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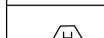
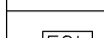
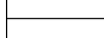
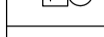
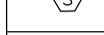
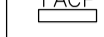


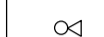

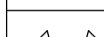

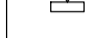



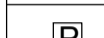

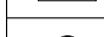


FIRE ALARM NOTES:

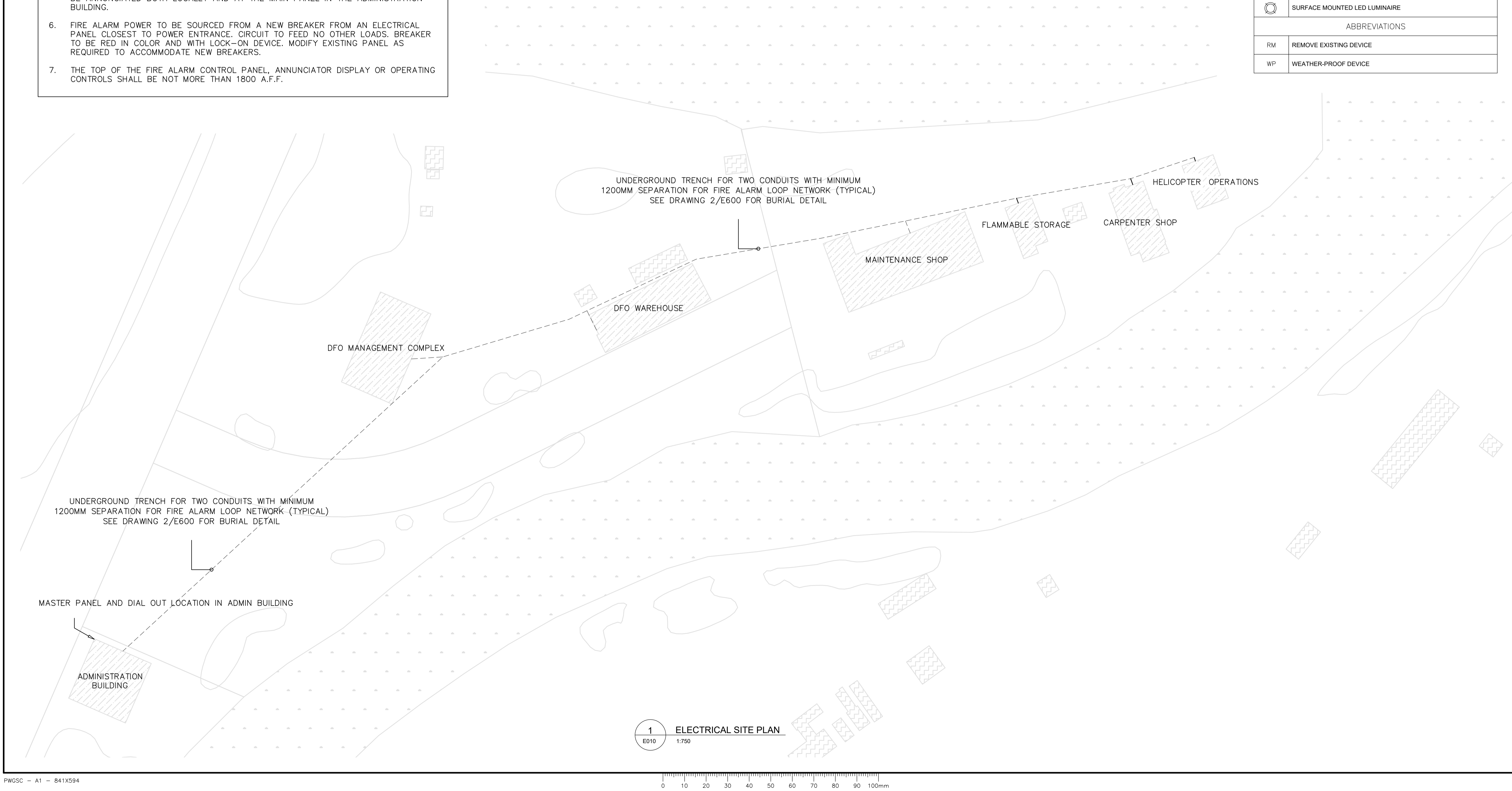
1. FIRE ALARM EOL DEVICES TO BE IN SEPARATE OUTLET BOX MOUNTED LESS THAN 1800 A.F.F. LABEL ZONE SERVED ON FACEPLATE.
2. AS PER CAN/ULC S524-19, INSTALL CEILING MOUNTED SMOKE DETECTORS NO CLOSER THAN 100MM FROM WALLS, AND MAINTAIN A SEPARATION OF NOT MORE THAN 6400MM BETWEEN SMOKE DETECTOR AND WALL, AND 12,800MM BETWEEN TWO SMOKE DETECTORS.
3. INSTALL CEILING MOUNTED HEAT DETECTORS NO CLOSER THAN 100MM FROM WALLS, AND MAINTAIN A SEPARATION OF NOT MORE THAN 5300MM BETWEEN SMOKE DETECTORS DEVICE AND WALL, AND 10,600MM BETWEEN TWO HEAT DETECTORS.
4. AS PER CAN/ULC S524-19, PROVIDE FAULT ISOLATORS AT POINTS WHERE THE INITIATION DEVICE LOOP TRAVELS FROM ANY LEVEL TO ANOTHER LEVEL (CRAWLSPACE, MAIN FLOOR, SECOND FLOOR, ETC.) FAULT ISOLATION MODULES SHALL ALSO BE UTILIZED WHEN ENTERING AND LEAVING EACH FIRE ALARM ZONE AS WELL AS THE MECHANICAL/ELECTRICAL ROOMS. AS PER S524-19 6.1.3, IF AN ADDRESSABLE SYSTEM IS USED, ALL DEVICE LOOPS ARE TO BE WIRED AS CLASS A. ENSURE THAT PRIMARY AND ALTERNATE WIRING RUNS ARE IN SEPARATE CONDUITS, WITH MINIMUM OF 300MM BETWEEN VERTICALLY RUN CONDUITS/ CIRCUITS AND MINIMUM 1200MM BETWEEN HORIZONTALLY RUN CONDUITS/CIRCUITS.
 - EXCEPTION A: PRIMARY AND ALTERNATE WIRING CIRCUITS MAY USE SAME CONDUIT TO AND FROM CONTROL UNIT OR TRANSPONDER FOR A DISTANCE NOT TO EXCEED 3M.
 - EXCEPTION B: PRIMARY AND ALTERNATE WIRING CIRCUITS MAY DROP AND RETURN TO AN INDIVIDUAL FIELD DEVICE, IE: PULL STATION BESIDE DOOR FROM JUNCTION BOX AND CONDUIT IN CEILING SPACE, OR FROM CEILING JUNCTION BOX TO T-BAR SUSPENDED DEVICE.
 - EXCEPTION C: PRIMARY AND ALTERNATE WIRING CIRCUITS FOR MULTIPLE DEVICES INSIDE A SINGLE ROOM WITH ROOM SIZE NOT EXCEEDING 100M².
5. FIRE ALARM SCOPE INCLUDES COMPLETE REMOVAL OF EXISTING FIRE ALARM SYSTEMS AND DEVICES IN EACH BUILDING AND REPLACEMENT WITH NEW CAMPUS STYLE NETWORKED FIRE ALARM SYSTEM FOR ENTIRE SITE. EXISTING FIRE ALARM PANELS, ALL ASSOCIATED INITIATING AND SIGNALING DEVICES AND WIRING/CONDUIT TO BE COMPLETELY REMOVED. EXISTING CONDUIT PENETRATIONS TO BE RE-USED WHERE POSSIBLE TO MINIMIZE NEW PENETRATIONS. EACH BUILDING SHALL HAVE A STAND-ALONE FIRE ALARM PANEL FOR LOCAL OPERATION. EACH BUILDING PANEL SHALL BE CONNECTED BY A NETWORK DATA COMMUNICATION LOOP TO THE MAIN FIRE ALARM CONTROL PANEL AND WORKSTATION LOCATED IN THE ADMINISTRATION BUILDING. ANY SUPERVISORY, TROUBLE OR ALARM CONDITION IN ONE BUILDING SHALL BE ANNUNCIATED BOTH LOCALLY AND AT THE MAIN PANEL IN THE ADMINISTRATION BUILDING.
6. FIRE ALARM POWER TO BE SOURCED FROM A NEW BREAKER FROM AN ELECTRICAL PANEL CLOSEST TO POWER ENTRANCE. CIRCUIT TO FEED NO OTHER LOADS. BREAKER TO BE RED IN COLOR AND WITH LOCK-ON DEVICE. MODIFY EXISTING PANEL AS REQUIRED TO ACCOMMODATE NEW BREAKERS.
7. THE TOP OF THE FIRE ALARM CONTROL PANEL, ANNUNCIATOR DISPLAY OR OPERATING CONTROLS SHALL BE NOT MORE THAN 1800 A.F.F.

GENERAL NOTES


1. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS FROM AUTHORITIES HAVING JURISDICTION AND PAY ALL ASSOCIATED FEES.
2. LOCATE JUNCTION AND PULL BOXES AS REQUIRED TO ALLOW ACCESS AFTER EQUIPMENT AND APPEARANCES ARE INSTALLED. COORDINATE LOCATIONS AND ELEVATIONS OF ALL DEVICES WITH DRAWINGS AND WITH SITE CONDITIONS PRIOR TO INSTALLATION.
3. PROTECT PERMANENT BUILDING FINISHES FROM DAMAGE DURING CONSTRUCTION PERIOD. PROVIDE PLYWOOD OR SIMILAR MATERIAL UNDER EQUIPMENT OR MATERIALS STORED ON FLOORS, AND IN AREAS WHERE CONSTRUCTION MAY DAMAGE FINISHES. SURFACES OR FINISHES DAMAGED DURING CONSTRUCTION SHALL BE REPLACED AT THE COST OF THE CONTRACTOR AT FAULT.
4. CEILING MOUNTED DEVICES SHALL BE MOUNTED IN THE CENTER OF THE CEILING TILES, UNLESS OTHERWISE NOTED.
5. UPDATE PANEL SCHEDULE WITH THE NEW BREAKER AND CIRCUIT USED FOR THE FIRE ALARM CONTROL PANEL.
6. WHERE PROJECT PHASING IS INDICATED IN ANY PART OF THE WORKING DOCUMENT PACKAGE, THE CONTRACTOR IS TO PLAN WORK SO AS TO FACILITATE SUCH PHASING, OR COORDINATE WITH THE CLIENT
7. DO NOT SCALE THE DRAWINGS. BECAUSE OF THE SCALE OF THE DRAWINGS, IT IS NOT POSSIBLE TO INDICATE ALL OFFSETS, FITTINGS OR OTHER SIMILAR ITEMS WHICH MAY BE REQUIRED TO MAKE A COMPLETE OPERATING SYSTEM. CAREFULLY INVESTIGATE CONDITIONS AFFECTING WORK AND INSTALL WORK IN SUCH MANNER THAT INTERFERENCES BETWEEN PIPES, CONDUITS, DUCTS, EQUIPMENT, ARCHITECTURAL AND STRUCTURAL FEATURES SHALL BE AVOIDED.

8. SOME OF THE BUILDINGS INCLUDED IN THE SCOPE OF THIS CONTRACT ARE OVER 40 YEARS OLD AND AS PER TREASURY BOARD POLICY ARE CANDIDATES FOR FHBR0 REVIEW. THESE BUILDINGS WILL BE DESIGNATED AS "RECOGNIZED" HERITAGE BUILDINGS, AS SUCH, THE RENOVATIONS IN THESE BUILDINGS SHALL FOLLOW THE STANDARDS AND GUIDELINES FOR CONSERVATION OF HISTORIC PLACES IN CANADA. REFER TO PROJECT SPECIFICATIONS AND HERITAGE CONSERVATION ADVICE REPORT. THE RECOGNIZED BUILDINGS FOR THE PURPOSE OF THIS PROJECT INCLUDE:
 - A. DFO MANAGEMENT COMPLEX
 - B. MAINTENANCE SHOP
 - C. CARPENTER SHOP
 - D. HELICOPTER OPERATIONS
9. EXISTING LIFE SAFETY SYSTEMS SHALL REMAIN FULLY OPERATIONAL THROUGHOUT CONSTRUCTION UNTIL NEW SYSTEMS HAVE BEEN INSTALLED, TESTED AND VERIFIED AS FULLY OPERATIONAL.
10. AFTER NEW LIFE SAFETY SYSTEMS ARE FULLY OPERATIONAL, EXISTING SYSTEMS ARE TO BE COMPLETELY REMOVED

LEGEND	
 EOL	FADED SYMBOLS ARE INDICATIVE OF EXISTING DEVICES
 F	PULL STATION
 P	POWER PANELBOARD
 H	HEAT DETECTOR
 EOL	END OF LINE RESISTOR
 F	FIRE ALARM BELL
 S	SMOKE DETECTOR
 FACP	FIRE ALARM CONTROL PANEL
 DACT	AUTO-DIALER PANEL (DACT)
 S/D	IN-DUCT SMOKE DETECTOR
 04	EXISTING EMERGENCY REMOTE HEAD (1 LAMP)
 42	WALL MOUNTED EMERGENCY REMOTE HEAD (2 LAMPS)
 4	EMERGENCY LIGHTING BATTERY PACK (2 LAMPS)
 1	EXISTING EMERGENCY LIGHTING BATTERY PACK (1 LAMP)
 1	WALL MOUNTED EXIT SIGNS (FRONT MOUNTED)
 1	WALL MOUNTED EXIT SIGN (SIDE MOUNTED)
 1	CEILING MOUNTED EXIT SIGN (ONE SIDED)
 P	CIRCUIT PROTECTION
 FAA	FIRE ALARM ANNUNCIATOR
 1	CARBON MONOXIDE DETECTOR
 1	FIRE ALARM HORN/STROBE
 1	HARDWIRED CONNECTION
 1	DISCONNECT SWITCH
 1	SURFACE MOUNTED LED LUMINAIRE
ABBREVIATIONS	
RM	REMOVE EXISTING DEVICE
WP	WEATHER-PROOF DEVICE




1 ELECTRICAL SITE PLAN
E010 1:750



Public Works and Government Services Canada

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Aug 6, 2021
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LICENSEE
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Hay River DFO
Life Safety Upgrades

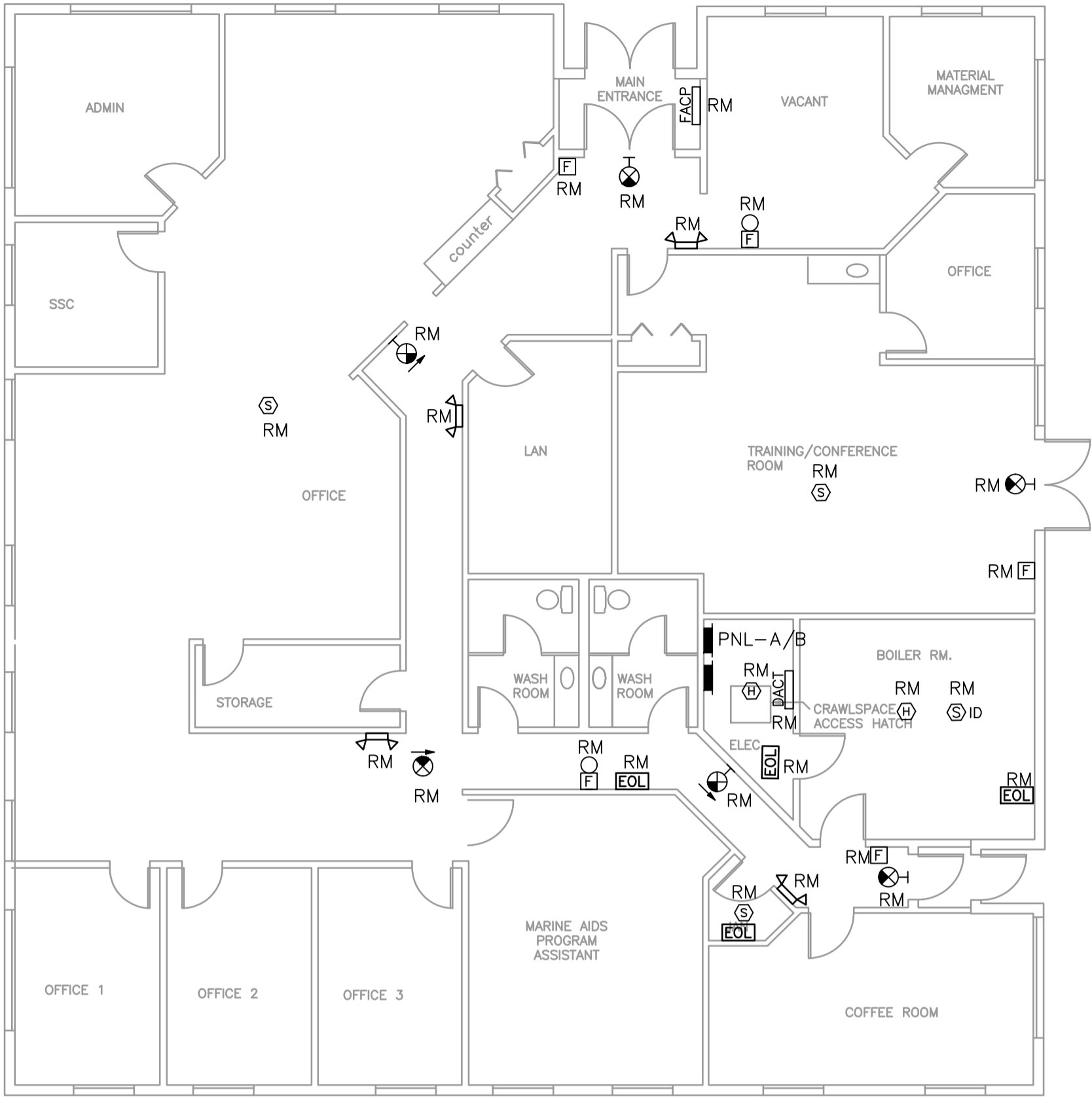
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Date August 6, 2021

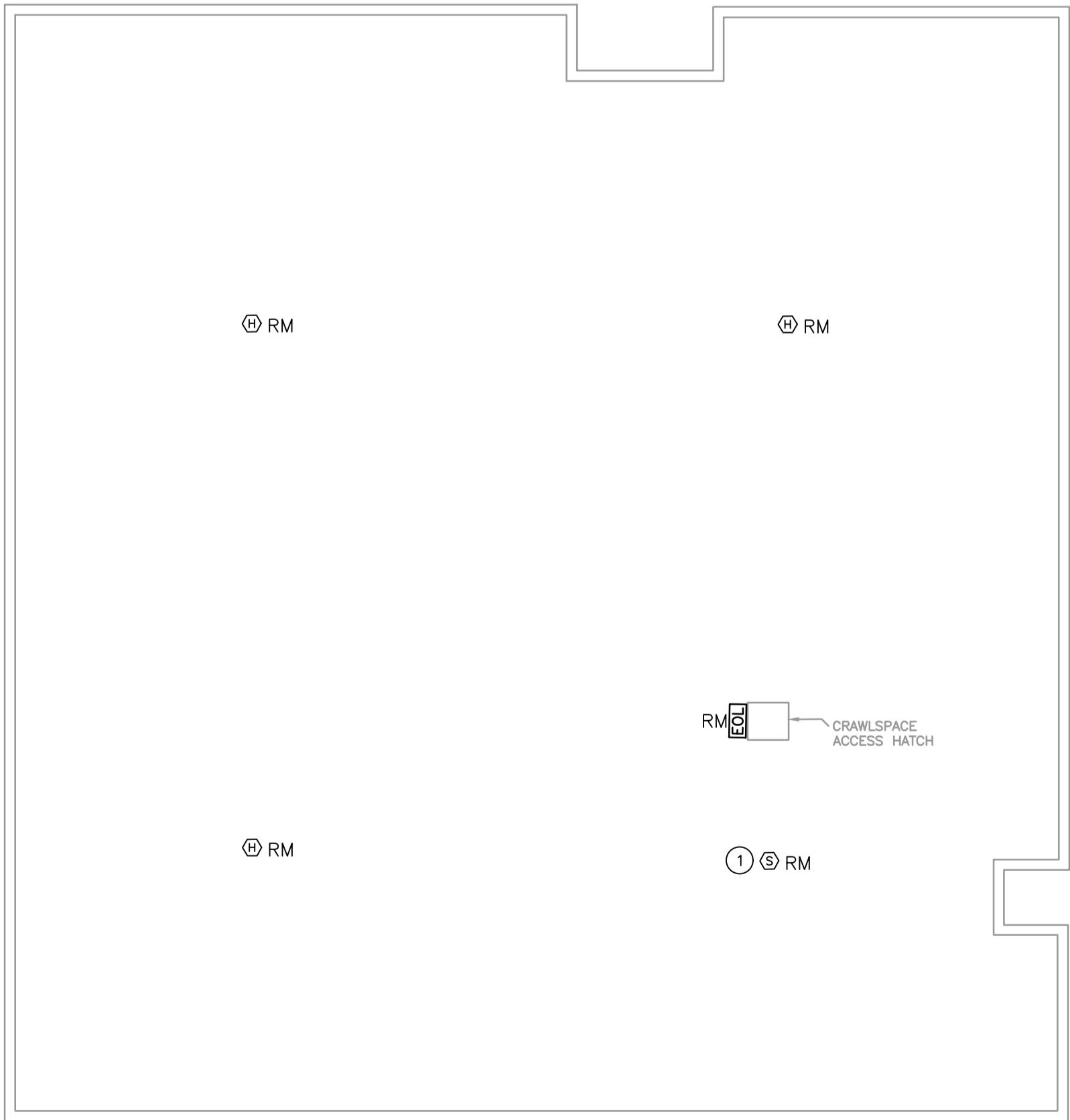
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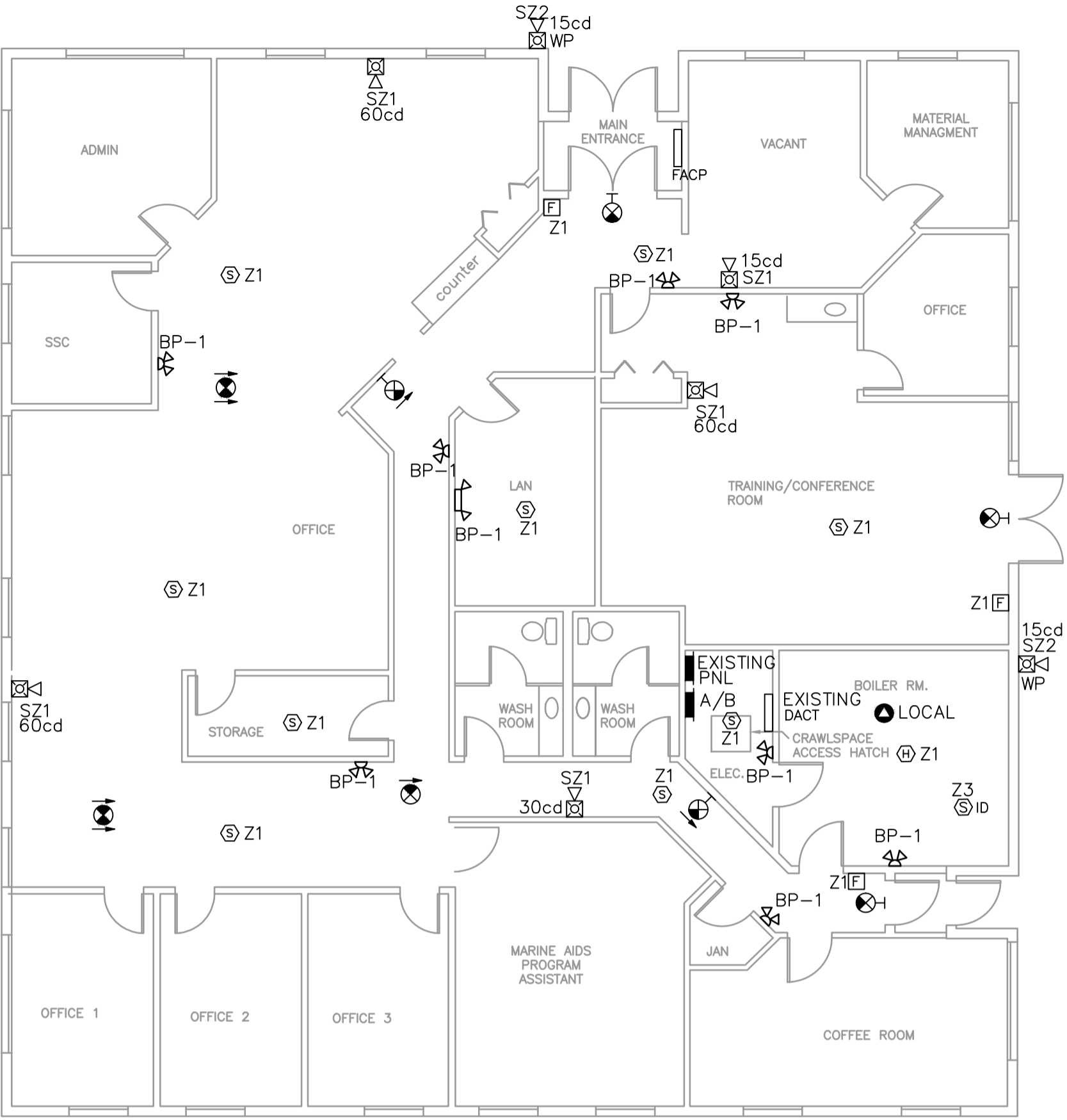
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Revision	Description	Date		
Client		client		
Project title	Project			
HAY RIVER, NT 42043 MACKENZIE HWY -				
DEPT. OF FISHERIES & OCEANS LIFE SAFETY SYSTEMS REPLACEMENT				
Designed by H.R.	Conçu par			
Drawn by HANI R.	Dessiné par			
Approved by J.Y.	Approuvé par			
PWSSC Project Manager Y.W.	Administrateur de Projets TPSGC			
Drawing title	Titre du dessin			
ELECTRICAL LEGEND, GENERAL NOTES & SITE PLAN				
Project no./No. du projet	Drawing no./No. du dessin	Revision no.		
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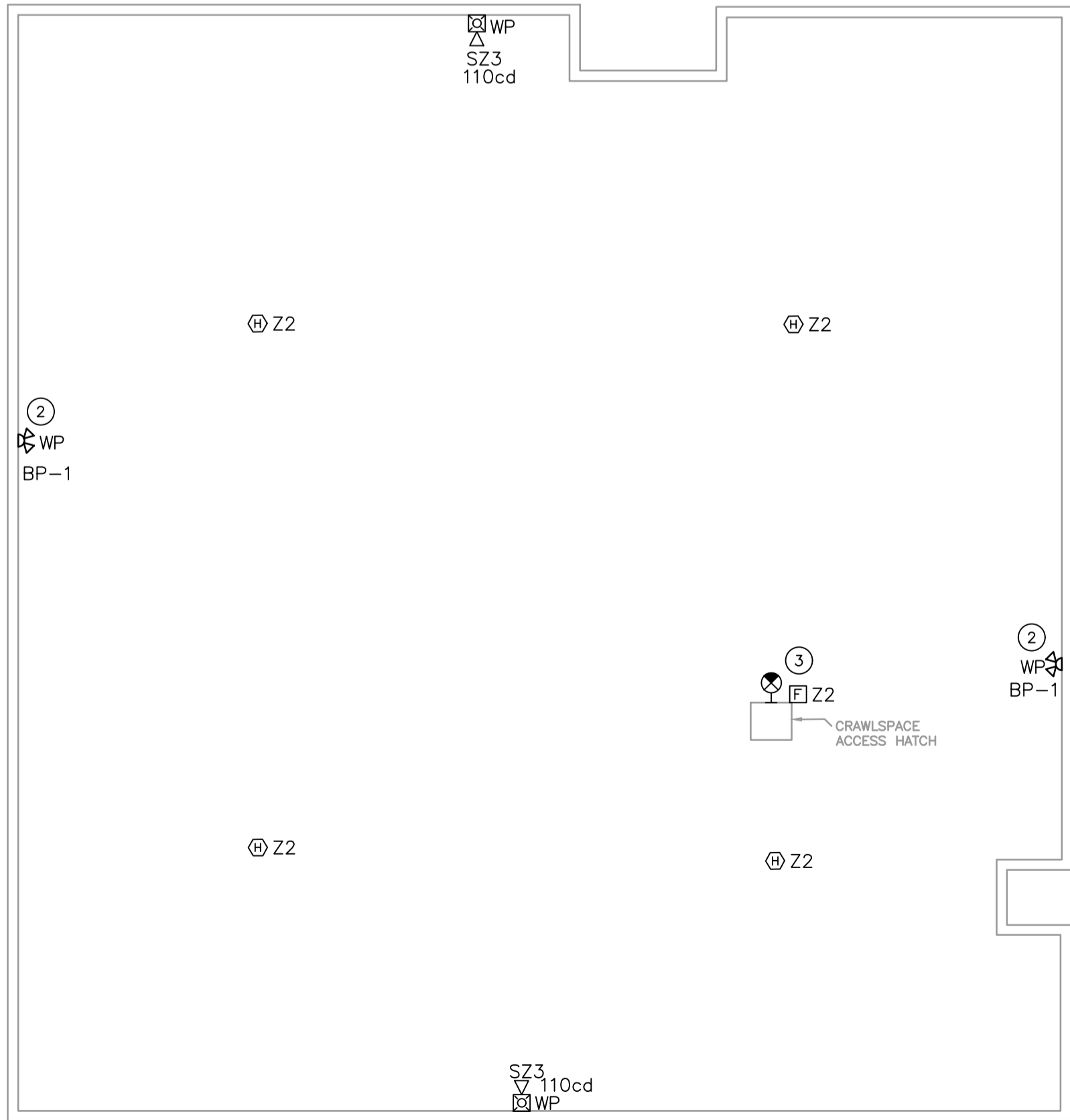
1 ADMIN BUILDING LIFE SAFETY LAYOUT - EXISTING/DEMO
E400 1:100



3 ADMIN BUILDING LIFE SAFETY LAYOUT - CRAWLSPACE EXISTING/DEMO
E400 1:100



2 ADMIN BUILDING LIFE SAFETY LAYOUT - NEW
E400 1:100



4 ADMIN BUILDING LIFE SAFETY LAYOUT - CRAWLSPACE NEW
E400 1:100

KEYNOTES	
1	EXISTING CRAWLSPACE DEVICE QUANTITIES ARE BASED ON INFORMATION PROVIDED BY OTHERS AND WAS NOT INDEPENDENTLY VERIFIED. EXISTING DEVICE LOCATIONS AND TYPES TO BE DETERMINED ON SITE.
2	EMERGENCY LIGHTING TO TURN ON UPON FAILURE OF THE CRAWLSPACE LIGHTING CIRCUIT.
3	DEVICE PLACEMENTS AND MOUNTING TO BE DETERMINED AND COORDINATED AS PER SITE CONDITIONS.

BATTERY PACK SCHEDULE				
ID	LOCATION	TIME (MIN)	POWER (W)	CIRCUITS #
BP#1	CORRIDOR	60	288	N/A
1. SIZING IS BASED ON A PARTICULAR MANUFACTURER AT 24V DC WITH 6 WATT MR16 LED LAMPS AND A 5 WATT ALLOWANCE FOR EACH LIGHT.				
2. HEADS TO BE MOUNTED AT 2200mm A.F.F. TO CENTER.				
3. BATTERY PACK INDICATED TO BE MINIMUM ALLOWABLE SIZE.				
4. PROVIDE ZONE SENSING RELAYS AS REQUIRED TO MONITOR CIRCUITS TO NORMAL LIGHTING ZONES WHERE REQUIRED.				
5. ALL EMERGENCY LIGHTS AND EXIT SIGNS WIRING TO BE FOLLOWED AND ENSURE THEIR CONNECTION AS PER CEC 46-108.				
6. ALL EMERGENCY LIGHTING CIRCUITS TO MATCH WITH THE EXISTING LIGHTING CIRCUITS.				



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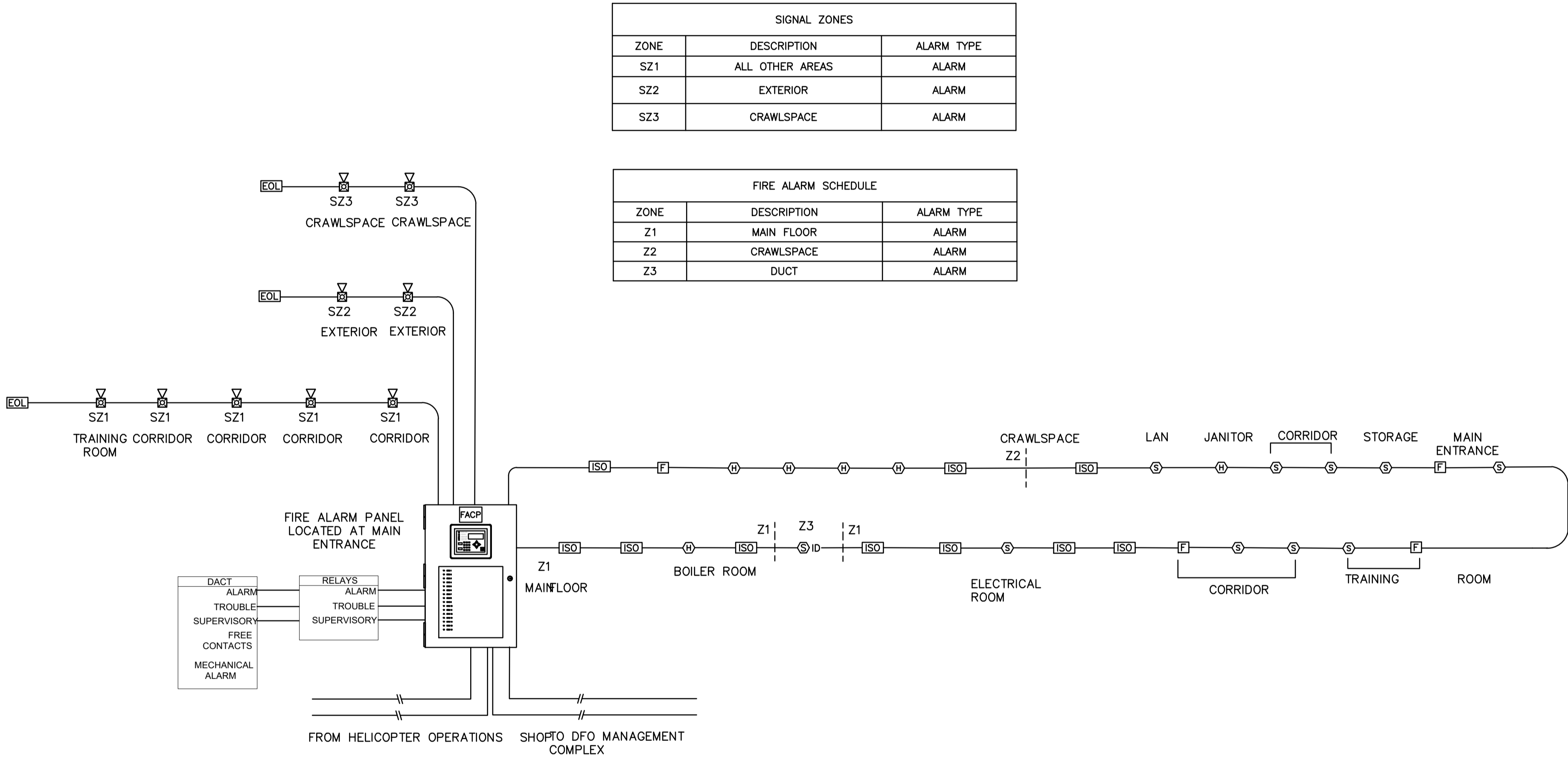
0	ISSUED FOR TENDER	2021.08.06
Revision	Description	Date
Client		client

Project title
**HAY RIVER, NT
42043 MACKENZIE HWY
ADMINISTRATION BUILDING**
**DEPT. OF FISHERIES & OCEANS
LIFE SAFETY SYSTEMS
REPLACEMENT**

Designed by H.R.	Conçu par
Drawn by HANI R.	Dessiné par
Approved by J.Y.	Approuvé par
PWSSC Project Manager Y.W.	Administrateur de Projets TPSSC

Drawing title
**ELECTRICAL
ADMINISTRATION BUILDING**
**LIFE SAFETY SYSTEMS
EXISTING AND UPGRADE LAYOUTS**

Project no./No. du projet 144903068	Drawing no./No. du dessin E400	Revision no. 0
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- FIRE ALARM NOTES:
- AS PER CAN/ULC S524, PROVIDE FAULT ISOLATORS BETWEEN ZONES CONTAINED ON THE SAME ADDRESSABLE LOOP. THE RISER DIAGRAM SHOWN HERE INDICATES PROPER LOCATION FOR LINE ISOLATORS. SHOULD THE SYSTEM BE INSTALLED AS ONE CONTINUOUS CLASS 'A' LOOP WITH THE SAME SEQUENCE OF DEVICES INDICATED.
 - THIS RISER IS FOR EXAMPLE ONLY AND CONTRACTOR MAY USE MORE LOOPS AS IS CONVENIENT FOR INSTALLATIONS PROVIDED CAN/ULC S524. 'THE STANDARD FOR INSTALLATION OF FIRE ALARM SYSTEMS' IS ADHERED TO. FAULT ISOLATION MODULES ARE TO BE PROVIDED BETWEEN FIRE COMPARTMENTS SHARING A COMMON LOOP. FAULT ISOLATION MODULES SHOWN HERE MAY REQUIRE TWO (OR MORE) DEVICES INSTALLED BACK-TO-BACK DEPENDING ON ASSEMBLY(IES) PENETRATED AND LOCATION/ROUTE CHOSEN. IN GENERAL, ISOLATORS REQUIRED FOR PENETRATION OF RATED ASSEMBLIES FOR SERVICE ROOMS (INCLUDING ELECTRICAL AND MECHANICAL ROOMS) JANITOR'S ROOMS, STAIR SHAFTS AND BETWEEN FLOORS. FAULT ISOLATOR MODULES THAT ARE INSTALLED BACK-TO-BACK TO BE HORIZONTALLY OFFSET BY MINIMUM OF 400mm AND IF ASSEMBLY PENETRATED IS WOOD OR STEEL-STUD CONSTRUCTION NOT LOCATED WITHIN THE SAME STUD SPACE. REFER TO CAN/ULC-S524, 10.2.
 - PROVIDE SURGE PROTECTION DEVICE FOR FIRE ALARM CONTROL PANEL.
 - RISER DIAGRAM IS FOR INFORMATION PURPOSES ONLY. QUANTITIES OF SIGNAL AND INITIATING DEVICES ARE GOVERNED BY FLOOR PLANS RATHER THAN THIS RISER.
 - PROVIDE A RED COLORED LOCKABLE BREAKER FOR THE FIRE ALARM CONTROL PANEL WITH PROPER LABELING.
 - INCLUDE FOR THE GREATEST NUMBER OF DEVICES AND MOST COSTLY SITUATION, SHOULD THERE BE A DISCREPANCY BETWEEN PLANS AND RISER.



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Signature

Date August 6, 2021

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144903068

GENERAL NOTE

1. THE MAINTENANCE SHOP IS TO BE TREATED AS A RECOGNIZED HERITAGE BUILDING FOR THE PURPOSE OF THIS RENOVATION. REFER TO PROJECT SPECIFICATIONS AND HERITAGE CONSERVATION ADVICE REPORT.

NOTES:

1. ZONE 2 UP 50mm A.F.F. ALL WIRING AND DEVICES WITHIN HAZARDOUS AREA TO BE RATED FOR THE ZONE AS SHOWN.

1 MAINTENANCE SHOP LIFE SAFETY LAYOUT- EXISTING/DEMO
E410 1:100

2 MAINTENANCE SHOP LIFE SAFETY LAYOUT - NEW
E410 1:100



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1	MAINTENANCE SHOP - BATTERY PACK SCHEDULE
E411	N.T.S.

FIRE ALARM NOTES:

1. AS PER CAN/ULC S524, PROVIDE FAULT ISOLATORS BETWEEN ZONES CONTAINED ON THE SAME ADDRESSABLE LOOP. THE RISER DIAGRAM SHOWN HERE INDICATES PROPER LOCATION FOR LINE ISOLATORS, SHOULD THE SYSTEM BE INSTALLED AS ONE CONTINUOUS CLASS 'A' LOOP WITH THE SAME SEQUENCE OF DEVICES INDICATED.
2. THIS RISER IS FOR EXAMPLE ONLY AND CONTRACTOR MAY USE MORE LOOPS AS IS CONVENIENT FOR INSTALLATIONS PROVIDED CAN/ULC S524, "THE STANDARD FOR INSTALLATION OF FIRE ALARM SYSTEMS" IS ADHERED TO. FAULT ISOLATION MODULES ARE TO BE PROVIDED BETWEEN FIRE COMPARTMENTS SHARING A COMMON LOOP. FAULT ISOLATION MODULES SHOWN HERE MAY REQUIRE TWO (OR MORE) DEVICES INSTALLED BACK-TO-BACK DEPENDING ON ASSEMBLY(IES) PENETRATED AND LOCATION/ROUTE CHOSEN. IN GENERAL, ISOLATORS REQUIRED FOR PENETRATION OF RATED ASSEMBLIES FOR SERVICE ROOMS (INCLUDING ELECTRICAL AND MECHANICAL ROOMS) JANITOR'S ROOMS, STAIR SHAFTS AND BETWEEN FLOORS. FAULT ISOLATOR MODULES THAT ARE INSTALLED BACK-TO-BACK TO BE HORIZONTALLY OFFSET BY MINIMUM OF 400mm AND IF ASSEMBLY PENETRATED IS WOOD OR STEEL--STUD CONSTRUCTION NOT LOCATED WITHIN THE SAME STUD SPACE. REFER TO CAN/ULC--S524, 10.2.
3. PROVIDE SURGE PROTECTION DEVICE FOR FIRE ALARM CONTROL PANEL.
4. RISER DIAGRAM IS FOR INFORMATION PURPOSES ONLY. QUANTITIES OF SIGNAL AND INITIATING DEVICES ARE GOVERNED BY FLOOR PLANS RATHER THAN THIS RISER.
5. PROVIDE A RED COLORED LOCKABLE BREAKER FOR THE FIRE ALARM CONTROL PANEL WITH PROPER LABELING.
6. INCLUDE FOR THE GREATEST NUMBER OF DEVICES AND MOST COSTLY SITUATION, SHOULD THERE BE A DISCREPANCY BETWEEN PLANS AND RISER.



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0	ISSUED FOR TENDER	2021.08.06
Revision	Description	Date
Client	client	client

Project title	Project
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HAY RIVER, NT
42043 MACKENZIE HWY
MAINTENANCE SHOP

**DEPT. OF FISHERIES & OCEANS
LIFE SAFETY SYSTEMS
REPLACEMENT**

Designed by H.R.	Conçu par
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Drawn by Dessiné par
HANI R.

Approved by J.Y.	Approuvé par
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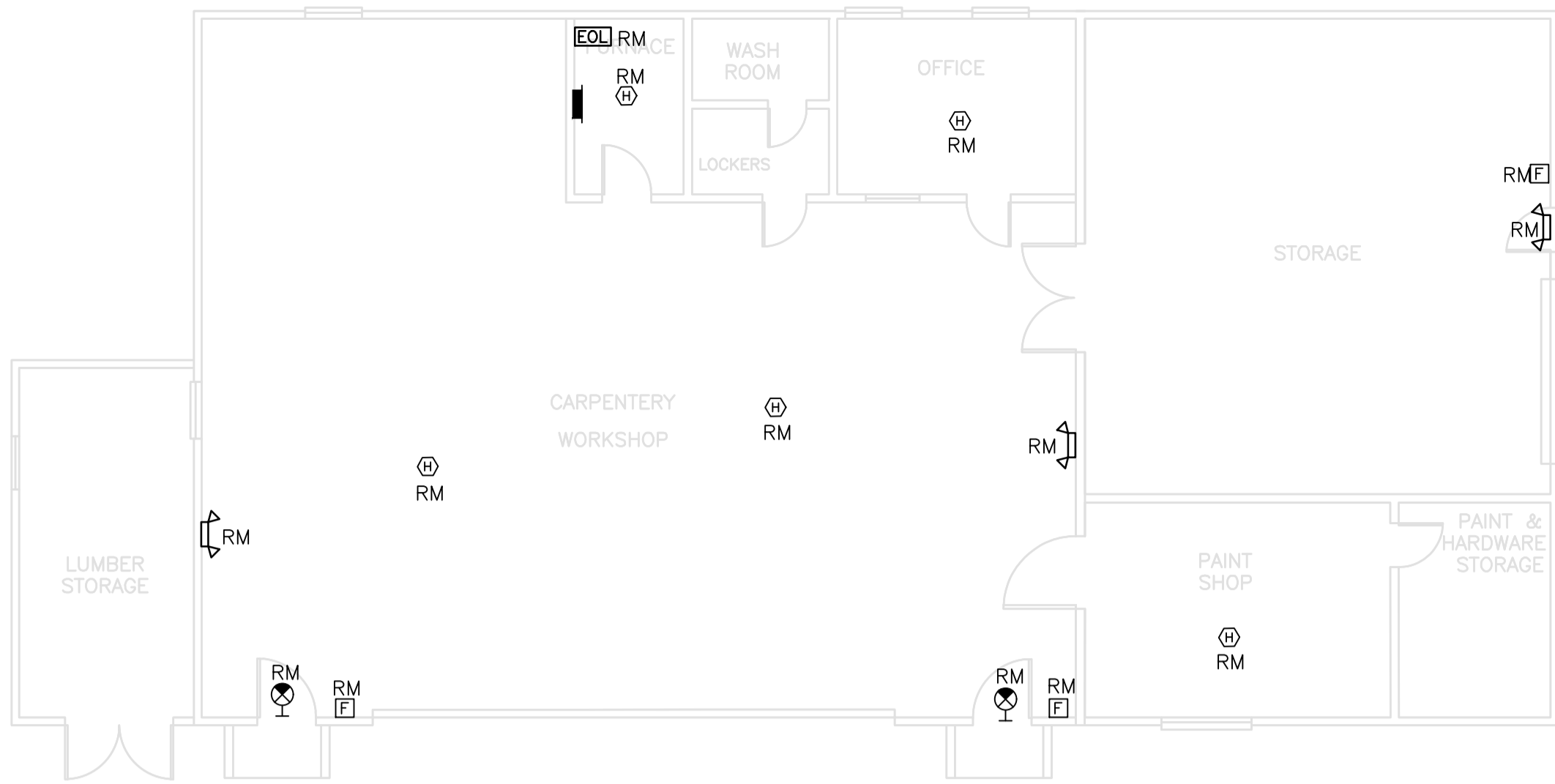
PWGSC Project Manager Administrateur de Projets TPSGC
Y.W.

Drawing title	Titre du dessin
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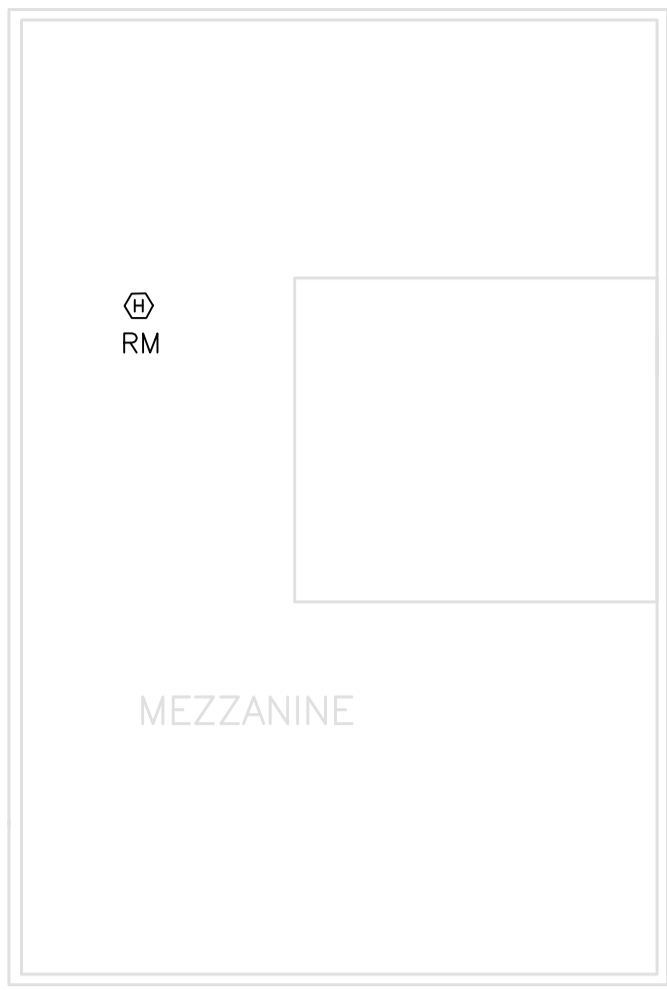
**ELECTRICAL
MAINTENANCE SHOP**

FIRE ALARM RISER DIAGRAM

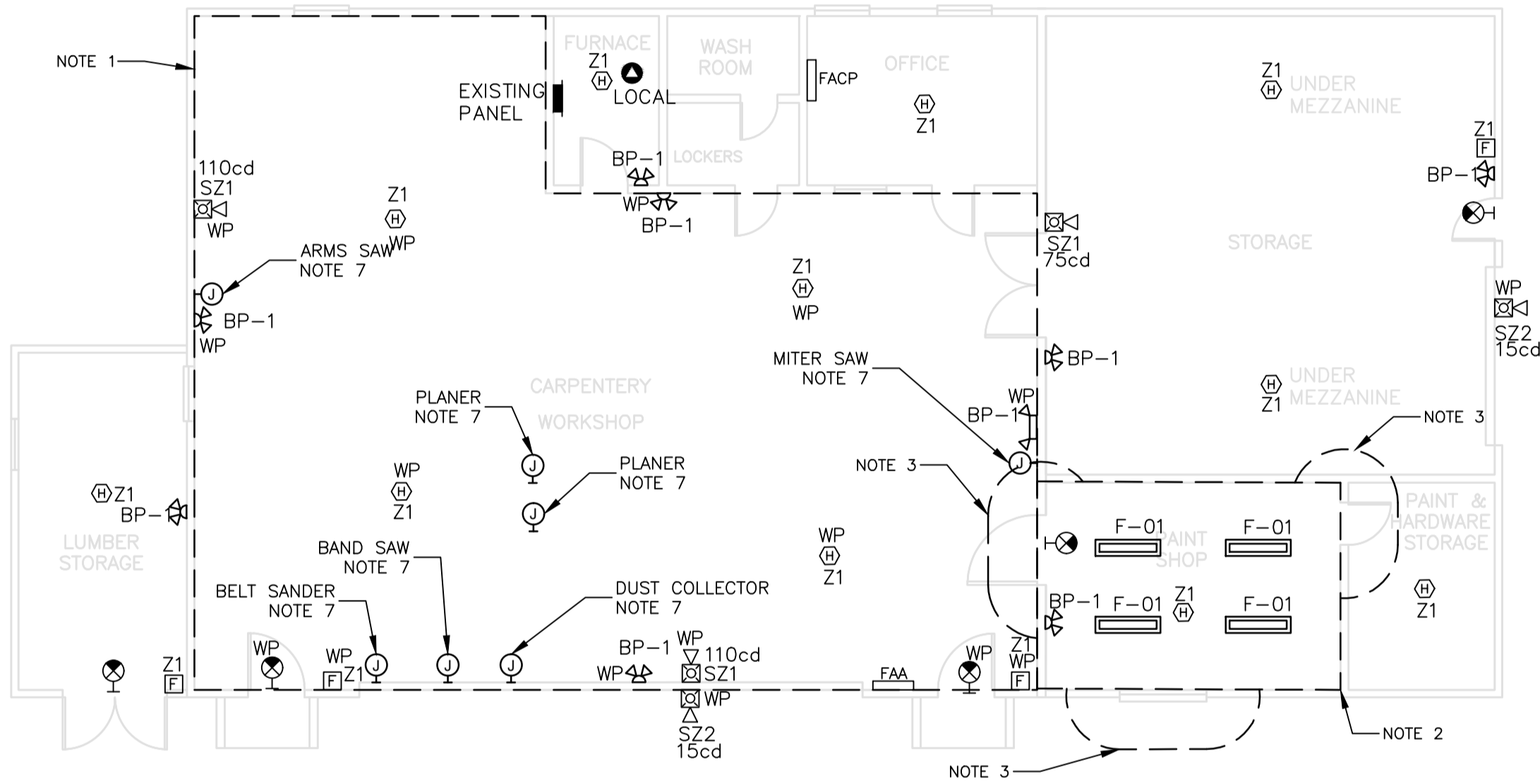
Project no./No. du projet	Drawing no./No. du dessin	Revision no.
144903068	E411	0



1 CARPENTER SHOP LIFE SAFETY LAYOUT - EXISTING/DEMO
E420 1:100

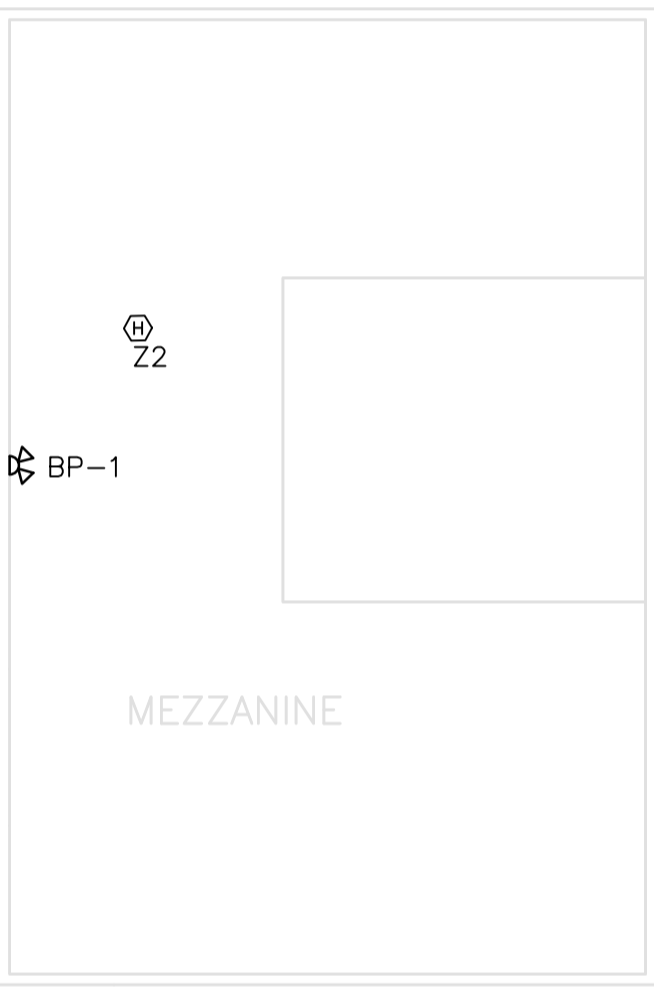


3 CARPENTER SHOP LIFE SAFETY LAYOUT - MEZZANINE EXISTING/DEMO
E420 1:100



2 CARPENTER SHOP LIFE SAFETY LAYOUT - NEW
E420 1:100

- NOTES:
- ZONE 22. ALL WIRING AND DEVICES WITHIN HAZARDOUS AREA TO BE RATED FOR THE ZONE AS SHOWN.
 - ZONE 1. ALL WIRING AND DEVICES WITHIN HAZARDOUS AREA TO BE RATED FOR THE ZONE AS SHOWN.
 - ZONE 2. ALL WIRING AND DEVICES WITHIN HAZARDOUS AREA TO BE RATED FOR THE ZONE AS SHOWN.



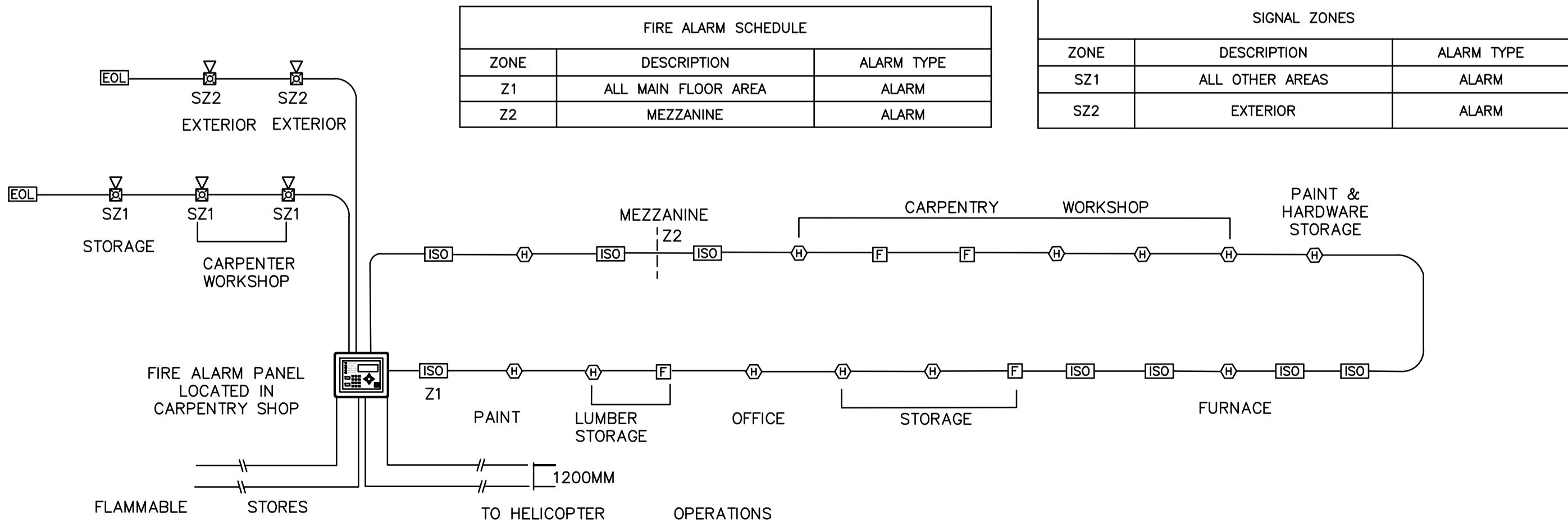
4 CARPENTER SHOP LIFE SAFETY LAYOUT - MEZZANINE NEW
E420 1:100

GENERAL NOTE

1. THE CARPENTER SHOP IS TO BE TREATED AS A RECOGNIZED HERITAGE BUILDING FOR THE PURPOSE OF THIS RENOVATION. REFER TO PROJECT SPECIFICATIONS AND HERITAGE CONSERVATION ADVICE REPORT.

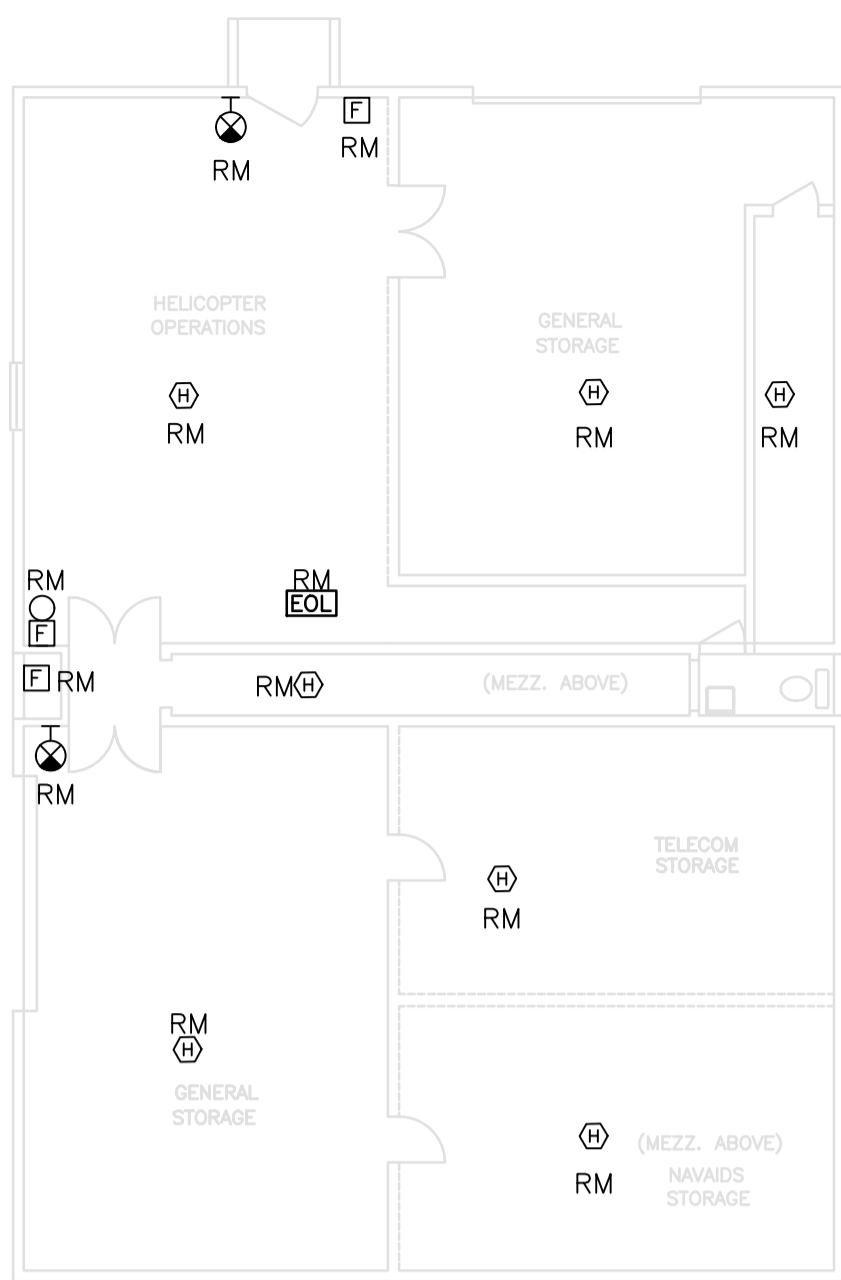
FIRE ALARM NOTES:

- AS PER CAN/ULC S524, PROVIDE FAULT ISOLATORS BETWEEN ZONES CONTAINED ON THE SAME ADDRESSABLE LOOP. THE RISER DIAGRAM SHOWN HERE INDICATES PROPER LOCATION FOR LINE ISOLATORS. SHOULD THE SYSTEM BE INSTALLED AS ONE CONTINUOUS CLASS 'A' LOOP WITH THE SAME SEQUENCE OF DEVICES INDICATED.
- THIS RISER IS FOR EXAMPLE ONLY AND CONTRACTOR MAY USE MORE LOOPS AS IS CONVENIENT FOR INSTALLATIONS PROVIDED CAN/ULC S524, 'THE STANDARD FOR INSTALLATION OF FIRE ALARM SYSTEMS' IS ADHERED TO. FAULT ISOLATION MODULES ARE TO BE PROVIDED BETWEEN FIRE COMPARTMENTS SHARING A COMMON LOOP. FAULT ISOLATION MODULES SHOWN HERE MAY REQUIRE TWO (OR MORE) DEVICES INSTALLED BACK-TO-BACK DEPENDING ON ASSEMBLY(IES) PENETRATED AND LOCATION/ROUTE CHOSEN. IN GENERAL, ISOLATORS REQUIRED FOR PENETRATION OF RATED ASSEMBLIES FOR SERVICE ROOMS (INCLUDING ELECTRICAL AND MECHANICAL ROOMS) JANITOR'S ROOMS, STAIR SHAFTS AND BETWEEN FLOORS. FAULT ISOLATOR MODULES THAT ARE INSTALLED BACK-TO-BACK TO BE HORIZONTALLY OFFSET BY MINIMUM OF 400mm AND IF ASSEMBLY PENETRATED IS WOOD OR STEEL-STUD CONSTRUCTION NOT LOCATED WITHIN THE SAME STUD SPACE. REFER TO CAN/ULC-S524, 10.2.
- PROVIDE SURGE PROTECTION DEVICE FOR FIRE ALARM CONTROL PANEL.
- RISER DIAGRAM IS FOR INFORMATION PURPOSES ONLY. QUANTITIES OF SIGNAL AND INITIATING DEVICES ARE GOVERNED BY FLOOR PLANS RATHER THAN THIS RISER.
- PROVIDE A RED COLORED LOCKABLE BREAKER FOR THE FIRE ALARM CONTROL PANEL WITH PROPER LABELING.
- INCLUDE FOR THE GREATEST NUMBER OF DEVICES AND MOST COSTLY SITUATION, SHOULD THERE BE A DISCREPANCY BETWEEN PLANS AND RISER.
- DUST COLLECTOR TO BE INTERLOCKED WITH CIRCUITS FOR FIXED WOODWORKING EQUIPMENT SUCH THAT ACTIVATION OF THE DUST COLLECTOR WILL ENERGIZE CONTACTORS SERVING WOODWORKING EQUIPMENT. IT SHALL NOT BE POSSIBLE TO OPERATE WOODWORKING EQUIPMENT UNLESS DUST COLLECTOR IS ENERGIZED. PROVIDE ALL CURRENT SENSORS, RELAYS, CONTACTORS AND WIRING AS REQUIRED.

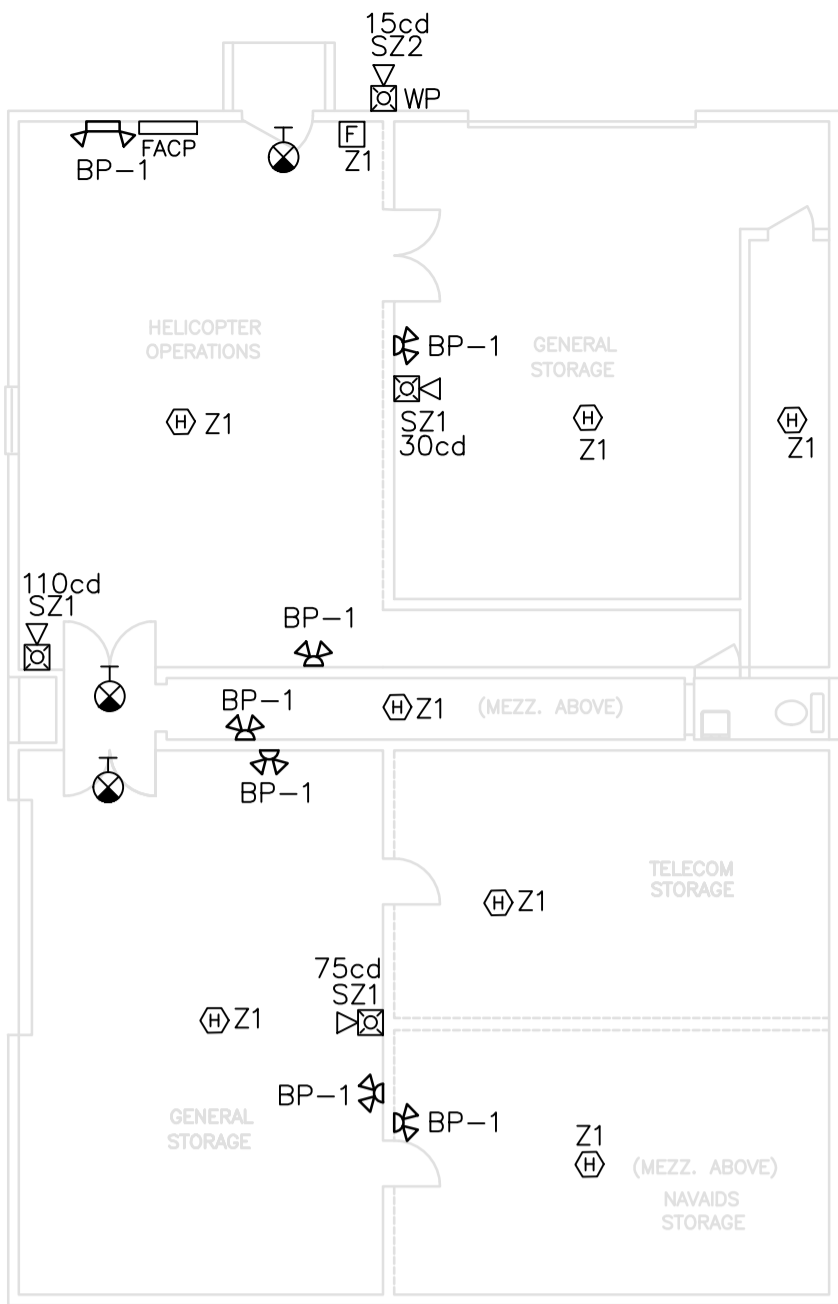


5 CARPENTER SHOP - NEW FIRE ALARM RISER DIAGRAM
E420 N.T.S.

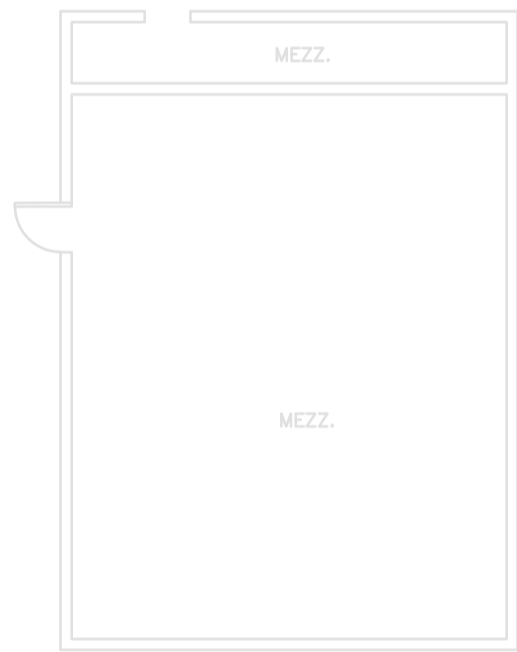
LUMINAIRE SCHEDULE FOR PAINT SHOP										
TYPE	DESCRIPTION	MOUNTING	MANUFACTURER	CATALOG NO.	ALTERNATIVE MANUFACTURERS	LUMENS	COLOR	WATTS	VOLTS	COMMENTS/NOTES
F01	LINEAR	SURFACE	EATON	HAZARD-GARD XPLA	ABB LI1 SERIES, HAZLUX 7XFM	3800	4000K	59	120	CLASS 1, DIV. 1
RH	REMOTE HEAD	WALL MOUNTED	BEGHELLI	SICURA REMOTE	ABB EFXPR LED SERIES, READY-LITE RFX SERIES	-	-	-	-	CLASS 1, DIV. 1
EXT	EXIT SIGN	WALL MOUNTED	BEGHELLI	SICURA RM	EATON CEAG EXIT, ABB EX SERIES	-	-	-	-	CLASS 1, DIV. 1



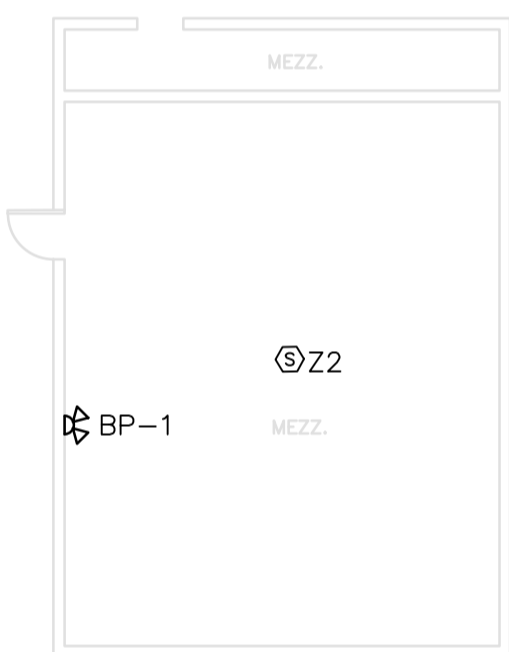
1 HELICOPTER OPERATIONS LIFE SAFETY LAYOUT - EXISTING/DEMO
E430 1:100



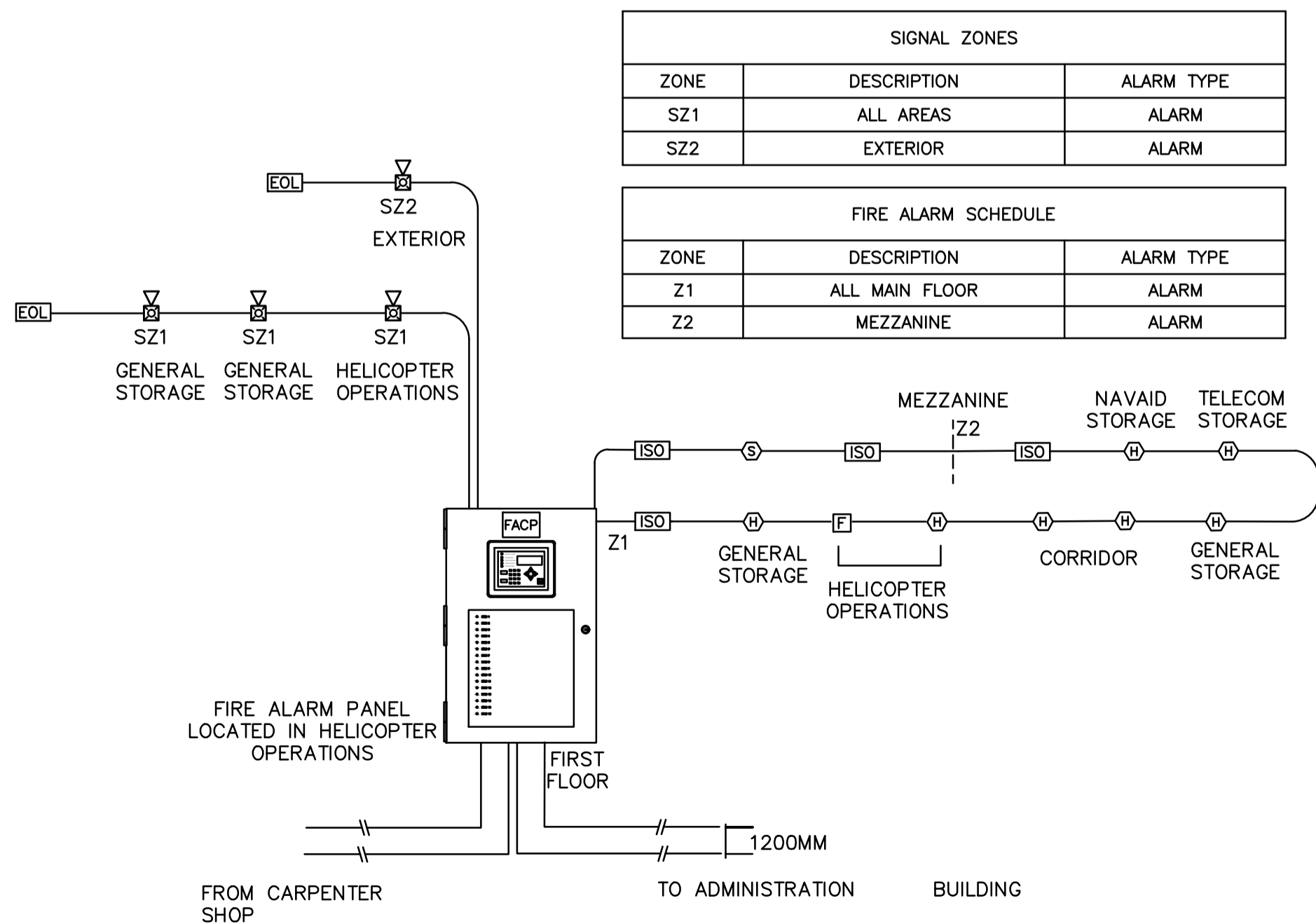
3 HELICOPTER OPERATIONS LIFE SAFETY LAYOUT - NEW
E430 1:100



2 HELICOPTER OPERATIONS LIFE SAFETY LAYOUT - MEZZANINE EXISTING/DEMO
E430 1:100



4 HELICOPTER OPERATIONS LIFE SAFETY LAYOUT - MEZZANINE NEW
E430 1:100



5 HELICOPTER OPERATIONS - NEW FIRE ALARM RISER DIAGRAM
E400 N.T.S.

GENERAL NOTE

1. THE HELICOPTER OPERATIONS IS TO BE TREATED AS A RECOGNIZED HERITAGE BUILDING FOR THE PURPOSE OF THIS RENOVATION. REFER TO PROJECT SPECIFICATIONS AND HERITAGE CONSERVATION ADVICE REPORT.

FIRE ALARM NOTES:

- AS PER CAN/ULC S524, PROVIDE FAULT ISOLATORS BETWEEN ZONES CONTAINED ON THE SAME ADDRESSABLE LOOP. THE RISER DIAGRAM SHOWN HERE INDICATES PROPER LOCATION FOR LINE ISOLATORS, SHOULD THE SYSTEM BE INSTALLED AS ONE CONTINUOUS CLASS 'A' LOOP WITH THE SAME SEQUENCE OF DEVICES INDICATED.
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- PROVIDE SURGE PROTECTION DEVICE FOR FIRE ALARM CONTROL PANEL.
- RISER DIAGRAM IS FOR INFORMATION PURPOSES ONLY. QUANTITIES OF SIGNAL AND INITIATING DEVICES ARE GOVERNED BY FLOOR PLANS RATHER THAN THIS RISER.
- PROVIDE A RED COLORED LOCKABLE BREAKER FOR THE FIRE ALARM CONTROL PANEL WITH PROPER LABELING.
- INCLUDE FOR THE GREATEST NUMBER OF DEVICES AND MOST COSTLY SITUATION, SHOULD THERE BE A DISCREPANCY BETWEEN PLANS AND RISER.

BATTERY PACK SCHEDULE				
ID	LOCATION	TIME (MIN)	POWER (W)	CIRCUITS #
BP#1	CORRIDOR	60	200	N/A
1. SIZING IS BASED ON A PARTICULAR MANUFACTURER AT 24V DC WITH 6 WATT MR16 LED LAMPS AND A 5 WATT ALLOWANCE FOR EACH LIGHT.				
2. HEADS TO BE MOUNTED AT 2200mm A.F.F. TO CENTER.				
3. BATTERY PACK INDICATED TO BE MINIMUM ALLOWABLE SIZE.				
4. PROVIDE ZONE SENSING RELAYS AS REQUIRED TO MONITOR CIRCUITS TO NORMAL LIGHTING ZONES WHERE REQUIRED.				
5. ALL EMERGENCY LIGHTS AND EXIT SIGNS WIRING TO BE FOLLOWED AND ENSURE THEIR CONNECTION AS PER CEC 46-108.				
6. ALL EMERGENCY LIGHTING CIRCUITS TO MATCH WITH THE EXISTING LIGHTING CIRCUITS.				

4 BATTERY PACK SCHEDULE
E430 NTS

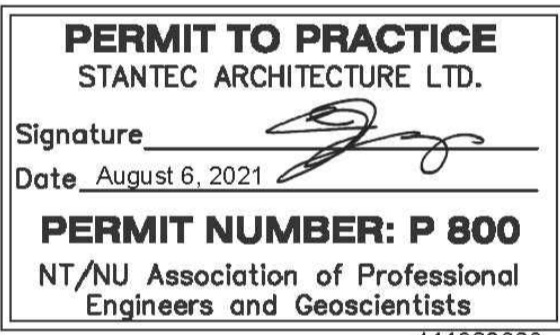


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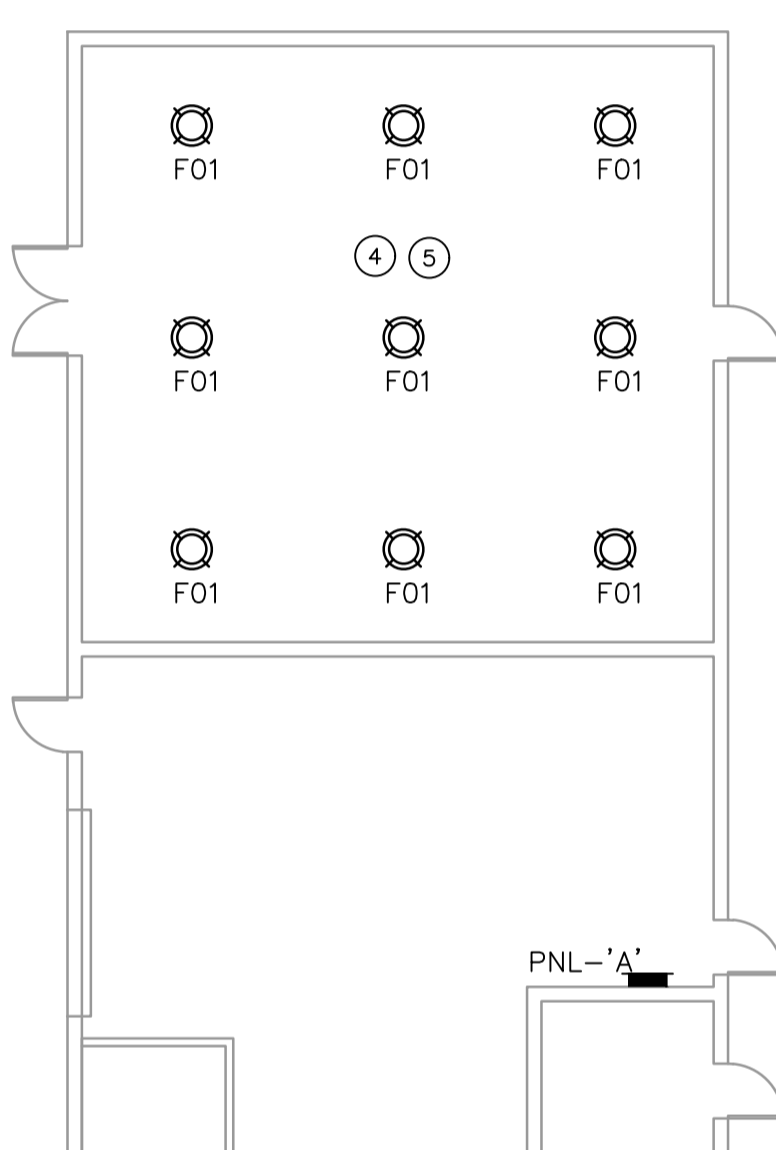
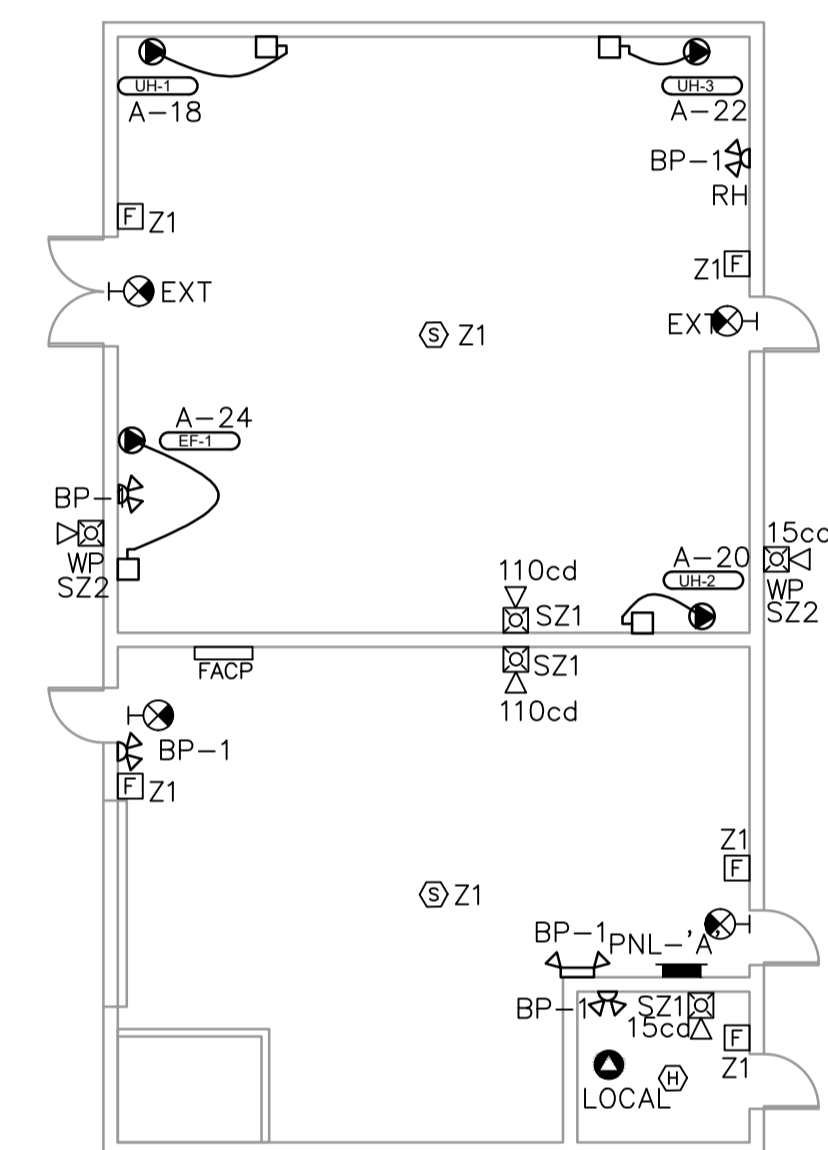
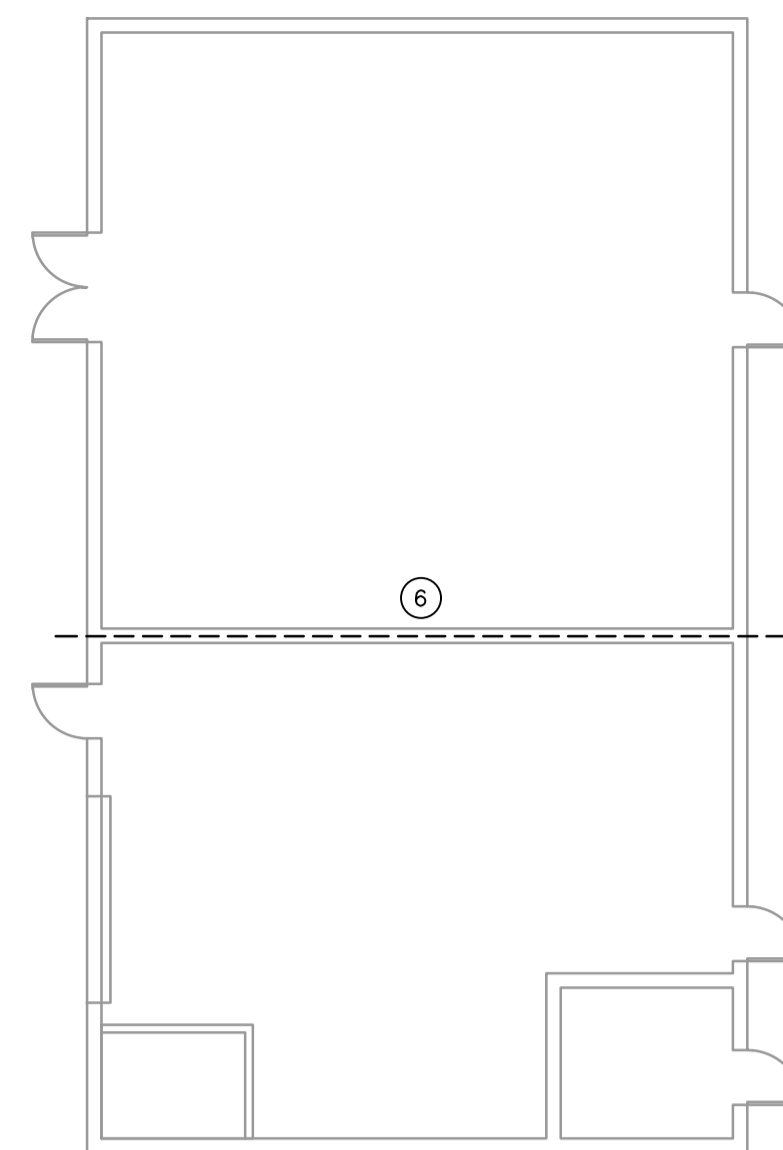
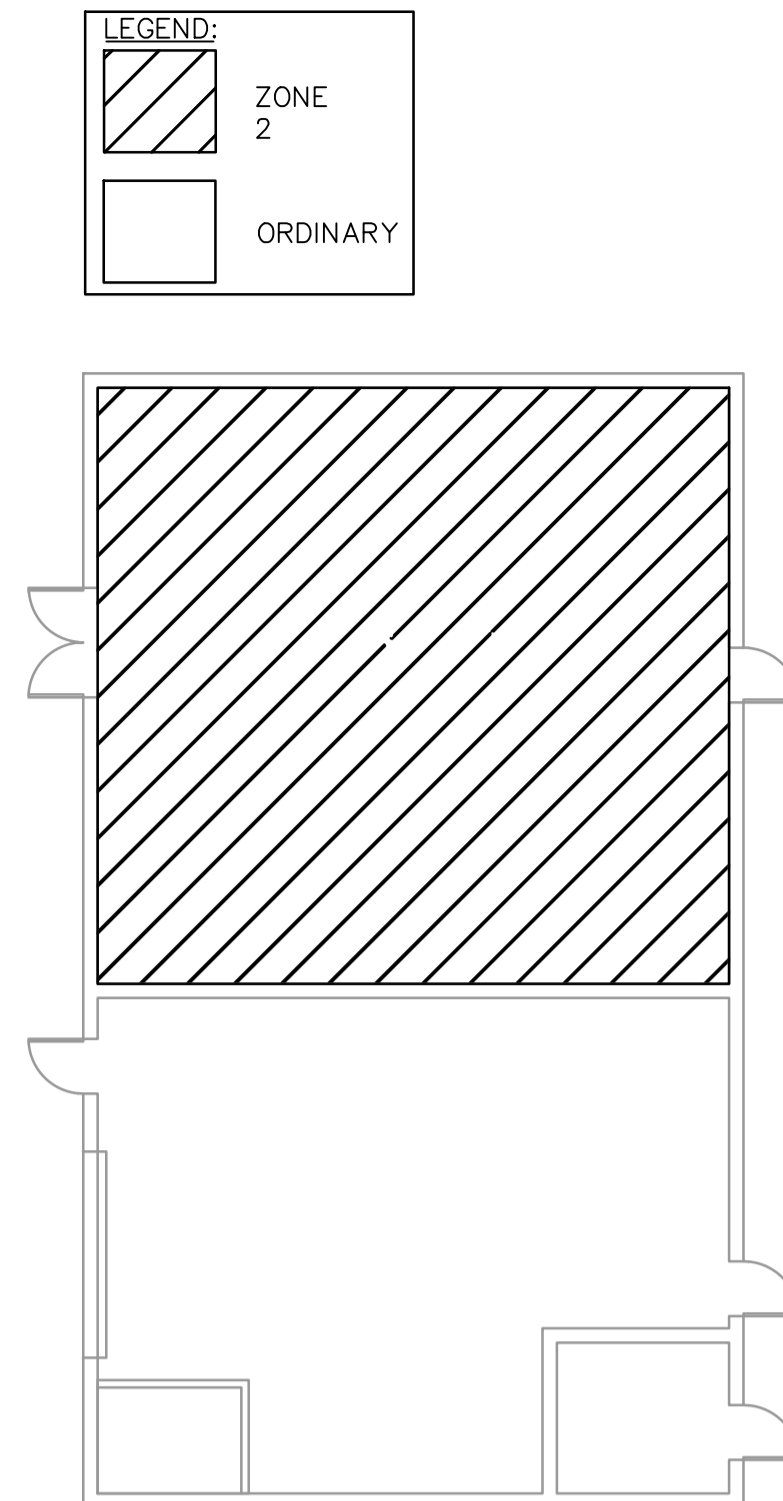
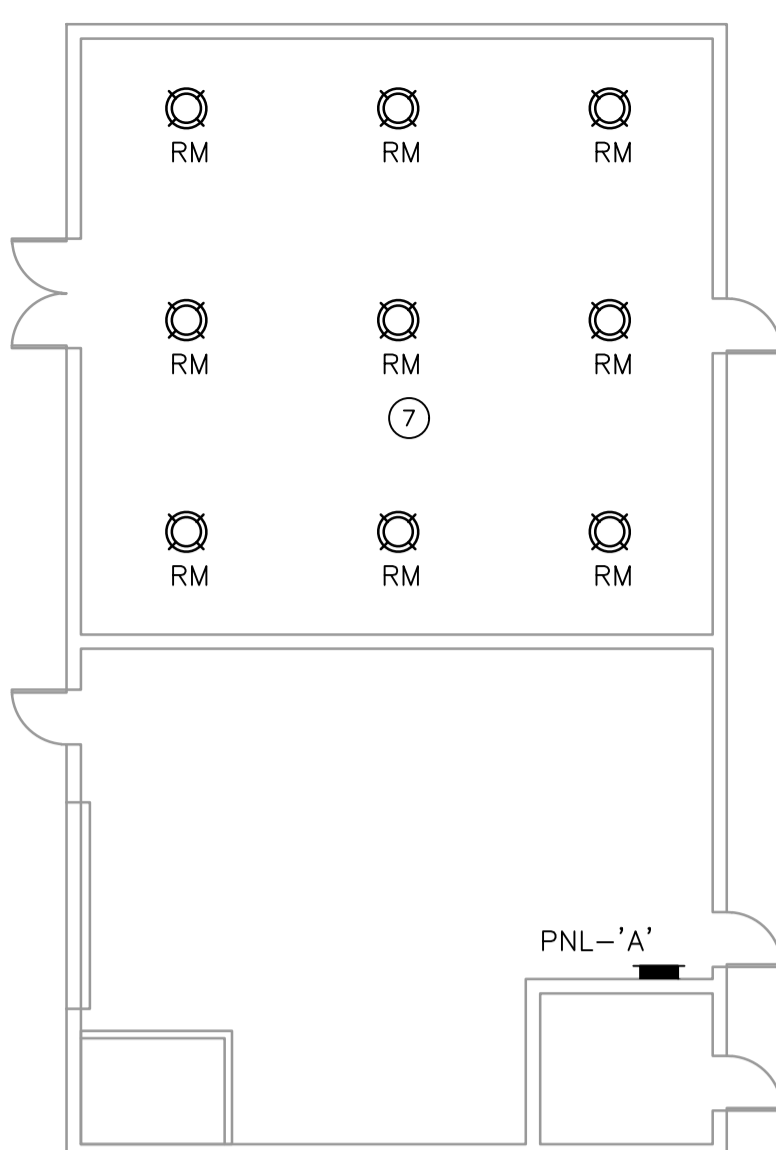
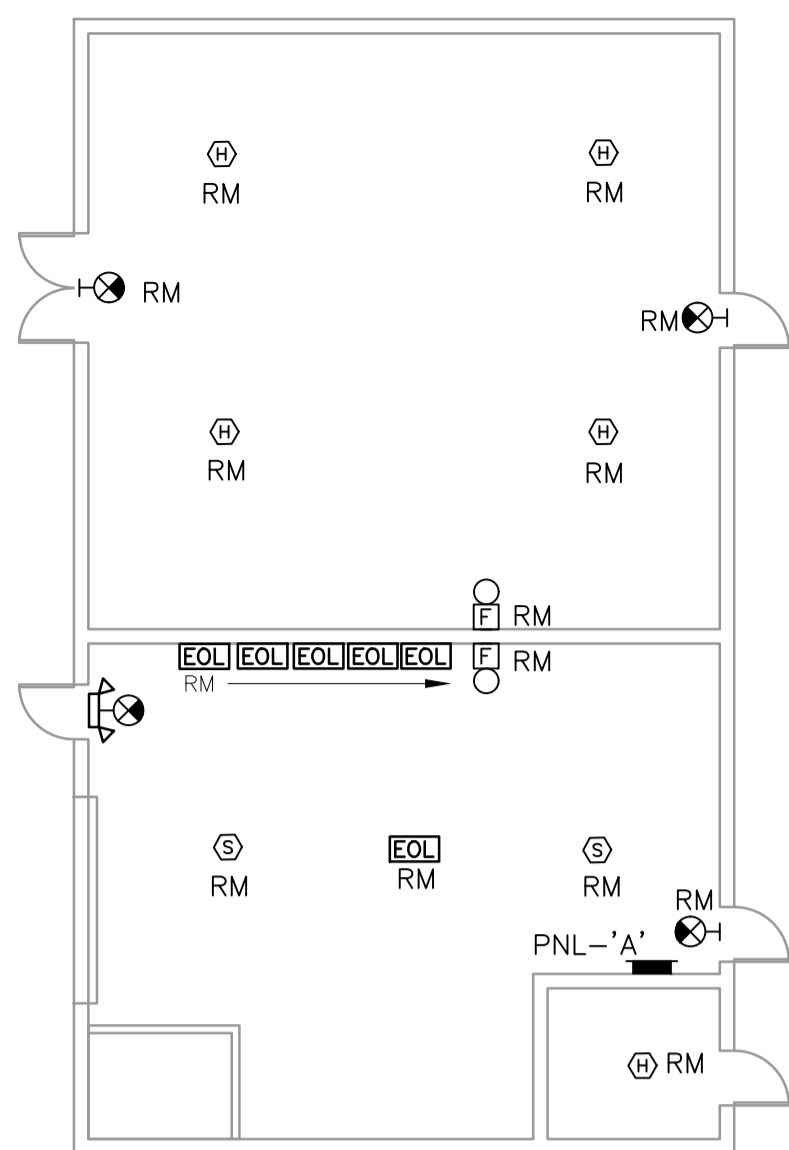
0	ISSUED FOR TENDER	2021.08.06
Revision	Description	Date
Client		client

Project title
**HAY RIVER, NT
42043 MACKENZIE HWY
HELICOPTER OPERATIONS SHOP**
**DEPT. OF FISHERIES & OCEANS
LIFE SAFETY SYSTEMS
REPLACEMENT**

Designed by H.R.	Conçu par
Drawn by HANI R.	Dessiné par
Approved by J.Y.	Approuvé par
PNWSC Project Manager Y.W.	Administrateur de Projets TPSGC

Drawing title
**ELECTRICAL
HELICOPTER OPERATIONS SHOP**
**LIFE SAFETY SYSTEMS
EXISTING AND UPGRADE LAYOUTS**

Project no./No. du projet 144903068	Drawing no./No. du dessin E430	Revision no. 0
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HAZARDOUS AREA CLASSIFICATION	
5 E440	1:100
KEYNOTES	
①	USE THE EXISTING FOUR SPARE BREAKERS TO PROVIDE CIRCUITS TO NEW MECHANICAL EQUIPMENT.
②	PROVIDE NEW BREAKERS FOR CONNECTIONS TO ALL THE CONTROL DAMPERS AND VALVES. COORDINATE THE EXACT QUANTITIES AND LOCATIONS WITH MECHANICAL DIVISION.
③	DEVICE PLACEMENTS AND MOUNTING TO BE DETERMINED AND COORDINATED AS PER SITE CONDITIONS.
④	RE-USE THE EXISTING CIRCUIT FROM THE REMOVED LIGHT FIXTURE TO PROVIDE CIRCUIT TO NEW LIGHTS.
⑤	PROVIDE NEW WIRING FOR THE NEW LIGHTS. ALL NEW DEVICES AND WIRING IN THIS ROOM TO BE EXPLOSION PROOF (CLASS 1, DIV.1). REFER TO THE LUMINAIRE AND EMERGENCY LIGHT SCHEDULE FOR DEVICES DETAIL.
⑥	EXISTING PARTITION TO BE UPGRADED TO A 2 HOURS FIRE RESISTANCE RATING, REFER TO SPECIFICATION SECTION 092116.08 & 078400. WALL DIMENSIONS: 8300mm x 3800mm
⑦	REMOVE ALL EXISTING LIGHT FIXTURES, SWITCHES, WIRING AND CONDUITS BACK TO SOURCE.

- GENERAL NOTES
1. ALL ELECTRICAL INSTALLATIONS WITHIN THE FLAMMABLE LIQUID STORAGE ROOM SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS FOR ZONE 1 LOCATIONS IN ACCORDANCE WITH SECTIONS 18 AND 20 OF THE CANADIAN ELECTRICAL CODE.
 2. ELECTRICAL INSTALLATIONS WITHIN THE REMAINDER OF THE BUILDING TO BE TREATED AS ORDINARY LOCATIONS.
 3. THE DIVIDING WALL BETWEEN THE FLAMMABLE LIQUID STORAGE ROOM AND THE REMAINDER OF THE BUILDING SHALL BE A CONTINUOUS 2 HOUR RATED FIRE SEPARATION. ALL PENETRATIONS SHALL BE SEALED BY APPROVED FIRE STOP SYSTEMS. REFER TO SPECIFICATION 07 84 00.
 4. HAZARDOUS AREA CLASSIFICATION IS BASED ON THE STORAGE AND DISPENSING OF CLASS I FLAMMABLE LIQUIDS. THE DEPARTMENTAL REPRESENTATIVE SHALL ENSURE THE MAXIMUM QUANTITIES, STORAGE ARRANGEMENT AND HEIGHTS ARE IN ACCORDANCE WITH THE NATIONAL FIRE CODE OF CANADA, PART 4. REFER TO CLAUSES 4.2.9.1(1) AND (3), 4.2.7.5(3) AND (4). WHERE CLASS 1A LIQUIDS ARE STORED, MAXIMUM QUANTITY FOR ALL FLAMMABLE LIQUIDS WITHIN THE ENTIRE ROOM SHALL BE 2500L.

LUMINAIRE SCHEDULE FOR FLAMMABLE LIQUIDS STORAGE										
TYPE	DESCRIPTION	MOUNTING	MANUFACTURER	CATALOG NO.	ALTERNATIVE MANUFACTURERS	LUMENS	COLOR	WATTS	VOLTS	COMMENTS/NOTES
F01	BAY LIGHTING	SURFACE	EATON	HAZARD-GARD EVLLA	HUBBELL KEMLUX III SERIES, RAB HAZLED	6200	4000K	59	120	CLASS 1, DIV. 2
RH	REMOTE HEAD	WALL MOUNTED	AIMLITE	AIMVC	HUBBELL DYNAMO REMOTE SERIES, ABB RS10XP	-	-	-	-	CLASS 1, DIV. 2
EXT	EXIT SIGN	WALL MOUNTED	AIMLITE	RPZN2	ABB LH SERIES, READYLITE RH SERIES	-	-	-	-	CLASS 1, DIV. 2

ID	LOCATION	TIME (MIN)	POWER (W)	CIRCUITS #	COMMENTS
BP#1	GENERAL FLAMMABLE	60	144	N/A	

- SIZING IS BASED ON A PARTICULAR MANUFACTURER AT 24V DC WITH 6 WATT MR16 LED LAMPS AND A 5 WATT ALLOWANCE FOR EACH LIGHT.
- HEADS TO BE MOUNTED AT 2200mm A.F.F. TO CENTER.
- BATTERY PACK INDICATED TO BE MINIMUM ALLOWABLE SIZE.
- PROVIDE ZONE SENSING RELAYS AS REQUIRED TO MONITOR CIRCUITS TO NORMAL LIGHTING ZONES WHERE REQUIRED.
- ALL EMERGENCY LIGHTS AND EXIT SIGNS WIRING TO BE FOLLOWED AND ENSURE THEIR CONNECTION AS PER CEC 46-108.
- ALL EMERGENCY LIGHTING CIRCUITS TO MATCH WITH THE EXISTING LIGHTING CIRCUITS.

1. AS PER CAN/ULC S524, PROVIDE FAULT ISOLATORS BETWEEN ZONES CONTAINED ON THE SAME ADDRESSABLE LOOP. THE RISER DIAGRAM SHOWN HERE INDICATES PROPER LOCATION FOR LINE ISOLATORS, SHOULD THE SYSTEM BE INSTALLED AS ONE CONTINUOUS CLASS 'A' LOOP WITH THE SAME SEQUENCE OF DEVICES INDICATED.

3. PROVIDE SURGE PROTECTION DEVICE FOR FIRE ALARM CONTROL PANEL.

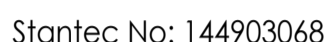
ID	DESCRIPTION	LOCATION	WATTS	VOLTS	PH	FLA	MOP	FEEDER	BREAKER	CCT	CONTROLS
UH-1	HORIZONTAL UNIT HEATER	FLAMMABLE LIQUIDS	50	120	1	—	15	2C #12AWG CU + #14AWG CU BOND IN 21MM EMT CONDUIT	1P15	A-18	MRR
UH-2	HORIZONTAL UNIT HEATER	FLAMMABLE LIQUIDS	50	120	1	—	15	2C #12AWG CU + #14AWG CU BOND IN 21MM EMT CONDUIT	1P15	A-20	MRR
UH-3	HORIZONTAL UNIT HEATER	FLAMMABLE LIQUIDS	100	120	1	—	15	2C #12AWG CU + #14AWG CU BOND IN 21MM EMT CONDUIT	1P15	A-22	MRR
EF-1	EXHAUST FAN	FLAMMABLE LIQUIDS	187	120	1	5.8	15	2C #12AWG CU + #14AWG CU BOND IN 21MM EMT CONDUIT	1P15	A-24	VFD
CD	MISC CONTROL DAMPERS	FLAMMABLE LIQUIDS	100	120	1	—	15	2C #12AWG CU + #14AWG CU BOND IN 21MM EMT CONDUIT	1P15	A-26	-
CV	MISC CONTROL VALVES	FLAMMABLE LIQUIDS	100	120	1	—	15	2C #12AWG CU + #14AWG CU BOND IN 21MM EMT CONDUIT	1P15	A-28	-

2. CONFIRM MECHANICAL EQUIPMENT LOCATIONS WITH MECHANICAL DIVISION.

4. IN ADDITION TO CONTROL SHOWN, PROVIDE LOCAL DISCONNECT IF REQUIRED BY C.E.C.

ECP – EXISTING CONTROL PANEL
 LRD – LOAD RATED DISCONNECT
 MAG – MAGNETIC STARTER
 CMS – COMBINATION MAGNETIC
 STARTER WITH DISCONNECT
 MMP – MANUAL MOTOR PROTECTION
 /R – WITH LOAD RATED RELAY
 /HOA – WITH H-O-A SWITCH
 /K – KEYED
 /SS – SOFT START
 VFD – VARIABLE FREQUENCY DRIVE
 CP-2 – NEW BIOMASS CONTROL PANEL
 CP-1 – EXISTING BIOMASS CONTROL
 PANEL
 VSD – VARIABLE SPEED DRIVE

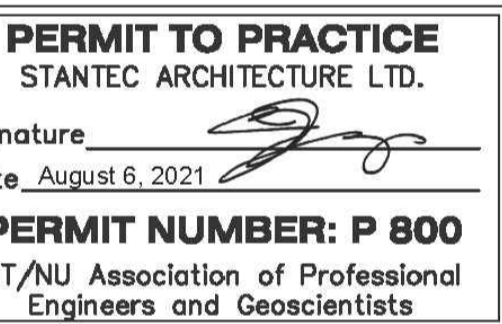
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REFER TO DRAWING E440 FOR KEYNOTES



0	ISSUED FOR TENDER	2021.08.06
Revision	Description	Date
Client		client

Project title	Project
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**HAY RIVER, NT
42043 MACKENZIE HWY
FLAMMABLE STORES**

**DEPT. OF FISHERIES & OCEANS
LIFE SAFETY SYSTEMS
REPLACEMENT**

Designed by	Conçu par
-------------	-----------

H.R.

Drawn by _____ Dessiné par _____

HANI R.

Approved by _____ Approuvé par _____

J.Y.

PWGSC Project Manager Administrateur de Projets TPSGC

Y.W.

Drawing title	Titre du dessin
---------------	-----------------

Drawing title	titre du dessin
---------------	-----------------

ELECTRICAL

FLAMMABLE STORES

TEAMMABLE STORES

RISER DIAGRAM,

PANEL AND EQUIPMENT SCHEDULES

PANEL AND EQUIPMENT SCHEDULES.

Project no /No. du projet	Drawing no /No. du dessin	Revision no
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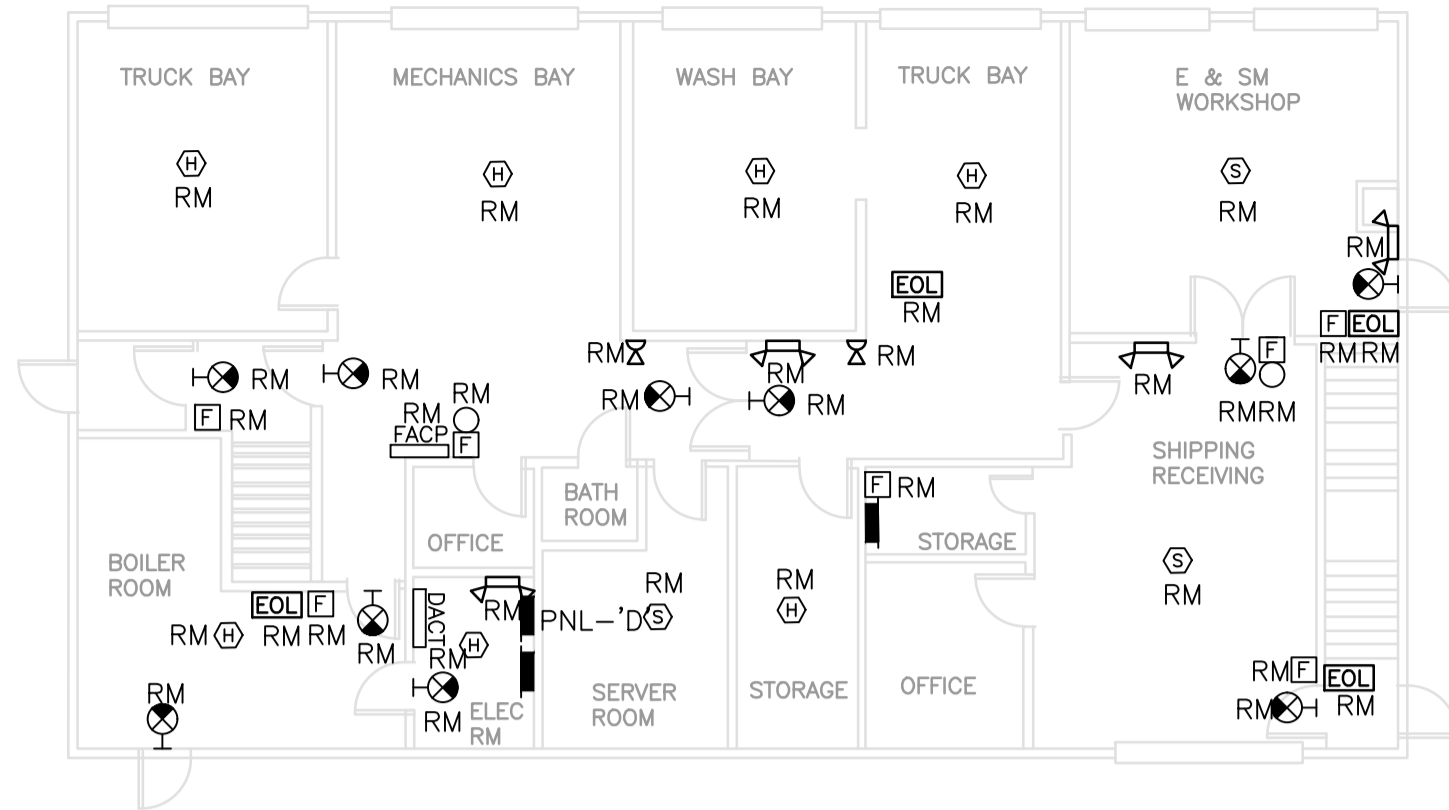
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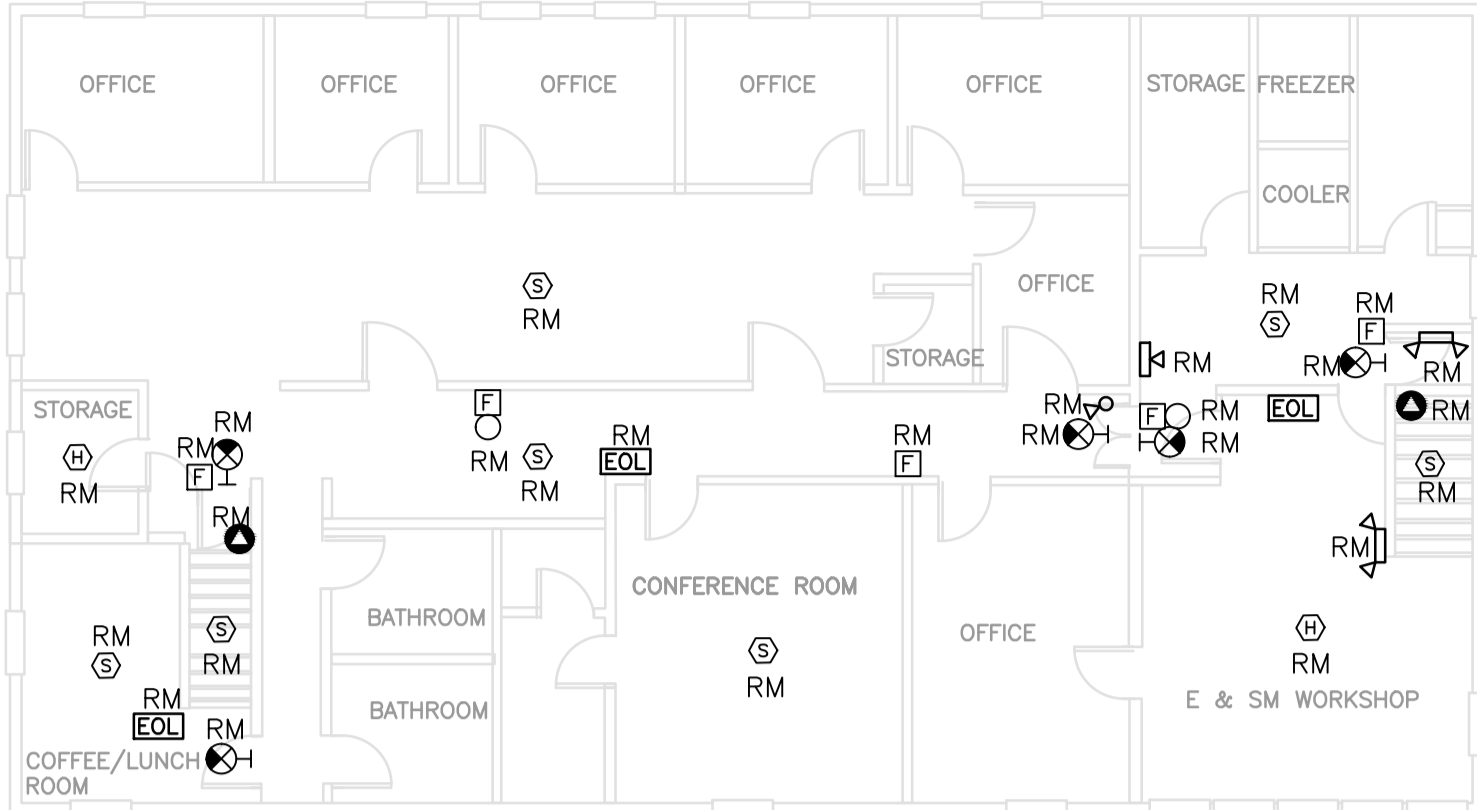
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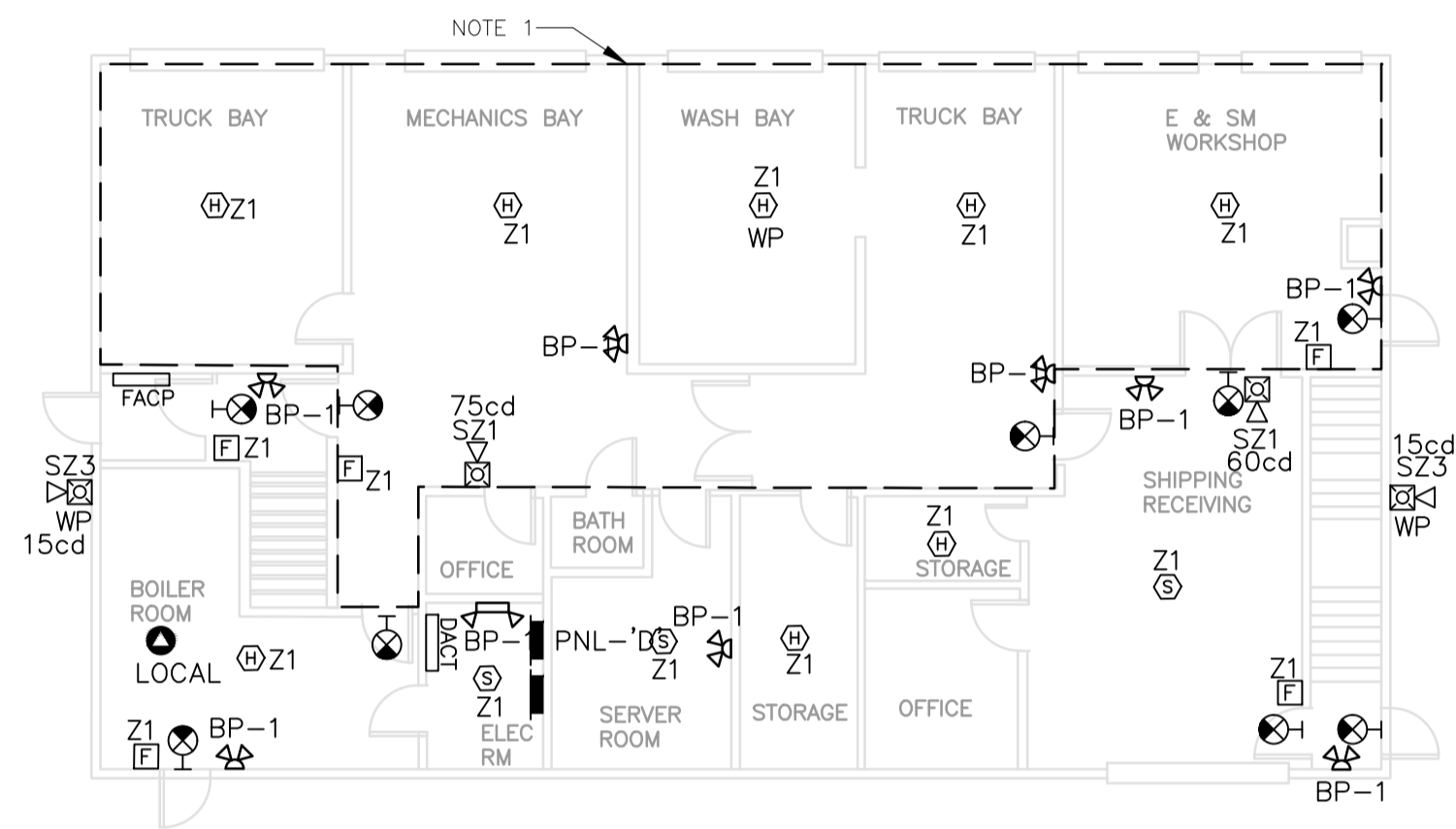
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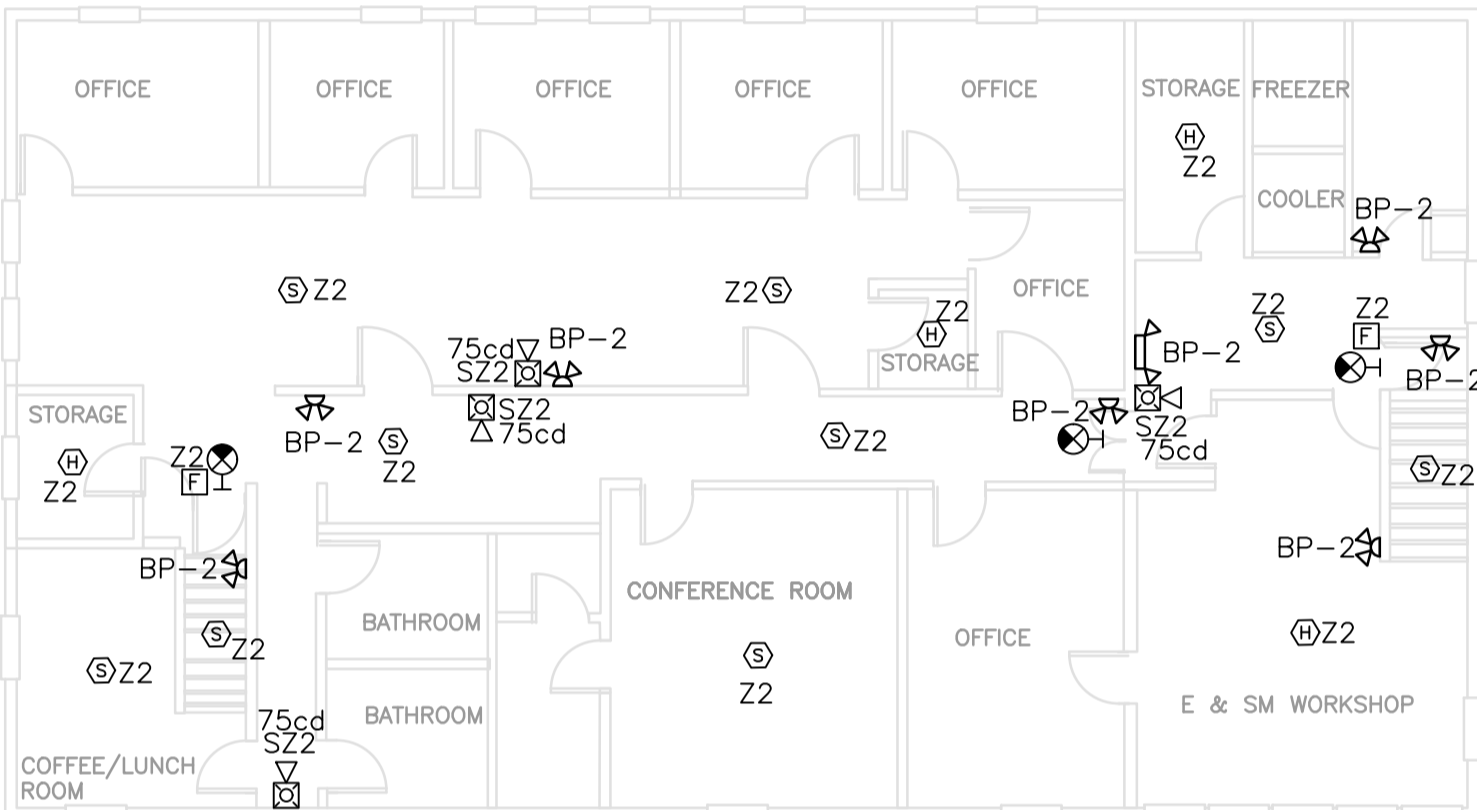
1 DFO MANAGEMENT COMPLEX LIFE SAFETY LAYOUT - FIRST FLOOR EXISTING/DEMO
E460 1:100



3 DFO MANAGEMENT COMPLEX LIFE SAFETY LAYOUT - SECOND FLOOR EXISTING/DEMO
E460 1:100



2 DFO MANAGEMENT COMPLEX LIFE SAFETY LAYOUT - FIRST FLOOR NEW
E460 1:100

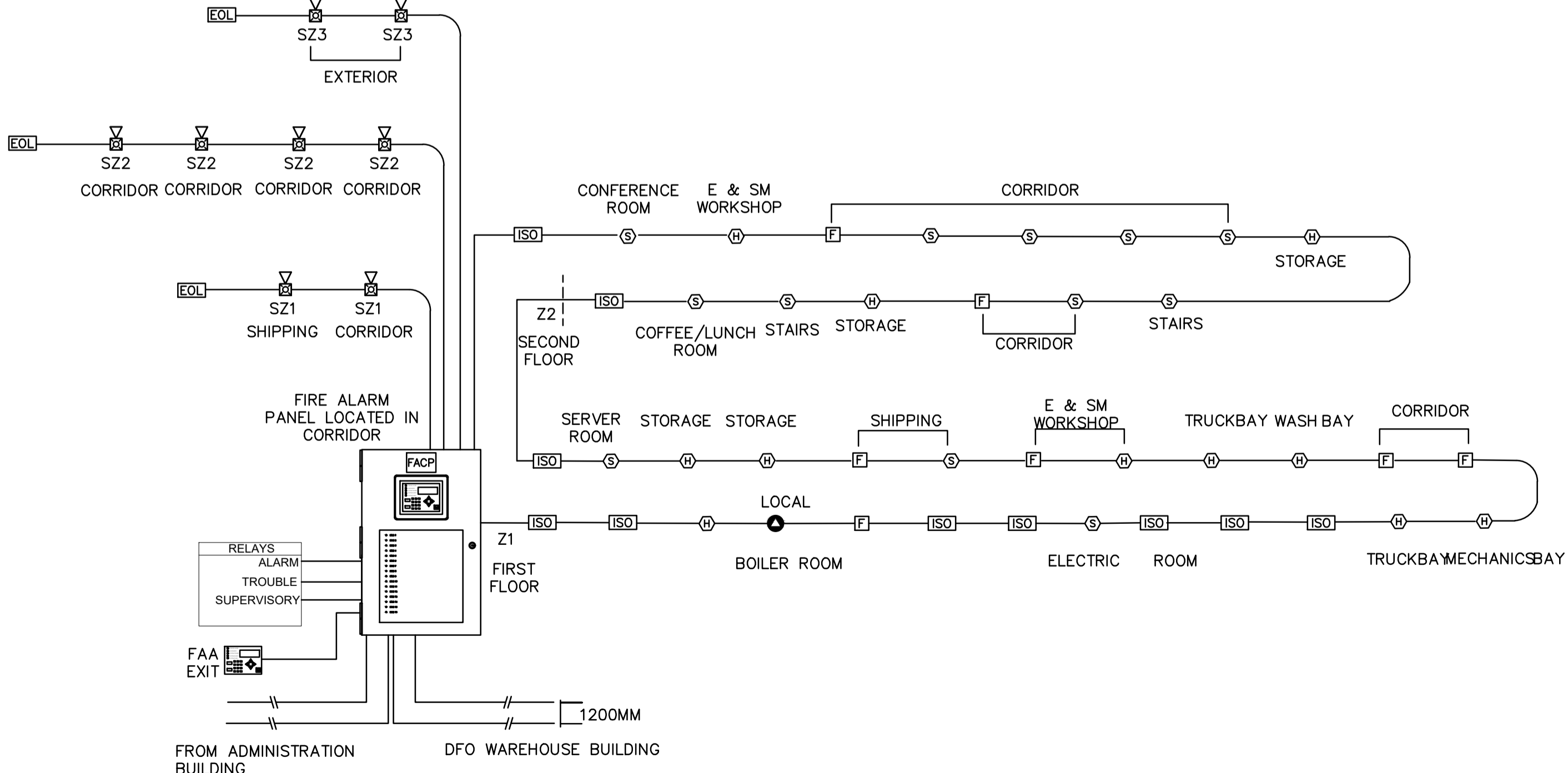


4 DFO MANAGEMENT COMPLEX LIFE SAFETY LAYOUT - SECOND FLOOR NEW
E460 1:100

NOTES:
1. ZONE 2 UP 50mm A.F.F. ALL WIRING AND DEVICES WITHIN HAZARDOUS AREA TO BE RATED FOR THE ZONE AS SHOWN.

GENERAL NOTE
1. THE DFO MANAGEMENT COMPLEX IS TO BE TREATED AS A RECOGNIZED HERITAGE BUILDING FOR THE PURPOSE OF THIS RENOVATION. REFER TO PROJECT SPECIFICATIONS AND HERITAGE CONSERVATION ADVICE REPORT.

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NEW SIGNAL ZONES		
ZONE	DESCRIPTION	ALARM TYPE
SZ1	MAIN FLOOR	ALARM
SZ2	SECOND FLOOR	ALARM
SZ3	EXTERIOR	ALARM

FIRE ALARM SCHEDULE		
ZONE	DESCRIPTION	ALARM TYPE
Z1	MAIN FLOOR	ALARM
Z2	SECOND FLOOR	ALARM

5 DFO MANAGEMENT COMPLEX - NEW FIRE ALARM RISER DIAGRAM
E460 N.T.S.

Public Works and Government Services Canada

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Aug 6, 2021
J. YOUNG
LICENSEE
144903068
Hay River DFO Life Safety Upgrades

PERMIT TO PRACTICE

STANTEC ARCHITECTURE LTD.

Signature

Date August 6, 2021

PERMIT NUMBER: P 800

NT/NU Association of Professional Engineers and Geoscientists

0	ISSUED FOR TENDER	2021.08.06		
Revision	Description	Date		
Client		client		
Project title				
HAY RIVER, NT 42043 MACKENZIE HWY DFO MANAGEMENT COMPLEX				
DEPT. OF FISHERIES & OCEANS LIFE SAFETY SYSTEMS REPLACEMENT				
Designed by	Conçu par			
H.R.				
Drawn by	Dessiné par			
HANI R.				
Approved by	Approuvé par			
J.Y.				
PWSSC Project Manager	Administrateur de Projets TPSSC			
Y.W.				
Drawing title	Titre du dessin			
ELECTRICAL DFO MANAGEMENT COMPLEX				
LIFE SAFETY SYSTEMS EXISTING AND UPGRADE LAYOUTS				
Project no./No. du projet	Drawing no./No. du dessin	Revision no.		
144903068	E460	0		
	11 OF 14			



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Tel. 867.920.2882

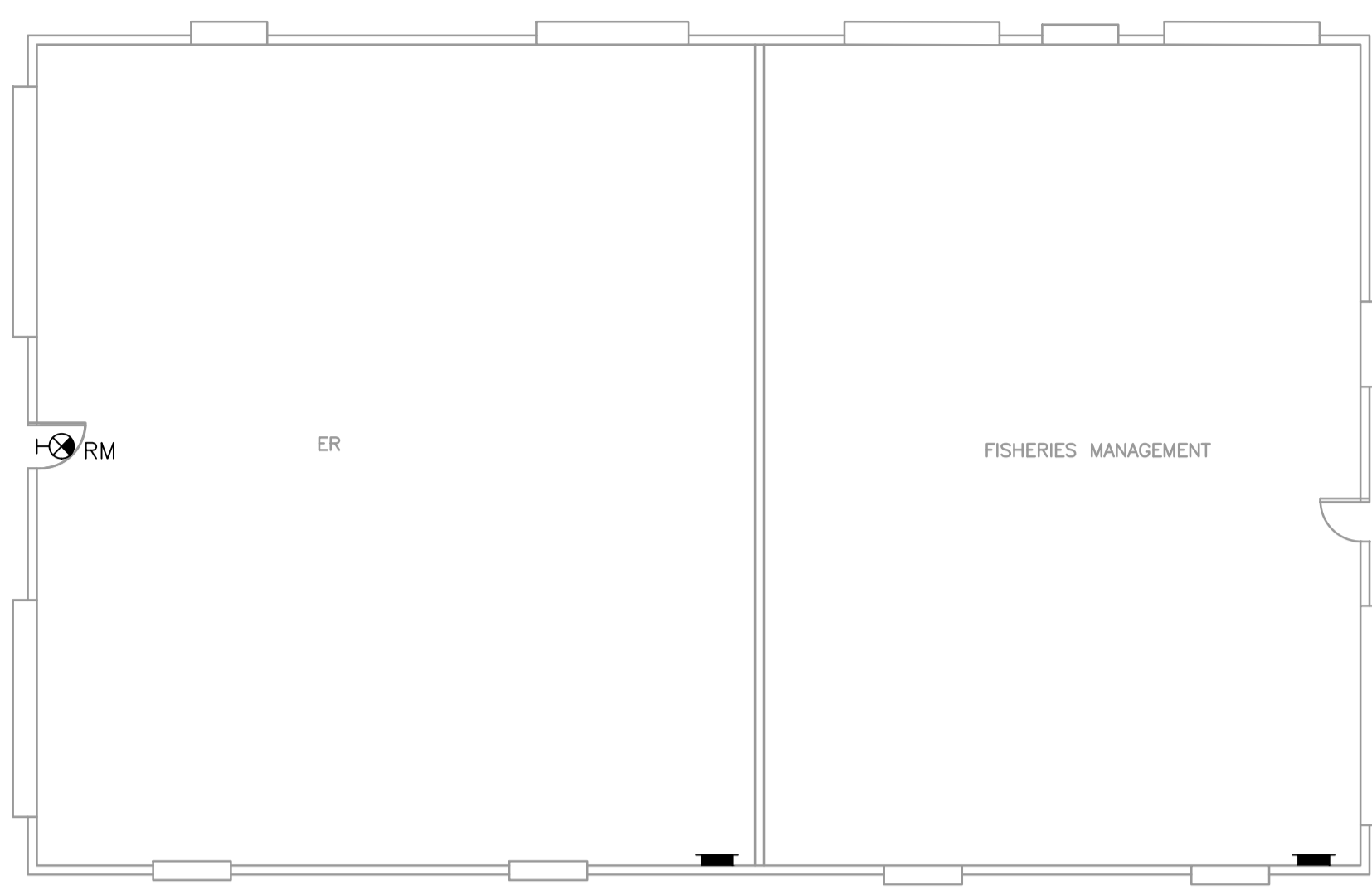
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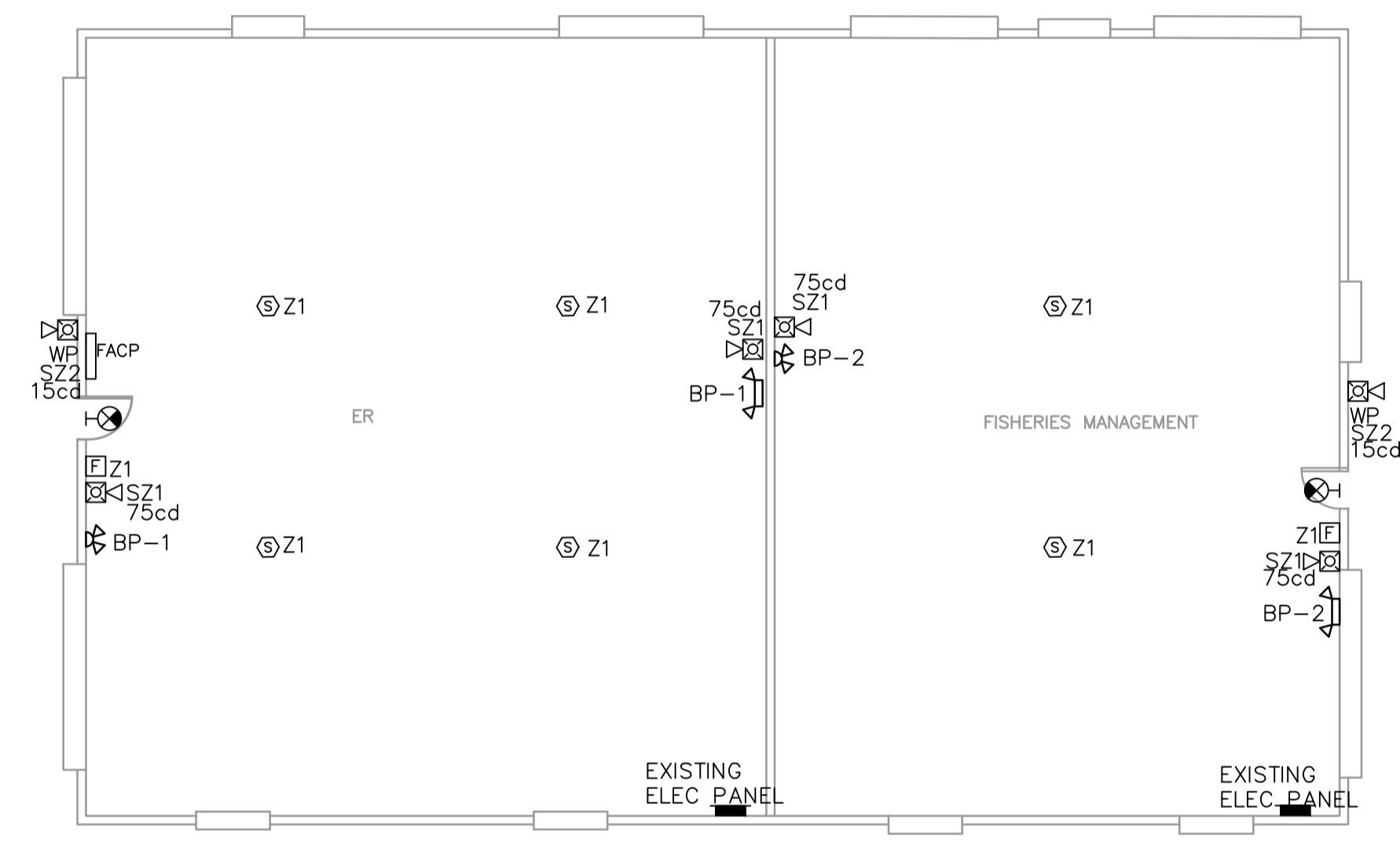
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DFO WAREHOUSE LIFE SAFETY LAYOUT - EXISTING/DEMO

E470 1:100



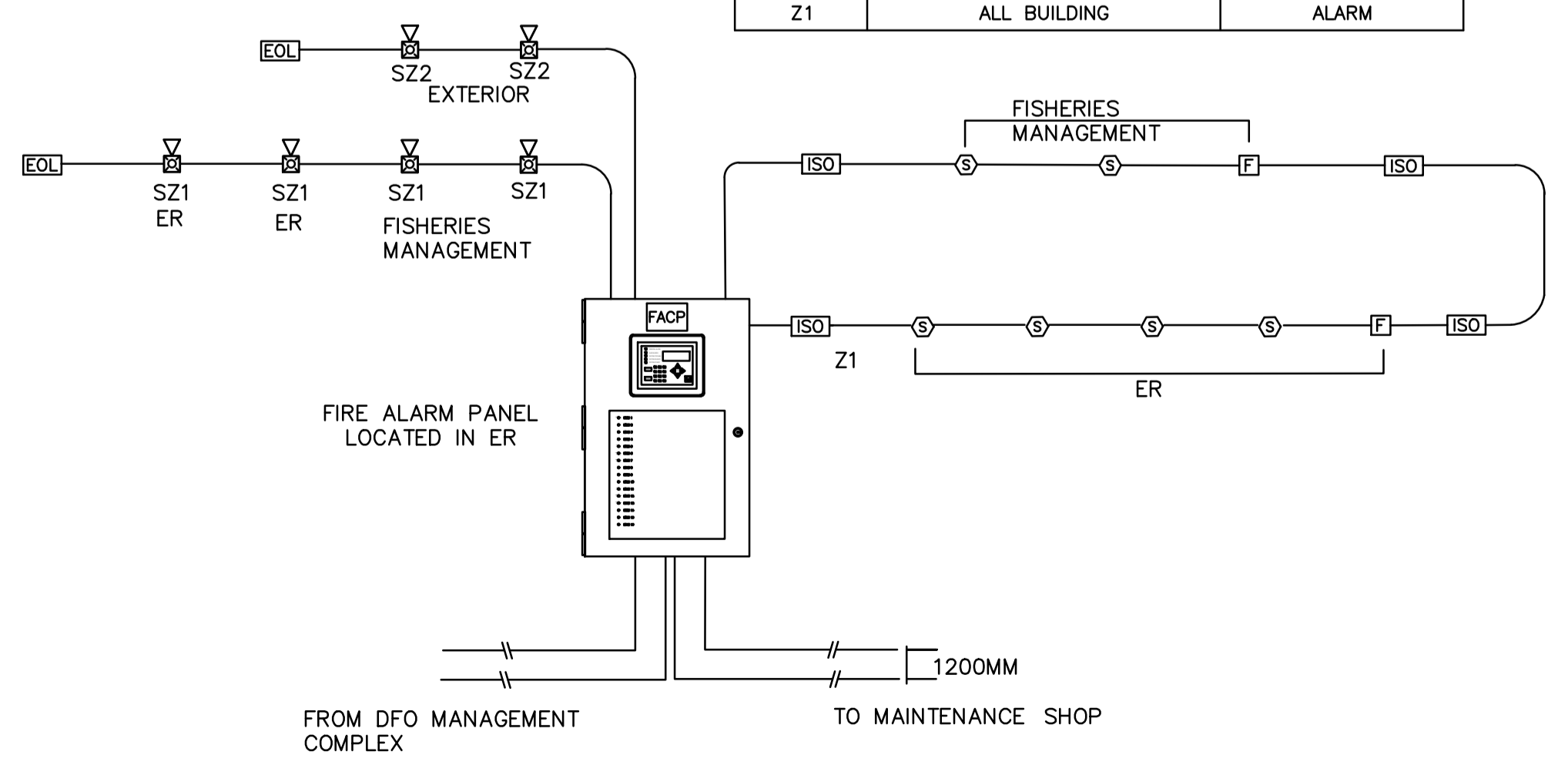
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DFO WAREHOUSE LIFE SAFETY LAYOUT - NEW

E470 1:100

SIGNAL ZONES		
ZONE	DESCRIPTION	ALARM TYPE
SZ1	ALL OTHER AREAS	ALARM
SZ2	EXTERIOR	ALARM

FIRE ALARM SCHEDULE		
ZONE	DESCRIPTION	ALARM TYPE
Z1	ALL BUILDING	ALARM



3

DFO WAREHOUSE - NEW FIRE ALARM RISER DIAGRAM

E470 N.T.S.

- FIRE ALARM NOTES:
- AS PER CAN/ULC S524, PROVIDE FAULT ISOLATORS BETWEEN ZONES CONTAINED ON THE SAME ADDRESSABLE LOOP. THE RISER DIAGRAM SHOWN HERE INDICATES PROPER LOCATION FOR LINE ISOLATORS, SHOULD THE SYSTEM BE INSTALLED AS ONE CONTINUOUS CLASS 'A' LOOP WITH THE SAME SEQUENCE OF DEVICES INDICATED.
 - THIS RISER IS FOR EXAMPLE ONLY AND CONTRACTOR MAY USE MORE LOOPS AS IS CONVENIENT FOR INSTALLATIONS PROVIDED CAN/ULC S524, 'THE STANDARD FOR INSTALLATION OF FIRE ALARM SYSTEMS' IS ADHERED TO. FAULT ISOLATION MODULES ARE TO BE PROVIDED BETWEEN FIRE COMPARTMENTS SHARING A COMMON LOOP. FAULT ISOLATION MODULES SHOWN HERE MAY REQUIRE TWO (OR MORE) DEVICES INSTALLED BACK-TO-BACK DEPENDING ON ASSEMBLY(IES) PENETRATED AND LOCATION/ROUTE CHOSEN. IN GENERAL, ISOLATORS REQUIRED FOR PENETRATION OF RATED ASSEMBLIES FOR SERVICE ROOMS (INCLUDING ELECTRICAL AND MECHANICAL ROOMS) JANITOR'S ROOMS, STAIR SHAFTS AND BETWEEN FLOORS. FAULT ISOLATOR MODULES THAT ARE INSTALLED BACK-TO-BACK TO BE HORIZONTALLY OFFSET BY MINIMUM OF 400mm AND IF ASSEMBLY PENETRATED IS WOOD OR STEEL-STUD CONSTRUCTION NOT LOCATED WITHIN THE SAME STUD SPACE. REFER TO CAN/ULC-S524, 10.2.
 - PROVIDE SURGE PROTECTION DEVICE FOR FIRE ALARM CONTROL PANEL.
 - RISER DIAGRAM IS FOR INFORMATION PURPOSES ONLY. QUANTITIES OF SIGNAL AND INITIATING DEVICES ARE GOVERNED BY FLOOR PLANS RATHER THAN THIS RISER.
 - PROVIDE A RED COLORED LOCKABLE BREAKER FOR THE FIRE ALARM CONTROL PANEL WITH PROPER LABELING.
 - INCLUDE FOR THE GREATEST NUMBER OF DEVICES AND MOST COSTLY SITUATION, SHOULD THERE BE A DISCREPANCY BETWEEN PLANS AND RISER.

BATTERY PACK SCHEDULE				
ID	LOCATION	TIME (MIN)	POWER (W)	CIRCUITS #
BP#1	ER	60	144	N/A
BP#2	FISHERIES MANAGEMENT	60	144	N/A

1. SIZING IS BASED ON A PARTICULAR MANUFACTURER AT 24V DC WITH 6 WATT MR16 LED LAMPS AND A 5 WATT ALLOWANCE FOR EACH LIGHT.

2. HEADS TO BE MOUNTED AT 2200mm A.F.F. TO CENTER.

3. BATTERY PACK INDICATED TO BE MINIMUM ALLOWABLE SIZE.

4. PROVIDE ZONE SENSING RELAYS AS REQUIRED TO MONITOR CIRCUITS TO NORMAL LIGHTING ZONES WHERE REQUIRED.


5. ALL EMERGENCY LIGHTS AND EXIT SIGNS WIRING TO BE FOLLOWED AND ENSURE THEIR CONNECTION AS PER CEC 46-108.

6. ALL EMERGENCY LIGHTING CIRCUITS TO MATCH WITH THE EXISTING LIGHTING CIRCUITS.

4

BATTERY PACK SCHEDULE

E470 N.T.S.



Aug 6, 2021

144903068

HAY RIVER DFO Life Safety Upgrades

PERMIT TO PRACTICE

STANTEC ARCHITECTURE LTD.

Signature

Date August 6, 2021

PERMIT NUMBER: P 800

NT/NU Association of Professional Engineers and Geoscientists

144903068

0	ISSUED FOR TENDER	2021.08.06
Revision	Description	Date
Client		client

Project title

HAY RIVER, NT
42043 MACKENZIE HWY
DFO WAREHOUSE

DEPT. OF FISHERIES & OCEANS
LIFE SAFETY SYSTEMS
REPLACEMENT

Designed by
H.R.

Conçu par
H.R.

Drawn by
HANI R.

Dessiné par
HANI R.

Approved by
J.Y.

Approuvé par
J.Y.

PWSSC Project Manager

Administrateur de Projets TPSGC

Y.W.

Y.W.

Drawing title

ELECTRICAL
DFO WAREHOUSE

LIFE SAFETY SYSTEMS
EXISTING AND UPGRADE LAYOUTS

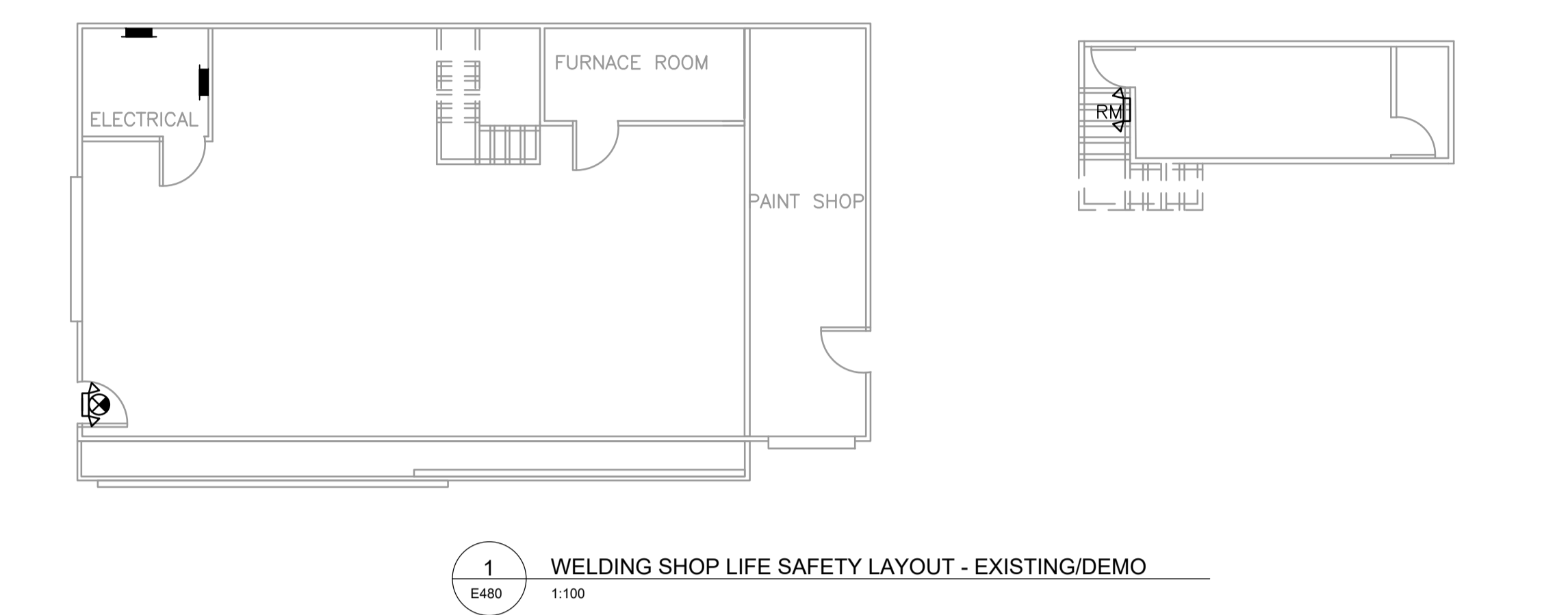
Project no./No. du projet	Drawing no./No. du dessin	Revision no.
144903068	E470	0
	12 OF 14	

144903068_elec.dwg

PWGSC - A1 - 841X594

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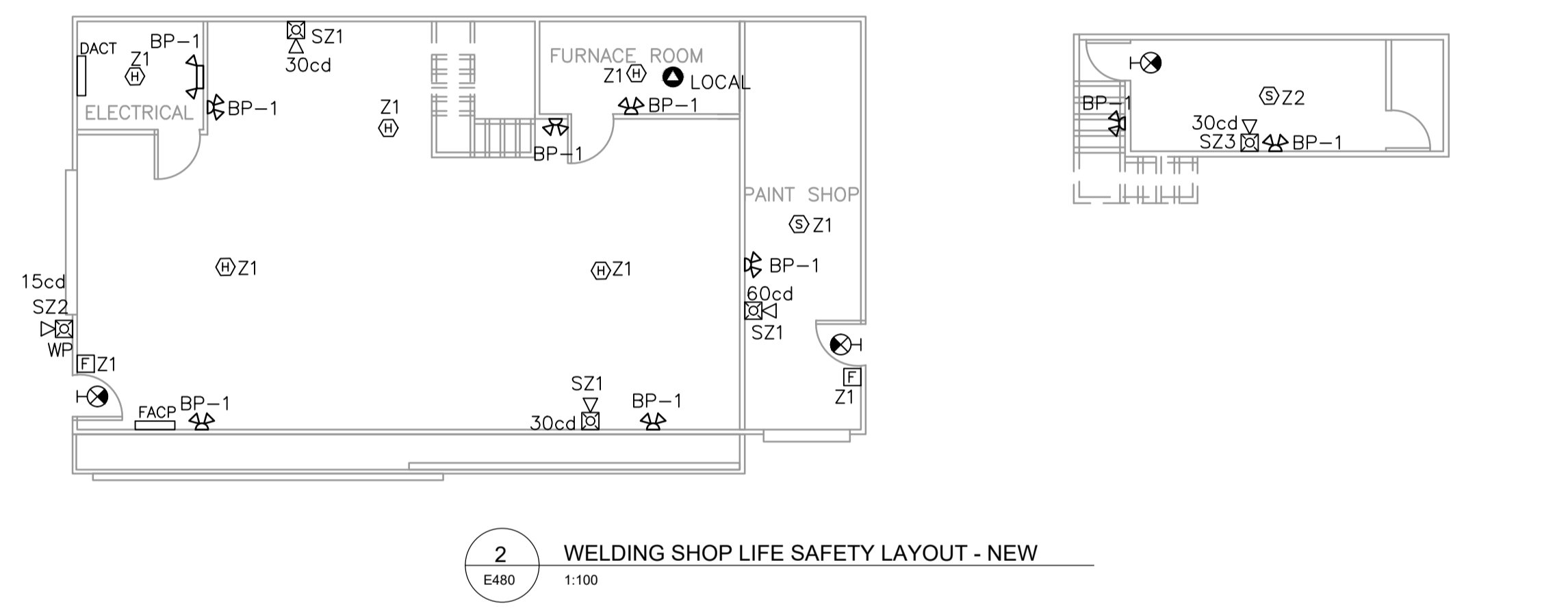
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1

WELDING SHOP LIFE SAFETY LAYOUT - EXISTING/DEMO

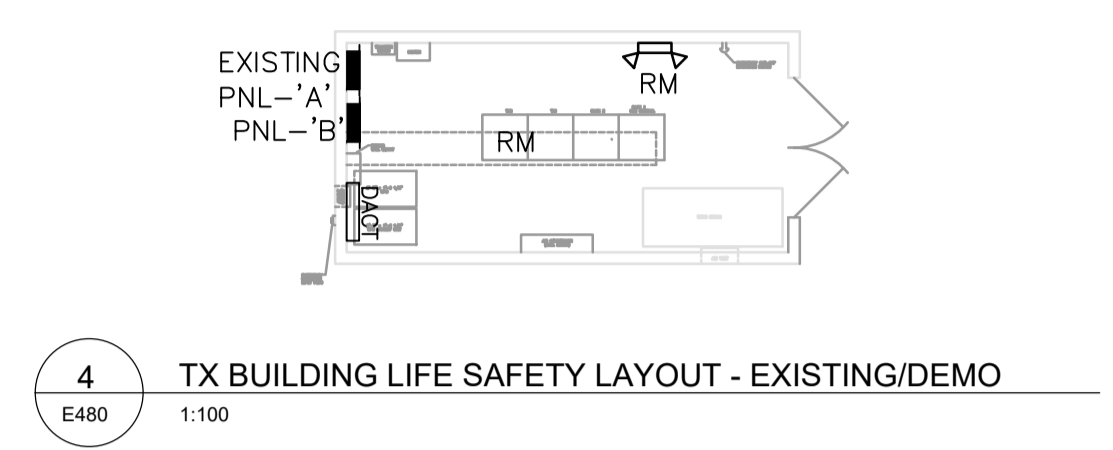
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2

WELDING SHOP LIFE SAFETY LAYOUT - NEW

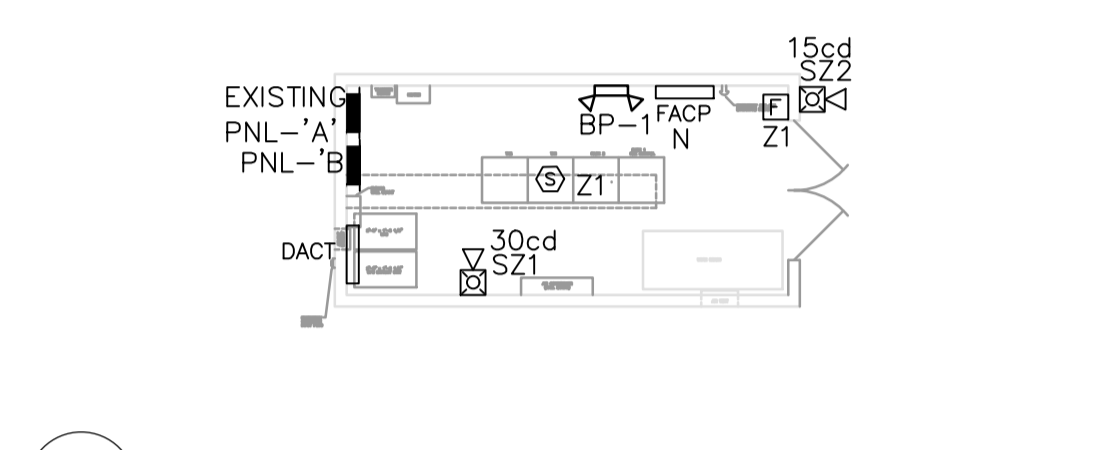
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4

TX BUILDING LIFE SAFETY LAYOUT - EXISTING/DEMO

E480 1:100



5

TX BUILDING LIFE SAFETY LAYOUT - NEW

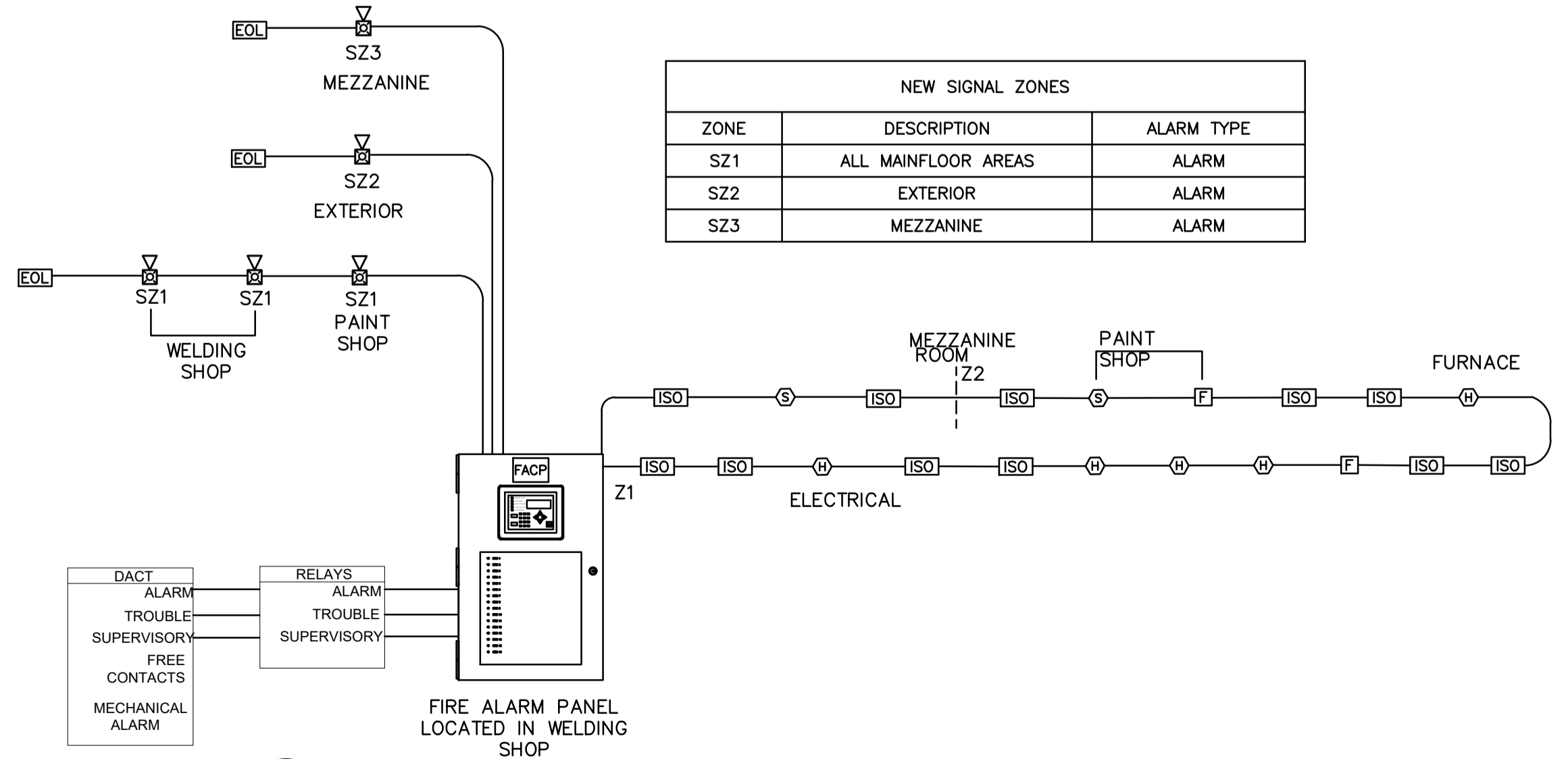
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FIRE ALARM SCHEDULE		
ZONE	DESCRIPTION	ALARM TYPE
Z1	ALL MAINFLOOR AREAS	ALARM

NEW SIGNAL ZONES		
ZONE	DESCRIPTION	ALARM TYPE
SZ1	ALL MAINFLOOR AREAS	ALARM
SZ2	EXTERIOR	ALARM

FIRE ALARM SCHEDULE		
ZONE	DESCRIPTION	ALARM TYPE
Z1	ALL MAINFLOOR AREAS	ALARM
Z2	MEZZANINE	ALARM

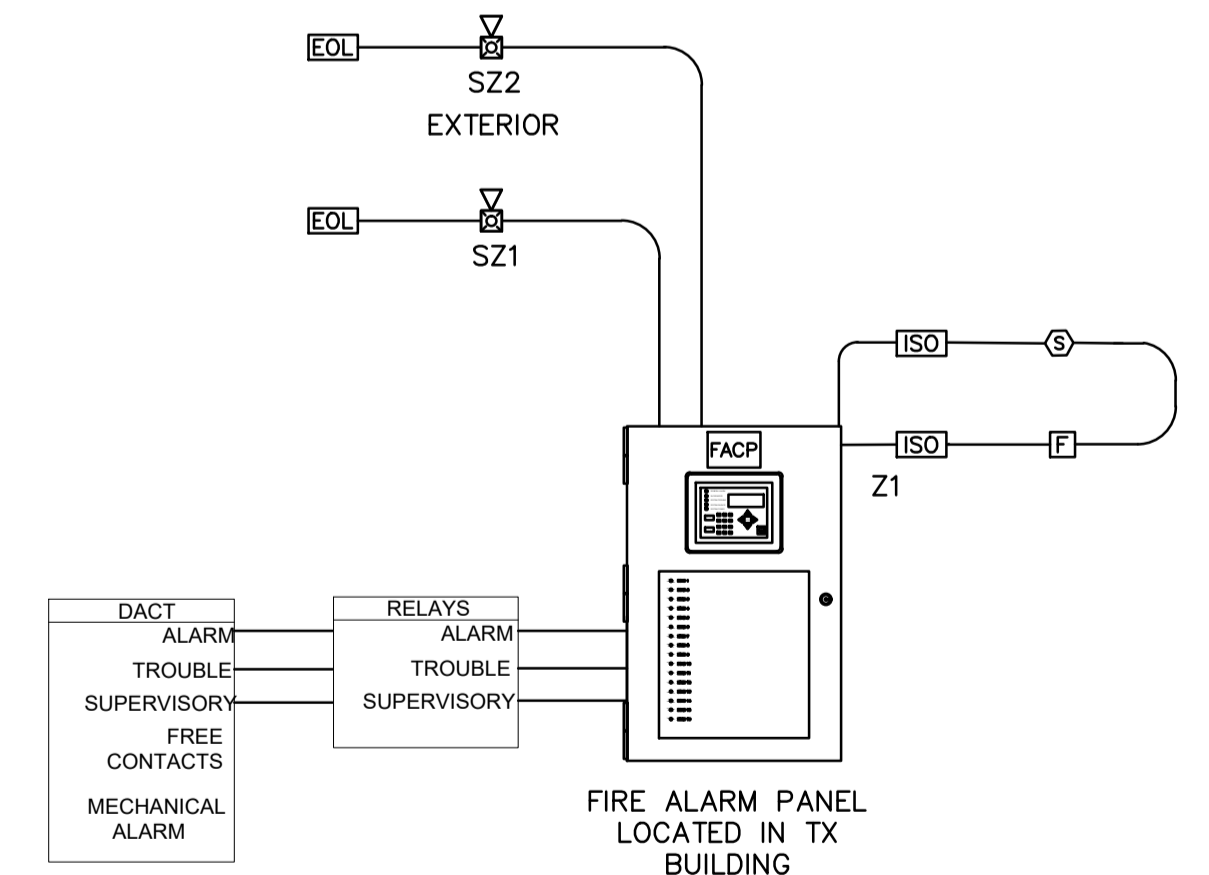
NEW SIGNAL ZONES		
ZONE	DESCRIPTION	ALARM TYPE
SZ1	ALL MAINFLOOR AREAS	ALARM
SZ2	EXTERIOR	ALARM
SZ3	MEZZANINE	ALARM



3

WELDING SHOP - NEW FIRE ALARM RISER DIAGRAM

E480 N.T.S.




6

TX BUILDING - NEW FIRE ALARM RISER DIAGRAM

E480 N.T.S.

- FIRE ALARM NOTES:
- AS PER CAN/ULC S524, PROVIDE FAULT ISOLATORS BETWEEN ZONES CONTAINED ON THE SAME ADDRESSABLE LOOP. THE RISER DIAGRAM SHOWN HERE INDICATES PROPER LOCATION FOR LINE ISOLATORS, SHOULD THE SYSTEM BE INSTALLED AS ONE CONTINUOUS CLASS 'A' LOOP WITH THE SAME SEQUENCE OF DEVICES INDICATED.
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 - PROVIDE SURGE PROTECTION DEVICE FOR FIRE ALARM CONTROL PANEL.
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Aug 6, 2021
J. YOUNG
LICENSEE
144903068
Hay River DFO
Life Safety/Upgrades

PERMIT TO PRACTICE

STANTEC ARCHITECTURE LTD.

Signature

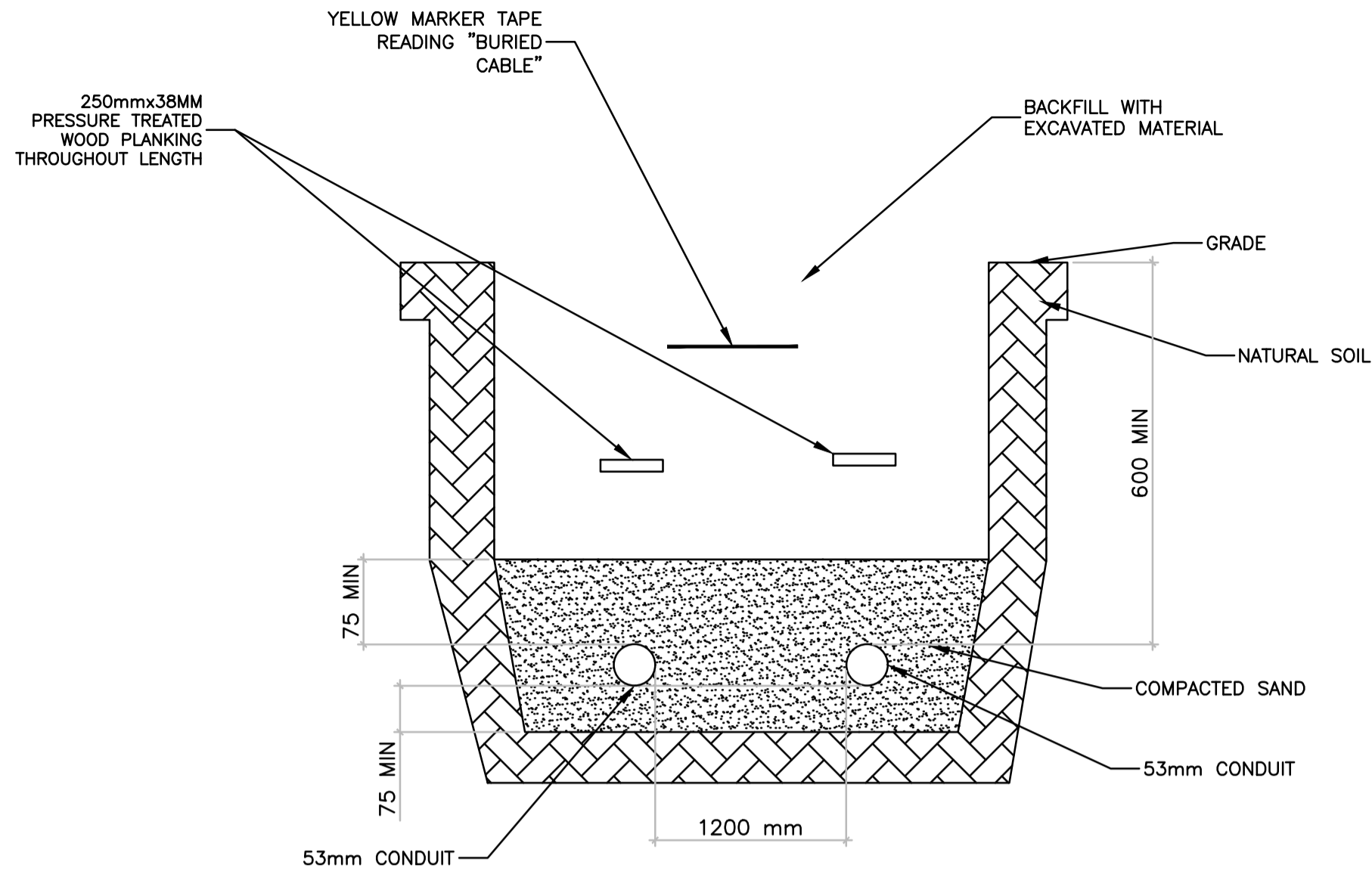
Date August 6, 2021

PERMIT NUMBER: P 800

NT/NU Association of Professional Engineers and Geoscientists

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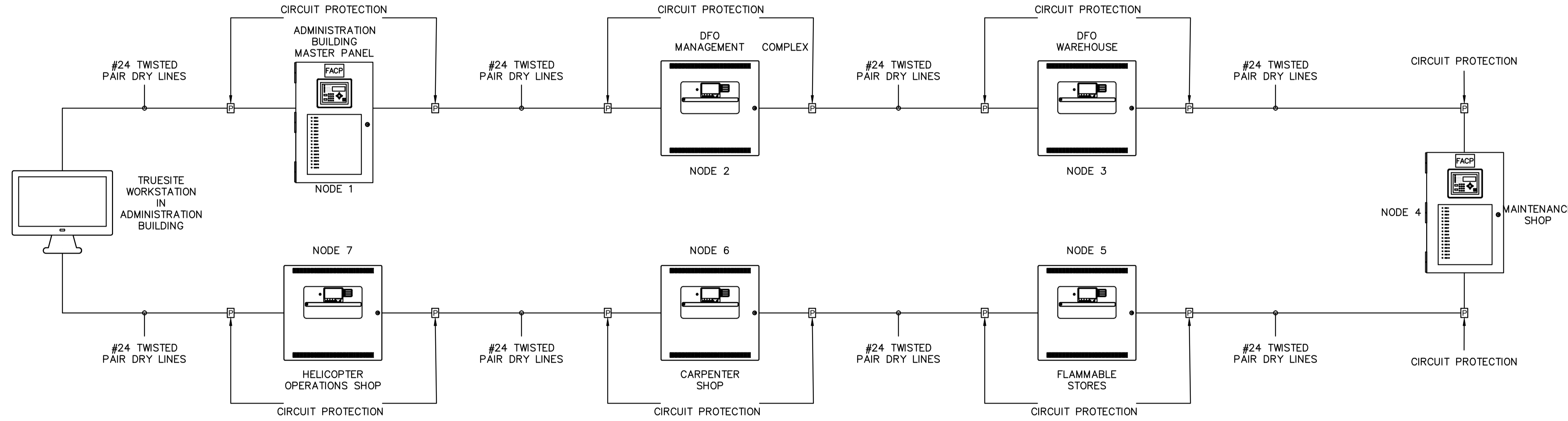
0	ISSUED FOR TENDER	2021.08.06
Revision	Description	Date
Client		client
Project title		
HAY RIVER, NT 42043 MACKENZIE HWY - DEPT. OF FISHERIES & OCEANS LIFE SAFETY SYSTEMS REPLACEMENT		
Project		
Designed by	Conçu par	
H.R.		
Drawn by	Dessiné par	
HANI R.		
Approved by	Approuvé par	
J.Y.		
PWOSC Project Manager	Administrateur de Projets TPSCG	
Y.W.		
Drawing title	Titre du dessin	
ELECTRICAL WELDING SHOP AND TX BUILDING LIFE SAFETY SYSTEMS EXISTING AND UPGRADE LAYOUTS		
Project no./No. du projet	Drawing no./No. du dessin	Revision no.
144903068	E480	0
13 OF 14		



2 CONDUIT BURIAL DETAIL
E600 N.T.S.

- NOTES:
1. MINIMUM COVER TO BE IN ACCORDANCE WITH CEC RULES 12-012 AND 60-500. REDUCED MINIMUM COVER PER CEC IS ACCEPTABLE, WHERE MECHANICAL PROTECTION IS PROVIDED ACCORDINGLY.
 2. MARKER TAPE TO BE APPROXIMATELY HALF WAY BETWEEN FINISHED GRADE AND CONDUIT OR CABLE.
 3. MINIMUM SEPARATION BETWEEN CABLES TO BE 1200mm.

- FIRE ALARM NOTES:
1. AS PER CAN/ULC S524, PROVIDE FAULT ISOLATORS BETWEEN ZONES CONTAINED ON THE SAME ADDRESSABLE LOOP. THE RISER DIAGRAM SHOWN HERE INDICATES PROPER LOCATION FOR LINE ISOLATORS, SHOULD THE SYSTEM BE INSTALLED AS ONE CONTINUOUS CLASS 'A' LOOP WITH THE SAME SEQUENCE OF DEVICES INDICATED.
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 4. RISER DIAGRAM IS FOR INFORMATION PURPOSES ONLY. QUANTITIES OF SIGNAL AND INITIATING DEVICES ARE GOVERNED BY FLOOR PLANS RATHER THAN THIS RISER.
 5. PROVIDE A RED COLORED LOCKABLE BREAKER FOR THE FIRE ALARM CONTROL PANEL WITH PROPER LABELING.



1 MULTIPLE BUILDING LOOP DIAGRAM
E600 N.T.S.



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4910 - 53 Street, PO Box 1777
Yellowknife NT
Tel.: 867.920.2882
www.stantec.com

Stantec No: 144903068

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STANTEC ARCHITECTURE LTD.
Signature
Date August 6, 2021
PERMIT NUMBER: P 800
NT/NU Association of Professional Engineers and Geoscientists
144903068

Revision	Description	Date
0	ISSUED FOR TENDER	2021.08.06

Client client

Project title
HAY RIVER, NT
42043 MACKENZIE HWY

DEPT. OF FISHERIES & OCEANS
LIFE SAFETY SYSTEMS
REPLACEMENT

Designed by H.R.
Drawn by HANI R.
Approved by J.Y.
PWSSC Project Manager Y.W.

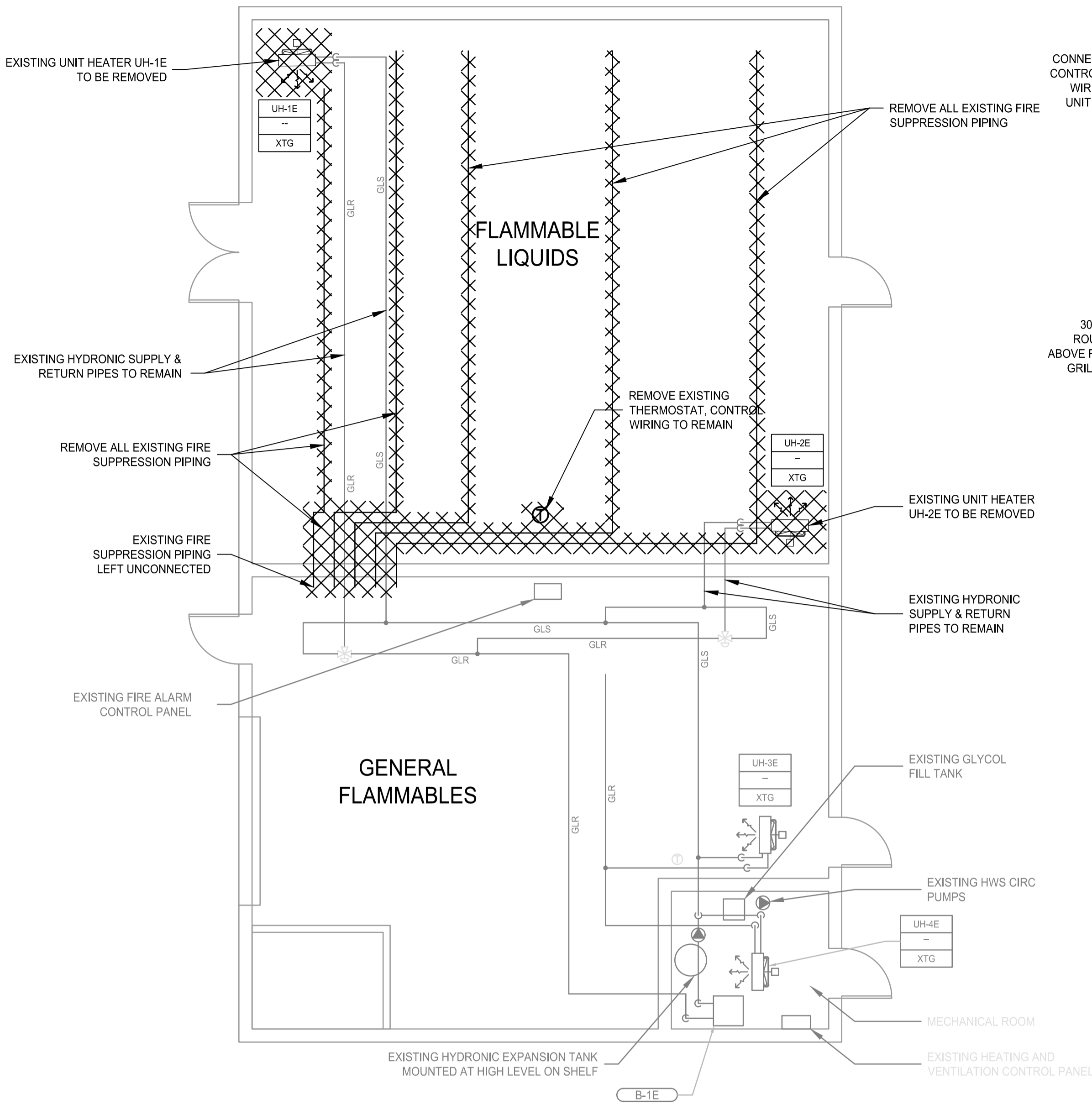
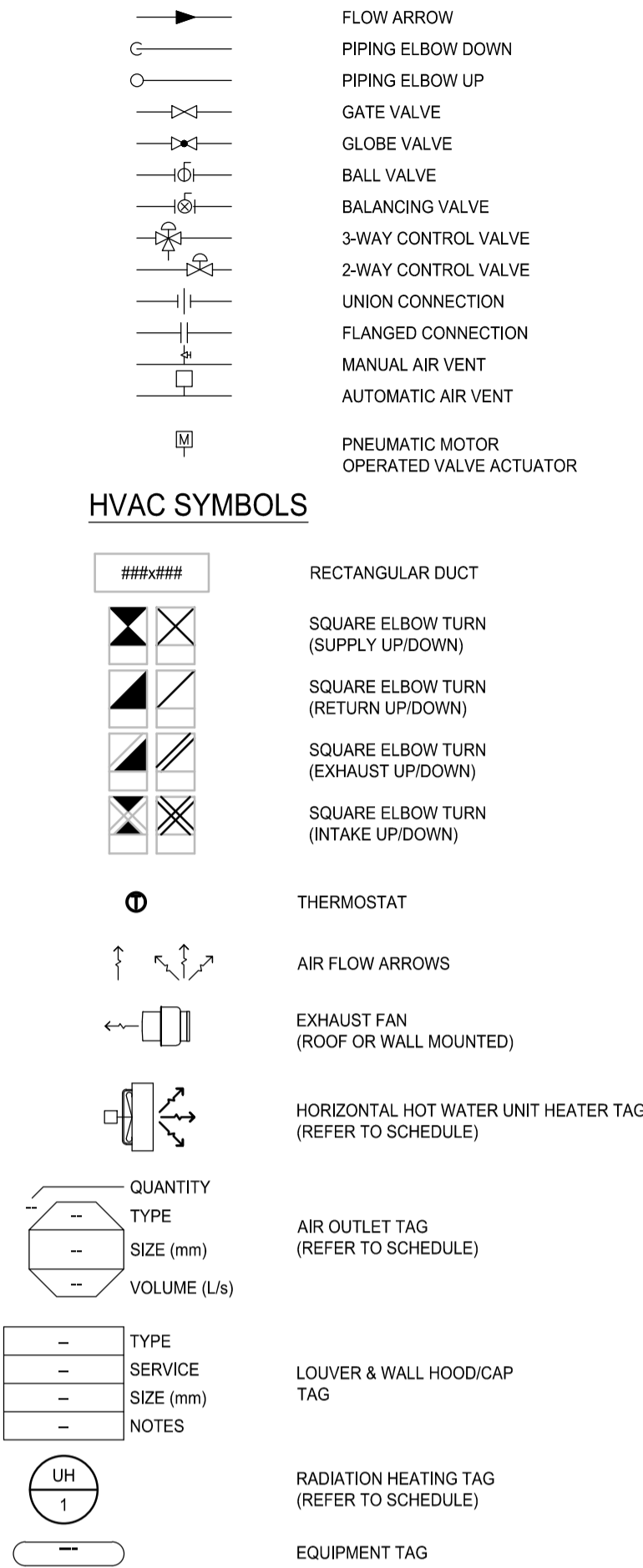
Conçu par
Dessiné par
Approuvé par
Administrateur de Projets TPSSC

Drawing title
ELECTRICAL
MULTIPLE BUILDING LOOP DIAGRAM

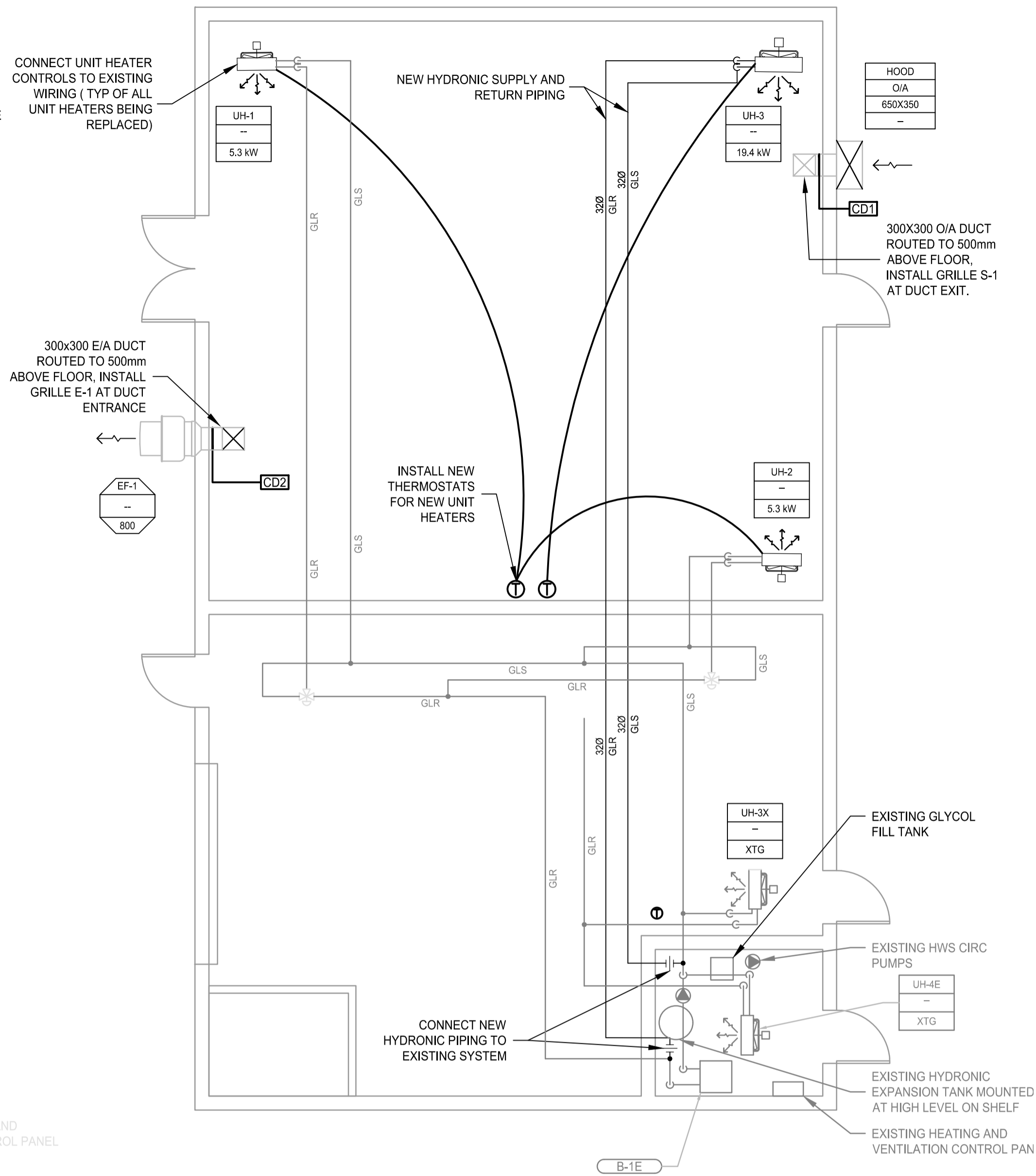
Titre du dessin

Project no./No. du projet	Drawing no./No. du dessin	Revision no.
144903068	E600	0
	14 OF 14	

PIPING IDENTIFICATION AND SYMBOLS



1 FLAMMABLE STORES HEATING & VENTILATION - EXISTING/DEMO
 M100 1:50



2 FLAMMABLE STORES HEATING & VENTILATION - NEW
 M100 1:50

FAN SCHEDULE

FAN No.	SERVICE	LOCATION	MANUFACTURER	MODEL No.	AIR FLOW (L/s)	EXTERNAL STATIC PRESS. (Pa)	MOTOR (HP)	FAN RPM	ELECTRICAL (V/Ph/Hz)	MOUNTING ARR'GT	TYPE	REMARKS
EF-1	EXHAUST	FLAMMABLE LIQUIDS	GREENHECK	CUBE-099-4	335	75	0.25	1246	115/60/1	SIDEWALL	CENTRIFUGAL	FAN MOTOR TO BE VFD CONTROLLED, UNIT TO BE EXPLOSION PROOF

MOTORIZED DAMPER SCHEDULE

TAG No.	MANUFACTURER	MODEL	DUTY	NORMAL POSITION	TYPE	SIZE	REMARKS
CD1	TAMCO	9000 SC	SUPPLY	CLOSED	PARALLEL	300x300	PARALLEL BLADE, THERMALLY INSULATED, THERMALLY BROKEN FRAME, EXTRUDED ALUMINUM FRAME AND BLADES, BLADE AND JAMB SEALS.
CD2	TAMCO	9000 SC	EXHAUST	CLOSED	PARALLEL	300x300	PARALLEL BLADE, THERMALLY INSULATED, THERMALLY BROKEN FRAME, EXTRUDED ALUMINUM FRAME AND BLADES, BLADE AND JAMB SEALS.

HYDRONIC UNIT & CABINET UNIT HEATER SCHEDULE

TAG	LOCATION	MANUFACTURER	MODEL	HEATING MEDIUM	CAPACITY (kW)	LIQUID			MOTOR (kW)	V/PH/Hz	WEIGHT (kg)	DIMENSIONS (LxWxD) (mm)	REMARKS
						EWIT °C	LWT °C	FLOW (L/S)					
UH-1	FLAMMABLE LIQUIDS	ROSEMEX	H-18	50% PG	5.3	82.2	71.1	0.13	0.037	115/1/60	17.6	480x230x325	UNIT TO BE EXPLOSION PROOF
UH-2	FLAMMABLE LIQUIDS	ROSEMEX	H-18	50% PG	5.3	82.2	71.1	0.13	0.037	115/1/60	17.6	480x230x325	UNIT TO BE EXPLOSION PROOF
UH-3	FLAMMABLE LIQUIDS	ROSEMEX	H-80	50% PG	19.4	82.2	71.1	0.23	0.25	115/1/60	37.2	635x230x550	UNIT TO BE EXPLOSION PROOF

GRILLE, DIFFUSER, AND LOUVER SCHEDULE

TAG No.	MANUFACTURER	MODEL No.	SIZE	SERVICE	DESCRIPTION	FINISH	REMARKS
S-1	PRICE	80 SERIES	300x300	SUPPLY	FLOOR GRILLE	-	
E-1	PRICE	80 SERIES	300x300	SUPPLY	FLOOR GRILLE	-	



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 4910 - 53 Street, PO Box 1777
 Yellowknife NT
 Tel.: 867.920.2882
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GENERAL NOTES:
 1. ENTIRE GLYCOL HEATING SYSTEM IS TO BE DRAINED DOWN, CLEANED AND FLUSHED FOLLOWING THE PROCEDURE PROVIDED IN THE SPECIFICATION. UPON COMPLETION REPLACE WITH NEW GLYCOL. EXISTING GLYCOL IS NOT TO BE REUSED.



144903068 DFO
 Life Safety Systems

PERMIT TO PRACTICE
 STANTEC ARCHITECTURE LTD.
 Signature
 Date August 6, 2021
 PERMIT NUMBER: P 800
 NT/NU Association of Professional Engineers and Geoscientists
 144903068

Revision	Description	Date
0	ISSUED FOR TENDER	2021.08.06

Client client

Project title Projet

HAY RIVER, NT
 42043 MACKENZIE HWY
 -
 DEPT. OF FISHERIES & OCEANS
 LIFE SAFETY SYSTEMS
 REPLACEMENT

Designed by Conçu par DS

Drawn by Dessiné par DS

Approved by Approuvé par BRM

PM/SSC Project Manager Administrateur de Projets TPSSC YW

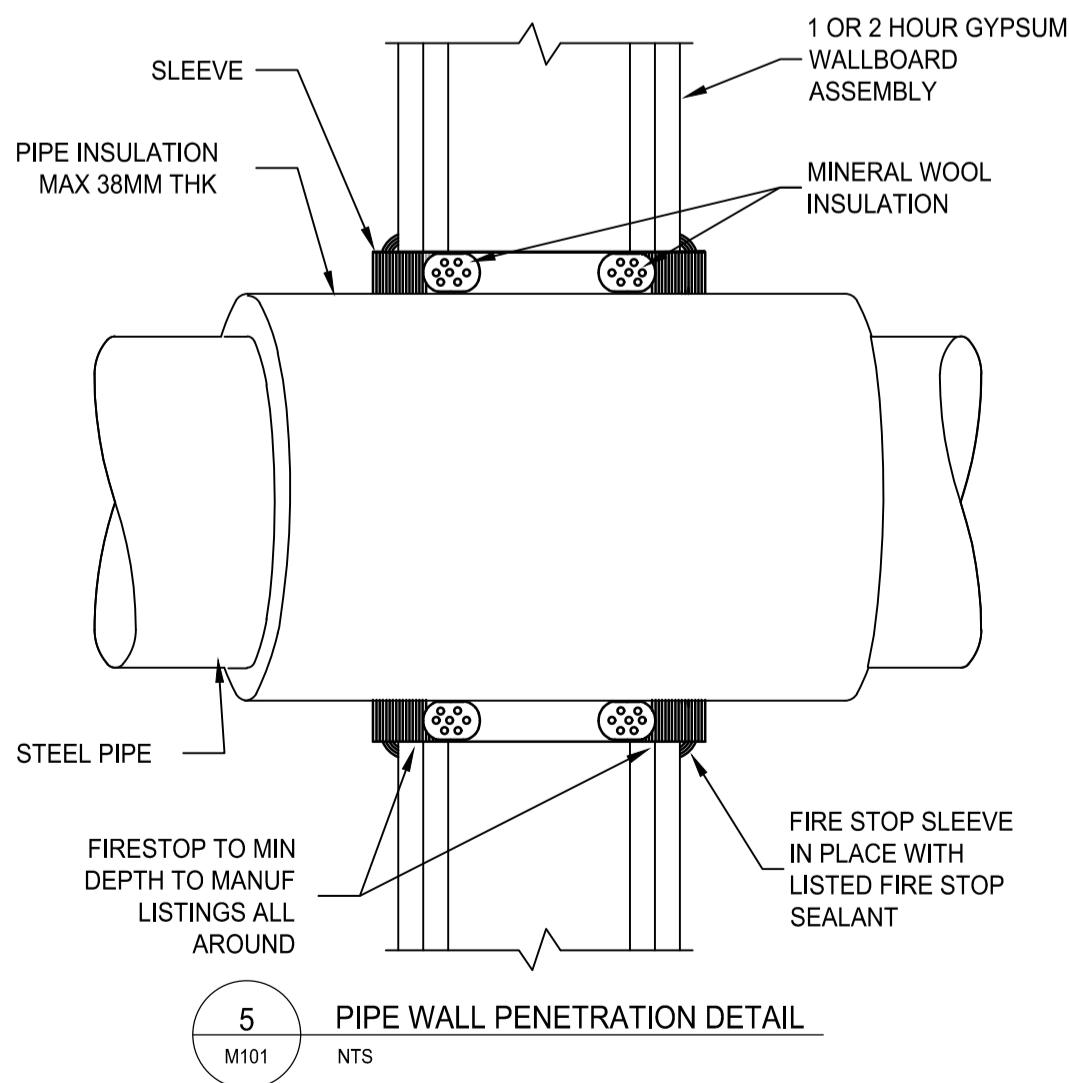
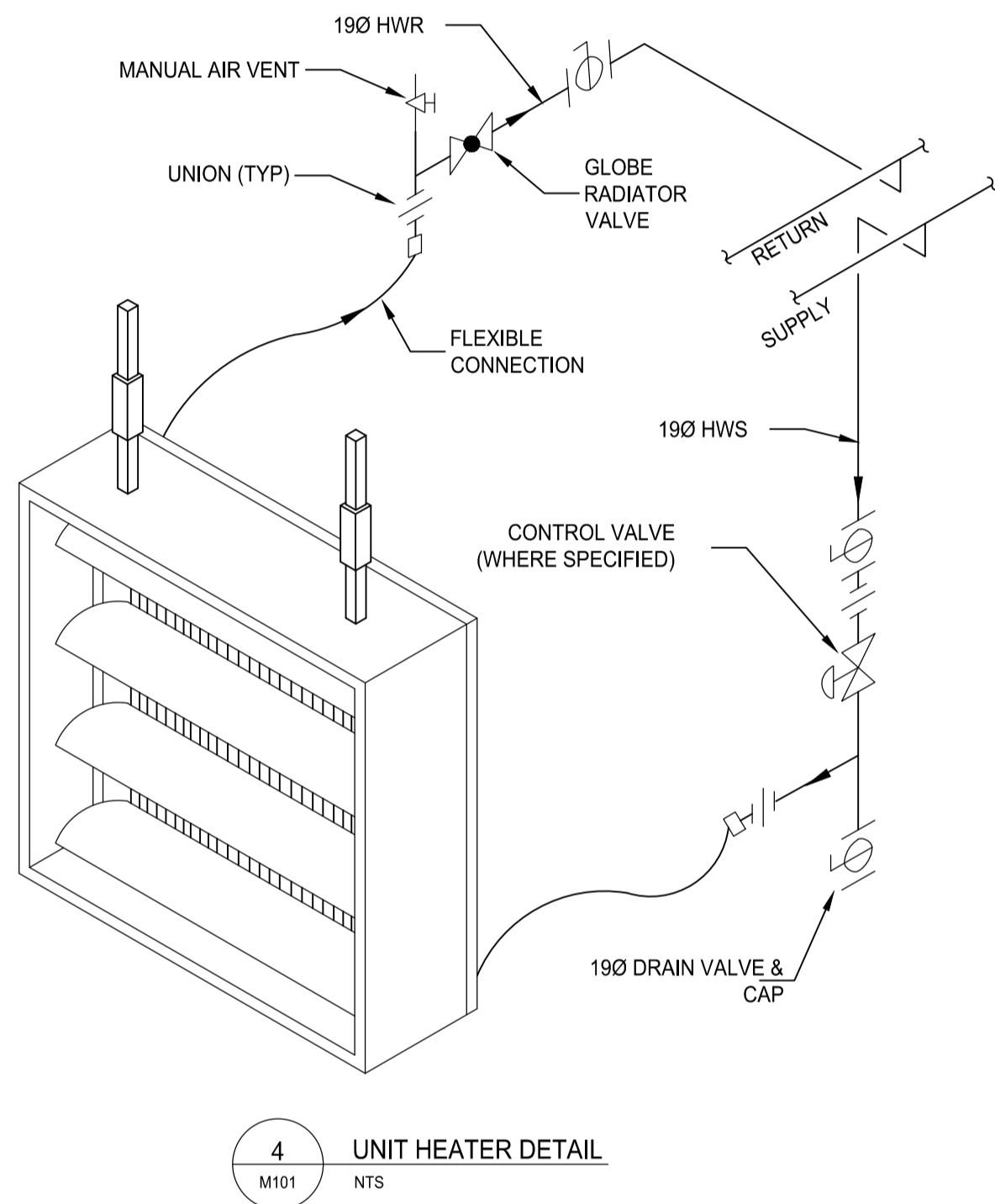
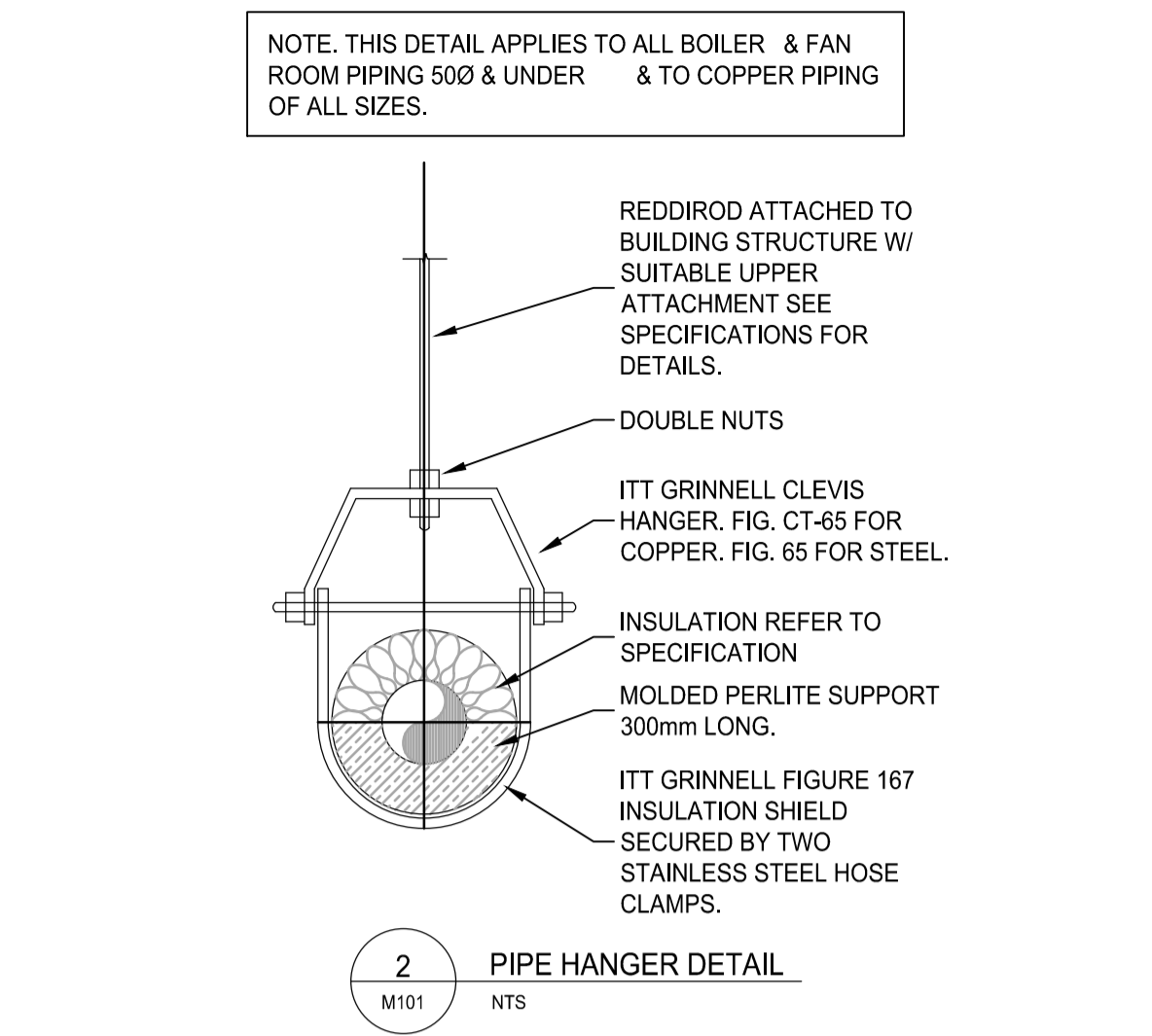
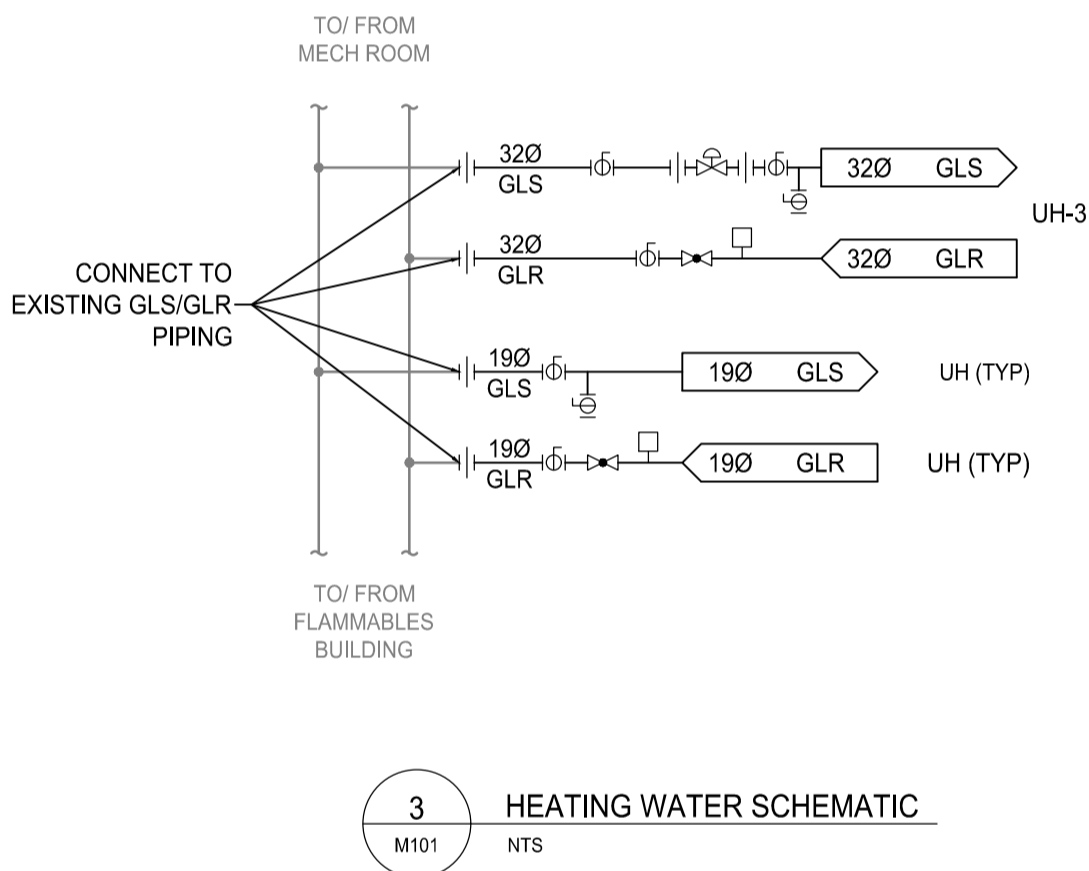
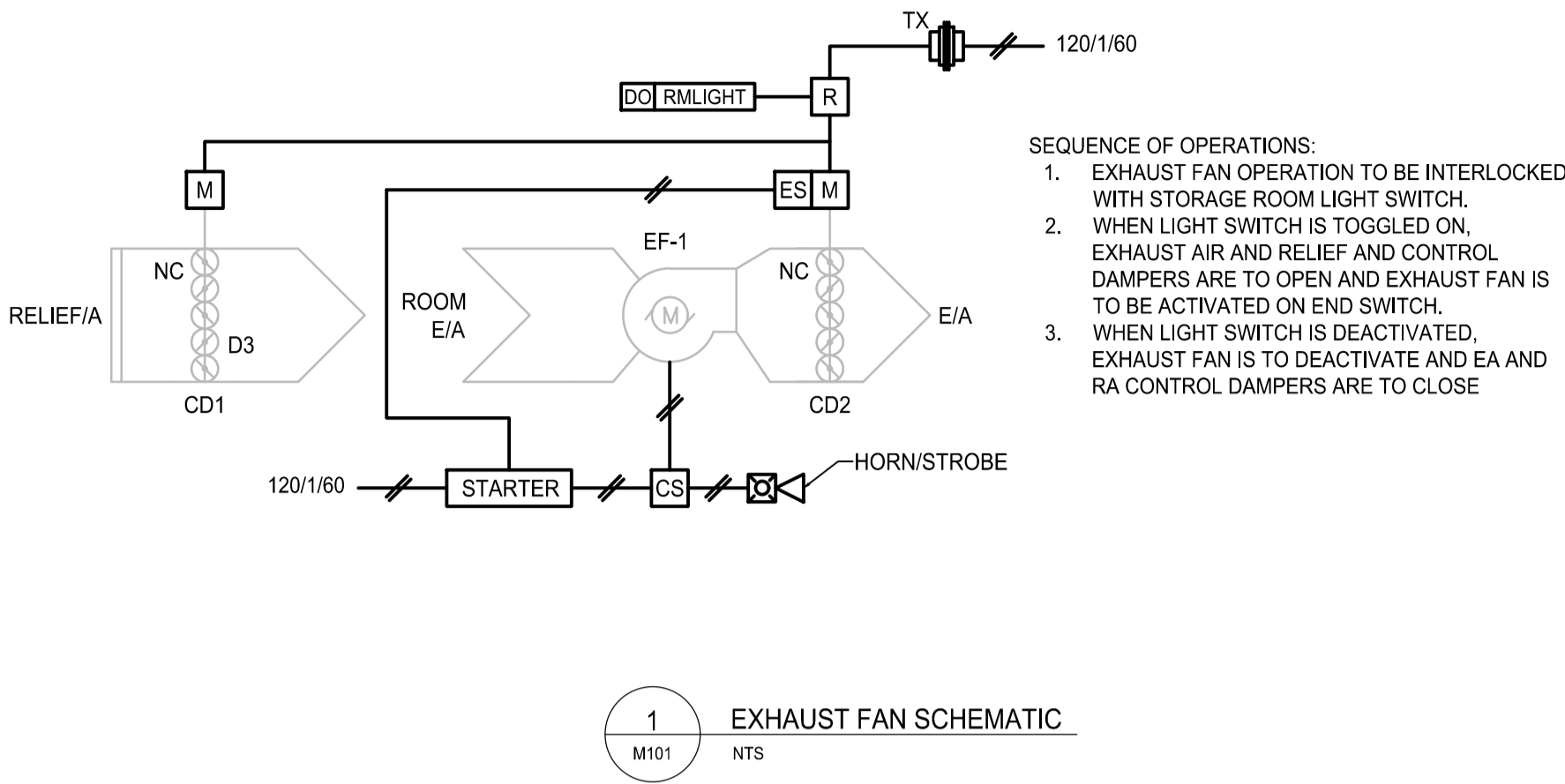
Drawing title Titre du dessin

MECHANICAL
 FLAMMABLE STORES
 HEATING & VENTILATION LAYOUT

Project no./No. du projet Drawing no./No. du dessin Revision no.

144903068 M100 0

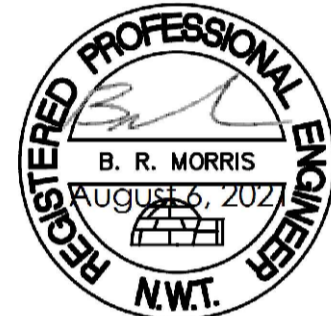
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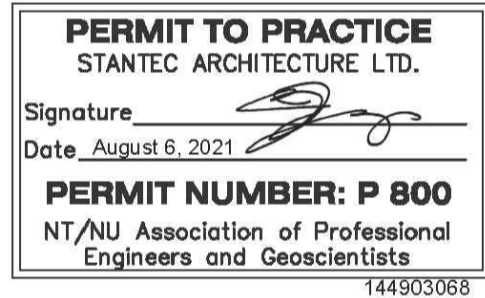
Stantec Architecture Ltd.
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144903068 DFO
Life Safety
Systems



0	ISSUED FOR TENDER	2021.08.06
Revision	Description	Date
Client		client

Project title
**HAY RIVER, NT
42043 MACKENZIE HWY**
-
**DEPT. OF FISHERIES & OCEANS
LIFE SAFETY SYSTEMS
REPLACEMENT**

Designed by DS	Conçu par
Drawn by DS	Dessiné par
Approved by BRM	Approuvé par
PNSSC Project Manager YW	Administrateur de Projets TPSGC
Drawing title	Titre du dessin

**MECHANICAL
FLAMMABLE STORES
HEATING & VENTILATION LAYOUT**

Project no./No. du projet 144903068	Drawing no./No. du dessin M101	Revision no. 0
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