

Flad Architects

801 Second Avenue/Suite 315 Seattle, WA 98104 P 206 582-5800 www.flad.com

WWAMI Medical Education Building, Improvements/Expansion
University of Idaho, Mosco, Idaho

Flad Project # 18050-05
University of Idaho CP # 240022

ADDENDUM 01
10/14/2024

This addendum form is a part of the Contract Documents and is issued to modify or interpret previously issued Bid Documents dated 06/28/2024. Acknowledge receipt of the Addendum in the space provided on the Bid Form. Failure to do so may subject the bidder to disqualification. This Addendum consists of 4 pages and attached documents identified with the Addendum number and date. Replace previously issued documents of like number with those revised and reissued by this Addendum. Insert added documents and remove deleted documents as applicable.

CONTENTS:

1. Accepted Substitutions
2. Pre-Bid Conference Meeting Minutes and sign-in sheet
3. Plan Holders List
4. Plan + Specification clarifications

SUBSTITUTIONS:

This is an acceptance of general quality only. No attempt has been made to check each material as to special features, capacities, or physical dimensions specially required for the project. It shall be the responsibility of the supplier, manufacturer, and contractor to check all requirements before submitting for final acceptance. Final acceptance of exact features, sizes capacities, etc., all of which must match materials indicated and specified, will be determined when submitted during the construction period. Certain acceptances are subject to the conditions noted.

<u>Section/Sheet</u>	<u>Item</u>	<u>Manufacturer</u>
03 3553	Concrete Sealer	SINAK
09 6105	Water Vapor Emission Control System	SINAK
09 8430	Sound-Absorbing Wall and Ceiling Units	Cardinal Acoustics
E-001	Light Fixture Type E	Sure-Lites
E-001	Light Fixture Type E2	Sure-Lites
E-001	Light Fixture Type F	Lighthouse
E-001	Light Fixture Type J	Oxygen
E-001	Light Fixture Type K	Portfolio
E-001	Light Fixture Type KADJ	Portfolio
E-001	Light Fixture Type L	Metalux
E-001	Light Fixture Type X	Arcluce

GENERAL:

1. Sheet G-001 (Cover)
 - a. Fire Protection sheet index has been updated to REMOVE sheet F-102 which is no longer in the project and ADD sheet F-502 – FIRE PROTECTION DETAILS.
 - b. List of alternates has been updated to show only (3) add alternates as described in specification.

CIVIL:

(none)

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LANDSCAPE:

1. Sheet L-200
 - a. Drawing 8 – REMOVE note pertaining to deduct alternate showing concrete patio paver in lieu of permeable paver in base design

ARCHITECTURAL:

1. Sheet AD-002
 - a. Drawing 2 – REVISED to show removal of existing 1x4 ACT ceiling and protection of lighting and MEP in existing SGL 121 rooms to remain
 - b. Drawing 4 – REVISED note to include patching of existing building facade sheathing after installation of new structural framing.
2. Sheet A-120
 - a. Drawing 1 – REVISED ceilings in SGL 121 Rooms to be ACT-04. ADD Callout detail of ACT-04 assembly
 - b. Drawing 1 – REVISED note on Flex Room alternate scope to read “Add-Alt 1” instead of “Add-Alt 3”.
3. Sheet A-802
 - a. ADD – Drawing 5 detailing ACT-04 assembly

STRUCTURAL:

(none)

MECHANICAL:

(none)

FIRE PROTECTION:

1. Sheet F-100
 - a. REVISED notation on plans indicating combined water servicing piping to building by Div. 22.
2. Sheet F-101
 - a. REVISED notation on plans indicating combined water servicing piping to building by Div. 22.
3. Sheet F-501
 - a. REVISED details to indicate temporary scope of work required for Div. 21.
4. Sheet F-502
 - a. ADDED new sheet to indicate demolition of temporary fire service and relocated permanent fire protection service detail previously on sheet F-501.

PLUMBING:

1. Sheet P-101
 - a. REVISED notation on plans indicating combined water servicing piping to building by Div. 22.
2. Sheet P-501
 - a. REVISED detail 2/P-501 to indicate combined water servicing piping to building by Div. 22.

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ELECTRICAL:

1. Sheet E-001
 - a. UPDATE Communication Symbols to specify owner provided / owner installed Telecommunications cabling and associated equipment

TELECOMMUNICATIONS:

1. Sheet T-101
 - a. UPDATE Communication Symbols to specify owner provided / owner installed telecommunications cabling and associated equipment
2. Sheet T-401
 - a. UPDATE General Notes to specify owner provided / owner installed telecommunications cabling and associated equipment
3. Sheet T-501
 - a. UPDATE Detail Notes to specify owner provided / owner installed telecommunications cabling and associated equipment
4. Sheet T-801
 - a. UPDATE General Notes to specify owner provided / owner installed telecommunications cabling and associated equipment

ATTACHMENTS:

Pre-Bid Meeting minutes dated 10/08/2024 (including sign-in sheet)

Drawings

- G-001 COVER SHEET
- L-200 LAYOUT AND GRADING PLAN ENLARGEMENT
- AD-002 - DEMO FLOOR PLAN, REFLECTED CEILING PLAN, & ELEVATIONS
- A-121 - REFLECTED CEILING PLAN
- A-802 - CEILING DETAILS
- F-100 - FIRE PROTECTION PLANS BELOW GRADE
- F-101 - FIRE PROTECTION PLANS LEVEL 1
- F-501 - FIRE PROTECTION DETAILS
- F-502 - FIRE PROTECTION DETAILS
- P-101 - FLOOR PLAN - PLUMBING
- P-501 - PLUMBING – DETAILS
- E-001 - LEGENDS & ABBREVIATIONS -ELECTRICAL
- T-101 - FLOOR PLAN – TELECOMMUNICATIONS
- T-401 - ENLARGED PLANS – TELECOMMUNICATIONS
- T-501 - DETAILS - TELECOMMUNICATIONS
- T-801 - RISER DIAGRAM - TELECOMMUNICATIONS

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Spec Section:

- 2-7 Enumeration of Contract Drawings and Specifications
- 03 3553 Concrete Sealer
- 09 6105 Water Vapor Emission Control System
- 09 8430 Sound-Absorbing Wall and Ceiling Units
- 27 0500 Common Work Results for Communications
- 27 1100 Communications Equipment Room Fittings
- 27 1300 Communications Backbone Cabling
- 27 1500 Communications Horizontal Cabling

END OF ADD

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CP240022 BLD-093 UI WWAMI Medical Education Building Health Annex

Addition

Project Name		October 08, 2024
		Meeting Date
UI Facilities, Ponderosa Conf Room	18050-05	October 14, 2024
Meeting Location	Flad Project Number	Date Distributed
Pre-Bid Conference	UI CP 240022	1 of 4
Type of Meeting	Client Project Number	Page

Attendees:

See attached sign-in sheet.

Project Team Introductions

Design Professional

Jennifer Hing / Project Manager

Phone: 206-582-5814

E-mail: jhing@flad.com

Ari Grant / Job Captain

206-582-5819

agrants@flad.com

University of Idaho Architectural & Engineering Services

Daryle Faircloth / Project Manager

Phone: 208-596-0802

E-mail: darylef@uidaho.edu

Matt Proctor / Construction Manager

Phone: 208-596-0357

E-mail: mrpproctor@uidaho.edu

Aaron Rice / Construction Inspector

208-885-6249

arice@uidaho.edu

Description of The Project: (Refer to Specification Section 01100 - Summary of Work.)

The work consists of all labor, materials, equipment and services, necessary to provide a 5,392 GSF single-story addition to the west end of the existing WWAMI Medical Education Building consisting of faculty, meeting rooms and study space.

Bid Opening / Bid Proposal:

- Bid Opening is on Wednesday, October 23, 2024 at 2:00pm** at Architectural and Engineering Services, 875 Perimeter Drive, Moscow, Idaho 83844. Bring bids to the Facilities front desk prior to 2:00 where they will be time stamped by the attendant. Make bids attention to Daryle Faircloth.
- This project requires a State of Idaho Public Works contractor's license for general and sub-contractors prior to submitting the bid. A 5% Bid Bond is required to be submitted with each Bid.
- Bidders shall take care to fill out the Bid Proposal correctly using verified business names and license numbers for general and sub-contractors listed on the bid form. Fill in all spaces, do not leave blank.
- Make sure to list all Alternates and receipt of addendums.
- Make sure to include all required paperwork with the bid. (Bid bond, Power of Attorney, Contractor's Affidavit Concerning Alcohol and Drug-Free Workplace.)
- Each Bid submitted must be good for 30 days after the Bid Opening.

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Meeting Date

UI Facilities, Ponderosa Conf Room

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18050-05

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Pre-Bid Conference

Type of Meeting

UI CP 240022

Client Project Number

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- 100% Performance and Labor and Materials Payment Bonds are required for this project.
- There is **no** federal funding on this project and there are **no** prevailing wage requirements.

Construction Contract / Duration:

- The Construction Contract period is three hundred (300) consecutive calendar days from issuance of the Notice to Proceed. If bids are favorable, the Owner intends to issue the N.T.P as soon as possible.
- Contract to be standard AIA contracts with University of Idaho standard modifications as outlined in the Specifications.
- Liquidated Damages will be assessed at \$500 per day for not completing work within the 300-day contract period as outlined in the Bidding and Contract Requirements.
- The estimated construction cost is \$3,400,000.00 for Base Bid as published in the Ad for Bid.

Bid Addenda:

- Addendum No. 01 will be issues on or about Friday, October 11, 2024, and will include the meeting minutes and the attendance sheet from this Pre-Bid Conference.

Permits and Inspections:

- The State of Idaho Division of Building Safety requires Building Permits for all University of Idaho (and State of Idaho) projects. The contractor shall include the cost of the permit in the bid, as well as obtain the permit at the necessary time. The fee schedule for building permits can be found at the DBS website.
- The Owner / Design Professional has already processed and paid for the plan review with the Division of Building Safety for this project. The drawings are approved and ready for permit application. The Plan Review ID# will be issued to the successful bidder.
- The Owner will hire a qualified special testing agency for all required construction testing on the project. (Soils, concrete testing, welds, etc ...)

Base Bid & Alternates:

There are three (3) alternates for this project. MAKE SURE TO FILL OUT ALL ALTERNATES ON THE BID PROPOSAL.

Add-Alt 1: Flex Room 176 ceiling, CPT, WB02, MB03, MB04 and casework shown on 7/A703 and detail 1/A803, lighting, mechanical scope, AV scope. Base bid shall include furred interior gwb per details and recess for MB03 per 6/A703 and 3/A803.

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Add-Alt 2: is to include the sliding exterior pocket door from the Flex room to the courtyard and all associated scope such as the recessed curb, door pocket framing, and exterior closures where the door abuts the curtain wall. The base scope is curtain wall. Refer to sheet A-101 and A-202.

Add-Alt 3: is to include WD-01 to vertical partitions and faceted soffits around the perimeter of the Conference + Mixing Zone Pod/Nugget over the gwb in the base bid. Refer to sheet A-701 and A-703 for this scope. Note that the open room Mixing Zone 167 faceted ceiling SFT1 and MB4 east wall are in the base bid.

Substitution Requests:

1. Substitution requests are to be submitted to the Architect (Flad) for review and consideration 10-days prior to the final addendum issue date on or about Oct 18, 2024. If submitted less than the 10-day time period, substitution request may or may not be included in the final addendum.

Project Schedule / Coordination Items:

1. Anticipate NTP on or before December 1st, 2024.
2. The existing building will be occupied during construction of the addition and so coordination is required to minimize impact to users.
3. Coordination with the occupants is required for work required within the existing building as necessary to work around class schedules and other building activity. Interior work at the existing building, includes but not limited to, the west SGL spaces; electrical room and adjacent hallways; existing water riser room.

Construction Laydown and Staging Area:

1. Adequate construction staging / lay down space will be provided to the contractor. Likely the south side of the existing building. Ensure that materials are secured because site highly visible is directly off Main Street.
2. The construction site and the adjacent staging/storage area must be enclosed by a chain link fence.

Parking:

1. Parking availability is at a premium, and parking enforcement is a critical issue on campus. Violators, including contractors, will be ticketed. Unpaid tickets will be charged to the Contractor.
2. Construction equipment may be parked within the site confines without a permit.
3. Construction parking permits will be issued to the General Superintendent and the Superintendent for each major subcontractor for their shop pickups. These vehicles must be parked within the site confines or in designated spaces nearby. Construction Permits are issued free by Facilities.

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Review of the project and plans – Flad presentation:

1. A digital presentation through the new addition of the building presented.
2. A quick page turn through construction documents presented.

Questions and/or Discussion:

1. NOTE: Project is under direct UI contract only. State of Idaho DPW is not involved.
2. NOTE: Daryle and Matt will be on site regularly, but coordination items will ultimately need to go through Flad, Flad will act as primary POC for submittals/RFI's etc.
3. NOTE: Ceilings in existing SGL rooms 121B, 121C, 121D, and 121E are to be removed and replaced while protecting existing lighting and MEP for reinstallation. This will be clarified in Addendum 1 issuance.
4. QUESTION: ***What is the invert elevation of the existing 4" water service pipe?***
 - ANSWER: Existing 4" water service pipe is estimated to be at +2574.3 (approx. 6' below L1 slab elevation) per DCI engineers. No definitive documentation on the height of this pipe could be found.
5. QUESTION: ***Who provides the new 4" combined domestic/fire service water piping within 5' of the building? Div. 21 or Div. 22?***
 - ANSWER: Div. 22, however, MW will revise plumbing plans under Addendum 1 to further clarify.

Post Meeting Site Walk-Thru:

Attachments:

1. Current plan holder list
2. Pre-Bid Meeting sign-in sheet(s)

END OF MEETING NOTES

Reported By: Ari Grant / Flad Architects

The foregoing represents our best understanding of the discussions held and decisions reached at this meeting. Please advise the writer of any errors or omissions of substance.

UNIVERSITY OF IDAHO
 ARCHITECTURAL & ENGINEERING SERVICES
 PRE-BID CONFERENCE SIGN IN SHEET

UI CP240022 - WWAMI MEB Health Annex Addition
 Tuesday, October 08, 2024 - 10:00AM

NAME	COMPANY	TELEPHONE NUMBER	E-MAIL ADDRESS
Daryle Faircloth	UI AES	208-885-7346	darylef@uidaho.edu
Jennifer Hing	Flad Architects	206-582-5814	jhing@flad.com
Ari Grant	Flad Architects	206-582-5819	agrants@flad.com
Justin Cooper	GINNO Construction	208-661-1397	justin@ginnoconstruction.com
David Loree	Quality Contractors	208-596-5943	dloree@qualitycontractors.com
James McElroy	Quality Contractors	720-262-3816	james@qualitycontractors.com
Jessy Evans	IRS Environmental	509-998-2595	Mblankenship@irsenviro.com
Chris Kilcup	K&G	208 553 4404	ckilcup@kandgconstructionllc.com
Leo Millstein	Mike's	208 669 0170	Leo.Millstein@mikes-mechanical.com
Tyrel Funke	mike's	208-827-1654	tyrelf@mikes-mechanical.com
Tyler Craigie	Fastsigns	509-254-3075	tyler.craigie@fastsigns.com
Alexandra McDonough	Fastsigns	509 552 9108	alex.mcdonough@fastsigns.com
Aaron Mangum	Mangum Construction	509-254-1034	aaron@mangum-construction.com
JERRY HANSEN	Gropp LLC	509-336-3972	JHANSEN@MDSOLO.COM
Travis Schluneger	Gropp LLC	509-595-8114	broppeestimator@gmail.com
Chris Roberson	ATS Insulation NW	509.842.0085	chrisrobersonnw.com
BRIAN ELLWAY	Wright Bros TBC.	208-869-9236	BELLWAY@WB.NATION.COM
Kenny Oakes	RM	208-816-2137	Kenny@rmechanical.net
Chad Hinkley	Air-Ops HVAC	208-791-7916	Chad.Hinkley@Air-OpsHVAC.com

University of Idaho Architectural & Engineering Services							
CP240022 - WWAMI Medical Education Building Medical Health Annex Addition				Bids Due: Wednesday, Oct 23, - 2:00PM Pacific Local Time			
121 Sweet Ave, Moscow, ID 83844				Project Plan Holders List: Updated October 11, 2024			

PLAN CENTERS							
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Name	Address	City, State	Person	Phone	Email		
Abadan Plan Center	603 E 2nd Ave.	Spokane, WA 99202	Ron Saylor	(509) 747-2964	planroom@abadanplancenter.com	PDF	Plan Center
AGC Idaho-Boise Plan Room	1649 W Shoreline Dr Ste 100	Boise, ID 83702	Amanda Lines	208-472-0453/F-343-2521	planroom@idahoagc.org	PDF	Plan Center
ARC Document Solutions	2700 W. Idaho Street	Boise, ID 83702	Mike Mahan	208-342-4141	mike.mahan@e-arc.com	PDF	Plan Center
Associated Builder & Contractors	1760 E. Trent Ave.	Spokane, WA 99202		509-534-0826	admin@abcipc.org	PDF	Plan Center
The Blue Book	800 East Main St.	Jefferson Valley, NW 10535	Tarissa	845-208-8602	bidinfo@mail.thebluebook.com	PDF	Plan Center
Blueprint Specialties	6205 Overland Rd	Boise ID, 83709	Shawn	208-337-0294/F-208-323-9176	mail@bpsboise.com	PDF	Plan Center
Builders Exchange of WA	2607 Wetmore Ave	Everett, WA 98201		425-258-1303/F-259-3828	production@bxwa.com	PDF	Plan Center
Butte Builders Exchange	4801 Hope Road	Butte, MT 59701		406-782-5433/F-782-5433	butteplans@gmail.com	PDF	Plan Center
Plan Center Northwest	PO Box 2486	Clackamas, OR 97015	Brie Kidwell	503-650-0148	brie@plancenternw.com	PDF	Plan Center
Contractor Plan Center, Inc.	5468 SE International Way	Milwaukie, OR 97222	Svea Erickson	503-650-0148	svea@contractorplancenter.com	PDF	Plan Center
Construct Connect	3825 Edwards Rd., Suite 800	Cincinnati, OH 45209	Stacey Mighton	800-364-2059/F866-570-8187	Content@constructconnect.com	PDF	Plan Center
Construct Connect	3825 Edwards Rd., Suite 800	Cincinnati, OH 45209	Henri Bradshaw	800-364-2059/F866-570-8187	henri.bradshaw@constructconnect.com	PDF	Plan Center
Construct Connect			James Baah	513-458-5813	James.Baah@Constructconnect.com	PDF	Plan Center
Daily Journal of Commerce of Oregon	921 S.W. Washington St. Suite 210	Portland, OR 97205	Plan Room	503-274-0624	plancenter@dicoregon.com	PDF	Plan Center
Deltak, Inc.	2291 Wood Oak Drive	Herndon VA 20171	Jacqueline Sessa		PublicRecords@deltak.com	PDF	Plan Center
Dodge Data & Analytics			Carol Reichel		carol.reichel@construction.com	PDF	Plan Center
Dodge Data & Analytics			April Hamilton	413-304-2008	april.hamilton@construction.com	PDF	Plan Center
Dodge Data & Analytics			Adam Bouman		dodge.bidding@construction.com	PDF	Plan Center
Dodge Data & Analytics			Rechie Manalop	844-326-3826 ext. 7134	Rechie.Manalop@construction.com	PDF	Plan Center
Hermiston Plan Center	1565 N 1st St Ste 8a	Hermiston, OR 97838	Staci McQuain	(541) 564-0420	office@hermistonplancenter.com	PDF	Plan Center
Idaho Plan Room	4082 Chinden Blvd.	Boise, ID 83714		208-342-4141/F-208-343-5894	boise.print@e-arc.com	PDF	Plan Center
Inland NW AGC	4935 E Trent Avenue	Spokane, WA 99212	Mary Tantriella	509-534-1446/F-535-2680	mtantriella@nwagc.org	PDF	Plan Center
Lewiston-Clarkston Plan Service	2117 12th Avenue	Lewiston, ID 83501	Celia Weibler	(208) 746-3591/F (208) 746-5541	lplancenter@gmail.com	PDF	Plan Center
Missoula Plan Exchange	201 N Russell St	Missoula, MT 59801	Twyla Brooks	406-549-5002	mpe@vemcoinc.com	PDF	Plan Center
Postal Copy Plus	601 3rd Street	Clarkson, WA 99403	Dave Irby	509-758-0234	postalcopy@gmail.com	PDF	Plan Center
Premier Builders Exchange	1902 NE 4th St	Bend, OR 97701	Candice Gerhardt	(541) 389-0123	admin@plansonfile.com	PDF	Plan Center
Seattle Daily Journal of Commerce	83 Columbia Street	Seattle, WA 98104	Ken Elliott	(206) 622-8272	plans@dj.com	PDF	Plan Center
Seattle Daily Journal of Commerce			Chrisy Martin	206-622-8272	chrisy.martin@dj.com	PDF	Plan Center
Seattle Daily Journal of Commerce			Alexandra Lavorato	206-622-8272	alex.lavorato@dj.com	PDF	Plan Center
Spokane Regional Plan Center	209 N Havanja St	Spokane, WA 99220	Jenny Martin	509-328-9600/F-7279	projectinfo@plancenter.net	PDF	Plan Center
Tri Cities Construction council	20E Kennewick Ave	Kennewick, WA 99336	Christina Camp	509-582-7424/F509-582-6815	christina@tcplancenter.com	PDF	Plan Center
Tri Cities Construction council	20E Kennewick Ave	Kennewick, WA 99336	Kailey Casey	509-582-7424/F509-582-6815	bidinfo@tcplancenter.com	PDF	Plan Center
Walla Walla Valley Plan Center	29 E Sumach St	Walla Walla, WA 99362	Kyle Tarbet	(509) 525-0850	ktarbet@wwwchamber.com	PDF	Plan Center
Yakima Plan Center	1909 W Lincoln Ave #2	Yakima, WA 98902	Jacki Bernardino	(509) 457-4271	jacki@yakimaplancenter.com	PDF	Plan Center
Univ of Idaho Arch & Engineering Services	875 Perimeter Drive, MS 2281	Moscow, ID 83844-2281	Daryle Faircloth	208-885-7346	darylef@uidaho.edu	PDF	Owner
Flad Architects		Seattle, WA 98104	Ari Grant	206-582-5819	agrant@flad.com	PDF	Architect

Contractors Notified at time of Ad for Bid:							
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Quality Contractors	307 Main St.	Deary, ID 83823	Gabe French	208-877-1840	gabe@quality-contractors.com	PDF	GC
Ginno Construction	3893 N. Schreiber Way	Coeur d'Alene, ID 83815	Matt Gray	208-667-5560	matt@ginnoconstruction.com	PDF	GC
A&R Construction	2037 2nd Avenue N.	Lewiston, ID 83501	Ron Trees	208-746-3394	office@a-rconst.com	PDF	GC
K&G Construction	625 D Street	Lewiston, ID 83501	Chris Kilcup	208-553-4404	ckilcup@kandgconstructionllc.com	PDF	GC
Gemer Construction	2710 Highway 95 South	Moscow, ID 83843	Dave Germer	208-882-8482	germer@moscow.com	PDF	Util / Earth
Gropp Heating, Air & Electric	225 W A Street	Moscow, ID 83843	Jerry Hansen	208-882-7672	jhansen@moscow.com	PDF	Elec
Gropp Heating, Air & Electric	225 W A Street	Moscow, ID 83843	Scott Gropp	208-882-7672	scottgropp@gmail.com	PDF	HVAC
Inland NW Painting		Pullman, WA 99163	Alan McDonald	208-596-8216	goodbnzss@gmail.com	PDF	Painting

Icon Roofing	3410 N Eden Road	Spokane, WA 99216	Alan Haas	509-413-8009	allan@iconroofing.com	PDF	Roofing
Kenaston Corp	2517 Main Street	Lewiston, ID 83501	Reece Hewett	208-746-1351	rhewett@kenaston.com	PDF	GC
United Contracting		Lewiston, ID 83501	Pat Shell	208-790-1052	unitedpshell@gmail.com	PDF	Conc
RM Mechanical	2017 3rd Ave N	Lewiston, ID 83501	Kenny Oakes	208-791-7916	kenny@rmmechanical.net	PDF	MEP
ML Albright & Sons	6182 Lapwai Road	Lewiston, ID 83501	Scott Crow	208-743-2100	sharona@mlalbright.com	PDF	Util / Earth
Crow Electric	404 Stubbs Ave	Reubens, ID 83548	Casey McGourin	208-791-3973	Scott@CrowElectricLLC.com	PDF	Elec
McKinstry - INW Energy		Spokane, WA	Kelly Watkins	509-625-7261	caseym@mckinstry.com	PDF	MEP
Mike's Heating and Air Conditioning	1005 Warner Ave	Lewiston, ID 83501	Kenny Ailor	208-743-0776	kellyw@cableone.net	PDF	HVAC
Motley & Motley	6901 State Route 270	Pullman, WA 99163	Lance Styer	509-872-2200	kenny@motleymotley.com	PDF	Paving
Strom Electric	405 S Main Street	Troy, ID 83871		208-835-2331	lstyer@stromelectric.net	PDF	Elec



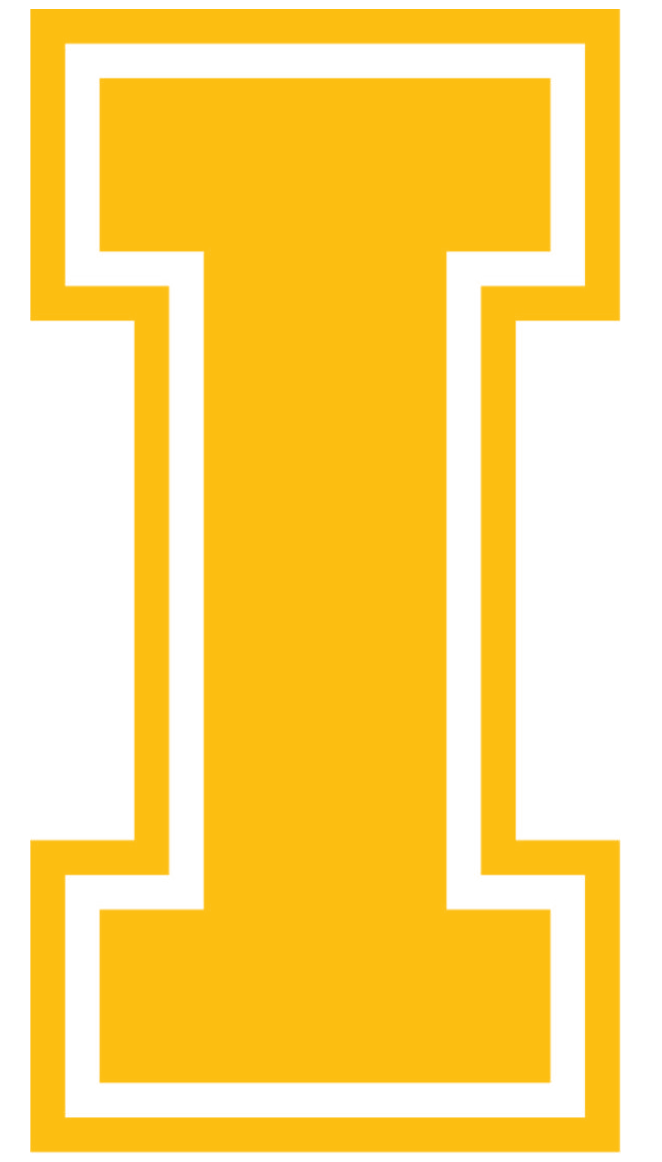
These plans have been reviewed for code compliance based on the submitted documents and plan sheets, and have been found, to be, substantially code compliant, all other code compliance requirements shall be completed through field inspections, verifications, and approvals by the field building inspector. .
 See Plan Review notes: The plan review notes shall always be attached to the stamped approved plans and documents. These are part of the plans and shall be a permanent record with the plans. Inspection shall not take place without a complete set of the Idaho Division of Occupational and Professional Licenses (IDOPL) plan review notes and approved, stamped plans on site.

Construction Safeguards
 Construction safeguards shall be required for any and all demolition and or construction to ensure public safety. Required exits, existing structural elements, fire protection devices and sanitary safeguards shall be maintained at all times during alterations, repairs or additions to any building or structure.
 All applicable construction safeguards from chapter 31 and 33 shall be in place and maintained while any demolition or construction activities are being undertaken.

Sprinkler Note
 In tenant renovations and remodels, the installation, deletion, or movement of any walls may affect the sprinkler performance. A sprinkler evaluation by a licensed sprinkler contractor should be made to ensure that any modification to the sprinkler system is warranted. Any alteration deletions or additions to the system shall be by a licensed sprinkler contractor and be approved by the Fire Marshal through plan review and inspection.



UNIVERSITY OF IDAHO



875 Perimeter Drive
 Moscow, ID, 83844
 T. 208.885.6111
 uidaho.edu

Architectural & Landscape

Flad

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 flad.com



Structural & Civil Engineer



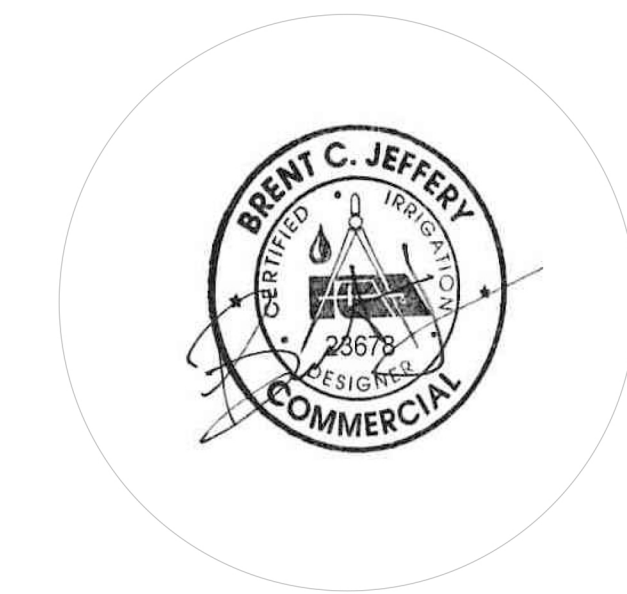
DCI ENGINEERS
 707 W 2nd Avenue
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 dci-engineers.com



Irrigation Engineer



323 W. DRAKE RD, SUITE 204
 FORT COLLINS COLORADO 80526
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 601 W 1st Ave. Suite 1300
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BLD 093 WWAMI MEDICAL EDUCATION BUILDING HEALTH EDUCATION ANNEX BUILDING ADDITION

121 SWEET AVENUE
 MOSCOW, ID 83844
 UI PN CP240022

Flad Project Number **18050-05** Description of Package **CONSTRUCTION DOCUMENTS**

Date **06/28/24**

GENERAL	
SHEET NUMBER	SHEET NAME
G-001	COVER SHEET & SHEET INDEX
G-101	LIFE SAFETY PLAN

CIVIL	
SHEET NUMBER	SHEET NAME
C-001	GENERAL CIVIL INFORMATION
C-002	GENERAL NOTES
C-101	EXISTING SITE CONDITIONS AND DEMOLITION PLAN
C-102	TEMPORARY EROSION AND SEDIMENT CONTROL PLAN
C-103	CIVIL SITE PLAN
C-104	SITE GRADING PLAN
C-105	SITE STORMWATER AND UTILITY PLAN
C-501	DETAILS

LANDSCAPE	
SHEET NUMBER	SHEET NAME
L-100	OVERALL SITE PLAN
L-300	GRADING PLAN ENLARGEMENT
L-300	PLANTING PLAN ENLARGEMENT

IRRIGATION	
SHEET NUMBER	SHEET NAME
IR-300	IRRIGATION NOTES AND LEGEND
IR-301	IRRIGATION PLAN
IR-302	IRRIGATION DETAILS

ARCHITECTURAL	
SHEET NUMBER	SHEET NAME
A-001	GENERAL NOTES, ABBREVIATIONS, & LEGENDS
A-011	SITE & VICINITY PLAN
AD-001	DEMO SITE PLAN
AD-002	DEMO FLOOR PLAN, REFLECTED CEILING PLAN, & ELEVATIONS
A-100	FLOOR PLAN - OVERALL
A-101	FLOOR PLAN
A-102	SLAB & DIMENSIONAL PLANS
A-111	ROOF PLAN
A-121	REFLECTED CEILING PLAN
A-151	FINISH & FURNITURE PLAN
A-201	BUILDING ELEVATIONS
A-202	BUILDING SECTIONS
A-301	BUILDING SECTIONS
A-302	BUILDING SECTIONS
A-401	EXTERIOR WALL SECTIONS
A-402	EXTERIOR WALL SECTIONS
A-403	EXTERIOR WALL SECTIONS
A-501	EXTERIOR DETAILS - CLADDING
A-502	EXTERIOR DETAILS - CURTAIN WALL
A-503	EXTERIOR DETAILS - CURTAIN WALL
A-504	EXTERIOR DETAILS - DOORS
A-505	EXTERIOR DETAILS - ROOF
A-506	EXTERIOR DETAILS - ROOF
A-601	SCHEDULES - DOOR, FINISH, & MATERIALS
A-611	PARTITION TYPES
A-701	INTERIOR ELEVATIONS - CORRIDORS & MIXING ZONE
A-702	INTERIOR ELEVATIONS - FLEX ROOM, CONFERENCE, OFFICE, SGL, & GNB
A-703	INTERIOR ELEVATIONS - ALTERNATES
A-711	INTERIOR SECTIONS
A-801	INTERIOR DETAILS
A-802	CEILING DETAILS
A-803	CASWORK & MILLWORK DETAILS
A-811	SIGNAGE PLAN & DETAILS
A-901	3D PERSPECTIVES

STRUCTURAL	
SHEET NUMBER	SHEET NAME
S-001	GENERAL NOTES
S-002	SPECIAL INSPECTIONS
S-101	FOUNDATION PLAN
S-102	DEMO FLOOR PLAN, REFLECTED CEILING PLAN, & ELEVATIONS
S-201	FOUNDATION DETAILS
S-202	FOUNDATION DETAILS
S-301	FRAMING DETAILS
S-302	FRAMING DETAILS
S-303	FRAMING DETAIL

MECHANICAL	
SHEET NUMBER	SHEET NAME
M-001	LEGENDS AND ABBREVIATIONS - MECHANICAL
MD-101	FLOOR PLAN - DEMO HVAC
M-010	CRAWL SPACE PLAN - HVAC
M-100	FLOOR PLAN - OVERALL - HVAC
M-101	FLOOR PLAN - HVAC
M-102	ROOF PLAN - MECHANICAL
M-301	SECTIONS - HVAC
M-501	CONTROL SCHEDULES - HVAC
M-601	SCHEDULES - HVAC
M-701	CONTROL DIAGRAMS - HVAC

FIRE PROTECTION	
SHEET NUMBER	SHEET NAME
F-001	FIRE PROTECTION SYMBOLS AND ABBREVIATIONS
FD-100	FIRE PROTECTION PLANS BELOW GRADE DEMOLITION
FD-101	FIRE PROTECTION PLANS LEVEL 1 DEMOLITION
F-101	FIRE PROTECTION FLOOR PLAN LEVEL 1
F-501	FIRE PROTECTION DETAILS
F-502	FIRE PROTECTION DETAILS

PLUMBING	
SHEET NUMBER	SHEET NAME
PD-100	FOUNDATION PLAN - DEMO - PLUMBING
PD-101	FLOOR PLAN - DEMO - PLUMBING
P-100	FOUNDATION PLAN - PLUMBING
P-101	FLOOR PLAN - PLUMBING
P-201	PLUMBING - DETAILS
P-302	PLUMBING - DETAILS
P-801	PLUMBING - SCHEDULES

ELECTRICAL	
SHEET NUMBER	SHEET NAME
E-001	LEGENDS & ABBREVIATIONS - ELECTRICAL
ED-102	FLOOR PLAN - DEMO - ELECTRICAL
E-100	SITE PLAN - ELECTRICAL
E-101	LEVEL 1 - FLOOR PLAN - ELECTRICAL
E-102	ROOF - FLOOR PLAN - ELECTRICAL
E-400	FLOOR PLANS - ENLARGED - ELECTRICAL
E-501	DETAILS - ELECTRICAL
E-600	EQUIPMENT SCHEDULE - ELECTRICAL
E-601	PANEL SCHEDULES - ELECTRICAL
E-700	ONE-LINE DIAGRAM - EXISTING - ELECTRICAL
E-701	ONE-LINE DIAGRAM - REVISED - ELECTRICAL

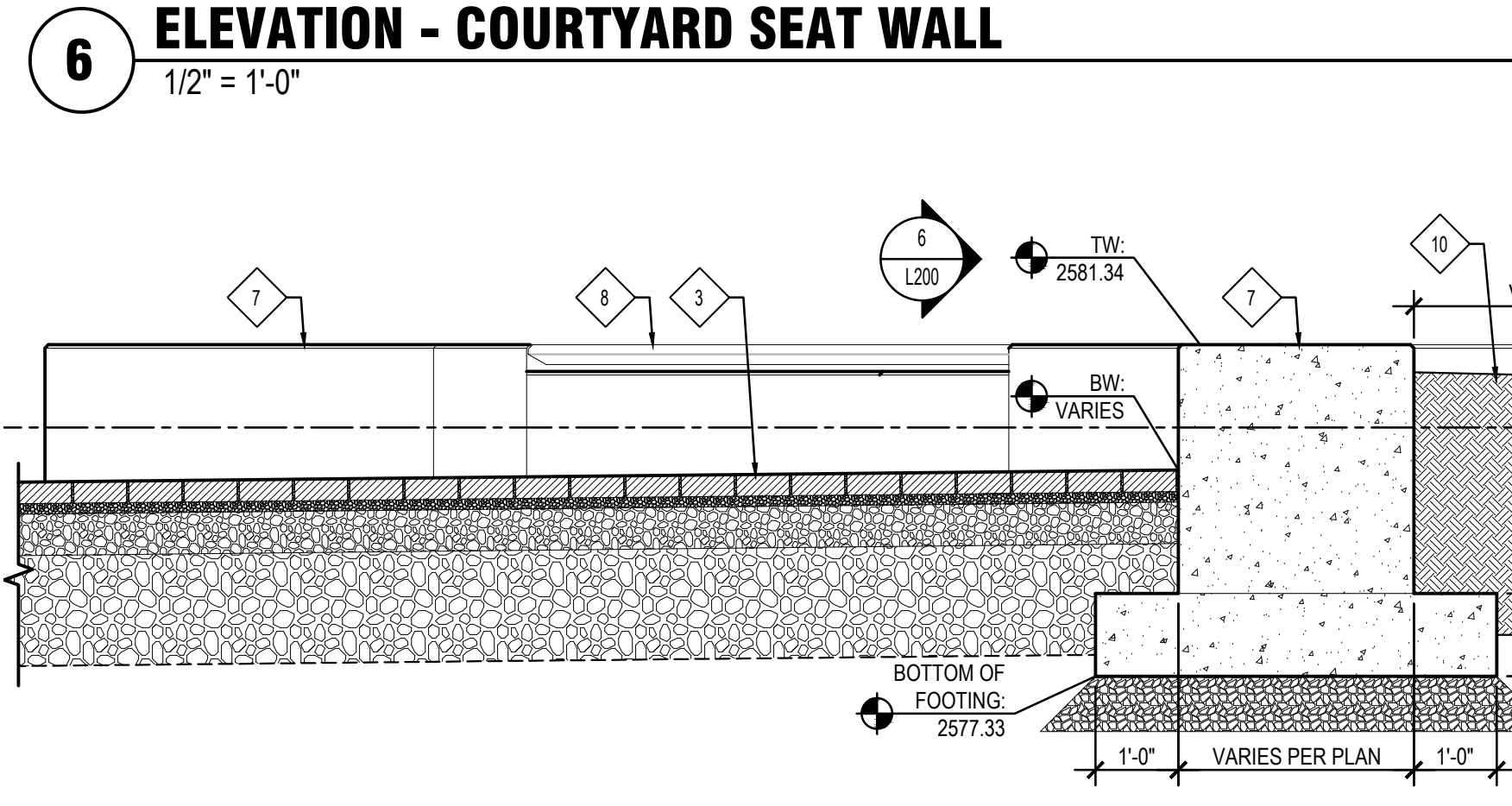
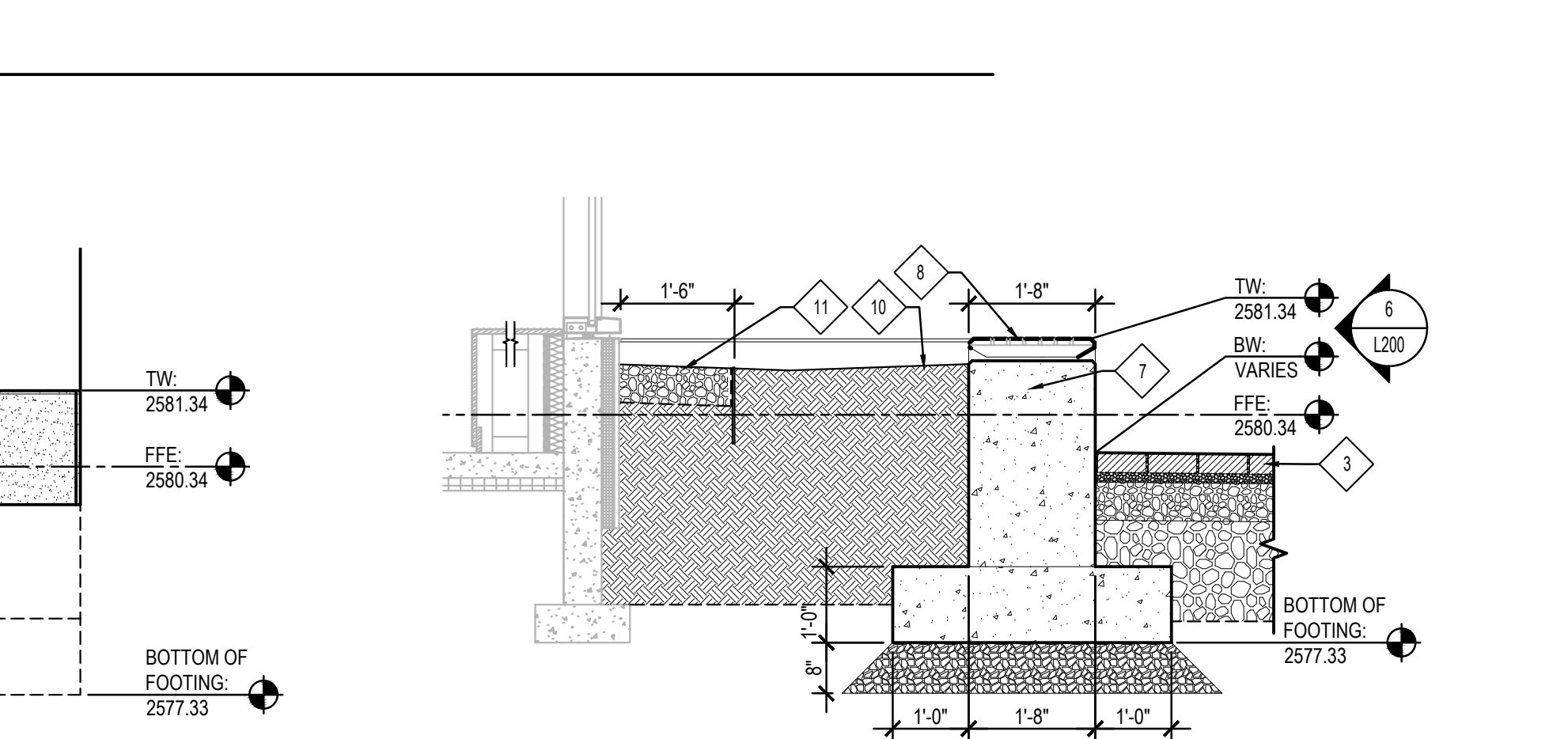
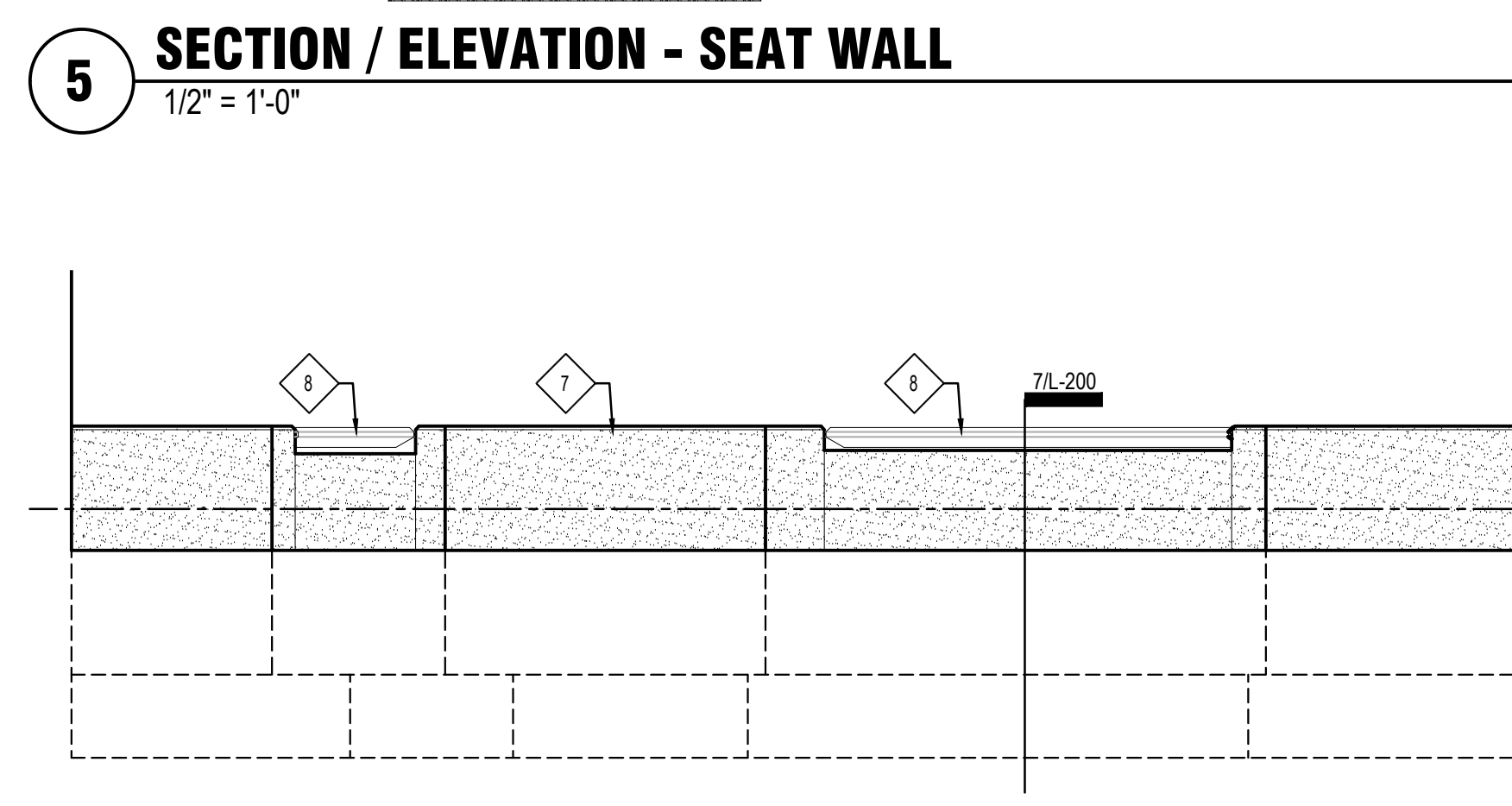
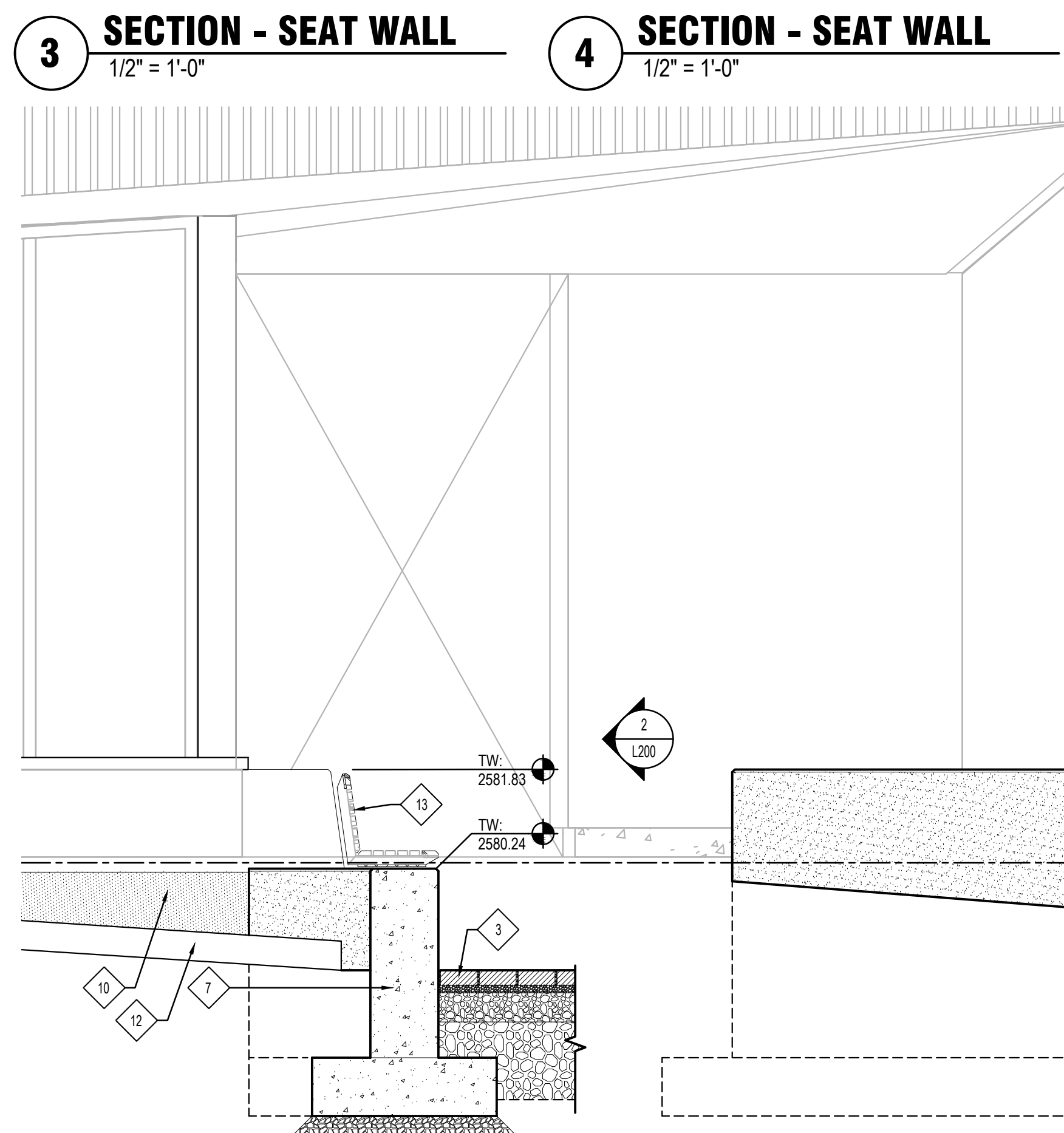
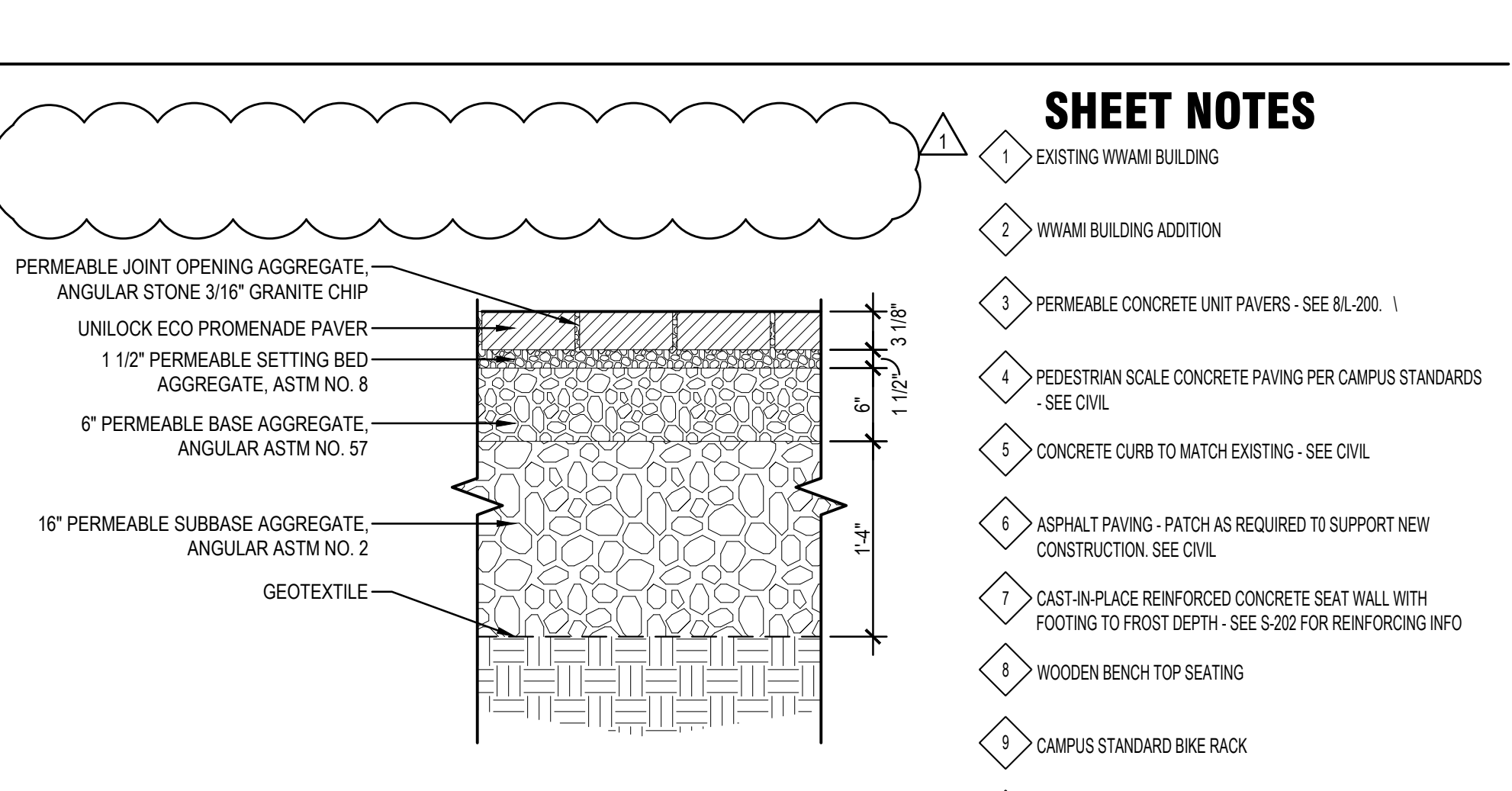
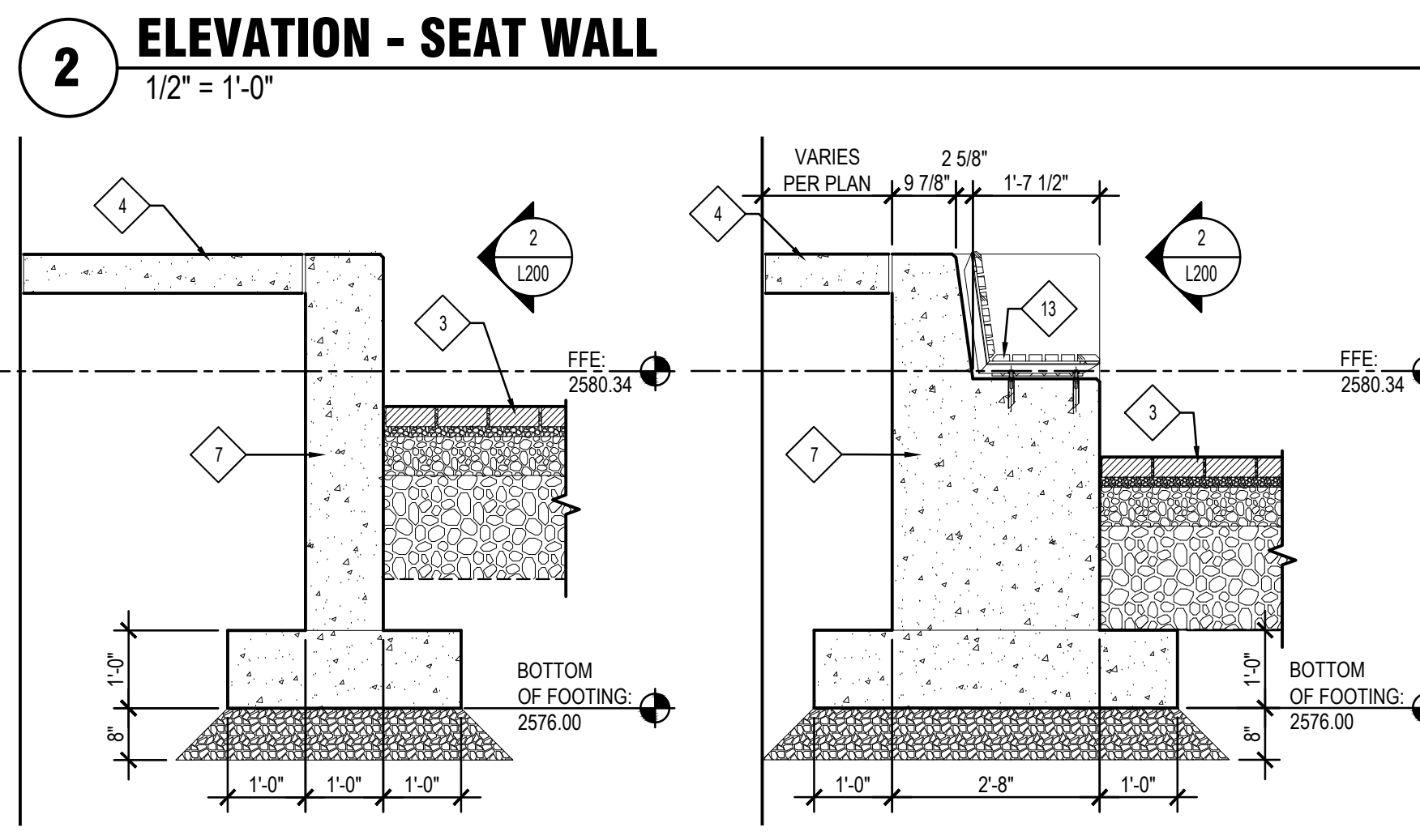
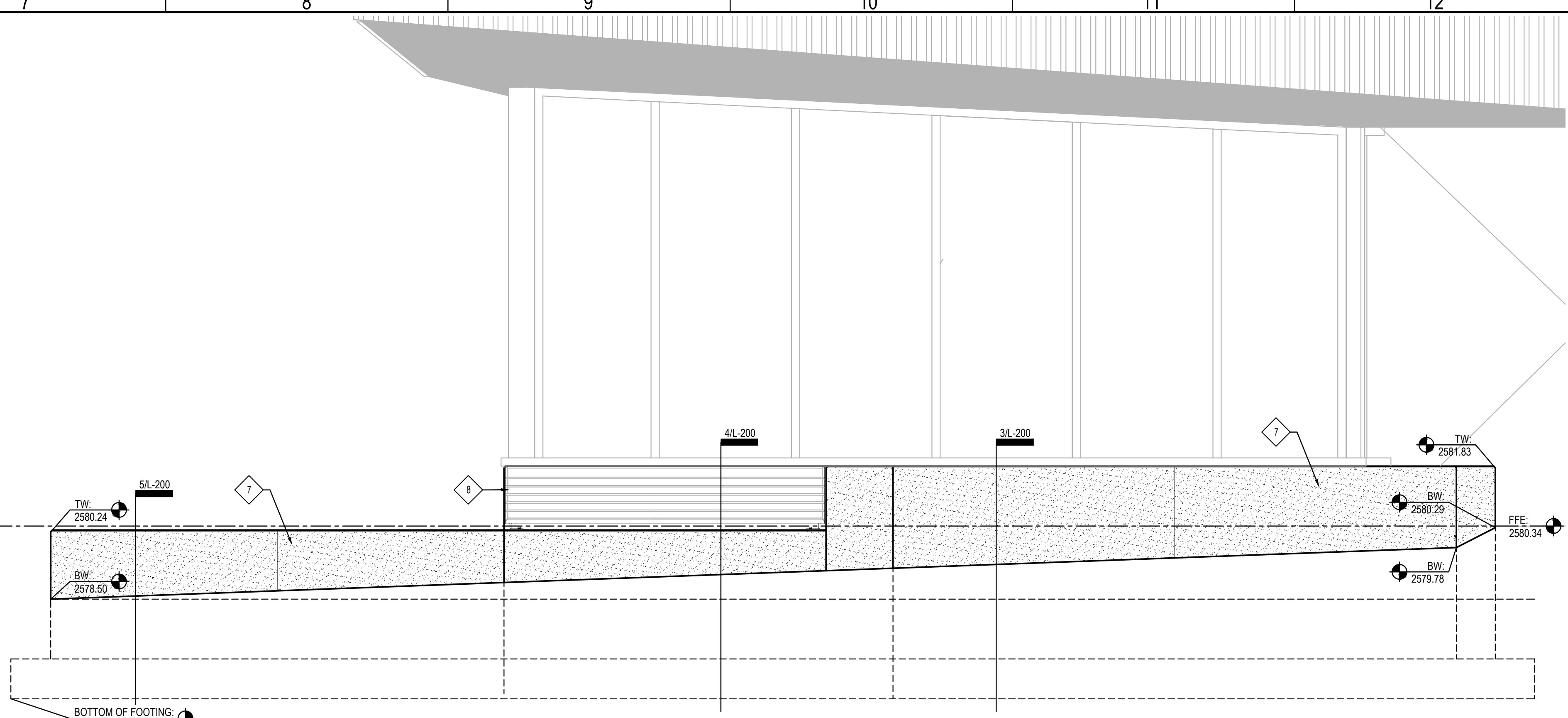
LIGHTING	
SHEET NUMBER	SHEET NAME
ELD-101	FLOOR PLAN - DEMO - LIGHTING
EL-101	FLOOR PLAN - LIGHTING
EL-501	LIGHTING - DETAILS

SYSTEMS	
SHEET NUMBER	SHEET NAME
ESD-101	FLOOR PLAN - DEMO - SYSTEMS
ES-101	FLOOR PLAN - SYSTEMS
ES-102	ROOF - FLOOR PLAN - SYSTEMS
ES-501	DETAILS - SYSTEMS

TELECOMMUNICATIONS	
SHEET NUMBER	SHEET NAME
T-101	FLOOR PLAN - TELECOMMUNICATIONS
T-401	ENLARGED PLANS - TELECOMMUNICATIONS
T-501	DETAILS - TELECOMMUNICATIONS
T-502	DETAILS - TELECOMMUNICATIONS
T-801	RISER DIAGRAM - TELECOMMUNICATIONS

ALTERNATE SCOPE	
ADD AL-1:	SEE DRAWINGS FOR MORE DETAILED INFORMATION
INTERIOR FINISHES AND SYSTEMS BUILDOUT FOR THE FLEX ROOM	
BASE BID INCLUDES ONLY INTERIOR WALLS, PAINT - SYSTEMS PERTAINING TO THE EXTERIOR	
ADD AL-2:	
FLEX ROOM SLIDING DOOR TO COURTYARD	
BASE BID IS TO CONTINUE CURTAIN WALL GLAZING ON TYPICAL STEM WALL	
ADD AL-3:	
INTERIOR WOOD PANELING ON CONFERENCE - MIXING ZONE POD	
BASE BID INCLUDES ONLY FACETED DRYWALL CONSTRUCTION WITH PAINT FINISH	
ADD AL-4:	
CONCRETE HANDICAP-W SURFACE DRAINAGE AT EXTERIOR COURTYARD AND ENTRY PLAZA	
BASE BID IS TO PROVIDE PERMEABLE PAVEMENT THROUGHOUT THIS AREA	

Autodesk Revit (2024) (64-bit) - 18050-05 - WWAMI (093) - 18050-05.rvt
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- SHEET NOTES**
- 1 EXISTING WWAMI BUILDING
 - 2 WWAMI BUILDING ADDITION
 - 3 PERMEABLE CONCRETE UNIT PAVERS - SEE 8L-200.1
 - 4 PEDESTAL SCALE CONCRETE PAVING PER CAMPUS STANDARDS - SEE CIVIL
 - 5 CONCRETE CURB TO MATCH EXISTING - SEE CIVIL
 - 6 ASPHALT PAVING - PATCH AS REQUIRED TO SUPPORT NEW CONSTRUCTION - SEE CIVIL
 - 7 CAST-IN-PLACE REINFORCED CONCRETE SEAT WALL WITH FOOTING TO FROST DEPTH - SEE S-202 FOR REINFORCING INFO
 - 8 WOODEN BENCHTOP SEATING
 - 9 CAMPUS STANDARD BIKE RACK
 - 10 LANDSCAPED AREA WITH AUTOMATIC IRRIGATION SYSTEM
 - 11 STONE MAINTENANCE EDGE - SEE 3L-300
 - 12 CONCRETE CURB - SEE CIVIL
 - 13 BACKED WOODEN BENCHTOP SEATING
 - 14 SITE LIGHTING - SEE ELECTRICAL FOR ADDITIONAL INFO. HOLD CONCRETE FOOTING 2' ABOVE FINISHED GRADE, TYP.

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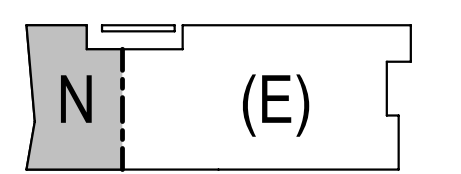
MW Engineers
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STRUCTURAL / CIVIL ENGINEER

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Stamps & Approvals



Project Key Plan

1	10/14/24	Addendum 1
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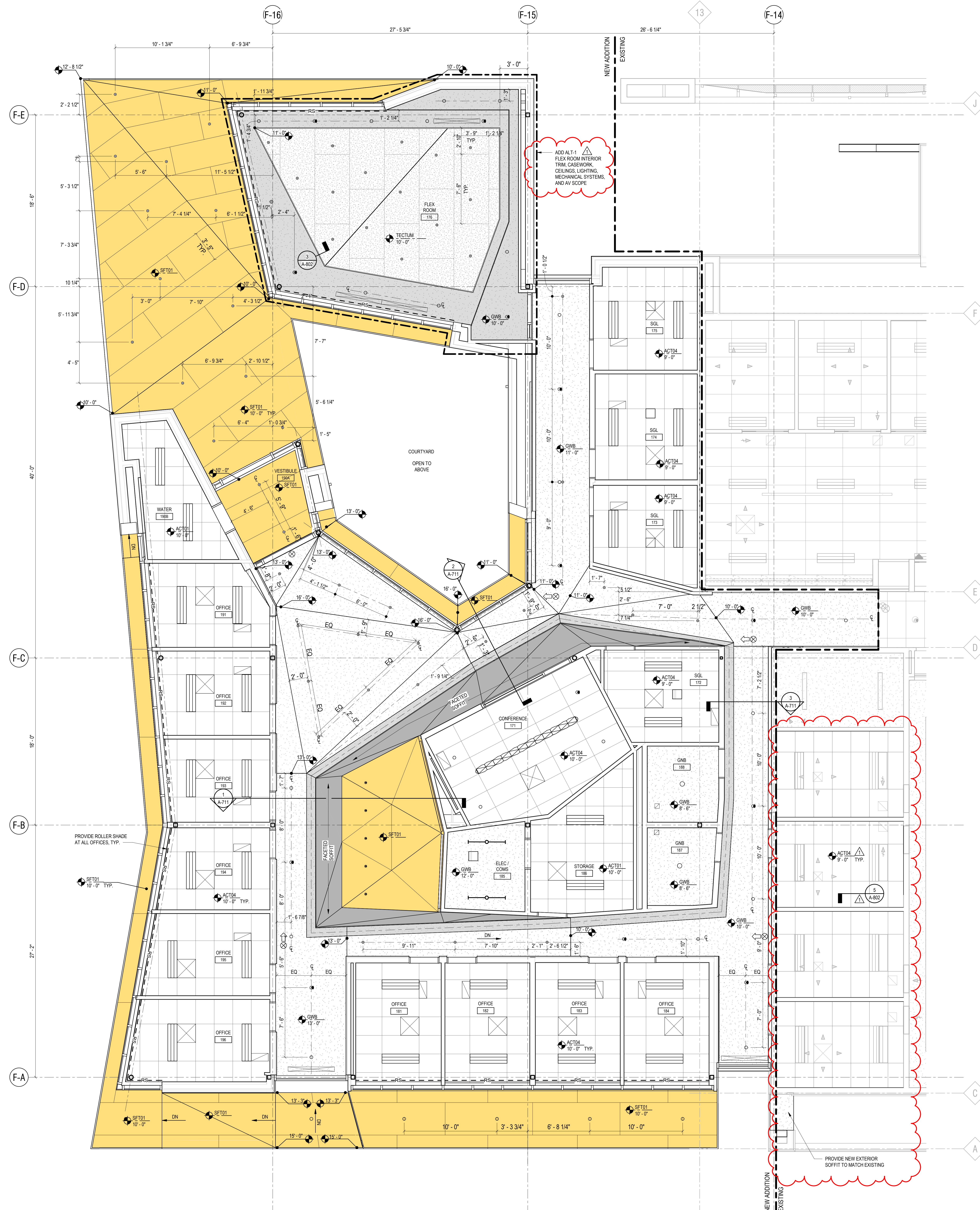
BLD 093 WWAMI MEDICAL EDUCATION BUILDING HEALTH EDUCATION ANNEX BUILDING ADDITION

121 SWEET AVENUE
MOSCOW, ID 83844
UI PN CP240022

Project Phase	
CONSTRUCTION DOCUMENTS	
Date	06/28/24
Drawn By	FLAD
Project Number	18050-05
Checked By	FLAD

LAYOUT AND GRADING PLAN ENLARGEMENT

Sheet Number	Rev. No.
L-200	1

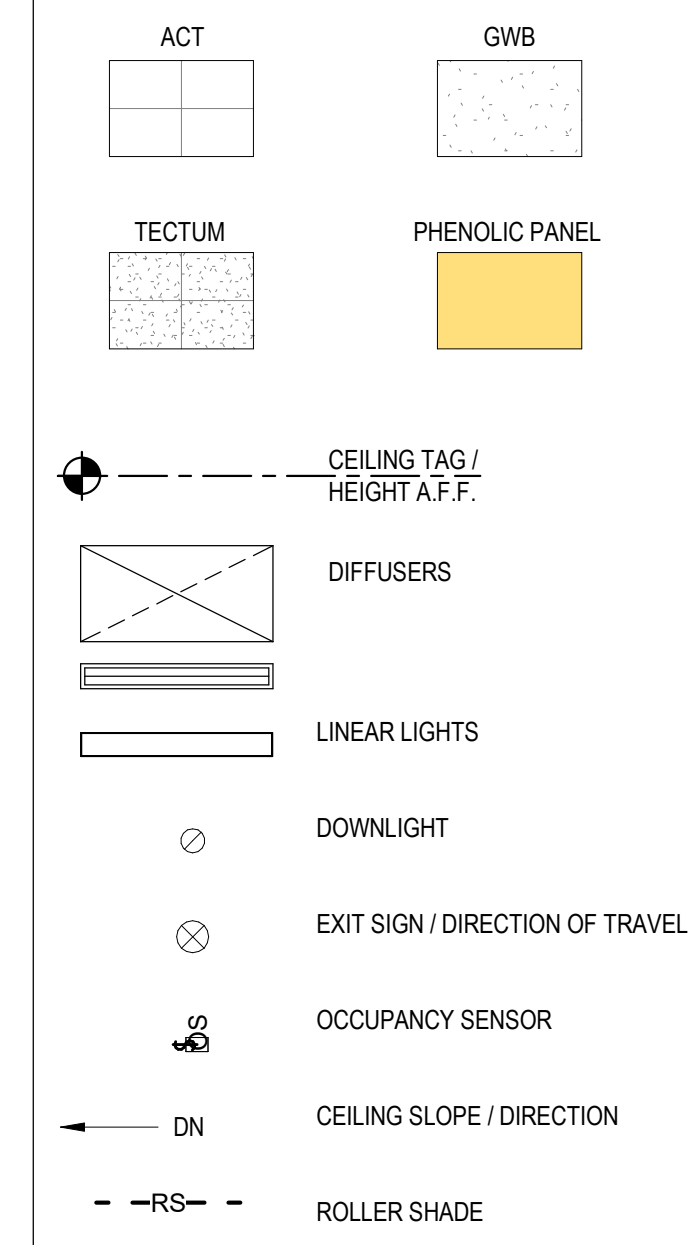


1 REFLECTED CEILING PLAN
1/4" = 1'-0"

GENERAL RCP NOTES

1. DIMENSIONS ARE TO FACE OF GWB OR CENTERLINE OF WALL, UNLESS OTHERWISE NOTED. SEE DETAILS FOR ADDITIONAL DIMENSION REFERENCE POINTS.
2. LIGHTING IS SHOWN FOR LOCATION ONLY. REFER TO ELECTRICAL DRAWINGS FOR COMPLETE LIGHTING SCHEDULE.
3. CENTER ALL LIGHTS, SENSORS, STROBES, OR OTHER MISC DEVICES IN CEILING PANELS WHERE OCCURS.
4. DIFFUSERS, SENSORS, SWITCHES, AND ALL OTHER MEP DEVICES SHOWN FOR LOCATION PURPOSES ONLY. REFER TO MEPP DRAWINGS FOR SPECIFIC REQUIREMENTS.

CEILING FINISH LEGEND



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NORTH

Project Key Plan

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BLD 093 WWAMI MEDICAL EDUCATION BUILDING HEALTH EDUCATION ANNEX BUILDING ADDITION

121 SWEET AVENUE
MOSCOW, ID 83844
UI PN CP240022

Project Phase
100% CONSTRUCTION DOCUMENTS

Date: 06/28/24
Project Number: 18050-05

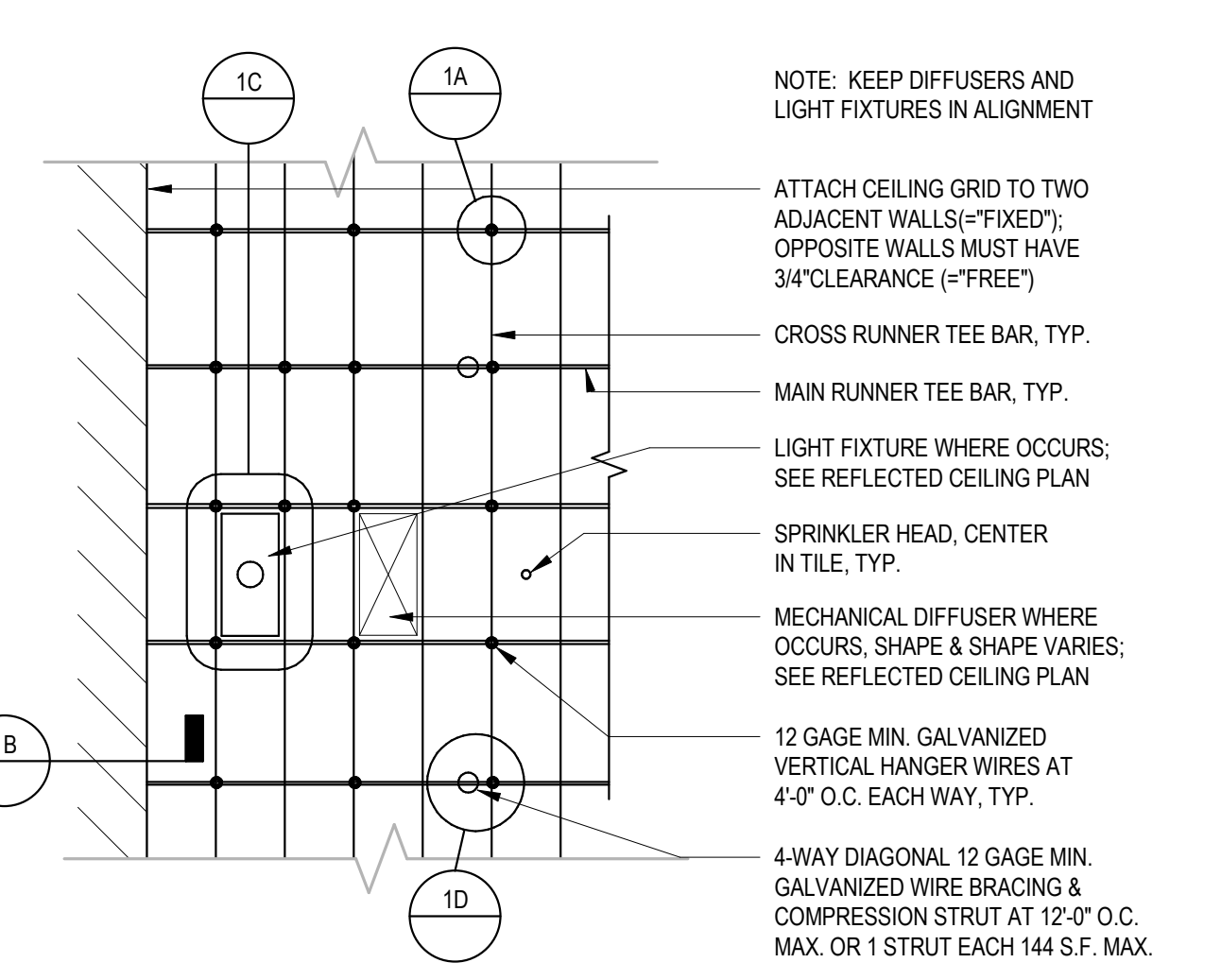
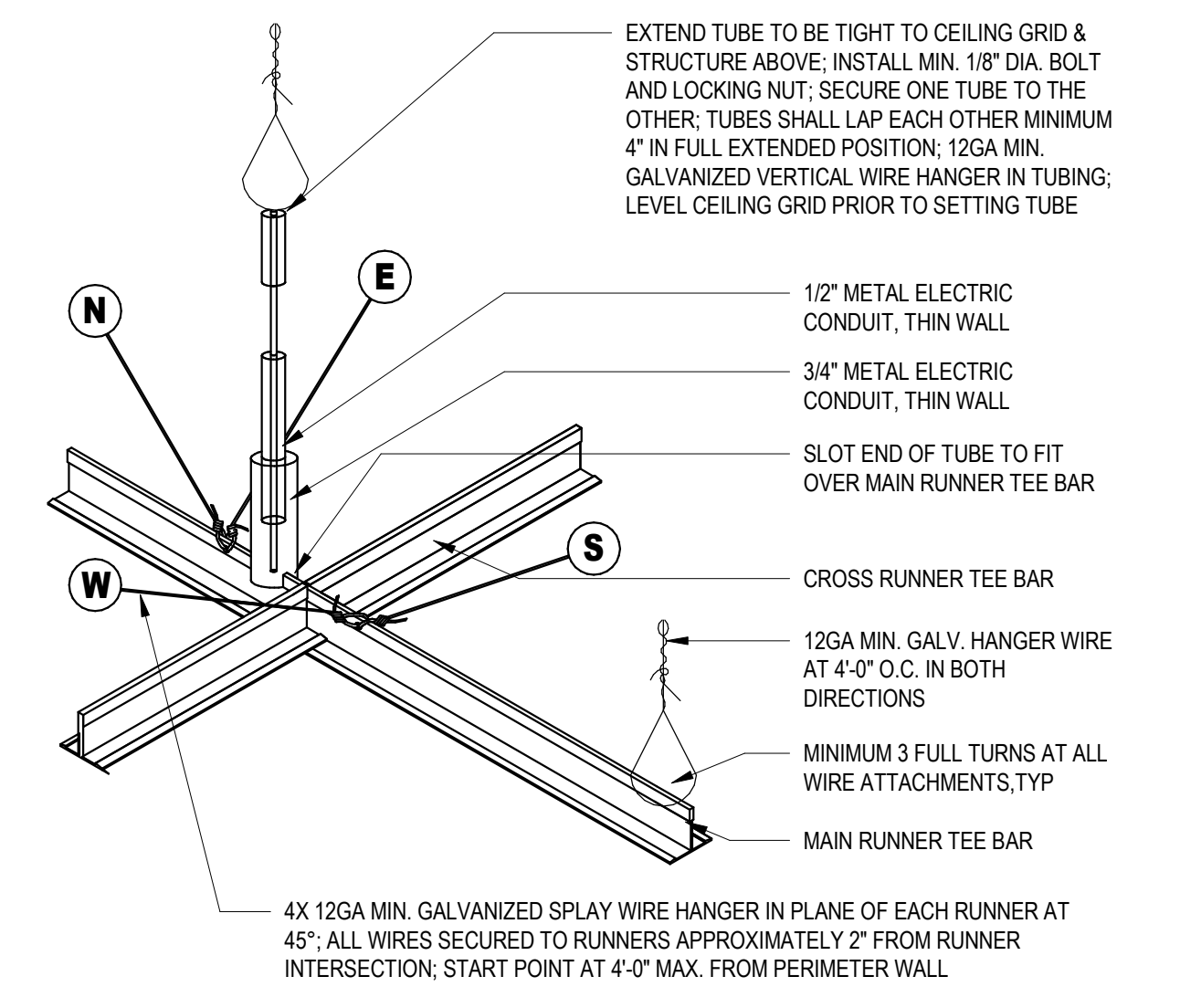
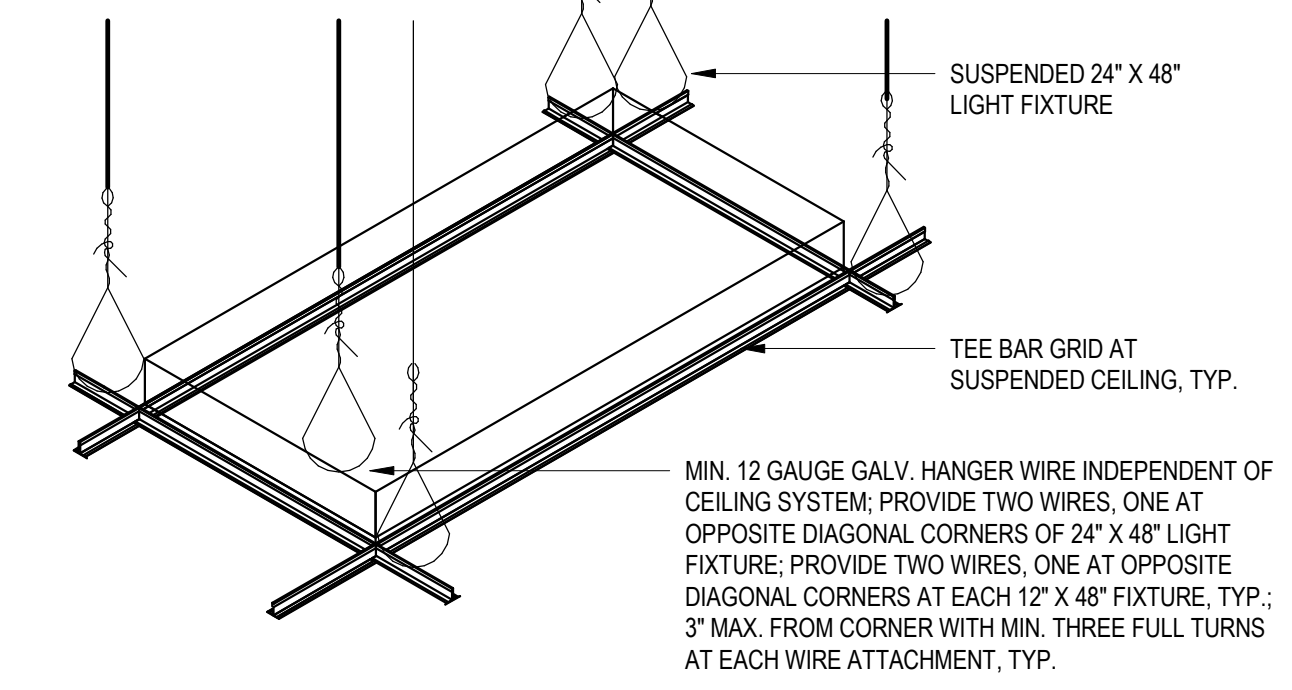
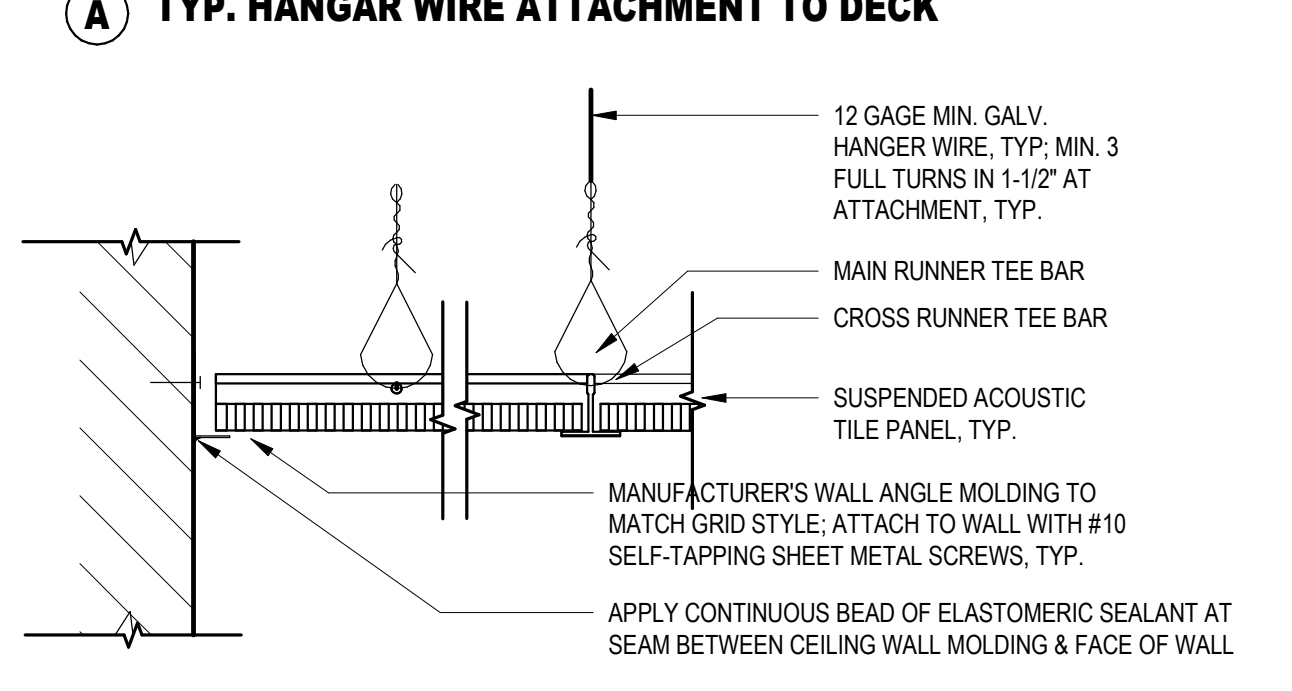
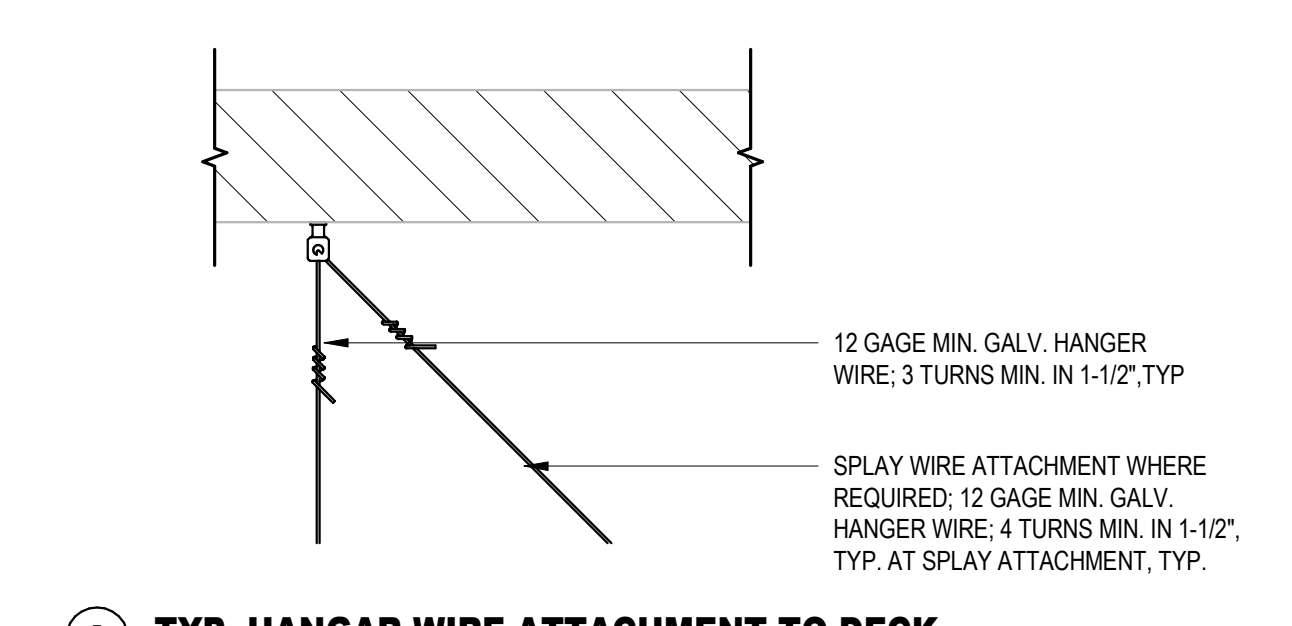
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REFLECTED CEILING PLAN

Sheet Number: **A-121**
Rev. No.: **1**

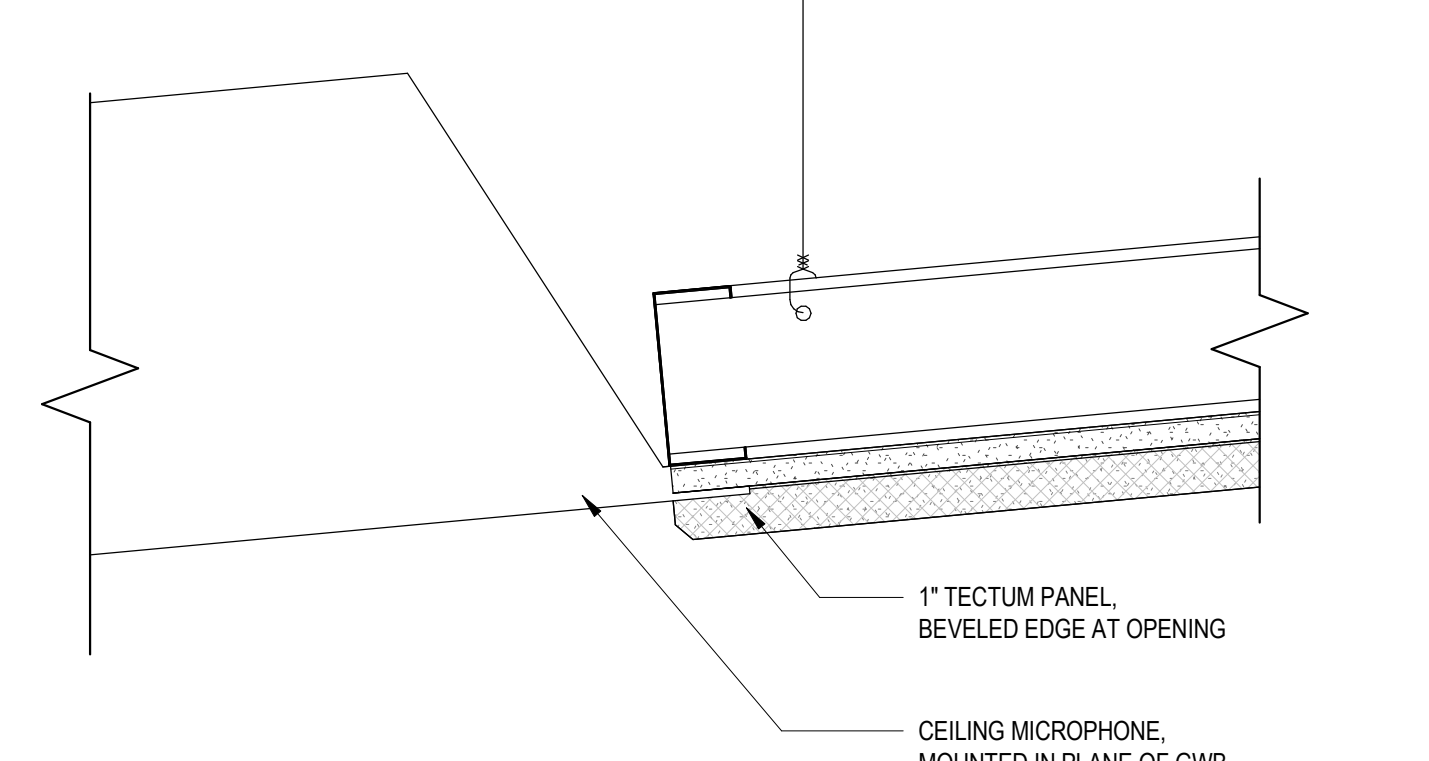
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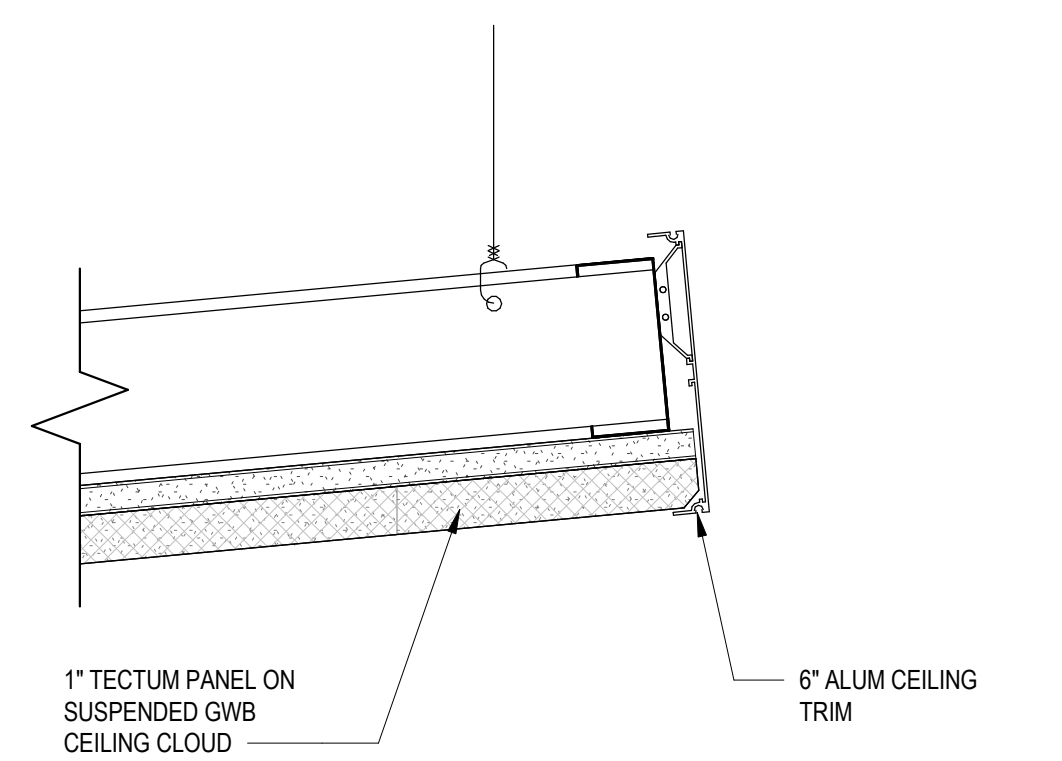
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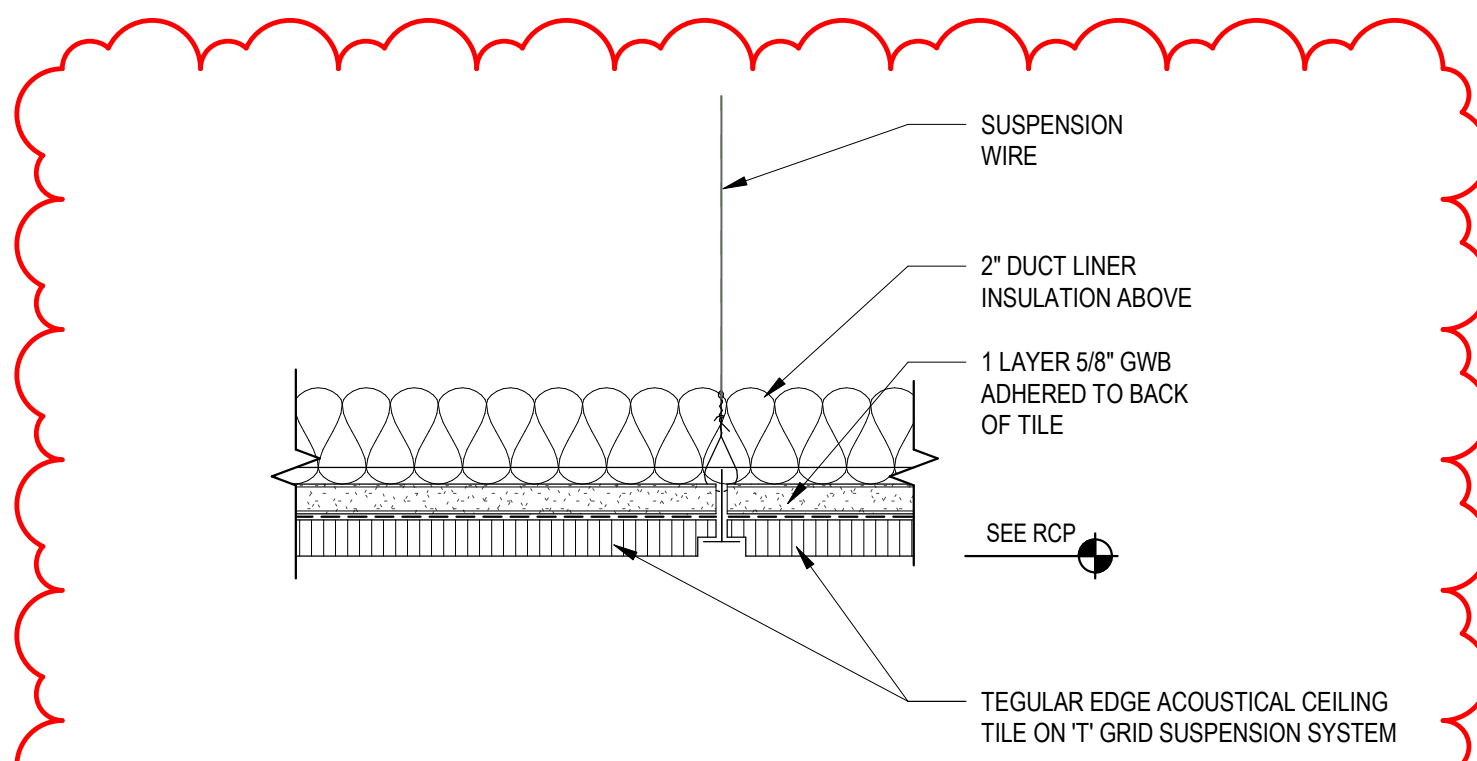
NOTE:
 1. ENDS OF MAIN BEAMS AND CROSS TEES MUST BE TIED TOGETHER TO PREVENT THEIR SPREADING
 2. HEAVY-DUTY GRID SYSTEM
 3. CEILING AREAS OVER 1,000 SF MUST HAVE HORIZONTAL RESTRAINT WIRE OR RIGID BRACING
 4. CEILING AREAS OVER 2,000 SF MUST HAVE SEISMIC SEPARATION JOINTS OR FULL HEIGHT PARTITIONS
 5. CEILINGS WITHOUT RIGID BRACINGS MUST HAVE 2\"/>



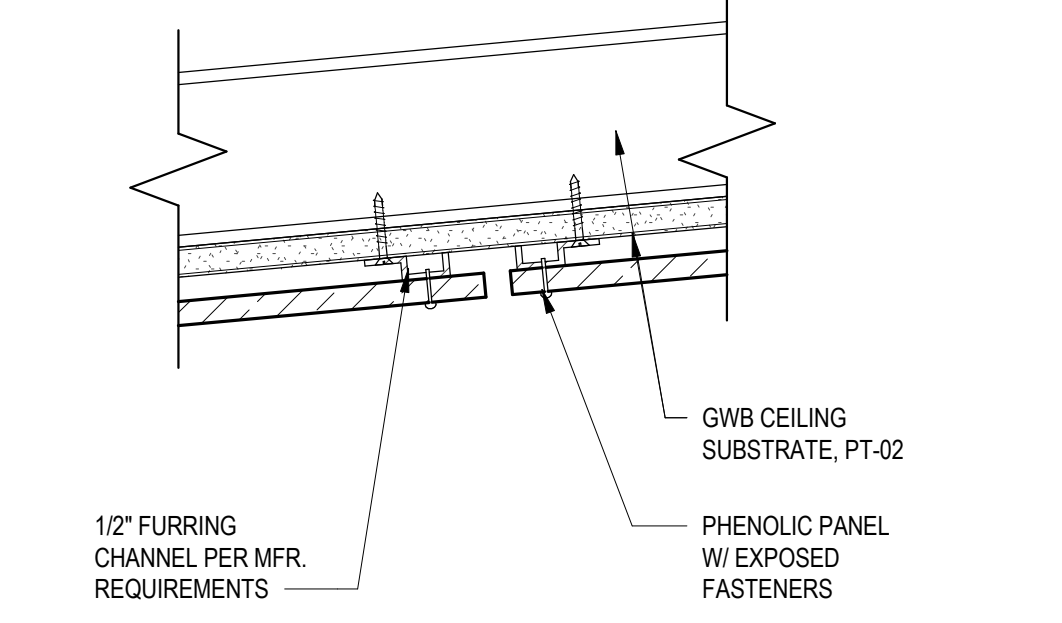
4 SECTION - RECESSED CEILING MICROPHONE
 3" = 1'-0"



3 SECTION - CEILING CLOUD EDGE TRIM
 3" = 1'-0"



5 SECTION - ACT-04 ASSEMBLY
 3" = 1'-0"



2 SECTION - INTERIOR PHENOLIC PANEL JOINT
 3" = 1'-0"

1 CEILING SEISMIC DETAILS
 1 1/2" = 1'-0"

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North Arrow (N) and Orientation (E) indicator.

Project Key Plan

Rev	Date	Description
1	10/14/24	ADDENDUM 1

UNIVERSITY OF IDAHO

BLD 093 WWAMI MEDICAL EDUCATION BUILDING HEALTH EDUCATION ANNEX BUILDING ADDITION

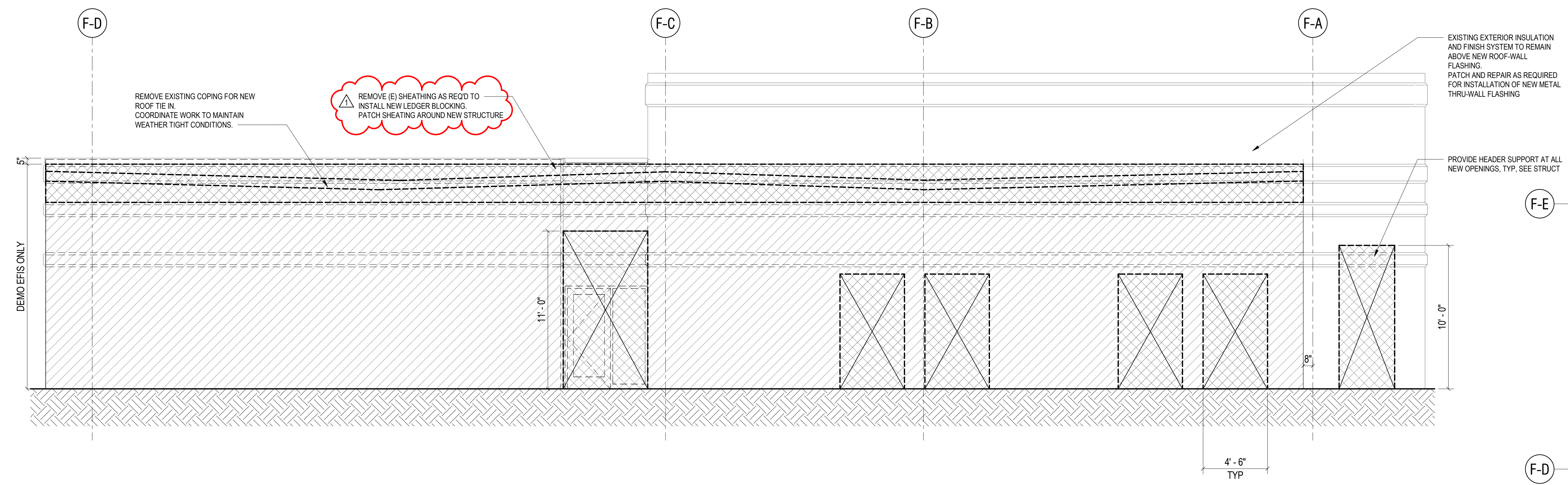
121 SWEET AVENUE
 MOSCOW, ID 83844
 UI PN CP240022

Date	Drawn By
06/28/24	FLAD
Project Number	Checked By
18050-05	FLAD

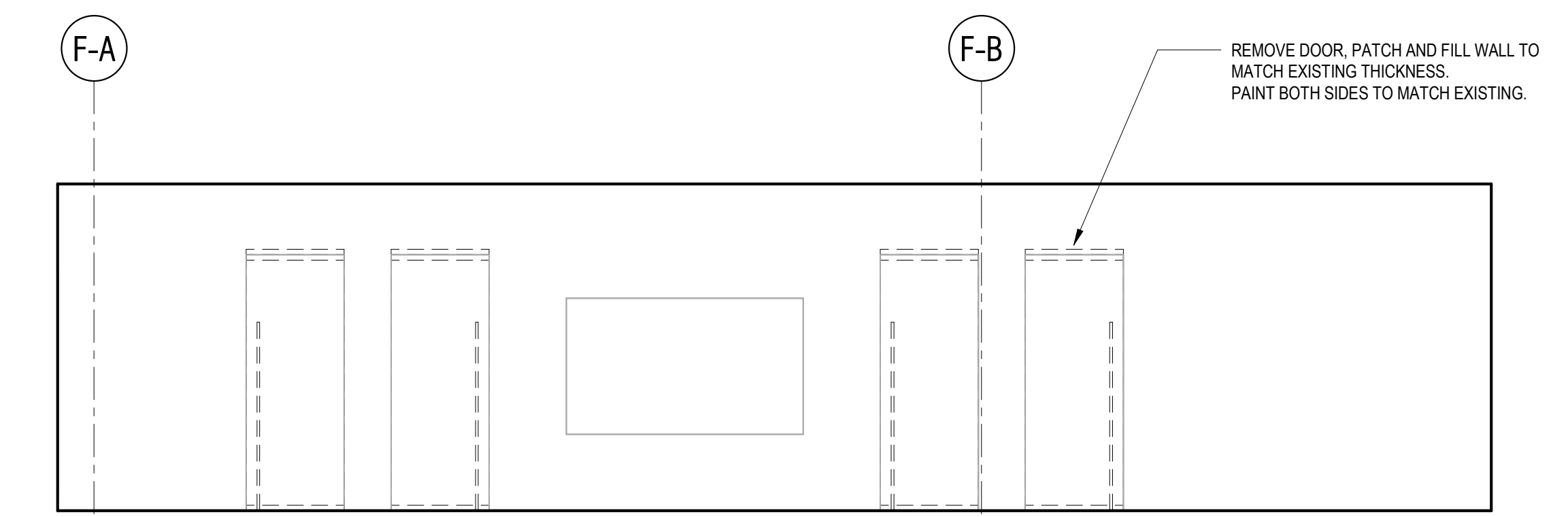
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CEILING DETAILS

Sheet Number	Rev. No.
A-802	1

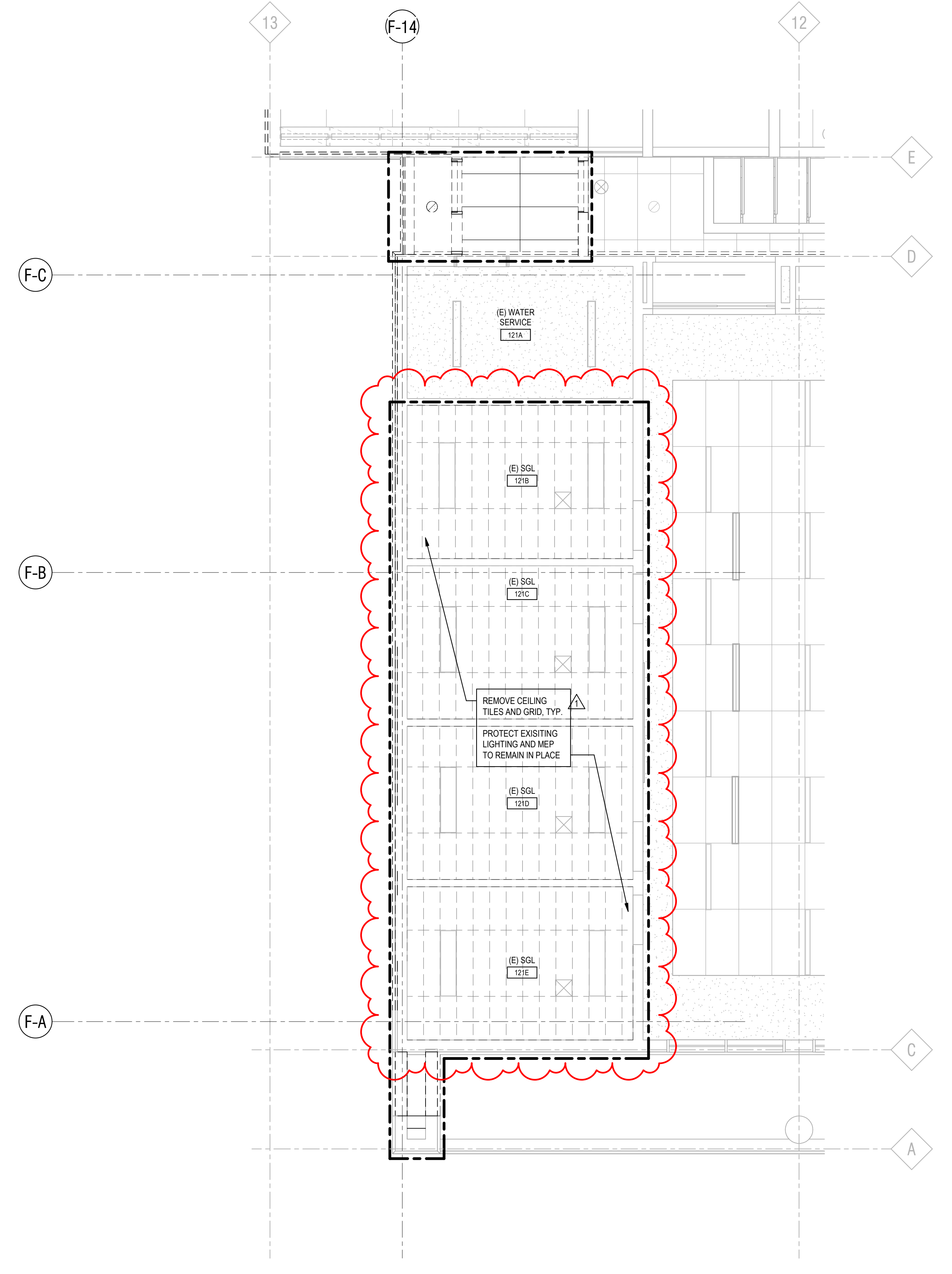
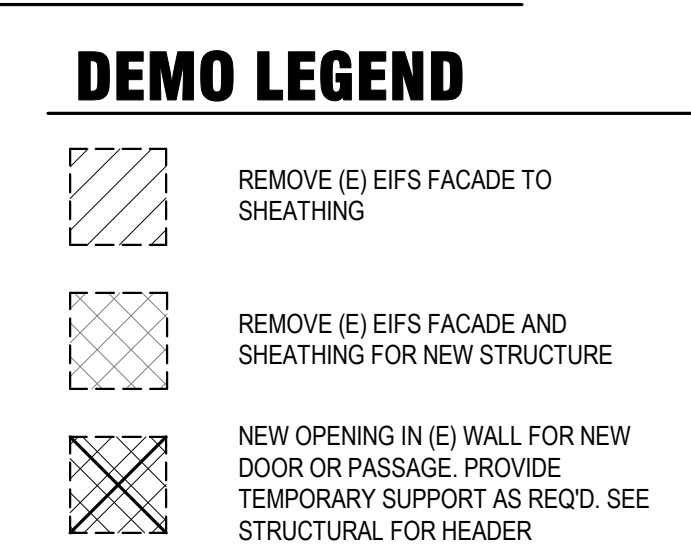
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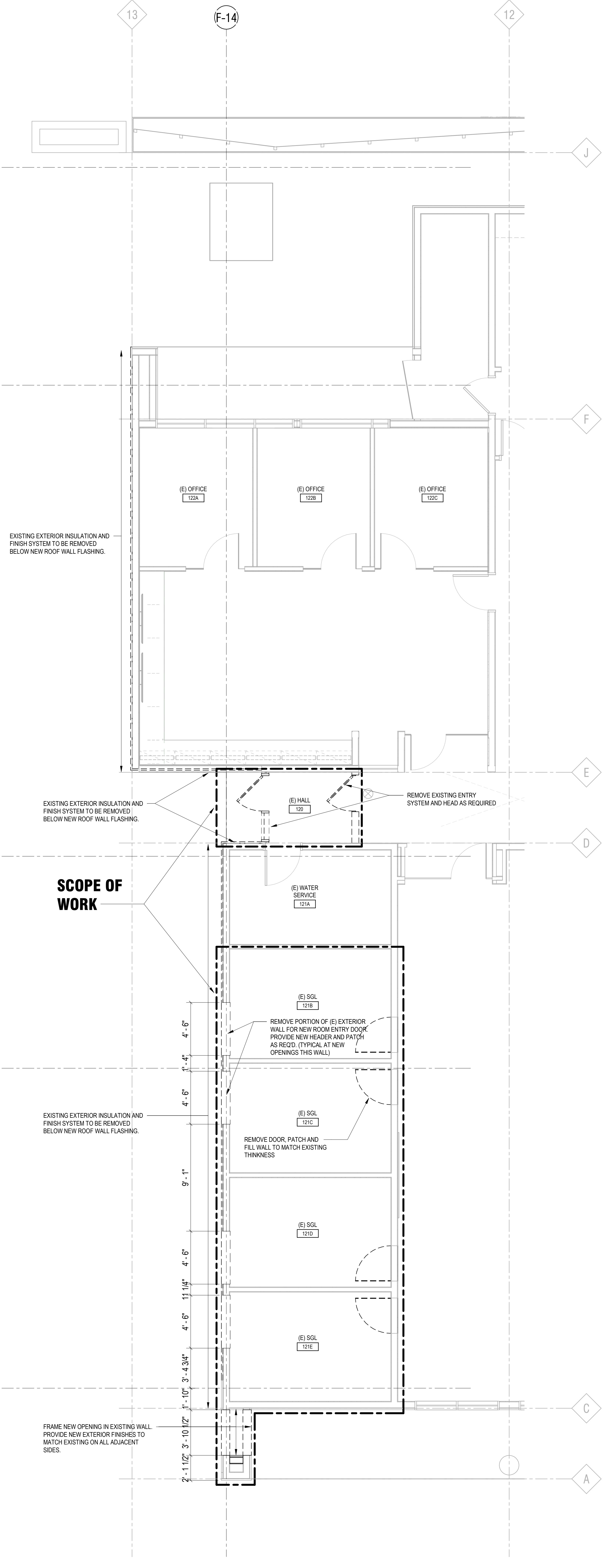
4 DEMO EXTERIOR
1/4" = 1'-0"



3 DEMO INTERIOR
1/4" = 1'-0"



2 DEMOLITION PLAN - REFLECTED CEILING PLAN
1/4" = 1'-0"



1 DEMOLITION PLAN - FLOOR PLAN
1/4" = 1'-0"

Stamps & Approvals

Project Key Plan

UNIVERSITY OF IDAHO

BLD 093 WWAMI MEDICAL EDUCATION BUILDING HEALTH EDUCATION ANNEX BUILDING ADDITION

121 SWEET AVENUE
MOSCOW, ID 83844
UI PN CP240022

Project Phase
100% CONSTRUCTION DOCUMENTS

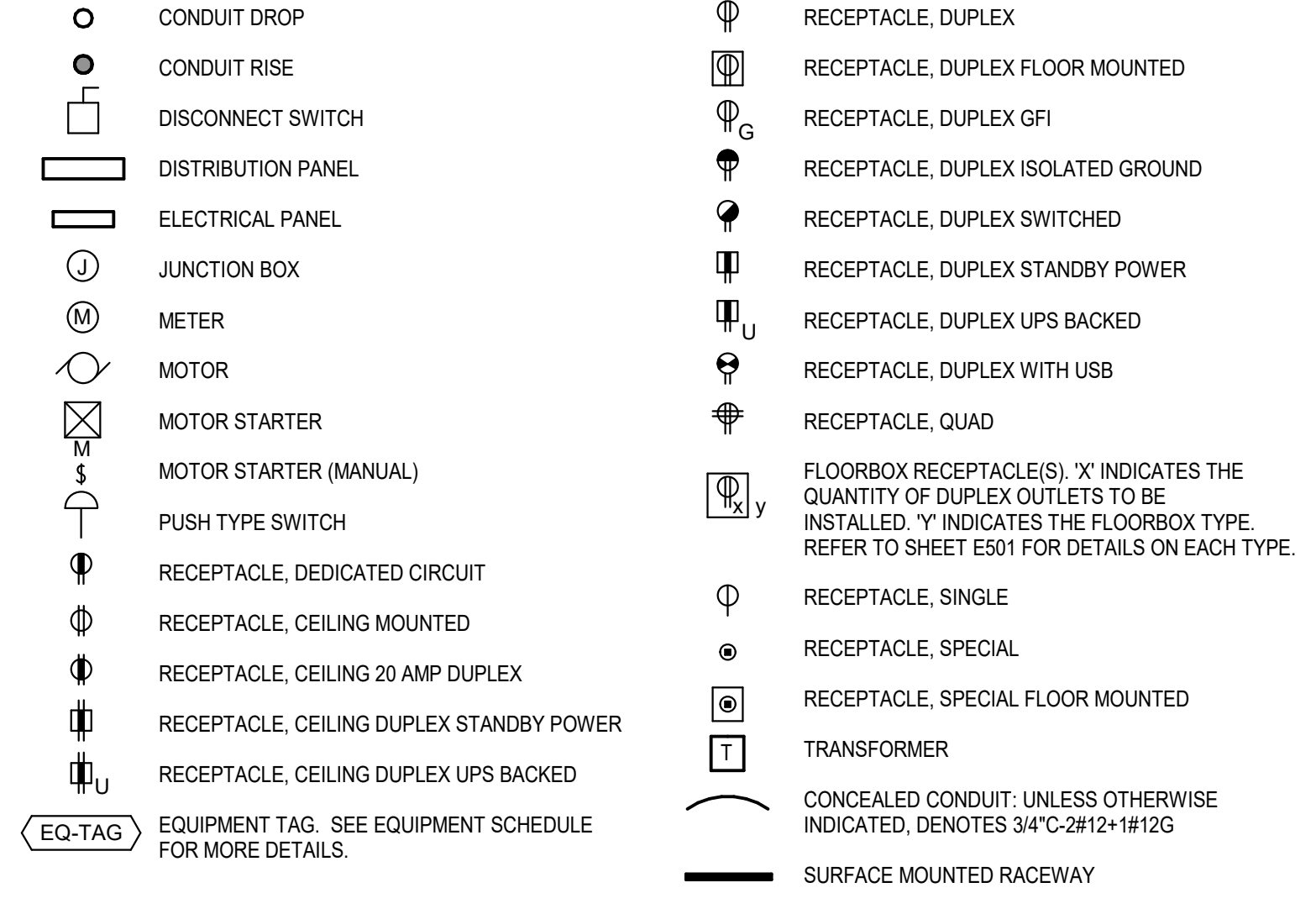
Date	06/28/24	Drawn By	FLAD
Project Number	18050-05	Checked By	FLAD

Sheet Title
DEMO FLOOR PLAN, REFLECTED CEILING PLAN, & ELEVATIONS

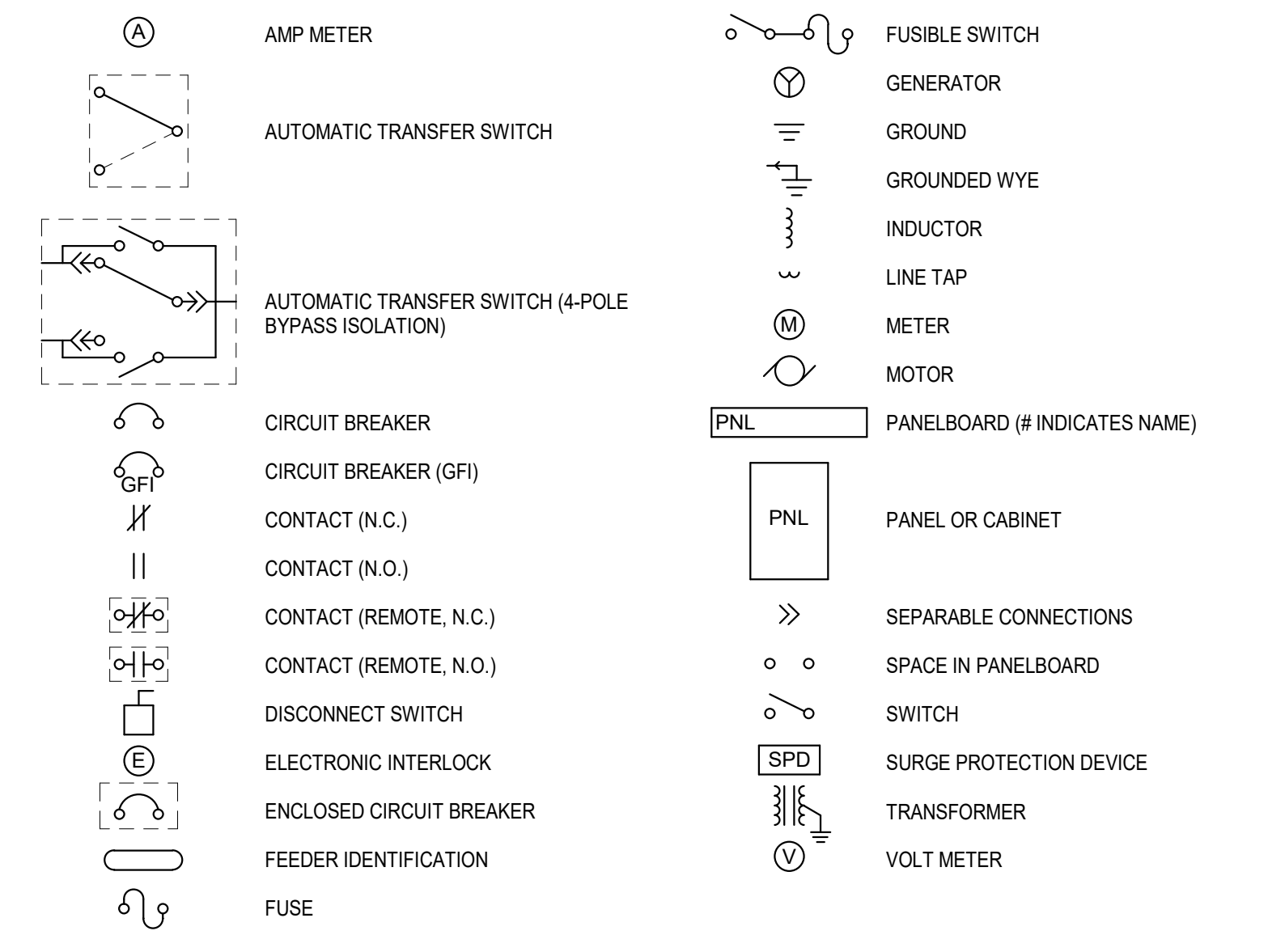
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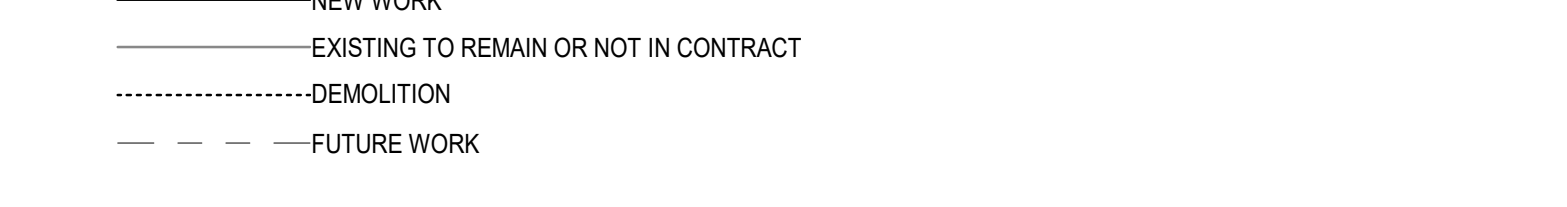
POWER SYMBOLS



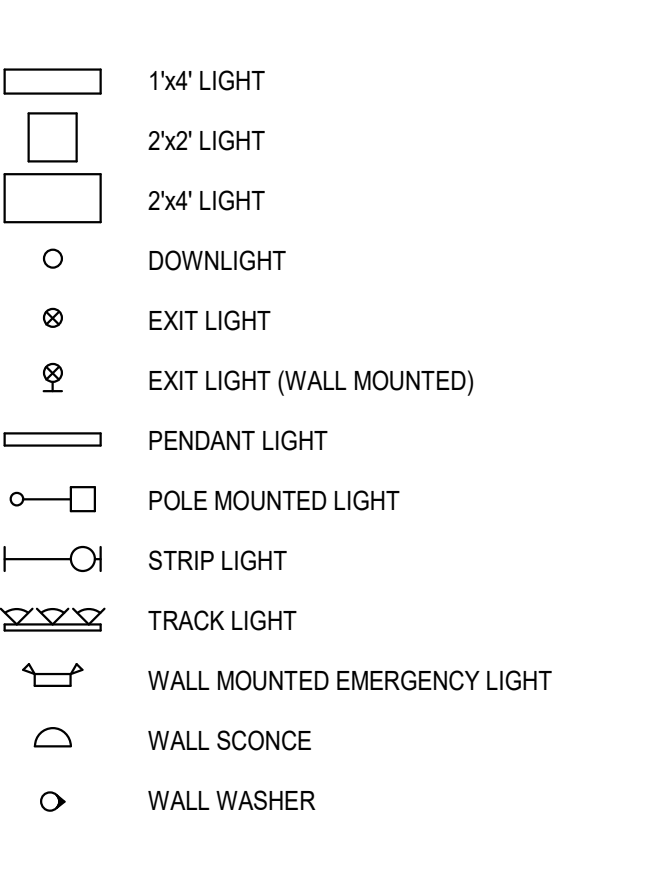
SCHEMATIC SYMBOLS



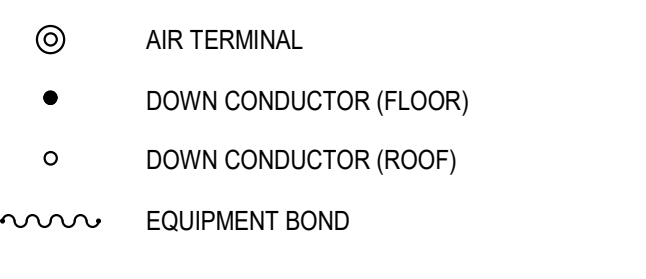
LINWEIGHT LEGEND



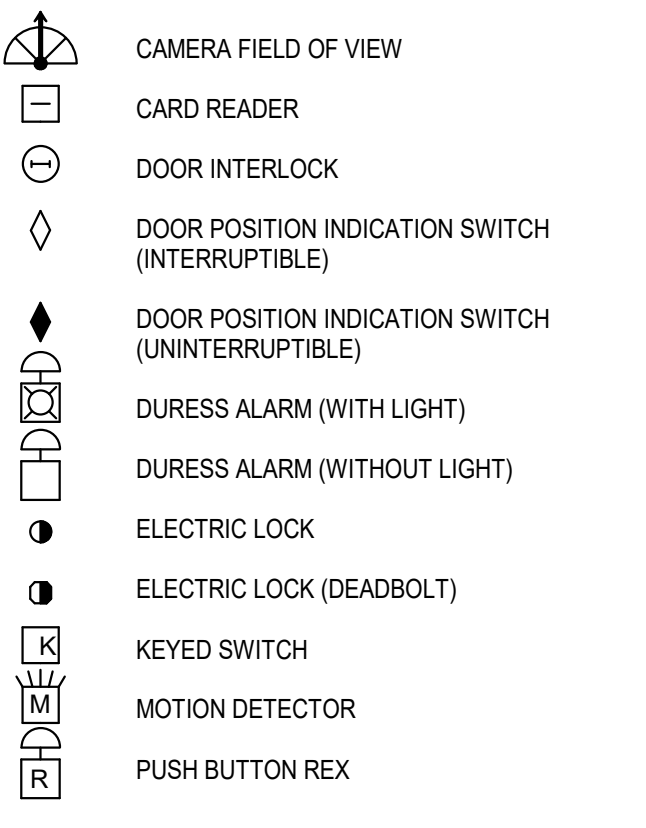
LIGHTING SYMBOLS



LIGHTNING PROTECTION SYMBOLS



SECURITY SYMBOLS



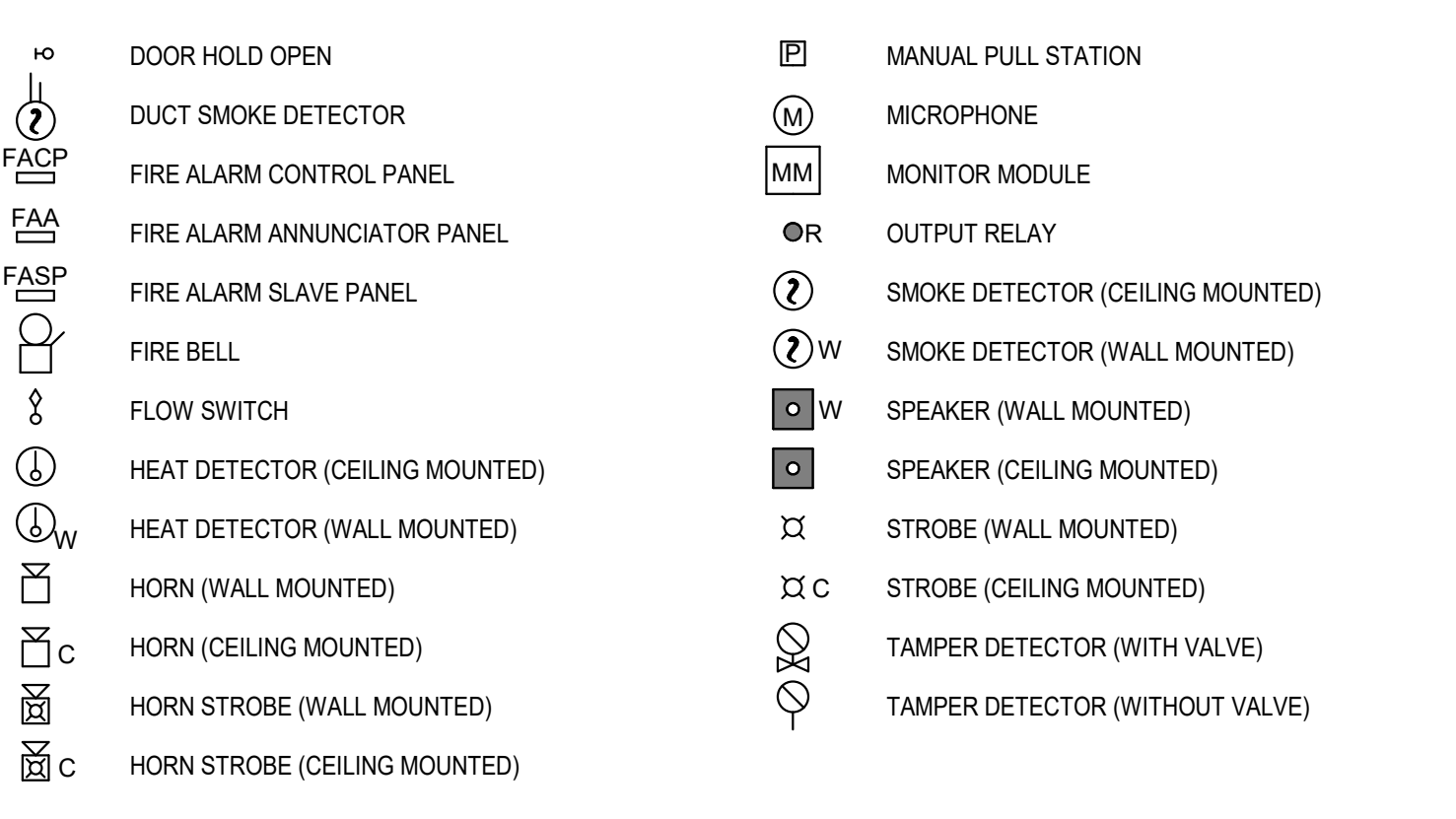
ABBREVIATIONS

Table of abbreviations including diameter, above, above finish floor, aluminum, as required, automatic transfer switch, building, conduit, circuit, ceiling, chrome plated, current transformer, copper, diameter, disconnect, distribution, division, drawing, duplex, existing, existing to remain, each, emergency, floor or floor mounted, feet, ground, gauge, ground fault interrupt, ground, high, height, isolated ground, inches, long, maximum, manufacturer, minimum, manual motor starter, motor rated switch, new, neutral, night light, normally closed, not in contract, normally open, normal, panel, quad isolated ground, required, room, similar, single pole/single throw switch, stainless steel, switch, typical, wide, with, within, without, weatherproof, receptacles to be GFI, transformer.

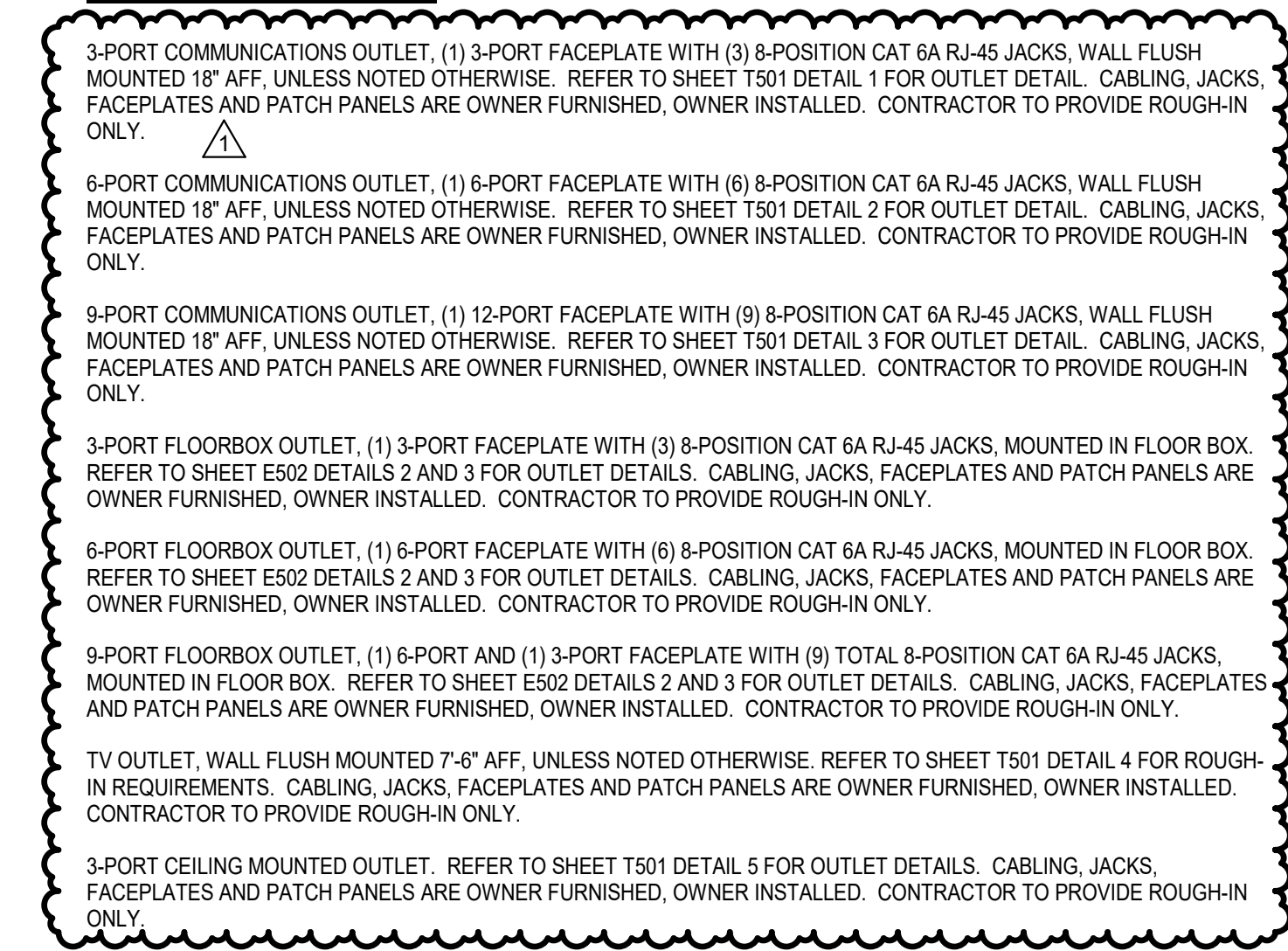
ANNOTATION

Annotation symbols for mounting height (AFF or AFG), quantity of conductors, size of conduit, quantity of conductors, conductor wire size, quantity of ground, and ground wire size.

FIRE ALARM SYMBOLS



COMMUNICATIONS SYMBOLS



COMMUNICATIONS ABBREVIATIONS

Table of communications abbreviations including AFF (above finished floor), ANSI (American National Standards Institute), AWG (American Wire Gauge), BB (backbone), BIX (BIX block), C (conduit), CAT 3 (category 3), CAT 5 (category 5), CAT 5E (category 5 enhanced), CAT 6 (category 6), CONN (connector), CFCI (contractor furnished contractor installed), CR (computer room), EIA (Electronic Industries Alliance), EMI (electromagnetic interference), EMT (electrical metallic tubing), FF (finished floor), FO (fiber optic), FOC (fiber optic cable), GE (grounding equalizer), HH (hand hole), ISP (inside plant), JBOX (junction box), LAN (local area network), MDF (main distribution frame), MH (maintenance hole), MHz (megahertz), MIC (microphone), MM (multimode), NEMA (National Electrical Manufacturers Association), NFPA (National Fire Protection Association), NIC (not in contract), OFCI (owner furnished contractor installed), OFOI (owner furnished owner installed), OSP (outside plant), PIC (patch cord), PIP (patch panel), PB (pull box), PC (personal computer), PR (pair), RM (room), RMU (rack mount unit), SM (singlemode), SPKR (speaker), STR (strand), SWTH (switch tail), TBB (telecommunication bonding backbone), TC (telecommunications closet), TGB (telecommunications grounding busbar), TIA (telecommunications industry association), TMBG (telecommunications main grounding busbar), TR (telecommunications room, also see TC), TYP (typical), UG (underground conduit), UL (underwriters laboratories), um (micron or micrometer), UPS (uninterruptible power supply), UTP (unshielded twisted-pair), WA (work area), WM (wall mounted), WS (workstation).

GENERAL NOTES - ELECTRICAL

- 1. THIS BUILDING HAS PLENUM SPACES. WIRING AND CABLING NOT INSTALLED IN A RACEWAY. FOR WHICH ANY PORTION IS INSTALLED IN OR PASSES THROUGH A PLENUM SPACE, SHALL BE PLENUM RATED FOR ITS ENTIRE LENGTH. REFER TO MECHANICAL AND ARCHITECTURAL DRAWINGS FOR LOCATIONS OF PLENUM SPACE.
- 2. SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL MOUNTING HEIGHT INFORMATION.

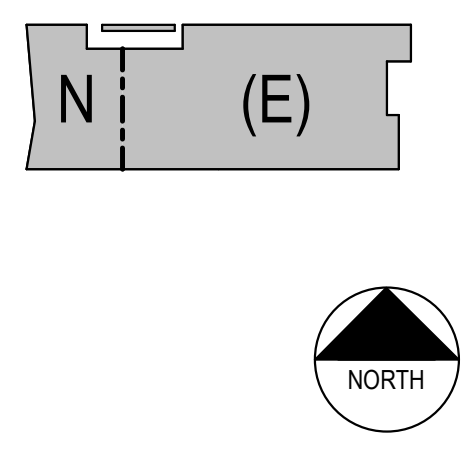
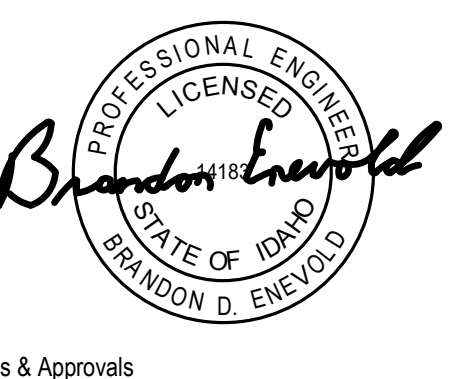
GENERAL NOTES:
1. Egress and emergency lighting shall be circled to a lighting inverter. All fixtures indicated on drawings with a diamond symbol shall be equipped with an appropriate UL924 device. For continuous run linear light fixtures, one four foot section for every twelve linear feet shall be tied into emergency circuit.
2. Field verify exact measurements prior to ordering. Shop drawings required.

- NOTES:
1. Contractor shall verify ceiling type prior to ordering. Supply appropriate mounting hardware.
2. See drawings for arrows. Wall mount or ceiling mount for best visibility as necessary.
3. Horizontally wall mount vanity light six inches on center from top of mirror.
4. Fixture may require cable or chain for mounting.
5. Bottom of pendant shall hang at 8'-0" AFF.
6. Bottom of pendant shall hang at 6'-0" AFF.
7. Optical assembly shall aim straight down.
8. Fixture setback shall be 3-inches on center from face of marker board.
9. Wall mount at 8'-0" AFF on center.
10. Supply flush mount concrete bollard base. Campus standard bollard by Canterbury Designs #BOPN-43-PM-IL may be used in lieu of specified bollard if required by owner.

LIGHTING FIXTURE SCHEDULE

Type	Description	Lamp	VA	Driver Voltage	Manufacturer	Model #	Notes
A	1x4' LED Recess	LED	30 VA	120 V	Fluoresc	TR1-14-C-40-F2-M	1
E	LED Exit Fixture	LED	4 VA	120 V	Dualite	EVE-U-RIG-W-I	2
E2	LED Edge-Lit Exit Fixture	LED	4 VA	120 V	Dualite	LES-CWIE-S-RIG-X-N	2
F	Decorative Pendant	LED	24 VA	120 V	Lumenwerx	FLSSL-LVP-D-6R-FTMB-SL-FH-FTMB-FFFH-SW-SDEG-80DEG-25TP-80CRI-35K-NA-UNV-10W-14W-D1-1C-FLR-FTMB-BPCW#IN	6
H	Small Aperture Linear Wash	LED	70 VA	120 V	alLIGHT	APX5-10-LS-35-LI-SS-XP-X-B-D	8
H2	Small Aperture Linear Wash	LED	66 VA	120 V	alLIGHT	APX5-8-LS-35-LI-SS-XP-X-B-D	8
J	Wall Mount Vanity Light	LED	9 VA	120 V	Eureka Lighting	3541-234-LED 9-40-120V-DV-SC-WH-3980	3
K	6" LED Recess Downlight	LED	22 VA	120 V	Portolio	LED6-20-90-40-D010-W-1-L1	4
K2	4" LED Recess Downlight	LED	15 VA	120 V	Portolio	LED4-15-90-40-D010-W-1-L1	4
K3	2" LED Recess Downlight	LED	21 VA	120 V	Gotham Lighting	EVOZ-4015-AR-L-SS-WD-MVOLT-UJZ	7
KADJ	2" LED Recess Adjustable Downlight	LED	12 VA	120 V	Gotham Lighting	IC020ADJ-4010-AR-TFC-LSS-4SD-MVOLT-UJZ	7
L	4" LED Industrial Strip	LED	32 VA	120 V	Lumina	CLX-L48-5000LM-SEF-RDL-MVOLT-G210-40K-80CRI-WH	4
M	Exterior Decorative Wall Mount	LED	25 VA	120 V	Luminis	LZL10-R40-120V-FINISH-X	9
S12	Linear LED Pendant	LED	348 VA	120V	Peerless	OR3M1-LLP-12FT-MSL4-80CRI-40K-11000LMF-DARK-ZT-277-SCT-X-24A-X-X	5
X	Illuminated Bollard	LED	21 VA	120 V	Bega	B64690/B64009-K4-Finish	10

Flad ARCHITECT
MW Engineers
MEP ENGINEERS
EDCI STRUCTURAL/CIVIL ENGINEER



Revision table with columns for Rev, Date, and Description. Includes entries for 10/14/24 ADDENDUM 1 and 18050-05.



BLD 093 WWAHI MEDICAL EDUCATION BUILDING HEALTH EDUCATION ANNEX BUILDING ADDITION
121 SWEET AVENUE
MOSCOW, ID 83844
UI PN CP240022

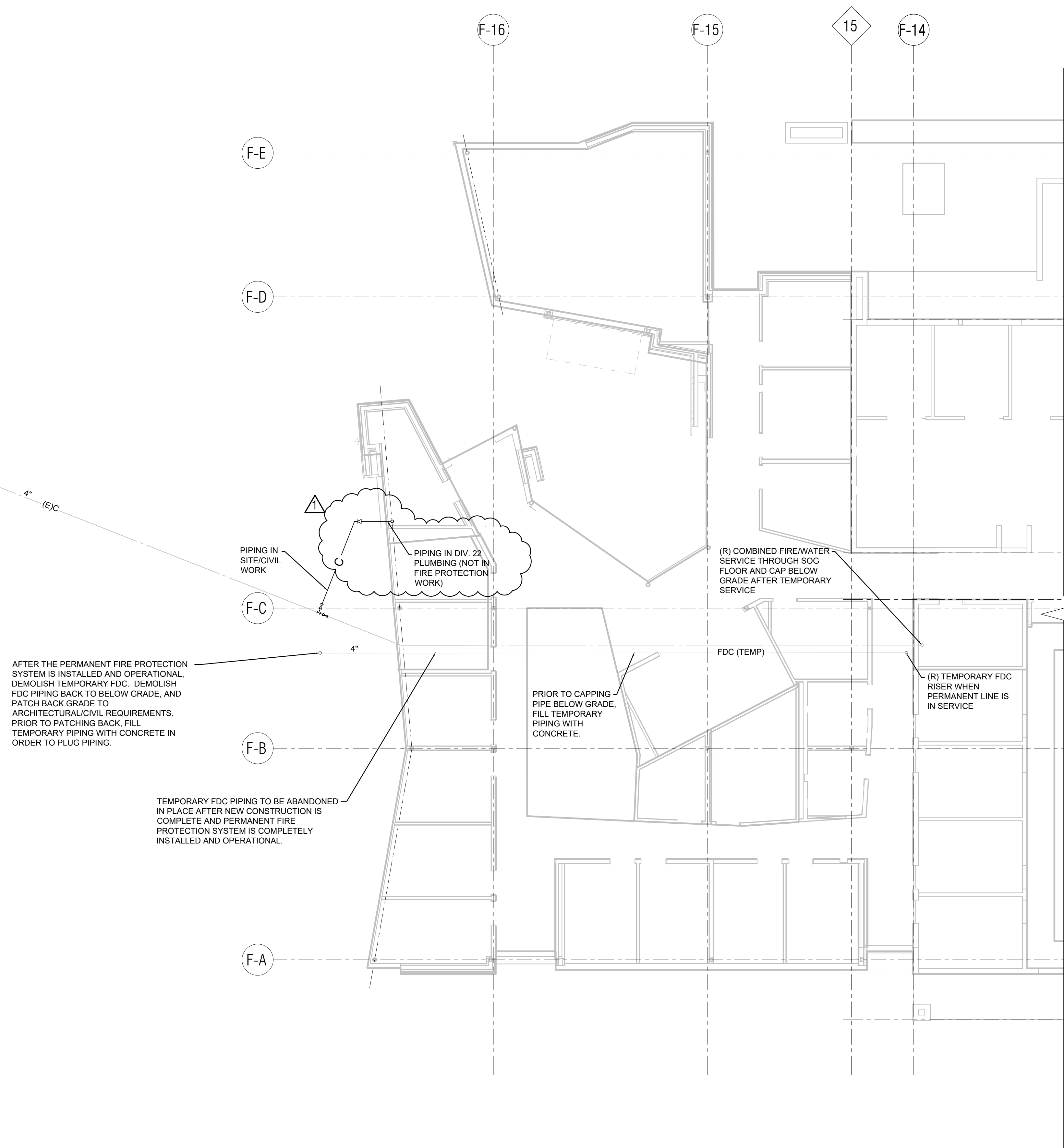
Project Phase table with columns for Date, Drawn By, Checked By, and Rev. No. Includes entries for 06/28/2024 and E-001.

10/14/2024 11:14:49 AM

GENERAL SHEET NOTES

1. ARCHITECTURAL FLOOR PLAN AND APPURTENANCES ARE SHOWN FOR REFERENCE ONLY AND SCALING IS APPROXIMATE. VERIFY ARCHITECTURAL DIMENSIONS.
2. PROVIDE FULL BUILDING DRY PIPE COVERAGE INCLUDING ADDITION AREA AND MAINTAINING EXISTING BUILDING COVERAGE IN ACCORDANCE WITH NFPA STD. 13 AND NFPA STD. 14 INCLUDING HYDRAULIC DESIGN AND DETAILED PIPING LAYOUT BY INCEIT-CERTIFIED DESIGNER.
3. SPRINKLER LOCATIONS SHOWN ARE ILLUSTRATIVE ONLY FOR ESTIMATING PURPOSES. PROVIDE DETAILED LAYOUT FOR FULL COVERAGE PER NFPA 13.
4. COORDINATE SYSTEM DESIGN INCLUDING HYDRAULIC CALCULATIONS AND PIPING LAYOUTS WITH OVERALL BUILDING SYSTEM DESIGN.

VERIFY LOCATION OF (E) SERVICE SHUTOFF WITH UTILITY PROVIDER. LOCATION SHOWN IS INFERRED FROM LIMITED DATA.



AFTER THE PERMANENT FIRE PROTECTION SYSTEM IS INSTALLED AND OPERATIONAL, DEMOLISH TEMPORARY FDC. DEMOLISH FDC PIPING BACK TO BELOW GRADE, AND PATCH BACK GRADE TO ARCHITECTURAL CIVIL REQUIREMENTS. PRIOR TO PATCHING BACK, FILL TEMPORARY PIPING WITH CONCRETE IN ORDER TO PLUG PIPING.

TEMPORARY FDC PIPING TO BE ABANDONED IN PLACE AFTER NEW CONSTRUCTION IS COMPLETE AND PERMANENT FIRE PROTECTION SYSTEM IS COMPLETELY INSTALLED AND OPERATIONAL.

PIPING IN DIV. 22 PLUMBING (NOT IN FIRE PROTECTION WORK)

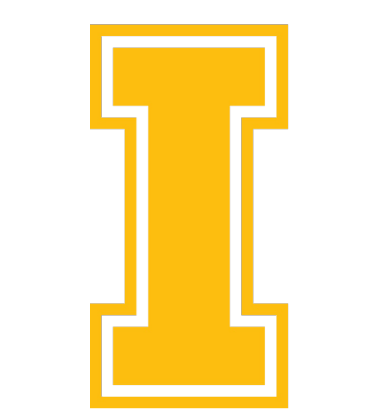
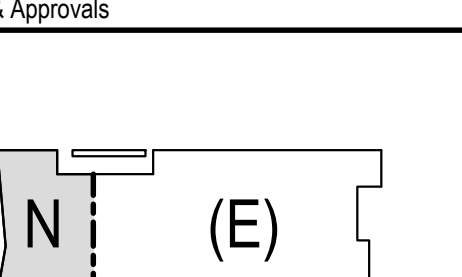
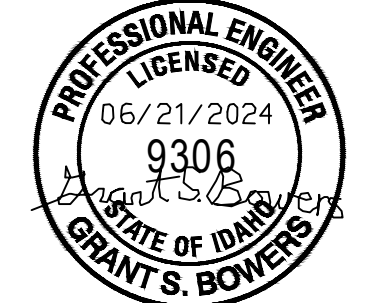
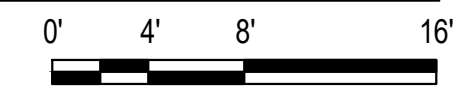
(R) COMBINED FIRE/WATER SERVICE THROUGH SOG FLOOR AND CAP BELOW GRADE AFTER TEMPORARY SERVICE

PRIOR TO CAPPING PIPE BELOW GRADE, FILL TEMPORARY PIPING WITH CONCRETE.

(R) TEMPORARY FDC RISER WHEN PERMANENT LINE IS IN SERVICE

FDC (TEMP)

BELOW GRADE PLAN - FIRE PROTECTION
SCALE: 1/8" = 1'-0"



UNIVERSITY OF IDAHO

BLD 093 WWAMI MEDICAL EDUCATION BUILDING HEALTH EDUCATION ANNEX BUILDING ADDITION

121 SWEET AVENUE
MOSCOW, ID 83844
UI PN CP240022

Project Phase	
CONSTRUCTION DOCUMENTS	
Date	Drawn By
06/28/24	GSB
Project Number	Checked By
18050-05	-

FIRE PROTECTION PLANS BELOW GRADE

Sheet Number	Rev. No.
F-100	

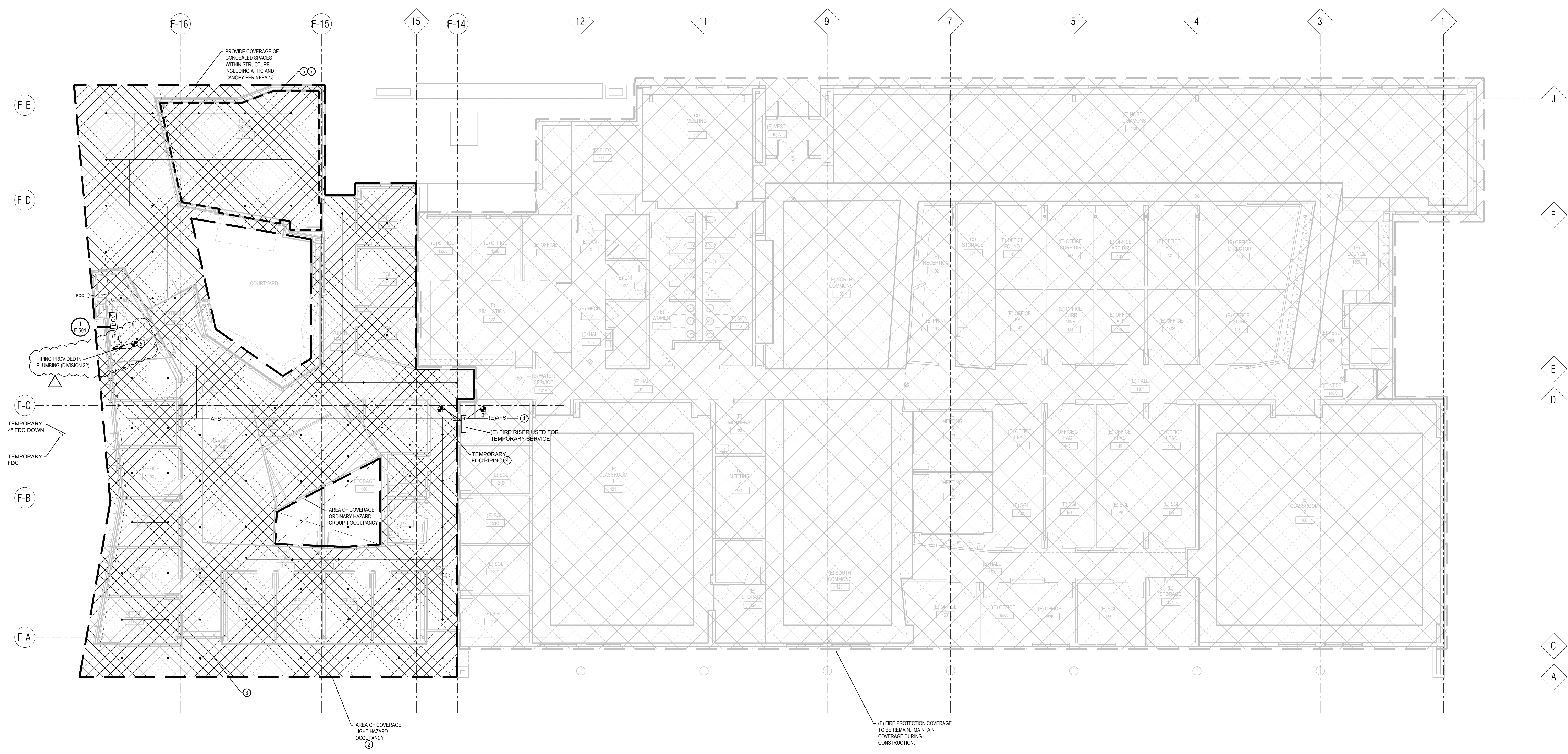
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GENERAL SHEET NOTES

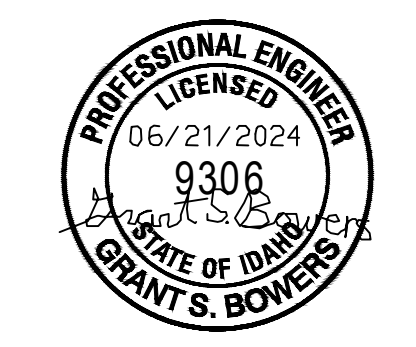
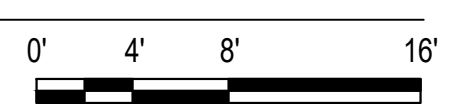
1. ARCHITECTURAL FLOOR PLAN AND AFFURTENANCES ARE SHOWN FOR REFERENCE ONLY AND SCALING IS APPROXIMATE. VERIFY ARCHITECTURAL DIMENSIONS.
2. PROVIDE FULL BUILDING DRY PIPE COVERAGE INCLUDING ADDITION AREA AND MAINTAINING EXISTING BUILDING COVERAGE IN ACCORDANCE WITH NFPA STD 13 AND NFPA STD 14 INCLUDING HYDRAULIC DESIGN AND DETAILED PIPING LAYOUT BY NICET-CERTIFIED DESIGNER.
3. SPRINKLER LOCATIONS SHOWN ARE ILLUSTRATIVE ONLY FOR ESTIMATING PURPOSES. PROVIDE DETAILED LAYOUT FOR FULL COVERAGE PER NFPA 13.
4. COORDINATE SYSTEM DESIGN INCLUDING HYDRAULIC CALCULATIONS AND PIPING LAYOUTS WITH OVERALL BUILDING SYSTEM DESIGN.
5. MAINTAIN (E) FIRE SPRINKLER COVERAGE DURING CONSTRUCTION.

KEYED SHEET NOTES

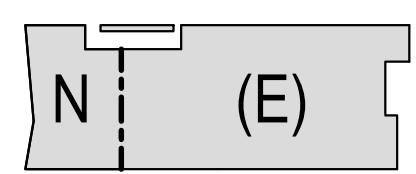
- ⊙ VERIFY EXTENT AND TYPE OF EXISTING BUILDING COVERAGE AT SITE AND BY REFERRING TO OWNERS EXISTING FIRE PROTECTION SYSTEM RECORD DRAWINGS AVAILABLE FROM ARCHITECT.
- ⊙ THROUGHOUT THE BUILDING ADDITION AT SUSPENDED CEILINGS PROVIDE CONCEALED HEADS WITH CUSTOM COLOR COVERS. COLORS TO BE APPROVED BY ARCHITECT.
- ⊙ PROVIDE SOFFIT PROTECTION IF REQUIRED BY LOCAL JURISDICTION'S INTERPRETATION OF NFPA 13. VERIFY WITH AHJ.
- ⊙ SEE ALSO SHEET FD101 KEYED NOTE 3 FOR TEMPORARY SERVICE.
- ⊙ CONNECT (N) COMBINED WATER PIPING TO CW LINE PROVIDED IN PLUMBING WORK. REFER TO PLUMBING PLANS FOR CONTINUATION OF PIPING TO IRRIGATION AND DOMESTIC WATER BACKFLOW PREVENTERS.
- ⊙ IN BASE BID PROVIDE THE FOLLOWING:
 1. PENDANT SPRINKLERS TO SERVE SHELL SPACE.
 2. UPRIGHT SPRINKLERS TO SERVE FUTURE CONCEALED SPACE ABOVE FUTURE SUSPENDED CEILING.
 3. CARRED TEES AS NEEDED FOR FUTURE SEMI-RECESSED PENDANT SPRINKLERS TO SERVE FUTURE FINISHED SPACE.
- ⊙ IN ALTERNATE NO. 1 PROVIDE THE FOLLOWING:
 1. UPRIGHTS PROTECTING CONCEALED SPACE TO REMAIN.
 2. REMOVE SHELL SPACE SPRINKLERS AND CAP OR REUSE BRANCH CONNECTIONS.
 3. PROVIDE SEMI-RECESSED SPRINKLERS LOCATED IN SUSPENDED CEILING INCLUDING BRANCH PIPING WITH FLEXIBLE CONNECTORS TO CENTER HEADS IN CEILING TILES OR COORDINATE WITH CEILING-MOUNTED AFFURTENANCES IF GWS CEILING IS PROVIDED IN ARCHITECTURAL.



LEVEL 1 PLAN - FIRE PROTECTION
SCALE: 1/8" = 1'-0"



Stamps & Approvals



Project Key Plan

Rev	Date	Description
1	10/14/24	ADDENDUM 1



BLD 093 WWAMI MEDICAL EDUCATION BUILDING HEALTH EDUCATION ANNEX BUILDING ADDITION

121 SWEET AVENUE
MOSCOW, ID 83844
UI PN CP240022

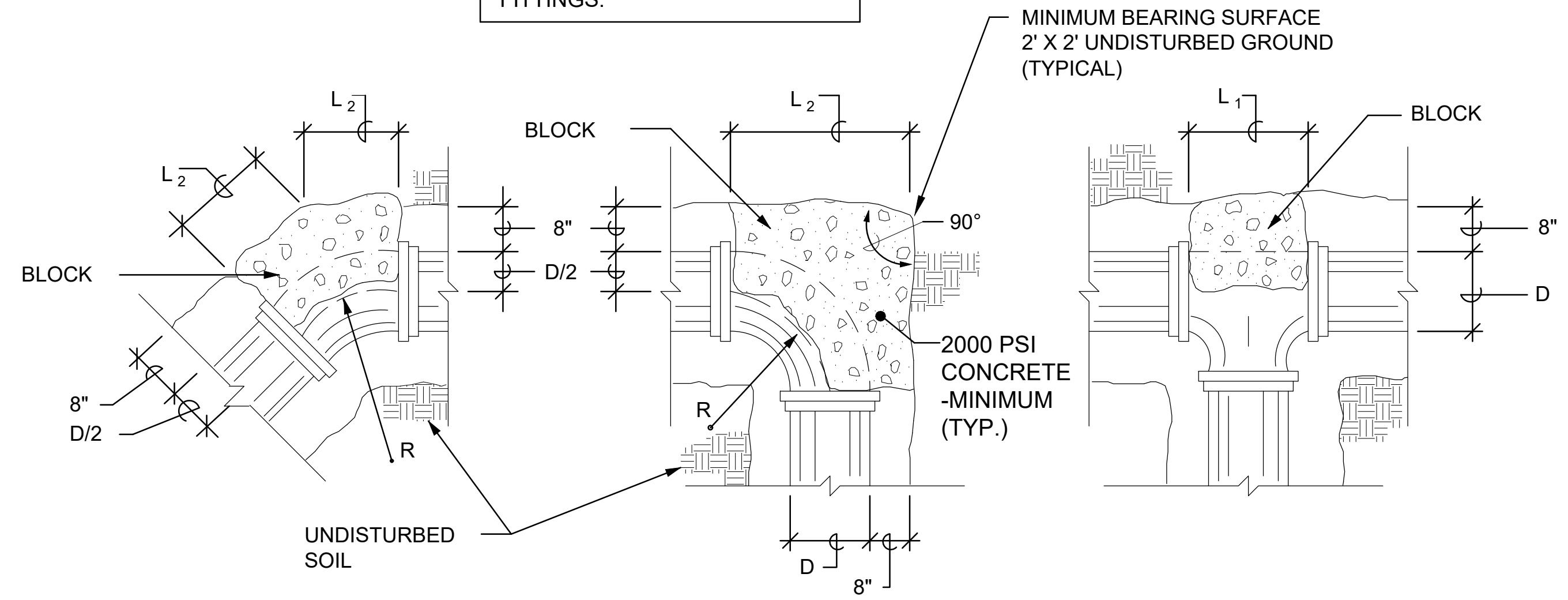
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CONSTRUCTION DOCUMENTS	
Date	Drawn By
06/28/24	GSB
Project Number	Checked By
18050-05	

FIRE PROTECTION PLANS
LEVEL 1

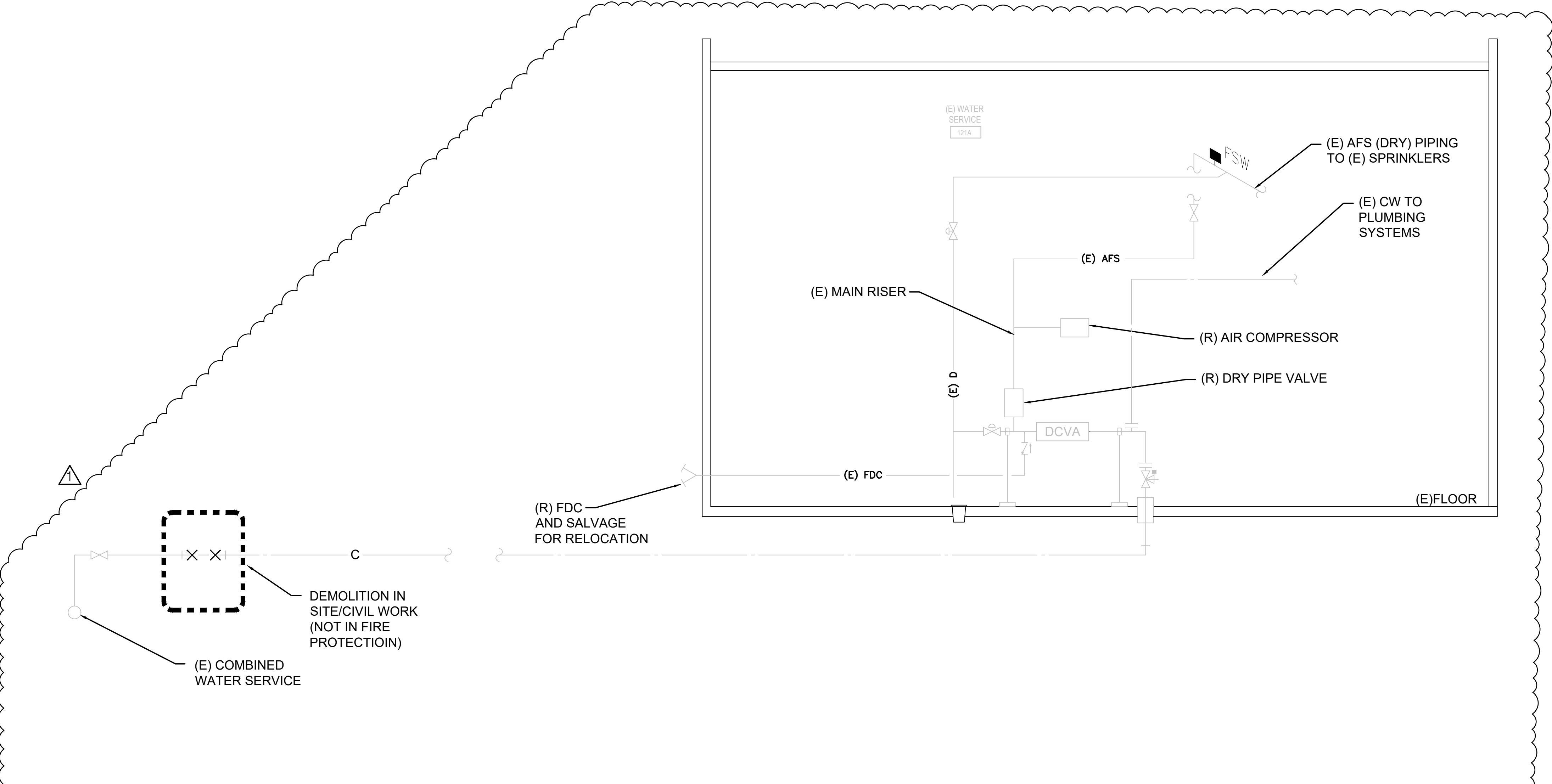
Sheet Number	Rev. No.
F-101	

PIPE SIZE	"D"	"L" ₁	"L" ₂
4"	4.8"	9.6"	6.9"
6"	6.9"	13.8"	9.5"
8"	9.1"	18.1"	11.5"

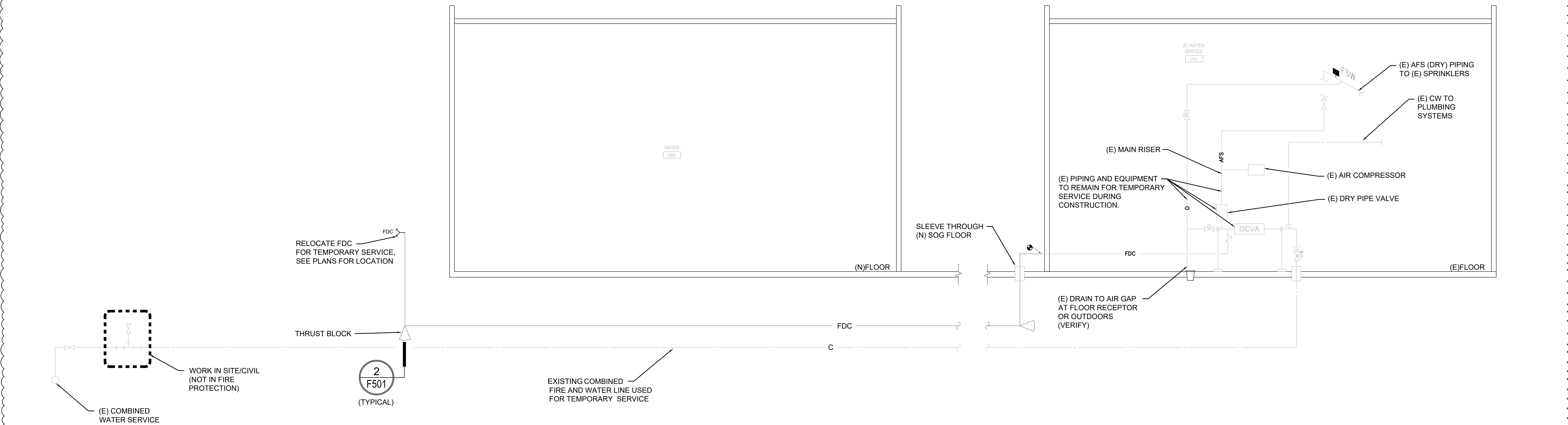
NOTE:
CONTRACTOR TO PROVIDE
RETAINER GLANDS ON ALL
FITTINGS.



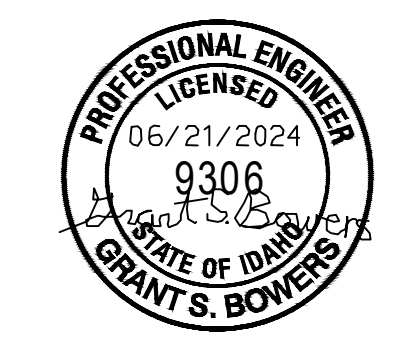
1 DETAIL - THRUST BLOCK
NOT TO SCALE



2 DIAGRAM - DEMOLITION PRIOR TO BUILDING CONSTRUCTION



3 DIAGRAM - TEMPORARY FIRE PROTECTION DURING BUILDING CONSTRUCTION
NOT TO SCALE



Stamps & Approvals

Project Key Plan

Rev	Date	Description
1	10/14/24	ADDENDUM 1

Project Title



**BLD 093 WWAMI MEDICAL
EDUCATION BUILDING
HEALTH EDUCATION ANNEX
BUILDING ADDITION**

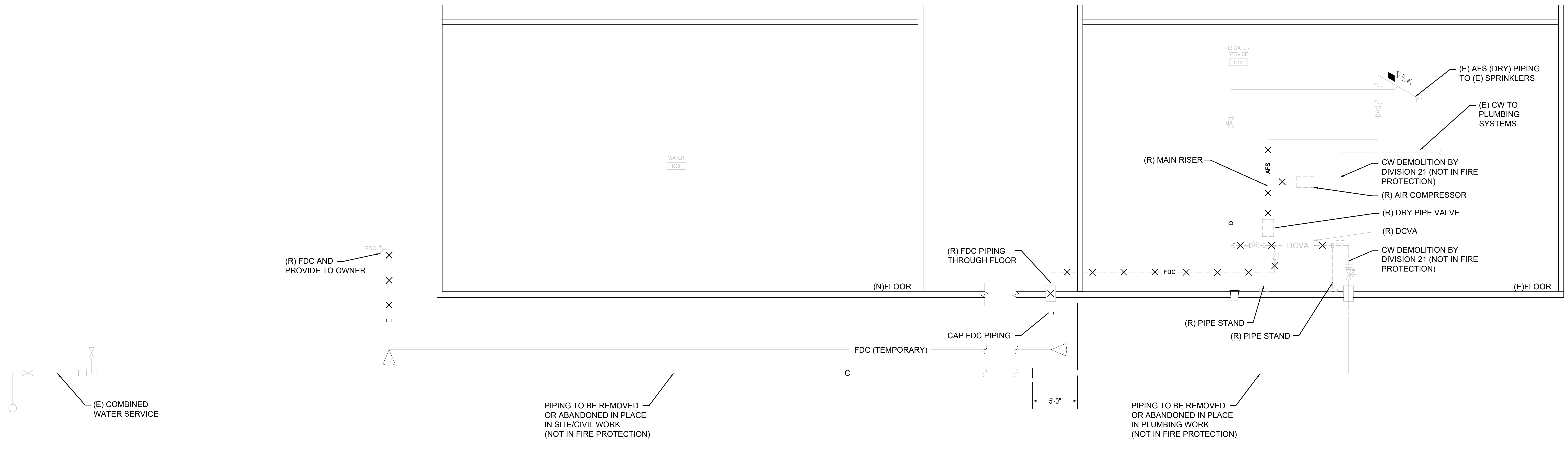
121 SWEET AVENUE
MOSCOW, ID 83844
UI PN CP240022

Project Phase
CONSTRUCTION DOCUMENTS

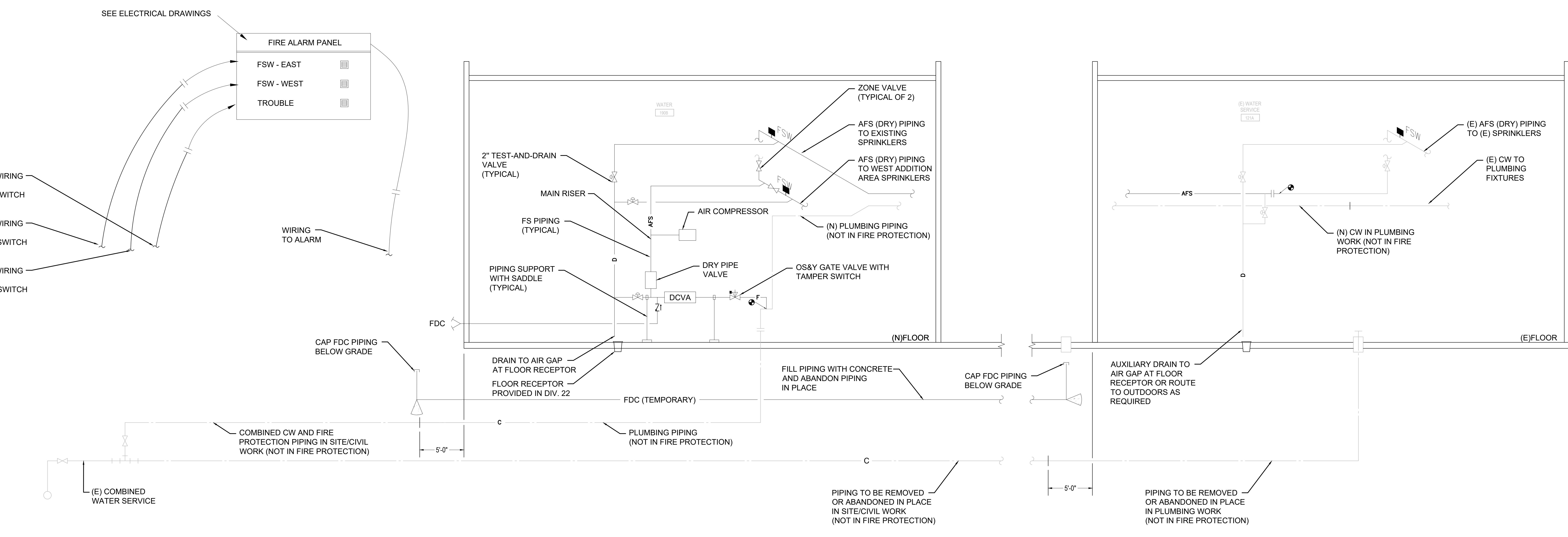
Date: 06/28/24 Drawn By: GSB
Project Number: 18050-05 Checked By: --

Sheet Title
**FIRE PROTECTION
DETAILS**

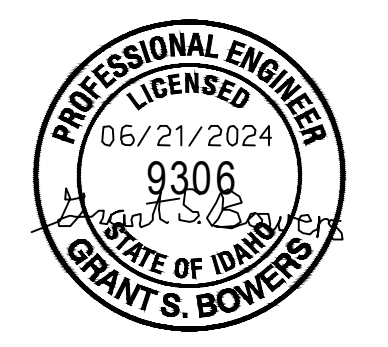
Sheet Number
F-501



1 DIAGRAM - DEMOLITION AFTER END OF TEMPORARY FIRE SERVICE
NOT TO SCALE



2 DIAGRAM - PERMANENT FIRE PROTECTION SERVICE
NOT TO SCALE



Stamps & Approvals

Project Key Plan

Rev	Date	Description
1	10/14/24	ADDENDUM 1 New Sheet

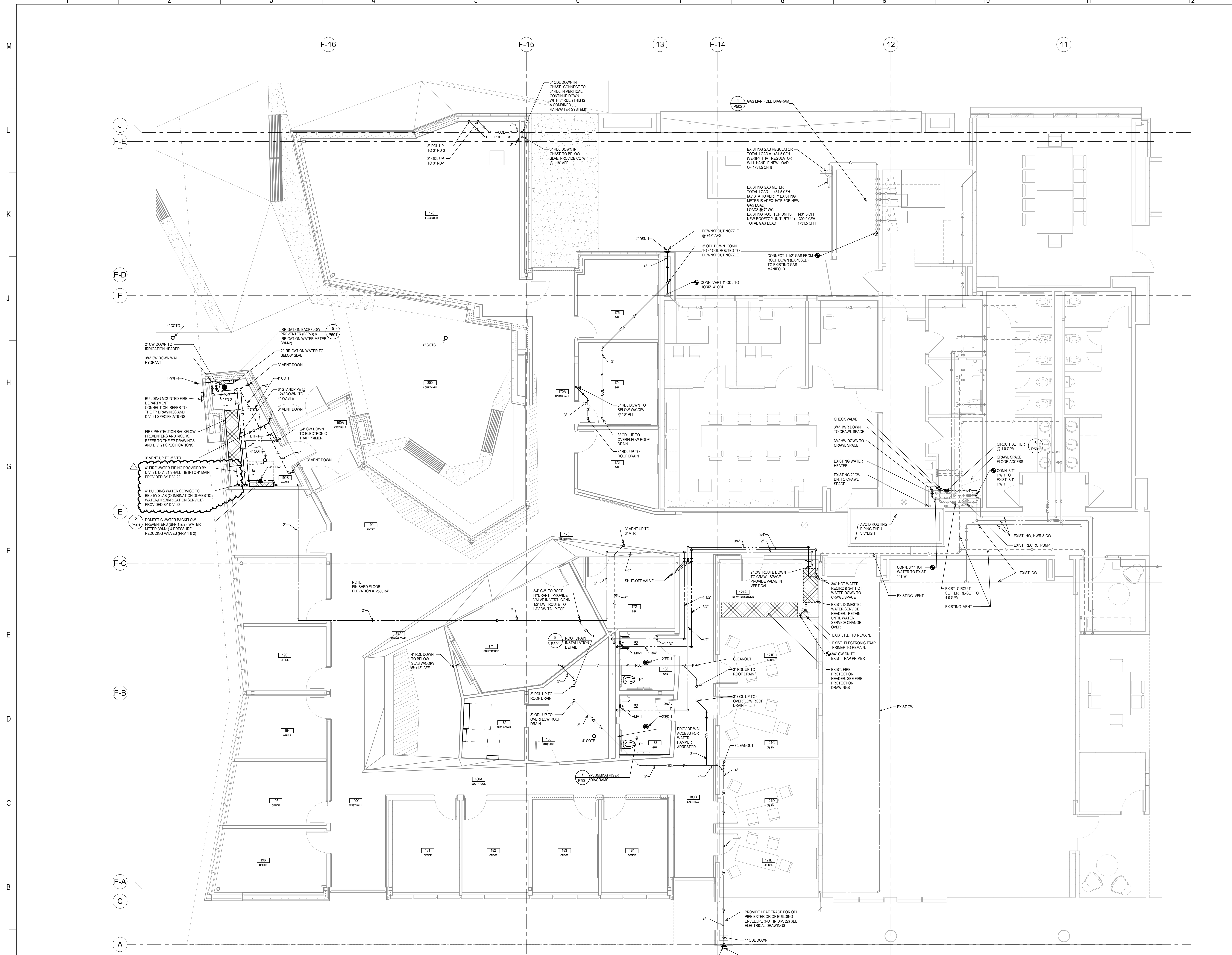


BLD 093 WWAMI MEDICAL EDUCATION BUILDING HEALTH EDUCATION ANNEX BUILDING ADDITION
121 SWEET AVENUE
MOSCOW, ID 83844
UI PN CP240022

Project Phase CONSTRUCTION DOCUMENTS	
Date 10/11/24	Drawn By GSB
Project Number 18050_05	Checked By

Sheet Title
FIRE PROTECTION DETAILS

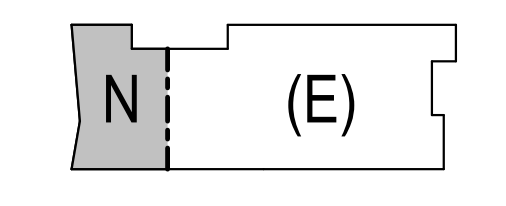
Sheet Number F-502	Rev. No.
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FLOOR PLAN - PLUMBING
1/4" = 1'-0"



Stamps & Approvals



Project Key Plan

Project Title

Rev	Date	Description
1	10/14/24	ADDENDUM 1

Project Title



BLD 093 WWAMI MEDICAL EDUCATION BUILDING HEALTH EDUCATION ANNEX BUILDING ADDITION

121 SWEET AVENUE
MOSCOW, ID 83844
UI PN CP240022

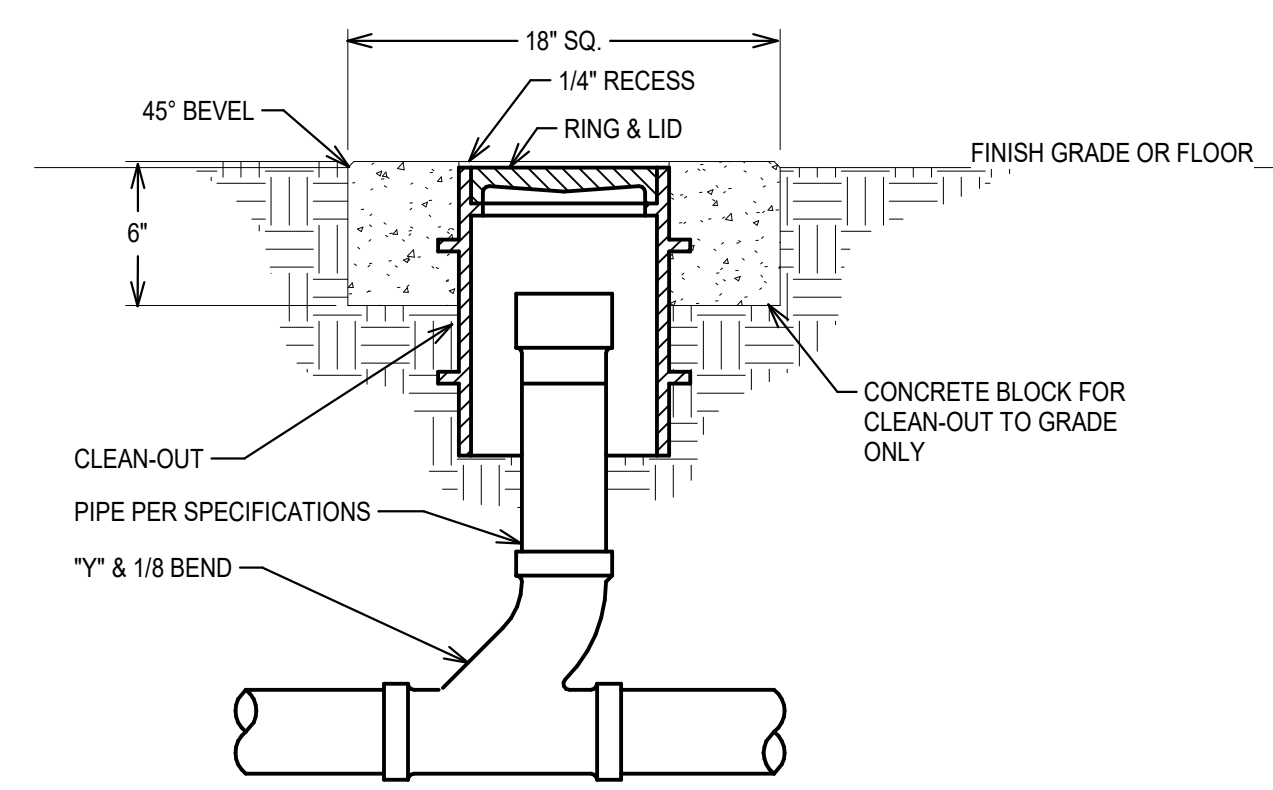
Project Phase

Date	Drawn By
06/28/2024	DA

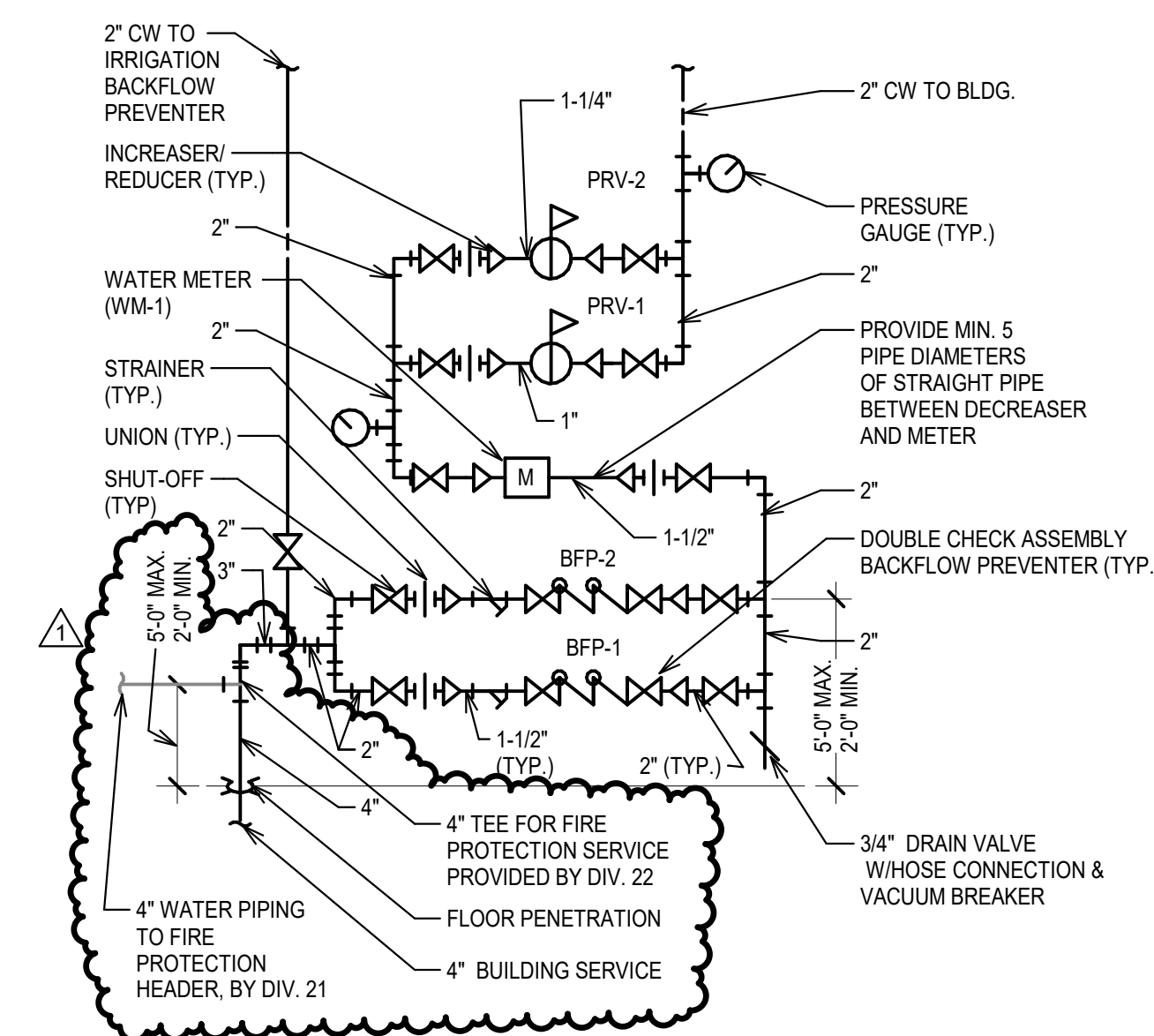
FLOOR PLAN - PLUMBING

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P-101	1

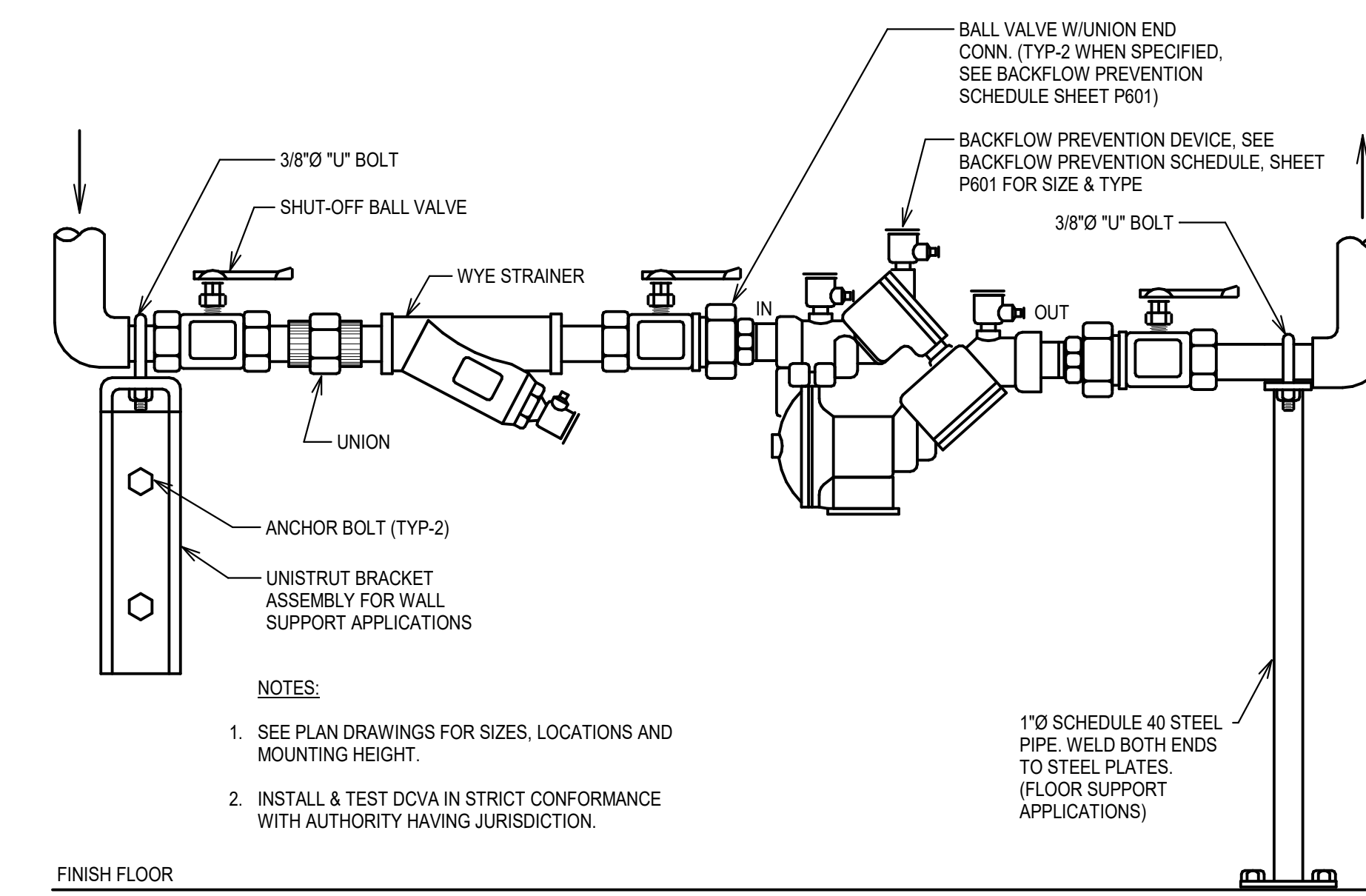
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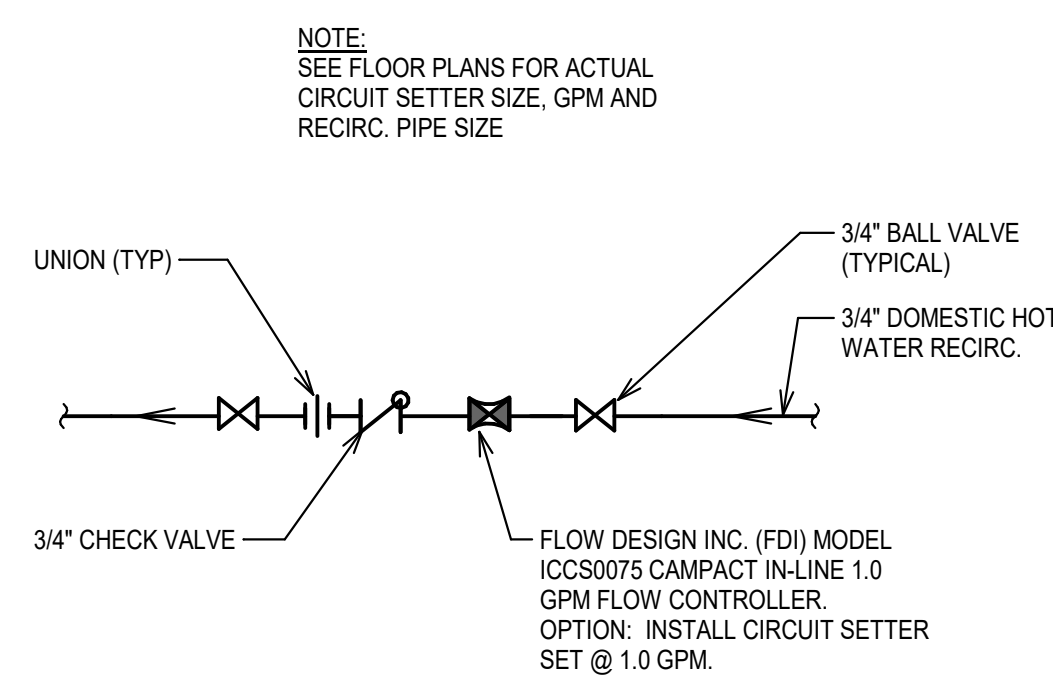
3 CLEAN OUT TO GRADE OR FLOOR
N.T.S.



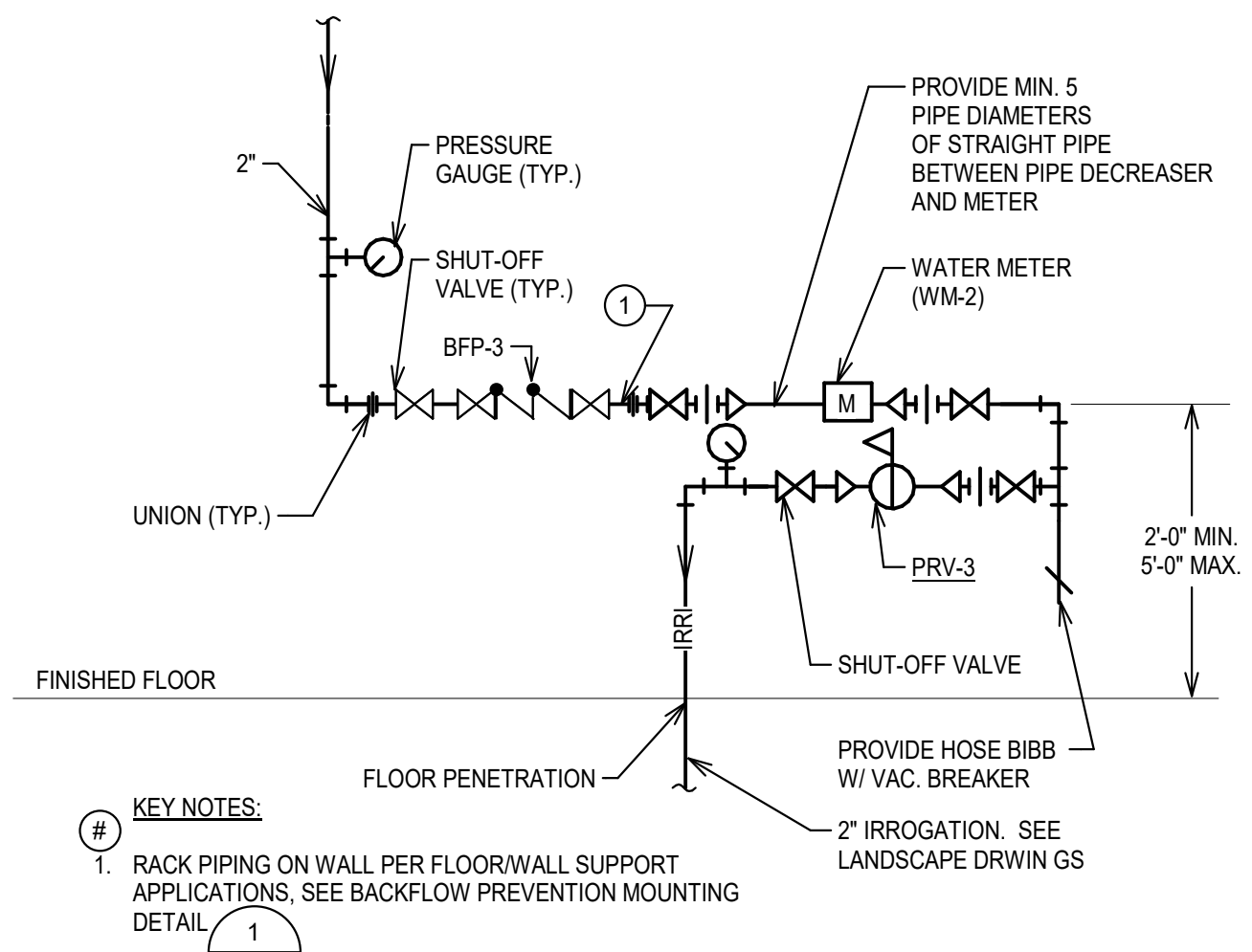
2 WATER SERVICE DETAIL
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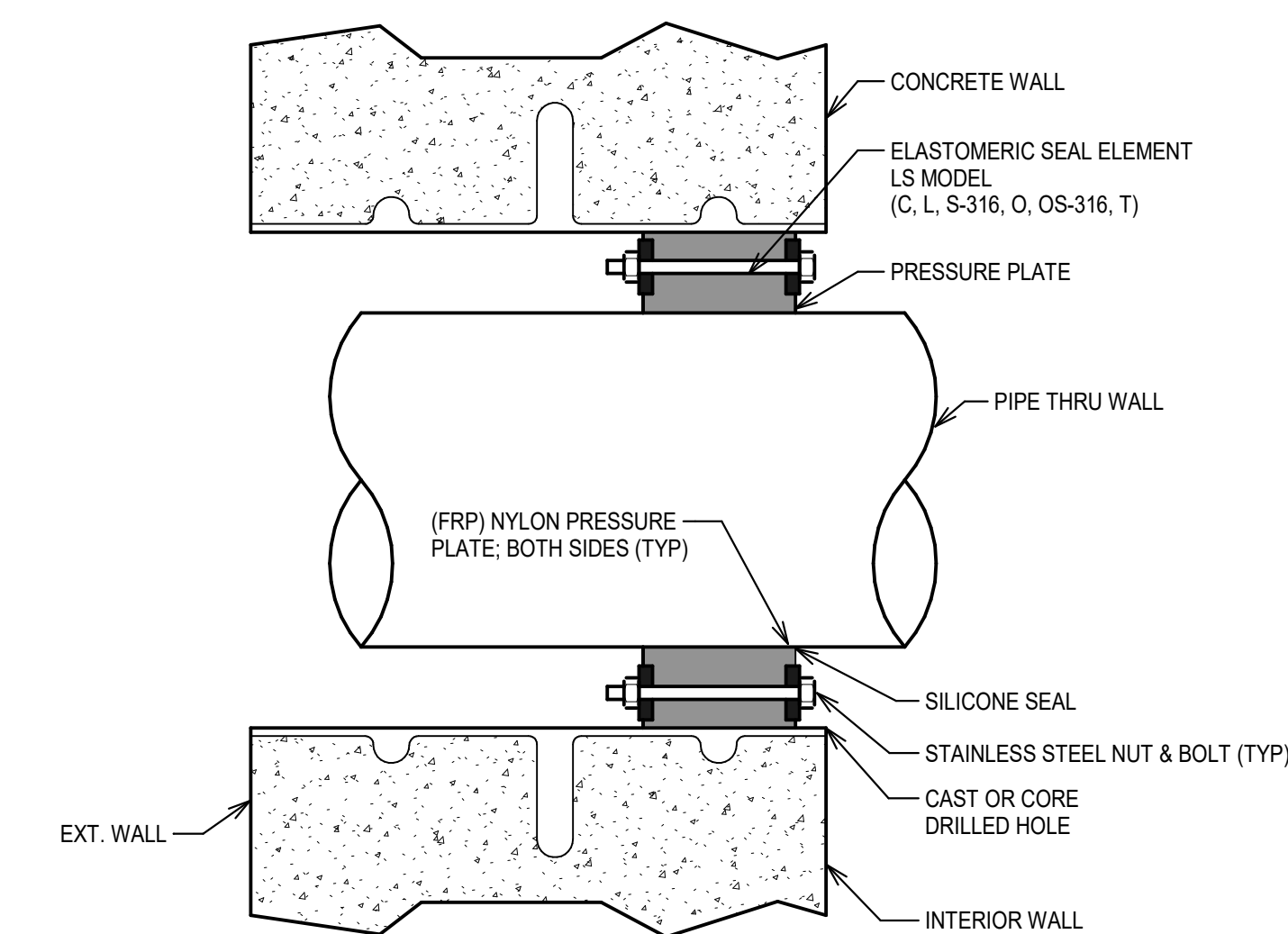
1 BACKFLOW PREVENTION MOUNTING
N.T.S.



6 CIRCUIT SETTER DETAIL
N.T.S.



5 IRRIGATION BACKFLOW PREVENTER DETAIL
N.T.S.



CORE DRILL SIZE	PIPE SIZE		LINK SEAL MODEL	LINKS PER SEAL
	NOMINAL	OD		
3.000	1	1.315	LS-300	4
3.000	1-1/4	1.660	LS-275	6
4.000	1-1/2	1.900	LS-315	6
4.000	2	2.375	LS-300	6
4.000	2-1/2	2.875	LS-200	9
5.000	3	3.500	LS-300	6
6.000	4	4.500	LS-300	10
10.000	6	6.625	LS-475	10
12.000	8	8.625	LS-475	12

CORE DRILL SIZE	PIPE SIZE		LINK SEAL MODEL	LINKS PER SEAL
	NOMINAL	OD		
4.000	2	2.300	LS-315	6
5.000	3	3.300	LS-300	6
6.000	4	4.300	LS-300	10
8.000	6	6.300	LS-315	15
10.000	8	8.300	LS-315	12

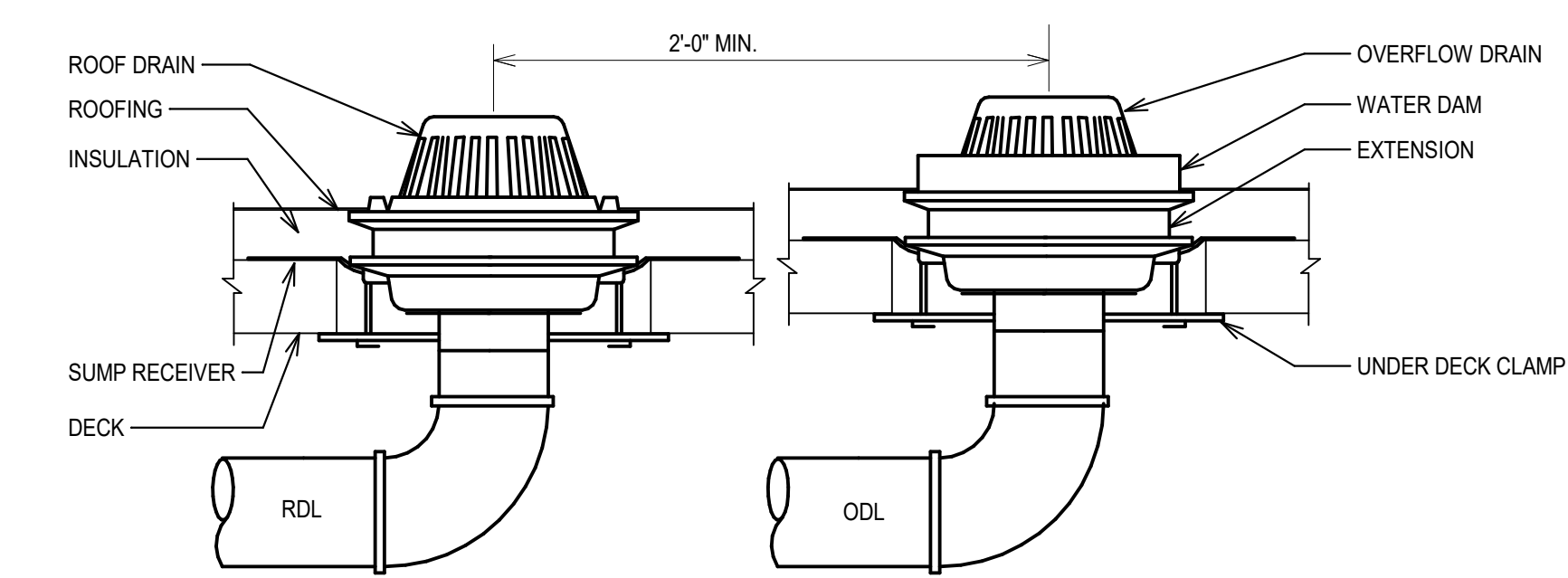
CORE DRILL SIZE	PIPE SIZE		LINK SEAL MODEL	LINKS PER SEAL
	NOMINAL	OD		
3.000	1-1/2	1.625	LS-275	6
4.000	2	2.125	LS-315	6
4.000	2-1/2	2.625	LS-275	11
5.000	3	3.125	LS-315	6
6.000	4	4.125	LS-315	10
8.000	6	6.125	LS-315	15

LINK SEAL, AS MANUFACTURED BY PIPELINE SEAL & INSULATOR, INC. (WWW.LINKSEAL.COM)

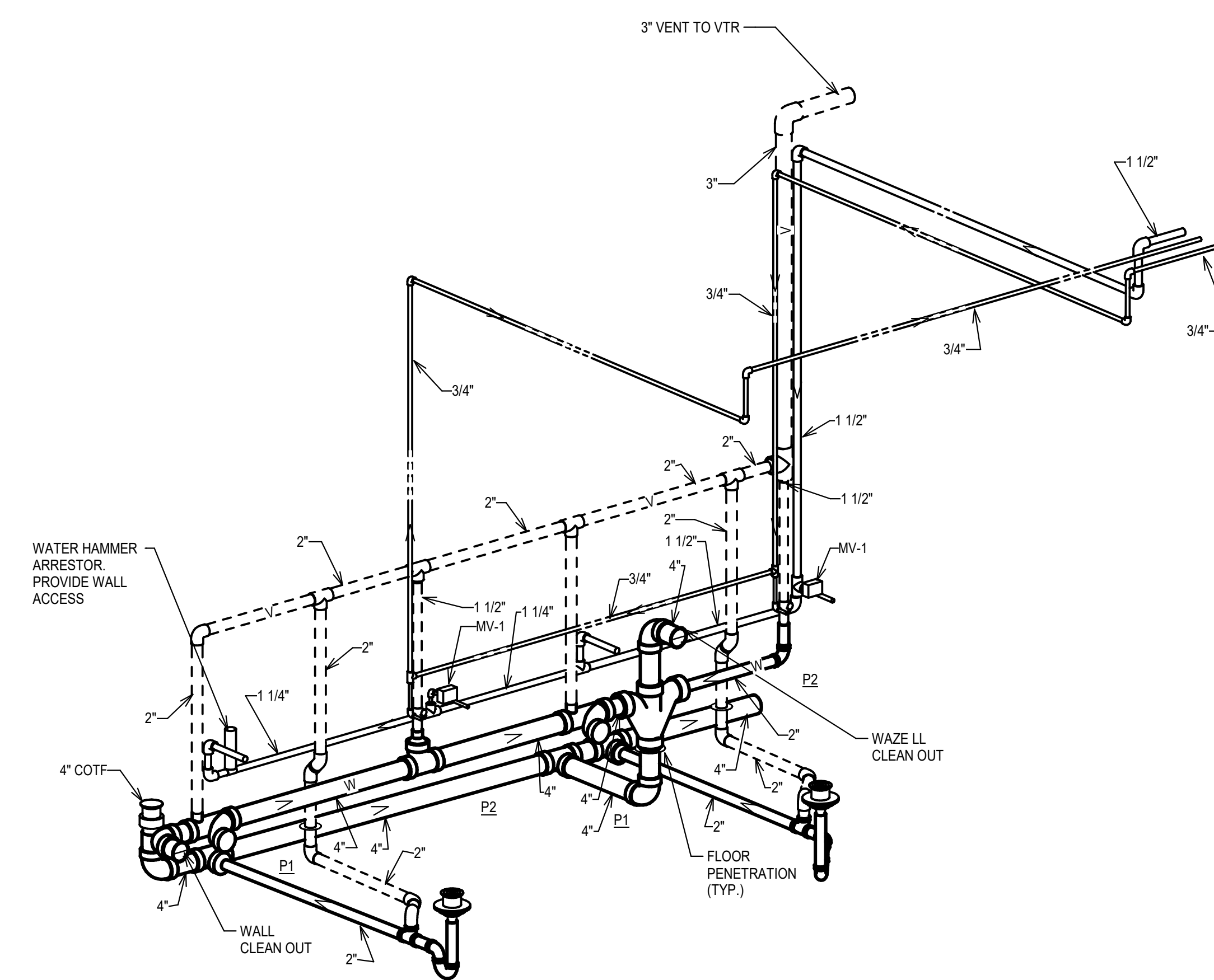
NOTES:

1. ALL LINK SEALS SHALL BE FACTORY MUTUAL SYSTEM APPROVED FOR 1 HOUR OR 2 HOUR FIRE STOP AS REQUIRED IN ACCORDANCE WITH ASTM E814-81 EQUAL TO LINK SEAL AS MANUFACTURED BY PIPELINE SEAL & INSULATOR, INC.
2. PROVIDE LINK SEAL ASSEMBLY FOR ALL PIPING WALL PENETRATIONS AS INDICATED ON DRAWINGS.

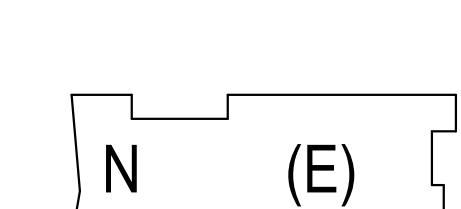
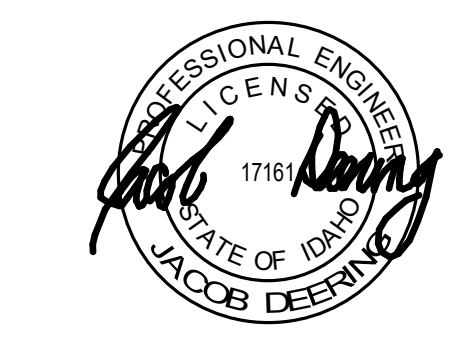
4 LINK SEAL
N.T.S.



8 ROOF DRAIN DETAIL
N.T.S.



7 PLUMBING RISER DIAGRAM
N.T.S.



BLD 093 WWAMI MEDICAL EDUCATION BUILDING HEALTH EDUCATION ANNEX BUILDING ADDITION

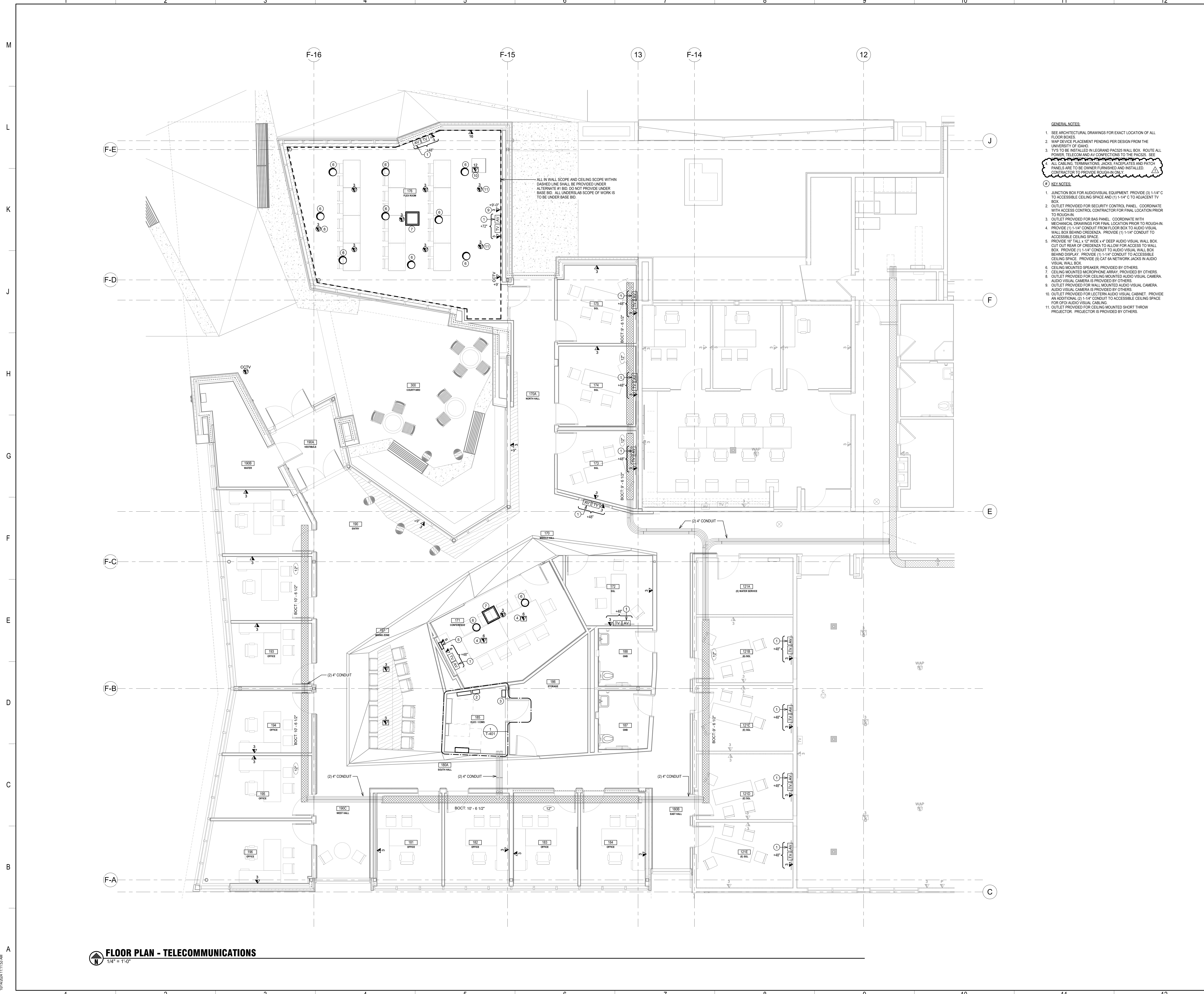
121 SWEET AVENUE
MOSCOW, ID 83844
UI PN CP240022

Project Phase
CONSTRUCTION DOCUMENTS

Date: 06/28/2024
Drawn By: DA

Project Number: 18050-05
Checked By: LB

Sheet Title
PLUMBING - DETAILS

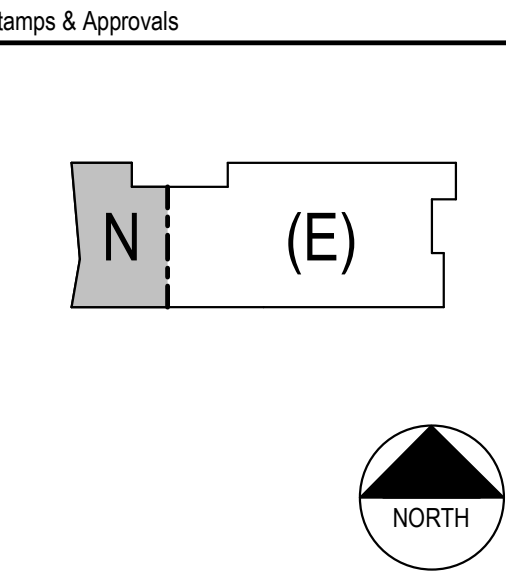


FLOOR PLAN - TELECOMMUNICATIONS
1/4" = 1'-0"

GENERAL NOTES:

- SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF ALL FLOOR BOXES.
- WAP DEVICE PLACEMENT PER DESIGN FROM THE UNIVERSITY OF IDAHO.
- TVS TO BE INSTALLED IN LEGRAND P4225 WALL BOX. ROUTE ALL POWER, TELECOM AND AV CONNECTIONS TO THE PAGES. SEE ALL CABLING TERMINATIONS, JACKS, PLATEPLATES AND PATCH PANELS ARE TO BE OWNER FURNISHED AND INSTALLED. CONTRACTOR TO PROVIDE ROUGH-IN ONLY.

- KEY NOTES:**
- JUNCTION BOX FOR AUDIO/VISUAL EQUIPMENT. PROVIDE (3) 1-1/4" C TO ACCESSIBLE CEILING SPACE AND (1) 1-1/4" C TO ADJACENT TV BOX.
 - OUTLET PROVIDED FOR SECURITY CONTROL PANEL. COORDINATE WITH ACCESS CONTROL CONTRACTOR FOR FINAL LOCATION PRIOR TO ROUGH-IN.
 - OUTLET PROVIDED FOR BAS PANEL. COORDINATE WITH MECHANICAL DRAWINGS FOR FINAL LOCATION PRIOR TO ROUGH-IN. PROVIDE (1) 1-1/4" CONDUIT FROM FLOOR BOX TO AUDIO VISUAL WALL BOX BEHIND CREDENZA. PROVIDE (1) 1-1/4" CONDUIT TO ACCESSIBLE CEILING SPACE.
 - PROVIDE 18" TALL X 12" WIDE X 4" DEEP AUDIO VISUAL WALL BOX. CUT OUT REAR OF CREDENZA TO ALLOW FOR ACCESS TO WALL BOX. PROVIDE (1) 1-1/4" CONDUIT TO AUDIO VISUAL WALL BOX BEHIND DISPLAY. PROVIDE (1) 1-1/4" CONDUIT TO ACCESSIBLE CEILING SPACE. PROVIDE (9) CAT 6A NETWORK JACKS IN AUDIO VISUAL WALL BOX.
 - CEILING MOUNTED SPEAKER, PROVIDED BY OTHERS.
 - CEILING MOUNTED MICROPHONE ARRAY, PROVIDED BY OTHERS.
 - OUTLET PROVIDED FOR CEILING MOUNTED AUDIO VISUAL CAMERA. AUDIO VISUAL CAMERA IS PROVIDED BY OTHERS.
 - OUTLET PROVIDED FOR WALL MOUNTED AUDIO VISUAL CAMERA. AUDIO VISUAL CAMERA IS PROVIDED BY OTHERS.
 - OUTLET PROVIDED FOR LECTERN AUDIO VISUAL CABINET. PROVIDE AN ADDITIONAL (2) 1-1/4" CONDUIT TO ACCESSIBLE CEILING SPACE FOR OFD AUDIO VISUAL CABLING.
 - OUTLET PROVIDED FOR CEILING MOUNTED SHORT THROW PROJECTOR. PROJECTOR IS PROVIDED BY OTHERS.



Rev	Date	Description
1	10/14/24	ADDENDUM 1



BLD 093 WWAMI MEDICAL EDUCATION ANNEX HEALTH EDUCATION ANNEX BUILDING ADDITION
121 SWEET AVENUE
MOSCOW, ID 83844
UI PN CP240022

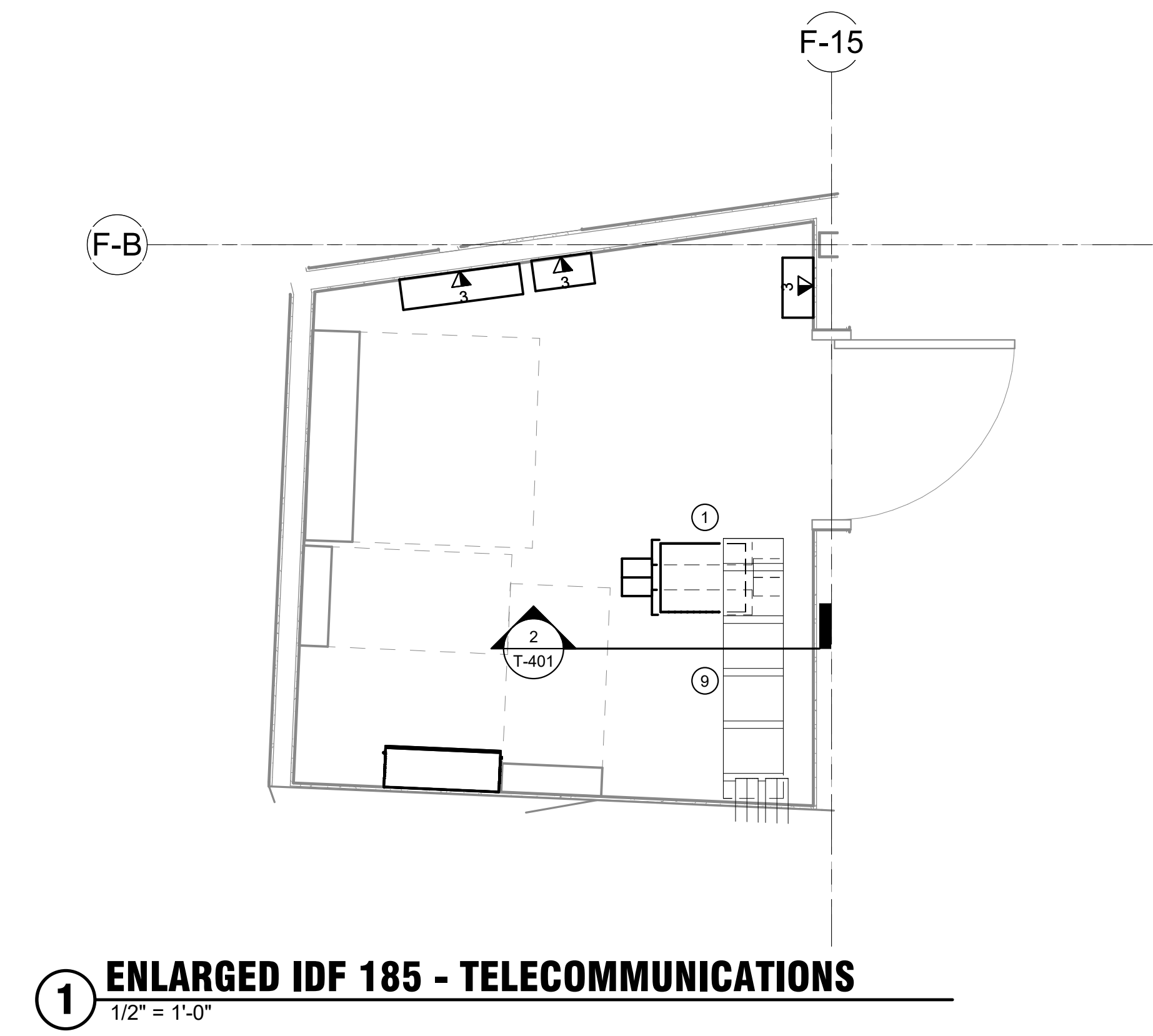
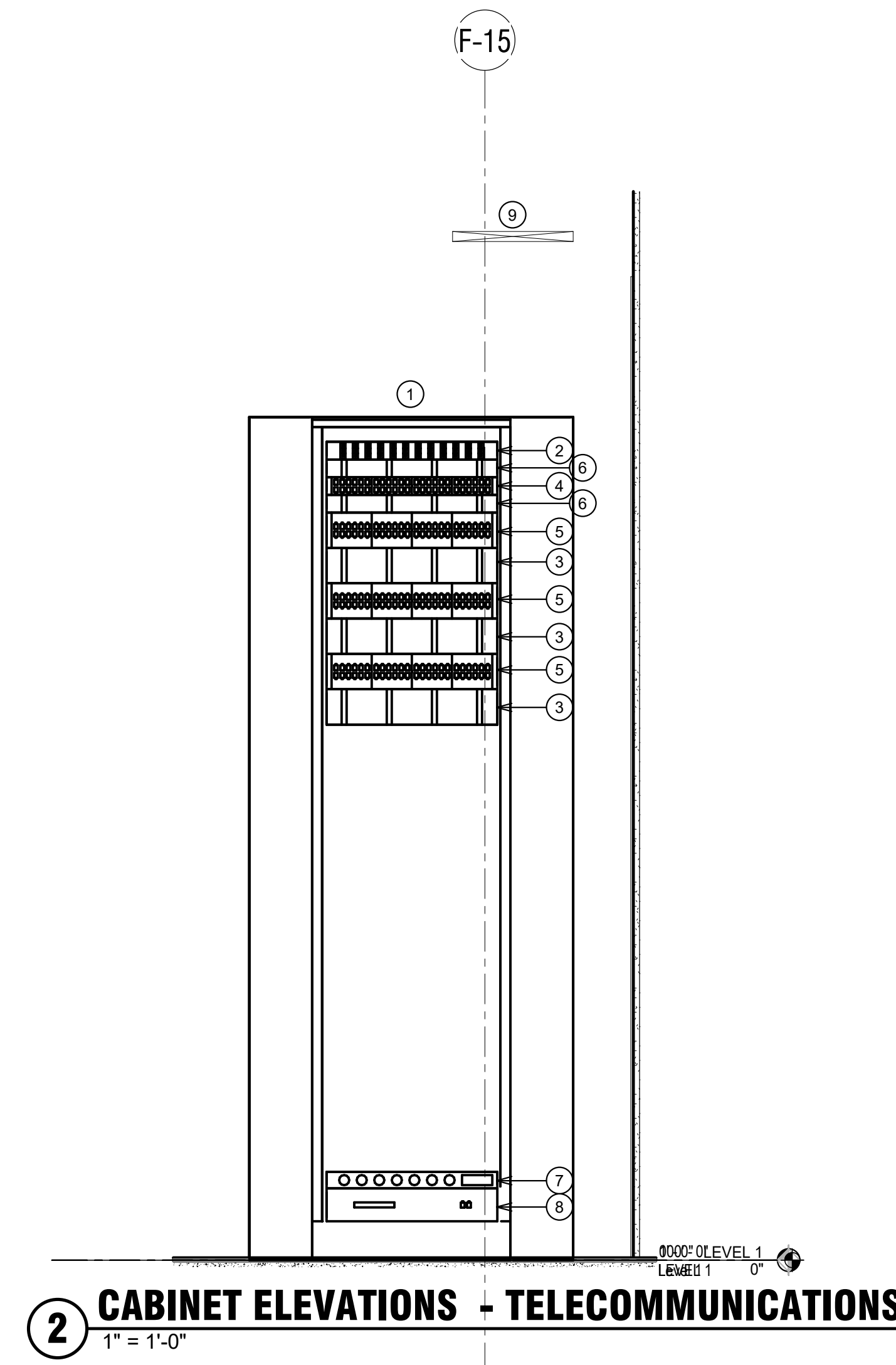
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Date	06/28/2024
Project Number	18050-05
Drawn By	BWM
Checked By	BDE

Sheet Title	Sheet Number	Rev. No.
FLOOR PLAN - TELECOMMUNICATIONS	T-101	1

10/14/2024 11:11:53 AM

GENERAL NOTES:
 1. ALL CABLING, TERMINATIONS, JACKS, FACEPLATES AND PATCH PANELS ARE TO BE OWNER FURNISHED AND INSTALLED. CONTRACTOR TO PROVIDE ROUGH-IN ONLY.

- KEYNOTES:**
- 3-POST COMMUNICATIONS RACK
 - FIBER OPTIC SHELF (1-RU)
 - HORIZONTAL WIRE MANAGER (2-RU)
 - CATS PATCH PANEL (BACKBONE) (1-RU)
 - CATS PATCH PANEL (HORIZONTAL) (2-RU)
 - HORIZONTAL WIRE MANAGER (1-RU)
 - CFDI HORIZONTAL POWER STRIP
 - CFDI RACK MOUNTED UPS
 - 12" WIDE LADDER RACK



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 ARCHITECT

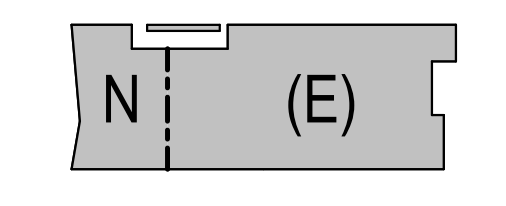
MW Engineers
 ARCHITECTS
 601 W. Foothill Ave., Ste. 1100
 Boise, ID 83725 USA
 208.333.9000
 www.mwengineers.com

MEP ENGINEERS

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 ENGINEERS ARCHITECTS
 STRUCTURAL / CIVIL ENGINEER



Stamps & Approvals



Project Key Plan

Rev	Date	Description
1	10/14/24	ADDENDUM 1

Project Title



UNIVERSITY OF IDAHO

BLD 093 WWAMI MEDICAL EDUCATION BUILDING HEALTH EDUCATION ANNEX BUILDING ADDITION

121 SWEET AVENUE
 MOSCOW, ID 83844
 UI PN CP240022

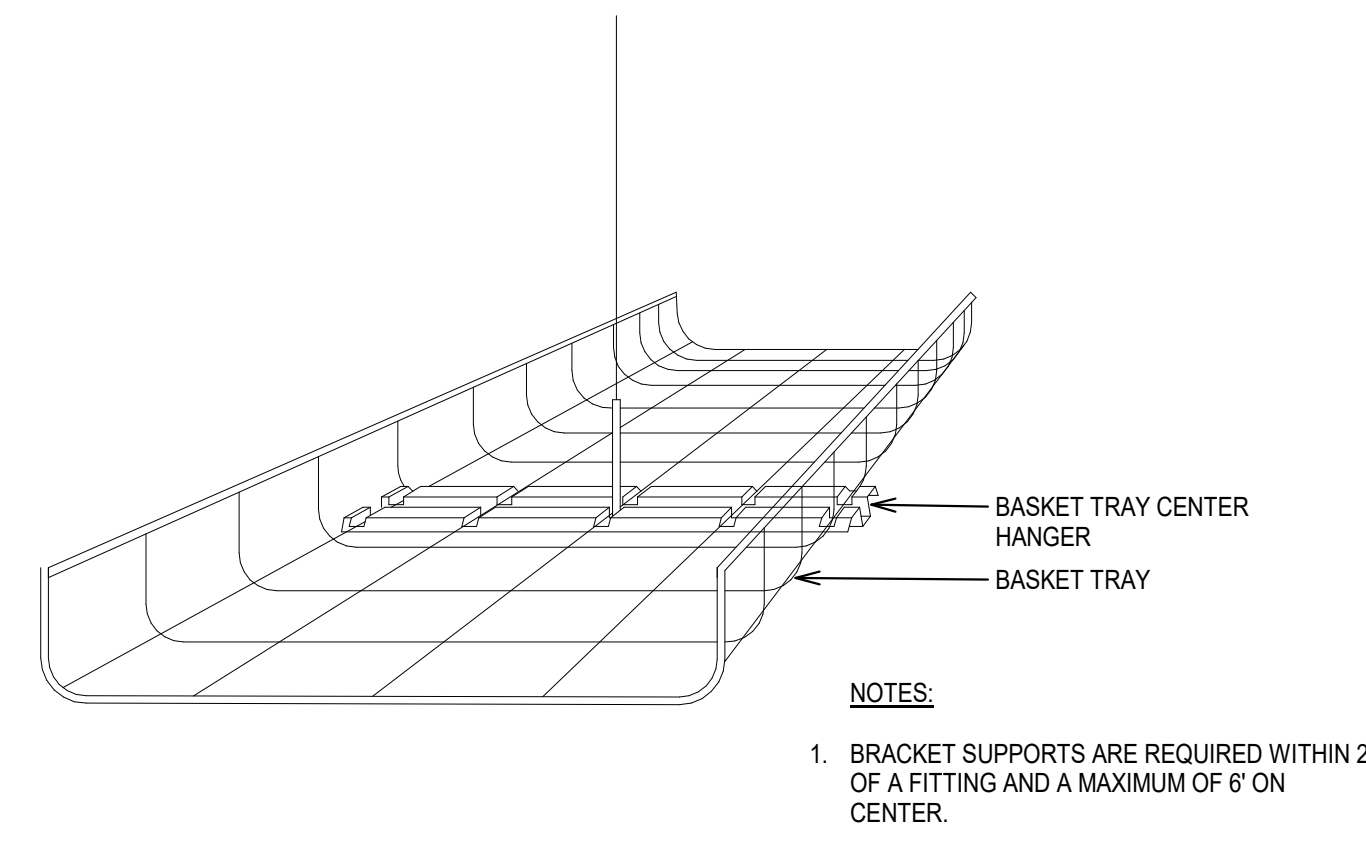
Project Phase
 CONSTRUCTION DOCUMENTS

Date 06/28/2024	Drawn By Autfior
Project Number 18050-05	Checked By Checker

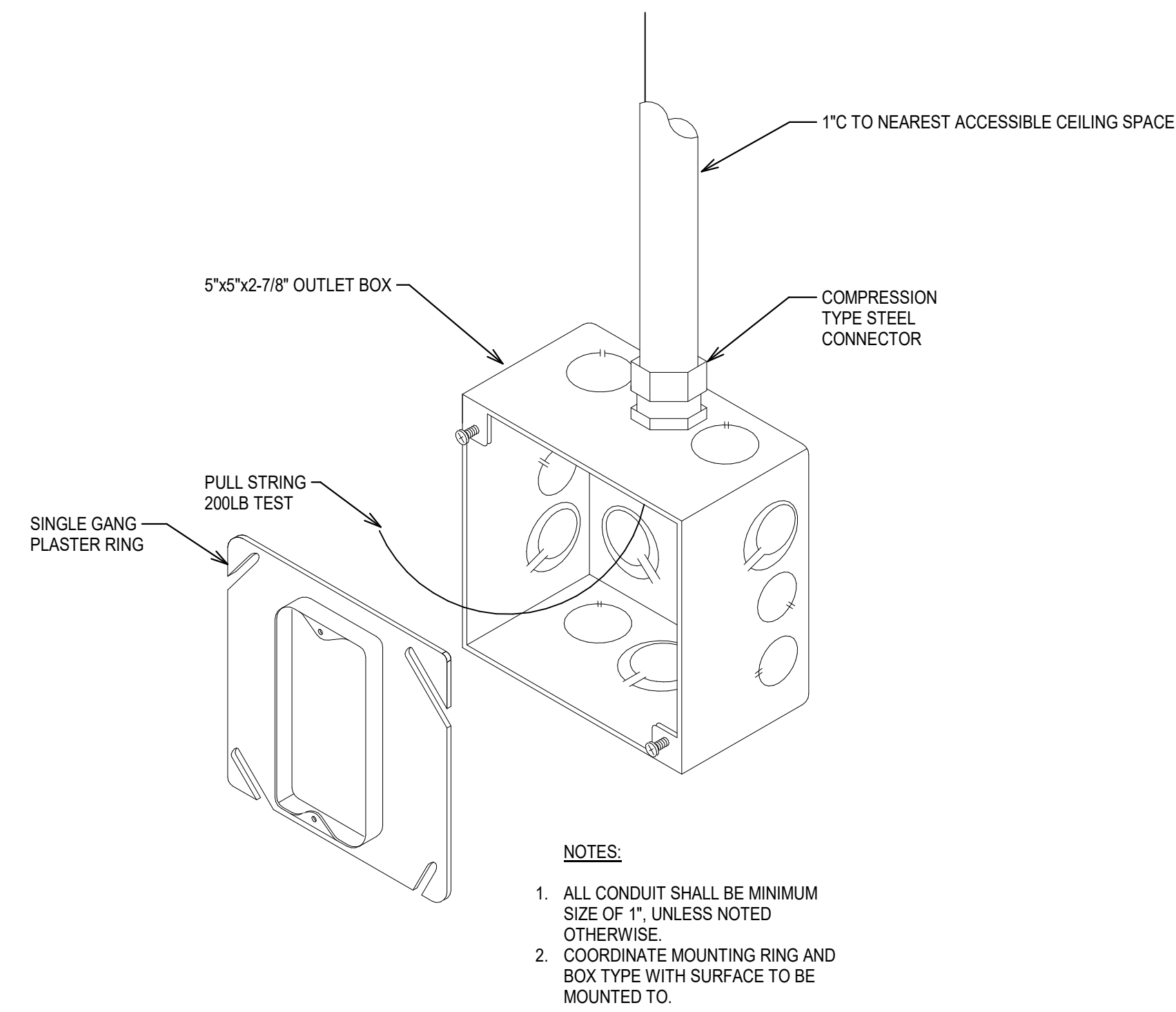
Sheet Title
ENLARGED PLANS - TELECOMMUNICATIONS

Sheet Number T-401	Rev. No. 1
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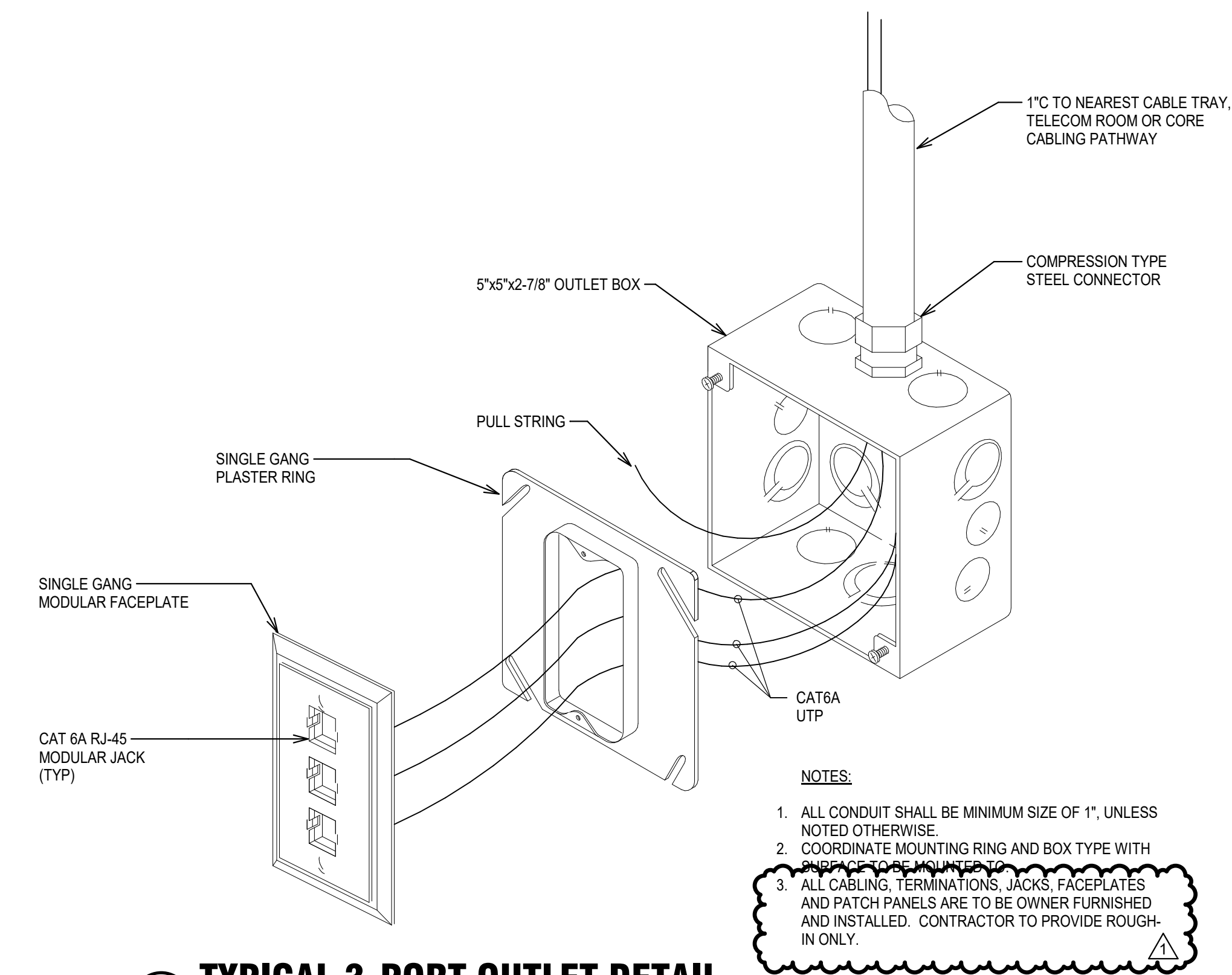
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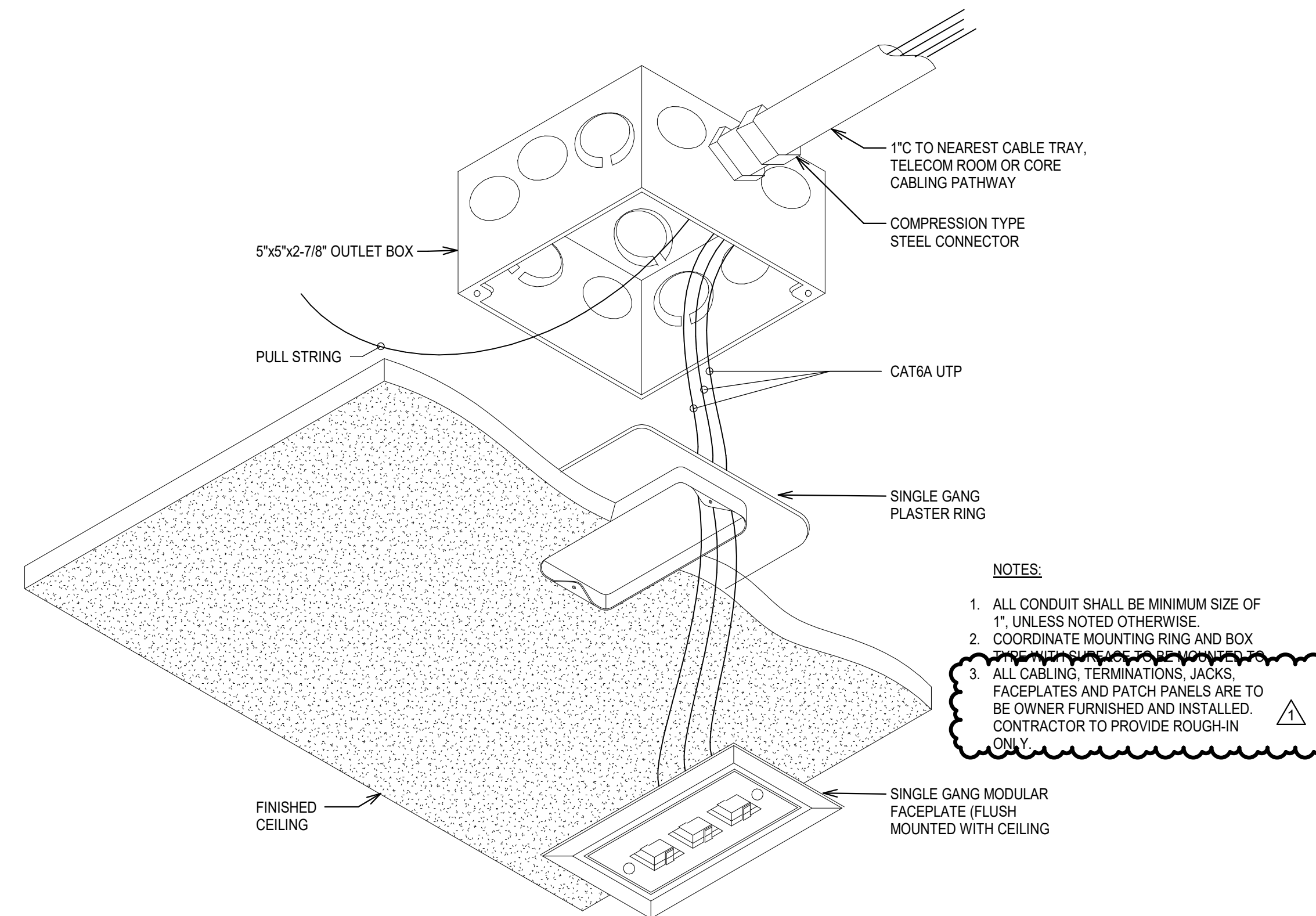
7 BASKET TRAY ATTACHMENT DETAIL
N.T.S.



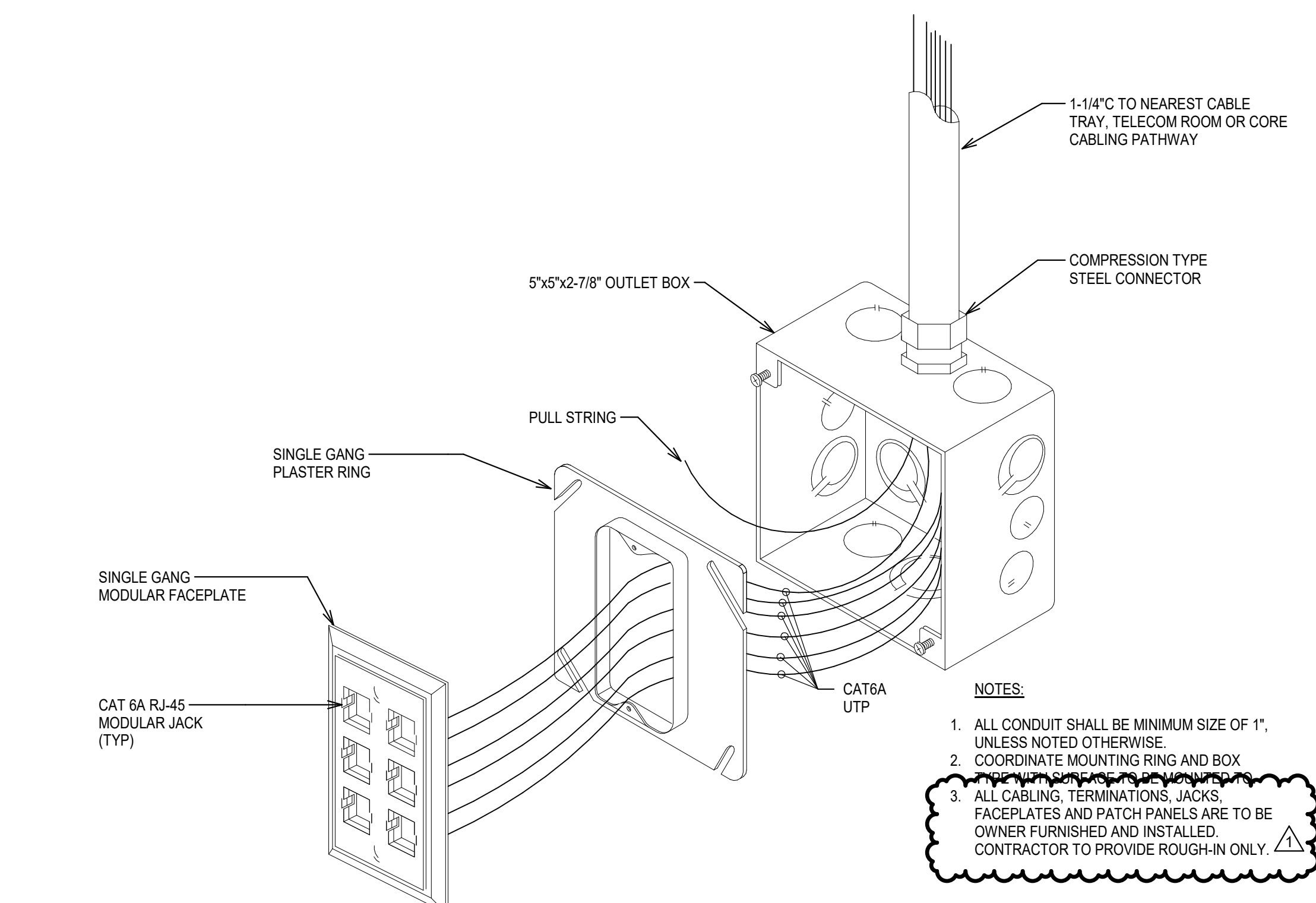
4 TYPICAL WALL MOUNT TV OUTLET DETAIL
N.T.S.



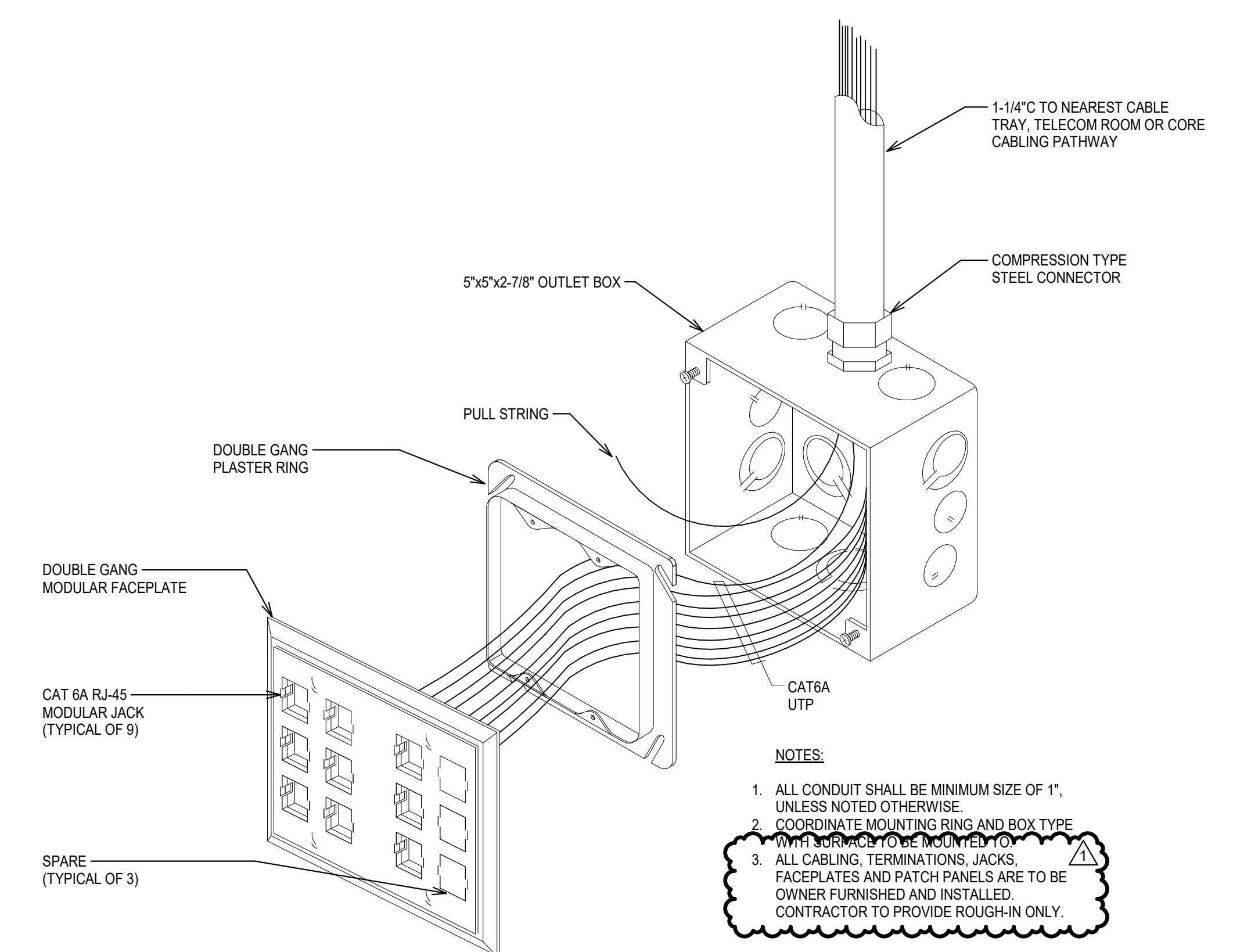
1 TYPICAL 3-PORT OUTLET DETAIL
N.T.S.



5 TYPICAL CEILING MOUNTED 3-PORT OUTLET DETAIL
N.T.S.



2 TYPICAL 6-PORT OUTLET DETAIL
N.T.S.



3 TYPICAL 9-PORT OUTLET DETAIL
N.T.S.

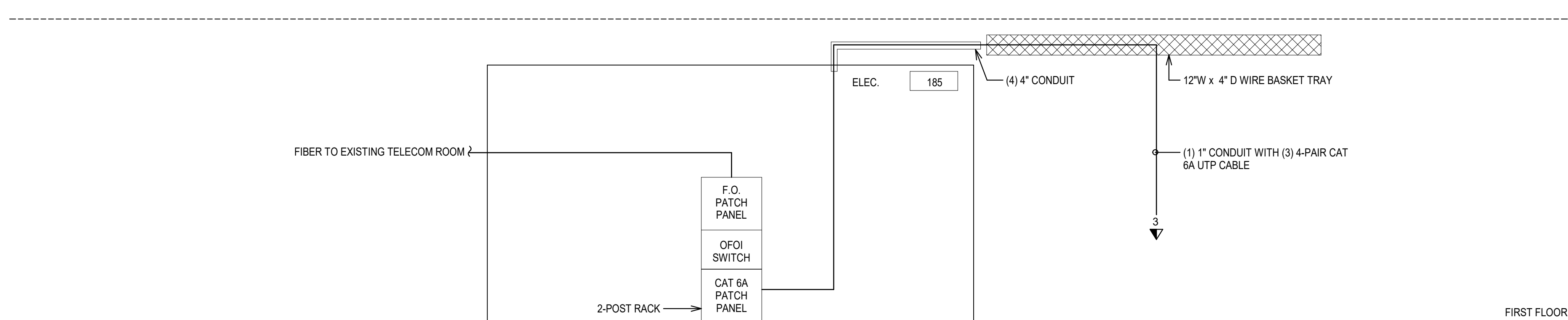
Rev	Date	Description
1	10/14/24	ADDENDUM 1

Project Phase	
CONSTRUCTION DOCUMENTS	

Date	06/28/2024	Drawn By	BWM
Project Number	18050-05	Checked By	BDE

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1 2 3 4 5 6 7 8 9 10 11 12



1 TELECOM RISER DIAGRAM
N.T.S.

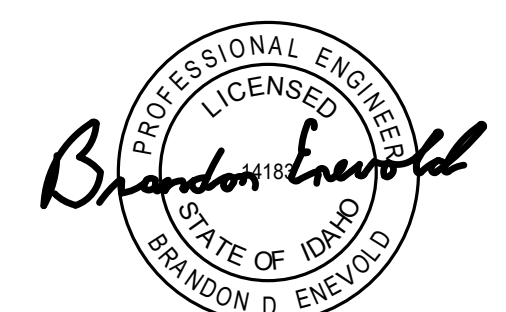
GENERAL NOTES:
1. ALL CABLING, TERMINATIONS, JACKS, FACEPLATES AND PATCH PANELS ARE TO BE OWNER FURNISHED AND INSTALLED. CONTRACTOR TO PROVIDE ROUGH-IN ONLY.

Flad
ARCHITECT

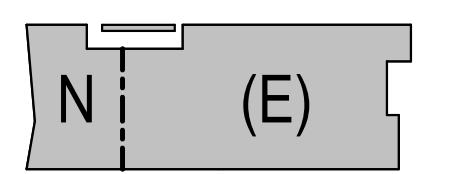
MW Engineers
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Coeur d'Alene, ID 83814
208.838.9000
mwengineers.com

MEP ENGINEERS

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Stamps & Approvals



Project Key Plan

Rev	Date	Description
1	10/14/24	ADDENDUM 1

Project Title



BLD 093 WWAMI MEDICAL EDUCATION BUILDING HEALTH EDUCATION ANNEX BUILDING ADDITION

121 SWEET AVENUE
MOSCOW, ID 83844
UI PN CP240022

Project Phase
CONSTRUCTION DOCUMENTS

Date 06/28/2024	Drawn By BWM
Project Number 18050-05	Checked By BDE

Sheet Title
RISER DIAGRAM - TELECOMMUNICATIONS

Sheet Number T-801	Rev. No. 1
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ENUMERATION of CONTRACT DRAWINGS and SPECIFICATIONS

This document, Enumeration of Contract Drawings and Specifications, shall be included as an Exhibit to the Standard Form of Agreement Between Owner and Contractor, AIA Document A101 – 2017, as modified by the Supplemental Conditions to the Agreement.

BUILDING: **BLD 093 WWAMI MEDICAL EDUCATION BUILDING**
PROJECT NAME: **HEALTH EDUCATION ANNEX ADDITION**
University of Idaho

UI PROJECT No.: UI CP240022

LIST OF DRAWINGS: (AIA A101-2017, Paragraph 9.1.5)

General

G-001 COVER SHEET & SHEET INDEX
G-101 LIFE SAFETY PLAN

Civil

C-001 GENERAL CIVIL INFORMATION
C-002 GENERAL NOTES
C-101 EXISTING SITE CONDITIONS AND DEMOLITION PLAN
C-102 TEMPORARY EROSION AND SEDIMENT CONTROL PLAN
C-103 CIVIL SITE PLAN
C-104 SITE GRADING PLAN
C-105 SITE STORMWATER AND UTILITY PLAN
C-501 DETAILS

Landscape

L-100 OVERALL SITE PLAN
L-200 GRADING PLAN ENLARGEMENT
L-300 PLANTING PLAN ENLARGEMENT

Irrigation

IR-300 IRRIGATION NOTES AND LEGEND
IR-301 IRRIGATION PLAN
IR-302 IRRIGATION DETAILS

Architectural

A-001 GENERAL NOTES, ABBREVIATIONS, & LEGENDS
A-011 SITE & VICINITY PLAN

AD-001	DEMO SITE PLAN
AD-002	DEMO FLOOR PLAN, REFLECTED CEILING PLAN, & ELEVATIONS
A-100	FLOOR PLAN – OVERALL
A-101	FLOOR PLAN
A-102	SLAB & DIMENSIONAL PLANS
A-111	ROOF PLAN
A-121	REFLECTED CEILING PLAN
A-151	FINISH & FURNITURE PLAN
A-201	BUILDING ELEVATIONS
A-202	BUILDING ELEVATIONS
A-301	BUILDING SECTIONS
A-302	BUILDING SECTIONS
A-401	EXTERIOR WALL SECTIONS
A-402	EXTERIOR WALL SECTIONS
A-403	EXTERIOR WALL SECTIONS
A-501	EXTERIOR DETAILS - CLADDING
A-502	EXTERIOR DETAILS - CURTAIN WALL
A-503	EXTERIOR DETAILS - CURTAIN WALL
A-504	EXTERIOR DETAILS - DOORS
A-505	EXTERIOR DETAILS - ROOF
A-506	EXTERIOR DETAILS - ROOF
A-601	SCHEDULES - DOOR, FINISH, & MATERIALS
A-611	PARTITION TYPES
A-701	INTERIOR ELEVATIONS - CORRIDORS & MIXING ZONE
A-702	INTERIOR ELEVATIONS - FLEX WORK, CONFERENCE, OFFICE, SGL, & GNB
A-703	INTERIOR ELEVATIONS - ALTERNATES
A-711	INTERIOR SECTIONS
A-801	INTERIOR DETAILS
A-802	CEILING DETAILS
A-803	CASEWORK & MILLWORK DETAILS
A-811	SIGNAGE PLAN & DETAILS
A-901	3D PERSPECTIVES

Structural

S-001	GENERAL NOTES
S-002	SPECIAL INSPECTIONS
S-101	FOUNDATION PLAN
S-102	ROOF FRAMING PLAN
S-201	FOUNDATION DETAILS
S-202	FOUNDATION DETAILS
S-301	FRAMING DETAILS
S-302	FRAMING DETAILS
S-303	FRAMING DETAILS

Mechanical

M-001	LEGENDS & ABBREVIATIONS – MECHANICAL
MD-101	FLOOR PLAN - DEMO HVAC
M-010	CRAWL SPACE PLAN - HVAC
M-100	FLOOR PLAN - OVERALL - HVAC
M-101	FLOOR PLAN - HVAC

M-102 ROOF PLAN - MECHANICAL
M-301 SECTIONS - HVAC
M-501 DETAILS - HVAC
M-601 SCHEDULES - HVAC
M-701 CONTROL DIAGRAMS - HVAC

Fire Protection

F-001 FIRE PROTECTION SYMBOLS AND ABBREVIATIONS
FD-101 FIRE PROTECTION PLANS LEVEL 1 DEMOLITION
FD-100 FIRE PROTECTION PLANS BELOW GRADE DEMOLITION
F-101 FIRE PROTECTION FLOOR PLAN LEVEL 1
~~F-102 FIRE PROTECTION FLOOR PLAN ROOF LEVEL~~
F-501 FIRE PROTECTION DETAILS
F-502 FIRE PROTECTION DETAILS

Plumbing

PD-100 FOUNDATION PLAN - DEMO - PLUMBING
PD-101 FLOOR PLAN - DEMO - PLUMBING
P-100 FOUNDATION PLAN - PLUMBING
P-101 FLOOR PLAN - PLUMBING
P-501 PLUMBING - DETAILS
P-502 PLUMBING - DETAILS
P-601 PLUMBING - SCHEDULES

Electrical

ED-102 FLOOR PLAN - DEMO - ELECTRICAL
E-001 LEGENDS & ABBREVIATIONS - ELECTRICAL
E-100 SITE PLAN - ELECTRICAL
E-101 LEVEL 1 - FLOOR PLAN - ELECTRICAL
E-102 ROOF - FLOOR PLAN - ELECTRICAL
E-400 FLOOR PLANS - ENLARGED - ELECTRICAL
E-501 DETAILS - ELECTRICAL
E-600 EQUIPMENT SCHEDULE - ELECTRICAL
E-601 PANEL SCHEDULE - ELECTRICAL
E-700 ONE-LINE DIAGRAM - EXISTING - ELECTRICAL
E-701 ONE-LINE DIAGRAM - REVISED - ELECTRICAL

Lighting

ELD-101 FLOOR PLAN - DEMO - LIGHTING
EL-101 FLOOR PLAN - LIGHTING
EL-501 DETAILS - LIGHTING

Systems

ESD-101 FLOOR PLAN - DEMO - SYSTEMS
ES-101 FLOOR PLAN - SYSTEMS
ES-102 ROOF - FLOOR PLAN - SYSTEMS
ES-501 DETAILS - SYSTEMS

Telecommunications

T-101	FLOOR PLAN - TELECOMMUNICATIONS
T-401	ENLARGED PLANS - TELECOMMUNICATIONS
T-501	DETAILS – TELECOMMUNICATIONS
T-502	DETAILS – TELECOMMUNICATIONS
T-801	RISER DIAGRAM - TELECOMMUNICATIONS

LIST OF SPECIFICATIONS: (AIA A101-2017, Paragraph 9.1.6)

I. BIDDING REQUIREMENTS

- Advertisement for Bids
 - Notice to Contractors
- Instructions to Bidders; AIA A701 – 1997 (By Reference)
 - UI Supplementary Conditions to AIA A701 - 1997
 - Substitution Request Form
- Bid Proposal
 - Contractor's Affidavit Concerning Alcohol and Drug-Free Workplace
 - Bid Bond; AIA A310 – 2010 (By Reference)
 - Power of Attorney

II. CONTRACT REQUIREMENTS

- Agreement between Owner and Contractor; AIA A101 – 2017 (By Reference)
 - UI Supplementary Conditions to AIA A101 - 2017
- General Conditions of the Contract for Construction; AIA A201 – 2017 (By Reference)
 - UI Supplementary Conditions to AIA A201 – 2017
- Public Works Contract Report, WH-5
- Referenced Forms:
 - Contractor's Affidavit Concerning Taxes
 - UI Request for Certificate of Insurance
 - Certificate of Insurance; AIA G715 – 2017 (By Reference)
 - Performance Bond and Payment Bond; AIA A312 – 2010 (By Reference)
 - Certificate of Substantial Completion; AIA G704 – 2017 (By Reference)
 - Affidavit of Payment of Debts and Claims; AIA G706 – 1994 (By Reference)
 - Contractor's Affidavit of Release of Liens; AIA G706A – 1994 (By Reference)
 - Consent of Surety Company to Final Payment; AIA G707 – 1994 (By Reference)
- Enumeration of Contract Drawings and Specifications

III. TECHNICAL SPECIFICATIONS

DIVISION 01 - GENERAL REQUIREMENTS

- 01 1000 - Summary
- 01 2300 - Alternates
- 01 2500 - Substitution Procedures
- 01 2550 - Roofing Materials Substitution Request Form
- 01 2600 - Contract Modification Procedures
- 01 2613 - Requests for Information

- 01 3100 - Project Management and Coordination
- 01 3216 - Construction Progress Schedule
- 01 3233 - Photographic Documentation
- 01 3300 - Submittal Procedures
- 01 4000 - Quality Requirements
- 01 4389 - Mock-Ups
- 01 4533 - Code-Required Special Inspections and Procedures
- 01 5000 - Temporary Facilities and Controls
- 01 6000 - Product Requirements
- 01 7329 - Cutting and Patching
- 01 7419 - Construction Waste Management and Disposal
- 01 7700 - Closeout Procedures
- 01 7823 - Operation and Maintenance Data
- 01 7839 - Project Record Documents
- 01 9113 - General Commissioning Requirements

DIVISION 02 – EXISTING CONDITIONS

- 02 4100 - Demolition

DIVISION 03 – CONCRETE

- 03 1553 - Underslab Vapor Retarders
- 03 3553 - Concrete Sealer

DIVISION 04 – MASONRY

- NOT USED

DIVISION 05 – METALS

- 05 5000 - Metal Fabrications
- 05 5133 - Metal Ladders

DIVISION 06 – FINISHES

- 06 1000 - Rough Carpentry
- 06 2000 - Finish Carpentry
- 06 4100 - Architectural Woodwork
- 06 4200 - Wood Paneling

DIVISION 07 – THERMAL AND MOISTURE PROTECTION

- 07 0543 - Cladding Support Systems
- 07 0553 - Fire and Smoke Assembly Identification
- 07 2100 - Thermal Insulation
- 07 2726 - Fluid-Applied Membrane Air Barriers
- 07 4213 - Metal Wall Panels
- 07 4243 - Phenolic Wall Panels
- 07 5400 - Thermoplastic Membrane Roofing
- 07 5400.1 - DPW-Approved Roofing Manufacturers
- 07 5400.2 - 30 Year Guaranty for Single-Ply Roofing

- 07 6200 - Sheet Metal Flashing and Trim
- 07 7100 - Roof Specialties
- 07 7200 - Roof Accessories
- 07 8413 - Penetration Firestopping
- 07 9200 - Joint Sealants
- 07 9219 - Acoustical Joint Sealants

DIVISION 08 - OPENINGS

- 08 1116 - Aluminum Doors and Frames
- 08 1213 - Hollow Metal Frames
- 08 1416 - Flush Wood Doors
- 08 3100 - Access Doors and Panels
- 08 3200 - Sliding Glass Doors
- 08 4313 - Aluminum-Framed Storefronts
- 08 4413 - Glazed Aluminum Curtain Walls
- 08 7100 - Door Hardware
- 08 8000 - Glazing
- 08 8300 - Mirrors

DIVISION 09 - FINISHES

- 09 2216 - Non-Structural Metal Framing
- 09 2813 - Cementitious Backer Boards
- 09 2900 - Gypsum Board
- 09 3000 - Tiling
- 09 5100 - Acoustical Ceilings
- 09 6105 - Water Vapor Emission Control System
- 09 6513 - Resilient Base and Accessories
- 09 6519 - Resilient Tile Flooring
- 09 6813 - Tile Carpeting
- 09 8430 - Sound-Absorbing Wall and Ceiling Units
- 09 9113 - Exterior Painting
- 09 9123 - Interior Painting
- 09 9300 - Staining and Transparent Finishing

DIVISION 10 – SPECIALTIES

- 10 1100 - Visual Display Units
- 10 2800 - Toilet and Bath Accessories
- 10 4400 - Fire Protection Specialties

DIVISION 11 – EQUIPMENT

NOT USED

DIVISION 12 – FURNISHINGS

- 12 2400 - Window Shades
- 12 3600 - Countertops

DIVISION 13 – SPECIAL CONSTRUCTION

NOT USED

DIVISION 14 – CONVEYING EQUIPMENT

NOT USED

DIVISION 21 – FIRE PROTECTION

- 21 0010 - Fire Protection General Provisions
- 21 1000 - Fire Protection Systems
- 21 2000 - Fire Protection Operation and Maintenance Manuals
- 21 4200 - Seismic Restraints for Fire Protection

DIVISION 22 – PLUMBING

- 22 0500 - Common Work Results for Plumbing
- 22 0504 - Plumbing Specialties
- 22 0505 - Additions or Remodeled Facilities
- 22 0517 - Sleeves and Sleeve Seals for Plumbing Piping
- 22 0519 - Meters and Gauges for Plumbing Piping
- 22 0523 - General Duty Valves for Plumbing Piping
- 22 0529 - Hangers and Supports for Plumbing Piping and Fittings
- 22 0549 - Seismic Controls for Plumbing Piping and Equipment
- 22 0553 - Identification for Plumbing Piping and Equipment
- 22 0700 - Plumbing Insulation
- 22 1000 - Plumbing Piping
- 22 4000 - Plumbing Fixtures

DIVISION 23 – HEATING, VENTILATING, AND AIR CONDITIONING (HVAC)

- 23 0500 - Common Work Results for HVAC
- 23 0505 - Additions or Remodeled Facilities
- 23 0513 - Common Motor Requirements for HVAC Equipment
- 23 0517 - Sleeves and Sleeve Seals for HVAC
- 23 0529 - Hangers and Supports for HVAC Piping and Fittings
- 23 0548 - Vibration Isolation
- 23 0549 - Seismic Controls for Mechanical
- 23 0553 - Identification for HVAC Piping and Equipment
- 23 0593 - Testing, Adjusting, and Balancing
- 23 0700 - HVAC Insulation
- 23 0800 - Mechanical Commissioning
- 23 0923 - Direct-Digital Control for HVAC
- 23 2300 - Refrigerant Piping
- 23 3013 - Air Handling Equipment Sound Levels
- 23 3100 - HVAC Ducts and Casings
- 23 3300 - Air Duct Accessories
- 23 3400 - HVAC Fans
- 23 3600 - Air Terminal Units
- 23 3700 - Air Outlets and Inlets
- 23 4000 - Air Cleaning Devices
- 23 7416 - Packaged Rooftop Air-Conditioning Units

- 23 8126 - Split System Air Conditioners
- 23 8200 - Convection Heating and Cooling Units

DIVISION 26 – ELECTRICAL

- 26 0101 - Basic Electrical Requirements
- 26 0102 - Project Finalization
- 26 0160 - Electrical Demolition for Remodeling
- 26 0519 - Building Wire and Cable
- 26 0520 - Equipment Wiring
- 26 0526 - Grounding and Bonding
- 26 0530 – Conduit
- 26 0532 – Boxes
- 26 0553 - Electrical Identification
- 26 0573 - Power System Study
- 26 0943 - Low Voltage Lighting Controls (Distribution Relay Based)
- 26 2416 – Panelboards
- 26 2716 - Cabinets and Enclosures
- 26 2726 - Wiring Devices
- 26 2727 - Supporting Devices
- 26 2813 – Fuses
- 26 2816 - Enclosed Switches
- 26 2817 - Enclosed Circuit Breakers
- 26 2913 - Enclosed Motor Controllers
- 26 4313 - Surge Protective Devices

DIVISION 27 - COMMUNICATIONS

- 27 0500 - Common Work Results for Communications
- 27 0526 - Grounding and Bonding for Telecommunications
- 27 0529 - Hangers and Supports for Communications Systems
- 27 0533 - Conduits and Backboxes for Communications Systems
- 27 0536 - Cable Trays for Communications Circuits
- 27 1100 - Communications Equipment Room Fittings
- 27 1300 - Communications Backbone Cabling
- 27 1500 - Communications Horizontal Cabling

DIVISION 28 – ELECTRONIC SAFETY and SECURITY

- 28 0528 - Conduit Only System for AV
- 28 1300 - Security Access Control System
- 28 3120 - Addressable Fire Alarm Systems

DIVISION 31 – EARTHWORK

- 31 1000 - Site Clearing
- 31 1500 - Erosion and Sedimentation Control
- 31 2000 - Earth Moving

DIVISION 32 – EXTERIOR IMPROVEMENTS

- 32 1216 - Asphalt Paving

32 1313 - Concrete Paving
32 1373 - Concrete Pavement Joint Sealants
32 1413 - Precast Concrete Unit Paving
32 3300 - Site Furnishings
32 8400 - Landscape Irrigation
32 9113 - Soil Preparation
32 9300 - Plants
32 9400 - Planting Accessories

DIVISION 33 - UTILITIES

33 1000 - Water Utilities
33 4100 - Storm Utility Drainage Piping

END OF ENUMERATION OF CONTRACT DRAWINGS AND SPECIFICATIONS

**SECTION 03 3553
CONCRETE SEALER**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Concrete sealer
 - 1. Slabs-on-grade.

1.02 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Material Certificates: For each of the following, signed by manufacturers:
 - 1. Floor and slab treatments.

1.03 QUALITY ASSURANCE

- A. Source Limitations: Obtain each type or class of cementitious material of the same brand from the same manufacturer's plant, obtain aggregate from single source, and obtain admixtures from single source from single manufacturer.
- B. Pre-installation Conference: Conduct conference at Project site.
 - 1. Review concrete finishes and finishing, curing procedures, and concrete protection.

PART 2 PRODUCTS

2.01 LIQUID FLOOR TREATMENTS

- A. Penetrating Liquid Floor Treatment: Clear, chemically reactive, waterborne solution of inorganic silicate or silicate materials and proprietary components; odorless; that penetrates, hardens, and densifies concrete surfaces.
 - 1. Products:
 - a. Curecrete Distribution Inc.; Ashford Formula: www.ashfordformula.com.
 - b. Dayton Superior Corporation; Sure Hard Densifier J-17: www.daytonsuperior.com.
 - c. Euclid Chemical Company (The), an RPM company; Euco Diamond Hard: www.euclidchemical.com.
 - d. Laticrete International, Inc.; L&M Seal Hard: www.laticrete.com.
 - e. Master Builders Solutions/BASF; MasterKure HD 300WB: www.master-builders-solutions.basf.us.
 - f. SINAK Corporation; LithoHard: www.sinak.com.
 - g. Vexcon Chemicals, Inc.; Vexcon StarSeal PS Clear: www.vexcon.com.

PART 3 EXECUTION

3.01 LIQUID FLOOR TREATMENTS

- A. Penetrating Liquid Floor Treatment: Prepare, apply, and finish penetrating liquid floor treatment according to manufacturer's written instructions.
 - 1. Remove curing compounds, sealers, oil, dirt, laitance, and other contaminants and complete surface repairs.
 - 2. Do not apply to concrete that is less than 28 days' old.
 - 3. Apply liquid until surface is saturated, scrubbing into surface until a gel forms; rewet; and repeat brooming or scrubbing. Rinse with water; remove excess material until surface is dry. Apply a second coat in a similar manner if surface is rough or porous.

3.02 PROTECTION OF LIQUID FLOOR TREATMENTS

- A. Protect liquid floor treatment from damage and wear during the remainder of construction period. Use protective methods and materials, including temporary covering, recommended in writing by liquid floor treatments installer.

END OF SECTION

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**SECTION 09 6105
WATER VAPOR EMISSION CONTROL SYSTEM**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Water vapor emission control systems applied to interior concrete slabs scheduled to receive moisture sensitive flooring, including, but not limited to:
 - 1. Resilient tile flooring.
- B. Hydraulic-cement-based underlayment applied over water vapor emission control systems.

1.02 REFERENCE STANDARDS

- A. 40 CFR 59, Subpart D - National Volatile Organic Compound Emission Standards for Architectural Coatings; U.S. Environmental Protection Agency.
- B. ASTM C109/C109M - Standard Test Method for Compressive Strength of Hydraulic Cement Mortars (Using 50 mm [2 in.] Cube Specimens).
- C. ASTM C150/C150M - Standard Specification for Portland Cement.
- D. ASTM C219 - Standard Terminology Relating to Hydraulic Cement.
- E. ASTM F1869 - Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride.
- F. ASTM F2170 - Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs Using in situ Probes.
- G. ICRI CSP - Selecting and Specifying Concrete Surface Preparation for Sealers, Coatings, Polymer Overlays, and Concrete Repair.

1.03 ALLOWANCES

- A. Furnish and install water vapor emission control system and underlayment as part of allowance.

1.04 PRE-INSTALLATION

- A. Pre-Installation Conference: Conduct conference at Project site.

1.05 SUBMITTALS

- A. Product Data: For each type of product indicated, and including the following:
 - 1. Manufacturer's specification.
 - 2. Installation instructions.
 - 3. Independent test data.
 - 4. Certification requirements.
 - 5. Warranty information.
- B. Sustainable Design Submittals:
 - 1. Product Data: For primer and sealing coatings, indicating VOC content.
- C. Moisture Testing: Submit anhydrous calcium chloride testing results per ASTM F1869 and relative humidity testing results per ASTM F2170.
- D. Alkalinity Testing: Submit testing results according to manufacturer's written recommendations.
- E. Qualification Data: For qualified Installer.

1.06 QUALITY ASSURANCE

- A. Installer Qualifications: Installer who is approved by manufacturer for application of water vapor emission control products required for this Project and approved to provide full system warranty.
- B. Manufacturer Qualifications: Manufacturer shall have no less than 10 years experience in manufacturing water vapor reduction systems. The water vapor reduction system shall be specifically formulated and marketed for water vapor reduction and alkalinity control without change of system design for a minimum period of 5 years.

- C. Product Compatibility: Manufacturers of water vapor emission control systems and floor-covering systems certify in writing that products are compatible.

1.07 DELIVERY, STORAGE, AND HANDLING

- A. Deliver products to the job site in their original unopened containers, clearly labeled with the manufacturer's name and brand designation.
- B. Store materials to comply with manufacturer's written instructions to prevent deterioration from moisture or other detrimental effects.

1.08 PROJECT CONDITIONS

- A. Environmental Limitations: Comply with manufacturer's written instructions for substrate temperature, ventilation, ambient temperature and humidity, and other conditions affecting performance.
 - 1. Do not apply water vapor reduction system when temperature is lower than 50°F or expected to fall below this temperature within 24 hours from time of application.

1.09 COORDINATION

- A. Coordinate application of water vapor emission control systems with requirements of floor-covering products and adhesives, to ensure compatibility of products.

1.10 WARRANTY

- A. Manufacturer shall provide the Owner with standard 10 year full system warranty at no additional cost. Applicator of water vapor emission control systems shall provide standard installation warranty for workmanship.
 - 1. Manufacturer agrees to repair or replace components of system that fail in materials or workmanship within specified warranty period.
 - 2. Warranty includes removal and replacement of finish floor covering materials due to water vapor emission and moisture contaminates.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Source Limitations: Provide primer, water vapor emission control system, and underlayment materials from same manufacturer.

2.02 WATER VAPOR EMISSION CONTROL SYSTEM

- A. Epoxy based coating system capable of permanently reducing water vapor and moisture levels to acceptable levels for coatings, adhesives, and floor covering systems.
- B. Manufacturers:
 - 1. Aquafin; Vaportight Coat: www.aquafin.net.
 - 2. Ardex; MC Moisture Control System: www.ardex.com.
 - 3. Koster American Corporation; VAP I 2000: www.kosterusa.com.
 - 4. SINAK Corporation; VECT-R: www.sinak.com.
- C. Primer: Product of water vapor emission control system manufacturer recommended in writing for substrate, conditions, and application indicated.
 - 1. Primer shall have a VOC content of 200 g/L or less when calculated according to 40 CFR 59, Subpart D.

2.03 HYDRAULIC-CEMENT-BASED UNDERLAYMENTS

- A. Underlayment: Hydraulic-cement-based, polymer-modified, self-leveling product that can be applied over water vapor emission control system in minimum uniform thickness of 1/8 inch and that can be feathered at edges to match adjacent floor elevations.
 - 1. Cement Binder: ASTM C150/C150M, portland cement, or hydraulic or blended hydraulic cement as defined by ASTM C219.
 - 2. Compressive Strength: Not less than 4000 psi at 28 days when tested according to ASTM C109/C109M.
- B. Water: Potable and at a temperature of not more than 70 degF.

- C. Primer: Product of underlayment manufacturer recommended in writing for substrate, conditions, and application indicated.
 - 1. Primer shall have a VOC content of 200 g/L or less when calculated per 40 CFR 59, Subpart D.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Examine substrates, with Installer present, for conditions affecting performance.
 - 1. Proceed with application only after unsatisfactory conditions have been corrected.

3.02 PREPARATION

- A. General: Prepare and clean substrate per manufacturer's written instructions.
 - 1. Treat nonmoving substrate cracks per manufacturer's written instructions to prevent cracks from telegraphing (reflecting) through underlayment.
 - 2. Fill substrate voids to prevent underlayment from leaking.
- B. Concrete Substrates: Mechanically remove, according to manufacturer's written instructions, laitance, glaze, efflorescence, curing compounds, form-release agents, dust, dirt, grease, oil, and other contaminants that might impair underlayment bond.
 - 1. Sand or shot blast to a minimum surface profile of ICRI CSP 3-4 finish, unless required otherwise by manufacturer.
 - 2. Moisture Testing: Perform anhydrous calcium chloride test, ASTM F1869. Proceed with installation only after substrates do not exceed maximum moisture-vapor-emission rate in 24 hours as required by the manufacturer.

3.03 WATER VAPOR EMISSION CONTROL SYSTEM APPLICATION

- A. Install water vapor emission control system according to manufacturer's written instructions.
- B. Apply primer and water vapor emission control system over prepared substrate at manufacturer's recommended spreading rate.
- C. Cure water vapor emission control system according to manufacturer's written instructions. Prevent contamination during application and curing processes.

3.04 UNDERLAYMENT APPLICATION

- A. General: Mix and apply underlayment components according to manufacturer's written instructions.
 - 1. Close areas to traffic during underlayment application and for time period after application recommended in writing by manufacturer.
 - 2. Coordinate application of components to provide optimum underlayment-to-substrate and intercoat adhesion.
 - 3. At substrate expansion, isolation, and other moving joints, allow joint of same width to continue through underlayment.
 - 4. Adhesion Tests: After substrate preparation, test substrate for adhesion with underlayment according to manufacturer's written instructions.
- B. Apply primer over prepared substrate at manufacturer's recommended spreading rate.
- C. Apply underlayment to produce uniform, level surface.
 - 1. Apply a final layer without aggregate to product surface.
 - 2. Feather edges to match adjacent floor elevations.
- D. Cure underlayment according to manufacturer's written instructions. Prevent contamination during application and curing processes.
- E. Remove and replace underlayment areas that evidence lack of bond with substrate, including areas that emit a "hollow" sound when tapped.
- F. Protect underlayment from concentrated and rolling loads for remainder of construction period.
- G. Do not install floor coverings over underlayment until after time period recommended in writing by underlayment manufacturer.

3.05 PROTECTION

- A. Protect each product during required cure period from any kind of traffic, topical water, and contaminants.

END OF SECTION

**SECTION 09 8430
SOUND-ABSORBING WALL AND CEILING UNITS**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Sound-absorbing panels.

1.02 REFERENCE STANDARDS

- A. ASTM C423 - Standard Test Method for Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method.
- B. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
- C. ASTM E795 - Standard Practices for Mounting Test Specimens during Sound Absorption Tests.
- D. NFPA 265 - Standard Methods of Fire Tests for Evaluating Room Fire Growth Contribution of Textile or Expanded Vinyl Wall Coverings on Full Height Panels and Wall.
- E. NFPA 286 - Standard Methods of Fire Tests for Evaluating Contribution of Wall and Ceiling Interior Finish to Room Fire Growth.
- F. UL 723 - Standard for Test for Surface Burning Characteristics of Building Materials.

1.03 SUBMITTALS

- A. Product Data: Manufacturer's printed data sheets for products specified.
 - 1. Include panel edge, core material, and mounting indicated.
- B. Shop Drawings: Fabrication and installation details, panel layout.
- C. Verification Samples: Fabricated samples of each type of panel specified; 12 by 12 inch, showing construction, edge details, and fabric covering.
- D. Coordination Drawings: Elevations and other details, drawn to scale, on which the following items are shown and coordinated with each other, using input from installers of the items involved:
 - 1. Items penetrating or covered by units including the following:
 - a. Lighting fixtures.
 - b. Air outlets and inlets.
 - c. Speakers.
 - d. Alarms.
 - e. Sprinklers.

1.04 DELIVERY, STORAGE, AND HANDLING

- A. Protect acoustical units from moisture during shipment, storage, and handling. Deliver in factory-wrapped bundles; do not open bundles until units are needed for installation.
- B. Store units flat, in dry, well-ventilated space; do not stand on end.
- C. Protect edges from damage.

PART 2 PRODUCTS

2.01 PERFORMANCE REQUIREMENTS

- A. Fire-Test-Response Characteristics: Units shall comply with "Surface-Burning Characteristics" or "Fire Growth Contribution" Subparagraph below, or both, as determined by testing identical products by UL or another testing and inspecting agency acceptable to authorities having jurisdiction:
 - 1. Surface-Burning Characteristics: Comply with ASTM E84 or UL 723; testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.
 - a. Flame-Spread Index: 25 or less.
 - b. Smoke-Developed Index: 50 or less.
 - 2. Fire Growth Contribution: Comply with acceptance criteria of local code and authorities having jurisdiction when tested per NFPA 265 Method B Protocol or NFPA 286.

2.02 TEC1 - WOOD FIBER SOUND-ABSORBING UNITS

- A. Manufacturers:
 - 1. Armstrong World Industries, Inc; Tectum DesignArt: www.armstrongceilings.com/#sle.
 - 2. Cardinal Acoustics; Direct Attached Panel: www.cardinalacoustics.com.
- B. Wood Fiber Acoustical Panels for Walls and Ceilings: Cementitious wood fiber.
 - 1. Size: As indicated on Drawings.
 - 2. Thickness: 1 inch.
 - 3. Noise Reduction Coefficient (NRC): 0.70 to 0.80 when tested in accordance with ASTM C423 for Type A mounting, per ASTM E795.
 - 4. Panel Edge: Rectangular.
 - 5. Surface Pattern: Coarse.
 - 6. Surface Color: Match PT1.
 - 7. Mounting: Use fixing clips to attach to wood furring strips anchored to wall substrate.

2.03 AWP2 - PLASTIC SOUND-ABSORBING UNITS

- A. Polyester Panels for Walls:
 - 1. Basis of Design: MDC Wallcoverings; Zintra Acoustic Panels: www.mdcwall.com.
Provide indicated product or comparable approved by Design Professional.
 - 2. Surface Burning Characteristics: Flame spread index of 25 or less and smoke developed index of 450 or less, when tested in accordance with ASTM E84.
 - 3. Sound Absorption: Noise Reduction Coefficient (NRC) of 0.45 when tested in accordance with ASTM C423.
 - 4. Panel Size: As indicated on Drawings.
 - 5. Total Panel Thickness: Nominal 1/2 inches (12 mm).
 - 6. Edges: Square.
 - 7. Mounting: Direct adhesive.
 - 8. Color: Slate

2.04 FABRICATION

- A. Tolerances: Fabricate to finished tolerance of plus or minus 1/16 inch for thickness, overall length and width, and squareness from corner to corner.

2.05 ACCESSORIES

- A. Back-Mounting Accessories: Manufacturer's standard accessories for concealed support, designed to allow panel removal, and as follows:
- B. Fixing Clips: Manufacturers standard for application as indicated.
- C. Furring Strips: As indicated on drawings.
- D. Panel Adhesive: Acceptable to acoustical panel manufacturer for application as indicated.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Examine substrates for conditions detrimental to installation of acoustical units. Proceed with installation only after unsatisfactory conditions have been corrected.

3.02 INSTALLATION

- A. Install acoustical units in locations as indicated, following manufacturer's installation instructions.
- B. Install mounting accessories and supports in accordance with shop drawings.
- C. Align panels accurately, with edges plumb and top edges level. Scribe to fit accurately at adjoining work and penetrations.
- D. Attach ceiling baffles at locations and heights as indicated.
- E. Furring-Mounted Cementitious Wood Fiber Panels:

1. Install furring strip along meeting edges of adjacent panels to ensure they are attached to same furring strip along abutted edge; 24 inches on center, maximum.
 2. Install acoustic insulation between furring as indicated on drawings.
 3. Adhere first panel from edge to furring strip; attach subsequent panels using fasteners.
- F. Install acoustical units to construction tolerances of plus or minus 1/16 inch for the following:
1. Plumb and level.
 2. Flatness.

3.03 CLEANING

- A. Clean sound-absorptive panels upon completion of installation from dust and other foreign materials, following manufacturer's instructions.

3.04 PROTECTION

- A. Provide protection of installed acoustical panels until Date of Substantial Completion.
- B. Replace panels that cannot be cleaned and repaired to satisfaction of the Design Professional.

END OF SECTION

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**SECTION 27 0500
COMMON WORK RESULTS FOR COMMUNICATIONS**

PART 1 GENERAL

1.01 SUMMARY

- A. This section includes general requirements for the installation of a conduit and pathway system to support the owner furnished, owner installed complete and functional telecommunications structured cabling system. ~~The SCS (structured cabling system) shall conform to current industry standards as referenced within this document and within the other Division 27 specifications.~~

1.02 STANDARDS AND CODES

- A. The following codes and standards, at a minimum, shall be overserved for telecommunications infrastructure:
1. National Fire Protection Association (NFPA) – NFPA 70: National Electrical Code (NEC)
 2. National Fire Protection Association (NFPA) – NFPA 101: Life Safety Code
 3. ANSI/TIA - 568-C.0: Generic Telecommunications Cabling for Customer Premises
 4. ANSI/TIA - 568-C.1: Commercial Building Telecommunications Cabling Standard
 5. ANSI/TIA – 568-C.2: Balanced Twisted-Pair Telecommunications Cabling and Component Standard
 6. ANSI/TIA – 568-C.3: Optical Fiber Cabling Standard
 7. ANSI/TIA – 569-B: Commercial Building Standard for Telecommunication Pathways and Spaces
 8. ANSI/TIA – 607-B: Commercial Grounding (Earthing) and Bonding for Customer Premises
 9. BICSI: BICSI Telecommunications Distribution Methods Manual (TDMM)
- B. In instances where discrepancies existing between building codes, industry standards and local ordinances, the contractor shall adhere to the most stringent.

1.03 DEFINITIONS

- A. EMI – Electromagnetic Interference
- B. EMT – Electrical Metallic Tubing
- C. ER – Equipment Room
- D. IDF – Intermediate Distribution Facility
- E. MDF – Main Distribution Facility
- F. Pathway – Conduit, wall rack, cable runway, sleeves, or j-hooks.
- G. Pullbox – Metallic box with removable cover used for a pulling point of cabling runs longer than 100' or with more than (2) 90° bends
- H. Raceway – Enclosed channel for routing wire or cable
- I. RFI – Radio Frequency Interference
- J. RMC – Rigid Metal Conduit
- K. SCS – Structured Cabling System
- L. TBB – Telecommunications Bonding Backbone
- M. TGB – Telecommunications Grounding Busbar
- N. TMGB – Telecommunications Main Grounding Busbar
- O. TR – Telecommunications Room
- P. UTP – Unshielded Twisted Pair cable.

1.04 SUBMITTALS

- A. Product Data:

1. Submit product cut sheets for each type of product provided within the division 27 specifications and the contract drawings.
- B. Shop Drawings:
 1. ~~Site Plan: Indicate final routing and placement of OSP conduit runs from the utility demarcation point to the MDF.~~
 2. Floor Plans: Indicate final outlet and device locations and major pathway routing.
 3. Device Identification: Identify labeling for each device as required by the specifications.
 4. Pathway Riser diagrams: Provide final condition of all major building pathways including cable tray, ladder rack and conduit runs greater than 1-1/2". Provide pathway location, size, originating point and destination.
 5. ~~System Riser Diagrams: Provide final condition of all cabling for system devices and components. Include all interconnectivity between system components throughout the building.~~
- C. ~~Proposed Network Telecom Station Cable Record for approval, which shall contain the following information: 1 Cable ID; 2 Faceplate ID; 3 Work Area, Room, Location and Cable Number; 4 Outlet Configuration Type from Table 03 in this Section 27 10 00; 5 Closet Position.~~

1.05 QUALITY ASSURANCE

- A. ~~Contractor Qualifications:~~
 1. ~~Contractor shall be trained and certified by the Manufacturer to install, test and maintain the structured cabling system and be certified by the manufacturer to offer the full structured cabling system warranty.~~
 2. ~~Contractor shall have been in business for a minimum of 5 years and successfully engaged in the routine installation of structured cabling systems or similar size and complexity.~~
 - a. ~~Contractor shall possess current liability insurance certificates.~~
- B. ~~Warranty:~~
 1. ~~SYSTIMAX® SCS Certificate of Warranty for the 20-year product warrantee on all horizontal, station cables, jacks and associated parts.~~
 2. ~~CORNING LANscape® Certificate of Warranty for the 25-year product warrantee on all Fiber Optic cables, terminations and associated parts.~~
 3. ~~All installed products shall carry the manufacturer's full warranty.~~
 4. ~~The Communications (Network Telecom) Distribution System shall be installed, tested, demonstrated, and placed in service and then maintained under an in-place (installation workmanship) warranty for a period of 1-year from the date of acceptance. During the 1-year warranty period, the system vendor shall maintain trouble reporting, diagnostic services, and perform repairs.~~

1.06 COORDINATION

- A. The telecommunications contractor shall coordinate all work with mechanical, plumbing, structural, electrical and other disciplines throughout all stages of construction.
- B. When conduit for outlet boxes is required, contractor shall coordinate the installation with other trades.
- C. When cable tray is required, contractor shall coordinate the installation with other trades to ensure that a minimum of 8" clear space is provided above the cable tray for safe working clearance.

1.07 PRODUCT SUBMITTALS

- A. Furnish the Owner a complete set of printed system documentation which includes "as built" drawings that show station location and labeling information, all pathways and Communication Rooms ~~or cross connect locations, all Fiber Optic and all Copper cable testing records,~~ product and equipment brochures and manuals.
- B. In addition to the printed documentation, the Contractor shall supply drawings in digital format, accessible by the owner. "Communications Pathway ~~and Cables~~" shall be on their own layer.

- ~~G. All cable and fiber test records shall be provided in a digital format accessible by the owner.~~
- D. The printed documentation shall be furnished in three ring loose leaf volumes.
- ~~E. Performance data on complete system.~~
- ~~F. Warrantees.~~
- G. Record drawings ("as built"):
 - 1. Record drawings shall be provided to the Owner.
 - 2. These drawings shall show the locations of all cabinets, racks, ~~cable, splice closures, cross connects,~~ cable routes, and outlets.
 - 3. The record drawings prepared after installation shall indicate:
 - a. Routing for all intra-building pathway ~~and media.~~
 - b. Backboard layout detail for each Entrance and Distribution Facility including entrance penetration detail.
 - c. Locations of power panels and un-interruptible power sources.
 - d. Locations for protected, bonded, and grounded terminals.
 - ~~e. Cross connection hardware locations by floor and room.~~
 - ~~f. Cross connection hardware identification.~~
 - ~~g. Pair counts information at each Entrance and Distribution Facility.~~
 - h. Location of all support hardware, installed equipment, and hardware.
 - ~~i. Routing, pair count, and cable make-up information for backbone cables.~~
 - ~~j. Location and quantity of slack cable and/or service loops.~~
 - k. Associated building structures and equipment.
- ~~H. Pathway Assignment and Test Records:~~
 - ~~1. Contractor shall provide complete pair assignment records for the horizontal and backbone facilities.~~
 - ~~2. The assignment records shall indicate the fill ratio of each pathway.~~
 - ~~3. Splice closure records shall contain splice identifier, type, manufacturer, installation date, and last access date.~~

1.08 SCOPE OF WORK

- A. Provide a complete conduit and pathway infrastructure for the owner furnished, owner installed voice/data network distribution cable system throughout the facility as indicated on construction drawings.
- ~~B. The system shall include the following items as required to form a complete and operable system:~~
 - ~~1. Construction of all Communications Rooms (CR) and environmental support of these spaces, Standards for these rooms are included in Section 13-21-00.~~
 - ~~2. Network Information Outlet (NIO) devices (Network/Telephone).~~
 - ~~3. Station cabling between the Communications Rooms and other designated equipment locations and the outlets shall be terminated on patch panels in the equipment room.~~
 - ~~4. Patch panels, patch cords, cabinets, equipment racks, etc., required to support, terminate, and/or cross-connect cabling at the Communications Intermediate Distribution Facility (IDF) rooms and/or other designated equipment locations.~~
 - ~~5. Cable management hardware including, but not limited to, ladder-type cable racks within Communications Rooms, jumper troughs, retainer clips, "D-rings", and/or other appropriate cable management hardware on backboards and in equipment racks.~~
 - ~~6. Labeling of all cables and hardware shall be provided.~~
 - ~~7. Documentation showing performance testing, as-built drawing that show cable pathway and station placement, labeling information, power and ground sources, product brochures.~~
- ~~C. The Contractor shall show satisfactory evidence that he maintains and/or retains a service organization capable of installing the CDS and capable of furnishing adequate inspections and service to the materials being installed.~~

1.09 – REQUIREMENTS

- A. ~~Communications Contractor shall submit a list of similar CDSs previously installed under supervision of the person who will oversee the telephone and data distribution system work. Projects shall have been operating for at least one year, but not more than three years. Provide name of persons to contact for each project and phone number for verification.~~
- B. ~~Communications Contractor shall provide a complete, functional, and tested telephone and data Communications Distribution System, which includes all vertical and horizontal distribution components.~~
- C. ~~During the installation activities, the Communications Contractor shall always provide one SYSTIMAX® SCS Certified Senior Technician/Supervisor on the jobsite.~~
- D. ~~Contractor employees installing the SYSTIMAX® SCS shall be certified by SYSTIMAX® SCS for product installation.~~
- E. ~~All copper station cable and supportive termination devices shall carry the full 20 Year SYSTIMAX® SCS product and performance warranty and shall be installed to be warrantable by the manufacturer.~~
- F. ~~All Fiber Optic Cable shall be manufactured by the Corning Company, installed by a Corning Certified Technician. A CORNING Fiber Optic Cable System 25 Year Warranty shall be provided.~~
- G. ~~Contractor employees installing the CORNING Fiber Optic Cable System shall be certified by CORNING for product installation. There shall always be one CORNING Fiber Optic Cable System Certified Senior Technician/Supervisor on the jobsite, when the installation is being done.~~
- H. ~~All other non-CORNING LANscape® and non-SYSTIMAX® SCS products shall carry a 5-year performance and installation warranty.~~
- I. ~~Contractor shall provide and display on site all required installation and inspection permits.~~
- J. ~~Contractor shall be licensed and bonded in the State of Washington.~~
- K. ~~Special notes to Contractors:~~
 - 1. ~~All drawings are diagrammatic; therefore, device and pathway placement is only representative of a general location. Do not scale from the drawings in order to place a device or pathway, since the drawing location may not represent the actual location. It is the responsibility of the Contractor to place these devices and pathway such that they offer full functionality without hindrance from casework, furniture, windows and doors, HVAC, and other building systems.~~
 - 2. ~~It is the Contractor's responsibility to obtain and use the proper room and space numbers or names. If the Contractor receives from the Owner any shop drawings or "as built" construction prints that do not contain proper room or space numbers, the Contractor shall obtain the correct numbers. The Contractor shall provide correct numbers on all drawings and related records it provides to the Owner.~~
 - 3. ~~Damage to equipment, service outages, and schedule delays caused by the contractor are both the financial and restorative responsibility of the Contractor.~~
 - 4. ~~The Owner will not accept any cable plant or pathway installation until it passes a physical and performance inspection. All cable not installed to manufacturer specifications will be rejected regardless of electrical and performance testing. The Owner may spot test contractor installed cable.~~
 - 5. ~~The Contractor is responsible for removing all construction debris and unused cable, boxes, and shipping containers. The work areas are to be swept clean and wet mopped prior to floor sealants or tile work.~~
 - 6. ~~The Contractor shall remove all unused and obsolete cables in trays and conduits and shall turn scrap cable over to the Owner.~~

- ~~7. Only water based, propylene glycol or clay based lubricants are acceptable as cable lubricants. Ideal brand Yellow 77 or similar soap based cable lubricants are not acceptable and are not to be used for fiber or copper cable installations.~~
- ~~8. All conduits that are installed underground for Fiber Optic Cable shall be equipped with a 10 AWG Green Jacketed CU trace cable in all locations that are not located in a Utilidor, Tunnel, or Cable Tray System.~~

PART 2 PRODUCTS

2.01 GENERAL

- A. Division 27 products shall comply with all requirements of Division 26.
- B. Products and materials shall be provided as specified within the Division 27 specifications. Products proposed to be substituted are not acceptable unless the specifications state "or equal", "or approved equal", "or pre-approved equal."
- ~~C. Cabling system components shall be manufactured by the manufacturers listed in Division 27. Cabling system components shall not be intermixed between different manufacturers unless the manufacturer has listed another manufacturer's component as an approved product that maintains the original manufacturer's system warranty.~~
- D. Contractor shall physically verify existing site conditions prior to the purchase and delivery of materials.
- E. Contractor shall turn over any unused material or products specifically purchased for this project to the owner upon completion of the project.

2.02 TOUCH-UP PAINT

- A. Equipment Not Exposed to Harsh Environment: Equipment manufacturer's paint.
- B. Equipment Enclosures Not Exposed to Harsh Environment: Manufacturer's standard finish for indoor installations in non-harsh environments.
- C. Galvanized Surfaces: Zinc-rich paint recommended by item manufacturer.

2.03 FIRESTOPPING

- A. Comply with requirements of Division 07 Section 078413 – Penetration Firestopping
- B. Comply with BICSI TDMM Chapter 7 – Fire Stop Systems
- C. Comply with ANSI/TIA 569A – Firestopping
- D. Provide EZ Path single compartment model EZD 44T with EZP144WT plates for penetrations through fire rated walls.
- E. Provide EZ Path single compartment model EZD 44 with EZG144T plates for penetrations through floors.
- F. Pathway wall sleeves passing into a wiring closet shall be EZ Path four compartment model EZD 44T with EZP544WT plates.
- G. Pathway floor sleeves shall be EZ Path model EZD 44. EZ Path compartments and wall plates shall be sized such that the device shall represent 200% cable fill capacity of the pathway it is extending.
- H. Multiple floor sleeves shall be placed no more than 2 inches from the wall and be grouped in one row.

2.04 GROUNDING AND BONDING

- A. Provide grounding as specified under Division 27 Section 270526 — "Grounding and Bonding for ~~Communications Systems~~ Telecommunications."

PART 3 EXECUTION

3.01 GENERAL

- A. The contractor shall review all floor plans, details and elevations and coordinate with the architect, mechanical and electrical contractor prior to installation.
- B. All components of the structured cabling system shall be installed per the manufacturer's written instructions and shop drawings.
- ~~C. Provide all equipment, components and materials required to complete a full and functioning structured cabling system, including equipment, components or materials not covered within the Division 27 specifications but which are required to complete a functional system.~~
- D. Equipment Clearances:
 - 1. Contractor shall verify that planned equipment will fit within the locations and spaces indicated within the final drawing set.
- E. Mounting heights indicated within the drawing set are to be measured to the bottom for suspended items and to the center for wall mounted items.
- F.

3.02 INSTALLATION

- ~~A. Install Category cables in a continuous length from patch panel to outlet location. No field splicing is allowed.~~
- B. Sleeves shall be installed at each cable penetration through walls, floors and ceilings. Sleeves shall be minimum 3/4" with insulated inserts. Sleeves shall be installed regardless of wall type construction, fire rated or non-fire rated.
- ~~C. All cables must be terminated using a compression connection tool. All cables shall be installed using EIA/TIA 568, 569, 570, BICSI and standards as follows: Wire pair twists must be maintained to within 1/2" of IDC contacts on each jack, jacketing must be undamaged for the full length of the cable run and must continue to within 1/2" of IDC contacts on each jack, each end of each cable must be secured to the jack module with a velcro cable tie. Any cables damaged during pulling shall be the responsibility of the pulling party/parties (electrical contractor or LAN installer). Any failing or marginal tests (see above) shall be re-terminated, re-routed, re-tested, etc., until no other alternatives exist, at which time it will be assumed that a bad cable run (too much twisting of the cable, compression of jacketing and wire pairs, etc.) has resulted (at the discretion of the LAN Tester) and the pulling party/parties will have to bear the responsibility of re-pulling new cable to replace it.~~
- D. Provide raceway system as indicated. Open wiring is permitted within the tunnels and above accessible ceilings provided plenum rated cables are neatly arranged and supported with J-hooks every 4 feet and in accordance with industry standards. Routing of cables in tunnels shall occur along sides of tunnels - stay away from center.

3.03 FIRESTOPPING

- A. Provide fire stopping for telecommunications penetrations at all fire rated walls per this specification, ANSI/TIA 569A and BICSI TDMM. Maintain fire rating of penetrated fire barriers. Fire stop and seal penetrations made during construction.

3.04 GROUNDING AND BONDING

- A. Provide grounding as specified under Division 27 Section 270526 — "Grounding and Bonding for Telecommunications."

~~**3.05 IDENTIFICATION AND LABELING**~~

~~**3.06 TESTING**~~

- ~~A. Cable Test~~
 - ~~1. Perform cable tests in accordance with Cable Test set manufacturer's written instructions. All cables must pass at 100 Mhz.~~

- ~~2. Connect the NEXT test set to the cable to be tested at the centralized network location.~~
- ~~3. Correct malfunctions when detected and proceed with testing. Record test results on a standard UTP Category 6 Cable Test Results form. Contractor must guarantee the cabling meets EIA/TIA 568B-568-C performance specifications.~~

END OF SECTION

**SECTION 27 1100
COMMUNICATIONS EQUIPMENT ROOM FITTINGS**

PART 1 GENERAL

1.01 SUMMARY

- A. Provide all materials and labor for the installation of telecommunications room equipment defined within this specification section. Equipment defined in this specification is for the support of the owner furnished, owner installed structured cabling system (SCS).

PART 2 PRODUCTS

2.01 CABLE SUPPORTS

- A. Backboards:
1. 3/4 inch A-C grade, fire-retardant plywood backboards, void free, 8 feet high, mounted at +6" above finished floor, unless otherwise noted. Provide a minimum of 2 coats light colored fire retardant paint.
- B. D-Rings:
1. Metallic (CPI or equal):
 - a. Size: 2" minimum.
 - b. Corrosion-resistant and fire-resistant.
- C. Ladder Rack:
1. Ladder racks shall have maximum load with minimal deflection of 45 lbs/ft when supported every 5 feet.
 2. Ladder rack shall be manufactured by CPI or approved equal.
 3. Field constructed accessories such as transitions, splices, bends are prohibited.
 4. Provide manufactured junction splices to join pieces of ladder rack.
 5. Ladder rack and accessories shall be black in color.

2.02 EQUIPMENT RACKS/ENCLOSURES

- A. Free Standing Equipment Racks
1. Racks shall be manufactured by CPI or approved equal.
 2. Size: 7 foot high x 19 inch wide.
 3. Racks shall be steel racks with universal alternating hole pattern.
 4. Racks shall have self supporting bases.
 5. Racks shall be black in color.
 6. Racks shall have vertical cable management on both sides
 - a. Cable management shall be a minimum of 7" wide.

2.03 GROUNDING AND BONDING

- A. As specified under Division 27 Section – "Grounding and Bonding for Communications Systems."

2.04 LABELING AND ADMINISTRATION

- A. Provide labeling per University of Idaho standards.

PART 3 EXECUTION

3.01 INSTALLATION

- A. Backboards
1. Provide backboards as shown on Contract Documents.
 2. Mount A-C plywood backboards with the "A" side exposed.
 3. Paint backboards with a minimum of two coats (over primer) of fire retardant paint.
 4. Mask the fire-treatment stamp on each sheet of plywood so that the stamp remains visible after painting.
- B. D-Rings.

1. Provide D-Rings as necessary to route exposed cables in telecommunications rooms and on backboards.
 2. In telecommunications rooms, mount D-Rings at 12 inch intervals.
 3. Size D-Rings as required to support the structured cabling system. D-Rings shall be a minimum of 2".
 4. D-Rings are not permitted outside of telecommunications rooms.
- C. Ladder Rack.
1. Provide ladder racking, sized and in locations as shown on the drawing set.
 2. Attach ladder racking to the top of equipment racks to serve as bracing.
 3. Ladder rack shall be cut square, unless noted otherwise on the drawings. Cap ends with manufacturer recommended caps.
 4. Provide telecommunications bonding jumpers across ladder racking as shown on the drawings set.
 5. Where ladder rack is shown vertically mounted on telecommunications room walls, provide wall-mount brackets. Vertical ladder rack shall be routed from within 6-inches above the riser pathway in the floor up to within 6-inches of the riser pathway in the ceiling. Cap cut ends of ladder rails with end caps.
- D. EQUIPMENT RACKS/ENCLOSURES
1. Provide EIA racks and all associated hardware according to locations shown in the drawing set
 2. Free-standing Equipment Racks:
 - a. Bolt racks to structurally suitable flooring.
 - b. Attach top of rack to overhead ladder racking per manufacturer's recommendations. Use ladder rack elevation kits to span the gap between the top of the racks and the overhead ladder rack.

3.02 GROUNDING AND BONDING

- A. Provide grounding and bonding specified under Division 27 Section – "Grounding and Bonding for Communications Systems."
1. Provide a minimum of one wall-mountable telecommunications ground bus bar per telecommunications room and as shown on the Contract Documents.

END OF SECTION

**SECTION 27 1300
COMMUNICATIONS BACKBONE CABLING**

PART 1 GENERAL

1.01 SUMMARY

- A. ~~The work covered in this section consists of~~All outside plant fiber optic cabling, outside plant fiber optic terminations, fiber optic patch panels, riser copper terminations, riser fiber optic cable, riser fiber optic cable terminations and riser copper cabling shall be owner furnished, owner installed.

~~**1.02 SYSTEM DESCRIPTION**~~

- A. ~~Provide and install all backbone fiber optic and copper cabling and components as indicated within the drawing set and these specifications. Components required but not specifically identified shall be provided to ensure a complete and functioning system.~~
- B. ~~All work shall be completed in accordance with ANSI/EIA/TIA and BICSI standards.~~

PART 2 PRODUCTS

2.01 GENERAL

- A. Pathways shall be provided in accordance with specification sections 260530 "Conduit", 270529 "Hangers and Supports for Communications Systems", 270533 "Conduits and Backboxes for Communications Systems", and 270536 "Cable Tray for Communications Circuits."
- B. ~~Telecommunications cabling system components such as cable, jack, termination blocks, and patch panels shall be of one manufacturer or product line.~~

~~**2.02 FIBER OPTIC TERMINATIONS**~~

- A. ~~The Contractor shall Provide and Install Fiber Optic Cable Termination enclosures and Closet Management Panels for this building. The enclosures shall be berk Tek/Leviton, 5R1UM-S03, rack-mounted distribution panel and shall use the following connectors:~~
1. ~~LC Bulkhead Connectors for single-mode fiber strands, part number "5F100-2LL", a Fiber Optic Adapter Panel with 12 Port LC Bulkhead adapters, single-mode, ceramic insert, composite housing.~~

2.03 INNERDUCT

- A. Innerduct shall be 1¼" size, plenum-rated and white-colored.
1. Carlon
 2. Dura-line
 3. or approved equal.

~~**2.04 FIBER OPTIC RISER CABLING**~~

- A. ~~Riser Fiber Optic Cables:~~
1. ~~The Contractor shall Provide, Install, Terminate and Test (Volume) each Fiber Optic Riser Cables, Berk Tek/Leviton, indoor/outdoor-rated, OFNR cable, 12SM Fiber Optic Riser Cable.~~

2.05 LABELING AND ADMINISTRATION

- A. Provide labeling per University of Idaho standards.

PART 3 EXECUTION

~~**3.01 FIBER TERMINATION**~~

- A. ~~Fiber Optic Cable termination enclosures shall be placed at the top of the electronics rack, below the Upper Jumper Tray.~~
- B. ~~Rack-mounted Un-interruptible Power Systems (UPS) shall be mounted at the bottom of the rack that will house the network equipment and other electronics.~~

3.02 INNERDUCT

- A. Provide innerduct in OSP conduit 4" or larger only. Do not provide innerduct in riser conduit unless specifically indicated in the drawing set.

~~3.03 RISER FIBER OPTIC CABLES~~

- ~~A. All Fiber Optic Cable shall have the Berk Tek/Leviton 20 Year Warranty.~~
- ~~B. Each fiber cable label shall contain the fiber's source and destination.~~

END OF SECTION

**SECTION 27 1500
COMMUNICATIONS HORIZONTAL CABLING**

PART 1 GENERAL

1.01 SUMMARY

- A. ~~The work covered in this section consists of~~All horizontal copper cabling, terminations and patch panels are to be owner furnished, owner installed.

~~**1.02 SYSTEM DESCRIPTION**~~

- A. ~~Provide and install all horizontal copper cabling and components as indicated within the drawing set and these specifications. Components required but not specifically identified shall be provided to ensure a complete and functioning system.~~
- B. ~~All work shall be completed in accordance with ANSI/EIA/TIA and BICSI standards.~~

PART 2 PRODUCTS

2.01 GENERAL

- A. Pathways shall be provided in accordance with specification sections 260530 "Conduit", 270529 "Hangers and Supports for Communications Systems", 270533 "Conduits and Backboxes for Communications Systems", and 270536 "Cable Tray for Communications Circuits."s
- B. ~~Telecommunications cabling system components such as cable, jack, and patch panels shall be of one manufacturer or product line.~~
- C. ~~All copper cabling and components shall be manufactured by Berk-Tek/Leviton unless specifically noted otherwise.~~

~~**2.02 WIRE MANAGEMENT**~~

- A. ~~Patch Panel Horizontal patch cord/wire management is required on the top and on the bottom of the "Patch Panel" stack.~~

~~**2.03 HORIZONTAL COPPER STATION CABLE**~~

- A. ~~All Category 6 Station Cables shall be terminated on the Berk-Tek/Leviton 48 port patch panels and shall be White Color Jacketed and Plenum Rated.~~
- B. ~~Horizontal Cat 6 station cabling shall be plenum rated, white-colored, Berk-Tek/Leviton 10136265 or 10136230.~~
- C. ~~Cat 6 terminations shall be black or ivory model Berk-Tek/Leviton 61110-RB6 or 6110G-RE6.~~

~~**2.04 PATCH PANELS**~~

- A. ~~Berk-Tek/Leviton rack-mounted patch panel model 49255-H48.~~

~~**2.05 FACEPLATES**~~

- A. ~~Faceplates shall be 2 or 4 port, Ivory-colored, with identification windows, Berk-Tek/Leviton model 42080-2IS or 42080-4IS. Provide blank inserts in unused ports model Berk-Tek/Leviton 41084-BI.~~

2.06 LABELING AND ADMINISTRATION

- A. Provide labeling per University of Idaho standards.

PART 3 EXECUTION

~~**3.01 INSTALLATION**~~

- A. ~~Install cabling and connectors per the applicable industry standards and in accordance with the manufacturers recommendations so as not to void the system warranty.~~
- B. ~~Install cables without damaging conductors, shield, or jacket.~~

- ~~G. Do not bend cables, in handling or in installing, to smaller radius than minimums recommended by manufacturer's installation recommendation.~~
- ~~D. Service loop: Provide 12" service loop in workstation outlet box or at nearest cable tray location.~~
- ~~E. Cable Pulling: Pull cables without exceeding cable manufacturer's recommended pulling tensions. Pull cables simultaneously if more than one is being installed in same raceway.

 - ~~1. Use pulling compound or lubricant if necessary. Use compounds that will not damage conductor or insulation. Lubricant shall be viscous gel or colorless liquid with no odor. Use lubricants, which deter rodents and insects.~~
 - ~~2. Use pulling means, including fish tape, cable, rope, and basket weave wire or cable grips, that will not damage media or raceway.~~
 - ~~3. Cable that has been damaged (tears in cable sheath) during installation shall be removed from pathways. Replace damaged cable with new cable within same raceway.~~~~
- ~~F. Install exposed cables parallel and perpendicular to surfaces or exposed structural members and follow surface contours where possible.~~
- ~~G. Secure and support cables at intervals not exceeding 30" and not more than 6" from cabinets, boxes, fittings, outlets, racks, frames, and terminals.~~
- ~~H. Wiring within Telecommunications Rooms and Enclosures: Provide conductors of adequate length. Train conductors to terminal points with no excess. Use lacing bars to restrain cables, to prevent straining connections, and to prevent bending cables to smaller radius than minimums recommended by manufacturer.~~
- ~~I. Field splicing of cabling is not permitted.~~

3.02 TESTING

- ~~A. The tests listed herein, shall be completed prior to placing the equipment in operation. Certification shall be submitted after completion of the tests that the equipment is ready for use. Records of all tests, including expected test results, actual test results, and corrective actions taken, shall be submitted by the Contractor in accordance with the requirements of Section 26 01 01.~~
- ~~B. The Structured Cable System Installer shall test each pair of each section of cable after installation and termination, using an appropriate Level 2 testing instrument. Tests to be performed shall include, but not be limited to, the following:

 - ~~1. Presence of AC and/or DC voltage.~~
 - ~~2. Termination sequence~~
 - ~~3. Polarity check.~~
 - ~~4. Cable continuity.~~
 - ~~5. DC insulation resistance.~~
 - ~~6. Near-end crosstalk (NEXT).~~
 - ~~7. Attenuation.~~
 - ~~8. Impedance.~~
 - ~~9. Installed length.~~
 - ~~10. 250 MHz sweep test.~~~~
- ~~C. Corrective action, including replacement of defective cable if necessary, shall be undertaken by the Contractor as required to correct non-compliant test results, at no additional expense to the Owner. Once the non-compliant condition is corrected, the affected cable shall be retested to demonstrate compliance, at no additional expense to the Owner.~~
- ~~D. Documentation of cable test results shall be maintained during testing. At the completion of testing, copies of test results shall be placed in a 3-post binder and included with the record documents. The table shall include:

 - ~~1. Listing of the measured values for each cable pair.~~
 - ~~2. Indication of whether test results comply with EIA/TIA 568B Category 6 requirements or EIA/TIA 568 C.2 Category 6A requirements.~~~~

- ~~3. Identification of any defective pairs and/or failed test results.~~
- ~~E. Cables not in compliance with test criteria shall be referred to the Project Manager for corrective action. Corrective action, including replacement of cable, shall be undertaken by the Contractor and the affected cable retested at no additional expense to the Owner.~~

END OF SECTION