Alpha
Consulting Engineers Pte Ltd

PROJECT QUALITY PLAN

PROPOSED ERECTION OF 2 BLOCKS OF 5-STOREY (WITH ATTIC) CONDOMINIUM DEVELOPMENT (TOTAL: 80 UNITS), 1 BASEMENT CARPARK AND ANCILLARY FACILITIES ON LOT 05780W MK 24 AT HOW SUN ROAD

For

Singhaiyi Huajiang Amber Pte. Ltd.

Copy No.	1

Prepared By: Goh Soon Huat/Chong Lai Meng/Low Qi Fan/Rukiah Bte Suttan

Authorised By: Choong Choon Guan

Date: 19 October 2022

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SECTION 1

QUALITY PLAN CONTROL AND DISTRIBUTION

1.1 List of Copy Holders

Copy No.	Copy Holder	Date of Issue
1	6257	19 October 2022

1.2 Revision Record

Revision	Date of Issue	Section Reference	Page(s)	Remarks
0	13 May 2019	1 to 11	37	+ 8 pages (section 4.1 –Overall Construction Programme)
1	9 November 2019	1 to 11	37	+ 8 pages (section 4.1 –Overall Construction Programme)
2	8 January 2021	1 to 11	37	+ 11 pages (section 4.1 –Overall Construction Programme)
3	19 October 2022	1 to 11	35	+ 11 pages (section 4.1 –Overall Construction Programme)

SECTION 2

PROJECT INFORMATION

2.1 Project Description

Type of Development	Residential

Statistics of Development	
Site Area, m²	5,104.30
Nett Floor Area, m²	-
Gross Floor Area, m²	7,614.00
Covered Carpark, m²	-
No. of Covered Carpark Lots	80
No. of Apartments/Houses	80
No. of Beds (for Hospitals)	-
No. of Guestroom (for Hotels)	-
No. of Blocks / No. of Storeys	2/5 storeys
Green Mark Category	Gold^{Plus}
No. of Phases	1

2.2 Project Cost

M&E Services Cost Plan (S$ x 1M)										
Services	EI	ACVI	LEI	FFAI	PSI	SPFI				
Estimate	1.560	0.695	0.620	0.309	1.276	0.300				
Awarded	1.529	0.544	0.424	0.323	1.654	0.174				

Total Project Construction Cost (S$ x1M)			
	Site Clearance	Piling Works	Main Contract
Estimate			
Awarded			28.2

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

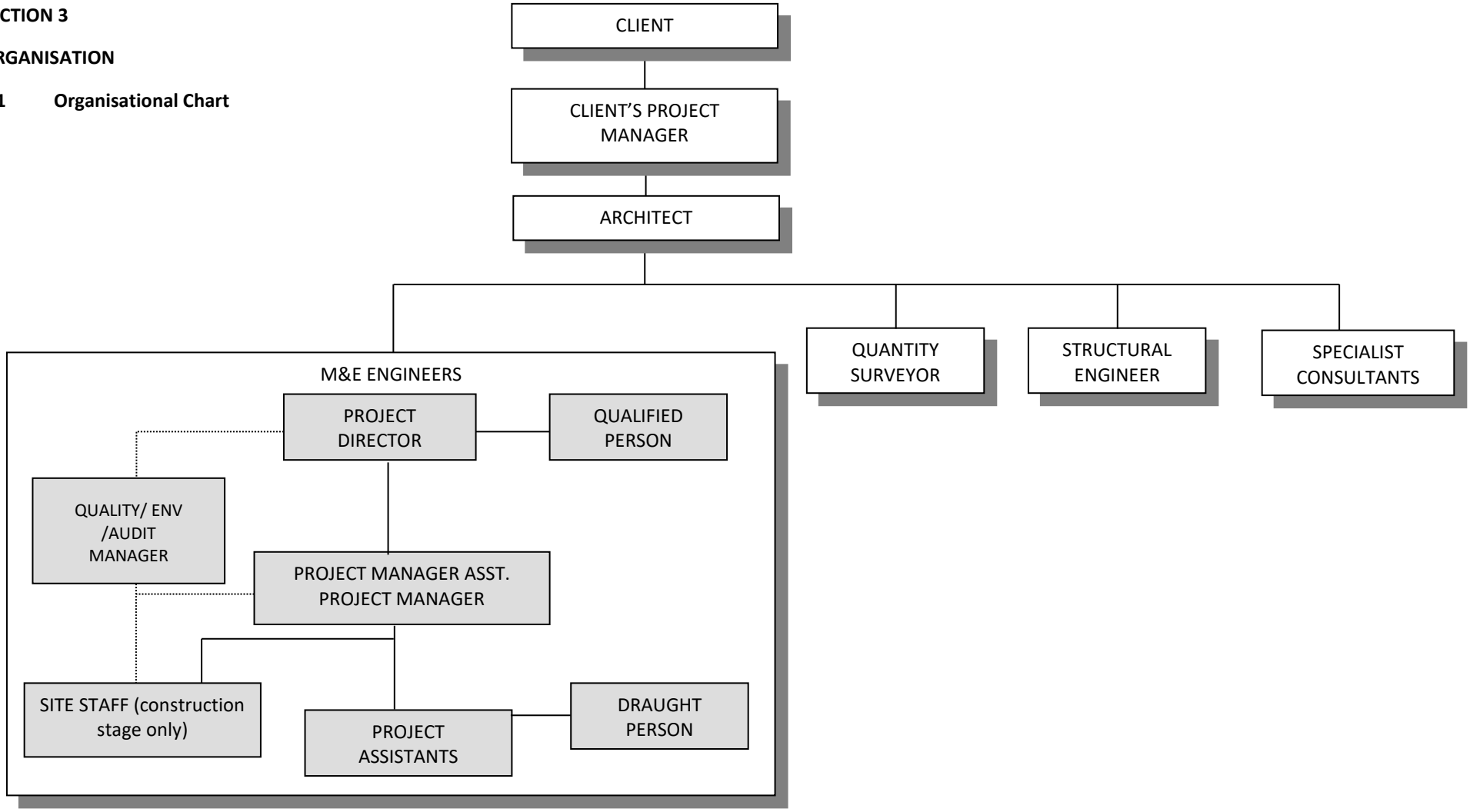
EJECTOR & DIVERTER		SUMP PUMP		FUEL OIL TANK		LIFT & ESCALATOR		PRESSURE VESSEL		HOISTS		FOAM	

(✓*where applicable*)

SECTION 3

ORGANISATION

3.1 Organisational Chart



SECTION 3

ORGANISATION

3.2 ACEPL's Project Team Member

TITLE		NAME
Project Director		Mr Choong Choon Guan
Qualified Person	Mechanical	Mr Choong Choon Guan
	Electrical	Mr Loh Fook Yuen
Project Manager		Mr Goh Soon Huat
Assistant Project Manager		Ms Chong Lai Meng
Project Assistant (Mech)		Mr Low Qi Fan
Project Assistant (Elect)		Ms. Rukiah Bte Suttan
Draughtsperson		Common Pool
Resident Engineer (M&E)		-
Assistant Resident Engineer (M&E)		-
Clerk-of-Work (M&E)		-

3.3 Client/Client's Representatives

Client: Singhaiyi Huajiang Amber Pte Ltd

Address: 6 Shenton Way #45-01 OUE Downtown 1 Singapore 068809

Tel: +65 6533 9023

Fax: +65 6532 7602

Client's Representatives:

Name of Company	Contact Person	Contact
Singhaiyi Huajiang Sun Pte Ltd	Name: Ms Catherine Chang Position: Director	Tel: 6692 9813 Fax: – Handphone: 9675 8975 Email: catherine@singhaiyi.com
Singhaiyi Huajiang Sun Pte Ltd	Name: Mr Deng Jianping Position: Project Manager	Tel: 6692 9816 Fax: – Handphone: 9793 6710 Email: jianping.deng@singhaiyi.com
Singhaiyi Huajiang Sun Pte Ltd	Name: Mr Aung Bhone Maul Position:	Tel: 6533 9023 Fax: – Handphone: 9796 6224 Email: aung@sinhaiyi.com
Singhaiyi Huajiang Sun Pte Ltd	Name: Mr Gregory Sim Position:	Tel: – Fax: – Handphone: – Email: gregory@singhaiyi.com
Singhaiyi Huajiang Sun Pte Ltd	Name: Mr Dennis Lam Position:	Tel: – Fax: – Handphone: – Email: dennislam@singhaiyi.com
Singhaiyi Huajiang Sun Pte Ltd	Name: Mr Gary Lim Position:	Tel: – Fax: – Handphone: – Email: gary@singhaiyi.com
Singhaiyi Huajiang Sun Pte Ltd	Name: Ms Angeline Xu Position:	Tel: – Fax: – Handphone: – Email: angeline.xu@singhaiyi.com
Singhaiyi Huajiang Sun Pte Ltd	Name: Lim Hwee Chim Position: Deputy Project Director	Tel: – Fax: – Handphone: 9618 0673 Email: hweechim.lim@singhaiyi.com

3.4 **Other Consultants** (Local)

Function / Name of Company	Contact Person	Contact
Project Architect RSP Architects Planners & Engineers (Pte) Ltd	Name: Mr Ng Meng Hui Position:	Tel: 6378 5721 Fax: 6291 7809 Handphone: 9668 0157 Email: ng_meng_hui@rsp.sg
Project Architect RSP Architects Planners & Engineers (Pte) Ltd	Name: Mr Tay Eng Khoon Position:	Tel: 6378 5809 Fax: 6291 7809 Handphone: 9159 3501 Email: tay_eng_khoon@rsp.sg
Project Architect RSP Architects Planners & Engineers (Pte) Ltd	Name: Mr Anggara Rhabenta Position:	Tel: 6378 5811 Fax: 6291 7809 Handphone: Email: anggara_rhabenta@rsp.sg
Project Architect RSP Architects Planners & Engineers (Pte) Ltd	Name: Mr Clarence Fung Position:	Tel: 6378 5846 Fax: 6291 7809 Handphone: 9479 7060 Email: anggara_rhabenta@rsp.sg
Project Architect RSP Architects Planners & Engineers (Pte) Ltd	Name: Mr Foo Kai Kiat Position:	Tel: 6378 5831 Fax: 6291 7809 Handphone: 9757 3900 Email: foo_kai_kiat@rsp.sg
Project Architect RSP Architects Planners & Engineers (Pte) Ltd	Name: Mr Toby Toh Position:	Tel: 6378 5763 Fax: 6291 7809 Handphone: 9070 2813 Email: toby_toh@rsp.sg
Structural Engineer KCL Consultants Pte Ltd	Name: Mr Yang De Xi Position:	Tel: 6348 2501 Fax: 6348 6873 Handphone: 9437 9921 Email: ydx@kcl.com.sg
Structural Engineer KCL Consultants Pte Ltd	Name: Ms Lim Yee Chih Position:	Tel: 6348 2501 Fax: 6348 6873 Handphone: 9365 4899 Email: yeeshih@kcl.com.sg
Quantity Surveyor Rider Levett Bucknall LL	Name: Mr Silas P. W. Loh Position:	Tel: 6339 1500 Fax: 6339 1521 Handphone: Email: silas.loh@sg.rlb.com
Quantity Surveyor Rider Levett Bucknall LLP	Name: Ms Thong Yoong Way Position:	Tel: 6339 1500 Fax: 6339 1521 Handphone: 9455 9078 Email: bh.ting@sg.rlb.com

3.4 **Other Consultants** (Local)

Function / Name of Company	Contact Person	Contact
Landscape Consultant Coen Design International Pte Ltd	Name: Ms Ann Teo Position: Managing Director	Tel: 6844 9888 Fax: 6844 9555 Handphone: 9129 7168 Email: ann@coen-design.com
Landscape Consultant Coen Design International Pte Ltd	Name: Ms Bey Cai Ling Position:	Tel: 6844 9888 Fax: 6844 9555 Handphone: 8138 1954 Email: cailing@coen-design.com
Traffic Consultant Vertix Asia-Pacific Pte Ltd	Name: Mr Nick Fellows Position:	Tel: 6536 8714 Fax: 6536 8715 Handphone: 9680 4107 Email: nick.fellows@vertixap.com
Traffic Consultant Vertix Asia-Pacific Pte Ltd	Name: Ms Ray Krishna Position:	Tel: 6536 8714 Fax: 6536 8715 Handphone: 9856 0851 Email: ray.k@vertixap.com
Traffic Consultant Vertix Asia-Pacific Pte Ltd	Name: Mr Sasindran Position:	Tel: 6536 8714 Fax: 6536 8715 Handphone: 9736 1926 Email: sasi@vertixap.com
Topography Surveyor J K Foo Consortium Pte Ltd	Name: Mr Yu Jiangcheng Position:	Tel: 6742 7973 Fax: 6742 9792 Handphone: Email: yu_jc@jkfoosurvey.com.sg
Topography Surveyor J K Foo Consortium Pte Ltd	Name: Ms Ser Pung Lah Position:	Tel: 6742 7973 Fax: 6742 9792 Handphone: Email: ser_pl@jkfoosurvey.com.sg
Interior Designer	Name: Position:	Tel: Fax: Handphone: Email:
Lighting Consultant	Name: Position:	Tel: Fax: Handphone: Email:
Acoustic Consultant	Name: Position:	Tel: Fax: Handphone: Email:

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 China Construction (South Pacific) Development Co. Pte. Ltd.		Name: Ms Xu Yu Qing Position: Project Director	Tel: 6390 2888 Fax: 6227 5073 Handphone: 9792 6836 Email: xu@chinaconstruction.com.sg
Main Contractor China Construction (South Pacific) Development Co. Pte. Ltd.		Name: Mr Yang Wen Hui Position: Deputy Project Director	Tel: 6390 2888 Fax: 6227 5073 Handphone: 9028 3949 Email: yangwenhui@chinaconstruction.com.sg
Main Contractor China Construction (South Pacific) Development Co. Pte. Ltd.		Name: Mr Fu Xue Yong Position: Senior Project Manager	Tel: 6390 2888 Fax: 6227 5073 Handphone: 9793 2868 Email: fuxueyong@chinaconstruction.com.sg
Main Contractor China Construction (South Pacific) Development Co. Pte. Ltd.		Name: Mr Xu Hai Yong Position: Site Manager	Tel: 6390 2888 Fax: 6227 5073 Handphone: 9145 3235 Email: Xuhaiyong@chinaconstruction.com.sg
Main Contractor China Construction (South Pacific) Development Co. Pte. Ltd.		Name: Mr Zhou Guang Pei Position: Site Manager	Tel: 6390 2888 Fax: 6227 5073 Handphone: 8721 6950 Email: zhouguangpei@chinaconstruction.com.sg
Main Contractor China Construction (South Pacific) Development Co. Pte. Ltd.		Name: Mr Jimmy Tan Position: WSH Officer	Tel: 6390 2888 Fax: 6227 5073 Handphone: 9367 0647 Email: jimmytan@chinaconstruction.com.sg
Main Contractor China Construction (South Pacific) Development Co. Pte. Ltd.		Name: Ms Thit Thit Myint Position: M&E Coordinator	Tel: 6390 2888 Fax: 6227 5073 Handphone: 9159 1394 Email: ThitThit@chinaconstruction.com.sg
Main Contractor China Construction (South Pacific) Development Co. Pte. Ltd.		Name: Mr Wang Ping Position: Surveyor	Tel: 6390 2888 Fax: 6227 5073 Handphone: 8167 0892 Email: wangping@chinaconstruction.com.sg
Main Contractor China Construction (South Pacific) Development Co. Pte. Ltd.		Name: Mr Chen Dan Qing Position: Senior Quantity Surveyor	Tel: 6390 2888 Fax: 6227 5073 Handphone: 8415 7022 Email: chendanqing@chinaconstruction.com.sg

3.5 Contractors/Sub-Contractors (Cont'd)

Function / Name of Company	Contract *	Contact Person	Contact
Main Contractor China Construction (South Pacific) Development Co. Pte. Ltd.		Name: Ms Huang Qing Position: Quantity Surveyor	Tel: 6390 2888 Fax: 6227 5073 Handphone: 9696 4115 Email: huangqing@chinaconstruction.com.sg
Main Contractor China Construction (South Pacific) Development Co. Pte. Ltd.		Name: Ms Chu Xin Pei Position: Quantity Surveyor	Tel: 6390 2888 Fax: 6227 5073 Handphone: 9727 0321 Email: chuxinpei@chinaconstruction.com.sg
Main Contractor China Construction (South Pacific) Development Co. Pte. Ltd.		Name: Ms Amanda Liong Position: PRO	Tel: 6390 2888 Fax: 6227 5073 Handphone: 9338 3219 Email: amandaliong@chinaconstruction.com.sg
Main Contractor China Construction (South Pacific) Development Co. Pte. Ltd.		Name: Mr Li De Nian Position: Material Engineer	Tel: 6390 2888 Fax: 6227 5073 Handphone: 9225 3965 Email: Lidenian@chinaconstruction.com.sg
Air Conditioning & Ventilation Installation Sub-Contractor Great Resources M&E Contractor Pte Ltd	DSC	Name: Mr Sun Jia Ji Position:	Tel: 6756 6123 Fax: 6397 5046 Handphone: 9115 7767 Email: sunjiaji@chinaconstruction.com.sg
Plumbing & Sanitary Installation Sub-Contractor Chew Construction & Plumbing Pte Ltd	DSC	Name: Mr Lee Bee Fen Position:	Tel: 6710 7919 Fax: 6368 5753 Handphone: Email: beefen@chewplumping.com.sg
Electrical Installation Sub-Contractor Great Resources M&E Contractor Pte Ltd	DSC	Name: Mr Jia Ying Hui Position:	Tel: 6756 6123 Fax: 6397 5046 Handphone: 9068 9928 Email: jiayinghui@chinaconstruction.com.sg
Lift & Escalator Installation Sub-Contractor Mitsubishi Elevator (Singapore) Pte Ltd	DSC	Name: Jacky Lim Position:	Tel: 6842 5678 Fax: 6748 2292 Handphone: 6436 2830 (D) Email: Jacky@mesp.meap.com
Fire Fighting & Alarm Installation Sub-Contractor Rico Engineering Works Pte Ltd	DSC	Name: Mr Nicholas Position:	Tel: 6482 0153 Fax: 6482 0553 Handphone: 9650 8575 Email: qe@ricoeng.com.sg

3.5 Contractors/Sub-Contractors (Cont'd)

Function / Name of Company	Contract *	Contact Person	Contact
Swimming Pool Filtration Plant Installation Sub-Contractor Waterwish Pte Ltd	DSC	Name: Derek Yoon Position:	Tel: 6744 0490 Fax: 6744 0414 Handphone: 9691 7211 Email: projects@waterwishpl.com
Carpark System Installation Sub-Contractor		Name: Position:	Tel: Revise and resubmit – A&A Fax: – Handphone: – Email: –
Pre-Condition Survey Sub-Contractor City Surveyor Pte Ltd	DSC	Name: Mr Cromer Teo Position:	Tel: 6555 5231 Fax: 6234 3255 Handphone: 9066 3376 Email: cromer@citysurveyors.com.sg
Cable Detention Services Sub-Contractor JB Technical Services	DSC	Name: Mr Paul Position:	Tel: 6288 2880 Fax: 6288 2826 Handphone: 9683 3310 Email: sharon@jbtech.com.sg
Security Guard Sub-Contractor Quality Engineering Pte Ltd	DSC	Name: Mr Johnson Ng Position:	Tel: 6818 8666 Fax: 6818 8667 Handphone: 9630 6121 Email: Johnson.ng@greatearth.sg
Demolition Work Sub-Contractor Beng Soon Machinery Services (Singapore) Pte Ltd	DSC	Name: Mr Karine Tang Position:	Tel: 6288 1280 Fax: 6289 5531 Handphone: 9847 1818 Email: karine.tang@bsm.com.sg
Land Surveying Sub-Contractor CAK & FG Survey Pte Ltd	DSC	Name: Mr Liu Ye Position:	Tel: 6299 1776 Fax: 6299 1416 Handphone: 9231 3796 Email: liu.ye@cak-fg.com.sg
Soil Investigation Sub-Contractor Geomotion (Singapore) Pte Ltd	DSC	Name: Mr Zaw Win Thein Position:	Tel: 6546 5585 Fax: 6546 5595 Handphone: 9139 3755 Email: zaw.win.thein@geomotion.com.sg
Licensed Electrical Work Sub-Contractor Action Engineering Services Pte Ltd	DSC	Name: Mr Richard Nyap Fat Ming	Tel: – Fax: – Handphone: 96333633 Email: actionengr@yahoo.com
Asbestos removal Sub-Contractor Ong Gim Yong Building Contractor Pte Ltd	DSC	Name: Mr Ong Gim Yong Position:	Tel: 6762 8912 Fax: 6762 8912 Handphone: 9686 1069 Email: Ongimyong.b.c@gmail.com

3.5 Contractors/Sub-Contractors (Cont'd)

Function / Name of Company	Contract *	Contact Person	Contact
CCTV monitoring for Sewer Clear Link Pte Ltd	DSC	Name: Mr Moses Poh Position:	Tel: 6659 1128 Fax: 6659 1129 Handphone: 9321 2481 Email: mosespoh@clearlink.com.sg
Safeguard Consultation Safeguard Consultancy Pte Ltd	DSC	Name: Mr Sebastian Kao Position:	Tel: 6336 1195 Fax: – Handphone: 9660 7489 Email: office@safeguardconsult.com.sg
Waste Disposal Evergreen Waste Management	DSC	Name: Mr Loy Lee Yang Chea Position:	Tel: 6862 4898 Fax: 6862 4993 Handphone: 8588 0037 Email: evergreen_waste@live.com.sg
Temporary Site Gate Tat Hin Builders Pte Ltd	DSC	Name: Mr Liong Kok Chong Position:	Tel: 6365 6998 Fax: 6365 1338 Handphone: 8201 3421 Email: thasriq.thb@gmail.com
Pest Control and Anti-termite Service Pest-Pro Management Pte Ltd	DSC	Name: Mr Stanley Kum Position:	Tel: 6300 8385 Fax: – Handphone: 9060 0592 Email: stanley@pestpro.com.sg
Instrumentation and Monitoring Works Soil Investigation Pte Ltd	DSC	Name: Mr Zhi Yang Position:	Tel: 6745 6765 Fax: 6747 1733 Handphone: 6505 9727 Email: zhiyang@soilinvestigation.com.sg
Material Testing CAST Laboratories Pte Ltd	DSC	Name: Mr John Yeo Position:	Tel: 6801 6000 Fax: 6801 6002 Handphone: 8201 5022 Email: john@castlab.com.sg
Supply and Delivery of Rebar NatSteel Holdings Pte Ltd	DSC	Name: Mr Alvin Lim Position:	Tel: 6265 1233 Fax: 6268 0611 Handphone: 9768 1887 Email: john@castlab.com.sg
AC Checker PE Engineers 2002 Private Limited	DSC	Name: Ms Angeling Tan Position:	Tel: 6747 6900 Fax: 6747 8852 Handphone: Email: angelingtan@engineers2002.com

3.5 Contractors/Sub-Contractors (Cont'd)

Function / Name of Company	Contract *	Contact Person	Contact
Waterproofing Works ADF Waterproof Pte Ltd	DSC	Name: Mr Delon Position:	Tel: 6362 1282 Fax: 6362 7856 Handphone: 9853 5119 Email: delonsh@gmail.com
Earthwork Kok Tong Construction Pte Ltd	DSC	Name: Mr Yiaw Seng Tan Position:	Tel: 6487 4646 Fax: 6487 4440 Handphone: 8660 6716 Email: enquiry@ktcgroup.com.sg
_____		Name: Position:	Tel: Fax: Handphone: Email:

** 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 Mohd Supian	Tel: 6916 8557 Email: ABBASMOHDSUPIAH@spgroup.com.sg
(b) Diversion	Mr Muhammad Zain Aman	HP: 9061 8224 Email: muhamadzainaman@spgroup.com.sg
SP Services:		
(a) Customer Supply		
(b) Installation		
(c) Meter Section		
(d) Road Lighting		
TFCC: (a) Netlink Trust	Mr Farhan Bin Khalid Alkhatib	Tel: 6718 2828 HP: 9222 1446 Email: FarhanAlkhatibnetlinknbn.com
(b) SingTel	Mr Justin Lee	Tel: 6342 5932 HP: 8028 9416 Email: justin.lee@singtel.com
(c) StarHub	Mr Lee Wen Zhong	Tel: – HP: 9068 1478 Email: wzlee@starhub.com
(d) IDA		
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	Ms. Nazilah Sapuan	HP: 9247 5694
(c) Diversion		
(d) NEWater		

3.6 Authorities

Authorities/Department	Contact Person	Tel/Fax Nos./E-mail
PUB Water Reclamation (Network) Dept:		
(a) Building Plan/CBPU	Mr Gwee Yew Beng	Tel: 6731 3249
(b) M&E Plan		
(c) Diversion		
City Gas Pte Ltd:		
(a) Planning/Submission	Ms. Eileen Loh	Tel: 6578 7867
(b) Installation/Inspection		
PowerGas Pte Ltd		
(a) Diversion		
NEA (Pollution Control)		
(a) Planning/Submission		
(b) Inspection		

SECTION 4

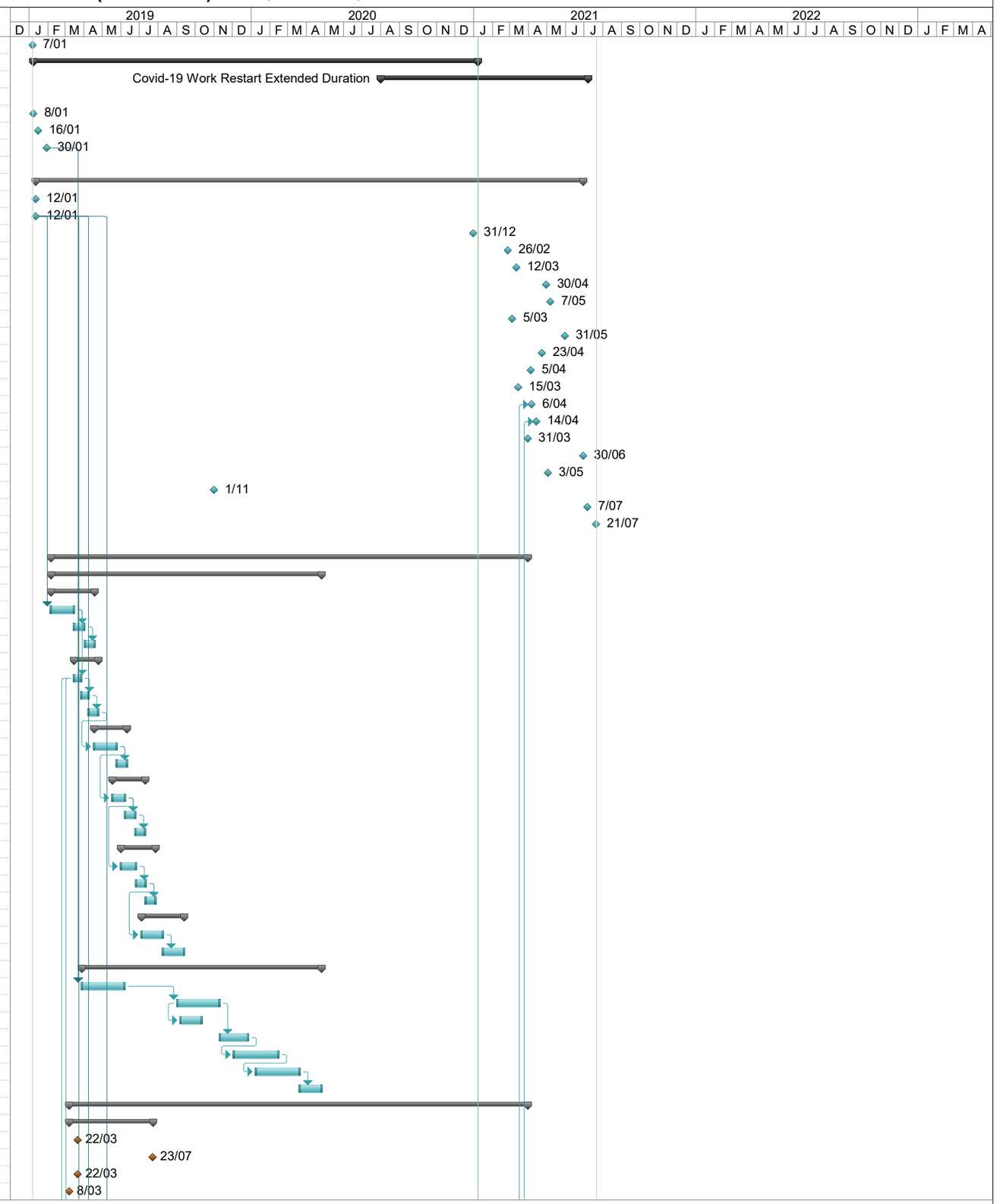
PROGRAMME

4.1 Overall Programme – Refer to Attached 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																									

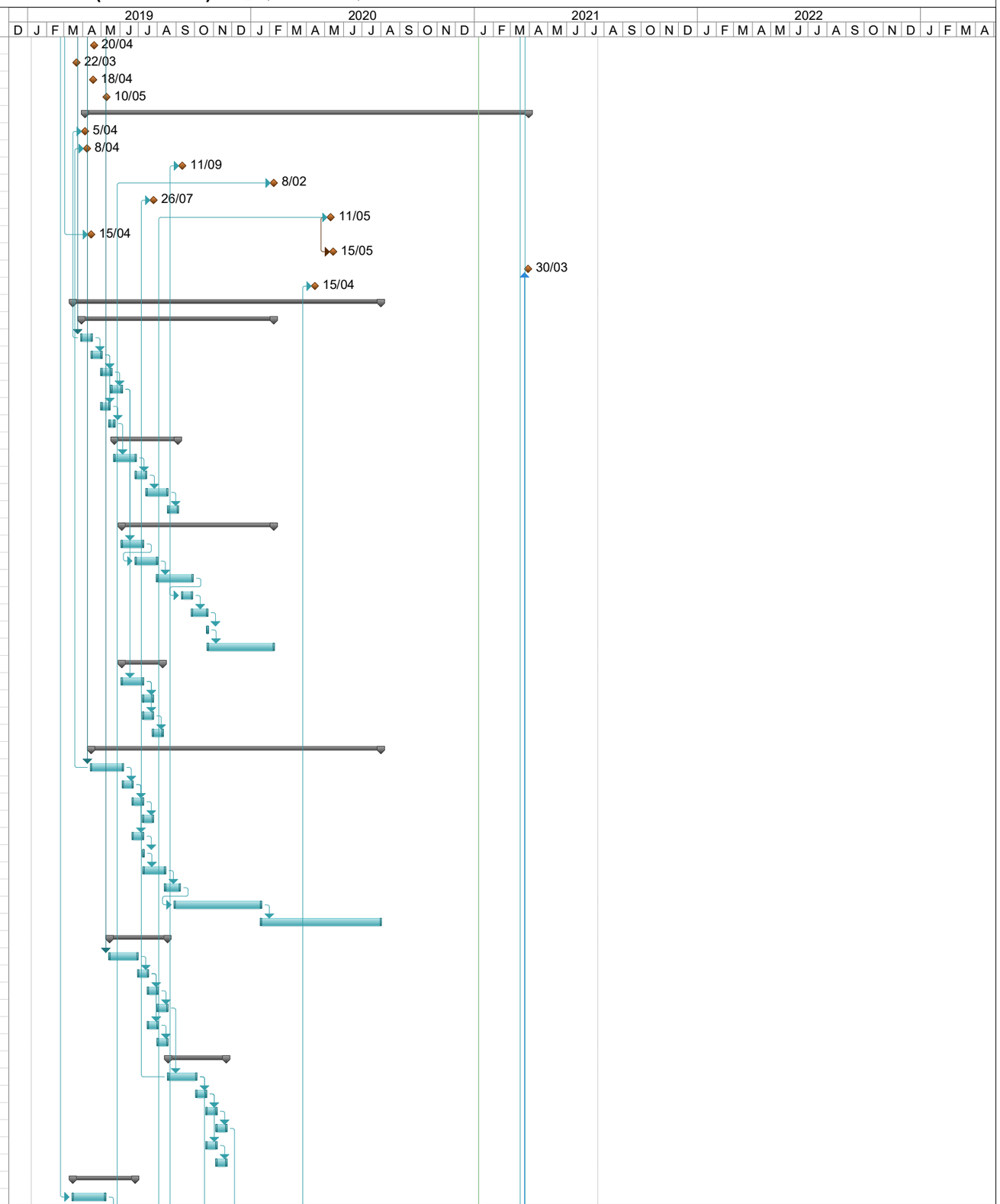
Master Programme for **Project Amber (The Lilium)** Rev_6 (8th Jan 2021)

ID	Task Name	Duration	Start	Finish	Predecessors
1	Date of LOA	0 days	Mon 7/01/19	Mon 7/01/19	
2	**Contract Duration**	**620 days**	**Tue 8/01/19**	**Thu 7/01/21**	
3	**Covid-19 Work Restart Extended Duration**	**292 days**	**Sat 1/08/20**	**Wed 7/07/21**	
4					
5	Issure BP Drawings	0 days	Tue 8/01/19	Tue 8/01/19	
6	1st Issurance of Construction Drawings	0 days	Wed 16/01/19	Wed 16/01/19	
7	2nd Issurance of Construction Drawings	0 days	Wed 30/01/19	Wed 30/01/19	
8					
9	**Project Milestone**	**764 days**	**Sat 12/01/19**	**Wed 30/06/21**	
10	Obtain factory Permit	0 days	Sat 12/01/19	Sat 12/01/19	
11	Commencement of the work	0 days	Sat 12/01/19	Sat 12/01/19	
12	Hand over Sub-station to Power grid	0 days	Thu 31/12/20	Thu 31/12/20	
13	Pre Turn on Inspection by Power grid	0 days	Fri 26/02/21	Fri 26/02/21	
14	Power Turn on to LT switchroom	0 days	Fri 12/03/21	Fri 12/03/21	
15	SP Services Inspection of Unit Electrical Installation	0 days	Fri 30/04/21	Fri 30/04/21	
16	SCV Inspection for cable Readlines Certificate	0 days	Fri 7/05/21	Fri 7/05/21	
17	TFCC inspection and MDF/Tel riser/Tray handing over	0 days	Fri 5/03/21	Fri 5/03/21	
18	Lighting Protection in house Readiness	0 days	Mon 31/05/21	Mon 31/05/21	
19	Sanitary Works Inspection in house & by PUB	0 days	Fri 23/04/21	Fri 23/04/21	
20	Ejector / Sump Pumps Inspection by PUB	0 days	Mon 5/04/21	Mon 5/04/21	
21	Water turn on	0 days	Mon 15/03/21	Mon 15/03/21	
22	Pre M&E RI Inspection	0 days	Tue 6/04/21	Tue 6/04/21	714SS-7 days
23	Pre Archi RI Inspection	0 days	Wed 14/04/21	Wed 14/04/21	715SS-7 days
24	Storey Shelter Commissioning by BCA	0 days	Wed 31/03/21	Wed 31/03/21	
25	LTA (Vehicle Parking) Inspection	0 days	Wed 30/06/21	Wed 30/06/21	
26	Certificate of Lift Maintenance and Testing	0 days	Mon 3/05/21	Mon 3/05/21	
27	Finalisation of Cool and Warm Scheme for unit finishing	0 days	Fri 1/11/19	Fri 1/11/19	
28	Main swimming pool Inspection by Authority	0 days	Wed 7/07/21	Wed 7/07/21	
29	Swimming Pool License	0 days	Wed 21/07/21	Wed 21/07/21	
30					
31	**Design & Approval**	**665 days?**	**Wed 6/02/19**	**Tue 30/03/21**	
32	**Structural Design & Approval**	**378 days**	**Wed 6/02/19**	**Sat 25/04/20**	
33	**Foundation**	**62 days**	**Wed 6/02/19**	**Thu 18/04/19**	
34	Foundation Design (Raft Foundation)	33 days	Wed 6/02/19	Fri 15/03/19	11FS+21 days
35	AC Submission & Approval	14 days	Sat 16/03/19	Mon 1/04/19	34
36	BCA Submission & Approval	14 days	Wed 3/04/19	Thu 18/04/19	35
37	**TERS / ERSS Submission & Approval**	**34 days**	**Sat 16/03/19**	**Wed 24/04/19**	
38	Sub-Structure Design (CBP, Soldier Pile)	10 days	Sat 16/03/19	Wed 27/03/19	34
39	AC Submission & Approval	10 days	Thu 28/03/19	Mon 8/04/19	38
40	BCA Submission & Approval	14 days	Tue 9/04/19	Wed 24/04/19	39
41	**Staircase Shelter**	**46 days**	**Thu 18/04/19**	**Mon 10/06/19**	
42	SS Design	32 days	Thu 18/04/19	Fri 24/05/19	40FS-7 days
43	BCA Submission & Approval	14 days	Sat 25/05/19	Mon 10/06/19	42
44	**Sub-Structure**	**46 days**	**Sat 18/05/19**	**Wed 10/07/19**	
45	Sub-Structure Design	18 days	Sat 18/05/19	Fri 7/06/19	42FS-7 days
46	AC Submission & Approval	14 days	Sat 8/06/19	Mon 24/06/19	45
47	BCA Approval	14 days	Tue 25/06/19	Wed 10/07/19	46
48	**Superstructure**	**49 days**	**Sat 1/06/19**	**Sat 27/07/19**	
49	Superstructure Design	21 days	Sat 1/06/19	Tue 25/06/19	45FS-7 days
50	AC Submission & Approval	14 days	Wed 26/06/19	Thu 11/07/19	49
51	BCA Submission & Approval	14 days	Fri 12/07/19	Sat 27/07/19	50
52	**External Works Design & Approval**	**60 days**	**Fri 5/07/19**	**Thu 12/09/19**	
53	External Works Design & Approval	30 days	Fri 5/07/19	Thu 8/08/19	50FS-7 days
54	LTA / CBPU / NPARKS / BCA / BCA Approval	30 days	Fri 9/08/19	Thu 12/09/19	53
55	**M&E Authority Submission**	**334 days**	**Fri 29/03/19**	**Sat 25/04/20**	
56	SP Services (ESS)	60 days	Fri 29/03/19	Thu 6/06/19	7FS+50 days
57	TFCC	60 days	Mon 2/09/19	Sat 9/11/19	56FS+74 days
58	Jet Fan (FSSD & BCA)	30 days	Sat 7/09/19	Fri 11/10/19	57SS+5 days
59	PUB (Sewer)	40 days	Mon 11/11/19	Thu 26/12/19	57
60	PUB (Water)	60 days	Wed 4/12/19	Fri 14/02/20	59FS-20 days
61	GAS	60 days	Thu 9/01/20	Fri 20/03/20	60FS-30 days
62	FSSD	30 days	Sat 21/03/20	Sat 25/04/20	61
63	**Confirmation of Subcontractors**	**639 days**	**Fri 8/03/19**	**Tue 30/03/21**	
64	**Confirmation & Appointment of M&E Subcontractors**	**118 days**	**Fri 8/03/19**	**Tue 23/07/19**	
65	Fire Protection & FAS	1 day	Fri 22/03/19	Fri 22/03/19	
66	GAS	1 day	Tue 23/07/19	Tue 23/07/19	
67	Electrical	1 day	Fri 22/03/19	Fri 22/03/19	
68	Plumbing & Sanitary	1 day	Fri 8/03/19	Fri 8/03/19	



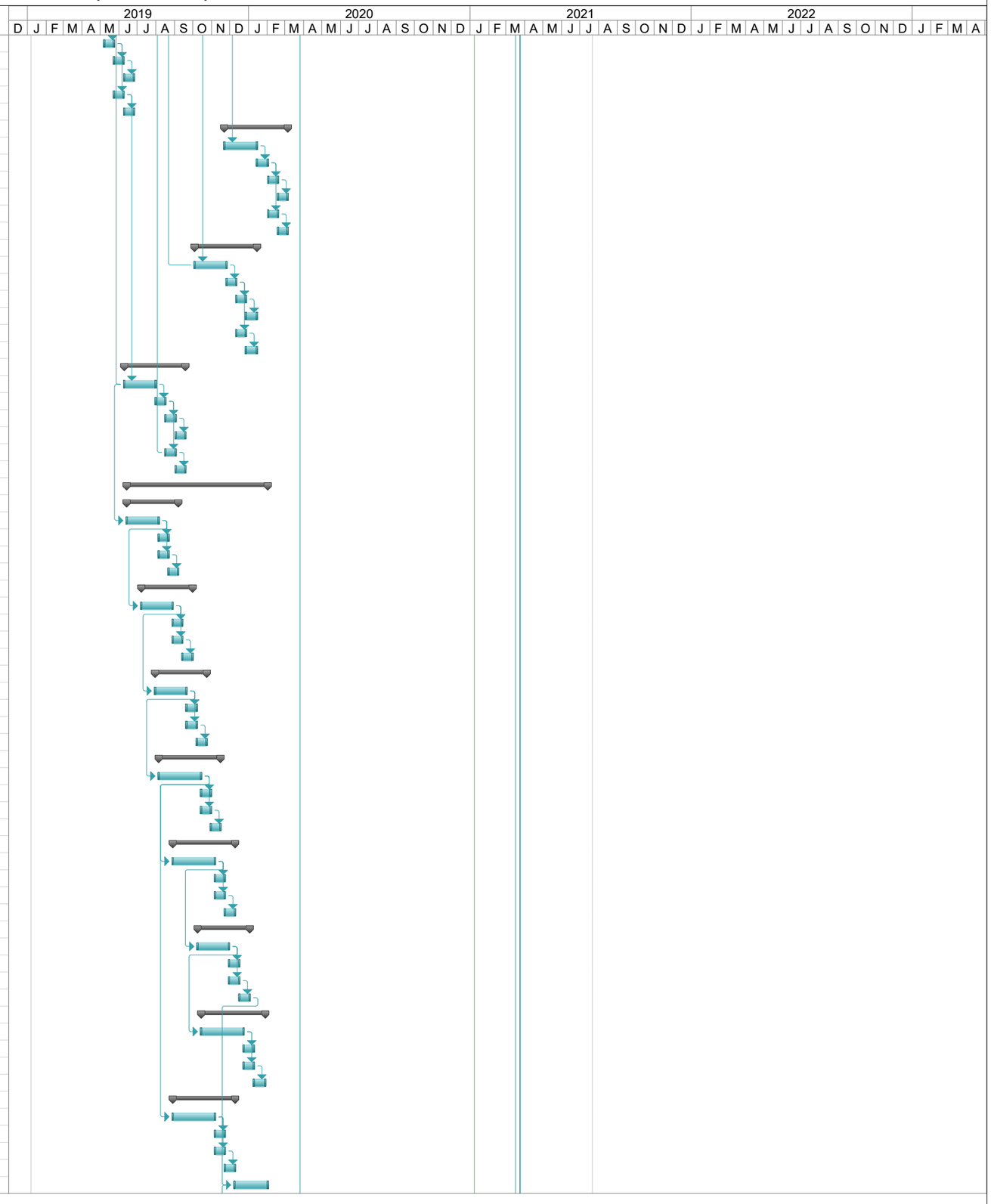
Master Programme for **Project Amber (The Lilium)** Rev_6 (8th Jan 2021)

ID	Task Name	Duration	Start	Finish	Predecessors
69	TAS & SCV	1 day	Sat 20/04/19	Sat 20/04/19	
70	ACMV	1 day	Fri 22/03/19	Fri 22/03/19	
71	Lift	1 day	Thu 18/04/19	Thu 18/04/19	
72	Swimming Pool & Water Feature	1 day	Fri 10/05/19	Fri 10/05/19	
73	**Confirmation of Domestic Subcontractors**	**615 days**	**Fri 5/04/19**	**Tue 30/03/21**	
74	PBU Specialist (Prefabricated Bathroom Unit)	1 day	Fri 5/04/19	Fri 5/04/19	86SS-21 days
75	Aluminium & Glazing	1 day	Mon 8/04/19	Mon 8/04/19	111SS-21 days
76	Tile & Stone	1 day	Wed 11/09/19	Wed 11/09/19	150SS-21 days
77	Cabinetry	1 day	Sat 8/02/20	Sat 8/02/20	157SS-21 days
78	Ironmongery	1 day	Fri 26/07/19	Fri 26/07/19	129SS-21 days
79	Supply of Kitchen Appliances	1 day	Mon 11/05/20	Mon 11/05/20	161SS
80	Supply of Sanitary Wares	1 day	Mon 15/04/19	Mon 15/04/19	38SS
81	Supply of Fitments & Assessories	1 day	Fri 15/05/20	Fri 15/05/20	79SS
82	Signages	1 day	Tue 30/03/21	Tue 30/03/21	250
83	Softscape Works	1 day	Wed 15/04/20	Wed 15/04/20	207SS-30 days
84	**Shop Drawings / Materials Submission for Architectural Works**	**425 days?**	**Sat 16/03/19**	**Fri 31/07/20**	
85	**PBU (Prefabricated Bathroom Unit)**	**267 days?**	**Sat 30/03/19**	**Fri 7/02/20**	
86	Shopdrawings Praparation & Submission	14 days	Sat 30/03/19	Mon 15/04/19	11FS+60 days
87	Shopdrawings Review & Comments	14 days	Tue 16/04/19	Wed 1/05/19	86
88	Shopdrawings Resubmission	14 days	Thu 2/05/19	Fri 17/05/19	87
89	Shopdrawings Review & Acceptance	14 days	Sat 18/05/19	Mon 3/06/19	88
90	Materials Sample Submission	11 days	Thu 2/05/19	Tue 14/05/19	87
91	Materials Review & Acceptance	7 days	Wed 15/05/19	Wed 22/05/19	90
92	**Mock-Up**	**89 days**	**Thu 23/05/19**	**Tue 3/09/19**	
93	Steel Mould Fabrication	30 days	Thu 23/05/19	Wed 26/06/19	91
94	Casting	15 days	Thu 27/06/19	Sat 13/07/19	93
95	Finish Installation	30 days	Mon 15/07/19	Sat 17/08/19	94
96	Inspection and approval	14 days	Mon 19/08/19	Tue 3/09/19	95
97	**Mass Production of PBU**	**211 days?**	**Tue 4/06/19**	**Fri 7/02/20**	
98	Shopdrawings Preparation & Submission	30 days	Tue 4/06/19	Mon 8/07/19	89
99	Shopdrawings Review & Acceptance	30 days	Thu 27/06/19	Wed 31/07/19	98FS-10 days
100	Steel mould fabrications	50 days	Thu 1/08/19	Fri 27/09/19	99
101	1st batch Casting	14 days	Wed 11/09/19	Thu 26/09/19	100FS-15 days
102	1st batch finish	21 days	Fri 27/09/19	Mon 21/10/19	101
103	1st batch installation from 1st sty	1 day?	Tue 22/10/19	Tue 22/10/19	102
104	Fabrication, Delivery & Installation (Entire Project)	90 days	Wed 23/10/19	Fri 7/02/20	103
105	**Non PBU Bathroom**	**58 days**	**Tue 4/06/19**	**Fri 9/08/19**	
106	Shopdrawings Praparation & Submission	30 days	Tue 4/06/19	Mon 8/07/19	89
107	Shopdrawings Review & Comments	14 days	Tue 9/07/19	Wed 24/07/19	106
108	Shopdrawings Resubmission	14 days	Tue 9/07/19	Wed 24/07/19	106
109	Shopdrawings Review & Acceptance	14 days	Thu 25/07/19	Fri 9/08/19	108
110	**Aluminium & Glazing (Inclusive Curtain Wall)**	**400 days?**	**Mon 15/04/19**	**Fri 31/07/20**	
111	Shopdrawings Praparation & Submission	45 days	Mon 15/04/19	Wed 5/06/19	11FS+70 days
112	Shopdrawings Review & Comments	14 days	Thu 6/06/19	Fri 21/06/19	111
113	Shopdrawings Resubmission	14 days	Sat 22/06/19	Mon 8/07/19	112
114	Shopdrawings Review & Acceptance	14 days	Tue 9/07/19	Wed 24/07/19	113
115	Material Sample Submission	14 days	Sat 22/06/19	Mon 8/07/19	112
116	Material Review & Acceptance	1 day?	Tue 9/07/19	Tue 9/07/19	115
117	**Prototype Mock-Up for Curtain Wall**	**30 days**	**Wed 10/07/19**	**Tue 13/08/19**	**116**
118	Procurement	21 days	Wed 14/08/19	Fri 6/09/19	117
119	Fabrication	120 days	Fri 30/08/19	Fri 17/01/20	118FS-7 days
120	Delivery & Installation for Prototype & Entire Development	162 days	Sat 18/01/20	Fri 31/07/20	119
121	**Wall Layout & Setting Out Drawings (B1 to 5th Storey)**	**82 days**	**Wed 15/05/19**	**Sat 17/08/19**	
122	Shopdrawings Praparation & Submission	40 days	Wed 15/05/19	Sat 29/06/19	11FS+70 days
123	Shopdrawings Review & Comments	14 days	Mon 1/07/19	Tue 16/07/19	122
124	Shopdrawings Resubmission	14 days	Wed 17/07/19	Thu 1/08/19	123
125	Shopdrawings Review & Acceptance	14 days	Fri 2/08/19	Sat 17/08/19	124
126	Material Sample Submission	14 days	Wed 17/07/19	Thu 1/08/19	123
127	Material Review & Acceptance	14 days	Fri 2/08/19	Sat 17/08/19	126
128	**Door & Door Frames Shopdrawings & Materials**	**82 days**	**Mon 19/08/19**	**Thu 21/11/19**	
129	Shopdrawings Praparation & Submission	40 days	Mon 19/08/19	Thu 3/10/19	125
130	Shopdrawings Review & Comments	14 days	Fri 4/10/19	Sat 19/10/19	129
131	Shopdrawings Resubmission	14 days	Mon 21/10/19	Tue 5/11/19	130
132	Shopdrawings Review & Acceptance	14 days	Wed 6/11/19	Thu 21/11/19	131
133	Material Sample Submission	14 days	Mon 21/10/19	Tue 5/11/19	130
134	Material Review & Acceptance	14 days	Wed 6/11/19	Thu 21/11/19	133
135	**Waterproofing Shopdrawings & Materials**	**87 days**	**Sat 16/03/19**	**Tue 25/06/19**	
136	Shopdrawings Praparation & Submission	45 days	Sat 16/03/19	Tue 7/05/19	38SS



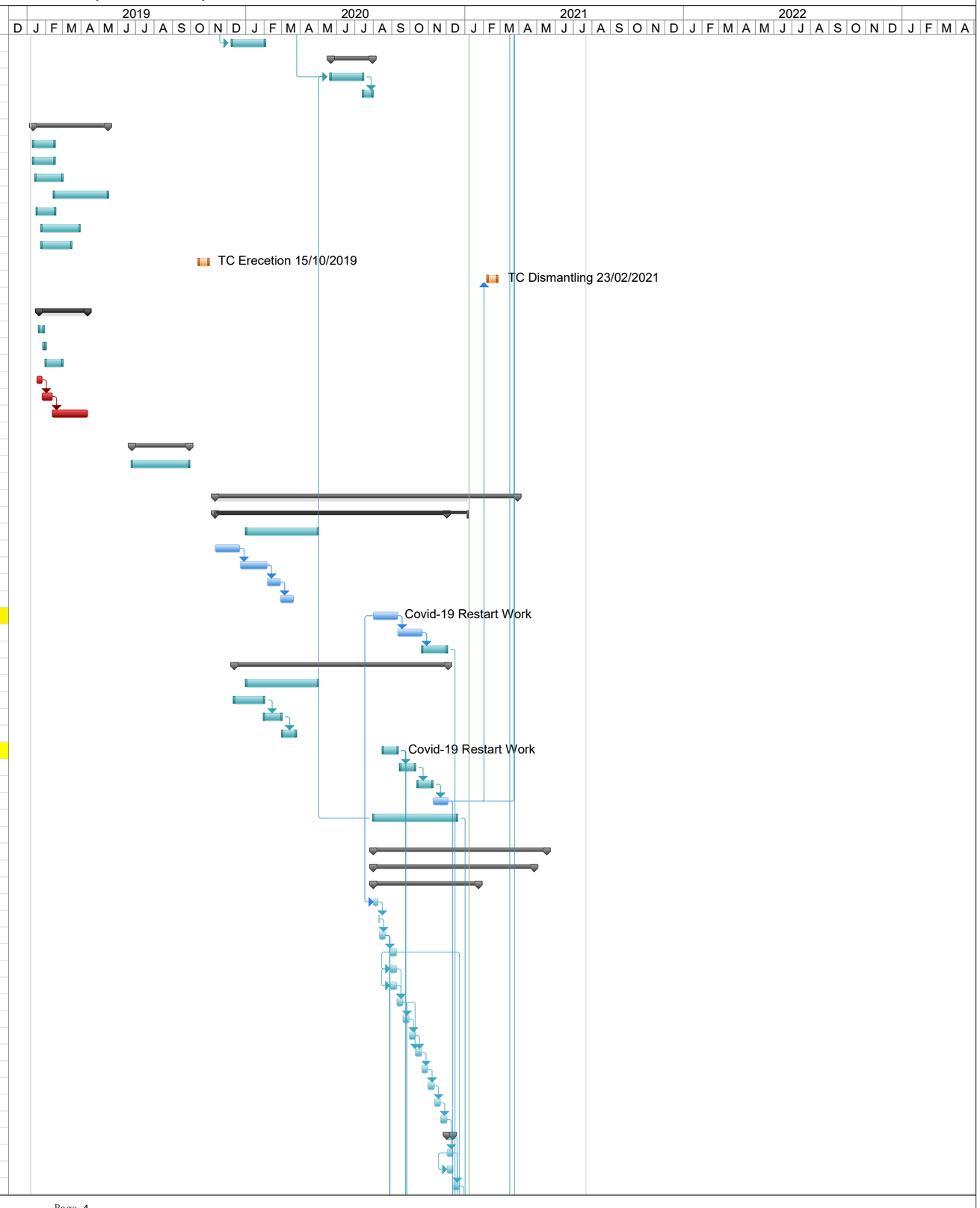
Master Programme for **Project Amber (The Lilium)** Rev_6 (8th Jan 2021)

ID	Task Name	Duration	Start	Finish	Predecessors
137	Shopdrawings Review & Comments	14 days	Wed 8/05/19	Thu 23/05/19	136
138	Shopdrawings Resubmission	14 days	Fri 24/05/19	Sat 8/06/19	137
139	Shopdrawings Review & Acceptance	14 days	Mon 10/06/19	Tue 25/06/19	138
140	Material Sample Submission	14 days	Fri 24/05/19	Sat 8/06/19	137
141	Material Review & Acceptance	14 days	Mon 10/06/19	Tue 25/06/19	140
142	**Ceiling Shopdrawings & Materials**	**87 days**	**Fri 22/11/19**	**Thu 5/03/20**	
143	Shopdrawings Praparation & Submission	45 days	Fri 22/11/19	Tue 14/01/20	132
144	Shopdrawings Review & Comments	14 days	Wed 15/01/20	Sat 1/02/20	143
145	Shopdrawings Resubmission	14 days	Mon 3/02/20	Tue 18/02/20	144
146	Shopdrawings Review & Acceptance	14 days	Wed 19/02/20	Thu 5/03/20	145
147	Material Sample Submission	14 days	Mon 3/02/20	Tue 18/02/20	144
148	Material Review & Acceptance	14 days	Wed 19/02/20	Thu 5/03/20	147
149	**Floor & Wall Tile Setting Out Shopdrawings & Materials**	**87 days**	**Fri 4/10/19**	**Tue 14/01/20**	
150	Shopdrawings Praparation & Submission	45 days	Fri 4/10/19	Mon 25/11/19	129
151	Shopdrawings Review & Comments	14 days	Tue 26/11/19	Wed 11/12/19	150
152	Shopdrawings Resubmission	14 days	Thu 12/12/19	Fri 27/12/19	151
153	Shopdrawings Review & Acceptance	14 days	Sat 28/12/19	Tue 14/01/20	152
154	Material Sample Submission	14 days	Thu 12/12/19	Fri 27/12/19	151
155	Material Review & Acceptance	14 days	Sat 28/12/19	Tue 14/01/20	154
156	**Kitchen, Cabinet, Wardrobes, Vanity & etc. Shopdrawings & Materials**	**87 days**	**Mon 10/06/19**	**Wed 18/09/19**	
157	Shopdrawings Praparation & Submission	45 days	Mon 10/06/19	Wed 31/07/19	140
158	Shopdrawings Review & Comments	14 days	Thu 1/08/19	Fri 16/08/19	157
159	Shopdrawings Resubmission	14 days	Sat 17/08/19	Mon 2/09/19	158
160	Shopdrawings Review & Acceptance	14 days	Tue 3/09/19	Wed 18/09/19	159
161	Material Sample Submission	14 days	Sat 17/08/19	Mon 2/09/19	158
162	Material Review & Acceptance	14 days	Tue 3/09/19	Wed 18/09/19	161
163	**M&E Shopdrawings, Material Submission & Approval**	**197 days**	**Fri 14/06/19**	**Sat 1/02/20**	
164	**Fire Protection**	**73 days**	**Fri 14/06/19**	**Fri 6/09/19**	
165	Shopdrawings Praparation & Submission	45 days	Fri 14/06/19	Mon 5/08/19	157SS+4 days
166	Shopdrawings Review & Acceptance	14 days	Tue 6/08/19	Wed 21/08/19	165
167	Material Sample Submission	14 days	Tue 6/08/19	Wed 21/08/19	165
168	Material Review & Acceptance	14 days	Thu 22/08/19	Fri 6/09/19	167
169	**Gas**	**73 days**	**Mon 8/07/19**	**Mon 30/09/19**	
170	Shopdrawings Praparation & Submission	45 days	Mon 8/07/19	Wed 28/08/19	165FS-25 days
171	Shopdrawings Review & Acceptance	14 days	Thu 29/08/19	Fri 13/09/19	170
172	Material Sample Submission	14 days	Thu 29/08/19	Fri 13/09/19	170
173	Material Review & Acceptance	14 days	Sat 14/09/19	Mon 30/09/19	172
174	**Electrical**	**73 days**	**Wed 31/07/19**	**Wed 23/10/19**	
175	Shopdrawings Praparation & Submission	45 days	Wed 31/07/19	Fri 20/09/19	170FS-25 days
176	Shopdrawings Review & Acceptance	14 days	Sat 21/09/19	Mon 7/10/19	175
177	Material Sample Submission	14 days	Sat 21/09/19	Mon 7/10/19	175
178	Material Review & Acceptance	14 days	Tue 8/10/19	Wed 23/10/19	177
179	**Plumbing & Sanitary**	**88 days**	**Tue 6/08/19**	**Fri 15/11/19**	
180	Shopdrawings Praparation & Submission	60 days	Tue 6/08/19	Mon 14/10/19	175FS-40 days
181	Shopdrawings Review & Acceptance	14 days	Tue 15/10/19	Wed 30/10/19	180
182	Material Sample Submission	14 days	Tue 15/10/19	Wed 30/10/19	180
183	Material Review & Acceptance	14 days	Thu 31/10/19	Fri 15/11/19	182
184	**TAS / SCV**	**88 days**	**Thu 29/08/19**	**Mon 9/12/19**	
185	Shopdrawings Praparation & Submission	60 days	Thu 29/08/19	Wed 6/11/19	180FS-40 days
186	Shopdrawings Review & Acceptance	14 days	Thu 7/11/19	Fri 22/11/19	185
187	Material Sample Submission	14 days	Thu 7/11/19	Fri 22/11/19	185
188	Material Review & Acceptance	14 days	Sat 23/11/19	Mon 9/12/19	187
189	**ACMV**	**73 days**	**Wed 9/10/19**	**Thu 2/01/20**	
190	Shopdrawings Praparation & Submission	45 days	Wed 9/10/19	Fri 29/11/19	185FS-25 days
191	Shopdrawings Review & Acceptance	14 days	Sat 30/11/19	Mon 16/12/19	190
192	Material Sample Submission	14 days	Sat 30/11/19	Mon 16/12/19	190
193	Material Review & Acceptance	14 days	Tue 17/12/19	Thu 2/01/20	192
194	**Lift**	**88 days**	**Tue 15/10/19**	**Tue 28/01/20**	
195	Shopdrawings Praparation & Submission	60 days	Tue 15/10/19	Mon 23/12/19	190FS-40 days
196	Shopdrawings Review & Acceptance	14 days	Tue 24/12/19	Thu 9/01/20	195
197	Material Sample Submission	14 days	Tue 24/12/19	Thu 9/01/20	195
198	Material Review & Acceptance	14 days	Fri 10/01/20	Tue 28/01/20	197
199	**Swimming Pool & Water Features**	**88 days**	**Thu 29/08/19**	**Mon 9/12/19**	
200	Shopdrawings Praparation & Submission	60 days	Thu 29/08/19	Wed 6/11/19	180FS-40 days
201	Shopdrawings Review & Acceptance	14 days	Thu 7/11/19	Fri 22/11/19	200
202	Material Sample Submission	14 days	Thu 7/11/19	Fri 22/11/19	200
203	Material Review & Acceptance	14 days	Sat 23/11/19	Mon 9/12/19	202
204	Combine Services Drawings	45 days	Mon 9/12/19	Sat 1/02/20	193FS-21 days



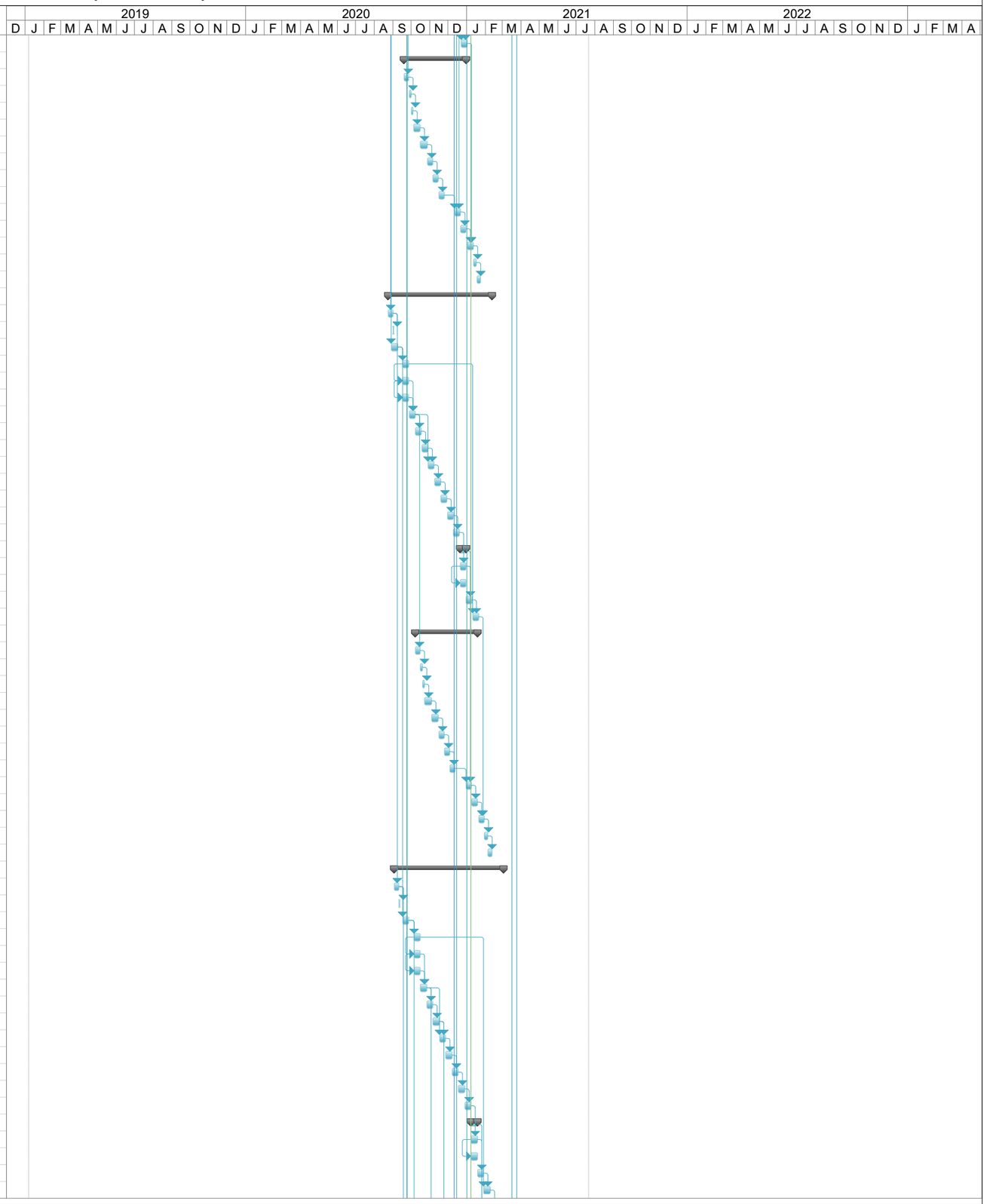
Master Programme for **Project Amber (The Lilium)** Rev_6 (8th Jan 2021)

ID	Task Name	Duration	Start	Finish	Predecessors
205	Concrete Body Plan	45 days	Mon 9/12/19	Sat 1/02/20	204SS
206	**Landscape Shopdrawing, Material Submission & Approval**	**59 days**	**Fri 22/05/20**	**Thu 30/07/20**	
207	Shopdrawings Praparation & Submission	45 days	Fri 22/05/20	Tue 14/07/20	251SS-60 days
208	Shopdrawings Review & Acceptance	14 days	Wed 15/07/20	Thu 30/07/20	207
209					
210	**Site Preparation**	**107 days**	**Fri 11/01/19**	**Wed 15/05/19**	
211	Pre-condition survey	31 days	Fri 11/01/19	Fri 15/02/19	
212	CCTV Survey for existing sewer pipe	31 days	Fri 11/01/19	Fri 15/02/19	
213	Cable detection for site	39 days	Tue 15/01/19	Thu 28/02/19	
214	Temp water supply application	77 days	Fri 15/02/19	Wed 15/05/19	
215	Pre-Computation plan submission	27 days	Thu 17/01/19	Sat 16/02/19	
216	ERSS Submission & Approval	55 days	Fri 25/01/19	Fri 29/03/19	
217	ECM Submission & Approval	43 days	Fri 25/01/19	Fri 15/03/19	
218	**Erection of Tower crane**	**14 days**	**Tue 15/10/19**	**Wed 30/10/19**	
219	**Dismantle of Tower crane**	**14 days**	**Mon 8/02/21**	**Tue 23/02/21**	**250FS+30 days**
220					
221	**Demolition Work**	**70 days**	**Mon 21/01/19**	**Thu 11/04/19**	
222	Asbestos Survey report & submission to MOM	7 days	Mon 21/01/19	Mon 28/01/19	
223	Asbestos inpection by MOM	3 days	Tue 29/01/19	Thu 31/01/19	
224	Asbestos Removal	24 days	Fri 1/02/19	Thu 28/02/19	
225	ST submisson to BCA for demolition work	8 days	Thu 17/01/19	Fri 25/01/19	
226	Obtain approval for demolition work	14 days	Sat 26/01/19	Mon 11/02/19	225
227	Demolition tower & foundation	51 days	Tue 12/02/19	Thu 11/04/19	226
228					
229	**Piling work**	**83 days**	**Tue 25/06/19**	**Sat 28/09/19**	
230	Installation of temp CBP, sheet pile and king post	83 days	Tue 25/06/19	Sat 28/09/19	
231					
232	**Structure Work**	**426 days**	**Mon 11/11/19**	**Mon 29/03/21**	
233	**Block 31**	**355 days**	**Mon 11/11/19**	**Tue 5/01/21**	
234	Basement 1 Horizontal & Vertical Elements (Zone 4 Top Down)	100 days	Thu 2/01/20	Thu 30/04/20	
235	1st Sty Horizontal & Vertical Elements	36 days	Mon 11/11/19	Sat 21/12/19	
236	2nd Sty Horizontal & Vertical Elements	36 days	Mon 23/12/19	Wed 5/02/20	235
237	3rd Sty Horizontal & Vertical Elements	19 days	Thu 6/02/20	Thu 27/02/20	236
238	4th Sty Horizontal & Vertical Elements	19 days	Fri 28/02/20	Fri 20/03/20	237
239	5th Sty Horizontal & Vertical Elements	35 days	Sat 1/08/20	Thu 10/09/20	
240	Attic Sty Horizontal & Vertical Elements	35 days	Fri 11/09/20	Wed 21/10/20	239
241	Roof Horizontal & Vertical Elements	35 days	Thu 22/10/20	Tue 1/12/20	240
242	**Block 33**	**299 days**	**Fri 13/12/19**	**Thu 3/12/20**	
243	Basement 1 Horizontal & Vertical Elements (Zone 6 Top Down)	100 days	Thu 2/01/20	Thu 30/04/20	
244	1st Sty Horizontal & Vertical Elements	40 days	Fri 13/12/19	Fri 31/01/20	
245	2nd Sty Horizontal & Vertical Elements	25 days	Sat 1/02/20	Sat 29/02/20	244
246	3rd Sty Horizontal & Vertical Elements	20 days	Mon 2/03/20	Tue 24/03/20	245
247	4th Sty Horizontal & Vertical Elements	22 days	Mon 17/08/20	Thu 10/09/20	
248	5th Sty Horizontal & Vertical Elements	22 days	Tue 15/09/20	Fri 9/10/20	247
249	Attic Sty Horizontal & Vertical Elements	22 days	Wed 14/10/20	Sat 7/11/20	248
250	Roof Horizontal & Vertical Elements	22 days	Mon 9/11/20	Thu 3/12/20	249
251	E Deck slab & swimming pool	120 days	Sat 1/08/20	Fri 18/12/20	
252					
253	**Building Architectural & M&E Works**	**248 days?**	**Sat 1/08/20**	**Mon 17/05/21**	
254	**Block 31 Architectural & M&E Works**	**230 days**	**Sat 1/08/20**	**Mon 26/04/21**	
255	**1st Storey**	**151 days**	**Sat 1/08/20**	**Sat 23/01/21**	
256	Sanitary stack and waste pipe installation	7 days	Sat 1/08/20	Sat 8/08/20	239SS
257	RWDP installation	1 day	Mon 10/08/20	Mon 10/08/20	256
258	Block wall installation	9 days	Tue 11/08/20	Thu 20/08/20	257
259	M&E 1st fix (concealed in wall or above false ceiling items)	9 days	Sat 29/08/20	Tue 8/09/20	258FS+7 days
260	Window outer frame installation	9 days	Sat 29/08/20	Tue 8/09/20	259SS
261	Door outer frame installation	9 days	Sat 29/08/20	Tue 8/09/20	260SS
262	Internal wall Skim Coat	9 days	Wed 9/09/20	Fri 18/09/20	260,261
263	Floor screeding to receive respective final finishes	9 days	Sat 19/09/20	Tue 29/09/20	262
264	ceiling (skimming coat / false ceiling)	9 days	Wed 30/09/20	Fri 9/10/20	263
265	Internal painting (sealer / base coat)	9 days	Sat 10/10/20	Tue 20/10/20	262FS+14 days,264
266	M&E 2nd fix (wiring, circuits)	9 days	Wed 21/10/20	Fri 30/10/20	265
267	Window inner frame & glazing	9 days	Sat 31/10/20	Tue 10/11/20	266
268	Internal floor finishes except parquet	9 days	Wed 11/11/20	Fri 20/11/20	267
269	Timber floor installation	9 days	Sat 21/11/20	Tue 1/12/20	268
270	Cabinetry Work	9 days	Wed 2/12/20	Fri 11/12/20	
271	Kitchen cabinetry work + vanity top	9 days	Wed 2/12/20	Fri 11/12/20	269
272	Bedroom wardrobes	9 days	Wed 2/12/20	Fri 11/12/20	271SS
273	Door panel installation	9 days	Sat 12/12/20	Tue 22/12/20	270



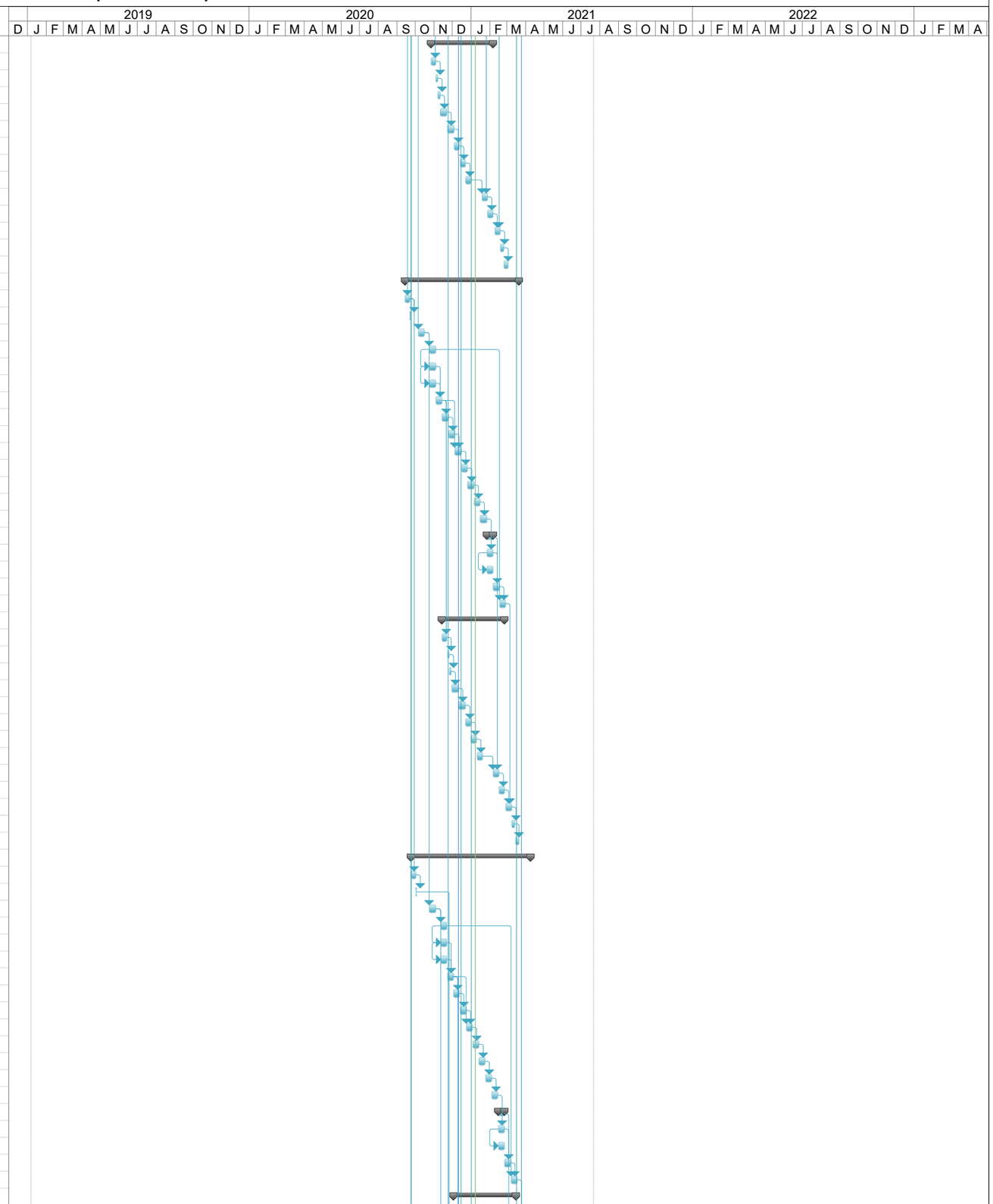
Master Programme for **Project Amber (The Lilium)** Rev_6 (8th Jan 2021)

ID	Task Name	Duration	Start	Finish	Predecessors
274	M&E final fix	9 days	Wed 23/12/20	Fri 1/01/21	259,273
275	Wet Area (Kitchen)	88 days	Sat 19/09/20	Wed 30/12/20	
276	Internal wet area waterproofing	7 days	Sat 19/09/20	Sat 26/09/20	262
277	Water ponding test	3 days	Mon 28/09/20	Wed 30/09/20	276
278	Protective screed over waterproofing	3 days	Thu 1/10/20	Sat 3/10/20	277
279	Internal wall tiling	10 days	Mon 5/10/20	Thu 15/10/20	278
280	False ceiling	10 days	Fri 16/10/20	Tue 27/10/20	279
281	Internal painting (sealer / base coat)	8 days	Wed 28/10/20	Thu 5/11/20	280
282	M&E 2nd fix (wiring, circuit)	8 days	Fri 6/11/20	Sat 14/11/20	281
283	Internal floor finishes	8 days	Mon 16/11/20	Tue 24/11/20	282
284	Sink & Fitting installation	8 days	Sat 12/12/20	Mon 21/12/20	271,283
285	M&E final fix	8 days	Tue 22/12/20	Wed 30/12/20	284
286	M&E services preliminary T&C	8 days	Sat 2/01/21	Mon 11/01/21	274,285
287	Final painting	5 days	Tue 12/01/21	Sat 16/01/21	286
288	Clean up and lock up	6 days	Mon 18/01/21	Sat 23/01/21	287
289	**2nd Storey**	**148 days**	**Mon 24/08/20**	**Thu 11/02/21**	
290	Sanitary stack and waste pipe installation	7 days	Mon 24/08/20	Mon 31/08/20	258FS+2 days
291	RWDP installation	1 day	Tue 1/09/20	Tue 1/09/20	290
292	Block wall installation	9 days	Sat 29/08/20	Tue 8/09/20	258FS+7 days
293	M&E 1st fix (concealed in wall or above false ceiling items)	9 days	Thu 17/09/20	Sat 26/09/20	292FS+7 days
294	Window outer frame installation	9 days	Thu 17/09/20	Sat 26/09/20	293SS
295	Door outer frame installation	9 days	Thu 17/09/20	Sat 26/09/20	294SS
296	Internal wall Skim Coat	9 days	Mon 28/09/20	Wed 7/10/20	294,295
297	Floor screeding to receive respective final finishes	9 days	Thu 8/10/20	Sat 17/10/20	296
298	ceiling (skimming coat / false ceiling)	9 days	Mon 19/10/20	Wed 28/10/20	297
299	Internal painting (sealer / base coat)	9 days	Thu 29/10/20	Sat 7/11/20	296FS+14 days,298
300	M&E 2nd fix (wiring, circuits)	9 days	Mon 9/11/20	Wed 18/11/20	299
301	Window inner frame & glazing	9 days	Thu 19/11/20	Sat 28/11/20	300
302	Internal floor finishes except parquet	9 days	Mon 30/11/20	Wed 9/12/20	301
303	Timber floor installation	9 days	Thu 10/12/20	Sat 19/12/20	302
304	Cabinetry Work	9 days	Mon 21/12/20	Wed 30/12/20	
305	Kitchen cabinetry work + vanity top	9 days	Mon 21/12/20	Wed 30/12/20	303
306	Bedroom wardrobes	9 days	Mon 21/12/20	Wed 30/12/20	305SS
307	Door panel installation	9 days	Thu 31/12/20	Sat 9/01/21	304
308	M&E final fix	9 days	Mon 11/01/21	Wed 20/01/21	293,307
309	Wet Area (Kitchen)	88 days	Thu 8/10/20	Mon 18/01/21	
310	Internal wet area waterproofing	7 days	Thu 8/10/20	Thu 15/10/20	296
311	Water ponding test	3 days	Fri 16/10/20	Mon 19/10/20	310
312	Protective screed over waterproofing	3 days	Tue 20/10/20	Thu 22/10/20	311
313	Internal wall tiling	10 days	Fri 23/10/20	Tue 3/11/20	312
314	False ceiling	10 days	Wed 4/11/20	Sat 14/11/20	313
315	Internal painting (sealer / base coat)	8 days	Mon 16/11/20	Tue 24/11/20	314
316	M&E 2nd fix (wiring, circuit)	8 days	Wed 25/11/20	Thu 3/12/20	315
317	Internal floor finishes	8 days	Fri 4/12/20	Sat 12/12/20	316
318	Sink & Fitting installation	8 days	Thu 31/12/20	Fri 8/01/21	305,317
319	M&E final fix	8 days	Sat 9/01/21	Mon 18/01/21	318
320	M&E services preliminary T&C	8 days	Thu 21/01/21	Fri 29/01/21	308,319
321	Final painting	5 days	Sat 30/01/21	Thu 4/02/21	320
322	Clean up and lock up	6 days	Fri 5/02/21	Thu 11/02/21	321
323	**3rd Storey**	**155 days**	**Thu 3/09/20**	**Tue 2/03/21**	
324	Sanitary stack and waste pipe installation	7 days	Thu 3/09/20	Thu 10/09/20	290FS+2 days
325	RWDP installation	1 day	Fri 11/09/20	Fri 11/09/20	324
326	Block wall installation	9 days	Thu 17/09/20	Sat 26/09/20	292FS+7 days
327	M&E 1st fix (concealed in wall or above false ceiling items)	9 days	Tue 6/10/20	Thu 15/10/20	326FS+7 days
328	Window outer frame installation	9 days	Tue 6/10/20	Thu 15/10/20	327SS
329	Door outer frame installation	9 days	Tue 6/10/20	Thu 15/10/20	328SS
330	Internal wall Skim Coat	9 days	Fri 16/10/20	Mon 26/10/20	328,329
331	Floor screeding to receive respective final finishes	9 days	Tue 27/10/20	Thu 5/11/20	330
332	ceiling (skimming coat / false ceiling)	9 days	Fri 6/11/20	Mon 16/11/20	331
333	Internal painting (sealer / base coat)	9 days	Tue 17/11/20	Thu 26/11/20	330FS+14 days,332
334	M&E 2nd fix (wiring, circuits)	9 days	Fri 27/11/20	Mon 7/12/20	333
335	Window inner frame & glazing	9 days	Tue 8/12/20	Thu 17/12/20	334
336	Internal floor finishes except parquet	9 days	Fri 18/12/20	Mon 28/12/20	335
337	Timber floor installation	9 days	Tue 29/12/20	Thu 7/01/21	336
338	Cabinetry Work	9 days	Fri 8/01/21	Mon 18/01/21	
339	Kitchen cabinetry work + vanity top	9 days	Fri 8/01/21	Mon 18/01/21	337
340	Bedroom wardrobes	9 days	Fri 8/01/21	Mon 18/01/21	339SS
341	Door panel installation	9 days	Tue 19/01/21	Thu 28/01/21	338
342	M&E final fix	9 days	Fri 29/01/21	Mon 8/02/21	327,341



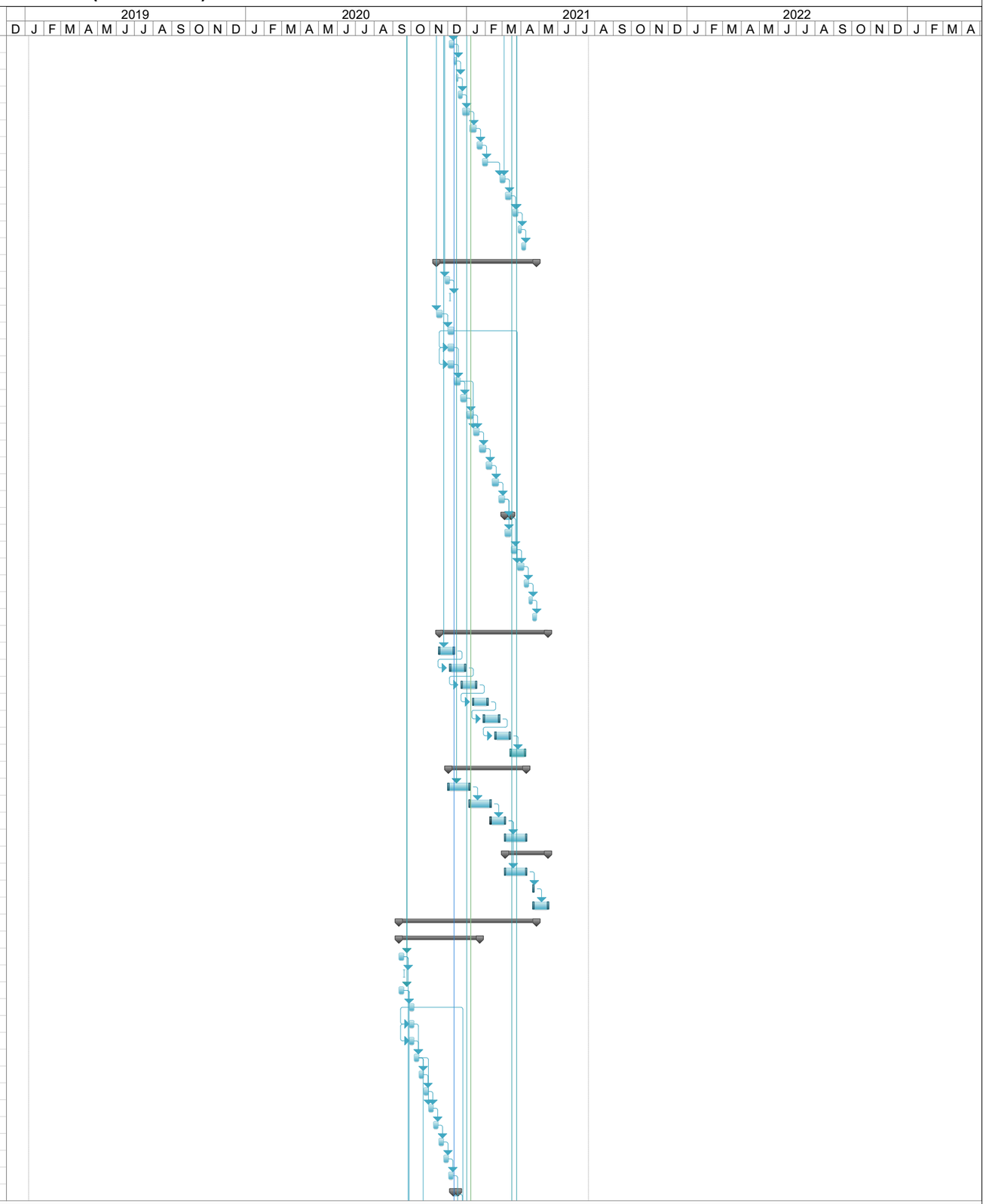
Master Programme for **Project Amber (The Lilium)** Rev_6 (8th Jan 2021)

ID	Task Name	Duration	Start	Finish	Predecessors
343	Wet Area (Kitchen)	88 days	Tue 27/10/20	Fri 5/02/21	
344	Internal wet area waterproofing	7 days	Tue 27/10/20	Tue 3/11/20	330
345	Water ponding test	3 days	Wed 4/11/20	Fri 6/11/20	344
346	Protective screed over waterproofing	3 days	Sat 7/11/20	Tue 10/11/20	345
347	Internal wall tiling	10 days	Wed 11/11/20	Sat 21/11/20	346
348	False ceiling	10 days	Mon 23/11/20	Thu 3/12/20	347
349	Internal painting (sealer / base coat)	8 days	Fri 4/12/20	Sat 12/12/20	348
350	M&E 2nd fix (wiring, circuit)	8 days	Mon 14/12/20	Tue 22/12/20	349
351	Internal floor finishes	8 days	Wed 23/12/20	Thu 31/12/20	350
352	Sink & Fitting installation	8 days	Tue 19/01/21	Wed 27/01/21	339,351
353	M&E final fix	8 days	Thu 28/01/21	Fri 5/02/21	352
354	M&E services preliminary T&C	8 days	Tue 9/02/21	Wed 17/02/21	342,353
355	Final painting	5 days	Thu 18/02/21	Tue 23/02/21	354
356	Clean up and lock up	6 days	Wed 24/02/21	Tue 2/03/21	355
357	**4th Storey**	**162 days**	**Mon 14/09/20**	**Sat 20/03/21**	
358	Sanitary stack and waste pipe installation	7 days	Mon 14/09/20	Mon 21/09/20	324FS+2 days
359	RWDP installation	1 day	Tue 22/09/20	Tue 22/09/20	358
360	Block wall installation	9 days	Tue 6/10/20	Thu 15/10/20	326FS+7 days
361	M&E 1st fix (concealed in wall or above false ceiling items)	9 days	Sat 24/10/20	Tue 3/11/20	360FS+7 days
362	Window outer frame installation	9 days	Sat 24/10/20	Tue 3/11/20	361SS
363	Door outer frame installation	9 days	Sat 24/10/20	Tue 3/11/20	362SS
364	Internal wall Skim Coat	9 days	Wed 4/11/20	Fri 13/11/20	362,363
365	Floor screeding to receive respective final finishes	9 days	Sat 14/11/20	Tue 24/11/20	364
366	ceiling (skimming coat / false ceiling)	9 days	Wed 25/11/20	Fri 4/12/20	365
367	Internal painting (sealer / base coat)	9 days	Sat 5/12/20	Tue 15/12/20	364FS+14 days,366
368	M&E 2nd fix (wiring, circuits)	9 days	Wed 16/12/20	Fri 25/12/20	367
369	Window inner frame & glazing	9 days	Sat 26/12/20	Tue 5/01/21	368
370	Internal floor finishes except parquet	9 days	Wed 6/01/21	Fri 15/01/21	369
371	Timber floor installation	9 days	Sat 16/01/21	Tue 26/01/21	370
372	Cabinetry Work	9 days	Wed 27/01/21	Fri 5/02/21	
373	Kitchen cabinetry work + vanity top	9 days	Wed 27/01/21	Fri 5/02/21	371
374	Bedroom wardrobes	9 days	Wed 27/01/21	Fri 5/02/21	373SS
375	Door panel installation	9 days	Sat 6/02/21	Tue 16/02/21	372
376	M&E final fix	9 days	Wed 17/02/21	Fri 26/02/21	361,375
377	Wet Area (Kitchen)	88 days	Sat 14/11/20	Wed 24/02/21	
378	Internal wet area waterproofing	7 days	Sat 14/11/20	Sat 21/11/20	364
379	Water ponding test	3 days	Mon 23/11/20	Wed 25/11/20	378
380	Protective screed over waterproofing	3 days	Thu 26/11/20	Sat 28/11/20	379
381	Internal wall tiling	10 days	Mon 30/11/20	Thu 10/12/20	380
382	False ceiling	10 days	Fri 11/12/20	Tue 22/12/20	381
383	Internal painting (sealer / base coat)	8 days	Wed 23/12/20	Thu 31/12/20	382
384	M&E 2nd fix (wiring, circuit)	8 days	Fri 1/01/21	Sat 9/01/21	383
385	Internal floor finishes	8 days	Mon 11/01/21	Tue 19/01/21	384
386	Sink & Fitting installation	8 days	Sat 6/02/21	Mon 15/02/21	373,385
387	M&E final fix	8 days	Tue 16/02/21	Wed 24/02/21	386
388	M&E services preliminary T&C	8 days	Sat 27/02/21	Mon 8/03/21	376,387
389	Final painting	5 days	Tue 9/03/21	Sat 13/03/21	388
390	Clean up and lock up	6 days	Mon 15/03/21	Sat 20/03/21	389
391	**5th Storey**	**169 days**	**Thu 24/09/20**	**Thu 8/04/21**	
392	Sanitary stack and waste pipe installation	7 days	Thu 24/09/20	Thu 1/10/20	358FS+2 days
393	RWDP installation	1 day	Fri 2/10/20	Fri 2/10/20	392
394	Block wall installation	9 days	Sat 24/10/20	Tue 3/11/20	360FS+7 days
395	M&E 1st fix (concealed in wall or above false ceiling items)	9 days	Thu 12/11/20	Sat 21/11/20	394FS+7 days
396	Window outer frame installation	9 days	Thu 12/11/20	Sat 21/11/20	395SS
397	Door outer frame installation	9 days	Thu 12/11/20	Sat 21/11/20	396SS
398	Internal wall Skim Coat	9 days	Mon 23/11/20	Wed 2/12/20	396,397
399	Floor screeding to receive respective final finishes	9 days	Thu 3/12/20	Sat 12/12/20	398
400	ceiling (skimming coat / false ceiling)	9 days	Mon 14/12/20	Wed 23/12/20	399
401	Internal painting (sealer / base coat)	9 days	Thu 24/12/20	Sat 2/01/21	398FS+14 days,400
402	M&E 2nd fix (wiring, circuits)	9 days	Mon 4/01/21	Wed 13/01/21	401
403	Window inner frame & glazing	9 days	Thu 14/01/21	Sat 23/01/21	402
404	Internal floor finishes except parquet	9 days	Mon 25/01/21	Wed 3/02/21	403
405	Timber floor installation	9 days	Thu 4/02/21	Sat 13/02/21	404
406	Cabinetry Work	9 days	Mon 15/02/21	Wed 24/02/21	
407	Kitchen cabinetry work + vanity top	9 days	Mon 15/02/21	Wed 24/02/21	405
408	Bedroom wardrobes	9 days	Mon 15/02/21	Wed 24/02/21	407SS
409	Door panel installation	9 days	Thu 25/02/21	Sat 6/03/21	406
410	M&E final fix	9 days	Mon 8/03/21	Wed 17/03/21	395,409
411	Wet Area (Kitchen)	88 days	Thu 3/12/20	Mon 15/03/21	



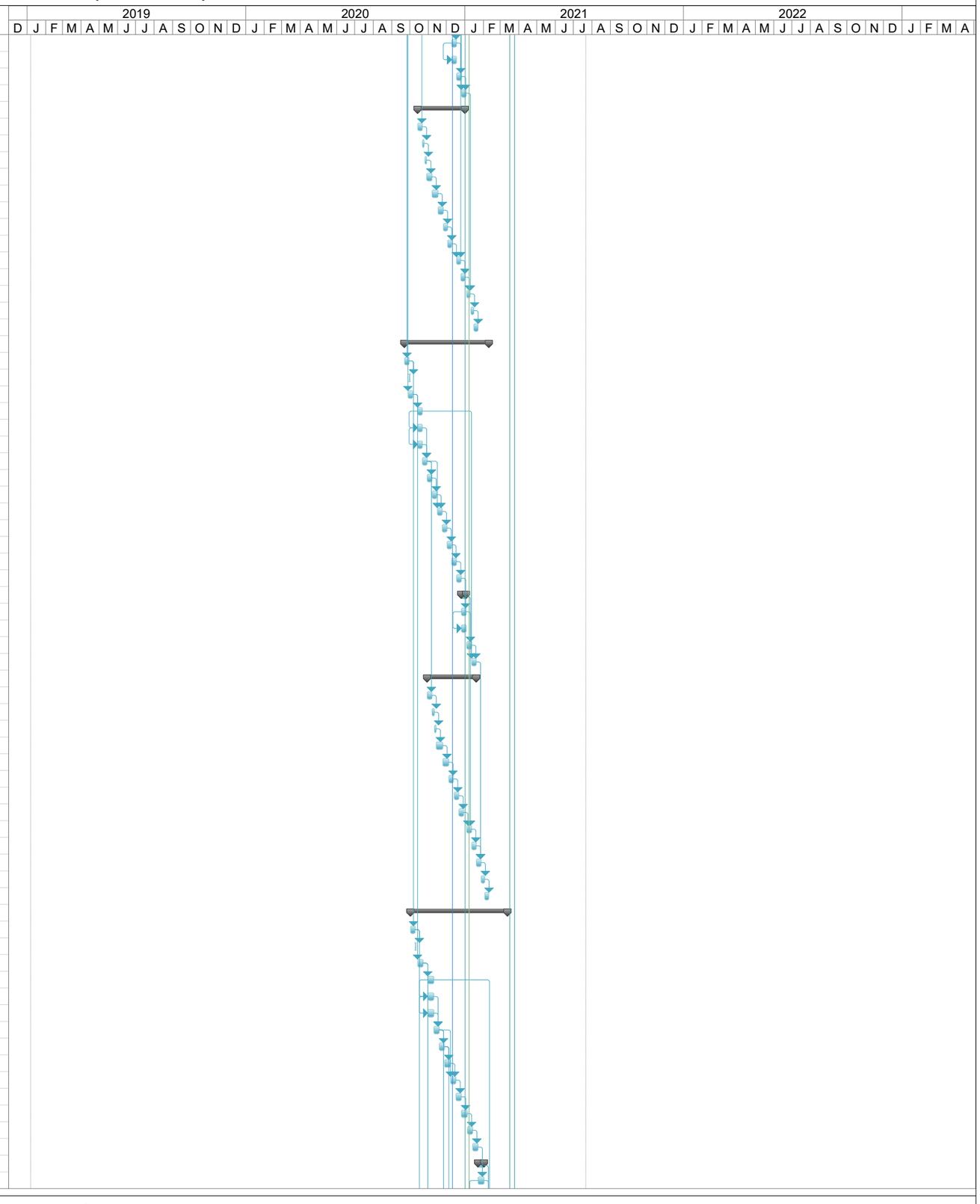
Master Programme for **Project Amber (The Lilium)** Rev_6 (8th Jan 2021)

ID	Task Name	Duration	Start	Finish	Predecessors
412	Internal wet area waterproofing	7 days	Thu 3/12/20	Thu 10/12/20	398
413	Water ponding test	3 days	Fri 11/12/20	Mon 14/12/20	412
414	Protective screed over waterproofing	3 days	Tue 15/12/20	Thu 17/12/20	413
415	Internal wall tiling	6 days	Fri 18/12/20	Thu 24/12/20	414
416	False ceiling	10 days	Fri 25/12/20	Tue 5/01/21	415
417	Internal painting (sealer / base coat)	10 days	Wed 6/01/21	Sat 16/01/21	416
418	M&E 2nd fix (wiring, circuit)	8 days	Mon 18/01/21	Tue 26/01/21	417
419	Internal floor finishes	8 days	Wed 27/01/21	Thu 4/02/21	418
420	Sink & Fitting installation	8 days	Thu 25/02/21	Fri 5/03/21	407,419
421	M&E final fix	8 days	Sat 6/03/21	Mon 15/03/21	420
422	M&E services preliminary T&C	8 days	Thu 18/03/21	Fri 26/03/21	410,421
423	Final painting	5 days	Sat 27/03/21	Thu 1/04/21	422
424	Clean up and lock up	6 days	Fri 2/04/21	Thu 8/04/21	423
425	**Attic Storey**	**142 days**	**Thu 12/11/20**	**Mon 26/04/21**	
426	Sanitary stack and waste pipe installation	7 days	Thu 26/11/20	Thu 3/12/20	393FS+46 days
427	RWDP installation	1 day	Fri 4/12/20	Fri 4/12/20	426
428	Block wall installation	9 days	Thu 12/11/20	Sat 21/11/20	394FS+7 days
429	M&E 1st fix (concealed in wall or above false ceiling items)	9 days	Tue 1/12/20	Thu 10/12/20	428FS+7 days
430	Window outer frame installation	9 days	Tue 1/12/20	Thu 10/12/20	429SS
431	Door outer frame installation	9 days	Tue 1/12/20	Thu 10/12/20	430SS
432	Internal wall Skim Coat	9 days	Fri 11/12/20	Mon 21/12/20	430,431
433	Floor screeding to receive respective final finishes	9 days	Tue 22/12/20	Thu 31/12/20	432
434	ceiling (skimming coat / false ceiling)	9 days	Fri 1/01/21	Mon 11/01/21	433
435	Internal painting (sealer / base coat)	9 days	Tue 12/01/21	Thu 21/01/21	432FS+14 days,434
436	M&E 2nd fix (wiring, circuits)	9 days	Fri 22/01/21	Mon 1/02/21	435
437	Window inner frame & glazing	9 days	Tue 2/02/21	Thu 11/02/21	436
438	Internal floor finishes except parquet	9 days	Fri 12/02/21	Mon 22/02/21	437
439	Timber floor installation	9 days	Tue 23/02/21	Thu 4/03/21	438
440	Cabinetry Work	9 days	Fri 5/03/21	Mon 15/03/21	439
441	Bedroom wardrobes	9 days	Fri 5/03/21	Mon 15/03/21	439
442	Door panel installation	9 days	Tue 16/03/21	Thu 25/03/21	440
443	M&E final fix	9 days	Fri 26/03/21	Mon 5/04/21	429,442
444	M&E services preliminary T&C	7 days	Tue 6/04/21	Tue 13/04/21	443
445	Final painting	5 days	Wed 14/04/21	Mon 19/04/21	444
446	Clean up and lock up	6 days	Tue 20/04/21	Mon 26/04/21	445
447	**Stories Common Area: Lobby, Staircase & Roof**	**155 days**	**Tue 17/11/20**	**Sat 15/05/21**	
448	Basement Common Area, Lobby & Staircase	21 days	Tue 17/11/20	Thu 10/12/20	332
449	1st Storey Common Area, Lobby & Staircase	21 days	Sat 5/12/20	Tue 29/12/20	448FS-5 days
450	2nd Storey Common Area, Lobby & staircase	21 days	Thu 24/12/20	Sat 16/01/21	449FS-5 days
451	3rd Storey Common Area, Lobby & Staircase	21 days	Tue 12/01/21	Thu 4/02/21	450FS-5 days
452	4th Storey Common Area, Lobby & Staircase	21 days	Sat 30/01/21	Tue 23/02/21	451FS-5 days
453	5th Storey Common Area, Lobby & Staircase	21 days	Thu 18/02/21	Sat 13/03/21	452FS-5 days
454	Attic Roof Common Area & Staircase	21 days	Mon 15/03/21	Wed 7/04/21	453FS-5 days
455	**Roof**	**111 days**	**Wed 2/12/20**	**Fri 9/04/21**	
456	Misc RC works	30 days	Wed 2/12/20	Tue 5/01/21	241
457	Waterproofing works	30 days	Wed 6/01/21	Tue 9/02/21	456
458	Plastering	21 days	Wed 10/02/21	Fri 5/03/21	457
459	Misc. works	30 days	Sat 6/03/21	Fri 9/04/21	458
460	**External Façade**	**61 days**	**Sat 6/03/21**	**Sat 15/05/21**	
461	External wall plastering	30 days	Sat 6/03/21	Fri 9/04/21	458
462	Water tightness test	20 days	Tue 30/03/21	Wed 21/04/21	461FS-10 days
463	External wall painting	21 days	Thu 22/04/21	Sat 15/05/21	462
464	**Block 33 Architecture & M&E Works**	**195 days**	**Fri 11/09/20**	**Mon 26/04/21**	
465	**1st Storey**	**115 days**	**Fri 11/09/20**	**Fri 22/01/21**	
466	Sanitary stack and waste pipe installation	7 days	Fri 11/09/20	Fri 18/09/20	247
467	RWDP installation	1 day	Sat 19/09/20	Sat 19/09/20	466
468	Block wall installation	7 days	Fri 11/09/20	Fri 18/09/20	247
469	M&E 1st fix (concealed in wall or above false ceiling items)	7 days	Mon 28/09/20	Mon 5/10/20	468FS+7 days
470	Window outer frame installation	7 days	Mon 28/09/20	Mon 5/10/20	469SS
471	Door outer frame installation	7 days	Mon 28/09/20	Mon 5/10/20	470SS
472	Internal wall Skim Coat	7 days	Tue 6/10/20	Tue 13/10/20	470,471
473	Floor screeding to receive respective final finishes	7 days	Wed 14/10/20	Wed 21/10/20	472
474	ceiling (skimming coat / false ceiling)	7 days	Thu 22/10/20	Thu 29/10/20	473
475	Internal painting (sealer / base coat)	7 days	Fri 30/10/20	Fri 6/11/20	472FS+14 days,474
476	M&E 2nd fix (wiring, circuits)	7 days	Sat 7/11/20	Sat 14/11/20	475
477	Window inner frame & glazing	7 days	Mon 16/11/20	Mon 23/11/20	476
478	Internal floor finishes except parquet	7 days	Tue 24/11/20	Tue 1/12/20	477
479	Timber floor installation	7 days	Wed 2/12/20	Wed 9/12/20	478
480	Cabinetry Work	7 days	Thu 10/12/20	Thu 17/12/20	



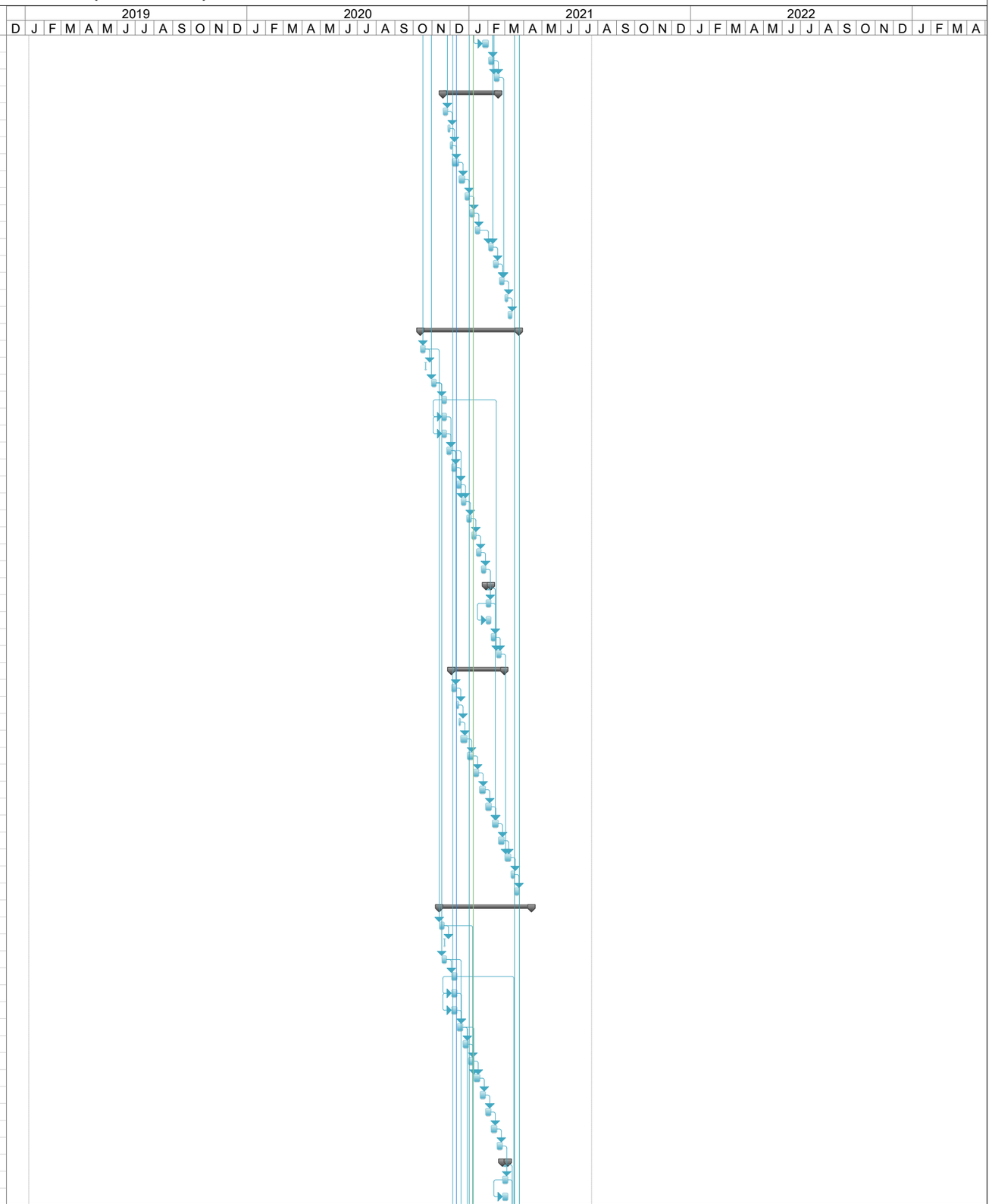
Master Programme for **Project Amber (The Lilium)** Rev_6 (8th Jan 2021)

ID	Task Name	Duration	Start	Finish	Predecessors
481	Kitchen cabinetry work + vanity top	7 days	Thu 10/12/20	Thu 17/12/20	479
482	Bedroom wardrobes	7 days	Thu 10/12/20	Thu 17/12/20	481SS
483	Door panel installation	7 days	Fri 18/12/20	Fri 25/12/20	480
484	M&E final fix	7 days	Sat 26/12/20	Sat 2/01/21	469,483
485	Wet Area (Kitchen)	68 days	Wed 14/10/20	Thu 31/12/20	
486	Internal wet area waterproofing	7 days	Wed 14/10/20	Wed 21/10/20	472
487	Water ponding test	3 days	Thu 22/10/20	Sat 24/10/20	486
488	Protective screed over waterproofing	3 days	Mon 26/10/20	Wed 28/10/20	487
489	Internal wall tiling	8 days	Thu 29/10/20	Fri 6/11/20	488
490	False ceiling	8 days	Sat 7/11/20	Mon 16/11/20	489
491	Internal painting (sealer / base coat)	8 days	Tue 17/11/20	Wed 25/11/20	490
492	M&E 2nd fix (wiring, circuit)	6 days	Thu 26/11/20	Wed 2/12/20	491
493	Internal floor finishes	6 days	Thu 3/12/20	Wed 9/12/20	492
494	Sink & Fitting installation	6 days	Fri 18/12/20	Thu 24/12/20	481,493
495	M&E final fix	6 days	Fri 25/12/20	Thu 31/12/20	494
496	M&E services preliminary T&C	6 days	Mon 4/01/21	Sat 9/01/21	484,495
497	Final painting	5 days	Mon 11/01/21	Fri 15/01/21	496
498	Clean up and lock up	6 days	Sat 16/01/21	Fri 22/01/21	497
499	**2nd Storey**	**121 days**	**Tue 22/09/20**	**Tue 9/02/21**	
500	Sanitary stack and waste pipe installation	7 days	Tue 22/09/20	Tue 29/09/20	466FS+2 days
501	RWDP installation	1 day	Wed 30/09/20	Wed 30/09/20	500
502	Block wall installation	7 days	Mon 28/09/20	Mon 5/10/20	468FS+7 days
503	M&E 1st fix (concealed in wall or above false ceiling items)	7 days	Wed 14/10/20	Wed 21/10/20	502FS+7 days
504	Window outer frame installation	7 days	Wed 14/10/20	Wed 21/10/20	503SS
505	Door outer frame installation	7 days	Wed 14/10/20	Wed 21/10/20	504SS
506	Internal wall Skim Coat	7 days	Thu 22/10/20	Thu 29/10/20	504,505
507	Floor screeding to receive respective final finishes	7 days	Fri 30/10/20	Fri 6/11/20	506
508	ceiling (skimming coat / false ceiling)	7 days	Sat 7/11/20	Sat 14/11/20	507
509	Internal painting (sealer / base coat)	7 days	Mon 16/11/20	Mon 23/11/20	506FS+14 days,508
510	M&E 2nd fix (wiring, circuits)	7 days	Tue 24/11/20	Tue 1/12/20	509
511	Window inner frame & glazing	7 days	Wed 2/12/20	Wed 9/12/20	510
512	Internal floor finishes except parquet	7 days	Thu 10/12/20	Thu 17/12/20	511
513	Timber floor installation	7 days	Fri 18/12/20	Fri 25/12/20	512
514	Cabinetry Work	7 days	Sat 26/12/20	Sat 2/01/21	
515	Kitchen cabinetry work + vanity top	7 days	Sat 26/12/20	Sat 2/01/21	513
516	Bedroom wardrobes	7 days	Sat 26/12/20	Sat 2/01/21	515SS
517	Door panel installation	7 days	Mon 4/01/21	Mon 11/01/21	514
518	M&E final fix	7 days	Tue 12/01/21	Tue 19/01/21	503,517
519	Wet Area (Kitchen)	70 days	Fri 30/10/20	Tue 19/01/21	
520	Internal wet area waterproofing	7 days	Fri 30/10/20	Fri 6/11/20	506
521	Water ponding test	3 days	Sat 7/11/20	Tue 10/11/20	520
522	Protective screed over waterproofing	3 days	Wed 11/11/20	Fri 13/11/20	521
523	Internal wall tiling	9 days	Sat 14/11/20	Tue 24/11/20	522
524	False ceiling	9 days	Wed 25/11/20	Fri 4/12/20	523
525	Internal painting (sealer / base coat)	7 days	Sat 5/12/20	Sat 12/12/20	524
526	M&E 2nd fix (wiring, circuit)	7 days	Mon 14/12/20	Mon 21/12/20	525
527	Internal floor finishes	7 days	Tue 22/12/20	Tue 29/12/20	526
528	Sink & Fitting installation	7 days	Mon 4/01/21	Mon 11/01/21	515,527
529	M&E final fix	7 days	Tue 12/01/21	Tue 19/01/21	528
530	M&E services preliminary T&C	7 days	Wed 20/01/21	Wed 27/01/21	518,529
531	Final painting	5 days	Thu 28/01/21	Tue 2/02/21	530
532	Clean up and lock up	6 days	Wed 3/02/21	Tue 9/02/21	531
533	**3rd Storey**	**139 days**	**Fri 2/10/20**	**Fri 12/03/21**	
534	Sanitary stack and waste pipe installation	7 days	Fri 2/10/20	Fri 9/10/20	500FS+2 days
535	RWDP installation	1 day	Sat 10/10/20	Sat 10/10/20	534
536	Block wall installation	8 days	Wed 14/10/20	Thu 22/10/20	502FS+7 days
537	M&E 1st fix (concealed in wall or above false ceiling items)	8 days	Sat 31/10/20	Mon 9/11/20	536FS+7 days
538	Window outer frame installation	8 days	Sat 31/10/20	Mon 9/11/20	537SS
539	Door outer frame installation	8 days	Sat 31/10/20	Mon 9/11/20	538SS
540	Internal wall Skim Coat	8 days	Tue 10/11/20	Wed 18/11/20	538,539
541	Floor screeding to receive respective final finishes	8 days	Thu 19/11/20	Fri 27/11/20	540
542	ceiling (skimming coat / false ceiling)	8 days	Sat 28/11/20	Mon 7/12/20	541
543	Internal painting (sealer / base coat)	8 days	Tue 8/12/20	Wed 16/12/20	540FS+14 days,542
544	M&E 2nd fix (wiring, circuits)	8 days	Thu 17/12/20	Fri 25/12/20	543
545	Window inner frame & glazing	8 days	Sat 26/12/20	Mon 4/01/21	544
546	Internal floor finishes except parquet	8 days	Tue 5/01/21	Wed 13/01/21	545
547	Timber floor installation	8 days	Thu 14/01/21	Fri 22/01/21	546
548	Cabinetry Work	8 days	Sat 23/01/21	Mon 1/02/21	
549	Kitchen cabinetry work + vanity top	8 days	Sat 23/01/21	Mon 1/02/21	547



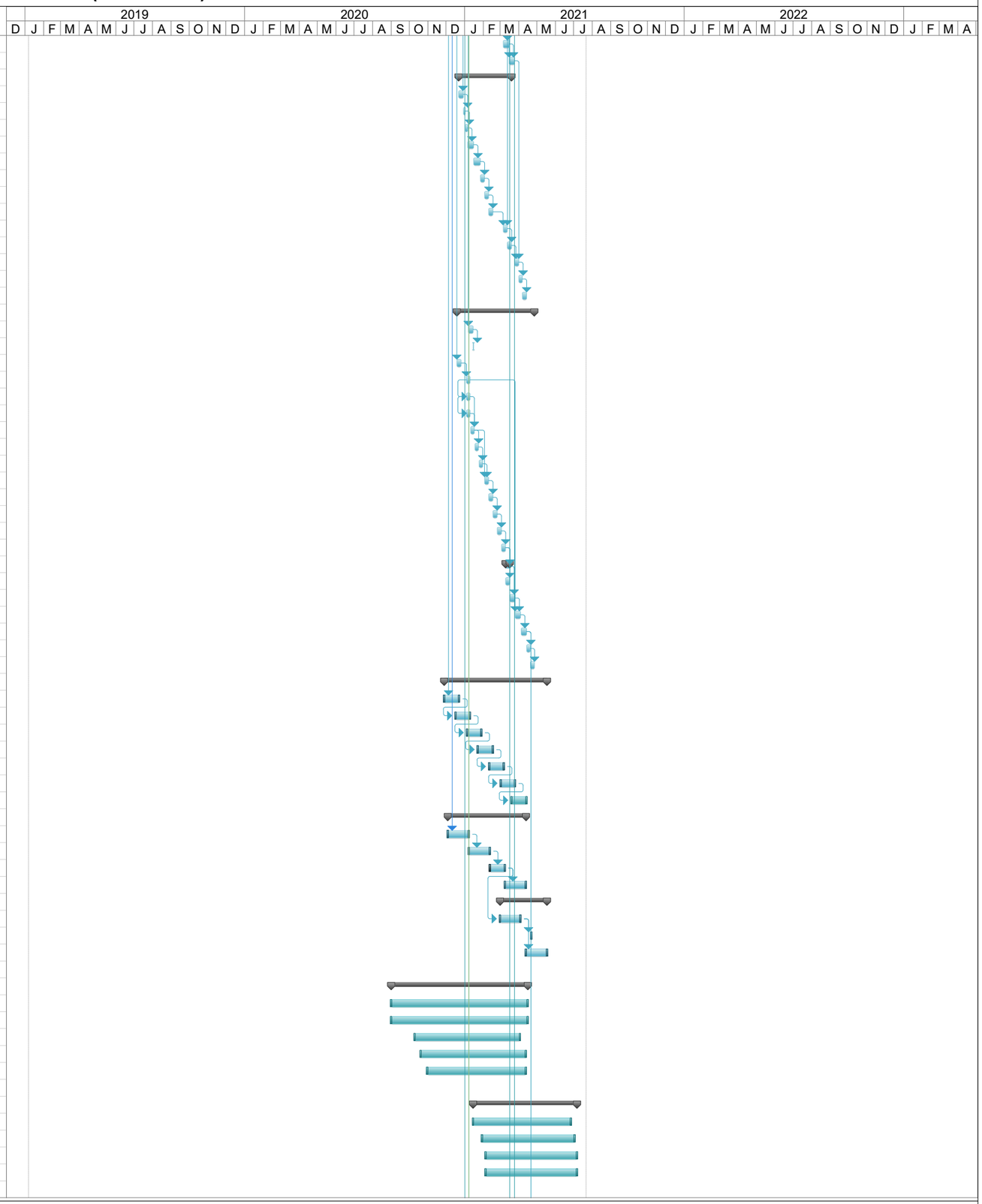
Master Programme for **Project Amber (The Lilium)** Rev_6 (8th Jan 2021)

ID	Task Name	Duration	Start	Finish	Predecessors
550	Bedroom wardrobes	8 days	Sat 23/01/21	Mon 1/02/21	549SS
551	Door panel installation	8 days	Tue 2/02/21	Wed 10/02/21	548
552	M&E final fix	8 days	Thu 11/02/21	Fri 19/02/21	537,551
553	Wet Area (Kitchen)	78 days	Thu 19/11/20	Wed 17/02/21	
554	Internal wet area waterproofing	7 days	Thu 19/11/20	Thu 26/11/20	540
555	Water ponding test	3 days	Fri 27/11/20	Mon 30/11/20	554
556	Protective screed over waterproofing	3 days	Tue 1/12/20	Thu 3/12/20	555
557	Internal wall tiling	9 days	Fri 4/12/20	Mon 14/12/20	556
558	False ceiling	9 days	Tue 15/12/20	Thu 24/12/20	557
559	Internal painting (sealer / base coat)	7 days	Fri 25/12/20	Fri 1/01/21	558
560	M&E 2nd fix (wiring, circuit)	7 days	Sat 2/01/21	Sat 9/01/21	559
561	Internal floor finishes	7 days	Mon 11/01/21	Mon 18/01/21	560
562	Sink & Fitting installation	7 days	Tue 2/02/21	Tue 9/02/21	549,561
563	M&E final fix	7 days	Wed 10/02/21	Wed 17/02/21	562
564	M&E services preliminary T&C	7 days	Sat 20/02/21	Sat 27/02/21	552,563
565	Final painting	5 days	Mon 1/03/21	Fri 5/03/21	564
566	Clean up and lock up	6 days	Sat 6/03/21	Fri 12/03/21	565
567	**4th Storey**	**139 days**	**Tue 13/10/20**	**Tue 23/03/21**	
568	Sanitary stack and waste pipe installation	7 days	Tue 13/10/20	Tue 20/10/20	534FS+2 days
569	RWDP installation	1 day	Wed 21/10/20	Wed 21/10/20	568
570	Block wall installation	7 days	Sat 31/10/20	Sat 7/11/20	536FS+7 days
571	M&E 1st fix (concealed in wall or above false ceiling items)	7 days	Tue 17/11/20	Tue 24/11/20	570FS+7 days
572	Window outer frame installation	7 days	Tue 17/11/20	Tue 24/11/20	571SS
573	Door outer frame installation	7 days	Tue 17/11/20	Tue 24/11/20	572SS
574	Internal wall Skim Coat	7 days	Wed 25/11/20	Wed 2/12/20	572,573
575	Floor screeding to receive respective final finishes	7 days	Thu 3/12/20	Thu 10/12/20	574
576	ceiling (skimming coat / false ceiling)	7 days	Fri 11/12/20	Fri 18/12/20	575
577	Internal painting (sealer / base coat)	7 days	Sat 19/12/20	Sat 26/12/20	574FS+14 days,576
578	M&E 2nd fix (wiring, circuits)	7 days	Mon 28/12/20	Mon 4/01/21	577
579	Window inner frame & glazing	7 days	Tue 5/01/21	Tue 12/01/21	578
580	Internal floor finishes except parquet	7 days	Wed 13/01/21	Wed 20/01/21	579
581	Timber floor installation	7 days	Thu 21/01/21	Thu 28/01/21	580
582	Cabinetry Work	7 days	Fri 29/01/21	Fri 5/02/21	
583	Kitchen cabinetry work + vanity top	7 days	Fri 29/01/21	Fri 5/02/21	581
584	Bedroom wardrobes	7 days	Fri 29/01/21	Fri 5/02/21	583SS
585	Door panel installation	7 days	Sat 6/02/21	Sat 13/02/21	582
586	M&E final fix	7 days	Mon 15/02/21	Mon 22/02/21	571,585
587	Wet Area (Kitchen)	75 days	Thu 3/12/20	Sat 27/02/21	
588	Internal wet area waterproofing	7 days	Thu 3/12/20	Thu 10/12/20	574
589	Water ponding test	3 days	Fri 11/12/20	Mon 14/12/20	588
590	Protective screed over waterproofing	3 days	Tue 15/12/20	Thu 17/12/20	589
591	Internal wall tiling	9 days	Fri 18/12/20	Mon 28/12/20	590
592	False ceiling	9 days	Tue 29/12/20	Thu 7/01/21	591
593	Internal painting (sealer / base coat)	8 days	Fri 8/01/21	Sat 16/01/21	592
594	M&E 2nd fix (wiring, circuit)	9 days	Mon 18/01/21	Wed 27/01/21	593
595	Internal floor finishes	9 days	Thu 28/01/21	Sat 6/02/21	594
596	Sink & Fitting installation	9 days	Mon 8/02/21	Wed 17/02/21	583,595
597	M&E final fix	9 days	Thu 18/02/21	Sat 27/02/21	596
598	M&E services preliminary T&C	9 days	Mon 1/03/21	Wed 10/03/21	586,597
599	Final painting	5 days	Thu 11/03/21	Tue 16/03/21	598
600	Clean up and lock up	6 days	Wed 17/03/21	Tue 23/03/21	599
601	**5th Storey**	**130 days**	**Fri 13/11/20**	**Tue 13/04/21**	
602	Sanitary stack and waste pipe installation	7 days	Fri 13/11/20	Fri 20/11/20	568FS+20 days
603	RWDP installation	1 day	Sat 21/11/20	Sat 21/11/20	602
604	Block wall installation	7 days	Tue 17/11/20	Tue 24/11/20	570FS+7 days
605	M&E 1st fix (concealed in wall or above false ceiling items)	8 days	Thu 3/12/20	Fri 11/12/20	604FS+7 days
606	Window outer frame installation	8 days	Thu 3/12/20	Fri 11/12/20	605SS
607	Door outer frame installation	8 days	Thu 3/12/20	Fri 11/12/20	606SS
608	Internal wall Skim Coat	8 days	Sat 12/12/20	Mon 21/12/20	606,607
609	Floor screeding to receive respective final finishes	8 days	Tue 22/12/20	Wed 30/12/20	608
610	ceiling (skimming coat / false ceiling)	8 days	Thu 31/12/20	Fri 8/01/21	609
611	Internal painting (sealer / base coat)	8 days	Sat 9/01/21	Mon 18/01/21	608FS+14 days,610
612	M&E 2nd fix (wiring, circuits)	8 days	Tue 19/01/21	Wed 27/01/21	611
613	Window inner frame & glazing	8 days	Thu 28/01/21	Fri 5/02/21	612
614	Internal floor finishes except parquet	8 days	Sat 6/02/21	Mon 15/02/21	613
615	Timber floor installation	8 days	Tue 16/02/21	Wed 24/02/21	614
616	Cabinetry Work	8 days	Thu 25/02/21	Fri 5/03/21	
617	Kitchen cabinetry work + vanity top	8 days	Thu 25/02/21	Fri 5/03/21	615
618	Bedroom wardrobes	8 days	Thu 25/02/21	Fri 5/03/21	617SS



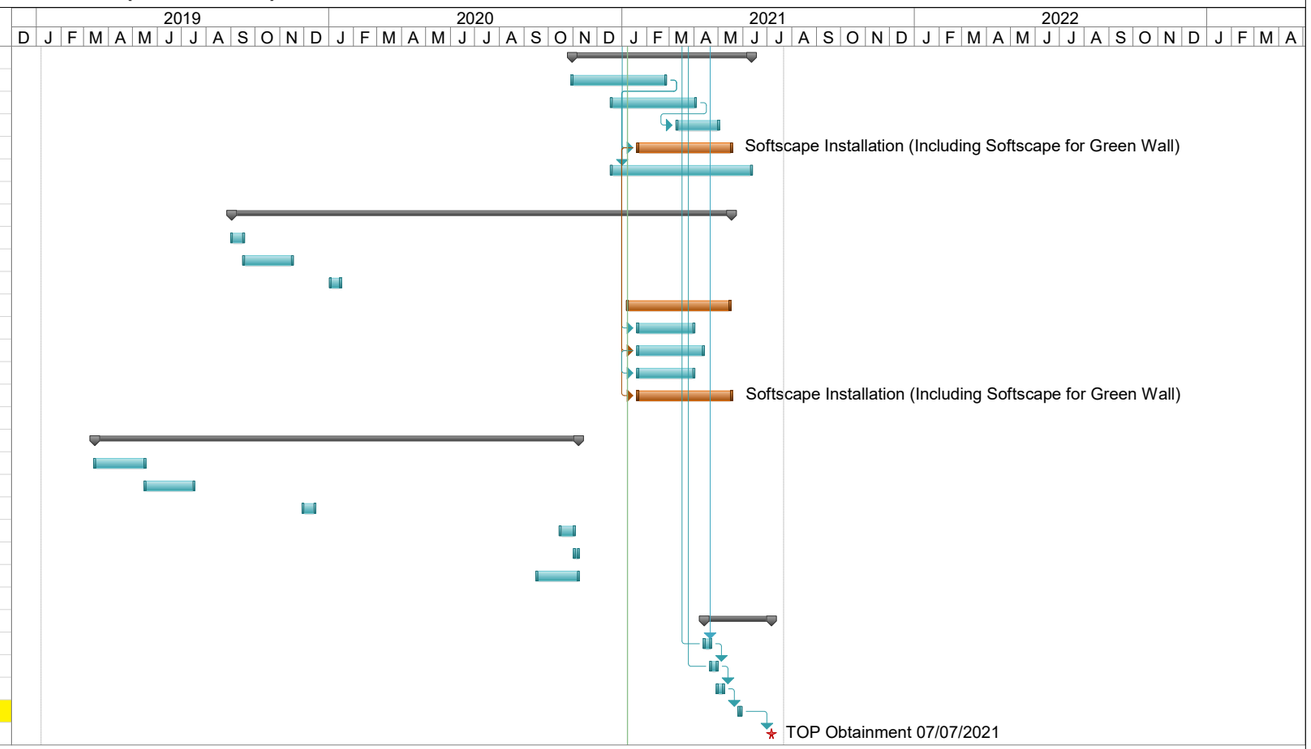
Master Programme for **Project Amber (The Lilium)** Rev_6 (8th Jan 2021)

ID	Task Name	Duration	Start	Finish	Predecessors
619	Door panel installation	8 days	Sat 6/03/21	Mon 15/03/21	616
620	M&E final fix	8 days	Tue 16/03/21	Wed 24/03/21	605,619
621	Wet Area (Kitchen)	76 days	Tue 22/12/20	Fri 19/03/21	
622	Internal wet area waterproofing	7 days	Tue 22/12/20	Tue 29/12/20	608
623	Water ponding test	3 days	Wed 30/12/20	Fri 1/01/21	622
624	Protective screed over waterproofing	3 days	Sat 2/01/21	Tue 5/01/21	623
625	Internal wall tiling	9 days	Wed 6/01/21	Fri 15/01/21	624
626	False ceiling	9 days	Sat 16/01/21	Tue 26/01/21	625
627	Internal painting (sealer / base coat)	6 days	Wed 27/01/21	Tue 2/02/21	626
628	M&E 2nd fix (wiring, circuit)	6 days	Wed 3/02/21	Tue 9/02/21	627
629	Internal floor finishes	6 days	Wed 10/02/21	Tue 16/02/21	628
630	Sink & Fitting installation	6 days	Sat 6/03/21	Fri 12/03/21	617,629
631	M&E final fix	6 days	Sat 13/03/21	Fri 19/03/21	630
632	M&E services preliminary T&C	6 days	Thu 25/03/21	Wed 31/03/21	620,631
633	Final painting	5 days	Thu 1/04/21	Tue 6/04/21	632
634	Clean up and lock up	6 days	Wed 7/04/21	Tue 13/04/21	633
635	**Attic Storey**	**110 days**	**Sat 19/12/20**	**Mon 26/04/21**	
636	Sanitary stack and waste pipe installation	7 days	Thu 7/01/21	Thu 14/01/21	602FS+40 days
637	RWDP installation	1 day	Fri 15/01/21	Fri 15/01/21	636
638	Block wall installation	6 days	Sat 19/12/20	Fri 25/12/20	604FS+21 days
639	M&E 1st fix (concealed in wall or above false ceiling items)	6 days	Mon 4/01/21	Sat 9/01/21	638FS+7 days
640	Window outer frame installation	6 days	Mon 4/01/21	Sat 9/01/21	639SS
641	Door outer frame installation	6 days	Mon 4/01/21	Sat 9/01/21	640SS
642	Internal wall Skim Coat	6 days	Mon 11/01/21	Sat 16/01/21	640,641
643	Floor screeding to receive respective final finishes	6 days	Mon 18/01/21	Sat 23/01/21	642
644	ceiling (skimming coat / false ceiling)	6 days	Mon 25/01/21	Sat 30/01/21	643
645	Internal painting (sealer / base coat)	6 days	Wed 3/02/21	Tue 9/02/21	642FS+14 days,644
646	M&E 2nd fix (wiring, circuits)	6 days	Wed 10/02/21	Tue 16/02/21	645
647	Window inner frame & glazing	6 days	Wed 17/02/21	Tue 23/02/21	646
648	Internal floor finishes except parquet	6 days	Wed 24/02/21	Tue 2/03/21	647
649	Timber floor installation	6 days	Wed 3/03/21	Tue 9/03/21	648
650	Cabinetry Work	6 days	Wed 10/03/21	Tue 16/03/21	649
651	Bedroom wardrobes	6 days	Wed 10/03/21	Tue 16/03/21	649
652	Door panel installation	8 days	Wed 17/03/21	Thu 25/03/21	650
653	M&E final fix	8 days	Fri 26/03/21	Sat 3/04/21	639,652
654	M&E services preliminary T&C	8 days	Mon 5/04/21	Tue 13/04/21	653
655	Final painting	5 days	Wed 14/04/21	Mon 19/04/21	654
656	Clean up and lock up	6 days	Tue 20/04/21	Mon 26/04/21	655
657	**Stories Common Area: Lobby, Staircase & Roof**	**146 days?**	**Sat 28/11/20**	**Mon 17/05/21**	
658	Basement Common Area, Lobby & Staircase	21 days	Sat 28/11/20	Tue 22/12/20	541
659	1st Storey Common Area, Lobby & Staircase	21 days	Thu 17/12/20	Sat 9/01/21	658FS-5 days
660	2nd Storey Common Area, Lobby & staircase	21 days	Tue 5/01/21	Thu 28/01/21	659FS-5 days
661	3rd Storey Common Area, Lobby & Staircase	21 days	Sat 23/01/21	Tue 16/02/21	660FS-5 days
662	4th Storey Common Area, Lobby & Staircase	21 days	Thu 11/02/21	Sat 6/03/21	661FS-5 days
663	5th Storey Common Area, Lobby & Staircase	21 days	Tue 2/03/21	Thu 25/03/21	662FS-5 days
664	Attic Roof Common Area & Staircase	21 days	Sat 20/03/21	Tue 13/04/21	663FS-5 days
665	**Roof**	**111 days**	**Fri 4/12/20**	**Mon 12/04/21**	
666	Misc RC works	30 days	Fri 4/12/20	Thu 7/01/21	250
667	Waterproofing works	30 days	Fri 8/01/21	Thu 11/02/21	666
668	Plastering	21 days	Fri 12/02/21	Mon 8/03/21	667
669	Misc. works	30 days	Tue 9/03/21	Mon 12/04/21	668
670	**External Façade**	**67 days?**	**Mon 1/03/21**	**Mon 17/05/21**	
671	External wall plastering	30 days	Mon 1/03/21	Sat 3/04/21	668FS-7 days
672	Water tightness test	20 days	Tue 30/03/21	Wed 21/04/21	671FS-5 days
673	External wall painting	30 days	Tue 13/04/21	Mon 17/05/21	671FS+7 days
674					
675	**M&E Work**	**195 days**	**Tue 1/09/20**	**Thu 15/04/21**	
676	Electrical work	195 days	Tue 1/09/20	Thu 15/04/21	
677	Pluming & Sanitary work	195 days	Tue 1/09/20	Thu 15/04/21	
678	Aircon work	150 days	Sat 10/10/20	Fri 2/04/21	
679	Fire work	150 days	Tue 20/10/20	Mon 12/04/21	
680	Lift work	140 days	Sat 31/10/20	Mon 12/04/21	
681					
682	**Quality Mark Inspection**	**148 days**	**Fri 15/01/21**	**Tue 6/07/21**	
683	Prepare for internal QM inspection from Level 1 to Attic level	140 days	Fri 15/01/21	Sat 26/06/21	
684	Internal QM Inspection from Level 1 to Attic Level	132 days	Sat 30/01/21	Fri 2/07/21	
685	BCA Unit QM Application from Level 1 to Attic Level	130 days	Fri 5/02/21	Tue 6/07/21	
686	Unit QM inspection	130 days	Fri 5/02/21	Tue 6/07/21	
687					



Master Programme for **Project Amber (The Lilium)** Rev_6 (8th Jan 2021)

ID	Task Name	Duration	Start	Finish	Predecessors
688	**External Work**	**192 days**	**Sat 31/10/20**	**Fri 11/06/21**	
689	Hard Landscaping	100 days	Sat 31/10/20	Wed 24/02/21	
690	Storm Water Drainage & Sewer Drainage	90 days	Sat 19/12/20	Fri 2/04/21	
691	Timber Decking Works (Pool Deck)	45 days	Thu 11/03/21	Sat 1/05/21	690FS-20 days
692	**Softscape Installation**	**100 days**	**Thu 21/01/21**	**Mon 17/05/21**	**689FS-30 days**
693	Internal road and street lighting	150 days	Sat 19/12/20	Fri 11/06/21	251
694					
695	**Detail Landscaping Work**	**528 days**	**Mon 2/09/19**	**Mon 17/05/21**	
696	Award Landscape Contractor	13 days	Mon 2/09/19	Mon 16/09/19	
697	Landscape shopdrawing and specification submission	53 days	Tue 17/09/19	Sat 16/11/19	
698	Soft Landscaping (Pre-nursery visit)	11 days	Fri 3/01/20	Wed 15/01/20	
699	**Monitoring nursery progress**	**110 days**	**Fri 8/01/21**	**Sat 15/05/21**	
700	Install drainage cell and memberine	60 days	Thu 21/01/21	Wed 31/03/21	689FS-30 days
701	Infill soil for planting area	70 days	Thu 21/01/21	Mon 12/04/21	692SS
702	Auto irrigation installation works	60 days	Thu 21/01/21	Wed 31/03/21	701SS
703	**Softscape Installation (Including Softscape for Green Wall)**	**100 days**	**Thu 21/01/21**	**Mon 17/05/21**	**692SS**
704					
705	**Green Mark Preparation**	**511 days**	**Fri 15/03/19**	**Sat 7/11/20**	
706	Meeting for Green Mark requirement	54 days	Fri 15/03/19	Thu 16/05/19	
707	To confirm green mark items to sepcified trades	52 days	Fri 17/05/19	Tue 16/07/19	
708	Preparation work for green mark documents	13 days	Sat 30/11/19	Sat 14/12/19	
709	Combine all wares & mixers green mark certificate	15 days	Fri 16/10/20	Mon 2/11/20	
710	Combine all Dos and green mark label certificate	5 days	Tue 3/11/20	Sat 7/11/20	
711	Proceed with site mixers water flow test	45 days	Thu 17/09/20	Sat 7/11/20	
712					
713	**TOP Inspection**	**72 days**	**Wed 14/04/21**	**Wed 7/07/21**	
714	M&E RI	7 days	Wed 14/04/21	Wed 21/04/21	654
715	Archi RI	7 days	Thu 22/04/21	Thu 29/04/21	714
716	TOP Readiness	7 days	Fri 30/04/21	Fri 7/05/21	715
717	BCA site inspection	3 days	Thu 27/05/21	Sat 29/05/21	716FS+16 days
718	Obtain TOP Certificate	0 days	Wed 7/07/21	Wed 7/07/21	717FS+32 days



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	Clearance
Application for Electricity Supply	SP Services Ltd	30 Sep 2019								16 Sep 2021
Power Supply Substation	SP PowerGrid Ltd	29 Mar 2019	26 Feb 2021							5 Mar 2021
Metering Layout	SP Services Ltd									
Sanitary Installation	PUB Water Reclamation (Network) Dept	11 Nov 2019	19 Nov 2020		3 Dec 2020					18 Dec 2020
Domestic Water Supply	PUB (Water Supply) Network Dept	4 Dec 2019	24 Sep 2019	25 Oct 2019	27 Feb 2020					14 Apr 2020
Gas Supply Installation	City Gas Pte Ltd	8 Jan 2020	17 Jan 2020	23 Jan 2020	26 March 2020	3 Apr 2020	29 Apr 2020			28 May 2020
Air Conditioning & Ventilation Inst.	FSSD	18 Mar 2020	22 Apr 2020							14 May 2020
Fire Fighting & Alarm Installation	FSSD	18 Mar 2020	8 May 2020							29 May 2020
Telephone Installation	TFCC	2 Sep 2019	16 Aug 2019							30 Aug 2019
Broadband Co-axial Cable System (BCS)	Starhub Cable Vision									
Fuel Storage	FSSD									
	NEA (Pollution Control)									

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									
Air Conditioning & Ventilation Inst.	FSSD									
Fire Fighting & Alarm Installation	FSSD		11 Sep 2021							21 Sep 2021
Telephone Installation	TFCC									
Broadband Co-axial Cable System (BCS)	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	M&E Design Report	✓
	Pre-planned meeting at fixed intervals	✓
	Telefax, letter and telephone	✓
	Email	✓
Interface With External Design Teams	M&E Design Report	✓
	Pre-planned meeting at fixed intervals	✓
	Telefax, letter and telephone	✓
	Email	✓
Interface Between Internal Design Teams	Telephone	✓
	Email	✓
	Internal Project Team Meeting	✓
	Circulation of Information	✓

(✓ *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	A	A	C	I	
b.	Project Administration	A	A	C	I	I	
c.	Project Cost Estimate/Contract Cost	A	A	C	I	C	
2.	**Drawings**						
a.	Outline Design Drgs.	A	A	A	C	-	
b.	Sketch Design Drgs.	A	A	A	C	-	
c.	Final Design Drgs.	A	A	A	C	-	
d.	Shop Drawings	I	I	A/C	C	-	
e.	As Built Drgs.	I	I	I	I	-	
3.	**Other Document**						
a.	Specification	A	A	A	I	I	
b.	Tender Document	A	A	A	I	I	
c.	Tender Evaluation Report	A	A	A	I	I	
d.	Design Report	A	A	A/C	I	-	
e.	Progress Report	I	I	I	I	I	
f.	Financial Report	A	A	A/C	I	I	
g.	Minutes of Meeting	I	I	I	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 – Not Applicable

ITEM	KEPT BY

8.2 List of Applicable Code of Practice and Regulations

Services	Title of Code of Practice/Standard
Electrical Wiring	SS CP5 : 1998
Lightning Protection System	SS 555 : 2018
Emergency Voice Communication System	NA
Air Conditioning & Ventilation Installation	SS 553 : 2016
Lift & Escalator Installation	SS 550 : 2009
Sprinkler System	SS CP 52 : 2004
Wet Riser System	SS 575 : 2012
Automatic Fire Alarm System	SS 645 : 2019
Sanitary System	Code of Practice on Sewerage & Sanitary Works : 2019
Plumbing System	SS 636 : 2018
Town Gas/LPG Supply System	SS 608 : 2015
Boiler and Steam Supply System	NA
Mechanical Smoke Control System	NA

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

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	-

9.2 Site PPE Requirement – Not Applicable

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 – Not Applicable

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	

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	A
M&E Cost Estimate Report	A
Pre-Qualification of Tenderers	A
Tender Documents	A
Tender Report	A
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)*

SECTION 11

LIST OF SUB-JOB

11.1 List of Sub-Job Numbers – Not Applicable

Sub Job No	Description	Allocation Details