

_____ AREA OF WORK Key Plan, 3rd Floor Permit/Seal

Project No.:144320012

Author FH BB 04/27/21

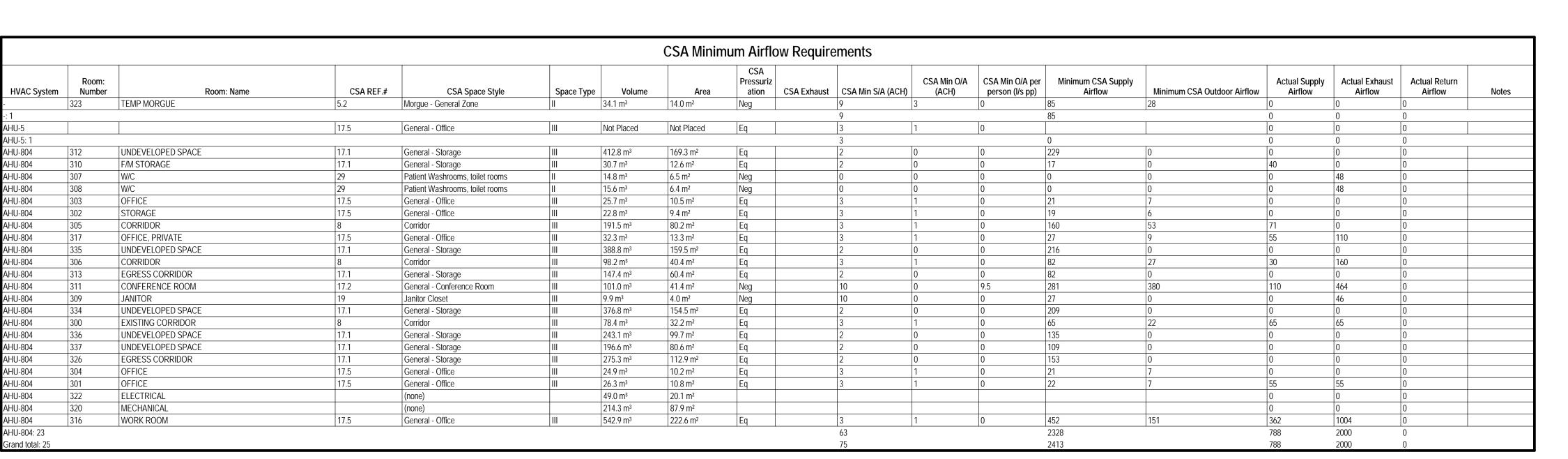
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GENERAL NOTES AND SYMBOLS

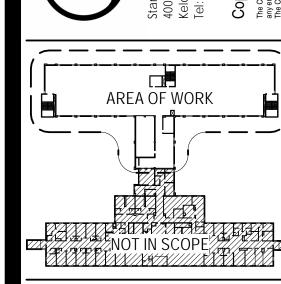
Scale: 1:1 Revision:

Drawing No

CSA ROOM TYPE Level 3 Environmental Controls







Key Plan, 3rd Floor

Permit/Seal

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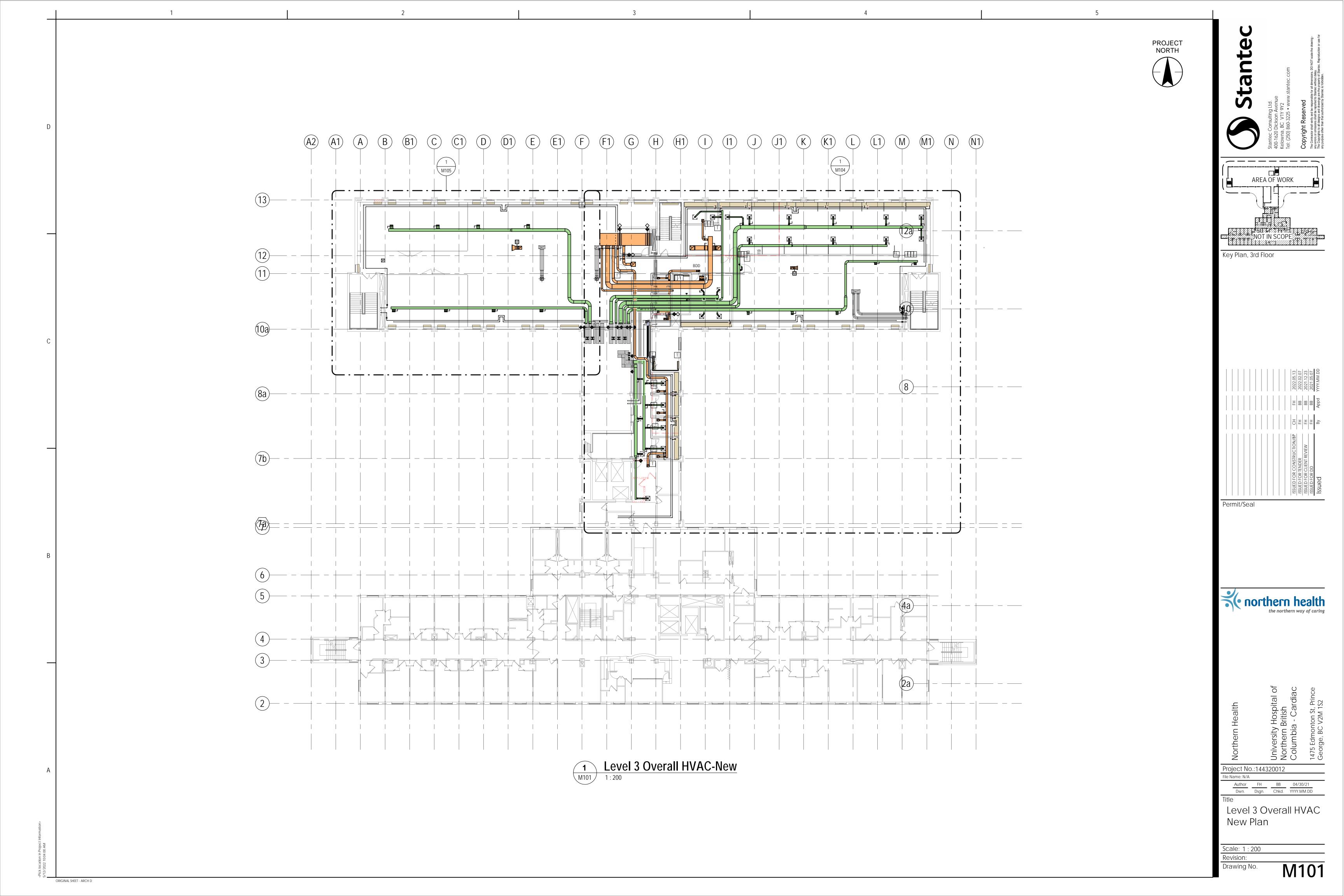
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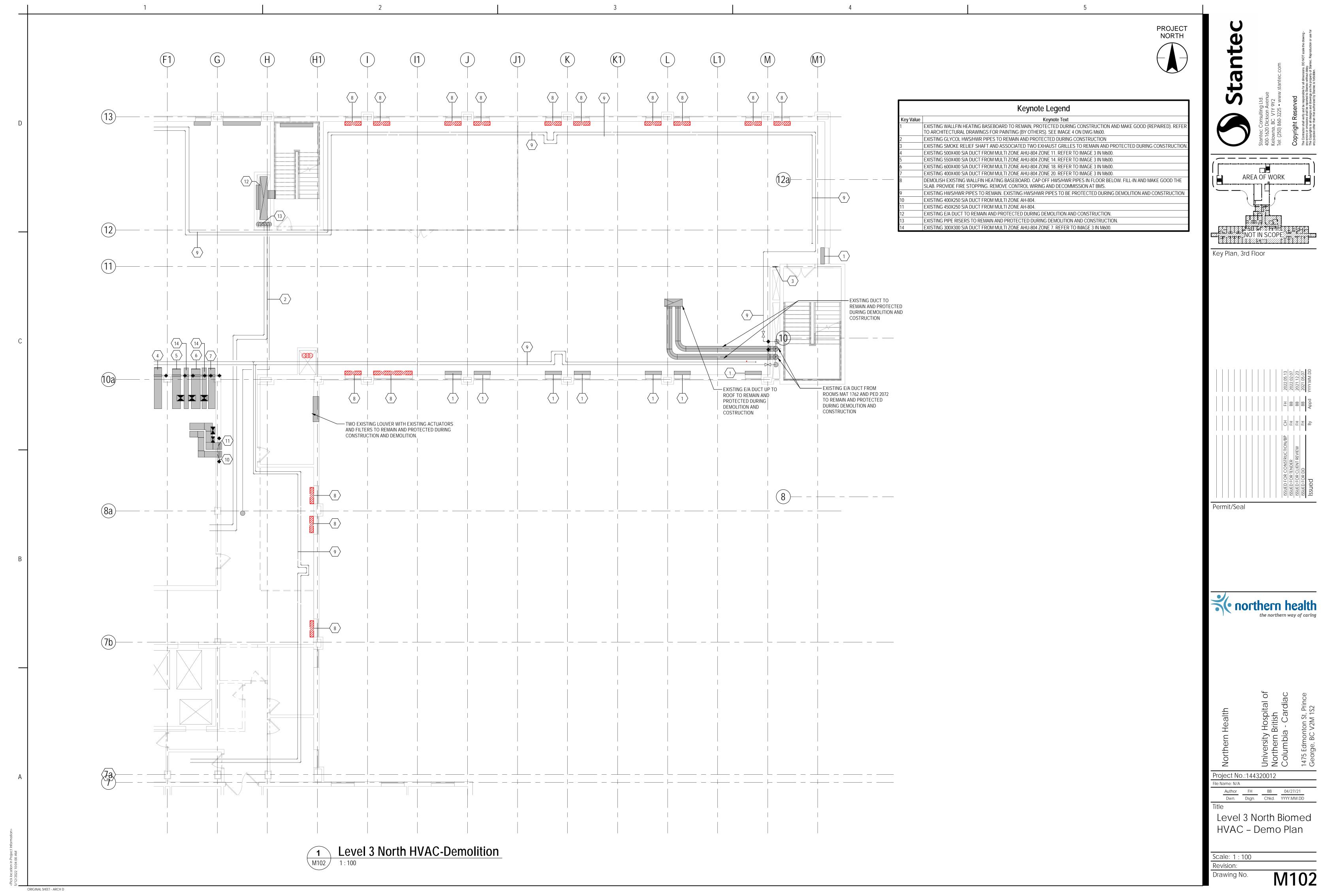
Level 3 Overall -**HVAC** - Environmental Controls Plan

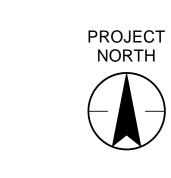
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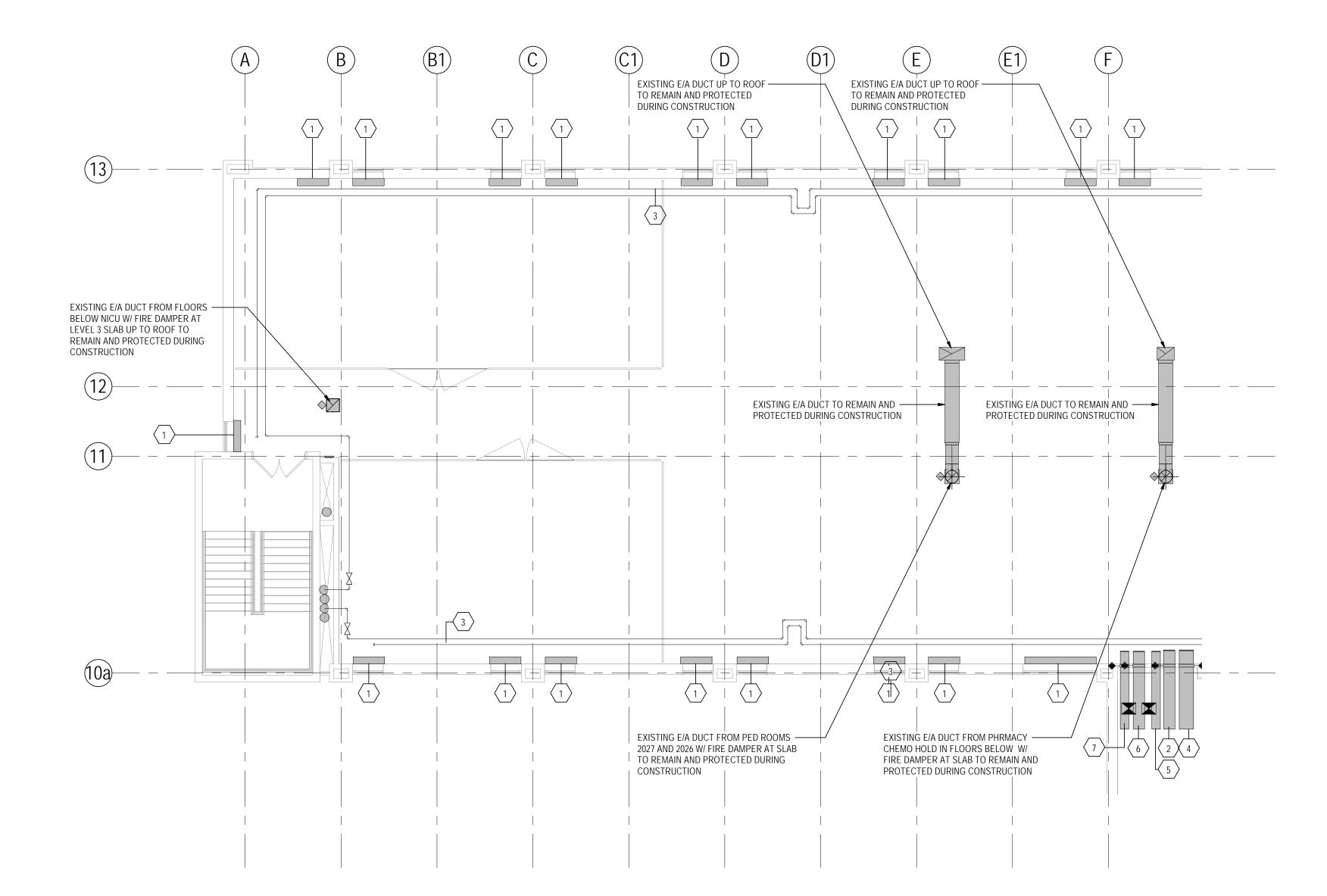
M100

ORIGINAL SHEET - ARCH D









Level 3 South HVAC Demolition

Keynote Legend

Keynote Text

EXISTING WALLFIN HEATING BASEBOARD TO REMAIN, PROTECTED DURING CONSTRUCTION AND MAKE GOOD (REPAIRED).
REFER TO ARCHITECTURAL DRAWINGS FOR PAINTING (BY OTHERS). SEE IMAGE 4 ON DWG M600.

EXISTING 400X350 S/A DUCT FROM MULTI ZONE AH-804. REFER TO IMAGE 3 IN M600.

EXISTING HWS/HWR PIPES TO REMAIN. EXISTING HWS/HWR PIPES TO BE PROTECTED DURING DEMOLITION AND CONSTRUCTION
EXISTING 500X400 S/A DUCT FROM MULTI ZONE AHU-804 ZONE 11. REFER TO IMAGE 3 IN M600.

EXISTING 300X300 S/A DUCT FROM MULTI ZONE AH-804 ZONE 7. REFER TO IMAGE 3 IN M600.

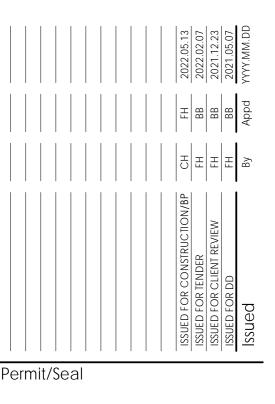
EXISTING 400X400 S/A DUCT FROM MULTI ZONE AHU-804 ZONE 20. REFER TO IMAGE 3 IN M600.

EXISTING 300X300 S/A DUCT FROM MULTI ZONE AHU-804 ZONE 7. REFER TO IMAGE 3 IN M600.

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Key Plan, 3rd Floor



northern health
the northern way of caring

niversity Hospital of Iorthern British Columbia - Cardiac

Project No.:144320012

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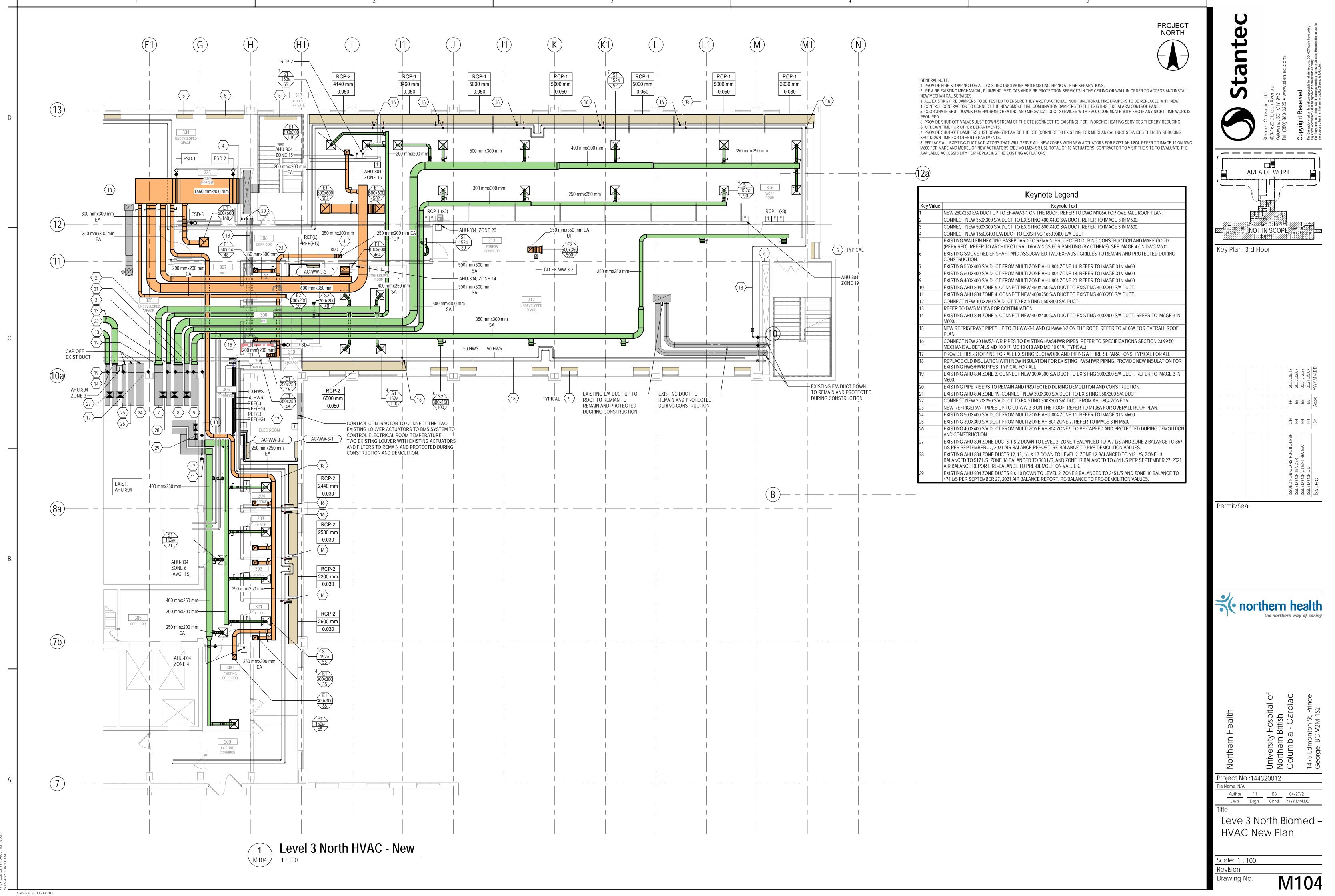
Level 3 South Biomed HVAC Demo Plan

Scale: 1:100

M103

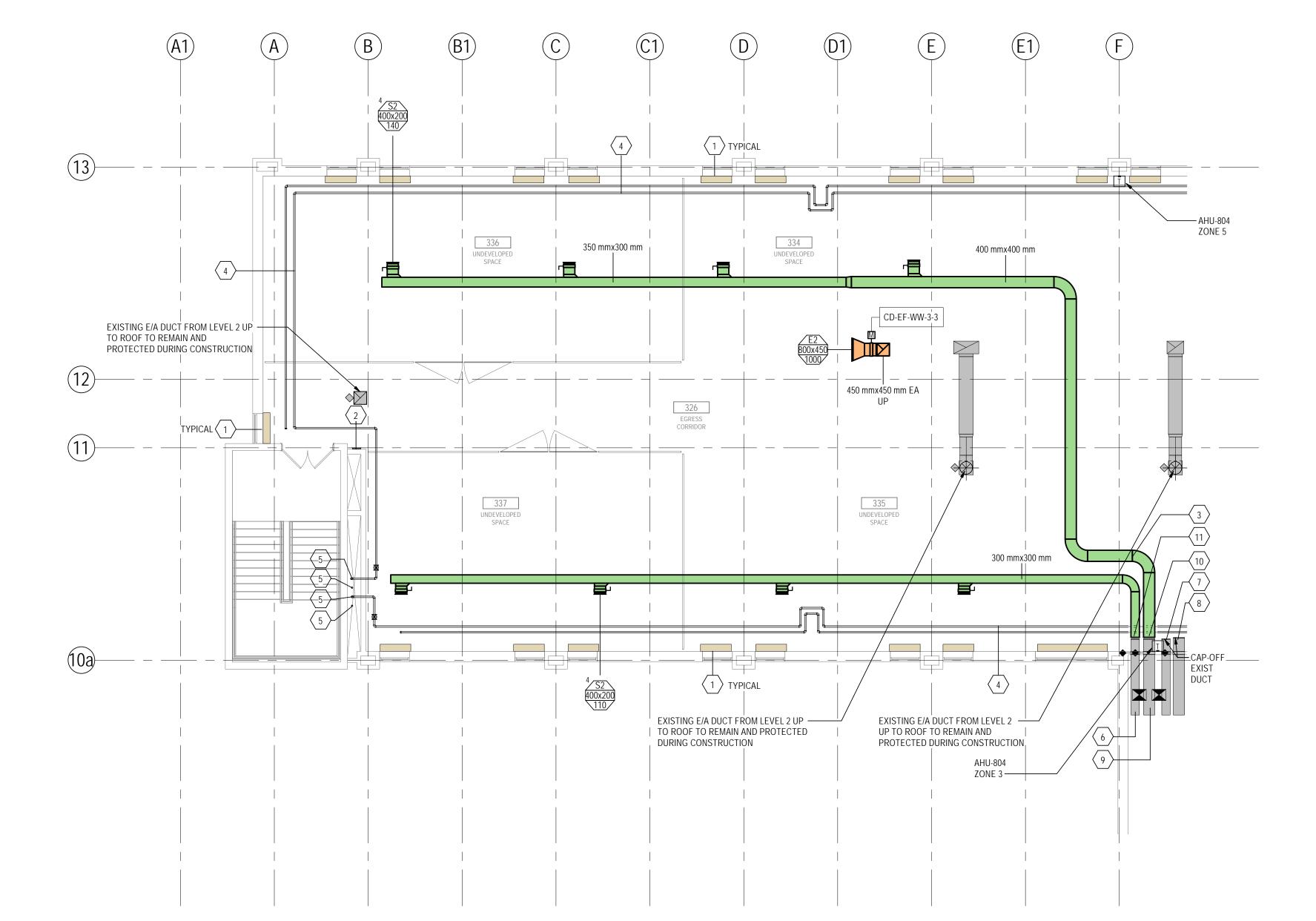
ORIGINAL SHEET - ARCH D

Revision:
Drawing No.



Leve 3 North Biomed -





1. PROVIDE FIRE-STOPPING FOR ALL EXISTING DUCTWORK AND EXISTING PIPING AT FIRE SEPARATIONS.

2. RE & RE EXISTING MECHANICAL, PLUMBING, MED GAS AND FIRE PROTECTION SERVICES IN THE CEILING OR WALL IN ORDER TO ACCESS AND INSTALL NEW MECHANICAL SERVICES.

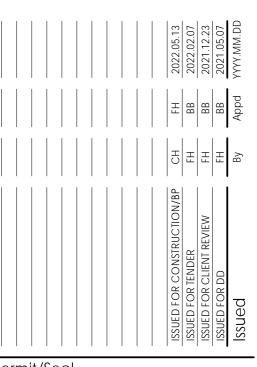
3. ALL EXISTING FIRE DAMPERS TO BE TESTED TO ENSURE THEY ARE FUNCTIONAL. NON-FUNCTIONAL FIRE DAMPERS TO BE REPLACED WITH NEW.

4. PROVIDE SHUT-OFF VALVES JUST DOWN-STREAM OF THE CTE (CONNECT TO EXISTING) FOR HYDRONIC HEATING SERVICES THEREBY REDUCING SHUTDOWN TIME FOR OTHER DEPARTMENTS. 5. PROVIDE SHUT-OFF DAMPERS JUST DOWN-STREAM OF THE CTE (CONNECT TO EXISTING) FOR MECHANICAL DUCT SERVICES THEREBY REDUCING SHUTDOWN TIME FOR OTHER DEPARTMENTS.

	Keynote Legend											
Key Value	Keynote Text											
1	EXISTING WALLFIN HEATING BASEBOARD TO REMAIN, PROTECTED DURING CONSTRUCTION AND MAKE GOOD (REPAIRED). REFER TO ARCHITECTURAL DRAWINGS FOR PAINTING (BY OTHERS). SEE IMAGE 4 ON DWG M600.											
2	EXISTING SMOKE RELIEF SHAFT AND ASSOCIATED TWO EXHAUST GRILLES TO REMAIN AND PROTECTED DURING CONSTRUCTION.											
3	REFER TO DWG M104A FOR CONTINUATION											
4	REPLACE OLD INSULATION WITH NEW INSULATION FOR EXISTING HWS/HWR PIPING. PROVIDE NEW INSULATION FOR EXISTING HWS/HWR PIPES. TYPICAL FOR ALL											
5	EXISTING PIPE RISERS TO REMAIN AND PROTECTED DURING DEMOLITION AND CONSTRUCTION.											
6	EXISTING 300X300 S/A DUCT FROM MULTI ZONE AH-804 ZONE 7. REFER TO IMAGE 3 IN M600.											
7	EXISTING 300X300 S/A DUCT FROM MULTI ZONE AH-804 TO BE CAPPED AND PROTECTED DURING DEMOLITION AND CONSTRUCTION.											
8	EXISTING 400X400 S/A DUCT FROM MULTI ZONE AH-804 ZONE 9 TO BE CAPPED AND PROTECTED DURING DEMOLITION AND CONSTRUCTION.											
9	EXISTING 400X400 S/A DUCT FROM MULTI ZONE AHU-804 ZONE 20. REFER TO IMAGE 3 IN M600.											
10	EXISTING AHU-804 ZONE 5. CONNECT NEW 400X400 S/A DUCT TO EXISTING 400X400 S/A DUCT. REFER TO IMAGE 3 IN M600.											
11	EXISTING AHU-804 ZONE 3. CONNECT NEW 300X300 S/A DUCT TO EXISTING 300X300 S/A DUCT. REFER TO IMAGE 3 IN M600.											

AREA OF WORK

Key Plan, 3rd Floor





Project No.:144320012

Author FH BB 04/30/21

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Level 3 South Biomed **HVAC New Plan**

Scale: 1:100 Revision:

Drawing No. M105

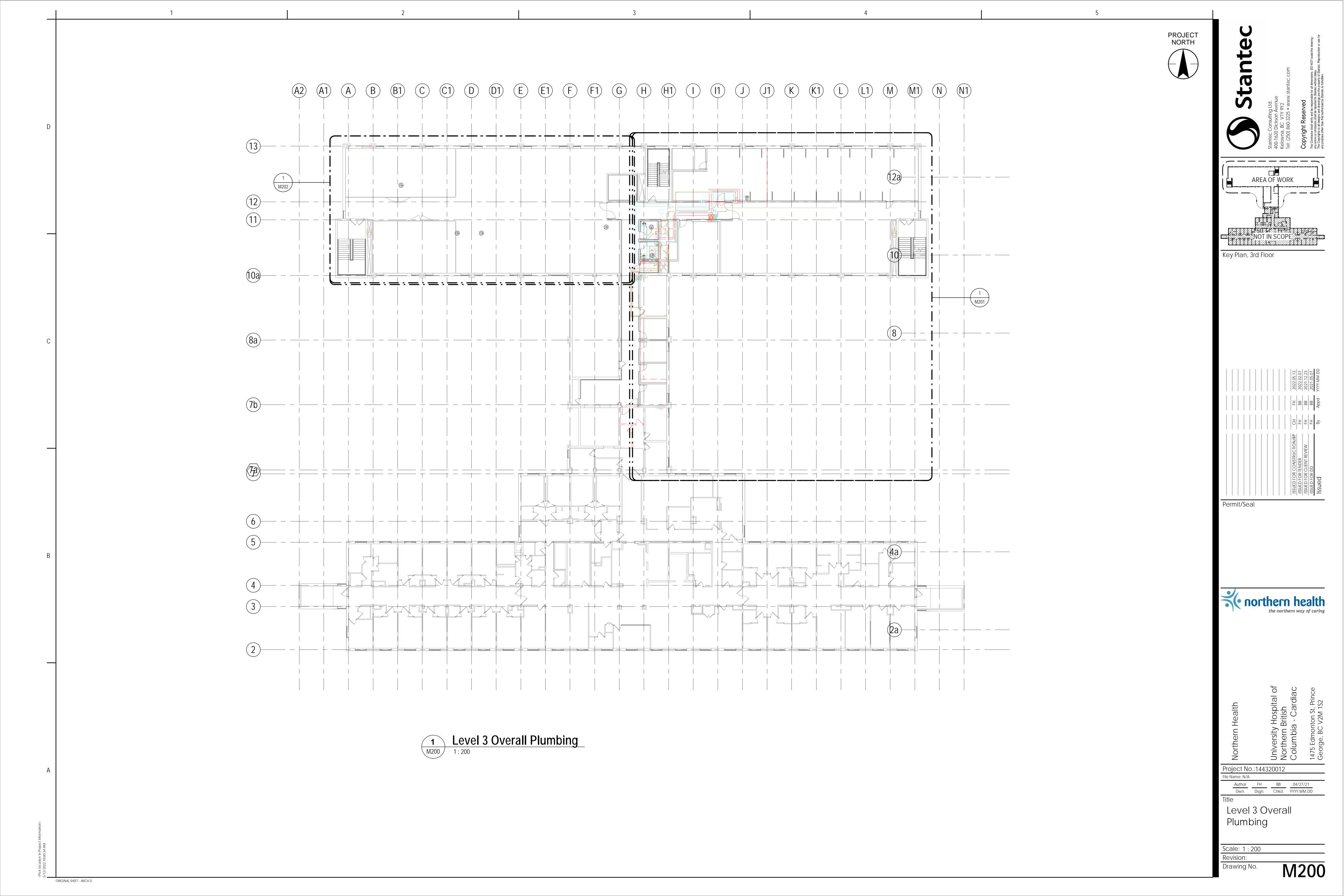
ORIGINAL SHEET - ARCH D

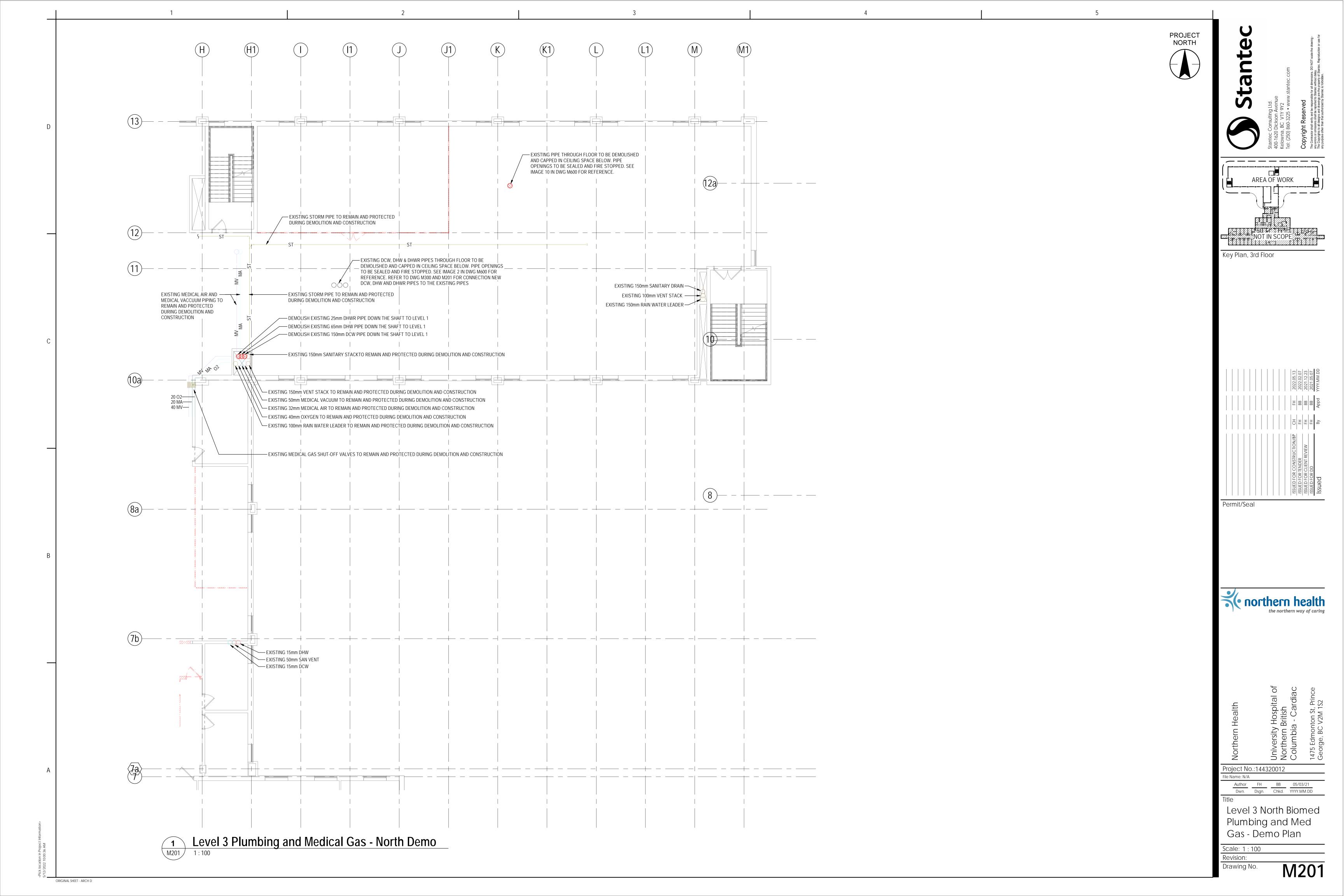
1 Level 3 South HVAC - New

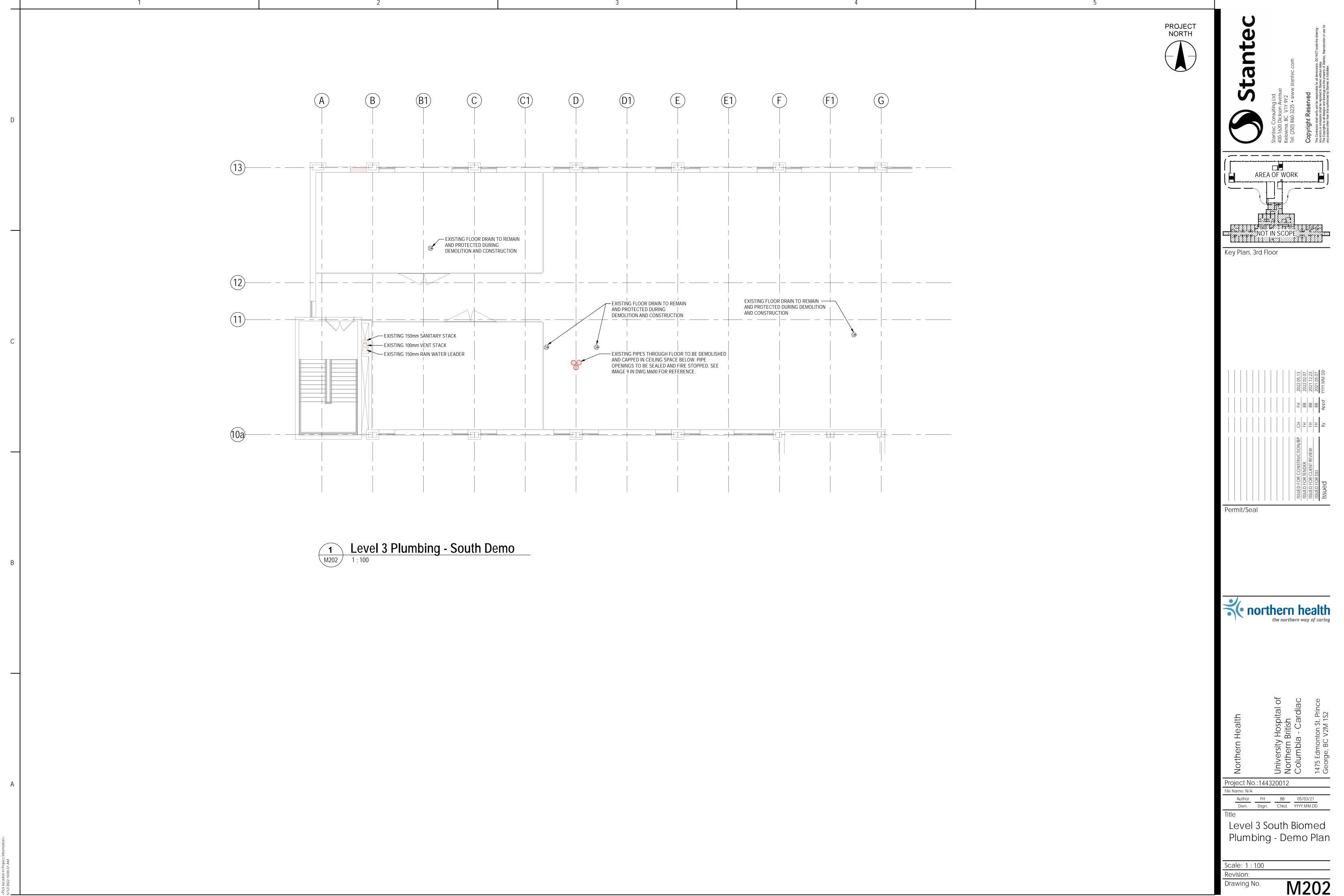
PROJECT 1. PROVIDE FIRE-STOPPING FOR ALL EXISTING DUCTWORK AND EXISTING PIPING AT FIRE SEPARATIONS. 2. RE & RE EXISTING MECHANICAL, PLUMBING, MED GAS AND FIRE PROTECTION SERVICES IN THE CEILING OR WALL IN ORDER TO ACCESS AND INSTALL NEW MECHANICAL SERVICES. AREA OF WORK Key Plan, 3rd Floor EXISTING EXHAUST AIR DUCT TO REMAIN AND PROTECTED DUCRING CONSTRUCTION 450 mmx450 mm EA_ — NEW REFRIGERANT PIPES DOWN EF-WW-3-3 PIPES TO BE INSULATED AND JACKETED __250 mmx200 mm EA ___ EXISTING DUCT TO REMAIN AND _350 mmx350 mm EA CONCRETE PAD — PROTECTED DUCRING CONSTRUCTION_ EF-WW-3-2 EF-WW-3-1) U-WW-3-3 CU-WW-3-2 PIPES TO BE INSULATED AND JACKETED CONCRETE PAD — EXISTING PLUMBING VENT TO REMAIN AND (U-WW-3-1) PROTECTED DUCRING CONSTRUCTION Permit/Seal northern health
the northern way of caring Level 4 Coordination

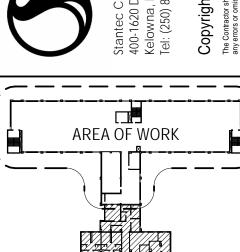
1:200 Project No.:144320012
File Name: N/A Author FH BB 08/27/21

Dwn. Dsgn. Chkd. YYYY.MM.DD Roof Overall HVAC New Plan Scale: 1:200 Revision: Drawing No. ORIGINAL SHEET - ARCH D



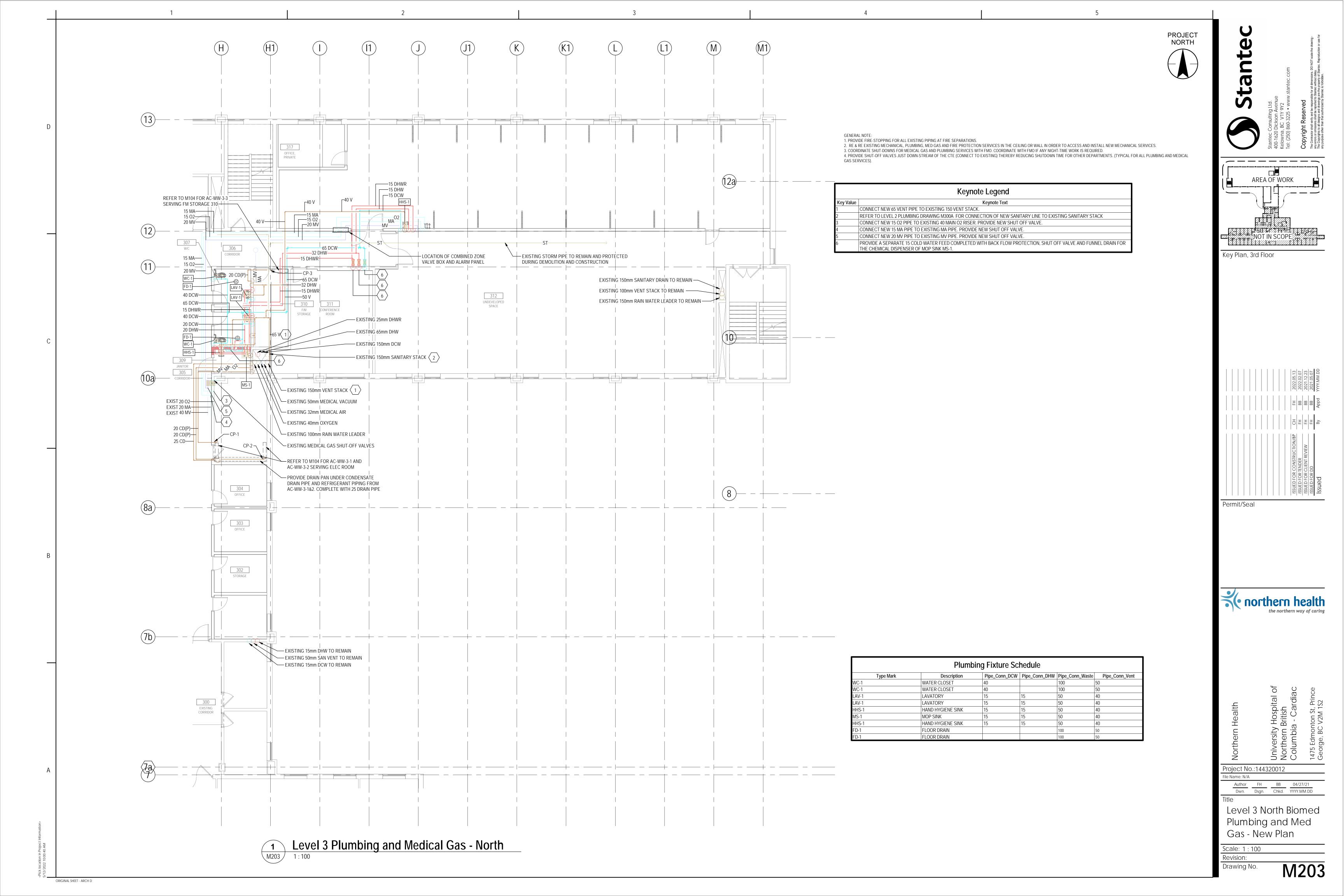


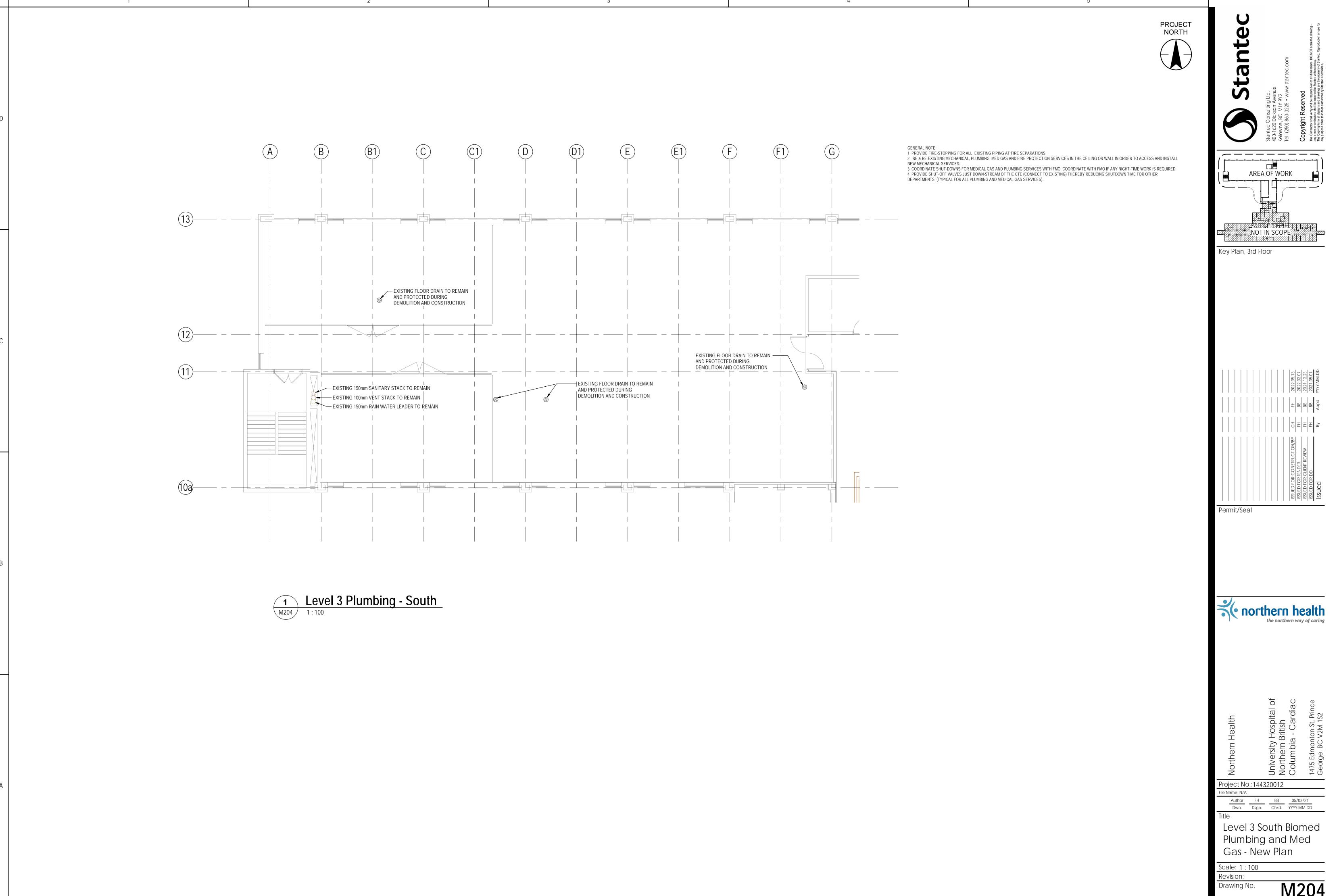




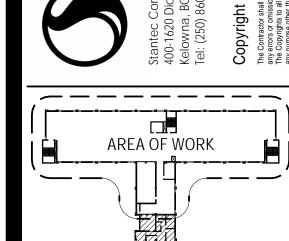
Author FH BB 05/03/21

Dwn. Dsgn. Chkd. YYYY.MM.DD

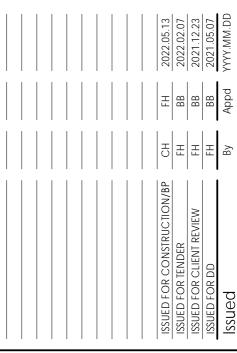




ORIGINAL SHEET - ARCH D



Key Plan, 3rd Floor

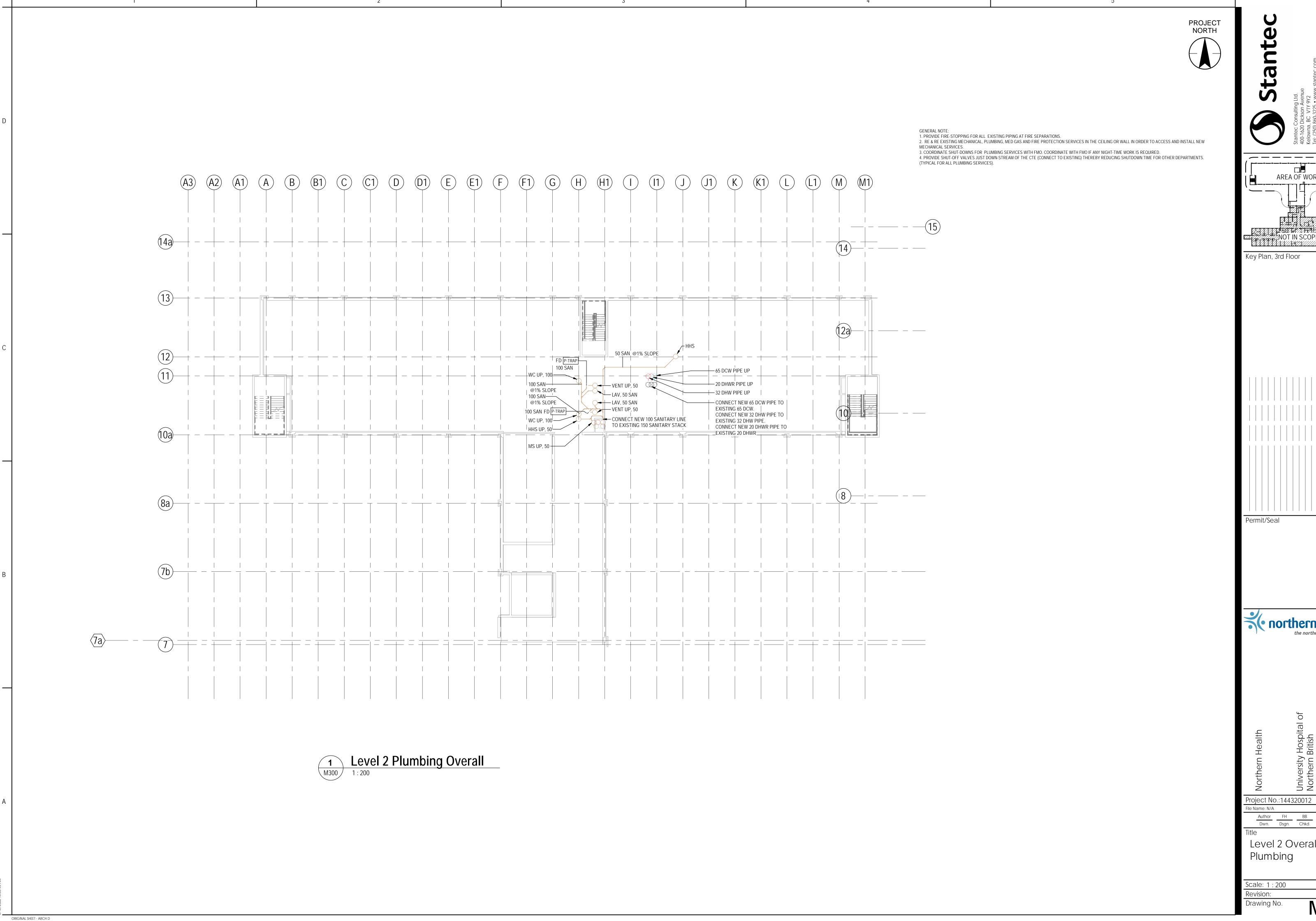


Project No.:144320012

Author FH BB 05/03/21

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Plumbing and Med Gas - New Plan



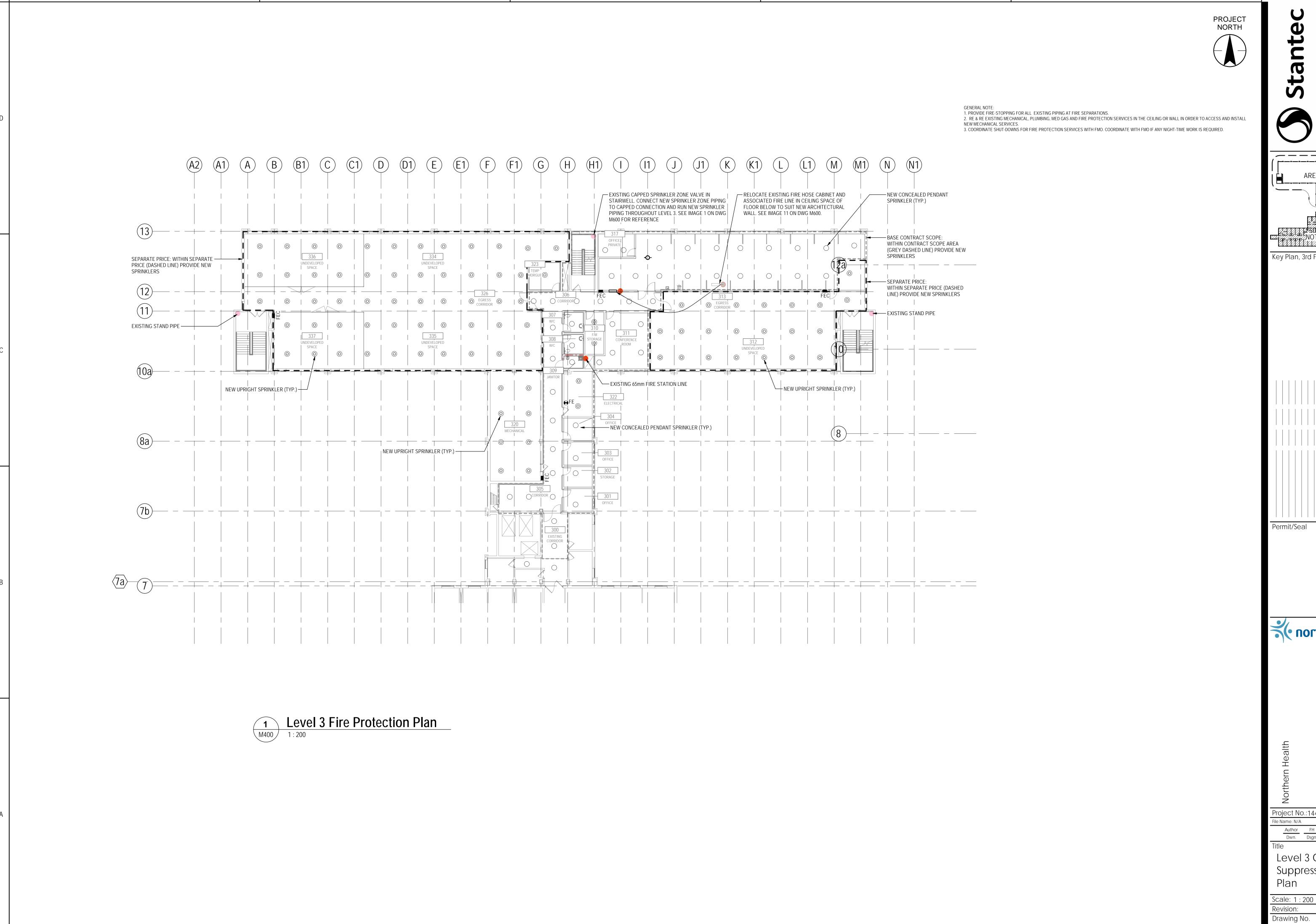
_____ AREA OF WORK

northern health
the northern way of caring

Author FH BB 08/24/21

Dwn. Dsgn. Chkd. YYYY.MM.DD

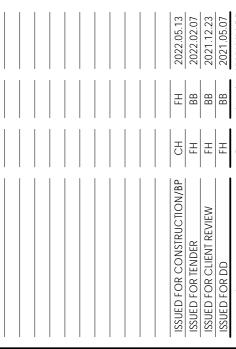
Level 2 Overall



ORIGINAL SHEET - ARCH D

_____ AREA OF WORK

Key Plan, 3rd Floor





Project No.:144320012

Author FH BB 04/27/21

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Level 3 Overall - Fire Suppression - New

	SPLIT SYSTEM AIR CONDITIONING UNIT SCHEDULE																																	
	JNIT IDEN	TIFICAT	TION	PE	RFORM	IANCE								INDOC	R UNIT											(OUTDOOR	UNIT						
																	ELE	CTRICAL										ELE(CTRICAL					
INDOOR UNITS MARK	OUTDOC UNIT MAI		ROOM(S) SERVED	EER	REFRI TYPE			SENSIBLI CAPACIT (Watts)	HEATING CAPACITY (Watts)		EDB (°C)	EWB (°C)	FILTER RATING (MERV)	MOUNTING	CONDENSATE PUMP REQUIRED	VOLTS	PHASE	MCA (A)	MOTOD	OPERATING WEIGHT (kg)	MODEL NUMBER	COOLING CAPACITY (Watts)	HEATING CAPACITY (Watts)	NO. OF COMP	AMBIENT DESIGN TEMP (°C)	MINIMUM AMBIENT TEMP (°C	-	PHASE	MCA	MAXIMUM CIRCUIT BREAKER	(ka)	MODEL NUMBER	MANUFACTURE	R NOTES
AC-WW-3-1	CU-WW-3-	-1 ELI	ECTRICAL ROOM	10.6	R410A	2.01	7,900	7,100	N/A	260	26	20	8	WALL MOUNT	YES	208	1	16	27	15	AC024MNADCH/AA	7,900	N/A	1	31	-36	208	1	16	20	52	AC024MXSCCC/AA	SAMSUNG	ALL
AC-WW-3-2	CU-WW-3-	-2 ELI	ECTRICAL ROOM	10.6	R410A	2.01	7,900	7,100	N/A	260	26	20	8	WALL MOUNT	YES	208	1	16	27	15	AC024MNADCH/AA	7,900	N/A	1	31	-36	208	1	16	20	52	AC024MXSCCC/AA	SAMSUNG	ALL
AC-WW-3-3	CU-WW-3-	-3 ELI	ECTRICAL ROOM	9.1	R410A	1.27	5,200	5,000	N/A	158	24	20	8	WALL MOUNT	YES	208	1	13	27	15	AC018MNADCH/AA	5,200	N/A	1	31	-36	208	1	13	15	52	AC018MXSCCC/AA	SAMSUNG	ALL
PROVIDE	PIPE PORTAL	AT ALL R	G WIRING AND PIP ROOF PENETRATIO	VS.		OOR AND OUTDOO																												

	FAN SCHEDULE															
	UNIT IDENTIFICATION				FAN WHEEL		FAN MOTOR				ΓRICAL					
MARK	UNIT/AREA SERVED	MAX AIRFLOW (I/s)	MIN AIRFLOW (I/s)	ESP (Pa)	TYPE	SPEED (RPM)	ВНР	HP	SPEED (RPM)	DRIVE TYPE	VOLTS	PHASE	OPERATING WEIGHT (kg)	MANUFACTURER	MODEL NUMBER	NOTES
EF-WW-3-1	WC AND JANITOR	142	142	150	UPBLAST CENTRIFUGAL ROOF FAN	1,502	0.08	0.2	1,725	DIRECT	115	1	20	GREENHECK	CUE-095-VG	1,2,3,4,6
EF-WW-3-2	UNDEVELOPED SPACE 312, CORR 313, 314	500	500	100	UPBLAST CENTRIFUGAL ROOF FAN	1,500	0.18	0.25	1,725	DIRECT	115	1	23	GREENHECK	CUE-101-VG	1,3,4,6
EF-WW-3-3	STORAGES 328, 329, 330, 331, 332	1,000	1,000	100	UPBLAST CENTRIFUGAL ROOF FAN	1,339	0.41	0.75	1,550	DIRECT	115	1	35	GREENHECK	CUE141-VG	1,3,4,6

1. C/W ROOF CURB. 2. C/W BACK DRAFT DAMPER.

3. VARI GREEN MOTOR.

4. ALL FANS TO MONITORED AND CONTOLLED THROUGH DDC.

5. BACNET COMPATIBLE 6. PROVIDE AMPERAGE READINGS FOR ALL EXHAUST FANS AT BMS. PROVIDE ALARM FOR THESE POINTS.

B. C/W LOW AMBIENT COOLING TO -40 C. C/W WIND BAFFLES AND SNOW ACCUMULATION PREVENTION.

4. C/W BACNET FOR DDC CONNECTION. CONNECT SPLIT SYSTEM UNITS TO BMS SYSTEM.
5. AC-WW-3-1, AC-WW-3-2 & AC-WW-3-3 TO BE C/W CONDENSATE PUMPS CP-1, CP-2 AND CP-3. CP-1, CP-2 AND CP-3 MANUFACTURER: LITTLE GIANT, MODEL: VCMA-15 SERIES, 115/1/60, 60 WATTS.
6. PROVIDE AMPERAGE READINGS AND SUPPLY AIR TEMPERATURE READINGS TO BMS. PROVIDE ALARM FOR THESE POINTS.

	AIR TERMINALS														
NOTATION	MANUFACTURER	TYPE	MODEL NO	MATERIAL	BORDER	BLADE ORIENT.	NOM. SIZE	VOLUME DAMPER	MOUNTING FRAME	FASTENING	FINISH	NOTE			
S1	E.H.PRICE	SUPPLY DIFFUSER	SPD	STEEL	SURFACE PLAQUE	N/A	600x600	N/A	TYPE 31 T-BAR	N/A	B12	2			
S2	E.H.PRICE	SUPPLY GRILLE	520D	STEEL	TYPE F	TEPE L	REFER TO DWG	YES	N/A	TYPE A	B12	1,3			
E1	E.H.PRICE	CEILING MOUNTED EXHAUST GRILLE	530	STEEL	TYPE F	TYPE L	REFER TO DWGS	YES	N/A	TYPE A	B12	1,2			
E2	E.H.PRICE	EXHAUST GRILLE	530	STEEL	TYPE F	TYPE L	REFER TO DWGS	YES	N/A	TYPE A	B13	1.2			

1. LOUVERED SUPPLY / EXHAUST GRILLE, 45°DEFLECTION, 19MM BLADE SPACING.
2. REFER TO ARCHITECTURAL CEILING PLAN FOR CEILING TYPE. (T-BAR OR SURFACE MOUNT).
3. DUCT MOUNTED. (REFER TO DWGS FOR DUCT TYPE AND SIZE).

GENERAL NOTES :

ALL AIR TERMINAL SIZES ARE NOMINAL SIZES WITH SOFT METRIC CONVERSION.
 COORDINATE WITH ARCHITECT THE REQUIRED BODER TYPE, END CAP, FRAME, FINISH, AND COLOR PRIOR TO ORDERING

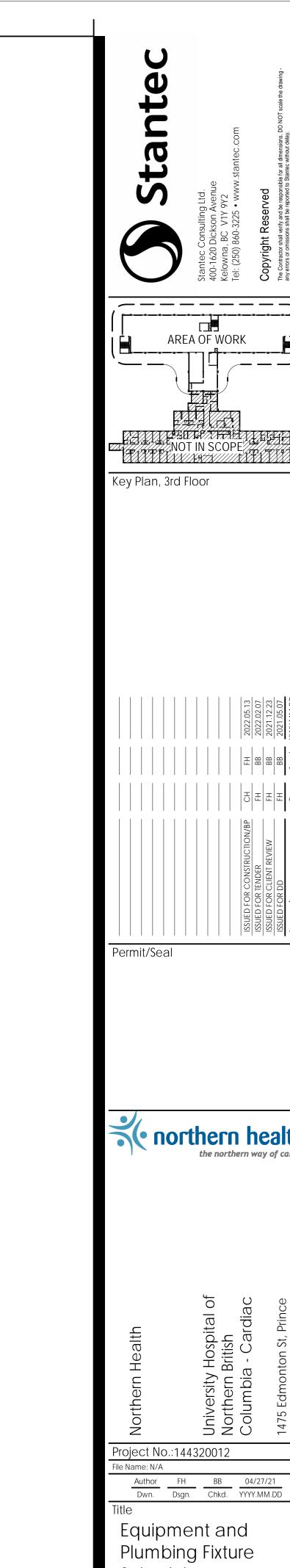
B. FINISH TO BE COORDINATED BY ARCHITECT.

				HOT W	ATER RA	ADIANT CEILING PANEL SO	CHEDULE	<u>:</u>					
UNIT IDENTIFICATION				WA	TER	Р	PANEL						
MARK	AREA SERVED	CAPACITY (Watts/m)	AMBIENT (°C)	EWT (°C)	LWT (°C)	TYPE	NO OF TUBES	WIDTH (mm)	FINISH	MANUFACTURER	MODEL NUMBER	NOTES	
RCP-1	LEVEL 3	393	23.0	82.2	71.1	ODD PASS CIRCUITRY	5	600	BY ARCHITECT	FRENGER	TWA	1,2,3	
RCP-2	LEVEL 3	411	23.0	82.2	71.1	EVEN PASS CIRCUITRY	6	600	BY ARCHITECT	FRENGER	TWA	1,2,3	

1. PROVIDE INACTIVE SECTIONS AS DETAILED ON FLOOR PLANS.
2. ARCHITECT TO REVIEW AND CONFIRM FINISH AND COLOUR.
2. DEFED TO ADOLUTEOTUDAL CELLING DI AN FOD THE DOD TVDE (IE. T.DAD CELLIN

3. REFER TO ARCHITECTURAL CEILING PLAN FOR THE RCP TYPE (IE. T-BAR CEILING, DRY WALL, WOOD SLOT, ETC.)

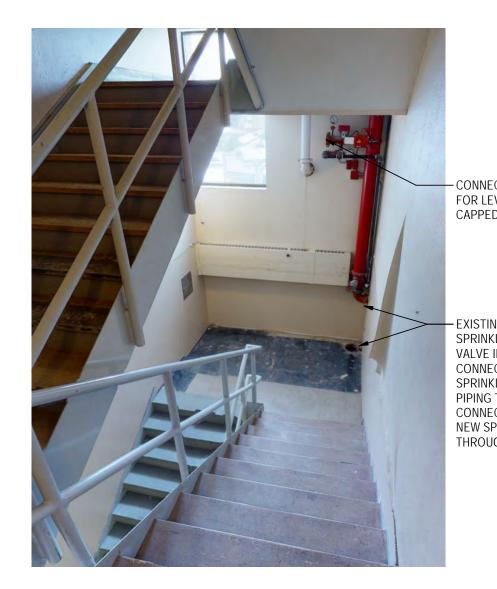
		CONTRO	L DAMPERS				
UNIT NUMBER	SERVICE	AIR	FLOW	SIZE	VEL.	TYPE	NORMAL
		STREAM	l/s	WXH	M/S		POS
CD-EF-WW-3-2	EF-WW-3-2	EXHAUST AIR	600	350 x 350	4.90	2P	NO
CD-EF-WW-3-3	EF-WW-3-3	EXHAUST AIR	1400	450 x 450	6.90	2P	NO
T. ALL DAMPERS SHA	ALL BE C/W END SWITCH I	MONITURED AT BMS.					
DAMPER TYPE: 2P - 2 POSITION MOD - MODULATING	S "RENCH" POSITION						



Schedules

Scale: Revision: Drawing No.

ORIGINAL SHEET - ARCH D



— CONNECT NEW SPRINKLER ZONE FOR LEVEL 3 TO EXISTING CAPPED CONNECTION

SPRINKLER ZONE VALVE IN STAIRWELL. CONNECT NEW SPRINKLER ZONE PIPING TO CAPPED CONNECTION AND RUN NEW SPRINKLER PIPING THROUGHOUT LEVEL 3.





EXISTING DCW, DHW, & DHWR PIPES TO BE OFFSET IN CELING SPACE BELOW TO RISE UP IN NEW CORRIDOR WALL. NEW
DOMESTIC WATER PIPES
TO CONNECT TO THESE EXISTING PIPES. EXISTING AND NEW PIPE OPENINGS TO BE SEALED AND FIRE

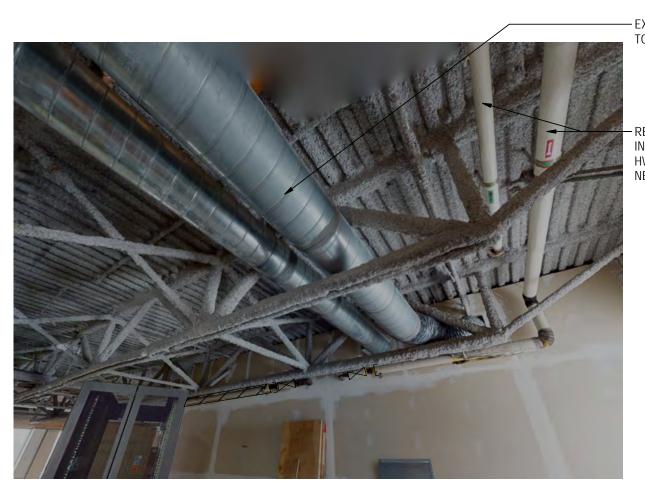


Existing Domestic Water Pipes Thru Floor

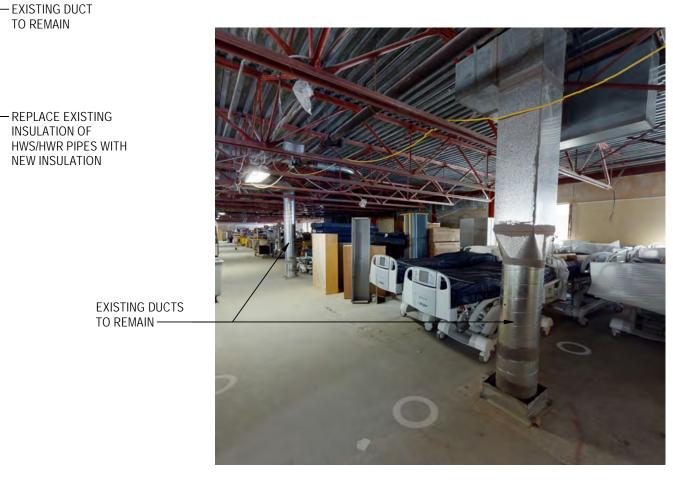
| Sample | Samp



Typical Existing Wallfin Baseboard



Existing HWS/HWR Pipes to Remain



Existing Ducts From Level 2 Up To Roof

1:1



Existing Duct From Level 2 Up To Roof



Existing DuctS Up To Roof



CEILING SPACE BELOW. PIPE OPENINGS TO BE SEALED AND FIRE STOPPED. (TYPICAL)





Existing Fire Hose Cabinet



REPLACE ALL EXISTING DUCT
ACTUATORS THAT WILL SERVE ALL NEW
ZONES WITH NEW ACTUATORS FOR EXIST SAME MAKE AND MODEL AS THE EXISTING ACTUATORS (BELIMO LM24-SR US). TOTAL OF 18 ACTUATORS.

CONTRACTOR TO VISIT THE SITE TO

EVALUATE THE AVAILABLE ACCESSIBILITY FOR REPLACING THE EXISTING

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Dwn. Dsgn. Chkd. YYYY.MM.DD

Details and Images

northern health
the northern way of caring

Key Plan, 3rd Floor

Scale: 1:1 Revision: Drawing No.

M600

9 Existing Plumbing Piping to be Demolished

M600 1:1

EXISTING PIPE TO

BE DEMOLISHED

AND CAPPED IN CEILING SPACE

BELOW. PIPE

OPENINGS TO BE SEALED AND FIRE

STOPPED. MAKE GOOD CONCRETE (TYPICAL)

EXISTING DUCT ACTUATORS FOR EXIST AHU-804