Alpha
Consulting Engineers Pte Ltd

PROJECT QUALITY PLAN

HDB AT SERANGOON NORTH C21

For

HOUSING & DEVELOPMENT BOARD

Copy No.	1

Prepared By: Yip Yoke Fun

Authorised By: Loh Fook Yuen

Date: 11 May 2026

TABLE OF CONTENTS

SECTION	DESCRIPTION
-	**TITLE PAGE**
-	**TABLE OF CONTENTS**
1	**QUALITY PLAN CONTROL AND DISTRIBUTION**
1.1	List of Copy Holders
1.2	Revision Record
2	**PROJECT INFORMATION**
2.1	Project Description
2.2	Project Cost
2.3	Scope of Works
3	**ORGANISATION**
3.1	Organisation Chart
3.2	ACEPL's Project Team Member
3.3	Client/Client's Representative
3.4	Other Consultants – Local – Overseas – NOT APPLICABLE
3.5	Contractor/Sub-Contractors
3.6	Authorities
4	**PROGRAMME**
4.1	Overall Programme
4.2	Authority Submission Status for M&E Services – 1st Submission
4.3	Authority Submission Status for M&E Services (Amendment) – 2nd Submission
5	**PROJECT RECORDS**
5.1	List of Internal Files
5.2	Filing of Drawings

TABLE OF CONTENTS

SECTION	DESCRIPTION
6	**INTERFACING**
6.1	Method of Interface
6.2	Internal Design Interface – NOT APPLICABLE
6.3	Circulation of Documents to External Parties
7	**WORK AUTHORISATION**
8	**DESIGN INPUT AND METHODOLOGY**
8.1	List of Client's Standards, Reference Documents or Brief
8.2	List of Applicable Code of Practice and Regulations
8.3	List of Design Guide or Handbook Used
8.4	List of Pre-Consultation and Waiver – NOT APPLICABLE
8.5	List of Applicable Quality System Procedures
8.6	List of Software Used for Design/Analysis
9	**ENVIRONMENTAL CONSIDERATIONS**
9.1	Sustainable Design Features/Criteria
9.2	Site PPE Requirement
9.3	Site Emergency Preparedness
9.4	Reporting of Environmental Non-conformances
9.5	List of Applicable Environmental Management System Procedures
10	**CLIENT'S REQUIREMENTS**
10.1	List of Output Required by Client
10.2	Specific Procedures Required by Client – NOT APPLICABLE
11	**LIST OF SUB-JOB**
11.1	List of Sub-Job Numbers – NOT APPLICABLE

SECTION 1

QUALITY PLAN CONTROL AND DISTRIBUTION

1.1 List of Copy Holders

Copy No.	Copy Holder	Date of Issue
1	6322	11 May 2026

1.2 Revision Record

Revision	Date of Issue	Section Reference	Page(s)	Remarks
0	21 February 2023	1 to 11	29	+ 1 page (Section 9.1 – Sustainable Design Features/Criteria)
1	6 January 2025	1 to 11	29	+ 15 pages (Section 4.1 – Overall Programme) + 1 page (Section 9.1 – Sustainable Design Features/Criteria
2	11 May 2026	1 to 11	30	+ 15 pages (Section 4.1 – Overall Programme) + 1 page (Section 9.1 – Sustainable Design Features/Criteria

SECTION 2

PROJECT INFORMATION

2.1 Project Description

Type of Development	Residential

Statistics of Development	
Site Area, m²	17,152
Nett Floor Area, m²	–
Gross Floor Area, m²	48,328.59
Covered Carpark, m²	–
No. of Covered Carpark Lots	237
No. of Apartments/Houses	330
No. of Beds (for Hospitals)	–
No. of Guestroom (for Hotels)	–
No. of Blocks / No. of Storeys	5 BLOCKS OF 12-STOREY RESIDENTIAL FLATS, 1 BLOCK OF PART 6/PART 7-STOREY CAR PARK WITH COMMERCIAL FACILITIES, ESS & MSCP ROOF GARDEN
Green Mark Category	Gold Plus
No. of Phases	14

2.2 Project Cost

M&E Services Cost Plan (S$ x 1M)										
Services	EI	ACVI	LEI	FFAI	PSI	SPFI				
Estimate						–				
Awarded	4.555	0.209	–	1.109	2.638	–				

Total Project Construction Cost (S$ x1M)			
	Site Clearance	Piling Works	Main Contract
Estimate	–	–	–
Awarded	–	–	97.555

Site Clearance shall include earth work, soil improvement, service diversion and termination.

2.3 Scope of Works

2.3.1 Scope of Consultancy Services

Conceptual/Schematic Design	✓
Detailed Design	✓
Tender Documentation	–
Tender Evaluation	–
Contract Supervision	✓
M&E Costing	✓
Submissions to Authority	✓

(✓ where applicable)

2.3.2 Scope of M&E Services

ELECTRICAL	✓	AIR CONDITIONING		SPRINKLER		SANITARY	✓	SWIMMING POOL	
LIFT	✓	MECHANICAL VENTILATION	✓	FIRE ALARM	✓	COLD WATER	✓	STEAM BOILER	
ESCALATOR		MECHANICAL SMOKE EXTRACT		HOSEREEL	✓	HOT WATER	✓	FUEL STORAGE	
PABX		COMPUTER A/C		WET RISER		TOWN GAS	✓		
SECURITY		BST CARPARK EXH		DRY RISER	✓	LPG GAS			
TELELIFT		HEATING				MEDICAL GAS			
DATA COMM.									
FLUSHFLOOR TRUNKING									

(✓*where applicable*)

2.3.3 Submission to Relevant Authorities by Others

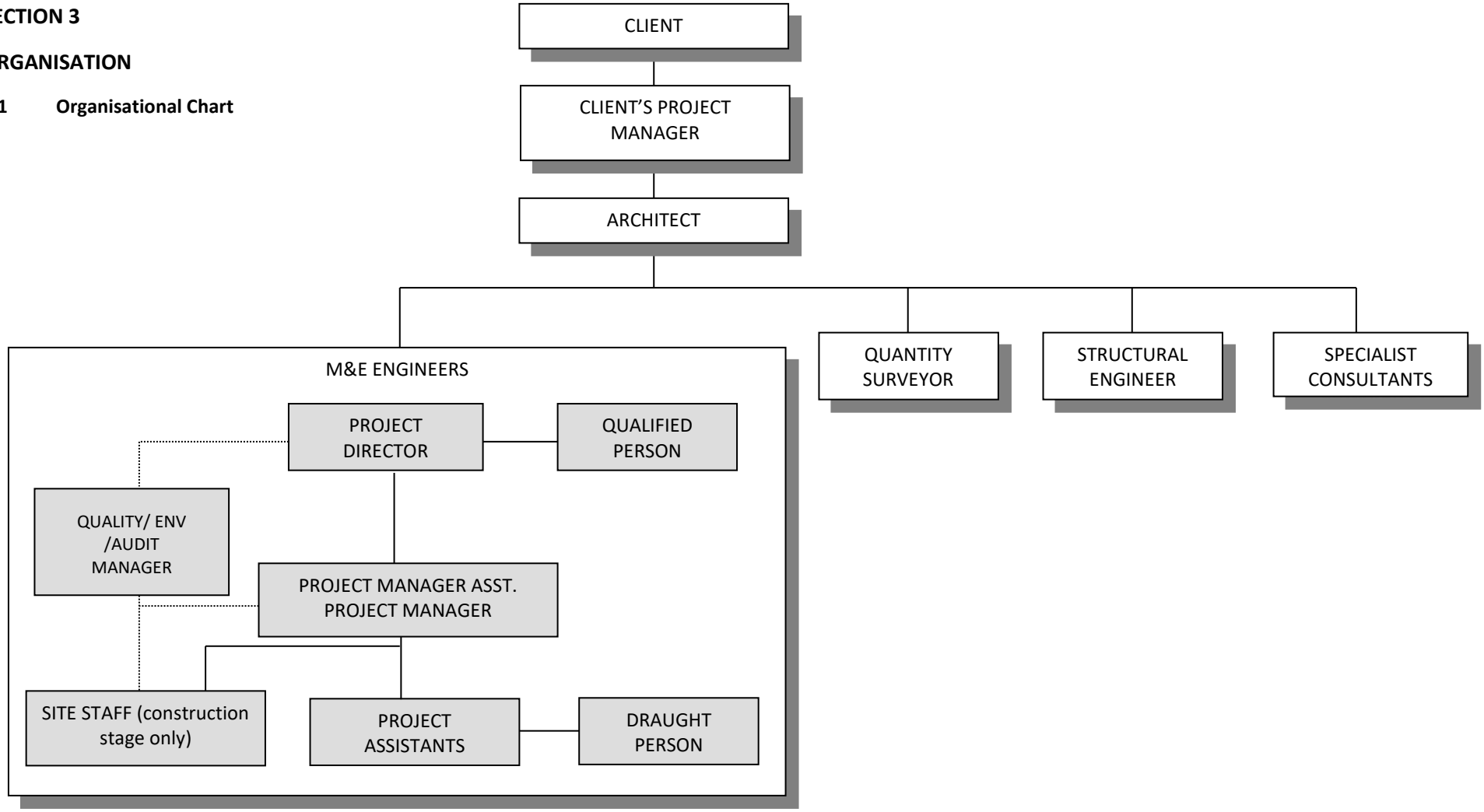
EJECTOR & DIVERTER		SUMP PUMP		FUEL OIL TANK		LIFT & ESCALATOR		PRESSURE VESSEL		HOISTS		FOAM	

(✓ where applicable)

SECTION 3

ORGANISATION

3.1 Organisational Chart



SECTION 3

ORGANISATION

3.2 ACEPL's Project Team Member

TITLE		NAME
Project Director		Loh Fook Yuen (LFY)
Qualified Person	Mechanical	Choong Choon Guan (CCG)
	Electrical	Loh Fook Yuen (LFY)
Project Manager		Yip Yoke Fun (YYF)
Assistant Project Manager		–
Project Assistant (Mech)		–
Project Assistant (Elect)		Lim Sheng, Benedict (LSH)
Draughtsperson		Common Pool
Resident Engineer (M&E)		–
Assistant Resident Engineer (M&E)		–
Clerk-of-Work (M&E)		–

3.3 Client/Client's Representatives

Client: Housing & Development Board

Address: HDB Hub
480 Lorong 6, Toa Payoh
Singapore 310480

Tel: 6490 2108

Fax: 6397 2457

Client's Representatives:

Name of Company	Contact Person	Contact
Housing & Development Board	Name: Mr Lok Hon Keong Position: Project Coordinator	Tel: 6490 2114 Fax: 6397 2457 Handphone: 9622 9669 Email: lok_hon_keong@hdb.gov.sg
Housing & Development Board	Name: Mr Neo De Sheng Position: Project Director	Tel: – Fax: – Handphone: 9385 9934 Email: neo_de_sheng@hdb.gov.sg
Housing & Development Board	Name: Ms Mandy Ong Position: Senior Contracts Manager	Tel: Fax: Handphone: Email: mandy_ym_ong@hdb.gov.sg
	Name: Position:	Tel: Fax: Handphone: Email:
	Name: Position:	Tel: Fax: Handphone: Email:

3.4 **Other Consultants** (Local)

Function / Name of Company	Contact Person	Contact
Architect DP Architects Pte Ltd	Name: Mr Daniel Po Position: Associate Director	Tel: 6828 7870 Fax: 6337 9989 Handphone: 9670 0376 Email: hdb-srg-nth-c21@dpa.com.sg
Quantity Surveyor Northcroft Lim Consultants Pte Ltd	Name: Mr Sunny Tan Position: Director	Tel: 6220 7188 Fax: 6220 0868 Handphone: 9674 1858 Email: 2249sn@northcroft.sg
Structural Engineer E2000 Pte Ltd	Name: Mr Wang Yee Khai Position: Director	Tel: 6221 0388 ext 11 Fax: 6221 2600 Handphone: 9017 0508 Email: e2000@e2000.com.sg
Interior Designer NA	Name: Position:	Tel: Fax: Handphone: Email:
Lighting Consultant NA	Name: Position:	Tel: Fax: Handphone: Email:
Acoustic Consultant Affinity Engineering Consultancy Pte Ltd	Name: Mr Vincent Hii Position: Director	Tel: 6316 4432 Fax: 6567 8015 Handphone: 9006 8652 Email: vincent.hii@affinityec.com
Landscape Consultant DP Green Pte Ltd	Name: Ms Yvonne Tan Position: Director	Tel: 6829 3420 Fax: 6337 9989 Handphone: 9012 3246 Email: yvonnetan@dpg.com.sg
Project Consultant Asia Infrastructure Solutions Pte Ltd	Name: Ms Li Pei Jun Position: Executive Senior Project Manager	Tel: 6222 3888 Fax: – Handphone: 8808 6259 Email: li.peijun@ais-hill.com

3.4 Other Consultants (Overseas) – **NOT APPLICABLE**

Function / Name of Company	Contact Person	Contact
Architect	Name: Position:	Tel: Fax: Handphone: Email:
M&E Consultant	Name: Position:	Tel: Fax: Handphone: Email:
Quantity Surveyor	Name: Position:	Tel: Fax: Handphone: Email:
Structural Engineer	Name: Position:	Tel: Fax: Handphone: Email:
Interior Designer	Name: Position:	Tel: Fax: Handphone: Email:
Lighting Consultant	Name: Position:	Tel: Fax: Handphone: Email:
Acoustic Consultant	Name: Position:	Tel: Fax: Handphone: Email:
_____	Name: Position:	Tel: Fax: Handphone: Email:

3.5 Contractors/Sub-Contractors

Function / Name of Company	Contract *	Contact Person	Contact
Main Contractor Nippon Builders Pte Ltd		Name: Mr Soon Boon Chin, Eugene Position: Project Director	Tel: 6898 2500 Fax: 6861 0788 Handphone: 9628 8952 Email: eugenesoon@nipponbuilders.com
Air Conditioning & Ventilation Installation Sub-Contractor Fidecs Engineering Pte Ltd	DSC	Name: Mr Ervin Chng Position: Director	Tel: 6555 1286 Fax: 6555 2682 Handphone: 8338 4672 Email: Ervin.Chng@fidecsengineering.com
Plumbing & Sanitary Installation Sub-Contractor ASK M&E Pte Ltd	DSC	Name: Mr Veerajah Nagasundarapandian Position: Project Manager	Tel: – Fax: 6296 7520 Handphone: 9727 7743 Email: sundar.vee4477@gmail.com
Electrical Installation Sub-Contractor United Engineering Pte Ltd	DSC	Name: Mr Zheng Xin Lin Position: Director	Tel: – Fax: – Handphone: 9838 5341 Email: zheng4040@uepl.com.sg
Lift & Escalator Installation Sub-Contractor EM Services Pte Ltd	DSC	Name: Dennis Chan Position: Project Manager	Tel: 6311 4467 Fax: – Handphone: 8913 3547 Email: dennischan@emservices.com.sg
Fire Fighting & Alarm Installation Sub-Contractor Tong Loong Engineering Pte Ltd		Name: Durai Manickam Govinda Raju Position: Senior Project Manager	Tel: 6262 4401 Fax: – Handphone: 9761 8802 Email: admin@tongloong.com
Swimming Pool Filtration Plant Installation Sub-Contractor		Name: Position:	Tel: Fax: Handphone: Email:
Carpark System Installation Sub-Contractor		Name: Position:	Tel: Fax: Handphone: Email:
Cable Detection Sub-Contractor Cables & Utilities Detection Services Pte Ltd	DC	Name: Johan Position: –	Tel: 6269 2005 Fax: 6269 1955 Handphone: 9435 3456 Email: johan@cabledetection.com.sg

** Type of Contract*
- *NSC (Nominated Sub-Contract)*
- *DSC (Domesticated Sub-Contract)*
- *DC (Direct Contract)*
- *NS (Nominated Supplier)*

3.6 Authorities

Authorities/Department	Contact Person	Tel/Fax Nos./E-mail
SP PowerGrid: (a) Sub-Station	Mr Abbas Bin Mohamed Supian	abbasmohdsupiah@spgroup.com.sg
(b) Diversion		
SP Services: (a) Customer Supply	-	6916 7200 / install@spgroup.com.sg
(b) Installation	-	6916 7200 / install@spgroup.com.sg
(c) Meter Section		6916 8555
(d) Road Lighting		
TFCC: (a) SCV		
(b) SingTel		
(c) IDA	Mr Seah Koon Chye	6989 5635 / Seah_Koon_chye@imda.gov.sg
BCA: (a) Building Plan		
(b) Green Mark		
FSSD: (a) Building Plan		
(b) M&E Plan		
PUB (Water Supply) Network Dept: (a) Water Conservation		
(b) Plumbing Plan	Mr Sim Lye Huat/Ow Zhao Hui	9848 9181 / 9380 2963
(c) Diversion	Mr Poon Yee Sheng	9853 3138
(d) NEWater		
PUB Water Reclamation (Network) Dept: (a) Building Plan/CBPU	Mr Jumaeyah Mohamed	6731 3468
(b) M&E Plan		
(c) Diversion		
City Gas Pte Ltd: (a) Planning/Submission	Mr Jackson Houng	6595 5925
(b) Installation/Inspection	Mr Ahmad Shahid	8866 4623
PowerGas Pte Ltd (a) Diversion		
NEA (Pollution Control) (a) Planning/Submission		
(b) Inspection		

SECTION 4

PROGRAMME

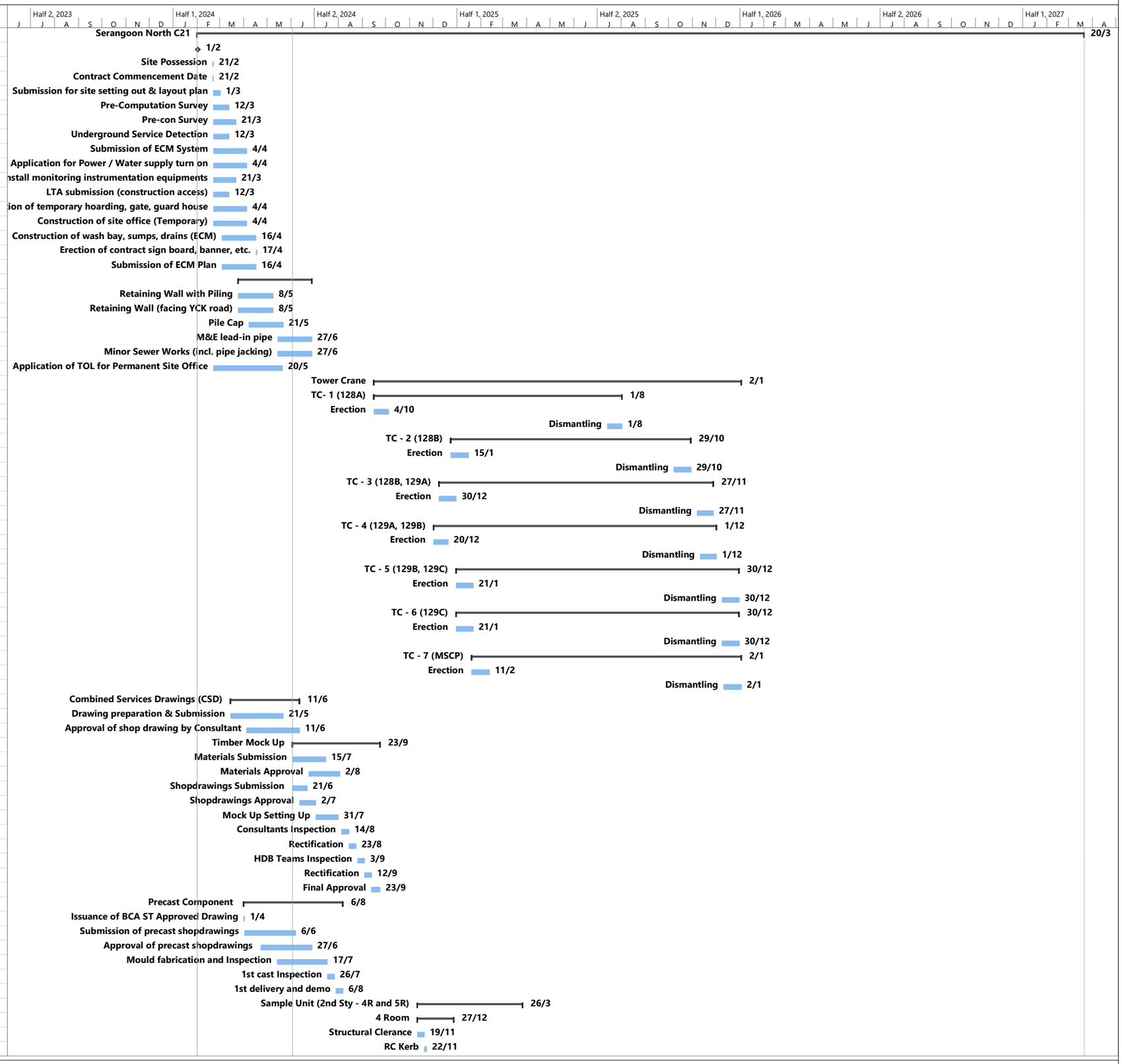
4.1 Overall Programme (Refer to attached Master Programme)

ID	TASK NAME	MONTHS	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
1.	Preliminary Planning																									
2.	Planning Submission																									
3.	Detail Design																									
4.	BP Submission																									
5.	BP Submission (Amendments)																									
6.	Tender Period for Piling																									
7.	Tender Period for Sub-Structure																									
8.	Tender Period for Super-Structure																									
9.	Piling Period																									
10.	Sub-Structure Construction Period																									
11.	Super-Structure Construction Period																									
12.	TOP																									
13.	CSC																									

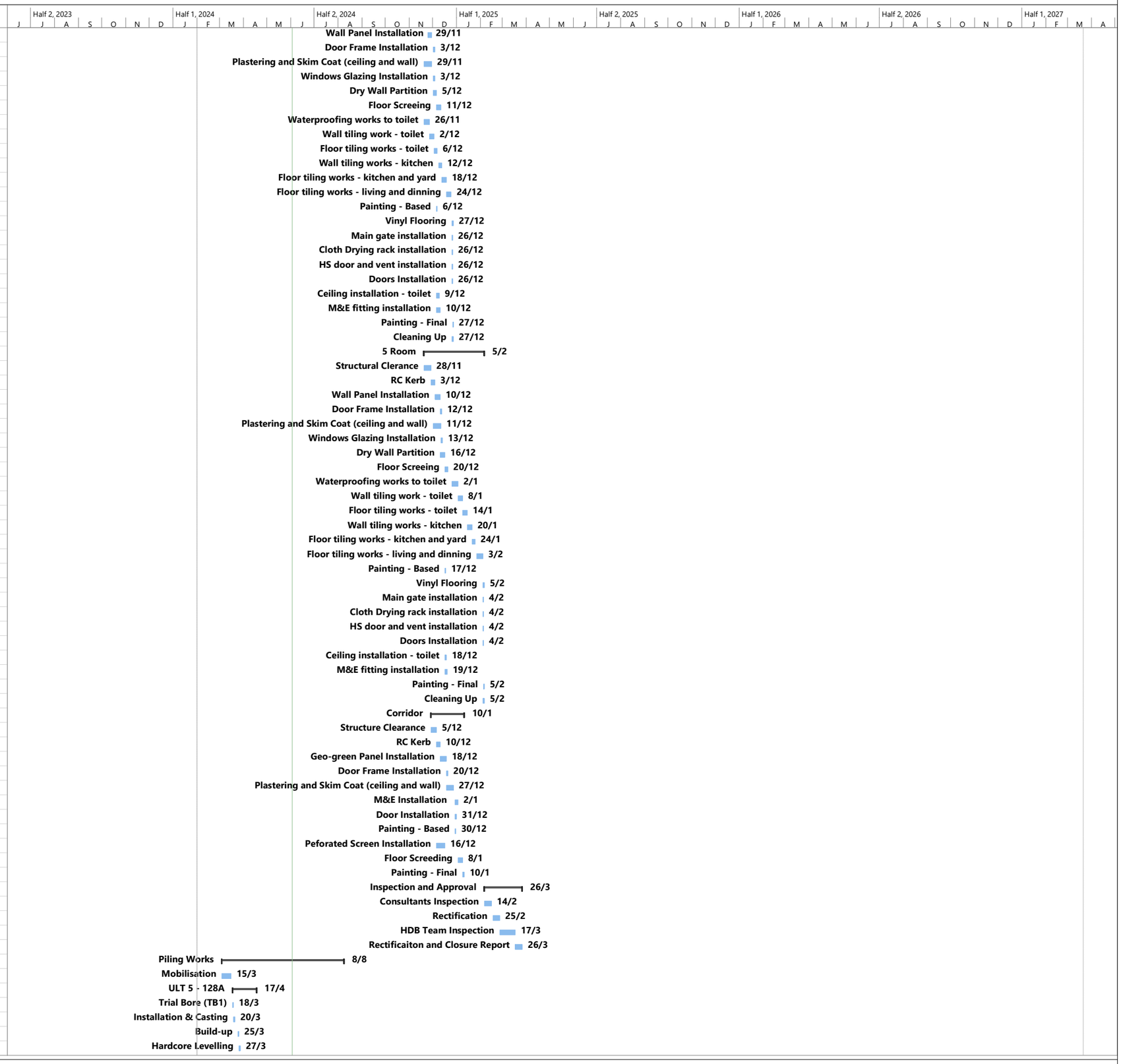
NIPPON BUILDERS PTE LTD

Preliminaries Master Program (Rev. 0)

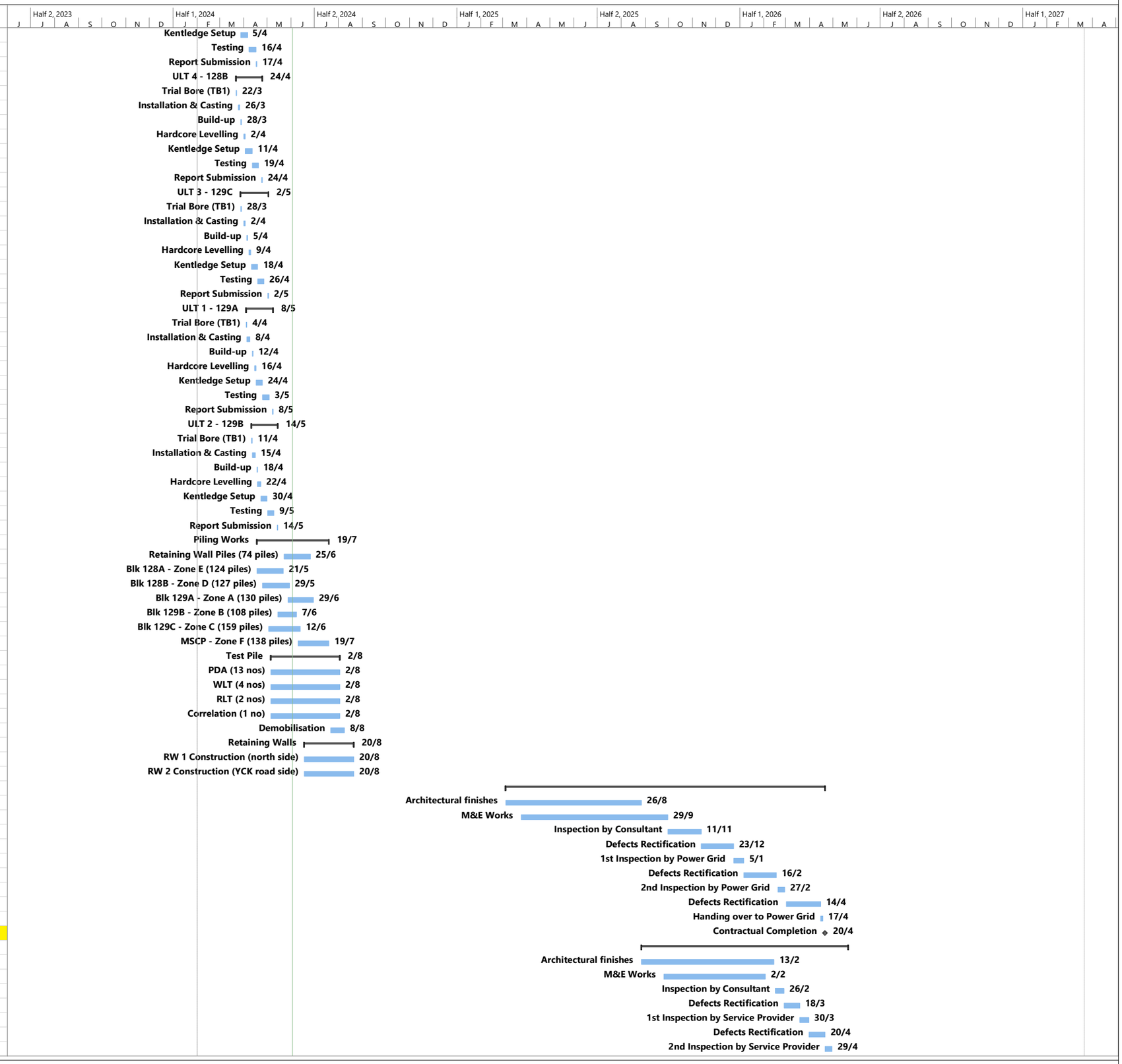
ID	Task Mode	Task Name	Duration	Start	Finish
1		**Serangoon North C21**	**789 days**	**1/2/24**	**20/3/27**
2		LOA	1 day	1/2/24	1/2/24
3		Site Possession	1 day	21/2/24	21/2/24
4		Contract Commencement Date	1 day	21/2/24	21/2/24
5		Submission for site setting out & layout plan	7 days	22/2/24	1/3/24
6		Pre-Computation Survey	14 days	22/2/24	12/3/24
7		Pre-con Survey	21 days	22/2/24	21/3/24
8		Underground Service Detection	14 days	22/2/24	12/3/24
9		Submission of ECM System	30 days	22/2/24	4/4/24
10		Application for Power / Water supply turn on	30 days	22/2/24	4/4/24
11		Install monitoring instrumentation equipments	21 days	22/2/24	21/3/24
12		LTA submission (construction access)	14 days	22/2/24	12/3/24
13		Erection of temporary hoarding, gate, guard house	30 days	22/2/24	4/4/24
14		Construction of site office (Temporary)	30 days	22/2/24	4/4/24
15		Construction of wash bay, sumps, drains (ECM)	30 days	4/3/24	16/4/24
16		Erection of contract sign board, banner, etc.	1 day	17/4/24	17/4/24
17		Submission of ECM Plan	30 days	4/3/24	16/4/24
18		**Submission of ERSS**	**64 days**	**25/3/24**	**27/6/24**
19		Retaining Wall with Piling	30 days	25/3/24	8/5/24
20		Retaining Wall (facing YCK road)	30 days	25/3/24	8/5/24
21		Pile Cap	30 days	8/4/24	21/5/24
22		M&E lead-in pipe	30 days	15/5/24	27/6/24
23		Minor Sewer Works (incl. pipe jacking)	30 days	15/5/24	27/6/24
24		Application of TOL for Permanent Site Office	60 days	22/2/24	20/5/24
25		**Tower Crane**	**327 days**	**16/9/24**	**2/1/26**
26		**TC- 1 (128A)**	**220 days**	**16/9/24**	**1/8/25**
27		Erection	15 days	16/9/24	4/10/24
28		Dismantling	15 days	14/7/25	1/8/25
29		**TC - 2 (128B)**	**212 days**	**24/12/24**	**29/10/25**
30		Erection	15 days	24/12/24	15/1/25
31		Dismantling	15 days	8/10/25	29/10/25
32		**TC - 3 (128B, 129A)**	**244 days**	**9/12/24**	**27/11/25**
33		Erection	15 days	9/12/24	30/12/24
34		Dismantling	15 days	7/11/25	27/11/25
35		**TC - 4 (129A, 129B)**	**251 days**	**2/12/24**	**1/12/25**
36		Erection	15 days	2/12/24	20/12/24
37		Dismantling	15 days	11/11/25	1/12/25
38		**TC - 5 (129B, 129C)**	**251 days**	**31/12/24**	**30/12/25**
39		Erection	15 days	31/12/24	21/1/25
40		Dismantling	15 days	9/12/25	30/12/25
41		**TC - 6 (129C)**	**251 days**	**31/12/24**	**30/12/25**
42		Erection	15 days	31/12/24	21/1/25
43		Dismantling	15 days	9/12/25	30/12/25
44		**TC - 7 (MSCP)**	**240 days**	**20/1/25**	**2/1/26**
45		Erection	15 days	20/1/25	11/2/25
46		Dismantling	15 days	11/12/25	2/1/26
47		**Combined Services Drawings (CSD)**	**59 days**	**15/3/24**	**11/6/24**
48		Drawing preparation & Submission	45 days	15/3/24	21/5/24
49		Approval of shop drawing by Consultant	45 days	5/4/24	11/6/24
50		**Timber Mock Up**	**79 days**	**3/6/24**	**23/9/24**
51		Materials Submission	30 days	3/6/24	15/7/24
52		Materials Approval	30 days	24/6/24	2/8/24
53		Shopdrawings Submission	14 days	3/6/24	21/6/24
54		Shopdrawings Approval	14 days	12/6/24	2/7/24
55		Mock Up Setting Up	21 days	3/7/24	31/7/24
56		Consultants Inspection	7 days	5/8/24	14/8/24
57		Rectification	7 days	15/8/24	23/8/24
58		HDB Teams Inspection	7 days	26/8/24	3/9/24
59		Rectification	7 days	4/9/24	12/9/24
60		Final Approval	7 days	13/9/24	23/9/24
61		**Precast Component**	**88 days**	**1/4/24**	**6/8/24**
62		Issuance of BCA ST Approved Drawing	1 day	1/4/24	1/4/24
63		Submission of precast shopdrawings	45 days	2/4/24	6/6/24
64		Approval of precast shopdrawings	45 days	23/4/24	27/6/24
65		Mould fabrication and Inspection	45 days	14/5/24	17/7/24
66		1st cast Inspection	7 days	18/7/24	26/7/24
67		1st delivery and demo	7 days	29/7/24	6/8/24
68		**Sample Unit (2nd Sty - 4R and 5R)**	**94 days**	**11/11/24**	**26/3/25**
69		**4 Room**	**34 days**	**11/11/24**	**27/12/24**
70		Structural Clerance	7 days	11/11/24	19/11/24
71		RC Kerb	3 days	20/11/24	22/11/24



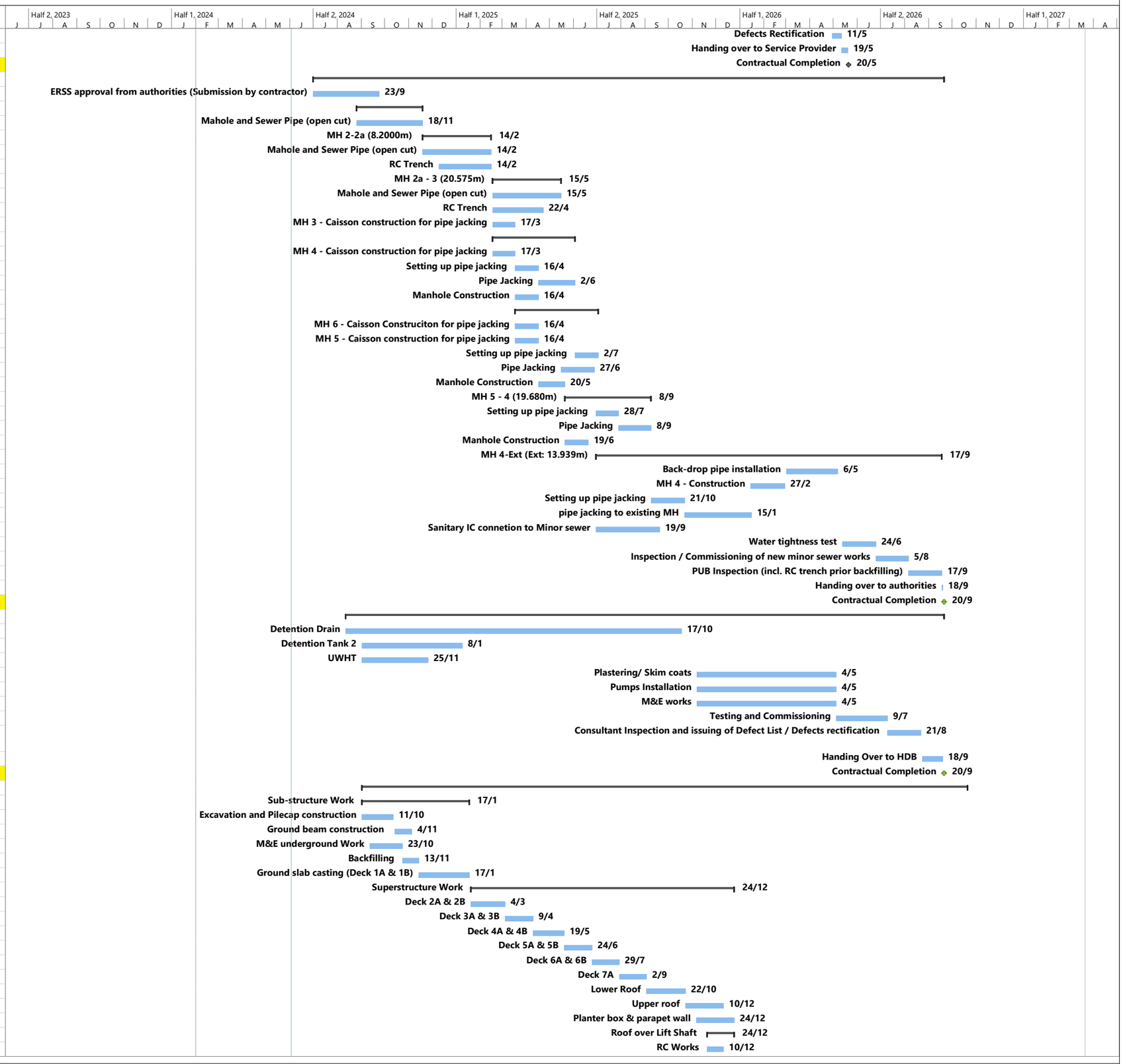
ID	Task Mode	Task Name	Duration	Start	Finish
72		Wall Panel Installation	5 days	25/11/24	29/11/24
73		Door Frame Installation	2 days	2/12/24	3/12/24
74		Plastering and Skim Coat (ceiling and wall)	8 days	20/11/24	29/11/24
75		Windows Glazing Installation	2 days	2/12/24	3/12/24
76		Dry Wall Partition	4 days	2/12/24	5/12/24
77		Floor Screeing	4 days	6/12/24	11/12/24
78		Waterproofing works to toilet	5 days	20/11/24	26/11/24
79		Wall tiling work - toilet	4 days	27/11/24	2/12/24
80		Floor tiling works - toilet	4 days	3/12/24	6/12/24
81		Wall tiling works - kitchen	4 days	9/12/24	12/12/24
82		Floor tiling works - kitchen and yard	4 days	13/12/24	18/12/24
83		Floor tiling works - living and dinning	4 days	19/12/24	24/12/24
84		Painting - Based	1 day	6/12/24	6/12/24
85		Vinyl Flooring	2 days	26/12/24	27/12/24
86		Main gate installation	1 day	26/12/24	26/12/24
87		Cloth Drying rack installation	1 day	26/12/24	26/12/24
88		HS door and vent installation	1 day	26/12/24	26/12/24
89		Doors Installation	1 day	26/12/24	26/12/24
90		Ceiling installation - toilet	2 days	6/12/24	9/12/24
91		M&E fitting installation	3 days	6/12/24	10/12/24
92		Painting - Final	1 day	27/12/24	27/12/24
93		Cleaning Up	2 days	26/12/24	27/12/24
94		**5 Room**	**52 days**	**20/11/24**	**5/2/25**
95		Structural Clerance	7 days	20/11/24	28/11/24
96		RC Kerb	3 days	29/11/24	3/12/24
97		Wall Panel Installation	5 days	4/12/24	10/12/24
98		Door Frame Installation	2 days	11/12/24	12/12/24
99		Plastering and Skim Coat (ceiling and wall)	8 days	2/12/24	11/12/24
100		Windows Glazing Installation	2 days	12/12/24	13/12/24
101		Dry Wall Partition	4 days	11/12/24	16/12/24
102		Floor Screeing	4 days	17/12/24	20/12/24
103		Waterproofing works to toilet	5 days	26/12/24	2/1/25
104		Wall tiling work - toilet	4 days	3/1/25	8/1/25
105		Floor tiling works - toilet	4 days	9/1/25	14/1/25
106		Wall tiling works - kitchen	4 days	15/1/25	20/1/25
107		Floor tiling works - kitchen and yard	4 days	21/1/25	24/1/25
108		Floor tiling works - living and dinning	4 days	27/1/25	3/2/25
109		Painting - Based	1 day	17/12/24	17/12/24
110		Vinyl Flooring	2 days	4/2/25	5/2/25
111		Main gate installation	1 day	4/2/25	4/2/25
112		Cloth Drying rack installation	1 day	4/2/25	4/2/25
113		HS door and vent installation	1 day	4/2/25	4/2/25
114		Doors Installation	1 day	4/2/25	4/2/25
115		Ceiling installation - toilet	2 days	17/12/24	18/12/24
116		M&E fitting installation	3 days	17/12/24	19/12/24
117		Painting - Final	1 day	5/2/25	5/2/25
118		Cleaning Up	2 days	4/2/25	5/2/25
119		**Corridor**	**29 days**	**29/11/24**	**10/1/25**
120		Structure Clearance	5 days	29/11/24	5/12/24
121		RC Kerb	3 days	6/12/24	10/12/24
122		Geo-green Panel Installation	6 days	11/12/24	18/12/24
123		Door Frame Installation	2 days	19/12/24	20/12/24
124		Plastering and Skim Coat (ceiling and wall)	6 days	19/12/24	27/12/24
125		M&E Installation	3 days	30/12/24	2/1/25
126		Door Installation	2 days	30/12/24	31/12/24
127		Painting - Based	1 day	30/12/24	30/12/24
128		Peforated Screen Installation	7 days	6/12/24	16/12/24
129		Floor Screeding	4 days	3/1/25	8/1/25
130		Painting - Final	2 days	9/1/25	10/1/25
131		**Inspection and Approval**	**35 days**	**6/2/25**	**26/3/25**
132		Consultants Inspection	7 days	6/2/25	14/2/25
133		Rectification	7 days	17/2/25	25/2/25
134		HDB Team Inspection	14 days	26/2/25	17/3/25
135		Rectificaiton and Closure Report	7 days	18/3/25	26/3/25
136		**Piling Works**	**109 days**	**4/3/24**	**8/8/24**
137		Mobilisation	10 days	4/3/24	15/3/24
138		**ULT 5 - 128A**	**21 days**	**18/3/24**	**17/4/24**
139		Trial Bore (TB1)	1 day	18/3/24	18/3/24
140		Installation & Casting	2 days	19/3/24	20/3/24
141		Build-up	1 day	25/3/24	25/3/24
142		Hardcore Levelling	2 days	26/3/24	27/3/24



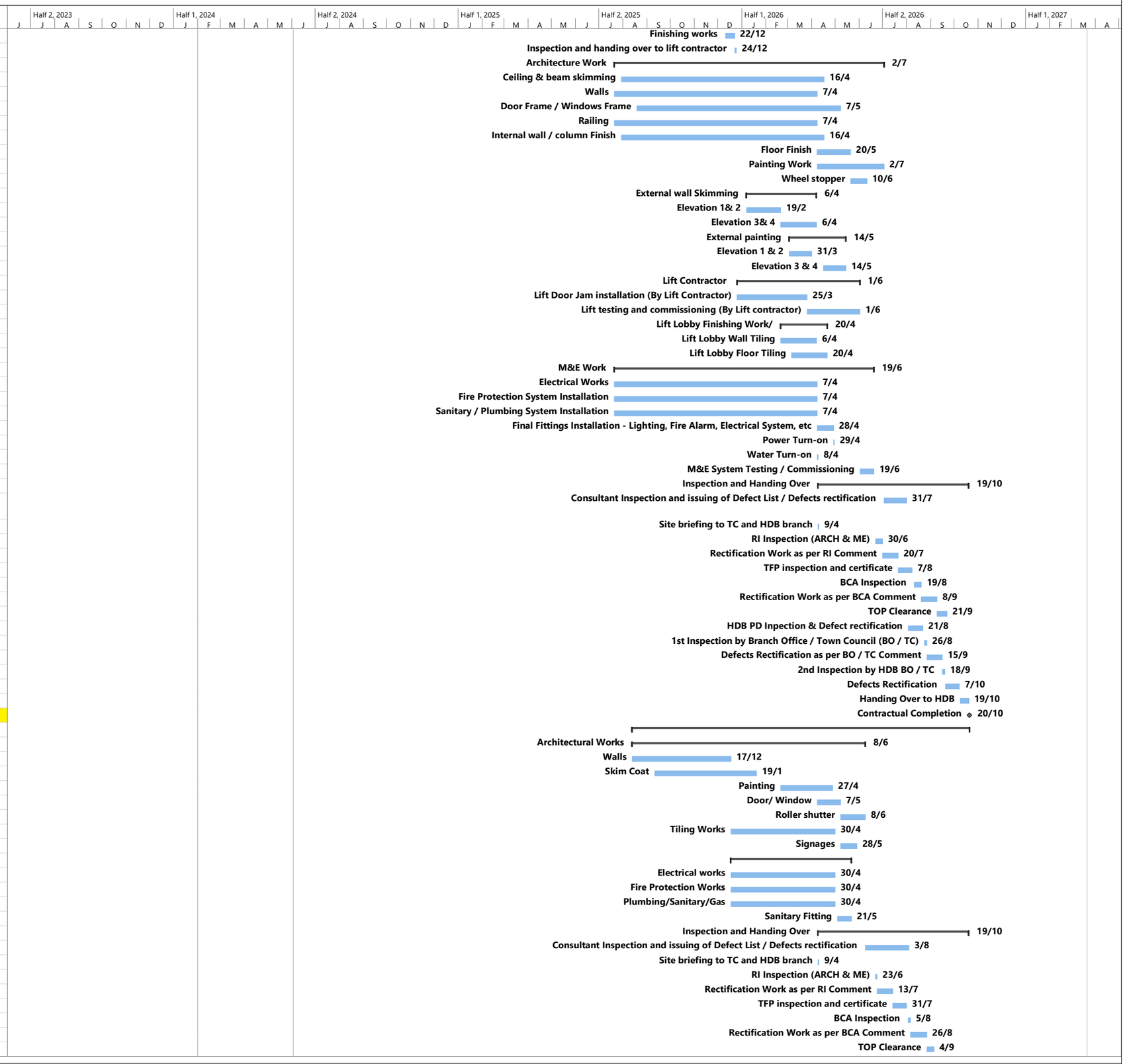
ID	Task Mode	Task Name	Duration	Start	Finish
143		Kentledge Setup	6 days	28/3/24	5/4/24
144		Testing	6 days	8/4/24	16/4/24
145		Report Submission	1 day	17/4/24	17/4/24
146		**ULT 4 - 128B**	**22 days**	**22/3/24**	**24/4/24**
147		Trial Bore (TB1)	1 day	22/3/24	22/3/24
148		Installation & Casting	2 days	25/3/24	26/3/24
149		Build-up	1 day	28/3/24	28/3/24
150		Hardcore Levelling	2 days	1/4/24	2/4/24
151		Kentledge Setup	6 days	3/4/24	11/4/24
152		Testing	6 days	12/4/24	19/4/24
153		Report Submission	1 day	24/4/24	24/4/24
154		**ULT 3 - 129C**	**23 days**	**28/3/24**	**2/5/24**
155		Trial Bore (TB1)	1 day	28/3/24	28/3/24
156		Installation & Casting	2 days	1/4/24	2/4/24
157		Build-up	1 day	5/4/24	5/4/24
158		Hardcore Levelling	2 days	8/4/24	9/4/24
159		Kentledge Setup	6 days	11/4/24	18/4/24
160		Testing	6 days	19/4/24	26/4/24
161		Report Submission	1 day	2/5/24	2/5/24
162		**ULT 1 - 129A**	**23 days**	**4/4/24**	**8/5/24**
163		Trial Bore (TB1)	1 day	4/4/24	4/4/24
164		Installation & Casting	2 days	5/4/24	8/4/24
165		Build-up	1 day	12/4/24	12/4/24
166		Hardcore Levelling	2 days	15/4/24	16/4/24
167		Kentledge Setup	6 days	17/4/24	24/4/24
168		Testing	6 days	25/4/24	3/5/24
169		Report Submission	1 day	8/5/24	8/5/24
170		**ULT 2 - 129B**	**23 days**	**11/4/24**	**14/5/24**
171		Trial Bore (TB1)	1 day	11/4/24	11/4/24
172		Installation & Casting	2 days	12/4/24	15/4/24
173		Build-up	1 day	18/4/24	18/4/24
174		Hardcore Levelling	2 days	19/4/24	22/4/24
175		Kentledge Setup	6 days	23/4/24	30/4/24
176		Testing	6 days	2/5/24	9/5/24
177		Report Submission	1 day	14/5/24	14/5/24
178		**Piling Works**	**64 days**	**18/4/24**	**19/7/24**
179		Retaining Wall Piles (74 piles)	23 days	23/5/24	25/6/24
180		Blk 128A - Zone E (124 piles)	23 days	18/4/24	21/5/24
181		Blk 128B - Zone D (127 piles)	23 days	25/4/24	29/5/24
182		Blk 129A - Zone A (130 piles)	23 days	28/5/24	29/6/24
183		Blk 129B - Zone B (108 piles)	17 days	15/5/24	7/6/24
184		Blk 129C - Zone C (159 piles)	28 days	3/5/24	12/6/24
185		MSCP - Zone F (138 piles)	29 days	10/6/24	19/7/24
186		**Test Pile**	**63 days**	**6/5/24**	**2/8/24**
187		PDA (13 nos)	63 days	6/5/24	2/8/24
188		WLT (4 nos)	63 days	6/5/24	2/8/24
189		RLT (2 nos)	63 days	6/5/24	2/8/24
190		Correlation (1 no)	63 days	6/5/24	2/8/24
191		Demobilisation	14 days	22/7/24	8/8/24
192		**Retaining Walls**	**45 days**	**18/6/24**	**20/8/24**
193		RW 1 Construction (north side)	45 days	18/6/24	20/8/24
194		RW 2 Construction (YCK road side)	45 days	18/6/24	20/8/24
195		**Phase 1 - ESS (128 MSCP)**	**282 days**	**5/3/25**	**20/4/26**
196		Architectural finishes	120 days	5/3/25	26/8/25
197		M&E Works	130 days	25/3/25	29/9/25
198		Inspection by Consultant	30 days	30/9/25	11/11/25
199		Defects Rectification	30 days	12/11/25	23/12/25
200		1st Inspection by Power Grid	7 days	24/12/25	5/1/26
201		Defects Rectification	30 days	6/1/26	16/2/26
202		2nd Inspection by Power Grid	7 days	19/2/26	27/2/26
203		Defects Rectification	30 days	2/3/26	14/4/26
204		Handing over to Power Grid	3 days	15/4/26	17/4/26
205		**Contractual Completion**	**1 day**	**20/4/26**	**20/4/26**
206		**Phase 2 - MDF Room (128A)**	**183 days**	**27/8/25**	**20/5/26**
207		Architectural finishes	120 days	27/8/25	13/2/26
208		M&E Works	90 days	25/9/25	2/2/26
209		Inspection by Consultant	7 days	16/2/26	26/2/26
210		Defects Rectification	14 days	27/2/26	18/3/26
211		1st Inspection by Service Provider	7 days	19/3/26	30/3/26
212		Defects Rectification	14 days	31/3/26	20/4/26
213		2nd Inspection by Service Provider	7 days	21/4/26	29/4/26



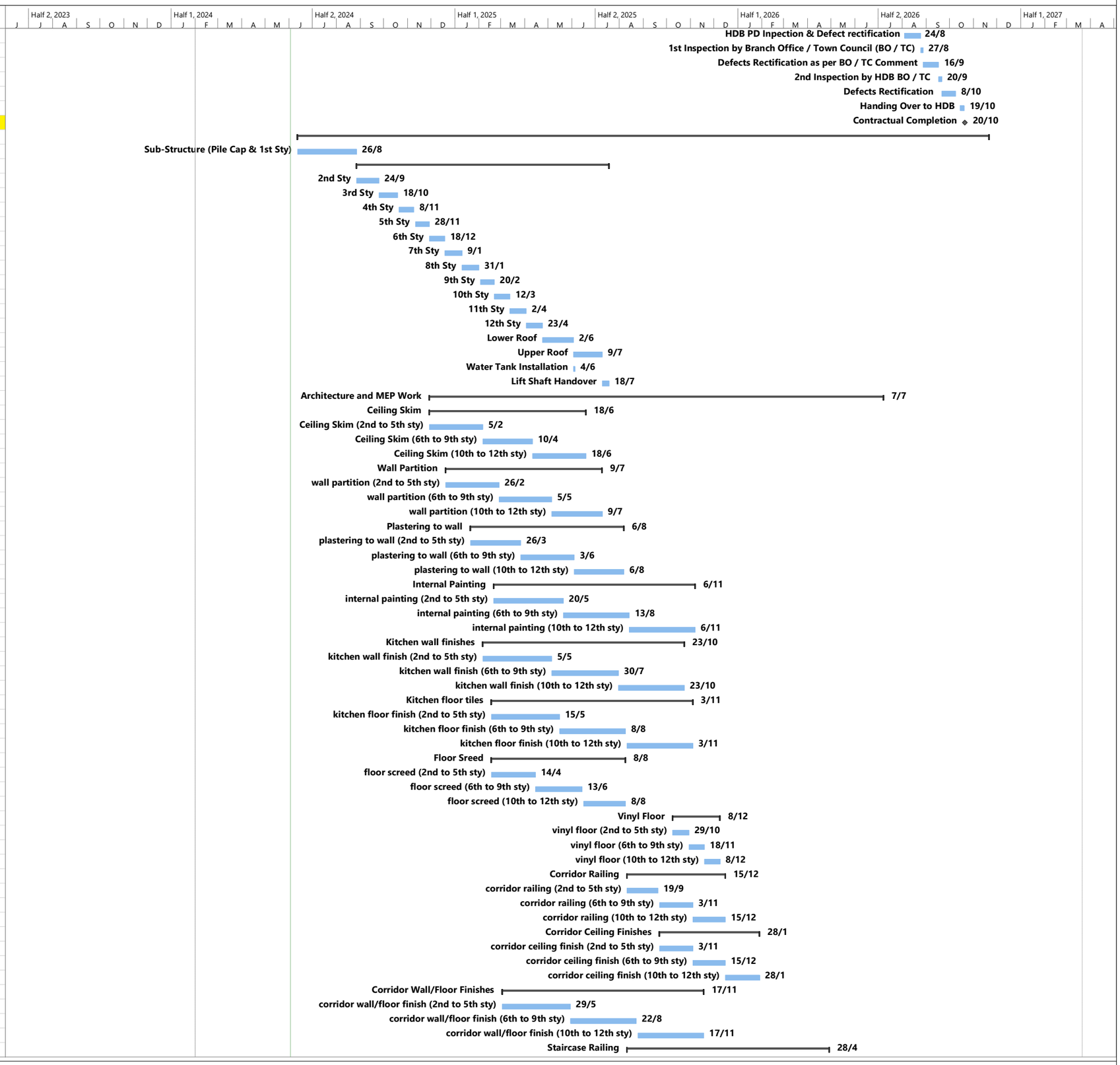
ID	Task Mode	Task Name	Duration	Start	Finish
214		Defects Rectification	7 days	30/4/26	11/5/26
215		Handing over to Service Provider	6 days	12/5/26	19/5/26
216		**Contractual Completion**	**1 day**	**20/5/26**	**20/5/26**
217		**Phase 3 - Minor Sewer Works**	**560 days**	**1/7/24**	**20/9/26**
218		ERSS approval from authorities (Submission by contractor)	60 days	1/7/24	23/9/24
219		**MH 1-2 (39.715m)**	**60 days**	**26/8/24**	**18/11/24**
220		Mahole and Sewer Pipe (open cut)	60 days	26/8/24	18/11/24
221		**MH 2-2a (8.2000m)**	**60 days**	**19/11/24**	**14/2/25**
222		Mahole and Sewer Pipe (open cut)	60 days	19/11/24	14/2/25
223		RC Trench	45 days	10/12/24	14/2/25
224		**MH 2a - 3 (20.575m)**	**60 days**	**17/2/25**	**15/5/25**
225		Mahole and Sewer Pipe (open cut)	60 days	17/2/25	15/5/25
226		RC Trench	45 days	17/2/25	22/4/25
227		MH 3 - Caisson construction for pipe jacking	21 days	17/2/25	17/3/25
228		**MH 3 - 4 (62.340m)**	**72 days**	**17/2/25**	**2/6/25**
229		MH 4 - Caisson construction for pipe jacking	21 days	17/2/25	17/3/25
230		Setting up pipe jacking	21 days	18/3/25	16/4/25
231		Pipe Jacking	30 days	17/4/25	2/6/25
232		Manhole Construction	21 days	18/3/25	16/4/25
233		**MH 6 - 5 (84.000m)**	**72 days**	**18/3/25**	**2/7/25**
234		MH 6 - Caisson Construciton for pipe jacking	21 days	18/3/25	16/4/25
235		MH 5 - Caisson construction for pipe jacking	21 days	18/3/25	16/4/25
236		Setting up pipe jacking	21 days	3/6/25	2/7/25
237		Pipe Jacking	30 days	16/5/25	27/6/25
238		Manhole Construction	21 days	17/4/25	20/5/25
239		**MH 5 - 4 (19.680m)**	**78 days**	**21/5/25**	**8/9/25**
240		Setting up pipe jacking	21 days	30/6/25	28/7/25
241		Pipe Jacking	30 days	29/7/25	8/9/25
242		Manhole Construction	21 days	21/5/25	19/6/25
243		**MH 4-Ext (Ext: 13.939m)**	**309 days**	**30/6/25**	**17/9/26**
244		Back-drop pipe installation	45 days	2/3/26	6/5/26
245		MH 4 - Construction	30 days	15/1/26	27/2/26
246		Setting up pipe jacking	30 days	9/9/25	21/10/25
247		pipe jacking to existing MH	60 days	22/10/25	15/1/26
248		Sanitary IC connetion to Minor sewer	60 days	30/6/25	19/9/25
249		Water tightness test	30 days	13/5/26	24/6/26
250		Inspection / Commissioning of new minor sewer worl	30 days	25/6/26	5/8/26
251		PUB Inspection (incl. RC trench prior backfilling)	30 days	6/8/26	17/9/26
252		Handing over to authorities	1 day	18/9/26	18/9/26
253		**Contractual Completion**	**1 day**	**20/9/26**	**20/9/26**
254		**Phase 4 - Detention Tank**	**531 days**	**12/8/24**	**20/9/26**
255		Detention Drain	300 days	12/8/24	17/10/25
256		Detention Tank 2	90 days	2/9/24	8/1/25
257		UWHT	60 days	2/9/24	25/11/24
258		Plastering/ Skim coats	120 days	7/11/25	4/5/26
259		Pumps Installation	120 days	7/11/25	4/5/26
260		M&E works	120 days	7/11/25	4/5/26
261		Testing and Commissioning	47 days	5/5/26	9/7/26
262		Consultant Inspection and issuing of Defect List / Defects rectification	30 days	10/7/26	21/8/26
263		Handing Over to HDB	20 days	24/8/26	18/9/26
264		**Contractual Completion**	**1 day**	**20/9/26**	**20/9/26**
265		**Phase 5 - 128 MSCP**	**538 days**	**2/9/24**	**20/10/26**
266		**Sub-structure Work**	**97 days**	**2/9/24**	**17/1/25**
267		Excavation and Pilecap construction	30 days	2/9/24	11/10/24
268		Ground beam construction	15 days	14/10/24	4/11/24
269		M&E underground Work	30 days	12/9/24	23/10/24
270		Backfilling	14 days	24/10/24	13/11/24
271		Ground slab casting (Deck 1A & 1B)	45 days	14/11/24	17/1/25
272		**Superstructure Work**	**235 days**	**20/1/25**	**24/12/25**
273		Deck 2A & 2B	30 days	20/1/25	4/3/25
274		Deck 3A & 3B	25 days	5/3/25	9/4/25
275		Deck 4A & 4B	25 days	10/4/25	19/5/25
276		Deck 5A & 5B	25 days	20/5/25	24/6/25
277		Deck 6A & 6B	25 days	25/6/25	29/7/25
278		Deck 7A	25 days	30/7/25	2/9/25
279		Lower Roof	35 days	3/9/25	22/10/25
280		Upper roof	35 days	23/10/25	10/12/25
281		Planter box & parapet wall	35 days	6/11/25	24/12/25
282		**Roof over Lift Shaft**	**25 days**	**20/11/25**	**24/12/25**
283		RC Works	15 days	20/11/25	10/12/25



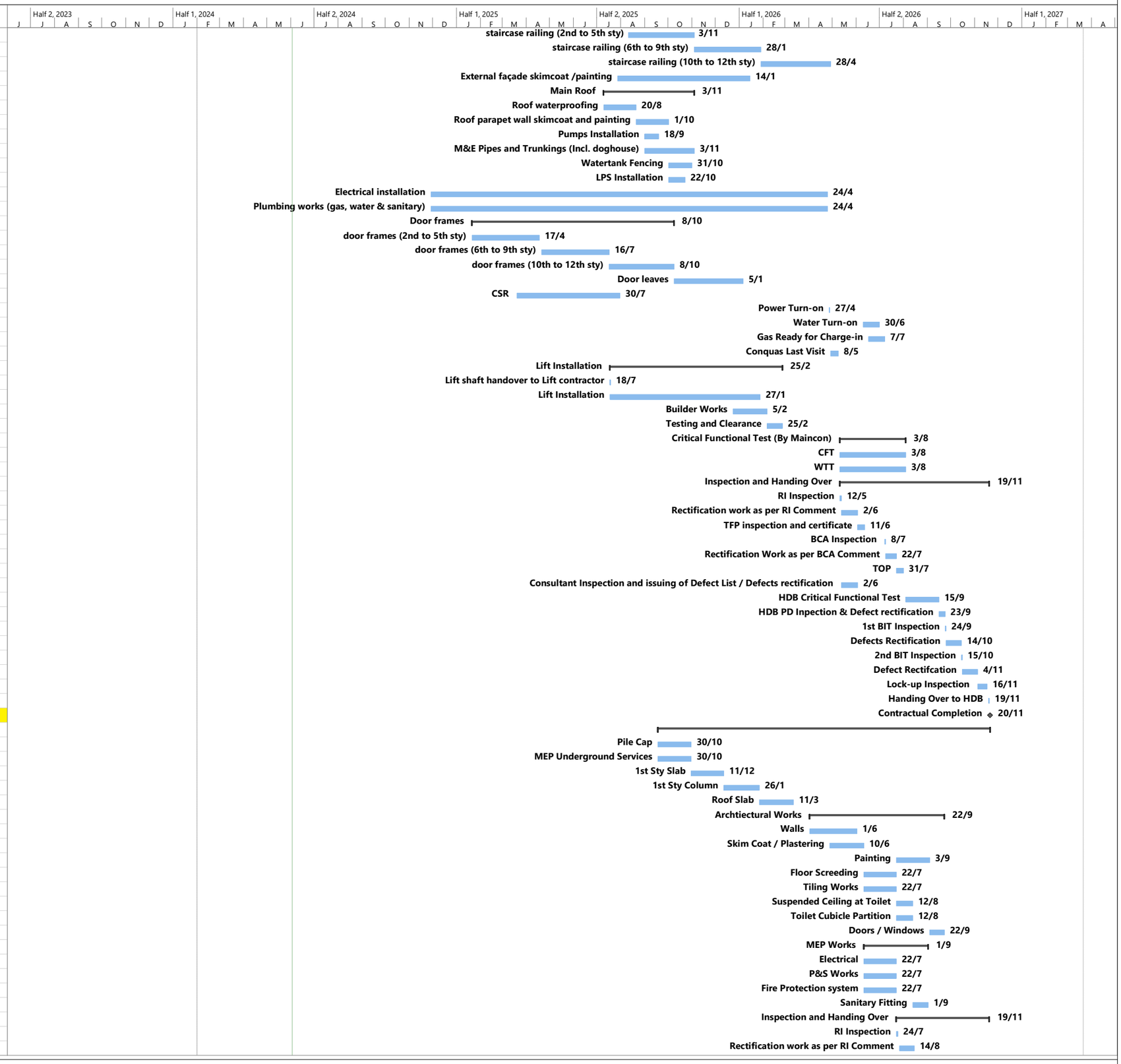
ID	Task Mode	Task Name	Duration	Start	Finish
284		Finishing works	8 days	11/12/25	22/12/25
285		Inspection and handing over to lift contractor	2 days	23/12/25	24/12/25
286		**Architecture Work**	**240 days**	**21/7/25**	**2/7/26**
287		Ceiling & beam skimming	180 days	30/7/25	16/4/26
288		Walls	180 days	21/7/25	7/4/26
289		Door Frame / Windows Frame	180 days	19/8/25	7/5/26
290		Railing	180 days	21/7/25	7/4/26
291		Internal wall / column Finish	180 days	30/7/25	16/4/26
292		Floor Finish	30 days	8/4/26	20/5/26
293		Painting Work	60 days	8/4/26	2/7/26
294		Wheel stopper	14 days	21/5/26	10/6/26
295		**External wall Skimming**	**60 days**	**7/1/26**	**6/4/26**
296		Elevation 1& 2	30 days	7/1/26	19/2/26
297		Elevation 3& 4	30 days	20/2/26	6/4/26
298		**External painting**	**50 days**	**3/3/26**	**14/5/26**
299		Elevation 1 & 2	20 days	3/3/26	31/3/26
300		Elevation 3 & 4	20 days	16/4/26	14/5/26
301		**Lift Contractor**	**105 days**	**26/12/25**	**1/6/26**
302		Lift Door Jam installation (By Lift Contractor)	60 days	26/12/25	25/3/26
303		Lift testing and commissioning (By Lift contractor)	45 days	26/3/26	1/6/26
304		**Lift Lobby Finishing Work/**	**40 days**	**20/2/26**	**20/4/26**
305		Lift Lobby Wall Tiling	30 days	20/2/26	6/4/26
306		Lift Lobby Floor Tiling	30 days	6/3/26	20/4/26
307		**M&E Work**	**231 days**	**21/7/25**	**19/6/26**
308		Electrical Works	180 days	21/7/25	7/4/26
309		Fire Protection System Installation	180 days	21/7/25	7/4/26
310		Sanitary / Plumbing System Installation	180 days	21/7/25	7/4/26
311		Final Fittings Installation - Lighting, Fire Alarm, Electri	15 days	8/4/26	28/4/26
312		Power Turn-on	1 day	29/4/26	29/4/26
313		Water Turn-on	1 day	8/4/26	8/4/26
314		M&E System Testing / Commissioning	14 days	2/6/26	19/6/26
315		**Inspection and Handing Over**	**136 days**	**9/4/26**	**19/10/26**
316		Consultant Inspection and issuing of Defect List / Defects rectification	21 days	3/7/26	31/7/26
317		Site briefing to TC and HDB branch	1 day	9/4/26	9/4/26
318		RI Inspection (ARCH & ME)	7 days	22/6/26	30/6/26
319		Rectification Work as per RI Comment	14 days	1/7/26	20/7/26
320		TFP inspection and certificate	14 days	21/7/26	7/8/26
321		BCA Inspection	7 days	11/8/26	19/8/26
322		Rectification Work as per BCA Comment	14 days	20/8/26	8/9/26
323		TOP Clearance	10 days	9/9/26	21/9/26
324		HDB PD Inpection & Defect rectification	14 days	3/8/26	21/8/26
325		1st Inspection by Branch Office / Town Council (BO /	3 days	24/8/26	26/8/26
326		Defects Rectification as per BO / TC Comment	14 days	27/8/26	15/9/26
327		2nd Inspection by HDB BO / TC	3 days	16/9/26	18/9/26
328		Defects Rectification	14 days	20/9/26	7/10/26
329		Handing Over to HDB	7 days	9/10/26	19/10/26
330		**Contractual Completion**	**1 day**	**20/10/26**	**20/10/26**
331		**Phase 6 - 128 Commercial**	**301 days**	**13/8/25**	**20/10/26**
332		**Architectural Works**	**205 days**	**13/8/25**	**8/6/26**
333		Walls	90 days	13/8/25	17/12/25
334		Skim Coat	90 days	11/9/25	19/1/26
335		Painting	45 days	20/2/26	27/4/26
336		Door/ Window	21 days	8/4/26	7/5/26
337		Roller shutter	21 days	8/5/26	8/6/26
338		Tiling Works	90 days	18/12/25	30/4/26
339		Signages	14 days	8/5/26	28/5/26
340		**MEP Works**	**104 days**	**18/12/25**	**21/5/26**
341		Electrical works	90 days	18/12/25	30/4/26
342		Fire Protection Works	90 days	18/12/25	30/4/26
343		Plumbing/Sanitary/Gas	90 days	18/12/25	30/4/26
344		Sanitary Fitting	14 days	4/5/26	21/5/26
345		**Inspection and Handing Over**	**136 days**	**9/4/26**	**19/10/26**
346		Consultant Inspection and issuing of Defect List / Defe	40 days	9/6/26	3/8/26
347		Site briefing to TC and HDB branch	1 day	9/4/26	9/4/26
348		RI Inspection (ARCH & ME)	2 days	22/6/26	23/6/26
349		Rectification Work as per RI Comment	14 days	24/6/26	13/7/26
350		TFP inspection and certificate	14 days	14/7/26	31/7/26
351		BCA Inspection	3 days	3/8/26	5/8/26
352		Rectification Work as per BCA Comment	14 days	6/8/26	26/8/26
353		TOP Clearance	7 days	27/8/26	4/9/26



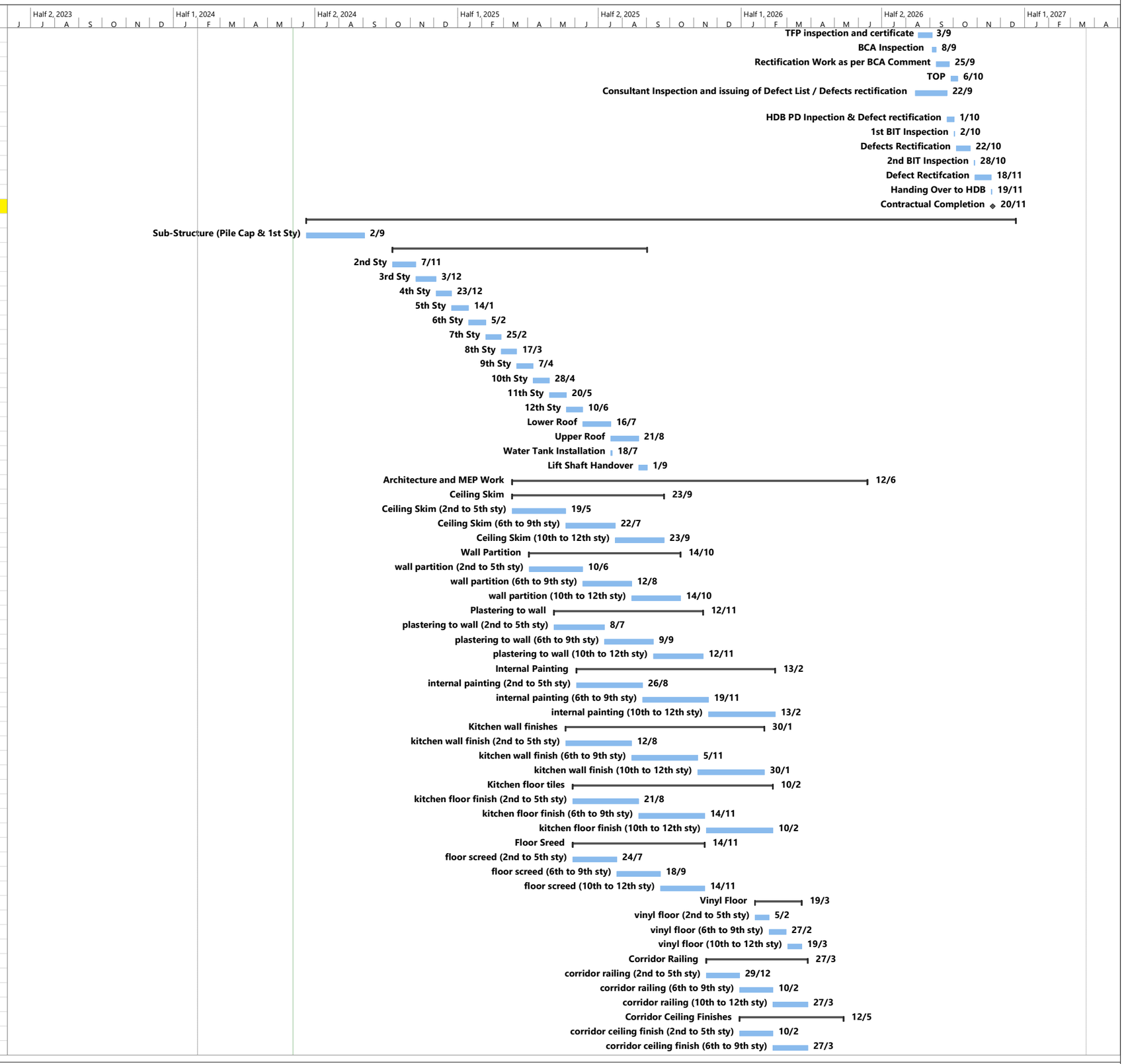
ID	Task Mode	Task Name	Duration	Start	Finish
354		HDB PD Inpection & Defect rectification	14 days	4/8/26	24/8/26
355		1st Inspection by Branch Office / Town Council (BO /	3 days	25/8/26	27/8/26
356		Defects Rectification as per BO / TC Comment	14 days	28/8/26	16/9/26
357		2nd Inspection by HDB BO / TC	3 days	17/9/26	20/9/26
358		Defects Rectification	14 days	21/9/26	8/10/26
359		Handing Over to HDB	3 days	15/10/26	19/10/26
360		**Contractual Completion**	**1 day**	**20/10/26**	**20/10/26**
361		**Phase 7 - 128A**	**616 days**	**12/6/24**	**20/11/26**
362		Sub-Structure (Pile Cap & 1st Sty)	2 mons	12/6/24	26/8/24
363		**Super-structure**	**224 days**	**27/8/24**	**18/7/25**
364		2nd Sty	21 days	27/8/24	24/9/24
365		3rd Sty	18 days	25/9/24	18/10/24
366		4th Sty	14 days	21/10/24	8/11/24
367		5th Sty	14 days	11/11/24	28/11/24
368		6th Sty	14 days	29/11/24	18/12/24
369		7th Sty	14 days	19/12/24	9/1/25
370		8th Sty	14 days	10/1/25	31/1/25
371		9th Sty	14 days	3/2/25	20/2/25
372		10th Sty	14 days	21/2/25	12/3/25
373		11th Sty	14 days	13/3/25	2/4/25
374		12th Sty	14 days	3/4/25	23/4/25
375		Lower Roof	1 mon	24/4/25	2/6/25
376		Upper Roof	1 mon	3/6/25	9/7/25
377		Water Tank Installation	2 days	3/6/25	4/6/25
378		Lift Shaft Handover	7 days	10/7/25	18/7/25
379		**Architecture and MEP Work**	**400 days**	**29/11/24**	**7/7/26**
380		**Ceiling Skim**	**135 days**	**29/11/24**	**18/6/25**
381		Ceiling Skim (2nd to 5th sty)	45 days	29/11/24	5/2/25
382		Ceiling Skim (6th to 9th sty)	45 days	6/2/25	10/4/25
383		Ceiling Skim (10th to 12th sty)	45 days	11/4/25	18/6/25
384		**Wall Partition**	**135 days**	**20/12/24**	**9/7/25**
385		wall partition (2nd to 5th sty)	45 days	20/12/24	26/2/25
386		wall partition (6th to 9th sty)	45 days	27/2/25	5/5/25
387		wall partition (10th to 12th sty)	45 days	6/5/25	9/7/25
388		**Plastering to wall**	**135 days**	**21/1/25**	**6/8/25**
389		plastering to wall (2nd to 5th sty)	45 days	21/1/25	26/3/25
390		plastering to wall (6th to 9th sty)	45 days	27/3/25	3/6/25
391		plastering to wall (10th to 12th sty)	45 days	4/6/25	6/8/25
392		**Internal Painting**	**180 days**	**20/2/25**	**6/11/25**
393		internal painting (2nd to 5th sty)	60 days	20/2/25	20/5/25
394		internal painting (6th to 9th sty)	60 days	21/5/25	13/8/25
395		internal painting (10th to 12th sty)	60 days	14/8/25	6/11/25
396		**Kitchen wall finishes**	**180 days**	**6/2/25**	**23/10/25**
397		kitchen wall finish (2nd to 5th sty)	60 days	6/2/25	5/5/25
398		kitchen wall finish (6th to 9th sty)	60 days	6/5/25	30/7/25
399		kitchen wall finish (10th to 12th sty)	60 days	31/7/25	23/10/25
400		**Kitchen floor tiles**	**180 days**	**17/2/25**	**3/11/25**
401		kitchen floor finish (2nd to 5th sty)	60 days	17/2/25	15/5/25
402		kitchen floor finish (6th to 9th sty)	60 days	16/5/25	8/8/25
403		kitchen floor finish (10th to 12th sty)	60 days	11/8/25	3/11/25
404		**Floor Sreed**	**120 days**	**17/2/25**	**8/8/25**
405		floor screed (2nd to 5th sty)	40 days	17/2/25	14/4/25
406		floor screed (6th to 9th sty)	40 days	15/4/25	13/6/25
407		floor screed (10th to 12th sty)	40 days	16/6/25	8/8/25
408		**Vinyl Floor**	**42 days**	**9/10/25**	**8/12/25**
409		vinyl floor (2nd to 5th sty)	14 days	9/10/25	29/10/25
410		vinyl floor (6th to 9th sty)	14 days	30/10/25	18/11/25
411		vinyl floor (10th to 12th sty)	14 days	19/11/25	8/12/25
412		**Corridor Railing**	**90 days**	**11/8/25**	**15/12/25**
413		corridor railing (2nd to 5th sty)	30 days	11/8/25	19/9/25
414		corridor railing (6th to 9th sty)	30 days	22/9/25	3/11/25
415		corridor railing (10th to 12th sty)	30 days	4/11/25	15/12/25
416		**Corridor Ceiling Finishes**	**90 days**	**22/9/25**	**28/1/26**
417		corridor ceiling finish (2nd to 5th sty)	30 days	22/9/25	3/11/25
418		corridor ceiling finish (6th to 9th sty)	30 days	4/11/25	15/12/25
419		corridor ceiling finish (10th to 12th sty)	30 days	16/12/25	28/1/26
420		**Corridor Wall/Floor Finishes**	**180 days**	**3/3/25**	**17/11/25**
421		corridor wall/floor finish (2nd to 5th sty)	60 days	3/3/25	29/5/25
422		corridor wall/floor finish (6th to 9th sty)	60 days	30/5/25	22/8/25
423		corridor wall/floor finish (10th to 12th sty)	60 days	25/8/25	17/11/25
424		**Staircase Railing**	**180 days**	**11/8/25**	**28/4/26**



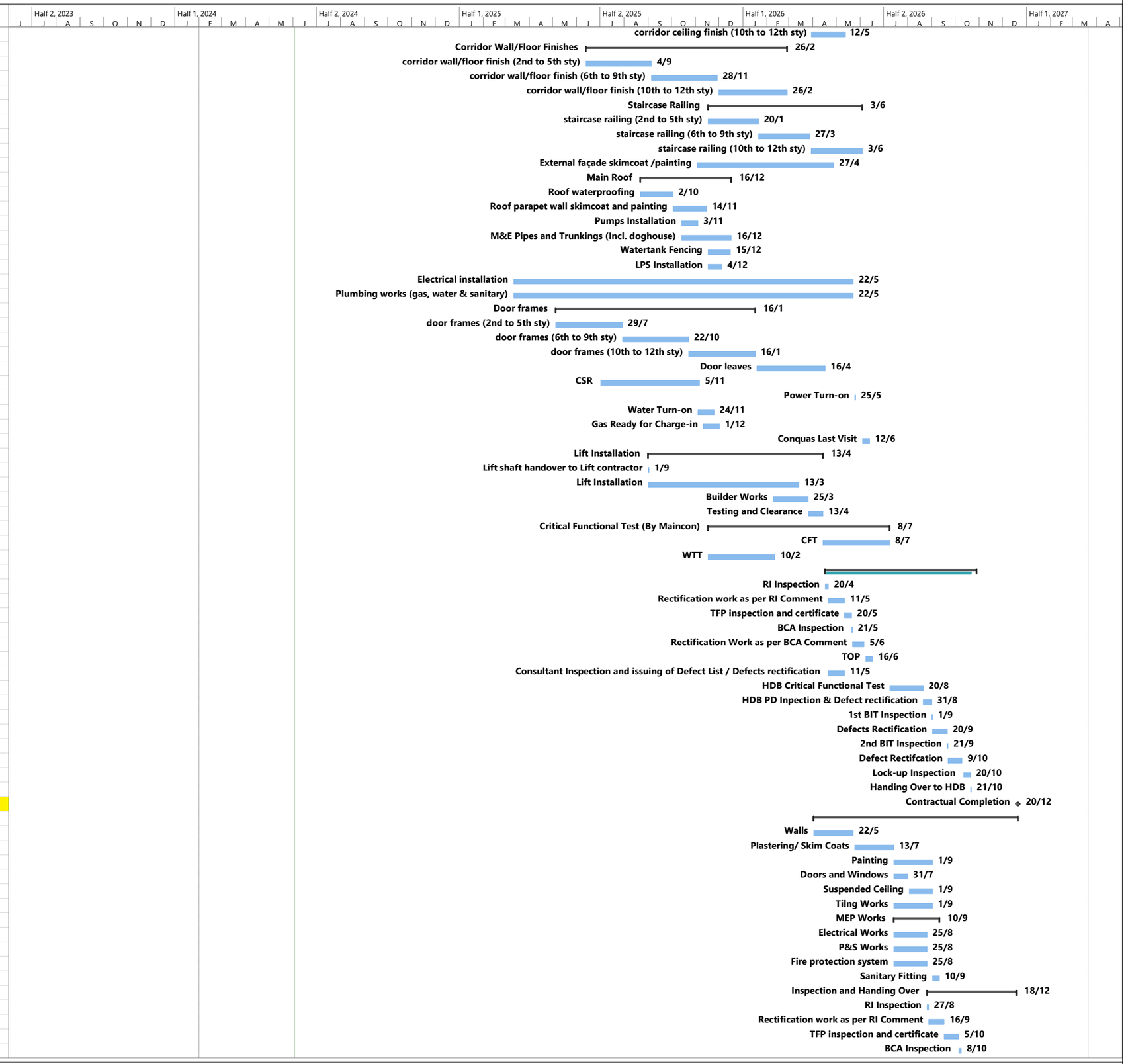
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425		staircase railing (2nd to 5th sty)	60 days	11/8/25	3/11/25
426		staircase railing (6th to 9th sty)	60 days	4/11/25	28/1/26
427		staircase railing (10th to 12th sty)	60 days	29/1/26	28/4/26
428		External façade skimcoat /painting	120 days	28/7/25	14/1/26
429		**Main Roof**	**82 days**	**10/7/25**	**3/11/25**
430		Roof waterproofing	30 days	10/7/25	20/8/25
431		Roof parapet wall skimcoat and painting	30 days	21/8/25	1/10/25
432		Pumps Installation	14 days	1/9/25	18/9/25
433		M&E Pipes and Trunkings (Incl. doghouse)	45 days	1/9/25	3/11/25
434		Watertank Fencing	21 days	2/10/25	31/10/25
435		LPS Installation	14 days	2/10/25	22/10/25
436		Electrical installation	350 days	29/11/24	24/4/26
437		Plumbing works (gas, water & sanitary)	350 days	29/11/24	24/4/26
438		**Door frames**	**180 days**	**21/1/25**	**8/10/25**
439		door frames (2nd to 5th sty)	60 days	21/1/25	17/4/25
440		door frames (6th to 9th sty)	60 days	21/4/25	16/7/25
441		door frames (10th to 12th sty)	60 days	17/7/25	8/10/25
442		Door leaves	60 days	9/10/25	5/1/26
443		CSR	90 days	20/3/25	30/7/25
444		Power Turn-on	1 day	27/4/26	27/4/26
445		Water Turn-on	15 days	10/6/26	30/6/26
446		Gas Ready for Charge-in	15 days	17/6/26	7/7/26
447		Conquas Last Visit	7 days	29/4/26	8/5/26
448		**Lift Installation**	**154 days**	**18/7/25**	**25/2/26**
449		Lift shaft handover to Lift contractor	1 day	18/7/25	18/7/25
450		Lift Installation	135 days	18/7/25	27/1/26
451		Builder Works	30 days	24/12/25	5/2/26
452		Testing and Clearance	12 days	6/2/26	25/2/26
453		**Critical Functional Test (By Maincon)**	**60 days**	**11/5/26**	**3/8/26**
454		CFT	60 days	11/5/26	3/8/26
455		WTT	60 days	11/5/26	3/8/26
456		**Inspection and Handing Over**	**137 days**	**11/5/26**	**19/11/26**
457		RI Inspection	2 days	11/5/26	12/5/26
458		Rectification work as per RI Comment	14 days	13/5/26	2/6/26
459		TFP inspection and certificate	7 days	3/6/26	11/6/26
460		BCA Inspection	1 day	8/7/26	8/7/26
461		Rectification Work as per BCA Comment	10 days	9/7/26	22/7/26
462		TOP	7 days	23/7/26	31/7/26
463		Consultant Inspection and issuing of Defect List / Defe	14 days	13/5/26	2/6/26
464		HDB Critical Functional Test	30 days	4/8/26	15/9/26
465		HDB PD Inpection & Defect rectification	7 days	16/9/26	23/9/26
466		1st BIT Inspection	1 day	24/9/26	24/9/26
467		Defects Rectification	14 days	25/9/26	14/10/26
468		2nd BIT Inspection	1 day	15/10/26	15/10/26
469		Defect Rectifcation	14 days	16/10/26	4/11/26
470		Lock-up Inspection	7 days	5/11/26	16/11/26
471		Handing Over to HDB	1 day	19/11/26	19/11/26
472		**Contractual Completion**	**1 day**	**20/11/26**	**20/11/26**
473		**Phase 8 - Childcare Centre (CCC) 129C**	**297 days**	**18/9/25**	**20/11/26**
474		Pile Cap	30 days	18/9/25	30/10/25
475		MEP Underground Services	30 days	18/9/25	30/10/25
476		1st Sty Slab	30 days	31/10/25	11/12/25
477		1st Sty Column	30 days	12/12/25	26/1/26
478		Roof Slab	30 days	27/1/26	11/3/26
479		**Archtiectural Works**	**121 days**	**2/4/26**	**22/9/26**
480		Walls	40 days	2/4/26	1/6/26
481		Skim Coat / Plastering	30 days	28/4/26	10/6/26
482		Painting	30 days	23/7/26	3/9/26
483		Floor Screeding	30 days	11/6/26	22/7/26
484		Tiling Works	30 days	11/6/26	22/7/26
485		Suspended Ceiling at Toilet	14 days	23/7/26	12/8/26
486		Toilet Cubicle Partition	14 days	23/7/26	12/8/26
487		Doors / Windows	14 days	4/9/26	22/9/26
488		**MEP Works**	**58 days**	**11/6/26**	**1/9/26**
489		Electrical	30 days	11/6/26	22/7/26
490		P&S Works	30 days	11/6/26	22/7/26
491		Fire Protection system	30 days	11/6/26	22/7/26
492		Sanitary Fitting	14 days	13/8/26	1/9/26
493		**Inspection and Handing Over**	**85 days**	**23/7/26**	**19/11/26**
494		RI Inspection	2 days	23/7/26	24/7/26
495		Rectification work as per RI Comment	14 days	27/7/26	14/8/26



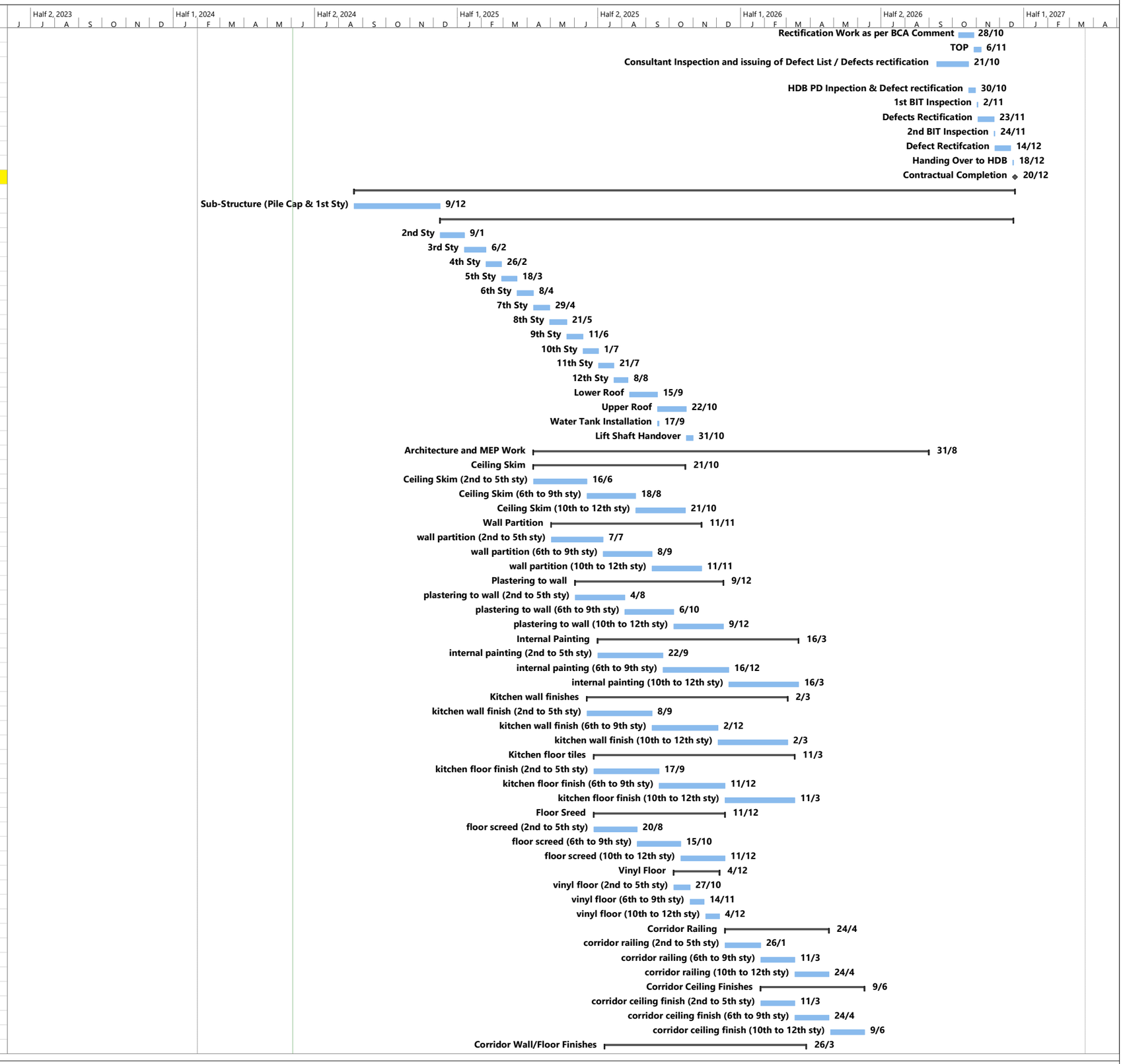
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496		TFP inspection and certificate	14 days	17/8/26	3/9/26
497		BCA Inspection	3 days	4/9/26	8/9/26
498		Rectification Work as per BCA Comment	14 days	9/9/26	25/9/26
499		TOP	7 days	28/9/26	6/10/26
500		Consultant Inspection and issuing of Defect List / Defects rectification	30 days	13/8/26	22/9/26
501		HDB PD Inpection & Defect rectification	7 days	23/9/26	1/10/26
502		1st BIT Inspection	1 day	2/10/26	2/10/26
503		Defects Rectification	14 days	5/10/26	22/10/26
504		2nd BIT Inspection	1 day	28/10/26	28/10/26
505		Defect Rectifcation	14 days	29/10/26	18/11/26
506		Handing Over to HDB	1 day	19/11/26	19/11/26
507		**Contractual Completion**	**1 day**	**20/11/26**	**20/11/26**
508		**Phase 9 - 128B**	**632 days**	**20/6/24**	**20/12/26**
509		Sub-Structure (Pile Cap & 1st Sty)	2 mons	20/6/24	2/9/24
510		**Super-structure**	**224 days**	**9/10/24**	**1/9/25**
511		2nd Sty	21 days	9/10/24	7/11/24
512		3rd Sty	18 days	8/11/24	3/12/24
513		4th Sty	14 days	4/12/24	23/12/24
514		5th Sty	14 days	24/12/24	14/1/25
515		6th Sty	14 days	15/1/25	5/2/25
516		7th Sty	14 days	6/2/25	25/2/25
517		8th Sty	14 days	26/2/25	17/3/25
518		9th Sty	14 days	18/3/25	7/4/25
519		10th Sty	14 days	8/4/25	28/4/25
520		11th Sty	14 days	29/4/25	20/5/25
521		12th Sty	14 days	21/5/25	10/6/25
522		Lower Roof	1 mon	11/6/25	16/7/25
523		Upper Roof	1 mon	17/7/25	21/8/25
524		Water Tank Installation	2 days	17/7/25	18/7/25
525		Lift Shaft Handover	7 days	22/8/25	1/9/25
526		**Architecture and MEP Work**	**314 days**	**12/3/25**	**12/6/26**
527		**Ceiling Skim**	**135 days**	**12/3/25**	**23/9/25**
528		Ceiling Skim (2nd to 5th sty)	45 days	12/3/25	19/5/25
529		Ceiling Skim (6th to 9th sty)	45 days	20/5/25	22/7/25
530		Ceiling Skim (10th to 12th sty)	45 days	23/7/25	23/9/25
531		**Wall Partition**	**135 days**	**3/4/25**	**14/10/25**
532		wall partition (2nd to 5th sty)	45 days	3/4/25	10/6/25
533		wall partition (6th to 9th sty)	45 days	11/6/25	12/8/25
534		wall partition (10th to 12th sty)	45 days	13/8/25	14/10/25
535		**Plastering to wall**	**135 days**	**5/5/25**	**12/11/25**
536		plastering to wall (2nd to 5th sty)	45 days	5/5/25	8/7/25
537		plastering to wall (6th to 9th sty)	45 days	9/7/25	9/9/25
538		plastering to wall (10th to 12th sty)	45 days	10/9/25	12/11/25
539		**Internal Painting**	**180 days**	**3/6/25**	**13/2/26**
540		internal painting (2nd to 5th sty)	60 days	3/6/25	26/8/25
541		internal painting (6th to 9th sty)	60 days	27/8/25	19/11/25
542		internal painting (10th to 12th sty)	60 days	20/11/25	13/2/26
543		**Kitchen wall finishes**	**180 days**	**20/5/25**	**30/1/26**
544		kitchen wall finish (2nd to 5th sty)	60 days	20/5/25	12/8/25
545		kitchen wall finish (6th to 9th sty)	60 days	13/8/25	5/11/25
546		kitchen wall finish (10th to 12th sty)	60 days	6/11/25	30/1/26
547		**Kitchen floor tiles**	**180 days**	**29/5/25**	**10/2/26**
548		kitchen floor finish (2nd to 5th sty)	60 days	29/5/25	21/8/25
549		kitchen floor finish (6th to 9th sty)	60 days	22/8/25	14/11/25
550		kitchen floor finish (10th to 12th sty)	60 days	17/11/25	10/2/26
551		**Floor Sreed**	**120 days**	**29/5/25**	**14/11/25**
552		floor screed (2nd to 5th sty)	40 days	29/5/25	24/7/25
553		floor screed (6th to 9th sty)	40 days	25/7/25	18/9/25
554		floor screed (10th to 12th sty)	40 days	19/9/25	14/11/25
555		**Vinyl Floor**	**42 days**	**19/1/26**	**19/3/26**
556		vinyl floor (2nd to 5th sty)	14 days	19/1/26	5/2/26
557		vinyl floor (6th to 9th sty)	14 days	6/2/26	27/2/26
558		vinyl floor (10th to 12th sty)	14 days	2/3/26	19/3/26
559		**Corridor Railing**	**90 days**	**17/11/25**	**27/3/26**
560		corridor railing (2nd to 5th sty)	30 days	17/11/25	29/12/25
561		corridor railing (6th to 9th sty)	30 days	30/12/25	10/2/26
562		corridor railing (10th to 12th sty)	30 days	11/2/26	27/3/26
563		**Corridor Ceiling Finishes**	**90 days**	**30/12/25**	**12/5/26**
564		corridor ceiling finish (2nd to 5th sty)	30 days	30/12/25	10/2/26
565		corridor ceiling finish (6th to 9th sty)	30 days	11/2/26	27/3/26



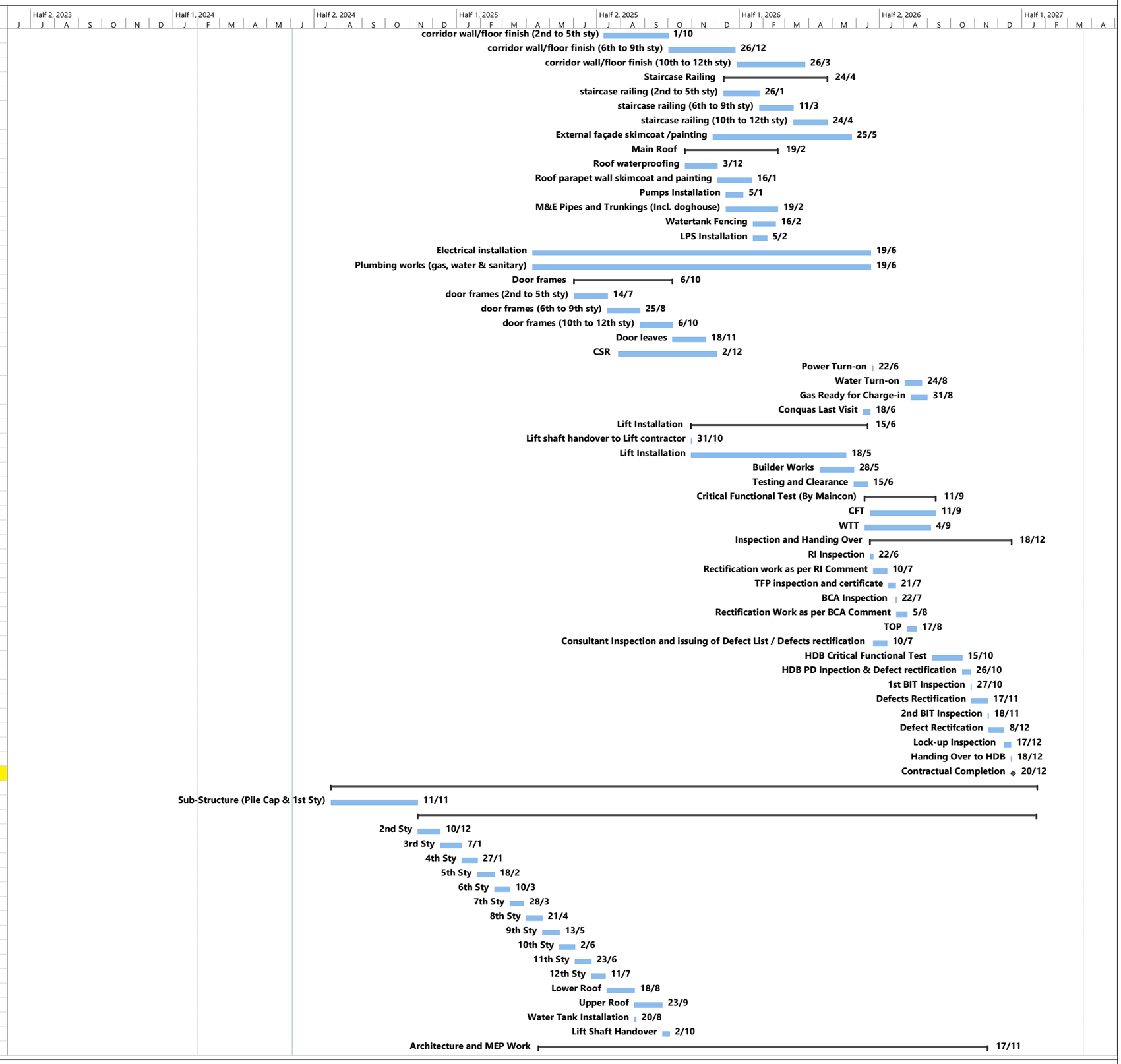
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566		corridor ceiling finish (10th to 12th sty)	30 days	30/3/26	12/5/26
567		**Corridor Wall/Floor Finishes**	**180 days**	**13/6/25**	**26/2/26**
568		corridor wall/floor finish (2nd to 5th sty)	60 days	13/6/25	4/9/25
569		corridor wall/floor finish (6th to 9th sty)	60 days	5/9/25	28/11/25
570		corridor wall/floor finish (10th to 12th sty)	60 days	1/12/25	26/2/26
571		**Staircase Railing**	**135 days**	**17/11/25**	**3/6/26**
572		staircase railing (2nd to 5th sty)	45 days	17/11/25	20/1/26
573		staircase railing (6th to 9th sty)	45 days	21/1/26	27/3/26
574		staircase railing (10th to 12th sty)	45 days	30/3/26	3/6/26
575		External façade skimcoat /painting	120 days	3/11/25	27/4/26
576		**Main Roof**	**82 days**	**22/8/25**	**16/12/25**
577		Roof waterproofing	30 days	22/8/25	2/10/25
578		Roof parapet wall skimcoat and painting	30 days	3/10/25	14/11/25
579		Pumps Installation	14 days	14/10/25	3/11/25
580		M&E Pipes and Trunkings (Incl. doghouse)	45 days	14/10/25	16/12/25
581		Watertank Fencing	21 days	17/11/25	15/12/25
582		LPS Installation	14 days	17/11/25	4/12/25
583		Electrical installation	300 days	12/3/25	22/5/26
584		Plumbing works (gas, water & sanitary)	300 days	12/3/25	22/5/26
585		**Door frames**	**180 days**	**5/5/25**	**16/1/26**
586		door frames (2nd to 5th sty)	60 days	5/5/25	29/7/25
587		door frames (6th to 9th sty)	60 days	30/7/25	22/10/25
588		door frames (10th to 12th sty)	60 days	23/10/25	16/1/26
589		Door leaves	60 days	19/1/26	16/4/26
590		CSR	90 days	2/7/25	5/11/25
591		Power Turn-on	1 day	25/5/26	25/5/26
592		Water Turn-on	15 days	4/11/25	24/11/25
593		Gas Ready for Charge-in	15 days	11/11/25	1/12/25
594		Conquas Last Visit	7 days	4/6/26	12/6/26
595		**Lift Installation**	**154 days**	**1/9/25**	**13/4/26**
596		Lift shaft handover to Lift contractor	1 day	1/9/25	1/9/25
597		Lift Installation	135 days	1/9/25	13/3/26
598		Builder Works	30 days	9/2/26	25/3/26
599		Testing and Clearance	12 days	26/3/26	13/4/26
600		**Critical Functional Test (By Maincon)**	**160 days**	**17/11/25**	**8/7/26**
601		CFT	60 days	14/4/26	8/7/26
602		WTT	60 days	17/11/25	10/2/26
603		**Inspection and Handing Over**	**137 days**	**17/4/26**	**28/10/26**
604		RI Inspection	2 days	17/4/26	20/4/26
605		Rectification work as per RI Comment	14 days	21/4/26	11/5/26
606		TFP inspection and certificate	7 days	12/5/26	20/5/26
607		BCA Inspection	1 day	21/5/26	21/5/26
608		Rectification Work as per BCA Comment	10 days	22/5/26	5/6/26
609		TOP	7 days	8/6/26	16/6/26
610		Consultant Inspection and issuing of Defect List / Defe	14 days	21/4/26	11/5/26
611		HDB Critical Functional Test	30 days	9/7/26	20/8/26
612		HDB PD Inpection & Defect rectification	7 days	21/8/26	31/8/26
613		1st BIT Inspection	1 day	1/9/26	1/9/26
614		Defects Rectification	14 days	2/9/26	20/9/26
615		2nd BIT Inspection	1 day	21/9/26	21/9/26
616		Defect Rectifcation	14 days	22/9/26	9/10/26
617		Lock-up Inspection	7 days	12/10/26	20/10/26
618		Handing Over to HDB	1 day	21/10/26	21/10/26
619		**Contractual Completion**	**1 day**	**20/12/26**	**20/12/26**
620		**Phase 10 - Residents' Network Centre (RNC) 128B**	**184 days**	**2/4/26**	**20/12/26**
621		Walls	35 days	2/4/26	22/5/26
622		Plastering/ Skim Coats	35 days	25/5/26	13/7/26
623		Painting	35 days	14/7/26	1/9/26
624		Doors and Windows	14 days	14/7/26	31/7/26
625		Suspended Ceiling	21 days	3/8/26	1/9/26
626		Tilng Works	35 days	14/7/26	1/9/26
627		**MEP Works**	**42 days**	**14/7/26**	**10/9/26**
628		Electrical Works	30 days	14/7/26	25/8/26
629		P&S Works	30 days	14/7/26	25/8/26
630		Fire protection system	30 days	14/7/26	25/8/26
631		Sanitary Fitting	7 days	2/9/26	10/9/26
632		**Inspection and Handing Over**	**83 days**	**26/8/26**	**18/12/26**
633		RI Inspection	2 days	26/8/26	27/8/26
634		Rectification work as per RI Comment	14 days	28/8/26	16/9/26
635		TFP inspection and certificate	14 days	17/9/26	5/10/26
636		BCA Inspection	3 days	6/10/26	8/10/26



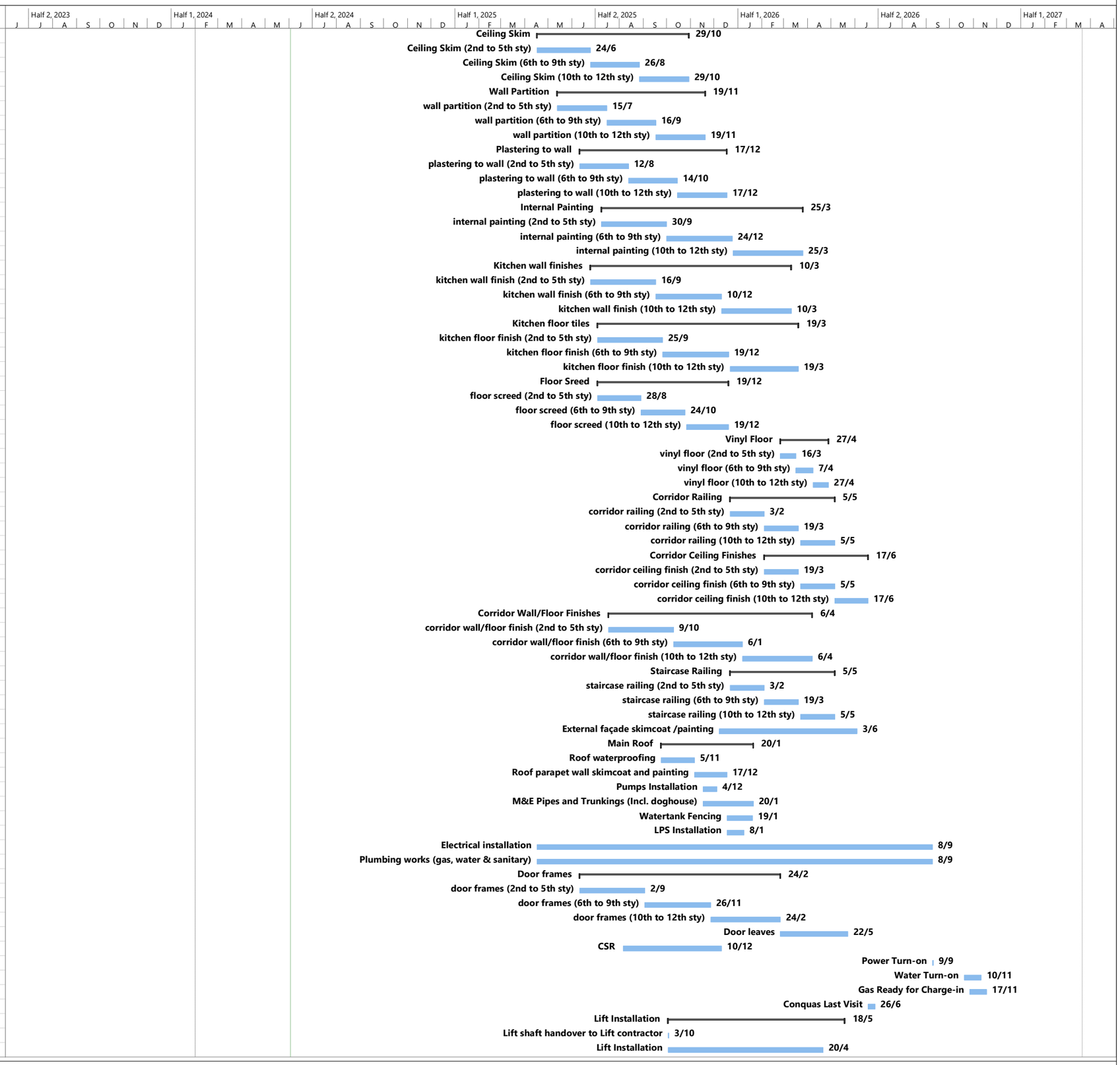
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637		Rectification Work as per BCA Comment	14 days	9/10/26	28/10/26
638		TOP	7 days	29/10/26	6/11/26
639		Consultant Inspection and issuing of Defect List / Defects rectification	30 days	11/9/26	21/10/26
640		HDB PD Inpection & Defect rectification	7 days	22/10/26	30/10/26
641		1st BIT Inspection	1 day	2/11/26	2/11/26
642		Defects Rectification	14 days	3/11/26	23/11/26
643		2nd BIT Inspection	1 day	24/11/26	24/11/26
644		Defect Rectifcation	14 days	25/11/26	14/12/26
645		Handing Over to HDB	1 day	18/12/26	18/12/26
646		**Contractual Completion**	**1 day**	**20/12/26**	**20/12/26**
647		**Phase 11 - 129C**	**589 days**	**21/8/24**	**20/12/26**
648		Sub-Structure (Pile Cap & 1st Sty)	3 mons	21/8/24	9/12/24
649		**Super-structure**	**510 days**	**10/12/24**	**18/12/26**
650		2nd Sty	21 days	10/12/24	9/1/25
651		3rd Sty	18 days	10/1/25	6/2/25
652		4th Sty	14 days	7/2/25	26/2/25
653		5th Sty	14 days	27/2/25	18/3/25
654		6th Sty	14 days	19/3/25	8/4/25
655		7th Sty	14 days	9/4/25	29/4/25
656		8th Sty	14 days	30/4/25	21/5/25
657		9th Sty	14 days	22/5/25	11/6/25
658		10th Sty	14 days	12/6/25	1/7/25
659		11th Sty	14 days	2/7/25	21/7/25
660		12th Sty	14 days	22/7/25	8/8/25
661		Lower Roof	1 mon	11/8/25	15/9/25
662		Upper Roof	1 mon	16/9/25	22/10/25
663		Water Tank Installation	2 days	16/9/25	17/9/25
664		Lift Shaft Handover	7 days	23/10/25	31/10/25
665		**Architecture and MEP Work**	**350 days**	**9/4/25**	**31/8/26**
666		**Ceiling Skim**	**135 days**	**9/4/25**	**21/10/25**
667		Ceiling Skim (2nd to 5th sty)	45 days	9/4/25	16/6/25
668		Ceiling Skim (6th to 9th sty)	45 days	17/6/25	18/8/25
669		Ceiling Skim (10th to 12th sty)	45 days	19/8/25	21/10/25
670		**Wall Partition**	**135 days**	**2/5/25**	**11/11/25**
671		wall partition (2nd to 5th sty)	45 days	2/5/25	7/7/25
672		wall partition (6th to 9th sty)	45 days	8/7/25	8/9/25
673		wall partition (10th to 12th sty)	45 days	9/9/25	11/11/25
674		**Plastering to wall**	**135 days**	**2/6/25**	**9/12/25**
675		plastering to wall (2nd to 5th sty)	45 days	2/6/25	4/8/25
676		plastering to wall (6th to 9th sty)	45 days	5/8/25	6/10/25
677		plastering to wall (10th to 12th sty)	45 days	7/10/25	9/12/25
678		**Internal Painting**	**180 days**	**1/7/25**	**16/3/26**
679		internal painting (2nd to 5th sty)	60 days	1/7/25	22/9/25
680		internal painting (6th to 9th sty)	60 days	23/9/25	16/12/25
681		internal painting (10th to 12th sty)	60 days	17/12/25	16/3/26
682		**Kitchen wall finishes**	**180 days**	**17/6/25**	**2/3/26**
683		kitchen wall finish (2nd to 5th sty)	60 days	17/6/25	8/9/25
684		kitchen wall finish (6th to 9th sty)	60 days	9/9/25	2/12/25
685		kitchen wall finish (10th to 12th sty)	60 days	3/12/25	2/3/26
686		**Kitchen floor tiles**	**180 days**	**26/6/25**	**11/3/26**
687		kitchen floor finish (2nd to 5th sty)	60 days	26/6/25	17/9/25
688		kitchen floor finish (6th to 9th sty)	60 days	18/9/25	11/12/25
689		kitchen floor finish (10th to 12th sty)	60 days	12/12/25	11/3/26
690		**Floor Sreed**	**120 days**	**26/6/25**	**11/12/25**
691		floor screed (2nd to 5th sty)	40 days	26/6/25	20/8/25
692		floor screed (6th to 9th sty)	40 days	21/8/25	15/10/25
693		floor screed (10th to 12th sty)	40 days	16/10/25	11/12/25
694		**Vinyl Floor**	**42 days**	**7/10/25**	**4/12/25**
695		vinyl floor (2nd to 5th sty)	14 days	7/10/25	27/10/25
696		vinyl floor (6th to 9th sty)	14 days	28/10/25	14/11/25
697		vinyl floor (10th to 12th sty)	14 days	17/11/25	4/12/25
698		**Corridor Railing**	**90 days**	**12/12/25**	**24/4/26**
699		corridor railing (2nd to 5th sty)	30 days	12/12/25	26/1/26
700		corridor railing (6th to 9th sty)	30 days	27/1/26	11/3/26
701		corridor railing (10th to 12th sty)	30 days	12/3/26	24/4/26
702		**Corridor Ceiling Finishes**	**90 days**	**27/1/26**	**9/6/26**
703		corridor ceiling finish (2nd to 5th sty)	30 days	27/1/26	11/3/26
704		corridor ceiling finish (6th to 9th sty)	30 days	12/3/26	24/4/26
705		corridor ceiling finish (10th to 12th sty)	30 days	27/4/26	9/6/26
706		**Corridor Wall/Floor Finishes**	**180 days**	**10/7/25**	**26/3/26**



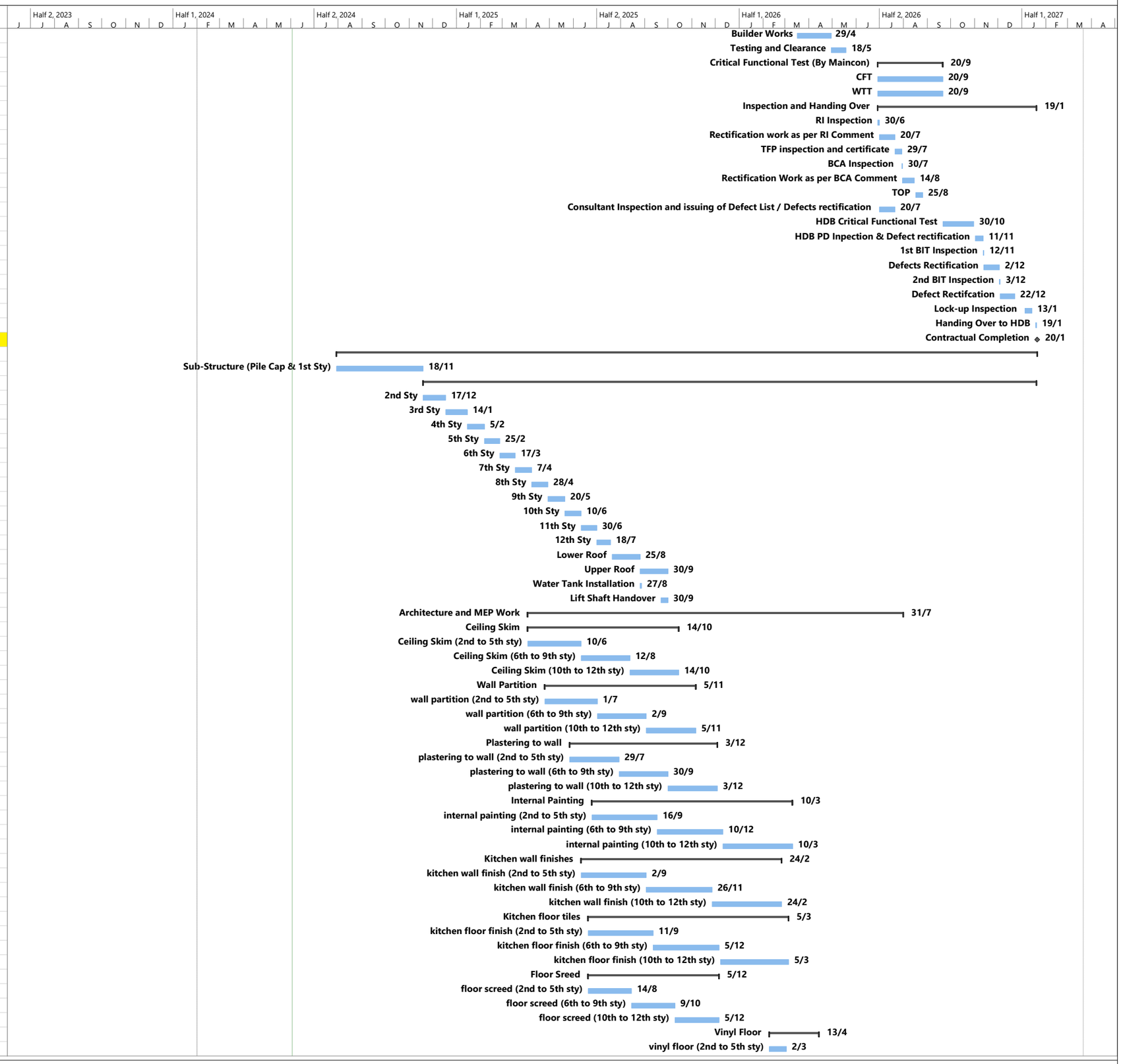
ID	Task Mode	Task Name	Duration	Start	Finish
707		corridor wall/floor finish (2nd to 5th sty)	60 days	10/7/25	1/10/25
708		corridor wall/floor finish (6th to 9th sty)	60 days	2/10/25	26/12/25
709		corridor wall/floor finish (10th to 12th sty)	60 days	29/12/25	26/3/26
710		**Staircase Railing**	**90 days**	**12/12/25**	**24/4/26**
711		staircase railing (2nd to 5th sty)	30 days	12/12/25	26/1/26
712		staircase railing (6th to 9th sty)	30 days	27/1/26	11/3/26
713		staircase railing (10th to 12th sty)	30 days	12/3/26	24/4/26
714		External façade skimcoat /painting	120 days	28/11/25	25/5/26
715		**Main Roof**	**82 days**	**23/10/25**	**19/2/26**
716		Roof waterproofing	30 days	23/10/25	3/12/25
717		Roof parapet wall skimcoat and painting	30 days	4/12/25	16/1/26
718		Pumps Installation	14 days	15/12/25	5/1/26
719		M&E Pipes and Trunkings (Incl. doghouse)	45 days	15/12/25	19/2/26
720		Watertank Fencing	21 days	19/1/26	16/2/26
721		LPS Installation	14 days	19/1/26	5/2/26
722		Electrical installation	300 days	9/4/25	19/6/26
723		Plumbing works (gas, water & sanitary)	300 days	9/4/25	19/6/26
724		**Door frames**	**90 days**	**2/6/25**	**6/10/25**
725		door frames (2nd to 5th sty)	30 days	2/6/25	14/7/25
726		door frames (6th to 9th sty)	30 days	15/7/25	25/8/25
727		door frames (10th to 12th sty)	30 days	26/8/25	6/10/25
728		Door leaves	30 days	7/10/25	18/11/25
729		CSR	90 days	29/7/25	2/12/25
730		Power Turn-on	1 day	22/6/26	22/6/26
731		Water Turn-on	15 days	3/8/26	24/8/26
732		Gas Ready for Charge-in	15 days	11/8/26	31/8/26
733		Conquas Last Visit	7 days	10/6/26	18/6/26
734		**Lift Installation**	**154 days**	**31/10/25**	**15/6/26**
735		Lift shaft handover to Lift contractor	1 day	31/10/25	31/10/25
736		Lift Installation	135 days	31/10/25	18/5/26
737		Builder Works	30 days	15/4/26	28/5/26
738		Testing and Clearance	12 days	29/5/26	15/6/26
739		**Critical Functional Test (By Maincon)**	**65 days**	**12/6/26**	**11/9/26**
740		CFT	60 days	19/6/26	11/9/26
741		WTT	60 days	12/6/26	4/9/26
742		**Inspection and Handing Over**	**130 days**	**19/6/26**	**18/12/26**
743		RI Inspection	2 days	19/6/26	22/6/26
744		Rectification work as per RI Comment	14 days	23/6/26	10/7/26
745		TFP inspection and certificate	7 days	13/7/26	21/7/26
746		BCA Inspection	1 day	22/7/26	22/7/26
747		Rectification Work as per BCA Comment	10 days	23/7/26	5/8/26
748		TOP	7 days	6/8/26	17/8/26
749		Consultant Inspection and issuing of Defect List / D	14 days	23/6/26	10/7/26
750		HDB Critical Functional Test	30 days	7/9/26	15/10/26
751		HDB PD Inpection & Defect rectification	7 days	16/10/26	26/10/26
752		1st BIT Inspection	1 day	27/10/26	27/10/26
753		Defects Rectification	14 days	28/10/26	17/11/26
754		2nd BIT Inspection	1 day	18/11/26	18/11/26
755		Defect Rectifcation	14 days	19/11/26	8/12/26
756		Lock-up Inspection	7 days	9/12/26	17/12/26
757		Handing Over to HDB	1 day	18/12/26	18/12/26
758		**Contractual Completion**	**1 day**	**20/12/26**	**20/12/26**
759		**Phase 12 - 129B**	**630 days**	**23/7/24**	**20/1/27**
760		Sub-Structure (Pile Cap & 1st Sty)	3 mons	23/7/24	11/11/24
761		**Super-structure**	**551 days**	**12/11/24**	**19/1/27**
762		2nd Sty	21 days	12/11/24	10/12/24
763		3rd Sty	18 days	11/12/24	7/1/25
764		4th Sty	14 days	8/1/25	27/1/25
765		5th Sty	14 days	28/1/25	18/2/25
766		6th Sty	14 days	19/2/25	10/3/25
767		7th Sty	14 days	11/3/25	28/3/25
768		8th Sty	14 days	1/4/25	21/4/25
769		9th Sty	14 days	22/4/25	13/5/25
770		10th Sty	14 days	14/5/25	2/6/25
771		11th Sty	14 days	3/6/25	23/6/25
772		12th Sty	14 days	24/6/25	11/7/25
773		Lower Roof	1 mon	14/7/25	18/8/25
774		Upper Roof	1 mon	19/8/25	23/9/25
775		Water Tank Installation	2 days	19/8/25	20/8/25
776		Lift Shaft Handover	7 days	24/9/25	2/10/25
777		**Architecture and MEP Work**	**400 days**	**17/4/25**	**17/11/26**



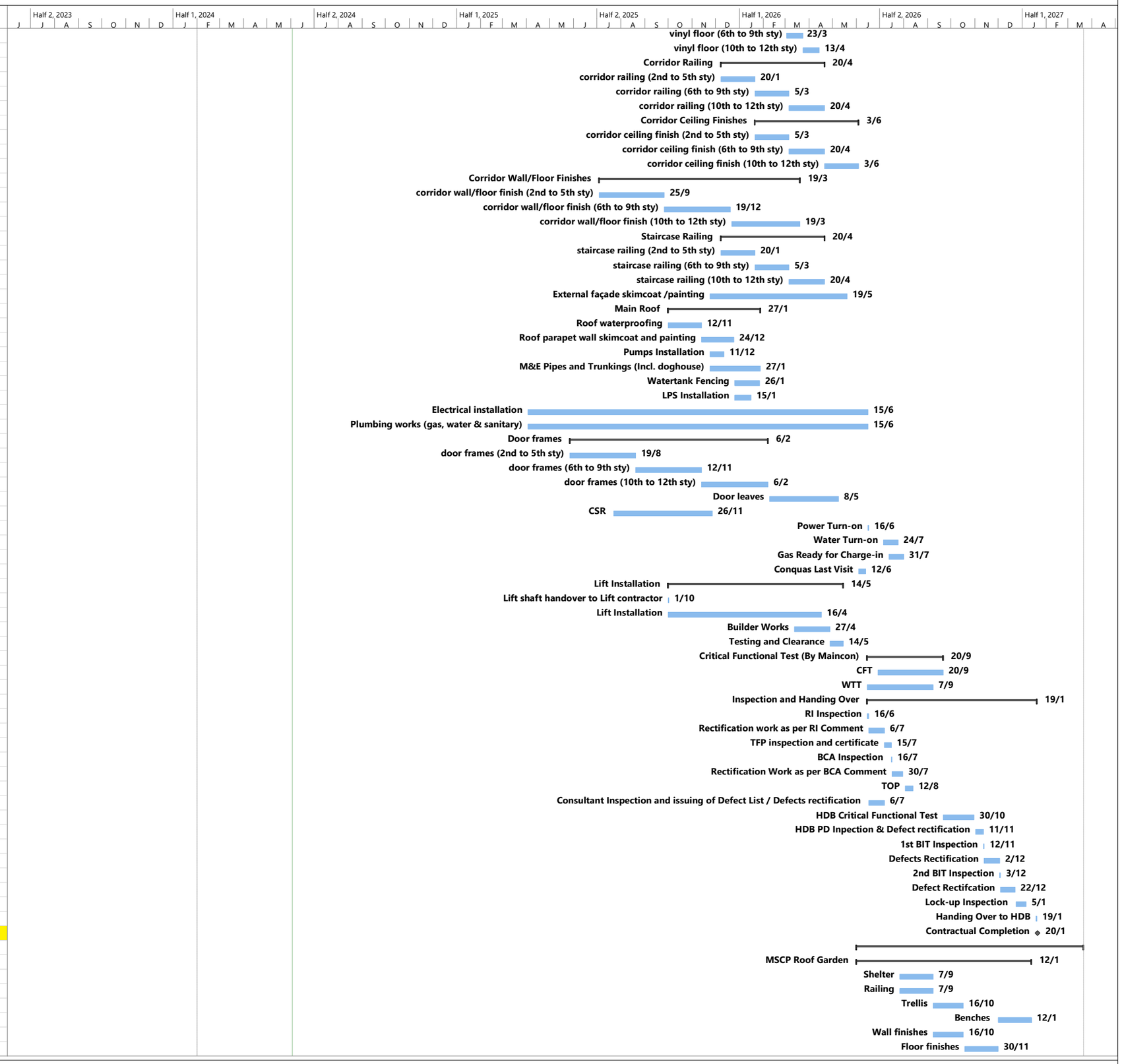
ID	Task Mode	Task Name	Duration	Start	Finish
778		**Ceiling Skim**	**135 days**	**17/4/25**	**29/10/25**
779		Ceiling Skim (2nd to 5th sty)	45 days	17/4/25	24/6/25
780		Ceiling Skim (6th to 9th sty)	45 days	25/6/25	26/8/25
781		Ceiling Skim (10th to 12th sty)	45 days	27/8/25	29/10/25
782		**Wall Partition**	**135 days**	**13/5/25**	**19/11/25**
783		wall partition (2nd to 5th sty)	45 days	13/5/25	15/7/25
784		wall partition (6th to 9th sty)	45 days	16/7/25	16/9/25
785		wall partition (10th to 12th sty)	45 days	17/9/25	19/11/25
786		**Plastering to wall**	**135 days**	**11/6/25**	**17/12/25**
787		plastering to wall (2nd to 5th sty)	45 days	11/6/25	12/8/25
788		plastering to wall (6th to 9th sty)	45 days	13/8/25	14/10/25
789		plastering to wall (10th to 12th sty)	45 days	15/10/25	17/12/25
790		**Internal Painting**	**180 days**	**9/7/25**	**25/3/26**
791		internal painting (2nd to 5th sty)	60 days	9/7/25	30/9/25
792		internal painting (6th to 9th sty)	60 days	1/10/25	24/12/25
793		internal painting (10th to 12th sty)	60 days	26/12/25	25/3/26
794		**Kitchen wall finishes**	**180 days**	**25/6/25**	**10/3/26**
795		kitchen wall finish (2nd to 5th sty)	60 days	25/6/25	16/9/25
796		kitchen wall finish (6th to 9th sty)	60 days	17/9/25	10/12/25
797		kitchen wall finish (10th to 12th sty)	60 days	11/12/25	10/3/26
798		**Kitchen floor tiles**	**180 days**	**4/7/25**	**19/3/26**
799		kitchen floor finish (2nd to 5th sty)	60 days	4/7/25	25/9/25
800		kitchen floor finish (6th to 9th sty)	60 days	26/9/25	19/12/25
801		kitchen floor finish (10th to 12th sty)	60 days	22/12/25	19/3/26
802		**Floor Sreed**	**120 days**	**4/7/25**	**19/12/25**
803		floor screed (2nd to 5th sty)	40 days	4/7/25	28/8/25
804		floor screed (6th to 9th sty)	40 days	29/8/25	24/10/25
805		floor screed (10th to 12th sty)	40 days	27/10/25	19/12/25
806		**Vinyl Floor**	**42 days**	**25/2/26**	**27/4/26**
807		vinyl floor (2nd to 5th sty)	14 days	25/2/26	16/3/26
808		vinyl floor (6th to 9th sty)	14 days	17/3/26	7/4/26
809		vinyl floor (10th to 12th sty)	14 days	8/4/26	27/4/26
810		**Corridor Railing**	**90 days**	**22/12/25**	**5/5/26**
811		corridor railing (2nd to 5th sty)	30 days	22/12/25	3/2/26
812		corridor railing (6th to 9th sty)	30 days	4/2/26	19/3/26
813		corridor railing (10th to 12th sty)	30 days	23/3/26	5/5/26
814		**Corridor Ceiling Finishes**	**90 days**	**4/2/26**	**17/6/26**
815		corridor ceiling finish (2nd to 5th sty)	30 days	4/2/26	19/3/26
816		corridor ceiling finish (6th to 9th sty)	30 days	23/3/26	5/5/26
817		corridor ceiling finish (10th to 12th sty)	30 days	6/5/26	17/6/26
818		**Corridor Wall/Floor Finishes**	**180 days**	**18/7/25**	**6/4/26**
819		corridor wall/floor finish (2nd to 5th sty)	60 days	18/7/25	9/10/25
820		corridor wall/floor finish (6th to 9th sty)	60 days	10/10/25	6/1/26
821		corridor wall/floor finish (10th to 12th sty)	60 days	7/1/26	6/4/26
822		**Staircase Railing**	**90 days**	**22/12/25**	**5/5/26**
823		staircase railing (2nd to 5th sty)	30 days	22/12/25	3/2/26
824		staircase railing (6th to 9th sty)	30 days	4/2/26	19/3/26
825		staircase railing (10th to 12th sty)	30 days	23/3/26	5/5/26
826		External façade skimcoat /painting	120 days	8/12/25	3/6/26
827		**Main Roof**	**82 days**	**24/9/25**	**20/1/26**
828		Roof waterproofing	30 days	24/9/25	5/11/25
829		Roof parapet wall skimcoat and painting	30 days	6/11/25	17/12/25
830		Pumps Installation	14 days	17/11/25	4/12/25
831		M&E Pipes and Trunkings (Incl. doghouse)	45 days	17/11/25	20/1/26
832		Watertank Fencing	21 days	18/12/25	19/1/26
833		LPS Installation	14 days	18/12/25	8/1/26
834		Electrical installation	350 days	17/4/25	8/9/26
835		Plumbing works (gas, water & sanitary)	350 days	17/4/25	8/9/26
836		**Door frames**	**180 days**	**11/6/25**	**24/2/26**
837		door frames (2nd to 5th sty)	60 days	11/6/25	2/9/25
838		door frames (6th to 9th sty)	60 days	3/9/25	26/11/25
839		door frames (10th to 12th sty)	60 days	27/11/25	24/2/26
840		Door leaves	60 days	25/2/26	22/5/26
841		CSR	90 days	6/8/25	10/12/25
842		Power Turn-on	1 day	9/9/26	9/9/26
843		Water Turn-on	15 days	20/10/26	10/11/26
844		Gas Ready for Charge-in	15 days	27/10/26	17/11/26
845		Conquas Last Visit	7 days	18/6/26	26/6/26
846		**Lift Installation**	**154 days**	**3/10/25**	**18/5/26**
847		Lift shaft handover to Lift contractor	1 day	3/10/25	3/10/25
848		Lift Installation	135 days	3/10/25	20/4/26



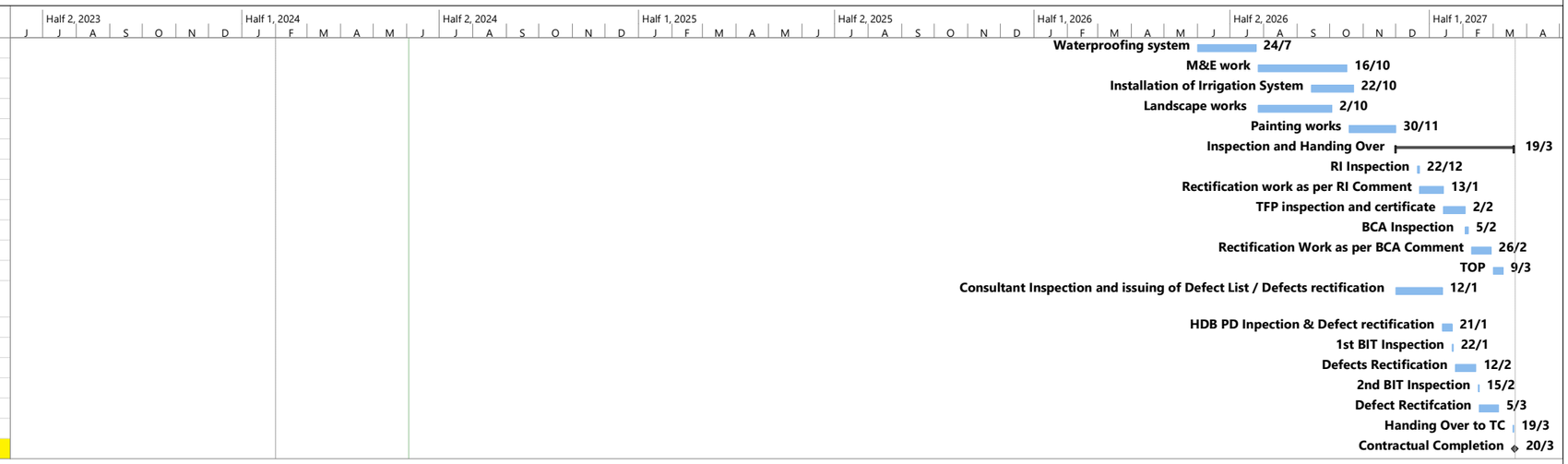
ID	Task Mode	Task Name	Duration	Start	Finish
849		Builder Works	30 days	17/3/26	29/4/26
850		Testing and Clearance	12 days	30/4/26	18/5/26
851		**Critical Functional Test (By Maincon)**	**60 days**	**29/6/26**	**20/9/26**
852		CFT	60 days	29/6/26	20/9/26
853		WTT	60 days	29/6/26	20/9/26
854		**Inspection and Handing Over**	**145 days**	**29/6/26**	**19/1/27**
855		RI Inspection	2 days	29/6/26	30/6/26
856		Rectification work as per RI Comment	14 days	1/7/26	20/7/26
857		TFP inspection and certificate	7 days	21/7/26	29/7/26
858		BCA Inspection	1 day	30/7/26	30/7/26
859		Rectification Work as per BCA Comment	10 days	31/7/26	14/8/26
860		TOP	7 days	17/8/26	25/8/26
861		Consultant Inspection and issuing of Defect List / D	14 days	1/7/26	20/7/26
862		HDB Critical Functional Test	30 days	21/9/26	30/10/26
863		HDB PD Inpection & Defect rectification	7 days	2/11/26	11/11/26
864		1st BIT Inspection	1 day	12/11/26	12/11/26
865		Defects Rectification	14 days	13/11/26	2/12/26
866		2nd BIT Inspection	1 day	3/12/26	3/12/26
867		Defect Rectifcation	14 days	4/12/26	22/12/26
868		Lock-up Inspection	7 days	5/1/27	13/1/27
869		Handing Over to HDB	1 day	19/1/27	19/1/27
870		**Contractual Completion**	**1 day**	**20/1/27**	**20/1/27**
871		**Phase 13 - 129A**	**625 days**	**30/7/24**	**20/1/27**
872		Sub-Structure (Pile Cap & 1st Sty)	3 mons	30/7/24	18/11/24
873		**Super-structure**	**546 days**	**19/11/24**	**19/1/27**
874		2nd Sty	21 days	19/11/24	17/12/24
875		3rd Sty	18 days	18/12/24	14/1/25
876		4th Sty	14 days	15/1/25	5/2/25
877		5th Sty	14 days	6/2/25	25/2/25
878		6th Sty	14 days	26/2/25	17/3/25
879		7th Sty	14 days	18/3/25	7/4/25
880		8th Sty	14 days	8/4/25	28/4/25
881		9th Sty	14 days	29/4/25	20/5/25
882		10th Sty	14 days	21/5/25	10/6/25
883		11th Sty	14 days	11/6/25	30/6/25
884		12th Sty	14 days	1/7/25	18/7/25
885		Lower Roof	1 mon	21/7/25	25/8/25
886		Upper Roof	1 mon	26/8/25	30/9/25
887		Water Tank Installation	2 days	26/8/25	27/8/25
888		Lift Shaft Handover	7 days	22/9/25	30/9/25
889		**Architecture and MEP Work**	**334 days**	**3/4/25**	**31/7/26**
890		**Ceiling Skim**	**135 days**	**3/4/25**	**14/10/25**
891		Ceiling Skim (2nd to 5th sty)	45 days	3/4/25	10/6/25
892		Ceiling Skim (6th to 9th sty)	45 days	11/6/25	12/8/25
893		Ceiling Skim (10th to 12th sty)	45 days	13/8/25	14/10/25
894		**Wall Partition**	**135 days**	**25/4/25**	**5/11/25**
895		wall partition (2nd to 5th sty)	45 days	25/4/25	1/7/25
896		wall partition (6th to 9th sty)	45 days	2/7/25	2/9/25
897		wall partition (10th to 12th sty)	45 days	3/9/25	5/11/25
898		**Plastering to wall**	**135 days**	**27/5/25**	**3/12/25**
899		plastering to wall (2nd to 5th sty)	45 days	27/5/25	29/7/25
900		plastering to wall (6th to 9th sty)	45 days	30/7/25	30/9/25
901		plastering to wall (10th to 12th sty)	45 days	1/10/25	3/12/25
902		**Internal Painting**	**180 days**	**25/6/25**	**10/3/26**
903		internal painting (2nd to 5th sty)	60 days	25/6/25	16/9/25
904		internal painting (6th to 9th sty)	60 days	17/9/25	10/12/25
905		internal painting (10th to 12th sty)	60 days	11/12/25	10/3/26
906		**Kitchen wall finishes**	**180 days**	**11/6/25**	**24/2/26**
907		kitchen wall finish (2nd to 5th sty)	60 days	11/6/25	2/9/25
908		kitchen wall finish (6th to 9th sty)	60 days	3/9/25	26/11/25
909		kitchen wall finish (10th to 12th sty)	60 days	27/11/25	24/2/26
910		**Kitchen floor tiles**	**180 days**	**20/6/25**	**5/3/26**
911		kitchen floor finish (2nd to 5th sty)	60 days	20/6/25	11/9/25
912		kitchen floor finish (6th to 9th sty)	60 days	12/9/25	5/12/25
913		kitchen floor finish (10th to 12th sty)	60 days	8/12/25	5/3/26
914		**Floor Sreed**	**120 days**	**20/6/25**	**5/12/25**
915		floor screed (2nd to 5th sty)	40 days	20/6/25	14/8/25
916		floor screed (6th to 9th sty)	40 days	15/8/25	9/10/25
917		floor screed (10th to 12th sty)	40 days	10/10/25	5/12/25
918		**Vinyl Floor**	**42 days**	**9/2/26**	**13/4/26**
919		vinyl floor (2nd to 5th sty)	14 days	9/2/26	2/3/26



ID	Task Mode	Task Name	Duration	Start	Finish
920		vinyl floor (6th to 9th sty)	14 days	3/3/26	23/3/26
921		vinyl floor (10th to 12th sty)	14 days	24/3/26	13/4/26
922		**Corridor Railing**	**90 days**	**8/12/25**	**20/4/26**
923		corridor railing (2nd to 5th sty)	30 days	8/12/25	20/1/26
924		corridor railing (6th to 9th sty)	30 days	21/1/26	5/3/26
925		corridor railing (10th to 12th sty)	30 days	6/3/26	20/4/26
926		**Corridor Ceiling Finishes**	**90 days**	**21/1/26**	**3/6/26**
927		corridor ceiling finish (2nd to 5th sty)	30 days	21/1/26	5/3/26
928		corridor ceiling finish (6th to 9th sty)	30 days	6/3/26	20/4/26
929		corridor ceiling finish (10th to 12th sty)	30 days	21/4/26	3/6/26
930		**Corridor Wall/Floor Finishes**	**180 days**	**4/7/25**	**19/3/26**
931		corridor wall/floor finish (2nd to 5th sty)	60 days	4/7/25	25/9/25
932		corridor wall/floor finish (6th to 9th sty)	60 days	26/9/25	19/12/25
933		corridor wall/floor finish (10th to 12th sty)	60 days	22/12/25	19/3/26
934		**Staircase Railing**	**90 days**	**8/12/25**	**20/4/26**
935		staircase railing (2nd to 5th sty)	30 days	8/12/25	20/1/26
936		staircase railing (6th to 9th sty)	30 days	21/1/26	5/3/26
937		staircase railing (10th to 12th sty)	30 days	6/3/26	20/4/26
938		External façade skimcoat /painting	120 days	24/11/25	19/5/26
939		**Main Roof**	**82 days**	**1/10/25**	**27/1/26**
940		Roof waterproofing	30 days	1/10/25	12/11/25
941		Roof parapet wall skimcoat and painting	30 days	13/11/25	24/12/25
942		Pumps Installation	14 days	24/11/25	11/12/25
943		M&E Pipes and Trunkings (Incl. doghouse)	45 days	24/11/25	27/1/26
944		Watertank Fencing	21 days	26/12/25	26/1/26
945		LPS Installation	14 days	26/12/25	15/1/26
946		Electrical installation	300 days	3/4/25	15/6/26
947		Plumbing works (gas, water & sanitary)	300 days	3/4/25	15/6/26
948		**Door frames**	**180 days**	**27/5/25**	**6/2/26**
949		door frames (2nd to 5th sty)	60 days	27/5/25	19/8/25
950		door frames (6th to 9th sty)	60 days	20/8/25	12/11/25
951		door frames (10th to 12th sty)	60 days	13/11/25	6/2/26
952		Door leaves	60 days	9/2/26	8/5/26
953		CSR	90 days	23/7/25	26/11/25
954		Power Turn-on	1 day	16/6/26	16/6/26
955		Water Turn-on	15 days	6/7/26	24/7/26
956		Gas Ready for Charge-in	15 days	13/7/26	31/7/26
957		Conquas Last Visit	7 days	4/6/26	12/6/26
958		**Lift Installation**	**154 days**	**1/10/25**	**14/5/26**
959		Lift shaft handover to Lift contractor	1 day	1/10/25	1/10/25
960		Lift Installation	135 days	1/10/25	16/4/26
961		Builder Works	30 days	13/3/26	27/4/26
962		Testing and Clearance	12 days	28/4/26	14/5/26
963		**Critical Functional Test (By Maincon)**	**70 days**	**15/6/26**	**20/9/26**
964		CFT	60 days	29/6/26	20/9/26
965		WTT	60 days	15/6/26	7/9/26
966		**Inspection and Handing Over**	**155 days**	**15/6/26**	**19/1/27**
967		RI Inspection	2 days	15/6/26	16/6/26
968		Rectification work as per RI Comment	14 days	17/6/26	6/7/26
969		TFP inspection and certificate	7 days	7/7/26	15/7/26
970		BCA Inspection	1 day	16/7/26	16/7/26
971		Rectification Work as per BCA Comment	10 days	17/7/26	30/7/26
972		TOP	7 days	3/8/26	12/8/26
973		Consultant Inspection and issuing of Defect List / D	14 days	17/6/26	6/7/26
974		HDB Critical Functional Test	30 days	21/9/26	30/10/26
975		HDB PD Inpection & Defect rectification	7 days	2/11/26	11/11/26
976		1st BIT Inspection	1 day	12/11/26	12/11/26
977		Defects Rectification	14 days	13/11/26	2/12/26
978		2nd BIT Inspection	1 day	3/12/26	3/12/26
979		Defect Rectifcation	14 days	4/12/26	22/12/26
980		Lock-up Inspection	7 days	24/12/26	5/1/27
981		Handing Over to HDB	1 day	19/1/27	19/1/27
982		**Contractual Completion**	**1 day**	**20/1/27**	**20/1/27**
983		**Phase 14 - 128 MSCP Roof Garden, etc.**	**207 days**	**1/6/26**	**20/3/27**
984		**MSCP Roof Garden**	**160 days**	**1/6/26**	**12/1/27**
985		Shelter	30 days	27/7/26	7/9/26
986		Railing	30 days	27/7/26	7/9/26
987		Trellis	30 days	8/9/26	16/10/26
988		Benches	30 days	1/12/26	12/1/27
989		Wall finishes	30 days	8/9/26	16/10/26
990		Floor finishes	30 days	19/10/26	30/11/26



ID	Task Mode	Task Name	Duration	Start	Finish
991		Waterproofing system	40 days	1/6/26	24/7/26
992		M&E work	60 days	27/7/26	16/10/26
993		Installation of Irrigation System	30 days	14/9/26	22/10/26
994		Landscape works	50 days	27/7/26	2/10/26
995		Painting works	30 days	19/10/26	30/11/26
996		**Inspection and Handing Over**	**76 days**	**1/12/26**	**19/3/27**
997		RI Inspection	2 days	21/12/26	22/12/26
998		Rectification work as per RI Comment	14 days	23/12/26	13/1/27
999		TFP inspection and certificate	14 days	14/1/27	2/2/27
1000		BCA Inspection	3 days	3/2/27	5/2/27
1001		Rectification Work as per BCA Comment	14 days	9/2/27	26/2/27
1002		TOP	7 days	1/3/27	9/3/27
1003		Consultant Inspection and issuing of Defect List / Defects rectification	30 days	1/12/26	12/1/27
1004		HDB PD Inpection & Defect rectification	7 days	13/1/27	21/1/27
1005		1st BIT Inspection	1 day	22/1/27	22/1/27
1006		Defects Rectification	14 days	25/1/27	12/2/27
1007		2nd BIT Inspection	1 day	15/2/27	15/2/27
1008		Defect Rectifcation	14 days	16/2/27	5/3/27
1009		Handing Over to TC	1 day	19/3/27	19/3/27
1010		**Contractual Completion**	**1 day**	**20/3/27**	**20/3/27**



SECTION 4

PROGRAMME

4.2 Authority Submission Status for M&E Services – 1st Submission

Service	Authority	Original Submission		Comments/Resubmission								Approval/
		Scheduled	Actual	Comment	Resubmit	Comment	Resubmit	Comment	Resubmit	Comment	Resubmit	Clearance
Application for Electricity Supply	SP Services Ltd	15 May 23	17 May 23	23 Jun 23	24 Jun 23							4 Oct 22
Power Supply Substation	SP PowerGrid Ltd		26 Feb 24	6 Mar 24	14 Mar 24	22 Mar 24	27 Mar 24	2 Apr 24	3 Apr 24			3 April 24
Underground Piping System	SP Services Ltd		18 Jul 24	31 Jul 24	3 Sep 24							20 Sept 24
Sanitary Installation	PUB Water Reclamation (Network) Dept	15 Jan 26	15 Jan 26									15 Jan 26
Overall Plumbing Installation	PUB (Water Supply) Network Dept	29 Feb 24	4 Aug 23									31 Oct 23
Domestic Water Supply		31 Jan 25	4 Sept 24	11 Oct 24	15 Jan 26							9 Mar 26
Overall Gas Supply Installation	City Gas Pte Ltd	29 Mar 24	13 Jul 23									20 Jul 23
Gas Supply Installation		28 Feb 25	12 Mar 24	9 Apr 24	9 Sept 24	17 Sep 24	24 Sep 24	3 Oct 24	11 Oct 24	17 Dec 24	26 May 25	WD- 9 Jun 25 Resubmitted – 25 Jun 25 WD-27 Jun 25 Resubmitted 3 Jul 25 Approved – 14 Jul 25

Service	Authority	Original Submission		Comments/Resubmission								Approval/
		Scheduled	Actual	Comment	Resubmit	Comment	Resubmit	Comment	Resubmit	Comment	Resubmit	Clearance
Fire Fighting & Alarm Installation	FSSD	31 Mar 25										
Car Park Mechanical Ventilation Installation	FSSD											
Telephone Installation	TFCC		13 Mar 24									07 Jul 24
Broadband Co-axial Cable System (BCS) – NA (Discontinued)	Starhub Cable Vision	–	–	–	–	–	–	–	–			–

SECTION 4

PROGRAMME

4.3 Authority Submission Status for M&E Services (Amendments) – 2nd Submission

Service	Authority	Original Submission		Comments/Resubmission						Approval/
		Scheduled	Actual	Comment	Resubmit	Comment	Resubmit	Comment	Resubmit	Clearance
Application for Electricity Supply	SP Services Ltd									
Power Supply Substation	SP PowerGrid Ltd									
Metering Layout	SP Services Ltd									
Sanitary Installation	PUB Water Reclamation (Network) Dept									
Domestic Water Supply	PUB (Water Supply) Network Dept									
Gas Supply Installation	City Gas Pte Ltd	11 Sep 25	11 Sep 25	23 Sep 25	14 Nov 25	16 Dec 25	22 Dec 25			13 Jan 26
Air Conditioning & Ventilation Inst.	FSSD									
Fire Fighting & Alarm Installation	FSSD									
Telephone Installation	TFCC									
Broadband Co-axial Cable System (BCS)- NA (Discontinued)	Starhub Cable Vision	–	–	–	–	–	–	–	–	–
Fuel Storage	FSSD									
	NEA (Pollution Control)									

SECTION 5

PROJECT RECORDS

5.1 List of Internal Files

Standard Files

File Ref:		File Ref:	
- Owner		- Architect	
- Authorities		- Other Consultants	
- Contractors		- CC	
- CF		- PQP/QSP	✓

Project Files to be initiated by PM as and when required

File Ref:		File Ref:		File Ref:	

(✓*where applicable*)

SECTION 5

PROJECT RECORDS

5.2 Filing of Drawings

The following team members shall take charge of filing of drawings, stamping "SUPERSEDED" drawings, etc.

Description	Team Member
Incoming Architectural Floor Plans	Softcopy saved in the server
Incoming Architectural Sketches/Details	
Incoming Structural Drawings	
M&E Drawings - Electrical Installation - Lift & Escalator Installation - Air Conditioning & Ventilation Installation - Fire Fighting & Alarm Installation - Plumbing & Sanitary Installation - Swimming Pool & Filtration Installation	
Other Drawings	

SECTION 6

INTERFACING

6.1 Method of Interface

Description	Method of Interface	
Client's Review & Approval	Pre-Management Review Briefing	✓
	Conceptual Briefing	✓
	Email and telephone	✓
Interface With External Design Teams	Design co-ordination meetings	✓
	Email and telephone	✓
Interface Between Internal Design Teams	Design Information saved in project folder	✓
	Internal Project Team Meeting	✓
	Email	✓

(✓*where applicable*)

SECTION 6

INTERFACING

6.2 Internal Design Interface – NOT APPLICABLE

Item No.	Description*	Required From	Required By	Date Required	Remarks

** Information required by INTERNAL DESIGN TEAM MEMBERS*

SECTION 6

INTERFACING

6.3 Circulation of Documents to External Parties

	Code: A - Approval Required C - For Comments I - For Information Only	Client/ Client Rep.	* Client's Project Manager	Architect	Structural Engineer	Quantity Surveyor	
1.	**Letters/Fax:**						
a.	Project Design	A	I	I	–	–	
b.	Project Administration						
c.	Project Cost Estimate/Contract Cost	A	I	I	–	I	
2.	**Drawings**						
a.	Outline Design Drgs.	A	I	C	I	I	
b.	Sketch Design Drgs.	A	I	C	I	I	
c.	Final Design Drgs.	A	I	C	I	I	
d.	Shop Drawings	I	I	A	–	–	
e.	As Built Drgs.	I	I	I	–	–	
3.	**Other Document**						
a.	Specification	A	I	I	I	I	
b.	Tender Document	A	I	I	I	I	
c.	Tender Evaluation Report	A	I	I	I	I	
d.	Design Report	A	I	I	–	–	
e.	Progress Report	–	–	–	–	–	
f.	Financial Report	–	–	–	–	–	
g.	Minutes of Meeting	A	I	I	–	–	
h.	Inspection Report	I	I	I	–	–	
i.	Testing & Comm. Report	I	I	I	–	–	
j.	O & M Manual	I	I	I	–	–	

*Note: Applicable only, if the client engaged a Project Manager.

SECTION 7

WORK AUTHORISATION

Activity \ Authorised Signatories	PD	QP	PM	AE	SS
General Correspondences with Client			✓	✓	
General Correspondences with Other Consultants			✓	✓	
M&E Cost Estimate Report	✓	✓	✓		
M&E Design Report					
Check Prints		✓			
Tender Drawing Approval	✓	✓	✓		
Tender Specification Approval					
List of Tenderers					
Tender Questionnaires					
Tender Reports					
Draft Letter of Award					
Review of Contractor's Shop Drawing			✓	✓	
Review of Contractor's Technical Submittal			✓	✓	
Review of Contractor's Sample Submittal			✓	✓	
Contractor's Request for Deviation		✓	✓		
Progress Payment Valuation Form					
Final Account Valuation	✓		✓		
Draft Variation Order	✓		✓		
Engineer/Architect's Instruction/Direction	✓		✓		
Site Instruction/Direction			✓		
Correspondence/Submission to Authorities	✓	✓			

(✓*where authorised*)

Key to abbreviations:-

PD : Project Director
QP : Qualified Person
PM : Project Manager/Assistant Project Manager
AE : Assistant Engineer
SS : ACEPL Site Staff

SECTION 8

DESIGN INPUT & METHODOLOGY

8.1 List of Client's Standards, Reference Documents or Brief

ITEM	KEPT BY
HDB Guide Drawings & Specification	Softcopy saved in the server
HDB Design Brief Requirement	Softcopy saved in the server

8.2 List of Applicable Code of Practice and Regulations

Services	Title of Code of Practice/Standard
Electrical Wiring	SS 638
Lightning Protection System	SS 555
Earthing	SS 551
Standby Generator System	SS 535
Emergency Voice Communication System	–
Air Conditioning & Ventilation Installation	–
Lift Installation	SS 550
Sprinkler System	SS CP 52
Dry/~~Wet~~ Riser System	SS 575
Automatic Fire Alarm System	SS 645
Sanitary System	Code of Practice on Sewerage & Sanitary Works
Plumbing System	SS 636
Town Gas/LPG Supply System	SS 608
Boiler and Steam Supply System	–
Mechanical Smoke Control System	–

SECTION 8

DESIGN INPUT & METHODOLOGY

8.3 List of Design Guide or Handbook Used

Carrier's Handbook of Air Conditioning System Design

ASHRAE Handbooks

Institute of Plumbing's Plumbing Services Design Guide

The Vertical Transportation Handbook Third edition

8.4 List of Pre-Consultation and Waiver – NOT APPLICABLE

S/N	Description	Date of Application	Date of Approval	Remarks
1	*Clause number in Code of Practice for (Services) which require clarification or waiver. Consultation Ref No. Waiver Ref. No.			
2	*Clause number in Code of Practice for (Services) which require clarification or waiver. Consultation Ref No. Waiver Ref. No.			
3	*Clause number in Code of Practice for (Services) which require clarification or waiver. Consultation Ref No. Waiver Ref. No.			

*To fill in actual information

8.5 List of Applicable Quality System Procedures

Alpha Consulting Engineers Pte Ltd's Quality Management System Procedures

Section	Title	✓ where applicable
M1	Preparation of Consultancy Offer	✓
M2	Project Commissioning and Service Agreement	✓
M3	Design Control	✓
M4	Design Change Control	✓
M5	Tender Process and Evaluation	
M6	Authority Submission	✓
M7	Construction Process Control	✓
M8	Testing and Commissioning	✓
S1	Document Control	✓
S2	Documentation of Quality & Environmental Management System Procedure	✓
S3	Documentation of Project Quality Plan	✓
S4	Specification Control	
S5	Library Control	
S6	Archive Control	✓
S7	Filing Control	✓
S8	Drawing Control	✓
S9	Administration Control	✓
S10	Purchasing Control	
S11	Training Control	
S12	Computer Control	
S13	Non-Conformity and Corrective Action Procedures	✓
S14	Quality & Environmental System Audit	✓
S15	Feedback Reporting	✓
S16	Clients Feedback	✓
S17	Management Review	✓
S18	Risk Identification, Assessment & Control	✓

8.6 List of Software Used For Design/Analysis

DESCRIPTION/ PACKAGE NAME	VERSION	SUPPLIER/ SOURCE	PURPOSE	
Cophos	3.31	Zumtobel	Lighting design	
Carrier E20-II	3.21	Carrier	Programme for determination of heat load, duct size and its losses, etc.	
Gensize 2	2.1	Onan	Generator sizing	
Hyena	4.00.1	ACADS-BSG	Fire Sprinkler & Hydrant Analysis	
Dialux	4.11	Freeware	Lighting design	
Lift Traffic	7.18	Elevate	Lift traffic calculation	✓
Fault Level Calculation	11.11	ETAP	Calculation of fault level and voltage drop	

(✓*where applicable*)

SECTION 9

ENVIRONMENTAL CONSIDERATIONS

9.1 Sustainable Design Features/Criteria

Item	Remarks
Green Mark criteria	Gold Plus
Green Design Features	Refer to attached list

9.2 Site PPE Requirement

The necessary Personal Protective Equipment (detailed below) shall be provided by the main contractor / Company in accordance to the site EHS requirements prior to the site monitoring.

PPE	✓ where applicable
Safety Helmet	✓
Safety Shoes	✓
Eye Protection	–
Ear Protection	–
Safety Harness / Belt	–
Others:	–

9.3 Site Emergency Preparedness

Site staff shall comply with the site emergency preparedness and response procedure, established by the main contractor/owner, which shall include the following details.

Items	✓ where applicable
Evacuation Route	✓
Emergency Exit	✓
Assembly Point	✓
Emergency Contact List / Person	✓
Alarm system / methods	

List of Green Features

- CFD for ventilation and wind driven rain simulation modelling
- Smart LED lighting system at common areas & staircase
- Regenerative lifts
- Fuel cell system for lifts
- Dual bicycle rack system
- 15% EV lots each for both motorcycle and car
- Utilize Pneumatic Waste Collection System (PWCS)
- Smart private meters to monitor water & electricity usage in common areas
- 2 ticks shower mixer tap, basin mixer tap & bib tap
- Eco-pedestals to all Bath/WC of flats
- ABC water features
- Smart irrigation
- Smart Water Pump & Rainwater Sump Pump
- Smart Private Water Meter & Electrical Sub-Meter
- Provision of sheltered bicycle parking at 1lot:6 dwelling units

SECTION 9

ENVIRONMENTAL CONSIDERATIONS

9.4 Reporting of Environmental Non-conformances

When encountering environmental non-conformances, Site Staff shall be responsible to feedback to the main contractor.

9.5 List of Applicable Environmental Management System Procedures

Alpha Consulting Engineers Pte Ltd's Environmental Management System Procedures

Section	Title	✓ where applicable
E1	Aspect / Impact Identification, Risk Assessment & Risk Control	✓
E2	Identifying Legal & Other Requirements	✓
E3	Objectives, Targets & Programmes	✓
E4	Communication	✓
E5	Emergency Preparedness & Response	✓
E6	Monitoring & Measurement	✓
E7	Control of Air & Noise Pollution	✓
E8	Management of Wastes	✓

SECTION 10

CLIENT'S REQUIREMENTS

10.1 List of Output Required by Client:

Item	* Remarks
M&E Design Report	–
M&E Cost Estimate Report	A
Pre-Qualification of Tenderers	–
Tender Documents	–
Tender Report	–
Payment Valuation for QS	A
Certificates of Supervision for TOP/CSC	RE

* *Remarks*

A: for approval *C: for comment* *I: for Information* *Re: for record*

Other purposes and for action: please specify.

10.2 Specific Procedures Required By Client *(If applicable)*

NOT APPLICABLE

SECTION 11

LIST OF SUB-JOB

11.1 List of Sub-Job Numbers – NOT APPLICABLE

Sub Job No	Description	Allocation Details