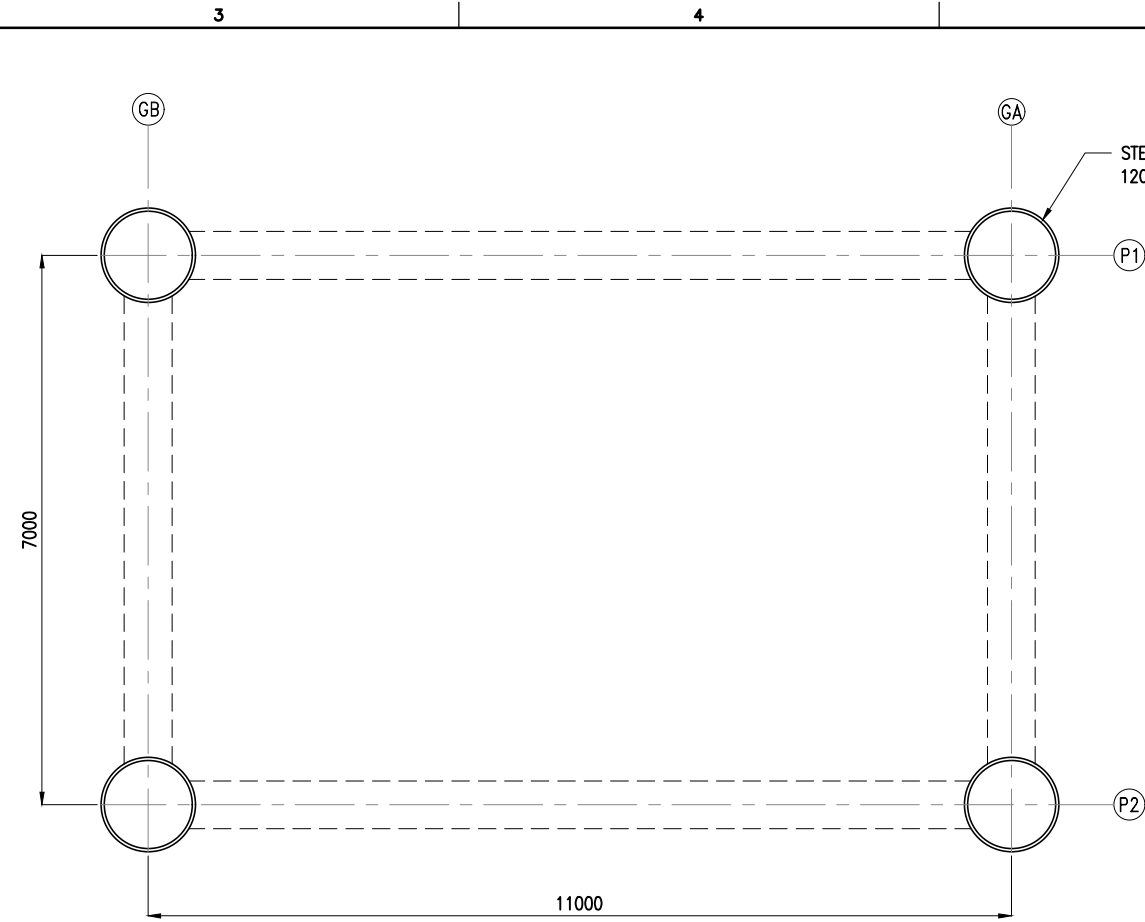
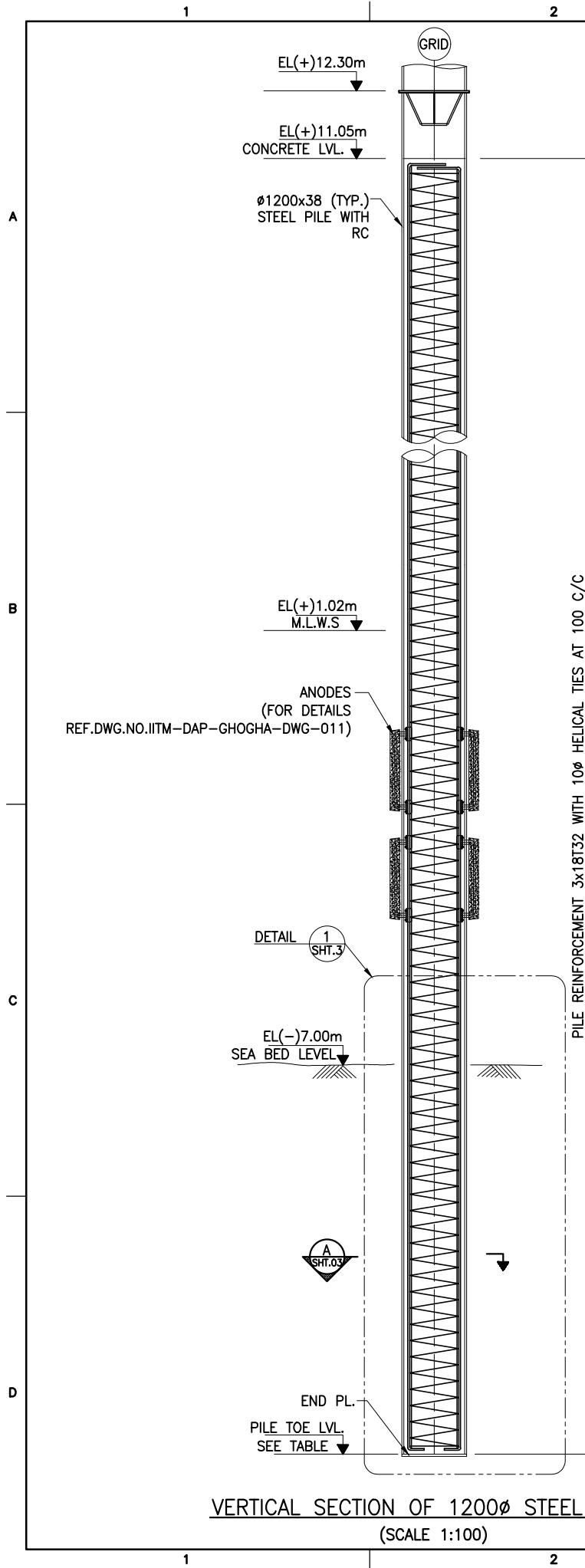


SECTION PLAN
SCALE 1:10

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
2. ALL LEVELS ARE IN METRES WITH RESPECT TO CHART DATUM. U.N.O.
3. FOR GENERAL NOTES, MATERIAL DETAILS AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-002.
4. FOR TYPICAL WELDING DETAILS REFER DWG.NO.IITM-DPA-GHOGHA-DWG-003.



A	01.02.2024	ISSUED FOR TENDER	SNR	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF .S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
LAYOUT & DETAILS OF LINKSPAN SUPPORT FRAME AND PADEYE DETAILS (SHEET 7 OF 7)				
PROJECT:				
MODIFICATION TO EXISTING PONTON AND LINKSPAN AND STANDBY PONTON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-201-07		DATE: 01.02.2024		REV: A

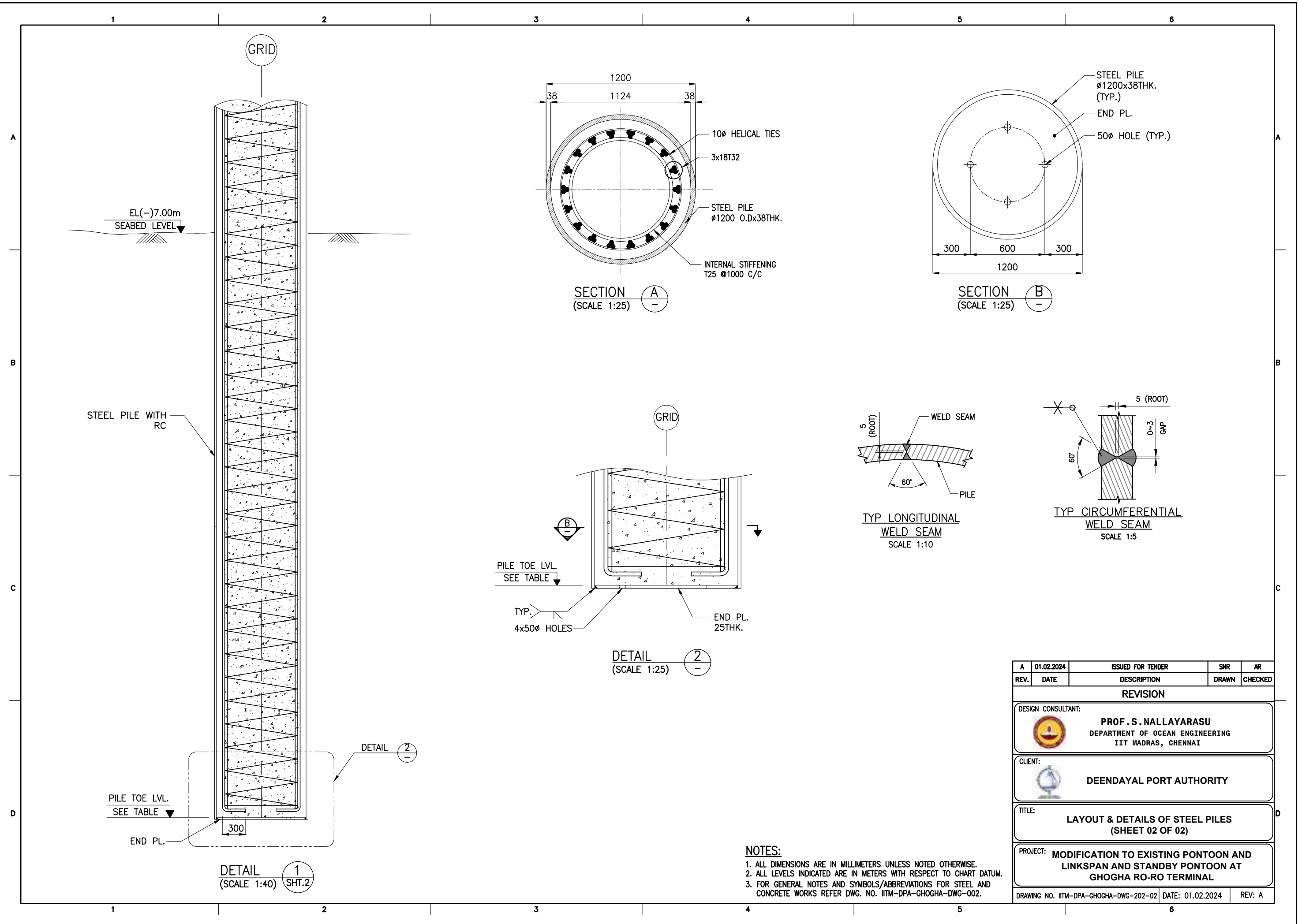


- NOTES:**
- ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
 - ALL LEVELS INDICATED ARE IN METERS WITH RESPECT TO CHART DATUM.
 - FOR GENERAL NOTES AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG. NO. IITM-DPA-GHOGHA-DWG-002.
 - LINER SHALL BE DRIVEN TO REFUSAL.
 - THE SEABED AND HARD ROCK LEVELS ARE BASED ON EXISTING GEOTECHNICAL DATA AND THE ACTUAL ELEVATIONS SHALL BE ESTABLISHED DURING EXECUTION.
 - PILE SHALL BE SOCKETED INTO HARD/WEATHERED ROCK. THE MINIMUM SOCKET LENGTH SHALL BE AS FOLLOWS:
 - 6 TIMES THE DIAMETER IN TO SOFT OR WEATHERED ROCK.
 - 3 TIMES THE DIAMETER IN TO HARD ROCK.
 - A COMBINATION OF SOFT/WEATHERED AND HARD/INTACT ROCK THE DEPTH TO BE DETERMINED BASED ON CASE TO CASE BASIS BY THE ENGINEER'S REPRESENTATIVE. THE DECISION OF ENGINEER'S REPRESENTATIVE/CONSULTANT IS FINAL.
 - THE ROCK LEVEL SHALL BE DETERMINED BASED ON THE FOLLOWING CRITERIA.
 - SPT EXCEEDING
 - INTACT/HARD ROCK - 100
 - WEATHERED/SOFT ROCK - 50
 - CHISELLING/BORING ENERGY CALCULATED AS PER IRC78.
 - INTACT/HARD ROCK - 250 Tm/m²/cm
 - WEATHERED/SOFT ROCK - 150 Tm/m²/cm
 - THE PILE TERMINATION LEVELS SHOWN IN THIS DRAWING IS APPROXIMATE AND MAY VARY DEPENDING ON HARD ROCK LEVELS.
 - PILE SHALL BE CAST 600mm HIGHER THAN THE PILE CUT-OFF LEVEL AND OVERFLOW OF CONCRETE SHALL BE OBSERVED. THE ADDITIONAL LENGTH OF PILE SHALL BE CUT AFTER 28DAYS OF CASTING THE PILE.
 - PILE SHALL BE ERECTED IN ACCORDANCE WITH PROJECT SPECIFICATION CLAUSE SECTION 5 - PART 10.6.
OUT-OFF ROUNDEDNESS : < 1%
VERTICALITY : LESS THAN 1:500
HORIZONTAL POSITION : WITHIN ±10mm.
 - ANODE BASE PLATE SHALL BE WELDED BEFORE ERECTION OF PILE.
 - AFTER WELDING ATTACHMENTS TOUCH UP REPAIR OF PAINT SHALL BE CARRIED OUT.
 - WELDING SHALL BE CARRIED OUT AS PER AWS D1.1.
 - LONGITUDINAL AND CIRCUMFERENTIAL WELD SEAM SHALL BE INSPECTED 100% USING UT AND X-RAY METHOD.

PILE SCHEDULE:

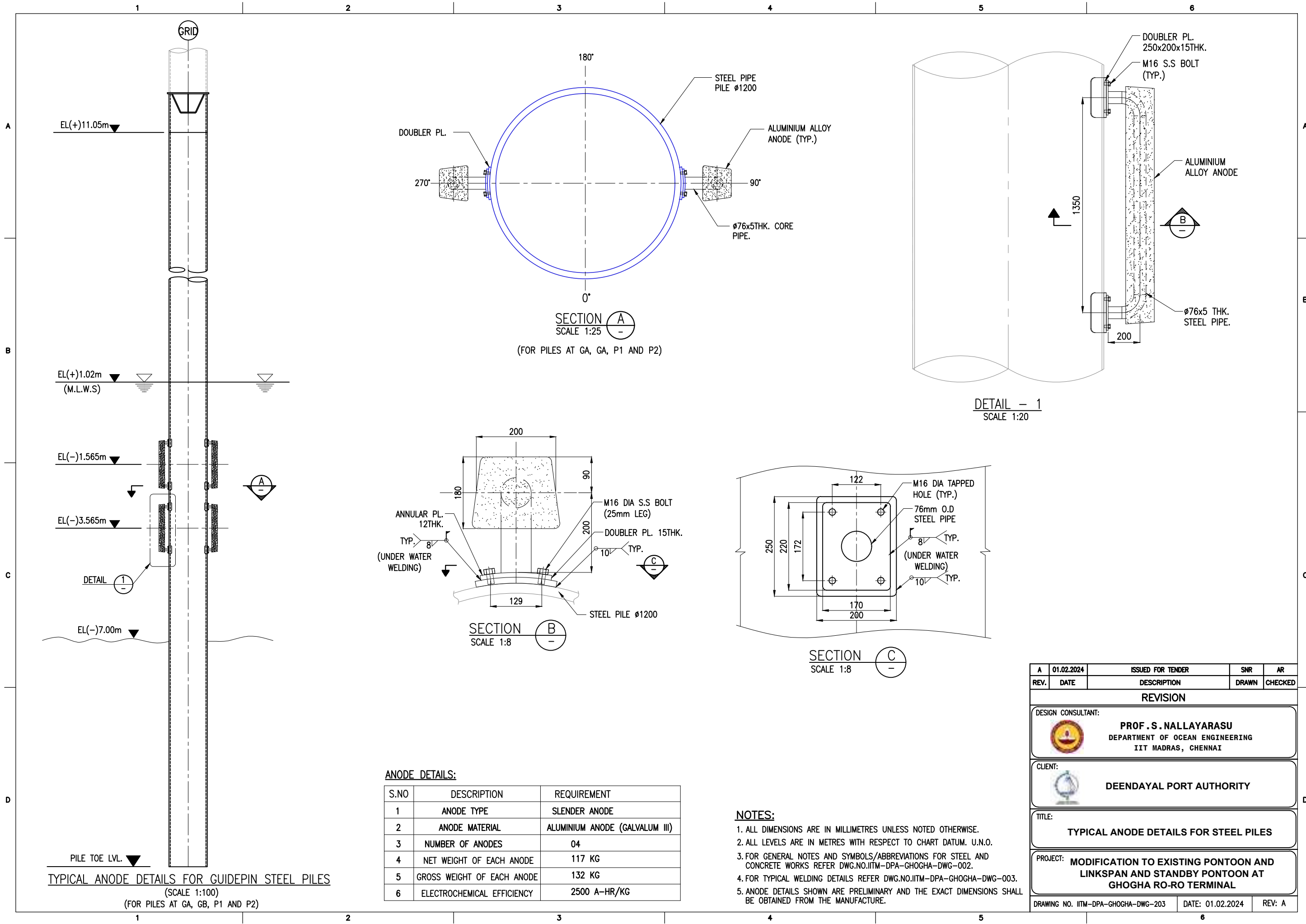
S.NO	GRID	PILE Ø (mm)	NO.OF PILES	PILE CUT-OFF LVL. (m)	ROCK LVL.(m)		PILE TOE LVL. (m)	PILE WORKING LOAD (T)	
					WEATHERED ROCK	HARD ROCK		VERT.	HORIZ.
1	GA, GB (TYPE-1)	1000	04	(+)9.00	(-)11.00	(-)12.00	(-)18.00	150	10
TOTAL NO. OF PILES = 04									

A	01.02.2024	ISSUED FOR TENDER	SNR	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:  PROF .S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:  DEENDAYAL PORT AUTHORITY				
TITLE: LAYOUT & DETAILS OF STEEL PILES (SHEET 01 OF 02)				
PROJECT: MODIFICATION TO EXISTING PONTON AND LINKSPAN AND STANDBY PONTON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-202-01		DATE: 01.02.2024		REV: A



NOTES:
1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
2. ALL LEVELS INDICATED ARE IN METERS WITH RESPECT TO CHART DATUM.
3. FOR GENERAL NOTES AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG. NO. IITM-DPA-GHOGHA-DWG-002.

A	01.02.2024	ISSUED FOR TENDER	SNR	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF .S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
LAYOUT & DETAILS OF STEEL PILES (SHEET 02 OF 02)				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-202-02			DATE: 01.02.2024	
			REV: A	





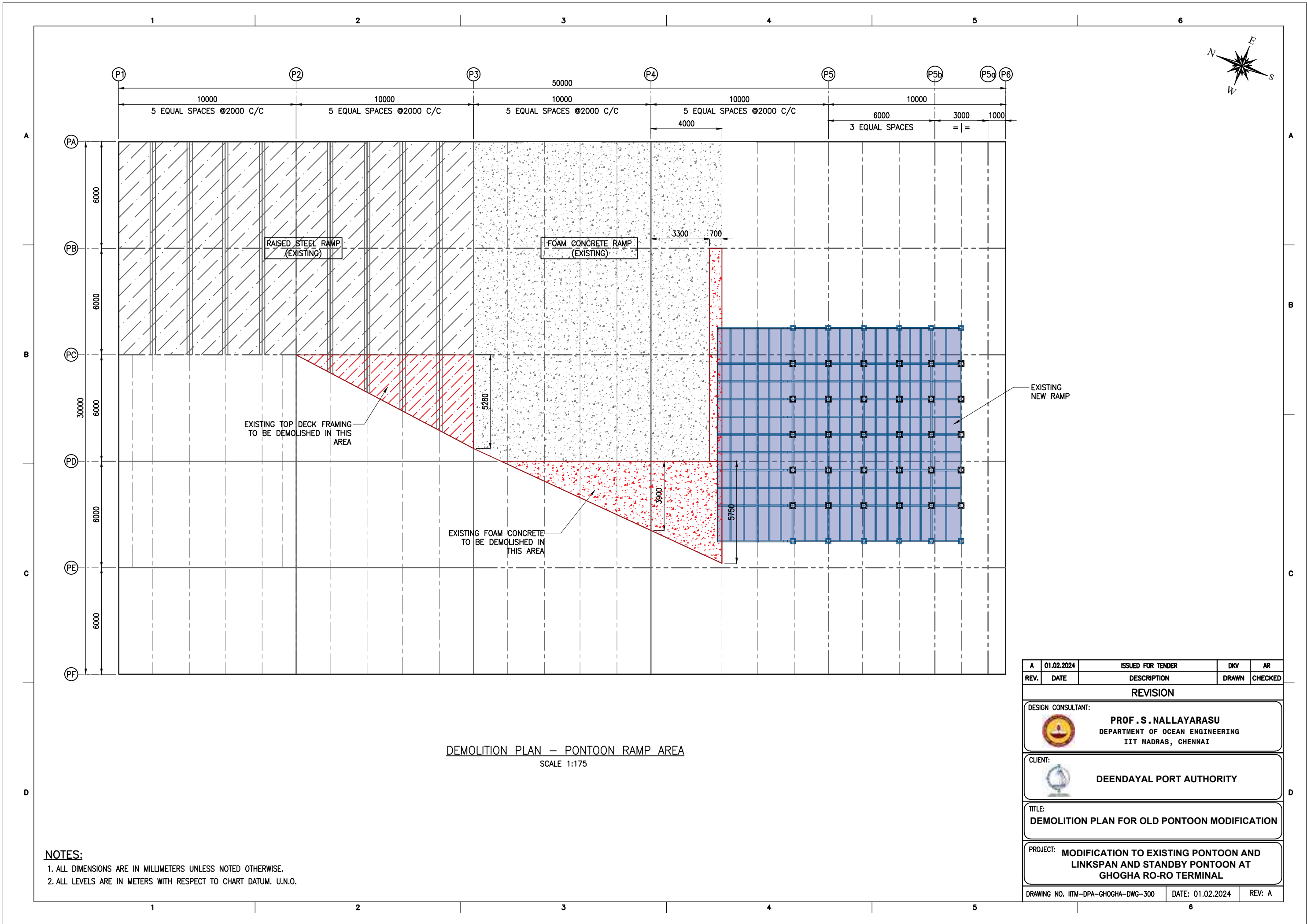
ANODE DETAILS:

S.NO	DESCRIPTION	REQUIREMENT
1	ANODE TYPE	SLENDER ANODE
2	ANODE MATERIAL	ALUMINIUM ANODE (GALVALUM III)
3	NUMBER OF ANODES	04
4	NET WEIGHT OF EACH ANODE	117 KG
5	GROSS WEIGHT OF EACH ANODE	132 KG
6	ELECTROCHEMICAL EFFICIENCY	2500 A-HR/KG

NOTES:



1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
2. ALL LEVELS ARE IN METRES WITH RESPECT TO CHART DATUM. U.N.O.
3. FOR GENERAL NOTES AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO.ITM-DPA-GHOGHA-DWG-002.
4. FOR TYPICAL WELDING DETAILS REFER DWG.NO.ITM-DPA-GHOGHA-DWG-003.
5. ANODE DETAILS SHOWN ARE PRELIMINARY AND THE EXACT DIMENSIONS SHALL BE OBTAINED FROM THE MANUFACTURE.

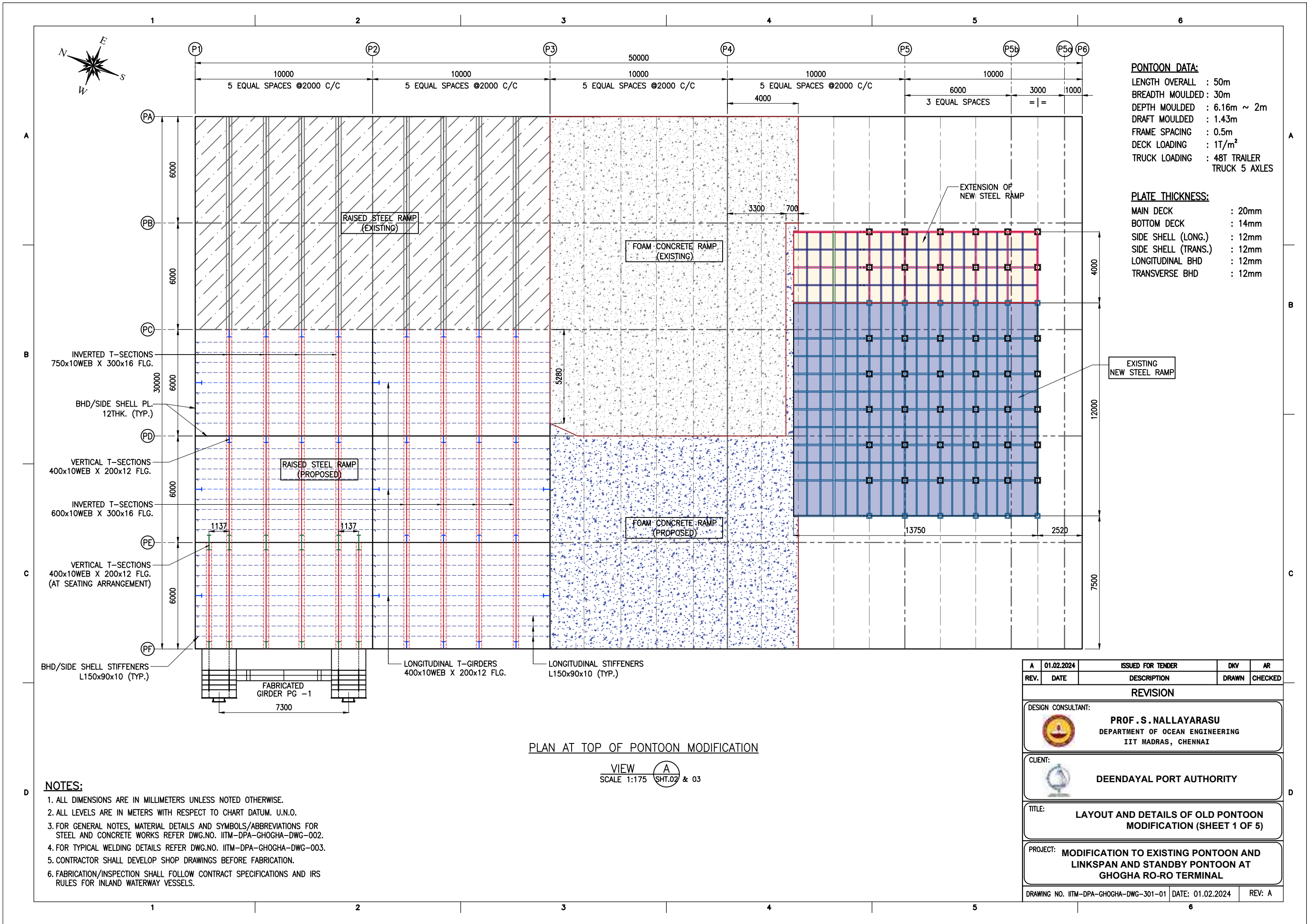
A	01.02.2024	ISSUED FOR TENDER	SNR	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF. S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
TYPICAL ANODE DETAILS FOR STEEL PILES				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. ITM-DPA-GHOGHA-DWG-203			DATE: 01.02.2024	REV: A



DEMOLITION PLAN – PONTOON RAMP AREA
SCALE 1:175

NOTES:
1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
2. ALL LEVELS ARE IN METERS WITH RESPECT TO CHART DATUM. U.N.O.

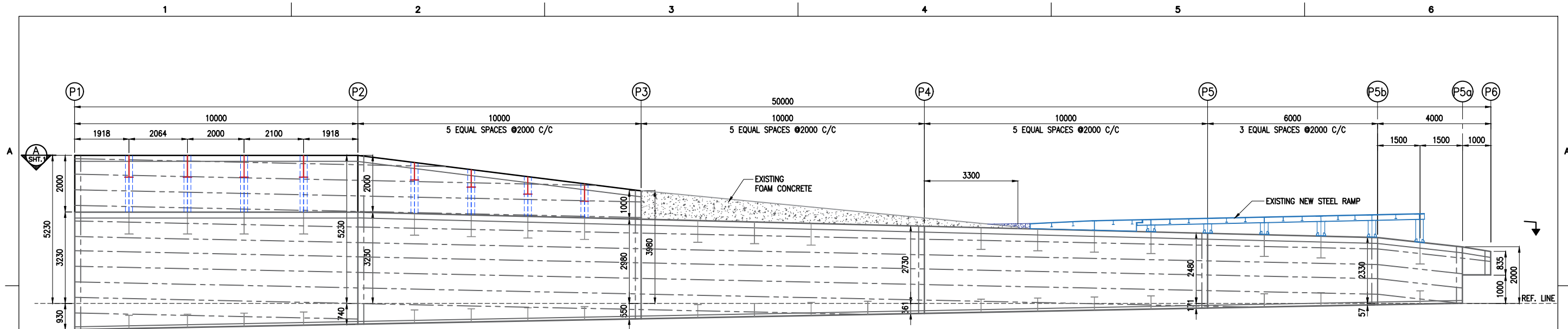
A	01.02.2024	ISSUED FOR TENDER	DKV	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF . S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
DEMOLITION PLAN FOR OLD PONTOON MODIFICATION				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. ITM-DPA-GHOGHA-DWG-300		DATE: 01.02.2024		REV: A



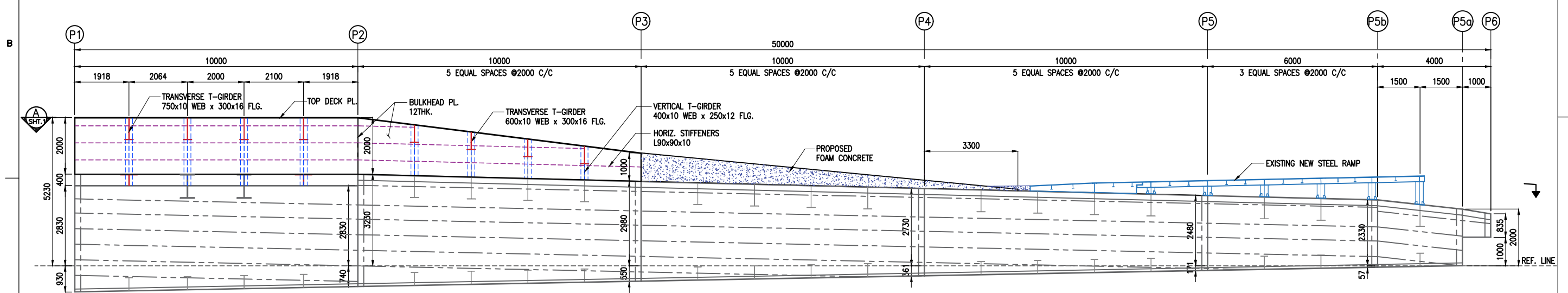
PLAN AT TOP OF PONTOON MODIFICATION

VIEW A
SCALE 1:175 SHT.02 & 03

A	01.02.2024	ISSUED FOR TENDER	DKV	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF. S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
LAYOUT AND DETAILS OF OLD PONTOON MODIFICATION (SHEET 1 OF 5)				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-301-01		DATE: 01.02.2024		REV: A





SECTION ON GRID PC

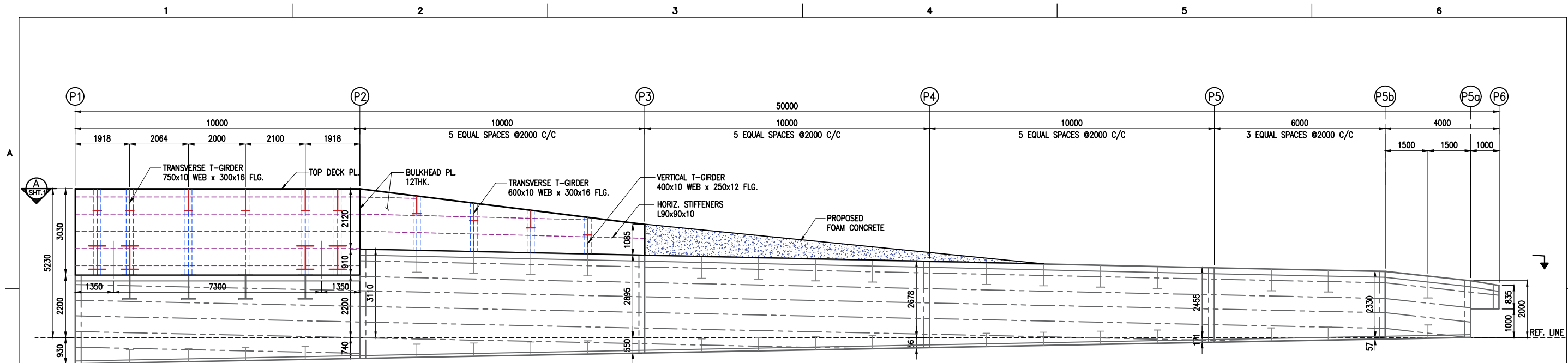


SECTION ON GRID PD

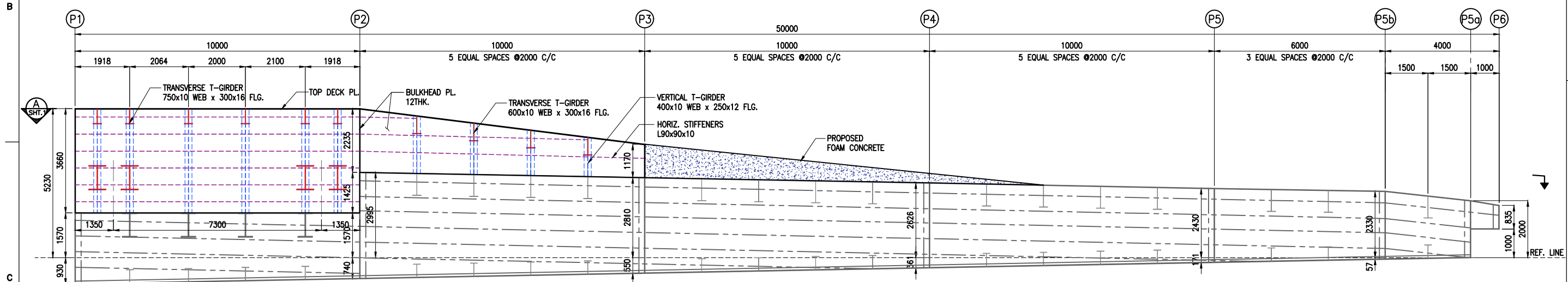
NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
2. ALL LEVELS ARE IN METERS WITH RESPECT TO CHART DATUM. U.N.O.
3. FOR GENERAL NOTES, MATERIAL DETAILS AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO. IITM-DPA-GHOGHA-DWG-002.
4. FOR TYPICAL WELDING DETAILS REFER DWG.NO. IITM-DPA-GHOGHA-DWG-003.
5. CONTRACTOR SHALL DEVELOP SHOP DRAWINGS BEFORE FABRICATION.
6. FABRICATION/INSPECTION SHALL FOLLOW CONTRACT SPECIFICATIONS AND IRS RULES FOR INLAND WATERWAY VESSELS.

A	01.02.2024	ISSUED FOR TENDER	DKV	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF. S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
LAYOUT AND DETAILS OF OLD PONTOON MODIFICATION (SHEET 2 OF 5)				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-301-02		DATE: 01.02.2024		REV: A





SECTION ON GRID PE

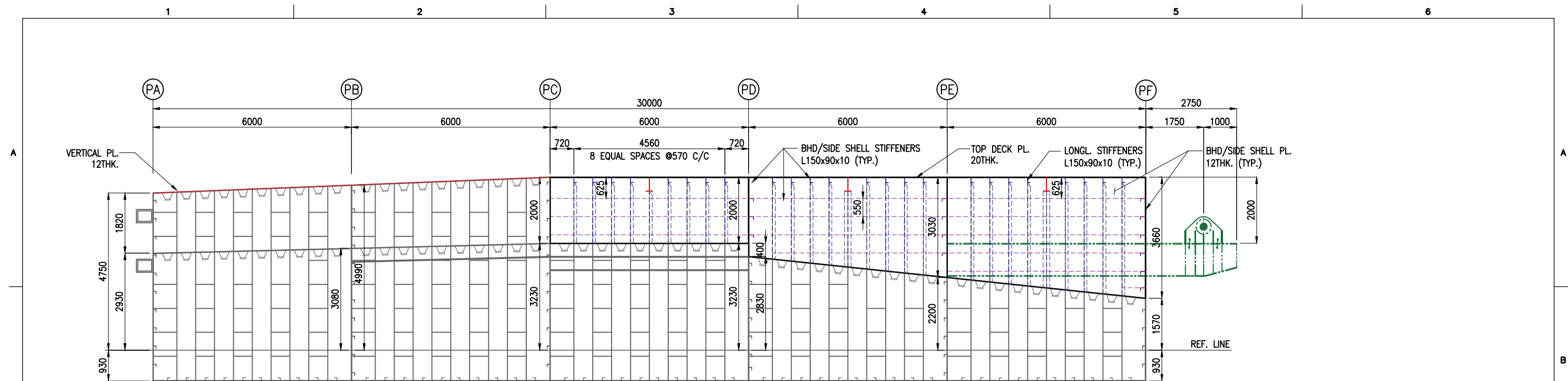


SECTION ON GRID PF

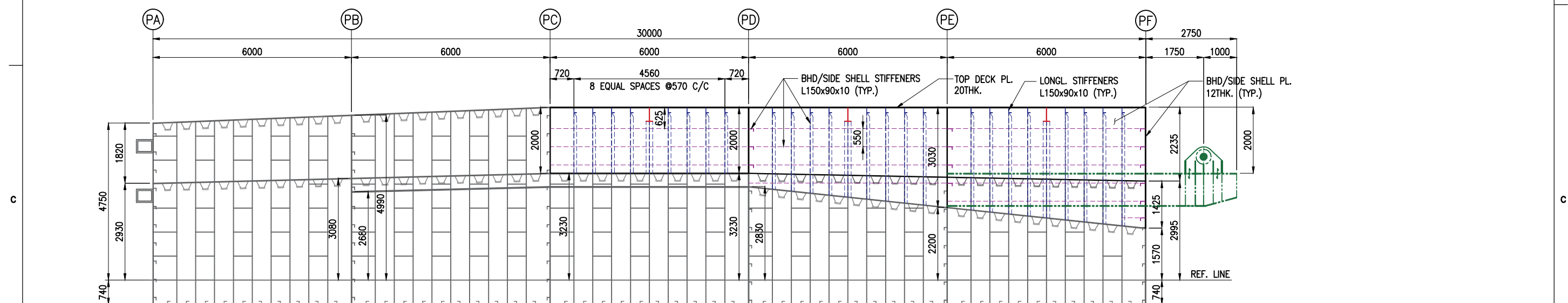
NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
2. ALL LEVELS ARE IN METERS WITH RESPECT TO CHART DATUM. U.N.O.
3. FOR GENERAL NOTES, MATERIAL DETAILS AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO. IITM-DPA-GHOGHA-DWG-002.
4. FOR TYPICAL WELDING DETAILS REFER DWG.NO. IITM-DPA-GHOGHA-DWG-003.
5. CONTRACTOR SHALL DEVELOP SHOP DRAWINGS BEFORE FABRICATION.
6. FABRICATION/INSPECTION SHALL FOLLOW CONTRACT SPECIFICATIONS AND IRS RULES FOR INLAND WATERWAY VESSELS.

A	01.02.2024	ISSUED FOR TENDER	DKV	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF. S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
LAYOUT AND DETAILS OF OLD PONTOON MODIFICATION (SHEET 3 OF 5)				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-301-03			DATE: 01.02.2024	
			REV: A	





SECTION ON GRID P1

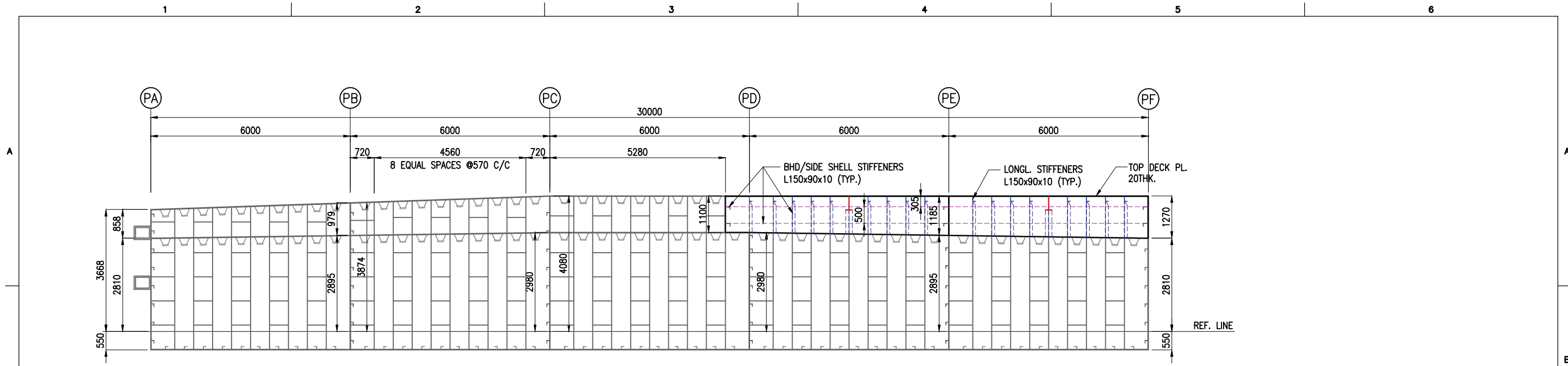


SECTION ON GRID P2

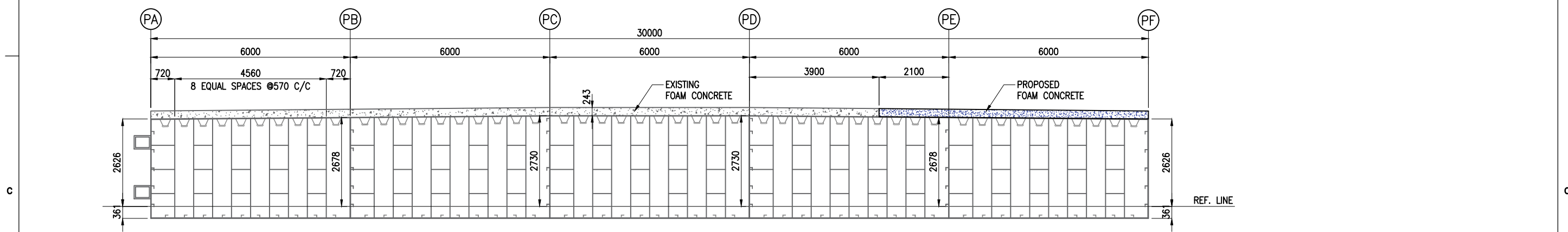
NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
2. ALL LEVELS ARE IN METERS WITH RESPECT TO CHART DATUM. U.N.O.
3. FOR GENERAL NOTES, MATERIAL DETAILS AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO. IITM-DPA-GHOGHA-DWG-002.
4. FOR TYPICAL WELDING DETAILS REFER DWG.NO. IITM-DPA-GHOGHA-DWG-003.
5. CONTRACTOR SHALL DEVELOP SHOP DRAWINGS BEFORE FABRICATION.
6. FABRICATION/INSPECTION SHALL FOLLOW CONTRACT SPECIFICATIONS AND IRS RULES FOR INLAND WATERWAY VESSELS.

A	01.02.2024	ISSUED FOR TENDER	DKV	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF. S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
LAYOUT AND DETAILS OF OLD PONTOON MODIFICATION (SHEET 4 OF 5)				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-301-04			DATE: 01.02.2024	
			REV: A	





SECTION ON GRID P3

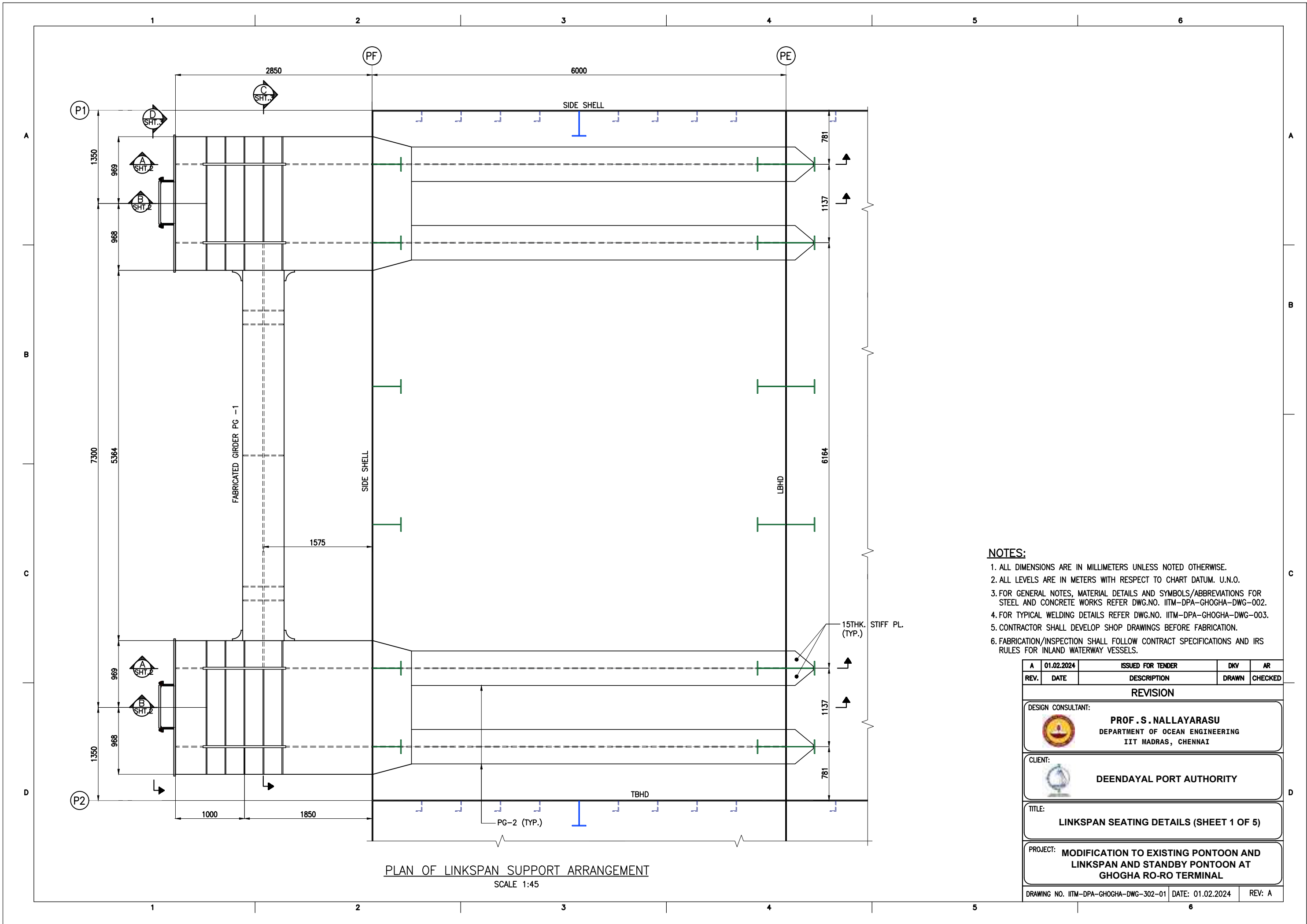


SECTION ON GRID P4



NOTES:

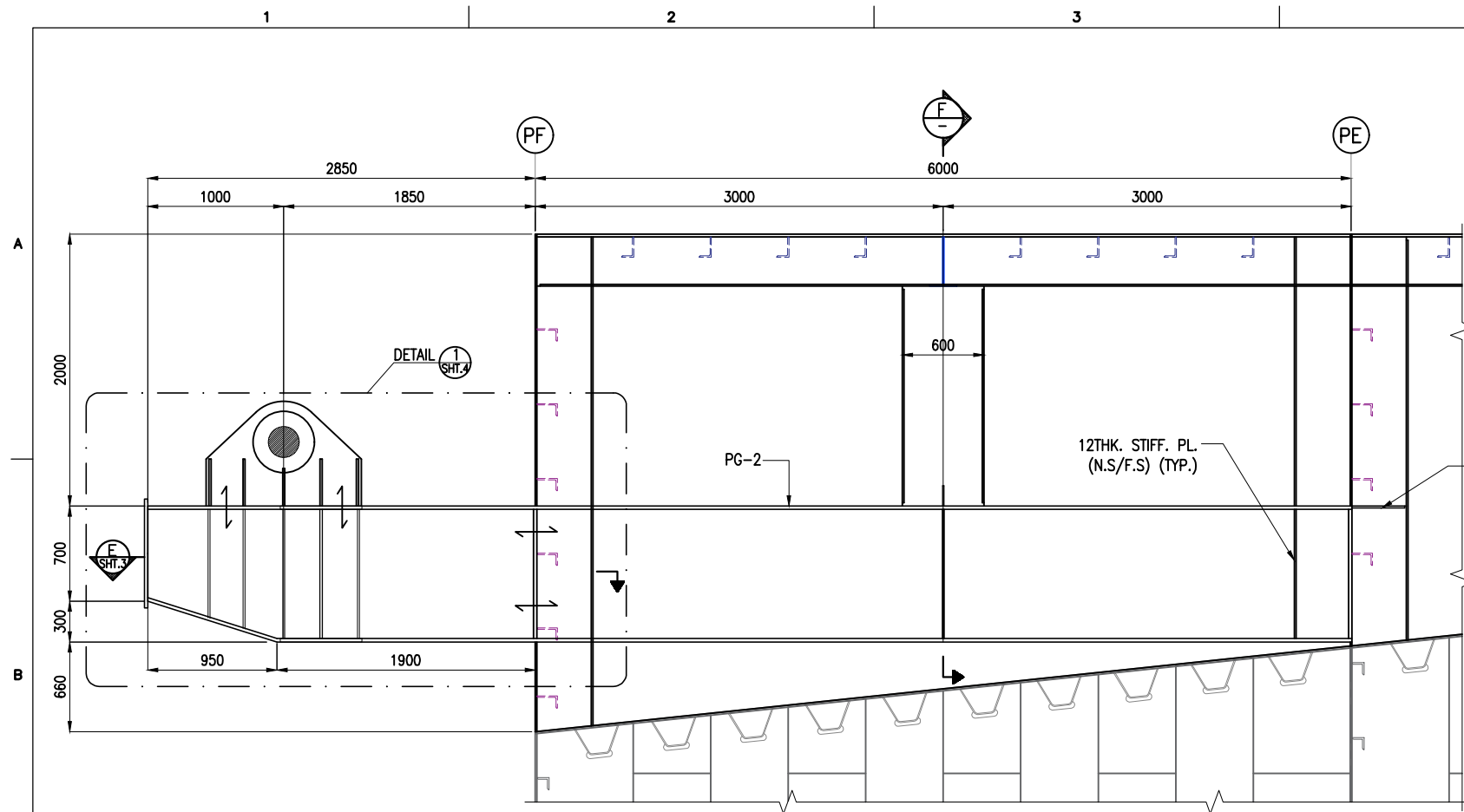
1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
2. ALL LEVELS ARE IN METERS WITH RESPECT TO CHART DATUM. U.N.O.
3. FOR GENERAL NOTES, MATERIAL DETAILS AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO. IITM-DPA-GHOGHA-DWG-002.
4. FOR TYPICAL WELDING DETAILS REFER DWG.NO. IITM-DPA-GHOGHA-DWG-003.
5. CONTRACTOR SHALL DEVELOP SHOP DRAWINGS BEFORE FABRICATION.
6. FABRICATION/INSPECTION SHALL FOLLOW CONTRACT SPECIFICATIONS AND IRS RULES FOR INLAND WATERWAY VESSELS.

A	01.02.2024	ISSUED FOR TENDER	DKV	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF . S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
LAYOUT AND DETAILS OF OLD PONTOON MODIFICATION (SHEET 5 OF 5)				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-301-05			DATE: 01.02.2024	
			REV: A	

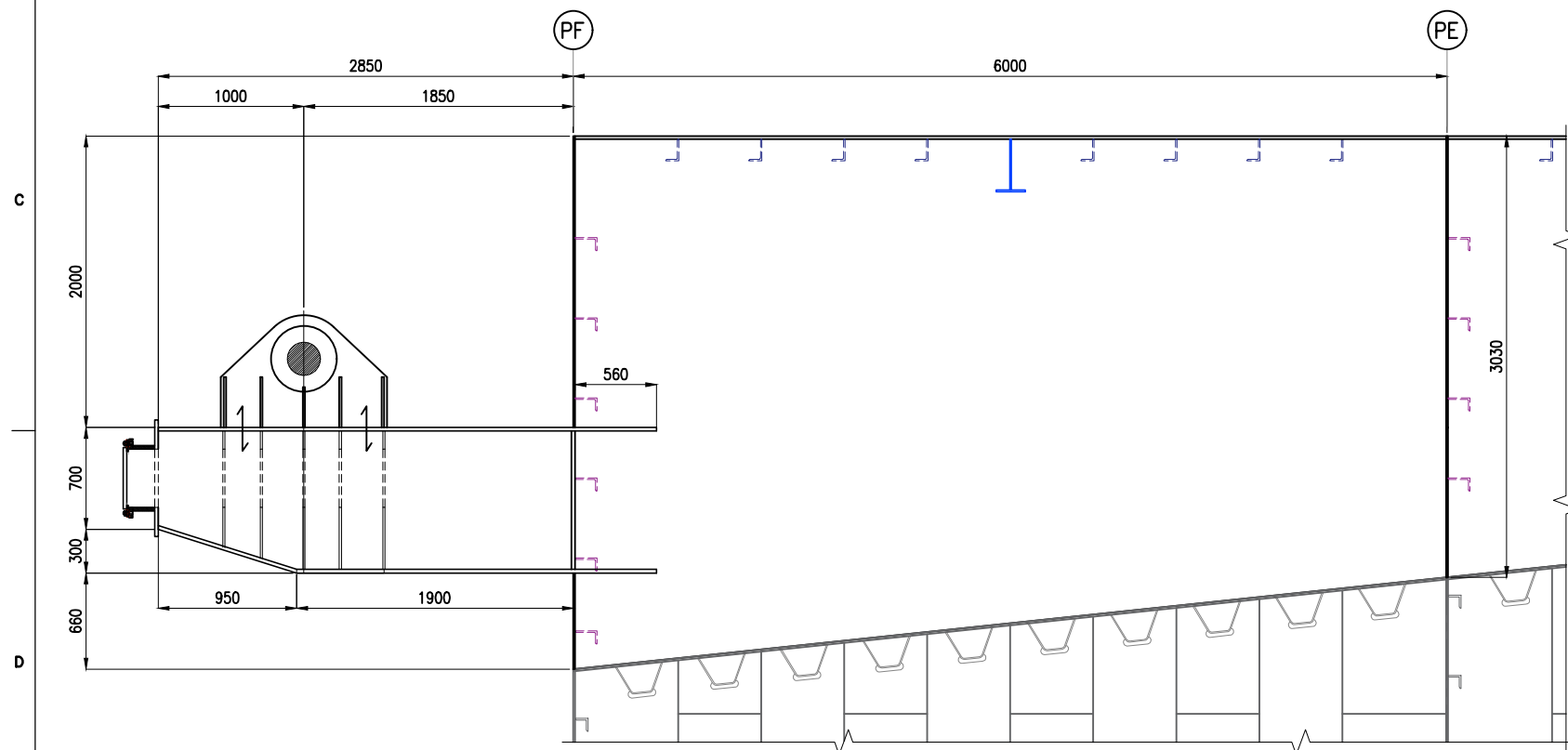


- NOTES:**
- 1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
 - 2. ALL LEVELS ARE IN METERS WITH RESPECT TO CHART DATUM. U.N.O.
 - 3. FOR GENERAL NOTES, MATERIAL DETAILS AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO. IITM-DPA-GHOGHA-DWG-002.
 - 4. FOR TYPICAL WELDING DETAILS REFER DWG.NO. IITM-DPA-GHOGHA-DWG-003.
 - 5. CONTRACTOR SHALL DEVELOP SHOP DRAWINGS BEFORE FABRICATION.
 - 6. FABRICATION/INSPECTION SHALL FOLLOW CONTRACT SPECIFICATIONS AND IRS RULES FOR INLAND WATERWAY VESSELS.

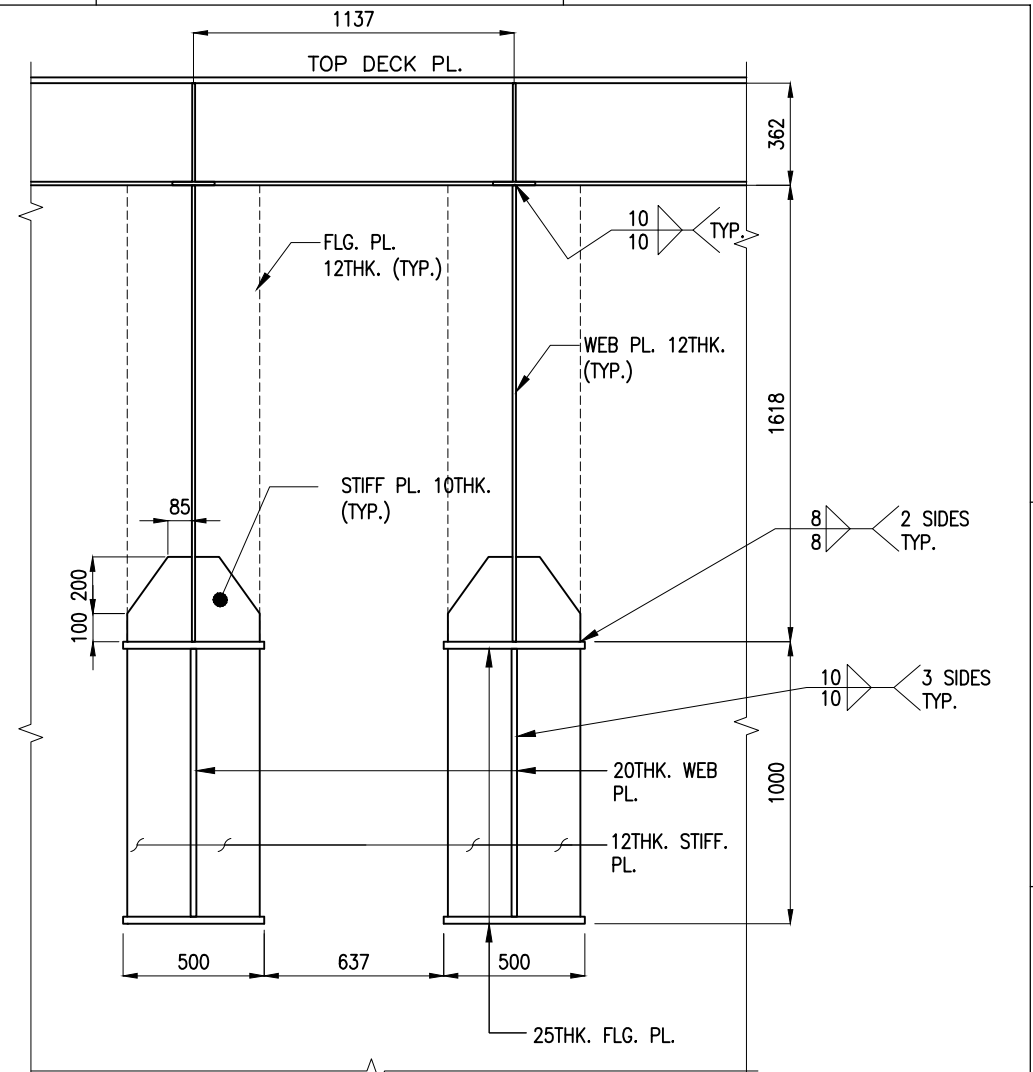
A	01.02.2024	ISSUED FOR TENDER	DKV	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF . S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
LINKSPAN SEATING DETAILS (SHEET 1 OF 5)				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-302-01			DATE: 01.02.2024	
			REV: A	



SECTION A
SCALE 1:45
SHT.01





SECTION B
SCALE 1:45
SHT.01

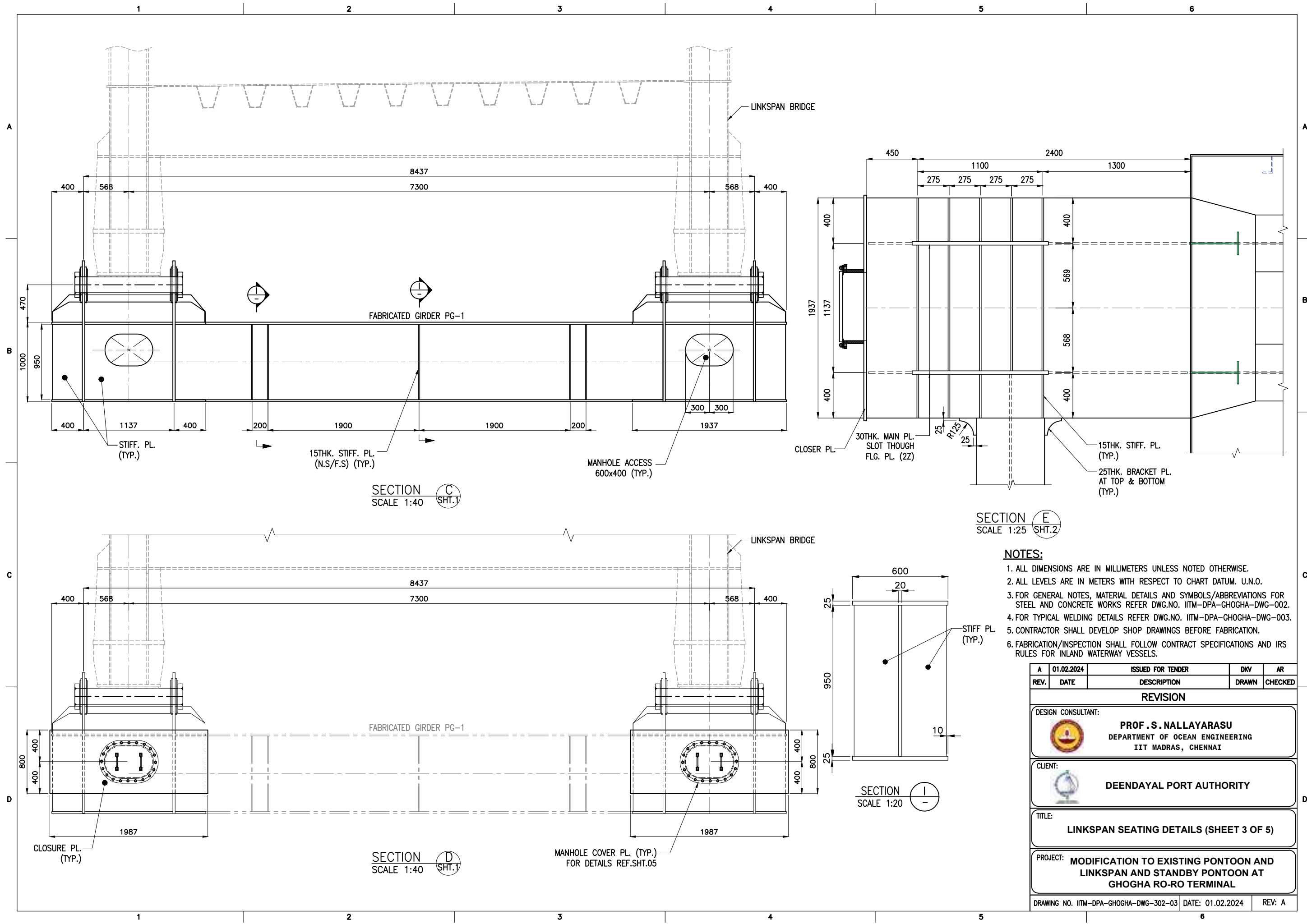


SECTION F
SCALE 1:25
SHT.2



NOTES:

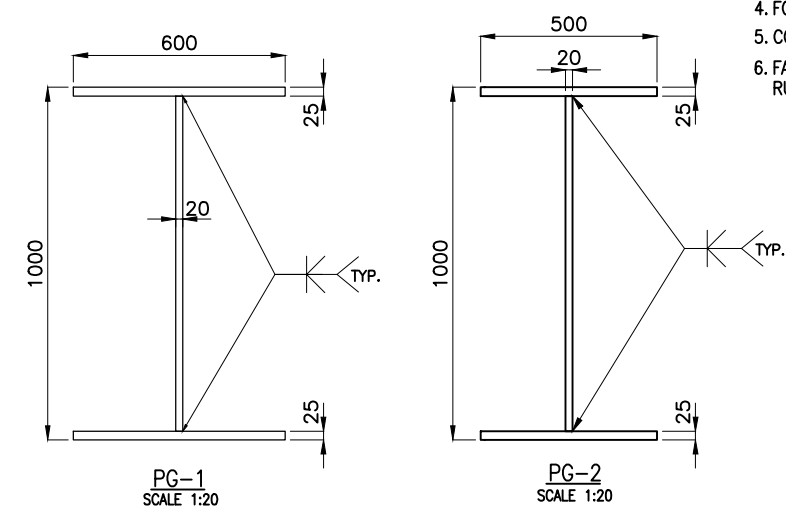
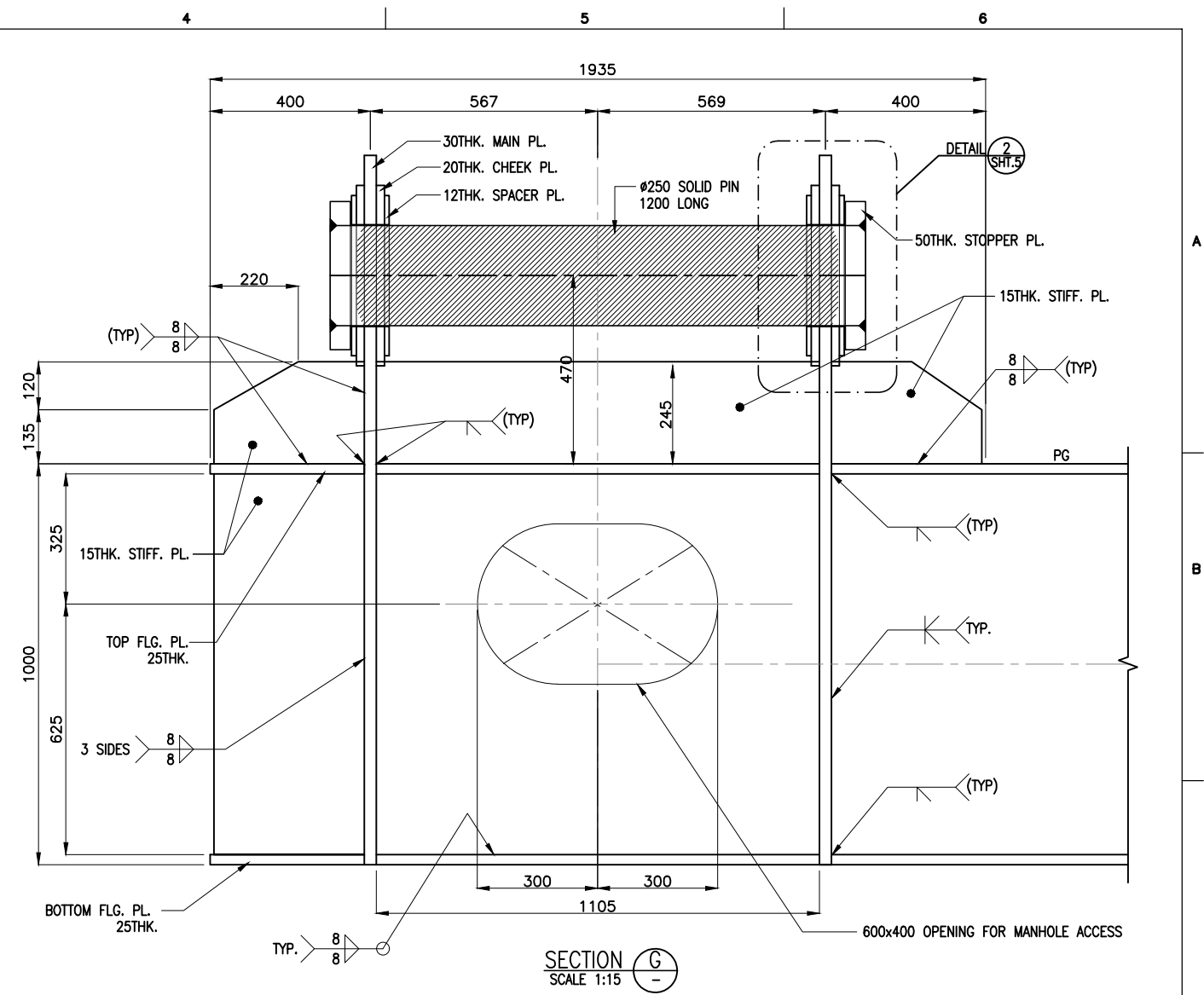
1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
2. ALL LEVELS ARE IN METERS WITH RESPECT TO CHART DATUM. U.N.O.
3. FOR GENERAL NOTES, MATERIAL DETAILS AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO. IITM-DPA-GHOGHA-DWG-002.
4. FOR TYPICAL WELDING DETAILS REFER DWG.NO. IITM-DPA-GHOGHA-DWG-003.
5. CONTRACTOR SHALL DEVELOP SHOP DRAWINGS BEFORE FABRICATION.
6. FABRICATION/INSPECTION SHALL FOLLOW CONTRACT SPECIFICATIONS AND IRS RULES FOR INLAND WATERWAY VESSELS.

A	01.02.2024	ISSUED FOR TENDER	DKV	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF. S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
LINKSPAN SEATING DETAILS (SHEET 2 OF 5)				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-302-02 DATE: 01.02.2024 REV: A				





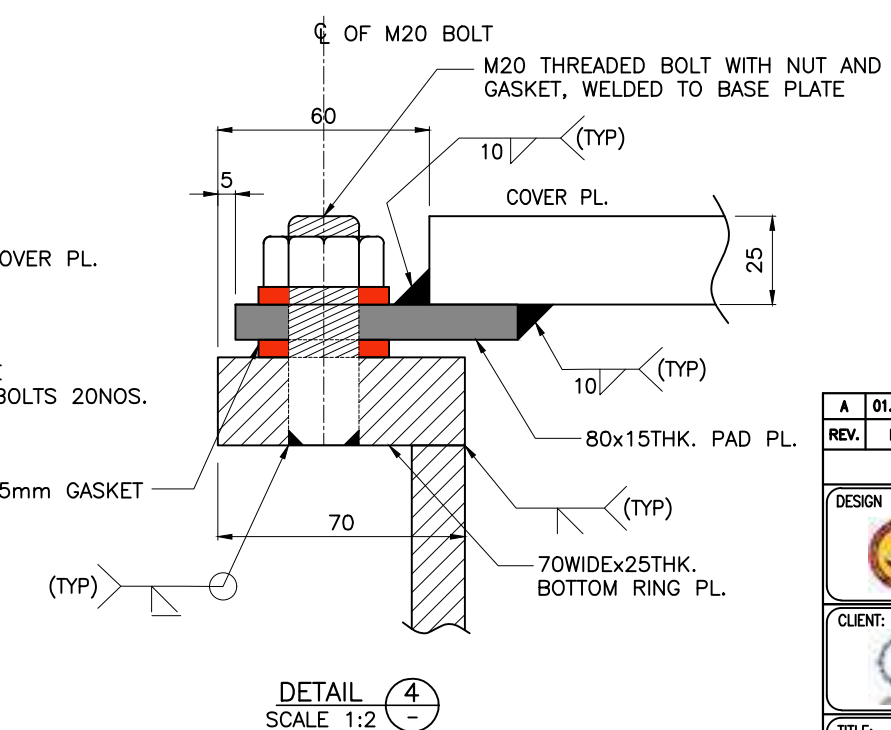
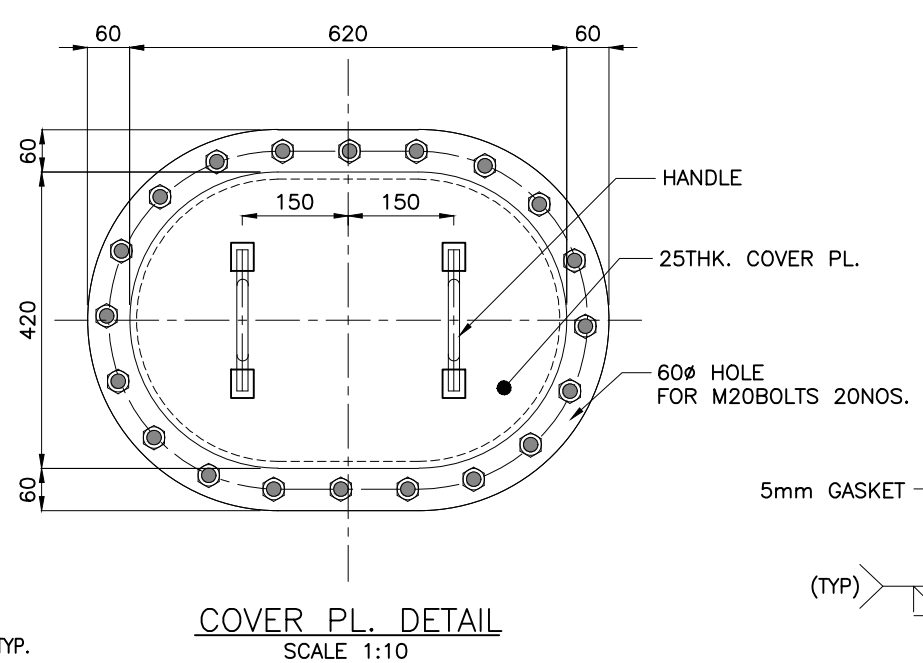
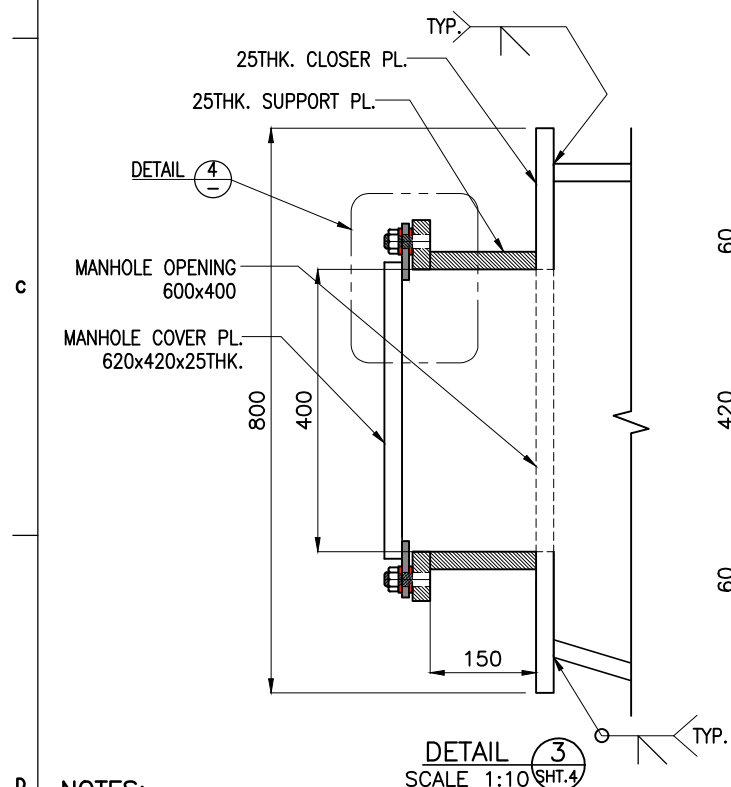
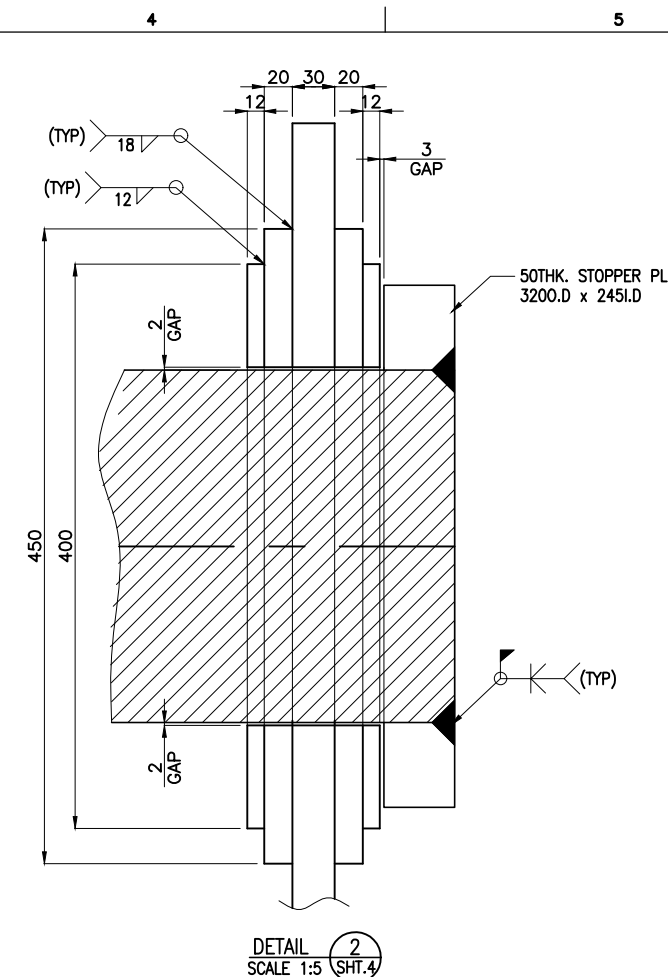
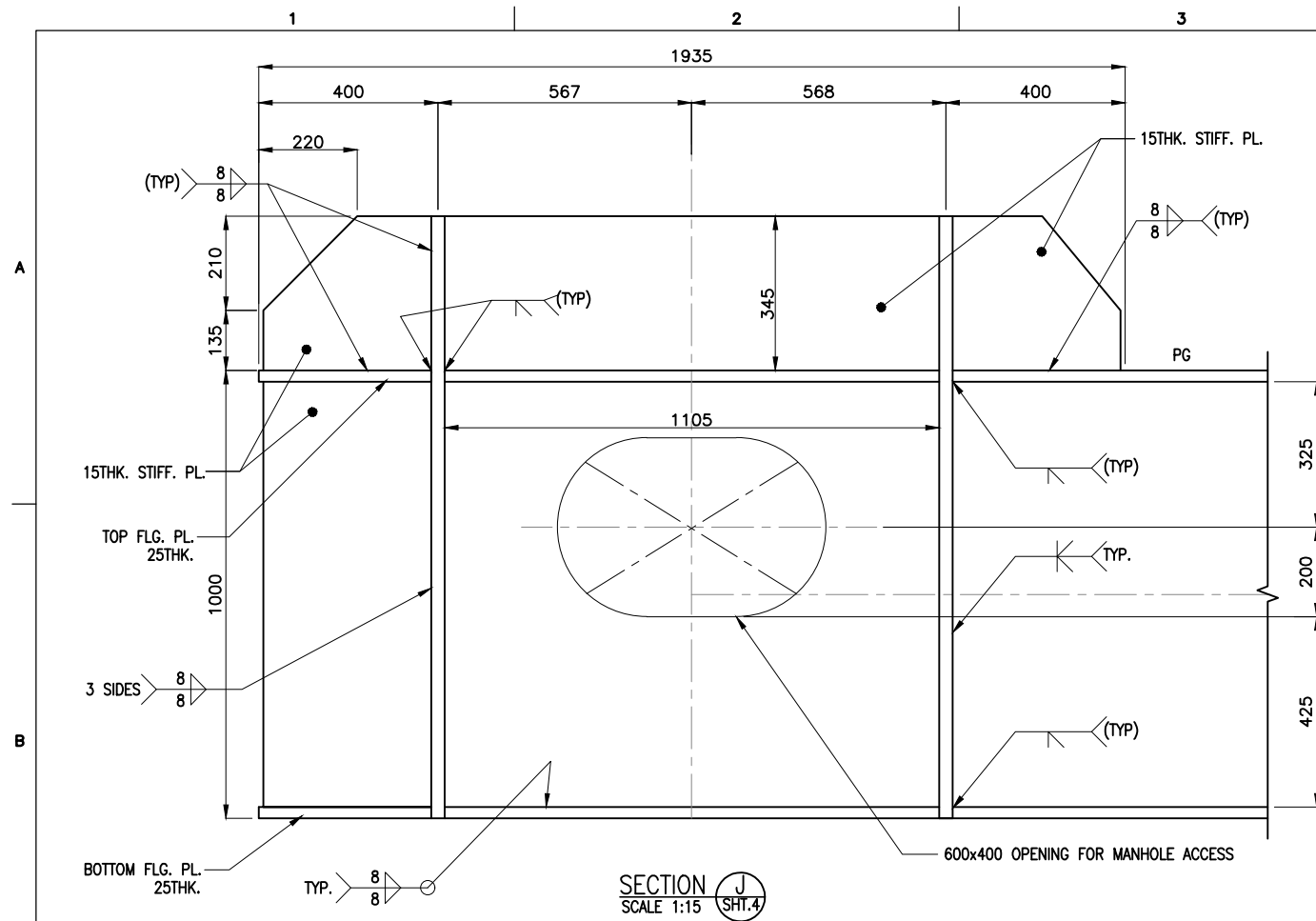
- NOTES:**
1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
 2. ALL LEVELS ARE IN METERS WITH RESPECT TO CHART DATUM. U.N.O.
 3. FOR GENERAL NOTES, MATERIAL DETAILS AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO. IITM-DPA-GHOGHA-DWG-002.
 4. FOR TYPICAL WELDING DETAILS REFER DWG.NO. IITM-DPA-GHOGHA-DWG-003.
 5. CONTRACTOR SHALL DEVELOP SHOP DRAWINGS BEFORE FABRICATION.
 6. FABRICATION/INSPECTION SHALL FOLLOW CONTRACT SPECIFICATIONS AND IRS RULES FOR INLAND WATERWAY VESSELS.

A	01.02.2024	ISSUED FOR TENDER	DKV	AR
	REV.	DATE	DESCRIPTION	DRAWN CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF. S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
LINKSPAN SEATING DETAILS (SHEET 3 OF 5)				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-302-03 DATE: 01.02.2024 REV: A				





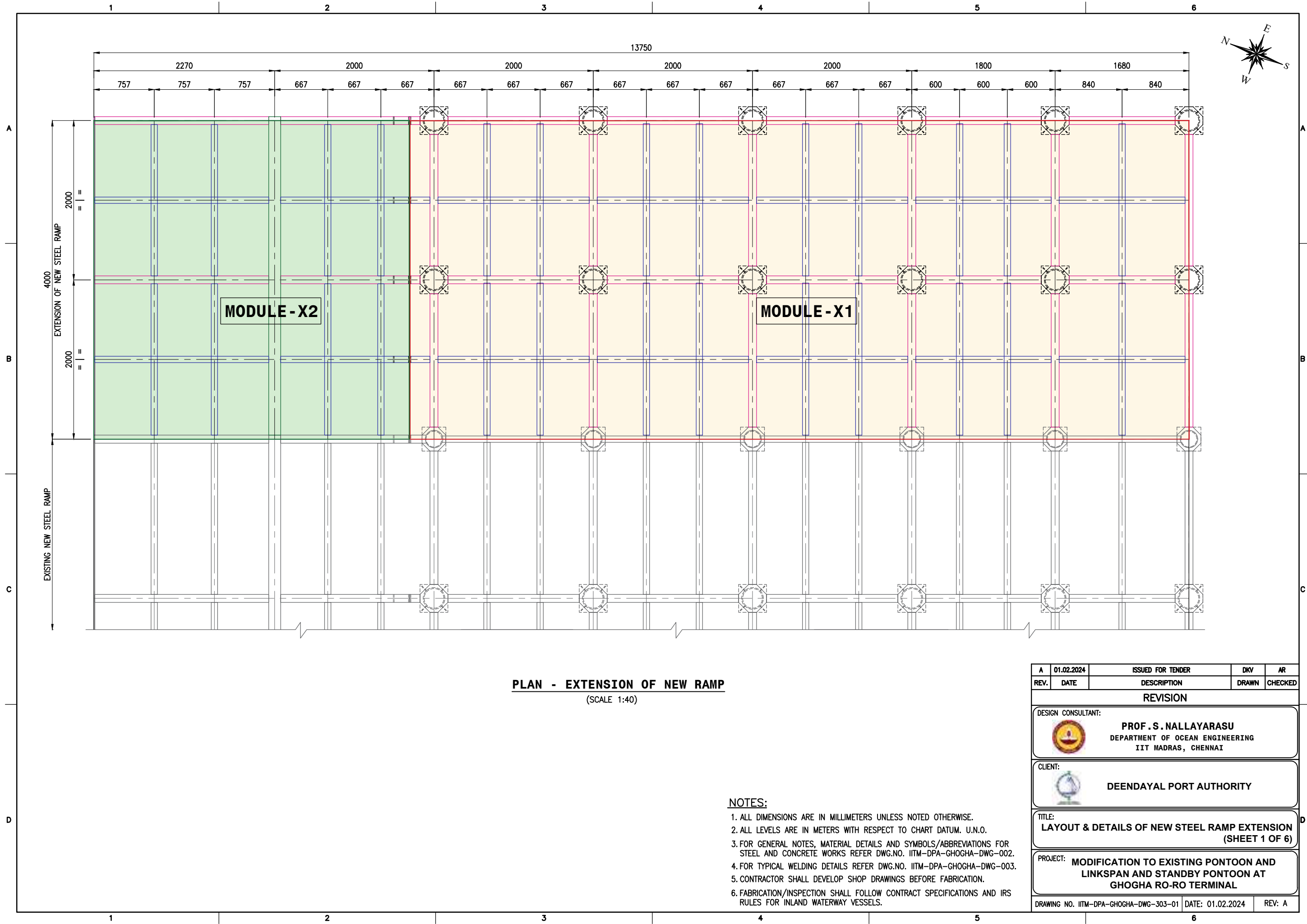
- NOTES:**
1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
 2. ALL LEVELS ARE IN METERS WITH RESPECT TO CHART DATUM. U.N.O.
 3. FOR GENERAL NOTES, MATERIAL DETAILS AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO. IITM-DPA-GHOGHA-DWG-002.
 4. FOR TYPICAL WELDING DETAILS REFER DWG.NO. IITM-DPA-GHOGHA-DWG-003.
 5. CONTRACTOR SHALL DEVELOP SHOP DRAWINGS BEFORE FABRICATION.
 6. FABRICATION/INSPECTION SHALL FOLLOW CONTRACT SPECIFICATIONS AND IRS RULES FOR INLAND WATERWAY VESSELS.

A	01.02.2024	ISSUED FOR TENDER	DKV	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:  PROF. S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:  DEENDAYAL PORT AUTHORITY				
TITLE: LINKSPAN SEATING DETAILS (SHEET 4 OF 5)				
PROJECT: MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-302-04			DATE: 01.02.2024	REV: A



- NOTES:**
1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
 2. ALL LEVELS ARE IN METERS WITH RESPECT TO CHART DATUM. U.N.O.
 3. FOR GENERAL NOTES, MATERIAL DETAILS AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO. IITM-DPA-GHOGHA-DWG-002.
 4. FOR TYPICAL WELDING DETAILS REFER DWG.NO. IITM-DPA-GHOGHA-DWG-003.
 5. CONTRACTOR SHALL DEVELOP SHOP DRAWINGS BEFORE FABRICATION.
 6. FABRICATION/INSPECTION SHALL FOLLOW CONTRACT SPECIFICATIONS AND IRS RULES FOR INLAND WATERWAY VESSELS.

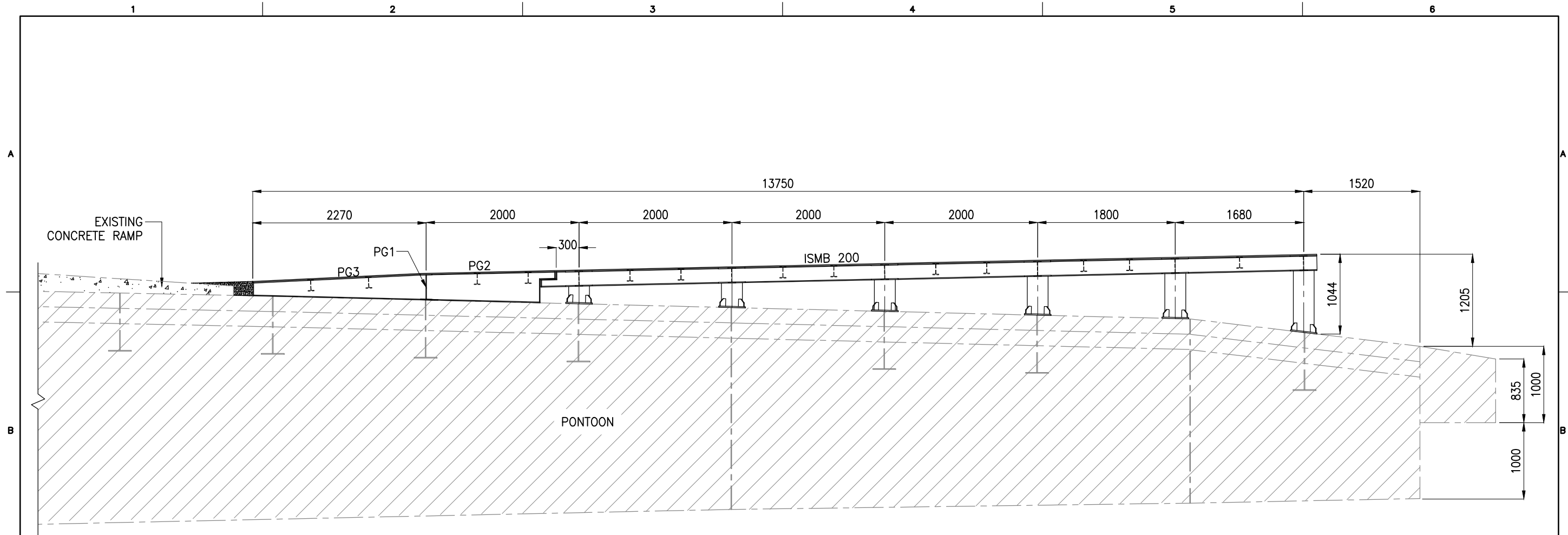
A	01.02.2024	ISSUED FOR TENDER	DKV	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF. S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
LINKSPAN SEATING DETAILS (SHEET 5 OF 5)				
PROJECT:				
MODIFICATION TO EXISTING PONTON AND LINKSPAN AND STANDBY PONTON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-302-05			DATE: 01.02.2024	
			REV: A	



PLAN - EXTENSION OF NEW RAMP
(SCALE 1:40)

- NOTES:**
1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
 2. ALL LEVELS ARE IN METERS WITH RESPECT TO CHART DATUM. U.N.O.
 3. FOR GENERAL NOTES, MATERIAL DETAILS AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO. IITM-DPA-GHOGHA-DWG-002.
 4. FOR TYPICAL WELDING DETAILS REFER DWG.NO. IITM-DPA-GHOGHA-DWG-003.
 5. CONTRACTOR SHALL DEVELOP SHOP DRAWINGS BEFORE FABRICATION.
 6. FABRICATION/INSPECTION SHALL FOLLOW CONTRACT SPECIFICATIONS AND IRS RULES FOR INLAND WATERWAY VESSELS.

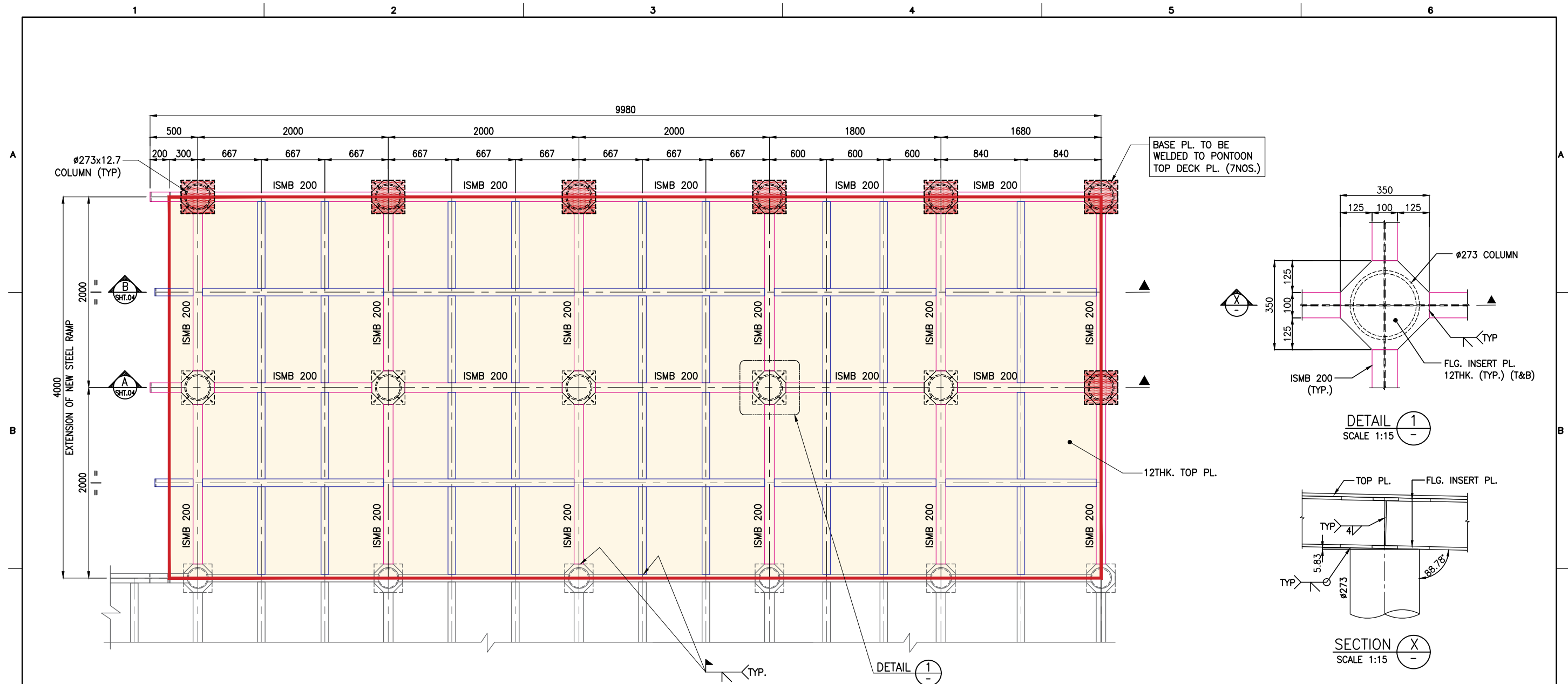
A	01.02.2024	ISSUED FOR TENDER	DKV	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF .S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
LAYOUT & DETAILS OF NEW STEEL RAMP EXTENSION (SHEET 1 OF 6)				
PROJECT:				
MODIFICATION TO EXISTING PONTON AND LINKSPAN AND STANDBY PONTON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-303-01			DATE: 01.02.2024	
			REV: A	



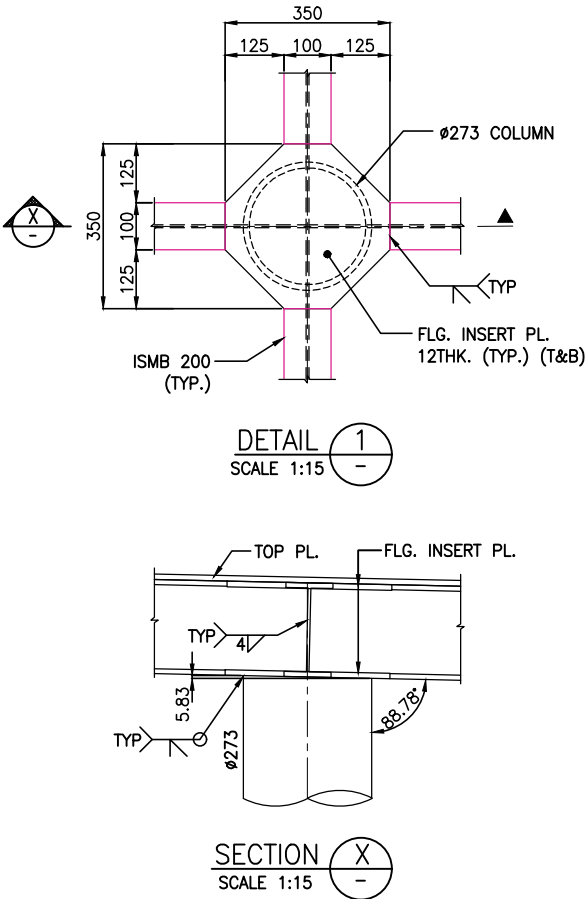
SECTION OF PROPOSED RAMP EXTENSION
(SCALE 1:50)

- NOTES:**
- 1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
 - 2. ALL LEVELS ARE IN METERS WITH RESPECT TO CHART DATUM. U.N.O.
 - 3. FOR GENERAL NOTES, MATERIAL DETAILS AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO. IITM-DPA-GHOGHA-DWG-002.
 - 4. FOR TYPICAL WELDING DETAILS REFER DWG.NO. IITM-DPA-GHOGHA-DWG-003.
 - 5. CONTRACTOR SHALL DEVELOP SHOP DRAWINGS BEFORE FABRICATION.
 - 6. FABRICATION/INSPECTION SHALL FOLLOW CONTRACT SPECIFICATIONS AND IRS RULES FOR INLAND WATERWAY VESSELS.

A	01.02.2024	ISSUED FOR TENDER	DKV	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF .S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
LAYOUT & DETAILS OF NEW STEEL RAMP EXTENSION (SHEET 2 OF 6)				
PROJECT:				
MODIFICATION TO EXISTING PONTON AND LINKSPAN AND STANDBY PONTON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-303-02			DATE: 01.02.2024	
			REV: A	



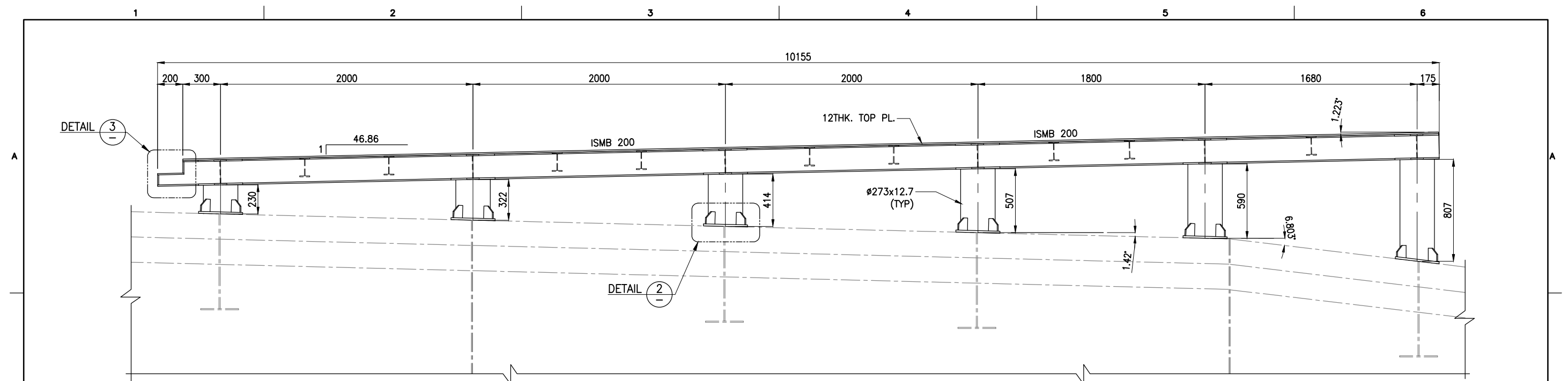
PLAN - MODULE-X1
(SCALE 1:40)
(ALL SECONDARY MEMBERS ARE ISMB150 U.NO.)



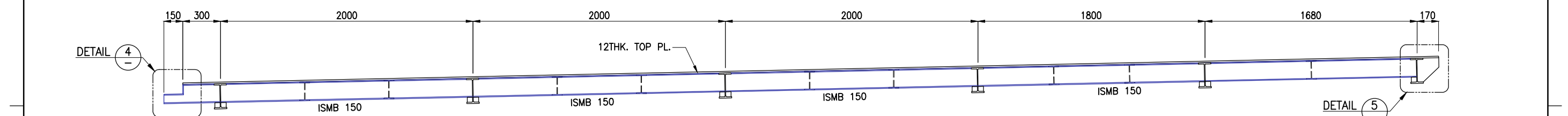
TYPICAL BEAMS TO COLUMN JOINT

- NOTES:**
1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
 2. ALL LEVELS ARE IN METERS WITH RESPECT TO CHART DATUM. U.N.O.
 3. FOR GENERAL NOTES, MATERIAL DETAILS AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO. IITM-DPA-GHOGHA-DWG-002.
 4. FOR TYPICAL WELDING DETAILS REFER DWG.NO. IITM-DPA-GHOGHA-DWG-003.
 5. CONTRACTOR SHALL DEVELOP SHOP DRAWINGS BEFORE FABRICATION.
 6. FABRICATION/INSPECTION SHALL FOLLOW CONTRACT SPECIFICATIONS AND IRS RULES FOR INLAND WATERWAY VESSELS.

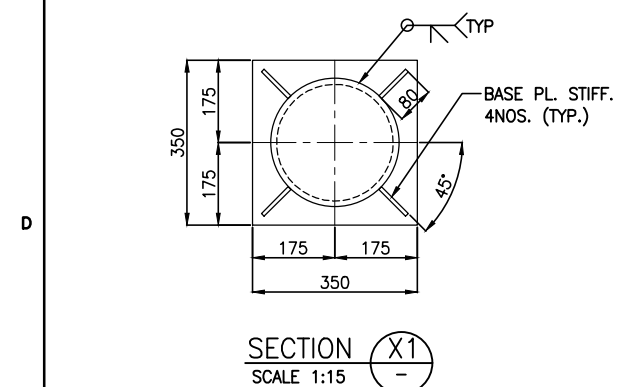
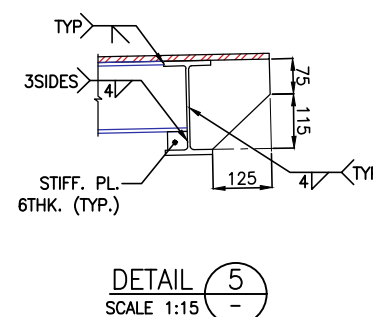
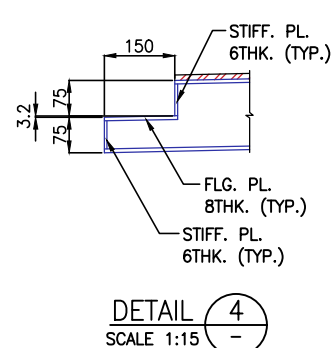
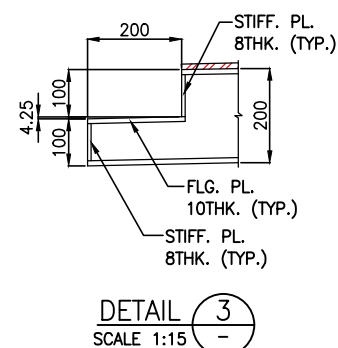
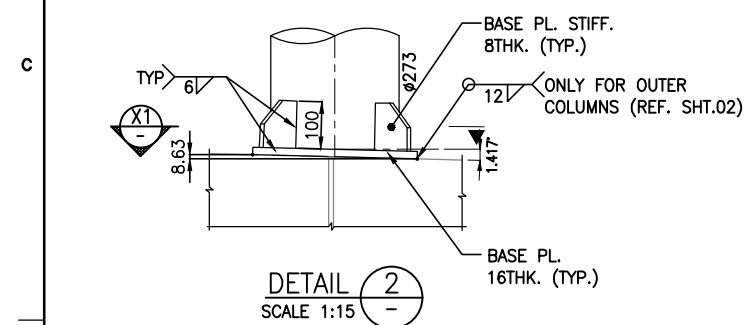
A	01.02.2024	ISSUED FOR TENDER	DKV	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF .S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
LAYOUT & DETAILS OF NEW STEEL RAMP EXTENSION (SHEET 3 OF 6)				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-303-03			DATE: 01.02.2024	
			REV: A	



SECTION A
(SCALE 1:30) SHT.03





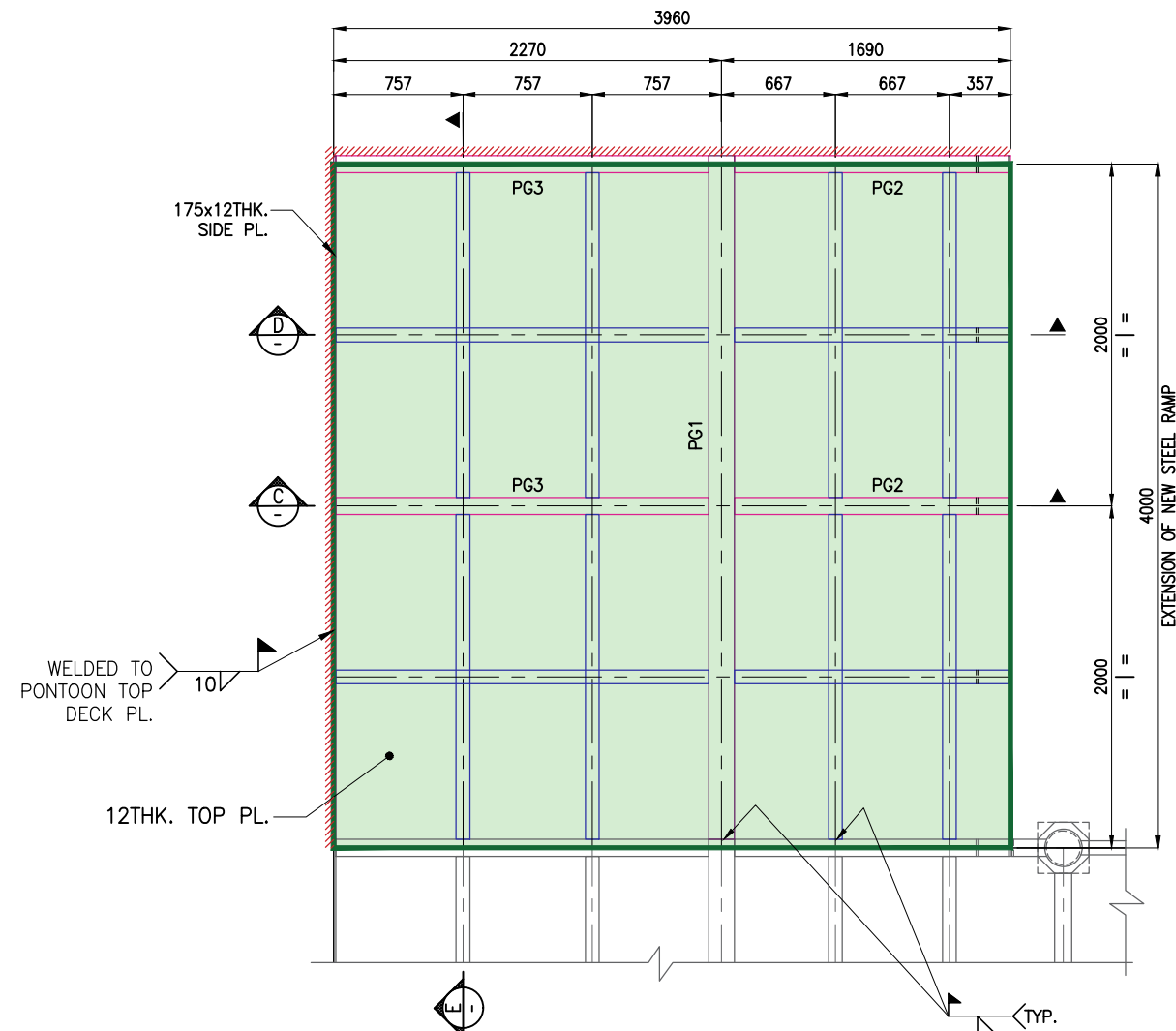
SECTION B
(SCALE 1:30) SHT.03



NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
2. ALL LEVELS ARE IN METERS WITH RESPECT TO CHART DATUM. U.N.O.
3. FOR GENERAL NOTES, MATERIAL DETAILS AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO. IITM-DPA-GHOGHA-DWG-002.
4. FOR TYPICAL WELDING DETAILS REFER DWG.NO. IITM-DPA-GHOGHA-DWG-003.
5. CONTRACTOR SHALL DEVELOP SHOP DRAWINGS BEFORE FABRICATION.
6. FABRICATION/INSPECTION SHALL FOLLOW CONTRACT SPECIFICATIONS AND IRS RULES FOR INLAND WATERWAY VESSELS.

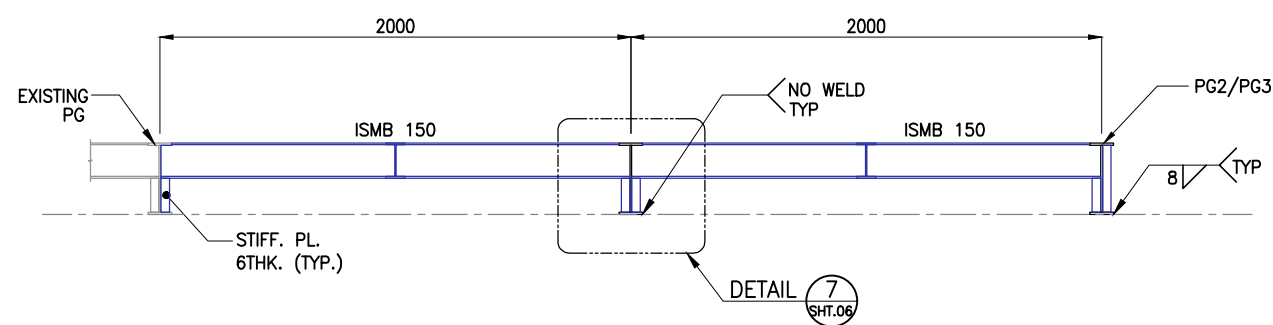
A	01.02.2024	ISSUED FOR TENDER	DKV	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:  <div style="text-align: center;"> PROF. S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI </div>				
CLIENT:  <div style="text-align: center;"> DEENDAYAL PORT AUTHORITY </div>				
TITLE: <div style="text-align: center;"> LAYOUT & DETAILS OF NEW STEEL RAMP EXTENSION (SHEET 4 OF 6) </div>				
PROJECT: MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-303-04			DATE: 01.02.2024	REV: A



PLAN - MODULE-X2

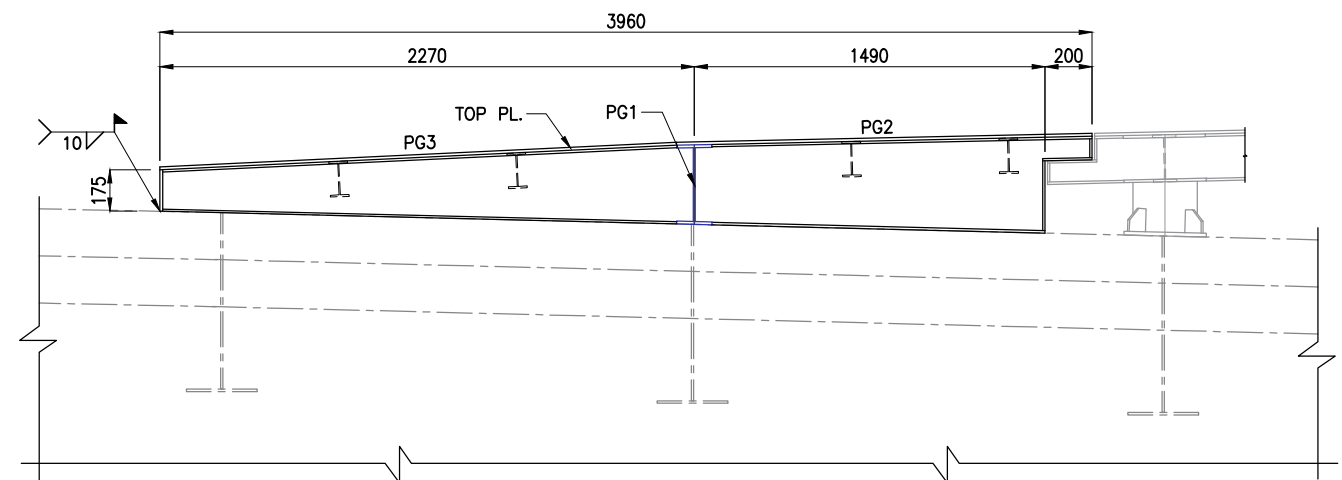
(SCALE 1:40)

(ALL SECONDARY MEMBERS ARE ISMB150 U.NO.)



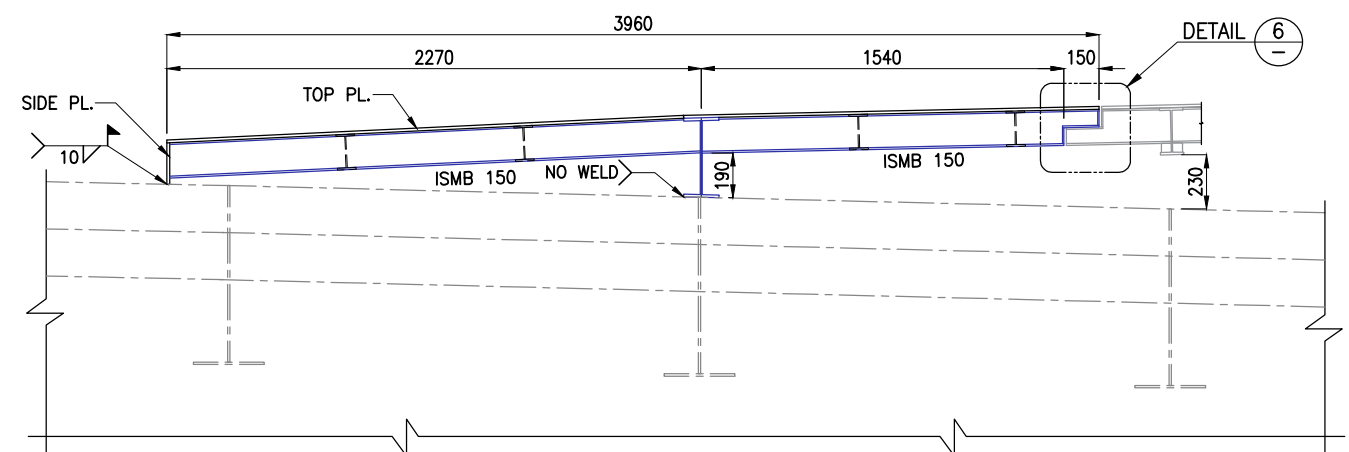
SECTION E

(SCALE 1:30)



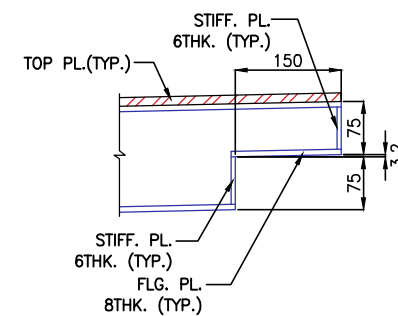
SECTION C

(SCALE 1:30)



SECTION D

(SCALE 1:30)





DETAIL 6

SCALE 1:10

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
2. ALL LEVELS ARE IN METERS WITH RESPECT TO CHART DATUM. U.N.O.
3. FOR GENERAL NOTES, MATERIAL DETAILS AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO. IITM-DPA-GHOGHA-DWG-002.
4. FOR TYPICAL WELDING DETAILS REFER DWG.NO. IITM-DPA-GHOGHA-DWG-003.
5. CONTRACTOR SHALL DEVELOP SHOP DRAWINGS BEFORE FABRICATION.
6. FABRICATION/INSPECTION SHALL FOLLOW CONTRACT SPECIFICATIONS AND IRS RULES FOR INLAND WATERWAY VESSELS.

A	01.02.2024	ISSUED FOR TENDER	DKV	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:  PROF .S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:  DEENDAYAL PORT AUTHORITY				
TITLE: LAYOUT & DETAILS OF NEW STEEL RAMP EXTENSION (SHEET 5 OF 6)				
PROJECT: MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-303-05			DATE: 01.02.2024	
			REV: A	

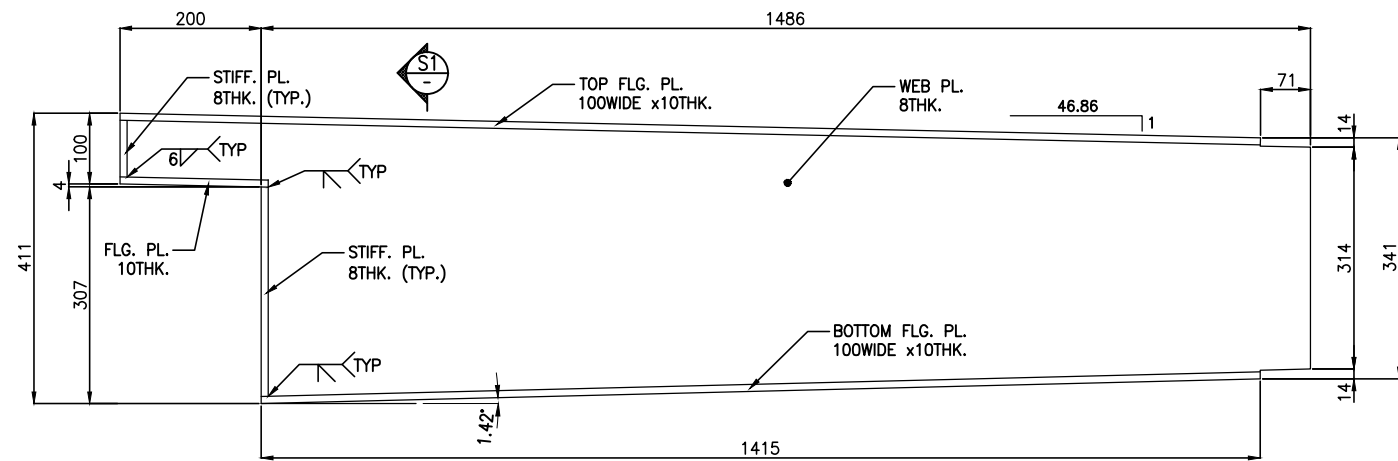
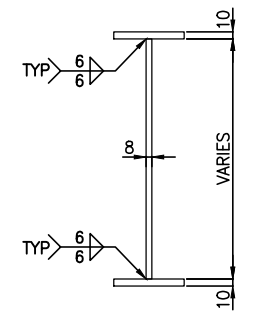
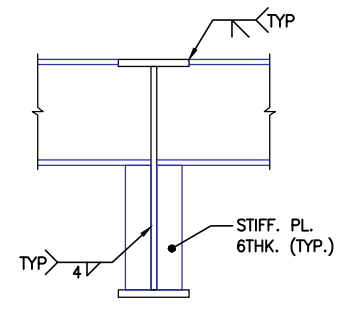


PLATE GIRDER – PG2
SCALE 1:10



SECTION S1
SCALE 1:10



DETAIL 7
SCALE 1:10

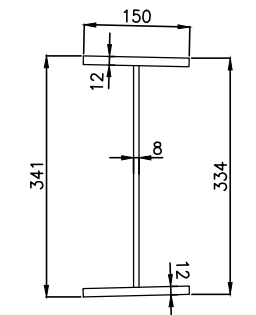


PLATE GIRDER – PG1
(4.0m LENGTH)
SCALE 1:10

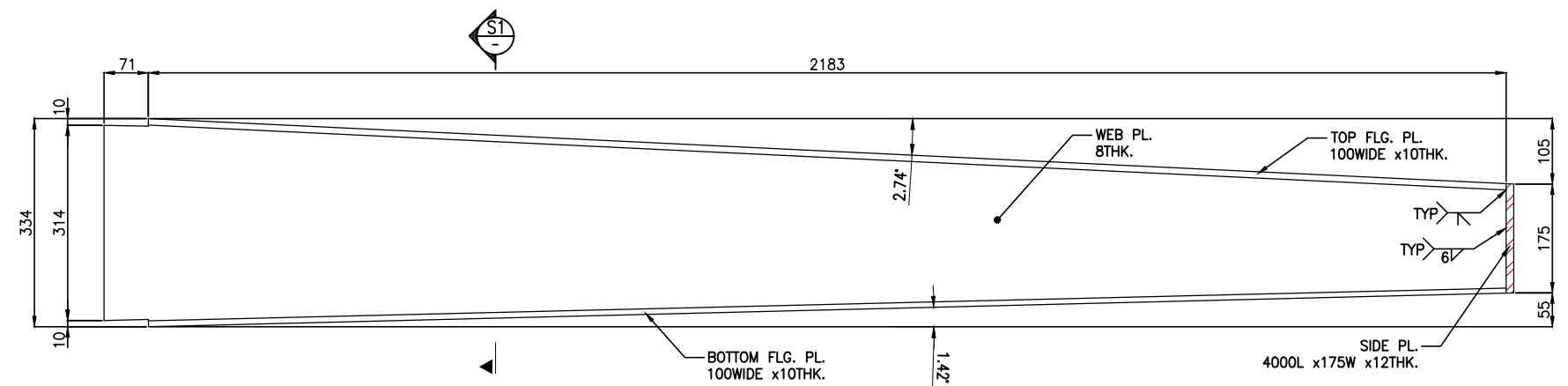
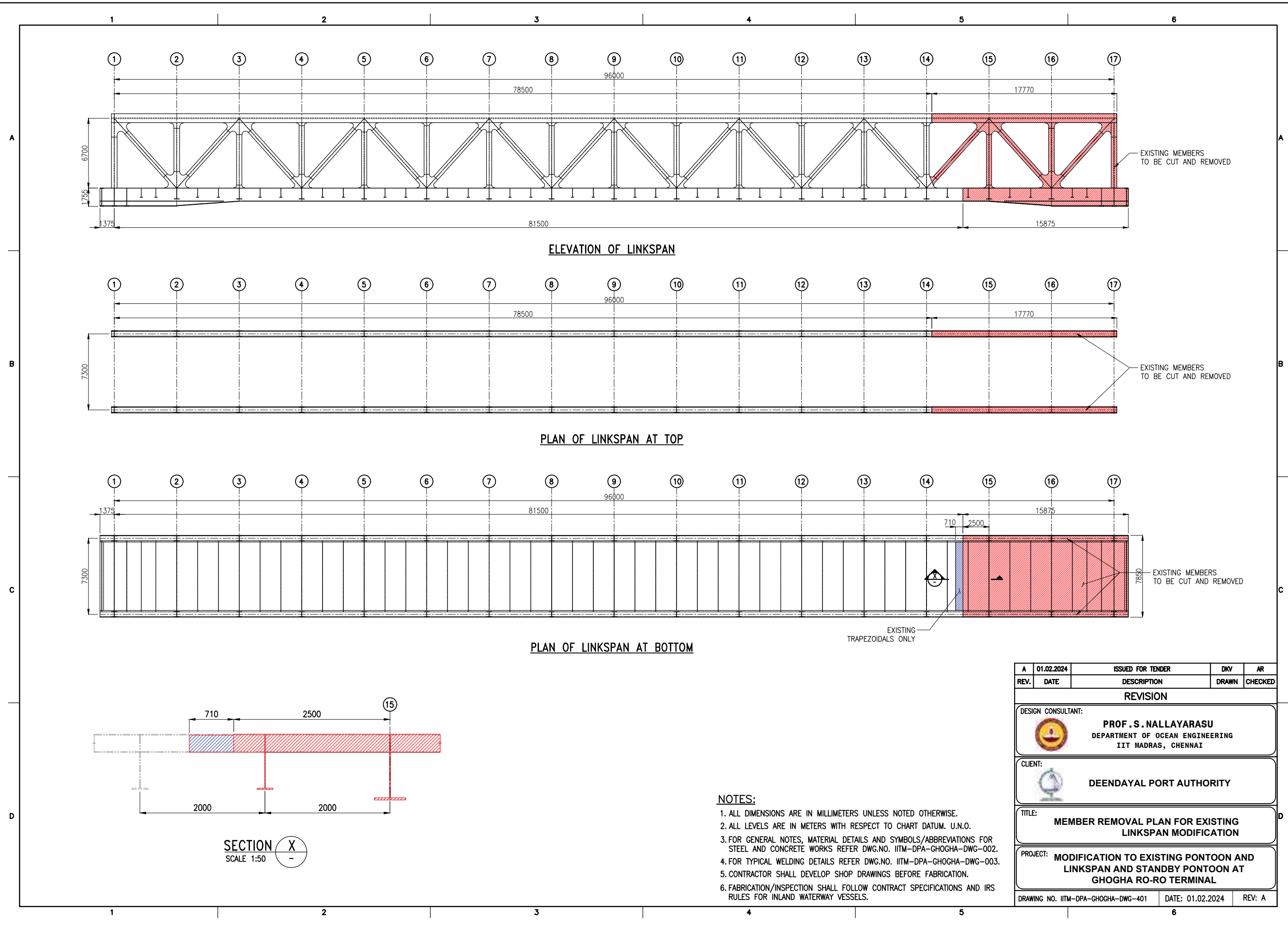



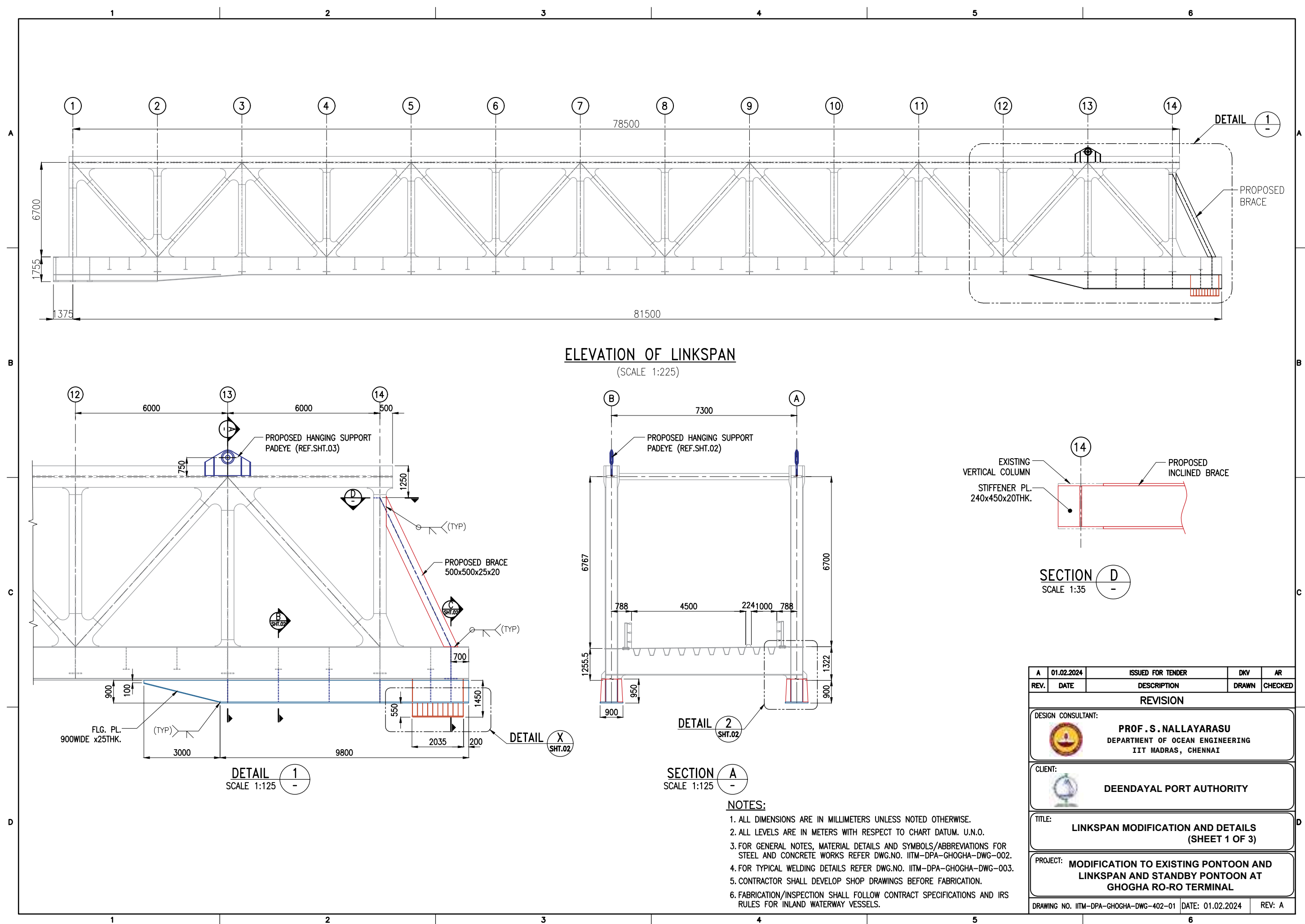
PLATE GIRDER – PG3
SCALE 1:10

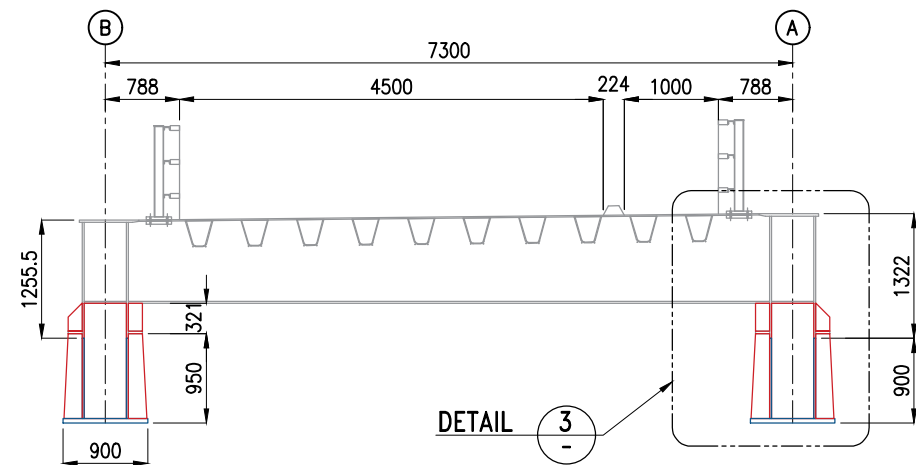
- NOTES:**
1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
 2. ALL LEVELS ARE IN METERS WITH RESPECT TO CHART DATUM. U.N.O.
 3. FOR GENERAL NOTES, MATERIAL DETAILS AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO. IITM-DPA-GHOGHA-DWG-002.
 4. FOR TYPICAL WELDING DETAILS REFER DWG.NO. IITM-DPA-GHOGHA-DWG-003.
 5. CONTRACTOR SHALL DEVELOP SHOP DRAWINGS BEFORE FABRICATION.
 6. FABRICATION/INSPECTION SHALL FOLLOW CONTRACT SPECIFICATIONS AND IRS RULES FOR INLAND WATERWAY VESSELS.

A	01.02.2024	ISSUED FOR TENDER	DKV	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF .S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
LAYOUT & DETAILS OF NEW STEEL RAMP EXTENSION (SHEET 6 OF 6)				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-303-06			DATE: 01.02.2024	
			REV: A	

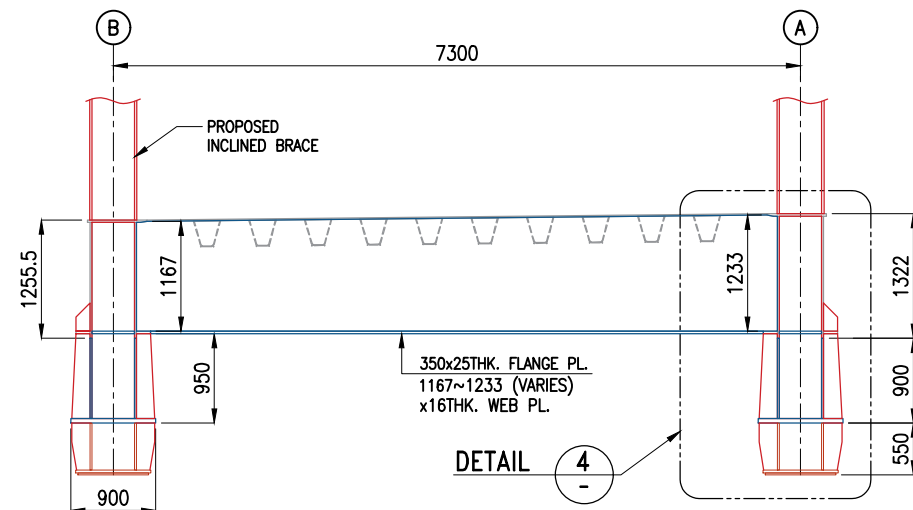


A	01.02.2024	ISSUED FOR TENDER	DKV	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF .S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
MEMBER REMOVAL PLAN FOR EXISTING LINKSPAN MODIFICATION				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-401		DATE: 01.02.2024		REV: A

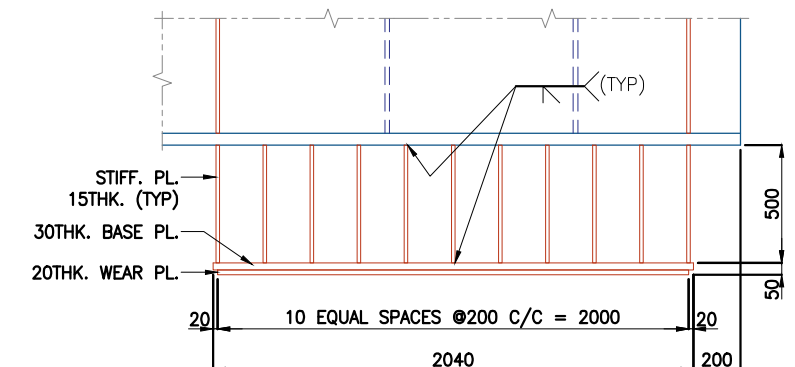




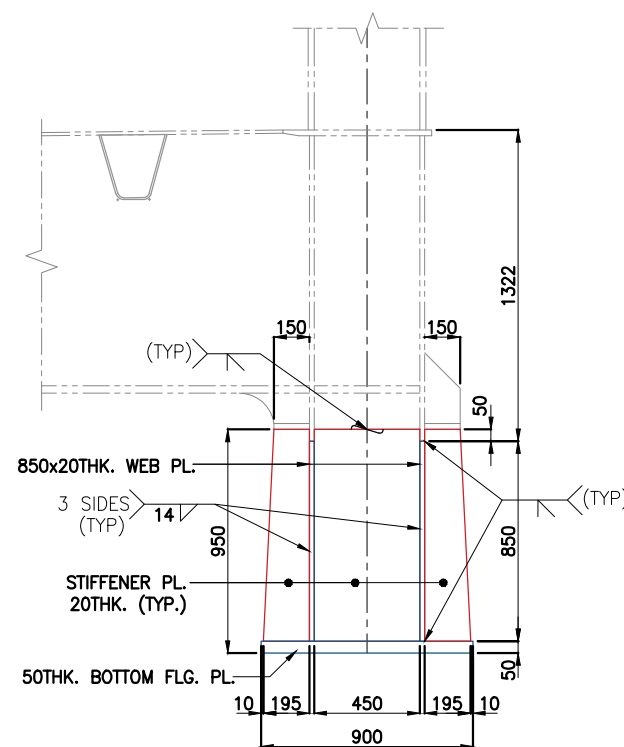
SECTION B
SCALE 1:75 SHT.01



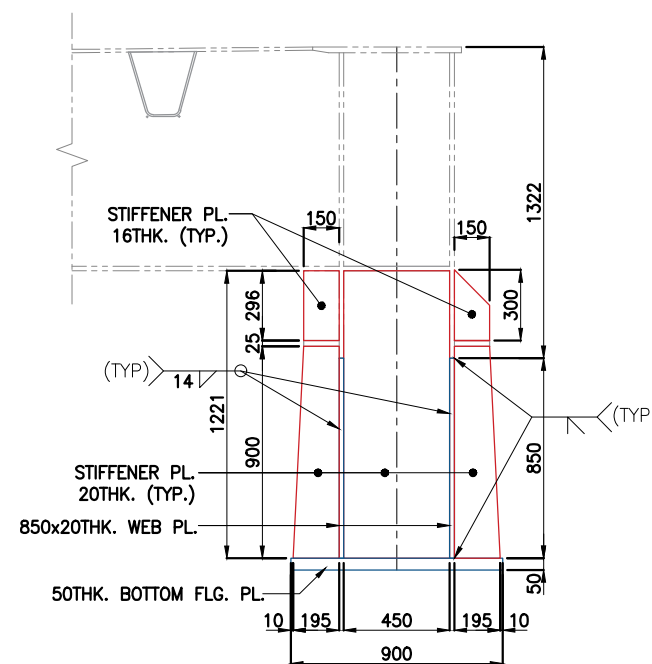
SECTION C
SCALE 1:75 SHT.01



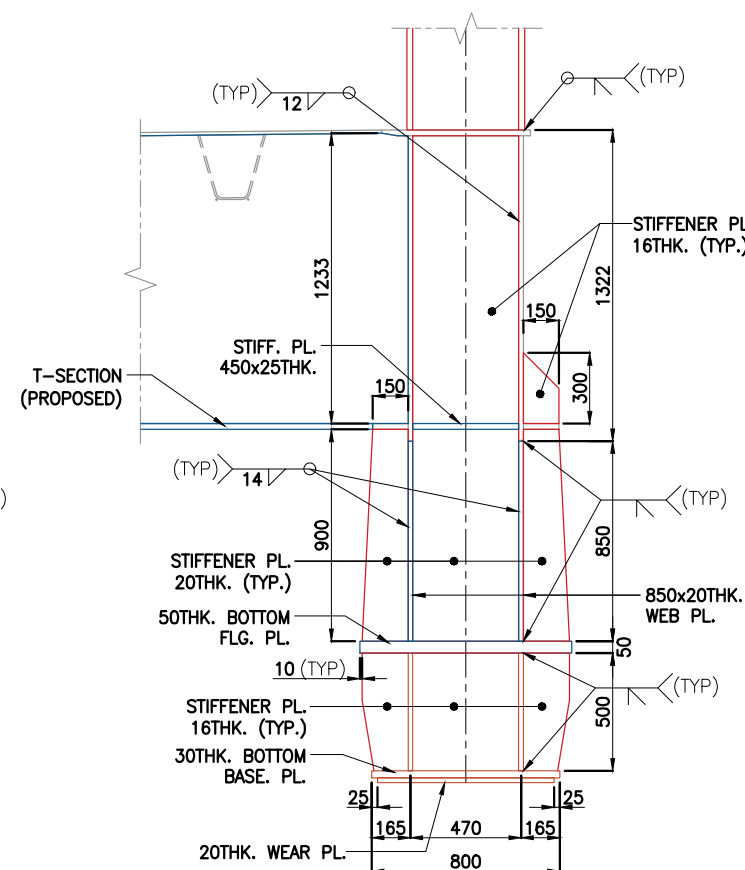
DETAIL X
SCALE 1:30 SHT.01



DETAIL 2
SCALE 1:30 SHT.01





DETAIL 3
SCALE 1:30 SHT.01

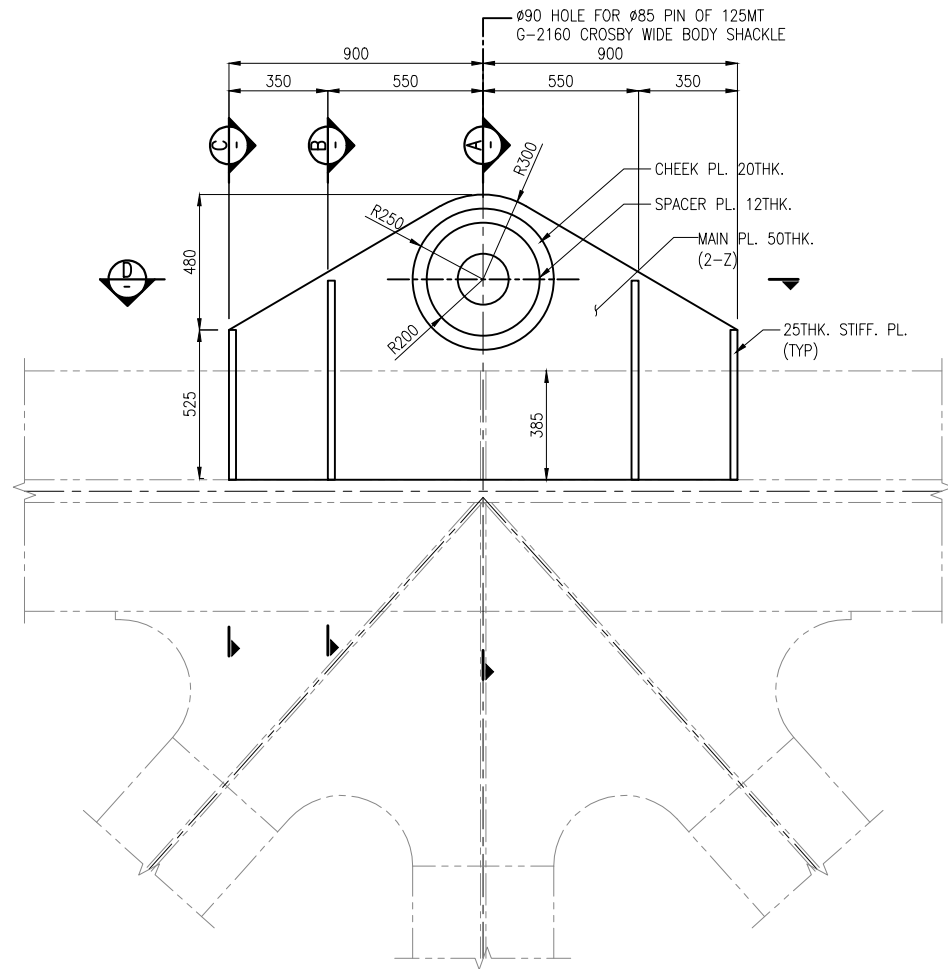


DETAIL 4
SCALE 1:30 SHT.01

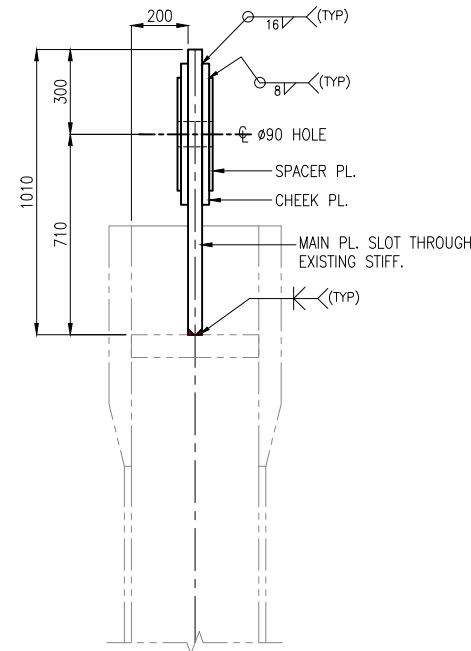
NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
2. ALL LEVELS ARE IN METERS WITH RESPECT TO CHART DATUM. U.N.O.
3. FOR GENERAL NOTES, MATERIAL DETAILS AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO. IITM-DPA-GHOGHA-DWG-002.
4. FOR TYPICAL WELDING DETAILS REFER DWG.NO. IITM-DPA-GHOGHA-DWG-003.
5. CONTRACTOR SHALL DEVELOP SHOP DRAWINGS BEFORE FABRICATION.
6. FABRICATION/INSPECTION SHALL FOLLOW CONTRACT SPECIFICATIONS AND IRS RULES FOR INLAND WATERWAY VESSELS.

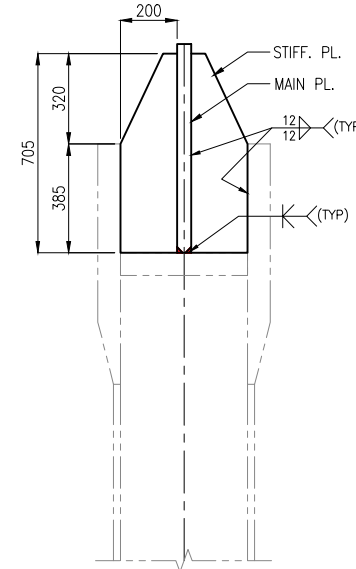
A	01.02.2024	ISSUED FOR TENDER	DKV	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF. S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
LINKSPAN MODIFICATION AND DETAILS (SHEET 2 OF 3)				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-402-02 DATE: 01.02.2024 REV: A				



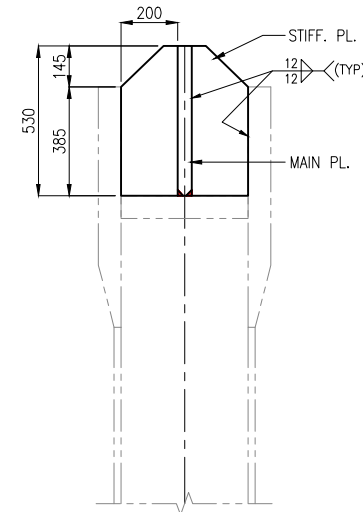
HANGING SUPPORT PADEYE DETAIL
SCALE 1:25



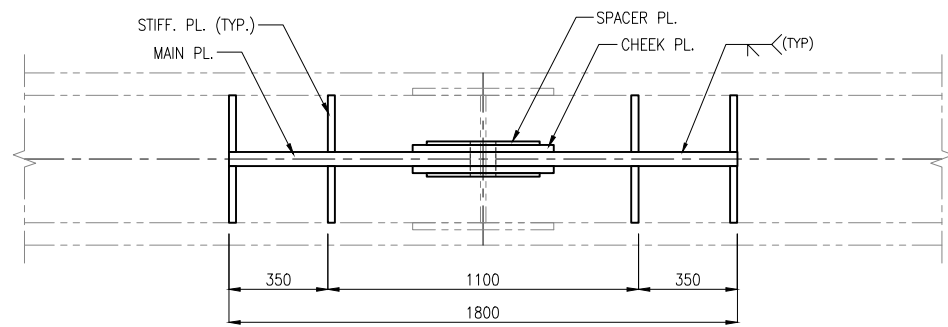
SECTION A-A
SCALE 1:25



SECTION B-B
SCALE 1:25





SECTION C-C
SCALE 1:25

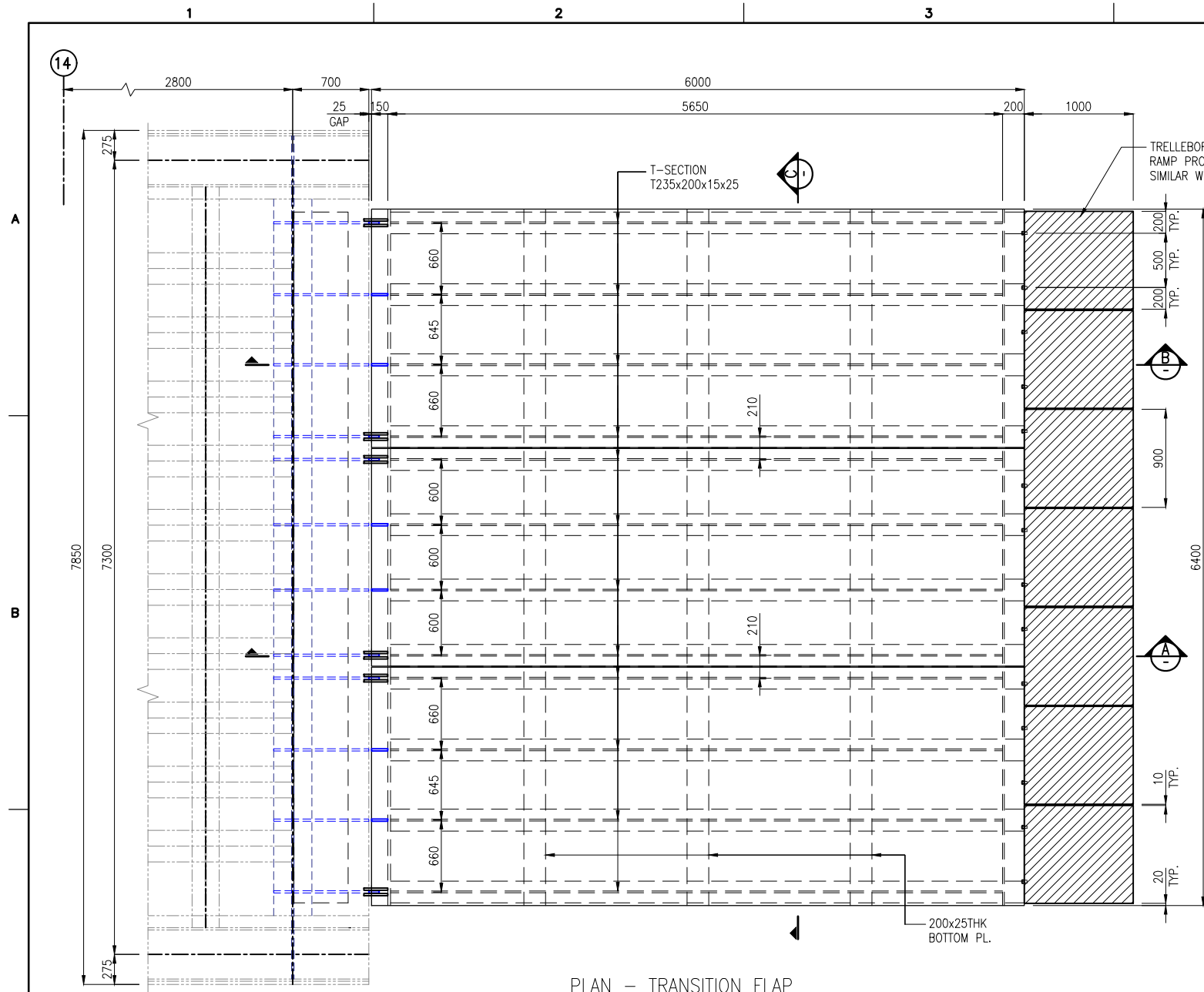


SECTION D-D
SCALE 1:25

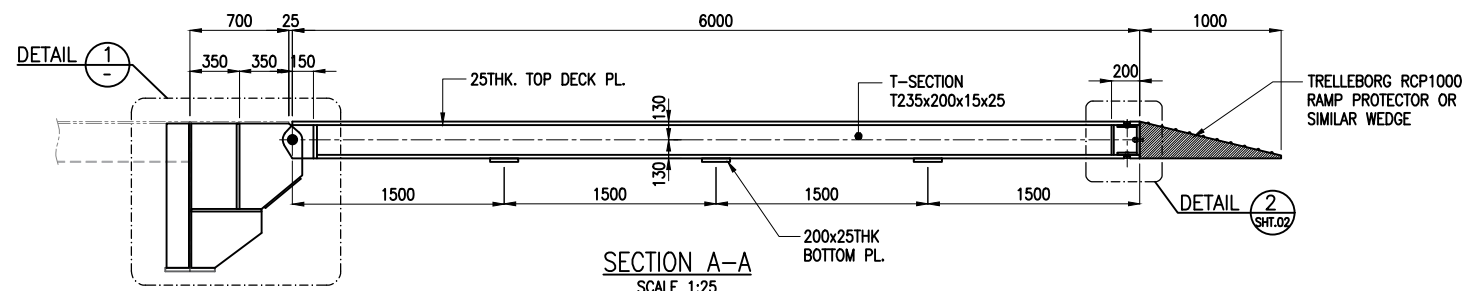
NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
2. ALL LEVELS ARE IN METERS WITH RESPECT TO CHART DATUM. U.N.O.
3. FOR GENERAL NOTES, MATERIAL DETAILS AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO. IITM-DPA-GHOGHA-DWG-002.
4. FOR TYPICAL WELDING DETAILS REFER DWG.NO. IITM-DPA-GHOGHA-DWG-003.
5. CONTRACTOR SHALL DEVELOP SHOP DRAWINGS BEFORE FABRICATION.
6. FABRICATION/INSPECTION SHALL FOLLOW CONTRACT SPECIFICATIONS AND IRS RULES FOR INLAND WATERWAY VESSELS.

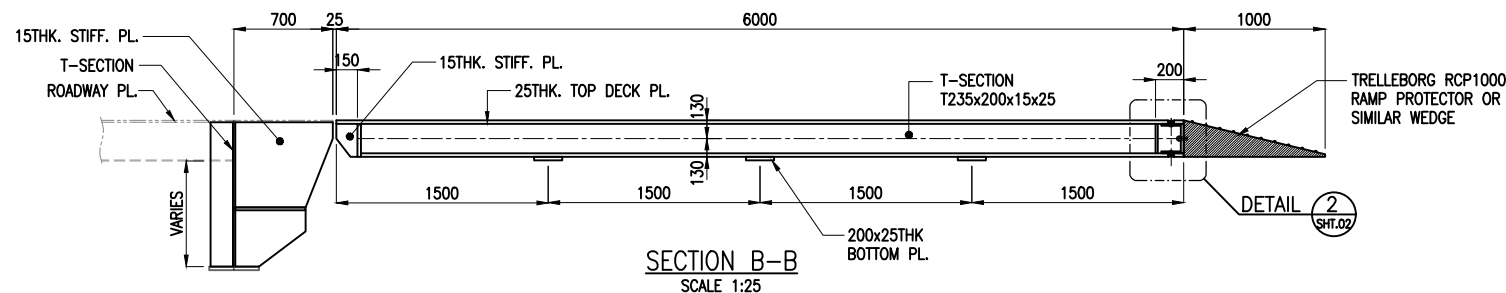
A	01.02.2024	ISSUED FOR TENDER	DKV	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF .S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
LINKSPAN MODIFICATION AND DETAILS (SHEET 3 OF 3)				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-402-03			DATE: 01.02.2024	
			REV: A	



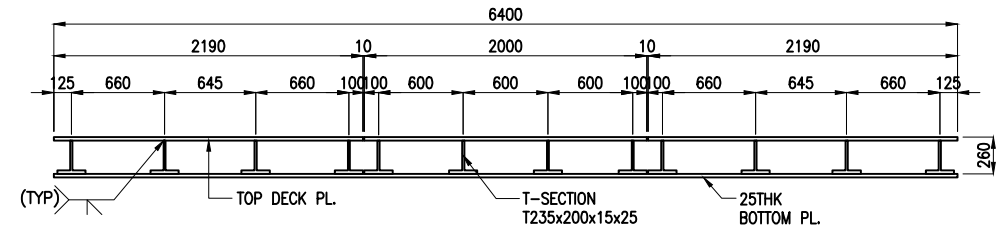
PLAN - TRANSITION FLAP
SCALE 1:25



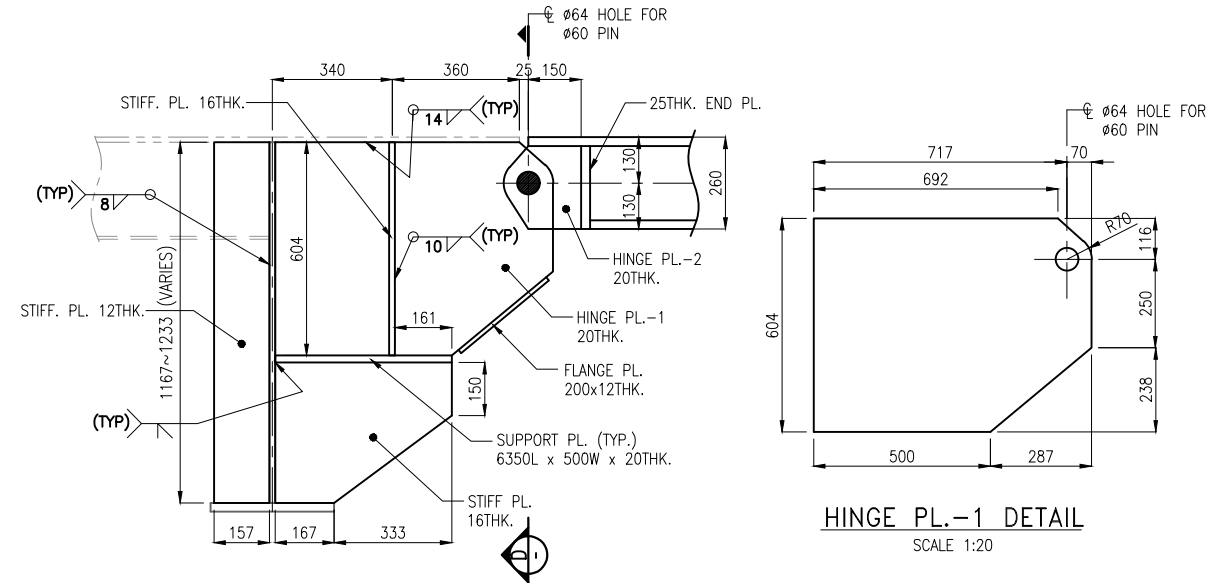
SECTION A-A
SCALE 1:25



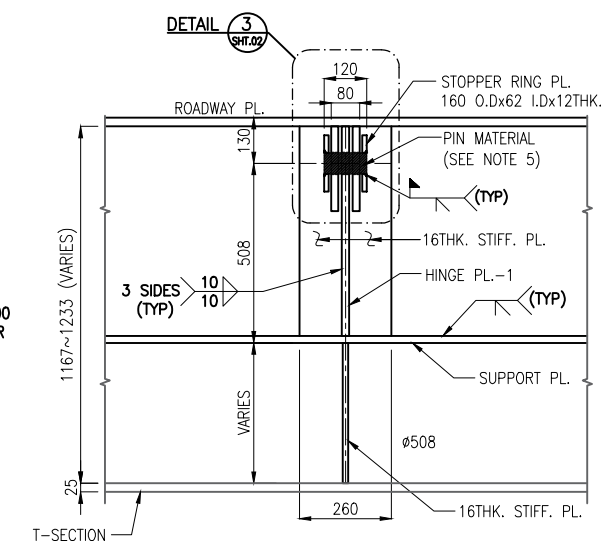
SECTION B-B
SCALE 1:25



SECTION C-C
SCALE 1:50

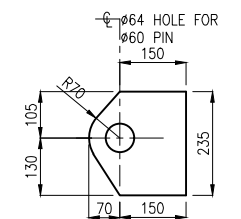


DETAIL - 1
SCALE 1:20



SECTION D-D
SCALE 1:20



HINGE PL.-1 DETAIL
SCALE 1:20

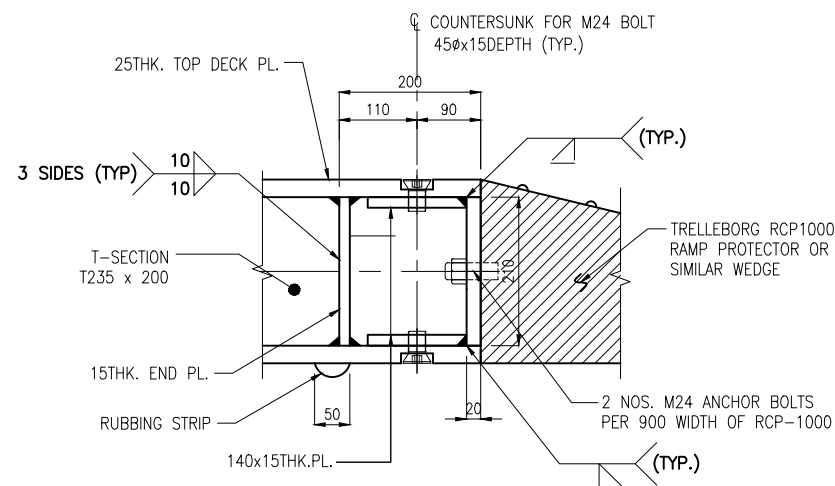


HINGE PL.-2 DETAIL
SCALE 1:16

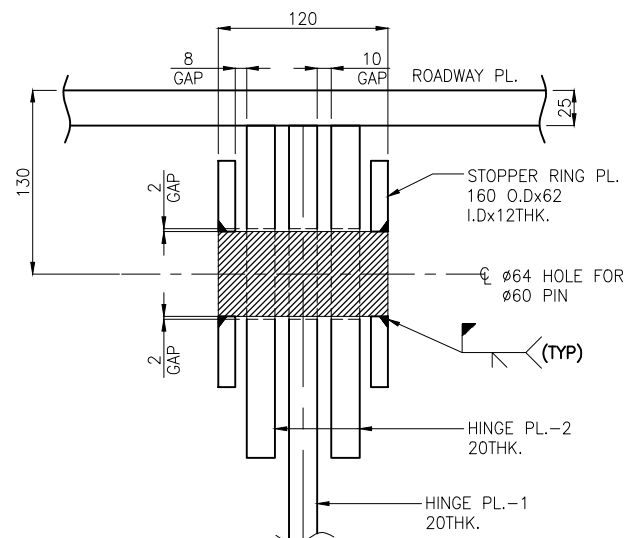
NOTES:

- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
- ALL LEVELS ARE IN METRES WITH RESPECT TO CHART DATUM. U.N.O.
- FOR GENERAL NOTES AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO.IITM-DPA-RORO-DWG-101.
- FOR TYPICAL WELDING DETAILS REFER DWG.NO.IITM-DPA-RORO-DWG-102.
- FOR PIN MATERIAL DETAILS REFER DWG.NO.IITM-DPA-RORO-DWG-101

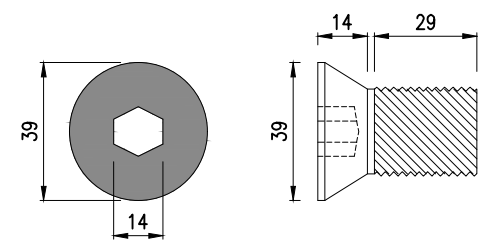
A	01.02.2024	ISSUED FOR TENDER	DKV	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF .S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
TRANSITION FLAP DETAILS (SHEET 1 OF 2)				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-403-01		DATE: 01.02.2024		REV: A



DETAIL 2
SCALE 1:10 SHT.01





DETAIL 3
SCALE 1:5 SHT.01

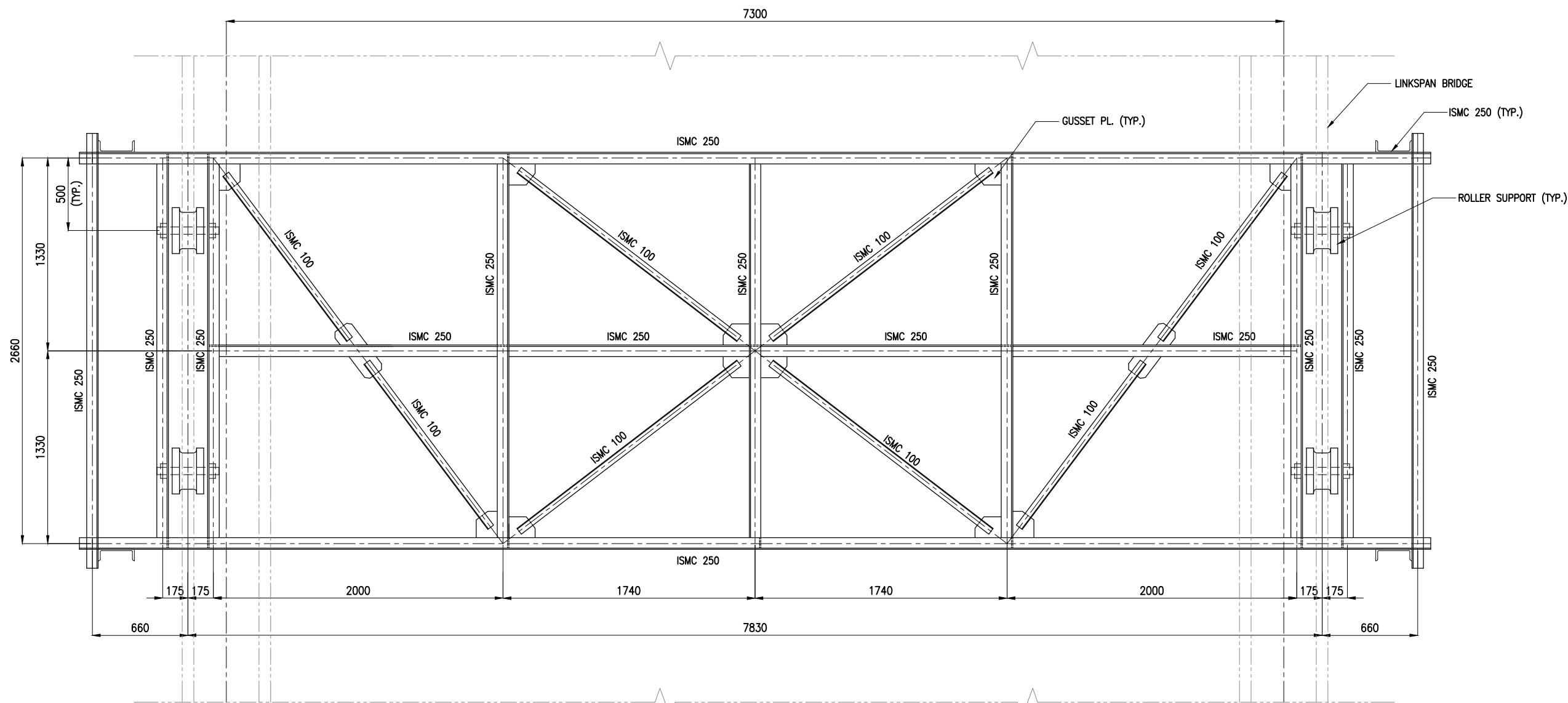


M24 STRUCTURAL BOLT
(SCALE 1:2)

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
2. ALL LEVELS ARE IN METRES WITH RESPECT TO CHART DATUM. U.N.O.
3. FOR GENERAL NOTES AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO.IITM-DPA-RORO-DWG-101.
4. FOR TYPICAL WELDING DETAILS REFER DWG.NO.IITM-DPA-RORO-DWG-102.
5. FOR PIN MATERIAL DETAILS REFER DWG.NO.IITM-DPA-RORO-DWG-101

REV.	DATE	DESCRIPTION	DRAWN	CHECKED
A	01.02.2024	ISSUED FOR TENDER	DKV	AR
REVISION				
DESIGN CONSULTANT:				
 PROF .S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
TRANSITION FLAP DETAILS (SHEET 2 OF 2)				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-403-02			DATE: 01.02.2024	
			REV: A	



TROLLEY – TOP FRAMING PLAN
SCALE 1:30

- NOTES:**
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
 2. ALL LEVELS ARE IN METRES WITH RESPECT TO CHART DATUM. U.N.O.
 3. FOR GENERAL NOTES AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO.IITM-DPA-RORO-DWG-101.
 4. FOR TYPICAL WELDING DETAILS REFER DWG.NO.IITM-DPA-RORO-DWG-102.

A	01.02.2024	ISSUED FOR TENDER	DV	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF .S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
GENERAL ARRANGEMENT OF TROLLEY (SHEET 1 OF 3)				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-501-01			DATE: 01.02.2024	
			REV: A	

123456

A

B

C

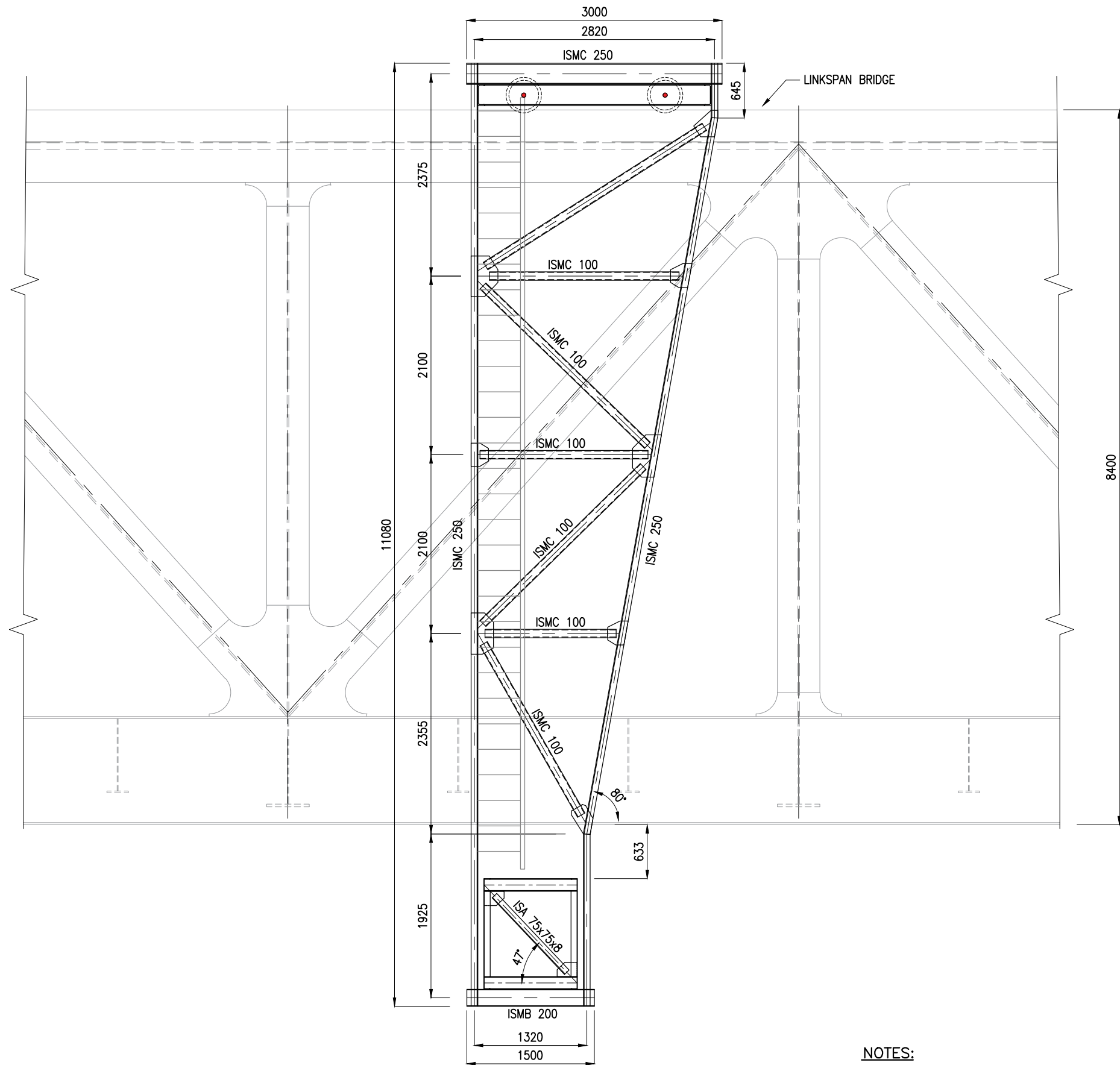
D

A

B

C



D



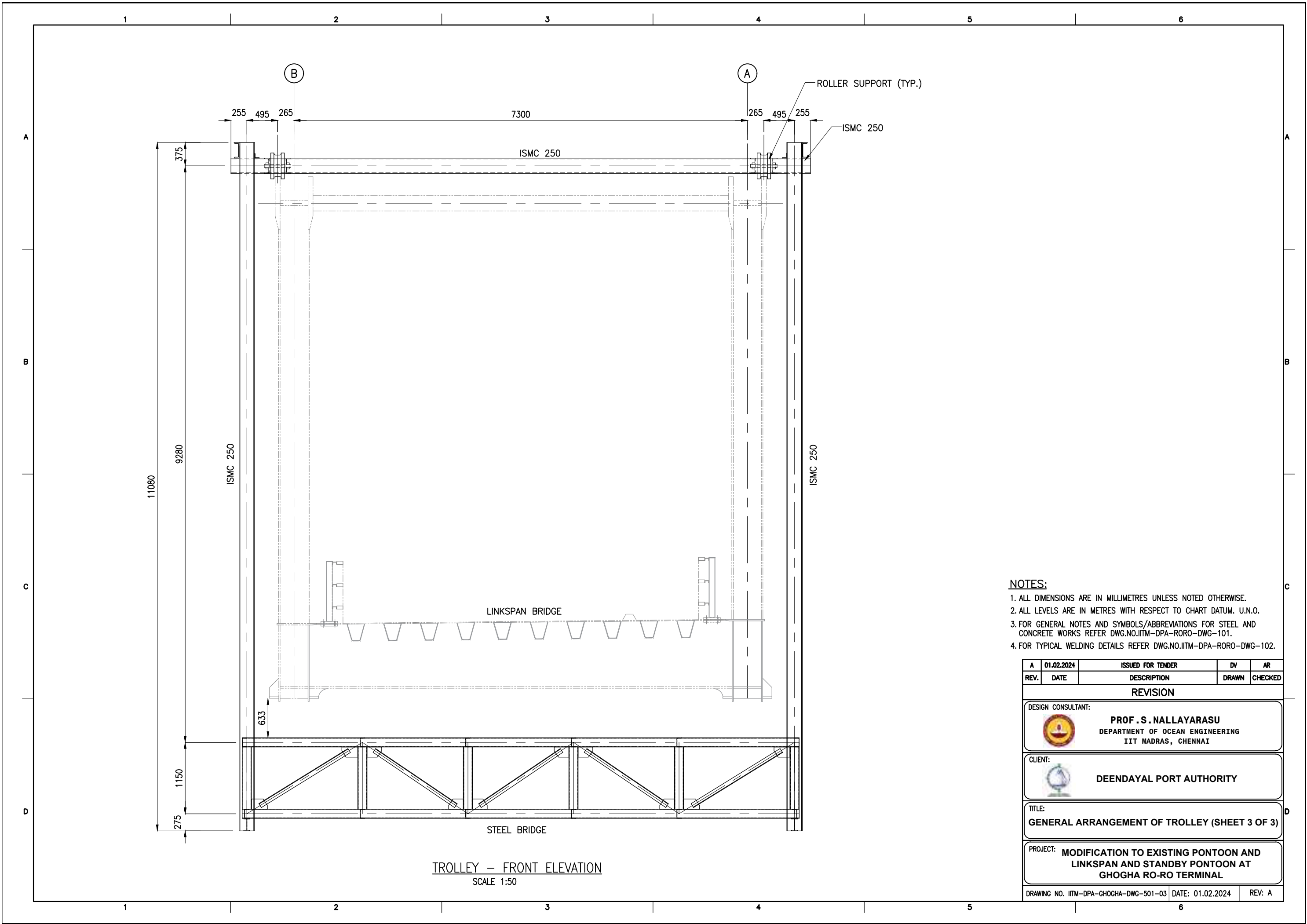
TROLLEY – SIDE ELEVATION
SCALE 1:50

NOTES:


1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
2. ALL LEVELS ARE IN METRES WITH RESPECT TO CHART DATUM. U.N.O.
3. FOR GENERAL NOTES AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO.IITM-DPA-RORO-DWG-101.
4. FOR TYPICAL WELDING DETAILS REFER DWG.NO.IITM-DPA-RORO-DWG-102.

A	01.02.2024	ISSUED FOR TENDER	DV	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF .S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
GENERAL ARRANGEMENT OF TROLLEY (SHEET 2 OF 3)				
PROJECT:				
MODIFICATION TO EXISTING PONTOON AND LINKSPAN AND STANDBY PONTOON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-501-02			DATE: 01.02.2024	
			REV: A	

123456



- NOTES:**
- 1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
 - 2. ALL LEVELS ARE IN METRES WITH RESPECT TO CHART DATUM. U.N.O.
 - 3. FOR GENERAL NOTES AND SYMBOLS/ABBREVIATIONS FOR STEEL AND CONCRETE WORKS REFER DWG.NO.IITM-DPA-RORO-DWG-101.
 - 4. FOR TYPICAL WELDING DETAILS REFER DWG.NO.IITM-DPA-RORO-DWG-102.

A	01.02.2024	ISSUED FOR TENDER	DV	AR
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
REVISION				
DESIGN CONSULTANT:				
 PROF .S. NALLAYARASU DEPARTMENT OF OCEAN ENGINEERING IIT MADRAS, CHENNAI				
CLIENT:				
 DEENDAYAL PORT AUTHORITY				
TITLE:				
GENERAL ARRANGEMENT OF TROLLEY (SHEET 3 OF 3)				
PROJECT:				
MODIFICATION TO EXISTING PONTON AND LINKSPAN AND STANDBY PONTON AT GHOGHA RO-RO TERMINAL				
DRAWING NO. IITM-DPA-GHOGHA-DWG-501-03		DATE: 01.02.2024		REV: A

