

UTAH VALLEY STATE COLLEGE ADMINISTRATION BUILDING REMODEL

OREM, UTAH
DFCM PROJECT NO. 08018790

State of Utah

Department of Administrative Services

Division of Facilities
Construction & Management
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PROJECT TITLE:

UTAH VALLEY UNIVERSITY
OREM, UTAH

ACADEMIC AFFAIRS
OFFICE SUITE REMODEL

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SHEET TITLE

INDEX SHEET

SHEET NUMBER

A-G1001

ABBREVIATIONS

Reference to materials or methods have been made on the drawings in accordance with the following abbreviations:

#	NUMBER	GWB.	GYPSUM WALL BOARD
'	FEET	CYP. BD.	GYPSUM WALL BOARD
"	INCHES	HC.	HANDICAPPED
&	AND	HDW.	HARDWARE
@	AT	H.M.	HOLLOW METAL
∅	DIAMETER	HORIZ.	HORIZONTAL
ADJ.	ADJUSTABLE	HR.	HOUR
AFF.	ABOVE FINISH FLOOR	HT.	HEIGHT
ALUM.	ALUMINUM	HVAC	HEATING/VENTILATION/ AIR CONDITIONING
ASTM.	AMERICAN SOCIETY FOR TESTING MATERIALS	HYD.	HYDRANT
ATS.	AUTOMATIC TRANSFER	I.D.	INSIDE DIAMETER
		INFO.	INFORMATION
BD.	BOARD	INSUL.	INSULATION
BITUM.	BITUMINOUS	LAV.	LAVATORY
BLDG.	BUILDING	LT.	LIGHT
B.M.	BENCHMARK	MATL.	MATERIAL
B.O.	BOTTOM OF	MAX.	MAXIMUM
BRC.	BEARING	MECH.	MECHANICAL
BTWN.	BETWEEN	MFR.	MANUFACTURER
CER.	CERAMIC	MIN.	MINIMUM
CJ.	CONSTRUCTION JOINT	MISC.	MISCELLANEOUS
CLG.	CEILING	M.O.	MASONRY OPENING
CLR.	CLEAR	MTL.	METAL
CMU.	CONCRETE MASONRY UNIT	NIC.	NOT IN CONTRACT
COL.	COLUMN	NO.	NUMBER
CONC.	CONCRETE	N.T.S.	NOT TO SCALE
CONT.	CONTINUOUS	O.C.	ON CENTER
CONST.	CONSTRUCTION	O.D.	OUTSIDE DIAMETER
COORD.	COORDINATE	O.H.	OVERHEAD
CTJ.	CONTRACTION JOINT	OPP.	OPPOSITE
DBL.	DOUBLE	PART.	PARTITION
DPW.	DIRECTOR OF PUBLIC WORKS	PERP.	PERPENDICULAR
DIA.	DIAMETER	PL.	PLATE
DPG.	DUGWAY PROVING GROUND	PNTD.	PAINTED
DTL.	DETAIL	PSI	POUNDS PER SQUARE INCH
DWGS.	DRAWINGS	R.D.	ROOF DRAIN
E.A.	EACH	RAD.	RADIUS
EJ.	EXPANSION JOINT	REINF.	REINFORCED
ELEV.	ELEVATION	REQ'D	REQUIRED
EQ.	EQUAL	RET.	RETURN
E.S.	EACH SIDE	REV.	REVERSED
EXIST.	EXISTING	RM.	ROOM
EXPAN.	EXPANSION	R.O.	ROUGH OPENING
EXT.	EXTERIOR	SCHED.	SCHEDULE
E.W.C.	ELECTRIC WATER COOLER	SHR.	SHOWER
F.D.	FLOOR DRAIN	SHT.	SHEET
FDN.	FOUNDATION	SIM.	SIMILAR
F.E.	FIRE EXTINGUISHER	SPEC.	SPECIFICATION
F.E.C.	FIRE EXTINGUISHER CABINET	STD.	STANDARD
F.F.	FINISH FLOOR	STR.	STRUCTURAL
FIN.	FINISH	SUSP.	SUSPENDED
FLR.	FLOOR	THRU.	THROUGH
F.L.	FLOW LINE	T.O.	TOP OF
FTG.	FOOTING	T.O.A.	TOP OF ASPHALT
GA.	GAGE	T.O.C.	TOP OF CURB
GALV.	GALVANIZED	T.O.F.	TOP OF FOOTING
GF-CI	GOVERNMENT FURNISHED CONTRACTOR INSTALLED	T.O.S.	TOP OF SLAB OR SIDEWALK
GF-GI	GOVERNMENT FURNISHED	T.O.W.	TOP OF WALL
		TYP.	TYPICAL
		VERT.	VERTICAL
GI.	GALVANIZED STEEL	VEST.	VESTIBULE
GND.	GROUND	WTH.	WITH
GOVT.	GOVERNMENT	WD.	WOOD

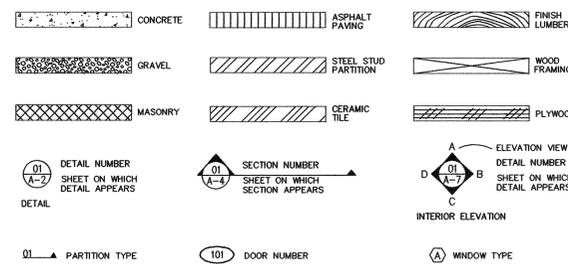
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GRAPHIC KEY



DFCM DESIGN AND CODE CRITERIA

APPLICABLE CODES			
	Year	Year	
International Building Code	2006	National Electrical Code	2005
International Mechanical Code	2006	Uniform Code for Building Conservation	N/A
International Fire Code	2006	ADA Accessibility Guidelines	ANSI A117.1
International Energy Conservation Code	N/A		

A. Occupancy and Group: B
Change in Use: Yes NO Mixed Occupancy: Yes NO No X
Special Use and Occupancy (e.g. High Rise, Covered Mall): NO
B. Seismic Design Category: N/A Design Wind Speed: N/A mph
C. Type of Construction (circle one):
I II III IV V
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: N/A South: N/A East: N/A West: N/A
E. Mixed Occupancies: NO Nonseparated Uses: NO
F. Sprinklers:
Required: NO Provided: YES Type of Sprinkler System: WET PIPE
G. Number of Stories: 2 Building Height: N/A
H. Actual Area per Floor (square feet): 27,002 SQ. FT.
I. Tabular Area: UNLIMITED

J. Area Modifications:
 $A_a = A_1 + \left[\frac{A_1 I_1}{100} + \frac{A_1 I_2}{100} \right]$ $I_1 = 100 \left[\frac{F}{P} - 0.25 \right] \frac{W}{30}$

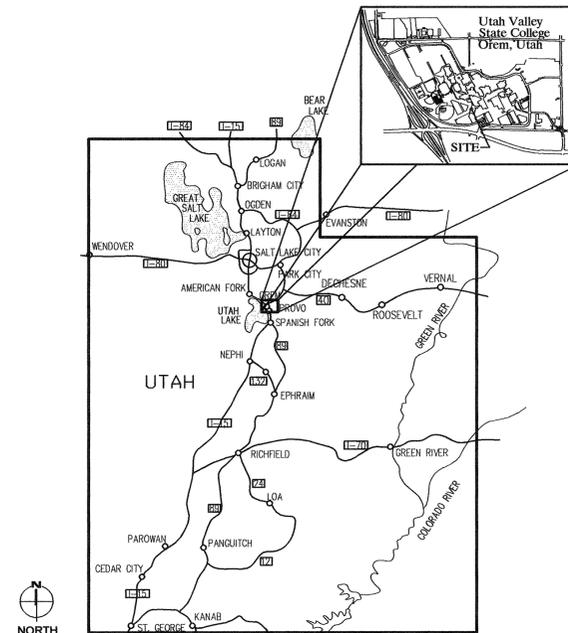
b) Sum of the Ratio Calculations for Mixed Occupancies:
Actual Area \leq Allowable Area
c) Total Allowable Area for:
1) One Story: NO
2) Two Story: $A_a(2)$ NO
3) Three Story: $A_a(3)$ NO
d) Unlimited Area Building: Yes NO No X Code Section: N/A

K. Fire Resistance Rating Requirements for Building Elements (hours).					
Element	Hours	Assembly Listing	Element	Hours	Assembly Listing
Exterior Bearing Walls	0	—	Floors - Ceiling Floors	0	—
Interior Bearing Walls	0	—	Floors - Ceiling Roofs	0	—
Exterior Non-Bearing Walls	0	—	Exterior Doors and Windows	0	—
Structural Frame	0	—	Shaft Enclosures	N/A	—
Partitions - Permanent	0	—	Fire Walls	0	—
Fire Barriers	0	—	Fire Partitions	0	—
			Smoke Partitions	0	—

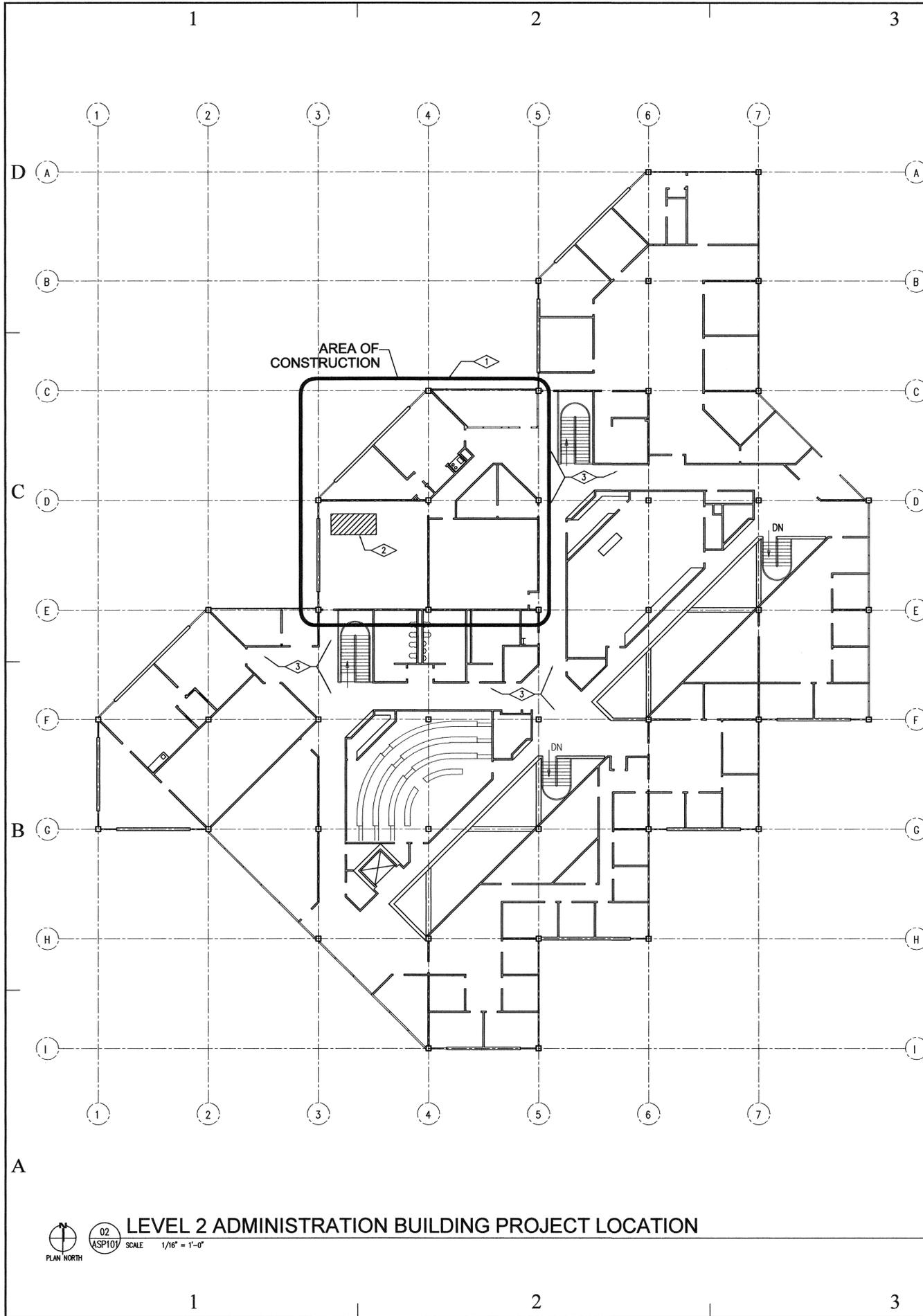
L. Design Occupant Load: XX
Exit Width Required: XX Exit Width Provided: XX
M. Minimum Number of Required Plumbing Facilities:
a) Water Closets - Required (m) XX (f) XX Provided (m) X (f) X
b) Lavatories - Required (m) XX (f) XX Provided (m) X (f) X
c) Bath Tubs or Showers: XX
d) Drinking Fountains: XX Service Sinks: XX

FOOTNOTES:
1) In case of conflict with the U.S. Department of Justice Federal Registers Parts 1 through 16 - 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) Alarms.
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.

VICINITY MAP



NOT TO SCALE



LEGEND

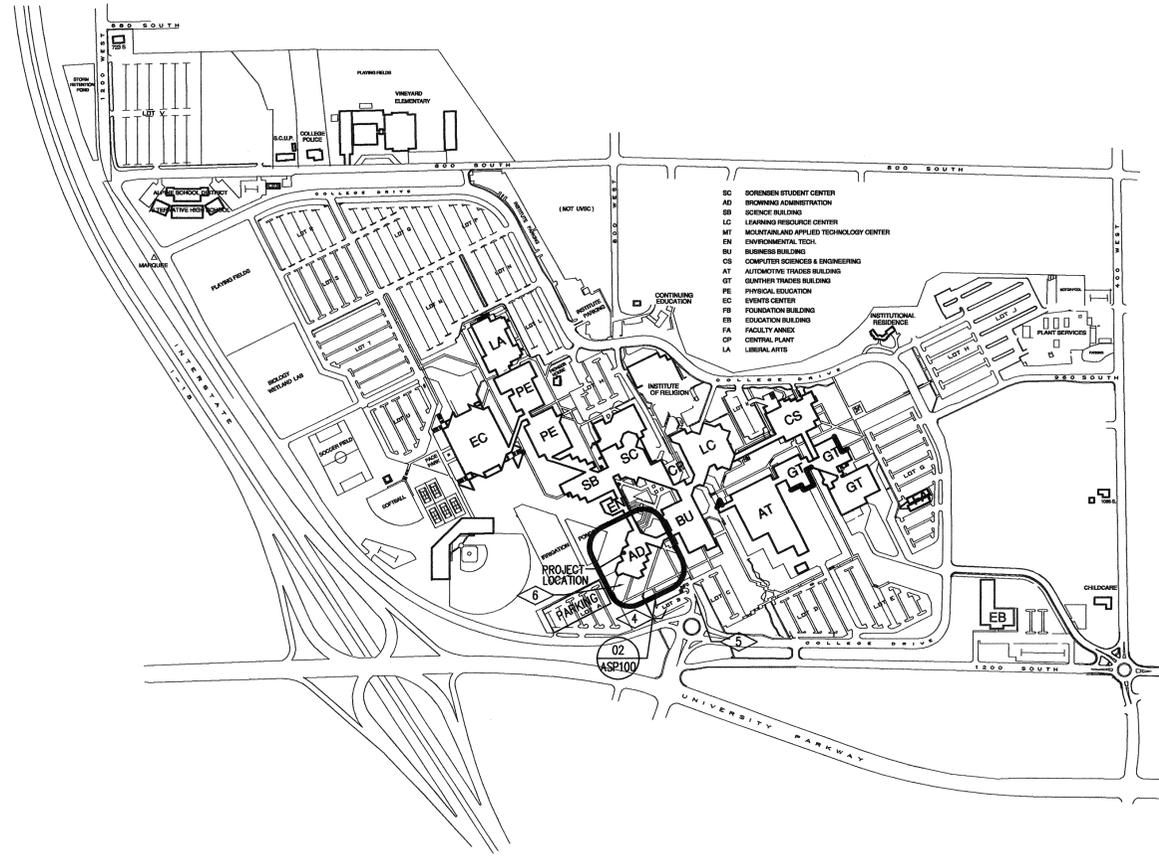
- CONTRACTOR STAGING AREA
- CONTRACTOR PARKING AREA
- CONTRACTORS DUMPSTER LOCATION
- PROJECT LOCATION

GENERAL NOTES

1. GENERAL CONTRACTOR IS RESPONSIBLE FOR REPLACEMENT OF ANY SIDEWALK, CURB & GUTTER, ASPHALT, LANDSCAPING ETC. DISTURBED OR DESTROYED DURING CONSTRUCTION.
2. CONTRACTOR SHALL MAINTAIN EMERGENCY AND UTILITY VEHICLE ACCESS AT ALL TIMES TO ALL EXISTING BUILDINGS AND BUILDING ENTRANCES
3. GENERAL CONTRACTOR SHALL VERIFY ALL EXISTING SITE AND PROJECT CONDITIONS PRIOR TO BIDDING.
4. GENERAL CONTRACTOR SHALL PROTECT EXISTING BUILDING FROM DAMAGE DURING CONSTRUCTION.
5. EXISTING DRIVE APPROACHES TO REMAIN CLEAR AT ALL TIMES
6. ALL EXISTING SIDEWALKS TO REMAIN CLEAR AT ALL TIMES
7. ALL EXISTING CONCRETE AND ASPHALT PATHWAYS TO REMAIN OPEN TO PEDESTRIANS AND VEHICLES AT ALL TIMES DURING CONSTRUCTION

REFERENCE NOTES

- PROJECT LOCATION
- GENERAL CONTRACTORS STAGING AREA
- EXISTING CORRIDORS TO REMAIN OPEN TO PEDESTRIANS AT ALL TIMES DURING CONSTRUCTION
- GENERAL CONTRACTORS PARKING AREA
- EXISTING DRIVE APPROACHES TO REMAIN CLEAR AT ALL TIMES
- EXISTING SIDEWALKS TO REMAIN CLEAR AT ALL TIMES



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SHEET TITLE

SITE PLAN AND PROJECT LOCATION

SHEET NUMBER

A-SP100

LEVEL 2 ADMINISTRATION BUILDING PROJECT LOCATION
 SCALE 1/16" = 1'-0"

Utah Valley State College Orem, Utah **CAMPUS PLAN AND PROJECT LOCATION**
 SCALE N.T.S.

1 REFERENCE NOTES

- 1 EXISTING LIGHT FIXTURES TO BE REMOVED AND RETURNED TO UVSC WAREHOUSE. UVSC WAREHOUSE CONTACT PHONE NUMBER IS 863-7284
- 2 EXISTING CEILING EXPOSED TO STRUCTURE ABOVE

2 LEGEND

- ER—EXISTING EXIT SIGN TO BE REMOVED AND RELOCATED AS PER NEW CEILING PLAN, SEE ELECTRICAL DRAWINGS
 - SD—EXISTING SMOKE DETECTOR LOCATION. RELOCATE AS PER ELECTRICAL DRAWINGS.
 - FS—EXISTING FIRE SPRINKLER HEAD LOCATION. SEE PLUMBING PERFORMANCE SPECIFICATION FOR NEW HEAD LOCATION REQUIREMENTS.
- HATCH PATTERN IN AREAS OF CEILING PLAN INDICATES EXISTING LAY-IN CEILING TILES, LIGHT FIXTURES, CEILING DIFFUSERS AND CEILING GRID SYSTEM TO BE REMOVED. SEE MECHANICAL AND ELECTRICAL DEMOLITION AND NEW PLANS FOR ADDITIONAL INFORMATION.

3 GENERAL NOTES

- 1. FIRE SPRINKLER CONTRACTOR TO SUBMIT COVERAGE AND SPRINKLER HEAD LOCATION DRAWINGS TO ARCHITECT, UVU PROJECT MANAGER AND DFCM PROJECT MANAGER PRIOR TO RELOCATING FIRE SPRINKLER HEADS.

4 REFERENCE NOTES

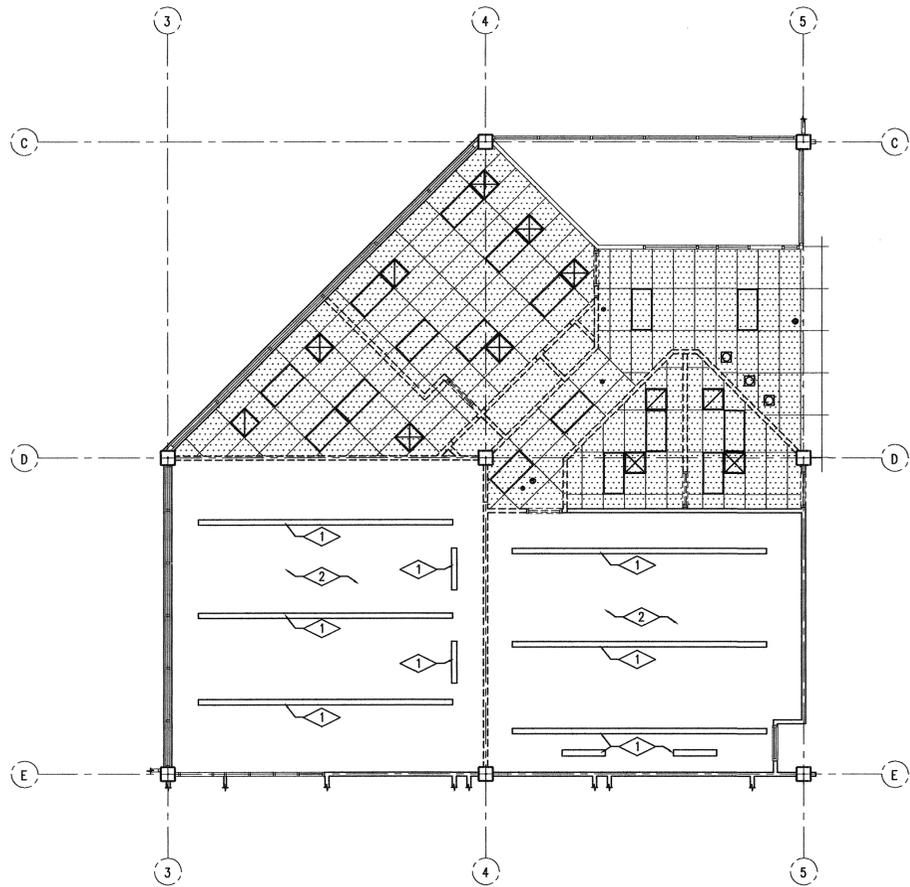
- 1 EXISTING CARPET AND WOOD FLOOR BASE TO BE REMOVED. REMOVE EXISTING CARPET GLUE AND PREP FLOOR AS REQUIRED FOR NEW FLOORING INSTALLATION.
- 2 EXISTING CORRIDOR TO REMAIN CLEAR AT ALL TIMES
- 3 EXISTING WALL TO REMAIN.
- 4 EXISTING FREE STANDING KITCHEN UNIT TO BE REMOVED AND RETURNED TO UVU WAREHOUSE. UVU WAREHOUSE CONTACT PHONE NUMBER IS 863-7284
- 5 EXISTING WHITE BOARDS TO BE REMOVED AND RETURNED TO UVU.
- 6 AFTER REMOVAL OF EXISTING FLOORING, BASE AND CEILING SYSTEMS, GENERAL CONTRACTOR SHALL CLEAN EXISTING COLUMNS TO SHOW NO SIGN OF PREVIOUS WALLS, GLUE AND CONSTRUCTION
- 7 EXISTING SURFACE MOUNTED WIRE MOLDING TO BE PAINTED IN THIS OFFICE. PLUG MOLDING SHALL BE PAINTED TO MATCH EXISTING WINDOW SYSTEM
- 8 EXISTING DOOR TO BE REMOVED. EXISTING FRAME TO REMAIN.

5 LEGEND

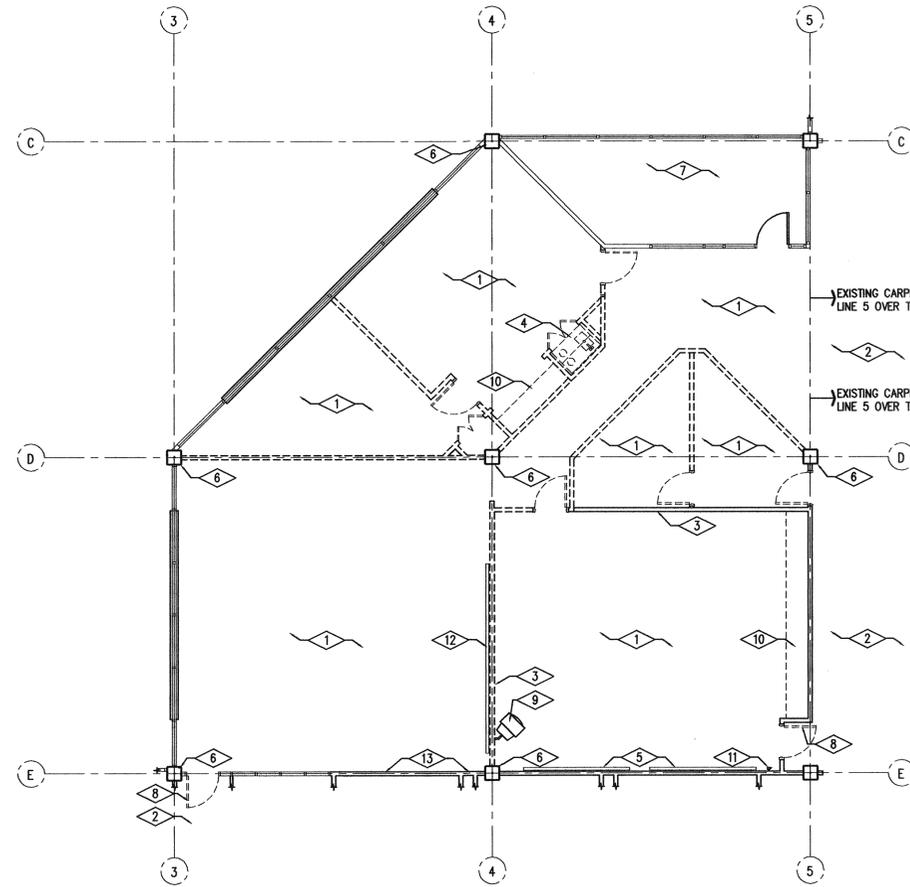
- DASHED DOOR LINES INDICATE EXISTING DOOR, DOOR FRAME AND DOOR HARDWARE TO BE REMOVED AND RETURNED TO UVU WAREHOUSE.
- DASHED LINES INDICATE EXISTING WALLS TO BE REMOVED.

GENERAL NOTES

- 1. GENERAL CONTRACTOR SHALL REPLACE AND REPAIR ALL CONCRETE FLOORING DAMAGED DURING THE DEMOLITION AND CONSTRUCTION.
- 2. SEE ELECTRICAL & MECHANICAL DEMOLITION DRAWINGS & NOTES.
- 3. IN AREAS OF CONSTRUCTION WHERE WALLS ARE TO REMAIN, GENERAL CONTRACTOR SHALL PATCH AND REPAIR WALL SURFACE TO RECEIVE NEW FINISH AS PER FINISH SCHEDULE.
- 4. GENERAL CONTRACTOR SHALL PROVIDE A 6 MIL POLYETHYLENE DUST BARRIER FROM FLOOR TO CEILING ABOVE AND SHALL BE SEALED AIR TIGHT IN ALL PHASED AREA OF CONSTRUCTION



02 ADP100 SCALE 1/8" = 1'-0" DEMOLITION CEILING PLAN



01 ADP100 SCALE 1/8" = 1'-0" DEMOLITION FLOOR PLAN



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architecture planning design

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DEMOLITION FLOOR
AND
CEILING PLANS

SHEET NUMBER

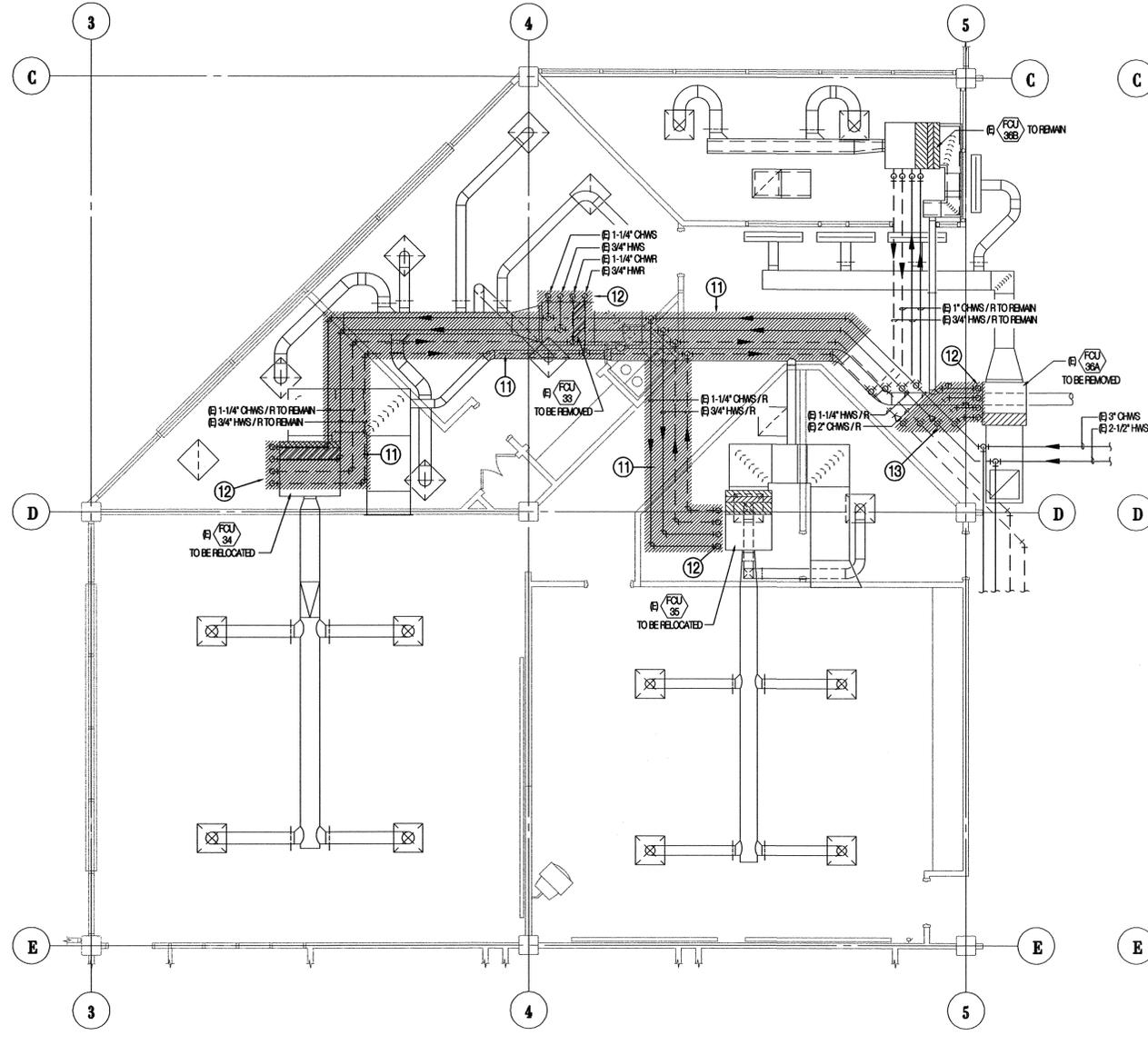
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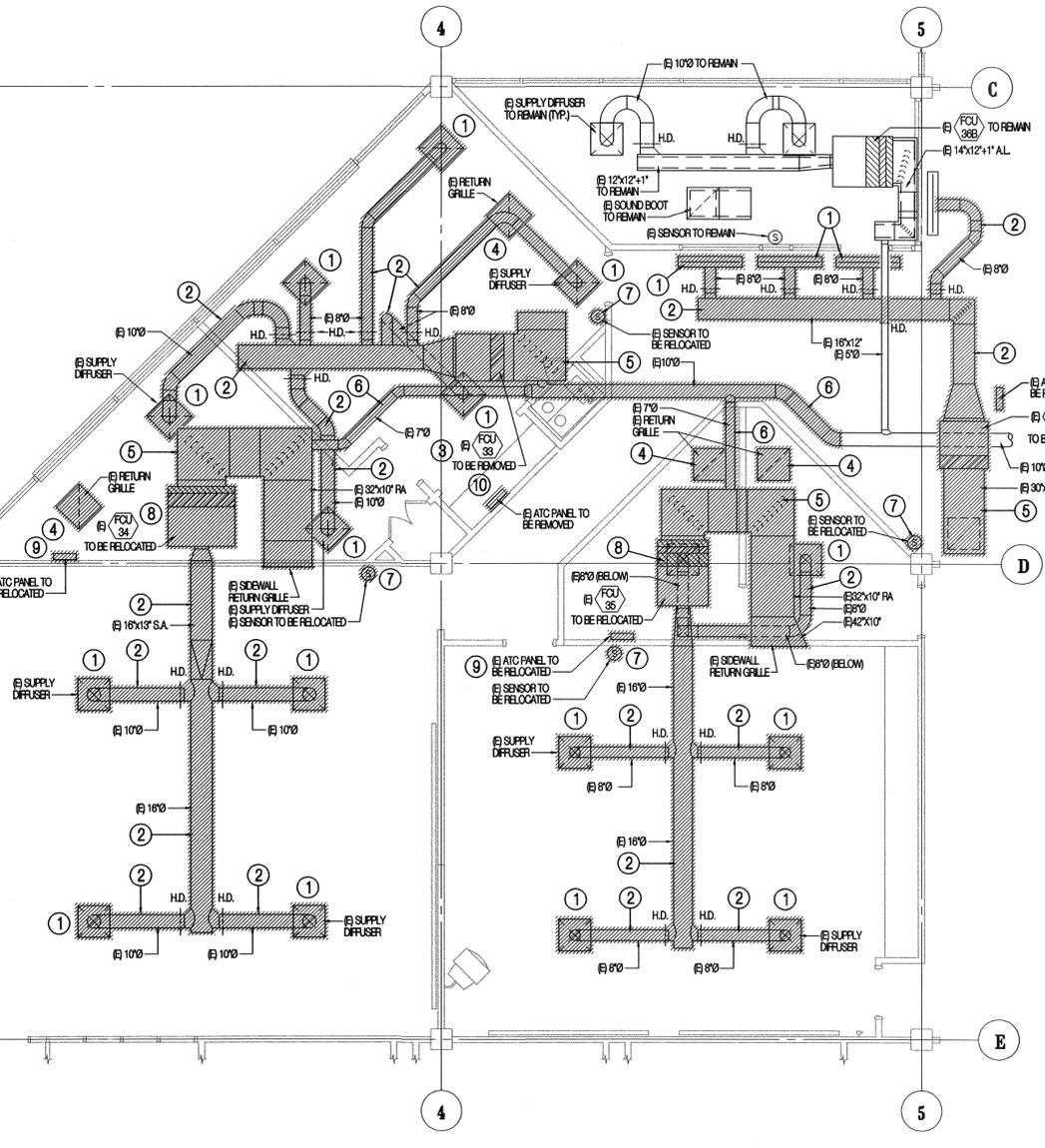
ACADEMIC AFFAIRS
OFFICE SUITE REMODEL

MARK	DATE	DESCRIPTION
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ISSUE DATE: MARCH 31st 2008		
DFCM PROJECT NO: 080187D		
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DRAWN BY: STAFF		
CHK'D BY: N. CUNNING		
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SHEET TITLE		
HVAC AND MECH. PIPING DEMO. PLANS		
SHEET NUMBER		
M-DP000		



MECHANICAL PIPING DEMOLITION PLAN

SCALE 3/16" = 1"



HVAC DEMOLITION PLAN

SCALE 3/16" = 1"



DRAWING NOTES CONT.

- 8 REMOVE EXISTING FAN COIL UNIT COMPLETE AND RETAIN FOR REINSTALLATION. REMOVAL SHALL INCLUDE FAN COIL UNIT, SUPPORT DEVICES, AND ASSOCIATED ACCESSORIES. SEE HVAC REMODEL PLAN SHEET M-H-P100 FOR FAN COIL UNIT REINSTALLATION LOCATION.
- 9 REMOVE EXISTING ATC PANEL AND RETAIN FOR REINSTALLATION. SEE HVAC REMODEL PLAN SHEET M-H-P100 FOR REINSTALLATION LOCATION.
- 10 REMOVE EXISTING ATC PANEL AND RETURN TO OWNER PREPARATORY TO NEW WORK.
- 11 REMOVE PORTIONS OF EXISTING CHILLED AND HEATING WATER SUPPLY AND RETURN PIPING PREPARATORY TO NEW WORK. REMOVAL TO INCLUDE ALL PIPING AND ASSOCIATED SUPPORTS AND ANCHORS.
- 12 REMOVE EXISTING CONTROL VALVES, STRAINERS AND PIPING ACCESSORIES AT EXISTING FAN COIL CONNECTION PREPARATORY TO NEW WORK.
- 13 REMOVE PORTIONS OF EXISTING CHILLED AND HEATING WATER SUPPLY AND RETURN PIPING PREPARATORY TO NEW WORK. REMOVE PIPING BACK TO MAINS AND CAP OR FLUG EXISTING MAINS PREPARATORY TO NEW WORK.

DRAWING NOTES

- 1 REMOVE EXISTING SUPPLY DIFFUSER PREPARATORY TO NEW WORK.
- 2 REMOVE EXISTING SUPPLY DUCTWORK PREPARATORY TO NEW WORK.
- 3 REMOVE EXISTING FAN COIL UNIT COMPLETE PREPARATORY TO NEW WORK. REMOVAL TO INCLUDE FAN COIL UNIT, AND ALL ASSOCIATED CONTROLS AND ACCESSORIES. RETURN CONTROL PANELS TO OWNER FOR SPARE PARTS OR REINSTALLATION IN OTHER PARTS OF THE BUILDING.
- 4 REMOVE EXISTING RETURN AIR GRILLE PREPARATORY TO NEW WORK.
- 5 REMOVE EXISTING RETURN AIR DUCTWORK PREPARATORY TO NEW WORK.
- 6 REMOVE PORTIONS OF EXISTING OUTSIDE AIR DUCTWORK PREPARATORY TO NEW WORK.
- 7 REMOVE EXISTING TEMPERATURE CONTROL SENSOR AND RETAIN FOR REINSTALLATION. SEE HVAC REMODEL PLAN SHEET M-H-P100 FOR REINSTALLATION LOCATION.



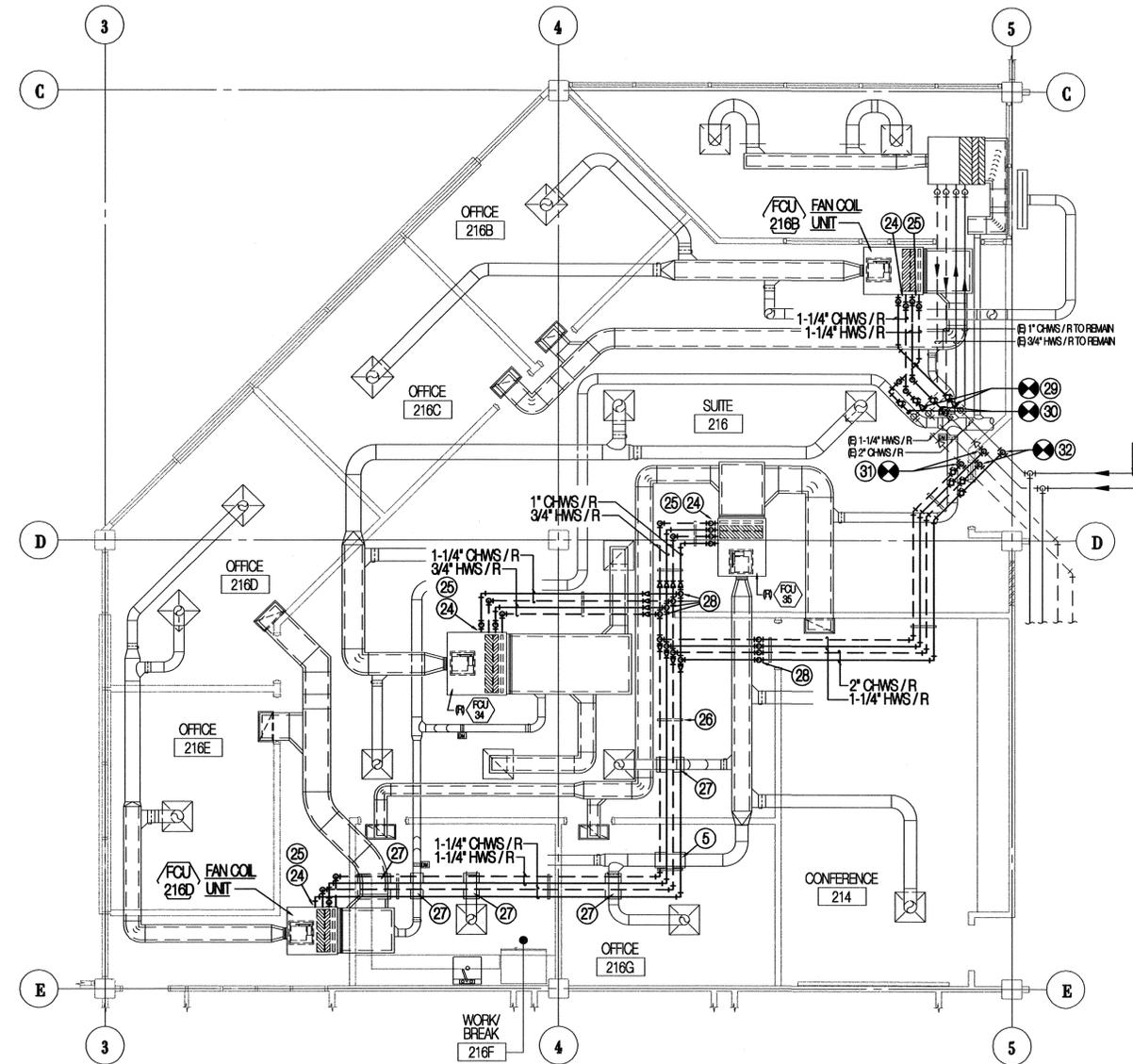
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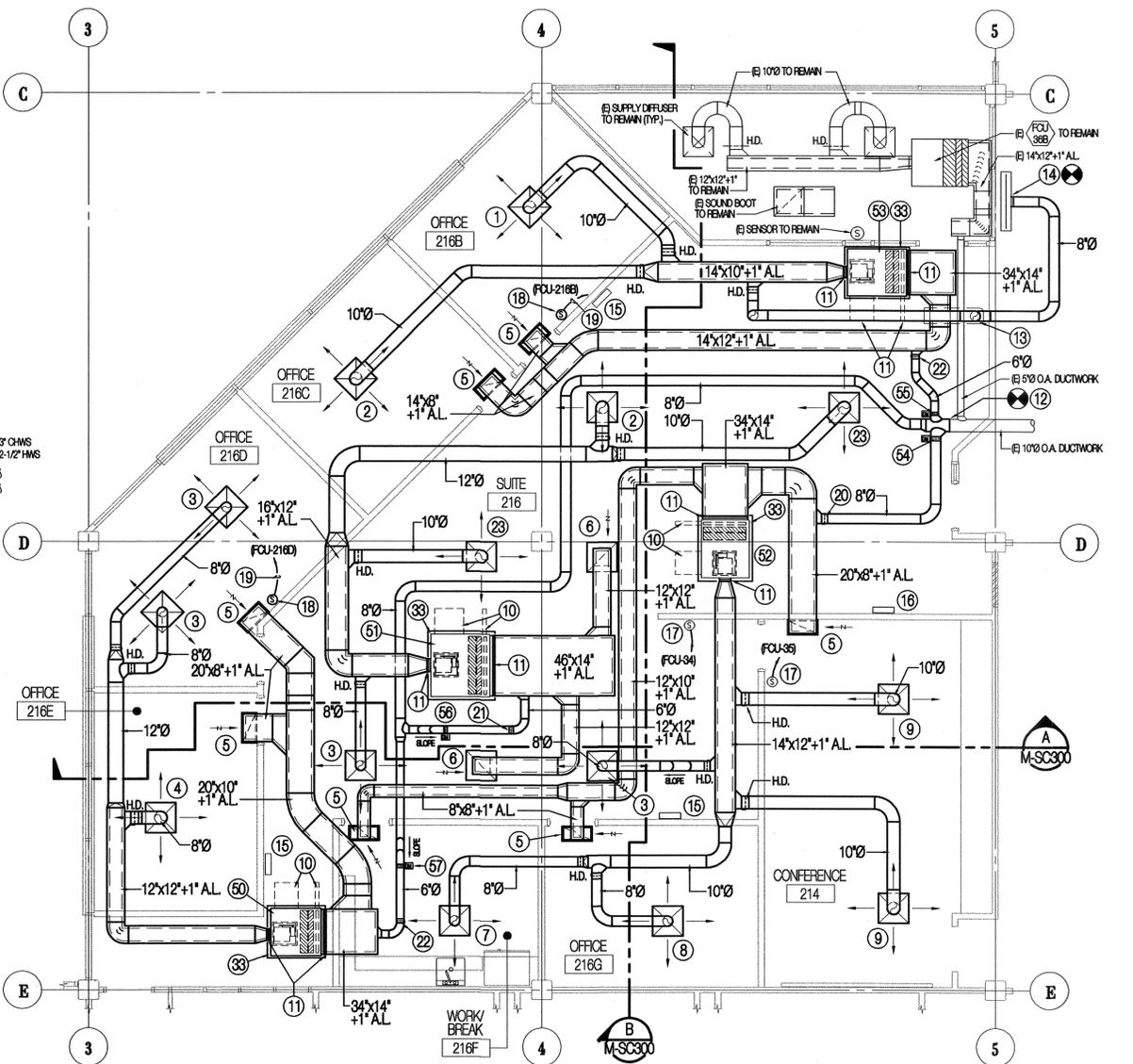
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HVAC AND MECH. PIPING REMODEL PLANS		
SHEET NUMBER		
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MECHANICAL PIPING REMODEL PLAN
SCALE 3/16" = 1"



HVAC REMODEL PLAN
SCALE 3/16" = 1"

EQUIPMENT NOTES

- (50) FAN COIL UNIT 216D
- (51) FAN COIL UNIT 216C
- (52) FAN COIL UNIT 216E
- (53) FAN COIL UNIT 216B
- (54) CONTROL DAMPER 1
- (55) CONTROL DAMPER 2
- (56) CONTROL DAMPER 3
- (57) CONTROL DAMPER 4

DRAWING NOTES CONT.

- (31) CONNECT NEW 1-1/4" HEATING WATER SUPPLY AND RETURN PIPING TO EXISTING MAIN WITH NEW BRANCH SHUTOFF VALVES. EXTEND NEW 1-1/4" HEATING WATER SUPPLY AND RETURN BRANCH PIPING TO NEW AND RELOCATED FAN COIL UNITS AS INDICATED.
- (32) CONNECT NEW 2" CHILLED WATER SUPPLY AND RETURN PIPING TO EXISTING MAIN WITH NEW BRANCH SHUTOFF VALVES. EXTEND NEW 2" CHILLED WATER SUPPLY AND RETURN BRANCH PIPING TO NEW AND RELOCATED FAN COIL UNITS AS INDICATED.
- (33) SECONDARY DRAIN PAN BELOW FAN COIL UNIT, SEE DETAIL 5M-DT500 FOR ADDITIONAL INFORMATION.

GENERAL NOTES

1. ALL NEW AND RELOCATED FAN COIL UNITS ARE TO BE MOUNTED TIGHT TO STRUCTURE AND AS HIGH AS POSSIBLE SUCH THAT NEW CHILLED, HEATING AND DRAIN WATER PIPING CAN BE RUN BENEATH FAN COIL UNITS AND ASSOCIATED DUCTWORK.

DRAWING NOTES CONT.

- (22) ADJUST 6" MANUAL OUTSIDE AIR DAMPER TO 40 CFM.
- (23) S-1 325 CFM, 10" NK. S.A. DIFFUSER.
- (24) CHILLED WATER SUPPLY AND RETURN PIPING CONNECTION AT FAN COIL UNIT CHILLED WATER COIL, SEE DETAILS 4 AND 6M-DT500 FOR ADDITIONAL INFORMATION.
- (25) HEATING WATER SUPPLY AND RETURN PIPING CONNECTION AT FAN COIL UNIT HEATING WATER COIL, SEE DETAILS 4 AND 6M-DT500 FOR ADDITIONAL INFORMATION.
- (26) PIPE SUPPORT, TYPICAL. SEE DETAIL 3M-DT500 FOR SUPPORT REQUIREMENTS.
- (27) CHILLED AND HEATING WATER SUPPLY AND RETURN PIPING TO BE EXTENDED BELOW DUCTWORK IN THIS LOCATION.
- (28) RISE CHILLED AND HEATING WATER SUPPLY AND RETURN PIPING OVER DUCTWORK IN THIS LOCATION. PROVIDE AND INSTALL MANUAL AIR BLEEDS PER DETAIL 7M-DT500 AT ALL PIPING HIGH POINTS.
- (29) CONNECT NEW 1-1/4" HEATING WATER SUPPLY AND RETURN PIPING TO EXISTING AND EXTEND TO NEW FAN COIL UNIT PROVIDING BRANCH SHUTOFF VALVES AT CONNECTION TO MAIN.
- (30) CONNECT NEW 2" CHILLED WATER SUPPLY AND RETURN PIPING TO EXISTING AND REDUCE TO 1-1/4" AS INDICATED. EXTEND NEW 1-1/4" CHILLED WATER SUPPLY AND RETURN PIPING TO NEW FAN COIL UNIT PROVIDING BRANCH SHUTOFF VALVES AT CONNECTION TO MAIN.

DRAWING NOTES CONT.

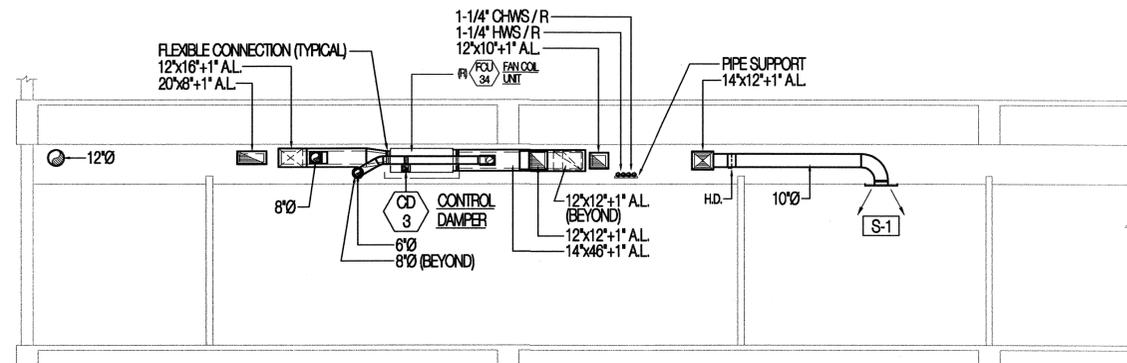
- (14) CONNECT NEW SUPPLY AIR DUCTWORK TO EXISTING DIFFUSER WITH FLEXIBLE CONNECTION PER DETAIL 6M-SH000 AND REBALANCE DIFFUSER TO 200 CFM.
- (15) PROVIDE AND INSTALL NEW ATC PANEL ABOVE CEILING TO SERVE NEW FAN COIL UNIT. SEE CONTROL DRAWINGS SHEET M-SC300 FOR ADDITIONAL INFORMATION.
- (16) RELOCATE EXISTING ATC PANEL TO NEW LOCATION ABOVE CEILING CONTROL CONTRACTOR TO RELOCATE AND REANCHOR EXISTING PANEL, RECONNECT EXISTING FAN COIL UNIT RELAYS, CONTROL VALVES AND ACCESSORIES AND VERIFY CORRECT OPERATION OF RELOCATED FAN COIL UNIT AND ATC PANEL. SEE CONTROL DRAWINGS SHEET M-SC300 FOR ADDITIONAL INFORMATION.
- (17) RELOCATE EXISTING TEMPERATURE SENSOR TO NEW LOCATION. MOUNT SENSOR AT 48" A.F.F. AND RECONNECT TO RELOCATED ATC SERVING RELOCATED FAN COIL UNIT. VERIFY PROPER OPERATION OF SENSOR WITH A POINT TO POINT TEST AFTER REINSTALLATION.
- (18) PROVIDE AND INSTALL NEW SENSOR, MOUNT SENSOR AT 48" A.F.F.
- (19) CONTROL WIRING FROM SENSOR TO ATC PANEL SERVING NEW FAN COIL UNIT. SEE CONTROL DRAWINGS SHEET M-SC300 FOR ADDITIONAL INFORMATION.
- (20) ADJUST 8" MANUAL OUTSIDE AIR DAMPER TO 180 CFM.
- (21) ADJUST 6" MANUAL OUTSIDE AIR DAMPER TO 60 CFM.

DRAWING NOTES

- (1) S-1 375 CFM, 10" NK. S.A. DIFFUSER.
- (2) S-1 245 CFM, 10" NK. S.A. DIFFUSER.
- (3) S-1 200 CFM, 8" NK. S.A. DIFFUSER.
- (4) S-1 275 CFM, 10" NK. S.A. DIFFUSER.
- (5) R-1 22"x10" NK. R.A. GRILLE.
- (6) R-1 14"x14" NK. R.A. GRILLE.
- (7) S-1 170 CFM, 8" NK. S.A. DIFFUSER.
- (8) S-2 170 CFM, 8" NK. S.A. DIFFUSER.
- (9) S-1 280 CFM, 10" NK. S.A. DIFFUSER.
- (10) FAN COIL UNIT SERVICE ACCESS, DO NOT OBSTRUCT.
- (11) FLEXIBLE CONNECTION, TYPICAL.
- (12) CONNECT NEW 10" OUTSIDE AIR DUCTWORK TO EXISTING AND EXTEND AS INDICATED.
- (13) EXTEND DUCTWORK UP INTO STRUCTURE IN THIS LOCATION AS REQUIRED TO RUN OVER TOP OF NEW RETURN DUCTWORK SERVING FAN COIL UNIT. DROP DUCTWORK BELOW STRUCTURE ONCE CLEAR OF RETURN DUCTWORK.

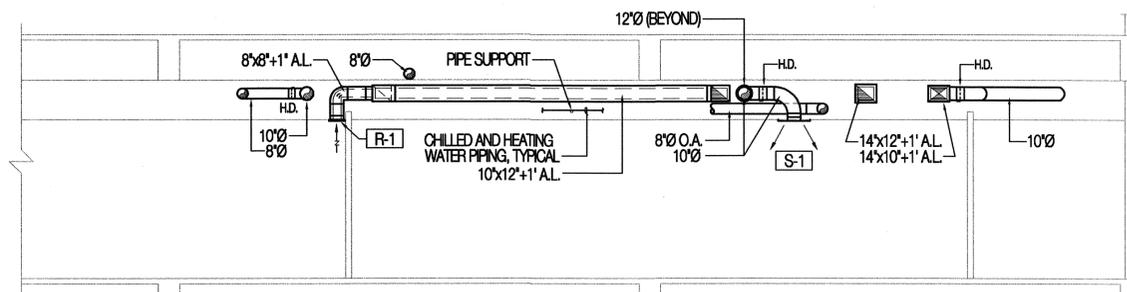
CONTROL VALVE SCHEDULE (CV)

SYMBOL	VALVE TYPE	OPERATOR TYPE	GPM	MAXIMUM PRESSURE DROP	FLUID	DUTY	REMARKS
CCV-34	2-WAY	ELECTRIC MODULATING	6.4	5 FEET	CHWS	(F) FCU-34 COOLING COIL	-
CCV-35	2-WAY	ELECTRIC MODULATING	5.0	5 FEET	CHWS	(F) FCU-35 COOLING COIL	-
CCV-216B	3-WAY	ELECTRIC MODULATING	8.5	5 FEET	CHWS	FCU-216B COOLING COIL	-
CCV-216D	3-WAY	ELECTRIC MODULATING	7.5	5 FEET	CHWS	FCU-216D COOLING COIL	-
HCV-34	2-WAY	ELECTRIC MODULATING	3.0	5 FEET	HWS	(F) FCU-34 HEATING COIL	-
HCV-35	2-WAY	ELECTRIC MODULATING	2.0	5 FEET	HWS	(F) FCU-35 HEATING COIL	-
HCV-216B	3-WAY	ELECTRIC MODULATING	7.0	5 FEET	HWS	FCU-216B HEATING COIL	-
HCV-216D	3-WAY	ELECTRIC MODULATING	6.0	5 FEET	HWS	FCU-216D HEATING COIL	-



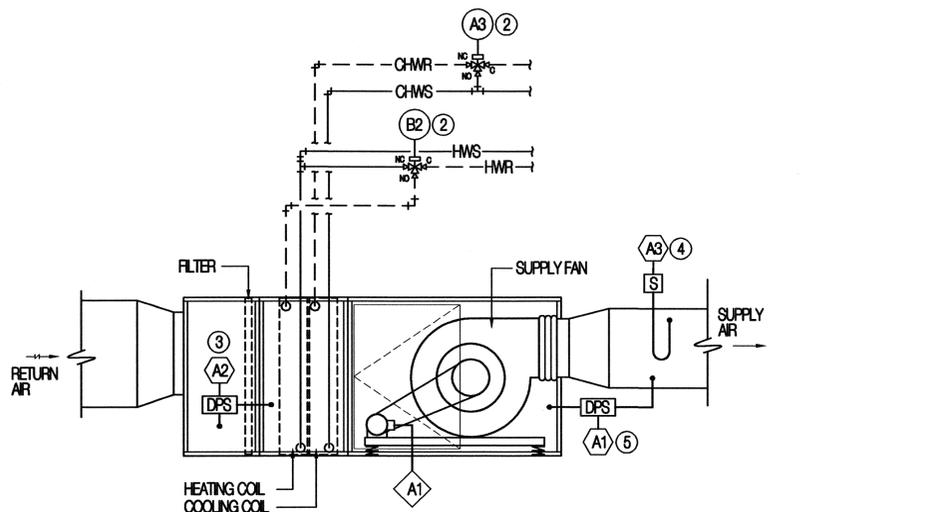
MECHANICAL SECTION A

SCALE 3/16" = 10"



MECHANICAL SECTION B

SCALE 3/16" = 10"



TYPICAL FAN COIL UNIT CONTROL DIAGRAM

DRAWING NOTES

1. PROVIDE AND INSTALL TWO NEW ATC PANELS FOR FAN COIL UNITS FCU-216B AND D. RELOCATE EXISTING CONTROL PANELS FOR RELOCATED FAN COIL UNITS FCU-34 AND 35. CONTRACTOR TO FIELD VERIFY QUANTITY OF POINTS AVAILABLE IN EXISTING PANELS AND PROVIDE EXPANSION MODULES AS REQUIRED TO CONFORM TO UPDATED CONTROL SEQUENCE.
2. PROVIDE NEW CONTROL VALVES FOR ALL NEW OR RELOCATED FAN COIL UNITS. SEE SCHEDULE THIS SHEET FOR VALVE TYPE AND FLOW RATE.
3. PROVIDE NEW FILTER STATUS DIFFERENTIAL PRESSURE SWITCHES FOR ALL NEW FAN COIL UNITS. SEE BELOW FOR RELOCATED UNITS. RECORD DRAWINGS INDICATE THAT EXISTING FAN COIL UNITS FCU-34 AND 35 ARE EQUIPPED WITH MANUAL MAGNETIC TYPE FILTER STATUS INDICATORS. HOWEVER A FIELD INSPECTION DOES NOT REVEAL THESE INDICATORS INSTALLED ON THE UNITS. CONTRACTOR TO FIELD VERIFY THE PRESENCE OF A FILTER STATUS DIFFERENTIAL PRESSURE SWITCH REPORTING TO THE DDC PANEL ON THESE TWO UNITS AND PROVIDE SUCH IF NOT EQUIPPED. CONTRACTOR MAY REUSE DDC REPORTING DIFFERENTIAL PRESSURE SWITCHES INSTALLED ON THESE UNITS IF EQUIPPED. CONTRACTOR TO REMOVE ALL MANUAL INDICATING FILTER STATUS DEVICES IF EQUIPPED.
4. PROVIDE AND INSTALL TWO NEW DISCHARGE AIR TEMPERATURE SENSORS ON FAN COIL UNITS FCU-216 B AND D. REUTILIZE AND RECONNECT EXISTING TEMPERATURE SENSORS ON RELOCATED FAN COIL UNITS FCU-34 AND 35.
5. PROVIDE AND INSTALL TWO NEW FAN STATUS DIFFERENTIAL SWITCHES ON FAN COIL UNITS FCU-216 B AND D. REUTILIZE AND RECONNECT EXISTING FAN STATUS DIFFERENTIAL PRESSURE SWITCHES ON FAN COIL UNITS FCU-34 AND 35.
6. CONNECT OR RECONNECT EXISTING COMMUNICATION TRUNK TO NEW OR RELOCATED ATC PANELS.
7. SPARES REQUIRED ON NEW ATC PANELS ONLY.

GENERAL NOTES FOR MECHANICAL CONTROLS

1. ALL ELECTRICAL INSTALLATION, BE IT POWER DISTRIBUTION OR SPECIAL SYSTEMS, IS INCLUDED IN THE SCOPE OF THE GENERAL CONTRACT. OF SPECIFIC CONCERN ARE THE CONTROL SYSTEMS RELATED TO MECHANICAL EQUIPMENT. RESPONSIBILITY FOR THE CONTROL WORK IS DIVIDED BETWEEN THE PROJECT ELECTRICIAN (DIV. 16000) AND A SPECIALTY CONTROLS CONTRACTOR (DIV. 16000).
2. ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH DMSION 16000 AND TO THE FULLEST EXTENT POSSIBLE, PRODUCTS AND PRACTICES SHALL BE SIMILAR FOR ALL INSTALLATIONS.
3. THE ELECTRICIAN SHALL PROVIDE ALL POWER TO AND THROUGHOUT THE BUILDING, TO INCLUDE MOTOR CONTROL CENTERS, BREAKER PANELS AND ALL OTHER SYSTEMS DESIGNATED TO THE ELECTRICIANS.
4. THE ELECTRICIAN SHALL RUN AND CONNECT ALL WIRING AND DEVICES 120 VOLTS AND ABOVE WHICH POWER MOTORS AND OTHER MECHANICAL DEVICES. WHERE CONTROL DEVICES ARE LOCATED IN POWER CIRCUIT, THE CONTROLS CONTRACTOR SHALL INTERRUPT THE CIRCUIT IN THE MECHANICAL EQUIPMENT JUNCTION BOX, WIRE THROUGH THE CONTROL DEVICE AND BACK TO THE JUNCTION BOX.
5. THE CONTROLS CONTRACTOR SHALL ROUTE ALL CONDUIT FOR MECHANICAL CONTROLS. PULL WIRING REQUIRED FOR MECHANICAL CONTROLS THROUGH THE CONDUITS AND MAKE CONNECTIONS TO MECHANICAL EQUIPMENT, ATC PANELS, SENSORS, ETC, AS INDICATED ON THE PLANS ALL IN ACCORDANCE WITH DMSION 16000.
6. THE CONTROLS CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR CONTROL SYSTEMS CIRCUITS.
7. BREAKERS AND DISCONNECTS, AUXILIARY CONTACTS, STANDARD PILOT LIGHTS AND MAGNETIC STARTERS ARE THE RESPONSIBILITY OF DMSION 16000.
8. AUXILIARY RELAYS, LOW VOLTAGE TRANSFORMERS, CONTROL PANEL SWITCHES AND DEVICES, THERMOSTATS, PRESSURE SWITCHES, ELECTRIC OPERATED VALVES, ETC. ARE THE RESPONSIBILITY OF DMSION 16000.
9. ANY QUESTION OF RESPONSIBILITY SHALL BE CLARIFIED BY THE GENERAL CONTRACTOR
10. ALL WIRING SHALL TERMINATE AT LABELED TERMINAL STRIPS.

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architecture | planning | design

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PROJECT TITLE:

UTAH VALLEY UNIVERSITY
OREM, UTAH

ACADEMIC AFFAIRS
OFFICE SUITE REMODEL

MARK DATE DESCRIPTION

ISSUE TYPE: CONSTRUCTION DRAWINGS

ISSUE DATE: 31st MARCH 2008

DFCM PROJECT NO: 0010570

CAD PROJECT NO: 0108

CAD DWG FILE: 0108-M-SC300

DRAWN BY: STAFF

CHKD BY: N. CUNNING

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SHEET TITLE

MECHANICAL
SECTIONS &
CONTROLS

SHEET NUMBER

M-SC300

LIGHTING SYMBOLS

Table with columns: SYMBOL, DESCRIPTION, MOUNTING, REMARKS. Includes symbols for ARH-mounted single-head light fixture, post-top single-head light fixture, wall-mounted fixture, light bollard, flood light, recessed wall fixture, fluorescent light fixtures, parabolic-louvered light fixtures, recessed indirect fluorescent light fixtures, wall-mounted linear fluorescent light fixture, fluorescent linear wall washer, recessed down light, recessed wall-washer or directional downlight, surface or pendant-mounted light fixture, wall-mounted light fixture, track or mono-point light fixture, wall sconce, fluorescent egress light fixture, fluorescent emergency (non-egress) light fixture, ceiling mounted exit sign, wall-mounted exit sign, wall-mounted exit sign w/ emergency light fixture, time clock, emergency light fixture, electric photocell, light fixture callout.

CLOCK SYMBOLS

Table with columns: SYMBOL, DESCRIPTION, MOUNTING, REMARKS. Includes symbols for clock, wall-mounted clock, combination clock/speaker, master clock.

ELECTRICAL SYMBOL SCHEDULE GENERAL NOTES

- 1. MOUNT ALL OUTLETS, DEVICES, AND EQUIPMENT AT HEIGHTS INDICATED BELOW, UNLESS NOTED OTHERWISE ON THE DRAWINGS. UNLESS NOTED OTHERWISE, HEIGHTS ARE GIVEN FROM FINISHED FLOOR TO CENTER OF OUTLET BOX.
2. WHERE OUTLETS, DEVICES, AND EQUIPMENT ARE NOTED BY SUBSCRIPTS, REFER TO ABBREVIATION SCHEDULE FOR DEFINED REQUIREMENTS.
3. WHERE OUTLETS, DEVICES AND EQUIPMENT ARE NOTED BY THE SUBSCRIPT 'A', MOUNT AT 4" ABOVE COUNTER. IF COUNTER HAS A BACK SPLASH, MOUNT AT 4" ABOVE BACK SPLASH. REFER TO ARCHITECTURAL INTERIOR ELEVATIONS AND COORDINATE WITH CASEWORK SUPPLIER.
4. NOT ALL ELECTRICAL SYMBOLS MAY BE USED.

GENERAL SYMBOLS

Table with columns: SYMBOL, DESCRIPTION, REMARKS. Includes symbols for keyed note, detail reference, elevation reference, section reference, architectural room number, equipment name / number, revision number, breakline.

BRANCH CIRCUITING SYMBOLS

Table with columns: SYMBOL, DESCRIPTION, REMARKS. Includes symbols for 1 circuit, 2 wire branch circuit; 2 circuit, 3 wire branch circuit; 3 circuit, 4 wire branch circuit; multiple wire branch circuiting; branch circuiting (u.n.o.) turned up or towards observer; branch circuiting (u.n.o.) turned down or away from observer; branch circuiting (u.n.o.) continuation; conduit stub-in; incoming service; junction box.

ELECTRONIC SYSTEM GENERAL SYMBOLS

Table with columns: SYMBOL, DESCRIPTION, MOUNTING, REMARKS. Includes symbols for electronic system panelboard (surface mount), electronic system panelboard (flush mount), electronic system terminal board.

TELEPHONE / DATA SYMBOLS

Table with columns: SYMBOL, DESCRIPTION, MOUNTING, REMARKS. Includes symbols for telephone outlet, data outlet, combination telephone/data outlet, telephone terminal board.

ELECTRICAL SHEET INDEX

Table with columns: SYMBOL, DESCRIPTION. Lists symbols for E-GE001 to E-EP801 and their corresponding descriptions like SYMBOL SCHEDULE, MECHANICAL SCHEDULES, OVERALL ELECTRICAL PLAN, etc.

ABBREVIATION SCHEDULE

Table with columns: SYMBOL, DESCRIPTION, REMARKS. Lists abbreviations like A, ADJ, AFF, AHJ, AL, C, CB, CKT, C.O.S, CU, EA, ELEC, ENT, ENT, EQUIP, EWC, E, EX, EXP, FA, FACP, FLA, FVC, FOB, GND, HOA, HP, IG, IMC, INS and their meanings.

GENERAL PROJECT NOTES:

- 1. DIVISION 16000 CONTRACTOR IS RESPONSIBLE FOR READING AND APPLYING WHAT IS IN THE SPECIFICATIONS TO THIS PROJECT. ANYTHING THAT IS NOT INCLUDED ON THE PROJECT THAT IS CALLED OUT IN THE SPECIFICATION SHALL BE LISTED ON THE SUBSTANTIAL COMPLETION PUNCHLIST. THE CONTRACTOR WILL BE REQUIRED TO REMEDY THESE DEFICIENCIES. THERE WILL BE NO EXCEPTIONS.
2. THE CONTRACTOR MAY SCHEDULE A PRE-CONSTRUCTION MEETING, AT THEIR DISCRETION WITH THE ELECTRICAL ENGINEER AND REVIEW THE DRAWINGS AND SPECIFICATIONS. THE MEETING SHALL BE A MAXIMUM OF ONE HOUR AND SHALL TAKE PLACE AT THE ENGINEER'S OFFICE.
3. THE FOLLOWING ITEMS ARE SOME OF THE REQUIREMENTS THAT ARE LISTED IN THE SPECIFICATIONS. THESE ITEMS DO NOT REPRESENT ALL ITEMS AND THE CONTRACTOR IS RESPONSIBLE FOR MEETING ALL REQUIREMENTS OF THE SPECIFICATIONS.
A. INSULATED THROAT CONNECTORS OR PLASTIC BUSHINGS SHALL BE UTILIZED FOR ALL CONDUIT SIZES USED ON THIS PROJECT.
B. A #10 AWG NEUTRAL CONDUCTOR WILL BE PROVIDED FOR ALL FLUORESCENT LIGHTING CIRCUITS.
C. THE CONTRACTOR IS RESPONSIBLE FOR UPSIZING CONDUCTORS FOR VOLTAGE DROP PER THE NEC REGARDLESS OF WHETHER IT IS SHOWN ON THE PLANS OR NOT.
D. THE CONTRACTOR SHALL LABEL ALL ELECTRICAL EQUIPMENT AS IT IS CALLED OUT IN THE SPECIFICATIONS.
E. THE CONTRACTOR SHALL PROVIDE SEISMIC SUPPORT AND BRACING FOR ALL ELECTRICAL EQUIPMENT AS REQUIRED BY LOCAL AND NATIONAL CODE.
4. THE CONTRACTOR SHALL FOLLOW THE PANELBOARD SCHEDULES AS INDICATED IN THE DRAWINGS. EACH CIRCUIT BREAKER HAS BEEN ASSIGNED A SPECIFIC AREA OF THE BUILDING. NO DEVIATION WILL BE ALLOWED WITHOUT THE APPROVAL FROM THE ELECTRICAL ENGINEER.
5. THE CONTRACTOR SHALL INSTALL PROPER WIRE SIZE AS CALLED OUT ON THE PANELBOARD SCHEDULES. HOWEVER, THE CONTRACTOR IS RESPONSIBLE TO ENSURE THE WIRE IS LARGE ENOUGH FOR VOLTAGE DROP.
6. THE CONTRACTOR SHALL VERIFY ALL MECHANICAL OVERCURRENT DEVICES FOR THE ACTUAL MECHANICAL EQUIPMENT SUPPLIED ON THE JOB, PRIOR TO RELEASE OF ANY ELECTRICAL DISTRIBUTION EQUIPMENT. CONTACT THE ELECTRICAL ENGINEER WITH ANY DISCREPANCIES.
7. THE CONTRACTOR SHALL VISIT THE SITE BEFORE SUBMITTING THE BID, AND SHALL EXAMINE ALL PHYSICAL CONDITIONS WHICH MAY BE MATERIAL TO THE PERFORMANCE OF HIS WORK. NO EXTRA PAYMENTS WILL BE ALLOWED TO THE CONTRACTOR AS A RESULT OF EXTRA WORK MADE NECESSARY BY HIS FAILURE TO DO SO. ANY CASE OF DISCREPANCY OR LACK OF CLARITY SHALL BE PROMPTLY IDENTIFIED TO THE OWNER'S REPRESENTATIVE AND THE ENGINEER FOR CLARIFICATION.
8. THE CONTRACTOR SHALL MAKE SURE THAT ALL BRANCH CIRCUITS THAT ARE AFFECTED BY THIS PROJECT ARE NOT OVERLOADED. PROVIDE ADDITIONAL BRANCH CIRCUITS FROM ELECTRICAL PANELS AS NECESSARY TO COMPLY WITH THE BRANCH CIRCUIT LOADING REQUIREMENTS. PROVIDE ALL MATERIAL AND LABOR AS NECESSARY FOR A COMPLETE AND OPERATING SYSTEM.
9. PROVIDE UPDATED, TYPED PANELBOARD SCHEDULES TO REFLECT ALL THE CHANGES MADE INCLUDING EXISTING LOADS. THE EXISTING LOADS SHALL BE NAMED THE SAME AS LISTED ON THE EXISTING PANELBOARD SCHEDULE.

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PROJECT TITLE:

UTAH VALLEY UNIVERSITY OREM, UTAH

ACADEMIC AFFAIRS OFFICE SUITE REMODEL

Table with columns: MARK, DATE, DESCRIPTION

ISSUE TYPE: CONSTRUCTION DOCUMENTS

ISSUE DATE: 20th March, 2008

DFCM PROJECT NO: 2008-042

CAD PROJECT NO: 2008-042

CAD DWG FILE:

DRAWN BY: BRT

CHK'D BY: RVV

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SHEET TITLE

SYMBOL SCHEDULE

SHEET NUMBER

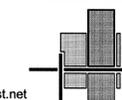
E-EG001



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OREM, UTAH

ACADEMIC AFFAIRS
OFFICE SUITE REMODEL

MARK DATE DESCRIPTION

ISSUE TYPE: CONSTRUCTION DOCUMENTS

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SHEET TITLE

SYMBOL &
MECHANICAL
SCHEDULES

SHEET NUMBER

E-GE002

FIRE ALARM SYMBOLS

SYMBOL	DESCRIPTION	MOUNTING	REMARKS
☐	BEAM DETECTOR - TRANSMITTER	4" BELOW CEILING TO TOP OF DETECTOR	
☐	BEAM DETECTOR - RECEIVER	4" BELOW CEILING TO TOP OF DETECTOR	
☐	END OF LINE DEVICE	PER MANUFACTURER RECOMMENDATIONS	
☐	TAMPER SWITCH	AT VALVE	
☐	WATER FLOW INDICATOR	ON FIRE RISER	
☐	FIRE/SMOKE DAMPER	TOP AT 12"	
①	HEAT DETECTOR	CEILING	
②	SMOKE DETECTOR	CEILING	
☐	DUCT SMOKE DETECTOR	SIDE OF DUCT	
☐	FIRE ALARM MANUAL STATION	+48"	
☐	CONTROL MODULE	AT DEVICE(S) TO BE CONTROLLED	
☐	MONITOR MODULE	AT DEVICE(S) TO MONITOR	
☐	FAN SHUTDOWN RELAY	AT FAN CONTROL PANEL	
☐	MAGNETIC DOOR HOLDER	COORDINATE WITH DOOR INSTALLER	COORDINATE WITH DOOR INSTALLER; SUBSCRIPT 'F' INDICATES TO MOUNT AT FLOOR LEVEL
☐	WATER FLOOD INDICATOR	FLOOR	
☐	AUDIO HORN		
☐	MINI AUDIO HORN		
☐	FIRE ALARM VISUAL STROBE		
☐	FIRE ALARM AUDIO/VISUAL HORN/STROBE		
☐	MINI AUDIO/VISUAL HORN/STROBE		
☐	FIRE ALARM AUDIO SPEAKER		
☐	FIRE ALARM AUDIO/VISUAL SPEAKER/STROBE		
☐	FIRE PROTECTION SPRINKLER RISER BELL	+90"	FURNISHED BY FIRE PROTECTION CONTRACTOR AND INSTALLED AND CONNECTED BY DIV. 16000

WIRING DEVICE SYMBOLS

SYMBOL	DESCRIPTION	MOUNTING	REMARKS
☐	SINGLE-POLE TOGGLE SWITCH	+48"	
☐	SINGLE-POLE TOGGLE SWITCH	+48"	SUBSCRIPT KEYS SWITCH TO FIXTURES CONTROLLED.
☐	DOUBLE-POLE TOGGLE SWITCH	+48"	
☐	THREE-WAY TOGGLE SWITCH	+48"	
☐	FOUR-WAY TOGGLE SWITCH	+48"	
☐	KEY-OPERATED SINGLE-POLE TOGGLE SWITCH	+48"	
☐	SINGLE-POLE TOGGLE SWITCH WITH PILOT LIGHT	+48"	
☐	DIMMER SWITCH	+48"	RATE DIMMER SWITCH FOR MAXIMUM POSSIBLE WATTAGE
☐	TIMER SWITCH	+48"	
☐	(2) SINGLE-POLE TOGGLE SWITCH	+48"	DUAL LEVEL SWITCH OUTBOARD LAMPS SEPARATELY FROM INBOARD LAMPS.
☐	LOW VOLTAGE MOMENTARY CONTACT SWITCH	+48"	
☐	3-POSITION MOMENTARY CONTACT SWITCH	+48"	REFER TO DETAIL UP-ON; CENTER-NEUTRAL; DOWN-OFF
☐	3-POSITION MAINTAINED CONTACT SWITCH	+48"	UP-ON; CENTER-OFF; DOWN-ON
☐	OCCUPANCY SENSOR	AS NOTED	CEILING MOUNTED WITH SUBSCRIPT 'C'; WALL-MOUNTED WITH SUBSCRIPT 'W'
☐	SPLIT-WIRED DUPLEX RECEPTACLE	+18"	
☐	SIMPLEX RECEPTACLE	+18"	
☐	DUPLEX RECEPTACLE	+18"	
☐	FOURPLEX RECEPTACLE	+18"	
☐	125/250V RECEPTACLE	+18"	RANGE -- NEHA 14-50R DRYER -- NEHA 14-30R
☐	GROUND FAULT CIRCUIT INTERRUPTER DUPLEX RECEPTACLE	+18"	
☐	GROUND FAULT CIRCUIT INTERRUPTER FOURPLEX RECEPTACLE	+18"	
☐	EMERGENCY DUPLEX RECEPTACLE	+18"	
☐	EMERGENCY FOURPLEX RECEPTACLE	+18"	
☐	MULTI-OUTLET ASSEMBLY	4" ABOVE BACKSPASH	
☐	POWER / TELEPHONE POLE	FLOOR/CEILING	
☐	CORD DROP WITH DUPLEX RECEPTACLE	+18"	REFER TO DETAIL
☐	SPECIAL PURPOSE OUTLET (15-20R)	+18"	SUBSCRIPT IN PARENTHESIS INDICATES NEHA CONFIGURATION IF SHOWN. REFER TO DRAWINGS AND/OR EQUIPMENT SCHEDULES. CONFIRM EXACT CONFIGURATION WITH OWNER PRIOR TO INSTALLATION.

GEAR AND CONTROL SYMBOLS

SYMBOL	DESCRIPTION	MOUNTING	REMARKS
☐	MANUAL STARTER WITH THERMAL OVERLOAD(S)	AT EQUIPMENT	
☐	ELECTRIC MOTOR		
☐	NON-FUSED DISCONNECT SWITCH	+60"	
☐	FUSED DISCONNECT SWITCH	+60"	
☐	CIRCUIT BREAKER AND ENCLOSURE	+60"	
☐	MAGNETIC STARTER	+60"	
☐	COMBINATION MAGNETIC STARTER / NON-FUSED DISCONNECT	+60"	
☐	COMBINATION MAGNETIC STARTER / FUSED DISCONNECT	+60"	
☐	COMB. MAGNETIC STARTER / MOTOR CIRCUIT PROTECTOR (MCP)	+60"	
☐	COMB. VARIABLE FREQUENCY DRIVE / MOTOR CIRCUIT PROTECTOR (MCP)	FLOOR OR WALL AS SPECIFIED	TOP AT +12" IF WALL MOUNTED
☐	REDUCED VOLTAGE STARTER	FLOOR OR WALL AS SPECIFIED	TOP AT +12" IF WALL MOUNTED
☐	LOAD CENTER (SURFACE-MOUNTED)	TOP AT +12"	14" X 3"D
☐	LOAD CENTER (FLUSH-MOUNTED)	TOP AT +12"	14" X 3"D
☐	LIGHTING AND APPLIANCE PANELBOARD (SURFACE-MOUNTED)	TOP AT +12"	20" X 6"D
☐	LIGHTING AND APPLIANCE PANELBOARD (FLUSH-MOUNTED)	TOP AT +12"	20" X 6"D
☐	POWER DISTRIBUTION PANELBOARD	WALL	THESE SYMBOLS ARE GENERAL IN NATURE AND MAY VARY IN SIZE AND SHAPE TO SUIT APPLICATION. CROSS HATCHING INDICATES MAIN PANELBOARD OR SWITCHBOARD* NAME IS INDICATED IN SET-QUOTES (I.E. L2A, MDP)
☐	SWITCHBOARD	FLOOR	
☐	METER BASE	TOP AT +12"	
☐	OPEN - STOP - CLOSE SWITCH	+60"	FURNISH SWITCH UNLESS FURNISHED BY ANOTHER DIVISION. INSTALL AND CONNECT COMPLETE. REFER TO RELATED SPECIFICATION SECTIONS.
☐	HVAC THERMOSTAT	+60"	PROVIDED BY DIVISION 5000 UNO.
☐	HAND - OFF - AUTO SWITCH	+60"	
☐	GROUND FAULT PROTECTION		

MECHANICAL EQUIPMENT SCHEDULE

UNIT NAME	DESCRIPTION	LOAD	TYPE	VOLTAGE	PHASE	AMPERAGE	CONDUIT SIZE	WIRES		STARTER / DISCONNECT / CONNECTION AT UNIT						REMARKS
								NO.	SIZE	NOTE	STARTER SIZE	SIZE	POLES	SIZE	POLES	
FCU-216B	FAN COIL UNIT	1/2	HP	120	1	9.8	3/4"	2	12	1A #4B	-	-	-	1 HP	1	
FCU-216D	FAN COIL UNIT	1/2	HP	120	1	9.8	3/4"	2	12	1A #4B	-	-	-	1 HP	1	

SIZE ALL FUSES IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

STARTER / DISCONNECT NOTES:

- MANUAL STARTER WITH THERMAL OVERLOAD
- MANUAL STARTER WITH THERMAL OVERLOAD PROTECTION & LOW VOLTAGE RELAY / CONTACTOR FOR ATC CONTROL
- COMBINATION MAGNETIC STARTER / FUSED DISCONNECT
- COMBINATION MAGNETIC STARTER / MOTOR CIRCUIT PROTECTOR (MCP)
- COMBINATION VARIABLE FREQUENCY DRIVE / MOTOR CIRCUIT PROTECTOR (MCP)
- REDUCED VOLTAGE STARTER
- COMBINATION TWO-SPEED STARTER / FUSED DISCONNECT
- COMBINATION TWO-SPEED STARTER / MOTOR CIRCUIT PROTECTOR (MCP)

INSTALLATION NOTES:

- NON-FUSED DISCONNECT SWITCH
- FUSED DISCONNECT SWITCH
- BREAKER AND ENCLOSURE
- DIRECT CONNECTION
- DUPLEX RECEPTACLE OUTLET
- SPECIAL PURPOSE OUTLET
- SHUNT-TRIP BREAKER AND ENCLOSURE
- TOGGLE SWITCH
- FUSED DISCONNECT SWITCH WITH LATE MAKE/EARLY BREAK CONTACT
- FURNISHED, INSTALLED, & CONNECTED UNDER DIVISION 16.
- FURNISHED & INSTALLED UNDER ANOTHER DIVISION REQUIRING CONNECTIONS UNDER DIVISION 16.
- FURNISHED UNDER ANOTHER DIVISION BUT INSTALLED AND CONNECTED UNDER DIVISION 16.
- FURNISHED, INSTALLED, & CONNECTED UNDER ANOTHER DIVISION
- FURNISHED BY OWNER, INSTALLED & CONNECTED BY DIVISION 16

1

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4

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D

D

C

C

B

B

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A

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State of Utah

Department of Administrative Services

Division of Facilities
Construction & Management
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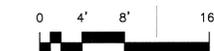


PROJECT TITLE:

UTAH VALLEY UNIVERSITY
OREM, UTAH

ACADEMIC AFFAIRS
OFFICE SUITE REMODEL

MARK	DATE	DESCRIPTION
ISSUE TYPE: CONSTRUCTION DOCUMENTS		
ISSUE DATE: 20th March, 2008		
DFCM PROJECT NO: <u>2008-042</u>		
CAD PROJECT NO: 2008-042		
CAD DWG FILE:		
DRAWN BY: BRT		
CHK'D BY: RVV		
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SHEET TITLE		
OVERALL ELECTRICAL PLAN		
SHEET NUMBER		
E-EE100		



01 OVERALL ELECTRICAL PLAN
EE100 SCALE 3/32" = 1'-0"



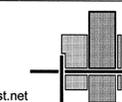
A:\2008-042\01 - UVSC Admissions Remodel\Elect\EE100.dwg, 3/31/2008 3:53:45 PM, JHARWARD, Envision Engineering, PC



CREATED BY: P+A architects

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architecture | planning | design

CONSULTANT:



PROJECT TITLE:

UTAH VALLEY UNIVERSITY OREM, UTAH

ACADEMIC AFFAIRS OFFICE SUITE REMODEL

MARK | DATE | DESCRIPTION

ISSUE TYPE: CONSTRUCTION DOCUMENTS

ISSUE DATE: 20th March, 2008

DFCM PROJECT NO: 0801870

CAD PROJECT NO: 2008-042

CAD DWG FILE:

DRAWN BY: BRT

CHK'D BY: RVV

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SHEET TITLE

PANEL SCHEDULES

SHEET NUMBER

E-EP801

LIGHTING AND APPLIANCE PANELBOARD SCHEDULE

PANEL NAME: D TYPE: EXISTING SQUARE D CIRCUIT BREAKERS: BOLT ON PLUG ON 120 / 208 VOLTAGE 3 PH 4 W

ENGRAVED NAME TAGS BUS MATERIAL: ALUM BUS CU BUS GROUND: GROUND BUS ISOL GND BUS NEUTRAL: 100% 200% LUGS: MAIN SUB-FEED FEED-THROUGH MAIN BREAKER: A/FPS 300 BUS A/FPS: 400

NOTES	ITEM	A/FPS	POLE	WIRE SIZE	CIR. NO.	LEFT PHASE LOAD			RIGHT PHASE LOAD			CIR. NO.	A/FPS	POLE	WIRE SIZE	ITEM	NOTES
						A	B	C	A	B	C						
4	PHONE BOARD				1							2				REFRIGERATOR	4
4	COUNTER TOP				3							4				REFRIGERATOR	4
4	COUNTER TOP				5							6				REFRIGERATOR	4
4	COUNTER TOP				7							8				COUNTER TOP	4
4	COUNTER TOP				9							10				COUNTER TOP	4
4	COUNTER TOP				11							12				COUNTER TOP	4
4	COUNTER TOP				13							14				COUNTER TOP	4
4	COUNTER TOP				15							16				COUNTER TOP	4
8	CONFERENCE RM CO'S	20	1	12	17			1080				18				COUNTER TOP	4
8	TRACK LIGHTING	20	1	12	19	1800						20				FLOOR	4
4	FLOOR				21							22				BALCONY	4
4	OUTLETS				23							24				OUTLETS	4
4	COORDINATOR CO'S				25							26				OUTLETS	4
4	OUTLETS				27							28				OUTLETS	4
4	OUTLETS				29							30				OUTLETS	4
4	KITCHEN UNIT				31							32				OUTLETS	4
4	KITCHEN UNIT				33							34				OUTLETS	4
4	XRAY LUMINATOR				35							36				HUMIDIFIER UNIT	4
8	FQJ-216D	20	1	12	37	1200						38				SUB-FEED TO PANEL DD	4
8	FQJ-216D	20	1	12	39							40				SPARE	4
4	OFFICE				41							42				SPARE	4

FRONT: STANDARD HINGED DOOR-IN-DOOR

MOUNTING: FLUSH SURFACE SURFACE W/ SKIRT ABOVE SURFACE W/ SKIRT BELOW

TVSS: NONE CATEGORY 'C' CATEGORY 'B' CATEGORY 'A'

NEHA RATING: NEHA 1 NEHA 3R NEHA 4X NEHA 12 STAINLESS STEEL

TOTAL CONNECTED LOAD: 5280

SHORT CIRCUIT RATING: SERIES - RATED FULLY - RATED

REFER TO ONE-LINE DIAGRAM FOR FEEDER, CONDUIT AND CONDUCTOR SIZES

PANELBOARD SCHEDULE NOTES:

- PROVIDE CLASS A GROUND FAULT INTERRUPTER TYPE CIRCUIT BREAKER.
- PROVIDE ARC FAULT CIRCUIT INTERRUPTER TYPE CIRCUIT BREAKER.
- PROVIDE 30 MILLIAMPERE EQUIPMENT GROUND FAULT PROTECTOR TYPE CIRCUIT BREAKER.
- PROVIDE SHUNT-TRIP TYPE CIRCUIT BREAKER WITH 120V COIL.
- PROVIDE HACR RATED CIRCUIT BREAKER.
- PROVIDE HANDLE CLAMP FOR HOLDING CIRCUIT BREAKER IN THE 'ON' OR 'OFF' POSITION.
- PROVIDE SWITCHING RATED CIRCUIT BREAKER.
- PROVIDE NEW CIRCUIT BREAKER IN EXISTING PANELBOARD (WHERE PANEL IS INDICATED AS EXISTING) OF SAME MANUFACTURER AND A.I.C. RATING AS EXISTING.
- EXISTING LOAD.

LIGHTING AND APPLIANCE PANELBOARD SCHEDULE

PANEL NAME: HD TYPE: EXISTING SQUARE D CIRCUIT BREAKERS: BOLT ON PLUG ON 211 / 480 VOLTAGE 3 PH 4 W

ENGRAVED NAME TAGS BUS MATERIAL: ALUM BUS CU BUS GROUND: GROUND BUS ISOL GND BUS NEUTRAL: 100% 200% LUGS: MAIN SUB-FEED FEED-THROUGH MAIN BREAKER: A/FPS BUS A/FPS: 225

NOTES	ITEM	A/FPS	POLE	WIRE SIZE	CIR. NO.	LEFT PHASE LOAD			RIGHT PHASE LOAD			CIR. NO.	A/FPS	POLE	WIRE SIZE	ITEM	NOTES
						A	B	C	A	B	C						
4	LIGHTING				1							2				LIGHTING	4
4	LIGHTING				3							4				LIGHTING	4
4	LIGHTING				5							6				LIGHTING	4
4	LIGHTING				7							8				LIGHTING	4
8	LIGHTING				9							10				LIGHTING	4
8	FQJ-34, 35, 36B	20	1	12	11						3200	12				LIGHTING	4
4	FAN COIL UNIT				13							14				SPARE	4
4	FAN COIL UNIT				15							16				HEAT PUMPS	4
4	FAN COIL UNIT				17							18				HEAT PUMPS	4
4	HEAT PUMP				19							20				SPARE	4
4	FAN COIL UNIT				21							22				FQJ-53,54,55	4
4	FAN COIL UNIT				23							24				SPARE	4
4	HEAT PUMP				25							26				SPARE	4
4	HEAT PUMP				27							28				SPARE	4
4	HEAT PUMP				29							30				SPARE	4
4	HEAT PUMP				31							32				SPARE	4
4	HEAT PUMP				33							34				SPARE	4
4	HEAT PUMP				35							36				SPARE	4
4	SPARE				37							38				SUB FEED TO XFMR	4
4	SPARE				39							40				SPARE	4
4	SPARE				41							42				SPARE	4

FRONT: STANDARD HINGED DOOR-IN-DOOR

MOUNTING: FLUSH SURFACE SURFACE W/ SKIRT ABOVE SURFACE W/ SKIRT BELOW

TVSS: NONE CATEGORY 'C' CATEGORY 'B' CATEGORY 'A'

NEHA RATING: NEHA 1 NEHA 3R NEHA 4X NEHA 12 STAINLESS STEEL

TOTAL CONNECTED LOAD: 3200

SHORT CIRCUIT RATING: SERIES - RATED FULLY - RATED

REFER TO ONE-LINE DIAGRAM FOR FEEDER, CONDUIT AND CONDUCTOR SIZES

LIGHTING AND APPLIANCE PANELBOARD SCHEDULE

PANEL NAME: F TYPE: EXISTING SQUARE D CIRCUIT BREAKERS: BOLT ON PLUG ON 120 / 208 VOLTAGE 3 PH 4 W

ENGRAVED NAME TAGS BUS MATERIAL: ALUM BUS CU BUS GROUND: GROUND BUS ISOL GND BUS NEUTRAL: 100% 200% LUGS: MAIN SUB-FEED FEED-THROUGH MAIN BREAKER: A/FPS 300 BUS A/FPS: 400

NOTES	ITEM	A/FPS	POLE	WIRE SIZE	CIR. NO.	LEFT PHASE LOAD			RIGHT PHASE LOAD			CIR. NO.	A/FPS	POLE	WIRE SIZE	ITEM	NOTES
						A	B	C	A	B	C						
4	PHONE BOARD				1							2				PLUG 204	4
4	PROJECTOR PLUG				3							4				PLUG SE CORD	4
4	PLUG FLOOR				5							6				PLUG 204	4
4	PLUG CORRIDOR				7							8				PLUG 205	4
4	PLUG 206				9							10				PLUG 205 c, d	4
4	PLUG 206				11							12				PLUG 205 e, f	4
4	RFR PLUG				13							14				PLUG 205 g, h	4
8	SUITE 216	20	1	12	15			1080				16				PLUG 205 g, h	4
8	OFFICE 216B	20	1	12	17						1080	18				PLUG	4
4	PLUG ADJ CORD 201				19						1080	20	20	1	12	OFFICE 216B	8
4	PLUG 201				21						1080	22	20	1	12	OFFICE 216C	8
4	LIGHTING 205 a				23						1080	24	20	1	12	OFFICE 216D	8
4	EXH FAN 201				25						1200	26	20	1	12	REFRIGERATOR	8
4	EXH FANS				27							28				KITCHEN UNIT	4
4	LIGHTING CORRIDOR				29						1200	30	20	1	12	PROJECTOR SCREEN	4
8	SUITE 216	20	1	12	31	540						32				SPARE	4
4	SHIFLEX RELAYS				33							34				SPARE	4
4	SPARE				35							36				SPARE	4
4	OFFICE NORTH LIGHTS				37							38				SUB-FEED TO PANEL FF	4
4	NEW OFFICE HEATING				39							40				SPARE	4
4	NEW OFFICE				41							42				SPARE	4

FRONT: STANDARD HINGED DOOR-IN-DOOR

MOUNTING: FLUSH SURFACE SURFACE W/ SKIRT ABOVE SURFACE W/ SKIRT BELOW

TVSS: NONE CATEGORY 'C' CATEGORY 'B' CATEGORY 'A'

NEHA RATING: NEHA 1 NEHA 3R NEHA 4X NEHA 12 STAINLESS STEEL

TOTAL CONNECTED LOAD: 1980

SHORT CIRCUIT RATING: SERIES - RATED FULLY - RATED

REFER TO ONE-LINE DIAGRAM FOR FEEDER, CONDUIT AND CONDUCTOR SIZES

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A