

**COCHIN SHIPYARD LIMITED**  
**INFRA PROJECTS DEPARTMENT**

INFRA/NDD/278/2024

25 Nov 2024

**CONSTRUCTION OF FIRE WATER TANK, INDUSTRIAL WATER TANK, ACETYLENE ROOM AND COMPRESSOR**  
**CLUSTERS (2 Nos.) FOR NEW DRY DOCK PROJECT**

**Corrigendum No. 1**

Sl. No.	Bid Volume/ Part	Clause No.	Amendment
1	Tender Notice/ Conditions of Contract	13 in Conditions of Contract	Last date and time of receipt of Tender has been extended to 10 Dec 2024 upto 15.00 hrs.
2	Annexure-31 Tentative List of Items of Work of Industrial Water Tank & Fire Water Tank	Sl. No.1 in Industrial Water Tank and Sl. No.1 in Fire Water Tank	In addition to hydraulic rig, DMC rig shall also be permitted for piling works.
3	Replies to Pre-bid Queries	10 in Conditions of Contract	Reply to Pre-Bid Queries are enclosed at Annexure-1 with this Corrigendum No. 1
4	Annexure-23	Tender Drawings	The Tender Drawing titled General External Layout placed at Annexure-23 is replaced with the drawing titled External Layout enclosed at Annexure-2 with this Corrigendum No. 1
5		Tender Drawings	Additional Tender Drawings are enclosed at Annexure-3 to Annexure-7 with this Corrigendum No. 1
6	Conditions of Contract, Technical Specifications	55 in Conditions of Contract, 34.4 in Technical Specifications	The Time of Completion of work shall be 7 months which shall be reckoned from the 21st day of the date of issue of Work Order or the date of handing over the site whichever is later. <i>To Add:</i> If Site Handing Over is made after 21 days from the date of issue of Work Order, no separate mobilization period will be provided and Time of Completion of 7 months will be reckoned from the date of Site Handing Over itself.
7	-	-	All other Terms and Conditions of the Tender shall remain unaltered.

For Cochin Shipyard Ltd.

Deputy General Manager (Infra Projects)

Name & Signature of  
Bidder

## Annexure-1

**COCHIN SHIPYARD LIMITED**  
**INFRA PROJECTS DEPARTMENT**

INFRA/NDD/278/2024

**CONSTRUCTION OF FIRE WATER TANK, INDUSTRIAL WATER TANK, ACETYLENE ROOM AND COMPRESSOR CLUSTERS (2 Nos.) FOR NEW DRY DOCK PROJECT**

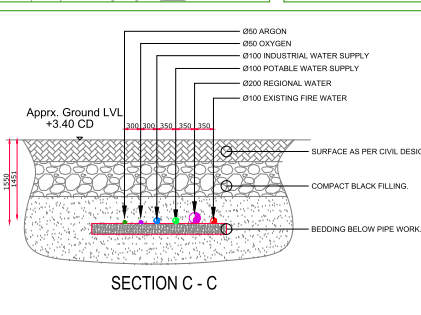
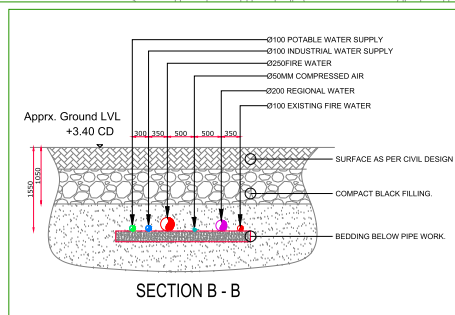
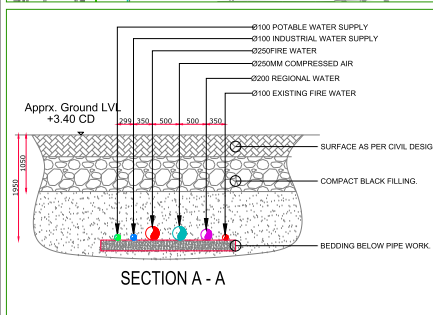
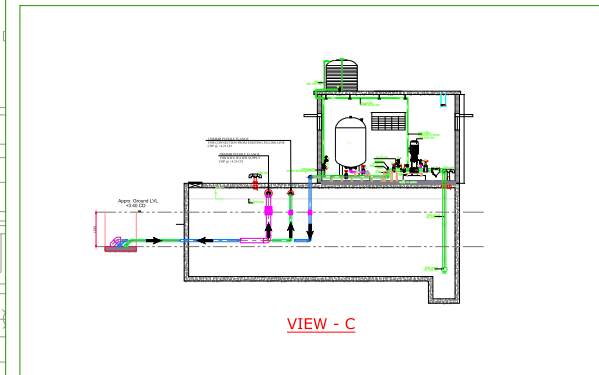
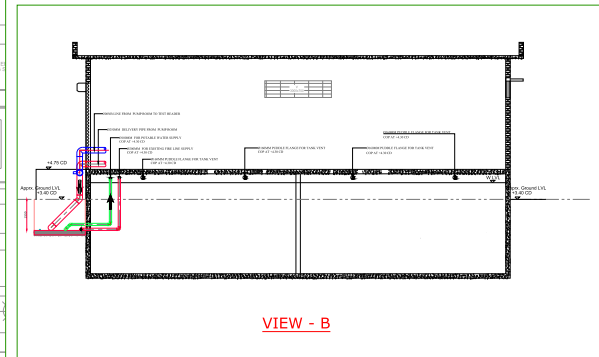
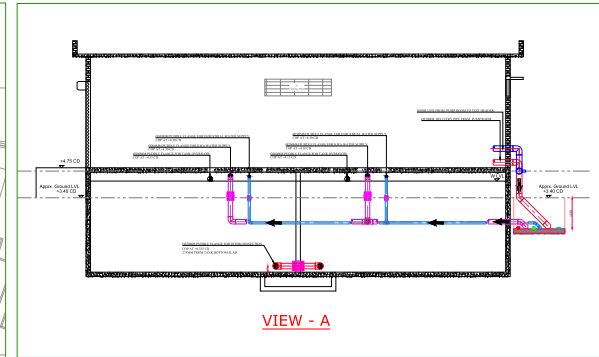
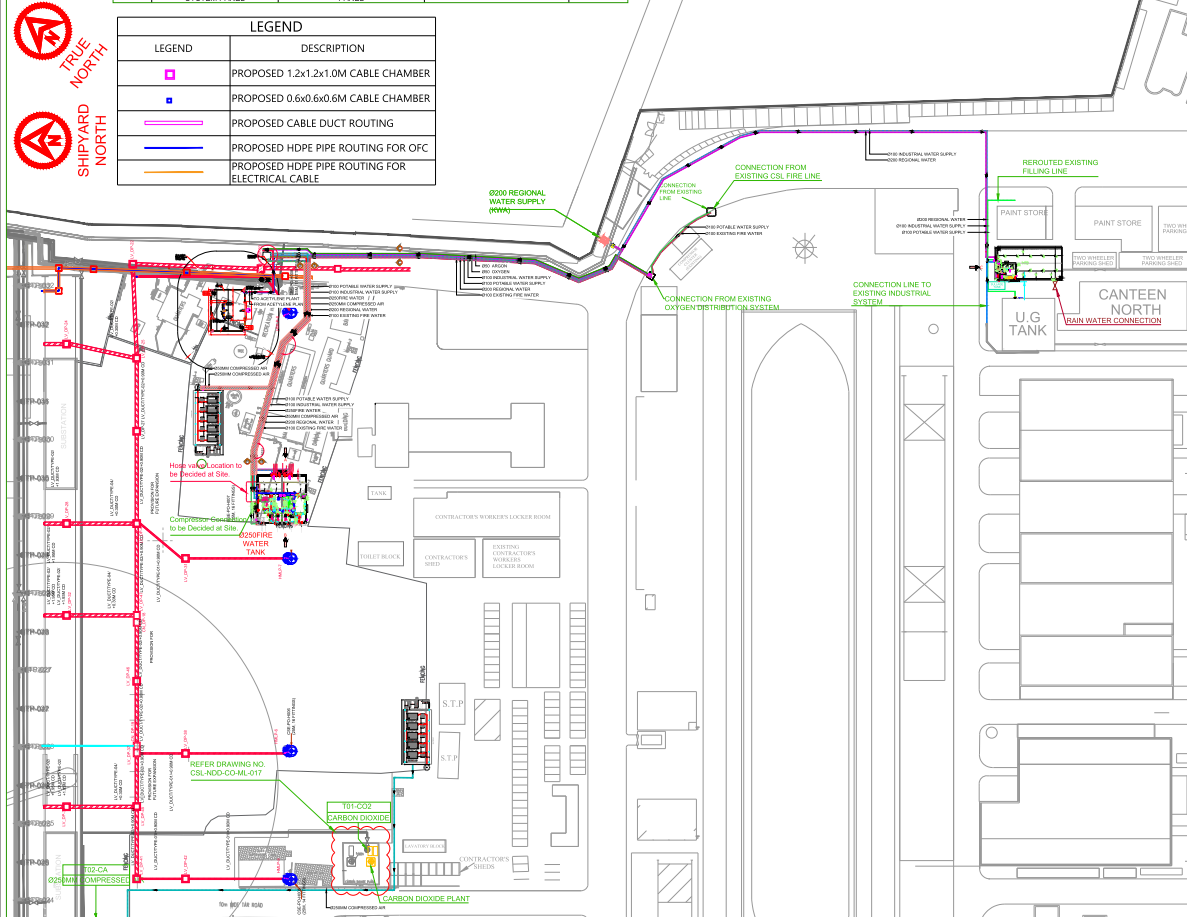
<b>Reply to Pre-Bid Queries</b>				
<b>SL No.</b>	<b>Reference Clause No.</b>	<b>Description</b>	<b>Pre-Bid Query</b>	<b>CSL Reply</b>
1	Tender Notice/ 13 in Conditions of Contract	Due Date for Tender Submission	We request to extend the last date and time of submission of tender shall be 10th December 2024 as against 25th November 2024.	Pl. see Corrigendum No.1
2	86 in Conditions of Contract	Payment	As per clause 84 (sic) in the conditions of contract shall be considered fortnightly as against monthly payment	Tender Condition Prevails
3	Annexure-23 to Annexure-30	Tender Drawings	The ground level of the proposed tanks shall be specified	Existing Ground level is about +3m CD
4	Annexure-23 to Annexure-30	Tender Drawings	We request you to provide the Auto CAD drawings	AutoCAD drawings will be shared by email to the bidders who attended the pre-bid meeting
5	Tender Notice/ 13 in Conditions of Contract	Due Date for Tender Submission	An extension of the submission deadline by two week is appropriate as additional time for design may impact the tender quoting period.	Pl. see Corrigendum No.1
6	85 in Conditions of Contract	Hindrance	Genuine hindrances during project execution shall be duly considered.	Bidders may please refer clause No. 85 in Conditions of Contract wherein the procedure of recording and processing of Hindrances are detailed
7	Annexure-23 to Annexure-30	Tender Drawings	The dimensions in the PDF drawings are unclear, Please provide the Autocad file to facilitate accurate water tank design.	AutoCAD drawings will be shared by email to the bidders who attended the pre-bid meeting and also to those who submit an Email request for the same.
8	28 in Conditions of Contract	Mobilization Advance	We request for an interest free mobilization advance	Tender Condition Prevails
9	10 in Technical Specifications	Stage Payments	Milestones for stage payments shall be revised on a mutually agreed basis after tender acceptance	Tender Condition Prevails
10	85 in Conditions of Contract	Hindrance	Considering the rain may hinder the work flow, we request an extension in the over all project completion time to accommodate potential delays.	Bidders may please refer clause No. 85 in Conditions of Contract wherein the procedure of recording and processing of Hindrances are detailed
11	5 in Technical Specifications	Foundation for the Structures	Whether payment for routine pile load test of Fire Water Tank is included in the Lumpsum item or is it a separate BoQ item	Routine pile load test is to be carried out for Fire Water Tank. The lumpsum amount quoted for Fire Water Tank should be inclusive of the cost for carrying out routine pile load test and there is no separate BoQ item for the same.  The lumpsum amount to be quoted for Industrial Water Tank and Fire Water Tank should be inclusive of executing all the works in their footprint area including piling works, pile design but except miscellaneous works like duct & manhole works etc.
12	18.1.1 in Conditions of Contract	Experience	Whether experience certificate of works executed for private agencies can be submitted to qualify for the work".	In case bidder is furnishing experience certificate of works executed for private agencies to qualify for the work, bidder should submit relevant TDS Certificate along with Work Completion Certificate.
13	30 in Technical Specifications	Loads	What shall be the Live load to be considered for the design	Live loads on the roof/floor of the structures shall be arrived from IS: 875: Part2.  The details of equipment loads are provided in the Tender drawing (Annexures-24 to 28/B).



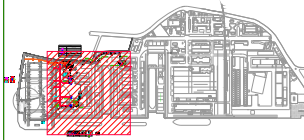
EARTH STRIP SCHEDULE				
TAG NO.	FROM	TO	CABLE SIZE	NO. OF RUNS
1	COMPRESSOR MAIN PANEL-1 & 2 CLUSTER-1	DD3A-LT 02 SUBSTATION	25x6MM CU. STRIP	2
2	FIRE HYDRANT PANEL	DD3A-LT 02 SUBSTATION	25x3MM CU. STRIP	2
3	COMPRESSOR MAIN PANEL CLUSTER-2	DD3B-LT 01 SUBSTATION	25x6MM CU. STRIP	2
4	NEW INDUSTRIAL WATER SYSTEM PANEL	EXISTING INDUSTRIAL WATER SYSTEM PANEL	25x3MM CU. STRIP	2

CABLE SCHEDULE				
TAG NO.	FROM	TO	CABLE SIZE	NO. OF RUNS
1	DD3C-LT 02	COMPRESSOR MAIN PANEL-2 CLUSTER-1	3.5Cx400SQ MM. AL. XLPE CABLE	5
2	DD3A-LT 02	COMPRESSOR MAIN PANEL-1 CLUSTER-1	3.5Cx400SQ MM. AL. XLPE CABLE	4
3	DD3A-LT 02	FIRE HYDRANT PANEL	3.5Cx400SQ MM. AL. XLPE CABLE	2
4	DD3B-LT 01	COMPRESSOR MAIN PANEL CLUSTER-2	3.5Cx400SQ MM. AL. XLPE CABLE	8
5	EXISTING INDUSTRIAL WATER SYSTEM PANEL	NEW INDUSTRIAL WATER SYSTEM PANEL	3.5Cx185SQ MM. AL. XLPE CABLE	1

LEGEND	
	PROPOSED 1.2x1.2x1.0M CABLE CHAMBER
	PROPOSED 0.6x0.6x0.6M CABLE CHAMBER
	PROPOSED CABLE DUCT ROUTING
	PROPOSED HDPE PIPE ROUTING FOR OFC
	PROPOSED HDPE PIPE ROUTING FOR ELECTRICAL CABLE



PIPE SCHEDULE		VALVE MATERIAL		END CONNECTION		FLANGE RATING		SIZE	
SL. NO.	SYSTEM	LOCATION	MATERIAL	SCH.	VALVE MATERIAL	END CONNECTION	FLANGE RATING	SIZE	
1	Argon	Connection up to Tie in point	Stainless steel 316 - ASTM A 312	40S	Stainless Steel 316	Welded	PN10	DN 50	
2	Argon	Connection up to Tie in point	Carbon steel - ASTM A 106 - Gr. B	40	Stainless Steel 316	Welded	PN10	DN 50	
3	Oxygen	Stainless steel 316 - ASTM A 312	Stainless steel 316 - ASTM A 312	40S	Stainless Steel 316	Welded	PN10	DN 50	
4	Carbon Dioxide	Connection up to Tie in point	Carbon steel - ASTM A 106 - Gr. B	40	Stainless Steel 316	Welded	PN10	DN 50	
5	Compressed Air	Carbon steel - ASTM A 106 - Gr. B	Carbon steel - ASTM A 106 - Gr. B	40	Stainless Steel 316	Welded	PN10	DN 250	
6	Potable water	Connection up to Tie in point	Carbon steel - ASTM A 106 - Gr. B	40	Carbon Steel with Internal & external epoxy coating	Flanged	PN10	DN 100	
7	Fire water	Flange for fire water storage tank	Carbon steel - ASTM A 106 - Gr. B	40	Carbon Steel with Internal & external epoxy coating	Flanged	PN20	DN 100 & DN 250	
8	Industrial water	Flange for industrial water storage tank	Carbon steel - ASTM A 106 - Gr. B	40	Carbon Steel with Internal & external epoxy coating	Flanged	PN10	DN 100 & DN 250	



## M &amp; E CONTRACTOR

Uralungal Labour Contract Cooperative Society Ltd.  
 P.O. Madappally College Varam, Kozhikode, Kerala. 673102  
 Phone: +91 495 2516462, 2516462  
 Website: www.ualcsd.com  
 E-mail: ualcsd@ualcsd.com

APPROVED BY: SR

DRAWN BY: VS

CHECKED BY: AA

SCALE : NTS

SHEET SIZE : A0

DATE : 25.07.2024

PROJECT NO :

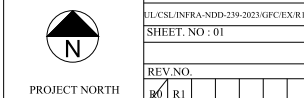
DRG.NO:

ULCS/INFRA-DDD-239-2023/GFC/EX/R1

SHEET NO : 01

REV.NO.

R1

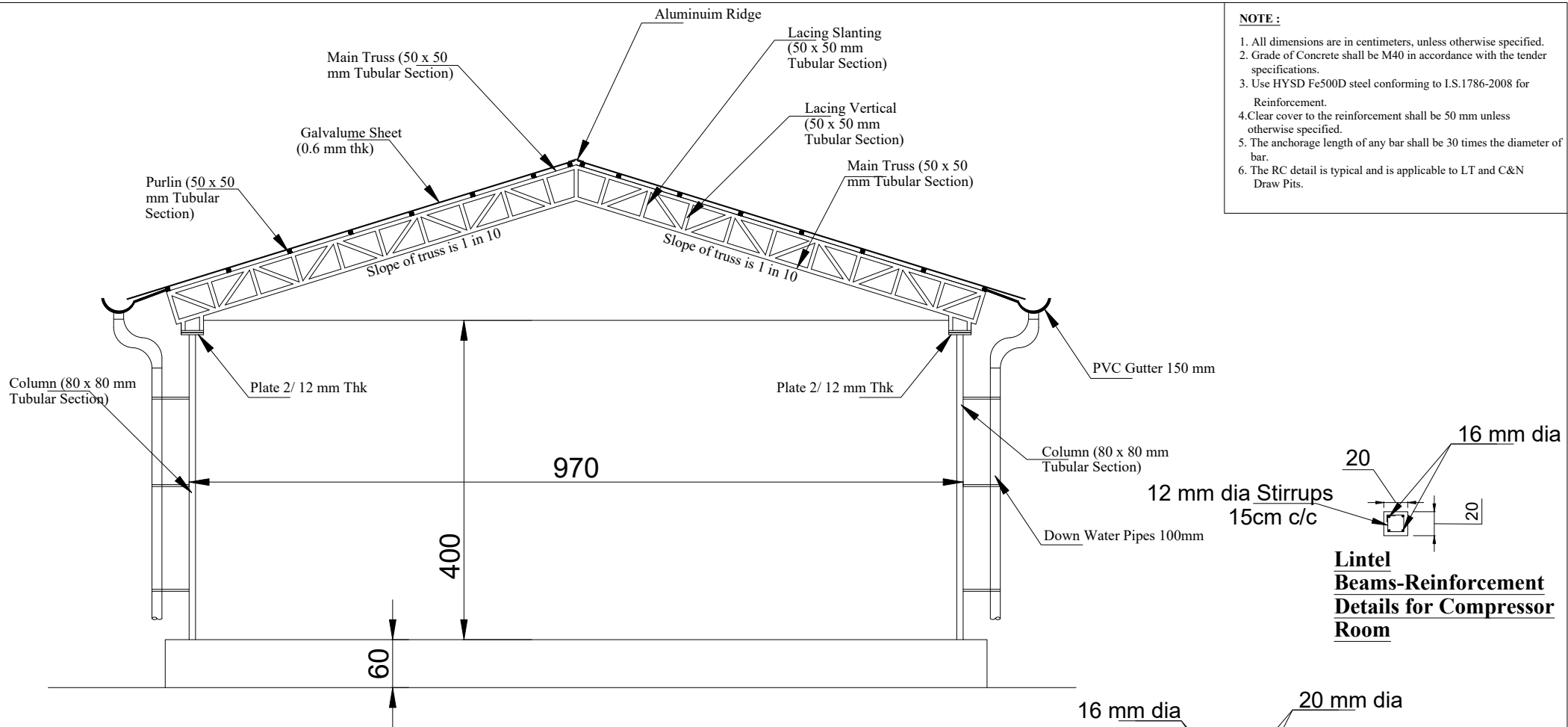


PROJECT TITLE

Turnkey design, supply, installation, testing and commissioning of Mechanical and Electrical works to provide various services for New Dry Dock Project

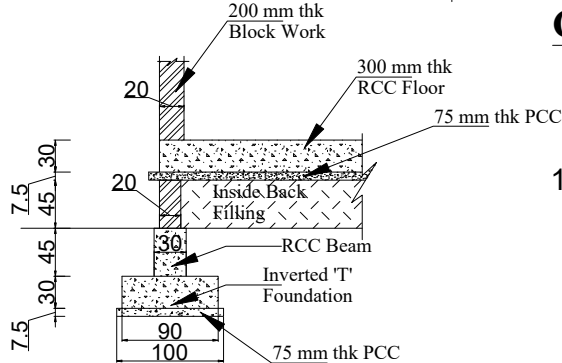
JOB TITLE

EXTERNAL LAYOUT

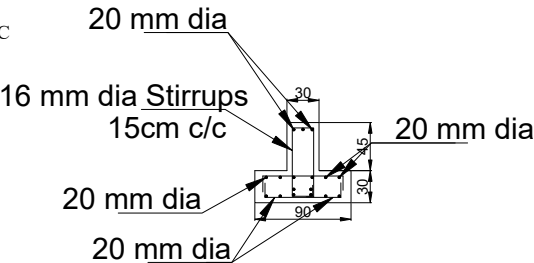


- NOTE :**
1. All dimensions are in centimeters, unless otherwise specified.
  2. Grade of Concrete shall be M40 in accordance with the tender specifications.
  3. Use HYSD Fe500D steel conforming to I.S.1786-2008 for Reinforcement.
  4. Clear cover to the reinforcement shall be 50 mm unless otherwise specified.
  5. The anchorage length of any bar shall be 30 times the diameter of bar.
  6. The RC detail is typical and is applicable to LT and C&N Draw Pits.

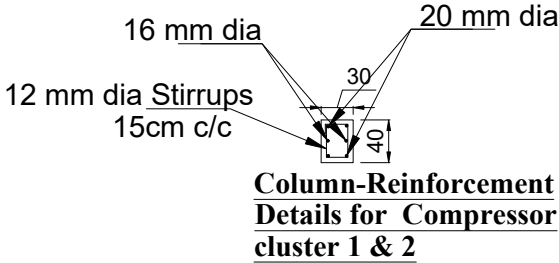
**Compressor Room**



**Typical Foundation Cross Section for Compressor Cluster 01 and 02**



**Typical Foundation Reinforcement Details for Compressor Cluster 01 and 02**



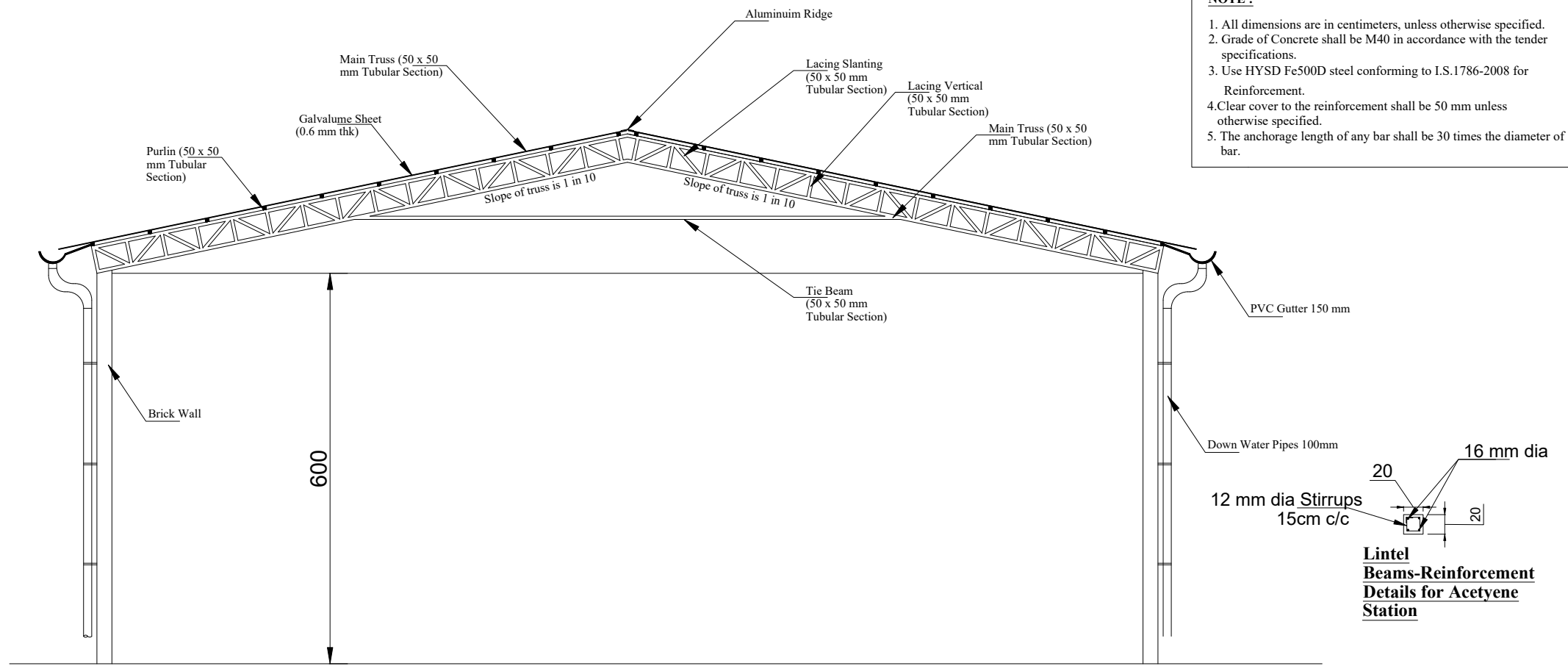
**Column-Reinforcement Details for Compressor cluster 1 & 2**



**COCHIN SHIPYARD LIMITED**  
COCHIN - 682 015

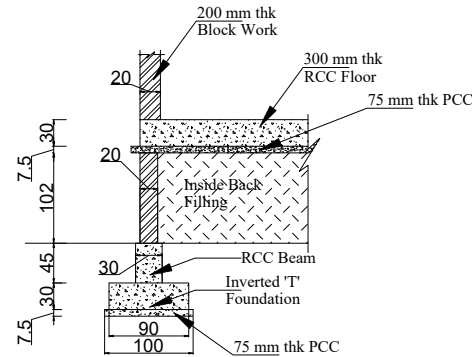
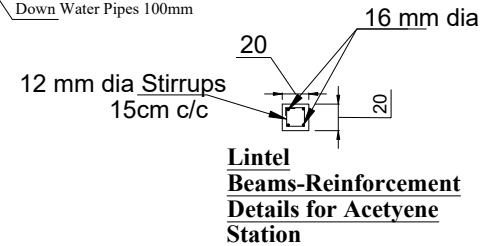
DGM (IP)	MATHEWS. P. A.	<b>Construction of Fire water tank, Industrial Water Tank, Acetylene Station and Compressor Clusters (2 nos) for New Dry Dock Project</b>	
AGM (IP)	DHANNYA .K. K.		
M (IP)	ARAVIND.V		
CHECKED	ARAVIND.V		
DRAWN	ANTONY JOSEPH		
		<b><u>Compressor Room</u></b>	
DATE : 21-10-2024	SCALE: NTS	DWG NO:INFRA/NDD/278/2024	SHEET NO:

All Dimensions are in cm

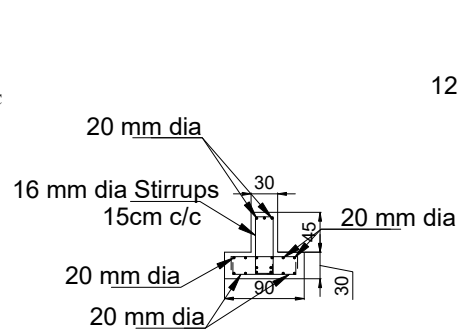


- NOTE :**
- 1. All dimensions are in centimeters, unless otherwise specified.
  - 2. Grade of Concrete shall be M40 in accordance with the tender specifications.
  - 3. Use HYSD Fe500D steel conforming to I.S.1786-2008 for Reinforcement.
  - 4. Clear cover to the reinforcement shall be 50 mm unless otherwise specified.
  - 5. The anchorage length of any bar shall be 30 times the diameter of bar.

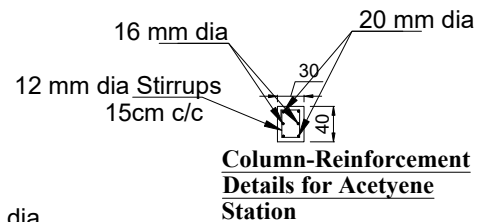
**Acetylene Station**



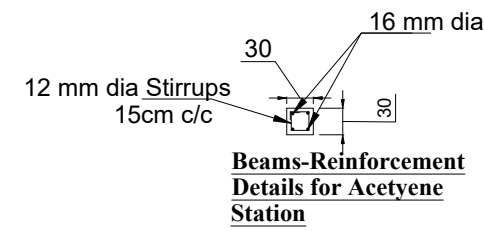
**Typical Foundation Cross Section for Acetylene Station**




**Typical Foundation Reinforcement Details for Acetylene Station**



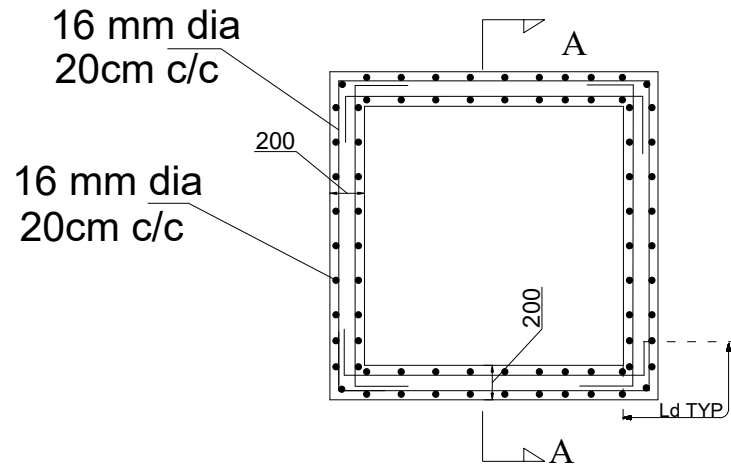
**Column-Reinforcement Details for Acetylene Station**



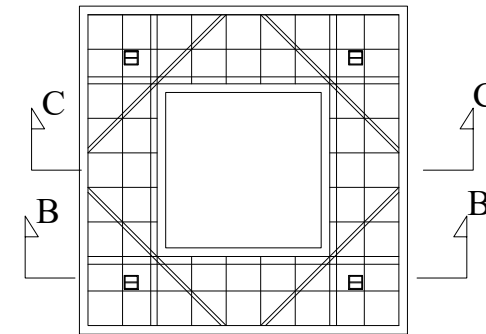
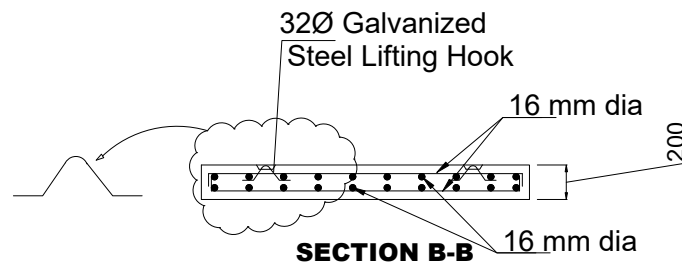
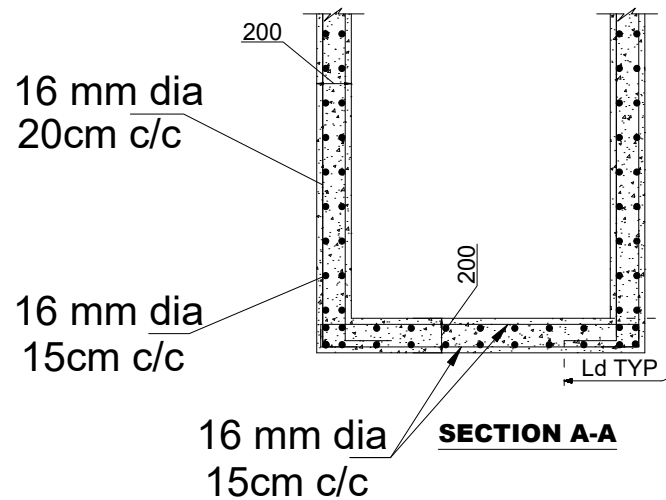
**Beams-Reinforcement Details for Acetylene Station**

		<b>COCHIN SHIPYARD LIMITED</b>	
		COCHIN - 682 015	
DGM (IP)	MATHEWS. P. A.	<b>Construction of Fire water tank, Industrial Water Tank, Acetylene Station and Compressor Clusters (2 nos) for New Dry Dock Project</b>	
AGM (IP)	DHANNYA .K. K.		
M (IP)	ARAVIND.V		
CHECKED	ARAVIND.V		
DRAWN	ANTONY JOSEPH		
		<b>Acetylene Station</b>	
DATE : 21-10-2024	SCALE: NTS	DWG NO:INFRA/NDD/278/2024	SHEET NO:

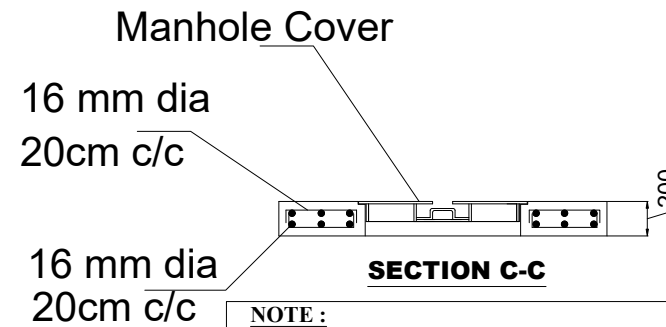
All Dimensions are in cm



**TYPICAL PLAN OF RC DETAIL FOR MANHOLE**



**TYPICAL PLAN OF RC DETAIL FOR TOP SLAB**



**NOTE :**

1. All dimensions are in centimeters, unless otherwise specified.
2. Grade of Concrete shall be M40 in accordance with the tender specifications.
3. Use HYSD Fe500D steel conforming to I.S.1786-2008 for Reinforcement.
4. Clear cover to the reinforcement shall be 50 mm unless otherwise specified.
5. The anchorage length of any bar shall be 30 times the diameter of bar.
6. The RC detail is typical and is applicable to LT and C&N Draw Pits.



**COCHIN SHIPYARD LIMITED**

COCHIN - 682 015

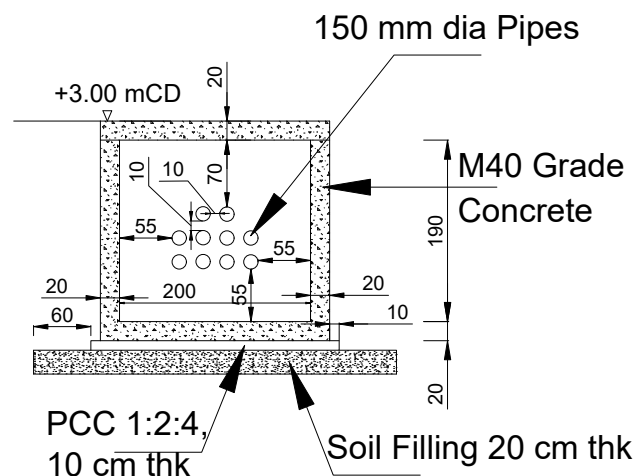
DGM (IP)	MATHEWS P ABRAHAM
AGM(IP)	DHANNYA K.K
M (IP)	ARAVIND.V
CHECKED	ARAVIND.V
DRAWN	ANTONY JOSEPH

**Construction of Fire water tank, Industrial Water Tank, Acetylene Station and Compressor Clusters (2 nos) for New Dry Dock Project**

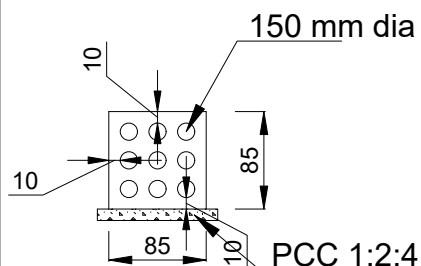
**MANHOLE DETAILS**

All Dimensions are in cm

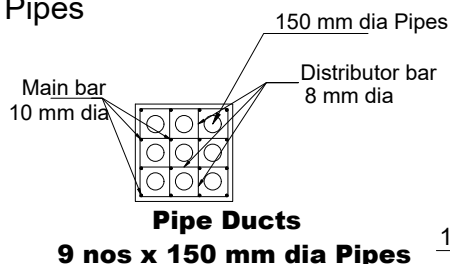
DATE: 21.10.2024 SCALE- NTS DWG.No: INFRA/NDD/278/2024 SH.NO:



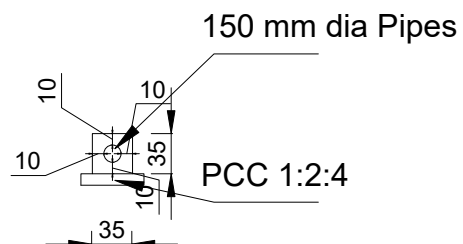
**Manholes section of size  
2m x 2m x 1.9m (LT)**



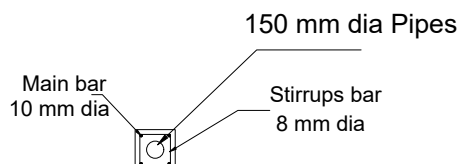
**Pipe Ducts - Type 2  
9 nos x 150 mm dia Pipes**



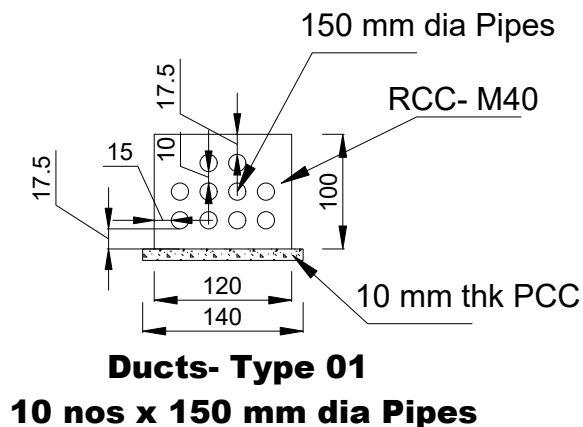
**Pipe Ducts -Type 3  
3 nos x 150 mm dia Pipes**



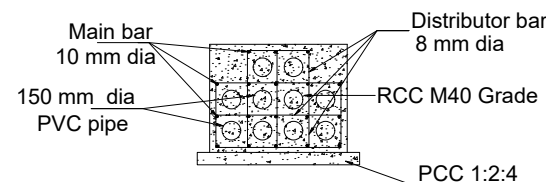
**Pipe Ducts- Type 4  
1 no x 150 mm dia Pipes**



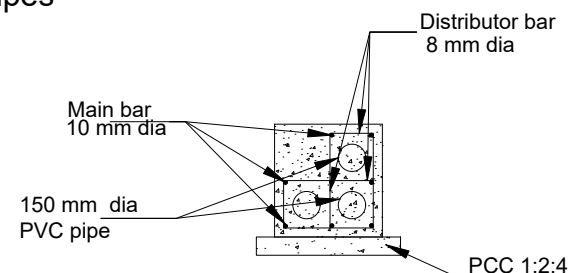
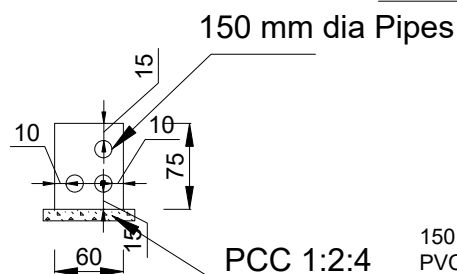
**Pipe Ducts- Type 4  
1 no x 150 mm dia Pipes**



**Ducts- Type 01  
10 nos x 150 mm dia Pipes**



**Rienforcement Details of Cable Duct- Type 01  
(10 x 150 mm dia pipes)**



**Rienforcement Details of Cable Ducts  
Type -3**



**COCHIN SHIPYARD LIMITED**

COCHIN - 682 015

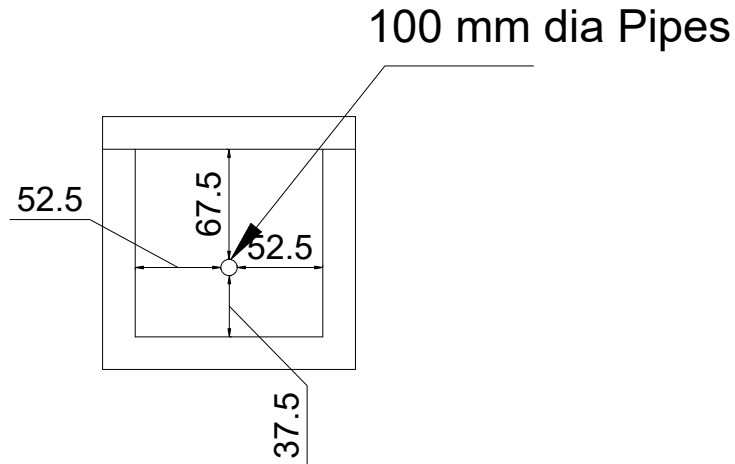
DGM (IP)	MATHEWS P ABRAHAM	<b><u>Construction of Fire water tank, Industrial Water Tank, Acetylene Station and Compressor Clusters (2 nos) for New Dry Dock Project</u></b>  <b>Manhole and Duct Details (LT)</b>	
AGM(IP)	DHANNYA K.K		
M (IP)	ARAVIND.V		
CHECKED	ARAVIND.V		
DRAWN	ANTONY JOSEPH		
DATE: 21.10.2024	SCALE- NTS	DWG.No:INFRA/NDD/278/2024	SH.NO. 1/2

All Dimensions are in cm

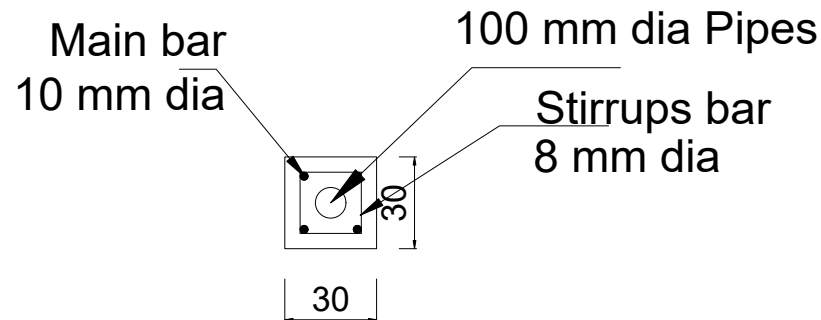
**NOTE :**

1. All dimensions are in centimeters, unless otherwise specified.
2. Grade of Concrete shall be M40 in accordance with the tender specifications.
3. Use HYSD Fe500D steel conforming to I.S.1786-2008 for Reinforcement.
4. Clear cover to the reinforcement shall be 50 mm unless otherwise specified.
5. The anchorage length of any bar shall be 30 times the diameter of bar.

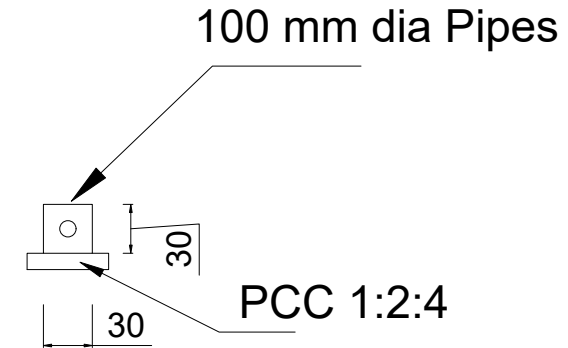




**Manholes of size  
1.15m x 1.15m x 1.2m (C&N)**



**C&N- Pipe Ducts. Type 1  
Reinforcement Details**



**C&N- Pipe Ducts. Type 1  
1 no x 100 mm dia Pipes**

**NOTE :**

1. All dimensions are in centimeters, unless otherwise specified.
2. Grade of Concrete shall be M40 in accordance with the tender specifications.
3. Use HYSD Fe500D steel conforming to I.S.1786-2008 for Reinforcement.
4. Clear cover to the reinforcement shall be 50 mm unless otherwise specified.
5. The anchorage length of any bar shall be 30 times the diameter of bar.



**COCHIN SHIPYARD LIMITED**

COCHIN - 682 015

DGM (IP)	MATHEWS P ABRAHAM	<b>Construction of Fire water tank, Industrial Water Tank, Acetylene Station and Compressor Clusters (2 nos) for New Dry Dock Project</b>	
AGM(IP)	DHANNYA K.K		
M (IP)	ARAVIND.V		
CHECKED	ARAVIND.V		
DRAWN	ANTONY JOSEPH		
		<b>Manhole and Duct Details (C&amp;N)</b>	
DATE: 21.10.2024	SCALE- NTS	DWG.No: INFRA/NDD/278/2024	SH.NO. 2/2