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DAVIS APPLIED TECHNOLOGY COLLEGE COMPOSITES SHOP REMODEL

KAYSVILLE, UTAH



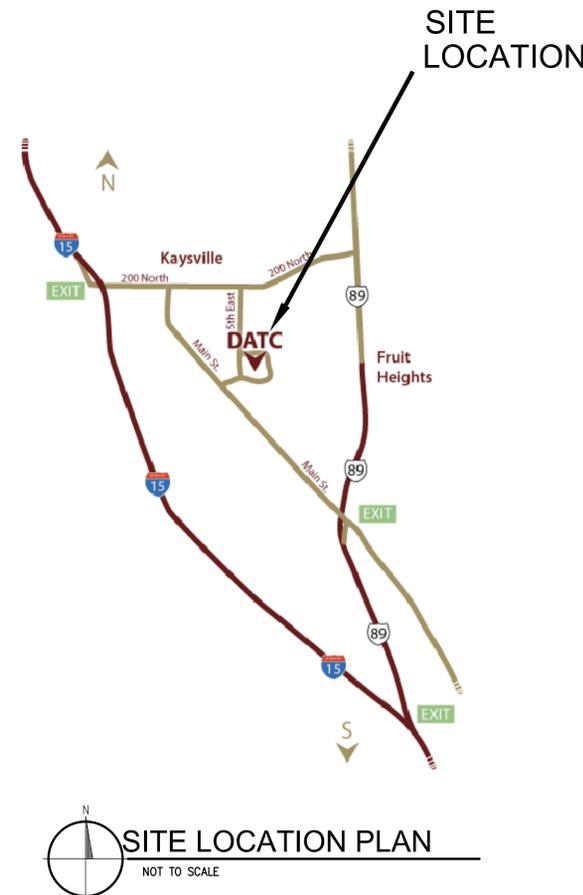
State of Utah—Department of Administrative Services

DIVISION OF FACILITIES CONSTRUCTION
AND MANAGEMENT

4110 State Office Building/Salt Lake City, Utah 84114/538-3018

DFCM Project No. - 09002220

VICINITY MAP



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CODE ANALYSIS

APPLICABLE CODES			
	Year	Year	
International Building Code	2006	National Electrical Code	2006
International Mechanical Code	2006	Uniform Code for	
International Plumbing Code	2006	Building Conservation	2006
International Fire Code	2006	ADA Accessibility	
International Energy		Guidelines	N/A
Conservation Code	2006		

A. Occupancy and Group: F-1
Change in Use: Yes No Mixed Occupancy: Yes No
Special Use and Occupancy (e.g. High Rise, Covered Mall): N/A

B. Seismic Design Category: D Design Wind Speed: 90 mph

C. Type of Construction (circle one):
I I II II III III IV V V
A B A B A B HT A B

D. Fire Resistance Rating Requirements for the Exterior Walls based on the fire separation distance (in hours):
North: _____ South: _____ East: _____ West: _____

E. Mixed Occupancies: NONE Nonseparated Uses: _____

F. Sprinklers:
Required: _____ Provided: Type of Sprinkler System: EXISTING

G. Number of Stories: 1 Building Height: 26 FT

H. Actual Area per Floor (square feet): _____

I. Tabular Area: _____

J. Area Modifications:
a) $A_a = A_t + \left[\frac{A_t I_f}{100} \right] + \left[\frac{A_t I_s}{100} \right]$ $I_f = 100 \left[\frac{F}{P} - 0.25 \right] \frac{W}{30}$

b) Sum of the Ratio Calculations for Mixed Occupancies:

$$\frac{\text{Actual Area}}{\text{Allowable Area}} \leq 1$$

c) Total Allowable Area for:

- 1) One Story: _____
- 2) Two Story: $A_a(2)$ _____
- 3) Three Story: $A_a(3)$ _____

d) Unlimited Area Building: Yes No Code Section: _____

K. Fire Resistance Rating Requirements for Building Elements (hours).

Element	Hours	Assembly Listing	Element	Hours	Assembly Listing
Exterior Bearing Walls			Floors - Ceiling Floors		
Interior Bearing Walls			Roofs - Ceiling Roofs		
Exterior Non-Bearing Walls			Exterior Doors and Windows		
Structural Frame			Shaft Enclosures		
Partitions - Permanent			Fire Walls		
Fire Barriers			Fire Partitions		
			Smoke Partitions		

L. Design Occupant Load: _____
Exit Width Required: _____ Exit Width Provided: _____

M. Minimum Number of Required Plumbing Facilities:
a) Water Closets - Required (m) _____ (f) _____ Provided (m) _____ (f) _____
b) Lavatories - Required (m) _____ (f) _____ Provided (m) _____ (f) _____
c) Bath Tubs or Showers: _____
d) Drinking Fountains: _____ Service Sinks: _____

- FOOTNOTES:
- 1) In case of conflict with the U.S. Department of Justice Federal Registers Parts through V - ADA Guidelines and specific reference to the International Building Code Accessibility Chapters, the more restrictive requirement shall govern.
 - 2) Additional Code Information shall be provided at the discretion of the Building Official for Complex Buildings. Including, but not limited to:
 - a) High Rise Requirements.
 - b) Atriums.
 - c) Performance Based Criteria.
 - d) Means or Egress Analysis.
 - e) Fire Assembly Locator Sheet.
 - f) Exterior and Interior Accessibility Route.
 - g) Fire Stopping, Including Tested Design Number.



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DAVIS APPLIED
TECHNOLOGY COLLEGE
COMPOSITE SHOP REMODEL
KAYSVILLE, UTAH

REVISIONS

VBFA PROJECT #:	8505
CHECKED BY:	RDV
DRAWN BY:	SCM
CURRENT/BID DATE:	06/29/09

SHEET CONTENTS
COVER SHEET

GI001

1

2

3

4

5

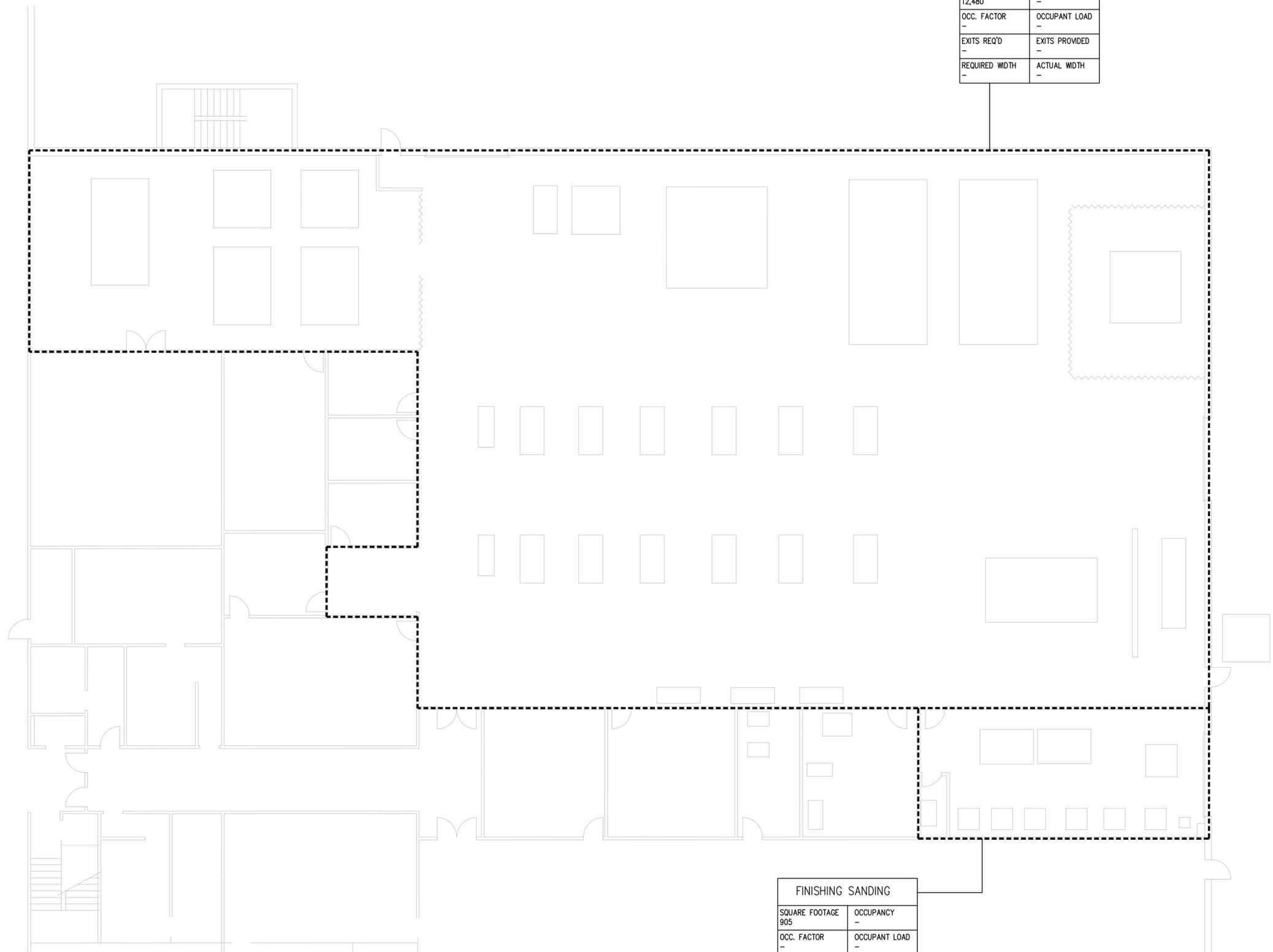
D

C

B

A

COMPOSITE LAY-UP	
SQUARE FOOTAGE 12,480	OCCUPANCY -
OCC. FACTOR -	OCCUPANT LOAD -
EXITS REQ'D -	EXITS PROVIDED -
REQUIRED WIDTH -	ACTUAL WIDTH -



FINISHING SANDING	
SQUARE FOOTAGE 905	OCCUPANCY -
OCC. FACTOR -	OCCUPANT LOAD -
EXITS REQ'D -	EXITS PROVIDED -
REQUIRED WIDTH -	ACTUAL WIDTH -



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**CODE REFERENCE
PLAN**



KEY PLAN



A1 CODE REFERENCE PLAN
MH101 SCALE: 1/8" = 1'-0"

GI002

LEGEND OF MECHANICAL SYMBOLS AND ABBREVIATIONS

MECHANICAL

	POSITIVE PRESSURE DUCT - RISE
	POSITIVE PRESSURE DUCT - DROP
	NEGATIVE PRESSURE DUCT - RISE
	NEGATIVE PRESSURE DUCT - DROP
	ROUND DUCT - RISE
	ROUND DUCT - DROP
	UNDER FLOOR DUCT
	TURNING VANES
	FRESH AIR LOUVER
	RELIEF AIR OR EXHAUST AIR LOUVER
	CEILING SUPPLY DIFFUSER
	CEILING RETURN REGISTER
	CEILING EXHAUST REGISTER, (BALANCE TO MATCH SUPPLY IF RETURN CFM IS NOT SHOWN)
	SIDEWALL SUPPLY REGISTER
	SIDEWALL EXHAUST OR RETURN REGISTER
	CEILING SUPPLY DIFFUSER WITH FLEXIBLE DUCT
	CEILING AIR GRILLE WITH FLEXIBLE DUCT
	CEILING RETURN AIR GRILE W/ SOUND BOOT
	FLEXIBLE DUCT CONNECTION
	FLEXIBLE DUCT
	FAN
	FLAT OVAL DUCT WITH NET INSIDE DIMENSIONS SHOWN IN INCHES.
	RECTANGULAR DUCT WITH NET INSIDE DIMENSIONS SHOWN IN INCHES.
	ROUND DUCT WITH NET INSIDE DIMENSIONS SHOWN IN INCHES.
	INCLINED RISE
	INCLINED DROP
	R/W=1. ROUND DUCT SIMILAR TO RECTANGULAR
	RECTANGULAR TO RECTANGULAR OR ROUND TO ROUND DUCT TRANSFORMATION MAXIMUM 15° INCLUDED ANGLE EXCEPT WHERE SHOWN OTHERWISE.
	BRANCH DUCT SPLIT WITH 6" WIDTH AND MIN. R=WIDTH OF BRANCH DUCT DOWNSTREAM. ELBOW TURNING VANE OPTIONAL.
	TAP ENTRY AREA EQUALS 150% OF BRANCH AREA
	HIGH EFFICIENCY FITTING
	MANUAL VOLUME DAMPER
	FIRE DAMPER IN DUCT, W/ ACCESS PANEL REQD.
	COMBINATION FIRE/SMOKE DAMPER W/ ACCESS PANEL
	SMOKE DAMPER W/ ACCESS PANEL
	BACK DRAFT DAMPER
	ATC DAMPER

TOP FIGURES INDICATE NECK SIZE. BOTTOM FIGURE INDICATES CFM.

MECHANICAL

	ACCESS PANEL IN DUCT OR PLENUM
	HEATING OR COOLING COIL IN DUCT
	SINGLE DUCT AIR TERMINAL BOX VARIABLE OR CONSTANT VOLUME, MIN. 1-1/2" TERMINAL INLET SIZE STRAIGHT DUCT AT TERMINAL INLET.
	4-WAY BLOW PATTERN
	3-WAY BLOW PATTERN
	2-WAY BLOW PATTERN
	2-WAY BLOW PATTERN
	1-WAY BLOW PATTERN
	DUCT SMOKE DETECTOR
	UNIT HEATER

PLUMBING

	FLOOR SINK
	FLOOR DRAIN
	FLOOR CLEAN-OUT OR CLEAN-OUT TO GRADE
	ROOF DRAIN
	DOWNSPOUT NOZZLE
	ARROW INDICATES DIRECTION OF FLOW IN PIPE
	CHECK VALVE
	PRESSURE REDUCING, EXTERNAL PRESSURE VALVE
	PRESSURE REDUCING, SELF CONTAINED VALVE
	ATC VALVE - 2 WAY
	ATC VALVE - 3 WAY
	SOLENOID VALVE
	GATE VALVE
	GLOBE VALVE
	TEMPERATURE AND PRESSURE TEST PORT
	PRESSURE SWITCH
	GAS COCK
	CALIBRATED BALANCING VALVE WITH GPM INDICATED
	REDUCED PRESSURE BACKFLOW PREVENTOR W/ DRAIN PAN
	BRANCH - BOTTOM CONNECTION
	BRANCH - TOP CONNECTION
	BRANCH - SIDE CONNECTION
	RISE OR DROP
	RISE - DOWN (ELBOW)
	RISE - DOWN (ELBOW)
	VENT THRU ROOF
	WATER HAMMER ARRESTOR
	INLINE PUMP
	INLINE PUMP

PLUMBING CONT.

	CLEAN-OUT
	RELIEF VALVE
	ANGLE VALVE
	FLOW METER
	UNION
	BALANCING COCK
	SHUT-OFF COCK FOR USE WITH PRESSURE GAUGE
	FLEXIBLE EXPANSION JOINT
	THERMOMETER - TEMP RANGE AS INDICATED
	PRESSURE GAUGE WITH SHUT-OFF COCK
	PRESSURE GAUGE WITH PIGTAIL
	LATERAL STRAINER WITH BLOW-OFF VALVE, PROVIDE HOSE END WITH CAP WHERE DISCHARGE IS NOT PIPED TO DRAIN
	BALL VALVE (PIPE SIZES 2" AND SMALLER)
	BUTTERFLY VALVE (PIPE SIZES 2-1/2" AND LARGER)
	MOTOR OPERATED BUTTERFLY VALVE
	VALVE IN RISE
	AIR VENT-MANUAL
	AIR VENT-AUTO
	FLOW SWITCH
	REDUCER
	CONCENTRIC REDUCER
	PIPE CAP
	SWITCH
	SENSOR
	THERMOSTAT
	FILL PORT
	DRAIN PAN AND P-TRAP
	FLOW METER ORIFICE
	FLANGE
	90° ELBOW
	LEADER INDICATES DOWNWARD SLOPE
	DEMOLITION

LINETYPES

	EXISTING PIPING
	EXISTING PIPING TO BE REMOVED
	NATURAL GAS
	HEATING HOT WATER RETURN
	HEATING HOT WATER SUPPLY
	SEWER (BELOW GRADE)
	SEWER (ABOVE GRADE)
	SOFT DOMESTIC WATER (SW)
	VACUUM
	VENT (SEWER)

SYMBOLS

	PLUMBING FIXTURES
	POINT OF CONNECTION
	SECTION TAG - TOP FIGURE IS SECTION NO. BOTTOM FIGURE IS SHEET NO.
	DETAIL TAG - TOP FIGURE IS DETAIL NO. BOTTOM FIGURE IS SHEET NO.
	EQUIPMENT IDENTIFICATION
	KEYED NOTE IDENTIFICATION

GENERAL NOTES

- CONTRACTOR SHALL HIRE A JOHNS MANVILLE BUILT UP ROOFING APPROVED CONTRACTOR. COORDINATE ROOF PENETRATIONS AND PATCH AND REPAIR WITH ROOF CONTRACTOR TO MAINTAIN WARRANTY ON ROOFING SYSTEM. WORK SHALL BE DONE BY ROOFING CONTRACTOR. PAID FOR BY GENERAL CONTRACTOR.



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SHEET CONTENTS

MECHANICAL SYMBOLS

ME001

COIL SCHEDULE

Table with columns: ID, MANUFACTURER AND MODEL NUMBER, LOCATION, USAGE, AIRFLOW RATE (CFM), LOAD (BTU/H), ENTERING TEMP. DB (°F), LEAVING TEMP. DB (°F), STATIC PRESSURE (IN. WATER), FLOW RATE (GPM), ENTERING/LEAVING TEMP. (°F), WORKING FLUID, HEAD LOSS (FT), NO. COILS, MINIMUM FACE AREA (FT²), MINIMUM NO. ROWS/INCH, NOTES.

- (1) CAPACITY AT 4500 FEET ELEVATION.
(2) COIL SHALL HAVE SLIP-FLANGE CASING FOR DUCT INSTALLATION.

(OWNER FURNISHED) PACKAGED ROOFTOP UNIT SCHEDULE

Table with columns: ID, MANUFACTURER AND MODEL NUMBER, LOCATION, SUPPLY FAN (AIRFLOW RATE, OUTSIDE AIRFLOW, EXHAUST AIRFLOW, EXTERNAL STATIC PRESSURE), HEAT RECOVER, COOLING SECTION (LOAD, TOTAL MCA, SINGLE POINT VOLT/PH/Hz, WEIGHT), NOTES.

- (1) ALL CONDITIONS BASED AT 4,500 FT. ELEVATION.
(2) CONTRACTOR SHALL PROVIDE AND INSTALL A SPRING VIBRATION ISOLATION ROOF CURB FOR ROOFTOP UNIT.
(3) ATTACH HEAT RECOVERY SYSTEM.
(4) PROVIDE AND INSTALL EZ TRAP MODEL EZT-150 WATERLESS CONDENSATE TRAP FOR PRESSURE BLOW THRU SYSTEMS.
(5) CONTROLS BY ATC.
(6) ROOFTOP UNITS ARE PROVIDED BY OWNER INSTALLED BY CONTRACTOR.

INFRARED HEAT SCHEDULE

Table with columns: ID, MANUFACTURER AND MODEL NUMBER, LOCATION, TYPE, INPUT CAPACITY (BTUH), LENGTH (FT), FUEL TYPE, V/PH, FLA, NOTES.

- (1) MOUNT PER MANUFACTURER'S RECOMMENDATIONS AS HIGH AS POSSIBLE.
(2) GAS SUPPLY PRESSURE SHALL BE 5-12 INCH W.C.P.
(3) EQUIPPED WITH FACTORY WALL THERMOSTAT; ALUMINUM REFLECTORS; HOT SURFACE IGNITION; FACTORY GAS COCK; REFLECTOR END CAPS.
(4) CAPACITY AT SEA LEVEL.
(5) MINIMUM MOUNTING HEIGHT SHALL BE 16'-4".
(6) CONTROL: THERMOSTAT WITH ADJUSTABLE TIMED SHUT-OFF.

AIR TO AIR HEAT RECOVERY SCHEDULE

Table with columns: ID, MANUFACTURER AND MODEL NUMBER, LOCATION, EXHAUST AIR (MINIMUM AIRFLOW RATE, RECOVERY RATE, STATIC PRESSURE), MAKE-UP AIR (AIRFLOW RATE), ELECTRICAL (VOLT/PH, MCA), WEIGHT (LBS), NOTES.

- (1) ALL CAPACITIES ARE AT 4500 FT ELEVATION.
(2) UNIT TO COME WITH FACTORY INSTALLED STARTER AND FUSED DISCONNECT.
(3) UNIT TO COME WITH MOTORIZED EXHAUST AND OUTSIDE AIR DAMPERS TO ELIMINATE MIGRATION OF OUTSIDE AIR INTO BUILDING DURING HIGHTTIME SETBACK.
(4) UNIT TO COME WITH SINGLE ROOF CURB TO SUPPORT ERV AND RTU.
(5) UNIT TO COME WITH SUPPLY AND RETURN FAN.
(6) BALANCING NOTE: APPROXIMATE AIRFLOW.

EXHAUST FAN SCHEDULE

Table with columns: ID, MANUFACTURER, MODEL, LOCATION, AIR (AIRFLOW RATE, EXT STATIC PRESSURE), FAN (FAN SPEED, MOTOR SIZE, MOTOR BHP, MOTOR SPEED), ELECTRICAL (VOLT/PH/Hz, WEIGHT), NOTES.

- (1) ALL CAPACITIES AT 4500 FT ELEVATION.
(2) CONTROL: ATC
(3) WALL MOUNTED VENTILATOR, COMPLETE WITH GRAVITY BACKDRAFT DAMPER, INTEGRAL THERMAL OVERLOAD PROTECTION, INTEGRAL SPEED CONTROL FOR BALANCING.
(4) ROOF MOUNTED EXHAUST FAN, COMPLETE WITH PRE-FAB ROOF CURB, GRAVITY BACKDRAFT DAMPER, INTEGRAL THERMAL OVERLOAD PROTECTION, BIRD SCREEN.
(5) BALANCING NOTE: APPROXIMATE AIR FLOW.

GRILLES, REGISTERS AND DIFFUSERS

Table with columns: ID, MANUFACTURER, MODEL, MAX NC, DESCRIPTION.

NATURAL GAS REQUIREMENTS

Table with columns: EQUIP. NO., QTY., LOCATION, EQUIPMENT, EQUIP BTUH INPUT, TOTAL CFH.

- (1) EXISTING 4 OZ GAS REGULATOR CAPACITY IS 4000 CFH. REPLACE GAS PRESSURE REGULATOR WITH 2 PSIG REGULATOR FOR THE NEW CAPACITY.
(2) EXISTING MAIN GAS METER CAPACITY IS 22,00 CFH. UPGRAD MAIN GAS METER CAPACITY TO 37,500 CFH.



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DAVIS APPLIED TECHNOLOGY COLLEGE COMPOSITE SHOP REMODEL KAYSVILLE, UTAH

REVISIONS

VBFA PROJECT #: 8505
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SHEET CONTENTS
MECHANICAL SCHEDULES

ME601



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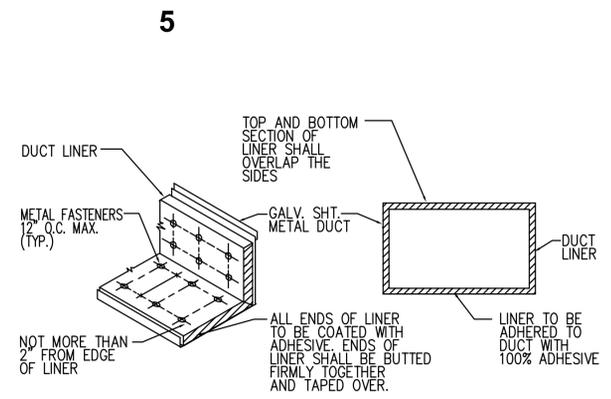
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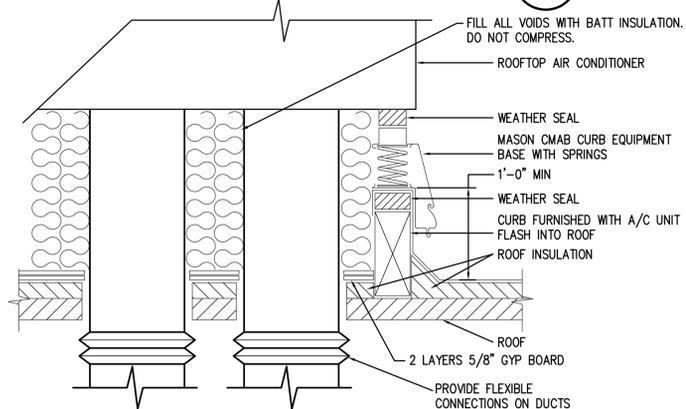
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SHEET CONTENTS
MECHANICAL DETAILS

ME502

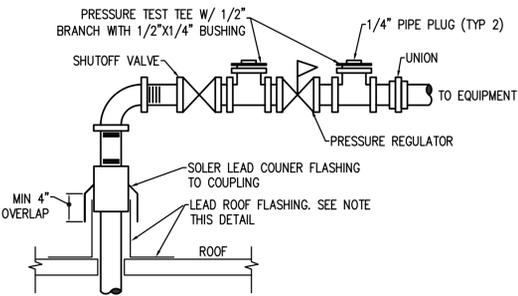


DUCT LINER DETAIL
NO SCALE

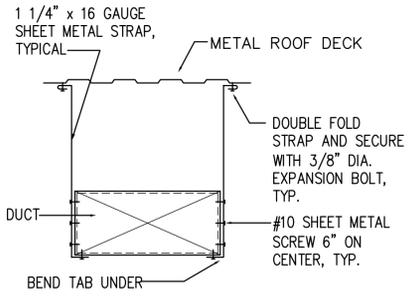


ROOFTOP UNIT ON SPRING BASE DETAIL
NO SCALE

NOTES:
1. SEE ROOFTOP UNIT SCHEDULE FOR INDIVIDUAL GAS CONNECTION SIZES TO EACH ROOFTOP UNIT.
2. COORDINATE ALL ROOF PENETRATIONS AND FLASHINGS WITH ROOF MANUFACTURER AND INSTALLER. SEE ROOFING SPECIFICATIONS AND ARCHITECTURAL DETAILS.



GAS PIPE ROOF PENETRATION
NO SCALE



NOTE:
USE SPECIFIED SPACING AND NOT LESS THAN ONE SUPPORT PER BRANCH.

RECTANGULAR DUCT SUPPORT
NO SCALE

DUCT CABLE BRACING LIST									
DUCT SIZE (MAX.)	*WT/ (LIN FT) (MAX)	BOLT SIZE	HORIZONTAL ANGLE	VERTICAL ANGLE	CABLE DIA.**	CABLE DES.	ANCHOR CONN. TYPE		
12"	5#	3/8"	2 X 2 X 16 GA	2 X 2 X 12 GA	1/8"	7x19 GALV.	I		
18"	8#	3/8"	2 X 2 X 16 GA	2-1/2 X 2-1/2 X 12 GA	1/8"	7x19 GALV.	I		
24"	10#	3/8"	2 X 2 X 16 GA	2-1/2 X 2-1/2 X 12 GA	1/8"	7x19 GALV.	I		
30"	13#	3/8"	2 X 2 X 16 GA	2-1/2 X 2-1/2 X 12 GA	1/8"	7x19 GALV.	I		
42"	20#	3/8"	2-1/2 X 2-1/2 X 16 GA	4 X 4 X 12 GA	3/16"	7x19 GALV.	II		
54"	27#	3/8"	2-1/2 X 2-1/2 X 16 GA	4 X 4 X 12 GA	3/16"	7x19 GALV.	II		
60"	36#	3/8"	3 X 3 X 16 GA	4 X 4 X 12 GA	3/16"	7x19 GALV.	II		
84"	53#	3/8"	4 X 4 X 14 GA	4 X 4 X 1/4	1/4"	7x19 GALV.	III		
96"	80#	1/2"	4 X 4 X 12 GA	5 X 3 X 1/4	5/16"	7x19 GALV.	IV		

* MAXIMUM WEIGHT OF DUCTS OR COMBINATIONS OF DUCTS PER LINEAR FOOT. THE DUCTS MAXIMUM DIMENSION SHALL GOVERN WHAT BRACING IS REQUIRED. FOR ANCHOR CONNECTIONS SEE LIST. SEE DUCT BRACING DETAILS.
** TWO CABLES REQUIRED AT EACH RESTRAINT POINT, EACH CABLE TO BE INSTALLED 45° TO HORIZONTAL AND 45° TO LONGITUDINAL DIRECTION OF DUCT.

REHEAT BOX CABLE BRACING SCHEDULE				
BOX WEIGHT	BOLT SIZE	*CABLE DIA.	**CABLE DESIGN	ANCHOR CONN. TYPE
UP TO 300#	3/8"	1/8"	7 X 19 GALV	I
400#	3/8"	1/8"	7 X 19 GALV	I
600#	3/8"	3/16"	7 X 19 GALV	II
800#	3/8"	3/16"	7 X 19 GALV	II

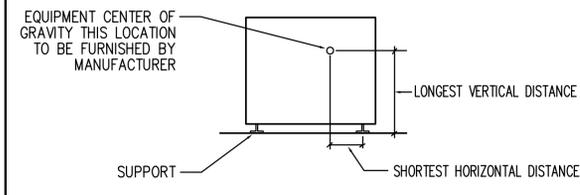
1. *FOUR CABLES REQUIRED, ONE AT EACH CORNER. EACH CABLE TO BE INSTALLED 45° TO HORIZONTAL AND 45° TO LONGITUDINAL DIRECTION.
2. **CABLE SYSTEMS TO BE EQUAL TO AMBER BOOT C/W THIMBLES, CLAMPS AND GROMMETS.

PIPE SEISMIC BRACING SCHEDULE									
PIPE SIZE	HANGER ROD SIZE	MAX. ROD LENGTH	HANGER TYPE	BOLTS TO ANGLE	ANGLE CLIP	ANGLE BRACE	ANCHOR CONN. TYPE	ANCHOR BOLT OR INSERT	
1-1/2"	1/2"	25"	CLEVIS	3/8"	3x3x1/4	2x2x16GA	I	3/8"	
2"	1/2"	25"	CLEVIS	3/8"	3x3x1/4	2x2x16GA	I	3/8"	
2-1/2"	5/8"	31"	CLEVIS	3/8"	3x3x1/4	2x2x16GA	I	3/8"	
3"	5/8"	31"	CLEVIS	3/8"	3x3x1/4	2-1/2x2-1/2x16 GA	II	1/2"	
3-1/2"	5/8"	31"	CLEVIS	3/8"	3x3x1/4	2-1/2x2-1/2x16 GA	II	1/2"	
4"	3/4"	37"	CLEVIS	3/8"	3x3x1/4	2-1/2x2-1/2x16 GA	II	1/2"	
5"	3/4"	37"	CLEVIS	1/2"	5x3x1/2	2-1/2x2-1/2x16 GA	III	3/4"	
6"	3/4"	37"	CLEVIS	5/8"	5x3x1/2	2-1/2x2-1/2x16 GA	IV	3/4"	
8"	7/8"	43"	CLEVIS	5/8"	5x3x1/2	3x3x12 GA	V	2-5/8"	
10"	7/8"	43"	CLEVIS	3/4"	5x3x1/2	3x3x12 GA	VI	2-5/8"	

FOR ANCHOR CONNECTIONS SEE LIST.
SEE PIPE BRACING DETAIL
*1-5/8"x1-5/8"x12 GA CHANNEL MAY BE USED

EQUIPMENT ANCHORAGE TO CONCRETE FLOOR LIST				
EQUIPMENT WEIGHT PER ANCHOR BOLT	MINIMUM ANCHOR DIAMETER (INCHES)	MINIMUM DEPTH OF EMBEDMENT (INCHES)	ICBO ALLOWABLE SHEAR PER BOLT (LBF)	ICBO ALLOWABLE TENSION PER BOLT (LBF)
UP TO 150#	1/4"	1-1/2"	380	215
300#	3/8"	2-1/2"	860	355
600#	1/2"	3"	1710	665
900#	5/8"	4-1/2"	2500	855
1300#	3/4"	6"	3050	1585
2000#	1"	6"	6280	2020

- THE SIZES AND EMBEDMENT ARE FOR ANCHORS INSTALLED IN STONE AGGREGATE CONCRETE HAVING A FC = 2000 PSI ULTIMATE COMPRESSIVE STRENGTH AT THE TIME OF INSTALLATION. ALL BOLTS ARE TO BE INSTALLED PER MANUFACTURER INSTRUCTIONS AND TO BE INSTALLED NO CLOSER THAN 12 DIAMETERS ON CENTER AND WITH A MINIMUM EDGE DISTANCE OF 6 DIAMETERS.
- EACH EQUIPMENT SUPPORT LEG WILL BE ANCHORED AND ALL EQUIPMENT WILL BE ANCHORED AT ALL CORNERS. A MINIMUM OF TWO ANCHORS WILL BE REQUIRED FOR ALL EQUIPMENT.
- EQUIPMENT WEIGHT PER ANCHOR IS THE TOTAL OPERATING OF EQUIPMENT PLUS BASES AND SUPPORTS DIVIDED BY THE NUMBER OF ANCHORS.
- ANCHORAGE IS TO PREVENT HORIZONTAL MOVEMENT. IF EQUIPMENT GEOMETRY IS SUCH THAT THE VERTICAL DISTANCE FROM SUPPORT LEG TO CENTER OF GRAVITY IS GREATER THAN FOUR TIMES THE SHORTEST DISTANCE FROM A SUPPORT LEG TO THE CENTER OF GRAVITY, ADDITIONAL ANCHORAGE AND RESTRAINTS WILL BE REQUIRED TO PREVENT OVERTURNING.



PIPE BRACING GENERAL NOTES	
1	DETAILS SHOWN PROVIDE GENERAL GUIDELINES FOR A LATERAL BRACING SYSTEM. A TYPICAL VERTICAL SUPPORT SYSTEM MUST ALSO BE USED.
2	BRACE ALL PIPES 1-1/2" I.D. AND LARGER.
3	CABLE RESTRAINTS AND BRACING NOT TO EXCEED 30'-0" CENTERS AND SHALL BE PROVIDED AT ALL CHANGES IN DIRECTION OF PIPE. ALL DROPS TO EQUIPMENT, AND ON EACH SIDE OF FLEXIBLE CONNECTIONS. BRACE POINTS SHALL NOT EXCEED 15'-0" FROM FLEXIBLE CONNECTION.
4	ALL HOLES IN ANGLES ARE TO BE 1/16 INCH OVERSIZED. PLACE STANDARD CUT WASHERS BETWEEN SHEET METAL ANGLES AND NUT.
5	EQUIPMENT WHICH ATTACHES TO THE PIPING SYSTEM SHALL BE BRACED INDEPENDENTLY OF THE PIPES.
6	ALL SHEET METAL FOR BRACING TO BE FY=33 KSI MINIMUM. GAUGE FOR SHEET METAL BRACING SHALL BE AS FOLLOWS: 16 GA = (0.0598 INCH) 14 GA = (0.0747 INCH) 12 GA = (0.1046 INCH)
7	MINIMUM DISTANCE FROM EDGE OF ANGLE TO BOLTS SHALL BE AS FOLLOWS: BOLT DIAMETER DISTANCE FROM EDGE 1/4" TO 1/2" 1" 5/8" 1 1/8" 3/4" 1 1/4" 7/8" 1 1/2"
8	DO NOT FASTEN RESTRAINT SYSTEM TO TWO DISSIMILAR PARTS OF A BUILDING THAT MAY RESPOND IN A DIFFERENT MODE DURING AN EARTHQUAKE. FOR EXAMPLE, A WALL AND A ROOF.
9	PROVIDE LARGE ENOUGH PIPE SLEEVES THROUGH WALLS OR FLOORS TO ALLOW FOR ANTICIPATED DIFFERENTIAL MOVEMENTS.
10	DO NOT FASTEN ONE RIGID PIPING SYSTEM TO TWO DISSIMILAR PARTS OF A BUILDING THAT MAY RESPOND IN A DIFFERENT MODE DURING AN EARTHQUAKE. FOR EXAMPLE, A WALL AND A ROOF.
11	BRACING DETAILS, SCHEDULE AND NOTES ARE TO BE USED WITH THE FOLLOWING TYPES OF PIPE: STEEL PIPE SCHEDULE 40 AND 80, COPPER PIPE TYPE K,L,M (ONLY SILVER SOLDERED BRAZED JOINTS TO BE USED WITH COPPER PIPE).
12	FOR GAS PIPING, THE BRACING DETAILS, SCHEDULES AND NOTES MAY BE USED EXCEPT THAT RESTRAINTS SHALL BE INSTALLED AT EVERY 20'-0" O.C. ALSO ALL PIPE 1 INCH AND LARGER SHALL BE BRACED.
13	WASTE, VENT AND ROOF DRAINAGE PIPING SYSTEMS ARE EXCLUDED FROM THE RESTRAINT GUIDELINES.
14	ALTERNATE EVERY OTHER CABLE RESTRAINT IN OPPOSITE DIRECTION (SHOWN DOTTED).

SCHEDULE FOR TYPICAL CONNECTIONS TO STRUCTURAL SUPPORTING MEMBERS					
TYPE	MAX LOAD CAPACITY POUNDS	PHILLIP'S REDHEAD ANCHORS TO CONC.		CONC. CAST-IN PLACE INSERT	BOLT OF STL.BM. CLAMP
		LT. WT.	HARD ROCK		
I	500	3/8"	3/8"	3/8"	3/8"
II	1000	3/8"	3/8"	1/2"	3/8"
III	1500	3/8"	3/8"	1/2"	3/8"
IV	2000	1/2"	1/2"	5/8"	1/2"
V	3000	2-1/2"	2-1/2"	2-1/2"	5/8"
VI	4000	2-5/8"	2-5/8"	2-5/8"	5/8"

- NOTES:
- FOR SLABS LESS THAN 5" THICK ONLY, THIN SLAB INSERTS MAY BE USED.
 - FOR USE W/CONC. CAST-IN PLACE INSERTS OR PHILLIPS REDHEAD IN HARD ROCK ONLY.
 - FOR USE WITH CONC. CAST-IN PLACE INSERTS ONLY.
 - WHERE TYPE III CONNECTIONS ARE REQUIRED FOR WOOD SYSTEMS, TYPE II CONNECTIONS SHALL BE USED WITH REDUCED RESTRAINT SPACING TO 20 FT. O.C. WHERE TYPE IV CONNECTIONS ARE REQUIRED FOR WOOD SYSTEMS, TYPE II CONNECTIONS SHALL BE USED WITH REDUCED RESTRAINT SPACING TO 15 FT. O.C. WHERE TYPE V CONNECTIONS ARE REQUIRED FOR WOOD SYSTEMS, TYPE II CONNECTIONS SHALL BE USED WITH REDUCED RESTRAINT SPACING TO 10 FT. O.C.
 - THE MECHANICAL CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE STRUCTURAL ENGINEER AND THEN TO THE MECHANICAL ENGINEER, SHOWING CONNECTION TYPE AND LOCATION OF ALL RESTRAINT CONNECTIONS TO THE STRUCTURE.
 - FOR ESSENTIAL FACILITIES WHERE CONCRETE ANCHOR BOLTS OF THE "REDHEAD" EXPANSION TYPE ARE LOADED IN PULL OUT, 50 PERCENT OF THE BOLTS (ALTERNATE BOLTS IN ANY GROUP ARRANGEMENT) SHALL BE PROOF TESTED TO TWICE THE ALLOWABLE LOAD. IF THERE ARE FAILURES, THE IMMEDIATELY ADJACENT BOLTS MUST THEN ALSO BE TESTED.
 - "HILTI" AND "RAMSET" ANCHORS ARE EQUAL SUBSTITUTES FOR "REDHEAD".

DUCT BRACING GENERAL NOTES	
1	DETAILS SHOWN PROVIDE GENERAL GUIDELINES FOR A LATERAL BRACING SYSTEM. A TYPICAL VERTICAL SUPPORT SYSTEM MUST ALSO BE USED.
2	BRACE ALL RECTANGULAR DUCTS OF AREA 6 SQ. FT. AND LARGER. BRACE ALL ROUND DUCTS 28" IN DIAMETER AND LARGER.
3	CABLE RESTRAINTS AND BRACING NOT TO EXCEED 30'-0" CENTERS AND SHALL BE PROVIDED AT EACH TURN, AT THE END OF EACH DUCT RUN, AND ON EACH SIDE OF FLEXIBLE CONNECTIONS. BRACE POINTS SHALL NOT EXCEED 15'-0" FROM FLEXIBLE CONNECTION.
4	WHEN COMBINING DUCT GROUPS ON COMMON BRACING SYSTEMS, USE WEIGHTS AND DIMENSIONS FROM BRACING LIST.
5	ALL HOLES IN ANGLES ARE TO BE 1/16 INCH OVERSIZED. PLACE STANDARD CUT WASHERS BETWEEN SHEET METAL ANGLES AND NUT.
6	DUCTS NOT BRACED SHALL BE INSTALLED WITH A 6" MIN. CLEARANCE TO VERTICAL CEILING HANGER WIRES.
7	REHEAT BOXES AND OTHER ITEMS WHICH ATTACH TO THE DUCT SYSTEM SHALL BE BRACED INDEPENDENTLY OF THE DUCTS.
8	ALL SHEET METAL FOR BRACING TO BE FY = 33 KSI MINIMUM. GAUGE FOR SHEET METAL BRACING SHALL BE AS FOLLOWS: 16 GA = (0.0598 INCH) 14 GA = (0.0747 INCH) 12 GA = (0.1046 INCH)
9	MINIMUM DISTANCE FROM EDGE OF ANGLE TO BOLTS SHALL BE AS FOLLOWS: BOLT DIAMETER DISTANCE FROM EDGE 1/4" TO 1/2" 1" 5/8" 1 1/8" 3/4" 1 1/4" 7/8" 1 1/2"
10	DO NOT FASTEN RESTRAINT SYSTEM TO TWO DISSIMILAR PARTS OF A BUILDING THAT MAY RESPOND IN A DIFFERENT MODE DURING AN EARTHQUAKE. FOR EXAMPLE, A WALL AND A ROOF.
11	ALTERNATE EVERY OTHER CABLE RESTRAINT IN OPPOSITE DIRECTION (SHOWN DOTTED).

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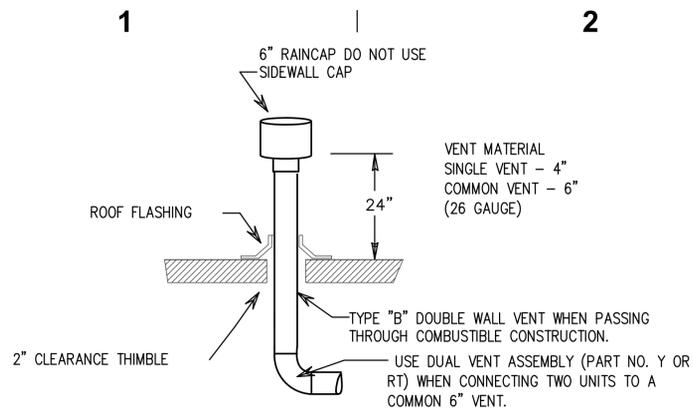
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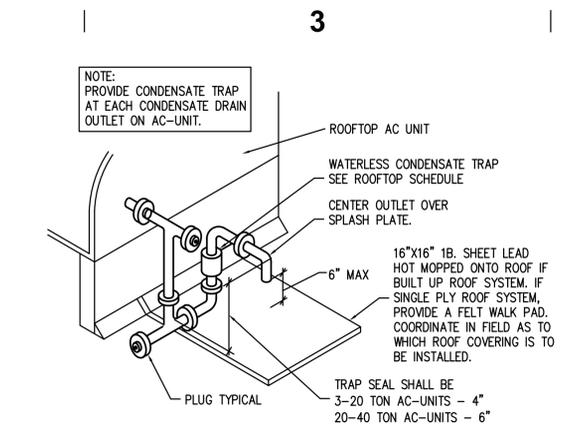
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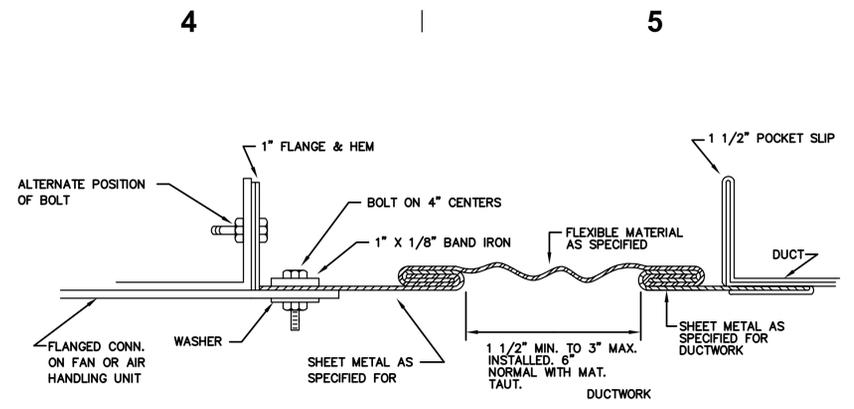
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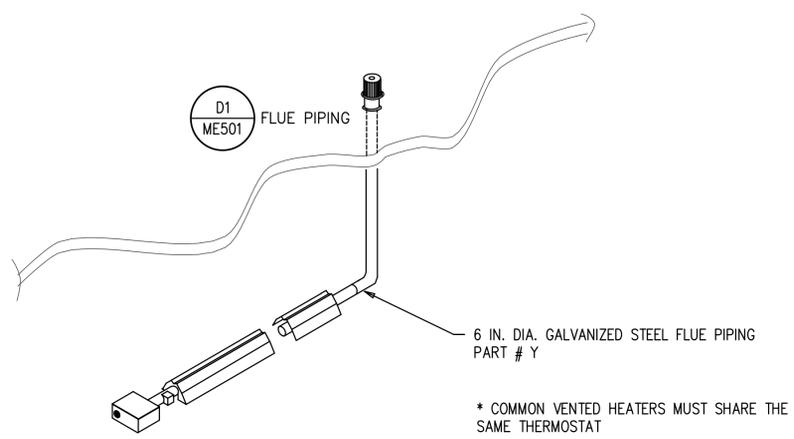
ROOF VENT DETAIL
NO SCALE



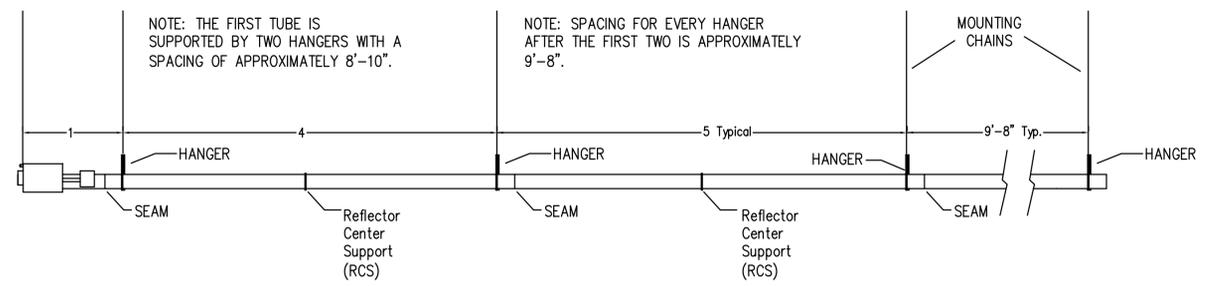
CONDENSATE TRAP
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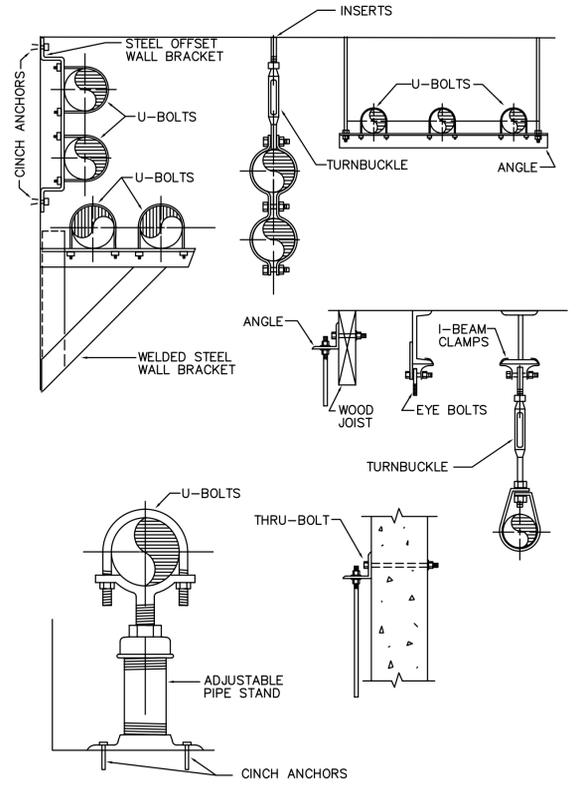
RECTANGULAR FLEXIBLE CONNECTION DETAIL
NO SCALE



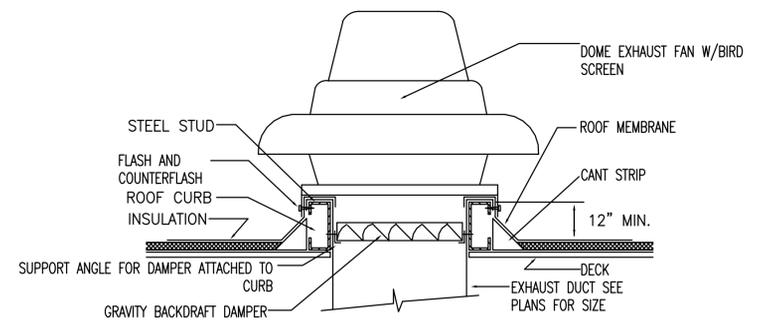
RADIANT TUBE HEATER DETAIL
NO SCALE



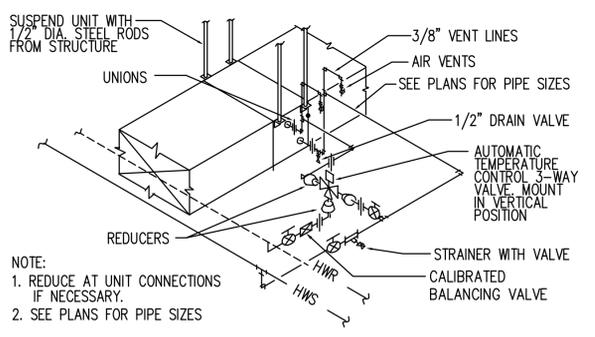
TYPICAL PIPE SUPPORT DETAIL
NO SCALE



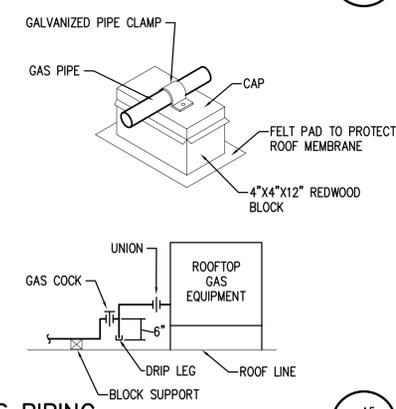
B4
ME501



EXHAUST FAN DETAIL
NO SCALE



BOOSTER COIL PIPING W/ 3-WAY AUTO-VALVE DETAIL
NO SCALE



GAS PIPING
NO SCALE

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KAYSVILLE, UTAH

REVISIONS

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SHEET CONTENTS
MECHANICAL DETAILS

ME501

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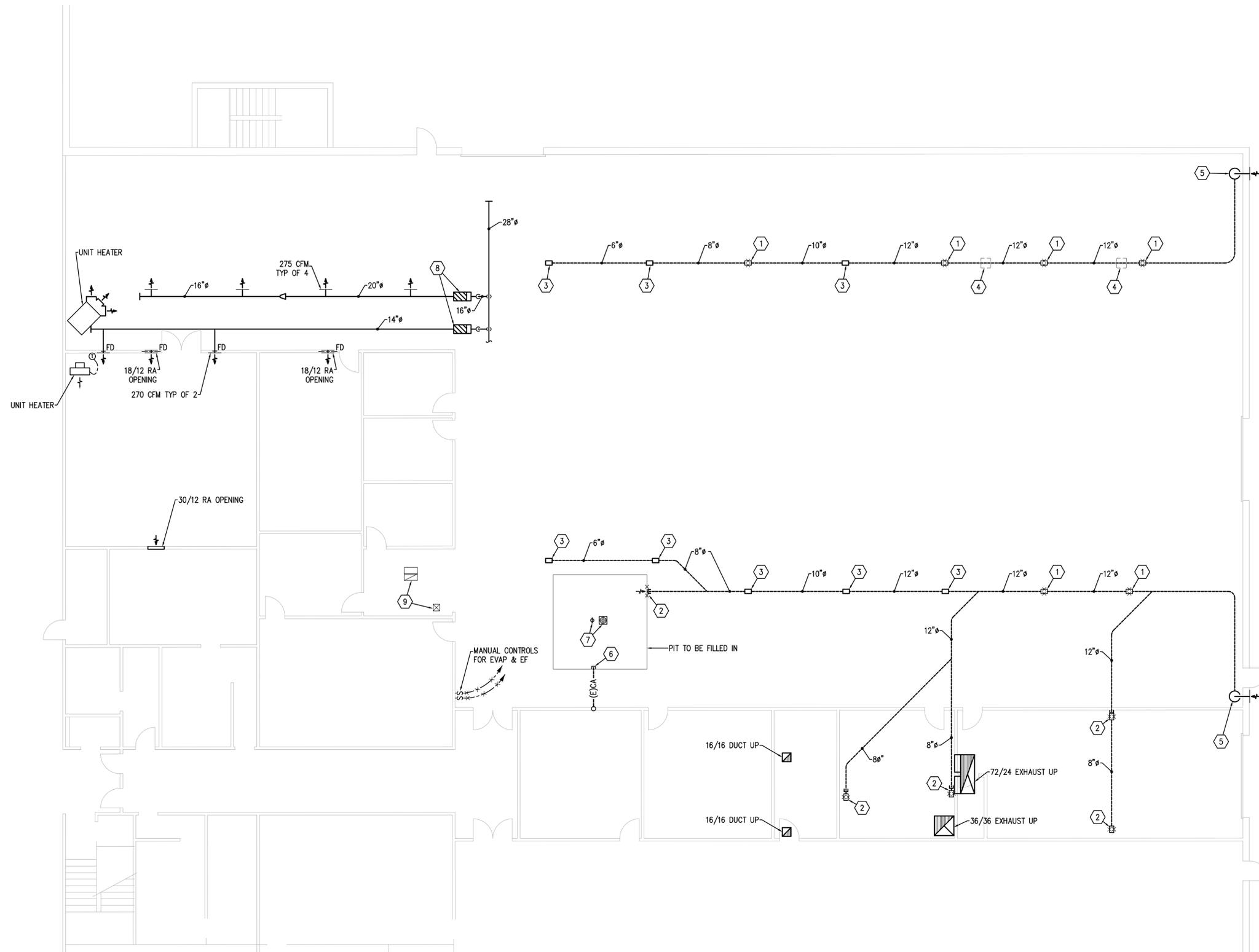
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KEYED NOTES

- 1 REMOVE EXISTING EXHAUST CONNECTION AND PATCH AND CAP DUCTWORK AIRTIGHT BELOW FLOOR. PATCH AND REPAIR FLOOR TO MATCH EXISTING.
- 2 REMOVE EXISTING EXHAUST CONNECTION AND CAP DUCTWORK BELOW FLOOR. PATCH AND REPAIR FLOOR TO MATCH EXISTING. ABANDON EXISTING BELOW SLAB, EXHAUST DUCT IN PLACE.
- 3 REMOVE EXISTING EXHAUST CONNECTION AND PREPARE LOCATION FOR INSTALLATION OF NEW FG-1. PATCH AND REPAIR FLOOR TO MATCH EXISTING.
- 4 SAW CUT FLOOR AS NECESSARY AND PREPARE LOCATION FOR INSTALLATION OF NEW FG-1.
- 5 REMOVE EXISTING EXHAUST FAN AND PREPARE DUCT FOR RECONNECTION.
- 6 CAP AND ABANDON EXISTING COMPRESSED AIR CONNECTION.
- 7 REMOVE FLOOR DRAIN AND CLEANOUT AND PREPARE PIPING FOR CONNECTION TO PIPE EXTENSION TO SURROUNDING FLOOR LEVEL.
- 8 CHANGE EXISTING VAV BOX TO CONSTANT VOLUME.
- 9 EXISTING SUPPLY AND RETURN GRILLE.



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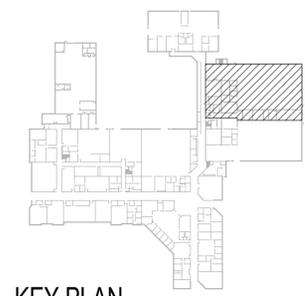
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SHEET CONTENTS
FIRST FLOOR MECHANICAL DEMOLITION PLAN



KEY PLAN



A1 FIRST FLOOR MECHANICAL DEMOLITION PLAN
MD101 SCALE: 1/8" = 1'-0"

MD101

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KEYED NOTES

- ① REPLACE EXISTING 7 1/2 HP MOTOR, 480/3/60, 1800 RPM.
- ② REMOVE EXISTING EVAPORATIVE COOLER, CONTROLS & DOMESTIC COLD WATER CONNECTION BACK TO ACTIVE MAIN. PREPARE ROOF OPENING FOR NEW ROOF TOP UNIT.
- ③ CAP PIPING.
- ④ PREPARE PIPING FOR RECONNECTION.
- ⑤ REMOVE EXISTING EXHAUST FAN AND PREPARE ROOF OPENING FOR NEW EXHAUST FAN.
- ⑥ REMOVE EXISTING GAS PIPING TO THIS POINT AND PREPARE FOR NEW CONNECTION.
- ⑦ ISOLATION VALVES AND BYPASS VALVE.



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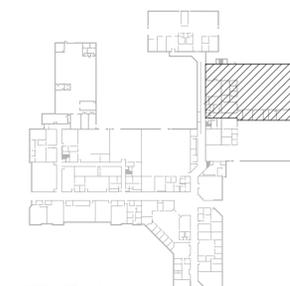
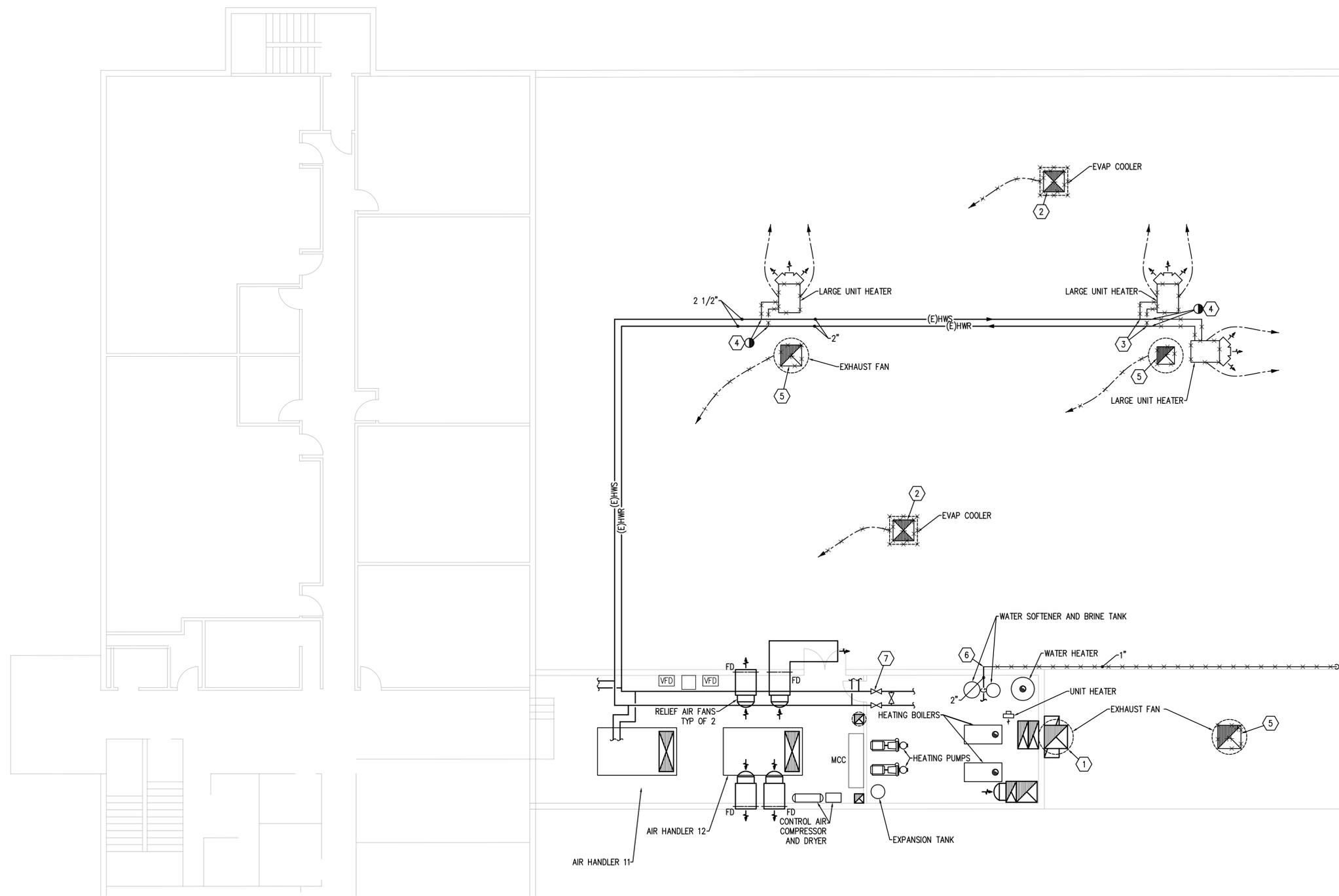
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SHEET CONTENTS
SECOND FLOOR MECHANICAL DEMOLITION PLAN

MD102



A1 SECOND FLOOR MECHANICAL DEMOLITION PLAN
MD102 SCALE: 1/8" = 1'-0"

KEY PLAN

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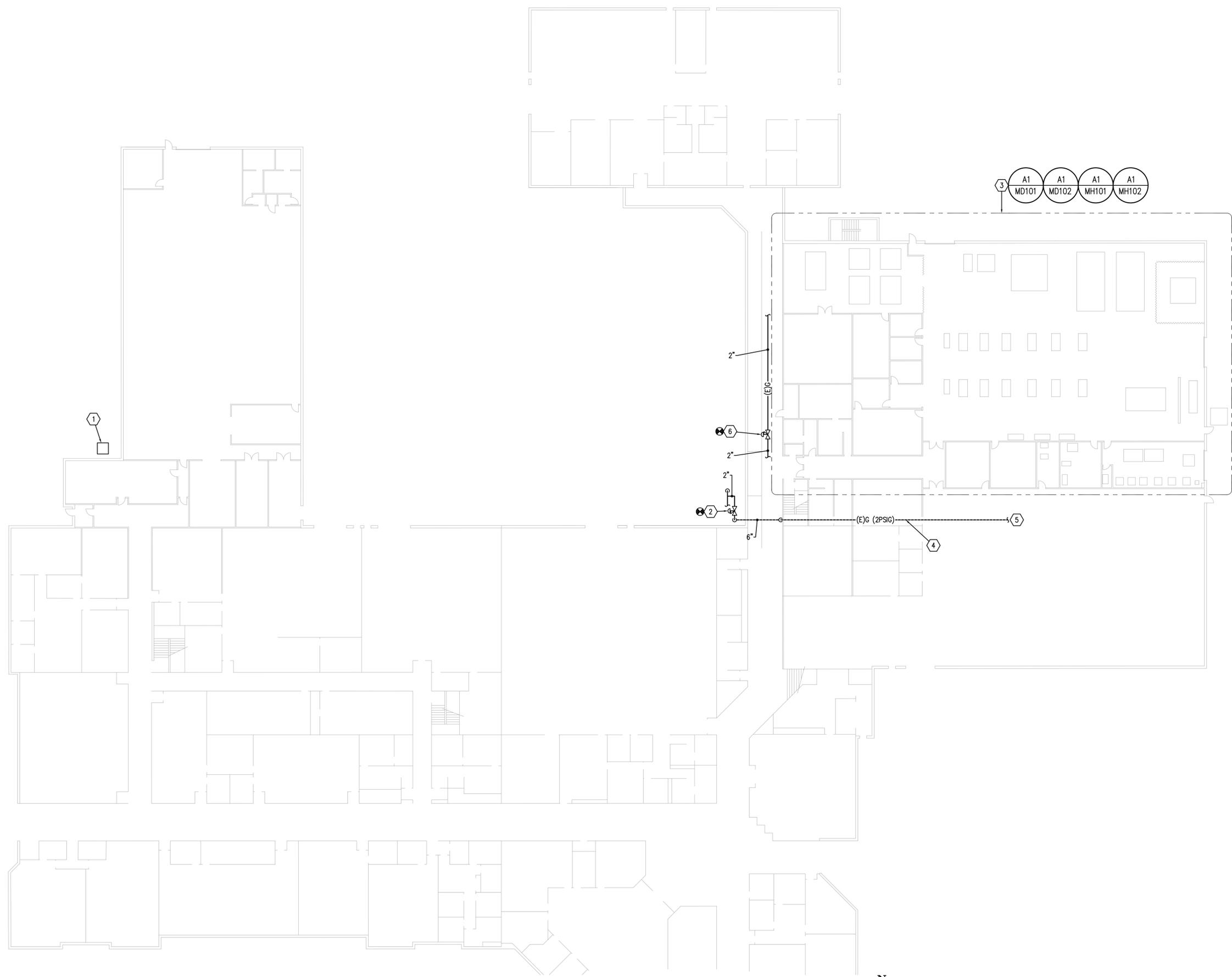
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KEYED NOTES

- ① EXISTING GAS METER. UPGRADE GAS METER PER GAS SCHEDULE. UPGRADE SHALL BE PERFORMED BY GAS SUPPLIER, PAID FOR BY CONTRACTOR.
- ② REPLACE EXISTING 5 PSIG TO 4 OZ GAS REGULATOR WITH NEW 5 PSIG TO 2 PSIG. 7560 CFH.
- ③ NEW COMPOSITE SHOP AREA. SEE MECHANICAL & DEMO PLANS.
- ④ EXISTING NATURAL GAS LINE IS 4 OZ. GAS LINE SHALL BE CONVERTED TO 2 PSIG UNDER THE SCOPE OF THIS PROJECT. TEST & INSPECT LINES AS REQUIRED.
- ⑤ SEE SECOND FLOOR MECHANICAL PLAN FOR CONTINUATION.
- ⑥ NEW 2 PSIG TO 4 OZ GAS REGULATOR. 380 CFH.



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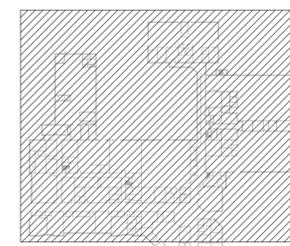
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SHEET CONTENTS
**SITE GAS
UPGRADE PLAN**



KEY PLAN



A1 SITE GAS UPGRADE PLAN
MS101 SCALE: 1" = 20'-0"

MS101

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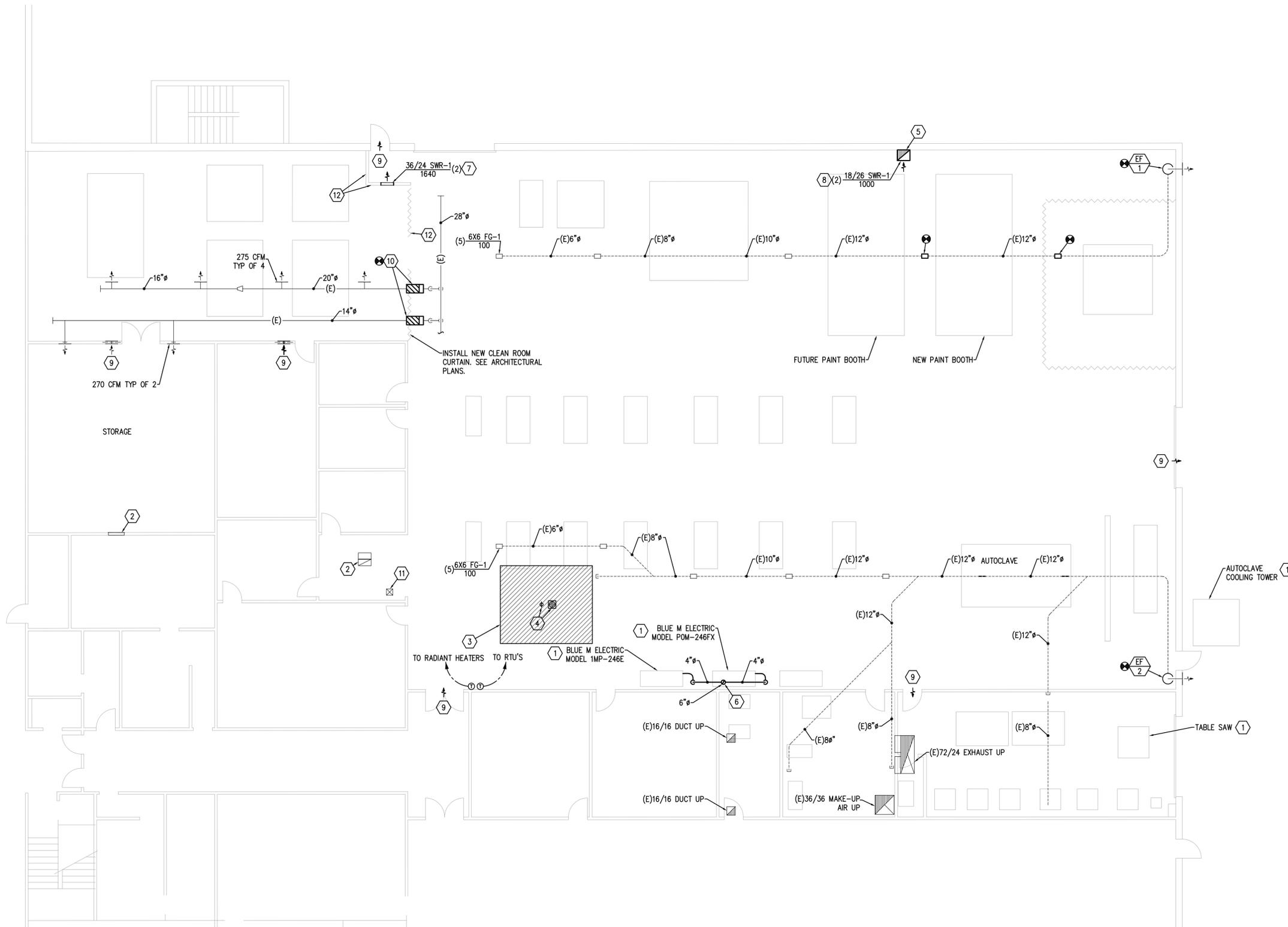
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KEYED NOTES

- ① NEW LOCATION OF EXISTING EQUIPMENT, SHOWN FOR INFORMATIONAL PURPOSES ONLY.
- ② BLANK OFF EXISTING RETURN AIR GRILLE.
- ③ FILL EXISTING ARCHITECTURAL PIT. PATCH CONCRETE TO MATCH EXISTING. SEE ARCHITECTURAL PLANS.
- ④ REINSTALL FLOOR DRAIN AND CLEAN OUT AT FINISHED FLOOR LEVEL. SEE ARCHITECTURAL PLANS.
- ⑤ 22/18 DUCT FROM ABOVE. SEE SHEET MH102 FOR CONTINUATION.
- ⑥ 6" HEAT VENT UP. SEE SHEET MH102 FOR CONTINUATION. HORIZONTAL VENT LINE SHALL PITCH A MINIMUM OF 2% QTY (2) 4" CONNECTORS INTO 6" RISER SHALL BE OFFSET IN SUCH A MANNER THAT NO PORTION OF AN INLET IS OPPOSITE FROM THE OTHER. VENT SHALL BE GALVANIZED 26 GA. OR BETTER.
- ⑦ DOUBLE SIDED RETURN GRILLE.
- ⑧ INSTALL RETURN GRILL 1'-0" A.F.F.
- ⑨ BALANCING NOTE: AIRFLOW DIRECTION INDICATED MUST BE ACHIEVED AS A RESULT OF AIR PRESSURE RATIOS ACHIEVED FROM THE BALANCING PROCESS. EXHAUST AIR FLOWS WHERE NOTED IN THE EQUIPMENT SCHEDULES MUST BE ADJUSTED AS NECESSARY TO ACHIEVE THE PROPER AIRFLOW DIRECTION. AIRFLOW PRESSURIZATION SHALL BE DEMONSTRATED WITH A SMOKE BOTTLE TEST PRIOR TO ACCEPTANCE OF SUBSTANTIAL COMPLETION.
- ⑩ BALANCING NOTE: CONVERT EXISTING DDC VAV BOX TO CONSTANT VOLUME.
- ⑪ BLANK OFF EXISTING SUPPLY AIR GRILLE.
- ⑫ PAINT NEW WALL AND HEADER TO MATCH EXISTING. SUBMIT COLOR TO ENGINEER FOR APPROVAL.



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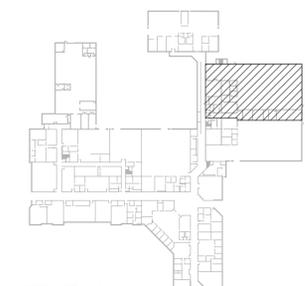
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SHEET CONTENTS
FIRST FLOOR MECHANICAL PLAN



KEY PLAN



A1 FIRST FLOOR MECHANICAL PLAN
MH101 SCALE: 1/8" = 1'-0"

MH101

GENERAL PROJECT NOTES

- 28. PROVIDE NEUTRAL CONNECTION TO 208/240/480V, SINGLE-PHASE EQUIPMENT. RUN SEPARATE GROUND WIRE TO ALL OUTDOOR UNITS AND BOND TO THE EQUIPMENT GROUND LUG.
- 29. BEFORE RUNNING CONDUITS OR PLACING OUTLETS AND EQUIPMENT, THE CONTRACTOR SHALL REVIEW THE DRAWINGS AND SPECIFICATIONS OF THE OTHER TRADES SERVED BY THE CONDUIT OR OUTLETS.
- 30. FLUORESCENT EMERGENCY LIGHT BATTERY PACKS SHALL BE CONNECTED SO AS TO BE ABLE TO OPERATE IN THE TEST MODE WHEN THE NORMAL SWITCH LEG IS TURNED ON, AND SHALL ILLUMINATE ONE FIXTURE LAMP UNLESS OTHERWISE NOTED.
- 31. THE ELECTRICAL CONTRACTOR SHALL RUN BRANCH CIRCUIT CONDUITS IN A NEAT AND WORKMANLIKE MANNER SO AS TO CONSERVE OPEN SPACES AS MUCH AS POSSIBLE. HVAC DUCTWORK AND PLUMBING SHALL HAVE LOCATION PRIORITY OVER BRANCH CIRCUIT CONDUIT RUNS.
- 32. REMOVE ALL UNUSED CONDUITS AND CIRCUITS IN THE DEMOLITION AREA AS THEY ARE IDENTIFIED AS UNUSED OR ABANDONED.
- 33. REMOVE ALL EXISTING ELECTRICAL DEVICES, EQUIPMENT, AND APPARATUS AS THEY ARE IDENTIFIED AS UNUSED OR ABANDONED.
- 34. RELOCATE EXISTING CONDUITS AND CIRCUITS AS REQUIRED THAT ARE PRESENTLY SERVING EQUIPMENT THAT IS INTENDED TO REMAIN IN SERVICE BUT SAID CONDUITS ARE CURRENTLY RUNNING THROUGH AREAS TO BE DEMOLITIONED.
- 35. WHERE EXISTING CONDUIT RUNS ARE RE-USED BY SPECIAL PERMISSION FROM THE ARCHITECT, A SEPARATE GREEN INSULATED GROUND WIRE SHALL BE PULLED IN THE CONDUIT AND BONDED AT EACH END AS REQUIRED.
- 36. WHERE LIGHT FIXTURES AS SPECIFIED AS COLOR PER ARCHITECT, THIS SHALL BE INTERPRETED AS A NON-STANDARD COLOR.
- 37. THE CLARITY OF RECORD DRAWING CHANGES MADE BY THE CONTRACTOR SHALL BE EQUAL TO THE ORIGINAL DRAWINGS AS JUDGED BY THE ARCHITECT OR THE RECORD SET WILL BE RETURNED TO THE CONTRACTOR FOR CLARIFICATION.
- 38. WHEN THE GENERAL CONTRACT CALLS FOR "RECORD" OR "AS-BUILT" DRAWINGS TO BE FURNISHED BY THE CONTRACTOR AT JOB COMPLETION, THE ELECTRICAL CONTRACTOR SHALL BE REQUIRED TO FURNISH A COMPLETE SET OF "BLUE-PRINT READY" AUTOCAD ELECTRICAL DRAWINGS FOR ALL CONTRACTOR GENERATED CHANGES FROM THE DRAWINGS OF A CLARITY EQUAL TO THE ORIGINAL DRAWINGS AS JUDGED BY THE ENGINEER. CONTACT ARCHITECT FOR DISKS OR REPRODUCIBLE ORIGINAL MEDIA. PROVIDE DRAWINGS IN AUTOCAD FORMAT ON CD.
- 39. ALL PATCH, REPAIR, REPAINT AND COVER UP REQUIRED AS A RESULT OF ELECTRICAL REMODEL IS TO BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR, BUT ACTUAL WORK IS TO BE PERFORMED BY QUALIFIED PERSONNEL.
- 40. DO NOT SCALE ELECTRICAL FLOOR PLANS. SEE ARCHITECTURAL DRAWINGS FOR ACCURATE DIMENSIONS AND FLOOR PLANS.
- 41. ALL CONVENIENCE OUTLETS MUST BE MOUNTED FLUSH WITH THE COVER PLATE AND SECURED FIRMLY TO THE OUTLET BOX.
- 42. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE TO REVIEW ALL SWITCH LOCATIONS WITH THE GENERAL CONTRACTOR PRIOR TO ROUGH-IN TO PREVENT ANY SWITCHES FROM BEING LOCATED ON THE WRONG SIDE OF THE DOOR.
- 43. REVIEW THE STATE DESIGN REQUIREMENTS MANUAL PRIOR TO BID.
- 44. FIELD VERIFY THE EXACT LOCATION OF THE MAIN FIRE ALARM PANEL WITH THE ARCHITECT PRIOR TO INSTALLATION.
- 45. COORDINATE LOCATION OF ALL FIRE ALARM DEVICES WITH NFPA AND ADA REQUIREMENTS. COORDINATE LOCATIONS WITH MILLWORK AS REQUIRED.
- 46. PROVIDE AN EQUIPMENT GROUNDING CONDUCTOR, PULLED INTO THE CONDUIT WITH THE PHASE CONDUCTOR, IN ALL SERVICE, FEEDER, AND BRANCH CIRCUITS.
- 47. ALL CIRCUITS TO BE MINIMUM #12 CU IN MINIMUM 3/4" CONDUIT UNLESS OTHERWISE NOTED.
- 48. MC CABLE IS NOT AN APPROVED ALTERNATE TO CONDUCTORS IN CONDUIT.
- 49. WHERE THERE ARE CONFLICTS IN THE DRAWINGS AND/OR SPECIFICATIONS THE CONTRACTOR SHALL NOTIFY THE ARCHITECT/ENGINEER PRIOR TO BID. WHERE NO NOTIFICATION IS GIVEN THE MORE STRINGENT INTERPRETATION (GENERALLY INTERPRETED TO BE THE MORE COSTLY) WILL BE ENFORCED.

GENERAL PROJECT NOTES

- 1. THE ELECTRICAL CONTRACTOR SHALL HAVE A COORDINATION MEETING WITH THE MECHANICAL CONTRACTOR. CONSTRUCTION SUPERINTENDANT AND ANY OTHER TRADES AS REQUIRED WITHIN SEVEN DAYS OF THE START OF THE JOB TO REVIEW CODE CLEARANCE REQUIREMENTS FOR PANELS, SWITCHES, AND OTHER ELECTRICAL GEAR SPECIFICALLY FOR THIS JOB. RECORD THE MEETING IN THE SUPERINTENDENT'S LOG. REPORT UNRESOLVED CONFLICTS TO THE ARCHITECT IMMEDIATELY.
- 2. REFER TO MECHANICAL PLANS FOR EXACT LOCATION OF MECHANICAL EQUIPMENT.
- 3. ALL ELECTRICAL INSTALLATIONS TO CONFORM TO THE LATEST NEC AND LOCAL CODES.
- 4. ELECTRICAL CONTRACTOR SHALL FURNISH ALL MOTOR DISCONNECTS, STARTERS, AND CONTROL STATIONS FOR MECHANICAL EQUIPMENT UNLESS THE SAME IS FURNISHED AS AN INTEGRAL PART OF THE EQUIPMENT. VERIFY WITH MECHANICAL CONTRACTOR PRIOR TO BID.
- 5. EMT IS NOT ALLOWED OUT OF DOORS.
- 6. MOUNTING HEIGHT OF GENERAL PURPOSE OUTLETS AND SWITCHES SHALL BE 16" TO BOTTOM AND 48" TO TOP RESPECTIVELY UNLESS OTHERWISE NOTED.
- 7. COORDINATE MOUNTING HEIGHT AND LOCATION OF ALL OUTLETS, SWITCHES, AUXILIARY EQUIPMENT, AND OTHER DEVICES WITH THE ARCHITECTURAL DRAWINGS. PRIOR TO INSTALLATION, REVIEW WITH THE GENERAL CONTRACTOR THE LOCATION OF MILLWORK AS A FINAL CHECK TO PREVENT COVERING OF ELECTRICAL ITEMS.
- 8. THE ELECTRICAL CONTRACTOR SHALL VERIFY THE NUMBER AND LOCATION OF FIRE/SMOKE DAMPERS WITH MECHANICAL DRAWINGS. CONNECT TO 120V POWER THROUGH RELAY CONTROLLED BY FIRE ALARM.
- 9. ALL FLUORESCENT LAMPS SHALL BE FROM THE SAME MANUFACTURER. ONLY STANDARD LAMPS BY GENERAL ELECTRIC, PHILIPS, OR PENNSYLVANIA WILL BE ACCEPTED.
- 10. THERMOSTAT AND CONTROL WIRING FOR MECHANICAL EQUIPMENT BY MECHANICAL CONTRACTOR.
- 11. A GFI OUTLET SHALL BE INSTALLED AT EACH LOCATION DESIGNATED BY "GFI" ON THE DRAWINGS. DOWNSTREAM PROTECTION BY A GFI OUTLET UPSTREAM IS NOT ALLOWED.
- 12. DO NOT INSTALL ELECTRICAL BOXES BACK-TO-BACK IN PARTITION WALLS. PROVIDE MINIMUM 12" HORIZONTAL SEPARATION.
- 13. ELECTRICAL CONTRACTOR SHALL COORDINATE THE ROUTING OF CONDENSATE LINES ON MECHANICAL PADS WITH THE MECHANICAL CONTRACTOR. WIREWAYS AND DISCONNECTS REQUIRE 3-FEET FRONTAL CLEARANCE AND A MINIMUM 30" WIDTH CLEARANCE, OR THE WIDTH OF THE UNIT, WHICHEVER IS GREATER.
- 14. REMOVE ALL OLD AND/OR UNUSED EXISTING CONDUIT AND ELECTRICAL APPARATUS FROM EXTERIOR OR INTERIOR EXPOSED SURFACES.
- 15. FIELD VERIFY CONDITIONS FOR NEW WIRING.
- 16. PROVIDE SAFETY DISCONNECTS AS REQUIRED AT ALL CONNECTIONS TO MECHANICAL EQUIPMENT. PROVIDE EQUIPMENT RATINGS PER NAMEPLATE RATING OF EQUIPMENT.
- 17. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE TO FIELD VERIFY ALL PANEL CLEARANCES PER NEC 110.26 AND 384.4 AND NOTIFY ALL OTHER TRADES ON THE JOB OF THESE CODE REQUIREMENTS.
- 18. DISCONNECT SWITCHES ARE SHOWN IN APPROXIMATE LOCATIONS ONLY. CONTRACTOR SHALL FIELD VERIFY LOCATION OF ALL ELECTRICAL SWITCHES AND MOTOR CONTROL FOR PROPER CODE CLEARANCES. NOTIFY ARCHITECT IMMEDIATELY OF ANY CONFLICTS WITH OTHER TRADES REGARDING PROPER EQUIPMENT CLEARANCES.
- 19. CONNECT EMERGENCY CIRCUIT OF EMERGENCY LIGHT BATTERY PACK TO UNSWITCHED LIGHTING CIRCUIT SERVING FIXTURES IN AREA. INSTALL EXTRA CONDUCTORS AS REQUIRED. WIRE SO LAMPS IN NORMAL MODE ARE CONTROLLED AS INDICATED ON LIGHTING PLANS. PROVIDE ADDITIONAL BALLASTS AS REQUIRED.
- 20. WHERE EXISTING ELECTRICAL EQUIPMENT IS TO REMAIN BUT THE SURFACE THAT IT IS MOUNTED ON IS TO BE REWORKED UNDER OTHER CONTRACTS, THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE TO REMOVE AND INSTALL OR MODIFY THE EXISTING EQUIPMENT AS REQUIRED TO MEET THE DESIGN INTENT. SEE ARCHITECTURAL DRAWINGS FOR ROOF, CEILING, WALLS, SOFFITS, FLOORS, ETC.
- 21. ALL DISCONNECT SWITCHES FOR MOTORS SHALL BE RATED A MINIMUM OF 10000 AIC UNLESS OTHERWISE SHOWN.
- 22. COORDINATE LOCATION OF THERMOSTATS, SENSORS, AND ATC JUNCTION BOXES WITH MECHANICAL CONTRACTOR BEFORE INSTALLATION.
- 23. CIRCUIT WIRE SIZES MUST MATCH BRANCH CIRCUIT BREAKERS PER NEC. VERIFY WITH PANEL SCHEDULES BEFORE PULLING WIRE.
- 24. HOME RUNS MUST BE RUN EXACTLY AS SHOWN ON PLANS UNLESS OTHERWISE NOTED. DO NOT COMBINE HOME RUNS INTO ONE CONDUIT THAT ARE NOT COMBINED ON THE DRAWINGS.
- 25. PANEL INDEXES SHALL INCLUDE ALL PERTINENT INFORMATION ON THE PANEL SCHEDULES INCLUDING INFORMATION ON LIGHTS AND OUTLETS. DO NOT SIMPLY COPY THE CIRCUIT DESCRIPTION COLUMN. INDEXES TO BE TYPEWRITTEN.
- 26. WHERE THE MECHANICAL CONTRACTOR HAS INSTALLED SMOKE DETECTORS WITHIN ANY DUCTWORK, THE ELECTRICAL CONTRACTOR SHALL INSTALL ADDITIONAL HARDWARE AND CONTROL WIRING TO THE FIRE-ALARM PANEL AS REQUIRED FOR FIRE-ALARM DETECTION AND NOTIFICATION. PROVIDE ADDITIONAL SMOKE DETECTOR IF FACTORY INSTALLED DETECTOR IS INCOMPATIBLE WITH FIRE-ALARM SYSTEM.
- 27. FIELD VERIFY MOUNTING OF SURFACE FIXTURES SHOWN IN CONTINUOUS ROWS. MAKE ADJUSTMENTS SIDEWAYS OR UNDER OBSTRUCTIONS AS REQUIRED AND PROVIDE NECESSARY RACEWAY CONNECTIONS.

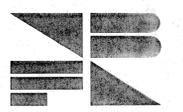
ELECTRICAL LEGEND

LIGHTING FIXTURES		POWER AND DISTRIBUTION	
	BATTERY PACK		DISTRIBUTION PANEL
	EXIT LIGHT: CEILING - FACE(S) AS SHOWN		PANELBOARD
	EXIT LIGHT: WALL - FACE(S) AS SHOWN	COMMUNICATIONS	
	EXIT LIGHT: FACE SIDE		COMMUNICATIONS RACK
	EXIT LIGHT: DIRECTIONAL ARROWS, DOUBLE FACE		COMMUNICATIONS RACEWAY; OPEN D-RINGS. SEE DETAILS AND SPECIFICATIONS
	STRIP LIGHT		PHONE BACKBOARD
	FLUORESCENT FIXTURE		TELEVISION OUTLET (4SD J-BOX; 1-GANG MUD RING; 1" CONDUIT, 1-RG-6 COAX)
	EMERGENCY FIXTURE		COMMUNICATIONS OUTLET (4SD J-BOX; 1-GANG MUD-RING; 1" CONDUIT, 1 CAT 5e CABLE)
	WALL MOUNT FIXTURE		COMMUNICATIONS OUTLET (4SD J-BOX; 1-GANG MUD-RING; 1" CONDUIT, 2 CAT 5e CABLES)
LIGHTING CONTROL			COMMUNICATIONS OUTLET (4SD J-BOX; 1-GANG MUD-RING; 1" CONDUIT; 3 CAT 5e CABLES)
	SINGLE POLE SWITCH; "x" INDICATES SWITCH GROUP		COMMUNICATIONS OUTLET (4SD J-BOX; 1-GANG MUD-RING; 1" CONDUIT; x CAT 5e CABLES)
	THREE WAY SWITCH	FIRE ALARM	
	FOUR WAY SWITCH		FIRE ALARM CONTROL PANEL
	LIGHTING CONTROL OVERRIDE SWITCH		NOTIFICATION APPLIANCE CIRCUIT PANEL
	WALL MOUNT OCCUPANCY SENSOR: DUAL TECHNOLOGY		FIRE SMOKE DAMPER
	OCCUPANCY SENSOR: DUAL TECHNOLOGY		SMOKE DETECTOR
BRANCH CIRCUITING			DUCT DETECTOR
	SIMPLEX OUTLET		HEAT DETECTOR
	GROUND FAULT INTERRUPTER SIMPLEX OUTLET		FIRE ALARM CONTROL/RELAY MODULE
	DUPLEX OUTLET		FIRE ALARM MONITOR MODULE
	GROUND FAULT INTERRUPTER DUPLEX OUTLET		MAGNETIC DOOR RELEASE
	ELECTRIC WATER COOLER OUTLET		FIRE ALARM STROBE; "x" = MINIMUM CANDELA RATING
	WEATHERPROOF DUPLEX OUTLET		CEILING MOUNTED FIRE ALARM STROBE; "x" = MINIMUM CANDELA RATING
	DOUBLE DUPLEX OUTLET		FIRE ALARM HORN AND STROBE; "x" = MINIMUM CANDELA RATING
	DOUBLE DUPLEX GROUND FAULT INTERRUPTER OUTLET		CEILING MOUNTED FIRE ALARM HORN AND STROBE; "x" = MINIMUM CANDELA RATING
	SPECIAL OUTLET	ONE-LINE	
	JUNCTION BOX		BREAKER
	DISCONNECT, 10K AIC MINIMUM		BRANCH PANEL
	OVERCURRENT PROTECTIVE DISCONNECT		BRANCH PANEL WITH MAIN BREAKER
	COMBINATION STARTER/OVERCURRENT PROTECTIVE DISCONNECT		BRANCH PANEL WITH SUBFEEDER BREAKER
	MOTOR PROTECTIVE THERMAL SWITCH		FEEDER SIZE (REFER TO CONDUIT AND CONDUCTOR SCHEDULE UNLESS OTHERWISE NOTED)
	MOTOR PROTECTIVE FUSED THERMAL SWITCH		GROUND
	QUANTITY OF CONDUCTORS: SHORT LINES = PHASE / SWITCH LONG LINES = NEUTRAL		TRANSFORMER
	HOME-RUN		DISCONNECT SWITCH; "x" = SWITCH AMPERAGE "y" = QUANTITY OF POLES
	DROP CORD. SEE DETAILS		FUSE; "x" = FUSE TYPE; "y" = FUSE AMPERAGE
			MOTOR; hp = MOTOR HORSEPOWER

SHEET INDEX

INDICATES PREVIOUSLY / CURRENTLY ISSUED SHEETS

SHEET	TITLE
EE001	ABBREVIATIONS, G.P.N., LEGEND & SHEET INDEX
ED101	AREA "A" FIRST FLOOR DEMOLITION PLAN
ED201	AREA "A" SECOND FLOOR DEMOLITION PLAN
EL101	AREA "A" FIRST FLOOR LIGHTING PLAN
EL601	LIGHTING SCHEDULES
EP101	AREA "A" FIRST FLOOR POWER PLAN
EP201	AREA "A" SECOND FLOOR POWER PLAN
EP601	ELECTRICAL ONE-LINE DIAGRAM
EP602	ELECTRICAL SCHEDULES
ET101	AREA "A" FIRST FLOOR TELECOMMUNICATIONS PLAN
FA101	AREA "A" FIRST FLOOR FIRE ALARM PLAN



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KEY PLAN

ADDENDUM 1
6/23/2009

VBFA PROJECT #: SSE:2009019a
CHECKED BY: SDS
DRAWN BY: DJP
CURRENT/BID DATE: 06/01/09

SHEET CONTENTS

Abbreviations, Sheet Index, Legend & G.P.N.

EE001

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 LAST SAVED: 23 Jun 09

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SHEET KEYED NOTES

- EXISTING PANELS TO REMAIN.
- EXISTING EQUIPMENT TO BE REMOVED. DISCONNECT EQUIPMENT FOR REMOVAL. DEMO CIRCUITS COMPLETE TO SOURCE. SEE ONE-LINE DIAGRAM FOR ADDITIONAL INFORMATION.

GENERAL SHEET NOTES

- DEMOLITION PLAN IS ENGINEER'S ATTEMPT TO ASSIST BIDDERS IN ESTIMATING REMOVAL COSTS OF EXISTING EQUIPMENT. PLAN IS NOT INTENDED TO BE ALL-INCLUSIVE, AND IT IS THE BIDDERS RESPONSIBILITY TO VERIFY ALL EXISTING EQUIPMENT AND DEVICES TO BE REMOVED PRIOR TO BIDDING.
- EXISTING ITEMS TO BE REMOVED ARE INDICATED AS BOLD/DASHED. ITEMS TO REMAIN ARE SHOWN AS LIGHT/SOLID.
- MAINTAIN CIRCUIT CONTINUITY FOR DEVICES DOWNSTREAM OF ITEMS TO BE REMOVED.
- OWNER WILL REQUIRE FULL USAGE OF FACILITY. WORK TO BE SCHEDULED DURING OFF-HOURS AND COORDINATED WITH OWNER IN ADVANCE.
- COORDINATE DEMOLITION AND NEW INSTALLATIONS TO MAINTAIN LIGHT LEVELS MEETING OR EXCEEDING CURRENT LEVELS DURING REGULAR HOURS. PROVIDE TEMPORARY PROVISIONS AS NEEDED EACH DAY.



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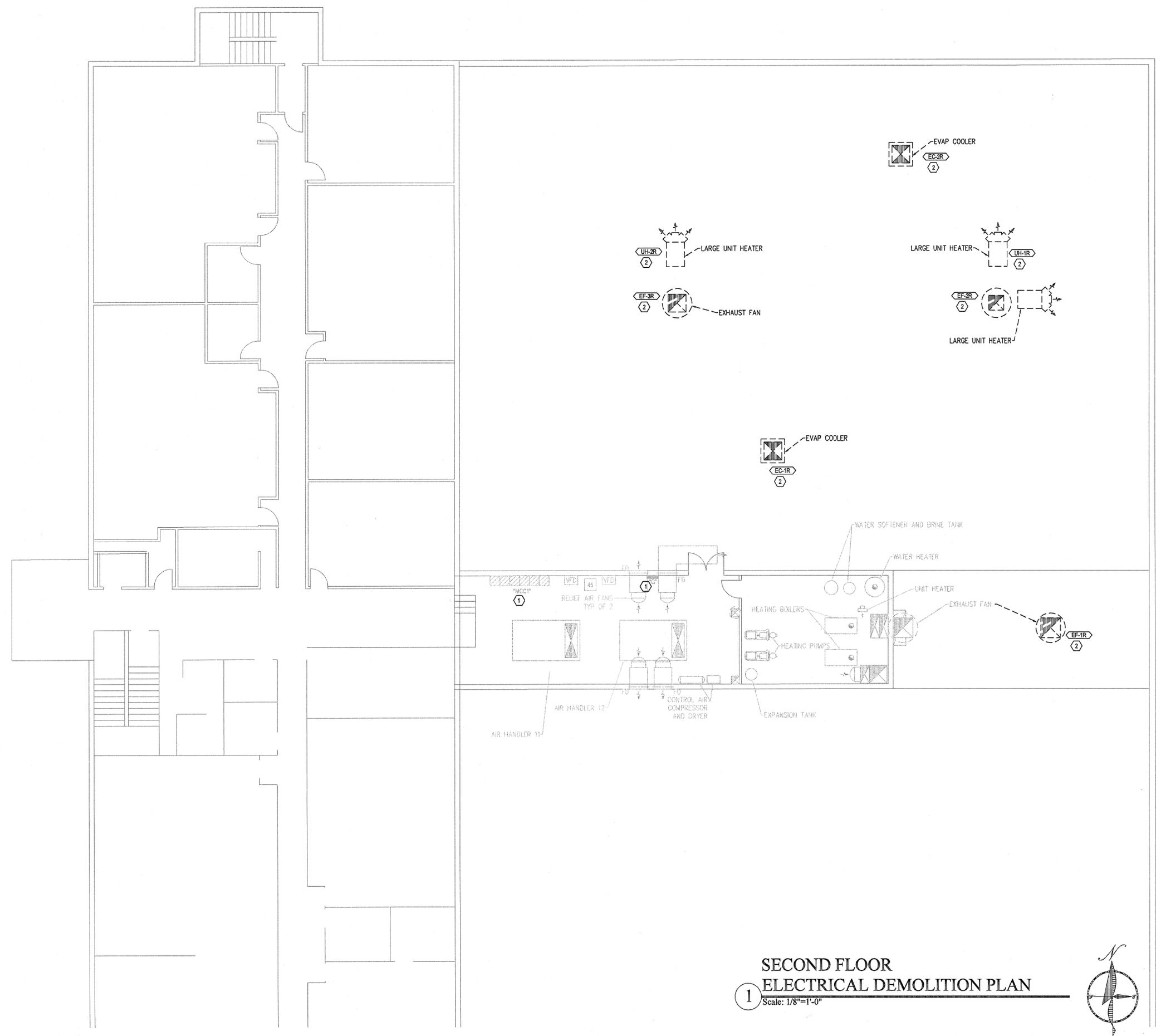
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VBFA PROJECT #: SSE:2009019a
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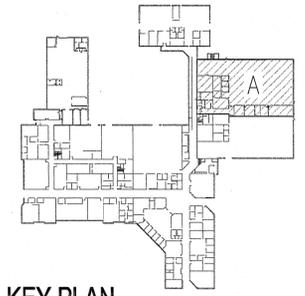
SECOND FLOOR ELECTRICAL DEMOLITION PLAN

ED201



SECOND FLOOR ELECTRICAL DEMOLITION PLAN
1 Scale: 1/8"=1'-0"

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KEY PLAN

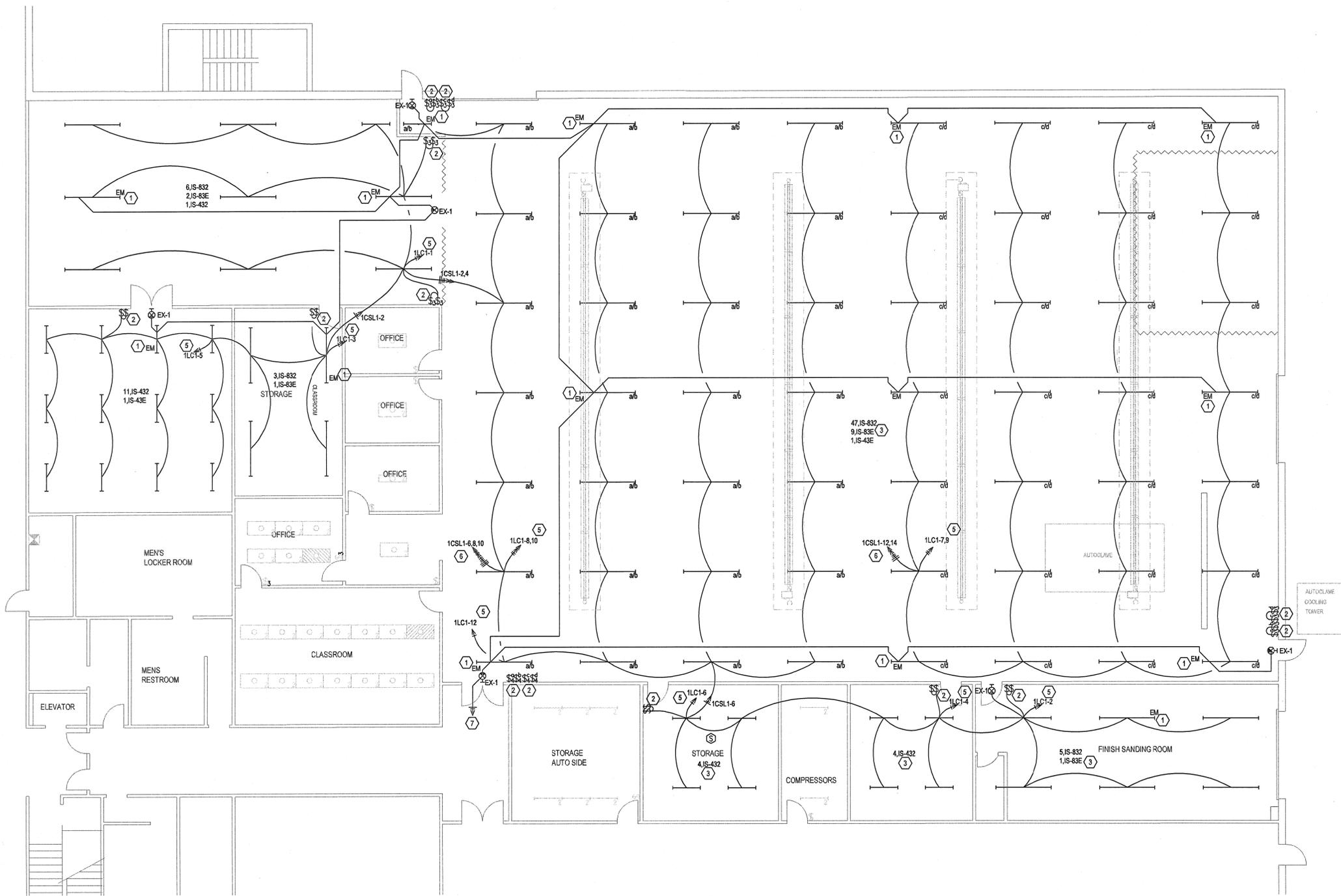
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1 FIRST FLOOR LIGHTING PLAN
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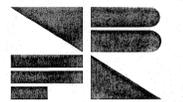


SHEET KEYED NOTES

1. PROVIDE ADDITIONAL 1-LAMP BALLAST FOR FIXTURES INDICATED. CONNECT BALLAST TO OPERATE WITH SWITCHES IN NORMAL MODE AND OVERRIDE ON WITH NORMAL POWER FAILURE. PROVIDE SIDE LITE PSM SWITCHING MODULE (OR EQUIVALENT) INSTALLED IN FIXTURE BALLAST CHANNEL.
2. CONNECT FIRST SWITCH TO CONTROL OUTER LAMPS IN EACH FIXTURE. CONNECT SECOND SWITCH TO CONTROL REMAINING LAMP(S).
3. SUSPEND FIXTURES TO 12'-0" A.F.F. TO BOTTOM OF FIXTURE. COORDINATE FIXTURE INSTALLATIONS WITH RADIANT HEATERS.
4. PROVIDE LIGHTING CONTROL OVERRIDE SWITCHES AT LOCATIONS INDICATED. PROVIDE CONTROL WIRING PER MANUFACTURER'S REQUIREMENTS. SEE DETAILS AND SCHEDULES FOR ADDITIONAL INFORMATION. ENGRAVE COVER PLATE WITH ZONES CONTROLLED. PROVIDE SEPARATE BUTTON LABELING FOR EACH ZONE INDICATED. MULTIPLE BUTTONS SHALL BE MOUNTED IN A SINGLE-GANG COVER.
5. LIGHTING CONTROL PANEL SWITCH LEGS. REFER TO LIGHTING CONTROL PANEL SCHEDULES AND DETAILS FOR ADDITIONAL INFORMATION. SWITCH LEGS MAY BE ROUTED TO PANEL IN SAME CONDUITS AS CONSTANT POWER FEEDS. CONTRACTOR TO DERATE/UPSZE CONDUCTORS & CONDUIT WHERE REQUIRED.
6. CONNECT CIRCUITS SERVING MAIN SHOP FOR ONE CIRCUIT PER SWITCH GROUP.
7. EXTEND TO 277V EM CIRCUIT PREVIOUSLY SERVING AREA. FIELD VERIFY CIRCUIT LOCATION.

GENERAL SHEET NOTES

1. ALL LIGHTING CIRCUITS SHALL BE ROUTED THROUGH LIGHTING CONTROL SYSTEM. HOME-RUNS ONLY INDICATE BRANCH CIRCUIT CONDUCTORS. UNSWITCHED CONDUCTORS ARE REQUIRED FOR CIRCUITS WITH EM LIGHTING. ADDITIONAL SWITCHED CONDUCTORS ARE REQUIRED FOR EACH CIRCUIT. REFER TO LIGHTING CONTROL SCHEDULES FOR ADDITIONAL INFORMATION INCLUDING QUANTITY OF SWITCHED CONDUCTORS REQUIRED FOR EACH CIRCUIT.
2. ALL NEW SWITCHES TO BE LIGHTING CONTROL SYSTEM STANDARD PUSHBUTTON SWITCHES LABELED FOR CONTROLLED LOAD AND PROGRAMMED FOR 2 HOUR TIME-DELAY OFF WHEN USED AFTER HOURS.
3. OWNER WILL REQUIRE FULL USAGE OF FACILITY. WORK TO BE SCHEDULED DURING OFF-HOURS AND COORDINATED WITH OWNER IN ADVANCE.
4. COORDINATE DEMOLITION AND NEW INSTALLATIONS TO MAINTAIN LIGHT LEVELS MEETING OR EXCEEDING CURRENT LEVELS DURING REGULAR HOURS. PROVIDE TEMPORARY PROVISIONS AS NEEDED EACH DAY.
5. BRACE SUSPENDED FIXTURES TO LIMIT SWINGING INDUCED BY SEISMIC MOTION. COMPLY WITH CODE AND SPECIFICATION REQUIREMENTS FOR ALL INSTALLATIONS.



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KEY PLAN

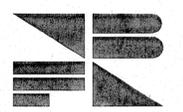
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ADDENDUM 1	6/23/2009
VBFA PROJECT #:	SSE:2009019a
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CURRENT/BID DATE:	06/01/09

SHEET CONTENTS
FIRST FLOOR LIGHTING PLAN

EL101

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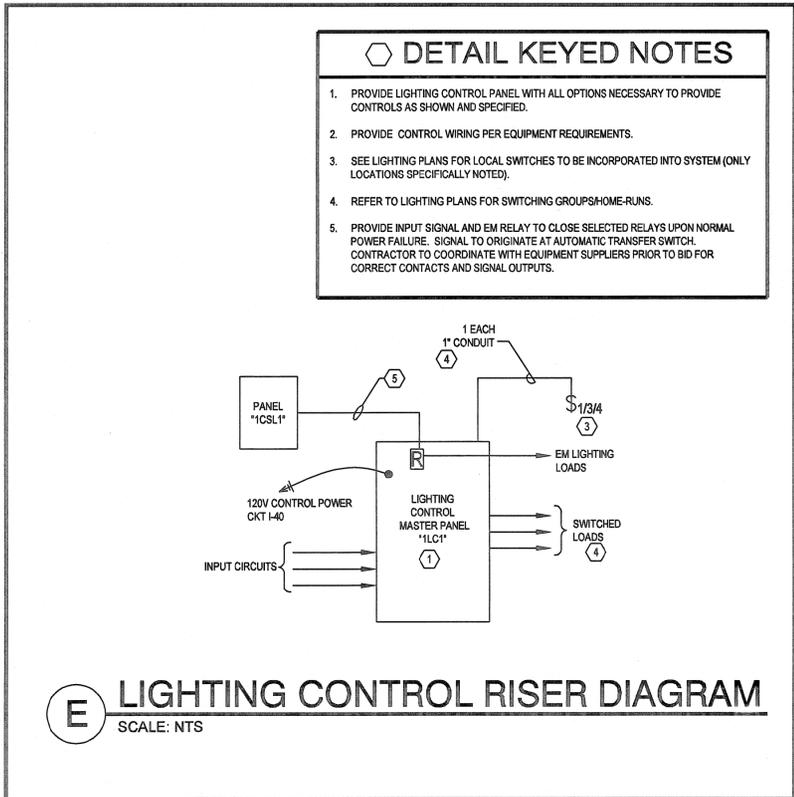
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LIGHT FIXTURE SCHEDULE table with columns: TYPE, MANUFACTURER/CATALOG NO., DESCRIPTION, MOUNTING, LAMPS. Includes entries for EX-1, IS-432, IS-43E, IS-832, and IS-83E.

CONTRACTOR AND LIGHTING SUPPLIER SEE (*) FOR MULTIPLE BALLAST REQUIREMENTS AND (+) FOR QUARTZ EM REQUIREMENTS

RELAY PANEL SCHEDULE table with columns: RELAY PANEL, FEEDS, REMARKS, LOCATION, MOUNTING. Includes a detailed schedule table with columns: No., RELAY, CONTROLLED CKT, CONTROL ZONE, CONTROL TYPE, No., No., CONTROL TYPE, CONTROL ZONE, CONTROLLED CKT, RELAY, No.

CONTROL TYPES: CLK = TIMECLOCK, SW = SWITCH (1, 3, OR 4), OVER = 2-HOUR TIMED OVERRIDE ON, PHOTO = PHOTOCELL



- DETAIL KEYED NOTES: 1. PROVIDE LIGHTING CONTROL PANEL WITH ALL OPTIONS NECESSARY TO PROVIDE CONTROLS AS SHOWN AND SPECIFIED. 2. PROVIDE CONTROL WIRING PER EQUIPMENT REQUIREMENTS. 3. SEE LIGHTING PLANS FOR LOCAL SWITCHES TO BE INCORPORATED INTO SYSTEM (ONLY LOCATIONS SPECIFICALLY NOTED). 4. REFER TO LIGHTING PLANS FOR SWITCHING GROUPS/HOME-RUNS. 5. PROVIDE INPUT SIGNAL AND EM RELAY TO CLOSE SELECTED RELAYS UPON NORMAL POWER FAILURE. SIGNAL TO ORIGINATE AT AUTOMATIC TRANSFER SWITCH. CONTRACTOR TO COORDINATE WITH EQUIPMENT SUPPLIERS PRIOR TO BID FOR CORRECT CONTACTS AND SIGNAL OUTPUTS.

TIME: 23 JUN 2009 - 1:04PM USER: PW USER: C:\HEFERNANDES\OUR... LAST SAVED: 28 May 09

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KEY PLAN

REVISIONS table with columns: No., Description, Date. Includes ADDENDUM 1 8/23/2009.

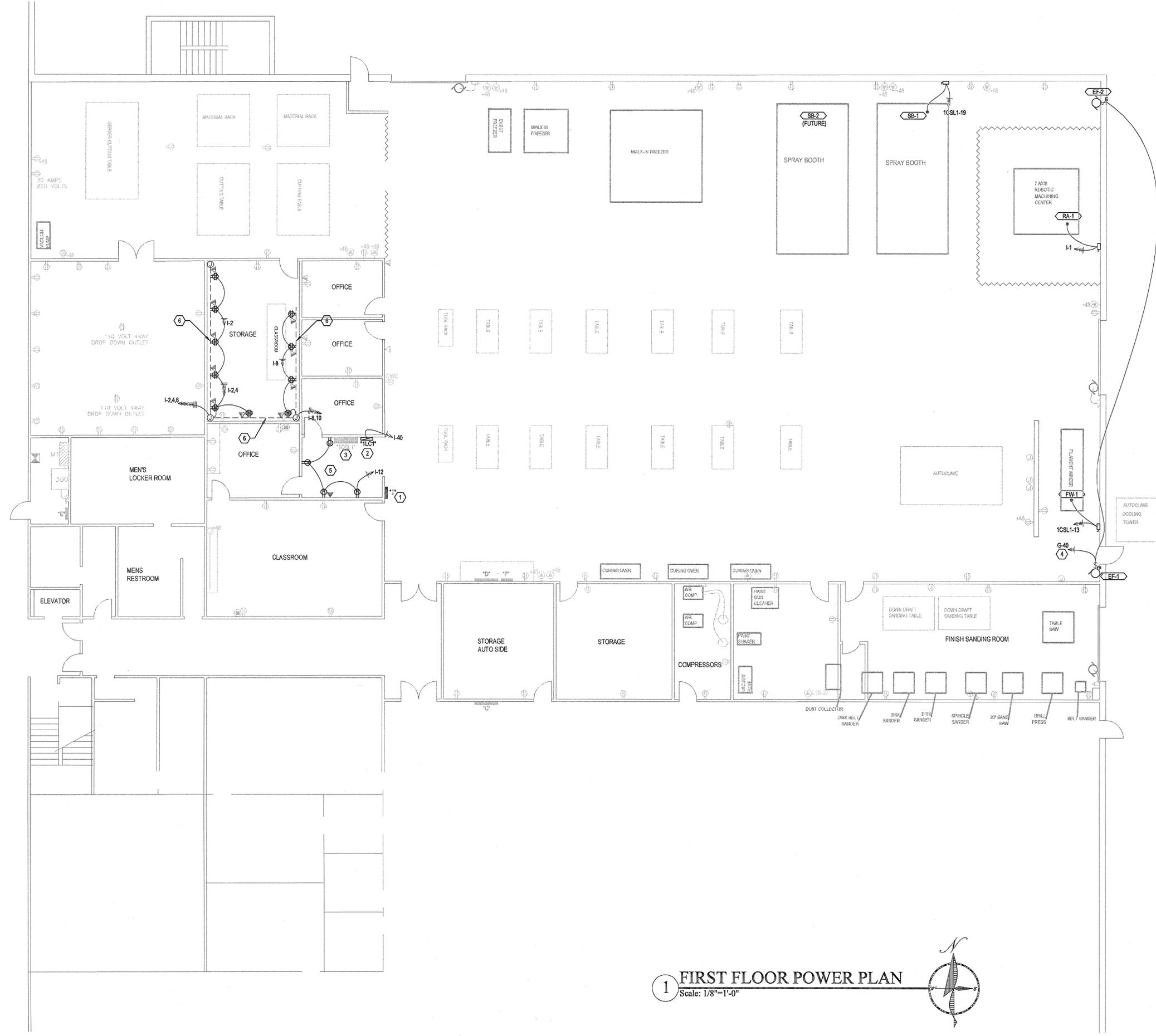
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EL601

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1 FIRST FLOOR POWER PLAN
 Scale: 1/8"=1'-0"



SHEET KEYED NOTES

- PROVIDE NEW PANEL. SEE ONE-LINE DIAGRAM FOR ADDITIONAL INFORMATION.
- PROVIDE NEW LIGHTING CONTROL PANEL. SEE EL SHEETS FOR ADDITIONAL INFORMATION.
- PANEL PROVIDED UNDER SEPARATE CONCURRENT PROJECT. COORDINATE WORK WITH ELECTRICAL CONTRACTOR OF THE OTHER PROJECT.
- PROVIDE NEW BREAKER IN EXISTING PANEL.
- ALL INSTALLATIONS ON EXPOSED WALLS TO BE DONE WITH SURFACE RACEWAY (WIREMOLD V700 OR EQUIVALENT) FIELD PAINTED TO MATCH ADJACENT SURFACE.
- PROVIDE WIREMOLD C4000, DIVIDED RACEWAY (OR EQUIVALENT) FOR POWER AND DATA SHOWN AT HEIGHT DIRECTED BY OWNER. MOUNT OUTLETS AT REGULAR CENTERS. PROVIDE FACTORY CUT COVERS AND ALL ACCESSORIES REQUIRED FOR A COMPLETE INSTALLATION. REFER TO ET SERIES SHEETS FOR ADDITIONAL REQUIREMENTS FOR COMMUNICATIONS JACKS. EXTEND DIVIDED RACEWAY RISERS FROM HORIZONTAL RUNS TO ABOVE ACCESSIBLE CEILING FOR CIRCUITS AND CABLING TO OUTLETS.

GENERAL SHEET NOTES

- DOCUMENT INSTALLATIONS OF EQUIPMENT CIRCUITING AND CONNECTIONS WORK COMPLETED BY OWNER ON FIELD REDLINES PER NOTE #8 ON SHEET ED101.
- OWNER WILL REQUIRE FULL USAGE OF FACILITY. WORK TO BE SCHEDULED DURING OFF-HOURS AND COORDINATED WITH OWNER IN ADVANCE.
- ELECTRICAL CONTRACTOR SHALL INSTALL CONTROL CABLING AND CONDUIT AS DIRECTED BY OWNER. DETAILS OF CONTROL REQUIREMENTS WERE NOT AVAILABLE WHEN THESE DRAWINGS WERE ISSUED. ALLOW \$5000 FOR INSTALLATIONS.

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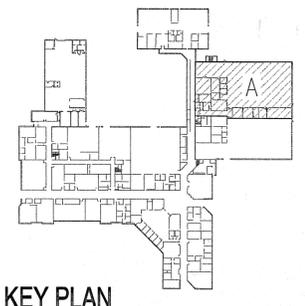
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ADDENDUM 1	6/23/2009
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CURRENT/BID DATE:	06/01/09



KEY PLAN

SHEET CONTENTS
FIRST FLOOR POWER PLAN

EP101

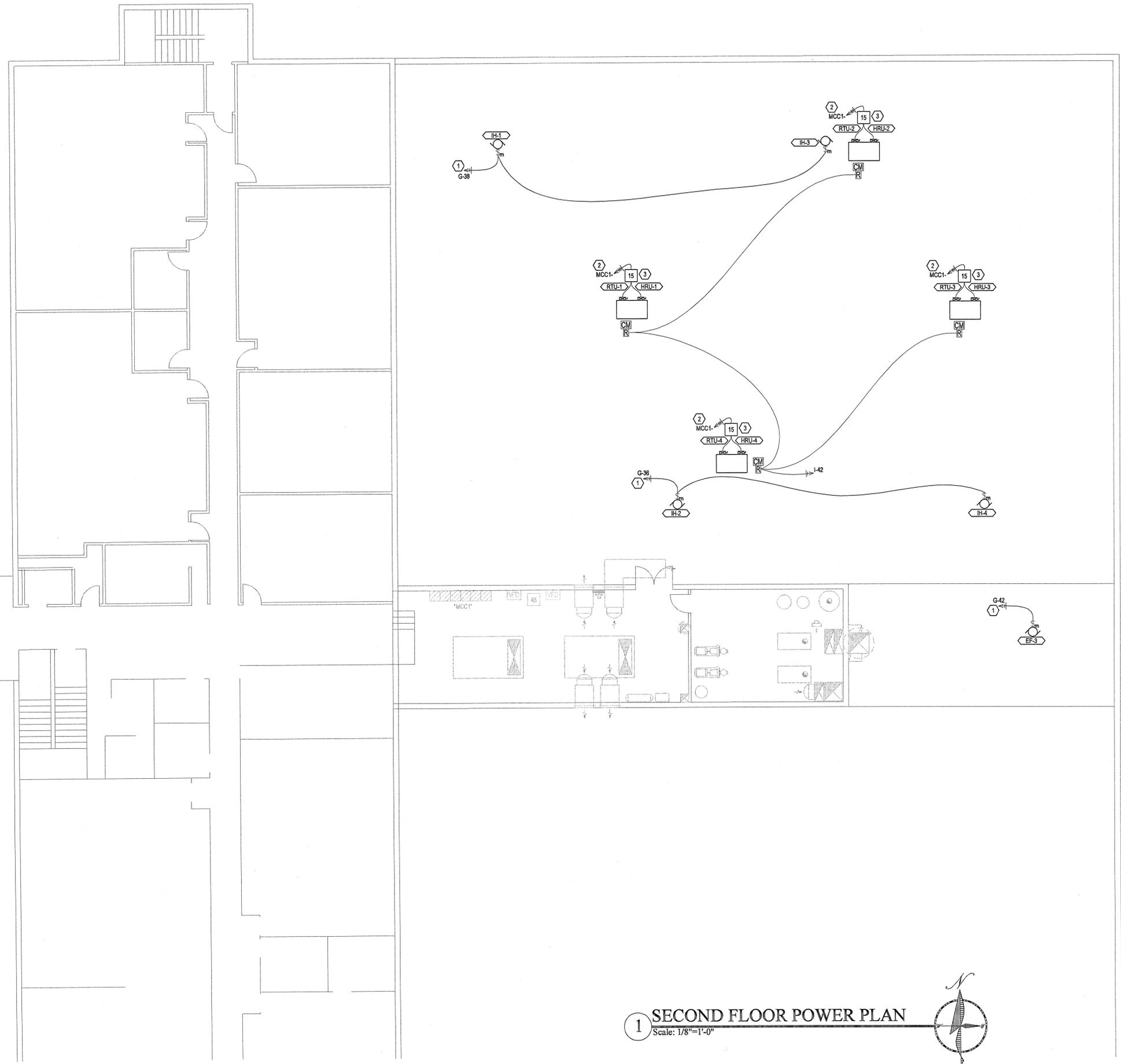
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1 SECOND FLOOR POWER PLAN
Scale: 1/8"=1'-0"

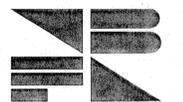


SHEET KEYED NOTES

1. PROVIDE NEW BREAKERS IN EXISTING PANEL.
2. PROVIDE NEW BUCKETS OR BREAKERS AS REQUIRED IN EXISTING MOTOR CONTROL CENTER. SEE ONE-LINE DIAGRAM FOR ADDITIONAL INFORMATION.
3. SUSPEND TRANSFORMERS FROM GIRDER OR ADJACENT JOIST WHICH IS NOT SUPPORTING HVAC EQUIPMENT. REFER TO MECHANICAL AND STRUCTURAL DRAWINGS FOR EXACT EQUIPMENT LOCATIONS AND STRUCTURAL MEMBERS.

GENERAL SHEET NOTES

1. OWNER WILL REQUIRE FULL USAGE OF FACILITY. WORK TO BE SCHEDULED DURING OFF-HOURS AND COORDINATED WITH OWNER IN ADVANCE.



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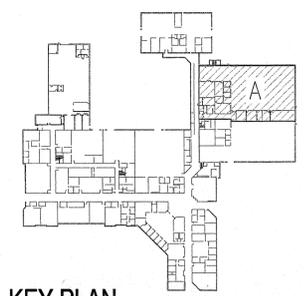
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KEY PLAN

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ADDENDUM 1	6/23/2009
VBFA PROJECT #:	SSE:2009019a
CHECKED BY:	SDS
DRAWN BY:	DJP
CURRENT/BID DATE:	06/01/09

SHEET CONTENTS
SECOND FLOOR POWER PLAN

EP201

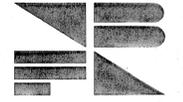
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 LAST SAVED: 23 Jun 09

SHEET KEYED NOTES

1. REMOVE EXISTING FEEDERS. RETURN CONDUCTORS TO OWNER.
2. REMOVE BUCKETS OR BREAKERS/STARTERS FROM EXISTING MOTOR CONTROL CENTER, AS NEEDED TO SERVE NEW EQUIPMENT.
3. PROVIDE NEW BREAKER IN EXISTING PANEL.
4. PROVIDE NEW FEEDERS AS INDICATED.
5. PROVIDE NEW PANEL. REFER TO SCHEDULES FOR ADDITIONAL INFORMATION.
6. PROVIDE NEW BUCKETS OR BREAKERS IN EXISTING MOTOR CONTROL CENTER.
7. SUSPEND NEW TRANSFORMERS BELOW ASSOCIATED EQUIPMENT. SEE EP201 FOR LOCATIONS.
8. PROVIDE SERVICE RATED DISCONNECTS LOCATED AT EQUIPMENT AND WITHIN 10' OF TRANSFORMER.
9. PROVIDE TWO NORMALLY OPEN AND TWO NORMALLY CLOSED CONTACTS FOR EACH STARTER. SEE GENERAL NOTE 3 SHEET EP101 FOR ADDITIONAL CONTROLS ALLOWANCE INFORMATION.

GENERAL SHEET NOTES

1. AIC RATINGS SHOWN INDICATE MINIMUM REQUIRED VALUES.
2. ALL CONDUCTORS ARE CONSIDERED TO BE COPPER UNLESS SPECIFICALLY NOTED OTHERWISE.
3. OWNER WILL REQUIRE FULL USAGE OF FACILITY. WORK TO BE SCHEDULED DURING OFF-HOURS AND COORDINATED WITH OWNER IN ADVANCE.

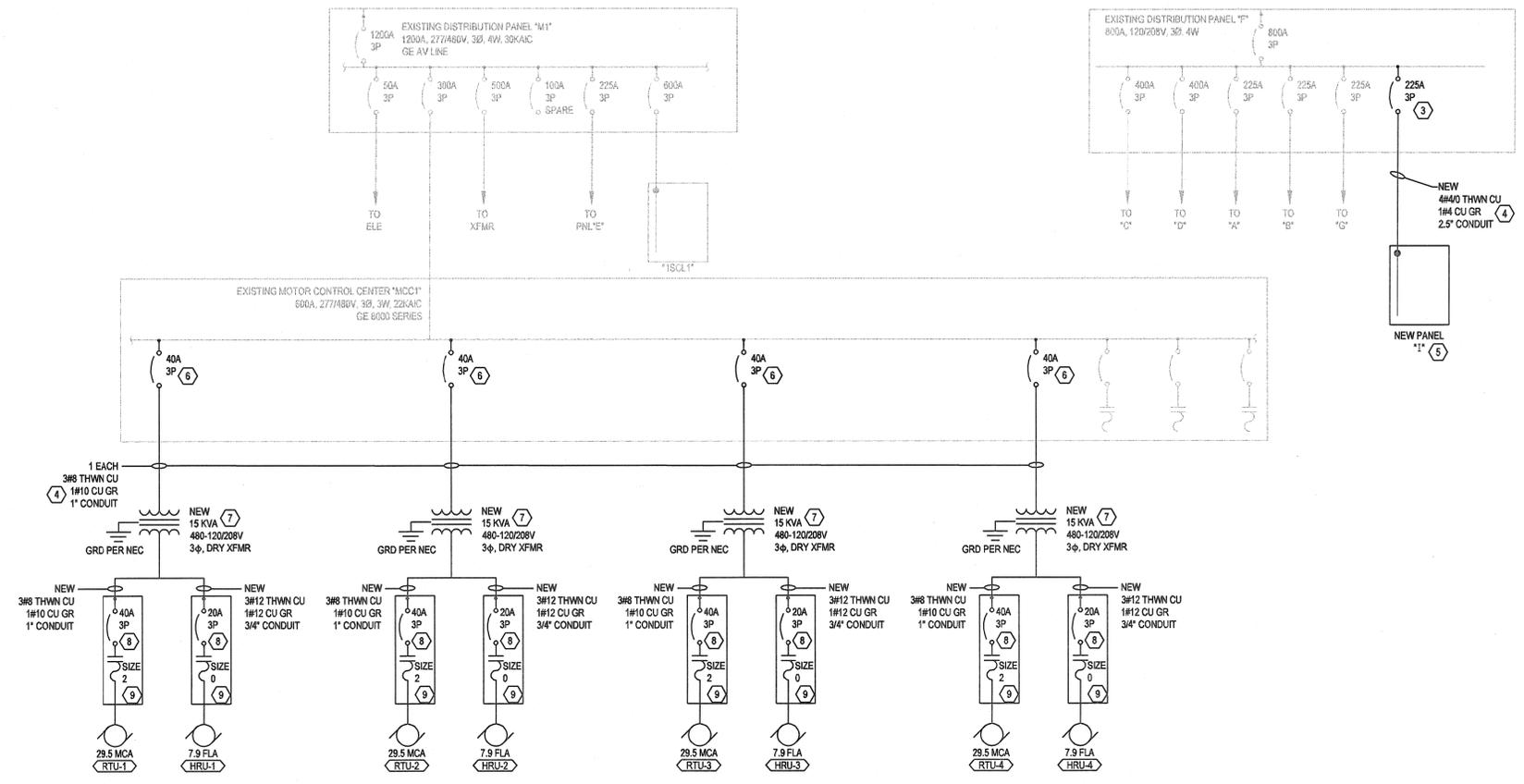


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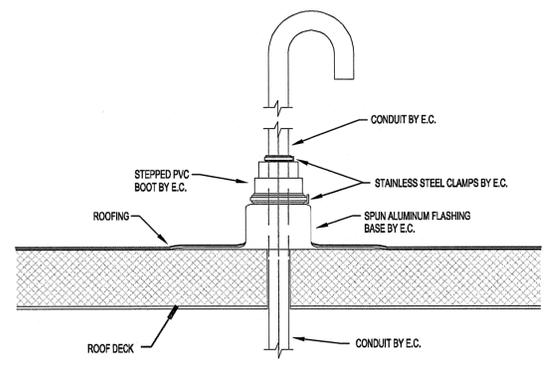


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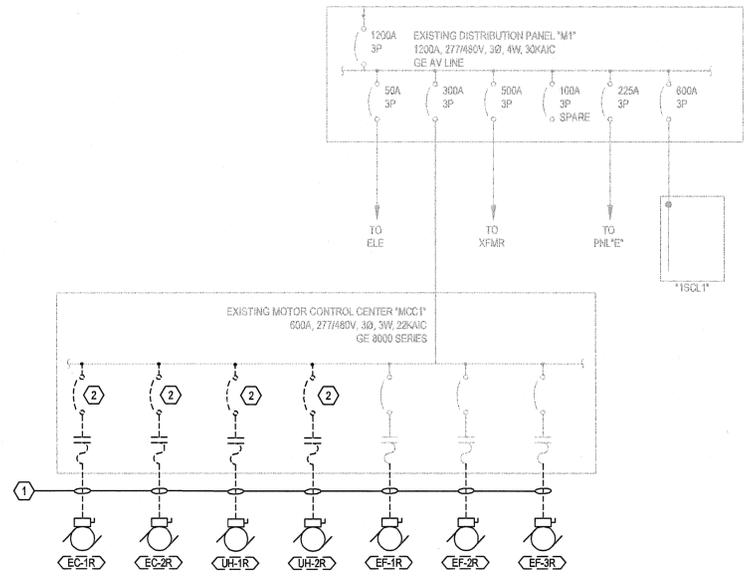
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2 PARTIAL ONE-LINE DIAGRAMS: NEW
Scale: NO SCALE



3 CONDUIT/ROOF PENETRATION DETAIL
NO SCALE



1 PARTIAL ONE-LINE DIAGRAM: DEMOLITION
Scale: NO SCALE

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VBFA PROJECT #:	SSE:2009019a
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SHEET CONTENTS
ELECTRICAL ONE-LINE DIAGRAMS & DETAILS

EP601

TIME: 23 JUN 2009 - 1:05PM
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 LAST SAVED: 29 May '09

PANEL		TYPE		LOCATION		MOUNTING								
I		NQOD		3 Ø 4 WIRE 120/208 VOLTS		SHOP								
REMARKS														
<input checked="" type="checkbox"/> NEW <input checked="" type="checkbox"/> EXISTING <input type="checkbox"/> BOLT ON BREAKERS <input type="checkbox"/> ISOLATED GROUND BUS														
No.	BRKR	CIRCUIT DESCRIPTION	L	O	M	WIRE	CIRCUIT LOAD	WIRE	L	O	M	CIRCUIT DESCRIPTION	BRKR	No.
1	125 3	7-AXIS ROBOTIC				1 1/0	10560	11280	720	12	4	PLUGS: CLASSROOM	20	1 2
3	-	-				1 1/0	10560	11280	720	12	4	PLUGS: CLASSROOM	20	1 4
5	-	-				1 1/0	10560	11280	720	12	4	PLUGS: CLASSROOM	20	1 6
7	20 1	SPARE							720	12	4	PLUGS: CLASSROOM	20	1 8
9	20 1	SPARE							720	12	4	PLUGS: CLASSROOM	20	1 10
11	20 1	SPARE							900	12	5	PLUGS: VESTIBULE	20	1 12
13	20 1	SPARE							0			SPARE	20	1 14
15	20 1	SPARE							0			SPARE	20	1 16
17	20 1	SPARE							0			SPARE	20	1 18
19	20 1	SPARE							0			SPARE	20	1 20
21	20 1	SPARE							0			SPARE	20	1 22
23	20 1	SPARE							0			SPARE	20	1 24
25	20 1	SPARE							0			SPARE	20	1 26
27	20 1	SPARE							0			SPARE	20	1 28
29	20 1	SPARE							0			SPARE	20	1 30
31	20 1	SPARE							0			SPARE	20	1 32
33	20 1	SPARE							0			SPARE	20	1 34
35	20 1	SPARE							0			SPARE	20	1 36
73	02 1	ERAPS							0			ERAPS	02	1 33
39	20 1	SPARE							1200	12	1	LTG CNTRL PANEL	20	1 40
41	20 1	SPARE							960	12	4	FA SHUTDWN	20	1 42
TOTALS 12000 13200 13140													AIC 22000	
FEEDER SEE ONE-LINE AMPS/PHASE 100 110 110 parallel runs SEE ONE-LINE														
BREAKER CODES A=ARC-FAULT; G=GROUND FAULT; H=HACR; L=LOCKING HANDLE; S=SHUNT TRIP														

PANEL		TYPE		LOCATION		MOUNTING								
G		CCB		3 Ø 4 WIRE 120/208 VOLTS		2ND LEVEL MECHANICAL ROOM								
REMARKS														
<input type="checkbox"/> NEW <input checked="" type="checkbox"/> EXISTING <input checked="" type="checkbox"/> BOLT ON BREAKERS <input type="checkbox"/> ISOLATED GROUND BUS														
* = PROVIDE NEW BREAKER IN EXISTING PANEL														
No.	BRKR	CIRCUIT DESCRIPTION	L	O	M	WIRE	CIRCUIT LOAD	WIRE	L	O	M	CIRCUIT DESCRIPTION	BRKR	No.
1	20 1	EXISTING										EXISTING	20	1 2
3	20 1	EXISTING										EXISTING	20	1 4
5	20 1	EXISTING										EXISTING	20	1 6
7	20 1	EXISTING										EXISTING	20	1 8
9	20 1	EXISTING										EXISTING	20	1 10
11	20 1	EXISTING										EXISTING	20	1 12
13	20 1	EXISTING										EXISTING	20	1 14
15	20 1	EXISTING										EXISTING	20	1 16
17	20 1	EXISTING										EXISTING	20	1 18
19	20 1	EXISTING										EXISTING	20	1 20
21	20 1	EXISTING										EXISTING	20	1 22
23	20 1	EXISTING										EXISTING	20	1 24
25	20 1	EXISTING										EXISTING	20	1 26
27	20 1	EXISTING										EXISTING	20	1 28
29	20 1	EXISTING										EXISTING	20	1 30
31	20 1	EXISTING										EXISTING	20	1 32
33	20 1	EXISTING										EXISTING	20	1 34
35	20 1	EXISTING										EXISTING	20	1 36
37	20 1	EXISTING							1152	1152	12	2 INFRARED HEATERS	20	1 38
39	20 1	EXISTING							1416	1416	10	2 EXHAUST FANS	20	1 40
41	20 1	EXISTING							708	708	12	1 EXHAUST FAN	20	1 42
TOTALS 1152 1416 1850													AIC EXISTING	
FEEDER EXISTING AMPS/PHASE 10 12 16 parallel runs EXISTING														
BREAKER CODES A=ARC-FAULT; G=GROUND FAULT; H=HACR; L=LOCKING HANDLE; S=SHUNT TRIP														

EQUIPMENT SCHEDULE														
SYM	DESCRIPTION	LOAD	VOLTS	PHASE	FIRE ALARM SHUTDOWN	CONTROL CIRCUITS BY	* STARTER BY	SAFETY DISCONNECT BY	REMARKS					
MECHANICAL EQUIPMENT--DEMO														
EC-1R	DEMO: EVAPORATIVE COOLER		480	3					EQUIPMENT TO BE REMOVED. SEE DEMO PLAN AND ONE-LINE DIAGRAM					
EC-2R	DEMO: EVAPORATIVE COOLER		480	3					EQUIPMENT TO BE REMOVED. SEE DEMO PLAN AND ONE-LINE DIAGRAM					
EF-1R	DEMO: EXHAUST FAN		480	3					EQUIPMENT TO BE REMOVED. SEE DEMO PLAN AND ONE-LINE DIAGRAM					
R2-FE	NAF TSUAHAE JOMED		054	3					MARGAID ENIL-ENO DNA NALP OMED EES DEVOMER EB OT NEMPIRUGE					
EF-3R	DEMO: EXHAUST FAN		480	3					EQUIPMENT TO BE REMOVED. SEE DEMO PLAN AND ONE-LINE DIAGRAM					
UH-1R	DEMO: UNIT HEATER		480	3					EQUIPMENT TO BE REMOVED. SEE DEMO PLAN AND ONE-LINE DIAGRAM					
UH-2R	DEMO: UNIT HEATER		480	3					EQUIPMENT TO BE REMOVED. SEE DEMO PLAN AND ONE-LINE DIAGRAM					
MECHANICAL EQUIPMENT--NEW														
EF-1	EXHAUST FAN	1/4 HP	120	1	NO	MECH	ELEC	ELEC	PROVIDE CONNECTION TO MOTORIZED BACKDRAFT DAMPER					
EF-2	EXHAUST FAN	1/4 HP	120	1	NO	MECH	ELEC	ELEC	PROVIDE CONNECTION TO MOTORIZED BACKDRAFT DAMPER					
EF-3	EXHAUST FAN	1/4 HP	120	1	NO	MECH	ELEC	ELEC	PROVIDE CONNECTION TO MOTORIZED BACKDRAFT DAMPER					
HRU-1	HEAT RECOVER UNIT (RTU-1)	7.9 FLA 8.93 MCA	208	3	YES	MECH	MECH	ELEC	INTERLOCK WITH ASSOCIATED RTU FOR FA SHUTDOWN					
HRU-2	HEAT RECOVER UNIT (RTU-2)	7.9 FLA 8.93 MCA	208	3	YES	MECH	MECH	ELEC	INTERLOCK WITH ASSOCIATED RTU FOR FA SHUTDOWN					
HRU-3	HEAT RECOVER UNIT (RTU-3)	7.9 FLA 8.93 MCA	208	3	YES	MECH	MECH	ELEC	INTERLOCK WITH ASSOCIATED RTU FOR FA SHUTDOWN					
HRU-4	HEAT RECOVER UNIT (RTU-3)	7.9 FLA 8.93 MCA	208	3	YES	MECH	MECH	ELEC	INTERLOCK WITH ASSOCIATED RTU FOR FA SHUTDOWN					
IH-1	INFRARED HEATER	4.8 FLA	120	1	NO	MECH	MECH	ELEC						
IH-2	INFRARED HEATER	4.8 FLA	120	1	NO	MECH	MECH	ELEC						
IH-3	INFRARED HEATER	4.8 FLA	120	1	NO	MECH	MECH	ELEC						
IH-4	INFRARED HEATER	4.8 FLA	120	1	NO	MECH	MECH	ELEC						
RTU-1	ROOF-TOP UNIT	29.5 MCA	208	3	YES	MECH	MECH	MECH	PROVIDE DUCT DETECTOR AND FIRE ALARM SHUTDOWN FOR UNIT					
RTU-2	ROOF-TOP UNIT	29.5 MCA	208	3	YES	MECH	MECH	MECH	PROVIDE DUCT DETECTOR AND FIRE ALARM SHUTDOWN FOR UNIT					
RTU-3	ROOF-TOP UNIT	29.5 MCA	208	3	YES	MECH	MECH	MECH	PROVIDE DUCT DETECTOR AND FIRE ALARM SHUTDOWN FOR UNIT					
RTU-4	ROOF-TOP UNIT	29.5 MCA	208	3	YES	MECH	MECH	MECH	PROVIDE DUCT DETECTOR AND FIRE ALARM SHUTDOWN FOR UNIT					
SHOP EQUIPMENT--NEW														
AUT-1	AUTOCLAVE	300 MCA	480	3	NO	MECH	MECH	ELEC	INTERLOCK WITH COOLING TOWER PER EQUIPMENT REQUIREMENTS					
FW-1	FILAMENT WINDER	30 HP	480	3	NO	MECH	MECH	ELEC						
RA-1	7-AXIS ROBOTIC ARM	30 HP	208	3	NO	MECH	MECH	ELEC						
SB-1	SPRAY BOOTH	25 HP	480	3	NO	MECH	MECH	ELEC	VERIFY LOAD W/ OWNER PRIOR TO FINAL DRAWING RELEASE					
SB-2	SPRAY BOOTH: FUTURE	25 HP	480	3	NO	MECH	MECH	ELEC	VERIFY LOAD W/ OWNER PRIOR TO FINAL DRAWING RELEASE					
* ELECTRICAL CONTRACTOR VERIFY SINGLE SPEED OR TWO SPEED STARTERS WITH MECHANICAL DRAWINGS.														

PANEL		TYPE		LOCATION		MOUNTING								
1CSL1		NF		3 Ø 4 WIRE 277/480 VOLTS		COMPOSITE SHOP VESTIBULE								
REMARKS														
<input type="checkbox"/> NEW <input checked="" type="checkbox"/> EXISTING <input checked="" type="checkbox"/> BOLT ON BREAKERS <input type="checkbox"/> ISOLATED GROUND BUS														
-PANEL FURNISHED UNDER SEPARATE, CONCURRENT PROJECT. * = CIRCUIT COMPLETED UNDER SEPARATE CONTRACT ** = CIRCUIT COMPLETED UNDER THIS CONTRACT + = VERIFY BREAKER SIZE WITH OWNER AND COORDINATE WITH PANEL PURCHASER														
No.	BRKR	CIRCUIT DESCRIPTION	L	O	M	WIRE	CIRCUIT LOAD	WIRE	L	O	M	CIRCUIT DESCRIPTION	BRKR	No.
1	300 3	EX: AUTOCLAVE*				1 500	83100 85500	2040	12	16		LTG: NW CLASSROOMS**	20	1 2
3	-	-				1 500	83100	85140	12	9		LTG: NW SHOP**	20	1 4
5	-	-				1 500	83100	85500	2400	12	14	LTG: SE SHOPS AND STORAGE**	20	1 6
7	20 3	EX: AUTOCLAVE COOLING TWR*				1 12	305 3725	3420	12	15		LTG: SHOP**	20	1 8
9	-	-				1 12	305 3725	3420	12	15		LTG: SHOP**	20	1 10
11	-	-				1 12	305 3725	3665 3360	12	14		LTG: SHOP**	20	1 12
13	60 3	FILAMENT WINDER**				1 4	11080 14440	11080	12	14		LTG: SHOP**	20	1 14
15	-	-				1 4	11080	11080				EX: SPARE*	20	1 16
17	-	-				1 4	11080	11080				EX: SPARE*	20	1 18
19	50+ 3	SPRAY BOOTH**				1 6	9695 9695	9695				EX: SPARE**	20	1 20
21	-	-				1 6	9695	9695				EX: SPARE*	20	1 22
23	-	-				1 6	9695	9695				EX: SPARE*	20	1 24
25	50+ 3	SPARE: FUTURE SPRAY BOOTH						0				EX: SPARE*	20	1 26
27	-	-						0				EX: SPARE*	20	1 28
29	-	-						0				EX: SPARE*	20	1 30
31	20 1	SPACE						0				EX: SPARE*	20	1 32
33	20 1	SPACE						0				EX: SPARE*	20	1 34
35	20 1	SPACE						0				EX: SPARE*	20	1 36
37	20 1	SPACE						0				EX: SPARE*	20	1 38
39	20 1	SPACE						0				EX: SPARE*	20	1 40
41	20 1	SPACE						0				EX: SPARE*	20	1 42
TOTALS 113360 109640 109940													AIC EXISTING	
FEEDER EXISTING AMPS/PHASE 409 396 397 parallel runs EXISTING														
BREAKER CODES A=ARC-FAULT; G=GROUND FAULT; H=HACR; L=LOCKING HANDLE; S=SHUNT TRIP														

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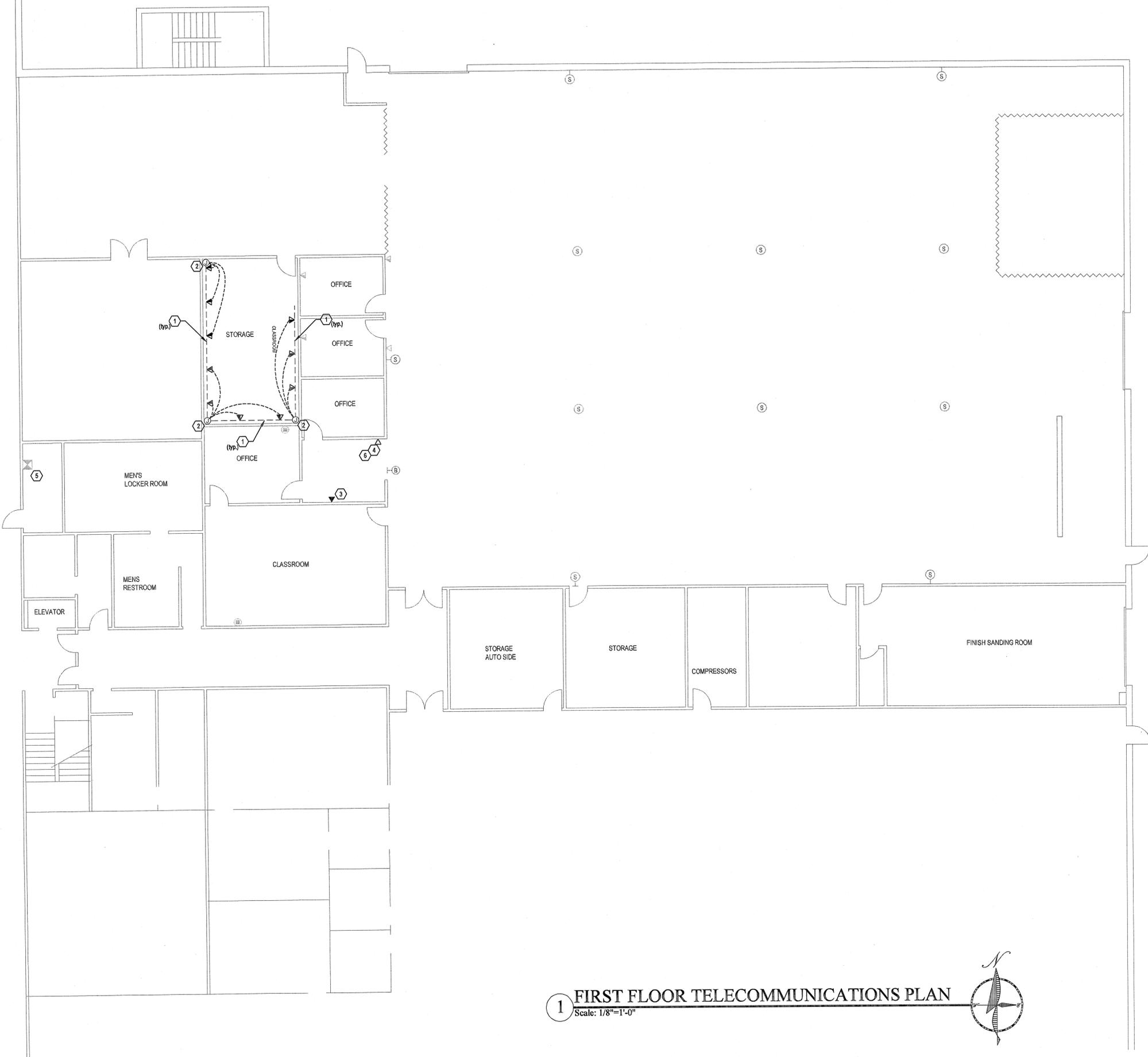


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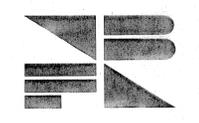


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- SHEET KEYED NOTES**
1. PROVIDE NEW DATA OUTLETS MOUNTED ON RACEWAY. REFER TO SYMBOL SCHEDULE FOR CABLING AND JACK REQUIREMENTS AND NOTE BELOW FOR CONDUIT REQUIREMENTS TO RACEWAY. PROVIDE OWNER'S STANDARD JACKS AND COMPATIBLE RACEWAY HARDWARE. JACKS SHALL FINISH FLUSH WITH DEVICE COVERPLATES.
 2. PROVIDE 1.25" CONDUIT FROM DATA RACK TO RACEWAY CONNECTOR ABOVE CEILING (SEE EP101) AT EACH CORNER. ROUTE CABLES TO JACKS INDICATED THROUGH RACEWAY.
 3. PROVIDE NEW DATA OUTLET WITH CABLING, JACKS AND RACEWAY AS INDICATED IN SYMBOL SCHEDULE.
 4. PROVIDE DATA CONNECTION TO LIGHTING CONTROL PANEL.
 5. EXISTING DATA RACK. PROVIDE NEW 48 PORT PATCH PANEL FOR NEW CABLING.
 6. PORTIONS OF EXPOSED RACEWAY ON WALL SHALL BE WIREMOLD 700 SERIES (OR EQUIVALENT) FIELD PAINTED TO MATCH ADJACENT SURFACE. PROVIDE EXTRA DEEP DEVICE BOX (WIREMOLD V5744 SERIES OR EQUIVALENT).



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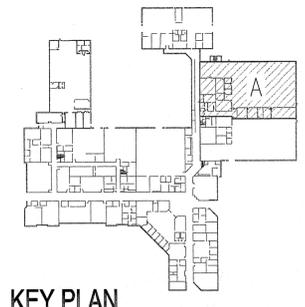
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KAYSVILLE, UTAH

TIME: 23 JUN 2009 - 1:04PM USER: RCH/EP/BS/NS/SC/UR FILE NAME: \\SERVER\G\1\06\03\04\4\REDOCS\06\06\09\18 DATC COMPONENT AND DIESEL REMODEL\02\001018A - REMODEL\01 DRAWINGS\05 ELECTRICAL\05 ET101.D LAST SAVED: 28 May 09

1 FIRST FLOOR TELECOMMUNICATIONS PLAN
Scale: 1/8"=1'-0"



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VBFA PROJECT #:	SSE:2009019a
CHECKED BY:	SDS
DRAWN BY:	DJP
CURRENT BID DATE:	06/01/09

SHEET CONTENTS
FIRST FLOOR TELECOMM. PLAN

ET101

TIME: 23 JUN 2009 - 10:41 PM USER: PW: USER: C:\HEBER\BMS\ESOURCE\ LAST SAVED: 22 MAY 09
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1 FIRST FLOOR FIRE ALARM PLAN
 Scale: 1/8"=1'-0"



SHEET KEYED NOTES

- PROVIDE DUCT DETECTORS AND FIRE ALARM SHUTDOWN FOR ROOF-TOP UNITS. INDIVIDUAL UNITS ARE <2000 CFM, BUT SHARE A COMMON SUPPLY/RETURN WITH CAPACITY >2000 CFM.

GENERAL SHEET NOTES

- INTEGRATE NEW FIRE ALARM DEVICES INTO EXISTING SYSTEM. PROVIDE ALL UPGRADES TO EXISTING FIRE ALARM SYSTEM NEEDED FOR COMPLETE SYSTEM EXPANSION. COORDINATE WITH EQUIPMENT REPS PRIOR TO BID.
- ALL FIRE ALARM CONDUITS AND BOXES TO BE IDENTIFIED AS FOLLOWS:
 - CONCEALED: FACTORY APPLIED RED.
 - EXPOSED: FIELD PAINTED TO MATCH ADJACENT SURFACE.

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KEY PLAN

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CHECKED BY:	SDS
DRAWN BY:	DJP
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SHEET CONTENTS
FIRST FLOOR FIRE ALARM PLAN

FA101

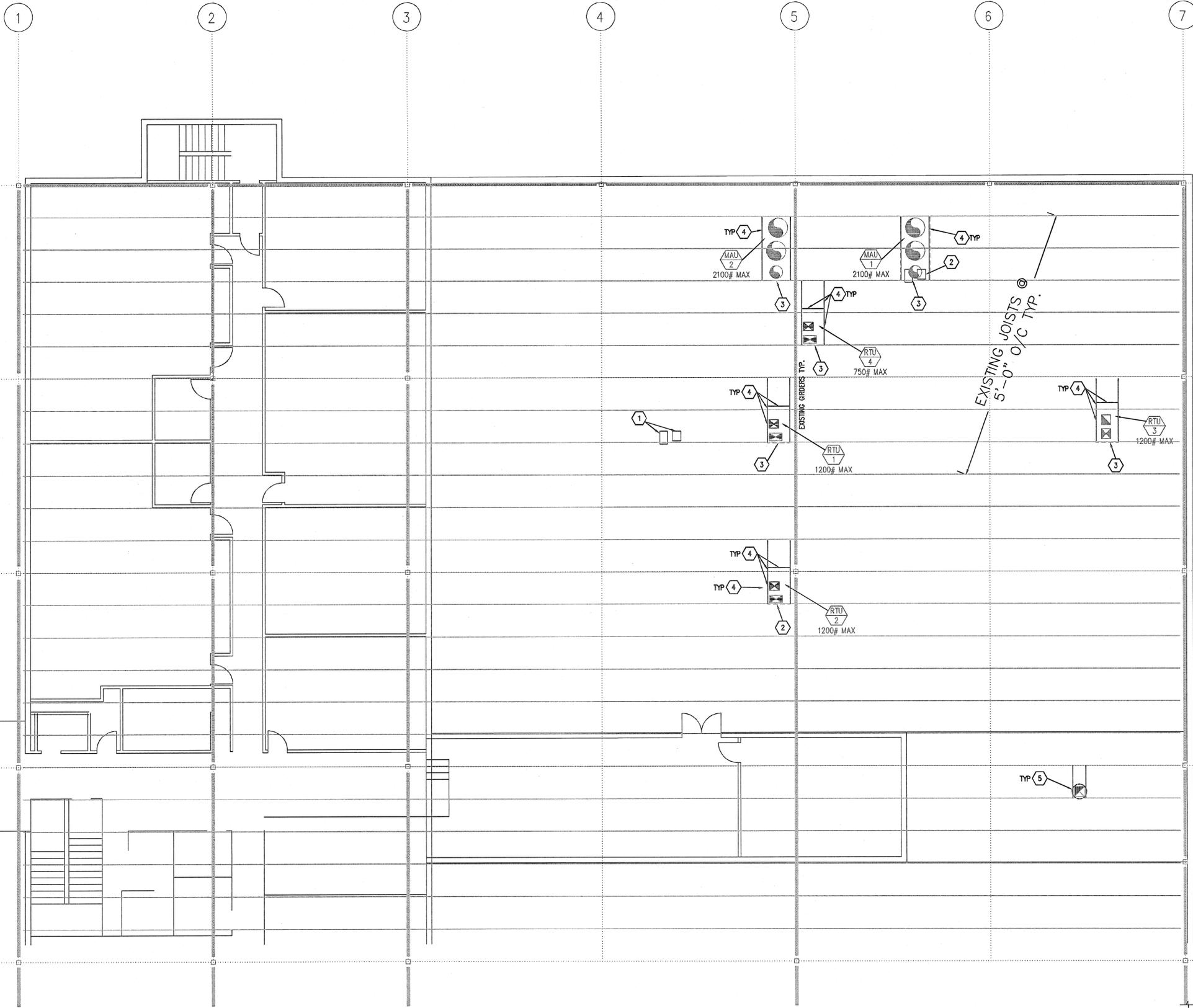
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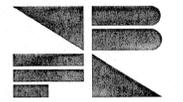
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KEYED NOTES

- ① INFILL EXISTING HOLES IN ROOF DECKING AT REMOVED UNIT LOCATIONS WITH 1-1/2" X 20 ga. TYPE "B" DECKING. FASTEN TO EXISTING ANGLE ALONG EDGES WITH #12 SELF DRILLING SCREWS @ 6" O/C. PAINT TO MATCH EXISTING. PATCH ROOF AS REQ'D. SEE MECHANICAL DRAWINGS FOR ROOF PATCHING REQUIREMENTS.
- ② INFILL EXISTING HOLES IN ROOF DECKING IF REQ'D. AT REMOVED UNIT LOCATION PER KEYED NOTE 1 ABOVE.
- ③ EDGE OF CURB FOR NEW UNIT SHALL BE ALIGNED DIRECTLY OVER CENTERLINE OF ROOF JOIST BELOW DECKING. FASTEN CURB TO DECKING PER CURB MANUFACTURER'S REQUIREMENTS.
- ④ INSTALL NEW L4X4X1/4 STEEL ANGLES BELOW ROOF DECKING, CENTERED ALONG ALL UNSUPPORTED EDGES OF NEW MECHANICAL UNIT CURB PER DETAIL 1/5102. FASTEN TO EXISTING DECKING TO NEW ANGLES WITH #12 SELF DRILLING SCREWS @ 6" O/C. PAINT TO MATCH EXISTING. PATCH ROOF AS REQ'D. SEE MECHANICAL DRAWINGS FOR ROOF PATCHING REQUIREMENTS.
- ⑤ SUPPORT EDGES OF DECKING AT NEW SMALL OPENINGS WITH ANGLE IRON PIECES PER DETAIL 2/5102. SEE MECHANICAL DRAWINGS FOR ROOF PATCHING REQUIREMENTS.



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JUN 23 2009

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COMPOSITE SHOP REMODEL
KAYSVILLE, UTAH

REVISIONS

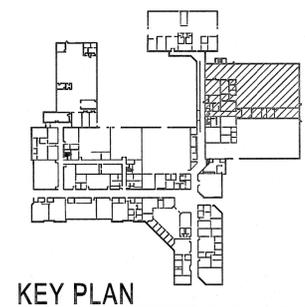
VBFA PROJECT #: 8505
CHECKED BY: RDV
DRAWN BY: JCM
CURRENT/ID DATE: 06/01/09

SHEET CONTENTS
ROOF STRUCTURAL REINFORCING PLAN

S101



S1 ROOF STRUCTURAL REINFORCING PLAN
S101 SCALE: 1/8" = 1'-0"



KEY PLAN

GENERAL STRUCTURAL NOTES

GENERAL

- Code: I.B.C 2003.
- Notes: Notes apply to all drawings unless noted otherwise.
- Design Criteria:
 - Roof Snow Load = 30 psf
 - Roof Dead Load = 21 psf + Mech units
- Coordination: Check with conditions at the job site and with all other subcontractors.
- Details: Details, sections, and notes as shown on the drawings are intended to be typical and shall apply to all similar situations elsewhere unless noted otherwise.

STRUCTURAL STEEL

- Grade: All structural steel shall conform to ASTM A992 (fy=50 ksi), latest edition. Tubes shall be ASTM A500 GR. B (fy=46 ksi). Pipes shall be A-550 GR B (fy=42 ksi). Anchor bolts shall be A307 steel with ASTM A563 heavy hex nuts and hardened washers, unless noted otherwise.
- Erection and fabrication: Reference the "American Institute of Steel Construction" specifications for erection and fabrication of steel buildings, latest edition.
- Welding:
 - Welders: All shop and field welding shall be executed by AWS certified welders.
 - Electrodes: E-70 XX. E-60 XX may be used for welding steel decks.
 - Fillet welds: Sizes not shown shall be "American Welding Society" minimum based upon the thickness of the materials being welded.
 - Butt welds: Full penetration unless noted otherwise.
 - Quality Assurance: The owner may test all welds by appropriate non-destructive procedures. Deficient welds shall be corrected and tested at no additional cost to the owner. See special inspection requirements.
- Bolted Connections: Use ASTM A325 bolts for steel to steel connections. Tighten bolts "snug tight" unless noted otherwise. Provide hardened washers beneath turned element.
- Bearing plates: Base plates and bearing plates shall be provided with full bearing after the supported members have been plumbed and properly positioned. Separate setting plates under column base plates will not be permitted. All bearing grout shall consist of a non-shrink, expansive, metallic grout.
- Openings: Provide double angles (LL 4x4x1/4) to span between joists and frame around all roof openings, unless otherwise noted on drawings.

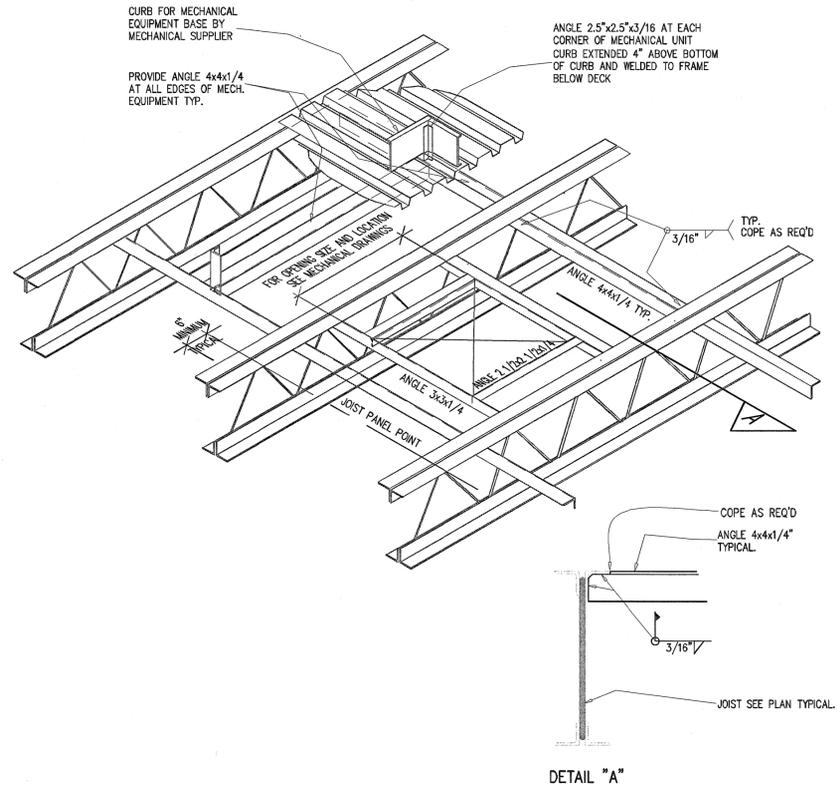
SPECIAL INSPECTIONS

The owner shall provide special inspection as required by the IBC 2003 Building Code Chapter 17. Special inspectors are to observe work for conformance with the contract documents. All discrepancies shall be brought to the attention of the contractor for correction. Inspection reports are to be provided by the special inspector to the owner, the building official, the architect, the engineer, and the contractor. Special inspector shall provide an inspection schedule for approval, prior to start of inspections. The following work requires special inspection:

- Structural steel and welding, -Per IBC Table 1704.3

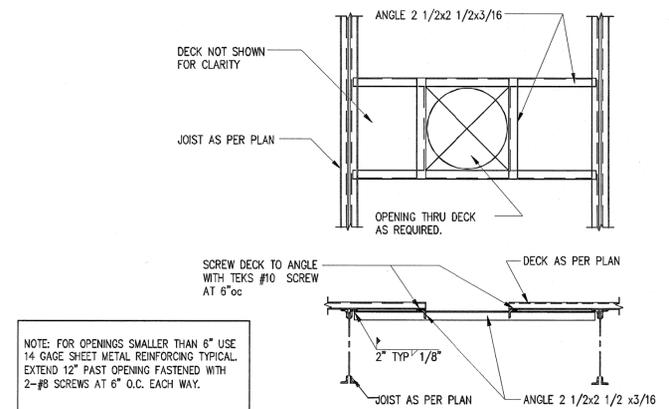
SPECIAL INSTRUCTION

- The project specifications are not superseded by the General Structural Notes but are intended to be complementary to them. Consult the specification for additional requirements in each section. Notes and details on the drawings shall take precedence over General Structural Notes and typical details.
- All omissions or conflicts between the various elements of the working drawings and/or specifications shall be brought to the attention of the Architect and Structural Engineer before proceeding with any work involved. In case of conflict, follow the most stringent requirement as directed by the Architect without additional cost to the owner.
- Notification of Engineer: The Engineer shall be notified twenty-four hours prior to:
 - Completion of structural welding
- Shoring and Bracing Requirements:
 - Roof Structures - The General Contractor is responsible for the method and sequence of all structural erection. He shall provide temporary shoring and bracing as his method of erection requires to provide adequate vertical and lateral support. Shoring and bracing shall remain in place as the chosen method requires until all permanent members are in place and all final connections are completed, including all roof attachments. The building shall not be considered stable until all connections are complete.
 - Walls above grade shall be braced until the structural system is complete. Walls shall not be considered to be self supporting.
- Submittals: A copy of all shop drawings that have been submitted for review must be kept at the construction site for reference. These drawings must bear the appropriate review stamps. The shop drawing review shall not relieve the contractor of the responsibility of completing the project according to the contract documents. The general contractor shall review and mark all shop drawings prior to submitting them to the Architect for his review. Shop Drawings made from reproductions of (these) contract drawings will be rejected.
- Project Coordination: It shall be the responsibility of the general contractor to coordinate with all trades any and all items that are to be integrated into the structural system. Openings or penetrations through, or attachments to the structural system that are not indicated on these drawings shall be the responsibility of the general contractor and shall be coordinated with the Architect/Engineers. The order of construction is the responsibility of the general contractor. It is the contractor's obligation to provide all items necessary for his chosen procedure.
- Observation visits to the site by the Engineer's field representatives shall not be construed as inspection or approval of construction.
- Contractor shall field verify all dimensions, and conditions. If the contract drawings do not represent actual conditions, contractor shall notify Architect/Engineer prior to fabrication or construction within that area.
- The structural drawings, plans, schedules, notes and details shall not be reproduced, or copied, in whole or in part by the contractor or his subcontractors for preparation of shop drawings or other submittals.



TYPICAL FRAMING AROUND MECHANICAL UNIT EDGES & OPENINGS IN METAL DECK

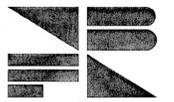
1	TYP. MECHANICAL UNIT SUPPORT
1" = 1'-0"	FROM: S101



NOTE: FOR OPENINGS SMALLER THAN 6" USE 14 GAGE SHEET METAL REINFORCING TYPICAL. EXTEND 12" PAST OPENING FASTENED WITH 2-#8 SCREWS AT 6" O.C. EACH WAY.

TYPICAL CONDITION REQUIRED AT ROOF AREA WITH LOADS OF 200# OR LESS AND AT ALL ROOF DRAINS.

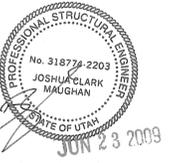
2	TYP. SMALL OPENING IN ROOF DECKING
1" = 1'-0"	FROM: S101



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SHEET CONTENTS
ROOF STRUCTURAL REINFORCING DETAILS

S102



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KAYSVILLE, UTAH

100% REVIEW - NOT FOR CONSTRUCTION

REVISIONS

SKYLINE PROJECT #:	09-
CHECKED BY:	KDC
DRAWN BY:	CMW
CURRENT/BID DATE:	05/20/09

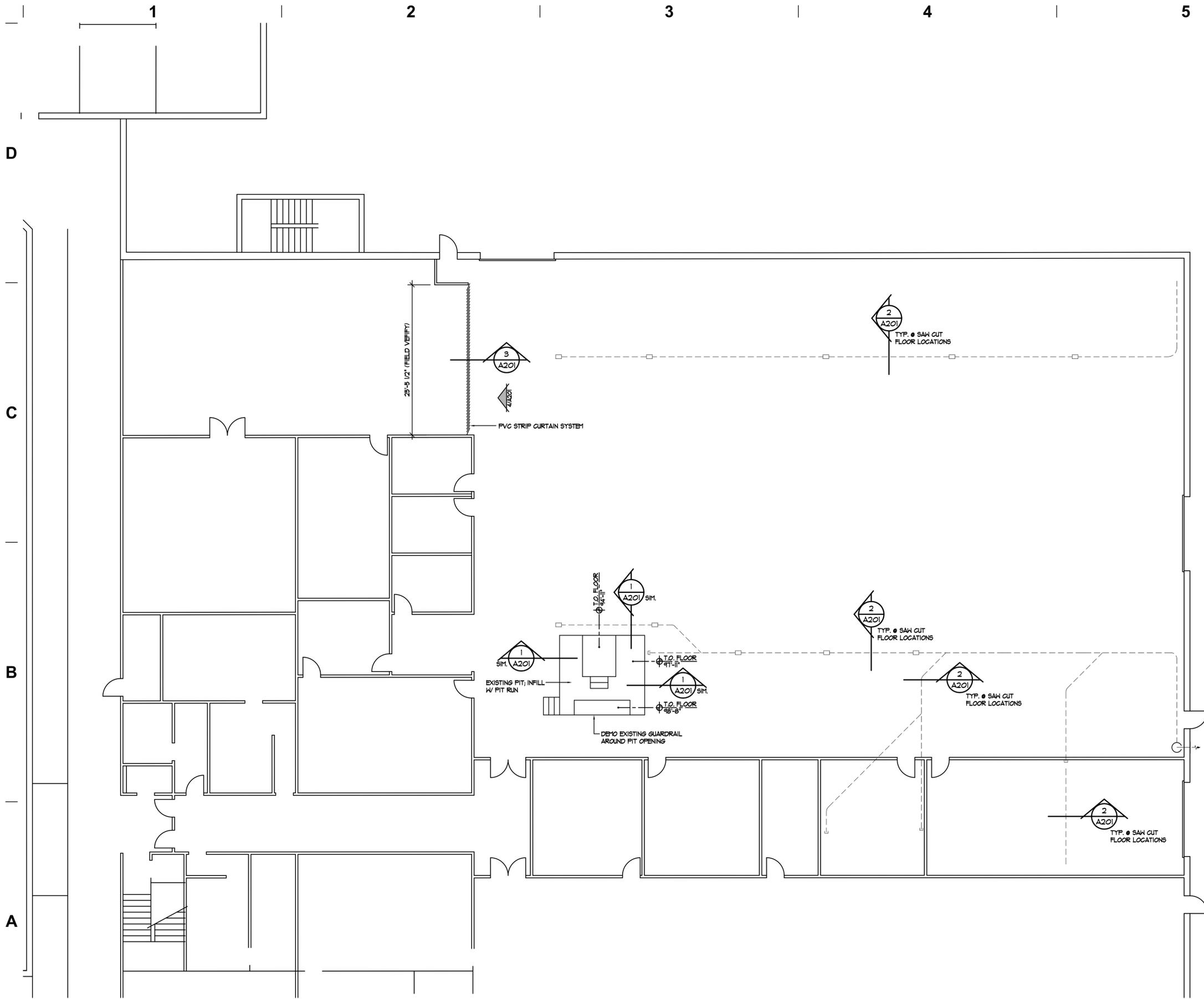
SHEET CONTENTS

FLOOR
PLAN

A101



FLOOR PLAN
SCALE: 1/8"=1'-0"



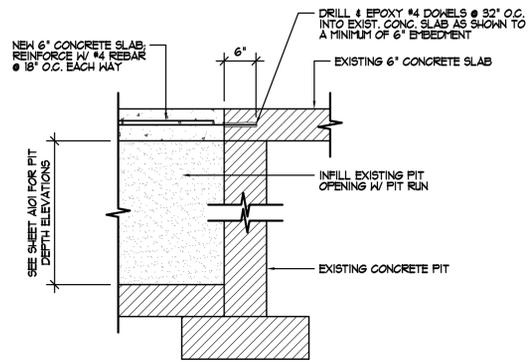
1

2

3

4

5

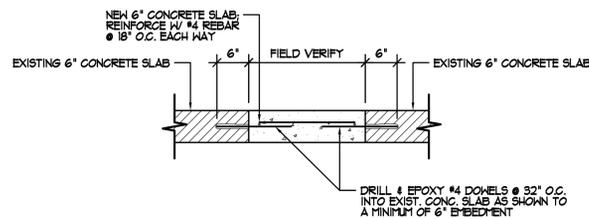


PIT DETAIL

SCALE: 3/4"=1'-0"

1

A201

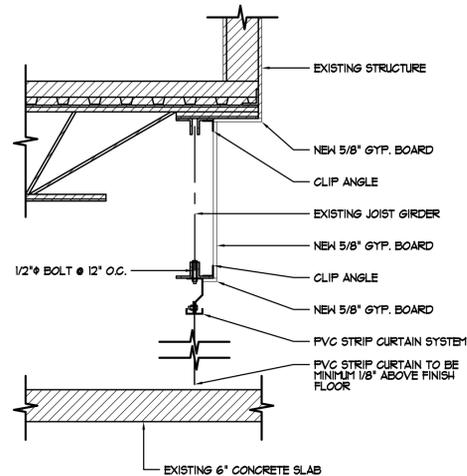


CONCRETE SLAB DETAIL

SCALE: 3/4"=1'-0"

2

A201

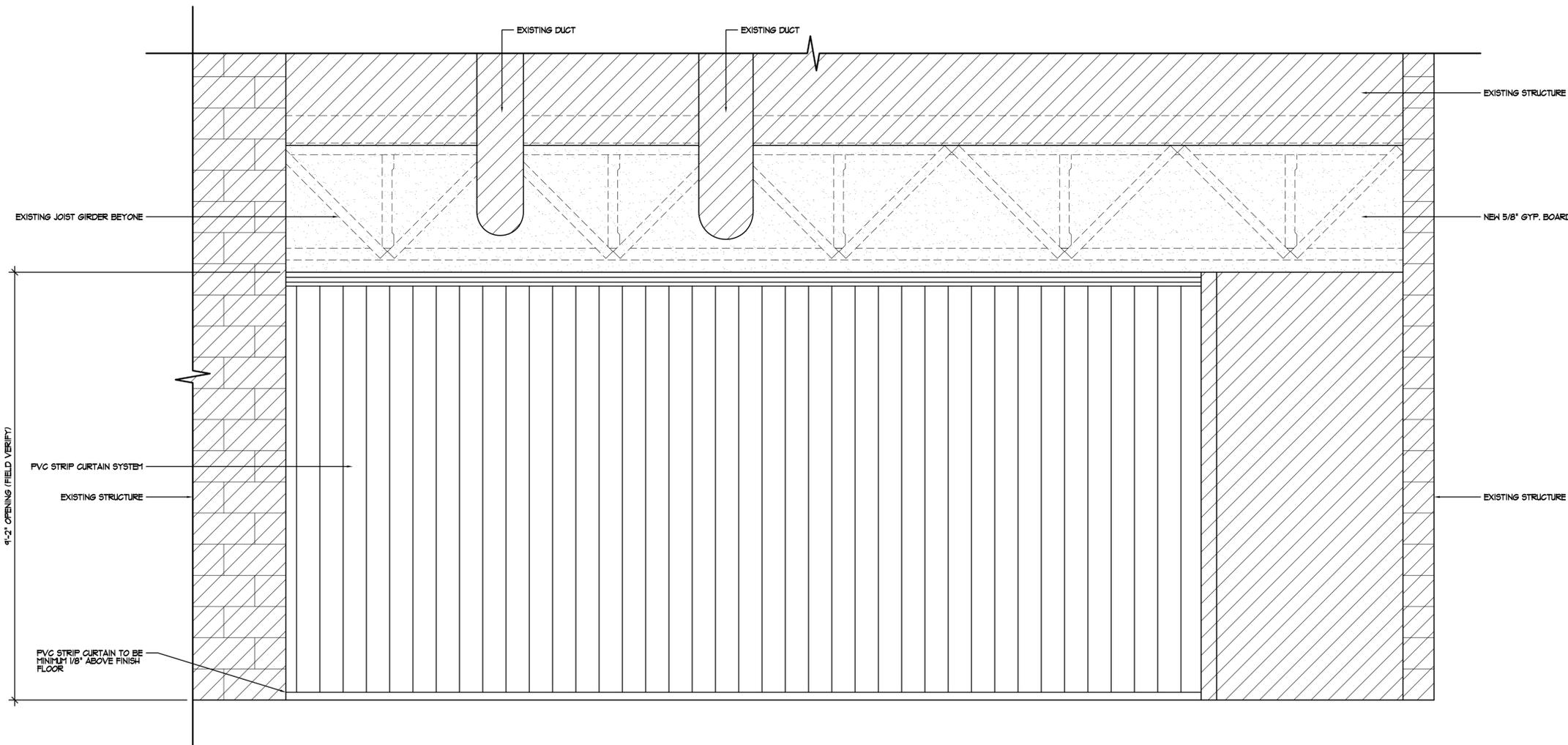


STRIP CURTAIN DETAIL

SCALE: 3/4"=1'-0"

3

A201



INTERIOR ELEVATION

SCALE: 3/4"=1'-0"

4

A201



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100% REVIEW - NOT FOR CONSTRUCTION

REVISIONS

SKYLINE PROJECT #: 09- CHECKED BY: KDC DRAWN BY: CMW CURRENT/BID DATE: 05/20/09

SHEET CONTENTS

DETAIL SHEET



A201