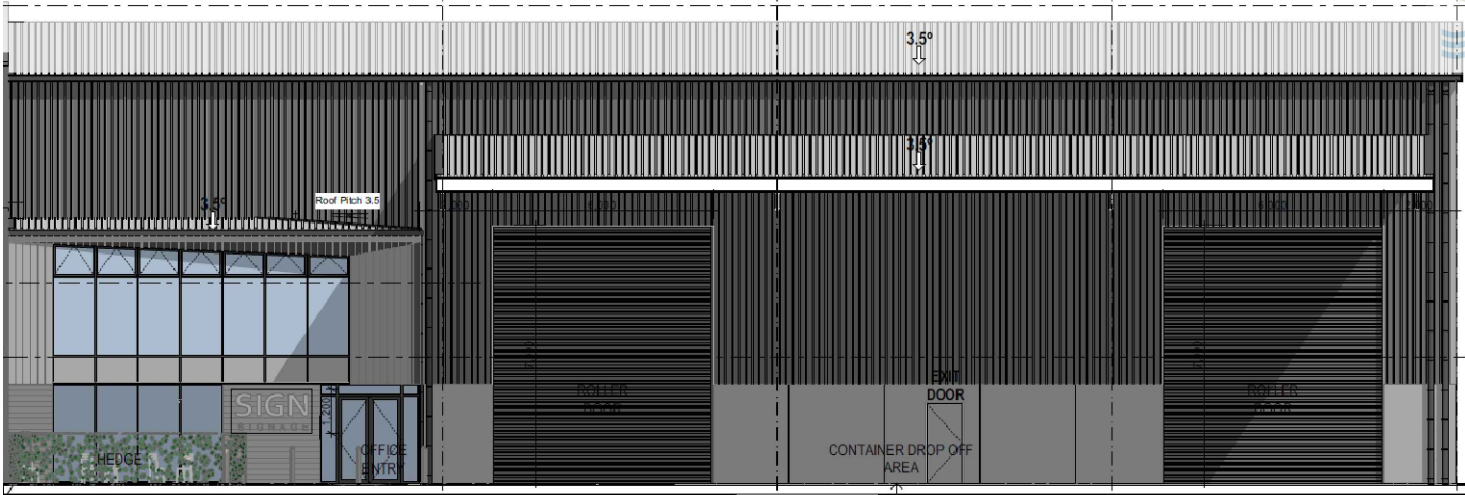




DRAWING INDEX

SHEET NUMBER	SHEET NAME	CURRENT REVISION
M000	LEGENDS & GENERAL NOTES	0
M001	EQUIPMENT SCHEDULES	0
M002	STANDARD DETAILS	0
M100	HVAC LAYOUT - GROUND FLOOR	0
M101	HVAC LAYOUT - FIRST FLOOR	0
M102	HVAC LAYOUT - OFFICES	0
M103	HVAC LAYOUT - ROOF	0



PROPOSED COMMERCIAL  
DEVELOPMENT

56 ALLENS ROAD, EAST TAMAKI, AUCKLAND

MECHANICAL SERVICES  
BUILDING CONSENT ISSUE - APRIL 2022

CLIENT

Arthur Adams



Auckland + 64 9 357 8100  
Level 18, AMP Centre,  
29 Customs Street West, Auckland.

Wellington + 64 4 815 8310  
Level 4, City Chambers,  
142 Featherston Street, Wellington.

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PIPEWORK

	TRV	THERMOSTATIC RADIATOR VALVE
		MOTORISED VALVE
	PDV	PRESSURE DIFFERENTIAL REGULATOR VALVE
		ISOLATING VALVE
		ISOLATING REGULATING VALVE
		MOTORISED 3-POR T VALVE
		NON RETURN VALVE
		PRESSURE RELIEF VALVE
		STRAINER
		WATER PUMP
		PIPE RUN ABOVE FLOOR BELOW BENCH LEVEL
		PIPE RUN BELOW FLOOR
		PIPE RUN EXPOSED AT HIGH LEVEL
		PIPE RUN HIDDEN AT HIGH LEVEL
		PIPE DROPS OR RISES
		DIRECTION OF FLOW
		PIPE CROSSING. BROKEN PIPE BEHIND
		EXPANSION TANK
	AAV	AUTOMATIC AIR VENT
		TEMPERATURE SENSOR
		PRESSURE SENSOR (PLENUM MOUNTED UNLESS NOTED OTHERWISE)
		PIPE UNION
		TUNDISH
		TEST POINT
		TEMPERATURE SENSOR TO BMS
		FLOW SWITCH TO BMS
		FLOW CONTROL
		PRESSURE SENSOR TO BMS
		DRAIN POINT
		FLEXIBLE CONNECTION
		VARIABLE SPEED DRIVE
	REF	REFRIGERANT PIPEWORK

DUCTWORK

		RECTANGULAR DUCT BEND AWAY
		RECTANGULAR DUCT RISER
		CIRCULAR DUCT RISER
		CEILING MOUNTED 4 WAY BLOW DIFFUSER C/W CUSHION HEAD
		CEILING MOUNTED 3 WAY BLOW DIFFUSER C/W CUSHION HEAD
		CEILING MOUNTED 2 WAY CORNER BLOW DIFFUSER C/W CUSHION HEAD
		CEILING MOUNTED EXTRACT GRILLE C/W CUSHION HEAD
		SWIRL DIFFUSER, SQUARE
		SWIRL DIFFUSER, ROUND
		VALVE DIFFUSER
		SUPPLY DIFFUSER ON UNDERSIDE OF DUCT
		EXTRACT GRILLE ON UNDERSIDE OF DUCT
		SIDE WALL/DUCT MOUNTED GRILLE OR LOUVRE
		TRANSFER GRILLE OR DOOR GRILLE
		AIR FLOW DISCHARGE OR INTAKE
		GRILLE REFERENCE
		AIR VOLUME (l/s)
		FLEXIBLE DUCT
		SINGLE BLADE DAMPER
		OPPOSED BLADE DAMPER
		PARALLEL BLADE DAMPER
		FIRE DAMPER
		RECTANGULAR DUCT
		CIRCULAR DUCT
		DUCT TRANSITION RECTANGULAR TO ROUND
		DELETED DUCT
		OUTDOOR AIR (l/s)
		TO BE RELOCATED
		DUCT INTERNALLY LINED 25mm
		DUCT INSULATED (WRAPPED LINED) 25mm

ABBREVIATIONS

AP	ACCESS PANEL
AH	AFTER-HOURS BUTTON
AC	AIR CONDITIONING
AHU	AIR HANDLING UNIT
BL	BOTTOM LEVEL DUCT TRANSITION
BD	BACKDRAFT DAMPER
CD	CONDENSATE PIPING
CHWf+r	CHILLED WATER FLOW & RETURN PIPING
c/w	COMES WITH
MD	MOTORISED DAMPER
HWC	DOMESTIC HOT WATER CYLINDER
D	DAMPER
OBD	OPPOSED BLADE DAMPER
O/A	OUTDOOR AIR
FD / FDs	FIRE DAMPER(s)
FC / FCs	FIRE COLLAR(s)
FCU / FCUs	FAN COIL UNIT(s)
DN	INTERNAL PIPE DIAMETER
FA	FROM ABOVE
FB	FROM BELOW
TA	TO ABOVE
TB	TO BELOW
TL	TOP LEVEL DUCT TRANSITION
TV	TURNING VANE
U/C	UNDERCUT DOOR
VRF	VARIABLE REFRIGERANT FLOW
N	NEW
U/C	DOOR UNDERCUT (25mm)
EDH	ELECTRIC DUCT HEATER
ERU	ENERGY RECOVERY UNIT
NV	NATURALLY VENTILATED SPACE
NIL	NIL VENTILATION
NC	NORMALLY CLOSED
NO	NORMALLY OPEN

GENERAL NOTES

1. READ THESE DRAWINGS IN CONJUNCTION WITH THE MECHANICAL SPECIFICATION AND OTHER CONTACT DOCUMENTS.
2. DO NOT TAKE MEASUREMENTS OF THE DRAWINGS. ALL MEASUREMENTS SHALL BE CONFIRMED ON SITE.

DUCT SCHEDULE

1	GALV. MILD STEEL
2	GALV. MILD STEEL WITH 25mm INTERNAL ACOUSTIC INSULATION
3	GALV. MILD STEEL WITH 50mm INTERNAL ACOUSTIC INSULATION
4	GALV. MILD STEEL WITH 25mm EXTERNAL THERMAL INSULATION
5	GALV. MILD STEEL WITH 50mm EXTERNAL THERMAL INSULATION
6	FIRE RATED DUCTING
7	COMMERCIAL KITCHEN RATED
8	PVC DUCTING SYSTEM (FLATPACK OR SIMILAR)
9	STAINLESS STEEL

ALL GRILLES / DIFFUSER CUSHION HEADS TO BE INTERNALLY LINED WITH 10mm ACOUSTICALLY RATED INSULATION WHERE APPLICABLE.

FLEXIBLE DUCT SCHEDULE

l/s	SIZE
0 - 50	Ø150
51 - 100	Ø200
101 - 170	Ø250
171 - 270	Ø300
271 - 350	Ø350

GRILLE LEGEND

	NEW DIFFUSER OR GRILLE
	RELOCATED DIFFUSER OR GRILLE
	EXISTING DIFFUSER OR GRILLE TO REMAIN

GRILLE REFERENCE:

S	SUPPLY
E	EXHAUST
R	RETURN
L	LOUVRE
DG	DOOR GRILLE
TG	TRANSFER GRILLE

ELECTRICAL

MSSB		MECHANICAL SERVICES SWITCH BOARD/CONTROL PANEL
MSB		MAIN SWITCH BOARD



FAN & COWL SCHEDULE

REFERENCE	MANUFACTURER	MODEL	AREA SERVED	FAN TYPE	DUTY		DIMENSION			UPSTAND		WEIGHT(KG)	SPL		PHASE	ELECTRICAL		MSSB	COMMENTS
					FLOW (L/S)	STATIC (PA)	W	H	L	MIN	MAX		dB(A)	Dist. (m)		POWER (KW)	RUNNING AMPS (A)		
EF-01	FANTECH	GUEEC28D	TOILETS & LOCKERS	ROOF DOWNFLOW	290	180	575	330	575	310	410	8	50	3	1	0.29	1.5	EDB	TIME CLOCK
EF-02	FANTECH	ECE152M	KITCHENETTE	ROOF DOWNFLOW	75	100	Ø140	700	-	-	-	-	43	3	1	0.20	0.9	EDB	MANUAL SWITCH
EF-03	FANTECH	MV132E	LVL 1 KITCHENETTE	ROOF DOWNFLOW	50	70	310	200	310	210	260	2	43	3	1	0.1	0.60	EDB	MANUAL SWITCH
EF-W1	FANTECH	RDE0716	WAREHOUSE EXTRACT	ROOF DOWNFLOW	2000	50	1180	580	1180	780	980	-	69	3	3	0	0.0	MSB	CO. MANUAL SWITCH
EF-W2	FANTECH	RDE0716	WAREHOUSE EXTRACT	ROOF DOWNFLOW	2000	50	1180	580	1180	780	980	-	69	3	3	0	0.0	MSB	CO. MANUAL SWITCH
EF-W3	FANTECH	RDE0716	WAREHOUSE EXTRACT	ROOF DOWNFLOW	2000	50	1180	580	1180	780	980	-	69	3	3	0	0.0	MSB	CO. MANUAL SWITCH
EF-W4	FANTECH	RDE0716	WAREHOUSE EXTRACT	ROOF DOWNFLOW	2000	50	1180	580	1180	780	980	-	69	3	3	0	0.0	MSB	CO. MANUAL SWITCH
SF-01	FANTECH	WJ-315SILKIT	LUNCH & MAKE UP AIR	DUCTED	325	150	Ø417	-	2926	-	-	35	39	3	1	0.29	1.3	EDB	TIME CLOCK
SF-02	FANTECH	CE316S	OFFICE	ROOF DOWNFLOW	180	100	670	420	670	480	580	25	41	3	1	0.07	0.5	EDB	TIME CLOCK

NOTE:

- THE CONTRACTOR SHALL CONFIRM FINAL FAN SELECTION WITH AIR FLOW AND STATIC RESISTANCE OF FINAL DUCTWORK INSTALLATION, PRIOR TO PROCUREMENT.
- ALL DUCT MOUNTED FANS SHALL BE PROVIDED WITH ANTI VIBRATION MOUNTS AND FLEXIBLE CONNECTIONS.
- THE CONTRACTOR SHALL CONFIRM NOISE LEVELS ARE WITHIN THE SPECIFIED RANGE PRIOR TO PROCUREMENT
- ALL FANS SHALL BE SUPPLIED WITH SPEED CONTROLLERS FOR SPEED SETTING DURING COMMISSIONING.
- REFER TO SPEIFICATION FOR APPROVAL OF ALTERNATIVES
- ALL ROOF FANS SHALL BE SUPPLIED WITH INSECT SCREENS AND SHALL BE FACTORY COLOURED TO MATCH ARCHITECTS SPECIFICATIONS
- WALL MOUNTED FANS SHALL BE SUPPLIED WITH INSECT SCREENS AND GRAVITY BACKDRAUGHT DAMPERS/LOUVRES
- VSD/SPEED CONTROLLERS SHALL BE SIZED TO MAXIMUM MOTOR OUTPUT

VRF / SPLIT SYSTEM SCHEDULE

REFERENCE	MANUFACTURER	MODEL	AREA	SYSTEM	OUTDOOR REFERENCE	TYPE	CAPACITY					DIMENSIONS			WEIGHT	SPL		ELECTRICAL				COMMENTS	
							TOTAL (kW)	SENS (kW)	HEAT (kW)	FLOW (l/s)	OA FLOW (l/s)	ESP (Pa)	W (mm)	H (mm)		D (mm)	dB(A)	@ (m)	PHASES (NO.)	POWER (kW)	FULL LOAD (A)		MSSB
IU-01 OU-01	DAIKIN	FTXS95L RXS95L	LUNCH	S.SPLIT	-	HI-WALL	9.40	6.80	10.50	415 1323	-	-	1200 940	340 990	240 320	23 82	49 55	1	1	3.2	19.5	EDB	IR REMOTE
IU-02 OU-02	DAIKIN	FDYQ100KAV1 RZQ100KV4A	OFFICE	S.SPLIT	-	DUCTED	10.90	9.40	11.80	815 1583	80	100	1478 900	360 1170	899 320	59 99	46 49	1	1	4.0	30	EDB	WALL CONTROLLER
IU-03 OU-03	DAIKIN	FTXS35L RXS35L	MEETING	S.SPLIT	-	HI-WALL	3.50	2.80	4.00	200 600	-	-	800 765	295 550	215 285	23 82	42 49	1	1	0.9	8.8	EDB	IR REMOTE
IU-IT OU-IT	DAIKIN	FTXS25L RXS25L	COMMS	S.SPLIT	-	HI-WALL	2.50	2.33	3.40	192 558	-	-	800 765	295 550	215 285	23 82	40 48	1	1	0.7	8	EDB	IR REMOTE, LOCKED ON COOLING ONLY

NOTE:

- ALL BRANCH SELECTORS AND TERMINAL UNITS SHALL BE PROVIDED WITH ISOLATION VALVES
- THE CONTRACTOR SHALL CALCULATE FINAL REFRIGERANT VOLUME AND PROVIDE LEAK DETECTION ALARM SYSTEMS AS REQUIRED FOR COMPLIANCE WITH AS/NZS 5149:1-2016
- THE CONTRACTOR SHALL CALCULATE FINAL EXTERNAL STATIC PRESSURE AND CONFIRM SPECIFIED UNIT IS ADEQUATE PRIOR TO PROCUREMENT
- THE CONTRACTOR SHALL CONFIRM FINAL NOISE REQUIREMENTS OF EXTERNAL PLANT IS WITHIN SPECIFIED RANGE PRIOR TO PROCUREMENT
- ALL INDOOR AND OUTDOOR UNITS SHALL BE PROVIDED WITH ANTI VIBRATION MOUNTS
- BRANCH BOX ARE TO BE PROVIDED WITH SPARE PORTS FOR FUTURE CONNECTION
- REFER MECHANICAL SPECIFICATION FOR CONTROLS

GRILLE & LOUVRE SCHEDULE

REF	MANUFACTURER	MODEL	AREA	TYPE	MAX AIR FLOW RATE (l/s)	MAX STATIC PRESSURE (Pa)	HORIZONTAL THROW (MIN) @ 0.5m/s (m)	NOISE (NC)	DIMENSIONS		BOX PLENUM		COMMENT
									W (mm)	L (mm)			
S1	HOLYOAKE	ECO-M-150	OFFICES	CEILING CIRCULAR	30	9	0.9	15	Ø269	-	TEØ150		
S2	HOLYOAKE	ECO-M-200	OFFICES	CEILING CIRCULAR	50	13	2.5	13	Ø319	-	TEØ200		
S3	HOLYOAKE	ECO-M-250	OFFICES	CEILING CIRCULAR	85	13	2.6	25	Ø391	-	TEØ250		
S11	HOLYOAKE	CFPP-600-30-350	OFFICES	CEILING SWIRL	250	12	3.6	25	600	600	50mm AL, SE Ø350		
E1	HOLYOAKE	ECO-M-150	TOILETS	CEILING CIRCULAR	30	10	0.5	15	Ø269	-	TEØ150		
E2	HOLYOAKE	ECO-M-200	TOILETS	CEILING CIRCULAR	50	9	0.9	15	Ø319	-	TEØ200		
E3	HOLYOAKE	ECO-M-250	TOILETS	CEILING CIRCULAR	75	10	0.5	15	Ø391	-	TEØ250		
R	HOLYOAKE	EC-125	OFFICES	EGGORATE	680	5	-	20	600	600	50mm AL, SE	CWV REMOVABLE COVER	
T1	HOLYOAKE	EC-125	WC TRANSFER	EGGORATE	240	8	-	13	350	350	50mm AL, SE Ø250	CWV REMOVABLE COVER	
DG1	HOLYOAKE	DG-52	DOOR TRANSFER	DOOR GRILLE	100	15	-	25	350	350			
L1	HOLYOAKE	RLHL	OUTDOOR AIR INTAKE	SOFFIT GRILLE	325	11	-	-	600	300	50mm AL, SE Ø350	CWV REMOVABLE COVER, REMOVABLE FILTER	

NOTE:

- THE CONTRACTOR SHALL CONFIRM THE AIR VOLUME, STATIC PRESSURE, THROW AND NOISE LEVEL OF THE SELECTED GRILLE IS WITHIN THE SPECIFIED RANGE PRIOR TO PROCUREMENT
- ALL GRILLES SHALL BE FACTORY POWDER COATED IN COLOUR TO ARCHITECTS SPECIFICATION.
- THE CONTRACTOR SHALL CONFIRM FIXING DETAILS PRIOR TO PROCURMENT.
- THE CONTRACTOR SHALL ARRANGE FOR SAMPLES OF THE GRILLE FOR CLIENT REVIEW IF REQUESTED.
- ALL WEATHER LOUVRES SHALL BE SUPPLIED WITH INSECT SCREENS.

ELECTRIC DUCT HEATERS

REF	MANUFACTURER	MODEL	SYSTEM SERVED	TYPE	CAPACITY				DIMENSIONS			WEIGHT (KG)	ELECTRICAL				COMMENTS
					HEAT (kW)	AIR FLOW (L/S)	AIR ON (°C)	AIR OFF (°C)	W MM	H MM	L MM		PHASES	POWER (kW)	RUNNING (A)	MSSB	
EDH-1	AVON	CUSTOM	SF-01	DUCT HEATER	3.9	325	6	16	REFER LAYOUT		800	TBC	3	3.9	5.7	EDB	3 STAGE RELAY CONTROL / DIMENSIONS TO BE CONFIRMED BY CONTRACTOR
EDH-2	AVON	CUSTOM	SF-02	DUCT HEATER	2.2	180	6	16	REFER LAYOUT		800	TBC	1	2.2	9.4	0	3 STAGE RELAY CONTROL / DIMENSIONS TO BE CONFIRMED BY CONTRACTOR

NOTE:

- DUCT HEATER INSTALLATION SHALL BE COMPLETE WITH SAFETY CUT OUT, THERMOSTAT AND DOWNSTREAM OF REMOTE TEMPERATURE SENSOR
- DUCT HEATER SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF AS/NZS 3102 & AS 1688.1 &2
- DUCT HEATER SHALL BE INSTALLED IN ACCORDANCE TO MANUFACTURER'S RECOMMENDATION AND INSTRUCTIONS

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REVISIONS

0	BUILDING CONSENT ISSUE	JW	08/04/22
B	DRAFT BUILDING CONSENT ISSUE	JW	04/02/22
A	DEVELOPED DESIGN ISSUE	JW	24/11/21
REV	DESCRIPTION	BY	DATE

CLIENT

Arthur Adams

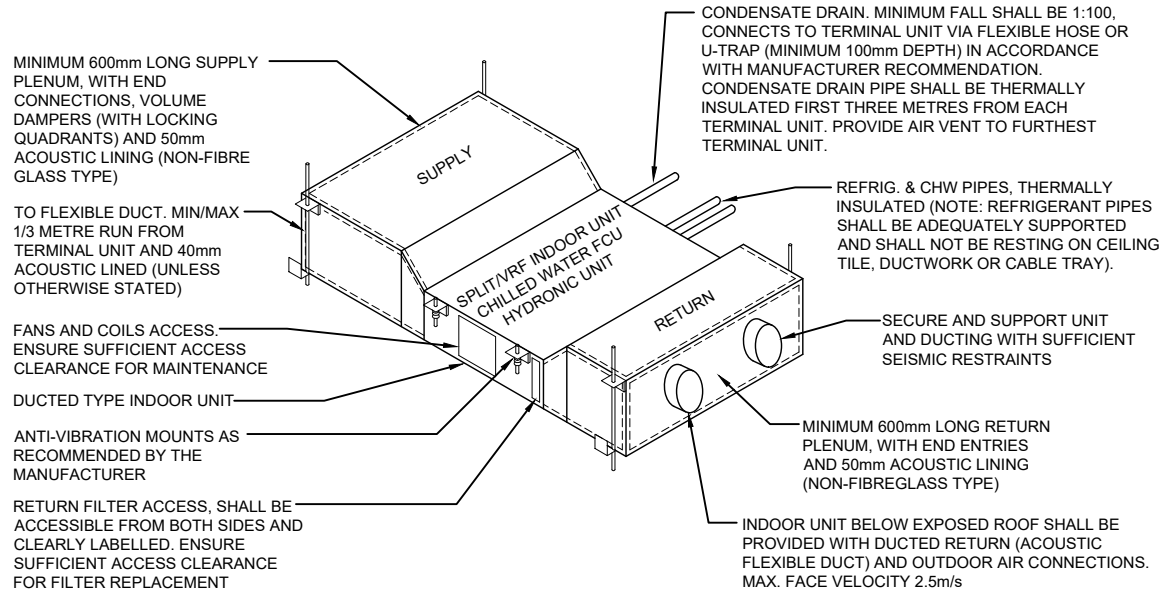
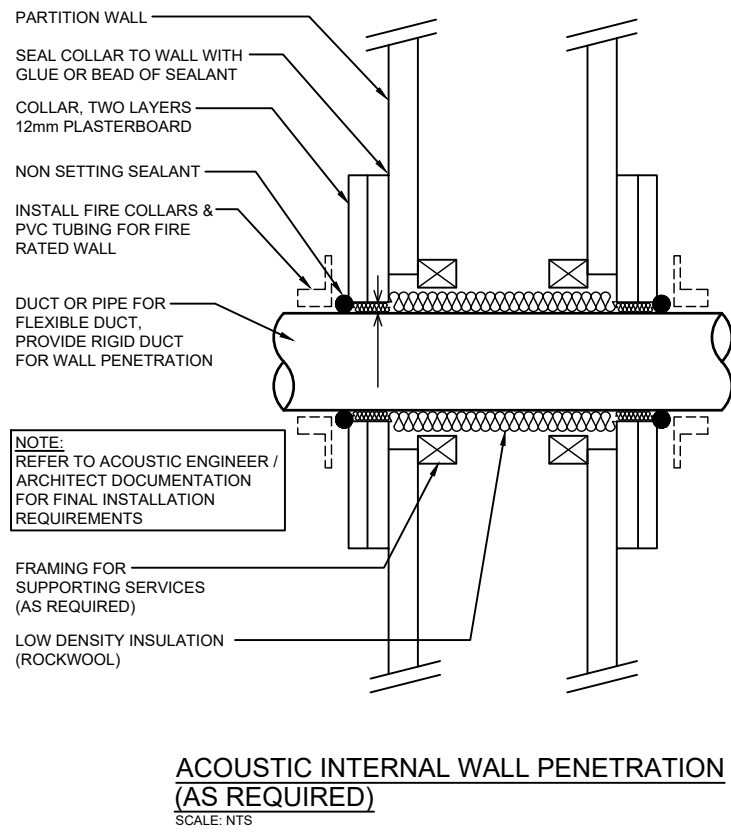
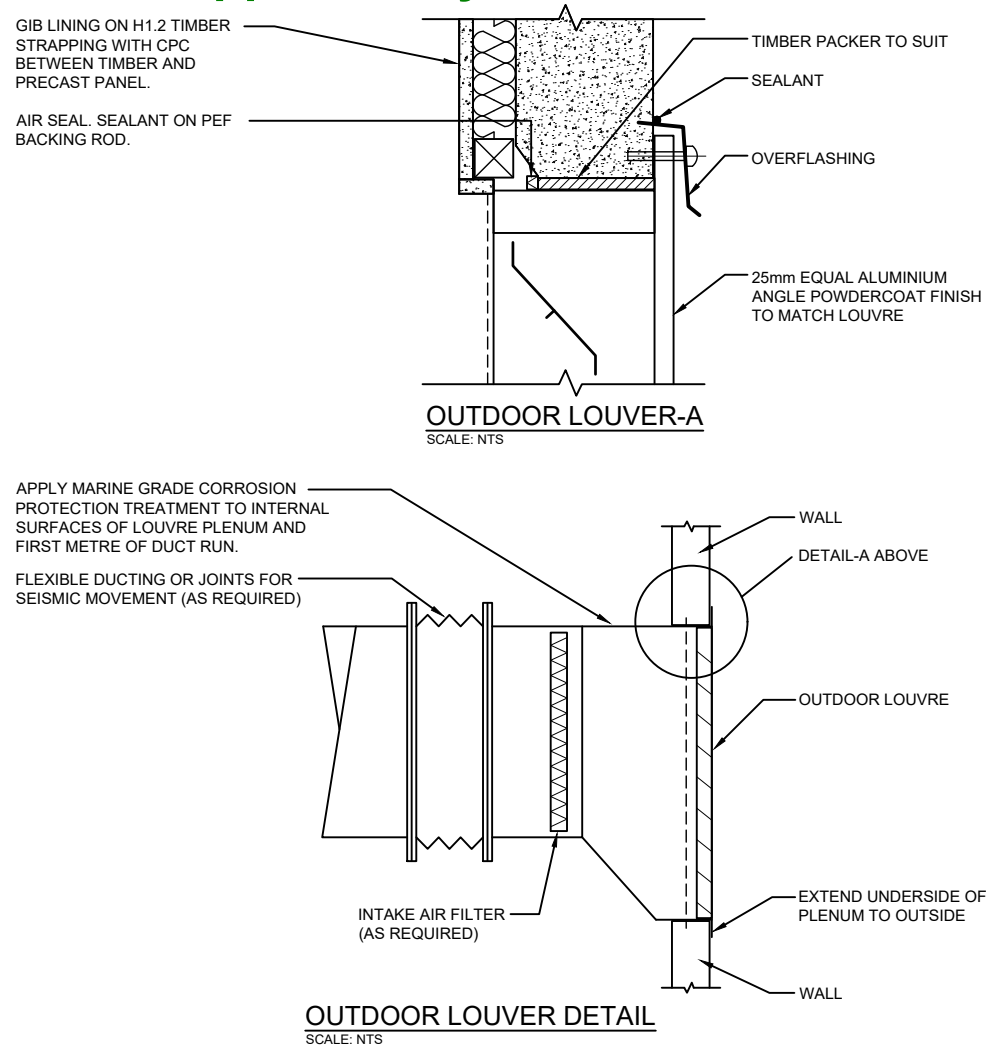
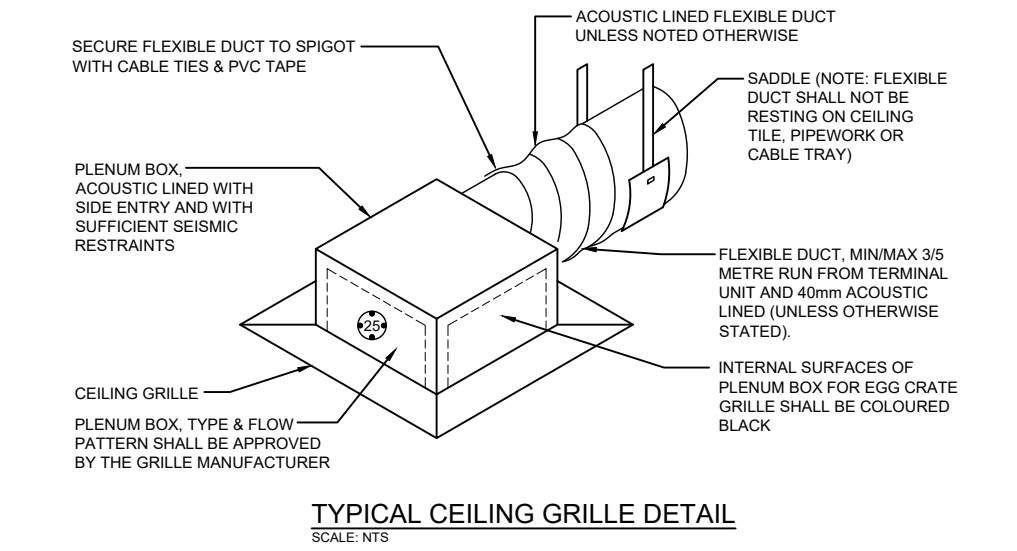
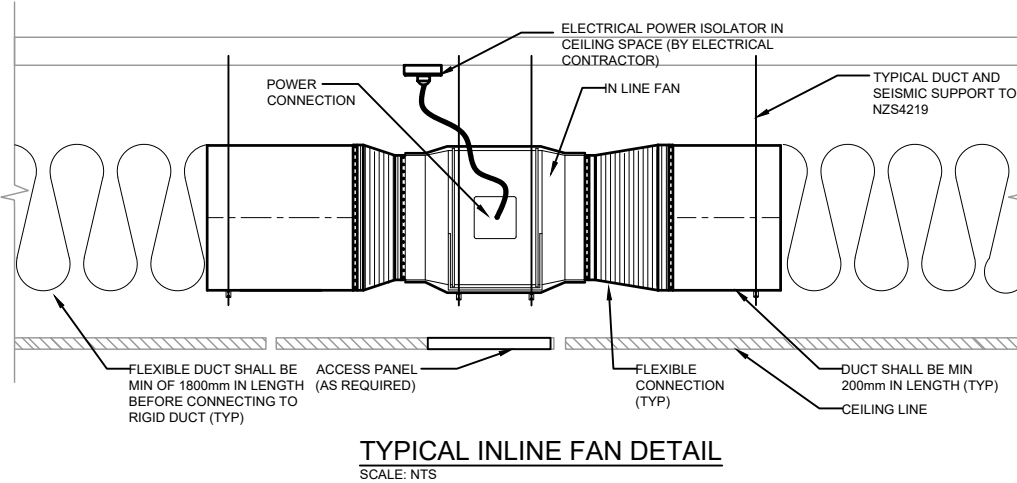
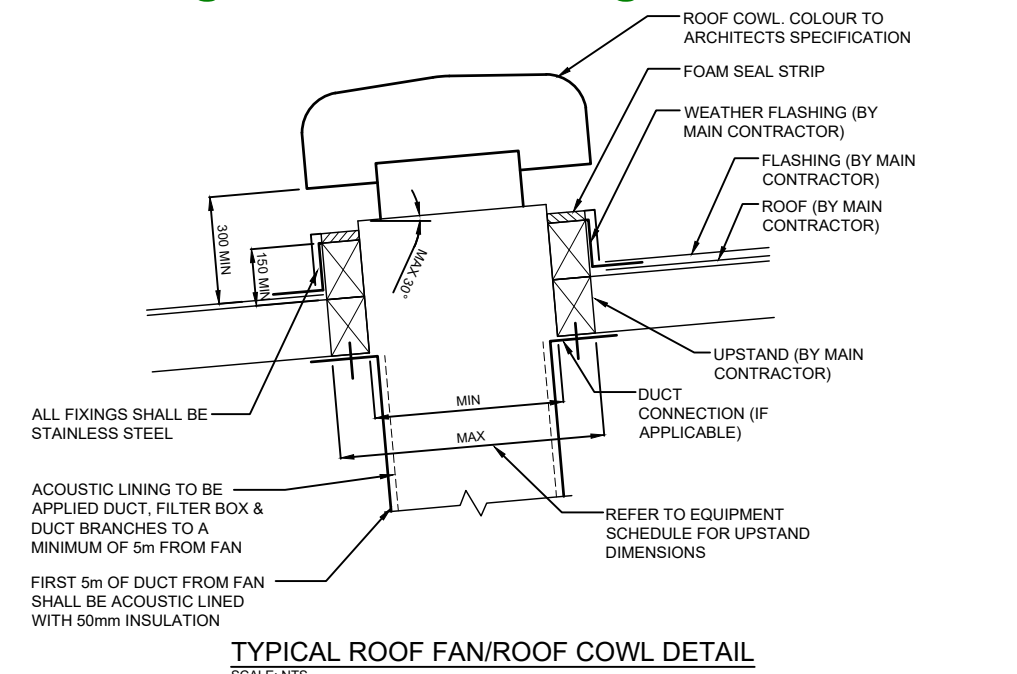
PROJECT TITLE  
PROPOSED COMMERCIAL DEVELOPMENT  
  
56 ALLENS ROAD, EAST TAMAKI,  
AUCKLAND  
  
DRAWING TITLE  
MECHANICAL SERVICES  
EQUIPMENT SCHEDULES

ISSUED FOR  
BUILDING CONSENT  

SCALE	DESIGNED	APPROVED
N.T.S.	JW	AV

JOB NUMBER	FIRST ISSUE DATE
B010836	24/11/21
SHEET/DRAWING NO.	REVISION
M001	0



- NOTES:**
1. EACH UNIT SHALL BE PROVIDED WITH A CEILING ACCESS HATCH TO PROVIDE ACCESS TO UNIT FOR MAINTENANCE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
  2. INDOOR UNITS SHALL BE SEISMIC RESTRAINED IN ACCORDANCE WITH NZS4219 AND STRUCTURAL ENGINEERS APPROVAL.

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PROJECT TITLE

PROPOSED COMMERCIAL DEVELOPMENT

56 ALLENS ROAD, EAST TAMAKI, AUCKLAND

DRAWING TITLE

MECHANICAL SERVICES  
STANDARD DETAILS

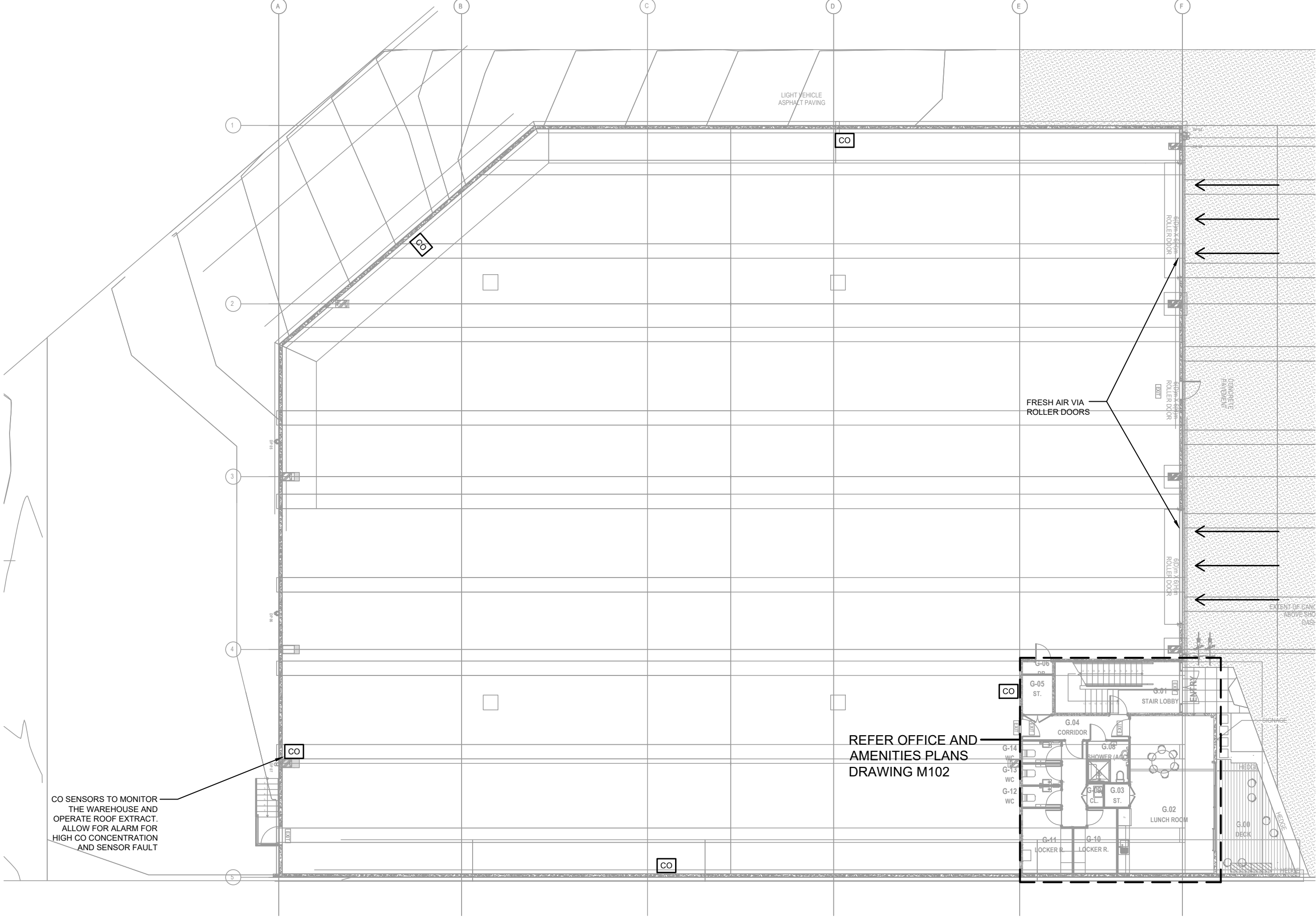
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BUILDING CONSENT

SCALE	DESIGNED	APPROVED
N.T.S.	JW	AV

JOB NUMBER	FIRST ISSUE DATE
B010836	24/11/21
SHEET/DRAWING NO.	REVISION
M002	0





- NOTES:
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  2. COORDINATE WITH STRUCTURAL ENGINEER FOR ANY PENETRATIONS.
  3. ALL HVAC EQUIPMENT SHALL BE WIRED TO LOCAL DB. CO-ORDINATE WITH ELECTRICAL CONTRACTOR.
  4. PROVIDE ELECTRICAL COMPLIANCE CERTIFICATE FOR ALL ELECTRICAL FOR MECHANICAL WORKS.
  5. CONTRACTOR TO PROVIDE PS3, COMMISSIONING RESULTS AT THE END OF CONTRACT INSTALLATION.
  6. CONTRACTOR TO PROVIDE CO-ORDINATED SHOP DRAWINGS DETAILING DUCT, PIPE ROUTES AND EQUIPMENT LAYOUT.
  7. PROVIDE FIRE DAMPER/COLLARS IN ACCORDANCE WITH FIRE REPORT.
  8. PROVIDE PSI PS3 & PS4 FOR SEISMIC RESTRAINT DESIGN DETAILING AS PER NZS 4219.2009.
  9. ALL FLEXIBLE DUCTS ARE TO BE ACOUSTICALLY INSULATED AND SHALL BE UNILOK AR1 OR EQUIVALENT. FLEXIBLE DUCTWORK SHALL NOT EXCEED MORE THAN 3M.
  10. PROVIDE ANTI VIBRATION AND FLEXIBLE CONNECTION ON FAN INSTALLATION. OUTDOOR UNITS SHALL BE PROVIDED WITH ANTI-VIBRATION MOUNTS.
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PROPOSED COMMERCIAL DEVELOPMENT

56 ALLENS ROAD, EAST TAMAKI, AUCKLAND

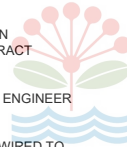
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MECHANICAL SERVICES  
HVAC LAYOUT  
GROUND FLOOR

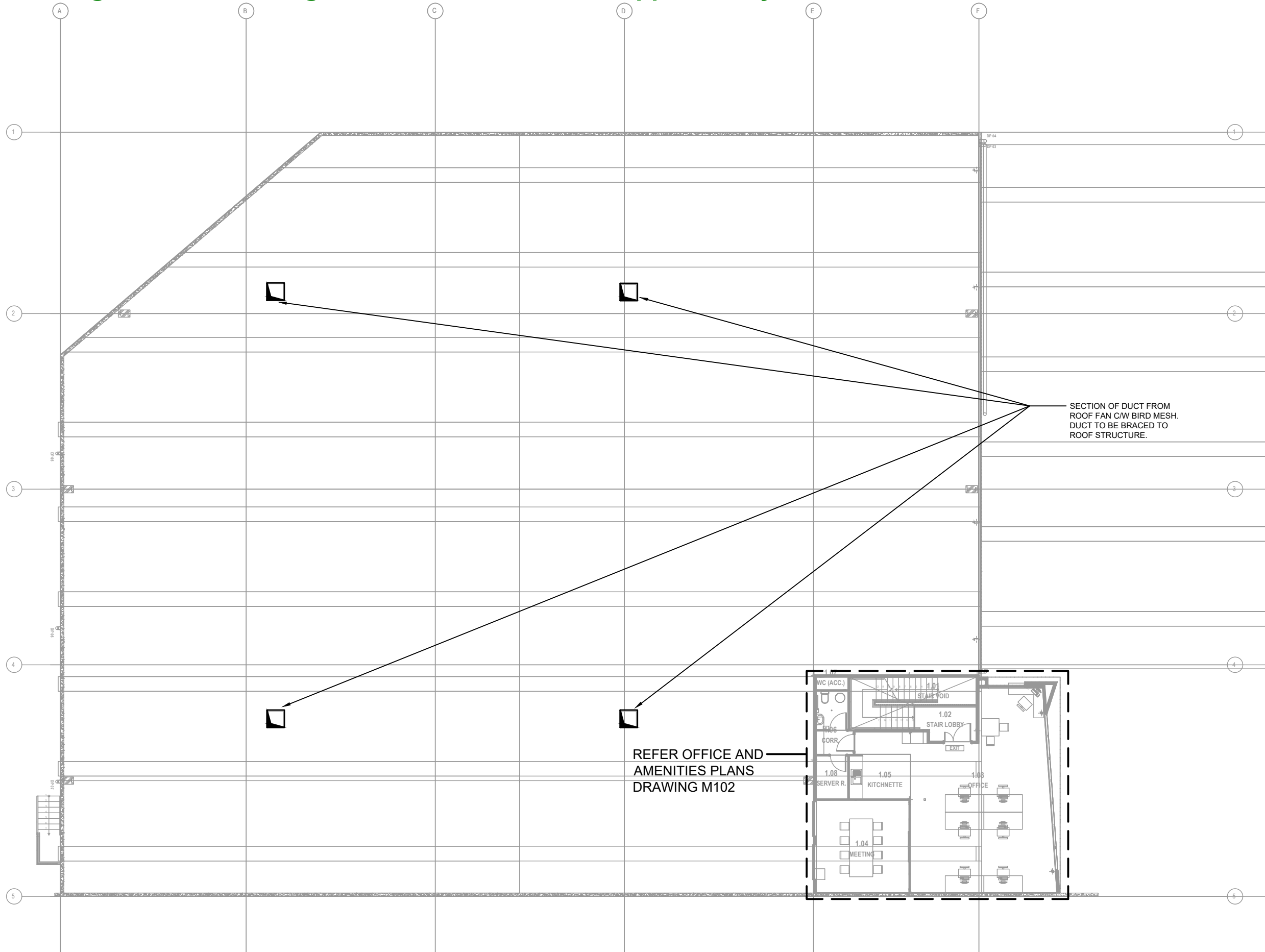
ISSUED FOR

BUILDING CONSNT

SCALE	DESIGNED	APPROVED
1:100 @ A1	JW	AV
1:200 @ A3		
JOB NUMBER	FIRST ISSUE DATE	
B010836	24/11/21	
SHEET/DRAWING NO.	REVISION	
M100	0	



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  11. CONDENSATE PIPEWORK TO BE RETICULATED TO THE NEAREST TUNDISH.



SECTION OF DUCT FROM  
ROOF FAN C/W BIRD MESH.  
DUCT TO BE BRACED TO  
ROOF STRUCTURE.

REFER OFFICE AND  
AMENITIES PLANS  
DRAWING M102

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REVISIONS			
REV	DESCRIPTION	BY	DATE
0	BUILDING CONSENT ISSUE	JW	08/04/22
B	DRAFT BUILDING CONSENT ISSUE	JW	04/02/22
A	DEVELOPED DESIGN ISSUE	JW	24/11/21

CLIENT

Arthur Adams

PROJECT TITLE

PROPOSED COMMERCIAL DEVELOPMENT

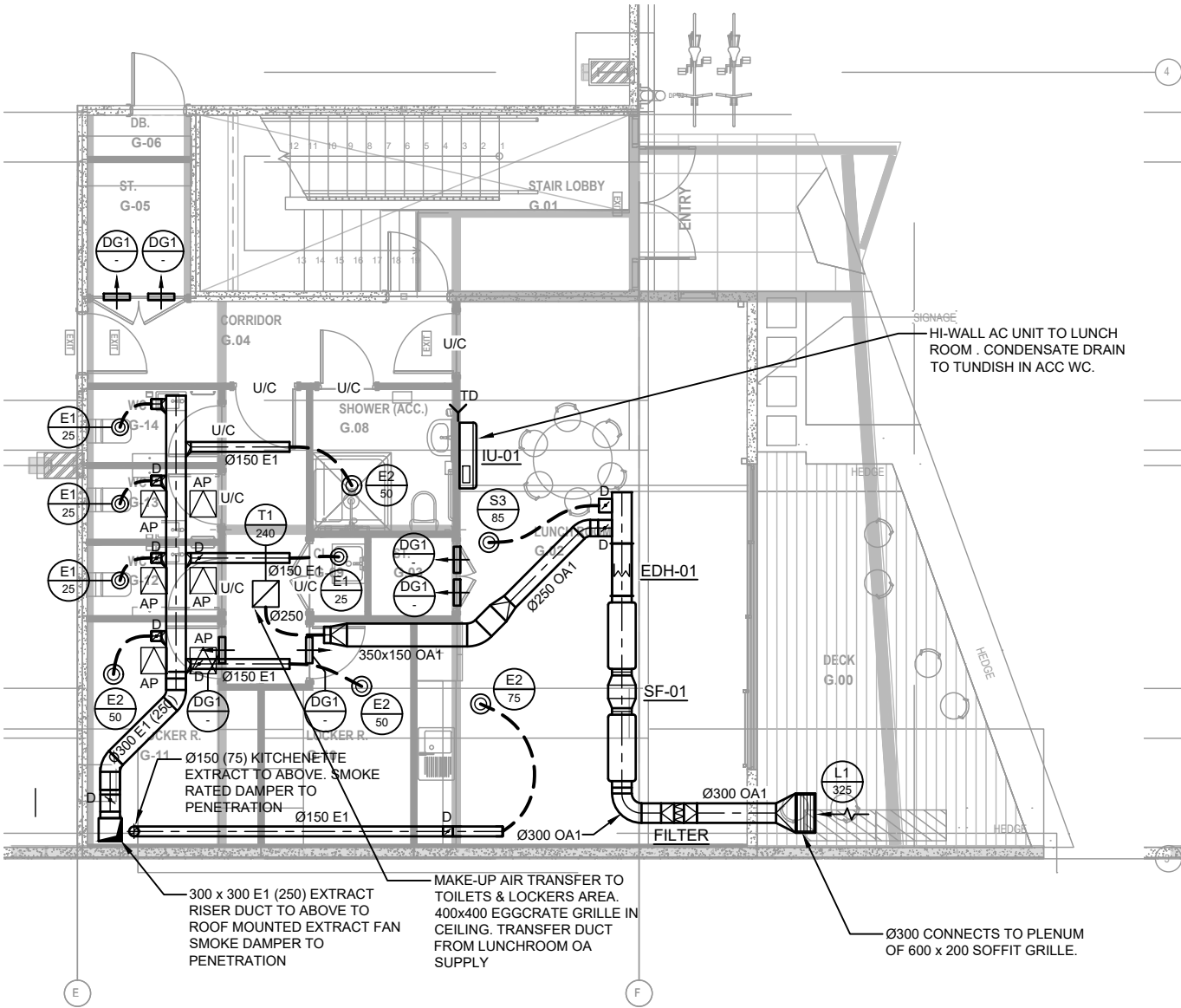
56 ALLENS ROAD, EAST TAMAKI,  
AUCKLAND

DRAWING TITLE

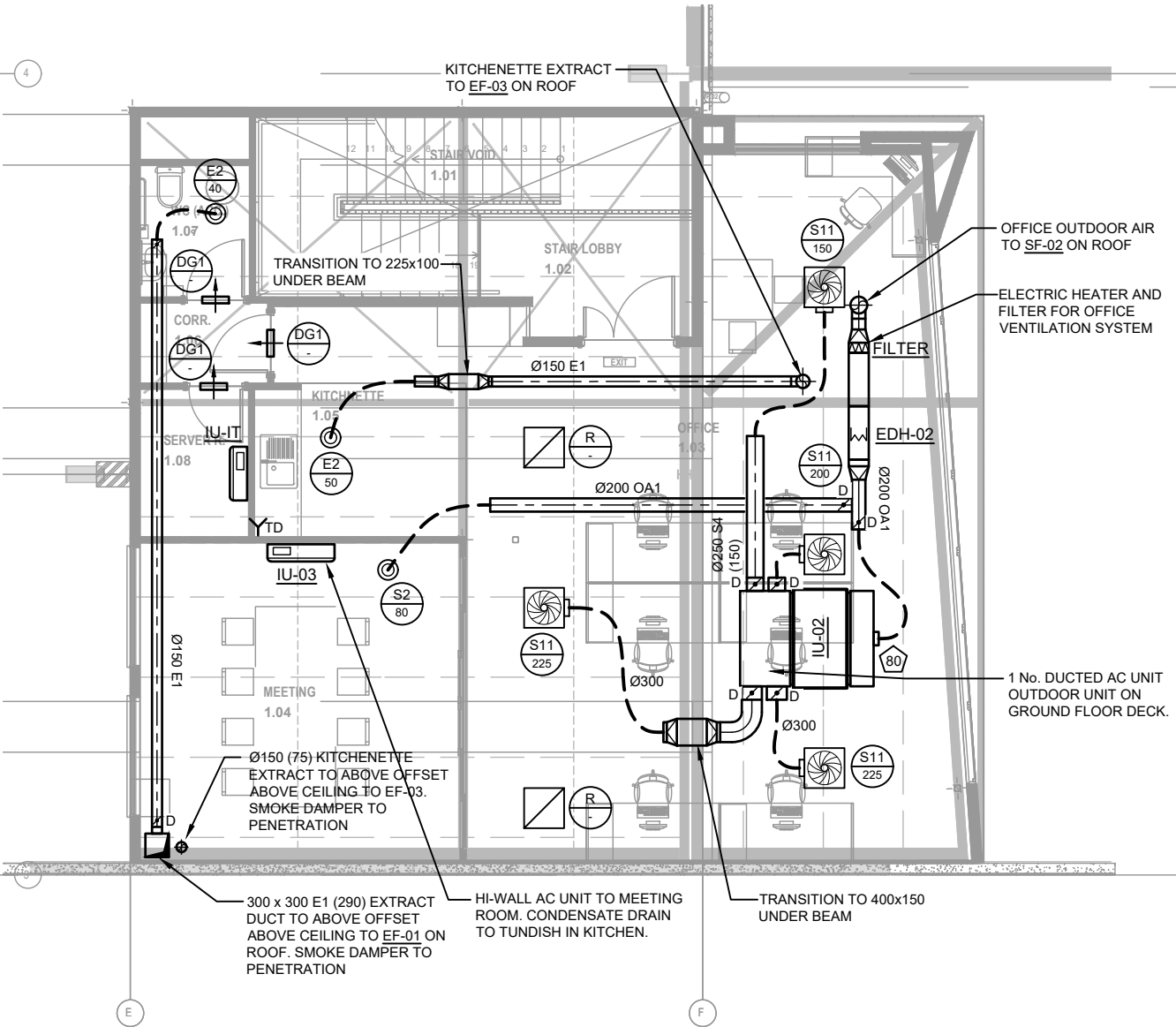
MECHANICAL SERVICES  
HVAC LAYOUT  
FIRST FLOOR

ISSUED FOR		
BUILDING CONSENT		
SCALE	DESIGNED	APPROVED
1:100 @ A1	JW	AV
1:200 @ A3		
JOB NUMBER	FIRST ISSUE DATE	
B010836	24/11/21	
SHEET/DRAWING NO.	REVISION	
M101	0	

- NOTES:
1. THE DRAWINGS SHALL BE READ IN CONJUNCTION WITH OTHER CONTRACT DOCUMENTS.
  2. COORDINATE WITH STRUCTURAL ENGINEER FOR ANY PENETRATIONS.
  3. ALL HVAC EQUIPMENT SHALL BE WIRED TO LOCAL DB. CO-ORDINATE WITH ELECTRICAL CONTRACTOR.
  4. PROVIDE ELECTRICAL COMPLIANCE CERTIFICATE FOR ALL ELECTRICAL FOR MECHANICAL WORKS.
  5. CONTRACTOR TO PROVIDE PS3, COMMISSIONING RESULTS AT THE END OF CONTRACT INSTALLATION.
  6. CONTRACTOR TO PROVIDE CO-ORDINATED SHOP DRAWINGS DETAILING DUCT, PIPE ROUTES AND EQUIPMENT LAYOUT.
  7. PROVIDE FIRE DAMPER/COLLARS IN ACCORDANCE WITH FIRE REPORT.
  8. PROVIDE PSI PS3 & PS4 FOR SEISMIC RESTRAINT DESIGN DETAILING AS PER NZS 4219.2009.
  9. ALL FLEXIBLE DUCTS ARE TO BE ACOUSTICALLY INSULATED AND SHALL BE UNILOK AR1 OR EQUIVALENT. FLEXIBLE DUCTWORK SHALL NOT EXCEED MORE THAN 3M.
  10. PROVIDE ANTI VIBRATION AND FLEXIBLE CONNECTION ON FAN INSTALLATION. OUTDOOR UNITS SHALL BE PROVIDED WITH ANTI-VIBRATION MOUNTS.
  11. CONDENSATE PIPEWORK TO BE RETICULATED TO THE NEAREST TUNDISH.



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REVISIONS

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REV	DESCRIPTION	BY	DATE

CLIENT

Arthur Adams

PROJECT TITLE

PROPOSED COMMERCIAL DEVELOPMENT

56 ALLENS ROAD, EAST TAMAKI, AUCKLAND

DRAWING TITLE

MECHANICAL SERVICES

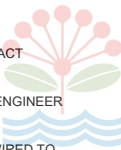
HVAC LAYOUT

OFFICES

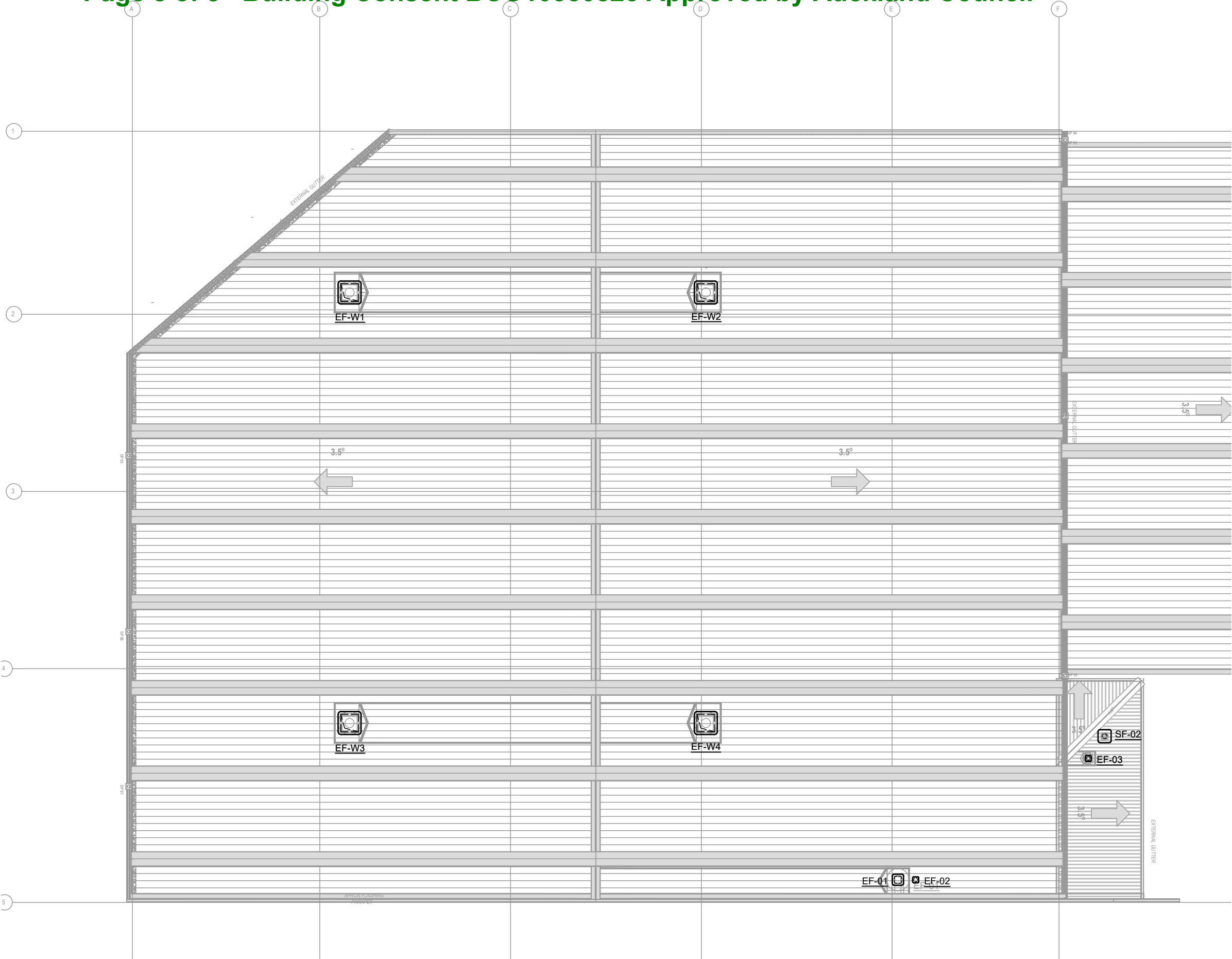
ISSUED FOR

BUILDING CONSENT

SCALE	DESIGNED	APPROVED
1:50 @ A1	JW	AV
1:100 @ A3		
JOB NUMBER	FIRST ISSUE DATE	
B010836	24/11/21	
SHEET/DRAWING NO.	REVISION	
M102	0	



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CLIENT

Arthur Adams

PROJECT TITLE

PROPOSED COMMERCIAL DEVELOPMENT

56 ALLENS ROAD, EAST TAMAKI,  
AUCKLAND

DRAWING TITLE

MECHANICAL SERVICES  
HVAC LAYOUT  
ROOF

ISSUED FOR

BUILDING CONSENT

SCALE	DESIGNED	APPROVED
1:100 @ A1	JW	AV
1:200 @ A3		

JOB NUMBER	FIRST ISSUE DATE
B010836	24/11/21

SHEET/DRAWING NO.	REVISION
M103	0