



State of Utah

GARY R. HERBERT
Governor

GREGORY S. BELL
Lieutenant Governor

Department of Administrative Services

KIMBERLY K. HOOD
Executive Director

Division of Facilities Construction and Management

DAVID G. BUXTON
Director

ADDENDUM NO. 1

Date: September 21, 2010

To: Contractors

From: Wayne Smith

Reference: Heat Trainer Building ó Camp Williams
Utah National Guard ó Draper, Utah

Project No. 10243480

Subject: **Addendum No. 1**

Pages	Addendum	1 page
	Revised Bid Form	2 pages
	<u>Architects Addendum</u>	<u>43 pages</u>
	Total	46 pages

Note: *This Addendum shall be included as part of the Contract Documents. Items in this Addendum apply to all drawings and specification sections whether referenced or not involving the portion of the work added, deleted, modified, or otherwise addressed in the Addendum. Acknowledge receipt of this Addendum in the space provided on the Bid Form. Failure to do so may subject the Bidder to Disqualification.*

1.1 SCHEDULE CHANGES ó There are no schedule changes for this project.

1.2 GENERAL ó Revised Bid Form adding two additive alternates.
EFT Architects ó Please see attached.

Utah!
Where ideas connect



REVISED BID FORM

NAME OF BIDDER _____ DATE _____

The undersigned, responsive to the "Notice to Contractors" and in accordance with the "Instructions to Bidders", in compliance with your invitation for bids for the **Camp Williams Heat Trainer Building – Utah National Guard – DFCM Project No. 10243480** and having examined the Contract Documents and the site of the proposed Work and being familiar with all of the conditions surrounding the construction of the proposed Project, including the availability of labor, hereby proposes to furnish all labor, materials and supplies as required for the Work in accordance with the Contract Documents as specified and within the time set forth and at the price stated below. This price is to cover all expenses incurred in performing the Work required under the Contract Documents of which this bid is a part:

I/We acknowledge receipt of the following Addenda: _____

For all work shown on the Drawings and described in the Specifications and Contract Documents, I/we agree to perform for the sum of:

BASE BID:

_____ DOLLARS (\$ _____)

(In case of discrepancy, written amount shall govern)

ADDITIVE ALTERNATE #1: Add Classrooms and Mezzanine: including partitions, doors, finishes, stairs, railings, specialties, and associated structural, mechanical and electrical systems.

_____ DOLLARS (\$ _____)

(In case of discrepancy, written amount shall govern)

ADDITIVE ALTERNATE #2: Add bay to east end of building: includes footings, foundations, floor slab, windows, metal building system, translucent panels, light fixtures, additional unit heater and all items necessary for a complete installation.

_____ DOLLARS (\$ _____)

(In case of discrepancy, written amount shall govern)

We guarantee that the Work will be Substantially Complete by May 25, 2011, should I/we be the successful bidder, and agree to pay liquidated damages in the amount of **\$400.00** per day for each day after expiration of the Contract Time as stated in Article 3 of the Contractor's Agreement.

This bid shall be good for 45 days after bid opening.

Enclosed is a 5% bid bond, as required, in the sum of _____

The undersigned Contractor's License Number for Utah is _____.

BID FORM
PAGE NO. 2

Upon receipt of notice of award of this bid, the undersigned agrees to execute the contract within ten (10) days, unless a shorter time is specified in the Contract Documents, and deliver acceptable Performance and Payment bonds in the prescribed form in the amount of 100% of the Contract Sum for faithful performance of the contract.

The Bid Bond attached, in the amount not less than five percent (5%) of the above bid sum, shall become the property of the Division of Facilities Construction and Management as liquidated damages for delay and additional expense caused thereby in the event that the contract is not executed and/or acceptable 100% Performance and Payment bonds are not delivered within the time set forth.

Type of Organization:

(Corporation, Partnership, Individual, etc.)

Any request and information related to Utah Preference Laws:

Respectfully submitted,

Name of Bidder

ADDRESS:

Authorized Signature

Utah National Guard
NEW HEAT TRAINER BUILDING
Camp Williams, Utah
DFCM Project No. 10243480

September 21, 2010



This Addendum forms a part of the Contract Documents and modifies the original Bidding Documents dated September 8, 2010 as noted below. Acknowledge receipt of this Addendum in the space provided on the Proposal. Failure to do so may subject Bidder to disqualification.

This Addendum consists of eight (8) addendum pages including the cover, two (2) specification sections, ten (10) 8.5 x 11 inch drawings, and twelve (12) full-size drawings.

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1. Section 012200 - UNIT PRICES. Add new Section. See attached specification.
 2. Section 012300 - ALTERNATES. At 3.1 delete paragraph A, and add the following:
 - A. Additive Alternate No. 1 - ADD CLASSROOMS AND MEZZANINE: Add classrooms and mezzanine, including partitions, doors, finishes, stairs, railings, specialties, and associated structural, mechanical and electrical systems. Refer to drawings and specifications for detailed requirements.
 - B. Additive Alternate No. 2 - ADD BAY TO EAST END OF BUILDNG: Add bay to east end of building. Added bay includes: footings, foundations, floor slab, windows, metal building system, translucent panels, light fixtures, additional unit heater, and all items necessary for a complete installation. See attached drawings.
 3. Section 081113 - HOLLOW METAL DOORS AND FRAMES. Clarification. Exterior doors are required to have a polyurethane core with minimum R-value of 10 as indicated at 081113-2.3.B.2.e. Interior doors may have any of the cores as indicated in 081113-2.2.B.2.e.
 4. Section 087100 - DOOR HARDWARE. Add closer (similar to HW-5) to HW-3.
 5. Section 101400 - SIGNAGE. Add new Signage Type 3: Compliant accessible tactile sign indicating "EXIT" in raised characters and braille. Provide necessary support to install signs adjacent to doors. See drawings for locations.
 6. Section 133419 - METAL BUILDING SYSTEMS. At 2.1.A.1 add sentence "The Approved Fabricators List for 2010 can be found on the DFCM website at:

http://dfcm.utah.gov/downloads/bldg_official/approved_fabricator_list_10.pdf

7. Section 133419 - METAL BUILDING SYSTEMS. At paragraph 2.6, add new paragraphs B (additional allowed panel type) and C. Renumber remaining paragraphs.
 - B. Insulated Translucent Panels: Fabricate insulating units of two sheets of glass-fiber-reinforced polyester, translucent plastic separated by translucent foam; complying with ASTM D 3841, Type CC1 (limited flammability), Grade 1 (weather resistant); smooth finish on both sides. Match profile of adjacent metal panels.
 1. Exterior Panel Weight: Not less than 8 oz./sq. ft.
 2. Interior Panel Weight: Not less than 4 oz./sq. ft..
 3. Light Transmittance: Not less than 52 percent according to ASTM D 1494.
 5. Color: As selected by Architect from manufacturer's full range.
 - C. Framing: Provide frames, center mullions, and support framing as required for a complete and weathertight installation of translucent panels.

NO SPECIFICATION CHANGES

NO SPECIFICATION CHANGES

PRIOR APPROVAL TO BID

The following manufacturers are prior approved to bid the project. All manufacturers must bid an equal to that specified, as determined by the Engineer. Products approved, but later proving not to be equal, may be disqualified at a later date, and the contractor shall then supply the original specified products. Products not listed did not meet the prior approval deadline, or are not considered equal to those specified.

1. Section 260500 - LIGHTING

Type	Manufacturer
A	LSI
AE	LSI
B	LSI
BE	LSI
C	LSI
E1	Exitronix,
F	Lithonia, LSI
S	LSI
SE	LSI
battery	Exitronix

2. Section 261219
 - a. The transformer color is to be Olive Green. Munsell 7GY 3.29/1.5
 - b. The transformer shall be rated to operate for the elevation where it is located (Camp Williams sits at 4760' above sea level)
 - c. Clarification: The second set of 200 amp bushings is for the use of lightning arrestors only.
 - d. Change cooling type in section 2.2 P from 0A to be KNAN.
 - e. Clarification. Section 3.2A calls out for a separate label from the manufacturer Nameplate provided by the contractor.
 3. Section 270500
 - a. Delete the following manufacturers for the warrantee and acceptable manufacturers sections:

Amp Netconnect
Belden/Nordex
Siemens/Mohawk
Leviton/Superior Essex
Panduit/General Cable
 - b. Delete section 1.4 A and B.
 - c. Modify the cable schedule as shown on attached sheets.
 - d. Add the following sections (as highlighted on attached sheets):
 - e. Delete the Copper backbone section and replace it with Fiber as shown on attached sheets.
 - f. See attached changes on spec section 270500 Voice and Data.
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1. Sheet G001, AS101, AE101, AE201, AE211, AE301. Reissued with revisions identified and dated 9-21-10. See attached drawings.
2. Sheet AE/501. Add new sheet.
3. General: Foundation insulation to comply with following:

Extruded-Polystyrene Board Insulation: ASTM C 578, with maximum flame-spread and smoke-developed indexes of 75 and 450, respectively, Type IV, 1.60 lb/cu. ft.

1. Sheet SB101. Detail A3/SB101. Added Alternate Two at Grids 7 and 8.
 2. Sheet SB101. Detail C3/SB101. Detail name modified to clarify alternate number.
 3. Detail SB101. C3 and C4. Footing and foundation plan, and framing plan added.
 4. Sheet SB501. Modified length of pipe foam insulation from 1'-6" to 1'-0."
-
1. Sheet M-101:
 - a. Added UH-4 for alternate # 2.
 - i. See attached sketch SD-1
 - b. Added Keyed note 14 for alternate #2.
 - i. See attached sketch SD-2
 - c. Rotated F-1 and F-2 and added supply/return duct to units.
 - i. See attached sketch SD-8
 2. Sheet M-601:
 - a. Increased size of Unit Heaters, added UH-4.
 - i. See attached sketch SD-3
 3. Sheet P-101:
 - a. Sized gas line and added UH-4.
 - i. See attached sketch SD-4,SD-5,SD-6
 - b. Added gas isometric.
 - i. See attached sketch SD-7.

1. Sheet EG001. Add: Add alternate 2 description: "ALTERNATE 2: BUILDING EXPANSION"
2. Sheet EG001. Add item in drawing index, "ES102, ELECTRICAL SITE PLAN"
3. Sheet EG001. Add item in drawing index, "EL102 LIGHTING PLAN ALTERNATE 2 BUILDING EXPANSION"
4. Sheet EG001. Add item in drawing index, "EP102 POWER PLAN ALTERNATE 2 BUILDING EXPANSION"
5. Sheet ES101. Move the proposed building and transformer to the north 20'. This will extend the medium voltage cable to the transformer as well as add additional telecom line.
6. Sheet EX101. Move the transformer so that it is 15' away from the gas meter (Meter located on the South East corner of the building) Move transformer so that it is at least 5' north of the CT/Meter at a distance of 5' from the building and opens up facing East.
7. Sheet ES101. Change the 2" telecom conduit to a 4" conduit from the telecom backboard over to the communication manhole.
8. Sheet ES101. Add 6 strand single mode fiber to be pulled from the telecom board all the way back through to building 6170's main distribution frame. Order the largest roll of fiber in order to minimize splicing. If splicing is unavoidable, use splice case coyote 8805514 Contact Mike Hansen for access to building 6170. PH: 801 423-4188.
9. Sheet ES102. Add Sheet ES102 to show the fiber path from building 6170 to the new simulator building.
10. Sheet EL101. Move the switch at the top of the mezzanine railing to be on the wall at the bottom of the stairs in the alternate 1 plans.
11. Sheet EL101. Change the 3 and 4 way switches in the simulator areas to be single low voltage switches (one at each exterior door) that connects directly into the lighting control panel and will turn on and off all lighting circuits for the simulator areas.
12. Sheet EL101. In the base bid drawing, delete the wall switch controlling the center group of lights that sits outside of the janitors room. Have the center lighting controlled by the lighting control panel with the timer and other low voltage switches by the doors.
13. Sheet EL102. Add attached sheet EL102 to show alternate 2 lighting for the building expansion.

14. Sheet EL601. Add relay panel schedule as shown below.

RELAY PANEL SCHEDULE			
LOCATION: PALADIN TRAINING AREA		PANEL: LCP	
MOUNTING: WALL MOUNTED			
RELAY	DESCRIPTION	CIRCUIT	CONTROL
a	SIMULATOR	P2-1	OC SENSOR/LV SWITCH ON:TIME/SWITCH OFF
b	SIMULATOR	P2-3	OC SENSOR/LV SWITCH ON:TIME/SWITCH OFF
c	SIMULATOR	P2-5	OC SENSOR/LV SWITCH ON:TIME/SWITCH OFF
d	PALADIN AREA	P2-4	OC SENSOR/LV SWITCH ON:TIME/SWITCH OFF
e	PALADIN AREA	P2-6	OC SENSOR/LV SWITCH ON:TIME/SWITCH OFF
f	CLASSROOM (BASE BID ONLY	P2-8	OC SENSOR/LV SWITCH ON:TIME/SWITCH OFF
g	SPARE		
h	SPARE		

15. Sheet EL601. The mounting height for fixture type A may need to be adjusted above the overhead doors. Coordinate exact height of fixtures above the overhead doors so that the doors clear.
16. Sheet EP101. Delete the surface receptacle on the railing on the mezzanine storage level.
17. Sheet EP101. Add (1) dedicated 120V GFI duplex receptacle for the telecom equipment fed from Panel P2-19.
18. Sheet EP101. Move both the air conditioning units CU-1 and CU-2 and the GFI receptacle 16' to the East.
19. Sheet EP101. Move unit heater UH-1 to the South West corner of the building. 6' north of the south wall along grid line 2.
20. Sheet EP101. Move unit heater UH-2 over by the janitors closet door.
21. Sheet EP101. Move unit heater 3 over to the South east corner.
22. Sheet EP101. Move Unit heater UH-4 over to be in alternate 2. Coordinate exact location with mechanical prior to rough in.
23. Sheet EP101. Delete unit heaterUH-5.
24. Sheet EP101. Add (1)
25. Sheet EP102. Add attached sheet EP102 to show alternate 2 power for the building expansion.
26. Sheet EP601. Change the load of circuits 4 and 6 on panel P2 to be 1344 volt amps.

27. Sheet EP601. Add receptacle load of 720 volt amps to panel P2 circuit 26 for receptacle load in the Paladin area.
28. Sheet EP601. Add receptacle load of 180 volt amps to panel P2 circuit 19.
29. Sheet EP601. The SPD (TVSS) on circuits 37, 39, 41 on panel P1 should be a 40 amp 3 pole breaker.
30. Sheet EP601. Change the full load amps on the compressor units CU-1 (ACC-1) and CU-2 (ACC-2) to be 17.6 amps. Change the disconnect size to be a 30 amp disconnect, and fused at 25 amps. Coordinate the exact fuse size with manufacturer's recommendations prior to ordering. Change the feeder size to be (4) #8's instead of #6's.
31. Sheet EP601. Change the breaker size on panel P1-2,4 and P1-6,8 to be 30 amp 2-pole breakers with a load of 1830 volt-amps per pole.

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1. A Geotechnical Investigation (IGES July 1, 2009) for an adjacent building at Camp Williams was furnished by the Owner for use on this project. Data and information furnished or referred to is for the Contractor's information. The Owner and Architect shall not be responsible for any interpretation of or conclusion drawn from the data or information by the Contractor. The report is provided as reference information only and is not a part of the Contract Documents. See attached.

END OF ADDENDUM NO. 1

SECTION 012200 - UNIT PRICES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for unit prices.
- B. Related Requirements:
 - 1. Division 01 Section "Contract Modification Procedures" for procedures for submitting and handling Change Orders.

1.3 DEFINITIONS

- A. Unit price is a price per unit of measurement for materials, equipment, or services, or a portion of the Work, added to or deducted from the Contract Sum by appropriate modification, if the scope of Work or estimated quantities of Work required by the Contract Documents are increased or decreased.

1.4 PROCEDURES

- A. Unit prices include all necessary material, plus cost for delivery, installation, insurance, applicable taxes, overhead, and profit.
- B. Owner reserves the right to reject Contractor's measurement of work-in-place that involves use of established unit prices and to have this work measured, at Owner's expense, by an independent surveyor acceptable to Contractor.
- C. List of Unit Prices: A schedule of unit prices is included in Part 3. Specification Sections referenced in the schedule contain requirements for materials described under each unit price.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 SCHEDULE OF UNIT PRICES

- A. Unit Price 1: Removal of undocumented onsite fill beneath building and replacement with imported structural fill material, not indicated as included in Base Bid.
 - 1. Description: Unsatisfactory soil excavation and disposal offsite, and replacement with imported structural fill, according to Division 31 Section "Earth Moving."
 - 2. Unit of Measurement: Cubic yard of soil excavated, based on survey of volume removed.

END OF SECTION 012200

SECTION 27 05 00 – VOICE AND DATA WIRING

PART 1-GENERAL

1.1 WORK INCLUDED:

- A. Furnish and install all labor and materials required for the installation of a complete voice and data cable infrastructure.
- B. The UNG requires that the telecom system be brand specific to be used in conjunction with TIA/568B guidelines.

1.2 QUALITY ASSURANCE:

- A. Do all work in accordance with the guidelines published in EIA/TIA standard 568 and 569. Where conflicts exist, the plans and specifications shall generally take precedence. Bring all such conflicts to the attention of the Architect for final resolution.
- B. All workers involved in the installation and termination of cable shall have at least one year of experience. All workmen on the job shall have attended a vendor sponsored training program covering installation and termination of cable.

1.3 SUBMITTALS:

- A. Submit complete and descriptive shop drawings in accordance with Division 1, and General Conditions. Include data for wall jacks, cable, racks, patch panels, and a layout for each IDF and MDF terminal board.
- B. Submit floor plans indicating the boundaries for the area served by each IDF location. Clearly identify the boundaries on the as-built plans.

1.4 GUARANTEE:

[REDACTED]

- A. Acceptable warranty providers are as follows.
Comscope/Systemax
- B. Upon notification of a problem, the warranty provider shall furnish within 48 hours and at no cost to the owner, such labor and materials as are needed to restore the system to proper operation.

1.5 REQUIRED CONTRACTOR TRAINING:

This is a list of all approved SYSTIMAX contractors and installers in the State of Utah

_____ Contact: Mark Monsen
5123 South Commerce Drive
Murray, UT 84107
Tel: 801-892-0529
FAX: 801-892-0585

_____ Contact: Tim Hadden
2345 South John Henry Dr
Salt Lake City, UT 84119
Tel: 801-908-2680
FAX: 801-908-7041

_____ Contact: Justin Thomas
1990 South Milestone Drive
Suite D
Salt Lake City, UT 84104-4853
Tel: 801-972-2262
FAX: 801-972-9095

_____ Contact: Ryan Wallwork
1574 South West Temple
Salt Lake City, UT 84155
Tel: 801-487-4511
FAX: 801-487-5032



[REDACTED]

PART 2 - PRODUCTS

2.1 SYSTEM PERFORMANCE

- A. The structured cable system and all of its components and installation shall meet the requirements of the latest draft of the EIA/TIA performance standards for the category of cable and accessories specified elsewhere in this specification.
- B. All components shall be backwards compatible. They shall satisfy all requirements of their category in addition to all existing lower category specifications.

2.3 ACCEPTABLE MANUFACTURERS:

- A. Structured Cabling and Outlet Solutions:
Comscope/Systemax

The UTNG requires that the following parts (brand specific) be used in conjunction with TIA/568B guidelines:

[REDACTED]

[REDACTED]

Standard Equipment:

1. CS-SYSTEMX 110UB1-366FT 366 PR BLOCK 110 CAT6 FIELD TERM KIT W/4PR CONN
BLAOCKS 108651143 VISIPATCH

2. CS-SYSTIMX 110U2R VISIPATCH DISTRIBUTION RING SNAPS ONTO BACK PANEL 108523937 (FOR EVERY 1 OF PART ONE YOU NEED 6 OF THIS PART)
3. CS-SYSTIMX 110UTC VISIPATCH TROUGH COVER USED TO HIDE PATCH CORDS 108593203 GRAY
4. CS-SYSTIMX 110UHD-S8 VISIPATCH, HORIZONTAL DUCT SNAPS INTO BOTTOM OF VISIPATCH SYSTEM 108637737
5. CS-SYSTIMX MGS400BH-262 1-PORT MOD JACK 110 8W8P UTP T568A/B CAT6 GIGASPEED 700206725 ELEC. WHITE
6. CS-SYSTIMX M12L-262 2-PORT FLUSH MT UNLOADED SGL GANG M-SERIES 108168469 WHITE
7. CS-SYSTIMX CPC5512-03F003 CBL ASSY 110 24-4PR STRANDED CAT6 T568B 3FT VISIPATCH CPC5512-03F003 GRAY
8. CS-SYSTIMX CPC5512-03F003 CBL ASSY 110 24-4PR STRANDED CAT6 T568B 5FT VISIPATCH CPC5512-03F005 GRAY
9. CS-SYSTIMX CPC5512-03F003 CBL ASSY 110 24-4PR STRANDED CAT6 T568B 7FT VISIPATCH CPC5512-03F007 GRAY
10. CS-SYSTIMX CPC5312-03F007 CBL ASSY 110-MOD 24-4PR STR CAT6 T568B 7FT VISIPATCH CPC5312-03F007 GRAY
11. CS-SYSTIMX CPC5312-03F005 CBL ASSY 110-MOD 24-4PR STR CAT6 T568B 5FT VISIPATCH CPC5312-03F005 GRAY
12. CS-SYSTIMX CPC5312-03F003 CBL ASSY 110-MOD 24-4PR STR CAT6 T568B 3FT VISIPATCH CPC5312-03F003 GRAY
13. CS-SYSTIMX CPC5312-03F025 CBL ASSY 110 24-4PR STRANDED VISIP-RJ-45 CAT6 T568B 25FT GRAY CPC5312-03F025
14. CS-SYSTIMX 600G2-1U-MOD-SD MODULAR COMBINATION SHELF SLIDE ACCEPT 4 MODULES 760028324
15. CS-SYSTIMX MODG2-6SC-MM 6 MODULE ADAPTER BEIGE 72 MAX FIB MODG2-6SC-MM 760032177
16. CS-SYSTIMX P6201B-Z 125 SC CONNECTOR MM CER EZ&EPOXY OC 900UM ONLY, NON-TUNABLE 760007070
17. COMMSCOPE 75N4 (CAT 6 BLUE)
18. COMMSCOPE 75N4 (CAT 6 YELLOW)
19. MARCONI R66P25QC LIGHTING PROTECTION PANEL
20. MARCONI R66P50QC LIGHTING PROTECTION PANEL
21. MARCONI R66P100QC LIGHTING PROTECTION PANEL
22. GAS PROTECTION FUSES 104410147

- B. Wall Mounted patch panel: Hubbell, Chatsworth, Homaco, Ortronics
- C. Requests for substitution of other products will be considered if submitted in accordance with the General Conditions, Division 1, and Section 27 05 00.
- D. Manholes

1. Copper Splice Cases 3M KB6 (is the series). You will need to talk to Mike or Toby to determine what ends need to be placed on the ends of the splice case.
2. Fiber Splice Case Coyote 80805514 (Splice tray will depend on amount of fiber)

There are several Manholes at AGCW. When pulling Backbone Cable you will leave a 20 ft maintenance loop in every manhole between the IDF and the MDF. All splices will be sealed water tight. If a case is open, it will be resealed to maintain a water tight seal. All splices in the fiber cable will be fusion spliced. Splices in the copper cable will be done in a splice case and made water tight. To find a path from the IDF to the MDF you will need to speak with Mike or Toby.

All telecommunication work to be done on any Utah Army National Guard Facility will be coordinated and approved through Mike Hansen (801-523-4118). Layout of the Systimax Solution will be coordinated through Mike Hansen. There will be one blue and one yellow CAT 6 wire pulled to each location. They will correlate with the same number on the VisiPatch System (ex. Jack 101 will have one blue and one yellow wire that will be in the same location on the VisiPatch System). Fiber will be terminated in an LIU can. Termination of fiber will be done on the SC style connector unless specified otherwise. This will depend on location. You will need to speak with Mike in order to know what facility has what termination

2.4 FIBER BACKBONE:

- A. All fiber optic cable shall be single mode as indicated on the drawings, and shall meet the requirement of ANSI/EIA/TIA-568 for optical fiber backbone cable.
- B. Single mode cable shall be 8 micron step index fiber with attenuation no greater than 0.5 db/km for 1310nm.
- C. Terminate all fiber strands with type ST connectors unless noted otherwise.
- D. All fiber cables terminating in telecom locations shall be terminated in wall or rack mount patch panels. Patch panels shall be loaded with the correct quantity of connector couplings.
- E. All fiber optic patch cords will be furnished and installed by the Contractor.
- F. All fiber backbone cable shall be run in innerduct.

2.5 CABLE SCHEDULE:

- A. The following riser and backbone cables shall be installed and terminated.

COUNT	TYPE	FROM	TO
-------	------	------	----

2.6 HORIZONTAL COPPER DISTRIBUTION

- A. ■Voice and ■ Data■ UTP cables shall terminate on rack mount 110-type UTP terminating Category 6 modular RJ-45 patch panels and shall be provided and installed in equipment racks. They must meet requirements for Category 6 of EIA/TIA TSB-40. Rack mount wire management panels are to be installed for each 48 jack rack mount patch panel.
- B. All voice and data outlet plates shall be of a modular design capable of accepting interchangeable RJ-11, RJ-45, video F connectors, BNC, fiber ST, SC, or MT-RJ connectors, or blank inserts into a single plate. Inserts shall be designed to permit them to be disconnected from the plate without removing the cable, and reinstalled on another plate. Plates shall be single gang nylon, color to match adjacent power receptacle plates.
- C. All plates shall be 4 port with quantity of jacks as indicated elsewhere. Provide blank fillers in all unused ports.
- D. Each outlet shall have UTP cables terminated on CAT 6 RJ-45 jacks. Provide two jacks per plate except as indicated otherwise on the floor plans by a numeric designation adjacent to the outlet symbols. Pull (1) blue and (1) yellow CAT-6 cable to each outlet location.
- E. Each outlet shall have two UTP cables terminated on two CAT 6 RJ-45 jacks. The jacks shall be designated A and B, with the top, or "A" jack being used for voice and the "B" jack assigned to data. The data jack shall be orange in color and the voice jack will match the plate color.
- F. Wall phone outlets shall have one 4 pair UTP cable terminated in a single gang plate.
- G. Wiring configuration (568A 568B) as directed by Owner.
- H. Each jack shall have a factory prepared label or icon indicating phone or data. The term "CAT6" is not an acceptable label.

2.7 EQUIPMENT:

- A. Provide wall mounted lockable rack APC Netshelter WX3U AR100HD.
- B. Provide Light Interface Unit (LIU) Corning PCH-01U.
- C. Provide 24 port Cisco POE Switch.

PART 3 - EXECUTION

3.1 INSTALLATION:

- A. The Contractor shall furnish and install all cabling in accordance with this specification, and as indicated on the cable schedules and drawings.
- B. Install each cable as an uninterrupted conductor section between the designated termination points, unless otherwise directed by the cable installation specifications. There shall be no splices or mechanical coupler installed between the cable points of origin and termination except as shown on drawings and or specifications.
- C. Unless otherwise noted, all cable shall be routed through the building cable tray/conduit system where available. Coordinate with the Division 26 Contractor on cable tray sizing. Prior to installation, check the sizes of the cable tray specified in section 16115 and confirm that it has adequate capacity for the quantity of cables required. Notify the Architect prior to tray ordering and installation if there are any problem areas.
- D. Coordinate the location of cable tray installed under Section 16115 to assure that required EIA/TIA clearances are maintained from line voltage power conduit (12"), motors and transformers (40"), and fluorescent fixtures (12"). Observe proper clearances for all installed cable.
- E. Contractor is responsible for insuring that cable jacket is suitable for the environment in which it is placed ie: CM, CMR, CMP rated.
- F. All cable shall be attached to building structure except as noted below, at intervals not to exceed those mandated by the National Electrical Code.
- G. At the same time cable is pulled into a cable pathway, also install a pull string of appropriate size to facilitate future cable pulls along those pathways.
- H. Install "J-hooks" for horizontal cable support. Coordinate location of support hardware to avoid conflicts with other trades.
- I. At no point will any station cable be tie wrapped or fastened to the cable tray. After cables have exited the cable tray they will be tie wrapped to the "J-hooks". The tie wraps will be cinched snug enough around the cable bundle to keep them uniform and in the hooks, but not so tight as to damage the construction of the cables themselves.

- J. Installation of workstation cables shall be coordinated with the modular furniture system contractor. Prior to the furniture system installation, the workstation cables will be pulled near the "stub-ups" or "poke-thrus" and left coiled with enough slack to reach the eventual outlet location. After the modular furniture systems are installed and walls are finished, the contractor will pull cable to the outlet locations and complete the cable installation.
- K. Backbone and station cables shall be provided with an 8 foot service loop at all MDF and IDF locations.
- L. Provide firestopping at all locations where cables penetrate fire rated surfaces. Materials and methods used shall be acceptable to the code authority having jurisdiction and shall maintain the fire integrity of the wall, floor, or ceiling.

3.3 CABLE IDENTIFICATION:

- A. Cable tags containing a unique cable ID designator shall be placed on both ends of all cables, 6 inches from the connector and /or termination blocks. Also label all backbone cables passing through telecommunications rooms. Each label shall be pre-printed with the appropriate cable number as indicated. Hand written cable labels are not acceptable.
- B. Individual station outlets shall be labeled with the designator of the cables terminated at that particular outlet.
- C. If at any time during the job the cable tag becomes illegible or removed for whatever reason, the Contractor shall immediately replace it with a duplicate pre-printed cable tag at the Contractor's expense.
- D. Labeling sequence to be determined by the Owner and to be followed by the contractor.

3.4 PLYWOOD BACKBOARDS:

- A. Provide plywood backboards where indicated on the plans. Backboards to be 3/4" AC fire rated plywood, 4' tall, width as indicated on the drawings.

3.5 TERMINATION HARDWARE

- A. Quantities of termination blocks, racks, splice enclosures, and patch panels, etc. shown on drawings are illustrative only and are meant to indicate the general configuration of the work. The Contractor is responsible for providing the correct quantities of termination hardware required to terminate, patch, cross connect, etc. the volume of cable described herein and shown on the drawings. Rack quantities shall be no less than what is shown on the drawings.

- B. At all times during the construction, the Contractor shall protect the equipment from damage and theft. Equipment shall not be installed until such time as other trades have completed their work in the area.

3.6 CABLE TERMINATION:

- A. Twisted pair metallic cables: After dressing cable to its final location the sheath shall be removed to a point that allows the conductors to be splayed and terminated in a neat and uniform fashion. Every effort must be made to maintain sheath integrity by removing only as much as is practical to accomplish termination. Cable pair twist shall be maintained up to the point of termination. Under no circumstances shall cable pairs be untwisted or otherwise altered prior to termination.

3.7 CROSS-CONNECT:

- A. All patch cords will be furnished and installed by the contractor.
- B. Twisted pair metallic cable: Perform all necessary cross-connect and patches as indicated in these specifications. Utilize cross-connect wire, and 25 pair cable as necessary. Cut all cross-connect wire to length, leaving enough slack to form a "3-finger loop". After completion of work, dress patch cords and cross-connect wire in cable management apparatus. Do not tie-wrap cross-connect wires into bundles.
- C. Phone Switch: Cross-connect all pairs of the voice entrance cable and station cabling to the phone switch termination blocks.
- D. Telecommunication distribution rooms/closets: Cross-connect "voice" station cable to the "voice " backbone.
- E. Cross connect cables terminating on protection blocks shall be 25 pr 24 AWG solid copper conductors under a common outer sheath. The cable shall meet the requirements for Category 3 horizontal UTP cable of EIA/TIA/ TSB-36.
- F. The contractor is responsible for providing all cross-connect schedules and documentation for Contractor installed cross connects and patching, to the Owner/Consultant on completion of project.

3.8 GROUNDING:

- A. All metallic cable tray, ladder rack, raceways, cable sheath/armor, enclosures, and equipment racks and other conductive surfaces shall be properly bonded to the grounding system. All paint and other coatings shall be removed at all contact surfaces to ensure proper ground.
- B. Furnish and install an insulated # 6 copper ground wire from all telecommunication rooms to the main building electrical ground point in the main electrical room. Drawing notes indicating a larger size shall take precedence.
- C. All grounding shall be in compliance with the NEC code Article 800, Article 250, well as EIA/TIA standard 607.

3.9 CABLE TESTING:

- A. Copper
 - 1. Visually inspect all cables, cable reels, and shipping cartons to detect cable damage incurred during shipping and transport. Return visibly damaged items to the manufacturer.
 - 2. Conduct cable testing as described below upon completion of installation. Test fully completed systems only. Piecemeal testing is not acceptable, except by prior written approval from the Architect.
 - 3. After terminating both ends, but before any cross connects are installed, test all UTP voice and data station cables for attenuation and for near-end cross talk (NEXT) to ■ 100 ■ 250 ■ Mhz. Test all UTP backbone cable for cable pair/conductor continuity, ground fault, proper cross-connect, shorts and crossed pairs.

3.10 ACCEPTANCE:

- A. Upon receipt of the Contractor's documentation of cable testing, the Architect will review the installation and may request a test in his presence, of up to 1% of the cables/wires installed.

Questions:

Questions regarding this Statement of Work should be presented in writing to:

Utah Army National Guard
UT-G6-C, ATTN: Mike Hansen
P.O. Box 1776

Draper, UT 84020

FAX (801) 523-4844

Phone Questions: 801.423-4118

E-mail questions to john.m.hansen1@us.army.mil

A written answer to any such questions will be provided to all respondents to this request for proposals.

END OF SECTION

CONSULTANT INFORMATION

KEY NOTES:

1. CONCRETE SLAB - SEE AE101 - SEE STRUCTURAL
2. EXISTING FIRE HYDRANT
3. GRADE SITE TO PROVIDE 20' MINIMUM ROADWAY TO BUILDING APPROACH SLABS.
4. ASSUMED PROPERTY LINE
5. GRAVEL SURFACING
6. LOCATE GRID 8 IN ALTERNATE TWO IN THE SAME LOCATION AS GRID 7 IS IN THE BASE.
7. VERIFY LOCATION OF THE GAS LINE

GENERAL NOTES:

1. SLOPE GRADE AWAY FROM BUILDING MINIMUM OF 5% FOR 10'-0", IMPERVIOUS MATERIALS MAY BE 2%



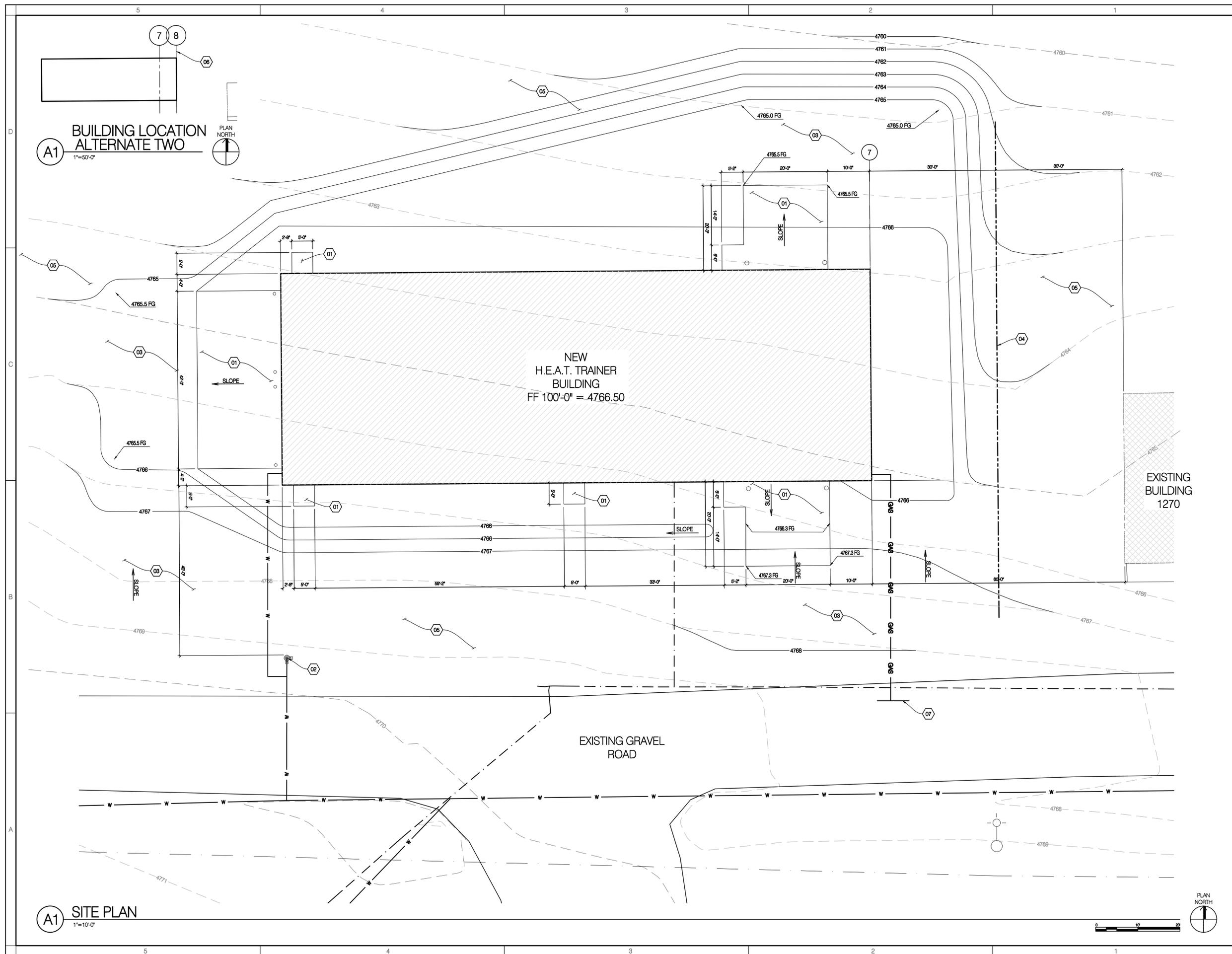
UTAH NATIONAL GUARD
 NEW H.E.A.T. TRAINER BUILDING
 CAMP WILLIAMS,
 UTAH 84302-1540

SHEET TITLE

SITE PLAN

DATE	BY	DESCRIPTION
2010/9/21	CRO	ADDENDUM #1
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-	-	-
-	-	-

DRAWN BY	CRO	CHECKED BY	01
PROJECT NO.	10243480	DRAWING NO.	AS101
DATE	21-Sep-10		



BUILDING LOCATION ALTERNATE TWO
 1"=50'-0"

SITE PLAN
 1"=10'-0"

UTAH NATIONAL GUARD - CAMP WILLIAMS - SIMULATOR TRAINING BUILDING

CONSULTANT INFORMATION

KEY NOTES:

1. PREFABRICATED METAL BUILDING
2. PAINTED GALVANIZED 12" STEEL BOLLARD, SEE STRUCTURAL
3. PAINTED GALVANIZED 8" STEEL BOLLARD, SEE STRUCTURAL
4. CONCRETE SLAB - EXTERIOR APRON CONCRETE SLAB TO BE THE SAME REINFORCING AND THICKNESS AS INTERIOR CONCRETE SLAB - SEE STRUCTURAL
5. CONCRETE SLAB OVER STEEL DECKING
6. FIRE EXTINGUISHER
7. WALL HUNG ACCESSIBLE TOILET
8. GRAB BAR
9. TOILET PAPER DISPENSER
10. SANITARY NAPKIN DISPOSAL
11. WALL HUNG SINK - PROVIDE PIPE INSULATION ON EXPOSED PIPES
12. UTILITY SINK
13. WATER HEATER
14. ACCORDION DOOR
15. WATER FOUNTAIN
16. CONCRETE FILLED PAN STAIR
17. 5/8" GYPSUM BOARD (PAINT) ON 25 GA. 4" STEEL STUDS @ 24" O.C. W/ SOUND ATTENUATION BATTS.
18. H.E.A.T. SIMULATOR OWNER PROVIDED.
19. M.R.P.T. SIMULATOR OWNER PROVIDED.
20. PAINTED AND 1" PIPE RAILING
21. MOP AND BROOM HOLDER - TBA #8
22. WAREHOUSE 48" X 60"
23. EMBED FOR GUARD RAIL - SEE STRUCTURAL
24. OVERHEAD DOOR MOTOR
25. LAY-IN CEILING - 9'-0" AFF. - SEE D3/AE301 - ALTERNATE ONE
26. 60" X 48" ALUMINUM WINDOW
27. EAST WALL LOCATION W/ ALTERNATE - TWO
28. GRID 8 USED ONLY W/ ALTERNATE - TWO
29. STRUCTURE MEMBER ONLY W/ ALTERNATE - TWO
30. LOCATION WINDOWS ONLY W/ ALTERNATE - TWO
31. METAL BUILDING WALL ONLY W/ ALTERNATE - TWO
32. EXPANSION JOINT ONLY W/ ALTERNATE - TWO
33. FRAMED GYPSUM BOARD CEILING - 9'-0" AFF
34. TACTILE EXIT SIGN - SEE D4/AE211

GENERAL NOTES:



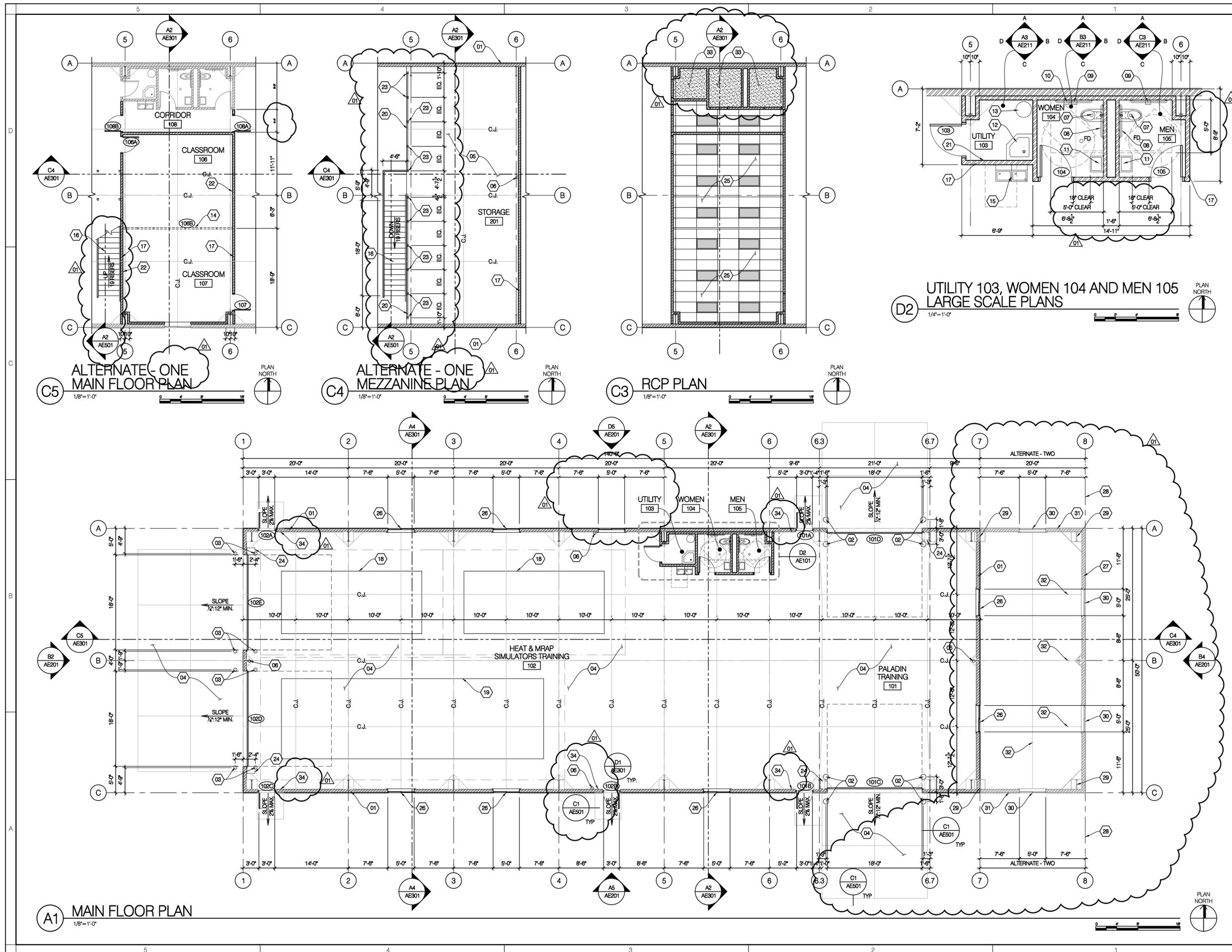
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FLOOR, RCP PLAN & ALTERNATE PLANS

DATE	BY	DESCRIPTION
2010/9/21	CRO	ADDENDUM #1
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 PROJECT NO.: 10243480
 DATE: 21-Sep-10

CHECKED BY: ERT
 DRAWING NO.: AE101



UTAH NATIONAL GUARD - CAMP WILLIAMS - SIMULATOR TRAINING BUILDING

CONSULTANT INFORMATION

KEY NOTES:

1. FINISH GRADE - SLOPE AWAY FROM BUILDING 1/4" PER FOOT FOR A MINIMUM OF 10'-0".
2. PREFABRICATED METAL BUILDING
3. EXTERIOR LIGHT FIXTURE
4. PAINTED GALVANIZED STEEL BOLLARD
5. PRE-FINISHED METAL GUTTER
6. PRE-FINISHED METAL DOWNSPOUT WITH SPLASH BLOCK
7. SCHEDULED DOOR - SEE DOOR SCHEDULE
8. CONCRETE FOOTING AND FOUNDATION, SEE STRUCTURAL
9. 60" X 48" ALUMINUM WINDOW
10. 72" X 60" INSULATED TRANSLUCENT PANEL
11. FINISH GRADE W/ ALTERNATE - TWO
12. PRE-FINISHED METAL GUTTER W/ ALTERNATE - TWO
13. PREFABRICATED METAL BUILDING W/ ALTERNATE - TWO
14. LOCATION OF PRE-FINISHED METAL DOWNSPOUT WITH SPLASH BLOCK W/ ALTERNATE - TWO
15. 72" X 60" INSULATED TRANSLUCENT PANEL W/ ALTERNATE - TWO
16. 60" X 48" ALUMINUM WINDOW W/ ALTERNATE - TWO

GENERAL NOTES:



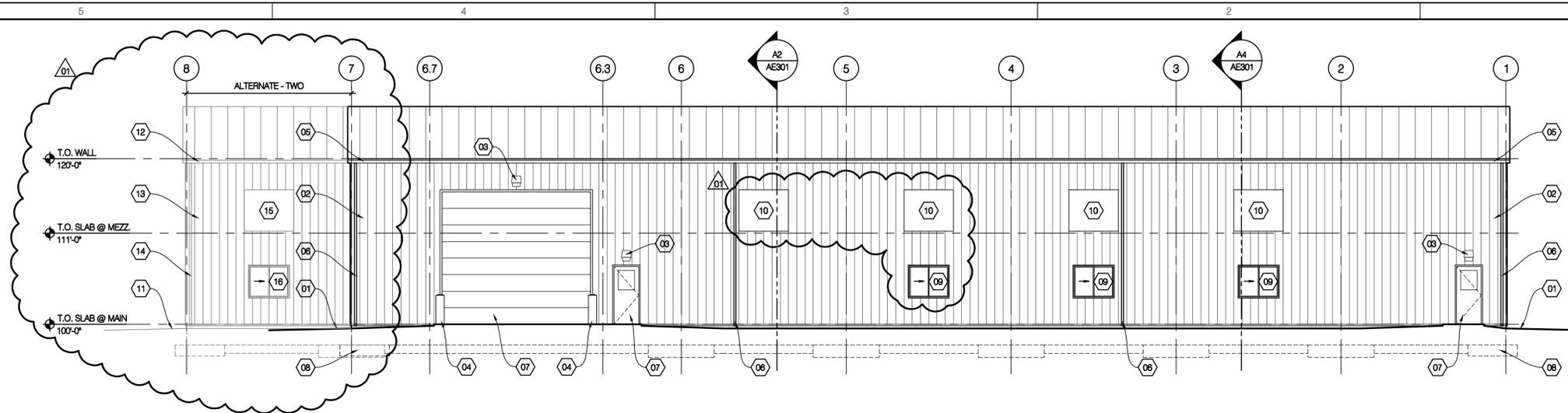
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 NEW H.E.A.T. TRAINER BUILDING
 CAMP WILLIAMS,
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EXTERIOR ELEVATIONS

DATE	BY	DESCRIPTION
2010/9/21	CRO	ADDENDUM #1
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-	-	-

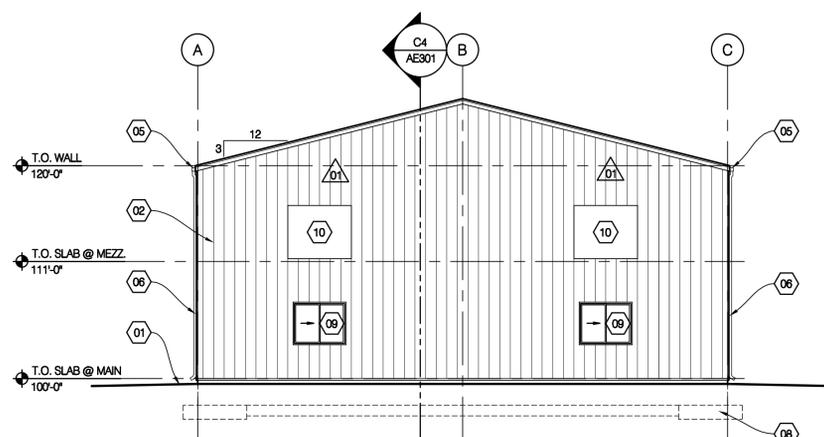
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PROJECT NO.	10243480	DRAWING NO.	AE201
DATE	21-Sep-10		

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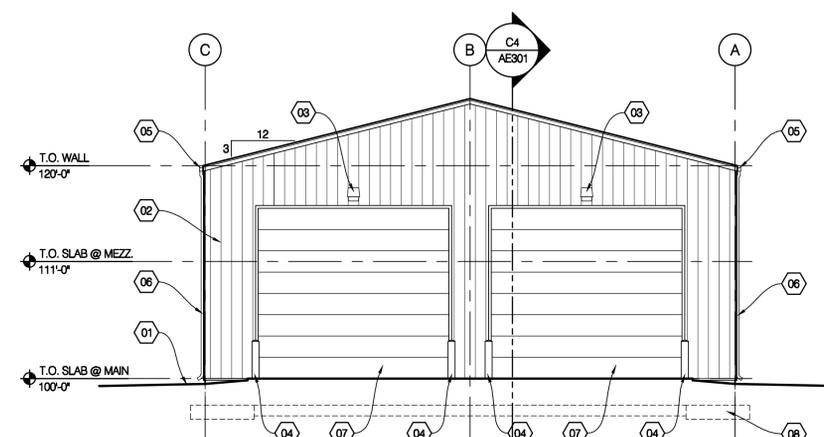
D4 NORTH ELEVATION

1/8"=1'-0"



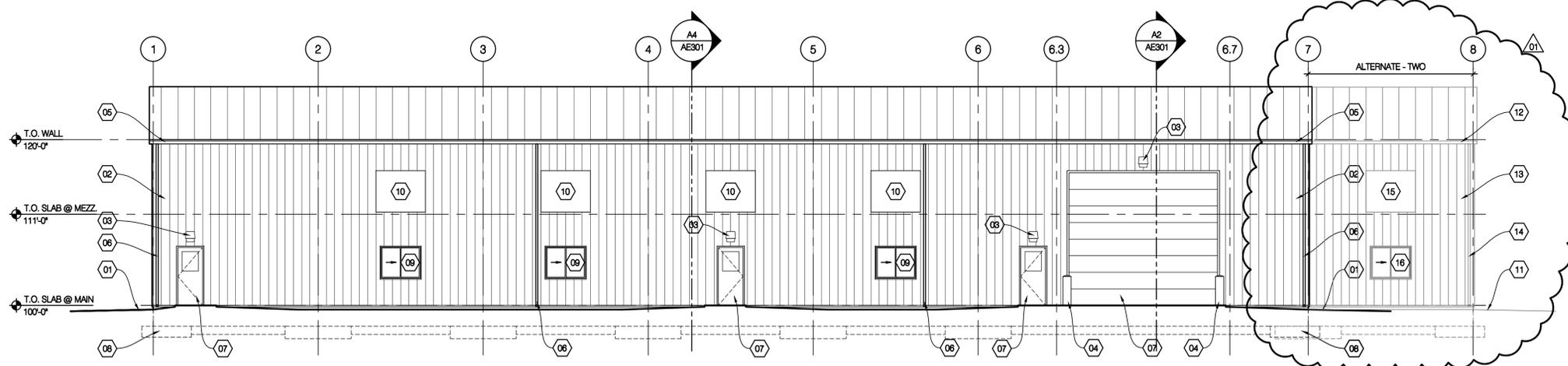
B4 EAST ELEVATION

1/8"=1'-0"



B2 WEST ELEVATION

1/8"=1'-0"



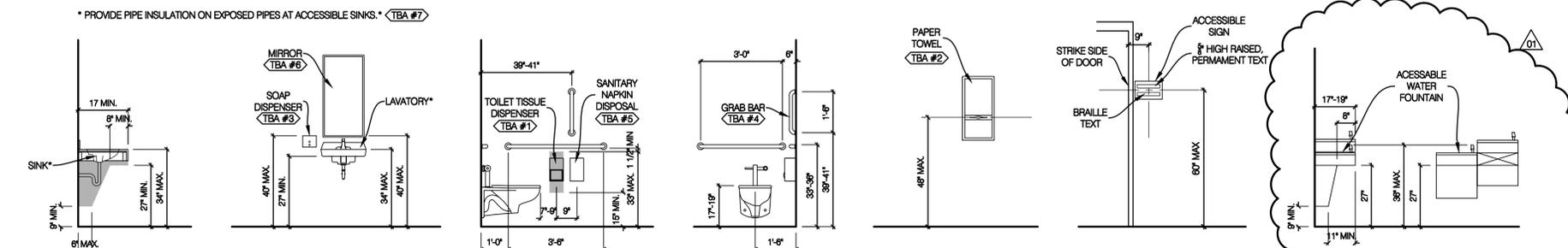
A4 SOUTH ELEVATION

1/8"=1'-0"

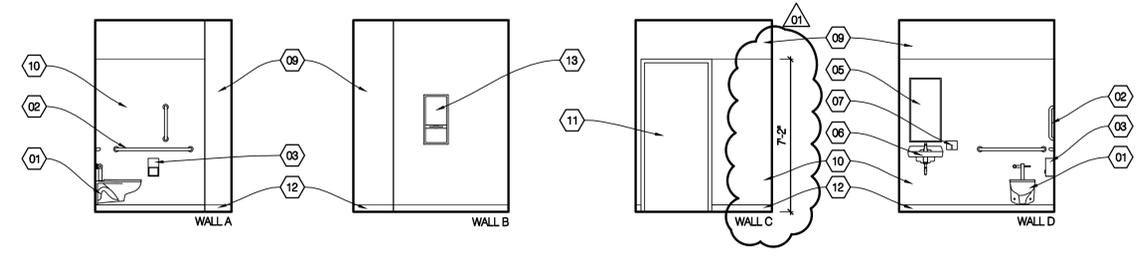
CONSULTANT INFORMATION

KEY NOTES:

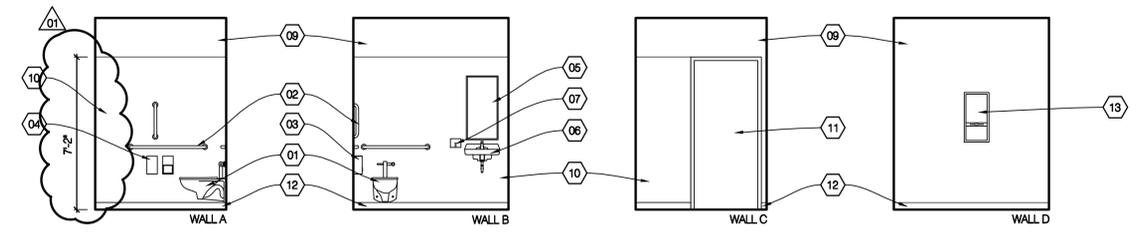
1. WALL HUNG ACCESSIBLE TOILET - SEE D4/AE211
2. GRAB BAR - SEE D4/AE211
3. TOILET PAPER DISPENSER - SEE D4/AE211
4. SANITARY NAPKIN DISPOSAL - SEE D4/AE211
5. MIRROR 24" W X 32" H - SEE D4/AE211
6. WALL HUNG LAVATORY - SEE D4/AE211
7. SOAP DISPENSER - SEE D4/AE211
8. UTILITY SINK
9. GYPSUM BOARD - PAINT
10. FRP
11. SCHEDULED DOOR
12. 4" COVERED BASE
13. PAPER TOWEL DISPENSER - SEE D4/AE211
14. MOP AND BROOM HOLDER - TBA #8



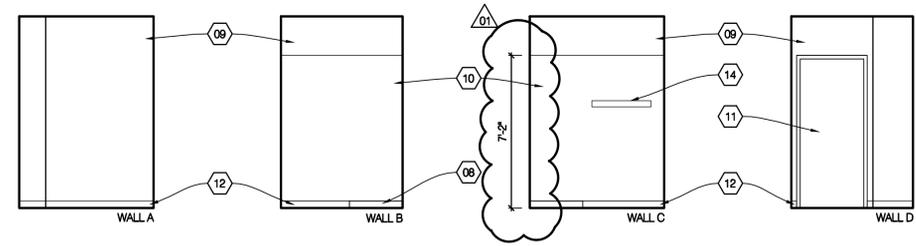
D4 TYPICAL ACCESSIBLE FIXTURE MOUNTING



C3 MEN - 105
 1/4" = 1'-0"



B3 WOMEN - 104
 1/4" = 1'-0"



A3 UTILITY - 103
 1/4" = 1'-0"

GENERAL NOTES:



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 NEW H.E.A.T. TRAINER BUILDING
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SHEET TITLE			
INTERIOR ELEVATIONS			
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DATE			
21-Sep-10			

UTAH NATIONAL GUARD - CAMP WILLIAMS - SIMULATOR TRAINING BUILDING

CONSULTANT INFORMATION

KEY NOTES:

1. FINISH GRADE - SLOPE AWAY FROM BUILDING 1/4" PER FOOT FOR A MINIMUM OF 10'-0".
2. PREFABRICATED METAL BUILDING
3. PAINTED GALVANIZED STEEL ROOF PANELS - SEE D2/AE301
4. EXTERIOR DOOR - SEE DOOR SCHEDULE
5. R-20 BATT INSULATION IN WALLS, W/ THERMAL BLOCK APPLIED TO THE FULL LENGTH OF EACH PURLIN.
6. R-32 IN CEILING W/ THERMAL BLOCK APPLIED TO THE FULL LENGTH OF EACH PURLIN.
7. CONCRETE SLAB
8. CONCRETE FOOTING AND FOUNDATION, SEE STRUCTURAL
9. THRESHOLD SET IN SEALANT
10. 6" GRAVEL DRAINAGE COURSE
11. THERMAL BLOCK
12. LINE OF BASE BID - GEOTECHNICAL ENGINEER TO CONFIRM THAT COMPETENT UNDISTURBED NATIVE SOIL IS ENCOUNTERED AT THIS ELEVATION. IF NOT OVER ESCAVATE TO NATIVE SOIL AS APPROVED BY GEOTECHNICAL ENGINEER AND REPLACE WITH IMPORTED STRUCTURAL FILL (PAD FOR BY UNIT COST/C.O.) SEE STRUCTURAL DETAIL C1/SB501
13. WELDING FINGER
14. 1 1/2" PIPE RAILING - PAINT
15. LAY-IN CEILING - SEE D3/AE301
16. STEEL STUD WALL W/ GYPSUM BOARD - PAINTED
17. STEEL EMBED FOR GUARD RAIL INSTALLATION
18. TOE BOARD - PAINT
19. CONCRETE SLAB OVER STEEL DECK
20. WELD PIPE GUARD RAIL TO EMBED
21. 12 GA. HANGER WIRES SPACED @ 4'-0"
22. CEILING RUNNER
23. SEISMIC CLIP @ RUNNER
24. WALL ANGLE
25. SCREW TIGHTENED THROUGH MAIN RUNNER WEB RESTRICTING SEPARATION FROM WALL MOLDING
26. ACCORDION DOOR - FOLLOW MANUFACTURERS RECOMMENDATION FOR ANCHMENT TO BEAM ABOVE
27. STEEL BEAM SEE STRUCTURAL
28. HANGER RODS AND BRACKET BY DOOR MANUFACTURER
29. HAT CHANNEL
30. THERMAL BREAK SEALANT
31. 2" X 10" FIBERGLASS INSULATION
32. COMPACTED IMPORTED STRUCTURAL FILL SEE STRUCTURAL DETAIL C1/SB501
33. EXPANSION JOINT BOARDS
34. FRAMED GYP BOARD CEILING
35. COMPACTED FILL

GENERAL NOTES:



9-9-10

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 CAMP WILLIAMS,
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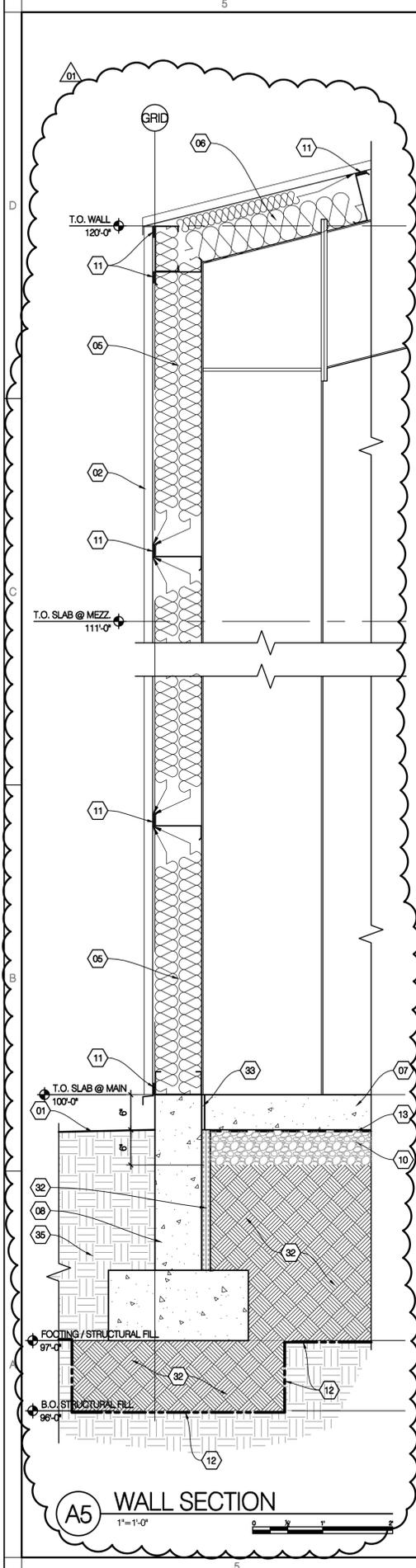
SHEET TITLE

SECTIONS & DETAILS

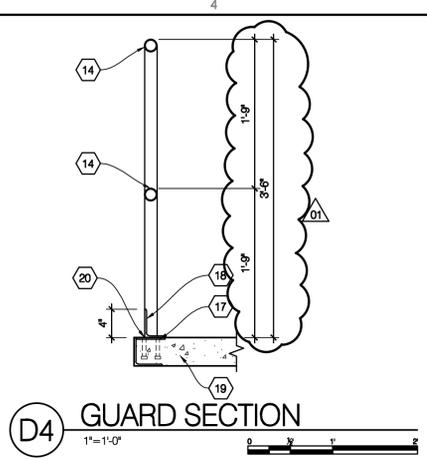
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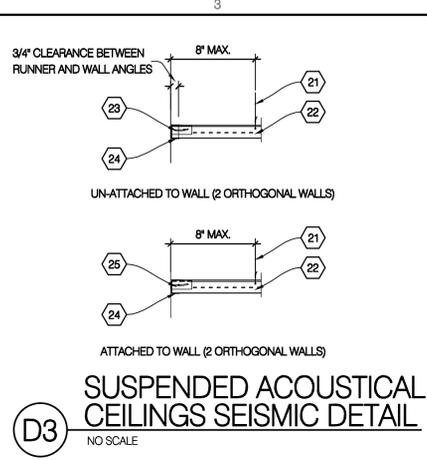
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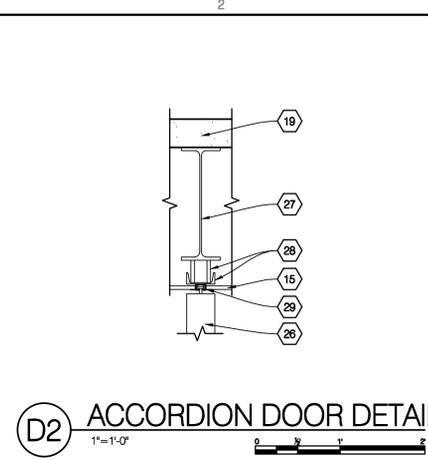
A5 WALL SECTION
 1"=1'-0"



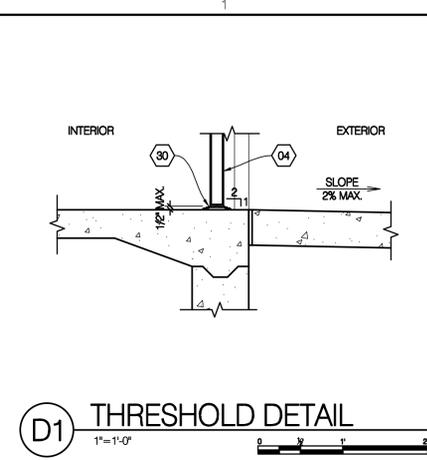
D4 GUARD SECTION
 1"=1'-0"



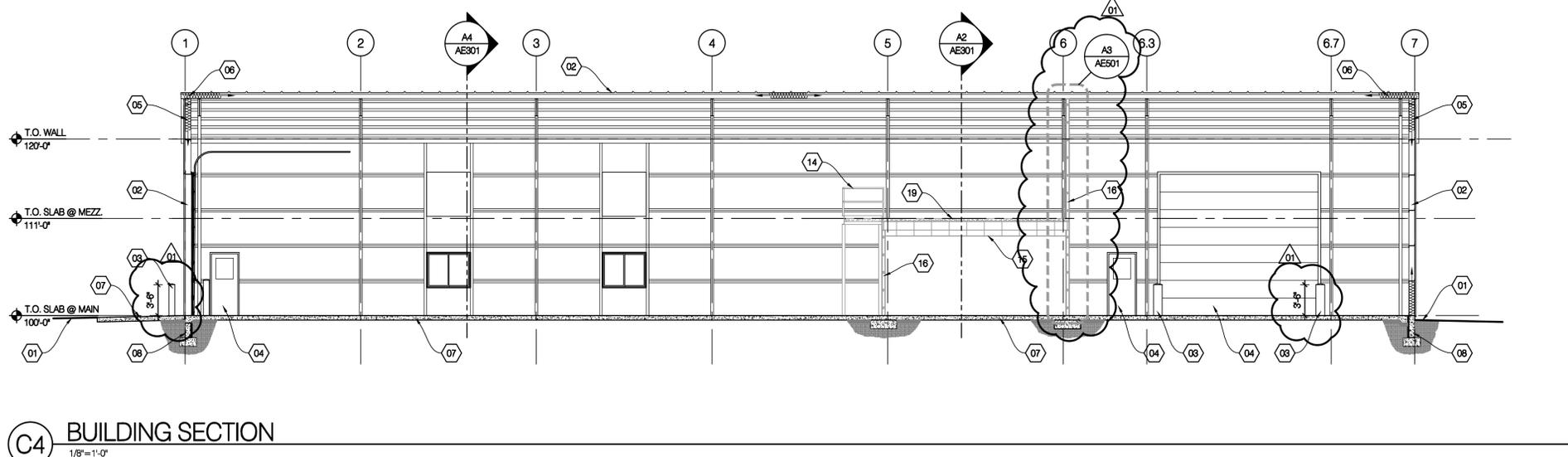
D3 SUSPENDED ACOUSTICAL CEILINGS SEISMIC DETAIL
 NO SCALE



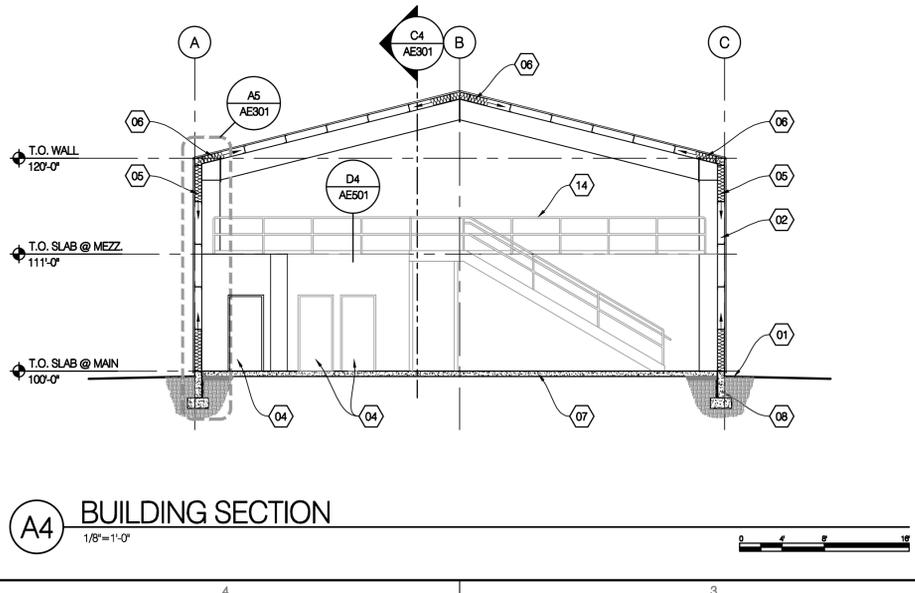
D2 ACCORDION DOOR DETAIL
 1"=1'-0"



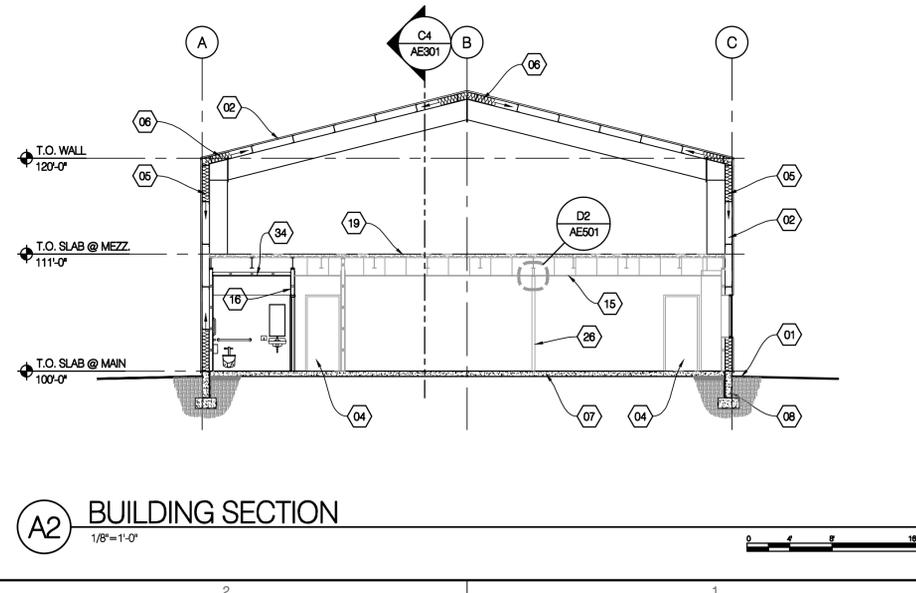
D1 THRESHOLD DETAIL
 1"=1'-0"



C4 BUILDING SECTION
 1/8"=1'-0"



A4 BUILDING SECTION
 1/8"=1'-0"



A2 BUILDING SECTION
 1/8"=1'-0"

UTAH NATIONAL GUARD - CAMP WILLIAMS - SIMULATOR TRAINING BUILDING

CONSULTANT INFORMATION

KEY NOTES:

1. CONCRETE SLAB - STRUCTURAL
2. 1 1/2" PIPE RAILING - PAINT
3. CONCRETE SLAB OVER STEEL DECK
4. CONCRETE FILLED PAN
5. STEEL COLUMN - PAINT
6. STEEL STRINGER - PAINT
7. SLIP CHANNEL
8. 5/8" GYPSUM BOARD - PAINT
9. 25 GA. 4" STEEL STUDS @ 24" O.C. W/ SOUND ATTENUATION BATTS.
10. LAY-IN CEILING
11. CONCRETE SLAB OVER METAL DECK
12. STEEL BEAM - SEE STRUCTURAL
13. PURLIN
14. CONCRETE SLAB
15. METAL BUILDING BEYOND
16. SOUND ATTENUATION BATTS

GENERAL NOTES:



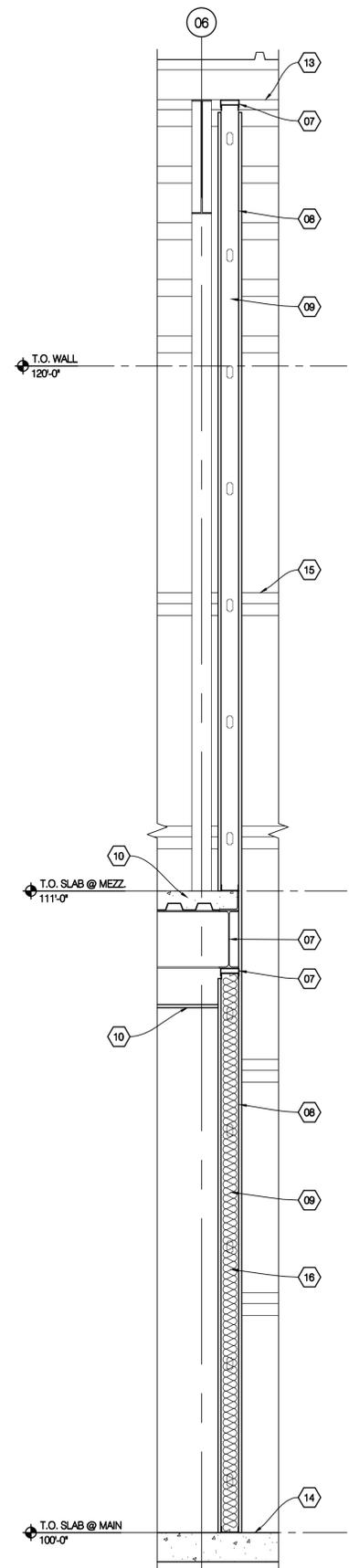
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 CAMP WILLIAMS,
 UTAH 84302-1540

DETAILS & SECTIONS

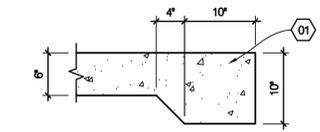
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 DATE: 21-Sep-10

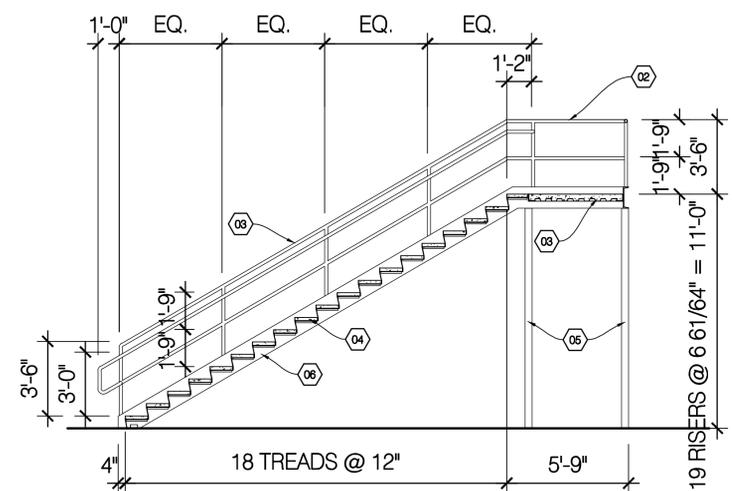
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 DRAWING NO.: AE501



A3 WALL SECTION
 3/4" = 1'-0"

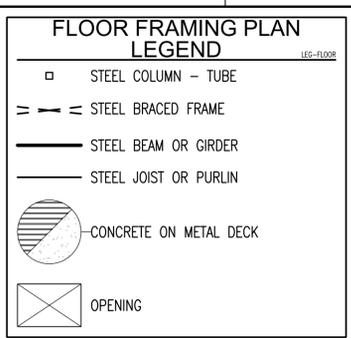
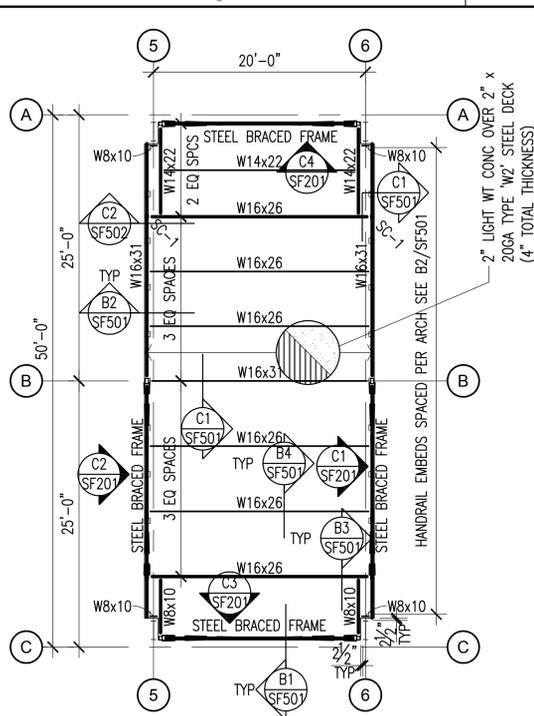
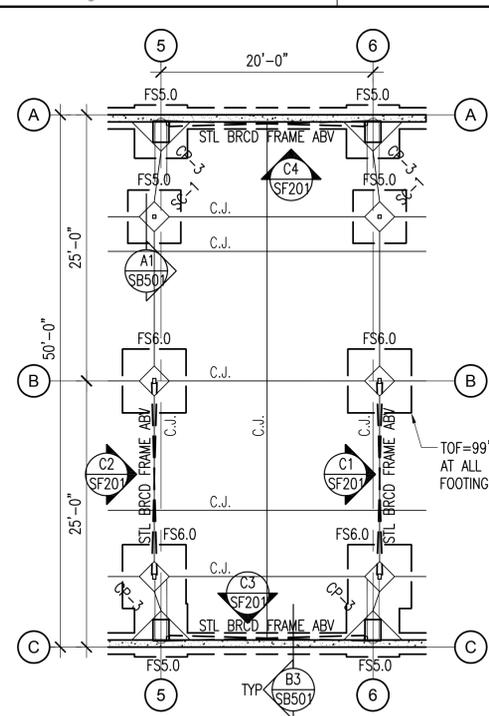


C1 EDGE OF SLAB DETAIL
 1" = 1'-0"

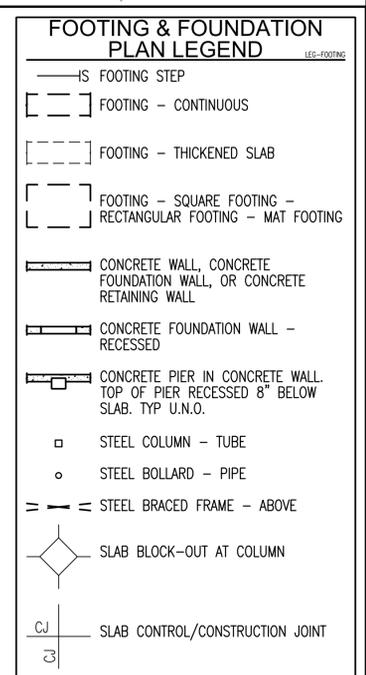


A2 GUARD SECTION
 1" = 1'-0"

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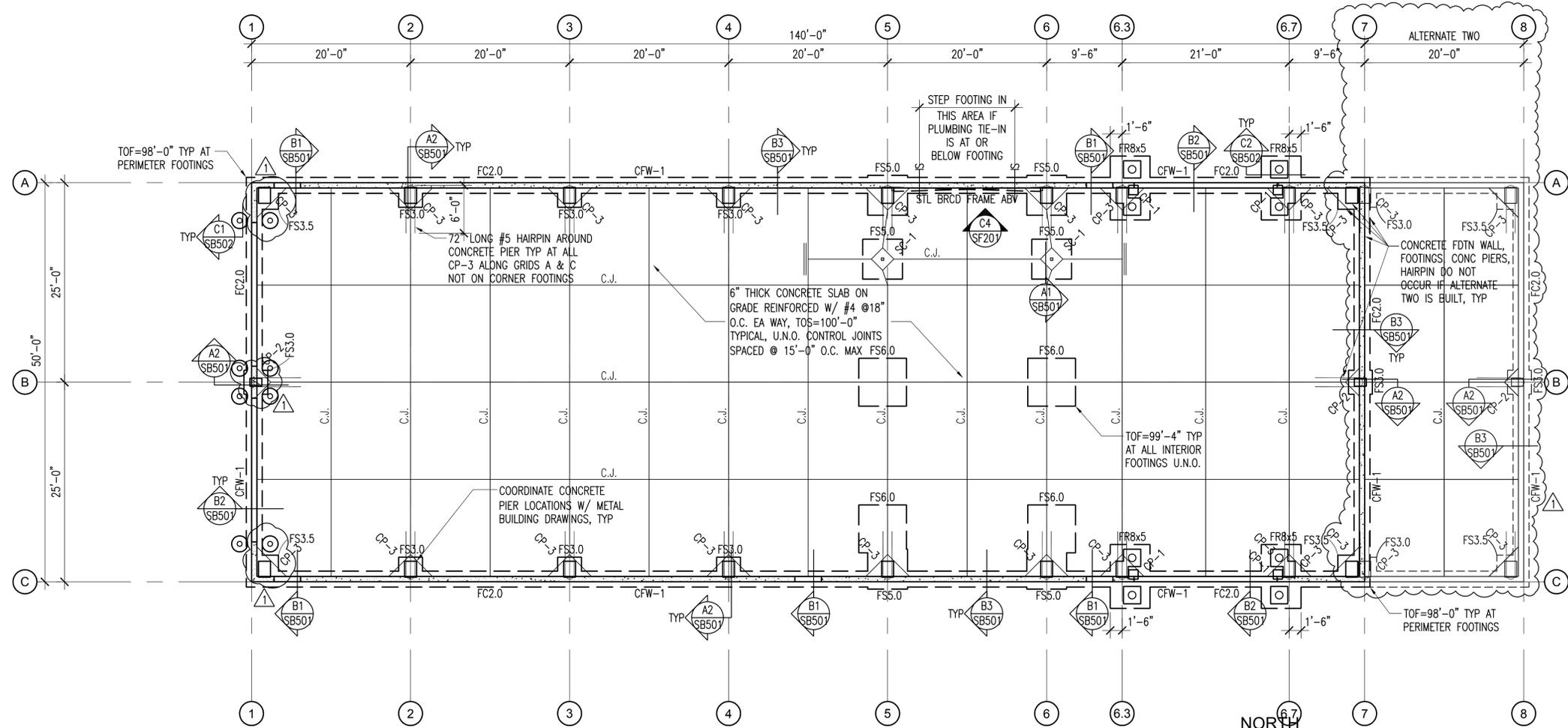
- FLOOR FRAMING PLAN NOTES**
- SEE GENERAL STRUCTURAL NOTE (III.D.8) AND DETAILS C1/SF501 FOR CONTROL JOINTS IN SUSPENDED SLABS OVER STEEL DECK.
 - SEE DETAILS C4 & C2/SF501 FOR MISCELLANEOUS FLOOR OPENINGS.
 - SEE GENERAL STRUCTURAL NOTE (V.J.7) FOR STEEL DECK REQUIREMENTS WHERE 3-SPAN CONDITIONS ARE NOT POSSIBLE.



- FOOTING & FOUNDATION PLAN NOTES**
- SEE ARCHITECTURAL, CIVIL AND LANDSCAPE DRAWINGS FOR EXTERIOR CONCRETE WORK AT DOORS, SIDEWALKS ETC.
 - SEE ARCHITECTURAL DRAWINGS AND FINISH SCHEDULE FOR SLAB AREAS TO RECEIVE FLOOR TILE.
 - SEE ARCHITECTURAL DRAWINGS FOR SLAB DEPRESSIONS AND SLOPES TO DRAINS, ETC.
 - SEE ARCHITECTURAL, CIVIL AND LANDSCAPE DRAWINGS FOR ADDITIONAL EXTERIOR CONCRETE RETAINING AND / OR SITE WALLS NOT SHOWN ON THE STRUCTURAL DRAWINGS.
 - SEE C4/SB501 FOR TYPICAL FOOTING STEP DETAIL. DETAIL.
 - SEE C3/SB501 FOR TYPICAL REINFORCEMENT AT WALL CORNERS AND INTERSECTIONS.
 - SEE C3/SB501 FOR TYPICAL SLAB JOINTS AT CONCRETE SLABS ON GRADE.
 - SEE C1/SB501 FOR TYPICAL REINFORCEMENT AT DISCONTINUOUS CONTROL / CONSTRUCTION JOINTS IN SLABS.
 - REFER TO GENERAL STRUCTURAL NOTES AND SEE B4/SB501 FOR TYPICAL COMPACTED STRUCTURAL FILL BELOW FOOTINGS.

C4 FOOTING & FOUNDATION PLAN - MEZZANINE
 SB101 SCALE: 1/8"=1'-0"

C3 MEZZANINE FLOOR FRAMING PLAN - ALTERNATE ONE
 SB101 SCALE: 1/8"=1'-0"



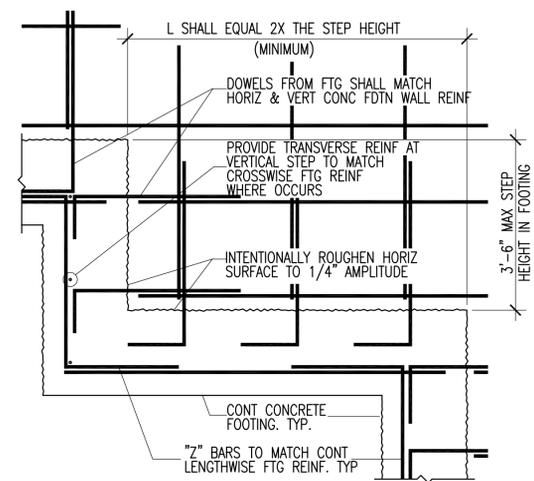
A3 FOOTING & FOUNDATION PLAN
 SB101 SCALE: 1/8"=1'-0"

STRUCTURAL PLANS

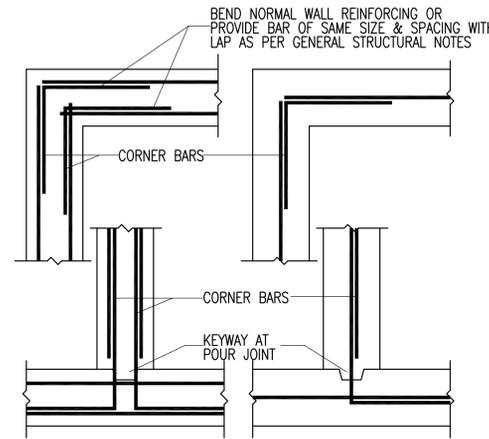
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DRAWN BY: YW CHECKED BY: APB
 PROJECT NO. 10243480 DRAWING NO. SB101
 DATE 21-Sep-10

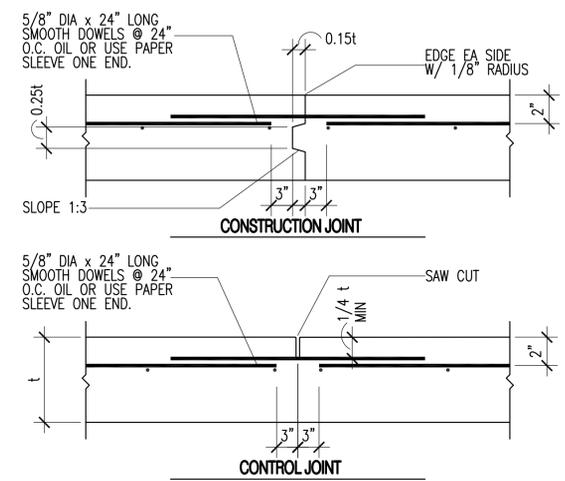
UTAH NATIONAL GUARD - CAMP WILLIAMS - SIMULATOR TRAINING BUILDING



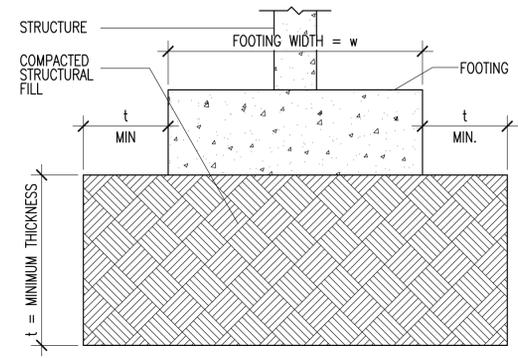
C4 TYPICAL FOOTING STEP
 SB501 NO SCALE
 CF-TYP01



C3 TYPICAL REINFORCEMENT AT WALL CORNERS & INTERSECTIONS - PLAN VIEW
 SB501 NO SCALE
 CF-TYP02

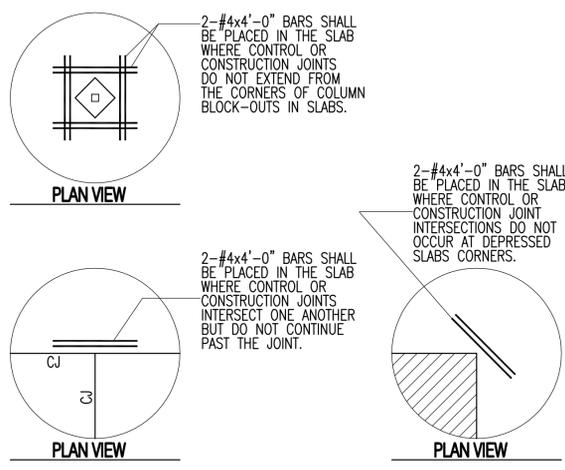


C2 TYPICAL SLAB JOINTS
 SB501 NO SCALE
 CF-TYP15

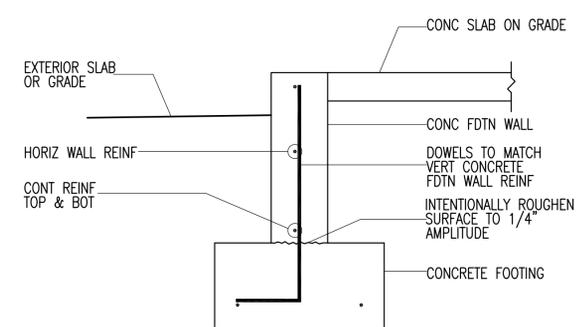


C1 TYPICAL COMPACTED STRUCTURAL FILL BELOW FOOTINGS
 SB501 NO SCALE
 CF-TYP08

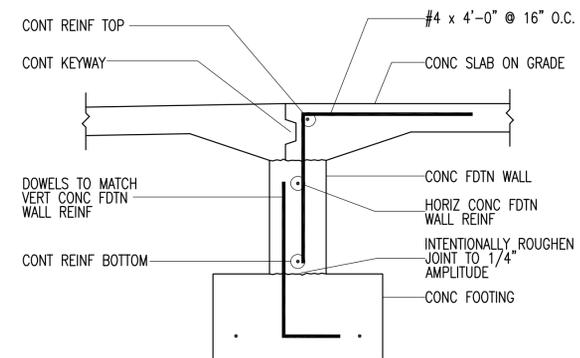
COMPACTED STRUCTURAL FILL:
 ALL FILL MATERIAL SHALL BE A WELL-GRADED GRANULAR MATERIAL WITH A MAXIMUM SIZE LESS THAN 4 INCHES AND WITH NOT MORE THAN 10 PERCENT PASSING A NO. 200 SIEVE. IT SHALL BE COMPACTED TO 95 PERCENT OF THE MAXIMUM LABORATORY DENSITY AS DETERMINED BY ASTM D-1557. ALL FILL SHALL BE TESTED (SEE SPECIFICATIONS).



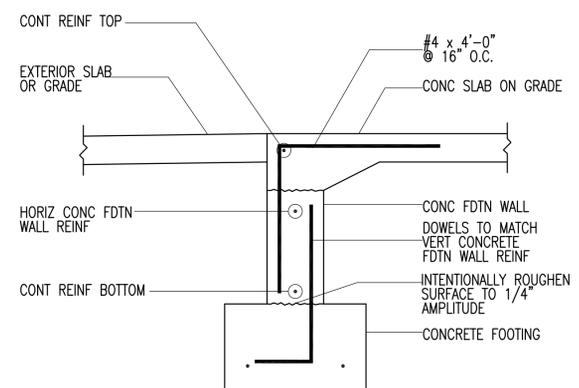
B4 TYPICAL REINFORCEMENT AT DISCONTINUOUS CONTROL/CONSTRUCTION JOINTS IN SLABS
 SB501 NO SCALE
 CF-TYP10



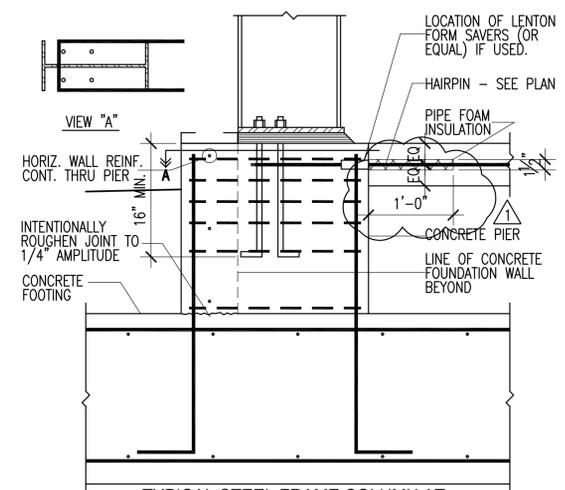
B3 TYPICAL EXTERIOR CONCRETE FOUNDATION WALL
 SB501 NO SCALE
 CW1-CF19



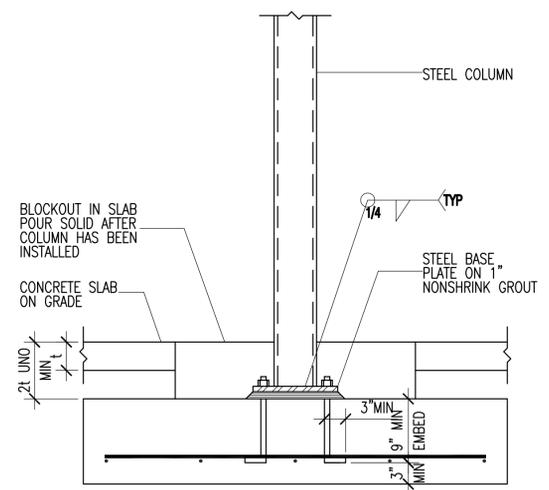
B2 TYPICAL SLAB AT DOOR OPENING
 SB501 NO SCALE
 CW1-CF15



B1 TYPICAL CONCRETE SLAB TO FOUNDATION WALL AT DOOR OPENING
 SB501 NO SCALE
 CW1-CF16



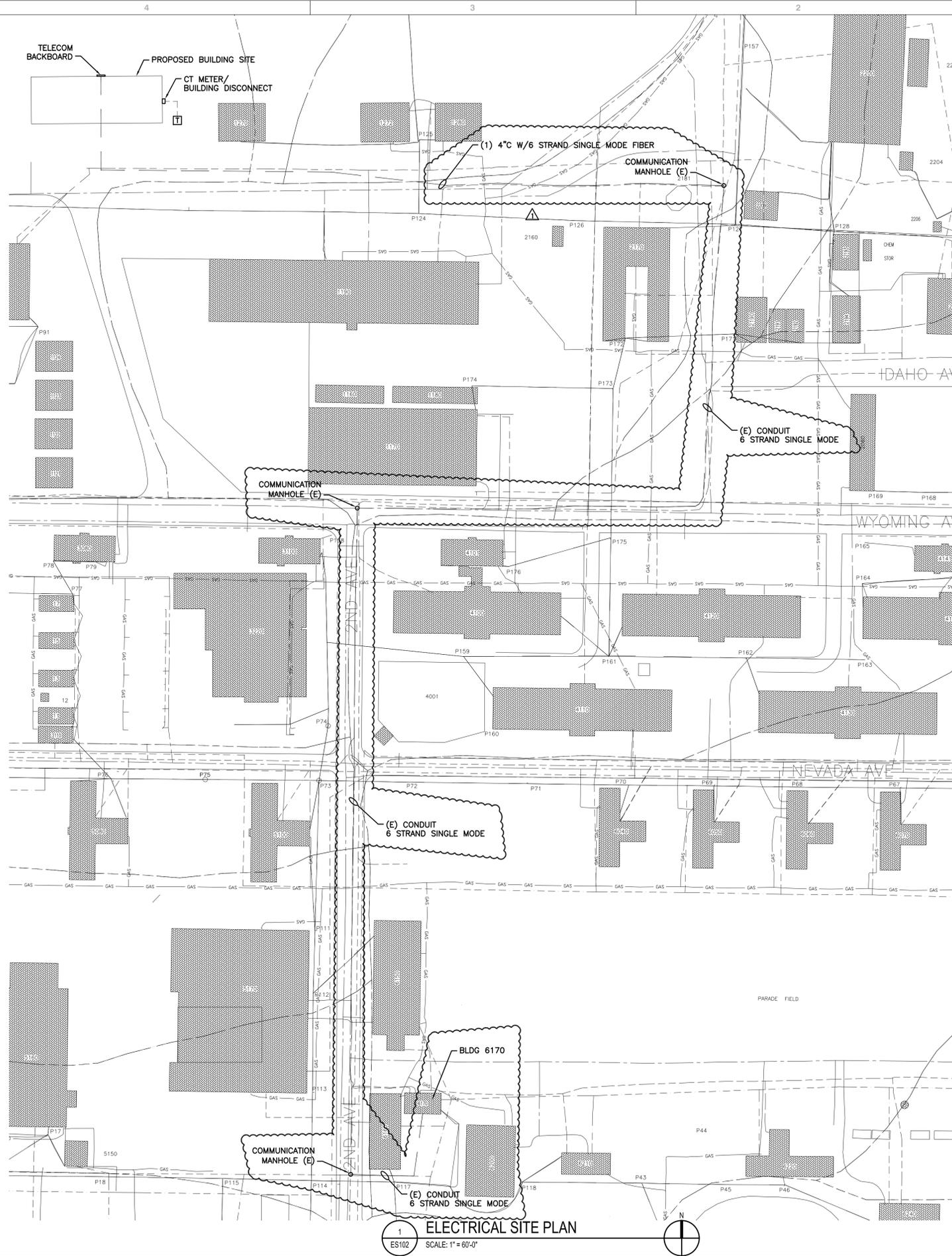
A2 TYPICAL STEEL FRAME COLUMN AT CONCRETE PIER
 SB501 NO SCALE
 PFMB-F09



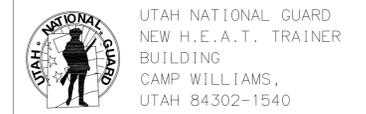
A1 TYPICAL STEEL COLUMN BASE - ALTERNATE
 SB501 NO SCALE
 SCI-CF-01

DATE	BY	DESCRIPTION
2010/9/21	YW	ADDENDUM #1

DRAWN BY: YW CHECKED BY: APB
 PROJECT NO: 10243480 DRAWING NO: SB501
 DATE: 21-Sep-10



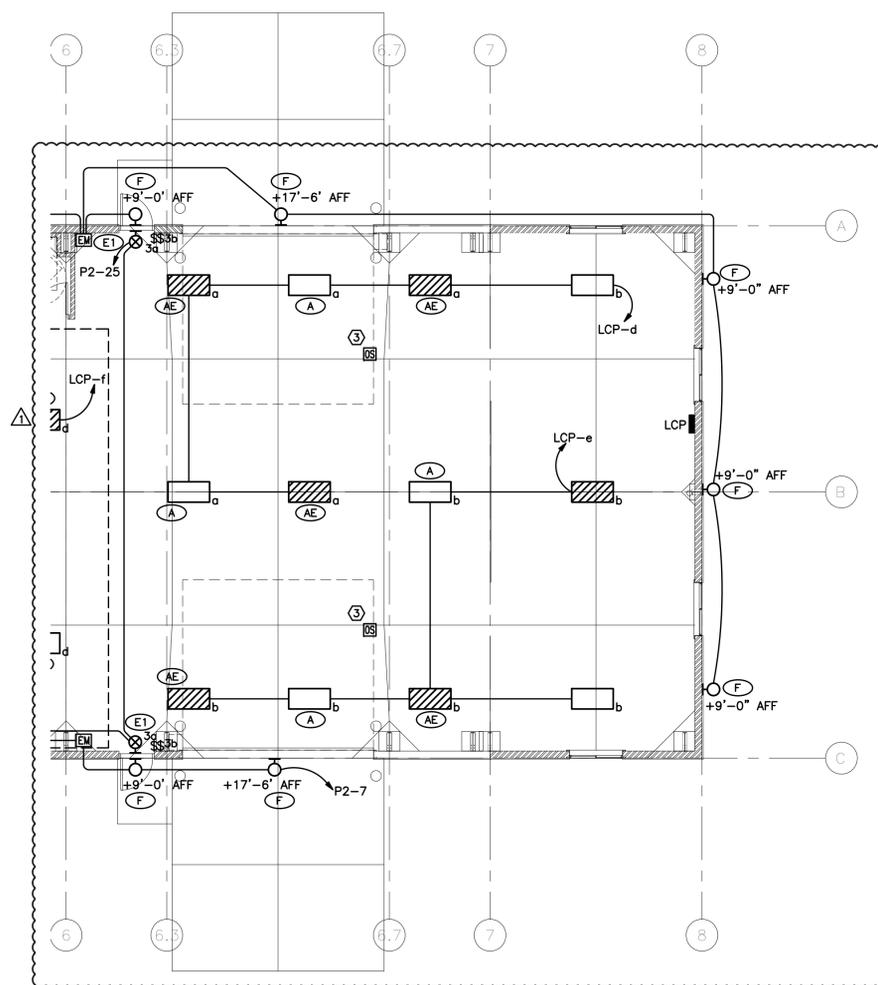
ELECTRICAL SITE PLAN
 ES102 SCALE: 1" = 60'-0"



SHEET TITLE
 ELECTRICAL SITE PLAN

DATE	BY	DESCRIPTION
09/21/10	KGE	ADDENDUM #1

DRAWN BY **KGE** CHECKED BY **KGE**
 PROJECT NO. **10243480** DRAWING NO. **ES102**
 DATE **09-08-10**



1 ELECTRICAL LIGHTING PLAN - ALTERNATE #2
 EL102 SCALE: 1/8"=1'-0"



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SHEET TITLE
ELECTRICAL LIGHTING PLAN

DATE	BY	DESCRIPTION
09/21/10	KGE	ADDENDUM #1

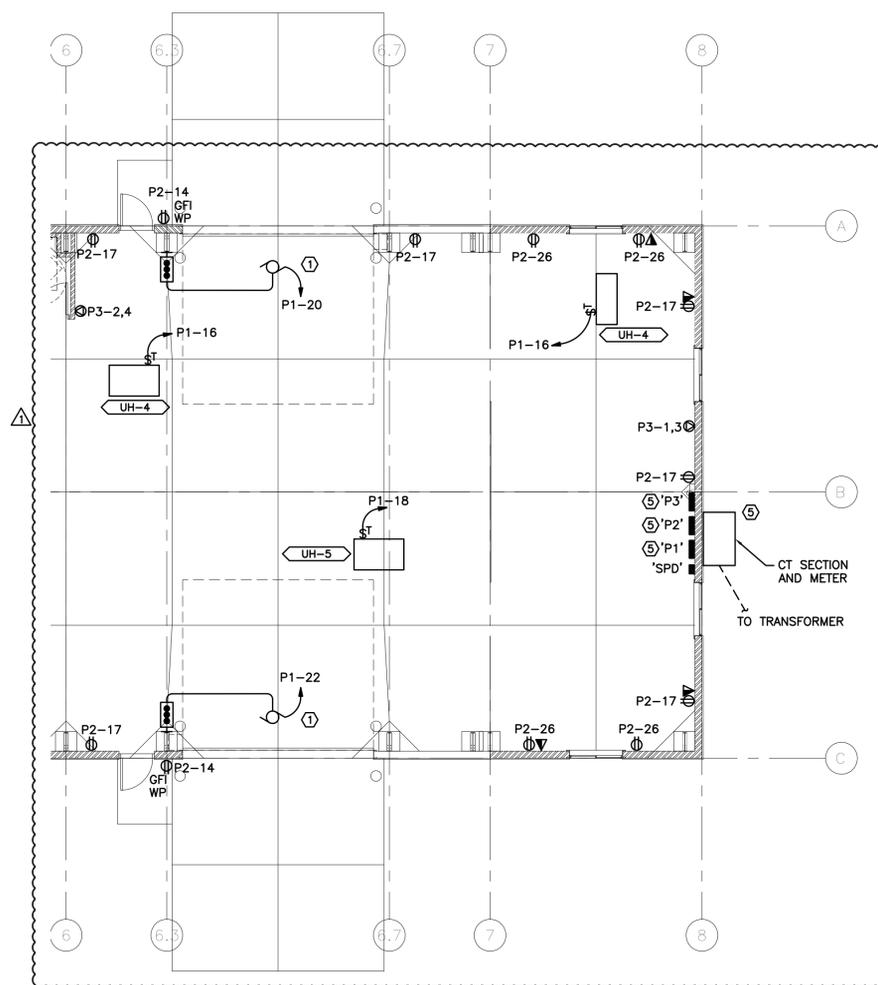
DRAWN BY **KGE** CHECKED BY **KGE**
 PROJECT NO. **10243480** DRAWING NO.
 DATE **09-08-10** **EL102**

KEYED NOTES - SHEET EP102

1. POWER FOR OVERHEAD DOOR OPENER. CONTROLS BY DOOR SUPPLIER 3/4" CONDUIT, WIRE, AND FINAL CONNECTION BY DIV 26.
2. RECEPTACLE ON SURFACE MOUNTED BOX ON RAILS.
3. DEDICATED OUTLET FOR SIMULATOR CHARGER.
4. 3/4" FIRE TREATED PLYWOOD BACKBOARD FOR PHONE/DATA. STUB UP CONDUIT FOR TELECOM FEED BELOW PATCH PANEL.
5. PROVIDE MINIMUM OF 3' WORKING CLEARANCE IN FRONT OF PANELS.
6. 2-POLE THERMAL SWITCH.

GENERAL NOTES - SHEET EP102

- A. CONTRACTOR TO FIELD VERIFY ALL EXISTING CONDITIONS, MATERIALS, FINISHES, AND DIMENSIONS
- B. CONTRACTOR TO ENSURE THAT ALL CORRIDORS OUTSIDE OF CONSTRUCTION AREA ARE KEPT CLEAN AND CLEAR OF DEBRIS AND OBSTRUCTIONS AT ALL TIMES.
- C. PROTECT ALL ITEMS TO REMAIN FROM DAMAGE.



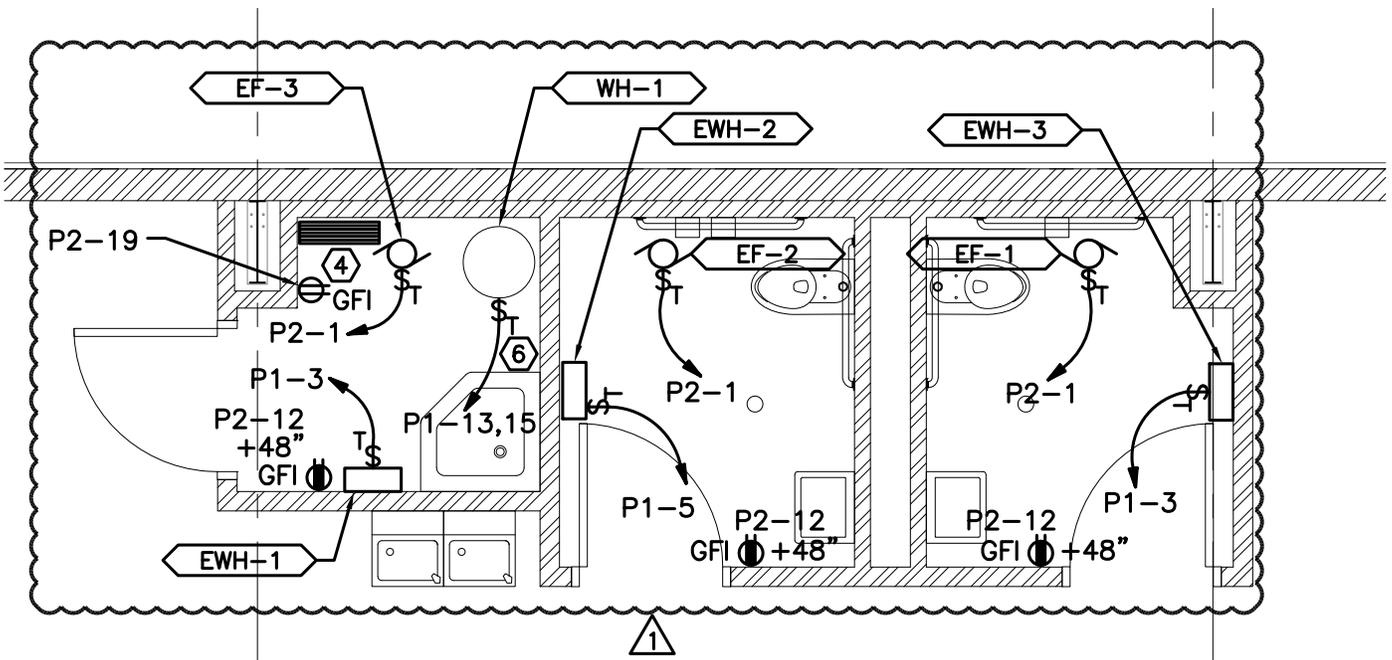
1 ELECTRICAL POWER PLAN - ALTERNATE #2
 EP102 SCALE: 1/8"=1'-0"



SHEET TITLE
ELECTRICAL POWER PLAN

DATE	BY	DESCRIPTION
09/21/10	KGE	ADDENDUM #1

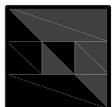
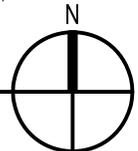
DRAWN BY **KGE** CHECKED BY **KGE**
 PROJECT NO. **10243480** DRAWING NO. **EP102**
 DATE **09-08-10**



4
EP101

ENLARGED RESTROOM POWER PLAN

SCALE: 1/4" = 1'-0"



**Ken Garner
Engineering, Inc.**

ELECTRICAL CONSULTING ENGINEERS

Project Name: UTAH NATIONAL GUARD
SIMULATOR BUILDING

Project No: 10089.00

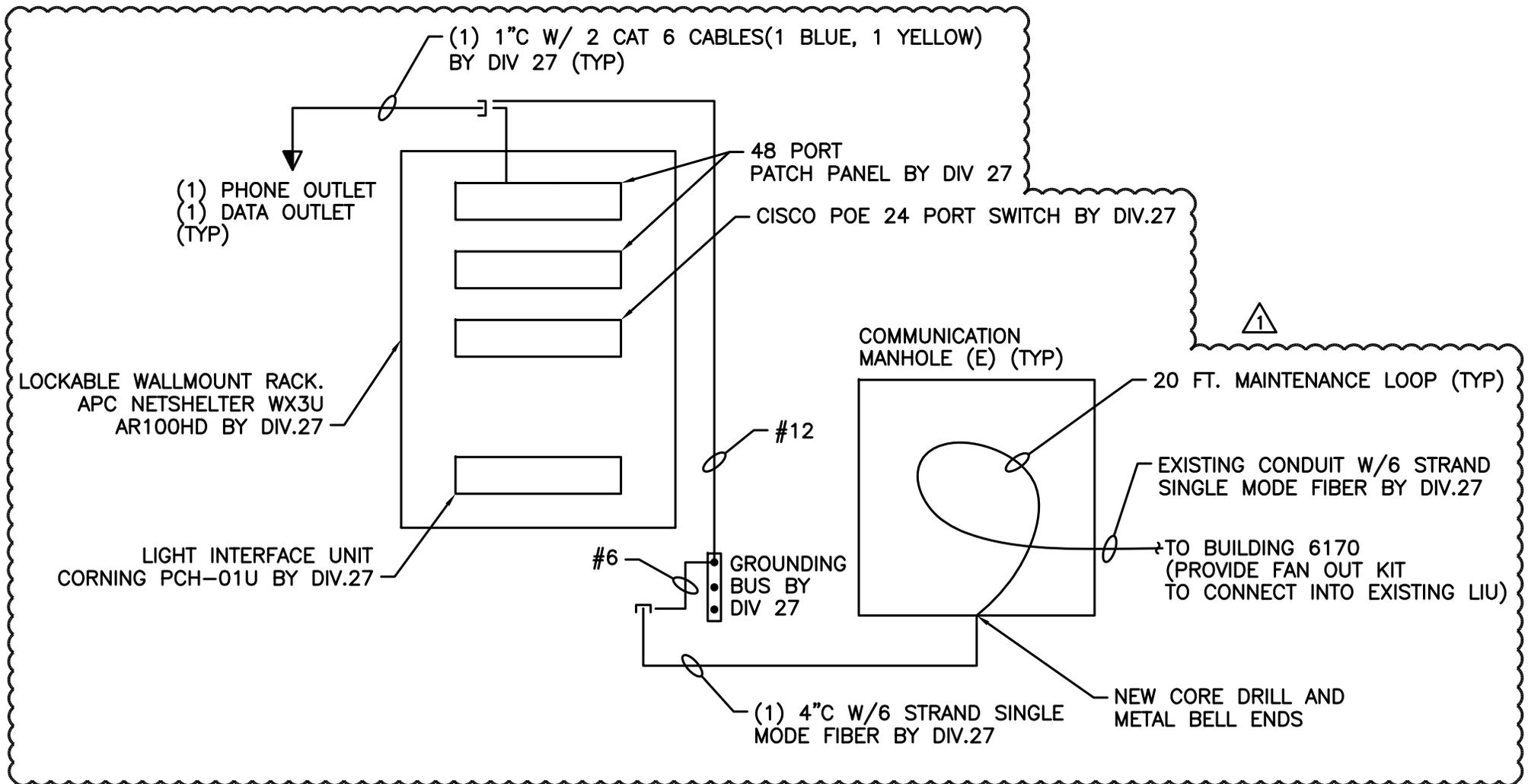
Date: 09/21/10

Sheet No.

ADD#1-E01

Sheet Reference

EP101



1
EX602

TELECOM RISER DIAGRAM

SCALE: NTS



**Ken Garner
Engineering, Inc.**

ELECTRICAL CONSULTING ENGINEERS

Project Name: UTAH NATIONAL GUARD
SIMULATOR BUILDING

Project No: 10089.00

Date: 09/21/10

Sheet No.

ADD#1-E02

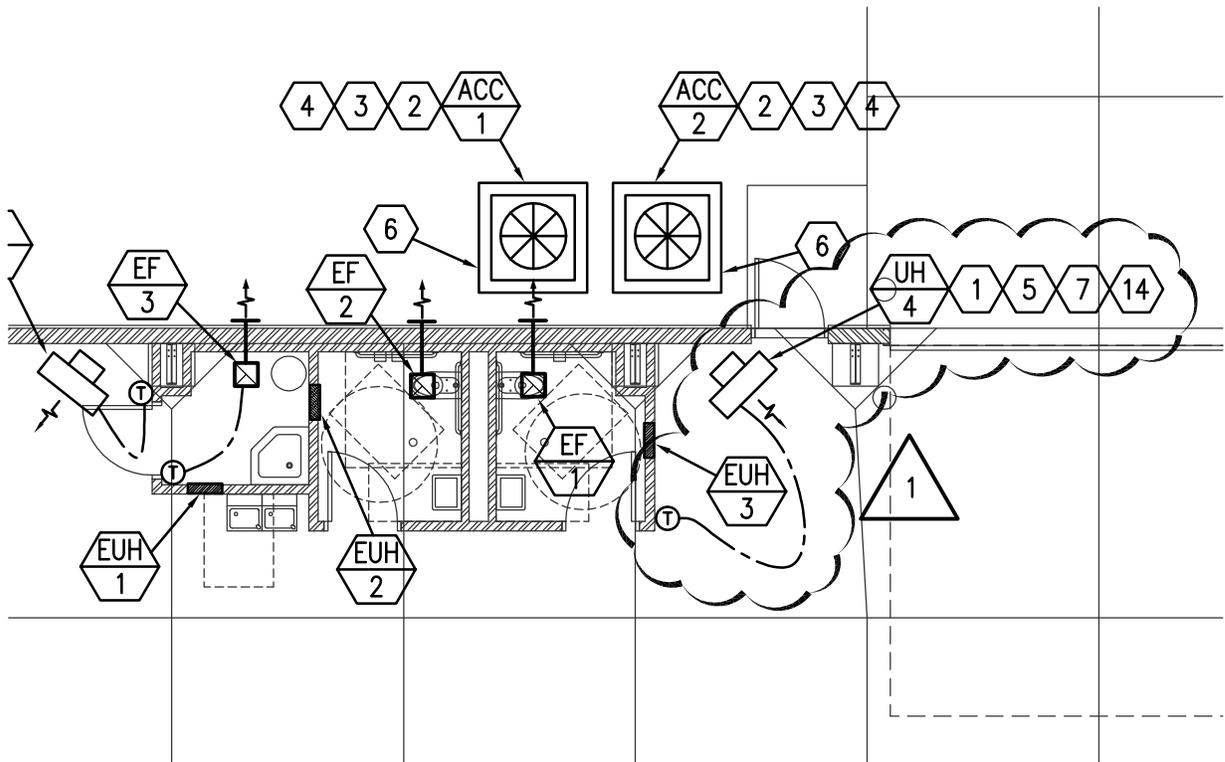
Sheet Reference

EX602

KEYED NOTES

1

14. FOR BID ALT #2 MOVE UH-3 EAST 20'-0" AND ADD UH-4.



MECHANICAL PLAN - FIRST LEVEL

SCALE: 1/4" = 1'-0"

1

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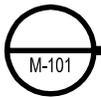
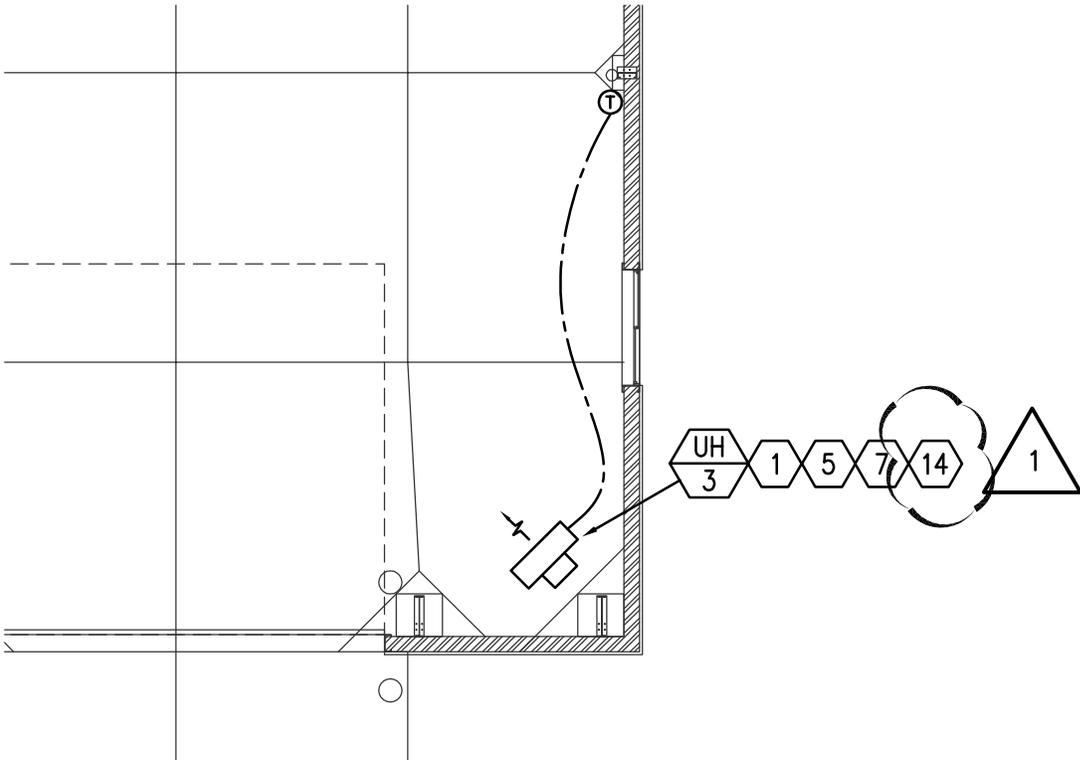
MECHANICAL FLOOR PLAN

**SD-01
M-101**

KEYED NOTES

1

14. FOR BID ALT #2 MOVE UH-3 EAST 20'-0" AND ADD UH-4.



MECHANICAL PLAN - FIRST LEVEL

SCALE: 1/4" = 1'-0"



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MECHANICAL FLOOR PLAN

SD-02
M-101

UNIT HEATER SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	LOCATION	TYPE	USE	AIR	
					AIRFLOW RATE (CFM)	INPUT LOAD (BTU/H)
UH-1	REZNOR UDAS-100	H.E.A.T	SEALED COMBUSTION	HEATING	1345	100,000
UH-2	REZNOR UDAS-100	H.E.A.T	SEALED COMBUSTION	HEATING	1345	100,000
UH-3	REZNOR UDAS-75	PALIDAN	SEALED COMBUSTION	HEATING	961	75,000
UH-4	REZNOR UDAS-75	PALIDAN	SEALED COMBUSTION	HEATING	961	75,000

1. THIS UNIT FOR BID ALTERNATE #2.

AIR TEMP. RISE (°F)	MAX. MOUNTING HEIGHT (FT)	FLUE SIZE (IN)	ELECTRICAL			NOTES
			MOTOR SIZE (HP)	TOTAL AMPS	VOLTS/PH	
60	19	4	1/30	3.9	120/1	-
60	19	4	1/30	3.9	120/1	-
60	19	4	0.06	3.3	120/1	-
60	19	4	0.06	3.3	120/1	1



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MECHANICAL SCHEDULES

SD-03
M-601

#

KEYED NOTES

1

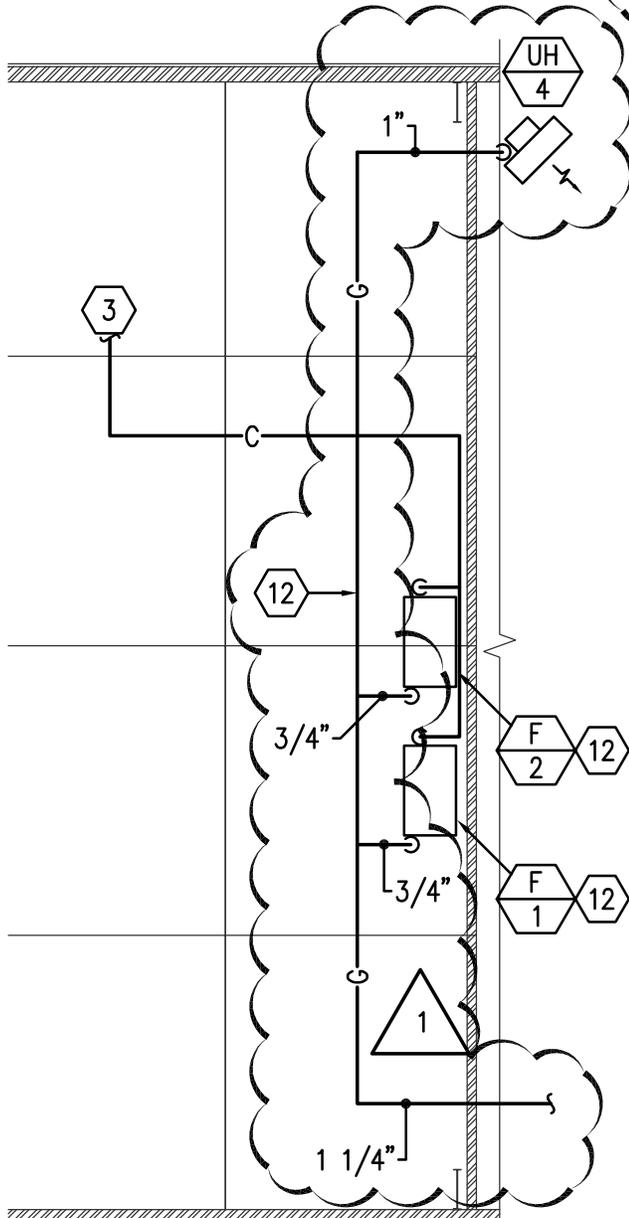
1. SEE ALTERNATE MEZZANINE PLAN FOR GAS PIPING TO F-1, F-2 AND UH-4.

1

10. MOVE 20' TO WEST FOR BID ALT #2.

11. UH-4 FOR BID ALT #2 ONLY.

12. GAS LINE FOR UH-4 IS PART OF ALT #2.



ALTERNATE ENLARGED PLUMBING PLAN



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

1

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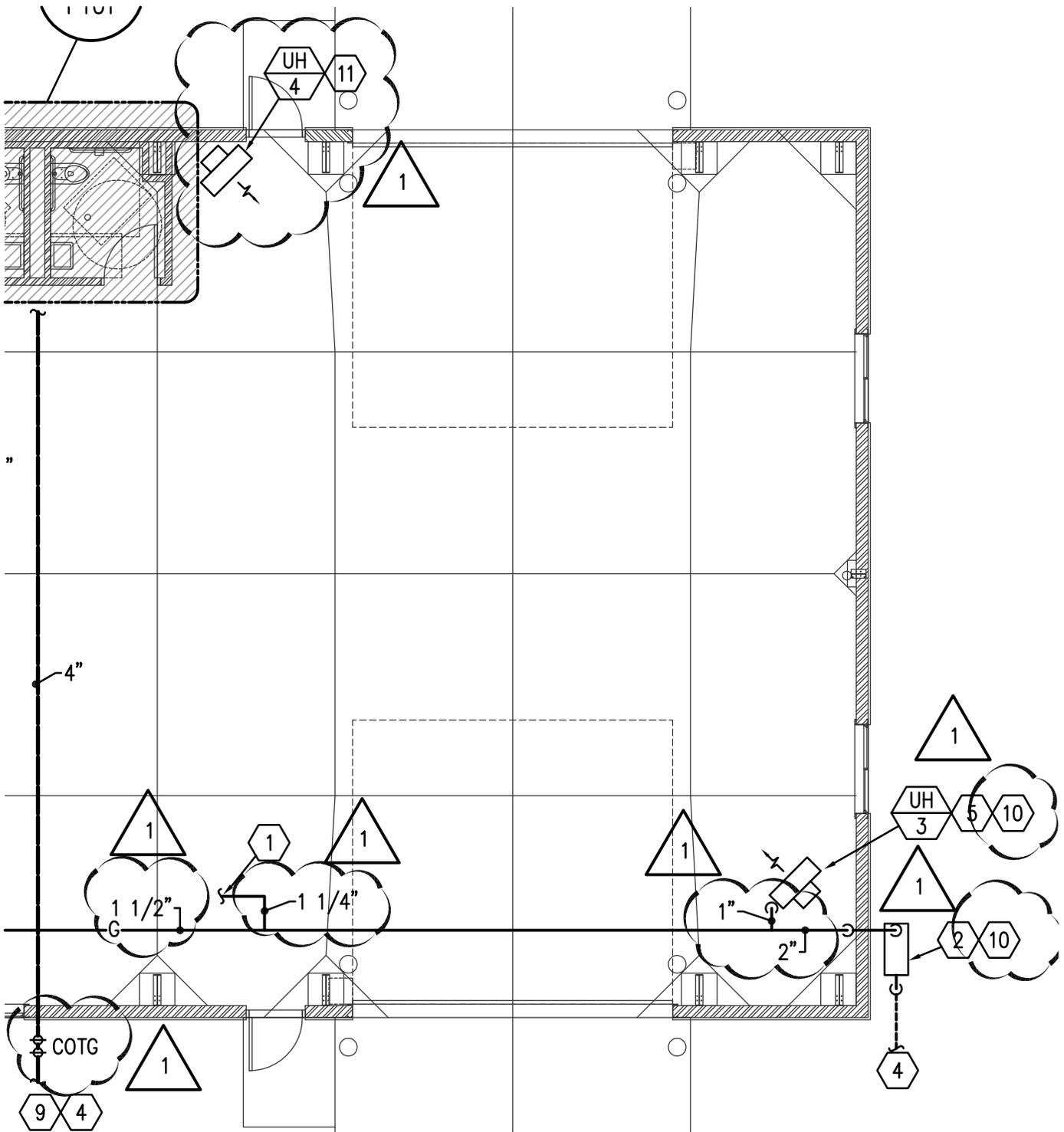
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PLUMBING FLOOR PLAN

SD-04
P-101



PLUMBING PLAN - FIRST LEVEL

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



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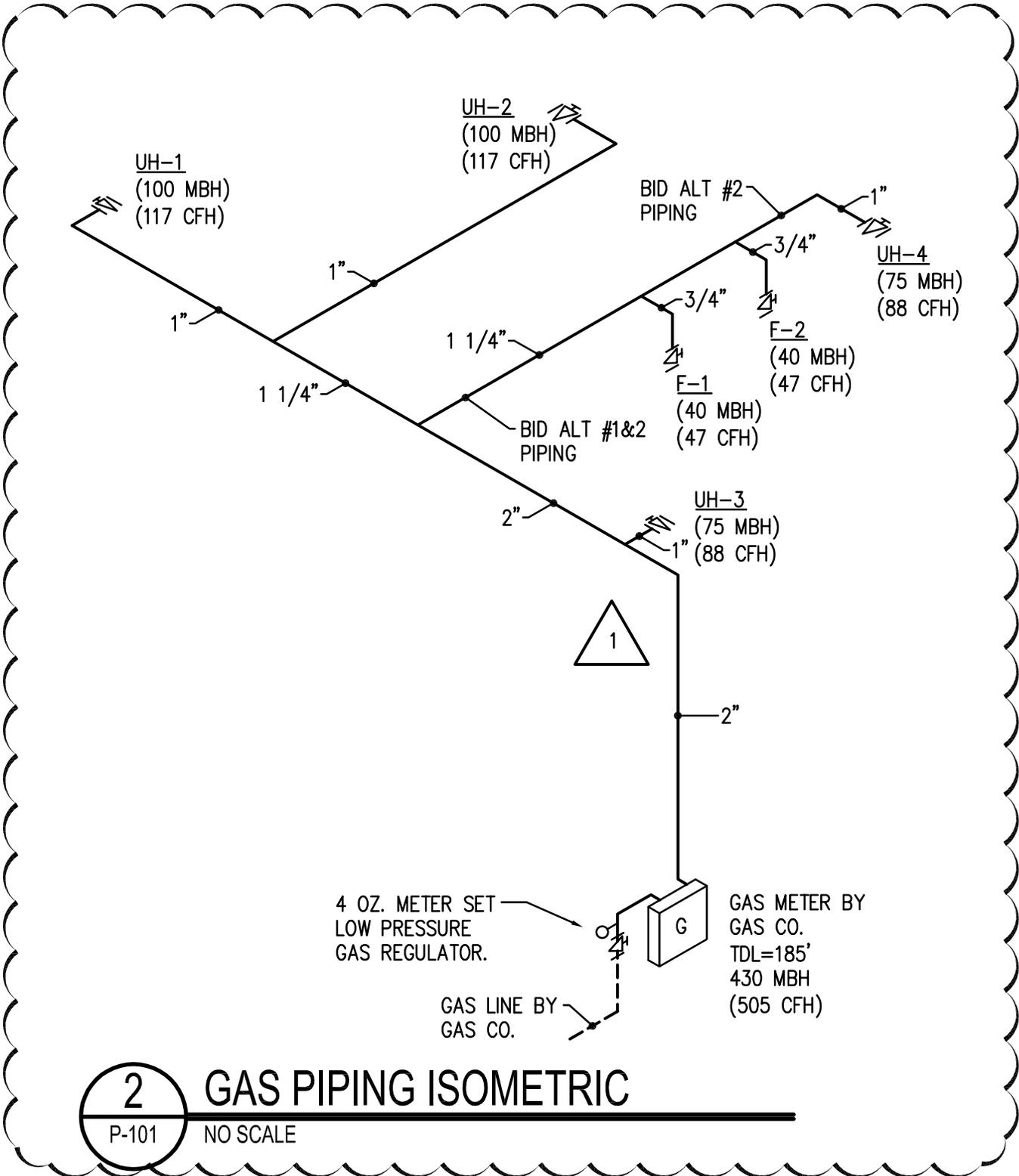


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PLUMBING FLOOR PLAN

SD-06
P-101



2
P-101

GAS PIPING ISOMETRIC

NO SCALE

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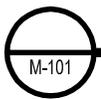
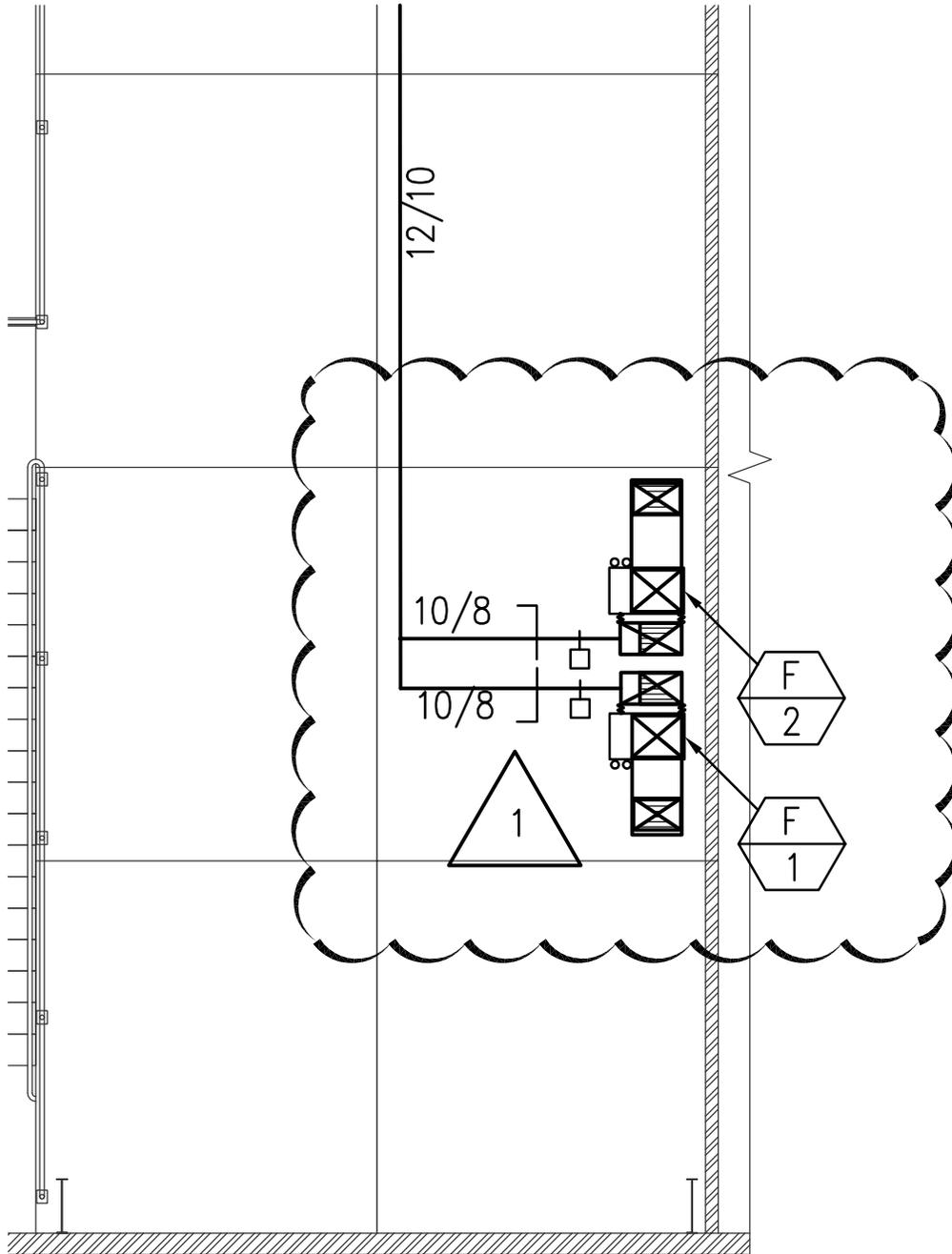


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PLUMBING FLOOR PLAN

SD-07
P-101



MECHANICAL PLAN - FIRST LEVEL

SCALE: 1/4" = 1'-0"



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**MECHANICAL FLOOR
PLAN**

**SD-08
M-101**