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Research 1 N 7th Floor Renovation and Research 2 9th Floor Renovation

PN 23-159479 and PN 23-145834

Wednesday, February 21, 2024

ADDENDUM 2

- **Contractors who were interested in bidding on the projects were required to submit Prequalification Documents. Below is the list of approved General Contractors who met the minimum qualifications and are allowed to submit bids.**
    - **Gilmore Construction**
    - **Sun Construction**
    - **Rhinotrax Construction**

GENERAL QUESTIONS related to both Project A and Project B:

1. **Will there be a small site office / Gang box storage & light materials laydown area made available in either building or elsewhere reasonably close to the worksite for Contractors / Subs?**
    - **Response: General contractor to coordinate project site materials storage and tool access with CU Anschutz.**
2. **Are any Mech/Plumb as builts available for 7th and 9th Floors respectively.**
    - **Response: CU Anschutz to provide existing documents. See attached as builts for both R1 N 7th floor and R2 9th floor.**
3. **Please confirm all per floor Plumbing Gas Services Shutdowns/Tie-ins to be commenced after 6pm and restored the next day by 8am?**
    - **Response: The winning bidder will submit an outage request and we will determine the appropriate date and outage at the time.**

GENERAL QUESTIONS related to both Project A and Project B cont:

4. **Does Mechanical / Plumbing Contractor need to account for bleed off of any potential Tie-In air pockets created in Lab Gas & DI Systems for entirety of 7th & 9th floor outlets beyond the construction area? No branch isolation valves observed on walk, only main Isolation valves near shafts.**

    - **Response: When utility outage is requested, all information will be reviewed at the time of the outage.**

5. **Are Mech/Plmb/Elec Subcontractors not on the active University SCPP List acceptable as bidding trade partners on project?**

    - **Response: If the winning GC decides to utilize a subcontractor not on the SCPP list, the sub will need to fill out the Subcontractor Pre-Qualification form for the University PM to review prior to work beginning. (See attached document)**
    -

6. **We would like to request a waiver for the minimum qualification (Section B/Item 1). Please reference attached emails on previous CU pursuits where the director allowed the waiver. The FH team far exceeds the qualifications with our resumes.**

    - **Response: Not approved. All contractors who would like to participate in the bid process were required to submit a pre-qualification document.**

7. **At the walkthrough it was mentioned that following the qualifications response there would be a "short list" announced on 2/16. If this is the case, we would ask that the pricing due date (2/21) be pushed back to allow adequate time between short list and pricing due date.**

    - **Response: The project timeline has changed, and we have extended the due date for bids. See addendum 01.**

8. **Can you confirm if the attached Subcontractor's Statement of Experience is applicable to this project RFP and if it should be included in the GC's pre-qualification?**

9.

    - **Response: The subcontractor's statement of experience is not required in the GC's pre-qualification.**

10. **There was a comment made during the job walk regarding the Qualifications Submittal due 2/13. Is this qualification submittal required for any subcontractor wanting to bid on the project, or just required for any contractor wanting to submit a bid to CU? In other words, is it just required for those wanting to bid prime?**

    - **Response: The pre-qualification submittal is only required for any GC's who attended the pre bid meeting and are interested in bidding on the project.**

GENERAL QUESTIONS related to both Project A and Project B cont:

11. **Will the GC be responsible for any HEPA Carts, dust, and noise prevention planning? Is there any anticipated night shift work due to ongoing research being affected by construction?**

    - **Response: CU Anschutz to advise. There is active research happening around the project site, and the selected team will be required to prevent any contamination / debris from impacting the occupied spaces adjacent.**

12. **Liquidated Damages (Inability To Use The Project) shown on Page 58 are not filled out. Are we to assume that they are not applicable?**

    - **Response: Liquidated damages are not applicable.**

13. **Intermountain Electric has already been pre-qualified and has ongoing projects going on. Does this form need to be submitted every time we are a subcontractor on a new project?**

    - **Response: No. Once the subcontractor's information has been vetted and approved, they do not need to submit an application with each project**

14. **Please confirm that prevailing wages are not applicable. If they are applicable, please provide wage scale determination to use for this project.**

    - **Response: This is a prevailing wage project. Information provided in the RFP.**

15. **What extent shall plastic and dust control be necessary.**

    - **Response: CU Anschutz to advise. There is active research happening around the project site, and the selected team will be required to prevent any contamination / debris from impacting the occupied spaces adjacent.**

16. **What hours does noisy work need to occur?**

    - **Response: The hours of renovation work that include loud noises will be coordinated with the surrounding research teams during the time of the project.**

17. **Will the facilities manager be responsible for smoke detector protection?**

    - **Response: The contractor will need to put in a fire impairment request to deal with any smoke detector, heat detectors or fire alarms prior to work to be done.**

GENERAL QUESTIONS related to both Project A and Project B cont:

18. Do LDs apply? What is the amount per day if they do apply?

- **Response: Do not know what LD refers to.**

19. Please confirm that permit fees and all taxes are by the university and not part of the bid

- **Response: The contractor is not responsible for any permit fees. The University is considered a state entity and cannot be charged any taxes.**

20. Confirm that MEP subs do not need to be prequalified since the project exceeds a cost of $500,000.

- **Response: MEP subs do not need to be prequalified for the GC's to bid on the project. If the winning GC will be utilizing a MEP that has not had previous experience on the campus, they will be responsible for completing a pre-qualification document.**

21. Please confirm that no signage is required.

- **Response: Existing signage is in place and should be reinstalled if is removed.**

22. Regarding demolition, would you like the EC to just safe off items being taken out to be removed and hauled off by others, Demo items to floor to be hauled by the GC to storage room and dumpsters provided by others, Or EC disconnect, demo and haul off items to be stored and disposed of in storage areas\ dumpsters provided by others?

- **Response: EC to coordinate scope and requirements with GC.**

23. Will the GC be responsible for any HEPA Carts, dust, and noise prevention planning? Is there any anticipated night shift work due to ongoing research being affected by construction?

- **Response: CU Anschutz to advise. There is active research happening around the project site, and the selected team will be required to prevent any contamination / debris from impacting the occupied spaces adjacent.**

24. Does the OFOI equipment need to be reinstalled during construction or after turnover.

- **Response: Owner Furnished and Owner installed items are the solely responsible of CU Anschutz and should not require GC involvement.**

25. What furniture will be relocated by the owner?

- **Response: All furniture-Counters, lab tables and chairs**

GENERAL QUESTIONS related to both Project A and Project B cont:

26. What furniture is the GC responsible for moving?

- **Response: GC is not responsible for moving any furniture**

27. Part 24 – Article 21 Utilities Schedule 0 – Temporary Utilities states that "The Contractor shall pay for all consumption of power, light and water used by him or her and the other Contractors, without regard to whether such items are metered by temporary or permanent meters." Is this paragraph pertinent to this project. Spec Section 01 50 00 Temporary Facilities states all Consumption Charges are by the University. Specification Section 01 50 00 states that The University will pay for all use charges. Please confirm which is applicable.

- **Response: Not applicable to this project**

28. Part 26 – Article 23 Temporary Facilities Schedule 0 – Office Facilities states ", The Contractor shall provide and maintain without additional expense for the duration of the Project temporary office facilities, as required and as specified, for its own use and the use of the Architect/Engineer, representatives of the Principal Representative and State Buildings Program." Is this paragraph pertinent to this project.

- **Response: Do not need to provide offices for A/E. This decision will be up to the winning contractor**

29. Part 26 – Article 23 Temporary Facilities Schedule 1 – Temporary Heat. This section states that the Contractor is responsible for paying all costs associated with Temporary Heat. Is this paragraph pertinent to this project. Same question as Schedule 0 above.

- **Response: Not applicable to this project**

30. Part 26 – Article 23 Temporary Facilities – Schedule 6 – Sanitary Provision states that the Contractor is to provide temporary sanitary toilet facilities and that no other facilities may be used by any person on the Project.

- **Response: CU Anschutz to advise. Contractor to provide temporary toilet facilities located outside facilities outside of Research 1 N and Research 2.**

31. Must keep a minimum of hallway/egress areas open adjacent to our work areas.

- **Response: Contractor will be required to leave space for CU staff and students to access areas that are not under construction.**

GENERAL QUESTIONS related to both Project A and Project B cont:

32. **Will the Architect/UCD want each area punched separately to accommodate the phased turnovers.**

    - **Response: Yes, will be discussed with the internal permit department and winning contractor**

33. **It was mentioned that it is desired to have both projects start at the same time. Does this mean they would like the 7th and 9th floors to start at the same time or just to finish within the scheduled timeline.**

    - **Response: Construction schedule will be discussed with awarded contractor. Both projects should be worked on simultaneously**

34. **Items creating noise and vibration may have to be done on certain days/times. What days and time frames are we to anticipate.**

    - **Response: Possible timeframes to conduct loud noise or vibrations could be before or after business hours or weekends.**

35. **Are there any particular routes/hallways that we will have to use to bring materials in and trash out.**

    - **Response: Construction route will be determined with winning bidder prior to the start of the project**

36. **Will there be a dedicated freight elevator for construction use or can any elevator be utilized. If no dedicated elevator is available, are there any specific times for construction use.**

    - **Response: A freight elevator will be utilized during the project.**

QUESTIONS & RESPONSES FOR;

PROJECT A-RESEARCH 1 NORTH BUILDING 7TH FLOOR RENOVATION

1. **No fire alarm drawings are shown in the bid package, could we get confirmation that there will be no changes to the fire alarm system for the electrical contractor to cover?**

    - **Response: Deferred submittal. Scope to be confirmed by General Contractor**

2. **On the job walk there a lot of conduit runs were set screw type. The Specs on this job call out for Compression type connectors, if the electrical contractor is running the conduits to a box and capping them off for future use can they tie into the existing set screw conduit run with a compression fitting or will CU require them to replace the entire run to bring it up to this job's specifications?**

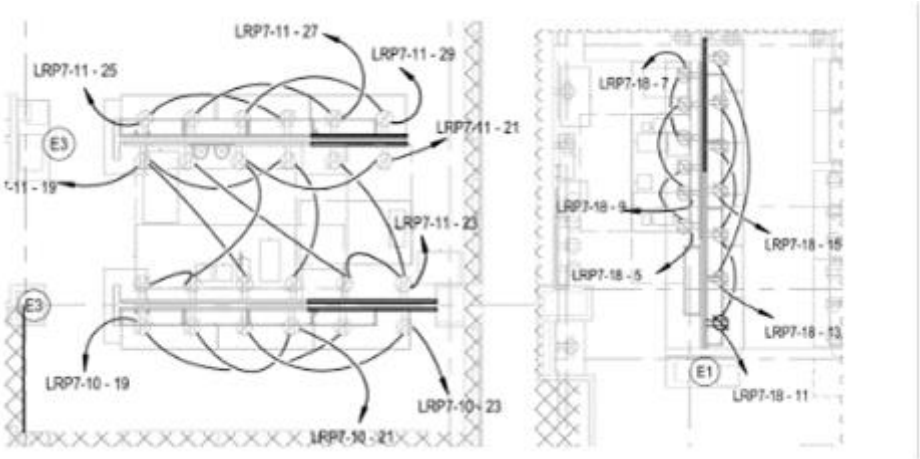
    - **Response: Tie into existing and continue with compression fittings is acceptable.**

3. **The drawings on sheet E1.1 7A and 7B show receptacles removed in the demo process as shaded, but show the circuits still in bold, we want to confirm that this is just to reference circuit numbers being removed and not showing additional work needing to be performed after we pull them up to a box for future use.**

    - **Response: All things shown in half tone on Sheet E1.1 are raceways and receptacles that were removed to allow for other work (updates to benching) and are to be reinstalled and circuited as shown on sheet E1.1. They are shown in half tone to indicate they are not newly procured devices. Refer to sheet notes for additional information.**

4. **On this same drawing we would like confirmation that no additional receptacles are being added to the Wiremold at the desks that stay in place. (See images below)**

    - **Response: The receptacle shown in full tone is a new receptacle that is being added to existing (reinstalled) raceway.**



PROJECT A-RESEARCH 1 NORTH BUILDING 7TH FLOOR RENOVATION Cont.

5. **Where the sheet notes direct us to move and store existing moveable casework, tables and wall mounted shelving and countertops for re-use per owner's instruction, where does this material need to be moved to and how far away?**

    - **Response: All moving, and storage of furniture, casework, shelving and counter tops is the responsibility of the University.**

6. **5A/A8.1 – Lab Snorkel detail, where is this to be located and is the GC to provide this? If so, please provide a specification. Is there a building required 3rd party inspector for the connections to building structure?**

    - **Response: GC and sub to coordinate scope on procurement vs install. Fume extraction arm BOD provided within documents. Lab Snorkel (Fume Extraction Arm) is in Lab P18-7400A1 per the drawings. See attached drawings dated 2/16/2024 for Fume Extraction Arm product number. See attached specification section 115313 – Laboratory Fume Hoods and Exhaust Devices.**

7. **Sheet AD1.1D – the existing sound booth in Procedure 7203 is not noted. Will the GC have any involvement in removing it?**

    - **Response: Existing sound booths to be relocated by owner. This will take place prior to construction.**

8. **Sheet A2.7A, note #6 calls for a fume extractor arm. Is this to be provided by the GC?**

    - **Response: GC and sub to coordinate scope on procurement vs install. See attached drawings dated 2/16/2024 for scope clarification.**

9. **Please provide ceiling heights from ACT to structure.**

    - **Response: See attached drawings dated 2/16/2024 for clarification.**

10. **Does UCD have a place to store equipment referenced on AD1.1B Note 8 or will the contractor need to store material and bring back in. If GC is to store, where can we place a Conex. If GC is to remove and store at a UCD central location where is that located?**

    - **Response: Very small amount of storage space on site. Contractor is advised to utilize a temporary storage space (cargo container) during project.**

11. **Please confirm the exact ArtNo. of the Nederman extraction arm.**

    - **Response: See attached drawings dated 2/16/2024 for clarification.**

PROJECT A-RESEARCH 1 NORTH BUILDING 7TH FLOOR RENOVATION Cont.

12. What is the distance from the grid to the structural deck above?

- **Response: Approximately 4 feet**

13. Is an or equal Plymovent extraction arm acceptable?

- **Response: Plymovent listed as acceptable manufacturer in specifications.**

14. Are the Laser Curtains part of the owners OFOI package.

- **Response: GC responsible for the scope outlined within the documents provided. Laser curtains called out are included with a basis of design and should be considered part of the GC scope.**

CHANGES TO SPECIFICATIONS

Section 115313 – Laboratory fume hoods and exhaust devices

ADD specification section in its entirety.

CHANGES TO DRAWINGS

a2.7A – FLOOR PLAN – LEVEL 7, AREA A

REVISE Floor Plan Note #1 to clarify scope.
REVISE Floor Plan Note #2 to clarify scope.
REVISE Floor Plan Note #6 for Fume Extraction Arm Product information and scope.

A2.7b – floor plan – level 7, area b

REVISE Floor Plan Note #1 to clarify scope.
REVISE Floor Plan Note #2 to clarify scope.
REVISE Floor Plan Note #6 for Fume Extraction Arm Product information and scope.

A8.1 – partition types, and interior details

ADD elevation marker to Detail 2C/A8.1 for clarification.

QUESTIONS & RESPONSES FOR;

PROJECT B: RESEARCH 2 BUILDING 9TH FLOOR LAB RENOVATIONS

1. **No fire alarm drawings are shown in the bid package, could we get confirmation that there will be no changes to the fire alarm system for the electrical contractor to cover?**
    - **Response: Deferred submittal. Scope to be confirmed by General Contractor.**
2. **On the job walk there a lot of conduit runs were set screw type. The Specs on this job call out for Compression type connectors, if the electrical contractor is running new conduits down for the equipment being moved to the area will the Electrical Contractor be required to bring entire run to bring it up to this job's specifications? Or can they tie into the existing run and continue it with compression fittings.**
    - **Response: Tie into existing and continue with compression fittings is acceptable.**
3. **Can CU provide any model number or brand of the sound booth and Demountable wall so the EC Can investigate power connections needed to each unit? No conduit was visible on the job walk for us to reference. E1.0**
    - **Response: Power requirements are included within the combined set and should be referenced for connect requirements. The demountable wall system basis of design Manuf. has been included within the documents.**
4. **Sheet A1.9 – at new casework in Lab Alcove 9460F, note #8 calls for demountable wall system. Referring to section detail 4E/A11.1 a plumbing chase is called for behind new casework. Please clarify this condition.**
    - **Response: See attached updated drawings dated 2/16/2024. Note #8 removed from Lab Alcove 9460F.**
5. **RCP note #3 calls for a fume extractor arm in Lab Alcove 9460F. Is the GC to provide this? If so, please provide a specification.**
    - **Response: GC and sub to coordinate scope on procurement vs install. Fume extraction arm BOD provided within documents.**
6. **Partition Elevation 2E/A1.9 is marked as – DEDUCT ALTERNATE, is this to be in lieu of Elevation 1E/A1.9? Please provide a specification for the Falkbuilt demountable wall system in note #8.**
    - **Response: See attached drawings dated 2/16/2024. DEDUCT ALTERNATE is removed from scope. Falkbuilt demountable wall system clarified in drawings.**

PROJECT B: RESEARCH 2 BUILDING 9TH FLOOR LAB RENOVATIONS Cont.

7. **2D/A11.1 – Lab Snorkel detail, where is this to be located and is the GC to provide this? If so, please provide a specification. Is there a building required 3rd party inspector for the connections to building structure?**
    - **Response: GC and sub to coordinate scope on procurement vs install. Fume extraction arm BOD provided within documents.**
8. **4E/A11.1 – Lab casework section detail, please provide finish specifications to match for epoxy benchtop and backsplash and sink base cabinet.**
    - **Response: GC to verify existing conditions and match existing finishes per drawings.**
9. **Can you please provide a model number or brand of the soundbooth?**
    - **Response: Sound booth was custom fabricated by vendor and does not include model number.**
10. **Please confirm the exact ArtNo. of the Nederman extraction arm.**
    - **Response: See attached drawings dated 2/16/2024 for product information.**
11. **What is the distance from the grid to the structural deck above?**
    - **Response: See attached drawings dated 2/16/2024 for clarification.**
12. **Is an or equal Plymovent extraction arm acceptable?**
    - **Response: Plymovent listed as acceptable manufacturer in specifications.**
13. **Please provide ceiling heights from ACT to structure.**
    - **Response: See response to # 7 above.**

CHANGES TO SPECIFICATIONS

SECTION 01 23 00- alternates

DELETE entire section from Project Manual

Alternate No.1 removed from scope.

CHANGES TO DRAWINGS

A1.9 - floor plan and reflected ceiling plan – level 9

- **DELETE elevation 2E/A1.9.**
- **Elevation 1E/A1.9**
  - **REVISE notations for clarity of scope.**
  - **ADD section detail callout.**

- **REVISE Floor Plan Note #8 for Demountable Partition product information and scope clarity.**
- **REVISE Floor Plan Note #9 for Fume Extraction arm product information and scope clarity.**
- **ADD dimensions to Enlarged Floor Plan for lab gas locations.**
- **DELETE Floor Plan Note #8 from Lab Alcove p15-9460F.**

A8.1 – partition types, door schedule, and details

- **ADD Detail 3A/A8.1 and Detail 5A/A8.1 for Demountable Partition Clarification.**

- **ADD elevation marker to Detail 3E/A8.1 for clarification.**

END OF ADDENDUM 2

SECTION 115313 - LABORATORY FUME HOODS AND EXHAUST DEVICES

PART 1 - GENERAL

1.1 SUMMARY

A. Furnish labor, materials, tools, equipment, and services for Laboratory Fume Hoods in accordance with provisions of Contract Documents.

B. Completely coordinate with work of other trades.

1.2 SECTION INCLUDES

A. Fume Extractor Arms (Snorkels).

1.3 UNDIVIDED RESPONSIBILITY

A. Unless specified otherwise, because of special coordination requirements, the scope of work described in this Section shall be provided by the supplier of the Section 123553 "Laboratory Casework" scope of work.

1.4 RELATED SECTIONS

1.5 REFERENCES AND QUALITY ASSURANCE

A. ASHRAE 110, latest edition, Method of Testing Performance of Fume Hoods.

B. Work shall conform to the recommended practices of the Scientific Equipment and Furniture Association (SEFA), except as superseded by this specification:
   1. SEFA 1: Fume Hoods.
   2. SEFA 2: Installation.
   3. SEFA 3: Laboratory Work Surfaces.
   4. SEFA 7: Fixtures.
   5. SEFA 8 M: Laboratory Grade Metal Casework.
   6. SEFA 8 P: Laboratory Grade Polypropylene Casework.

C. Occupational Safety and Health Administration, Federal Register 29 CFR Part 1910, "Occupational Exposures to Hazardous Chemicals in Laboratories."

D. State OSHA regulations, if developed for state of the project location.

E. American National Standards Institute/American Industrial Hygiene Association (ANSI/AIHA) Z9.5 "Standard for Laboratory Ventilation."

F. National Fire Protection Association (NFPA) 45 "Standard on Fire Protection for Laboratories Using Chemicals."

G. American Conference of Government Industrial Hygienists (ACGIH) "Industrial Ventilation."

H. Quality Assurance
   1. Coordinate work of this Section with Section 123553 "Laboratory Casework" and Furnishings.
   2. Provide interface products of style, material, finish, and color in order to produce a homogenous installation.

3. Fume Hoods shall be UL tested and labeled and conform to Class A requirements of ANSI Z9.5 Laboratory Ventilation.
4. Qualifications:
   a. Fume Hood/Exhaust Device Manufacturer:
      1) Work in this Section, with respect to the specific equipment specified herein, shall be manufactured by a firm having a minimum eight years documented experience, and an established organization and production facilities including all tools, equipment and special machinery necessary for specializing in the fabrication and installation of the type of equipment required with skilled personnel, factory trained workmen and an experienced engineering department. Each shall have the demonstrated knowledge, ability and the proven capability to produce the specified equipment of the required quality and the proven capacity to complete an installation of this size and type within the required time limits. Upon request, manufacturers shall produce evidence of financial stability and bonding capacity required to perform on this project.
      2) Manufacturer shall maintain a factory test facility which provides variable exhaust and make-up air control. Test facility shall contain, as permanent equipment, ANSI/ASHRAE 110 testing equipment as specified for performance testing.
   b. Fume Hood/Exhaust Device Installer: Fume hoods and exhaust devices shall be installed by the manufacturer or installers shall be approved in writing by the fume hood or exhaust device manufacturer for the installation of specified products.

1.6 DESCRIPTION

A. Provide fume hoods and exhaust devices, as indicated, complete with accessories as described herein, and shown on drawings.

B. Fume hoods with accessories shall be pre-piped and pre-wired.
   1. Pre-pipe service fittings to single point connection for each service at 150mm 6 inches above top of hood or as otherwise shown. Cup sink tailpiece shall be provided with fume hood. P-trap, waste piping and tailpiece extensions for cup sinks, if required, shall be furnished and installed by Division 22. Comply with Division 22 requirements for piping and installation requirements.
   2. Pre-wire electrical devices to junction box at top of hood. Provide wire terminal blocks and terminal identification. Comply with Division 26 requirements for electrical work. Lighting fixtures, electrical outlets, switches, wiring, terminal blocks, terminal boxes, safety alarms and other electrical devices mounted on or in fume hoods shall be approved for use in Class 1, Division 2 locations indicated on the drawings.
   3. Work of this Section requires close coordination with Work of Divisions 22, 23, 25 and 26, as well as installation of Owner furnished components and Work specified in other Sections. Sequence Work to ensure an orderly progress in the project without removal of previously installed Work and so as to prevent damage to finishes and products.

C. Exhaust Requirements:
   1. Refer to Exhaust Schedule for requirements.
   2. Fume hoods and exhaust devices shall be designed to operate safely within the values provided on the Exhaust Schedule. The airflow values provided on the Exhaust Schedule represent the total airflow through the fume hood or exhaust device, including the airflow through the sash or work opening, airfoil, bypass, and leakage, respectively, as they apply to particular devices. Exhaust devices shall operate at specified face velocity within total airflow scheduled.

3. Proposed modifications or corrections shall be reviewed and approved by Laboratory Planner and Mechanical Engineer for devices that requires adjustment to operate within specified design requirements.

D. Accessibility for the Physically Disabled:
1. Where indicated on Laboratory Furnishings drawings, fume hoods shall be furnished and installed in a manner to make them accessible to the disabled in accordance with the Americans with Disabilities Act and state or local building codes or regulation having jurisdiction. The height of the highest point of access to the work surface above finished floor shall not exceed 34 inches. Fittings for piped services and electrical receptacles shall be of a design and in a location to satisfy accessibility requirements.
2. Fume Hood Testing shall be in accordance with ASHRAE 110.
3. Fume hood testing shall be in accordance with the National Institutes of Health Design Requirements Manual.

1.7 SUBMITTALS

A. Shop Drawings:
1. Submit complete shop fabrication and installation drawings, including plans, elevations, sections, dimensions, materials and metal gauge sizes, details, fittings, duct connections, schedules, and steam table piping and vents from cabinets below where applicable.
2. Show relationship to adjoining materials and construction.
3. Identify connection points, locations and sizes to building services and systems. Provide clear identification where equipment requirements deviate from the service/utility provisions in the Construction Documents.
4. Coordinate shop drawing submittals of both this Section and Section 123553 “Laboratory Casework” so that each recognizes and incorporates each other’s products.
5. Provide piping, wiring, and/or control diagrams, including connection points and sizes to building services and systems. Provide flow rates, pressure drops, voltage and amperage, etc.
6. Identify where equipment requirements deviate from service/utility provisions identified in the Construction Documents.

B. Product Data:
1. Description of hoods and exhaust devices, including construction details, materials, gauges, sash lock and release procedure, hardware cut sheets, piping of equipment and description of re-lamping procedures.
2. Statement giving face velocity, operating volume and pressure drop at operating sash position for each size hood or exhaust device.
3. Description of proposed factory dynamic testing procedures.
4. Submit complete materials list, including catalog data of materials, equipment, fan curves, test designs, performance charts, and products for Work specified in this Section.

C. Samples:
1. Manufacturer's color charts showing the full range of colors, textures and patterns available for each type of finish, for selection or verification by Architect.
2. Submit two (2) samples of each type of specified finish and color range available, or as identified in the Finish Schedule.

D. Project Information:

1. "As Manufactured" (AM) Fume Hood Testing in Manufacturing Facility: Provide certification that each type and size of fume hood has achieved an AM performance rating equal or better than 0.05 ppm with 4.0 Lpm tracer gas release rate when tested in accordance with ASHRAE 110.
2. Submit detailed anchorage and attachment drawings and calculations to show compliance with seismic restraint requirements of applicable building codes.
   a. Engineering design shall be performed and sealed by registered Engineer, licensed to practice structural engineering in the state of the project location.
3. Fume Hood Sound Level Certification: Provide certification of fume hood compliance with design criteria for maximum allowable noise within laboratories.
   a. Provide test data of octave band analysis verifying fume hood is capable of a 50 NC value when connected to a 50 NC HVAC source. Measurements shall be taken 915mm 36 IN in front of full open sash, 1.524m 60 IN above the floor at the specified face velocity.

E. Contract Closeout Information:
1. Certification: Submit certification by an independent testing company stating that equipment is installed per applicable and referenced codes and standards, adjusted and balanced for design operations, and is complete and ready for intended function.
   a. Certify that fume hoods will not exceed design maximum at specified operating conditions.
2. Operations/Maintenance Manuals:
   a. Operating and maintenance manuals that describe proper operating procedures.
   b. Maintenance and replacement schedules.
   c. Component parts list.
   d. Wiring diagrams.
   e. Closest factory representative for components and service.

1.8 PRODUCT HANDLING

A. Protect work before, during and after installation including installed work and materials of other trades. Maintain protective covering until start-up.

B. Deliver laboratory equipment after wet operations in building are complete.

C. Laboratory equipment shall be stored in a ventilated area, protected from weather, with relative humidity of 50 percent or less at 21 Deg C 70 Deg F.

D. Replace, repair and restore damaged work to original condition.

E. At no time shall worker use the installed equipment as a work bench, scaffolding, or for other uses.

PART 2 - PRODUCTS

2.1 FUME EXTRACTOR ARMS (SNORKELS)

A. Acceptable Manufacturers:
1. All snorkel fume extractors shall be the product of a single manufacturer.
2. Base:
   a. Nederman Inc.
3. Optional:
   a. Airflow Systems, Inc.

b. Alsident System, distributed by Laboratory Enterprises, Inc.
c. Enviroflex International Inc.
d. Movex Inc.
e. Plymovent Corporation.

B. Basis of design: Nederman Original Fume Extractor Arm. 158mm 6-1/4 IN hose diameter, hinged, self-supporting air extractor arm assembly, or equivalent.
1. Arm shall consist of 360 degree swivel elbow, support flange, internal support, pre-set joints with adjustable wear discs, white fiberglass-reinforced PVC hose, hood, and flange for 150mm 6 IN exhaust duct. Provide protective grille to prevent objects from being drawn into arm.
2. Fume extractor shall be a constant volume device with no manual damper.
3. Mounting Bracket: 915mm 3 FT ceiling bracket. Manufacturer shall coordinate location of duct connection with the work of Division 23. Provide ceiling escutcheon.
4. Mounting Bracket: 2.13m 7 FT ceiling bracket. Manufacturer shall coordinate location of duct connection with the work of Division 23. Provide ceiling escutcheon.
5. Bracket Support: Provide slotted channel framing as required to suspend and support ceiling bracket from structure above.
6. Arm Length:

   a. Arm Length: 2m 7 FT; mainly vertical joints.
7. Silencer.
8. Hood Type:
   a. White polycarbonate hood.
9. Hood light, including switch and transformer, if required; UL listed.
10. Fan and fan switch.
11. 610mm 24 IN extension arm.

C. Basis of Design: Nederman benchtop extraction arm FX2 75 original, self-supporting tubing and inlet accessory, or approved equal, satisfying the identified requirements, characteristics, and features as specified herein.
1. Provide protective grille to prevent objects from being drawn into arm.
2. Fume extractor shall be a constant volume device with no manual damper.
3. Ceiling Mounting:
   a. White powder coated steel ceiling column with side-mounted 100mm 4 IN duct flange. Ceiling column shall be 100mm 4 IN diameter by 1016mm 40 IN long.
   b. Ceiling column extension shall be supported from structural deck with slotted channel framing.
   c. Manufacturer shall coordinate location of duct connection with the work of Division 23.
   d. Provide ceiling escutcheon.
4. Wall Bracket: White powder coated steel.
5. Extraction Arm Diameter:
   a. 76mm 3 IN diameter.
6. Extraction Arm Length:
   a. 1450mm 57 IN long tubing with three mechanical joints.
7. Materials:
   a. White polypropylene pipes and joints.

D. Refer to Exhaust Schedule for airflow rate.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Prior to installation of the Work of this Section, carefully inspect the installed Work specified in other sections and verify that Work is complete to the point where this installation may properly commence.

B. Verify that Work has been installed in complete accordance with the original design, received submittals, and the manufacturer's recommendations.

C. In the event of discrepancy, immediately notify the Architect. Do not proceed with installation in areas of discrepancy until discrepancies have been fully resolved.

3.2 INSTALLATION

A. Work in this Section requires close coordination with Work specified in Divisions 22, 23, 25 and 26, as well as installation by Owner of Owner furnished components. Coordinate Work to ensure an orderly process in the Project, without removal of previously installed Work, and so as to prevent damage to finishes and products.

B. Coordinate location and alignment of fume hoods and cabinets for proper connection of piping and duct work.

C. Install equipment in accordance with manufacturer’s written instructions, applicable codes and regulations, accepted Shop Drawings, and as necessary for a complete operating system.

D. Install equipment plumb, square, and straight with no distortion and securely anchored, as required.

E. Where cup sinks are indicated, coordinate alignment of fume hood cup sink(s) so that sink is centered below water fitting outlet.

F. Coordinate with Section 123553 “Laboratory Casework” for venting corrosives storage cabinets behind rear baffle of fume hood.

3.3 FIELD TESTING:

A. Provide two week advance notice of scheduled testing.

B. Fume hood field tests shall be performed by a qualified independent testing company on each hood to determine face velocity and air flow patterns.

C. Balance, test and certify each fume hood in accordance with ASHRAE 110 (AI) for Flow Visualization, Face Velocity, and Tracer Gas Containment Testing Requirements.
   1. Fume hoods shall achieve an “As Installed” (AI) performance rating equal or better than 0.10 ppm with 4.0 Lpm tracer gas release rate when tested in accordance with ASHRAE 110.

D. Balance, test and certify each fume hood in accordance with the requirements and specifications for the National Institutes of Health On Site Testing of Fume Hoods, as identified in the NIH Design Requirements Manual.

E. Balancing of the system is in the scope of work of Division 23.

F. Verify exhaust air quantity does not exceed design, plus allowable leakage.

G. Verify hood pressure drop does not exceed design.

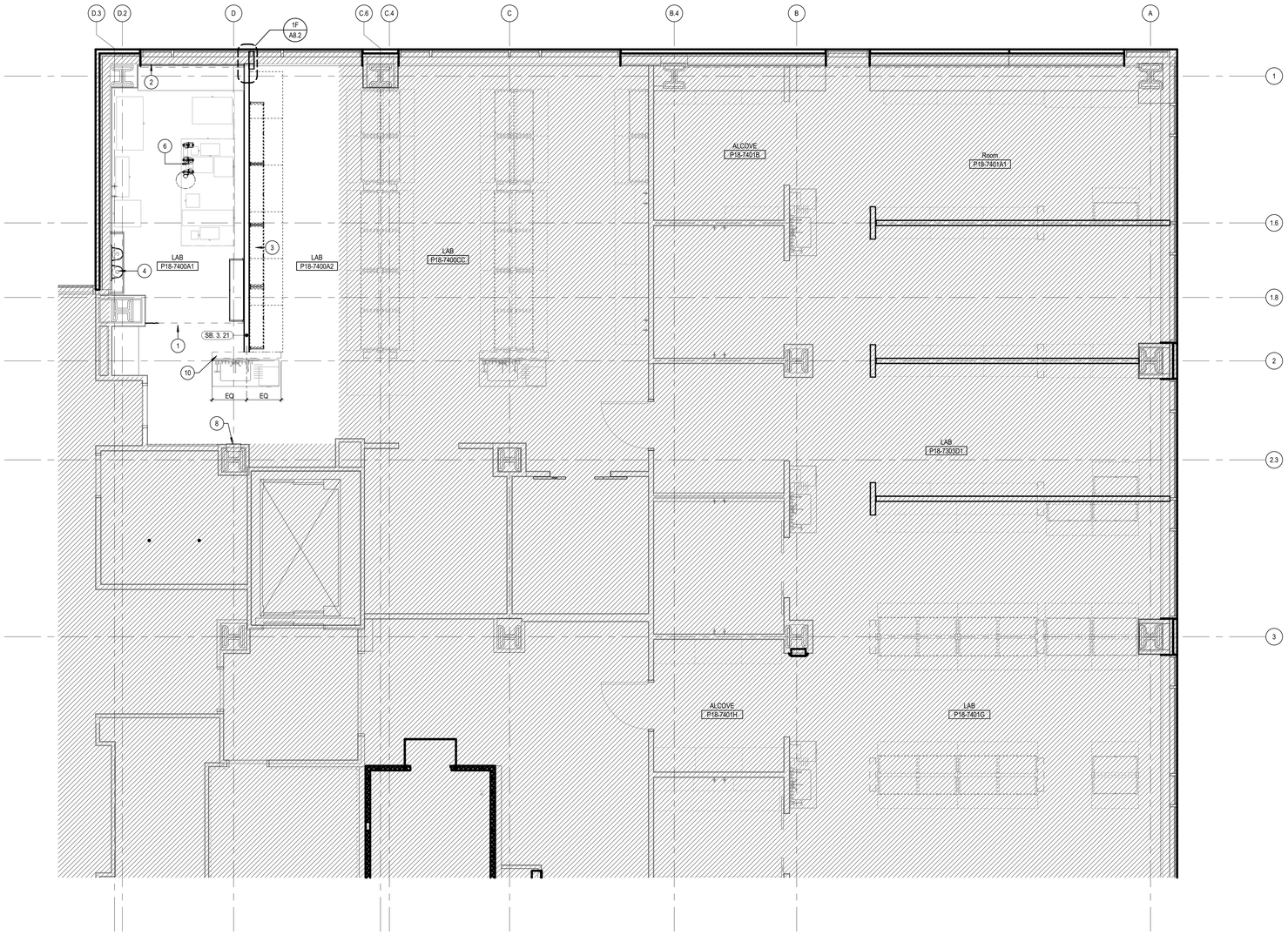
H. Adjust and retest hoods that do not meet specified performance.

I. Replace hoods which do not meet standards after repetitive testing.

3.4 DEMONSTRATION

A. Recorded video showing recommended operation and maintenance of each type of hood specified.

END OF SECTION 115313



FLOOR PLAN, LEVEL 7 - AREA A

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

GENERAL ARCHITECTURAL NOTES

1. PARTITION TYPES SHALL BE DESIGNATED ON FLOOR PLANS.
2. PROVISIONS SHALL BE MADE AT ALL FULL HEIGHT NON-BEARING WALLS FOR 1-INCH VERTICAL MOVEMENT OF THE BUILDING STRUCTURE WITHOUT TRANSFER OF COMPRESSIVE LOADS TO WALL. FILL IRREGULARITIES BETWEEN TOP OF WALL AND DECK ABOVE WITH MINERAL WOOL INSULATION OR FIRE STOPPING MATERIALS AS REQUIRED TO MEET FIRE RATING OF RESPECTIVE WALLS. SEE DETAILS ON SHEET XX.X.
3. FURNISH AND INSTALL FIRE-TREATED WOOD BLOCKING OR METAL BACKING PLATE IN METAL STUD PARTITIONS FOR THE PROPER ANCHORAGE OF ALL WALL ATTACHED ITEMS; I.E. TOILET ACCESSORIES, CASEWORK, MILLWORK, WALL-MOUNTED FIXTURES, MARKER BOARDS, TACK BOARDS, DOOR STOPS, AUDIO VISUAL BRACKETS, AND OTHER WALL ATTACHED ITEMS.
4. GYPSUM BOARD SURFACES SHALL BE ISOLATED WITH CONTROL JOINTS WHERE SHOWN ON DRAWINGS AND AS DESCRIBED IN THE SPECIFICATIONS.
5. SCRIBE GYPSUM WALL BOARD OF WALLS AND PARTITIONS TO IRREGULARITIES OF DECK ABOVE. SEAL TIGHTLY AROUND ALL PENETRATIONS.

SHEET NOTES

1 BLACKOUT LASER CURTAIN WITH VALENCE. CFCI. BASIS OF DESIGN: KENTEK

2 MANUAL BLACKOUT WINDOW SHADE. CFCI. BASIS OF DESIGN: KENTEK. FLEX-GUARD REGULAR POWER BLACK. ADD-01

3 REINSTALL SALVAGED WALL STANDARDS AND SHELVING. INSTALL WALL STANDARDS AND SHELVING FROM OWNER'S STOCK AS NEEDED. COORDINATE WITH OWNER ON AVAILABILITY AND SIZING. INSTALL BLOCKING IN WALL AS REQUIRED.

4 PROVIDE WALL MOUNTED DOUBLE CYLINDER RESTRAINT.

5 LAB GAS FIXTURE AT WALL MOUNTED 44" AFF. RE: PLUMBING FOR TYPE AND ROUTING INFORMATION.

6 FUME EXTRACTOR ARM. CFCI. BASIS OF DESIGN: NEIDERMAN BENCHTOP EXTRACTION ARM. EX2-ORIO-D75-L1500-UP-PLUS. ADD-01

7 LAB GAS FIXTURE AT WALL MOUNTED 84" AFF. RE: PLUMBING FOR TYPE AND ROUTING INFORMATION.

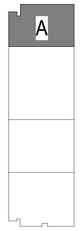
8 RELOCATE SEMI-RECESSED FIRE EXTINGUISHER CABINET

10 EXISTING SERVICE CHASE TO REMAIN.

LEGEND

AREA NOT IN SCOPE

KEY PLAN



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COLORADO LICENSED ARCHITECT NICHOLAS JAMES KOEPP 405643

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AURORA, CO 80045

CONSTRUCTION DOCUMENTS
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FLOOR PLAN - LEVEL 7, AREA A

A2.7A

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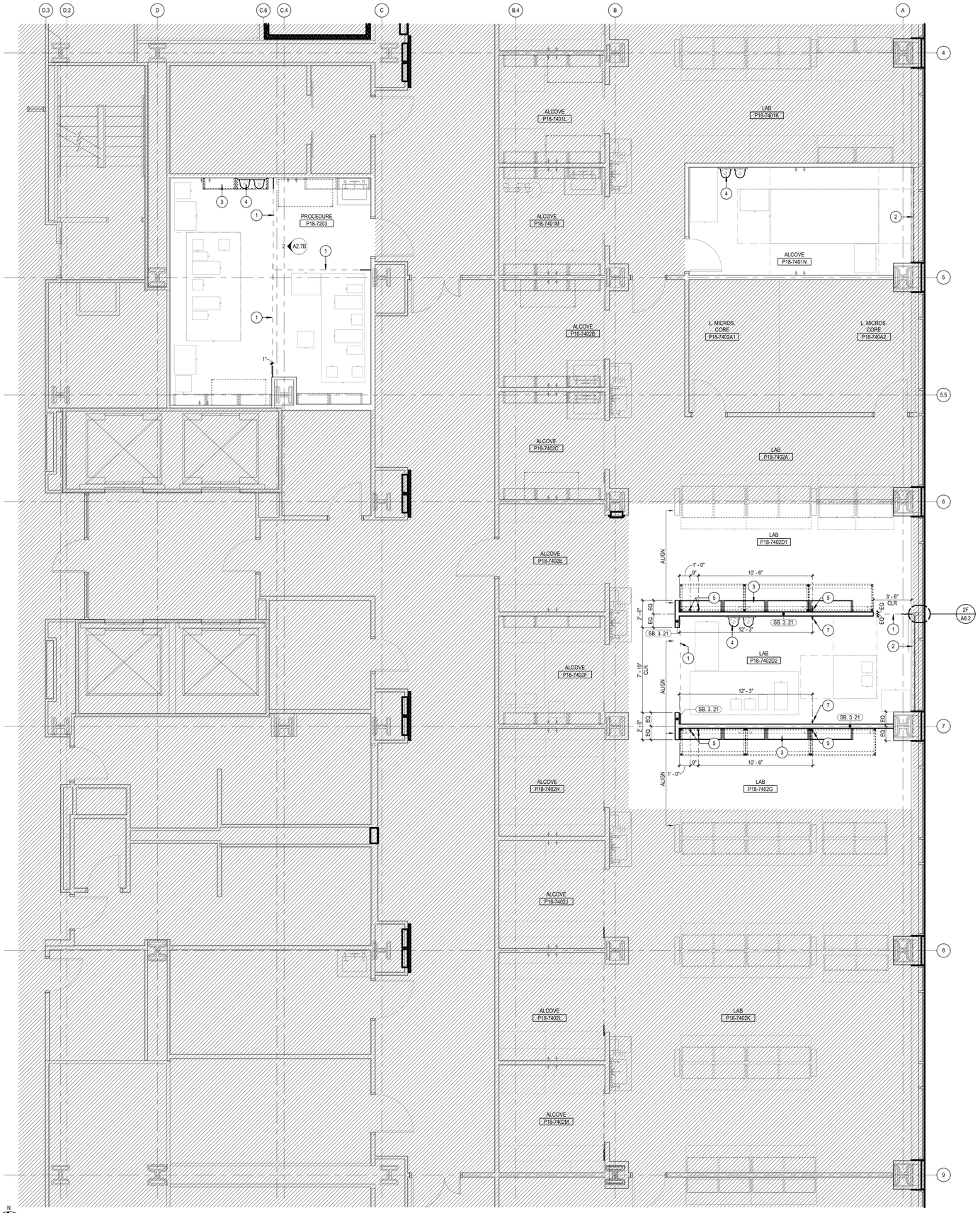
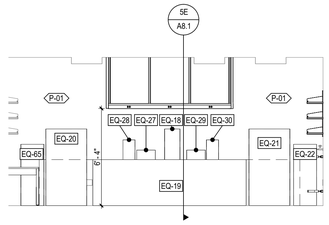


FLOOR PLAN, LEVEL 7 - AREA B

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



2 A2.7B WEST ELEVATION - PROCEDURE P18-7203

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

GENERAL ARCHITECTURAL NOTES

1. PARTITION TYPES SHALL BE DESIGNATED ON FLOOR PLANS.
2. PROVISIONS SHALL BE MADE AT ALL FULL HEIGHT NON-BEARING WALLS FOR 1-INCH VERTICAL MOVEMENT OF THE BUILDING STRUCTURE WITHOUT TRANSFER OF COMPRESSIVE LOADS TO WALL. FILL IRREGULARITIES BETWEEN TOP OF WALL AND DECK ABOVE WITH MINERAL WOOL INSULATION OR FIRE STOPPING MATERIALS AS REQUIRED TO MEET FIRE RATING OF RESPECTIVE WALLS. SEE DETAILS ON SHEET XX.X.
3. FURNISH AND INSTALL FIRE-TREATED WOOD BLOCKING OR METAL BACKING PLATE IN METAL STUD PARTITIONS FOR THE PROPER ANCHORAGE OF ALL WALL ATTACHED ITEMS; I.E. TOILET ACCESSORIES, CASEWORK, MILLWORK, WALL-MOUNTED FIXTURES, MARKER BOARDS, TACK BOARDS, DOOR STOPS, AUDIO VISUAL BRACKETS, AND OTHER WALL ATTACHED ITEMS.
4. GYPSUM BOARD SURFACES SHALL BE ISOLATED WITH CONTROL JOINTS WHERE SHOWN ON DRAWINGS AND AS DESCRIBED IN THE SPECIFICATIONS.
5. SCRIBE GYPSUM WALL BOARD OF WALLS AND PARTITIONS TO IRREGULARITIES OF DECK ABOVE. SEAL TIGHTLY AROUND ALL PENETRATIONS.

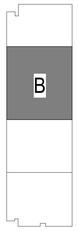
SHEET NOTES

1. BLACKOUT LASER CURTAIN WITH VALENCE, CFCI. BASIS OF DESIGN: KENTEK
2. MANUAL BLACKOUT WINDOW SHADE. CFCI. BASIS OF DESIGN: KENTEK. FLEX-GUARD REGULAR POWER BLACK. ADD-01
3. REINSTALL SALVAGED WALL STANDARDS AND SHELVING. INSTALL WALL STANDARDS AND SHELVING FROM OWNER'S STOCK AS NEEDED. COORDINATE WITH OWNER ON AVAILABILITY AND SIZING. INSTALL BLOCKING IN WALL AS REQUIRED.
4. PROVIDE WALL MOUNTED DOUBLE CYLINDER RESTRAINT.
5. LAB GAS FIXTURE AT WALL MOUNTED 44" AFF. RE: PLUMBING FOR TYPE AND ROUTING INFORMATION.
6. FUME EXTRACTOR ARM. CFCI. BASIS OF DESIGN: NEDERMAN BENCHTOP EXTRACTION ARM, 5XX-080-XXX-150-UP-PLUS. ADD-01
7. LAB GAS FIXTURE AT WALL MOUNTED 84" AFF. RE: PLUMBING FOR TYPE AND ROUTING INFORMATION.
8. RELOCATE SEMI-RECESSED FIRE EXTINGUISHER CABINET
10. EXISTING SERVICE CHASE TO REMAIN.

LEGEND

AREA NOT IN SCOPE

KEY PLAN



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FLOOR PLAN - LEVEL 7, AREA B

A2.7B

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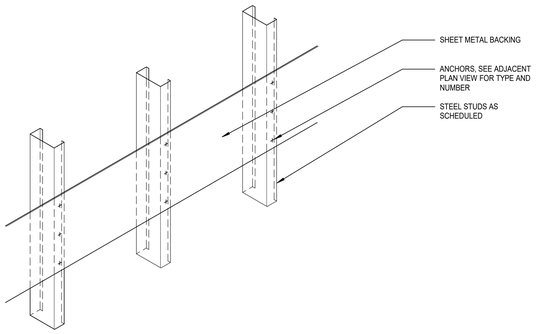
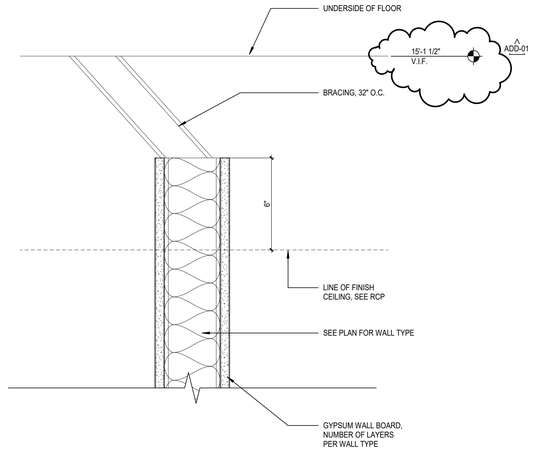
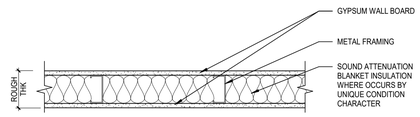




2C / A8.1 T.O. WALL DETAIL
SCALE: 3" = 1'-0"



S_-_-2_ NON-RATED STUD PARTITION

MARK			ROUGH THICKNESS	FIRE/SMOKE		SOUND		T.O. WALL DETAIL	B.O. WALL DETAIL	COMMENTS
				RATING	TESTED ASSEMBLIES	STC RATING	TESTED ASSEMBLIES			
SB	3	21	4 7/8"	NR	NA					

PARTITION TYPES DESCRIPTIONS

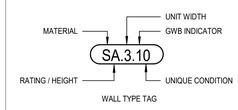
MATERIAL DESCRIPTION
S = STEEL (METAL STUDS)

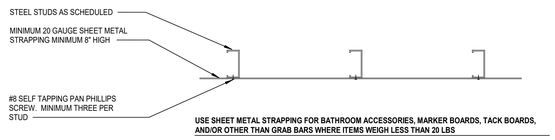
RATING / HEIGHT
A = FULL HEIGHT / UNDERSIDE OF STRUCT (NOT RATED)
B = 6" ABOVE CEILING (NOT RATED)
C = UNDERSIDE OF CEILING (NOT RATED)

UNIT WIDTH / CONFIGURATION
1 = 1 5/8" METAL
2 = 2 1/2" METAL
3 = 3 5/8" METAL
6 = 6" METAL

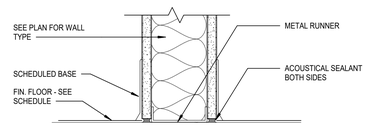
GYPSUM WALLBOARD INDICATOR
(NOT INCLUDING SHAFT LINER)
0 = NO GWB
1 = ONE LAYER, TAG SIDE
2 = ONE LAYER, EACH SIDE
3 = TWO LAYERS TAG SIDE, ONE LAYER OTHER

UNIQUE CONDITION (SEE SCHEDULE)
1 = SOUND ATTENUATION BLANKET

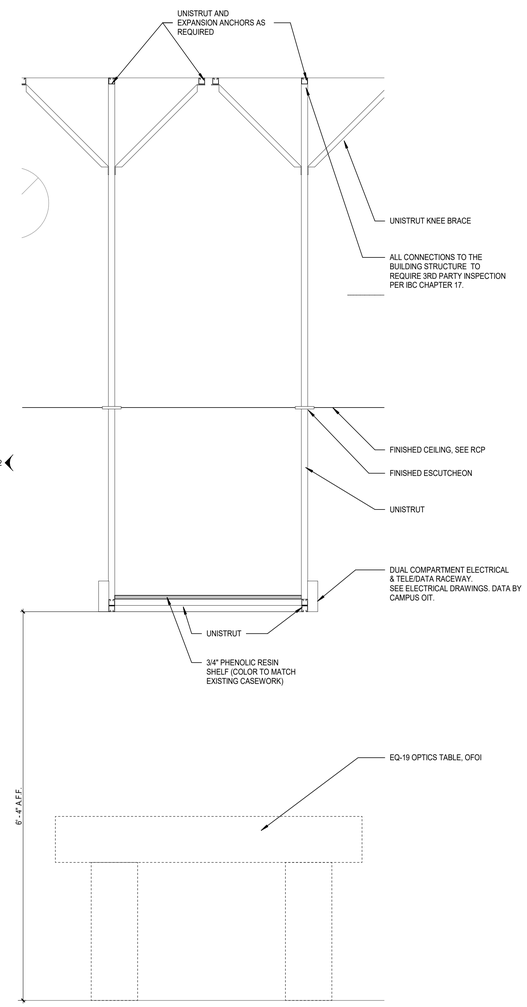


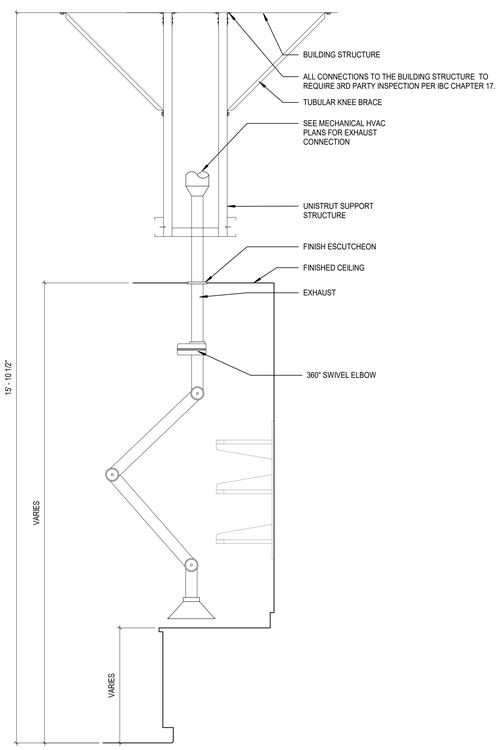


3A / A8.1 TYPICAL BLOCKING IN FRAME WALLS
SCALE: 1 1/2" = 1'-0"

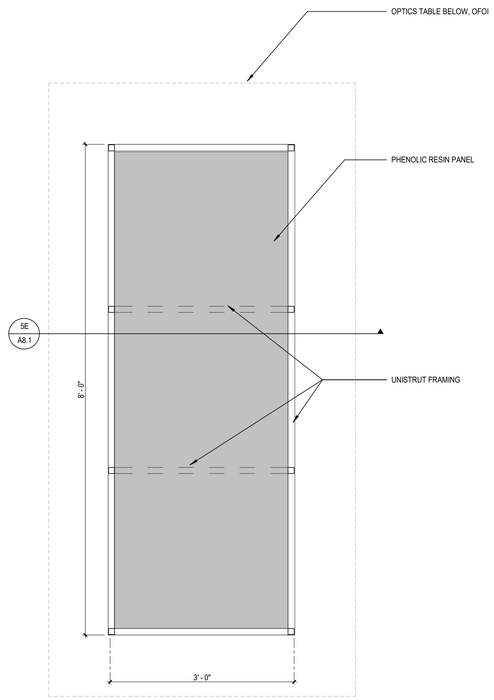


3C / A8.1 B.O. WALL DETAIL
SCALE: 3" = 1'-0"





5A / A8.1 LAB - SNORKEL (R)1
SCALE: 3/4" = 1'-0"



5C / A8.1 ENLARGED PLAN AT LASER SHELF
SCALE: 1" = 1'-0"

5E / A8.1 OPTICAL TABLE SHELF SECTION DETAIL
SCALE: 1" = 1'-0"

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405643
ARCHITECT
02.15.2024

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AURORA, CO 80045

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PARTITION TYPES, AND INTERIOR DETAILS

A8.1

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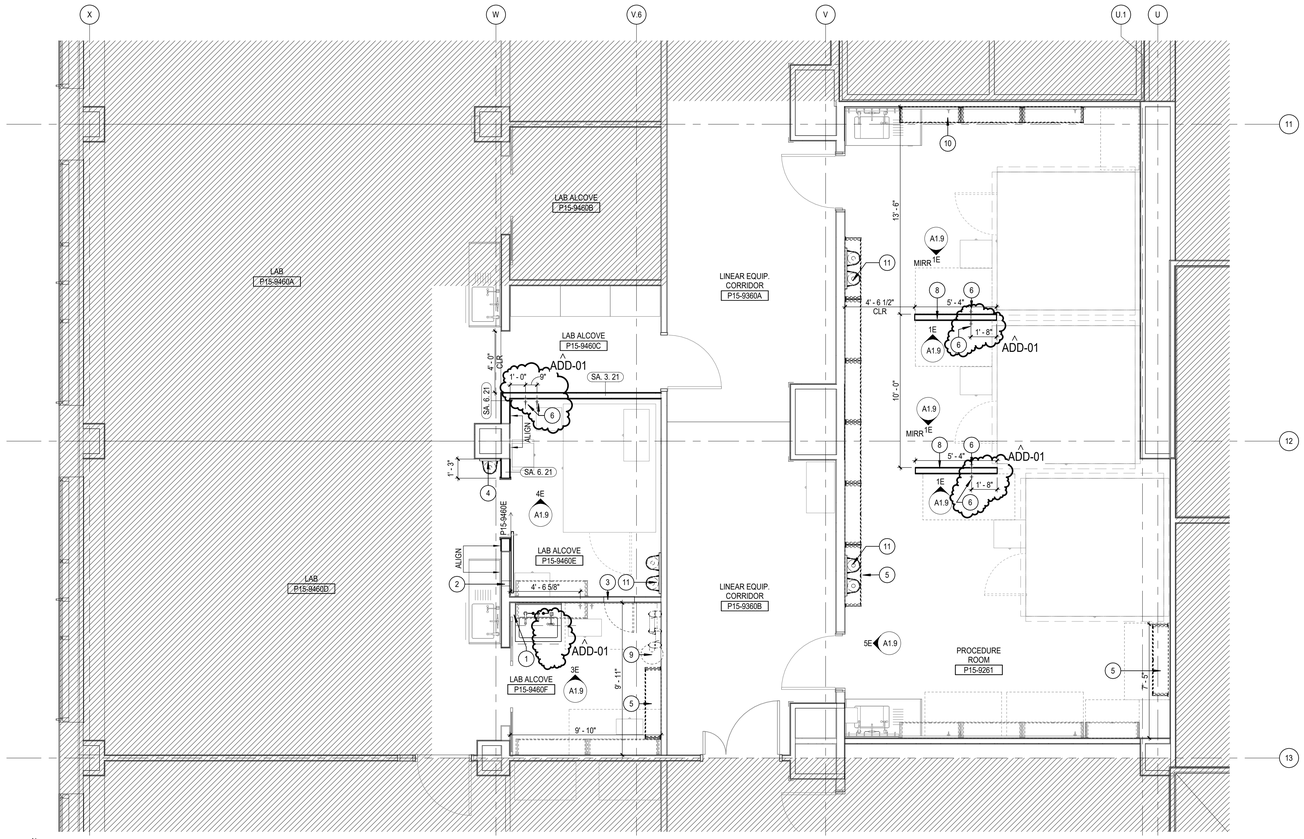
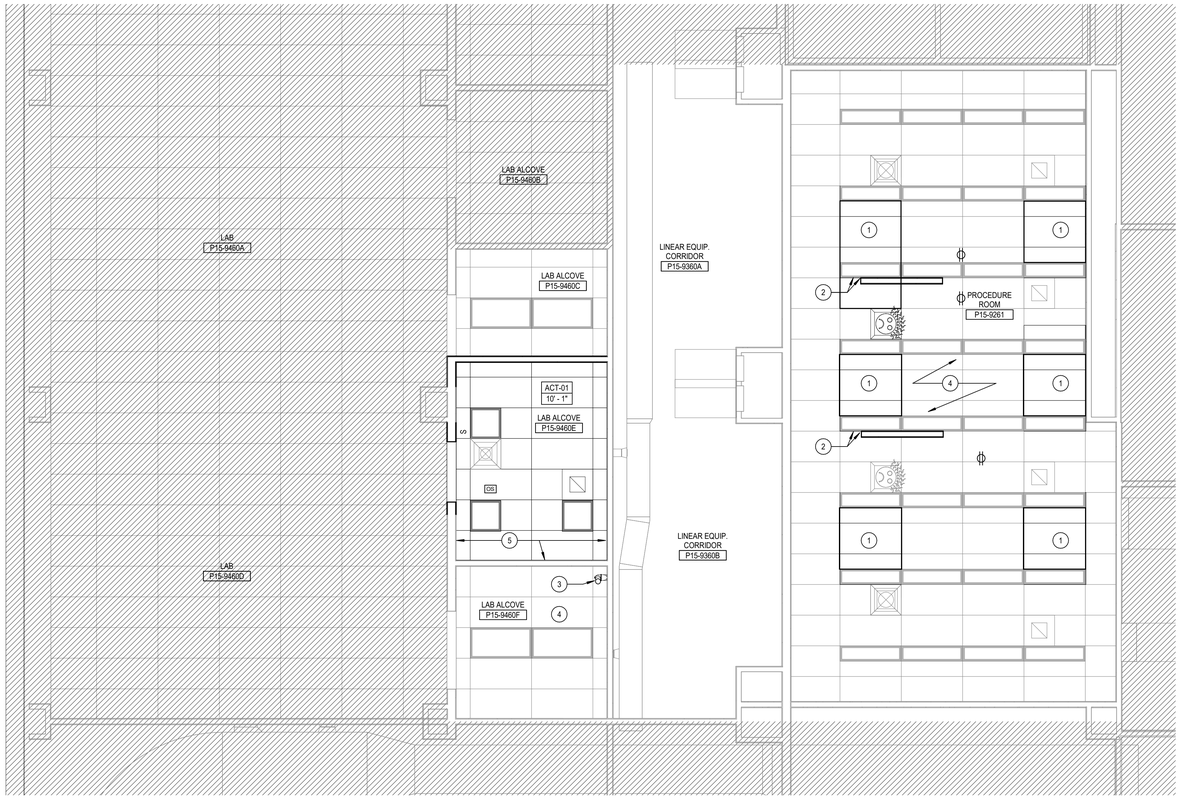


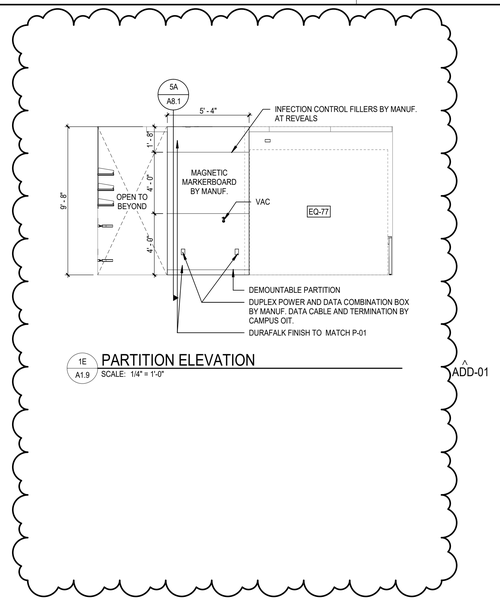
ENLARGED FLOOR PLAN

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



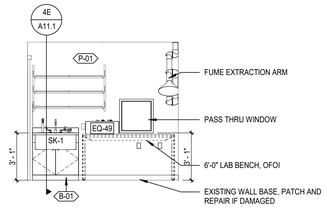
ENLARGED REFLECTED CEILING PLAN

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



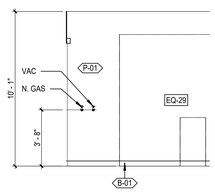
1E A1.9 PARTITION ELEVATION

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



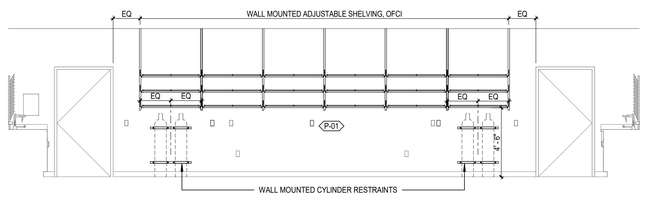
3E A1.9 NORTH ELEVATION - LAB ALCOVE P15-9460F

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



4E A1.9 NORTH ELEVATION - LAB ALCOVE P15-9460E

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



5E A1.9 WEST ELEVATION - PROCEDURE ROOM P15-9261

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

GENERAL ARCHITECTURAL NOTES

1. PARTITION TYPES SHALL BE DESIGNATED ON FLOOR PLANS
2. FURNISH AND INSTALL FIRE-TREATED WOOD BLOCKING OR METAL BACKING PLATE IN METAL STUD PARTITIONS FOR THE PROPER ANCHORAGE OF ALL WALL ATTACHED ITEMS; I.E. TOILET ACCESSORIES, CASEWORK, MILLWORK, WALL-MOUNTED FIXTURES, MARKER BOARDS, TACK BOARDS, DOOR STOPS, AUDIO VISUAL BRACKETS, AND OTHER WALL ATTACHED ITEMS.
3. GYPSUM BOARD SURFACES SHALL BE ISOLATED WITH CONTROL JOINTS WHERE SHOWN ON DRAWINGS AND AS DESCRIBED IN THE SPECIFICATIONS.
4. PROVIDE SEISMIC BRACING FOR SUSPENDED CEILINGS OR AS SHOWN ON THE DRAWINGS.

FLOOR PLAN NOTES

1 HOLD NEW LAB CASEWORK 4" FROM EXISTING WALL FOR EXISTING SLIDING DOOR.

2 PATCH AND REPAIR WALL TO ENSURE NO OPENINGS REMAIN.

3 PASS THRU SPECIMEN WINDOW. BASIS OF DESIGN: TERRA UNIVERSAL MODEL NUMBER 1704-82A. CFCI.

4 PROVIDE WALL MOUNTED SINGLE CYLINDER RESTRAINT.

5 REINSTALL SALVAGED WALL STANDARDS AND SHELVING. INSTALL WALL STANDARDS AND SHELVING FROM OWNER'S STOCK AS NEEDED. COORDINATE WITH OWNER ON AVAILABILITY AND SIZING. INSTALL BLOCKING IN WALL AS REQUIRED.

6 LAB GAS FIXTURE AT WALL, MOUNTED 44" AFF. RE: PLUMBING FOR TYPE AND ROUTING INFORMATION.

8 DEMOUNTABLE PARTITION. BASIS OF DESIGN: FALKBUILT 4.5" STANDARD SOLID WALL, NO INSULATION, WITH 6" HEALTHCARE WALL BASE

ADD-01 9 FUME EXTRACTOR ARM. CFCI. BASIS OF DESIGN: NEDERMAN BENCHTOP EXTRACTION ARM FX2-ORIG-D75-L1100-UP-PLUS , WALL MOUNTED. PROVIDE BLOCKING IN WALL AS REQUIRED.

10 OWNER PROVIDED OWNER INSTALLED SHELVING ON EXISTING WALL STANDARDS.

11 PROVIDE WALL MOUNTED DOUBLE CYLINDER RESTRAINT.

RCP NOTES

1 INFILL CEILING WITH ACT TILE AND GRID TO MATCH EXISTING.

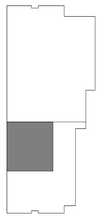
2 ALIGN EDGE OF NEW PARTITION TO EDGE OF EXISTING CEILING GRID.

3 FUME EXTRACTOR ARM. COORDINATE FINAL LOCATION PLACEMENT WITH OWNER.

4 CEILINGS TO BE REMOVED FOR EXTENT OF OVERHEAD WORK AND REPLACED IN KIND.

5 EXTEND GWB 6" ABOVE NEW CEILING.

KEY PLAN



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COLORADO LICENSED NICHOLAS JAMES FOX #405843 ARCHITECT

02.15.2024

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2700 E 19TH AVE
AURORA, CO 80045

CONSTRUCTION DOCUMENTS

REVISIONS
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37-24103-00

FLOOR PLAN A
REFLECTED
CEILING PLAN -
LEVEL 9

A1.9

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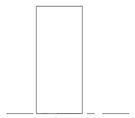
DOOR AND FRAME SCHEDULE

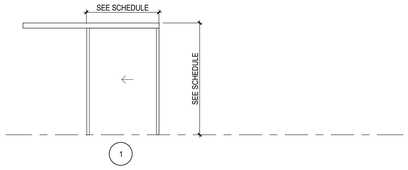
NUMBER	PANEL NO. OF PANELS	PANEL WIDTH	PANEL HEIGHT	PANEL THICKNESS	PANEL MATERIAL	PANEL TYPE	FRAME MATERIAL	FRAME TYPE	FIRE RATING	HARDWARE SET	DETAILS HEAD	DETAILS JAMB LEFT	DETAILS JAMB RIGHT	DETAILS SILL	COMMENTS
P15-9460E	1	4' - 0"	8' - 0"	1 3/4"	WD	F	ALUM	1	N/A	H1	3B/A8.1	3C/A8.1	3C/A8.1	-	BASIS OF DESIGN: AD SYSTEMS EXAM SLIDER



FLUSH WD PANEL

*FINISH TO MATCH ADJACENT DOOR PANELS

DOOR PANEL TYPES



SLIDING BARN DOOR

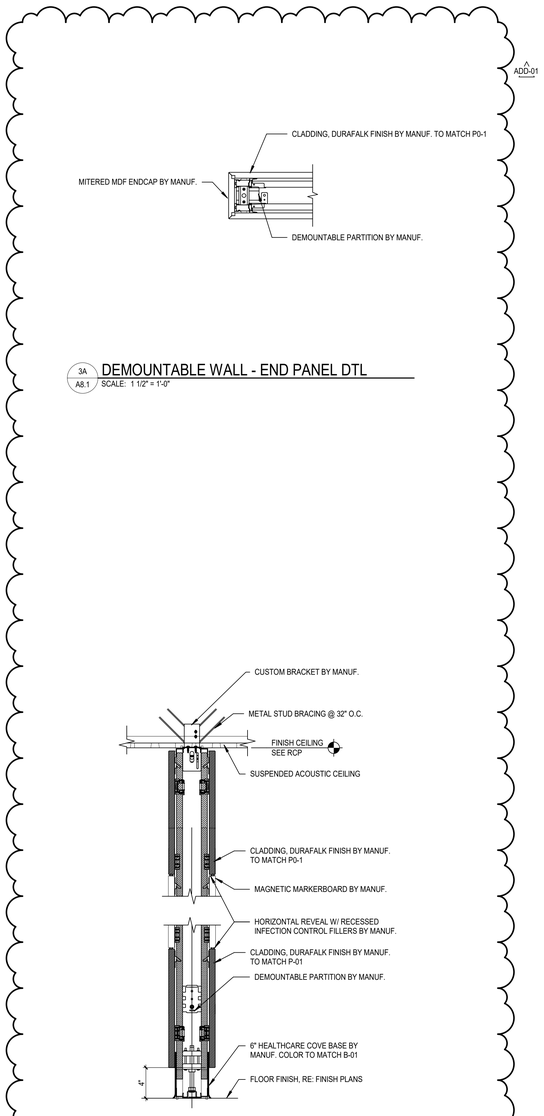
INTERIOR FRAME TYPES

DOOR HARDWARE SETS

H1 - OFFICE
HARDWARE BY DOOR MANUF.

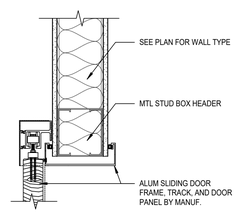
1	EA	MORTISE DEADBOLT CYLINDER AND THUMBTURN
1	SET	LADDER PULLS
1	EA	SMALL FORMAT INTERCHANGEABLE CORE

FINISH: 626

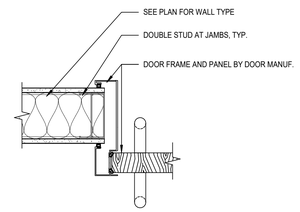


3A A8.1 DEMOUNTABLE WALL - END PANEL DTL
SCALE: 1 1/2" = 1'-0"

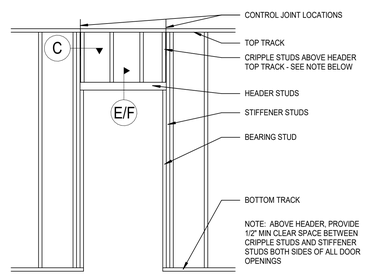
5A A8.1 SECTION AT DEMOUNTABLE PARTITION
SCALE: 1 1/2" = 1'-0"



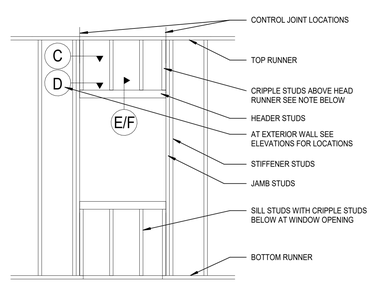
3B A8.1 DOOR HEAD SECTION DTL
SCALE: 1 1/2" = 1'-0"



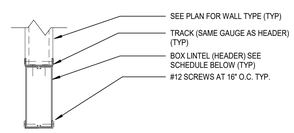
3C A8.1 DOOR JAMB DTL
SCALE: 1 1/2" = 1'-0"



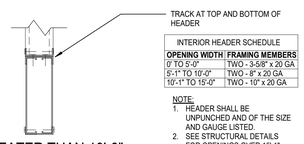
A NO SCALE TYP METAL STUD FRAMING AT DOOR OPENING



B NO SCALE TYP. METAL STUD FRAMING AT FRAME OPENING



E SPAN UP TO 10'-0"



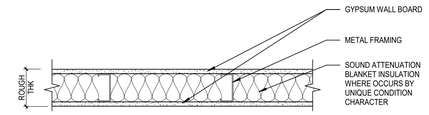
INTERIOR HEADER SCHEDULE

OPENING WIDTH	FRAMING MEMBERS
0' TO 5'-0"	TWO - 3-5/8" x 20 GA
5'-1" TO 10'-0"	TWO - 8" x 20 GA
10'-1" TO 15'-0"	TWO - 10" x 20 GA

NOTE:
1. HEADER SHALL BE UNPUNCHED AND OF THE SIZE AND GAUGE LISTED.
2. SEE STRUCTURAL DETAILS FOR OPENINGS OVER 15'-1".

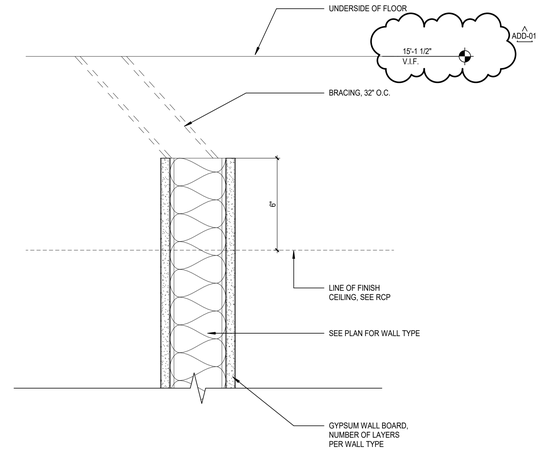
F SPAN GREATER THAN 10'-0"

5B A8.1 METAL STUD OPENINGS AND CONTROL JOINTS
SCALE: 1 1/2" = 1'-0"

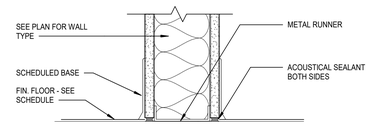


S_-_-2_ NON-RATED STUD PARTITION

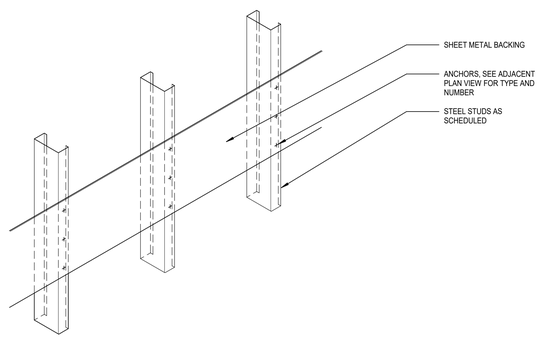
MARK		ROUGH THICKNESS	FIRE/SMOKE RATING	FIRE/SMOKE TESTED ASSEMBLIES	COMMENTS
SA	3	21	4 7/8"	NR	NA
SA	6	21	7 1/4"	NR	NA

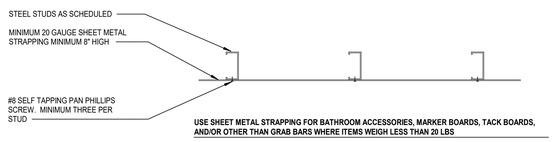


2E A8.1 T.O. WALL DETAIL
SCALE: 3" = 1'-0"



3E A8.1 B.O. WALL DETAIL
SCALE: 3" = 1'-0"





5E A8.1 TYPICAL BLOCKING IN FRAME WALLS
SCALE: 1 1/2" = 1'-0"

PARTITION TYPES DESCRIPTIONS

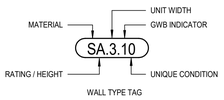
MATERIAL DESCRIPTION
S = STEEL (METAL STUDS)

RATING / HEIGHT
A = 6" ABOVE CEILING

UNIT WIDTH / CONFIGURATION
F = FURRING STRIPS / CHANNELS
1 = 1 5/8" METAL
2 = 2 1/2" METAL / 1 1/2" WOOD
3 = 3 5/8" METAL
4 = 4" METAL / 3 1/2 WOOD / 3 5/8" CMU
6 = 6" METAL / 5 1/2" WOOD / 5 5/8" CMU / 6" CONC
8 = 8" METAL / 7 1/4" WOOD / 7 5/8" CMU / 8" CONC

GYPSUM WALLBOARD INDICATOR
(NOT INCLUDING SHAFT LINER)
0 = NO GWB
1 = ONE LAYER, TAG SIDE
2 = ONE LAYER, EACH SIDE

UNIQUE CONDITION (SEE SCHEDULE)
0 = NO UNIQUE CONDITION
1 = SOUND ATTENUATION BLANKET



WALL TYPE TAG

DLRGROUP
© DLR Group

COLORADO LICENSED
NICHOLAS JAMES FRIOLA
405643
ARCHITECT
02.15.2024

CU DENVER | ANSCHUTZ - 9TH FLOOR PHYSIOLOGY MOVE

12700 E 19TH AVE
AURORA, CO 80045

CONSTRUCTION DOCUMENTS
12/18/2023
REVISIONS
ADD-01 02/16/2024

37-24103-00

PARTITION TYPES, DOOR SCHEDULE, AND DETAILS

A8.1

Autodesk Docs://37-24103-00 CU Anschutz - PN 23-145834_R2 9th Fl/37-24103-00 CU Anschutz - PN 23-145834_R2 9th Fl_ARCH.rvt
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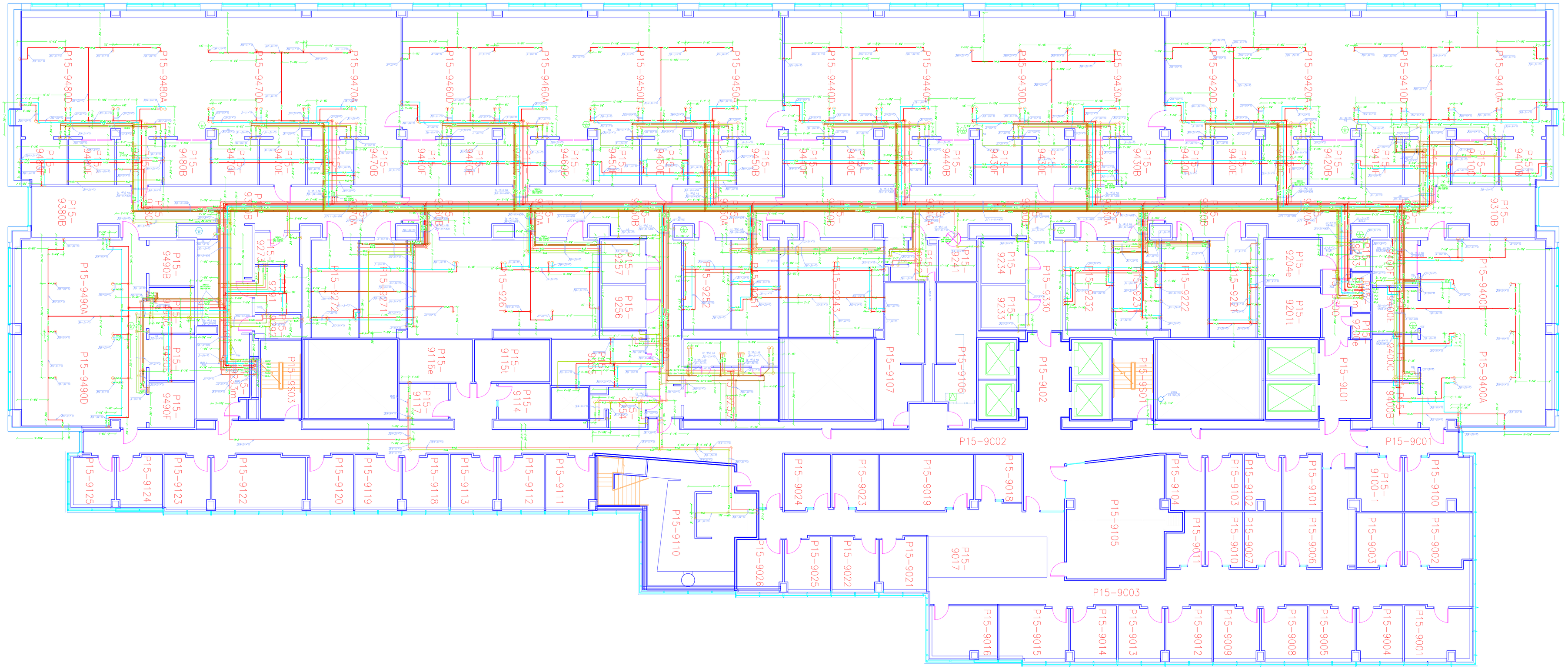
P15-9C02
P15-9C01
P15-9C03
P15-9S03
P15-9S01
P15-9L02
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P15-9017
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P15-9007
P15-9006
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P15-9022
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P15-9015
P15-9014
P15-9013
P15-9012
P15-9009
P15-9008
P15-9005
P15-9004
P15-9001

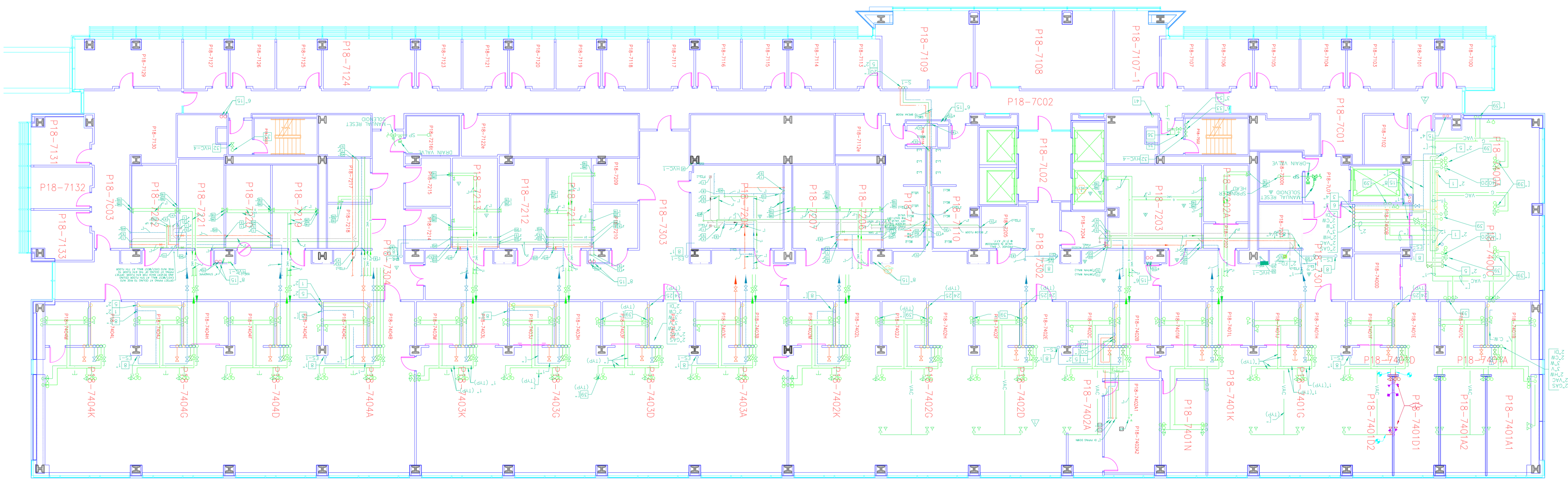
GENERAL NOTES

1. WHERE TWO BIO SAFETY CABINETS CLOSER THAN 4'-0" ONE GAS & VAC OUTLET, CONTRACTOR TO PROVIDE A 4" VALVE THEN TEE OFF WITH ONE OUTLET FOR EACH SAFETY CABINET (OR FUME HOOD). FINAL CONNECTION BY EQUIPMENT SUPPLIER.

KEY NOTES

(SOME KEY NOTES MAY NOT APPLY TO THIS SHEET)

1. SANITARY PIPING UP.
2. SANITARY PIPING DOWN.
3. SANITARY VENT UP & DOWN.
4. SANITARY VENT UP.
5. SANITARY VENT DOWN.
6. SANITARY VENT UP & DOWN.
7. DOM. COLD WATER PIPING UP.
8. DOM. COLD WATER PIPING DOWN.
9. DOM. COLD WATER PIPING UP & DOWN.
10. DOM. HOT WATER PIPING UP.
11. DOM. HOT WATER PIPING DOWN.
12. DOM. HOT WATER PIPING UP & DOWN.
13. STORM PIPING UP.
14. STORM PIPING DOWN.
15. STORM PIPING UP & DOWN.
16. GAS PIPING UP.
17. GAS PIPING (2 PSI) UP.
18. GAS PIPING DOWN.
19. DOM. HOT & COLD WATER PIPING DOWN.
20. DOM. HOT & COLD WATER PIPING UP & DOWN.
21. DOM. HOT & COLD WATER PIPING UP & DOWN. TO PLUMBING FIXTURES.
22. HOT WATER RECIRC. PIPING DOWN.
23. 4"X STUBBED & CAPPED FOR FUTURE.
24. 4"SAN STUBBED & CAPPED FOR FUTURE.
25. HOT WATER RECIRC. PIPING DOWN.
26. STORM PIPING UP.
27. GAS, VACUUM AND DEIONIZED WATER RETURN DOWN.
28. GAS, VACUUM AND DEIONIZED WATER RETURN STANDPIPE UP AND DOWN.
29. DOM. COLD WATER STANDPIPE UP AND DOWN.
30. GAS, VACUUM, SAN, HOT WATER AND DEIONIZED WATER RECIRC. UP.
31. WATER RECIRC. UP.
32. 2½"HOSE VALVE CONNECTION 42" A.F.F.
33. 4" STANDPIPE UP AND DOWN.
34. DRAIN STANDPIPE UP AND DN.
35. OS&Y VALVE
36. FLOW SWITCH
37. NITROGEN MANIFOLD AND NITROGEN DEWARE
38. CO_2 MANIFOLD AND CO_2 DEWARE
39. [" GAS & VACUUM DN
40. DEIONIZED WATER DN
41. 6" VACUUM EXHAUST UP & DN
42. [" VACUUM DN
43. FIXTURE TO BE RELOCATED (BY OTHERS). CAP CW IN CEILING AND CAP HW, GAS AND VAC IN WALL. REROUTE GAS AND VAC TO (N) OUTLETS ON SOUTH WALL.
44. ["GAS, ["GAS, ["CW, 2"W, 2"V TO FUME HOOD.
45. CAP GAS & VAC PIPING IN WALL. PROVIDE STAINLESS COVER PLATE FOR FUTURE ACCESS.
46. PROVIDE \"CW AND \"HW TAPS TO (N) WALL-MOUNTED HAND STATIONS. (N) WALL-MOUNTED EQUIPMENT. REFER TO EQUIPMENT PLANS FOR EXACT LOCATION.



University of Colorado
Denver | Anschutz Medical Campus

Facilities Management

SUBCONTRACTOR'S STATEMENT OF EXPERIENCE

Project Name: _____

Project #_____

Project Manager: _____
Phone:_____
Email: _____

Architect/Engineer: _____

General Contractor: _____

Subcontractor: _____

This is a project specific qualification form. Subcontractor must fill this out on each project.

INDEX OF DOCUMENTS

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•PROJECT EXPERIENCE FORM	Page 6 of 13
•WORK CURRENTLY UNDER CONTRACT FORM	Page 7 of 13
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•CORPORATION / CO-PARTNERSHIP FORM	Page 9 of 13
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UNIVERSITY OF COLORADO DENVER | ANSCHUTZ MEDICAL CAMPUS
SUBCONTRACTOR'S QUALIFICATION STATEMENT

INFORMATION FORM

STATEMENT OF _____
(Subcontractor)

ADDRESS _____
(Street or PO Box) **(City)** **(State)** **(Zip)**

TELEPHONE/FAX NO. _____ _____
(telephone) **(fax)**

DATE OF EXPERIENCE STATEMENT _____

PRINCIPLE OWNER/OFFICER _____
(Names(s) and Official Title(s))

Please indicate below if your company qualifies as one of the following:

Minority Business Enterprise (MBE) YES___ NO ___

Justification: _____

_____

_____

Woman-Owned Business Enterprise (WBE)YES___ NO ___

Justification: _____

_____

_____

Small Business Enterprise (SBE) YES___ NO_

Justification: _____

_____

_____

Disadvantaged Business Enterprise (DBE) YES___ NO___

Justification: _____

_____

_____

UNIVERSITY OF COLORADO DENVER | ANSCHUTZ MEDICAL CAMPUS
SUBCONTRACTOR'S QUALIFICATION STATEMENT

TYPES OF WORK

(1) If you are a General Contractor interested in bidding on all types of construction, mark "All Classes of Construction" only.
(2) If you are interested in contracting directly with the University for certain types of work only, mark in the column provided after the particular types of work on which you wish to bid.

TYPES OF WORK	MARK WITH (X)
1. All Classes of Construction	
2. General	
3. Mechanical	
4. Electrical	
5. Excavating and Grading	
6. Concrete	
7. Structural Steel	
8. Steel and Miscellaneous Iron	
9. Painting and Decorating	
10. Laboratory Equipment	
11. Elevator Installation	
12. Plumbing	
13. Heating and Ventilating	
14. Air Conditioning	
15. Boiler and Equipment	
16. Environmental (Describe)	
17. Other (Describe)	
18. Other (Describe)	
19. Other (Describe)	
20. Other (Describe)	

UNIVERSITY OF COLORADO DENVER | ANSCHUTZ MEDICAL CAMPUS
SUBCONTRACTOR'S QUALIFICATION STATEMENT

IDENTIFICATION

(The signatory of this questionnaire guarantees the truth and accuracy of all statements and of all answers to questions hereinafter made.)

LEGAL NAME_____

PRINCIPAL OFFICE _____
(Street or PO Box) (City) (State) (Zip)

_____ A Corporation _____A Copartnership _____An Individual __Combination

GENERAL INFORMATION

A. Are you licensed as a contractor? Yes ( ) No ( )

Licensed in the name of	Location (City or State)	License No. & Type

B. How many years has your organization been in business as a contractor under your present business name?_____

C. How many years experience in_____construction work has your organization had? (Type)

(a) As a prime contractor?_____(b) As a subcontractor? Yes

D. Have you or your organization, or any officer or partner thereof, failed to complete a contract? _____

If so, give details _____

_____

E. If you have a controlling interest in any firms presently qualified with the University, show names thereof:

_____

_____

F. We normally perform _____% of the work with our own forces.

List trades: _____

_____

Where qualification is based on a combination of several organizations, show the experience and equipment of the combined organizations.

G. Has your firm been involved in any litigation in the past five (5) years? Yes ( ) No ( ) If yes, explain (listing type, kind, plaintiff, defendant, etc. and state the current status).

H. Are there any activities or interests of officers, principle stockholders, or employees of your firm or other factors which would place your firm and the University of Colorado Denver in a position of "Conflict of Interests"?

Yes ( ) No ( ) If yes, or in doubt, explain.

I. Has your firm ever been involved in any bankruptcy action as a bankrupt?

Yes ( ) No ( ) If yes, explain.

UNIVERSITY OF COLORADO DENVER | ANSCHUTZ MEDICAL CAMPUS
SUBCONTRACTOR'S QUALIFICATION STATEMENT

PERSONNEL OF ORGANIZATION

1. Name the persons with whom you have been associated in business as partners or business associates in each of the last five (5) years

   _____
   _____
   _____

2. Show the construction experience of the principal individuals of your present organization in the following tabulation:

Individual's Name	Present Position or Office in Your Organization	Years of Construction Experience	Magnitudes and Type of Work	In What Capacity

UNIVERSITY OF COLORADO DENVER | ANSCHUTZ MEDICAL CAMPUS
SUBCONTRACTOR'S QUALIFICATION STATEMENT

PROJECT EXPERIENCE

Show the projects your organization has completed during the last five years in the following tabulation:

Year Completed	Project	Type of Work (See Page 2)	Location	Contract Value	Contracting Authority	In what Capacity

UNIVERSITY OF COLORADO DENVER | ANSCHUTZ MEDICAL CAMPUS
SUBCONTRACTOR'S QUALIFICATION STATEMENT

WORK CURRENTLY UNDER CONTRACT

Expected Completion Date	Project	Type of Work (See Page 1)	Location	Contract Value	Contracting Authority	Architect or Engine

UNIVERSITY OF COLORADO DENVER │ ANSCHUTZ MEDICAL CAMPUS
SUBCONTRACTOR'S QUALIFICATION STATEMENT

SURETIES

List the Surety Companies that have bonded your work for the past five (5) years:

Name of Surety and Name and Address of Agent	Project and Location	Period of Bond From	Period of Bond To	General Comments
		.	o	

UNIVERSITY OF COLORADO DENVER | ANSCHUTZ MEDICAL CAMPUS
SUBCONTRACTOR'S QUALIFICATION STATEMENT

CORPORATION / CO-PARTNERSHIP

CORPORATION:
(If a corporation, answer this:)

When Incorporated _____

In What State _____

President's Name _____

Vice President's Name _____

Secretary's Name _____

Treasurer's Name

CO-PARTNERSHIP:
(If a co-partnership, answer this:)

Date of Organization _____

State whether partnership is general, limited, or association

_____

Name and address of each partner:

_____	_____
(name)	(name)
_____	_____
(address)	(address)
_____	_____
_____	_____

WHERE QUALIFICATION IS BASED ON A COMBINATION OF ORGANIZATIONS, THE APPROPRIATE (ATTACHED) AFFIDAVITS MUST BE EXECUTED FOR EACH MEMBER OF SUCH COMBINATION.

UNIVERSITY OF COLORADO DENVER | ANSCHUTZ MEDICAL CAMPUS
SUBCONTRACTOR'S QUALIFICATION STATEMENT

AFFIDAVIT FOR CORPORATION

_____ certifies and says: That he is
(Name of officer)

_____ of the _____
(Official capacity)

corporation submitting this statement of experience: that he/she has read the same, and that the same is true of his/her own knowledge: that the statement is for the purpose of inducing the University of Colorado Denver to supply the submittor with plans and specifications, and that any vendor, or other agency therein named is hereby authorized to supply the University of Colorado Denver with any information necessary to verify the statement: and that furthermore, should this statement at any time cease to properly and truly represent his/her condition in any substantial respect, it will refrain from further bidding on University work until it shall have submitted a revised and corrected statement.

I certify and declare under penalty of perjury that the foregoing is true and correct:

Subscribed on _____ at _____ _____, State of Colorado _____
(date) (city) (county)

NOTE: Use full corporate name and
attach corporate seal here. _____
(Officer must sign here)

NOTE: Statement will be returned unless affidavit is completed in EVERY respect.

UNIVERSITY OF COLORADO DENVER | ANSCHUTZ MEDICAL CAMPUS
SUBCONTRACTOR'S QUALIFICATION STATEMENT

AFFIDAVIT FOR CO-PARTNERSHIP

_____ certifies and says: That he/she is a partner of
(Name of partner)

the partnership of _____: That said partnership
(Name of Firm)

submitted this statement of experience: that he/she has read the same, and that the same is true of his/her own knowledge: that the statement is for the purpose of inducing the University of Colorado Denver to supply the submittor with plans and specifications, and that any vendor, or other agency therein named is hereby authorized to supply the University of Colorado Denver with any information necessary to verify the statement: and that furthermore, should this statement at any time cease to properly and truly represent the condition of said firm in any substantial respect, it will refrain from further bidding on University work until they shall have submitted a revised and corrected statement.

I certify and declare under penalty of perjury that the foregoing is true and correct:

Subscribed on _____ at _____, _____, State of _____
(date) (city) (county)

The foregoing statement and affidavit are hereby offered.

_____ _____
(Member of Firm must sign here)

_____ _____
(Title)

_____ _____
(Remaining members of Firm sign here) (Name of Firm)

NOTE: Statement will be returned unless affidavit is completed in EVERY respect.

UNIVERSITY OF COLORADO DENVER │ ANSCHUTZ MEDICAL CAMPUS
SUBCONTRACTOR'S QUALIFICATION STATEMENT

AFFIDAVIT FOR INDIVIDUAL

_____doing business _____
(Name of individual) (Name of Firm)

certifies and says: That he/she is the person submitting this statement of experience: that he/she has read the same, and that the same is true of his/her own knowledge: that the statement is for the purpose of inducing the University of Colorado Denver to supply the submittor with plans and specifications, and that any vendor, or other agency therein named is hereby authorized to supply the University of Colorado Denver with any information necessary to verify the statement: and that furthermore, should this statement at any time cease to properly and truly represent his/her condition in any substantial respect, it will refrain from further bidding on University work until it shall have submitted a revised and corrected statement.

I certify and declare under penalty of perjury that the foregoing is true and correct:

Subscribed on_____at_____,_____, State of _____
(date) (city) (county)

NOTE: Statement will be returned unless
affidavit is completed in EVERY respect. _____
(Applicant must sign here)

UNIVERSITY OF COLORADO DENVER │ ANSCHUTZ MEDICAL CAMPUS
SUBCONTRACTOR'S QUALIFICATION STATEMENT

BIDDING INFORMATION

QUALIFICATION

The University of Colorado Denver will qualify or disqualify a Subcontractor on the basis of:

(1) The information contained in this statement and
(2) Past contract experience with the University.

NOTIFICATION

The University of Colorado Denver will, in writing, notify Contractors of their qualification or disqualification.