



UNITED ENGINEERING INC
Mechanical and Electrical Consulting Engineers

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T: (416) 398-1999
F: (416) 398-1933

SITE SUPPLEMENTAL INSTRUCTION

PROJECT: Forestside Estates
Attmar & Palleschi Drive
Brampton, ON

PROJECT NO.: 18-017

CONTRACT: Mechanical

DATE: April 28, 2021

SITE SI NO. M-1

THIS SITE SUPPLEMENTAL INSTRUCTION IS NOT TO BE CONSTRUED AS A CHANGE IN THE CONTRACT PRICE, BUT IS ISSUED FOR CLARIFICATION ONLY. IF A CHANGE IN CONTRACT PRICE IS PERCEIVED, PROVIDE AN ITEMIZED BREAKDOWN OF ANY EXTRAS OR CREDITS WITHIN SEVEN (7) WORKING DAYS.

PURPOSE: To revise mechanical layout to suit architectural CS drawing and City comments for P1 level.

1.0 Reference Drawing M-01 (Site Plan - Mechanical) Issued

1.1 Revised: Location of area drains and slab drains.

2.0 Reference Drawing M-2, M-2A, M-2B (Underground Drainage - Mechanical) Issued

2.1 Revised: Location of Catch Basins and floor drains.

3.0 Reference Drawing M-3, M-3A, M-3B (Underground Drainage - Mechanical) Issued

3.1 Revised: Mechanical layout to pick up ground floor area drains and slab drains.

4.0 Reference Drawing M-4, M-4A, M-4B (Underground Drainage - Mechanical) Issued

4.1 Revised: Building D air shaft location.

4.2 Revised: Air lock C register size and location.

4.3 Revised: Building B location of F-16 to avoid interference with garbage chute.

4.4 Revised: Running schedule of F-5 and F-4 as bubbled.

5.0 Reference Drawing M-11 (Blk “D” 4th1 - Mechanical) Issued

5.1 Revise: Mechanical make-up air riser.

5.2 Added: Combined fire and smoke damper for all the opening to public corridor.

6.0 Reference Drawing M-21 (Blk “C” 4th1 - Mechanical) Issued

6.1 Revise: Mechanical make-up air riser.

6.2 Added: Combined fire and smoke damper for all the opening to public corridor.

7.0 Reference Drawing M-31 (Blk “B” 4th1 - Mechanical) Issued

7.1 Revise: Mechanical make-up air riser.

7.2 Added: Combined fire and smoke damper for all the opening to public corridor.

8.0 Reference Drawing M-41 (Blk “A” 4th1 - Mechanical) Issued

8.1 Revise: Mechanical make-up air riser.

8.2 Added: Combined fire and smoke damper for all the opening to public corridor.

9.0 Reference Drawing M-48 (SCHE D and SCHE M - Mechanical) Issued

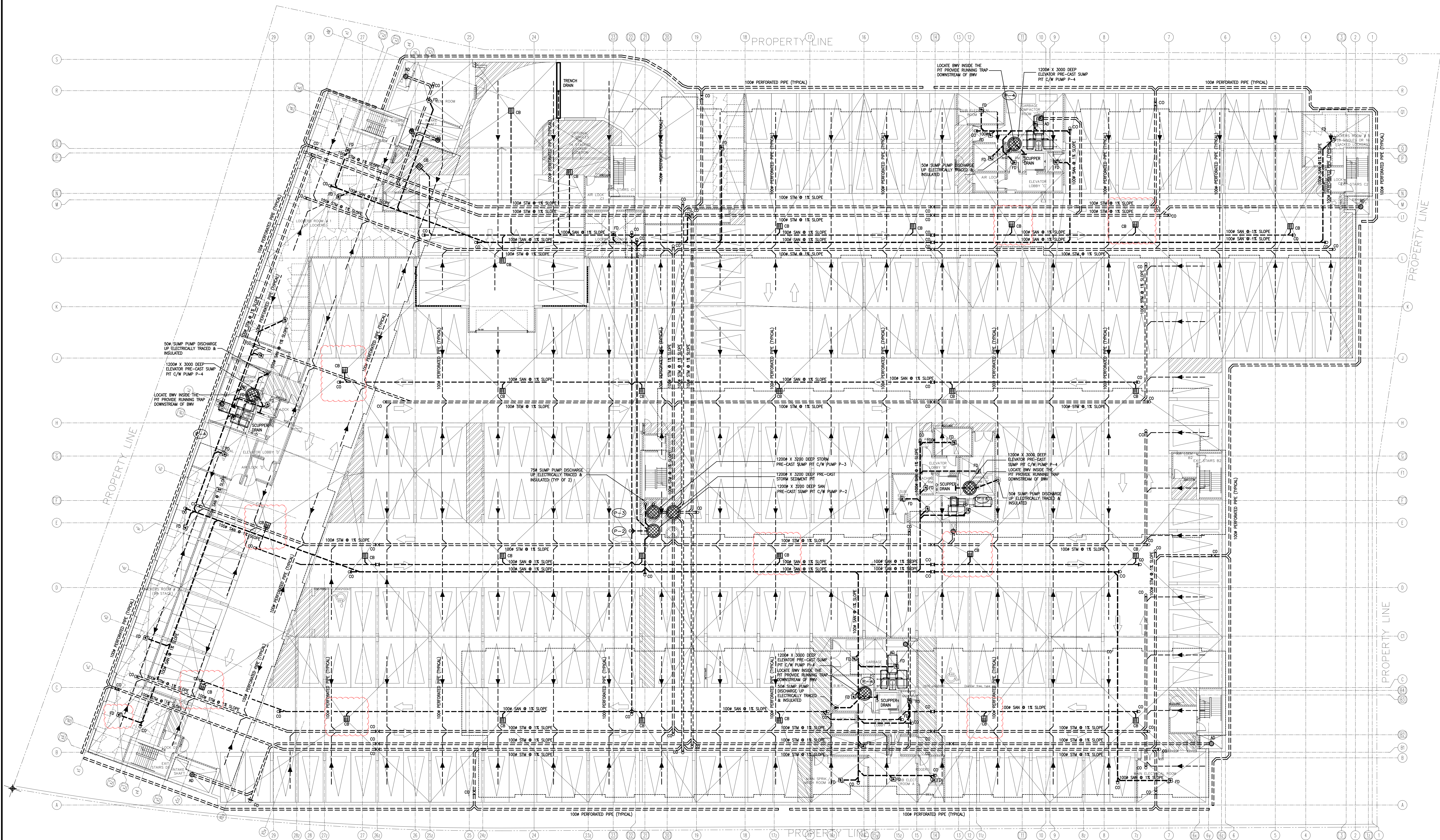
9.1 Clarify: Exhaust fans operation schedule.



PREPARED BY:

Leon Bai
Mechanical Department

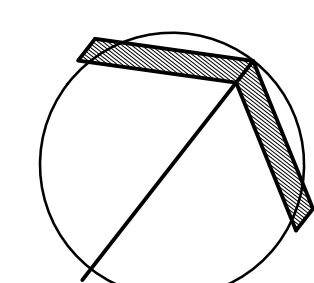
ISSUED TO ROYAL PINE HOMES,
Cinzia Caruso, Cinzia@royalpinehomes.com;
Vince Staffieri, vince@royalpinehomes.com;
FOR DISTRIBUTION TO ALL AFFECTED PARTIES.



NO.	BY	DESCRIPTION	DATE
08	LB	ISSUED AS PER SITE INSTRUCTION M-01	APR. 28, 2021
07	LB	ISSUED FOR PROGRESSIVE CONSTRUCTION	MAR. 26, 2021
06	LB	ISSUED AS PER ADDENDUM M-06	MAR. 25, 2021
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04	LB	ISSUED FOR PERMIT	SEP. 28, 2020
03	RC	ADDENDUM #04	JUN. 12, 2020
02	RC	ADDENDUM #02	SEP. 13, 2019
01	RC	ISSUED FOR TENDER	AUG. 02, 2019

REVISIONS

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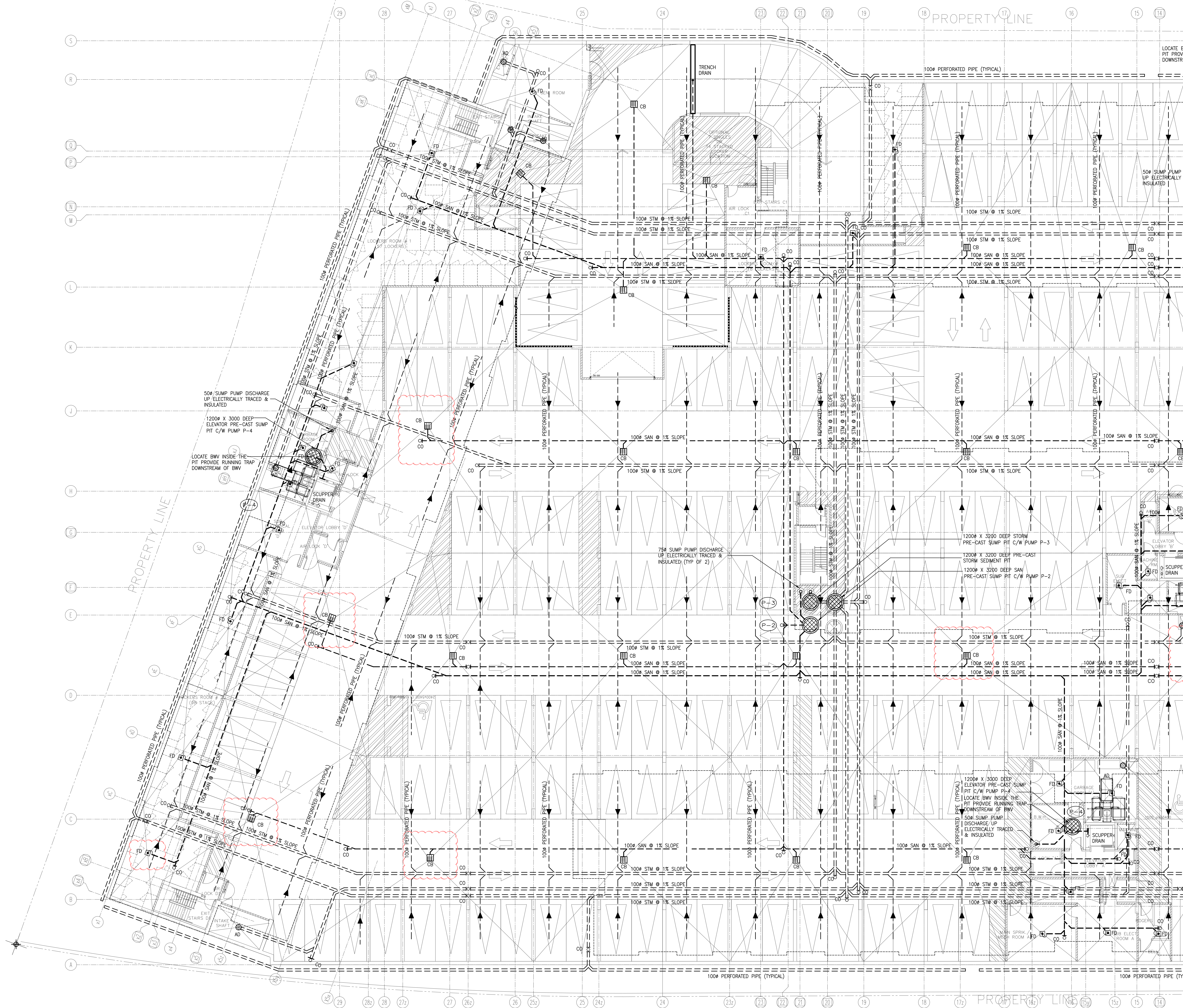
TITLE
**UNDERGROUND DRAINAGE LAYOUT
MECHANICAL**

PROJECT

**BRAMPTON STACKED
FORESTSIDE ESTATES**

**ATTMAR + PALLESCHI DRIVE
BRAMPTON, ONTARIO**

DRAWN	CHECKED	SCALE
MC	LM	1:150
DATE	PROJECT	DRAWING
MAY, 2019	18-017	M-2
		OF



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07	LB	ISSUED AS PER SITE INSTRUCTION M-01	APR. 28, 2021
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01	RC	ISSUED FOR TENDER	AUG. 02, 2019

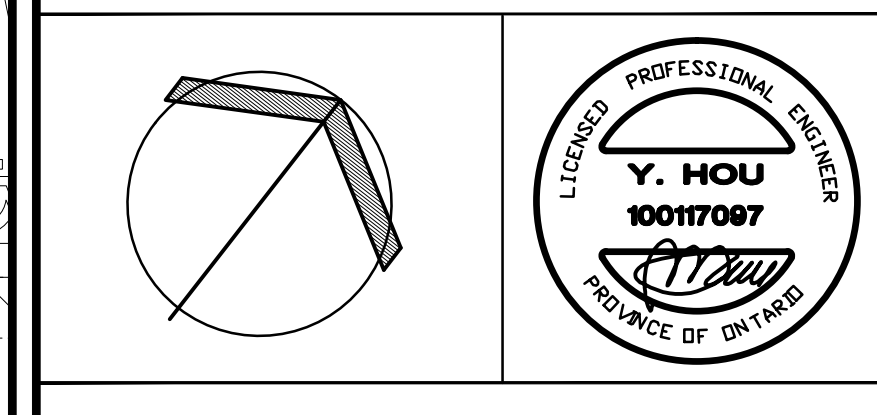
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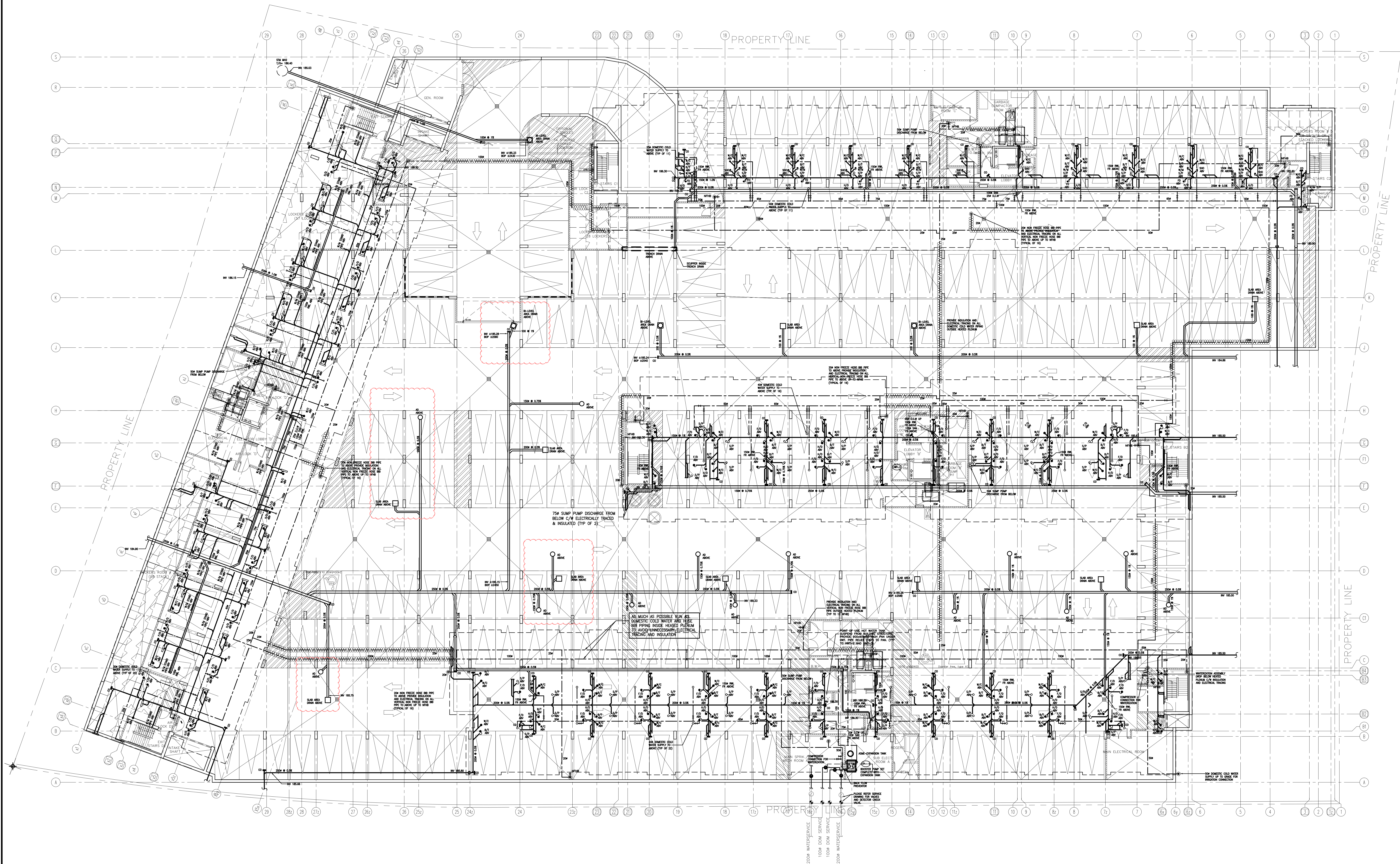
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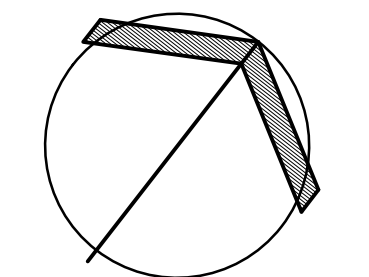
TITLE UNDERGROUND DRAINAGE LAYOUT MECHANICAL - PART 1		
PROJECT BRAMPTON STACKED FORESTSIDE ESTATES		
ATTMAY + PALLESCI DRIVE BRAMPTON, ONTARIO		
DRAWN MC	CHECKED LM	SCALE 1:100
DATE MAY, 2019	PROJECT 18-017	DRAWING M-2A OF -



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10	LB	ISSUED AS PER SITE INSTRUCTION M-01	APR. 28, 2021
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08	LB	ISSUED FOR PERMIT BUILDING A,B,C,D	MAR. 03, 2021
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06	LB	ISSUED FOR PERMIT	SEP. 28, 2020
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04	LB	ADDENDUM #03	MAR. 11, 2020
03	RC	ADDENDUM #02	SEP. 13, 2019
02	RC	ADDENDUM #01	AUG. 13, 2019
01	RC	ISSUED FOR TENDER	AUG. 02, 2019

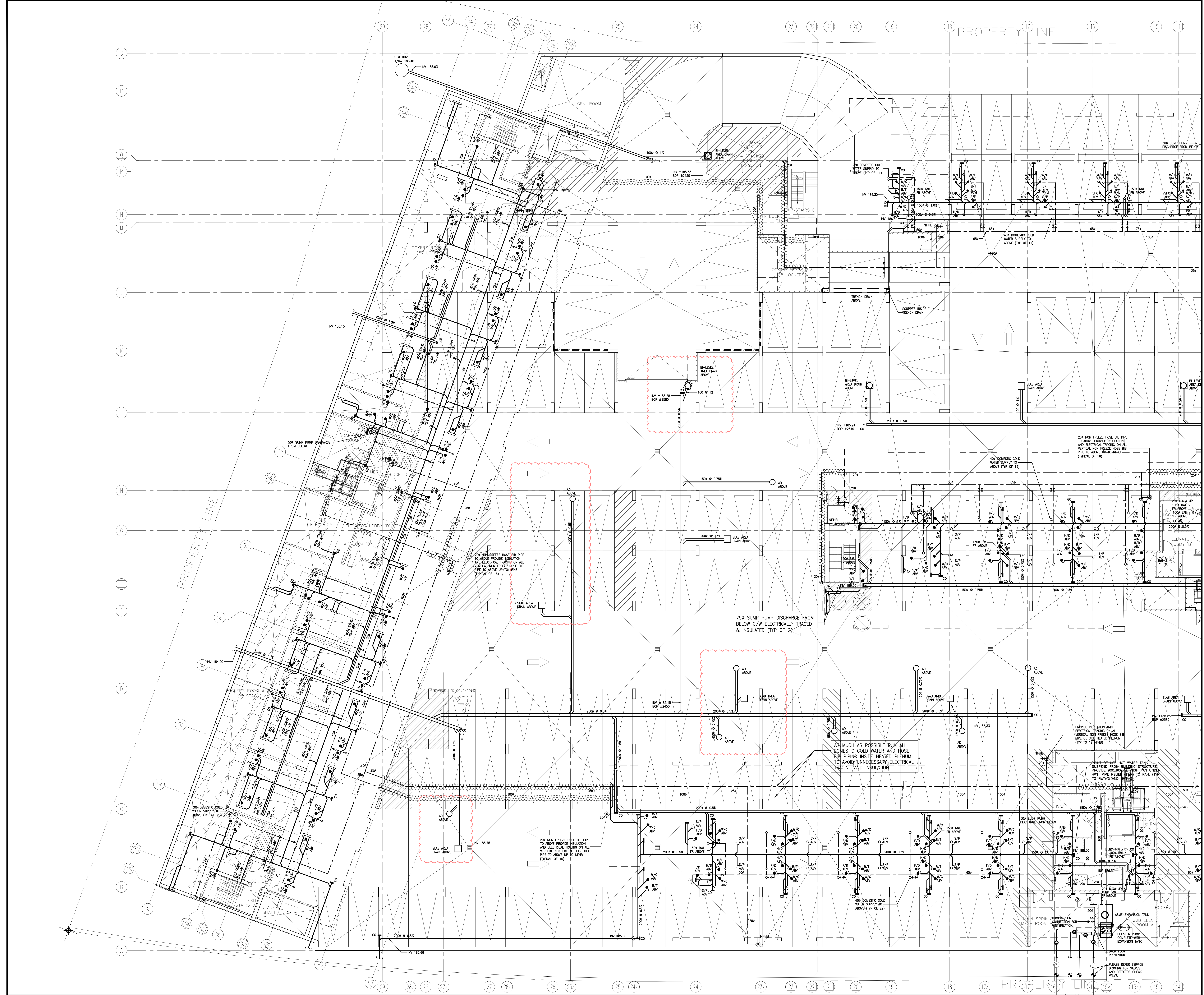
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TITLE PARKING LEVEL - PLUMBING MECHANICAL		
PROJECT BRAMPTON STACKED FORESTSIDE ESTATES		
ATTMAR + PALLESCHI DRIVE BRAMPTON, ONTARIO		
DRAWN MC	CHECKED LM	SCALE 1:150
DATE MAY, 2019	PROJECT 18-017	DRAWING M-3
		OF -



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03	RC	ADDENDUM #02	SEP. 13, 2019
02	RC	ADDENDUM #01	AUG. 13, 2019
01	RC	ISSUED FOR TENDER	AUG. 02, 2019

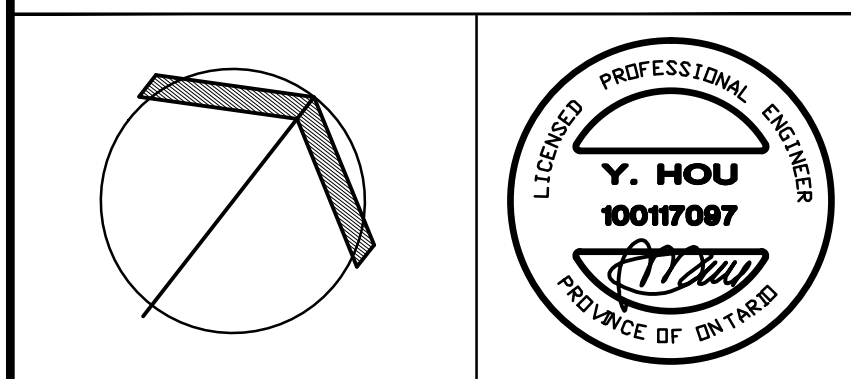
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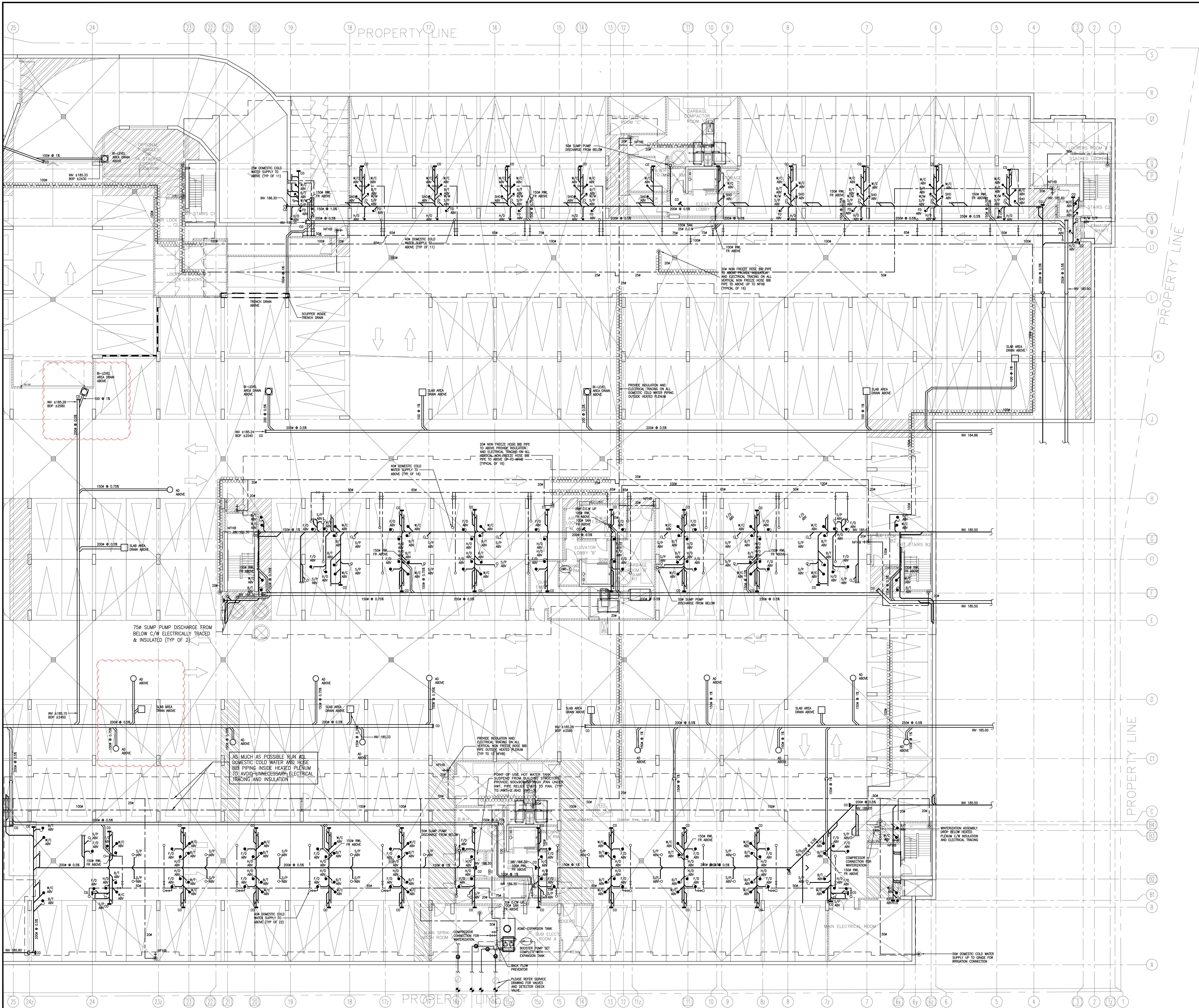
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TITLE
**PARKING LEVEL - PLUMBING
MECHANICAL - PART 1**

PROJECT
**BRAMPTON STACKED
FORESTSIDE ESTATES**

**ATTMAY + PALLESCI DRIVE
BRAMPTON, ONTARIO**

DRAWN MC	CHECKED LM	SCALE 1:100
DATE MAY, 2019	PROJECT 18-017	DRAWING M-3A
		OF -



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08	LB	ISSUED AS PER SITE INSTRUCTION M-01	APR. 28, 2021
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01	RC	ISSUED FOR TENDER	AUG. 02, 2019

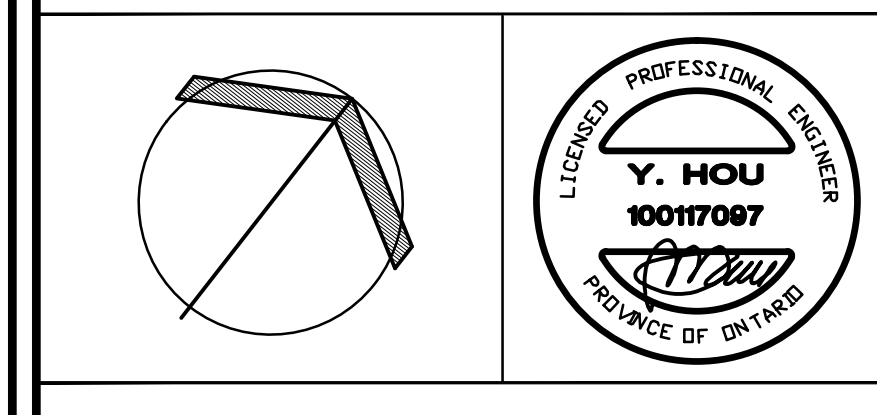
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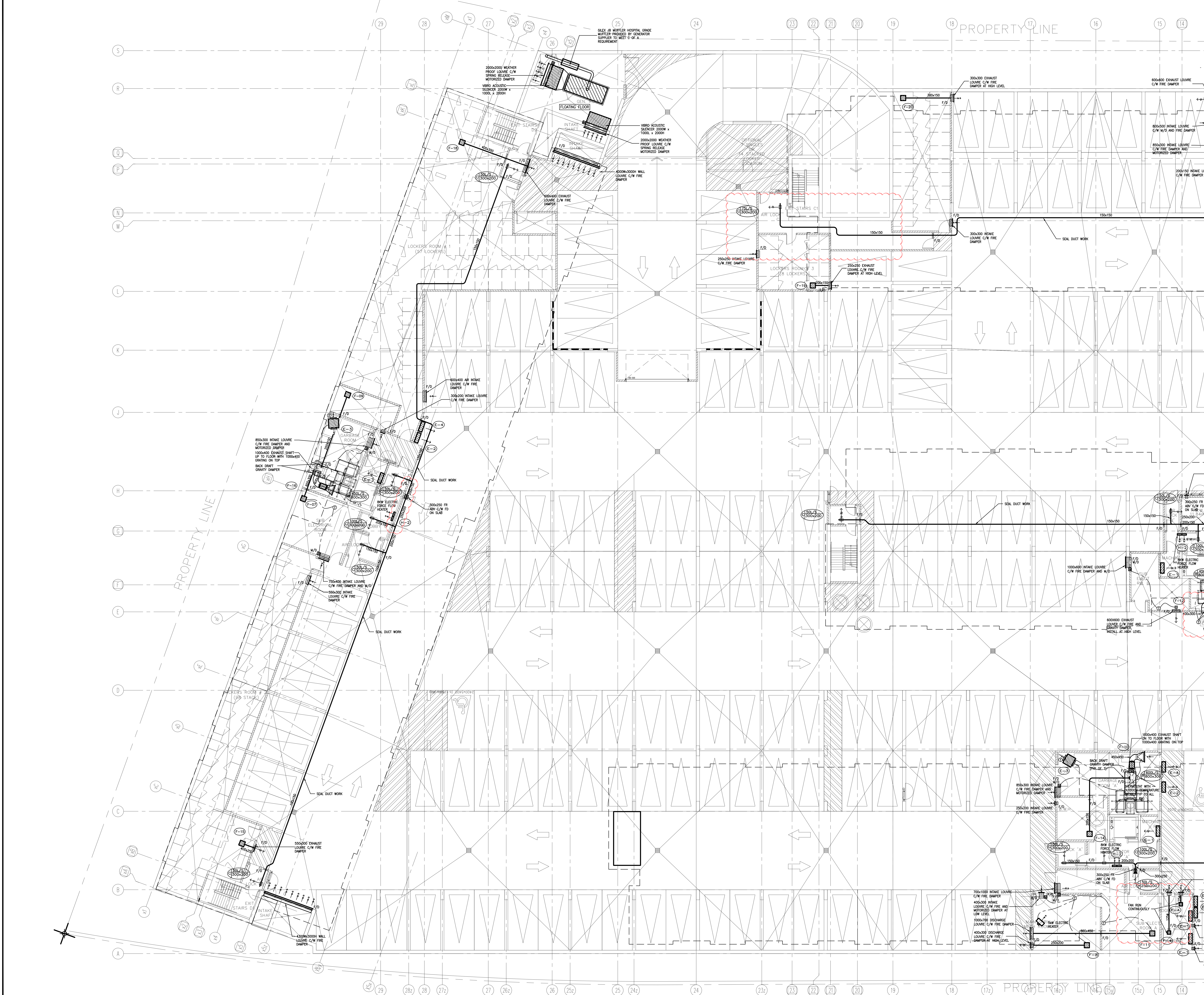
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TITLE PARKING LEVEL - PLUMBING MECHANICAL - PART 2	
PROJECT	
BRAMPTON STACKED FORESTSIDE ESTATES	
ATTMAR + PALLESCI DRIVE BRAMPTON, ONTARIO	
DRAWN MC	CHECKED LM
DATE MAY, 2019	PROJECT 18-017
SCALE 1:100	
DRAWING M-3B	
OF -	



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08	LB	ISSUED AS PER SITE INSTRUCTION M-01	APR. 28, 2021
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01	RC	ISSUED FOR TENDER	AUG. 02, 2019

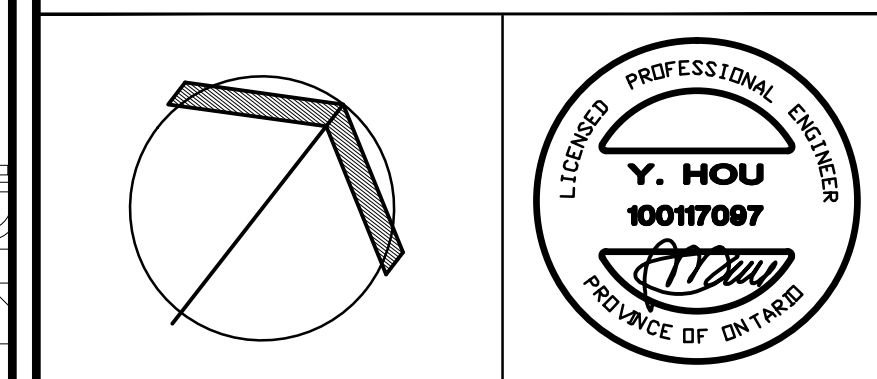
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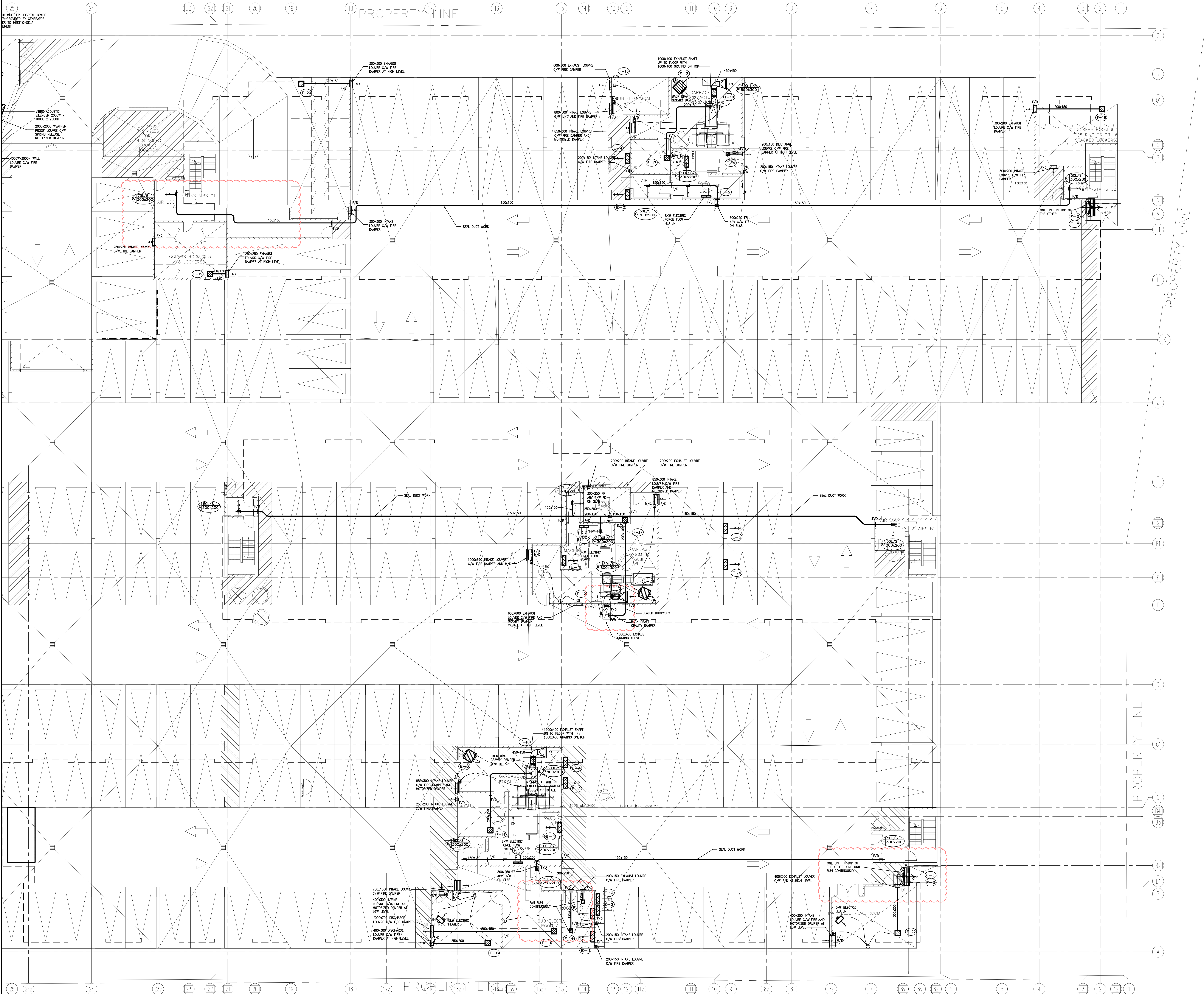
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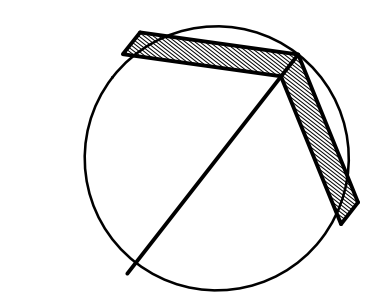
TITLE PARKING LEVEL - HVAC MECHANICAL - PART 1		PROJECT BRAMPTON STACKED FORESTSIDE ESTATES	
ATTMAR + PALLESCHI DRIVE BRAMPTON, ONTARIO		DRAWN MC	
DATE MAY, 2019		CHECKED LM	
PROJECT 18-017		SCALE 1:100	
OF		DRAWING M-4A	



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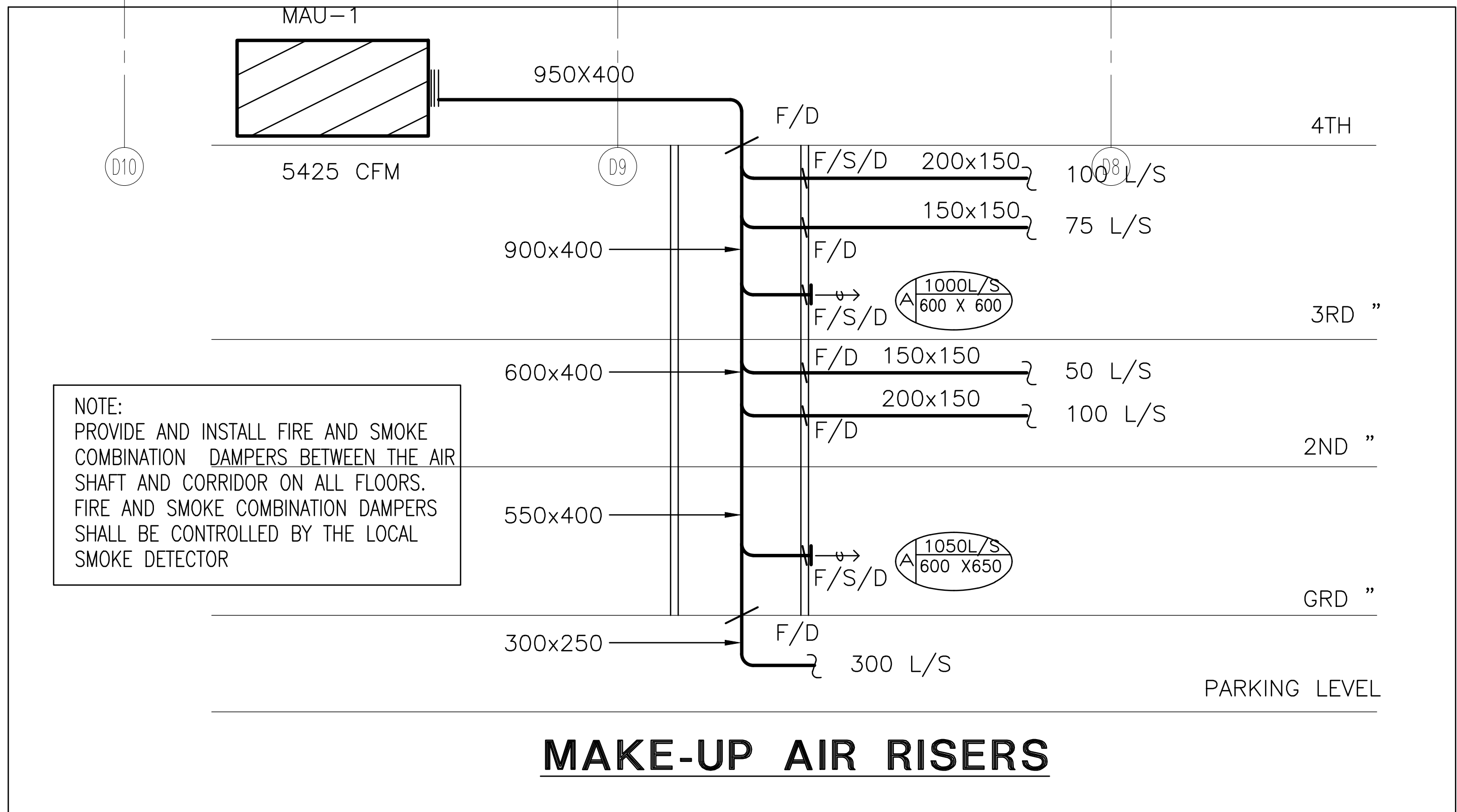
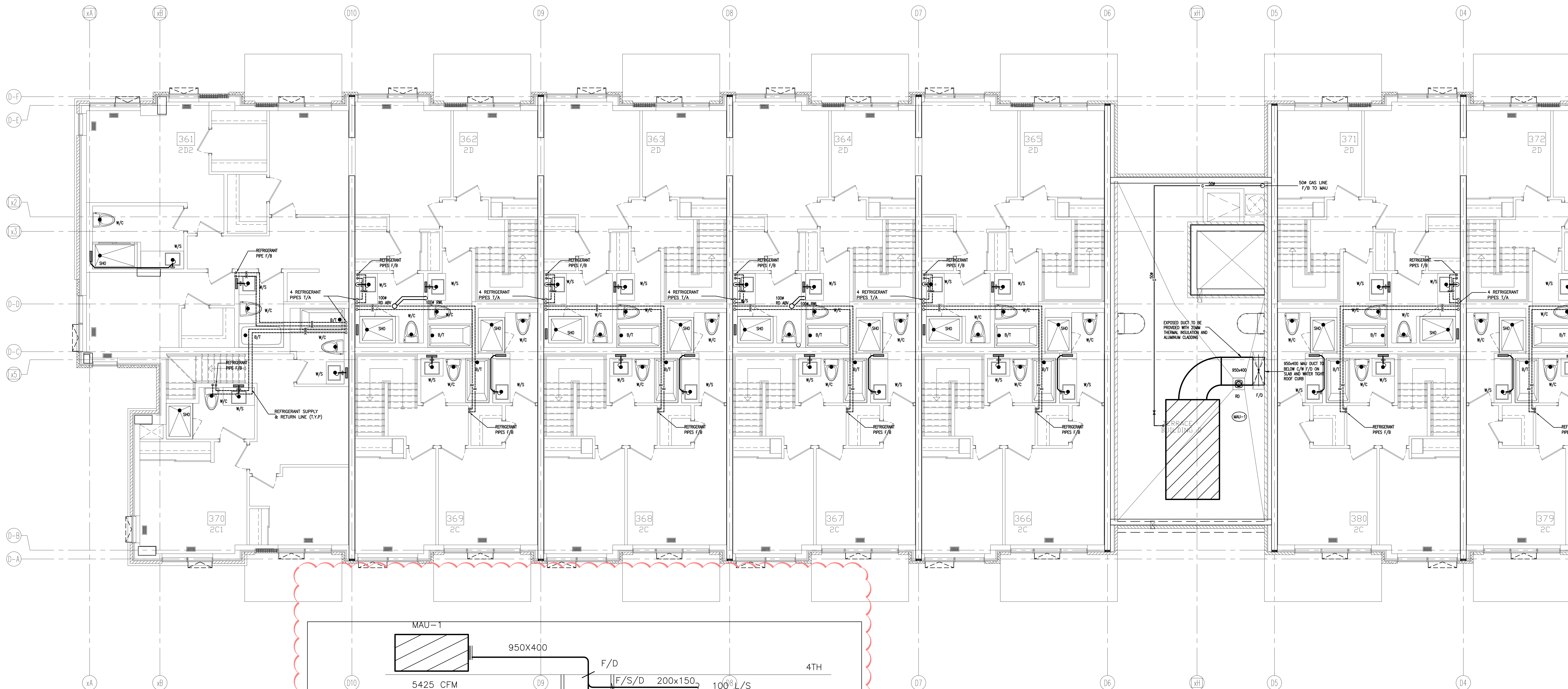
TITLE
**PARKING LEVEL - HVAC
MECHANICAL - PART 2**

PROJECT

**BRAMPTON STACKED
FORESTSIDE ESTATES**

**ATTMAR + PALLESCI DRIVE
BRAMPTON, ONTARIO**

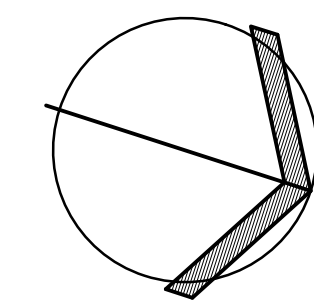
DRAWN MC	CHECKED LM	SCALE 1:100
DATE MAY, 2019	PROJECT 18-017	DRAWING M-4B
		OF



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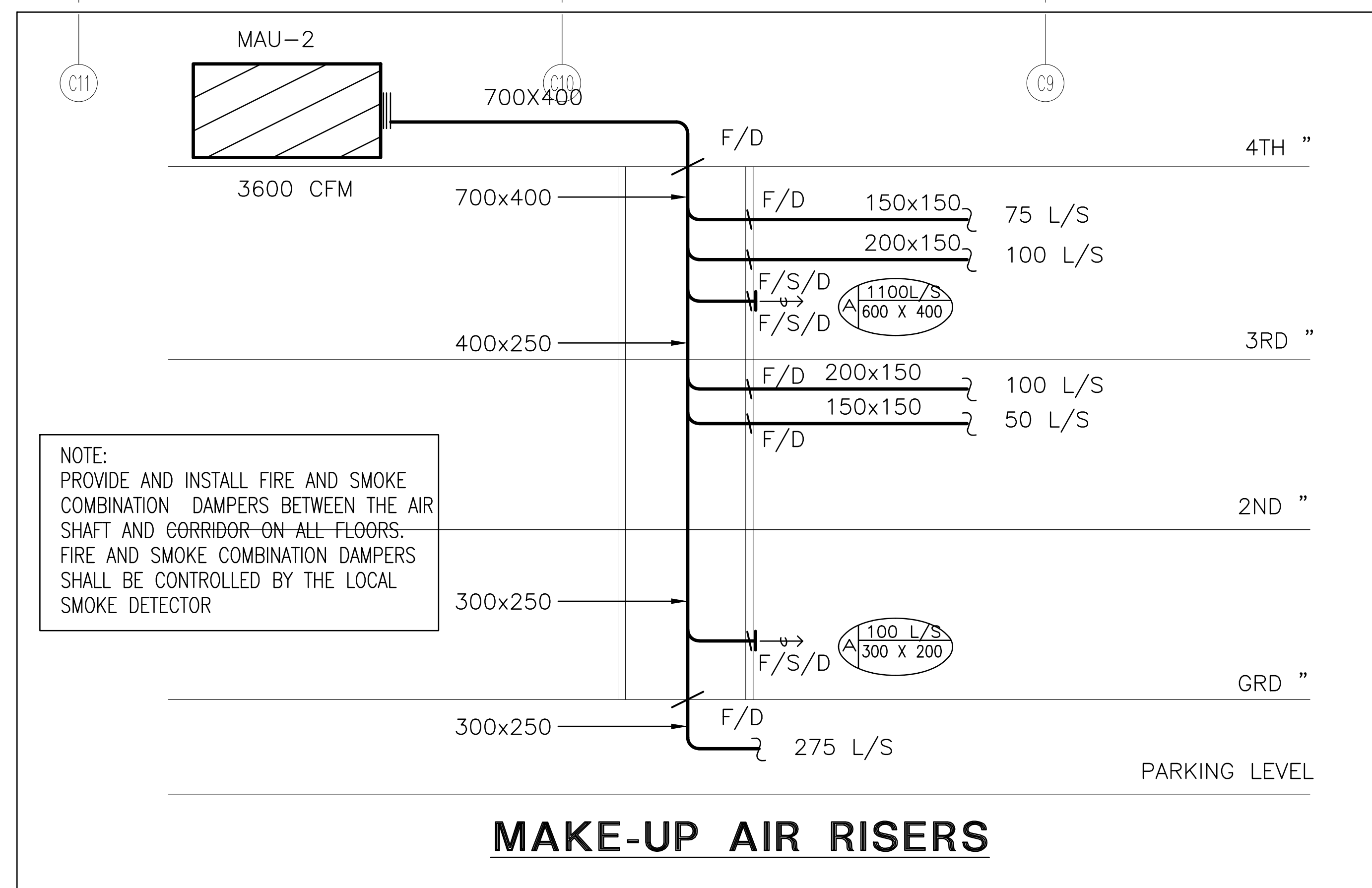
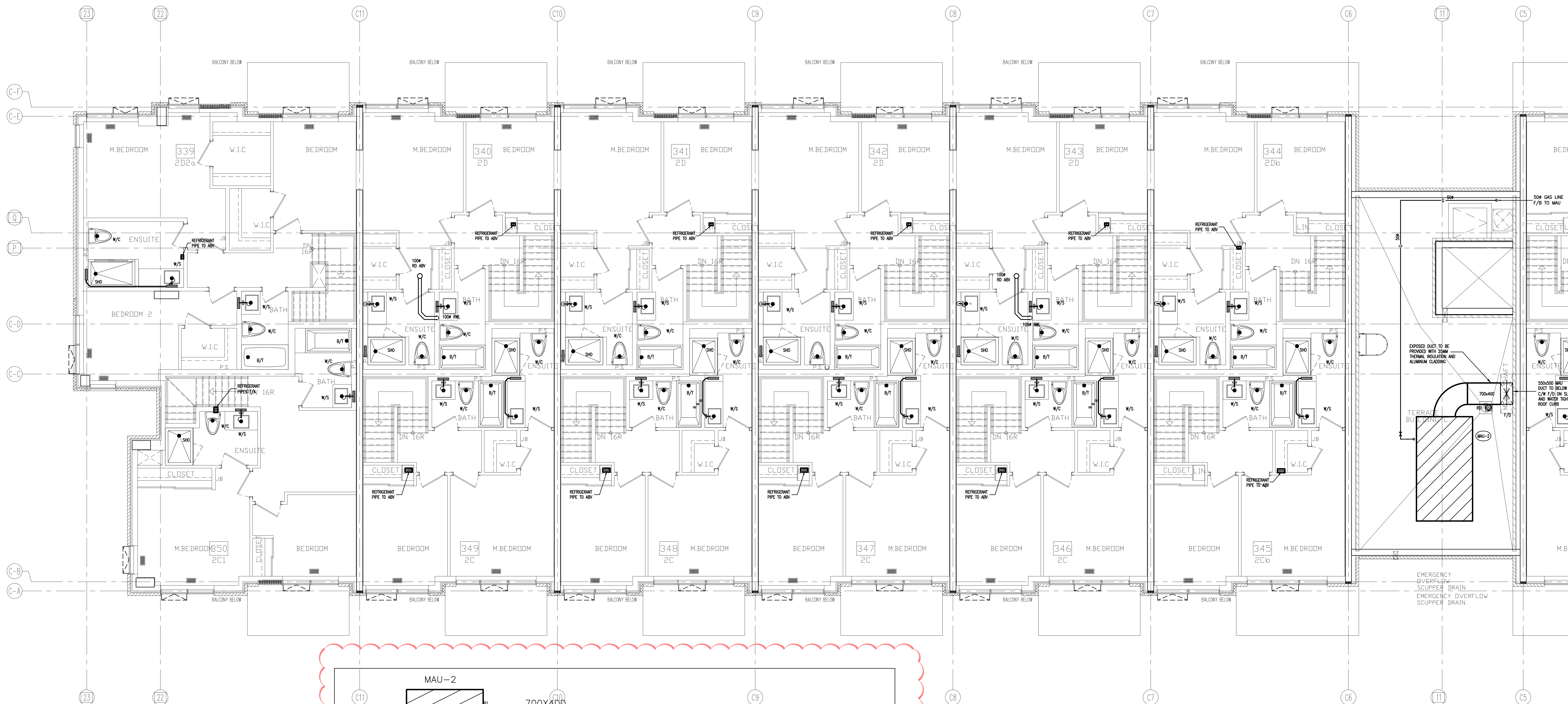
TITLE
BLOCK 'D'
4TH FLOOR - PLUMBING/SANITARY

PROJECT

BRAMPTON STACKED FORESTSIDE ESTATES

**ATTMAR + PALLESCI DRIVE
BRAMPTON, ONTARIO**

DRAWN	CHECKED	SCALE
MC	LM	1:50
DATE	PROJECT	DRAWING
MAY, 2019	18-017	M-11
		OF



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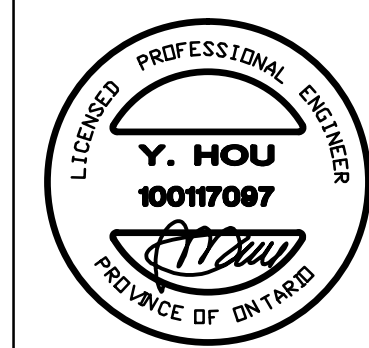
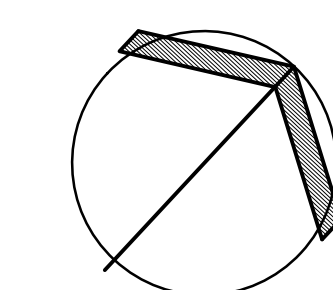
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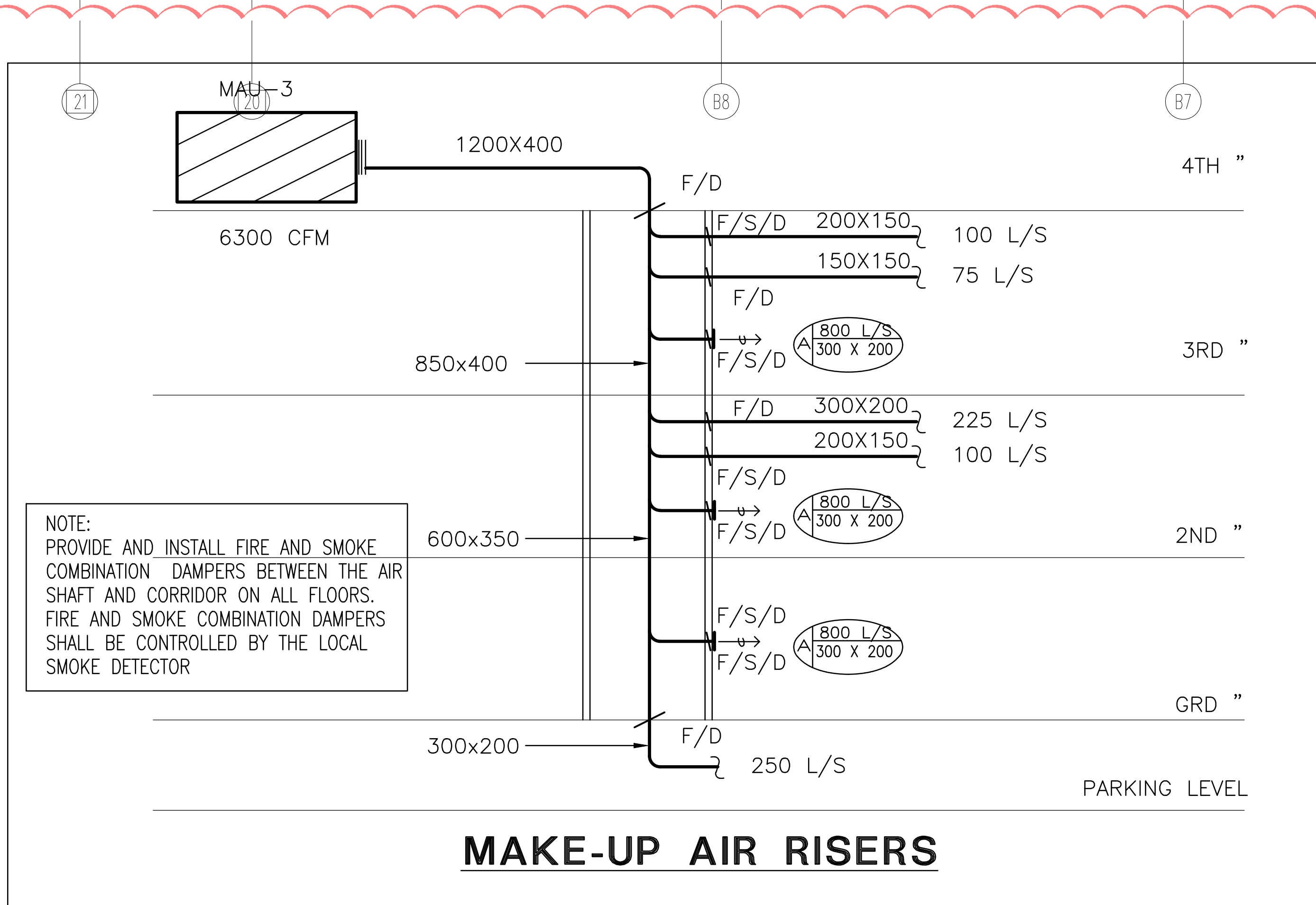
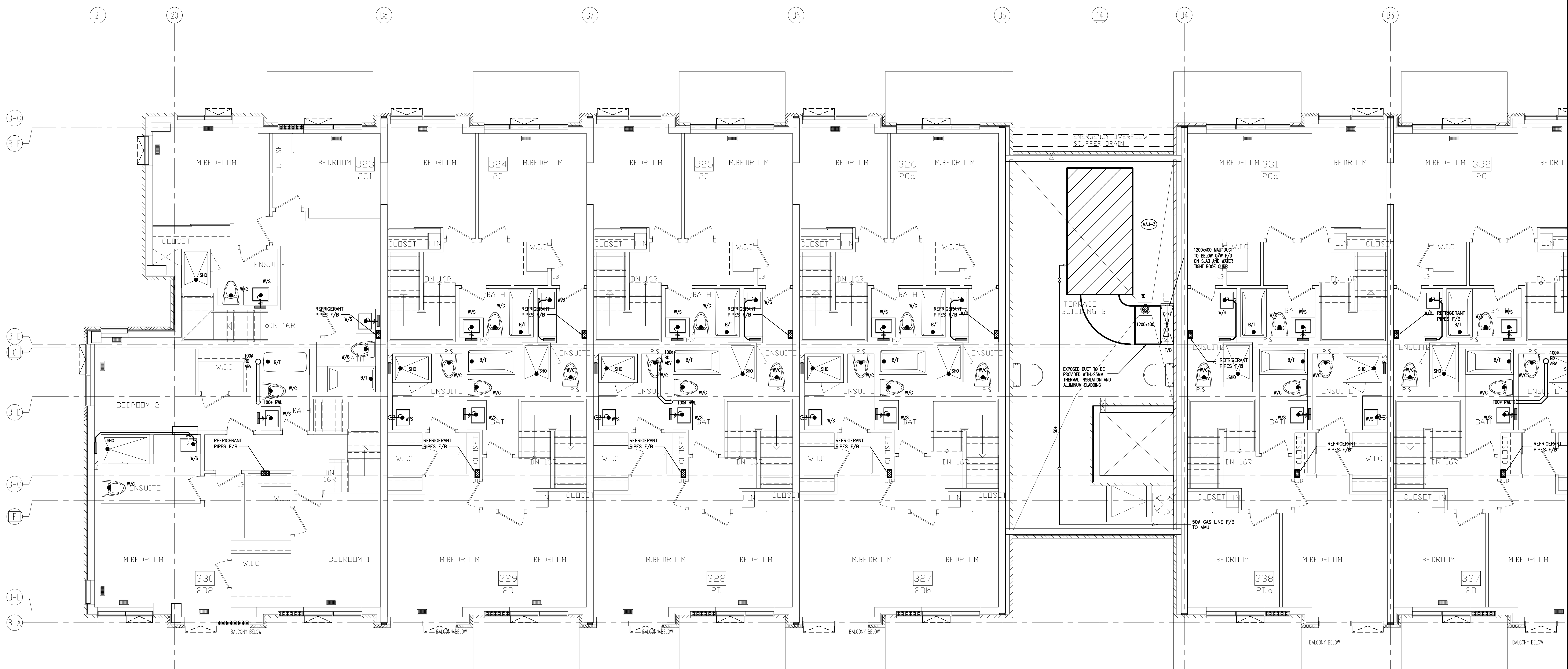
TITLE
BLOCK 'C'
4TH FLOOR - PLUMBING/SANITARY

PROJECT

**BRAMPTON STACKED
FORESTSIDE ESTATES**

**ATTMAR + PALLESCI DRIVE
BRAMPTON, ONTARIO**

DRAWN	CHECKED	SCALE
MC	LM	1:50
DATE	PROJECT	DRAWING
MAY, 2019	18-017	M-21
		OF



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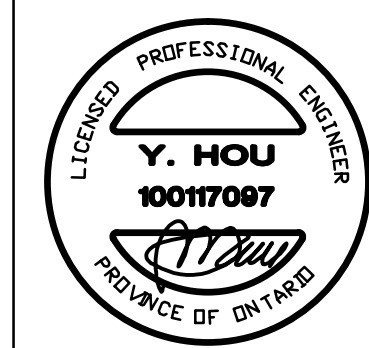
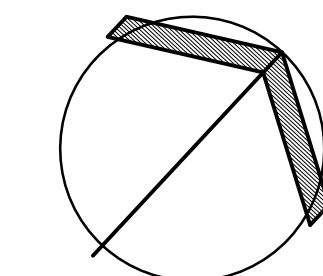
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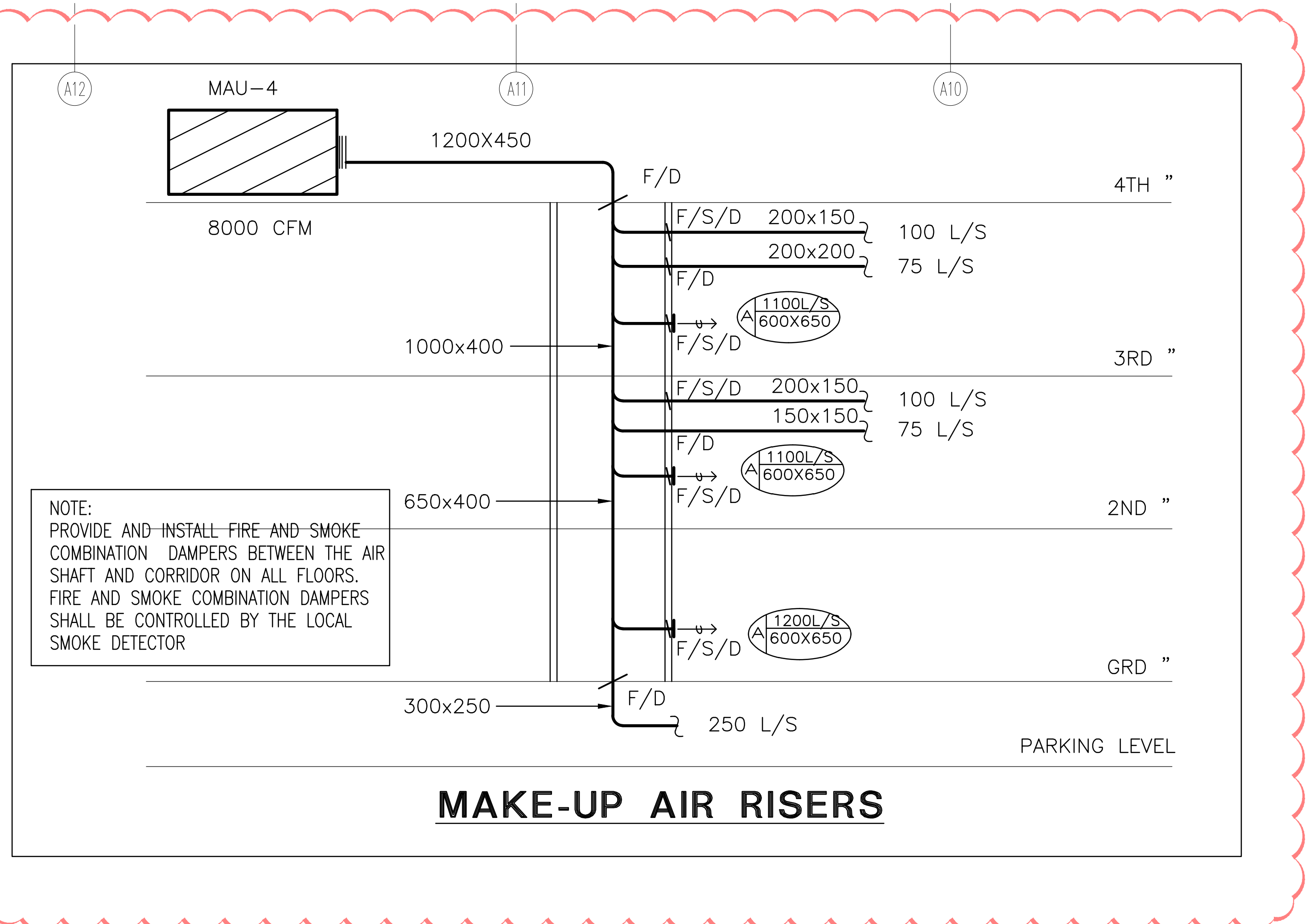
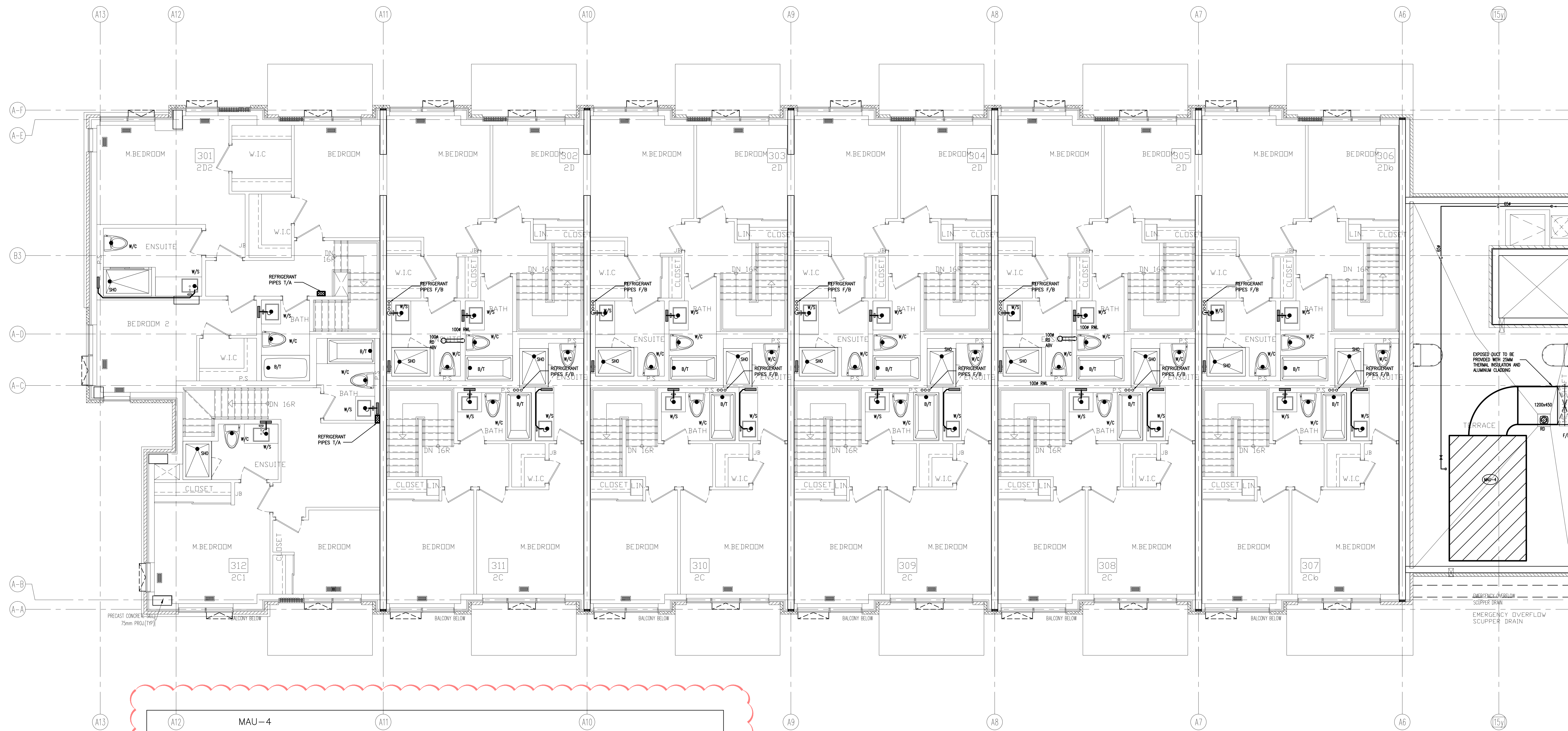
TITLE
BLOCK 'B'
4TH FLOOR - PLUMBING/SANITARY

PROJECT

BRAMPTON STACKED FORESTSIDE ESTATES

**ATTMAR + PALLESCI DRIVE
BRAMPTON, ONTARIO**

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MC	LM	1:50
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MAY, 2019	18-017	M-31
		OF



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02	RC	ADDENDUM #04	JUN. 12, 2020
01	RC	ISSUED FOR TENDER	AUG. 02, 2019

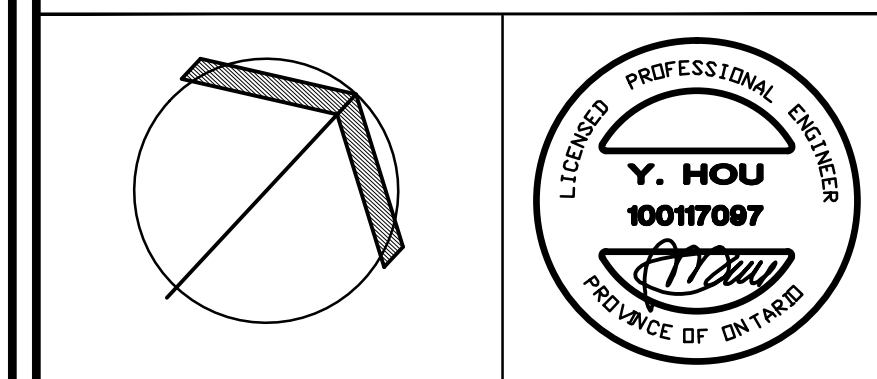
REVISIONS

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Refer to the appropriate trade drawings before proceeding with any work. Installation must conform to all applicable codes and requirements of the authorities having jurisdiction.

This drawing is not to be scaled, all symbols are graphic representations only.



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TITLE
**BLOCK 'A'
4TH FLOOR - PLUMBING/SANITARY**

PROJECT
**BRAMPTON STACKED
FORESTSIDE ESTATES**

ATTMAY + PALLESCI DRIVE
BRAMPTON, ONTARIO

DRAWN MC	CHECKED LM	SCALE 1:50
DATE MAY, 2019	PROJECT 18-017	DRAWING M-41 OF -

EQUIPMENT SCHEDULE												
UNIT No	DESCRIPTION	LOCATION	HEATING		COOLING TOTAL		L/S G.P.M.	EXTERNAL S.P.T. POWER		R.P.M.	ELECTRICAL CHARACTERISTICS	REMARKS
			M.B.H.	C.F.M.	M.B.H.	C.F.M.		K.P.A.	K.W.			
(PWH-1)	CONDENSING CONDENSER	TOWNHOUSES	97 MBH					180W			120/1/60	2-PIPE VENT, C/W CONCRETE WALL TERMINATION VENT KIT SUITABLE FOR COMBINATION DOMESTIC HOT WATER AND HEATING APPLICATION
(HV-1)	AIR HANDLER	TOWNHOUSES	46.28 MBH		2 TONS	750		9.9 A			120/1/60	STU HEATING @ 140 F ENT
(HV-2)	AIR HANDLER	TOWNHOUSES	35.19 MBH		1.5 TONS	580		7.7 A			120/1/60	STU HEATING @ 140 F ENT
(CH-2) (CC-2)	CONDENSING UNIT/COOLING COIL	TOWNHOUSES			2 TONS			25A MAX FUSE			230/1/60	SEER 13, REFRIGERANT R410A
(CH-2) (CC-2)	CONDENSING UNIT/COOLING COIL	TOWNHOUSES			2 TONS			25A MAX FUSE			230/1/60	SEER 13, REFRIGERANT R410A
(ERV-1)	ENERGY RECOVERY VENTILATOR	TOWNHOUSES		125W	0.4" WC				2 OF 1/10 HP		120/1/60	SEER @ 0°C = 74%

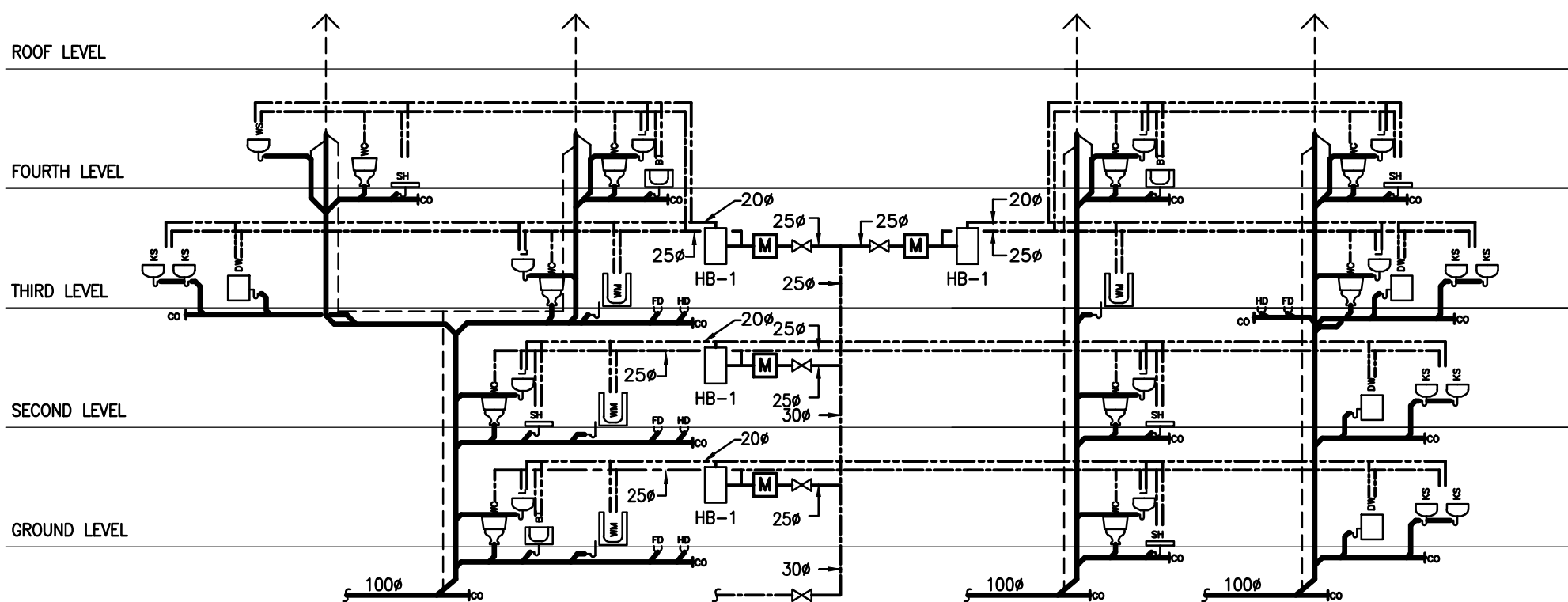
HOT WATER TANK												
TAG	MANUFACTURER	MODEL NUMBER	TYPE	SERVICE	LOCATION	STORAGE CAPACITY (LITERS)	KW	ELECTRICAL CHARACTERISTICS	TEMP RISE (°F)	FLOW RATE AT TEMP RISE	VENT	REMARKS
(HW-1)	GAINT	152ET-907W	INDIRECT STORAGE TANK	TOWNHOUSE	MED RM	84L (60.5GAL)	1.5	120/1/60	90			
(HW-2)	QA SMITH POINT OF USE	EJC-2	ELECTRIC	BKMDT WASHROOM	ABV CLG	7L (2.5 USGAL)	6.0	208/1/60	90			
(HW-3)	QA SMITH POINT OF USE	DEL-205	ELECTRIC	BKMDT JENIOR'S RM	ABV CLG	7L (2.5 USGAL)	1.4	120/1/60	90			
(HW-4)	QA SMITH POINT OF USE	ERC-0P150V	ELECTRIC	THRD FLOOR WASHROOM	UNDER CLOSET	2.5L (0.6 USGAL)	1.4	120/1/60	90			

PUMP SCHEDULE										
NO.	TYPE	LOCATION	CAPACITY U.S. GPM L/S	PRESS. (PSI) FT. HEAD	RPM	H.P.	ELECTRICAL CHARACTERISTICS	MAKE	MODEL	REMARKS
(P-1)	DOMESTIC WATER BOOST PUMP	PARKING RM	280	80PSI	3600	25/25HP	K.W. 600/3/60	BELL & GOSSETT		C/W CONTROL PANEL VARIABLE SPEED DRIVE
(P-2)	SANITARY SUMP PUMP	PARKING LEVEL	120	40	1750	1.2 HP	208/3/60	BARNES	235V-L	DUPLEX C/W ALTERNATOR & HIGH WATER ALARM
(P-3)	STORM SUMP PUMP	PARKING LEVEL	120	40	1750	1.2 HP	208/3/60	BARNES	235V-L	DUPLEX C/W ALTERNATOR & HIGH WATER ALARM
(P-4)	ELEVATOR SUMP PUMP	PARKING LEVEL	50	40	1750	1.0 HP	120/1/60	HYDRAMATIC	SP-40	SMPLX C/W HIGH WATER ALARM
(P-5)	RESIDENT WASHROOM	PARKING LEVEL	80	70	1750	3 HP	600/3/60	BARNES	SP-40	GRINDER

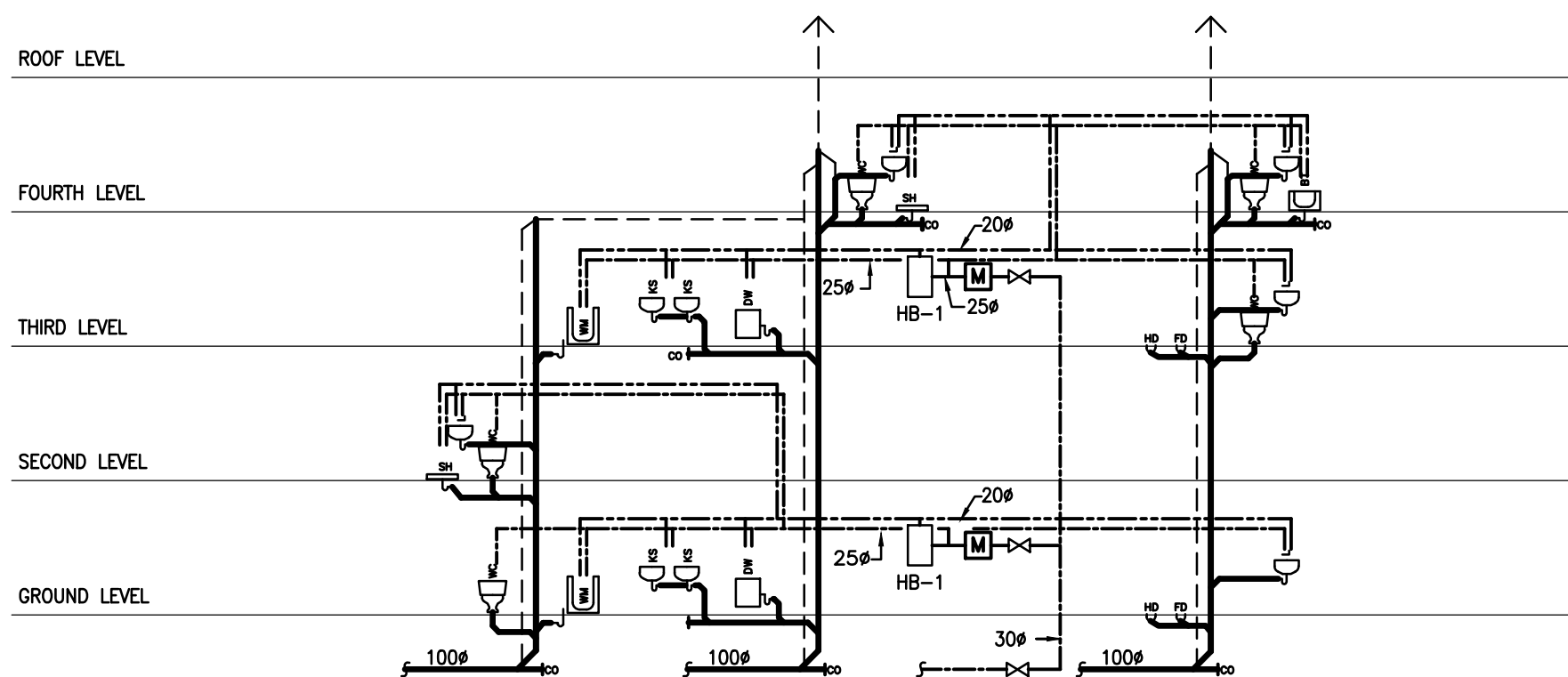
NOTES:

SPLIT SYSTEM EQUIPMENT SCHEDULE												
UNIT No	DESCRIPTION	LOCATION	HEATING	COOLING TOTAL	L/S	EXTERNAL S.P.T. POWER	R.P.M.	ELECTRICAL CHARACTERISTICS	MAKE	MODEL	WEIGHT	OPERATING
			M.B.H.	C.F.M.	G.P.M.	K.P.A.	K.W.					
(S-1)	SPLIT SYSTEM CONDENSER & COIL	ELEV MACH ROOM	18.0	570			40AMP	1278	575/3/60	ENG AIR	FW143/DJX60/M	4400
(S-2)	SPLIT SYSTEM CONDENSER UNIT	GARAGE	18.0				40AMP	1278	575/3/60	ENG AIR	FW143/DJX60/M	4400
(S-3)	SPLIT SYSTEM CONDENSER & COIL	GARAGE ROOMS	24.0 MBH	800		0.4"	5.4FLA	1099	575/3/60	ENG AIR	FW183/DJX100/M	6600
(S-4)	SPLIT SYSTEM CONDENSER UNIT	GARAGE	24.0 MBH				5.4FLA	1099	575/3/60	ENG AIR	FW183/DJX100/M	6600
(S-5)	SPLIT SYSTEM CONDENSER & COIL	LOBBY	24.0 MBH	800		0.4"	5.4FLA	1099	575/3/60	ENG AIR	FW183/DJX100/M	6600
(S-6)	SPLIT SYSTEM CONDENSER UNIT	LOBBY ROOF	24.0 MBH				5.4FLA	1099	575/3/60	ENG AIR	FW183/DJX100/M	6600

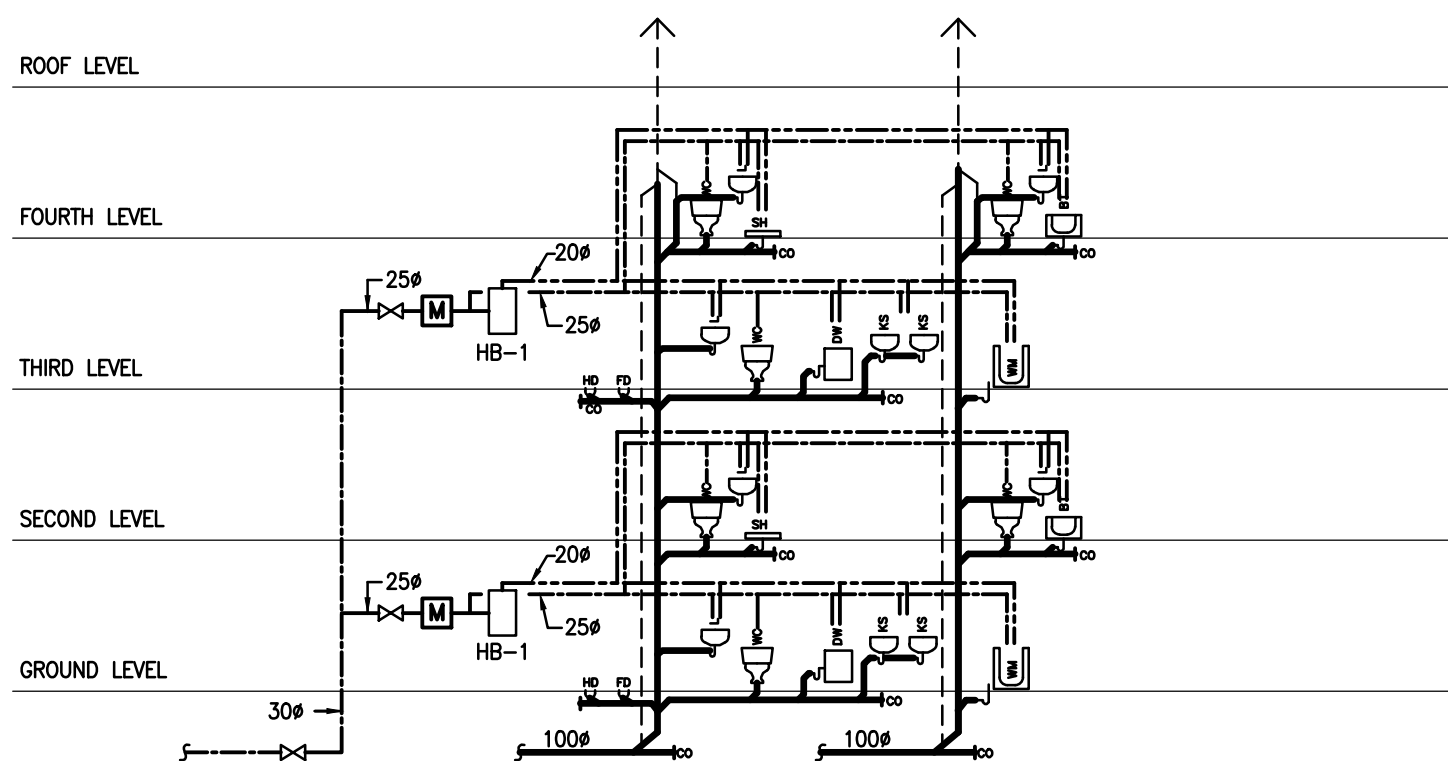
MAKE-UP AIR UNIT												
UNIT No	DESCRIPTION	LOCATION	HEATING	COOLING TOTAL	L/S	EXTERNAL S.P.T. POWER	R.P.M.	ELECTRICAL CHARACTERISTICS	MAKE	MODEL	WEIGHT	OPERATING
			M.B.H.	C.F.M.	G.P.M.	K.P.A.	K.W.					
(MU-1)	MAKE-UP AIR UNIT, DIRECT GAS FIRED HEATING, DX COOLING	BLK "D" ROOF	1200 MBH	5500	186 GPM	0.75"	7.5 HP	30AMP	1217	575/3/60	ENG AIR	FW183/DJX100/M
(MU-2)	MAKE-UP AIR UNIT, DIRECT GAS FIRED HEATING, DX COOLING	BLK "C" ROOF	1200 MBH	5500	186 GPM	0.75"	7.5 HP	30AMP	1217	575/3/60	ENG AIR	FW183/DJX100/M
(MU-3)	MAKE-UP AIR UNIT, DIRECT GAS FIRED HEATING, DX COOLING	BLK "B" ROOF	1200 MBH	5500	186 GPM	0.75"	7.5 HP	30AMP	1217	575/3/60	ENG AIR	FW183/DJX100/M
(MU-4)	MAKE-UP AIR UNIT, DIRECT GAS FIRED HEATING, DX COOLING	BLK "A" ROOF	1200 MBH	5500	186 GPM	0.75"	7.5 HP	30AMP	1217	575/3/60	ENG AIR	FW183/DJX100/M



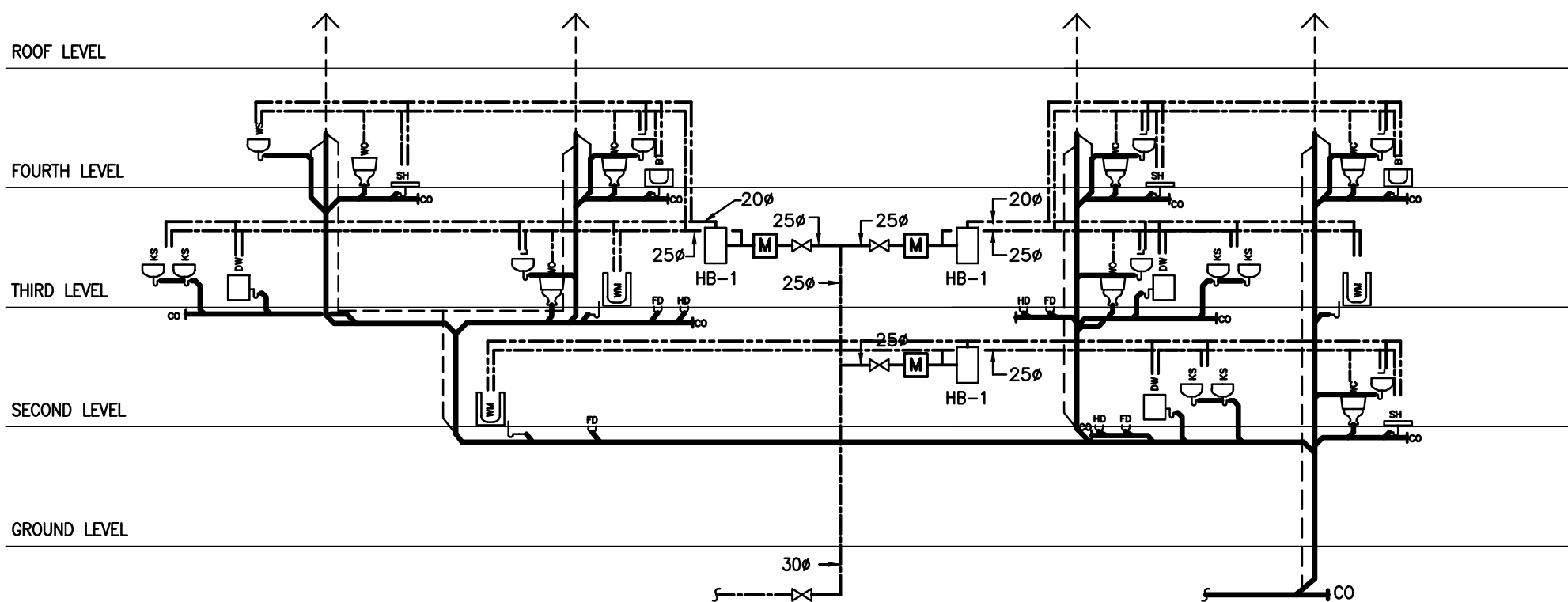
PLUMBING RISER TYPICAL FOR MODEL: 2A1/2A3/2C1/2D2



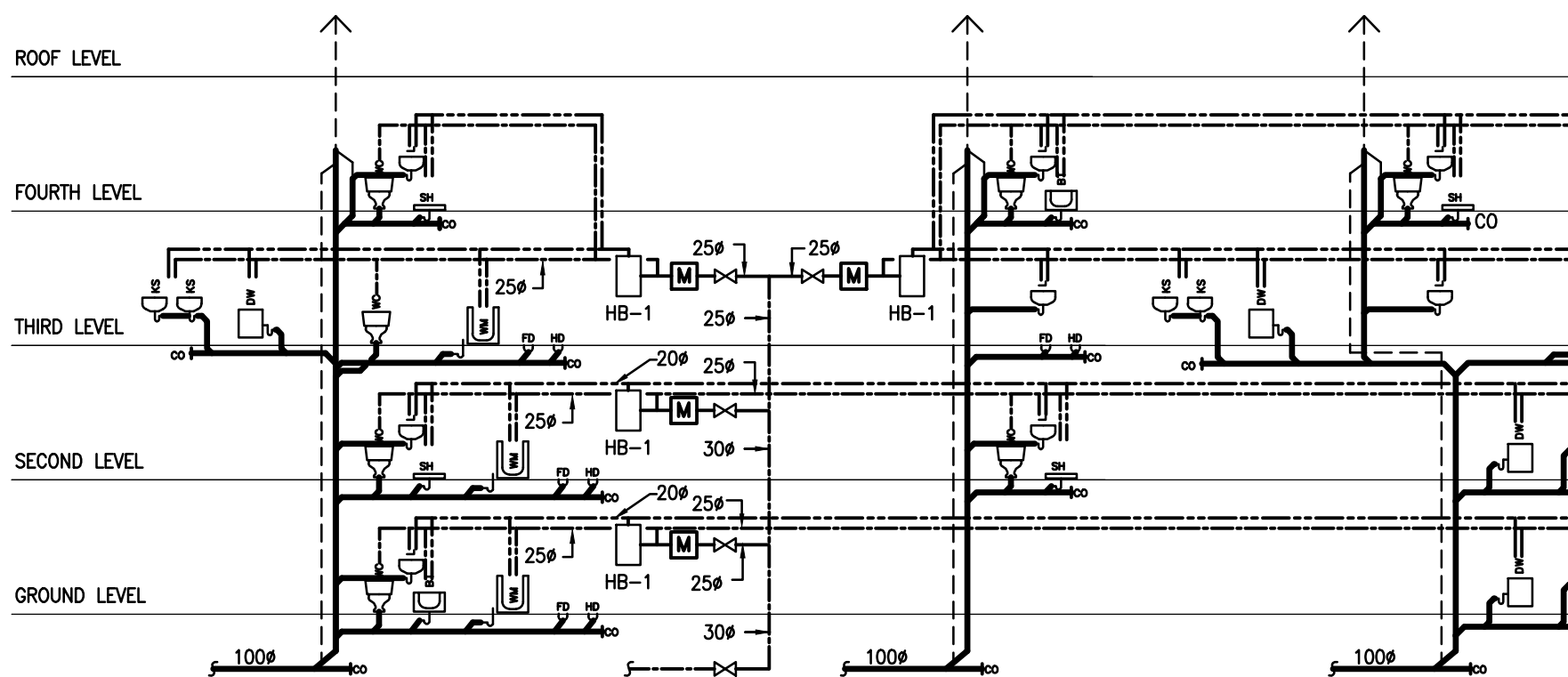
PLUMBING RISER TYPICAL FOR MODEL: 2D1, 2D2



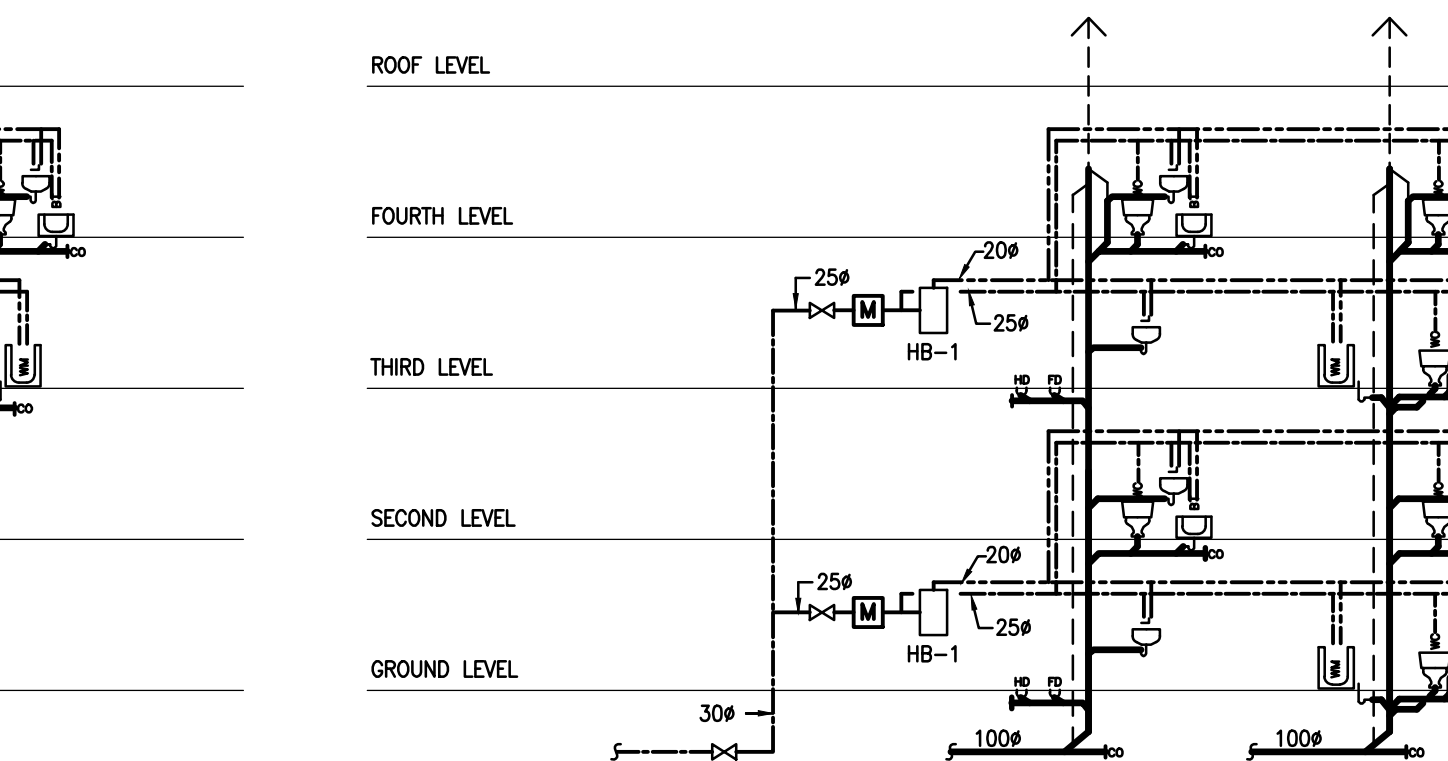
PLUMBING RISER TYPICAL FOR MODEL: 2C1



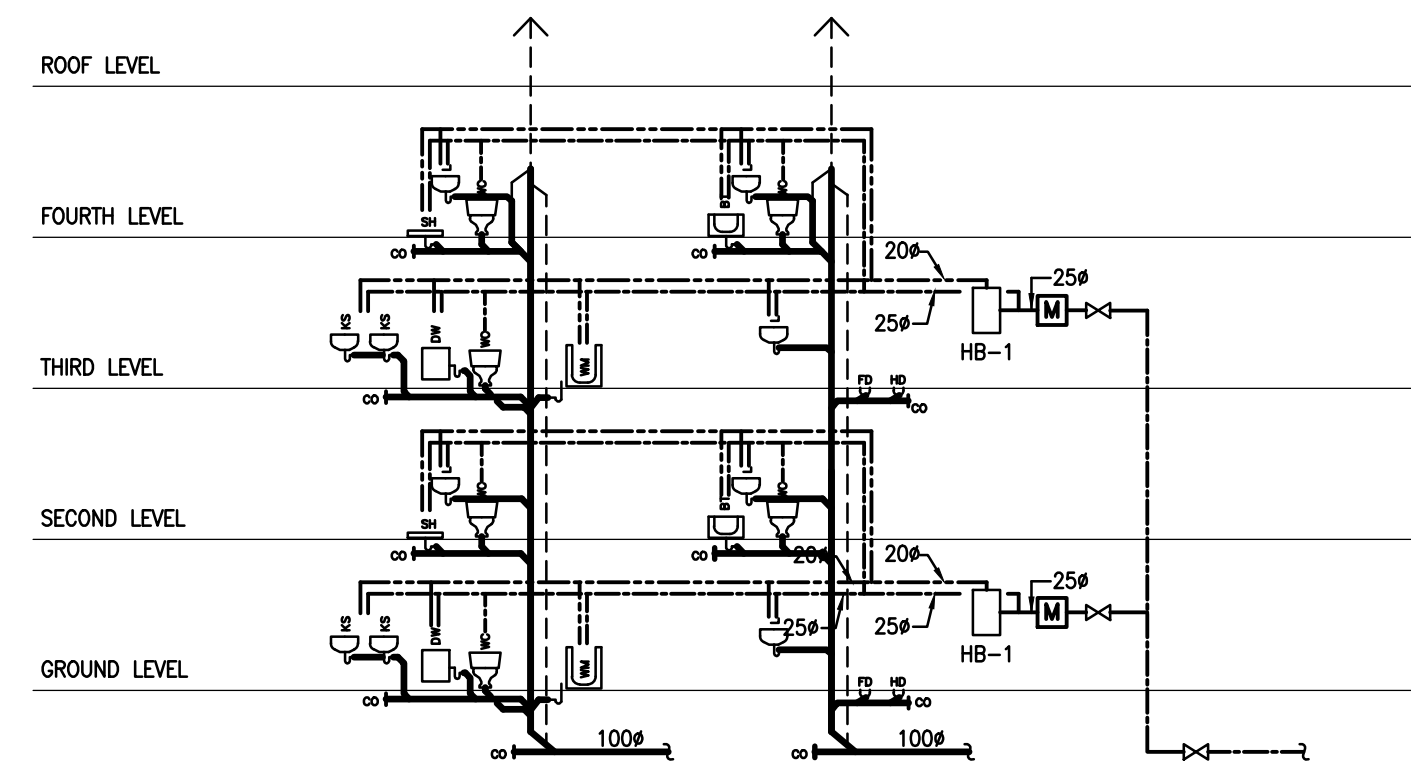
PLUMBING RISER TYPICAL FOR MODEL: 2A4/2C1/2D2



PLUMBING RISER TYPICAL FOR MODEL: 2A/2A2/2C/2D



PLUMBING RISER TYPICAL FOR MODEL: 2C



PLUMBING RISER TYPICAL FOR MODEL: 2D

NOTE: ALL SUITE FANS SHOULD BE IM (2001) PERFORMANCE CERTIFIED
* NOTE: MOTORS FOR SPECIFIED EQUIPMENT TO BE HIGH EFFICIENCY, TO ASHRA 90.1 STANDARDS

FAN SCHEDULE												
NO.	TYPE	LOCATION	CAPACITY CFM	PRESSURE INCHES W.G.	RPM	H.P.	ELECTRICAL CHARACTERISTICS	MAKE	MODEL	OPENING INCHES W.G.	REMARKS	
(F-1)	EXHAUST	SUITE	100	30		2.0W.P.	120/1/60	BRONX ELECTRIC ELECTROMATIC	BL-240S 2000-300		COLOR BY ARCHITECT WARRANTY SPEEDS	
(F-2)	WASHROOM INLINE EXH FAN	SUITE	205	30		2.5AMPS	120/1/60	REVERSONATIC	TL-240ES		SOUND RATED TO BE LESS THAN 3.5 ZONES	
(F-3)	DRYER EXHAUST	SUITE	100	40	2800	1.5AMPS	120/1/60	KANLEY ELECTROMATIC ELECTROMATIC	DRY-40 07-DBAL		DRYER MOIST & MILD DRYER MOIST & MILD	
(F-4)	EXHAUST	SUITE	75	30	1286	0.18AMPS	120/1/60	PANASONIC	FV-07MBA-FV-07MBA		SOUND RATED TO BE LESS THAN 3.5 ZONES	
(F-5)	PARKING LEVEL EXHAUST	U/G GARAGE	27,470	25	770	5 HP	600/3/60	PENN	BO48S	24" X 24"	DUAL SPEED MOTOR OVERALL SOUND POWER SHALL BE 75dBA OR LESS	
(F-6)	RR MOVING FAN	U/G GARAGE	3500	25	492	1 HP	600/3/60	PENN	ZC12			
(F-7)	EXHAUST	SUB-ELECT RM BLDG	2350	25	548	0.45 HP	120/1/60	PENN	ZC12		C/W REVERSE ACTING LINE VOLT THERMOSTAT	
(F-8)	EXHAUST	METER RM	377	25	1550	130 WATTS	120/1/60	PENN	Z8H		TO RUN CONTINUOUSLY	
(F-9)	EXHAUST	DBH RM-BLD	166	25	1550	108 WATTS	120/1/60	PENN	Z8H		TO RUN CONTINUOUSLY	
(F-10)	EXHAUST	GARAGE RM BLDG A GARAGE RM BLDG C	1250	375	1420	1/2 HP	120/1/60	PENN	REX120		EASTAP DUAL SPEED MOTOR WIRED ON LOW SPEED	
(F-11)	EXHAUST	SUB-ELECT RM BLDG A	4700	25	406	0.74 HP	120/1/60	PENN	ZC12		TO RUN CONTINUOUSLY	
(F-12)	EXHAUST	SUB-ELECT RM BLDG C	3768	125	1050	1/2 HP	120/1/60	PENN	BREEZWAY P180A		TO RUN CONTINUOUSLY	
(F-13)	EXHAUST	SUB-ELECT RM BLDG C	2856	125	1300	1/2 HP	120/1/60	PENN	BREEZWAY P180A		C/W REVERSE ACTING LINE VOLT THERMOSTAT	
(F-14)	EXHAUST	DBH RM-BLD	196	125	1550	108 WATTS	120/1/60	PENN	Z8H		TO RUN CONTINUOUSLY	
(F-15)	EXHAUST	LOCKER RM #2	812	25	1050	263 WATTS	120/1/60	PENN	Z125		TO RUN CONTINUOUSLY	
(F-16)	EXHAUST	GARAGE RM BLDG B GARAGE RM BLDG D	800	375	1750	1/2 HP	120/1/60	PENN	REX100		EASTAP DUAL SPEED MOTOR WIRED ON LOW SPEED	
(F-17)	EXHAUST	DBH RM-BLD B DBH RM-BLD C	122	375	1550	108 WATTS	120/1/60	PENN	Z8H		TO RUN CONTINUOUSLY	
(F-18)	EXHAUST	LOCKER RM #1	1301	25	1550	810 WATTS	120/1/60	PENN	Z102H		TO RUN CONTINUOUSLY	
(F-19)	EXHAUST	LOCKER RM #3 & 5	196	125	1550	108 WATTS	120/1/60	PENN	Z8H		TO RUN CONTINUOUSLY	
(F-20)	EXHAUST	LOCKER RM #4	350	125	1550	130 WATTS	120/1/60	PENN	Z8H RA		TO RUN CONTINUOUSLY C/W VOLT. SPEED CONTROLLER	
(F-21)	EXHAUST	SUB-ELECT RM BLDG C	2088	100	1050	1/2 HP	120/1/60	PENN	BREEZWAY P180A		C/W REVERSE ACTING LINE VOLT THERMOSTAT	
(F-22)	EXHAUST	MECHANICAL RM	550	25	1550	79 WATTS	120/1/60	PENN	Z3H		TO RUN CONTINUOUSLY	
(F-23)	EXHAUST	BOARD ROOM	467	25	1550	135 WATTS	120/1/60	PENN	Z101S		TO RUN CONTINUOUSLY	
(F-24)												
(F-25)												
(F-26)												

ACOUSTIC REQUIREMENTS

DRAWINGS TO BE READ IN CONJUNCTION WITH ACOUSTIC DESIGN REVIEW REPORT. ACOUSTIC REPORT SHALL BE PART OF THE MECHANICAL CONTRACTORS CONTRACT.

ALL EQUIPMENT ISOLATION MOUNTS SHALL BE CHOSEN ON THE BASIS OF ACHIEVING AT LEAST 80% VIBRATION ISOLATION EFFICIENCY AT THE LOWEST OPERATING SPEED. THAT IS, THE NATURAL FREQUENCY OF EACH VIBRATION ISOLATION SYSTEM SHALL BE NO HIGHER THAN 1/10 OF THE DETERMINED STATIC DEFLECTION OF THE ISOLATOR. INCREASE THE ISOLATOR STATIC DEFLECTION TO MAINTAIN A MINIMUM RATIO OF ISOLATOR DEFLECTION TO FLOOR DEFLECTION OF 10:1. STATIC DEFLECTIONS SHOWN ON THE DRAWINGS.

SPECIFICATIONS, OR SCHEDULES ARE A GUIDE ONLY. REQUIRED MATERIAL FREQUENCIES AND STATIC DEFLECTIONS ARE TO BE DETERMINED, IN ACCORDANCE WITH THE ABOVE RELATIONSHIPS, BASED ON ACTUAL EXISTING FREQUENCIES AND OTHER CHARACTERISTICS OF FINAL EQUIPMENT SELECTION. SELECTED VIBRATION ISOLATION MOUNTS ARE TO ACHIEVE THE REQUIRED STATIC DEFLECTION UNDER LOAD, WITH AT LEAST 50% RESERVE DEFLECTION. ISOLATION MOUNTS SHOULD BE INSTALLED PRIOR TO OPERATING OR FABRICATION.

PUMPS - FOR PUMPS OPERATING AT 1800 RPM, ISOLATORS WITH A MINIMUM STATIC DEFLECTION OF 1" WILL BE REQUIRED. IN MOST CASES, THIS RUBBER PADS DO NOT PROVIDE ADEQUATE STATIC DEFLECTION FOR SPRING ISOLATORS OR HIGHER DEFLECTION ELASTOMERIC ISOLATORS WILL BE REQUIRED.

PIPE CONNECTIONS TO PUMPS SHOULD INCLUDE FLEXIBLE CONNECTIONS, SUCH AS WITH THE USE OF TWIN-PHASE JOINTS.

PIPE SUPPORTS/HANGERS WITHIN MECHANICAL ROOMS SHOULD INCORPORATE VIBRATION ISOLATION.

THE SUITE HANG UNITS MUST BE VIBRATION ISOLATED FROM THE BUILDING STRUCTURE. THE SUITE HANG UNITS SHOULD BE PLACED ON RESIDENT PADS.

TO MAINTAIN THE SOUND ISOLATION PERFORMANCE OF WALL AND FLOOR/CEILING ASSEMBLIES BETWEEN SUITES, ALL PIPE PENETRATIONS SHOULD BE SEALED AIR TIGHT. AT VERTICAL PIPE SPACES, THE OFFSHOOT BEARS FORMING THE PIPE SPACE SHOULD EXTEND UP TO THE UNDERSIDE OF THE DAMPING CEILING ABOVE, RATHER THAN STOPPING AT THE DROPPED PIANO CEILING.

TO CONTROL TRANSMISSION OF PLUMBING NOISE TO SUITES, CAST IRON DRAIN PIPE SHOULD BE USED FOR STORM AND SANITARY DRAINS. BUT INSULATION SHOULD BE INCLUDED IN VERTICAL PIPE SPACES AS WELL AS DROPPED CEILINGS OR BULKHEADS THAT CONTAIN HORIZONTAL PLUMBING OFFSETS. IF A TANK OR BULKHEAD IS LOCATED IN THE CEILING SPACE/BULKHEAD, IF A NOISE SENSITIVE SPACE, BOX IN THE DRAIN/FLOOR WITH TWO LAYERS OF OFFSHOOT BOARD LINED WITH BATT INSULATION, OR ACOUSTICALLY LAG THE PIPE WITH FIBERGLASS PIPE INSULATION AND AN OUTER LAYER OF FLEXIBLE NOISE CONTROL MEMBRANE. REFER TO FIGURE 6-1 OF ACOUSTIC REPORT FOR DETAILS. MAIN RISERS AND MAIN HORIZONTAL OFFSETS LOCATED IN OR NEAR NOISE SENSITIVE SPACES SHOULD BE SUPPORTED USING RESIDENT HANGERS OR MOUNTS. SEE FIGURE 6-2 OF ACOUSTIC REPORT.

BRANCH SIZES SCHEDULE			
UNIT	1/2" (0.0017)	3/4" (0.0021)	1" (0.0025)
SINGLE KITCHEN	1/2" (0.0017)	3/4" (0.0021)	1" (0.0025)
SINGLE BATHROOM	1/2" (0.0017)	3/4" (0.0021)	1" (0.0025)
DOUBLE BATHROOM/SINGLE KITCHEN	1/2" (0.0017)	3/4" (0.0021)	1" (0.0025)
INDIVIDUAL WASHER	1/2" (0.0017)	3/4" (0.0021)	1" (0.0025)
DOUBLE BATHROOM	1/2" (0.0017)	3/4" (0.0021)	1" (0.0025)
DOUBLE BATHROOM	1/2" (0.0017)	3/4" (0.0021)	1" (0.0025)
THREE OR MORE BATHROOMS	1/2" (0.0017)	3/4" (0.0021)	1" (0.0025)

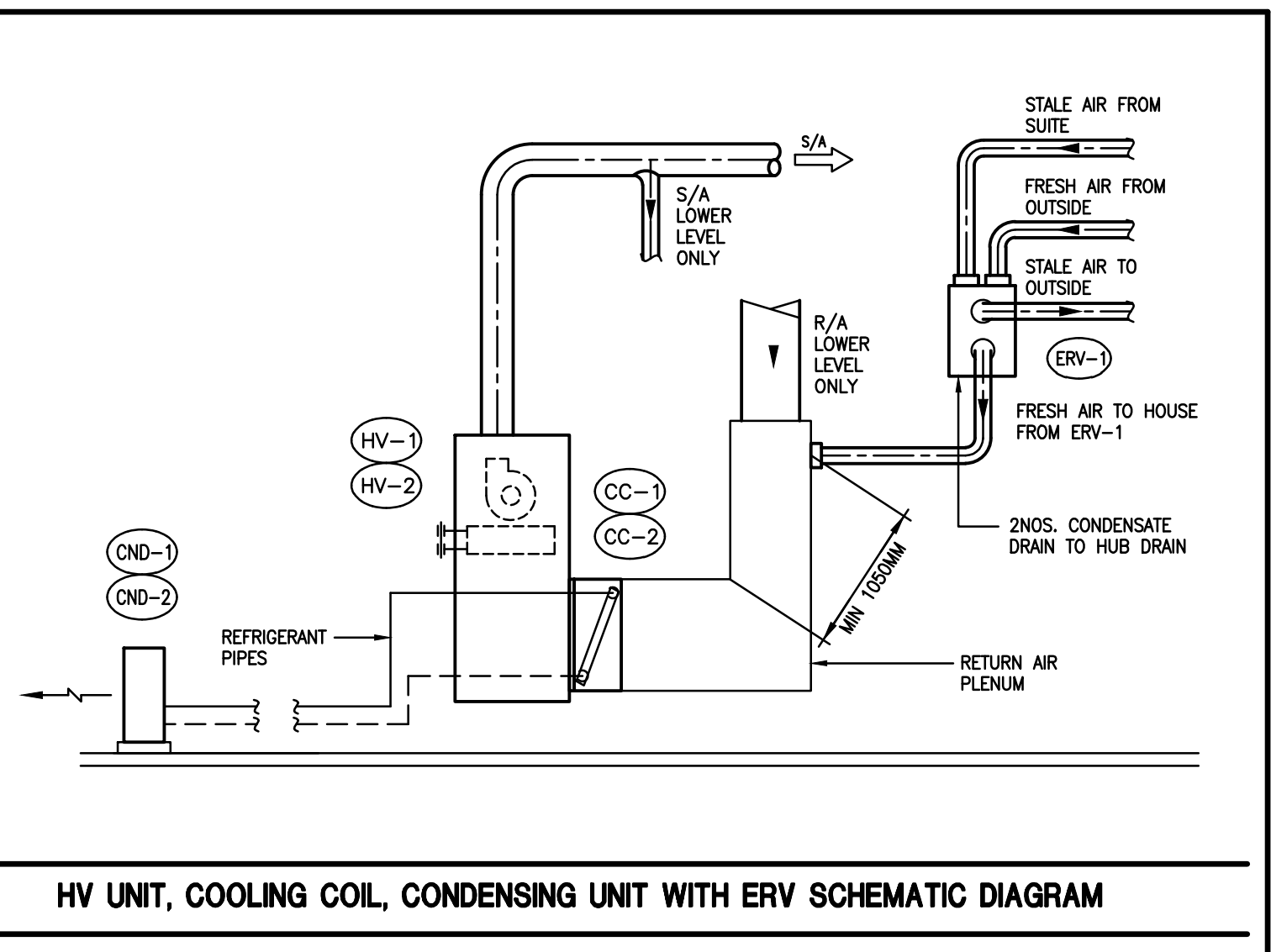
BRANCH SIZES SCHEDULE			
UNIT	1/2" (0.0017)	3/4" (0.0021)	1" (0.0025)
WATER CLOSET (TANK)	1/2" (0.0017)	3/4" (0.0021)	1" (0.0025)
SHOWER	1/2" (0.0017)	3/4" (0.0021)	1" (0.0025)
BATHROOM/KITCHEN SINK	1/2" (0.0017)	3/4" (0.0021)	1" (0.0025)
LAUNDRY	1/2" (0.0017)	3/4" (0.0021)	1" (0.0025)
FLOOR DRAIN	1/2" (0.0017)	3/4" (0.0021)	1" (0.0025)
LAUNDRY WASHER	1/2" (0.0017)	3/4" (0.0021)	1" (0.0025)
PLUMBING RISER	1/2" (0.0017)	3/4" (0.0021)	1" (0.0025)

GRILLE SCHEDULE

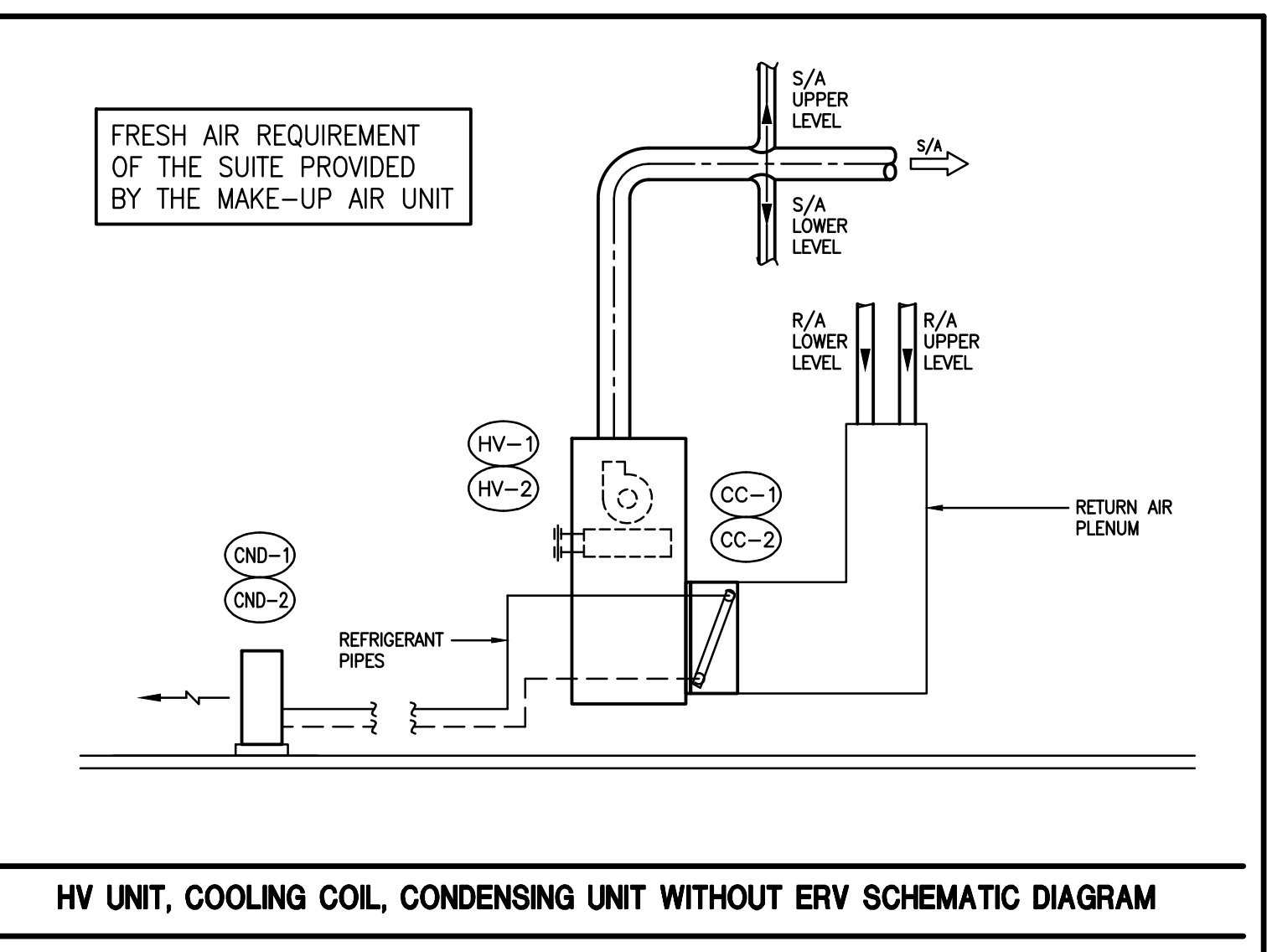
GRILLE SIZE	DESCRIPTION	DAMPER	MAKE	TYPE	NOTES
(G-1)	CORRIDOR FRESH AIR SUPPLY	YES	EH PRICE	6300	19MM LOWER SPACING, FIXED LOUVER, 45 DEGREE DEFLECTION
(G-2)	EXHAUST/RETURN	NO	EH PRICE	630	19MM LOWER SPACING, FIXED LOUVER, 45 DEGREE DEFLECTION
(G-3)	SUPPLY	YES	EH PRICE	6200	19MM LOWER SPACING, SCALE DEFLECTION
(G-4)	LINEAR DIFFUSER	YES	EH PRICE	525 TYPE 6	25MM WIDE INSULATED SLOT DIFFUSER, COLOUR SUBJECT TO ARCH APPROVAL, C/W ENGINEERED PLUNGE, CONCEALED MOUNTING BRACKET

FORCE FLOW HEATER

UNIT No.	DESCRIPTION	CAPACITY	MAKE	MODEL	ELECTRICAL CHARACTERISTICS	NOTES
(H-1)	ELECTRIC FORCE FLOW HEATER	12kW	OUTLET	QAWH1200B-10V	208/1/60	TRIPLE FORCE FLOW HEATER
(H-2)	ELECTRIC FORCE FLOW HEATER	8kW	OUTLET	QAWH0800B-10V	208/1/60	DOUBLE FORCE FLOW HEATER
(H-3)	ELECTRIC FORCE FLOW HEATER	4.8kW	OUTLET	QAWH0480B-10V	208/1/60	SINGLE FORCE FLOW HEATER



HV UNIT, COOLING COIL, CONDENSING UNIT WITH ERV SCHEMATIC DIAGRAM



HV UNIT, COOLING COIL, CONDENSING UNIT WITHOUT ERV SCHEMATIC DIAGRAM

NO.	BY	DESCRIPTION	DATE
07	LB	ISSUED AS PER SITE INSTRUCTION M-01	APR. 28, 2021
08	LB	ISSUED FOR PROGRESSIVE CONSTRUCTION	MAR. 28, 2021
09	LB	ISSUED FOR PERMIT BUILDING A,B,C,D	MAR. 03, 2021
10	LB	ISSUED AS PER APPENDIX M-05	JAN. 20, 2021
11	LB	ISSUED FOR PERMIT	SEP. 28, 2020
12	RC	APPENDIX #04	JUN. 12, 2020
13	RC	ISSUED FOR TENDER	AUG. 02, 2019

REVISIONS

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