

COOLING TOWER UPGRADE WEBER STATE UNIVERSITY OGDEN, UTAH

DFCM PROJECT NO. 08054810



State of Utah—Department of Administrative Services

DIVISION OF FACILITIES CONSTRUCTION
AND MANAGEMENT

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

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State of Utah - DFCM
4110 State Office Building Salt Lake City, UT

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Weber State University
Cooling Tower Upgrade
COVER SHEET

C1

General Mechanical Notes

- MECHANICAL CONTRACTOR SHALL COORDINATE HIS WORK WITH THE WORK OF OTHER TRADES, AND WITH THE WSU PROJECT MANAGER, BRUCE DALEY, WHO CAN BE REACHED AT (801) 626-6675 (OFFICE) OR (801) 678-1667 (CELL).
- INSTALLATION SHALL BE IN CONFORMANCE WITH THE IBC, 2006 EDITION; IMC 2006 EDITION; IFGC, 2006 EDITION AND THE NEC, 2005 EDITION; ALL AS ADOPTED AND AMENDED BY THE STATE OF UTAH AND THE LOCAL JURISDICTION.
- THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE CLEAN-UP AND REMOVAL OF MECHANICAL DEBRIS.
- ARRANGE AND SCHEDULE INSPECTIONS IN A TIMELY MANNER WITH THE CONSTRUCTION SCHEDULE.
- MECHANICAL EQUIPMENT, MECHANICAL PIPING AND DUCTING SHALL BE SEISMICALLY BRACED WHERE REQUIRED IN CONFORMANCE WITH THE IBC, 2006 EDITION.
- ALL MECHANICAL EQUIPMENT SHALL BE UL LISTED.
- ALL CONCRETE WORK AND INTERIOR FINISH WORK IS TO BE PERFORMED BY THIS CONTRACTOR.
- CONTRACTORS SHALL BE FAMILIAR WITH THE WSU CONSTRUCTION STANDARDS. THEY CAN BE FOUND AT [WWW.WSUT.UTAH.EDU](#) UNDER "F" IN THE INDEX, SELECT "FACILITIES MANAGEMENT", THEN UNDER "CAM/PUS" ON THIS PAGE, SELECT "CONSTRUCTION STANDARDS FOR ARCHITECTS, ENGINEERS, AND CONTRACTORS".

Intent of Project

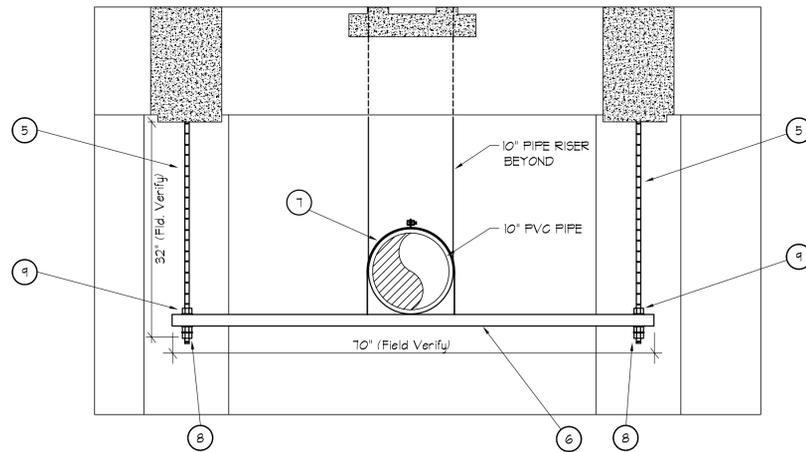
THE MECHANICAL PORTION OF THE PROJECT SHALL INCLUDE THE REPLACEMENT OF THE DRIFT ELIMINATORS, AND THE REPLACEMENT OF THE PROPELLER / HUB ASSEMBLIES IN ALL FIVE CELLS OF THE COOLING TOWER.

SEE THE ELECTRICAL DRAWINGS FOR THE SCOPE OF ELECTRICAL WORK.

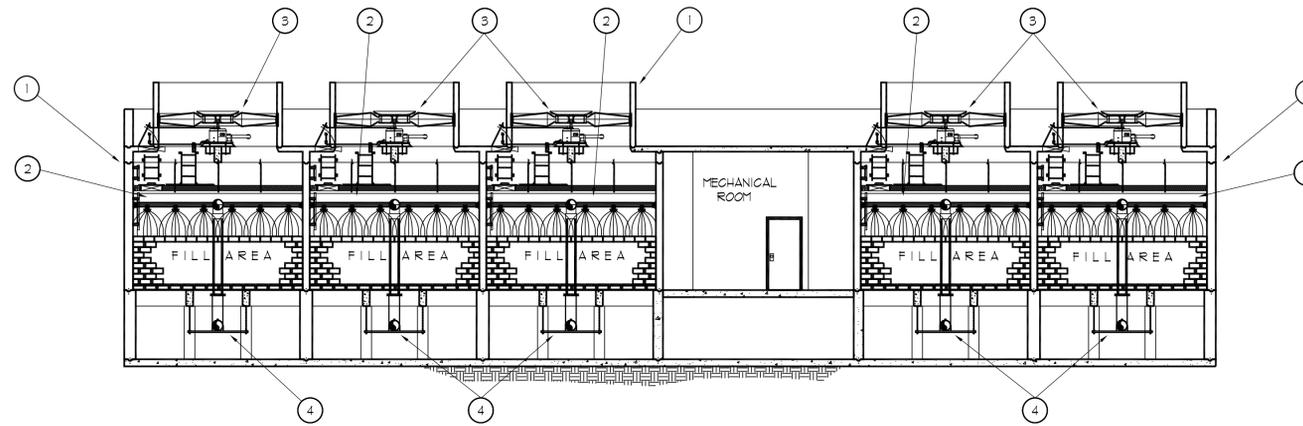
IMPORTANT NOTE: ALL WORK IN THE SUMP AREA OF THE COOLING TOWER MUST BE COMPLETED PRIOR TO APRIL 15. THE COOLING TOWER MUST BE OPERATIONAL BY APRIL 15 AND MUST REMAIN OPERATIONAL AFTER THAT DATE. AFTER APRIL 15, WORK MAY BE PERFORMED ON ONE CELL AT A TIME SO THAT THE REMAINDER OF THE COOLING TOWER REMAINS OPERATIONAL.

Keyed Reference Notes

- EXISTING PERMANENT COOLING TOWERS WERE MANUFACTURED BY TOWER ENGINEERING, 2821 LACKLAND, SUITE 540, FORT WORTH, TEXAS. CONTACT BRIAN BAGWELL (817) 751-4114 FOR INFORMATION AND PRICING OF NEW DRIFT ELIMINATORS AND PROPELLER ASSEMBLIES.
- REMOVE AND REPLACE ALL DRIFT ELIMINATOR MATERIAL FROM ALL FIVE CELLS. NEW MATERIAL TO BE BRENTWOOD CDX80-10/25 WITH 5-YEAR MATERIALS WARRANTY. SUPPLIED BY TOWER ENGINEERING AND INSTALLED BY CONTRACTOR. SEE NOTE 1.
- REMOVE AND REPLACE ALL FIVE PROPELLER / HUB ASSEMBLIES. NEW ASSEMBLIES TO BE HUDSON APT-1H-8 SUPPLIED BY TOWER ENGINEERING. SEE NOTE 1.
- REMOVE AND REPLACE ONE PIPE SUPPORT FOR 10" PVC PIPE UNDER EACH OF THE FIVE CELLS. SEE DETAIL 1 / M101.
- REPLACE EXISTING 5/8" DIA. THREADED ROD WITH NEW STAINLESS STEEL THREADED ROD OF THE SAME SIZE. FIELD VERIFY LENGTH.
- REPLACE EXISTING 1-5/8" MECHANICAL CHANNEL WITH 1-5/8" STAINLESS STEEL MECHANICAL CHANNEL.
- REPLACE EXISTING 10" DIA. PIPE CLAMP AND BOLT WITH STAINLESS STEEL PIPE CLAMP AND BOLT. USE STAINLESS STEEL LOCK WASHER ON BOLT.
- PROVIDE STAINLESS STEEL DOUBLE NUTS WITH STAINLESS STEEL LOCKWASHER BETWEEN THE NUTS.
- PROVIDE STAINLESS STEEL NUT WITH STAINLESS STEEL WASHER AND LOCKWASHER ON TOP OF THE MECHANICAL CHANNEL.

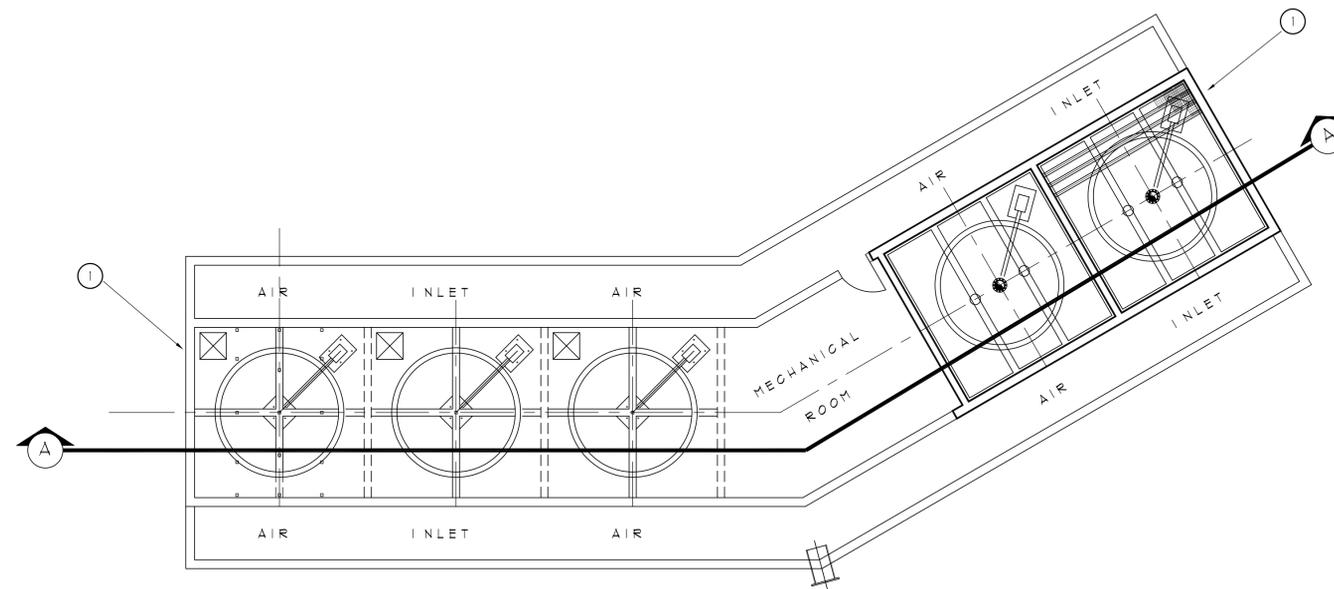


1
M101
Pipe Support Detail
SCALE: 1/2" = 1'-0"



Section A

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



Mechanical Plan

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

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03 • 05 • 09

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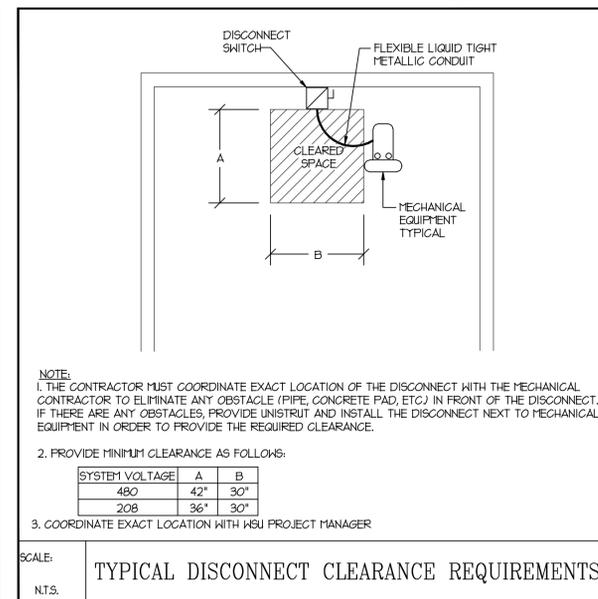
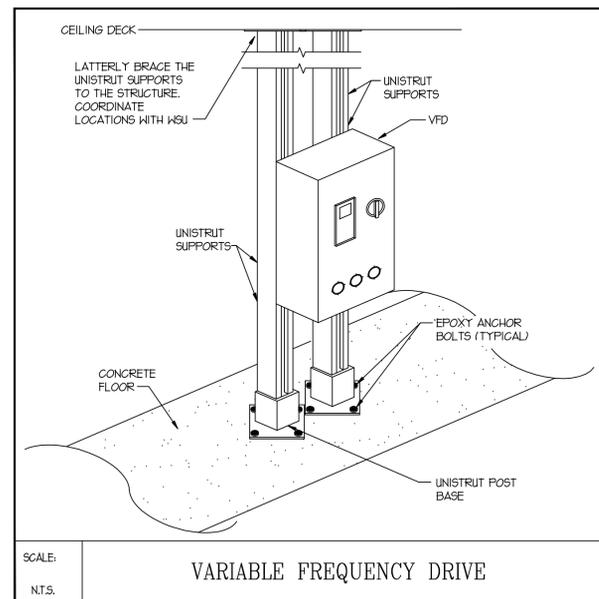
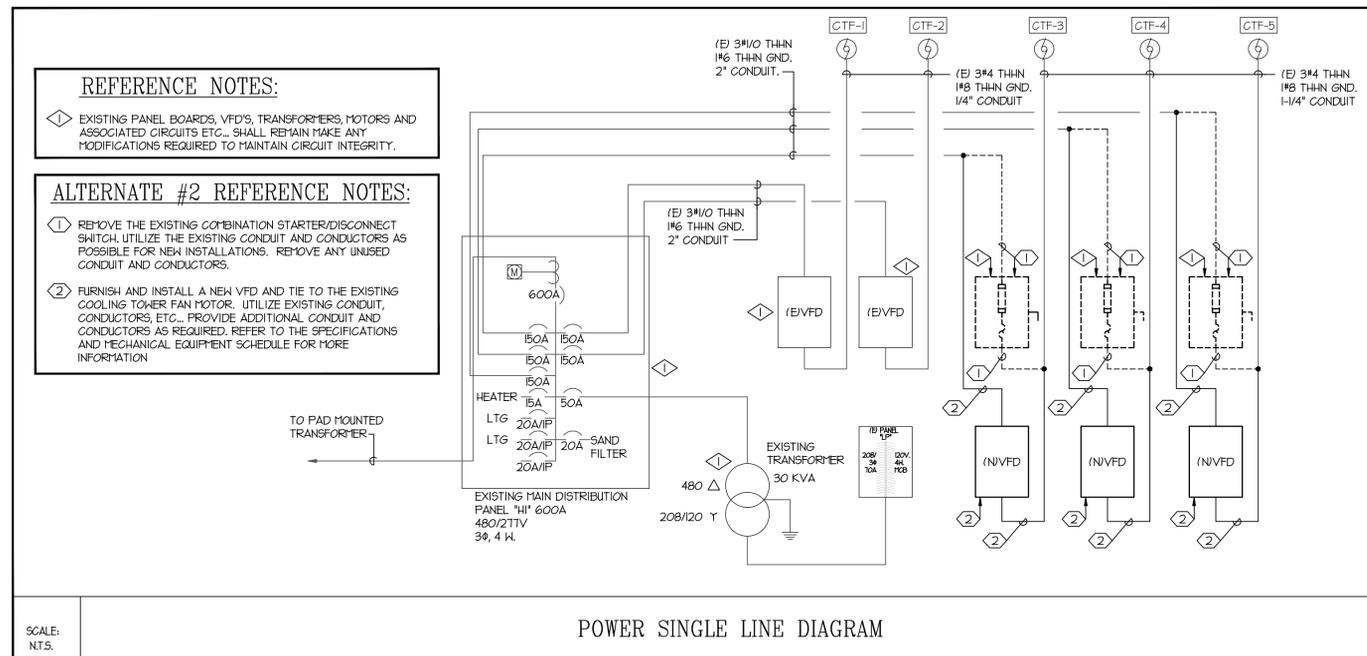
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Weber State University
Cooling Tower Upgrades
Main Floor Mechanical Plan

M101



POWER SYSTEMS SYMBOL LIST

SYMBOL	DESCRIPTION
⊕	DUPLEX CONVENIENCE OUTLET - 20 AMP
⊕	DUPLEX CONVENIENCE OUTLET - 20 AMP GROUND FAULT INTERRUPTER
⊕	4-PLEX CONVENIENCE OUTLET - 20 AMP
⊕	4-PLEX CONVENIENCE OUTLET - 20 AMP GROUND FAULT INTERRUPTER
⊕	SPECIAL PURPOSE SINGLE PHASE OUTLET
⊕	SPECIAL PURPOSE THREE PHASE OUTLET
⊕	JUNCTION BOX - SIZE AND FUNCTION AS REQUIRED
⊕	PUSH BUTTON SWITCH
---	CONDUITS CONCEALED IN FLOOR OR BELOW GRADE
---	CONDUITS CONCEALED IN CEILING AND WALLS
---	ARROWS INDICATE HOME RUNS
⊕	NON FUSED DISCONNECT SWITCH - SIZE AS REQUIRED
⊕	FUSED DISCONNECT SWITCH - SIZE AS REQUIRED
⊕	COMBINATION STARTER/FUSED DISCONNECT SWITCH - SIZE AS REQUIRED
⊕	CIRCUIT BREAKER DISCONNECT - SIZE AS REQUIRED
⊕	FUSE - SIZE AS REQUIRED
⊕	MOTOR LOCATION
⊕	MANUAL DISCONNECT WITH THERMAL OVERLOAD PROTECTION
⊕	ELECTRICAL PANEL LOCATION
⊕	VARIABLE FREQUENCY DRIVE - BY DIV. 15000
⊕	MECHANICAL EQUIPMENT CALLOUT
⊕	REFERENCE NOTE CALLOUT
⊕	SENSOR
⊕	THERMOSTAT
⊕	MOTORIZED VALVE

ABBREVIATIONS SYMBOL LIST

SYMBOL	DESCRIPTION
W.P.	INDICATES WEATHER PROOF EQUIPMENT
A.T.C.	AUTOMATIC TEMPERATURE CONTROL PANEL
CLG	INDICATES CEILING MOUNTED DEVICE
CO	CONVENIENCE OUTLET
GRS	GALVANIZED RIGID STEEL
H.P.	HORSE POWER
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
S	INDICATES DEVICE IS SURFACE MOUNTED
(E)	EXISTING
TYP	TYPICAL

MECHANICAL EQUIPMENT SCHEDULE

NAME OF MECHANICAL EQUIPMENT	MOTOR DATA				
	COOLING TOWER				
EQUIPMENT NO.	CTF-1	CTF-2	CTF-3	CTF-4	CTF-5
RATING/WATTS	40HP	40HP	40HP	40HP	40HP
VOLTAGE	480	480	480	480	480
PHASE	3	3	3	3	3
AMPS	52	52	52	52	52
WIRE SIZE	3/4"	3/4"	3/4"	3/4"	3/4"
GROUND WIRE	1/8"	1/8"	1/8"	1/8"	1/8"
CONDUIT SIZE	1-1/4"	1-1/4"	1-1/4"	1-1/4"	1-1/4"
FUSE DISC. SH.	100	100	100	100	100
TYPE RFI FUSES	90	90	90	90	90
NON-FUSE SH.					
CAPACITOR (KVAR)	1	1	2	2	2
NOTES:					

1. EXISTING EQUIPMENT TO REMAIN
2. UNDER BID ALTERNATE NO. 2 FURNISH AND INSTALL VFD. TIE THE EXISTING EMERGENCY STOP SWITCH TO THE NEW VFD SAFETY TERMINALS

- GENERAL NOTES:**
- ALL MATERIALS TO BE REMOVED AND RETURNED TO THE OWNER. MATERIALS WHICH THE OWNER DECIDES NOT TO KEEP SHALL BE SALVAGED AND REMOVED FROM THE SITE BY THE CONTRACTOR.
 - ALL CONCEALED CONDUIT THAT CANNOT BE REMOVED SHALL BE CUT FLUSH WITH THE FINISH SURFACES AND CAPPED OFF AFTER THE WIRING HAS BEEN DISCONNECTED AT THE PANEL AND REMOVED FROM THE CONDUIT.
 - IN AREAS WHERE CIRCUIT CONTINUITY IS INTERRUPTED, BUT CIRCUIT MUST BE MAINTAINED TO THE DEVICES WHICH ARE TO REMAIN, MAKE ALL THE NECESSARY MODIFICATIONS TO THE CIRCUITS IN ORDER TO MAINTAIN THE CIRCUIT INTEGRITY.
 - THE CONTRACTOR SHALL PATCH THE WALLS AND CEILING WHERE THE DEVICES ARE REMOVED TO MATCH THE EXISTING WALLS AND CEILING. COORDINATE WITH GENERAL CONTRACTOR AND HSI PROJECT MANAGER.
 - THE COLOR OF ALL THE NEW DEVICES AND COVERPLATES SHALL MATCH THE COLOR OF THE EXISTING DEVICES AND COVERPLATES.
 - PRIOR TO SUBMITTING A BID THE ELECTRICAL CONTRACTOR SHALL INSPECT THE SITE AND INCLUDE IN HIS BID PACKAGE ALL CHARGES DUE TO EXISTING CONDITIONS. SHOP DRAWINGS ARE REQUIRED. ALL LABOR, MATERIAL AND WORKMANSHIP SHALL BE GUARANTEED FOR A PERIOD OF 1 YEAR FROM THE DATE OF ACCEPTANCE BY THE TENANT. REPLACE OR REPAIR ALL DEFECTS DURING THE GUARANTEED PERIOD.
 - THE CONTRACTOR SHALL INFORM THE ARCHITECT/ENGINEER IN WRITING OF ANY DISCREPANCIES FOUND BETWEEN THE INTENDED FUNCTION OF EQUIPMENT AND EQUIPMENT SPECIFIED IN THE CONTRACT DOCUMENTS A MINIMUM OF FIVE (5) WORKING DAYS PRIOR TO ISSUANCE OF THE FINAL BID. FAILURE TO REPORT ANY DISCREPANCY (CATALOG NUMBERS, DISCONTINUED ITEMS, ETC.) DOES NOT RELIEVE THE CONTRACTOR FROM PROVIDING EQUIPMENT WHICH SHALL CONFORM TO AND FULFILL THE INTENT OF THE CONTRACT DOCUMENTS. NOR SHALL IT BE USED AS A CONDITION TO OBTAIN ADDITIONAL FUNDS FROM THE OWNER AFTER THE CONTRACT IS AWARDED. THE CONTRACTOR SHALL REQUEST ALL CLARIFICATIONS OF CONTRACT DOCUMENT REQUIREMENTS IN WRITING TO THE ARCHITECT/ENGINEER A MINIMUM OF FIVE (5) WORKING DAYS PRIOR TO ISSUANCE OF THE FINAL ADDENDUM.
 - REFER TO THE MECHANICAL SHEETS FOR THE EXACT LOCATION OF THE MECHANICAL EQUIPMENT.
 - THE ELECTRICAL CONTRACTOR SHALL NOTIFY AND COORDINATE WITH THE MECHANICAL CONTRACTOR SO THAT NO PIPING, DUCTS, OR OTHER EQUIPMENT SHALL BE INSTALLED IN ENTRY OR PASS THROUGH ELECTRICAL ROOM OR SPACES ABOVE OR BELOW ELECTRICAL PANELS.
 - ELECTRICAL CONTRACTOR SHALL VERIFY ALL ELECTRICAL LOADS (VOLTAGE, PHASE, CONNECTION REQUIREMENT, ETC.) OF EQUIPMENT FURNISHED UNDER OTHER DIVISIONS WITH APPROVED SHOP DRAWINGS PRIOR TO BEGINNING ROUGH-IN.
 - MINIMUM SIZE OF CONDUIT TO BE 3/4". ALUMINUM CONDUITS SHALL NOT BE USED.
 - USE RIGID STEEL SET SCREW TYPE FITTINGS ONLY. DIE CAST FITTINGS SHALL NOT BE USED.
 - NOT MORE THAN THREE (3) CIRCUITS, SHALL BE INSTALLED IN A CONDUIT. EACH CIRCUIT SHALL CONSIST OF 1 CONDUCTOR FOR EACH PHASE, 1 NEUTRAL, AND 1 GROUND, FOR A TOTAL OF FIVE CONDUCTORS.
 - THE SIZE OF THE NEUTRAL CONDUCTORS SHALL BE NO. 10 AWG FOR ALL HOME RUNS WITH COMMON NEUTRAL (LIGHTING AND POWER CIRCUITS).
 - THE MINIMUM SIZE OF THE CONDUCTORS ARE TO BE #12 AWG THIN COPPER, UNLESS INDICATED OTHERWISE ON THE DRAWINGS.
 - ALL J-BOXES SHALL HAVE MINIMUM DEPTH OF 2-1/8" UNLESS OTHERWISE SPECIFIED. SECURE ALL J-BOXES AS SHOWN IN THE DETAILS. FURNISH AND INSTALL PROPER RUD RINGS.
 - ALL NEW EXPOSED CONDUIT MUST RUN AGAINST THE WALLS OR CEILING. DO NOT PENDANT MOUNT ANY CONDUIT FROM THE CEILING.
 - ALL THE HOMERUNS MUST BE ACCESSIBLE IN THE CEILING PLENUM. DO NOT CARRY A HOMERUN FROM ONE DEVICE TO ANOTHER WHICH IS TIED TO A SEPARATE HOMERUN INSIDE THE WALL. MARK ON ALL THE J-BOXES THE CIRCUIT NAMES AND NUMBERS.
 - AT THE END OF THE JOB, PROVIDE BLANK COVER PLATES TO MATCH THE OTHER COVER PLATES FOR ALL J-BOXES WHERE DEVICES HAVE NOT YET BEEN INSTALLED.
 - SEAL AROUND ALL CONDUIT PENETRATIONS THROUGH FIRE RATED WALLS AND CEILING WITH FIRE RATED MATERIAL. 3" IS AN APPROVED MANUFACTURER.
 - ALL ELECTRICAL WIRING MUST BE IN CONDUIT (ROMEX AND MC CABLE NOT PERMITTED).
 - FLEXIBLE SCALED CONDUITS CAN ONLY BE USED FOR SHORT RUNS (18" MAXIMUM).
 - NO CONDUITS SHALL RUN IN DUCT WORK.
 - THE ELECTRICAL CONTRACTOR SHALL TERMINATE THE ELECTRICAL CONNECTIONS TO ALL THE EQUIPMENT BY PROVIDING THE NECESSARY MALE/FEMALE CONNECTOR, RECEPTACLE, PLUG, ETC.
 - USE NO. 10 THIN CONDUCTORS FOR CONDUCTOR LENGTH OVER 100 FEET, NO. 8 THIN OVER 200 FEET, NO. 6 THIN OVER 300 FEET AND NO. 4 THIN OVER 400 FEET LENGTH.
 - ALL CONDUITS EXPOSED TO THE WEATHER AND IN THE TOWER CELLS AND SUMP ROOM SHALL BE PVC COATED GALVANIZED RIGID STEEL, UNLESS OTHERWISE NOTED.
 - PROVIDE TYPED LABEL FOR ALL DUPLEX OUTLETS AND LIGHT SWITCHES TO INDICATE WHICH CIRCUIT THEY ARE TIED TO.
 - ALL DUPLEX OUTLETS AND SWITCHES SHALL BE 20 AMP, 120 VOLT SPEC GRADE. HUBBELL AND PASS 4 SEYMOUR AND LEVITON ARE APPROVED MANUFACTURERS.
 - SUCCESSFUL BIDDER FOR THE ELECTRICAL GEAR AND VFD'S, ETC., SHALL INCLUDE IN THEIR SUBMITTALS, LAYOUTS OF ALL THE ELECTRICAL ROOMS TO SHOW THE ELECTRICAL SWITCH GEAR LAYOUT OF EACH ROOM. (SCALE: 1/4" = 1'-0").
 - USE EPOXY ANCHORS TO SUPPORT THE ELECTRICAL EQUIPMENT. EXPANSION ANCHOR BOLTS ARE NOT ACCEPTED.
 - WHERE THE GROUNDED CIRCUIT CONDUCTOR CONNECTED TO THE EMERGENCY SOURCE IS CONNECTED TO A GROUNDING ELECTRODE CONDUCTOR AT A LOCATION REMOTE FROM THE EMERGENCY SOURCE, THERE SHALL BE A SIGN AT THE GROUNDING LOCATION THAT SHALL IDENTIFY ALL EMERGENCY AND NORMAL SOURCES CONNECTED AT THAT LOCATION.
 - PROVIDE UPDATED, TYPED WRITTEN PANEL SCHEDULES FOR NEW AND EXISTING PANELBOARDS SHOWING CIRCUIT CHANGES MADE DURING THIS PROJECT.
 - ALL DISCONNECTS, J-BOXES AND CONDUITS EXPOSED TO THE OUTSIDE WEATHER SHALL BE NON-CORROSIVE, WEATHER PROOF TYPE.
 - ALL DISCONNECTS SHALL BE HEAVY DUTY TYPE.
 - ALL NEW WORK MUST MEET THE CURRENT ADOPTED NATIONAL ELECTRICAL CODE.
 - ALL MATERIALS USED IN THIS INSTALLATION SHALL BE U.L. APPROVED AND NEW.
 - TEMPORARY ELECTRICAL SERVICE IS TO BE PROVIDED BY THE ELECTRICAL CONTRACTOR AND REMOVED BY THE ELECTRICAL CONTRACTOR.
 - DETAILS ARE SHOWN ON DIFFERENT SHEETS. THE CONTRACTOR SHALL REFER TO THOSE DETAILS WHETHER OR NOT CALLED IN REFERENCE NOTES.
 - CONTRACT DOCUMENTS SHALL TAKE PRECEDENCE OVER SHOP DRAWINGS UNLESS SPECIFICALLY NOTED OTHERWISE.
 - ELECTRICAL CONTRACTOR SHALL HAVE PRE-CONSTRUCTION MEETING WITH ELECTRICAL SHOP SUPERVISOR.
 - SEAL AROUND ALL CONDUIT PENETRATIONS WATER TIGHT.
 - CONTRACTOR SHALL COORDINATE ALL ITEMS AND QUESTIONS WITH THE HSI PROJECT MANAGER, BRUCE DALEY (801) 626-6675 (CF), OR (801) 678-7661 (CELL)
 - CONTRACTOR SHALL REFER TO HSI CONSTRUCTION STANDARDS FOR ARCHITECTS, ENGINEERS AND CONTRACTORS. THESE STANDARDS CAN BE FOUND AT WWW.WEBBER.EDU UNDER "P" IN THE INDEX SELECT "FACILITIES MANAGEMENT". UNDER "CAPTIONS" ON THIS PAGE, SELECT CONSTRUCTION STANDARDS FOR ARCHITECTS, ENGINEERS, AND CONTRACTORS. CONTRACTORS SHALL BECOME FAMILIAR WITH AND FOLLOW THESE STANDARDS.

SPECIAL TIMING NOTES:

1. ALL WORK IN THE SUMP AREA OF THE COOLING TOWERS MUST BE COMPLETED PRIOR TO APRIL 15. THE COOLING TOWER MUST BE OPERATIONAL BY APRIL 15 AND MUST REMAIN OPERATIONAL AFTER THAT DATE. AFTER APRIL 15, WORK MAY BE PERFORMED ON ONE CELL AT A TIME SO THE REMAINDER OF THE COOLING TOWER REMAINS OPERATIONAL. THE CONTRACTOR SHALL NOT WORK ON THE NEXT CELL UNTIL THE PROPER FUNCTIONING OF THE PREVIOUS CELL HAS BEEN DEMONSTRATED TO HSI.

Project No. 3783

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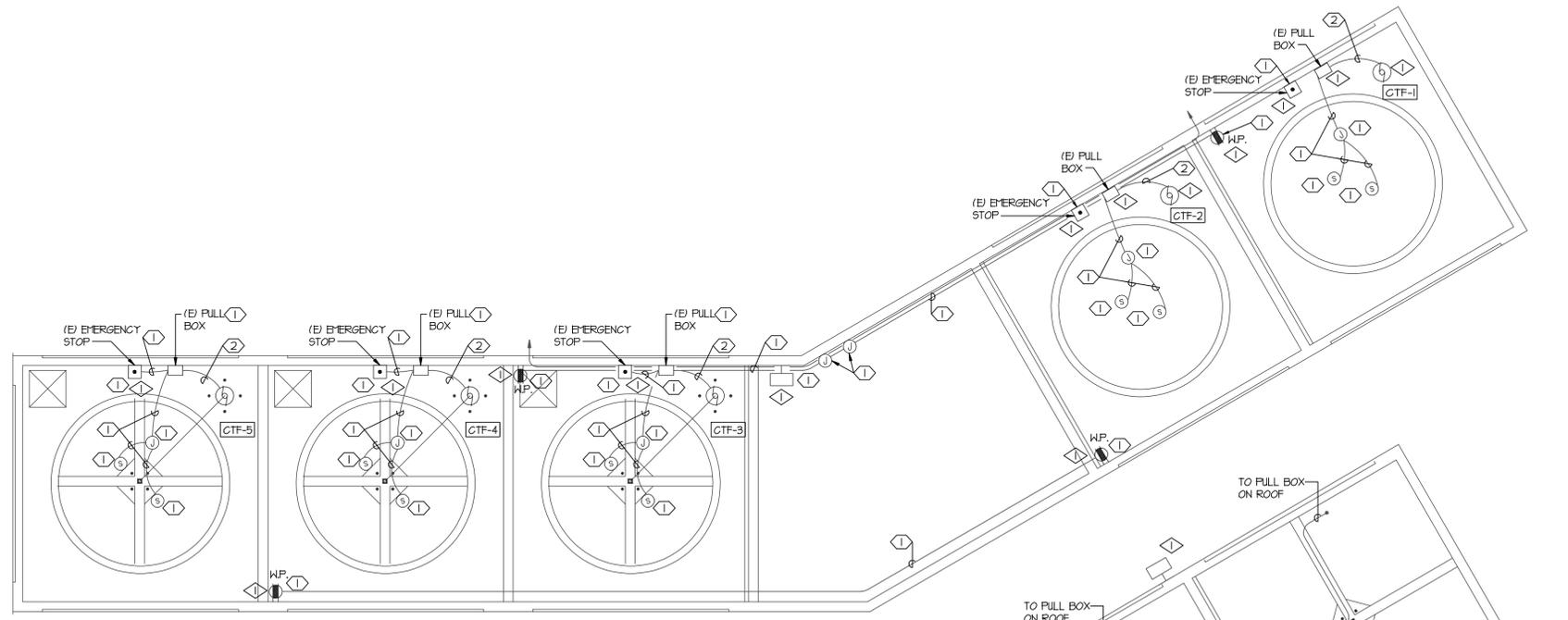
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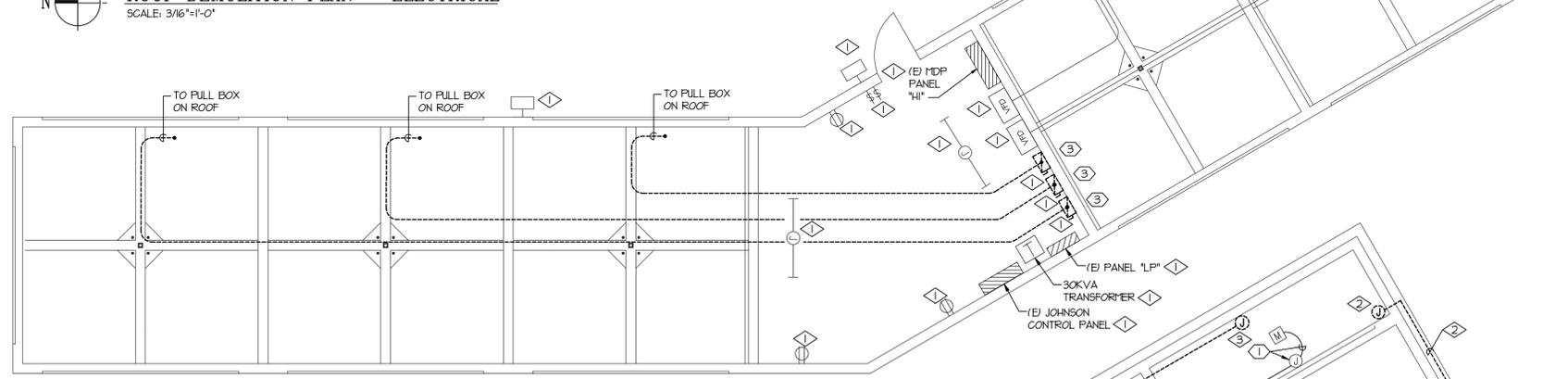
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Webber State University
Cooling Tower Upgrades
GENERAL NOTES, DETAILS, SCHEDULES

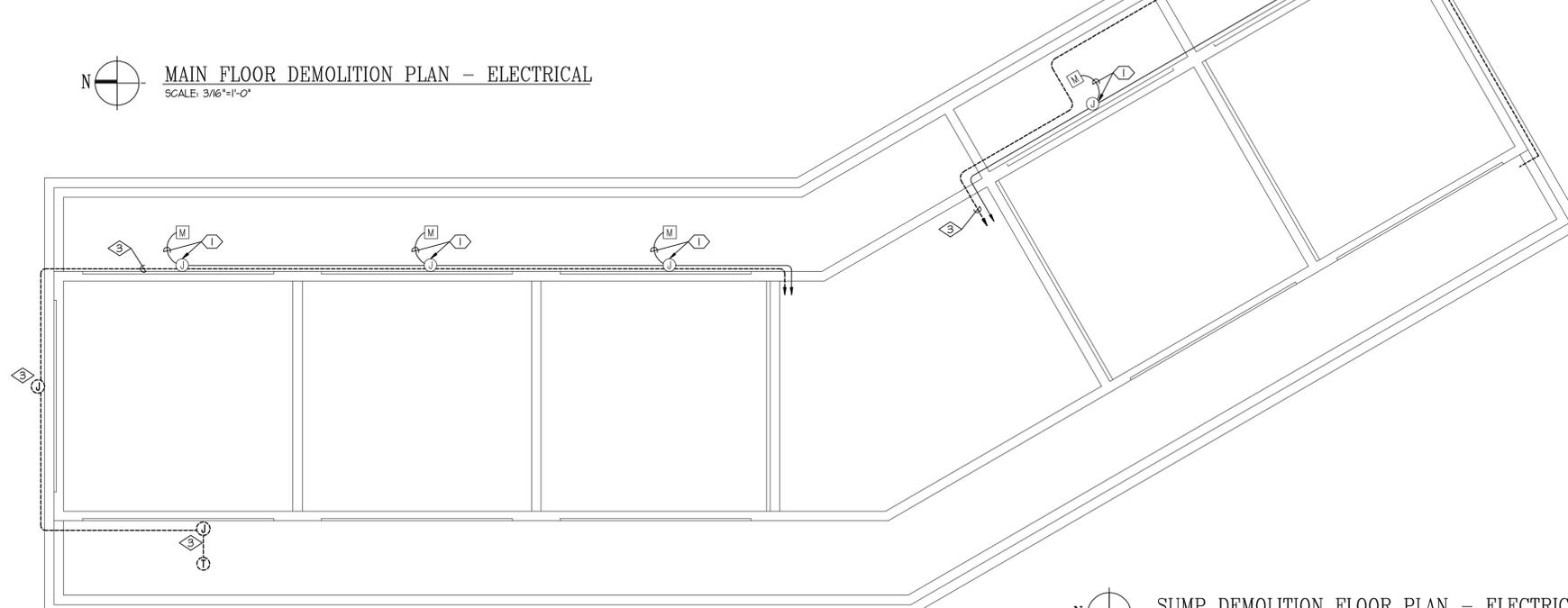
E001



ROOF DEMOLITION PLAN - ELECTRICAL
SCALE: 3/16"=1'-0"



MAIN FLOOR DEMOLITION PLAN - ELECTRICAL
SCALE: 3/16"=1'-0"



SUMP DEMOLITION FLOOR PLAN - ELECTRICAL
SCALE: 3/16"=1'-0"

- REFERENCE NOTES:**
- EXISTING OUTLETS, LIGHT FIXTURES, PANELBOARDS, VFDs, TRANSFORMERS ETC., TO REMAIN. MAKE ANY MODIFICATIONS REQUIRED TO MAINTAIN CIRCUIT INTEGRITY.
 - REMOVE THE ABANDONED CONDUIT CONDUCTORS J-BOXES ETC. SHOWN. REMOVE ASSOCIATED ANCHORS AND PATCH ANY REMAINING HOLES.
 - REPLACE THE EXISTING 3/4" EMT CONDUIT AND J-BOXES WITH NEW PVC COATED GRS (EQUAL TO PERMA COTE FROM ROB ROT INDUSTRIES) AND NEMA 4X J-BOXES IN THE APPROXIMATE LOCATIONS SHOWN ONLY ON THE EXTERIOR OF THE BUILDING. EMT CAN REMAIN ONCE INSIDE THE MECHANICAL ROOM OR SPACE BELOW. REPLACE THE EXISTING CONTROLS CONDUCTORS. FIELD VERIFY NUMBER OF CONDUCTORS AND TERMINATION POINTS.

- ALTERNATE NO. 1 REFERENCE NOTES**
- REPLACE THE EXISTING EXTERIOR 3/4" EMT CONDUIT AND J-BOXES WITH NEW PVC COATED GRS (EQUAL TO PERMA COTE FROM ROB ROT INDUSTRIES) AND NEMA 4X J-BOXES IN THE APPROXIMATE LOCATIONS SHOWN. REPLACE THE EXISTING CONDUCTORS. FIELD VERIFY NUMBER OF CONDUCTORS AND TERMINATION POINTS. RACK THE CONDUITS IN THE SAME LOCATIONS ON HALL AS EXISTING.
 - PULL THE EXISTING FEEDERS TO THE FAN MOTOR BACK TO THE PULL BOX AND REPLACE THE EXISTING FLEX CONDUIT WITH PVC COATED GRS. REINSTALL THE EXISTING CONDUCTORS IN THE NEW CONDUIT.

- ALTERNATE NO. 2 REFERENCE NOTES**
- REMOVE EXISTING COMBINATION STARTER/DISCONNECT SWITCH. UTILIZE THE EXISTING CONDUIT AND CONDUCTORS AS POSSIBLE FOR NEW INSTALLATIONS REMOVE AND ABANDONED CONDUITS AND CONDUCTORS.

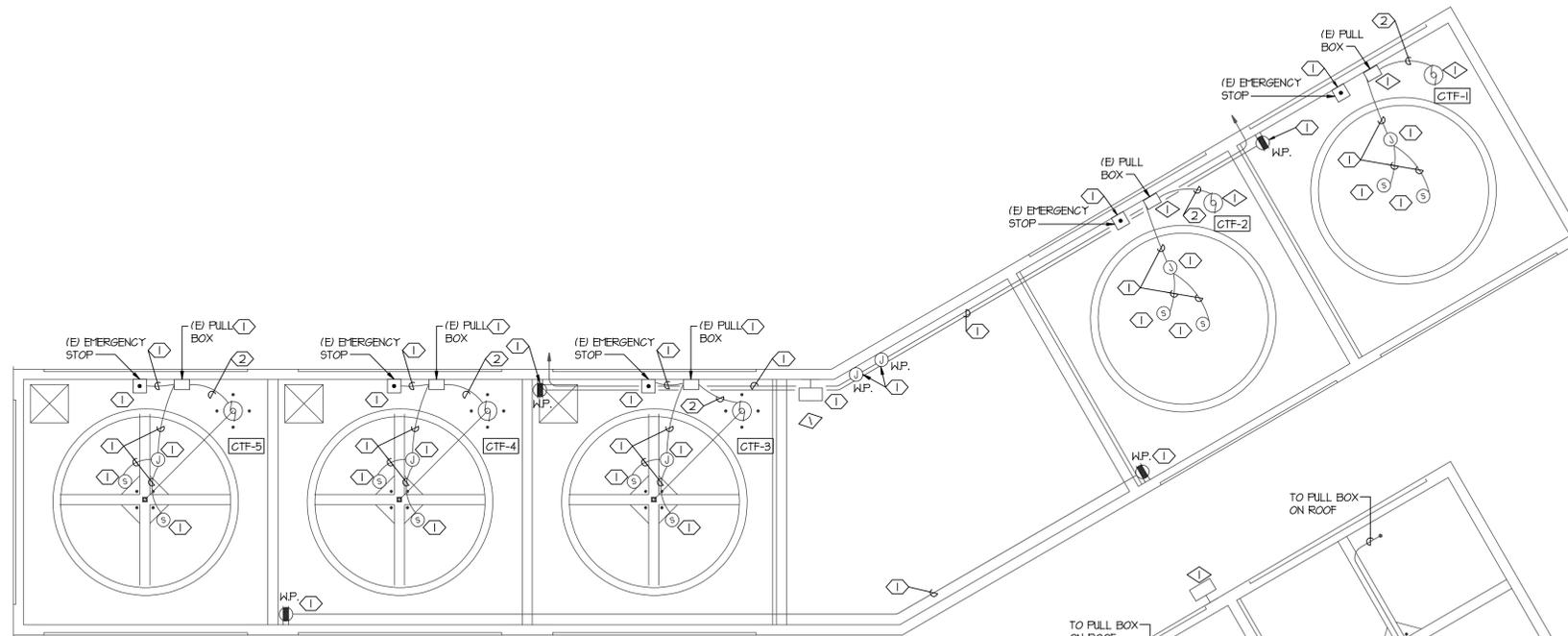
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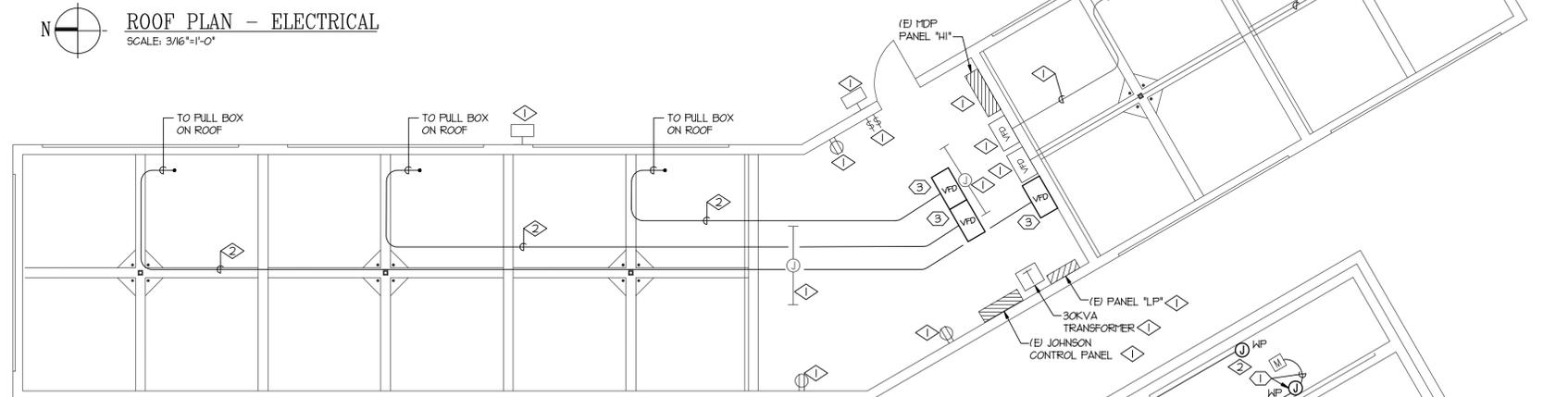
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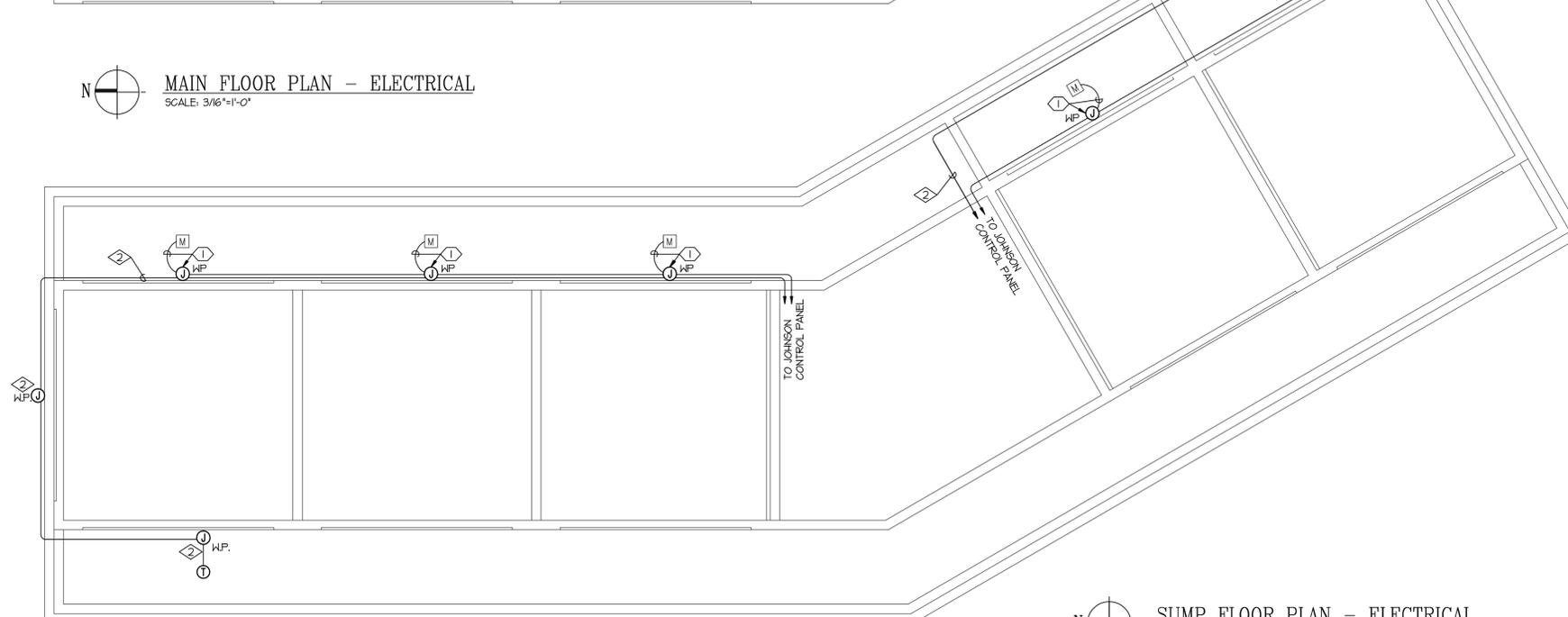
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Weber State University Cooling Tower Upgrades DEMOLITION FLOOR PLAN - ELECTRICAL	
E101	



ROOF PLAN - ELECTRICAL
SCALE: 3/16"=1'-0"



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



SUMP FLOOR PLAN - ELECTRICAL
SCALE: 3/16"=1'-0"

REFERENCE NOTES:

- EXISTING OUTLETS, LIGHT FIXTURES, PANELBOARDS, VFDs, TRANSFORMERS ETC., TO REMAIN. MAKE ANY MODIFICATIONS REQUIRED TO MAINTAIN CIRCUIT INTEGRITY.
- REPLACE THE EXISTING EXTERIOR 3/4" EMT CONDUIT AND J-BOXES WITH NEW PVC COATED GRS (EQUAL TO PERMA GOTE FROM ROB ROY INDUSTRIES) AND NEMA 4X J-BOXES IN THE APPROXIMATE LOCATIONS SHOWN. EMT SHALL REMAIN ONCE INSIDE THE BUILDING. REPLACE THE EXISTING CONDUCTORS. FIELD VERIFY NUMBER OF CONDUCTORS AND TERMINATION POINTS.

ALTERNATE NO. 1 REFERENCE NOTES

- REPLACE THE EXISTING EXTERIOR 3/4" EMT CONDUIT AND J-BOXES WITH NEW PVC COATED GRS (EQUAL TO PERMA GOTE FROM ROB ROY INDUSTRIES) AND NEMA 4X J-BOXES IN THE APPROXIMATE LOCATIONS SHOWN. EMT SHALL REMAIN ONCE INSIDE THE BUILDING. REPLACE THE EXISTING CONDUCTORS. FIELD VERIFY NUMBER OF CONDUCTORS AND TERMINATION POINTS. RACK THE CONDUITS IN THE SAME LOCATIONS ON WALL AS EXISTING.
- PULL THE EXISTING FEEDERS TO THE FAN MOTOR BACK TO THE PULL BOX AND REPLACE THE EXISTING FLEX CONDUIT WITH PVC COATED GRS. REINSTALL THE EXISTING CONDUCTORS IN THE NEW CONDUIT.

ALTERNATE NO. 2 REFERENCE NOTES

- FURNISH AND INSTALL NEW VFD IN THE APPROXIMATE LOCATION SHOWN. TIE TO THE EXISTING COOLING TOWER FAN MOTOR UTILIZE EXISTING CONDUIT, CONDUCTORS, ETC. PROVIDE ADDITIONAL CONDUIT AND CONDUCTORS AS REQUIRED REFER TO THE SPECIFICATIONS AND MECHANICAL EQUIPMENT SCHEDULES FOR MORE INFORMATION. PROVIDE UNISTRUT MOUNTING AS REQUIRED FOR FREE STANDING VFD'S AS INDICATED IN THE DETAILS.

SPECIAL TIMING NOTES:

1. ALL WORK IN THE SUMP AREA OF THE COOLING TOWERS MUST BE COMPLETED PRIOR TO APRIL 15. THE COOLING TOWER MUST BE OPERATIONAL BY APRIL 15 AND MUST REMAIN OPERATIONAL AFTER THAT DATE. AFTER APRIL 15, WORK MAY BE PERFORMED ON ONE CELL AT A TIME SO THE REMAINDER OF THE COOLING TOWER REMAINS OPERATIONAL. THE CONTRACTOR SHALL NOT WORK ON THE NEXT CELL UNTIL THE PROPER FUNCTIONING OF THE PREVIOUS CELL HAS BEEN DEMONSTRATED TO NSJ.

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ACE AKBAR MATINKHAH #172577 LICENSED PROFESSIONAL ENGINEER STATE OF UTAH
Weber State University Cooling Tower Upgrades FLOOR PLAN - ELECTRICAL
E201