Engineering Technologies Inc

ADDENDUM

DATE ISSUED	04.17.2026	ADDENDUM #	2
ENGINEER	Engineering Technologies, Inc. 1101 North 13th Street Omaha, NE 68102	PROJECT	Wayne State College Cooling Tower Replacement
		ETI PROJECT #	2025-134

The Architect issues this Addendum to all known bidders before receipt of proposals. Bidder shall acknowledge the receipt of this addendum on their proposal sheet and all information contained herein shall become a part of the contract documents.

ADDENDUM:

GENERAL ITEMS

1. Refer to attached pre-bid agenda with corrected bid bond payment recipient in red.
2. See attached for pre-bid sign-in sheet.

SPECIFICATIONS

3. Refer to attached for Section 011002 – MILESTONE SCHEDULE OF CONSTRUCTION
   A. Section issued new in its entirety.

DRAWINGS – MECHANICAL

1. Sheet MD1.1 – Mechanical Demolition Plan
   A. Modified Alternate #1 to only reuse one of the existing VFDs serving TWP-2. The VFD serving TWP-1 will be demolished.

2. Sheet M1.1 – Mechanical Plan
   A. Modified Alternate #1 to only reuse one of the existing VFDs serving TWP-2. A new 75-HP VFD will be provided to serve TWP-1.
   B. Clarified sheet notes.

3. Sheet M3.1 – Mechanical Schedules
   A. Revised VFD schedule to have the VFDs provided with Bypasses.
   B. Added VFD-TWP-1 to the schedule.

DRAWINGS – ELECTRICAL

1. Sheet EG0.0 – Electrical General Information
   A. Modified CT-1.1 (FAN), CT-1.2 (FAN), CT-1.3 (FAN), and CT-1.4 (FAN) Safety Switches.
   B. Modified CT-1.1 (FAN), CT-1.2 (FAN), CT-1.3 (FAN), CT-1.4 (FAN), TWP-1, and TWP-2 Remarks.

2. Sheet E1.1 – Electrical Plan
   A. Modified sheet notes #3 and #11.
   B. Add sheet note #16 to provide bonding requirements.

END OF ADDENDUM

LINCOLN: 825 M Street, Suite 200, Lincoln, NE 68508 P 402.476.1273
OMAHA: 1101 N.13th Street, Omaha, NE 68102 P 402.330.2772

Wayne State College Cooling Tower Replacement
PRE-BID CONFERENCE AGENDA – 4/15/2026, 10:00 AM.

Introductions

Project Team	ETI -	Wyatt Wirges, PE	Project Manager, Mechanical Engineer
		Andrew Wiese, PE	Electrical Engineer
		Jacob Champoux	Construction Manager
Owner	WSC -	Kyle Nelsen	Director of Facility Services
		Travis Meyer	Assistant Director of Energy and Utilities
		Ruth Smith	Construction Project Coordinator
		Jon Schram	Energy Plant Manager

Building Availability and Walk-Thru

1. Mandatory walk-thru today.
2. Interest in further observations at a later date other than today shall be scheduled with WSC before the bid date.

Bid Information

1. Review specifications and plans for all requirements. Plans are available at A&D Technical Supply, 1822 N Street, Lincoln, NE. 68508. A&D will also have a plan holders list available or go to their website http://www.adtechplans.com . https://adprintingdesign.com/
2. Bid Date: April 29, 2025 at 2:00 PM at Facility Services in the Campus Services building at 704 Lindahl Drive, Wayne, NE 68787.
3. Bid Proposal Form is in the Specifications & Project Manual.
4. Each bid proposal must be accompanied by a Certified Check or Bid Bond payable to "The Board of Trustees of the Nebraska State College System, d.b.a. Wayne State College" in the amount of 5% of the base bid proposal.
5. Performance Bond and Labor and Materials Payment Bond shall be provided in the total amount of the contract.
6. Do not include sales tax in your bid, WSC is exempt.
7. Project will be constructed under a single prime contract per Agreement in the specs.
8. Building Permit process is by the Engineer and plans will be submitted for review this week. Contractors will be required to obtain any other special permits.
9. Addendum #1 was issued on April 9th. Addendum #2 will be issued on 4/17 to include pre-bid walk information and milestone dates that are to be included in the project.

Overview of Project

The Work includes:

1. Replacement of the cooling tower serving the energy plant at Wayne State College.
2. Alternate No. 1: Replacement of the existing cooling tower water pumps.
3. Alternate No. 2: Provision of a sidestream grit separator and pump skid for improved condenser water system filtration. ALTERNATE #2 MAY BE ACCEPTED ONLY IN CONJUNCTION WITH ALTERNATE #1.
4. Alternate No. 3: Provision of a new inline coalescing grit separator to serve the existing heat waterside economizer heat exchanger.

Site Use

1. Contractor use of site will be limited to construction area only. The Owner will be occupying the site during construction.
2. All personnel will need to go through background checks as required by the college.
3. Equipment may be stored on site at the Energy Plant at a location approved by the Owner.
4. Contractor shall provide a portable restroom onsite during construction.
5. Parking will be provided onsite in a designated area approved by WSC.

Schedule

1. Contractors may access site once all appropriate contract paperwork is completed.
2. Anticipated start date is June 1, 2026.
3. Timing of work is critical to complete the project by the beginning of next cooling season starting March 1, 2027.

Questions

Pre-Bid Conference Attendance

Wayne State College Cooling Tower Replacement

April 15, 2026 at 10:00 a.m.

Location: Wayne State College, 400 Lindahl Dr., Wayne, NE 68787

ETI Project Number: 2025-134

COMPANY	NAME	PHONE	CONTACT EMAIL
~~Travis Mey~~ WSC	Travis Mey	402-369-6725	tmeyer1@wsc.edu
CW Suter	Marty Klassen	712-899-2744	mklassen@cwsuter.com
Grunwald Mechanical	Ryan Bena	402-889-8527	rbena@grunwaldI.com
May Electric	DARRIN May	402-909-3931	darrin@may-elec.com
Thompson Solutions Group	Chad Carlson	712 899-6736	chadcarlson@thompsonsolutionsgroup.com
H&R Construction	Mitch Connot	712-541-9880	mconnot@hrco.com
IES	Joel Hulinsky	308 379 8327	joel.hulinsky@ieselectrical.com
Commonwealth Electric	Mitchell Griffith	402 270 6415	mgriffith@commonwealthelectric.com
Cerris Systems	Tim Boonstra	402-926-9471	tboonstra@cerris.com
Lisa Lauver ↔	Christiansen Const. Co	402-508-5757	Lisa@ccpenden.biz
Model Electric	Curt Morris	402-371-7111	cmorris@modelelectric.com
309 Task Force	Nick Pischel	402-416-7462	nick.pischel@nebraska.gov
WSC	Ruth Smith	402 369 1894	RJSmith1@wsc.edu
CERRIS	JOSH SANDOVAL	402-670-3790	JSANDOVAL@CERRIS.COM

SECTION 011002
MILESTONE SCHEDULE OF CONSTRUCTION

MILESTONE SCHEDULE OF CONSTRUCTION

1.01 CONSTRUCTION BEGINS SUBSEQUENT THE OWNER NOTICE TO PROCEED TO CONTRACTOR:

A. Anticipated Contract Approval: May 20, 2026

B. Anticipated Starting Date: June 1, 2026

C. Anticipated Completion Date: March 1, 2027

1.02 MILESTONE DATES

A. The following milestone dates are mandatory and shall be incorporated into the Contractor's construction schedule:
   1. Cooling Tower Structure and Pad Complete: August 1, 2026
   2. Cooling Towers Installed and Operational: November 1, 2026
   3. Total Project Installation, Including All Alternates: March 1, 2027

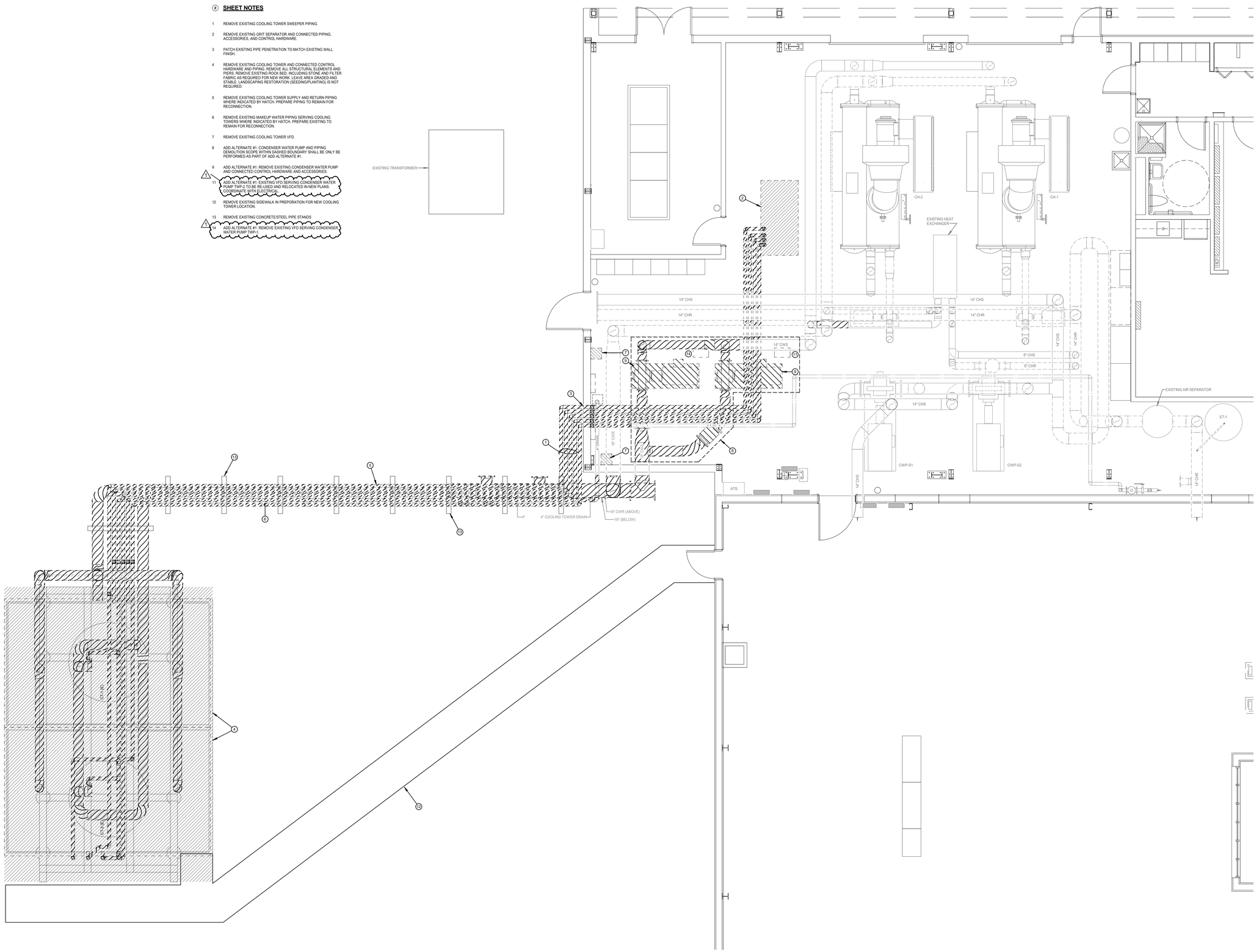
B. Failure to plan and execute the Work to meet these milestone dates will be considered non-compliance with the Contract Documents.

C. Submit construction schedule demonstrating compliance with these milestone dates.

END OF SECTION

SHEET NOTES

1. REMOVE EXISTING COOLING TOWER SWEEPER PIPING.
2. REMOVE EXISTING GRIT SEPARATOR AND CONNECTED PIPING, ACCESSORIES, AND CONTROL HARDWARE.
3. PATCH EXISTING PIPE PENETRATION TO MATCH EXISTING WALL FINISH.
4. REMOVE EXISTING COOLING TOWER AND CONNECTED CONTROL HARDWARE AND PIPING. REMOVE ALL STRUCTURAL ELEMENTS AND PIERS. REMOVE EXISTING ROCK BED, INCLUDING STONE AND FILTER FABRIC AS REQUIRED FOR NEW WORK. LEAVE AREA GRADED AND STABLE. LANDSCAPING RESTORATION (SEEDING/PLANTING) IS NOT REQUIRED.
5. REMOVE EXISTING COOLING TOWER SUPPLY AND RETURN PIPING WHERE INDICATED BY HATCH. PREPARE PIPING TO REMAIN FOR RECONNECTION.
6. REMOVE EXISTING MAKEUP WATER PIPING SERVING COOLING TOWERS WHERE INDICATED BY HATCH. PREPARE EXISTING TO REMAIN FOR RECONNECTION.
7. REMOVE EXISTING COOLING TOWER VFD.
8. ADD ALTERNATE #1: CONDENSER WATER PUMP AND PIPING. DEMOLITION SCOPE WITHIN DASHED BOUNDARY SHALL BE ONLY BE PERFORMED AS PART OF ADD ALTERNATE #1.
9. ADD ALTERNATE #1: REMOVE EXISTING CONDENSER WATER PUMP AND CONNECTED CONTROL HARDWARE AND ACCESSORIES.
11. ADD ALTERNATE #1: EXISTING VFD SERVING CONDENSER WATER PUMP TWP-2 TO BE RE-USED AND RELOCATED IN NEW PLANS. COORDINATE WITH ELECTRICAL.
12. REMOVE EXISTING SIDEWALK IN PREPORATION FOR NEW COOLING TOWER LOCATION.
13. REMOVE EXISTING CONCRETE/STEEL PIPE STANDS.
14. ADD ALTERNATE #1: REMOVE EXISTING VFD SERVING CONDENSER WATER PUMP TWP-1.



A2 MECHANICAL DEMOLITION PLAN

1/4" = 1'-0"

eti
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WAYNE STATE COLLEGE COOLING TOWER REPLACEMENT

WAYNE STATE COLLEGE
400 LINDAHL DR.
WAYNE, NE

ISSUE FOR CONSTRUCTION

PROFESSIONAL MECHANICAL ENGINEER
WYATT W. WIRGES
E-17919
4/3/26
STATE OF NEBRASKA
CA-0176

REV. #	DESCRIPTION	DATE
1	ADDENDUM #2	04.17.2026

PROJECT NUMBER:	2025-134
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DRAWN BY:	MJB
CHECKED BY:	WWW

SHEET NAME

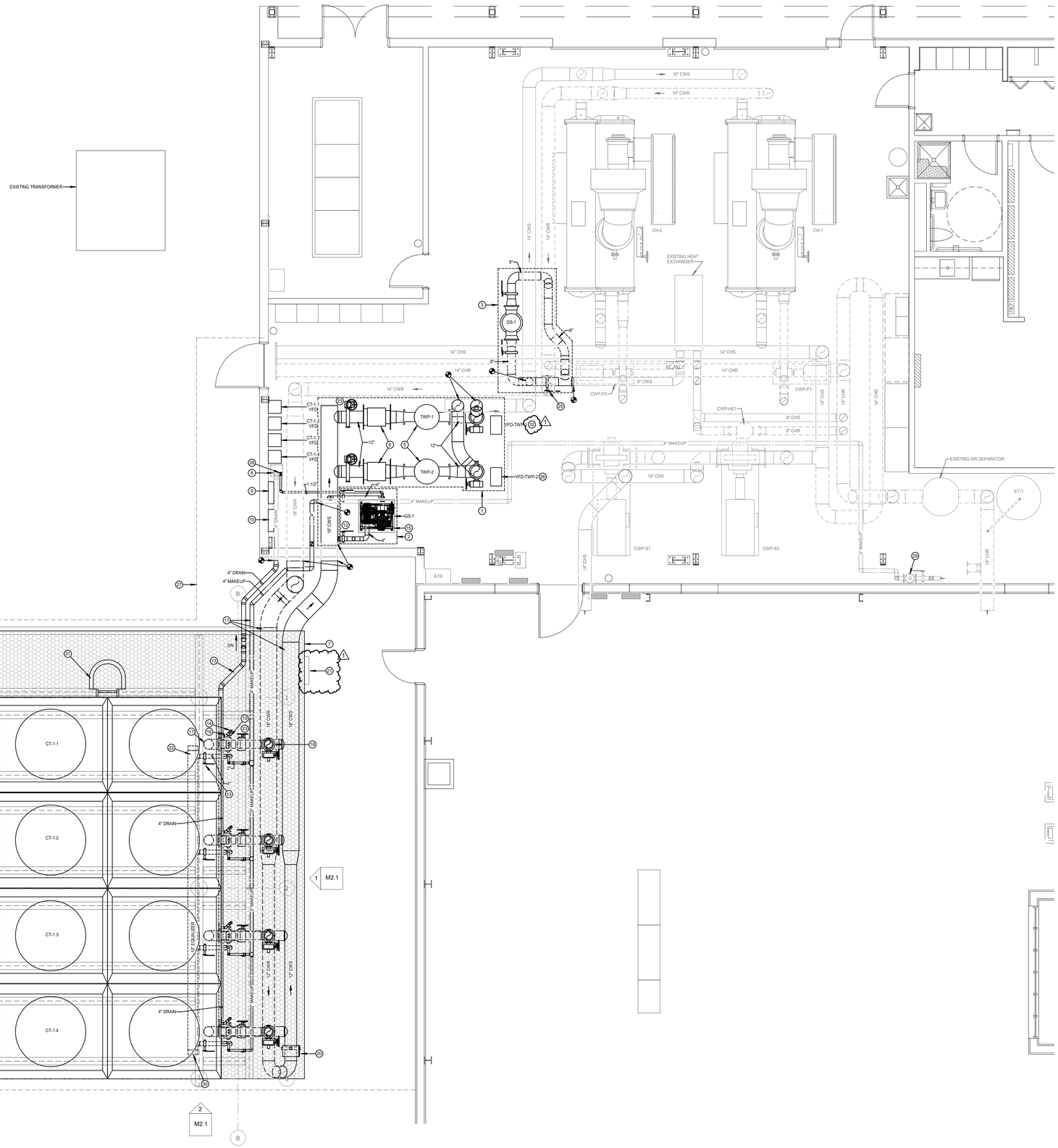
MECHANICAL DEMOLITION PLAN

SHEET NUMBER

MD1.1

SHEET NOTES

1. ADD ALTERNATE #1: PORTION OF SCOPE WITHIN DASHED BOUNDARY SHALL BE PROVIDED AS PART OF ADD ALTERNATE #1.
2. ADD ALTERNATE #2: PORTION OF SCOPE WITHIN DASHED BOUNDARY SHALL BE PROVIDED AS PART OF ADD ALTERNATE #2. ALTERNATE #2 MAY BE ACCEPTED ONLY IN CONJUNCTION WITH ALTERNATE #1.
3. ADD ALTERNATE #3: PORTION OF SCOPE WITHIN DASHED BOUNDARY SHALL BE PROVIDED AS PART OF ADD ALTERNATE #3.
4. COOLING TOWER TO BE MOUNTED ON STRUCTURAL PLATFORM AT 6'-0" ABOVE ENERGY PLANT FINISHED FLOOR. REFER TO STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION.
5. CONDENSER WATER SPLIT-CASE VERTICAL INLINE PUMPS TO BE INSTALLED PER DETAIL 4/M2.1.
6. TOP-REMOVAL, FULL FLOW BASKET STRAINER.
7. COOLING TOWER ACCESS PLATFORM.
8. EXISTING FLOOR DRAIN IN DRAINDOWN SUMP.
9. COOLING TOWER BASIN HEATER CONTROL PANEL.
10. HEAT TRACE SYSTEM CONTROLLER.
11. CONTRACTOR SHALL PROVIDE AN ELECTRIC HEAT TRACE SYSTEM FOR ALL CONDENSER WATER, EQUALIZER, AND MAKEUP WATER PIPING LOCATED OUTDOORS. SYSTEM SHALL BE CAPABLE OF MAINTAINING 45°F WATER TEMPERATURE AT 15°F AMBIENT.
12. BUTTERFLY VALVE WITH LEVER HANDLE. TYPICAL.
13. SLOPE DRAINDOWN PIPING BACK TOWARD BUILDING.
14. 2" OVERFLOW DRAIN PIPED DOWN TO DUMP TO GRADE.
15. 4" HOUSEKEEPING PAD.
16. 2" DRAIN CONNECTION.
17. 10" CONDENSER WATER SUPPLY CONNECTION TO TOWER BASIN.
18. 8" CONDENSER WATER RETURN UP TO TOWER RETURN CONNECTION. PROVIDE WITH BUTTERFLY ISOLATION VALVE AND 2-POSITION CONTROL VALVE IN VERTICAL PIPING ABOVE PLATFORM.
19. 2-POSITION MOTORIZED CONTROL VALVE.
20. MODULATING 2-WAY CONDENSER WATER BYPASS CONTROL VALVE SIZED FOR 2400 GPM.
21. OSHA APPROVED LADDER UP TO COOLING TOWER PLATFORM.
22. PROVIDE 2" TAP WITH MANUAL BALL VALVE AT BOTTOM OF EQUALIZER PIPE TO ALLOW FOR MANUAL DRAINDOWN.
23. BUTTERFLY VALVE WITH GEAR OPERATOR. TYPICAL.
25. BUTTERFLY VALVE CLOSED DURING NORMAL OPERATION.
26. RELOCATE EXISTING 125 HP VFD PREVIOUSLY SERVING OLD CONDENSER WATER PUMP TWP-2. MOUNT ON UNISTRUT. RECONFIGURE VFD PROGRAMMING FOR THE REDUCED MOTOR SIZE FACTORING IN NECESSARY ELECTRICAL CHARACTERISTICS.
27. DASHED LINE INDICATES APPROXIMATE BOUNDARY OF CONCRETE SLAB. REFER TO STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION.
28. 1-1/2" SIDESTREAM SEPARATOR BLOWDOWN TO INDIRECT DRAIN TO EXISTING SUMP.
29. EXISTING MAKEUP WATER METER FOR COOLING PLANT.
30. PROVIDE REMOVABLE BLIND FLANGES OR SPOOL PIECES AT TEH ENDS OF THE COOLING TOWER EQUALIZER HEATER TO ALLOW ACCESS FOR INSPECTION AND CLEANOUT.
31. LADDER WITH SAFETY CAGE PROVIDED BY COOLING TOWER MANUFACTURER UP TO COOLING TOWER ACCESS PLATFORM WITH GUARDRAILS.
32. PROVIDE NEW VFD TO SERVE NEW CONDENSER WATER PUMP TWP-1. MOUNT ON UNISTRUT.



A5 MECHANICAL PLAN

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MECHANICAL PLAN

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M1.1

COOLING TOWER SCHEDULE

NOTES:
1. HIGH DENSITY POLYETHYLENE (HDPE), SEAMLESS DOUBLE WALL SHELL AND BASIN.
2. BOTTOM OUTLET CONNECTION. BASIN SHALL SLOPE AT MINIMUM 3% TO OUTLET.
3. OPERATING INLET PRESSURE BETWEEN 1.5-4.0 PSI.
4. STANDARD COLOR WITH UV INHIBITORS.
5. EXISTING VARIABLE FREQUENCY DRIVE WITH BYPASS TO BE REUSED.
6. VFD RATED MOTORS WITH VFD FOR EACH CELL. ONE VFD SHALL CONTROL BOTH FANS FOR EACH CELL.
7. BALL FLOAT MAKEUP VALVE FOR 10 GPM AT 5 PSIG INLET PRESSURE.
8. SCCR RATING SHALL MEET OR EXCEED PANEL AIC RATING.
9. VIBRATION CUTOUT SWITCH
10. PROVIDE ACCESS PLATFORM WITH SAFETY HANDRAIL. PROVIDE LADDER WITH CAGE AND SAFETY GATE.
11. THREE PASS PVC DRIFT ELIMINATOR.
12. NOT USED.

MARK	NOMINAL TONS	FAN TYPE	CELLS	GPM	DRIVE	STATIC LIFT (PSI)	EWT (°F)	LWT (°F)	DESIGN WB TEMP (°F)	BASIN HEATER (PER CELL)			MOTOR DATA (PER CELL)				DIMENSIONS L X W X H (IN)	OPERATING WEIGHT (LBS)	MANUFACTURER AND MODEL	NOTES
										NO.	KW	VOLTS / PH	NO.	HP	RPM	VOLTS / PH				
CT-1	1900	AXIAL	4	4800	DIRECT	4.65	95	85	80	3	6	480/3	2	15	900	480/3	412 X 256 X 211	59,040	DELTA TMX-415312	ALL

PUMP SCHEDULE

NOTES:
1. NAMEPLATE HORSEPOWER SHALL BE NON-OVERLOADING ON THE PUMP CURVE.
2. SCCR SHALL MEET OR EXCEED PANEL KAIC RATING.
3. SPLIT-COUPLED, INLINE PUMP WITH STANCHIONS. COORDINATE STANCHION HEIGHT WITH PIPE CONNECTIONS.
4. STAINLESS STEEL SHAFT AND IMPELLER.
5. VFD WITH BYPASS.
6. NPSHR = 10.9 FT. HD. AT DESIGN CRITERIA LISTED BELOW.

MARK	LOCATION	SYSTEM SERVED	TYPE	FLUID	GPM	TDH (FT. HD.)	% EFF.	ELECTRICAL					MOUNTING	WEIGHT (LBS.)	MANUFACTURER AND MODEL	NOTES
								DISCONNECT	CONTROLLER	MOTOR HP	MOTOR RPM	VOLT / PH				
TWP-1	ENERGY PLANT	CONDENSER WATER	VERTICAL INLINE	WATER	2400	100	85.1	VFD	VFD	75	1800	480/3	STANCHION	2250	BELL & GOSSETT E60SC 10X10X13.5	ALL
TWP-2	ENERGY PLANT	CONDENSER WATER	VERTICAL INLINE	WATER	2400	100	85.1	VFD	VFD	75	1800	480/3	STANCHION	2250	BELL & GOSSETT E60SC 10X10X13.5	ALL

SIDESTREAM GRIT SEPARATOR SCHEDULE

NOTES:
1. PROVIDE FACTORY-FABRICATED SIDESTREAM GRIT SEPARATOR SKID, COMPLETE WITH PUMP, SEPARATOR, SKID FRAME, VALVES, STRAINER, PRESSURE GAUGES, AND CONTROLS.
2. PROVIDE DRY ELECTRICAL CONTACTS FOR SEPARATOR AND LOGIC CONTROLLER FOR ENABLE/DISABLE, BLOWDOWN, AND ALARM. CONNECT TO BAS.
3. PROVIDE MOTORIZED BALL VALVE FOR AUTOMATED PURGING.
4. CONTROL PANEL WITH HOA START, 480 TO 120 VOLT CONTROL TRANSFORMER, DISCONNECT SWITCH, SINGLE-POINT CONNECTION.
5. RATED AT 125 PSIG AT 135°F.
6. STAINLESS STEEL STRAINER VERTICAL STRAINER WITH REMOVABLE FILTER LID. PROVIDE WITH 30 MESH SCREEN. CLEAN PRESSURE DROP OF <1 PSIG AT 400 GPM.
7. 4" FLANGED INLET/OUTLET CONNECTIONS.

MARK	TYPE	SERVES	GPM	TDH (FT. HD.)	MOTOR DATA				INLET/OUTLET SIZE (IN.)	DIMENSIONS L X W X H (IN.)	WEIGHT (LBS)	MANUFACTURER AND MODEL	NOTES
					HP	VOLTS/PH	RPM	FLA					
GS-1	SIDESTREAM	CONDENSER WATER	425	55.1	7.5	480/3	1750		4" / 4"	37-7/16 X 31 X 43-5/16	436	MILLER LEAMAN MLS-4C	ALL

DIRT SEPARATOR SCHEDULE

NOTES:
1. ASME RATED.
2. 150 PSI MAX WORKING PRESSURE.
3. REMOVABLE LOWER HEAD.
4. FLANGED CONNECTIONS.
5. PROVIDE BALL VALVE FOR MANUAL BLOWDOWN.

MARK	SERVES	LOCATION	TYPE	MIN. FLOW (GPM)	MAX. P.D. (FT. HD.)	INLET (IN.)	OUTLET (IN.)	WEIGHT	MANUFACTURER	MODEL	NOTES
DS-1	WATERSIDE ECONOMIZER HX	ENERGY PLANT	HIGH VELOCITY COALESCING	2400	10	10	10	1649	SPIROTHERM	THN1000FA	ALL

VARIABLE FREQUENCY CONTROLLER SCHEDULE

MARK	SERVES	LOCATION	MOUNTING TYPE	ENCLOSURE	DISCONNECT TYPE	BYPASS	REDUNDANT VFD	VOLTS	PHASE	H.P.	MANUFACTURER	REFERENCE SPECIFICATIONS	NOTES
CT-1.1 VFD	CT-1	CHILLER ROOM 102	WALL	NEMA-1	INTEGRAL CIRCUIT BREAKER	YES	NO	480	3	2@15	ABB	230934	VFD TO PANEL. ONE FAN VFD PER CELL. COORDINATE UPSTREAM BREAKER SIZE WITH VFD PROVIDED.
CT-1.2 VFD	CT-1	CHILLER ROOM 102	WALL	NEMA-1	INTEGRAL CIRCUIT BREAKER	YES	NO	480	3	2@15	ABB	230934	VFD TO PANEL. ONE FAN VFD PER CELL. COORDINATE UPSTREAM BREAKER SIZE WITH VFD PROVIDED.
CT-1.3 VFD	CT-1	CHILLER ROOM 102	WALL	NEMA-1	INTEGRAL CIRCUIT BREAKER	YES	NO	480	3	2@15	ABB	230934	VFD TO PANEL. ONE FAN VFD PER CELL. COORDINATE UPSTREAM BREAKER SIZE WITH VFD PROVIDED.
CT-1.4 VFD	CT-1	CHILLER ROOM 102	WALL	NEMA-1	INTEGRAL CIRCUIT BREAKER	YES	NO	480	3	2@15	ABB	230934	VFD TO PANEL. ONE FAN VFD PER CELL. COORDINATE UPSTREAM BREAKER SIZE WITH VFD PROVIDED.
2 VFD-TWP-1	TWP-1	CHILLER ROOM 102	UNISTRUT	NEMA-1	INTEGRAL CIRCUIT BREAKER	YES	NO	480	3	75	ABB	230934	ADD ALTERNATE #1.

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SHEET NAME
MECHANICAL SCHEDULES

SHEET NUMBER
M3.1

MISC. ELECTRICAL SYMBOLS

- PLAN OR DETAIL NOTE IDENTIFICATION
- DETAIL IDENTIFICATION (XX / SHT) — DETAIL NUMBER / SHEET NUMBER
- CIRCUIT TAG, SEE ASSOCIATED SCHEDULE (XXXX)
- SURFACE MOUNTED RACEWAY, TYPE AS NOTED, WITH DEVICES AS INDICATED
- HOMERUN TO PANELBOARD, LETTER INDICATES PANEL DESIGNATION, NUMBER INDICATES CIRCUIT (A-1)
- CONDUIT CONCEALED IN WALLS OR CEILING, CROSSHATCHES INDICATE NUMBER OF CONDUCTORS EXCEPT NO CROSSHATCHES INDICATE 2 CONDUCTORS (GROUND WIRES ARE NOT SHOWN)
- CONDUIT CONCEALED BELOW FLOOR
- T — TELEPHONE RACEWAY
- TV — TELEVISION RACEWAY
- FO — FIBER OPTICS RACEWAY
- D — DATA SYSTEM RACEWAY
- HDMI — PROVIDE HDMI CABLE IN CONDUIT
- EM — EMERGENCY POWER AND LIGHTING CIRCUIT
- S — SOUND SYSTEM RACEWAY
- CONDUIT DOWN
- CONDUIT UP
- WM — WIREMOLD SURFACE MOUNTED RACEWAY
- CONDUIT TO BE REMOVED
- EXPOSED CONDUIT
- PE — UNDERGROUND PRIMARY ELECTRICAL
- SE — UNDERGROUND SECONDARY ELECTRICAL
- UG — UNDERGROUND ELECTRICAL
- OE — OVERHEAD ELECTRICAL
- G — GROUNDING CONDUCTOR
- LV — LOW VOLTAGE ELECTRICAL
- C — CLOCK SYSTEM RACEWAY
- CONDUIT SEAL-OFF FITTING
- EXISTING CONDUIT, VERIFY EXACT LOCATION
- UTILITY CO. POWER POLE
- GROUND CONNECTION

LIGHTING SYMBOLS

- RECESSED OR SURFACE MOUNTED LIGHT FIXTURE, NUMBER = TYPE, LETTER = SWITCH (a/#)
- HATCHING INDICATES EMERGENCY LIGHT FIXTURE, NUMBER = TYPE
- WALL MOUNTED LIGHT FIXTURE, NUMBER = TYPE
- LIGHT FIXTURE, NUMBER = TYPE
- HATCHING INDICATES EMERGENCY LIGHT FIXTURE, NUMBER = TYPE
- PENDANT MOUNTED LIGHT FIXTURE, NUMBER = TYPE
- WALL MOUNTED LINEAR LIGHT FIXTURE, NUMBER = TYPE
- LINEAR LIGHT FIXTURE, NUMBER = TYPE
- SINGLE FACED EXIT LIGHT, NUMBER = TYPE, HATCH INDICATES ILLUMINATED FACE, ARROW = CHEVRON DIRECTION
- DOUBLE FACED EXIT LIGHT, NUMBER = TYPE, HATCH INDICATES ILLUMINATED FACE, ARROW = CHEVRON DIRECTION
- EXIT LIGHT WITH TWO EMERGENCY LIGHTING HEADS, NUMBER = TYPE, HATCH INDICATES ILLUMINATED FACE, ARROW = CHEVRON DIRECTION
- EMERGENCY LIGHT WALL PACK, NUMBER = TYPE
- POLE MOUNTED LIGHT FIXTURE, NUMBER = TYPE
- LIGHTING TRACK, TRIANGLE INDICATES LIGHT FIXTURE HEAD, PROVIDE NUMBER OF HEADS AS SHOWN, NUMBER = TYPE
- CEILING FAN
- STRIP LIGHT FIXTURE, NUMBER = TYPE
- EXISTING POLE MOUNTED LIGHT FIXTURE
- S^2 — DOUBLE POLE SWITCH
- S^K — KEYED SWITCH
- S^P — SWITCH WITH LIGHTED HANDLE FOR PILOT
- SWITCH MOUNTED ON WIREMOLD BOX WITH WIREMOLD TO ABOVE ACCESSIBLE CEILING
- S^M — MOMENTARY CONTACT SWITCH
- S, S^3, S^4 — SINGLE POLE SWITCH, 3-WAY SWITCH AND 4-WAY SWITCH
- D — LINE VOLTAGE DIMMER SWITCH
- OS — CEILING MOUNTED OCCUPANCY SENSOR
- OS — AUTOMATIC WALL SWITCH WITH OCCUPANCY SENSOR
- OS — WALL MOUNTED OCCUPANCY SENSOR
- A — LIGHTING CONTROL TAG. LETTER INDICATES TAG IN LIGHTING CONTROL SCHEDULE
- LC a — LIGHTING CONTROL LOAD CONTROLLER. LETTER INDICATES LIGHTING CONTROLLED ZONE.
- S a — LOW-VOLTAGE SWITCH, WHERE PRESENT, LETTER INDICATES LIGHTING CONTROL ZONE. SEE LIGHTING CONTROL SCHEDULE.
- E — EMERGENCY LIGHTING RELAY, SEE DETAIL
- P — CEILING MOUNTED PHOTOCELL
- P — WALL MOUNTED PHOTOCELL

POWER SYMBOLS

- WP GFCI T U XG — DUPLEX CONVENIENCE RECEPTACLE
  - WP = WEATHERPROOF
  - GFCI = GROUND FAULT CIRCUIT INTERRUPTER
  - T = TAMPER RESISTANT
  - U = DUPLEX RECEPTACLE WITH USB PORTS
  - XG = ISOLATED GROUND RECEPTACLE, PROVIDE FULL SIZE GROUND WIRE EXTENDED BACK TO PANEL
- DUPLEX CONVENIENCE RECEPTACLE MOUNTED ON WIREMOLD BOX WITH WIREMOLD TO ABOVE ACCESSIBLE CEILING
- SPLIT WIRED DUPLEX RECEPTACLE
- DUPLEX CONVENIENCE RECEPTACLE MOUNTED HORIZONTAL
- 4-PLEX CONVENIENCE RECEPTACLE
- CEILING MOUNTED RECEPTACLE
- SPECIAL OUTLET OR CONNECTION, SEE PLAN AND SCHEDULE
- MULTI-SERVICE AV WALL BOX
- FLUSH MOUNTED DUPLEX FLOOR OUTLET
- MULTI-SERVICE FLOOR BOX
- T — THERMOSTAT
- G — GENERATOR
- M — MOTOR CONNECTION, SEE PLAN AND SCHEDULE
- SV — SOLENOID VALVE
- B — BELL
- PS — PRESSURE SWITCH
- PUSH-BUTTON
- MOTOR CONTROL PUSH-BUTTON STATION
- J — JUNCTION BOX
- J — WALL MOUNTED JUNCTION BOX
- PP — POWER POLE
- T — DRY-TYPE TRANSFORMER
- PAD-MOUNTED TRANSFORMER
- R — ELECTRICAL RELAY
- B — BUZZER OR CHIME
- MAGNETIC MOTOR STARTER
- COMBINATION MAGNETIC MOTOR STARTER/DISCONNECT SWITCH, FUSED UNLESS OTHERWISE NOTED
- VFD — VARIABLE FREQUENCY DRIVE
- SHP — HORSEPOWER RATED MANUAL MOTOR CONTROLLER WITH TOGGLE SWITCH
- MANUAL MOTOR STARTER WITH HORSEPOWER RATED TOGGLE SWITCH, PROVIDE THERMAL ELEMENT IF MOTOR IS NOT INTERNALLY PROTECTED
- SSU — HORSEPOWER RATED TOGGLE SWITCH WITH PLUG FUSE AND FUSTAT ADAPTER, SIZE AS REQUIRED FOR LOAD.
- TC — TIME CLOCK
- DISCONNECT SWITCH - FUSED
- DISCONNECT SWITCH - NON FUSED
- SURFACE MOUNTED PANELBOARD
- RECESSED MOUNTED PANELBOARD
- DISTRIBUTION PANEL
- SWITCHBOARD

ABBREVIATIONS

A	AMPERES
AC	4" ABOVE COUNTERTOP OR BACKSPLASH TO CENTER
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHU	AIR HANDLING UNIT
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAUGE
BD	BOARD
BFG	BELOW FINISHED GRADE
C	CONDUIT
CU	COPPER
E	INDICATES EXISTING TO REMAIN
EB	INDICATES EXISTING J-BOX AND CONDUIT IN WALL TO BE REUSED
EF	EXHAUST FAN
EM	EMERGENCY
EMT	ELECTRICAL METALLIC TUBING
EWC	ELECTRIC WATER COOLER
F OR FRAC	FRACTIONAL
FA	FIRE ALARM
FAAP	FIRE ALARM ANNUNCIATOR PANEL
FACP	FIRE ALARM CONTROL PANEL
FCU	FAN COIL UNIT
FSD	FIRE AND SMOKE DAMPER
GND	GROUND
HVAC	HEATING, VENTILATION, & AIR CONDITIONING
HPF	HIGH POWER FACTOR
HZ	HERTZ
KVA	KILOVOLT AMPERES
KW	KILOWATT
MCB	MAIN CIRCUIT BREAKER
MLO	MAIN LUG ONLY
NEC	NATIONAL ELECTRICAL CODE
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NL	NIGHT LIGHT, CONNECT TO UNSWITCHED LIGHTING CIRCUIT
P	POLE
PART	PARTIAL CIRCUIT
PIV	POST INDICATOR VALVE
PNL	PANELBOARD
PVC	POLY VINYL CHLORIDE NON-METALLIC RACEWAY, SCHEDULE 40 OR SCHEDULE 80
R	REMOVE EQUIPMENT, INCLUDING MOUNTING HARDWARE, AND CONDUIT AND CONDUCTORS TO SOURCE OF SUPPLY, UNLESS OTHERWISE NOTED
RL	REMOVE AND RELOCATE ITEM. EXTEND EXISTING CONDUIT AND/OR CABLING AS REQUIRED TO NEW LOCATION, UNLESS OTHERWISE NOTED. SEE PLANS FOR NEW LOCATION.
RR	REMOVE AND REPLACE WITH NEW DEVICE. REUSE BOX AND CONDUIT IN WALL AND PROVIDE NEW CONDUIT AND WIRING TO DEVICE AS REQUIRED
RMC	STEEL RIGID METAL CONDUIT
RTU	ROOF TOP UNIT
SD	SMOKE DAMPER
SPDT	SINGLE POLE DOUBLE THROW
SPST	SINGLE POLE SINGLE THROW
SS	STAINLESS STEEL
SWBD	SWITCHBOARD
TEL	TELEPHONE
TV	TELEVISION
TYP	TYPICAL
V	VOLTS
VFD	VARIABLE FREQUENCY DRIVE
W	WATT
WG	WIREGUARD
WP	INDICATES WEATHERPROOF
XFMR	TRANSFORMER

EQUIPMENT CONNECTION SCHEDULE

GENERAL NOTES:

A. ALL LOW VOLTAGE HVAC CONTROL WIRING SHALL BE BY THE MECHANICAL CONTRACTOR UNLESS OTHERWISE NOTED.

MARK	DESCRIPTION	ELECTRICAL				CONDUCTORS		GND SIZE	CONDUIT		SAFETY SWITCH	CONTROLLER	CONNECTION	REMARKS
		kW	HP	VOLTS	PHASE	NO.	SIZE		NO.	SIZE				
BASIN HEATER CONTROL PANEL	BASIN HEATER CONTROL PANEL	18	-	480	3	3	10	10	1	0.75"	INTEGRAL	INTEGRAL	DIRECT	COORDINATE EXACT REQUIREMENTS WITH INSTALLER.
CT-1.1 (BH)	COOLING TOWER BASIN HEATER (CELL 1)	6	-	480	3	3	12	12	1	0.75"	30A FUSED NEMA 4X	BASIN HEATER CONTROL PANEL	DIRECT	ROUTE CIRCUIT THROUGH BASIN HEATER CONTROL PANEL. FUSE AT 10A.
CT-1.1 (FAN)	COOLING TOWER FAN (CELL 1)	-	15	480	3	3	8	10	1	0.75"	30A FUSED NEMA 4X	VFD	DIRECT	FAN TO VFD. TWO FANS PER CELL AND VFD. FUSE AT 30A. PROVIDE DISCONNECT WITH AUXILIARY CONTACTS AND CONNECT TO DE-ENERGIZE UPSTREAM VFD WHEN LOCAL DISCONNECT IS OPEN. PROVIDE CONNECTION TO SHAFT GROUND, IF PRESENT. 1
CT-1.1 (VS)	COOLING TOWER VIBRATION SWITCH (CELL 1)	-	-	120	1	2	10	10	1	0.75"	SHP	NEMA 4X	-	DIRECT	COORDINATE CIRCUIT ROUTING WITH COOLING TOWER INSTALLER.
CT-1.1 (WC)	COOLING TOWER WATER LEVEL CONTROLLER (CELL 1)	-	-	120	1	2	10	10	1	0.75"	INTEGRAL	-	DIRECT	-
CT-1.1 VFD	COOLING TOWER FAN VARIABLE FREQUENCY DRIVE (CELL 1)	-	2@15	480	3	3	4	8	1	1.00"	INTEGRAL	-	DIRECT	VFD TO PANEL. ONE FAN VFD PER CELL. COORDINATE UPSTREAM BREAKER SIZE WITH VFD PROVIDED.
CT-1.2 (BH)	COOLING TOWER BASIN HEATER (CELL 2)	6	-	480	3	3	12	12	1	0.75"	30A FUSED NEMA 4X	BASIN HEATER CONTROL PANEL	DIRECT	ROUTE CIRCUIT THROUGH BASIN HEATER CONTROL PANEL. FUSE AT 10A.
CT-1.2 (FAN)	COOLING TOWER FAN (CELL 2)	-	15	480	3	3	8	10	1	0.75"	30A FUSED NEMA 4X	VFD	DIRECT	FAN TO VFD. TWO FANS PER CELL AND VFD. FUSE AT 30A. PROVIDE DISCONNECT WITH AUXILIARY CONTACTS AND CONNECT TO DE-ENERGIZE UPSTREAM VFD WHEN LOCAL DISCONNECT IS OPEN. PROVIDE CONNECTION TO SHAFT GROUND, IF PRESENT. 1
CT-1.2 (VS)	COOLING TOWER VIBRATION SWITCH (CELL 2)	-	-	120	1	2	10	10	1	0.75"	SHP	NEMA 4X	-	DIRECT	COORDINATE CIRCUIT ROUTING WITH COOLING TOWER INSTALLER.
CT-1.2 (WC)	COOLING TOWER WATER LEVEL CONTROLLER (CELL 2)	-	-	120	1	2	10	10	1	0.75"	INTEGRAL	-	DIRECT	-
CT-1.2 VFD	COOLING TOWER FAN VARIABLE FREQUENCY DRIVE (CELL 2)	-	2@15	480	3	3	4	8	1	1.00"	INTEGRAL	-	DIRECT	VFD TO PANEL. ONE FAN VFD PER CELL. COORDINATE UPSTREAM BREAKER SIZE WITH VFD PROVIDED.
CT-1.3 (BH)	COOLING TOWER BASIN HEATER (CELL 3)	6	-	480	3	3	12	12	1	0.75"	30A FUSED NEMA 4X	BASIN HEATER CONTROL PANEL	DIRECT	ROUTE CIRCUIT THROUGH BASIN HEATER CONTROL PANEL. FUSE AT 10A.
CT-1.3 (FAN)	COOLING TOWER FAN (CELL 3)	-	15	480	3	3	8	10	1	0.75"	30A FUSED NEMA 4X	VFD	DIRECT	FAN TO VFD. TWO FANS PER CELL AND VFD. FUSE AT 30A. PROVIDE DISCONNECT WITH AUXILIARY CONTACTS AND CONNECT TO DE-ENERGIZE UPSTREAM VFD WHEN LOCAL DISCONNECT IS OPEN. PROVIDE CONNECTION TO SHAFT GROUND, IF PRESENT. 1
CT-1.3 (VS)	COOLING TOWER VIBRATION SWITCH (CELL 3)	-	-	120	1	2	10	10	1	0.75"	SHP	NEMA 4X	-	DIRECT	COORDINATE CIRCUIT ROUTING WITH COOLING TOWER INSTALLER.
CT-1.3 (WC)	COOLING TOWER WATER LEVEL CONTROLLER (CELL 3)	-	-	120	1	2	10	10	1	0.75"	INTEGRAL	-	DIRECT	-
CT-1.3 VFD	COOLING TOWER FAN VARIABLE FREQUENCY DRIVE (CELL 3)	-	2@15	480	3	3	4	8	1	1.00"	INTEGRAL	-	DIRECT	VFD TO PANEL. ONE FAN VFD PER CELL. COORDINATE UPSTREAM BREAKER SIZE WITH VFD PROVIDED.
CT-1.4 (BH)	COOLING TOWER BASIN HEATER (CELL 4)	6	-	480	3	3	12	12	1	0.75"	30A FUSED NEMA 4X	BASIN HEATER CONTROL PANEL	DIRECT	ROUTE CIRCUIT THROUGH BASIN HEATER CONTROL PANEL. FUSE AT 10A.
CT-1.4 (FAN)	COOLING TOWER FAN (CELL 4)	-	15	480	3	3	8	10	1	0.75"	30A FUSED NEMA 4X	VFD	DIRECT	FAN TO VFD. TWO FANS PER CELL AND VFD. FUSE AT 30A. PROVIDE DISCONNECT WITH AUXILIARY CONTACTS AND CONNECT TO DE-ENERGIZE UPSTREAM VFD WHEN LOCAL DISCONNECT IS OPEN. PROVIDE CONNECTION TO SHAFT GROUND, IF PRESENT. 1
CT-1.4 (VS)	COOLING TOWER VIBRATION SWITCH (CELL 4)	-	-	120	1	2	10	10	1	0.75"	SHP	NEMA 4X	-	DIRECT	COORDINATE CIRCUIT ROUTING WITH COOLING TOWER INSTALLER.
CT-1.4 (WC)	COOLING TOWER WATER LEVEL CONTROLLER (CELL 4)	-	-	120	1	2	10	10	1	0.75"	INTEGRAL	-	DIRECT	-
CT-1.4 VFD	COOLING TOWER FAN VARIABLE FREQUENCY DRIVE (CELL 4)	-	2@15	480	3	3	4	8	1	1.00"	INTEGRAL	-	DIRECT	VFD TO PANEL. ONE FAN VFD PER CELL. COORDINATE UPSTREAM BREAKER SIZE WITH VFD PROVIDED.
GS-1	GRIT STRAINER	-	7.5	480	3	3	12	12	1	0.75"	INTEGRAL	DIRECT		ADD ALTERNATE #2.
HEAT TRACE SYSTEM CONTROLLER	HEAT TRACE SYSTEM CONTROLLER	4@2.1	-	277	1	2	12	12	1	0.75"	INTEGRAL	INTEGRAL	DIRECT	ELECTRICAL INDICATED FOR EACH OF (4) CIRCUITS. PROVIDE A HEAT TRACE SYSTEM PER SPECIFICATION SECTION 230533. COORDINATE PROVIDING WITH OTHER TRADES. COORDINATE EXACT ELECTRICAL REQUIREMENTS, CIRCUITS, BREAKERS, ETC. WITH HEAT TRACE SUPPLIER. REFER TO "M" SHEETS FOR PIPING TO BE TRACED AND SYSTEM INFORMATION.
TWP-1	CONDENSER WATER PUMP	-	75	480	3	3	1/0	6	1	1.50"	INTEGRAL	DIRECT		ADD ALTERNATE #1. PROVIDE CONNECTION TO SHAFT GROUND, IF PRESENT. 1
TWP-2	CONDENSER WATER PUMP	-	75	480	3	3	1/0	6	1	1.50"	INTEGRAL	DIRECT		ADD ALTERNATE #1. PROVIDE CONNECTION TO SHAFT GROUND, IF PRESENT. EXISTING 125-HP VFD WILL BE RE-USED AND REPROGRAMMED FOR NEW 75-HP PUMP. 1
VFD-TWP-1	CONDENSER WATER PUMP VARIABLE FREQUENCY DRIVE	-	75	480	3	3	1/0	6	1	1.50"	INTEGRAL	DIRECT		ADD ALTERNATE #1.
VFD-TWP-2	CONDENSER WATER PUMP VARIABLE FREQUENCY DRIVE	-	75	480	3	3	1/0	6	1	1.50"	INTEGRAL	DIRECT		ADD ALTERNATE #1.

LIGHT FIXTURE SCHEDULE

MARK	DESCRIPTION	LUMENS	COLOR TEMP	DIMMING PROTOCOL	VOLTAGE	WATTS	MOUNTING	MANUFACTURER	CATALOG NUMBER	ACCEPTABLE MANUFACTURERS	NOTES
W1	EXTERIOR WALLPACK, WET LOCATION RATED. INTEGRAL PHOTOCELL	2,300	5000K	-	MVOLT	16	POST, SEE PLANS	LITHONIA	TWR1-LED-ALO-SWW2-UVOLT-PE-DDBTXD	COOPER CURRENT	

ELECTRICAL DEMOLITION GENERAL NOTES

A. THESE PLANS INDICATE MAJOR ITEMS OF DEMOLITION IN THE PROJECT AND ARE NOT INTENDED TO INDICATE ALL DEMOLITION REQUIRED TO COMPLETE THE WORK. REMOVE ITEMS INDICATED ON THE DEMOLITION SHEETS AND ADDITIONAL ITEMS AS REQUIRED FOR DEMOLITION WORK. DEMOLITION SHALL BE COMPLETE INCLUDING, BUT NOT LIMITED TO, REMOVAL OF DESIGNATED EQUIPMENT AND ASSOCIATED CONDUIT, CABLES, CONDUCTORS, BOXES, DEVICES, MOUNTING HARDWARE, ETC. PATCH AND REPAIR WALLS AS REQUIRED TO MATCH THE ADJACENT FINISH.

B. REMOVE ALL DEVICES AND FIXTURES AND ALL ASSOCIATED WIRING AND EXPOSED CONDUIT. IN WALLS AND CEILING SPACES WHICH ARE BEING REMOVED. MAINTAIN CIRCUIT CONTINUITY FOR ALL DEVICES, EQUIPMENT, AND FIXTURES WHICH REMAIN.

C. FLUORESCENT LAMPS THAT ARE REMOVED SHALL BE BOXED AND RECYCLED IN ACCORDANCE WITH FEDERAL AND STATE ENVIRONMENTAL GUIDELINES.

D. FLUORESCENT BALLASTS THAT ARE MARKED AS "CONTAINS NO PCB'S" SHALL BE DISPOSED OF BY THIS CONTRACTOR. BALLASTS THAT CONTAIN PCB'S OR THAT ARE NOT MARKED "CONTAINS NO PCB'S" SHALL BE BOXED AND/OR PALLETIZED AND RECYCLED IN ACCORDANCE WITH FEDERAL AND STATE ENVIRONMENTAL GUIDELINES.

E. EXISTING COMMUNICATIONS, COMPUTER NETWORKING, OR OTHER SPECIAL SYSTEMS CABLES SHALL BE SECURED AND PROTECTED DURING CONSTRUCTION. ANY CABLE DAMAGED DURING CONSTRUCTION SHALL BE REPLACED BY THE CONTRACTOR, AT NO COST TO THE OWNER (THE ENTIRE CABLE SHALL BE REPLACED AND TESTED FOR PROPER OPERATION IN THE PRESENCE OF THE OWNER).

F. OWNER SHALL HAVE FIRST SALVAGE RIGHTS FOR ALL FIXTURES, EQUIPMENT, DEVICES, PANELS, ETC. BEING REMOVED. CONTRACTOR SHALL DISPOSE OF ALL ITEMS NOT SALVAGED BY OWNER.

G. ALL ABANDONED COMMUNICATIONS CABLING, CONDUIT/RACEWAYS, DEVICES, AND EQUIPMENT SHALL BE REMOVED. PATCH AND COVER SURFACES AS REQUIRED TO MATCH EXISTING SURFACES.

ELECTRICAL SITE GENERAL NOTES

A. VERIFY THE EXACT LOCATION OF ALL UNDERGROUND UTILITIES BEFORE DIGGING, EXCAVATING, OR DIRECTIONAL BORING. REPAIR EXISTING UTILITIES DAMAGED DURING CONSTRUCTION.

B. ALL UNDERGROUND CONDUIT SHALL BE 1" MINIMUM AND INSTALLED A 24" BELOW FINISHED GRADE, UNLESS OTHERWISE NOTED, WITH RED WARNING TAPE 12" ABOVE.

ELECTRICAL GENERAL NOTES

A. PROVIDE TEMPORARY POWER, LIGHTING, AND HEATING AS REQUIRED FOR CONSTRUCTION. COORDINATE WITH THE GENERAL CONTRACTOR AND OTHER TRADES.

B. FIRE SEAL ALL PENETRATIONS THROUGH FIRE RATED WALLS, CEILING AND FLOORS.

C. COORDINATE LOCATION OF WIRING DEVICES, TELECOM OUTLETS, FIRE ALARM DEVICES, ETC. WITH MILLWORK, TILE LAYOUT, AND OTHER WALL FINISHES PRIOR TO ROUGH-IN.

D. ALIGN ADJACENT WALL MOUNTED OUTLET BOXES FOR SWITCHES, THERMOSTATS, AND SIMILAR DEVICES. DEVICES SHALL BE ALIGNED VERTICALLY WHEN INSTALLED AT DIFFERING HEIGHTS AND INSTALL ALL ADJACENT DEVICES AT THE SAME HEIGHT TO CENTER. NOTIFY ARCHITECT OF ANY DISCREPANCIES BETWEEN TRADES PRIOR TO ROUGH-IN.

E. CONCEAL ALL CONDUITS IN WALL, CHASES, ABOVE CEILINGS, BELOW FLOOR, OR IN ADJACENT STORAGE OR UNFINISHED SPACES, WHERE POSSIBLE. RUN EXPOSED CONDUITS VERTICALLY, WHERE POSSIBLE, TO ABOVE ACCESSIBLE CEILING, CONNECT HORIZONTALLY ABOVE CEILING.

F. PROVIDE TAMPER RESISTANT RECEPTACLES WHERE REQUIRED BY THE NEC.

G. UTILIZE EXISTING CONCEALED CONDUIT AND FLUSH MOUNTED BOXES WHERE POSSIBLE.

H. INSTALL NEW DEVICES IN EXISTING BACKBOXES WHERE POSSIBLE. REUSE CONDUIT/SURFACE RACEWAYS AS AVAILABLE. PROVIDE GANGED COVERPLATES AND/OR BLANK COVERPLATES AS REQUIRED.

I. POWER TO EXISTING AREAS NOT WITHIN THE SCOPE OF THIS PROJECT SHALL BE MAINTAINED AT ALL TIMES EXCEPT FOR SHORT TERM OUTAGES NECESSARY FOR RECONNECTION OF EXISTING CIRCUITS. COORDINATE AND SCHEDULE OUTAGES WITH THE OWNER AND GOVERNMENT.

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WAYNE STATE COLLEGE COOLING TOWER REPLACEMENT

WAYNE STATE COLLEGE
400 LINDAHL DR.
WAYNE, NE

ISSUE FOR CONSTRUCTION

PROFESSIONAL ENGINEER — ANDREW P. WIESE E-17702 4/3/26 STATE OF NEBRASKA

CA-0176

REV. #	DESCRIPTION	DATE
1	ADDENDUM #2	04.17.2026

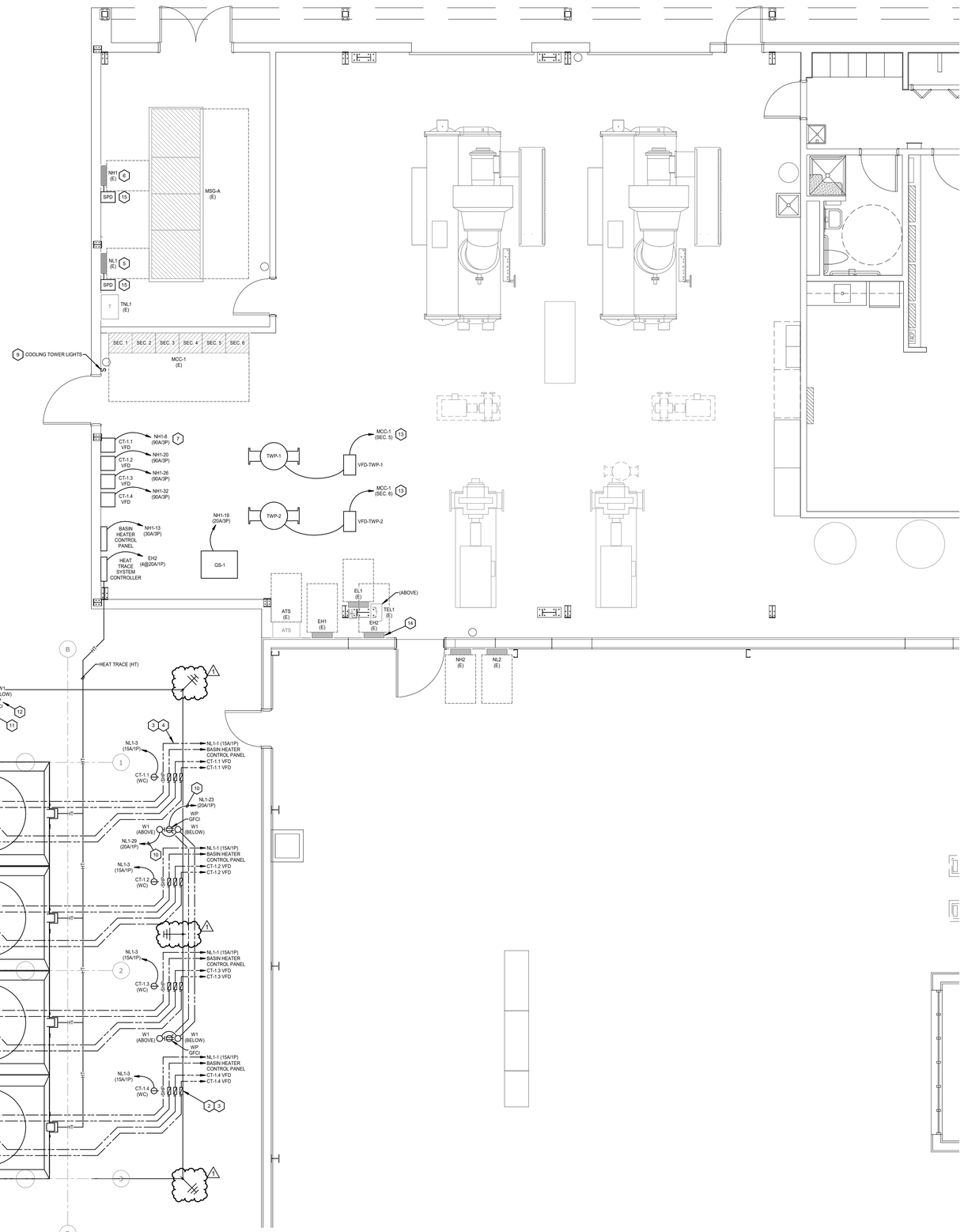
PROJECT NUMBER:	2025-134
ISSUE DATE:	04/03/2026
DRAWN BY:	ARN
CHECKED BY:	APW

SHEET NAME
ELECTRICAL GENERAL INFORMATION

SHEET NUMBER
EG0.0

SHEET NOTES

1. COORDINATE EXACT LOCATION OF ELECTRICAL CONNECTIONS WITH COOLING TOWER INSTALLER. (TYPICAL)
2. MOUNT TO WALKING SIDE OF PLATFORM GUARDRAIL, ABOVE WALKING PLATFORM. STACK ITEMS WHERE POSSIBLE. COORDINATE EXACT LOCATIONS WITH OWNER AND COOLING TOWER INSTALLER TO AVOID CONFLICTS WITH OPERATIONS AND MAINTENANCE. (TYPICAL)
3. PROVIDE SUPPORTS AS REQUIRED TO SUPPORT ELECTRICAL RACEWAYS TO COOLING TOWER. CONDUIT AND ASSOCIATED COMPONENTS, HARDWARE, ETC. THROUGHOUT EXTERIOR SHALL BE ALUMINUM, USING NON-CORROSIVE FITTINGS. ELECTRICAL SUPPORTS SHALL BE MADE OF EITHER FIBERGLASS, ALUMINUM, OR STAINLESS STEEL WITH COMPATIBLE HARDWARE. EMT OR RMC IS NOT PERMITTED FOR EXTERIOR ROUTING ABOVE GRADE. PVC IS ONLY ACCEPTABLE BELOW GRADE AND SHALL TRANSITION TO AN APPROVED MEANS BEFORE EMERGING ABOVE GRADE. EMT IS ACCEPTABLE INDOORS. (TYPICAL)
4. ROUTE ELECTRICAL ALONG COOLING TOWER PIPING ABOVE CONCRETE SLAB. PROVIDE INDEPENDENT SUPPORTS AS REQUIRED. COORDINATE WITH OTHER TRADES AND THE OWNER TO AVOID CONFLICTS AND ALLOW ACCESS FOR OPERATIONS AND MAINTENANCE. (TYPICAL)
5. EXISTING GE A-SERIES, 120/208V, 3-PHASE, 4-WIRE PANELBOARD WITH A 100A MAIN CIRCUIT BREAKER. REMOVE SPARE BREAKERS FOR NEW CIRCUITS AND BLANK INSERTS AS REQUIRED. UPDATE WITH A NEW TYPEWRITTEN CIRCUIT DIRECTORY.
6. EXISTING GE A-SERIES, 277/480V, 3-PHASE, 4-WIRE PANELBOARD, 400A MAIN LUG ONLY. REMOVE SPARE BREAKERS FOR NEW CIRCUITS AND BLANK INSERTS AS REQUIRED. UPDATE WITH A NEW TYPEWRITTEN CIRCUIT DIRECTORY.
7. PROVIDE NEW BREAKER, SIZE INDICATED, IN PANEL INDICATED. (TYPICAL)
8. INSTALL (BELOW) INDICATED LIGHTS TO UNDERSIDE OF PLATFORM STRUCTURE. COORDINATE EXACT LOCATION WITH PLATFORM INSTALLER AND OWNER PRIOR TO ROUGH-IN. PROVIDE UNISTRUT AS REQUIRED. (TYPICAL)
9. PROVIDE SWITCH AND CONNECT FOR MANUAL OVERRIDE OF COOLING TOWER LIGHTING. LABEL AS INDICATED.
10. PROVIDE #10 CONDUCTORS THROUGHOUT CIRCUIT.
11. PROVIDE A STAINLESS STEEL POST, WITH SUPPORTS, FOR LIGHT AND SECURE TO PLATFORM GUARDRAIL/STRUCTURE SUCH THAT LIGHT IS ELEVATED TO 9FT ABOVE PLATFORM FLOOR. PROVIDE BACKBOX OR UNISTRUT (ALUMINUM, STAINLESS, OR FIBERGLASS UNISTRUT) AND RIGID SUPPORTS AS REQUIRED TO SECURE LIGHT FIXTURE. ROUTE CIRCUIT THROUGH WALL SWITCH BY BUILDING DOOR. COORDINATE POST WITH PLATFORM SUPPORTS AND PLATFORM INSTALLER. TYPICAL FOR (ABOVE) INDICATED LIGHTS.
12. INSTALL RECEPTACLES APPROXIMATELY 24" ABOVE PLATFORM FLOOR. (TYPICAL)
13. INSTALL IN SPARE CABINET MADE AVAILABLE BY DEMOLITION. PROVIDE 150A FUSES.
14. EXISTING GE A-SERIES, 277/480V, 3-PHASE, 4-WIRE PANELBOARD, 600A MAIN LUG ONLY. REMOVE SPARE BREAKERS FOR NEW CIRCUITS AND BLANK INSERTS AS REQUIRED. UPDATE WITH A NEW TYPEWRITTEN CIRCUIT DIRECTORY.
15. PROVIDE EXTERNAL SURGE PROTECTIVE DEVICE. PER THE SPECIFICATIONS. PROVIDE A 30A/3P BREAKER IN PANEL AND CONNECT LEADS AS SHORT AS POSSIBLE.
16. BOND PLATFORM AT BASE OF STEEL STRUCTURE WITH A #6 AWG BARE GROUNDING CONDUCTOR TO A BURIED 5/8" X 10'-0" COPPER CLAD GROUND ROD. INSTALL 3'-0" BEYOND FOUNDATION WALL. (TYPICAL)



A5 ELECTRICAL PLAN

1/4" = 1'-0"

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REV. #	DESCRIPTION	DATE
1	ADDENDUM #2	04.14.2026

PROJECT NUMBER:	2025-134
ISSUE DATE:	04/03/2026
DRAWN BY:	ARN
CHECKED BY:	APW

SHEET NAME
ELECTRICAL PLAN

SHEET NUMBER
E1.1