ADDENDUM NO. 3

PROJECT NAME: **Outdoor Adventure Center**
UNL PROJECT NUMBER: **C220P001**

CONSULTANT: RDG Planning & Design
ADDRESS: 900 Farnam on the Mall, Suite 100, Omaha, NE 68102

DATE OF ISSUANCE: July 9, 2012
DATE OF BID OPENING: July 16, 2012

The bid documents dated June 1, 2012, for the above referenced project are amended by this addendum.

NOTICE: This Addendum is issued to all interested prospective bidders as an amendment to the project manual or other parts of the bidding (contract) documents for the above named project. Reference to this Addendum must be included in the Bid proposal. The information contained herein shall be fully incorporated into the contract documents as though originally included therein.

PRE-BID MEETING

The Pre-Bid Meeting was held on June 26, 2:00 p.m. See attached list of attendees. The following questions were asked. Answers/ clarifications are as follows:

3PB-1 *Gauge of Stainless Steel Base to be Used:* The gauge of the stainless steel base is specified in Section 05 50 00 as 18 gauge (0.050").

3PB-2 *Location of High Performance Paint at Interior Locations:* Clarified in Addendum 3.

3PB-3 *Clarify the Removal Extent of the Sidewalk along 14th Street:* Refer to Supplemental Drawing SDC-001 (Addendum #3) for removal distance. The north removal limit is 93.23' north of the centerline of 'W' Street.

3PB-4 *Clarify if PVC is Allowed in lieu of Soil Pipe:* The UNL Design Guidelines only allow cast iron pipe for waste and vent piping (Section 22 00 00.10, Page 4). Specifications only include cast iron.

3PB-5 *Clarify Outdoor Fall Area Wall Construction and Type:* Clarified in Addendum 3.

3PB-6 *Clarify Outdoor Fall Area Surface Material and Make-Up:* Refer to Supplemental Drawing SDC-004 (Addendum #3) for revised note.

ADDENDA TO THE PROJECT MANUAL

Civil Specification Items

No items this addendum.

Architectural Specification Items

3GS-1 Addendum 2, Page 2 of 2, Section 00 41 13 – BID PROPOSAL FORM: DELETE this item in its entirety. At this point, a revised BID PROPOSAL FORM will not be issued.

3GS-2 Section 00 01 10 – TABLE OF CONTENTS: REVISE Section Title of Section 13 12 00 to read: *"CLIMBING WALL (OWNER PROVIDED – FOR INFORMATIONAL PURPOSES ONLY)."*

3GS-3 Section 00 11 16 – INVITATION TO BID, Paragraph 1.0, Subparagraph A, "Architect" Paragraph:

A. REVISE the spelling of "Nick Schultz" to *"Nick Schulz."*

B. REVISE "RDG Planning & Consulting" to read *"RDG Planning & Design."*

3GS-4 Section 00 41 13 – BID PROPOSAL FORM: REVISE "RDG Planning & Consulting, Inc." to read *"RDG Planning & Design."*

3GS-5 Section 04 20 00 – UNIT MASONRY:

A. Page 04 20 00-4, Paragraph 2.3, Subparagraph A: DELETE Item 1.

B. Page 04 20 00-5, Paragraph 2.3, Subparagraph B, Item 4: REVISE Sub-Item a. to read:

a. Wall Units: 24 x 16 inches.

3GS-6 Section 05 50 00 – METAL FABRICATIONS:

A. Page 05 50 00-1:

1. Paragraph 1.2, Subparagraph A: ADD Item 16 as follows:

16. Metal ladders and ladder safety cages.

2. Paragraph 1.3: Add Subparagraph B as follows:

B. Structural Performance of Ladders: Provide ladders capable of withstanding the effects of loads and stresses within limits and under conditions specified in ANSI A14.3.

B. Page 05 50 00-6: Page is blank in Project Manual. See attached.

C. Page 05 50 00-7 : Add Paragraphs 2.16 and 2.17 as follows:

2.16 METAL LADDERS

A. General:
1. Comply with ANSI A14.3, unless otherwise indicated.
2. Space siderails 18 inches apart, unless otherwise indicated.
3. Support each ladder at top and bottom and not more than 60 inches o.c. with bolted brackets, made from same metal as ladder unless otherwise indicated on approved Shop Drawings.

B. Steel Ladders:
1. Siderails: Continuous, 3/8-by-2-1/2-inch steel flat bars, with eased edges.
2. Rungs: 3/4-inch- square steel bars.
3. Fit rungs in centerline of siderails; plug-weld and grind smooth on outer rail faces.
4. Galvanize exterior ladders, including brackets and fasteners.
5. Shop paint metal ladders, including brackets and fasteners with high performance coating system specified in Division 09 Section "High Performance Coatings" prior to installation. Color to match adjacent DCMU. Touch-up finish upon completion of installation.

2.17 LADDER SAFETY CAGES

A. General:

1. Fabricate ladder safety cages to comply with ANSI A14.3. Assemble by welding or with stainless-steel fasteners.

2. Provide primary hoops at tops and bottoms of cages and spaced not more than 20 feet o.c. Provide secondary intermediate hoops spaced not more than 48 inches o.c. between primary hoops.

3. Fasten assembled safety cage to ladder rails and adjacent construction with stainless-steel fasteners unless otherwise indicated on approved Shop Drawings.

B. Steel Ladder Safety Cages:

1. Primary Hoops: 1/4-by-4-inch flat bar hoops.

2. Secondary Intermediate Hoops: 1/4-by-2-inch flat bar hoops.

3. Vertical Bars: 3/16-by-1-1/2-inch flat bars secured to each hoop.

4. Galvanize ladder safety cages, including brackets and fasteners.

5. Shop paint ladder safety cages, including brackets and fasteners with high performance coating system specified in Division 09 Section "High Performance Coatings" prior to installation. Color to match adjacent DCMU. Touch-up finish upon completion of installation.

3GS-7 Section 07 27 29 – WEATHER BARRIERS, Page 07 27 29-3, Paragraph 2.3, Subparagraph A, Item 1: ADD new Sub-Item c as follows:

c. BASF; Enershield-HP.

3GS-8 Section 07 72 00 – ROOF ACCESSORIES: ADD new section; see attached Pages 07 72 00-1 through 07 72 00-3.

3GS-9 Section 08 32 13 – SLIDING ALUMINUM-FRAMED GLASS DOORS:

A. Entire Section: REPLACE "weather stripping" with *"sound seals"* at each occurrence in section.

B. Page 08 32 13-1, Paragraph 1.2, Subparagraph A: DELETE "floor-supported, multi-track."

C. Page 08 32 13-2:

1. Paragraph 2.1 and All Subparagraphs: DELETE in their entirety and REPLACE with the following:

2.1 SLIDING ALUMINUM-FRAMED GLASS DOORS

A. Basis of Design Product: DIRTT Environmental Solutions; Sliding (Barn) Door.

1. General: Door units shall include self-supporting header and track, jambs, sliding door, and be completely trackless at floor between jambs.

2. Sliding doors are non-handed and travel on a continuous track mounted to the wall without damage to wall system, allowing reconfiguration without part replacement; ADA compliant in both clear opening and opening force.

3. Construction: Continuous extruded self-supporting header section shall conceal high-quality wheels. Concealed guides shall stabilize bottom of door. Strike side of door shall secure door bottom in the closed position. Anti-derailing means shall be continuous extrusion full length of door travel. Complete sealing full height astragal shall be provided on both sides of doors for a complete light and sound seal in the closed position.

4. Door Style: Aluminum framed; 6-inch stiles and rails (nominal).

5. Sub-Frame Profile: DIRTT; Blade.

6. *Operation: In addition to integral overhead stops door shall have an integral deceleration mechanism to reduce travel velocity to near zero as door approaches its open and closed limit to prevent door slamming at either limit. Deceleration shall be adjustable.*
7. *Hardware:*
   a *Pull: 72-inches tall brushed aluminum pulls on both sides of door.*
   b *Lock: Install manufacturer's keyed cylinder lock and locking device on each movable panel, lockable from the outside. Adjust locking device to allow unobstructed movement of the panel across adjacent panel in the direction indicated.*
8. *Keying System: Keyed to building master-key system.*
9. *Finish: Powder coated.*

2. Paragraph 2.2: DELETE Subparagraph F.

D. Page 08 32 13-3:

1. Paragraph 2.4: DELETE in its entirety.

2. Paragraph 2.5: DELETE Subparagraph C and Item 1.

E. Page 08 32 13-4:

1. Paragraph 2.7: REVISE Subparagraph A to read:

   A. Powder coating finish; conforming to AAMA 2604; selected from manufacturer's full range of colors.

2. Paragraph 3.1:

   a. Subparagraph A: DELETE Items 1 and 2 in their entirety.

   b. Subparagraph B: Delete the word "threshold."

3. Paragraph 3.2, Subparagraph B: Delete the word "thermal."

3GS-10 Section 08 43 31 - FOLDING ALUMINUM-FRAMED GLASS DOORS, Paragraph 2.2, Subparagraph A: Revise Item 4 to read:

4. Aluminum Finish: Powder coating finish; conforming to AAMA 2604; color as selected by Architect from manufacturer's standard colors.

3GS-11 Section 08 71 00 – DOOR HARDWARE, Page 08 71 00-11: Revise to read:

Set 1 Doors: 108.3, 108.4

6 Ea.	*Hinges*	*5BB1HW NRP 630*
1 Ea.	*Deadbolt*	*L464*
1 Ea.	*Cylinder*	*(Install inside of room- none on exterior)*
1 Ea.	*Flushbolt*	*FB51P*
1 Ea.	*Dust Proof strike*	*DP1*
2 Ea.	*Push Bars*	*330*
2 Ea.	*Pulls*	*990DT*
2 Ea.	*Closers*	*4041HEDA ((HO @ 175)*
2 Ea.	*Frame Stops*	*WS11 (Mount at Head of Frame where Top Corner of Door would Hit @ 180 Swing)*

2 Ea.	*Door Position Switches*	*By Owner*
1 Set	*Weatherstrip*	*By Door Supplier*
1 Ea.	*Threshold*	
2 Ea.	*Sweeps*	
1 Ea.	*Drip Cap*	*16A Door width + 4" (NGP)*

Remote monitoring provided by Security Contractor.
Electrical contractor to provide conduit from door frame to above ceiling.

3GS-12 Section 09 21 46 – FIBER CEMENT PANELS: ADD new section; see attached Pages 09 21 46-1 through 09 21 46-3.

3GS-13 Section 09 29 00 – GYPSUM BOARD, Page 09 29 00-3, Paragraph 2.3, Subparagraph A, Item 1: ADD new Sub-Item c as follows:

c. National Gypsum; E2XP Tile Backer.

3GS-14 Section 10 11 00 – VISUAL DISPLAY SURFACES, Page 10 11 00-2, Paragraph 2.2, Subparagraph B: REVISE Item 1 to read:

1. Rail Width: 1-1/2 inches, nominal.

3GS-15 Section 10 21 13 – TOILET COMPARTMENTS: Delete section in its entirety.

3GS-16 Section 10 21 31.21 – SOLID COMPOSITE TOILET COMPARTMENTS: ADD new section; see attached Pages 10 21 31.21-1 through 10 21 31.21-4.

3GS-17 Section 10 45 13 – FLAMMABLE STORAGE CABINETS, Page 10 45 13-1: DELETE Paragraph 2.1 in its entirety and REPLACE with the following:

2.1 FLAMMABLE STORAGE CABINETS

A. Flammable Storage Cabinets:
- *1. Basis of Design: Securall/A&A Sheet Metal Products; A360WP1 Weatherproof Flammable Storage.*
- *2. Size: 31 x 31 x 71 inches; 60 gal. capacity.*
- *3. Description:*
  - *a. Flammable safety cabinet in compliance with EPA 40 CFR 264, 265; the National Fire Protection Association Flammable Combustible Liquid Code #30 and OSHA standard 1910.106 for flammable storage of 1, 2 and 3 liquids.*
  - *b. Double walled 18-gauge all-welded steel using galvannealed steel; sloped roof with a 2 3/4" overhang; interior and exterior astragals to prevent rain penetration.*
  - *c. Flammable storage cabinet includes:*
    - *1) Built in grounding connector.*
    - *2) Two 2" vents with flash arrestors.*
    - *3) 2-inch deep leak proof doorsill to contain spills.*
    - *4) 350 lb galvanized steel shelves adjustable to 3" increments with design that direct spills to back and bottom of safety cabinet.*
    - *5) Full length piano hinges; stainless-steel, flush-mounted handle with cylinder lock; stainless steel 3-point self-latching (non-sparking).*
    - *6) Adjustable zinc plated leveling feet.*
    - *7) Built-in heavy gauge fork lift channels; fully-welded 7-gauge steel bolt-down brackets with 7/8" diameter opening.*
    - *8) Weather-resistant, UV-resistant, impact-resistant aliphatic polyurethane finish; code-compliant weather-resistant warning labels.*
    - *9) Self-close double door that automatically close in the event of fire when fusible link melts at 165°F*
  - *d. Warranty: 10 year.*

3GS-18 Section 10 56 26 - MOBILE STORAGE SHELVING:

A. Page 10 56 26-2, Paragraph 1.4, Subparagraph B: ADD Item 5 as follows:

5. As part of shop drawing process, confirm storage shelving quantity, layout, and configuration with Owner's inventory.

B. Page 10 56 26-7, Paragraph 3.2, Subparagraph A: ADD Item 6 as follows:

6. Install rails recessed in concrete slab. Coordinate location and dimensional requirements of slab recesses with concrete installer.

3GS-19 Section 11 24 25 – SAFETY TIE BACK ANCHORS: ADD new section; see attached Pages 11 24 25-1 through 11 24 25-3.

3GS-20 Section 13 12 00 – CLIMBING WALL: The climbing wall will be Owner provided. This Section is included in Project Manual for informational purposes only. DELETE entire section and REPLACE with revised section. See attached Pages 13 12 00-1 through 09 21 46-2.

3GS-21 Section 32 31 19 – DECORATIVE METAL FENCES AND GATES, Page 32 31 19-3, Paragraph 2.2, Subparagraph A, Item 1: CHANGE "3-Rail Style for 10' tall fence" to *"4-Rail Style for 10' tall fence."*

Structural Specification Items

3SS-1 Section 05 12 00 – STRUCTURAL STEEL FRAMING, Page 05 12 00-5, Paragraph 2.6, Subparagraph C: REVISE Item 2 to read as follows:

2. Steel exposed to weather including exterior roof framing, exterior canopy framing in the courtyard, and screen walls, Tnemec Series 90-97 (Gray), or approved equal.

Mechanical Specification Items

3MS-1 Section 22 10 06 – Plumbing Piping Specialties, Page 22 10 06-5, Paragraph 2.11, Subparagraph A, Item 1: ADD new Sub-Item f:

f. Thermaflo Engineering.

3MS-2 Section 22 30 00 – Plumbing Equipment:

A. Page 22 30 00-3, Paragraph 2.02, Subparagraph A: ADD new Items 3 and 4:

3. PVI.
4. Thermaflo Engineering.

B. Page 22 30 00-4:

1. Paragraph 2.03, Subparagraph A: ADD new Item 3:

3. American Wheatley.

2. Paragraph 2.04, Subparagraph A: ADD new Item 3:

3. Wilo.

3MS-3 Section 23 21 14 – Hydronic Specialties:

A. Page 23 21 14-2, Paragraph 2.01, Subparagraph A: ADD new Items 6 and 7:

6. Patterson.
7. American Wheatley.

B. Page 23 21 14-3:

1. Paragraph 2.01, Subparagraph A, Item 1: ADD new Sub-Item b:

b. Taco.

2. Paragraph 2.05, Subparagraph A: ADD new Items 5 and 6:

5. Patterson.
6. American Wheatley.

C. Page 23 21 14-4:

1. Paragraph 2.06, Subparagraph A: ADD new Item 8:

8. American Wheatley.

2. Page 23 21 14-4, Paragraph 2.07, Subparagraph A: ADD new Item 8:

8. American Wheatley.

D. Page 23 21 14-5, Paragraph 2.08, Subparagraph A: ADD new Item 4:

4. American Wheatley.

3MS-4 Section 23 21 23 – Hydronic Pumps, Page 23 21 23-2, Paragraph 2.01: ADD new Subparagraphs K and L:

K. Wilo.
L. American Wheatley.

3MS-5 Section 23 22 14 – Steam and Condensate Heating Specialties:

A. Page 23 22 14-2, Paragraph 2.01, Subparagraph A: ADD new Item 4:

4. Sterling.

B. Page 23 22 14-3, Paragraph 2.03, Subparagraph A: ADD new Item 10:

10. Ressell Pump.

3MS-6 Section 23 25 00 – HVAC Water Treatment, Page 23 25 00-3:

A. Paragraph 2.01: ADD new Subparagraph M:

M. American Wheatley.

B. Paragraph 2.03, Subparagraph A: ADD new Item 5:

5. American Wheatley.

3MS-7 Section 23 31 00 – HVAC Ducts and Casings, Page 23 31 00-7, Paragraph 2.06, Subparagraph A, Item 4: ADD new Sub-Items c, d, e, and f:

c. LA Pine Metal Products.
d. Set Duct MFG.
e. Norlock.
f. Spiral Pipe of Texas.

3MS-8 Section 23 34 23 – HVAC Power Ventilators, Page 23 34 23-2, Paragraph 2.01: ADD new Subparagraphs H, I, and J:

H. Jenco/Solar & Palau.
I. ACME.
J. ILB/American Coolair.

3MS-9 Section 23 37 00 – Air Outlets and Inlets, Page 23 37 00-2, Paragraph 2.01: ADD new Subparagraph J:

J. Pottorif.

3MS-10 Section 23 57 00 – Heat Exchangers for HVAC, Page 23 57 00-2, Paragraph 2.01, Subparagraph A: ADD new Item 7:

7. Thermaflo Engineering.

3MS-11 Section 23 73 13 – Modular Central Station Air-Handling Units:

A. Page 23 73 13-2: DELETE Paragraph 1.04 in its entirety.

B. Page 23 73 13-3:

1. Paragraph 2.02: ADD Subparagraphs C, D, E, F, G, H, and I:

C. Air Enterprises.
D. Alliance Air.
E. TMI.
F. Trane Custom.
G. Air Flow Equipment.
H. York.
I. Inovent.

2. Paragraph 2.04, Subparagraph A: DELETE "Fabricate on channel base of welded steel." and substitute *"Fabricate on channel base of welded aluminum."*

C. Page 23 73 13-6: DELETE Paragraph 2.09 in its entirety.

D. Page 23 73 13-8:

1. Paragraph 2.13: DELETE Subparagraph C.

2. Paragraph 2.14: DELETE Subparagraphs C and D, and substitute the following:

C. Provide filter type and size as scheduled.

E. Paragraph 2.16: DELETE Subparagraphs A through I, and substitute the following:

A. Furnished by UNL BSM and installed by Contractor.

3MS-12 Section 23 81 01 – Terminal Heat Transfer Units:

A. Page 23 81 01-2:

1. Paragraph 2.01, Subparagraph A: ADD new Item 12:

12. Vulcan.

2. Paragraph 2.02, Subparagraph A: ADD new Item 7:

7. Vulcan.

B. Page 23 81 01-3, Paragraph 2.03, Subparagraph A: ADD new Items 23 and 24:

23. Vulcan.
24. York.

C. Page 23 81 01-4, Paragraph 2.04, Subparagraph A: ADD new Items 23 and 24:

23. Vulcan.
24. York.

Electrical Specification Items

No items this addendum.

ADDENDA TO THE DRAWINGS

Civil Drawing Items

3CD-1 Sheet C0.2: Identified location of sidewalk removal on 14th Street. See attached Supplemental Drawing SDC-001.

3CD-2 Sheet C1.1: Included trash dumpster enclosure location and revised integral curb and gutter. See attached Supplemental Drawing SDC-002.

3CD-3 Sheet C2.1: Included trash dumpster enclosure location, revised integral curb and gutter grades, and added a note. See attached Supplemental Drawing SDC-003.

3CD-4 Sheet C4.1: Revised Keynote N. See attached Supplemental Drawing SDC-004.

3CD-5 Sheet C4.3: Included trash dumpster enclosure location and revised integral curb and gutter. See attached Supplemental Drawing SDC-005.

Architectural Drawing Items

3GD-1 Sheet A0.01 – ARCHITECTURAL ABBREVIATIONS, MATERIALS LEGEND: REVISE material designation from "PARTICLE BOARD" to *"MEDIUM DENSITY FIBERBOARD."*

3GD-2 Sheet A1.01 – FIRST FLOOR PLAN:

A. OMIT "SLIDING AUTOMATIC ENTRANCE SYSTEM" note near Door 100C.1.

B. OMIT "SLIDING AUTOMATIC ENTRANCE SYSTEM" note near Door 105.1.

C. OMIT "SLIDING GLASS" note near Door 105A.1.

D. ADD note *"SPACE SAVER STORAGE"* east of BIKE REPAIR AND MAINTENANCE 101, calling out that the space save storage is located just south of MECHANICAL 199.

E. REVISE Note "6 – 18"WX18"Dx72" 2-TIER" in CORRIDOR 100C to *"5 – 18"WX18"DX72" 2-TIER."*

F. REVISE schematic rock climbing wall in CLIMBING CENTER 104 layout. Refer to attached Supplemental Drawing SDA-001.

G. REVISE masonry walls and corresponding dimensions south and east of SERVICE COURTYARD 198. Refer to attached Supplemental Drawing SDA-003.

H. ADD notes *"WORKBENCHES, B.O.," "BIKE RACK, B.O.,"* and *"BIKE STANDS, B.O.,"* in reference to the equipment shown as dashed lines in BIKE REPAIR AND MAINTENANCE 101. Refer to attached Supplemental Drawing SDA-002.

I. ADD General Note 3.12 as follows:

3.12 SPRAY-FOAM INSULATION THICKNESS: 3-INCHES, UNLESS OTHERWISE INDICATED. PROVIDE FULL DEPTH OF STUD CAVITY WHERE INDICATED ON DRAWINGS.

3GD-3 Sheet A2.01 – ENLARGED PLANS:

A. Detail 7 – WOMENS 109 – SHOWER NORTH: REVISE mirror note from "MR-1" to *"MR-2."*

B. Detail 9 – WOMENS 109 – EAST:

1. REVISE mirror note in shower area from "MR-1" to *"MR-2."*

2. REVISE mirror notes above sink locations from "MR-2" to *"MR-1."*

3. REVISE gypsum board bulkhead note from "GYP BD BULKHEAD" to *"MRGB BULKHEAD."*

C. Detail 13 – WOMENS 109 – SOUTH:

1. REVISE mirror note with leader from "MR-2" to *"MR-1."*

2. REVISE mirror note for 24"W x 60"H from "MR-1" to *"MR-2."*

D. Detail 15 – MENS 115 – SHOWER – NORTH: REVISE mirror note from "MR-1" to *"MR-2."*

E. Detail 17 – ENLARGED PLAN – RESTROOMS: ADD dimension string through accessible toilet stalls. Refer to attached Supplemental Drawing SDA-004.

F. Detail 22 – MENS 115 – SOUTH:

1. REVISE mirror note for 24"W x 60"H from "MR-1" to *"MR-2."*

2. REVISE mirror note with leader from "MR-2" to *"MR-1."*

G. Detail 23 – MENS 115 – WEST:

1. REVISE mirror note in shower area from "MR-1" to *"MR-2."*

2. REVISE mirror notes above sink locations from "MR-2" to *"MR-1."*

3. REVISE gypsum board bulkhead note from "GYP BD BULKHEAD" to *"MRGB BULKHEAD."*

H. Detail 25 – UNI SEX 111 – NORTH: ADD section detail callout referencing 20/A14.01 through solid phenolic wall-mounted shower bench.

I. Detail 26 – UNI SEX 111 – EAST:

1. ADD toilet tissue dispenser and note *"TTD"* in elevation, just below 42" side grab bar.

2. REVISE mirror note "MR-2" to*"MR-1."*

J. Detail 27 – UNI SEX 111 – SOUTH: REVISE mirror note with leader from "MR-2" to *"MR-1."*

3GD-4 Sheet A2.02 – ENLARGED PLANS:

A. Detail 1 – FOOD SERVICE FACILITY 103C-NORTH: REVISE note "PT, SEE SCHEDULE" to *"DRY ERASE / WHITE BOARD PAINT."*

B. Detail 2 – FOOD SERVICE FACILITY 103C-EAST: REVISE note "PT, SEE SCHEDULE" to *"DRY ERASE / WHITE BOARD PAINT."*

C. Detail 4 – FOOD SERVICE FACILITY 103C-WEST:

1. REVISE note "PT, SEE SCHEDULE" to *"DRY ERASE / WHITE BOARD PAINT."*

2. ADD counter support brackets and corresponding note *"COUNTER SUPPORT BRACKET – PT"* for stainless steel countertop south of refrigerator/freezer.

D. Detail 9 – FOLDING ALUMINUM_FRAMED GLASS DOOR: REVISE "ALUMINUM DOOR JAMB" and "FOLDING ALIMINUM-FRAMED GLASS DOORS" in plan so they are not overlapping and are legible.

E. Detail 26 – WORK COUNTER – RECEPTION 102: ADD note *"3/4"MEDIUM DENSITY FIBERBOARD,"* indicating lower work counter material.

3GD-5 Sheet A2.03 – ENLARGED PLANS – ALTERNATES:

A. Detail 7 – ENLARGED PLAN- SERVICE COURTYARD 198 – ALTERNATE #1: REVISE masonry walls and corresponding dimensions south and east of SERVICE COURTYARD 198. Refer to attached Supplemental Drawing SDA-003.

B. Detail 19 – SERVICE COURTYARD 198 – ALTERNATE #1 – SOUTH: ADD control joint designation *"CJ"* at locations to match elevation detail 4/A5.02.

C. Detail 25 – SERVICE COURTYARD 198 – ALTERNATE #1 – INTERIOR SOUTH:

1. ADD control joint designation *"CJ"* at locations to match elevation detail 7/A5.02.

2. ADD "*FIRE CABINET"* note at location to match elevation detail 7/A5.02.

3GD-6 Sheet A2.04 – ENLARGED PLANS – ALTERNATES:

A. Detail 7 - SERVICE COURTYARD 198 – ALTERNATE #2: REVISE masonry walls and corresponding dimensions south and east of SERVICE COURTYARD 198. Refer to attached Supplemental Drawing SDA-003.

B. Detail 13 – SERVICE COURTYARD 198 – ALTERNATE #2 – NORTH: ADD control joint designation *"CJ"* at locations to match elevation detail 1/A5.02.

C. Detail 16 – SERVICE COURTYARD 198 – ALTERNATE #2 – SOUTH: ADD control joint designation *"CJ"* at locations to match elevation detail 4/A5.02.

3GD-7 Sheet A3.01 – FIRST FLOOR REFLECTED CEILING PLAN:

A. Reference attached Supplemental Drawing SDA.18 for location of motorized roller shades.

B. CEILING TYPE KEY: REVISE note 5 "WOOD CEILING PANELS" to *"WOOD CEILING PANELS – PAINT EXPOSED STRUCTURE ABOVE."*

C. Detail 14 – OPERABLE WALL SECTION: ADD note *"NOTE: MTL. FRAMING UP TO DECK, SEAL GYPSUM BOARD TO DECK FOR SOUND RESISTANCE."*

D. Detail 27 – REFLECTED CEILING PLAN LEVEL 1:

1. TELECOM 101C: ADD ceiling type designation *"6."*

2. MECHANICAL 199: ADD ceiling type designation *"6."*

3. STORAGE 102A: ADD room tag and ceiling type designation *"6."*

4. RECEPTION 102: ADD room tag and ceiling type designation *"1"* with a height of "10'-0".

5. CLIMBING CENTER 104: ADD ceiling type designation *"6."*

6. Storage 108A: ADD roof access hatch for lower roof access. Refer to attached Supplemental Drawing SDA-005.

3GD-8 Sheet A4.01 – ROOF PLAN:

A. ADD Detail 20 – ROOF-LADDER. Refer to attached Supplemental Drawing SDA-006.

B. ADD Detail 25 – ROOF HATCH DETAIL. Refer to attached Supplemental Drawing SDA-007.

C. ADD Detail 26 – ROOF-STEEL LADDER DETAIL. Refer to attached Supplemental Drawing SDA-008.

D. Detail 27 – ROOF PLAN:

1. ADD roof hatch with corresponding notes and detail reference. Refer to attached Supplemental Drawing SDA-009.

2. ADD caged roof ladder, corresponding notes, roof cut-out, and corresponding dimension string. Refer to attached Supplemental Drawing SDA-009.

3. REVISE roof drain and overflow drain locations over VESTIBULE 100A to correspond to locations shown on Sheet P1.1 – FIRST LEVEL FLOOR PLAN-PLUMBING. Refer to attached Supplemental Drawing SDA-010.

4. ADD note *"SAFETY TIE-OFF ANCHOR POINTS, TYP."* with corresponding safety tie-off anchor points around the perimeter of the climbing center roof with corresponding centerline dimensions. Refer to attached Supplemental Drawing SDA-012.

3GD-9 Sheet A5.01 – EXTERIOR ELEVATIONS:

A. Detail 7 – TRAINING ROOM – SOUTH: OMIT Window Tag "10" on both aluminum storefront system.

B. Detail 9 – OVERALL-EAST:

1. ADD cage, roof access ladder, and corresponding notation. Refer to attached Supplemental Drawing SDA-011.

2. REVISE notes "ALUMINUM WALL LOUVER" to *"ALUMINUM WALL LOUVER W/ DCMU SILL."*

3. OMIT Window Tag "11" on aluminum storefront system.

C. Detail 24 – OVERALL-NORTH:

1. ADD cage, roof access ladder, and corresponding notation. Refer to attached Supplemental Drawing SDA-013.

2. REVISE notes "ALUMINUM WALL LOUVER" to *"ALUMINUM WALL LOUVER W/ DCMU SILL."*

D. Detail 27 – BIKE REPAIR AND MAINTENANCE – WEST: OMIT Window Tag "3" from aluminum framed curtain wall system.

3GD-10 Sheet A5.02 – EXTERIOR ELEVATIONS:

A. Detail 13 – BIKE REPAIR AND MAINTENANCE – WEST: OMIT Window Tag "3" from aluminum framed curtain wall system.

B. Detail 28 – CLIMBING CENTER-EAST:

1. ADD cage, roof access ladder, and corresponding notation. Refer to attached Supplemental Drawing SDA-014.

2. ADD detail reference *"10/A9.02"* through aluminum wall louver w/ DCMU sill.

3. REVISE note "ALUMINUM WALL LOUVER" to *"ALUMINUM WALL LOUVER W/ DCMU SILL."*

3GD-11 Sheet A6.01 – BUILDING SECTIONS, Detail 11 – BUILDING SECTION: ADD cage, roof access ladder, and corresponding notation. Refer to attached Supplemental Drawing SDA-015.

3GD-12 Sheet A9.02 – EXTERIOR DETAILS, Detail 30 – BASE OF WALL DETAIL: ADD note *"SEALANT IN CHAMFER OF CONC. WALL AT TOP OF FINTUBE ENCLOSURE."*

3GD-13 Sheet A10.01 – DOOR SCHEDULE, FRAME ELEVATIONS:

A. Detail 7 – HM DOOR HEAD @ MDF, MS3 5/8, FCP: REVISE note "1/2" FIBER CEMENT BOARD" to *"3/4" MEDIUM DENSITY FIBERBOARD."*

B. Detail 8 – HM DOOR HEAD @ MDF, MS3 5/8, GYP: REVISE note "1/2 FIBER CEMENT BOARD" to *"3/4" MEDIUM DENSITY FIBERBOARD."*

C. Detail 9 – HM DOOR HEAD @ MDF, MS 3 5/8", MDF: REVISE note "1/2 FIBER CEMENT BOARD" to *"3/4" MEDIUM DENSITY FIBERBOARD."*

D. DOOR SCHEDULE: Refer to attached Supplemental Drawing SDA-016.

3GD-14 Sheet A10.02 – DOOR DETAILS: REVISE to *"A10.02 – DOOR DETAILS, FRAME ELEVATIONS."* See attached revised Sheet A10.02.

A. ADD Detail 9 – ALUM. STOREFRONT HEAD.

B. REVISE Detail 13 – ALUM. STOREFRONT – HEAD.

C. ADD Detail 15 – ALUM STOREFRONT JAMB.

D. ADD Detail 16 – EXT. CURTAIN WALL DOOR HEAD.

E. ADD Detail 18 – INT. SLIDING DOOR HEAD.

F. ADD Detail 21 – ALUM AUTOMATIC SLIDING STOREFRONT JAMB.

G. ADD Detail 22 – EXT. CURTAIN WALL JAMB.

H. ADD Detail 24 – INT. SLIDING DOOR JAMB.

I. ADD Detail 27 – ALUM. AUTOMATIC SLIDING DOOR.

J. ADD Detail 30 – INT. SLIDING DOOR SILL.

3GD-15 Sheet A10.03 – CURTAIN WALL ELEVATIONS:

A. Window Tag "3:"

1. REVISE to *"TYPE S-10."*

2. ADD door tag *"101.3"* and dimension string. Refer to attached Supplemental Drawing SDA-017.

B. Window Tag "10:"

1. REVISE to *"TYPE S-11."*

2. ADD door tag *"108.4."*

C. Window Tag "11:"

1. REVISE to *"TYPE S-12."*

2. ADD door tag *"100D.2."*

3GD-16 Sheet A13.01 – INTERIOR ELEVATIONS:

A. Detail 13 – CORRIDOR 100C-SOUTH: ADD note *"ALL LOCKERS TO RECEIVE DIGILOCKS UNLESS OTHERWISE NOTED."*

B. Detail 22 – BIKER REPAIR AND MAINTENANCE 101 – SOUTH: ADD window tag *"14"* to ALUMINUM STOREFRONT SYSTEM.

C. Detail 28 – "STAFF ROOM 126 – SOUTH" should read *"STAFF ROOM 103 – SOUTH."*

D. Detail 30 – "STAFF ROOM 126 – WEST" should read *"STAFF ROOM 103 – WEST."*

3GD-17 Sheet A13.02 – INTERIOR ELEVATIONS:

A. Detail 9 – OFFICE 2 105–NORTH: REVISE note "PT, SEE SCHEDULE" to *"DRY ERASE / WHITE BOARD PAINT."*

B. Detail 10 – OFFICE 2 105–SOUTH: REVISE note "PT, SEE SCHEDULE" to *"DRY ERASE / WHITE BOARD PAINT."*

C. Detail 15 – OFFICE 1 105A – LOBBY SIDE – NORTH: ADD window tag *"13"* to ALUMINUM STOREFRONT SYSTEM.

D. Detail 17 – OFFICE 3 107–EAST: REVISE note "PT, SEE SCHEDULE" to *"DRY ERASE / WHITE BOARD PAINT."*

E. Detail 19 – OFFICE 3 107-NORTH: REVISE note "PT, SEE SCHEDULE" to *"DRY ERASE / WHITE BOARD PAINT."*

F. Detail 23 – "TRAINING ROOM 108 – EAST" should read *"TRAINING ROOM 108 – WEST."*

G. Detail 25 – TRAINING ROOM 108-NORTH:

1. REVISE note "PT, SEE SCHEDULE" to indicate the application of this note on both north walls with Doors 108.1 and 108.2.

2. ADD note *"DRY ERASE / WHITE BOARD PAINT"* and indicate the application of this note on the north teaching wall that will have the wall mounted flat screens.

3GD-18 Sheet A13.03 – INTERIOR ELEVATIONS, Detail 15 – CLIMBING CENTER 104 – NORTH – RECEPTION COUNTER: ADD window tag *"12"* to folding aluminum-framed glass doors.

3GD-19 Sheet 14.01 – INTERIOR DETAILS:

A. Detail 9 – WORK BENCH & SHELVES @ BIKE REPAIR: REVISE 2'-10" height dimension to *3'-0"*.

B. Detail 20 – SHOWER SOLID PHENOLIC BENCH SECTION:

1. REVISE 2'-0" depth dimension of bench to *1'-8"* and corresponding phenolic panel top and galvanized stl. angle.

2. REVISE 1'-4" height dimension to top of stl. angle to *1'-3"*.

3GD-20 Sheet 14.02 – INTERIOR DETAILS, Detail 29 – COMMERCIAL WASHER SECTION DETAIL: REVISE "BAFFLE (SEE 11/A14.02" to *"BAFFLE, SEE DETAIL 28/A14.02."*

Structural Drawing Items

3SD-1 Add footing for trash enclosure per attached Supplemental Drawing SDS-001.

3SD-2 Add framing for roof access ladder per attached Supplemental Drawing SDS-002.

3SD-3 Modify Detail 11/S7.03 per attached Supplemental Drawing SDS-003.

3SD-4 Add Detail 9/S7.04 per attached Supplemental Drawing SDS-004.

Mechanical Drawing Items

3MD-1 Sheet M1.1:

A. Replaced the motorized dampers after EF-1 and EF-3 with back draft dampers. This change removed the need for Flag Note 12. See attached Supplemental Drawing SDM-001.

B. Moved the Storage 108A diffuser to coordinate with new roof hatch location. See attached Supplemental Drawing SDM-002.

3MD-2 Sheet M3.1: See attached revised Sheet M3.1.

A. Added P-1 and P-2 to the respective preheat coil piping and updated detail reference numbers.

B. Added a second VFC to each air handling unit to provide separate controls for each fan.

3MD-3 Sheet M4.2: See attached revised Sheet M4.2.

A. Replaced the motorized dampers after EF-1 and EF3 with back draft dampers.

B. Updated detail reference numbers.

C. Added a second VFC to each air handling unit to provide separate controls for each fan.

3MD-4 Sheet M5.2: See attached revised Sheet M5.2.

A. Added metering details to Chilled Water System Piping Diagram.

B. Added metering details to Low Pressure Condensate Pump Piping Detail.

C. Added the Preheat Coil Detail with a circulation pump and mixing valve.

3MD-5 Sheet M6.1: See attached revised Sheet M6.1.

A. Added schedules for P-1 and P-2.

B. Removed VFC-AHU-1 and VFC-AHU-2 from the Variable Frequency Controller Schedule. Added schedules for VFC-AHU-1A, VFC-AHU-1B, VFC-AHU-2A, and VFC-AHU-2B.

C. Updated power requirements in the Air Handling Unit Schedule for AHU-1 and AHU-2 and removed Remark 4.

3MD-6 Sheet P4.1: Updated Water Meter Detail per UNL requirements. See attached Supplemental Drawing SDM-003.

Electrical Drawing Items

3ED-1 Sheet E0.1: See attached Supplemental Drawing SDE-001.

A. Modified emergency circuiting for exterior egress lighting.

B. Modified electric vehicle charging station pullbox location and size.

C. Removed lighting relay control from circuit L2-31,33.

D. Clarified connection interface at pullbox for existing parking lot lighting.

3ED-2 Sheet E1.1: See attached Supplemental Drawing SDE-002.

A. Added Type 23 light fixtures to reception desk in Reception 102.

B. Modified lighting in Storage 108A.

3ED-3 Sheet E2.1: See attached Supplemental Drawing SDE-003.

A. Added receptacles and data rough-ins to the reception desk in Reception 102.

B. Modified door tag for Telecom 101C door.

C. Added power connection to pump P-2 and VFC-AHU-2B.

D. Modified power connection to VFC-AHU-2A.

3ED-4 Sheet E3.1: See attached Supplemental Drawing SDE-004.

A. Modified receptacle locations in food service facility.

B. Added power connection to Pump P-1 and VFC-AHU-1B.

C. Modified power connection to VFC-AHU-1A.

3ED-5 Sheet E4.1:

A. Added 1x2 4” conduit primary duct bank. See attached Supplemental Drawing SDE-005.

B. Clarified meter type for parking lot lighting service. See attached Supplemental Drawing SDE-005.

C. Modified door access control notes in Detail 3. See attached Supplemental Drawing SDE-005.

D. Modified door access control schedule. See attached Supplemental Drawing SDE-006.

3ED-6 Sheet E4.2: Added duct bank detail. See attached Supplemental Drawing SDE-007.

3ED-7 Sheet E5.1: Updated panel, occupancy sensor, equipment connection, lighting fixture, and lighting control relay schedule. See attached revised Sheet E5.1.

END OF ADDENDUM NO. *#3*

Enclosure:

- Pre-Bid Meeting List of Attendees
- Specification Section 05 50 00 – Metal Fabrications (Page 05 50 00-6 Only)
- Specification Section 07 72 00 – Roof Accessories
- Specification Section 09 21 46 – Fiber Cement Panels
- Specification Section 10 21 31.21 – Solid Composite Toilet Compartments
- Specification Section 11 24 25 – Safety Tie Back Anchors
- Specification Section 13 12 00 – Climbing Wall
- Supplemental Drawings SDC-001 through SDC-005
- Supplemental Drawings SDS-001 through SDS-004
- Supplemental Drawings SDA-001 through SDA-018
- Supplemental Drawings SDM-001 through SDM-003
- Supplemental Drawings SDE-001 through SDE-007
- Revised Sheet A10.02
- Revised Sheets M3.1, M4.2, M5.2, and M6.1
- Revised Sheet E5.1

Nebraska UNIVERSITY OF Lincoln

Meeting Attendance

FACILITIES PLANNING & CONSTRUCTION

Purpose: Pre Bid Meeting

Project Name: UNL Outdoor Adventures Center **Project No.** C220P001

Date: 6/26/12 **Time:** 3:30 PM **Location:** UNL FPC 1901 Y Street

Name	Organization	Phone	Fax	E-Mail
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University of Nebraska Lincoln

Meeting Attendance

FACILITIES PLANNING & CONSTRUCTION

Purpose: Pre Bid Meeting

Project Name: UNL Outdoor Adventures Center **Project No.** C220P001

Date: 6/26/12 **Time:** 3:30 PM **Location:** UNL FPC 1901 Y Street

Name	Organization	Phone	Fax	E-Mail
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Gene Benes	Benes Western Htg A/C	402-783-2096	402-783-3263	genebenes@beneshvac.com
Brian Semerad	Kingery Const.	402-465-4400	402-465-4529	brians@kccobuilders.com
TRAVIS MIDDLETON	MIDDLETON ELECTRIC	402-467-3000	402-467-3401	travis@middletonelectric.com
Eric Neff	NGC Group	402-261-5489	402-261-5446	eneff@ngcgroupinc.com
Josh Weekly	Chewer Construction	402 477 6745		jweekly@chewerconstruction.com

2.10 LOOSE BEARING AND LEVELING PLATES

A. Provide loose bearing and leveling plates for steel items bearing on masonry or concrete construction. Drill plates to receive anchor bolts and for grouting.

B. Galvanize loose steel bearing and leveling plates located in exterior walls.

2.11 LOOSE STEEL LINTELS

A. Fabricate loose steel lintels from steel angles and shapes of size indicated for openings and recesses in masonry walls and partitions at locations indicated. Fabricate in single lengths for each opening unless otherwise indicated. Weld adjoining members together to form a single unit where indicated.

B. Size loose lintels to provide 8 inches bearing length at each side of openings, unless otherwise indicated.

C. Galvanize loose steel lintels located in exterior walls.

2.12 STEEL WELD PLATES AND ANGLES

A. Provide steel weld plates and angles not specified in other Sections, for items supported from concrete construction as needed to complete the Work. Provide each unit with no fewer than two integrally welded steel strap anchors for embedding in concrete.

2.13 METAL WALL BASE

A. Stainless-Steel Sheet: ASTM A 240/A 240M or ASTM A 666, Type 304, stretcher-leveled standard of flatness.

B. Form metal base from metal of type and thickness indicated below:
   1. Stainless-Steel Sheet: 0.050 inch.
      a. Finish: No. 4.

C. Fasteners: Stainless steel machine screw fasteners; provide sample and fastener layout pattern for approval prior to beginning fabrication.

2.14 FINISHES, GENERAL

A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.

B. Finish metal fabrications after assembly.

C. Finish exposed surfaces to remove tool and die marks and stretch lines, and to blend into surrounding surface.

2.15 STEEL AND IRON FINISHES

A. Galvanizing: Hot-dip galvanize items as indicated to comply with ASTM A 153/A 153M for steel and iron hardware and with ASTM A 123/A 123M for other steel and iron products.
   1. Do not quench or apply post galvanizing treatments that might interfere with paint adhesion.

B. Shop prime iron and steel items unless they are to be embedded in concrete, sprayed-on fireproofing, or masonry, or unless otherwise indicated.

C. Preparation for Shop Priming: Prepare surfaces to comply with requirements indicated below:
   1. Exterior Items (Non-Galvanized): SSPC-SP 6/NACE No. 3, "Commercial Blast Cleaning."

SECTION 07 72 00 - ROOF ACCESSORIES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes the following:
   1. Roof hatches.

B. Related Sections include the following:
   1. Division 05 Section "Metal Fabrications" for metal vertical ladders, for access to roof hatches.
   2. Division 06 Section "Rough Carpentry" for roof sheathing, wood cants, and wood nailers.
   3. Division 07 Section "Sheet Metal Flashing and Trim" for shop- and field-fabricated metal flashing and counterflashing, and miscellaneous sheet metal trim and accessories.

1.3 SUBMITTALS

A. Product Data: For each type of roof accessory indicated. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes.

B. Shop Drawings: Show fabrication and installation details for roof accessories. Show layouts of roof accessories including plans and elevations. Indicate dimensions, weights, loadings, required clearances, method of field assembly, and components. Include plans, elevations, sections, details, and attachments to other work.

1.4 QUALITY ASSURANCE

A. Sheet Metal Standard: Comply with SMACNA's "Architectural Sheet Metal Manual" details for fabrication of units, including flanges and cap flashing to coordinate with type of roofing indicated.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Pack, handle, and ship roof accessories properly labeled in heavy-duty packaging to prevent damage.

1.6 PROJECT CONDITIONS

A. Field Measurements: Verify required openings for each type of roof accessory by field measurements before fabrication and indicate measurements on Shop Drawings.

1.7 COORDINATION

A. Coordinate layout and installation of roof accessories with roofing membrane and base flashing and interfacing and adjoining construction to provide a leakproof, weathertight, secure, and noncorrosive installation.
   1. With Architect's approval, adjust location of roof accessories that would interrupt roof drainage routes.

1.8 WARRANTY

A. Warranty: Manufacturer’s standard form stating roof accessories shall be free of defects in material and workmanship for a period of five years from the date of Substantial Completion.

PART 2 - PRODUCTS

2.1 METAL MATERIALS

A. Aluminum Sheet: ASTM B 209, manufacturer's standard alloy for finish required, with temper to suit forming operations and performance required.

B. Aluminum Extrusions and Tubes: ASTM B 221, manufacturer's standard alloy and temper for type of use, finished to match assembly where used, otherwise mill finished.

2.2 MISCELLANEOUS MATERIALS

A. Polyisocyanurate Board Insulation: ASTM C 1289, 2 inch thickness, unless otherwise indicated.

B. Bituminous Coating: Cold-applied asphalt mastic, SSPC-Paint 12, compounded for 15-mil dry film thickness per coat. Provide inert-type noncorrosive compound free of asbestos fibers, sulfur components, and other deleterious impurities.

C. Fasteners: Same metal as metals being fastened, or nonmagnetic stainless steel or other noncorrosive metal as recommended by roof accessory manufacturer. Match finish of exposed fasteners with finish of material being fastened. Provide nonremovable fastener heads to exterior exposed fasteners.

D. Gaskets: Tubular or fingered design of extruded EPDM rubber.

E. Elastomeric Sealant: ASTM C 920, silicone sealant; of type, grade, class, and use classifications required to seal joints in sheet metal flashing and trim and remain watertight.

2.3 ROOF HATCHES

A. Basis of Design: Bilco NB-50T. Subject to compliance with requirements, provide the named product or a comparable product by one of the following:
   1. Babcock-Davis; a Cierra Products Inc. Company.
   2. Bilco Company (The).
   3. J. L. Industries, Inc.
   4. Milcor Inc.; a Gibraltar Company.
   5. Nystrom, Inc.

B. Roof Hatches: Fabricate roof hatches with insulated double-wall lids and insulated double-wall curb frame with integral deck mounting flange and lid frame counterflashing. Fabricate with welded or mechanically fastened and sealed corner joints. Provide continuous weathertight perimeter gasketing and equip with corrosion-resistant or hot-dip galvanized hardware.
   1. Loads: Fabricate roof hatches to withstand 40-lbf/sq. ft. external with a maximum deflection of 1/150th of the span or 20-lbf/sq. ft. wind uplift.
   2. Type: Single-leaf lid.
   3. Sizes: 30 x 54 inches.
   4. Curb and Lid Material: Aluminum sheet, 0.090 inch thick.
      a. Lid Gasket: Heavy extruded EPDM rubber gasket bonded to lid interior to ensure a continuous seal when compressed to top surface of curb
      b. Insulation: 2 inches polyisocyanurate; R-value of 12.
      c. Interior Lid Liner: Manufacturer's standard metal liner of same material and finish as outer metal lid.
   5. Fabricate units to minimum height of 12 inches, unless otherwise indicated.
   6. Sloping Roofs: Where slope or roof deck exceeds 1:48, fabricate hatch curbs with height tapered to match slope to level tops of units.
   7. Hardware: Compression spring operator and shock absorber; hold-open arm with vinyl covered grip handle for easy release, stainless-steel spring latch with turn handles for interior and exterior operation, heavy duty stainless-steel pintle-type hinge system, and padlock hasp inside. Compression spring tubes shall be an anti-corrosive composite material and all other hardware shall be zinc-plated and chromate sealed. Springs shall have an electro-coated acrylic finish for corrosion resistance.

8. Curb and Lid Finish: Mill finish.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions, with Installer present, to verify actual locations, dimensions, and other conditions affecting performance of work.
   1. Verify that substrate is sound, dry, smooth, clean, sloped for drainage, and securely anchored and is ready to receive roof accessories.
   2. Verify dimensions of roof openings for roof accessories.
   3. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

A. General: Install roof accessories according to manufacturer's written instructions. Anchor roof accessories securely in place and capable of resisting forces specified. Use fasteners, separators, sealants, and other miscellaneous items as required for completing roof accessory installation. Install roof accessories to resist exposure to weather without failing, rattling, leaking, and fastener disengagement.

B. Install roof accessories to fit substrates and to result in watertight performance.

C. Metal Protection: Where dissimilar metals will contact each other or corrosive substrates, protect against galvanic action by painting contact surfaces with bituminous coating or by other permanent separation as recommended by manufacturer.
   1. Coat concealed side of uncoated aluminum roof accessories with bituminous coating where in contact with wood, ferrous metal, or cementitious construction.
   2. Underlayment: Where installing exposed-to-view components of roof accessories directly on cementitious or wood substrates, install a course of felt underlayment and cover with a slip sheet, or install a course of polyethylene underlayment.
   3. Bed flanges in thick coat of asphalt roofing cement where required by roof accessory manufacturers for waterproof performance.

D. Install roof accessories level, plumb, true to line and elevation, and without warping, jogs in alignment, excessive oil canning, buckling, or tool marks.

E. Roof Hatch Installation:
   1. Check roof hatch for proper operation. Adjust operating mechanism as required. Clean and lubricate joints and hardware.

F. Seal joints with elastomeric sealant as required by manufacturer of roof accessories.

3.3 CLEANING

A. Clean exposed surfaces according to manufacturer's written instructions.

END OF SECTION 07 72 00

SECTION 09 21 46 – FIBER CEMENT BOARD

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:
   1. Interior fiber-cement board (panels).

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product indicated. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes.

B. Samples for Verification: For each type, color, texture, and pattern required.
   1. 12-inch- long-by-actual-width Sample of panel.
   2. Samples of each type of panel fastener.

1.4 INFORMATIONAL SUBMITTALS

A. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency, for fiber-cement panel.

1.5 CLOSEOUT SUBMITTALS

A. Maintenance Data: For each type of panel and related accessories to include in maintenance manuals.

1.6 QUALITY ASSURANCE

A. Labeling: Provide fiber-cement panel that is tested and labeled according to ASTM C 1186 by a qualified testing agency acceptable to authorities having jurisdiction.

B. Source Limitations: Obtain each type, color, texture, and pattern of panel, including related accessories, from single source from single manufacturer.

C. Mockups: Build mockups to verify selections made under sample submittals and to demonstrate aesthetic effects and set quality standards for fabrication and installation.
   1. Build mockups for panel including accessories.
      a. Size: Not less than 48 inches long by 60 inches high.
      b. Include outside corner on one end of mockup.
   2. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing.
   3. Approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

D. Preinstallation Conference: Conduct conference at Project site.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Store materials in a dry, well-ventilated, weathertight place.

1.8 COORDINATION

A. Coordinate installation with flashings and other adjoining construction to ensure proper sequencing.

1.9 WARRANTY

A. Special Warranty: Standard form in which manufacturer agrees to repair or replace panel that fail(s) in materials or workmanship within specified warranty period.
   1. Failures include, but are not limited to, the following:
      a. Structural failures including cracking, spalling, degrading, or delaminating.
   2. Warranty Period: 5 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 FIBER-CEMENT PANEL

A. General: ASTM C 1186, Type A, Grade II, fiber-cement board, noncombustible when tested according to ASTM E 136; with a flame-spread index of 25 or less when tested according to ASTM E 84.
   1. Basis-of-Design Product: Allied Building Products Corp.; VIROC Panel. Subject to compliance with requirements, provide the named product or a comparable product by one of the following:
      a. Allied Building Products Corp.
      b. American Fiber Cement Corporation.
      c. Cladding Corp.
      d. Eternit Switzerland.
      e. Nichiha Fiber Cement.

B. Thickness: 1/2-inch.

C. Panel Lengths: 8’ and 10’ lengths as required to avoid small pieces and maintain panel layouts indicated on Drawings.

D. Color(s): As selected by Architect from manufacturer’s standard range.

2.2 ACCESSORIES

A. Fasteners:
   1. For fastening fiber cement, use stainless-steel fasteners.
   2. For fastening to wood, use ribbed washer-head screws of sufficient length to penetrate a minimum of 1 inch into substrate.
   3. For fastening to metal, use ribbed washer-head screws of sufficient length to penetrate a minimum of 1/4 inch, or three screw-threads, into substrate.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates for compliance with requirements for installation tolerances and other conditions affecting performance of panel and related accessories.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Clean substrates of projections and substances detrimental to application.

3.3 INSTALLATION

A. General: Comply with panel manufacturer's written installation instructions applicable to products and applications indicated unless more stringent requirements apply.
   1. Do not install damaged components.
   2. Panel edges shall be clean, crisp, and square.

B. Install fiber-cement panel using fastener spacing in compliance with manufacturer's recommendations. Set fasteners flush with panel face; do not overdrive.

C. Install joint sealants where indicated as specified in Section 079200 "Joint Sealants".

3.4 ADJUSTING AND CLEANING

A. Remove damaged, improperly installed, or otherwise defective materials and replace with new materials complying with specified requirements.

B. Clean finished surfaces according to manufacturer's written instructions and maintain in a clean condition during construction.

END OF SECTION 09 21 46

SECTION 10 21 13.21 – SOLID COMPOSITE TOILET COMPARTMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes solid color reinforced composite units as follows:
   1. Toilet Enclosures: Ceiling hung.
   2. Urinal Screens: Wall mounted.

B. Related Sections:
   1. Section 05 50 00 "Metal Fabrications" for supports that attach ceiling-hung compartments to overhead structural system.
   2. Section 06 10 00 "Rough Carpentry" for blocking in metal stud framed partitions.
   3. Section 10 28 00 "Toilet Accessories" for toilet tissue dispensers, grab bars, and similar accessories.

1.3 PERFORMANCE REQUIREMENTS

A. Graffiti Resistance: Partition material shall have the following graffiti removal characteristics when tested in accordance with ASTM D6578-00 Standard Practice for Determination of Graffiti Resistance in accordance with Section 9, “Graffiti Removal Procedure Using Manual Solvent Rubs”:
   1. Cleanability: Five (5) required staining agents shall be cleaned off material.

B. Scratch Resistance: Partition material shall have the following characteristics when tested in accordance with ASTM D2197-98(2002) Standard Test Method for Adhesion of Organic Coating by Scrape Adhesion, using Gardner Stock #PA-2197/ST pointed stylus attachment on scrape tester:
   1. Scratch Resistance: Maximum Load Value shall exceed 10 kilograms.

C. Surface-Burning Characteristics: As determined by testing identical products according to ASTM E 84, or another standard acceptable to authorities having jurisdiction, by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.
   1. Flame-Spread Index: 75 or less.
   2. Smoke-Developed Index: 450 or less.

1.4 SUBMITTALS

A. Product Data: For each type of product indicated. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes.

B. Shop Drawings: Include plans, elevations, sections, details, and attachments to other work.
   1. Show locations of cutouts for compartment-mounted toilet and bath accessories.
   2. Show locations of reinforcements for compartment-mounted toilet and bath accessories.

C. Samples for Initial Selection: For each type of unit indicated.

D. Samples for Verification: Of each type of color and finish required for units, prepared on 6-inch-(150-mm-) square Samples of same thickness and material indicated for Work.

1.5 CLOSEOUT SUBMITTALS

A. Maintenance Data: For toilet compartments to include in maintenance manuals.

1.6 QUALITY ASSURANCE

A. Comply with requirements in GSA's CID-A-A-60003, "Partitions, Toilets, Complete."

B. Regulatory Requirements: Comply with applicable provisions in the U.S. Architectural & Transportation Barriers Compliance Board's "Americans with Disabilities Act (ADA) and Architectural Barriers Act (ABA) Accessibility Guidelines for Buildings and Facilities" for toilet compartments designated as accessible.

1.7 PROJECT CONDITIONS

A. Field Measurements: Verify actual locations of walls, columns, ceilings, and other construction contiguous with toilet and shower compartments by field measurements before fabrication and indicate measurements on Shop Drawings.
   1. Established Dimensions: Where field measurements cannot be made without delaying the Work, establish dimensions and proceed with fabricating toilet and shower compartments without field measurements. Coordinate wall, floor, ceilings, and other contiguous construction to ensure that actual dimensions correspond to established dimensions.

1.8 WARRANTY

A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to replace toilet compartments that develop defects and that fail in materials or workmanship, including panels, doors, and stiles against breakage, corrosion, delamination, within specified warranty period.
   1. Warranty Period: 10 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Stainless-Steel Sheet: ASTM A 666, Type 304, stretcher-leveled standard of flatness.

B. Stainless-Steel Castings: ASTM A 743/A 743M.

2.2 SOLID COLOR REINFORCED COMPOSITE UNITS

A. Basis of Design: Bobrick Washroom Equipment, Inc.; #1098/1098.67 Sierra Series Solid Color Reinforced Composite toilet partitions.

B. Toilet-Enclosure Style: Ceiling hung.

C. Urinal-Screen Style: Wall hung.

D. Door, Panel, Pilaster Construction: Solid color reinforced composite material, which is composed of dyes, organic fibrous material, and polycarbonate/phenolic resins. Material shall have a non-ghosting, graffiti resistant surface integrally bonded to core through a series of manufacturing steps requiring thermal and mechanical pressure; with eased edges, and with homogenous color and pattern throughout thickness of material.
   1. Stiles and Doors: 3/4" (19mm).
   2. Panels: 1/2" (13mm).
   3. Color: Bobrick Sierra Series; SC02 Desert Beige.

E. Pilaster Sleeves (Caps): Stainless-steel sheet, not less than 0.031-inch nominal thickness and 3 inches high, finished to match hardware.

F. Brackets and Fittings: Vandal-resistant (.67 Series) through-bolted, stainless steel, pin-in-head Torx sex bolt fasteners shall be used for panel-to-stile connections.
   1. Mounting brackets: 18-gauge (1.2mm) stainless steel and extend full height of panel.
      a. U-channels shall be furnished to secure panels to stiles.
      b. Angle brackets shall be furnished to secure stiles-to-walls and panels-to-walls.
      c. Fasteners at locations connecting panels-to-stiles shall utilize through-bolted, stainless steel, pin-in-head Torx sex bolt fasteners. Through-bolted fasteners shall withstand direct pull force exceeding 1,500 lbs. per fastener.
      d. Wall Mounted Urinal Screen Brackets: 11 gauge (3mm) double thickness.

2.3 ACCESSORIES

A. Hardware and Accessories: Vandal resistant (.67 Series), heavy-duty operating hardware and accessories.
   1. Material: Stainless steel, unless noted otherwise.
   2. Hinge: 16-gauge (1.6mm) continuous piano-hinge.
   3. All doors shall be equipped with self-closing hinge.
   4. Continuous piano-hinge shall be attached to door and stile by theft-resistant, pin-in-head Torx stainless steel machine screws into factory installed, threaded brass inserts.
   5. Fasteners secured directly into the core are not acceptable.
   6. Door shall be furnished with two 11-gauge (3mm) stainless steel door stop plates with attached rubber bumpers to resist door from being kicked in/out beyond stile.
   7. Door stops and hinges shall be secured with stainless steel, pin-in-head Torx machine screws into threaded brass inserts.
   8. Clothes Hook: Vandal-resistant, stainless steel; through-bolted, theft-resistant, pin-in-head Torx stainless steel screws.
   9. Threaded brass inserts shall withstand a direct pull force exceeding 1,500 lbs per insert. .

B. Overhead Bracing: Manufacturer's standard continuous, extruded-aluminum head rail with antigrip profile and in manufacturer's standard finish. Head rail brackets shall be 18 gauge stainless steel.

C. Anchorages and Fasteners: Manufacturer's standard exposed fasteners of Type 304 stainless steel finished to match hardware, with theft-resistant-type heads. Provide sex-type bolts for through-bolt applications. For concealed anchors, use Type 304 stainless steel anchors and fasteners.

2.4 FABRICATION

A. Ceiling-Hung Units: Provide manufacturer's standard corrosion-resistant anchoring assemblies with leveling adjustment nuts at pilasters for connection to structural support above finished ceiling. Provide assemblies that support pilasters from structure without transmitting load to finished ceiling. Provide sleeves (caps) at tops of pilasters to conceal anchorage.

B. Door Size and Swings: Unless otherwise indicated, provide 24-inch- wide, in-swinging doors for standard toilet compartments and 36-inch- wide, out-swinging doors with a minimum 32-inch-wide, clear opening for compartments designated as accessible.

PART 3 - EXECUTION

3.1 INSTALLATION

A. General: Comply with manufacturer's written installation instructions. Install units rigid, straight, level, and plumb. Secure units in position with manufacturer's recommended anchoring devices.
   1. Maximum Clearances:
      a. Pilasters and Panels: 1/2 inch (13 mm).
      b. Panels and Walls: 1/2 inch (13 mm).

B. Ceiling-Hung Units: Secure pilasters to supporting structure and level, plumb, and tighten. Hang doors and adjust so bottoms of doors are level with bottoms of pilasters when doors are in closed position.

C. Urinal Screens: Attach with anchoring devices to suit supporting structure. Set units level and plumb, rigid, and secured to resist lateral impact.

3.2 ADJUSTING

A. Hardware Adjustment: Adjust and lubricate hardware according to manufacturer's written instructions for proper operation. Set hinges on in-swinging doors to hold doors open approximately 30 degrees from closed position when unlatched. Set hinges on out-swinging doors to return doors to fully closed position.

END OF SECTION 10 21 13.19

SECTION 11 24 25 – SAFETY TIE-BACK ANCHORS

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Safety tie-back anchors for controlled descent and fall protection.

1.2 DESIGN PERFORMANCE REQUIREMENTS

A. Performance: Design system fall arrest safety anchors to comply with the following requirements:
   1. Safety anchor system design shall comply with current OSHA, ANSI, and local regulations pertaining to fall protection.
   2. Fall Arrest Safety Anchors: Designed to a maximum fall arresting force of 1,800 lbs (8.0 kN) when wearing a body harness with a safety factor of 2 to 1 without any permanent deformation and to 5000 lbs (22.24 kN) against fracture or detachment.
   3. Comply with the most stringent requirements of applicable codes and other statutory requirements, including the current requirements of the following:
      a. Occupational Safety and Health Act (OSHA): OSHA Part 1910, Subpart D, Walking and Working Surfaces.
      b. Occupational Safety and Health Act (OSHA): Appendix C to 1910 Subpart F, Personal Fall Arrest Systems.
      c. Occupational Safety and Health Act (OSHA): OSHA Ruling on Window Cleaning by Bosun's Chair.
      d. ANSI/IWCA I-14.1 - Window Cleaning Safety.
      e. American Institute of Steel Construction (AISC): AISC "Load and Resistance Factor Design Specification for Structural Steel Buildings", including the "Commentary" thereto and AISC "Code of Standard Practice for Steel Buildings and Bridges", including the "Commentary" thereto.
      f. American Welding Society (AWS): AWSD1.1 "Structural Welding Code, Steel", and AWSD1.2 "Structural Welding Code, Aluminum.
      g. American Society of Mechanical Engineers (ASME): ASME A120.1-2001, Safety Requirements for Powered Platforms for Building Maintenance.

1.3 SUBMITTALS

A. Product Data: Manufacturer's data sheets on each product to be used, including:
   1. Preparation instructions and recommendations.
   2. Storage and handling requirements and recommendations.
   3. Installation methods.

B. Shop Drawings: Dimensioned shop drawings showing layout, profiles and product components, including anchorage, accessories and finish.

C. Structural Calculations: Calculations prepared and certified by a Licensed Professional Engineer registered in the State where the project is located. Include design assumptions and method of design including loads imposed on the building structure.

D. Test Reports: Certified test reports showing compliance with specified performance characteristics and physical properties.

E. Manufacturer's Certificates: Certify products meet or exceed specified requirements.

F. Operation and Maintenance Data:
   1. Provide listing of replacement parts, including identifying numbers and ordering instructions.
   2. Provide a sample inspection log for Owner's use in recording inspections; include recommended list of daily, weekly, periodic, and biannual inspections.

G. Project Record Documents: Submit project as-built drawings showing actual installed locations and configuration, and record specifications documenting all changes to original design criteria, wiring diagrams and other specification requirements.

1.4 QUALITY ASSURANCE

A. Manufacturer/Installer Qualifications: Firm with minimum 10 years experience in manufacturing and installing of facade maintenance equipment, with documented experience with installations of type specified.

B. Perform all tests required by local regulatory authorities. Required tests shall be made in the presence of the authorized representative of such local authorities and installer shall issue a certificate of adequacy for the equipment, installation and testing.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Store products in manufacturer's unopened packaging until ready for installation.

B. Protect materials from exposure to moisture.

C. Store materials in a dry, warm, ventilated weathertight location.

1.6 PROJECT CONDITIONS

A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

1.7 COORDINATION

A. Coordinate Work with other operations and installation of exterior facade, roof deck, structural supports, embedded anchors and roofing materials to avoid damage to installed materials and components.

B. Coordinate with other operations and installation of electrical service and locations of power panels.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Manufacturers
   1. R & R Scaffolding Ltd.
   2. Pro-Bel Enterprises Ltd.
   3. Summit Anchor Company.

2.2 SAFETY TIE-BACK ANCHORS

A. Safety U-Bars: ASTM A276,Type 304 stainless steel with minimum yield strength of 35 Ksi (240 MPa). U-bar to be not less than 3/4" (19 mm) diameter material with 1-1/2" (38 mm) eye opening.

B. Securement Bolts: Mild steel, Type 300W with minimum yield strength of 44 Ksi (300 MPa), hot-dip galvanized to ASTM A123/A 123M.

C. Hollow Steel Section (HSS) Piers: Mild steel, Type 300W with minimum yield strength of 50 Ksi (350 MPa). Wall thickness to suit application, hot dipped galvanized to ASTM A123/A 123M.

D. Base Plate and All Other Sections: Galvanized mild steel as above with minimum yield strength of 44 Ksi (300 MPa). Thickness and securement to suit application.

E. Aluminum Flashing: Seamless spun aluminum flashing (for pier sections); Type 6061-T6 alloy to ASTM B221-2000 with deck flange flashed in to NRCA recommendations. Seal top of aluminum flashing with conformable stainless-steel collar flashing.

F. Miscellaneous Bolts, Nuts and Washers: Mild steel, Type 300W with 44 Ksi (300 Mpa) minimum yield strength, hot-dip galvanized to ASTM A123/A 123M or Type 304 stainless steel with 35 Ksi (240 Mpa) minimum yield strength.

PART 3 EXECUTION

3.1 EXAMINATION

A. Do not begin installation until substrates have been properly prepared.

B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.2 PREPARATION

A. Clean surfaces thoroughly prior to installation.

B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

3.3 INSTALLATION

A. Install in accordance with manufacturer's instructions.

B. Furnish and install all components in strict accordance with the approved shop drawings at such time when construction and finish of adjoining work will permit to avoid delays to the construction process. All equipment shall be secured in place as shown on the approved shop drawings and/or as herein specified by rigid approved methods.

3.4 FIELD QUALITY CONTROL

A. Tests and Inspections:
   1. Test on site 100-percent of anchors relying upon chemical adhesive fasteners using load cell test apparatus in accordance with manufacturer's written recommendations
   2. On site inspection of components welded to structure shall be performed by an AWS Certified Welding Inspector verifying, in writing, size and quality of welds. Such an inspection shall be performed on each piece of equipment before roofing material is installed
   3. Provide written certification that all components have been successfully tested, and will perform in accordance with the intent of this design.

B. Repair or replace any components and correct all deficiencies observed as a result of these tests and demonstrations, and retest to assure compliance with this specification and regulatory requirements.

C. Approvals: Submit documentation required to obtain approval of installation from governing authorities. Conduct field tests required by personnel from governing authorities.

3.5 PROTECTION

A. Protect installed products until completion of project.

B. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION 11 24 25

SECTION 13 12 00 - CLIMBING WALL *(OWNER PROVIDED – FOR INFORMATIONAL PURPOSES ONLY)*

PART 1 - GENERAL

1.1 SUMMARY

A. This Section is a performance specification for the climbing wall system consisting of the following:

1. Climbing wall.
2. Bouldering wall.
3. Supporting structure.
4. Belay and handhold fastening systems.
5. Impact resilient flooring.
6. Equipment.
7. Necessary accessories.

B. The Owner will provide the Work of this Section, including design, construction, and installation of climbing wall, bouldering wall, impact resilient floor system, supporting structure to create the wall profiles and belay and handhold fastening systems under a separate Contract.

C. The Contractor shall cooperate fully with separate contractors so work on those contracts may be carried out smoothly, without interfering with or delaying work under this Contract or other contracts. Coordinate the Work of this Contract with work performed under separate contracts.

D. Related Sections include the following:

1. Section 03 30 00 - Floor Slab and Foundations.

1.2 REFERENCES

A. Climbing Wall Association (CWA).

B. International Mountaineering and Climbing Federation (Union Internationale des Associations d'Alpinisme), UIAA.

C. International Building Code (IBC) 2009 edition.

D. Manual of Steel Construction, Allowable stress design, AISC.

1.3 SYSTEM DESCRIPTION

A. Work of this section shall be a complete climbing wall system utilizing manufacturer's normal construction methods to achieve a wall that will be visually appealing and functional for teaching, exercising and for use during special events. Wall shall be comprised of sculpted and flat panels in colors and textures permanently attached to a fully engineered steel super structure. The outcome shall be a seamless product.

B. The steel supporting structure may NOT rely on a component of the facility as its primary structure. Foundations required to support the structure of the climbing wall shall be designed by the climbing wall manufacturer. The climbing wall shall be designed and installed to current CWA standards and shall include all supporting structure necessary to create wall profiles, the climbing surface, belay and handhold fastening systems, impact resilient flooring and specific equipment as defined in this specification.

1.4 QUALITY ASSURANCE

A. Preinstallation Conference: Conduct conference at Project Site.

1. Convene minimum one week before starting work of this Section.
2. Review all aspects of wall construction including methods and procedures related to wall installation, repair procedures and protection of finished wall construction.

1.5 SITE CONDITIONS

A. Coordinate and verify site conditions with general contractor prior to pre-installation meeting.

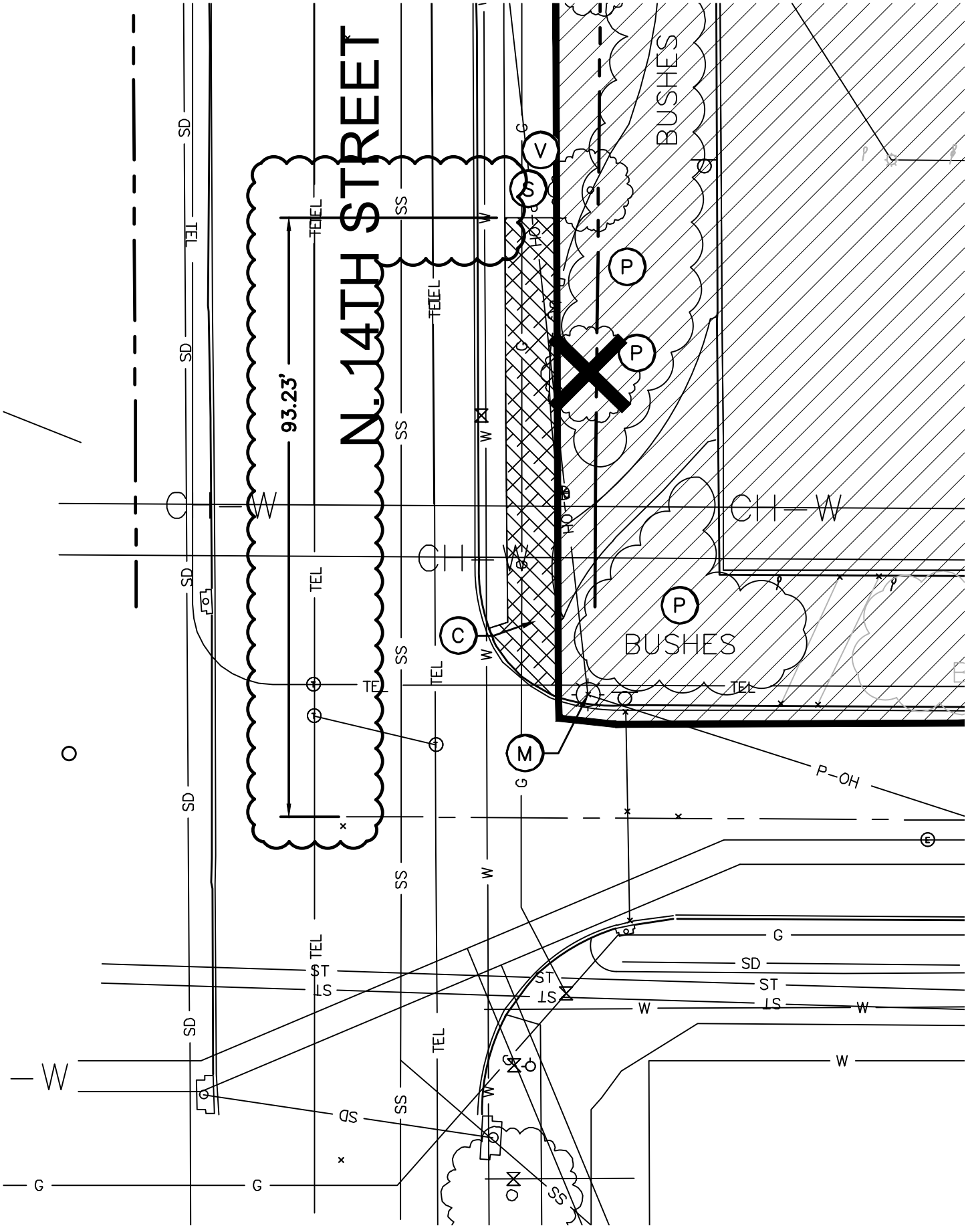
B. The climbing wall systems shall not be installed until the building is enclosed with permanent HVAC in operation and capable of maintaining a uniform temperature and humidity range. Acceptable temperature ranges are 55 – 85 degrees F.

C. Coordinate and verify with general contractor that lighting and power requirements will be provided as required for the Work to be performed within this Section.

PART 2 - PRODUCTS *(Not Used)*

PART 3 - EXECUTION *(Not Used)*

END OF SECTION 13 12 00



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DRAWN BY: □LH	DEMOLITION PLAN □C0.2□	1111 Lincoln Mall, S□it□ 111 P.O. Bo□84608 Lincoln, NE 68501-4608 TEL 402.4□4.6□11 FAX 402.4□4.5160	SDC-001
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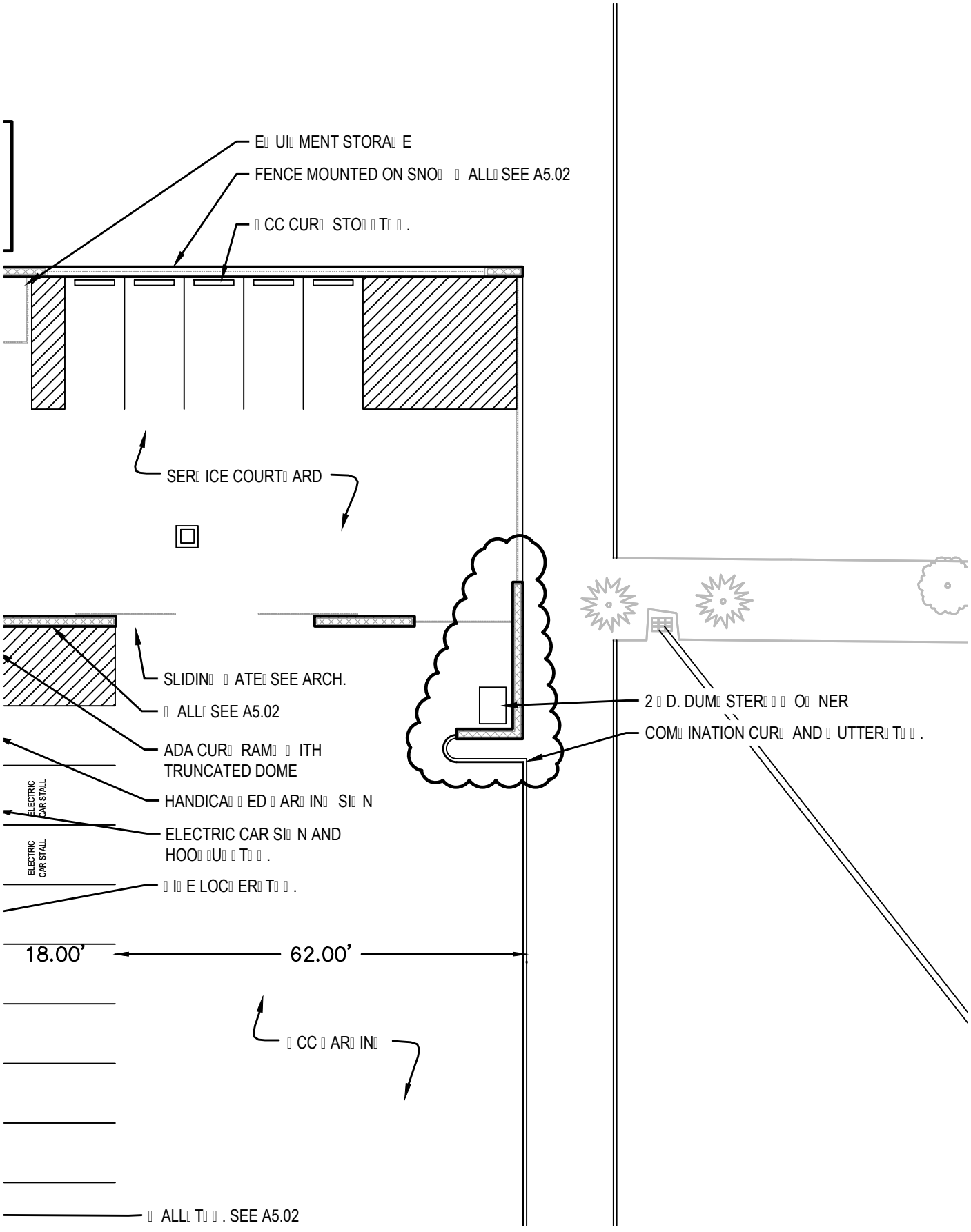

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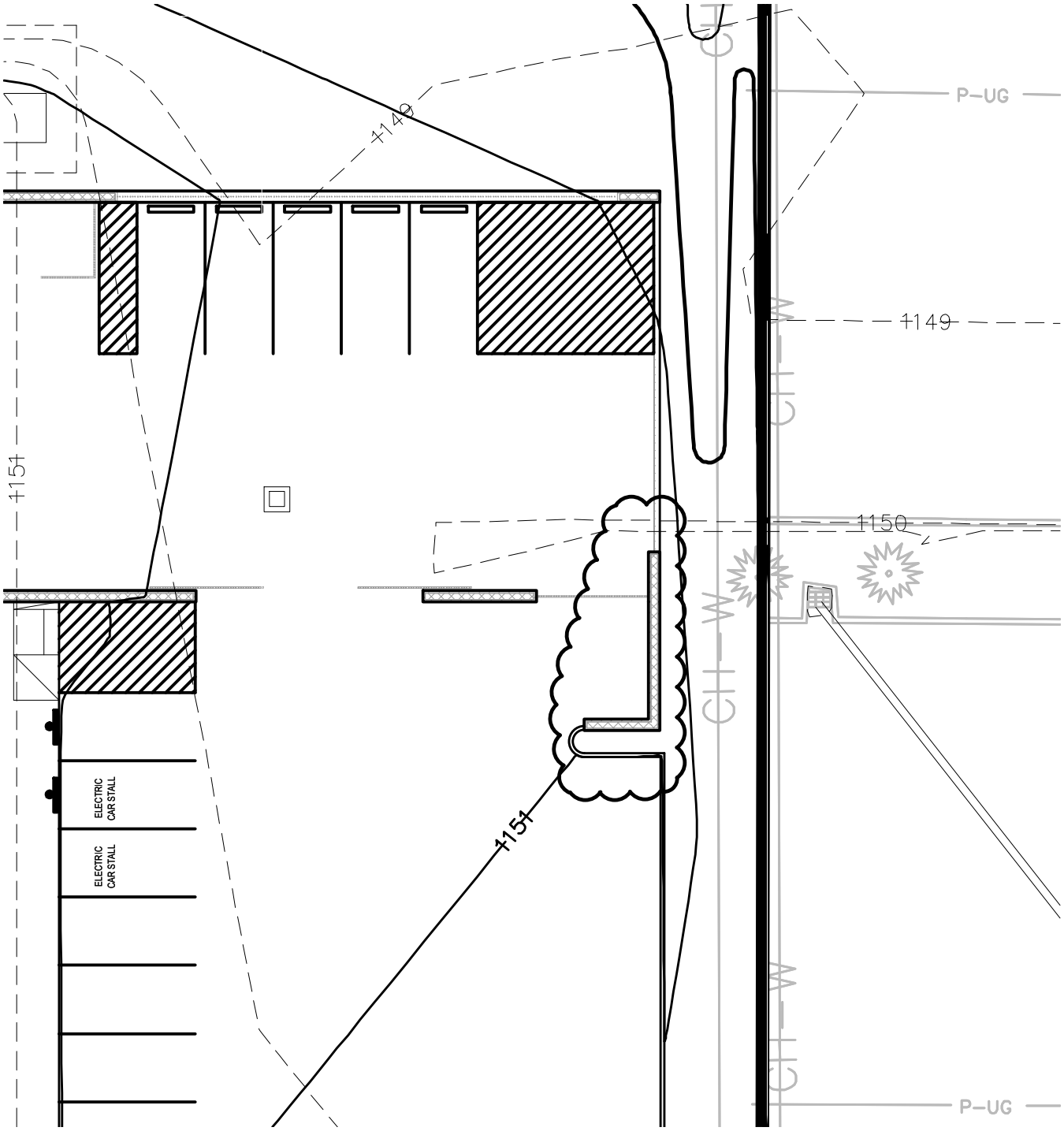

NOTE:
IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN ALL AREAS WITHIN THE CONSTRUCTION LIMITS, WHICH MAY INCLUDE AREAS OUTSIDE OF THE CONSTRUCTION FENCE, TO PROVIDE A CLEAN AND SAFE ENVIRONMENT. CONTRACTOR SHALL ALSO MAINTAIN ALL WEEDS WITHIN CONSTRUCTION LIMITS. WEED CONTROL SHALL BE CONSIDERED SUBSIDIARY TO SITE WORK AND ANY WEED CONTROL MEASURES SHALL BE COORDINATED WITH, AND APPROVED BY, UNL LANDSCAPE SERVICES.

PRO□ECT NO: 011-2□□9	UNL OAC - ADDENDUM □□	OLSSON ASSOCIATES	EXHIBIT
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DATE: 0□/09/12			

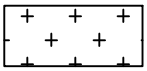
SITE LEGEND

(A) BUILDING LINE

(B) 5" PCC PAVEMENT WITH TOOLED JOINTS IN 4'X4' PATTERN AND LIGHTLY HAND–TOOLED JOINTS AS SHOWN

(C) PAVEMENT MARKING.

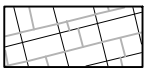
(D) MATCH EXISTING EDGE OF PAVEMENT.



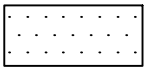
(E) PROPOSED HEAVY DUTY PAVEMENT. (7" THICK CONCRETE WITH INTEGRAL CURB AND GUTTER)

(F) 5" THICK CONCRETE SIDEWALK.

(G) INTEGRAL CONCRETE CURB AND GUTTER.



(H) 5" PCC PAVEMENT WITH TOOLED JOINTS IN 4'X4' PATTERN AND LIGHTLY HAND–TOOLED JOINTS AS SHOWN. ALTERNATE: BRICK PAVERS, SEE SHEET C1.1 AND BELOW FOR DETAIL



(I) PROPOSED 7" THICK CONCRETE, NO CURB.

(J) PROPOSED TRANSFORMER LOCATION, REFER TO ELECTRICAL SITE PLANS.

(K) HANDICAP SIGN TO BE INSTALLED BY PARKING AND TRANSIT.

(L) CONSTRUCT ADA CURB RAMP WITH TRUNCATED DOME SURFACING, WHERE APPLICABLE.

(M) STRIPE AREA WITH 4" PAINT, 2 O.C. @ 45°.

(N) 16" THICK PEA GRAVEL, FOR FALL PROTECTION ZONE. PLACE GEOTEXTILE FABRIC BETWEEN BASE AND STABILIZED SUBGRADE. INSTALL STEEL EDGING BETWEEN ALL GREENSPACE AREAS AND PEA GRAVEL.

(O) PROPOSED STANDARD DUTY PAVEMENT. (5" THICK CONCRETE WITH INTEGRAL CURB AND GUTTER)

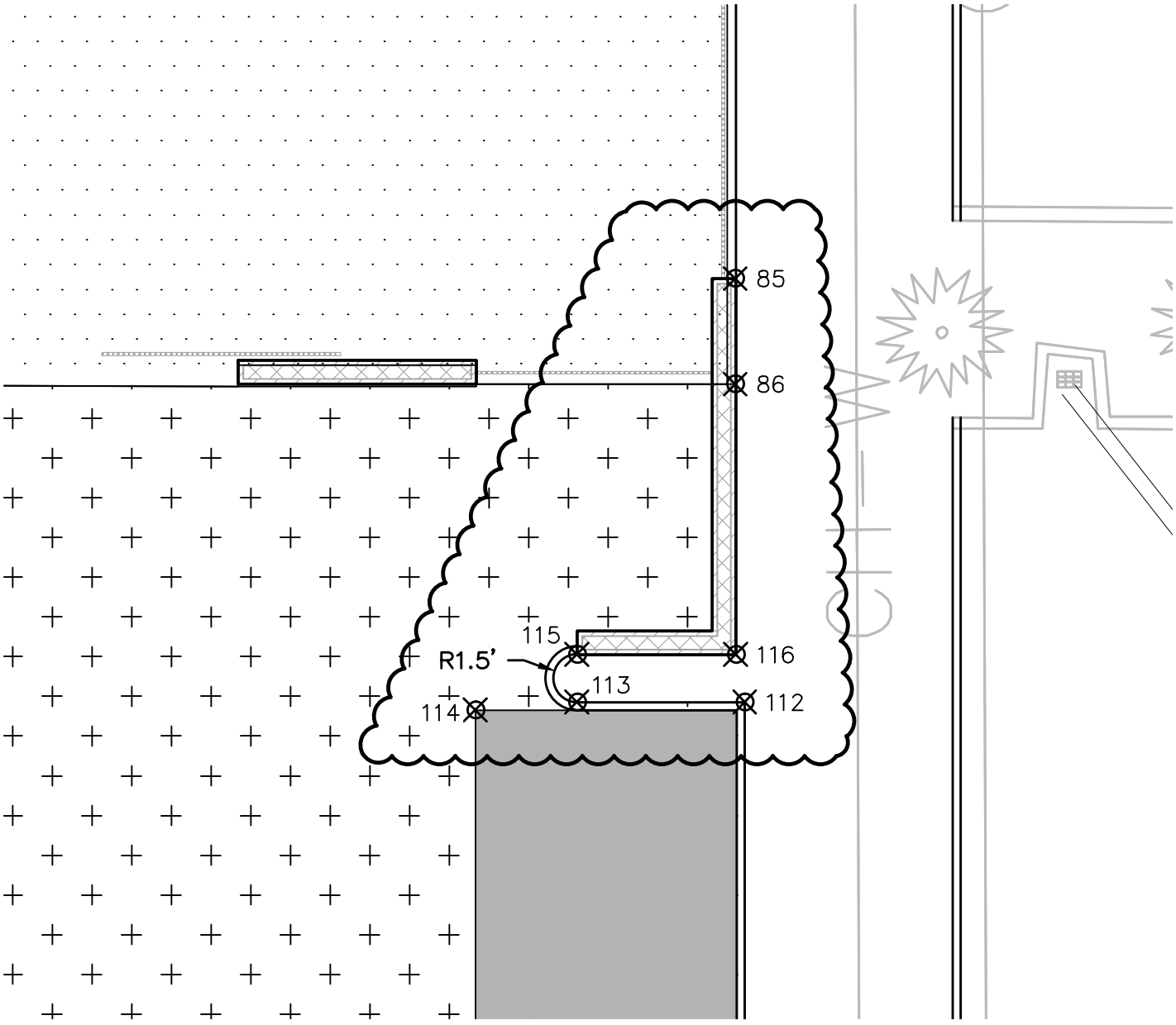
(P) TRASH DUMPSTER AREA

(Q) TEMPORARY CURB, PER DETAIL ON THIS SHEET

(R) ELECTRIC CAR SIGN AND HOOK UP. COORDINATE WITH SITE ELECTRIC PLAN FOR SPECIFICATIONS.

(S) CODE BLUE STATION, 5" CONCRETE SHALL BE PLACED 18" AROUND. COORDINATE LOCATION WITH SITE ELECTRICAL PLANS AND UNL.

PROJECT NO: 011-2□□9	UNL OAC-ADDENDUM □□	OLSSON ASSOCIATES	EXHIBIT
DRAWN BY: □LH	SITE PAVING PLAN □C4.1□	1111 Lincoln Mall, Suite 111 P.O. Box 84608 Lincoln, NE 68501-4608 TEL 402.4□4.6□11 FAX 402.4□4.5160	SDC-004
DATE: 0□/09/12			



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86	48159.64	50323.63	1151.80	WALL
87	48159.64	50262.33	1151.78	TS
111	48047.64	50324.25	1150.45	TC
112	48139.64	50324.25	1151.39	TC
113	48139.64	50313.66	1150.99	TC
114	48139.14	50307.27	1151.05	TC
115	48142.64	50313.66	1151.53	TC
116	48142.64	50323.66	1151.50	WALL
117	48203.64	50181.55	1153.00	TSWLK

PROJECT NO: 011-2□□9
DRAWN BY: □LH
DATE: 0□/09/12

UNL OAC - ADDENDUM □□
SITE PAVING PLAN (EAST) (C4.3)

OLSSON ASSOCIATES
1111 Lincoln Mall, S□it□ 111
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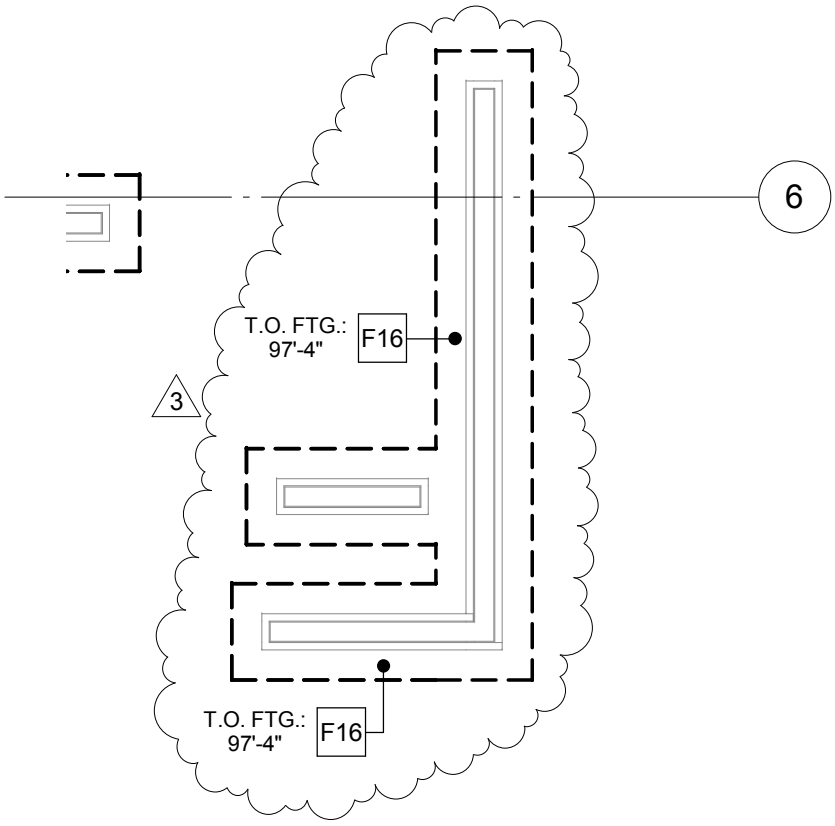
TEL 402.4□4.6□11
FAX 402.4□4.5160

EXHIBIT
SDC-005



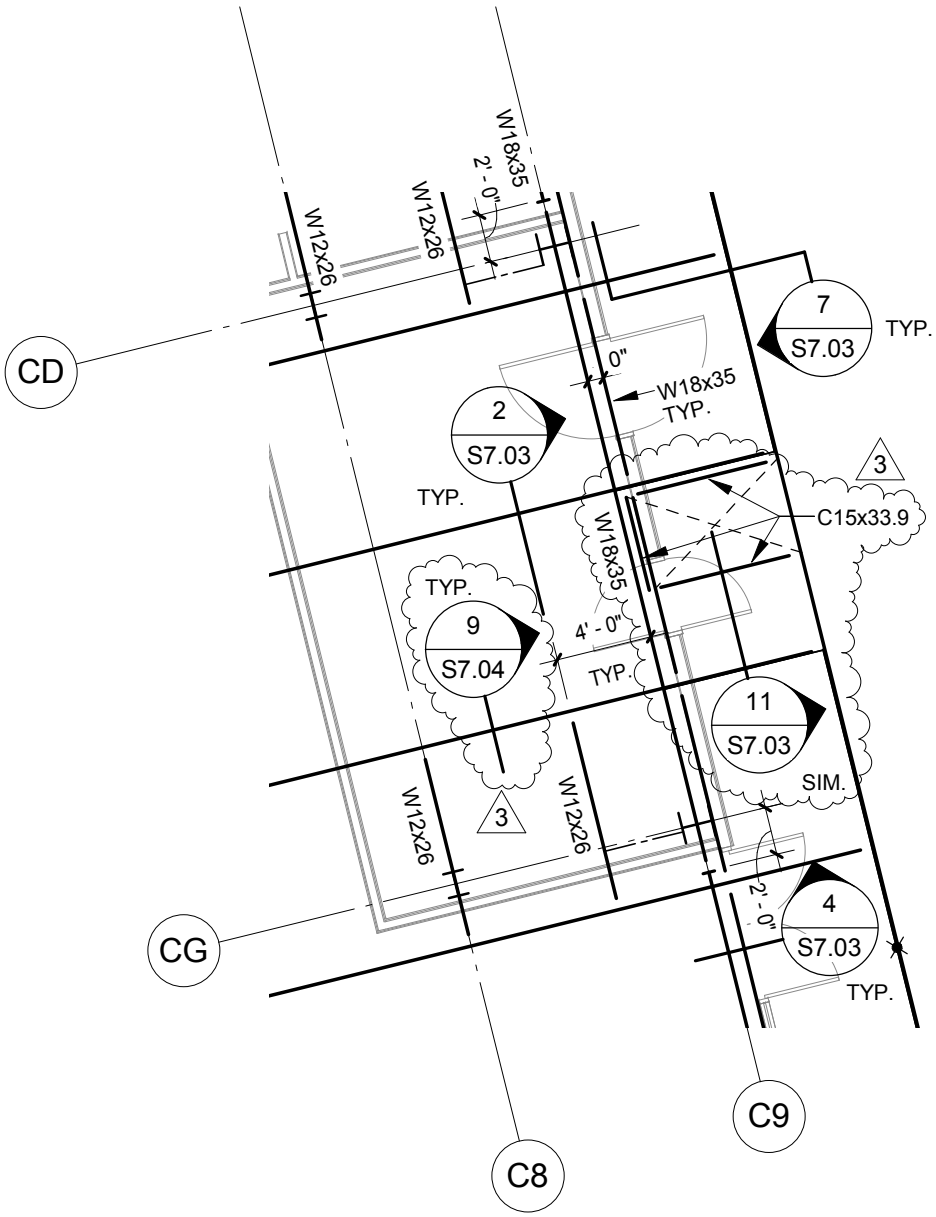
RDg... PLANNING ● DESIGN

UNIVERSITY OF NEBRASKA-LINCOLN
OUTDOOR ADVENTURES CENTER

14th and W, Lincoln, NE

DATE 07/09/12
MODIFICATION: ADDENDUM #3
REF'D SHEET: S1.01
REF'D DETAIL: FOUNDATION PLAN

2011.182.00
35.01
SDS-001



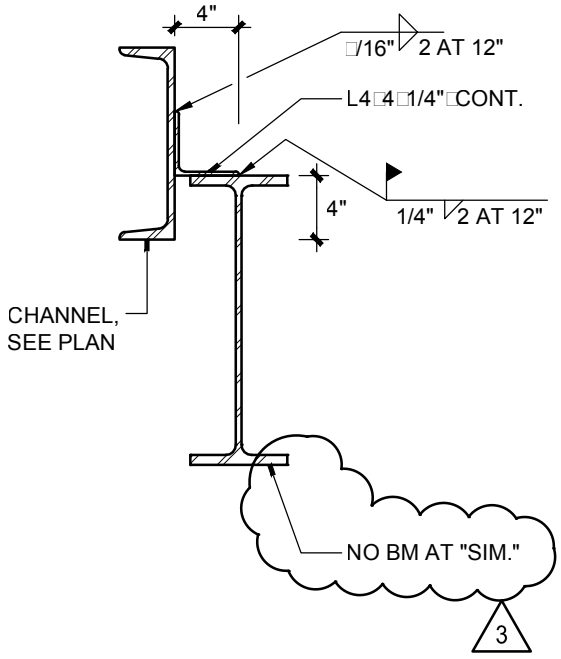
RDg... PLANNING ● DESIGN

UNIVERSITY OF NEBRASKA-LINCOLN
OUTDOOR ADVENTURES CENTER

14th and W, Lincoln, NE

DATE	07/09/12
MODIFICATION:	ADDENDUM #3
REF'D SHEET:	S1.04
REF'D DETAIL:	ROOF FRAMING - CLIMBING

2011.182.00
35.01
SDS-002



11 SECTION

1" = 1'-0"

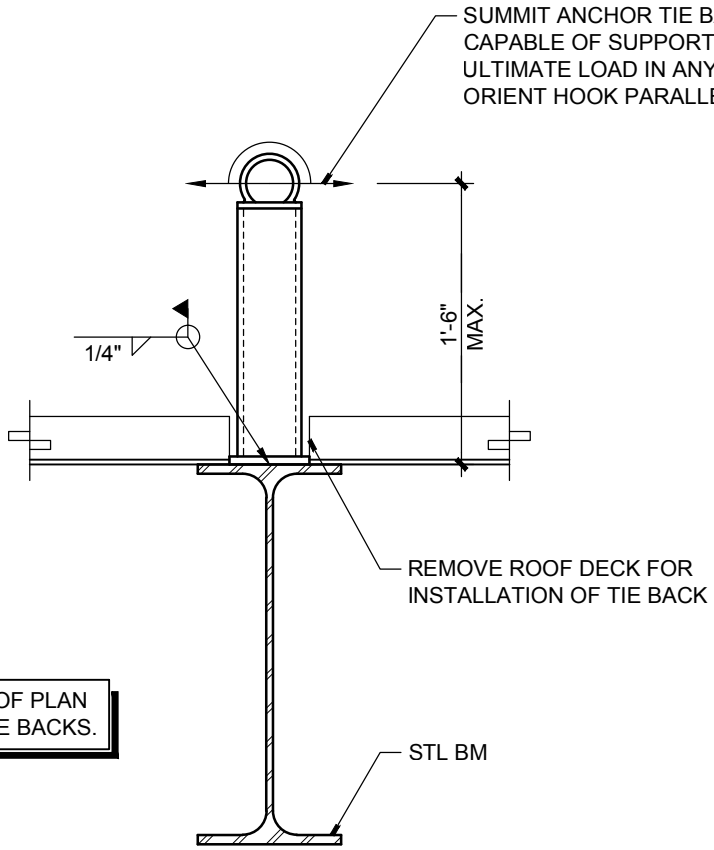
RDg... PLANNING ◎ DESIGN

UNIVERSITY OF NEBRASKA-LINCOLN
OUTDOOR ADVENTURES CENTER

14th and W, Lincoln, NE

DATE	07/09/12
MODIFICATION:	ADDENDUM #3
REF'D SHEET:	S7.03
REF'D DETAIL:	11

2011.182.00
45.2
SDS-00



NOTE: SEE ARCH ROOF PLAN FOR LOCATION OF TIE BACKS.

3 DETAIL ADDED

9 ROOF TIE BACK DETAIL

1" = 1'-0"

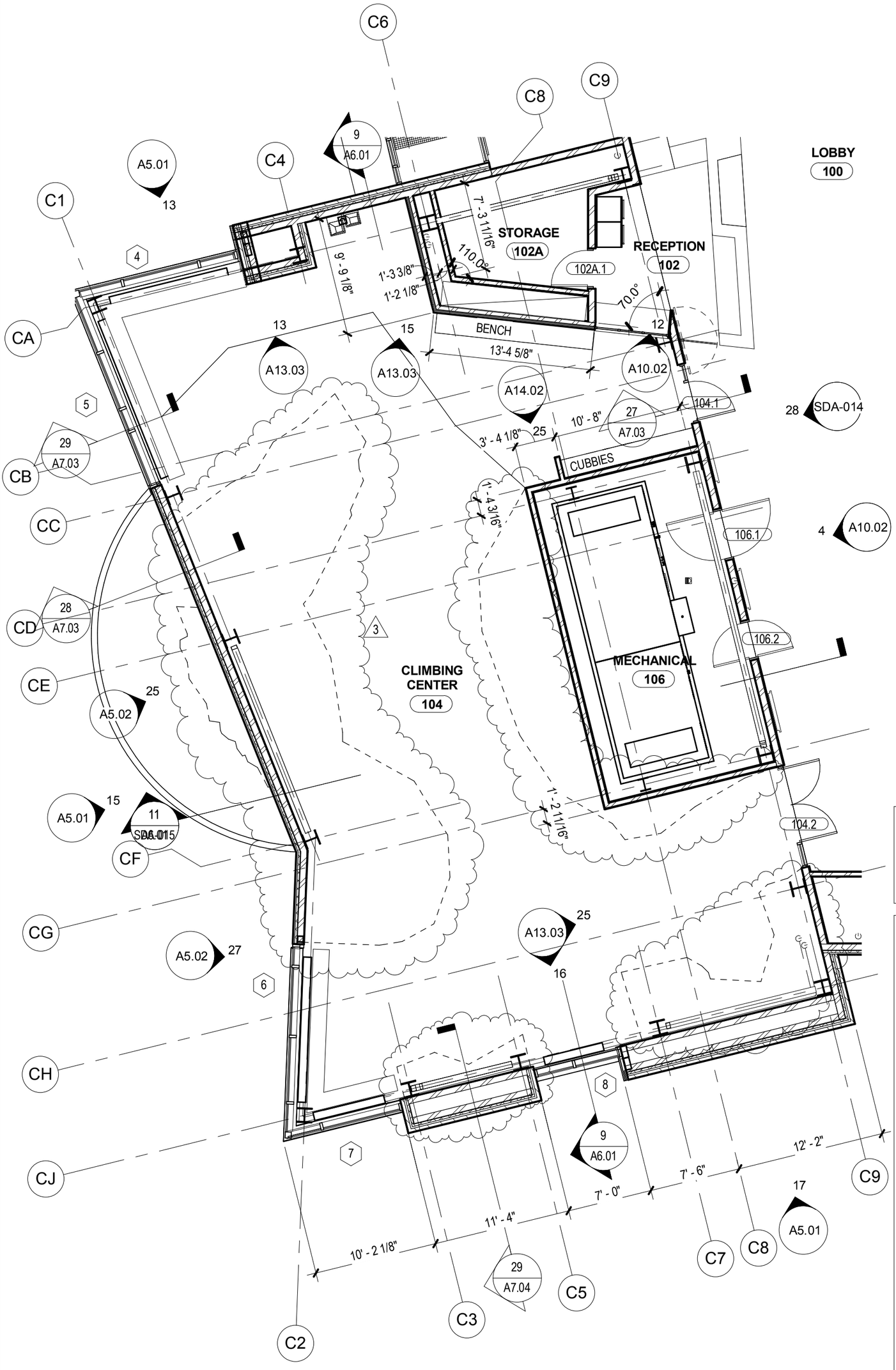
RDg... PLANNING ◆ DESIGN

UNIVERSITY OF NEBRASKA-LINCOLN
OUTDOOR ADVENTURES CENTER

14th and W, Lincoln, NE

DATE	07/09/12
MODIFICATION:	ADDENDUM #3
REF'D SHEET:	S7.04
REF'D DETAIL:	9

2011.182.00
45.2
SDS-004



1 FIRST LEVEL FLOOR PLAN

1/8" = 1'-0"

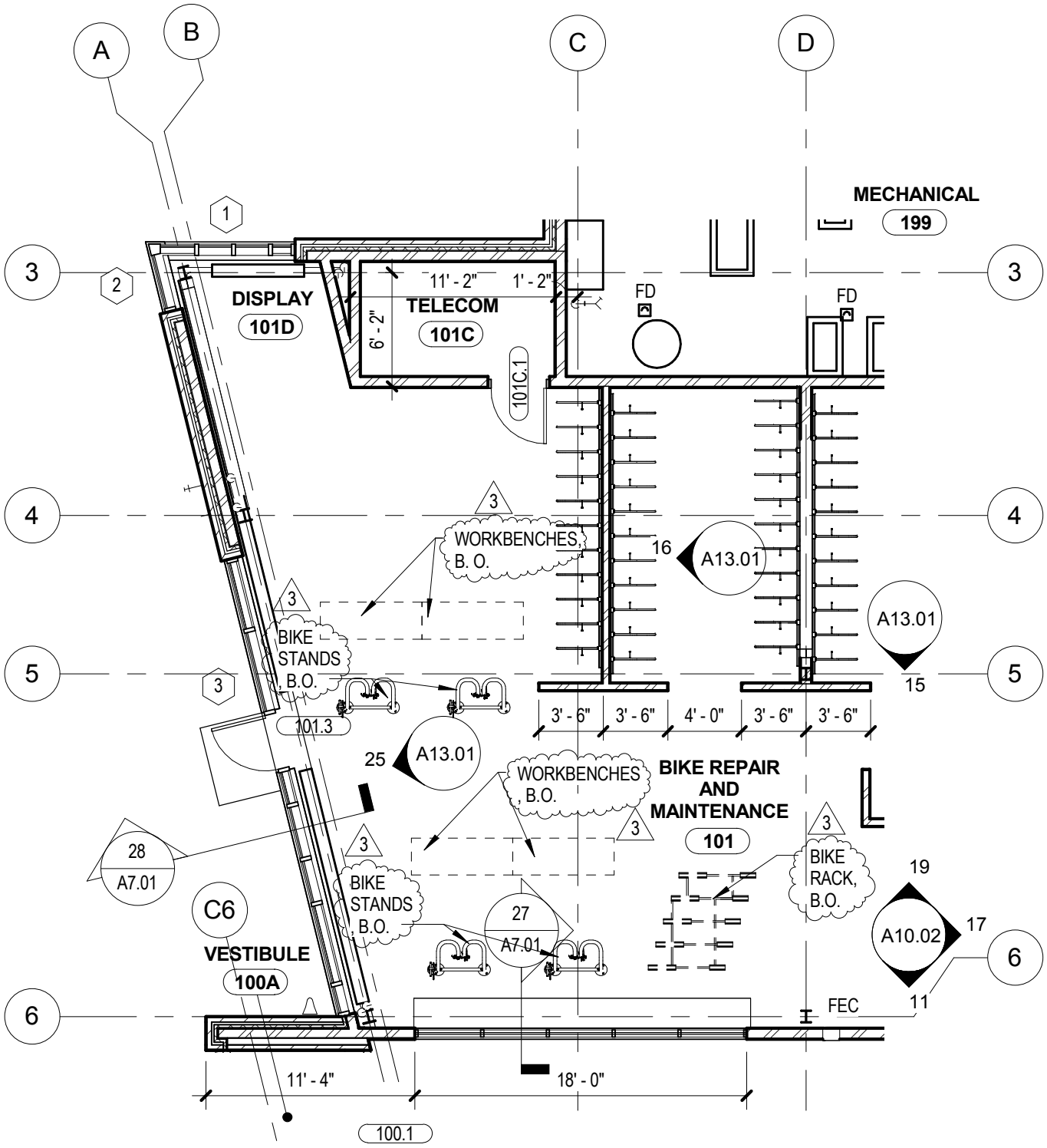
2011.182.00
35.01
SDA-001

DATE	07/09/12
MODIFICATION:	Addendum 3
REF'D SHEET:	A1.01
REF'D DETAIL:	1

UNIVERSITY OF NEBRASKA-LINCOLN
OUTDOOR ADVENTURES CENTER

14th and W, Lincoln, NE

RDG PLANNING + DESIGN



1 FIRST LEVEL FLOOR PLAN

1/8" = 1'-0"

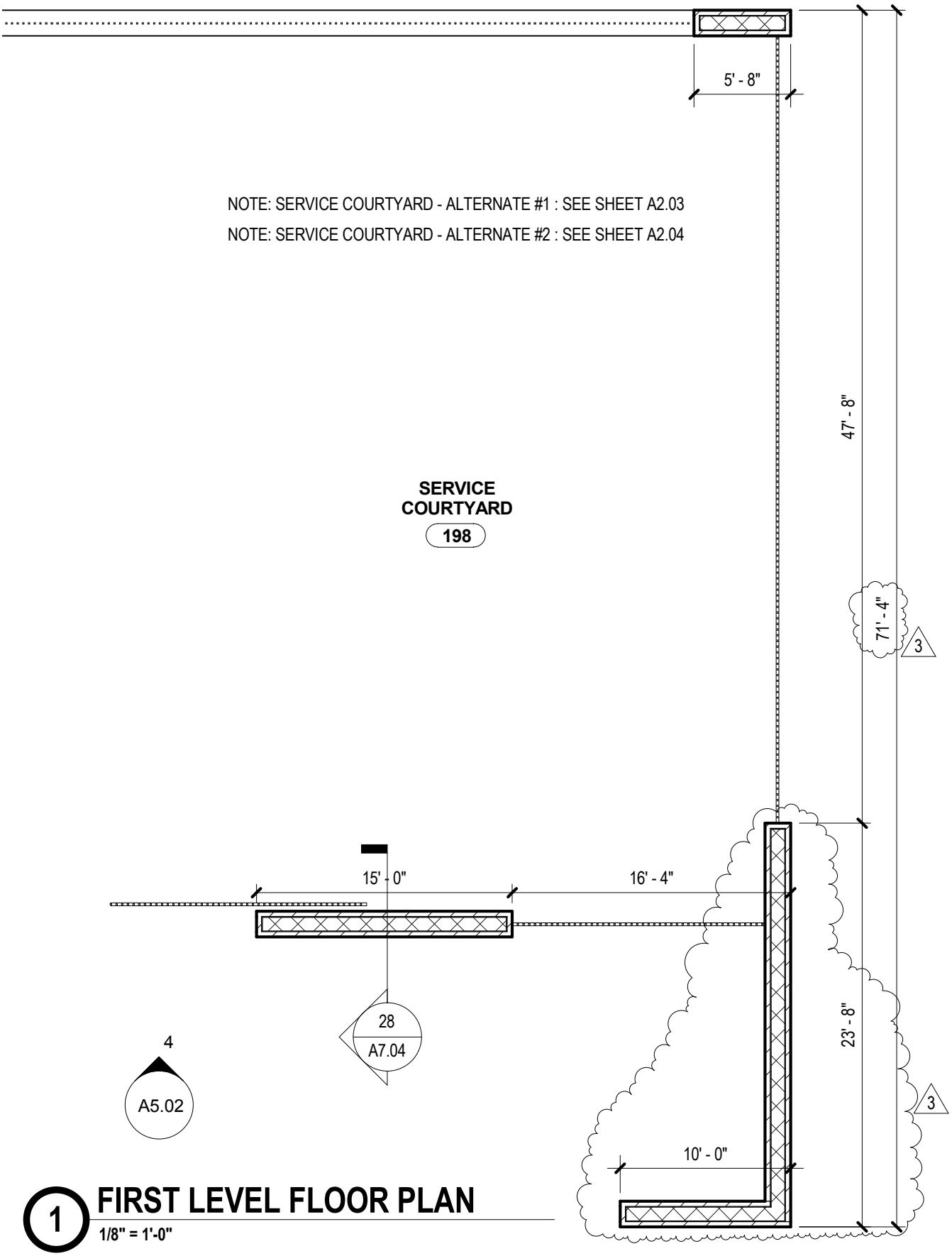
RDg... PLANNING ● DESIGN

UNIVERSITY OF NEBRASKA-LINCOLN
OUTDOOR ADVENTURES CENTER

14th and W, Lincoln, NE

DATE	07/09/12
MODIFICATION:	Addendum 3
REF'D SHEET:	A1.01
REF'D DETAIL:	1

2011.182.00
35.01
SDA-002



1 FIRST LEVEL FLOOR PLAN

1/8" = 1'-0"

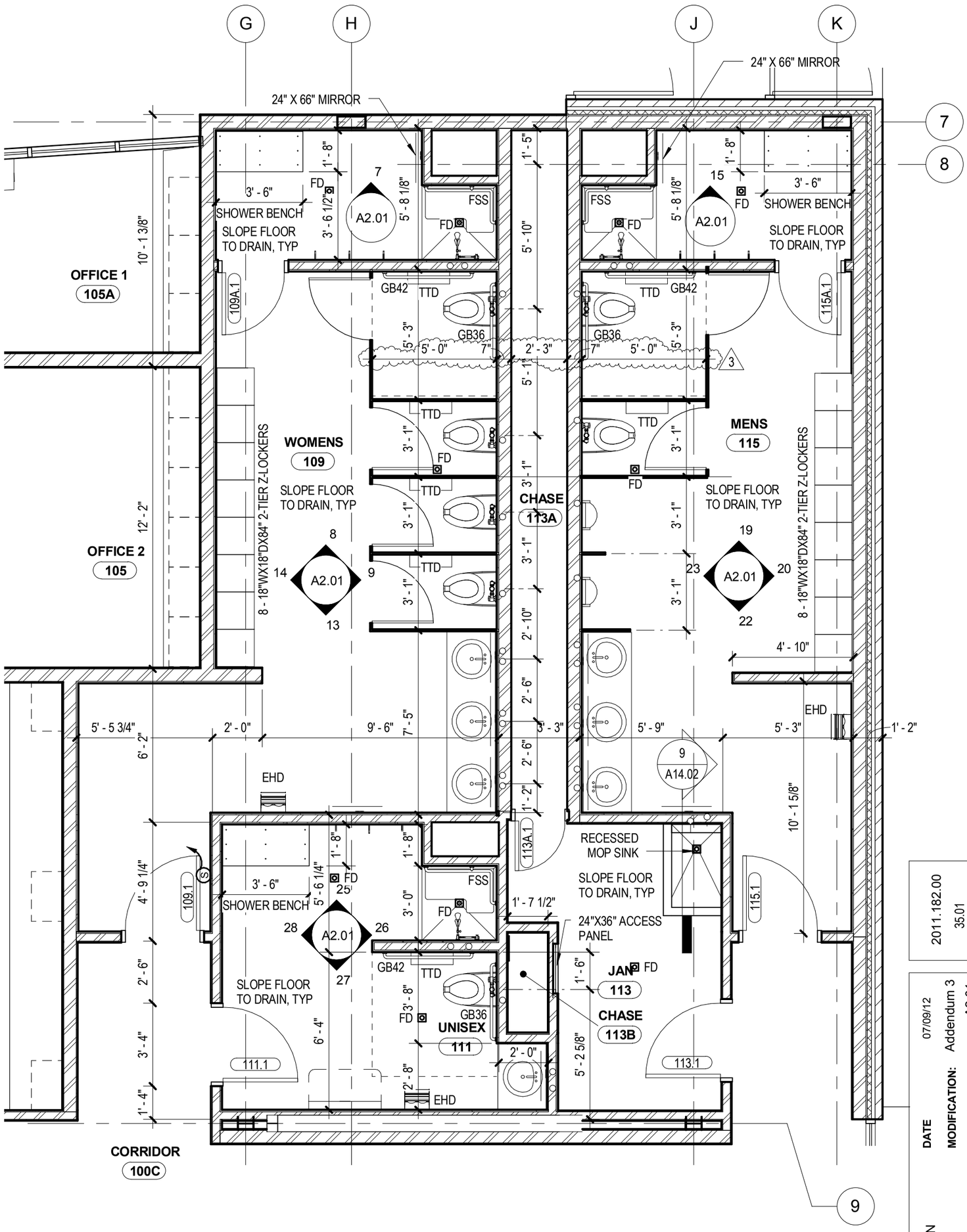
RDg... PLANNING ● DESIGN

UNIVERSITY OF NEBRASKA-LINCOLN
OUTDOOR ADVENTURES CENTER

14th and W, Lincoln, NE

DATE	07/09/12
MODIFICATION:	Addendum 3
REF'D SHEET:	A1.01
REF'D DETAIL:	1

2011.182.00
35.01
SDA-003



17 ENLARGED PLAN - RESTROOMS

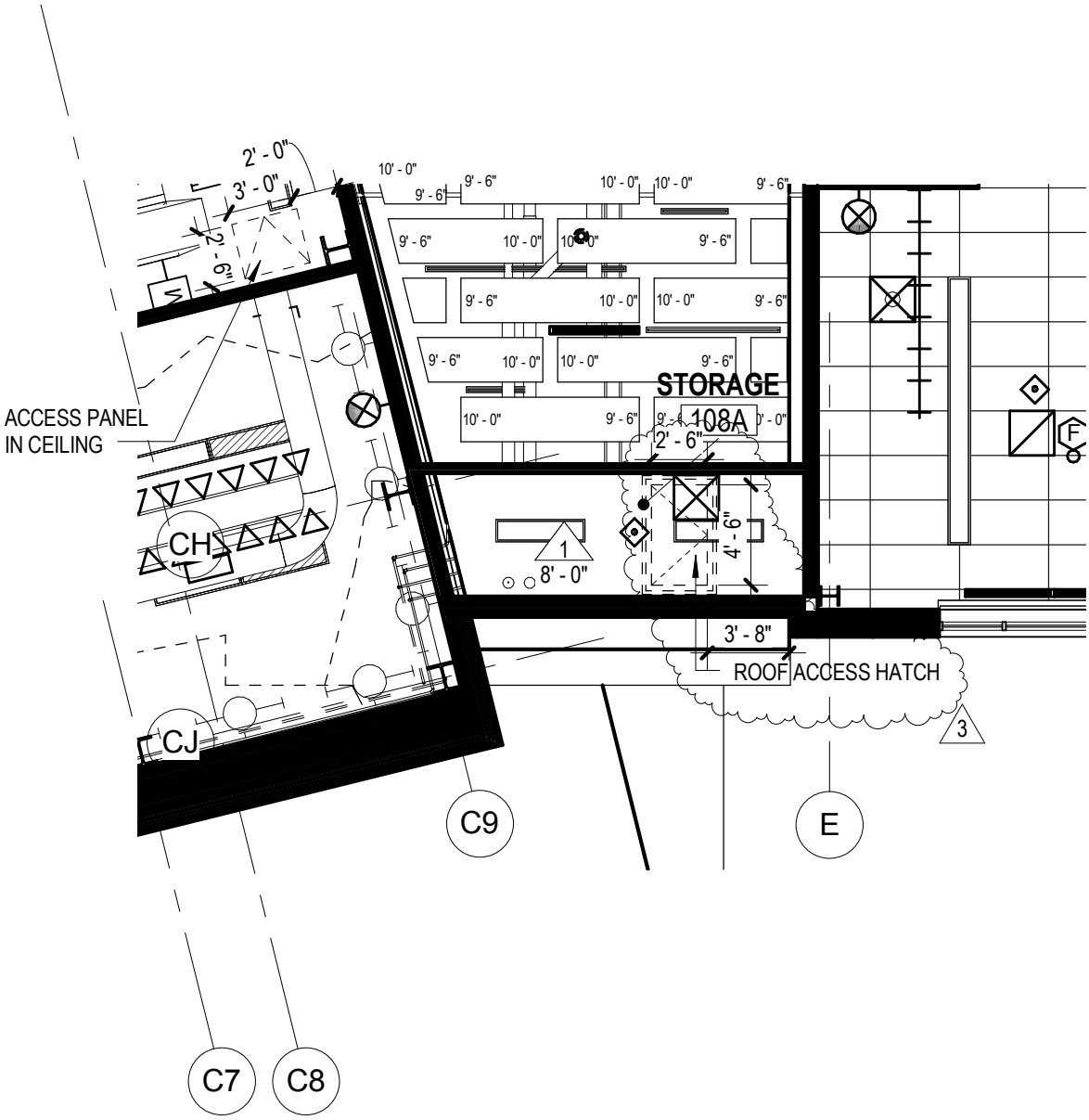
1/4" = 1'-0"

	2011.182.00
	35.01
	SDA-004
DATE	07/09/12
MODIFICATION:	Addendum 3
REF'D SHEET:	A2.01
REF'D DETAIL:	17

UNIVERSITY OF NEBRASKA-LINCOLN
OUTDOOR ADVENTURES CENTER

14th and W, Lincoln, NE

RDG PLANNING ● DESIGN



27 REFLECTED CEILING PLAN LEVEL 1

1/8" = 1'-0"

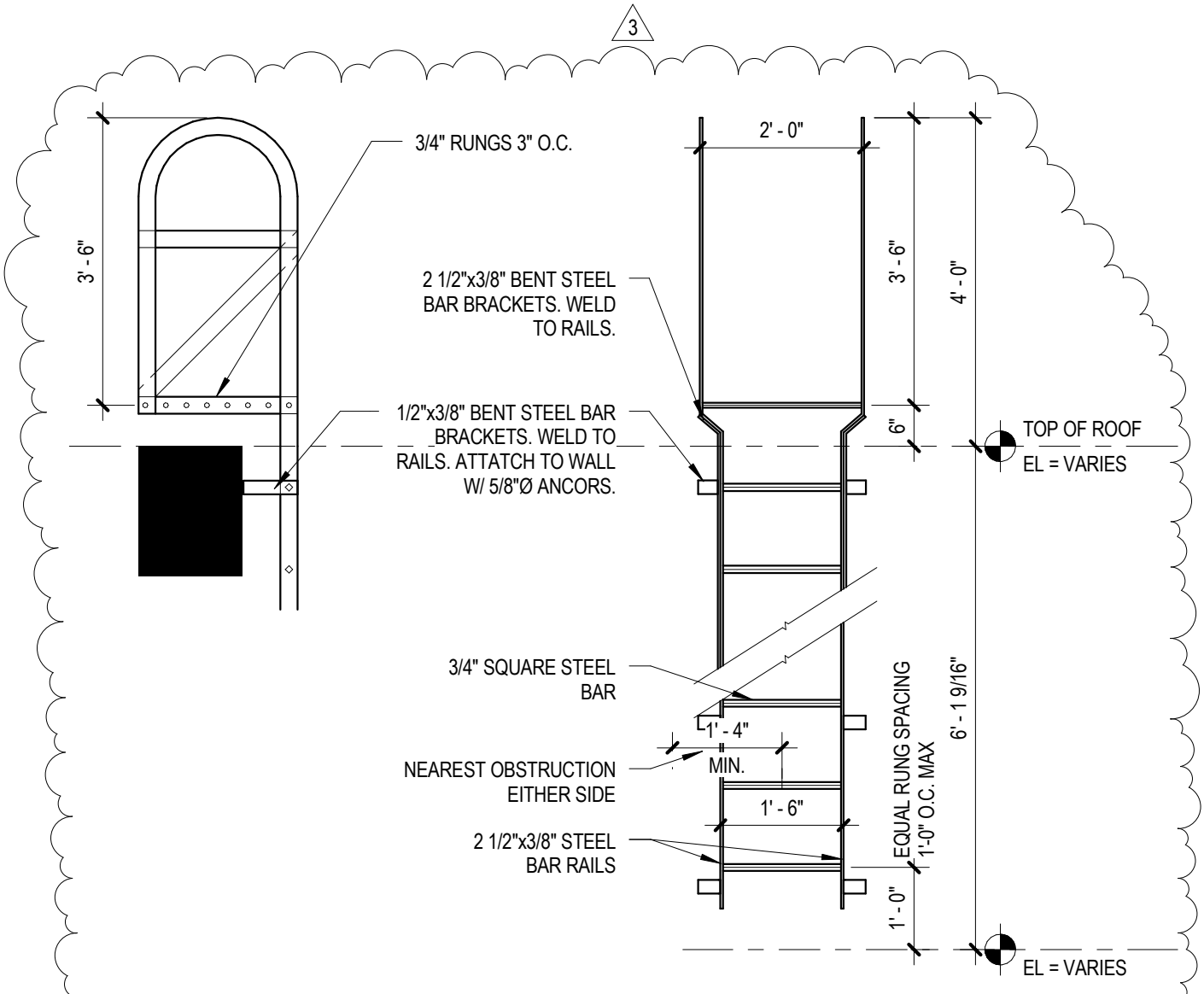
RDg... PLANNING ● DESIGN

UNIVERSITY OF NEBRASKA-LINCOLN
OUTDOOR ADVENTURES CENTER

14th and W, Lincoln, NE

DATE	07/09/12
MODIFICATION:	Addendum 3
REF'D SHEET:	A3.01
REF'D DETAIL:	27

2011.182.00
35.01
SDA-005



20 ROOF - LADDER

1/2" = 1'-0"

RDg... PLANNING ● DESIGN

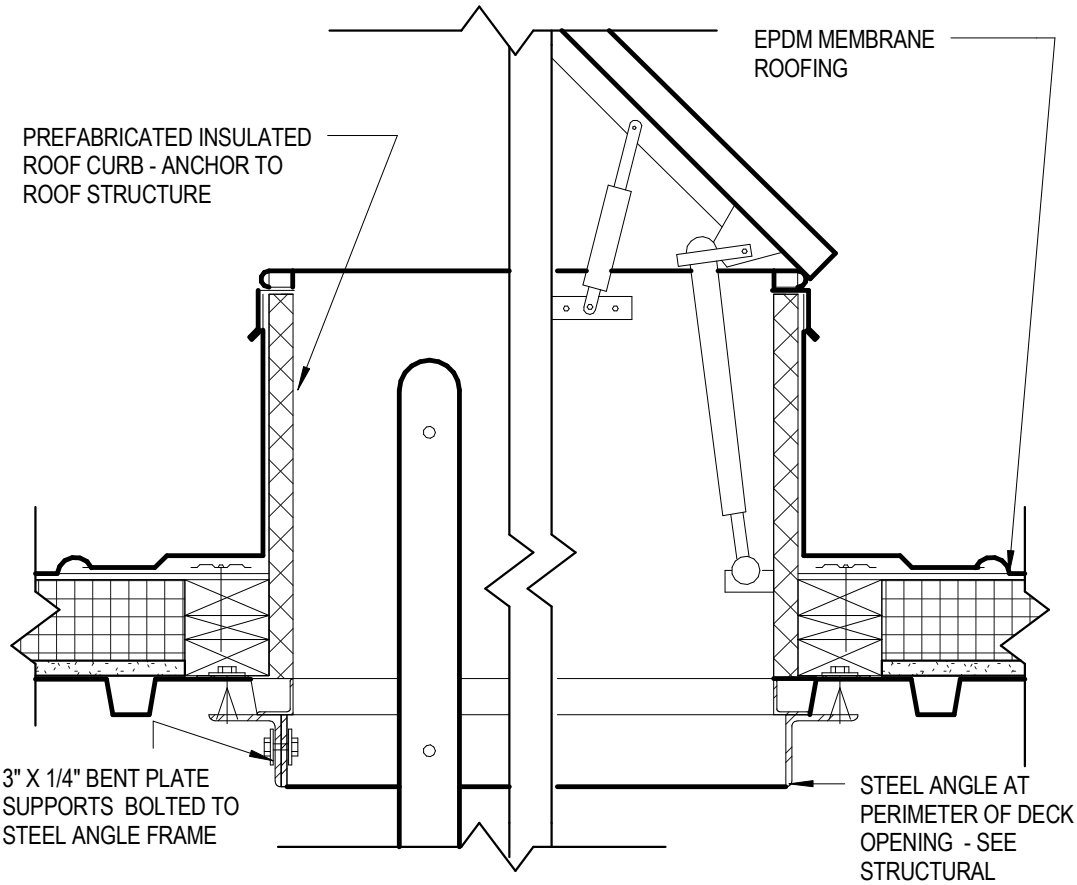
UNIVERSITY OF NEBRASKA-LINCOLN
OUTDOOR ADVENTURES CENTER

14th and W, Lincoln, NE

DATE	07/09/12
MODIFICATION:	Addendum 3
REF'D SHEET:	A4.01
REF'D DETAIL:	20

2011.182.00
35.01
SDA-006

3



25 ROOF HATCH DETAIL

1 1/2" = 1'-0"

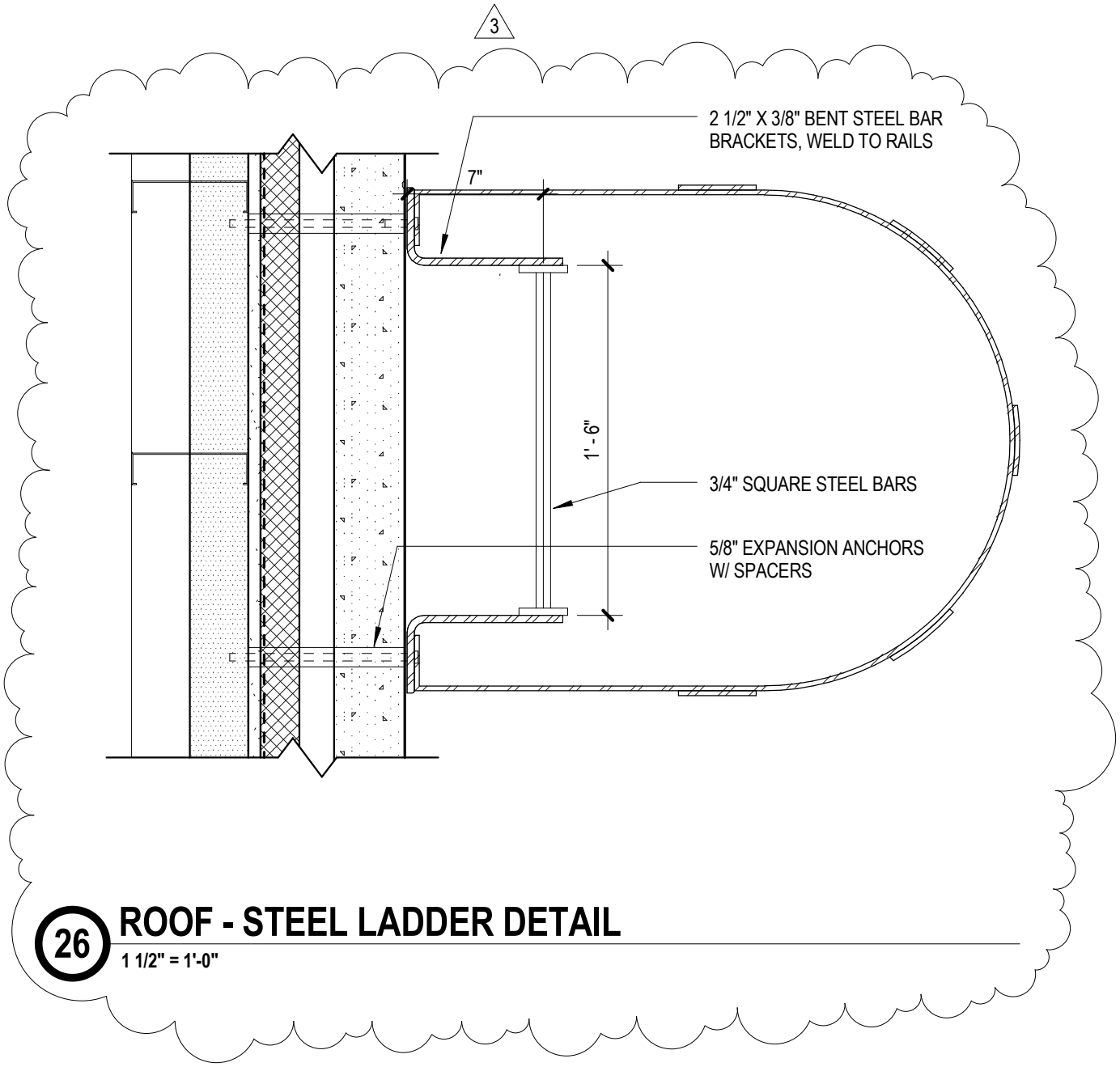
RDg... PLANNING ● DESIGN

UNIVERSITY OF NEBRASKA-LINCOLN
OUTDOOR ADVENTURES CENTER

14th and W, Lincoln, NE

DATE	07/09/12
MODIFICATION:	Addendum 3
REF'D SHEET:	A4.01
REF'D DETAIL:	25

2011.182.00
35.01
SDA-007



26 ROOF - STEEL LADDER DETAIL

1 1/2" = 1'-0"

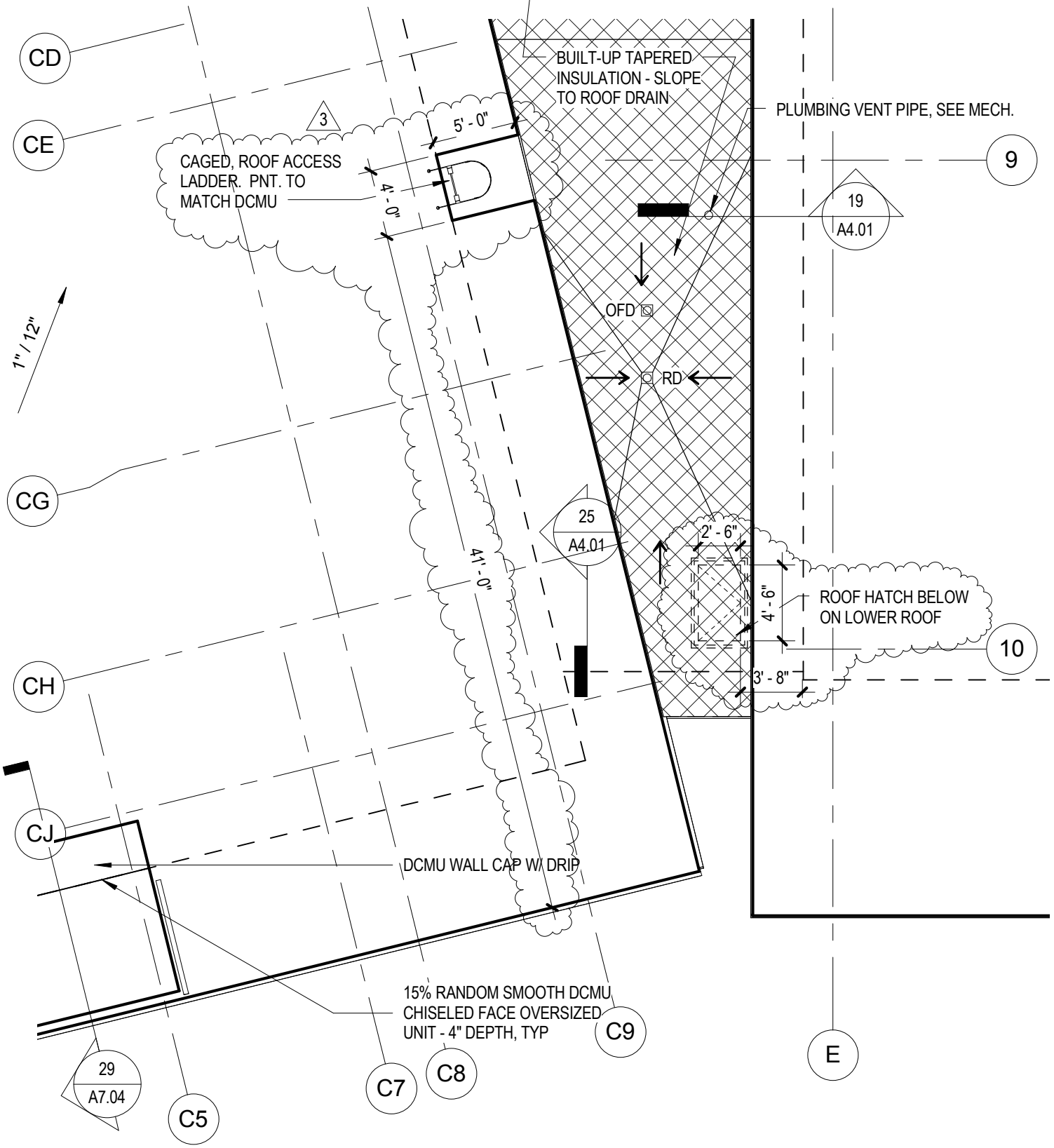
RDg... PLANNING ● DESIGN

UNIVERSITY OF NEBRASKA-LINCOLN
OUTDOOR ADVENTURES CENTER

14th and W, Lincoln, NE

DATE	07/09/12
MODIFICATION:	Addendum 3
REF'D SHEET:	A4.01
REF'D DETAIL:	26

2011.182.00
35.01
SDA-008



27 ROOF PLAN

1/8" = 1'-0"

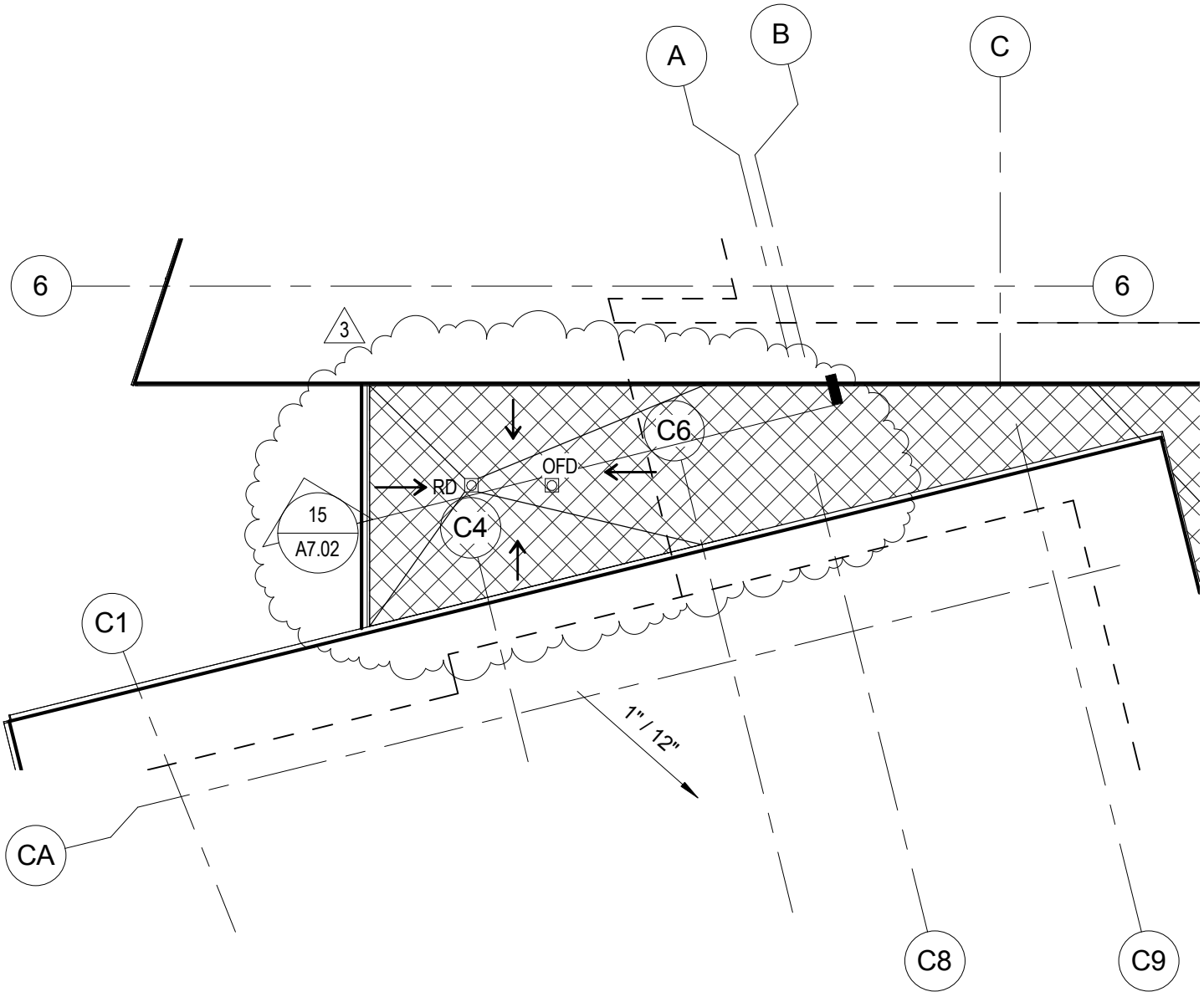
RDg... PLANNING ● DESIGN

UNIVERSITY OF NEBRASKA-LINCOLN
OUTDOOR ADVENTURES CENTER

14th and W, Lincoln, NE

DATE	07/09/12
MODIFICATION:	Addendum 3
REF'D SHEET:	A4.01
REF'D DETAIL:	27

2011.182.00
35.01
SDA-009



27 ROOF PLAN

1/8" = 1'-0"

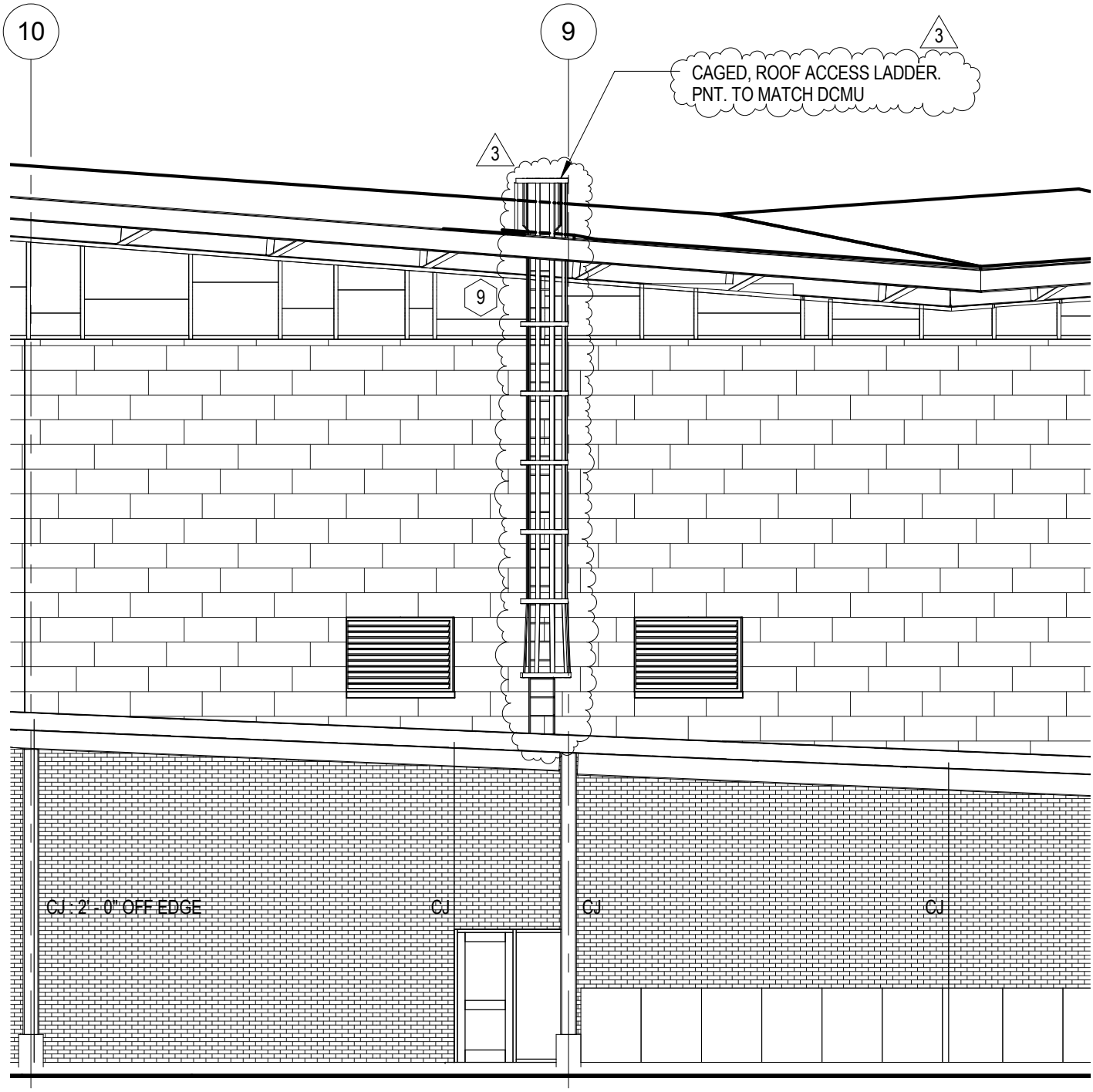
RDg... PLANNING ● DESIGN

UNIVERSITY OF NEBRASKA-LINCOLN
OUTDOOR ADVENTURES CENTER

14th and W, Lincoln, NE

DATE	07/09/12
MODIFICATION:	Addendum 3
REF'D SHEET:	A4.01
REF'D DETAIL:	27

2011.182.00
35.01
SDA-010



9 OVERALL - EAST

1/8" = 1'-0"

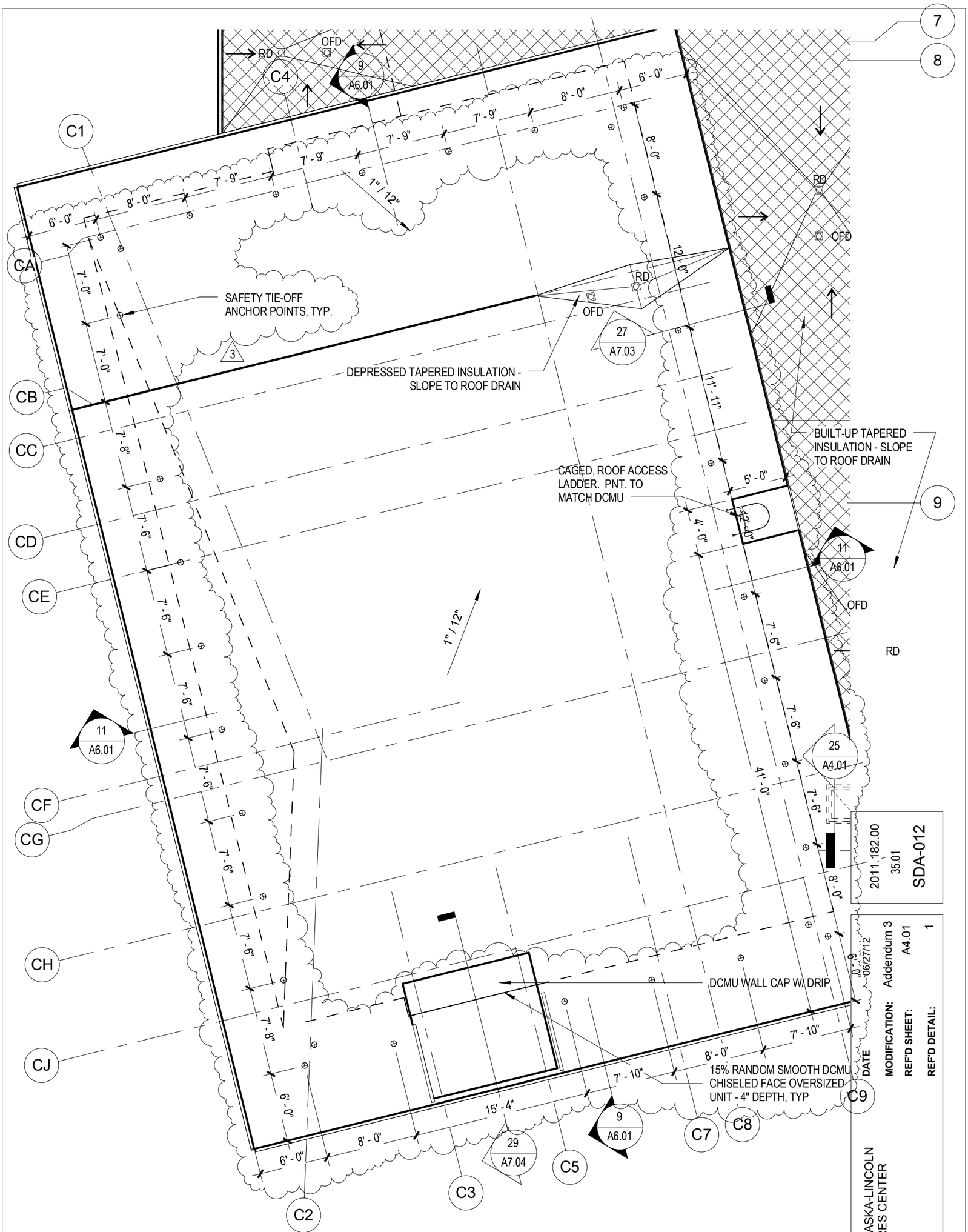
RDg... PLANNING ● DESIGN

UNIVERSITY OF NEBRASKA-LINCOLN
OUTDOOR ADVENTURES CENTER

14th and W, Lincoln, NE

DATE	07/09/12
MODIFICATION:	Addendum 3
REF'D SHEET:	A5.01
REF'D DETAIL:	9

2011.182.00
35.01
SDA-011



1 ROOF PLAN

1/8" = 1'-0"

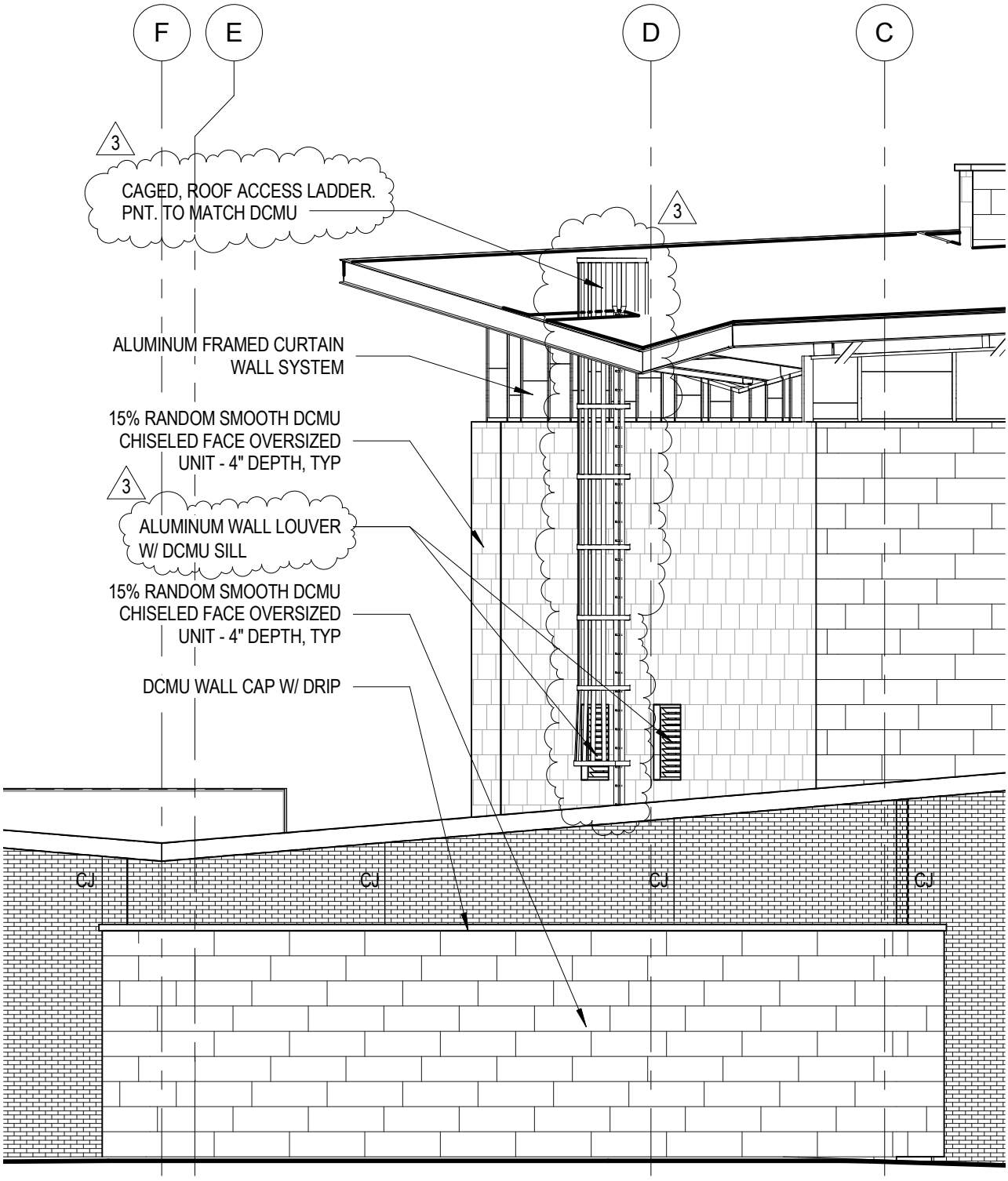
2011.182.00
35.01
SDA-012

DATE 06/27/12
MODIFICATION: Addendum 3
REF'D SHEET: A4.01
REF'D DETAIL: 1

UNIVERSITY OF NEBRASKA-LINCOLN
OUTDOOR ADVENTURES CENTER

14th and W, Lincoln, NE

RDG PLANNING DESIGN



24 OVERALL - NORTH

1/8" = 1'-0"

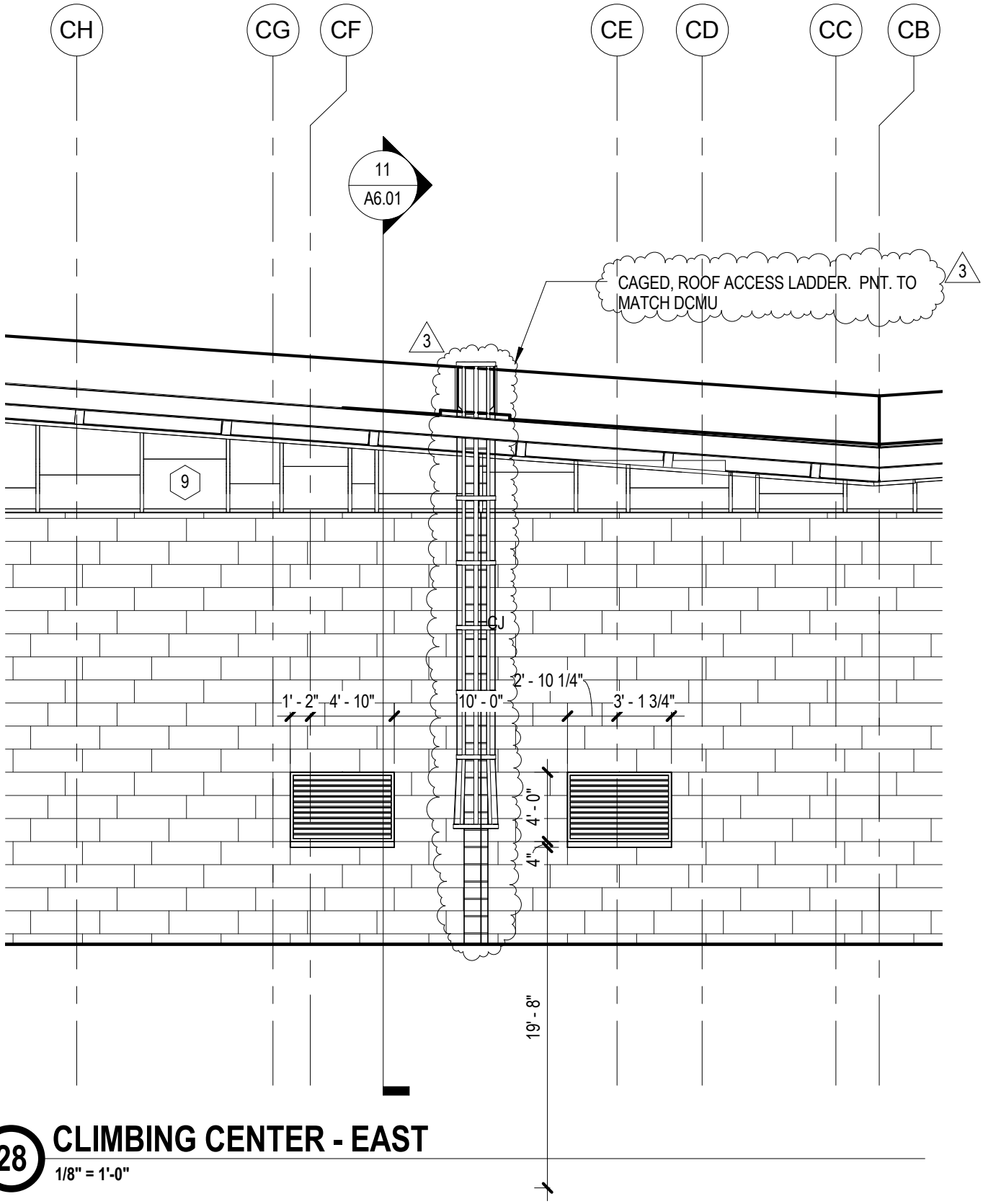
RDg... PLANNING ● DESIGN

UNIVERSITY OF NEBRASKA-LINCOLN
OUTDOOR ADVENTURES CENTER

14th and W, Lincoln, NE

DATE	07/09/12
MODIFICATION:	Addendum 3
REF'D SHEET:	A5.01
REF'D DETAIL:	24

2011.182.00
35.01
SDA-013



28 CLIMBING CENTER - EAST

1/8" = 1'-0"

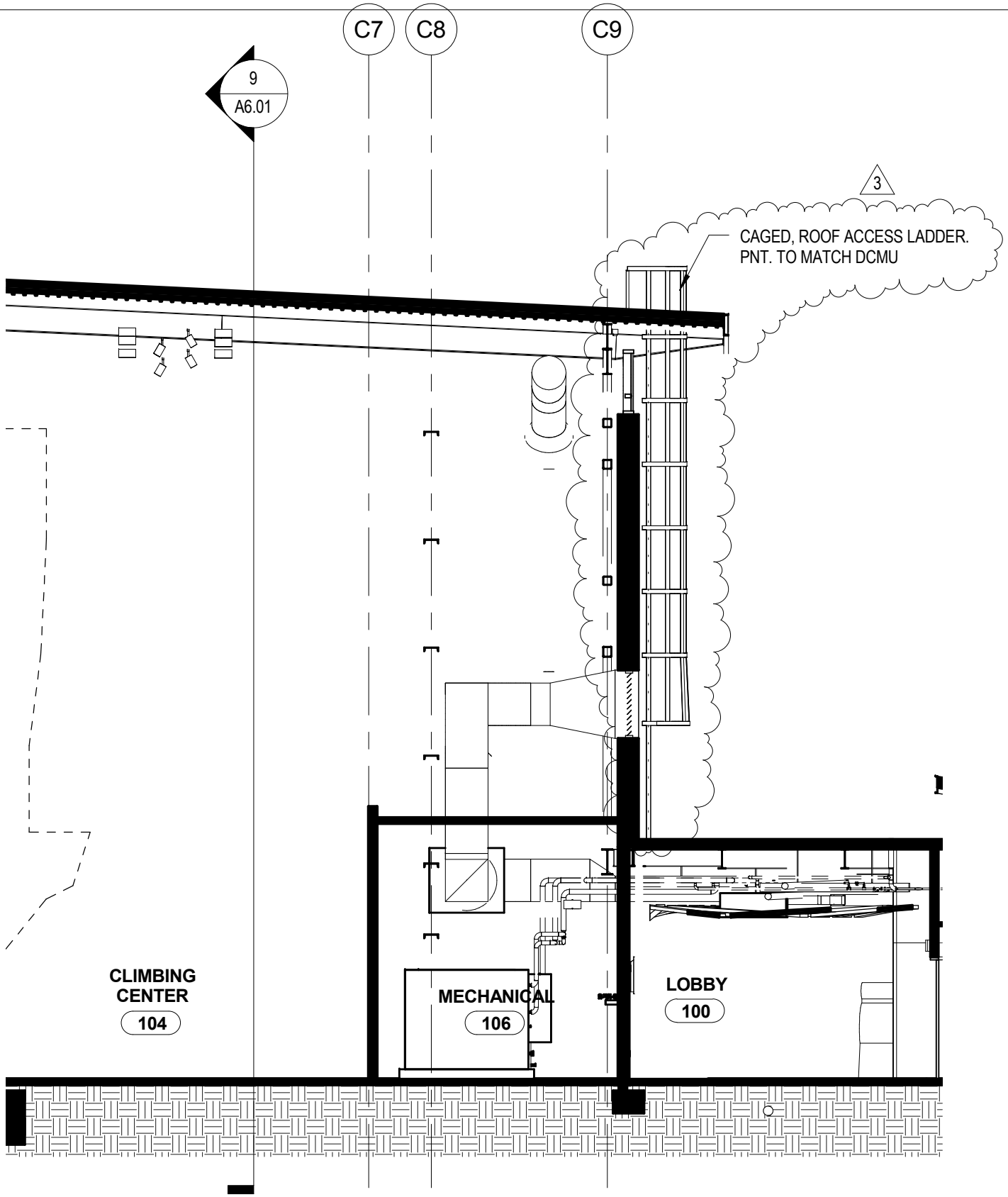
RDg... PLANNING ● DESIGN

UNIVERSITY OF NEBRASKA-LINCOLN
OUTDOOR ADVENTURES CENTER

14th and W, Lincoln, NE

DATE	07/09/12
MODIFICATION:	Addendum 3
REF'D SHEET:	A5.02
REF'D DETAIL:	28

2011.182.00
35.01
SDA-014



11 BUILDING SECTION

1/8" = 1'-0"

RDg... PLANNING ● DESIGN

UNIVERSITY OF NEBRASKA-LINCOLN
OUTDOOR ADVENTURES CENTER

14th and W, Lincoln, NE

DATE	07/09/12
MODIFICATION:	Addendum 3
REF'D SHEET:	A6.01
REF'D DETAIL:	11

2011.182.00
35.01
SDA-015

DOOR #	# LEAFS	DOOR						FRAME				HARDWARE	FIRE RATING	DETAIL			R
		WIDTH	HEIGHT	THICKNESS	MATERIAL	FINISH	TYPE	DEPTH	MATERIAL	FINISH	TYPE			HEAD	JAMB	SILL	
100.1	0	3' - 0"	7' - 0"	1 3/4"	ALUM	FF	ALUM	4 1/2"	ALUM	FF	TYPE S-1	18		22/A9.04	27/A10.02	29/A9.04	
100.2	0	3' - 0"	7' - 0"	1 3/4"	ALUM	FF	ALUM	4 1/2"	ALUM	FF	TYPE S-1	18		22/A9.04	27/A10.02	29/A9.04	
100A.1	0	3' - 0"	7' - 0"	1 3/4"	ALUM	FF	ALUM	4 1/2"	ALUM	FF	TYPE S-2	17		22/A9.04	27/A10.02	29/A9.04	
100A.2	0	3' - 0"	7' - 0"	1 3/4"	ALUM	FF	ALUM	4 1/2"	ALUM	FF	TYPE S-2	17		22/A9.04	27/A10.02	29/A9.04	
100C.1	2	6' - 0"	7' - 0"	1 3/4"	WOOD	FF	F DOUBLE	6"	HM	FF	TYPE B	14		8/A10.01	30/A10.01	--	
100C.2	1	3' - 0"	7' - 0"	1 3/4"	ALUM	FF	ALUM	4 1/2"	ALUM	FF	TYPE S-9	8		13/A10.02	51/A10.02	25/A10.02	
100D.1	1	4' - 0"	7' - 0"	1 3/4"	ALUM	FF	ALUM	4 1/2"	ALUM	FF	TYPE S-12	6		19/A10.02	15/A10.02	25/A10.02	
100D.2	1	4' - 0"	7' - 0"	1 3/4"	ALUM	FF	ALUM	4 1/2"	ALUM	FF	TYPE S-12	9		19/A10.02	15/A10.02	25/A10.02	
101.1	0	2' - 3"	7' - 0"	1 3/4"	ALUM	FF	ALUM	4 1/2"	ALUM	FF	TYPE S-3	17		19/A10.01	21/A10.02	25/A10.01	
101.2	0	2' - 3"	7' - 0"	1 3/4"	ALUM	FF	ALUM	4 1/2"	ALUM	FF	TYPE S-3	17		19/A10.01	21/A10.02	25/A10.01	
101.3	1	3' - 0"	7' - 0"	1 3/4"	ALUM	FF	ALUM	7 1/4"	ALUM	FF	TYPE S-10	11		16/A10.02	22/A10.02	25/A10.02	
101C.1	1	3' - 0"	7' - 0"	1 3/4"	WOOD	FF	F	8 1/2"	HM	PT	TYPE A	10		9/A10.01	30/A10.01	--	
102A.1	1	3' - 0"	7' - 0"	1 3/4"	WOOD	FF	F	8 1/2"	HM	PT	TYPE A	3A		9/A10.01	30/A10.01	--	
103.1	1	4' - 0"	7' - 0"	1 3/4"	WOOD	FF	F	8 1/4"	HM	PT	TYPE A	10		7/A10.01	30/A10.01	--	
103.2	1	3' - 0"	7' - 0"	1 3/4"	GALV HM	HPC	F	5 3/4"	GALV HM	HPC	TYPE C	11		1/A10.01	13/A10.01	28/A10.01	
103.3	1	12' - 0"	12' - 0"	2"	ALUM	FF	OHCD	--	STEEL	FF	--	--		14/A10.02	25/A10.02	20/A10.02	
103C.1	1	3' - 0"	7' - 0"	1 3/4"	WOOD	FF	F	8 1/8"	HM	PT	TYPE A	3A		15/A10.01	30/A10.01	--	
103D.1	2	6' - 0"	7' - 0"	1 3/4"	WOOD	FF	F DOUBLE	8"	HM	PT	TYPE B	13		2/A10.01	30/A10.01	--	
104.1	1	3' - 3"	7' - 0"	1 3/4"	ALUM	FF	ALUM	4 1/2"	ALUM	FF	TYPE S-4	7		9/A10.02	15/A10.02	--	
104.2	2	6' - 4"	7' - 0"	1 3/4"	ALUM	FF	ALUM DOUBLE	4 1/2"	ALUM	FF	TYPE S-5	15		9/A10.02	15/A10.02	--	
105.1	0	3' - 5 1/2"	7' - 0"	1 3/4"	ALUM	FF	ALUM	4 1/2"	ALUM	FF	TYPE S-6	17		18/A10.02	24/A10.02	30/A10.02	
105.2	0	3' - 5 1/2"	7' - 0"	1 3/4"	ALUM	FF	ALUM	4 1/2"	ALUM	FF	TYPE S-7	17		18/A10.02	24/A10.02	30/A10.02	
105A.1	0	3' - 5 1/2"	7' - 0"	1 3/4"	ALUM	FF	ALUM	4 1/2"	ALUM	FF	TYPE S-8	17		18/A10.02	24/A10.02	30/A10.02	
106.1	1	4' - 0"	7' - 0"	1 3/4"	WOOD	FF	F	9 1/8"	HM	PT	TYPE A	17		14/A10.01	20/A10.01	26/A10.01	
106.2	1	3' - 0"	7' - 0"	1 3/4"	WOOD	FF	F	9 1/8"	HM	FF	TYPE A	17		14/A10.01	20/A10.01	26/A10.01	
107.1	0	3' - 5 7/8"	7' - 0"	1 3/4"	ALUM	FF	ALUM	4 1/2"	ALUM	FF	TYPE S-6	17		18/A10.02	24/A10.02	30/A10.02	
108.1	1	3' - 0"	7' - 0"	1 3/4"	WOOD	FF	F	5 7/8"	HM	PT	TYPE D	3		3/A10.01	30/A10.01	--	
108.2	1	3' - 0"	7' - 0"	1 3/4"	WOOD	FF	F	5 7/8"	HM	PT	TYPE D	3		3/A10.01	30/A10.01	--	
108.3	2	6' - 0"	7' - 0"	1 3/4"	ALUM	FF	ALUM DOUBLE	4 1/2"	ALUM	FF	TYPE S-11	1		21/A10.01	15/A10.02	25/A10.02	
108.4	2	6' - 0"	7' - 0"	1 3/4"	ALUM	FF	ALUM DOUBLE	4 1/2"	ALUM	FF	TYPE S-11	1		21/A10.01	15/A10.02	25/A10.02	
108A.1	2	4' - 8"	7' - 0"	1 3/4"	WOOD	FF	F DOUBLE	5 7/8"	HM	PT	TYPE B	12		3/A10.01	30/A10.01	--	
109.1	1	3' - 0"	7' - 0"	1 3/4"	WOOD	FF	F	5 7/8"	HM	PT	TYPE A	5		3/A10.01	30/A10.01	--	
109A.1	1	2' - 6"	7' - 0"	1 3/4"	WOOD	FF	F	5 7/8"	HM	HPC	TYPE A	2A		3/A10.01	30/A10.01	--	
111.1	1	3' - 0"	7' - 0"	1 3/4"	WOOD	FF	F	5 7/8"	HM	PT	TYPE A	2		3/A10.01	30/A10.01	--	
113.1	1	3' - 0"	7' - 0"	1 3/4"	WOOD	FF	F	5 7/8"	HM	PT	TYPE A	4		3/A10.01	30/A10.01	--	
113A.1	1	2' - 0"	7' - 0"	1 3/4"	HM	HPC	F	5 7/8"	HM	HPC	TYPE A	4		3/A10.01	30/A10.01	--	
115.1	1	3' - 0"	7' - 0"	1 3/4"	WOOD	FF	F	5 7/8"	HM	PT	TYPE A	5		3/A10.01	30/A10.01	--	
115A.1	1	2' - 6"	7' - 0"	1 3/4"	WOOD	FF	F	5 7/8"	HM	HPC	TYPE A	2A		3/A10.01	30/A10.01	--	
198.1	1	3' - 0"	7' - 0"	1 1/2"	GALV HM	HPC	FENCE	1 1/2"	GALV HM	HPC	SEE ELEV	16		--	--	--	
198.2	2	6' - 0"	7' - 0"	1 1/2"	GALV HM	HPC	FENCE DOUBLE	1 1/2"	GALV HM	HPC	SEE ELEV	16A		--	--	--	
199.1	1	4' - 0"	7' - 0"	1 3/4"	GALV HM	HPC	F	5 3/4"	GALV HM	HPC	TYPE E	11		19/A9.03	25/A9.03	28/A10.01	

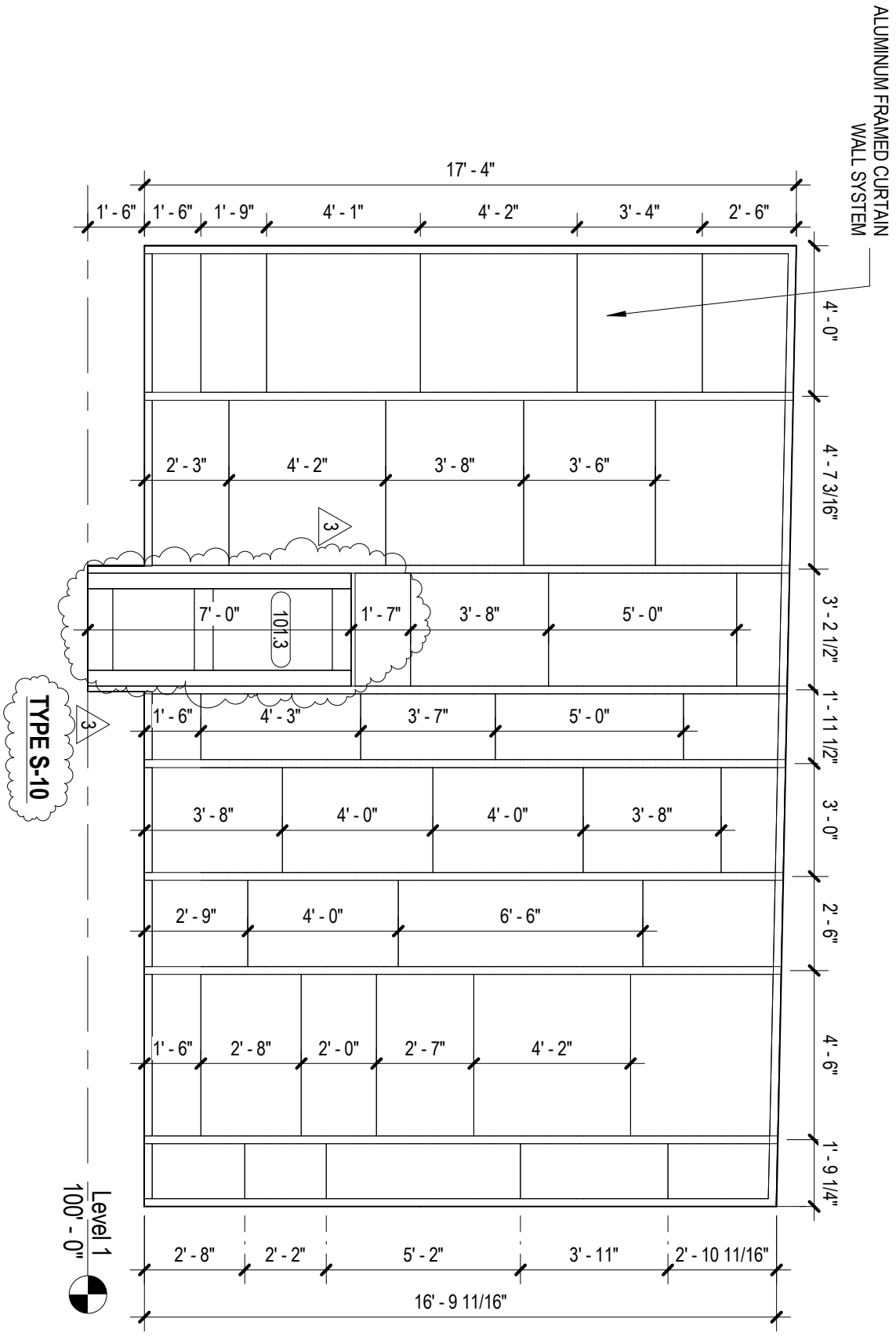
RDg... PLANNING ● DESIGN

UNIVERSITY OF NEBRASKA-LINCOLN
OUTDOOR ADVENTURES CENTER

14th and W, Lincoln, NE

DATE 07/09/12
MODIFICATION: Addendum 3
REF'D SHEET: A10.01
REF'D DETAIL: DOOR SCHEDULE

2011.182.00
35.01
SDA-016



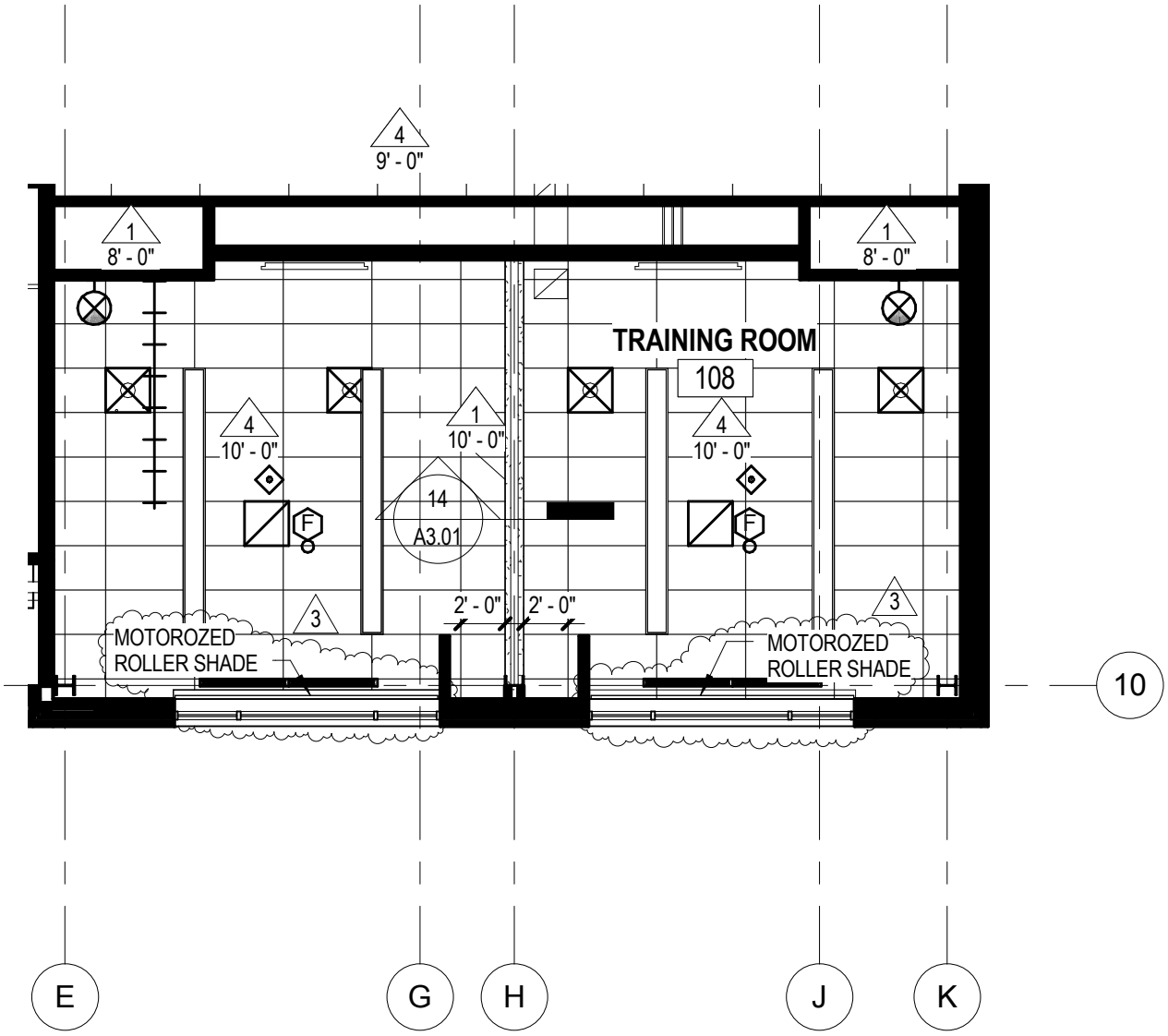
RDg... PLANNING ● DESIGN

UNIVERSITY OF NEBRASKA-LINCOLN
OUTDOOR ADVENTURES CENTER

14th and W, Lincoln, NE

DATE	07/09/12
MODIFICATION:	Addendum 3
REF'D SHEET:	A10.03
REF'D DETAIL:	Window Tag 3

2011.182.00
35.01
SDA-017



27 REFLECTED CEILING PLAN LEVEL 1

1/8" = 1'-0"

RDg... PLANNING ● DESIGN

UNIVERSITY OF NEBRASKA-LINCOLN
OUTDOOR ADVENTURES CENTER

14th and W, Lincoln, NE

DATE	07/09/12
MODIFICATION:	Addendum 3
REF'D SHEET:	A3.01
REF'D DETAIL:	27

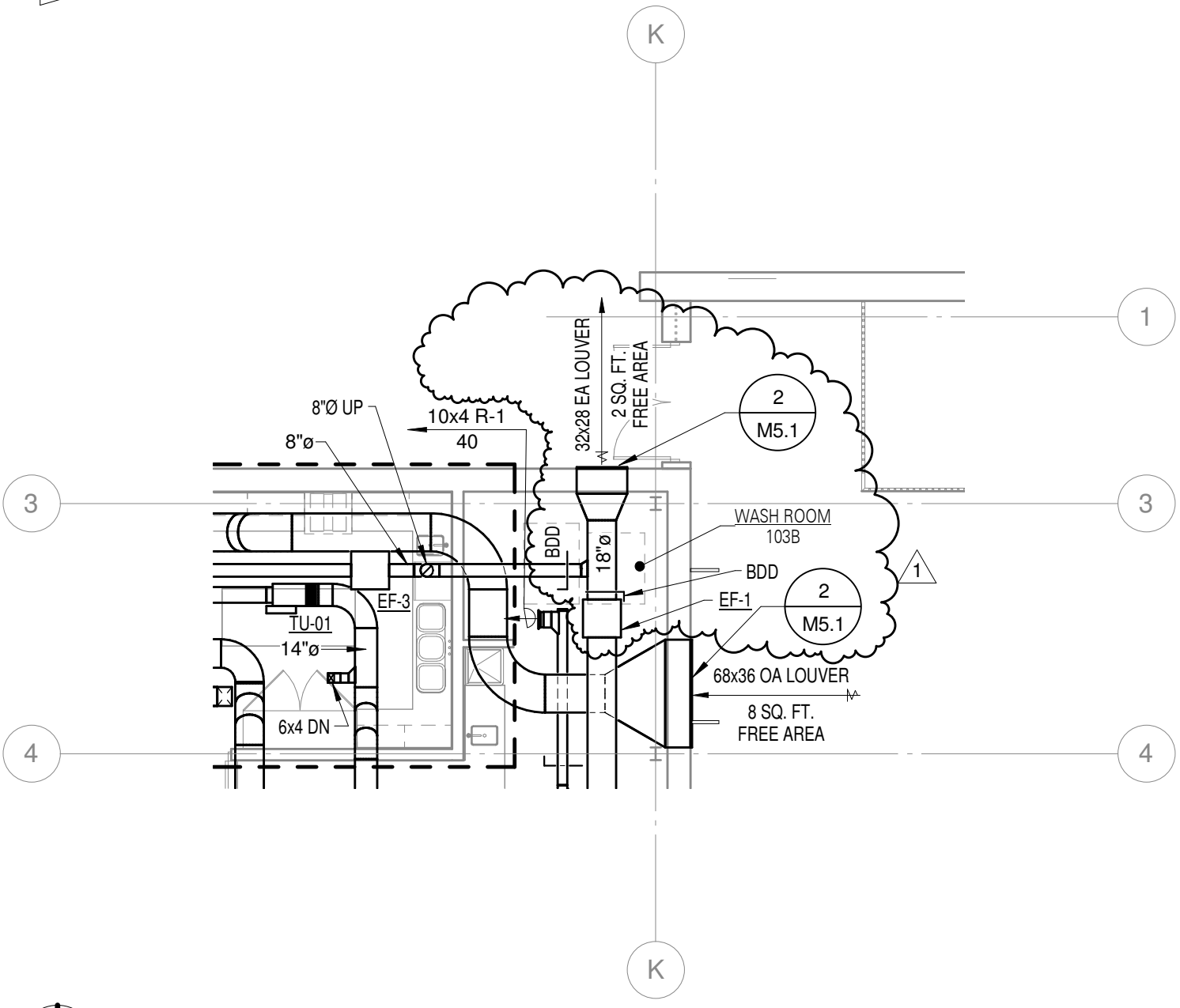
2011.182.00
35.01
SDA-018

FLAG NOTES

11 INSTALL DUCT AT AN ANGLE TO MATCH ROOF SLOPE.

12 NOT USED. 1

13 COORDINATE LINEAR DIFFUSER LOCATIONS IN SLOTS BETWEEN CEILING CLOUDS.



1 FIRST LEVEL FLOOR PLAN - HVAC

1/8" = 1'-0"

4' 8' 16' 24' 32' 40'

RDg... PLANNING ● DESIGN

UNIVERSITY OF NEBRASKA-LINCOLN OUTDOOR ADVENTURES CENTER

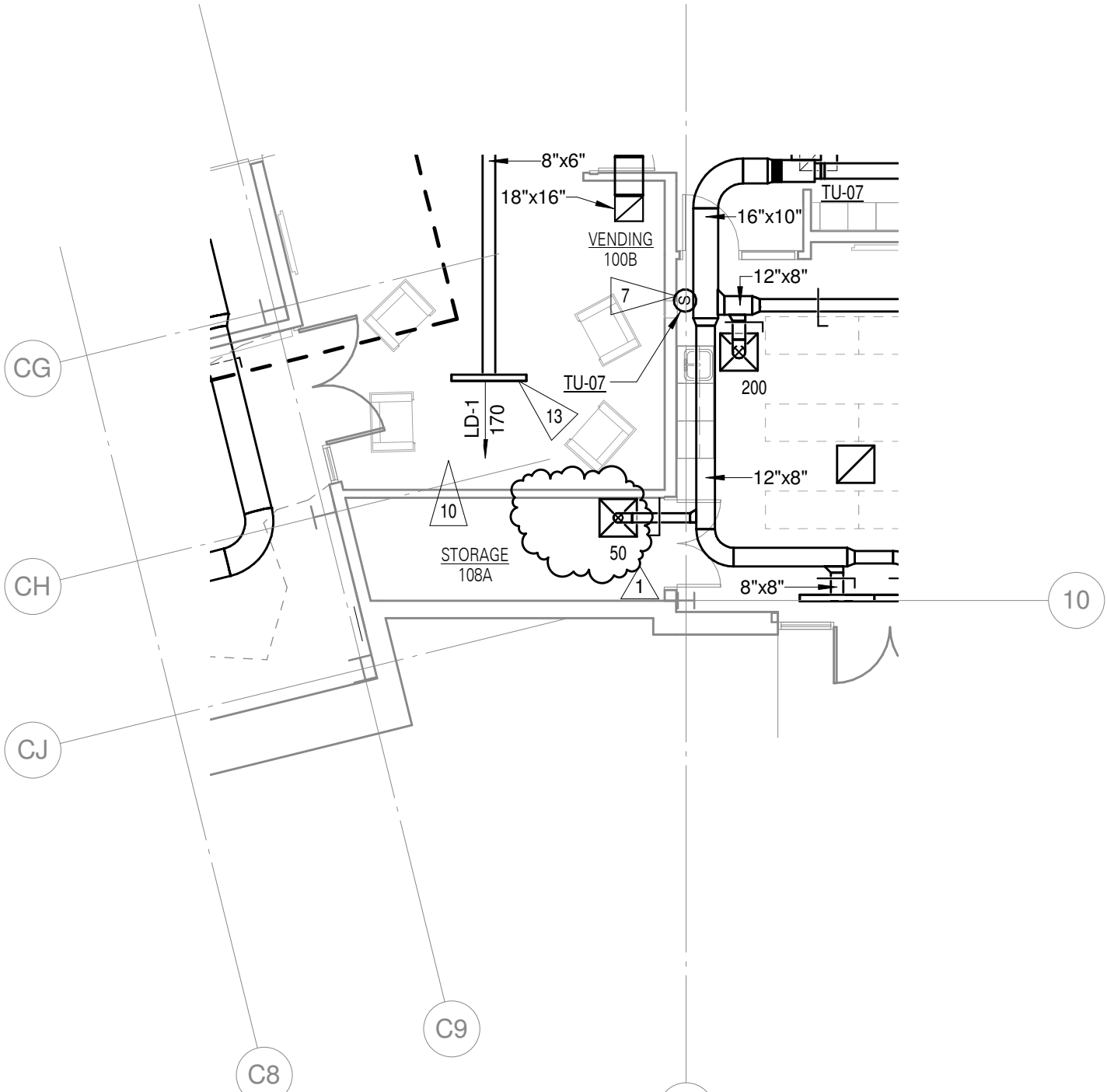
14th and W, Lincoln, NE

DATE	07/09/12
MODIFICATION:	ADDENDUM 3
REF'D SHEET:	M1.1
REF'D DETAIL:	-

2011.182.00

35.01

SDM-001



1 FIRST LEVEL FLOOR PLAN - HVAC

1/8" = 1'-0"

4' 8' 16' 24' 32' 40'

RDg... PLANNING ● DESIGN

UNIVERSITY OF NEBRASKA-LINCOLN OUTDOOR ADVENTURES CENTER

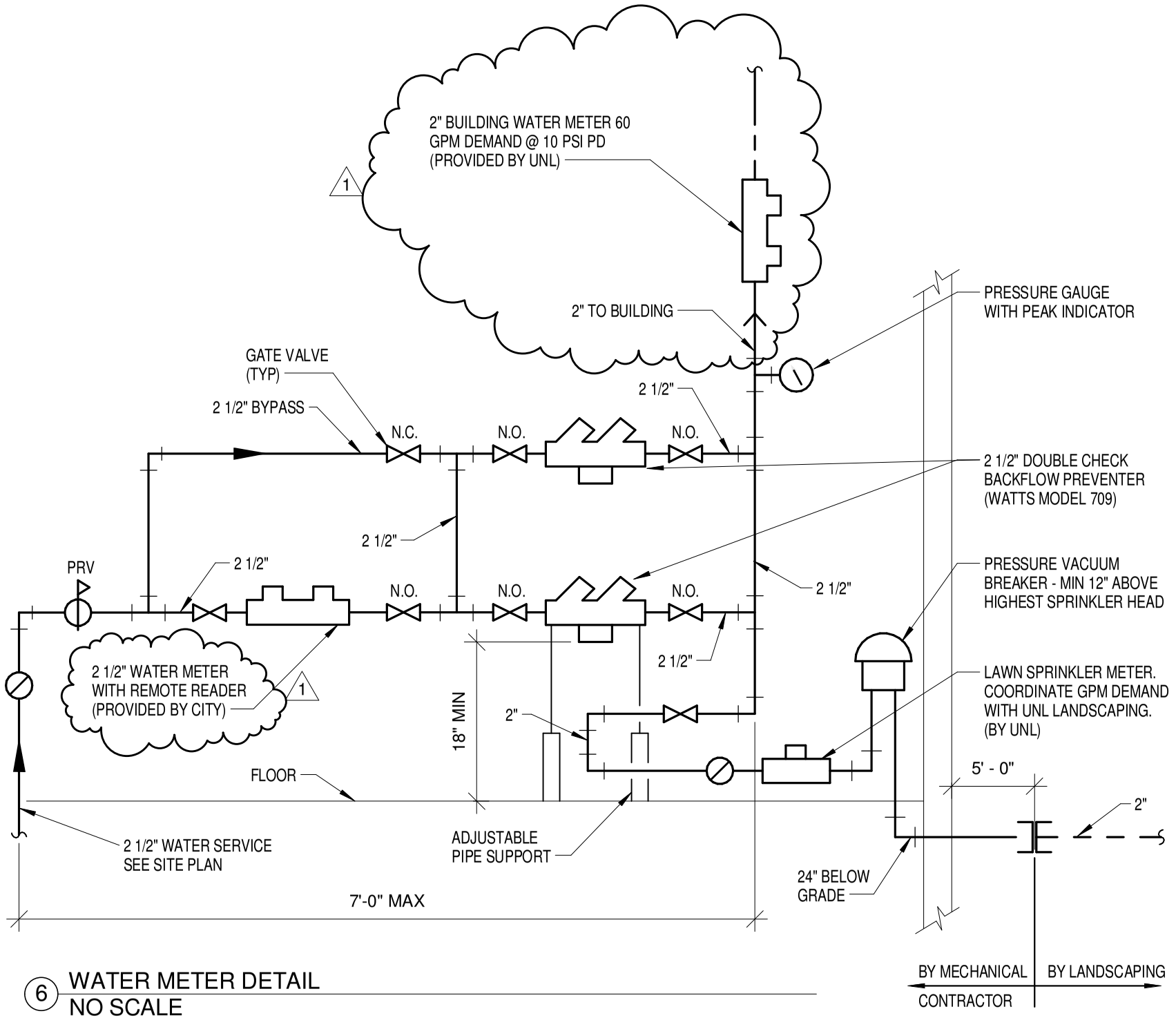
14th and W, Lincoln, NE

DATE	07/09/12
MODIFICATION:	ADDENDUM 3
REF'D SHEET:	M1.1
REF'D DETAIL:	-

2011.182.00

35.01

SDM-002



6 WATER METER DETAIL
NO SCALE

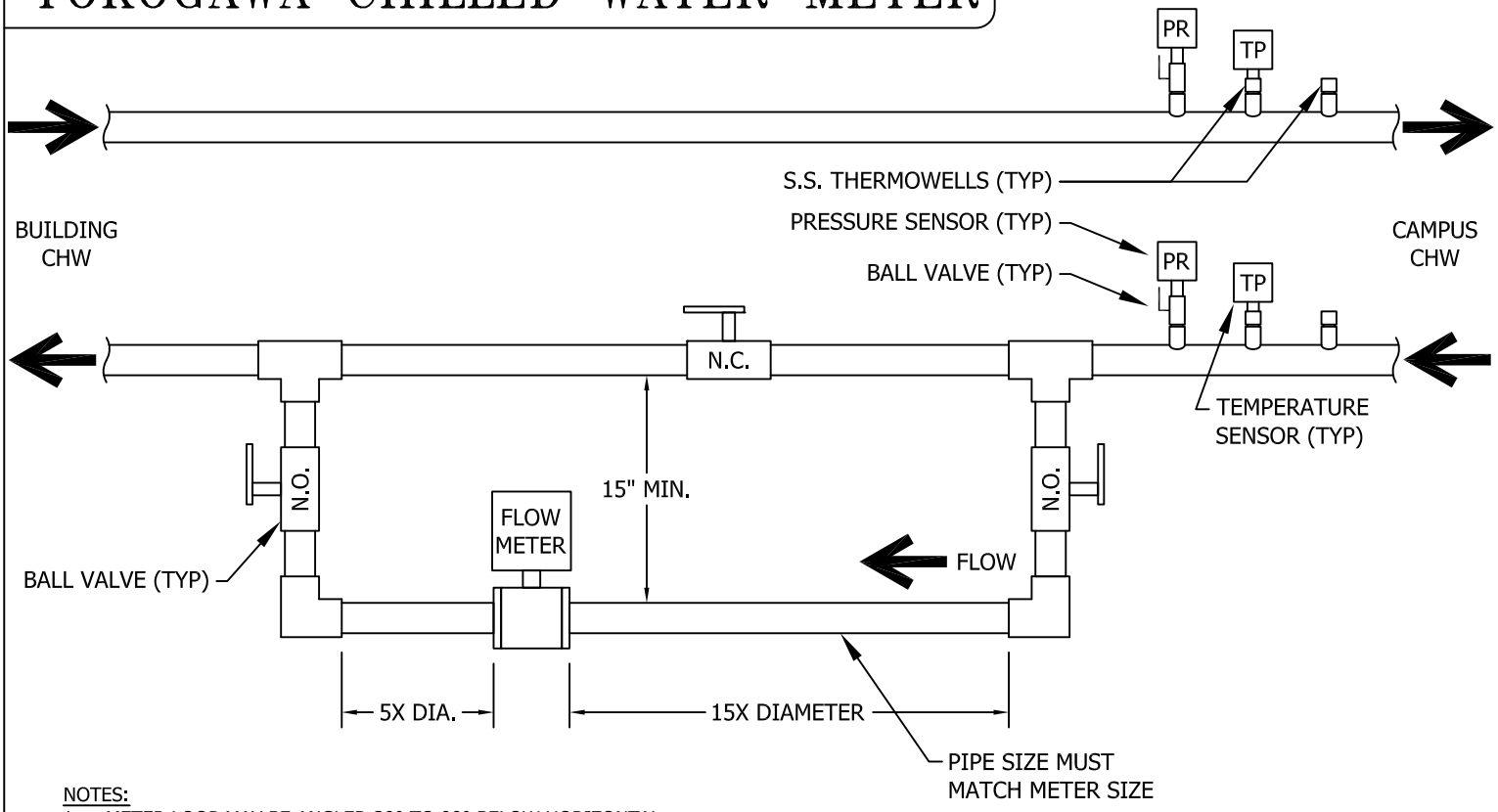
2011.182.00
35.01
SDM 003

DATE 07/09/12
MODIFICATION: ADDENDUM 3
REF'D SHEET: P4.1
REF'D DETAIL: -

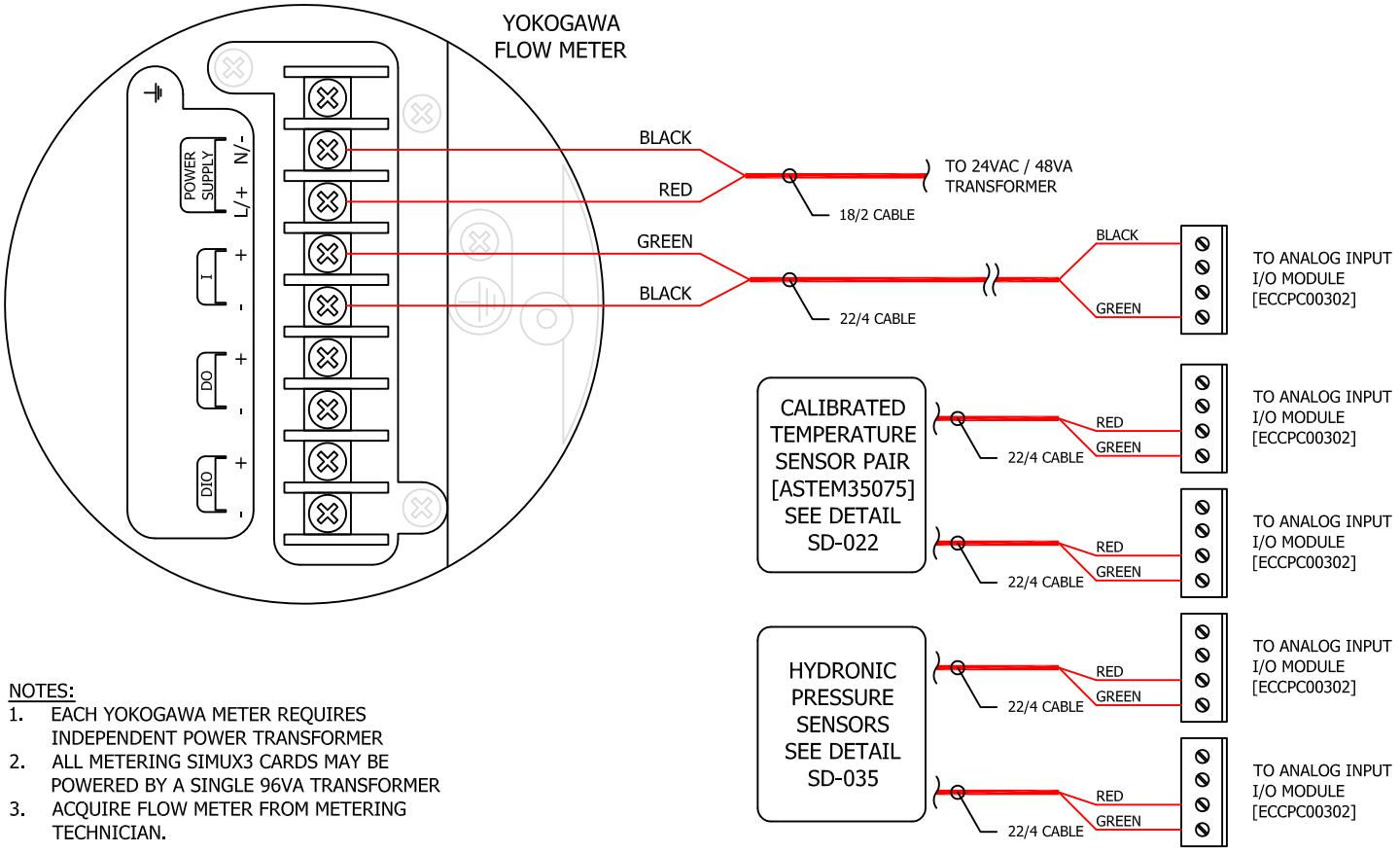
UNIVERSITY OF NEBRASKA-LINCOLN OUTDOOR ADVENTURES CENTER
14th and W, Lincoln, NE

RDG PLANNING • DESIGN

YOKOGAWA CHILLED WATER METER



NOTES:
1. METER LOOP MAY BE ANGLED 30° TO 90° BELOW HORIZONTAL



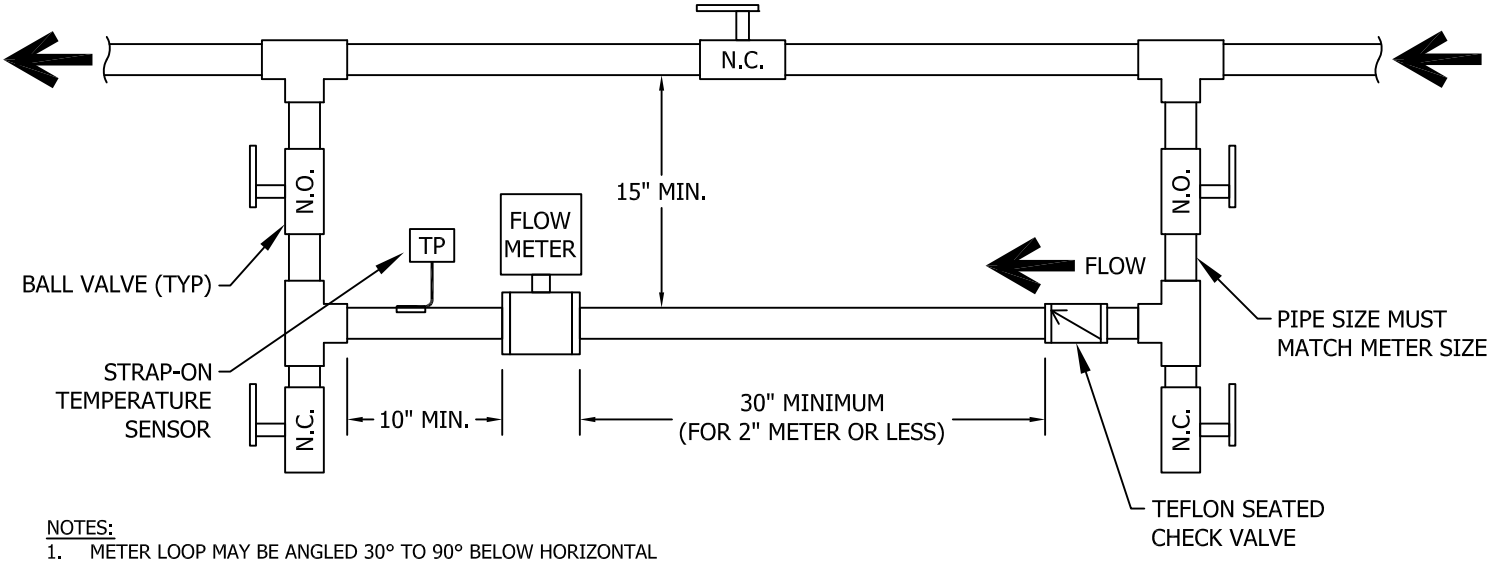
NOTES:
1. EACH YOKOGAWA METER REQUIRES INDEPENDENT POWER TRANSFORMER
2. ALL METERING SIMUX3 CARDS MAY BE POWERED BY A SINGLE 96VA TRANSFORMER
3. ACQUIRE FLOW METER FROM METERING TECHNICIAN.

REV	DATE	AUTHOR: JCD	DATE: 26JAN2012	ITEM DESC.: CHILLED WATER METERING	REFERENCE NO.
ADD-3	07/09/2012	APPROVED: JCD			SD-004

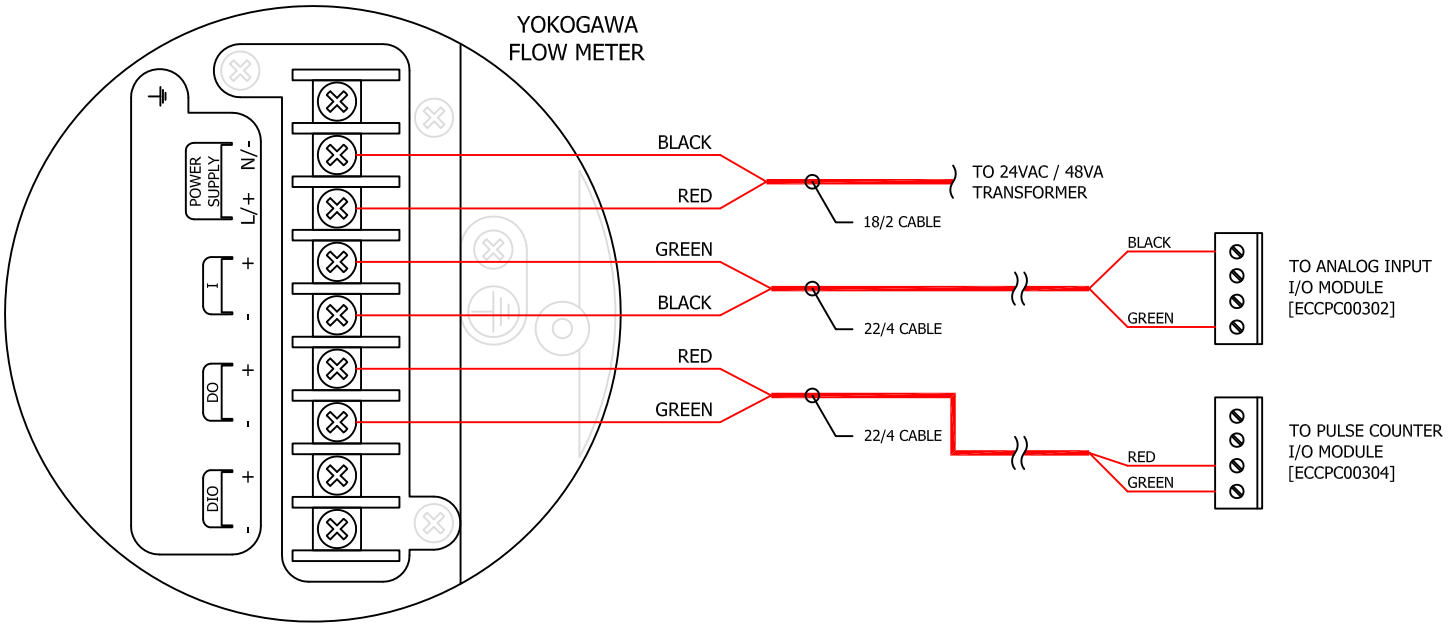
University Of Nebraska – Lincoln
Building Systems Maintenance
942 N. 22nd Street
CONTROLS SYSTEMS DIVISION

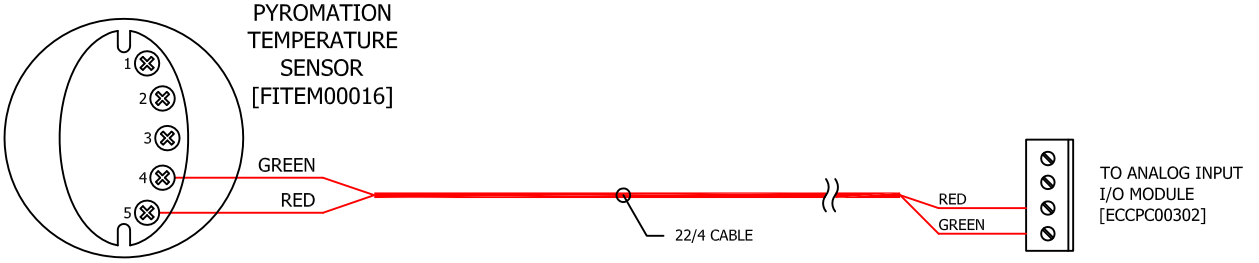
SIZE	DOCUMENT NO.	DWG TYPE
A		

YOKOGAWA CONDENSATE METER



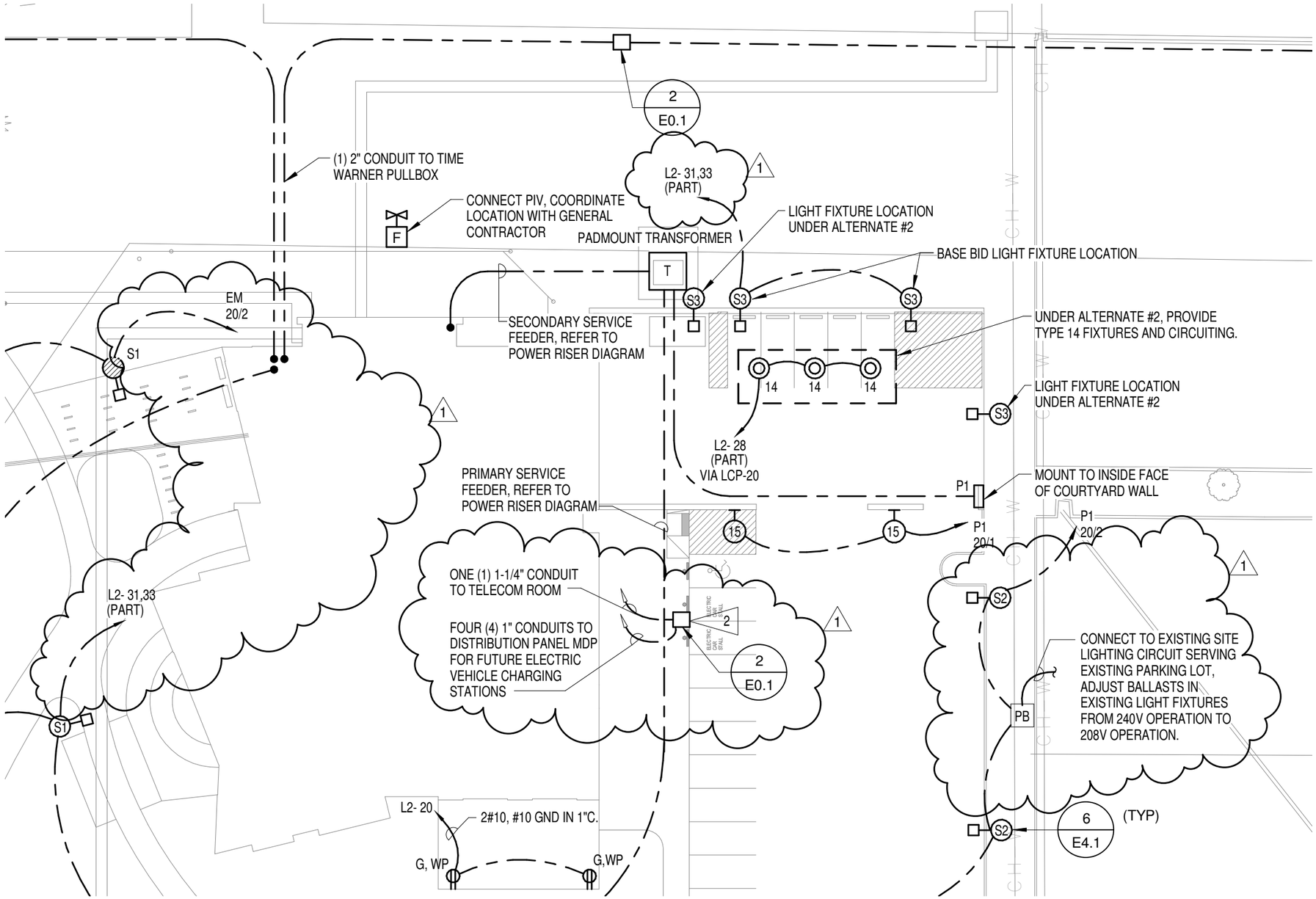
NOTES:
1. METER LOOP MAY BE ANGLED 30° TO 90° BELOW HORIZONTAL





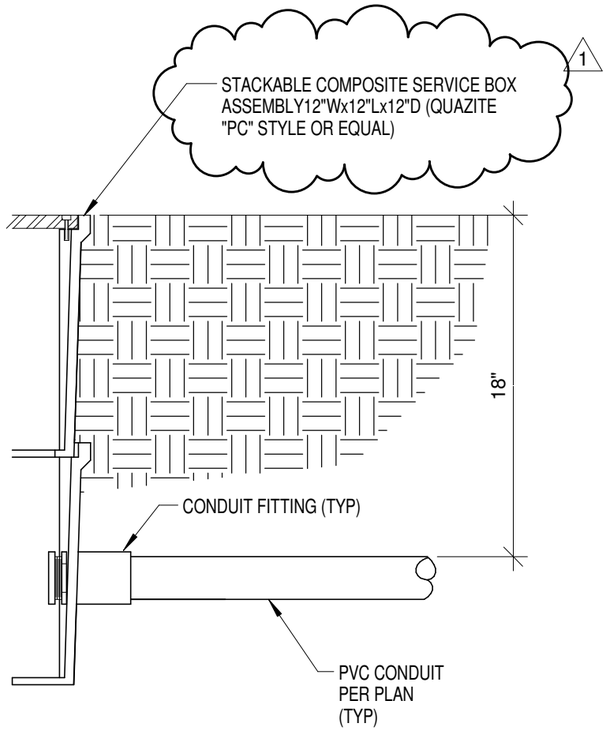
NOTES:
1. EACH YOKOGAWA METER REQUIRES INDEPENDENT POWER TRANSFORMER
2. ALL METERING SIMUX3 CARDS MAY BE POWERED BY A SINGLE 96VA TRANSFORMER
3. TEMPERATURE SENSOR STRAPPED ONTO DISCHARGE CONDENSATE PIPE. TRANSMITTER IS SET FOR 50° TO 350° F.
4. ACQUIRE FLOW METER AND TEMPERATURE SENSOR FROM METERING TECHNICIAN.

REV	DATE	AUTHOR: JCD	DATE: 26JAN2012	ITEM DESC.: STEAM CONDENSATE METERING	REFERENCE NO.
ADD-3	07/09/2012	APPROVED: JCD			SD-005
		University Of Nebraska – Lincoln Building Systems Maintenance 942 N. 22nd Street CONTROLS SYSTEMS DIVISION		SIZE: A / DOCUMENT NO. / DWG TYPE	SHEET 1 OF 1



1 SITE PLAN-ELECTRICAL

1" = 30'-0"



2 PULLBOX DETAIL

NO SCALE

RDG... PLANNING ● DESIGN

UNIVERSITY OF NEBRASKA-LINCOLN OUTDOOR ADVENTURES CENTER

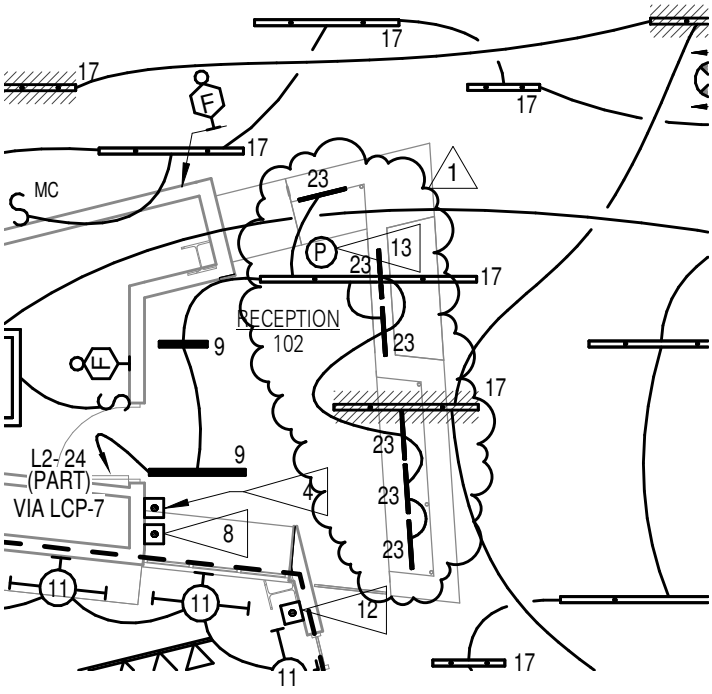
14th and W, Lincoln, NE

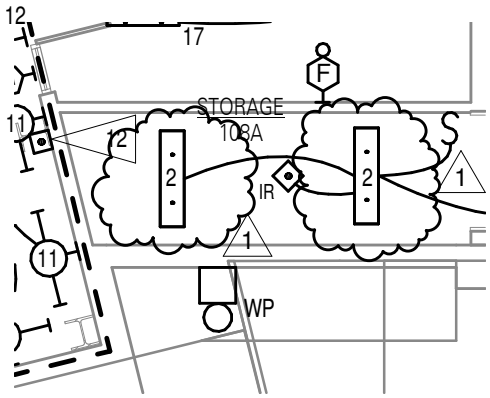
DATE	07/09/12
MODIFICATION:	ADDENDUM NO. 3
REF'D SHEET:	E0.1
REF'D DETAIL:	2

2011.182.00

35.1

SDE-001





1 FIRST LEVEL FLOOR PLAN-LIGHTING

1/8" = 1'-0"

RDg... PLANNING ● DESIGN

UNIVERSITY OF NEBRASKA-LINCOLN OUTDOOR ADVENTURES CENTER

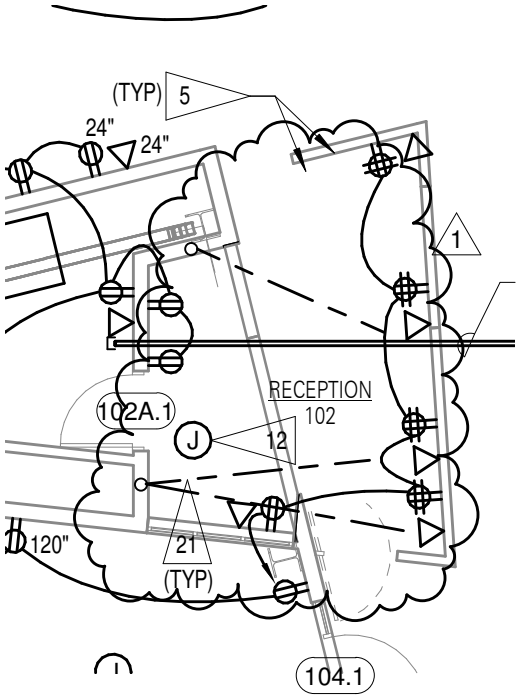
14th and W, Lincoln, NE

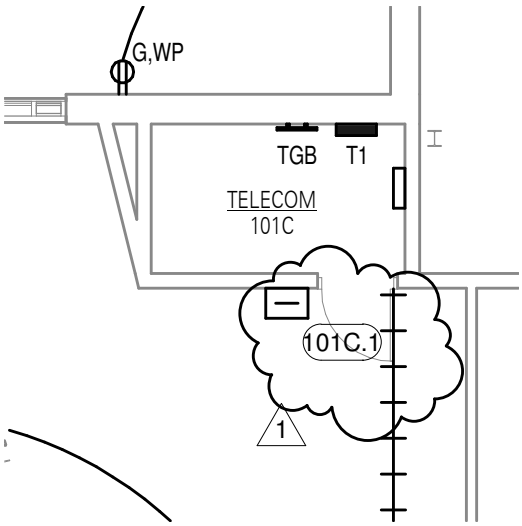
DATE	07/09/12
MODIFICATION:	ADDENDUM NO. 3
REF'D SHEET:	E1.1
REF'D DETAIL:	-

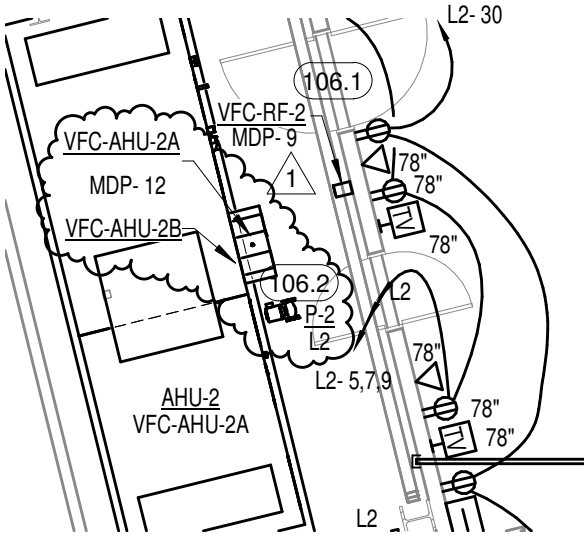
2011.182.00

35.01

SDE-002







1 FIRST LEVEL FLOOR PLAN-POWER

1/8" = 1'-0"

RDg... PLANNING ● DESIGN

UNIVERSITY OF NEBRASKA-LINCOLN OUTDOOR ADVENTURES CENTER

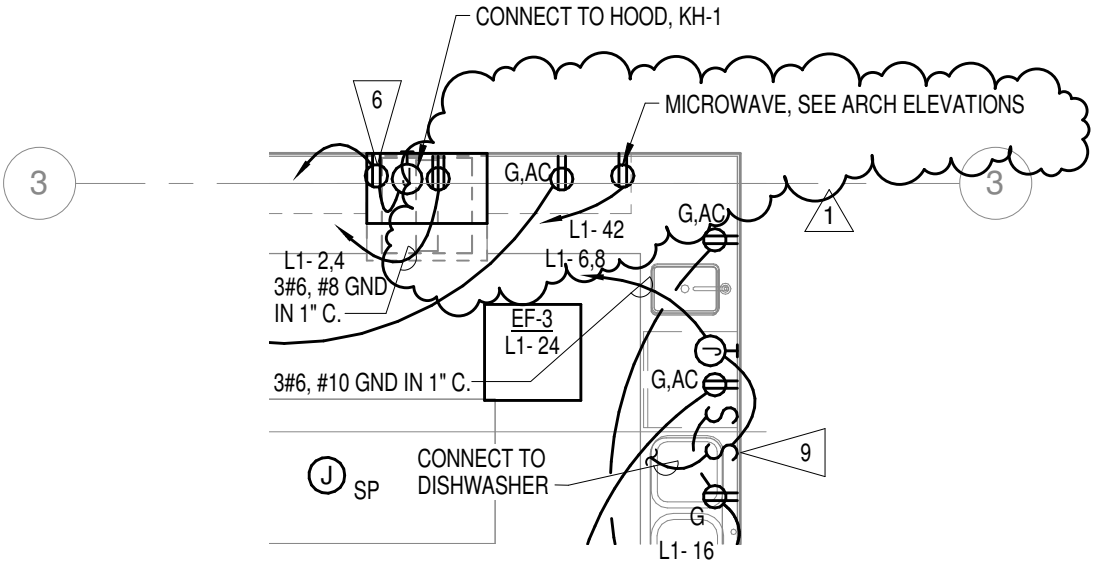
14th and W, Lincoln, NE

DATE	07/09/12
MODIFICATION:	ADDENDUM NO. 3
REF'D SHEET:	E2.1
REF'D DETAIL:	-

2011.182.00

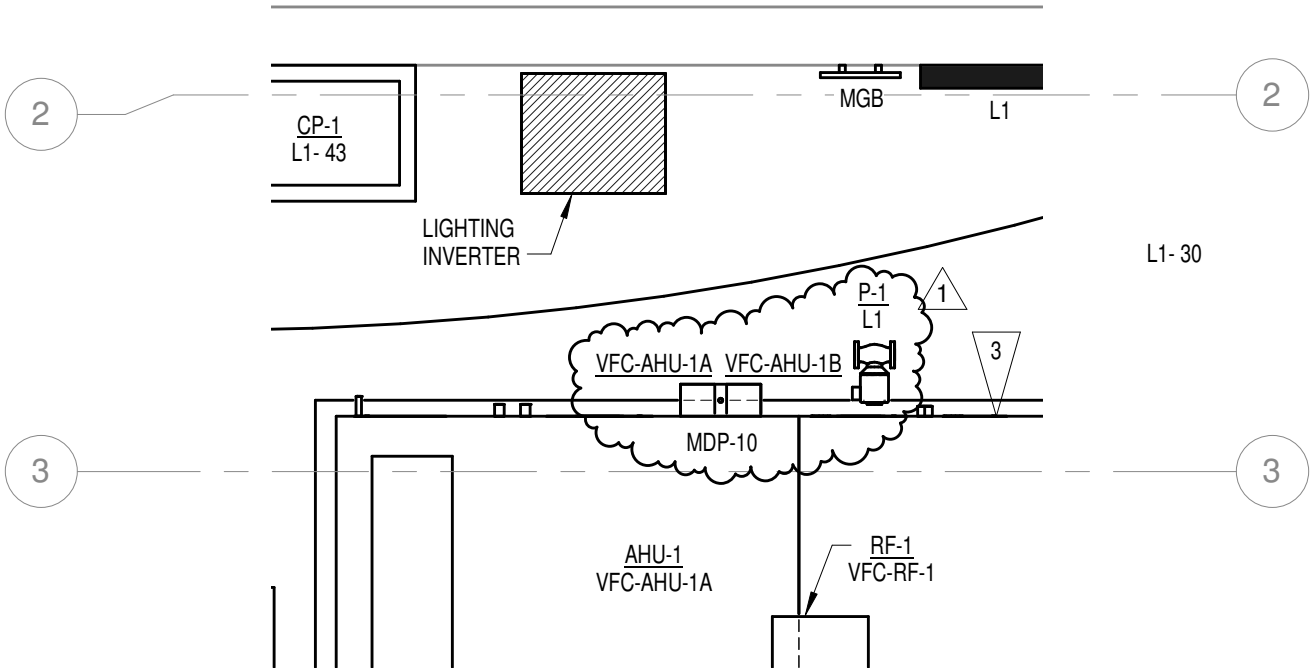
35.01

SDE-003



2 ENLARGED FLOOR PLAN - FOOD SERVICE FACILITY

1/4" = 1'-0"



1 ENLARGED FLOOR PLAN-MECHANICAL ROOM

1/4" = 1'-0"

RDg... PLANNING ● DESIGN

UNIVERSITY OF NEBRASKA-LINCOLN OUTDOOR ADVENTURES CENTER

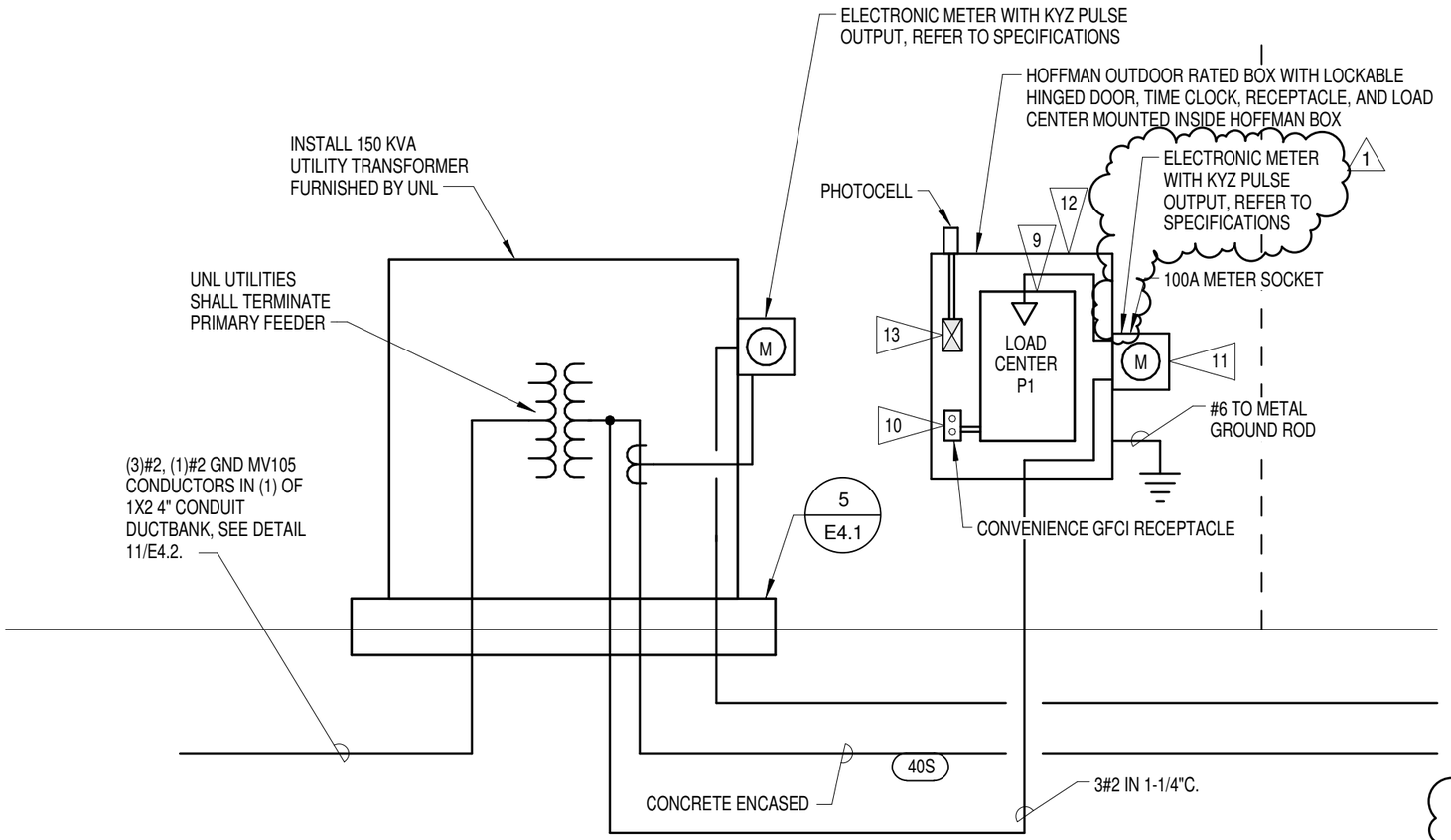
14th and W, Lincoln, NE

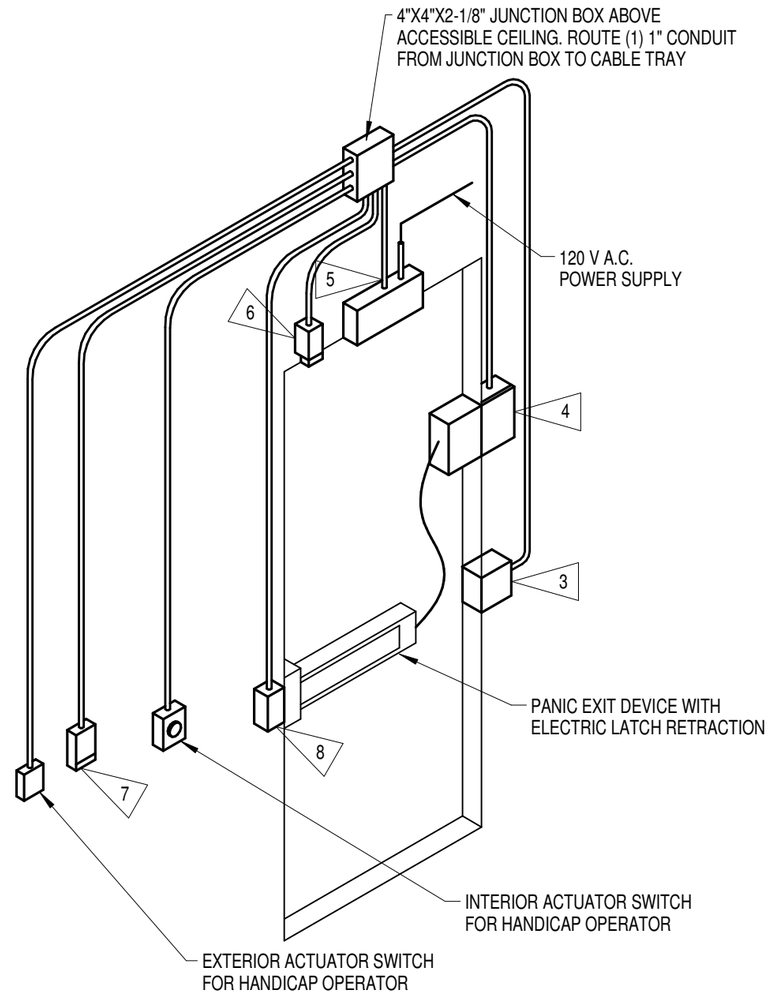
DATE	07/09/12
MODIFICATION:	ADDENDUM NO. 3
REF'D SHEET:	E3.1
REF'D DETAIL:	1,2

2011.182.00

35.01

SDE-004





1 POWER RISER DIAGRAM

NO SCALE

NOTES:
1. IF DOOR IS TO BE GROUTED, GROUT ONLY TO LEVEL OF TOP FRAME MEMBER, MAKING SURE EPT-10 MORTAR BOX IS IN PLACE, PIPED, AND SEALED.
2. IF DOOR IS TO BE EQUIPPED WITH HANDICAP ACCESS OPERATOR, THOSE ROUGH-IN PROVISIONS SHALL BE IN ADDITION TO THESE REQUIREMENTS. HANDICAP ACCESS OPERATOR SHALL HAVE CONDUIT RUN FROM ITS ORIGINAL PANEL TO THE DOOR ACCESS CONTROL PANEL.
3. IF NO ACCESSIBLE CEILING SPACE IS NEAR THE CONTROLLED DOOR, ALL CONDUITS ARE TO BE RUN CONTINUOUS TO THE DOOR ACCESS CONTROL PANEL, OR NEAREST CABLE TRAY.
4. FOR DOUBLE DOORS, DUPLICATE THE DOOR POSITION SWITCH ROUGH-IN AND ELECTRIC PASS THRU ROUGH-IN.
5. LABEL EACH CONDUIT AT JUNCTION BOX OR CABLE TRAY WITH SPECIFIC DEVICE SERVED.
6. REFER TO DOOR ACCESS CONTROL SCHEDULE FOR DEVICES INSTALLED AT EACH DOOR.
7. PROVIDE CONDUIT ROUGH-INS TO DOORS AND FRAMES INDICATED FOR FUTURE CARD ACCESS IN THE DOOR HARDWARE SCHEDULE.
8. DOOR HARDWARE SCHEDULE DETERMINES ACTUAL ROUGH-IN REQUIREMENTS. THE DOOR AND FRAME SHALL BE ROUGHED IN FOR ELECTRIFIED DOOR HARDWARE IN DOOR HARDWARE SCHEDULE.

3 ACCESS CONTROL-GENERIC ROUGH-IN DETAIL

NO SCALE

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UNIVERSITY OF NEBRASKA-LINCOLN OUTDOOR ADVENTURES CENTER

14th and W, Lincoln, NE

DATE	07/09/12
MODIFICATION:	ADDENDUM NO. 3
REF'D SHEET:	E4.1
REF'D DETAIL:	1,3

2011.182.00

35.01

SDE-005

DOOR ACCESS CONTROL SCHEDULE

DOOR NUMBER	ACCESS READER	DOOR POSITION SWITCH	ELECTRIC STRIKE	ELECTRIC POWER TRANSFER	ELECTRIC LOCKSET	PANIC EXIT DEVICE
100C.2	X	X		X		X
100D.2	X	X		X		X
101.3	X	X		X	X	X
103.1	X	X		X	X	X
103.2	X	X		X	X	
104.1	X	X		X		X
104.2	X	X		X	X	X
108.3		X				
108.4		X				
101C.1	X	X		X	X	X
199.1	X	X		X	X	X

1

1

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14th and W, Lincoln, NE

DATE 07/09/12

MODIFICATION: ADDENDUM NO. 3

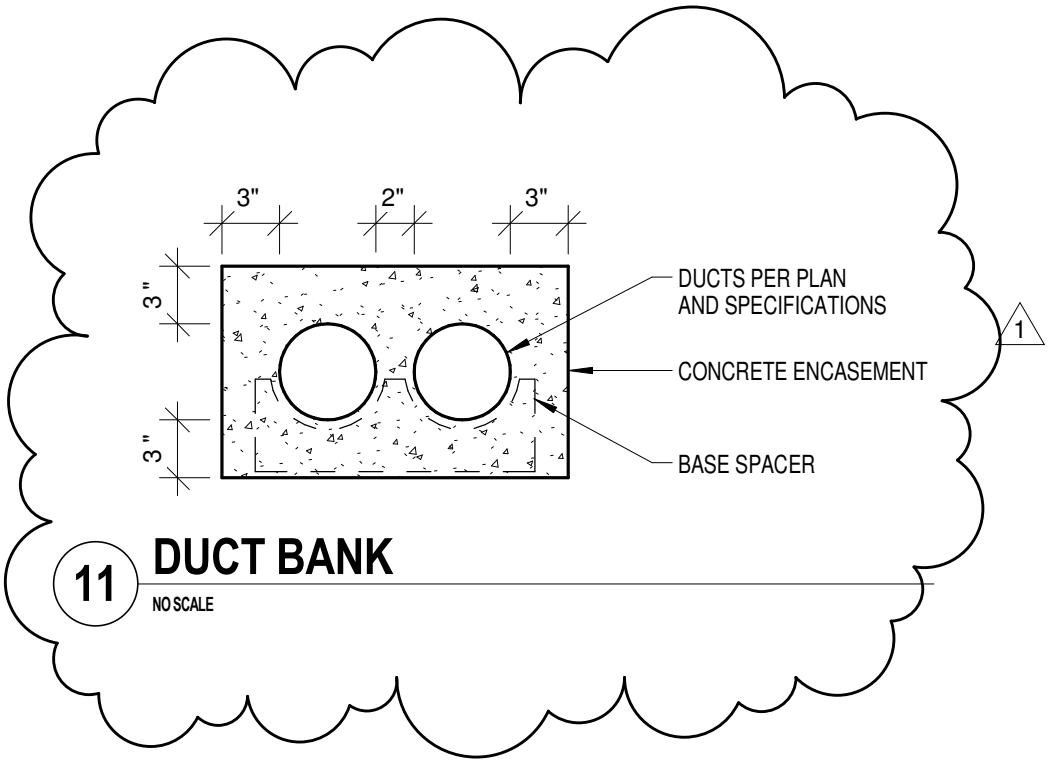
REF'D SHEET: E4.1

REF'D DETAIL: -

2011.182.00

35.01

SDE-006



11 DUCT BANK

NO SCALE

RDg... PLANNING ● DESIGN

UNIVERSITY OF NEBRASKA-LINCOLN OUTDOOR ADVENTURES CENTER

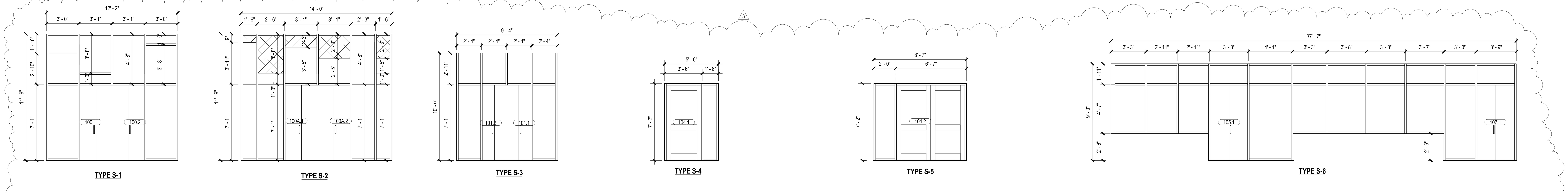
14th and W, Lincoln, NE

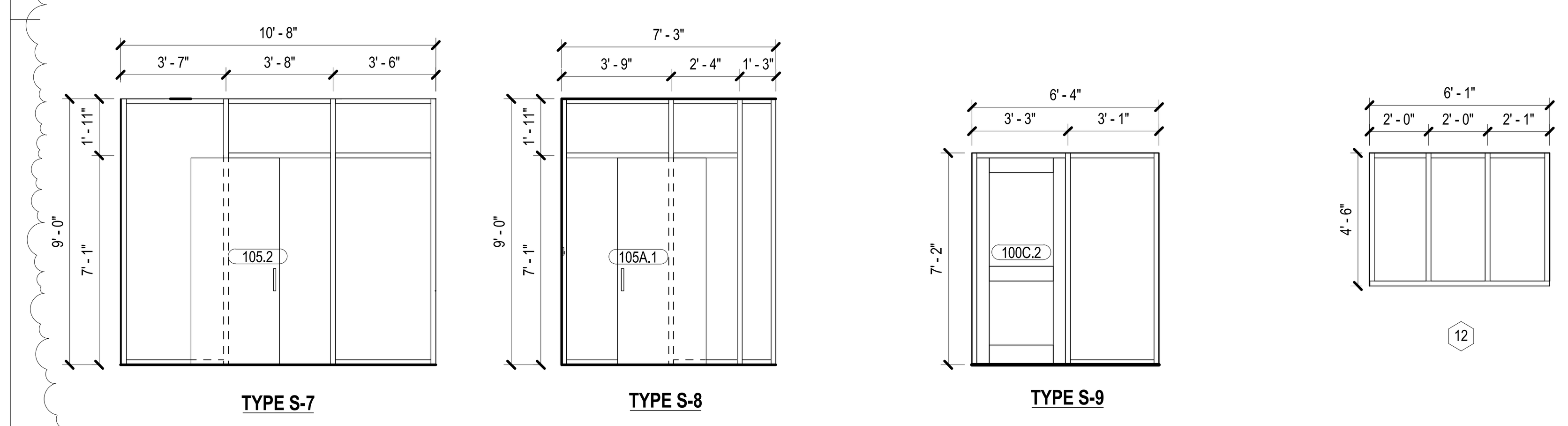
DATE	07/09/12
MODIFICATION:	ADDENDUM NO. 3
REF'D SHEET:	E4.2
REF'D DETAIL:	11

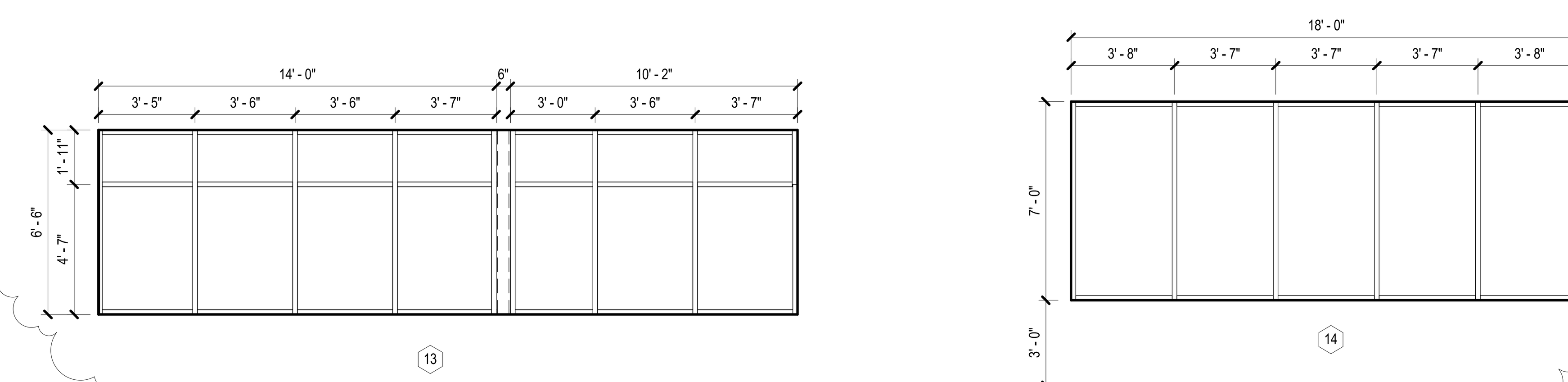
2011.182.00

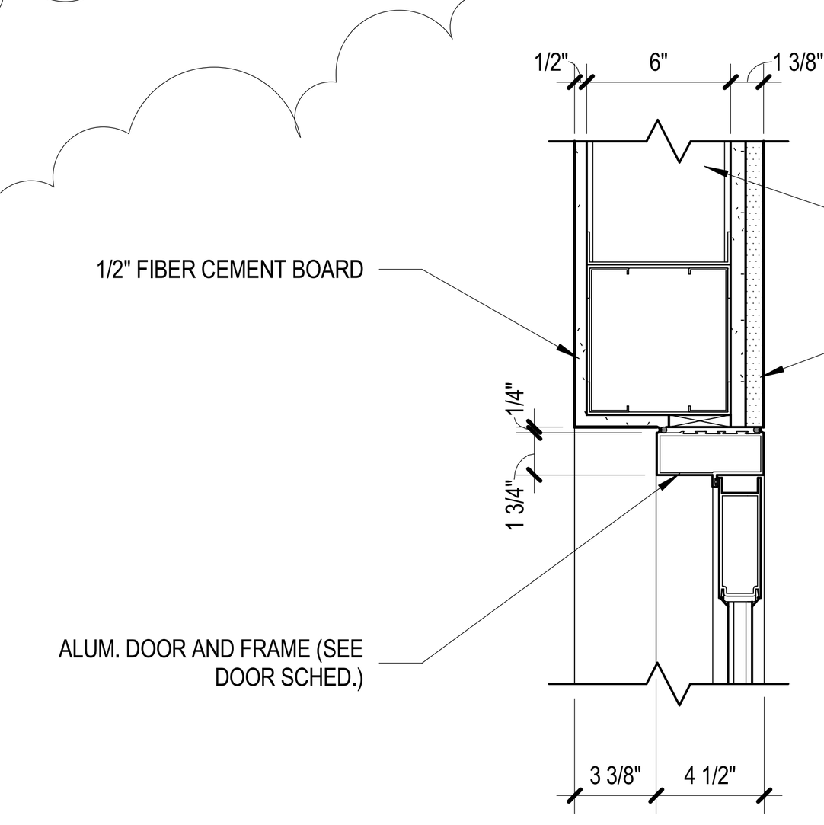
35.01

SDE-007

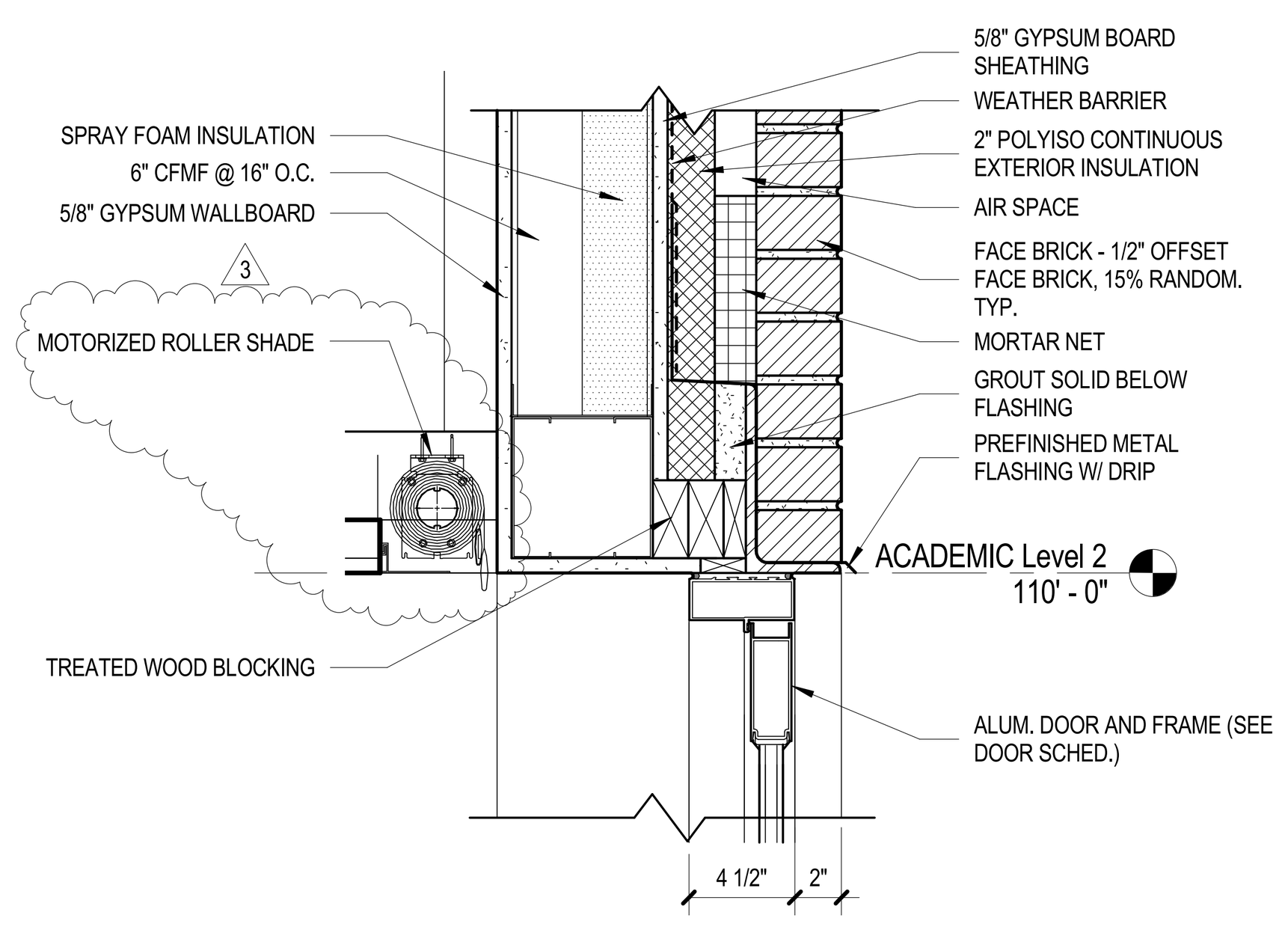




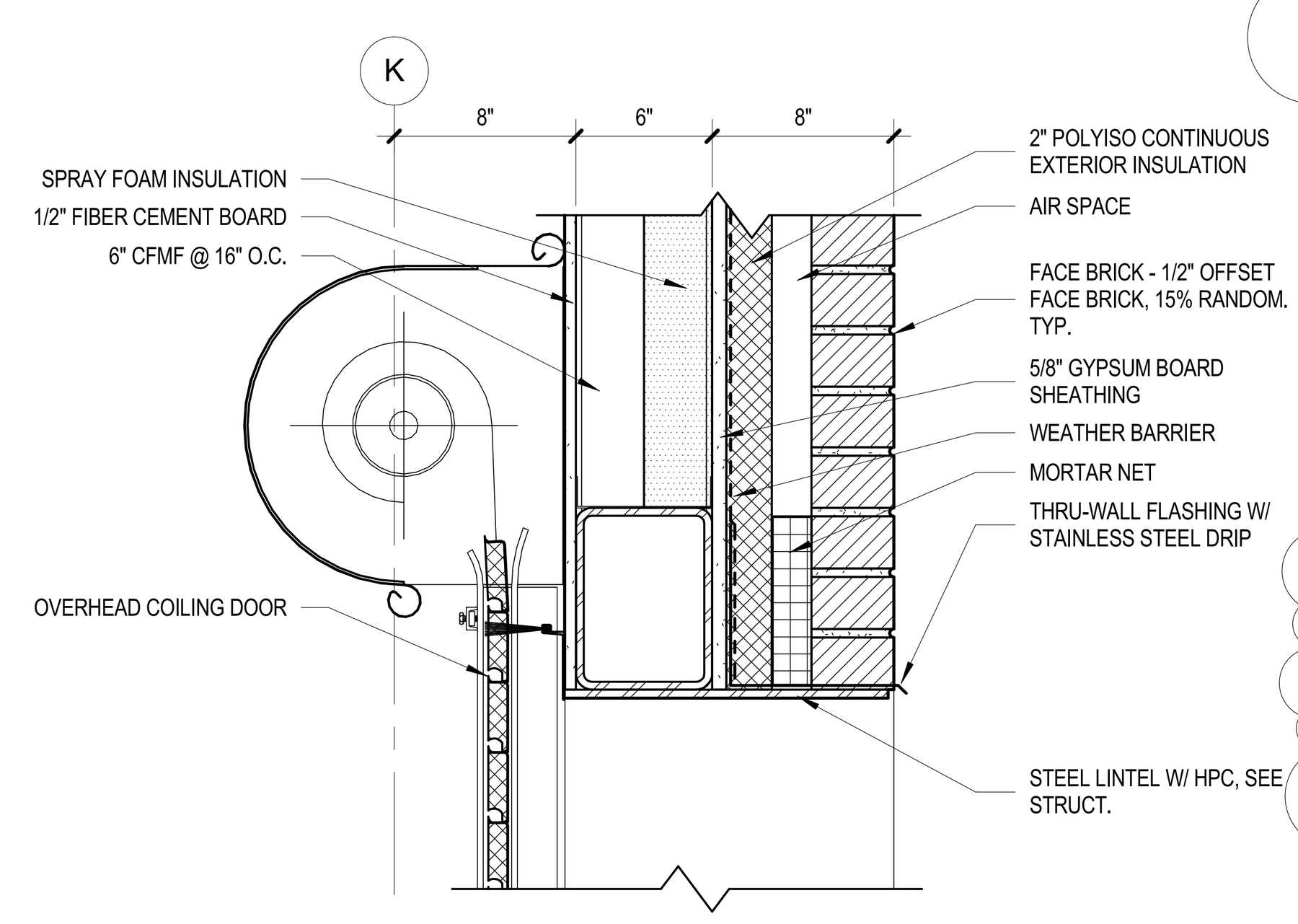




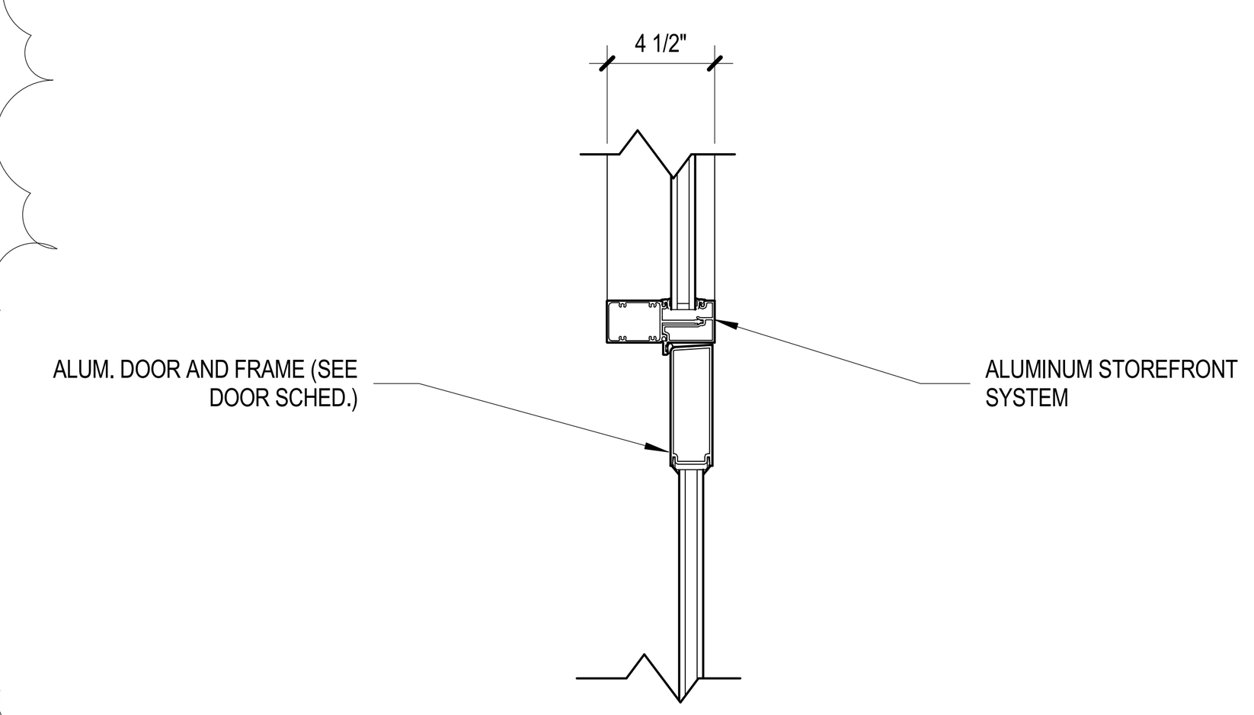
9 ALUM. STOREFRONT HEAD
1 1/2" = 1'-0"



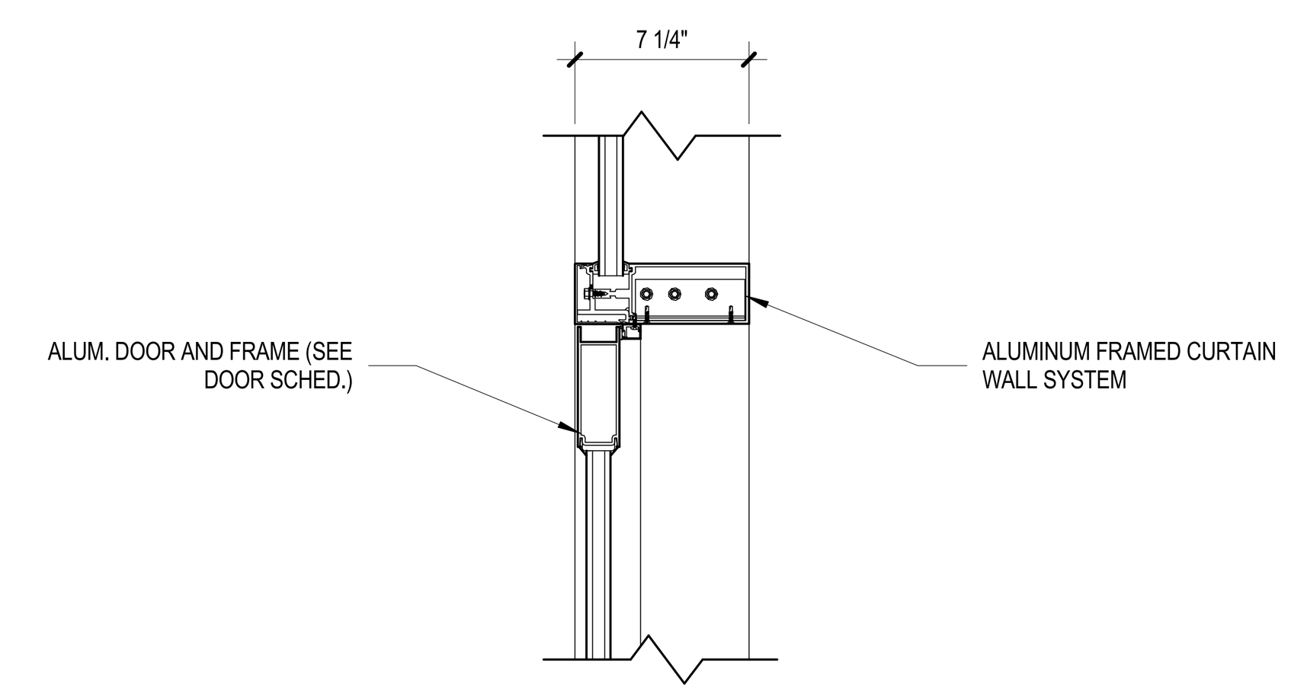
13 ALUM. STOREFRONT - HEAD
1 1/2" = 1'-0"



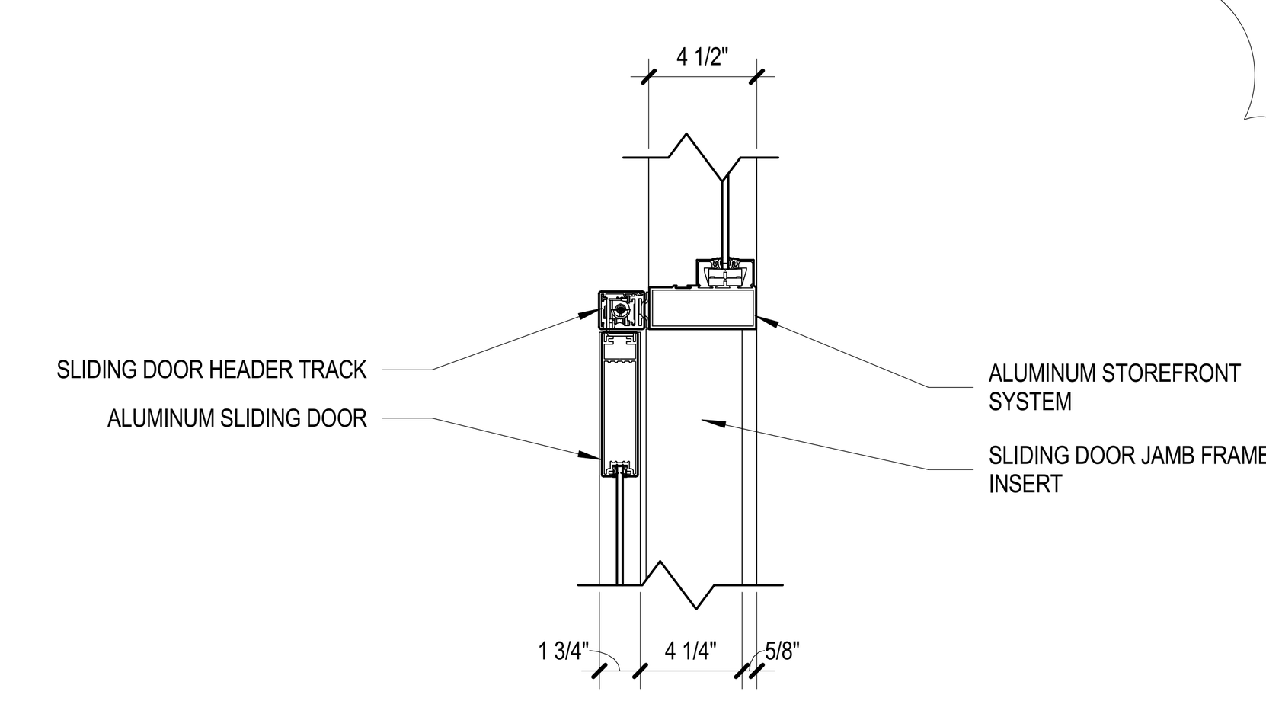
14 EXT. OVERHEAD COILING DOOR - HEAD
1 1/2" = 1'-0"



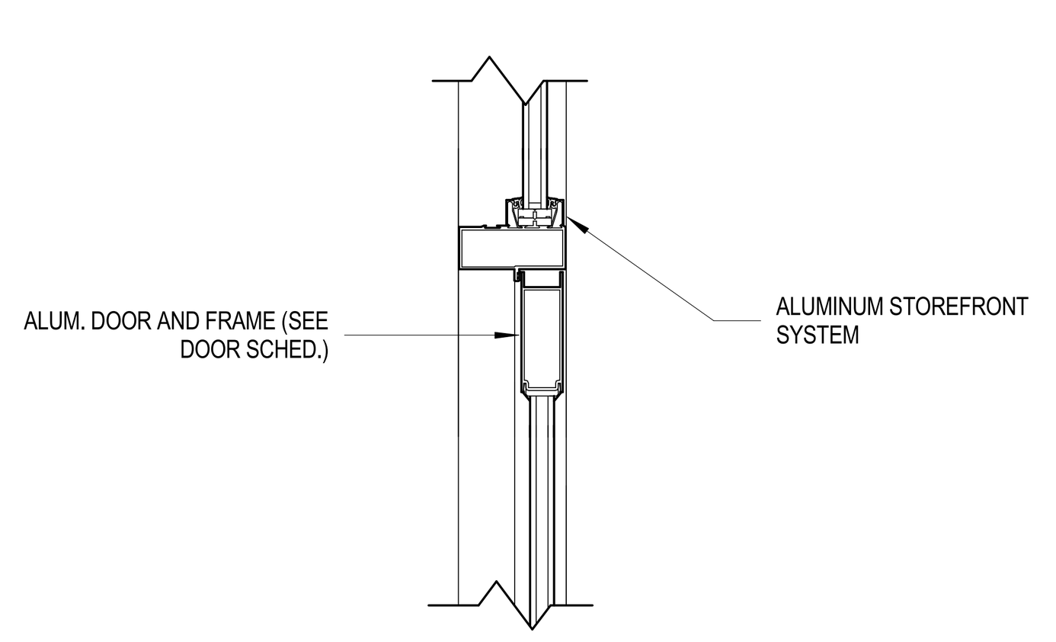
15 ALUM. STOREFRONT JAMB
1 1/2" = 1'-0"



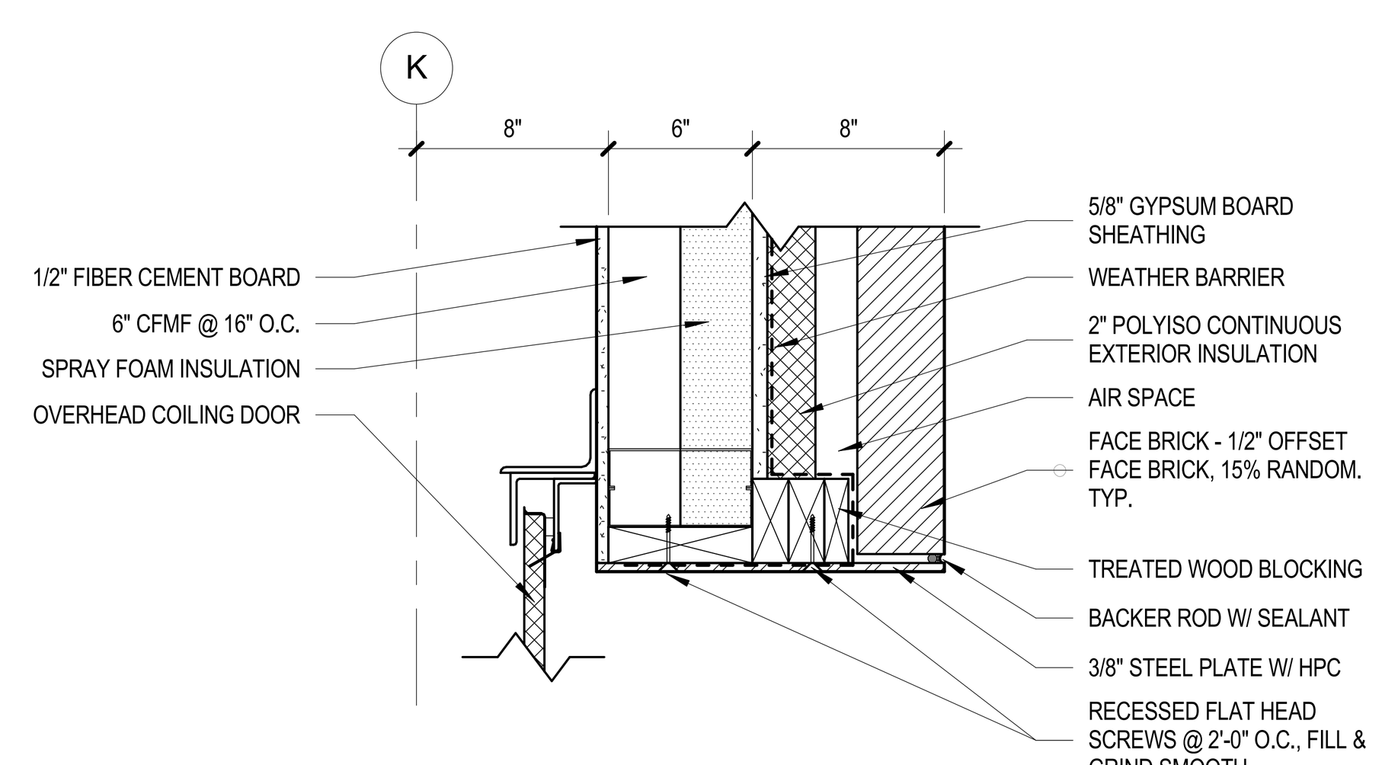
16 EXT. CURTAIN WALL DOOR HEAD
1 1/2" = 1'-0"



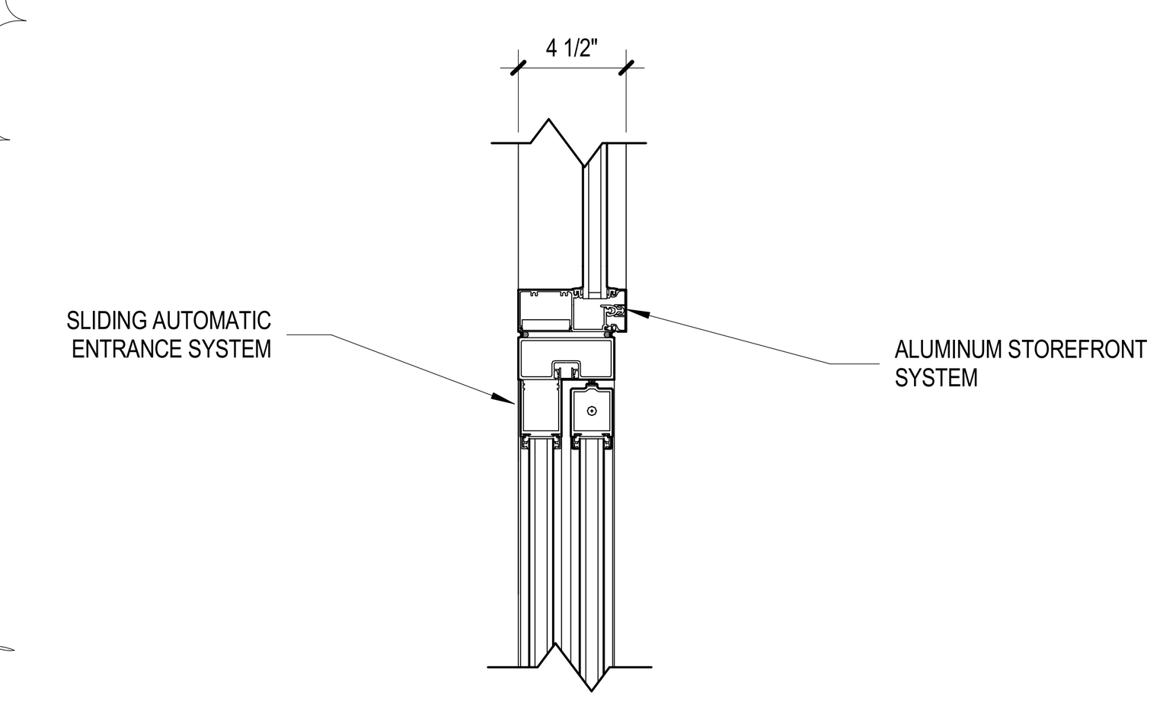
18 INT. SLIDING DOOR HEAD
1 1/2" = 1'-0"



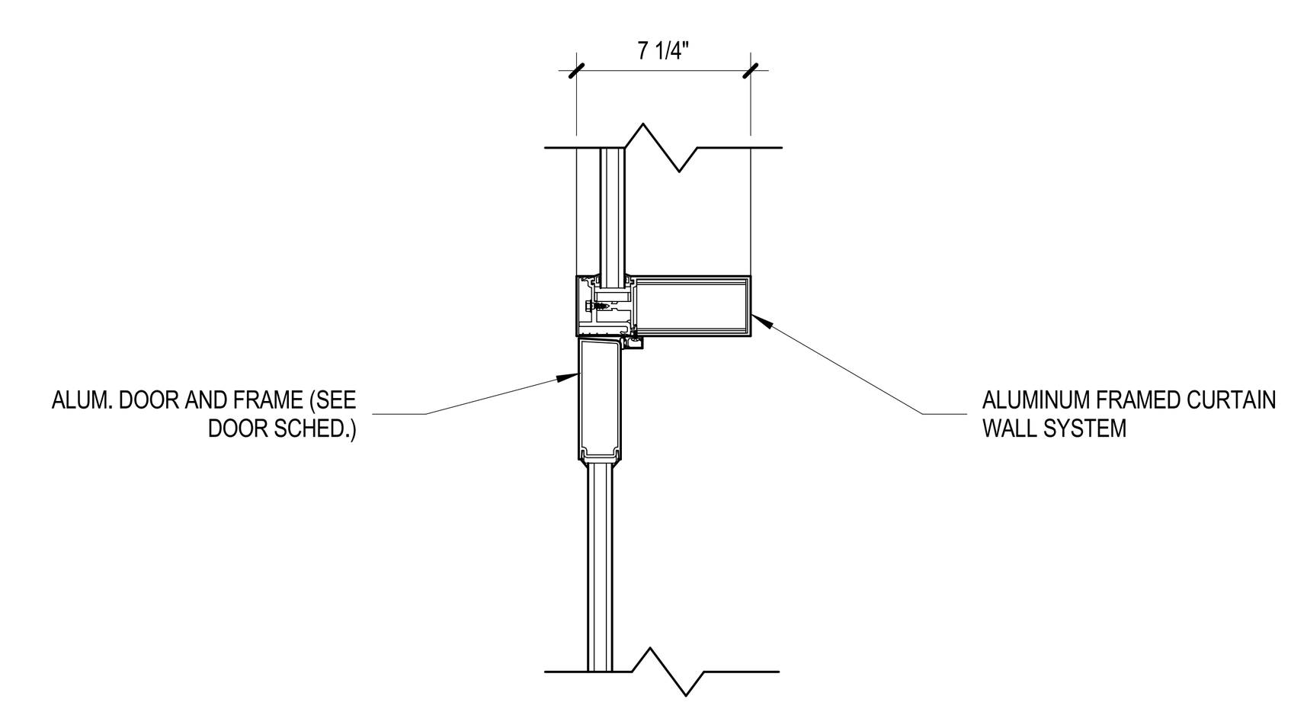
19 ALUM. STOREFONT - HEAD / MULLION
1 1/2" = 1'-0"



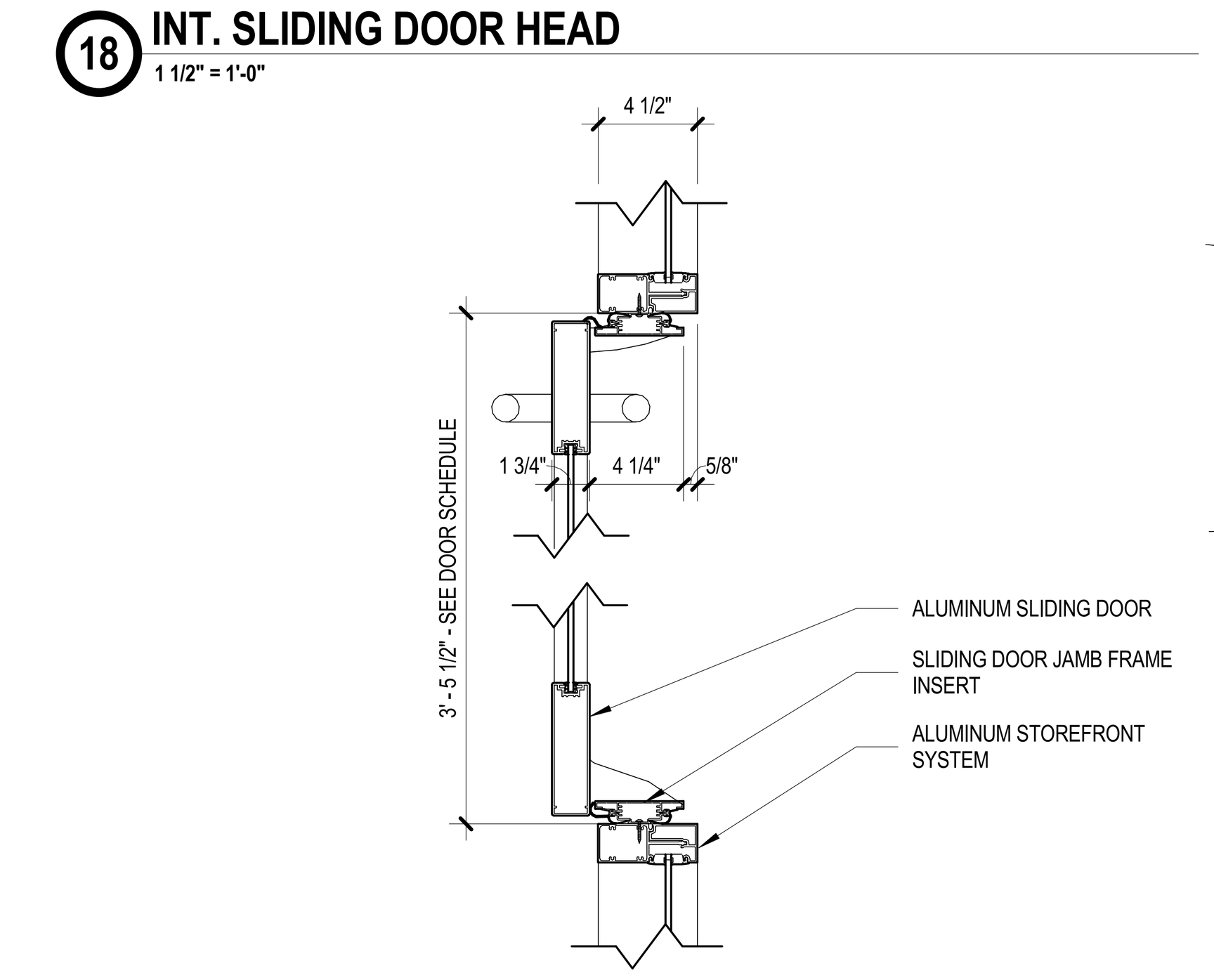
20 EXT. OVERHEAD COILING DOOR - JAMB
1 1/2" = 1'-0"



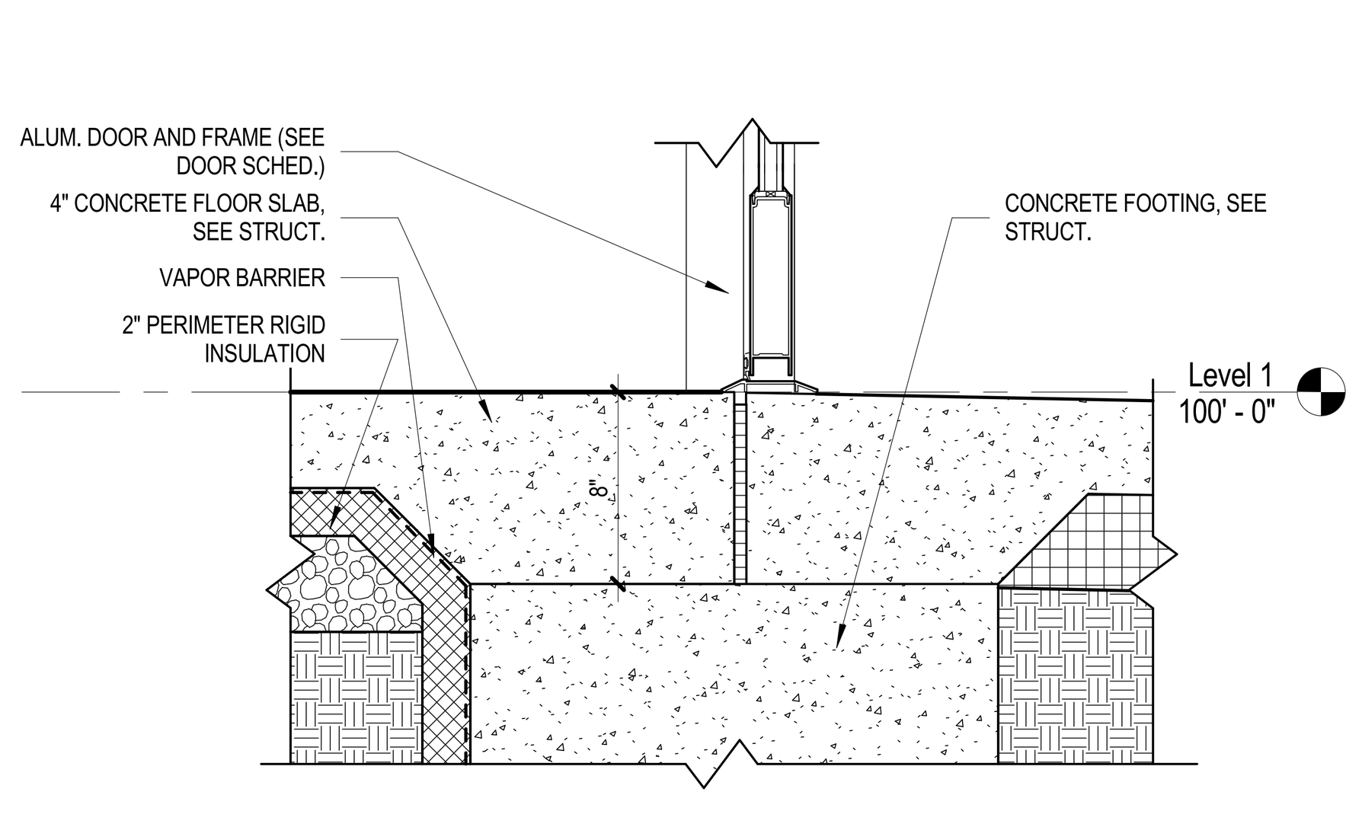
21 ALUM. AUTOMATIC SLIDING STOREFRONT JAMB
1 1/2" = 1'-0"



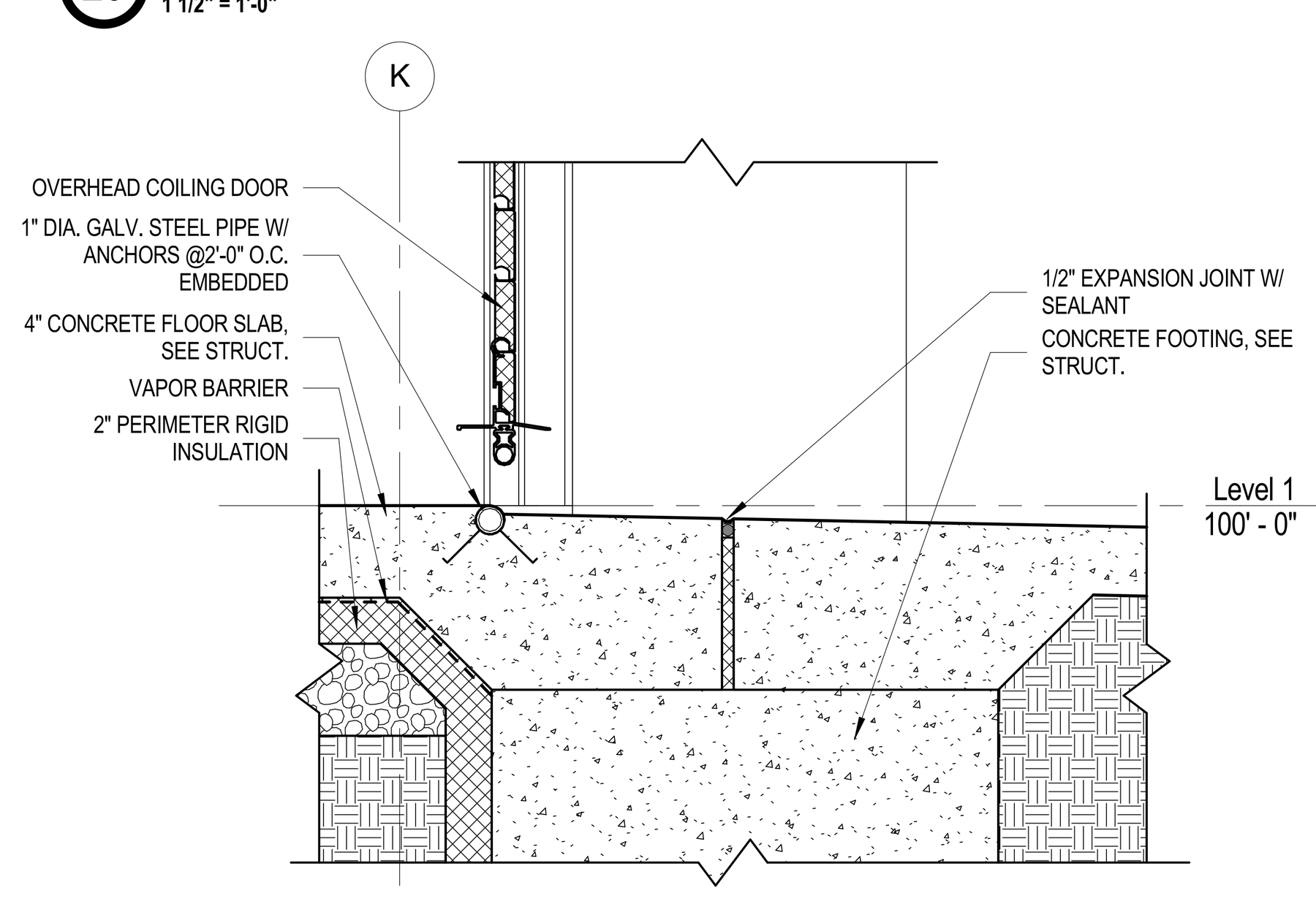
22 EXT. CURTAIN WALL JAMB
1 1/2" = 1'-0"



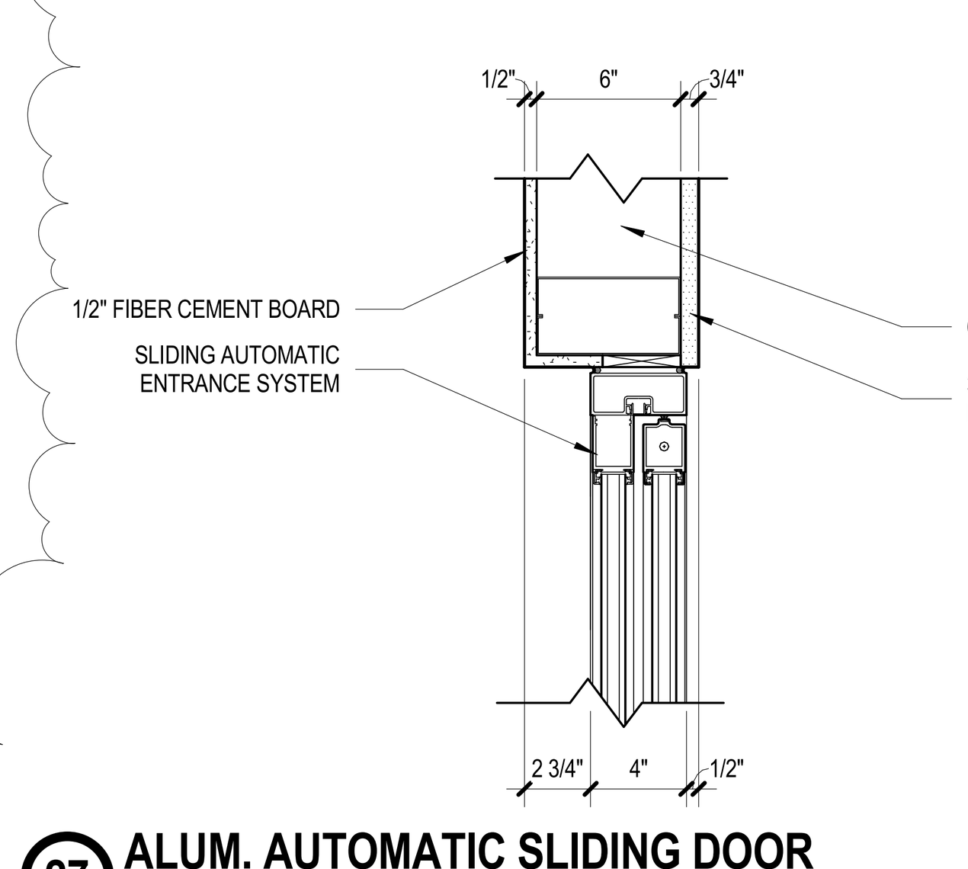
24 INT. SLIDING DOOR JAMB
1 1/2" = 1'-0"



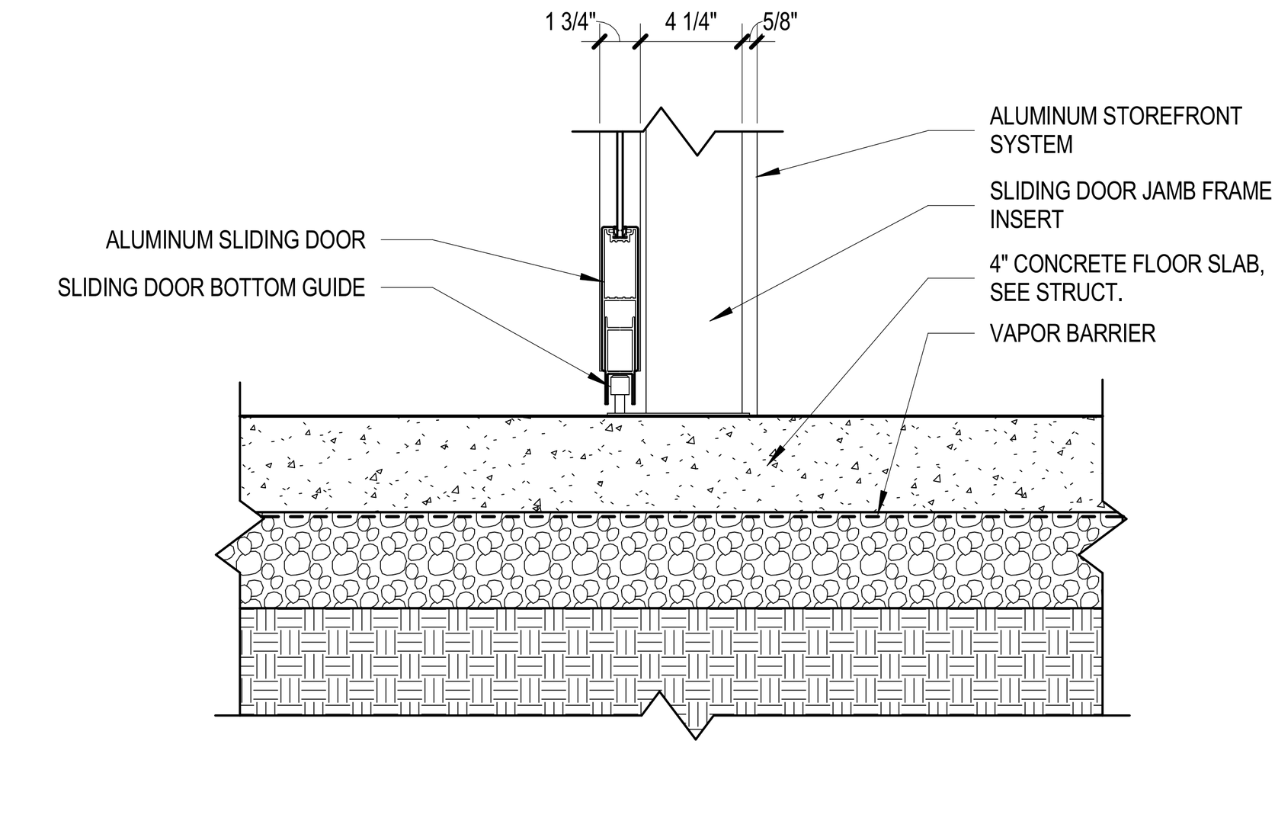
25 ALUM. STOREFRONT - SILL
1 1/2" = 1'-0"



26 EXT. OVERHEAD COILING DOOR - SILL
1 1/2" = 1'-0"



27 ALUM. AUTOMATIC SLIDING DOOR
1 1/2" = 1'-0"



30 INT. SLIDING DOOR SILL
1 1/2" = 1'-0"

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STRUCTURAL
CIVIL
MEP

UNIVERSITY OF NEBRASKA-LINCOLN OUTDOOR ADVENTURES CENTER

14th and W, Lincoln, NE

Revision Schedule

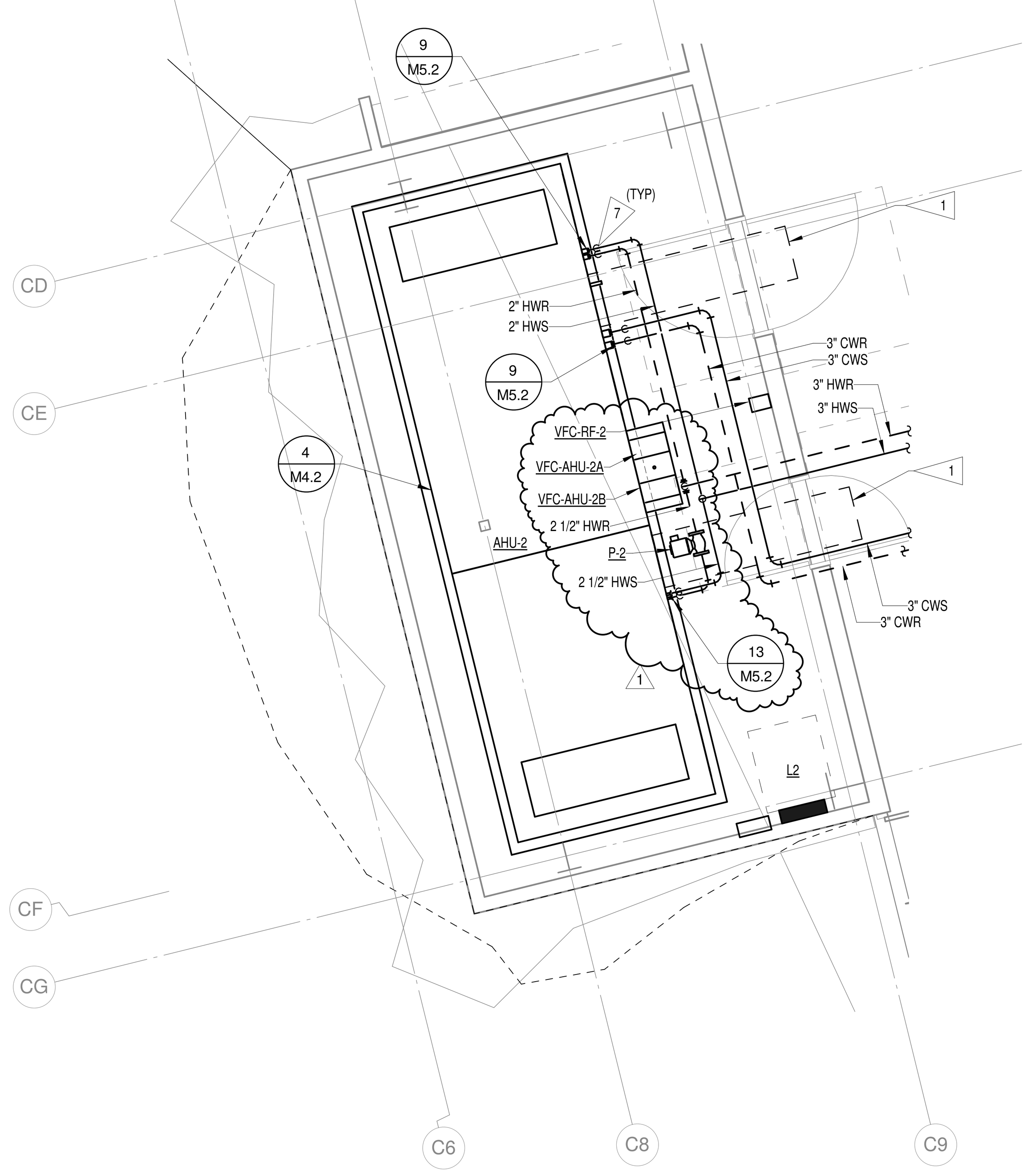
Rev	Date	Description
3	July 9, 2012	ADDENDUM #3

UNL PROJECT NO:	C220P001
ISSUED:	06.01.12
PROJECT NO:	2011.182.00
PROJECT FILE:	CONSTRUCTION DOCUMENTS - BID ISSUE

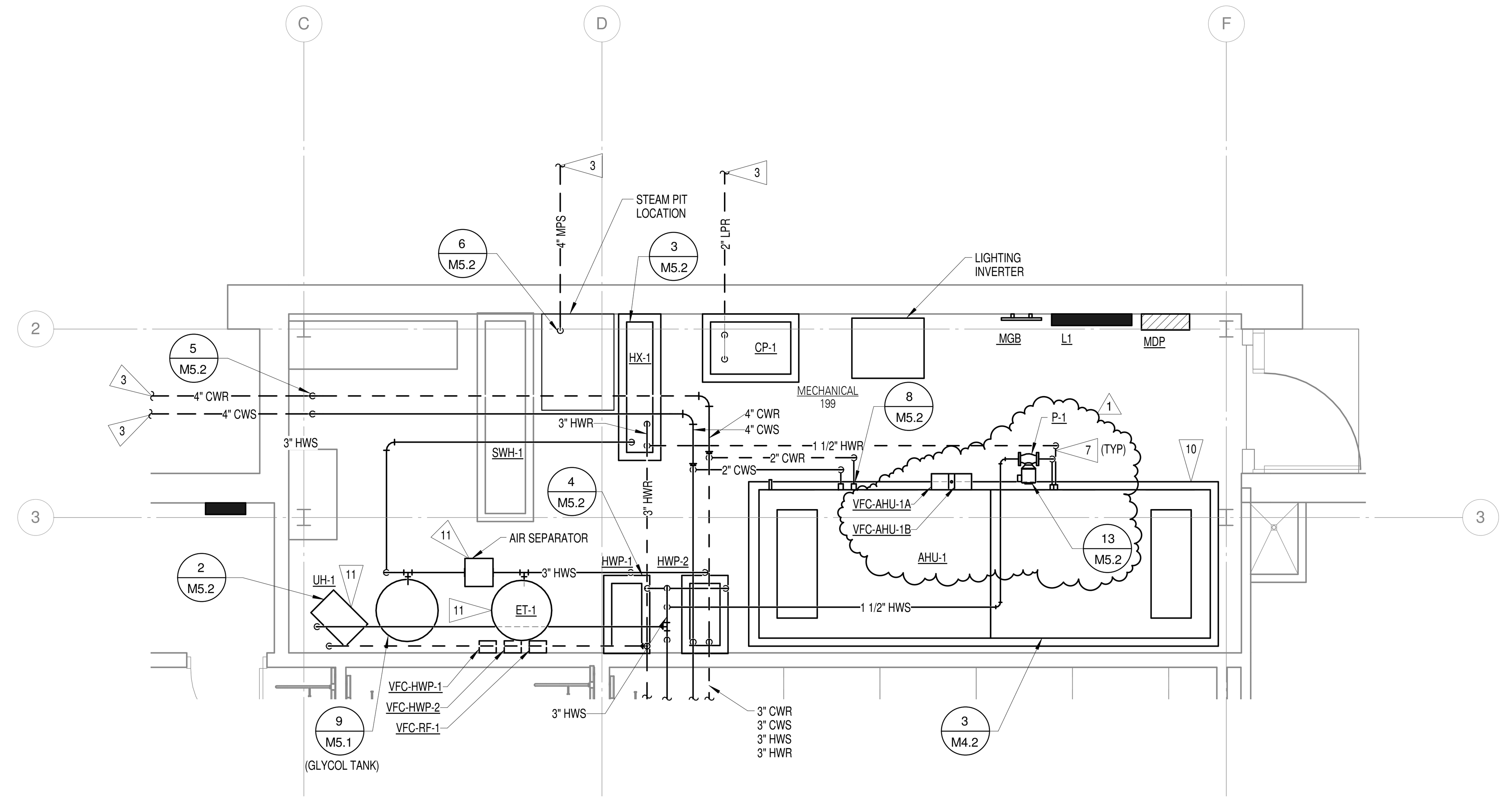
DOOR DETAILS, FRAME ELEVATIONS

A10.02

7/5/2012 10:46:42 AM



1 ENLARGED MECHANICAL 106 PLAN - PIPING
1/4" = 1'-0"



2 ENLARGED MECHANICAL 199 PLAN - PIPING
1/4" = 1'-0"

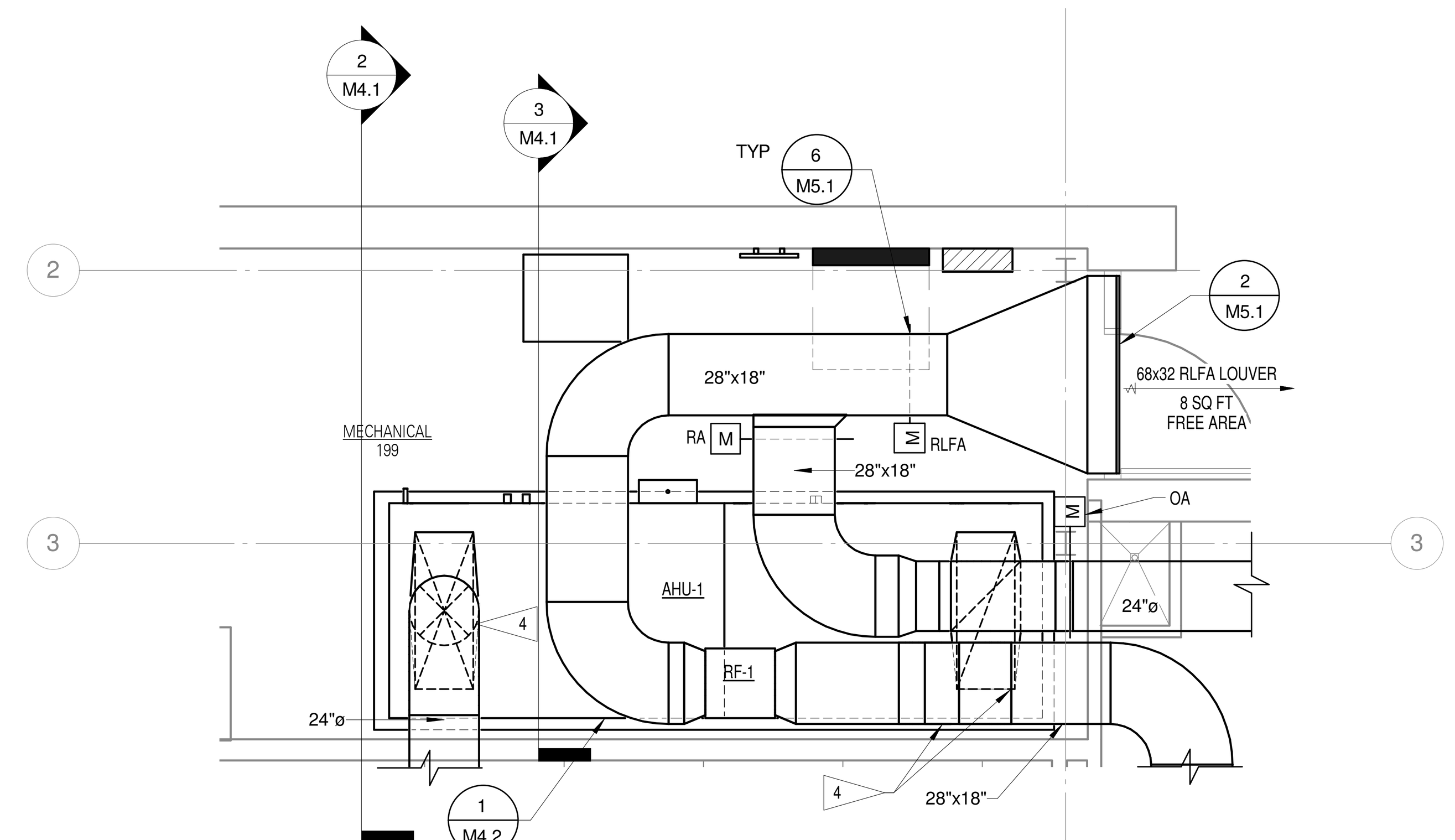
HVAC GENERAL NOTES

1. SEE ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT DIFFUSER, REGISTER, GRILLE, AND CEILING MOUNTED DEVICE LOCATIONS.
2. DO NOT RUN DUCTWORK OR PIPING ABOVE ELECTRICAL PANELS OR IN CODE REQUIRED CLEARANCE SPACES. COORDINATE ALL ROUTING WORK WITH ALL TRADES. DRAWINGS ARE DIAGRAMMATIC AND DO NOT NECESSARILY SHOW ALL OFFSETS REQUIRED FOR COMPLETE SYSTEM.
3. CONTRACTOR SHALL COORDINATE LOCATION OF DUCTWORK IN CEILING SPACE WITH ALL TRADES PRIOR TO FABRICATION AND INSTALLATION OF DUCTWORK.
4. FOR GENERAL DUCTWORK CONSTRUCTION, SEE DUCT FITTING DETAILS.
5. PROVIDE VOLUME DAMPER IN ALL BRANCH TAKEOFFS CONNECTING TO DIFFUSERS OR REGISTERS.
6. PROVIDE CLEARANCES TO ALL EQUIPMENT AS REQUIRED BY MANUFACTURERS' INSTALLATION AND OPERATION REQUIREMENTS AND/OR BY CODE.
7. INSTALL ALL DUCT AND PIPING IN MECHANICAL ROOMS AS HIGH AS POSSIBLE. PROVIDE 7'-0" MINIMUM HIGH ACCESS PATHWAYS TO ALL EQUIPMENT.
8. ALL FLOOR MOUNTED HVAC EQUIPMENT WILL REQUIRE A 4" HOUSEKEEPING PAD. COORDINATE LOCATIONS OF ALL EQUIPMENT HOUSEKEEPING PADS WITH GENERAL CONTRACTOR.
9. LOCATE ALL WALL MOUNTED HVAC EQUIPMENT AT A MINIMUM 7'-0" ABOVE FINISHED FLOOR OR AS REQUIRED FOR SERVICE PER MANUFACTURERS' RECOMMENDATIONS.
10. DUCTWORK SHALL NOT BE FABRICATED UNTIL ALL COORDINATION CONFLICTS HAVE BEEN RESOLVED.
11. CAP ENDS OF ALL INSTALLED DUCTWORK DURING CONSTRUCTION TO MINIMIZE DIRT, DEBRIS, AND FOREIGN OBJECTS FROM ENTERING THE DUCT SYSTEM.
12. PROVIDE ACCESS SPACE AROUND TERMINAL UNITS AS REQUIRED PER MANUFACTURERS' RECOMMENDATIONS.
13. COORDINATE LOCATION OF DUCTWORK WITH ELECTRICAL CABLE TRAYS.
14. ALL WORK SHALL COMPLY WITH LOCAL CODES, INTERNATIONAL BUILDING CODE, INTERNATIONAL MECHANICAL CODE, AND NFPA.
15. ALL DUCT INSULATION SHALL MEET THE ENERGY CODE'S INSTALLED R VALUE REQUIREMENTS.
16. PLENUM RATED CABLE REQUIRED IN ALL CEILINGS.
17. TERMINAL UNITS TO BE LOCATED NO MORE THAN 24" ABOVE THE CEILING.

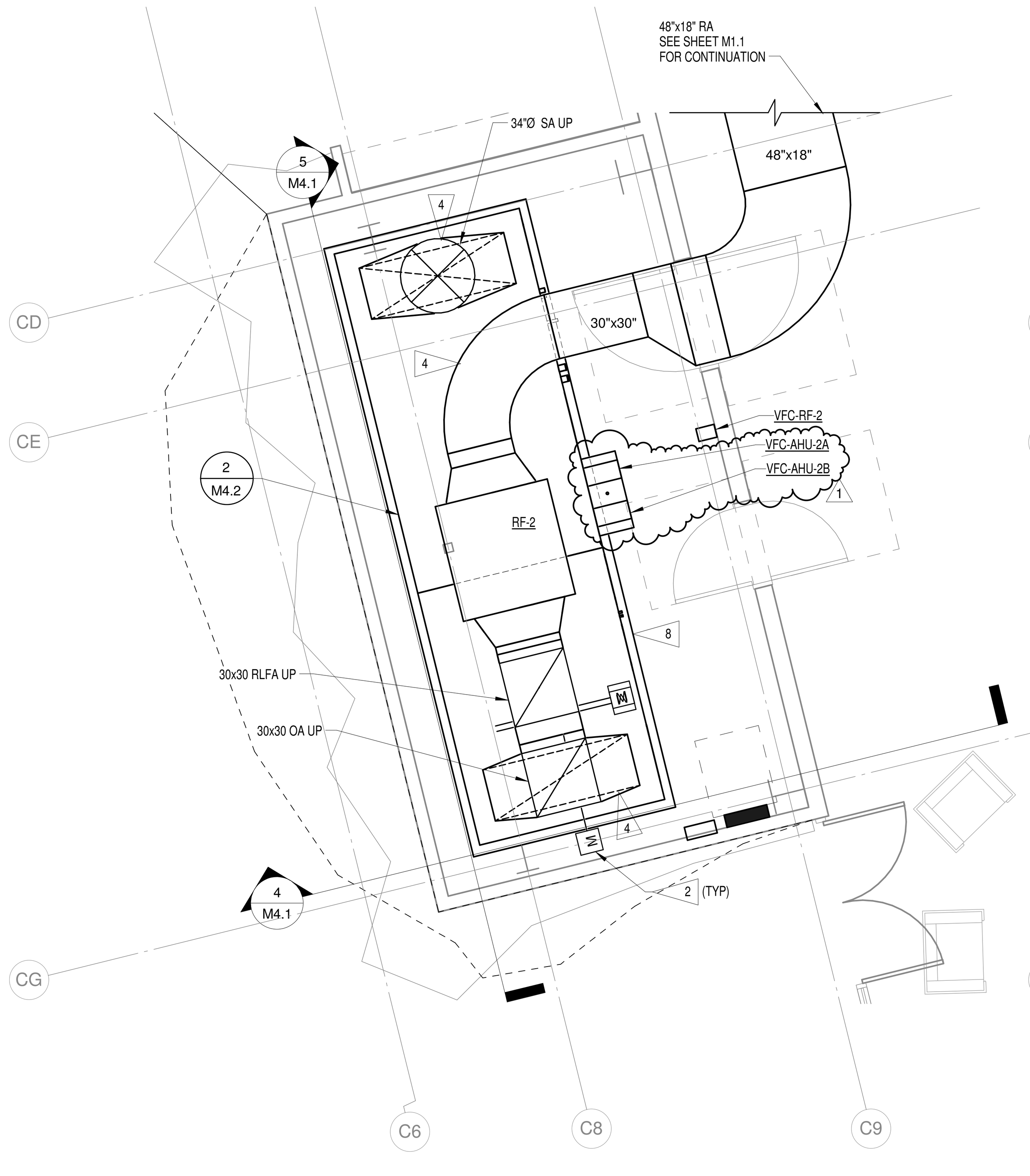
FLAG NOTES

1. AHU-2 COIL ACCESS CLEAR SPACE. COORDINATE FINAL MAN DOOR LOCATIONS WITH FINAL AIR HANDLING UNIT COIL ACCESS DOOR LOCATIONS.
2. MOTORIZED DAMPER CONTROLLED BY BMCS.
3. EXTEND PIPE TO 5'-0" BEYOND BUILDING FOOTPRINT AND CONNECT TO UTILITY. SEE CIVIL PLANS FOR EXACT UTILITY LOCATION.
4. INSTALL 1 1/2" ACOUSTICAL LINER IN ALL RECTANGULAR DUCTWORK OR ROUND LINED DOUBLE WALLED DUCT INSIDE MECHANICAL 106 AND 199 ENCLOSURES.
5. INSTALL BOTTOM OF LOUVERS MINIMUM 5 FEET ABOVE ROOF.
6. RESIDENTIAL TYPE KITCHEN HOOD WITH FIRE PROTECTION.
7. DROP HEATING WATER SUPPLY/RETURN AND CHILLED WATER SUPPLY/RETURN DIRECTLY IN FRONT OF CONNECTIONS. PROVIDE UNIONS TO DISCONNECT EQUIPMENT FOR COIL SERVICE.
8. PROVIDE A GAP BETWEEN THE AHU-2 PAD AND THE FLOOR SLAB. TOP OF PAD TO BE MINIMUM 7" ABOVE TOP OF FLOOR.
9. ROUTE 8" DRYER VENT TO A SIDEWALL VENT TERMINATION EQUIPPED WITH A BACKDRAFT DAMPER PER MANUFACTURERS RECOMMENDATIONS.
10. TOP OF AHU-1 PAD TO BE MINIMUM 9" ABOVE TOP OF FLOOR.
11. CEILING MOUNTED.

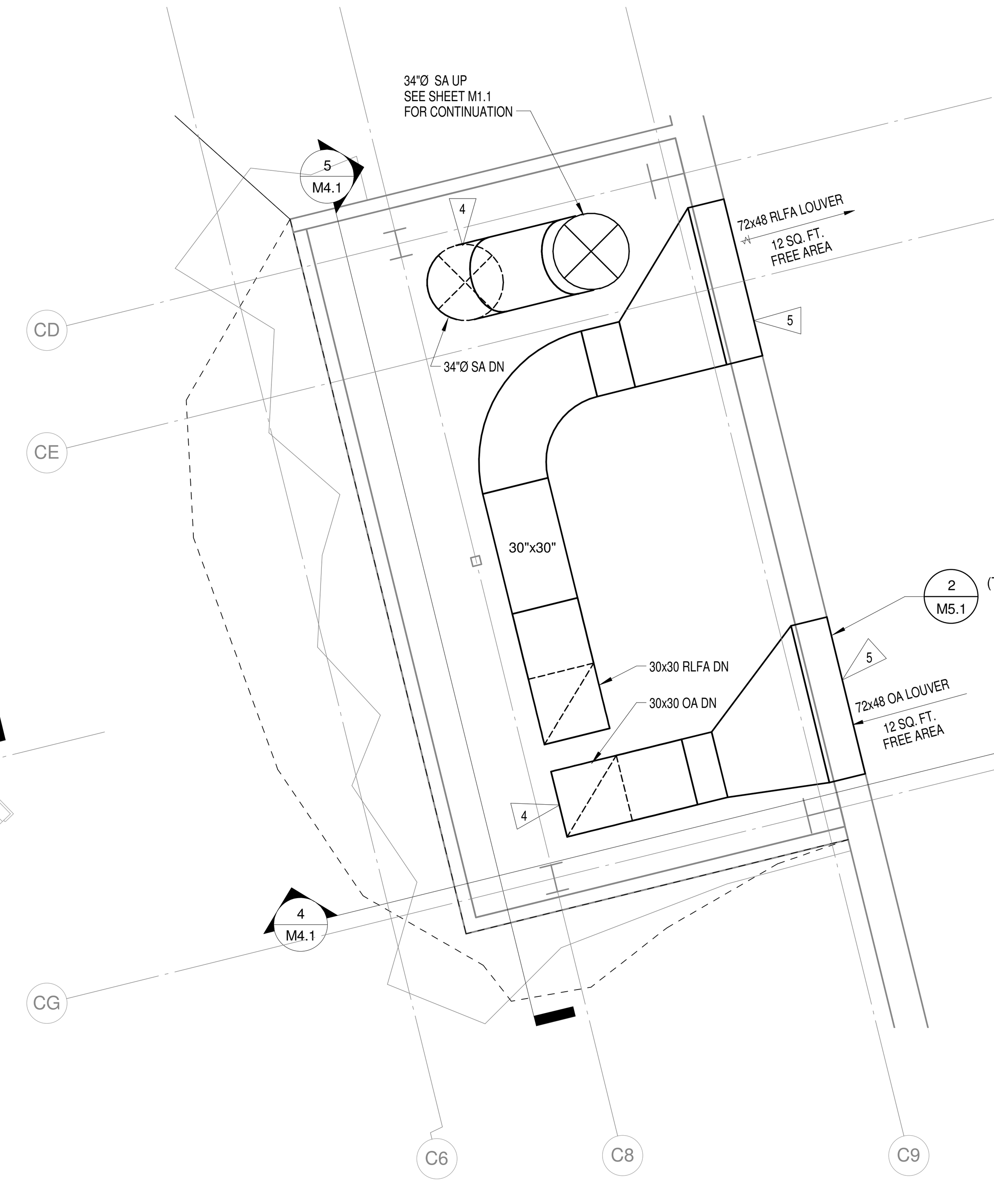
June 1, 2012



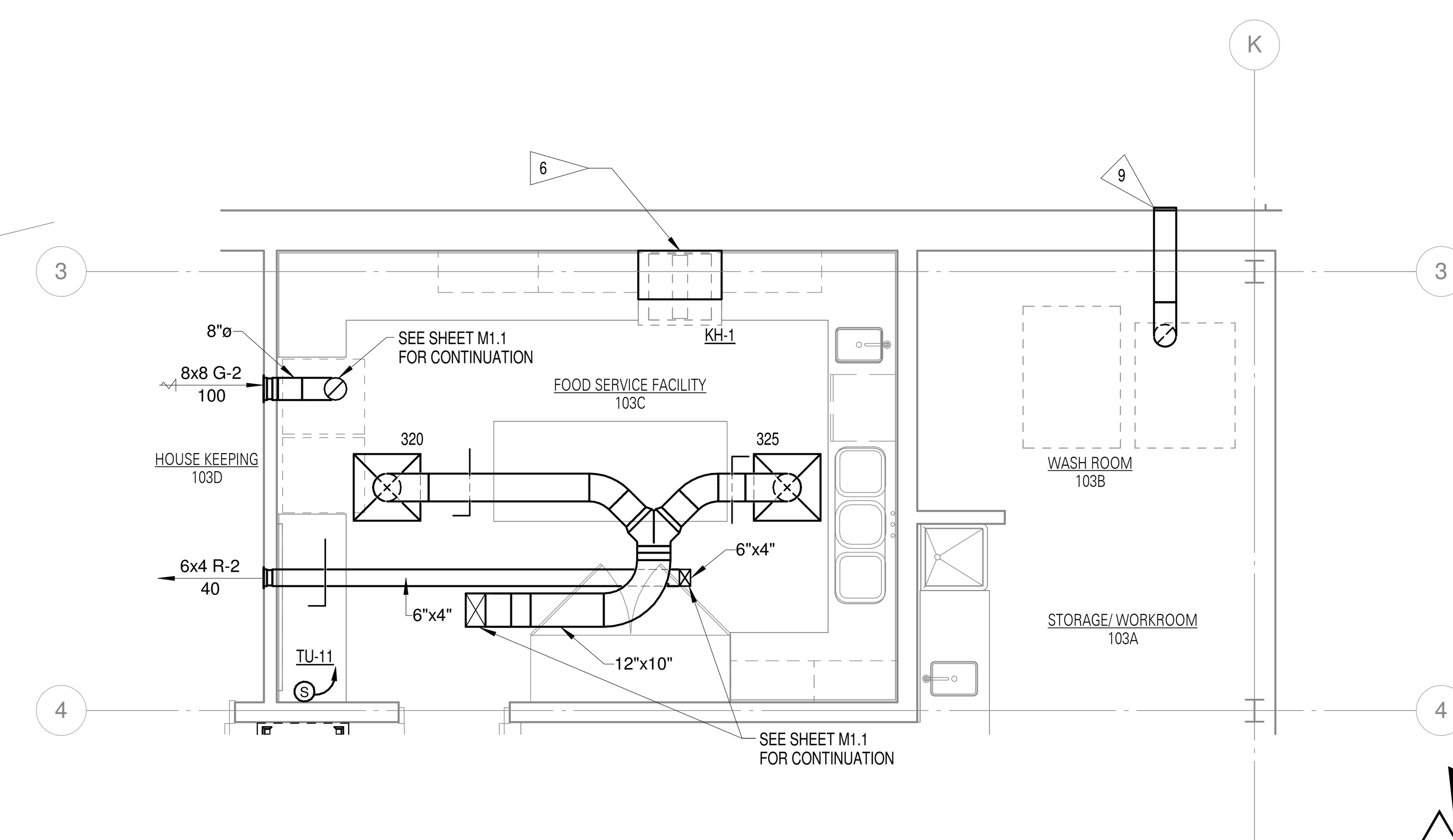
5 PARTIAL ENLARGED MECHANICAL 199 PLAN - HVAC
1/4" = 1'-0"



3 ENLARGED MECHANICAL 106 LOWER PLAN - HVAC
1/4" = 1'-0"



4 ENLARGED MECHANICAL 106 UPPER PLAN - HVAC
1/4" = 1'-0"



6 ENLARGED FOOD SERVICE FACILITY 103C PLAN - HVAC
1/4" = 1'-0"

NOTE:
DO NOT SCALE DRAWINGS. VERIFY ALL DIMENSIONS and clearances from ARCHITECTURAL, STRUCTURAL, shop and other appropriate drawing or at site. Lay out and coordinate all work prior to installation to provide clearances required for operation, maintenance, and codes and verify non-interference with other work. DO NOT FABRICATE PRIOR TO VERIFICATION OF CLEARANCE FOR ALL TRADES. READ SPECIFICATIONS.

Alvine Engineering

UNIVERSITY OF NEBRASKA-LINCOLN OUTDOOR ADVENTURES CENTER
14th and W, Lincoln, NE

UNL PROJECT NO: C220P001
ISSUED: 06.01.12
PROJECT NO: 2011.182.00
PROJECT FILE: CONSTRUCTION DOCUMENTS - BID ISSUE

ENLARGED MECHANICAL FLOOR PLANS

M3.1

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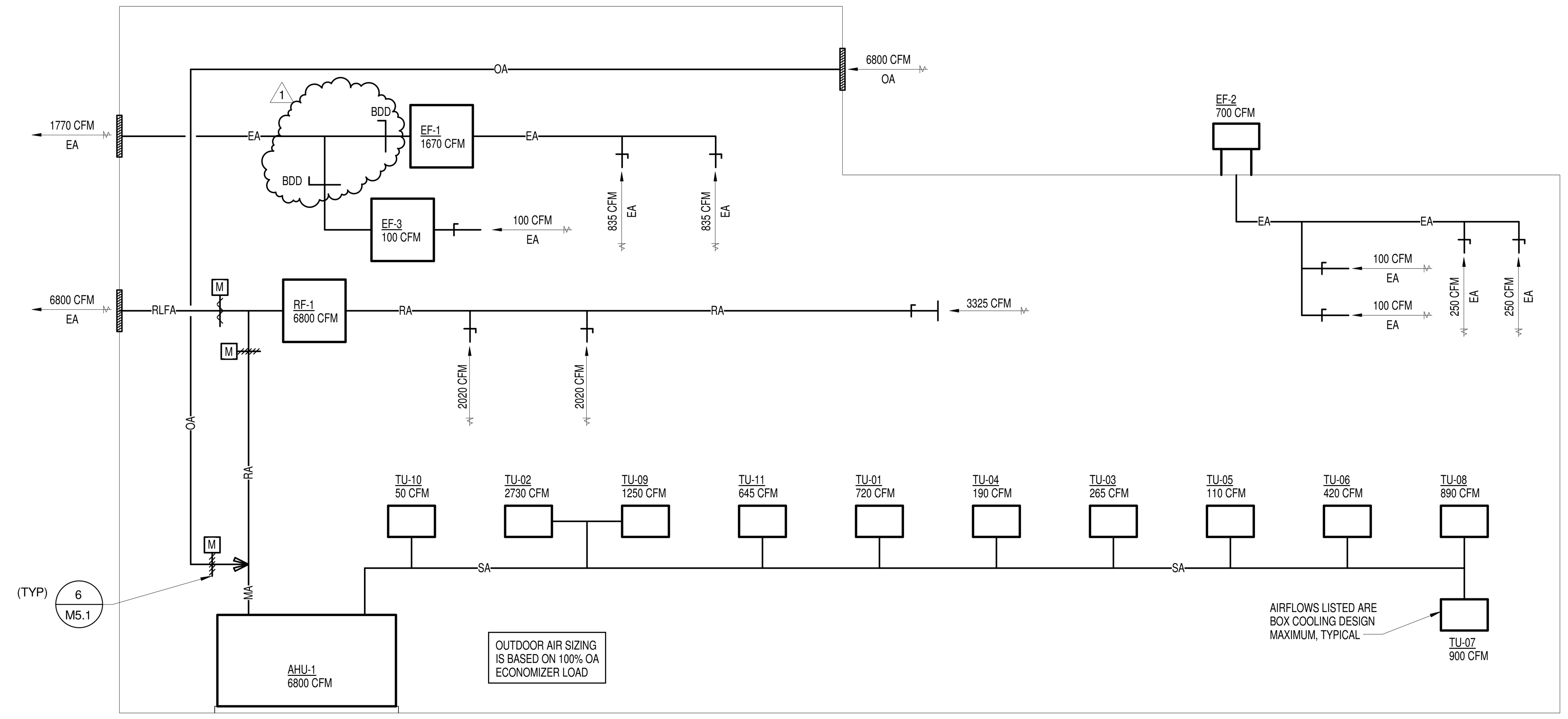
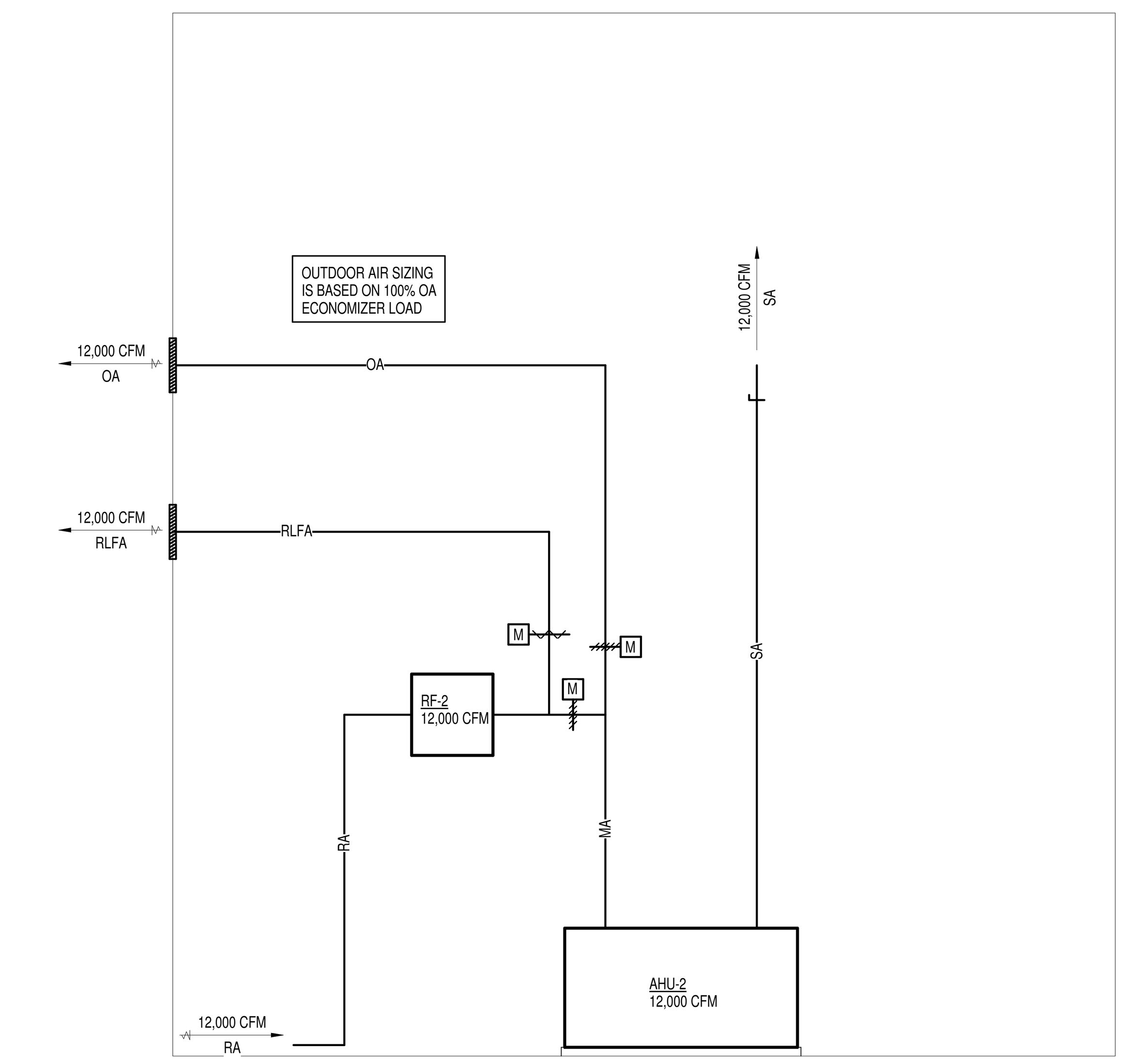
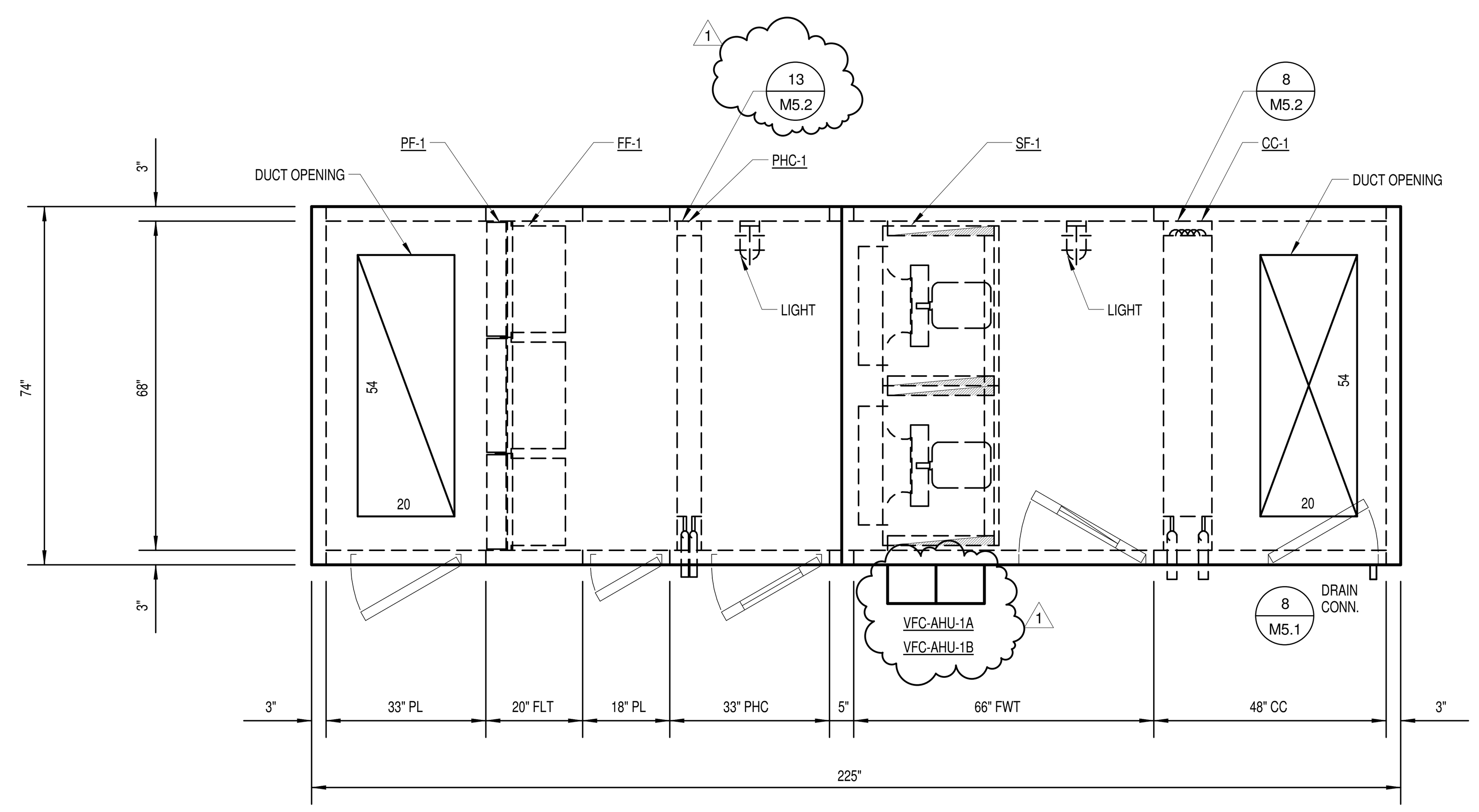


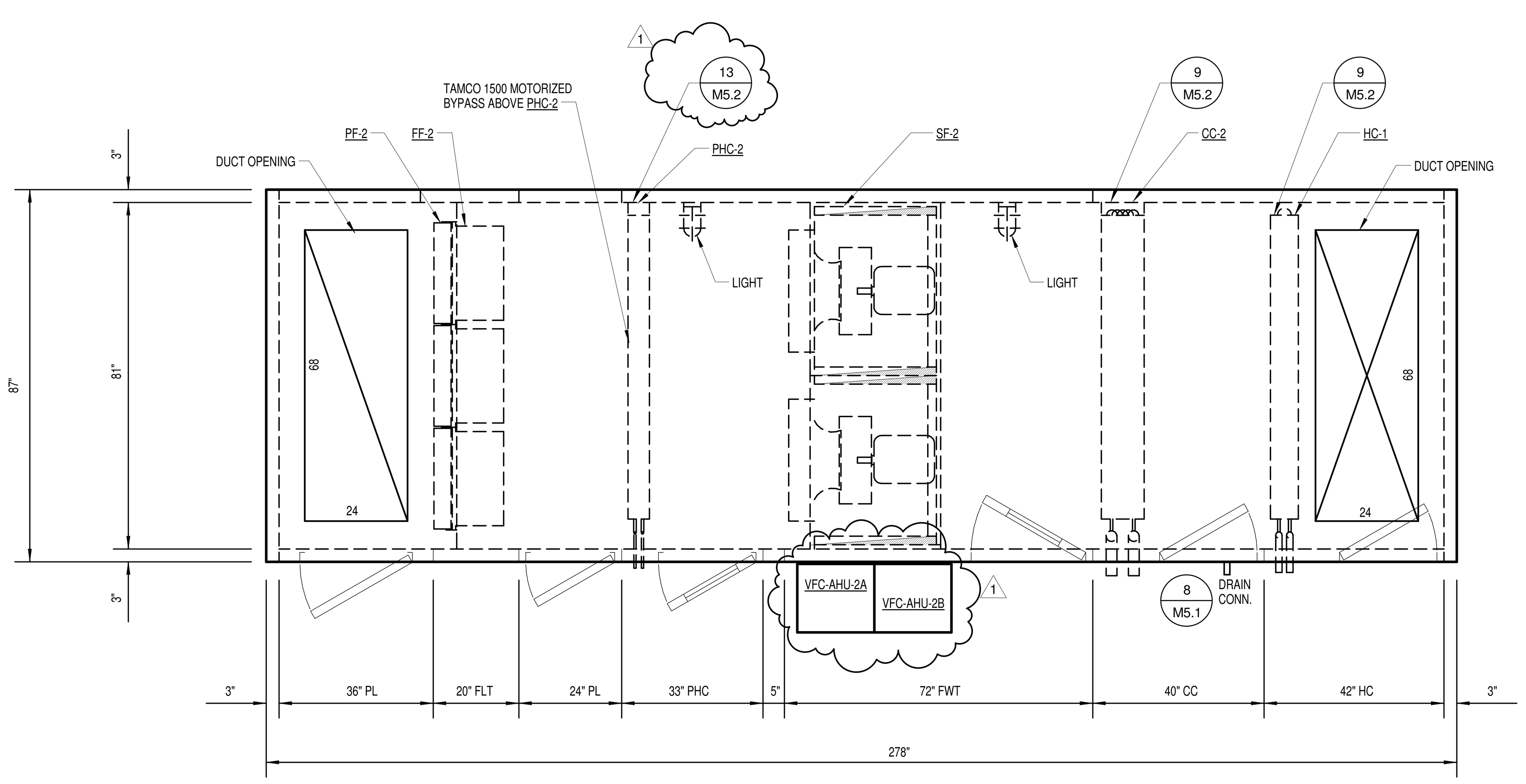
1 AHU-1 AIRFLOW DIAGRAM
NO SCALE



2 AHU-2 AIRFLOW DIAGRAM
NO SCALE



3 AHU-1 PLAN
NO SCALE



4 AHU-2 PLAN
NO SCALE

NOTE:

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June 1, 2012

UNIVERSITY OF NEBRASKA-LINCOLN OUTDOOR ADVENTURES CENTER

14th and W, Lincoln, NE

Revision Schedule
1 07/06/2012 ADDENDUM 3

UNL PROJECT NO: C220P001
ISSUED: 06.01.12
PROJECT NO: 2011.182.00
PROJECT FILE: CONSTRUCTION DOCUMENTS - BID ISSUE

MECHANICAL AIRFLOW DIAGRAMS

M4.2

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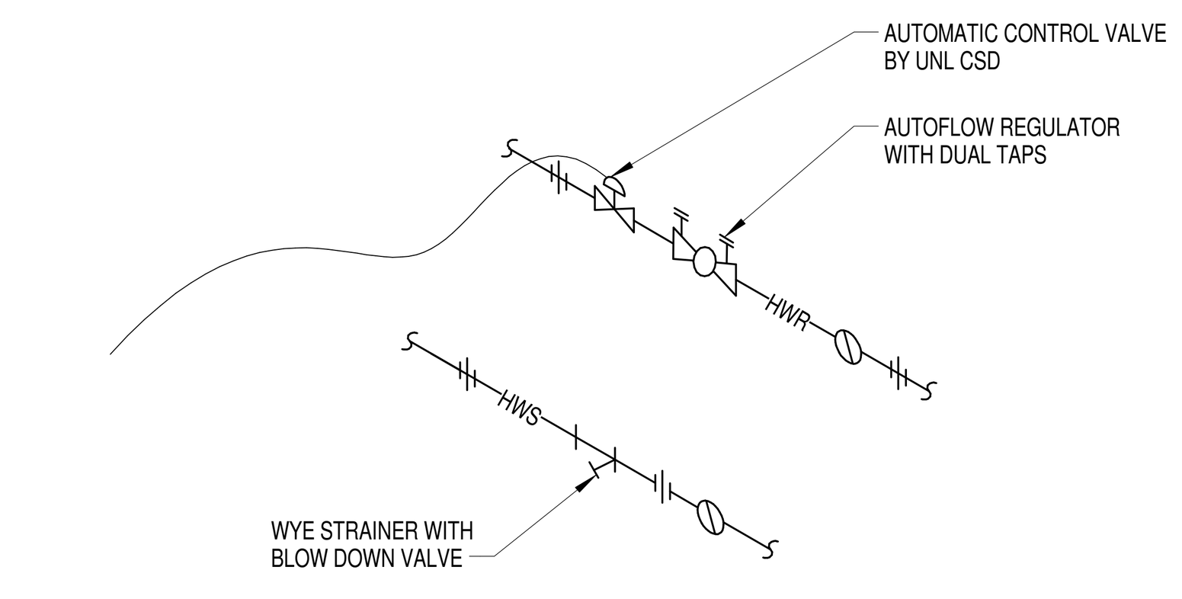
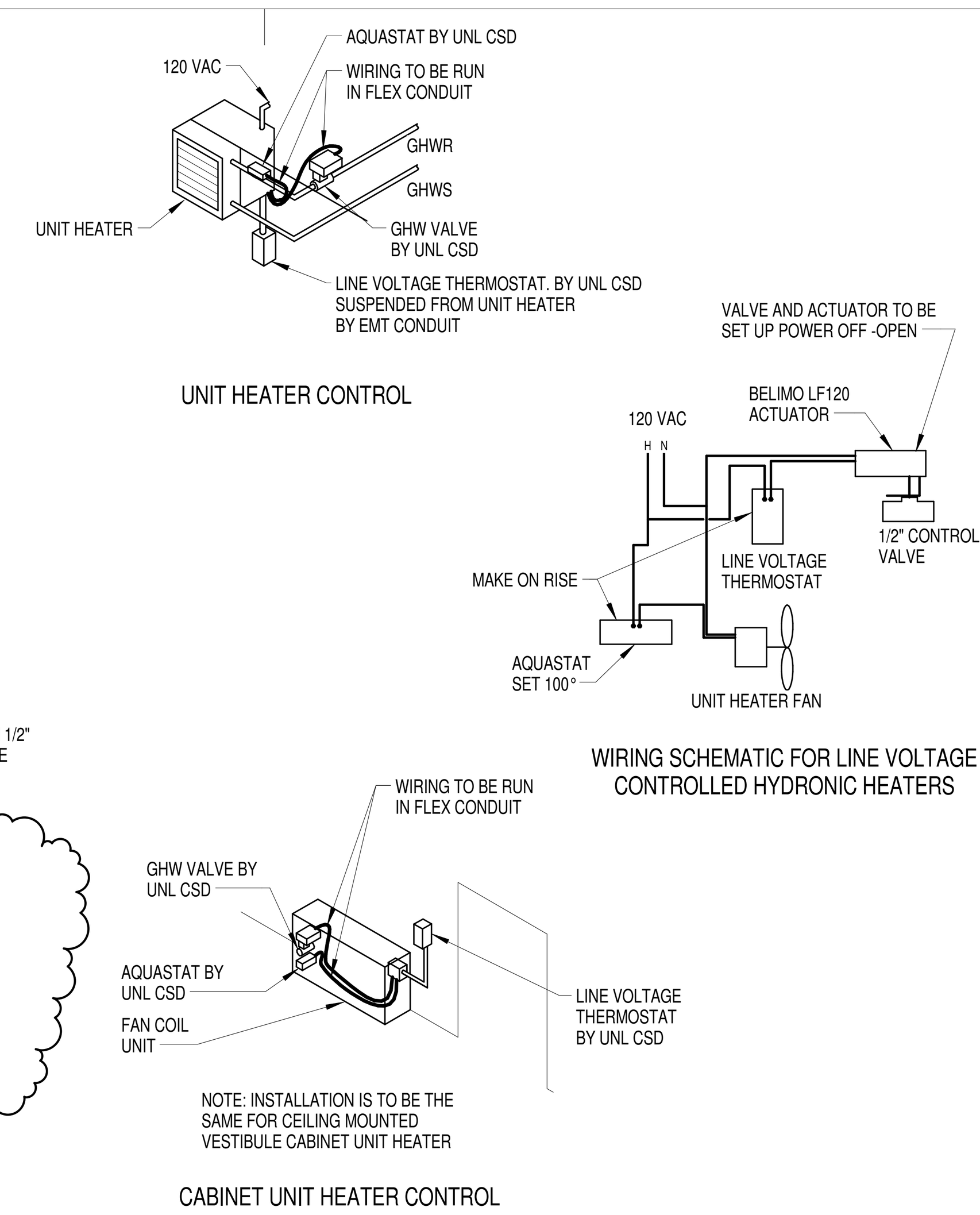


1 FIN TUBE RADIATION CONTROL/PIPING DETAIL
NO SCALE



2 HYDRONIC HEATER CONTROL DETAILS
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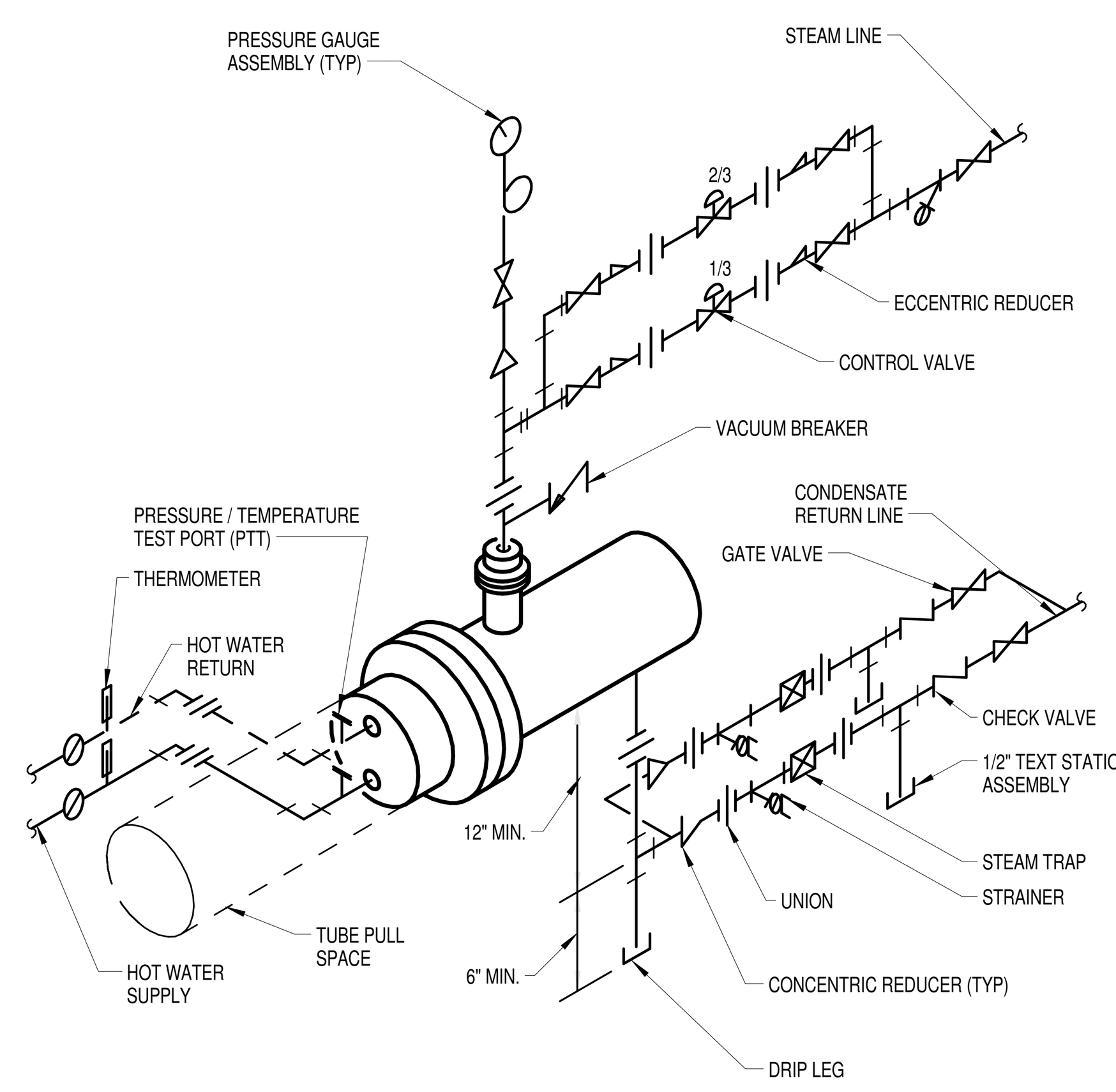

3 SHELL AND TUBE HEAT EXCHANGER DETAIL
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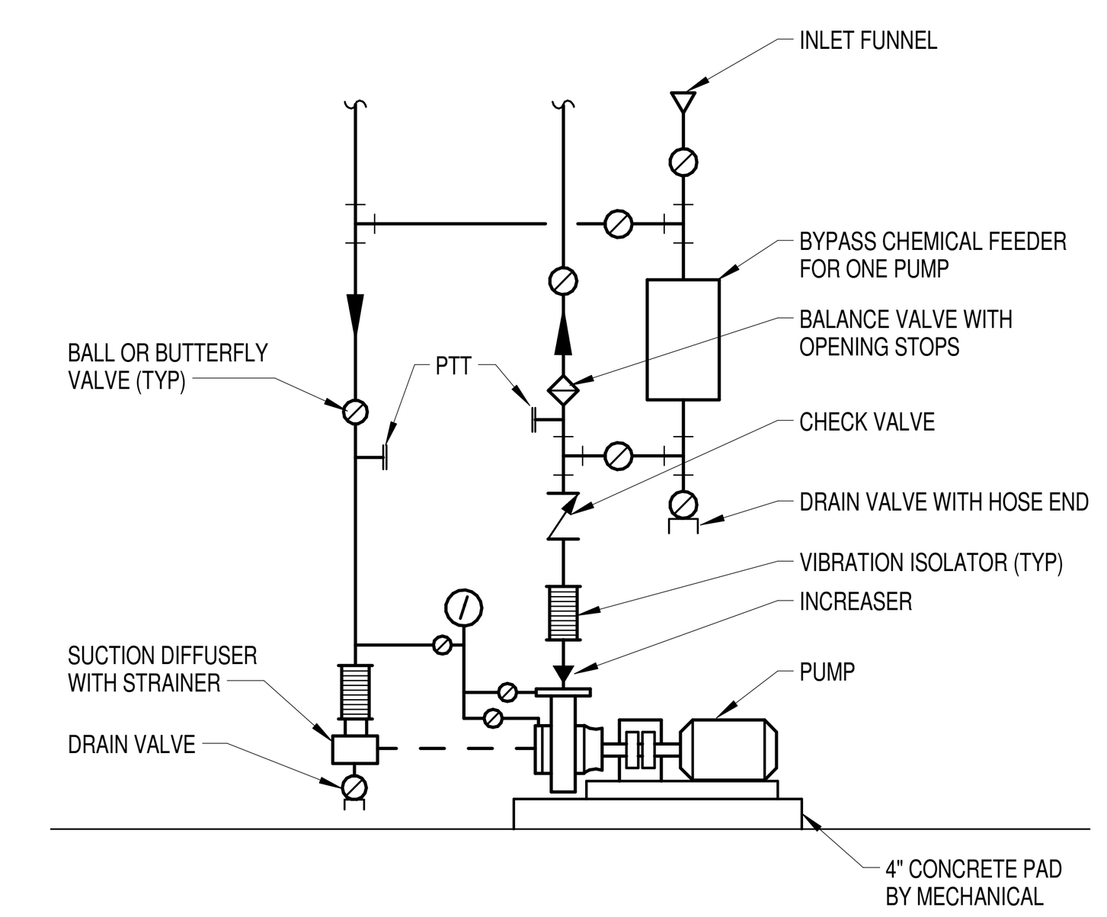
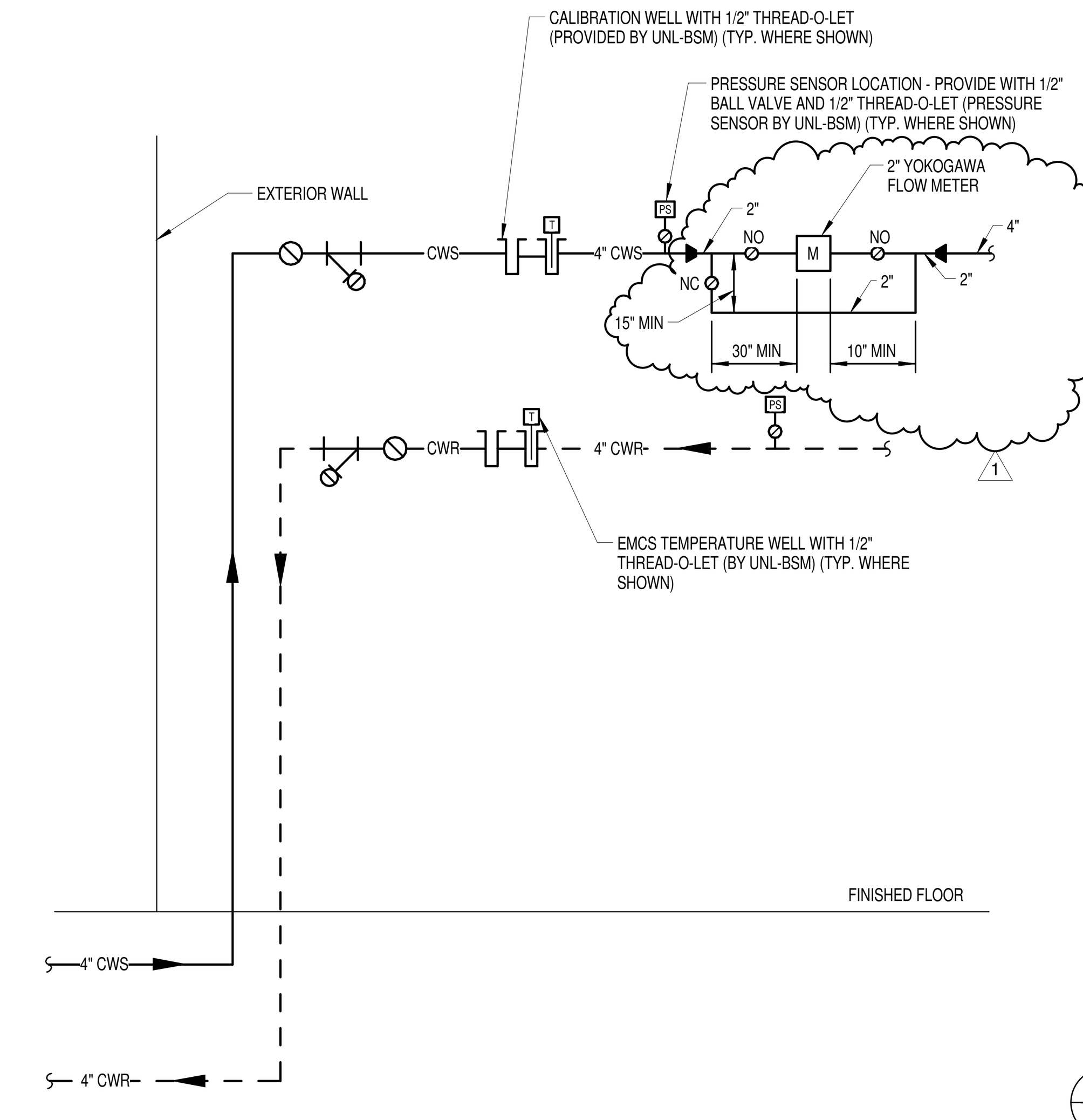


NOTE:
1. PROVIDE SUCTION DIFFUSER WITH STRAINER OR 5 DIAMETERS OF STRAIGHT PIPE AND STRAINER.
2. END SUCTION SHOWN FOR CLARITY. TYPICAL FOR ALL BASE MOUNTED PUMPS.
3. NO TRIPLE DUTY VALVE ALLOWED, MAY ONLY USE SEPARATE DEVICES.

4 END SUCTION PUMP PIPING DETAIL
NO SCALE



5 CHILLED WATER SYSTEM PIPING DIAGRAM
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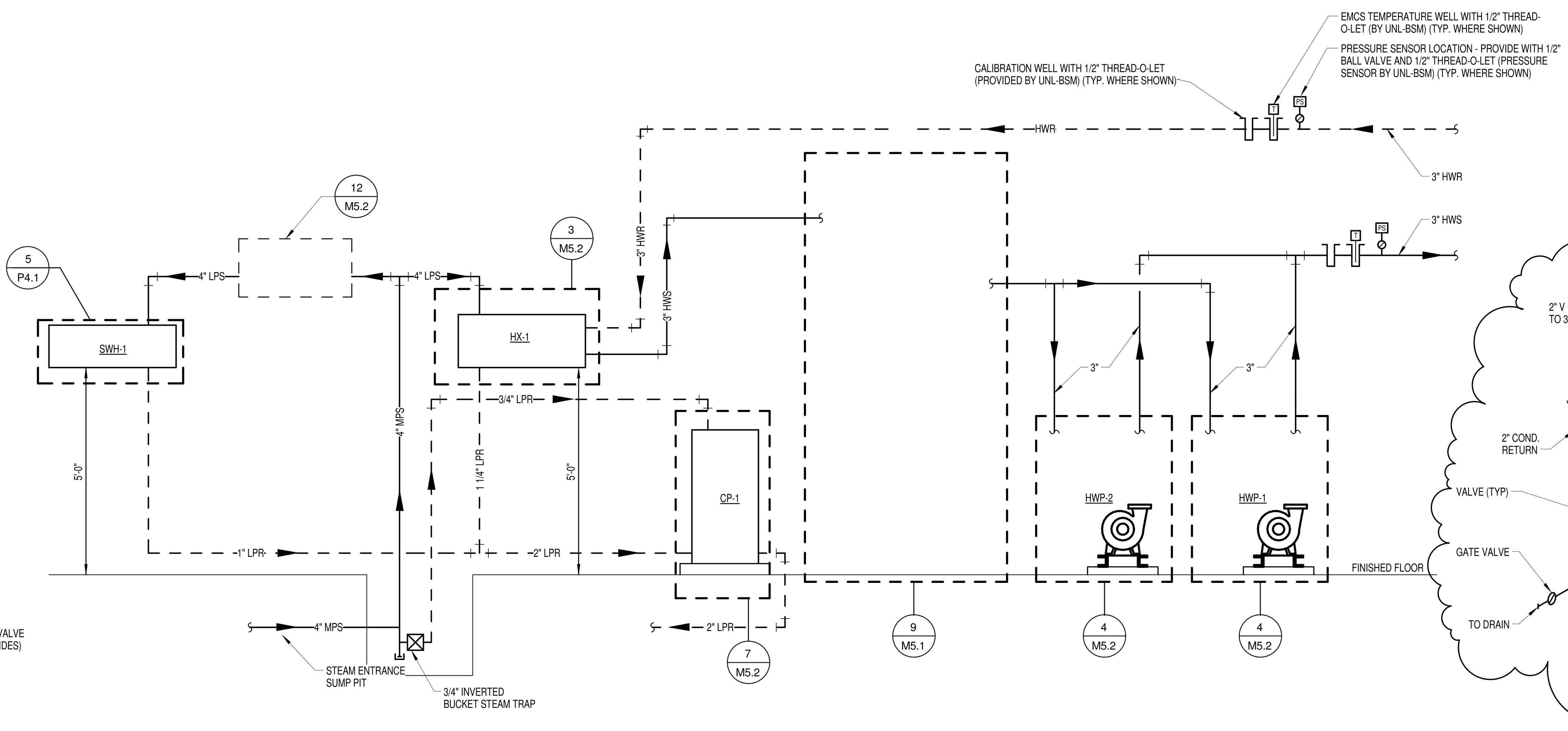
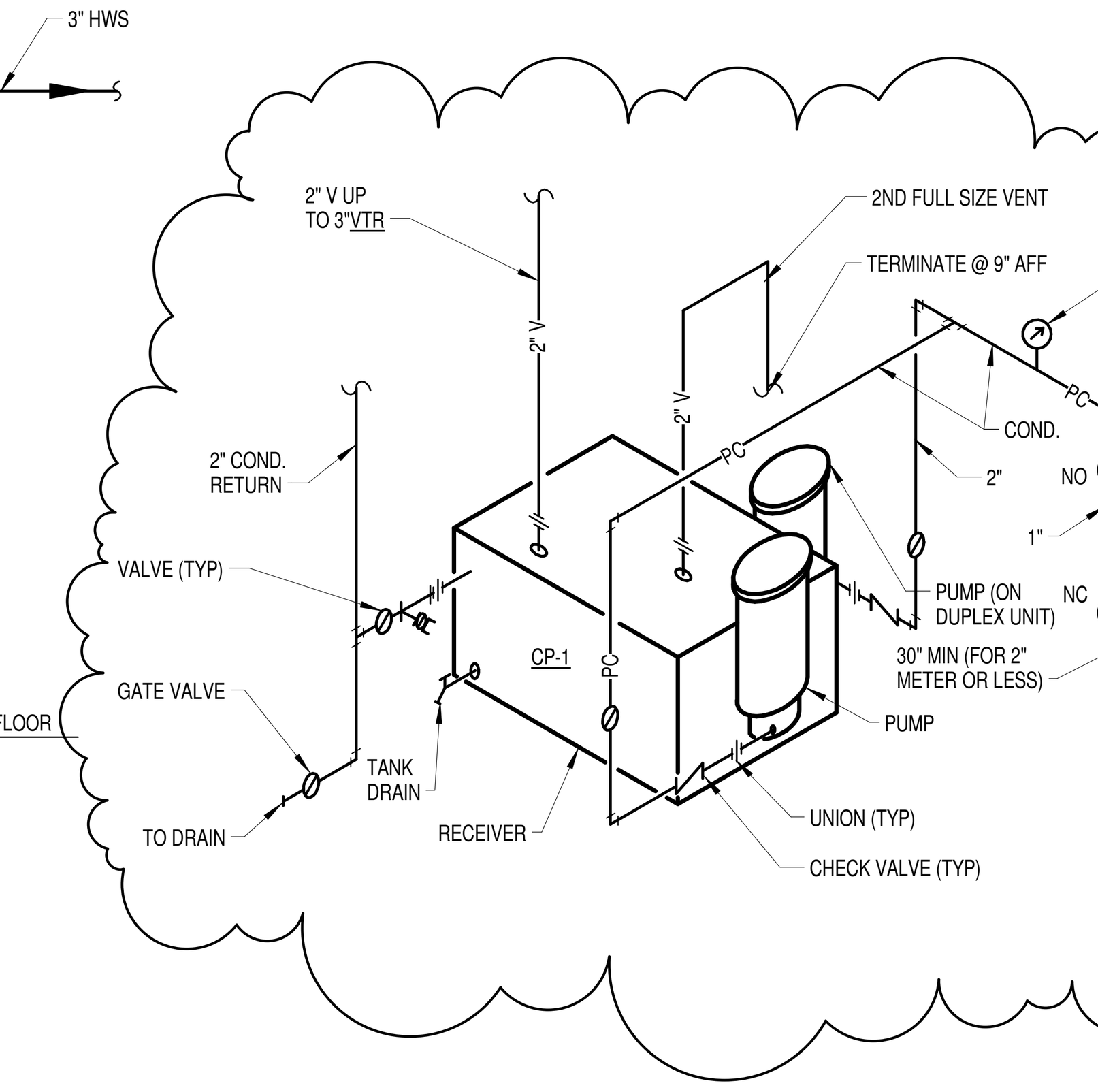
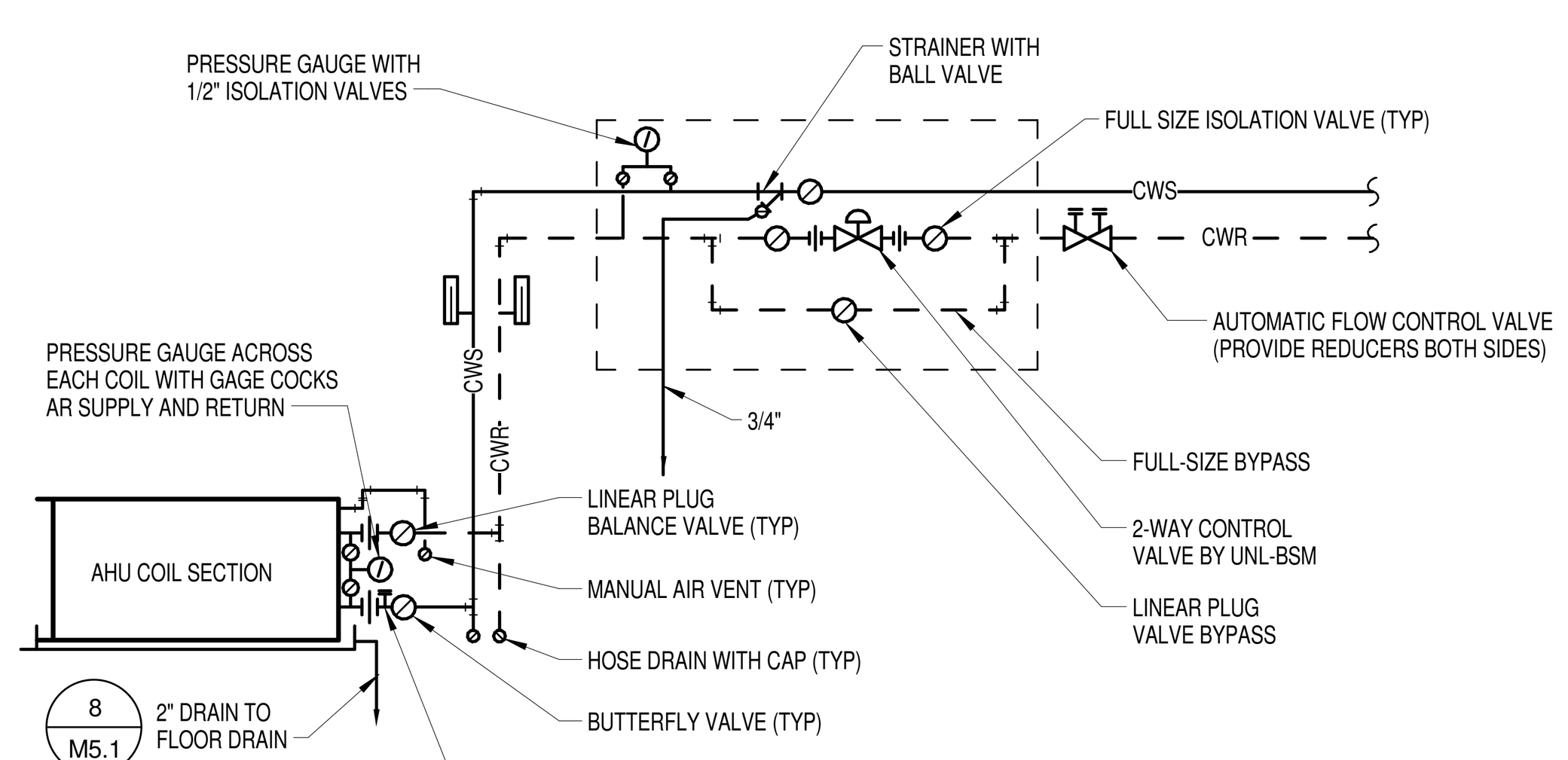


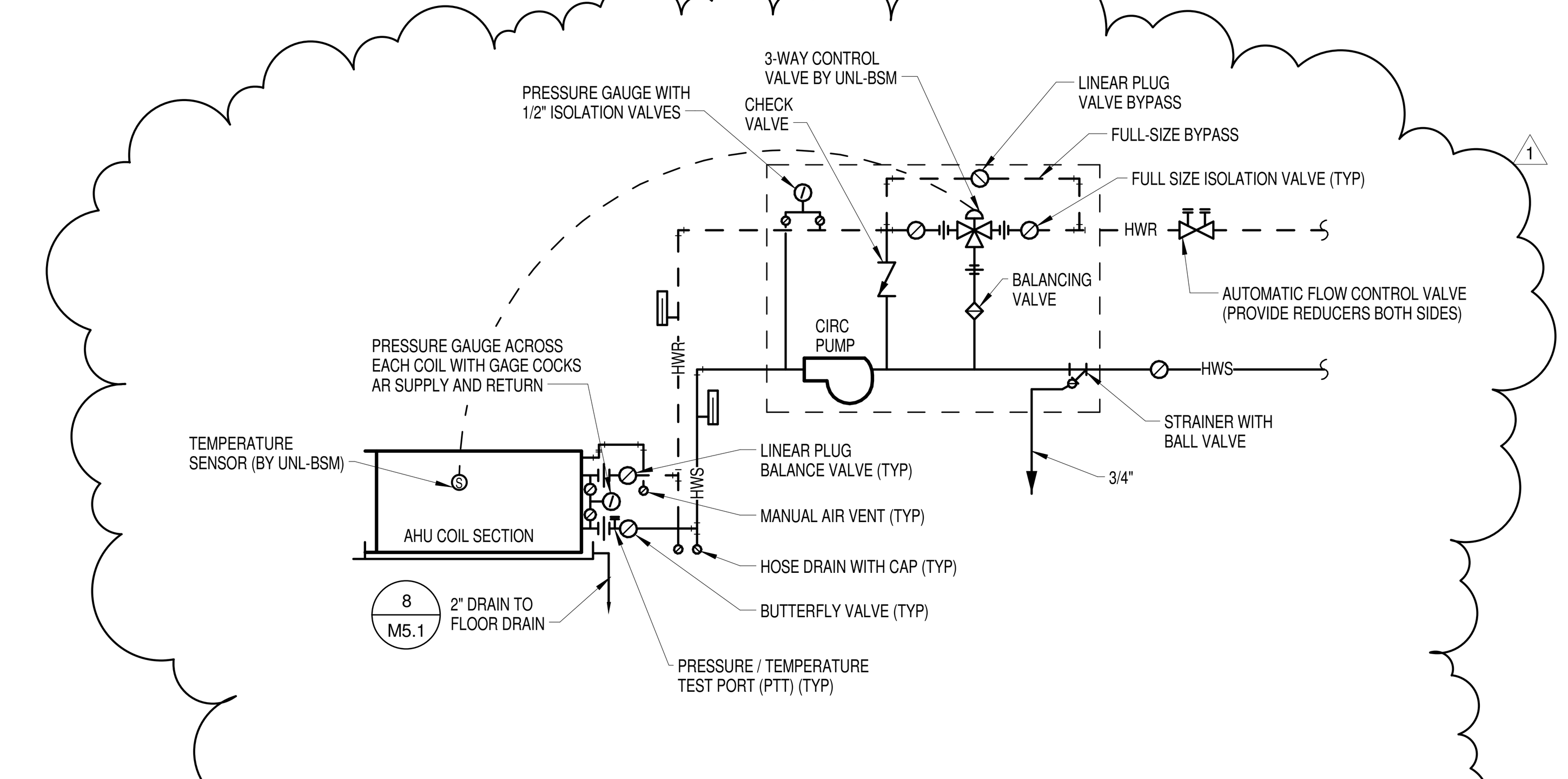
6 STEAM AND HEATING WATER SYSTEM PIPING DIAGRAM
NO SCALE



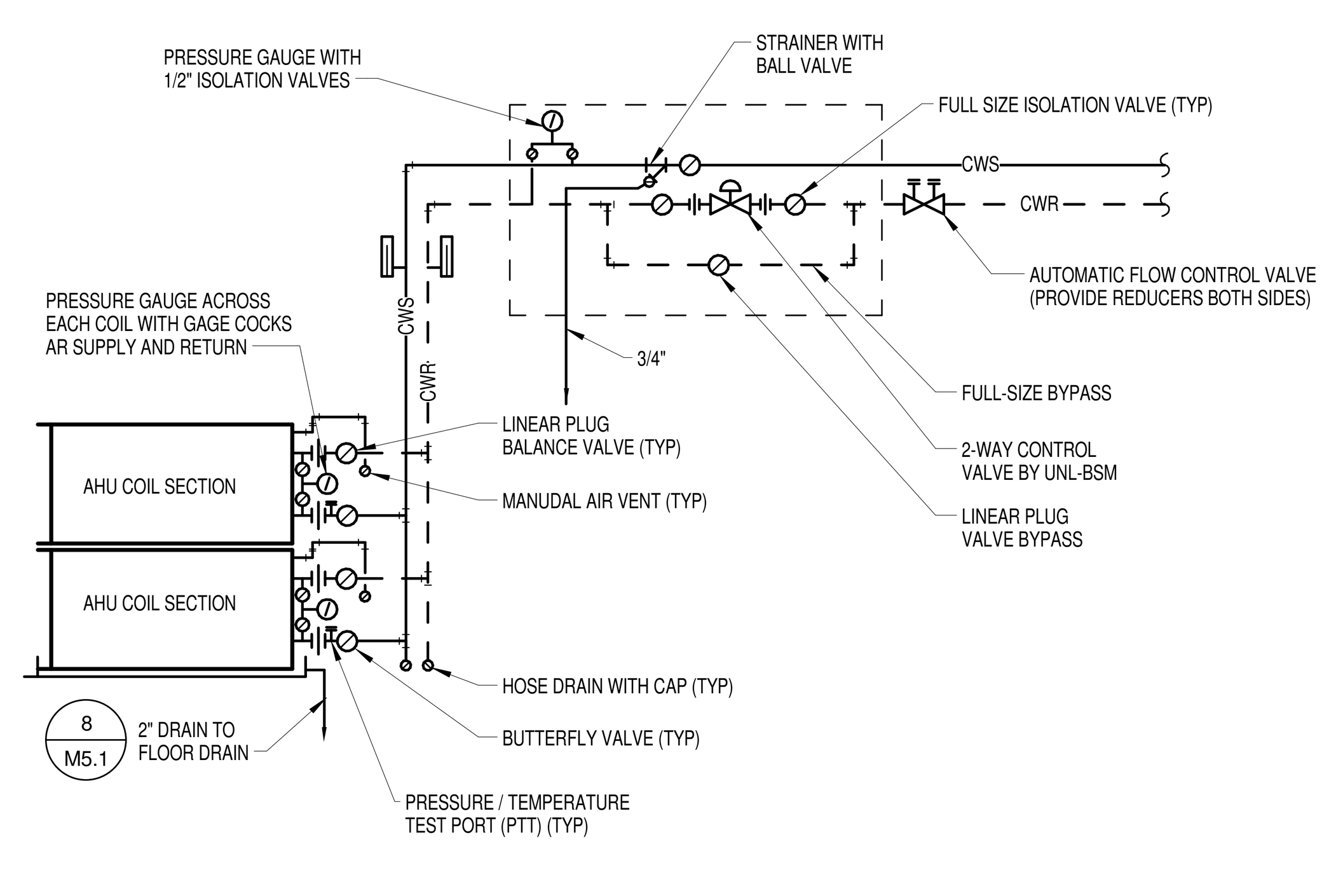
7 LOW PRESSURE CONDENSATE PUMP PIPING DETAIL
NO SCALE



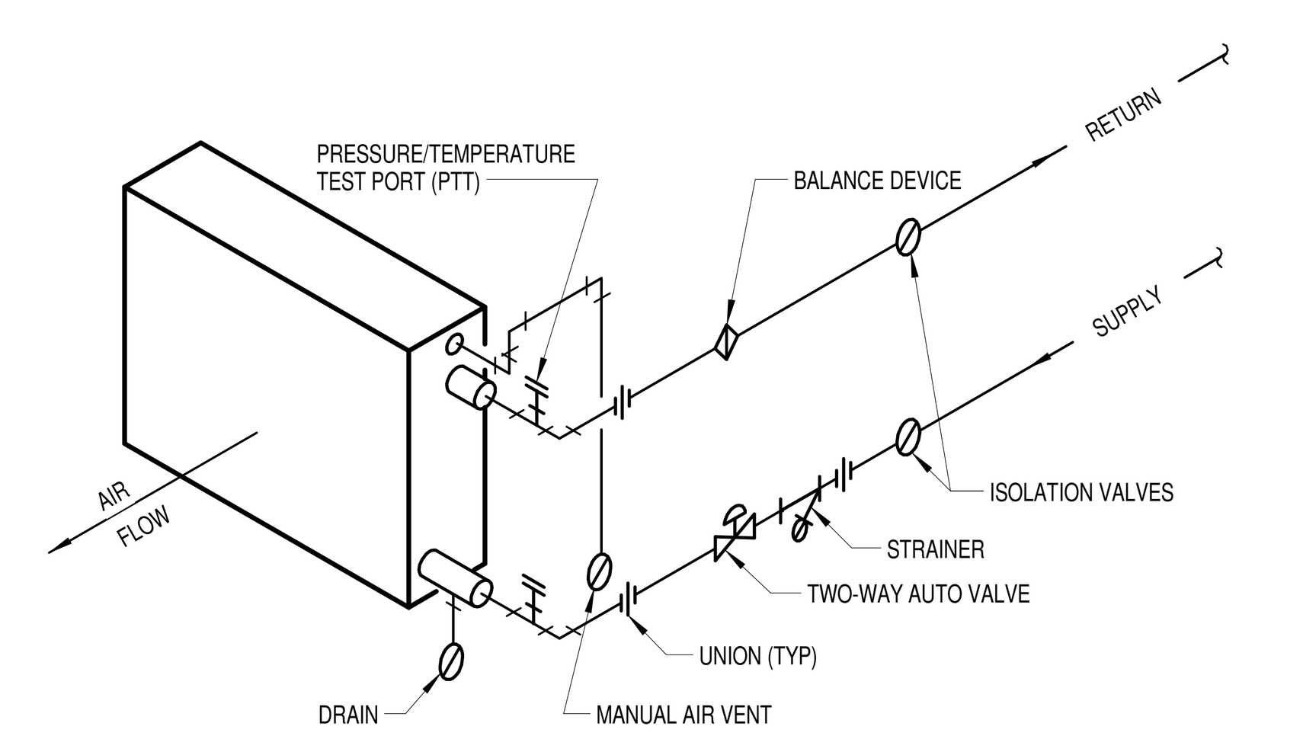
8 SINGLE WATER COIL DETAIL
NO SCALE



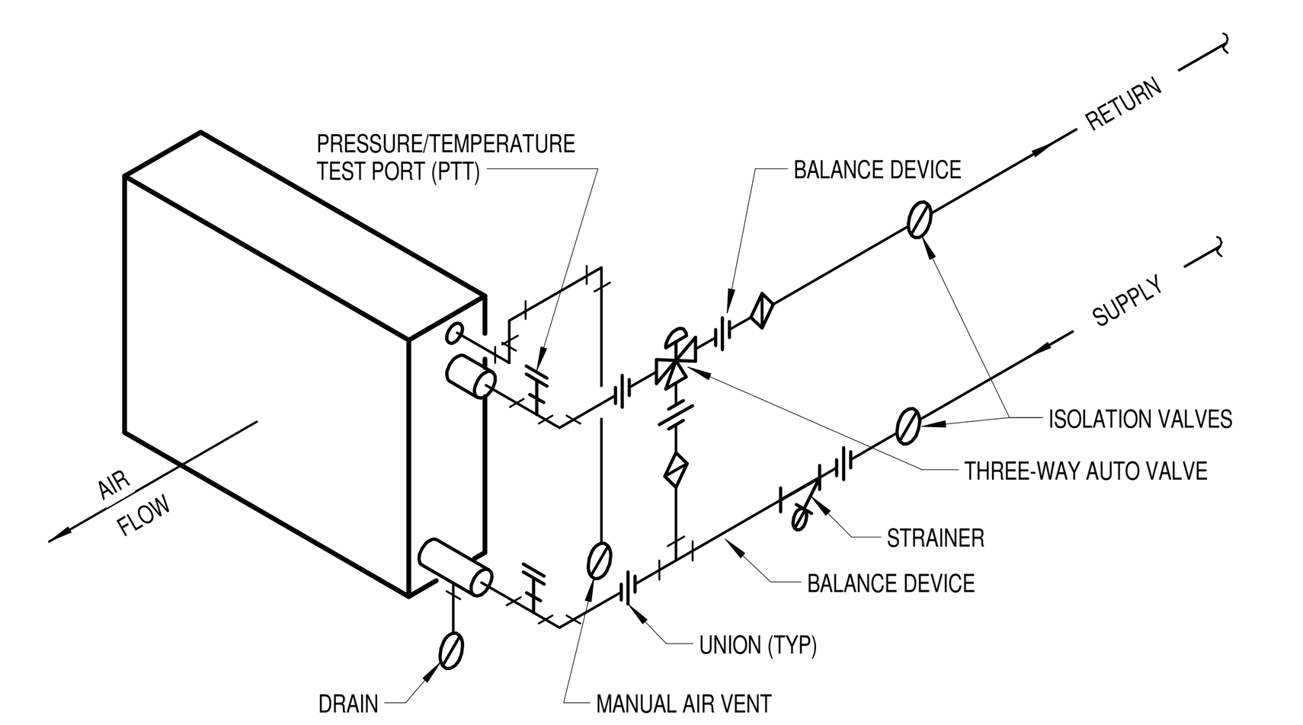
13 PREHEAT COIL DETAIL
NO SCALE



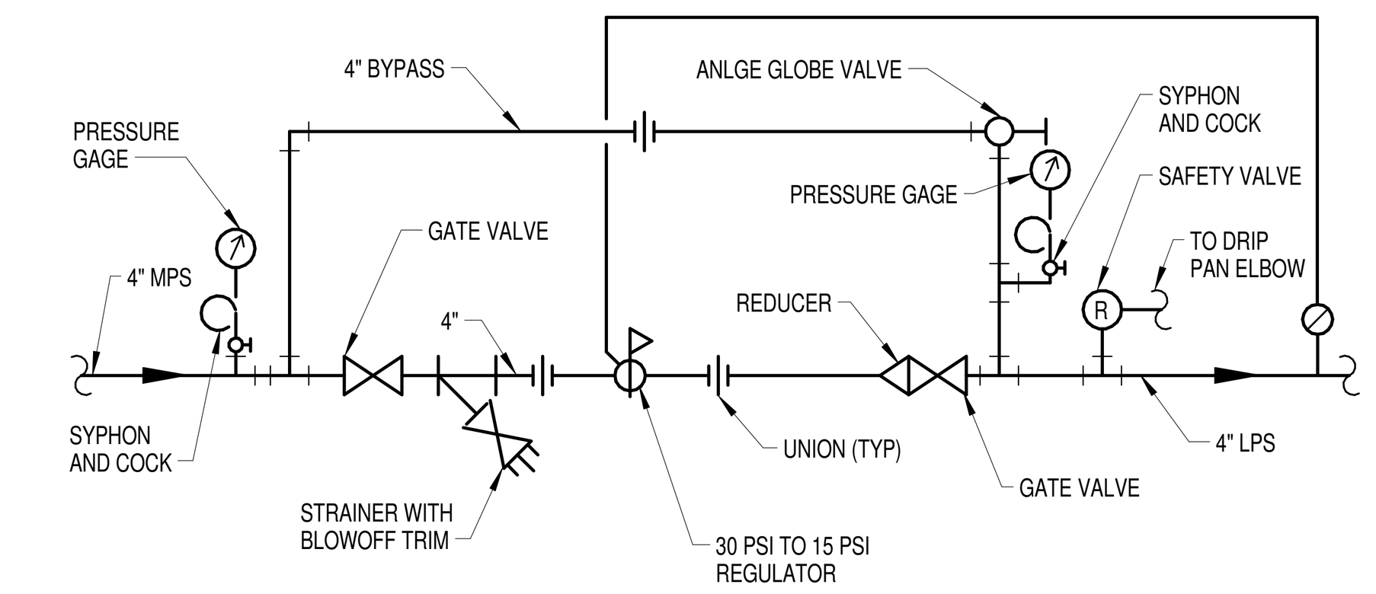
9 DOUBLE WATER COIL DETAIL
NO SCALE



10 TERMINAL UNIT HOT WATER COIL (2-WAY)
NO SCALE



11 TERMINAL UNIT HOT WATER COIL (3-WAY)
NO SCALE



12 STEAM PRESSURE REDUCING STATION DETAIL
NO SCALE

NOTE:
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June 1, 2012

UNIVERSITY OF NEBRASKA-LINCOLN OUTDOOR ADVENTURES CENTER
14th and W, Lincoln, NE

Revision Schedule

UNL PROJECT NO:	C220P001
ISSUED:	06.01.12
PROJECT NO:	2011.182.00
PROJECT FILE:	CONSTRUCTION DOCUMENTS - BID ISSUE

MECHANICAL DETAILS

M5.2

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AIR HANDLING UNIT SCHEDULE

GENERAL DATA

MARK	SERVES	LOCATION	TOTAL AIRFLOW (CFM)	MAXIMUM OUTSIDE AIRFLOW	MINIMUM OUTSIDE AIRFLOW	DIMENSIONS (LxWxH) (IN)	MAXIMUM WEIGHT (LBS)	CONFIGURATION	MANUFACTURER	REMARKS
AHU-1	SEE PLANS	MECHANICAL 199	6800	6800	2030	225x74x52	5022	HORIZONTAL BT	TEMTROL	(2)
AHU-2	CLIMBING CENTER	MECHANICAL 106	12000	12000	(5)	278x87x70	8684	HORIZONTAL BT	TEMTROL	(3) (6)

SUPPLY FAN DATA / SUPPLY FAN MOTPR DATA

AHU MARK	MARK	FAN TYPE	CLASS	EXTERNAL SP (IN W.C.)	TOTAL SP (IN W.C.)	DIAMETER	RPM	BHP	REMARKS	HP	RPM	VOLTS	PHASE	CONTROL DEVICE
AHU-1	SF-1	PLUG	2	3.0	6.25	16	3700	(7)	-	(2)5	3490	208 V	3	VFC-AHU-1
AHU-2	SF-2	PLUG	2	1.5	5.25	20	2420	(7)	-	(2)7.5	1770	208 V	3	VFC-AHU-2

PRE-FILTER DATA / FINAL FILTER DATA

AHU MARK	MARK	MERV NO.	TYPE	THICKNESS	MARK	MERV NO.	TYPE	THICKNESS
AHU-1	PF-1	8	PLEATED	4"	FF-1	14	PLEATED	12"
AHU-2	PF-2	8	PLEATED	4"	FF-2	14	PLEATED	12"

REMARKS:

(1) TWO SUPPLY FANS PER AIR HANDLING UNIT ARRAY. VALUES ARE WHEN BOTH FANS ARE OPERATING SIMULTANEOUSLY.
(2) PROVIDE AHU-1 COMPLETE WITH FILTER SECTION WITH PF-1 AND FF-1, PRE-HEAT COIL SECTION WITH PHC-1, SUPPLY FAN WALL SECTION WITH SF-1, CHILLED WATER COIL SECTION WITH CC-1, SIDE ACCESS DOORS AND MARINE LIGHTS AT EACH SECTION.
(3) PROVIDE AHU-2 COMPLETE WITH FILTER SECTION WITH PF-2 AND FF-2, PRE-HEAT COIL SECTION WITH PHC-2, SUPPLY FAN WALL SECTION WITH SF-2, CHILLED WATER COIL SECTION WITH CC-2, RE-HEAT COIL SECTION WITH HC-1, SIDE ACCESS DOORS AND MARINE LIGHTS AT EACH SECTION.
(4) NOT USED.
(5) OUTSIDE AIR QUANTITY WILL BE ADJUSTED BY THE BUILDING CONTROL SYSTEM BASED ON AN ADJUSTED SCHEDULE AND WILL BE CAPABLE OF 100% OUTDOOR AIR AT ANY TIME TO MITIGATE AIRBORNE CHALK DUST.
(6) PANEL BYPASS DAMPER PROVIDED FOR PREHEAT COIL. USE A MOTORIZED TAMCO 1500.
(7) SF-1 HAS TWO SEPARATELY CONTROLLED FANS, 5 HP EACH. SF-2 HAS TWO SEPARATELY CONTROLLED FANS, 7.2 HP EACH.

CHILLED WATER COOLING COIL SCHEDULE

MARK	SERVES	LOCATION	AIR FLOW (CFM)	MIN ROWS	MAX FINS PER INCH	DIMENSIONS (LxWxH) (IN	FACE VELOCITY	ENTERING AIR CONDITIONS DB (F)	ENTERING AIR CONDITIONS WB (F)	LEAVING AIR CONDITIONS DB (F)	LEAVING AIR CONDITIONS WB (F)	TOTAL CAPACITY (MBH)	MAX AIR PRESSURE DROP (IN WG)	FLUID DATA FLUID TYPE	FLUID DATA EWT (°F)	FLUID DATA LWT (°F)	GPM	MAX WPD (FEET)	MANUFACTURER	MODEL NUMBER	REMARKS
CC-1	AHU-1	MECHANICAL 199	6800	6	9	68x10x40	450	82 °F	68 °F	55 °F	55 °F	275	0.6	WATER	45	59	39	7	TEMTROL	5WC-10-37.5x58x6-9AL	
CC-2	AHU-2	MECHANICAL 106	12000	6	10	81x10x29	450	95 °F	78 °F	55 °F	55 °F	924	0.7	WATER	45	59	132	18	TEMTROL	5WC-8-27x71x6-10AL	(1)

REMARKS:

(1) TWO COILS.

HOT WATER HEATING COIL SCHEDULE

MARK	SERVES	LOCATION	AIR FLOW (CFM)	MIN ROWS	MAX FINS PER INCH	DIMENSIONS (LxWxH)(IN)	FACE VELOCITY	ENTERING AIR TEMP DB (F)	LEAVING AIR TEMP DB (F)	TOTAL CAPACITY (MBH)	MAX AIR PRESSURE DROP (IN WG)	FLUID DATA FLUID TYPE	FLUID DATA EWT (°F)	FLUID DATA LWT (°F)	FLUID DATA GPM	FLUID DATA MAX WPD (FT)	MANUFACTURER	MODEL NUMBER	REMARKS
PHC-1	AHU-1	MECHANICAL 199	2500	1	9	68x5x40	166	-20 °F	54 °F	242	0.1	(1)	180	140	13.1	5.6	TEMTROL	5WC-6-37.5x58x1-9AL	-
PHC-2	AHU-2	MECHANICAL 106	12000	2	9	81x6.5x42.5	600	-20 °F	45 °F	1011	0.3	(1)	180	140	55	19.3	TEMTROL	5WC-2-40.5x71x2-9AL	-
HC-1	AHU-2	MECHANICAL 106	12000	1	9	81x6.5x29	450	40 °F	74 °F	462	0.1	(1)	180	140	25	9.6	TEMTROL	5WC-6-27x71x1-9AL	(2)

REMARKS:

(1) CAPACITY BASED ON A 40% PROPYLENE GLYCOL / 60% WATER SOLUTION.
(2) TWO COILS.

FAN SCHEDULE

MARK	SERVES	LOCATION	TYPE	CLASS	AIR FLOW (CFM)	TOTAL SP (IN W.C.)	WHEEL TYPE	WHEEL DIA.	FAN RPM	FAN BHP	SONES	MOTOR DATA HP	MOTOR DATA VOLTS	MOTOR DATA PHASE	MOTOR DATA CONTROL DEVICE	WEIGHT (LBS)	ROOF/WALL OPENING SIZE	SIZE (LxWxH)(IN)	MANUFACTURER	MODEL NUMBER	REMARKS
EF-1	WORK ROOM 103A	WASH ROOM 103B	IN-LINE	BELT	1670	0.5	CENT.	18"	767	0.28	7.2	1/3	120 V	1	(1)	200	-	30x24x24	COOK	180 SQN-B	(4)
EF-2	RESTROOMS	LOBBY ROOF	DOWN BLAST	BELT	700	1	CENT.	10"	1978	1/4	13.2	1/4	120 V	1	(2)	30	13.5x13.5	24Øx21	COOK	100 ACEB	(3)
EF-3	HOUSEKEEPING 103D	FOOD SERVICE FACILITY 103C	IN-LINE	BELT	100	0.5	CENT.	6"	1656	0.08	7.9	1/6	120 V	1	(2)	80	-	22x12x12	COOK	60 SQN-B	(4)
F-1	CLIMBING CENTER 104	CLIMBING CENTER 104	DOWN BLAST	DIRECT	1128	-	-	-	2700	-	79 DBA	1/4	120 V	1	(2)	14	-	15Øx24	AIR PEAR	45-PS-P2	-
KH-1	RANGE	FOOD SERVICE FACILITY 103C	KITCHEN HOOD	-	220	-	-	-	-	-	4.5	1.7 AMP	120 V	1	MANUAL DIAL	-	-	30x17.5x6	BROAN	QT230SS	(5) (6)
RF-1	AHU-1	MECHANICAL 199	IN-LINE	BELT	6800	1	MIXED	22.5"	966	1.7	14.2	2	208 V	3	VFC-RF-1	632	-	40x35x56	COOK	225 QMX	-
RF-2	AHU-2	MECHANICAL 106	IN-LINE	BELT	12000	2	MIXED	30"	893	5.7	15.8	7.5	208 V	3	VFC-RF-2	1090	-	53x46x68	COOK	300 QMX	-

REMARKS:

(1) PROVIDE WITH CO2 SENSOR AND MANUAL OVERRIDE SWITCH.
(2) UNL BSM.
(3) PROVIDE NECESSARY FRAMING FOR OPENING THROUGH ROOF.
(4) PROVIDE WITH BACKDRAFT DAMPER.
(5) PROVIDE STAINLESS STEEL KITCHEN HOOD WITH NON-DUCTED DISCHARGE AND PARTICLE/ODOR FILTER MODEL BPQTF. INCLUDE TWO 40W TYPE A-15 APPLIANCE BULBS. HOOD TO BE UL LISTED AND CSA CERTIFIED. MUST BE COMPATIBLE WITH THE GUARDIAN III MODEL #G300-B AUTOMATIC FIRE EXTINGUISHING SYSTEM
(6) PROVIDE THE GUARDIAN III MODEL #G300-B AUTOMATIC RESIDENTIAL FIRE EXTINGUISHING SYSTEM. INSTALL IN CABINET ABOVE THE HOOD. PROVIDE WITH ELECTRIC SHUT OFF CONFIGURATION AND ALARM INTERFACE ENCLOSURE FOR CONNECTION TO THE BUILDING FIRE ALARM SYSTEM. UNIT IS UL LISTED. POWER REQUIRED IN CABINET FOR PLUG AND CORD.

HOT WATER UNIT HEATER SCHEDULE

MARK	SERVES	LOCATION	CONFIGURATION	HEATING CAPACITY (MBH)	AIRFLOW (CFM)	FLUID DATA FLUID TYPE	EWT (°F)	LWT (°F)	FLUID DATA GPM	FLUID DATA MAX WPD (FT)	MOTOR DATA HP	MOTOR DATA VOLTS	MOTOR DATA PHASE	MOTOR DATA CONTROL DEVICE	MAX OPERATING WEIGHT (LBS)	MANUFACTURER	MODEL NUMBER	REMARKS
UH-1	MECHANICAL 199	MECHANICAL 199	HORIZONTAL	9.9	400	(1)	180 °F	160 °F	1.3	0.5	0.03	120 V	1	T-STAT	18	MCQUAY	UHH-18	
UH-2	WASH ROOM 103B	WASH ROOM 103B	HORIZONTAL	9.9	400	(1)	180 °F	160 °F	1.3	0.5	0.03	120 V	1	T-STAT	18	MCQUAY	UHH-18	

REMARKS:

(1) CAPACITY BASED ON A 40% PROPYLENE GLYCOL / 60% WATER SOLUTION.

HOT WATER FINTUBE SCHEDULE

MARK	SERVES	LOCATION	CONFIGURATION	NUMBER OF ROWS	ELEMENT MATERIAL	TUBE DIAMETER (IN)	FIN SIZE (HxW)(IN)	FINS PER FOOT	FLUID DATA FLUID TYPE	FLUID DATA EWT (°F)	FLUID DATA LWT (°F)	FLUID DATA GPM	BTU/LF	ELEMENT LENGTH (FT)	TOTAL HEATING CAPACITY (MBH)	MANUFACTURER	MODEL NUMBER	REMARKS
FT-1	SEE PLANS	SEE PLANS	STACKED	2	COPPER/ALUMINUM	3/4	3 5/8x4 1/4	32	(1)	180	140	1.5	965	SEE PLANS	SEE PLANS	STERLING	C 3/4-433	(2) (5)
FT-2	SEE PLANS	SEE PLANS	SIDE BY SIDE	2	COPPER/ALUMINUM	3/4	3 5/8x4 1/4	32	(1)	180	140	1.5	950	SEE PLANS	SEE PLANS	STERLING	C 3/4-433	(3) (5)
FT-3	SEE PLANS	SEE PLANS	SINGLE	1	COPPER/ALUMINUM	3/4	3 5/8x4 1/4	32	(1)	180	140	1.0	640	SEE PLANS	SEE PLANS	STERLING	C 3/4-433	(4)
FT-4	SEE PLANS	SEE PLANS	SINGLE	1	COPPER/ALUMINUM	3/4	3 5/8x4 1/4	32	(1)	180	140	0.5	640	SEE PLANS	SEE PLANS	STERLING	C 3/4-433	(4)

REMARKS:

(1) CAPACITY BASED ON A 40% PROPYLENE GLYCOL / 60% WATER SOLUTION.
(2) FIN TUBE ASSEMBLY WILL BE INSTALLED IN A FORMED CONCRETE SLOT, SEE DETAIL 10/M5.1. THE COVER IS A CONTINUOUS ALUMINUM BAR GRILL.
(3) FIN TUBE ASSEMBLY WILL BE INSTALLED IN A PERFORATED STEEL COVERING WITH A MINIMUM 50% FREE AREA, SEE DETAIL 11/M5.1.
(4) FIN TUBE ASSEMBLY WILL BE INSTALLED IN A STERLING JVB-T14 ENCLOSURE.
(5) BARE ELEMENT.

SHELL AND TUBE HEAT EXCHANGER SCHEDULE (STEAM TO WATER)

MARK	SERVES	LOCATION	CONFIGURATION	SHELL SIDE DATA STEAM PRESSURE (PSI)	SHELL SIDE DATA FLOW (#/HR)	SHELL SIDE DATA TRAP CAPACITY (#/HR)	TUBE SIDE DATA FLUID	TUBE SIDE DATA GPM	TUBE SIDE DATA FOULING FACTOR	TUBE SIDE DATA ENTERING WATER TEMP. (F)	TUBE SIDE DATA LEAVING WATER TEMP. (F)	TUBE SIDE DATA WPD (FEET)	OPERATING WEIGHT (LBS)	DIMENSIONS (LxDIA)(IN)	MANUFACTURER	MODEL NUMBER	REMARKS
HX-1	HWS/R	MECHANICAL 199	HORIZONTAL	15	2370	6500	(1)	120	0.001	140	180	4.7	322	65x11	B&G	SU 10 5-4	

REMARKS:

(1) CAPACITY BASED ON A 40% PROPYLENE GLYCOL / 60% WATER SOLUTION.

TERMINAL UNIT SCHEDULE

MARK	CFM MAXIMUM	CFM MINIMUM (1)	MAXIMUM S.P. IN W.G. (2)	N.C. @ MIN S.P. (3)	INLET DIAMETER IN INCHES	INLET DUCT IN INCHES	HEATING COIL MBH (4)	HEATING COIL GPM	HEATING COIL MAXIMUM WPD (FT)	DIMENSIONS (LxWxH)(IN)	WEIGHT (LBS)	MANUFACTURER	MODEL NUMBER	REMARKS
TU-01	720	145	0.75	23	8	10Ø	35.5	3.0	5.0	23x12x10	46	TITUS	DESV	(5)
TU-02	2730	580	0.75	20	16	16Ø	47.8	2.5	5.0	23x24x18	73	TITUS	DESV	(5)
TU-03	265	65	0.75	23	5	8Ø	3.5	0.33	5.0	20.5x12x8	37	TITUS	DESV	(5)
TU-04	190	65	0.75	17	5	6Ø	2.5	0.33	5.0	20.5x12x8	37	TITUS	DESV	(5)
TU-05	110	45	0.75	16	4	6Ø	2.6	0.33	5.0	20.5x12x8	37	TITUS	DESV	(5)
TU-06	420	105	0.75	20	7	8x8	12.6	1.0	5.0	20.5x12x10	39	TITUS	DESV	(5)
TU-07	900	230	0.75	22	10	10x10	26.2	2.0	5.0	20.5x14x12.5	46	TITUS	DESV	(5)
TU-08	890	230	0.75	22	10	10x10	26.3	2.0	5.0	20.5x14x12.5	46	TITUS	DESV	(5)
TU-09	1250	325	0.75	20	12	12Ø	21.0	1.0	5.0	20.5x16x15	53	TITUS	DESV	(5)
TU-10	50	45	0.75	<15	4	4Ø	3.7	0.33	5.0	20.5x12x8	37	TITUS	DESV	(5)
TU-11	645	145	0.75	22	8	10Ø	5.8	0.33	5.0	20.5x12x10	39	TITUS	DESV	(5)

REMARKS:

(1) MINIMUM AIR FLOW FOR PRESSURE INDEPENDENT CONTROL.
(2) TOTAL AIR PRESSURE DIFFERENCE ACROSS BOX AND COIL AT MAXIMUM CFM.
(3) AIRBORNE BOX NOISE AT MAXIMUM PRESSURE DIFFERENCE. BASED ON ROOM ATTN. OF 10 DB (LW RE: 10 E-12 WATTS).
(4) HEATING CAPACITY BASED ON EWT = 180°F, LWT = 150°F, AND EAT = 55°F.
(5) CAPACITY BASED ON A 40% PROPYLENE GLYCOL / 60% WATER SOLUTION.

DIFFUSER REGISTER AND GRILLE SCHEDULE

MARK	DESCRIPTION	DEFLECTION	MAXIMUM STATIC PRESSURE (IN W.G.)	CONSTRUCTION MATERIAL	FINISH	FACE SIZE (IN)	MANUFACTURER	MODEL NUMBER	ACCESSORIES	REMARKS
D-1	DIFFUSER	4-WAY	0.1	STEEL	WHITE	24x24	PRICE	SPD	-	(1)
DL-1	DRUM LOUVER	30°	0.1	ALUMINUM	WHITE	10x24	PRICE	HCD	(2)	-
G-1	GRILLE	-	0.1	STEEL	WHITE	24x24	PRICE	PFRF	-	(1)
G-2	SIDEWALL	0°	0.1	STEEL	WHITE	SEE PLANS	PRICE	510Z	-	-
LD-1	2 SLOT	-	0.1	ALUMINUM	WHITE	4x48	PRICE	SDS100	-	(1)
R-1	REGISTER	45°	0.1	ALUMINUM	WHITE	SEE PLANS	PRICE	SDGE	(2)	-
R-2	REGISTER	45°	0.1	STEEL	WHITE	SEE PLANS	PRICE	510	-	-

REMARKS:

(1) CONTRACTOR SHALL VERIFY CEILING CONSTRUCTION PRIOR TO FURNISHING MATERIAL.
(2) PROVIDE WITH OPPOSED BLADE DAMPER.

EXPANSION TANK SCHEDULE

MARK	SERVES	LOCATION	CONFIGURATION	CAPACITY (GALLONS)	WEIGHT (LBS)	DIMENSIONS (DIAxH)(IN)	MANUFACTURER	MODEL NUMBER	REMARKS
ET-1	HWS/R	MECHANICAL 199	CEILING MOUNT	53	635	24x38	AMTROL	200-L	-

REMARKS:

(1) INCLUDES 8 FT, 115V POWER CORD AND 15 AMP FUSE.

VARIABLE FREQUENCY CONTROL SCHEDULE (1)

MARK	SERVES	LOCATION	ELECTRICAL DATA HP	ELECTRICAL DATA VOLTAGE	ELECTRICAL DATA PHASE	REMARKS
VFC-AHU-1A	AHU-1	MECHANICAL 199	7.5	208 V	3	
VFC-AHU-1B	AHU-1	MECHANICAL 199	7.5	208 V	3	
VFC-AHU-2A	AHU-2	MECHANICAL 106	10	208 V	3	
VFC-AHU-2B	AHU-2	MECHANICAL 106	10	208 V	3	
VFC-HWP-1	HWP-1	MECHANICAL 199	5	208 V	3	
VFC-HWP-2	HWP-2	MECHANICAL 199	5	208 V	3	
VFC-RF-1	RF-1	MECHANICAL 199	2	208 V	3	
VFC-RF-2	RF-2	MECHANICAL 106	7.5	208 V	3	

REMARKS:

(1) VARIABLE FREQUENCY CONTROLS PROVIDED BY UNL-BSM AND INSTALLED BY CONTRACTOR.

CABINET UNIT HEATER SCHEDULE

MARK	SERVES	LOCATION	TYPE	AIRFLOW (CFM)	TOTAL CAPACITY (MBH)	MOTOR DATA HP	MOTOR DATA VOLTS	MOTOR DATA PHASE	FLUID DATA EWT (°F)	FLUID DATA LWT (°F)	FLUID DATA GPM	MAX WPD (FT)	DIMENSIONS (LxWxH) (IN)	MANUFACTURER	MODEL NUMBER	REMARKS
CUH-1	VEST 100A	STORAGE 102A	HORIZONTAL	225	18	0.03	120 V	1	180	150	1.3	4.3	27x22x10.5	MCQUAY	FTSH 2 S03	(1) (2) (3)
CUH-2	VEST 100D	STAFF ROOM 103	HORIZONTAL	225	18	0.03	120 V	1	180	150	1.3	4.3	27x22x10.5	MCQUAY	FTSH 2 S03	(1) (2) (3)

REMARKS:

(1) CAPACITY BASED ON A 40% PROPYLENE GLYCOL / 60% WATER SOLUTION.
(2) PROVIDE FLANGED CONNECTIONS.
(3) PROVIDE WITH 1" THICK THROW-AWAY TYPE FILTER.

PUMP SCHEDULE.

MARK	SERVES	LOCATION	TYPE	FLOW (GPM)	TOTAL HEAD (FEET)	SHUT-OFF HEAD (FEET)	MIN. EFFICIENCY	FLUID	MOTOR DATA HP	MOTOR DATA RPM	MOTOR DATA VOLTS	MOTOR DATA PHASE	SUCTION SIZE (IN)	DISCHARGE SIZE (IN)	MAX. IMPELLER DIA. (IN)	MANUFACTURER	MODEL NUMBER	REMARKS
CP-1	CONDENSATE	MECHANICAL 199	DUPLEX	12	46	-	-	WATER	(2)1/3	3500	120 V	1	2"	1 1/2"	-	B&G	23 CBE 12-20	-
HWP-1	HWS/R	MECHANICAL 199	END SUCTION	120	65	70	66	(1)	5	1800	208 V	3	2 1/2"	2"	9 1/2"	B&G	1510 2BC	-
HWP-2	HWS/R	MECHANICAL 199	END SUCTION	120	65	70	66	(1)	5	1800	208 V	3	2 1/2"	2"	9 1/2"	B&G	1510 2BC	-
P-1	PHC-1	MECHANICAL 199	IN-LINE	13	28	37	55	(1)	1/6	3300	120 V	1	1 1/2"	1 1/2"	3"	B&G	PL-36	-
P-2	PHC-2	MECHANICAL 106	IN-LINE	55	48	54	54	(1)	2	1750	208 V	3	1 1/2"	1 1/2"	7"	B&G	60 1-1/2x7	-

REMARKS:

(1) CAPACITY BASED ON A 40% PROPYLENE GLYCOL / 60% WATER SOLUTION.

NOTE:
DO NOT SCALE DRAWINGS. VERIFY ALL DIMENSIONS and clearances from ARCHITECTURAL, STRUCTURAL, shop and other appropriate drawing or at site. Lay out and coordinate all work prior to installation to provide clearances required for operation, maintenance, and codes and verify non-interference with other work. DO NOT FABRICATE PRIOR TO VERIFICATION OF CLEARANCE FOR ALL TRADES. READ SPECIFICATIONS.

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June 1, 2012

UNIVERSITY OF NEBRASKA-LINCOLN
OUTDOOR ADVENTURES CENTER
14th and W, Lincoln, NE

UNL PROJECT NO: C220P001
ISSUED: 06.01.12
PROJECT NO: 2011.182.00
PROJECT FILE: CONSTRUCTION DOCUMENTS - BID ISSUE

MECHANICAL SCHEDULES

M6.1

7/6/2012 11:23:53 AM

Switchboard: MDP

Location: MECHANICAL 116
Supply From:
Mounting: WALL
Volts: 120/208 Wye
Phases: 3
Wires: 4
A.I.C. Rating: 22 kA
Mains Type: MCB
Mains Rating: 600 A
Options: WITH GROUND BAR
INTEGRAL SURGE PROTECTION

CKT	Circuit Description	# of Poles	Trip Rating	Load	Remarks
1	PANEL L1	3	225 A	59377	
2	PANEL L2	3	150 A	30732	
3	PANEL T1	3	100 A	10800	
4	WASH ROOM 122 DRYER	3	125 A	30000	
5	WASH ROOM 122 WASHER	3	20 A	2880	
6	VFC-HWP-1	3	40 A	6012	
7	VFC-HWP-2	3	40 A	6012	
8	VFC-RF-1	3	20 A	2702	
9	VFC-RF-2	3	60 A	8712	
10	VFC-AHU-1A	3	40 A	6012	
11	VFC-AHU-1B	3	40 A	6012	
12	VFC-AHU-2A	3	60 A	8712	
13	VFC-AHU-2B	3	60 A	8712	
14	SPARE	2	40 A	0	
15	SPARE	2	40 A	0	
16	SPARE	2	40 A	0	
17	SPARE	3	100 A	0	
18	SPACE	3	100 A	0	
19	SPACE	3	100 A	0	
20	ELECTRICAL METER	3	20 A	0	
				186675	
				518 A	

1

Load Classification	Connected Load	Demand Factor	Estimated Demand
Other	0	0.00%	0
RECEPT	33200	65.06%	21600
LTG	15402	100.00%	15402
EQUIP	115056	100.00%	115056
KITCH	23017	70.00%	16112

Panel Totals
Total Conn. Load: 186675
Total Est. Demand: 168170
Total Conn. Current: 518 A
Total Est. Demand Current: 467 A

Notes: AVAILABLE FAULT CURRENT: 19 kA

Branch Panel: L2

Location: MECHANICAL 142
Supply From: MDP
Mounting: SURFACE
Options: WITH GROUND BAR
Volts: 120/208 Wye
Phases: 3
Wires: 4
A.I.C. Rating: 10 kA
Mains Rating: 150 A
Section 1
MLO
42 POLES

CKT	Circuit Description	Trip	Poles	Load Class	A		B		C		Load Class	Poles	Trip	Circuit Description	CKT
1	LOBBY - VENDING MACHINE G	20 A	1	RECEP	180	1620					RECEP	1	20 A	SOUTH OFFICE RECEPTACLES	2
3	SOUTH PATIO RECEPTACLES	20 A	1	RECEP			900	180			RECEP	1	20 A	G CLIMBING CENTER - EWC	4
5	LOBBY - WEST WALL RECEPTACLES	20 A	1	RECEP					900						6
7	CORRIDOR - EWC G	20 A	1	RECEP	180	400					EQUIP	1	20 A	TRAINING ROOM - SHADE MOTORS	8
9	LOBBY - EAST WALL RECEPTACLES	20 A	1	RECEP			900	1080			RECEP	1	20 A	TRAINING ROOM - RECEPTACLES	10
11	RECEPTION DESK RECEPTACLES	20 A	1	RECEP					1620	1080	RECEP	1	20 A	TRAINING ROOM 134 - FLOOR BOX	12
13	CLIMBING CENTER - RECEPTACLES	20 A	1	RECEP	1440	1080					RECEP	1	20 A	TRAINING ROOM 134 - FLOOR BOX	14
15	MENS RESTROOM - HAND DRYER	20 A	1	EQUIP			2300	2300			EQUIP	1	20 A	WOMENS RESTROOM - HAND DRYER	16
17	MENS RESTROOM - RECEPTACLES	20 A	1	RECEP					360	2300	EQUIP	1	20 A	UNISEX RESTROOM - HAND DRYER	18
19	WOMENS RESTROOM - RECEPTACLES	20 A	1	RECEP	360	360					RECEP	1	20 A	SOUTH PATIO RECEPTACLES	20
21	UNISEX, JANITOR, AND CORR.	20 A	1	RECEP			940	500			EQUIP	1	20 A	CODE BLUE STATION	22
23	BIKE REPAIR AND MAINT LTG	20 A	1	LTG					1104	1064	LTG	1	20 A	LTG ROOM 100, 143, 101, 102	24
25	CLIMBING CENTER - TRACK LTG	20 A	1	LTG	825	1053					LTG	1	20 A	CLIMBING CENTER - TRACK LTG	26
27	CLIMBING CENTER - RGB LTG	20 A	1	LTG			1360	340			LTG	1	20 A	EXTERIOR CANOPY LTG	28
29	CLIMBING CENTER - RGB LTG	20 A	1	LTG					1200	720	RECEP	1	20 A	LOBBY - WEST WALL RECEPTACLES	30
31	EXTERIOR SITE LIGHTING	20 A	2	LTG	490	576					LTG	1	20 A	CLIMBING CENTER - WASH LTG	32
33	--	--	--	--			490	177			EQUIP	3	20 A	P-2	34
35	SPARE	20 A	1	--					0	177	--	--	--	--	36
37	SPARE	20 A	1	--	0	177					--	--	--	--	38
39	SPARE	20 A	1	--			0	0			--	1	20 A	SPARE	40
41	SPARE	20 A	1	--					0	0	--	1	20 A	SPARE 1	42
				Total Load:	8741		11467		10525						
				Total Amps:	73 A		98 A		90 A						

Load Classification	Connected Load	Demand Factor	Estimated Demand
RECEPT	13500	87.04%	11750
LTG	8502	100.00%	8502
EQUIP	8730	100.00%	8730

Panel Totals
Total Conn. Load: 30732
Total Est. Demand: 28982
Total Conn. Current: 85 A
Total Est. Demand Current: 80 A

Notes: AVAILABLE FAULT CURRENT: 4 kA

LIGHTING FIXTURE SCHEDULE

FIXT NO.	MANUFACTURER	CATALOG NO. (NOTE 1)	LAMP DATA QUANTITY AND SIZE	LAMP DATA TYPE	VOLTS	MOUNTING	DESCRIPTION	REMARKS
1	LITHONIA	2SP8-F-2-32-MVOLT	(2) 25W T8 841	F	120 V	RECESSED IN GRID	2X4 LENSED TROFFER	NOTE 17
2	LITHONIA	AF10-2-32-MVOLT	(2) 25W T8 841	F	120 V	CHAIN HUNG 10' AFF	4' INDUSTRIAL	NOTE 17
3	PEERLESS	IAM8-232-50/50-4FT-R4-120-SCT-XX"-C100	(2) 25W T8 841	F	120 V	SUSPENDED	4' SUSPENDED D/I	
3A	PEERLESS	IAM8-232-50/50-4FT-R4-120-DCT-XX"-C100	(2) 25W T8 841	F	120 V	SUSPENDED	4' SUSPENDED D/I	NOTE 12
3B	PEERLESS	IAM8-232-50/50-8FT-R8-120-SCT-XX"-C100	(4) 25W T8 841	F	120 V	SUSPENDED	8' SUSPENDED D/I	
4	GOTHAM	ALED-35/14-4AR-120	FURNISHED W/ FIXTURE	LED	120 V	RECESSED	4" DIAMETER DOWN LT	NOTE 17
5A	LITHONIA	2AV-G-3-32-MDR-MVOLT	(3) 25W T8 841	F	120 V	RECESSED	2X4 BASKET	
6	MARK ARCHITECTURAL	SPR-NOTE 11-1-T8S-EBPR-120- SW	(1) 25W T8 841 IN CROSS SECTION	F	120 V	RECESSED IN GYP	PERIMETER WW	NOTE 12,17
7	JUNO LIGHTING GROUP	T435SC-T5621-T5678	NOTE 5	LED	120 V	TRACK	TRACK ACCENT LT	
7T	JUNO LIGHTING GROUP	T8SL	-	-	120 V	SUSPENDED 10' AFF	SINGLE CIRCUIT 8' TRACK	NOTE 6
8	PEERLESS	BRM4-332-SPR-SSB-R12-120-ADEZ-SCT-F 1-18"	(3) 25W T8 841	F	120 V	SUSPENDED 9' AFF	12' DIMMABLE D/I LINEAR PENDANT	
9	ZUMTOBEL	SSR2-08-K30-Z-NOTE 2	8 W/FT, 70 lm/W	LED	120 V	RECESSED IN GRID	LINEAR SLOTLIGHT	NOTE 13,17
10	JUNO LIGHTING GROUP	T437WH-T579BL-T5778	NOTE 9	LED	120 V	TRACK	TRACK ACCENT LT	
10T	JUNO LIGHTING GROUP	TU8WH	-	-	120 V	SURFACE	SINGLE CIRCUIT 8' TRACK	NOTE 7,8
11	LUMENPULSE	LOGi-120-48-RGB-IFX-60x60-UMAS-WH	17 W/FT, 26 lm/W	LED	120 V	WALL @ 42' AFF	RGB LED WASH	NOTE 10
12	LITHONIA	EDG-1-RMR	FURNISHED W/ FIXTURE	LED	120 V	SURFACE OR WALL	EDGE LIT EXIT SIGN	NOTE 3,14,17
13	LITHONIA	EDG-2-RMR	FURNISHED W/ FIXTURE	LED	120 V	SURFACE OR WALL	EDGE LIT EXIT SIGN	NOTE 3,14,17
14	SISTEMALUX	S.6671-120V-14	(1) 18W DTT 841	CF	120 V	SURFACE	EXTERIOR LENSED SQUARE DOWNLIGHT	NOTE 4
15	HUBBELL	RDI-50L8-5K-FT-BZ	47.5 W/FT, 2218 lm	LED	120 V	WALL MOUNT	EXTERIOR WALL PACK	NOTE 17
17	ZUMTOBEL	SSS2-08-K30-Z-NOTE 2	8 W/FT, 70 lm/W	LED	120 V	SUSPENDED	LINEAR SLOTLIGHT	NOTE 13,15,17
18	LITHONIA	AF10-3-32-MVOLT	(3) 25W T8 841	F	120 V	CHAIN HUNG 8' AFF	4' INDUSTRIAL	NOTE 17
19	VISA	CB5408PSX	FURNISHED W/ FIXTURE	LED	120 V	WALL VERTICAL	VANITY LIGHT	
20	GOTHAM	ALED-35/14-6DFR-120	FURNISHED W/ FIXTURE	LED	120 V	RECESSED	4" WET LOCATION DOWNLIGHT	
21	LUMENPULSE	LOGi-120-48-30K-10x10-UMAS-WH-DIM	FURNISHED W/ FIXTURE	LED	120 V	SURFACE	4' GRAZE	
22	LITHONIA	LV-S-1-R-120/277-UM-CW	FURNISHED W/ FIXTURE	LED	120 V	WALL MOUNT	EXTERIOR EXIT SIGN	NOTE 17
23	RADIANT LIGHTING	RAUC-2-HO-35K-X-LF	1088 lm, 28 lm/W	LED	120 V	SURFACE	2, CASEWORK LED TAPE	NOTE 16

1

NOTES:

1. CONTRACTOR TO VERIFY LIGHT FIXTURE CATALOG NUMBER AND INSTALLATION REQUIREMENTS PRIOR TO ORDERING. FOR EACH FIXTURE UTILIZING DOUBLE-ENDED FLUORESCENT LAMPS, PROVIDE INTEGRAL LUMINAIRE DISCONNECT. SEE SPECIFICATIONS.

2. REFER TO PLAN DRAWINGS FOR FIXTURE LENGTHS.

3. REFER TO PLAN DRAWINGS FOR MOUNTING CONFIGURATION (RECESSED VERSUS SURFACE) AS WELL AS QUANTITY AND DIRECTION OF CHEVRONS.

4. MOUNT TO BOTTOM OF EXTERIOR CANOPY.

5. ONE (1) LIGHTING SCIENCE 15 WATT PAR 30, 4000K, 943 LUMENS, NARROW FLOOD LAMP. MODEL NO: DFN-30-NW-**-NFL-120.

6. PROVIDE T38SL LIVE END FEED CONNECTOR, T235L STRAIGHT CONNECTOR, T90SL PENDANT STEM, AND T935L WIREWAY COVER FOR COMPLETE WORKING SYSTEM.

7. MOUNT TRACK TO BOTTOM OF STRUCTURE.

8. PROVIDE TU34WH CONDUIT ADAPTER FOR POWER CONNECTION.

9. ONE (1) LIGHTING SCIENCE 24 WATT, PAR 38, 4000K, 1,375 LUMEN, SPOT LAMP. MODEL NO: DFN-38-NW-V2-SP-120.

10. PROVIDE WITH JUMPER CABLES, LEADER CABLES, iC BOX CONTROL BOXES WITH CAT 5 CABLES, AND OTHER APPURTENANCES AS NECESSARY FOR A COMPLETE INSTALLATION. PROVIDE 4 HOURS OF FACTORY TRAINING.

11. PROVIDE LENGTHS FOR WALL-TO-WALL INSTALLATION

12. PROVIDE WITH TWO BALLASTS FOR DUAL-LEVEL CIRCUITING.

13. LED LUMINAIRE COMES STANDARD WITH 0-10V DIMMING DRIVER. WHERE DIMMING IS NOT REQUIRED, CAP DIMMING LEADS.

14. FOR SURFACE MOUNT EXIT SIGNS IN EXPOSED CEILING AREAS, PENDANT MOUNT EXIT SIGN WITH 1/2" EMT CONDUIT FROM J-BOX MOUNTED TO STRUCTURE ABOVE.

15. BOTTOM OF FIXTURE AT 10'-0" AFF.

16. REFER TO ARCHITECTURAL SHEETS FOR EXACT MOUNTING LOCATION.

17. LIGHT FIXTURES OF EQUIVALENT QUALITY BY THE FOLLOWING MANUFACTURES WILL BE CONSIDERED ACCEPTABLE:

FIXTURE NO.	MANUFACTURER	FIXTURE NO.	MANUFACTURER
1	COOPER - METALUX	13	COOPER - SURE-LITES
2	COOPER - METALUX	15	COOPER - MCGRAW EDISON, LITHONIA
4	COOPER - PORTOFOLIO	17	SE'LUX
6	COOPER - NEORAY	18	COOPER - METALUX
9	SE'LUX	22	COOPER - SURE-LITES
12	COOPER - SURE-LITES		

1

Branch Panel: L1

Location: MECHANICAL 116
Supply From: MDP
Mounting: SURFACE
Options: WITH GROUND BAR
Volts: 120/208 Wye
Phases: 3
Wires: 4
A.I.C. Rating: 22 kA
Mains 225 A
Section 1
MLO
SUB FEED LUGS
42 POLES
Section 2
MLO
42 POLES

CKT	Circuit Description	Trip	Poles	Load Class	A		B		C		Load Class	Poles	Trip	Circuit Description	CKT
1	LIGHTING INVERTER - EM	20 A	2	LTG	1150	3300					KITCH	2	40 A	KITCHEN - RANGE	2
3	--	--	--	--			1150	3300			--	--	--	--	4
5	STEAM WATER HEATER SWH-1	20 A	1	EQUIP					880	4992	KITCH	2	60 A	KITCHEN - DISHWASHER	6
7	EXHAUST FAN EF-1	15 A	1	EQUIP	870	4992					--	--	--	--	8
9	EXHAUST FAN EF-2	15 A	1	EQUIP			700	1650			KITCH	2	20 A	KITCHEN - REFRIGERATOR	10
11	INLINE HWCP-1 & HWCP-2	15 A	1	EQUIP					1060	1650	--	--	--	--	12
13	COPIER	20 A	1	RECEPT	1380	1633					KITCH	1	20 A	STORAGE/ WORKRM - ICE MACHINE	14
15	HOOD	20 A	1	RECEPT			500	1200			RECEPT	1	20 A	KITCHEN - GARBAGE DISPOSAL	16
17	SPARE	0 A	1	--					0	360	RECEPT	1	20 A	KITCHEN - EAST RECEPTACLES	18
19	BIKE REPAIR RECEPTACLES	20 A	1	RECEPT	1440	360					RECEPT	1	20 A	KITCHEN - EAST RECEPTACLES	20
21	BIKE REPAIR AND MAINT. FRONT	20 A	1	RECEPT			1440	180			RECEPT	1	20 A	KITCHEN - SOUTH RECEPTACLE	22
23	STORAGE/WORKRM SOUTH RECEPT	20 A	1	RECEPT					720	1070	EQUIP	1	15 A	EXHAUST FAN EF-3 & AIR PEAR	24
25	KITCHEN - NORTH RECEPTACLES	20 A	1	RECEPT	360	400					EQUIP	1	20 A	STORAGE/ WORKROOM - OH DOOR	26
27	KITCHEN - COUNTER RECEPTACLE	20 A	1	RECEPT			540	800			EQUIP	1	20 A	EAST VESTIBULE - AUTO DOORS	28
29	WASHROOM - RECEPTACLE	20 A	1	RECEPT					180	540	RECEPT	1	20 A	MECH ROOM RECEPTACLES	30
31	STORAGE/WORKRM RECEPTACLES	20 A	1	RECEPT	900	3450					EQUIP	1	20 A	EQUIP WASH ROOM 122	32
33	HOUSE KEEPING RECEPTACLES	20 A	1	RECEPT			540	1275			LTG	1	20 A	KITCHEN & STOR/WKRM LIGHTING	34
35	NORTH PRIVATE OFFICE RECEPT	20 A	1	RECEPT					720	999	LTG	1	20 A	MECH & BIKE STORAGE LIGHTING	36
37	OPEN OFFICE - RECEPTACLES	20 A	1	RECEPT	1080	1382					LTG	1	20 A	OFFICE, TRAINING, & STOR ROOM	38
39	OPEN OFFICE - RECEPTACLES	20 A	1	RECEPT			900	944			LTG	1	20 A	RESTROOM LIGHTING	40
41	NORTH EXTERIOR RECEPTACLES	20 A	1	RECEPT					900	1500	KITCH	1	20 A	KITCHEN MICROWAVE	42
43	CONDENSATE PUMP CP-1	20 A	1	EQUIP	1000	530					EQUIP	1	20 A	P-1	44
45	LOBBY & STORAGE RECEPTACLES	20 A	1	RECEPT			1080	1500			RECEPT	1	20 A	STAFF ROOM 126 MICROWAVE	46
47	WEST VESTIBULE - N. AUTO DOORS	20 A	1	EQUIP					800	0	--	1	20 A	SPARE 1	48
49	RECEPTION AREA RECEPTACLES	20 A	1	RECEPT	1080	0					--	1	20 A	SPARE	50
51	SPARE	20 A	1	--			0	0			--	1	20 A	SPARE	52
53	SPARE	20 A	1	--					0	0	--	1	20 A	SPARE	54
55	SPARE	20 A	1	--	0	0					--	1	20 A	SPARE	56
57															58
59															60
61															62
63															64
65															66
67															68
69															70
71															72
73															74
75															76
77															78
79															80
81															82
83															84
				Total Load:	25307		17699		16371						
				Total Amps:	213 A		149 A		136 A						

Load Classification	Connected Load	Demand Factor	Estimated Demand
RECEPT	17900	77.93%	13950
LTG	6900	100.00%	6900
EQUIP	11560	100.00%	11560
KITCH	23017	70.00%	16112

Panel Totals
Total Conn. Load: 59377
Total Est. Demand: 48522
Total Conn. Current: 165 A
Total Est. Demand Current: 135 A

Notes:

Branch Panel: T1

Location: TELECOM 114
Supply From: MDP
Mounting: SURFACE
Options: WITH GROUND BAR
Volts: 120/208 Wye
Phases: 3
Wires: 4
A.I.C. Rating: 10kA
Mains Rating: 100 A
Section 1
MLO
30 POLES

CKT	Circuit Description	Trip	Poles	Load Class	A		B		C		Load Class	Poles	Trip	Circuit Description	CKT
1	WALL OUTLETS	20 A	1	RECEP	900	1000					EQUIP	1	20 A	TELECOM EQUIPMENT	2
3	TELECOM RACK QUAD	20 A	1	RECEP			360	2000			EQUIP	1	30 A	TELECOM EQUIPMENT	4
5	TELECOM RACK QUAD	20 A	1	RECEP					360	1500	EQUIP	2	20 A	TELECOM EQUIPMENT	6
7	ACCESS CTRL PANEL	20 A	1	EQUIP	1000	1500					--	--	--	--	8
9	BUILDING AUTOMATION PANEL	20 A	1	EQUIP			1000	1000			EQUIP	1	20 A	FIRE ALARM CONTROL PANEL	10
11	SPARE	20 A	1	--					0	180	RECEP	1	30 A	POWER TELECOM 114	12
13	SPARE	20 A	1	--	0	0					--	1	20 A	SPARE	14
15	SPARE	20 A	1	--			0	0			--	1	20 A	SPARE	16
17															18
19															20
21															22
23															24
25															26
27															28
29															30
				Total Load:	4400		4360		2040						
				Total Amps:	40 A		39 A		17 A						

Load Classification	Connected Load	Demand Factor	Estimated Demand
RECEPT	1800	100.00%	1800
EQUIP	9000	100.00%	9000

Panel Totals
Total Conn. Load: 10800
Total Est. Demand: 10800
Total Conn. Current: 30 A
Total Est. Demand Current: 30 A

Notes: AVAILABLE FAULT CURRENT: 8 kA

EQUIPMENT CONNECTION SCHEDULE

MARK	DESCRIPTION	HP	CIRCUIT BREAKER	VOLTS	PHASE	DISCONNECT	FEEDER	REMARKS
AC-1	AIR COMPRESSOR	3.5	30/2	120 V	1	30/2	2#10,#10 GND, 3/4"C	FLA=16.6A
AHU-1	AIR HANDLING UNIT	10	-	208 V	3	VFC-AHU-1A/B	3	NOTE 2
AHU-2	AIR HANDLING UNIT	15	-	208 V	3	VFC-AHU-2A/B	5	NOTE 2
CP-1	CONDENSATE PUMP	(2)1/3	20/1	120 V	1	SWITCH	2#12, #12 GND, 3/4"C.	
CUH-1	CABINET UNIT HEATER	0.03	15/1	120 V	1	SWITCH	2-#12,#12 GND - 3/4"C	MCA=1.0A
CUH-2	CABINET UNIT HEATER	0.03	15/1	120 V	1	SWITCH	2-#12,#12 GND - 3/4"C	MCA=1.0A
EF-1	EXHAUST AIR FAN	1/3	15/1	120 V	1	SWITCH	2-#12,#12 GND - 3/4"C	
EF-2	EXHAUST AIR FAN	1/4	15/1	120 V	1	SWITCH	2-#12,#12 GND - 3/4"C	
EF-3	EXHAUST AIR FAN	1/6	15/1	120 V	1	SWITCH	2-#12,#12 GND - 3/4"C	
F-1	CEILING FAN-AIR PEAR	1/4	15/1	120 V	1	PLUG AND CORD	2-#12,#12 GND - 3/4"C	FLA=2.2A
HWCP-1	INLINE CIRCULATION PUMP	0.04	15/1	120 V	1	SWITCH	2-#12,#12 GND - 3/4"C	
HWCP-2	INLINE CIRCULATION PUMP	0.04	15/1	120 V	1	SWITCH	2-#12,#12 GND - 3/4"C	
HWP-1	HEATING WATER PUMP	5	-	208 V	3	VFC-HWP-1	3	
HWP-2	HEATING WATER PUMP	5	-	208 V	3	VFC-HWP-2	3	
P-1	INLINE CIRCULATION PUMP	1/6	20/1	120 V	1	SWITCH	2#12, #12 GND, 3/4"C.	
P-2	INLINE CIRCULATION PUMP	2	20/3	208 V	3	COMB. STARTER	1	
RF-1	RETURN AIR FAN	2	-	208 V	3	VFC-RF-1	1	
RF-2	RETURN AIR FAN	7.5	-	208 V	3	VFC-RF-2	5	
SWH-1	STEAM WATER HEATER	-	20/1	120 V	1	PLUG AND CORD	2-#12,#12 GND - 3/4"C	
UH-1	HOT WATER UNIT HEATER	0.03	15/1	120 V	1	SWITCH	2-#12,#12 GND - 3/4"C	MCA=1.0A
UH-2	HOT WATER UNIT HEATER	0.03	15/1	120 V	1	SWITCH	2-#12,#12 GND - 3/4"C	MCA=1.0A
VFC-AHU-1 A	VARIABLE FREQUENCY CONTROLLER	7.5	40/3	208 V	3	INTEGRAL	5	
VFC-AHU-1 B	VARIABLE FREQUENCY CONTROLLER	7.5	40/3	208 V	3	INTEGRAL	5	
VFC-AHU-2 A	VARIABLE FREQUENCY CONTROLLER	10	60/3	208 V	3	INTEGRAL	7	
VFC-AHU-2 B	VARIABLE FREQUENCY CONTROLLER	10	60/3	208 V	3	INTEGRAL	7	
VFC-HWP-1	VARIABLE FREQUENCY CONTROLLER	5	40/3	208 V	3	INTEGRAL	5	
VFC-HWP-2	VARIABLE FREQUENCY CONTROLLER	5	40/3	208 V	3	INTEGRAL	5	
VFC-RF-1	VARIABLE FREQUENCY CONTROLLER	2	20/3	208 V	3	INTEGRAL	1	
VFC-RF-2	VARIABLE FREQUENCY CONTROLLER	7.5	60/3	208 V	3	INTEGRAL	7	

1

NOTES:

1. PROVIDED FUSIBLE DISCONNECT UNLESS OTHERWISE NOTED.

2. PROVIDE SEPERATE CONNECTION FROM EACH SUPPLY FAN (2 TOTAL) TO CORRESPONDING 'A' AND 'B' VFC'S.

LIGHTING CONTROL PANEL SCHEDULE

DESIGNATION	CIRCUIT NUMBER	RELAY NUMBER	AREA CONTROLLED	CONTROL	WATTS
LCP PANEL SERVED: L2 VOLTAGE: 120/208V, 3 PHASE, 4W	23	1	BIKE REPAIR AND MAINTENANCE 'a'	D	
	23	2	BIKE REPAIR AND MAINTENANCE 'b'	D	
	23	3	BIKE REPAIR AND MAINTENANCE 'c'	D	
	23	4	BIKE REPAIR AND MAINTENANCE STOREFRONT DISPLAY 'd'	D	
	23	5	BIKE REPAIR AND MAINTENANCE DISPLAY WALL 'e'	D	
	23	6	BIKE RENTAL DISPLAY WALL 'f'	D	
	24	7	RECEPTION DESK	A	
	24	8	LOBBY AND VESTIBULES	D	
	28	9	EXTERIOR CANOPY	C	
	32	12	CLIMBING CENTER WALL WASH	D	
	32	13	CLIMBING CENTER WALL WASH	D	
	32	14	CLIMBING CENTER WALL WASH	D	
	29	15	CLIMBING CENTER RGB CEILING WASH	D	
	27	16	CLIMBING CENTER RGB CEILING WASH	D	
	30	17	CLIMBING CENTER EAST CLIMBING WALL	D	
	25	18	CLIMBING CENTER WEST CLIMBING WALL	D	
	26	19	CLIMBING CENTER SOUTH CLIMBING WALL	D	
	28	20	EXTERIOR COURTYARD (ALT.)	C	
		21			
		22			
		23			
		24			
		25			
		26			
		27			
		28			
		29			
		30			
		31			
		32			

LIGHTING CONTROL PANEL SCHEDULE NOTES:

1. LC&D GR2400 SERIES LIGHTING CONTROL PANEL WITH THE FOLLOWING FEATURES:
   -RELAY QUANTITY AS SCHEDULED.
   -LINK-TO BUILDING AUTOMATION BACNET PANEL
   -PHOTOSENSOR CARD
2. PROVIDE CIRCUITS FROM PANELS AS INDICATED. A SINGLE INCOMING CIRCUIT MAY FEED MULTIPLE RELAYS AS SCHEDULED.
3. PROVIDE FACTORY STARTUP AND PROGRAMMING OF SYSTEM. PROGRAM ACCORDING TO OWNER'S REQUIREMENTS. INCLUDE 4 HOURS OF ONSITE OWNER TRAINING.
4. PROVIDE SHOP DRAWINGS FOR REVIEW. INCLUDE SYSTEM DIAGRAMS AND OPERATING INSTRUCTIONS IN OPERATION AND MAINTENANCE MANUALS.
5. CONTROL TYPES:
   A: MANUAL ON, SCHEDULED OFF
   B: PHOTOCELL ON, PHOTOCELL OFF
   C: PHOTOCELL ON, SCHEDULED OFF
   D: SCHEDULED ON, SCHEDULED OFF, MANUAL OVERRIDE
6. EACH MOMENTARY CONTACT OVERRIDE SWITCH SHALL TURN LIGHTS ON AND OFF. AFTER NORMAL OPERATING HOURS, MOMENTARY CONTACT SHALL TURN LIGHTS ON FOR TWO HOURS.
7. APPROVED ALTERNATE MANUFACTURERS:
   -GREEN GATE.

1

OCCUPANCY SENSORS PROVIDED BY UNL BSM

1

MARK	DESCRIPTION	WATTSTOPPER CATALOG NUMBER
DT1	DUAL TECHNOLOGY CEILING (1000 SF)	DT-300
IR	PASSIVE INFRARED CEILING MOUNTED	CI-300-1
IRW	PASSIVE INFRARED WALL MOUNTED, WET LOCATION	CB-100
U	ULTRASONIC CEILING (500 SF)	UT-300-1
U2	ULTRASONIC CEILING (2000 SF)	UT-300-3

NOTES:

1. PROVIDE RELAY/POWER PACK FOR LOW VOLTAGE SENSOR(S). PROVIDE AUXILIARY RELAY PACKS FOR ROOMS WITH TWO OR MORE LIGHTING CIRCUITS.

2. CONNECT OCCUPANCY SENSOR(S) AHEAD OF LOCAL SWITCH(ES) TO CONTROL ROOM LIGHTING.

3. WHERE MULTIPLE SENSORS ARE LOCATED IN THE SAME ROOM, HALL, OR ZONE, CONNECT SO THAT EACH SENSOR CONTROLS ALL LIGHT FIXTURES (EXCEPT EMERGENCY FIXTURES THAT ARE NOT SWITCHED) IN THE SAME ROOM, HALL, OR ZONE.

4. PROVIDE LOW VOLTAGE SENSORS WHERE TWO OR MORE SENSORS CONTROL THE SAME LIGHT FIXTURES, UNLESS INDICATED OTHERWISE.

5. FOR WALL MOUNTED DEVICES MATCH WIRING DEVICE COLOR.

6. INSTALL WALL MOUNTED SENSORS IN "VACANCY" MODE UNLESS OTHERWISE NOTED.

7. SET OCCUPANCY SENSOR SENSITIVITY AS REQUIRED SO THE COVERAGE AREA CORRESPONDS TO THE AREA CONTROLLED.

FEEDER SCHEDULE

MARK	NOMINAL SIZE	WIRE AND CONDUIT
1	20 A	3-#12 #12 GND - 1/2C.
3	30 A	3-#10 #10 GND - 3/4C.
5	40 A	3-#8 #10 GND - 1C.
7	50 A	3-#6 #10 GND - 1C.
18	100 A	4-#2 #8 GND - 1-1/2"C.
22	150 A	4-#1/0 #6 GND - 2"C.
28	225 A	4-#4/0 #4 GND - 2-1/2"C.
40S	600 A	4-400 KCMIL IN EACH OF 2 - 3"C.

SITE LIGHTING SCHEDULE

MARK	MANUFACTURER	CATALOG NO. (NOTE 1)	BEAM DISTRIBUTION	LAMP DATA SIZE	LAMP DATA TYPE	VOLTS	FIXTURE QUANTITY PER POLE	FIXTURE AND POLE FINISH	POLE HT. (FT.)	POLE TYPE (NOTE 2)	DESCRIPTION	NOTES
S1	KIM LIGHTING	PT-CCS21P1-120-L5K-208V-DB-A-31	1	140W (120 LEDs)	LED	208 V	1	DARK BRONZE	14	RSA	PEDESTRIAN SIDEWALK LIGHT	NOTE 3,5
S2	KIM LIGHTING	1A-CCS21A4-120-L5K-208V-DB-A-31	4	140W (120 LEDs)	LED	208 V	1	DARK BRONZE	20	RSA	PARKING LOT AREA LIGHT	NOTE 4,5
S3	KIM LIGHTING	1A-CCS21A4-120-L5K-208V-DB-A-31	4	140W (120 LEDs)	LED	208 V	1	DARK BRONZE	20	RSA	COURTYARD AREA LIGHT	NOTE 4,5

NOTES:

1. CONTRACTOR TO VERIFY LIGHT FIXTURE CATALOG NUMBER AND LIGHT FIXTURE REQUIREMENTS PRIOR TO ORDERING.

2. POLE TYPE DESCRIPTION: X X X
   3RD DIGIT - POLE MATERIAL: S-STEEL; A-ALUMINUM
   2ND DIGIT - POLE PROFILE: S-STRAIGHT; T-TAPERED
   1ST DIGIT - POLE SHAPE: R-ROUND; S-SQUARE

3. POLE CATALOG NUMBER: PRA16-4188-DB

4. POLE SHALL BE SIMILAR TO FIXTURE TYPE S1.

5. PROVIDE INTEGRAL PHOTOCELL FOR LIGHTING FIXTURE.

NOTE:

DO NOT SCALE DRAWINGS. VERIFY ALL DIMENSIONS and clearances from ARCHITECTURAL, STRUCTURAL, shop and other appropriate drawing or at site. Lay out and coordinate all work prior to installation to provide clearances required for operation, maintenance, and codes and verify non-interference with other work. DO NOT FABRICATE PRIOR TO VERIFICATION OF CLEARANCE FOR ALL TRADES. READ SPECIFICATIONS.

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June 1, 2012

UNIVERSITY OF NEBRASKA-LINCOLN OUTDOOR ADVENTURES CENTER

14th and W, Lincoln, NE

Revision Schedule

Rev	Date	Description
1	07/09/2012	ADDENDUM 3

UNL PROJECT NO: C220P001
ISSUED: 06.01.12
PROJECT NO: 2011.182.00
PROJECT FILE: CONSTRUCTION DOCUMENTS - BID ISSUE

ELECTRICAL SCHEDULES

E5.1