

300-50 Troop Avenue  
Dartmouth, NS  
Canada

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**DRDC HVAC COMPLIANCE UPGRADE  
BUILDING 201A & 201B (PACKAGE 2)**

1133 Sheppard Ave. W. | Toronto | Ontario

ISSUED FOR TENDER

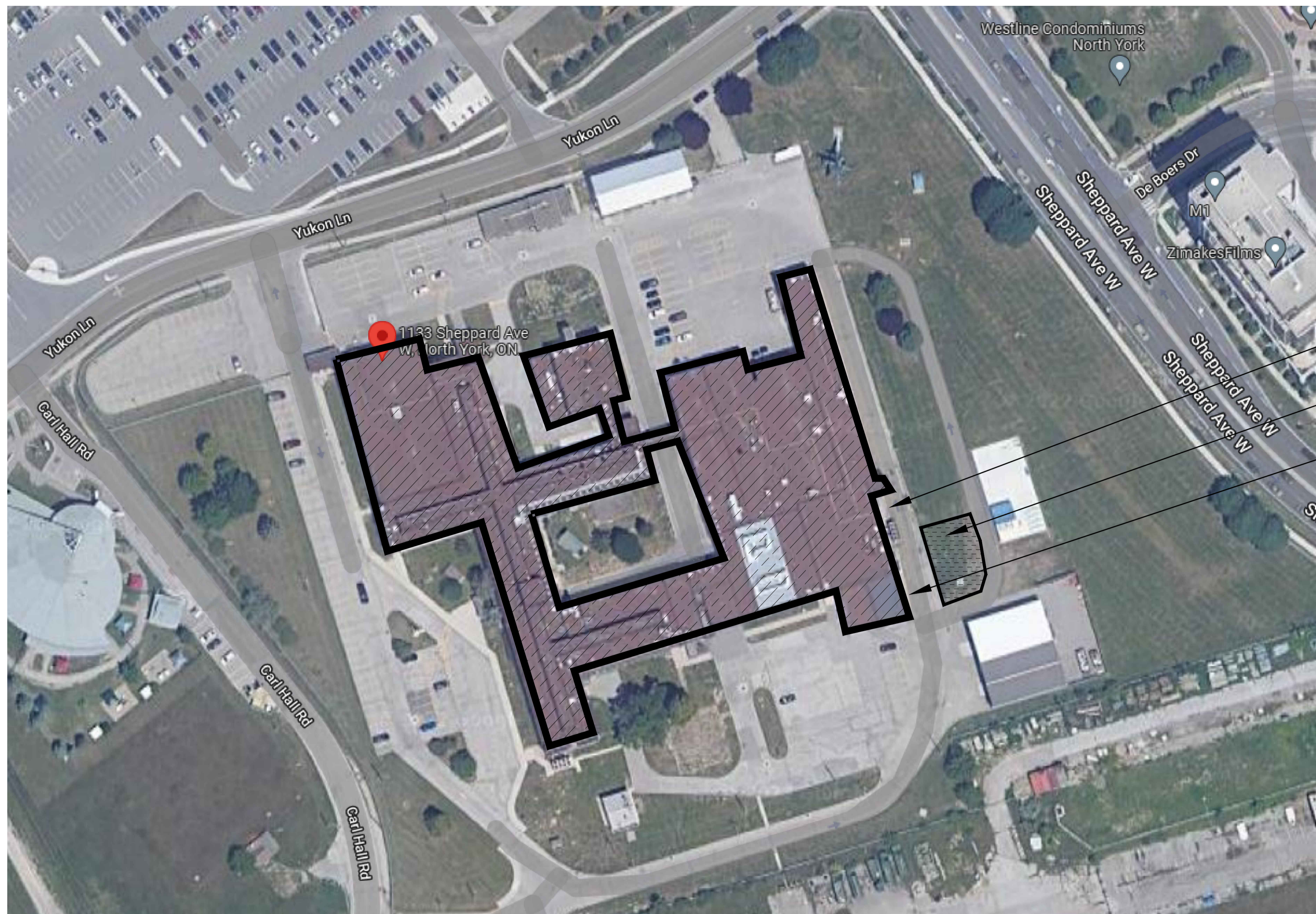
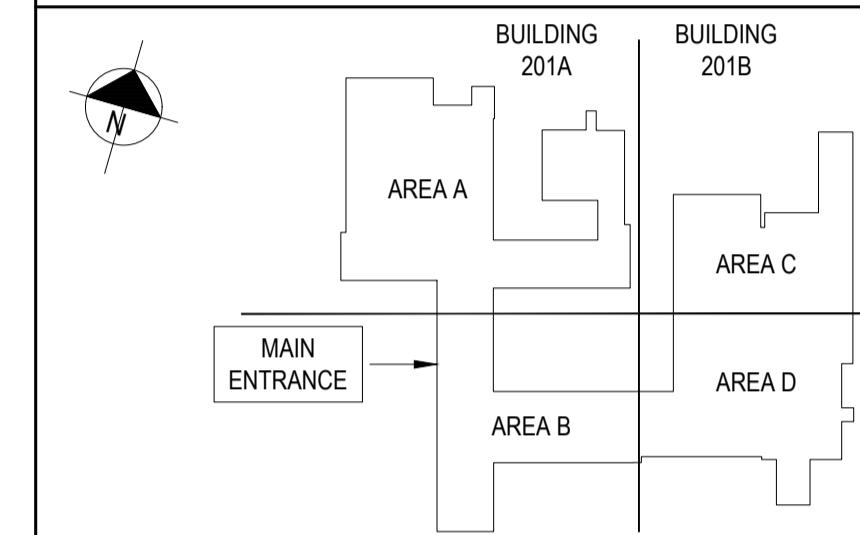
SET NO. - SÉRIE NO.	
DATE	2022/12/06
DCC NO. - CDC NO.	KN75948
WBS NO. - NO. OTR	
PF NO. - NO. DP	
JOB NO.	TT210006

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Canada



MAINTAIN EXISTING FIRE ROUTE ALL TIME. TEMPORARY CLOSURES MUST BE COORDINATED WITH DCC REPRESENTATIVE

CONTRACTOR'S LAYDOWN AREA

TEMPORARY SCAFFOLDING WITH STAIR FOR CONTRACTOR ACCESS TO 2ND LEVEL MECHANICAL FLOOR (ROOM 2219). SCAFFOLDING AND STAIR MUST BE MAINTAINED THROUGHOUT THE COURSE OF THE PROJECT. MEANS OF ACCESS TO THIS AREA FROM INSIDE WILL NOT BE ALLOWED DURING CONSTRUCTION.

**1** DETAIL WINDOW  
A300 SCALE: 1:5

GENERAL CONSTRUCTION NOTES FOR SEQUENCE OF WORK:

- ACCESS ROOF FROM EXTERIOR AREA NEAR CONTRACTOR'S LAYDOWN AREA. COORDINATE WITH DCC REPRESENTATIVE FOR ACCESS REQUIREMENT. REFER TO SECTION 01 14 00 WORK RESTRICTIONS
- AT THE END OF EACH WORK DAY, CONTRACTOR SHALL BE RESPONSIBLE TO CLOSE, SECURE AND RESTRICT ALL MEANS OF ACCESS TO ROOF FROM THE SCAFFOLDING. TEMPORARY HOARDING OR FENCING SHALL BE A FIXED TYPE WITH LOCKABLE GATE WHICH CAN BE CLOSED AT THE END OF THE DAY. IN ADDITION, THE SCAFFOLDING SHALL HAVE PHYSICAL RESTRICTION TO RESTRICT ACCESS. CONSULT WITH DCC REPRESENTATIVE
- ACCESS TO INTERIOR AREAS MUST BE COORDINATED WITH DCC REPRESENTATIVE
- EXISTING ROOF, ROOFING SYSTEM AND WATERPROOFING MUST BE PROTECTED. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING ROOFING.
- INSTALL A PERMANENT SCAFFOLDING SYSTEM TO ACCESS ROOM NUMBER 2219 MECHANICAL ROOM.
- HAZMAT ABATEMENT
  - REFER TO HAZMAT REPORT
  - CONDUCT SELECTIVE ABATEMENT FOR IMPACTED AREAS INCLUDING PAINT, INSULATION...ETC, AS NEEDED FOR THE WORK.

GENERAL CONSTRUCTION NOTES:

- COORDINATE ALL WORK WITH MECHANICAL & ELECTRICAL DRAWINGS.
- DO NOT SCALE DRAWINGS. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.
- THE CONTRACTOR IS TO REVIEW AND VERIFY THAT ALL DIMENSIONS, ELEVATIONS, DATUMS, AND INFORMATION SHOWN ARE CORRECT. VERIFY ALL DIMENSIONS ON SITE.
- PRIOR TO COMMENCEMENT OF WORK, REPORT ANY DISCREPANCIES TO THE DCC REPRESENTATIVE.
- VARIATIONS AND MODIFICATIONS TO WORK SHOWN WILL NOT BE PERMITTED WITHOUT THE WRITTEN PERMISSION OF THE DCC REPRESENTATIVE.
- NO REPRODUCTION OF THE DRAWINGS MAY BE MADE WITHOUT THE WRITTEN CONSENT OF THE DCC REPRESENTATIVE AND ALL REPRODUCTION MUST BEAR THE NAME OF THE DCC REPRESENTATIVE.
- COORDINATE WITH DCC REPRESENTATIVE FOR ANY INTERRUPTIONS OF BUILDING SERVICES FOR THE DURATION OF THE PROJECT.
- THE CONTRACTOR SHALL NOTIFY THE DCC REPRESENTATIVE OF ANY EQUIPMENT OR ELECTRICAL APPARATUS WHICH MAY VARY FROM THAT INDICATED IN THE CONTRACT DOCUMENTS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR PERIODICALLY REMOVING ALL DEBRIS AND TO KEEP THE WORK AREA IS CLEAN AT ALL TIMES.
- PROVIDE TEMPORARY PROTECTION TO ADJACENT SURFACES NOT AFFECTED BY DEMOLITION OR NEW CONSTRUCTION. ENSURE THAT DEBRIS IS REMOVED FROM EACH SPACE.
- MAINTAIN THE INTEGRITY OF ALL LIFE/SAFETY SYSTEMS AND REQUIRED EXISTS AT ALL TIMES THROUGHOUT THE DURATION OF THIS PROJECT.
- PATCH, REPAIR, AND REFINISH DAMAGED OR PENETRATIONS TO AREAS, SURFACES AS A RESULT OF NEW CONSTRUCTION, OR IN THE TRANSPORTATION OF MATERIALS AT THE SITE.
- PROVIDE CONTINUOUS ISOLATION PROTECTION AT AND BETWEEN ALL DISSIMILAR METALS/BUILDING COMPONENTS

GENERAL DEMOLITION NOTES:

- IT IS CONTRACTOR'S RESPONSIBILITY TO ARRANGE FOR DISCONNECTION OF ALL EXISTING SERVICES BEFORE REMOVAL.
- THE DRAWINGS SHOWN ARE DIAGRAMMATIC. THE DRAWINGS MAY NOT REPRESENT "AS-BUILT" CONDITIONS.
- NO EXTRAS WILL BE ALLOWED FOR FAILURE OF THE CONTRACTOR IN COMPLETING A THOROUGH REVIEW OF THE SITE PRIOR TO SUBMITTING TENDER PRICE.
- ISOLATE DEMOLITION AREA PRIOR AND DURING DEMOLITION USING HOARDING AND CONTROLLED MEANS OF ENTRY/EXIT.
- MAKE GOOD ALL EXISTING SURFACE WHERE DEMOLITION OCCUR, MATCH EXISTING SURFACE WHERE AFFECTED SURFACE ARE NOT REQUIRED TO BE COVERED BY NEW, UNLESS OTHERWISE NOTED.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO INSPECT AND ASSESS EACH AREA AND TO FULFILL THE INTENT OF DEMOLITION INDICATED IN THE CONTRACT DOCUMENTS. CONTRACTOR TO COORDINATE DEMOLITION DRAWINGS AND NOTES WITH ALL CONSULTANT'S DEMOLITION DRAWINGS.
- CONTRACTOR TO VERIFY EXISTING CONDITIONS PRIOR TO DEMOLITION WORK, PROBLEMS OR DISCREPANCIES IN THE DRAWING TO BE REPORTED AT ONCE TO THE DCC REPRESENTATIVE.
- THE OWNER RESERVE THE RIGHT TO SALVAGE ANY ITEMS IDENTIFIED TO BE REMOVED.
- CONTRACTOR TO REVIEW ALL ITEMS TO BE DEMOLISHED WITH OWNER TO IDENTIFY ANY ITEMS TO BE SALVAGED PRIOR TO START OF DEMOLITION. CONTRACTOR TO SUBMIT DETAILED DEMOLITION PROCEDURES FOR REVIEW AND APPROVAL PRIOR TO WORK

NO.	DATE	REVISION	APPR.
0	2023/3/13	ISSUED FOR TENDER	S.C.
B	2022/08/11	ISSUED FOR 90% SUBMISSION	S.C.
A	2022/09/09	ISSUED FOR 90% SUBMISSION	S.C.

SCALE | ÉCHELLE  
AS NOTED

LOCATION | EMPLACEMENT  
**1133 SHEPPARD AVE. W.  
TORONTO  
ONTARIO**

PROJECT | PROJET  
**DRDC HVAC COMPLIANCE UPGRADE  
BUILDING 201A & 201B**

TRADE | MÉTIER  
**ARCHITECTURAL** DATE  
**2022/12/06**

SUBJECT | SUJET  
**SITE PLAN.**

DESIGNED   ÉTUDIÉ	REVIEWED   REVU	DES O   AGENT CONC
SC		
DRAWN   DESSINÉ		PROJ MGR   GEST PROJ
SC		-
CHECKED   VÉRIFIÉ		DES MGR   GEST CONC
SC		
COORDINATION		FIRE   INCENDIE

WBS NO. | NO. OTP  
- PF NO. | NO. DP  
**TT210006 KN75948**

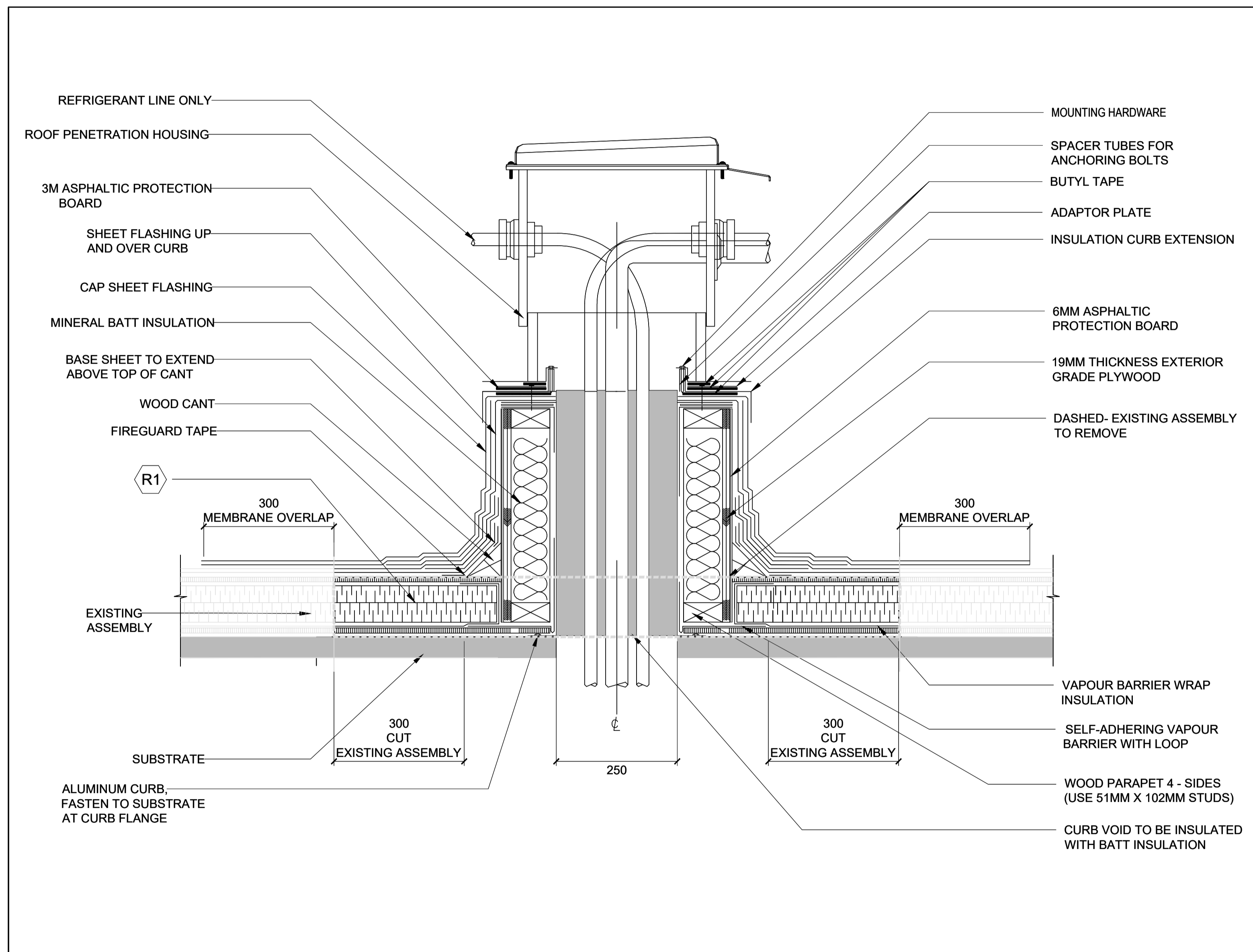
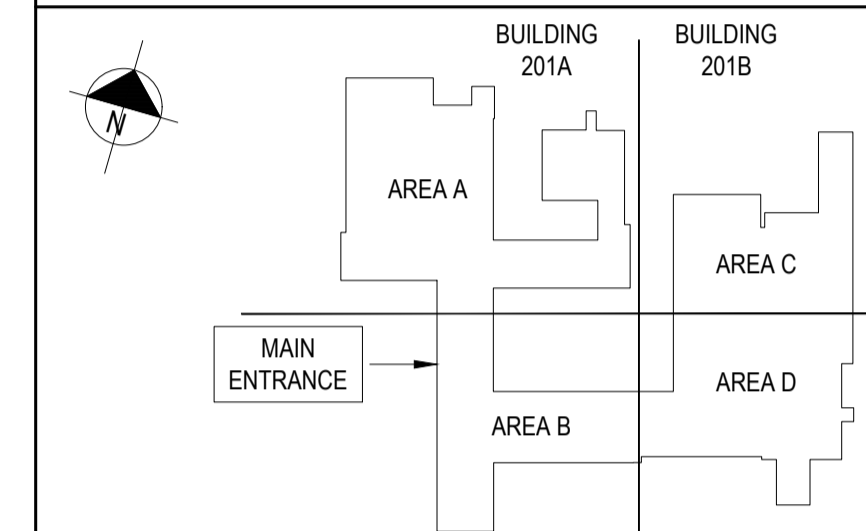
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**A-300**

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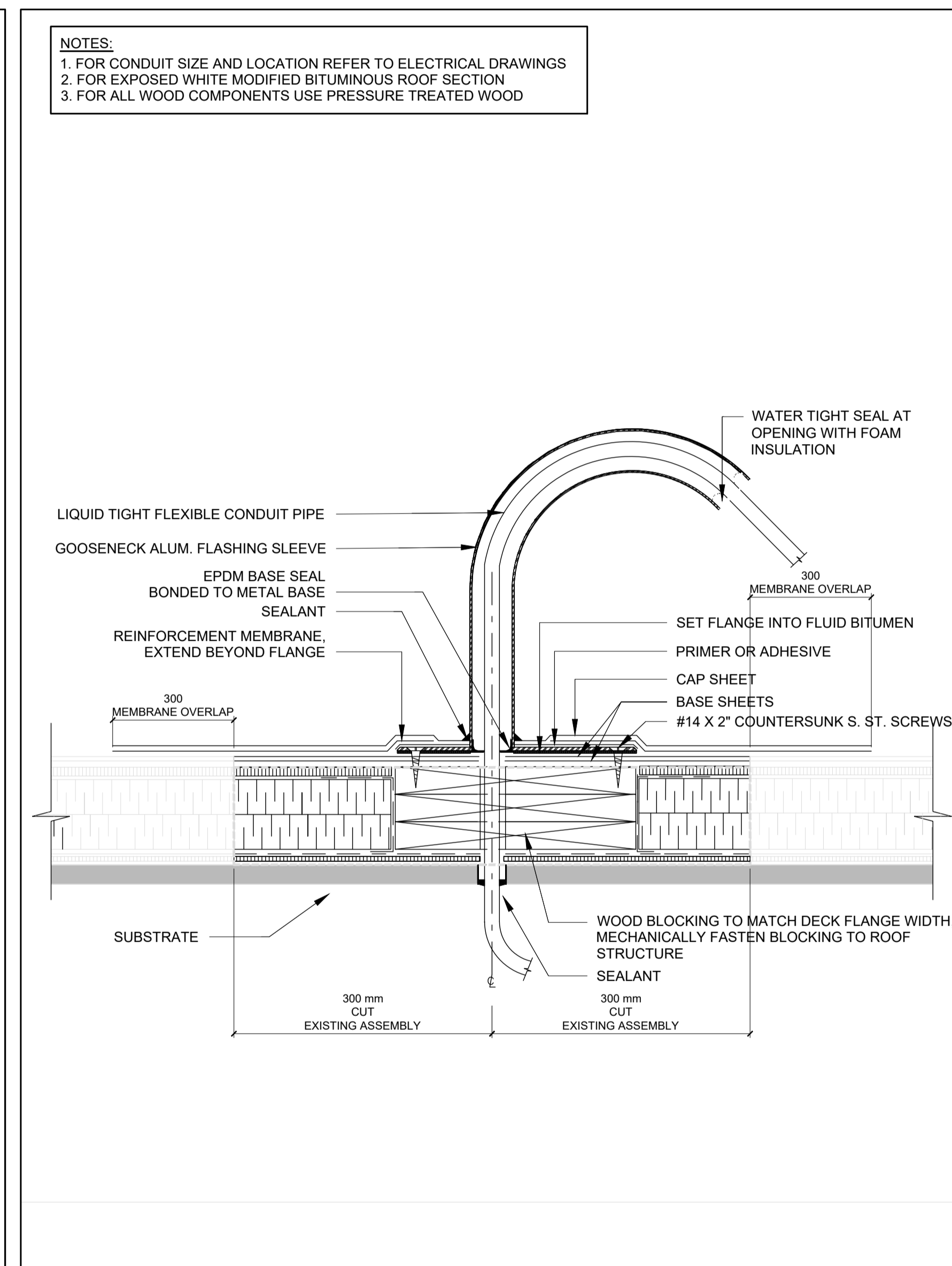
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2 DETAIL- NEW REFRIGERANT ROOF PENETRATION HOUSING  
A304 SCALE: 1:NTS



3 DETAIL- LIQUID TIGHT FLEXIBLE CONDUIT FLASHING DETAIL  
A304 SCALE: 1:10

- ROOF TYPE (R1)**
- SBS MODIFIED BITUMEN CAP SHEET
  - TWO PLY SBS MODIFIED BITUMEN BASE SHEET
  - GYPSUM ROOF DECK
  - POLYISO SLOPED INSULATION TO MATCH EXISTING SLOPES
  - POLYISO INSULATION
  - VAPOUR BARRIER
  - GYPSUM ROOF DECK

- NOTES:**
- IN GREY EXISTING BUILDING. IN BLACK NEW ELEMENTS
  - FLOOR PAINTING MAY CONTAIN SILICA. PLEASE REFER TO HAZMAT REPORT (102959-000) AND SPECS ES-01-35-43 AND ES-01-14-25
  - WALLS' PAINTING MAY CONTAIN SILICA. PLEASE REFER TO HAZMAT REPORT (102959-000) AND SPECS ES-01-35-43 AND ES-01-14-2
  - PIPE FITTING AND DUCT PARGING MAY CONTAIN SILICA. PLEASE REFER TO HAZMAT REPORT (102959-000) AND SPECS ES-01-35-43 AND ES-01-14-2

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ONTARIO

PROJECT | PROJET  
DRDC HVAC COMPLIANCE UPGRADE  
BUILDING 201A & 201B

TRADE | MÉTIER  
ARCHITECTURAL  
DATE  
2022/12/06

SUBJECT | SUJET  
ROOF DETAILS

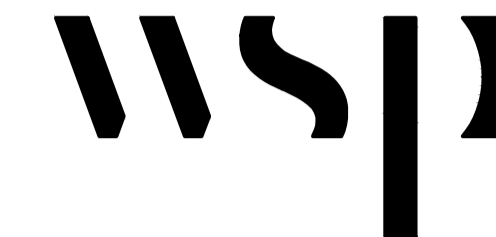
PRODUCTION	DESIGNED   ÉTUDIÉ	REVIEWED   REVU	DES O   AGENT CONC
	SC		
	DRAWN   DESSINÉ		PROJ MGR   GEST PROJ
	SC		-
	CHECKED   VÉRIFIÉ		DES MGR   GEST CONC
	SC		
	COORDINATION		FIRE   INCENDIE

WBS NO. | NO. OTP  
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PF NO. | NO. DP  
TT210006 KN75948

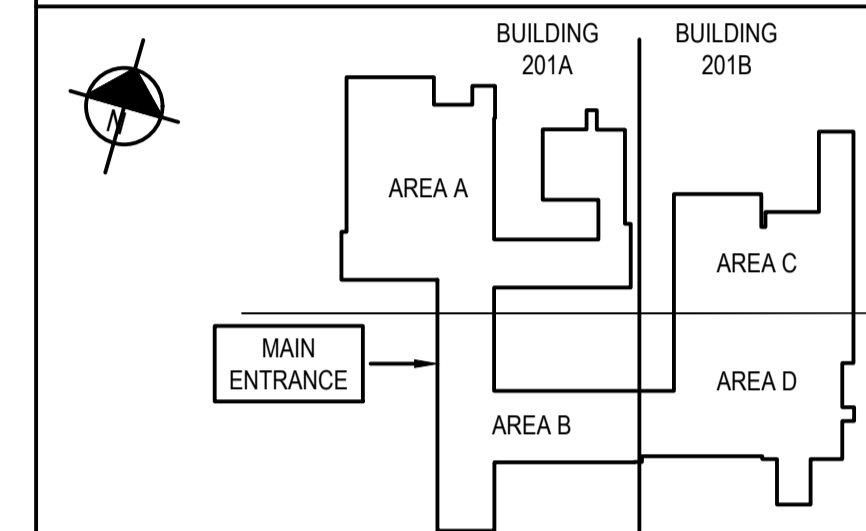
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A-304

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NOTES:  
1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) U.N.O.



0	2023/02/10	ISSUED FOR TENDER	D.R.
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SCALE | ÉCHELLE

LOCATION | EMPLACEMENT  
1133 SHEPPARD AVE. W.  
TORONTO  
ONTARIO

PROJECT | PROJET  
DRDC HVAC COMPLIANCE UPGRADE  
BUILDING 201A & 201B

TRADE | MÉTIER  
Mechanical  
DATE  
2021/07/08

SUBJECT | SUJET  
**MECHANICAL LEGENDS AND NOTES**

DESIGNED   ÉTUDIÉ	REVIEWED   REVU	DES O   AGENT CONC
A.A.		PROJ MGR   GEST PROJ
DRAWN   DESSINÉ		DES MGR   GEST CONC
E.M.		
CHECKED   VÉRIFIÉ		FIRE   INCENDIE
D.R.		
COORDINATION		
D.R.		

WBS NO. | NO. OTP  
PF NO. | NO. DP

DWG. NO. | NO. DESSIN  
M400



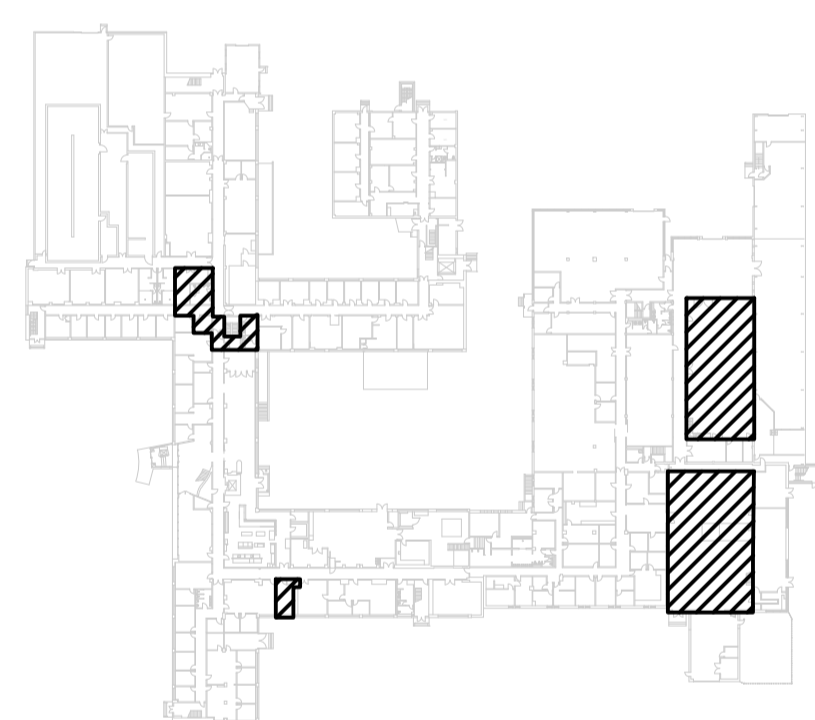
GENERAL	SYMBOL
NATIONAL PLUMBING CODE OF CANADA	NPC
ONTARIO BUILDING CODE	OBC
ROOM TAG	NAME → ROOM NUMBER → #
SCOPE OF WORK	S.O.W.

CONTROLS	SYMBOL
BUILDING AUTOMATION SYSTEM	BAS
FLOW SENSOR	FS
MOTOR STARTER	MS
DAMPER ACTUATOR	DA
MOTORIZED DAMPER	MD
LOW LIMIT SWITCH	LL
VARIABLE SPEED DRIVE	VSD
HUMIDITY SENSOR	HS
TEMPERATURE SENSOR	TS
TEMPERATURE AND HUMIDITY SENSOR	THS
STATIC PRESSURE SENSOR	SP
SMOKE DETECTOR	SD
DAMPER END SWITCH	DES
DIFFERENTIAL PRESSURE SWITCH	DP
START/STOP C/W PILOT LIGHT	SS
ANALOG INPUT	AI
ANALOG OUTPUT	AO
DIGITAL INPUT	DI
DIGITAL OUTPUT	DO
REVERSE ACTING THERMOSTAT	TR
3 WAY MOTORIZED CONTROL VALVE	

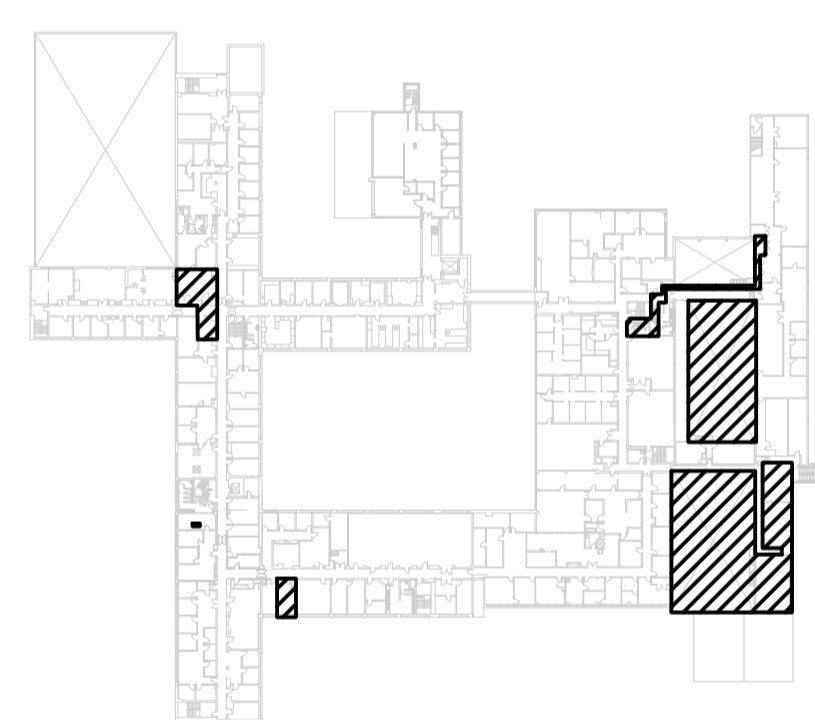
HEATING, VENTILATION & AIR CONDITIONING	SYMBOL
AIR CONDITIONING	AC
SUPPLY AIR DUCT	SIA
RETURN AIR DUCT	RIA
EXHAUST AIR DUCT	EIA
FRESH AIR DUCT	FIA
ROUND VOLUME CONTROL DAMPER	RVD
MOTORIZED VOLUME DAMPER	MVD
ABOVE FALSE CEILING	AFC
UNLESS NOTED OTHERWISE	U.N.O.
BOTTOM OF PIPE	BOP
BOTTOM OF DUCT	BOD
REFRIGERANT SUCTION	RS
REFRIGERANT DISCHARGE	RD
FRESH AIR \ SUPPLY AIR	
EXHAUST AIR \ RETURN AIR	
BALANCING DAMPER	BD
FIRE DAMPER	FD
MOTORIZED DAMPER	
ISOLATION VALVE	
BACKDRAFT DAMPER	BDD
TEMPERATURE SENSOR	TS
CONTROL WIRING	
GRILLE/DIFFUSER	XX XXX
AIR FLOW (l/s)	

- GENERAL NOTES**
- CONTRACTOR TO EXAMINE SITE PRIOR TO THE COMMENCEMENT OF ANY WORK.
  - ANY DISCREPANCIES BETWEEN DRAWINGS AND SPECIFICATIONS AND/OR EXISTING CONDITIONS ARE TO BE BROUGHT TO THE ATTENTION OF THE DCC REPRESENTATIVE PRIOR TO COMMENCEMENT OF WORK.
  - COORDINATE ALL EQUIPMENT/SERVICE SHUT DOWN WITH DRDC & DRDC'S FACILITY MANAGEMENT.
  - ALL WORK SHALL BE COMPLETED ONCE ADEQUATE PROTECTION OF ADJACENT SPACES HAS BEEN INSTALLED. CONTRACTOR TO ENSURE MINIMAL DUST CREATION DURING WORK.
  - MAKE GOOD ALL SURFACES AFTER COMPLETION OF WORK.
  - REMOVE ALL DEBRIS AND RUBBISH FROM SITE DAILY.
  - DISPOSE OF ALL DEBRIS AS PER AUTHORITY HAVING JURISDICTION.
  - EXISTING GRILLES AND DIFFUSERS TO REMAIN UNLESS NOTED OTHERWISE.
  - COORDINATE DELIVERY OF MATERIALS AND SITE ACCESS WITH DRDC & DRDC'S FACILITY MANAGEMENT.
  - PROVIDE NEW DUCTWORK, DIFFUSERS AND GRILLES AS REQUIRED AND/OR INDICATED.
  - PROVIDE NEW EQUIPMENT AND ALL ASSOCIATED ACCESSORIES AS REQUIRED TO COMPLETE A FULLY OPERATIONAL AND MAINTAINABLE SYSTEM.
  - BALANCE THE DIFFUSERS, GRILLES, OPEN ENDED DUCTS, AND ASSOCIATED EQUIPMENT IN THE OBSERVED AREA AND SPACE TO MATCH NEW INSTALLATION.
  - PROVIDE CAULKING AND FIRE STOPPING FOR ALL MECHANICAL PENETRATIONS THROUGH FIRE SEPARATIONS.
  - CONTRACTOR IS TO BE AWARE THAT SPACES THEY ARE WORKING IN FOR DUCTLESS AC UNITS ARE HIGHLY SENSITIVE TO DUST. PRIOR TO STARTING WORK IN THESE AREAS, THE CONTRACTOR SHALL PROPOSE TO DND/DRDC/DCC TO REVIEW DUST CONTROL MEASURES TO PROTECT SENSITIVE EQUIPMENT.

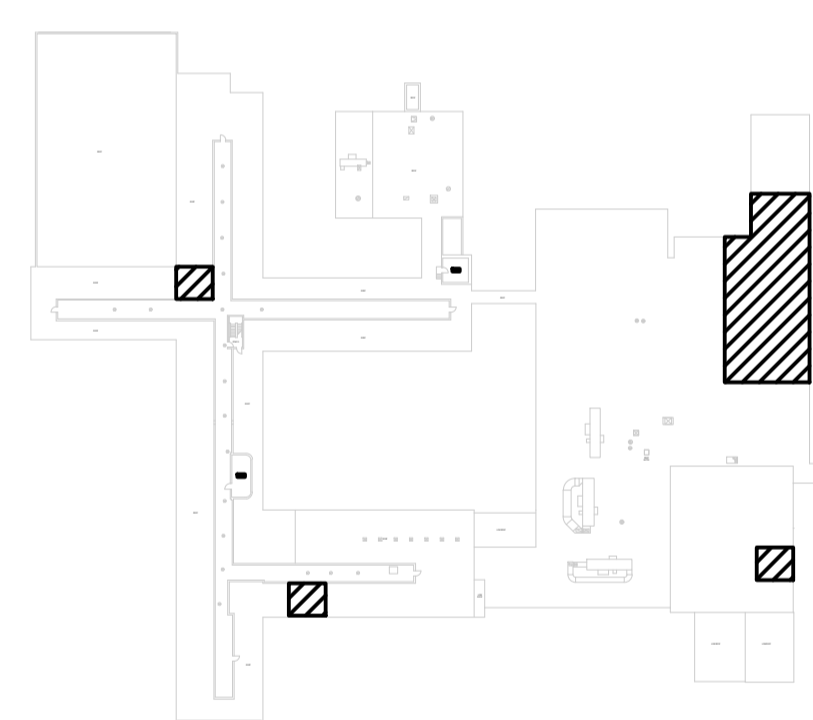
- HVAC NOTES**
- ALL INDOOR UNITS SHALL BE EQUIPPED WITH CONDENSATE PUMP U.N.O..
  - THE CONDENSATE DRAIN PIPE TO BE FIELD ROUTED TO THE NEAREST DRAIN LOCATION AND AS INDICATED. EXACT ROUTING TO BE VERIFIED ON SITE.
  - DISCHARGE THE PUMPED CONDENSATE FROM THE AC UNIT VIA 25mm Ø DRAIN RIGID PVC PIPE. RUN THE PIPE AT AT 1% SLOPE AND ON HIGHEST LEVEL IN THE ROOM TOWARDS THE NEAREST DRAIN / TIE-IN POINT LOCATION.
  - THE CONDENSATE DRAIN PIPE SHOULD BE 25mm (1") PVC RIGID PIPE IN ACCORDANCE WITH SPECIFICATION AND INSULATED AS REQUIRED.
  - WHEN DRAIN CONNECTED TO FLOOR DRAIN, PROVIDE A HUB FOR THE DRAIN WITH A CLEARANCE OF MIN. 13mm (1/2") FROM THE TOP LEVEL OF THE DRAIN.
  - REFRIGERANT PIPING TO RUN CONCEALED IN WALLS, U.N.O..
  - DUCTLESS AC UNITS TO BE EQUIPPED WITH AUDIBLE ALARMS INSIDE THE ROOM AND PROVIDE AN OUTPUT SIGNAL TO THE BAS WHEN UNITS ARE NOT OPERATING DUE TO FAILURE. REFER TO DIV. 25 SPECIFICATION.
  - ALL AC SYSTEM SHALL SEND AN ALARM SIGNAL TO OPERATOR UPON SYSTEM FAILURE.
  - CLEAN AND STORE REMOVED FANS, SUPPLY GRILLES, AND AC UNITS ON A LOCATION DETERMINED BY THE OWNER / CLIENT.



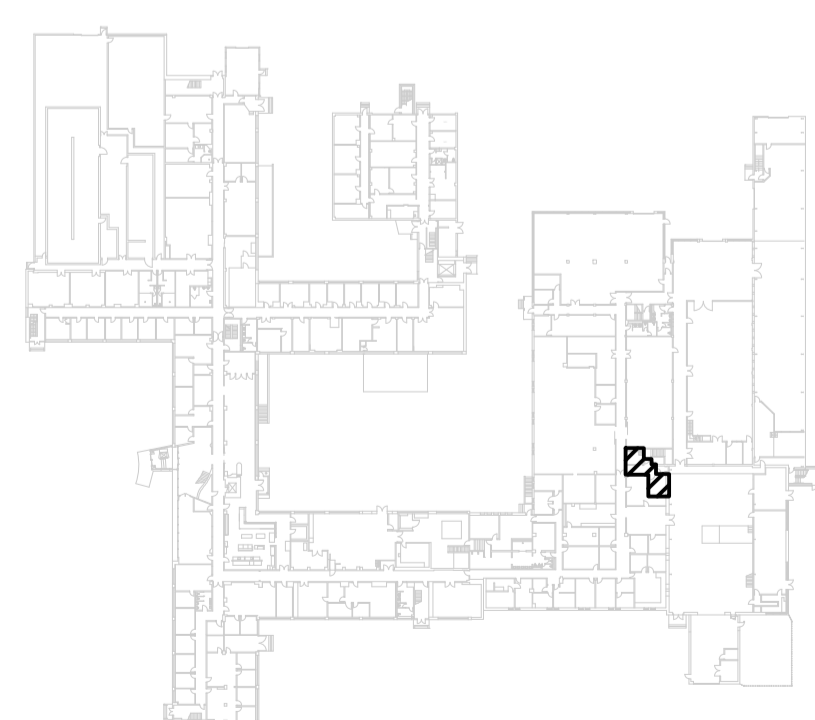
PACKAGE 1 - LEVEL 1



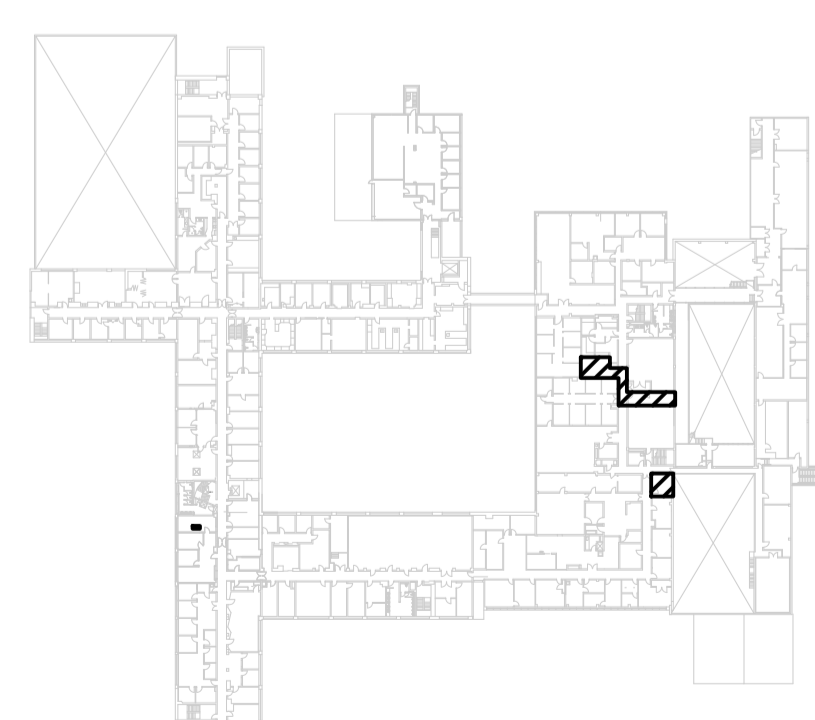
PACKAGE 1 - LEVEL 2



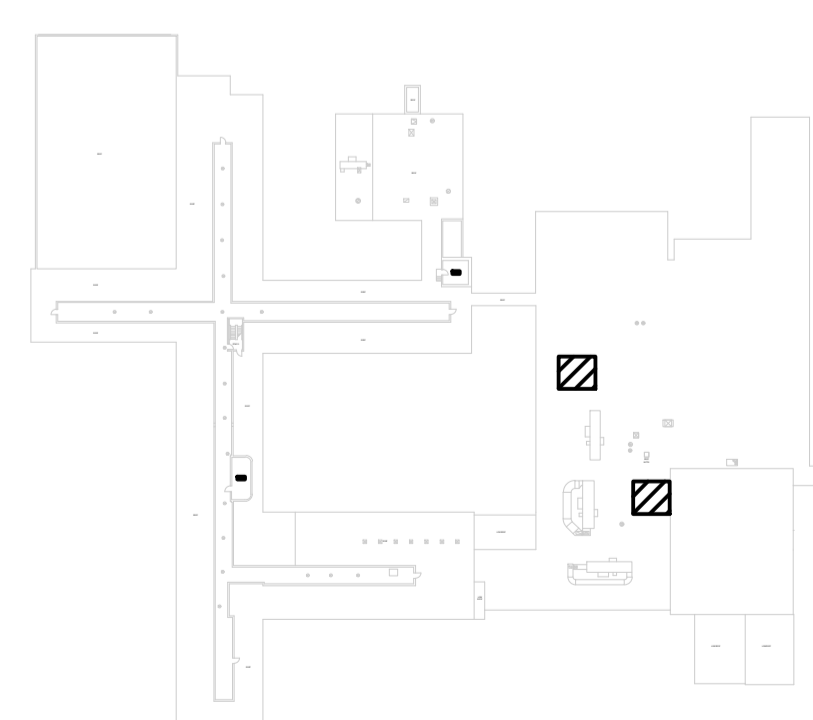
PACKAGE 1 - ROOF



PACKAGE 2 - LEVEL 1



PACKAGE 2 - LEVEL 2



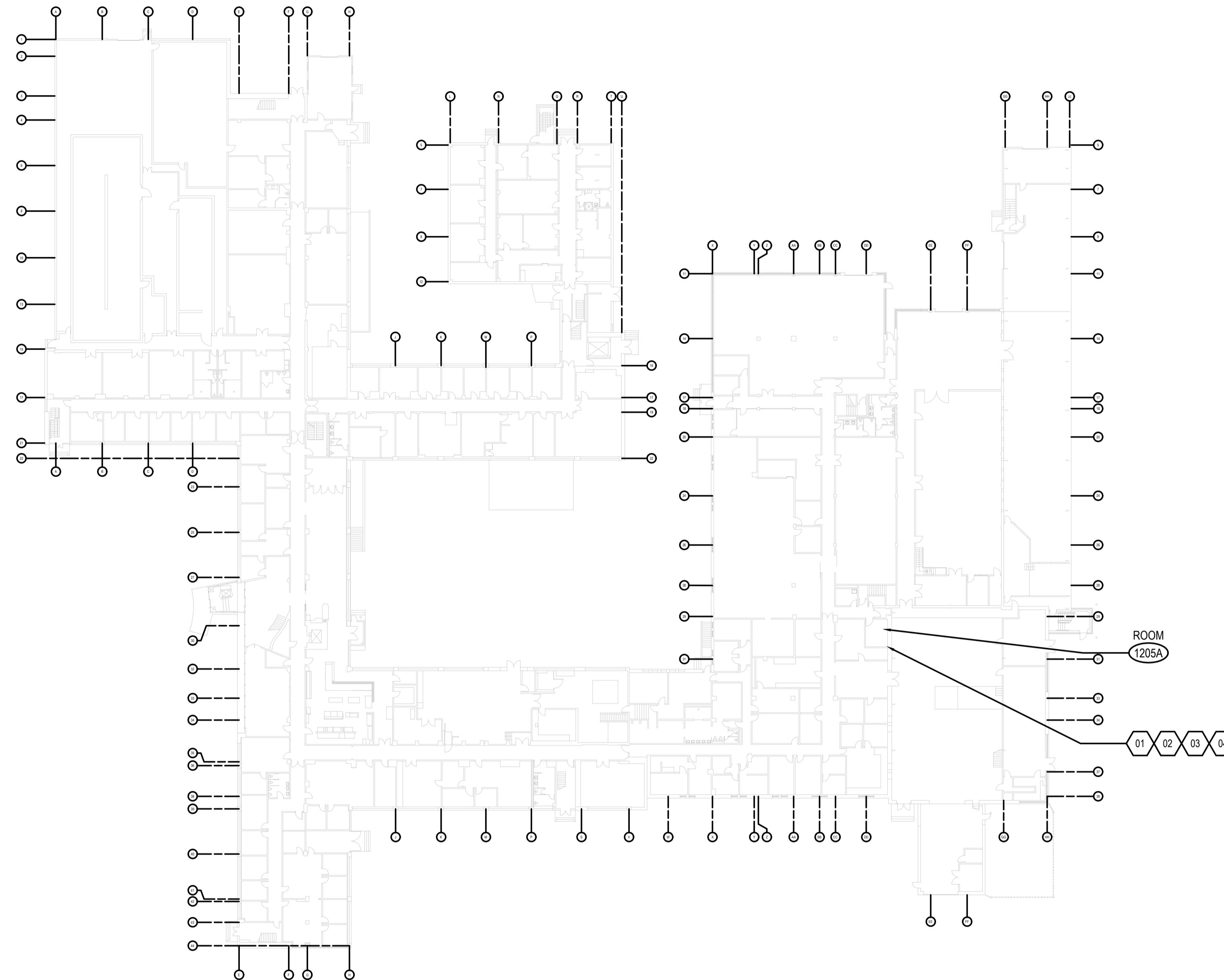
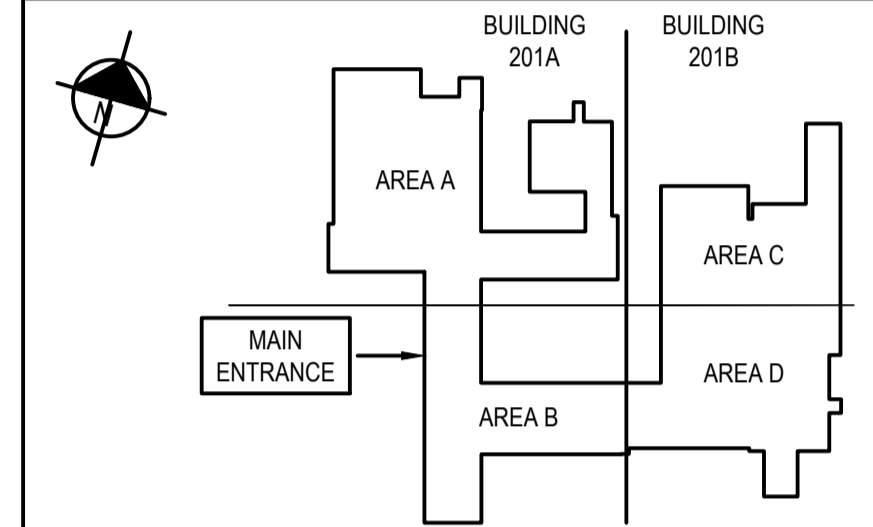
PACKAGE 2 - ROOF

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1 LEVEL 1 DEMOLITION PLAN - DUCTLESS SPLIT AC UNITS  
M411 SCALE: 1:400

NOTES:

- REFER TO DRAWING M400 FOR MECHANICAL LEGENDS AND HVAC NOTES.



0	2023/02/10	ISSUED FOR TENDER	D.R.
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SCALE | ÉCHELLE  
1:400

LOCATION | EMPLACEMENT  
1133 SHEPPARD AVE. W.  
TORONTO  
ONTARIO

PROJECT | PROJET  
DRDC HVAC COMPLIANCE UPGRADE  
BUILDING 201A & 201B

TRADE | MÉTIER  
Mechanical

DATE  
2021/07/08

SUBJECT | SUJET  
PACKAGE 2 -  
LEVEL 1 DEMOLITION PLAN -  
NEW DUCTLESS AC UNITS

DESIGNED   ÉTUDIÉ A.A.	DES O   AGENT CONC
DRAWN   DESSINÉ R.E. / E.M.	PROJ MGR   GEST PROJ
CHECKED   VÉRIFIÉ D.R.	DES MGR   GEST CONC
COORDINATION D.R.	FIRE   INCENDIE

WBS NO. | NO. OTP  
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M411

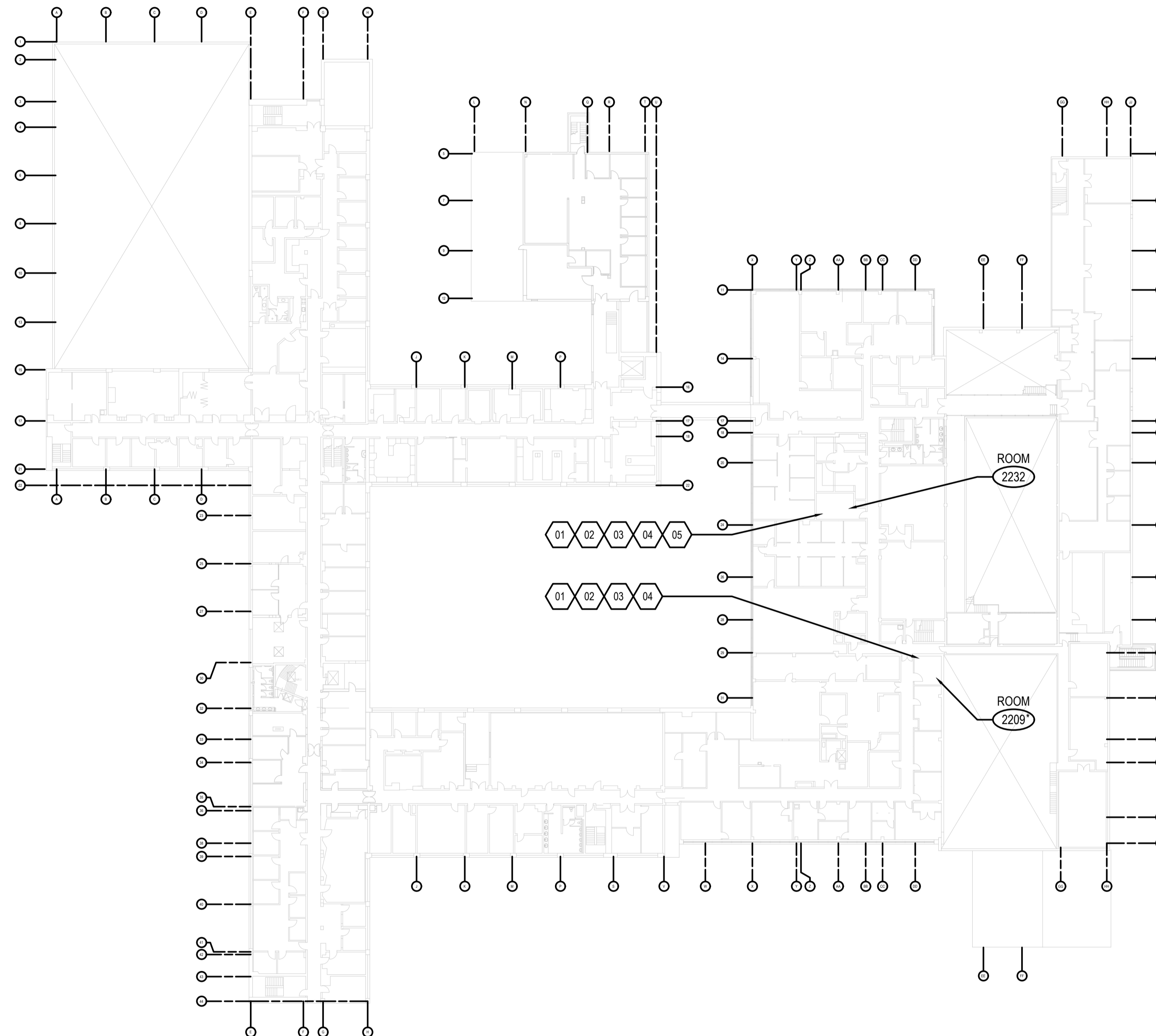
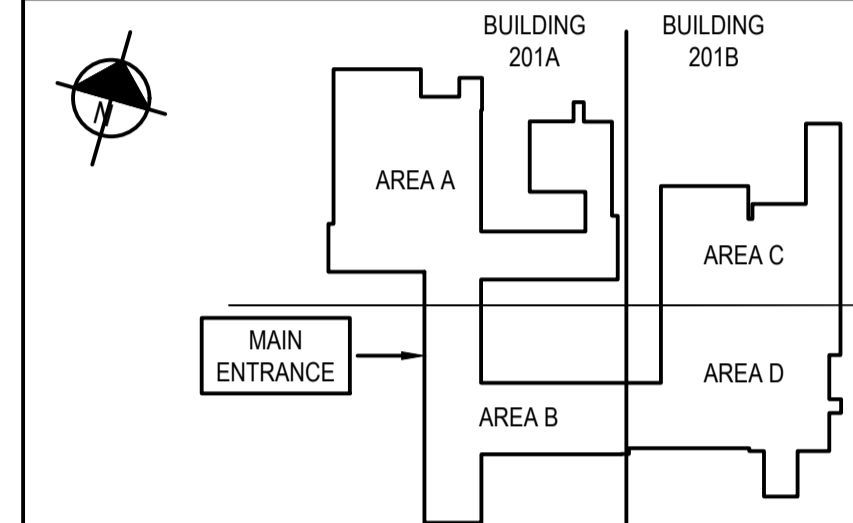
DEMOLITION NOTES	
01	DISASSEMBLE SUPPLY GRILLE AND THE SUPPLY BRANCH BACK TO THE MAIN. CAP SUPPLY AND EXHAUST AIR DUCTS AND SEAL ALL JOINTS.
02	REMOVE THERMOSTAT AND ASSOCIATED WIRING.
03	DISCONNECT AND REMOVE ELECTRICAL POWER FEEDING THE EXHAUST FAN.
04	DISASSEMBLE FROM THE DUCTWORK AND REMOVE EXHAUST FAN. CAP EXHAUST DUCTS AND SEAL ALL JOINTS.

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Canada



1 LEVEL 2 DEMOLITION PLAN - DUCTLESS SPLIT AC UNITS  
M412 SCALE: 1:400

NOTES:  
1. REFER TO DRAWING M400 FOR MECHANICAL LEGENDS AND HVAC NOTES.



0	2023/02/10	ISSUED FOR TENDER	D.R.
NO.	DATE	REVISION	APPR.

SCALE | ÉCHELLE  
1 : 400  
LOCATION | EMPLACEMENT  
1133 SHEPPARD AVE. W.  
TORONTO  
ONTARIO

PROJECT | PROJET  
DRDC HVAC COMPLIANCE UPGRADE  
BUILDING 201A & 201B

TRADE | MÉTIER  
Mechanical  
DATE  
2021/07/08

SUBJECT | SUJET  
PACKAGE 2 -  
LEVEL 2 DEMOLITION PLAN -  
NEW DUCTLESS AC UNITS

DESIGNED   ÉTUDIÉ A.A.	REVIEWED   REVU	DES O   AGENT CONC
DRAWN   DESSINÉ R.E. / E.M.		PROJ MGR   GEST PROJ
CHECKED   VÉRIFIÉ D.R.		DES MGR   GEST CONC
COORDINATION D.R.		FIRE   INCENDIE

WBS NO. | NO. OTP  
PF NO. | NO. DP

DWG. NO. | NO. DESSIN  
M412

DEMOLITION NOTES	
01	DISASSEMBLE SUPPLY GRILLE AND SUPPLY BRANCH BACK TO THE MAIN. CAP SUPPLY AND EXHAUST AIR DUCTS AND SEAL ALL JOINTS.
02	REMOVE THERMOSTAT AND ASSOCIATED WIRING.
03	DISCONNECT AND REMOVE ELECTRICAL POWER FEEDING THE EXHAUST FAN.
04	DISASSEMBLE FROM THE DUCTWORK AND REMOVE EXHAUST FAN. CAP EXHAUST DUCTS AND SEAL ALL JOINTS.
05	DISCONNECT AND REMOVE THE EXISTING VAV BOX FROM THE ROOM. DISCONNECT AND REMOVE THE VAV WIRING.
* CONFIRM ROOM NUMBER ON SITE. EXISTING DOCUMENTATION IDENTIFIES THIS ROOM AS RM. 2209 BUT THE S.O.W. IDENTIFIES THIS ROOM AS RM.2205.	

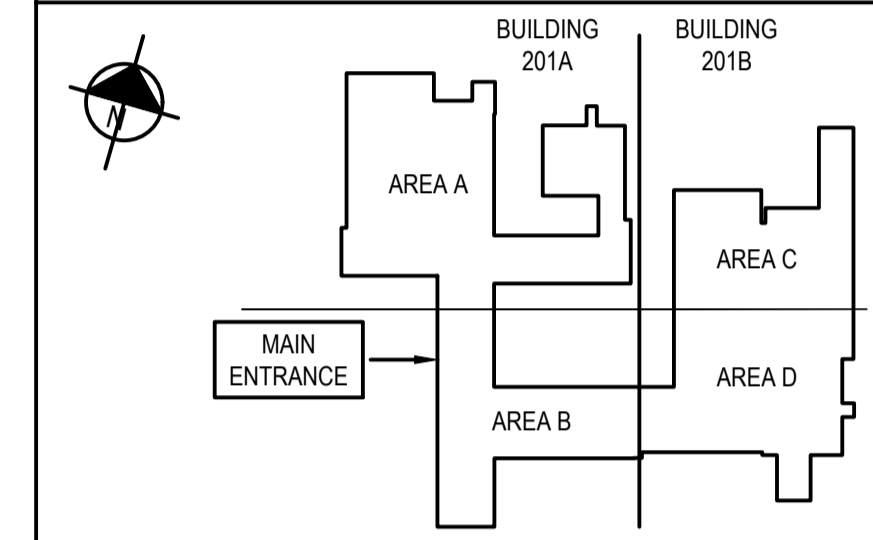
LEVEL OF SECURITY | NIVEAU DE SÉCURITÉ  
UNCLASS | NON CLASSIFIÉ

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Canada



NOTES:  
1. REFER TO DRAWING M400 FOR MECHANICAL LEGENDS AND HVAC NOTES.



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NO.	DATE	REVISION	APPR.

SCALE | ÉCHELLE  
AS NOTED  
LOCATION | EMPLACEMENT  
1133 SHEPPARD AVE. W.  
TORONTO  
ONTARIO

PROJECT | PROJET  
DRDC HVAC COMPLIANCE UPGRADE  
BUILDING 201A & 201B

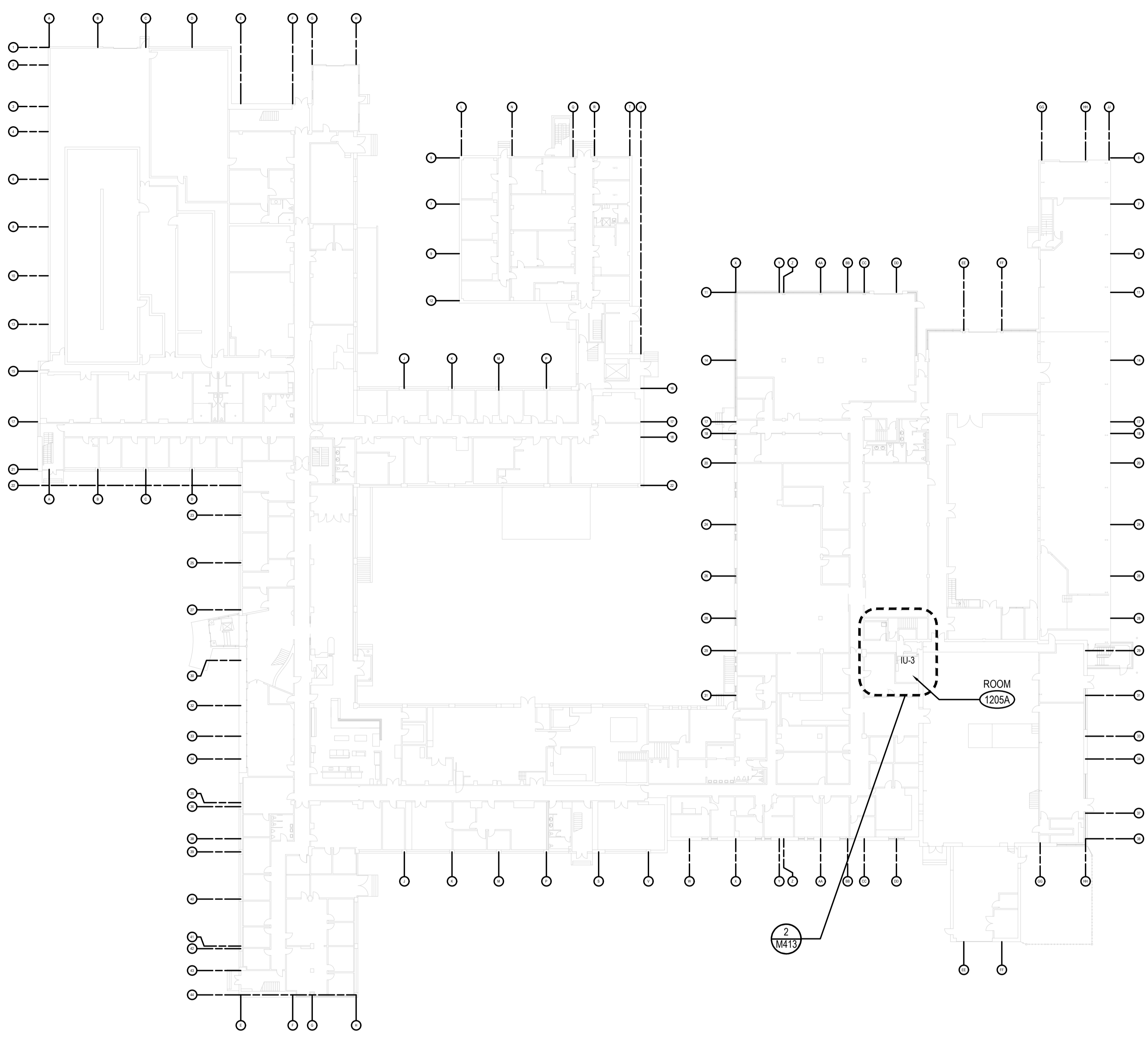
TRADE | MÉTIER  
Mechanical  
DATE  
2021/07/08

SUBJECT | SUJET  
PACKAGE 2 -  
LEVEL 1 PLAN -  
NEW DUCTLESS AC UNITS

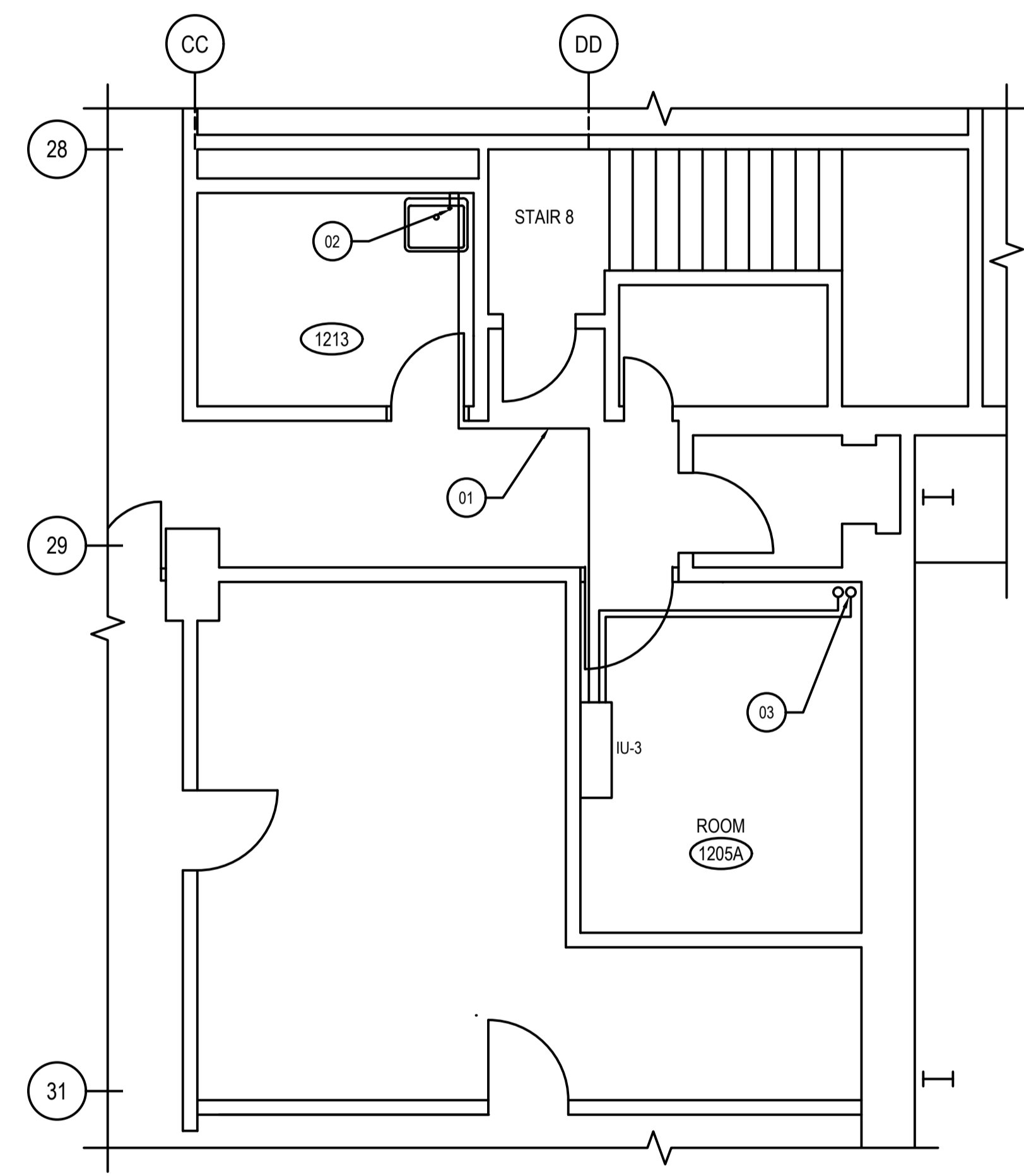
DESIGNED   ÉTUDIÉ	REVIEWED   REVU	DES O   AGENT CONC
A.A.		
DRAWN   DESSINÉ		PROJ MGR   GEST PROJ
R.E. / E.M.		
CHECKED   VÉRIFIÉ		DES MGR   GEST CONC
D.R.		
COORDINATION		FIRE   INCENDIE
D.R.		

WBS NO. | NO. OTP  
PF NO. | NO. DP

DWG. NO. | NO. DESSIN  
M413



1 LEVEL 1 PLAN - NEW DUCTLESS AC UNITS  
M413 SCALE: NTS



2 ROOM 1205A PLAN  
M413 SCALE: 1:50

NEW INSTALLATION NOTES	
01	RUN 20mmØ DRAIN PIPE FROM AC UNIT IU-3 (RM.1205A) AS INDICATED AT 1% SLOPE AND IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS. OBC AND NPC. EXACT ROUTING TO BE FIELD VERIFIED AND CONFIRMED ON SITE.
02	TIE-IN TO THE EXISTING 38mm (1 1/2") VENT RISER IN THE WALL CHASE AT RM. 1213. EXACT PENETRATION TO BE FIELD VERIFIED AND CONFIRMED ON SITE.
03	REFRIGERANT PIPES TO ABOVE CU-3. REFER TO DETAILS 2/M414, 2/M415 AND SPLIT AC SYSTEM SCHEDULE ON M415.

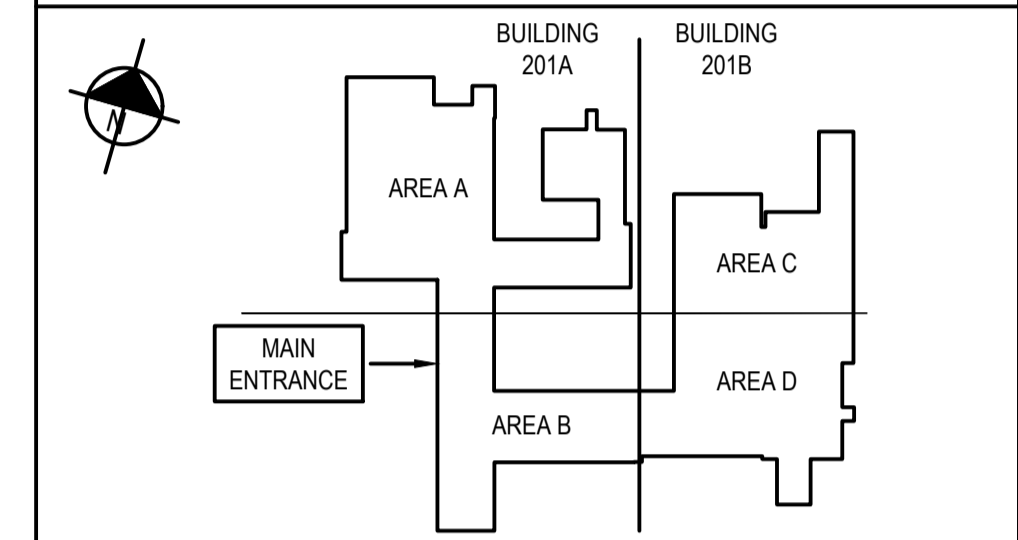
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NOTES:

- REFER TO DRAWING M400 FOR MECHANICAL LEGENDS AND HVAC NOTES.



NO.	DATE	REVISION	APPR.
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SCALE | ÉCHELLE  
AS NOTED

LOCATION | EMPLACEMENT  
1133 SHEPPARD AVE. W.  
TORONTO  
ONTARIO

PROJECT | PROJET  
DRDC HVAC COMPLIANCE UPGRADE  
BUILDING 201A & 201B

TRADE | MÉTIER  
Mechanical

DATE  
2021/07/08

SUBJECT | SUJET  
PACKAGE 2 -  
LEVEL 2 PLAN -  
NEW DUCTLESS AC UNITS

DESIGNED   ÉTUDIÉ	REVIEWED   REVU	DES O   AGENT CONC
A.A.		
DRAWN   DESSINÉ	PROJ MGR   GEST PROJ	
R.E. / E.M.		
CHECKED   VÉRIFIÉ	DES MGR   GEST CONC	
D.R.		
COORDINATION	FIRE   INCENDIE	
D.R.		

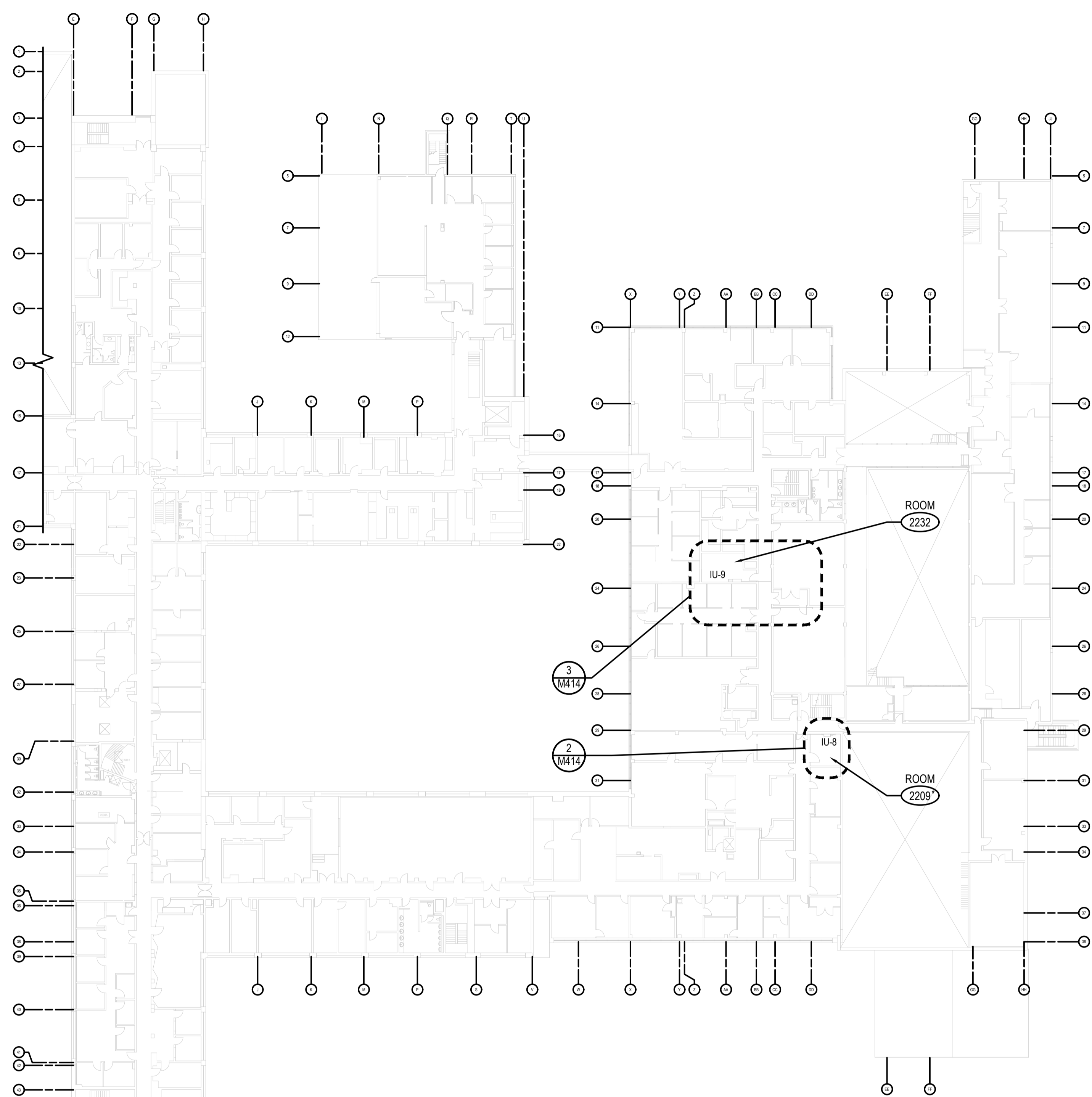
WBS NO. | NO. OTP  
PF NO. | NO. DP

DWG. NO. | NO. DESSIN  
M414

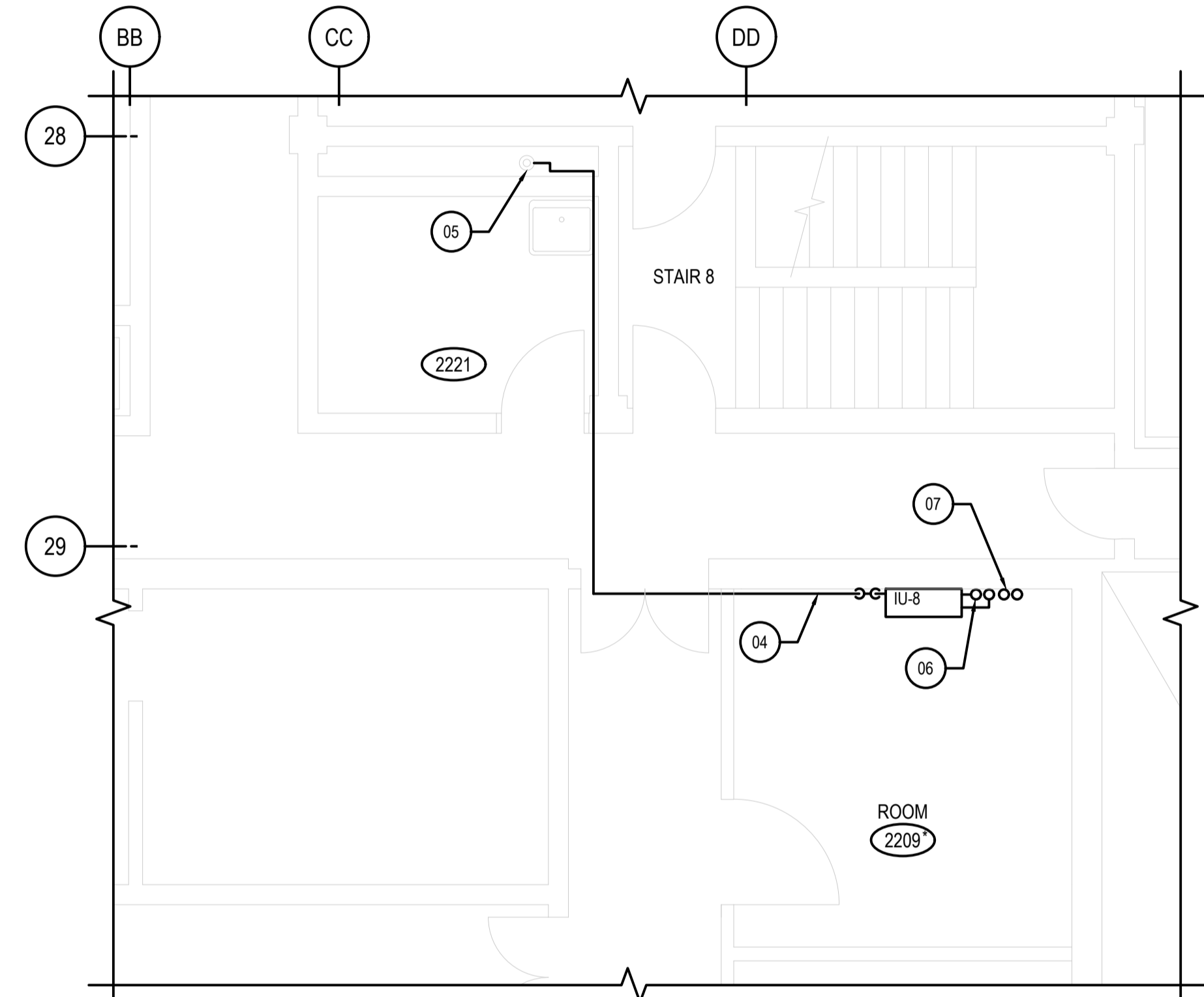


NEW INSTALLATION NOTES	
01	RUN 20mmØ DRAIN PIPE FROM AC UNIT IU-9 (RM.2232) AS INDICATED AT 1% SLOPE AND IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS, OBC AND NPC. EXACT ROUTING TO BE FIELD VERIFIED AND CONFIRMED ON SITE.
02	DROP LINE TO THE NEAREST EXISTING FLOOR DRAIN IN MECH. RM. 2223 AND ESTABLISH INDIRECT CONNECTION AS PER NPC AND OBC AND PROVIDE SUFFICIENT KICK PROTECTION.
03	REFRIGERANT PIPES TO ABOVE CU-6. REFER TO DETAIL 3/M415 AND SPLIT AC SYSTEM SCHEDULE ON M413.
04	RUN 20mmØ DRAIN PIPE FROM AC UNIT IU-8 (RM.2209) AS INDICATED AT 1% SLOPE AND IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS, OBC AND NPC. TIE-IN TO THE EXISTING 38mm (1 1/2") VENT RISER PIPE IN THE WALL CHASE AT RM. 2221. EXACT ROUTING AND PENETRATION TO BE FIELD VERIFIED AND CONFIRMED ON SITE.
05	EXISTING 40mm (1 1/2") VENT.
06	REFRIGERANT PIPES TO CU-3 ABOVE. REFER TO DETAIL 2/M415 AND SPLIT AC SYSTEM SCHEDULE ON M415.
07	REFRIGERANT PIPES FROM IU-3 BELOW TO CU-3 ABOVE. REFER TO DETAILS 2/M413, 2/M415, AND SPLIT AC SYSTEM SCHEDULE ON M415.

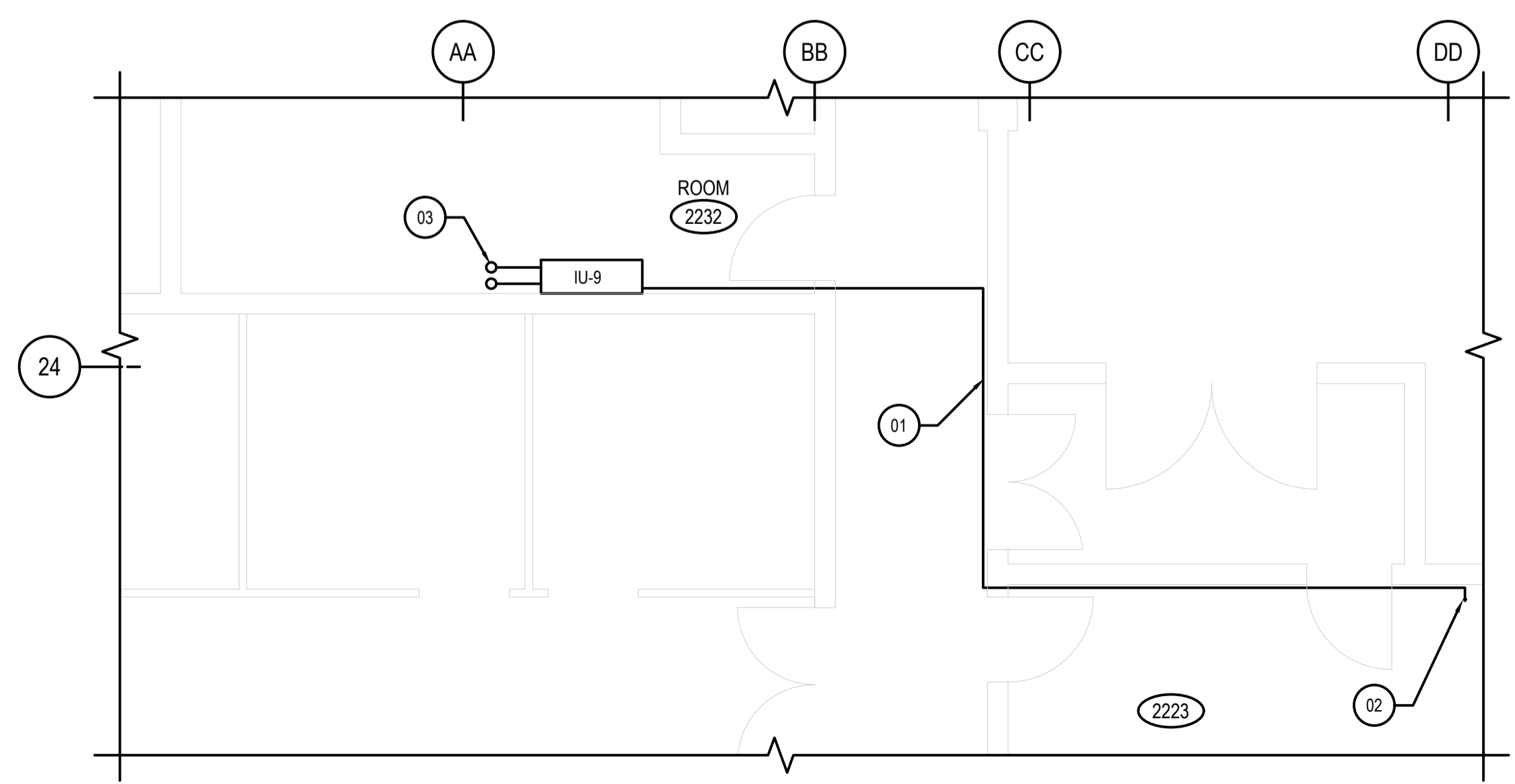
\* CONFIRM ROOM NUMBER ON SITE. EXISTING DOCUMENTATION IDENTIFIES THIS ROOM AS RM. 2209 BUT THE S.O.W. IDENTIFIES THIS ROOM AS RM. 2205.



1 LEVEL 2 PLAN - NEW DUCTLESS AC UNITS  
M414 SCALE: NTS



2 ROOM 2209 PLAN  
M414 SCALE: 1:50



3 ROOM 2232 PARTIAL PLAN  
M414 SCALE: 1:50



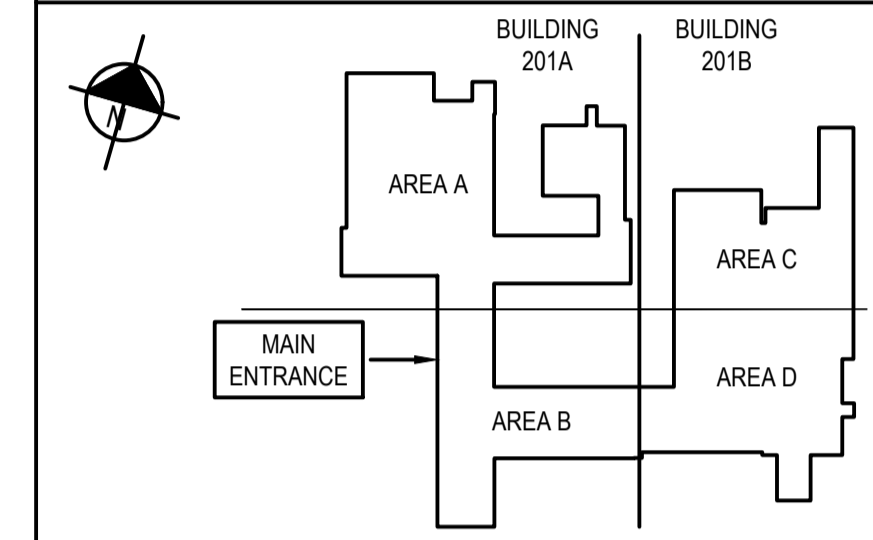
LEVEL OF SECURITY | NIVEAU DE SÉCURITÉ  
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**NOTES:**

- REFER TO DRAWING M400 FOR MECHANICAL LEGENDS AND HVAC NOTES.
- LOCATE THE CONDENSING UNIT TO MAXIMUM VICINITY TO THE PIPE ROOF PENETRATIONS AND AS PER MANUFACTURER'S SERVICE DISTANCE RECOMMENDATIONS.



0	2023/02/10	ISSUED FOR TENDER	D.R.
NO.	DATE	REVISION	APPR.

SCALE | ÉCHELLE  
AS NOTED  
LOCATION | EMPLACEMENT  
**1133 SHEPPARD AVE. W.  
TORONTO  
ONTARIO**

PROJECT | PROJET  
**DRDC HVAC COMPLIANCE UPGRADE  
BUILDING 201A & 201B**

TRADE | MÉTIER  
**Mechanical**

DATE  
2021/07/08

SUBJECT | SUJET  
**PACKAGE 2 -  
ROOF PLAN -  
NEW DUCTLESS AC UNITS**

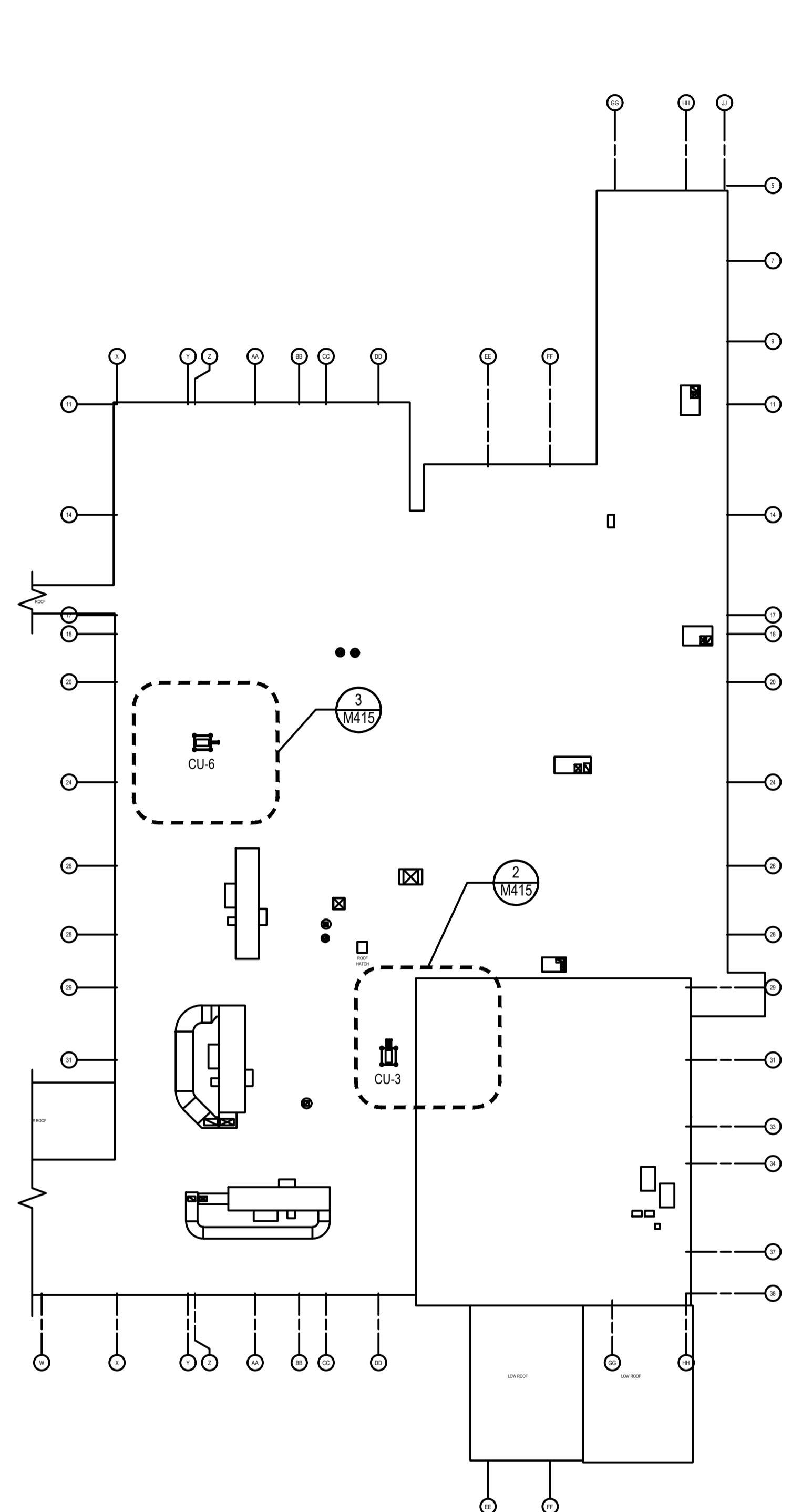
DESIGNED   ÉTUDIÉ	REVIEWED   REVU	DES O   AGENT CONC
A.A.		
DRAWN   DESSINÉ		PROJ MGR   GEST PROJ
R.E. / E.M.		
CHECKED   VÉRIFIÉ		DES MGR   GEST CONC
D.R.		
COORDINATION		FIRE   INCENDIE
D.R.		

WBS NO. | NO. OTP

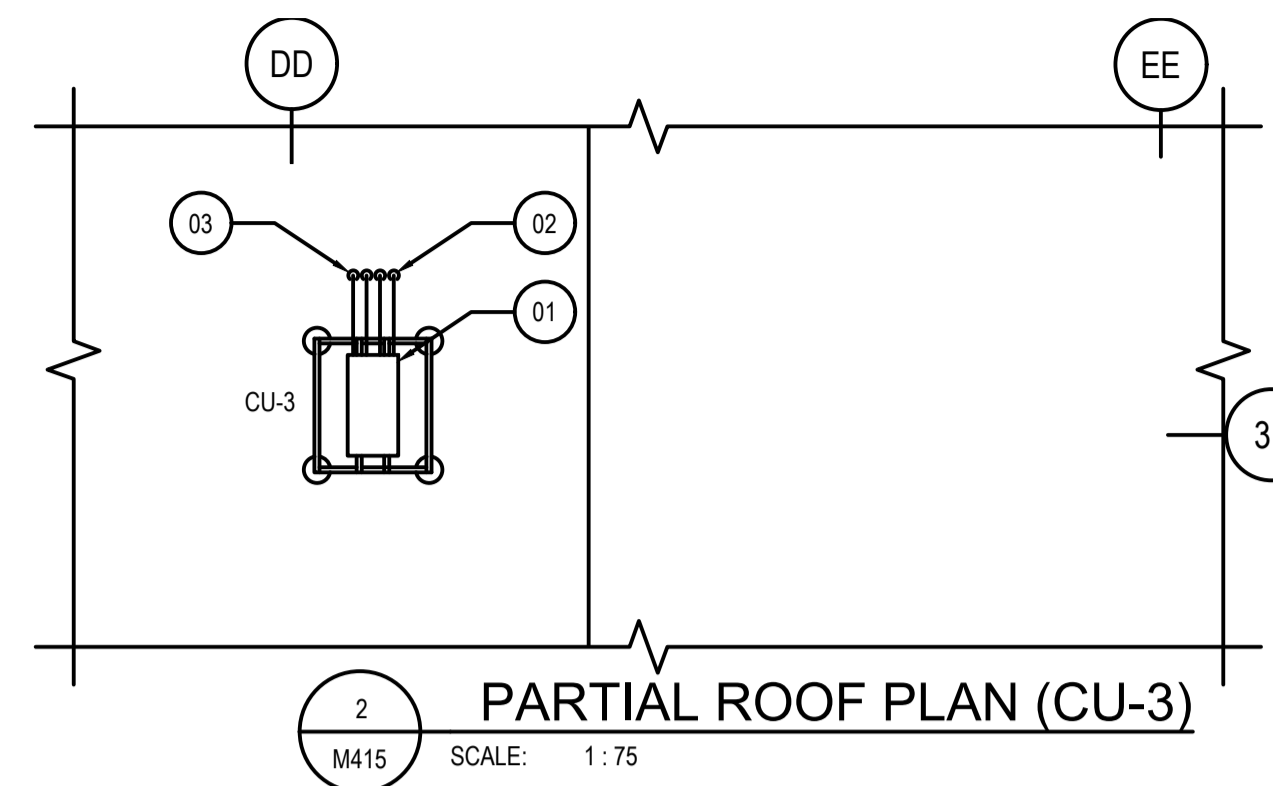
PF NO. | NO. DP

DWG. NO. | NO. DESSIN

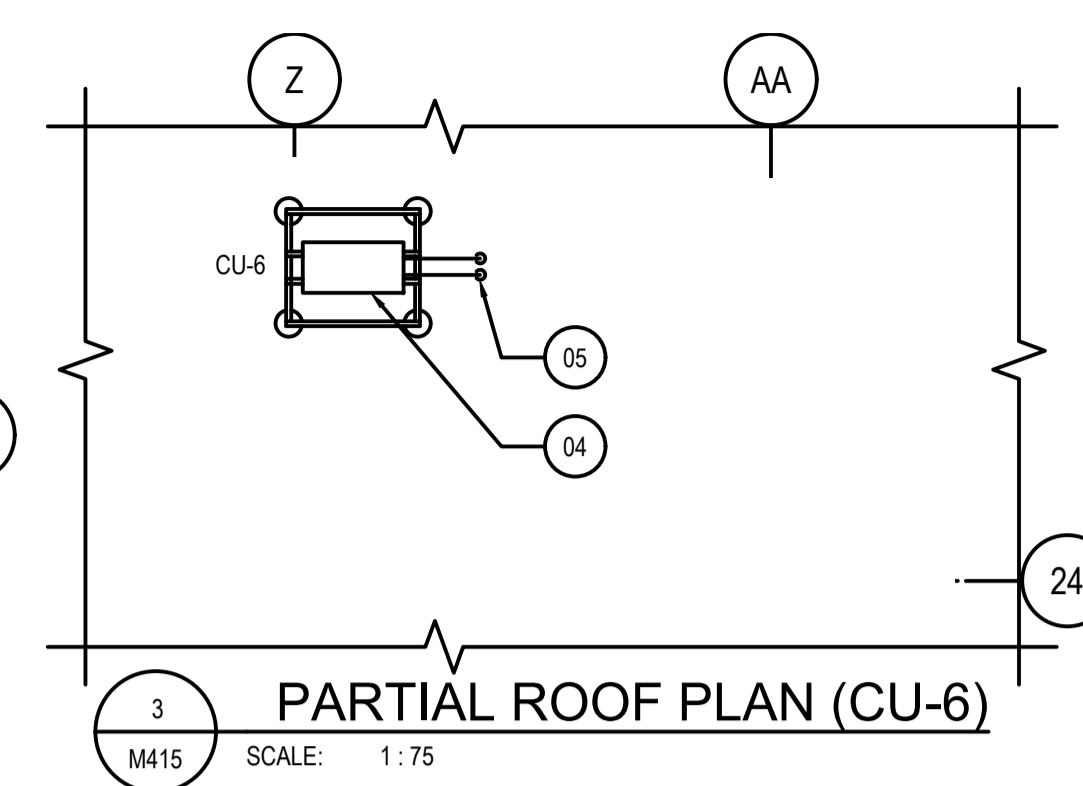
M415



**1 ROOF PLAN - NEW DUCTLESS AC UNITS**  
M415 SCALE: NTS

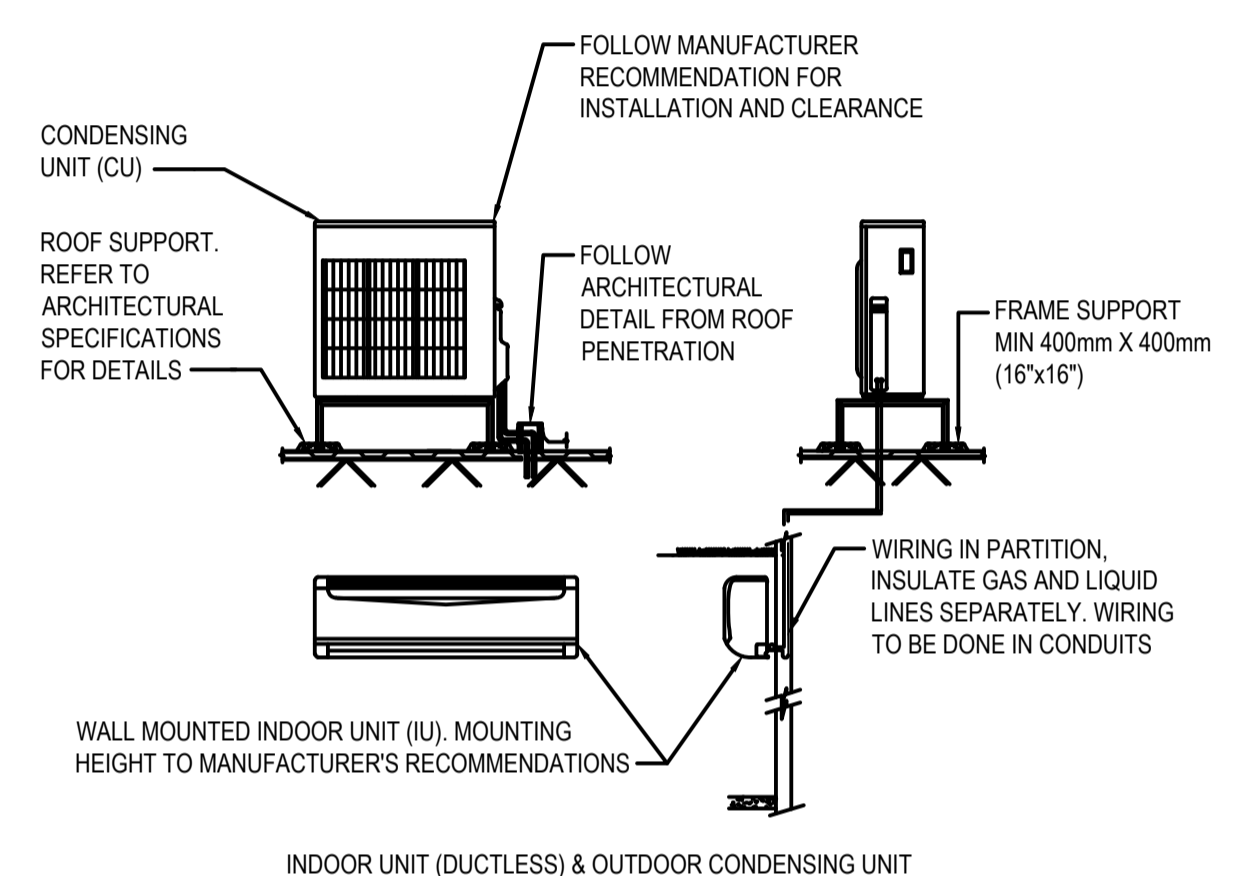


**2 PARTIAL ROOF PLAN (CU-3)**  
M415 SCALE: 1:75

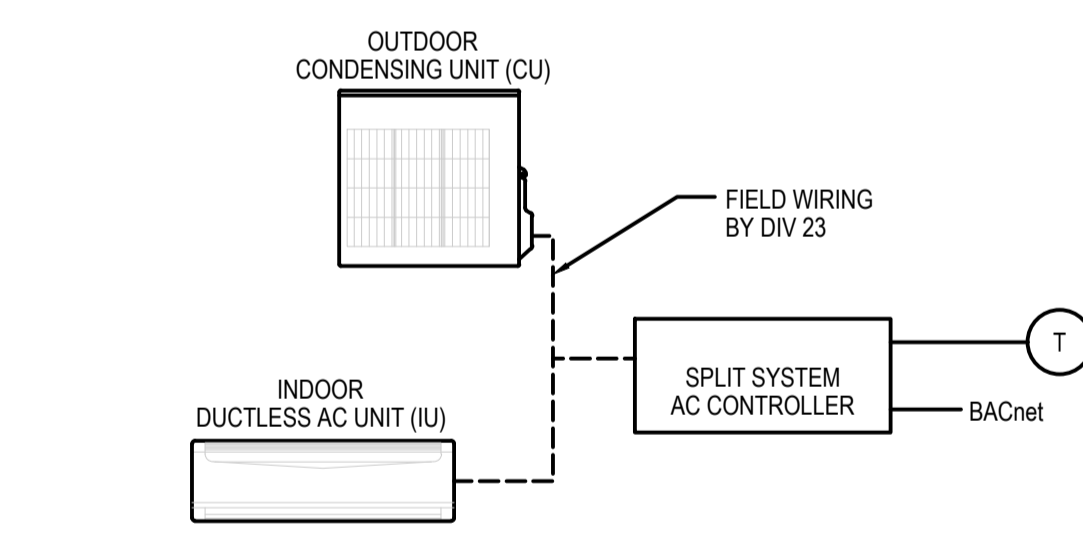


**3 PARTIAL ROOF PLAN (CU-6)**  
M415 SCALE: 1:75

NEW INSTALLATION NOTES	
01	ROOF MOUNTED CONDENSING UNIT CU-3. REFER TO SPLIT AC SYSTEM SCHEDULE ON M415.
02	REFRIGERANT PIPES FROM IU-3 BELOW. REFER TO DETAILS 2/M413, 2/M414 AND SPLIT AC SYSTEM SCHEDULE ON M415.
03	REFRIGERANT PIPES FROM IU-8 BELOW. REFER TO DETAIL 2/M414 AND SPLIT AC SYSTEM SCHEDULE ON M415.
04	ROOF MOUNTED CONDENSING UNIT CU-6. REFER TO SPLIT AC SYSTEM SCHEDULE ON M415.
05	REFRIGERANT PIPES FROM IU-9 BELOW. REFER TO DETAIL 3/M414 AND SPLIT AC SYSTEM SCHEDULE ON M415.



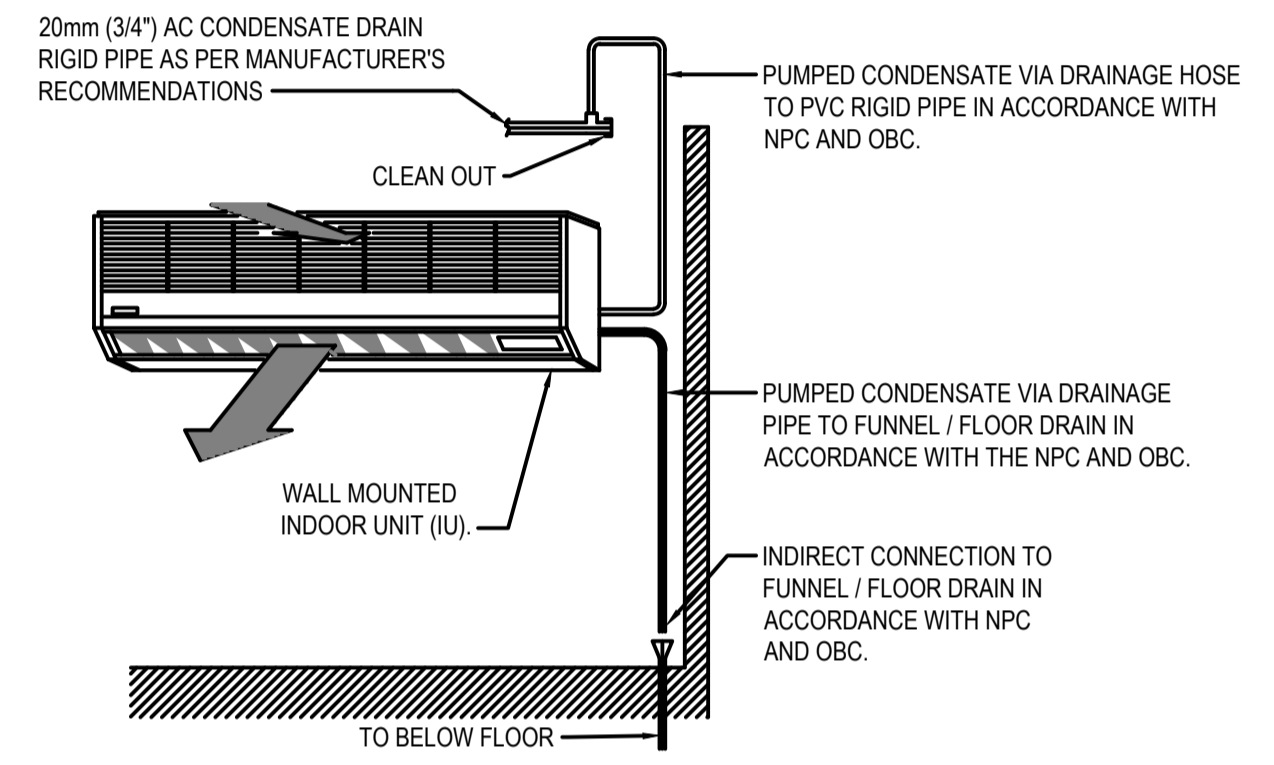
**4 DX SPLIT SYSTEM DETAIL**  
M415 SCALE: NTS



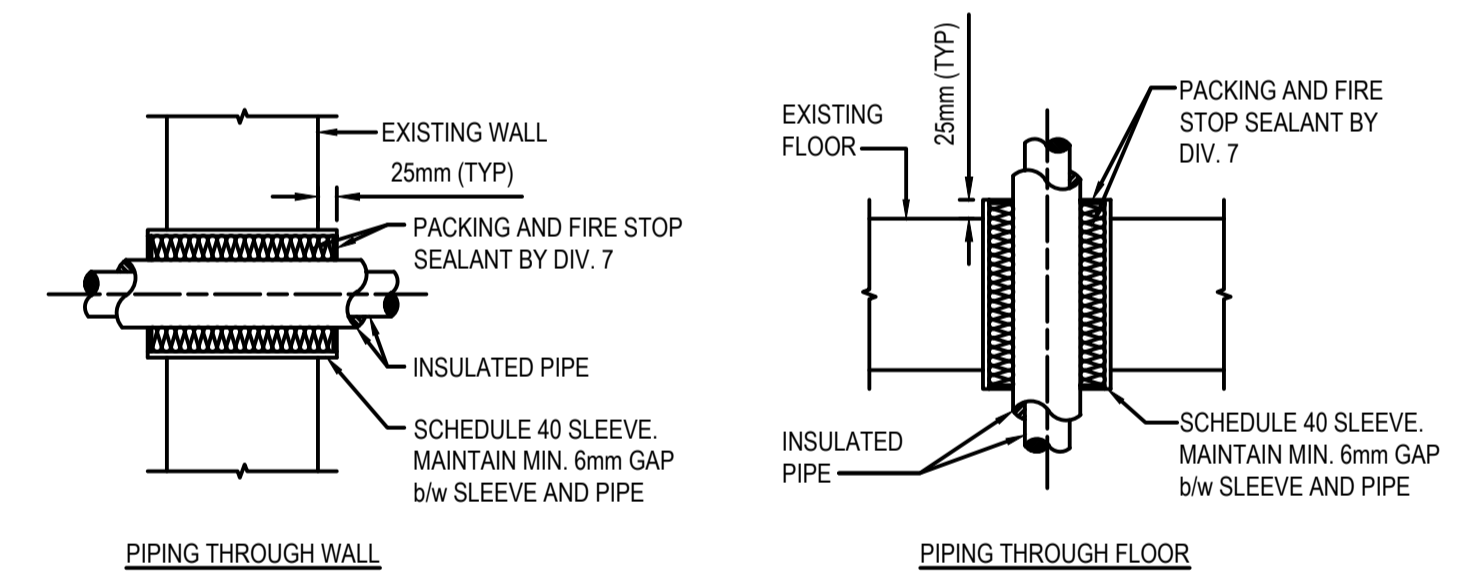
**SEQUENCE OF OPERATION**

THE UNIT PACKAGED CONTROLLER SHALL MAINTAIN ROOM TEMPERATURE SETPOINT. THE BAS SHALL MONITOR FOR STATUS, SPACE TEMPERATURE & EQUIPMENT ALARMS. THE BAS SHALL HAVE THE ABILITY TO ADJUST TEMPERATURE SETPOINT.

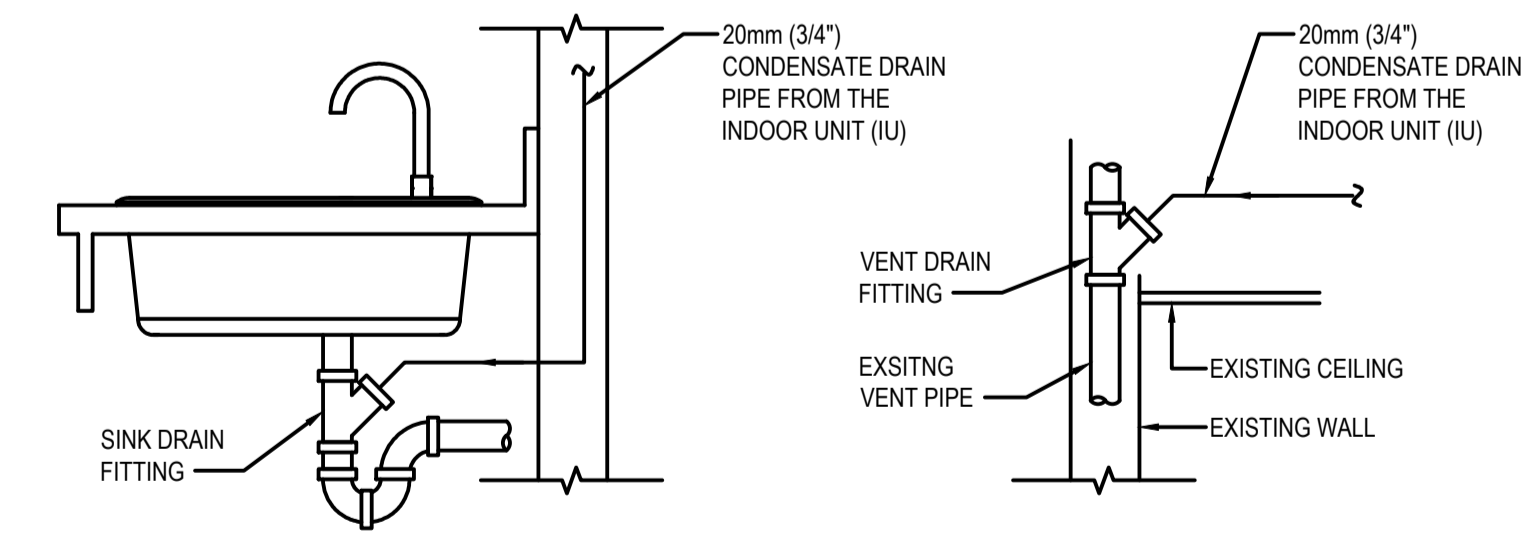
**6 NEW DX SPLIT SYSTEM CONTROL DIAGRAM**  
M415 SCALE: NTS



**5 DX SPLIT INDOOR UNIT DRAIN DETAIL**  
M415 SCALE: NTS



**7 PIPE PENETRATION DETAIL**  
M415 SCALE: NTS



**8 TYPICAL CONDENSATE DRAIN SINK DETAIL**  
M415 SCALE: NTS

SPLIT AC SYSTEM SCHEDULE ( LOW AMBIENT -40 °C )																								
TAG	LOCATION	AIRFLOW (LOW-MEDIUM-HIGH) l/s	COOLING CAPACITY			INDOOR UNIT TYPE	INDOOR UNIT DATA					COND. UNIT NUMBER	OUTDOOR UNIT TYPE	OUTDOOR UNIT DATA					REMARKS					
			RATED (kW)	MIN (kW)	MAX (kW)		EFFICIENCY		PIPING		WEIGHT kg			FAN MOTOR DATA		EFFICIENCY				WEIGHT kg	ELECTRICAL			
							SEER	EER	Liq - Gas (Inch)	DRAIN (Inch)				FLA (A)	WATTS	SEER	EER	HSPF			COP	V/PH	MCA (A)	MFA (A)
IU-3	ROOM 1205A	116-149-205	3.19	1.29	3.89	WALL MOUNT	19	12.5	1/4 - 3/8	5/8	9	0.36	38	CU-3	MULTI PORTS	18	12.7	12.5	3.41	62	208/160	21.9	25	REFRIGERANT - R410A, c/w CONDENSATE PUMP (IU-3 & IU-8), WIND BAFFLE, INDOOR T-STAT w/ 2 DAYS BACK UP BATTERY, CAPABLE FOR LOW TEMPERATURE OPERATION AT -40°C
IU-8	ROOM 2209	116-149-205	3.19	1.29	3.89	WALL MOUNT	19	12.5	1/4 - 3/8	5/8	9	0.36	38			18	12.7	12.5	3.41	62	208/160	21.9	25	REFRIGERANT - R410A, c/w CONDENSATE PUMP, WIND BAFFLE, INDOOR T-STAT w/ 2 DAYS BACK UP BATTERY, CAPABLE FOR LOW TEMPERATURE OPERATION AT -40°C
IU-9	ROOM 2232	206-285-338	5.27	2.64	6.32	WALL MOUNT	20.3	15.5	1/4 - 1/2	5/8	15	0.37	48			CU-6	SINGLE/MINI	-	-	10.3	3.5	59	208/160	18.7

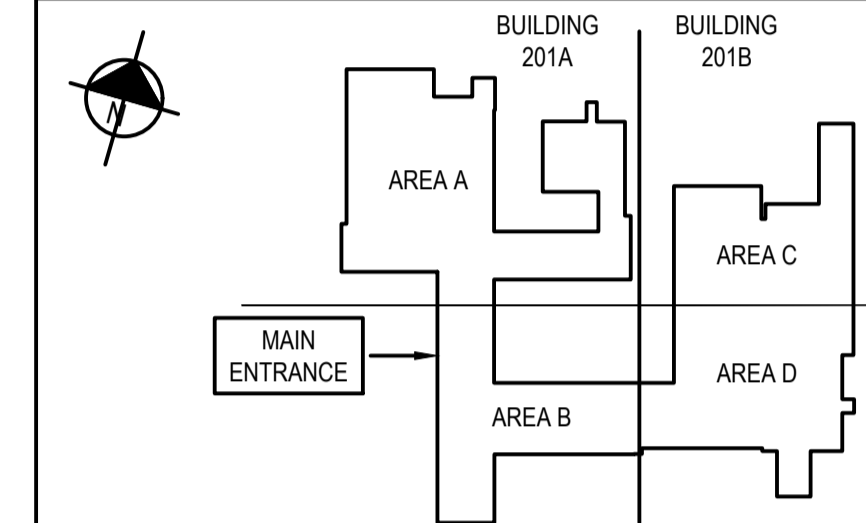
\*\* GENERAL NOTE FOR ALL SPLIT AC SYSTEM, PROVIDE ALARM BUZZER INSIDE THE ROOM AND PROVIDE AN OUTPUT SIGNAL TO THE BAS IN CASE OF SYSTEM FAILURE

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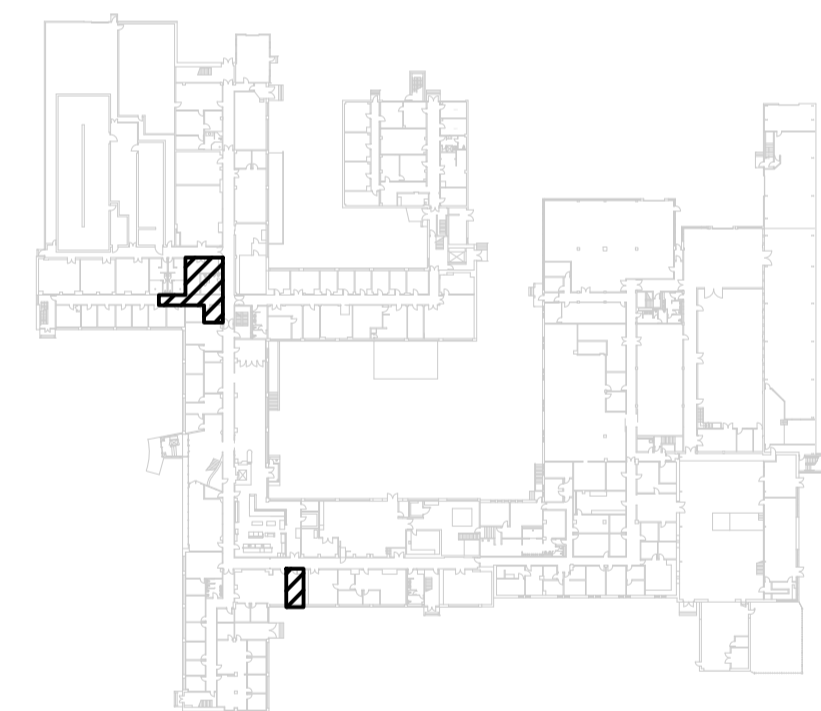


NOTES:

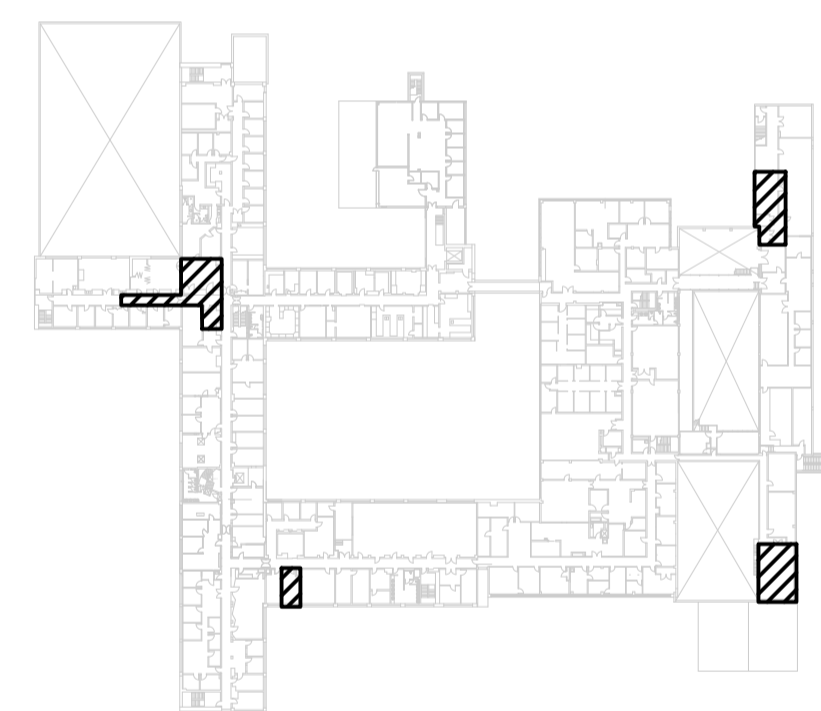
1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) U.N.O.



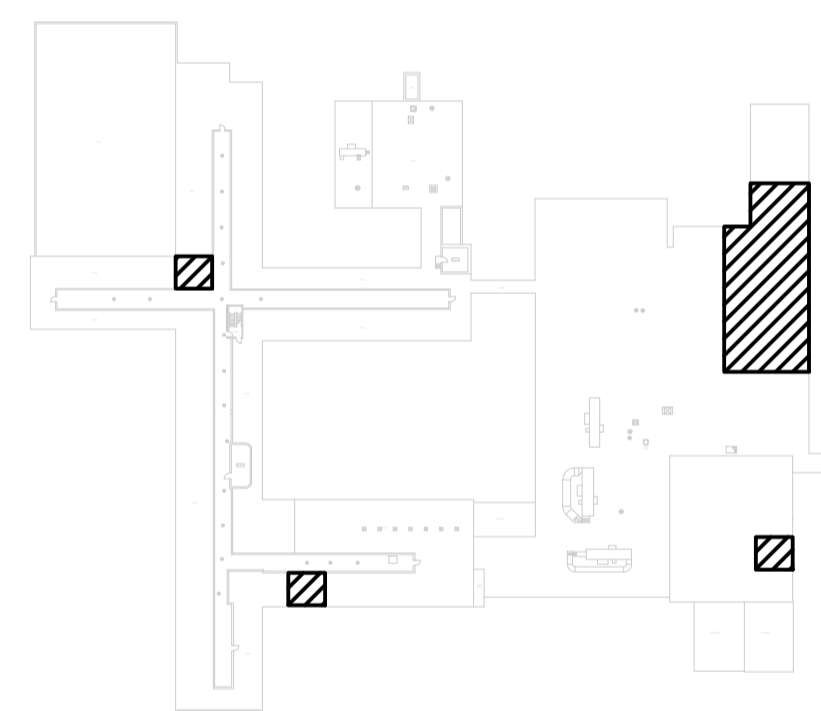
ELECTRICAL DRAWING LIST		
DRAWING NUMBER	DESCRIPTION	PACKAGE #
E500	ELECTRICAL LEGEND & NOTES	
E501	SINGLE LINE DIAGRAM - PART II - RTU ROOF TOP UNITS POWER PANEL	1
E502	ELECTRICAL RISER I - AC UNITS AND RTU ROOF TOP UNITS	1
E503	ELECTRICAL RISER II - AC UNITS AND RTU ROOF TOP UNITS	1
E504	ELECTRICAL RISER III - AC UNITS AND RTU ROOF TOP UNITS	1
E505	RTU ROOF TOP UNITS ELECTRICAL LAYOUT	1
E506	LEVEL 1 ELECTRICAL LAYOUT	1
E507	LEVEL 2 ELECTRICAL LAYOUT	1
E508	ROOM 2219 AIR HANDLING UNIT REPLACEMENT ELECTRICAL LAYOUT	1
E509	POWER PANEL SCHEDULE	1
E510	NEW DUCTLESS AC UNITS ROOF ELECTRICAL LAYOUT	1
E511	ELECTRICAL RISER III - AC UNITS AND RTU ROOF TOP UNITS	2
E512	LEVEL 1 ELECTRICAL LAYOUT	2
E513	LEVEL 2 ELECTRICAL LAYOUT	2
E514	NEW DUCTLESS AC UNITS ROOF ELECTRICAL LAYOUT	2
E515	POWER PANEL SCHEDULE	2



PACKAGE 1 - LEVEL 1



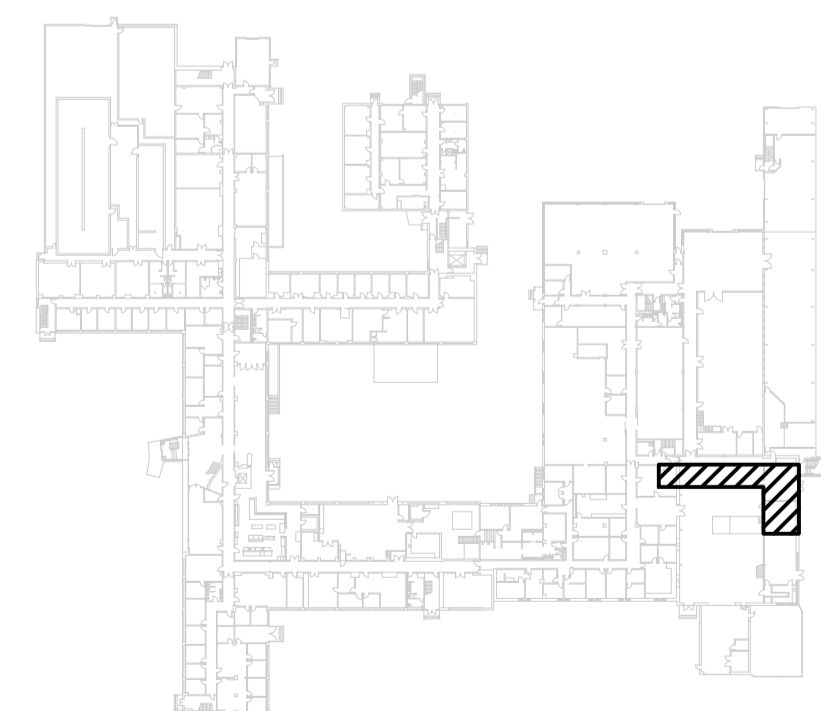
PACKAGE 1 - LEVEL 2



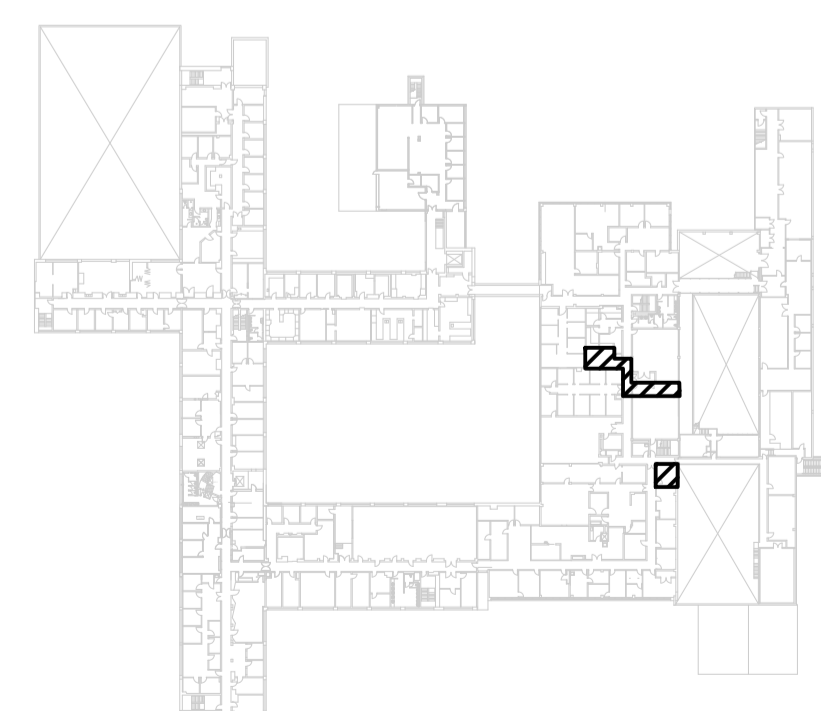
PACKAGE 1 - ROOF

HVAC DEMOLITION/MODIFICATION – GENERAL NOTES

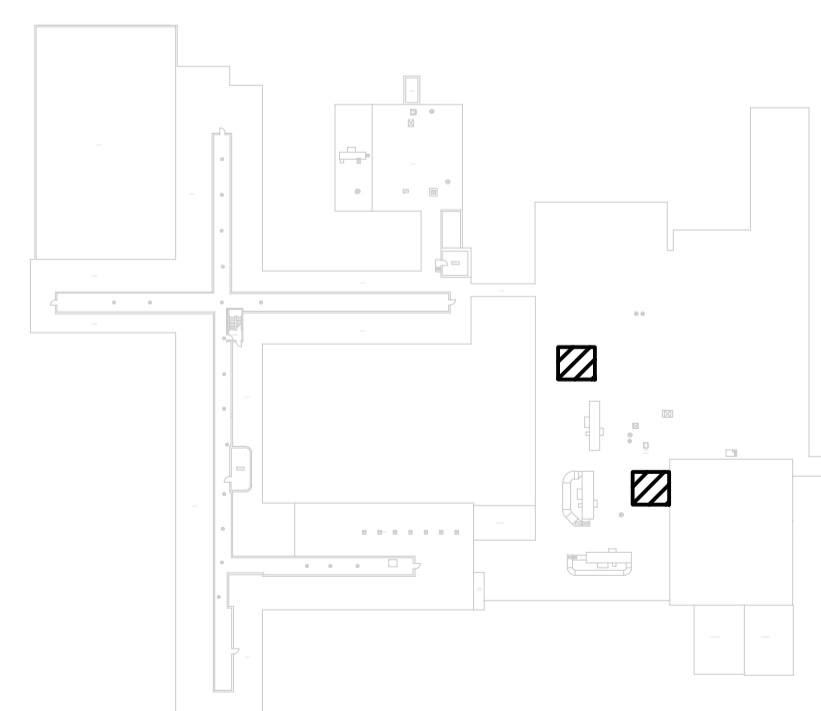
1. CONTRACTOR TO EXAMINE SITE PRIOR TO THE COMMENCEMENT OF ANY WORK.
2. ANY DISCREPANCIES BETWEEN DRAWINGS AND SPECIFICATIONS AND/OR EXISTING CONDITIONS ARE TO BE REFERRED TO DCC REPRESENTATIVE FOR INSTRUCTIONS BEFORE ANY WORK IS BEGUN.
3. COORDINATE ALL EQUIPMENT/SERVICE SHUTDOWN WITH DRDC & DRDC'S FACILITY MANAGEMENT CONTRACTOR.
4. CONTRACTOR IS TO BE AWARE THAT SPACES THEY ARE WORKING IN FOR DUCTLESS AC UNITS ARE HIGHLY SENSITIVE TO DUST. PRIOR TO STARTING WORK IN THESE AREAS, THE CONTRACTOR SHALL PROPOSE TO DND/DRDC/DCC TO REVIEW DUST CONTROL MEASURES TO PROTECT SENSITIVE EQUIPMENT.
5. ALL WORK SHALL BE COMPLETED ONCE ADEQUATE PROTECTION OF ADJACENT SPACES HAS BEEN INSTALLED. CONTRACTOR TO ENSURE MINIMAL DUST CREATION DURING WORK.
6. MAKE GOOD ALL SURFACES AFTER COMPLETION OF WORK. SEAL ANY ABANDONED ELECTRICAL SERVICE OPENINGS.
7. REMOVE ALL DEBRIS AND RUBBISH FROM THE SITE DAILY.
8. DISPOSE OF ALL DEBRIS AS PER AUTHORITY HAVING JURISDICTION.
9. COORDINATE DELIVERY OF MATERIALS AND SITE ACCESS WITH DRDC & DRDC'S FACILITY MANAGEMENT.
10. PROVIDE CAULKING AND FIRESTOPPING FOR ALL ELECTRICAL SERVICES PASSING THROUGH FIRE SEPARATIONS AS INDICATED ON THE ARCHITECTURAL LAYOUT.
11. PROVIDE NEW EQUIPMENT AND ALL ASSOCIATED ACCESSORIES AS REQUIRED TO COMPLETE A FULLY OPERATIONAL AND MAINTAINABLE SYSTEM.
12. SEE MANUFACTURER DRAWINGS FOR VFD INFORMATION.



PACKAGE 2 - LEVEL 1



PACKAGE 2 - LEVEL 2



PACKAGE 2 - ROOF

LEGEND	
TYPE	DESCRIPTION
⊖	15A, 125V DUPLEX RECEPTACLE. CSA TYPE 5-15R.
⊖	20A, 125V WEATHERPROOF GFI DUPLEX RECEPTACLE. CSA TYPE 5-20R. PROVIDE COVER TO PROTECT FROM MECHANICAL DAMAGE. MOUNT AT LEAST 750MM ABOVE FINISHED ROOF.

NO.	DATE	REVISION	APPR.
0	2023/02/10	ISSUED FOR TENDER	D.R.

SCALE | ÉCHELLE

LOCATION | EMPLACEMENT  
1133 SHEPPARD AVE. W.  
TORONTO  
ONTARIO

PROJECT | PROJET  
DRDC HVAC COMPLIANCE UPGRADE  
BUILDING 201A & 201B

TRADE | MÉTIER  
ELECTRICAL

DATE  
2021/07/08

SUBJECT | SUJET  
ELECTRICAL  
LEGEND & NOTES

DESIGNED   ÉTUDIÉ	REVIEWED   REVU	DES O   AGENT CONC
C.L.		
DRAWN   DESSINÉ	PROJ MGR   GEST PROJ	
G.S.		
CHECKED   VÉRIFIÉ	DES MGR   GEST CONC	
C.L.		
COORDINATION	FIRE   INCENDIE	
D.R.		

WBS NO. | NO. OTP      PF NO. | NO. DP

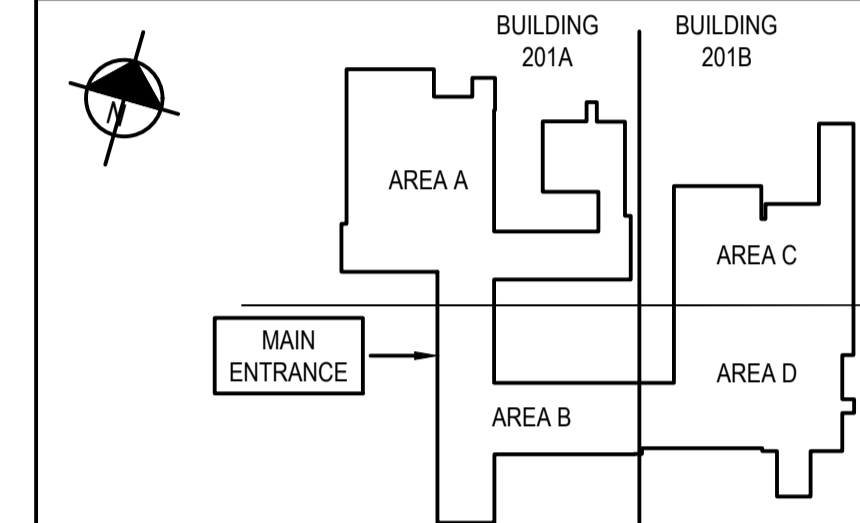
DWG. NO. | NO. DESSIN      E500

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Dartmouth, NS  
Canada



NOTES:

- REFER TO DRAWING E500 FOR ELECTRICAL LEGEND AND GENERAL NOTES.



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NO.	DATE	REVISION	APPR.

SCALE | ÉCHELLE

LOCATION | EMPLACEMENT  
1133 SHEPPARD AVE. W.  
TORONTO  
ONTARIO

PROJECT | PROJET  
DRDC HVAC COMPLIANCE UPGRADE  
BUILDING 201A & 201B

TRADE | MÉTIER  
ELECTRICAL

DATE  
2021/07/08

SUBJECT | SUJET  
PACKAGE 2 -  
ELECTRICAL RISER III  
AC UNITS AND RTU ROOF TOP UNITS

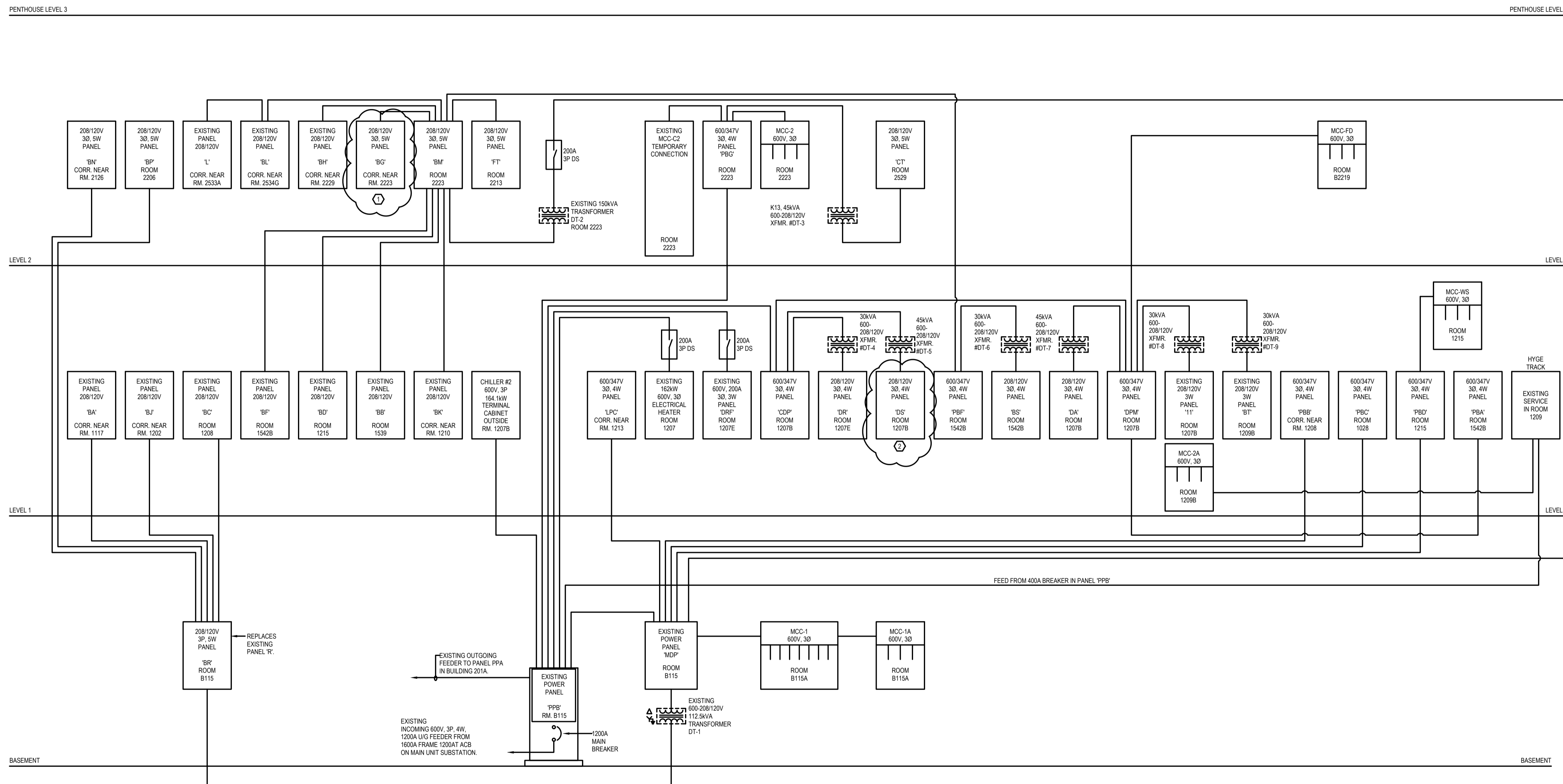
DESIGNATION   ÉTUDIÉ	REVIEWED   REVU	DES O   AGENT CONC
C.L.		
DRAWN   DESSINÉ		PROJ MGR   GEST PROJ
G.S.		
CHECKED   VÉRIFIÉ		DES MGR   GEST CONC
C.L.		
COORDINATION		FIRE   INCENDIE
D.R.		

WBS NO. | NO. OTP

PF NO. | NO. DP

DWG. NO. | NO. DESSIN

E511



1 RISER III  
E511 SCALE: N.T.S.

ROOMS AC POWER DISTRIBUTION	
①	PANEL BG - ROOM 2205 & ROOM 2232
②	PANEL DS - ROOM 1205A

NOTES

- FOR POWER PANEL SCHEDULE SEE DRAWING E-515.
- POWER PANEL SCHEDULE IS BASED ON PROVIDED DRAWINGS. CONTRACTOR SHALL VERIFY ON SITE FOR CONSISTENCY. REPORT TO DCC REPRESENTATIVE FOR ANY ISSUE FOUND.
- REFER TO PANEL SCHEDULES FOR SIZES OF FEEDERS FOR RTU AND AND AC UNITS.

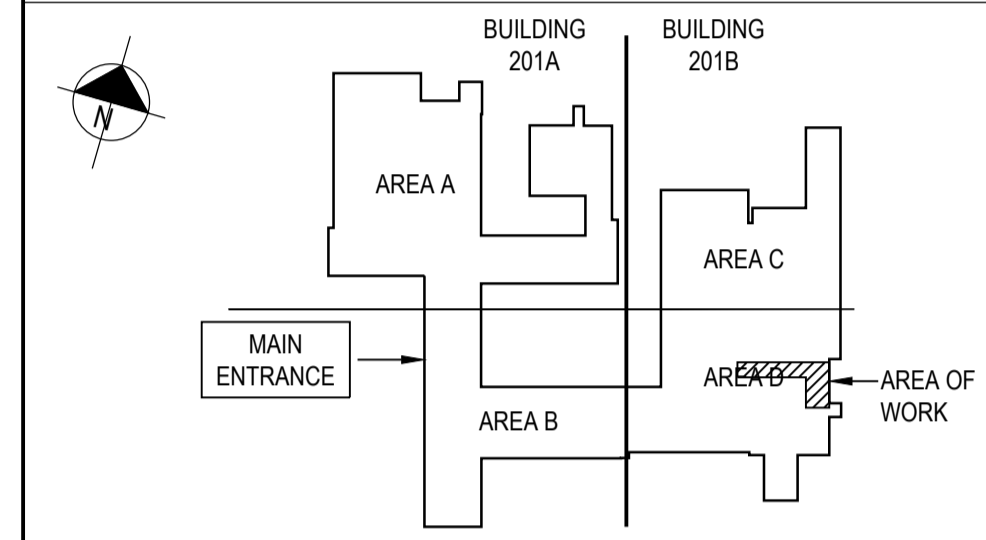
LEVEL OF SECURITY | NIVEAU DE SÉCURITÉ  
UNCLASS | NON CLASSIFIÉ

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NOTES:

- REFER TO DRAWING E500 FOR ELECTRICAL LEGEND AND GENERAL NOTES.



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NO.	DATE	REVISION	APPR.

SCALE | ÉCHELLE

LOCATION | EMPLACEMENT  
1133 SHEPPARD AVE. W.  
TORONTO  
ONTARIO

PROJECT | PROJET  
DRDC HVAC COMPLIANCE UPGRADE  
BUILDING 201A & 201B

TRADE | MÉTIER  
ELECTRICAL

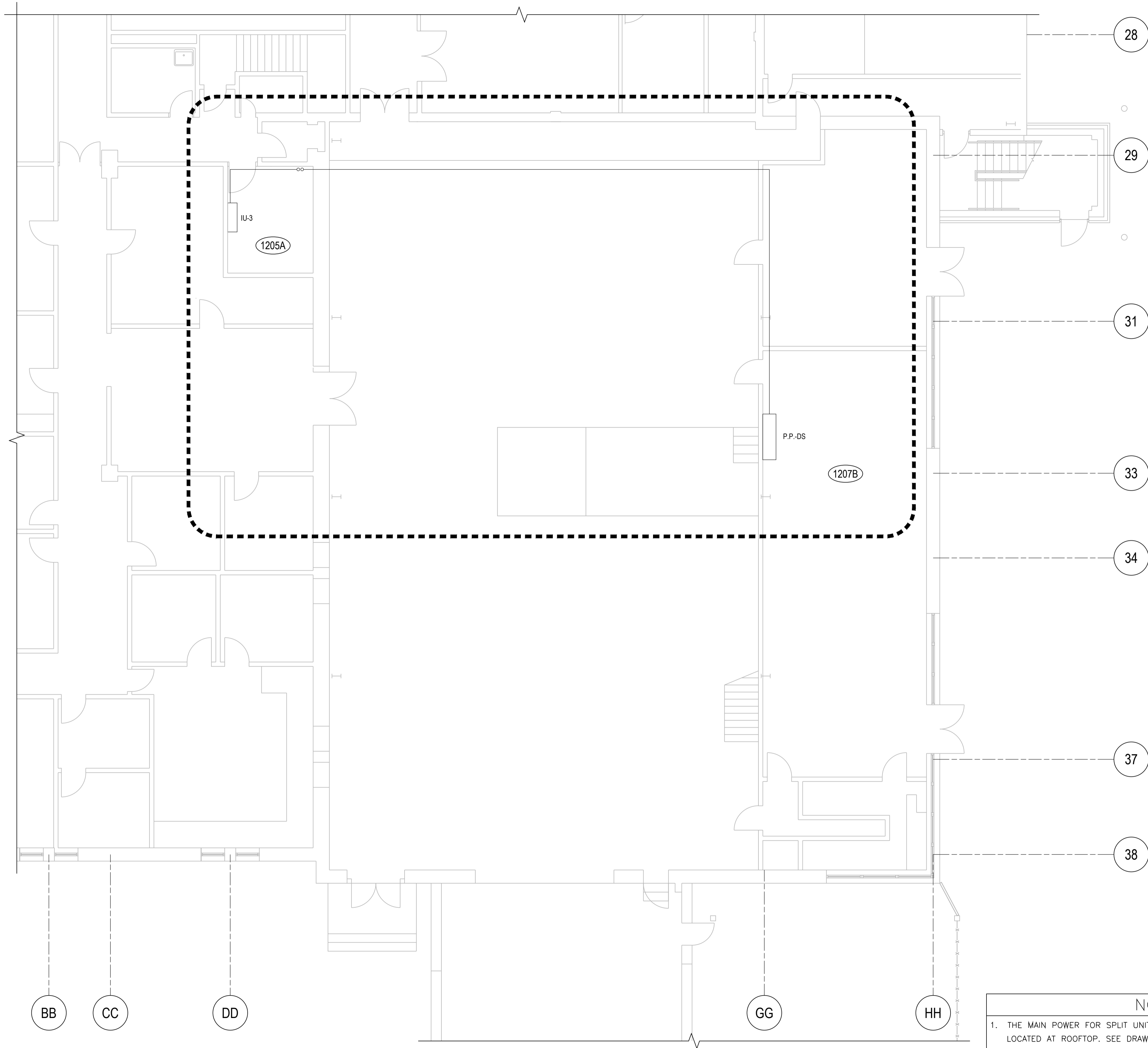
DATE  
2021/07/08

SUBJECT | SUJET  
**PACKAGE 2 -  
LEVEL 1 ELECTRICAL LAYOUT**

PRODUCTION	DESIGNED   ÉTUDIÉ	REVIEWED   REVU	DES O   AGENT CONC
C.L.			
DRAWN   DESSINÉ	CHECKED   VÉRIFIÉ	COORDINATION	D.R.
G.S.	C.L.	D.R.	
			FIRE   INCENDIE

WBS NO. | NO. OTP  
PF NO. | NO. DP

DWG. NO. | NO. DESSIN  
E512



1 LEVEL 1 PLAN - ELECTRICAL LAYOUT  
E512 SCALE: 1:75

NOTES

- THE MAIN POWER FOR SPLIT UNITS ARE CONNECTED TO THE CONDENSER LOCATED AT ROOFTOP. SEE DRAWING E514 SHOWING CONDENSER ROOF TOP UNITS.
- FOR CONDENSER WIRING CONNECTION TO AC UNIT, SEE E514.

AC UNIT POWER	
ROOM	P.P. DISTRIBUTION
1205A	DS

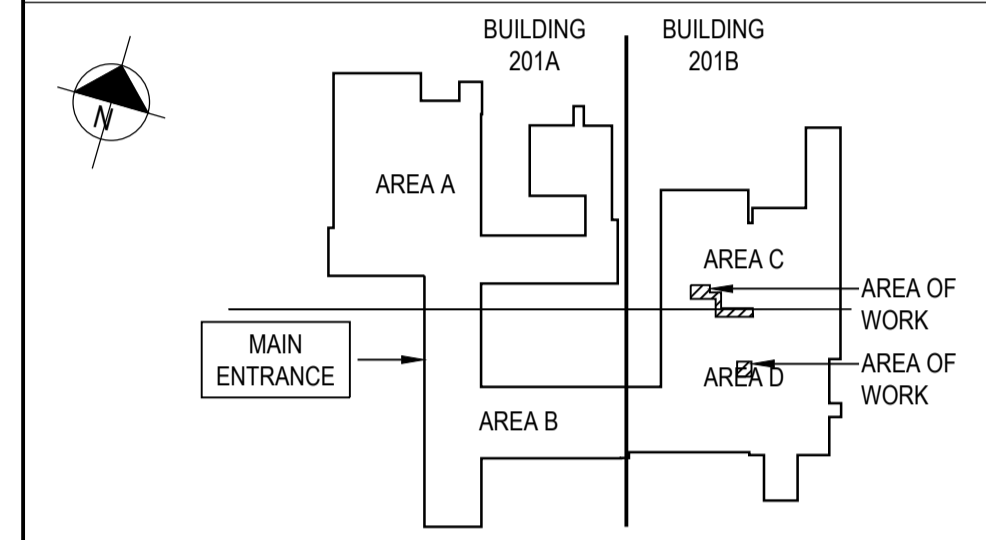
LEVEL OF SECURITY | NIVEAU DE SÉCURITÉ  
UNCLASS | NON CLASSIFIÉ

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Dartmouth, NS  
Canada



NOTES:  
1. REFER TO DRAWING E500 FOR ELECTRICAL LEGEND AND GENERAL NOTES.



0	2022/12/06	ISSUED FOR TENDER	D.R.
NO.	DATE	REVISION	APPR.

SCALE | ÉCHELLE  
AS NOTED  
LOCATION | EMPLACEMENT  
1133 SHEPPARD AVE. W.  
TORONTO  
ONTARIO

PROJECT | PROJET  
DRDC HVAC COMPLIANCE UPGRADE  
BUILDING 201A & 201B

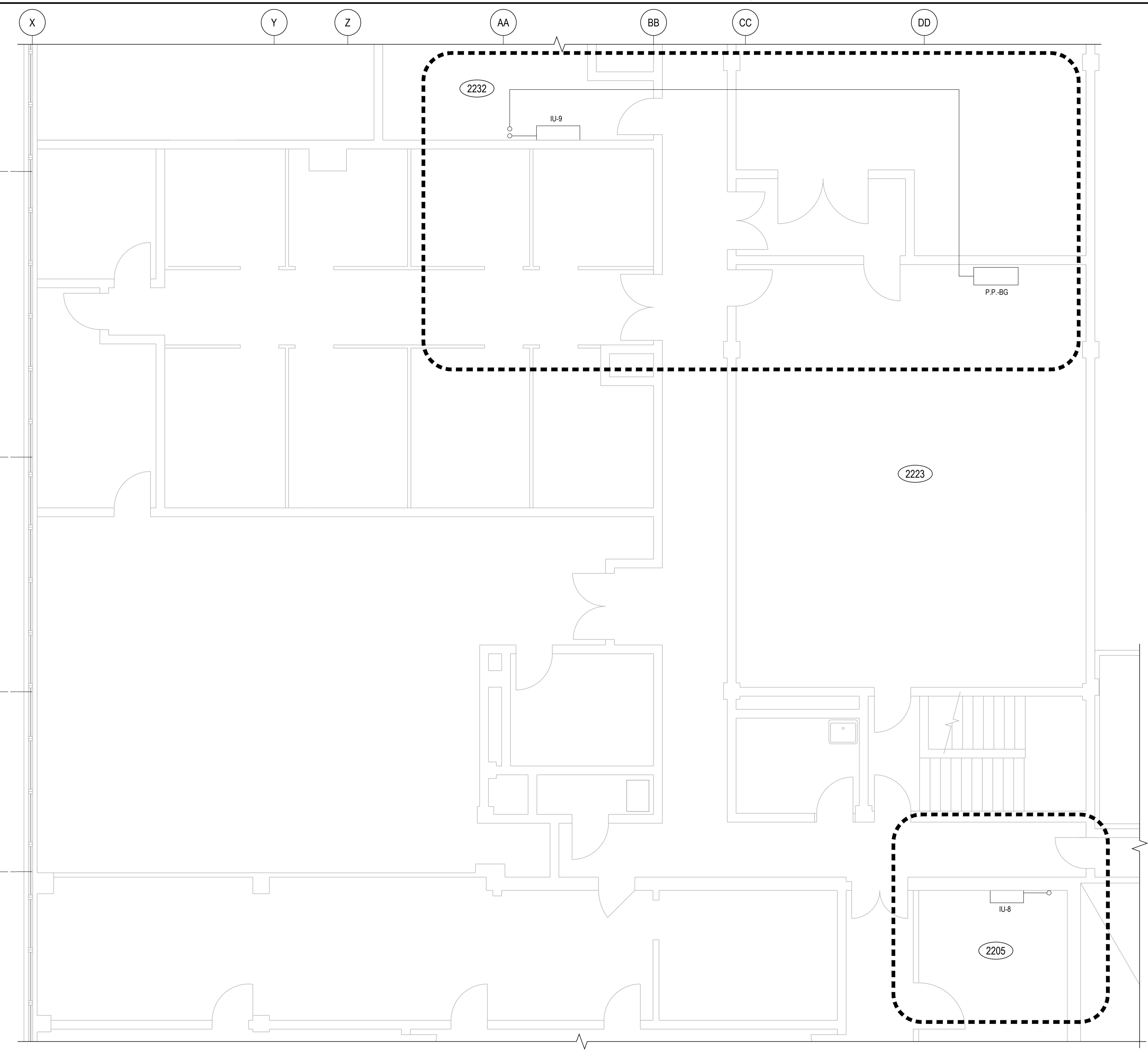
TRADE | MÉTIER  
ELECTRICAL  
DATE  
2021/07/08

SUBJECT | SUJET  
PACKAGE 2 -  
LEVEL 2 ELECTRICAL LAYOUT

PRODUCTION	DESIGNED   ÉTUDIÉ	REVIEWED   REVU	DES O   AGENT CONC
	C.L.		
	DRAWN   DESSINÉ		PROJ MGR   GEST PROJ
	G.S.		
	CHECKED   VÉRIFIÉ		DES MGR   GEST CONC
	C.L.		
	COORDINATION		FIRE   INCENDIE
	D.R.		

WBS NO. | NO. OTP  
PF NO. | NO. DP

DWG. NO. | NO. DESSIN  
E513



1 LEVEL 2 PLAN - ELECTRICAL LAYOUT  
E512 SCALE: 1:50

NOTES	
1. THE MAIN POWER FOR SPLIT UNITS ARE CONNECTED TO THE CONDENSER LOCATED AT ROOFTOP. SEE DRAWING E514 SHOWING CONDENSER ROOF TOP UNITS.	
2. FOR CONDENSER WIRING CONNECTION TO AC UNIT, SEE E514.	

ROOM AC UNIT POWER	
ROOM	P.P. DISTRIBUTION
2205	BG
2232	BG

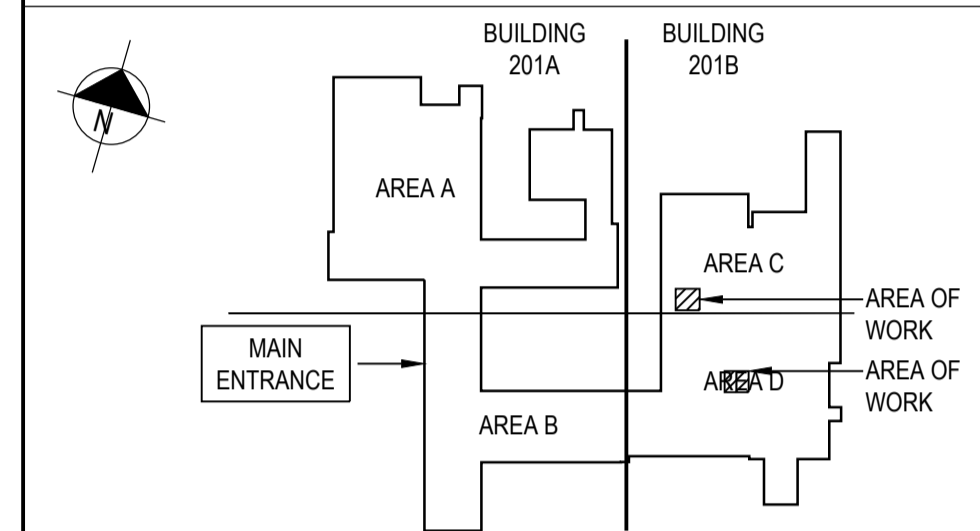
LEVEL OF SECURITY | NIVEAU DE SÉCURITÉ  
UNCLASS | NON CLASSIFIÉ

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NOTES:

- REFER TO DRAWING E500 FOR ELECTRICAL LEGEND AND GENERAL NOTES.



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NO.	DATE	REVISION	APPR.

SCALE | ÉCHELLE

AS NOTED

LOCATION | EMPLACEMENT

1133 SHEPPARD AVE. W.  
TORONTO  
ONTARIO

PROJECT | PROJET

DRDC HVAC COMPLIANCE UPGRADE  
BUILDING 201A & 201B

TRADE | MÉTIER  
ELECTRICAL

DATE  
2021/07/08

SUBJECT | SUJET

PACKAGE 2 -  
NEW DUCTLESS AC UNITS  
ROOF ELECTRICAL LAYOUT

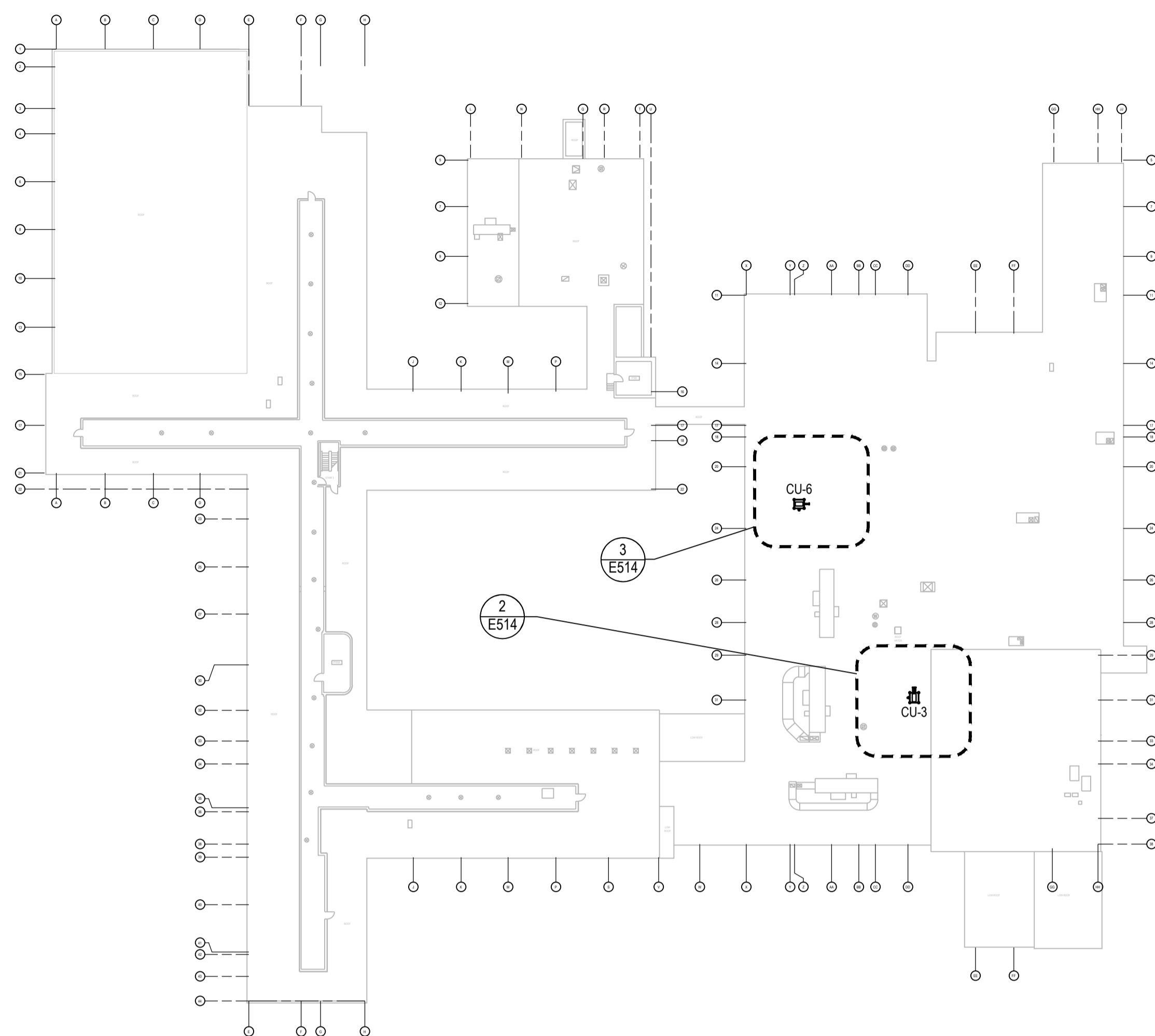
DESIGNED   ÉTUDIÉ	REVIEWED   REVU	DES O   AGENT CONC
C.L.		PROJ MGR   GEST PROJ
DRAWN   DESSINÉ		DES MGR   GEST CONC
G.S.		FIRE   INCENDIE
CHECKED   VÉRIFIÉ		
C.L.		
COORDINATION		
D.R.		

WBS NO. | NO. OTP

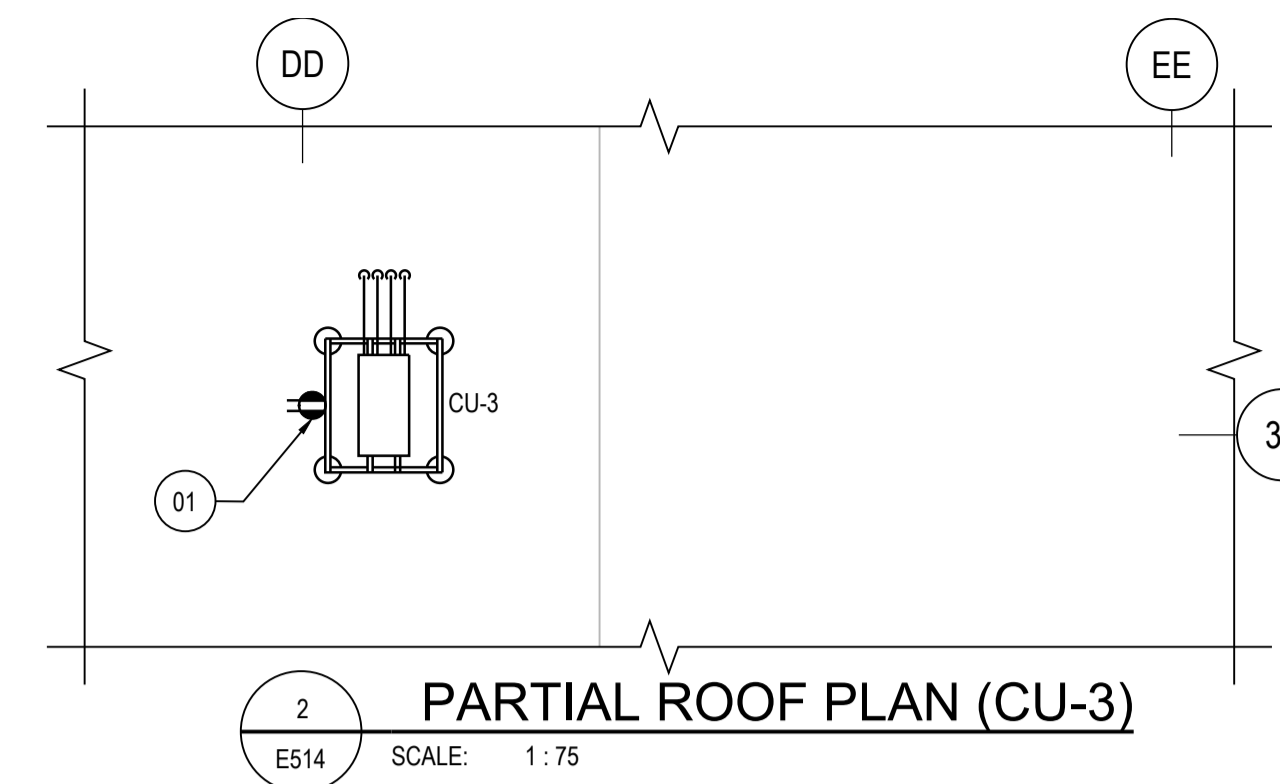
PF NO. | NO. DP

DWG. NO. | NO. DESSIN

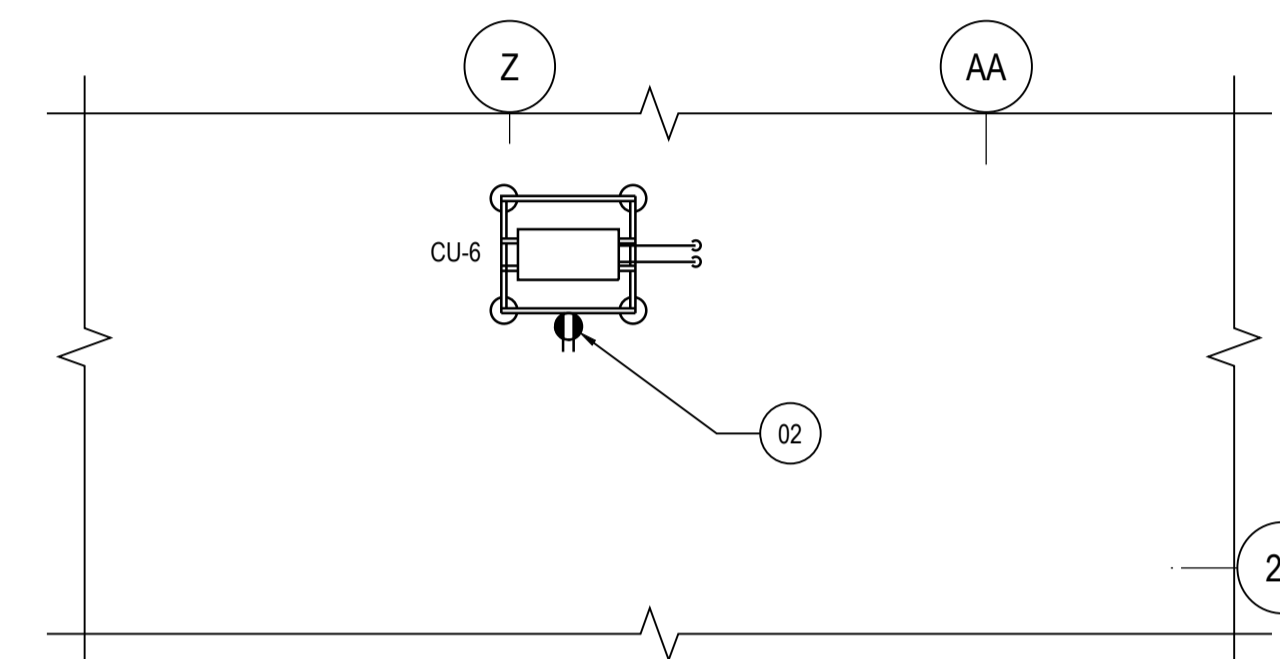
E514



1 ROOF PLAN - NEW DUCTLESS AIR CONDITIONING UNITS  
E514 SCALE: N.T.S.



2 PARTIAL ROOF PLAN (CU-3)  
E514 SCALE: 1:75



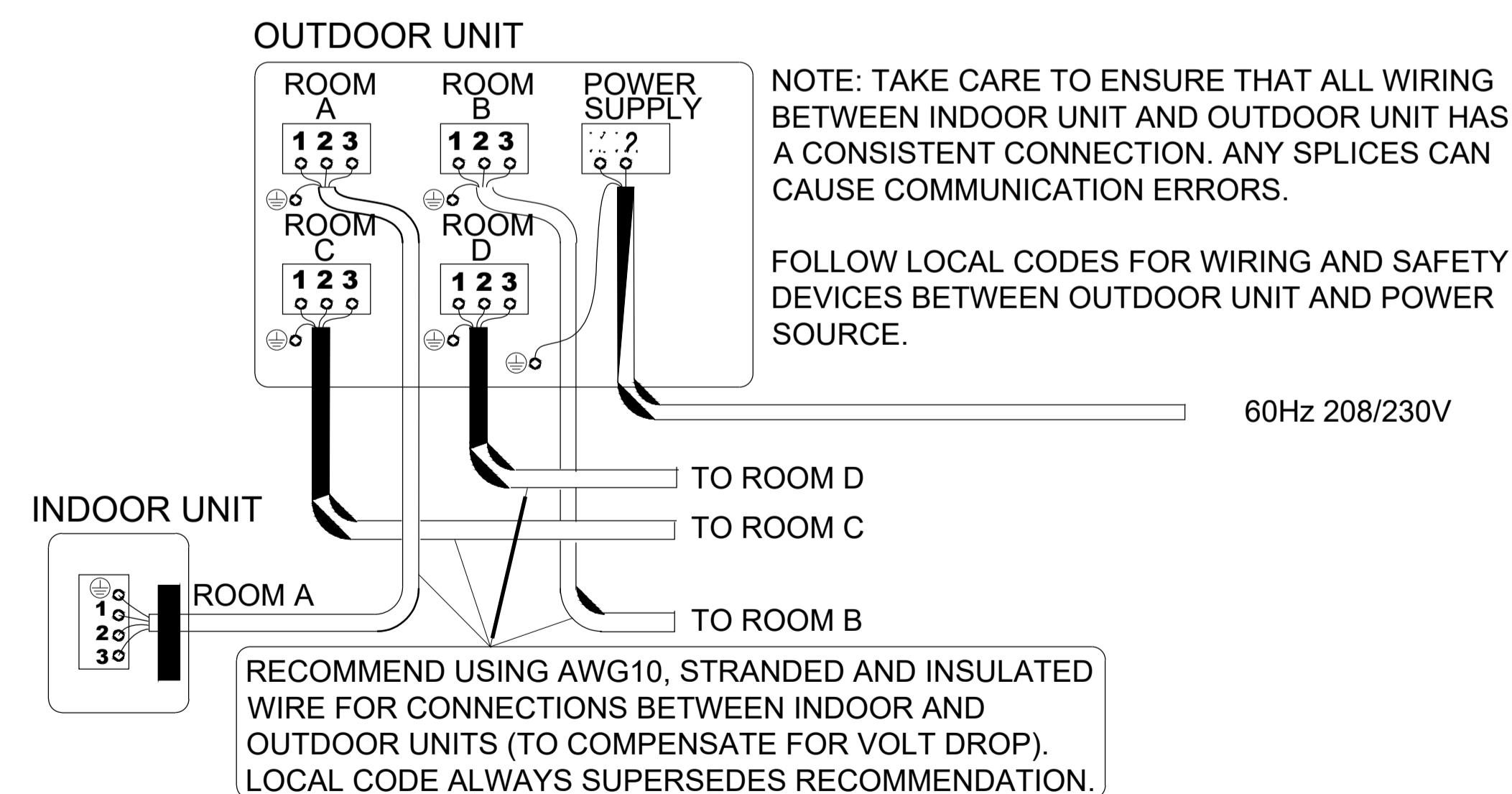
3 PARTIAL ROOF PLAN (CU-6)  
E514 SCALE: 1:75

NEW INSTALLATION - KEY NOTES

01	PROVIDE NEW ROOFTOP MAINTENANCE RECEPTACLE. PROVIDE NEW FEEDER (120V, 1PH, 20A) AS 2#12 CU, C/W #12 GROUND IN 21MM CONDUIT FROM PANEL P.P.-DS, CCT 34. PROVIDE NEW 20A BREAKER. SEE DRAWING E500 & E515 FOR DETAILS.
02	PROVIDE NEW ROOFTOP MAINTENANCE RECEPTACLE. PROVIDE NEW FEEDER (120V, 1PH, 20A) AS 2#12 CU, C/W #12 GROUND IN 21MM CONDUIT FROM PANEL P.P.-BG, CCT 15. PROVIDE NEW 20A BREAKER. SEE DRAWING E500 & E515 FOR DETAILS.

CONDENSER NOTES

- THE MAIN POWER AT THE SPLIT UNITS ARE CONNECTED TO THE CONDENSER.
- FROM CONDENSER, ANOTHER CABLE IS USED TO POWER UP INSIDE UNITS (DETAIL 4 ON DRAWING E514).
- THE CONDENSER HAS THE POSSIBILITY TO POWER UP TO 4 INSIDE UNITS.
- THE CONDENSER CU-3 IS POWERING EACH TWO UNITS, IU-3 AND IU-8.
- FOR CABLE SIZING NECESSARY TO CONNECT CONDENSER, SEE DRAWING E-515.
- TO CONNECT CONDENSER TO INTERNAL UNIT, FOLLOW MANUFACTURER INSTRUCTIONS.
- FOR AC UNIT CONDENSERS, USE 2P-25A BREAKER SIZE AT POWER PANEL.
- FOR AC UNIT CONDENSERS, USE 2C-#10AWG RW90 CU CABLE IN 21mm CONDUIT. INTERIOR CONDUIT TO BE EMT AND OUTDOOR CONDUIT PVC.
- THE POWER CABLE FROM POWER PANEL SHALL BE PULLED AT ROOF TO CONNECT POWER TO AC CONDENSER. BRING THE POWER CABLE USING SIMILAR PATH AS FOR REFRIGERANT PIPES.
- FOR CONNECTING CONDENSER TO INDOOR AC UNIT, FOLLOW MANUFACTURER INSTRUCTIONS.
- CLOUDED AREA AT POWER PANEL SCHEDULE INDICATE THE PLACE FOR NEW BREAKERS REQUIRED TO INSTALL NEW EQUIPMENT.
- ALL AC UNITS TO BE RECONNECTED TO EXISTING AUTOMATION SYSTEM FOR SHUTDOWN UPON FIRE ALARM.



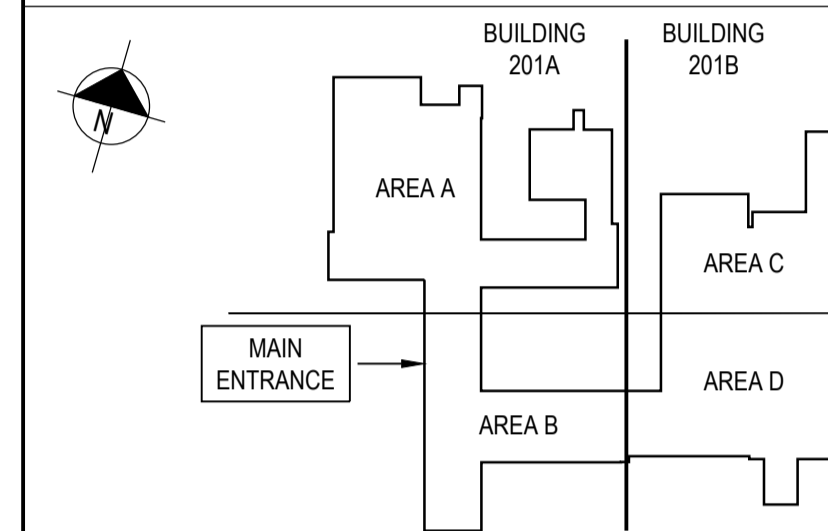
4 SPLIT UNIT WIRING  
E514 SCALE: N.T.S.

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NOTES:

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0	2022/12/06	ISSUED FOR TENDER	D.R.
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NO.	DATE	REVISION	APPR.
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SCALE | ÉCHELLE

LOCATION | EMPLACEMENT  
1133 SHEPPARD AVE. W.  
TORONTO  
ONTARIO

PROJECT | PROJET  
DRDC HVAC COMPLIANCE UPGRADE  
BUILDING 201A & 201B

TRADE | MÉTIER  
ELECTRICAL  
DATE  
2021/07/08

SUBJECT | SUJET

PACKAGE 2 -  
POWER PANEL SCHEDULE

PRODUCTION	DESIGNED   ÉTUDIÉ	REVIEWED   REVU	DES O   AGENT CONC
C.L.			
DRAWN   DESSINÉ	G.S.	CHECKED   VÉRIFIÉ	DES MGR   GEST CONC
COORDINATION	D.R.	FIRE   INCENDIE	

WBS NO. | NO. OTP      PF NO. | NO. DP

DWG. NO. | NO. DESSIN      E515

LOCATION	BUILDING #201B, AREA C, ROOM 2223			INTERRUPTING RATING	-	AMPS
PANEL No.	BG	PANEL TYPE	-	MAINS	LUGS	
VOLTAGE	208/120	BREAKER TYPE	-	BREAKER	-	AMPS
PHASE/WIRES	3P, 4W	MOUNTING	-	MCS	AMPS	BUS - AMPS

DESIGNATION	LOAD (VA)			AWG	CCT #	BKR	A	B	C	BKR	CCT #	AWG	LOAD (VA)			DESIGNATION
	A	B	C										A	B	C	
RECEPTACLE	800			12	1	15A					15A	2	12	200		RECEPTACLE
UNIT HEATER		150		12	3	15A					15A	4	12	100		HEATER
FAN F-3			100	12	5	15A					15A	6				SPARE
RECEPTACLE (REFRIGERATOR)	1000			12	7	15A					15A	8	12	800		RECEPTACLE
RECEPTACLE (TELEPHONE)		200		12	9	15A					15A	10	12	225		PUMP P-12
NEW CU-6 SPLIT UNIT - ROOM 2232				10	11	25A					15A	12				
ROOFTOP MAINTENANCE RECEPTACLE				12	15	20A					15A	14				
					17						15A	16				
					19						15A	18				
					21						15A	20				
					23						15A	22				
					25						15A	24				
					27						15A	26				
					29							28				
					31							30				
					33							32				
					35							34				
					37							36				
					39							38				
					41							40				
												42				

NOTES:  
FED FROM: 100A, 3P BREAKER ON PANEL 'BM'  
WIRE: 4/C #3 TECK 90  
CONDUIT: 41mm PROPOSED AND/OR EXISTING CONDUITS

LOCATION	BUILDING #201B, AREA D, ROOM 1207B			INTERRUPTING RATING	-	AMPS
PANEL No.	DS	PANEL TYPE	-	MAINS	LUGS	
VOLTAGE	208/120	BREAKER TYPE	-	BREAKER	-	AMPS
PHASE/WIRES	3P, 4W	MOUNTING	-	MCS	AMPS	BUS - AMPS

DESIGNATION	LOAD (VA)			AWG	CCT #	BKR	A	B	C	BKR	CCT #	AWG	LOAD (VA)			DESIGNATION
	A	B	C										A	B	C	
CORBLINS 1-4 START SW	1000			12	1	15A					15A	2	12	800		EXISTING CIRCUIT SOURCE UNKNOWN
EXISTING CIRCUIT SOURCE UNKNOWN		1000		12	3	15A					15A	4				DRF CANTY LIGHTS
EXISTING CIRCUIT SOURCE UNKNOWN			1000	12	5	15A					15A	6				DRF CANTY LIGHTS
EXISTING CIRCUIT SOURCE UNKNOWN	1000			12	7	15A					20A	8		4800		DRF CANTY LIGHTS
EXISTING CIRCUIT SOURCE UNKNOWN		1800		10	9	20A					50A	10	6	4800	4800	EXISTING CIRCUIT SOURCE UNKNOWN
EXISTING CIRCUIT SOURCE UNKNOWN			1000	12	11	15A					2P	12				EXISTING CIRCUIT SOURCE UNKNOWN
EXISTING CIRCUIT SOURCE UNKNOWN	2500			8	13	15A					50A	14	6	4800	4800	EXISTING CIRCUIT SOURCE UNKNOWN
EXISTING CIRCUIT SOURCE UNKNOWN		1000		12	15	15A					2P	16				EXISTING CIRCUIT SOURCE UNKNOWN
EXISTING CIRCUIT SOURCE UNKNOWN			500	12	17	15A					40A	18	8		3500	EXISTING CIRCUIT SOURCE UNKNOWN
EXISTING CIRCUIT SOURCE UNKNOWN	200			12	19	15A					2P	20				EXISTING CIRCUIT SOURCE UNKNOWN
EXISTING CIRCUIT SOURCE UNKNOWN		200		12	21	15A					30A	22	8		2500	EXISTING CIRCUIT SOURCE UNKNOWN
SPARE				23	15A						2P	24				SPARE
SPARE				25	2P						15A	26				SPARE
SPARE				27	15A						15A	28				SPARE
SPARE				29	15A						15A	30				SPARE
SPARE				31	15A						15A	32				SPARE
NEW CU-3 SPLIT UNIT - ROOM 1205A & 2205				10	35	25A					20A	34	12			ROOFTOP MAINTENANCE RECEPTACLE
					37							36				
					39							38				
					41							40				
					43							42				
					45							44				
					47							46				
					49							48				
					51							50				
					53							52				
					55							54				
					57							56				
					59							58				
					61							60				
					63							62				
					65							64				
					66							66				

NOTES:  
FED FROM:  
WIRE:  
CONDUIT:

1 PANEL SCHEDULE  
E515 SCALE: N.T.S.

- NOTES
- FOR AC UNITS ROOMS USE 2P-25A BREAKER SIZE AT POWER PANEL.
  - FOR AC ROOMS USE 2C-#10AWG RW90 CU CABLE IN 21mm CONDUIT. INTERIOR CONDUIT TO BE EMT AND OUTDOOR CONDUIT PVC.
  - THE POWER CABLE FROM POWER PANEL SHALL BE PULLED AT ROOF TO CONNECT POWER TO AC CONDENSER.
  - FOR CONNECTING CONDENSER TO INDOOR AC UNIT FOLLOW MANUFACTURER INSTRUCTIONS AND DRAWING E514.
  - CLOUDED AREA AT POWER PANEL SCHEDULE INDICATE THE PLACE FOR NEW BREAKERS REQUIRED TO INSTALL NEW EQUIPMENT.
  - ALL AC UNITS TO BE CONNECTED TO THE EXISTING FIRE ALARM SYSTEM.