



MUMBAI METRO RAIL CORPORATION LIMITED (MMRC)
(Joint Venture of Govt. of India and Govt. of Maharashtra)
Mumbai Metro Line 3 - Transit Office, Wing "A", North Side of City Park,
E-Block, Bandra-Kurla Complex, Bandra (East) Mumbai-400051, India.
Telephone: +91-22-26575221

**"Design, Manufacture, Supply, Installation, Testing and Commissioning of Tunnel Ventilation System & Environmental Control System between Mumbai Central (excluding) to Cuffe Parade (including) Stations".
(Package: 15)**

Date: [16.01.2019]

Loan Agreement Number: [ID-P 268]

IFB Number: [MM3-CBS-TVE (P2L2)]

Addendum No: 2

Sr. No.	Description and Clause No.	Amendment
1	Part 1 - Bidding Procedure Section IV-A - Bidding Forms Bid Form 21 FIR-4: Bid Capacity	Replace : Maximum value of works executed in any one year during the last five years (Updated to 2016-17 price level) With: Maximum value of works executed in any one year during the last five years (Updated to 2017-18 price level)
2	PART-2 Employer's Requirement SECTION-VI - B1 Clause No.- 5.3.5	Replace : Retail areas shall be provided with "Warm Shell" ECS except Sidhivinayak station Intermediate Level. The provisions shall include chilled water supply and return pipe connections with energy meter and motorized valves; and, fresh air supply duct terminated at the boundary of each retail zone under 200m ² . For retail zone larger than 200m ² the "Warm Shell" provision shall be provided for every 200m ² . SCADA system shall be provided for the



Sr. No.	Description and Clause No.	Amendment
		<p>usage of the cooling energy and report to MMRC for billing purpose. Chilled water shall be provided during revenue service hours.</p> <p>With: Retail areas shall be provided with "Warm Shell" ECS except Cuffe Parade station parking Level and Retails at Concourse level. The provisions shall include chilled water supply and return pipe connections with energy meter and motorized valves; and, fresh air supply duct terminated at the boundary of each retail zone under 200m². For retail zone larger than 200m², the "Warm Shell" provision shall be provided for every 200m². SCADA system shall log the usage of the cooling energy and report to MMRC for billing purpose. Chilled water shall be provided during revenue service hours.</p>
3	PART-2 Employer's Requirement SECTION-VI - B4	<p>Replace : Clause no. 2.3.22,j Electrical endurance of the order of 10000 operation cycles.</p> <p>With: MCCBs shall have an electrical endurance of the order of 10000 operation cycles up to 250A, and 5000 operation cycles up to 630A, at rated voltage and current.</p>
4	Part 4 - Drawings Section X - Drawings	<p>Replace : SCADA Drawing No.- GCC-TVE-P00-0001-041_A0</p> <p>With: SCADA Drawing No.- GCC-TVE-P00-0001-041_A1 Attachment No. 2 The scope delineation of Phase 1 vs. Phase 2 Lot1 and Lot 2 is shown</p>
5	Part 4 - Drawings Section X - Drawings	<p>Replace : Grant Road Station Drawings UGC-02-ARP-SGR-01001-002-A</p>



Sr. No.	Description and Clause No.	Amendment
		UGC-02-ARP-SGR-02001-001-A UGC-02-ARP-SGR-03001-001-A UGC-02-ARP-SGR-04001-001-A UGC-02-ARP-SGR-08001-002-A With: Following drawings - Attachment No. 3 UGC-02-ARP-SGR-01001-002-B UGC-02-ARP-SGR-02001-001-B UGC-02-ARP-SGR-03001-001-B UGC-02-ARP-SGR-04001-001-B UGC-02-ARP-SGR-08001-001-B Add Grant Road Station Drawings – Attachment No. 3 UGC-02-ARP-SGR-05001-001-B UGC-02-ARP-SGR-06001-001-B UGC-02-ARP-SGR-06001-002-B UGC-02-ARP-SGR-06001-003-B UGC-02-ARP-SGR-06001-004-B
6	Part 4 - Drawings Section X - Drawings	Replace : Cuffe Parade Station Drawings UGC-01-ARP-SCP-1021-001 UGC-01-ARP-SCP-1023-001 UGC-01-ARP-SCP-1031-001 UGC-01-ARP-SCP-1041-001



Sr. No.	Description and Clause No.	Amendment
		UGC-01-ARP-SCP-1051-001 UGC-01-ARP-SCP-1061-002 UGC-01-ARP-SCP-1061-003 UGC-01-ARP-SCP-1071-001 UGC-01-ARP-SCP-1091-001 With: UGC-01-ARP-SCP-1021-001 Attachment No. 4 UGC-01-ARP-SCP-1023-001 Attachment No. 4 UGC-01-ARP-SCP-1031-001 Attachment No. 4 UGC-01-ARP-SCP-1041-001 Attachment No. 4 UGC-01-ARP-SCP-1051-001 Attachment No. 4 UGC-01-ARP-SCP-1061-002 Attachment No. 4 UGC-01-ARP-SCP-1061-003 Attachment No. 4 UGC-01-ARP-SCP-1071-001 Attachment No. 4 UGC-01-ARP-SCP-1091-001 Attachment No. 4
7	Part 4 - Drawings Section X - Drawings	Replace : Hutatma Chowk Station Drawings UGC-01-ARP-SHC-4031-001 With: Hutatma Chowk Station Drawings UGC-01-ARP-SHC-4031-001 Attachment No. 5
8	Part 1 - Bidding Procedure	Replace:



Sr. No.	Description and Clause No.	Amendment
	Section IV-A - Bidding Forms	<p>Bid Form 1 : PROJECT ORGANIZATION AND KEY PERSONNEL</p> <p>With:</p> <p>Attachment No. 1</p> <p>Bid Form 1(R): PROJECT ORGANIZATION AND KEY PERSONNEL</p>
9	<p>Part 1 - Bidding Procedure</p> <p>Section IV-A - Bidding Forms</p>	<p>Replace:</p> <p>Bid Form 6 :METHOD STATEMENT (Project Implementation Plan)</p> <p>With:</p> <p>Attachment No. 6</p> <p>Bid Form 6(R): METHOD STATEMENT (Project Implementation Plan)</p>
10	<p>Part 1 - Bidding Procedure</p> <p>Section IV-A - Bidding Forms</p> <p>Bid Form 21 FIR-4: Bid Capacity</p>	<p>Replace :</p> <p>* Value of works executed shall be updated to price level of March 2017 where Financial Year ending on 31st March & to price level of December 2016 where Financial Year ending on 31st December by assuming 5% inflation per annum (Non-cumulative) for Indian Rupees and 2% escalation per annum (Non-cumulative) for Foreign Currency.</p> <p>With:</p> <p>* Value of works executed shall be updated to price level of March 2018 where Financial Year ending on 31st March & to price level of December 2017 where Financial Year ending on 31st December by assuming 5% inflation per annum (Non-cumulative) for Indian Rupees and 2% escalation per annum (Non-cumulative) for Foreign Currency.</p>



Sr. No.	Description and Clause No.	Amendment
11	Part 4 - Drawings Section X - Drawings	<p>Replace : Girgaon Station Drawing No.- HCO-ARP-SGG-01001-002-A2-P HCO-ARP-SGG-01001-003-A2-P HCO-ARP-SGG-03001-001-A2-P HCO-ARP-SGG-08001-001-A2-P</p> <p>With: Girgaon Station Drawing No.- UGC02-ARP-SGG-01001-001-B-P Attachment No. 7 UGC02-ARP-SGG-02001-001-B-P Attachment No.7 UGC02-ARP-SGG-03001-001-B-P Attachment No. 7 UGC02-ARP-SGG-04001-001-B-P Attachment No.7 UGC02-ARP-SGG-06001-001-A-P Attachment No. 7 UGC02-ARP-SGG-08001-001-A-P Attachment No. 7 UGC02-ARP-SGG-08001-002-A-P Attachment No. 7 UGC02-ARP-SGG-08001-003-A-P Attachment No. 7</p>

Place: Mumbai,
Date: 16.01.2019

Sd/-
(Smt. Ashwini Bhide, IAS)
Managing Director, MMRC

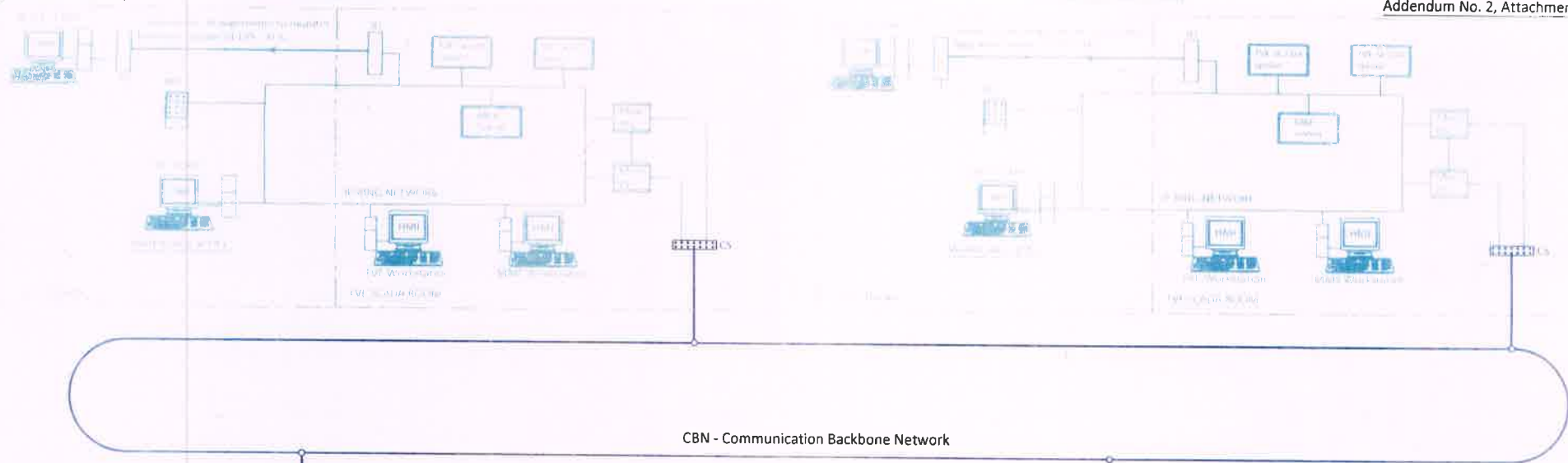


BID FORM 1(R): PROJECT ORGANIZATION AND KEY PERSONNEL

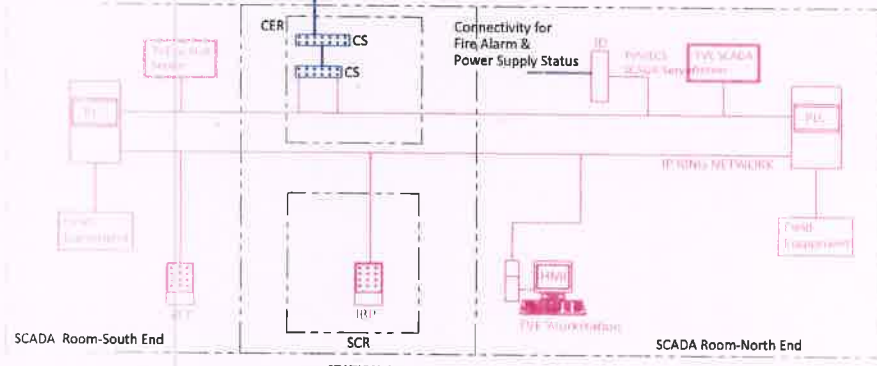
[The Bidder shall provide Technical Proposal for Site Organization.]

Project Organization and Key Personnel	Bid Ref
<p>The Bidder will provide an Organization Chart detailing the proposed teams and identifying key personnel as per following:</p> <ul style="list-style-type: none"> • Project Organization Chart (for Station Level & Office Level) - Organization chart for each stage i.e. Design stage, Construction stage, Testing & commissioning stage - Indicating the experienced engineering staff in each team (i.e. Design team, Construction team, Coordination team, Interface team, Quality team, etc) - Role of each team member - Scope & Duties of each team member - Level of experience for each role 	

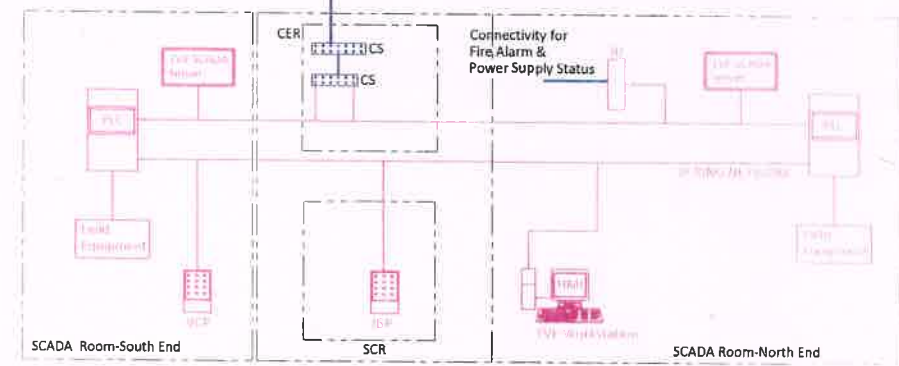




CBN - Communication Backbone Network



STATION-1



STATION-2

NOTE:
 ——— Hardwire
 ——— Serial LAN

ABBREVIATIONS:

- OCC - Operation Control Center
- SCR - Station Control Room
- CER - Communication Equipment Room
- HMI - Human Machine Interface
- PLC - Programmable Logic Controller
- CS - Communication Switch
- MMS - Maintenance Management System
- CBN - Communication Backbone Network
- TVE - Tunnel Ventilation & Environmental Control
- IBP - Integrated Backup Panel
- SCADA - Supervisory Control And Data Acquisition
- M & E - Mechanical and Electrical
- ID - Interface Device
- VCP - Ventilation Control Panel
- BCC - Backup Control Centre

LEGEND:

- Work under EPC/PH-1 Contractor's scope
- TVE SCADA SCOPE IN P2L2
- Signaling & Telecommunication System

Note- OCC/BCC scope of work is under TVE-PH-1 contractor

TVE-PHASE-2-Lot-2

GENERAL CONSULTANCY SERVICES FOR MUMBAI METRO RAIL PROJECT, LINE No. 3 COLABA- BANDRA-SEEPZ

REV	DATE	PREP	APPROVED	DESCRIPTION
1	10.12.18	AKB	NC	Scope of OCC/BCC work updated

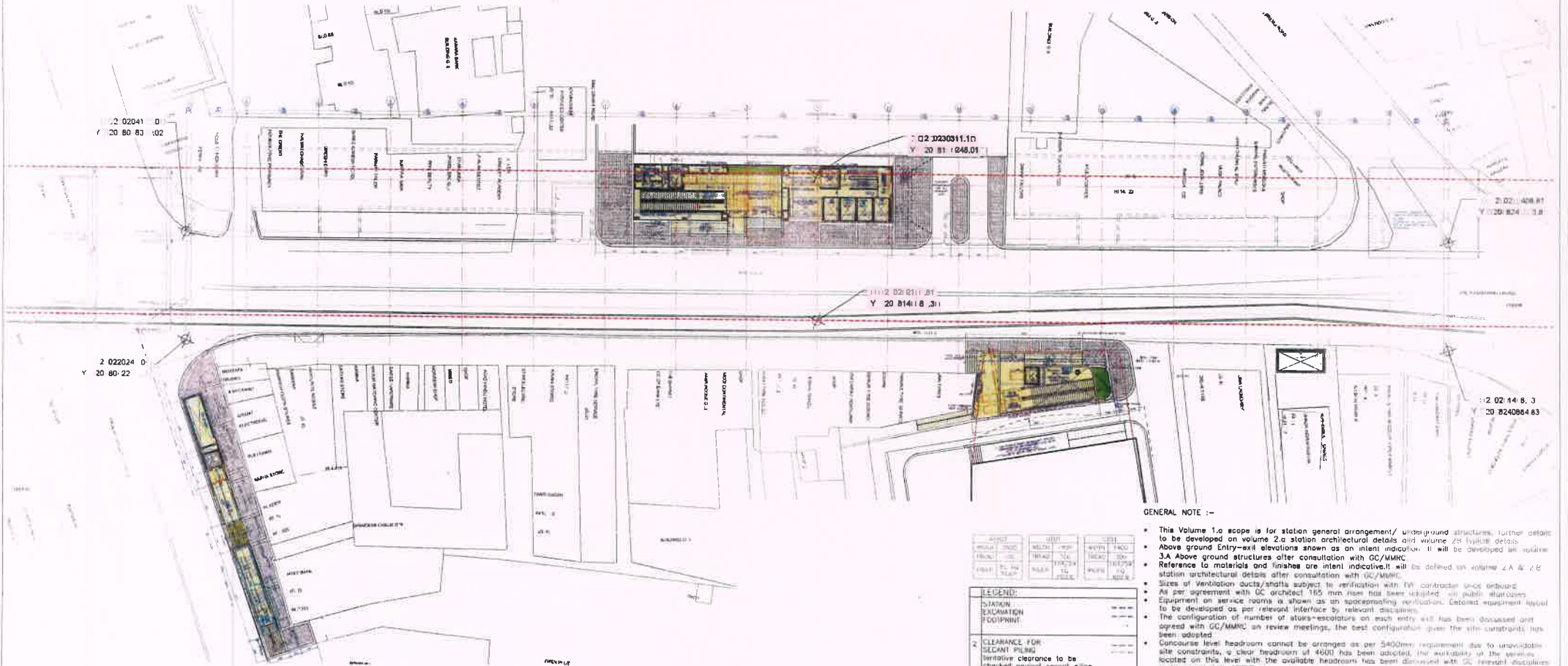
NAME	SIGN	PROJECT	STATION	DATE
DRAWN BY		MUMBAI METRO LINE 3 COLABA-BANDRA-SEEPZ		14-03-2018
DESIGN BY				
CHECKED BY		TITLE	DRAWING TITLE	SCALE
APPROVED BY		INTERFACE DRAWINGS	TUNNEL VENTILATION AND ENVIRONMENTAL CONTROL SYSTEM SCADA DRAWING	NTS (A1)
		DRAWING NO	GCC-TVE-PH2-001-041_A1	

Tender Drawings
 Not to be used for construction

MUMBAI METRO RAIL CORPORATION
 MUMBAI METRO LINE 3
 COLABA-BANDRA-SEEPZ



KEY PLAN



- This Volume 1.a scope is for station general arrangement/ underground structures, further details to be developed on volume 2.a station architectural details and volume 2.b typical details.
- Above ground Entry-exit elevations shown as an intent indication. It will be developed in volume 3A.
- Reference to materials and finishes are intent indications will be defined on volume 2.A & 2.B station architectural details after consultation with GC/MMRC.
- Sizes of Ventilation ducts/shafts subject to verification with T&E contractor once obtained.
- Equipment on service rooms is shown as an indicative ventilation. Detailed equipment layout to be developed as per relevant interface by relevant disciplines.
- The configuration of number of stairs-escalators on each entry exit has been discussed and agreed with GC/MMRC in review meetings, the best configuration given the site constraints has been adopted.
- Concourse level headroom cannot be arranged as per 5400mm requirement due to unavailability of site constraints, a clear headroom of 4600 has been adopted, the availability of the services located on this level with the available headroom has been discussed with GC relevant disciplines and presented to MMRC.
- Definition of structural members shown on these drawings will be finalized by structural submissions after approval to this general arrangement set of drawings, any change in structural sizing will be adopted and all necessary rework/interdisciplinary architectural layout and submitted for review.

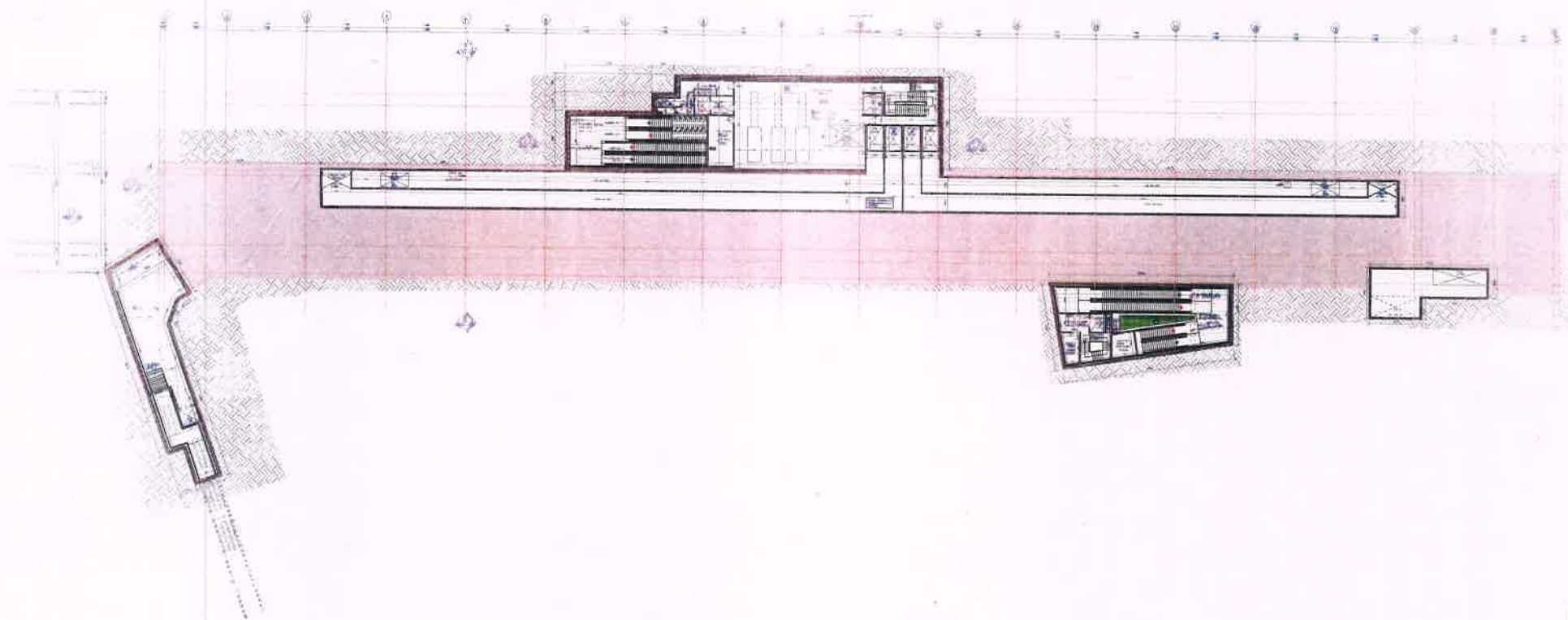
LEGEND	DESCRIPTION
1	STATION EXCAVATION FOOTPRINT
2	CLEARANCE FOR SECRANT PRISM
3	OVER GROUND STRUCTURE

Reference Drawings
 - Refs: ALIGNMENT SPANNING SHEET (A) THROUGH EMAIL FROM GC DATED 29-06-2017.
 1. TOPOGRAPHICAL SURVEY RECEIVED THROUGH EMAIL FROM GC DATED 29-06-2017.
 2. PERMANENT LAND PLAN DRAWING RECEIVED THROUGH EMAIL FROM GC DATED 19-12-2016.
 3. DETAILED TOPOGRAPHICAL SURVEY RECEIVED THROUGH EMAIL FROM GC DATED 26-06-2017.

Notes:
 1. All dimensions are in meters.
 2. All dimensions are to be taken as indicated.
 3. All dimensions are to be taken as indicated.
 4. All dimensions are to be taken as indicated.
 5. All dimensions are to be taken as indicated.

Rev	Date	Drawn	Description	Drawn	Checked	Approved
R	20181030	AK	REVISED DEFINITIVE DESIGN SUBMISSION	SM	SM	DAL
A	20180601	SG	DEFINITIVE DESIGN SUBMISSION	SM	SM	DAL
A3	20171129	AS	REVISED PRELIMINARY DESIGN SUBMISSION	SM	SM	DAL
A1	20170224	VS	REVISED PRELIMINARY DESIGN SUBMISSION	SM	SM	DAL
A0	20170428	AS	PRELIMINARY DESIGN SUBMISSION	SM	SM	DAL

<p>Maple</p> <p>Notification</p> <p><input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C</p> <p>As noted in the DGR No. 04/2017</p> <p>A - On objection a copy of the result/decision is to be issued. B - No Objection certificate is to be issued. C - Notice of No Objection.</p> <p>Assessor: _____ Discipline Leader: _____ En-iteer: _____</p>	<p>Detailed Design Consultant</p> <p>avesa</p> <p>Project Title: MUMBAI METRO LINE - 3 (COLABA-BANDRA-SLEEPY) CONTRACT UGC-02</p> <p>Contractor</p> <p>HCC</p> <p>HCC-MMS JV</p>	<p>Mumbai Metro Rail Corporation Ltd</p> <p>MMRC</p> <p>GRANT ROAD STATION URBAN INTEGRATION (GUM) PROJECT</p> <p>Drawn: _____ Title: _____ Date: 30-10-2018</p> <p>DCI Interdisciplinary Coordination Sign off</p> <p>Approved: _____</p> <p>Map: _____ Structure: _____</p>
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Station Name	Access Code	All Levels	Floor Service Street, Top of Rise, Circumferential, Intermediate, Platform	Lower Landing Level (Meters)	Upper Landing Level (Meters)	Total Rise (Meters)	Pt Depth (Meters)	Head Room (Meters)	Clearance (Meters)	Vertical shaft Circumference (Meters)	Stairing/Shaft Stairing	Through Cut	Type of Escalator	Remarks
GRANT ROAD	Access Code 1	101	Ground Level, Top of Rise, Circumferential	-8.47	-4	11.47	1.25	4.25	3.2	2.5 x 2.5	Hanging	Passenger	REFER DRAWING NO	
	Access Code 1	102	Ground Level, Top of Rise, Circumferential	-8.47	-4	11.47	1.25	4.25	3.2	2.5 x 2.5	Hanging	Passenger	UGCC0 APP SGR 02001 003 A	
	Access Code 1	103	Ground Level, Top of Rise, Circumferential	-8.47	-4	11.47	1.25	4.25	3.2	2.5 x 2.5	Hanging	Passenger	UGCC0 APP SGR 02001 003 A	
	Access Code 1	104	Intermediate Circumferential Intermediate, Platform	-11.97	-8.47	11.5	1.00	4.25	3.2	2.5 x 2.5	Non-Hanging	Passenger	UGCC0 APP SGR 02001 003 A	

Station Name	Access Code	All Levels	Floor Service Street, Top of Rise, Circumferential, Intermediate, Platform	Lower Working Point	Upper Working Point	Total Rise	With Internal Clear	Pt Depth	Pt Width	Pt Length	Direction	Remarks
GRANT ROAD	Access Code 1	101	Top of Rise to General level	-8.47	-4.00	8.33	1.00	1.55	1.75	6.50	Ascending	REFER DRAWING NO UGCC0 APP SGR 02001 003 A
	Access Code 1	102	General level to Top of Rise	-8.47	-4.00	8.47	1.00	1.55	1.75	6.50	Descending	
	Access Code 1	103	General level to Top of Rise	-8.47	-4.00	8.33	1.00	1.55	1.75	6.50	Ascending	
	Access Code 1	104	Top of Rise to General level	-8.47	-4.00	8.33	1.00	1.55	1.75	6.50	Descending	

GENERAL NOTES

- The structure is to be constructed in accordance with the specifications and standards of the Indian Railways.
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GRANT ROAD STATION									
SCOPE	LEVEL	ROOM TAG	ROOM	AREA	VALUE ENGINEERING	WIDTH	CLEAR HEIGHT	T/F	FIRE RATING
PLANT ROOM	PM0	CHILLER PLANT ROOM	251	12.6	7.3	3.75	2.75	2.75	2.75
PLANT ROOM	PM3	DRUM ROOM	25	7.1	3.5	3.75	2.75	2.75	2.75
PLANT ROOM	PM01	STAIR 1	10	4.2	4.2	4.2	4.2	4.2	4.2
PLANT ROOM	PM02	FIREMAN 1	12.5	1.5	4.7	4.7	4.7	4.7	4.7
PLANT ROOM	U/01	SERVICE STAIR CASE	13	1.5	4.7	4.7	4.7	4.7	4.7

Delisted Design Consultant: **ayesa** (Incorporated in India)

Contractor: **HCC MMS JV**

Project Title: **MUMBAI METRO LINE - 3 (COLABA-BANDRA-SEEPZ) CONTRACT UGC-02**

Contractor UGC-02, Deal n: Construction of Under ground Stations & Associated Tunnels

Drawn Title: **GRANT ROAD STATION**

Scale: 1:200

Date: 30-10-2018

Map: Structure:

Drawn By: **UGCC0 APP SGR 02001 003 A**

Checked: **UGCC0 APP SGR 02001 003 A**

Approved: **UGCC0 APP SGR 02001 003 A**

Reference Drawings

Notes

1. As noted in the DSR No. dated

A. In accordance with the Indian Railways

B. No objection with the

C. In accordance with the Indian Railways

General Comments

Notification

Assessor: **Discipline Leader**

En Iner

Rev	Date	Drawn	Description	Drawn by	Checked	Approved
1	20181030	AK	REVISED DEFINITIVE DESIGN SUBMISSION	SM	SM	SM
2	20180601	SC	DEFINITIVE DESIGN SUBMISSION	SM	SM	SM
3	20171124	AS	REVISED PRELIMINARY DESIGN SUBMISSION	SM	SM	SM
4	20170724	VS	REVISED PRELIMINARY DESIGN SUBMISSION	SM	SM	SM
5	20170428	AC	PRELIMINARY DESIGN SUBMISSION	SM	SM	SM

Drawn By: **UGCC0 APP SGR 02001 003 A**

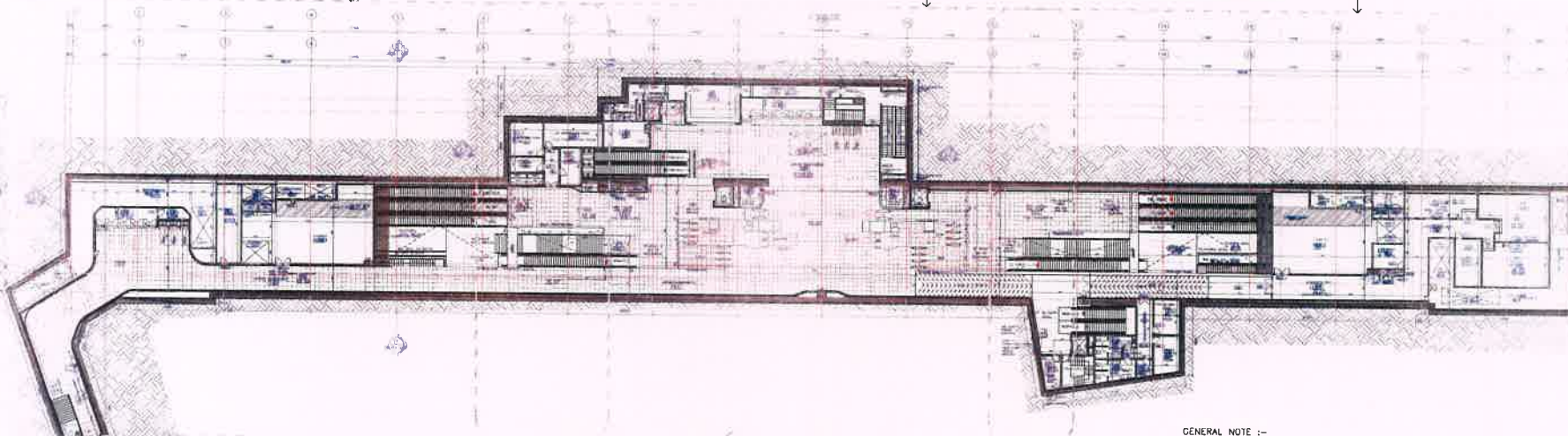
Checked: **UGCC0 APP SGR 02001 003 A**

Approved: **UGCC0 APP SGR 02001 003 A**

Scale: 1:200

Date: 30-10-2018

Map: Structure:



GENERAL NOTE :-

- This Volume 1a scope is for station general arrangement/ underground structures, further detail to be developed on volume 2a station architectural details and volume 2B physical details.
- Above ground Entry-exit elevations shown as an intent indication. It will be developed in volume 2A.
- Reference to materials and finishes are intent indicative. It will be defined on volume 2A & 2B station architectural details after consultation with GC/MMHC.
- Slits of Ventilation ducts/shafts subject to verification with T&E contractor on-site outward.
- As per agreement with GC architect 155 mm clear has been adopted on public staircases.
- Equipment on service rooms is shown as an approximate verification. Detailed equipment layout to be developed on per relevant interfaces by relevant disciplines.
- The configuration of number of stairs-escalators at each entry-exit has been discussed and agreed with GC/MMHC on review meetings, the best configuration given the site constraints has been adopted.
- Concourse level headroom cannot be arranged as per 5400mm requirement due to unmovable site constraints, a clear headroom of 4600 mm has been adopted. The availability of the concourse located on this level with the available headroom has been discussed with GC relevant disciplines and presented to MARR.
- Definition of structural members shown on these drawings will be finalized by structural submissions after approval to this general arrangement set of drawings, any change on structural lining will be adopted and all necessary adjustments will be done and architectural layout and submitted for review.

GRANT ROAD STATION						
ROOM TAG	ROOM	AREA	WIDTH	DEPTH	CLAR HEIGHT	FIR. RATING
001.1	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.2	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.3	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.4	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.5	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.6	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.7	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.8	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.9	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.10	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.11	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.12	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.13	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.14	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.15	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.16	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.17	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.18	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.19	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.20	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.21	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.22	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.23	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.24	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.25	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.26	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.27	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.28	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.29	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.30	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.31	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.32	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.33	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.34	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.35	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.36	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.37	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.38	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.39	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.40	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.41	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.42	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.43	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.44	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.45	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.46	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.47	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.48	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.49	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.50	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.51	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.52	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.53	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.54	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.55	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.56	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.57	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.58	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.59	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.60	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.61	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.62	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.63	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.64	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.65	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.66	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.67	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.68	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.69	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.70	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.71	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.72	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.73	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.74	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.75	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.76	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.77	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.78	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.79	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.80	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.81	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.82	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.83	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.84	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.85	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.86	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.87	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.88	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.89	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.90	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.91	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
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001.93	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
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001.96	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.97	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.98	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
001.99	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED
002.00	ENTRANCE	13.7	3.2	4.8	4.4	2ND FIRE RATED

Station name	Area code	Lift Number	Floor Served: Street, top of box, concourse, mezzanine, Platform	Lower Landing Level(Meters)	Upper Landing Level(Meters)	Total Rise(Meters)	Pk. Depth(Meters)	Head Room(Meters)	Clear Door Opening(Meters)	Internal shaft Size(Width x Depth)(Meters)	Hanging/Non Hanging	Through Car	Type of Lift/Passenger /Freight	Remarks
GRANT ROAD	Access Bank-1	101	Ground level, Top of Box, Concourse	-9.47	4	13.47	1.75	4.25	1.2	2.5 x 2.1	Hanging		Passenger	REF: DRAWING NO: UGC02-ARP-SGR-03001-001-A
	Access Bank-2	102	Ground level, Top of Box, Concourse	-9.47	4	13.47	1.75	4.25	1.2	2.5 x 2.1	Hanging		Passenger	UGC02-ARP-SGR-03001-001-A
	Access Bank-3	103	Ground level, Top of Box, Concourse	-9.47	4	13.47	1.75	4.25	1.2	2.5 x 2.1	Hanging		Passenger	UGC02-ARP-SGR-03001-001-A
	VT BANK-1	104	Concourse, Intermediate Mezzanine, Platform	-11.97	-9.47	2.5	1.69	4.25	1.2	2.5 x 1.9	Non-Hanging		Passenger	UGC02-ARP-SGR-03001-001-A
	VT BANK-2	105	Concourse, Intermediate Mezzanine, Platform	-11.97	-9.47	2.5	1.69	4.25	1.2	2.5 x 1.9	Non-Hanging		Passenger	UGC02-ARP-SGR-03001-001-A

Station name	Area code	Escalator Number	Floor Served: Street, top of box, concourse, mezzanine, Platform	Lower Working point	Upper working point	Total Rise	With Internal Clear	PK Depth	PK Width	PK Length	Direction	Remarks
GRANT ROAD	ACCESS BANK-1	AES-01	Top of Box to Ground Level	-4.33	4.00	8.33	1.00	1.55	1.75	9.50	Ascending	REF: DRAWING NO: UGC02-ARP-SGR-03001-001-A
		AES-01.1	Top of Box to Ground Level	-4.33	4.00	8.33	1.00	1.55	1.75	9.50	Ascending	UGC02-ARP-SGR-03001-001-A
		AES-01.2	Concourse to Top of Box	-9.47	-4.33	5.14	1.00	1.55	1.75	6.50	Descending	UGC02-ARP-SGR-03001-001-A
	ACCESS BANK-2	AES-02	Top of Box to Ground level	-4.33	4.00	8.33	1.00	1.55	1.75	9.50	Ascending	UGC02-ARP-SGR-03001-001-A
		AES-02.1	Top of Box to Ground level	-4.33	4.00	8.33	1.00	1.55	1.75	9.50	Ascending	UGC02-ARP-SGR-03001-001-A
		AES-02.2	Concourse to Top of Box	-9.47	-4.33	5.14	1.00	1.55	1.75	6.50	Descending	UGC02-ARP-SGR-03001-001-A
VT BANK-1	ES-01	Platform to Concourse	-11.97	-9.47	2.5	1.00	1.55	1.75	6.50	Ascending	REF: DRAWING NO: UGC02-ARP-SGR-03001-001-A	
	ES-01.1	Platform to Concourse	-11.97	-9.47	2.5	1.00	1.55	1.75	6.50	Ascending	UGC02-ARP-SGR-03001-001-A	
	ES-01.2	Platform to Concourse	-11.97	-9.47	2.5	1.00	1.55	1.75	6.50	Ascending	UGC02-ARP-SGR-03001-001-A	
	ES-01.3	Platform to Concourse	-11.97	-9.47	2.5	1.00	1.55	1.75	6.50	Ascending	UGC02-ARP-SGR-03001-001-A	
	ES-01.4	Platform to Concourse	-11.97	-9.47	2.5	1.00	1.55	1.75	6.50	Ascending	UGC02-ARP-SGR-03001-001-A	
VT BANK-2	ES-02	Mezzanine to Concourse	-10.72	-9.47	1.25	1.00	1.55	1.75	6.50	Ascending	REF: DRAWING NO: UGC02-ARP-SGR-03001-001-A	
	ES-02.1	Mezzanine to Concourse	-10.72	-9.47	1.25	1.00	1.55	1.75	6.50	Ascending	UGC02-ARP-SGR-03001-001-A	
	ES-02.2	Platform to Concourse	-11.97	-9.47	2.5	1.00	1.55	1.75	6.50	Ascending	UGC02-ARP-SGR-03001-001-A	
	ES-02.3	Platform to Concourse	-11.97	-9.47	2.5	1.00	1.55	1.75	6.50	Ascending	UGC02-ARP-SGR-03001-001-A	
	ES-02.4	Platform to Concourse	-11.97	-9.47	2.5	1.00	1.55	1.75	6.50	Ascending	UGC02-ARP-SGR-03001-001-A	

Reference Drawings :-

Maple Consultants

Notification:

Assessor: [Signature]

Discipline Lead: [Signature]

En Inset: [Signature]

Notes:

A: Included in the DPR No. 001

B: No Objection Certificate (NOC) for station is required

C: No Objection Certificate (NOC) for station is required

Detail Design Consultant: **ayesa**

Contractor: **HCC - HCC-MMS JV**

Project Title: **MUMBAI METRO LINE - 3 (COLABA-BANDRA-SEEPZ) CONTRACT UGC-02**

Contractor UGC-02: Design & Construction of Underground Stations Associated Turnings

Scale: 1:300

Date: 30-10-2018

Map: [Signature]

Structure: [Signature]

Mumbai Metro Rail Corporation Ltd.

GRANT ROAD STATION CONCOURSE LEVEL GENERAL LAYOUT

Drawn: [Signature]

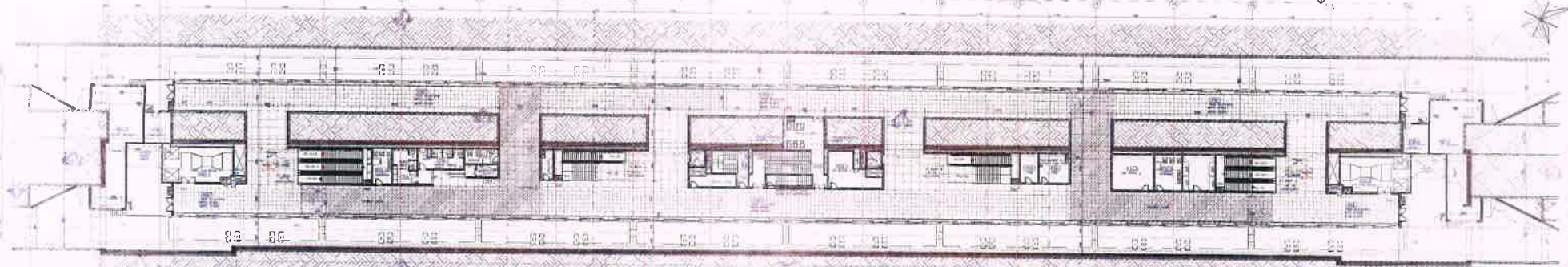
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File: [Signature]

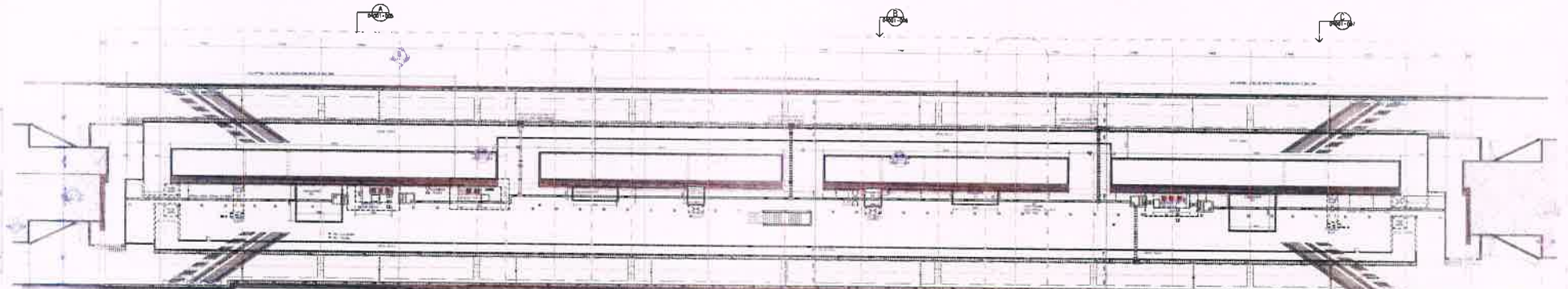
DWG Status: [Signature]

P-Pre/Inr ID-Definit/et C-Construction Reference/Good For Construction B-Ae But

CAD File No: UGC02-ARP-SGR-03001-001-B



PLATFORM LEVEL -21



UNDERCROFT LEVEL -2.00

GRANT ROAD STATION

NO.	DESCRIPTION	ROOM	AREA	HEIGHT	COL.	FIRE RATING
1	Platform	Platform	100.00	3.00	RC	100 Fire Rated
2	Undercroft	Undercroft	100.00	3.00	RC	100 Fire Rated
3	Stair	Stair	10.00	3.00	RC	100 Fire Rated
4	Escalator	Escalator	10.00	3.00	RC	100 Fire Rated
5	Service	Service	10.00	3.00	RC	100 Fire Rated
6	Storage	Storage	10.00	3.00	RC	100 Fire Rated
7	WC	WC	10.00	3.00	RC	100 Fire Rated
8	Plant	Plant	10.00	3.00	RC	100 Fire Rated
9	MEP	MEP	10.00	3.00	RC	100 Fire Rated
10	Other	Other	10.00	3.00	RC	100 Fire Rated

Item No.	Area Code	Room	Room Name	Area (sqm)	Height (m)	Column	Fire Rating	Remarks
1	GRANT ROAD	Platform	Platform	100.00	3.00	RC	100 Fire Rated	
2	GRANT ROAD	Undercroft	Undercroft	100.00	3.00	RC	100 Fire Rated	
3	GRANT ROAD	Stair	Stair	10.00	3.00	RC	100 Fire Rated	
4	GRANT ROAD	Escalator	Escalator	10.00	3.00	RC	100 Fire Rated	
5	GRANT ROAD	Service	Service	10.00	3.00	RC	100 Fire Rated	
6	GRANT ROAD	Storage	Storage	10.00	3.00	RC	100 Fire Rated	
7	GRANT ROAD	WC	WC	10.00	3.00	RC	100 Fire Rated	
8	GRANT ROAD	Plant	Plant	10.00	3.00	RC	100 Fire Rated	
9	GRANT ROAD	MEP	MEP	10.00	3.00	RC	100 Fire Rated	
10	GRANT ROAD	Other	Other	10.00	3.00	RC	100 Fire Rated	

GENERAL NOTE -

- This Volume 1.0 scope is for station general arrangement / underground structures, further details to be developed on volume 2.0 station architectural details and volume 2B typical details.
- Above ground Entry-exit elevations shown as an intent indication. It will be developed in volume 2.A Above ground structures after consultation with GC/MMRC.
- Reference to materials and finishes are intent indicative. It will be defined on volume 2.A & 2.B station architectural details after consultation with GC/MMRC.
- Sizes of Ventilation ducts/shafts subject to verification with 1st contractor's size upward.
- As per agreement with GC architect, 150 mm riser has been adopted on public staircase.
- Equipment on service rooms is shown as an accompanying indication. Detailed equipment layout to be developed as per relevant interface by relevant disciplines.
- The configuration of number of stairs-escalators on each entry exit has been discussed and agreed with GC/MMRC on review meetings, the final configuration given the site constraints has been adopted.
- Concourse level headroom cannot be changed as per 5400mm requirement due to unavoidable site constraints, a clear headroom of 4600 has been adopted. The workability of the services located on the level with the available headroom has been discussed with GC relevant disciplines and presented to MMRC.
- Definition of structural members shown on these drawings will be finalized by structural submissions after approval to this general arrangement. All drawings, any change in structural sizing will be adopted and all necessary adjustments will be done and architectural layout will be submitted for review.

Reference Drawings
-Ref 6

Notes
1. As shown on the drawings.
2. As per the approved Bill of Materials (BOM).
3. As per the approved Bill of Materials (BOM).
4. As per the approved Bill of Materials (BOM).
5. As per the approved Bill of Materials (BOM).
6. As per the approved Bill of Materials (BOM).
7. As per the approved Bill of Materials (BOM).
8. As per the approved Bill of Materials (BOM).
9. As per the approved Bill of Materials (BOM).
10. As per the approved Bill of Materials (BOM).

Consulantis

mable

Notification: A B C

As noted in I & E DBR No.

A: Objection to the Bill of Materials (BOM) is not raised.
B: No Objection is raised.
C: Notice of No Objection.

Assessor: Discipline Leader: En Ineer:

Rev.	Date	Drawn	Description	Checked	Approved
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

avesa

Project Title: **MUMBAI METRO LINE - 3 (COLABA-BANDRA-SEEPZ) CONTRACT UGC-02**

Contractor: **HCC - MMS JV**

Contractor: **Ugc-02 (Detail) Construction of Underground Stations & Associated Tunnels**

Scale: 1:500

Date: 10-10-2016

MUMBAI METRO RAIL CORPORATION LTD.

HCC - MMS JV

Drawn: T/A

Checked: [Signature]

Approved: [Signature]

DDC Interdisciplinary Coordination Sign off

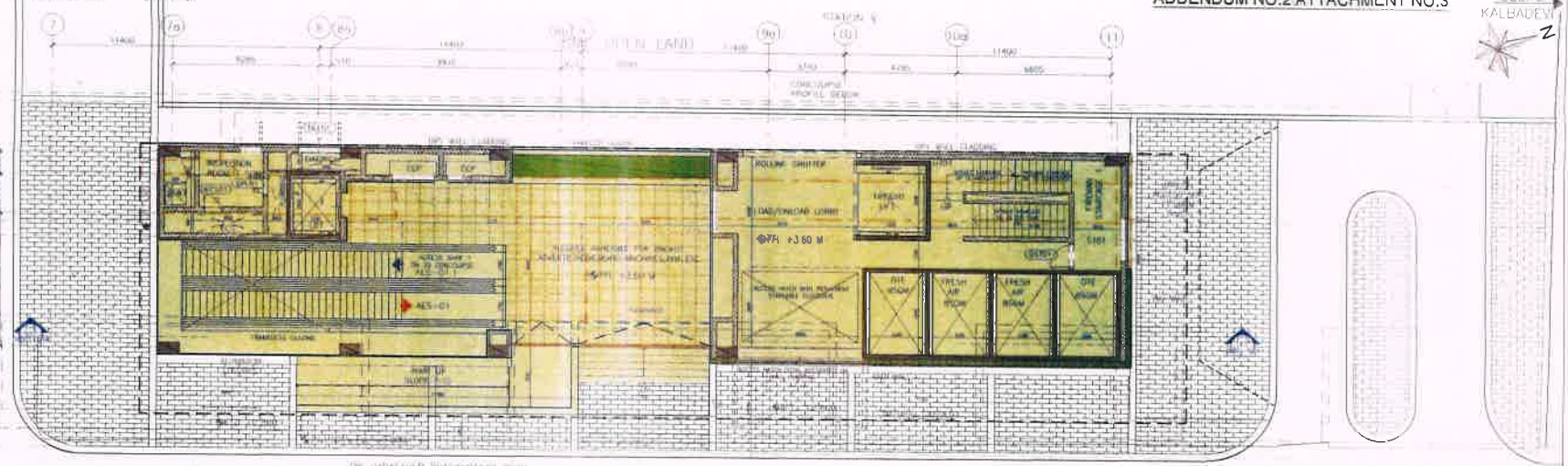
Re: DWD Station

P - Prelim / D - Detail / C - Construction / H - Health / S - Good For Construction / B - As Built

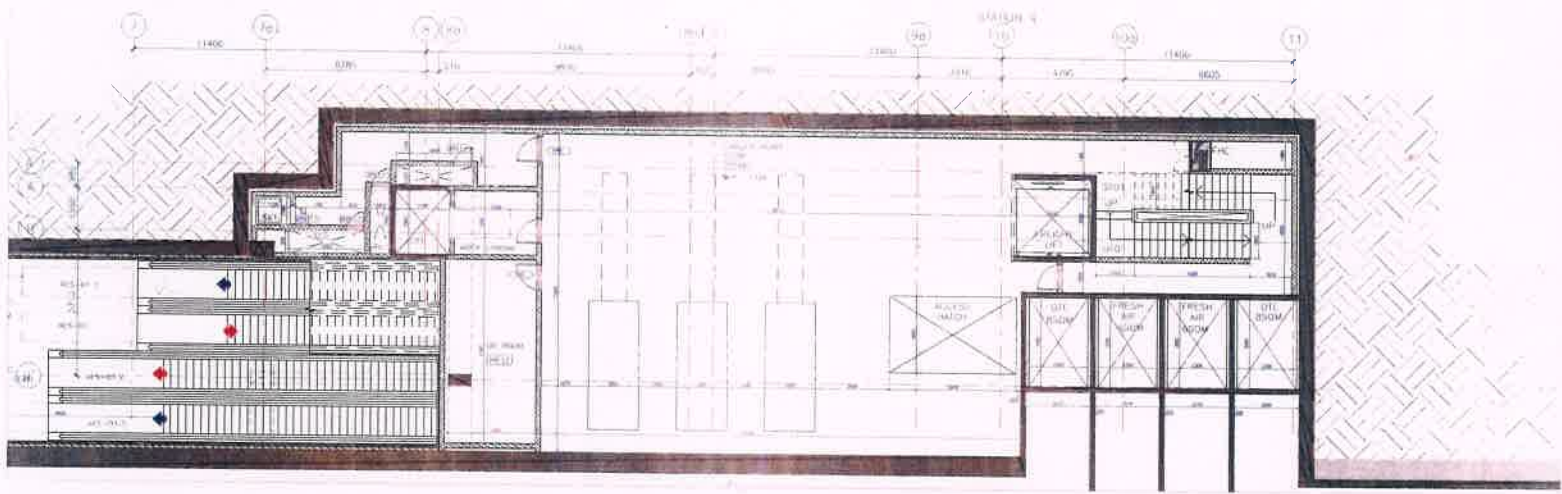
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MM3-CBS-TVE (P2L2)



GROUND LEVEL PLAN
SCALE: 1/500



TOP OF BOX LEVEL PLAN
SCALE: 1/500

NO.	DESCRIPTION	QUANTITY	AREA (SQ. MET.)
1	CONCRETE	1.2	87
2	STEEL	1.2	87

NO.	DESCRIPTION	QUANTITY	AREA (SQ. MET.)
1	CONCRETE	1.2	87
2	STEEL	1.2	87

Reference Drawings

Rev	SP	11.23
-----	----	-------

General Consultants

Notification: A B C

As noted in the DSR No. dated: _____

A: Objection to the proposal is returned
B: The proposal is approved
C: Notice of No Objection

Assessor	Discipline Leader	En Inear

Rev	Date	Drawn	Description	Checked	Approved
B	20161230	AK	REVISED DEFINITIVE DESIGN SUBMISSION	SM	SM DAL
A	20160801	MS	DEFINITIVE DESIGN SUBMISSION	SM	SM DAL

Delayed Design Consultant:

Project Title:
MUMBAI METRO LINE - 3 (COLABA-BANDRA-BEEP)
CONTRACT UGC-02

Contractor UGC-02 Design Construction of Underground Stations Associated Tunnels

Contractor:

HCC-MMS JV

DDC Interdisciplinary Coordination Sign off

MUMBAI METRO RAIL CORPORATION

GRAND ROAD STATION ANCILLARY LAYOUT SHEET 1/3

Drawn: Tee: _____

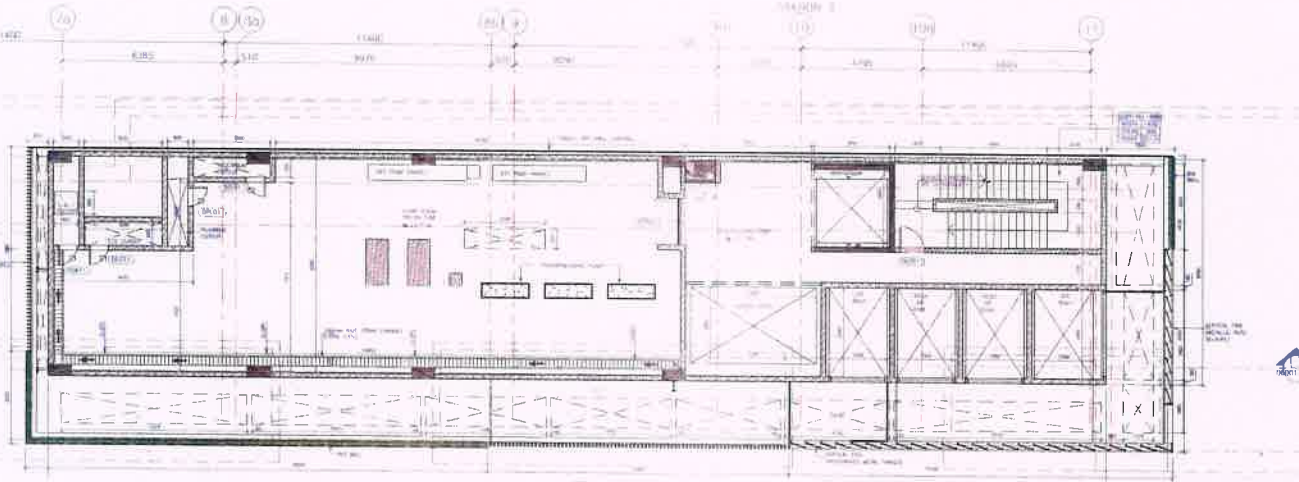
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Scale: 1:100

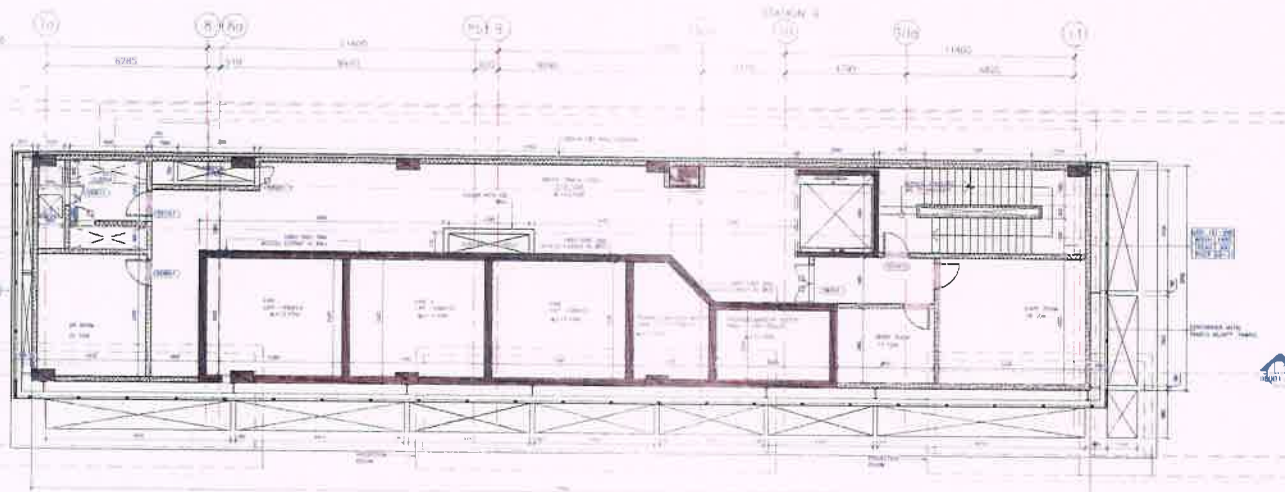
Date: 30-10-2016

CAD File No: UGC02-ARP-SGR-06001-001-B





FIRST FLOOR LEVEL PLAN



SECOND FLOOR LEVEL PLAN

NO.	REVISION	DATE	BY
1	ISSUED FOR PERMIT	10/10/2018	AK
2	ISSUED FOR CONSTRUCTION	10/10/2018	AK

NO.	REVISION	DATE	BY
1	ISSUED FOR PERMIT	10/10/2018	AK
2	ISSUED FOR CONSTRUCTION	10/10/2018	AK

Reference Drawings

-R-16 X-R-16 X-2

- 1. All dimensions are in meters.
- 2. All dimensions are to be taken as shown.
- 3. All dimensions are to be taken as shown unless otherwise specified.
- 4. All dimensions are to be taken as shown unless otherwise specified.
- 5. All dimensions are to be taken as shown unless otherwise specified.

General Consultants

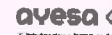


Notification

- A As noted in the DBR No. noted
- B (Objection to the result) action is required
- C (No objection) action is required

Assessor	Discipline Leader	En. Invert	B	2018.10.30	AK	REVISED DEFINITIVE DESIGN SUBMISSION
			A	20.10.2018	MS	DEFINITIVE DESIGN SUBMISSION
			Re	Date	Drawn	Description

Detail Design Consultant



Project Title:
MUMBAI METRO LINE - 3 (COLABA-BANDRA-SEEPZ)
CONTRACT UGC-02
Contractor UGC-02 : Design & Construction of Underground Stations & Associated Tunnels

Design	Checked	Approved
SM	SM	DAL
SM	SM	DAL
Date	Checked	Approved
1:100	AK	30-10-2018

Contractor



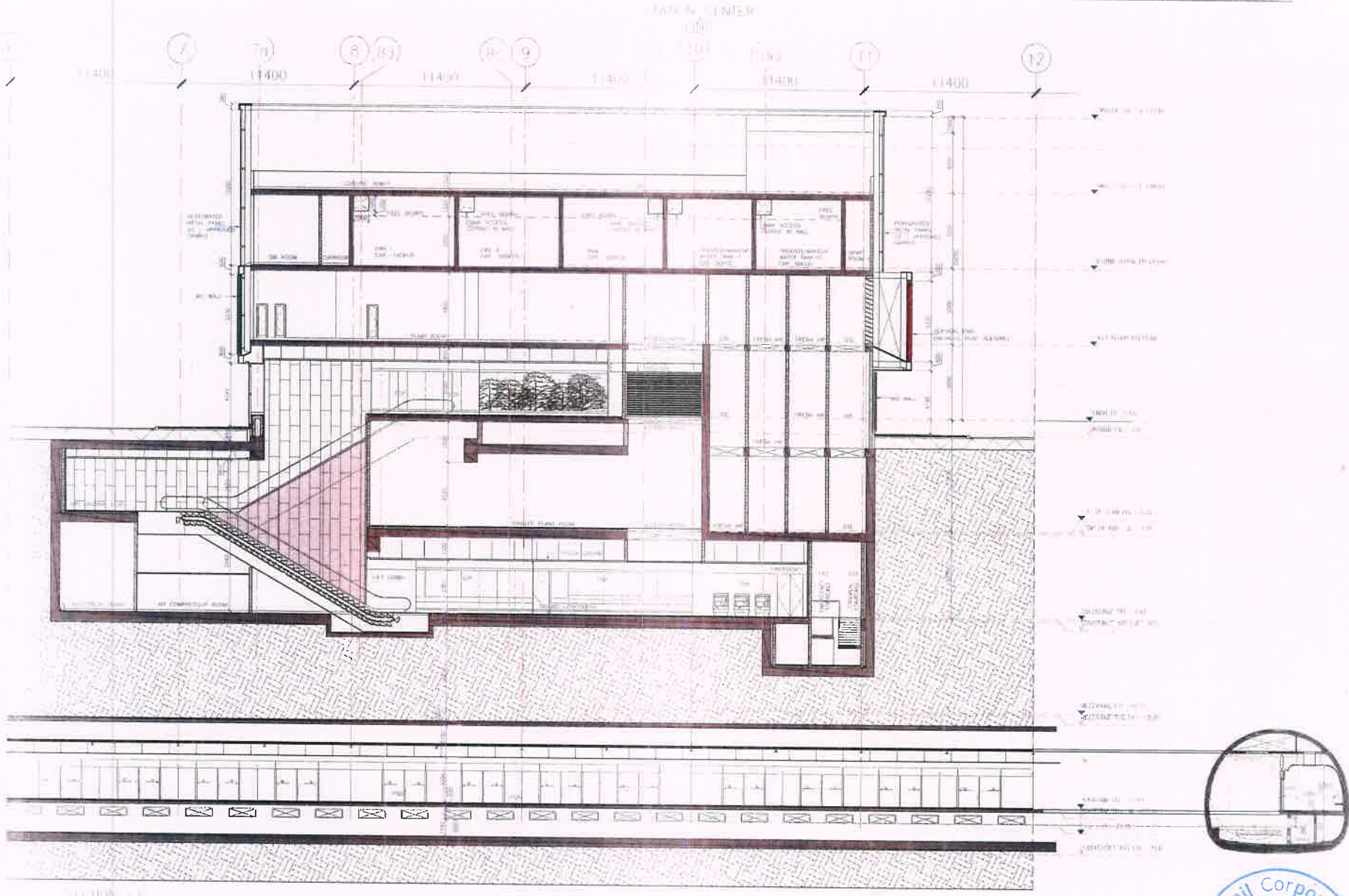
DDC Interdisciplinary Coordination Sign-off



Drawn: TRB

GRANT ROAD STATION
ANCILLARY LAYOUT SHEET 2/3

Drawn (Number)	UGC02-ARP-SGR-06001-002-B	Re	B	Drawn Status	D
P - Preliminary	D - Definitive	C - Construction Reference/Good For Construction	B - As Built		
CAD File Name	UGC02-ARP-SGR-06001-002 - B		A1		



Reference Drawings

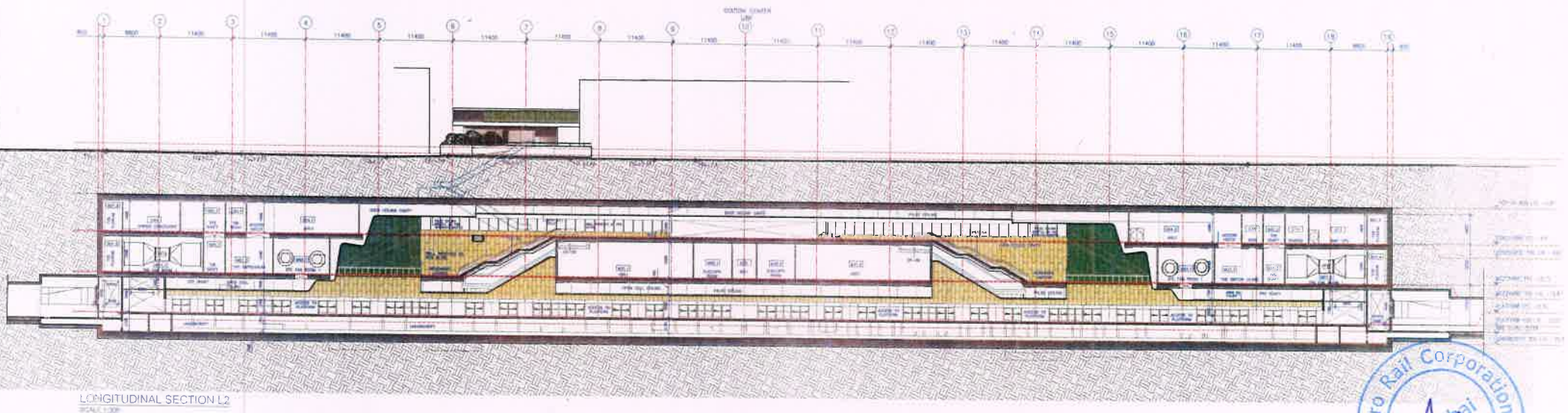
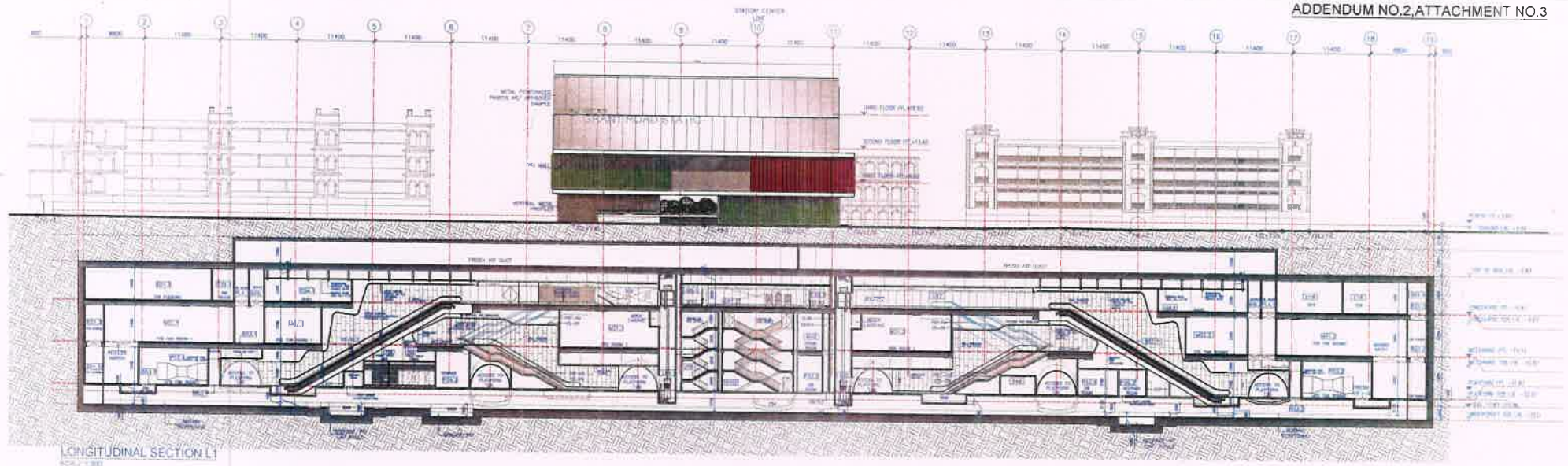
Notes

Assessor		Discipline Leader		En ineer	
B	20181030	AK	MS	SM	SM
A	20180601	MS	MS	SM	SM
Re	Date	Drawn	Description	Date	Checked/Approved

Detailed Design Consultant		
Project Title		
MUMBAI METRO LINE - 3 COLABA-BANDRA-SEEPZ		
CONTRACT UGC-02		
Contractor UGC-02 (Design) Construction of Underground Stations Associated Turnouts		
Design	Checked	Approved
By	By	By
AK	AK	AK
Date	Date	Date
30-10-2018		

Contractor	
HCC-MMS JV	
DDC Interdisciplinary Coordination Sign off	

GRANT ROAD STATION ANCILLARY SECTION	
Drawn Number	Re DWG Status
UGC02-ARP-SGR-06001-004-B	B
P-Pre/1/1/1-D-Definitive C-Construction Reference/Good For Construction B-As Built	
CAD File No	AT
UGC02-ARP-SGR-DR001-004-B	



Reference Drawings:
X-Ref: KR-AR-XX-X

Notes:
1. All dimensions are in millimeters.
2. All dimensions are to be read and not assumed.
3. Any discrepancy should be brought to the notice of MMRRA before execution of work at site.
4. This drawing shall be read in conjunction with all relevant Architectural, Structural, Plumbing, Fire Fighting, Electrical and Traffic Management drawings.

General Consultants:

mapie
Mumbai Metro Rail Corporation Limited

Notification:

A B C

As noted in the DSR No. dated:

A. Objection - a complete resubmission is required
B. No Objection with comments
C. Notice of No Objection

Assessor	Discipline Leader	Engineer

Rev	Date	Drawn	Description	Designed	Checked	Approved
B	20181030	SS	REVISED DEFINITIVE DESIGN SUBMISSION	SM	SM	DAL
A	20180601	BS	DEFINITIVE DESIGN SUBMISSION	SM	SM	DAL
A2	20171124	AS	REVISED PRELIMINARY DESIGN SUBMISSION	SM	SM	DAL
A1	20170724	VS	REVISED PRELIMINARY DESIGN SUBMISSION	SM	SM	DAL
A0	20170428	AS	PRELIMINARY DESIGN SUBMISSION	SM	SM	DAL

Detailed Design Consultant:

ayesa
Engineering & Architecture
14, 15th Floor, Haria, International Area, Sector 14, Gurgaon - 122002, Haryana

Project Title:
MUMBAI METRO LINE - 3 (COLABA-BANDRA-SEEPZ)
CONTRACT UGC-02
Contractor UGC-02: Design & Construction of Underground Stations & Associated Tunnels

Designed	Checked	Approved
<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>

Scale: 1:300
Drawn: SS
Date: 30-10-2018

Contractor:

HCC
HCC-MMS JV

Contractor UGC-02: Design & Construction of Underground Stations & Associated Tunnels

Scale: 1:300
Drawn: SS
Date: 30-10-2018

Mumbai Metro Rail Corporation Limited

Drawing Title:
**GRANT ROAD STATION
LONGITUDINAL SECTION L1 & L2**

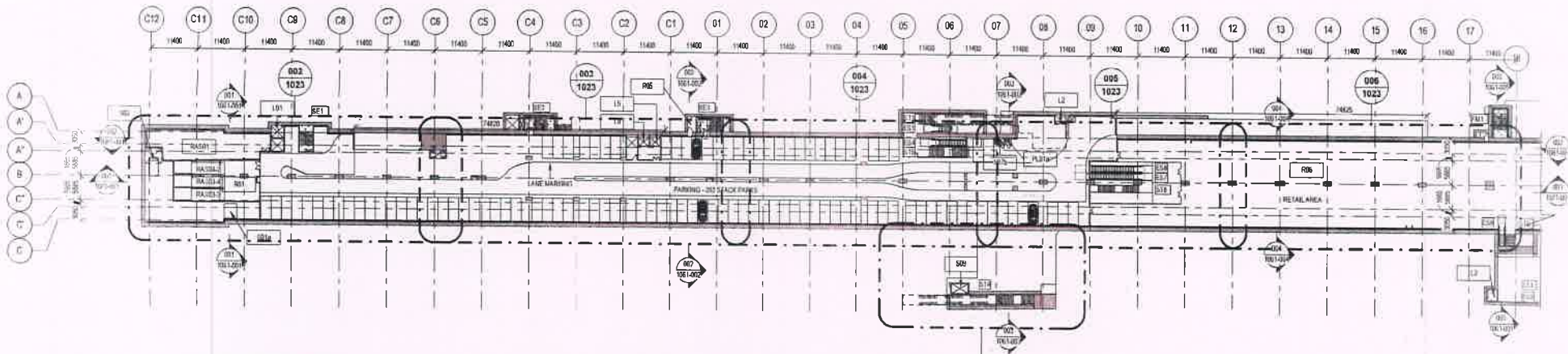
Drawing Number:
UGC02-ARP-SGR-08001-001-B

File: DWG
Status: B D

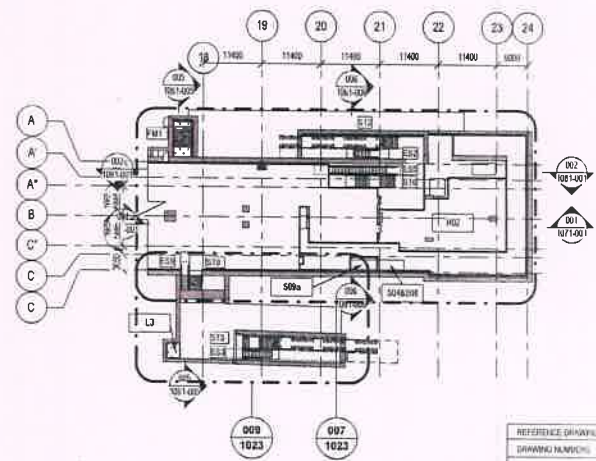
P - Preliminary, D - Definitive, C - Construction Reference/Good For Construction, B - As Built
CAD File Name: UGC02-ARP-SGR-08001-001-B

STATION CUFFE PARADE

TOWARDS SEEBZ



03-PARKING LEVEL



REFERENCE DRAWING	ISSUANCE TITLE
UGC-1-ARP-SCP-102-140-1	CONCRETE LEVEL PLAN
UGC-1-ARP-SCP-102-140-1	PLATFORM LEVEL PLAN
UGC-1-ARP-SCP-102-140-1	UNDERGROUND LEVEL PLAN
UGC-AL-GD-102663-01-1	ALLOCATION DRAWINGS

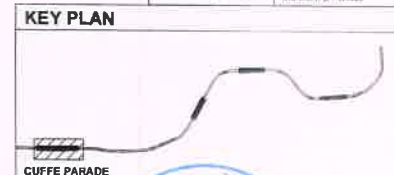
SYMBOL	DESCRIPTION
---	RETAIN WALL
---	CONCRETE
---	BRICKWORK
---	GLASS
---	WOOD
---	STEEL
---	...

SYMBOL	DESCRIPTION
---	RETAIN WALL
---	CONCRETE
---	BRICKWORK
---	GLASS
---	WOOD
---	STEEL
---	...

SYMBOL	DESCRIPTION	MIN. ROOM WIDTH	MIN. ROOM LENGTH	AREA
---	RETAIL SERVICES	3.00	3.00	9.00
---

OUTCUT NO.	DESCRIPTION	WIDTH	LENGTH	AREA
001	STATION EXHAUST	2.00	2.00	4.00
002

OUTCUT NO.	DESCRIPTION	WIDTH	LENGTH	AREA
003	STATION EXHAUST	2.00	2.00	4.00
004



1. ALL DIMENSIONS TO BE READ IN METERS AND LEVELS ARE IN METERS
2. ALL DIMENSIONS TO BE READ IN METERS AND LEVELS ARE IN METERS
3. ALL DIMENSIONS TO BE READ IN METERS AND LEVELS ARE IN METERS
4. ALL DIMENSIONS TO BE READ IN METERS AND LEVELS ARE IN METERS
5. ALL DIMENSIONS TO BE READ IN METERS AND LEVELS ARE IN METERS
6. ALL DIMENSIONS TO BE READ IN METERS AND LEVELS ARE IN METERS
7. ALL DIMENSIONS TO BE READ IN METERS AND LEVELS ARE IN METERS
8. ALL DIMENSIONS TO BE READ IN METERS AND LEVELS ARE IN METERS
9. ALL DIMENSIONS TO BE READ IN METERS AND LEVELS ARE IN METERS
10. ALL DIMENSIONS TO BE READ IN METERS AND LEVELS ARE IN METERS

Checked by	Reviewed by	Approved by	Date	Drawn	Checked	Approved

SYSTRA

MUMBAI METRO LINE 3 (COLABA-BANDRA-SEEPZ)

CONTRACT UNDER DESIGN AND CONSTRUCTION OF UNDERGROUND STATION AT CUFFE PARADE, SEEPZ BRANCH, CHURCHGATE & MUTATAM CHOKI AND ASSOCIATED TUNNELS

Designed: AS CHOYAN, Checked: AS CHOYAN, Approved: AS CHOYAN

Scale: 1:100, Date: 23-10-2018

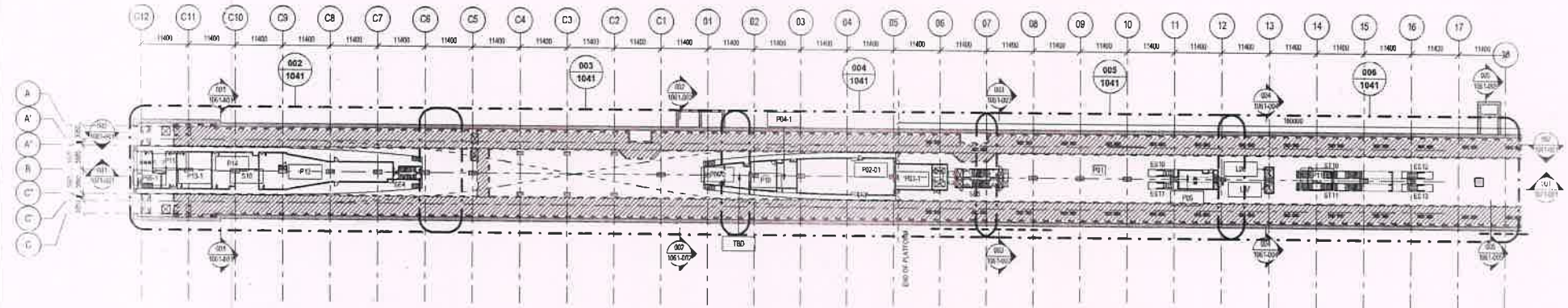
PD SUBMISSION

MUMBAI METRO RAIL PROJECT, LINE No. 3 COLABA-BANDRA-SEEPZ

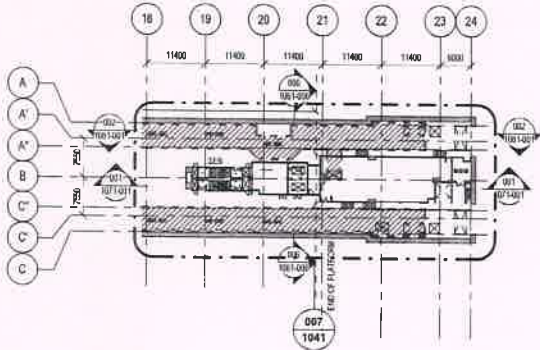
CUFFE PARADE STATION RETAIL AND PARKING LEVEL PLAN

UGC-01-ARP-SCP-1023-001

Scale: A, P



05-PLATFORM LEVEL



LEGEND

- CONCRETE
- STEEL DECK
- MECHANICAL ROOM
- MECHANICAL ROOM
- DOCKET AREA
- PRESSURIZED AREA

ABBREVIATIONS

- CC CONCRETE
- STC STRUCTURAL STEEL
- MECH MECHANICAL
- ELV ELECTRICAL
- PLUMB PLUMBING
- PAINT PAINT
- GLASS GLASS
- WOOD WOOD
- IRON IRON
- STEEL STEEL
- ALUM ALUMINUM
- BRASS BRASS
- BRONZE BRONZE
- COPPER COPPER
- LEAD LEAD
- ZINC ZINC
- NICKEL NICKEL
- CHROME CHROME
- INCONEL INCONEL
- STAINLESS STEEL STAINLESS STEEL
- GLASS GLASS
- WOOD WOOD
- IRON IRON
- STEEL STEEL
- ALUM ALUMINUM
- BRASS BRASS
- BRONZE BRONZE
- COPPER COPPER
- LEAD LEAD
- ZINC ZINC
- NICKEL NICKEL
- CHROME CHROME
- INCONEL INCONEL
- STAINLESS STEEL STAINLESS STEEL

PLATFORM LEVEL ROOM SCHEDULE

ROOM NO.	DESCRIPTION	MN ROOM WIDTH	MN ROOM LENGTH	Area
PO1	RAIL AREA	179.16	11.80	2114.88
PO2	AUXILIARY SUBSTATION	29.76	6.68	199.77
PO3	AUXILIARY SUBSTATION	20.42	6.43	132.31
PO4	SAFE ROOM	3.06	3.06	9.37
PO5	SAFE ROOM	7.48	5.30	39.65
PO6	ELECTRICAL ROOM	7.55	4.62	34.97
PO7	WASTE ELECTRIC ROOM	8.72	3.91	34.11
PO8	STORAGE ROOM	18.80	1.95	36.75
PO9	STORAGE ROOM	6.64	3.27	21.72
PO10	TRUCK DRIVER ROOM	7.80	5.16	40.26
PO11	NIGHT SAFETY & TRAIN STANDING ROOM	40.07	3.21	128.63
PO12	SAFE ROOM	4.52	3.43	15.50
PO13	SAFE ROOM	33.88	5.48	185.65
PO14	SAFE ROOM	10.83	8.40	90.97
PO15	WAY OUT PROTECTOR ROOM	44.96	4.28	192.44
PO16	WAY OUT PROTECTOR ROOM	5.52	3.25	18.04
PO17	SAFE ROOM	1.18	1.17	1.38
PO18	SAFE ROOM	1.18	1.17	1.38
PO19	SAFE ROOM	1.18	1.17	1.38
PO20	SAFE ROOM	1.18	1.17	1.38
PO21	SAFE ROOM	1.18	1.17	1.38
PO22	SAFE ROOM	1.18	1.17	1.38
PO23	SAFE ROOM	1.18	1.17	1.38
PO24	SAFE ROOM	1.18	1.17	1.38
PO25	SAFE ROOM	1.18	1.17	1.38
PO26	SAFE ROOM	1.18	1.17	1.38
PO27	SAFE ROOM	1.18	1.17	1.38
PO28	SAFE ROOM	1.18	1.17	1.38
PO29	SAFE ROOM	1.18	1.17	1.38
PO30	SAFE ROOM	1.18	1.17	1.38
PO31	SAFE ROOM	1.18	1.17	1.38
PO32	SAFE ROOM	1.18	1.17	1.38
PO33	SAFE ROOM	1.18	1.17	1.38
PO34	SAFE ROOM	1.18	1.17	1.38
PO35	SAFE ROOM	1.18	1.17	1.38
PO36	SAFE ROOM	1.18	1.17	1.38
PO37	SAFE ROOM	1.18	1.17	1.38
PO38	SAFE ROOM	1.18	1.17	1.38
PO39	SAFE ROOM	1.18	1.17	1.38
PO40	SAFE ROOM	1.18	1.17	1.38
PO41	SAFE ROOM	1.18	1.17	1.38
PO42	SAFE ROOM	1.18	1.17	1.38
PO43	SAFE ROOM	1.18	1.17	1.38
PO44	SAFE ROOM	1.18	1.17	1.38
PO45	SAFE ROOM	1.18	1.17	1.38
PO46	SAFE ROOM	1.18	1.17	1.38
PO47	SAFE ROOM	1.18	1.17	1.38
PO48	SAFE ROOM	1.18	1.17	1.38
PO49	SAFE ROOM	1.18	1.17	1.38
PO50	SAFE ROOM	1.18	1.17	1.38
PO51	SAFE ROOM	1.18	1.17	1.38
PO52	SAFE ROOM	1.18	1.17	1.38
PO53	SAFE ROOM	1.18	1.17	1.38
PO54	SAFE ROOM	1.18	1.17	1.38
PO55	SAFE ROOM	1.18	1.17	1.38
PO56	SAFE ROOM	1.18	1.17	1.38
PO57	SAFE ROOM	1.18	1.17	1.38
PO58	SAFE ROOM	1.18	1.17	1.38
PO59	SAFE ROOM	1.18	1.17	1.38
PO60	SAFE ROOM	1.18	1.17	1.38
PO61	SAFE ROOM	1.18	1.17	1.38
PO62	SAFE ROOM	1.18	1.17	1.38
PO63	SAFE ROOM	1.18	1.17	1.38
PO64	SAFE ROOM	1.18	1.17	1.38
PO65	SAFE ROOM	1.18	1.17	1.38
PO66	SAFE ROOM	1.18	1.17	1.38
PO67	SAFE ROOM	1.18	1.17	1.38
PO68	SAFE ROOM	1.18	1.17	1.38
PO69	SAFE ROOM	1.18	1.17	1.38
PO70	SAFE ROOM	1.18	1.17	1.38
PO71	SAFE ROOM	1.18	1.17	1.38
PO72	SAFE ROOM	1.18	1.17	1.38
PO73	SAFE ROOM	1.18	1.17	1.38
PO74	SAFE ROOM	1.18	1.17	1.38
PO75	SAFE ROOM	1.18	1.17	1.38
PO76	SAFE ROOM	1.18	1.17	1.38
PO77	SAFE ROOM	1.18	1.17	1.38
PO78	SAFE ROOM	1.18	1.17	1.38
PO79	SAFE ROOM	1.18	1.17	1.38
PO80	SAFE ROOM	1.18	1.17	1.38
PO81	SAFE ROOM	1.18	1.17	1.38
PO82	SAFE ROOM	1.18	1.17	1.38
PO83	SAFE ROOM	1.18	1.17	1.38
PO84	SAFE ROOM	1.18	1.17	1.38
PO85	SAFE ROOM	1.18	1.17	1.38
PO86	SAFE ROOM	1.18	1.17	1.38
PO87	SAFE ROOM	1.18	1.17	1.38
PO88	SAFE ROOM	1.18	1.17	1.38
PO89	SAFE ROOM	1.18	1.17	1.38
PO90	SAFE ROOM	1.18	1.17	1.38
PO91	SAFE ROOM	1.18	1.17	1.38
PO92	SAFE ROOM	1.18	1.17	1.38
PO93	SAFE ROOM	1.18	1.17	1.38
PO94	SAFE ROOM	1.18	1.17	1.38
PO95	SAFE ROOM	1.18	1.17	1.38
PO96	SAFE ROOM	1.18	1.17	1.38
PO97	SAFE ROOM	1.18	1.17	1.38
PO98	SAFE ROOM	1.18	1.17	1.38
PO99	SAFE ROOM	1.18	1.17	1.38
PO100	SAFE ROOM	1.18	1.17	1.38

OUTLET SCHEDULE

OUTLET NO.	DESCRIPTION	WIDTH	LENGTH	AREA
PO1	SAFE ROOM	3.00	2.00	6.00
PO2	SAFE ROOM	2.00	2.00	4.00
PO3	SAFE ROOM	2.00	2.00	4.00
PO4	SAFE ROOM	2.00	2.00	4.00
PO5	SAFE ROOM	2.00	2.00	4.00
PO6	SAFE ROOM	2.00	2.00	4.00
PO7	SAFE ROOM	2.00	2.00	4.00
PO8	SAFE ROOM	2.00	2.00	4.00
PO9	SAFE ROOM	2.00	2.00	4.00
PO10	SAFE ROOM	2.00	2.00	4.00
PO11	SAFE ROOM	2.00	2.00	4.00
PO12	SAFE ROOM	2.00	2.00	4.00
PO13	SAFE ROOM	2.00	2.00	4.00
PO14	SAFE ROOM	2.00	2.00	4.00
PO15	SAFE ROOM	2.00	2.00	4.00
PO16	SAFE ROOM	2.00	2.00	4.00
PO17	SAFE ROOM	2.00	2.00	4.00
PO18	SAFE ROOM	2.00	2.00	4.00
PO19	SAFE ROOM	2.00	2.00	4.00
PO20	SAFE ROOM	2.00	2.00	4.00
PO21	SAFE ROOM	2.00	2.00	4.00
PO22	SAFE ROOM	2.00	2.00	4.00
PO23	SAFE ROOM	2.00	2.00	4.00
PO24	SAFE ROOM	2.00	2.00	4.00
PO25	SAFE ROOM	2.00	2.00	4.00
PO26	SAFE ROOM	2.00	2.00	4.00
PO27	SAFE ROOM	2.00	2.00	4.00
PO28	SAFE ROOM	2.00	2.00	4.00
PO29	SAFE ROOM	2.00	2.00	4.00
PO30	SAFE ROOM	2.00	2.00	4.00
PO31	SAFE ROOM	2.00	2.00	4.00
PO32	SAFE ROOM	2.00	2.00	4.00
PO33	SAFE ROOM	2.00	2.00	4.00
PO34	SAFE ROOM	2.00	2.00	4.00
PO35	SAFE ROOM	2.00	2.00	4.00
PO36	SAFE ROOM	2.00	2.00	4.00
PO37	SAFE ROOM	2.00	2.00	4.00
PO38	SAFE ROOM	2.00	2.00	4.00
PO39	SAFE ROOM	2.00	2.00	4.00
PO40	SAFE ROOM	2.00	2.00	4.00
PO41	SAFE ROOM	2.00	2.00	4.00
PO42	SAFE ROOM	2.00	2.00	4.00
PO43	SAFE ROOM	2.00	2.00	4.00
PO44	SAFE ROOM	2.00	2.00	4.00
PO45	SAFE ROOM	2.00	2.00	4.00
PO46	SAFE ROOM	2.00	2.00	4.00
PO47	SAFE ROOM	2.00	2.00	4.00
PO48	SAFE ROOM	2.00	2.00	4.00
PO49	SAFE ROOM	2.00	2.00	4.00
PO50	SAFE ROOM	2.00	2.00	4.00
PO51	SAFE ROOM	2.00	2.00	4.00
PO52	SAFE ROOM	2.00	2.00	4.00
PO53	SAFE ROOM	2.00	2.00	4.00
PO54	SAFE ROOM	2.00	2.00	4.00
PO55	SAFE ROOM	2.00	2.00	4.00
PO56	SAFE ROOM	2.00	2.00	4.00
PO57	SAFE ROOM	2.00	2.00	4.00
PO58	SAFE ROOM	2.00	2.00	4.00
PO59	SAFE ROOM	2.00	2.00	4.00
PO60	SAFE ROOM	2.00	2.00	4.00
PO61	SAFE ROOM	2.00	2.00	4.00
PO62	SAFE ROOM	2.00	2.00	4.00
PO63	SAFE ROOM	2.00	2.00	4.00
PO64	SAFE ROOM	2.00	2.00	4.00
PO65	SAFE ROOM	2.00	2.00	4.00
PO66	SAFE ROOM	2.00	2.00	4.00
PO67	SAFE ROOM	2.00	2.00	4.00
PO68	SAFE ROOM	2.00	2.00	4.00
PO69	SAFE ROOM	2.00	2.00	4.00
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PO71	SAFE ROOM	2.00	2.00	4.00
PO72	SAFE ROOM	2.00	2.00	4.00
PO73	SAFE ROOM	2.00	2.00	4.00
PO74	SAFE ROOM	2.00	2.00	4.00
PO75	SAFE ROOM	2.00	2.00	4.00
PO76	SAFE ROOM	2.00	2.00	4.00
PO77	SAFE ROOM	2.00	2.00	4.00
PO78	SAFE ROOM	2.00	2.00	4.00
PO79	SAFE ROOM	2.00	2.00	4.00
PO80	SAFE ROOM	2.00	2.00	4.00
PO81	SAFE ROOM	2.00	2.00	4.00
PO82	SAFE ROOM	2.00	2.00	4.00
PO83	SAFE ROOM	2.00	2.00	4.00
PO84	SAFE ROOM	2.00	2.00	4.00
PO85	SAFE ROOM	2.00	2.00	4.00
PO86	SAFE ROOM	2.00	2.00	4.00
PO87	SAFE ROOM	2.00	2.00	4.00
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PO89	SAFE ROOM	2.00	2.00	4.00
PO90	SAFE ROOM	2.00	2.00	4.00
PO91	SAFE ROOM	2.00	2.00	4.00
PO92	SAFE ROOM	2.00	2.00	4.00
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PO95	SAFE ROOM	2.00	2.00	4.00
PO96	SAFE ROOM	2.00	2.00	4.00
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PO98	SAFE ROOM	2.00	2.00	4.00
PO99	SAFE ROOM	2.00	2.00	4.00
PO100	SAFE ROOM	2.00	2.00	4.00

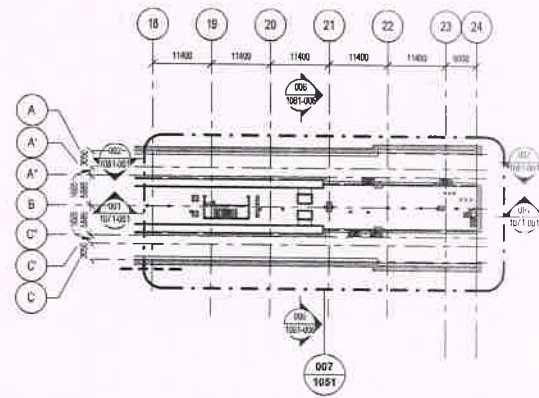
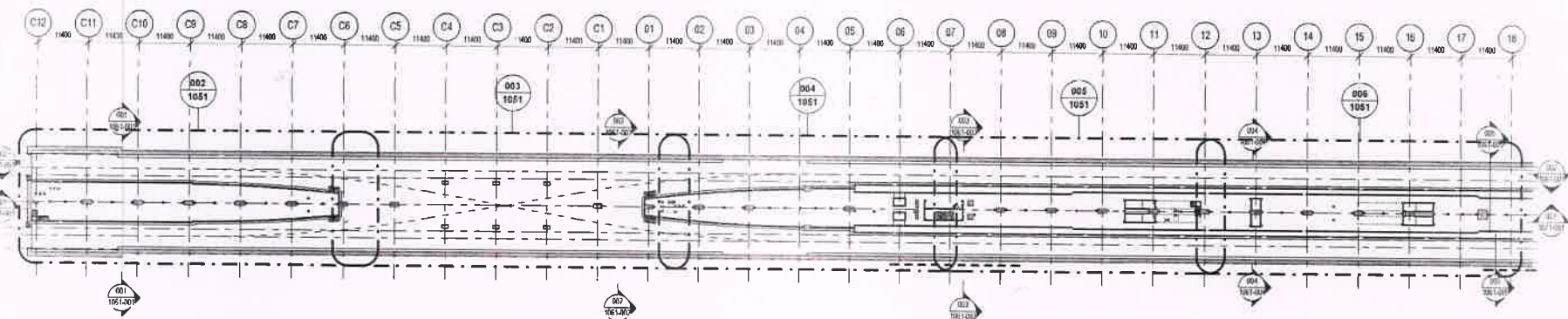
OUTLET SCHEDULE

OUTLET NO.	DESCRIPTION	WIDTH	LENGTH	AREA
PO1	SAFE ROOM	3.00	2.00	6.00
PO2	SAFE ROOM	2.00	2.00	4.00
PO3	SAFE ROOM	2.00	2.00	4.00
PO4	SAFE ROOM	2.00	2.00	4.00
PO5	SAFE ROOM	2.00	2.00	4.00
PO6	SAFE ROOM	2.00	2.00	4.00
PO7	SAFE ROOM	2.00	2.00	4.00
PO8	SAFE ROOM	2.00	2.00	4.00
PO9	SAFE ROOM	2.00	2.00	4.00
PO10	SAFE ROOM	2.00	2.00	4.00
PO11	SAFE ROOM	2.00	2.00	4.00
PO12	SAFE ROOM	2.00	2.00	4.00
PO13	SAFE ROOM	2.00	2.00	4.00
PO14	SAFE ROOM	2.00	2.00	4.00
PO15	SAFE ROOM	2.00	2.00	4.00
PO16	SAFE ROOM	2.00	2.00	4.00
PO17	SAFE ROOM	2.00	2.00	4.00
PO18	SAFE ROOM	2.00	2.00	4.00
PO19	SAFE ROOM	2.00	2.00	4.00
PO20	SAFE ROOM	2.00	2.00	4.00
PO21	SAFE ROOM	2.00	2.00	4.00
PO22	SAFE ROOM	2.00	2.00	4.00
PO23	SAFE ROOM	2.00	2.00	4.00
PO24	SAFE ROOM	2.00	2.00	4.00
PO25	SAFE ROOM	2.00	2.00	4.00
PO26	SAFE ROOM	2.00	2.00	4.00
PO27	SAFE ROOM	2.00	2.00	4.00
PO28	SAFE ROOM	2.00	2.00	4.00
PO29	SAFE ROOM	2.00	2.00	4.00
PO30	SAFE ROOM	2.00	2.00	4.00
PO31	SAFE ROOM	2.00	2.00	4.00
PO32	SAFE ROOM	2.00	2.00	4.00
PO33	SAFE ROOM	2.00	2.00	4.00
PO34	SAFE ROOM	2.00	2.00	4.00
PO35	SAFE ROOM	2.00	2.00	4.00
PO36	SAFE ROOM	2.00	2.00	4.00
PO37	SAFE ROOM	2.00	2.00	4.00
PO38	SAFE ROOM	2.00	2.00	4.00
PO39	SAFE ROOM	2.00	2.00	

STATION CUFFE PARADE

TOWARDS SEEBZ

07-UNDERCROFT LEVEL



SYMBOL	DESCRIPTION
(Symbol)	SECTION NUMBER
(Symbol)	GRID NUMBER
(Symbol)	GRID LINE
(Symbol)	GRID LINE
(Symbol)	GRID LINE
(Symbol)	PRESSURE CONTAINMENT AREA

SYMBOL	DESCRIPTION
(Symbol)	SECTION NUMBER
(Symbol)	GRID NUMBER
(Symbol)	GRID LINE
(Symbol)	GRID LINE
(Symbol)	GRID LINE
(Symbol)	PRESSURE CONTAINMENT AREA

OUTLET NO.	DESCRIPTION	WIDTH	LENGTH	AREA
001	STATION EXHAUST	3.00	2.00	6.00
002	STATION EXHAUST	3.00	2.00	6.00
003	STATION EXHAUST	3.00	2.00	6.00
004	STATION EXHAUST	3.00	2.00	6.00
005	STATION EXHAUST	3.00	2.00	6.00
006	STATION EXHAUST	3.00	2.00	6.00
007	STATION EXHAUST	3.00	2.00	6.00
008	STATION EXHAUST	3.00	2.00	6.00
009	STATION EXHAUST	3.00	2.00	6.00
010	STATION EXHAUST	3.00	2.00	6.00
011	STATION EXHAUST	3.00	2.00	6.00
012	STATION EXHAUST	3.00	2.00	6.00
013	STATION EXHAUST	3.00	2.00	6.00
014	STATION EXHAUST	3.00	2.00	6.00
015	STATION EXHAUST	3.00	2.00	6.00
016	STATION EXHAUST	3.00	2.00	6.00
017	STATION EXHAUST	3.00	2.00	6.00
018	STATION EXHAUST	3.00	2.00	6.00

OUTLET NO.	DESCRIPTION	WIDTH	LENGTH	AREA
001	STATION EXHAUST	3.00	2.00	6.00
002	STATION EXHAUST	3.00	2.00	6.00
003	STATION EXHAUST	3.00	2.00	6.00
004	STATION EXHAUST	3.00	2.00	6.00
005	STATION EXHAUST	3.00	2.00	6.00
006	STATION EXHAUST	3.00	2.00	6.00
007	STATION EXHAUST	3.00	2.00	6.00
008	STATION EXHAUST	3.00	2.00	6.00
009	STATION EXHAUST	3.00	2.00	6.00
010	STATION EXHAUST	3.00	2.00	6.00
011	STATION EXHAUST	3.00	2.00	6.00
012	STATION EXHAUST	3.00	2.00	6.00
013	STATION EXHAUST	3.00	2.00	6.00
014	STATION EXHAUST	3.00	2.00	6.00
015	STATION EXHAUST	3.00	2.00	6.00
016	STATION EXHAUST	3.00	2.00	6.00
017	STATION EXHAUST	3.00	2.00	6.00
018	STATION EXHAUST	3.00	2.00	6.00

REFERENCE DRAWING	DESCRIPTION
001	STATION EXHAUST
002	STATION EXHAUST
003	STATION EXHAUST
004	STATION EXHAUST
005	STATION EXHAUST
006	STATION EXHAUST
007	STATION EXHAUST
008	STATION EXHAUST
009	STATION EXHAUST
010	STATION EXHAUST
011	STATION EXHAUST
012	STATION EXHAUST
013	STATION EXHAUST
014	STATION EXHAUST
015	STATION EXHAUST
016	STATION EXHAUST
017	STATION EXHAUST
018	STATION EXHAUST

KEY PLAN

PD SUBMISSION

MUMBAI METRO RAIL PROJECT, LINE No. 3 COLABA-BANDRA-SEEPZ

CUFFE PARADE STATION UNDERCROFT LEVEL PLAN

DRG NO: UGC-01-ARP-SCP-1051-001

REV: A

DATE: 31-10-2018

GENERAL NOTE:

- ALL DIMENSIONS, UNLESS SPECIFIED, ARE IN METERS.
- ALL DIMENSIONS ARE TO FACE UNLESS SPECIFIED OTHERWISE.
- ALL DIMENSIONS FOR FINISHES ARE TO FACE UNLESS SPECIFIED OTHERWISE.
- STATION VENTING IS TO BE PROVIDED AS PER THE DRAWING AND UGC-01-ARP-SCP-1051-001.
- STATION VENTING IS TO BE PROVIDED AS PER THE DRAWING AND UGC-01-ARP-SCP-1051-001.
- STATION VENTING IS TO BE PROVIDED AS PER THE DRAWING AND UGC-01-ARP-SCP-1051-001.
- STATION VENTING IS TO BE PROVIDED AS PER THE DRAWING AND UGC-01-ARP-SCP-1051-001.
- STATION VENTING IS TO BE PROVIDED AS PER THE DRAWING AND UGC-01-ARP-SCP-1051-001.
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- STATION VENTING IS TO BE PROVIDED AS PER THE DRAWING AND UGC-01-ARP-SCP-1051-001.

Checked by	Reviewed by	Approved by
(Signature)	(Signature)	(Signature)

SYSTRA

MUMBAI METRO LINE 3 (COLABA-BANDRA-SEEPZ)

L&T-STEC

L&T - STEC JV MUMBAI

Project No: UGC-01-ARP-SCP-1051-001

Scale: AS SHOWN

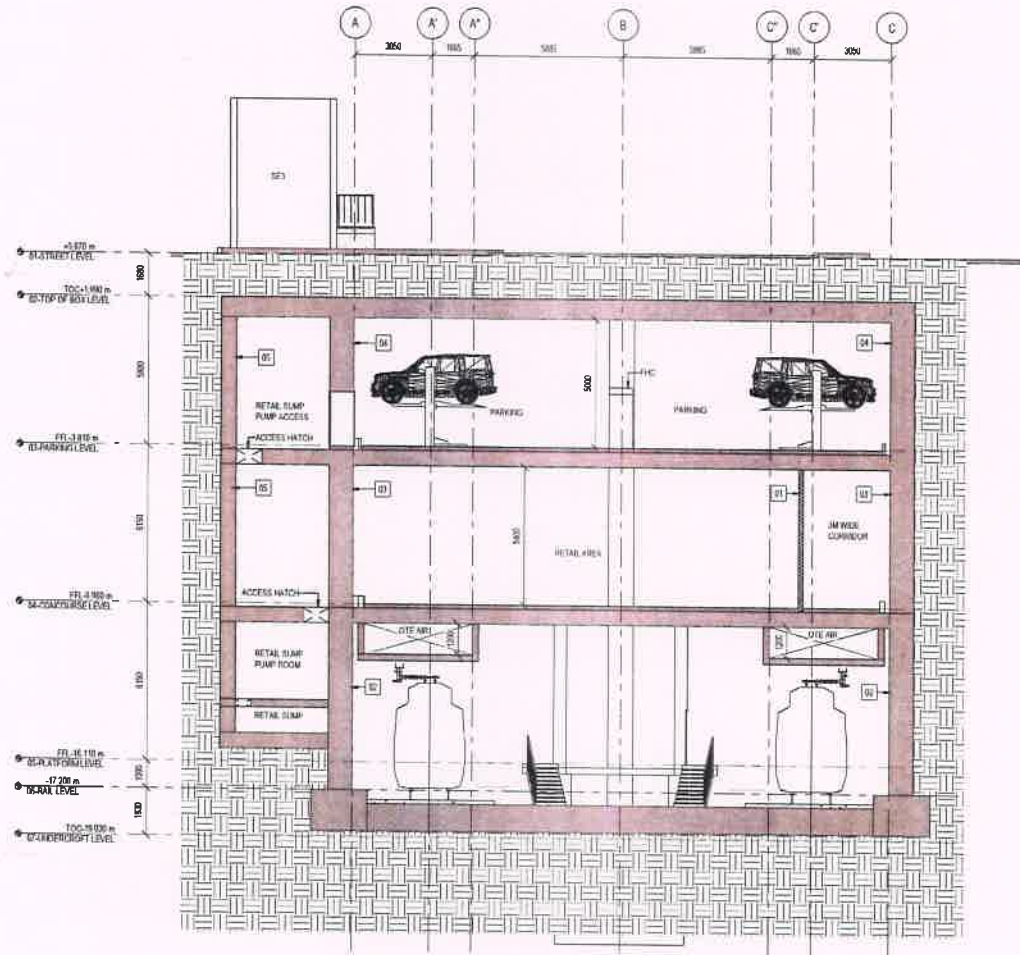
Drawn: J. J. J.

Checked: A. A. A.

Approved: A. A. A.

Date: 31-10-2018

Checked by	Reviewed by	Approved by
(Signature)	(Signature)	(Signature)



CROSS SECTION - 002

NO.	DESCRIPTION	THICKNESS	HEIGHT
01	RETAINING WALL	300	2000
02	RETAINING WALL	300	1500
03	RETAINING WALL	300	1000
04	RETAINING WALL	300	500
05	RETAINING WALL	300	500
06	RETAINING WALL	300	500
07	RETAINING WALL	300	500

	SH-STEEL FRAME
	URINARY NUMBER
	RCC WALL
	RIBBED SLAB
	BRICK WALL
	PRECAST CONCRETE

01	CONCRETE
02	CONCRETE
03	CONCRETE
04	CONCRETE
05	CONCRETE
06	CONCRETE
07	CONCRETE
08	CONCRETE
09	CONCRETE
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47	CONCRETE
48	CONCRETE
49	CONCRETE
50	CONCRETE

NO.	DESCRIPTION	THICKNESS	HEIGHT
01	RETAINING WALL	300	2000
02	RETAINING WALL	300	1500
03	RETAINING WALL	300	1000
04	RETAINING WALL	300	500
05	RETAINING WALL	300	500
06	RETAINING WALL	300	500
07	RETAINING WALL	300	500



PD SUBMISSION

GENERAL NOTES:
 1. ALL DIMENSIONS TO BE READ IN MILLIMETERS (M) UNLESS SPECIFIED OTHERWISE.
 2. ALL DIMENSIONS TO BE READ IN METERS (M) UNLESS SPECIFIED OTHERWISE.
 3. ALL DIMENSIONS TO BE READ IN METERS (M) UNLESS SPECIFIED OTHERWISE.
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 13. ALL DIMENSIONS TO BE READ IN METERS (M) UNLESS SPECIFIED OTHERWISE.
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 18. ALL DIMENSIONS TO BE READ IN METERS (M) UNLESS SPECIFIED OTHERWISE.
 19. ALL DIMENSIONS TO BE READ IN METERS (M) UNLESS SPECIFIED OTHERWISE.
 20. ALL DIMENSIONS TO BE READ IN METERS (M) UNLESS SPECIFIED OTHERWISE.

Checked by	Reviewed by	Approved by

Rev	Date	Descn	Design	Checked	Approved
A1	28-11-2018	AMEND PD SUBMISSION TO GC	ALM	ASD	NGU
A2	30-11-2018	AMEND BIDDING AS PER THE GC COMMENTS	ALM	ASD	NGU
A3	31-10-2018	AMEND FIRST ISSUE	ALM	ASD	NGU

Contractor: **SYSTRA**

Project Title: **MUMBAI METRO LINE 3 (COLABA-BANDRA-SEEPZ)**

Contract: **UGC-01-ARP-SCP-1061-002**

Contract Description: DESIGN AND CONSTRUCTION OF UNDERGROUND STATIONS AT CUFFE PARADE, VEPHAI BRABANI, CHURCHGATE & HATAI MA CHOWK AND ASSOCIATED TUNNELS

Consultants: **L&T-STEEL**, **L&T-STEEL JV MUMBAI**

Scale: **AS SHOWN**

Drawn: **AS SHOWN**

Checked: **AS SHOWN**

Approved: **AS SHOWN**

Date: **31-10-2018**

Client: **MUMBAI METRO RAIL CORPORATION LTD.**

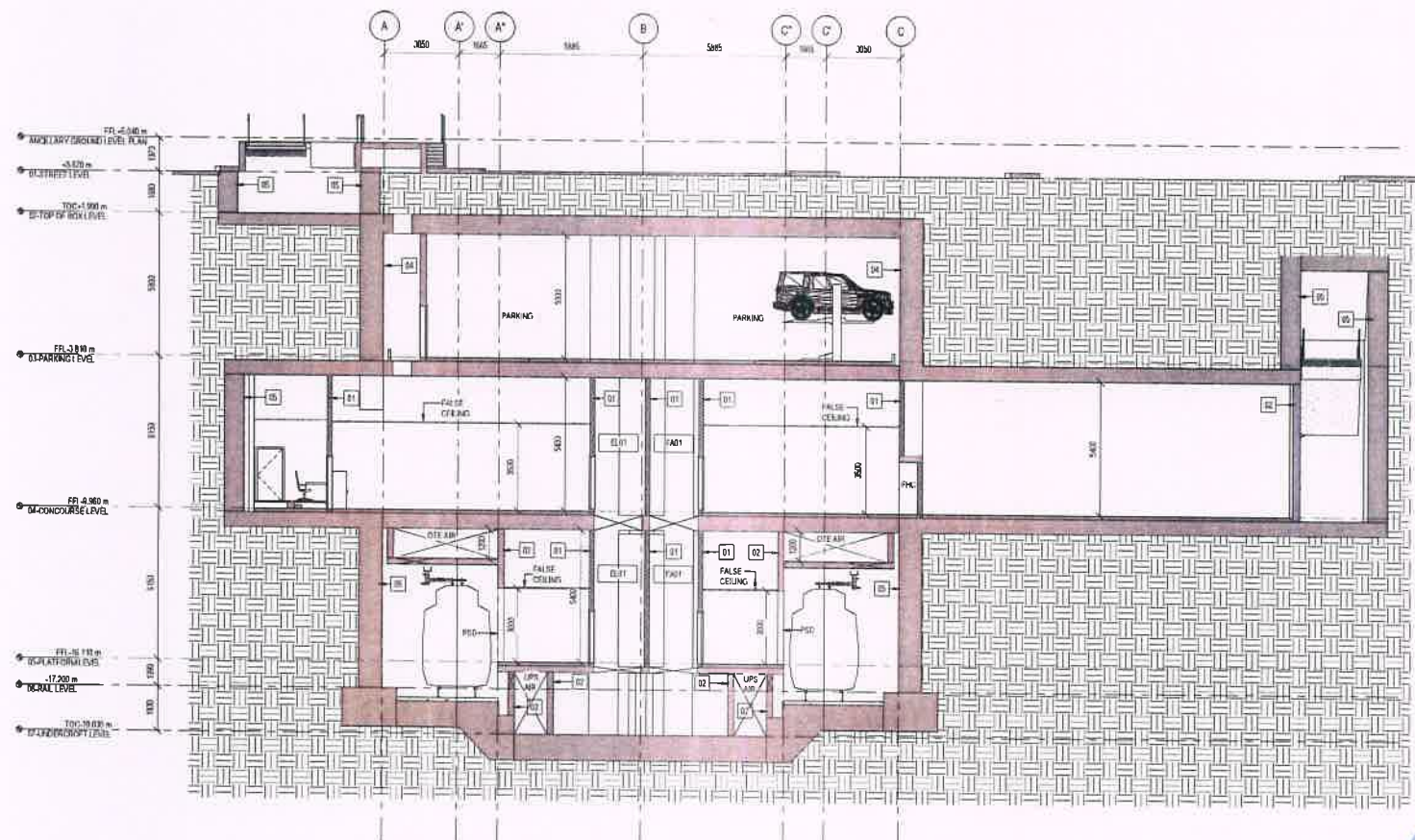
Project Title: **MUMBAI METRO RAIL PROJECT, LINE No. 3 COLABA-BANDRA-SEEPZ**

Drawing Title: **CUFFE PARADE STATION CROSS SECTION 002**

Drawing No: **UGC-01-ARP-SCP-1061-002**

Scale: **A**

Sheet No: **P**



CROSS SECTION - 003

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	REMARKS
01	CONCRETE	M ³	100	
02	STEEL	TONS	50	
03	BRICK	M ³	200	
04	PLASTER	M ²	1000	
05	PAINT	LITERS	500	
06	GLASS	M ²	100	
07	CEILING	M ²	1000	
08	FLOORING	M ²	1000	
09	MECHANICAL	M ²	1000	
10	ELECTRICAL	M ²	1000	



ITEM NO.	DESCRIPTION	UNIT	QUANTITY	REMARKS
11	MECHANICAL	M ²	1000	
12	ELECTRICAL	M ²	1000	
13	PLUMBING	M ²	1000	
14	PAINT	LITERS	500	
15	GLASS	M ²	100	
16	CEILING	M ²	1000	
17	FLOORING	M ²	1000	
18	MECHANICAL	M ²	1000	
19	ELECTRICAL	M ²	1000	
20	PLUMBING	M ²	1000	

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	REMARKS
21	CONCRETE	M ³	100	
22	STEEL	TONS	50	
23	BRICK	M ³	200	
24	PLASTER	M ²	1000	
25	PAINT	LITERS	500	
26	GLASS	M ²	100	
27	CEILING	M ²	1000	
28	FLOORING	M ²	1000	
29	MECHANICAL	M ²	1000	
30	ELECTRICAL	M ²	1000	



PD SUBMISSION

1. ALL DIMENSIONS TO BE GIVEN IN METERS AND LEVELS ARE IN METERS
2. ALL DIMENSIONS TO BE GIVEN IN METERS AND LEVELS ARE IN METERS
3. ALL DIMENSIONS TO BE GIVEN IN METERS AND LEVELS ARE IN METERS
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8. ALL DIMENSIONS TO BE GIVEN IN METERS AND LEVELS ARE IN METERS
9. ALL DIMENSIONS TO BE GIVEN IN METERS AND LEVELS ARE IN METERS
10. ALL DIMENSIONS TO BE GIVEN IN METERS AND LEVELS ARE IN METERS
11. ALL DIMENSIONS TO BE GIVEN IN METERS AND LEVELS ARE IN METERS
12. ALL DIMENSIONS TO BE GIVEN IN METERS AND LEVELS ARE IN METERS

Rev	Date	Done	Description	Checked	Approved
A	26-11-2018	AWHEND	PD SUBMISSION TO GC	ALM	ASD
A2	26-11-2018	AWHEND	REVISED AS PER THE LNC COMMENTS	ALM	ASD
A1	31-10-2018	AWHEND	FIRST ISSUE	ALM	ASD

SYSTRA

Project Title: **MUMBAI METRO LINE 3 (COLABA-BANDRA-SEEPZ)**

CONTRACT LOC-01 - DESIGN AND CONSTRUCTION OF UNDERGROUND STATION AT CUFFE PARADE, VESHAJI BRUKHAN, CHURCHGATE & HUTATIA CHOWK AND ASSOCIATED INFRASTRUCTURE

Scale: **1/4" = 1'-0"**

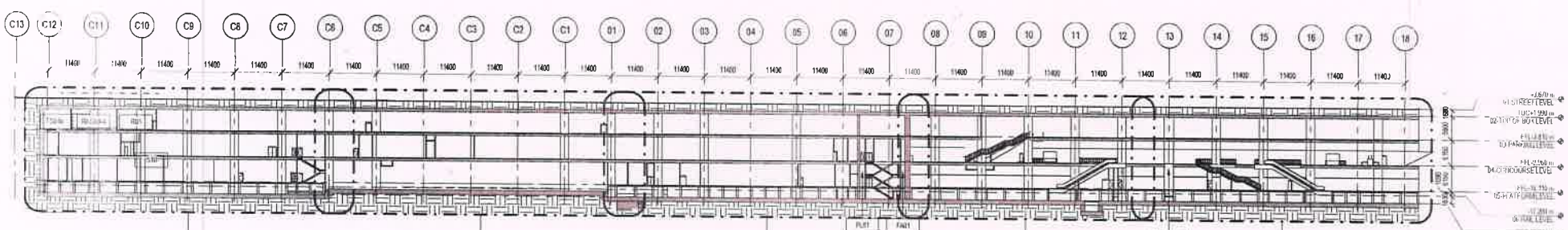
Date: **21-10-2018**

Contractor: **L&T - STEC JV MUMBAI**

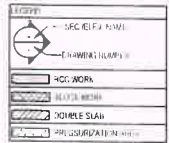
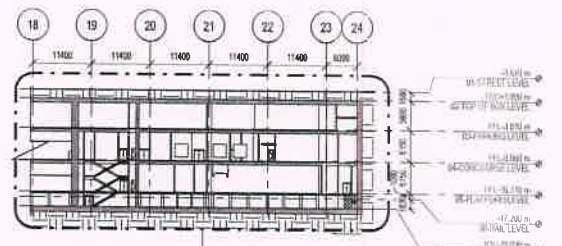
Client: **MUMBAI METRO RAIL PROJECT, LINE No. 3 COLABA-BANDRA-SEEPZ**

Contract No: **UGC-01-ARP-SCP-1061-003**

Rev	Date	Done	Description	Checked	Approved
A	26-11-2018	AWHEND	PD SUBMISSION TO GC	ALM	ASD
A2	26-11-2018	AWHEND	REVISED AS PER THE LNC COMMENTS	ALM	ASD
A1	31-10-2018	AWHEND	FIRST ISSUE	ALM	ASD



LONG SECTION-1 KEY PLAN



SYMBOL	DESCRIPTION
SC	SCAFFOLDING
ST	STEEL TUBES
STC	STEEL TUBES CONNECTION
STJ	STEEL TUBES JOINT
STL	STEEL TUBES LUG
STP	STEEL TUBES PLATE
STR	STEEL TUBES RIVET
STW	STEEL TUBES WELD
STX	STEEL TUBES BRACKET
STY	STEEL TUBES YIELD
STZ	STEEL TUBES ZIG ZAG
STAA	STEEL TUBES ANGLE
STAB	STEEL TUBES BOLT
STAC	STEEL TUBES CHANNEL
STAD	STEEL TUBES DECK
STAE	STEEL TUBES END PLATE
STAF	STEEL TUBES FITTING
STAG	STEEL TUBES GIRDERS
STAH	STEEL TUBES HANGING
STAI	STEEL TUBES I BEAM
STAJ	STEEL TUBES JOIST
STAK	STEEL TUBES K BRACE
STAL	STEEL TUBES L BRACE
STAM	STEEL TUBES M BRACE
STAN	STEEL TUBES N BRACE
STAO	STEEL TUBES O BRACE
STAP	STEEL TUBES P BRACE
STAQ	STEEL TUBES Q BRACE
STAR	STEEL TUBES R BRACE
STAS	STEEL TUBES S BRACE
STAT	STEEL TUBES T BRACE
STAU	STEEL TUBES U BRACE
STAV	STEEL TUBES V BRACE
STAW	STEEL TUBES W BRACE
STAX	STEEL TUBES X BRACE
STAY	STEEL TUBES Y BRACE
STAZ	STEEL TUBES Z BRACE

WALL SCHEDULE

01	ROOF WALL
02	ROOF WALL - INTERNAL
03	ROOF-WALL-TYPE WALL (200mm Thick)
04	ROOF-WALL-TYPE WALL
05	ROOF WALL - EXTERNAL
06	ROOF-WALL-TYPE WALL (100mm THICK) CLADDING UP TO FALSE CEILING



PD SUBMISSION

- GENERAL NOTES
- ALL DIMENSIONS TO BE READ IN METERS UNLESS OTHERWISE SPECIFIED.
 - ALL DIMENSIONS SHALL BE PARALLEL UNLESS OTHERWISE SPECIFIED.
 - ALL DIMENSIONS SHALL BE PARALLEL UNLESS OTHERWISE SPECIFIED.
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Rev	Date	Drawn	Description	Designed	Checked	Approved
A	28-11-2018	AWHEND	PD SUBMISSION TO GC	ALM	ASD	NGU
A2	28-11-2018	AWHEND	REVISED AS PER THE L&T COMMENTS	ALM	ASD	NGU
A3	31-10-2018	AWHEND	FIRST ISSUE	ALM	ASD	NGU

Contractor: **SYSTRA**

Project Title: **MUMBAI METRO LINE 3 (COLABA-BANDRA-SEEPZ)**

CONTRACT LEG-01 - DESIGN AND CONSTRUCTION OF UNDERGROUND STATION AT CUFFE PARADE, VENDOR BURNAL, CHURCHGATE & HUZATMA CHOWK AND ASSOCIATED TUNNELS

Contractor: **L&T-STEEL**

Contractor: **L&T - STEC JV MUMBAI**

Scale: ASB (SHOW) 1:100

Date: 31-10-2018

CLIENT: **MUMBAI METRO RAIL PROJECT, LINE No. 3 COLABA-BANDRA-SEEPZ**

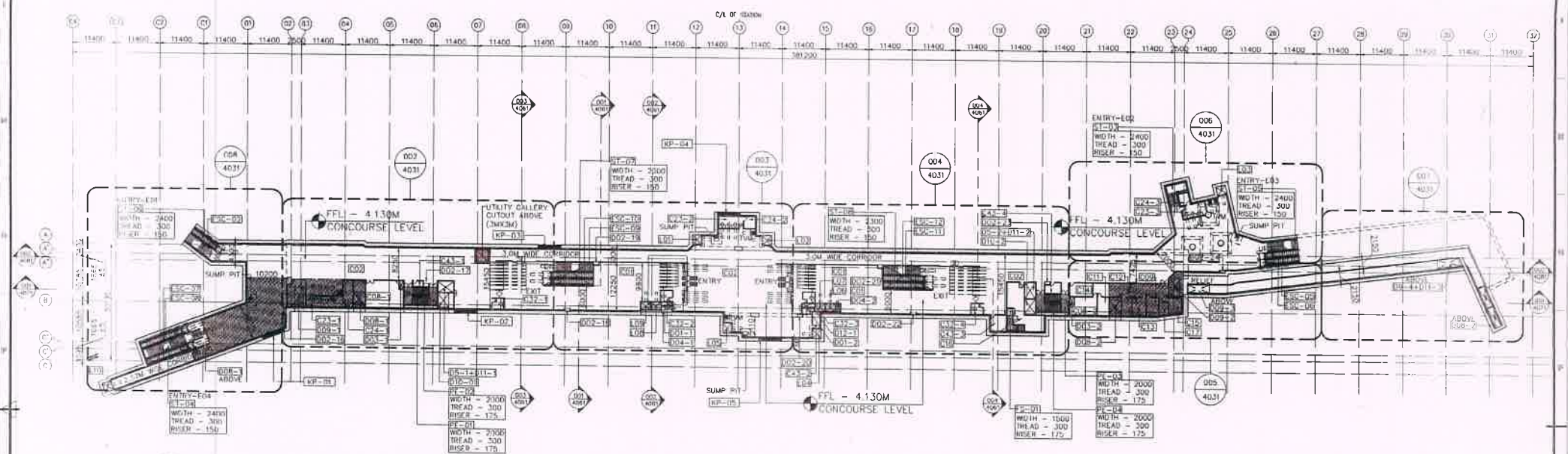
DRAWING TITLE: **CUFFE PARADE STATION LONG SECTION L'**

DWG. NO.: **UGC-01-AR>SCP-107-1-001**

REV. A P

MM3-CBS-TVE (P2L2)

Addendum No.1, Attachment No. 5



CONCOURSE LEVEL PLAN

ROOM NO.	DESCRIPTION
D-01	PLUMBING SHAFT
D-02	FHC
D-03	ELECTRICAL SHAFT
D-04	S & T SHAFT
D-05	OTE RISER
D-06	WATER SUPPLY BELOW
D-07	NOZZLE
D-08	TVS
D-09	RELIEF
D-10	FRESH AIR
D-11	STATION EXHAUST
D-12	CHILLERS
D-13	ECS OUTDOT
LEGEND	
SEC / ELEV NAME	
DRAWING NUMBER	
RCC WORK	
RI-CK WORK	
DOUBLE SLAB	
PRESSURIZATION AREA	

ROOM NO.	DESCRIPTION	ROOM DIMENSIONS	AREA (m ²)	ROOM NO.	DESCRIPTION	ROOM DIMENSIONS	AREA (m ²)
PE-01	PUBLIC ESCAPE STAIRCASE - 01	---	---	C11	REFUSE ROOM	2.40 x 3.75	7.05
PE-02	PUBLIC ESCAPE STAIRCASE - 02	---	---	C23-01	(TICKETING) TOM - 01	6.38 x 2.75	25.79
PE-03	PUBLIC ESCAPE STAIRCASE - 03	---	---	C23-02	(TICKETING) TOM - 02	6.40 x 3.00	19.20
PE-04	PUBLIC ESCAPE STAIRCASE - 04	---	---	C23-03	(TICKETING) TOM - 03	6.13 x 3.33	20.29
EX-01	FIREMAN STAIRCASE - 01	---	---	C24-01	CASH ROOM - 01	2.45 x 6.90	16.90
C01	RAID AREA	---	862.81	C24-02	CASH ROOM - 02	2.93 x 3.00	8.80
C02	UN-PAID AREA	---	2866.14	C24-03	CASH ROOM - 03	2.50 x 3.05	7.62
C08-01	DB ROOM - 01	6.82 x 6.90	46.79	C32-01	EXCESS FARE OFFICE - 01	3.07 x 2.70	8.29
C08-02	DB ROOM - 02	6.05 x 4.65	28.71	C32-02	EXCESS FARE OFFICE - 02	3.07 x 2.70	8.29
C09	FIRST AID ROOM	3.03 x 4.63	14.07	C32-03	EXCESS FARE OFFICE - 03	3.07 x 2.70	8.29
C11	FEMALE STAFF ROOM	2.87 x 4.65	13.34	C32-04	EXCESS FARE OFFICE - 04	3.07 x 2.70	8.29
C12	MALE STAFF ROOM	2.50 x 4.65	11.62	E43-01	SPARE ROOM - 01	4.05 x 2.05	7.33
C13	STAFF REST ROOM	3.50 x 4.65	16.27	E43-02	SPARE ROOM - 02	1.90 x 4.18	7.90
C14	STATION MANAGER'S ROOM	3.80 x 3.37	12.87	E43-03	SPARE ROOM - 03	3.99 x 3.99	15.92
C15	CLEANER'S ROOM	3.25 x 3.94	12.83	E43-04	SPARE ROOM - 04	4.00 x 3.27	13.07
C20	STATION CONTROL ROOM	4.43 x 6.50	28.80				

DRAWING NUMBER	DRAWING TITLE
UGC-01-ARP-SHC-4033-001	CONCOURSE LEVEL PLAN
UGC-01-ARP-SHC-4033-001	CONCOURSE LEVEL PLAN
UGC-01-ARP-SHC-4033-001	CONCOURSE LEVEL PLAN
UGC-01-ARP-SHC-4033-001	CONCOURSE LEVEL PLAN
UGC-01-ARP-SHC-4033-001	CONCOURSE LEVEL PLAN



DD SUBMISSION

GENERAL NOTES

- ALL DIMENSIONS TO BE IN METERS AND LEVELS ARE IN METERS.
- ALL WORKING DIMENSIONS AND LEVELS ARE IN METERS.
- REFER TO THE LATEST REVISIONS AND AMENDMENTS.
- STATION WORK SHALL BE IN ACCORDANCE WITH THE MUMBAI METRO RAIL CORPORATION ACT, 2004 AND THE MUMBAI METRO RAIL CORPORATION REGULATIONS, 2004.
- STATION WORK SHALL BE IN ACCORDANCE WITH THE MUMBAI METRO RAIL CORPORATION ACT, 2004 AND THE MUMBAI METRO RAIL CORPORATION REGULATIONS, 2004.
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Sl. No.	Date	By	Description
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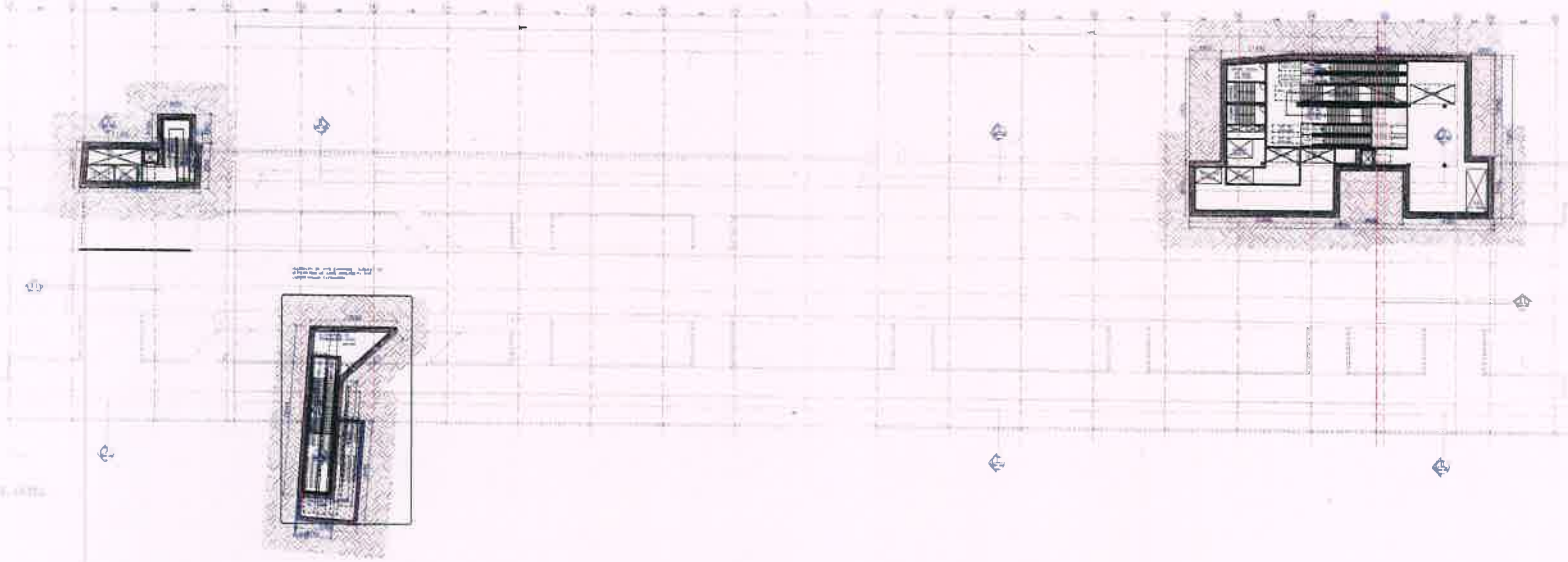
<p>SYSTRA</p> <p>Project Title: MUMBAI METRO LINE 3 (COLABA-BANDRA-SEEPZ)</p> <p>Contract Location: DESIGN AND CONSTRUCTION OF UNDERGROUND STATION AT CHURCH-GATE PARADE, NANDIVADA CHURCH-GATE, HUTATMA CHOWK AND ASSOCIATED TUNNELS.</p>	<p>L&T-STEEL</p> <p>LARSEN & TOUBRO</p>	<p>MUMBAI METRO RAIL CORPORATION</p> <p>MUMC</p> <p>MUMBAI METRO RAIL PROJECT LINE No. 3 COLABA-BANDRA-SEEPZ</p> <p>DRAWING TITLE: HUTATMA CHOWK STATION CONCOURSE LEVEL PLAN</p> <p>UGC-01-ARP-SHC-4031-001</p>
<p>Checked by: [Signature]</p> <p>Reviewed by: [Signature]</p> <p>Approved by: [Signature]</p> <p>Date: 03-02-201</p>	<p>DDC Interdisciplinary Coordination Sign off</p>	<p>Map: [Signature]</p> <p>Structure: [Signature]</p>

BID FORM 6 (R): METHOD STATEMENT (Project Implementation Plan)

[The Bidder shall provide Project Implementation plan including following details]

Execution Plan for the project	Bid Ref
<ul style="list-style-type: none"> • Detailed deliverable list - drawings, reports, calculations for each station • Proposed project schedule • Histogram depicting the quantum of staff proposed (excluding workers) to be deployed during different stages of the project i.e. Design Stage, Construction Stage, Testing & Commissioning stage. The histogram should match the details of the Project Organization chart (Bid Form 1) and project schedule • Interface Plan: Bidder shall submit an Interface Plan with the Methodology of Interface with respective UGC Contractors. 	





GENERAL NOTE :-

- This volume is a copy of the station general arrangement/ underground structures. Further details to be developed on volume 2 in station architectural details and volume 2B typical details.
- Above ground layout details shown on this layout. It will be developed in volume 2A above ground structures after consultation with CC/MARC.
- Reference to materials and finishes are given in schedule 2 to be defined on volume 2A & 2B station architectural details after consultation with CC/MARC.
- Scope of construction (excavation, tunnel) to be confirmed with the contractor since upward.
- As per agreement with CC (architect) 100 mm clear has been indicated on utility structures.
- Equipment on service rooms to be shown in an accompanying certification. Detailed equipment layout to be developed as per relevant certified by relevant disciplines.
- The configuration of number of store-rooms in each entry will have been discussed and agreed with CC/MARC in recent meetings. The final configuration given the site constraints has been adopted.
- Concrete test specimens cannot be arranged as per 5400mm requirement due to unworkable site conditions. A clear height of 4800mm has been adopted. The suitability of the services located on this level will be decided with CC. relevant disciplines and mentioned in MARC.
- Definition of structural members shown on these drawings will be finalized by structural submissions after approval to the general arrangement set of drawings. Any change on structural layout will be indicated and if necessary adjustments will be done in architectural layout and submitted for review.

Station Name	Level	Substructure	1st Floor Service Storey, Top of Box, Concourse, Escalators, Platform	Lower LANDING Level	Station Level (m)	Total Rise	Platform	Escalator	Stair	Service	Other	Remarks
MUMBAI	Mezzanine Level 1	100	100	100	10.11	10.11	10.11	10.11	10.11	10.11	10.11	10.11
	Mezzanine Level 2	100	100	100	10.11	10.11	10.11	10.11	10.11	10.11	10.11	10.11
	1st Floor	100	100	100	10.11	10.11	10.11	10.11	10.11	10.11	10.11	10.11
	2nd Floor	100	100	100	10.11	10.11	10.11	10.11	10.11	10.11	10.11	10.11

Reference Drawings

X-Refs

Notes

1. All dimensions are in millimeters.

2. All dimensions are to be used as indicated.

3. All dimensions are to be taken from the center of the hole.

4. This drawing is for reference only. It is not to be used for construction.

General Consultants:

maple

Notification:

A R C

As noted in the DSR No. dated

A Objection, a complete resubmission is required.

B No Objection with comments.

C Notice of No Objection

Assessor	Discipline Leader	Engineer

Rev.	Date	Drawn	Description	Designed	Checked	Approved
B	20181129	SS	PRELIMINARY DESIGN SUBMISSION	SM	SM	DAL
A	20181015	SS	NEW PRELIMINARY DESIGN SUBMISSION	SM	SM	DAL
A2	20171130	VSC	REVISED PRELIMINARY DESIGN SUBMISSION	SM	SM	DAL
A1	20170823	VSC	REVISED PRELIMINARY DESIGN SUBMISSION	SM	SM	DAL
A0	20170428	VSC	NEW PRELIMINARY DESIGN SUBMISSION	SM	SM	DAL

Detailed Design Consultant:

ayesa

Project Title:

MUMBAI METRO LINE - 3 (COLABA-BANDRA-BEEF)

CONTRACT UGC-02

Contractor UGC-02 - Design & Construction of Underground Stations & Associated Tunnels

Designed: [Signature] Checked: [Signature] Approved: [Signature]

Date: 29-11-2018

Scale: 1:400

Discipline: SS

Contractor:

HCC

HCC-MMS JV

MUMBAI METRO RAIL CORPORATION LTD

MARC

Drawing Title:

GIRGAON STATION

TOP OF BOX LVL - GENERAL LAYOUT

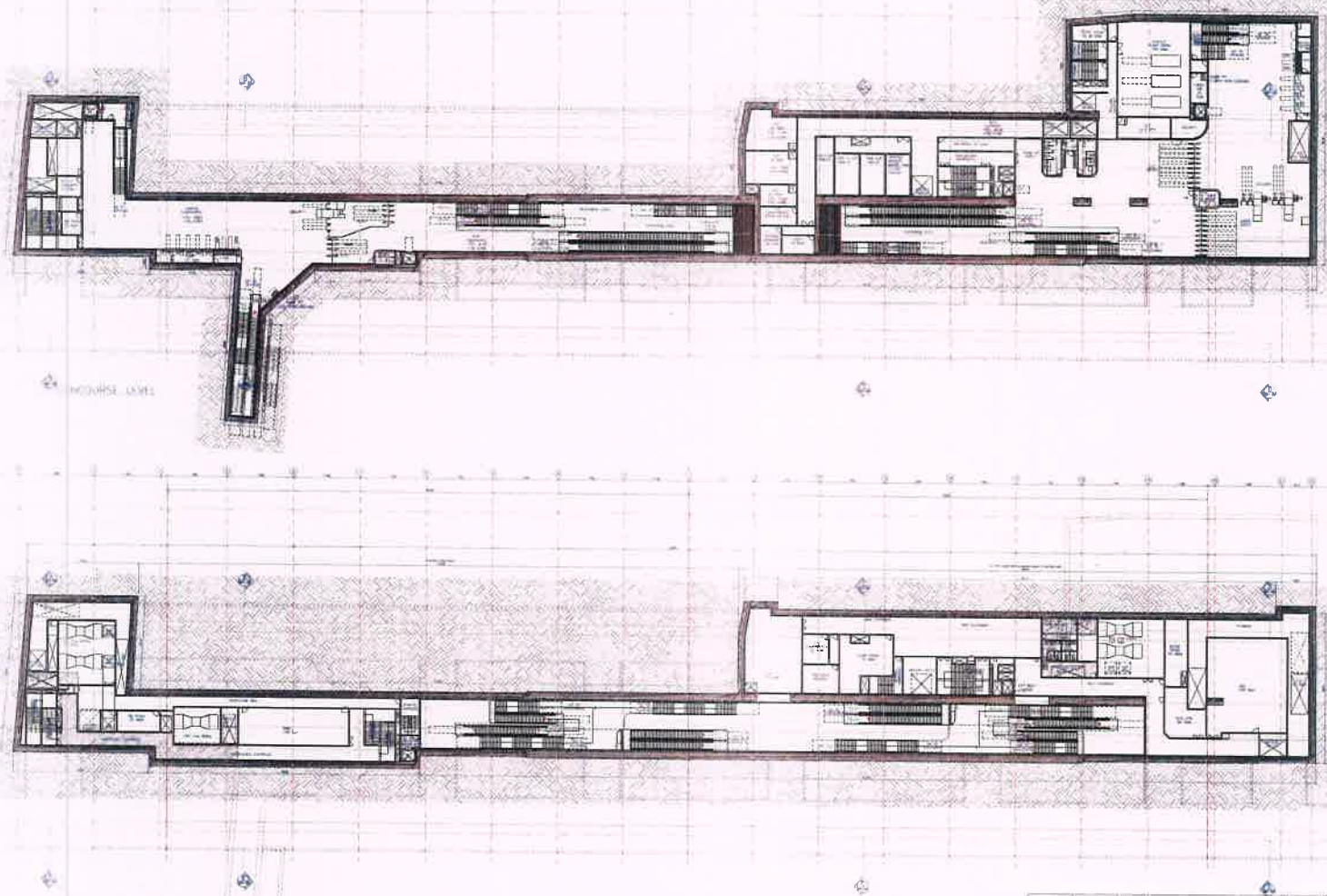
Drawing Number:

UGC02-ARP-SGG-02001-001-B

Rev. (DWG Status): B P

P - Preliminary, D - Definitive, C - Construction Reference/Good For Construction, B - As Built

CAD File Name: UGC02-ARP-SGG-02001-001-B



- GENERAL NOTE -**
- The volume 1 to scope of the station general arrangement/ underground structures, further details to be developed in volume 2 a station architectural design and volume 3B system details.
 - Above ground entry-exit measures shown as an intent indication. It will be developed in volume 3A Above ground structures after consultation with GC/MARC.
 - Reference to materials and finishes and related indicators will be defined in volume 2A & 2B Station architectural details after consultation with GC/MARC.
 - Size of ventilation ductwork to be subject to verification with TFC contractor since ambient to be developed as per relevant standards to relevant disciplines.
 - The configuration of number of stairs-escalators on each entry exit has been discussed and agreed with GC/MARC in review meetings. The final configuration upon the site conditions has been finalized.
 - Concrete level finishism cannot be provided as per 5400mm measurement due to unavailability site conditions, a slip headroom of 1850 has been copied, the suitability of the services located on the level with the overall headroom has been discussed with GC relevant disciplines and presented to client.
 - Distribution of structural members shown on these drawings are limited to structural loading will be subject to the general arrangement of all drawings, any change on structural submissions after approval to the general arrangement will be done with architectural layout and submitted for review.

Station Name	Level	Structure	Plot Section, Section, Top of Plot, for use of structure Partitions	Column Location	Beam Location	Level	Area	Volume	Weight	Area of Slab	Area of Wall	Area of Column	Area of Beam	Area of Partition	Area of Floor	Area of Ceiling	Area of Roof	Area of Other	Area of Total				
GIRGAON	MEZ	MEZ	MEZ	MEZ	MEZ	MEZ	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
							2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	
							3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
							4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00



Reference Drawings:
x-Relts

Notes:
1. All dimensions are in millimeters.
2. All dimensions are to be given and not assumed.
3. All dimensions are to be given and not assumed.
4. For all dimensions, the tolerance shall be as per the relevant Indian Standards.
5. For all dimensions, the tolerance shall be as per the relevant Indian Standards.

General Consultants:

maple
MUMBAI METRO RAIL CORPORATION LIMITED

Notification:
 A R C

As noted in the DSR No. dated: _____

A Objection, a complete resubmission is required
B No Objection with comments
C Notice of No Objection

Assessor	Discipline	Engineer

Detailed Design Consultant:

ayesa
Engineering
Infrastructure
Solutions
16, Pashan Road, Pashan, Mumbai
Tel: 022-2552 1234

Project Title:
**MUMBAI METRO LINE - 3 (COLABA-BANDRA-SEEPZ)
CONTRACT UGC-02**

Contractor UGC-02: Design & Construction of Underground Stations & Associated Tunnels

Designed: _____
Checked: _____
Approved: _____

Scale: _____
Date: 29-11-2018

Contractor:

HCC
HCC-MMS JV

DOC Interdisciplinary Coordination Sign off

Map: _____
Structure

MUMBAI METRO RAIL CORPORATION LIMITED

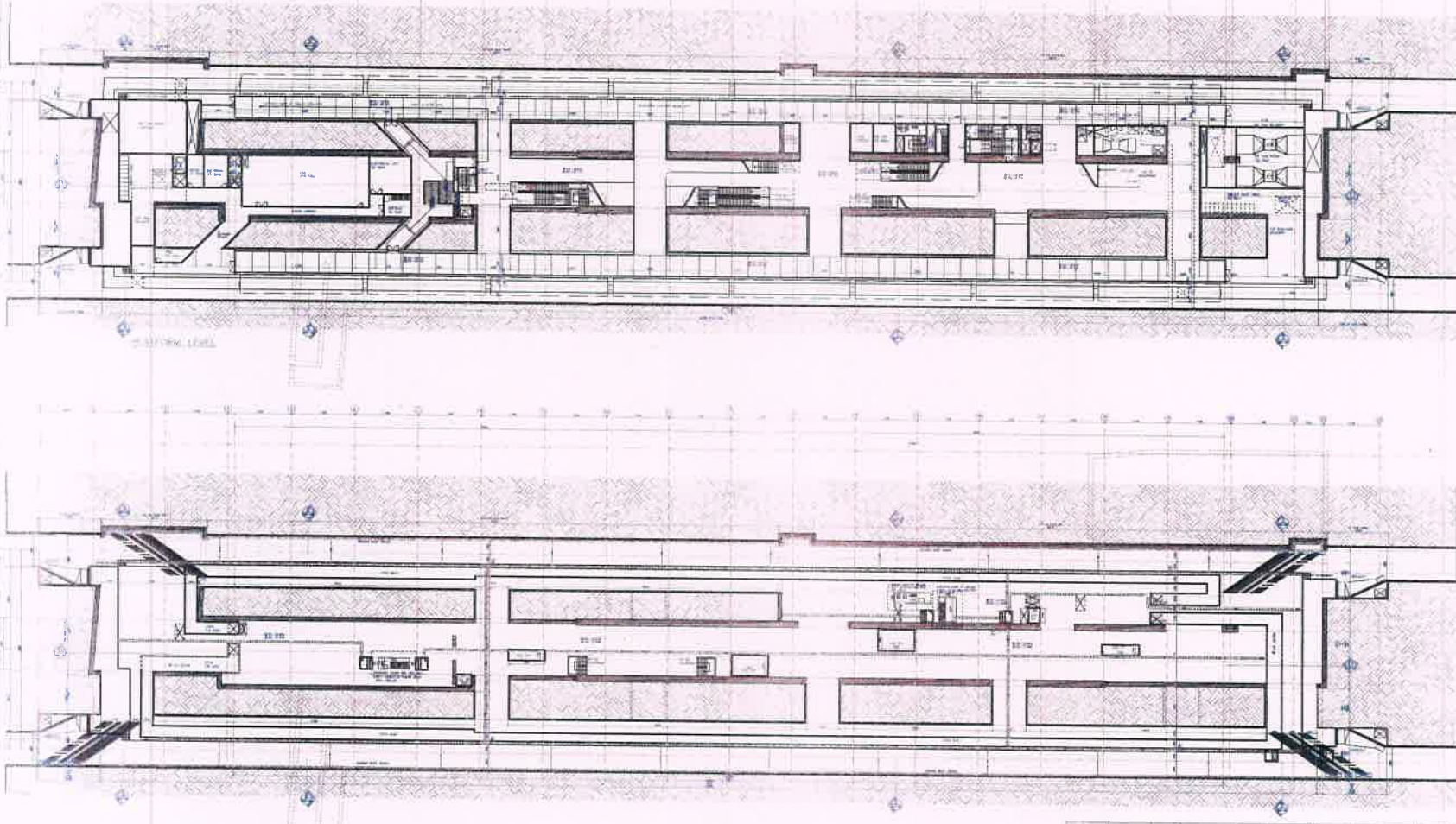
Drawing Title:
**GIRGAON STATION
CONCOURSE LVL & MEZ LVL - GENERAL LAYOUT**

Drawing Number:
UGC02-ARP-SGG-03001-001-B

Rev: _____
Date: _____

P-Preliminary, D-Definitive, C-Construction Reference/Good For Construction, B-As Built

CAD File Name: **UGC02-ARP-SGG-03001-001-B**



GENERAL NOTE :-

- This Volume is a part of station general arrangement/ underground structures, further details to be developed per volume 2 or station architectural details and volume 3B typical details.
- Always ground level and elevations shown as an intent indication. It will be developed as volume 3A. Above ground structures after consultation with CC/MARC.
- Reference to materials and finishes are listed indicating it will be defined as volume 2A & 2B station architectural details after consultation with CC/MARC.
- State of foundation acceptance subject to verification with the contractor upon approval.
- As per agreement with CC (architect) 185 mm floor has been specified in public circulation.
- Equipment and general rooms to be shown on corresponding verticals. Details equipment layout to be developed as per relevant interface by relevant disciplines.
- The configuration of number of storeys/levels on each entry will be based on station layout agreed with CC/MARC at team meetings. The area construction has been adopted.
- Concrete level basement cannot be accepted as per 3400mm requirement due to unsuitable site constraints. A clear maximum of 1600 mm has been adopted. The worktop of the service located on the floor with the suitable basement has been discussed with CC relevant disciplines and presented to MARC.
- Definition of structural elements shown on these drawings will be finalized by structural submissions after approval to the general arrangement of all drawings. Any change in structural items will be reported and all necessary adjustments will be done and re-submitted upon approval and submitted for review.

Station Name	Platform	Platform Number	Platform Service	Platform Length (m)	Platform Width (m)	Platform Area (sqm)	Platform Volume (cu m)	Platform Weight (kN)	Platform Cost (Rs. Crores)	Platform Status
GIRAON	Platform 1	101	Platform 1	100.00	10.00	1000.00	1000.00	1000.00	1000.00	Under Construction
	Platform 2	102	Platform 2	100.00	10.00	1000.00	1000.00	1000.00	1000.00	Under Construction
	Platform 3	103	Platform 3	100.00	10.00	1000.00	1000.00	1000.00	1000.00	Under Construction
	Platform 4	104	Platform 4	100.00	10.00	1000.00	1000.00	1000.00	1000.00	Under Construction
GIRAON	Platform 5	105	Platform 5	100.00	10.00	1000.00	1000.00	1000.00	1000.00	Under Construction
	Platform 6	106	Platform 6	100.00	10.00	1000.00	1000.00	1000.00	1000.00	Under Construction
	Platform 7	107	Platform 7	100.00	10.00	1000.00	1000.00	1000.00	1000.00	Under Construction
	Platform 8	108	Platform 8	100.00	10.00	1000.00	1000.00	1000.00	1000.00	Under Construction

Reference Drawings

As noted in the DSR No. 01/2018

Notes

- All dimensions are in millimeters.
- All dimensions are to be taken from the center line of the structure.
- All dimensions are to be taken from the center line of the structure.
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General Consultants:

maple

Notification

A B C

As noted in the DSR No. 01/2018

A Objection, a complete resubmission is required
B No Objection with comments
C Notice of No Objection

Assessor	Discipline Leader	Engineer

Detailed Design Consultant:

ayesa

Project Title: MUMBAI METRO LINE - 3 (COLABA-BANDRA-SEEPZ) CONTRACT UGC-02

Contractor UGC-02, Design & Construction of Underground Stations & Associated Tunnels

Designed: [Signature] Checked: [Signature] Approved: [Signature]

Date: 29-11-2018

Contractor:

HCC

HCC-MMS JV

DDC Interdisciplinary Coordination Sign off

Map: [] Structure: []

MUMBAI METRO RAIL CORPORATION LTD

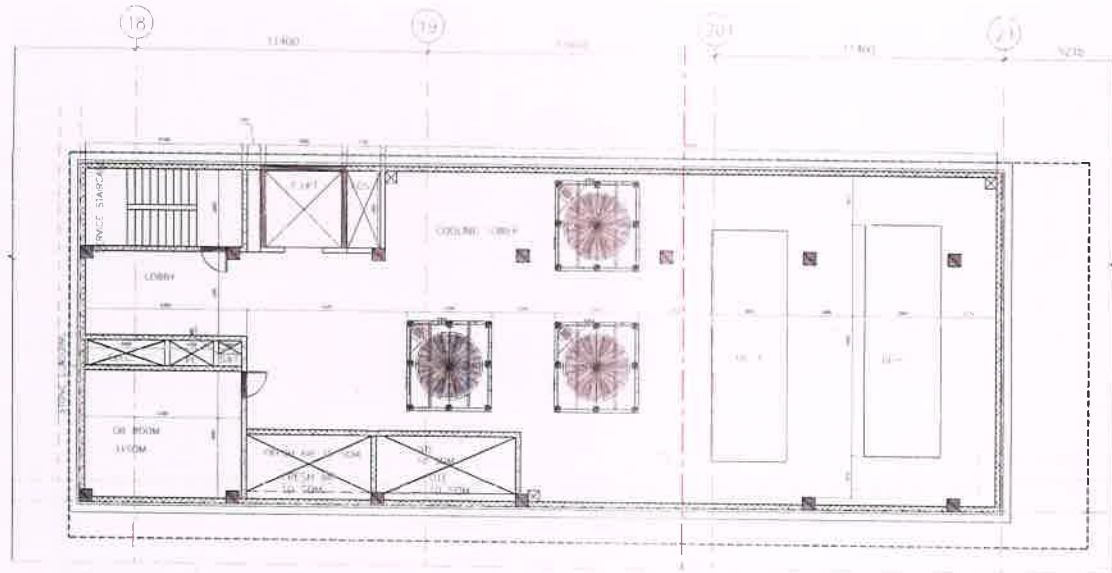
GIRGAON STATION PLATFORM & UNDERCROFT LEVEL - GENERAL LAYOUT

Drawing Number: UGC02-ARP-SGG-04001-001-B

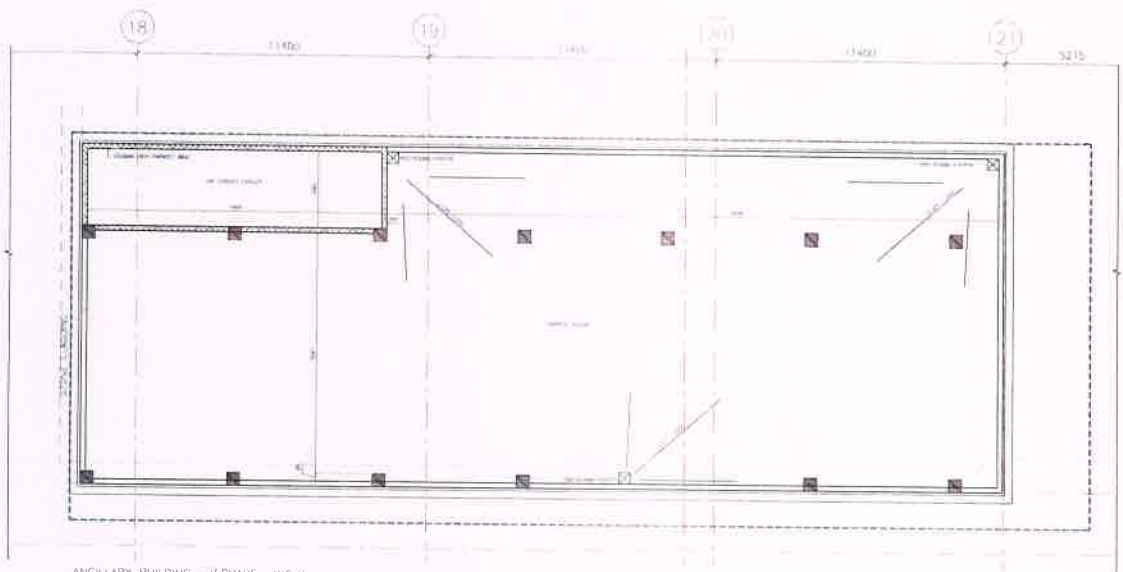
Rev: [] DWG Status: []

P - Preliminary, D - Define, C - Construction Reference/Good For Construction, B - As Built

CAD File Name: UGC02-ARP-SGG-04001-001-B



ANCILLARY BUILDING - FIRST FLOOR LAYOUT



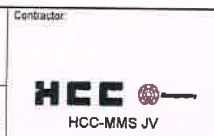
ANCILLARY BUILDING - TERRACE LAYOUT



Reference Drawings:
x-Ref

Notes:
1. All dimensions are in Meters.
2. Measurements are to be taken as indicated.
3. All dimensions are to be taken to the center of wall unless specified otherwise.
4. The dimensions are to be taken to the center of wall unless specified otherwise.
5. The dimensions are to be taken to the center of wall unless specified otherwise.

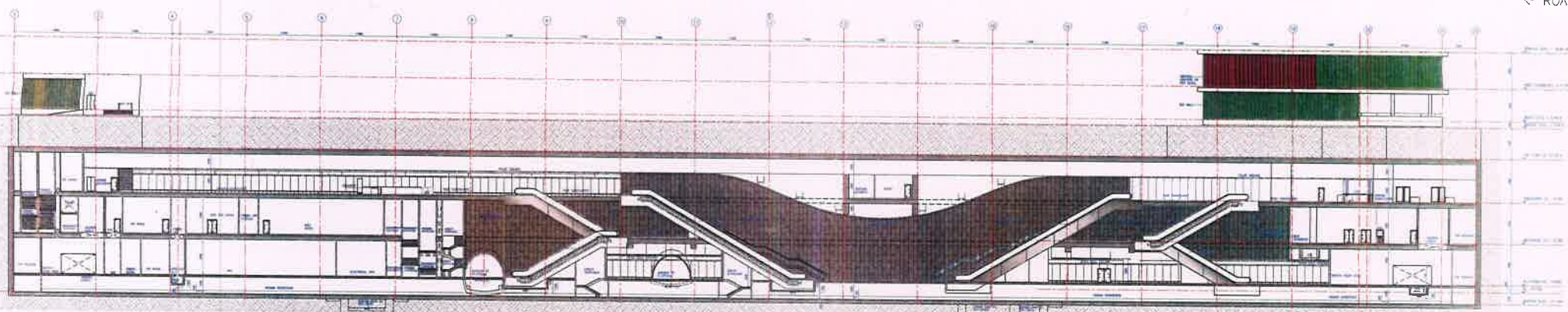
General Consultants:			Detailed Design Consultant:																																														
Notification <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C As noted in the DSR No. 001 A - Objection, if complete resubmission is required B - No Objection with comments C - Notice of No Objection			Project Title: MUMBAI METRO LINE - 3 (COLABA-BANDRA-SEEPZ) CONTRACT UGC-02 Contractor UGC-02: Design & Construction of Underground Stations & Associated Tunnels																																														
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Assessor	Discipline Leader	Engineer																																															
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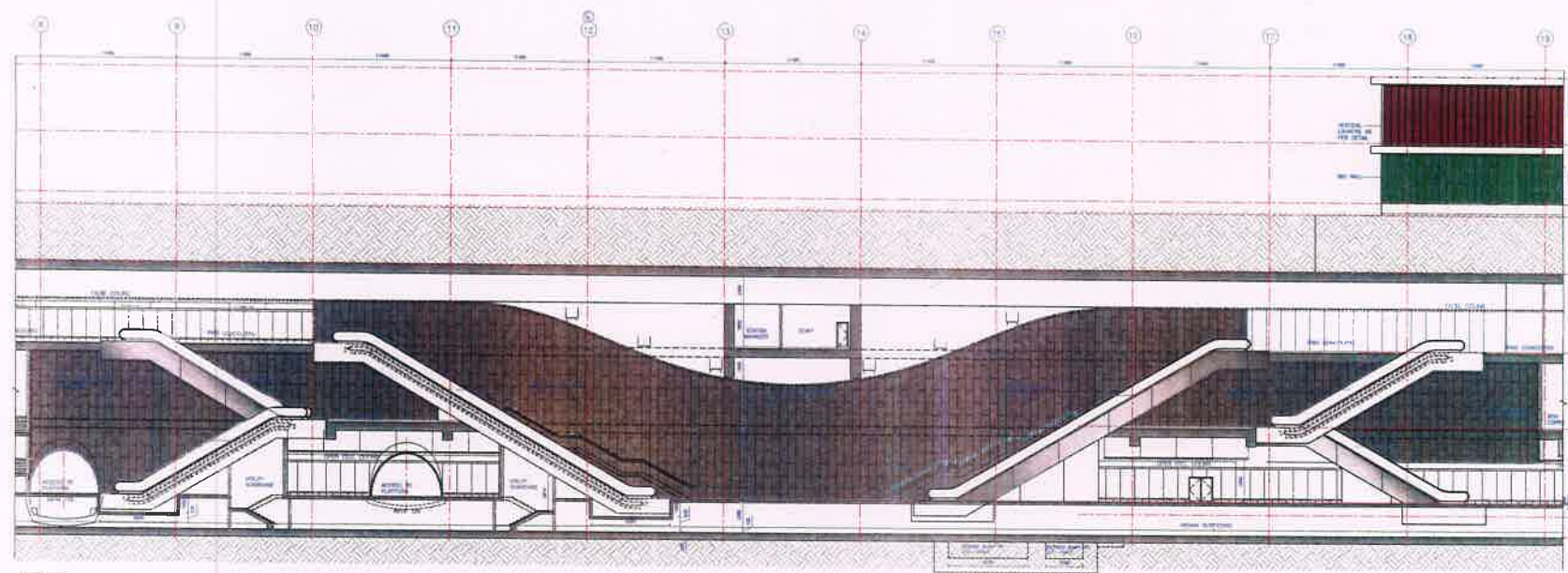
Contractor:
HCC-MMS JV

UGC interdisciplinary Coordination Sign off

MUMBAI METRO RAIL CORPORATION LTD	
Drawing Title: GIRGAON STATION ANCILLARY - FIRST FLOOR & TERRACE LEVEL PLAN	
Drawing Number: UGC02-ARP-SGS-06001-001-A	Rev. DWG. Status: A P
P - Preliminary, D - Definitive, C - Construction Referer cc/Good For Construction B - As Built CAD File Name : UGC02-ARP-SGS-06001-001-A	



LONGITUDINAL SECTION -1
SCALE 1:300



DETAIL - A
SCALE 1:300



Reference Drawings:
X-Ref:

Notes:
1. All dimensions are in millimetres.
2. All dimensions are to be used and not measured.
3. Any alteration must be brought to the notice of client before execution of work at site.
4. This drawing must be read in conjunction with all relevant Architectural, Structural, Plumbing, Fire Fighting, Electrical and Traffic Management drawings.

General Consultants:

maple
MUMBAI METRO RAIL CORP. LTD.
CONSULTANT

Notification:
 A B C
As noted in the DBR No. dated

A Objection, a complete resubmission is required.
B No Objection with comments.
C Notice of No Objection.

Assessor	Discipline Leader	Engineer

Rev.	Date	Drawn	Description	Designed	Checked	Approved
A	20181128	SS	PRELIMINARY DESIGN SUBMISSION	SM	SM	DAL
A2	20171130	VSC	REVISED PRELIMINARY DESIGN SUBMISSION	SM	SM	DAL
A1	20170823	VSC	REVISED PRELIMINARY DESIGN SUBMISSION	SM	SM	DAL
AD	20170426	VSC	PRELIMINARY DESIGN SUBMISSION	SM	SM	DAL

Detailed Design Consultant:

ayesa Engineers, Architects, Planners
04, 10th-16th Floor, Institutional Area, Sector-44
Gurgaon - 122002 (Haryana)

Project Title:
**MUMBAI METRO LINE - 3 (COLABA-SANDRA-SEEPZ)
CONTRACT UGC-02**

Contractor UGC-02: Design & Construction of Underground Stations & Associated Tunnels

Assigned: [Signature] Checked: [Signature] Approved: [Signature]

Scale: AS SHOWN Drawn: SS Date: 28-11-2018

Contractor:

HCC
HCC-MMS JV

DDC Interdisciplinary Coordination Sign off

Map: Structure:

MUMBAI METRO RAIL CORPORATION LTD.
MHRCL
New MTR Building, Plot No. 012, C Ring,
Bandra Kurla Complex, Bandra (E), Mumbai-400011

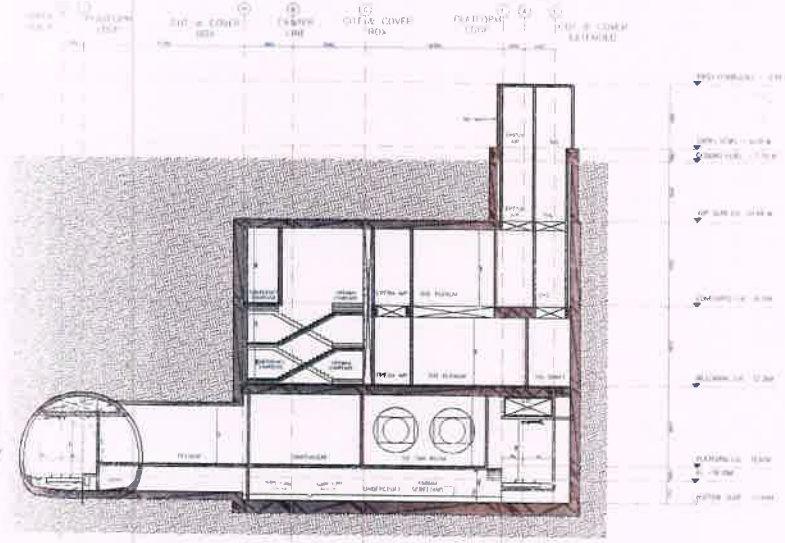
Drawing Title:
**GIRGAON STATION
LONG SECTION -L1**

Drawing Number:
UGC02-ARP-SGG-08001-001-A

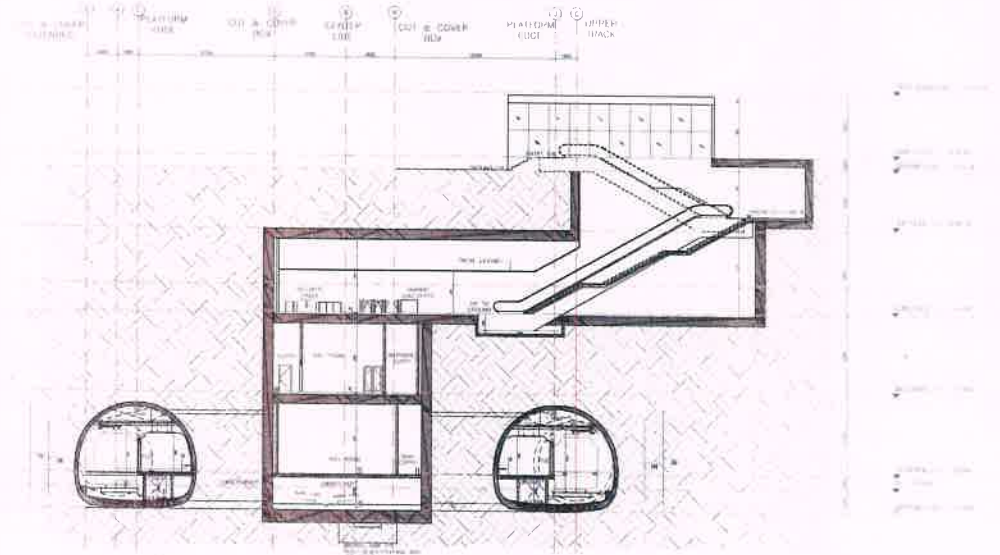
Rev. DWG Status:
A P

P - Preliminary, D - Definitive, C - Construction Reference/Good For Construction B - As Built

CAD File Name: UGC02-ARP-SGG-08001-001-A A1






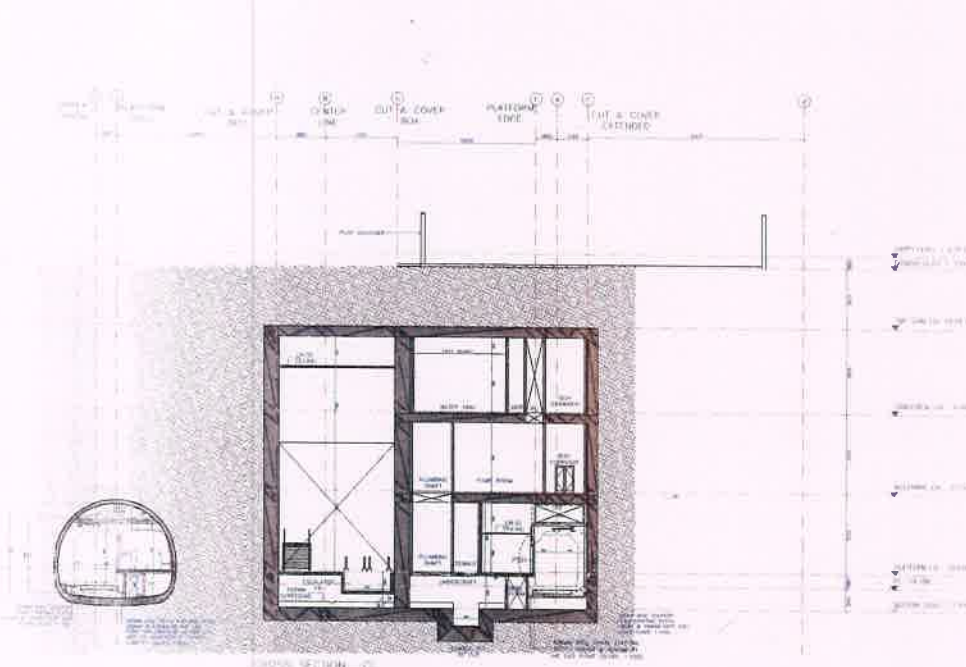
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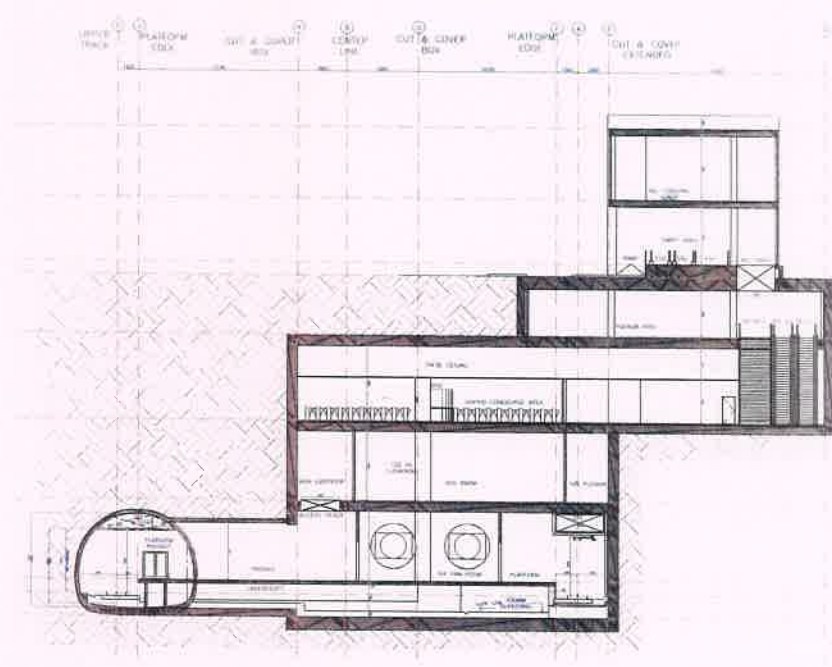
CROSS SECTION -BB



Reference Drawings X-Refs Notes: 1. No objection for all drawings. 2. All drawings are to be sent for approval. 3. Any discrepancy must be brought to the notice of the client before execution of work at site. 4. The drawings must be sent in computer format (AutoCAD, MicroStation, etc.) along with the original drawings. 5. The drawings must be sent in PDF format.	General Consultants: 				Detailed Design Consultant: 	Contractor: 	Drawing Title: GIRGAON STATION CROSS SECTION -AA & BB																																							
	Notification: <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C An noted in the DSR No dated A. Objection, a complete resubmission is required. B. No Objection with comments. C. Notice of No Objection.	<table border="1"> <thead> <tr> <th>Assessor</th> <th>Discipline Leader</th> <th>Engineer</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Assessor	Discipline Leader	Engineer				<table border="1"> <thead> <tr> <th>Rev.</th> <th>Date</th> <th>Drawn</th> <th>Description</th> <th>Designed</th> <th>Checked</th> <th>Approved</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>20181129</td> <td>SS</td> <td>PRELIMINARY DESIGN SUBMISSION</td> <td>SM</td> <td>SM</td> <td>DAL</td> </tr> <tr> <td>A2</td> <td>20171110</td> <td>VTC</td> <td>REVISED PRELIMINARY DESIGN SUBMISSION</td> <td>SM</td> <td>SM</td> <td>DAL</td> </tr> <tr> <td>A1</td> <td>20170823</td> <td>VSC</td> <td>REVISED PRELIMINARY DESIGN SUBMISSION</td> <td>SM</td> <td>SM</td> <td>DAL</td> </tr> <tr> <td>A0</td> <td>2017042A</td> <td>VSC</td> <td>PRELIMINARY DESIGN SUBMISSION</td> <td>SM</td> <td>SM</td> <td>DAL</td> </tr> </tbody> </table>	Rev.	Date	Drawn	Description	Designed	Checked	Approved	A	20181129	SS	PRELIMINARY DESIGN SUBMISSION	SM	SM	DAL	A2	20171110	VTC	REVISED PRELIMINARY DESIGN SUBMISSION	SM	SM	DAL	A1	20170823	VSC	REVISED PRELIMINARY DESIGN SUBMISSION	SM	SM	DAL	A0	2017042A	VSC	PRELIMINARY DESIGN SUBMISSION	SM	SM	DAL	Project Title: MUMBAI METRO LINE - 3 (COLABA-BANDRA-BEEPZ) CONTRACT UGC-02 Contractor UGC-02 Design & Construction of Underground Stations & Associated Tunnels	DDC Interdisciplinary Coordination Sign off Map: _____ Structure: _____
Assessor	Discipline Leader	Engineer																																												
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A0	2017042A	VSC	PRELIMINARY DESIGN SUBMISSION	SM	SM	DAL																																								
					Scale: 1:200 Drawn: SS Date: 29-11-2018	P - Preliminary, D - Definitive, C - Construction Referenced/Good For Construction, B - As Built CAD File Name: UGC02-ARP-SGG-08001-002-A	AT																																							



CROSS SECTION - CC



CROSS SECTION - DD



Reference Drawings:
X-Refs



Notification

A B C

As noted in the DSR No dated

A Objection, a complete resubmission is required
 B No Objection with comments
 C Nihil of No Objection

Assessor	Discipline Leader	Engineer

Rev	Date	Drawn	Description	Designed	Checked	Approved
A	20181129	SS	PRELIMINARY DESIGN SUBMISSION	SM	SM	DAL
A2	20171130	VSC	REVISED PRELIMINARY DESIGN SUBMISSION	SM	SM	DAL
A1	20170823	VSC	REVISED PRELIMINARY DESIGN SUBMISSION	SM	SM	DAL
A0	20170418	VSC	PRELIMINARY DESIGN SUBMISSION	SM	SM	DAL

Detailed Design Consultant:

avesa Engineering Solutions

24, Vile-Apar Road, Midland Area, Sector-44
Gurgaon - 122002 (Haryana)

Project Title:
MUMBAI METRO LINE - 3 (COLABA-BANDRA-SEEPZ)
CONTRACT UGC-02

Contractor UGC-02 Design & Construction of Underground Stations & Associated Tunnels

Designed	Checked	Approved

Scale: 1:200
 Drawn: SS
 Date: 29-11-2018

Contractor:

HCC Engineering Solutions

HCC-MMS JV

DDC Interdisciplinary Coordination Sign off

Mep	Structure

MUMBAI METRO RAIL CORPORATION LTD.

Head Office: 10th Floor, 101, C Block, Bandra (West) Station, Mumbai (400050)

Drawing Title:
GIRGAON STATION
CROSS SECTION -CC & DD

Drawing Number:
UGC02-ARP-SGG-08001-003-A

Rev.	Drawn	Status
A	A	P

P - Preliminary, D - Definitive, C - Construction Reference/Good For Construction, B - As Built

CAD File Name: UGC02-ARP-SGG-08001-003-A

AT