

Addendum No: 7
Date: February 9, 2024
Owner: Northern Health
Stantec # 144320228

This addendum is to be read with and constitutes part of the tender document.

0.0 GENERAL

Non in use

1.0 SPECIFICATIONS

Refer to attached Mechanical Addendum Add7

2.0 DRAWINGS

AE103 – Note updated for duct vertical support wall restrain.

AE105 – Duct location updated including roof sleeper detail.

E001 – General note added: contractor to firestop all new cable/conduit penetrations through walls and floors.

E010 – change breaker for AHU-PH-1, from 25A 3P, to 35A 3P. Change the feeder from 3C#10 AWG Cu to 3C#8 AWG Cu, and the size of the conduit to 27mmC.

Contractor to setup integration to existing BMS (RC Webview), for the lighting controls.

E100 – add a fire alarm speaker in the Shared Ante Rm. 3.0. Add a fire alarm relay tied to the fire alarm system that will release the door on fire alarm. Add this to the door between the HD Clean Room 4.0 and the Shared Ante Space 3.0. All new receptacles are to be Hubbell Hospital Grade Snap Type Receptacles (Illuminated).

E101 – add power connections for two new pumps, located in the AHU. Provide a 20A 3P breaker on panel 1ES. Allow for the re-arrangement of breakers in the panel to create enough space for the 3P breaker. Remove and hand over to the client any breakers labeled as “Spare”. Provide and install a magnetic On/OFF starter for each pump. The starter is a Nema 3R combination starter, with an integral circuit breaker.

Provide a junction box for control power on the roof. Provide the wiring and conduit to Panel 1ES. Provide a new 15A 1P breaker.

Provide a duct smoke detector for the AHU. Tie to the fire alarm system.

Provide a fire alarm relay in AHU service enclosure to indicate stage 1, 2 and smoke vent mode. Tie to the fire alarm system.

3.0 CLARIFICATIONS

Question: Invitation to Bid states Mandatory site meeting- was this mandatory for General Contractors or both General Contractors and Subcontractors?

Answer: Yes, is mandatory for the General Contractors. Subcontractors are optional but recommended.

Question: Invitation to Bid requires 10% Bid Bond. Document N662130001 states undertaking to provide a bid bond is required. Please clarify.

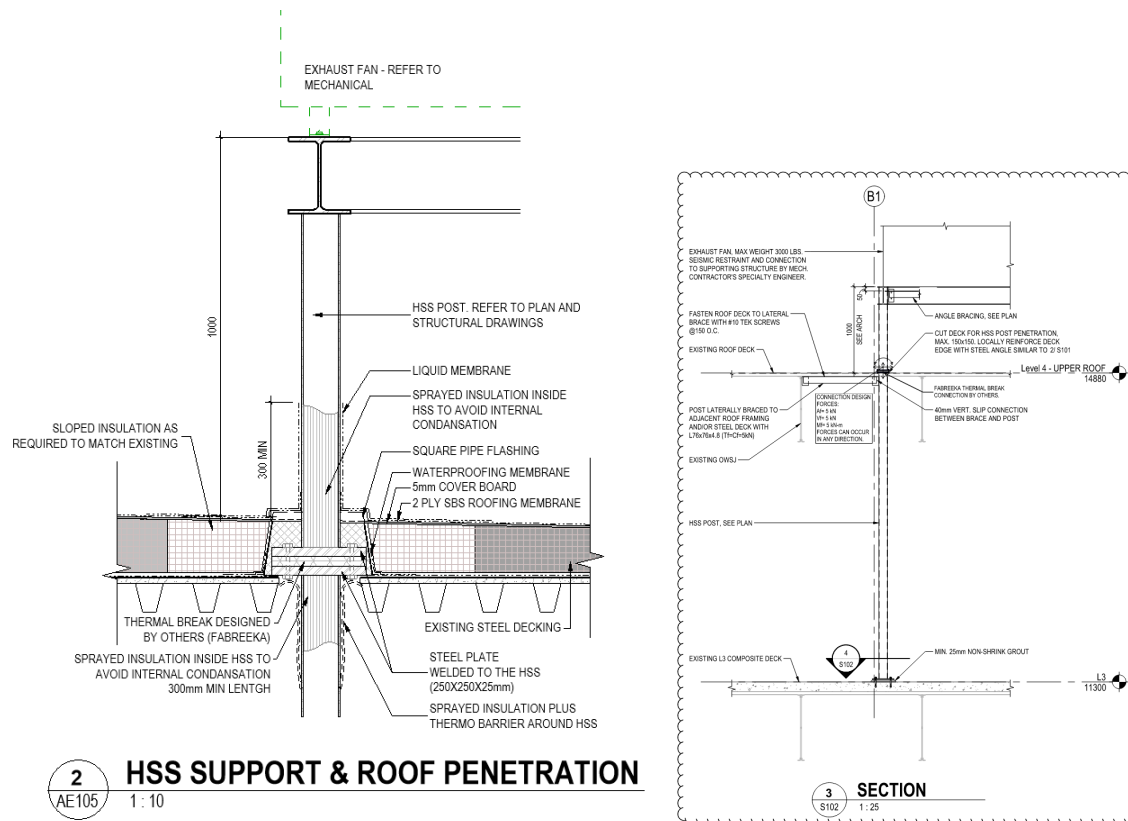
Answer: Document N662130001 states undertaking to provide a 10% bid bond.

Question: Project Manual - section 00 73 00 CCDC2-2020 is missing.

Answer: NHA to provide copy of the manual.

Question: Addendum #2-page 8 foam insulation –is intent to use the foam insulation on the exterior of the roof decking around the HSS? what about thermal bridging for structural steel extending from exterior to interior.

Answer: Yes, thermal bridging required please see updated detail 2 pg. AE105.



Question: Addendum #3 - #3 Clarification-MCC-10E. Please have electrical engineer contact owner to confirm this breaker space is still available for this project.

Answer: Condition on site shouldn't have changed space still available.

Question: Addendum #3 - #3 Clarifications- is the structure engineer required to be provided by GC for the openings required in the building for the mechanical ductwork?

Answer: Contractor to notify structural engineer of record to review any additional openings through structure or if there is any discrepancy between the drawings and existing condition.

Question: Section 08 71 00 door hardware- please advise what type of door cylinders the Hospital key system is.

Answer: Cylinders to be a Schlage Everest D145 keyway

Question: Section 08 42 43 Aluminum Sliding Doors-This section references ICU Entrances

Answer: ICU/CCU wording in specifications is in reference to the type of sliding door specified Assa Abloy Versamax 2.0 product notes “standard ICU door” in their literature.

Question: Section 25 99 65 Control Valves states controls contractor as Twin Rivers. Please confirm.

Answer: Refer to mechanical addendum for acceptable controls subcontractor. Also coordinate with NHA.

Question: Section 26 05 00 – please clarify cash allowances. 1.32 PREPARATION OF RECORD DRAWINGS – CASH ALLOWANCE

.1 Refer to Section 01210 for Preparation of Record Drawings – Cash Allowance.

1.33 SEISMIC ENGINEER SERVICES - CASH ALLOWANCE

Answer: Final as built and marked up are required to be in the general tender price. Record drawings to be submitted by consultants. Seismic Engineer Services to be in the general tender price, cash allowance is not required.

Question: Section 26 05 05 – Is a seismic engineer required for the electrical equipment?

.2 The Seismic Consulting Engineer should be able to provide a proof of professional. Insurance and the related practice credentials if requested by the Electrical Consultant. The Seismic Consulting Engineer should be familiar with SMACNA, ECABC & NFPA guidelines as well as BCBC requirements.

.3 The Contractors Seismic Consultant shall submit original signed BC Building Code “Letters of Assurance” “Schedules B and C-B” to the Prime Consultant or Electrical Consultant.

Answer: Yes, the new lights will need seismic restrains.

Question: Section 26 27 26 – please confirm what device specification is to be used:

1.5 LABORATORY SUPPLEMENT

.1 Use “Hospital Grade” devices in all Laboratory areas unless otherwise noted.

.2 Use “Heavy Duty Specification Grade” devices in all other areas.

Answer: Provide hospital grade throughout the pharmacy. Use Heavy duty weatherproof GF receptacles on the roof.

Question: Drawing M202 Plumbing Fixtures Please clarify
EW-1 NO SPECIFICATION
SK-1 NO SPECIFICATION
SK-2 INCLUDED IN ADDEDUM #2
ES-1 NO SPECIFICATION

Answer: Refer to mechanical addendum for revised plumbing fixture specifications.

Question: What is below the pharmacy lab currently? is it slab on grade or suspended slab? when the requirement for installing the drain for the emergency eye wash and shower will be decided with what is under the pharmacy concrete.

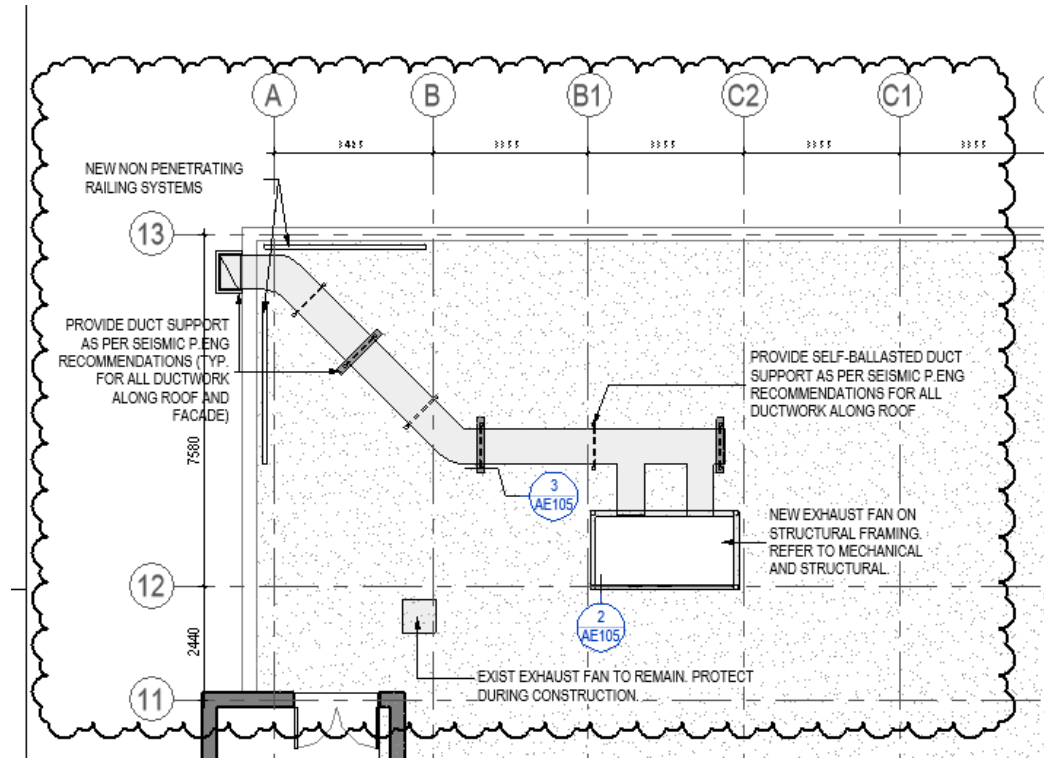
Answer: To our best knowledge is slab on grade, contractor to verify during preconstruction visit on site. Refer to plumbing drawings for the location of the drain under the slab M201

Question: Section 22 40 00 Plumbing Fixtures and Trim
SS-1 Not shown on drawings.
EWS-1 Not shown on drawings.
HH-1 Specification mentions HH-1 (cannot remember which section) – it is not shown on drawings and it is not in section 22 40 00

Answer: Refer to mechanical addendum for revised plumbing fixture specifications. Reference to HH-1 removed.

Question: Section 07 52 00 Guard Rail System-Please provide drawing showing location and quantity of the railing system.

Answer: Refer to drawing 2 pg. AE105



Question: The specifications Section 25 09 30 EMCS is not within the BOB's requirements. Section 26 09 24 requires a stand-alone lighting control system interfaced with Section 25 09 30 EMCS. Wattstopper and others included in the standard of acceptance.

What is the intent of naming Reliable Controls on the drawings since the scope is removing the existing lighting and controls in the area of scope and this is a stand alone system.

Answer: It is a client request to integrate the lighting control system with their existing BMS system.

Question: As per the BOBs rules of procedures, Electrical is to provide:

- Section 26 Electrical (In its entirety)
 - Section 27 05 00 Common Works Results Communications
 - Section 27 10 05 Voice and Data Cabling Systems
- Is this all that is required within the BOB's module within the Electrical scope.

Answer: Including Div 28 scope and Section 27 51 23.

Question: Section 27 51 23 appears to be a relocation only Intercom System within the drawings. FPEI is requesting three local approved manufacturer installers if the system is intended to be new to provide fair competition or alternatively remove the scope and the owner to engage the contractor directly with this public funded project

Answer: Remove sole source contractor requirements. Work associated with the Intercom System to be in the general tender price.

Question: Section 28 13 00 Access Controls appears to be sole sourced contractor. FPEI is requesting three local approved manufacturer installers if the system to provide fair competition or alternatively remove the scope and have the owner to engage the contractor directly with this public funded project

Answer: Remove sole source contractor requirements. Work associated with the access controls to be in the general tender price.

Question: Section 25 09 30/ 26 09 24 2.1.3.1 LV lighting Controls appears to be sole sourced contractor. FPEI is requesting three local approved manufacturer installers if the system to provide fair competition or alternatively remove the scope and have the owner to engage the contractor directly with this public funded project

Answer: Remove sole source contractor requirements. Work associated with the lighting controls to be in the general tender price.

Stantec Architecture Ltd.

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Eleonore.Leclerc@stantec.com

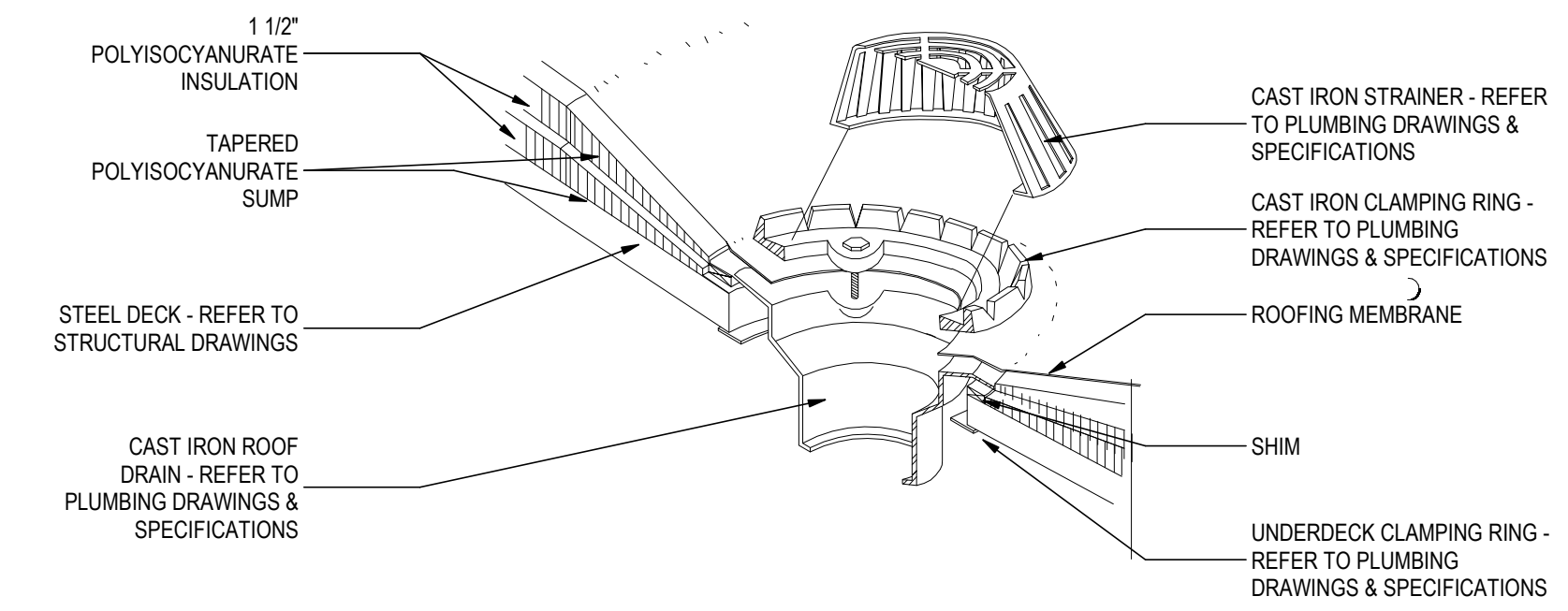
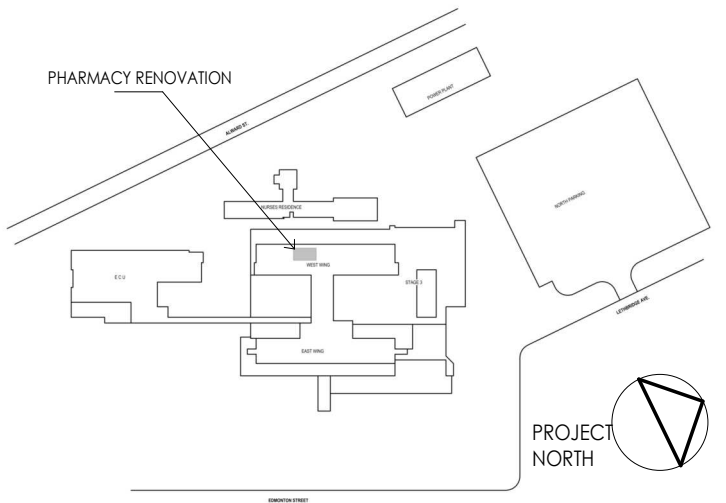
END OF ADDENDUM #7

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Notes



Rev	Issued/Revision	By	Appd	Date
B	ISSUED FOR TENDER - ADD7	EM	EL	Date 7
A	ISSUED FOR TENDER	AA	SL	2023-09-28

Permit/Seal



Client/Project
Northern Health Authority
UHNBC (University Hospital of Northern BC) -
NAPRA Pharmacy Renovation
1475 Edmonton St, Prince George, BC V2M 1S2

Title
LEVEL 2 - RENOVATION PLAN

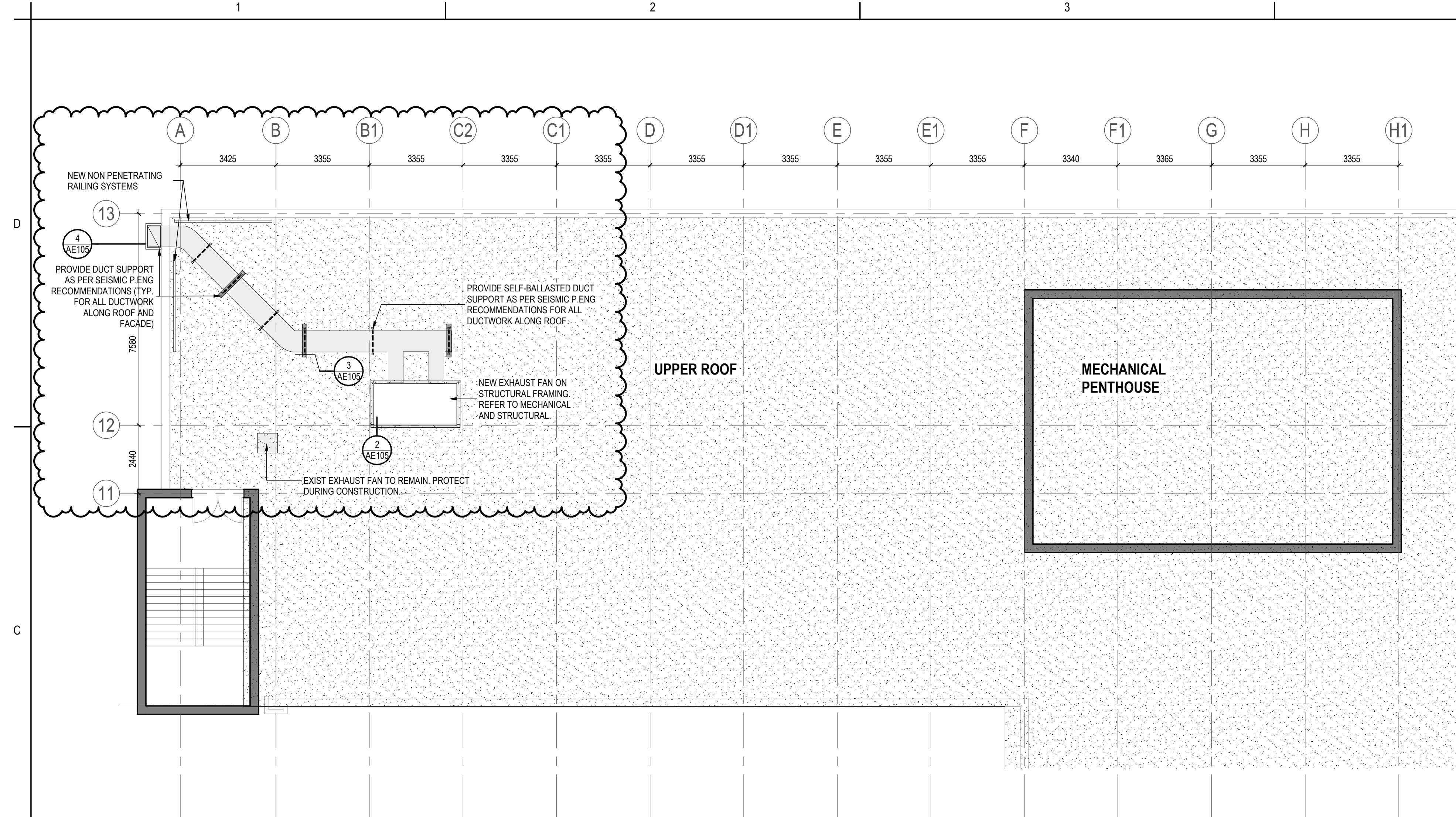
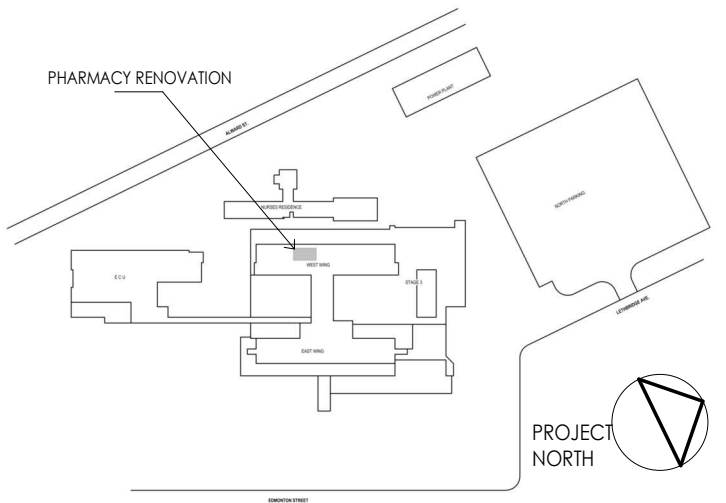
Project No. 144320228
Revision B
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Drawing No. **AE103**

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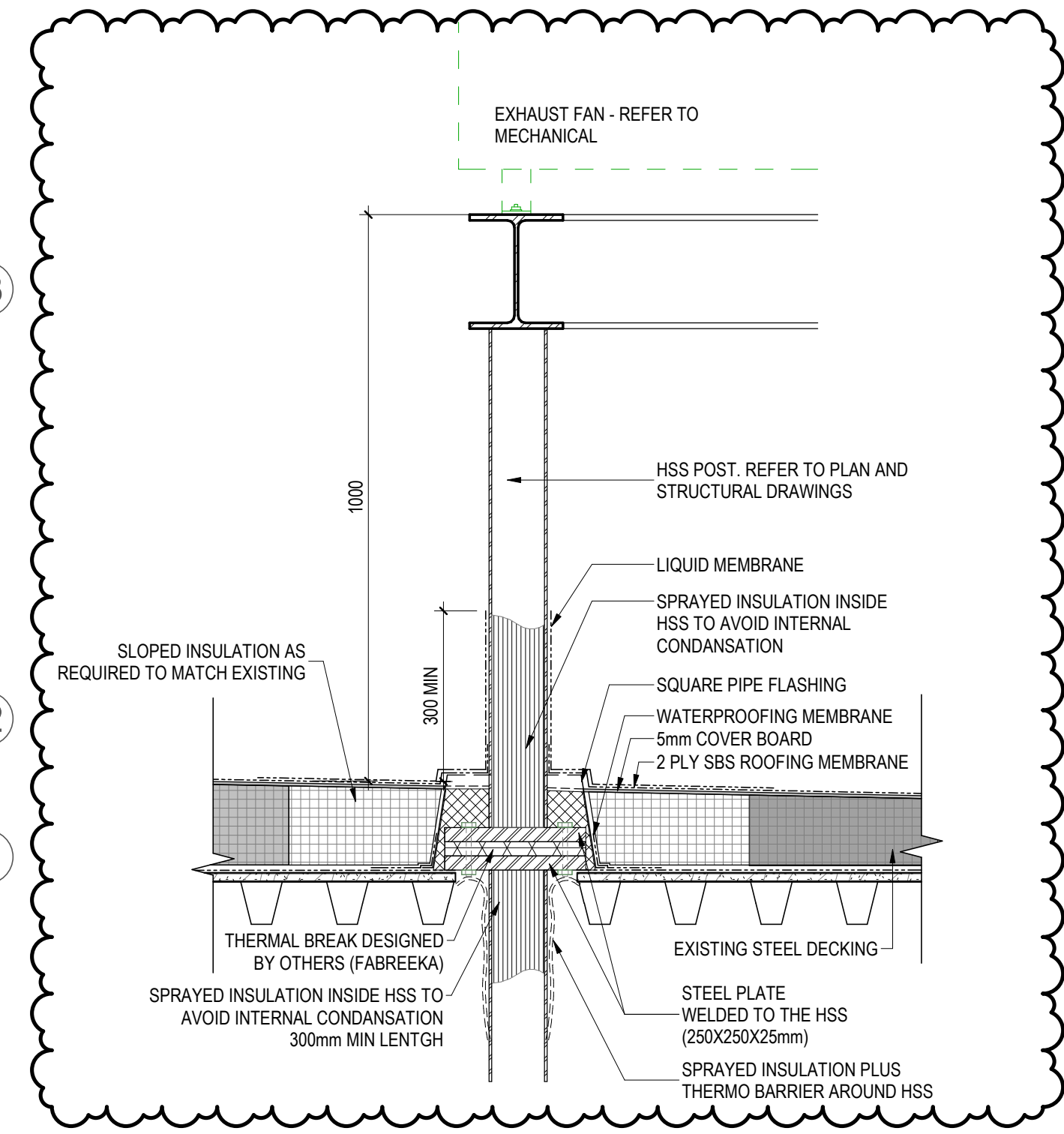
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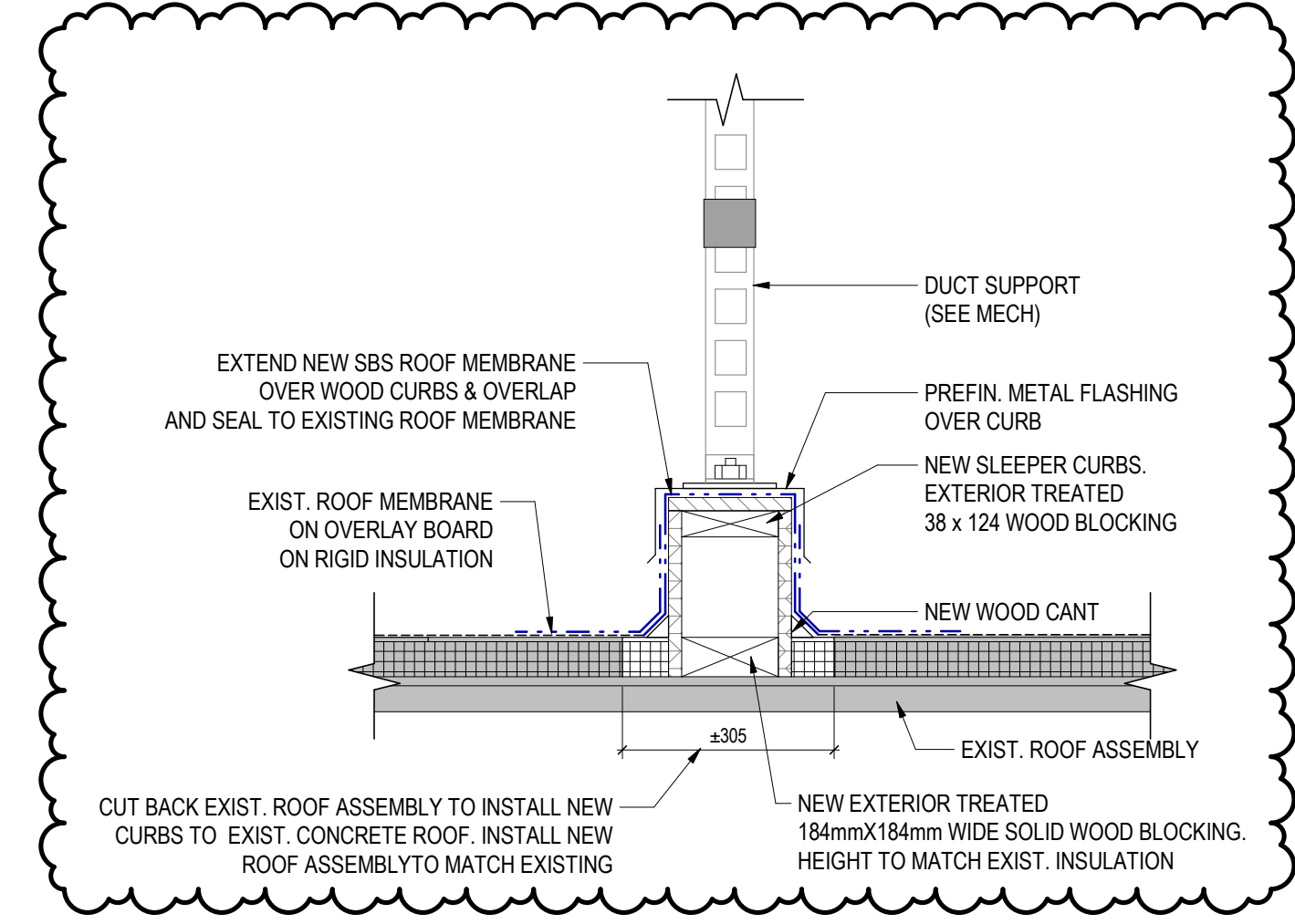
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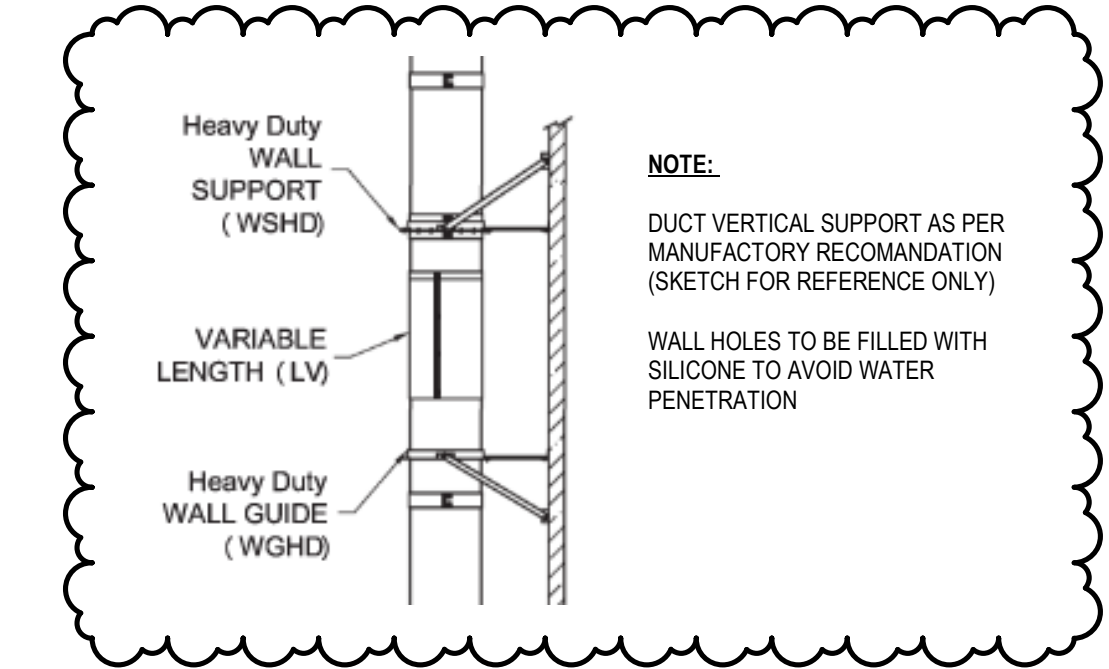
1 UPPER ROOF PLAN
AE105 1:100



2 HSS SUPPORT & ROOF PENETRATION
AE105 1:10



3 ROOF SLEEPERS FOR DUCT SUPPORT
AE105 1:10



4 DUCT VERTICAL SUPPORT
AE105 1:50

B	ISSUED FOR TENDER - ADD7	EM	EL	Date 7
A	ISSUED FOR TENDER	AA	SL	2023-09-28
Issued/Revision		By	Appd	YYYY.MM.DD

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Northern Health Authority

UHNBC (University Hospital of Northern BC) -
NAPRA Pharmacy Renovation
1475 Edmonton St, Prince George, BC V2M 1S2

Title
UPPER ROOF - RENOVATION PLAN

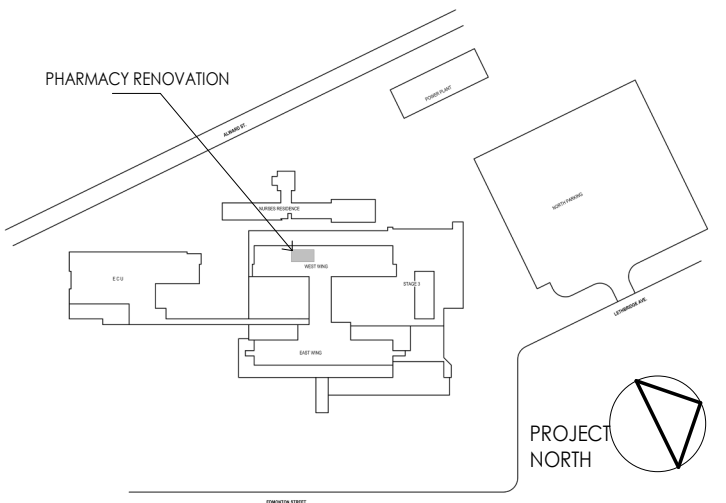
Project No. 144320228	Scale As indicated
Revision B	Drawing No. AE105

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Notes



DRAWING INDEX	
NO.	DRAWING NAME
ELECTRICAL	
E001	COVER PAGE
E010	SYSTEM OVERVIEW
E100	POWER AND SYSTEMS FLOOR PLAN - PHARMACY
E101	POWER & SYSTEMS FLOOR PLAN - ROOF PLANS
E200	LIGHTING PLAN - PHARMACY
E300	PANEL SCHEDULES
E301	LUMINAIRE AND MECHANICAL SCHEDULES
E400	ELECTRICAL DETAILS

GENERAL NOTES

- DO NOT SCALE THE DRAWINGS. OBTAIN ACCURATE DIMENSIONS FROM THE ARCHITECTURAL AND STRUCTURAL DRAWINGS.
- CONTRACTOR SHALL COMPLETE A DETAILED REVIEW OF THE ARCHITECTURAL DRAWINGS TO COORDINATE INSTALLATION OF FEEDERS AND DEVICES WITH THE BUILDING STRUCTURE.
- CONTRACTOR SHALL FIRESTOP ALL NEW CABLE/CONDUIT PENETRATIONS THROUGH WALLS AND FLOORS.
- WORK SHALL BE IN ACCORDANCE WITH THE DRAWINGS AND THEIR INTENT. WORK SHALL INCLUDE THE PROVISION FOR BUT NOT LIMITED TO ALL MATERIALS, LABOUR, TOOLS, EQUIPMENT AND SERVICES REQUIRED FOR CONSTRUCTING, INSTALLING AND PUTTING INTO REGULAR OPERATION THE COMPLETE ELECTRICAL SYSTEM AS SHOWN ON THE DRAWINGS AND AS SPECIFIED IN THIS DOCUMENT.
- CONTRACTOR SHALL REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS OF ALL EXPOSED TO VIEW DEVICES, LIGHTING AND EQUIPMENT. EXAMINE AND BRING DISCREPANCIES TO THE ATTENTION OF THE ARCHITECT BY WRITTEN NOTICE FOR CLARIFICATION.
- NOT ALL SYMBOLS INDICATED IN THE SYMBOL SCHEDULES ARE USED IN THE DRAWINGS.

GENERAL SYMBOLS	
#	NOTE REFERENCE
#/##	EQUIPMENT REFERENCE
#	REVISION NUMBER
W	WIRING HOME RUN
E004/1	DETAIL REFERENCE (1 DENOTES DETAIL NUMBER, E004 DENOTES SHEET NUMBER)

SECURITY/ACCESS CONTROL SYMBOLS	
CR	CARD READER
CK	CARD READER AND KEYPAD
EDS	ELECTRONIC DOOR STRIKE
ML	MAGNETIC LOCK
DC	DOOR CONTACT
DP	DOOR POSITION SWITCH
RE	REQUEST TO EXIT WALL MOUNTED SENSOR
W	WAVE TO OPEN PUSHBUTTON
EM	EMERGENCY PANIC PUSHBUTTON
ADO	AUTOMATIC DOOR OPENER
EL	ELECTRIFIED LOCK SET
CS	CEILING MOUNTED SECURITY CAMERA

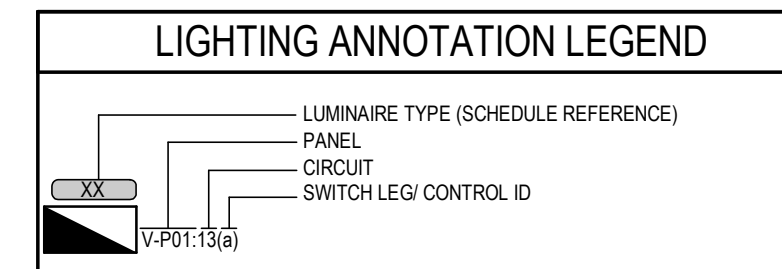
TELECOMMUNICATIONS SYMBOLS	
#	WALL MOUNTED TELECOM OUTLET (# DENOTES NUMBER OF CAT 6A CABLES)
INTERCOM	WALL MOUNTED BI-DIRECTIONAL INTERCOM
#	CEILING MOUNTED DATA OUTLET (#DENOTES NUMBER OF DATA DROPS)
WAP	WIRELESS ACCESS POINT (PROCURED BY OTHERS, INSTALLED BY CONTRACTOR)
CR	CLOCK RECEPTACLE

ABBREVIATIONS	
AV	AUDIO-VISUAL
ADO	AUTOMATIC DOOR OPENER
AFF	ABOVE FINISHED FLOOR
EX	EXISTING EQUIPMENT TO REMAIN
WAP	WIRELESS ACCESS POINT
BMS	BUILDING MANAGEMENT SYSTEM
FR	FRIDGE/FREEZER
RE	EXISTING EQUIPMENT TO BE REMOVED
RL	EXISTING EQUIPMENT IN A RELOCATED POSITION
HK	HOUSEKEEPING
JB	JUNCTION BOX
LC	LIGHTING CONTROL
MW	MICROWAVE
PC	PERSONAL COMPUTER
TYP	TYPICAL
UC	UNDERCOUNTER
WP	WEATHERPROOF
WRK	STAFF WORKSTATION
GF	GROUND FAULT CIRCUIT INTERRUPTER
ADO	AUTOMATIC DOOR OPENER

FIRE ALARM SYMBOLS	
F	MANUAL STATION
B	BELL
HS	HORN SPEAKER
CS	CONE SPEAKER
SD	SMOKE DETECTOR
DC	SMOKE DETECTOR, DC DENOTES DUAL CONTACT
DS	SMOKE DETECTOR, DUCT MOUNTED
SA	SMOKE ALARM
FAA	FIRE ALARM ANNUNCIATOR PANEL
FACP	FIRE ALARM CONTROL PANEL
CAF	CENTRAL ALARM & CONTROL FACILITY
ET	EMERGENCY TELEPHONE
FT	FA CONTROL TERMINAL
H	FIRE ALARM MAGNETIC DOOR HOLD OPEN DEVICE
R	RELAY INDIVIDUALLY ADDRESSABLE MODULE FOR FIRE ALARM
OL	OF LINE RESISTOR
IS	FAULT ISOLATION MODULE
CM	CONTROL MODULE
MM	MONITOR MODULE

POWER PLAN SYMBOLS	
5-15R	DUPLEX 5-15R RECEPTACLE
5-20R	DUPLEX 5-20R RECEPTACLE, T-SLOT
5-15R	TWO DUPLEX 5-15R RECEPTACLES
JB	CEILING MOUNTED JUNCTION BOX AND EQUIPMENT CONNECTION
JB	WALL MOUNTED JUNCTION BOX AND EQUIPMENT CONNECTION
JB	FLOOR MOUNTED JUNCTION BOX AND EQUIPMENT CONNECTION
P	PANEL (TYPE AS INDICATED - SECURITY, LIGHTING CONTROL, ETC.)
W	WALL MOUNTED DIRECT EQUIPMENT CONNECTION
S	SPLITTER
SR	SURFACE RACEWAY (TYPE AS INDICATED)
W	WAVE TO OPEN PUSHBUTTON
M	MOTOR
M	MOTOR c/w DISCONNECT SWITCH
M	COMBINATION DISCONNECT AND MAGNETIC MOTOR STARTER
D	DISCONNECT SWITCH
D	FUSED DISCONNECT SWITCH
M	MAGNETIC MOTOR STARTER
T	THERMOSTAT
M	MANUAL MOTOR STARTER c/w PILOT LIGHT
CS	CONDUIT STUB
CS	CONDUIT UP
CS	CONDUIT DOWN
MP	DEVICE MOUNTED ABOVE MILLWORK COUNTERTOP
MP	DEVICE MOUNTED WITHIN MILLWORK COUNTERTOP

LIGHTING PLAN SYMBOLS	
RL	RECESSED LUMINAIRE, 1'x4'
RL	RECESSED LUMINAIRE, 2'x4'
RL	RECESSED LUMINAIRE, 2'x2'
RL	RECESSED LUMINAIRE / POT LIGHT, 6" DIAMETER OR LARGER
RL	RECESSED LUMINAIRE / POT LIGHT, LESS THAN 6" DIAMETER
W	WALL MOUNTED LUMINAIRE
W	LUMINAIRE ON EMERGENCY CIRCUIT (INDICATED BY HALF SHADING)
ES	CEILING MOUNTED EXIT SIGN (TEXT ON SHADED SIDES, ARROWS AS INDICATED)
ES	WALL MOUNTED EXIT SIGN (TEXT ON SHADED SIDES, ARROWS AS INDICATED)
LS	LINE VOLTAGE SWITCH (120V TO 347V), D- DIMMER SWITCH (0-10V)
LS	LOW VOLTAGE SWITCH, D- DIMMER SWITCH (0-10V)
OS	WALL MOUNTED COMBINATION OCCUPANCY SENSOR/LOW VOLTAGE SWITCH, D- DIMMER SWITCH (0 TO 10V)
OS	CEILING MOUNTED LIGHTING OCCUPANCY SENSOR (TYPE AS INDICATED)
OS	WALL MOUNTED LIGHTING OCCUPANCY SENSOR (TYPE AS INDICATED)
PC	PHOTOCELL (EXTERIOR, TYPE AS INDICATED)
PC	DAYLIGHT SENSOR (INTERIOR PHOTOCELL, TYPE AS INDICATED)
OS	WALL MOUNTED COMBINATION OCCUPANCY SENSOR/LINE VOLTAGE SWITCH
DAC	DALI DAC MODULE (0 - 10V) DALI DIGITAL TO ANALOG CONVERTER (DAC) (0-10V)
PIR	PASSIVE INFRARED OCCUPANCY SENSOR (DALI)
DT	DUAL TECHNOLOGY OCCUPANCY SENSORS (LOW VOLTAGE)
MS	MULTI-SENSOR-PIR OCCUPANCY SENSOR AND DAYLIGHT SENSOR
PP	MOMENTARY PUSH BUTTON
PP	OCCUPANCY SENSOR POWER PACK
EM	EMERG. LTG. BATTERY PACK (# OF LAMPS AS SHOWN)
EM	EMERG. LTG. BATTERY PACK
EM	CEILING MOUNTED EMERG. LTG. REMOTE HEAD (# OF LAMPS AS SHOWN)
EM	WALL MOUNTED EMERG. LTG. REMOTE HEAD (# OF LAMPS AS SHOWN)
EM	COMBINATION EXIT SIGN/EMERG. LTG. BATTERY PACK



ELECTRICAL POWER, LIGHTING, OTHER EQUIPMENT DESIGN (ENERGY)	
BC BUILDING CODE:	2018
ELECTRICAL DESIGN:	
ENERGY STANDARD / CODE:	ASHRAE 90.1-2016
POWER COMPLIANCE PATH:	PRESCRIPTIVE
IN ACCORDANCE WITH:	SECTION 8.1.4 (ALTERATIONS TO EXISTING BUILDINGS)
LIGHTING COMPLIANCE PATH:	PRESCRIPTIVE
LIGHTING DESIGN METHOD:	SPACE BY SPACE
IN ACCORDANCE WITH:	SECTION 9 (ALTERATIONS TO EXISTING BUILDINGS)
OTHER EQUIPMENT PATH:	SECTION 10 (ALTERATIONS TO EXISTING BUILDINGS)

ADDENDUM #	ISSUED FOR TENDER	MG	TF	2024.02.09
B		BH	TF	2023.09.28
Issued/Revision		By	Appd	YYYY.MM.DD

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Northern Health Authority

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Title
COVER PAGE

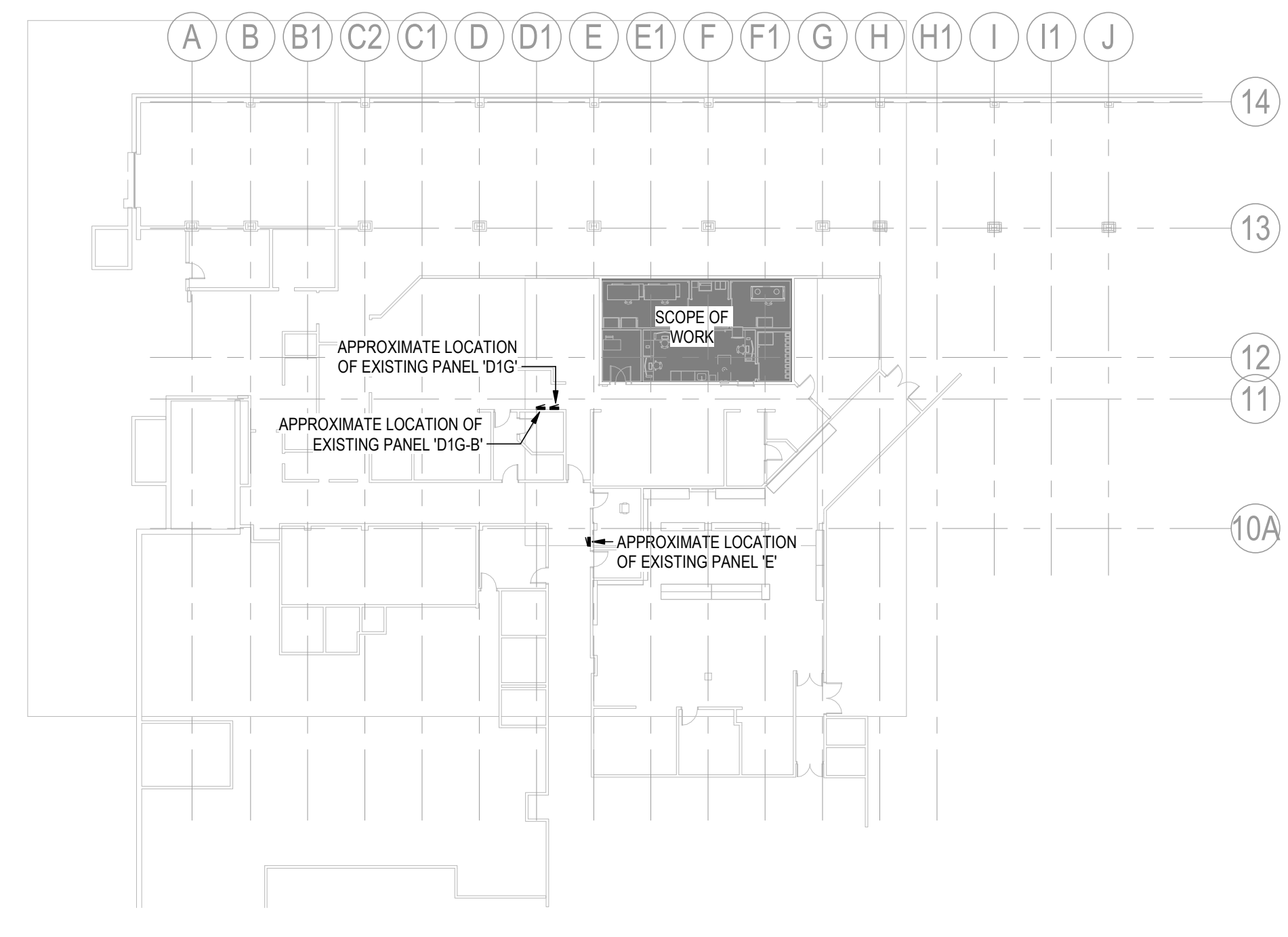
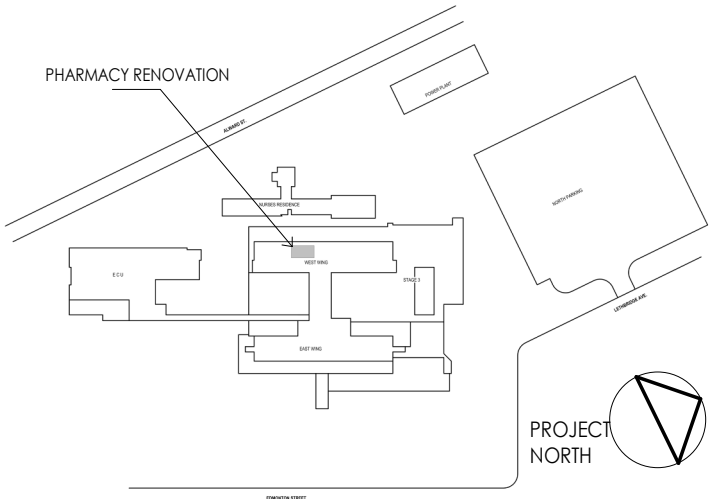
Project No.	Scale
144320228	N.T.S
Revision	Drawing No.
B	E001

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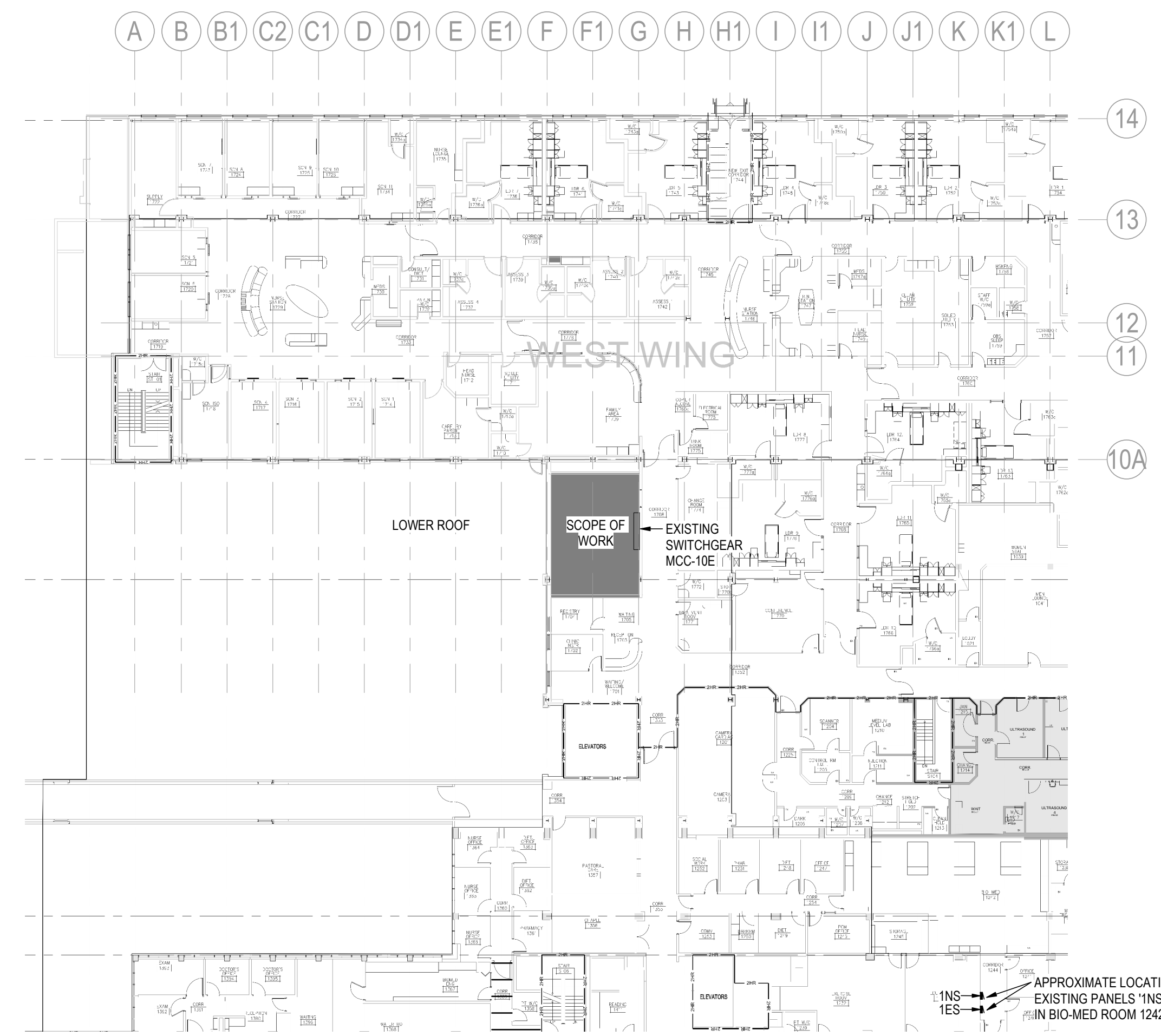
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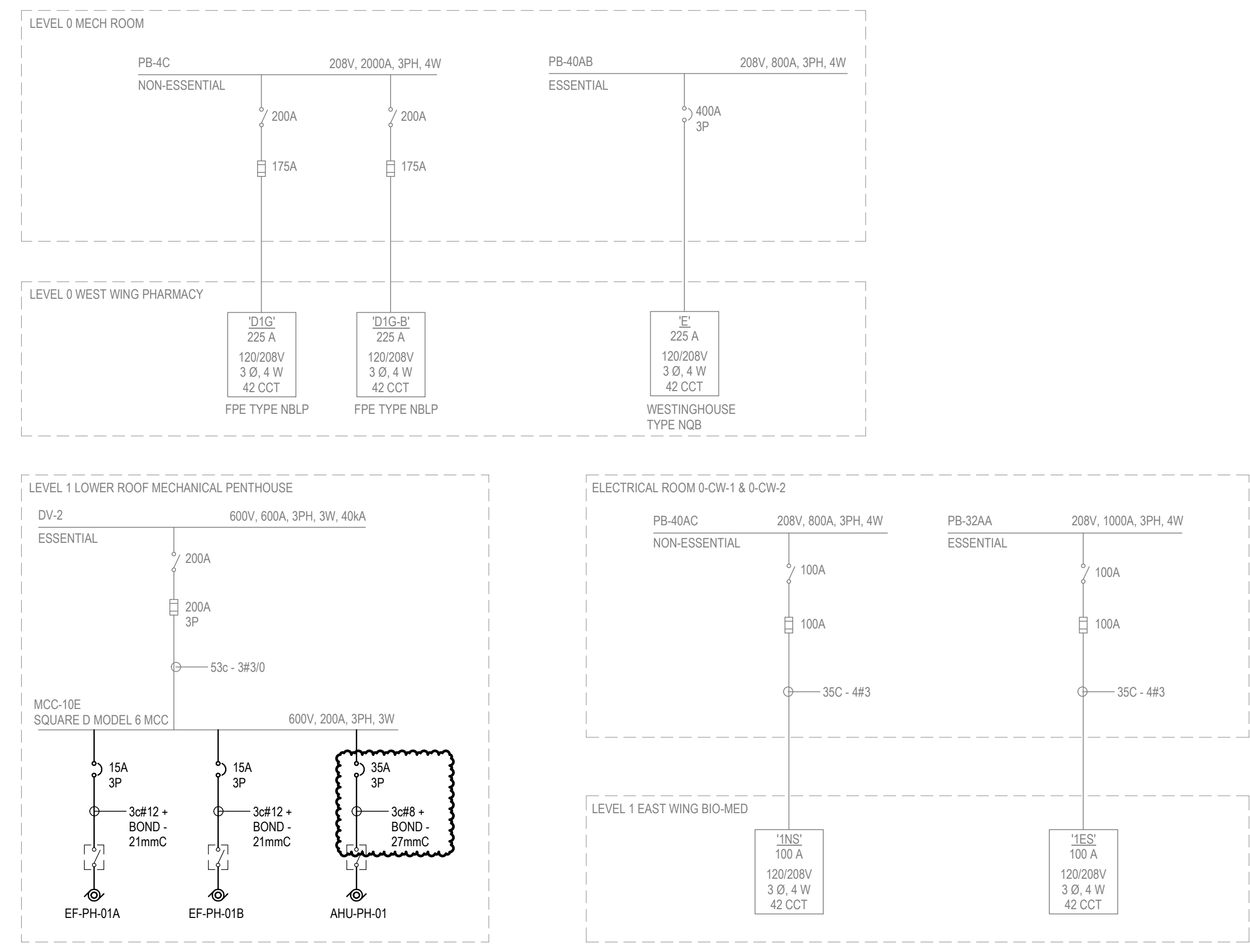
Notes



1 LEVEL 0 KEY PLAN
E010 1:300



5 LEVEL 1 KEY PLAN
E010 1:300

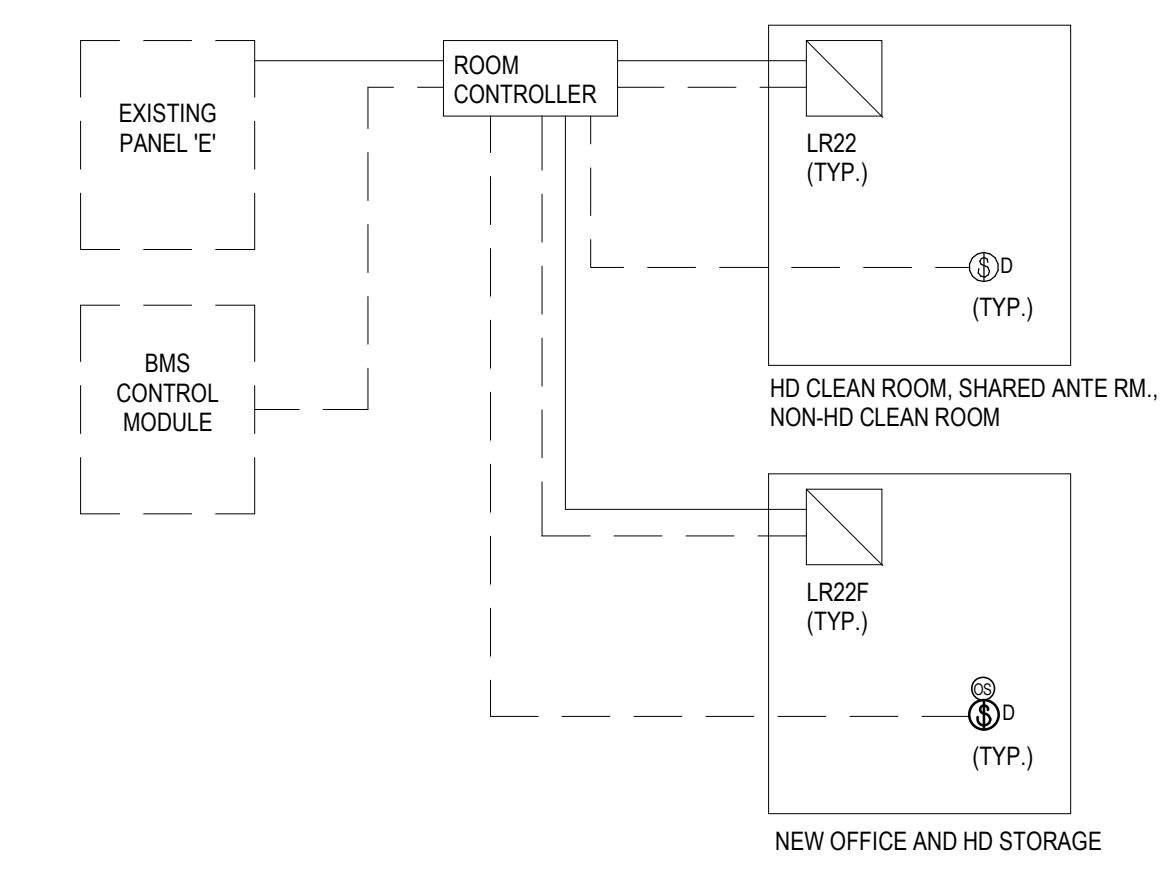


4 PARTIAL EXISTING SINGLE LINE DIAGRAM
E010 N.T.S



3 EXISTING SWITCHGEAR MCC-10E
E010 N.T.S

PROPOSED BREAKER SPACE FOR NEW AHU. ELECTRICAL CONTRACTOR TO PROVIDE CLAMP ON METERS TO MONITOR ELECTRICAL LOAD OF MCC-10E FOR DURATION OF AT LEAST TWO WEEKS. ENGINEER TO VERIFY THE METERING RESULT PRIOR TO INSTALLATION.



- NOTES:
- PROVIDE ROOM CONTROLLER AND LIGHTING CONTROL DEVICES TO MATCH EXISTING LIGHTING CONTROL SYSTEM (RELIABLE CONTROLS).
 - LIGHTING CONTROL BEHAVIOUR:
 - NEW OFFICE AND HD STORAGE: ALL LIGHTING FIXTURES TO BE MANUAL ON, DIMMABLE AND AUTO OFF UPON 15 MINS OF INACTIVITY.
 - HD CLEAN ROOM, SHARED ANTE RM AND NON-HD CLEAN ROOM: ALL LIGHTING FIXTURES TO BE MANUAL ON AND OFF AND DIMMABLE.
 - CONTRACTOR TO SETUP INTEGRATION TO EXISTING BMS (RC WEBVIEW)

2 LIGHTING CONTROL WIRING DIAGRAM
E010 N.T.S

ADDENDUM #	MG	TF	DATE
ISSUED FOR TENDER	BH	TF	2023.09.28
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UHNBC (University Hospital of Northern BC) - NAPRA Pharmacy Renovation
1475 Edmonton St, Prince George, BC V2M 1S2

Title SYSTEM OVERVIEW

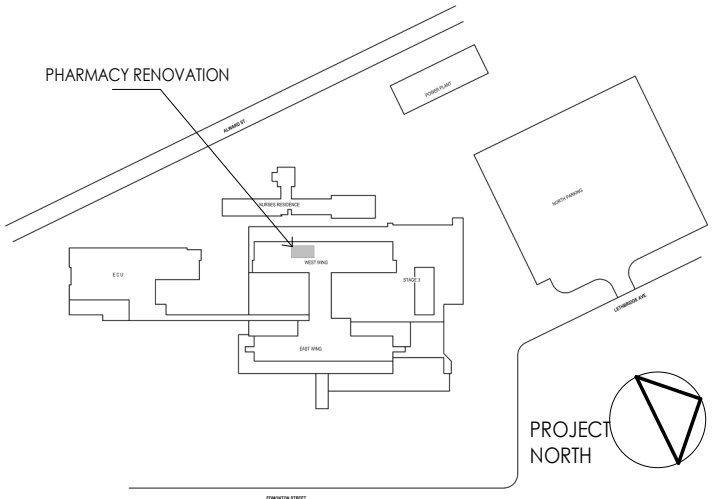
Project No. 144320228	Scale As indicated
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DEMOLITION NOTES

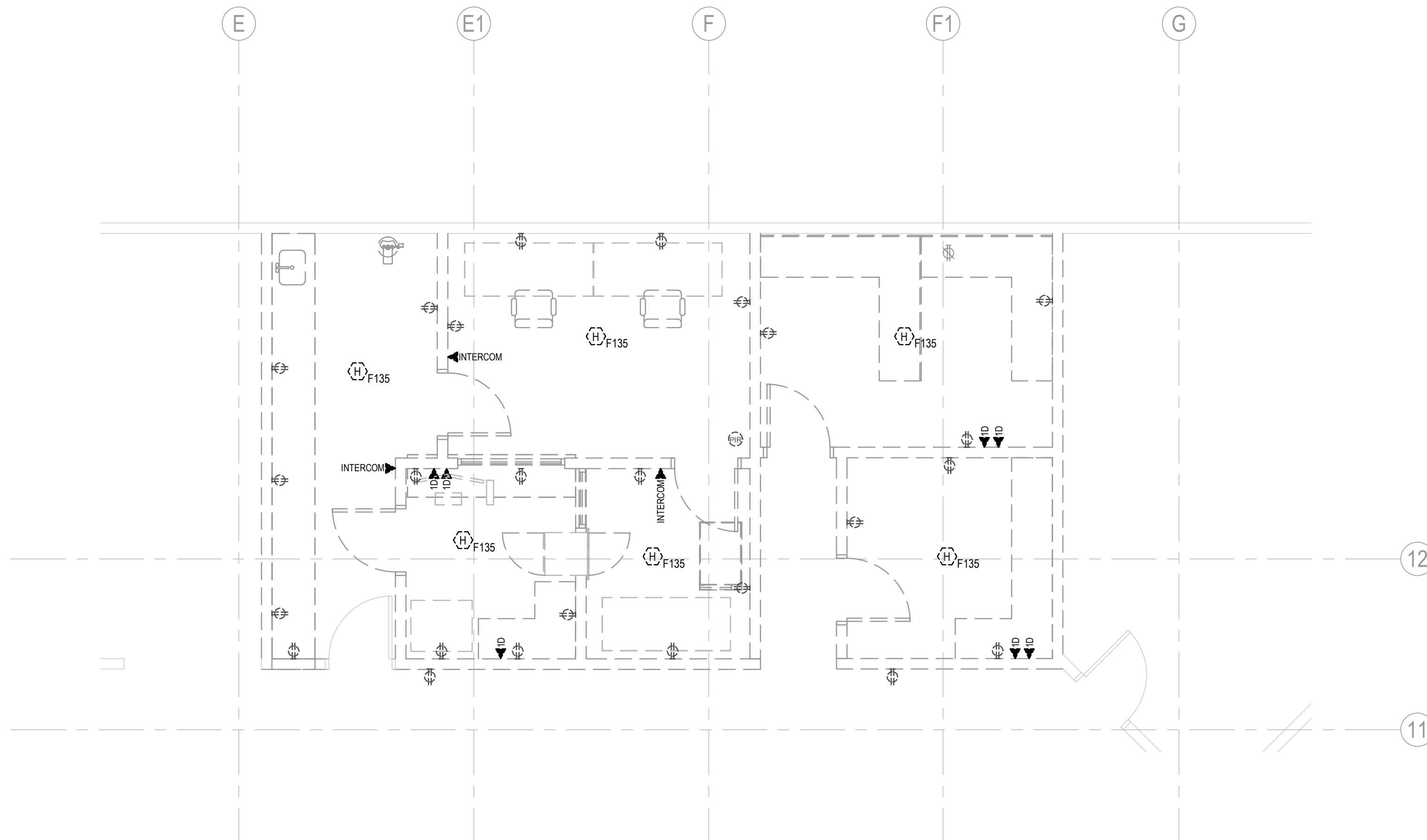
- A. THE INFORMATION ON EXISTING DEVICES AND EQUIPMENT PROVIDED ON THIS DRAWING IS A COMPILATION OF DATA FROM EXISTING DRAWINGS AND SITE INVESTIGATIONS. THE CONTRACTOR IS REQUIRED TO REVIEW THE EXISTING SITE CONDITIONS AND DETERMINE THE EXTENT OF DEMOLITION REQUIRED PRIOR TO SUBMITTING A PRICE. EXISTING DEVICES NOT SHOWN BUT REQUIRING REMOVAL WILL BE REMOVED AT NO ADDITIONAL COST TO THE OWNER. DEVICES NOT NOTED THAT REQUIRE REMOVAL OR RELOCATION WILL BE ASSESSED ON SITE DURING CONSTRUCTION AT NO ADDITIONAL COST TO THE OWNER.
- B. GENERAL ELECTRICAL: UNLESS OTHERWISE NOTED AS 'EX' OR 'RL' ON THE PLANS, ALL EXISTING ELECTRICAL EQUIPMENT ON WALLS/CEILINGS TO BE DEMOLISHED.
- C. REMOVE ANY REDUNDANT RACEWAY/WIRING AND CORRECT ANY NON-COMPLIANT INSTALLATIONS. IN THE CASE OF UNSEEN SITE CONDITIONS REGARDING HIDDEN NON-COMPLIANT INSTALLATIONS FROM THE PAST, CONTRACTOR TO IMMEDIATELY BRING THE EXTENT OF WORK TO THE ATTENTION OF THE CONSTRUCTION MANAGER FOR REVIEW AND TO DETERMINE THE PROCEDURE FOR CORRECTING THE INSTALLATIONS.
- D. THE OWNER HAS THE RIGHT TO FIRST REFUSAL FOR ALL REMOVED EQUIPMENT (LIGHTS, PLUGS, ETC...). ALL REMOVED EQUIPMENT NOT CLAIMED BY THE OWNER IS TO BE DISPOSED OF BY THE CONTRACTOR.
- E. UPDATE PANEL SCHEDULE TO REFLECT ADDITIONAL CIRCUIT REQUIREMENTS. FIELD CHECK & CONFIRM AVAILABLE SPACE & SPARE CIRCUITS.

GENERAL NOTES

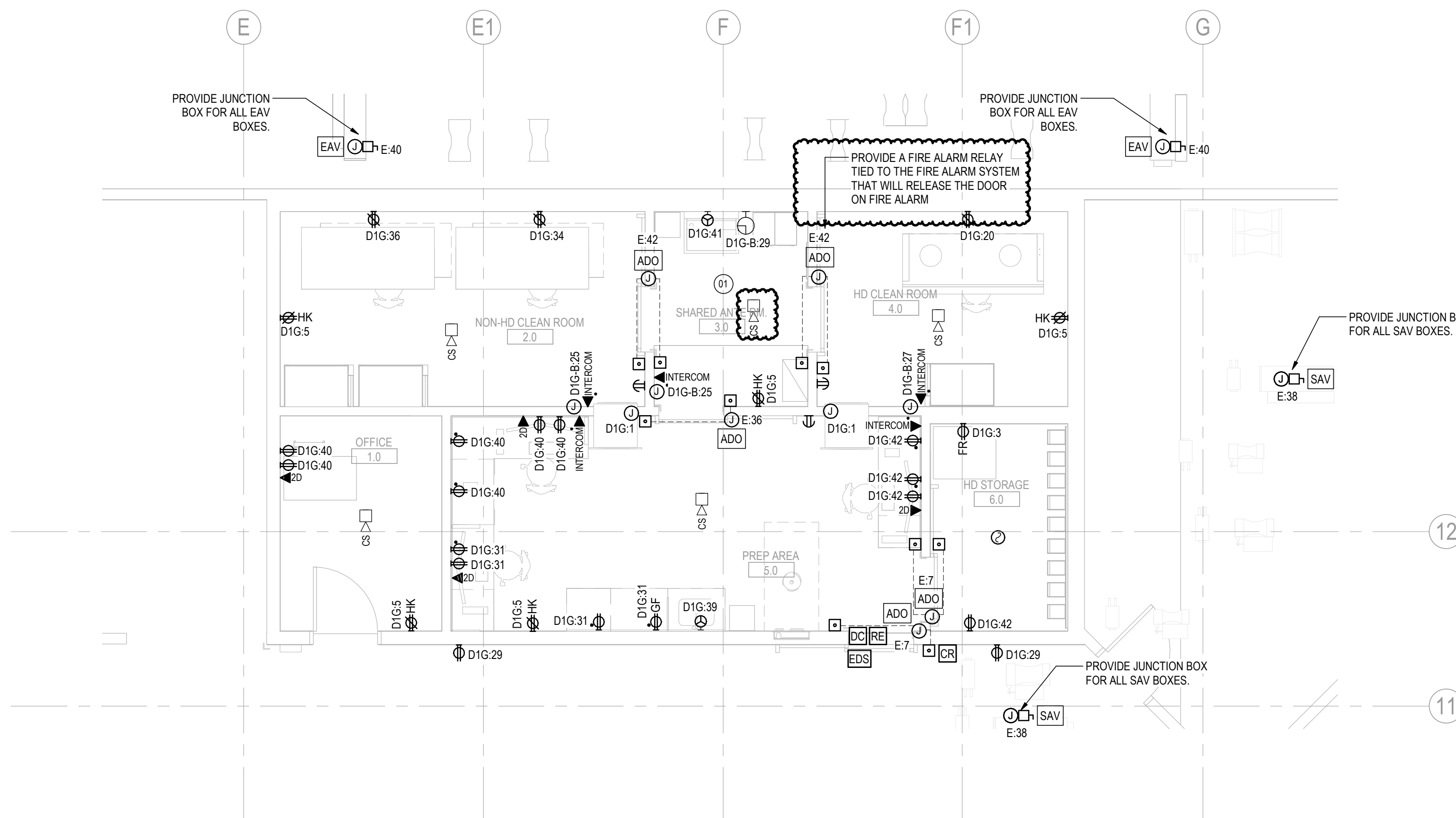
- A. COORDINATE ALL WORK WITH ARCHITECTURAL, INTERIOR DESIGN AND MECHANICAL DISCIPLINE DRAWINGS AND COORDINATE ALL WORK WITH ASSOCIATED TRADES. REFER TO INTERIOR DESIGN DRAWINGS FOR MOUNTING HEIGHTS OF ALL DEVICES, AND INSTALLATION REQUIREMENTS IN OR NEAR MILLWORK.
- B. REFER TO ARCHITECTURAL DRAWINGS FOR FIRE-RATED WALL/FLOOR PENETRATIONS DETAILS. FIRESTOP ALL WALL AND FLOOR PENETRATIONS AS REQUIRED.
- C. ALL POWER CONDUCTORS SHALL BE SIZED AS REQUIRED TO LIMIT VOLTAGE DROP TO A MAXIMUM OF 3%.
- D. RETAIN A QUALIFIED PROFESSIONAL STRUCTURAL ENGINEER REGISTERED IN THE PROVINCE OF BRITISH COLUMBIA TO DESIGN AND REVIEW SEISMIC RESTRAINTS FOR ALL WORK ASSOCIATED WITH DIVISION 26 (LUMINAIRES, CONDUIT SUPPORTS, ETC.). THE STRUCTURAL ENGINEER SHALL DESIGN, REVIEW/SUPERVISE THE INSTALLATIONS AND SUBMIT THE LETTERS OF ASSURANCE (SCHEDULES 'S-B' AND 'S-C') TO THE ELECTRICAL ENGINEER.
- E. PROVIDE NEW BREAKERS IN EXISTING PANELS AS REQUIRED TO ACCOMMODATE NEW LOADS. REFER TO ELECTRICAL PANEL SCHEDULES AND SINGLE LINE DIAGRAM. CIRCUITS SHOWN INDICATE THE REQUIRED CIRCUITING ARRANGEMENT. DO NOT DEVIATE FROM THE CIRCUITING GROUPING AS SHOWN. SHOW ALL CIRCUIT NUMBERS USED ON RECORD DRAWINGS. CONNECT A MAXIMUM OF THREE (3) WORK STATION OUTLETS PER 15A CIRCUIT AND SIX (6) CONVENIENCE OUTLETS PER 15A CIRCUIT. PROVIDE TYPE-WRITTEN PANEL SCHEDULES UPON PROJECT COMPLETION.
- F. PERFORM FIRE ALARM RE-VERIFICATION AT END OF PROJECT COMPLETE WITH AUDIBILITY LEVELS OF EACH DEVICE AND AMBIENT AUDIBILITY IN CORRESPONDENCE WITH THE ULC S537 STANDARD.
- G. PROVIDE PROPER SEALING INSTALLATION ON ELECTRICAL WIRING DEVICES IN HAZARDOUS AREA.

KEYNOTE LEGEND

Key Value	Keynote Text
01	PROVIDE ADD CAM MOUNTED UNIT SWITCH (BY ADD VENDOR) AT EACH DOOR IN SHARED ANTEROOM TO BE USED AS INTERLOCK SIGNAL TO RESTRICT OTHER DOORS TO OPEN UNLESS DOOR IS FULLY CLOSED.



1 PHARMACY POWER AND SYSTEMS DEMO PLAN
E100 1:50



2 PHARMACY POWER AND SYSTEMS NEW PLAN
E100 1:50

ADDENDUM #	MG	TF	DATE
ISSUED FOR TENDER	BH	TF	2023.09.28
Issued/Revision	By	Appd	YYYY.MM.DD

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Title
**POWER AND SYSTEMS FLOOR PLAN -
PHARMACY**

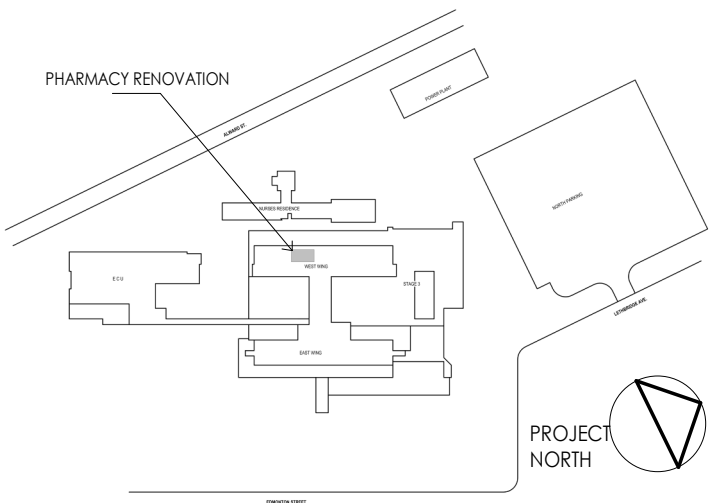
Project No.	Scale
144320228	As indicated
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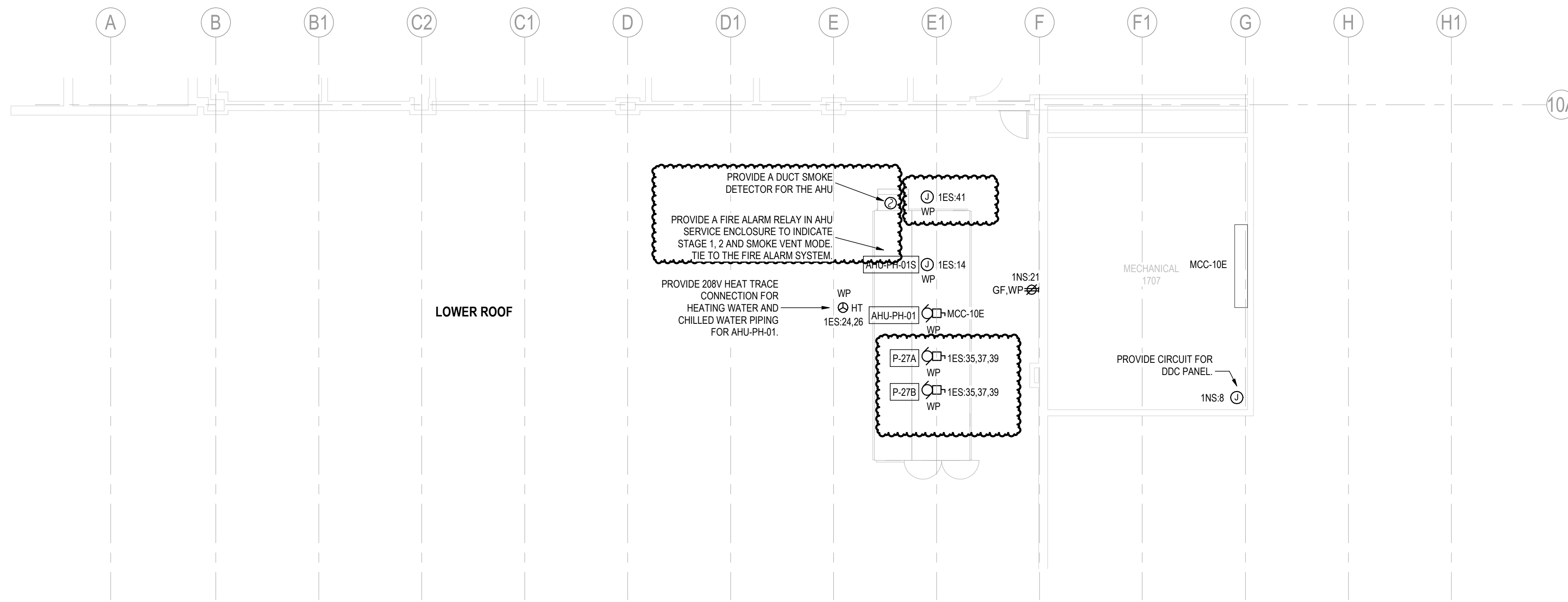
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Notes



GENERAL NOTES

- A. COORDINATE ALL WORK WITH ARCHITECTURAL, INTERIOR DESIGN AND MECHANICAL DISCIPLINE DRAWINGS AND COORDINATE ALL WORK WITH ASSOCIATED TRADES. REFER TO INTERIOR DESIGN DRAWINGS FOR MOUNTING HEIGHTS OF ALL DEVICES, AND INSTALLATION REQUIREMENTS IN OR NEAR MILLWORK.
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1 LEVEL 1 - LOWER ROOF POWER PLAN
E101 1:100



2 LEVEL 3 - UPPER ROOF POWER PLAN
E101 1:100

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Title
**POWER & SYSTEMS FLOOR PLAN -
ROOF PLANS**

Project No.
144320228

Scale
As indicated

Revision
B

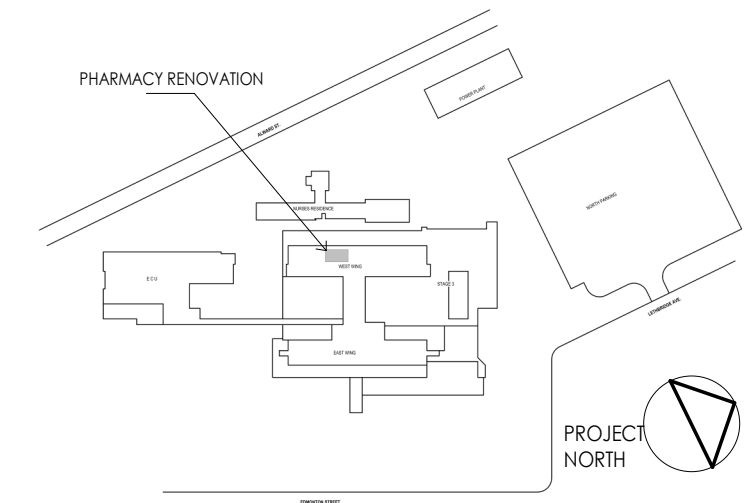
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Notes



LUMINAIRE SCHEDULE													
Type Mark	Image	Size	Description	Mounting	LED					Voltage	Manufacturer	Cat#	Remarks
					Wattage	Lumen Output	Efficacy	CRI	Color Temperature				
F1		2'X4'	EXISTING LIGHTING FIXTURE	RECESSED						120 V			
F2		2'X4'	EXISTING LIGHTING FIXTURE	RECESSED						120 V			
LR22		2'X2'	2'X2' LED RECESSED LIGHT SEALED	RECESSED - T-BAR	37 W	4300	116	90	3500	120 V	FAIL-SAFE	ENW-24-2-LD2-43-35-CA08-UNV-ED1D-1-90	
LR22F		2'X2'	2'X2' LED RECESSED LIGHT - CLEAN ROOM RATED	RECESSED - DRYWALL	37 W	4300	116	90	3500	120 V	FAIL-SAFE	ENC-24-2-LD2-39-35-CA08-UNV-ED1D-1-90-DFCL-2424W-U	

MECHANICAL EQUIPMENT SCHEDULE																																
EQUIPMENT ID	UNIT DESCRIPTION	LOCATION	VOLTAGE (V)	Φ	HZ	HP	FLA	LOAD	MCA	MOP	STARTER				CONTROLS			DISCONNECT		ACCESSORIES	INTERFACE REQ'D	AUTO ON	AUTO OFF	REMO E HOA	DUCT SMOKE DET.	PWR SOURCE TYPE	PANEL	BREAKER	CONDUCTOR SIZE	CONDUIT SIZE	NOTES	
											GROUPING	TYPE	SUPPLIED	INSTALLED	WIRE	SIZE	TYPE(S)	SUPPLIED	INSTALLED													WIRE
AHU-PH-01	PHARMACY AIR HANDLING UNIT	LEVEL 1 LOWER ROOF	600 V	3	60 Hz	0	0.0 A	11200 W	21 A	25 A		VFD	M	M	E	BAS	M	M	E	E	E	No	No	No	No	Yes	VITAL	MCC-10E	25A/3P	3c#10 + BOND	21mm	
AHU-PH-01S	AHU-PH-01 LIGHT PLUGS CIRCUIT	LEVEL 1 LOWER ROOF	120 V	1	60 Hz	0	0.0 A	1400 W	0 A	0 A						BAS	M	M	M	E	E	No	No	No	No	No	VITAL	1ES	15A/1P	2c#12 + BOND	21mm	
EAV BOX	EXHAUST AIR VALVE BOX CONNECTION	LEVEL 0 PHARMACY	120 V	1	60 Hz	0	1.0 A	120 W	0 A	0 A						BAS	M	M	M	E	E	No	No	No	No	No	VITAL	E	15A/1P	2c#12 + BOND	21mm	
EAV BOX	EXHAUST AIR VALVE BOX CONNECTION	LEVEL 0 PHARMACY	120 V	1	60 Hz	0	1.0 A	120 W	0 A	0 A						BAS	M	M	M	E	E	No	No	No	No	No	VITAL	E	15A/1P	2c#12 + BOND	21mm	
EF-PH-01A	HIGH PLUME EXHAUST FAN	LEVEL 3 UPPER ROOF	600 V	3	60 Hz	5	6.1 A	4052 W	15 A	15 A		PCS1	VSD	M	M	E	BAS	M	M	M	E	E	No	No	No	No	VITAL	MCC-10E	15A/3P	3c#12+ BOND	21mm	
P-27A	AIR HANDLING UNIT PUMPS	LEVEL 1 LOWER ROOF	208 V	3	60 Hz	0	0.0 A	800 W	6 A	20 A						MAG	E	M	E			No	No	No	No	No	VITAL	1ES	20A/3P	3c#10 + BOND	21mm	
P-27B	AIR HANDLING UNIT PUMPS	LEVEL 1 LOWER ROOF	208 V	3	60 Hz	0	0.0 A	800 W	6 A	20 A						MAG	E	M	E			No	No	No	No	No	VITAL	1ES	20A/3P	3c#10 + BOND	21mm	
SAV BOX	SUPPLY AIR VALVE BOX CONNECTIONS	LEVEL 0 PHARMACY	120 V	1	60 Hz	0	1.0 A	120 W	0 A	15 A						BAS	M	M	M	E	E	No	No	No	No	No	VITAL	E	15A/1P	2c#12 + BOND	21mm	
SAV BOX	SUPPLY AIR VALVE BOX CONNECTIONS	LEVEL 0 PHARMACY	120 V	1	60 Hz	0	1.0 A	120 W	0 A	15 A						BAS	M	M	M	E	E	No	No	No	No	No	VITAL	E	15A/1P	2c#12 + BOND	21mm	

ABBREVIATIONS:

GENERAL:

M MECHANICAL (DIVISIONS 21/22/23/25)
E ELECTRICAL (DIVISION 26)
FLA FULL LOAD AMPACITY
NCA MINIMUM CIRCUIT AMPACITY
MOP MAXIMUM OVERCURRENT PROTECTION DEVICE
BAS BUILDING AUTOMATION SYSTEM
CACF CENTRAL ALARM & CONTROL FACILITY (FIRE ALARM)
CDP CENTRAL DISTRIBUTION PANEL
FVNR FULL VOLTAGE, NON REVERSING
OIC OVERCURRENT
OIL OVERLOAD

CONTROLS:

BAS BUILDING AUTOMATION SYSTEM (DDC)
CP SYSTEM CONTROL PANEL (EG IRRIGATION CONTROLLER)
ES END SWITCH
FA FIRE ALARM (CONTROL MODULE)
FAFS FIRE ALARM (WET SPRINKLER) FLOW SWITCH
FALS FIRE ALARM (SPRINKLER RESERVOIR) LEVEL SWITCH
FAPS FIRE ALARM (DRY SPRINKLER) PRESSURE SYSTEM
FATS FIRE ALARM (SPRINKLER VALVE) TAMPER SWITCH
GS GAS SENSOR
H HUMIDISTAT
I INTERLOCK
LS LEVEL SWITCH
TC TIME CLOCK
T THERMOSTAT
VS VARIABLE SPEED SWITCH
WS WALL SWITCH

STARTER TYPE:

MAN MANUAL (w/ OIL)
MRR MOTOR RATED RELAY (N/C/N/O)
MAG MAGNETIC (FVNR)
MAG2 MAGNETIC (TWO SPEED)
FVR MAGNETIC, FULL VOLTAGE REVERSING
RVVD REDUCED VOLTAGE (WYE-DELTA)
RVAT REDUCED VOLTAGE (AUTOTRANSFORMER)
RVPW REDUCED VOLTAGE (PART WINDING)
RVSS REDUCED VOLTAGE (SOFT STARTER)
VSD VARIABLE SPEED DRIVE
VFD VARIABLE FREQUENCY DRIVE

STARTER GROUPING:

PCS1 PACKAGED CONTROL SYSTEM (INTEGRAL TO LOAD(S))
PCS2 PACKAGED CONTROL SYSTEM (SEPARATE FROM LOADS)
MCC MOTOR CONTROL CENTRE
MDC MOTOR DISTRIBUTION CENTRE
(FOUR-PLEX' OR SIMILAR SMALL GROUPED MOTOR CONTROL)
LOOSE INDIVIDUALLY-MOUNTED MOTOR STARTER/RELAY/VSD

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Title
LUMINAIRE AND MECHANICAL
SCHEDULES

Project No.	Scale
144320228	N.T.S
Revision	Drawing No.
B	E301