

ADDENDUM NO. 1 - OUTLINE AND SUMMARY INFORMATION

Project Name: New Storage Container for the Ecology Fish Collection PPA No.: 19-0171
Location: Montana State University - Bozeman Date: 07/19/2024
Owner: State of Montana, MSU – Bozeman
Plew Building 6th and Grant, PO Box 172760
Bozeman, Montana 59717-2760

To: All Plan Holders of Record

*The Plans and Specification prepared by **ThinkOne** dated **06/28/24** shall be clarified and added as follow. The bidder proposes to perform all the following clarifications or changes. It is understood that the Base Bid shall include any modification of Work or Additional Work that may be required by reason of the following change or clarifications.*

The Bidders are to acknowledge the receipt of this Addendum by inserting its number and date into their Bid Forms. Failure to acknowledge may subject the Bidder to disqualification and rejection of the bid. This Addendum forms part of the Contract Documents as if bound therein and modifies them as follows:

1. AMENDMENTS TO THE PROJECT MANUAL

a. NONE

2. AMENDMENTS TO THE DRAWINGS

a. Sheet: A03 – SITE PLAN.

i. Note revised to clarify design intent for conduit and cabling running to CBB. Refer to revised drawing sheet.

ii. Note added to provide conduit and pull wire from H.M.S.B _____ to existing MSU monitoring system located in the adjacent Chem Stores Building. Refer to revised drawing sheet.

b. Sheet E0.0 – ELECTRICAL COVER SHEET

i. Note added to clarify scope of work for wiring related to DDC control system.

c. Sheet: E2.1 – ELECTRICAL PLANS

i. Note revised to clarify design intent for conduit and cabling running to CBB. Refer to revised drawing sheet.

ii. Note added to provide conduit and pull wire from H.M.S.B _____ to existing MSU monitoring system located in the adjacent Chem Stores Building. Refer to revised drawing sheet.

3. PRE-BID MEETING INFORMATION

- a. Pre-bid meeting attendance list attached
- b. Pre-bid meeting agenda and notes attached

4. ATTACHMENTS

- a. Pre-bid meeting attendance list
- b. Pre-bid meeting agenda and notes
- c. Drawing Sheets
 - i. A03 – SITE PLAN
 - ii. E0.0 – ELECTRICAL COVER SHEET
 - iii. E2.1 – ELECTRICAL PLANS

PRE-BID MEETING AGENDA

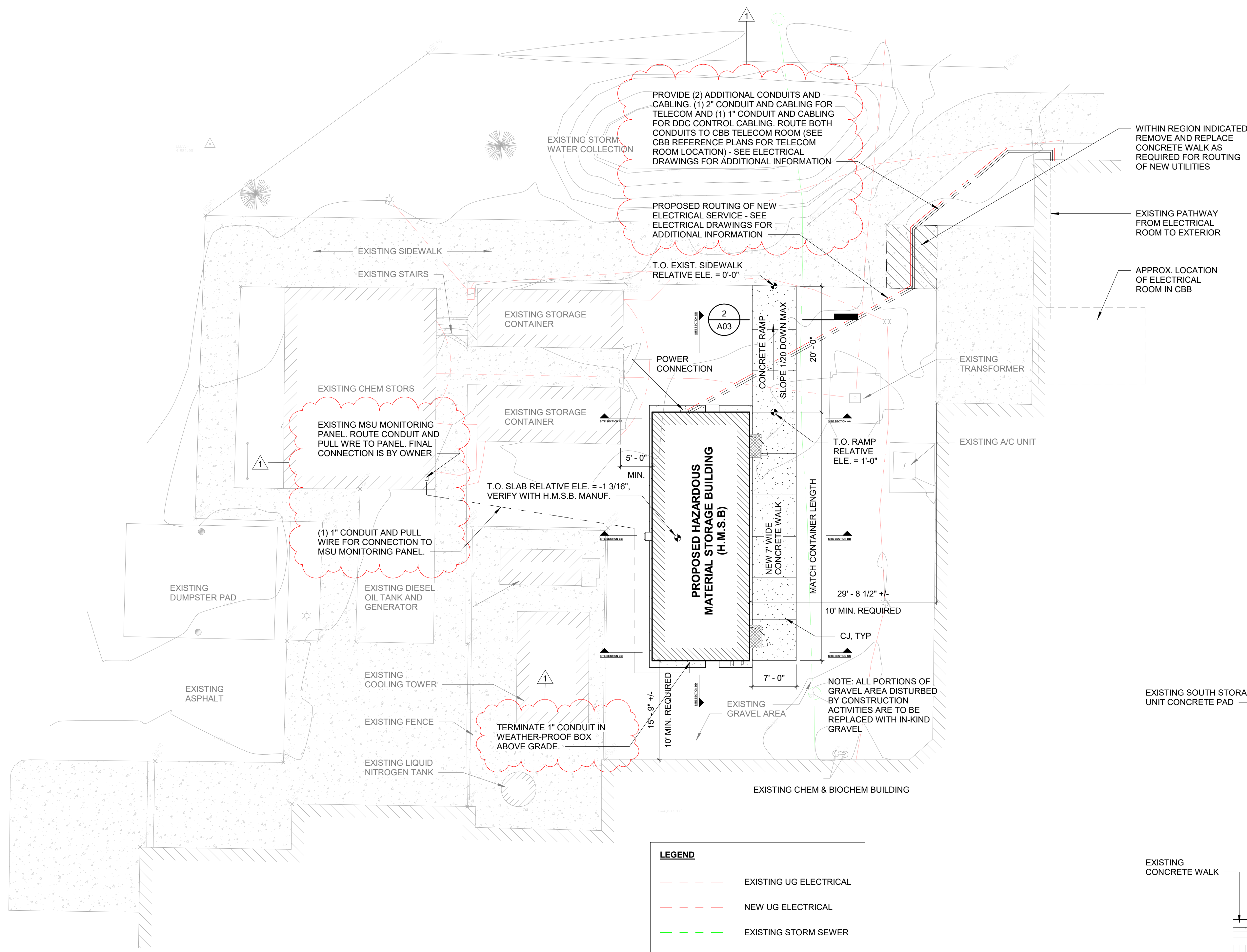
Project: Ecology Storage Container, PPA # 19-0171
From: Roz Kinney, Facilities Engineer and Project Manager
Date: 7/17/24

1. Recommended Attendees:
 - a. Consultant – Jake Sauver (ThinkOne)
 - b. MSU – Roz Kinney & Loras O’Toole
 - c. Safety and Risk Management – Chris Salter
 - d. Client – Diane Debinski
 - e. Building Manager – Kim Hilmer
 - f. MSU-UIT – Jim Stipp
2. Route sign-in sheet. Introductions
3. Availability of Contract Documents
4. Bidding Considerations:
 - a. Plan review fees paid by owner, permit fees paid by contractor. Status.
 - b. Bid opening: Tuesday 7/30/24 @ 2:00
 - c. Bid Security of 10% of bid for all projects over \$150,000
 - d. Deadline for Substitution, and Addenda – 7/19/24, we will issue by 7/23/24
 - e. Performance, labor, and material bonds for 100%, for projects over \$150,000.
 - f. State tax of 1% for projects over \$80,000.
 - g. Prevailing wages for projects over \$25,000.
 - h. General liability, Owner protective liability, and property insurance, in MSU name.
 - i. Completion of project 280 days after Notice to Proceed.
 - j. Project meetings → weekly or biweekly depending on what is needed.
5. Review drawings and technical specifications.
6. Questions that have been raised since bid documents sent out.
7. Open discussion of project and related questions.
8. Project walk-through.

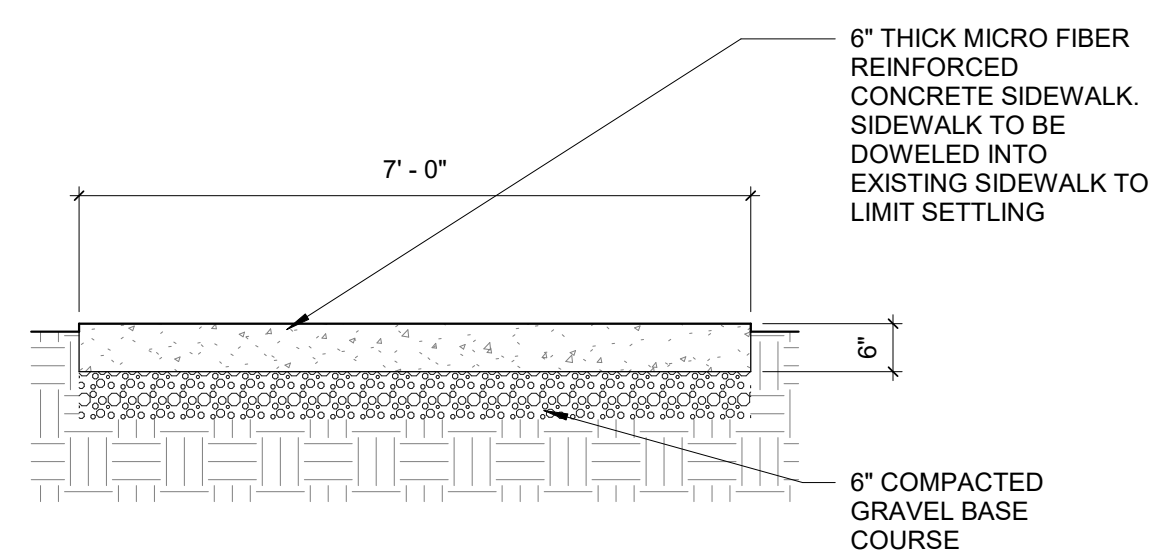
Encl: List of Attendees, Notes from Meeting

Meeting Notes from Roz

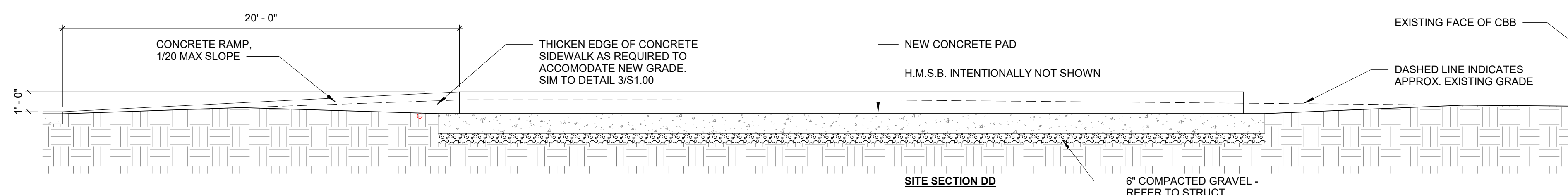
- Jake to resubmit drawings to city for permitting.
- Additional considerations for storage container pricing
 - Shipping and handling
 - Downpayment upfront for order
- Moving of fish specimens will be done by Owner.
- **Monitoring specs will** be issued by addendum.
 - Laying conduit and pulling wire will be work done by Contractor.
 - Connection to existing MSU monitoring system will be work done by Owner.



1 SITE PLAN
A03 1" = 10'-0" NORTH



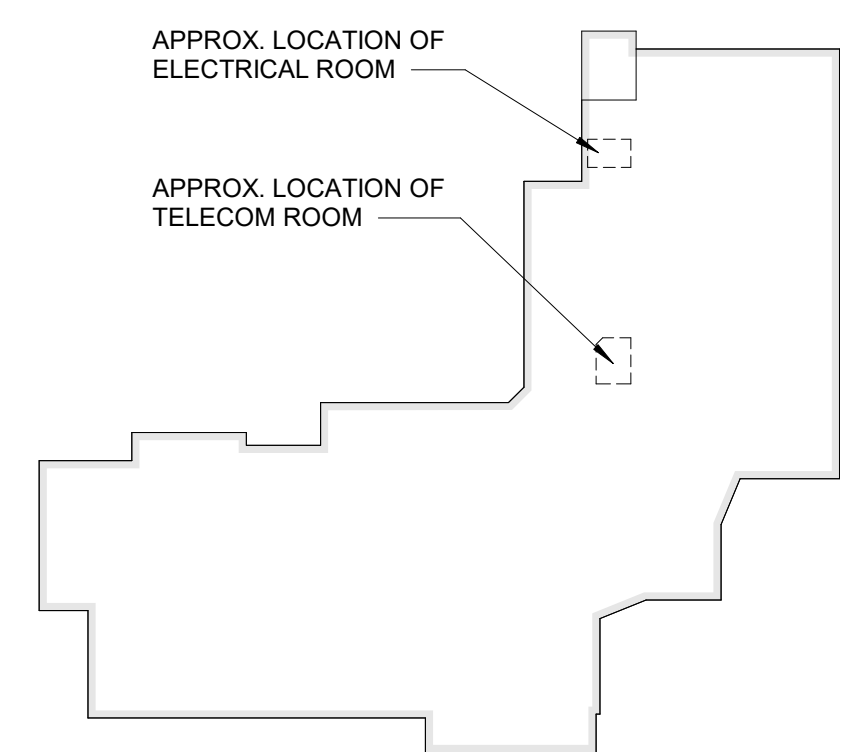
2 CONCRETE SIDEWALK DETAIL
A03 1/2" = 1'-0"



4 SITE / GRADE SECTIONS
A03 1/4" = 1'-0"

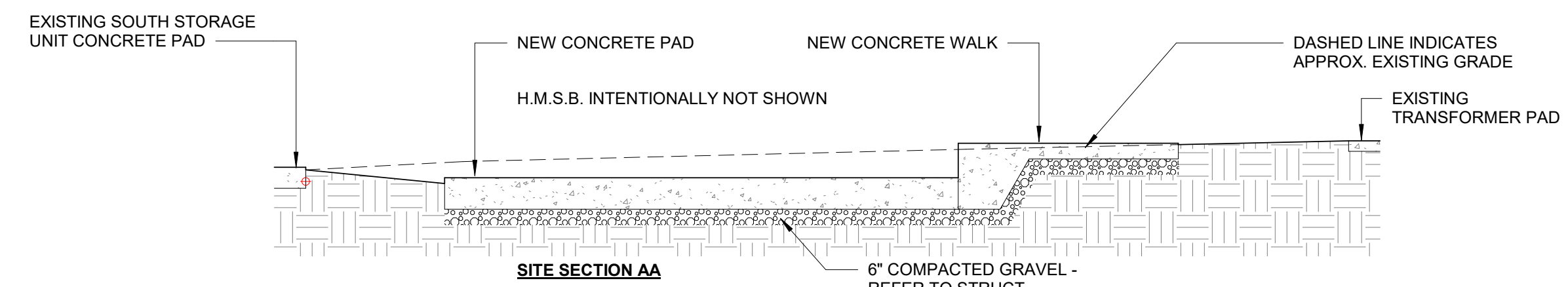
GENERAL NOTES FOR SHEET A03

- CONTRACTOR SHALL RESTORE ALL AREAS EFFECTED BY CONSTRUCTION OPERATIONS TO ORIGINAL CONDITIONS. THIS SHALL INCLUDE BUT IS NOT LIMITED TO SIDEWALKS, ADJACENT BUILDINGS AND GRAVEL LANDSCAPE.
- THE LOCATION, DEPTH, AND SIZE OF THE EXISTING UTILITIES SHOWN ON THESE PLANS IS APPROXIMATE. THE CONTRACTOR SHALL VERIFY THE EXISTENCE, LOCATION, DEPTH AND SIZE OF THE UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ANY DAMAGE TO THE EXISTING FACILITIES DUE TO THE FAILURE TO LOCATE OR PROPERLY PROVIDE PROTECTION WHEN LOCATION IS KNOWN.

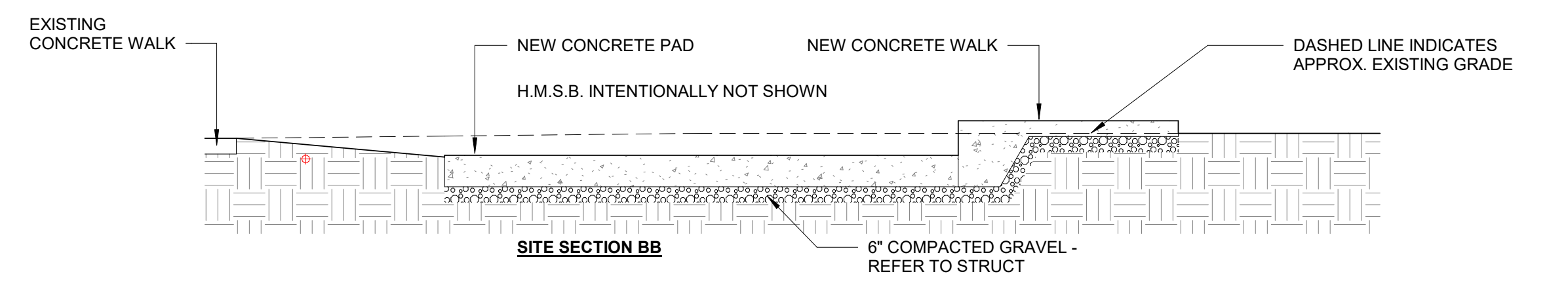


CHEMISTRY AND BIOCHEMISTRY BASEMENT REFERENCE PLAN

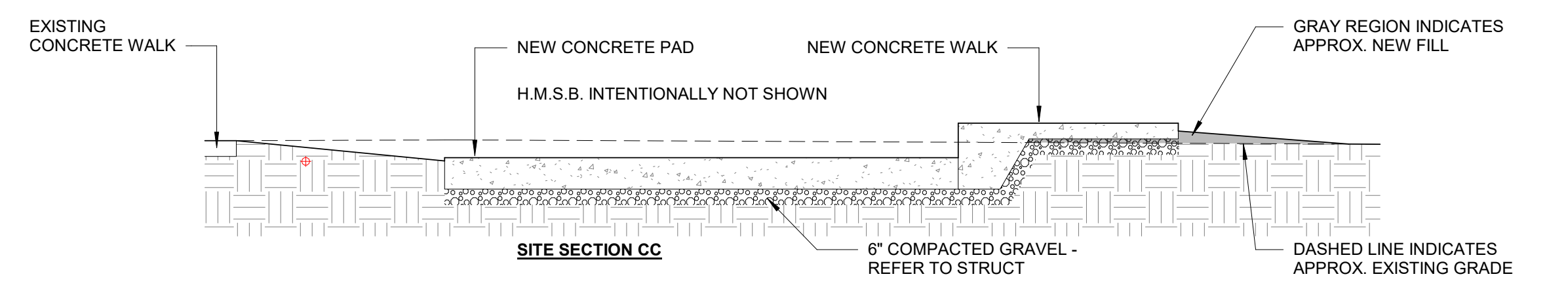
3 CHEM & BIOCHEM BUILDING REFERENCE PLANS
A03 1" = 50'-0" NORTH



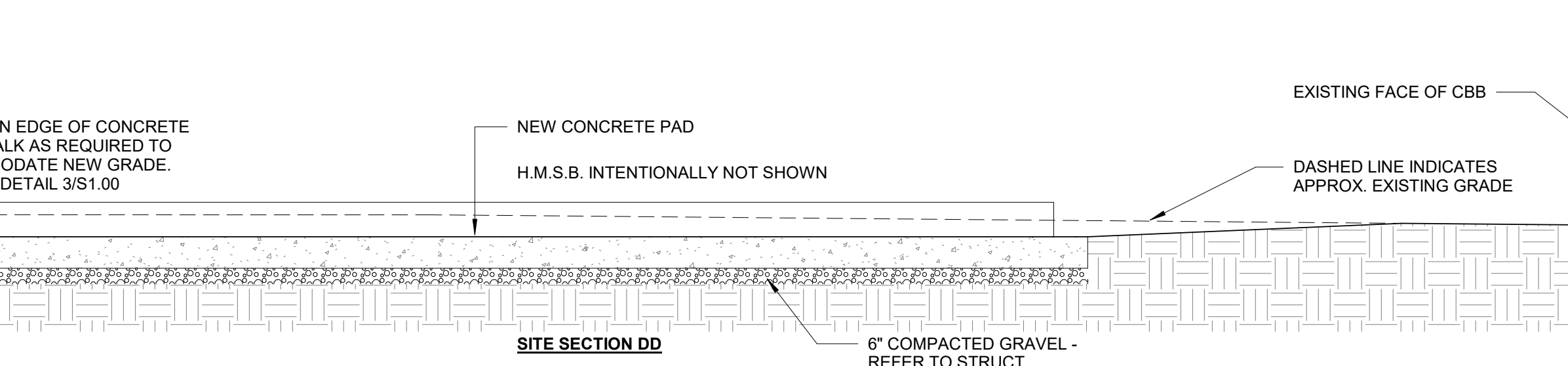
SITE SECTION AA



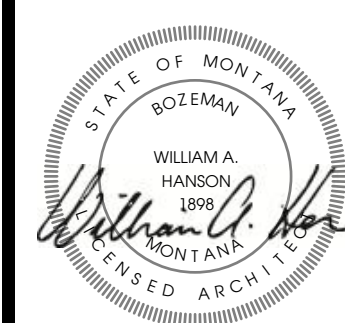
SITE SECTION BB



SITE SECTION CC



SITE SECTION DD



ISSUE	DATE	ADD 1	DESCRIP.
1	7/19/24	ADD 1	

TEMPERATURE CONTROL NOTES

- 1. CONTROLS SUPPLIED UNDER THIS PROJECT SHALL BE CONNECTED TO THE EXISTING DDC CONTROLS SYSTEM PROVIDED IN THE ADJACENT CHEMISTRY AND BIOSCIENCE BUILDING. EXISTING TEMPERATURE CONTROLS CONTRACTOR SERVICING THE BUILDING IS ELECTRO CONTROLS. CONTACT CHAD SCHOENWALL AT 406-721-3084 FOR COORDINATION.
2. CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, EQUIPMENT, AND SERVICES INCLUDING, BUT NOT LIMITED TO, WIRING, DEVICES, AND CONTROLLERS TO SUPPORT MONITORING OF THE UNIT TEMPERATURE AND FACTORY INSTALLED HVAC EQUIPMENT AS IDENTIFIED BELOW.
3. CONTROL CONTRACTOR SHALL FURNISH A CONTROL ENCLOSURE FOR MOUNTING BY THE ELECTRICAL CONTRACTOR. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR CONTROL EQUIPMENT ROUGH-IN AND ELECTRICAL CONDUIT ROUGH-IN FROM CONTROL EQUIPMENT TO THE CONTROLS ENCLOSURE. COORDINATE WITH THE ELECTRICAL CONTRACTOR.
4. ELECTRICAL CONTRACTOR SHALL PROVIDE A 1" CONDUIT PATHWAY FROM THE UNIT CONTROLS ENCLOSURE TO THE CHEMISTRY AND BIOSCIENCE BUILDING. ELECTRICAL CONTRACTOR SHALL PROVIDE FIBER INTERCONNECTING NEW CONTAINER AND CBS SYSTEM AND ALL CONVERTERS AS REQUIRED.
5. STORAGE UNIT IS UTILIZED FOR THE STORAGE OF FLAMMABLE LIQUIDS. ALL DEVICES AND EQUIPMENT LOCATED WITHIN THE UNIT SHALL BE INTRINSICALLY SAFE.
6. SEQUENCE OF OPERATION:
A. GENERAL NOTES:
a. ALL MAJOR SET POINTS AND PARAMETERS SHALL BE DISPLAYED AND ADJUSTABLE BY THE OPERATOR FROM THE GRAPHICS. MINOR SET POINTS AND PARAMETERS CAN RESIDE IN THE POINTS FOLDER OR NOT INTEGRATED. ULTIMATE AUTHORITY WILL BE MONTANA STATE UNIVERSITY STAFF. ANY POINTS REQUESTED, SHALL BE PROVIDED AT THE GRAPHIC LEVEL TO MEET THEIR REQUESTS.
b. ALL OUTPUTS, VARIABLE SET POINTS, AND SYSTEM MODES SHALL BE OVERRIDE COMMANDABLE FROM THE GRAPHICS. ULTIMATE AUTHORITY WILL BE MONTANA STATE UNIVERSITY STAFF. ANY POINTS REQUESTED, SHALL BE PROVIDED AT THE GRAPHIC LEVEL TO MEET THEIR REQUESTS.
c. ALL OVERRIDES SHALL BE PROMINENTLY DISPLAYED WITH A PURPLE BACKGROUND TO ALERT THE OPERATOR OF AN OVERRIDE. AN OVERRIDE REPORT SHALL LIST ALL OVERRIDDEN POINTS. REPORT SHALL BE EXPORTABLE TO PDF OR CSV FORMAT.
d. ALL POINTS THAT MOVE SHALL BE TRENDED WITH A HYPERLINK FROM THE GRAPHICS.
e. ALL BINARY POINTS SHALL RETAIN RUNTIME AND CYCLES. RUNTIMES SHALL BE DISPLAYED ON GRAPHICS. CYCLE TIMES SHALL BE DISPLAYED ON GRAPHICS WHEN APPLICABLE (UPON REQUEST BY MONTANA STATE UNIVERSITY). ALARMS SHALL BE ENUNCIATED AT THE OPERATOR WORKSTATION, AND AS REQUIRED BY MSU FACILITIES. PROVIDE A TEMPORARY REMOTE CONNECTION FOR INITIAL ALARM DISTRIBUTION AS REQUIRED. ALARM DISTRIBUTION SHALL INITIALLY INCLUDE GENERAL CONTRACTOR AND A REPRESENTATIVE FROM TC CONTRACTOR. OWNER SHALL HAVE THE ABILITY TO ADD/REMOVE PARTIES FROM THE DISTRIBUTION OF ALARMS AS APPROPRIATE. GENERAL CONTRACTOR AND TC CONTRACTOR SHOULD CONTINUE TO RECEIVE CRITICAL ALARMS THROUGHOUT THE WARRANTY PERIOD. RESPONSE TO ALARMS SHALL BE COORDINATED THROUGH BUILDING OWNER, GC, AND TC ALONG WITH ANY OTHER RELEVANT SUBCONTRACTORS.
B. TEMPERATURE MONITORING:
a. MONITOR THE TEMPERATURE WITHIN THE UNIT.
b. ALARMS:
1. ALARM TO THE BMS UNDER THE FOLLOWING CONDITIONS:
a. IF THE UNIT TEMPERATURE FALLS BELOW 55°F (ADJ.) FOR 5 MINUTES.
b. IF THE UNIT TEMPERATURE RISES ABOVE 70°F (ADJ.) FOR 5 MINUTES.
c. TRENDED ON ALL POINTS SHALL BE PROVIDED AT LEAST EVERY 15 MINUTES OR UPON CHANGE OF STATE.
C. UNIT HEATER MONITORING:
a. MONITOR THE STATUS OF EACH UNIT HEATER AND PROVIDE RUN TIME.
b. TRENDED ON ALL POINTS SHALL BE PROVIDED AT LEAST EVERY 15 MINUTES OR UPON CHANGE OF STATE.
D. PACKAGED AIR CONDITIONER MONITORING:
a. MONITOR THE STATUS OF EACH AIR CONDITIONER AND PROVIDE RUN TIME.
b. TRENDED ON ALL POINTS SHALL BE PROVIDED AT LEAST EVERY 15 MINUTES OR UPON CHANGE OF STATE.
E. EXHAUST FAN MONITORING
a. MONITOR THE STATUS OF THE EXHAUST FAN AND PROVIDE RUN TIME.
b. ALARMS:
1. ALARM TO THE BMS UNDER THE FOLLOWING CONDITIONS:
a. IF THE EXHAUST FAN STATUS IS "ON" FOR LONGER THAN 60 MINUTES AND THE OUTDOOR AIR TEMPERATURE IS BELOW 30°F (ADJ.).
c. TRENDED ON ALL POINTS SHALL BE PROVIDED AT LEAST EVERY 15 MINUTES OR UPON CHANGE OF STATE.

Switchboard: (E) MDP

Location: Vols: 208/120 Wye A.I.C. Rating: 65,000
Supply From: Phases: 3 Mains Type: MCB Mains Rating: 2000 A
Mounting: Surface Enclosure: Type 1 Wires: 4 Buss Rating: 2000 A

Table with columns: CKT, Circuit Description, # of Poles, Frame Size, Trip Rating, Load, Remarks. Rows include CHEM STORAGE S, CHEM STORAGE N, LPOG, SPARE, PROVISION, LD2N, and CHEM STORAGE.

Legend:

Table with columns: Load Classification, Connected Load, Demand Factor, Estimated Demand, Panel Totals. Includes Power classification and Total Conn. Load: 16640 VA, Total Est. Demand: 46 A.

Notes:

ELECTRICAL LEGEND

POWER DEVICES

- § SINGLE POLE SWITCH, SUBSCRIPT INDICATES TYPE:
2 2-POLE
3 3-WAY
4 4-WAY
D DIMMER
K KEYED
LV LOW VOLTAGE
MC MOMENTARY CONTACT
OS OCCUPANCY SENSOR
P PILOT LIGHT
T TIMER - 1 HOUR TIMER, MOTOR RATED FOR EXHAUST FANS
⊕ DUPLX RECEPTACLE SUBSCRIPT INDICATES TYPE:
AC ABOVE COUNTER
GFCI GROUND FAULT CIRCUIT INTERRUPTER
IG ISOLATED GROUND
TR TAMPER RESISTANT
U USB
WP WEATHERPROOF
WR WEATHER-RESISTANT
FILLED CENTER INDICATES GFCI DEVICE
⊕⊕ DOUBLE DUPLX RECEPTACLE, SUBSCRIPT ABOVE INDICATE TYPE
⊕⊕ DUPLX RECEPTACLE IN FLOOR BOX
⊕⊕ DUPLX DUPLX RECEPTACLE IN FLOOR BOX
⊕⊕ SIMPLE RECEPTACLE
⊕ DUPLX RECEPTACLE, CEILING MOUNTED. DEVICE AND COVER SHALL MATCH CEILING FINISH
⊕⊕ SWITCHED DUPLX RECEPTACLE, BOX INDICATES DEVICE LOCATED IN FLOOR BOX
⊕ 208V SINGLE PHASE RECEPTACLE, CONFIGURATION NOTED ON PLANS
⊕ 208V THREE PHASE RECEPTACLE, CONFIGURATION NOTED ON PLANS
⊕ SIMPLE RECEPTACLE IN FLOOR BOX
⊕ MUSHROOM HEAD PUSH BUTTON
⊕ PHOTO CELL
⊕⊕ WALL MOUNTED CLOCK HANGER/ POWER RECEPTACLE
⊕⊕ CORNER WALL MOUNTED OCCUPANCY SENSOR
⊕⊕ CEILING MOUNTED OCCUPANCY SENSOR, STYLE 1
⊕⊕ CEILING MOUNTED OCCUPANCY SENSOR, STYLE 2
⊕⊕ CEILING MOUNTED OCCUPANCY SENSOR, STYLE 3
⊕⊕ OCCUPANCY SENSOR POWER PACK, BOX INDICATES WALL MOUNTING
⊕⊕ SPECIAL PURPOSE CONNECTION, BRACKET INDICATES WALL MOUNTING, BOX INDICATES FLOOR MOUNTING
⊕⊕ JUNCTION BOX, BRACKET INDICATES WALL MOUNTING, BOX INDICATES FLOOR MOUNTING
⊕ MOTOR CONNECTION
⊕ RELAY
⊕ NON-FUSED DISCONNECT SWITCH
⊕ FUSED DISCONNECT SWITCH
⊕ COMBINATION STARTER/DISCONNECT SWITCH
⊕ CONTACTOR
⊕ MANUAL MOTOR STARTER
⊕ AQUASTAT BY PLUMBING CONTRACTOR, WIRED BY EC.
⊕ VARIABLE FREQUENCY DRIVE
⊕ CO2 DETECTOR BY MC, ROUGH-IN BY EC
⊕ THERMOSTAT BY MC, ROUGH-IN BY EC
⊕ PAD MOUNTED UTILITY TRANSFORMER
⊕ ELECTRICAL PANEL - SEE PANEL SCHEDULES FOR MOUNTING CONFIGURATION

LIGHTING DEVICES

- SURFACE MOUNTED OR CHAIN HUNG STRIP FIXTURE
— DIRECT / INDIRECT LIGHTING PENDANT MOUNTED FIXTURE

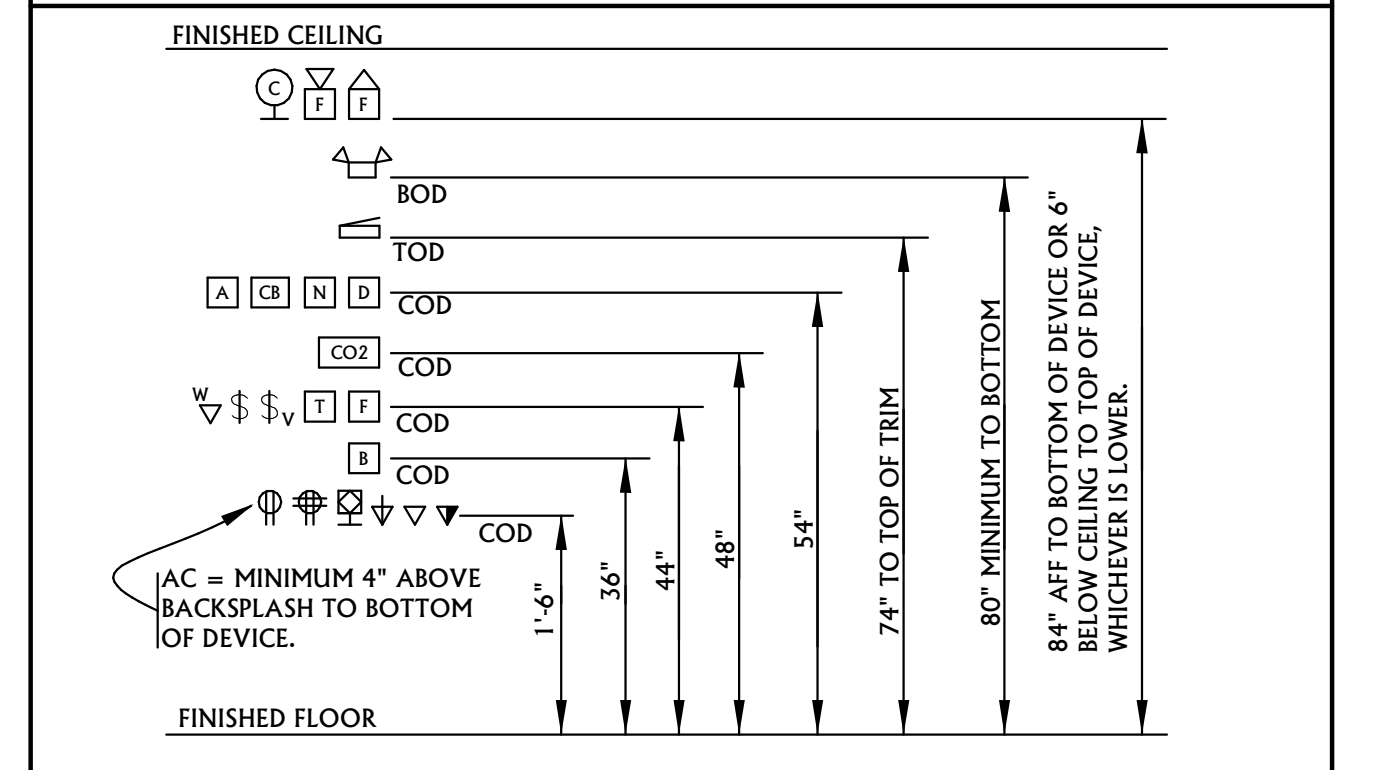
MISCELLANEOUS LEGEND

- W/ WITH ABOVE COUNTER
AC ABOVE FINISHED FLOOR
EC ELECTRICAL CONTRACTOR
(E) EXISTING
(R) RELOCATED
(N) NEW DEVICE
C CONDUIT
BFG BELOW FINISHED GRADE
UC UNDER COUNTER
WP WEATHER PROOF
MC MECHANICAL CONTRACTOR
AFF AFF ABOVE FINISHED FLOOR
WM WIRE MOLD
GC GENERAL CONTRACTOR
GND GROUND
UG UNDER GROUND
BOD BOTTOM OF DEVICE
TOD TOP OF DEVICE
COD CENTER OF DEVICE
BOF BOTTOM OF FIXTURE
PLM PLUMBING CONTRACTOR
① REFER TO ELECTRICAL NOTES
⚡ HOMERUN TO ELECTRICAL PANEL
⚡ NUMBER OF HASH MARKS INDICATES NUMBER OF CURRENT CARRYING CONDUCTORS. NO MARKS INDICATES TWO. GROUNDING CONDUCTOR NOT SHOWN BUT SHALL BE INCLUDED IN ALL CONDUITS.
— NORMAL CIRCUIT CONCEALED IN WALL OR EXPOSED
— UNDERGROUND OR BURIED CIRCUIT

ELECTRICAL ABBREVIATIONS

Table with columns: Abbreviation, Description, Abbreviation, Description. Includes ACCU, ACU, ADJ, ADMIN, AFF, AHU, AL, AMP, APPL, APPROX, ATS, BLDG, BRK, BTU/HR, C, CB, CCT, CCTV, CUH, CFM, COM, COMM, COND, CONTR, CU, CTV, CW, CWP, DIA, DISC, DPS, DWG, EC, EF, ELEC, END, EMER, ENGR, ETC, EWC, EXT, FA, FAC, FACP, FIX, FLA, FT, GC, GFCI, GF, HP, HPS, HID, HT, HTRS, HW, HWH, HWP, HZ, INC, J-BOX, KHZ, KIT, KVA, KW, LTS, LIGHTS, LIGHT WHITE, MC, MCA, MCB, MDP, MECH, MFA, MFG, MIN, MLO, MOC, MOCF, MP, MTD, NIC, NO, OCP, OFF, OH, P, PNL, PREP, PROD, P/I, RA, RAF, RECP, RECPTS, REF, REFR, REFR, REQD, RM, RMS, RS, SDP, SER, SF, SHT, SN, SP, SPECS, SPST, STD, STL, STOR, SW, TBD, TV, TYP, UG, UGE, UGT, UH, V, VA, VEST, W, WM, W/WH, WM, XFMR, MECHANICAL CONTRACTOR, MAIN CIRCUIT BREAKER, MAIN DISTRIBUTION PANEL, MECHANICAL, MINIMUM FEEDER AMPACITY, MANUFACTURER, MAIN LUGS ONLY, MOMENTARY CONTACT, MAXIMUM OVERCURRENT PROTECTION, MAIN PANEL MOUNTED, NOT IN CONTRACT NUMBER, OVERCURRENT PROTECTION OFFICE, OVERHEAD, PHASE PANEL PREPARATION, PROVIDE & INSTALL, REMOTE ANNUNCIATOR, RETURN AIR FAN RECEPTACLE, REFRIGERATOR, REFRIGERANT, REQUIRED ROOM, RESTROOMS, RAPID START, SUB DISTRIBUTION PANEL, SERVICE SUPPLY FAN SHEET, SOLID NEUTRAL SWITCH, PILOT SPECIFICATIONS SWITCH, SINGLE POLE-SINGLE THROW STANDARD STEEL STORAGE SWITCH, TELEPHONE BACK BOARD TELEVISION TYPICAL, VOLT AMPERES VESTIBULE, WATT(S), WATT MISER, TRANSFORMER.

INTERIOR MOUNTING HEIGHTS



ELECTRICAL SHEET LIST

Table with columns: Sheet Number, Description. Includes E0.0 ELECTRICAL COVER SHEET, E2.1 ELECTRICAL PLANS, E2.2 ELECTRICAL LEWIS HALL PLANS.



Table with columns: Issue, Date, Description. Row 1: 1, 7/19/24, ADD 1.

MONTANA STATE UNIVERSITY
ECOLOGICAL STORAGE CONTAINER
MONTANA STATE UNIVERSITY CAMPUS
ELECTRICAL COVER SHEET

PPA# 19-0171
COPYRIGHT 2023 06/28/24
BID/PERMIT SET

E0.0

7/18/2024 4:38:21 PM

HAZARDOUS LOCATION NOTES

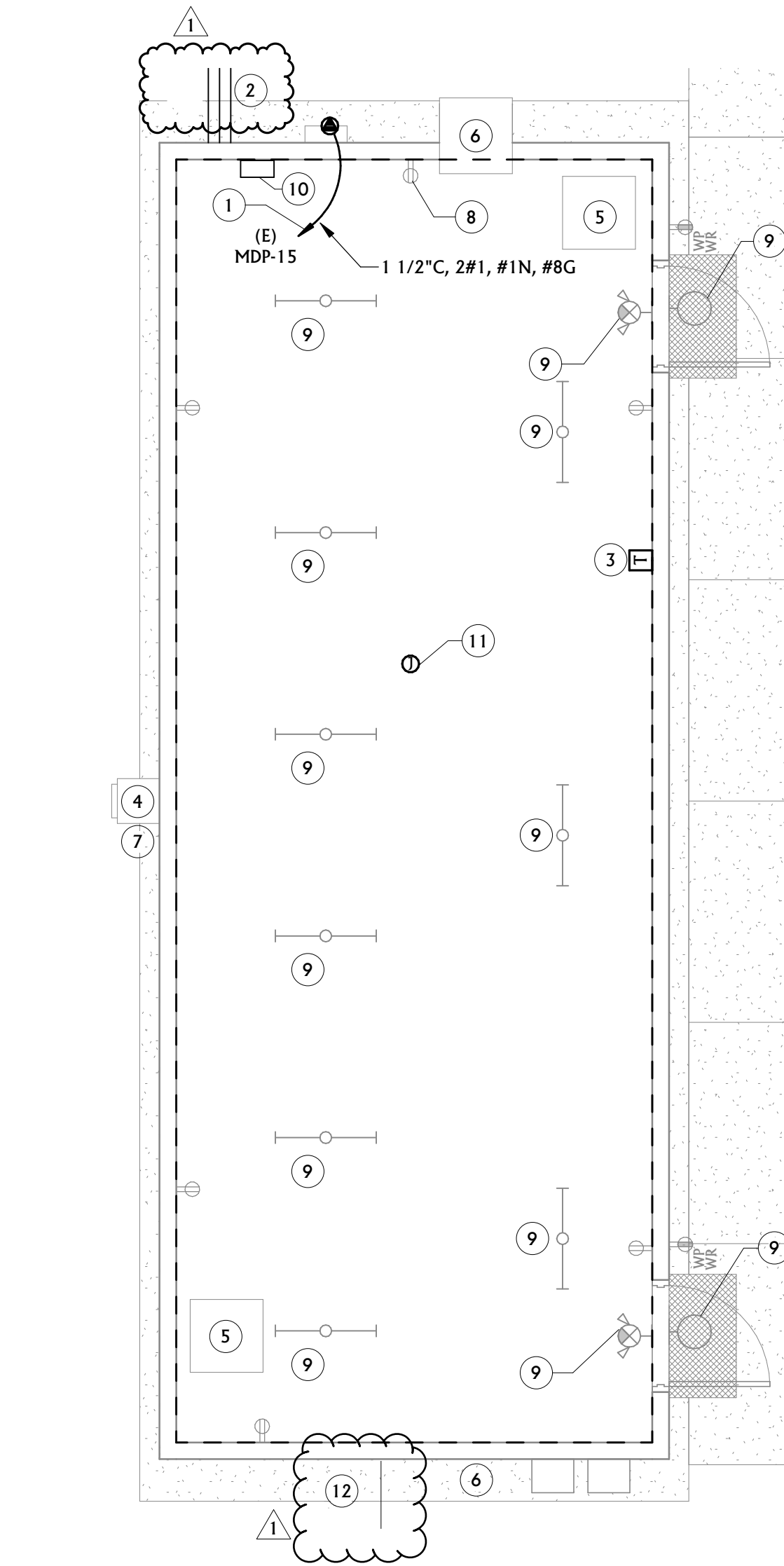
1. AREAS THAT ARE CLASSIFIED AS CLASS I DIV. II ARE INDICATED BY THE DASHED BOX ON THE PLANS.
2. REFER TO NEC ARTICLE 501 FOR CODE REQUIREMENTS.
3. FOR CONDUIT AND CABLE SEALING REQUIREMENTS REFER TO COMMENTARY TABLE 501.1.
4. REFER TO NEC 501.15 FOR REQUIREMENTS OF SEALS WITHIN A CLASS I, DIV II AREA.
5. REFER TO NEC 510.20 FOR CONDUCTOR INSULATION REQUIREMENTS. COORDINATE CHEMICAL CHARACTERISTICS/PROPERTIES WITH OWNER. REFER TO UL GUIDE INFORMATION FOR ELECTRICAL EQUIPMENT.
6. THE ELECTRICAL SYSTEM WITHIN A CLASS I DIV. II AREA SHALL BE GROUNDED AS SPECIFIED IN NEC ARTICLE 250.
7. SURGE ARRESTERS AND SURGE-PROTECTIVE DEVICES SHALL BE NON-ARCING, SEALED TYPE AND BE OF TYPE DESIGNED FOR SPECIFIC DUTY.
8. REFER TO NEC ARTICLE 501.115(B) FOR REQUIREMENTS OF SWITCHES IN CLASS I DIV. II.
9. REFER TO NEC ARTICLE 501.130(B) FOR REQUIREMENTS OF LUMINARIES WITHIN A CLASS I DIV. II AREA.
10. REFER TO NEC ARTICLE 501.35(B) FOR REQUIREMENTS OF UTILIZATION EQUIPMENT WITHIN A CLASS I DIV. II AREA.
11. REFER TO NEC ARTICLE 501.145 FOR REQUIREMENTS OF RECEPTACLES WITHIN A CLASS I DIV. II AREA.

ELECTRICAL POWER GENERAL NOTES

- | | |
|---|---|
| A | REFER TO ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION ON DEVICE LOCATIONS, DIMENSIONS, ETC. CAREFULLY EXAMINE ARCHITECTURAL FLOOR PLANS, CEILING PLANS, ELEVATIONS, ETC. FOR INFORMATION THAT AFFECTS ELECTRICAL WORK. NOTIFY ARCHITECT/ENGINEER IMMEDIATELY OF ANY DISCREPANCIES BETWEEN ARCHITECTURAL AND ELECTRICAL PLANS. |
| B | FIRE SEAL ALL PENETRATIONS IN FIRE RATED WALLS. COORDINATE WITH ARCHITECTURAL FOR LOCATIONS. |

ELECTRICAL KEYNOTES

- | | |
|----|---|
| 1 | PROVIDE NEW 250AF 100AT CIRCUIT BREAKER IN EXISTING MAIN DISTRIBUTION PANEL. SEE PANEL SCHEDULE FOR PANEL TYPE. SEE ARCHITECTURAL PLANS FOR ELECTRICAL ROOM LOCATION. |
| 2 | (1) 2" C FOR TELECOM CABLING, AND (1) 1" C FOR DDC CONTROL CABLING. ROUTE TO TELECOM ROOM. SEE ARCHITECTURAL PLANS FOR TELECOM LOCATIONS. |
| 3 | PROVIDE SPACE TEMPERATURE SENSOR AT APPROXIMATE LOCATION. COORDINATE EXACT LOCATION WITH STORAGE LAYOUT AND ARCHITECT PRIOR TO ROUGH-IN. |
| 4 | FACTORY PROVIDED EXHAUST FAN AT APPROXIMATE LOCATION. PROVIDE MONITORING AS REQUIRED PER THE TEMPERATURE CONTROLS SEQUENCE. |
| 5 | FACTORY PROVIDED UNIT HEATER AT APPROXIMATE LOCATION. PROVIDE MONITORING AS REQUIRED PER THE TEMPERATURE CONTROLS SEQUENCE. |
| 6 | FACTORY PROVIDED A/C UNIT AT APPROXIMATE LOCATION. PROVIDE MONITORING AS REQUIRED PER THE TEMPERATURE CONTROLS SEQUENCE. |
| 7 | EXHAUST FAN WITH FIRE DAMPER AT APPROXIMATE LOCATION IS FACTORY-PROVIDED AND FIELD INSTALLED. PROVIDE CONNECTION TO ELECTRICAL AS REQUIRED. |
| 8 | RECEPTACLE PROVIDED AND INSTALLED BY STORAGE UNIT MANUFACTURER SHOWN FOR REFERENCE ONLY. TYPICAL OF ALL RECEPTACLES SHOWN ON POWER AND SPECIAL SYSTEMS PLAN. |
| 9 | LIGHT FIXTURE PROVIDED AND INSTALLED BY STORAGE UNIT MANUFACTURER SHOWN FOR REFERENCE ONLY. |
| 10 | PROVIDE 12"X12"X6" WIRE PULL BOX FOR TELECOM CABLING. COORDINATE LOCATION AND REQUIREMENTS WITH MSU IIT REPRESENTATIVE. |
| 11 | PROVIDE CEILING MOUNTED J-BOX FOR WIRELESS ACCESS POINT IN APPROXIMATE LOCATION. PROVIDE (1) 1" C FROM TELECOM PULLBOX ON NORTH WALL TO JUNCTION BOX. WIRING FOR WIRELESS ACCESS POINT BY MSU IIT. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH MSU IIT. |
| 12 | PROVIDE ONE 1" CONDUIT AND PULL WIRE BETWEEN PROPOSED HAZARDOUS MATERIAL STORAGE BUILDING AND EXISTING MONITORING PANEL LOCATED IN THE CHEMICAL STORAGE BUILDING. REFER TO ARCHITECTURAL PLANS FOR LOCATION AND ROUTING |



1
E2.1
POWER AND SPECIAL SYSTEMS PLAN
1/4" = 1'-0"



ISSUE	DATE	DESCRIP.
1	7/19/24	ADD 1

MONTANA STATE UNIVERSITY
ECOLOGY STORAGE CONTAINER

MONTANA STATE UNIVERSITY CAMPUS
ELECTRICAL PLANS

PPA# 19-0171
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BID/PERMIT SET

E2.1