

ELECTRICAL SYMBOLS							
NOTE: SYMBOLS SHOWN IN THIS SCHEDULE ARE TYPICAL, NOT ALL ARE USED IN THIS PROJECT.				DASHED SYMBOLS INDICATE EXISTING FIXTURE, EQUIPMENT, ETC.			
SYMBOL	DESCRIPTION	MOUNTING HEIGHT	SYMBOL	DESCRIPTION	MOUNTING HEIGHT	SYMBOL	DESCRIPTION
ELECTRICAL WIRING							
	CROSS LINES INDICATE NUMBER OF CONDUCTORS	N/A					
	BRANCH CIRCUIT CONCEALED IN CEILING OR WALL	N/A					
	BRANCH CIRCUIT CONCEALED IN GROUND OR FLOOR	N/A					
A-1.3	BRANCH CIRCUIT HOMERUNS TO PANEL	N/A					
	CONDUIT RISER UP	N/A					
	CONDUIT RISER DOWN	N/A					
	CONDUIT SUB (CAP CONDUIT)	AS NOTED					
	CABLE TRAY	AS NOTED					
	BUS DUCT	AS NOTED					
ELECTRICAL POWER							
	JUNCTION BOX	AS NOTED					
	DUPLEX RECEPTACLE	+16"					
	QUAD RECEPTACLE	+16"					
	SPLIT WIRED DUPLEX RECEPTACLE	+16"					
	DUPLEX RECEPTACLE WEATHERPROOF AND GFCI	+16"					
	DUPLEX RECEPTACLE OUTLET WITH GROUND FAULT CIRCUIT INTERRUPTION PROTECTION	+16"					
	EQUIPMENT RECEPTACLE	+16"					
	SPECIAL PURPOSE RECEPTACLE	+16"					
	DUPLEX RECEPTACLE FLOOR	FLOOR					
	QUAD RECEPTACLE THROUGH	FLOOR					
	FIRE RATED POKE THROUGH	FLOOR					
	POWER/TELEPHONE POLE	FLOOR					
	MULTI-OUTLET WIREWAY	+46"					
ELECTRICAL CONNECTIONS							
	NON-FUSED DISCONNECT SWITCH	TOP AT 6'-0"					
	FUSED DISCONNECT SWITCH	TOP AT 6'-0"					
	MOTOR STARTER/DISCONNECT SWITCH COMBINATION NON-FUSED	TOP AT 6'-0"					
	MOTOR STARTER/DISCONNECT SWITCH COMBINATION FUSED	TOP AT 6'-0"					
	MOTOR STARTER ONLY	TOP AT 6'-0"					
	VARIABLE FREQUENCY DRIVE	+78"					
	MOTOR CONNECTION	AS NOTED					
ELECTRICAL DISTRIBUTION							
	TELEPHONE COMPANY FEEDSAL	AS NOTED					
	POWER COMPANY GROUND SLEEVE	AS NOTED					
	POWER COMPANY SITE TRANSFORMER	AS NOTED					
	HIGH VOLTAGE (277480 VOLT) PANELBOARD	TOP AT 6'-0"					
	LOW VOLTAGE (120/208 VOLT) PANELBOARD	TOP AT 6'-0"					
	DRY TYPE TRANSFORMER	AS NOTED					
	DISTRIBUTION SWITCHBOARD	AS NOTED					
	TELEPHONE AND/OR DATA TERMINAL BOARD	AS NOTED					
ELECTRICAL DEVICES							
	PUSHBUTTON	+48"					
	STOP/START STATION	+48"					
	"EMERGENCY POWER OFF" MUSHROOM TYPE BUTTON	+48"					
	LINE VOLTAGE THERMOSTAT	+48"					
	NURSE CALL BED/BATH STATION	+48"					
	NURSE CALL LIGHT	+48"					
	NURSE CALL STATION PANEL	TOP AT 6'-0"					
LIGHTING CONTROL							
	SINGLE POLE SWITCH	+48"					
	3-WAY SWITCH	+48"					
	4-WAY SWITCH	+48"					
	SWITCH WITH PILOT LIGHT	+48"					
	DIMMER SWITCH	+48"					
	KEYED SWITCH	+48"					
	DIGITAL TIMER SWITCH	+48"					
	MANUAL STARTER WITH THERMAL OVERLOAD	AS NOTED					
	LOW VOLTAGE SWITCH	+48"					
LIGHTING							
	FLUORESCENT FIXTURE (TYPICAL)	CEILING					
	FLUORESCENT EMERGENCY FIXTURE (TYPICAL)	CEILING					
	SURFACE MOUNTED FIXTURE	CEILING					
	RECESSED FIXTURE	CEILING					
	WALL MOUNTED FIXTURE	AS NOTED					
	WALL MOUNTED EMERGENCY EGRESS FIXTURE	AS NOTED					
	FLUORESCENT STRIP	CEILING					
	TRACK LIGHTING	CEILING					
	EMERGENCY LIGHTING UNIT	+84"					
	FIXTURE TYPE SYMBOL (ATTACHED TO FIXTURE SYMBOL)	N/A					
	POST TOP AREA LIGHT POLE & FIXTURE	AS NOTED					
	AREA LIGHT POLE AND FIXTURE (HEAD QTY AS SHOWN ON PLAN)	AS NOTED					
	BOLLARD FIXTURE	GROUND					
	FLOOD OR SPOT FIXTURE	AS NOTED					
	WALL MOUNTED EXIT LIGHT (SINGLE FACE)	+84"					
	WALL MOUNTED EXIT LIGHT (DOUBLE FACE)	+84"					
	CEILING MOUNTED EXIT LIGHT (SINGLE FACE)	CEILING					
	CEILING MOUNTED EXIT LIGHT (DOUBLE FACE)	CEILING					
AUDIO / VIDEO							
	TELEVISION OUTLET	AS NOTED					
	VOLUME CONTROL	+48"					
	SPEAKER	+48"					
	MICROPHONE JACK	+16"					
	AUXILIARY JACK	+16"					
	INTERCOM STATION	+48"					
	BELL	+84"					
	CHIME	+84"					
FIRE ALARM							
	FIRE ALARM MANUAL PULL STATION	SEE DETAIL					
	FIRE ALARM HORN/STROBE	SEE DETAIL					
	FIRE ALARM HORN/STROBE WITH GUARD	SEE DETAIL					
	FIRE ALARM HORN/STROBE WATERPROOF	SEE DETAIL					
	FIRE ALARM STROBE	SEE DETAIL					
	PHOTOCELL	AS NOTED					
	SMOKE DETECTOR	CEILING					
	SMOKE DETECTOR BATTERY-BACKED	CEILING					
	SMOKE DETECTOR	IN DUCT					
	SMOKE DETECTOR (ELEVATOR RECALL)	CEILING					
	HEAT DETECTOR - CO2	CEILING					
	GAS DETECTOR	+16"					
	DOOR HOLDER	AS NOTED					
	PRESSURE SWITCH	AS NOTED					
	FIRE ALARM FLOW SWITCH	AS NOTED					
	FIRE ALARM TAMPER SWITCH	AS NOTED					
	FIRE ALARM FIREFIGHTER PHONE	+48"					
	CONTROL MODULE	AS NOTED					
	MONITOR MODULE	AS NOTED					
	FIRE/SMOKE DAMPER	AS NOTED					
	FIRE ALARM RELAY	AS NOTED					
	FIRE ALARM GENERATOR ANNUNCIATOR	TOP AT 6'-0"					
	FIRE ALARM TRANSMISSION (MONITORING) DEVICE	AS NOTED					
	FIRE ALARM CONTROL PANEL	TOP AT 6'-0"					
	FIRE ALARM REMOTE ANNUNCIATOR PANEL	TOP AT 6'-0"					
SECURITY							
	SECURITY SYSTEM DOOR CONTACT	DOOR JAMB					
	SECURITY SYSTEM OVERHEAD DOOR CONTACT	AS NOTED					
	SECURITY SYSTEM KEYPAD ARMOR/ARM	+48"					
	SECURITY SYSTEM DOOR ELECTRIC STRIKE	AS NOTED					
	SECURITY SYSTEM MAGNETIC DOOR LOCK	AS NOTED					
	REQUEST TO EXIT MOTION DETECTOR	AS NOTED					
	SECURITY SYSTEM AREA MOTION SENSOR	AS NOTED					
	SECURITY SYSTEM GLASS BREAK SENSOR	AS NOTED					
	SECURITY SYSTEM CARD READER	+48"					
	REVISION TAG INDICATOR	N/A					
	DETAIL INDICATOR, TOP DETAIL IDENTIFICATION BOTTOM INDICATES SHEET WHERE DETAIL IS LOCATED.	N/A					
	MECHANICAL EQUIPMENT SYMBOL	N/A					
	KEYED NOTE REFERENCE	N/A					
	SECURITY SYSTEM PANEL	TOP AT 6'-0"					
	POWER SUPPLY LOW VOLTAGE	AS NOTED					

ABBREVIATIONS			
AFF	ABOVE FINISHED FLOOR	(D)	DEMOLISH/DELETE
AFP	ARC FAULT PROTECTOR	E	EMERGENCY
AL	ALUMINUM	(EX)	EXISTING
AI	AMP INTERRUPTING CURRENT (SYMMETRICAL)	EPO	EMERGENCY POWER OFF
BG	BELOW GRADE	EWC	ELECTRIC WATER COOLER
C	CONDUIT	EWH	ELECTRIC WATER HEATER
CFCI	CONTRACTOR FURNISHED CONTRACTOR INSTALLED	(F)	FUTURE
CKT	CIRCUIT	FA	FIRE ALARM
CO	CONDUIT ONLY	FLA	FULL LOAD AMPS
CU	COPPER	GF	GROUND FAULT INTERRUPTER
CW	COMPLETE WITH	GFP	GROUND FAULT PROTECTOR
		GND	GROUND
		GRC	GALVANIZED RIGID CONDUIT
		IG	ISOLATED GROUND
		MCB	MAIN CIRCUIT BREAKER
		MCC	MOTOR CONTROL CENTER
		MH	MANHOLE
		MLO	MAIN LUGS ONLY
		(N)	NEW
		NIC	NOT IN CONTRACT
		NL	NIGHT LIGHT
		OCFI	OWNER FURNISHED CONTRACTOR INSTALLED
		OFI	OWNER FURNISHED OWNER INSTALLED
		PNL	PANEL
		(R)	RELOCATE
		(RM)	REMOVE AND RETURN TO OWNER
		TR	TAMPER RESISTANT
		TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
		TYP	TYPICAL
		UNO	UNLESS NOTED OTHERWISE
		WP	WEATHER PROOF
		XMR	TRANSFORMER

* THIS IS A TYPICAL ABBREVIATION LIST. NOT ALL ABBREVIATIONS ARE USED ON THIS PROJECT.

GENERAL NOTES

- THE ELECTRICAL CONTRACTOR SHALL REVIEW AND COORDINATE WITH ARCHITECTURAL, CIVIL, STRUCTURAL, MECHANICAL, PLUMBING AND OTHER DRAWINGS PRIOR TO BID.
- SUBMIT SHOP DRAWINGS IN ACCORDANCE WITH THE SPECIFICATIONS IN A NEAT AND ORDERLY MANNER WITH TYPE AND MODEL NUMBERS INDICATED. SUBMITTALS SHALL INCLUDE BUT NOT LIMITED TO LIGHTING FIXTURES, LAMPS, WIRING DEVICES, OCCUPANCY SENSORS, CONTACTORS, TIME CLOCKS, PHOTOCELLS, RELAYS, SWITCHBOARDS, PANELBOARDS, MOTOR CONTROL CENTERS, SAFETY SWITCHES, MOTOR STARTERS, OVERCURRENT PROTECTION DEVICES, TRANSFORMERS, CONDUCTORS OVER 600 VOLTS AND ALL SPECIAL SYSTEMS SUCH AS FIRE ALARM, LIGHTING CONTROLS, SECURITY SYSTEMS, SOUND SYSTEMS, ETC.
- IT IS THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS TO ESTABLISH A STANDARD OF QUALITY. MANUFACTURER CATALOG NUMBERS ARE LISTED AS A BASIS OF DESIGN. ELECTRICAL CONTRACTOR SHALL SUBMIT PRODUCT INFORMATION THAT DEVIATES FROM ORIGINAL DESIGN AND SPECIFICATION.
- CONTRACTOR SHALL SECURE AND PAY FOR ALL NECESSARY BUILDING PERMITS AND INSPECTION FEES.
- ALL IMPACT FEES ASSOCIATED WITH CITY, UTILITY OR SERVICE COMPANIES FOR BUT NOT LIMITED TO POWER, TELEPHONE, FIBER OPTIC & INTERNET SHALL BE THE RESPONSIBILITY OF THE OWNER.
- THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE WITH THE GENERAL CONTRACTOR TO PROVIDE AND INSTALL TEMPORARY POWER FOR PROJECT CONSTRUCTION AS REQUIRED. ALL ENERGY COSTS ARE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.
- DO NOT SCALE DRAWINGS VERIFY DIMENSIONS IN FIELD PRIOR TO MAKING ANY ROUGHINS.
- ELECTRICAL CONTRACTOR SHALL REVIEW ALL ARCHITECTS ELEVATIONS, SECTIONS AND FLOOR PLANS PRIOR TO ROUGH IN OF ELECTRICAL DEVICE JUNCTION BOXES.
- CONSULT ARCHITECTS REFLECTED CEILING PLANS FOR EXACT LOCATIONS OF LIGHTING FIXTURES, SPEAKERS, SMOKE DETECTORS ETC.
- ELECTRICAL CONTRACTOR SHALL MEET WITH THE CEILING AND MECHANICAL CONTRACTORS TO COORDINATE LOCATIONS, CLEARANCES, CEILING TYPES AND ROUGH-IN REQUIREMENTS OF ALL LIGHTING FIXTURES PRIOR TO DUCT, PIPING AND CEILING INSTALLATIONS.
- VERIFY EXACT LOCATION OF EQUIPMENT TO BE FURNISHED BY OTHERS PRIOR TO ROUGH-IN.
- ELECTRICAL CONTRACTOR SHALL VERIFY ALL EQUIPMENT DIMENSIONS AND LOCATIONS BEFORE BEGINNING ROUGHINS. CONSULT CONTRACT DOCUMENT DRAWINGS AND SHOP DRAWINGS TO VERIFY AND MAINTAIN REQUIRED CLEARANCES.
- ELECTRICAL ROOM DRAWINGS ARE FOR REFERENCE ONLY OF EQUIPMENT QUANTITIES. ELECTRICAL CONTRACTOR SHALL PROVIDE SHOP DRAWINGS OF ELECTRICAL ROOM SHOWING DIMENSIONS AND CLEARANCES OF ALL EQUIPMENT AND ELECTRICAL GEAR PROVIDED. COORDINATE LAYOUT WITH ONE-LINE DRAWINGS.
- CONTRACTOR SHALL VERIFY ACTUAL ELECTRICAL LOADS FROM NAMEPLATE RATINGS OF EACH PIECE OF EQUIPMENT REQUIRING POWER. BRING ANY DISCREPANCIES TO THE ATTENTION OF THE PROJECT ENGINEER.
- WORK SHALL BE PERFORMED IN A WORKMANLIKE MANNER, PER INDUSTRY STANDARD AND TO THE SATISFACTION OF THE ARCHITECT AND ENGINEER.
- WORK, MATERIALS AND EQUIPMENT SHALL CONFORM TO THE LATEST EDITIONS OF LOCAL, STATE AND NATIONAL CODES, STANDARDS AND ORDINANCES.
- FINAL CONNECTIONS TO EQUIPMENT SHALL BE MADE AS PER MANUFACTURERS WRITTEN INSTRUCTIONS AND APPROVED WIRING DIAGRAMS AND DETAILS. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO PROVIDE ALL MATERIALS AND EQUIPMENT COMPATIBLE WITH EQUIPMENT ACTUALLY SUPPLIED.
- ALL EMPTY RACEWAY SYSTEMS SHALL HAVE A 200LB RATED PULL CORD INSTALLED AND SHALL BE IDENTIFIED AT EACH JUNCTION, PULL AND TERMINATION POINT. USING PERMANENT MARKER IN THE BOX, IT SHALL INDICATE INTENDED USE OF CONDUIT, ORIGIN AND TERMINATION POINTS OF EACH INDIVIDUAL CONDUIT.
- ALL PENETRATIONS OF FIRE RATED FLOORS, CEILING AND WALLS SHALL BE SEALED WITH UL LISTED AND RATED FIRE STOP MATERIAL TO MAINTAIN FIRE RATING OF ASSEMBLY.
- ELECTRICAL BOXES SHALL NOT BE LOCATED IN MASONRY OR CONCRETE COLUMNS, BOND BEAMS OR GROUTED CELLS OF MASONRY WALLS ADJACENT TO OPENINGS WITHOUT COORDINATION WITH THE MASONRY CONTRACTOR.
- WIRE FOR GENERAL USE SHALL BE COPPER #14 GATED. WIRING FOR HID FIXTURES WITHIN 2' OF FLUORESCENT BALLAST SHALL BE COPPER, MINIMUM 90' GATED. CONDUCTOR SIZES INDICATED ARE FOR INSTALLATION IN A MAXIMUM 30' C AMBIENT TEMPERATURE ENVIRONMENT. CONDUCTOR AMPACITY SHALL BE DERATED FOR HIGHER AMBIENT INSTALLATIONS.
- CONDUCTORS HAVE BEEN SIZED FOR VOLTAGE DROP AS PER PLANS AND DIRECT ROUTING. ANY DEVIATION IN CONDUIT ROUTING MAY INCREASE THE WIRE AND CONDUIT SIZE. ELECTRICAL CONTRACTOR IS RESPONSIBLE TO INSURE PROPER OPERATING VOLTAGE ON ALL CIRCUITS BOTH INTERIOR AND EXTERIOR. THE VOLTAGE DROP SHALL NOT EXCEED 3% FOR BRANCH CIRCUITS AND 2% FOR FEEDERS FOR A TOTAL OF 5% COMBINED TOGETHER FOR BRANCH AND FEEDER CIRCUITS TO THE FARTHEST OUTLET.
- ELECTRICAL CONTRACTOR SHALL PROVIDE ALL UTILITY METERING EQUIPMENT TO COMPLY WITH THE STANDARDS OF THE LOCAL OR PROJECT SPECIFIC POWER COMPANY.
- VERIFY EXACT LOCATIONS OF ALL NEW AND EXISTING UNDERGROUND SITE UTILITIES, PIPING AND RACEWAY SYSTEMS PRIOR TO TRENCHING. A UTILITY LOCATING COMPANY SUCH AS "BLUE STAKE" OR EQUAL SHALL BE USED TO VERIFY AND MARK UTILITIES BEFORE TRENCHING. PROVIDE NECESSARY TRENCHING, BACKFILL EXCAVATION, SUPPORTS, SERVICE FEEDERS, (CONDUIT AND/OR WIRE), PULL BOXES, TRANSFORMER PADS, SAW CUTTING AND PATCHING CONCRETE PAVING ETC. REQUIRED. BACKFILL TRENCHES TO 90% COMPACTION. PATCHING SHALL MATCH EXISTING SURROUNDING SURFACES. CONTRACTOR SHALL OBTAIN AND VERIFY UTILITY COMPANY DRAWINGS AND REQUIREMENTS FOR ALL SITE UTILITIES. ELECTRICAL CONTRACTOR SHALL ALSO COORDINATE ELECTRICAL RELATED UTILITIES WITH THE CIVIL, MECHANICAL, AND SITE EXCAVATION CONTRACTORS.
- PULLBOXES, CABINETS, ETC. MOUNTED ON THE EXTERIOR OF THE BUILDING SHALL BE WEATHERPROOF TYPE WITH HINGED GASKETED LOCKABLE COVERS SECURED WITH TAMPERPROOF SCREWS.
- SPICES IN EXTERIOR PULLBOXES AND MANHOLES SHALL BE MADE WATERPROOF USING "SCOTCAST" SPULCE KIT OR APPROVED EQUAL. SEAL ENDS OF CONDUITS AND DUCTS ENTERING BOXES WITH "DUCTSEAL" OR EQUAL.
- ELECTRICAL CONTRACTOR SHALL TEST AND VERIFY ALL SYSTEMS WITH PROJECT ENGINEER DURING FINAL INSPECTION TO INSURE PROPER OPERATION. IF TESTS RESULT IN DEFECT THE CONTRACTOR SHALL MAKE ANY CORRECTIONS NECESSARY AT NO ADDITIONAL COSTS TO THE OWNER.
- PROVIDE RECORD DRAWINGS IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.
- THE CONTRACTOR SHALL GUARANTEE THE INSTALLATION AGAINST DEFECTS IN MATERIALS AND WORKMANSHIP WHICH MAY OCCUR UNDER NORMAL USAGE FOR A PERIOD OF ONE YEAR AFTER SUBSTANTIAL COMPLETION. DEFECTS SHALL BE PROMPTLY CORRECTED.

ELECTRICAL SPECIFICATIONS

SECTION 16000 - GENERAL PROVISIONS

WORK CONSISTS OF FURNISHING LABOR, MATERIALS, EQUIPMENT AND SERVICES REQUIRED FOR THE COMPLETE INSTALLATION OF ELECTRICAL WORK SHOWN IN THE CONTRACT DOCUMENTS AND SPECIFIED IN DIVISION 16. INCLUDE ALL PARTS AND LABOR WHICH ARE INCIDENTAL AND NECESSARY FOR A COMPLETE AND OPERABLE INSTALLATION EVEN THOUGH NOT SPECIFICALLY MENTIONED IN THE CONTRACT DOCUMENTS. SUCH ITEMS INCLUDE NUTS, BOLTS, NIPPERS, BRACKETS, SLEEVES, OFFSETS IN CONDUIT, FITTINGS, RELAYS, ETC.

REQUEST INSPECTIONS AS REQUIRED BY REGULATING AGENCIES AND/OR REGULATIONS. PAY ALL CHARGES FOR INSPECTIONS BY REGULATING AGENCIES OF INSTALLATIONS OF PLANS AND SPECIFICATIONS.

INCLUDE STATE AND LOCAL SALES TAXES IN THE BID. KEEP ACCURATE RECORDS OF THESE TAXES AND FURNISH SUCH RECORDS TO THE OWNER UPON REQUEST.

MEET OR EXCEED ALL CURRENT APPLICABLE CODES, ORDINANCES AND REGULATIONS FOR ALL INSTALLATIONS. PROMPTLY NOTIFY THE ENGINEER IN WRITING IF THE CONTRACT DOCUMENTS APPEAR TO CONFLICT WITH GOVERNING CODES AND REGULATIONS. CONTRACTOR ASSUMES ALL RESPONSIBILITY AND COSTS FOR CORRECTING NON-COMPLYING WORK INSTALLED WITHOUT NOTIFYING THE ENGINEER.

INSPECT ALL AREAS AFFECTED BY THE INTERRUPTIONS AND RETURN ALL AUTOMATICALLY CONTROLLED EQUIPMENT, ELECTRICALLY OPERATED EQUIPMENT TO THE SAME OPERATING CONDITION PRIOR TO THE INTERRUPTION.

DO NOT DISTURB NORMAL USE OF THE FACILITY. EXCEPT WITHIN THE IMMEDIATE CONSTRUCTION AREA, KEEP WALKS, DRIVEWAYS, ENTRANCES, ETC. FREE AND CLEAR OF EQUIPMENT, MATERIAL AND DEBRIS.

STORE ALL EQUIPMENT AND MATERIAL IN A PLACE AND MANNER THAT MINIMIZES CONGESTION AND IS APPROVED BY THE OWNER.

PROVIDE NEW MATERIAL AND EQUIPMENT, UNLESS NOTED OTHERWISE. PROTECT EQUIPMENT AND MATERIAL FROM DAMAGE, DIRT AND THE WEATHER.

PROVIDE THE HIGHEST QUALITY WORKMANSHIP AND PERFORM ALL WORK ONLY BY SKILLED MECHANICS. INSTALL MATERIAL AND EQUIPMENT IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS, INSTRUCTIONS AND CURRENT NECA STANDARDS.

THE OWNER RESERVES THE RIGHT TO REJECT MATERIAL OR WORKMANSHIP NOT IN ACCORDANCE WITH THE SPECIFICATIONS, BEFORE OR AFTER INSTALLATION.

HIGHER QUALITY OF WORKMANSHIP AND MATERIALS INDICATED IN THE CONTRACT DOCUMENTS TAKES PRECEDENCE OVER THAT ALLOWED IN REFERENCED CODES AND STANDARDS.

THE TERMS DEFINED BELOW APPLY TO ALL WORK INCLUDED IN DIVISION 16.

- THE WORK - AS DEFINED IN THE 1997 AIA DOCUMENT A201 - "THE TERM "WORK" MEANS THE CONSTRUCTION AND SERVICES REQUIRED BY THE CONTRACT DOCUMENTS WHETHER COMPLETED OR PARTIALLY COMPLETED, AND INCLUDES ALL OTHER LABOR, MATERIALS, EQUIPMENT AND SERVICES PROVIDED OR TO BE PROVIDED BY THE CONTRACTOR TO FULFILL THE CONTRACTORS OBLIGATIONS. THE WORK MAY CONSTITUTE THE WHOLE OR A PART OF THE PROJECT.
- FURNISH - TO OBTAIN IN NEW CONDITION READY FOR INSTALLATION INTO THE WORK.
- INSTALL - TO STORE, SET IN PLACE, CONNECT AND PLACE INTO OPERATION INTO THE WORK.
- PROVIDE - TO FURNISH AND INSTALL.
- CONNECT - TO BRING SERVICE TO THE EQUIPMENT AND MAKE FINAL ATTACHMENT INCLUDING NECESSARY SWITCHES, OUTLETS, BOXES, TERMINATIONS, ETC.
- CONDUIT - INCLUDES IN ADDITION TO CONDUIT, ALL FITTINGS, PULL BOXES, HANGERS AND OTHER SUPPORTS AND ACCESSORIES RELATED TO SUCH CONDUIT.
- CONCEALED - HIDDEN FROM SIGHT IN CHASES, FURRED SPACES, SHAFTS, HUNG CEILING, EMBEDDED IN CONSTRUCTION, IN CRAWL SPACES OR BURIED.
- EXPOSED - NOT INSTALLED UNDERGROUND NOR CONCEALED AS DEFINED ABOVE.

THE DRAWINGS AND SPECIFICATIONS CONSTITUTE THE CONTRACT DOCUMENTS. ANY ITEM NOT SHOWN IN THE SPECIFICATION OR SHOWN ON THE DRAWINGS IS INCLUDED IN THE CONTRACT DOCUMENTS.

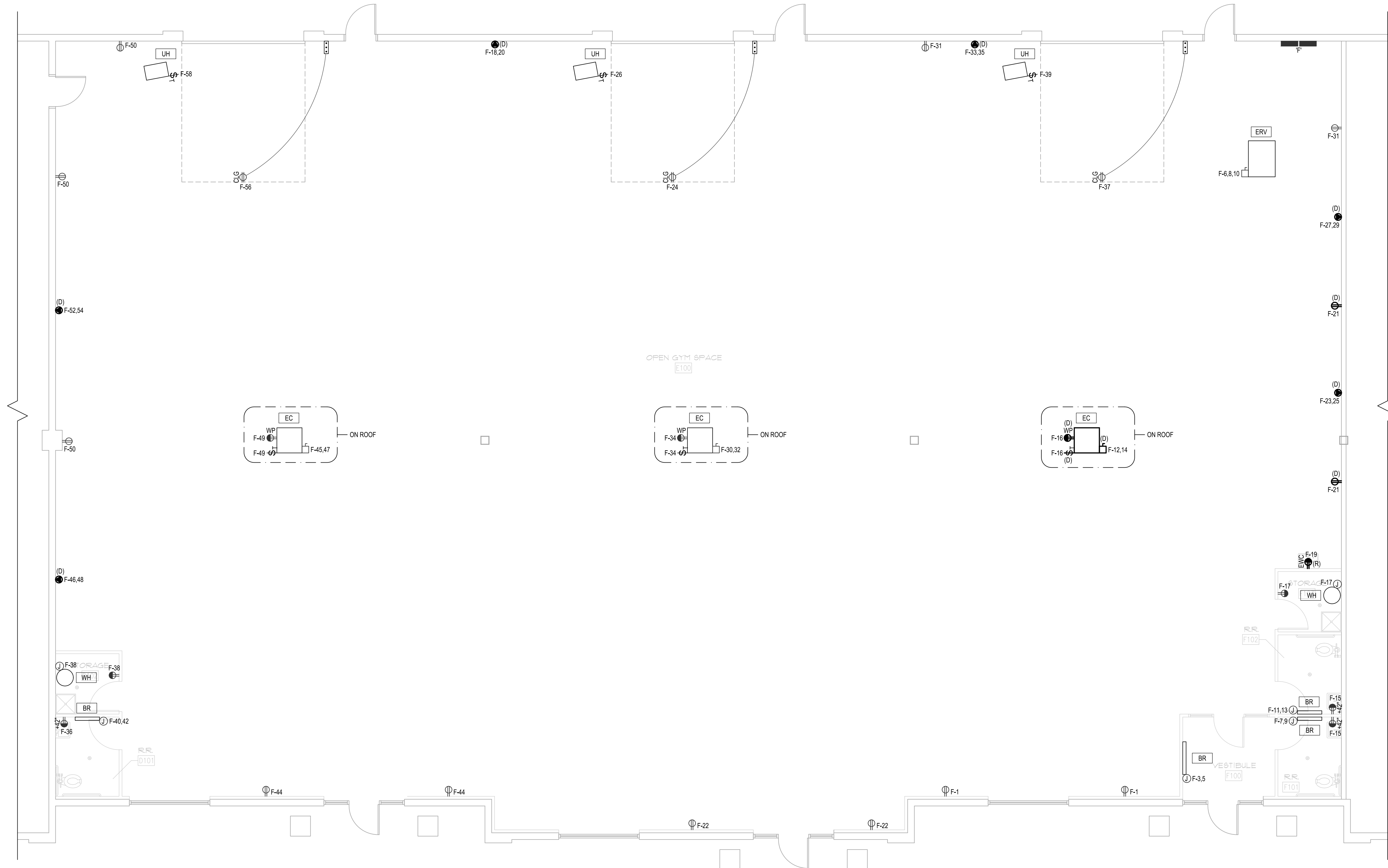
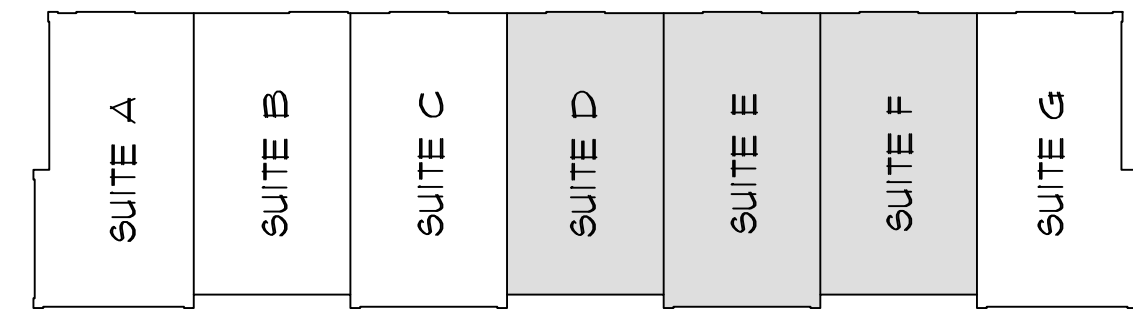
ALL ELECTRICAL DETAILS AND DRAWINGS ARE DIAGRAMMATIC, UNLESS SPECIFICALLY NOTED. FIELD VERIFY ALL DIMENSIONS AND NOTIFY THE ENGINEER OF ANY CONFLICTS OR DISCREPANCIES IN WRITING, PRIOR TO INSTALLATION.

INITIATE, MAINTAIN AND SUPERVISE ALL SAFETY PRECAUTIONS REQUIRED WITH THIS WORK IN ACCORDANCE WITH THE REGULATIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) AND OTHER GOVERNING AGENCIES.

DO NOT REMOVE OR DISTURB ANY ASBESTOS CONTAINING MATERIALS FROM THE PROJECT. IMMEDIATELY STOP WORK AND NOTIFY THE TENANT IF ASBESTOS CONTAINING MATERIALS ARE SUSPECTED.

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KEY PLAN



A EXISTING / DEMOLITION POWER PLAN
E200 SCALE: 3/16" = 1'-0"



PVE Inc.
Consulting Mechanical Electrical Engineers
1040 North 2200 West, Suite 100
Salt Lake City, Utah 84116
(801) 359-3158 Fax: (801) 521-4114

DAVINCI ACADEMY - SUITES D, E, & F
850 WEST 350 NORTH
KAYSVILLE, UT 84037

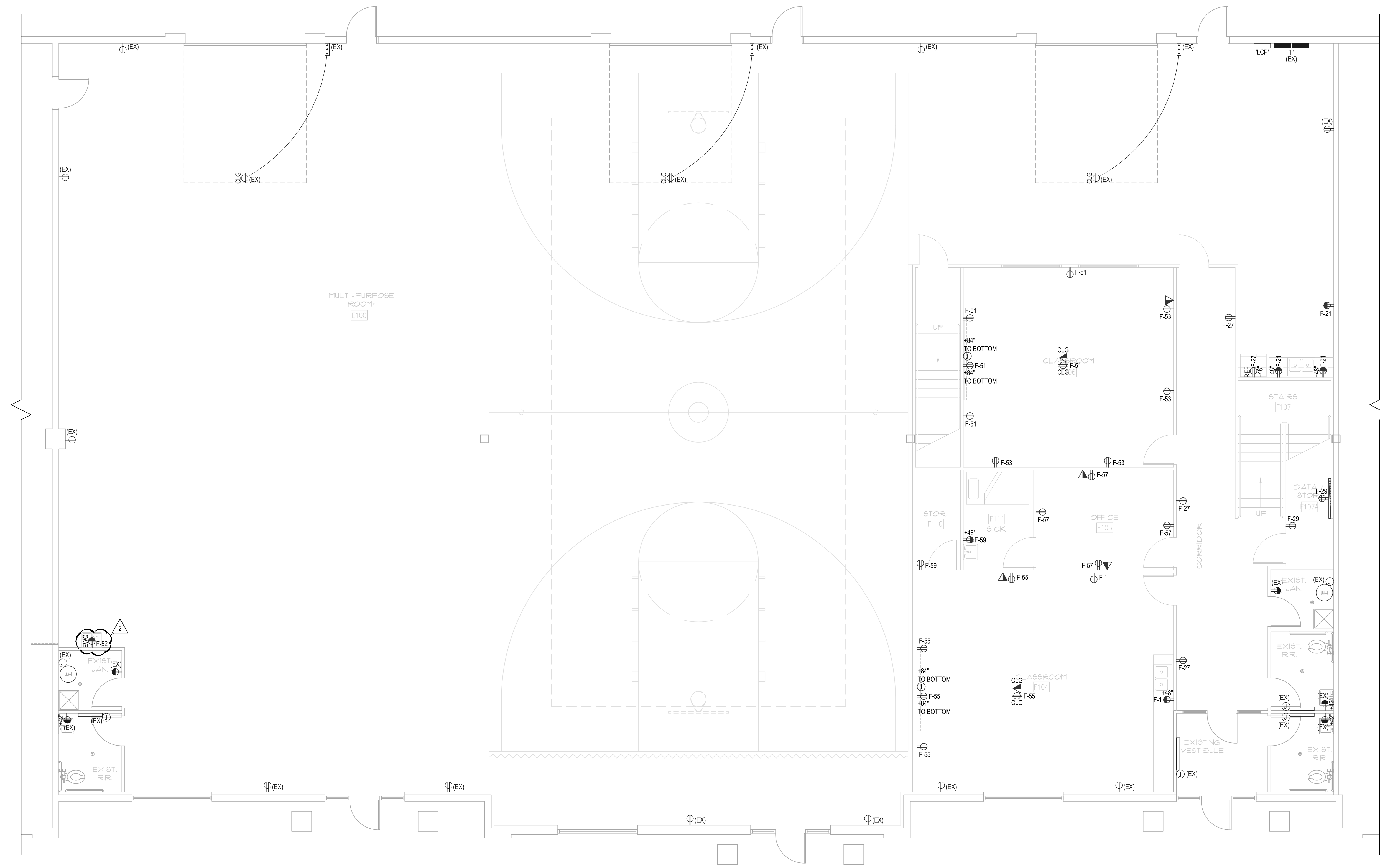
NO.	DATE	DESCRIPTION

DATE: 1/8/2020
SCALE: SEE DWG.
DRAWN: J.S.
CHECKED: T.H.
JOB NO.: 18029.09

SHEET TITLE
EXISTING / DEMOLITION POWER PLAN

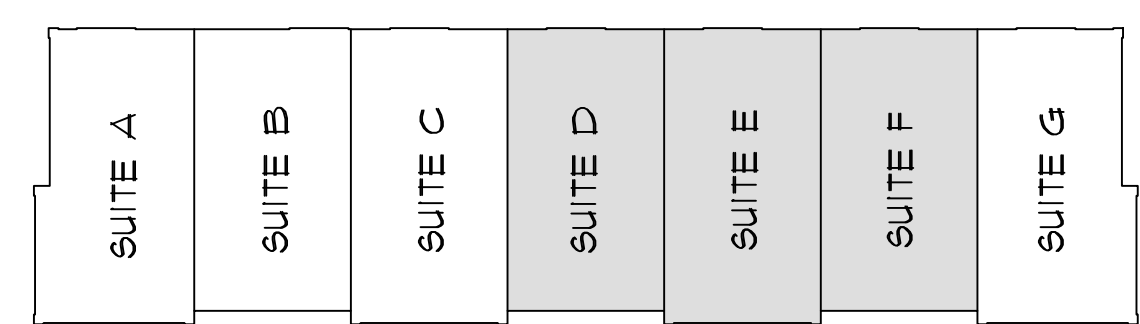
SHEET NO.
E200

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A MAIN LEVEL POWER PLAN
E201 SCALE: 3/16" = 1'-0"

KEY PLAN



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850 WEST 350 NORTH
KAYSVILLE, UT 84037

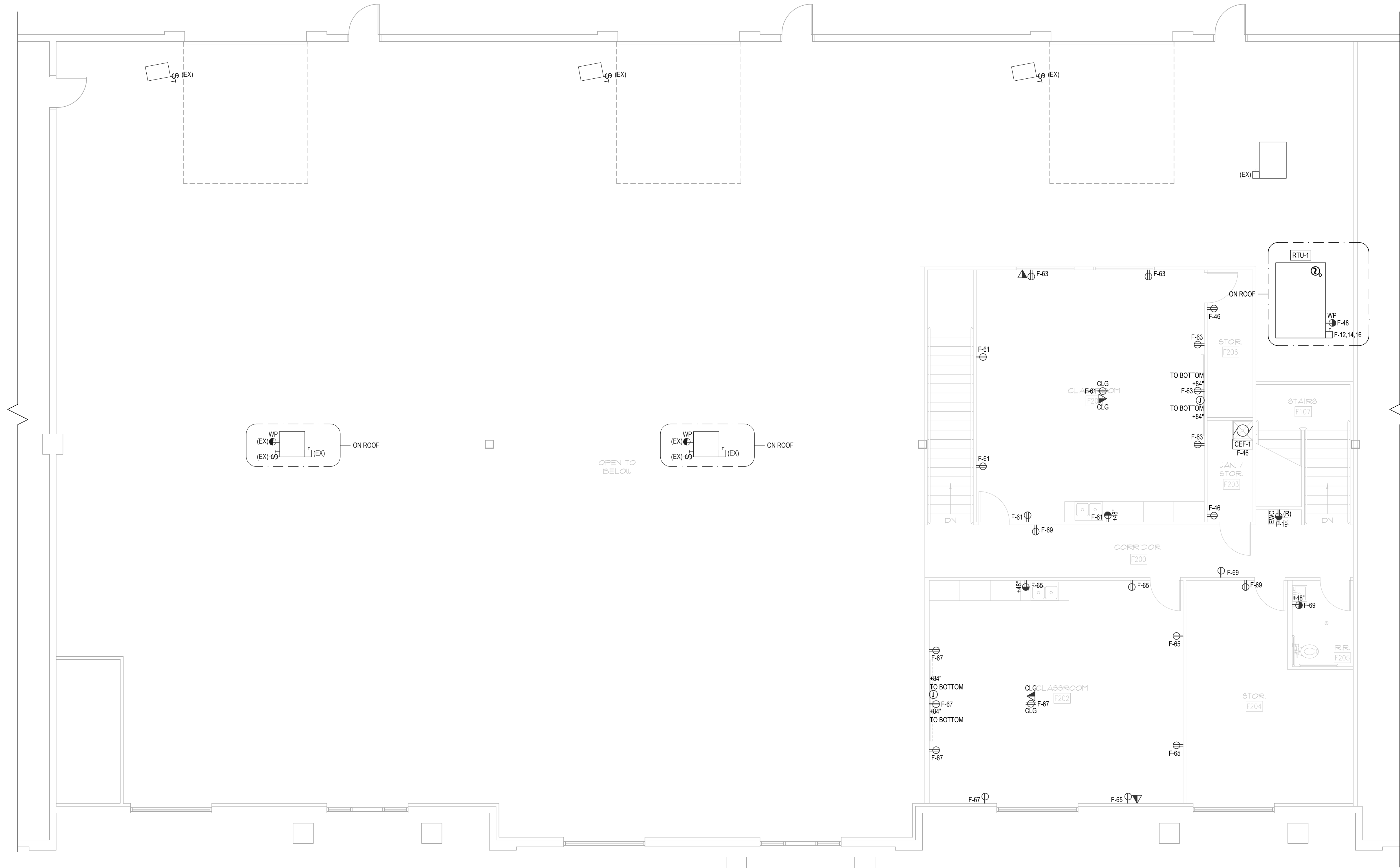
NO.	DATE	DESCRIPTION
1	3/3/2020	CITY COMMENTS #1
2	4/13/2020	HEALTH DEPT COMMENTS

DATE	1/8/2020
SCALE	SEE DWG.
DRAWN	J.S.
CHECKED	T.H.
JOB NO.	18029.09

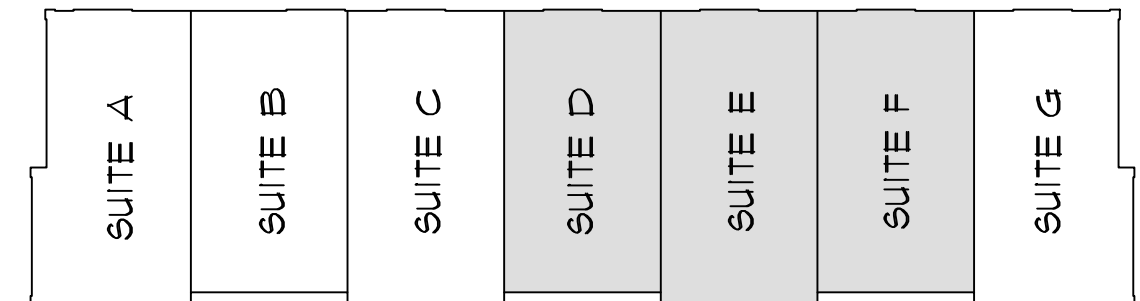
SHEET TITLE
MAIN LEVEL POWER PLAN

SHEET NO.
E201

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KEY PLAN



A UPPER LEVEL POWER PLAN
E202 SCALE: 3/16" = 1'-0"



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850 WEST 350 NORTH
KAYSVILLE, UT 84037

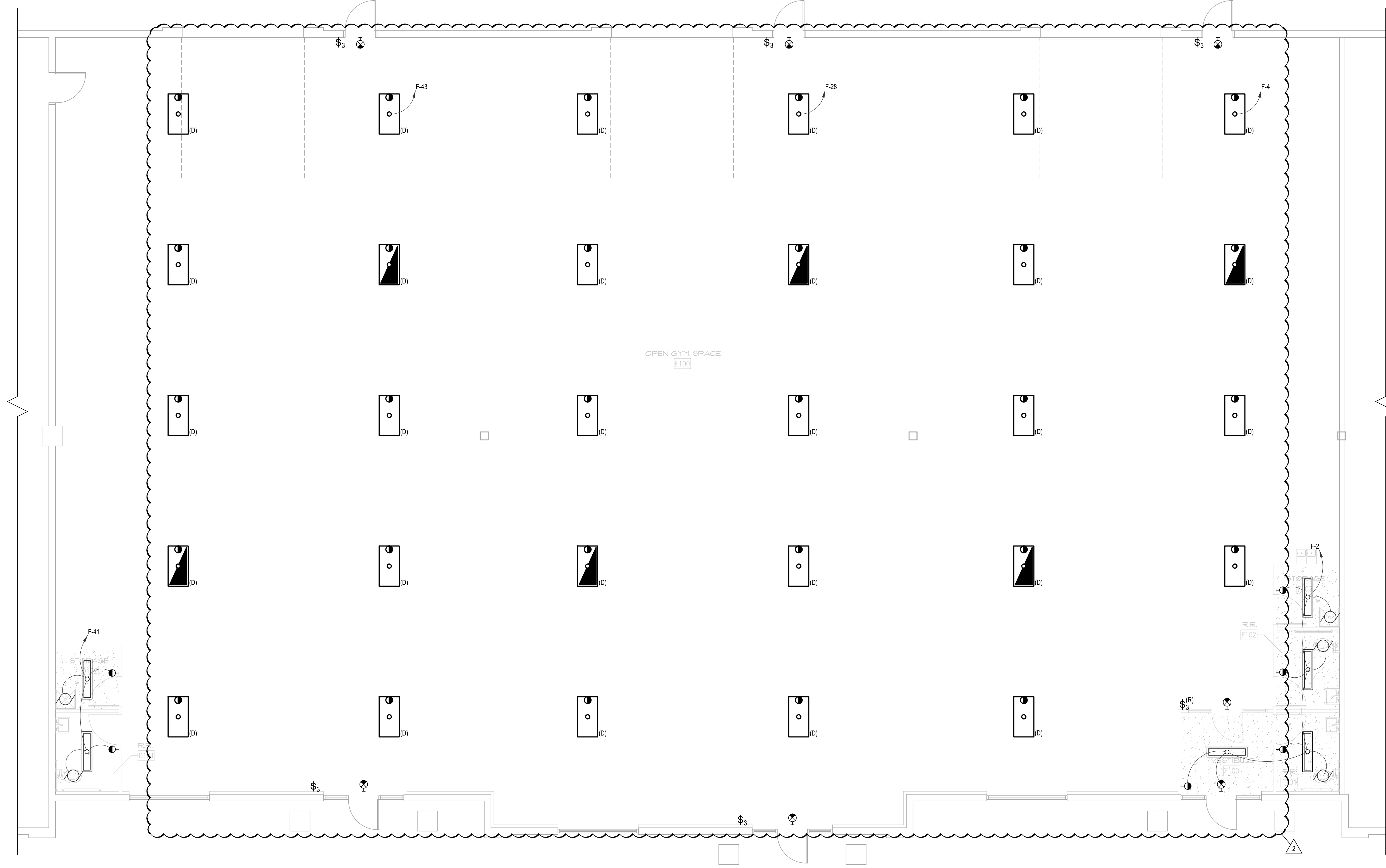
REVISIONS:	
NO.	DATE DESCRIPTION

DATE: 1/8/2020
SCALE: SEE DWG.
DRAWN: J.S.
CHECKED: T.H.
JOB NO.: 18029.09

SHEET TITLE
UPPER LEVEL POWER PLAN

SHEET NO.
E202

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A EXISTING / DEMOLITION LIGHTING PLAN
E300 SCALE: 3/16" = 1'-0"



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DAVINCI ACADEMY - SUITES D, E, & F
 850 WEST 350 NORTH
 KAYSVILLE, UT 84037

REVISIONS:		
NO.	DATE	DESCRIPTION CITY COMMENTS #1 HEALTH DEPT COMMENTS
1	3/3/2020	
2	4/13/2020	

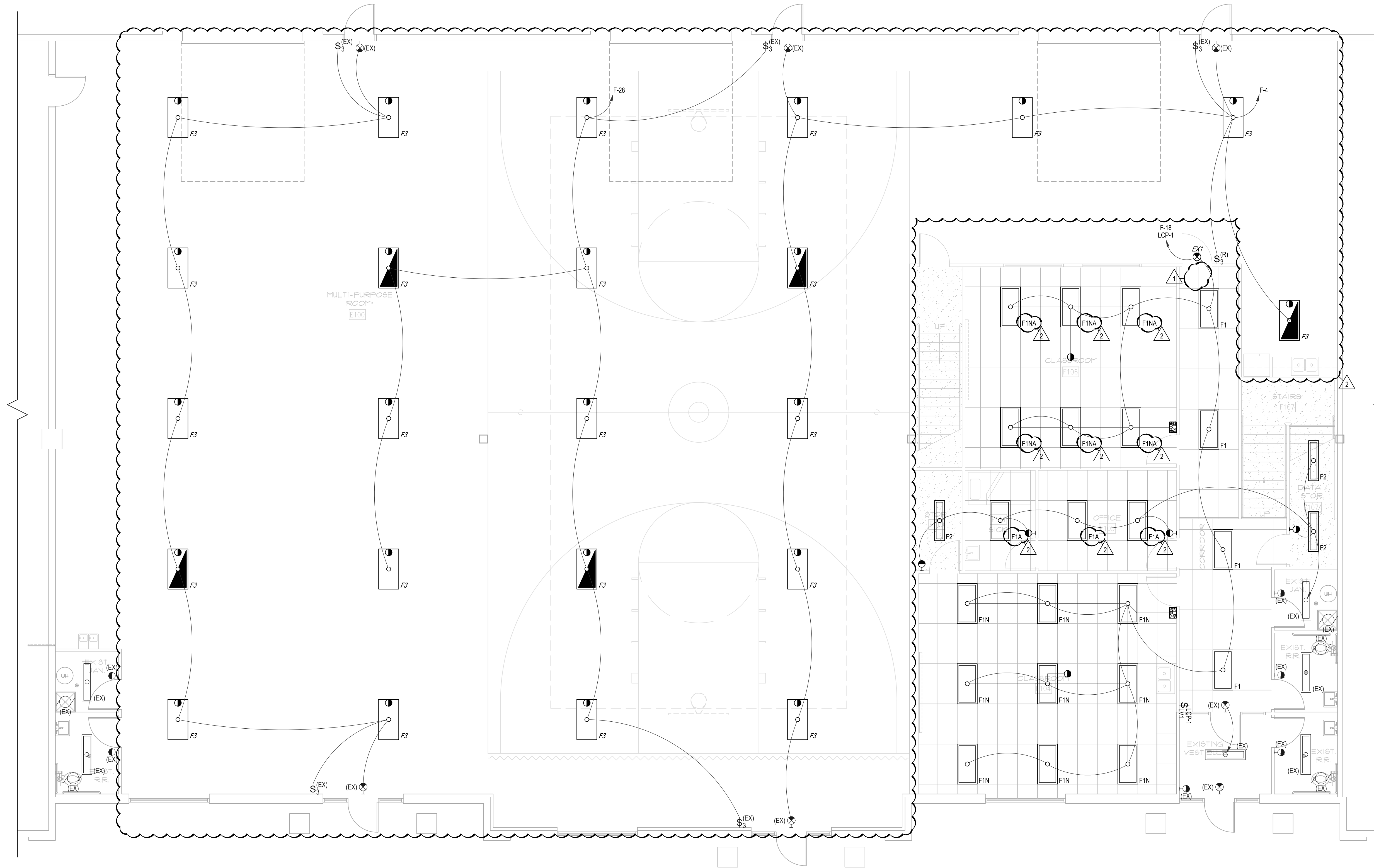
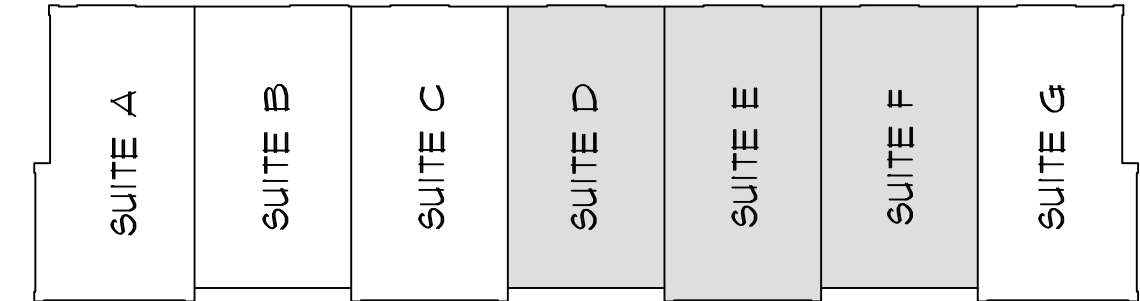
DATE: 1/8/2020
 SCALE: SEE DWG.
 DRAWN: J.S.
 CHECKED: T.H.
 JOB NO.: 18029.09

SHEET TITLE
**EXISTING /
 DEMOLITION
 LIGHTING PLAN**

SHEET NO.
E300

By: Jamih: Apr 17, 2020 - 7:20am. x:\Projects\2018\18029.09 - Horizon Suite DEF - Davinci Academy Addition\EX\Lighting\18029.09 Lighting.dwg. Salt Lake City, Utah. All rights reserved. Unauthorized copying and/or use is illegal and subject to prosecution.

KEY PLAN



A MAIN LEVEL LIGHTING PLAN
E301 SCALE: 3/16" = 1'-0"

- DATA CONNECTIONS BETWEEN EACH FIXTURE, CONTROLLERS, AND POWER PACKS
- Sensor-Calling Mount, Low Voltage, Passive Infrared (PIR)
- ⊠ 4 Button On/Off Toggle or Quad Scene Controller With Dimming
- ⊠ hPDM AS DX (COLOR)
- ⊠ 120V POWER CONNECTION TO EACH LIGHT AND POWER PACK
- ⊠ 120V HOME RUN BACK TO PANEL



PVE Inc.
Consulting Mechanical Electrical Engineers
1040 North 2200 West, Suite 100
Salt Lake City, Utah 84116
(801) 359-3158 Fax: (801) 521-4114

DAVINCI ACADEMY - SUITES D, E, & F
850 WEST 350 NORTH
KAYSVILLE, UT 84037

REVISIONS:

NO.	DATE	DESCRIPTION	CITY COMMENTS #1	HEALTH DEPT COMMENTS
1	3/9/2020			
2	4/13/2020			

DATE: 1/8/2020
SCALE: SEE DWG.
DRAWN: J.S.
CHECKED: T.H.
JOB NO.: 18029.09

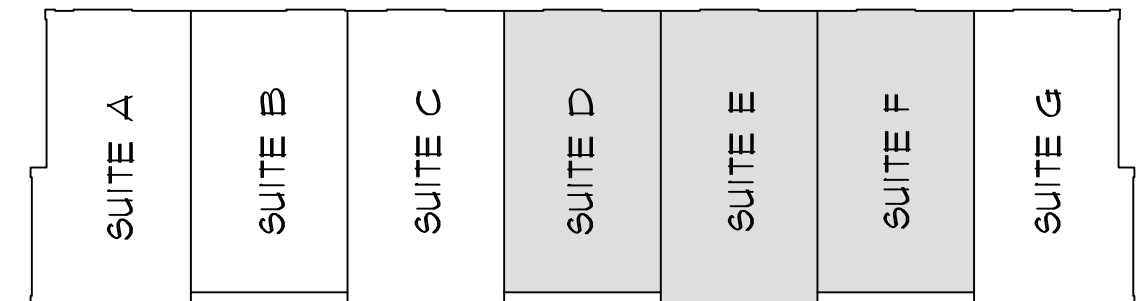
SHEET TITLE
MAIN LEVEL LIGHTING PLAN

SHEET NO.
E301

By: Jamih: Jan 09, 2020 - 3:02pm. X:\Projects\2018\18029.09 - Horizon Suite DEF - Davinci Academy Addition\Lighting\Lighting.dwg. Salt Lake City, Utah. All rights reserved. Unauthorized copying and/or use is illegal and subject to prosecution.



KEY PLAN



A UPPER LEVEL LIGHTING PLAN
E302 SCALE: 3/16" = 1'-0"

- DATA CONNECTIONS BETWEEN EACH FIN, FIXTURE, CONTROLLERS, AND POWER PACKS
- Sensor-Calling Mount, Low Voltage, Passive Infrared (PIR)
- iROOM 4S DX (COLOR) 4 Button On/Off Toggle or Quad Scene Controller With Dimming
- 120V POWER CONNECTION TO EACH LIGHT AND POWER PACK
- 120V HOME RUN BACK TO PANEL



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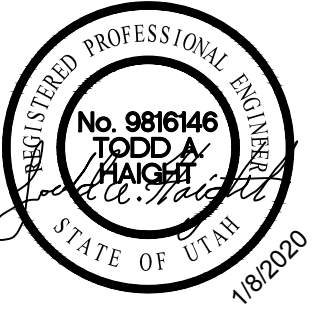
NO.	DATE	REVISIONS:	DESCRIPTION

DATE..... 1/8/2020
SCALE..... SEE DWG.
DRAWN..... J.S.
CHECKED..... T.H.
JOB NO..... 18029.09

SHEET TITLE
UPPER LEVEL LIGHTING PLAN

SHEET NO.
E302

****FIRE ALARM SHALL BE DESIGNED UNDER A DEFERRED SUBMITTAL****



DAVINCI ACADEMY - SUITES D, E, & F
 850 WEST 350 NORTH
 KAYSVILLE, UT 84037

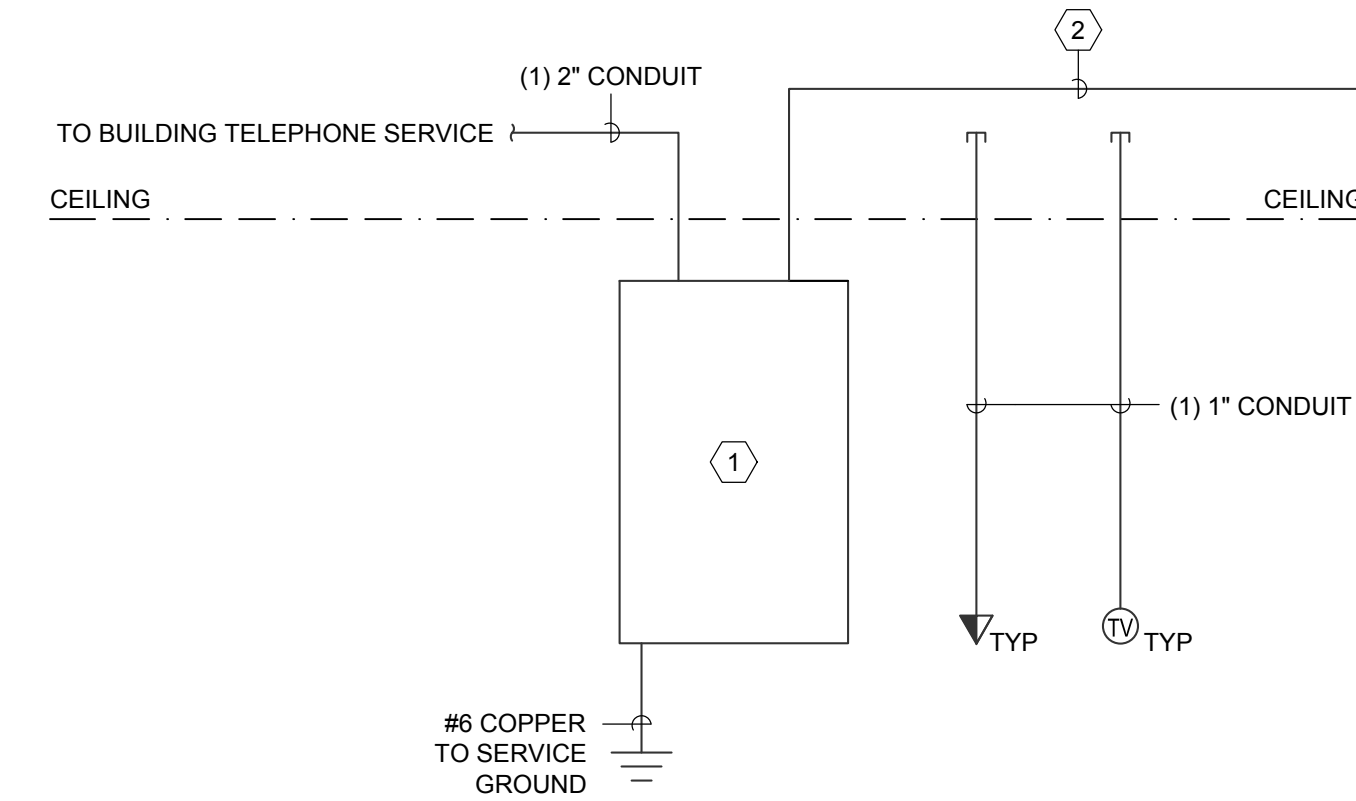
NO.	DATE	DESCRIPTION

DATE..... 1/8/2020
 SCALE..... SEE DWG.
 DRAWN..... J.S.
 CHECKED..... T.H.
 JOB NO..... 18029.09

SHEET TITLE
ONE-LINE DIAGRAM

SHEET NO.
E401

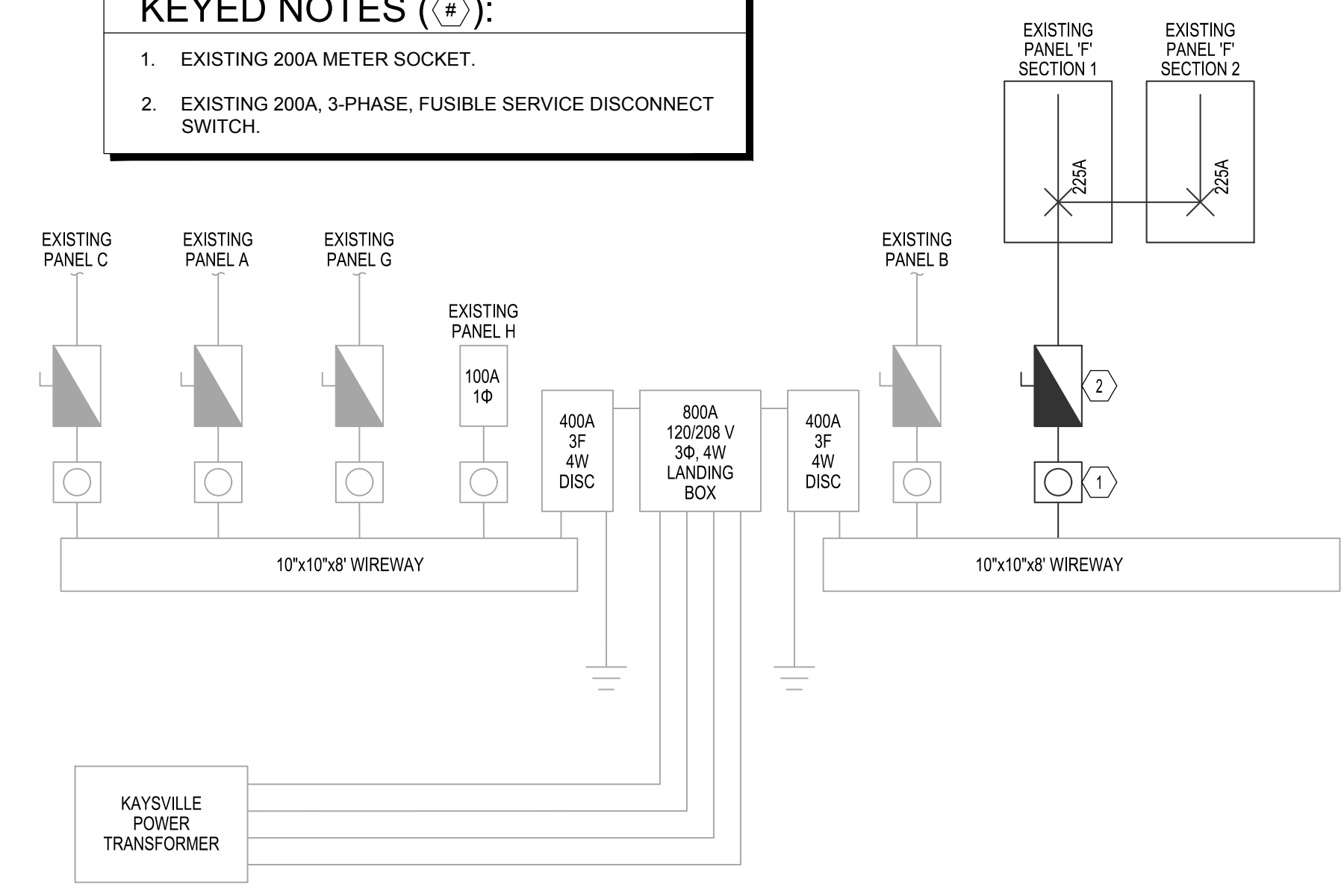
- KEYED NOTES (#):**
- NEW 48"Wx48"Hx3/4"D PLYWOOD BOARD WITH THREE COATS FIRE-RETARDANT PAINT IN TENANT SPACE FOR TELEPHONE SERVICE. SEE POWER PLANS FOR LOCATION.
 - PROVIDE (1) 2" CONDUIT TO DATA ROOM IN SUITE C.



B TELEPHONE RISER DIAGRAM
 E401

CKT NO	DESCRIPTION	DESIGN KVA	DESIGN FLA
1	PANEL 'H'	19.8	95.0
2	SUITE 'A'	32.1	89.2
3	SUITE 'C'	49.0	136.0
4	SUITE 'G'	54.2	150.4
5	SUITE 'B'	28.8	79.9
6	SUITE 'F'	58.2	161.4
7	SPACE		
8	SPACE		
DESIGN KVA:		242.0	
DESIGN FLA:		671.8	

- KEYED NOTES (#):**
- EXISTING 200A METER SOCKET.
 - EXISTING 200A, 3-PHASE, FUSIBLE SERVICE DISCONNECT SWITCH.



A EXISTING ONE-LINE DIAGRAM
 E401

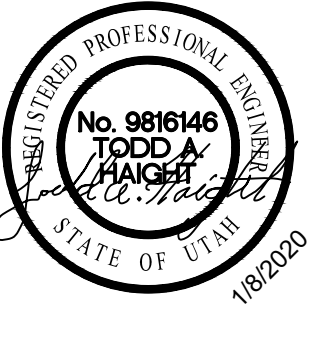
UNIT #	EQUIPMENT DESCRIPTION	ELECTRICAL				REFERENCE NOTES					OCPD		REMARKS
		LOAD	LOAD UNITS	VOLTS	PHASE	FULL LOAD AMPS (FLA)	DISCONNECT MEANS	DISCONNECT RATING (AMPS)	STARTER SIZE	ENCLOSURE TYPE	FUSE SIZE (AMPS)	BREAKER SIZE (AMPS)	
CEF-1	JAN/STORAGE F203 CEILING EXHAUST FAN	87	W	120	1	0.7						20	
CEF-2	RESTROOM F205 CEILING EXHAUST FAN	87	W	120	1	0.7						20	CONTROL WITH RESTROOM LIGHTING
RTU-1	ROOFTOP UNIT (7.5 TONS)	49.8	MCA	208	3	39.8	1A	60		18		60	FURNISHED WITH 120V OUTLET & RETURN AIR SMOKE DETECTOR. EC TO MAKE POWER AND FIRE ALARM CONNECTIONS AS NEEDED.
REFERENCE NOTES: 1. NON-FUSED DISCONNECT SWITCH 2. FUSED DISCONNECT SWITCH 3. BREAKER IN ENCLOSURE 4. FUSED DISCONNECT SWITCH WITH SHUNT TRIP 5. MANUAL STARTER WITH THERMAL OVERLOAD 6. MANUAL STARTER 7. MAGNETIC STARTER/NON-FUSED DISCONNECT COMBINATION 8. MAGNETIC STARTER/FUSED DISCONNECT COMBINATION 9. MAGNETIC STARTER/MOTOR CIRCUIT PROTECTOR COMBINATION 10. VARIABLE SPEED DRIVE 11. REDUCED VOLTAGE STARTER 12. DIRECT CONNECTION 13. RECEPTACLE/SPECIAL PURPOSE OUTLET ETC. 14. TWO-SPEED STARTER, COORDINATE WITH MOTOR TYPE 15. MAXIMUM CIRCUIT AMPS (MCA) 16. FULL LOAD CURRENT 17. PROVIDE WITH NEMA 1 ENCLOSURE 18. PROVIDE WITH NEMA 3R ENCLOSURE A. FURNISHED, INSTALLED AND FINAL CONNECTION BY THE ELECTRICAL CONTRACTOR. B. FURNISHED AND INSTALLED UNDER ANOTHER DIVISION, FINAL CONNECTION BY THE ELECTRICAL CONTRACTOR. C. FURNISHED UNDER ANOTHER DIVISION, INSTALLED AND FINAL CONNECTION BY THE ELECTRICAL CONTRACTOR. D. FURNISHED, INSTALLED AND FINAL CONNECTION UNDER ANOTHER DIVISION.													
GENERAL NOTES: 1. VERIFY ALL EQUIPMENT LOCATIONS AND CONNECTION REQUIREMENTS (i.e. VOLTAGE, PHASE, FLA, ETC.) WITH MECHANICAL DRAWINGS/SUBMITTALS PRIOR TO STARTING ROUGH IN. 2. ALL FUSES SHALL BE DUAL ELEMENT, TIME DELAY. FINAL BREAKER/FUSE & DISCONNECT SIZE SHALL BE DETERMINED BY MANUFACTURER'S RECOMMENDATION FOR ACTUAL EQUIPMENT INSTALLED. 3. ALL INSULATION ON CONDUCTORS TO BE THIN UNLESS NOTED OTHERWISE. INSULATION ON ALL UNDERGROUND EXTERIOR CONDUCTORS SHALL BE THHW.													

SCHEDULE: NEW LIGHTING CONTROL PANEL								
NAME:	LCP	POWER SUPPLY CIRCUIT:	F-25					
MOUNTING:	SURFACE	NUMBER OF RELAYS:	4					
ENCLOSURE:	NEMA 1							
LOCATION:	MULTI-PURPOSE ROOM E100							
NUMBER	RELAY	AMP	POLE	SUPPLY CIRCUIT	AREA SERVED	LV SWITCH (SEE SWITCH SCHEDULE)	CONTROL CODE	REMARKS
1	20	1		F-18	MAIN LEVEL LIGHTING	LV1	A/C1	
2	20	1		F-23	UPPER LEVEL LIGHTING	LV1	A/C1	
3	20	1			SPARE			
4	20	1			SPARE			
PROGRAM CODE: A AUTO ON / AUTO OFF B MANUAL ON / AUTO OFF (C) ASTRONOMIC TIMECLOCK (D) DIMMING RELAY (E) PHOTOCCELL 1 HOURS OF OPERATION 2 DUSK TO DAWN 3 CUSTOM TIMES 4 OFF AFTER X MINUTES 5 OFF AT DUSK 6 OFF AT CUSTOM TIME								
GENERAL NOTES: A. SEE PLAN(S) FOR LOCATION(S) OF LOW VOLTAGE SWITCH(ES). B. RELAY TO CONTROL COIL OF 2-POLE CONTACTOR, FACTORY MOUNTED ON CABINET INTERIOR. C. ELECTRICAL CONTRACTOR TO PROVIDE SPACE IN THIS PANEL FOR FUTURE EXPANSION. D. INSTALL VOLTAGE BARRIERS AS REQUIRED BY LOCAL AHJ OR TO SEPARATE NORMAL AND EMERGENCY POWER CIRCUITS. E. CONFIRM PROGRAMMING WITH OWNER PRIOR TO COMMISSIONING THE LIGHTING CONTROL SYSTEM.								

SCHEDULE: EXISTING PANEL 'F'																																																						
VOLTAGE: 208 / 120 PHASE: 3			BUS AMPS: 225			LUGS: NA			E = Equipment Load			M = Motor Load																																										
MOUNTING: SURFACE			WIRE: 4			MAIN OVERCURRENT DEVICE: LUGS			L = Lighting Load			K = Kitchen Equipment																																										
ENCLOSURE: NEMA 1			POLE SPACES: 84			MAIN OVERCURRENT AMPS: NA			R = Receptacle Load																																													
LOCATION: MULTI-PURPOSE ROOM E100			MINIMUM EQUIPMENT RATING (AIC): 10,000			AMPS																																																
REMARKS: 2-SECTION PANEL																																																						
No.	AMPS	POLE	TYPE	CIRCUIT NAME	FEEDER			LOAD/PHASE (VA)			FEEDER			CIRCUIT NAME	BREAKER																																							
					WIRE	GRD	USE	WATTS	ØA	ØB	ØC	WATTS	USE		GRD	WIRE	TYPE	POLE	AMPS	No.																																		
1	20	1		CLASSROOM F104	#12	#12	R	720	1,350																																													
3	20	2		BR-6	#12	#12	E	375		1,951				MAIN LEVEL LIGHTING	#12	#12	1	20																																				
5	--	--			#12	--	E	375			2,807			MULTI-PURPOSE E100 LIGHTING	#12	#12	3	25																																				
7	20	2		BR-4	#12	#12	E	250	2,482																																													
9	--	--			#12	--	E	250				2,232	M	--	#10																																							
11	20	2		BR-5	#12	#12	E	250			5,031			RTU-1	#8	#4	3	60																																				
13	--	--			#12	--	E	250	5,031																																													
15	20	1		RR F101, F102 RECEPT	#12	#12	R	360		5,141																																												
17	20	1		STOR F103 RECEPT, WH-1	#12	#12	R	360			1,127			MAIN LEVEL LIGHTING	#12	#12	1	20																																				
19	20	1		SUITE F WATER COOLER	#12	#12	E	600	827					UPPER LEVEL LIGHTING	#12	#12	1	20																																				
21	20	1		BREAK ROOM RECEPT	#12	#12	R	600		900				SUITE E GYM RECEPT	#12	#12	1	20																																				
23	20	1		UPPER LEVEL LIGHTING	#12	#12	L	836			2,112			SUITE E OVERHEAD DOOR	#12	#12	1	20																																				
25	20	1		LIGHTING CONTROL PANEL LCP	#12	#12	E	200	860																																													
27	20	1	GFCI	BREAK ROOM FRIDGE	#12	#12	E	1,400	2,976					MULTI-PURPOSE E100 LIGHTING	#12	#12	1	20																																				
29	20	1		DATA/STOR F107A	#12	#12	E	1,200			2,968																																											
31	20	1		SUITE F GYM RECEPT	#12	#12	R	360	2,128																																													
33	20	1		SPARE						257				EC-2 PUMP, CONV RECEPT	#12	#12	1	20																																				
35	20	1		SPARE							180			RR D101 RECEPT	#12	#12	1	20																																				
37	20	1		SUITE F OVERHEAD DOOR	#12	#12	M	1,176	1,536					STOR D102 RECEPT, WH-1	#12	#12	1	20																																				
39	15	1		BR D101 UH-3	#12	#12	M	660		910				BR-7	#12	#12	2	20																																				
41	20	1		BR D101 UH-3 LIGHTING	#12	#12	E	200			478																																											
43	20	2		MULTI-PURPOSE E100 LIGHTING	#12	#12	L	836			1,739			SUITE D GYM RECEPT	#12	#12	1	20																																				
45	20	2		EC-1 PUMP, CONV RECEPT	#12	#12	M	257	797					CEP-1, F203 & F206 RECEPT	#12	#12	1	20																																				
47	--	--			#10	--	M	1,768			2,215			RTU-1 MAINTENANCE RECEPT	#12	#12	1	20																																				
49	20	1		EC-1 PUMP, CONV RECEPT	#12	#12	M	257	797					SUITE E GYM RECEPT	#12	#12	1	20																																				
51	20	1		CLASSROOM F106	#12	#12	R	900		1,500				MULTI-PURPOSE E100 EWC	#12	#12	1	20																																				
53	20	1		CLASSROOM F106	#12	#12	R	720			720			SPARE																																								
55	20	1		CLASSROOM F104	#12	#12	R	900	2,076					SUITE D OVERHEAD DOOR	#12	#12	1	20																																				
57	20	1		OFFICE F105	#12	#12	R	720	1,380					UH-1	#12	#12	1	15																																				
59	20	1		SICK F111, STOR F110	#12	#12	R	360			360			SPARE																																								
61	20	1		CLASSROOM F201	#12	#12	R	900	900					SPARE																																								
63	20	1		CLASSROOM F201	#12	#12	R	900			900			SPARE																																								
65	20	1		CLASSROOM F202	#12	#12	R	900			900			SPARE																																								
67	20	1		CLASSROOM F202	#12	#12	R	900	900					SPARE																																								
69	20	1		F200, F205, F204 RECEPT	#12	#12	R	720			720			SPARE																																								
71	20	1		SPARE										SPARE																																								
73	20	1		SPARE										SPARE																																								
75	20	1		SPARE										SPARE																																								
77	20	1		SPARE										SPARE																																								
79	20	1		SPARE										SPARE																																								
81	20	1		SPARE										SPARE																																								
83	20	1		SPARE										SPARE																																								
LOADING INFORMATION LIGHTING LOAD (VA) LIGHTING CONTINUOUS LOAD PER NEC 210.20 (VA) RECEPTACLE LOAD PER NEC 220.14 (VA) EQUIPMENT LOAD (VA) 25% LARGEST MOTOR (VA) KITCHEN EQUIPMENT LOAD (VA) UNITS @ 100% (PER NEC TABLE 220.56) TOTAL LOAD (VA) TOTAL LOAD (AMPS):													<table border="1"> <thead> <tr> <th>ØA</th> <th>ØB</th> <th>ØC</th> <th>DEMAND</th> </tr> </thead> <tbody> <tr> <td>2,236</td> <td>3,152</td> <td>1,931</td> <td>7,319</td> </tr> <tr> <td></td> <td></td> <td></td> <td>1,830</td> </tr> <tr> <td>5,040</td> <td>4,947</td> <td>2,700</td> <td>11,344</td> </tr> <tr> <td>13,350</td> <td>13,233</td> <td>13,800</td> <td>40,382</td> </tr> <tr> <td></td> <td></td> <td></td> <td>558</td> </tr> <tr> <td>0</td> <td>0</td> <td>0</td> <td>0</td> </tr> </tbody> </table>			ØA	ØB	ØC	DEMAND	2,236	3,152	1,931	7,319				1,830	5,040	4,947	2,700	11,344	13,350	13,233	13,800	40,382				558	0	0	0	0	<table border="1"> <tbody> <tr> <td>20,626</td> <td>21,332</td> <td>18,431</td> <td>61,433</td> </tr> <tr> <td>172</td> <td>178</td> <td>154</td> <td>171</td> </tr> </tbody> </table>			20,626	21,332	18,431	61,433	172	178	154	171
ØA	ØB	ØC	DEMAND																																																			
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172	178	154	171																																																			
GENERAL NOTES: 1. ALL INSULATION ON CONDUCTORS TO BE THIN UNLESS NOTED OTHERWISE. 2. INSULATION ON ALL UNDERGROUND CONDUCTORS SHALL BE THHW. 3. PANEL COVER SHALL BE FIELD MARKED FOR FLASH PROTECTION WITH A PERMANENT LABEL AS REQUIRED BY THE NATIONAL ELECTRICAL CODE ARTICLE 110. LABEL SHALL READ AS FOLLOWS: "DANGER- POTENTIAL ARC FLASH HAZARD" HALF-TONED BREAKER DATA INDICATES EXISTING-TO-REMAIN. HALF-TONED LOAD INFORMATION INDICATES EXISTING-TO-REMAIN. FULL-TONED DATA INDICATES NEW.																																																						

LUMINAIRE SCHEDULE									
LUMINAIRE NUMBER	LUMINAIRE MANUFACTURER	LUMINAIRE CATALOG #	DESCRIPTION	LAMPS		LUMINAIRE		REMARKS	
				TYPE	CCT	VOLTS	WATTS		
F1	LITHONIA LIGHTING	2GTL-4-48L-EZ1-LP830	CORRIDOR 2X4	LED	3000K	120	36	RECESSED GRID	
F1A	LITHONIA LIGHTING	2GTL-4-72L-EZ1-LP830	CORRIDOR 2X4	LED	3000K	120	53	RECESSED GRID	
F1N	LITHONIA LIGHTING	2GTL-4-48L-EZ1-LP830-N100	CLASSROOM 2X4 WITH H/LIGHT CONTROLS	LED	3000K	120	36	RECESSED GRID	
F1NA	LITHONIA LIGHTING	2GTL-4-60L-EZ1-LP830-N100	CLASSROOM 2X4 WITH H/LIGHT CONTROLS	LED	3000K	120	49	RECESSED GRID	
F2	LITHONIA LIGHTING	SBL4-40L-80CRI-30K-NODIM-MVOLT	1X4 IN HARD LID	LED	3000K	UNV	32.4	HARD LID	
F3	LITHONIA LIGHTING	IBL-24L-WD-SD125-LP740-DWH-WGIBL	HIGH BAY WITH SEMI-DIFFUSE ACRYLIC LENS	LED	3000K	120	197	SUSPENDED	
EX1	ISOLITE	LQM-S-W-3-G-120/277-EL-N-ELA-WG1	EXIT SIGN WITH BUG EYE AND WIRE GUARD	LED	--	UNV	2.5	UNIVERSAL	
EX2	ISOLITE	LHQM-LED-G	EXIT SIGN WITH BUG EYE	LED	--	UNV	2.5	UNIVERSAL	

NOTE:
ELECTRICAL CONTRACTOR SHALL PROVIDE A 'QUICK DISCONNECT HARNESS' FOR EACH FLUORESCENT LIGHTING FIXTURE TO SERVE AS A MEANS OF DISCONNECT TO ALLOW THE FIXTURE BALLAST TO BE SERVICED IN PLACE, AS PER THE NATIONAL ELECTRICAL CODE 2014, ARTICLE 410.130 (G).



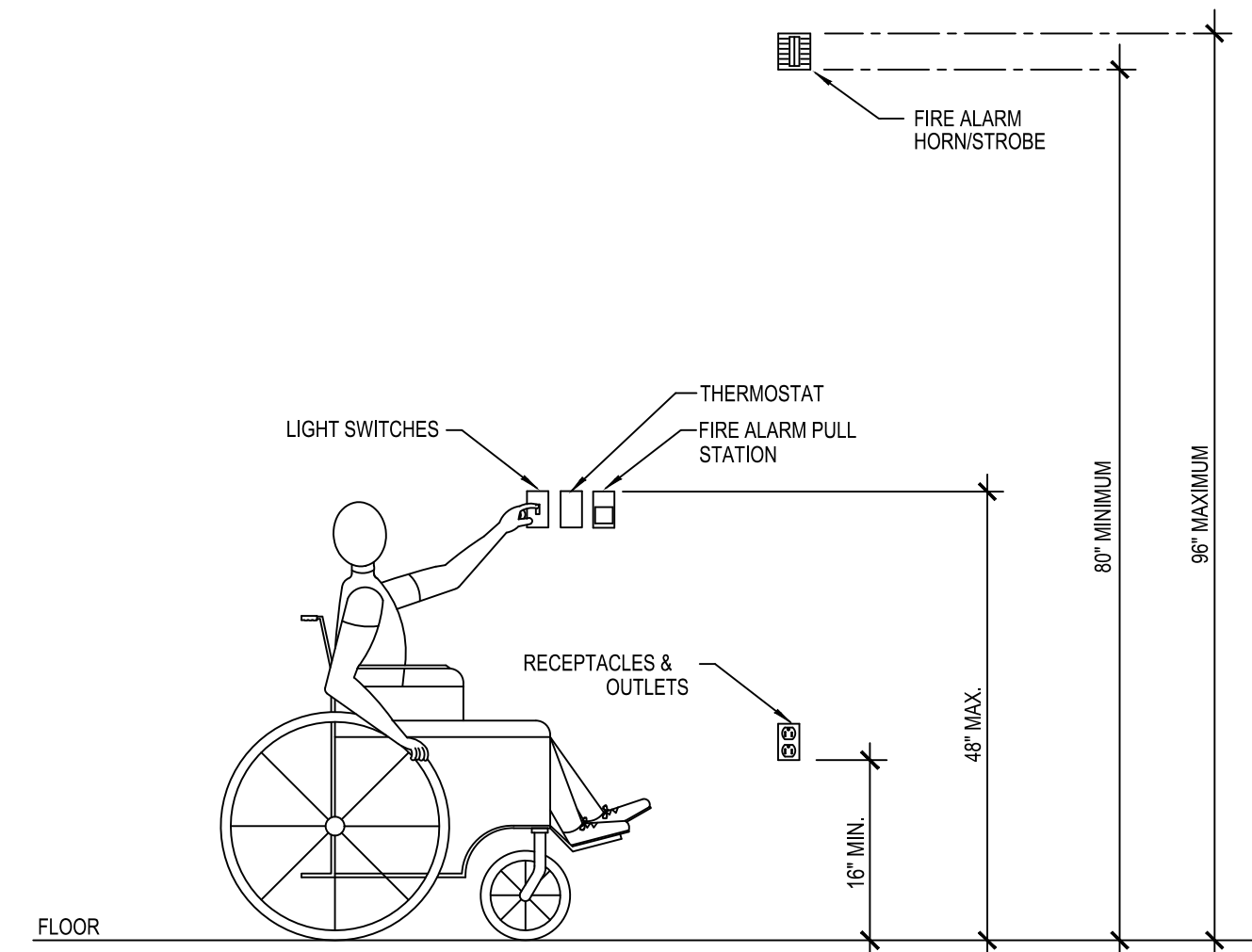
DAVINCI ACADEMY - SUITES D, E, & F
850 WEST 350 NORTH
KAYSVILLE, UT 84037

NO.	DATE	DESCRIPTION	CITY COMMENTS #1	HEALTH DEPT COMMENTS
1	3/3/2020			
2	4/13/2020			

DATE: 1/8/2020
SCALE: SEE DWG.
DRAWN: J.S.
CHECKED: T.H.
JOB NO.: 18029.09

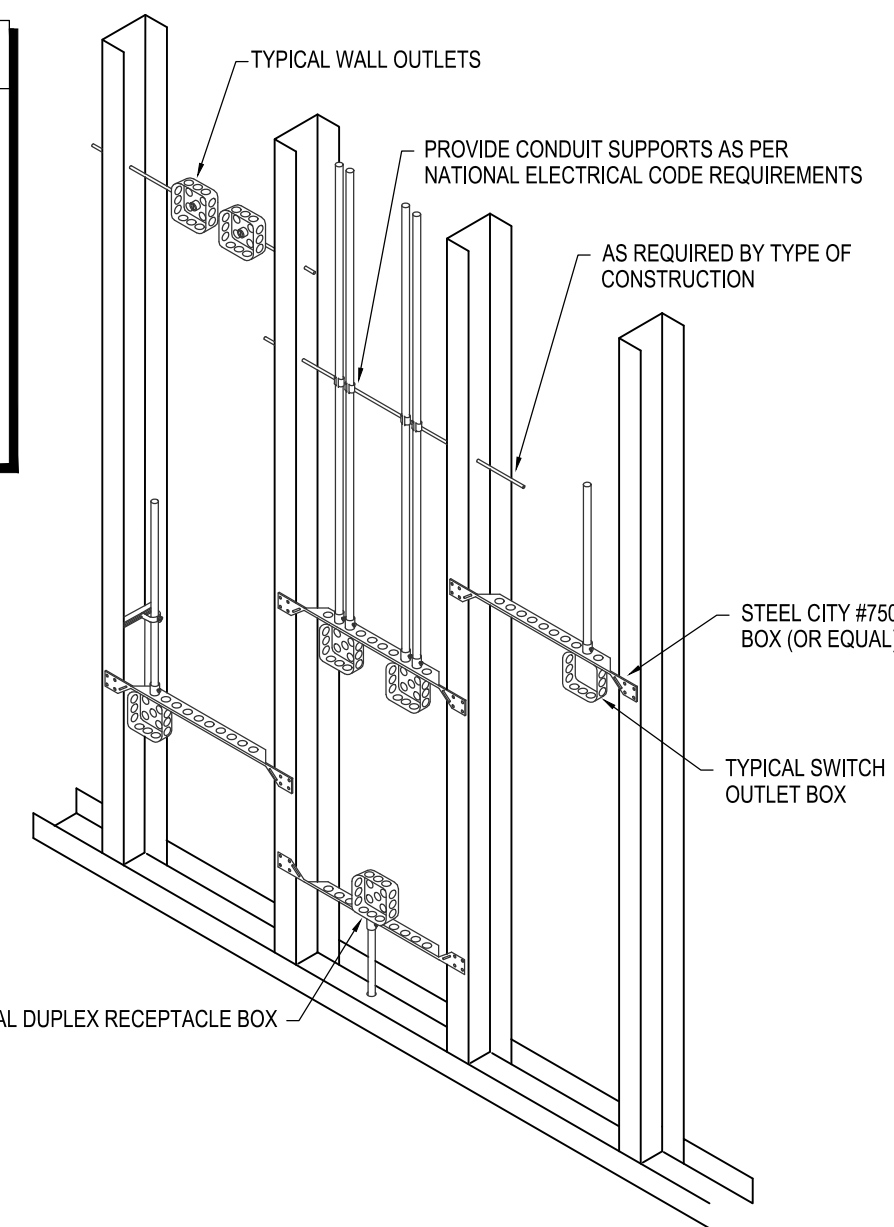
SHEET TITLE
ELECTRICAL SCHEDULES

SHEET NO.
E501

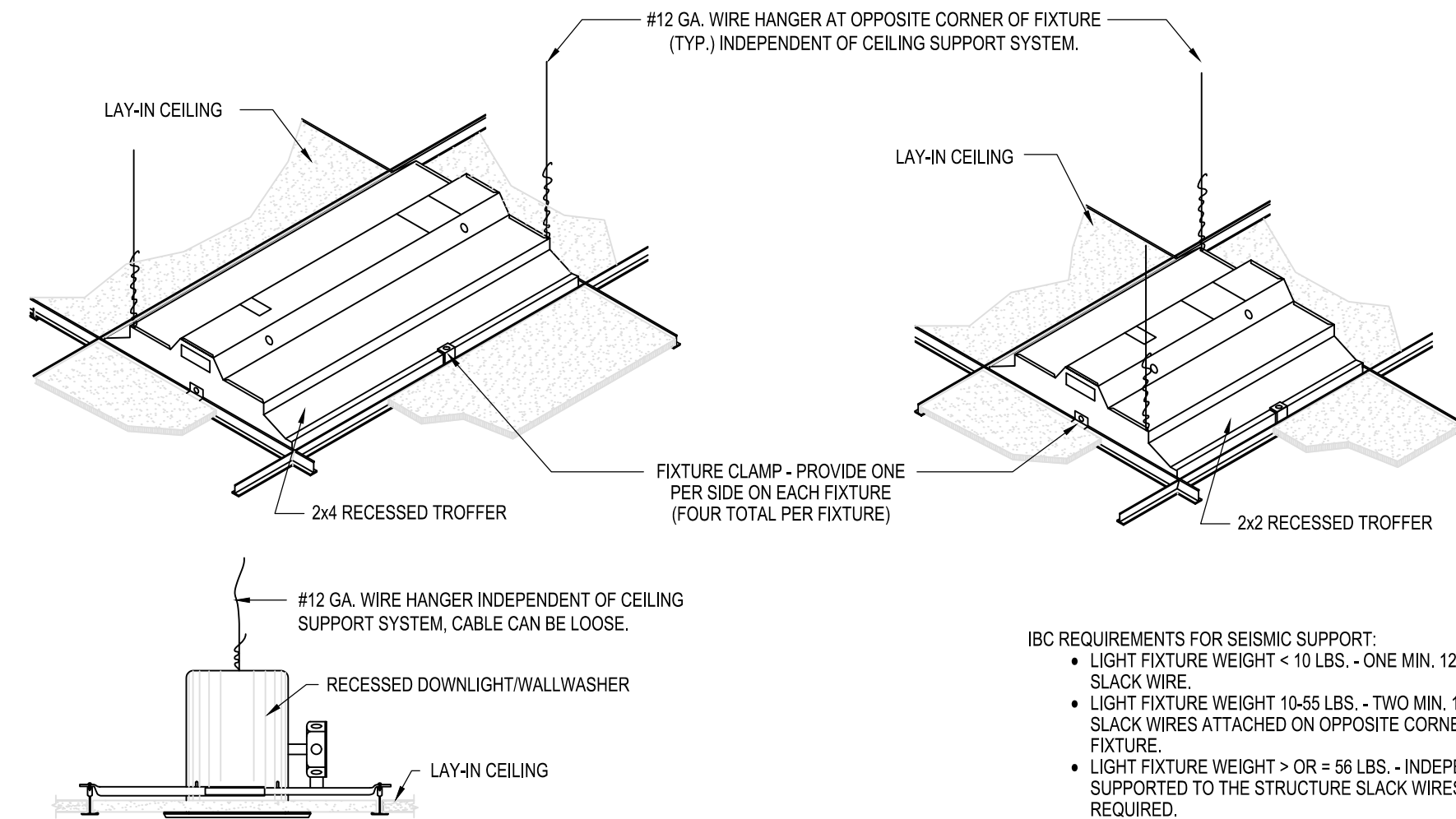


A MOUNTING HEIGHTS DETAIL
E601

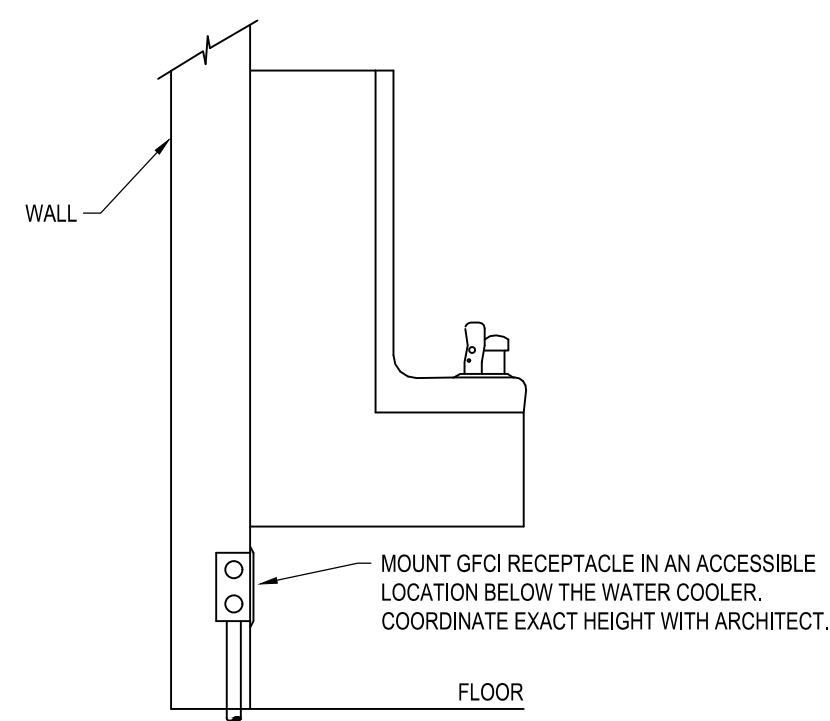
- NOTES:**
1. TYPICAL FOR WOOD AND METAL STUD ROUGH IN.
 2. PLASTER RINGS NOT SHOWN.
 3. LOCATE ALL OUTLET BOXES IN ACCORDANCE WITH ARCHITECTURAL AND MECHANICAL DRAWINGS, AND WITH ALL APPLICABLE SHOP DRAWINGS.
 4. IN ACCORDANCE WITH INTERNATIONAL BUILDING CODE OUTLETS ON OPPOSITE SIDES OF WALLS OR PARTITIONS IN THE SAME STUD SPACE MUST BE SEPARATED BY A MINIMUM OF 24\"/>



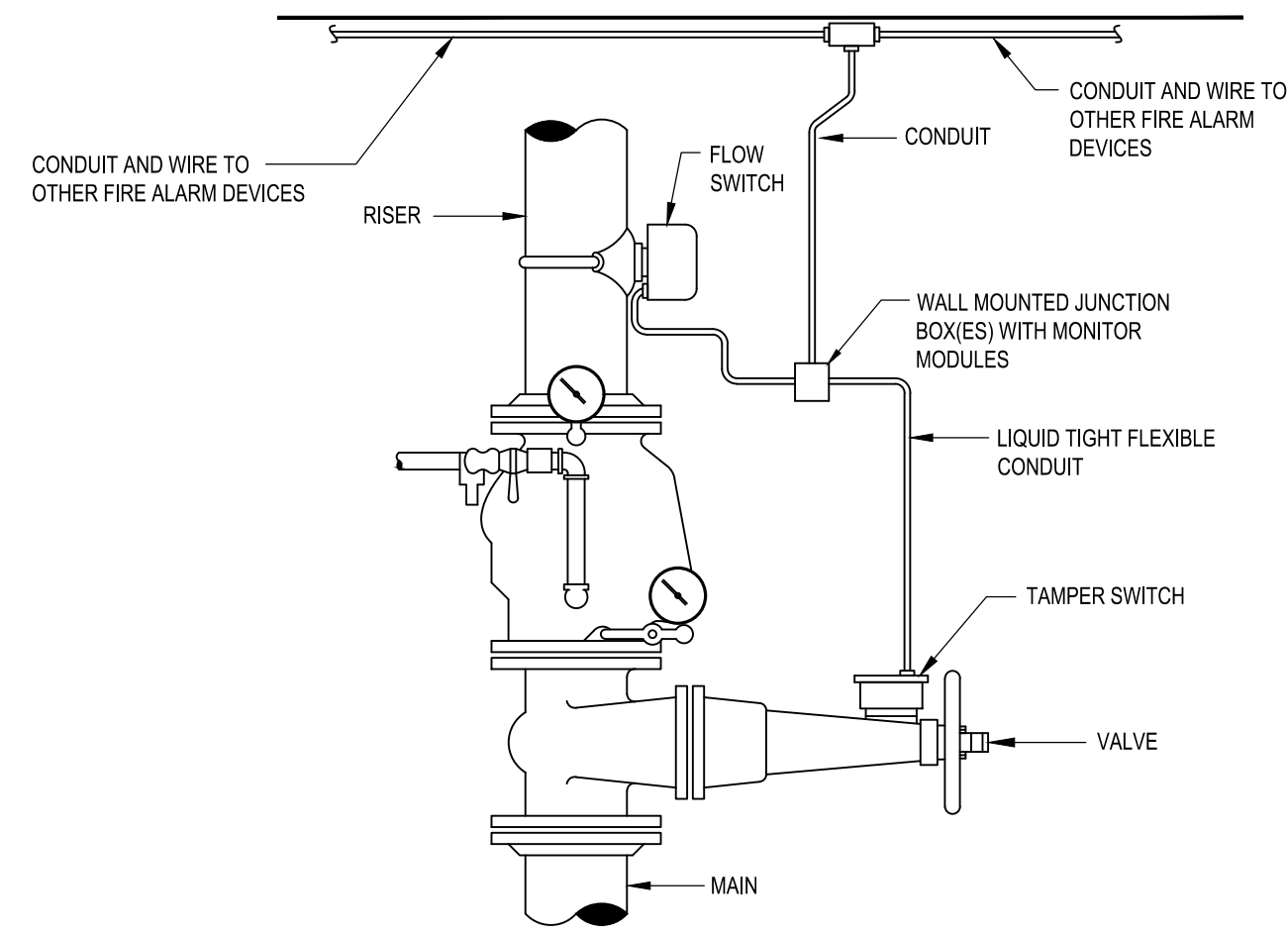
B TYPICAL ROUGH-IN REQUIREMENTS DETAIL
E601



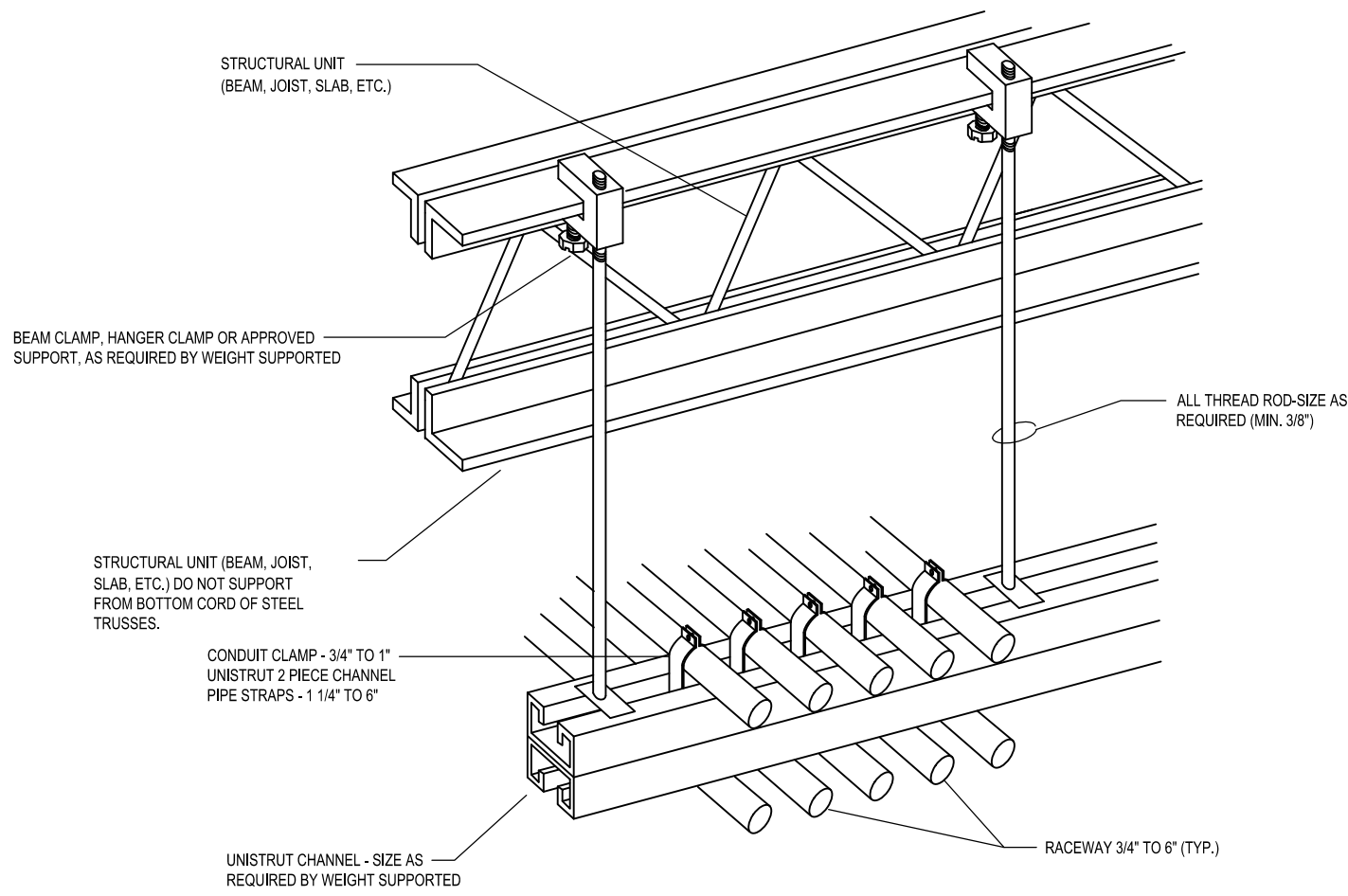
C LAY-IN GRID FIXTURE SEISMIC MOUNTING DETAILS
E601



D WATER COOLER GFCI RECEPTACLE MOUNTING DETAIL
E601

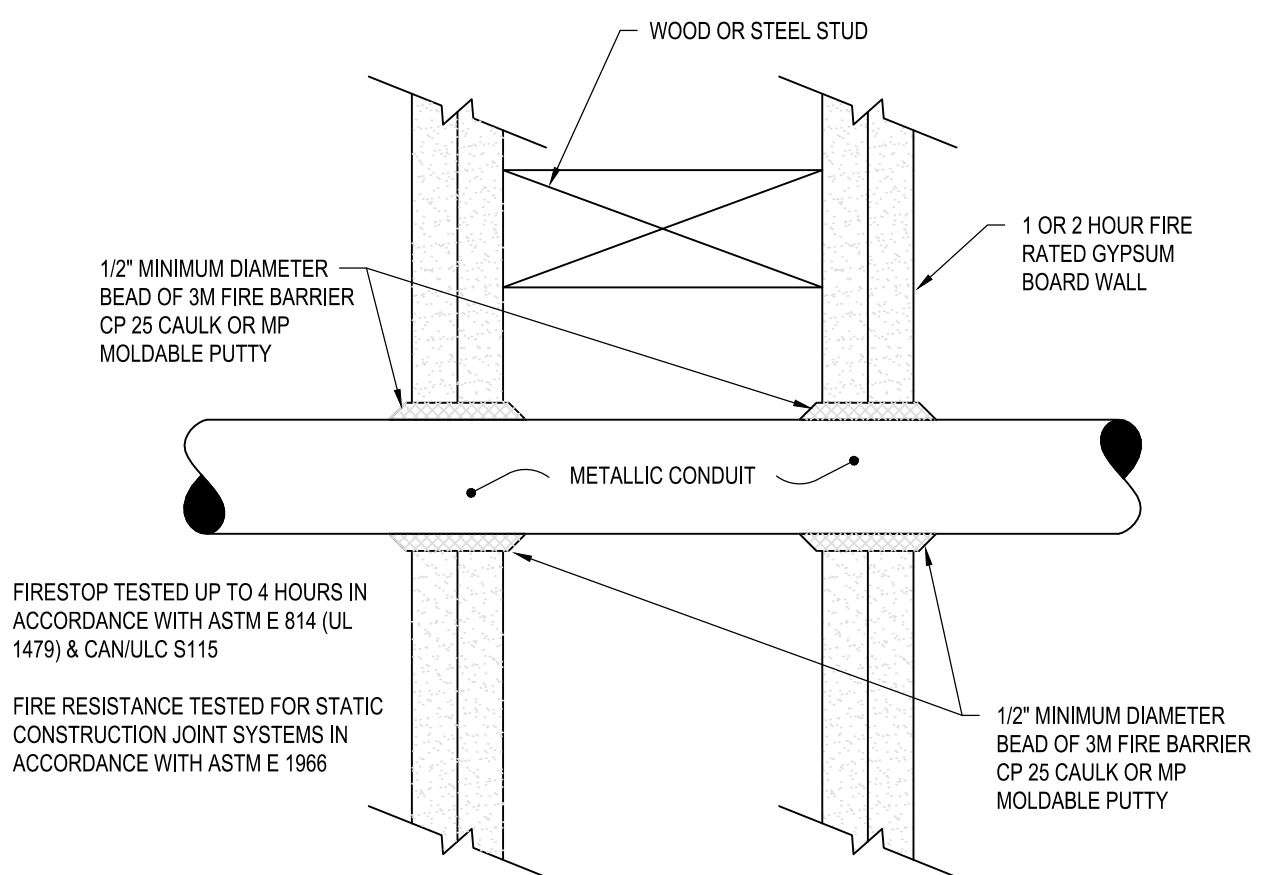


E FIRE SPRINKLER RISER CONNECTION
E601



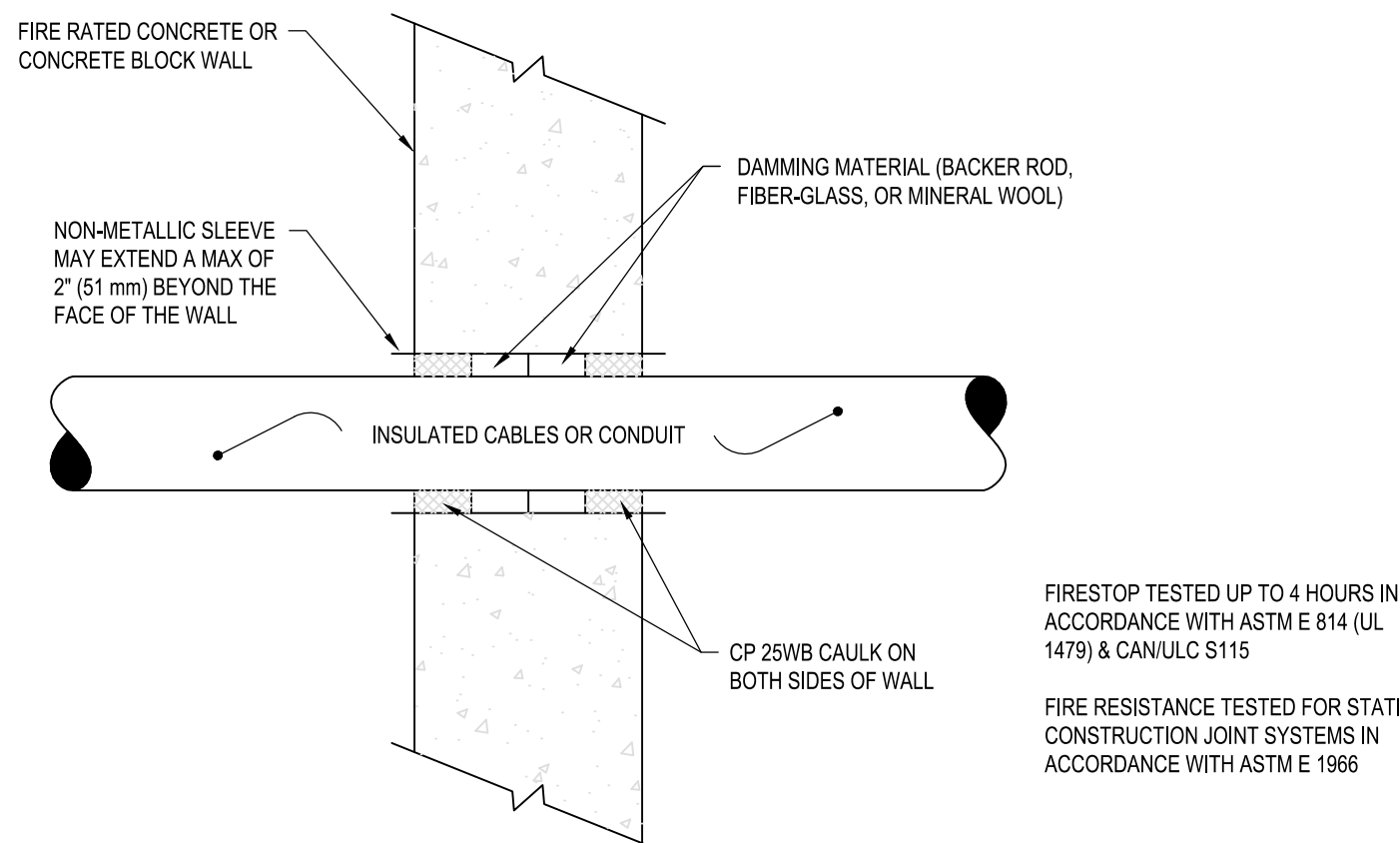
F TYPICAL TRAPEZE CONDUIT RACK
E601

- NOTE:**
- TYPICAL DETAILS SHOWING GENERAL FIRE STOPPING PROCEDURE. ACTUAL PROCEDURE DEPENDS UPON ANNULAR SPACE BETWEEN PIPE AND/OR INSULATION AND OPENING. FOLLOW MANUFACTURER'S INSTRUCTIONS.



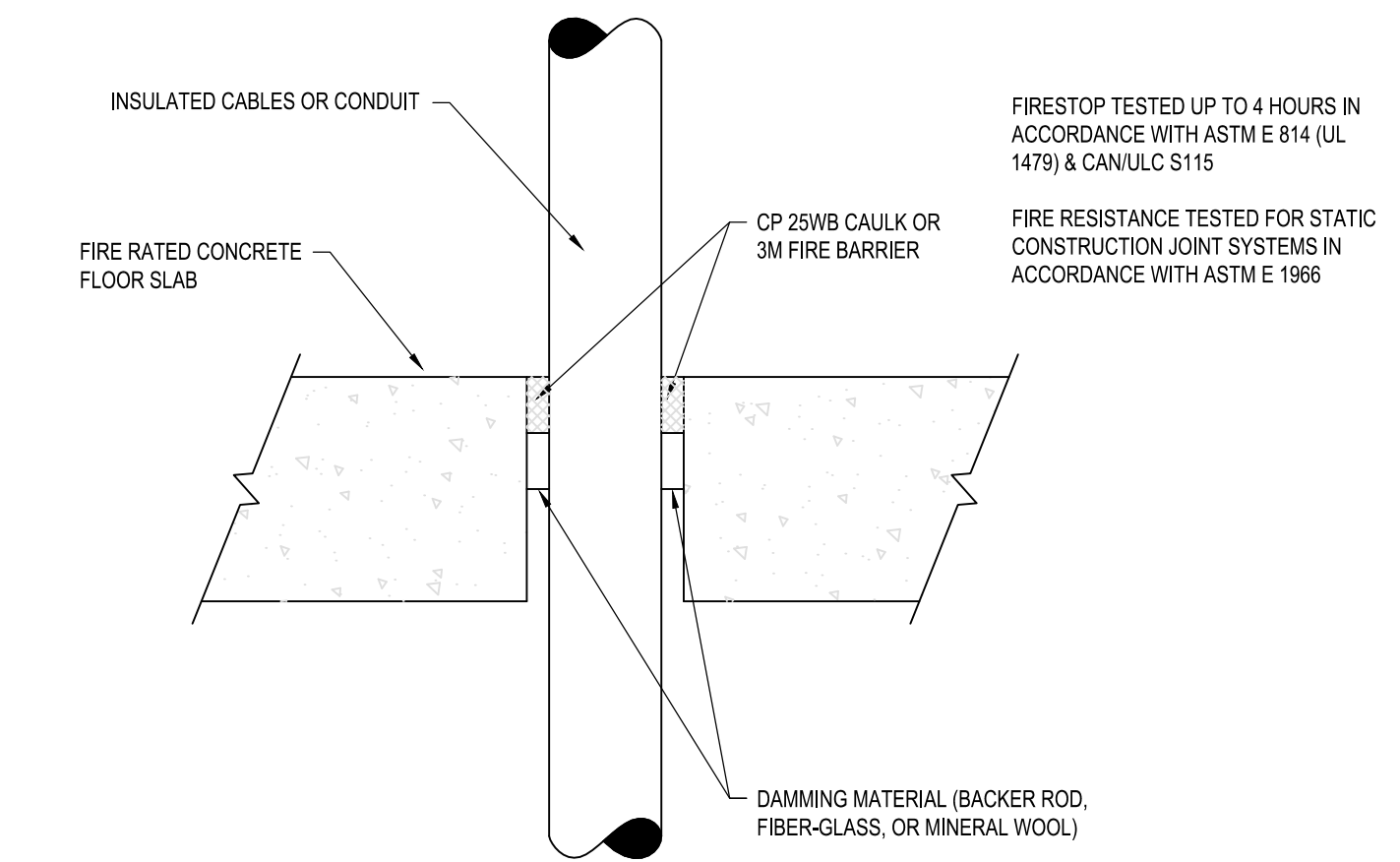
G FIRE STOP THRU GYPSUM BOARD WALL
E601

- NOTE:**
- TYPICAL DETAILS SHOWING GENERAL FIRE STOPPING PROCEDURE. ACTUAL PROCEDURE DEPENDS UPON ANNULAR SPACE BETWEEN PIPE AND/OR INSULATION AND OPENING. FOLLOW MANUFACTURER'S INSTRUCTIONS.



H FIRESTOP THRU CONCRETE/MASONRY WALL
E601

- NOTE:**
- TYPICAL DETAILS SHOWING GENERAL FIRE STOPPING PROCEDURE. ACTUAL PROCEDURE DEPENDS UPON ANNULAR SPACE BETWEEN PIPE AND/OR INSULATION AND OPENING. FOLLOW MANUFACTURER'S INSTRUCTIONS.



I FIRESTOP THRU CONCRETE FLOOR
E601



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DAVINCI ACADEMY - SUITES D, E, & F
850 WEST 350 NORTH
KAYSVILLE, UT 84037

NO.	DATE	DESCRIPTION

DATE: 1/8/2020
SCALE: SEE DWG.
DRAWN: J.S.
CHECKED: T.H.
JOB NO.: 18029.09

SHEET TITLE
**ELECTRICAL
DETAILS**

SHEET NO.
E601

Revisions	Date
1	04/15/20



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 4685 W. 11600 N. Tremonton, UT 84317
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PLUMBING SYMBOL LEGEND \ ABBREVIATIONS

FD	FLOOR DRAIN	ELBOW IN PIPE	O.R.D.	OVERFLOW ROOF DRAIN	
WCO	WALL CLEAN OUT	TEE IN PIPE	C.O.	CLEAN OUT	
DCW	DOMESTIC COLD WATER (DCW)	GAS SHUTOFF VALVE	VTR	VENT THROUGH ROOF	
DHW	DOMESTIC HOT WATER (DHW)	GAS PRESSURE REGULATOR	WHA	WATER HAMMER ARRESTOR	
DHWR	DOMESTIC HOT WATER RECIRC. (DHWR)	BALL VALVE	A.D.	ACCESS DOOR	
W	WASTE (W)	VALVE IN DROP	A.F.F.	ABOVE FINISHED FLOOR	
V	VENT (V)	UNION	COTG	CLEAN OUT TO GRADE	
NG	NATURAL GAS (G)	CHECK VALVE	MV	MIXING VALVE	
DP	DROP IN PIPE	BALANCE VALVE	F.U.	FIXTURE UNITS	
RI	RISE IN PIPE	R.D.	ROOF DRAIN	D.N.	DOWNSPOUT NOZZLE

PLUMBING FIXTURE SCHEDULE

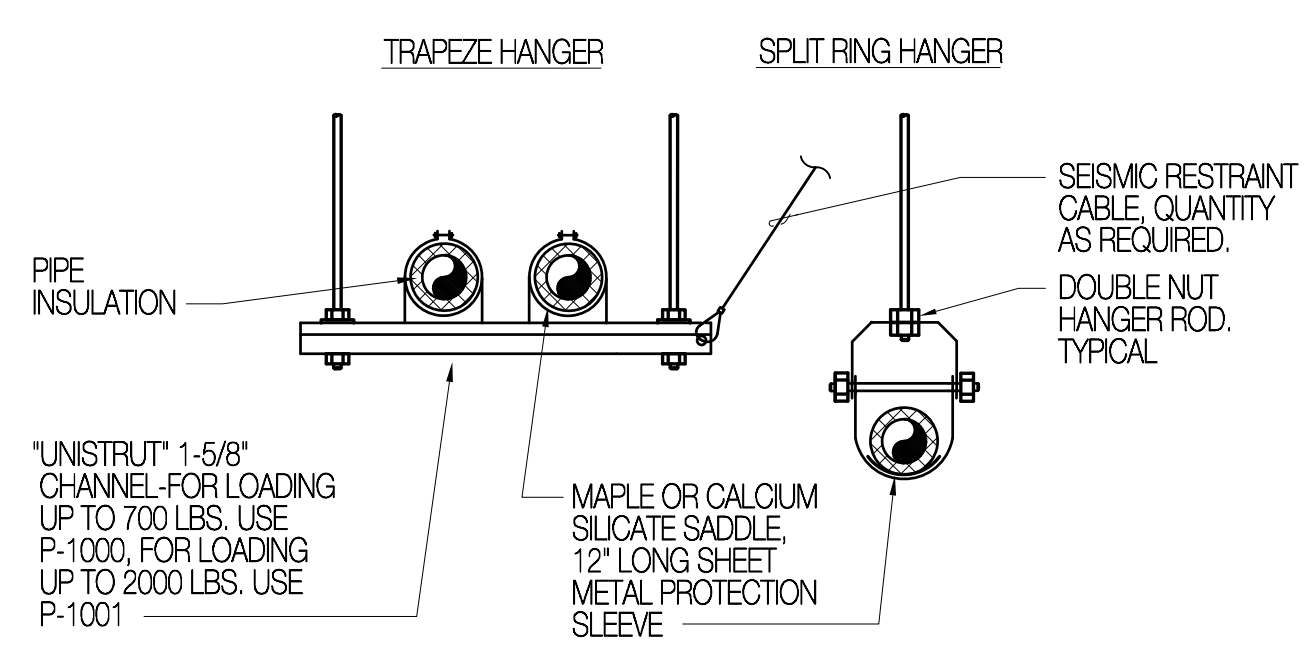
SYMBOL	DESCRIPTION	COLD	HOT	TRAP	WASTE	VENT	REMARKS
P-1	WATER CLOSET, FLOOR MOUNTED, FLUSH VALVE, ADA HEIGHT	1"	-	INT.	3"	2"	-
P-2	LAVATORY, WALL MOUNTED, ADA COMPLIANT, AUTOMATIC FAUCET	1/2"	1/2"	1-1/2"	2"	1-1/2"	-
P-3	BREAK ROOM SINK, DOUBLE BOWL, STAINLESS STEEL	1/2"	1/2"	1-1/2"	2"	1-1/2"	-
P-4	SERVICE SINK, FLOOR MOUNTED, PORCELAIN SUBSTRATE	1/2"	1/2"	2"	2"	2"	-
P-5	WATER COOLER, BLEVEL	1/2"	-	1-1/2"	2"	1-1/2"	-
FD	FLOOR DRAIN, 6" DIAMETER GRATE	-	-	2"	2"	2"	-
WCO	WALL CLEAN OUT	-	-	-	-	-	-

GENERAL FIXTURE NOTES:

1. THE PLUMBING CONTRACTOR SHALL VERIFY THE REQUIREMENTS OF ALL PLUMBING EQUIPMENT AND THE RELATED ROUGH IN LOCATIONS WITH THE MECHANICAL AND ARCHITECTURAL PLANS AND SPECIFICATIONS. PROVIDE ALL ACCESSORIES AND OPTIONS REQUIRED TO PROVIDE THE OWNER A COMPLETELY FUNCTIONAL PLUMBING SYSTEM.
2. ALL WALL HUNG PLUMBING FIXTURES SHALL BE SUPPORTED BY FLOOR MOUNTED CARRIERS (SMITH, JOSAM, MIFAB, OR WAITS). CARRIERS SHALL BE CONSTRUCTED UTILIZING ALL METAL COMPONENTS WITH SUPPORT FEET SECURELY ANCHORED TO FLOOR STRUCTURE. FIXTURE ARMS SHALL SUPPORT FIXTURE INDEPENDENT FROM WALL STRUCTURE.
3. EACH INDIVIDUAL FIXTURE SUPPLY SHALL BE PROVIDED WITH A CHROME-PLATED QUARTER TURN STOP VALVE BRASS CRAFT MODEL KTCR_ OR ENGINEER APPROVED EQUAL.
4. FIXTURES AND ACCESSORIES SHALL BE AS SCHEDULED. EACH ITEM SHALL BE COMPLETE WITH CHROME-PLATED BRASS TRIM.
5. ADA COMPLIANT FIXTURES SHALL BE INSTALLED WITH PRE-FORMED INSULATION AND PROTECTIVE COVERS ON P-TRAPS AND STOPS. COVERS TO BE MANUFACTURED BY BUCKAROS OR TRUEBRO.
6. CAULK ALL FIXTURES TO THE WALL OR FLOOR WITH APPLICABLE SILICONE COMPOUND. UTILIZE MULTIPLE BEADS TO FILL GAPS AND FINISH TO SMOOTH, FILLETED EDGE. USE APPROPRIATE TOOLS TO PROVIDE PROFESSIONAL APPEARANCE.
7. ALL PLUMBING SHALL BE INSTALLED TO CONFORM TO THE LATEST ADOPTED EDITION OF THE INTERNATIONAL PLUMBING CODE INCLUDING LOCAL AMENDMENTS. CONSULT AUTHORITIES HAVING JURISDICTION.
8. ALL SINKS AND LAVATORIES WHERE HAND WASHING IS ANTICIPATED (FIXTURE P-2) SHALL BE PROTECTED WITH ASSE 1070 APPROVED TEMPERING VALVES PER DETAIL 4/P-000.

PIPING MATERIALS SCHEDULE

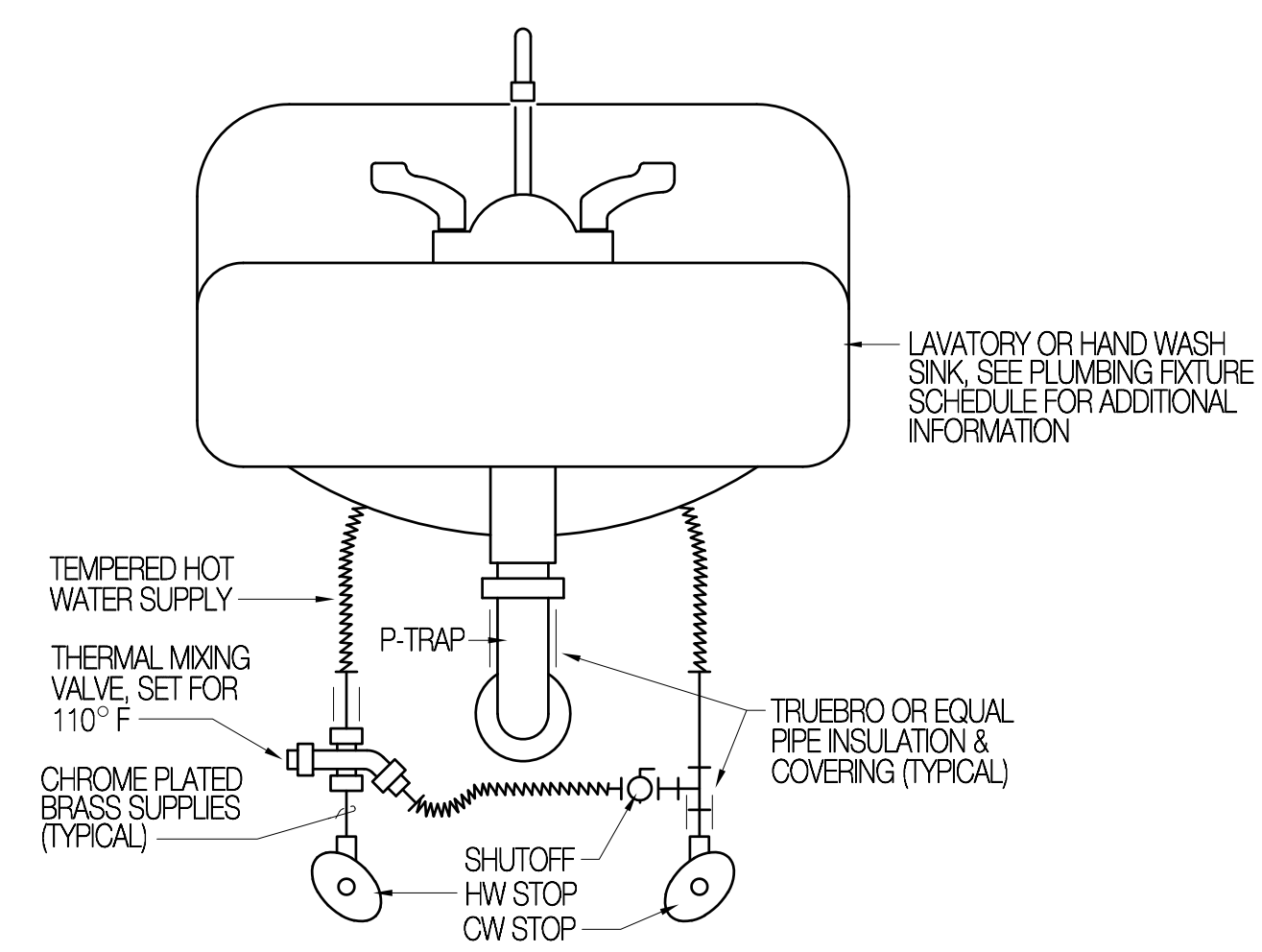
SERVICE	MATERIAL	REMARKS
DCW / DHW	TYPE "L" COPPER TUBING W/ WROUGHT COPPER FITTINGS	-
NAT. GAS	SCHEDULE 40 BLACK IRON	-
WASTE / VENT	SOLID CORE ABS OR PVC WITH DWV FITTINGS ABOVE AND BELOW GRADE	-



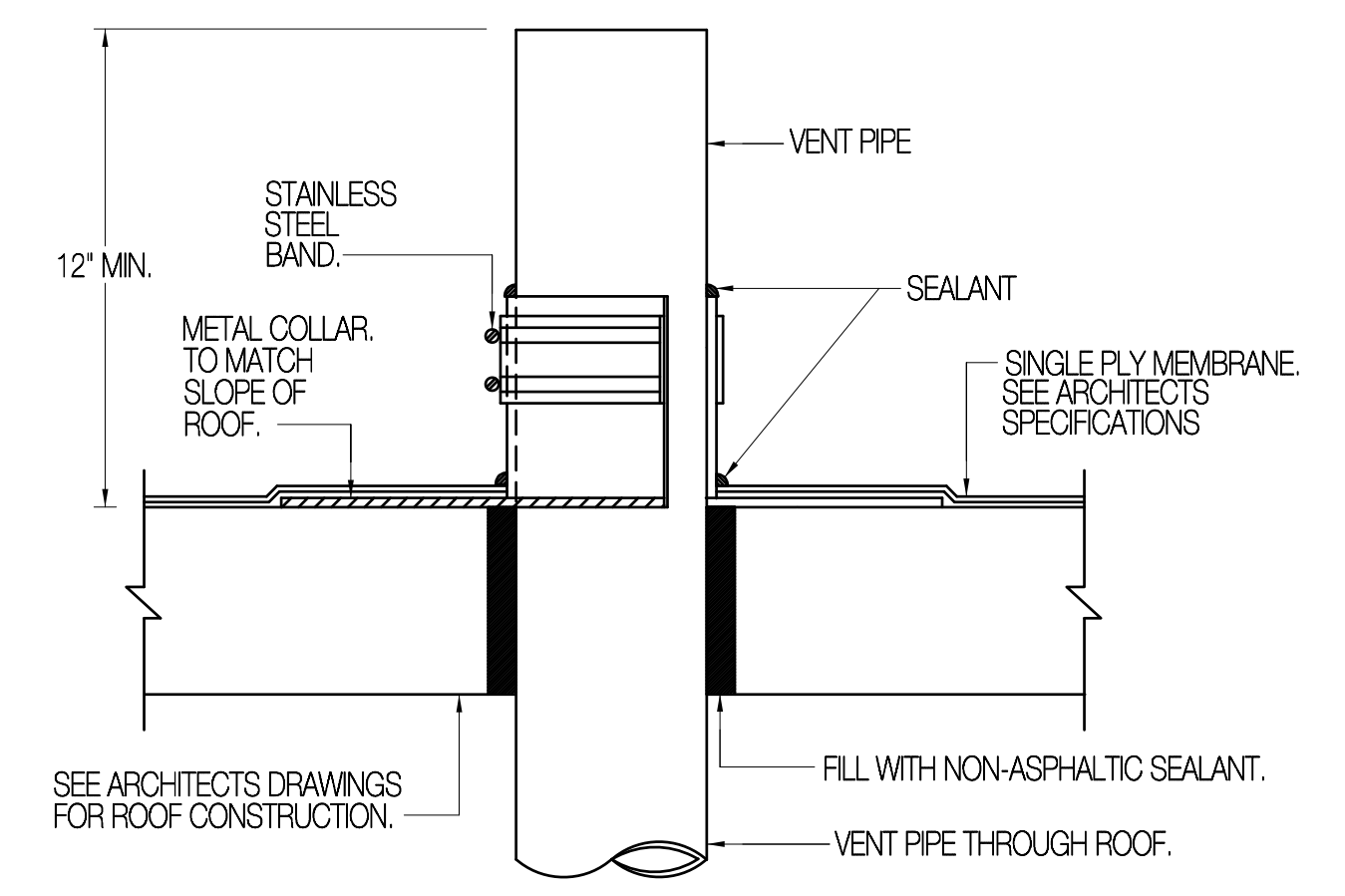
PIPE SIZE	MAX. SPACING	PIPE LOAD WEIGHT/FT. TOTAL	ROD SIZE
1" AND SMALLER	8	2.5/20	3/8"
1-1/4" - 2"	10	6/60	3/8"

HANGERS SIZES AND SPACING ARE FOR SINGLE PIPES. HANGER ROD LOADING FOR TRAPEZE HANGERS SHALL NOT EXCEED THE TOTAL LOADING INDICATED. IF SMALLER ROD SIZE IS USED, DECREASE MAXIMUM SPACING SO THAT TOTAL LOADING IS NOT EXCEEDED.

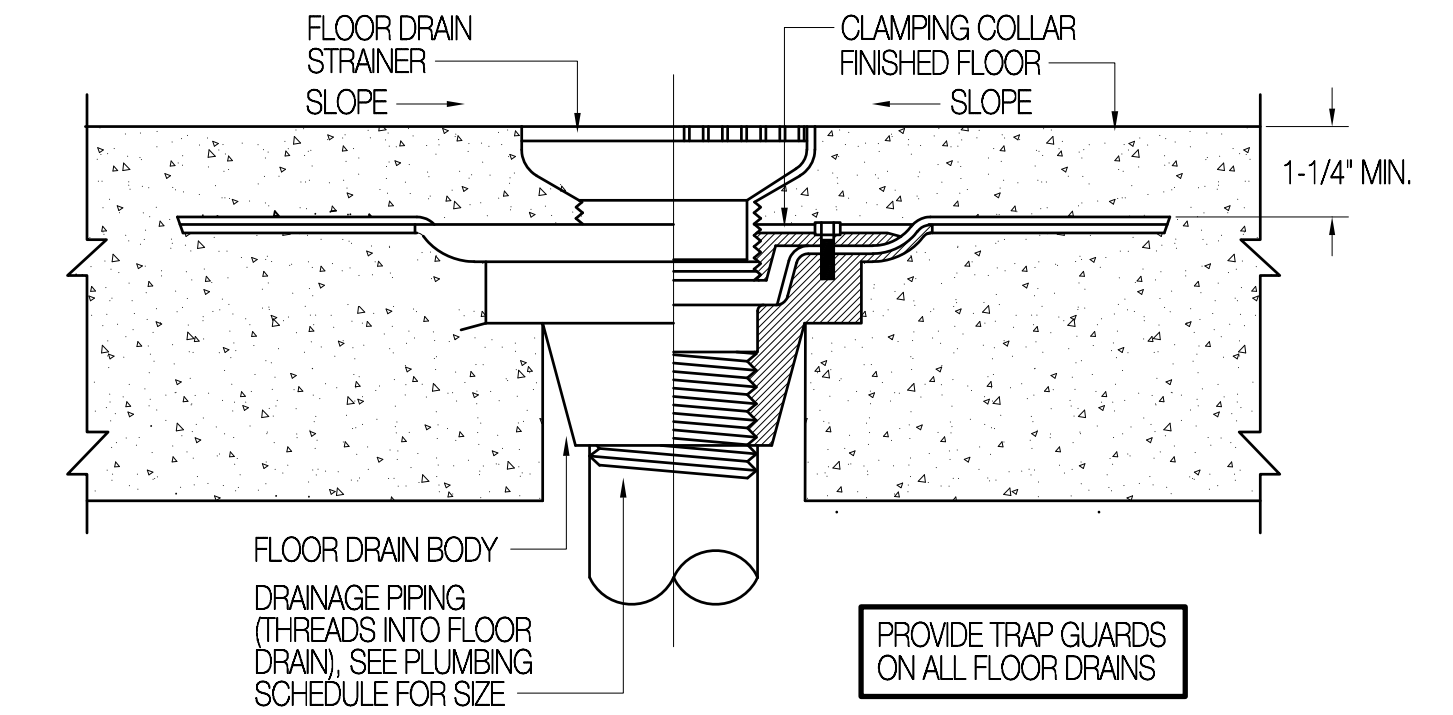
3 PIPE HANGER DETAIL
SCALE: NONE



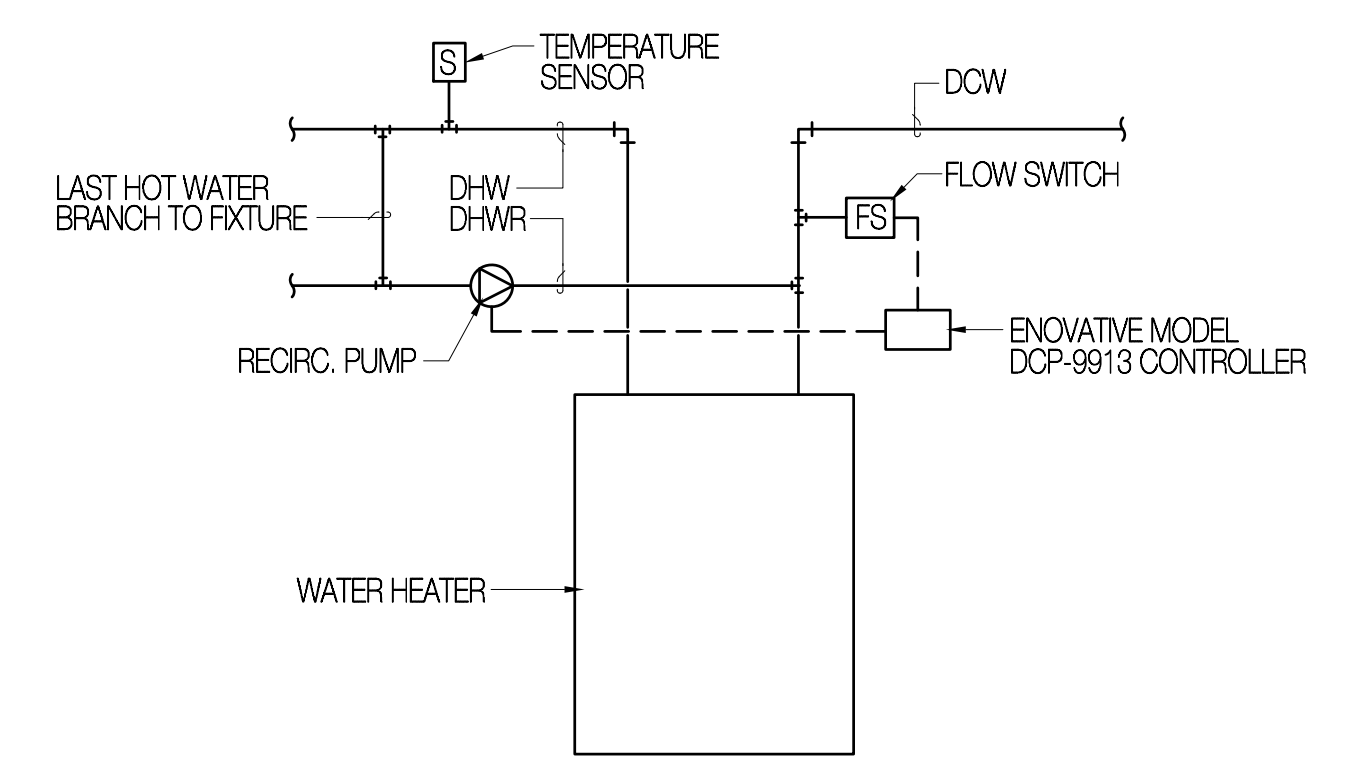
4 TEMPERING VALVE DETAIL
SCALE: NONE



1 TYPICAL VENT THRU ROOF DETAIL
SCALE: NONE



2 FLOOR DRAIN DETAIL
SCALE: NONE



DOMESTIC WATER RECIRC. CONTROL DIAGRAM

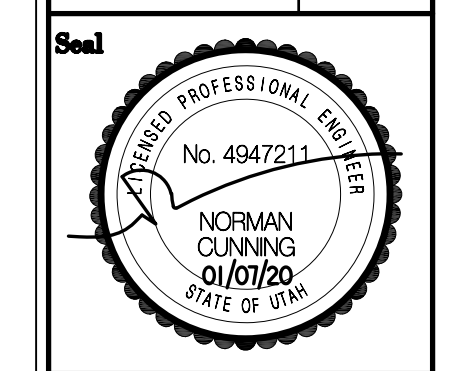
Project Name
DA VINCI ACADEMY
850 WEST 350 NORTH
KAYSVILLE, UTAH 84037

Project Number	Issue Date
5319	01/07/20

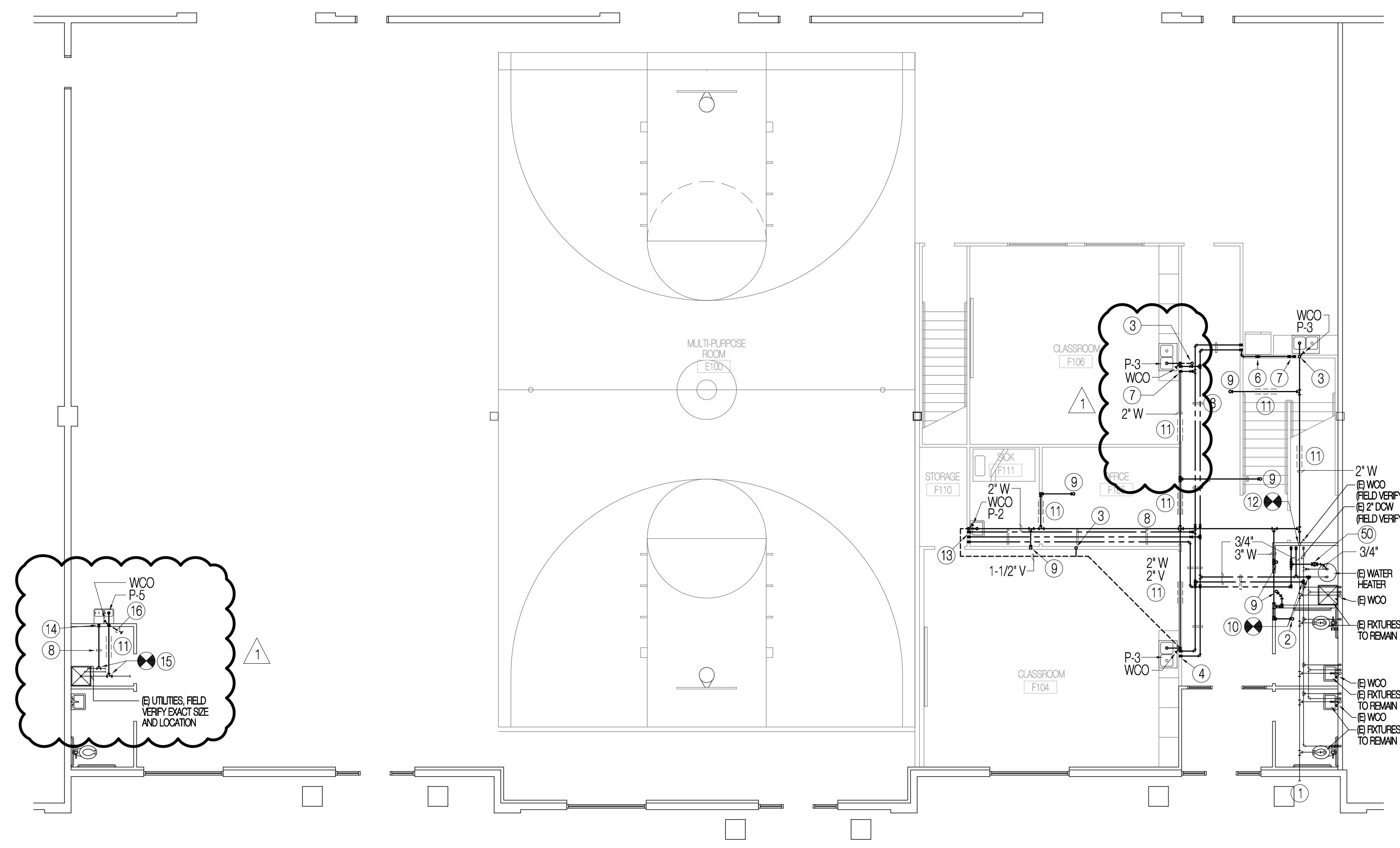
Drawing Title
PLUMBING SCHEDULES AND SYMBOL LEGEND

Sheet Number
P-000

Revisions	Date
1	04/15/20



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DRAWING NOTES

- ① FIELD VERIFY EXACT LOCATION, SIZE AND FLOW DIRECTION OF EXISTING UNDERGROUND WASTE PIPING AND CONNECT NEW TO EXISTING UTILIZING LIKE MATERIALS.
- ② 3" WASTE PIPING RISE TO FIXTURES ON SECOND FLOOR. SEE SECOND FLOOR PLUMBING PLAN THIS SHEET FOR CONTINUATION.
- ③ 2" VENT PIPING RISE TO SECOND FLOOR. SEE SECOND FLOOR PLUMBING PLAN THIS SHEET FOR CONTINUATION.
- ④ 1/2" DOMESTIC HOT WATER AND 1/2" DOMESTIC COLD WATER PIPING DROPS TO FIXTURE. TERMINATE PIPING AT FAUCET ROUGH-IN HEIGHT WITH QUARTER TURN STOP AND ESCUTCHEON AS REQUIRED BY SPECIFICATION.
- ⑤ 1/2" DOMESTIC COLD WATER AND 1/2" DOMESTIC HOT WATER PIPING DROPS TO WALL MOUNTED FAUCET. TERMINATE PIPING AT FAUCET ROUGH-IN HEIGHT WITH PIPE NIPPLE AND INSTALL FAUCET AS REQUIRED BY SPECIFICATION.
- ⑥ 1/2" DOMESTIC COLD WATER PIPING DROP TO GUY GRAY MODEL AB-9700 (OR EQUAL) ICE MAKER BOX. INSTALL BOX AT REQUIRED ROUGH-IN HEIGHT READY FOR CONNECTION TO OWNERS FRIDGE.
- ⑦ 1/2" DOMESTIC HOT WATER AND 1/2" DOMESTIC COLD WATER PIPING DROPS TO FIXTURE. TERMINATE PIPING AT REQUIRED FIXTURE ROUGH-IN HEIGHT WITH QUARTER TURN STOP AND ESCUTCHEON AS REQUIRED BY SPECIFICATION.
- ⑧ PIPE SUPPORT, SEE DETAIL 5/P-000.
- ⑨ 2" WASTE PIPING RISE TO SECOND FLOOR. SEE SECOND FLOOR PLUMBING PLAN THIS SHEET FOR CONTINUATION.
- ⑩ FIELD VERIFY EXACT LOCATION EXISTING WATER UTILITIES AND CONNECT NEW TO EXISTING UTILIZING LIKE MATERIALS.
- ⑪ SAWCUT EXISTING FLOOR IN THIS AREA AS REQUIRED TO INSTALL NEW UNDERGROUND UTILITIES.
- ⑫ FIELD VERIFY EXACT LOCATION EXISTING WASTE UTILITIES AND CONNECT NEW TO EXISTING UTILIZING LIKE MATERIALS.
- ⑬ 1/2" DOMESTIC HOT, 1/2" DOMESTIC HOT WATER RECIRCULATION, AND 1/2" DOMESTIC COLD WATER PIPING DROPS TO FIXTURE. TERMINATE HOT AND COLD WATER PIPING AT REQUIRED FIXTURE ROUGH-IN HEIGHT WITH QUARTER TURN STOP AND ESCUTCHEON AS REQUIRED BY SPECIFICATION. TERMINATE HOT WATER RECIRCULATION PIPING WITH THE VIEW OF WATER DROPS WITHIN 10' OF FIXTURE STOP.
- ⑭ 1/2" DOMESTIC COLD WATER PIPING DROP TO FIXTURE. TERMINATE PIPING AT REQUIRED FIXTURE ROUGH-IN HEIGHT WITH QUARTER TURN STOP AND ESCUTCHEON AS REQUIRED BY SPECIFICATION.
- ⑮ FIELD VERIFY EXACT SIZE AND LOCATION OF EXISTING UTILITIES AND CONNECT NEW TO EXISTING UTILIZING LIKE MATERIALS.
- ⑯ 2" VENT PIPING TO NEAREST VENT STACK. FIELD VERIFY EXACT SIZE AND LOCATION OF EXISTING UTILITIES AND CONNECT NEW TO EXISTING UTILIZING LIKE MATERIALS.

EQUIPMENT NOTES

- (50) DRP 1 DOMESTIC RECIRC. PUMP

MAIN FLOOR PLUMBING PLAN
 SCALE 3/16" = 1'-0"

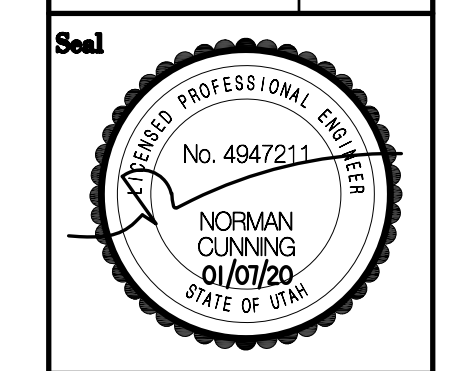
Project Name
DA VINCI ACADEMY
850 WEST 350 NORTH
KAYSVILLE, UTAH 84037

Project Number	Issue Date
5319	01/07/20

Drawing Title
FIRST FLOOR PLUMBING PLAN

Sheet Number
P-100

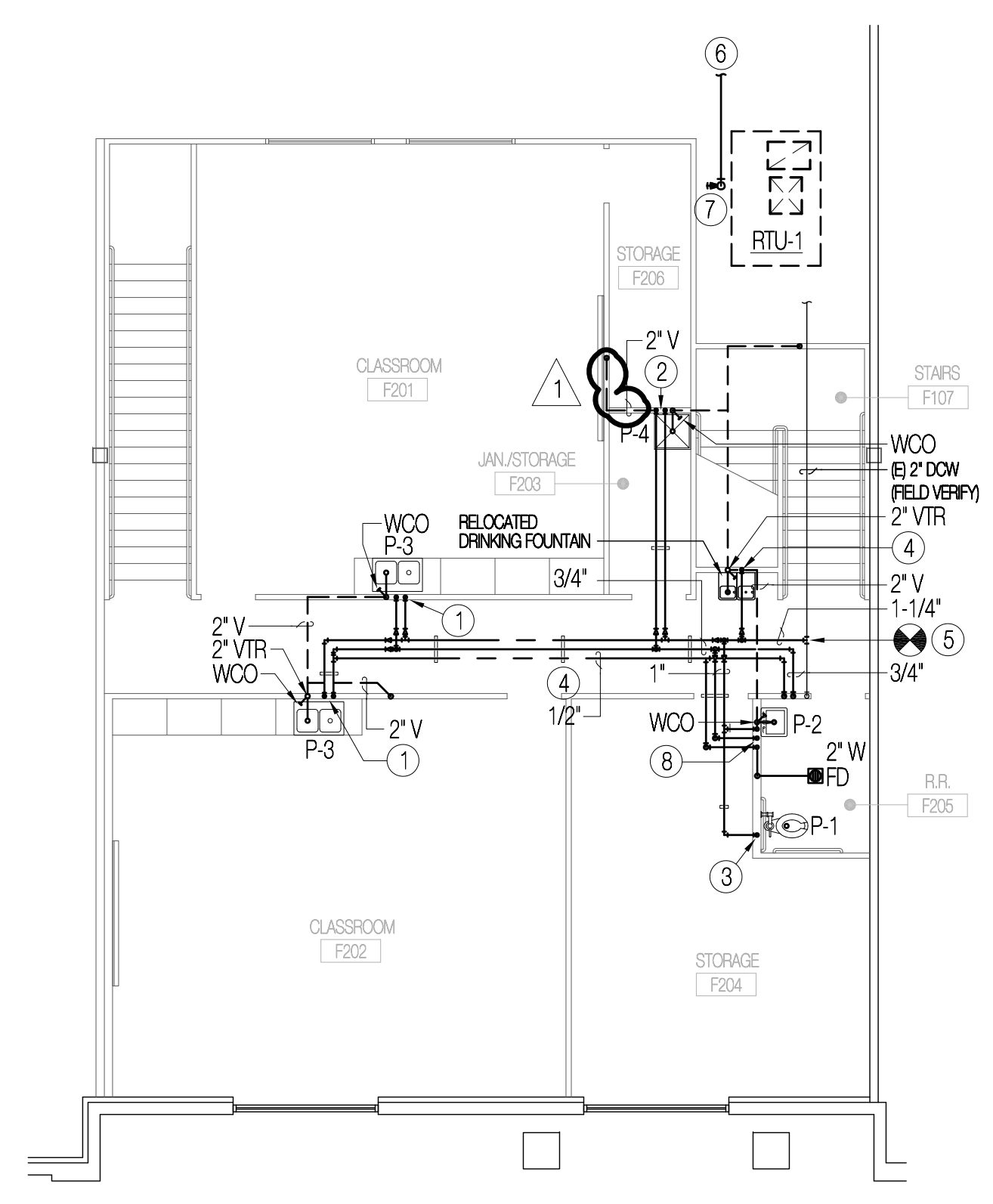
Revisions	Date
1	04/15/20



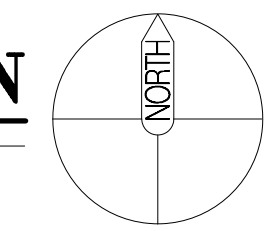
Consultant:
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Cunning & Associates
 468 W. 11600 N. Tremonton, UT 84317
 Email: norm@mcengineering.com
 Ph: (801) 726-0917

DRAWING NOTES

- ① 1/2" DOMESTIC HOT WATER AND 1/2" DOMESTIC COLD WATER PIPING DROPS TO FIXTURE. TERMINATE PIPING AT REQUIRED FIXTURE ROUGH-IN HEIGHT WITH QUARTER TURN STOP AND ESCUTCHEON AS REQUIRED BY SPECIFICATION.
- ② 1/2" DOMESTIC COLD WATER AND 1/2" DOMESTIC HOT WATER PIPING DROPS TO WALL MOUNTED FAUCET. TERMINATE PIPING AT FAUCET ROUGH IN HEIGHT WITH PIPE NIPPLE AND INSTALL FAUCET AS REQUIRED BY SPECIFICATION.
- ③ 1" DOMESTIC COLD WATER PIPING DROP TO FLUSH VALVE. TERMINATE PIPING AT REQUIRED FIXTURE ROUGH-IN HEIGHT WITH PIPE NIPPLE AND INSTALL FLUSH VALVE TRIM AS REQUIRED BY SPECIFICATION. PROVIDE WATER HAMMER ARRESTOR WITH SHUTOFF VALVE AND LOCKING ACCESS DOOR ON ACCESSIBLE SIDE OF TOILET NEAR FLOOR.
- ④ PIPE SUPPORT, SEE DETAIL 5/P-000.
- ⑤ FIELD VERIFY EXACT LOCATION EXISTING WATER UTILITIES AND CONNECT NEW TO EXISTING UTILIZING LIKE MATERIALS.
- ⑥ FIELD VERIFY EXACT SIZE AND LOCATION OF EXISTING GAS PIPING. EXTEND NEW GAS PIPING TO EXISTING AND CONNECT UTILIZING LIKE MATERIALS.
- ⑦ 1/2" (2H) GAS PIPING RISE TO ROOFTOP MECHANICAL EQUIPMENT. TERMINATE GAS PIPING WITH PRESSURE REGULATOR, DIRT LEG AND FLEXIBLE CONNECTION PER GAS FLOW DIAGRAM SHEET P-400.
- ⑧ 1/2" DOMESTIC HOT, 1/2 DOMESTIC HOT WATER RECIRCULATION, AND 1/2" DOMESTIC COLD WATER PIPING DROPS TO FIXTURE. TERMINATE HOT AND COLD WATER PIPING AT REQUIRED FIXTURE ROUGH-IN HEIGHT WITH QUARTER TURN STOP AND ESCUTCHEON AS REQUIRED BY SPECIFICATION. TERMINATE HOT WATER RECIRC. PIPING WITH TEE INTO HOT WATER PIPING WITHIN 1'-0" OF HOT WATER STOP.



SECOND FLOOR PLUMBING PLAN
 SCALE 1/8" = 1'-0"



Project Name

DA VINCI ACADEMY
850 WEST 350 NORTH
KAYSVILLE, UTAH 84037

Project Number	Issue Date
6319	01/07/20

Drawing Title
SECOND FLOOR PLUMBING PLAN

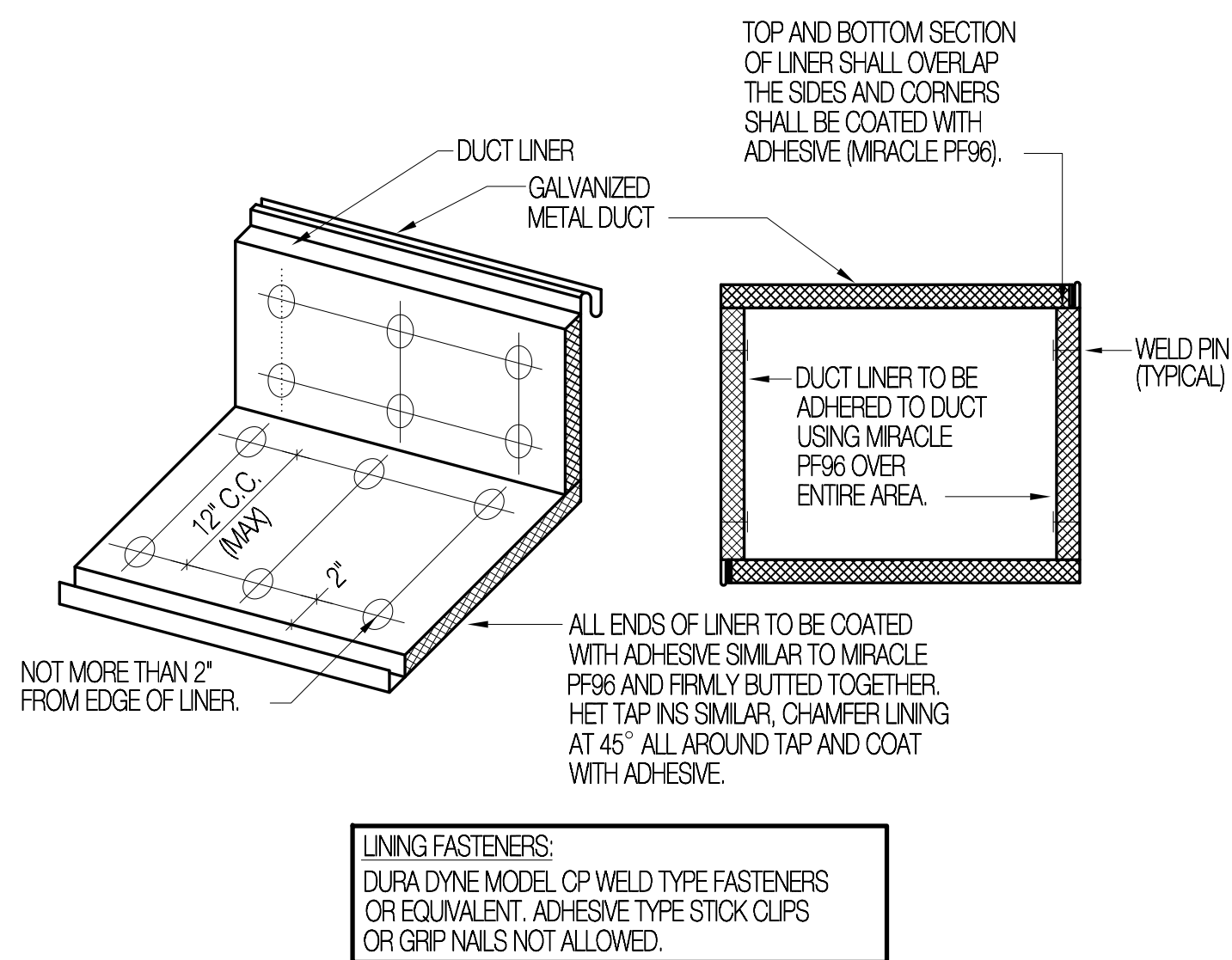
Sheet Number
P-101

SYMBOL LEGEND					
	SIDEWALL GRILLE		ROUND SUPPLY AIR DUCT CROSS SECTION	A.F.F.	ABOVE FINISHED FLOOR
	SUPPLY AIR DIFFUSER		HAND DAMPER, SEE DETAIL 9M-500	HET	HIGH EFFICIENCY TAKEOFF
	RETURN OR EXHAUST GRILLE		RISE OR DROP IN DUCT	A.L.	ACOUSTICAL LINING
	ACOUSTICALLY LINED DUCTWORK (INSIDE CLEAR DIMENSION)		THERMOSTAT	S.A.	SUPPLY AIR
	SLOPE IN DUCT, SEE SECTIONS FOR SLOPE DIRECTION		SUPPLY AIR DIRECTION	R.A.	RETURN AIR
	RECTANGULAR SUPPLY AIR DUCT CROSS SECTION		RETURN AIR DIRECTION	NK	NECK

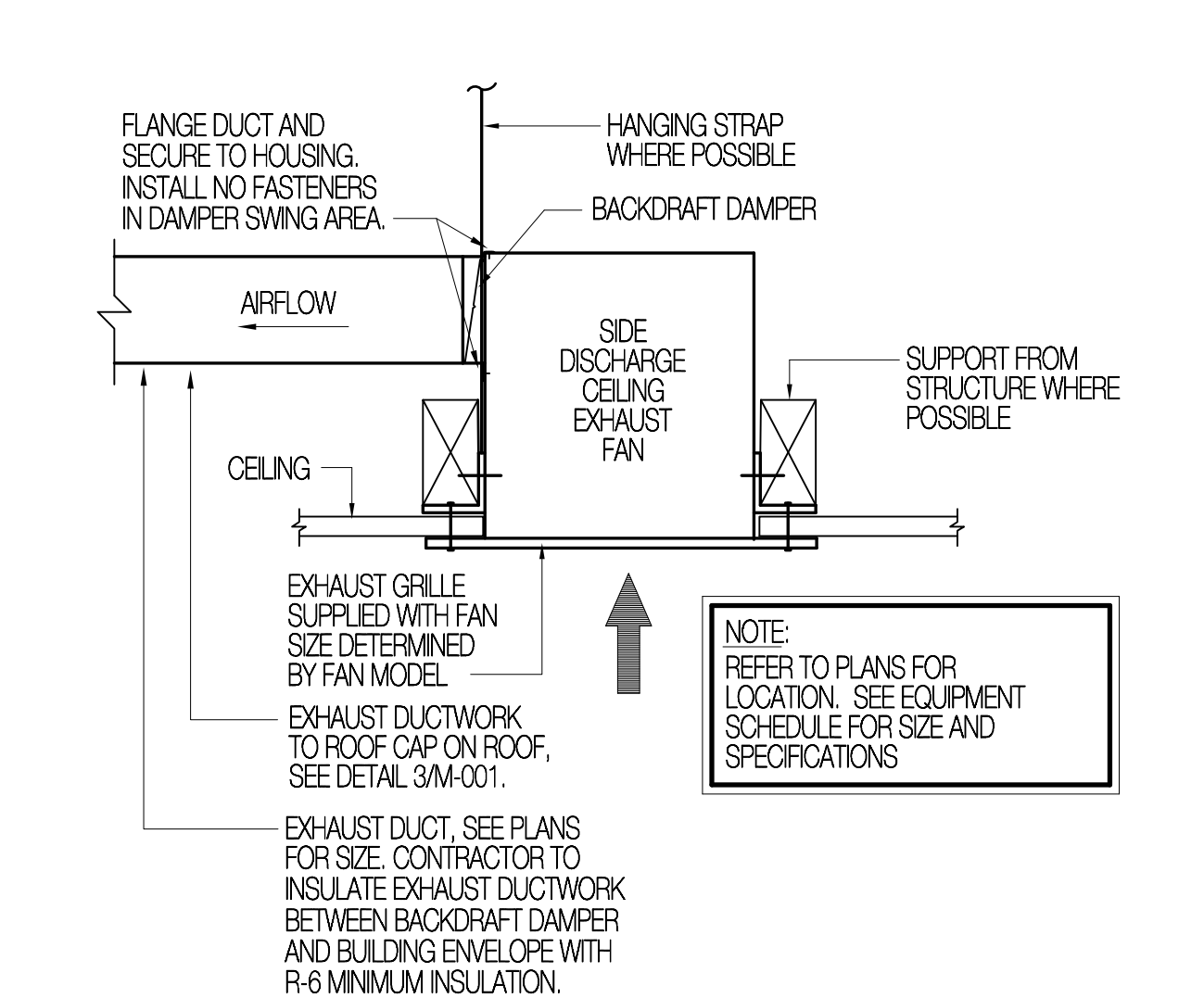
CEILING EXHAUST FANS (CEF)									
SYMBOL	MINIMUM CFM	TOTAL STATIC PRESSURE IN. WG.	ELECTRICAL REQUIREMENTS				BROAN MODEL	SERVICE	REMARKS
			VOLTS	PH.	HZ.	WATTS			
CEF-1	100	0.375"	120	1	60	87	L150MG	R.R. 118	-
CEF-2	100	0.375"	120	1	60	87	L150MG	R.R. 119	-

① CAPACITIES AT JOB SITE ELEVATION.

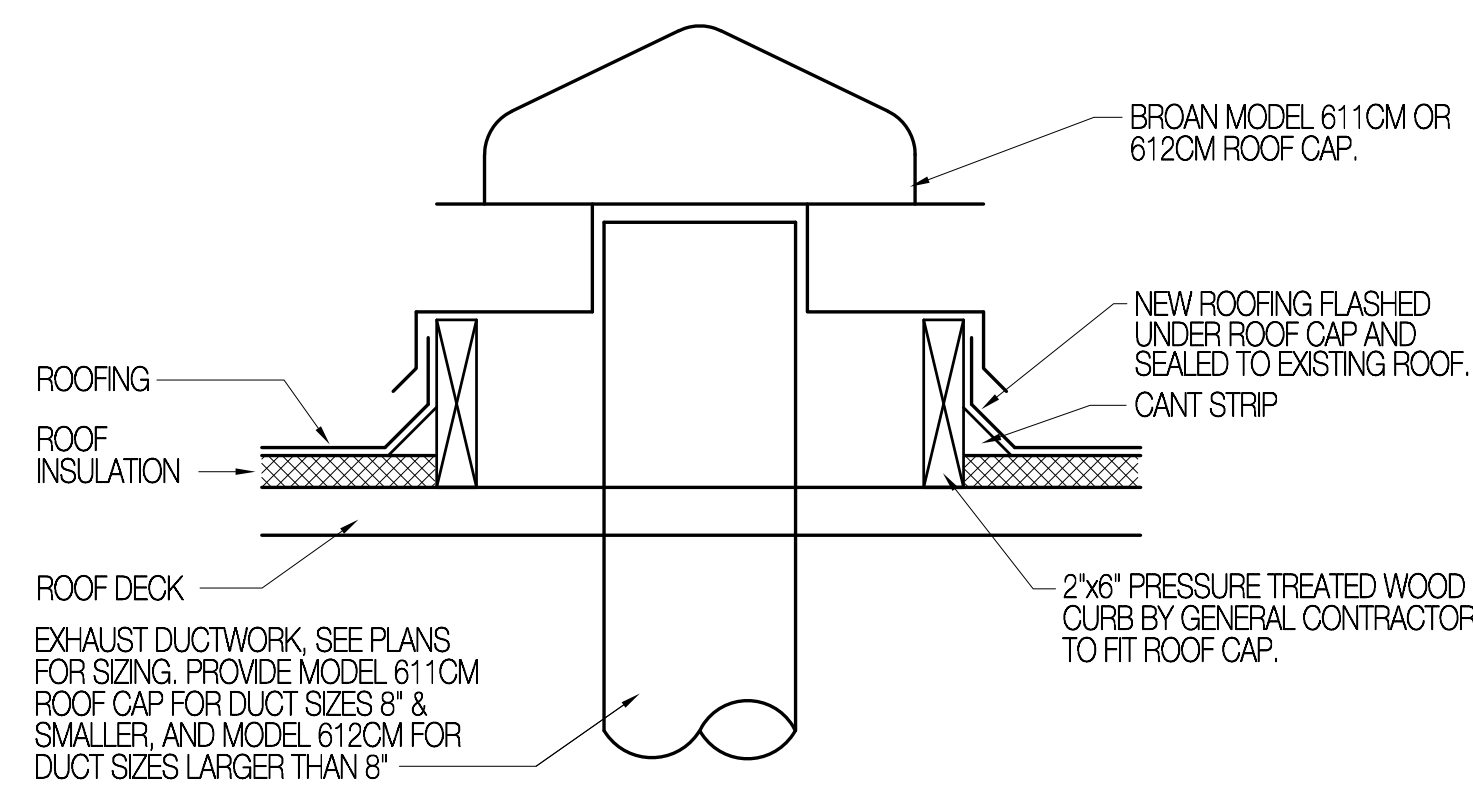
GRILLES AND DIFFUSERS					
SYMBOL	CFM	NECK SIZE	FACE SIZE	KRUEGER MODEL	REMARKS
S-1	AS NOTED	AS NOTED	AS NOTED	1400	-
S-2	AS NOTED	AS NOTED	AS NOTED	SH	-
R-1	AS NOTED	AS NOTED	AS NOTED	6490	-
TG-1	AS NOTED	AS NOTED	AS NOTED	S85H	-



⑦ **ACOUSTICAL LINER DETAIL**
SCALE: NONE



⑤ **CEILING EXHAUST FAN DETAIL**
SCALE: NONE



⑥ **EXHAUST ROOF CAP DETAIL**
SCALE: NONE

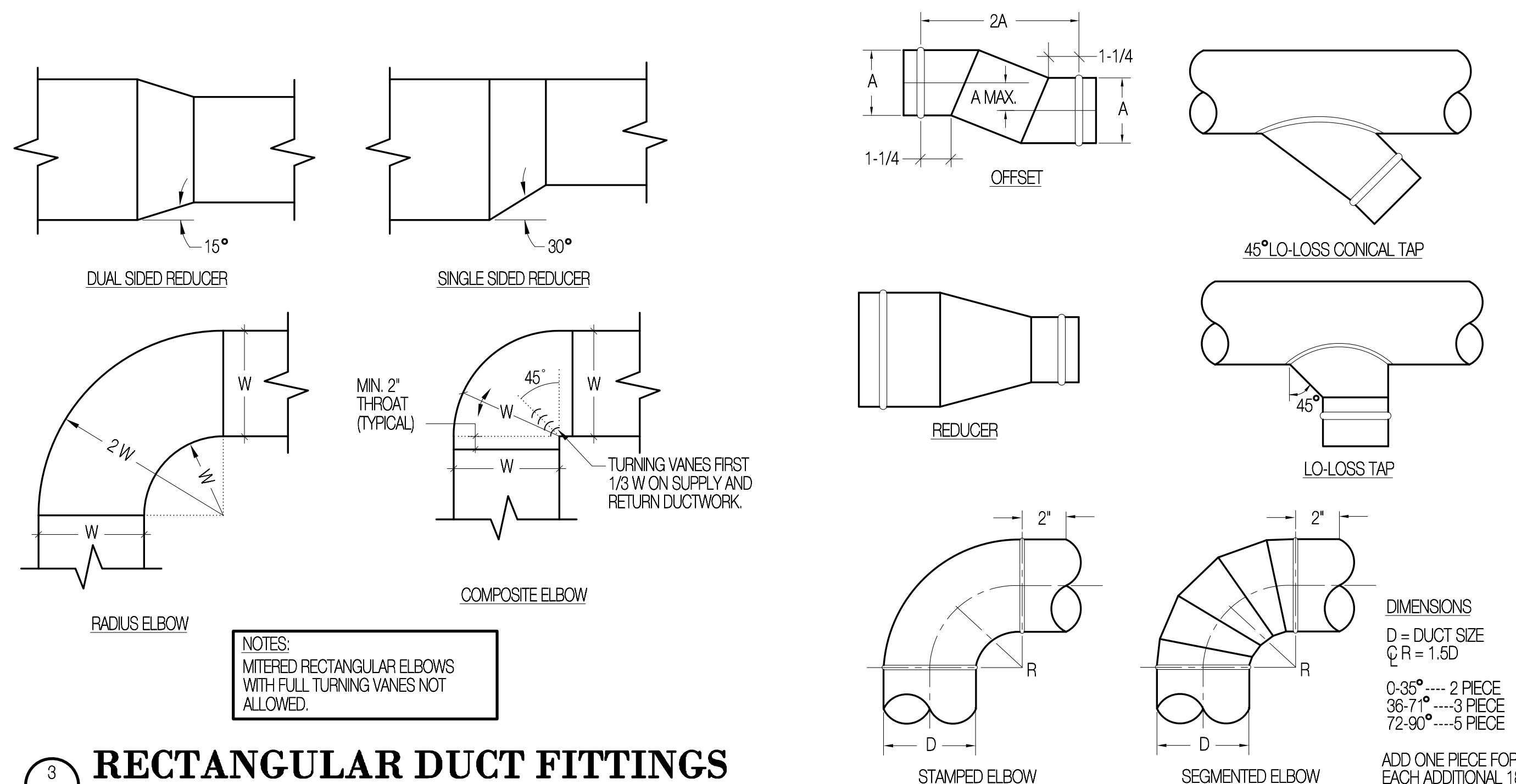
HEATING/COOLING ROOFTOP UNIT (RTU)																		
SYMBOL	HEATING SECTION		COOLING SECTION		FAN SECTION			COND. COIL AREA (SQ. FT.)	COND. COIL CFM	AMB. AIR TEMP.	MIN. EER	UNIT ELEC. REQUIREMENTS				YORK MODEL	REMARKS	
	HEATING INPUT (BTUH)	HEATING OUTPUT (BTUH)	TOTAL CAP. (BTUH)	SENS. CAP. (BTUH)	CFM	E.S.P. (IN. WG.)	MOTOR HP					VOLTS	PH.	HZ.	MCA			MCCP
RTU-1	180,000	144,000	83,800	80,200	2,985	1.2	3.0	18.5	7,600	95°F	11.2	208	3	60	49.8	60	ZF090	①②③④⑤⑥⑦⑧

① CAPACITY REQUIRED AT SITE ELEVATION AND CONDITIONS. ④ BELT DRIVE
 ② PROVIDE UNIT WITH 120 V CONVENIENCE OUTLET. ⑤ PROVIDE UNIT WITH RETURN AIR SMOKE DETECTOR.
 ③ FACTORY INSTALLED ECONOMIZER W/ BARO. RELIEF. ⑥ BALANCE OUTSIDE AIR TO 265 CFM.
 ⑦ HOT GAS BYPASS (ZONE CONTROL)
 ⑧ HI/LOW LIMIT SWITCHES (ZONE CONTROL)

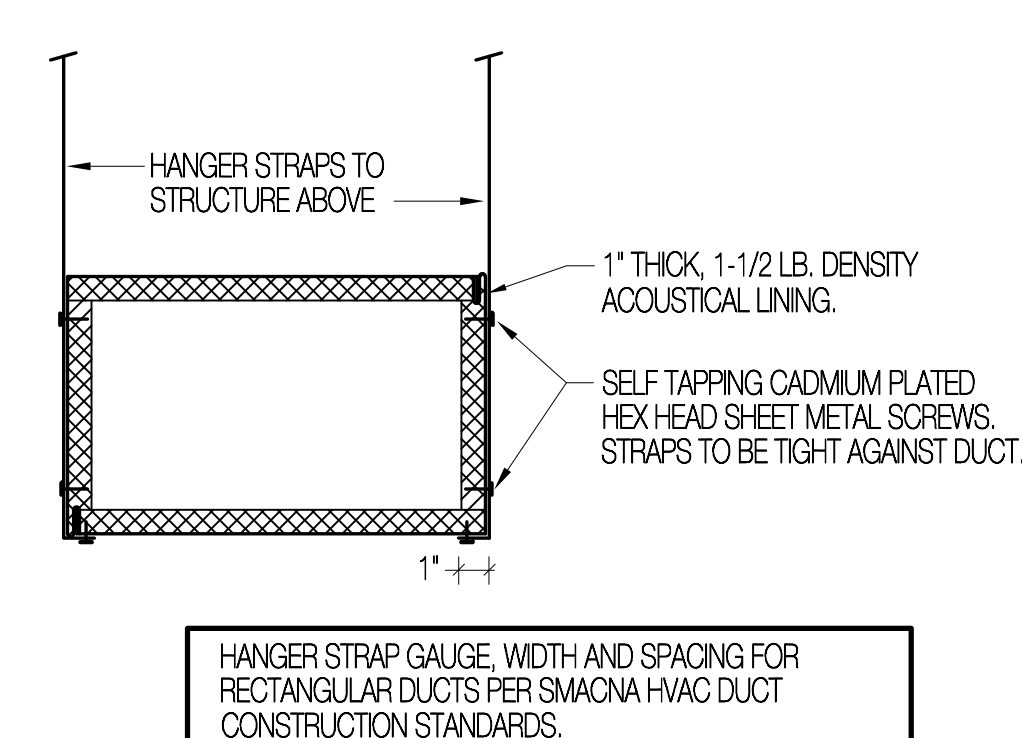
UNIT WEIGHTS:
RTU-1: 880 LBS.

GENERAL NOTES

- ALL DRAWINGS SHALL BE CONSIDERED PART OF THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND BE RESPONSIBLE FOR THE REVIEW AND COORDINATION OF ALL ASPECTS OF THE CONTRACT DOCUMENTS PRIOR TO SUBMITTING PROPOSALS. ANY AND ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO ANY INSTALLATION SUCH THAT CLARIFICATIONS CAN BE ISSUED.
- ANY WORK PERFORMED OR MATERIAL USED WHICH IS SHOWN TO BE IN CONFLICT WITH THE CONTRACT DRAWINGS, SPECIFICATIONS OR ANY APPLICABLE CODE OR GOVERNING REGULATION SHALL BE REMOVED AND REPLACED OR CORRECTED AT THE CONTRACTOR'S EXPENSE.
- ALL SYMBOLS AND ABBREVIATIONS USED ON THE CONTRACT DRAWINGS ARE CONSIDERED CONSTRUCTION STANDARDS. IF CLARIFICATION IS REQUIRED, THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO PROCEEDING WITH ANY WORK.
- DO NOT SCALE THE DRAWINGS. ALL EXISTING CONDITIONS AND DIMENSIONS SHALL BE VERIFIED BY THE CONTRACTOR AT THE JOB SITE PRIOR TO FABRICATION OF MATERIALS OR ERECTION OF ASSEMBLIES. IF DISCREPANCIES ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED FOR CLARIFICATION.
- THE CONTRACTOR SHALL FURNISH ALL MATERIALS, LABOR AND EQUIPMENT, TRANSPORTATION AND SERVICES REQUIRED FOR COMPLETION OF THE WORK. ALL WORK PERFORMED AND MATERIALS INSTALLED SHALL BE DONE IN STRICT COMPLIANCE WITH ALL LOCAL CODES AND GOVERNING REGULATIONS.
- ALL PERMITS AND FEES WHICH ARE REQUIRED FOR THIS WORK SHALL BE SECURED AND PAID FOR BY THE MECHANICAL CONTRACTOR.
- ALL PLUMBING AND MECHANICAL INSTALLATIONS SHALL ADHERE TO THE 2018 ECC INCLUDING: MINIMUM R-6 INSULATION ON ALL NON-ACOUSTICALLY LINED DUCTWORK; ACOUSTICAL LINER SHALL PROVIDE A MINIMUM OF R-6 INSULATING VALUE. ALL DOMESTIC WATER PIPING SHALL BE INSULATED WITH A MINIMUM 1" FIBERGLASS INSULATION.

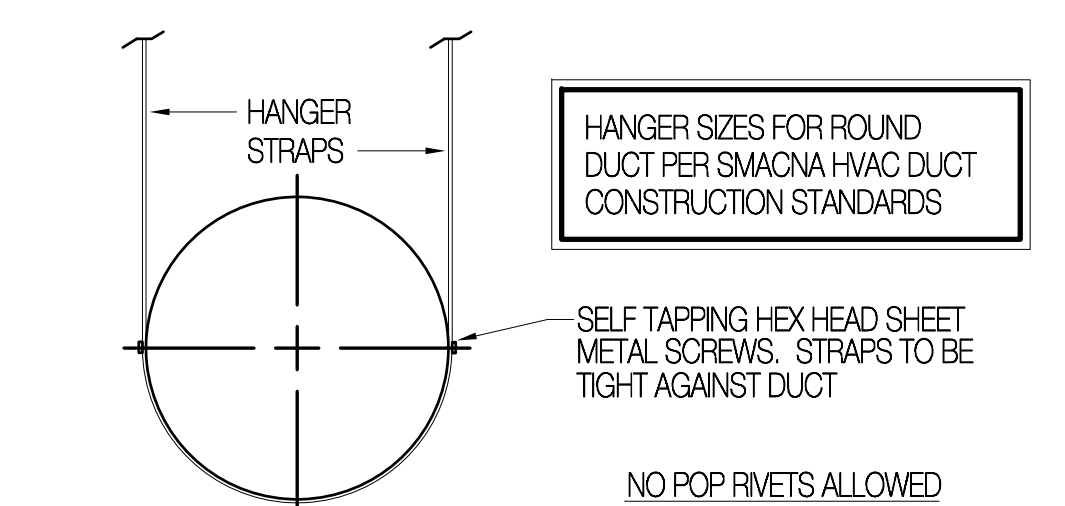


③ **RECTANGULAR DUCT FITTINGS**
SCALE: NONE



④ **RECT. DUCT HANGER DETAIL**
SCALE: NONE

① **ROUND DUCT FITTINGS**
SCALE: NONE



② **RND. DUCT HANGER DETAIL**
SCALE: NONE

Revisions	Date



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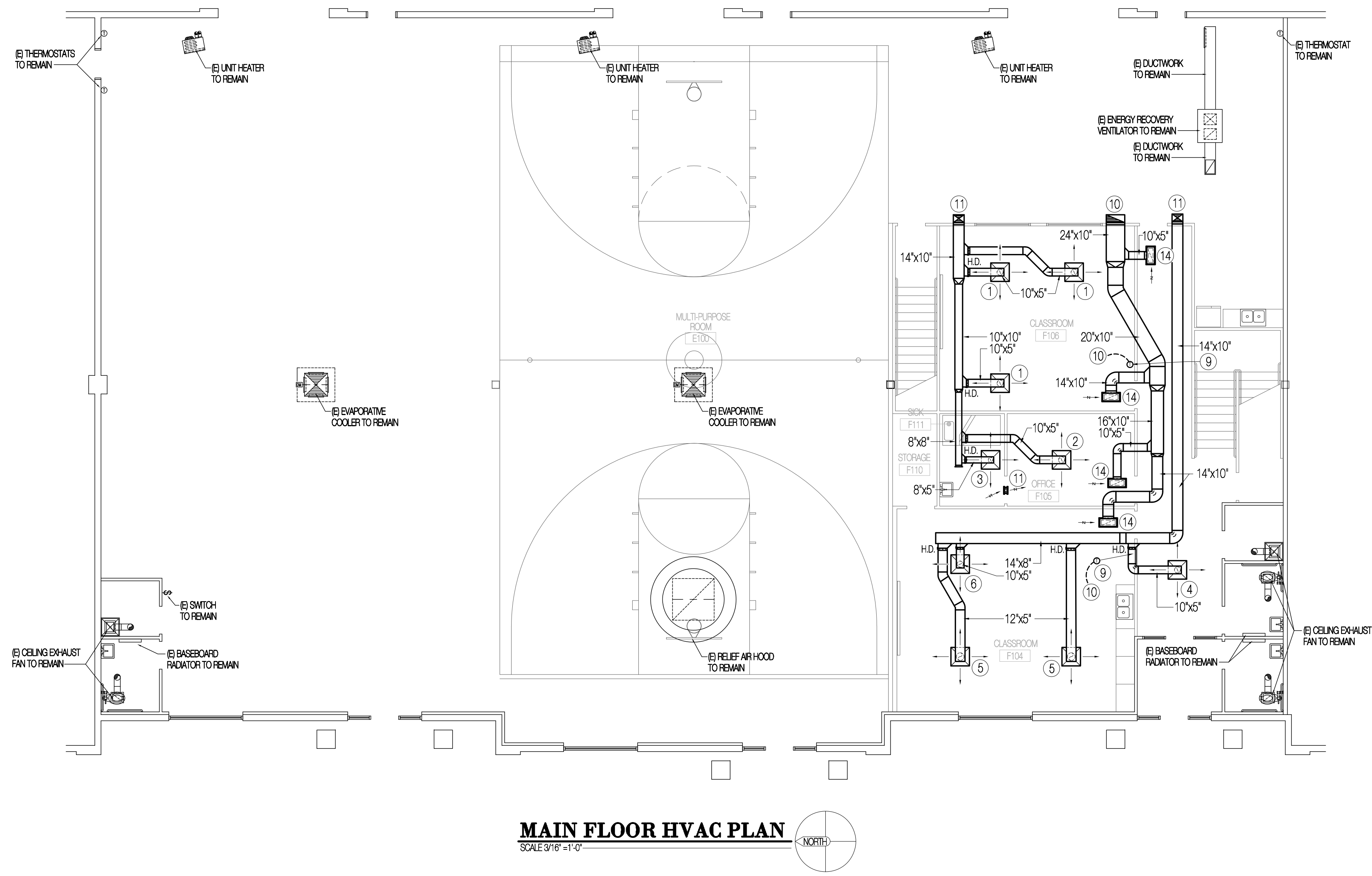
Project Number
5319

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Drawing Title
MECHANICAL SCHEDULES AND SYMBOL LEGEND

Sheet Number

M-000



MAIN FLOOR HVAC PLAN
SCALE 3/16" = 1'-0"

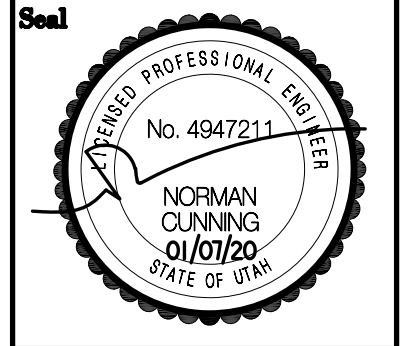
DRAWING NOTES

- 1 [S-1] 185 CFM, 8'0" NK. S.A. DIFFUSER.
- 2 [S-1] 105 CFM, 8'0" NK. S.A. DIFFUSER.
- 3 [S-1] 75 CFM, 6'0" NK. S.A. DIFFUSER.
- 4 [S-1] 125 CFM, 8'0" NK. S.A. DIFFUSER.
- 5 [S-2] 275 CFM, 10'0" NK. S.A. DIFFUSER.
- 6 [S-1] 150 CFM, 8'0" NK. S.A. DIFFUSER.
- 7 PROVIDE AND INSTALL NEW THERMOSTAT, MOUNT THERMOSTAT AT 48" A.F.F. SEE CONTROL DIAGRAMS SHEET M-700 FOR ADDITIONAL INFORMATION.
- 8 CONTROL WIRING FROM THERMOSTATS TO ZONE CONTROLLER. SEE CONTROL DRAWINGS SHEET M-700 FOR ADDITIONAL INFORMATION.
- 9 [TG-1] 8'x8" NK. T.A. GRILLE. TYPICAL OF ONE GRILLE EACH SIDE WITH INTERCONNECTING DUCT.
- 10 24"x10" RETURN DUCTWORK RISE TO SECOND FLOOR, SEE SECOND FLOOR HVAC PLAN THIS SHEET FOR CONTINUATION.
- 11 14"x10" SUPPLY DUCTWORK RISE TO SECOND FLOOR, SEE SECOND FLOOR HVAC PLAN THIS SHEET FOR CONTINUATION.
- 12 [R-1] 22"x10" NK. R.A. GRILLE WITH ACOUSTICALLY LINED PLENUM AND O.B.D. BALANCE GRILLE TO MATCH SUPPLY CFM.

CEILING PLENUM NOTE

THE CEILING PLENUM IN THIS BUILDING CONTAINS COMBUSTIBLE CONSTRUCTION. ALL RETURN / SUPPLY DUCTWORK SHALL BE CONTINUOUS THROUGH THE PLENUM SPACE. DO NOT USE THE PLENUM SPACE FOR AIR DISTRIBUTION.

Revisions	Date



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Project Name

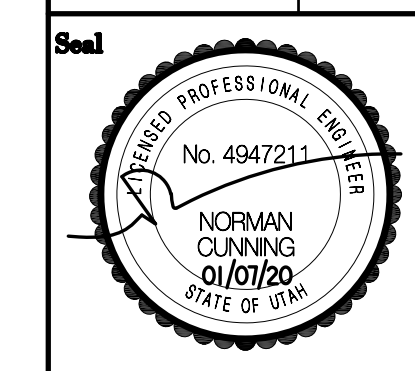
DA VINCI ACADEMY
850 WEST 350 NORTH
KAYSVILLE, UTAH 84037

Project Number	Issue Date
5319	01/07/20

Drawing Title
FIRST FLOOR HVAC PLAN

Sheet Number
M-100

Revisions	Date



Consultant:
Mechanical Consulting Engineers
Cunning & Associates
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GENERAL DEMO. NOTES

- REMOVE ALL PORTIONS OF EXISTING HVAC INSTALLATION NOT REQUIRED TO REMAIN IN SERVICE. FIELD COORDINATE REMOVAL WITH REMODEL PLAN, SHEET M-100 AND REMOVE EXISTING DUCTWORK SYSTEMS COMPLETE INCLUDING: DUCTWORK, DIFFUSERS, ETC PREPARATORY TO NEW WORK.
- REMOVE ALL PORTIONS OF EXISTING HVAC CONTROL SYSTEMS NOT REQUIRED TO REMAIN IN SERVICE. FIELD COORDINATE REMOVAL WITH REMODEL PLAN, SHEET M-100 AND REMOVE EXISTING CONTROL SYSTEMS COMPLETE INCLUDING: CONTROLS, AND CONTROL WIRING PREPARATORY TO NEW WORK.

DRAWING NOTES

- REMOVE EXISTING EVAPORATIVE COOLER COMPLETE. REMOVAL SHALL INCLUDE UNIT, ALL ASSOCIATED HANGERS, CONTROLS, AND ACCESSORIES PREPARATORY TO NEW WORK.

DRAWING NOTES

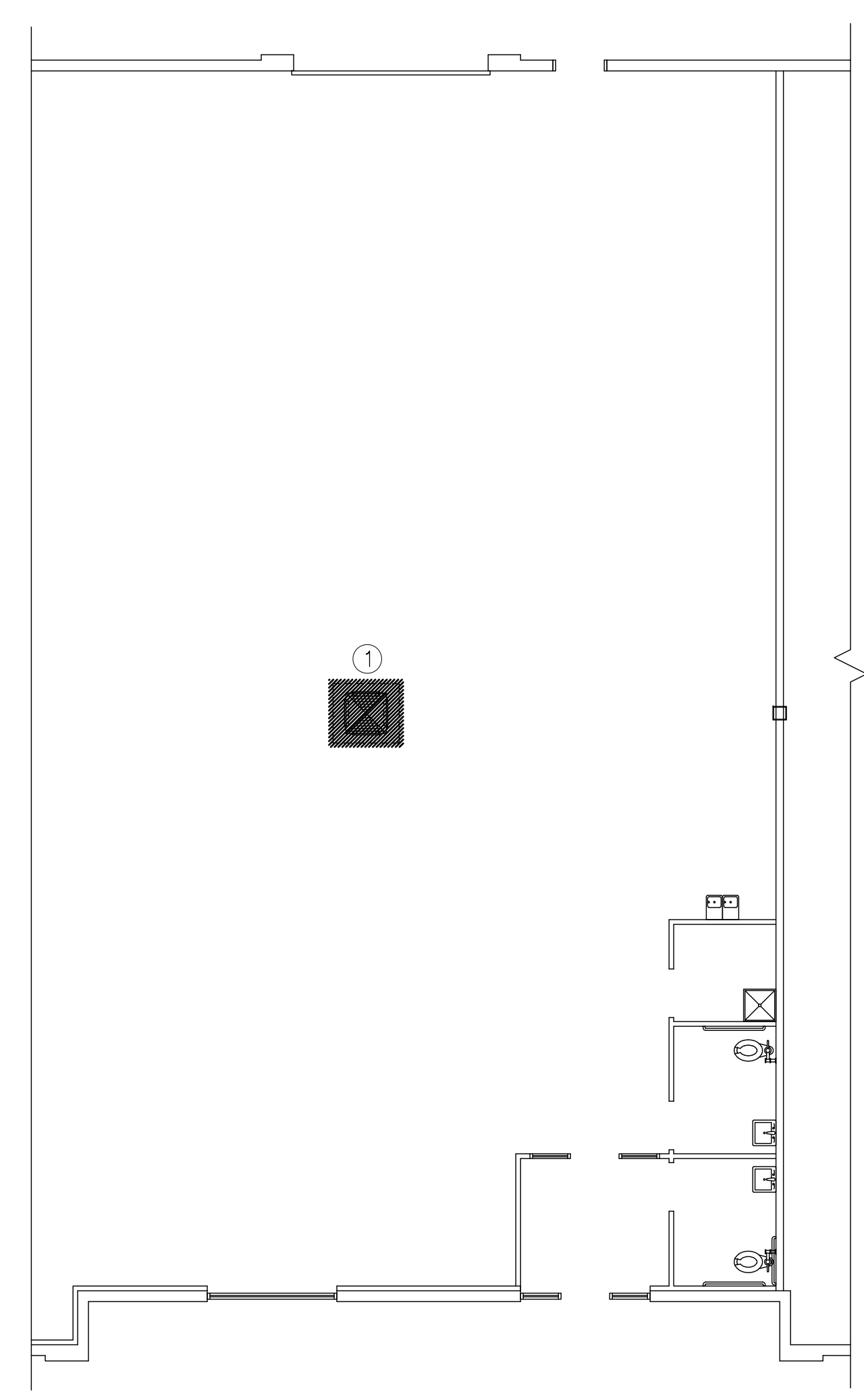
- [S-1] 185 CFM, 8"Ø NK. S.A. DIFFUSER.
- [S-1] 125 CFM, 8"Ø NK. S.A. DIFFUSER.
- [S-1] 105 CFM, 8"Ø NK. S.A. DIFFUSER.
- [S-2] 50 CFM, 8"Ø NK. S.A. DIFFUSER.
- [S-1] 275 CFM, 10"Ø NK. S.A. DIFFUSER.
- [S-1] 150 CFM, 8"Ø NK. S.A. DIFFUSER.
- HIGH EFFICIENCY TAKEOFF, TYPICAL.
- 8"Ø EXHAUST DUCT RISE TO VENT CAP ON ROOF. SEE DETAIL 6M-700 FOR ADDITIONAL INFORMATION.
- [R-1] 22"x10" NK. R.A. GRILLE WITH ACOUSTICALLY LINED PLENUM AND O.B.D. BALANCE GRILLE TO MATCH SUPPLY CURB.
- 30"x14"x1" A.L. SUPPLY AIR PLENUM ON BOTTOM OF ROOFTOP UNIT. TRANSITION PLENUM TO OUTLET COLLAR SIZE AND CONNECT WITH FLEXIBLE CONNECTION PER DETAIL 1M-101.
- 30"x14"x1" A.L. RETURN AIR DUCTWORK ON BOTTOM OF ROOFTOP UNIT. TRANSITION DUCTWORK TO OUTLET COLLAR SIZE AND CONNECT WITH FLEXIBLE CONNECTION PER DETAIL 1M-101.
- PROVIDE AND INSTALL NEW THERMOSTAT ROOM THERMOSTAT AT 85 A.F.F. SEE CONTROL DIAGRAMS SHEET M-700 FOR ADDITIONAL INFORMATION.
- CONTROL WIRING FROM THERMOSTATS TO ZONE CONTROLLER. SEE CONTROL DRAWINGS SHEET M-700 FOR ADDITIONAL INFORMATION.
- ZONE CONTROL DAMPER, SEE CONTROL DRAWINGS SHEET M-700 FOR ADDITIONAL INFORMATION.
- ROOFTOP UNIT ZONE CONTROLLER, SEE CONTROL DRAWINGS SHEET M-700 FOR ADDITIONAL INFORMATION.
- BYPASS DUCTWORK WITH BAROMETRIC DAMPER, SEE M-700 FOR ADDITIONAL INFORMATION.

EQUIPMENT NOTES

- [60] CEF 1 CEILING EXHAUST FAN
- [51] CEF 2 CEILING EXHAUST FAN
- [63] RTU 1 ROOFTOP UNIT

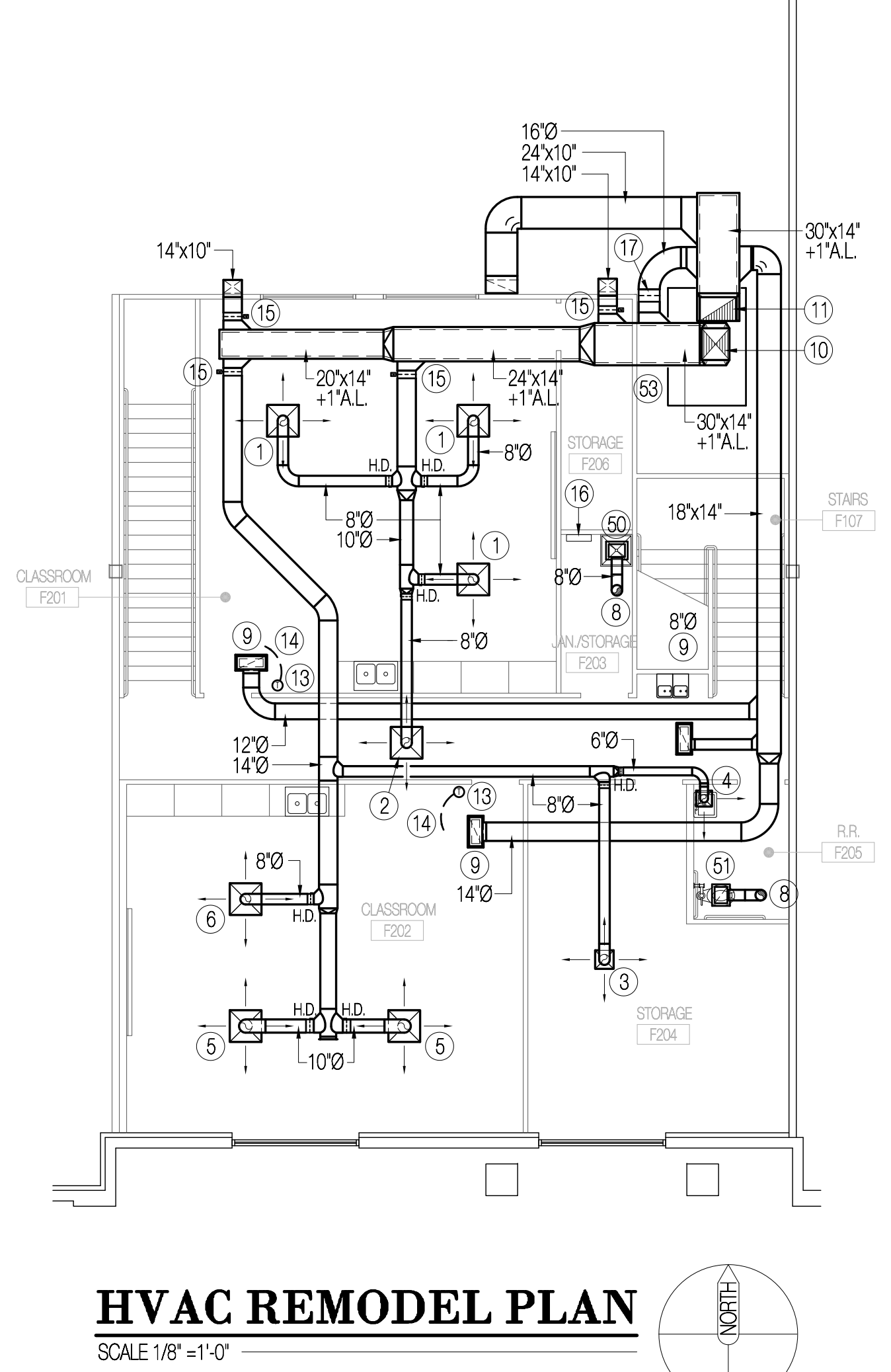
CEILING PLENUM NOTE

THE CEILING PLENUM IN THIS BUILDING CONTAINS COMBUSTIBLE CONSTRUCTION. ALL RETURN / SUPPLY DUCTWORK SHALL BE CONTINUOUS THROUGH THE PLENUM SPACE. DO NOT USE THE PLENUM SPACE FOR AIR DISTRIBUTION.



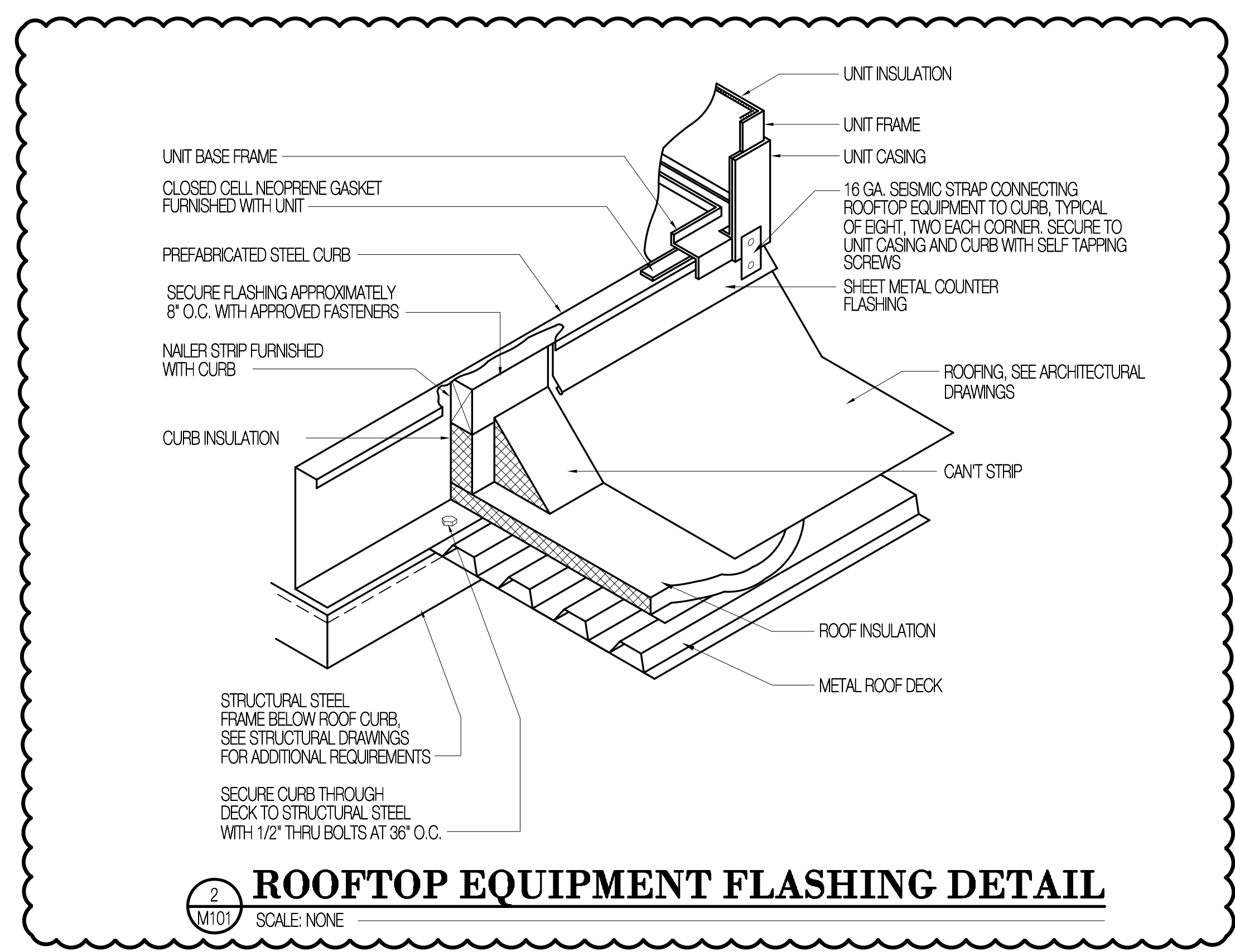
HVAC DEMOLITION PLAN

SCALE 1/8" = 1'-0"



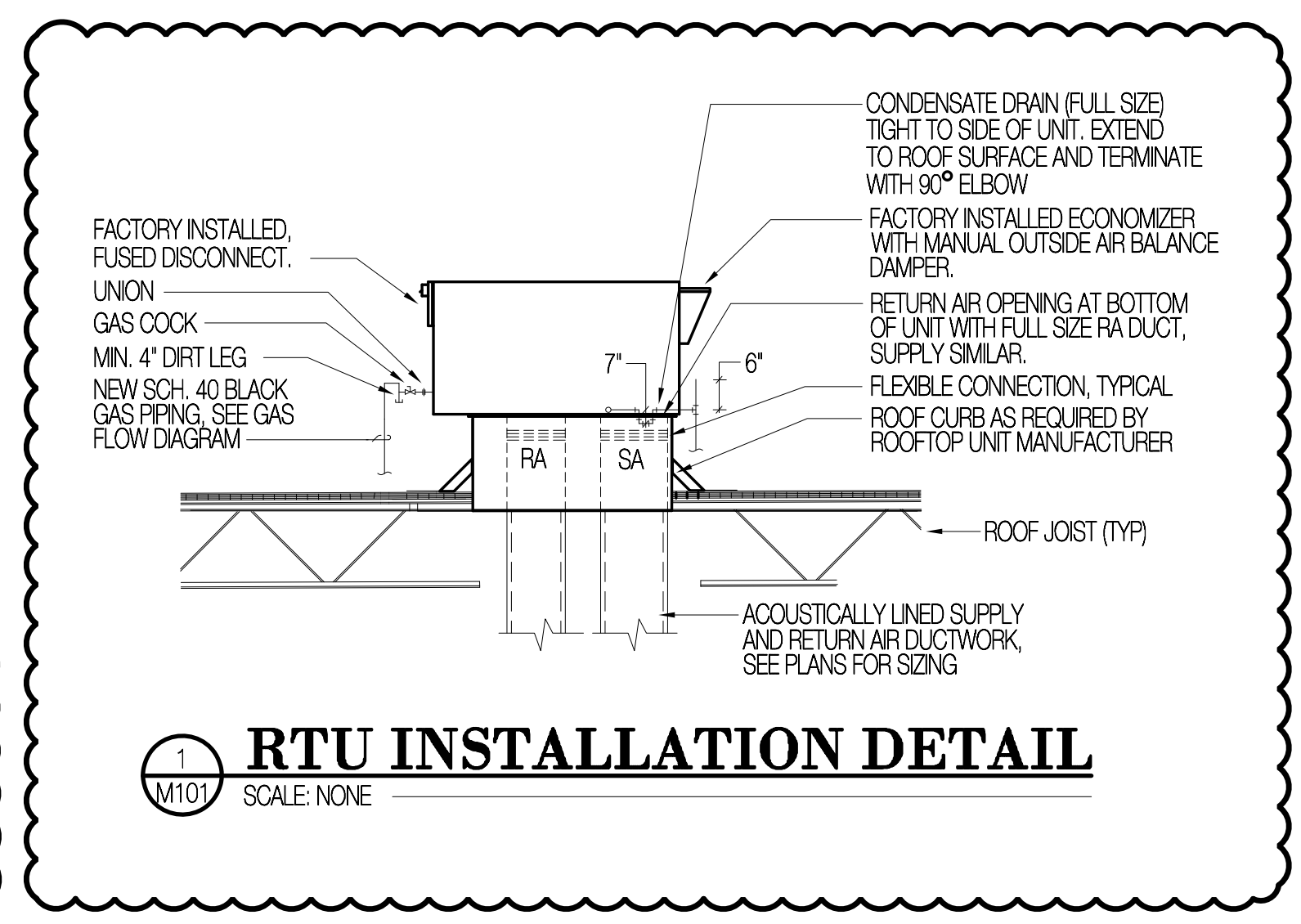
HVAC REMODEL PLAN

SCALE 1/8" = 1'-0"



ROOFTOP EQUIPMENT FLASHING DETAIL

SCALE: NONE



RTU INSTALLATION DETAIL

SCALE: NONE

Project Name
DA VINCI ACADEMY
850 WEST 350 NORTH
KAYSVILLE, UTAH 84037

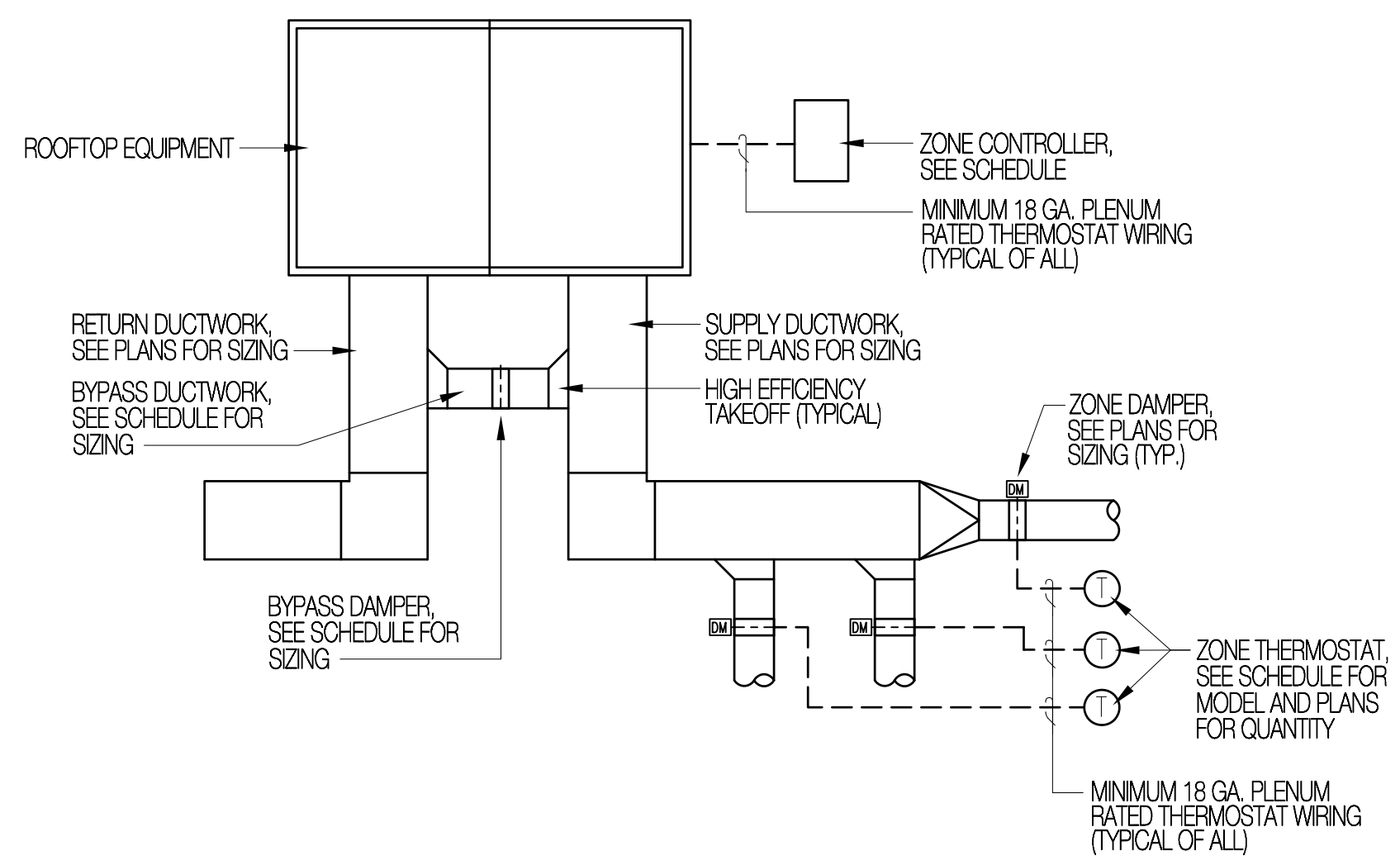
Project Number
5319

Issue Date
01/07/20

Drawing Title
SECOND FLOOR HVAC PLAN

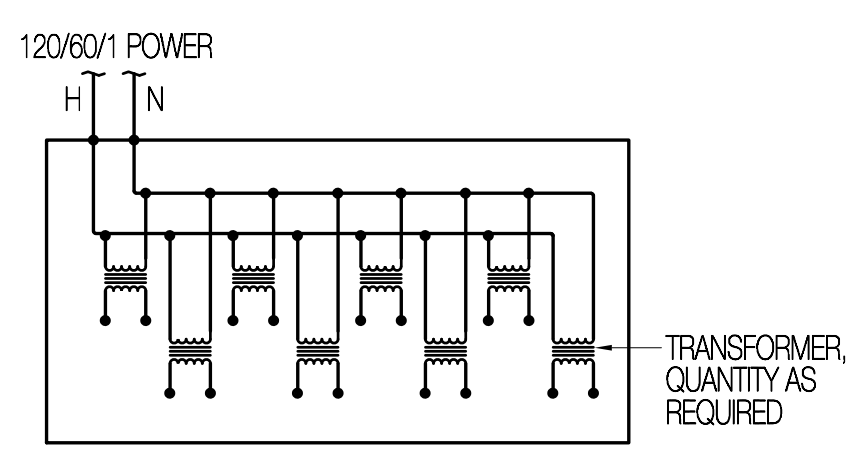
Sheet Number
M-101

ZONE CONTROLLER SCHEDULE										
ZONE	EQUIP. SERVED	NO. OF ZONES	BYPASS DAMPER SIZE	BYPASS DAMPER MFG. / MCD.	BYPASS DAMPER PRESS. SETTING	BYPASS CFM	ZONE DAMPER MANUF. / MODEL	ZONE THERMOSTAT MANUF. / MODEL	ZONEFIRST CONTROLLER MODEL	REMARKS
Z-1	RTU-1	4	16"Ø	ZONEFRST / SPAD	0.30" - 0.60"	2,310	ZONEFRST / RDP	VENSTAR / T2900	MZP4	-

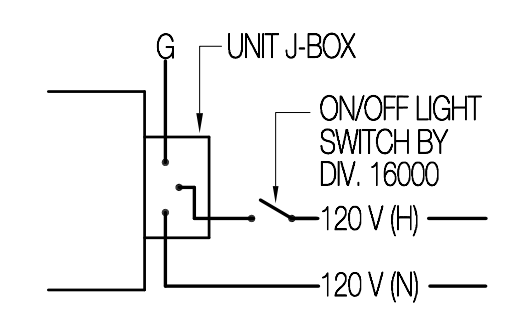


ZONE CONTROLLER SCHEMATIC
TYPICAL OF RTU-1

- GENERAL NOTES**
- 120 VAC ELECTRICAL POWER TO ZONE CONTROLLERS AND LOW VOLTAGE TRANSFORMER PANELS BY DIVISION 16000, DIVISION 15000 TO COORDINATE LOCATION AND QUANTITY.
 - THE CONTROLS CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR CONTROL SYSTEM CIRCUITS.
 - ANY QUESTION OF RESPONSIBILITY SHALL BE CLARIFIED BY THE GENERAL CONTRACTOR
 - ALL WIRING SHALL BE 18 GA. MULTI CONDUCTOR WITH PLENUM RATED JACKET AND SHALL TERMINATE AT LABELED TERMINAL STRIPS.



LOW VOLTAGE TRANSFORMER PANEL LVTP
QUANTITY AS REQUIRED, LOCATION AS DIRECTED



CEILING EXHAUST FAN CONTROL DIAGRAM
TYPICAL OF CEILING EXHAUST FANS CEF-1 & 2

Revisions	Date



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Project Name
DA VINCI ACADEMY
850 WEST 350 NORTH
KAYSVILLE, UTAH 84037

Project Number 5319	Issue Date 01/07/20
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Drawing Title
MECHANICAL CONTROLS

Sheet Number
M-700

MECHANICAL SPECIFICATIONS

GENERAL CONDITIONS

DESCRIPTION OF PROJECT: The mechanical work described in the mechanical specifications is for a project located in Kayville, Utah. Design weather conditions are 95° db, 62° wb, and winter 8°F. Altitude readings, unless otherwise noted, are for an elevation of 4,300 feet above sea level. Make adjustment to manufacturer's performance data as needed.

CODES AND PERMITS, AUTHORITIES HAVING JURISDICTION:

- 2018 International Mechanical Code - (with Utah amendments)
2018 International Building Code - (with Utah amendments)
2018 International Plumbing Code - (with Utah amendments)
2018 International Energy Code - (with Utah amendments)
SMACNA Duct Design Standards
Locally enforced NFPA Codes
Local Fuel Utility Regulations
Local Power Utility Regulations
American Gas Association
ASTM B31.1 Piping

DEFINITION OF PLANS AND SPECIFICATIONS: The mechanical drawings at reduced scale show the general arrangement of piping, ductwork, equipment, etc., and shall be followed as closely as the actual building construction and the work of other trades will permit.

- A. Because of the small scale of the mechanical drawings, it is not possible to indicate all offsets, fittings and accessories which may be required. Investigate the structural and finish conditions affecting the work and arrange the work accordingly, providing such extensions, fittings, valves and accessories to meet the conditions as may be required.
B. Examine the actual construction site prior to bidding and obtain an understanding of the conditions under which the work will be performed.
C. During construction, verify the dimensions governing the mechanical work at the building. No extra compensation shall be claimed or allowed because of differences between actual dimensions and those indicated on the drawings.

ALTERNATIVE CONSTRUCTION/SUBSTITUTION: The contract documents outline a way in which the Owner may be delivered a functional and reliable facility. Drawings and specifications describe reasonable engineering practice for the Contractor to follow.

- A. Coordination between trades may result in periodic needs to adjust the installation from that indicated, but in no case shall the intended function be compromised.
B. The Contractor may perceive some work methods which differ from those specified which could save time and effort. These may be presented to the Architect with a breakdown of possible cost savings for review.
C. Materials substitutions will generally be covered in a review process prior to bidding. After bidding, substitutions shall be proposed only on the basis of definitive cost accounting and implemented only with authorization.

QUALITY OF MATERIALS AND EQUIPMENT:

- A. All equipment and materials shall be new, and shall be the standard products of manufacturers regularly engaged in the production of plumbing, heating, ventilating and air conditioning equipment, and shall be the manufacturer's latest design.
B. Furnish and install all major items of equipment specified in the equipment schedules on the drawings

- (2) J.R. Smith No. 4530
(3) Wade No. W-8460-R
(4) Josam No. 58790

DUCTWORK - GENERAL:

- A. Standards: All duct fabrications shall comply with standards and techniques detailed by SMACNA "Duct Construction Manuals" for the appropriate pressure class, with the ASHRAE Handbook, 1988 edition, Chapter 1, Duct Construction, and with the contract drawing details.
B. Sheet Metal: Except as otherwise indicated, fabricate ductwork from galvanized sheet steel complying with ASTM A 577, lockforming quality, with G 90 zinc coating in accordance with ASTM A 525; mill phosphatized for exposed locations.

FITTINGS AND FABRICATION:

- A. Fittings: Fabricate duct fittings to match adjoining ducts, and to comply with duct requirements as applicable to fittings. Fabricate elbows utilizing inside and outside radiuses with a center-line radius equal to associated duct width, or where fully radiused elbows are not possible, fabricate elbows with an inside square and outside radius and include turning vanes in the first 1/3 of elbow.
B. Fabricate ductwork with accessories installed during fabrication to the greatest extent possible.
C. Fabricate ductwork with duct liner in each section of duct where indicated.
D. Offset, transition, adapt ductwork to structural obstacles and work of other trades in a coordinated effort.

LOW PRESSURE ROUND DUCTWORK:

- A. Round type ductwork for use on low velocity supply systems (1200 fpm maximum), low pressure (0.75" maximum duct pressure), shall be fabricated on 26 gauge galvanized steel sheets with snap-lock longitudinal seams and crimped and beaded joints.
B. All end joints shall have at least three screw fasteners and joints shall be sealed airtight with Hardcast TA tape or water based duct sealer.
EXCEPTIONS: Elbows and fittings shall provide smooth air flow patterns and have a neat appearance.

LOW PRESSURE RECTANGULAR DUCTWORK:

- A. Rectangular ductwork for use on supply systems up to 2" maximum duct static pressure and 2000 fpm maximum duct velocity shall be constructed of galvanized steel using construction for nominal 3" SMACNA rated systems.
B. Use radiused elbows, or square inside radiused outside elbows with single thickness turning vanes in the first 1/3 where space restrictions prohibit fully radiused elbows.
C. Duct dimensions are inside clear. Increase for acoustical lining.

MISCELLANEOUS DUCTWORK MATERIALS:

- A. General: Provide miscellaneous materials and products of types and sizes indicated and, where not otherwise indicated, provide type and size required to comply with ductwork system requirements including proper connection of ductwork and equipment.
B. Runout Fittings: Runout fittings shall be used to make round to rectangular duct connections.
C. Duct Sealing Compound: Duct sealing compound shall be 3M brand number EC-750 or Duro-Dyne S-2.
D. Acoustical Lining: Acoustical lining in ducts shall be 1" thick, 1-1/2 pound density, coated, flexible glass fiber type, set in adhesive and impaled on weld studs spaced not more than 12" on centers and secured with lock washers.

complete with all accessories normally supplied with catalog items listed, and all other accessories necessary for a complete and satisfactory installation.

MANUFACTURER'S DIRECTIONS: Install all equipment in strict accordance with directions and recommendations furnished by the manufacturer. Where such directions are in conflict with the plans and specifications, report such conflicts to the Architect who shall direct adjustments as deemed necessary and desirable.

VALVES:

DOMESTIC COLD WATER, DOMESTIC HOT WATER:

- A. Ball Valves: Copper piping, 2-1/2" and smaller: 475 psig WOG @ 250°F, bronze construction, soldered ends for 3/4" and smaller, threaded ends for 1" and larger, glass Reinforced PolyTetraFluoroEthylene (RPTFE) seat providing bubble tight leakage performance at 100 psig air pressure under water.
1. Manufacturers & Models: Provide ball valves from one of the manufacturers and model numbers listed below.

INSULATION:

WATER PIPING (domestic cold & hot water, 1-1/2" thickness required.)

- A. Preformed Fiberglass Piping Insulation: ASTM C 547. (Class 1 for use to 450°F (230°C); Class 2 for use to 650°F (345°C); Class 3 for use to 1200°F (650°C).

DUCTWORK (1-1/2" thickness for all non-acoustically lined ductwork, concealed areas only):

- A. Flexible Fiberglass Ductwork Insulation: ASTM C 553, Type I - resilient, flexible; Class B-1 - 0.65 lbs/ft³; Class B-2 - 0.75 lbs/ft³; Class B-3 - 1.0 lbs/ft³; Class B-4 - 1.5 lbs/ft³; Class B-5 - 2.0 lbs/ft³; Class B-6 - 3.0 lbs/ft³; Type II - flexible; Class F-1 - 4.5 lbs/ft³; Type III - semirigid; Class F-2 - 4.5 lbs/ft³.

NATURAL GAS PIPING:

- A. Building Distribution Piping:
1. Pipe Size 2" and Smaller: Black steel pipe; Schedule 40; malleable-iron threaded fittings (exposed).
B. Gas Cocks:
1. Gas Cocks 2" and Smaller: 150 psi non-shock WOG, bronze straightway cock, flat or square head, threaded ends.
2. Manufacturer: Subject to compliance with requirements, provide gas cocks of one of the following:

DOMESTIC WATER:

- A. Domestic Water Pipe:
1. Pipe Sizes 2" and Smaller: Copper tubing. Conform to ASTM B88, Type L, hard temper, copper tube; ASME B16.22 streamlined pattern wrought-copper fittings, with soldered joints using 95-5 tin antimony solder or non-lead bearing solders such as "Silvabrite."

WASTE, DRAIN AND VENT PIPING:

- A. Sanitary Soil Drain, Waste and Vent Piping:
1. Piping and Fittings: Schedule 40 PVC pipe and fittings conforming to the requirements of ASTM D 2665. Pipe and fittings shall be produced domestically as supplied by Spears, or Charlotte Pipe and Fittings.

- E. Duct Liner Adhesive: Comply with ASTM C 916 "Specifications for Adhesives and Duct Thermal Insulation".
F. Duct Liner Fasteners: Comply with SMACNA HVAC Duct Construction Standards, Article S2.11.
G. Ductwork Support Materials: Except as otherwise indicated, provide hot-dipped galvanized steel fasteners, anchors, rods, straps, trim and angles for support of ductwork.

GRILLES AND DIFFUSERS:

- A. Ceiling Supply Diffuser (S-1): Krueger Series 1400 with adjustable tabs for directional air flow control, square face, round neck, four-way deflection, anti-smudge design, all steel construction, lay-in tile mounting frame, white baked enamel finish, size as indicated on drawings.
B. Ceiling Supply Diffuser (S-2): Krueger Series SH, square face, one, two three or four way blow as required. Square neck, opposed blade volume damper, anti-smudge border, all steel, white baked on enamel, size as indicated on drawings.
C. Perforated Return Grille (R-1): Krueger series 6490. Concealed hinge frame, sponge rubber gasket, white baked-on enamel, color as selected by architect, size as indicated on drawing.
D. Transfer Grille (TG-1): Krueger series 838H. Heavy duty steel construction, horizontal blades at 35° deflection with 1/2" spacing, mounting frame with concealed fasteners, sponge rubber gasket, white baked enamel finish, size as indicated on drawings.

MECHANICAL CONTROLS:

CONDUCTORS:

- A. Color coded and No. 16 and No. 12 AWG Type TWN, TFN, or THHN, stranded.
B. Thermostat Cable - 12 conductor or 8 conductor, 18AWG solid copper wire, insulated with high density polyethylene. Conductors parallel enclosed in brown PVC jacket (No 22 AWG cable allowed).

THERMOSTAT (Typical RTU-1)

- A. Programmable low voltage type provided with automatic change over feature for both heating and cooling stages, seven day program with two starts and stops per day, and provisions for damper operators. Thermostat and subbase compatible with heat pump operation.
B. Battery - Mallory AA 1.5 volt alkaline type or equal as approved by Engineer.
C. Approved Manufacturer & Model -
1. Venstar T2900

ZONE CONTROLLER

- A. Microprocessor controller with LED indicator display, 4 stage heat / 3 stage cooling capacity, smoke detector input terminals, LCD display, 365 day per year clock.
B. Approved Manufacturer -
1. Zonefirst MZP4.

TRANSFORMER:

- A. 120/24 volt, 38VA Honeywell AT72D1188, cover mount
B. 120/24 volt, 50VA Honeywell AT87A1106, foot mount

AUXILIARY RELAYS:

- A. Light Duty - as required.
B. Heavy Duty - Square D, Class 8501, Type X.

AIR SYSTEMS BALANCE:

- A. Before any adjustments are made, check the systems for such items as dirty filters, duct leakage, filter leakage, damper leakage, equipment vibrations, correct damper operations, etc. Adjust all fan systems, major duct sections, registers, diffusers, etc., to deliver design air quantities within +/-5%. Individual air outlets, when one of three or more serve a space may have a tolerance of 10 percent from the average. Design static pressure is based on filters approximately 50% loaded with dirt. Pressure drop across filters during balancing shall be simulated to that condition. After balancing is completed check motor amperage with the filters clean.
B. Adjust supply, and recirculation air systems towards air quantities shown on drawings. Establish a proper relationship between supply and exhaust. Follow proportional balance procedures outlined by AABC and/or SMACNA for such work.

EQUIPMENT SELECTION

The contractors shall select equipment based on the drawing schedules and requirements of these specifications. Any and all substitutions shall be presented during submittals for approval.

FIXTURES AND TRIM: The model numbers listed below have been carefully selected to help bidders in the submittal process of selecting fixtures and trim. The completeness and accuracy of these numbers must be verified during the bidding process. Any discrepancies between the model numbers and the fixture, or trim descriptions noted by a manufacturer during the bidding process will be reported to the Architect / Engineer for clarification.

- A. Water Closets: (Flush Valve Type-Floor Mounted)
1. (P-1) ADA Compliant Fixture: (1.6 gal./flush, siphon jet)
a. Floor mounted, vitreous china, elongated bowl, and top spud. Mounted so top of seat is 18" above finished floor.
b. Approved Manufacturers: (1) Kohler - "Highcliff" No. K-4368 (2) American Standard (3) Eljer (4) Crane
2. (P-1) Flush Valve: (1.6 gal./flush)
a. Exposed, battery powered, automatic sensor operated, 6 volt DC input, low battery indicator light, furnish with initial battery(s), polished chrome plated flush valve, diaphragm operated, 1.6 gallon per flush, screw driver operated angled stop valve with back-check feature, vacuum breaker, wall escutcheon, spud escutcheon, fixture spud securing nut for 1" top spud.
b. Approved Manufacturers: (1) Sloan "Optima Plus" No. 8113-1.6 (2) Delany "Impulse No. 1-1402-1.6 (3) Zurn "ZER6000 Series"
3. (P-1) Seat:
a. (White) high impact plastic, open front, check hinge.
b. Approved Manufacturers: (Typical on standard use and ADA fixtures) (1) Church No. 295C (2) Bencke No. 527CH (3) Bemis No. 1655-C (4) Olsonite No. 95
B. Lavatory:
1. (P-2) ADA Fixture
a. Wall mounted, 18" x 20", vitreous china, front overflow, faucet holes on 4" centers, concealed arm carrier, mounted so bottom of lavatory is 29" above finished floor, furnish and install pre-formed insulation around P-trap and water supplies meet 25/50 flame/smoke rating.
b. Approved Manufacturers: (1) Kohler "Kingston" No. K-2005 (2) American Standard "Lucerne" No. 0355.012 (3) Eljer "Delvyn" No. 051-1644. (4) Crane "Harwich" No. 1-412-V.
2. (P-2) Faucet:
a. Two handle, 4" center set, renewable seats, indexed 4" wrist blade handles, aerator with 1.5 GPM flow control device, chrome plated, perforated strainer assembly, vandal proof.
b. Approved Manufacturers: (1) Kohler "Tillot" No. 7404 (2) American Standard "Heritage" No. 5402.172V (3) Chicago Faucet No. 802A
C. Sinks:
1. Breakroom Sinks (P-3):
a. Double compartment, counter mounted, 14" x 14" x 7-1/2" deep inside dimensions of each bowl, 18 gauge type 304 stainless steel, 3 faucet holes on 4" centers, self-rimming, sound deadened.
b. Approved Manufacturers:
C. Distribution system shall be further adjusted to obtain uniform space temperatures free from objectionable drafts and noise within the capabilities of the system.

- (1) Just No. DL-1933-A-GR
(2) Elkay No. LR-3319
2. (P-3) Faucet:
a. Underdeck mounted, 8" high rigid gooseneck spout, 2.5 gpm vandal proof aerator, 4" wing handles, supplies on 8" centers.
b. Approved Manufacturers: (1) Chicago Faucet No. 786-HZFCCP
3. (P-3) Supplies and Stops:
a. Chrome plated quarter turn cast brass angle stop, brass stem, gasketed seat, flexible chrome plated copper riser, chrome plated escutcheon, compression type connections.
b. Approved manufacturers: (1) Brass Craft (2) Eastman (3) McGuire
4. (P-3) Outlet Fitting and Tailpiece:
a. Chrome plated 17 gauge cast brass.
b. Approved Manufacturers: (1) Elkay No. LK-53 (2) Just
5. (P-3) Strainer:
a. Basket strainer, stainless steel, stainless steel basket, neoprene stopper, locking shell, tailpiece. Provide offset type where required to maintain ADA clearances.
b. Approved Manufacturers: (1) Jameco (2) Sanitary Dash No. SS3000W (3) McGuire (4) Elkay (5) Just
D. Service Sink:
1. (P-4) Fixture:
a. Floor mounted, enameled cast iron, vinyl coated rim guard.
b. Approved Manufacturers: (1) Kohler "Whitby" No. K-6710. (2) American Standard "Florwell" No. 7740.020. (3) Eljer "Custodial" No. 242-0050.
2. (P-4) Faucet:
a. Wall-mounted mixing faucet, bucket hook, vacuum breaker, top brace, integral stops in shanks, polished chrome finish, mount so inlets are 36" above finished floor. Provide 5 ft. of 3/4" commercial grade rubber hose with male and female connectors.
b. Approved Manufacturers: (1) Kohler No. K-8904 (2) American Standard No. 8344.111 (3) Eljer No. 749-1200.
3. (P-4) Outlet:
a. 3" threaded outlet and chrome plated flat metal grid strainer.
b. Approved Manufacturers: (1) Kohler No. 9146 (2) American Standard No. 7721.038 (3) Eljer No. 830-0630.
E. Floor Drain:
1. (FD) Fixture:
a. 6" diameter nickel bronze strainer, cast iron body with 2" outlet and deep seal P-trap, clamping collar. Provide Proset Protection "Trap Guards" or similar on all floor drains.
b. Approved Manufacturers: (1) Zurn No. ZN-415. (2) Josam No. 30000 -A (3) J.R. Smith No. 2010 (4) Wade No. 1100 Series
F. Cleanouts:
1. Finished Walls:
a. Approved Manufacturers: (1) Zurn No. Z-1445-1

Revisions Date table, Professional Engineer seal for Norman Cunniff, Mechanical Consulting Engineers logo for Cunning & Associates, Project Name: DA VINCI ACADEMY, 850 WEST 350 NORTH, KAYSVILLE, UTAH 84037, Project Number: 5319, Date: 01/07/20, Drawing Title: MECHANICAL / PLUMBING SPECIFICATIONS, Sheet Number: MS 100.