

## Twin Falls Fire Station 2 Addendum #3 CRA# 2020-538 February 21, 2022

ISSUED TO:

CONTACT	COMPANY	PHONE	EMAIL

GENERAL INFORMATION	
<b>ADM #.1</b>	<p>Manufacturer Equipment Approvals: Approvals are based on manufacturers only. Contractors are responsible for bidding on equipment equivalent in size and performance to that specified. The Contractor is also responsible for all special electrical wiring or other field adaptations required for equipment used other than that shown in the original project design. All equipment shall bear the UL label.</p> <p>Section 237447 - Add CaptiveAire as approved manufacturer</p>
SPECIFICATIONS	
SECTION 23 74 47 - Rooftop Heating and Cooling Units	
<b>ADM #.2</b>	Added section.
SECTION 23 09 93 - Sequences of Operation for Mechanical Systems	
<b>ADM #.3</b>	Added section
ELECTRICAL DRAWINGS	
SHEET E0.02 - Electrical Schedules - REPLACE IN ITS ENTIRETY	
<b>ADM #.4</b>	Lighting control matrix: Connected kitchen / day room to central lighting control system.
<b>ADM #.5</b>	Lighting control matrix: Removed interface between sleeping room lights and emergency response panel.
<b>ADM #.6</b>	General equipment schedule: Update breaker size for dryer.
SHEET E2.11 - Level 1 - Lighting Plan - REPLACE IN ITS ENTIRETY	
<b>ADM #.7</b>	Assigned correct lighting control method for recessed exterior lights.
SHEET E2.21 - Level 1 - Power Plan - REPLACE IN ITS ENTIRETY	
<b>ADM #.8</b>	Added receptacle for stacked dryer in Decon room.
<b>ADM #.9</b>	Relocated junction box for heat trace to match updated roof drain location.
SHEET E2.31 - Level 1 - Fire Alarm Plan - REPLACE IN ITS ENTIRETY	
<b>ADM #.10</b>	Added carbon monoxide sensors to hallways connecting sleep rooms to apparatus bay to comply with NFPA 72.
SHEET E4.01 - Electrical Panel Schedules - REPLACE IN ITS ENTIRETY	
<b>ADM #.11</b>	Updated circuiting for app bay overhead doors and added circuit for fire alarm bell.
SHEET E5.01 - Electrical Details - REPLACE IN ITS ENTIRETY	
<b>ADM #.12</b>	Added circuit for Decon dryer.
<b>ADM #.13</b>	Updated breaker size for dryers.

<b>TECHNOLOGY DRAWINGS</b>	
<b>SHEET T0.01 – Technology Legends &amp; Notes Schedules – REPLACE IN ITS ENTIRETY</b>	
<b>ADM #.14</b>	Added abbreviation for mullion mount.
<b>SHEET T2.21 – Technology Floor Plan Series – REPLACE IN ITS ENTIRETY</b>	
<b>ADM #.15</b>	Relocated alerting system button in entry vestibule.

The preceding addendum shall be made a portion of the Contract Documents, and each bidder shall acknowledge receipt of the same in submitting bids. All other conditions and requirements of the Contract Documents will remain unchanged.

**END OF Addendum #3**

Attachments:

SHEETS: E0.02 – Electrical Schedules; E2.11 – Level 1 – Lighting Plan; E2.21 – Level 1 – Power Plan; E2.31 – Level 1 – Fire Alarm Plan; E4.01 – Electrical Panel Schedules; T1.01 – Technology Legends & Notes; T2.21 – Level 1 – Technology Floor Plan Series

SPECIFICATION: SECTION 23 74 74 - Rooftop Heating and Cooling Units; SECTION 23 09 93 - Sequences of Operation for Mechanical Systems

JLJ/BQL/KEO/jq

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## **SECTION 23 09 93 - SEQUENCES OF OPERATION FOR MECHANICAL SYSTEMS**

### **PART 1 - GENERAL**

#### **1.1 DESCRIPTION OF WORK:**

- A. Sequence of operation is hereby defined as the manner and method by which controls function. Requirements for each type of control system operation are specified in this section.
- B. Operating equipment, devices, and system components required for control are specified in other Division 23 sections of these specifications.

### **PART 2 - PRODUCTS**

#### **2.1 SYSTEM REQUIREMENTS:**

- A. Provide control systems consisting of thermostats, dampers, operators, indicating devices, interface equipment, and other apparatus required to operate mechanical system and to perform functions specified.
- B. Provide necessary materials and field work necessary to connect control components factory supplied as part of equipment controlled, unless specified otherwise.
- C. Provide all necessary relays to make the system a full and operable system as required by the sequence of operation.

### **PART 3 - EXECUTION**

#### **3.1 TERMINAL UNITS' CONTROL SEQUENCES:**

- A. Gas Fired Infrared Heaters: Provide a wall-mounted controller with thermostat to cycle the infrared heater burners on and off to maintain thermostat setting.
- B. Electric Unit Heaters: Provide a wall-mounted thermostat to cycle the electric heating element and fan motor on and off to maintain thermostat setting.
- C. Electric Heating Duct Coil (EHC-1 thru 8): Control via corresponding fan coil unit (FCU) control board.
- D. Electric Heating Duct Coil (EHC-9): Provide a wall-mounted thermostat to cycle the electric heating element on and off to maintain the thermostat setting.

#### **3.2 AIR HANDLER CONTROL SEQUENCES:**

- A. Make Up Air Unit MAU-1:

1. Operation of MAU-1 shall be interlocked with operation of EF-1.
  2. Unit shall operate on factory controls. Whenever the unit is started the outside air and exhaust air dampers shall open and the fans shall cycle on through an interlock. Gas furnace section shall modulate to maintain discharge air temperature.
  3. MAU-1 shall shutdown upon shutdown of EF-1.
- B. Rooftop Unit(s) RTU-1 and 2:
1. Provide a wall-mounted thermostat to maintain thermostat setting and to provide ON/OFF control of fan per 23 74 16.11.
  2. Supply fan shall run continuously.
  3. Unit shall operate on factory controls.
- C. Energy Recovery Ventilators(s) ERV-1 and 2:
1. Provide a wall-mounted controller to provide ON/OFF control of unit.
  2. Unit supply and exhaust fan shall run continuously.
  3. Unit shall operate on factory controls.
- 3.3 EXHAUST AND DESTRATIFICATION FANS:
- A. EF- 1: Exhaust air fan shall run upon with ON/OFF control as initiated by carbon monoxide (CO) at 25 parts per million (adjustable) or nitrogen dioxide detectors (NO<sub>2</sub>) at 100 parts per billion (adjustable). Fan shall continue to run until below threshold values.
  - B. EF-2, 3: Exhaust air fan shall run continuously with ON/OFF control through switch.
  - C. EF-4, DF-1 and DF-2: Exhaust air fan shall run upon with ON/OFF control from local switch.
- 3.4 HEAT PUMP CONTROL SEQUENCE (FCU-1 THRU 8/CU-1 THRU 8):
- A. Provide wall mounted thermostat to provide cycling of the refrigeration system for cooling, DX heating and operation of electric duct heating coil to maintain thermostat setting.
- 3.5 SPLIT SYSTEM CONTROL SEQUENCE (DS-1/DSO-1):
- A. Provide wall mounted thermostat to provide cycling of the refrigeration system for cooling.
- END OF SECTION 230993

## **SECTION 23 74 43 - ROOFTOP HEATING AND COOLING UNITS**

### **PART 1 - GENERAL**

#### **1.1 DESCRIPTION OF WORK:**

- A. Extent of packaged rooftop heating and cooling units work required by this section is indicated on drawings and schedules, and by requirements of this section.
- B. Refer to other Division 23 sections for metal ductwork, air devices, automatic temperature controls not factory-installed, and required for conjunction with packaged heating and cooling units; not work of this section.
- C. Electrical Work: Refer to Division 23 section "23 05 07 - Motor, Drives, Motor Controllers and Electrical Requirements for Mechanical Equipment" for requirements.

#### **1.2 SUBMITTALS:**

- A. Product Data: Submit manufacturer's technical product data, including rated capacities of selected model clearly indicated, dimensions, required clearances, weights, furnished specialties and accessories; and installation and start-up instructions.
- B. Shop Drawings:
  - 1. Submit shop drawings detailing the manufacturer's electrical requirements for power supply wiring for rooftop heating and cooling units. Submit manufacturer's ladder-type wiring diagrams for interlock and control wiring. Clearly differentiate between portions of wiring that are factory-installed and portions to be field-installed.
  - 2. Submit shop drawings detailing the mounting, securing, and flashing of the roof curb to the roof structure. Indicate coordinating requirements with roof membrane system.
- C. Record Drawings: At project closeout, submit record drawings of installed systems products in accordance with requirements of Division 23.
- D. Maintenance Data: Submit maintenance data and parts list for each rooftop heating and cooling unit, control, and accessory, including "trouble- shooting" maintenance guide. Include this data in maintenance manual; in accordance with requirements of Division 23.

#### **1.3 QUALITY ASSURANCE:**

- A. Manufacturer's Qualifications: Firms regularly engaged in manufacture of rooftop heating and cooling units, of types and capacities required, whose products have been in satisfactory use in similar service for not less than 5 years.
- B. Codes and Standards:
  - 1. Gas-fired furnace section construction shall be in accordance with AGA safety standards. Furnace section shall bear the AGA label.
  - 2. Provide rooftop units which are UL listed and labeled.
  - 3. Rooftop units shall be designed, manufactured, and tested in accordance with UL requirements.

1.4 DELIVERY, STORAGE, AND HANDLING:

- A. Handle rooftop units and components carefully to prevent damage. Replace damaged rooftop units or components with new.
- B. Store rooftop units and components in clean dry place, off the ground, and protect from weather, water, and physical damage.
- C. Rig rooftop units to comply with manufacturer's rigging and installation instructions for unloading rooftop units, and moving them to final location.

1.5 SCHEDULING AND SEQUENCING:

- A. Coordinate installation of roof mounting curb with roof structure.
- B. Coordinate roof opening locations and for mechanical and electrical connections.

1.6 MAINTENANCE:

- A. Extra Materials: Furnish to Owner, with receipt, the following spare parts for each rooftop heating and cooling unit:
  - 1. One set of matched fan belts for each belt-driven fan.
  - 2. One set filters for each unit.

PART 2 - PRODUCTS

2.1 MANUFACTURERS:

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  - 1. Make Up Air Units:
    - a. Captive Aire
    - b. Reznor
    - c. Sterling
    - d. Trane
    - e. Aaon
    - f. Greenheck

2.2 MAKE-UP AIR UNITS:

- A. General: Provide factory-fabricated and factory-tested air handling units as indicated, or sizes and capacities as scheduled, and as specified herein.
- B. Components:
  - 1. Filters
  - 2. Supply Fan, Motors & Drive
  - 3. Furnace Section
  - 4. Controls
- C. Cabinet:

1. Factory painted enamel finish
2. Insulate walls and roof of cabinet
3. Include lifting lugs welded or bolted to the base of unit
4. Hinged and latched fan access door
5. Fan cabinet shall be horizontal duct outlet.

D. Fan:

1. Centrifugal fans with forward curved or backward inclined blades, AMCA certified
2. Motors shall be high efficiency, meeting criteria of Section 23 05 07.
3. Motor sheaves and drive belts shall be sized to eliminate belt squeal on start-up.
4. Filter rack with 2" 30% efficient pleated filters, factory installed.

E. Furnace Sections:

1. Indirect fired power vented
2. Heat exchanger shall be aluminized steel
3. Burners shall be aluminized steel
4. Furnace sections shall be equipped with the following safety and limit controls:
  - a. Redundant gas valve
  - b. Intermittent spark safety pilot
  - c. Differential air pressure switch
  - d. Electronic modulating gas control valves
  - e. Fire stat
  - f. Gas pressure safety switch
  - g. Air flow proving switch
  - h. The packaged make-up air system shall be certified and bear the label of AGA.

F. Controls:

1. Provide factory control module to provide the start/stop function of the unit, interlocks to exhaust fan and meet the Sequence of Operation.

G. Options:

1. Inlet dampers, with two position control actuator.
2. 2" thick 30% filters.
3. Fresh air inlet hood with birdscreen.
4. See schedules for additional accessories

### PART 3 - EXECUTION

#### 3.1 EXAMINATION:

- A. Examine areas and conditions under which rooftop units are to be installed. Do not proceed with work until unsatisfactory conditions have been corrected in manner acceptable to Installer.

#### 3.2 INSTALLATION:

- A. General: Install rooftop units in accordance with manufacturer's installation instructions. Install units plumb and level, firmly anchored in locations indicated, and maintain manufacturer's recommended clearances.

- B. Support: Install and secure roof curb to roof structure, in accordance with National Roofing Contractor's Association (NRCA) installation recommendations and shop drawings. Install and secure rooftop units on curbs and coordinate roof penetrations and flashing. Roof curb height shall be coordinated with the G.C. to be 12" above finished roof in the location of the equipment.
- C. Electrical Connections: Refer to Division 26 - Electrical Connections for Equipment for final connections to equipment and installation of loose shipped electrical components.

3.3 DEMONSTRATION:

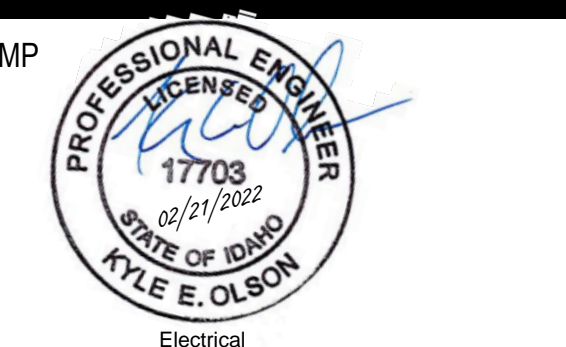
- A. Start-Up Services:
  - 1. Provide the services of a factory-authorized service representative to start-up rooftop units, in accordance with manufacturer's written start-up instructions. Test controls and demonstrate compliance with requirements. Replace damaged or malfunctioning controls and equipment.

END OF SECTION 23 74 43





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LIGHTING CONTROL MATRIX

COMMON NOTES: A. NOT ALL SPACE NAMES ARE LISTED FOR EACH LIGHTING CONTROL TYPE. REFER TO PLANS FOR ALL SPACES TO BE CONTROLLED. B. SPACES MAY CONTAIN MULTIPLE ZONES OF CONTROL. REFER TO PLANS FOR QUANTITY OF ZONES, SWITCHES, ETC. C. PROVIDE THE QUANTITY OF SENSORS AS REQUIRED FOR FULL COVERAGE OF THE SPACE. DEVICES SHOWN ON PLAN ARE FOR DESIGN INTENT ONLY AND DO NOT NECESSARILY REFLECT THE EXACT QUANTITY REQUIRED FOR FULL COVERAGE.

SPECIFIC REMARKS: 1. COORDINATE TIME SCHEDULE WITH OWNER. PROVIDE OCCUPANCY SENSORS FOR AFTERHOURS CONTROL. 2. COORDINATE TIME SCHEDULE WITH OWNER. PROVIDE 2-HOUR OVERRIDE SWITCH FOR AFTERHOURS CONTROL. 3. UTILIZE 'FLICK WARNING' PRIOR TO TIMED LIGHTING SHUTOFF.

KEY: M = MANUAL (SWITCH), A = AUTOMATIC (SENSOR), T = TIME SCHEDULE, P = EXTERIOR PHOTOCELL, #% = CONTROL TO #% LIGHT LEVEL. ON/OFF CONTROL: M = 0-10V DIMMING, ELV DIMMING, STEP DIMMING, DMX CONTROL.

Table with columns: TYPE, SPACE, ON, OFF, CONTROL, TECH, MOUNT, DELAY (MIN.), TARGET LEVEL (FO), MEASURED HEIGHT (IN), INTERFACE, NETWORK, EMERGENCY, REMARKS. Lists various rooms like EXTERIOR - SITE POLES, BUILDING UNITS, RESTROOM, LAUNDRY, MEPT, DECON/SHOP, etc.

LUMINAIRE SCHEDULE

COMMON NOTES: A. CATALOG NUMBER REFERS TO FIRST NAME LISTED UNDER MANUFACTURER PER LUMINAIRE TYPE. REMAINING MANUFACTURERS LISTED ARE CONSIDERED TO BE EQUIVALENT PRODUCTS FOR THIS PROJECT AND SHALL MEET ALL CRITERIA LISTED INCLUDING THAT LISTED FOR BY THE SPECIFIC LUMINAIRE CATALOG NUMBER.

SPECIFIC REMARKS: 1. VERIFY EXACT MOUNTING HEIGHT WITH ARCHITECT AND PROVIDE APPROPRIATE SUSPENSION LENGTH. 2. VERIFY FINISH WITH ARCHITECT. 3. REFER TO POLE BASE DETAIL FOR MORE INFORMATION.

Table with columns: TYPE, DESCRIPTION, COLOR, LAMP, LUMENS, TYPE, BALLAST/DRIVER, VOLTAGE, APPARENT LOAD, MANUFACTURER, CATALOG SERIES, FINISH, MOUNTING, REMARKS. Lists various luminaire models like D1, D3, D4, D5, E1, E2, E3, EW1, EW2, EW4, L2, L4A, L4B, L4C, S1, S2, S4, T1, T3, U1, W1, W2, X1, X3, X4.

MECHANICAL EQUIPMENT SCHEDULE

COMMON NOTES: A. PRIOR TO WORK, VERIFY ELECTRICAL REQUIREMENTS (VOLTAGE, AMPERAGE, RECOMMENDED OCPD, CONDUCTORS, AND DISCONNECT) FOR EACH PIECE OF EQUIPMENT. B. PRIOR TO WORK, VERIFY EXACT LOCATION FOR EACH PIECE OF EQUIPMENT.

SPECIFIC REMARKS: 1. INDOOR UNIT (FCU-x) FED FROM OUTDOOR UNIT (HP-x). REFER TO VENDOR SHOP DRAWINGS FOR ADDITIONAL DETAILS. 2. INDOOR UNIT (FCU-x) FED FROM OUTDOOR UNIT (DSO-x). REFER TO VENDOR SHOP DRAWINGS FOR ADDITIONAL DETAILS.

Table with columns: KEY, #, ITEM, HP, FLA, LOAD, EQ LOAD (VA), VOLTAGE, WIRE, FEEDERS, PROTECTION, REMARKS. Lists various mechanical equipment like AIR COMPRESSOR, CONDENSING UNIT, DOMESTIC CIRCULATION PUMP, EXHAUST FAN, ELECTRIC HEATING COIL, etc.

GENERAL EQUIPMENT SCHEDULE

COMMON NOTES: A. PRIOR TO WORK, VERIFY ELECTRICAL REQUIREMENTS (VOLTAGE, AMPERAGE, RECOMMENDED OCPD, CONDUCTORS, AND DISCONNECT) FOR EACH PIECE OF EQUIPMENT. B. PRIOR TO WORK, VERIFY EXACT LOCATION FOR EACH PIECE OF EQUIPMENT WITH ARCHITECT AND/OR OWNER.

Table with columns: KEY, ITEM, HP, FLA, LOAD, EQ LOAD (VA), VOLTAGE, WIRE, FEEDERS, PROTECTION, Notes. Lists various general equipment like COFFEE MAKER, DRYER, EXTRACTOR, GARBAGE DISPOSAL, etc.

Project: TWIN FALLS FIRE STATION 2

214 CHENEY DRIVE, TWIN FALLS, IDAHO



Table with columns: Addendum, Date. Lists addendums 01 and 02 with dates 2/14/22 and 2/21/22.

Project No: 20-041 Date: 1/17/22 Checked By: KO Drawn By: BL

ELECTRICAL SCHEDULES

Sheet Name: ELECTRICAL SCHEDULES

Sheet No: E0.02

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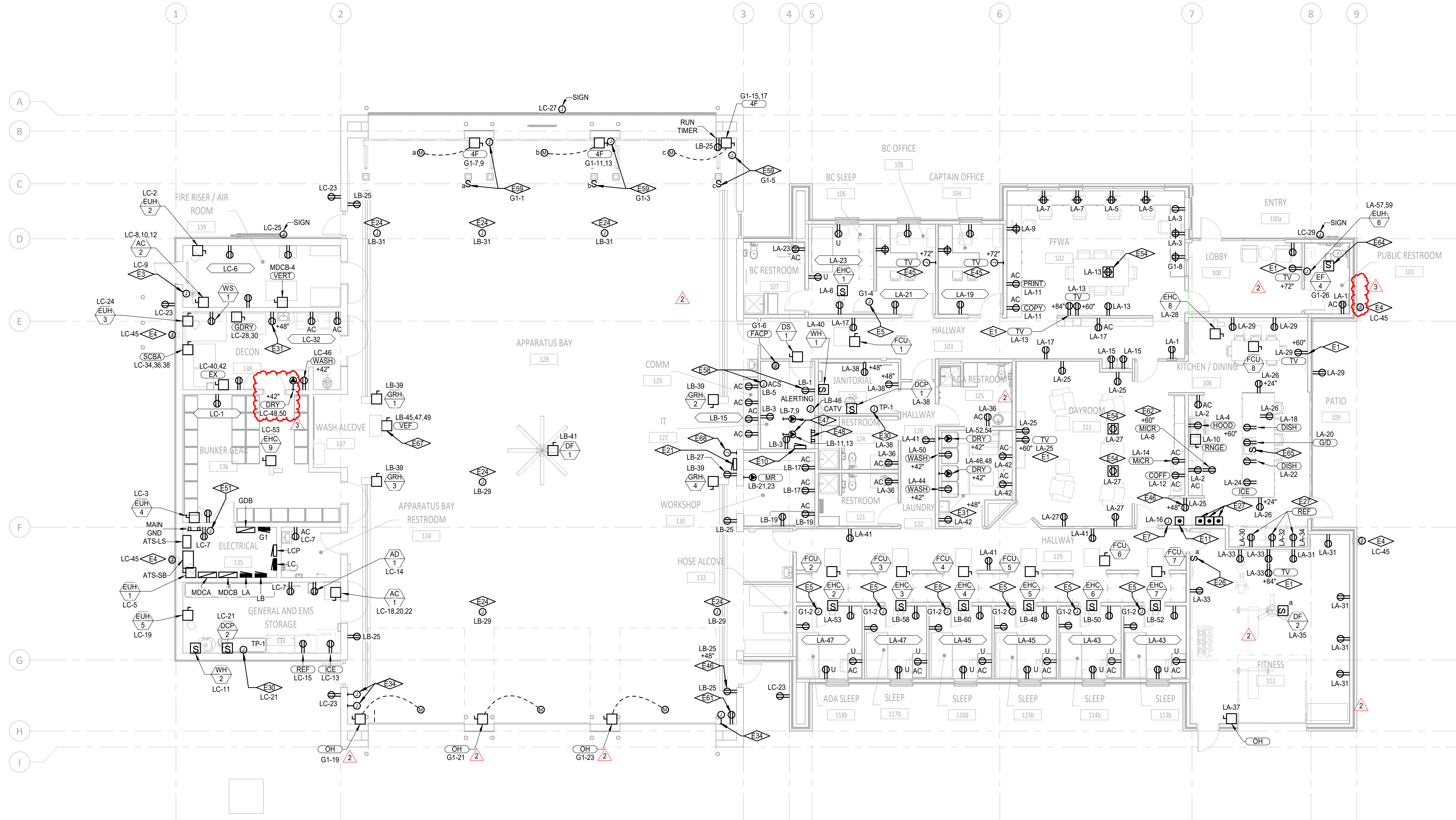
A

B

C

D

E



LEVEL 1 - POWER PLAN  
SCALE: 1/8" = 1'-0"

KEYNOTES	
E1	PROVIDE 2-GANG RECESSED WALL BOX (LEGRAND EFSB2 OR EQUIVALENT) FOR POWER AND DATA AT INDICATED HEIGHT. INSTALL DUPLEX RECEPTACLE IN WALL BOX. COORDINATE WITH TECHNOLOGY CONTRACTOR FOR ALL REQUIREMENTS.
E3	PROVIDE 120V CONNECTION TO MOTORIZED DAMPER. COORDINATE EXACT REQUIREMENTS WITH MECHANICAL CONTRACTOR.
E4	PROVIDE 120V CONNECTION TO ELECTRIC HEAT TRACE FOR DOWNSPOUT INDICATED. PROVIDE 30-MILLIAMP TRIP GFCI CIRCUIT BREAKER FOR CIRCUIT INDICATED.
E5	PROVIDE 120V CONNECTION TO FIRE ALARM SOUNDER BASE. COORDINATE EXACT REQUIREMENTS WITH FIRE ALARM VENDOR.
E7	PROVIDE 120V CONNECTION TO MOTORIZED GAS SHUTOFF VALVE. TIE INTO ALERTING SYSTEM RESPONSE PANEL FOR CONTROL. COORDINATE LOCATION OF SOLENOID AND ELECTRICAL REQUIREMENTS WITH MECHANICAL CONTRACTOR.
E10	FURNISH AND INSTALL NEMA 1 ENCLOSURE WITH LOCKABLE HINGED COVER FOR KITCHEN EQUIPMENT CONTACTORS. REFER TO DETAILS FOR ELECTRICAL REQUIREMENTS.
E11	PROVIDE PUSHBUTTON RESET TO RE-ACTIVATE KITCHEN CIRCUITS SHUT OFF VIA EMERGENCY RESPONSE PANEL. COORDINATE REQUIREMENTS WITH ALERTING SYSTEM INSTALLER.
E21	MAGNEGRIP DIESEL EXHAUST CONTROL PANEL. COORDINATE EXACT LOCATION PRIOR TO ROUGH-IN. COORDINATE REQUIREMENTS WITH EQUIPMENT VENDOR.
E24	PROVIDE SURFACE MOUNTED JUNCTION BOX AND 30A SO CORD REEL WITH SIMPLEX RECEPTACLE AND ASSOCIATED STRAIN RELIEF MOUNTED AT APPROXIMATELY 6' AFF FOR SHORE POWER AT APPROXIMATE LOCATION INDICATED. ROUTE (1) 1" CONDUIT WITH #10 AND #10 GND TO CORD REEL. COORDINATE INSTALLATION WITH OWNER PRIOR TO ROUGH-IN. REFER TO SURFACE MOUNTED CORD REEL DETAIL.
E26	PROVIDE 120V CONNECTION TO CEILING FAN AND ASSOCIATED CONTROLLER. COORDINATE EXACT REQUIREMENTS WITH VENDOR SHOP DRAWINGS AND CUT SHEET.
E27	PROVIDE REMOTE GFCI RESET PUSH BUTTON TO COMPLY WITH NEC REQUIREMENTS FOR ACCESSIBILITY OF GFCI DEVICES.
E30	PROVIDE 120V CONNECTION FOR TRAP PRIMER TP-1. COORDINATE WITH MECHANICAL CONTRACTOR FOR DETAILS AND LOCATION.
E31	PROVIDE DUPLEX RECEPTACLE FOR ELECTRIC SOAP INJECTOR. MOUNT ADJACENT TO SOAP INJECTOR EQUIPMENT. COORDINATE MOUNTING HEIGHT PRIOR TO ROUGH-IN.
E34	PROVIDE SINGLE GANG J-BOX AT 48" AFF WITH 1/2" CONDUIT ROUTED TO OVERHEAD DOOR OPERATOR. COORDINATE WITH OVERHEAD DOOR SHOP DRAWINGS.
E45	PROVIDE 2-GANG RECESSED WALL BOX (LEGRAND EFSB2 OR EQUIVALENT) WITH COVER PLATES FOR FUTURE TV POWER AND DATA AT INDICATED HEIGHT. ROUTE CONDUIT WITH PULLSTRING TO 6" ABOVE ACCESSIBLE CEILING FOR FUTURE CONDUCTORS. COORDINATE LOCATION WITH OWNER.
E46	PROVIDE RECEPTACLE FOR TIMECLOCK. COORDINATE LOCATION WITH OWNER.
E47	PROVIDE 208V, 30A RECEPTACLE ABOVE SERVER. REFER TO TECHNOLOGY DRAWINGS FOR LOCATION.
E48	PROVIDE GROUND BAR. REFER TO DETAILS FOR REQUIREMENTS. REFER TO TECHNOLOGY DRAWINGS FOR LOCATION.
E51	FURNISH AND INSTALL GENERATOR ANNUNCIATOR PANEL IN ELECTRICAL ROOM. COORDINATE FINAL LOCATION WITH OWNER.
E54	FURNISH AND INSTALL RECESSED FLOOR BOX. PROVIDE ALL INTERIOR FITTINGS REQUIRED FOR A COMPLETE INSTALLATION. COORDINATE FINAL LOCATION WITH FURNITURE INSTALLER AND COVER PLATE FINISH WITH OWNER.
E58	PROVIDE CONNECTION TO IT PANELS. REFER TO TECHNOLOGY DRAWINGS.
E59	PROVIDE 120V CONNECTION TO FOUR-FOLD DOOR CONTROL PANEL AND ASSOCIATED CONTROLLER AT APPROXIMATE LOCATION. COORDINATE WITH VENDOR SHOP DRAWINGS FOR ADDITIONAL CONDUIT AND WIRING REQUIREMENTS FOR INTERFACE BETWEEN MOTOR, CONTROLLER, AND PHOTO-EYE SENSORS.
E61	PROVIDE RECEPTACLE FOR HOSE WASHER. COORDINATE REQUIREMENTS WITH EQUIPMENT PROVIDER.
E62	PROVIDE RECESSED RECEPTACLE IN CASEWORK ABOVE COUNTER. COORDINATE WITH CASEWORK INSTALLER.
E64	INTERCONNECT FAN WITH LOCAL LIGHTING CONTROLS TO CONTROL FAN WITH LIGHTS.
E65	PNEUMATIC SWITCH FOR GARBAGE DISPOSAL PROVIDED AND INSTALLED BY PLUMBING CONTRACTOR.
E67	ROUTE POWER TO DIESEL EXHAUST FAN VIA MAGNEGRIP EXHAUST CONTROL PANEL IN APPARATUS BAY. COORDINATE REQUIREMENTS WITH EQUIPMENT VENDOR.
E68	INSTALL JUNCTION BOX AT INDICATED LOCATION FOR APPARATUS BAY FAN LOW VOLTAGE CONTROLLER FURNISHED WITH FAN. ROUTE 3/4" CONDUIT FROM CONTROLLER TO FAN. COORDINATE WITH MECHANICAL CONTRACTOR.

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STAMP

**RICE/fergusMILLER**

Project: **TWIN FALLS FIRE STATION 2**

214 CHENEY DRIVE, TWIN FALLS, IDAHO

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2	ADDENDUM 01	2/14/22
3	ADDENDUM 02	2/21/22

Project No:	20-041
Date:	1/17/22
Checked By:	KO
Drawn By:	BL
Sheet Name:	

**LEVEL 1 - POWER PLAN**

Sheet No:  
**E2.21**

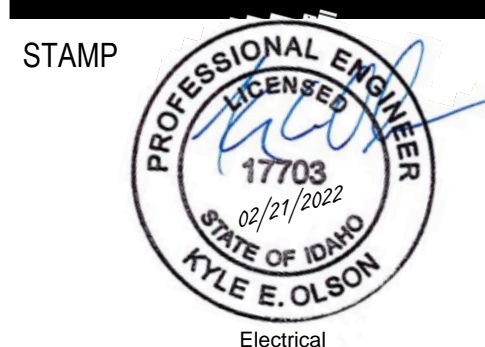
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KEYNOTES	
E2	PROVIDE CO DETECTOR AND NOX DETECTOR IN APPARATUS BAY.
E32	PROVIDE FIRE ALARM CONTROL MODULE TO REMOVE POWER FROM DESTRATIFICATION FAN, DF-1, UPON FIRE SPRINKLER WATER FLOW. PROVIDE RELAY AT DF-1 TO BE CONTROLLED BY FIRE ALARM CONTROL MODULE. COORDINATE LOCATION IN FIELD.
E71	PROVIDE FIRE ALARM CONTROL MODULE TO REMOVE POWER FROM KITCHEN HOOD UPON ACTIVATION OF FIRE ALARM. PROVIDE RELAY AT HOOD TO BE CONTROLLED BY FIRE ALARM CONTROL MODULE. COORDINATE LOCATION IN FIELD.



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Project:  
TWIN FALLS FIRE STATION 2

214 CHENEY DRIVE, TWIN FALLS, IDAHO

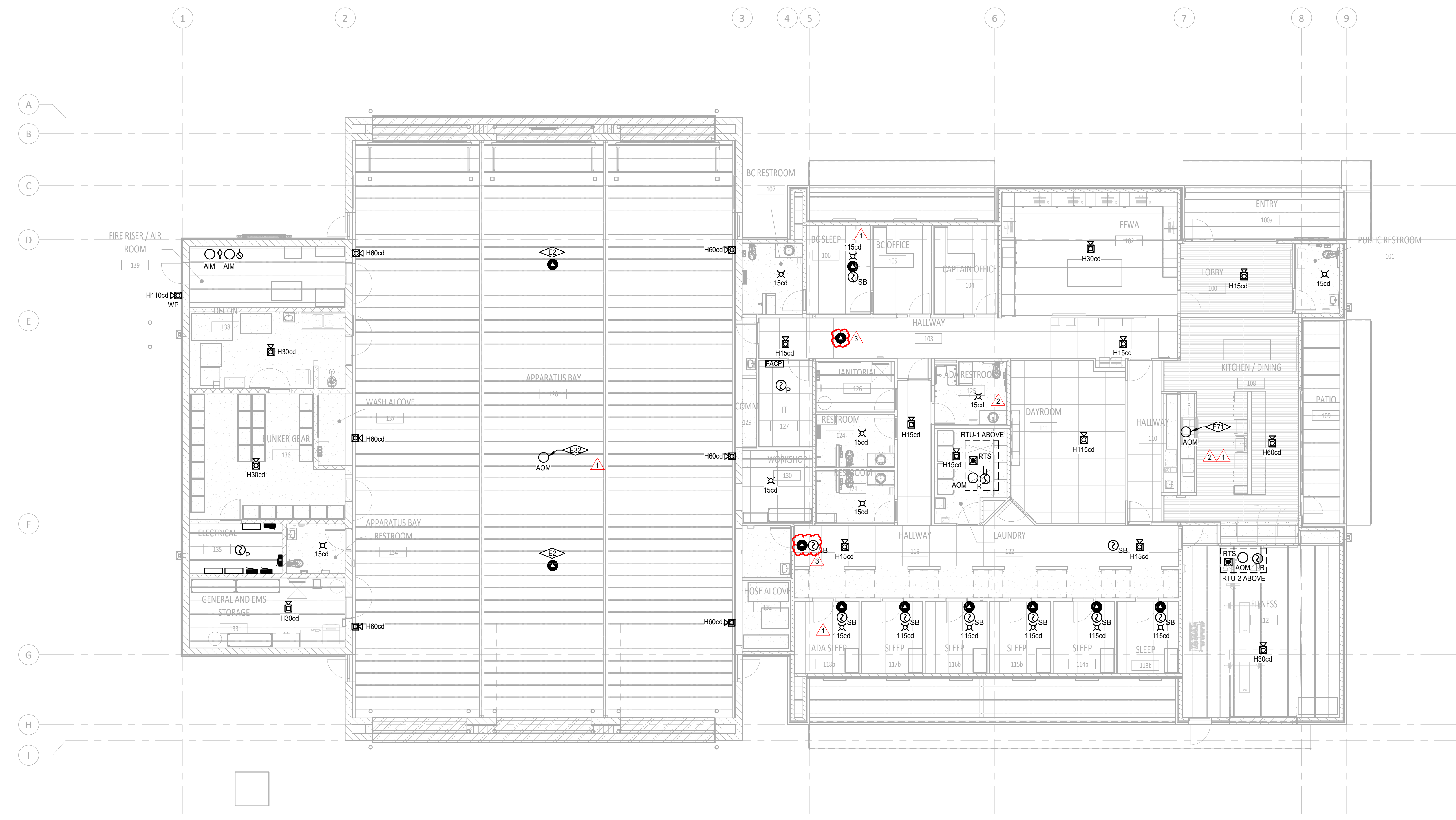


2	ADDENDUM 01	2/14/22
1	AGENCY COMMENTS	2/11/22
3	ADDENDUM 02	2/21/22

Project No: 20-041  
Date: 1/17/22  
Checked By: KO  
Drawn By: BL

Sheet Name:  
LEVEL 1 - FIRE ALARM PLAN

Sheet No:  
E2.31



LEVEL 1 - FIRE ALARM PLAN  
SCALE: 1/8" = 1'-0"

100% BID SET



**Switchboard MDCA**

Location: ELECTRICAL 135  
Supply From: Utility  
Mounting: Surface

Volts: 120/208 Wye  
Phases: 3  
Wires: 4

A.I.C. Rating: 35,000 A  
Main Type: MCB  
Bus Rating: 800 A  
MCB Rating: 800 A

Circuit Notes:

Load	Type	A	B	C	Note
SPD	--	0 VA			
PANEL 'MDCB' VIA XFER SWITCH	Spare; R; G; ...	74930 VA	74623 VA	79729 VA	
PANEL 'G1' VIA XFER SWITCH	Spare; R; G; ...	5143 VA	4339 VA	4795 VA	
		80073 VA	78962 VA	84524 VA	
		669 A	658 A	706 A	
		2	7	6	
		% A-B	% B-C	% C-A	

Refer to one-line diagram for space, spare, and circuit breaker quantities.

Load Type	Connected Load	Demand Factor	Demand Load	Switchboard Totals
L Lighting	6039 VA	125.00%	7549 VA	Power Factor: 1
R Receptacle	35760 VA	63.98%	22880 VA	
M Motor	170192 VA	103.55%	176236 VA	Total Connected Load: 243558 VA
C Continuous	0 VA	0.00%	0 VA	Total Connected Current: 676 A
G General	31567 VA	100.00%	31567 VA	
K Kitchen	0 VA	0.00%	0 VA	Total Demand Load: 238232 VA
E Existing	0 VA	0.00%	0 VA	Total Demand Current: 661 A
O Other	0 VA	0.00%	0 VA	

General Notes:

**Switchboard MDCB**

Location: ELECTRICAL 135  
Supply From: ATS-SB  
Mounting: Surface

Volts: 120/208 Wye  
Phases: 3  
Wires: 4

A.I.C. Rating: 18,000 A  
Main Type: MCB  
Bus Rating: 800 A  
MCB Rating: 800 A

Circuit Notes:

Load	Type	A	B	C	Note
PANEL 'LA'	R; G; M; L	23813 VA	20015 VA	24184 VA	
PANEL 'LB'	Spare; R; G; ...	19568 VA	25229 VA	23591 VA	
PANEL 'LC'	Spare; R; G; ...	24415 VA	22245 VA	24820 VA	
FUTURE VERTICON	M	7133 VA	7133 VA	7133 VA	
		74930 VA	74623 VA	79729 VA	
		625 A	622 A	665 A	
		0	7	6	
		% A-B	% B-C	% C-A	

Refer to one-line diagram for space, spare, and circuit breaker quantities.

Load Type	Connected Load	Demand Factor	Demand Load	Switchboard Totals
L Lighting	3584 VA	125.00%	4481 VA	Power Factor: 1
R Receptacle	35220 VA	64.20%	22810 VA	
M Motor	161911 VA	103.73%	167954 VA	Total Connected Load: 229282 VA
C Continuous	0 VA	0.00%	0 VA	Total Connected Current: 636 A
G General	100000 VA	100.00%	28567 VA	
K Kitchen	0 VA	0.00%	0 VA	Total Demand Load: 223612 VA
E Existing	0 VA	0.00%	0 VA	Total Demand Current: 621 A
O Other	0 VA	0.00%	0 VA	

General Notes:

**Panel G1**

Location: ELECTRICAL 135  
Supply From: ATS-L5  
Mounting: Surface  
Enclosure: Type 1

Volts: 120/208 Wye  
Phase: 3  
Wire: 4

A.I.C. Rating: 10,000 A  
Main Type: MCB  
Bus Rating: 100 A  
MCB Rating: 100 A

Circuit Notes:

Note	Circ...	Load	Type	Trip	Po...	A	B	C	Po...	Trip	Type	Load	Circ...	Note	
1	4-FOLD DOOR...	G	20 A	1	100 VA	720 VA			1	20 A	G	JB-SLEEP FA SOUNDER	2		
3	4-FOLD DOOR...	G	20 A	1			100 VA	120 VA		20 A	G	JB-BC SLEEP...	4		
5	4-FOLD DOOR...	G	20 A	1				100 VA	360 VA	1	20 A	G	JB-IT FIRE ALARM	6	
7	APP BAY N DOOR	M	20 A	2	790 VA	360 VA				1	20 A	R	R-FFWA SOUNDER BC	8	
11	APP BAY N DOOR	M	20 A	2	790 VA	180 VA				1	20 A	R	R-GENERATOR	10	
13	APP BAY N DOOR	M	20 A	2	790 VA	500 VA				1	20 A	G	GEN JACKET HEAT	12	
15	APP BAY N DOOR	M	20 A	2	790 VA	500 VA				1	20 A	G	GEN BATT CHARGER	14	
17	APP BAY S DOOR	M	20 A	1	1176 VA	238 VA				1	20 A	L	L-EXTERIOR WALL	16	
19	APP BAY S DOOR	M	20 A	1	1176 VA	682 VA				1	20 A	L	L-ROOM 132, 128, 130	20	
23	APP BAY S DOOR	M	20 A	1	1176 VA	811 VA				1	20 A	L	L-SLEEP HALL FIT RR	24	
25	Spare	--	20 A	1	0 VA	468 VA				1	20 A	M; L	L-FFWA DINING LOBBY	26	
27	Spare	--	20 A	1			0 VA	0 VA		1	20 A	--	Spare	28	
29	Spare	--	20 A	1			0 VA	0 VA		1	20 A	--	Spare	30	
31	Spare	--	20 A	1	0 VA	0 VA				1	20 A	--	Spare	32	
33	Spare	--	20 A	1			0 VA	0 VA		1	20 A	--	Spare	34	
35	Spare	--	20 A	1			0 VA	0 VA		1	20 A	--	Spare	36	
37	Spare	--	20 A	1	0 VA	0 VA				1	20 A	--	Spare	38	
39	Spare	--	20 A	1			0 VA	0 VA		1	20 A	--	Spare	40	
41	Spare	--	20 A	1			0 VA	0 VA		1	20 A	--	Spare	42	
						Total Load:	5143 VA	4339 VA	4795 VA						
						Phase Balance:	20 % A-B	12 % B-C	7 % C-A						

Load Type	Connected Load	Demand Factor	Demand Load	Panel Totals
L Lighting	2455 VA	125.00%	3069 VA	Power Factor: 1
R Receptacle	540 VA	100.00%	540 VA	
M Motor	8281 VA	104.77%	8677 VA	Total Connected Load: 14276 VA
C Continuous	0 VA	0.00%	0 VA	Total Connected Current: 40 A
G General	3000 VA	100.00%	3000 VA	
K Kitchen	0 VA	0.00%	0 VA	Total Demand Load: 15285 VA
E Existing	0 VA	0.00%	0 VA	Total Demand Current: 42 A
O Other	0 VA	0.00%	0 VA	

A

B

**Panel LA**

Location: ELECTRICAL 135  
Supply From: MDCB  
Mounting: Surface  
Enclosure: Type 1

Volts: 120/208 Wye  
Phase: 3  
Wire: 4

A.I.C. Rating: 10,000 A  
Main Type: MLO  
Bus Rating: 250 A

Circuit Notes:

Note	Circ...	Load	Type	Trip	Po...	A	B	C	Po...	Trip	Type	Load	Circ...	Note
1	R-LOBBY, RR	R	20 A	1	720 VA	360 VA				1	20 A	R	R-KITCHEN	2
3	R-FFWA	R	20 A	1			540 VA	600 VA		1	20 A	G	HOOD-KITCHEN	4
5	R-FFWA	R	20 A	1			720 VA	1500 VA		1	20 A	M	EHC-1 BC SLEEP	6
7	R-FFWA	R	20 A	1	720 VA	1000 VA				1	20 A	G	R-KITCHEN MICRO	8
9	R-FFWA	R	20 A	1			360 VA	600 VA		1	20 A	M	KITCHEN RANGE	10
11	R-FFWA PRINT/COPY	G	20 A	1				1200 VA	1560 VA	1	20 A	G	R-KITCHEN COFFEE	12
13	R-FFWA TV, FLOORBOX	R	20 A	1	900 VA	1000 VA				1	20 A	G	R-KITCHEN MICRO	14
15	R-HALLWAY 103 EWC	R	20 A	1			360 VA	0 VA		1	20 A	G	JB-GAS SHUTOFF	16
17	R-HALLWAY 103	R; G	20 A	1			960 VA	1200 VA		1	20 A	G	R-KITCHEN DISH	18
19	R-CAPTAIN OFFICE	R	20 A	1	720 VA	1176 VA				1	20 A	G	R-KITCHEN G/D	20
21	R-BC OFFICE	R	20 A	1			720 VA	1200 VA		1	20 A	G	R-KITCHEN DISH	22
23	R-BC SLEEP RR	R	20 A	1			720 VA	600 VA		1	20 A	G	R-KITCHEN ICE	24
25	R-DAYROOM	R	20 A	1	900 VA	540 VA				1	20 A	R	R-KITCHEN ISLAND	26
27	R-DAYROOM	R	20 A	1			720 VA	1500 VA		1	20 A	M	EHC-2 DINING	28
29	R-DINING PATIO	R	20 A	1			720 VA	600 VA		1	20 A	G	R-KITCHEN REF	30
31	R-FITNESS	R	20 A	1	900 VA	600 VA				1	20 A	G	R-KITCHEN REF	32
33	R-FITNESS	R	20 A	1			720 VA	600 VA		1	20 A	G	R-KITCHEN REF	34
35	FITNESS CEILING FAN	M	20 A	1			67 VA	540 VA		1	20 A	R	R-RRS 121, 124, 125	36
37	M fitness 112	M	20 A	1	1176 VA	460 VA				1	20 A	R; G; M	REC/DOPP/JANITOR	38
39							600 VA			1	20 A	M	JANITOR WH-1	40
41	R-HALLWAY 119, 120	R	20 A	1			720 VA	540 VA		1	20 A	R	R-LAUNDRY	42
43	R-SLEEP 113, 114	R	20 A	1	1440 VA	1440 VA				1	20 A	G	LAUNDRY WASHER	44
45	R-SLEEP 115, 116	R	20 A	1			1440 VA	936 VA		2	30 A	G	LAUNDRY DRYER	46
47	R-SLEEP 117, 118	R	20 A	1			1440 VA	936 VA		2	30 A	G	LAUNDRY DRYER	48
49	L-FIT-HALL JANITOR	L	20 A	1	732 VA	1440 VA				1	20 A	G	LAUNDRY WASHER	50
51	L-DAYROOM DINING	L	20 A	1			459 VA	936 VA		2	30 A	G	LAUNDRY DRYER	52
53	EHC-2 SLEEP	M	20 A	1	864 VA	6725 VA				3	60 A	M	RTU-1	54
55	ERV-1	M	20 A	1			1000 VA	6725 VA		3	60 A	M	RTU-1	56
57	HEATER-PUBLIC RR	G	20 A	2			203 A	167 A						58
59							203 A	206 A						60
						Total Load:	23813 VA	20015 VA	24184 VA					
						Phase Balance:	22 % A-B	24 % B-C	2 % C-A					

Load Type	Connected Load	Demand Factor	Demand Load	Panel Totals
L Lighting	1150 VA	125.00%	1438 VA	Power Factor: 1
R Receptacle	18180 VA	77.50%	14050 VA	
M Motor	28082 VA	117.96%	33126 VA	Total Connected Load: 68012 VA
C Continuous	0 VA	0.00%	0 VA	Total Connected Current: 189 A
G General	20560 VA	100.00%	20560 VA	
K Kitchen	0 VA	0.00%	0 VA	Total Demand Load: 69254 VA
E Existing	0 VA	0.00%	0 VA	Total Demand Current: 192 A
O Other	0 VA	0.00%	0 VA	

General Notes:

C

D

E

**Panel LB**

Location: ELECTRICAL 135  
Supply From: MDCB  
Mounting: Surface  
Enclosure: Type 1

Volts: 120/208 Wye  
Phase: 3  
Wire: 4

A.I.C. Rating: 10,000 A  
Main Type: MLO  
Bus Rating: 250 A

Circuit Notes:

1. PROVIDE 30-MILLIAMP TRIP GFCI CIRCUIT BREAKER.

Note	Circ...	Load	Type	Trip	Po...	A	B	C	Po...	Trip	Type	Load	Circ...	Note
1	R-IT	R	20 A	1	180 VA	1560 VA				2	20 A	M	IT SPLIT SYSTEM	2
3	R-IT	R	20 A	1			540 VA	1560 VA		2	20 A	M	CAPTAIN CONDENSING UNIT	4
5	JB-IT ACS PANEL	G	20 A	1			250 VA	1040 VA		2	25 A	M	SLEEP CONDENSING UNIT	6
7	R-IT SERVER	R	30 A	2	200 VA	1040 VA				2	25 A	M	SLEEP CONDENSING UNIT	8
9	R-IT SERVER	R	30 A	2	200 VA	1040 VA				2	25 A	M	SLEEP CONDENSING UNIT	10
11	R-IT SERVER	R	30 A	2	200 VA	1040 VA				2	25 A	M	SLEEP CONDENSING UNIT	12
13	R-COMM 129	R	20 A	1			720 VA	1040 VA		2	25 A	M	SLEEP CONDENSING UNIT	14
15	R-WORKSHOP	R	20 A	1			360 VA	1040 VA		2	25 A	M	SLEEP CONDENSING UNIT	16
17	R-WORKSHOP	R	20 A	1			360 VA	1040 VA		2	25 A	M	SLEEP CONDENSING UNIT	18
19	R-WORKSHOP	R	20 A	1	360 VA	1040 VA				2	25 A	M	SLEEP CONDENSING UNIT	20
21	R-WORKSHOP MEGH	R	50 A	2			4160 VA	1040 VA		2	25 A	M	SLEEP CONDENSING UNIT	22
23	R-APP BAY													



A

B

C

D

E

ABBREVIATIONS LEGEND <small>(Not all symbols listed below are used on these drawings)</small>			
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
AC	ABOVE COUNTER, MOUNT HORIZONTALLY TO CENTERLINE OF DEVICE, "H" ABOVE COUNTER OR BACK SPLASH	NTS	NOT TO SCALE
AFB	ABOVE FINISHED FLOOR	OC	ON CENTER
AFG	ABOVE FINISHED GRADE	OFCI	OWNER FURNISHED, CONTRACTOR INSTALLED
ARF	ABOVE RAISED FLOOR	OFDI	OWNER FURNISHED, OWNER INSTALLED
BFG	BELOW FINISHED GRADE	OSWF	ON SITE WORK FORCE
BIO	BIO-HAZARD	PB	PULL BOX
C	CONDUIT	PZ	PIEZOSOUNDER
CATV	CABLE TELEVISION	POS	POINT OF SALES
CCTV	CLOSED CIRCUIT TELEVISION	SB	STAND-BY
CTRL	CONTROL	SCH	SCHEDULER
(E)	EXISTING	TC	TIME CLOCK
EM	EMERGENCY	TP	TAMPER PROOF
EP	EMERGENCY PHONE	TR	TELECOMMUNICATIONS ROOM
ETC	ELAPSE TIME CLOCK	TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
EWB	ELECTRIC WHITE BOARD	TYP	TYPICAL
FA	FIRE ALARM	UF	UNDER FLOOR
G	GROUND	UG	UNDER GROUND
VO P	INPUT / OUTPUT PLATE	UNON	UNLESS OTHERWISE NOTED
LD	LOCK DOWN	UPS	UNINTERRUPTIBLE POWER SUPPLY
MAX	MAXIMUM	W	WITH
MIN	MINIMUM	WO	WITHOUT
NC	NORMALLY CLOSED	WM	WIREMOLD
NIC	NOT IN CONTRACT	WP	WEATHER PROOF
NO	NORMALLY OPEN	RIO	ROUGH IN ONLY

REFERENCE SYMBOLS LEGEND <small>(Not all symbols listed below are used on these drawings)</small>			
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	NOTE REFERENCE		DOOR NUMBER
	OWNER/MEDICAL EQUIPMENT REFERENCE		EXISTING TO BE RELOCATED
	# = TYPICAL LAYOUT TYPE		TR. ZONE LINE
	TR = LOCATION OF TYPICAL LAYOUT TYPE INFORMATION		REVISION

TECHNOLOGY LEGEND <small>(Not all symbols listed below are used on these drawings)</small>			
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	WALL FIELD		CEILING MOUNTED OUTLET (# = QTY OF CABLES; XXX = SEE BELOW)
	TELECOM GROUND BAR		AV = AUDIO VISUAL SEC = SECURITY
	WIRE BASKET TRAY		WAP = WIRELESS ACCESS POINT PRJ = PROJECTOR
	CABLE TRAY		DATA POWER POLE (XXX = SEE BELOW)
	J-HOOK PATHWAY		SEC = SECURITY SR = SURFACE RACEWAY
	FLOOR SPACE BOX DATA OUTLET (# = QTY OF CABLES)		TELEVISION COAXIAL CABLE (ZZ = ELEVATION)
	POKE-THRU (# = QTY OF CABLES)		CEILING MOUNTED TELEVISION COAXIAL OUTLET
	DATA OUTLET (# = QTY OF CABLES; XXX = SEE BELOW; ZZ = ELEVATION)		FLOOR J-BOX
	D = MEDICAL/SUPPLY DISPENSER RED = RED PHONE		POKE THRU (XXX = SEE BELOW)
	EEG = EEG NETWORK T = TRANSLATION PHONE		FF = FURNITURE FEED AV = AUDIO VISUAL
	EP = EMERGENCY PHONE TC = TIME CLOCK		WALL MOUNTED J-BOX (XXX = SEE BELOW; ZZ = ELEVATION)
	F = FACP W = WALL PHONE		CLG = CEILING AV = AUDIO VISUAL
	POS = POINT OF SALE AV = AUDIO VISUAL		DB = DOOR BELL MM = MULLION MOUNT
	RAD = RADIOLOGY NETWORK PRT = PRINTER		PULLBOX (YY = SIZE)
	SR = SURFACE RUNWAY MFP = MULTI FUNCTIONS PRINTER		CLOCK OUTLET (XXX = SEE BELOW)
	BAS = BUILDING AUTOMATION SYSTEM WP = WEATHER PROOF		DS = DOUBLE SIDED DIGITAL (PROVIDE 1 CAT 6 CONNECTION)
	SCH = SCHEDULER SEC = SECURITY		A = ANALOG
	CP = CONTROL PANEL CLK = CLOCK		COMBINATION CLOCK/SPEAKER OUTLET (XXX = SEE BELOW)
	CEILING MOUNTED SPEAKER (# = TYPE #)		A = ANALOG
	WALL MOUNTED SPEAKER		D = DIGITAL
	CEILING MOUNTED CLOCK		CEILING MOUNTED CLOCK
	DISTRIBUTED ANTENNA SYSTEM		DISTRIBUTED ANTENNA SYSTEM
	WIRELESS ACCESS POINT ENCLOSURE		WIRELESS ACCESS POINT ENCLOSURE
	EQUIPMENT RACK		EQUIPMENT RACK
	WIRE MANAGER		WIRE MANAGER
	CABINET		CABINET

SECURITY LEGEND <small>(Not all symbols listed below are used on these drawings)</small>			
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	WALL FIELD		CARD READER (XXX = SEE BELOW)
	INTERCOM DOOR STATION		BIO = BIOMETRIC RP = INTEGRATED KEYPAD
	INTERCOM MASTER STATION		IL = INTEGRATED LOCK MM = MULLION MOUNTED
	DURESS ALARM		DOOR AUTO OPENER
	MOTION DETECTOR		DOOR CONTACT
	CEILING MOUNTED MOTION DETECTOR		ELECTRIC DOOR LOCK
	GLASS BREAK DETECTOR		ELECTRIC DOOR STRIKE
	CEILING MOUNTED GLASS BREAK DETECTOR		REQUEST TO EXIT
	PUSH PAD		ELECTRIC HINGE
	KEYPAD		ELECTRIC POWER TRANSFER
	FIXED PTZ SECURITY CAMERA CLG MOUNTED (XXX = CAMERA SCHEDULE NUMBER)		POWER SUPPLY
	FIXED SECURITY CAMERA WALL MOUNTED (XXX = CAMERA SCHEDULE NUMBER)		MAGNETIC DOOR LOCK
	MULTI SENSOR SECURITY CAMERA (XX = CAMERA SCHEDULE NUMBER)		LOCK OUT
	EMERGENCY CALL BOX		LOCK DOWN
			DOOR RELEASE
			SECURITY CAMERA FIELD OF VIEW

GENERAL NOTES:

- WORK INCLUDED IN THE CONTRACT IS DENOTED IN BOLD. EXISTING CONDITIONS TO REMAIN ARE DENOTED LIGHTLY.
- PROTECT STRUCTURE AND OWNER EQUIPMENT FROM DAMAGE. IMMEDIATELY REPLACE OR REPAIR, TO ORIGINAL CONDITION, DAMAGE CAUSED BY THE CONTRACTOR WHETHER EQUIPMENT APPEARS TO BE CURRENTLY IN USE OR NOT, UNLESS WRITTEN AUTHORIZATION FROM THE OWNER INDICATED OTHERWISE. PREPARE LISTING OF ALL EXISTING DAMAGED ITEMS AND SUBMIT TO OWNER PRIOR TO BEGINNING WORK.
- INSTALL CONDUIT CONCEALED IN FINISHED AREAS UNLESS OTHERWISE NOTED. PAINT EXPOSED CONDUIT TO MATCH EXISTING FINISHES WITHIN THE SURROUNDING AREA.
- DO NOT ROUTE CONDUIT WITHIN STRUCTURAL OR TOPPING SLABS OF FLOORS UNLESS SPECIFICALLY NOTED OTHERWISE AND WRITTEN APPROVAL IS OBTAINED FROM THE STRUCTURAL ENGINEER.
- FIRE SEAL ALL FIRE RATED WALL AND FLOOR PENETRATIONS. REFER TO ARCHITECTURAL DRAWINGS FOR FIRE RATED WALLS.
- A DETAILED WRITTEN METHOD OF PROCEDURE IS REQUIRED WHEN A CONSTRUCTION ACTIVITY OR AN OUTAGE AFFECTS THE SAFETY OF OCCUPANTS, TELEPHONE/DATA/FIRE ALARM EQUIPMENT OR COMPONENTS OF ANY SYSTEM WHICH SUPPORTS THIS EQUIPMENT OR ESSENTIALLY AFFECTS THE BUILDING MANAGEMENT, OPERATIONS OR SECURITY. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- EXISTING INFORMATION SHOWN ON THE DRAWINGS HAS BEEN TAKEN FROM OWNER FURNISHED DRAWINGS AND/OR LIMITED FIELD OBSERVATIONS. CATOR, RUMA & ASSOCIATES IS NOT RESPONSIBLE FOR THE ACCURACY OF ANY INFORMATION OR THE ADEQUACY, SAFETY AND CONFORMANCE TO CURRENT PREVAILING CODES OF ANY WORK SHOWN AS EXISTING ON THESE DRAWINGS.

TECHNOLOGY PLAN NOTES:

- PROVIDE 4 11/16" SQUARE DEEP OUTLET BOX AND SINGLE GANG MUD RING FOR ALL TELE/DATA OUTLETS. ROUTE 1" CONDUIT FROM EACH OUTLET TO ABOVE ACCESSIBLE CEILING UNLESS NOTED OTHERWISE. PROVIDE INSULATED THROAT CONNECTOR ON CONDUIT END. KEEP ALL EXPOSED CONDUITS TIGHT TO STRUCTURE.
- PROVIDE 4 11/16" SQUARE DEEP OUTLET BOX AND SINGLE GANG MUD RING FOR ALL SECURITY, CCTV, AND ACCESS CONTROL, AND TELEVISION. ROUTE 3/4" CONDUIT FROM EACH OUTLET TO ABOVE ACCESSIBLE CEILING UNLESS NOTED OTHERWISE. PROVIDE INSULATED THROAT CONNECTOR ON CONDUIT END. KEEP ALL EXPOSED CONDUITS TIGHT TO STRUCTURE.
- PROVIDE 4-11/16" x 4-11/16" x 2-7/8" OUTLET BOX AND TWO-GANG MUDRING FOR ALL AV DEVICES LOCATIONS. ROUTE 1-1/4" CONDUIT TO ABOVE ACCESSIBLE CEILING UNLESS OTHERWISE NOTED. PROVIDE INSULATED THROAT CONNECTOR ON CONDUIT END.
- ALL CONDUITS DEDICATED FOR TECHNOLOGY SYSTEMS SHALL BE INSTALLED IN EMT UNLESS OTHERWISE NOTED. FLEX CONDUIT SHALL NOT BE USED WITHOUT PRIOR APPROVAL FROM ENGINEER OR OWNER.
- CONDUITS DEDICATED FOR TECHNOLOGY SYSTEMS SHOULD NOT EXCEED 10' OR CONTAIN MORE THAN 180 DEGREES OF TOTAL BENDS WITHOUT UTILIZING APPROPRIATELY SIZED PULL BOXES.
- MINIMUM BEND RADI FOR CONDUITS DEDICATED FOR TECHNOLOGY SYSTEMS SHALL BE 8 TIMES THE DIAMETER OF THE CONDUIT FOR CONDUITS 2" OR LESS AND 10 TIMES THE DIAMETER OF THE CONDUITS EXCEEDING 2". L-BENDS SHALL NOT BE USED.
- ALLOW FOR A MINIMUM OF 3" VERTICAL CLEAR SPACE ABOVE CONDUITS AND 12" VERTICAL CLEAR SPACE ABOVE CABLE TRAY.
- ALL BACKBONE PATHWAYS SHALL BE EQUIPPED WITH A PULL CORD THAT HAS A MINIMUM TEST RATING OF 200LBS.
- PROVIDE (2) 1-1/4" CONDUITS FROM LOW VOLTAGE COMPARTMENTS OF FLOOR BOX TO ABOVE ACCESSIBLE CEILING ON THE SAME LEVEL. PROVIDE ANY REQUIRED FACE PLATES, INSERTS, AND BLANKS TO COMPLETE THE INSTALLATION.
- PROVIDE AN 8' SERVICE LOOP AT STATION END OF ALL CABLE RUNS.
- PROVIDE CAT 6 CABLE WITH A 25' SERVICE LOOP AT ALL WIRELESS ACCESS POINT LOCATIONS. TERMINATE CABLE ON A SURFACE MOUNT OUTLET BOX.
- HOMERUN ALL VOICE, DATA, AND TELEVISION CABLES TO DESIGNATED CONTROL PANELS, PATCH PANELS, OR WALL FIELDS IN NEAREST TELECOMMUNICATION ROOM LOCATED IN THE SAME ZONE. PROVIDE J-HOOK TYPE CABLE SUPPORTS IN OPEN OR ACCESSIBLE CEILING SPACE AS REQUIRED TO SUPPORT CABLES IN ROUTE TO CABLE TRAY OR CONDUIT PATHWAY TO TELECOMMUNICATIONS ROOM. ROUTE CABLE SUPPORTS SUCH THAT CABLE VISIBILITY WILL BE MINIMIZED IN ANY OPEN CEILING AREAS.
- PROVIDE 3/4" C. TO CONNECT ALERTING SYSTEM SPEAKERS IN HARD LIDS AREAS. ROUTE 3/4" C. FROM THE 1ST SPEAKER IN CIRCUIT TO NEAREST ACCESSIBLE CEILING, CABLE TRAY, OR CONDUIT CONSOLIDATION BOX.
- COORDINATE ALL ALERTING SYSTEM BOXES AND CONDUIT ROUTING REQUIREMENTS WITH ALERTING SYSTEM VENDOR.
- COORDINATE AND VERIFY EXACT MOUNTING LOCATIONS OF WALL, CEILING, AND FLOOR DEVICES WITH ARCHITECTURAL ELEVATIONS, AND ANY FURNITURE OR SPECIALTY EQUIPMENT SUPPLIER DRAWINGS PRIOR TO ROUGH-IN.
- CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND NOTIFY ENGINEER OF ANY ADVERSE FIELD CONDITIONS PRIOR TO PERFORMING ANY WORK.



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Project: TWIN FALLS FIRE STATION 2

214 CHENEY DRIVE, TWIN FALLS, IDAHO



Project No: 20-041  
Date: 1/17/22  
Checked By: CMK  
Drawn By: JMS

Sheet Name: TECHNOLOGY LEGENDS & NOTES

Sheet No: T0.01

100% BID SET



1

2

3

4

5

6

A

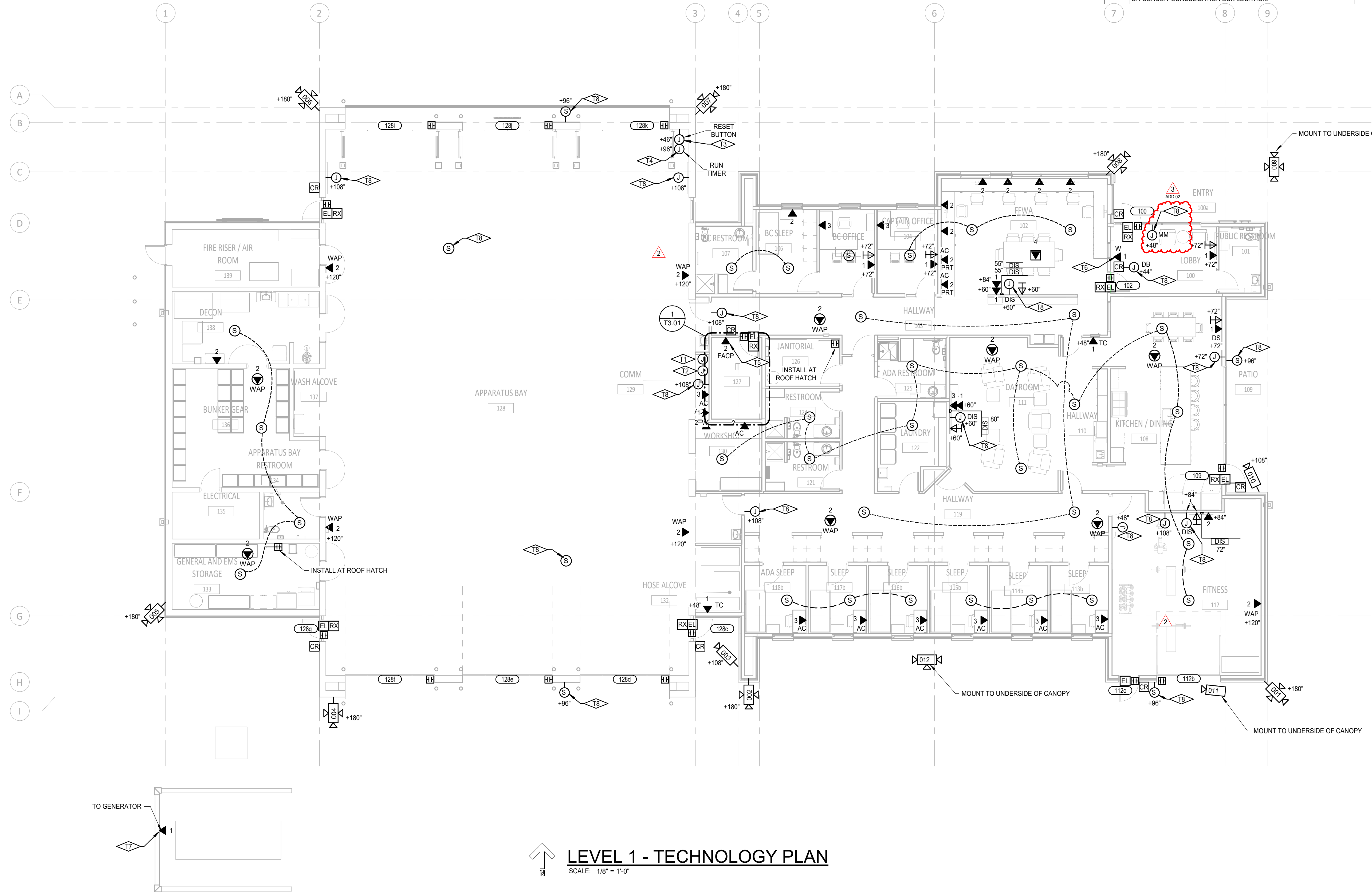
B

C

D

E

KEYNOTES	
T1	PROVIDE 4-11/16" SQUARE DEEP BOX WITH SINGLE GANG MUD RING. ROUTE 1" CONDUIT TO ROOF WITH WEATHER HEAD FOR RADIO ANTENNA.
T2	PROVIDE 4-11/16" SQUARE DEEP BOX WITH SINGLE GANG MUD RING. ROUTE 1" CONDUIT FROM RADIO CABINET TO IT ROOM.
T3	PROVIDE 3/4" CONDUIT BETWEEN BOXES.
T4	PROVIDE A TURN OUT TIMER CLOCK. CLOCK SHALL BE DIGITAL WITH MINIMUM 4" NUMBERS. TIMER IS TO START ON TRIGGER FROM INCOMING CALL OF STATION ALERTING SYSTEM. PROVIDE MANUAL STOP/RESET BUTTON UNDER CLOCK.
T5	COORDINATE EXACT LOCATION AND TERMINATION REQUIREMENTS WITH FIRE ALARM CONTRACTOR.
T6	PROVIDE SINGLE LINE PHONE. PROGRAM RING DOWN CIRCUIT TO 911 DISPATCH.
T7	COORDINATE EXACT LOCATION AND TERMINATION REQUIREMENTS WITH ELECTRICAL CONTRACTOR.
T8	ALERTING SYSTEM DEVICE J-BOX. PROVIDE 4" SQ. DEEP BOX WITH SINGLE GANG MUD RING. ROUTE 3/4" C. TO ACCESSIBLE CEILING. CABLE TRAY, OR CONDUIT CONSOLIDATION BOX LOCATION.



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Project: TWIN FALLS FIRE STATION 2

214 CHENEY DRIVE, TWIN FALLS, IDAHO

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2	ADDENDUM 01	2/14/22
3	ADDENDUM 02	2/21/22

Project No: 20-041  
Date: 1/17/22  
Checked By: CMK  
Drawn By: JMS

Sheet Name:  
LEVEL 1 - TECHNOLOGY FLOOR PLAN SERIES

100% BID SET

Sheet No:  
T2.21