



9 EXISTING CONDITION PHOTO
NTS



6 EXISTING CONDITION PHOTO
NTS



4 EXISTING CONDITION PHOTO
NTS



2 EXISTING CONDITION PHOTO
NTS



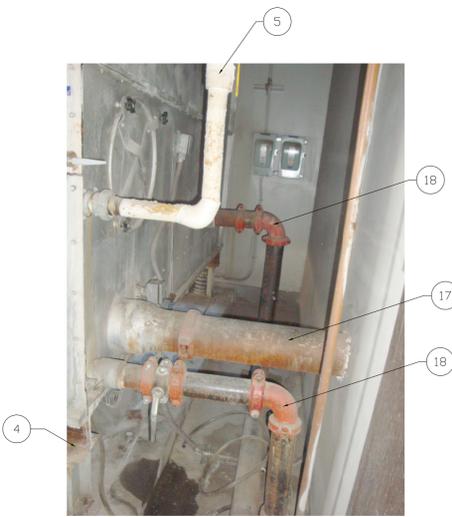
8 EXISTING CONDITION PHOTO
NTS



5 EXISTING CONDITION PHOTO
NTS



3 EXISTING CONDITION PHOTO
NTS



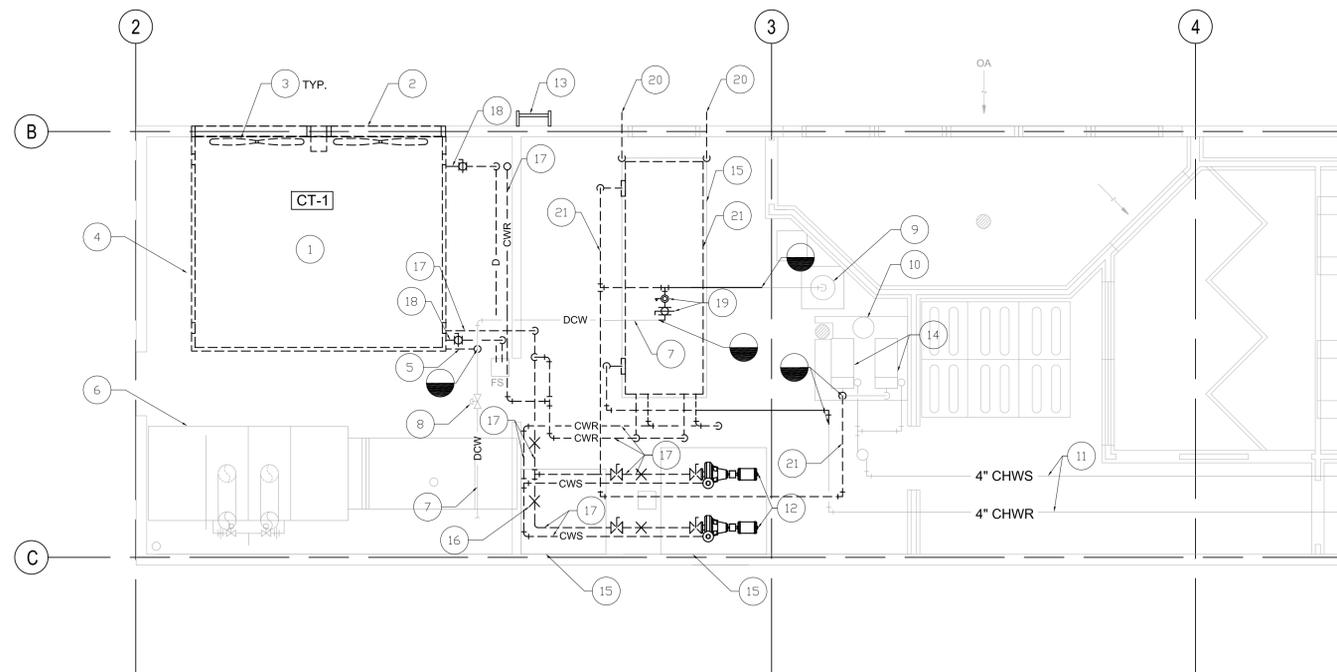
1 EXISTING CONDITION PHOTO
NTS

Keyed Notes

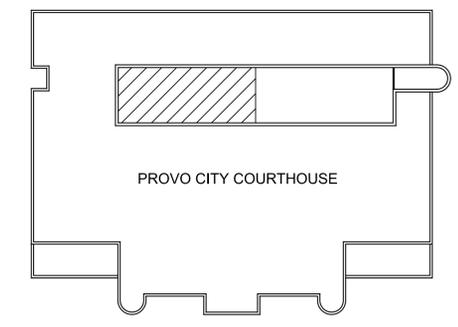
- 1 EXISTING COOLING TOWER THROUGH PENTHOUSE ROOF TO BE REMOVED COMPLETE. PROTECT EXISTING PENTHOUSE MEMBRANE ROOFING FROM DAMAGE AS REQUIRED.
- 2 EXISTING INTAKE LOUVER TO BE REMOVED.
- 3 EXISTING COOLING TOWER FANS AND MOTOR TO BE REMOVED. REMOVE ELECTRICAL CONDUIT, STARTER, DISCONNECT AND WIRING AS NOTED AND DETAILED ON THE ELECTRICAL DRAWINGS.
- 4 EXISTING COOLING TOWER PAD TO REMAIN. CONTRACTOR TO CLEAN AND PAINT TO MATCH EXISTING FLOOR.
- 5 EXISTING COOLING TOWER MAKE UP WATER PIPING TO BE REMOVED TO POINT OF REMOVAL SHOWN AND CAPPED.
- 6 EXISTING DIRECT FIRED MAKE UP AIR UNIT TO REMAIN. PROTECT FROM DAMAGE DURING REMOVAL OF COOLING TOWER.
- 7 EXISTING MAKE UP WATER PIPING FOR CHILLED WATER SYSTEM TO REMAIN.
- 8 EXISTING BACKFLOW PREVENTOR AND DRAIN PIPING TO REMAIN.
- 9 EXISTING EXPANSION TANK AND PIPING TO REMAIN. PROTECT FROM DAMAGE AND REPAIR INSULATION AS NECESSARY.
- 10 EXISTING CHILLED WATER SYSTEM CHEMICAL FEED TANK, PIPING AND VALVES TO REMAIN. PROTECT FROM DAMAGE AND REPAIR INSULATION AS NECESSARY.
- 11 EXISTING CHILLED WATER SUPPLY AND OR RETURN PIPING TO REMAIN.
- 12 EXISTING CONDENSER WATER PUMPS AND CONTROLS TO BE REMOVED.
- 13 EXISTING ROOF ACCESS LADDER.
- 14 EXISTING CHILLED WATER PUMPS TO REMAIN.
- 15 EXISTING CONCRETE PAD TO REMAIN.
- 16 EXISTING PIPING FLOOR SUPPORTS TO BE REMOVED, PATCH AND REPAIR FLOOR, TYPICAL.
- 17 EXISTING CONDENSER WATER PIPING, INSULATION AND ATC CONTROLS TO BE REMOVED COMPLETE.
- 18 EXISTING COOLING TOWER DRAIN PIPING AND VALVES TO BE REMOVED.
- 19 EXISTING CHILLED WATER MAKEUP PRV AND BALL ISOLATION VALVE TO BE REMOVED.
- 20 EXISTING CONDENSER VENT PIPING TO BE DISCONNECTED FROM EXISTING CHILLER AND REUSED IF REQUIRED FOR NEW EVAPORATOR BARREL.
- 21 EXISTING CHILLER AND ASSOCIATED CONDENSED WATER PIPING TO BE REMOVED COMPLETE.
- 22 EXISTING ROOM VENTILATION LOUVER TO REMAIN.
- 23 EXISTING CHILLER ATC CONTROLS TO BE REMOVED. RELOCATE POINTS AS REQUIRED. REMOVE AND MODIFY GRAPHICS.

General Notes

1. PENTHOUSE FLOORING CAN LEAK TO COURTROOM BELOW. TAKE PRECAUTIONS AS NECESSARY TO PREVENT DRAINED WATER FROM REACHING THE PENTHOUSE FLOOR AND POTENTIALLY LEAKING TO THE COURT AREA BELOW..



1 MECHANICAL REMOVAL FLOOR PLAN
1/4" = 1'-0"



Key Plan



State of Utah
Department of Administrative Services

Division of Facilities
Construction and Management
4110 State Office Building
Salt Lake City, Utah 84114
Phone: 801.538.3018
Fax: 801.538.3267

BUILDING NAME:
Provo City 4th District Court
125 North 100 West
Provo, UT 84601

PROJECT TITLE:
PROVO COURTS Chiller Replacement/Boiler Controls Upgrade

REVISIONS:

MARK	DATE	DESCRIPTION

DATE:
10 Dec. 2009

DFCM PROJECT NUMBER:
08186150

SHEET TITLE:

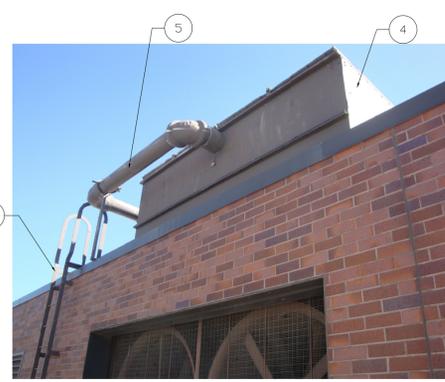
Mechanical Removal Floor Plan

SHEET NUMBER:
M100

SHEET OF



3 EXISTING CONDITION PHOTO
NTS



2 EXISTING CONDITION PHOTO
NTS

Keyed Notes

- 1 EXISTING BUILDING MEMBRANE ROOF BELOW TO BE PROTECTED FROM DAMAGE. TYPICAL.
- 2 EXISTING PENTHOUSE ROOF MEMBRANE TO BE PROTECTED FROM DAMAGE. TYPICAL.
- 3 EXISTING ROOF ACCESS LADDER.
- 4 EXISTING COOLING TOWER THROUGH PENTHOUSE ROOF TO BE REMOVED.
- 5 EXISTING CONDENSED WATER RETURN PIPING TO BE REMOVED.
- 6 EXISTING ROOF DRAINS TO REMAIN.
- 7 EXISTING PENTHOUSE ROOF STRUCTURE TO BE MODIFIED. SEE SHEET S100 FOR DETAILS. TYPICAL.
- 8 MAKEUP AIR UNIT EXHAUST VENTS TO REMAIN. PROTECT FROM DAMAGE.



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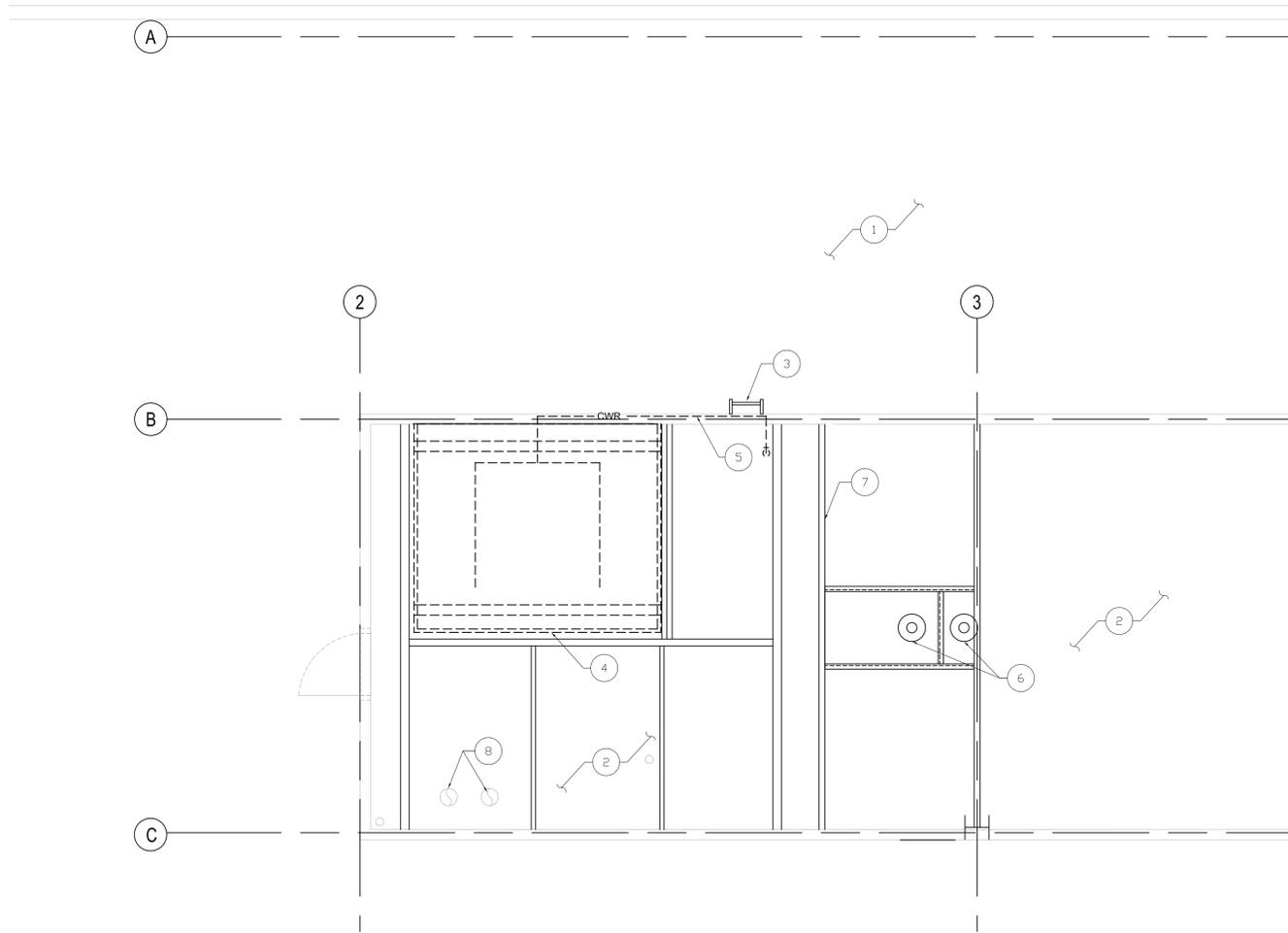
DATE:
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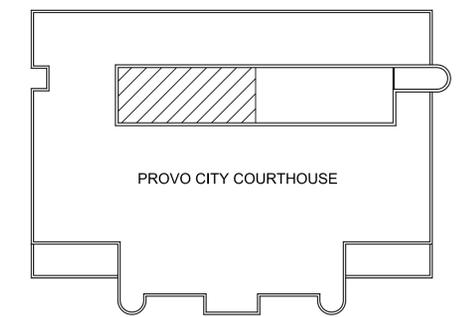
SHEET TITLE:
Mechanical
Removal Roof Plan

SHEET NUMBER:
M101

SHEET OF



1 MECHANICAL REMOVAL ROOF PLAN
1/4" = 1'-0"



Key Plan

D

C

B

A

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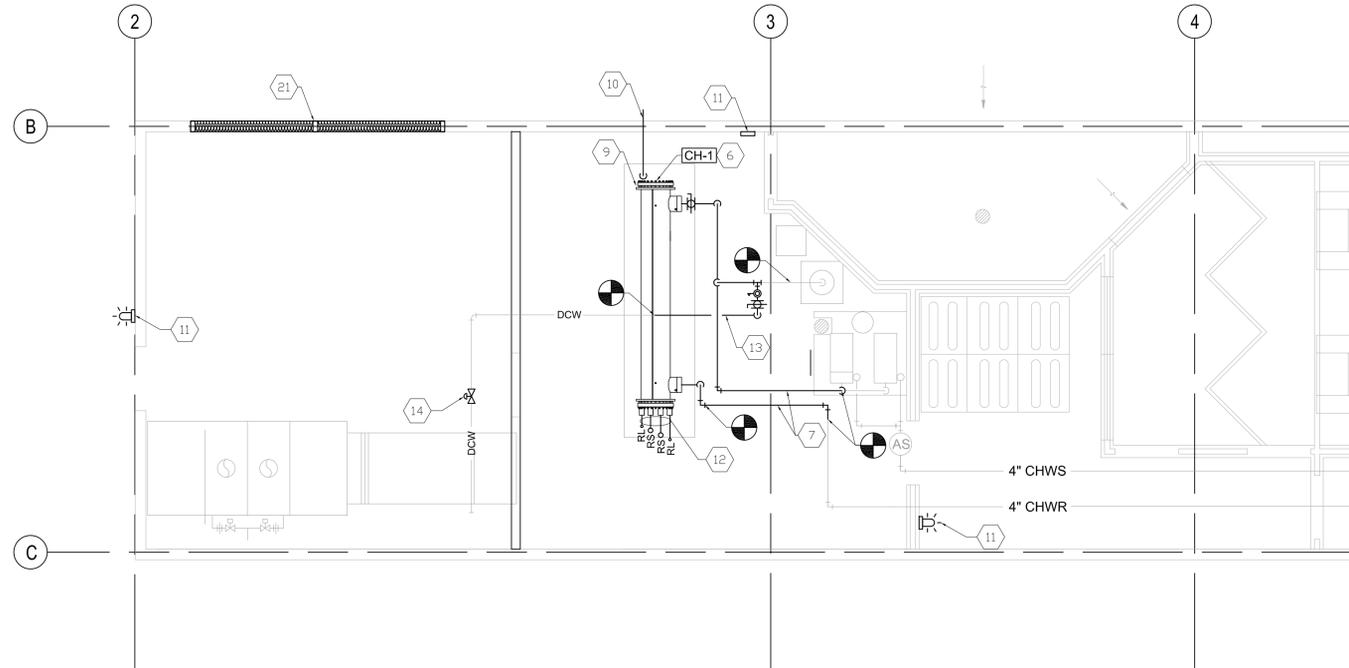
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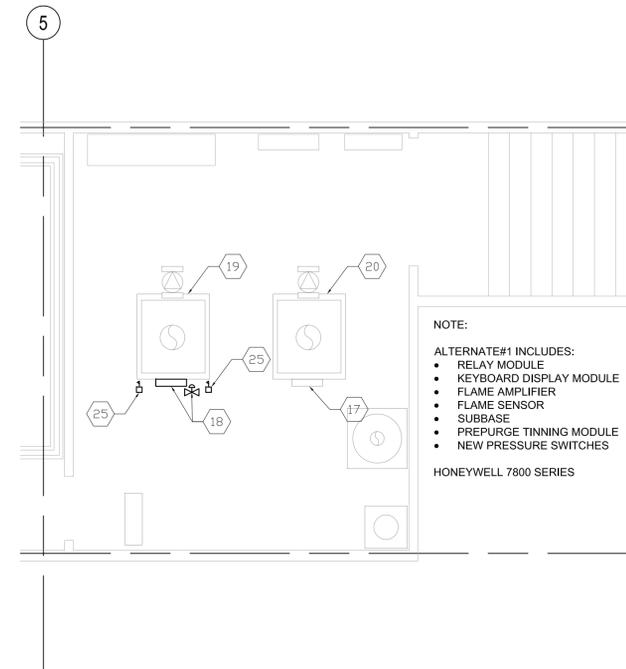
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B

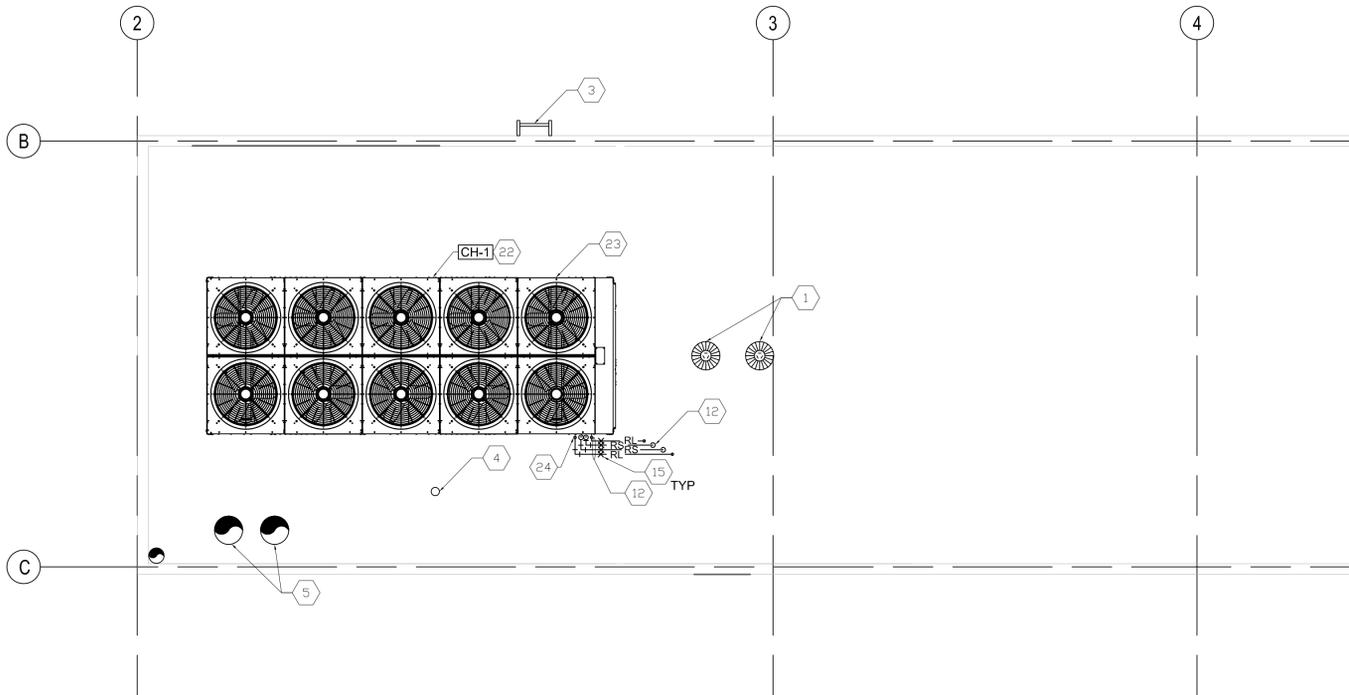
A



2 NEW MECHANICAL FLOOR PLAN
1/4" = 1'-0"



3 ALTERNATE #1
NEW MECHANICAL, BOILER ROOM
1/4" = 1'-0"



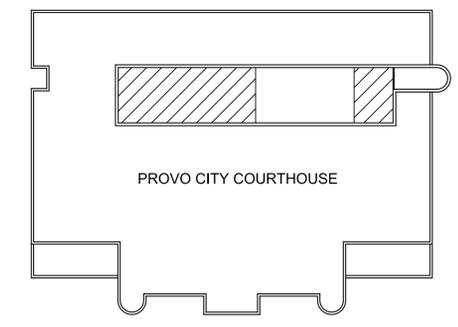
1 NEW MECHANICAL ROOF PLAN
1/4" = 1'-0"



4 EXISTING CONDITION PHOTO
NTS

Keyed Notes

- 1 EXISTING ROOF DRAINS TO REMAIN. PROTECT FROM DAMAGE. FIELD VERIFY EXACT LOCATION.
- 2 ROOF RAILING TO BE INSTALLED AND CONNECTED TO EXISTING BRICK WALL OR THRU ROOF MEMBRANE. PATCH AND REPAIR ROOF MEMBRANE AS REQUIRED. SEE DETAIL.
- 3 EXISTING LADDER TO REMAIN. INSTALL SAFETY CHAIN ACROSS OPENING.
- 4 EXISTING VENT PIPING TO REMAIN.
- 5 EXISTING MAKEUP UNIT. EXHAUST VENT TO REMAIN.
- 6 NEW DX EVAPORATIVE CHILLER BARREL WITH REMOTE AIR COOLED CHILLER/CONDENSING UNIT INSTALLED ON EXISTING 4" CONCRETE HOUSEKEEPING PAD. ENSURE UNIT IS PLACED WITH AT LEAST A 6" CLEARANCE FROM PAD EDGE ON ALL SIDES.
- 7 NEW VITALLIC INSULATED CHILLED WATER PIPING, ISOLATION VALVES, AND ACCESSORIES. DRAIN AND FILLS SYSTEM TO PROVIDE FRESH CHEMICAL ANALYSIS PER SPECIFICATIONS. VERIFY WITH USER PREFERRED WATER TREATMENT VENDORS.
- 8 EXISTING CHILLED WATER PUMPS TO REMAIN. BALANCING CONTRACTOR TO ..?
- 9 PROVIDE RUBBER VIBRATION PAD MOUNTING PER MANUFACTURERS RECOMMENDATION. BOLT TO EXISTING CONCRETE PAD.
- 10 NEW VENT/DRAIN LINES AS REQUIRED.
- 11 PROVIDE AND INSTALL REFRIGERANTS LEAK DETECTION SYSTEM COMPLETE WITH CONTROL PANEL, SENSORS AND ALARM LIGHTS. PROVIDED AND INSTALLED BY ATC CONTRACTOR.
- 12 NEW INSULATED REFRIGERANT PIPING FOR CU-1 PIPED TO OUTDOOR CONDENSING UNIT PER MANUFACTURER RECOMMENDATION. 2 OUT 2 1/2", 2 IN 1 1/2". SEE DETAIL 2 SHEET M500.
- 13 NEW INSULATED MAKEUP WATER LINE. RECONNECT TO EXISTING EXPANSION TANK AND EXISTING DCW MAKEUP PIPING. PROVIDE NEW PRV AND ISOLATION VALVE. 3/4" MINIMUM. FIELD VERIFY EXISTING PIPING SIZE.
- 14 EXISTING BACKFLOW PREVENTOR AND DRAIN PIPING. PROVIDE CERTIFIED TEST OF BACKFLOW PREVENTOR BY BALANCING CONTRACTOR.
- 15 PROVIDE PIPE SUPPORT AND ANCHORS AS REQUIRED. SEE SPECIFICATIONS.
- 16 ANCHOR NEW
- 17 EXISTING BOILER CONTROLS TO REMAIN.
- 18 ALTERNATE#1: EXISTING HONEYWELL V9055A 10552 FLUID POWER GAS VALVE AND CONTROLLER TO BE REPLACED WITH NEW ELECTRONIC HONEYWELL 7800 SERIES BOILER CONTROL SYSTEM. PROVIDE SEPARATE ALTERNATE #1 PRICE ON BID FORM FOR THIS WORK. INCLUDE ALL REQUIRED WIRING, PLUMBING AND START UP BY MANUFACTURER CERTIFIED TECHNICIAN.
- 19 EXISTING TO REMAIN BRYAN FLEX TUBE HOT WATER BOILER CL-90-W-S1. 7300MBH INP/UT. 5900MBH OUTP/UT. 865CFH MAX @ 7IN WC SUPPLY. 3.5IN WC MANIFOLD NATURAL GAS. UPGRADE GAS TRAIN TO MEET CURRENT CODE REQUIREMENTS. FIELD VERIFY PRIOR TO BID.
- 20 EXISTING TO REMAIN BOILER
- 21 FRAME OPENING WITH SHEET METAL PAINTED TO MATCH BUILDING COLORS. METAL STUDS, R15 AND PAINTED 5/8" SHEET ROCK ON THE INTERIOR. WATERTIGHT.
- 22 NEW AIR COOLED CHILLER WITH REMOTE DX/WATER EVAPORATOR BARREL. PROVIDE SHOP DRAWING COMPLETE WITH STRUCTURAL SUPPORT CALCULATIONS AS REQUIRED BY CODE. WEIGHT OF UNIT AND MANUFACTURERS RECOMMENDATIONS. 700 LBS.
- 23 PROVIDE SHOP DRAWING OF VIBRATION ISOLATION AND ROOF SUPPORT PER MANUFACTURERS RECOMMENDATIONS AND DETAIL 4 SHEET M500.
- 24 VERIFY PIPING CONNECTION LOCATION AND REQUIRED PIPE LENGTHS.
- 25 ALTERNATE#1: EXISTING GAS PRESSURE SWITCHES TO BE REPLACED WITH NEW. INCLUDE PIPING AND CONTROL WIRING TO NEW PRIMARY CONTROL.



Key Plan



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125 North 100 West
Provo, UT 84601

PROJECT TITLE:

PROVO COURTS
Chiller Replacement/Boiler Controls Upgrade

REVISIONS:

MARK	DATE	DESCRIPTION

DATE:

10 Dec. 2009

DFCM PROJECT NUMBER:

08186150

SHEET TITLE:

Mechanical Floor
Roof Plan

SHEET NUMBER:

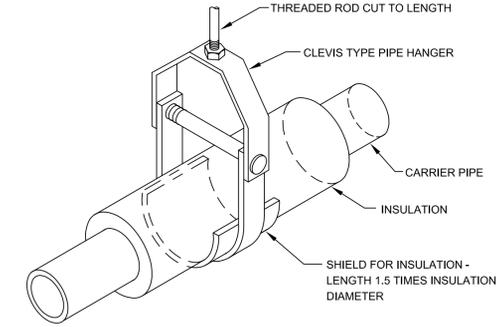
M200

SHEET OF

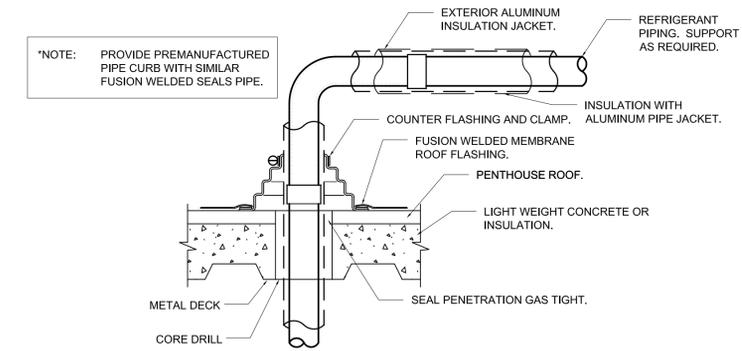
AIR COOLED CHILLER SCHEDULE

EQUIPMENT NO.	NOM. TONS	CHILLED WATER EVAPORATOR (6)				WATER PRESS. DROP (FT.OF HD.)	FOULING FACTOR	COMPRESSOR DATA			CONDENSER (5)				ELECTRICAL			PERFORMANCE	MANUFACTURER & MODEL
		E.W.T. (°F)	L.W.T. (°F)	GPM	FLUID			QTY.	TYPE	REFRIG.	AMBIENT (°F)	ALTITUDE (F+)	FAN (QTY)	STAGE	V.-PH.-CY.	MCA	MAX FUSE		
CH-1	170	56	42	290	WATER	8.0	0.0005	5	AIR COOLED	R410 A	95	4500	10	MULTI	460-3-60	381	400	14.6	YORK YLAA0175HE46

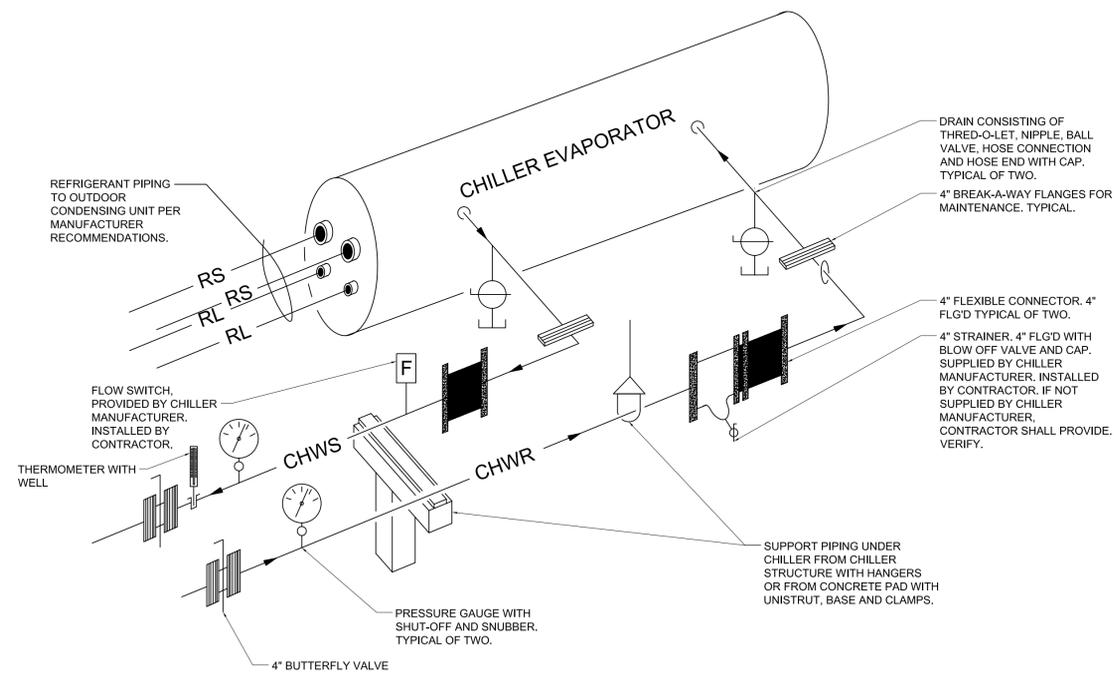
- NOTES:**
- DUAL CIRCUIT EVAPORATOR, MULTI-STAGE SCROLL COMPRESSOR.
 - REMOTE EVAPORATOR BARREL DX TO CHILLED WATER.
 - EVAPORATOR BARREL OPERATING WEIGHT APPROXIMATELY 2100 LBS WET.
 - CHILLER/CONDENSING UNIT OPERATING WEIGHT APPROXIMATELY 700 LBS.
 - PROVIDE WITH SEISMIC SNUBBED SPRING ISOLATORS WITH ELASTOMERIC (NEOPRENE) PADS. 2" MIN. DEFLECTION.
 - PROVIDE EVAPORATOR BARREL WITH ELASTOMERIC (NEOPRENE) ISOLATORS.



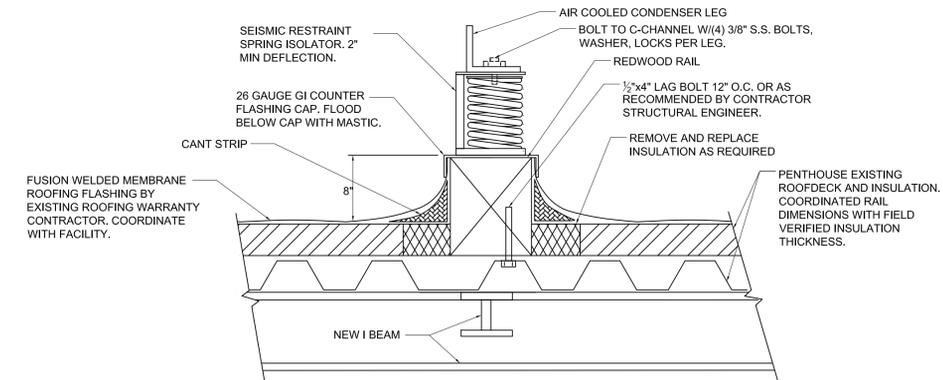
3 CLEVIS TYPE PIPE HANGAR DETAIL
NTS



2 REFRIGERANT LINE PENETRATION DETAIL
NTS



5 CHILLED WATER PIPING DETAILS
NTS



4 CONDENSER MOUNT DETAIL
NTS



MICRON ENGINEERING
MECHANICAL & CLEANROOM CONSULTING ENGINEERS
1534 SOUTH MAJOR STREET



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Chiller
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SHEET TITLE:

Mechanical
Schedule
& Details

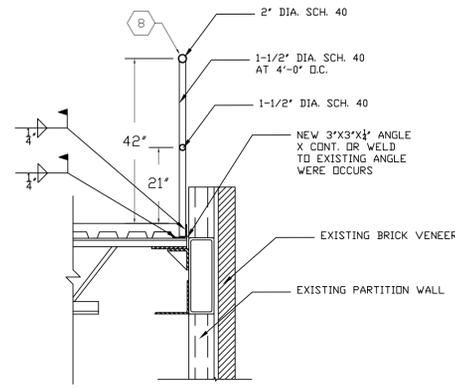
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M500

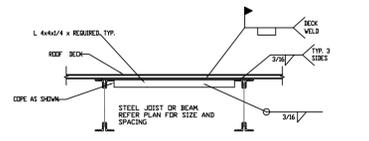
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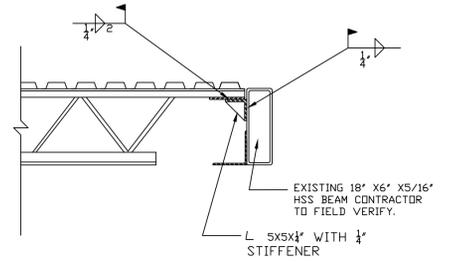
4 EXISTING CONDITION PHOTO
N.T.S.



3 PENTHOUSE ROOF RAILING DETAIL
N.T.S.

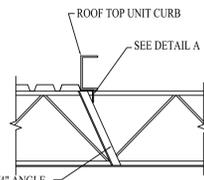


A MECH. UNIT SUPPORT
SCALE N.T.S.

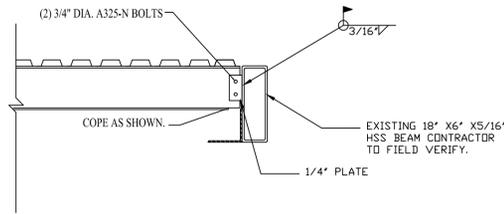


D ROOF JOIST TO BEAM CONN.
SCALE N.T.S.

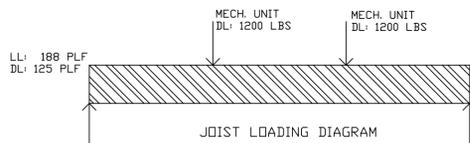
A MECH. UNIT SUPPORT
SCALE N.T.S.



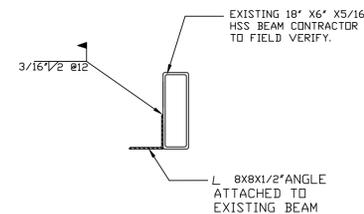
B MECHANICAL BRACING DETAIL
SCALE N.T.S.



E WF BEAM OPT. BEAM TO BEAM CONN.
SCALE N.T.S.

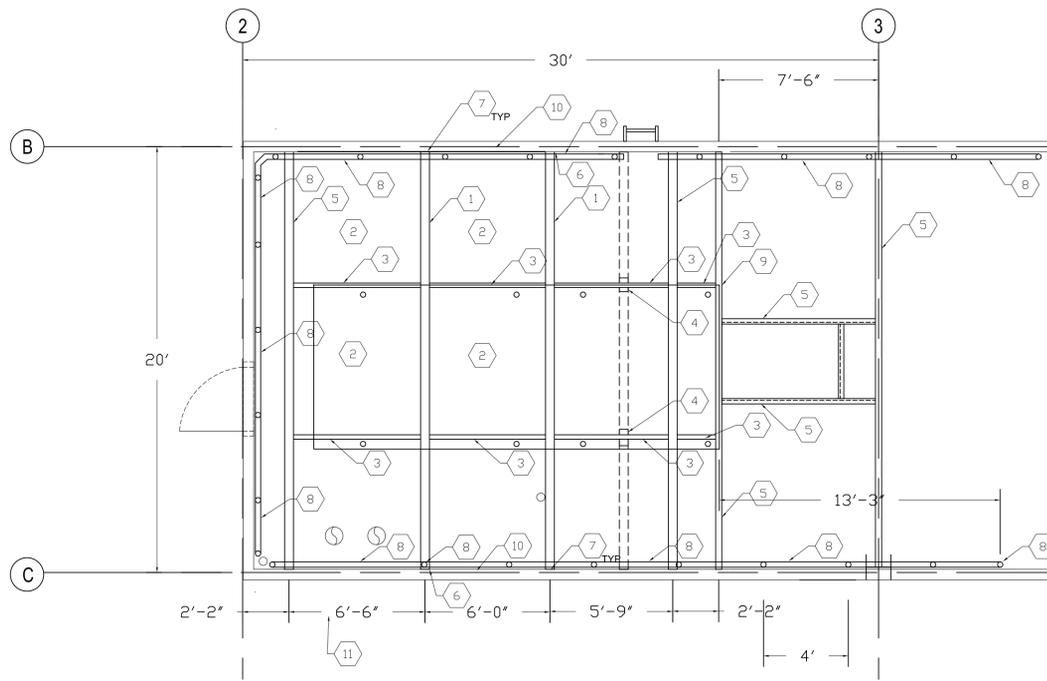


C NEW OPEN WEB JOIST LOADING
SCALE N.T.S.

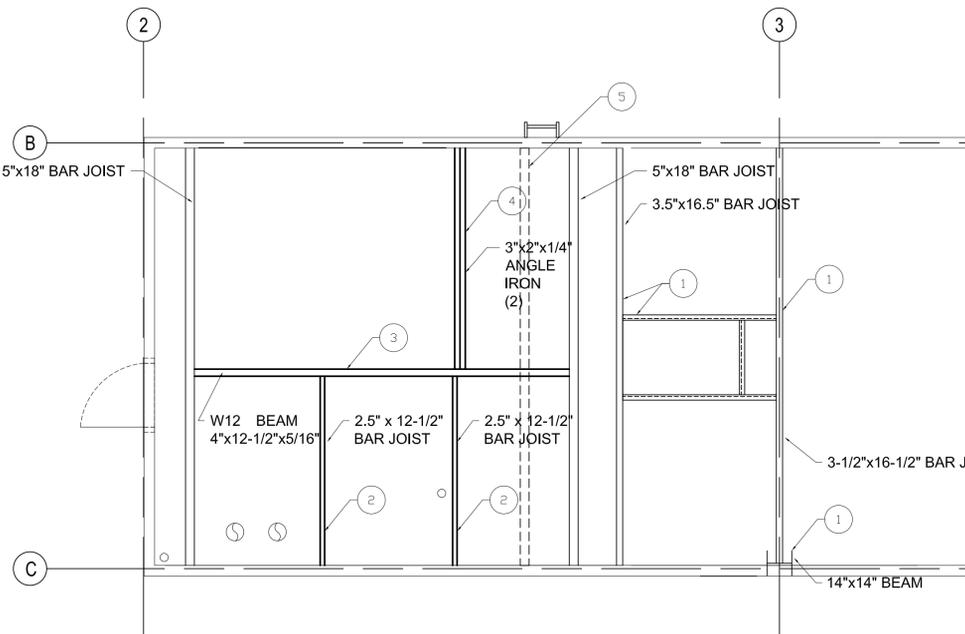


F EXISTING BEAM STIFFENING DUE TO ADDITIONAL LOAD
SCALE N.T.S.

5 DETAILS
N.T.S.



2 PENTHOUSE ROOF STRUCTURAL NEW PLAN
1/4" = 1'-0"



1 PENTHOUSE ROOF STRUCTURAL REMOVAL PLAN
1/4" = 1'-0"

Removal Keyed Notes

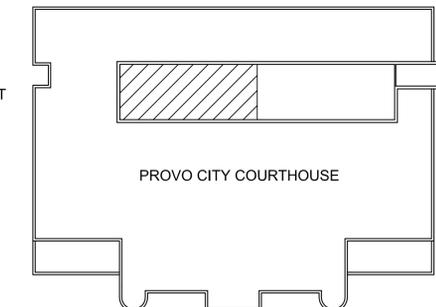
- 1 EXISTING STRUCTURE TO REMAIN.
- 2 BAR JOIST TO BE REMOVED.
- 3 EXISTING BEAM TO BE REMOVED.
- 4 EXISTING ANGLE IRON TO BE REMOVED.
- 5 EXISTING FRAMED WALL BELOW TO REMAIN.

New Work Keyed Notes

- 1 NEW 18K4 SPECIAL SEE LOADING DIAGRAM DETAIL C OR W10X19
- 2 NEW DECKING STEEL TO MATCH EXISTING. CONTINUOUS WELD NEW DECKING TO EXISTING DECKING.
- 3 NEW ANGLES AT EDGE OF MECHANICAL UNIT TYPICAL SEE DETAIL A
- 4 CUT OPENING IN WALL AS REQUIRED TO FIT THRU NEW JOIST. PATCH AND REPAIR WALL.
- 5 EXISTING ROOF STRUCTURE TO REMAIN.
- 6 FIELD VERIFY JOIST END CONNECTIONS. TYPICAL.
- 7 ATTACH NEW INTERMEDIATE BAR JOIST OR BEAM FROM MAIN BEAMS. TYPICAL
- 8 NEW RAILING PER DETAIL. COORDINATE FIELD CONDITIONS WITH DETAIL 3 S100.
- 9 APPROXIMATE CHILLER WEIGHT: 7000 LBS.
- 10 STIFFEN EXISTING HSS18"x6"x5/16" BEAM (CONTRACTOR TO FIELD VERIFY) WITH ANGLE PER DETAIL F
- 11 APPROXIMATE DIMENSIONS CONTRACTOR TO FIELD VERIFY

General Notes

1. PROVIDE FIRE WATCH DURING ALL WELDING OPERATIONS.
2. PROTECT EXISTING ROOF MEMBRANE AND INSULATION FROM DAMAGE.
3. ENGINEERED SHOP DRAWING SUBMITTAL FROM LICENSED STRUCTURAL ENGINEER REQUIRED FOR NEW STEEL BEAM SUPPORTS.
4. COORDINATE BEAM LOCATIONS WITH MECHANICAL CONTRACTOR AND EQUIPMENT SUPPORT RAILS. DETAIL 4 M500.
5. THE FOLLOWING LOADING CRITERIA WAS USED IN THE ANALYSIS OF THE OPEN WEB FLOOR JOIST BETWEEN GRID B&C:
LL: 30 PSF (ROOF SNOW LOAD)
DL: 20 PSF (STEEL DECK WITH MEMBRANE ROOF)



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PROVO COURTS Chiller Replacement/Boiler Controls Upgrade

REVISIONS:

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2	21 JAN 2010	DFCM REVIEW CHANGED NOTES

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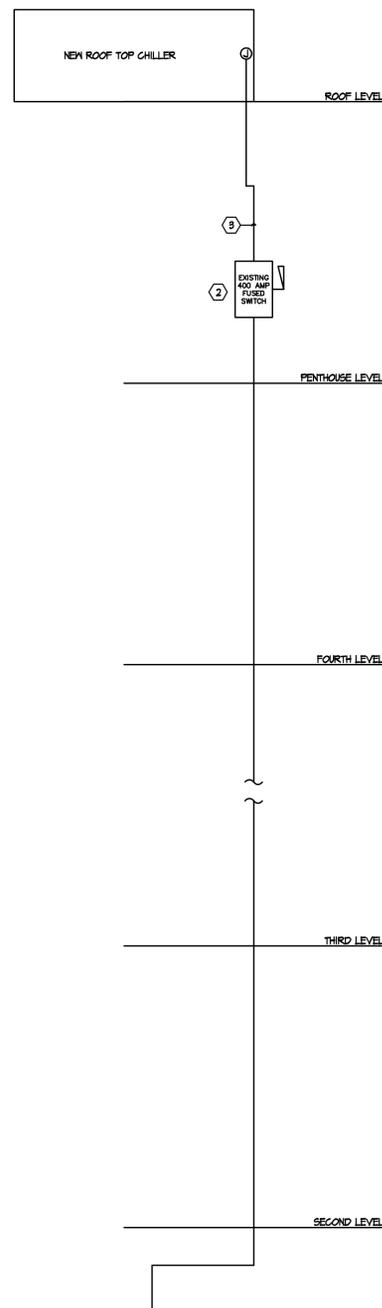
SHEET TITLE:
Penthouse Roof Structural Removal & New Plan

SHEET NUMBER:
S100

SHEET OF

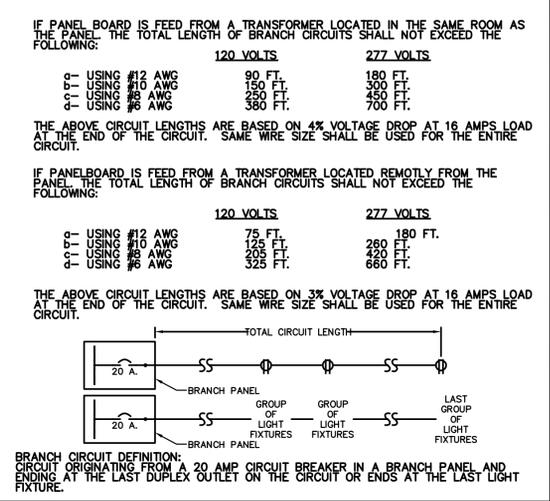
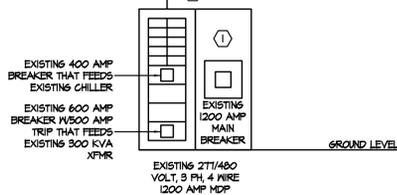
LIGHTING FIXTURE SCHEDULE				
SYMBOL	DESCRIPTION	LAMPS	APPROVED MANUFACTURERS	CATALOG NUMBER
A	4 FT. 2 LAMP FLUORESCENT STRIP FIXTURE W/WIRE GUARD, 120 VOLT ELECTRONIC BALLAST, CHAIN HANGING KIT.	(2) F32 T8 4100 K	COLUMBIA MEALUX LIGHTOLIER LITHONIA	C54-232-EBBLH20-C5UG4 66-232-LNY-ER21-UUG/66-4FT-U S048232HPR-LNY-HI/AUG3UCSP C 2 32 120 TUBFHP USCIN

- NOTES:**
- ALL FLUORESCENT LIGHTS SHALL HAVE ELECTRONIC PROGRAMMABLE START BALLASTS, 10% TOTAL HARMONIC DISTORTION, UNIVERSAL ADVANCE AND SYLVANIA ARE APPROVED MANUFACTURERS. BALLASTS TO HAVE 5 YEAR WARRANTY.
 - ALL FLUORESCENT LAMPS SHALL HAVE 4100° COLOR TEMPERATURE.
 - FIELD VERIFY ALL LIGHTING VOLTAGES PRIOR TO PLACING ANY ORDER.
 - THE WRITTEN CRITERIA OF THE FIXTURE DESCRIPTION TAKES PRECEDENCE OVER THE CATALOG NUMBER.
 - ALL MR16 LAMPS SHALL HAVE BOTTOM LENS AND 10,000 HOUR LIFE.

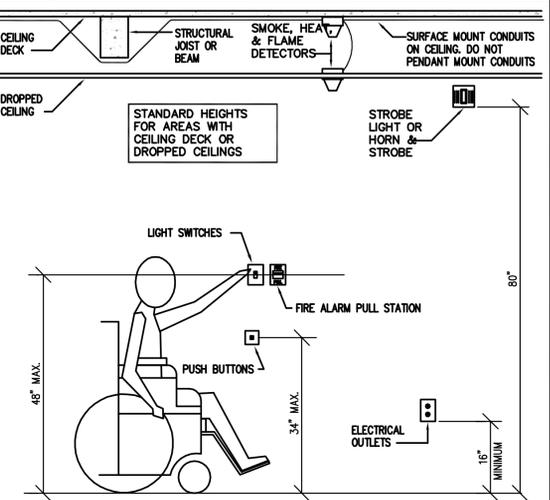


- REFERENCE NOTES:**
- EXISTING MDP IS LOCATED ON THE GROUND LEVEL, NORTH SIDE OF BUILDING MAIN ELECTRICAL ROOM. CONTRACTOR TO DISCONNECT THE EXISTING FEEDERS THAT PRESENTLY FEED THE CHILLER FOR REMOVAL.
 - EXISTING 400 AMP DISCONNECT TO REMAIN. CONTRACTOR TO REMOVE EXISTING 350 AMP FUSES AND TURN OVER TO BUILDING MAINTENANCE STAFF. CONTRACTOR TO FURNISH AND INSTALL (3) 400 AMP DUAL ELEMENT TIME DELAY FUSES IN EXISTING FUSED DISCONNECT.
 - CONTRACTOR TO EXTEND 3 #500 KCMIL COMPACT COPPER THIN-2, 1# THIN-2 GROUND IN A 3" CONDUIT FROM EXISTING DISCONNECT UP TO SINGLE POINT CONNECTION ON NEW CHILLER.
 - CONTRACTOR TO REMOVE EXISTING 350 KCMIL CONDUCTORS AND GROUND FROM EXISTING CONDUIT SO THAT NEW FEEDER CAN BE PULLED INTO EXISTING CONDUIT. CONTRACTOR TO FIELD VERIFY THE EXISTING CONDUIT ROUTING TO VERIFY LOCATION OF PULL BOXES.
 - CONTRACTOR TO FURNISH AND INSTALL 3 #500 KCMIL COMPACT COPPER THIN-2, 1# THIN-2 GROUND IN THE EXISTING 2-1/2" CONDUIT FROM EXISTING MAIN BREAKER IN THE MDP TO LINE SIDE ON EXISTING 400 AMP FUSED DISCONNECT LOCATED IN THE PENTHOUSE. SUPPORT CONDUCTORS IN VERTICAL RUNS.

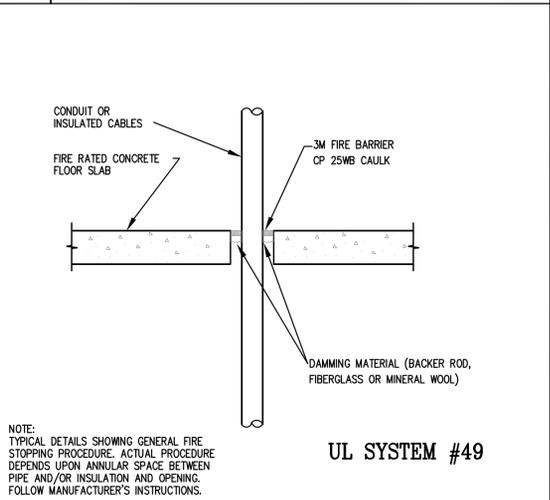
PARTIAL SINGLE LINE RISER DIAGRAM SCHEMATIC



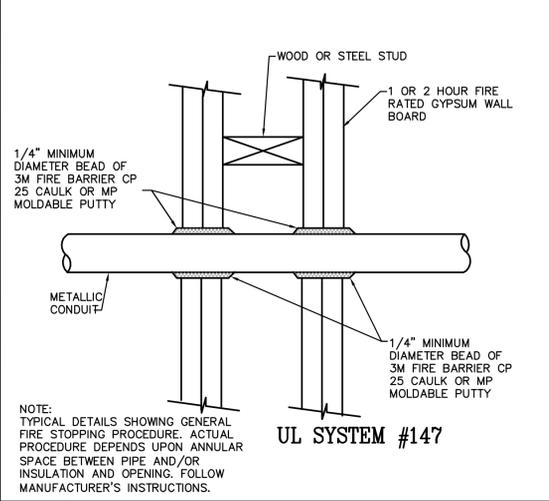
SCALE: N.T.S. TYPICAL BRANCH CIRCUIT LENGTH DETAIL



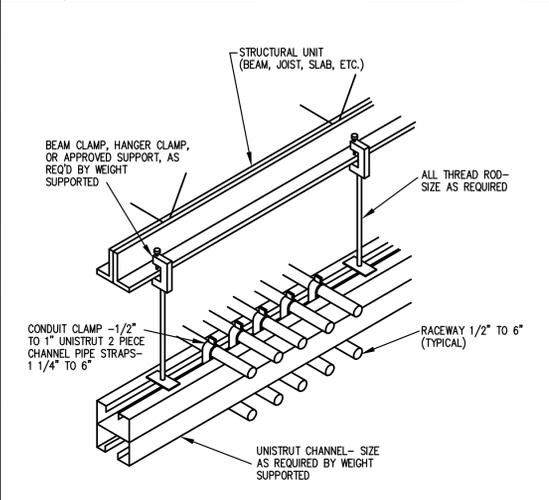
SCALE: N.T.S. STANDARD HEIGHTS FOR HANDICAPPED ACCESS



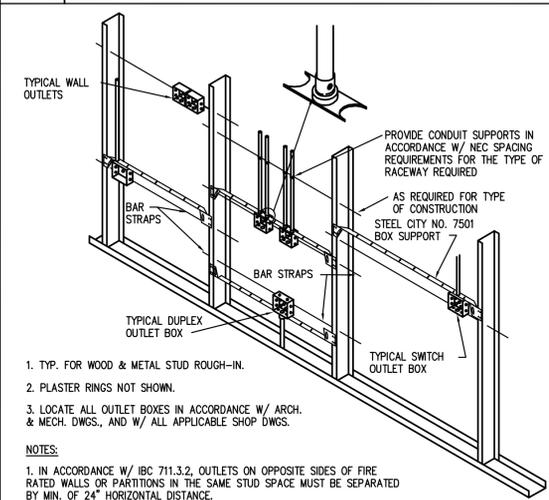
SCALE: N.T.S. TYPICAL FIRESTOP FOR CABLES/CONDUIT THROUGH CONCRETE FLOORING



SCALE: N.T.S. FIRESTOP FOR METAL CONDUIT THROUGH GYPSUM WALL BOARD



SCALE: N.T.S. TYPICAL CONDUIT RACK DETAIL



SCALE: N.T.S. TYPICAL ROUGH-IN REQUIREMENTS DETAIL

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BUILDING NAME:
Provo City 4th District Court
125 North 100 West
Provo, UT 84601

PROJECT TITLE:
PROVO COURTS
Chiller Replacement/Boiler Controls Upgrade

REVISIONS:

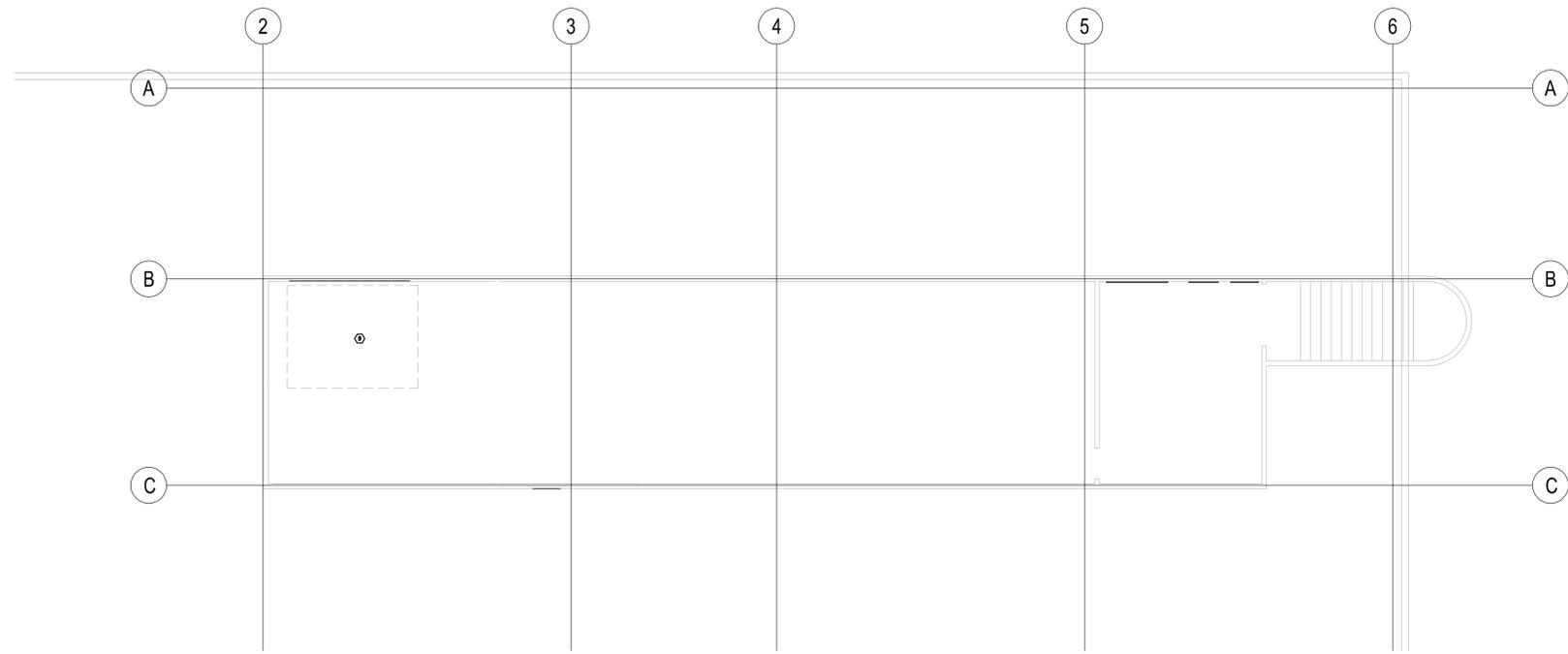
MARK	DATE	DESCRIPTION

DATE:
24 Nov. 2009

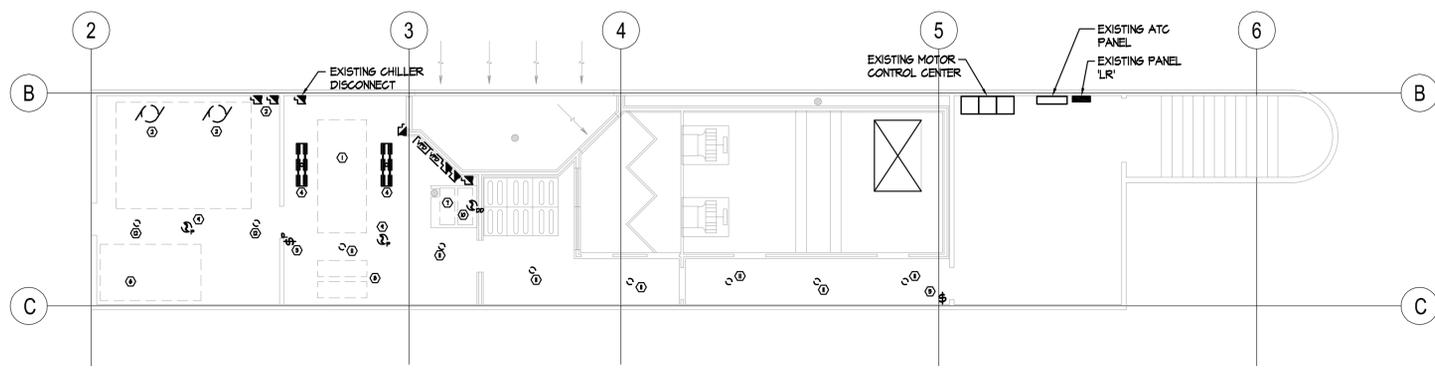
DFCM PROJECT NUMBER:
08186150

SHEET TITLE:
Typical Electrical Details - Power

SHEET NUMBER:
EG002
SHEET OF



ELECTRICAL ROOF DEMOLITION PLAN
 1/4" = 1'-0"



ELECTRICAL PENTHOUSE DEMOLITION PLAN
 1/4" = 1'-0"

- REFERENCE NOTES:**
- ① CONTRACTOR TO ELECTRICALLY DISCONNECT EXISTING CHILLER FOR REMOVAL BY OTHERS. REMOVE ALL CONDUIT AND WIRE COMPLETELY FROM LOAD SIDE OF DISCONNECT TO CHILLER POINT OF CONNECTION.
 - ② CONTRACTOR TO DISCONNECT EXISTING COOLING TOWER FANS FOR REMOVAL BY OTHERS. REMOVE DISCONNECTS, CONDUIT AND WIRE COMPLETELY FROM MOTORS BACK TO PANEL THE FEEDS MOTORS.
 - ③ CONTRACTOR TO ELECTRICALLY DISCONNECT THE EXISTING COOLING TOWER SUMP HEATER ELECTRICALLY FOR REMOVAL BY OTHERS. REMOVE CONDUIT AND WIRE COMPLETELY BACK TO MOTOR CONTROL CENTER THAT PRESENTLY FEEDS SUMP HEATER.
 - ④ APPROXIMATE LOCATION OF EXISTING FLUORESCENT FIXTURE TO REMAIN. CONTRACTOR TO CLEAN AND PROVIDE NEW LAMPS AT PROJECT COMPLETION.
 - ⑤ APPROXIMATE LOCATION OF EXISTING TOGGLE SWITCH TO REMAIN.
 - ⑥ APPROXIMATE LOCATION OF EXISTING MAKE-UP AIR HANDLER TO REMAIN. PROTECT EXISTING DISCONNECT, CONDUIT AND WIRE FROM DAMAGE DUE TO REMOVAL OF THE COOLING TOWER IN THIS AREA.
 - ⑦ APPROXIMATE LOCATION OF CHILLED WATER PUMPS P-1 AND P-2 TO REMAIN. PROTECT EXISTING DISCONNECTS, CONDUIT AND WIRE FROM DAMAGE DURING REMOVAL OF THE EXISTING CHILLER AND INSTALLATION OF THE NEW CHILLER.
 - ⑧ APPROXIMATE LOCATION OF DISCONNECTS AND VFD'S FOR CONDENSER WATER PUMPS P-3 AND P-4 TO BE REMOVED BY OTHERS. CONTRACTOR TO ELECTRICALLY DISCONNECT VFD'S AND DISCONNECTS SO THAT THEY CAN BE REMOVED. REMOVE CONDUIT AND WIRE COMPLETELY BACK TO THE MOTOR CONTROL CENTER.
 - ⑨ APPROXIMATE LOCATION OF CEILING MOUNTED SMOKE DETECTOR. CONTRACTOR TO CAP SMOKE DETECTOR WHEN WORK IS BEING DONE IN AREA TO AVOID NUISANCE ALARMS IN THE BUILDING. DETECTOR TO BE BACK IN SERVICE AT THE END OF EACH DAY, NO EXCEPTIONS.
 - ⑩ APPROXIMATE LOCATION OF EXISTING DUCT MOUNTED SMOKE DETECTOR TO REMAIN. CONTRACTOR TO PROTECT DUCT MOUNTED SMOKE DETECTOR FROM DAMAGE DUE TO REMOVAL OF THE EXISTING CHILLER AND INSTALLATION OF THE NEW CHILLER.
 - ⑪ CONTRACTOR TO FURNISH AND INSTALL NEW 15 WATT SELF BALLASTED COMPACT FLUORESCENT LAMPS IN EXISTING INCANDESCENT FIXTURES.
 - ⑫ CONTRACTOR TO REMOVE EXISTING INCANDESCENT FIXTURES. SEE SHEET EP201 FOR NEW FIXTURE TYPE.

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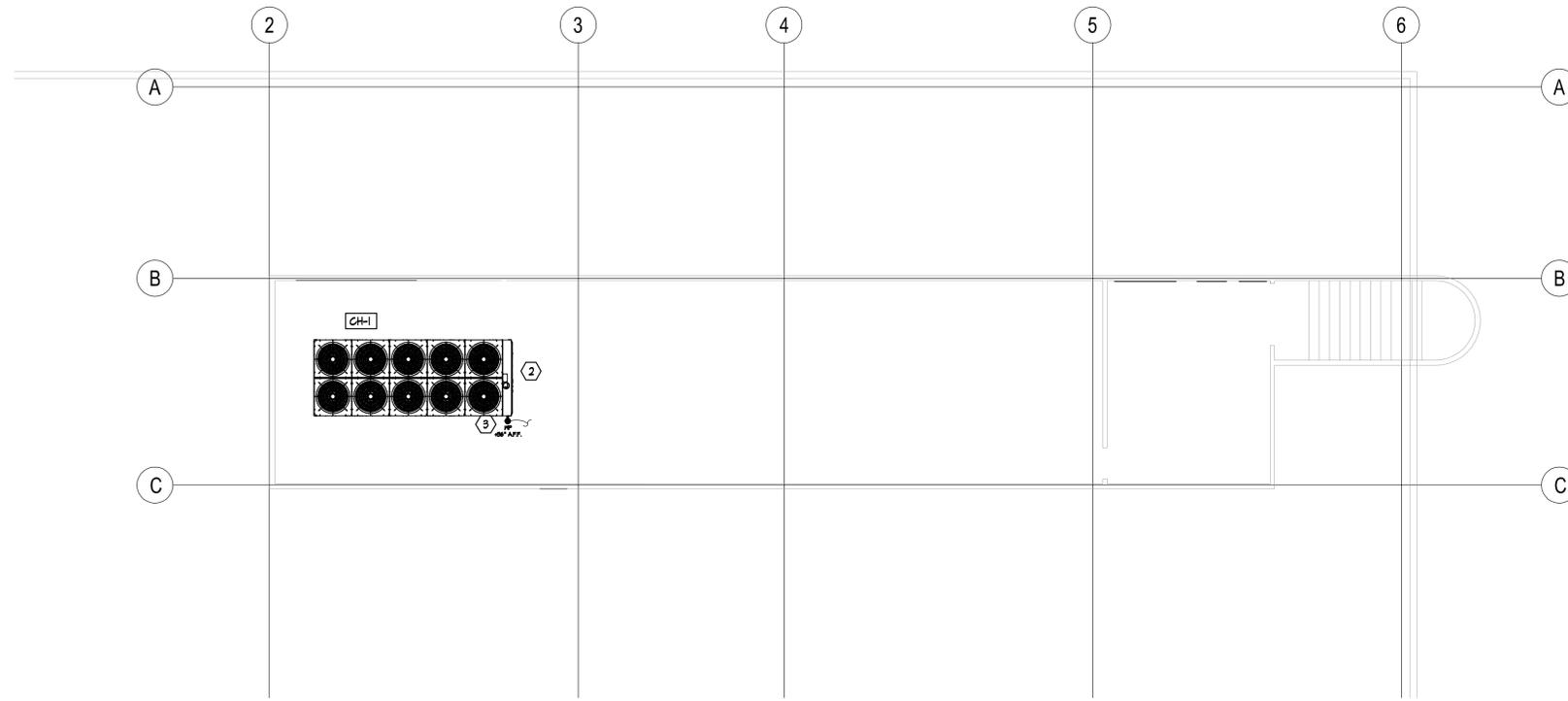
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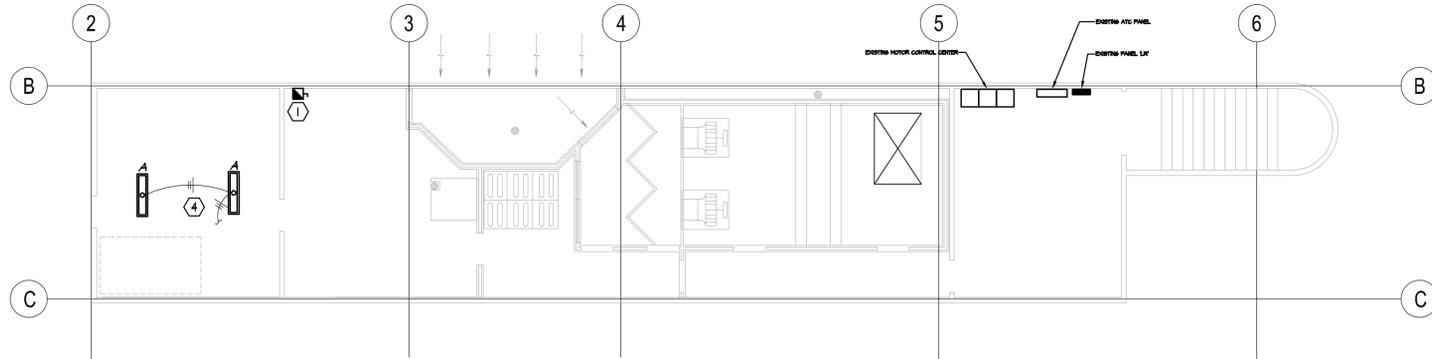
DFCM PROJECT NUMBER:
08186150

SHEET TITLE:
Electrical Demo Plans - Penthouse & Roof

SHEET NUMBER:
ED100
 SHEET OF



ELECTRICAL ROOF PLAN
 1/4" = 1'-0"



EXISTING PENTHOUSE ELECTRICAL PLAN
 1/4" = 1'-0"

- REFERENCE NOTES:**
- APPROXIMATE LOCATION OF EXISTING 400 AMP FUSED DISCONNECT TO REMAIN. CONTRACTOR TO INSTALL NEW FIBERTRON TYPE FUSES. SEE MECHANICAL EQUIPMENT SCHEDULE FOR FUSE SIZE AND WIRE SIZE.
 - APPROXIMATE LOCATION FOR NEW CHILLER UNIT DISCONNECT. CONTRACTOR TO EXTEND CONDUIT AND WIRE FROM EXISTING 400 AMP DISCONNECT TO CHILLER CONTROL PANEL FOR SINGLE POINT CONNECTION.
 - CONTRACTOR TO FURNISH AND INSTALL GFI PROTECTED DUPLEX RECEPTACLE IN WEATHER PROOF HOUSING ADJACENT TO THE NEW ROOF TOP CHILLER UNIT. EXTEND 2 #2 THW, 1 #2 GROUND IN A 3/4" CONDUIT TO EXISTING OUTLET BELOW IN PENTHOUSE.
 - CONTRACTOR TO INSTALL NEW FLUORESCENT FIXTURES AS SHOWN. CIRCUIT TO EXISTING LIGHTING CIRCUIT. 2 #2 THW, 1 #2 GROUND FROM NEW LIGHT FIXTURE TO EXISTING JUNCTION BOX. CONTRACTOR TO FURNISH AND INSTALL ALL NECESSARY CONDUIT, WIRE, JUNCTION BOXES, ETC., AS REQUIRED TO CIRCUIT NEW LIGHTING TO EXISTING CIRCUIT.

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DFCM PROJECT NUMBER:
 08186150

SHEET TITLE:
 Electrical Floor Plans - Penthouse & Roof

SHEET NUMBER:
 EP200

MECHANICAL EQUIPMENT SCHEDULE

NAME OF MECHANICAL EQUIPMENT	AIR COOLED CHILLER								
EQUIPMENT NO.	AC-1								
RATING/WATTS	380.6 MCA								
VOLTAGE	480								
PHASE	3								
AMPS	380.6								
WIRE SIZE	3 #500								
GROUND WIRE	1 #5								
CONDUIT SIZE	EX#1G								
FUSE DISC. SW.	2-1/2"								
TYPE RK1 FUSES	400 A								
NON-FUSE SW.									
CAPACITOR (KVAR)									
NOTES	23								

- NOTES:**
- NON-FUSED DISCONNECT
 - CONTRACTOR TO UTILIZE COMPACT COPPER CONDUCTORS, THIN-2.
 - MAKE SINGLE POINT CONNECT TO CHILLER FROM EXISTING 400 A DISCONNECT.
 - FURNISH AND INSTALL A COMBINATION NEMA 3R FUSED DISCONNECT AND NEMA SIZE 1 MOTOR STARTER W/2 EA. N/O AND N/C CONTACTS.
 - TIE-INTO FIRE ALARM SYSTEM FOR AUTOMATIC OPERATION.