

# **CITY OF PORT ALBERNI**

City Hall 4850 Argyle Street Port Alberni, B.C. V9Y 1V8 Tel. (250) 723-2146 Fax: (250) 723-1003

# CITY OF PORT ALBERNI PUBLIC SAFETY BUILDING RENOVATIONS

# Addendum #2

## REQUEST FOR PROPOSAL RFP 024-21

Change to Scope of Work Contractor Questions

Details in attachment

The City of Port Alberni (Owner) is inviting RFP Tenders from qualified contractors for the renovations of the Public Safety Building.

Contact:

Rob Kraneveldt, Facilities Operations Supervisor, Phone: 250-720-2511, Fax: 723-5633 or Email: rob\_kraneveldt@portalberni.ca



# ADDENDUM No. 01 TO DOCUMENTS ISSUED FOR TENDER

## Project: CITY OF PORT ALBERNI PUBLIC SAFETY BUILDING RENOVATIONS

### Addendum Date: December 27, 2021

1. Addendum

1. The purpose of this addendum is to make the following clarifications, revisions, and additions/deletions to the tender documents before the close of the tender period.

### 2. Table of Contents

- 1. Part One
  - 1. Tender Period Extended
  - 2. Change to Scope of Work
  - 3. Contractor Questions

### 2. Part Two

- 2.1 Structural Revision: Drawing \$203.
- 2.2 Electrical Revisions:
  Specification Revision A 27 05 13 Ethernet Camera Systems.
  Specification Revision A 27 05 13 Network Products and Methods Electrical Drawings E01, E02, E03 I.F. Tender Dec. 23, 2021.

### 1.0 Part One

### 1. Tender Period Extended

- .1 Tender submission deadline extended to January 20, 2022 @ 2:30pm.
- .2 Deadline for question: January 12, 2022.

### 2. Change to Scope of Work

.1 Add: Structural attachment details for vinyl room divider. Refer to \$203.



- .2 Delete: Electrical lighting fixture \$1 from Storage Room.
- .3 Add: Electrical lighting fixture S2 to Storage Room.
- .4 Delete: Electrical lighting fixture A2 in Corridor outside Storage Room.
- .5 Add: Electrical lighting fixture B2 in Corridor outside Storage Room.
- .6 Delete: Electrical lighting fixture R2 from Janitor Room.
- .7 Add: Electrical lighting fixture \$3 to Janitor Room.
- .8 Add: Electrical Sheet Notes E02: Notes 'G' and 'H'.

### 3. Contractor Questions

.1 None

End of Addendum No. 01 December 27, 2021



#### Part 1 GENERAL

#### 1.1 RELATED REQUIREMENTS

.1 27 05 13 ETHERNET CAMERA SYSTEMS.

#### **1.2 REFERENCE STANDARDS**

- .1 ANSI/TIA-568A Commercial Building Telecommunications Standard.
- .2 ANSI/TIA 607 Commercial Building Grounding and Bonding Requirements for Telecommunications.

#### Part 2 PRODUCTS

#### 2.1 SUBMITTALS

.1 Provide shop drawings for cameras prior to ordering.

#### 2.2 Cabling

.1 Network cabling: Belden or Wirewerks, with matching terminal equipment.

#### 2.3 Wireless Access Point

- .1 Supplied by owner, installed by this division as indicated by electrical plans.
- .2 Data cable home run to data rack is required.

#### 2.4 Data Rack

.1 Supplied by owner, installed by this division as indicated by electrical plans.

#### Part 3 METHODS

#### 3.1 Cabling

- .1 All cabling must meet or exceed the CAT6 'certification' and must be fully compliant with the EIA/TIA structured cabling standards. All cabling certification results along with standard 25-year cabling vendor warranty shall be recorded and provided to the customer in hardcopy. Contractor is responsible for data cable termination and verification.
- .2 As set out in the EIA/TIA cabling system administration standard all cabling and patch panels shall be properly identified and labelled in an orderly fashion.
- .3 Data pass through fire separated assemblies shall be installed using fire rated sleeves. Use of fire rated sealant is not approved for low voltage cabling.

- .4 Workmanship is to be of high quality, neat and tidy.
- .5 Supply and install plates and outlet jacks.
- .6 Each data outlet marked on plan with the number of runs. If not marked, assume 2 runs required. Each run CAT6, blue. There is no colour distinction between voice, data or other.
- .7 All ethernet cabling run through the ceiling must be plenum rated.

#### 3.2 General Wiring

- .1 Connections of conductors to terminal parts shall ensure a tight. conductive connection without damaging the conductors and be made by means of pressure connectors, wire binding screws. or splices to flexible leads.
- .2 Conductors shall be connected to devices and to fittings so that tension is not transmitted to joints or terminals.
- .3 Wires and cables shall not be placed in such a manner as to prevent access to equipment.
- .4 Terminals for more than one conductor shall identified and intended for the purpose.
- .5 Conductors under a single terminal shall be of the same gauge and composition.
- .6 Terminals shall be marked or color coded where necessary to indicate the correct connections.
- .7 At raceway connections to junction boxes and open ends of raceway, the following shall apply.
  - .1 Conductors shall be protected from abrasion.
  - .2 Raceway shall be sized and installed in accordance with NFPA 70
- .8 Circuit identification shall be within the control panel and enclosures used for wiring connections.
- .9 Strain relief shall be provided for wiring leaving control panels and junction boxes not utilizing raceway.

#### 3.3 Dropped Ceilings

- .1 In dropped ceiling areas suspend network/tel/tv cables neatly in J hooks above t-bar and run parallel to building grid.
- .2 J hook not to be loaded past 50% of manufacturers recommended capacity.
- .3 In drop ceiling areas vertical drop into outlet shall be contained within bonded metal conduit extending above T-bar.

#### 3.4 Data Rack

.1 Data rack is located in the storage room as indicated in drawings.

- .2 Unless otherwise noted, homerun all data/voice connections to this location.
- .3 Supply and install cable tray above data rack. Cable tray to be of sufficient size for all conductors with adequate spare capacity for additional future connections.
- .4 Provide sufficient cable to form 1-meter slack droop to tray.
- .5 An as built floor plan to be left in the room reflecting the labelling of all structured cabling.
- .6 If server / rack is not located in the electrical room then install one 2" non-corrugated conduit between electrical room and LAN room.
- .7 Install one 2" non-corrugated conduit between electrical room Telus demark point and data rack.

#### Part 1 GENERAL

#### 1.1 RELATED REQUIREMENTS

.1 27 05 13 Network Products and Methods.

#### **1.2 REFERENCE STANDARDS**

- .1 NFPA 731 Standard for the Installation of Premise Security Systems.
- .2 UL 2044, Standard for Commercial Closed Circuit Television Equipment.
- .3 UL 2802, Standard for Performance Testing of Camera Image Quality.
- .4 UL 60065, Standard for Audio, Video, and Similar Electronic Apparatus.

#### Part 2 PRODUCTS

#### 2.1 SUBMITTALS

- .1 Provide shop drawings for related equipment including:
  - .1 Cameras
  - .2 Relevant Accessories.
- .2 Cabling
  - .1 Camera systems are hosted by the building local area network. Refer to the related specification governing ethernet networks products and installation.
- .3 IP Cameras
  - .1 Exterior
    - .1 Product: AXIS M3206-LVE
    - .2 Conduit mounting base as required.
  - .2 Interior
    - .1 Product: AXIS M3066-V c/w AXIS T91A23 Tile Grid Ceiling Mount
- .4 Network Video Recorder
  - .1 Supplied and installed by owner.

#### Part 3 INSTALLATION

#### 3.1 System Installation

.1 Installation personnel shall be experienced in the installation, inspection and testing of premisses security systems.

.2 All equipment shall be installed in accordance with manufacturers instructions.

#### 3.2 Cabling

.1 Camera systems are hosted by the building local area network. Refer to the related specification governing ethernet networks products and installation.

#### 3.3 Cameras

- .1 Install cameras at designated locations, connected to local area network, DCHP IP assignment by router.
- .2 Camera installation is to mitigate effects of ice, rain, wind, temperature extremes and other environmental factors.
- .3 Point of local area network connection shall not be easily accessible to the public.
- .4 Adjust camera aim, zoom and focus as necessary.
- .5 Avoid aiming camera directly into the sun, or backlighting of sufficient intensity to affect image quality.
- .6 If the installation location cannot avoid backlighting leading to image quality issues then the camera is to be equipped with automatic exposure compensation or be of a high dynamic range type.
- .7 Mounting bolts into building membrane must be gasketed to prevent moisture ingress.

#### END OF SPECIFICATION





#### NOTES AND SPECIFICATIONS

- 1. GENERAL INSTALL) ALL EQUIPMENT, MATERIALS, LABOUR, AND SERVICES NECESSARY TO FORM COMPLETE AND OPERATING SYSTEMS.
  - IS BEING PERFORMED.
- ENGINEER WITHIN 24 HOURS OF ISSUE.
- 5. IF ANY ASPECT OF THE DRAWINGS IS FOUND TO BE IN CONFLICT WITH THE REQUIREMENTS OF ANY AUTHORITY, THEN THE REQUIREMENTS OF THE AUTHORITY SHALL GOVERN.
- SITE CONDITIONS THAT MAY AFFECT THE WORK 7. THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE ARCHITECTURAL, MECHANICAL, CIVIL AND OTHER RELEVANT DRAWINGS.
- INHIBIT THE WORK OF OTHERS. 9. ANY WORK (EXISTING OR NEW) DAMAGED BY THE ELECTRICAL CONTRACTOR, OR THEIR SUBCONTRACTORS, SHALL BE MADE GOOD AT NO ADDITIONAL COST TO THE OWNER.
- WHICH CONFIGURATION AND OPTIONS WILL BE INSTALLED. NO EQUIPMENT IS TO BE ORDERED UNTIL SHOP DRAWINGS ARE APPROVED.
- STOLEN, OR DAMAGED PRIOR TO SUBSTANTIAL COMPLETION ACCEPTANCE SHALL BE REPLACED OR REDONE AT NO ADDITIONAL COST TO THE OWNER
- PROJECT COST SHALL BE COMMENCED WITHOUT WRITTEN APPROVAL FROM THE ENGINEER.
- ENGINEER.
- 15. THE ELECTRICAL CONTRACTOR SHALL GUARANTEE ALL NEW EQUIPMENT, MATERIALS, AND ASSOCIATED LABOUR FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE.
- AND LEGIBLY AND SHALL BE PROVIDED TO THE ENGINEER PRIOR TO FINAL ACCEPTANCE OF THE WORK. 17. AN ELECTRICAL MAINTENANCE MANUAL SHALL BE PROVIDED TO THE OWNER PRIOR TO FINAL ACCEPTANCE OF THE WORK.
- ELECTRICAL EQUIPMENT.
- BE 5MM HIGH WHERE SPACE PERMITS.
- 19. PANELS SHALL HAVE TYPE WRITTEN DIRECTORIES, CLEARLY IDENTIFYING THE LOAD OF EACH CIRCUIT. 20. PROVIDE 72 HOURS NOTICE TO THE OWNER AND ENGINEER THAT THE WORK IS SUBSTANTIALLY COMPLETE AND THAT A SITE REVIEW IS REQUESTED.
- AND SHALL BECOME THE PROPERTY OF THE OWNER.
- 2. BASIC MATERIALS AND METHODS
- 1. ALL EQUIPMENT SHALL BE NEW AND SPECIFICALLY INTENDED FOR THE PURPOSE USED UNLESS OTHERWISE STATED.
- TENDERING AGENCY / GENERAL CONTRACTOR PRIOR TO ENGINEERS EVALUATION OF THE PRODUCTS.
- AND REPLACED WITH THE SPECIFIED PRODUCT AT NO COST TO THE OWNER.
- ELEMENTS. 6. ALL PRODUCTS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. 7. ALL EQUIPMENT SHALL BE SECURELY MOUNTED, OR SEISMICALLY RESTRAINED AS REQUIRED BY THE BRITISH COLUMBIA BUILDING CODE.
- 3. DISTRIBUTION, PROTECTION, AND WIRING METHODS.
- 1. WIRE NO 10 AND SMALLER SHALL BE COPPER, SOLID, UNLESS OTHERWISE INDICATED. IF LARGER THAN #10, THEN THEY ARE TO BE STRANDED. 2. CONDUIT SHALL BE EMT OR RPVC UNLESS OTHERWISE INDICATED. ENT PERMITTED IN SUSPENDED SLABS.
- 3. USE OF NMD ALLOWED WHERE PERMITTED BY CODE.
- 4. RECEPTACLES TO BE BLACK, DECORA TYPE WITH STAINLESS PLATE. USB RECEPTACLES TO HAVE USB TYPE-A AND TYPE-C PORTS, LEVITON T5633 OR EQUIVALENT. 5. RECEPTACLES TO BE LABELLED WITH PANEL AND CIRCUIT NUMBER.
- 6. OUTLET LOCATIONS AND MOUNTING HEIGHTS SHALL BE CONFIRMED WITH THE PROJECT COORDINATOR ON SITE PRIOR TO INSTALL. 7. NEW ELECTRICAL PANEL TO BE SQUARE D NQ SERIES OR APPROVED ALTERNATIVE.

### 4. UTILITY COORDINATION

PROCESS AS REQUIRED. 2. CONTRACTOR TO CARRY COST OF POLE HOLD AND ANY MATERIALS REQUIRED FOR BUILDING POWER SUPPLY NOT PROVIDED BY BC HYDRO.

#### 3. OWNER WILL CARRY BC HYDRO DIRECT COSTS.

5. FIRESTOPPING AND FIRE RATED ASSEMBLIES 1. FIRE-STOPPING OF PENETRATIONS IN FIRE RATED SURFACES CAUSED BY ELECTRICAL INFRASTRUCTURE IS THE RESPONSIBILITY OF THIS DIVISION. 2. PROVIDE ELECTRICAL CONSULTANT WITH 48 HOUR'S NOTICE PRIOR TO CONCEALING ANY FIRE-STOPPING WORK. 3. OUTLET BOXES: METAL OR UL LISTED ELECTRICAL BOXES RATED APPROPRIATELY FOR THE FIRE SEPARATION (E.G. "CLASS 1 HR W") ARE TO BE USED IN FIRE RATED ASSEMBLIES.

# 6. NETWORK AND STRUCTURED WIRING

- 1. REFER TO SPECIFICATION 27 05 13 NETWORKING PRODUCTS AND METHODS SPECIFICATIONS AND SPECIFICATION 27 05 13 ETHERNET CAMERA SYSTEM SPECIFICATIONS FOR FULL DETAILS. 2. CORE NETWORK INFRASTRUCTURE IS PART OF THE CONTRACTOR SCOPE OF WORK.
- 3. INSTALL NETWORK CONNECTIONS WHERE INDICATED. 4. HOME RUN ALL NETWORK CONNECTIONS TO THE STORAGE ROOM DATA RACK.
- 5. ELECTRICAL DIVISION TO PULL CABLING.

# 6. DATA OUTLETS FINISHED WITH STAINLESS PLATES.

- 7. LIGHTING AND CONTROLS
- 2. INTERIOR LIGHT FIXTURES FINISH/TRIM WHITE UNLESS OTHERWISE NOTED.
- 3. EXTERIOR LIGHT FIXTURES FINISH/TRIM BLACK UNLESS OTHERWISE NOTED.
- 4. ALTERNATE PRODUCT SUBMISSIONS FOR LIGHTING CONTROLS WILL NOT BE ACCCEPTED.
- 6. ALL LIGHT SWITCHES SHALL BE BLACK WITH STAINLESS PLATE.
- 8. EXIT SIGNS AND BACKUP LIGHTS
- 1. EXIT SIGNS ARE REQUIRED BY CODE AND SHALL BE ILLUMINATED BATTERY BACKED UP PICTOGRAM STYLE. 2. INSTALL DUAL REMOTE HEADS WHERE INDICATED. INSTALL BATTERY UNIT IN THE ELECTRICAL ROOM. SUPPLY POWER FROM LIGHTING CIRCUIT. 3. REFER TO SCHEDULE FOR BATTERY, EXIT SIGN, AND EMERGENCY LIGHTING PART NUMBERS.
- 9. DEMOLITION
- A. EXISTING LIGHTING TO BE REMOVED. B. REMOVE ALL EXISTING ELECTRICAL DEVICES AND WIRING. WIRING TO BE REMOVED BACK TO SUPPLY PANEL.
- C. EXISTING CONDUIT TO BE REMOVED WHERE PRACTICAL.

CEC LOAD CALCULATION: CEC AREA LOAD

C AREA LOAD:	10.4KW
EAT PUMPS / HVAC:	31.1KW
NGE	6KW
CHARGE:	6.2KW
DT WATER TANK @ 75% DEMAND:	2.3KW
TAL LOAD (CONSIDERED CONTINUOUS):	56KW
<b>IP DRAW</b> (120/208V THREE PHASE):	155.4A
COMMENDED SERVICE SIZE:	200A

1. THESE DRAWINGS ARE NOT INTENDED TO BE EXHAUSTIVELY COMPLETE, AND ARE DIAGRAMMATIC IN NATURE. THE INTENTION IS TO INDICATE SYSTEMS AND THEIR FUNCTION. THE ELECTRICAL CONTRACTOR SHALL PROVIDE (SUPPLY AND 2. THE ELECTRICAL CONTRACTOR SHALL OBTAIN ALL PERMITS AND LICENSES REQUIRED FOR THE WORK AND THE COST THEREOF SHALL BE INCLUDED IN THE CONTRACT PRICE. 3. ALL WORK SHALL MEET OR EXCEED THE REQUIREMENTS OF ANY AUTHORITY HAVING JURISDICTION AND THE AUTHORITY SHALL BE NOTIFIED OF THE WORK, IN ADVANCE OF ANY WORK BEING PERFORMED, AND AS REQUIRED WHILE THE WORK 4. COPIES OF ALL INSPECTION REQUESTS SHALL BE PROVIDED TO THE ENGINEER AT THE TIME OF SUBMISSION TO THE INSPECTION AUTHORITY. COPIES OF ALL INSPECTION REPORTS ISSUED BY THE AUTHORITY SHALL BE SUBMITTED TO THE Consulting Electrical Engineers 1822 Comox Avenue Unit E Comox, BC V9M 3M7 6. THE ELECTRICAL CONTRACTOR SHALL EXAMINE THE SITE AND SHALL BECOME AWARE OF EXISTING CONDITIONS, SERVICES, AND SYSTEMS PRIOR TO COMMENCING WORK OR ORDERING MATERIALS, AND SHALL NOTIFY THE ENGINEER OF ANY www.muireng.ca brian@muireng.ca 8. THE ELECTRICAL CONTRACTOR SHALL BECOME FAMILIAR WITH THE WORK OF ALL OTHER TRADES, AND SHALL COORDINATE THE ELECTRICAL WORK SO THAT IT DOES NOT DAMAGE ANY EXISTING WORK AND SO THAT IT DOES NOT DELAY OR (250) 890 0870 DPYRIGHT RESERVED: THIS DRAWING AND ALL 10. SHOP DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER BY ELECTRONIC MAIL. WHERE SHOP DRAWINGS DESCRIBE COMMERCIAL PRODUCTS WITH VARIABLE CONFIGURATIONS OR OPTIONS THEN THE DRAWINGS MUST CLEARLY INDICATE COPYRIGHT THEREIN ARE THE SOLE AND EXCLUSIVE PROPERTY OF THE CONSULTANT. 11. CHECK ALL DIMENSIONS ON SITE BEFORE ORDERING OR PLACING MATERIAL, TO ENSURE THAT LENGTHS, SIZE, ETC. OF NEW MATERIALS/EQUIPMENT ARE COMPATIBLE WITH SITE CONDITIONS. REPRODUCTION OR USE OF THIS DRAWING IN 12. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MATERIALS, EQUIPMENT, TOOLS, AND WORK COMPLETE OR IN PROGRESS UNTIL SUBSTANTIAL COMPLETION ACCEPTANCE BY THE ENGINEER. ANY MATERIAL OR WORK LOST, WHOLE OR IN PART IS PROHIBITED AND MAY NOT BE USED WITHOUT THE WRITTEN CONSENT 13. FOR ANY CONTEMPLATED CHANGE TO THE WORK A CONTEMPLATED CHANGE NOTIFICATION (CCN) SHALL BE ISSUED. IN RESPONSE, THE CONTRACTOR SHALL SUBMIT A PRICE TO THE ENGINEER FOR CONSIDERATION. THE PRICE SHALL BE OF THE CONSULTANT. DETAILED, SHOWING MATERIAL (MATERIAL QUANTITIES, UNIT COSTS, AND EXTENDED COST), LABOUR (LABOUR QUANTITIES, UNIT COSTS AND EXTENDED COSTS), OVERHEAD, PROFIT, AND TAXES. NO WORK THAT WILL CAUSE A CHANGE TO THE PROJECT: 14. THE ELECTRICAL CONTRACTOR SHALL TEST ALL SYSTEMS TO ENSURE PROPER OPERATION. WHERE PRACTICAL ALL TESTING SHALL BE DONE ON THE SAME DAY, AND THE ENGINEER SHALL BE NOTIFIED AT LEAST 48 HOURS IN ADVANCE AND GIVEN THE OPPORTUNITY TO OBSERVE. THE ELECTRICAL CONTRACTOR SHALL SUBMIT A LETTER TO THE ENGINEER ATTESTING TO THE PROPER OPERATION OF ALL SYSTEMS AND SHALL NOT CONSIDER THE WORK COMPLETE UNTIL ACCEPTED BY THE 16. ONE SET OF DRAWINGS ("THE RECORD DRAWINGS") SHALL BE KEPT FOR THE SOLE PURPOSE OF SHOWING CHANGES TO THE WORK OR DEVIATION FROM THE WORK SHOWN ON THE TENDER DRAWINGS. THE CHANGES SHALL BE RECORDED NEATLY PORT ALBERNI A. THE MANUAL SHALL HAVE A HARD COVER, THREE-RING OR POST TYPE BINDING, WITH LARGE BLOCK LETTERS ON THE FRONT SHOWING: PROJECT NAME/DATE/'ELECTRICAL MAINTENANCE MANUAL' COMMUNITY B. THE MANUAL SHALL CONTAIN A LETTER OF WARRANTY, A COPY OF "AS-BUILT" DRAWINGS, THE ELECTRICAL EQUIPMENT SHOP DRAWINGS, AND ANY INFORMATION REQUIRED FOR THE MAINTENANCE AND OPERATION OF ALL NEW SAFETY CENTRE C. FOR SMALL PROJECTS PROVIDE ONE HARD COPY AND ONE ELECTRONIC COPY ON USB STICK. FOR LARGE PROJECTS (ELECTRICAL VALUE EXCEEDING \$300K) PROVIDE TWO HARD COPY MANUALS. 18. ALL DISCONNECTS, STARTERS, SWITCHES, PANEL, ETC. SHALL BE IDENTIFIED WITH LAMICOID 3MM THICK PLASTIC ENGRAVED NAMEPLATES, WITH BLACK FACE AND WHITE LETTERING. THE LETTERING SHALL BE 3MM HIGH MINIMUM AND SHALL 21. AFTER ACCEPTANCE OF THE WORK BY THE ENGINEER, THE CONTRACTOR SHALL DEMONSTRATE AND EXPLAIN THE OPERATION AND MAINTENANCE OF ALL SYSTEMS TO THE OWNER. THE RECORD DRAWING SHALL BE REVIEWED WITH THE OWNER ADDRESS: 2. PRODUCTS OTHER THAN THOSE SPECIFIED WILL BE CONSIDERED, UNLESS SPECIFICALLY STATED OTHERWISE. SHOULD ANY BIDDER PROPOSE TO USE MATERIALS OR EQUIPMENT OTHER THAN THAT SPECIFIED OR SHOWN ON THE DRAWING, THEN A REQUEST TO USE THE ALTERNATE SHALL BE SUBMITTED TO THE ENGINEER NO LATER THAN 96 HOURS BEFORE THE TENDER CLOSES. THE RESPONSIBILITY FOR DEMONSTRATING EQUALITY OR SUPERIORITY OF PROPOSED ALTERNATES REST WITH THE PROPONENT OF THE PROPOSED ALTERNATE, AND ALL MATERIALS NEEDED TO DETERMINE EQUALITY OR SUPERIORITY SHALL BE INCLUDED WITH THE SUBMISSION. THE DETERMINATION OF THE ENGINEER SHALL BE FINAL. 3075 THIRD AVE, 3. ALTERNATE REQUESTS MUST BE SUBMITTED THROUGH THE TENDERING AGENCY / GENERAL CONTRACTOR. DIRECT SUBMISSION TO THE ENGINEER NOT ACCEPTED, AND SUPPLIERS OF THE ALTERNATE PRODUCTS SHALL BE APPROVED BY THE PORT ALBERNI 4. ANY PRODUCT THAT IS INSTALLED WHICH IS NOT IN COMPLIANCE WITH THE DRAWINGS AND SPECIFICATIONS AND WHICH HAS NOT BEEN APPROVED THROUGH THE PRECEDING PROCESS SHALL, IF SO DIRECTED BY THE ENGINEER, BE REMOVED BC, V9Y 2A4 5. ALL WORKMANSHIP SHALL BE OF "HIGH QUALITY". ALL EQUIPMENT AND DEVICES SHALL BE LEVEL AND SHALL ALIGN VERTICALLY OR HORIZONTALLY. ALL WIRING SHALL BE INSTALLED PERPENDICULAR OR HORIZONTAL TO ARCHITECTURAL CLIENT: **CITY OF PORT** ALBERNI 1. ONCE AWARDED THE CONTRACT FOR THIS PROJECT THE ELECTRICAL CONTRACTOR SHALL ASSUME COORDINATION RESPONSIBILITY WITH RELEVANT UTILITY COMPANIES, I.E. BC HYDRO, TELUS, AND/OR SHAW. THIS ENGINEER WILL SUPPORT THE **DESIGNED BY:** MJA DRAWN BY: 4. AVOID INSTALLING OUTLET BOXES ON OPPOSITE SIDES OF FIRE SEPARATION IN SAME STUD CAVITY. IF THIS REQUIREMENT CANNOT BE ACHIEVED THEN BOXES MUST BE EQUIPPED WITH INTUMESCENT PUTTY PADS, HITLI CPS-P PA OR EQUAL BSL SCALE: As indicated 2021 2021 2021 2021 Oct. 4, 2 Nov. 2, 2 Nov. 19, 2 Dec. 23, 2 1. LIGHTING CONTROLS ARE TO ASHRAE 90.1 REQUIREMENTS, AS ADOPTED BY THE BC BUILDING CODE. AS SUCH, ALL LIGHTS MUST BE UNDER EITHER TIMER OR SENSOR CONTROL. REFER TO CONTROL DIAGRAMS. 5. LIGHTING CONTROL CABLES IN SAME RACEWAY OR IN CONTACT WITH A/C CABLES MUST CARRY INSULATION RATINGS EXCEEDING THE A/C VOLTAGE. I.F. I.F. I.F. A B O D **REVISION:D** SEAL: **Muir Engineering Ltd** PTP# 1001549 SHEET TITLE: SITE PLAN Project Number: 2175 SHEET E01 3

**TAGS** A-22,24 CIRCUIT TAG: PANEL-CIRCUIT

- PROJECTOR. CAT6 CABLE TO ROUTER AND DUAL HDMI FROM LOCATION SHOWN BY NOTE B HDMI TO BE RUN IN 1" ENT. DUAL HDMI CONNECTION TO PROJECTOR (SEE NOTE A). EXTERIOR DATA TO BE ROUGH IN ONLY FOR FUTURE SECURITY CAMERAS LIGHT SWITCHES IN THIS LOCATION ARE FOR CONTROL OF EXTERIOR LIGHTS, FOYER LIGHTS AND CORRIDOR/RECEPTION LIGHTS. SEE LIGHTING CONTROL DIAGRAMS FOR PART NUMBERS.
- POE SPEAKER PROVIDED BY OWNER. CAT6 DATA CONNECTION REQUIRED.
- MOUNTING HEIGHT AT 60" AFF.



![](_page_10_Figure_8.jpeg)

			LIG	HTING	FIXTURE	SCHEDULE
ID	DESCRIPTION	MOUNTING	VOLTAGE	LOAD	LUMENS	MANUFACTURE
A1	2'X4' LED TROFFER,	CEILING, RECESSED	120 V	39 W	5000 lm	EATON LIGHTIN
A2	2'X4' LED TROFFER,	CEILING, RECESSED	120 V	27 W	3500 lm	EATON LIGHTIN
B1	2'X2' LED TROFFER,	CEILING, RECESSED	120 V	26 W	4400 lm	EATON LIGHTIN
B2	2'X2' LED TROFFER	CEILING, RECESSED	120 V	26 W	3400 lm	EATON LIGHTIN
BL2	12V REMOTE DUAL BACKUP LIGHT	WALL MOUNT, 7' / 2130MM AFF OR AS INDICATED	12 V	10 W		AIMLITE
R1	6" ROUND DOWNLIGHT	CEILING, RECESSED	120 V	33 W	2200 lm	LITELINE
R2	4" COLOUR SELECTABLE ROUND DOWNLIGHT	CEILING, RECESSED	120 V	14 W	1200 lm	EATON LIGHTIN
S1	8' LED STRIP LIGHT - LENSED	CEILING, SURFACE	120 V	61 W	7630 lm	EATON LIGHTIN
S2	4' LED STRIP LIGHT - LENSED	CEILING, SURFACE	120 V	35 W	4210 lm	EATON LIGHTIN
S3	2' LED STRIP LIGHT - LENSED	CEILING, SURFACE	120 V	21 W	2450 lm	EATON LIGHTIN
Т	GOOSENECK AREA LIGHT	WALL, SURFACE	120 V	20 W	560 lm	ABOVE ALL LIGHTING
V	24" LED VANITY	WALL, SURFACE	120 V	21 W	1746 lm	MODERN FORMS
Х	PICTOGRAM EXIT SIGN	WALL MOUNT, 7' / 2130MM AFF OR AS INDICATED	120 V	2 W		AIMLITE

	SECURITY SYMBOL LEGEND							
	DESCRIPTION	TYPICAL MOUNTING HEIGHT						
MS	MOTION SENSOR	CEILING MOUNTED						
O	SECURITY CAMERA (DOME)	CEILING MOUNTED						
$\Theta$	SECURITY SMOKE DETECTOR	CEILING MOUNTED						
$\langle D \rangle$	DOOR TAG - SEE TABLE							
P	SECURITY PANEL	60" / 1500MM AFF						
오	DOOR CONTROL CARD READER	54" / 1400MM AFF						
MS	MOTION SENSOR TO SECURITY SYSTEM	6'10" / 2100MM AFF						
K	SECURITY KEYPAD	54" / 1400MM AFF						

	Panel: A												
	Location: ELEC. RM 2 Supply From: SWITCH A Mounting: Surface Moun Enclosure: NEMA 1 Notes:	Volts: 120/208 Wye Phases: 3 Wires: 4						A.I.C. RATING: 10KA 225A RATED MCB 225A					
скт	Circuit Description	Trip	Poles		4	E	3			Poles	Trip	Circuit Description	скт
1	KITCHEN COUNTER	20 A	1	1500	1000		-			1	15 A	MICROWAVE	2
3	REFRIGERATOR	15 A	1			700	3000						4
5	LUNCH/MEETING RECEPTACLES	15 A	1					400	3000	2	40 A	RANGE	6
7	ELEC ROOM 1.2 RECEPTACLES	15 A	1	400	1000					1	15 A	POWER CONNECTION	8
9	STORAGE RECEPTACLES	15 A	1			400	900			1	15 A	OFFICE 3 RECEPTACLES	10
11	OFFICE 3 RECEPTACLES	15 A	1					900	1200	1	15 A	OFFICE 2 RECEPTACLES	12
13	OFFICE1 RECEPTACLES	15 A	1	1200	1200					1	15 A	OFFICE 4 RECEPTACLES	14
15	RECEPTION RECEPTACLES	15 A	1			900	600			1	15 A	CORRIDOR RECEPTACLES	16
17	PHOTOCOPIER	15 A	1					500	4798				18
19				1000	4798					3	50 A	HEAT PUMP. RTU-1	20
21	HOT WATER TANK	15 A	3			1000	4798			-			22
23								1000	4798				24
25	LIGHTS. INTERIOR	20 A	1	1699	4798					3	50 A	HEAT PUMP. RTU-2	26
27	LIGHTS. EXTERIOR	15 A	1			251	4798			-			28
29	SECURITY PANEL	15 A	1					100	1000	1	20 A	ROOFTOP RECEPTACLES	30
31	RANGE HOOD	15 A	1	500	500					1	15 A	BOTTLE FILLING STATION	32
33		4- 4				1144	3600						34
35	HEAT PUMP, CU-1	15 A	2					1144	3600	2	50 A	EV CHARGING STATION	36
37	FOYER	15 A	1	500	1200					1	15 A	BATHROOM GFCI	38
39	DATA RACK	15 A	1			750	600			1	15 A	FRONT RECEPTION	40
41	DATA RACK	15 A	1					750	300	1	15 A	FRONT RECEPTION	42
43													44
45													46
47													48
49													50
51													52
53													54
			Total VA:	2129	2 VA	2319	6 VA	2324	5 VA				·
		17	177 A 196 A		6 A	196 A							

RTU-2 A-24,26,28

![](_page_11_Figure_2.jpeg)

3/16" = 1'-0"

![](_page_11_Figure_4.jpeg)

	SCHEDULE OF MECHANICAL MOTOR LOADS											
NOTE 1:	OTE 1: DISCONNECT IS TO BE PROVIDED PER CEC 28-600 - 28-604 UNLESS A COMPLIANT MEANS OF DISCONNECT IS INCLUDED WITH THE EQUIPMENT SUPPLIED.											
ID	DESCRIPTION	LOCATION	SUPPLY	LOAD	FLA	MCA	MOCP	PANEL	CIRCUIT	DISCONNECT	NOTES	
CU-1	HEAT PUMP		208 V/1ø/60 Hz	2288 W	11.0 A	11 A	30 A	A	33,35	REQUIRED, REFER TO NOTE 1	CONTROLS BY MECH	
EF-1	FAN		120 V/1ø/60 Hz	120 W	1.0 A	15 A	15 A	A	25	REQUIRED, REFER TO NOTE 1.	AC CONTROL SUPPLIED BY MECHANICAL.	
										ONLY TO AUTHORIZED USERS.	WINING DI LELCINICAL DIVISION.	
EF-2	FAN		120 V/1ø/60 Hz	120 W	1.0 A	15 A	15 A	A	25	REQUIRED, REFER TO NOTE 1.	AC CONTROL SUPPLIED BY MECHANICAL.	
										DISCONNECT TO BE ACCESSIBLE	WIRING BY ELECTRICAL DIVISION.	
										ONLY TO AUTHORIZED USERS.		
EF-3	FAN		120 V/1ø/60 Hz	120 W	1.0 A	15 A	15 A	A	25	REQUIRED, REFER TO NOTE 1.	CONTINUOUS RUN or INTERLOCKED WITH	
										DISCONNECT TO BE ACCESSIBLE	SWITCH/SENSOR	
										ONLY TO AUTHORIZED USERS.		
EF-4	FAN		120 V/1ø/60 Hz	120 W	1.0 A	15 A	15 A	A	25	REQUIRED, REFER TO NOTE 1.	CONTINUOUS RUN	
										DISCONNECT TO BE ACCESSIBLE		
										ONLY TO AUTHORIZED USERS.		
RTU-1	HEAT PUMP		208 V/3ø/60 Hz	14394 W	40.0 A	44 A	50 A	A	18,20,22	REQUIRED, REFER TO NOTE 1	CONTROLS BY MECH	
RTU-2	HEAT PUMP		208 V/3ø/60 Hz	14394 W	40.0 A	44 A	50 A	A	24,26,28	REQUIRED, REFER TO NOTE 1	CONTROLS BY MECH	

![](_page_11_Picture_6.jpeg)

	DOOR ELECTRICAL COMPONENT TABLE										
	DOOR	ELECTRIC	KEY SWIPE	KEY SWIPE	MAGNETIC	REQUEST	POWER DOOR	OPERATOR			
ID	CONTACTS	STRIKE	IN	OUT	HOLD OPEN	TO EXIT	OPERATOR	CIRCUIT	NOTES		
1	•	•	•			•					
2	•	•	•						BUTTON ACCESS TO WASHROOM C/W ACCESS OVERRIDE		
3	•	•	•			•					
14	•	•	•			•					
15	•	•	•			•					

ITEM	SUPPLY	COMMISIONED	INSTALL	WIRING	COMMENTS						
ELECTRIC STRIKE	DOOR	DOOR	DOOR	2C18 CABLE							
KEY SWIPE	ELEC	ELEC	ELEC	5C22 TWISTED IN CONDUIT							
MAG HOLD OPEN	ELEC	ELEC	ELEC	2C18 CABLE							
POWER OPERATOR	DOOR	ELEC	ELEC	2C#12 CABLE							
POWER TRANSFER HINGE	DOOR	ELEC	DOOR	3C18 CABLE							
REQUEST TO EXIT	DOOR	ELEC	ELEC								
WIRELESS DOOR ACCESS HUB	DOOR	DOOR	ELEC	UTP CABLE							
WIRELESS DOOR LOCK	DOOR	DOOR	DOOR	NA							

![](_page_11_Picture_9.jpeg)

**2** ELECTRICAL ROOM 1 - ELEVATION

-EXISTING METER AND DISCONNECT ARE UNUSED. CONTRACTOR TO REMOVE.

:	SCHEDULE OF RESISTIVE HEATING AND NON MOTORIZED MECHANICAL								
	DESCRIPTION	LOCATION	LOAD	PANEL	CIRCUIT	COMMENTS			
	HOT WATER TANK	STORAGE	3000 W	А	19,21,23				

	SECURITY SYMBOL LEGEND									
	DESCRIPTION	TYPICAL MOUNTING HEIGHT								
MS	MOTION SENSOR	CEILING MOUNTED								
$\bigcirc$	SECURITY CAMERA (DOME)	CEILING MOUNTED								
$\Theta$	SECURITY SMOKE DETECTOR	CEILING MOUNTED								
	DOOR TAG - SEE TABLE									
	SECURITY PANEL	60" / 1500MM AFF								
오	DOOR CONTROL CARD READER	54" / 1400MM AFF								
MS	MOTION SENSOR TO SECURITY SYSTEM	6'10" / 2100MM AFF								
К	SECURITY KEYPAD	54" / 1400MM AFF								

1. SECURITY SYSTEM

1. CONTRACTOR TO ENGAGE PORTTECH SECURITY FOR ALARM COMMISSIONING.

2. CONTRACTOR TO COMPLETE WIRING AND MOUNTING OF ALL SECURITY EQUIPMENT. 3. INSTALL DOOR CONTACTS AT ALL EXTERIOR DOORS WIRED BACK TO SECURITY PANEL LOCATION. 4. PROVIDE DEDICATED CIRCUIT FOR SECURITY PANEL.

2. CAMERA SYSTEM

1. CAMERAS SUPPLIED AND INSTALLED BY THIS DIVISION. REFER TO PLAN FOR LOCATIONS. 2. REFER TO SPECIFICATION "27 05 13 - ETHERNET CAMERA SYSTEMS" FOR CAMERA REQUIREMENTS.

#### DECORATIVE GOOSENECK FIXTURE ABOVE CANOPY—

![](_page_11_Picture_21.jpeg)

**4** EXTERIOR BUILDING ELEVATION

![](_page_11_Picture_23.jpeg)