

CANNONDESIGN

University of Colorado **Anschutz Medical Campus**
Fitzsimons Building 1st Renovation rm. C1009 for CRIO
Project #21-173892

Fitzsimons Building - 13001 East 17th Place, Aurora, Colorado 80045

SPECIFICATIONS CONSTRUCTION DOCUMENTS

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SECTION 00 01 01

PROJECT DIRECTORY

PROJECT

Fitzsimons Building C1009

OWNER

University of Colorado
Anschutz Medical Campus
1945 N. Wheeling Street
Mail Stop F418
Aurora, CO 80045

Chad Jelinek
Project Manager
(720) 728-9577
Chad.jelinek@cuanschutz.edu

ARCHITECT

CannonDesign
2800 Walnut Street, Suite 300
Denver, CO 80205
(303) 623-7323 Phone

Matt Bartels
Principal-in-Charge
mbartels@cannondesign.com

END OF PROJECT DIRECTORY

SECTION 00 11 00

ADVERTISEMENT FOR BIDS

1.01 SUMMARY

- A. This Section includes administrative and procedural requirements for project advertisement.

1.02 DEFINITIONS

- A. **ADVERTISEMENT:** Posting of project description, requirements, schedule, and related requirements necessary to solicit submittals from contractors.

1.03 ADVERTISEMENT

- A. **FORM:** State of Colorado "Advertisement for Documented Quotes" (Notice Number PN 21-173892)
- B. A copy of the above noted form is attached at the end of this section.

END OF SECTION



University of Colorado
Denver | Anschutz Medical Campus

**Fitz bldg. 1st reno rm C1009 for CRIO PN
Project Number: PN 21_173892**

Advertisement for Documented Quote

***** SMALL CONSTRUCTION PURCHASE PROGRAM *****

Advertisement Date:

Issued by:

CU Anschutz Facilities Projects



ADVERTISEMENT FOR Documented Quote

General Contractor

State of Colorado

University of Colorado Denver | Anschutz Medical Campus (GFE)

Notice Number: 21_173892

Notice Status: OPEN
Publish Date: 4/4/2022
Notice Revisions: 0
Revision Publish Date: NA

Project No: PN 21_173892
Project Title: Fitz bldg 1st reno rm C1009 for CRIO
Estimated Construction Cost: \$60,000 to \$67,000

***** SMALL CONSTRUCTION PURCHASE PROGRAM *****

Settlement Notices

For all projects with a total dollar value above \$150,000 Notice of Final Settlement is required by C.R.S. 38-26-107(1).

Final Settlement, if required, will be advertised via: Electronic Media

Project Description

The University of Colorado Anschutz Medical Campus seeks documented quotes from Small Construction Purchase Program (SCPP) SCPP contractors as well as Pre-Qualified Electrical contractors. The project includes remodeling of the first-floor rooms C1009 and C1009 A and B in the Fitzsimons Building. The project's scope includes patch paint, carpeting and ceiling tile replacement along with the adding of new borrowed light glass.

Scope of Services

The **University of Colorado Anschutz Medical Campus** is using the Construction Purchase Order for a Mechanical/Plumbing Contractors approach to project delivery from the University's Small Construction Purchase Program contractors.

Minimum Requirements

Notice is hereby given to all interested parties that all firms will be required to meet all minimum requirements to be considered for this project. To be considered as qualified, interested firms shall have, as a minimum:

1. Contractor must currently be listed on the University SCPP Pre-Qualified Contractors List at:

<https://www.cuanschutz.edu/offices/facilities-management/construction-projects/small-construction-purchase-program>

2. Provided contracting services within the last five (5) years for at least Three (3) projects each in excess of \$65,000 (hard costs), utilizing the expertise present in their Colorado Office; and

3. Demonstrated specific contracting experience in projects of similar scope and complexity; and

4. Demonstrated bonding capability up to \$100,000 for an individual project coincidentally with current and anticipated workloads; provide letter from surety that affirms this capacity; and

5. Bid Bond is required if project exceeds \$50,000; and

Firms meeting the minimum requirements may obtain the bidding documents on the website accompanying this advertisement.

University of Colorado Denver | Anschutz Medical Campus Facilities Projects – **Request for Proposals** website: <https://www.cuanschutz.edu/offices/facilities-management/construction-projects/RFP>

Colorado CORE/ColoradoVSS:

<https://codpavss.cloud.cgifederal.com/webapp/PRDVSS2X1/AltSelfService>

Bid Documents

Project Bid Documents are available on the Facilities website:

<https://www.cuanschutz.edu/offices/facilities-management/construction-projects/RFP>

Other Information

Preference shall be given to Colorado resident bidders and for Colorado labor, as provided by law.

Pre-Bid Meeting (Mandatory)

The Pre-Bid Meeting and tour will **4/4/2022, at 1:00 pm in person** we will be meeting on the **South entrance of the Fitzsimons Building on the Anschutz Medical Campus, 13001 East 17th Place**

Comments: All participants will be asked to submit their questions and an attendance confirmation via email.

Schedule/Submission Details

1. The schedule of events for the bid process and an outline of the schedule for the balance of the project is as follows:

Advertisement	4/4/2022
Pre-Bid Conference and Tour (In person)	4/14/2022 – 1:00 PM
Date Email Questions Due	4/28/2023 – 1:00 PM
Date Email Answers Issued	5/2/2022 – 1:00 PM
Documented Quotes Due	5/12/2022 – 1:00 PM
Bid Results Published (Facilities Project Website)	On or Before 5/19/2022
Negotiation of General Contractor Contract	Mid May 2022
Contract Approval (projected)	Mid May 2022
Anticipated Design Start	Complete
Anticipated General Contractor Start	Mid May 2022
Anticipated Construction Start/Finish	End of June 2022

2. All Documented Bids submissions shall be ONE (1) electronic copy PDF received no later than **5/12/2022 at 1:00pm**, and shall be submitted via email to:

Chad.Jelinek@CUAnschutz.edu

And

raeann.gregory@cuanschutz.edu

Comments: Late submissions will be rejected without consideration. The University of Colorado Anschutz Medical Campus (GFE) and the State of Colorado assume no responsibility for costs related to the preparation of submittals.

4. The above schedule is tentative. Responding firms shall be notified of revisions in a timely manner by email. Respondents may elect to verify times and dates by email, but no earlier than 36 hours before the schedule date and time.

Point of Contact/Clarification

Name:	Chad Jelinek
Agency:	University of Colorado Anschutz Medical Campus (GFE)
Phone:	720-728-9577
Email:	Chad.Jelinek@CUAnschutz.edu

This Notice is also available on the web at

www.colorado.gov/pacific/osa/cdnotices

Media of Publication(s):	University of Colorado Anschutz Medical Campus Facilities Projects Website
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Colorado CORE/ColoradoVSS

Publication Dates:	4/4/2022
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SECTION 00 21 13

INFORMATION FOR BIDDERS

1.01 INFORMATION FOR BIDDERS

- A. State of Colorado form "Information for Bidders" (SBP-6.12).
- B. A copy of the above noted form is attached to the end of this Section.

END OF SECTION



STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAMS

INFORMATION FOR BIDDERS

Institution or Agency: **University of Colorado Anschutz Medical Campus / GFE**
Project No./Name: **21-173892/ Fitzsimons Building C1009 Renovation for CRIO**

1. **BID FORM:** Bidders are required to use the Bid form attached to the bidding documents. Each bidder is required to bid on all alternates (if applicable) and indicate the time from the date of the Notice to Proceed to Substantial Completion in calendar days, and in addition, the bidder is required to indicate the period of time to finally complete the project from Substantial Completion to Final Acceptance, also in calendar days. Bids indicating times for Substantial Completion and Final Acceptance in excess of the number of days indicated in the Advertisement for Bids for completion of the entire Project may be found non-responsive and may be rejected. The bid shall not be modified or conditioned in any manner.

All Bid submissions shall be **ONE (1) electronic copy PDF** received no later than **5/12/2022 by 9:30 AM**, and shall be submitted via email to:

Chad.Jelinek@CUAnschutz.edu
And
raeann.gregory@cuanschutz.edu

Bids shall include the following information:

Project Number: **21-173892**

Project Name: **Fitzsimons Building 1st Renovation rm. C1009 for CRIO**

Name and Address of Bidder: _____

Date and Time of Bids Due: **5/12/2022 by 9:30 AM**

2. **INCONSISTENCIES AND OMISSIONS:** Bidders may request clarification of any seeming inconsistencies, or matters seeming to require explanation, in the bidding documents at least three (3) business days prior to the time set for the opening of Bids. Decisions of major importance on such matters will be issued in the form of addendum.
3. **APPLICABLE LAWS AND REGULATIONS:** The bidder's attention is called to the fact that all work under this Contract shall comply with the provisions of all state and local laws, approved state building codes, ordinances and regulations which might in any manner affect the work to be done or those to be employed in or about the work. Attention is also called to the fact that the use of labor for work shall be governed by the provisions of Colorado law which are hereinafter set forth in Articles 27 and 52E of the GENERAL CONDITIONS.
4. **UNAUTHORIZED IMMIGRANTS:** Note that the Special Provisions of the General Conditions of the Contract includes the following language: PUBLIC CONTRACTS FOR SERVICES - CRS 8-17.5-101 and PUBLIC CONTRACTS WITH NATURAL PERSONS - 24-76.5-101. The Contractor certifies that the Contractor shall comply with the provisions of CRS 8-17.5-101 et seq. The Contractor shall not knowingly employ or contract with an illegal alien to perform work under this contract or enter into a contract with a subcontractor that fails to certify to the Contractor that the subcontractor shall not knowingly employ or contract with an illegal alien to perform work under this contract. The Contractor represents, warrants, and agrees that it (i) has verified that it does not employ any illegal aliens, through participation in the Basic Pilot Employment Verification Program administered by the Social Security Administration and Department of Homeland Security, and (ii) otherwise will comply with the requirements of CRS 8-17.5-102(2)(b). The Contractor shall comply with all reasonable requests made in the course of an investigation under CRS 8-17.5-102 by the Colorado Department of Labor and Employment. If the Contractor fails to comply with any requirement of this provision or CRS 8-17.5-101 et seq., the State may terminate this contract for breach and the Contractor shall be liable for actual and consequential damages to the State.

A Contractor that operates as a sole proprietor hereby swears or affirms under penalty of perjury that the Contractor (i) is a citizen of the United States or otherwise lawfully present in the United States pursuant to federal law, (ii) shall comply with the provisions of CRS 24-76.5-101 et seq, and (iii) shall produce one of the forms of identification required by CRS 24-76.5-103 prior to the effective date of this Contract. Except where exempted by federal law and except as provided in CRS 24-76.5-103(3), a Contractor that receives federal or state funds under this contract must confirm that any individual natural person eighteen years of age or older is lawfully present in the United States pursuant to CRS 24-76.5-103(4) if such individual applies for public benefits provided under this contract.

5. **TAXES:** The bidder's attention is called to the fact that the Bid submitted shall exclude all applicable federal excise or manufacturers' taxes and all state sales and use taxes as hereinafter set forth in Article 9C of the GENERAL CONDITIONS.
6. **OR EQUAL:** The words "OR EQUAL" are applicable to all specifications and drawings relating to materials or equipment specified. Any material or equipment that will fully perform the duties specified, will be considered "equal", provided the bid submits proof that such material or equipment is of equivalent substance and function and is approved, in writing. Requests for the approval of "or equal" shall be made in writing at least five (5) business days prior to bid opening. During the bidding period, all approvals shall be issued by the Architect/Engineer in the form of addenda at least two (2) business days prior to the bid opening date.
7. **ADDENDA:** Owner/architect initiated addenda shall not be issued later than two (2) business days prior to bid opening date. All addenda shall become part of the Contract Documents and receipt must be acknowledged on the Bid form.
8. **METHOD OF AWARD - LOWEST RESPONSIBLE BIDDER:** If the bidding documents for this project require alternate prices, additive and/or deductible alternates shall be listed on the alternates bid form provided by the Principal Representative. Bidders should note the Method of Award is applicable to this Bid as stated below.
 - A. **DEDUCTIBLE ALTERNATES:** The lowest responsible Bid, taking into account the Colorado resident bidder preference provision of Colorado law, will be determined by and the contract will be awarded on the base bid combined with deductible alternates, deducted in numerical order in which they are listed in the alternates bid form provided by the Principal Representative. The subtraction of alternates shall result in a sum total within available funds. If this bid exceeds such amount, the right is reserved to reject all bids. An equal number of alternates shall be subtracted from the base bid of each bidder within funds available for purposes of determining the lowest responsible bidder.
 - B. **ADDITIVE ALTERNATES:** The lowest responsible Bid, taking into account the Colorado resident bidder preference provision of Colorado law, will be determined by and the contract will be awarded on the base bid plus all additive alternates added in the numerical order in which they are listed in the alternates bid form provided by the Principal Representative. The addition of alternates shall result in a sum total within available funds. If this bid exceeds such amount, the right is reserved to reject all bids. An equal number of alternates shall be added to the base bid of each bidder within funds available for purposes of determining the lowest responsible bidder.
 - C. **DEDUCTIBLE AND ADDITIVE ALTERNATES:** Additive alternates will not be used if deductible alternates are used and deductible alternates will not be used if additive alternates are used.
9. **NOTICE OF CONTRACTOR'S SETTLEMENT** – Agencies/institutions must indicate in the initial Solicitation (Advertisement for Bids, Documented Quotes, or Requests for Proposals) whether settlement will be advertised in newspapers or electronic media.

The Advertisement for Bids can be located at the web site: www.colorado.gov/pacific/osa/cdnotices
(Click on the appropriate link [ColoradoVSS or ColoradoBIDS] or on the State Purchasing Office website)



Facilities Management

Construction Purchase Order Terms and Conditions

1. Offer/Acceptance

If this purchase order ("PO") refers to vendor's bid or proposal, this PO is an ACCEPTANCE of vendor's OFFER TO SELL in accordance with the terms and conditions of the "solicitation" identified in vendor's bid or proposal. The solicitation includes an RFP, IFB, or any other form of order by the University. If a bid or proposal is not referenced, this PO is an OFFER TO BUY, subject to vendor's acceptance, demonstrated by vendor's performance or written acceptance of this PO. Any COUNTER-OFFER TO SELL automatically CANCELS this PO, unless a change order is issued by the University accepting a counter-offer. This PO shall supersede and control over any vendor form(s) or part(s) thereof included in or attached to any bid, proposal, offer, acknowledgment, or otherwise, in the event of inconsistencies or contradictions, regardless of any statement to the contrary in such form(s) or parts thereof.

2. Safety Information

All chemicals, equipment and materials proposed and/or used in the performance of this PO shall conform to the requirements of the Occupational Safety and Health Act of 1970. Vendor shall furnish all Material Safety Data Sheets (MSDS) for any regulated chemicals, equipment or hazardous materials at the time of delivery.

3. Changes

Vendor shall furnish products and/or services strictly in accordance with the specifications and price set forth for each item. This PO shall not be modified, superseded or otherwise altered, except in writing signed by purchasing agent and accepted by vendor. Each shipment received or service performed shall comply with the terms of this PO, notwithstanding invoice terms or acts of vendor to the contrary, unless this PO has been modified, superseded or otherwise altered in accordance with this section.

4. Delivery

Unless otherwise specified in the solicitation or this PO, delivery shall be FOB destination. The University is relying on the promised delivery date, installation, and/or service performance set forth in vendor's bid or proposal as material and basic to the University's acceptance. If vendor fails to deliver or perform as and when promised, the University in its sole discretion, may cancel its order, or any part thereof, without prejudice to its other rights, return all or part of any shipment so made, and charge vendor with any loss or expense sustained as a result of such failure to deliver or perform as promised. Time is of the essence.

5. Intellectual Property

Any software, research, reports, studies, data, photographs, negatives or other documents, drawings or materials (collectively "materials") delivered by vendor in performance of its obligations under this PO shall be the exclusive property of the University. Ownership rights shall include, but not be limited to, the right to copy, publish, display, transfer, prepare derivative works, or otherwise use the materials. Vendor shall comply with all applicable laws, regulations and University policies related to confidential information and all confidentiality and non-disclosure agreements, security controls, and reporting requirements.

6. Quality

The University shall be the sole judge in determining "equals" with regard to quality, price and performance. All products delivered shall be newly manufactured and the current model, unless otherwise specified.

7. Warranties

All provisions and remedies of the Colorado Uniform Commercial Code, CRS, Title 4 ("CUCC"), relating to implied and/or express warranties are incorporated herein, in addition to any warranties contained in this PO or the specifications.

8. Inspections and Acceptance

Final acceptance is contingent upon completion of all applicable inspection procedures. If products or services fail to meet any inspection requirements, the University may exercise all of its rights, including those provided in the CUCC. The University shall have the right to inspect services provided under this PO at all reasonable times and places. "Services" as used in this section includes services performed or tangible material produced or delivered in the performance of services. If any of the services do not conform to PO requirements, the University may require vendor to perform the services again in conformity with PO requirements, without additional payment. When defects in the quality or quantity of service cannot be corrected by re-performance, the University may (a) require vendor to take necessary action to ensure that future performance conforms to PO requirements and (b) equitably reduce the payment due vendor to reflect the reduced value of the services performed. These remedies do not limit the remedies otherwise available in this PO, at law, or in equity.

9. Cash Discount

The cash discount period will start from the later of the date of receipt of acceptable invoice, or from date of receipt of acceptable products/services at the specified destination by an authorized University representative.

10. Taxes

The University is exempt from all federal excise taxes under Chapter 32 of the Internal Revenue Code and from all State and local government sales and use taxes [CRS, Title 39, Article 26, Parts I and II].

11. Payment

The University shall pay vendor for all amounts due within 30 days after receipt of products or services and a correct notice of amount due. Interest on the unpaid balance shall begin to accrue on the 46th day at the applicable statutory rate. Interest shall not accrue if a good faith dispute exists as to the University's obligation to pay all or a portion of the amount due. Vendor shall invoice the University separately for interest on delinquent amounts due, referencing the delinquent payment, number of day's interest to be paid, and applicable interest rate.

12. Vendor Offset

[Not Applicable to Inter-governmental POs] The University may withhold payment as required under the State vendor offset intercept system for debts owed for: (a) unpaid child support debts or arrearages; (b) unpaid balances of tax, accrued interest, or other charges specified in CRS § 39-21-101, et seq.; (c) unpaid loans due to the Student Loan Division of the Department of Higher Education; (d) amounts required to be paid to the Unemployment Compensation Fund; and (e) other unpaid debts owing to the University.

13. Assignment and Successors

Vendor shall not assign rights or delegate duties under this PO, or subcontract any part of the performance required under this PO, without the express, written consent of the University. This PO shall inure to the benefit of and be binding upon vendor and the University and their respective successors and assigns. Assignment of accounts receivable may be made only upon written notice furnished to the University.

14. Indemnification

If any article sold or delivered under this PO is covered by a patent, copyright, trademark, or application therefore, vendor shall indemnify and hold harmless the University from any and all loss, liability, cost, expenses and legal fees incurred on account of any claims, legal actions or judgments arising out of manufacture, sale or use of such article in violation or infringement of rights under such patent, copyright, trademark or application. If this PO is for services, vendor shall indemnify, save, and hold harmless the University, its employees and agents, against any and all claims, damages, liability and court awards including costs, expenses, and attorney fees and related expenses, incurred as a result of any act or omission by vendor, or its employees, agents, subcontractors or assignees, arising out of or in connection with performance of services under this PO.

15. Independent Contractor

Vendor shall perform its duties hereunder as an independent contractor and not as an employee. Neither vendor nor any agent or employee of vendor shall be deemed to be an agent or employee of the University. Vendor and its employees and agents are not entitled to unemployment insurance or workers compensation benefits through the University and the University shall not pay for or otherwise provide such coverage for vendor or any of its agents or employees. Unemployment insurance benefits will be available to vendor and its employees and agents only if coverage is made available by vendor or a third party. Vendor shall pay when due all applicable employment, income, and local head taxes incurred pursuant to this PO. Vendor shall not have authorization, express or implied, to bind the University to any agreement, liability or understanding. Vendor shall (a) provide and keep in force workers' compensation and unemployment compensation insurance in the amounts required by law, (b) provide proof thereof when requested by the University, and (c) be solely responsible for its acts and those of its employees and agents.

16. Communication

All communication concerning administration of this PO, prepared by vendor for the University's use, shall be furnished solely to purchasing agent.

17. Compliance

Vendor shall strictly comply with all applicable federal and state laws, rules, and regulations in effect or hereafter established, including, without limitation, laws applicable to discrimination and unfair employment practices.

18. Insurance

Vendor shall obtain, and maintain, at all times during the term of this PO, insurance as specified in the solicitation, and provide proof of such coverage as requested by the University's purchasing agent.

19. Termination Prior to Shipment

If vendor has not accepted this PO in writing, the University may cancel this PO by written or oral notice to vendor prior to shipment of goods or commencement of services.

20. Termination for Cause

(a) If vendor refuses or fails to timely and properly perform any of its obligations under this PO with such diligence as will ensure its completion within the time specified herein, the University may notify vendor in writing of non-performance and, if not corrected by vendor within the time specified in the notice, terminate vendor's right to proceed with the PO or such part thereof as to which there has been delay or a failure. Vendor shall continue performance of this PO to the extent not terminated and be liable for excess costs incurred by the University in procuring similar goods or services elsewhere. Payment for completed

services performed and accepted shall be at the price set forth in this PO. (b) The University may withhold amounts due to vendor as the University deems necessary to reimburse the University for excess costs incurred in curing, completing or procuring similar goods and services. (c) If after rejection, revocation, or other termination of vendor's right to proceed under the CUCC or this clause, the University determines for any reason that vendor was not in default or the delay was excusable, the rights and obligations of the University and vendor shall be the same as if the notice of termination had been issued pursuant to termination under § 21.

21. Termination in Public Interest

The University is entering into this PO for the purpose of carrying out the public policy of the State and University, as determined by the Governor, General Assembly and Courts of the State of Colorado and the University of Colorado Board of Regents. If this PO ceases to further the public policy of the State or University, the University, in its sole discretion, may terminate this PO in whole or in part and such termination shall not be deemed to be a breach of the University's obligations hereunder. This section shall not apply to a termination for vendor's breach, which shall be governed by Item 20 (Termination for Cause). The University shall give written notice of termination to vendor specifying the part of the PO terminated and when termination becomes effective. Upon receipt of notice of termination, vendor shall not incur further obligations except as necessary to mitigate costs of performance. For services or specially manufactured goods, the University shall pay (a) reasonable settlement expenses, (b) the PO price or rate for supplies and services delivered and accepted, (c) reasonable costs of performance on unaccepted supplies and services, and (d) a reasonable profit for the unaccepted work. For existing goods, the University shall pay (e) reasonable settlement expenses, (f) the PO price for goods delivered and accepted, (g) reasonable costs incurred in preparation for delivery of the undelivered goods, and (h) a reasonable profit for the preparatory work. The University's termination liability under this section shall not exceed the total PO price plus a reasonable cost for settlement expenses. Vendor shall submit a termination proposal and reasonable supporting documentation, and cost and pricing data as required by CRS § 24-106-101, upon request of the University.

22. PO Approval

This PO shall not be valid unless it is executed by purchasing agent. The University shall not be responsible or liable for products or services delivered or performed prior to proper execution hereof.

23. Fund Availability

Financial obligations of the University payable after the current fiscal year are contingent upon funds for that purpose being budgeted and otherwise made available. If this PO is funded in whole or in part with federal funds, this PO is subject to and contingent upon the continuing availability of federal funds for the purposes hereof. The University represents that it has set aside sufficient funds to make payment for goods delivered in a single installment, in accordance with the terms of this PO.

24. Choice of Law

Colorado laws, rules and regulations shall be applied in the interpretation, execution, and enforcement of this PO. The CUCC shall govern this PO in the case of goods unless otherwise agreed in this PO. Any provision included or incorporated herein by reference which conflicts with such laws, rules, and regulations is null and void. Any provision incorporated herein by reference which purports to negate this or any other provision in this PO in whole or in part shall not be valid or enforceable or available in any action at law, whether by way of complaint, defense, or otherwise. Unless otherwise specified in the solicitation or this PO, venue for any judicial or administrative action arising out of or in connection with this PO shall be in Denver, Colorado. Vendor shall exhaust administrative remedies in CRS § 24-109-106, prior to commencing any judicial action against the University.

25. Sensitive Data

To the extent vendors comes in contact with individual personal data owned or otherwise held by the University **including employee, student, or medical information or records** as a result of performing under this PO ("Data"), vendor agrees to use such Data, if at all, only to the extent required to perform its obligations under this PO, and to abide by the requirements of any federal, state and local laws that address the protection and/or use of such Data.

26. Background Checks

Contractor acknowledges that Contractor's activities may involve heightened risks as a result of access or exposure by Contractor's employees or agents to one or more Sensitive Environments. Contractor expressly acknowledges that Contractor shall take all commercially reasonable measures to mitigate any such risks, which measures may include but are not limited to conducting criminal history checks, financial background checks, or reference checks on employees or agents who will have access to one or more Sensitive Environments. For purposes of this provision, Sensitive Environment means any situation where Contractor's employees or agents: (a) are engaged in supervision of or exposure to minors or other vulnerable populations; (b) have access to confidential information, which includes any information protected or restricted by law or University policy or that is expressly identified by the University as confidential information; (c) have access to the University's information technology systems; (d) are engaged in activities that involve unique or specialized risks.

27. Public Contracts for Service

[Not Applicable to offer, issuance, or sale of securities, investment advisory services, fund management services, sponsored projects, intergovernmental POs, or information technology services or products and services] Vendor certifies, warrants, and agrees that it does not knowingly employ or contract with an illegal alien who will perform work under this PO and will confirm the employment eligibility of all employees who are newly hired for employment in the United States to perform work under this PO, through participation in the E-Verify Program or the Department program established pursuant to CRS § 8-17.5-102(5)(c), Vendor shall not knowingly employ or contract with an illegal alien to perform work under this PO or enter into a contract or PO with a subcontractor that fails to certify to vendor that the subcontractor shall not knowingly employ or contract with an illegal alien to perform work under this PO. Vendor shall (a) not use E-Verify Program or Department program procedures to undertake pre-employment screening of job applicants during performance of this PO, (b) notify subcontractor and the University within three days if vendor has actual knowledge that subcontractor is employing or contracting with an illegal alien for work under this PO, (c) terminate the subcontract if subcontractor does not stop employing or contracting with the illegal alien within three days of receiving notice, and (d) comply with reasonable requests made in the course of an investigation, undertaken pursuant to CRS § 8-17.5-102(5), by the Colorado Department of Labor and Employment. If vendor participates in the Department program, vendor shall deliver to the University a written, notarized affirmation that vendor has examined the legal work status of such employee, and shall comply with all of the other requirements of the Department program. If vendor fails to comply with any requirement of this provision or CRS § 8-17.5-101 et seq., the University may terminate this PO for breach and, if so terminated, vendor shall be liable for damages.

28. Public Contracts with Natural Persons

Vendor, if a natural person eighteen (18) years of age or older, hereby swears and affirms under penalty of perjury that he or she (a) is a citizen or otherwise lawfully present in the United States pursuant to federal law, (b) shall comply with the provisions of CRS § 24-76.5-101 et seq., and (c) has produced a form of identification required by CRS § 24-76.5-103 prior to the date vendor delivers goods or begins performing services under terms of the PO.

29. Governmental Immunity.

No term or condition of this contract shall be construed or interpreted as a waiver, express or implied, of any of the immunities, rights, benefits, protections, or other provisions, of the Colorado Governmental Immunity Act, CRS §24-10-101 et seq., or the Federal Tort Claims Act, 28 U.S.C. §§1346(b) and 2671 et seq., as applicable now or hereafter amended.

30. Employee Financial Interest/Conflict Of Interest. CRS §§24-18-201 and 24-50-507.

The signatories aver that to their knowledge, no employee of the University has any personal or beneficial interest whatsoever in the service or property described in this contract. Contractor has no interest and shall not acquire any interest, direct or indirect, that would conflict in any manner or degree with the performance of Contractor's services and Contractor shall not employ any person having such known interests

31. Federal Flowdown Provisions for Federally Funded Contracts

The University of Colorado has entered into an Agreement with either the U.S. Government, or another entity who has itself entered into an Agreement with the U.S. Government. That Agreement requires that certain federal contract provisions be made a part of any subsequent Purchase Order issued by the University of Colorado related to furthering the performance or deliverables required under that Agreement.

Where necessary to make the context of these provisions applicable to this order, the term "contractor" shall mean "seller," the term "contract" shall mean "this order," and the terms "Government," "contracting officer," and equivalent phrases shall mean "the University." Seller hereby agrees to flowdown the applicable clauses to its lower-tier subcontractors, and agrees that the clauses are in effect between it and the University, as applicable.

The following provisions are from the Federal Acquisition Regulations (FAR), which are [available online](#). (NOTE: These FAR clauses may have applicability only when the Purchase Order is at or in excess of a certain dollar threshold, shown in parentheses, or under certain circumstances.)

FAR Citation	Title
52.203-6	Restrictions on Subcontractor Sales to the Government (\$100,000)
52.203-7	Anti-Kickback Procedures except Subparagraph (c)(1) (\$100,000)
52.203-12	Limitation on Payments to Influence Certain Federal Transactions (\$100,000)
52.204-2	Security Requirements (applicable if access to classified material is involved) (\$0)
52.215-2	Audit and Records -- Negotiation (\$100,000)
52.215-10	Price Reduction for Defective Cost or Pricing Data (\$550,000)
52.215-12	Subcontractor Cost or Pricing Data (\$550,000)
52.215-13	Subcontractor Cost or Pricing Data -- Modifications (\$550,000)
52.215-14	Integrity of Unit Prices (\$100,000)
52.219-8	Utilization of Small Business Concerns (\$100,000)
52.219-9	Small Business and Small Disadvantaged Business Subcontracting Plans (Large Businesses) (\$650,000)
52.219-16	Liquidated Damages -- Subcontracting Plan (\$650,000)
52.222-4	Contract Work Hours and Safety Standards Act -- Overtime Compensation (\$100,000)
52.222-21	Prohibition of Segregated Facilities (\$10,000)

FAR Citation	Title
52.222-26	Equal Opportunity (\$10,000)
52.222-35	Affirmative Action for Disabled Veterans and Veterans of the Vietnam Era (\$25,000)
52.222-36	Affirmative Action for Workers with Disabilities (\$10,000)
52.222-37	Employment Reports on Disabled Veterans and Veterans of the Vietnam Era (\$25,000)
52.223-2	Clean Air and Water (applicable on orders issued under contracts solicited and issued prior to February 25, 2000)
52.223-6	Drug-Free Workplace (for individuals, \$0; for non-individuals, \$100,000)
52.223-7	Notice of Radioactive Materials (applicable if radioactive materials are involved) (\$0)
52.223-14	Toxic Chemical Release Reporting (\$100,000; N/A for acquisition of commercial items)
52.224-2	Privacy Act (applicable if vendor is supplying design, development, or operation of a system of records on individuals) (\$0)
52.225-3	Buy American Act - Free Trade Agreements - Israeli Trade Act (\$0)
52.225-13	Restrictions on Certain Foreign Purchases (\$2,500)
52.226-1	Utilization of Indian Organizations and Indian-Owned Economic Enterprises (\$0)
52.227-1	Authorization and Consent (applicable if in excess of the simplified acquisition threshold)
52.227-2	Notice and Assistance Regarding Patent and Copyright Infringement (applicable if in excess of the simplified acquisition threshold)
52.227-10	Filing of Patent Applications -- Classified Subject Matter (\$0)
52.227-11	Patent Rights -- Retention by the Contractor (Short Form) (\$0)
52.227-14	Rights in Data - General (\$0)
52.230-5	Cost Accounting Standards -- Educational Institutions (\$500,000)
52.230-6	Administration of Cost Accounting Standards (\$500,000)
52.244-6	Subcontract for Commercial Items and Commercial Components (\$0; non-commercial supplies or services)
52.245-5	Government Property (Cost Reimbursement, Time-and-Materials, or Labor-Hour Contracts) (paragraph "g" Limited risk of loss is not applicable) (\$0)
52.247-63	Preference for U.S.-Flag Air Carriers (\$100,000)
52.247-64	Preference for Privately Owned U.S.-Flag Commercial Vessels (\$0)

In addition, if federal funds through a contract from an agency of the Department of Defense are involved, the following Department of Defense Federal Acquisition Regulations (DFAR) clauses apply. DFAR clauses are [available online](#).

(NOTE: These DFAR clauses may have applicability only when the Purchase Order is at or in excess of a certain dollar threshold, shown in parentheses, or under certain circumstances.)

DFAR Citation	Title
252.203-7001	Prohibition on Persons Convicted of fraud or Other Defense-Contract Related Felonies (not applicable for commercial items) (applicable if at or in excess of the simplified acquisition threshold)
252.209-7000	Acquisition from Subcontractors Subject to On-Site Inspection Under the Intermediate Range Nuclear Forces (INF) Treaty (applicable if at or in excess of The simplified acquisition threshold) (not applicable for commercial items)
252.227-7013	Rights in Technical Data -- Noncommercial Items (\$0)
252.227-7014	Rights in Noncommercial Computer Software and Noncommercial Computer Software Documentation
252.227-7034	Patents - Subcontracts (\$0, for experimental, developmental, or research work to be performed by other than a small business firm or non-profit organization)
252.231-7000	Supplemental Cost Principles (\$0)

In addition, if federal funds through a contract from the National Aeronautic and Space Administration (NASA) are involved, the following NASA Supplemental Federal Acquisition Regulations (FAR) clauses apply. [NASA clauses are available online](#).

(NOTE: These NASA clauses may have applicability only when the Purchase Order is at or in excess of a certain dollar threshold, shown in parentheses, or under certain circumstances.)

NASA Citation	Title
1852.208-81	Restrictions on Printing and Duplicating, Oct 2001 (\$0)
1852.219-74	Use of Rural Area Small Businesses, Sept 1990 (\$0)
1852.219-75	Small Business Subcontracting Reporting, May 1999 (\$500,000)
1852.223-70	Safety and Health, April 2002 ((1) Amount to \$1,000,000 or more (unless Contracting Officer makes a written determination, after consultation with installation safety and health representatives, that this is not required); (2) Require construction, repair, or alteration in excess of \$25,000; or (3) Regardless of dollar amount, involve the use of hazardous materials or operations.)
1852.227-70	New Technology, May 2002 (\$0, for the performance of experimental, developmental, or research work)
1852.227-71	Designation of New Technology Representative and Patent Representative, July 1997 (\$0)
1852.244-70	Geographic Participation in the Aerospace Program, Apr 1985 (\$100,000)

30. Federal Flowdown Provisions for Federally Funded Grants

The University of Colorado has entered into an Agreement with either the U.S. Government, or another entity who has itself entered into an Agreement with the U.S. Government. That Agreement requires that certain federal grant provisions be made a part of any subsequent Purchase Order issued by the University of Colorado related to furthering the performance or deliverables required under that Agreement.

Where necessary to make the context of these provisions applicable to this order, the term "contractor"

shall mean "seller," the term "contract" shall mean "this order," and the terms "Government," "contracting officer," and equivalent phrases shall mean "the University." Seller hereby agrees to flowdown the applicable clauses to its lower-tier subcontractors, and agrees that the clauses are in effect between it and the University, as applicable.

Performance by the seller under this Purchase Order constitutes certification that the seller is presently in compliance with, and will continue to comply with, the Byrd Anti-Lobbying Amendment (31 U.S.C. 1352) and Executive Orders Numbers 12549 and 12689, all as described below.

Equal Employment Opportunity

All contracts shall contain a provision requiring compliance with E.O. 11246, "Equal Employment Opportunity," as amended by E.O. 11375, "Amending Executive Order 11246 Relating to Equal Employment Opportunity," and as supplemented by regulations at 41 CFR part 60, "Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor."

Copeland "Anti-Kickback" Act (18 U.S.C. 874 and 40 U.S.C. 276c)

All contracts and subgrants in excess of \$2000 for construction or repair awarded by recipients and subrecipients shall include a provision for compliance with the Copeland "Anti-Kickback" Act (18 U.S.C. 874), as supplemented by Department of Labor regulations (29 CFR part 3, "Contractors and Subcontractors on Public Building or Public Work Financed in Whole or in Part by Loans or Grants from the United States"). The Act provides that each contractor or subrecipient shall be prohibited from inducing, by any means, any person employed in the construction, completion, or repair of public work, to give up any part of the compensation to which he is otherwise entitled. The recipient shall report all suspected or reported violations to the Federal awarding agency.

Davis-Bacon Act, as amended (40 U.S.C. 276a to a-7)

When required by Federal program legislation, all construction contracts awarded by the recipients and subrecipients of more than \$2000 shall include a provision for compliance with the Davis-Bacon Act (40 U.S.C. 276a to a-7) and as supplemented by Department of Labor regulations (29 CFR part 5, "Labor Standards Provisions Applicable to Contracts Governing Federally Financed and Assisted Construction"). Under this Act, contractors shall be required to pay wages to laborers and mechanics at a rate not less than the minimum wages specified in a wage determination made by the Secretary of Labor. In addition, contractors shall be required to pay wages not less than once a week. The recipient shall place a copy of the current prevailing wage determination issued by the Department of Labor in each solicitation and the award of a contract shall be conditioned upon the acceptance of the wage determination. The recipient shall report all suspected or reported violations to the Federal awarding agency.

Contract Work Hours and Safety Standards Act (40 U.S.C. 327-333)

Where applicable, all contracts awarded by recipients in excess of \$2000 for construction contracts and in excess of \$2500 for other contracts that involve the employment of mechanics or laborers shall include a provision for compliance with Sections 102 and 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 327-333), as supplemented by Department of Labor regulations (29 CFR part 5). Under Section 102 of the Act, each contractor shall be required to compute the wages of every mechanic and laborer on the basis of a standard work week of 40 hours. Work in excess of the standard work week is permissible provided that the worker is compensated at a rate of not less than 1 1/2 times the basic rate of pay for all hours worked in excess of 40 hours in the work week. Section 107 of the Act is applicable to construction work and provides that no laborer or mechanic shall be required to work in surroundings or under working conditions which are unsanitary, hazardous or dangerous. These requirements do not apply to the purchases of supplies or materials or articles ordinarily available on the open market, or contracts for transportation or transmission of intelligence.

Rights to Inventions Made Under a Contract or Agreement

Contracts or agreements for the performance of experimental, developmental, or research work shall provide for the rights of the Federal Government and the recipient in any resulting invention in accordance with 37 CFR part 401, "Rights to Inventions made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements," and any implementing regulations issued by the awarding agency.

Clean Air Act (42 U.S.C. 7401 et seq.) and the Federal Water Pollution Control Act (33 U.S.C. 1251 et seq.), as amended

Contracts and subgrants of amounts in excess of \$100,000 shall contain a provision that requires the recipient to agree to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401 et seq.) and the Federal Water Pollution Control Act as amended (33 U.S.C. 1251 et seq.). Violations shall be reported to the Federal awarding agency and the Regional Office of the Environmental Protection Agency (EPA).

Byrd Anti-Lobbying Amendment (31 U.S.C. 1352)

Contractors who apply or bid for an award of \$100,000 or more shall file the required certification. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant or any other award covered by 31 U.S.C. 1352. Each tier shall also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the recipient.

Debarment and Suspension (E.O.s 12549 and 12689)

No contract shall be made to parties listed on the General Services Administration's List of Parties Excluded from Federal Procurement or Nonprocurement Programs in accordance with E.O.s 12549 and 12689, "Debarment and Suspension." This list contains the names of parties debarred, suspended, or otherwise excluded by agencies, and contracts declared ineligible under statutory or regulatory authority other than E.O. 12549. Contractors with awards that exceed the small purchase threshold shall provide the required certification regarding its exclusion status and that of its principal employees.

Access to Records (OMB Circular A-110, .48(d))

All negotiated contracts (except those for less than the small purchase threshold) awarded by recipients shall include a provision to the effect that the recipient, the Federal awarding agency, the Comptroller General of the United States, or any of their duly authorized representatives, shall have access to any books, documents, papers, and records of the contractor which are directly pertinent to a specific program for the purpose of making audits, examination, excerpts and transcriptions.

31. Security Badging

All costs and time associated with obtaining a University security badge for Contractor employees working on campus shall be borne by the Contractor.

SECTION 00 41 53

BID FORM

1.01 RELATED DOCUMENTS

- A. 00 43 13 - Bid Bond (SPB-6.14)

1.02 BID FORM

- A. FORM: State of Colorado form "Bid" (SBP-6.13).
- B. A copy of the above noted form is attached to the end of this Section.
- C. Additional State and University of Colorado forms to be attached to the submitted bid are listed in the Articles below.

1.03 PROCEDURES

- A. The durations for Bidder's Time of Completion shall match the project advertisement duration.

END OF SECTION



STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAMS

BID

Institution/Agency: University of Colorado Anschutz Medical Campus / GFE

Project No./Name: 21-173892/ Fitzsimons Building 1st Renovation rm.C1009 for CRIO

Bidder Acknowledges Receipt of Addenda Numbers:

Bidder Anticipates Services outside the United States or Colorado:*

Bidder will comply with 80% Colorado Labor on project above \$500,000:

Bidder is a Service-Disabled Veteran Owned Small Business:*

No ☐ Yes ☐ If Yes see 3A below

Yes ☐ No ☐ If No see 3B below

No ☐ Yes ☐ If Yes see 3C below

Base Bid

\$

(Refer to Bid Alternate Form SC-6.13.1 Attached)

Bidder's Time of Completion

a. Time Period from Notice to Proceed to Substantial Completion:

90 Days

b. Time Period from Substantial Completion to Final Acceptance:

15 Days

c. Total Time of Completion of Entire Project (a + b):

105 Days

1. **BID:** Pursuant to the advertisement by the State of Colorado dated 4/4/2022 the undersigned bidder hereby proposes to furnish all the labor and materials and to perform all the work required for the complete and prompt execution of everything described or shown in or reasonably implied from the Bidding Documents, including the Drawings and Specifications, for the work and for the base bid indicated above. Bidders should include all taxes that are applicable.
2. **EXAMINATION OF DOCUMENTS AND SITE:** The bidder has carefully examined the Bidding Documents, including the Drawings and Specifications, and has examined the site of the Work, so as to make certain of the conditions at the site and to gain a clear understanding of the work to be done.
3. **PARTIES INTERESTED IN BID:** The bidder hereby certifies that the only persons or parties interested in this Bid are those named herein, and that no other bidder or prospective bidder has given any information concerning this Bid.
 - A. If the bidder anticipates services under the contract or any subcontracts will be performed outside the United States or Colorado, the bidder shall provide in a written statement which must include, but need not be limited to the type of services that will be performed at a location outside the United States or Colorado and the reason why it is necessary or advantageous to go outside the United States or Colorado to perform such services. (Does not apply to any project that receives federal moneys) *
 - B. For State Public Works projects per C.R.S. 8-17-101, Colorado labor shall be employed to perform at least 80% of the work. Colorado Labor means any person who is a resident of the state of Colorado at the time of the Public Works project. Bidders indicating that their bid proposal will not comply with the 80% Colorado Labor requirement are required to submit written justification along with the bid submission. (Does not apply to any project that receives federal moneys) *
 - C. A Service-Disabled Veteran Owned Small Business (SDVOSB) per C.R.S. 24-103-211, means a business that is incorporated or organized in Colorado or maintains a place of business or has an office in Colorado and is officially registered and verified by the Center for Veteran Enterprise within the U.S. Department of Veteran Affairs. Attach proof of certification along with the bid submission. *
4. **BID GUARANTEE:** This Bid is accompanied by the required Bid Guarantee. You are authorized to hold said Bid Guarantee for a period of not more than thirty (30) days after the opening of the Bids for the work above indicated, unless the undersigned bidder is awarded the Contract, within said period, in which event the Director, State Buildings Programs, may retain said Bid Guarantee, until the undersigned bidder has executed the required Agreement and furnished the required Performance Bond, Labor and Material Payment Bond, Insurance Policy and Certificates of Insurance and Affidavit Regarding Unauthorized Immigrants.
5. **TIME OF COMPLETION:** The bidder agrees to achieve Substantial Completion of the Project from the date of the Notice to Proceed within the number of calendar days entered above, and in addition, further agrees that the period between Substantial Completion and Final Acceptance of the Project will not exceed the number of calendar days noted above. If awarded the Work, the bidder agrees to begin performance within ten (10) days from

the date of the Notice to Proceed subject to Article 46, Time of Completion and Liquidated Damages of the General Conditions of the Contract, and agrees to prosecute the Work with due diligence to completion. The bidder represents that Article 7D of the Contractor's Agreement (SC-6.21) has been reviewed to determine the type and amount of any liquidated damages that may be specified for this contract.

6. **EXECUTION OF DOCUMENTS:** The bidder understands that if this Bid is accepted, bidder must execute the required Agreement and furnish the required Performance Bond, Labor and Material Payment Bond, Insurance Policy and Certificates of Insurance and Affidavit Regarding Unauthorized Immigrants within ten (10) days from the date of the Notice of Award, and that the bidder will be required to sign to acknowledge and accept the Contract Documents, including the Drawings and Specifications.
7. **ALTERNATES:** Refer to the Information for Bidders (SC-6.12) for Method of Award for Alternates and use State Form SBP-6.13.1 Bid Alternates form to be submitted with this bid form if alternates are requested by the institution/agency in the solicitation documents.
8. **Submit wage rates** (direct labor costs) for prime contractor and subcontractor as requested by the institution/agency in the solicitation documents.
9. **The right is reserved to waive informalities and to reject any and all Bids.**

**Does not apply to projects for Institutions of Higher Education that have opted out of the State Procurement Code.*

SIGNATURES: If the Bid is being submitted by a Corporation, the Bid shall be signed by an officer, i.e., President or Vice-President. If a sole proprietorship or a partnership is submitting the Bid, the Bid shall so indicate and be properly signed.

Dated this _____ Day of _____, 20____

THE BIDDER:

Company Name

Address (including city, state and zip)

Phone number:

Name (Print) and Title

Signature



STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM

BID BOND

Institution/Agency: **University of Colorado Anschutz Medical Campus / GFE**

Project No./Name: **21-173892/ Fitzsimons Building 1st Renovation rm.C1009 for CRIO**

KNOW ALL MEN BY THESE PRESENTS:

WHEREAS, _____ hereinafter called the "PRINCIPAL", is submitting a PROPOSAL for the above described project, to the STATE OF COLORADO, hereinafter called the "OBLIGEE".

WHEREAS, the Advertisement for Bids has required as a condition of receiving the Proposals that the Principal submit with the PROPOSAL GUARANTY in an amount not less than five per cent (5%) of the Proposal, which sum it is specifically agreed is to be forfeited as Liquidated Damages in the event that the Principal defaults in his obligation as hereinafter specified, and, in pursuance of which Requirement, this Bid is made, executed and delivered.

NOW THEREFORE, the Principal and _____ a corporation of the State of _____, duly authorized to transact business in Colorado, as Surety, are held and firmly bound unto the Obligee, in the sum of five per cent (5%) of the Principal's total bid price, lawful money of the United States for the payment of which sum, well and truly to be made to the Obligee, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

FURTHER THAT, a condition of the obligation that the Principal shall maintain his Proposal in full force and effect for thirty (30) days after the opening of the proposals for the project, or, if the Principal's Proposal is accepted, the Principal shall, within the prescribed time, execute the required Agreement, furnish the required Performance Bond, Labor and Material Payment Bond, Insurance Policy, Certificates of Insurance and Certification and Affidavit Regarding Illegal Aliens, then this obligation shall be null and void, otherwise it shall remain in full force and effect, and subject to forfeiture upon demand as Liquidated Damages.

IN WITNESS WHEREOF said Principal and Surety have executed this Bond, this _____ day of _____, A.D., 20_____.

(Corporate Seal)

ATTEST

Secretary

Name (Print)

THE PRINCIPAL

Company Name

Address (including city, state and zip)

Phone number: _____

Signature

Name (Print) and Title

SIGNATURES

If the "Principal" is doing business as a Corporation, the Bid Bond shall be signed by an officer, i.e., President or Vice President. The signature of the officer shall be attested to by the Secretary and properly sealed.

If the "Principal" is an individual or a partnership, the Bid Bond shall so indicate and be properly signed.

(Corporate Seal)

THE SURETY

By _____

Attorney-in-Fact

Secretary

**THIS BOND MUST BE ACCOMPANIED BY POWER OF ATTORNEY, EFFECTIVELY DATED.
FAILURE TO PROVIDE A PROPERLY EXECUTED BID BOND WITH A PROPERLY EXECUTED POWER OF
ATTORNEY WILL RESULT IN THE BIDDER'S PROPOSAL BEING DEEMED NON-RESPONSIVE.**

SECTION 00 45 17

SUBCONTRACTOR PREQUALIFICATION

1.01 SUBCONTRACTOR PREQUALIFICATION

- A. FORM: University of Colorado | Anschutz Medical Campus "Subcontractor's Statement of Experience."
- B. A copy of the above noted document is attached to the end of this Section.

1.02 PREQUALIFICATION EXEMPTION

- A. The Owner considers the commercial flooring installers that bid this project in the same regard as a "General Contractor". Unless a mechanical, plumbing, or electrical subcontractor is required for any work on the project, prequalification is not required.
- B. The following form is primarily used to prequalify electrical, plumbing, and mechanical subcontractors that are not listed in the University's "Small Contractor Procurement Program" (SCPP). It is to be used when a "General Contractor" wants to use a subcontractor that is not on the SCPP list to establish that they are qualified to do the job.
 - 1. It is not expected or required that the flooring contractors on the bid list for this project fill this form out unless specifically requested by Owner. The Owner may request that this form be completed if they receive a request to bid this project from a contractor with whom they are not familiar in order to verify the qualifications of the bidder or subcontractor.

END OF SECTION



University of Colorado
Denver | Anschutz Medical Campus
Facilities Management

SUBCONTRACTOR'S STATEMENT OF EXPERIENCE

Project Name: _____

Project # _____

Project Manager: _____

Phone: _____

Email: _____

Architect/Engineer: _____

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

INDEX OF DOCUMENTS

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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?

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 Engineer

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

**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 _____
(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 submitter 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 submitter 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.

SECTION 00 62 16

CERTIFICATE OF INSURANCE

1.01 CERTIFICATE OF INSURANCE

- A. Sample Certificate of Insurance and language.
- B. A copy of the above noted form is attached to the end of this Section.

END OF SECTION



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
Month/Date/Year

PRODUCER Insurance Agent/Broker Name Insurance Agent/Broker Street Address or P.O. Box Insurance Agent/Broker City, State & Zip Code Contact & Phone Number	THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.	
INSURED Vendor Name Vendor Street Address or P.O. Box Vendor City, State & Zip Code	INSURERS AFFORDING COVERAGE	NAIC #
	INSURER A: Name of Insurance Company	Enter NAIC#
	INSURER B: Name of Insurance Company (if applicable)	Enter NAIC#
	INSURER C: Name of Insurance Company (if applicable)	Enter NAIC#
	INSURER D: Name of Insurance Company (if applicable)	Enter NAIC#
	INSURER E: Name of Insurance Company (if applicable)	Enter NAIC#

COVERAGES							
THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.							
INSR LTR	ADD'L INSRD	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS	
A	<input checked="" type="checkbox"/>	GENERAL LIABILITY <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS MADE <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> _____ GEN'L AGGREGATE LIMIT APPLIES PER: <input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PROJECT <input type="checkbox"/> LOC	Enter Policy #	Enter Effective Date	Enter Expiration Date	EACH OCCURENCE	\$1,000,000
						DAMAGE TO RENTED PREMISES (Ea occurrence)	\$100,000
						MED EXP (Any one person)	\$N/A
						PERSONAL & ADV INJURY	\$1,000,000
						GENERAL AGGREGATE	\$2,000,000
						PRODUCTS - COMP/OP AGG	\$1,000,000
							\$
A	<input checked="" type="checkbox"/>	AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> NON-OWNED AUTOS <input type="checkbox"/> _____ <input type="checkbox"/> _____	Enter Policy #	Enter Effective Date	Enter Expiration Date	COMBINED SINGLE LIMIT (Each Occurrence)	\$1,000,000
						BODILY INJURY (Per person)	\$
						BODILY INJURY (Per accident)	\$
						PROPERTY DAMAGE (Per accident)	\$
A	<input checked="" type="checkbox"/>	GARAGE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> _____	Enter Policy # (if required)	Enter Effective Date	Enter Expiration Date	AUTO ONLY - EA ACCIDENT	\$1,000,000
						OTHER THAN AUTO ONLY: EA ACC AGG	\$
A	<input checked="" type="checkbox"/>	EXCESS/UMBRELLA LIABILITY <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> CLAIMS MADE <input type="checkbox"/> DEDUCTIBLE <input checked="" type="checkbox"/> RETENTION \$ <u>Enter Amount</u>	Enter Policy # (if required)	Enter Effective Date	Enter Expiration Date	EACH OCCURRENCE	\$ <u>Enter Limit</u>
						AGGREGATE	\$ <u>Enter Limit</u>
							\$
							\$
							\$
A	<input checked="" type="checkbox"/>	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? If yes, describe under SPECIAL PROVISIONS below	Enter Policy #	Enter Effective Date	Enter Expiration Date	<input checked="" type="checkbox"/> WC STATUTORY LIMITS <input type="checkbox"/> OTHER	
						E.L. EACH ACCIDENT	\$500,000
						E.L. DISEASE - EA EMPLOYEE	\$500,000
						E.L. DISEASE - POLICY LIMIT	\$500,000
	<input type="checkbox"/>	OTHER					

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES / EXCLUSIONS ADDED BY ENDORSEMENT / SPECIAL PROVISIONS

The Board of Trustees of the University of Alabama, its individual trustees, officers, directors, employees, agents and representatives are included as an additional insured as respect to the Commercial General Liability and Excess/Umbrella Liability policies. Unless precluded by law, all policies waive the right to recovery or subrogation against the Board of Trustees of the University of Alabama, its individual trustees, officers, directors, employees, agents and representatives.

Insert Contract or Purchase Order # (Job Description, if Applicable)

CERTIFICATE HOLDER	CANCELLATION
The Board of Trustees of the University of Alabama Attn: Risk Management Dept. (or requesting party/department) P.O. Box 870119 (or address of requesting party/department) Tuscaloosa, AL 35487-0119 Facsimile Number: (205) 348-3312	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE INSURER AFFORDING COVERAGE WILL ENDEAVOR TO MAIL <u>30</u> DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO DO SO SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER, ITS AGENTS OR REPRESENTATIVES. AUTHORIZED REPRESENTATIVE

IMPORTANT

If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

DISCLAIMER

The Certificate of Insurance on the reverse side of this form does not constitute a contract between the issuing insurer(s), authorized representative or producer, and the certificate holder, nor does it affirmatively or negatively amend, extend or alter the coverage afforded by the policies listed thereon.

SECTION 00 62 76

APPLICATION AND CERTIFICATE FOR CONTRACTOR'S PAYMENT

1.01 SUMMARY

- A. This Section includes administrative and procedural requirements for managing the contractual requirements of this Project.
- B. Related Requirements:
 - 1. Section 01 29 00 "Payment Procedures".

1.02 FORMS

- A. APPLICATION AND CERTIFICATE FOR CONTRACTORS PAYMENT (SBP-7.2)
 - 1. Download Link:

<https://drive.google.com/open?id=0ByG39KP3LPICVHVqenlySGJIMFE>

END OF SECTION

SECTION 00 63 46

CHANGE ORDER BULLETIN

1.01 SUMMARY

- A. Section includes administrative and procedural requirements for managing the contractual requirements of this Project.

1.02 CHANGE ORDER BULLETIN

- A. State of Colorado form "Change Order Bulletin" (SC-6.311).
- B. A copy of the above noted form is attached to the end of this Section.

END OF SECTION

CHANGE ORDER BULLETIN

00 63 46 - 1

SECTION 00 63 46

CHANGE ORDER BULLETIN

1.01 SUMMARY

- A. Section includes administrative and procedural requirements for managing the contractual requirements of this Project.

1.02 CHANGE ORDER BULLETIN

- A. State of Colorado form "Change Order Bulletin" (SC-6.311).
- B. A copy of the above noted form is attached to the end of this Section.

END OF SECTION



STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM

CHANGE ORDER BULLETIN

Change Order Bulletin No: _____ Date _____

Contractor: _____

Institution or Agency: **University of Colorado – Anschutz Medical Campus**

Project No./Name: **21-173892 / Fitzsimons Building 1st Renovation rm.C1009 for CRIO**

Description of Work: _____

This bulletin is issued to define the scope of revision in drawings and/or specifications for a contemplated change order. The work called for by these revisions shall be in accordance with the requirements of the original contract documents.

Please prepare and submit a proposal for the changes described below. For pricing use State Form SC-6.312. A formal change order State Form SC-6.31 will be issued after approval of your proposal by State Buildings Program and the Architect. Your proposal shall include a statement as to the effect this change will have on the time for completion of the project.

This bulletin is **NOT** an authorization to proceed.

DESCRIPTION OF CHANGE:

SPECIFICATION REVISIONS:

STATUS OF EXISTING WORK:

PREPARED BY: _____
ARCHITECT/ENGINEER OR CONTRACTOR

APPROVED BY: _____
STATE BUILDINGS PROGRAM
(or Authorized Delegate)

SECTION 00 63 53

CHANGE ORDER PROPOSAL

1.01 CHANGE ORDER PROPOSAL

- A. State of Colorado form "Change Order Proposal" (SC-6.312).

1. Download link:

https://drive.google.com/file/d/1Uo7i4h3LqpByA8GUYEI5K9qne_8hSwtS/view

- B. A copy of the above noted form is attached to the end of this Section.

END OF SECTION



STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAMS

CHANGE ORDER PROPOSAL

(enter information ONLY in YELLOWED cells)

Change Order Proposal No. _____ Date _____

Change Order Bulletin No: _____

Description of Work: (enter into text box)

Date _____

Contractor _____

Institution or Agency _____

Project No./Name _____

(Before completing this form, read instructions on reverse side.)

PART I - WORK PERFORMED BY CONTRACTOR

Line 1.	Direct Labor Costs		\$		
Line 2.	Labor Overhead (Direct Labor Burdens)	(_____ x Line 1)	\$	0.00	
Line 3.	Total Contractor's Labor Costs (Lines 1 and 2)		\$	0.00	
Line 4.	Direct Materials Costs		\$		
Line 5.	Materials Overhead (Delivery Costs & Taxes)	(_____ x Line 4)	\$	0.00	
Line 6.	Total Materials Costs (Lines 4 and 5)		\$	0.00	
Line 7.	Total Equipment Costs		\$		
Line 8.	PART I - TOTAL CONTRACTOR'S L, M & E COSTS (Lines 3, 6 and 7)		Part I	\$	0.00

PART II - WORK PERFORMED BY SUBCONTRACTOR

Line 9.	Direct Labor Costs		\$		
Line 10.	Labor Overhead (Direct Labor Burdens)	(_____ x Line 9)	\$	0.00	
Line 11.	Total Subcontractor's Labor Costs (Lines 9 and 10)		\$	0.00	
Line 12.	Direct Materials Costs		\$		
Line 13.	Materials Overhead (Delivery Costs & Taxes)	(_____ x Line 12)	\$	0.00	
Line 14.	Total Subcontractor's Materials Costs (Lines 12 and 13)		\$	0.00	
Line 15.	Total Subcontractor's Equipment Costs		\$		
Line 16.	Total Subcontractor's L, M & E Costs (Line 11, 14 and 15)		\$	0.00	
Line 17.	Subcontractor's Overhead (Indirect Costs)	(10.0% x Line 16)	\$	0.00	
Line 18.	Subcontractor's Profit (on line 16) _____ Addition or Deduct _____		\$	0.00	
Line 19.	PART II - TOTAL SUBCONTRACTOR'S COSTS (Lines 16, 17 and 18)		Part II	\$	0.00

PART III - CONTRACTOR'S OVERHEAD & PROFIT

Line 20.	Contractor's Overhead (Indirect Costs)	(10.0% x Part I Total)	\$	0.00	
Line 21.	Contractor's Profit	(5.0% x Part I Total)	\$	0.00	
Line 22.	PART III - TOTAL CONTRACTOR OVERHEAD & PROFIT (Lines 20 and 21)		Part III	\$	0.00

PART IV - CONTRACTOR'S MARKUP ON SUBCONTRACTOR

Line 23.	Contractor's Commission on Subcontractor	(5.0% x Part II Total)	\$	0.00	
Line 24.	Contractor's Profit (on Line 19) _____ Addition or Deduct _____		\$	0.00	
Line 25.	PART IV - TOTAL CONTRACTOR MARKUP ON SUBCONTRACTOR (Lines 23 and 24)		Part IV	\$	0.00

PART V - SUBTOTAL C.O. PROPOSAL (Parts I and II and III and IV)

			Part V (Subtotal)	\$	0.00
--	--	--	-------------------	----	------

PART VI - CONTRACTOR'S BOND COST

	(_____ x Part V Total)		Part VI	\$	0.00
--	-------------------------	--	---------	----	------

PART VII - GRAND TOTAL CHANGE ORDER PROPOSAL (Sum of Totals: Parts V and VI)

			Grand Total	\$	0.00
--	--	--	-------------	----	------

PART VIII - CONTRACT TIME (CALENDAR DAYS CHANGED) ☐ EXTENDED ☐ NO CHANGE ☐ REDUCED ☐ Days

THE TIME OF COMPLETION MAY CHANGE BY THE CALENDAR DAYS INDICATED (ABOVE) FROM THE TOTAL NUMBER OF DAYS LISTED IN THE CONTRACTOR'S AGREEMENT TO COMPLETE THE ENTIRE PROJECT.

CONTRACTOR'S CERTIFICATE:

This is to certify that, to the best of my knowledge and belief, the cost/price data submitted in response to the listed C.O. Bulletin, are accurate, complete and current as of _____.

Firm: _____

Name & title: _____

Signature: _____

*Date: _____

* The proposal shall remain in full force and effect for a period of _____ calendar days from date of signature.

ARCHITECT/ENGINEER'S CERTIFICATE:

This is to certify that I have analyzed the proposal and find, to the best of my knowledge and belief, that the proposal represents current, fair, factual and competitive cost/price data.

Firm: _____

Name & title: _____

Signature: _____

Date: _____

STATE BUILDINGS PROGRAMS (or Authorized Delegate)

Date: _____

INSTRUCTIONS FOR COMPLETING "CHANGE ORDER PROPOSAL" COST/PRICE DATA SUMMARY (STATE FORM SC-6.312)

(enter information only in YELLOWED cells)

Enter Change Order Proposal Number, Date Created, Contractor's Name, Agency/Institution, State Project Number and Name.
 REFERENCE: Enter Change Order Bulletin Number, Date Issued, and Description of Changes from Bulletin, noting exceptions which are listed in the Bulletin but are excluded, i.e., not priced on this form.

PART I - WORK PERFORMED BY CONTRACTOR:

Line 1. Direct Labor Costs: Fill in subtotal of direct labor costs which includes base rates plus applicable fringe benefits. On Contractor's (or Sub's) letterhead show costs as follows:

Trade	Rate	Duration	Extended Costs
	\$ _____	x _____	= \$ _____
	\$ _____	x _____	= \$ _____
		Direct Labor Cost	= \$ _____

Line 2. Labor Overhead (Direct Labor Burdens, etc.): Enter percentage (as submitted in Schedule of Values) of Line 1 as applicable. (Spread

Line 3. Total Contractor's Labor Costs: Total of Lines 1 and 2. (Spreadsheet calculates the total)

Line 4. Direct Material Cost: Support with quotes or invoices. Fill in subtotal of direct materials costs.

Include all delivery, handling, insurance costs, etc. On Contractor's letterhead show direct materials costs as follows:

Materials	Rate	Quantity	Extended Costs
	\$ _____	x _____	= \$ _____
	\$ _____	x _____	= \$ _____
		Direct Materials Cost	= \$ _____

Line 5. Materials Overhead (Delivery, taxes, insurance, etc. - as mutually agreed upon at contract signing):
 Enter percentage as applicable. (Spreadsheet calculates the value)

Line 6. Total Contractor's Material Costs: Total of Lines 4 and 5. (Spreadsheet calculates the total)

Line 7. Total Contractor's Equipment Costs: Enter total equipment costs including indirect overhead costs in hourly rate - except indirect labor costs. On Contractor's letterhead show total equipment costs as follows:

Equipment	Rate	Duration	Extended Costs
	\$ _____	x _____	= \$ _____
	\$ _____	x _____	= \$ _____
		Total Equipment Cost	= \$ _____

Line 8. TOTAL CONTRACTOR'S Labor, Materials & Equipment (L, M & E) Costs: Add Lines 3, 6 and 7 of Part I. (Spreadsheet form calculates totals)

PART II - WORK PERFORMED BY SUBCONTRACTOR:

Line 9. Direct Labor Costs: See Line 1 instructions.

Line 10. Labor Overhead (Direct Labor Burdens, etc.): Enter percentage (as submitted in Schedule of Values) of Line 9 as applicable. (Spreadsheet calculates the value)

Line 11. Total Contractor's Labor Costs: Total of Lines 9 and 10. (Spreadsheet calculates the total)

Line 12. Direct Material Cost: See Line 4 instructions.

Line 13. Materials Overhead (Delivery, taxes, insurance, etc.) Enter percentage as applicable. (Spreadsheet calculates the value)

Line 14. Total Subcontractor's Material Costs: Total of Lines 12 and 13. (Spreadsheet calculates the total)

Line 15. Total Subcontractor's Equipment Costs: See Line 7 instructions.

Line 16. TOTAL SUBCONTRACTOR'S Labor, Materials & Equipment (L, M & E) Costs: Add Lines 11, 14 and 15 of Part II.

Line 17. Subcontractor's Overhead (Indirect costs). Edit percentage of Line 16 if applicable - See Article 35 of General Conditions.

Line 18. Subcontractor's Profit: Enter a "1" in appropriate cell. For an addition, Edit E37, a deduct, Edit I37. See Article 35 General Conditions

Line 19. TOTAL SUBCONTRACTOR'S Labor, Materials & Equipment (L, M & E) Costs: Add Lines 16, 17 and 18 of Part II.

PARTS III THROUGH VIII - CERTIFICATIONS - Self Explanatory.

Part 3. Edit percentages for Line 20 or 21 if applicable. See Article 35 of General Conditions.

Part 4. Line 23, Edit percentages applicable to Line 18. See Article 35 of General Conditions.

Part 4. Line 24, Enter a "1" in appropriate cell. For an addition, edit E45, a deduct edit I45. See Article 35 of General Conditions.

Part 5. SUBTOTAL OF CHANGE ORDER PROPOSAL (sum of lines 8, 19, 22, and 25 - applicable)

Part 6. Contractor's Bond Cost: Enter percentage value of Part 5 as applicable. (spreadsheet calculates the value)

Part 7. GRAND TOTAL OF THE CHANGE ORDER PROPOSAL. (spreadsheet calculates the sum of parts 5 and 6)

Part 8. Contract time change. Place an "X" in appropriate cell and edit the cell to indicate the number of days changed.

A. The Contractor, who prepares this proposal form, certifies the cost/price data by signing, dating, and forwarding same to the Architect/Engineer (or Consultant) for further action.

B. The Architect/Engineer (or Consultant) reviews and analyzes the cost/price data for the requirements that these are: 1) currently prevalent, 2) reasonably fair, 3) factually applicable, and 4) equivalently competitive market selling prices. The Architect/Engineer (or Consultant) may negotiate - after receipt of the cost proposal - any or all of the cost elements of the proposal to support a recommendation of acceptance to the Principal Representative. Certification by the A/E (or Consultant) of the above requirements is made upon his signature. The Architect/Engineer (or Consultant) forwards the proposal with the supporting back-up to the Agency.

C. Authority for the Institution or Agency (usually the Principal Representative) reviews the proposal, signs, dates, and forwards to Office of the State Architect for final action.

D. State Buildings Division reviews the cost proposal, with all supporting back-up, for technical and procedural requirements and, if in order, signs and dates the proposal.

SECTION 00 65 19.01

BUILDING INSPECTION RECORD

1.01 BUILDING INSPECTION RECORD

- A. State of Colorado form "Notice of Substantial Completion" (SBP-BIR).
- B. A copy of the above noted form is attached to the end of this section.

1.02 CONSTRUCTION PERMIT EXEMPT

- A. This project is exempt from a construction permit.

1.03 BUILDING INSPECTION RECORD PROCEDURE

- A. A paper copy of the Building Inspection Record (BIR) is required to be kept at the construction site at all times. After final signoff by Building Inspector, return paper copy to University Project Manager. Project Manager is responsible for final signoff on the BIR before the Building Department can close the permit.
- B. Contractor is responsible for requesting all University Building Inspector requests through the University's MyCityInspector website platform.
- C. Use the following login page for requesting inspections:
- D. <https://ucdenver.mycityinspector.com>

END OF SECTION



STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM

BUILDING INSPECTION RECORD

Institution or Agency: University of Colorado – Anschutz Medical Campus
Project No./Name: 21-173892 / Fitzsimons Building 1ST Renovation rm.C1009 for CRIO

Building Official/Code Review Agent: _____ Type of Construction: _____
Architect/Engineer: _____ Occupancy Classifications: _____
Contractors: _____ Project Manager: _____
General: _____ Project Manager Signature _____
Electrical: _____ At Completion: _____
Mechanical: _____ Inspector of Record Signature at _____
Plumbing: _____ Completion: _____
Notice to Proceed Date: _____ BIR Completion Date: _____

Provide * No work shall be concealed or covered until the appropriate inspector has inspected and approved.
If
Checked

	Building (Consultant)	Date	Inspector/ICC#	Comments or Corrections
<input type="checkbox"/>	Footings/Foundations			
<input type="checkbox"/>	Concrete Slab / Under-Floor			
<input type="checkbox"/>	Framing (after rough elec/mech/plumb)			
<input type="checkbox"/>	Lath and Gypsum Board			
<input type="checkbox"/>	Fire-Resistant Penetrations			
<input type="checkbox"/>	Mechanical/Energy Efficiency			
<input type="checkbox"/>	Roofing			
<input type="checkbox"/>	Other			
<input type="checkbox"/>	Final			
	Special (Consultant)	Date	Inspector	Comments or Corrections
<input type="checkbox"/>	Steel			
<input type="checkbox"/>	Concrete			
<input type="checkbox"/>	Masonry			
<input type="checkbox"/>	Wood			
<input type="checkbox"/>	Soils/Foundations			
<input type="checkbox"/>	Spray-Applied Fireproofing			

<input type="checkbox"/>	Smoke Control Systems			
<input type="checkbox"/>	Other			
<input type="checkbox"/>	Elevator Inspection (State)	Date	Inspector	Comments or Corrections
	Final			
<input type="checkbox"/>	Electrical (Co. St. Electrical Bd.)	Date	Inspector	Comments or Corrections
<input type="checkbox"/>	Underground			
<input type="checkbox"/>	Rough Walls			
<input type="checkbox"/>	Rough Ceilings			
<input type="checkbox"/>	Final			
<input type="checkbox"/>	Plumbing (Co. Ex. Bd. of Plumbers)	Date	Inspector	Comments or Corrections
<input type="checkbox"/>	Underground			
<input type="checkbox"/>	Gas			
<input type="checkbox"/>	Inside Water			
<input type="checkbox"/>	Final			
<input type="checkbox"/>	Fire Department Inspection (Local)	Date	Inspector	Comments or Corrections
<input type="checkbox"/>	Fire Sprinkler System			
<input type="checkbox"/>	Fire Alarm System			
<input type="checkbox"/>	Other			
<input type="checkbox"/>	Final			
<input type="checkbox"/>	Health Dept. Inspection (Local)	Date	Inspector	Comments or Corrections
	Final			
<input type="checkbox"/>	Boiler Inspection (State)	Date	Inspector	Comments or Corrections
<input type="checkbox"/>	New Installation			
<input type="checkbox"/>	Repair or Alteration			
<input type="checkbox"/>	Final			

Place this card in an obvious, protected location, along with all related inspection reports and documents.

SECTION 00 65 19.26

NOTICE OF FINAL ACCEPTANCE

1.01 NOTICE OF FINAL ACCEPTANCE

- A. State of Colorado form "Notice of Final Acceptance" (SBP-6.27).
- B. A copy of the above noted form is attached to the end of this Section.

END OF SECTION



STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM

NOTICE OF FINAL ACCEPTANCE

Date of Notice of Acceptance: _____
Date to be inserted by A/E after consultation with the Principal Representative
Institution/Agency: University of Colorado – Anschutz Medical Campus
Project No./Name: 21-173892 / Fitzsimons Building 1ST Renovation rm.C1009 for CRIO

TO:

Notice is hereby given that the State of Colorado, acting by and through the _____
_____, accepts as complete* the above numbered project.

State Buildings Program
(or Authorized Delegate)

Date

Principal Representative
(Institution or Agency)

Date

*When completely executed, this form is to be sent by **certified mail** to the Contractor by the Principal Representative or delivered by any other means to which the parties agree.

SECTION 00 73 80

SALES TAX

1.01 SUMMARY

- A. This Section includes administrative documents related to sales tax exemption for construction material purchases.

1.02 DOCUMENTS

- A. Tax Exempt Status of University of Colorado, dated August 25, 2017
- B. City of Aurora Sales and Use Tax Exemption, dated March 12, 2001
- C. City of County of Denver Tax Confirming Exemption Status, dated November 5, 1999
- D. State of Colorado Letter Confirming Adams County, RTD, Stadium, and Cultural Tax Exemptions, dated April 7, 2006
- E. Colorado Department of Revenue - Contractor Application for Exemption Certification
- F. Copies of the above noted documents are attached to the end of this section.

1.03 PROCEDURE

- A. General Contractor must apply for a sales tax exemption certificate through the Colorado Department of Revenue using the "Contractor Application for Exemption Certificate."

- 1. Form can be downloaded from the Colorado Department of Revenue website:

<https://www.colorado.gov/pacific/sites/default/files/DR0172.pdf>

END OF SECTION

CERTIFICATE OF EXEMPTION FOR STATE SALES/USE TAX ONLY

THIS LICENSE IS
NOT TRANSFERABLE

USE ACCOUNT NUMBER for all references	LIABILITY INFORMATION		ISSUE DATE
09802565	G	010180	Aug 25 2017



STATE OF COLORADO/ OFFICE OF STATE
CONTROLLER
ATTN: OFFICE OF UNIVERSITY CONTROLLER
1800 N GRANT ST STE 600
DENVER CO 80203-1148

Executive Director
Department of Revenue



Sales Tax Exemption Certificate Multi - Jurisdiction

See page 2 for instructions

Last Name or Business Name		First Name		Middle Initial
Address				
City		State	ZIP	
I Certify That				
Name of Firm (Buyer) The Regents of University of Colorado				
Address 1800 Grant Street, Suite 600				
City Denver		State CO	ZIP 80203	
Qualifies As (Check each applicable item)				
<input type="checkbox"/> Wholesaler <input type="checkbox"/> Retailer <input type="checkbox"/> Manufacturer <input type="checkbox"/> Charitable or Religious				
<input checked="" type="checkbox"/> Political Subdivision or Governmental Agency <input type="checkbox"/> Other (Specify)				
If Other, specify here				
1) and is registered with the below listed states and cities within which your firm would deliver purchases to us which are for resale or lease by us in the normal course of our business which is <u>Institution of Higher Education</u> or				
2) that such purchases are exempt from payment of sales or use tax in such states and cities because our buyer is:				
<input checked="" type="checkbox"/> Political Subdivision or Governmental Agency <input type="checkbox"/> Charitable or Religious <input type="checkbox"/> Otherwise Exempt By Statute (Specify)				
If Otherwise Exempt By Statute, specify here				
City or State City of Aurora	State Registration or ID Number 98-00799-0000	City or State Colorado (Boulder campus)	State Registration or ID Number 98-02915-0000	
City or State Colorado	State Registration or ID Number 98-02565-0000	City or State Texas	State Registration or ID Number 32002730391	
City or State	State Registration or ID Number	City or State	State Registration or ID Number	
If the list of states and cities is more than six(6), attach a list to this certificate. I further certify that if any property so purchased tax free is used or consumed by the firm as to make it subject to a Sale or Use Tax we will pay the tax due direct to proper taxing authority when state law so provides or inform the seller for added tax billing. This certificate shall be part of each order which we may hereafter give to you, unless otherwise specified, and shall be called until canceled by us in writing or revoked by the city or state.				
General Description of products to be purchased from seller				
Under penalties of perjury, I swear or affirm that the information on this form is true and correct as to every material matter.				
Authorized Signature (owner, Partner or Corporate Officer) <i>Robert C. Kuehn</i>		Title Associate Vice President/University Controller		Date (MM/DD/YY) 7/4/18



FINANCE DEPARTMENT

Administration
1470 South Havana Street
Aurora, Colorado 80012
303-739-7055
FAX: 303-739-7068

March 12, 2001

Wayne F. Henderson
Vice Chancellor for Administration and Finance
University of Colorado Health Sciences Center
Fitzsimons, Building 500, Room C1003
P.O. Box 6508
Aurora, Colorado 80045-0508

RE: Letter of Commitment

Dear Mr. Henderson:

I am in receipt of your letter dated February 27, 2001, requesting that I issue a letter of commitment to the University of Colorado Health Sciences Center ("UCHSC") pursuant to *City Code Section 130-63(c)*. It is my understanding that UCHSC is part and parcel of the University of Colorado, a public institution of higher education of the State of Colorado. *§ 23-20-101, et seq., C.R.S.* You have asked for some assurance that UCHSC is exempt from the payment of City sales and use tax, as well as the employer portion of the City occupational privilege tax.

City Code Section 130-157(1) exempts all sales of tangible personal property and taxable services to the various political subdivisions of this state from imposition of City sales tax. Identical exemptions exist in both the City Use Tax ordinance (*City Code § 130-198(5)*) and the City Employer Occupational Privilege Tax ordinance (*City Code § 130-405(1)*). Accordingly, UCHSC falls squarely within each of these three exemptions.

It should be noted, however, that these exemptions do not extend to the collection of City tax. For instance, UCHSC must collect, report, and remit City sales tax on any retail sale of tangible personal property or taxable services it makes to a non-exempt third party. *City Code § 130-160*. Likewise, UCHSC

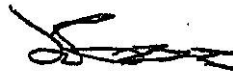
Wayne F. Henderson
March 12, 2001
Page Two

must also collect, report, and remit the employee portion of the City occupational privilege tax for each person it employs within the City for any period of time within a calendar month sufficient to receive no less than \$250.00 as compensation for such employment. *City Code § 130-464.*

With respect to the deposit and ultimate payment of City use tax on construction materials, it is the longstanding policy of the City that the party who contracts for and directs and controls the construction of building improvements is liable for such tax. *See Fifteenth Street Investment Co. v. People, 102 Colo. 571, 81 P.2d 764 (1938).* Under the circumstances described in your request, it is UCHSC, and not its contractors, upon whom sole liability for the payment of City use tax would rest. Because UCHSC is an exempt entity, no use tax is due and owing on the purchase and subsequent use of construction materials for the development of UCHSC's property at the Fitzsimons site.

With regard to your additional requests, the City has no objection if UCHSC's contractors wish to use this letter to present to City building officials and third-party retailers as evidence of UCHSC's tax exemption. As for any future revocation of this letter, unless the status of UCHSC as a political subdivision changes, the various City tax exemptions which UCHSC is entitled to claim cannot be lawfully repealed without the prior approval of the City's voters. *See Colo. Const. Art. X, § 20(4)(a).* Therefore, the City believes UCHSC will be adequately informed in the event that the City decides to seek approval for any change in its tax laws that would impact UCHSC's tax-exempt status.

Very truly yours,



John Gross
Director of Finance



Department of Finance
Treasury Division
Tax Compliance – Audit Unit

201 W Colfax Ave #1009
Denver, CO 80202
fax: 720- 913-9455
www.denvergov.org/treasury

February 19, 2014

University of Colorado
Procurement Service Center
1800 Grant Street, Suite 500
Denver, CO 80203

Ladies/Gentlemen:

The above named entity is exempt from the Denver sales tax per Sec. 53-26(1) of the City Retail Sales Tax Article:

Sec. 53-26 (1) Exemptions

There shall be exempt from taxation under the provisions of this Article the following: (1) All sales to the United States Government, to the State, its departments and institutions and the political subdivisions thereof, only when purchased in their governmental capacities.

To qualify for the exemption, purchases must be billed direct to the organization, and payment made from funds of the organization.

The exemption does not extend to construction contractors who may perform contracts for you; they are the consumer of all property purchased and used in the performance or contracts for others. Nor does the exemption apply to purchases by employees or members for their own personal use.

You may reproduce this letter to furnish to suppliers as needed.

Sincerely,

Donald Korte, Audit Manager
Tax Compliance/Audit Section
720-913-9339

STATE OF COLORADO

TAXPAYER SERVICE DIVISION

Department of Revenue

1375 Sherman Street
Denver, Colorado 80261



Bill Owens
Governor

M. Michael Cooke
Executive Director

Neil Tillquist
Division Director

Michael J. Barden
University of Colorado at Denver and Health Sciences Center(UCDHSC)
Building 500, Mail Stop F418
P.O. Box 6508
Aurora CO 80045

April 7, 2006

Dear Mr. Barden:

This is in response to your letter of March 1, 2006, to Bruce Nelson of the Department of Revenue regarding sales tax exemption from county and special district sales taxes for UCDHSC construction projects at the Fitzsimons campus. Mr. Nelson has left the Department, so I am responding to your inquiry.

In regards to Adams County sales and use tax, the sales tax is collected by the Department of Revenue, not the city of Aurora. Use tax on building materials is collected by the county when issuing building permits. Under 29-2-105(d), 39-26-708(1)(a) and 39-26-708(2)(a), C.R.S., UCDHSC and its contractors and sub-contractors are exempt from county sales and use tax on construction and building materials for State/UCDHSC owned real property.

In regards to special district sales and use taxes, UCDHSC and its contractors and sub-contractors are exempt from sales and use tax pursuant to the exemptions granted in 39-26-708(1)(a) and 39-26-708(2)(a), C.R.S., for the Regional Transportation District under 32-9-119(2)(c)(II), C.R.S, for the Scientific and Cultural District under 32-13-107(2), C.R.S, and for the Metropolitan Football Stadium District under 32-15-110(2)(a), C.R.S.

Additionally, for construction projects in the City and County of Denver, UCDHSC and its contractors and sub-contractors are exempt from the aforementioned special district sales and use taxes, as well as state sales and use tax.

Should you have additional questions regarding these matters, feel free to contact me.

Respectfully,

A handwritten signature in cursive script that reads "Steve Asbell".

Steve Asbell

Taxpayer Service Policy Group

Colorado Dept of Revenue

Ph:303.866.3889 email: sasbell@spike.dor.state.co.us



DR 0172 (05/01/18)
COLORADO DEPARTMENT OF REVENUE
Denver CO 80261 - 0009
(303) 238-SERV (7378)

Special Notice

Purpose of this application

The exemption certificate for which you are applying must be used only for the purpose of purchasing construction and building materials for the exempt project described below. This exemption does not include or apply to the purchase or rental of equipment, supplies, and materials which are purchased, rented, or consumed by the contractor and which do not become a part of the structure, highway, road, street, or other public works **owned** and **used** by the exempt organization.

Any unauthorized use of the exemption certificate will result in revocation of your exemption certificate and other penalties provided by law.

A separate certificate is required for each project.

Colorado Withholding Account Number

A Colorado Account Number (CAN) should be provided in this field. Applications that are left blank or list N/A will not be processed and will be returned.

Subsidiary:

This box is marked when a subsidiary is using the parents withholding account number (only when it does not have its own.) Provide the parents CAN.

Subcontractor:

This box is marked when a contractor does not have employees of their own and outsources their employees through a subcontractor. List the subcontractor or subcontractors name and CAN(s).

Staffing Agency:

This box is marked when a contractor does not have employees of their own and outsources their employees through a staffing agency. Provide the Staffing Agency's name and CAN.

No employees/no subcontractors:

For contractors with no employees, no subcontractors/ staffing agencies:

Write no employees in the (CAN) box and provide explanation. For example, I have no employees or subcontractors and perform all of the work myself.

Subcontractors:

Subcontractors will not be issued Certificates of Exemption by the Department of Revenue. Upon receipt of the Certificate, the prime contractor should make a copy for each subcontractor involved in the project and complete it by filling in the subcontractor's name and address and signing it. The original Certificate should always be retained by the prime contractor. Copies of all Certificates that the prime contractor issued to subcontractors should be kept at the prime contractor's place of business for a minimum of three years and be available for inspection in the event of an audit.

See FYI Sales 95 for information about qualifying affordable housing projects.

To avoid a returned application ensure you have done the following:

- ☐ Accurately completed all applicable boxes of the form.
- ☐ Provided a copy of the Contract or agreement page. The Contract or Agreement page lists the type and scope of work.
- ☐ Bid amount on Contract or Agreement page matches the amount listed on the application (to the penny).
- ☐ Contract or Agreement page contains the signatures of the contracting parties.
- ☐ The form DR0172 (application) is signed.
- ☐ The exempt organizations number was provided and is correct.



DR 0172 (05/01/18)
COLORADO DEPARTMENT OF REVENUE
Denver CO 80261 - 0009
(303) 238-SERV (7378)

Contractor Application for Exemption Certificate

This exemption does not include or apply to the purchase or rental of equipment, supplies, and materials which are purchased, rented, or consumed by the contractor and which do not become a part of the structure, highway, road, street, or other public works **owned** and **used** by the exempt organization.

Any unauthorized use of the exemption certificate will result in revocation of your exemption certificate and other penalties provided by law.
A separate certificate is required for each contract.

Send completed forms to: Colorado Department of Revenue, Denver, CO 80261-0009

Failure to accurately complete all boxes of the form or provide all supporting documentation will cause the application to be denied.

For Department Use Only. Do not write in this section.

Contractor/Account No. 89-	Period (MM/YY-MM/YY)
--------------------------------------	----------------------

Must be completed by applicant

Contractor Information

Trade name/DBA				
Owner, partner or corporate last name		First Name		Middle Initial
Mailing Address		City	State	Zip
E-Mail Address		FEIN	Bid amount for your contract (Must match to the penny) \$	
Fax number		Business Phone number		
Colorado withholding tax account number (See instructions)	<input type="checkbox"/> Subsidiary	<input type="checkbox"/> Subcontractors	<input type="checkbox"/> Staffing Agency	
<input type="checkbox"/> No employees/subcontractors (see below)				
No Employees/Subcontractors. (Provide explanation or attach a letter of explanation).				

Exemption Information

Copies of contract or agreement page, identifying the contracting parties, bid amount, type of work, and signatures of contracting parties **must** be attached

Name of exempt organization (as show on contract)		Exempt organization's number 98		
Address of exempt organization		City	State	Zip
Principal contact at exempt organization-Last Name		First Name		Middle Initial
Housing Authority (if applicable)		Name of Project (if applicable)		
Owner of the Project (if applicable)				
Physical location of project site (give actual address when applicable and Cities and/or County (ies) where project is located)				
City		State	Zip	Principal contact's telephone number
Scheduled construction start date (MM/DD/YY)		Estimated completion date (MM/DD/YY)		
I declare under penalty of perjury in the second degree that the statements made in this application are true and complete to the best of my knowledge.				
Signature of the business owner, partner or corporate officer		Title of corporate officer		Date (MM/DD/YY)

SECTION 01 10 00

SUMMARY OF WORK

PART 1 - GENERAL

1.01 SUMMARY

- A. This Section includes the following:
 - 1. Project information.
 - 2. Work covered by Contract Documents.
 - 3. Work by University.
 - 4. Work under separate contracts.
 - 5. Access to site.
 - 6. Coordination with occupants.
 - 7. Work restrictions.
 - 8. Specification and drawing conventions.
- B. Related Requirements:
 - 1. Division 01 Section "Indoor Air Quality Procedures" for requirements and procedures related to maintaining air quality in adjacent occupied spaces and buildings.
 - 2. Division 01 Section "Temporary Facilities and Controls" for limitations and procedures governing temporary use of University's facilities and for the provision of temporary construction barriers and dust partitions.

1.02 PROJECT INFORMATION

- A. Project Identification:

Fitzsimons Building 1st Floor Central – Suite C1009 CRIO Renovation.

 - 1. Project Location:

Fitzsimons Building
13001 E. 17th Place
Aurora, CO 80045

University of Colorado - Anschutz Medical Campus
1945 N. Wheeling Street
Aurora, CO 80045
- B. Principal Representation: University of Colorado
 - 1. University's Representative / Project Manager: Chad Jelinek.
- C. Architect: CannonDesign.
- D. Architect's Consultants: The Architect has retained design professionals who have prepared designated portions of the Contract Documents:
 - 1. See "Project Directory" for project team information.

1.03 WORK COVERED BY CONTRACT DOCUMENTS

- A. The Work of this Package consists of the following:
1. Removal of existing carpet and base in areas shown on the Drawings.
 2. Removal of existing ceiling tiles, grid to remain
 3. Demo part of two walls and provide new interior glass
 4. Provide new and/or relocate low voltage and electrical power systems.
 5. Floor preparation and installation of new carpet tile and resilient base in areas indicated on the Drawings.
 6. Provide new ceiling tile
 7. Patch and paint all walls and windows

1.04 CONSTRUCTION PERMIT EXEMPT

- A. A construction permit is required for this project.
- B. Inspection will be performed by the University Building Inspector, requested through the University Project Manager.

1.05 ACCESS TO SITE

- A. General: Contractor shall have limited and restricted use of Project site for construction operations as indicated on Drawings as indicated by requirements of this Section.
- B. Use of Site: Limit use of Project site to areas within the Contract limits indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated.
1. Adjust means and methods of construction based on site limits and restrictions.
 2. Locate staging areas only where permitted by University.
 3. As part of this Project, replace damaged lawns, sprinkler systems, sidewalks and any other existing site improvements within staging area and access ways.
- C. Construction Access and Travel:
1. Use only those entrances, exits, and travel ways on campus roads and within the building designated by University. Contractor's personnel are not permitted in non-designated areas of University's existing facilities. Use only designated travel ways for transporting demolition materials, new construction materials, tools and equipment.
 2. Access to the site will be as permitted by the University. See below for "Contractor Identification" requirements.
 3. Maintain access to fire lanes and campus operations at all times.
- D. Construction Parking:
1. General: Contractor must pay for all parking and, if available, may be assigned parking spaces in designated contractor parking lots. Parking in lots designated for visitors and patients is not permitted. Make arrangements for designated spaces and payment for long term parking with University Parking Services through the University Project Manager.

2. Use designated areas of University's existing parking areas as applicable to the Project and in accordance with the following:
 - a. All parking on University property, including parking on University owned streets, is under the exclusive control and authority of University Parking and Transportation Services. Direct policy question to the department at (303) 724-2555.
 - b. There is no free parking on campus. Displacement or use of existing parking spaces by Contractor, either for parking or for staging, is a Contractor cost.
 - c. Use of existing parking spaces or other areas outside of Contractor's staging area must be approved in advance by University Parking and Transportation Services.
 - d. University Parking and Transportation Services may require and issue parking permits through the University Project Manager. Permits must be displayed and visible at all times while parked on the campus. Failure to display a permit will result in citations being written and possible removal of the vehicle from University property.
 - e. Keep all designated parking areas clean and free of litter and debris. University reserves the right to direct Contractor to clean areas not kept clean and orderly.
 - f. University Parking and Transportation Services may change parking assignments as deemed necessary, restrict the use of any space(s) or lot(s) at any time, and determine the hours of control and mode of operations for any parking area at any time. University Parking and Transportation Services may deny or revoke parking privileges to any person when deemed necessary and/or considered to be in the best interests of the University.
 3. Parking on University property is at the Contractor's own risk. The University and any entity affiliated with it are not responsible for fire, theft, and damage to or loss of contractor's or subcontractor's vehicle or any article left therein. Only a license is granted to the user and no bailment is created.
- E. Condition of Existing Building: Maintain portions of existing building affected by construction operations in good condition throughout construction period. Repair damage caused by construction operations.
- 1.06 COORDINATION WITH OCCUPANTS
- A. University will occupy site and both existing and adjacent building(s) during entire construction period. Cooperate with University during construction and sequence operations to minimize conflicts and facilitate University usage. Perform the Work so as not to interfere with University's day-to-day operations.
1. Maintain existing exits from existing and adjacent building, unless otherwise indicated.
 2. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities. Do not close or obstruct walkways, corridors, or other occupied or used facilities without written permission from University and approval of authorities having jurisdiction.
 3. Limit construction operations to those methods and procedures which will not adversely and unduly affect the working environment of University's occupied spaces, including noise, dust, odors, air pollution, ambient discomfort, poor lighting, hazards and other undesirable effects and conditions.

4. Coordinate with University Project Manager to schedule activities producing dusty conditions, excessive fumes or odors during off-hours.
5. When work must be accomplished in areas containing existing furniture, upon a minimum of 3 business days notification of the University Project Manager, University will remove or relocate existing furniture.
6. Provide not less than 72 hours' notice to University Project Manager of activities that will affect University's operations. University Project Manager will coordinate with campus tenants.
 - a. Refer to "Work Restrictions" Article of this Section for procedures and notification requirements related to utility interruptions.
7. Provide temporary barriers and partitions, or other means as required to protect occupants of existing building and the general public from injury due to construction activities. Prevent the spread of dust and dirt to adjacent occupied areas and building.

1.07 WORK RESTRICTIONS

- A. Work Restrictions, General: Comply with restrictions on construction operations.
 1. Comply with limitations on use of public streets and with other requirements of authorities having jurisdiction.
 2. In planning and executing the Work, take into consideration the special needs of University patient care, teaching and research settings, for example, supply of critical utilities, noise and dust control, access to existing loading docks, occupied buildings, etc.
- B. Normal Working Hours: Limit work to normal working hours of 7:00 a.m. to 6:00 p.m., Monday through Friday.
 1. Notify University Project Manager of all proposed work outside of normal working hours. Include dates, times, names and contact information for contractors and subcontractor performing the Work with notification. University Project Manager will notify, as appropriate, other University personnel and departments including, but not limited to, Building Maintenance and Operations (BMO) Directors, BMO assigned representative, Campus Police and Facilities Management.
- C. Noise and Vibration: Coordinate operations that may result in high levels of noise and vibration, or other disruption to University occupancy with University.
 1. Noise during Normal Working Hours: Identify potentially disruptive construction activities at weekly Progress Meeting and adjust active time of day to reduce significant impacts on occupants.
 2. Noise outside Normal Working Hours: Schedule construction work or demolition work outside of normal working hours with University Project Manager at minimum of 72 hours in advance.
 - a. The maximum permissible noise level is 75 decibels (dBA), measured at the adjacent property line.

- D. Contractor Identification:
1. Contractor will also need to obtain and pay for security access badge(s) for lead personnel. These are available from the University's Security Badging Office for \$15/per badge.
 2. Supervisory staff for the primary contractor must obtain an identification badge at the CU Anschutz Medical Campus Fitzsimons Building. Submit the University Access Control Badge Application form through University Project Manager. Submitted forms shall be complete with all required information including a letter on company letterhead confirming employee status with company and stating whether the company completes background testing and/or drug screening. Contractor supervision must display badge on site during construction activities.
 3. To the greatest extent possible, Contractor's and subcontractor's employees must wear a recognizable logo shirt or hardhat identifying them as members of the contractor's work force.
- E. Use of Existing Elevators: Use "freight" elevators only and protect finishes during transport. Restrict use exclusively to time required to move construction materials.
1. Do not block corridors, aisles, passageways or doors leading to elevator except as, and only to the extent approved by University Project Manager.
 2. Contractor is to protect freight elevator cab surfaces and keep door tracks clear of all debris.
 - a. Any damages to the elevator due to improper protection, or misuse during demolition activities will be the responsibility of the Contractor.
 - b. Document condition of existing elevators prior to use in accordance with Division 01 Section "Photographic Documentation". Include photographs of any pre-existing damages.
- F. Keys: Submit written request to University Project Manager on University Key Request Form.
1. To the extent the need for keys is demonstrated and required to complete the Work, University Project Manager will issue keys to Contractor.
 2. Contractor is responsible for all costs related to lost or non-returned keys.
 3. Electrical, mechanical and sensitive research space may require University escort in lieu of issuing keys.
- G. Dock Deliveries: Restrict use exclusively to time required to unload and move construction materials.
- H. Existing Utility Interruptions: Do not interrupt water, sewer, plumbing, gas, steam, chilled water, oxygen, HVAC, electrical power, lighting, telephone and other related utilities serving facilities occupied by University without prior notice to and approval by the University. Coordinate and schedule interruptions in advance through the University Project Manager in strict conformance with University Utility Outage Request Procedure.
1. Form of Notice: University Utility Outage Request form.
 2. Time of Notice: Notice for major and minor outages as defined by the Utility Outage Request Procedure is a minimum of seven (7) working days for minor outages and a minimum of thirty (30) working days for major outages.

- I. Fire Alarm and Fire Sprinkler Interruptions: When construction activities require interruption of fire alarm or fire sprinkler service, or when dust from construction activities is likely to cause accidental alarm, advise University Project Manager who will submit an interruption request.
 - 1. Form of Notice: University Fire Protection System Impairment Form.
 - 2. Time of Notice: A minimum of 24-hour advance notification prior to noon on the day before the anticipated interruption date.
- J. Nonsmoking Campus: Smoking, chewing tobacco, and other related tobacco product use is not permitted at any location on campus-
- K. University Policies Applying to All Contractors: Comply with University policies applying to contractors including drug policy, sexual harassment policy and tobacco free policy. Obtain copies of University policies from University Project Manager.
 - 1. Controlled Substances: Use of tobacco products and other controlled substances on Project site and surrounding Campus is not permitted.
- L. Designated Eating Areas: Restrict consumption of food on project site to designated eating areas as approved by University Project Manager.

1.08 SPECIFICATION AND DRAWING CONVENTIONS

- A. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:
 - 1. Imperative mood and streamlined language are generally used in the Specifications. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.
 - 2. Specification requirements are to be performed by Contractor unless specifically stated otherwise.
 - 3. Words in the singular number include the plural and those in the plural include the singular.
 - 4. Words of any gender include any other gender.
- B. Division 01 General Requirements: Requirements of Sections in Division 01 apply to the Work of all Sections in the Specifications.
- C. Drawing Coordination: Requirements for materials and products identified on Drawings are described in detail in the Specifications. One or more of the following are used on Drawings to identify materials and products:
 - 1. Terminology: Materials and products are identified by the typical generic terms used in the individual Specifications Sections.
 - 2. Abbreviations: Materials and products are identified by abbreviations published as part of the U.S. National CAD Standard and scheduled on Drawings.
 - 3. Keynoting: Materials and products may be identified by reference keynotes referencing Specification Section numbers found in this Project Manual.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

SECTION 01 25 00

SUBSTITUTION PROCEDURES

PART 1 - GENERAL

1.01 SUMMARY

- A. This Section includes administrative and procedural requirements for substitutions.
- B. Related Requirements:
 - 1. Division 01 Section "Product Requirements" for requirements for submitting comparable product submittals for products by listed manufacturers.

1.02 DEFINITIONS

- A. Substitutions: Changes in products, materials, equipment, and methods of construction from those required by the Contract Documents and proposed by Contractor.
 - 1. Substitutions for Cause: Changes proposed by Contractor that are required due to changed Project conditions, such as unavailability of product, regulatory changes, or unavailability of required warranty terms.
 - 2. Substitutions for Convenience: Changes proposed by Contractor or University that are not required in order to meet other Project requirements but may offer advantage to Contractor or University.

1.03 ACTION SUBMITTALS

- A. Substitution Requests: Submit each request for consideration in format and quantities specified in Division 01 Section "Submittal Procedures". Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.
 - 1. Substitution Request – During the Bidding Period: Use CSI Form 1.5C or form acceptable to Owner and Architect.
 - 2. Substitution Request – Post Bid: Not permitted except as allowed elsewhere in this section.
 - 3. Documentation: Show compliance with requirements for substitutions and the following, as applicable:
 - a. Statement indicating why specified product or fabrication or installation cannot be provided, if applicable.
 - b. Coordination information, including a list of changes or revisions needed to other parts of the Work and to construction performed by University and separate contractors that will be necessary to accommodate proposed substitution.
 - c. Detailed comparison of significant qualities of proposed substitution with those of the Work specified. Include annotated copy of applicable Specification Section. Significant qualities may include attributes such as performance, weight, size, durability, visual effect, sustainable design characteristics, warranties, and specific features and requirements indicated. Indicate deviations, if any, from the Work specified.

- d. Product Data, including drawings and descriptions of products and fabrication and installation procedures.
 - e. Samples, where applicable or requested.
 - f. Certificates and qualification data, where applicable or requested.
 - g. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners.
 - h. Material test reports from a qualified testing agency indicating and interpreting test results for compliance with requirements indicated.
 - i. Research reports evidencing compliance with building code in effect for Project, from ICC-ES.
 - j. Detailed comparison of Contractor's construction schedule using proposed substitution with products specified for the Work, including effect on the overall Contract Time. If specified product or method of construction cannot be provided within the Contract Time, include letter from manufacturer, on manufacturer's letterhead, stating date of receipt of purchase order, lack of availability, or delays in delivery.
 - k. Cost information, including a proposal of change, if any, in the Contract Sum.
 - l. Contractor's certification that proposed substitution complies with requirements in the Contract Documents except as indicated in substitution request, is compatible with related materials, and is appropriate for applications indicated.
 - m. Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of failure of proposed substitution to produce indicated results.
4. Architect's Action: If necessary, Architect, in consultation with the University, will request additional information or documentation for evaluation within seven calendar days of receipt of a request for substitution. Architect, in consultation with the University, will notify Contractor of acceptance or rejection of proposed substitution within 14 calendar days of receipt of request, or seven calendar days of receipt of additional information or documentation, whichever is later.
- a. Forms of Acceptance: Change Order.
 - b. Use product specified if Architect does not issue a decision on use of a proposed substitution within time allocated.
- 1.04 QUALITY ASSURANCE
- A. Compatibility of Substitutions: Investigate and document compatibility of proposed substitution with related products and materials. Engage a qualified testing agency to perform compatibility tests recommended by manufacturers.
- 1.05 PROCEDURES
- A. Coordination: Revise or adjust affected work as necessary to integrate work of the approved substitutions.

PART 2 - PRODUCTS

2.01 SUBSTITUTIONS

- A. Substitutions for Cause: Submit requests for substitution immediately on discovery of need for change, but not later than 14 calendar days prior to time required for preparation and review of related submittals.
1. Conditions: Architect, in consultation with the University, will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Architect will return requests without action, except to record noncompliance with these requirements:
- a. Requested substitution is consistent with the Contract Documents and will produce indicated results.
 - b. Requested substitution provides sustainable design characteristics that specified product provided.
 - c. Substitution request is fully documented and properly submitted.
 - d. Requested substitution will not adversely affect Contractor's construction schedule.
 - e. Requested substitution has received necessary approvals of authorities having jurisdiction.
 - f. Requested substitution is compatible with other portions of the Work.
 - g. Requested substitution has been coordinated with other portions of the Work.
 - h. Requested substitution provides specified warranty.
 - i. If requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.
- B. Substitutions for Convenience: Not allowed.

PART 3 - EXECUTION (Not Used)

END OF SECTION

SUBSTITUTION REQUEST

(During the Bidding Phase)

Project: **University of Colorado – Anschutz Medical Campus
Fitzsimons Building - Replace Carpet for CSPH**

Substitution Request Number: _____

To: _____

From: _____

Date: _____

Re: _____

Project Number: **21-151143**

Contract For: _____

Specification Title: _____

Description: _____

Section: _____ Page: _____

Article/Paragraph: _____

Proposed Substitution: _____

Manufacturer: _____ Address: _____ Phone: _____

Trade Name: _____ Model No.: _____

Attached data includes product description, specifications, drawings, photographs, and performance and test data adequate for evaluation of the request; applicable portions of the data are clearly identified.

Attached data also includes a description of changes to the Contract Documents that the proposed substitution will require for its proper installation.

The Undersigned certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.
- Same warranty will be furnished for proposed substitution as for specified product.
- Same maintenance service and source of replacement parts, as applicable, is available.
- Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
- Proposed substitution does not affect dimensions and functional clearances.
- Payment will be made for changes to building design, including Architectural and / or Engineering design, detailing, and construction costs caused by the substitution.

Submitted by: _____

Signed by: _____

Firm: _____

Address: _____

Telephone: _____

ARCHITECT'S REVIEW AND ACTION

- ☐ Substitution approved - Make submittals in accordance with Specification Section 01 33 00.
- ☐ Substitution approved as noted - Make submittals in accordance with Specification Section 01 33 00.
- ☐ Substitution rejected - Use specified materials.
- ☐ Substitution Request received too late - Use specified materials.

Signed by: _____

Date: _____

Supporting Data Attached: ☐ Drawings ☐ Product Data ☐ Samples ☐ Tests ☐ Reports ☐ _____

SECTION 01 29 00

PAYMENT PROCEDURES

PART 1 - GENERAL

1.01 SUMMARY

- A. This Section includes administrative and procedural requirements necessary to prepare and process Applications for Payment.
- B. Related Requirements:
 - 1. Division 01 Section "Contract Modification Procedures" for administrative procedures for handling changes to the Contract.
 - 2. Division 01 Section "Construction Progress Documentation" for administrative requirements governing the preparation and submittal of the Contractor's construction schedule.

1.02 DEFINITIONS

- A. Schedule of Values: A statement furnished by Contractor allocating portions of the Contract Sum to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.

1.03 SCHEDULE OF VALUES

- A. Coordination: Coordinate preparation of the schedule of values with preparation of Contractor's construction schedule. Schedule of values report from cost-loaded Critical Path Method Schedule prepared in accordance with Division 01 Section "Construction Progress Documentation" may serve to satisfy requirements for the schedule of values.
 - 1. Coordinate line items in the schedule of values with other required administrative forms and schedules, including the following:
 - a. Application for Payment forms with continuation sheets.
 - b. Submittal schedule.
 - c. Items required to be indicated as separate activities in Contractor's construction schedule.
 - 1) Estimated Project General Conditions Costs.
 - 2. Submit schedule of values and hold a conference with the Architect and University Project Manager to finalize the schedule of values at earliest possible date, but no later than 10 business days before the date scheduled for submittal of initial Certificates and Applications for Payment.
 - 3. Sub-schedules for Separate Elements of Work: Where the Contractor's construction schedule defines separate elements of the Work, provide sub-schedules showing values coordinated with each element.

- B. Format and Content: Use Project Manual table of contents as a guide to establish line items for the schedule of values. Provide at least one line item for each Specification Section.
1. Identification: Include the following Project identification on the schedule of values:
 - a. Project name and location.
 - b. Name of Architect.
 - c. Architect's project number.
 - d. Contractor's name and address.
 - e. Date of submittal.
 2. Arrange schedule of values consistent with format of AIA Document G703.
 3. Arrange the schedule of values in tabular form with separate columns to indicate the following for each item listed:
 - a. Related Specification Section or Division.
 - b. Description of the Work.
 - c. Name of subcontractor.
 - d. Name of manufacturer or fabricator.
 - e. Name of supplier.
 - f. Change Orders (numbers) that affect value.
 - g. Dollar value of the following, as a percentage of the Contract Sum to nearest one-hundredth percent, adjusted to total 100 percent.
 - 1) Labor.
 - 2) Materials.
 - 3) Equipment.
 4. Provide a breakdown of the Contract Sum in enough detail to facilitate continued evaluation of Applications for Payment and progress reports. Coordinate with Project Manual table of contents. Provide multiple line items for principal subcontract amounts in excess of five percent of the Contract Sum.
 5. Round amounts to nearest whole dollar; total shall equal the Contract Sum.
 6. Provide a separate line item in the schedule of values for each part of the Work where Applications for Payment may include materials or equipment purchased or fabricated and stored, but not yet installed.
 - a. Differentiate between items stored on-site and items stored off-site. If required, include evidence of insurance.
 7. Each item in the schedule of values and Applications for Payment shall be complete. Include total cost and proportionate share of general overhead and profit for each item.
 - a. Temporary facilities and other major cost items that are not a direct cost of actual work-in-place shall be shown as separate line items in the schedule of values.
 8. Schedule Updating: Update and resubmit the schedule of values before the next Applications for Payment when Change Orders result in a change in the Contract Sum.

1.04 APPLICATIONS FOR PAYMENT

- A. Each Application for Payment following the initial Application for Payment shall be consistent with previous applications and payments as certified by Architect and paid for by University.
 - 1. Initial Application for Payment, Application for Payment at time of Substantial Completion, and final Application for Payment involve additional requirements.
- B. Pay Application and Schedule Review Meetings: Conduct in accordance with Division 01 Section "Project Management and Coordination". Provide draft application for payment and draft schedule update reflecting work accomplished during previous pay period. Review progress achieved; discuss and resolve issues affecting the progress; and review critical activities to be accomplished during the following 90 calendar days.
 - 1. Jobsite Walk: When required, conduct a walk of the jobsite to confirm progress related to any activity in question.
- C. Monthly Schedule Reporting: Upon conclusion of the Pay Application and Schedule Review Meeting, but not later than the 28th of the month, update the Construction Schedule and submit the Pay Application.
- D. Payment Application Times: Submit Application for Payment to Architect by the first day of the month and no more than five (5) business days prior thereto. The period covered by each Application for Payment is per the date indicated in the Application.
- E. Payment Application Review: The Architect shall, within five (5) business days after the receipt of each Certificate and Application for Payment, review the Project Application for Payment and either execute a Project Certificate for Payment to the University or notify the Contractor in writing of the reasons for withholding a Certificate.
 - 1. All applications for payment, except the final application, and the payments there under, shall be subject to correction in the next application rendered following the discovery of any error
- F. Application for Payment Forms: Use State Form SBP-7.2 "Certification for Contractor Payment."
- G. Application Preparation: Complete every entry on form. Notarize and execute by a person authorized to sign legal documents on behalf of Contractor. Architect will return incomplete applications without action.
 - 1. Entries shall match data on the schedule of values and Contractor's construction schedule. Use updated schedules if revisions were made.
 - 2. Include amounts for work completed following previous Application for Payment, whether or not payment has been received. Include only amounts for work completed at time of Application for Payment.
 - 3. Include amounts of Change Orders issued before last day of construction period covered by application.
 - 4. Indicate separate amounts for work being carried out under University-requested project acceleration.

- H. **Stored Materials:** Include in Application for Payment amounts applied for materials or equipment purchased or fabricated and stored, but not yet installed. Differentiate between items stored on-site as approved in advance by the University Project Manager and items stored at an off-site location previously agreed upon in writing.
1. Provide certificate of insurance, evidence of transfer of title to University, and consent of surety to payment, for stored materials.
 2. Provide supporting documentation that verifies amount requested, such as paid invoices. Match amount requested with amounts indicated on documentation; do not include overhead and profit on stored materials.
 3. Provide summary documentation for stored materials indicating the following:
 - a. Value of materials previously stored and remaining stored as of date of previous Applications for Payment.
 - b. Value of previously stored materials put in place after date of previous Application for Payment and on or before date of current Application for Payment.
 - c. Value of materials stored since date of previous Application for Payment and remaining stored as of date of current Application for Payment.
- I. **Transmittal:** Submit three signed and notarized original copies of each Application for Payment to Architect by a method ensuring receipt. One copy shall include waivers of lien and similar attachments if required.
1. Transmit each copy with a transmittal form listing attachments and recording appropriate information about application.
- J. **Initial Application for Payment:** Administrative actions and submittals that must precede or coincide with submittal of first Application for Payment include the following:
1. List of subcontractors.
 2. Schedule of values.
 3. Contractor's construction schedule (preliminary if not final).
 4. Products list (preliminary if not final).
 5. Schedule of unit prices.
 6. Submittal schedule (preliminary if not final).
 7. List of Contractor's staff assignments.
 8. List of Contractor's principal consultants.
 9. Copies of building permits.
 10. Copies of authorizations and licenses from authorities having jurisdiction for performance of the Work.
 11. Initial progress report.
 12. Report of preconstruction conference.
- K. **Application for Payment at Substantial Completion:** After Architect issues the Certificate of Substantial Completion, submit an Application for Payment showing 100 percent completion for portion of the Work claimed as substantially complete.
1. Include documentation supporting claim that the Work is substantially complete and a statement showing an accounting of changes to the Contract Sum.

2. This application shall reflect Certificate(s) of Substantial Completion issued previously for University occupancy of designated portions of the Work.
- L. Final Payment Application: After completing Project closeout requirements, submit final Application for Payment with releases and supporting documentation not previously submitted and accepted, including, but not limited, to the following:
 1. All items on Pre-acceptance Checklist (State Form SBP-05) have been completed.
 2. Notice of Acceptance (State Form SBP-6.27) has been issued.
 3. Statements to support local sales tax refunds, if any submitted.
 4. Notice of Contractor's settlement has been published.
 5. Evidence of completion of Project closeout requirements, including but not limited to:
 - a. Submittal of Record Documents.
 - b. Submittal of all Operation and Maintenance Manuals.
 - c. Completion of all required demonstration and training.
 6. Updated final statement, accounting for final changes to the Contract Sum.
 7. Evidence that claims have been settled.
 8. Final meter readings for utilities, a measured record of stored fuel, and similar data as of date of Substantial Completion or when University took possession of and assumed responsibility for corresponding elements of the Work.
 9. Final liquidated damages settlement statement.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

SECTION 01 31 00

PROJECT MANAGEMENT AND COORDINATION

PART 1 - GENERAL

1.01 SUMMARY

- A. This Section includes administrative provisions for coordinating construction operations on Project including, but not limited to, the following:
 - 1. General coordination procedures.
 - 2. Coordination drawings.
 - 3. Requests for Information (RFIs).
 - 4. Project meetings.
- B. Related Requirements:
 - 1. Division 01 Section "Construction Progress Documentation" for preparing and submitting Contractor's construction schedule.
 - 2. Division 01 Section "Execution" for procedures for coordinating general installation and field-engineering services, including establishment of benchmarks and control points.
 - 3. Division 01 Section "Closeout Procedures" for coordinating closeout of the Contract.

1.02 DEFINITIONS

- A. RFI: Request from Contractor seeking information required by or clarifications of the Contract Documents.

1.03 INFORMATIONAL SUBMITTALS

- A. Subcontract List: Prepare a written summary identifying individuals or firms proposed for each portion of the Work, including those who are to furnish products or equipment fabricated to a special design. Within 21 calendar days of Notice of Award submit, as complete as possible, a preliminary list to include all major subcontractors. Augment, complete and submit the final subcontractor list within 60 calendar days of Notice of Award, unless a longer duration is approved by the Architect. Include the following information in tabular form:
 - 1. Name, address, and telephone number of entity performing subcontract or supplying products.
 - 2. Number and title of related Specification Section(s) covered by subcontract.
 - 3. Drawing number and detail references, as appropriate, covered by subcontract.
- B. Key Personnel Names: Within 14 calendar days after Notice to Proceed, submit a list of key personnel assignments, including superintendent and other personnel in attendance at Project site. Identify individuals and their duties and responsibilities; list addresses and telephone numbers, including home, office, and cellular telephone numbers and e-mail addresses. Provide names, addresses, and telephone numbers of individuals assigned as alternates in the absence of individuals assigned to Project.

1. Post copies of list in project meeting room, in temporary field office, on Project Web Site, and by each temporary telephone. Keep list current at all times.

1.04 GENERAL COORDINATION PROCEDURES

- A. General: Each entity involved in the performance of work for the entire Project shall cooperate in the overall coordination of the Work; promptly, when requested, furnish information concerning its portion of the Work; and respond promptly and reasonably to the decisions and requests of persons designated with coordination, supervision, administrative or similar authority.

1. University Standard Project Management Forms
 - a. Where applicable, obtain from the University Project Manager and use the following University Standard Forms:
 - 1) Preconstruction Agenda.
 - 2) Change Order Log with Contingency Codes.
 - 3) Access Control Badge Application Form.
 - 4) Utility Interruption Request Form.
 - 5) Utility Start-Up Request Form.
 - 6) Fire Alarm/Sprinkler Disable Request Form.
 - 7) Hot Work Permit Form.
 - 8) Anschutz Medical Campus (AMC) Street and Parking Lot Closure Form.
 - 9) Indoor Air Quality (IAQ) Planning Checklist.
 - 10) Indoor Air Quality (IAQ) Inspection Checklist.
2. Site Utilization:
 - a. In addition to the site utilization limitations and requirements indicated in Division 01 Section "Summary" and indicated by the Contract Documents; administer the allocation of available space equitably among entities needing access and space, so as to produce the best overall efficiency in the performance of the total work of the project. Schedule deliveries so as to minimize the space and time requirements for storage of materials and equipment on the site; but do not unduly risk delays in the work.
 - b. Concurrent with work of the Contractor, other contractors, suppliers, and the University personnel may be working in relatively close proximity. The Contractor is solely responsible for coordinating their work with that of other contractors and will make no claims for failure to do so.
3. Layout:
 - a. It is recognized that the Contract Documents are diagrammatic in showing certain physical relationships of the various elements and systems and their interfacing with other elements and systems. Establishment and coordination of these relationships is the exclusive responsibility of the Contractor. Do not scale the drawings. Lay out and arrange all elements to contribute to safety, efficiency and to carry the harmony of design throughout the Work. In case of conflict or undimensioned locations, verify required positioning with Architect.

4. Substrate Examination:
 - a. The Installer of each element of the work must examine the conditions of the substrate to receive the work, dimensions and spaces adjacent, tolerances, interfacing with other elements and services, and the conditions under which the work will be performed, and must notify the Contractor in writing of conditions detrimental to the proper or timely completion of the work. Do not proceed with the work until unsatisfactory conditions have been corrected in a manner acceptable to the Installer.
5. Large and Heavy Equipment:
 - a. Contractor shall coordinate with University Project Manager requirements to be maintained for the subsequent entry of large equipment units. Coordinate the movement of heavy items with shoring and bracing, so that the building structure will not be overloaded during the movement and installation.
- B. Coordination: Coordinate construction operations included in different Sections of the Specifications to ensure efficient and orderly installation of each part of the Work. Coordinate construction operations, included in different Sections of the Specification that depend on each other for proper installation, connection, and operation.
 1. Contractor Communication with the University: Direct all communication with the University through the University Project Manager.
 2. Schedule construction operations in sequence required to obtain the best results where installation of one part of the Work depends on installation of other components, before or after its own installation.
 3. Coordinate installation of different components to ensure maximum performance and accessibility for required maintenance, service, and repair.
 4. Make adequate provisions to accommodate items scheduled for later installation.
- C. Prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports, and list of attendees at meetings.
 1. Prepare similar memoranda for University and separate contractors if coordination of their Work is required.
- D. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities to avoid conflicts and to ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:
 1. Preparation of Contractor's construction schedule.
 2. Preparation of the schedule of values.
 3. Installation and removal of temporary facilities and controls.
 4. Delivery and processing of submittals.
 5. Progress meetings.
 6. Preinstallation conferences.
 7. Project closeout activities.
 8. Startup and adjustment of systems.

- E. Coordination of Submittals: Prior to transmittal to the Architect, review shop and erection drawings, product data, and samples for compliance with Contract Documents and for coordination among work of all Sections of the Specifications. Coordination of submittals shall include, but not be limited to the following:
1. Verification of field dimensions and clearances and relationship to available space and anchors.
 2. Verification of compatibility with equipment and work of other Sections, electrical characteristics, and operational control requirements.
 3. Verification of motor voltages and control characteristics.
 4. Coordination of controls, interlocks, wiring of pneumatic switches, and relays.
 5. Coordination of wiring and control diagrams.
 6. Review of the effect of any changes on work of other Sections.
 7. For any item to be installed in or on a finished surface, certify that applicable Contract Documents have been checked and that the item submitted is compatible with the surface finish on which it is to be installed.
 8. Equipment and material submittals shall show sufficient data to indicate complete compliance with Contract Documents as follows:
 - a. Proper sizes and capabilities.
 - b. Ability to fit in the available space in a manner that will allow proper service.
 - c. Construction methods, materials, and finishes.
 - d. List of accessories.

1.05 REQUESTS FOR INFORMATION (RFIs)

- A. General: Immediately on discovery of the need for additional information or interpretation of the Contract Documents, Contractor shall prepare and submit an RFI in the form specified.
1. Architect will return RFIs submitted to Architect by other entities controlled by Contractor with no response.
 2. Coordinate and submit RFIs in a prompt manner so as to avoid delays in Contractor's work or work of subcontractors.
- B. Content of the RFI: Include a detailed, legible description of item needing information or interpretation and the following:
1. Project name.
 2. Project number.
 3. Date.
 4. Name of Contractor.
 5. Name of Architect.
 6. RFI number, numbered sequentially.
 7. RFI subject.
 8. Specification Section number and title and related paragraphs, as appropriate.
 9. Drawing number and detail references, as appropriate.
 10. Field dimensions and conditions, as appropriate.
 11. Contractor's suggested resolution. If Contractor's suggested resolution impacts the Contract Time or the Contract Sum, Contractor shall state impact in the RFI.
 12. Contractor's signature.

13. Attachments: Include sketches, descriptions, measurements, photos, Product Data, Shop Drawings, coordination drawings, and other information necessary to fully describe items needing interpretation.
 - a. Include dimensions, thicknesses, structural grid references, and details of affected materials, assemblies, and attachments on attached sketches.
 14. Space for response and signature by Architect.
- C. RFI Forms: Hard copy form or software-generated form with substantially the same content as indicated above, acceptable to Architect.
1. Attachments shall be electronic files in Adobe Acrobat PDF format.
- D. Architect's Action: Architect will review each RFI, determine action required, and respond. Allow seven calendar days for Architect's response for each RFI. RFIs received by Architect after 1:00 p.m. will be considered as received the following working day.
1. The following Contractor-generated RFIs will be returned without action:
 - a. Requests for approval of submittals.
 - b. Requests for approval of substitutions.
 - c. Requests for approval of Contractor's means and methods.
 - d. Requests for coordination information already indicated in the Contract Documents.
 - e. Requests for adjustments in the Contract Time or the Contract Sum.
 - f. Requests for interpretation of Architect's actions on submittals.
 - g. Incomplete RFIs or inaccurately prepared RFIs.
 2. Architect's action may include a request for additional information, in which case Architect's time for response will date from time of receipt of additional information.
 3. Architect's action on RFIs that may result in a change to the Contract Time or the Contract Sum may be eligible for Contractor to submit Contractor-Initiated Change Order Bulletin and Proposal according to Division 01 Section "Contract Modification Procedures."
 - a. If Contractor believes the RFI response warrants change in the Contract Time or the Contract Sum, notify Architect in writing within seven calendar days of receipt of the RFI response.
- E. RFI Log: Prepare, maintain, and submit a tabular log of RFIs organized by RFI number. Submit log weekly. Use software log that is part of Project Web site. Include the following:
1. Project name.
 2. Name and address of Contractor.
 3. Name and address of Architect.
 4. RFI number including RFIs that were returned without action or withdrawn.
 5. RFI description.
 6. Date the RFI was submitted.
 7. Date Architect's response was received.
- F. On receipt of Architect's action, update the RFI log and immediately distribute the RFI response to affected parties. Review response and notify Architect within seven calendar days if Contractor disagrees with response.

1.06 PROJECT MEETINGS

- A. General: Schedule and conduct meetings and conferences at Project site unless otherwise indicated.
 - 1. Attendees: Inform participants and others involved, and individuals whose presence is required, of date and time of each meeting. Notify University and Architect of scheduled meeting dates and times a minimum of 4 business days prior to meeting.
 - a. Participants, including representatives of subcontractors and suppliers, shall be qualified, familiar with Project and authorized to conclude matters relating to the Work.
 - 2. Agenda: Prepare the meeting agenda. Distribute the agenda to all invited attendees.
 - 3. Minutes: Entity responsible for conducting meeting will record significant discussions and agreements achieved. Distribute the meeting minutes to everyone concerned, including University and Architect, within three business days of the meeting.
- B. Preconstruction Conference: Schedule and conduct a preconstruction conference before starting construction, at a time and site convenient to all parties, but not later than 14 calendar days after Notice to Proceed.
 - 1. Conduct the conference to review responsibilities and personnel assignments.
 - 2. Attendees: Participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work and include the following:
 - a. Authorized representatives of University:
 - 1) University Project Manager.
 - 2) University Building Maintenance Operations (BMO) Representative.
 - b. Architect and their consultants.
 - c. Contractor's project manager and superintendent.
 - d. Major subcontractors and suppliers.
 - e. Other concerned parties shall attend the conference.
 - 3. Agenda: Discuss items of significance that could affect progress, including the following:
 - a. Designation of key personnel and their duties.
 - b. Lines of communications.
 - c. List of major subcontractors and suppliers.
 - d. Tentative construction schedule.
 - 1) Phasing.
 - 2) Critical work sequencing and long-lead items.
 - 3) Equipment deliveries and priorities.
 - e. Procedures and processing of:
 - 1) Change Order Bulletin, Change Order Proposal and Change Orders.
 - 2) RFI's
 - 3) Testing and inspecting.
 - 4) Applications for Payment.
 - 5) Submittals.
 - 6) Preparation of record documents.

- f. Use of the premises, existing building and adjacent buildings as applicable.
 - 1) Work restrictions.
 - 2) Working hours.
 - 3) University's occupancy requirements.
 - 4) Procedures for disruptions and shutdowns.
 - 5) Construction parking and staging.
 - 6) Construction route and site access.
 - 7) Office, work, and storage areas.
 - 8) Progress cleaning and housekeeping procedures.
 - g. Project coordination.
 - h. Distribution of the Contract Documents.
 - i. Temporary facilities and controls.
 - j. Indoor Air Quality Plan and Monitoring including procedures for moisture and mold control.
 - k. Construction waste management and recycling.
 - l. Safety.
 - 1) Fire and Life Safety.
 - 2) Health and Safety.
 - m. First aid.
 - n. Security.
 - o. Building Department.
 - p. Telecommunications.
 - q. Building Services.
 - r. Building Operations.
 - s. University Work Related Policies.
 - t. Contractor Contacts.
 - u. University Contacts.
 - v. University Process Forms:
 - 1) Key Request Form.
 - 2) Access Control Badge Application Form.
 - 3) Utility Interruption Request Form.
 - 4) Utility Start-Up Form.
 - 5) Fire Alarm/ Sprinkler Disable Request Form.
 - 6) Hot Work Permit Form.
 - 7) Anschutz Medical Campus (AMC) Street and Parking Lot Closure Form.
 - 8) Indoor Air Quality (IAQ) Plan.
 - 9) IAQ Planning Checklist.
 - 10) IAQ Inspection Checklist.
 - 11) Request for Variance.
4. Minutes: Entity responsible for conducting meeting will record and distribute meeting minutes.

- C. Preinstallation Conferences: Conduct a preinstallation conference at Project site for installations, systems or assemblies where required by individual Specification Sections, or where deemed necessary by Contractor.
1. Attendees: Installer and representatives of manufacturers and fabricators involved in or affected by the installation and its coordination or integration with other materials and installations that have preceded or will follow, shall attend the meeting. Advise Architect of scheduled meeting dates.
 2. Agenda: Review progress of other construction activities and preparations for the particular activity under consideration, including requirements for the following, as appropriate:
 - a. Contract Documents.
 - b. Options.
 - c. Related RFIs.
 - d. Related Change Orders.
 - e. Purchases.
 - f. Deliveries.
 - g. Submittals.
 - h. Review of mockups.
 - i. Possible conflicts.
 - j. Compatibility requirements.
 - k. Time schedules.
 - l. Weather limitations.
 - m. Manufacturer's written instructions.
 - n. Warranty requirements.
 - o. Compatibility of materials.
 - p. Acceptability of substrates.
 - q. Temporary facilities and controls.
 - r. Space and access limitations.
 - s. Regulations of authorities having jurisdiction.
 - t. Testing and inspecting requirements.
 - u. Installation procedures.
 - v. Coordination with other work.
 - w. Required performance results.
 - x. Protection of adjacent work.
 - y. Protection of construction and personnel.
 3. Record significant conference discussions, approved schedules, agreements, and disagreements, including required corrective measures and actions.
 4. Reporting: Distribute minutes of the meeting to each party present and to other parties requiring information, including University Project Manager and Architect.
 5. Do not proceed with installation if the conference cannot be successfully concluded. Initiate whatever actions are necessary to resolve impediments to performance of the Work and reconvene the conference at earliest feasible date.

- D. Project Closeout Conference: Schedule and conduct a project closeout conference, at a time convenient to University and Architect, but no later than 30 calendar days prior to the scheduled date of Substantial Completion or Partial Substantial Completion.
1. Conduct the conference to review requirements and responsibilities related to Project closeout.
 2. Attendees: Participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work and include the following:
 - a. University Project Manager.
 - b. University Building Maintenance Operations (BMO) Representative.
 - c. Architect and their consultants.
 - d. Contractor's project manager and superintendent.
 - e. Major subcontractors and suppliers.
 - f. Other concerned parties.
 3. Agenda: Discuss items of significance that could affect or delay Project closeout, including the following:
 - a. Procedures related to:
 - 1) Notice of Completion, including preparation of Contractor's punch list.
 - 2) Final Inspection.
 - 3) Notice of Substantial Completion.
 - 4) Notice of Approval of Occupancy/Use.
 - 5) Supplemental Occupancy/Use Checklist.
 - 6) Supplemental Acceptance Checklist.
 - 7) Pre-acceptance Checklists.
 - 8) Notice of Acceptance.
 - 9) Settlement and Final Payment.
 - b. Preparation of record documents.
 - c. Procedures required prior to inspection for Substantial Completion and for final inspection for acceptance.
 - d. Submittal of written warranties.
 - e. Requirements for preparing maintenance data.
 - f. Requirements for delivery of material samples, attic stock, and spare parts.
 - g. University's partial occupancy requirements.
 - h. Installation of University's furniture, fixtures, and equipment.
 - i. Responsibility for removing temporary facilities and controls.
 4. Minutes: Entity conducting meeting will record and distribute meeting minutes.
- E. Progress Meetings: Conduct progress meetings at weekly intervals.
1. Coordinate dates of meetings with preparation of payment requests.
 2. Attendees: Participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work and include the following:
 - a. University Project Manager.
 - b. University Health Safety Department Representative.
 - c. University Building Maintenance Operations Representative.

- d. University Campus Building Official.
 - e. Architect and their consultants.
 - f. Contractor's project manager and superintendent.
 - g. Major subcontractors and suppliers.
 - h. Other entities concerned with current progress or involved in planning, coordination, or performance of future activities.
 - i. As needed, University Building Maintenance Operations (BMO), Subject Matter Experts (SME), and University Facility Support Services (FSS) Representatives.
3. Agenda: Review and correct or approve minutes of previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.
- a. Contractor's Construction Schedule:
 - 1) Review progress since the last meeting.
 - 2) Determine whether each activity is on time, ahead of schedule, or behind schedule, in relation to Contractor's construction schedule.
 - 3) Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.
 - 4) Review schedule for next two week period.
 - 5) Review schedule of deliveries.
 - 6) Review off-site fabrication.
 - b. Site Safety.
 - c. Indoor Air Quality Management monitoring.
 - d. Quality:
 - 1) Quality and work standards.
 - 2) Status of correction of deficient items.
 - 3) Progress cleaning.
 - 4) Field observations.
 - e. Status of submittals.
 - f. Status of RFIs.
 - g. Status of Changes including:
 - 1) Change Order Bulletins.
 - 2) Change Order Proposals.
 - 3) Change Orders.
 - 4) Pending claims and disputes.
 - h. Review present and future needs of each entity present including:
 - 1) Access.
 - 2) Site utilization.
 - 3) Temporary facilities and controls.
 - 4) Coordination.

4. Minutes: Entity responsible for conducting the meeting will record and distribute the meeting minutes to each party present and to parties requiring information.
- F. Pay Application and Schedule Review Meeting: Conduct review meeting monthly on or about the 25th of each month.
 1. Attendees:
 - a. University Project Manager.
 - b. Architect.
 - c. Contractor's Project Manager, Superintendant and Scheduler.
 2. Agenda: Review draft pay application and progress schedule update in accordance with the requirements of Division 01 Section "Payment Procedures" and Division 01 Section "Construction Progress Documentation."

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

REQUEST FOR INFORMATION (RFI)

PROJECT: University of Colorado – Anschutz Medical Campus
Fitzsimons Building 3rd Floor – Replace Carpet

Project No. 21-151143

Initiated By: _____

Contractor: _____

Subcontractor: _____

RFI No: _____

Date: _____

Contract #: _____

Log Date: _____

Log By: _____

SUBJECT: _____

REPLY BY: _____

Spec or Dwg.#: _____

Description: _____

PROPOSED SOLUTION (By Contractor)

By: _____

Anticipated Cost Change? ☐ Yes ☐ No

Date: _____

Anticipated Time Change? ☐ Yes ☐ No

Description: _____

RESPONSE (By Architect or Consultant)

By: _____

Anticipated Cost Change? ☐ Yes ☐ No

Date: _____

Anticipated Time Change? ☐ Yes ☐ No

Description: _____

ACCEPTANCE (By Contractor)

Note: If there is a cost or time change, subsequent project documents must be issued.

By: _____

Accepted w/o Cost Change? ☐ Yes ☐ No

Date: _____

Accepted w/o Time Change? ☐ Yes ☐ No

SECTION 01 32 33

PHOTOGRAPHIC DOCUMENTATION

PART 1 - GENERAL

1.01 SUMMARY

- A. This Section includes administrative and procedural requirements for the following:
 - 1. Preconstruction photographs.
 - 2. Periodic construction photographs.
 - 3. Final completion construction photographs.
- B. Related Requirements:
 - 1. Division 01 Section "Submittal Procedures" for submitting photographic documentation.
 - 2. Division 01 Section "Closeout Procedures" for submitting photographic documentation as project record documents at Project closeout.

1.02 INFORMATIONAL SUBMITTALS

- A. Key Plan: Submit key plan of Project site and building with notation of vantage points marked for location and direction of each photograph. Indicate elevation or story of construction. Include same information as corresponding photographic documentation.
- B. Digital Photographs: Submit image files within three business days of taking photographs.
 - 1. Digital Camera: Minimum sensor resolution of 12 megapixels.
 - 2. Format: Minimum 3200 by 2400 pixels, in unaltered original files, with same aspect ratio as the sensor, uncropped, date and time stamped, in folder named by date of photograph, accompanied by key plan file.
 - 3. Identification: Provide the following information with each image description in file metadata tag:
 - a. Name of Project.
 - b. Name and contact information for photographer.
 - c. Name of Architect.
 - d. Name of Contractor.
 - e. Date photograph was taken.
 - f. Description of vantage point, indicating location, direction (by compass point), and elevation or story of construction.
 - g. Unique sequential identifier keyed to accompanying key plan.

1.03 QUALITY ASSURANCE

- A. Photographer Qualifications: An individual who has been regularly engaged as a professional photographer of construction projects for not less than three years.

1.04 USAGE RIGHTS

- A. Obtain and transfer copyright usage rights from photographer to University for unlimited reproduction of photographic documentation.

PART 2 - PRODUCTS

2.01 PHOTOGRAPHIC MEDIA

- A. Digital Images: Provide images in JPG format, produced by a digital camera with minimum sensor size of 12 megapixels, and at an image resolution of not less than 3200 by 2400 pixels.

PART 3 - EXECUTION

3.01 CONSTRUCTION PHOTOGRAPHS

- A. Photographer: Engage a qualified photographer to take construction photographs.
- B. General: Take photographs using the maximum range of depth of field, and that are in focus, to clearly show the Work. Photographs with blurry or out-of-focus areas will not be accepted.
 - 1. Maintain key plan with each set of construction photographs that identifies each photographic location.
- C. Digital Images: Submit digital images exactly as originally recorded in the digital camera, without alteration, manipulation, editing, or modifications using image-editing software.
 - 1. Date and Time: Include date and time in file name for each image.
 - 2. Field Office Images: Maintain one set of images accessible in the field office at Project site, available at all times for reference. Identify images in the same manner as those submitted to Architect.
- D. Preconstruction Photographs: Before starting construction, take photographs of Project site and surrounding properties, including existing items to remain during construction, from different vantage points, as directed by Architect.
 - 1. Flag construction limits before taking construction photographs.
 - 2. Take photographs as required to record settlement or cracking of adjacent structures, pavements, and improvements.
- E. Periodic Construction Photographs: Take minimum of 20 photographs monthly, coinciding with the cutoff date associated with each Application for Payment. Select vantage points to show status of construction and progress since last photographs were taken.
- F. Architect-Directed Construction Photographs: From time to time, Architect will instruct photographer about number and frequency of photographs and general directions on vantage points. Select actual vantage points and take photographs to show the status of construction and progress since last photographs were taken.
- G. Final Completion Construction Photographs: Take minimum of 20 color photographs after date of Substantial Completion for submission as project record documents. Architect will inform photographer of desired vantage points.
 - 1. Do not include date stamp.

- H. Additional Photographs: University through Architect may request photographs in addition to periodic photographs specified. Additional photographs will be paid for by Change Order and are not included in the Contract Sum.
1. Three business days' notice will be given, where feasible.
 2. In emergency situations, take additional photographs within 24 hours of request.
 3. Circumstances that could require additional photographs include, but are not limited to, the following:
 - a. Special events planned at Project site.
 - b. Immediate follow-up when on-site events result in construction damage or losses.
 - c. Photographs to be taken at fabrication locations away from Project site. These photographs are not subject to unit prices or unit-cost allowances.
 - d. Substantial Completion of a major phase or component of the Work.
 - e. Extra record photographs at time of final acceptance.
 - f. University's request for special publicity photographs.

END OF SECTION

SECTION 01 33 00

SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.01 SUMMARY

- A. This Section includes administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, and other submittals.
 - 1. Required Submittals: All required submittals are indicated in each specification section. Do not submit items unless they are required by Specification Section. Submittals which are not required may be discarded without review.
 - 2. Submittals Schedule: Comply with requirements in Division 01 Section "Construction Progress Documentation" for list of submittals and time requirements for scheduled performance of related construction activities.

1.02 DEFINITIONS

- A. Action Submittals: Written and graphic information that requires Architect's responsive action. Action submittals are those submittals indicated in individual Specification Sections as "Action Submittals."
- B. Informational Submittals: Written and graphic information and physical samples that do not require Architect's responsive action. Submittals may be rejected for not complying with requirements. Informational submittals are those submittals indicated in individual Specification Sections as "informational submittals."
- C. File Transfer Protocol (FTP): Communications protocol that enables transfer of files to and from another computer over a network and that serves as the basis for standard Internet protocols. An FTP site is a portion of a network located outside of network firewalls within which internal and external users are able to access files.
- D. Portable Document Format (PDF): An open standard file format licensed by Adobe Systems used for representing documents in a device-independent and display resolution-independent fixed-layout document format.

1.03 ACTION SUBMITTALS

- A. Submittal Schedule: Submit a schedule of submittals, arranged in chronological order by dates required by construction schedule. Include time required for review, ordering, manufacturing, fabrication, and delivery when establishing dates. Include additional time required for making corrections or revisions to submittals noted by Architect and additional time for handling and reviewing submittals required by those corrections.
 - 1. Coordinate submittal schedule with list of subcontracts, the schedule of values, and Contractor's construction schedule.

2. Initial Submittal: Submit concurrently with startup construction schedule. Include submittals required during the first 60 days of construction. List those submittals required to maintain orderly progress of the Work and those required early because of long lead time for manufacture or fabrication.
 3. Final Submittal: Submit concurrently with the first complete submittal of Contractor's construction schedule.
 - a. Submit revised submittal schedule to reflect changes in current status and timing for submittals.
 4. Format: Arrange the following information in a tabular format:
 - a. Scheduled date for first submittal.
 - b. Specification Section number and title.
 - c. Submittal category: Action; informational.
 - d. Name of subcontractor.
 - e. Description of the Work covered.
 - f. Scheduled date for Architect's final release or approval.
 - g. Scheduled date of fabrication.
 - h. Scheduled dates for purchasing.
 - i. Scheduled dates for installation.
 - j. Activity or event number.
 5. Architect reserves right to withhold action on all submittals until complete submittals schedule has been submitted and approved.
 6. Review of any submittal without submission and approval of submittal schedule does not relieve Contractor of responsibility to provide Action Submittal for approval. Failure to submit Submittals Schedule relieves Architect of all constraints on review periods.
- B. Submittal Package: Assemble all Action Submittals for each specification section into a single package for delivery to Architect unless otherwise specified. Failure Contractor to assemble all Action Submittals in single package may result in Architect withholding action on submittal(s) until associated submittal(s) required by applicable specification section are received.
1. Closeout Submittals or Submittals for Work Performed by Separate Trades: Submit in separate package as applicable rather than in single Action Submittal package described above.
 2. Transmittal: Submit each Submittal Package with the Submittal Identification Form as a transmittal for the package.
 - a. If a Contractor proposes to use a separate transmittal for the Submittals Package, the proposed transmittal must be reviewed by, and determined to be acceptable to, the Owner and Architect prior to submitting first Submittal Package, and shall include not less than the following Items:
 - 1) Project name.
 - 2) Date.
 - 3) Name and address of Architect.
 - 4) Name of Contractor.
 - 5) Names of subcontractor, manufacturer, and supplier.
 - 6) Related physical samples submitted directly.

- 7) Indication of full or partial submittal.
- 8) Other necessary identification.

- b. Include a completed Submittal Identification Form in all Submittal Packages in addition to any separate transmittal. Submittal Packages not including Submittal Identification Form will be returned as "Not Reviewed".

1.04 SUBMITTAL ADMINISTRATIVE REQUIREMENTS

- A. Architect to provide Procore site for purposes of hosting and managing project communication and documentation until Final Completion. General Contractor to make all submittals using Architect's Procore project management software.
- B. Architect's Digital Data Files: Electronic digital data files of the Contract Drawings will be provided by Architect for Contractor's use in preparing submittals.
- C. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.
 1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
 2. Submit all submittal items required for each Specification Section concurrently unless partial submittals for portions of the Work are indicated on approved submittal schedule.
 3. Submit action submittals and informational submittals required by the same Specification Section as separate packages under separate transmittals.
 4. Coordinate transmittal of different types of submittals for related parts of the Work so processing will not be delayed because of need to review submittals concurrently for coordination.
 - a. Architect reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.
- D. Processing Time: Allow enough time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Architect's receipt of submittal. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals. For samples and required paper submittals, review time begins when both physical submittal and electronic Submittal Identification Form have been received by Architect.
 1. Initial Review: Allow sufficient time for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. Architect will advise Contractor when a submittal being processed must be delayed for coordination.
 2. Resubmittal Review: Allow sufficient time for review of each resubmittal.
 3. Sequential Review: Where sequential review of submittals by Architect's consultants, Owner, or other parties is indicated, allow sufficient time for initial review of each submittal.
- E. Sample Submittals: Place a permanent label or title block on each submittal item for identification:

1. Indicate name of firm or entity that prepared each submittal on label or title block.
 2. Submittal Identification Form: All submittals shall be accompanied by a completed Submittal Identification Form attached to this Section. Submittals lacking Submittal Identification Form will not be reviewed.
- F. Electronic Submittals: Identify and incorporate information in each electronic submittal file as follows:
1. Assemble complete submittal package into a single indexed file incorporating submittal requirements of single Specification Section and transmittal form with links enabling navigation to each item.
 2. Name file with submittal number or other unique identifier, including revision identifier.
 - a. Include in file name project identifier, Specification Section number, and item number, followed by "RVW" with number of review, then title. (e.g. "PI-05 5100-001 RVW 01 SD-Metal Stairs – Stair 01 & 02" for first metal stair shop drawing for stair 01 and 02 review 01).
 - b. Project Identifier: "Fitzsimons Building 3rd Floor Carpet Replacement".
 3. Provide means for insertion to permanently record Contractor's review and approval markings and action taken by Architect.
 4. Transmittal for Electronic Submittals: Comply with requirements specified in Submittal Package paragraph in Action Submittals article.
 - a. Submittals not including Submittals Identification Form will be returned as "Not Reviewed".
 5. Metadata: Include the following information as keywords in the electronic submittal file metadata:
 - a. Project name.
 - b. Number and title of appropriate Specification Section.
 - c. Manufacturer name.
 - d. Product name.
 - e. Keynote or finish code.
- G. Options: Identify options requiring selection by Architect.
- H. Deviations and Additional Information: On attached separate sheet, prepared on Contractor's letterhead, record relevant information, requests for data, revisions other than those requested by Architect on previous submittals, and deviations from requirements in Contract Documents, including minor variations and limitations. Include same identification information as related submittal.
1. Deviations: Encircle or otherwise specifically identify deviations from Contract Documents on submittals.
- I. Resubmittals: Make resubmittals in same form and number of copies as initial submittal.
1. Note date and content of previous submittal.
 2. Note date and content of revision in label or title block and clearly indicate extent of revision.

3. Resubmit submittals until they are marked "No Exceptions Taken" or "Make Corrections Noted", and initialed by Architect
- J. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.
- K. Use for Construction: Use only final submittals with mark indicating "No Exceptions Taken" or "Make Corrections Noted", and initialed by Architect.

PART 2 - PRODUCTS

2.01 SUBMITTAL PROCEDURES

- A. Architect to provide Procore site for purposes of hosting and managing project communication and documentation until Final Completion. General Contractor to make all submittals using Architect's Procore project management software.
- B. General Submittal Procedure Requirements: Prepare and submit Submittals required by individual Specification Sections. Types of submittals are indicated in individual Specification Sections.
 1. Submit electronic submittals via email as PDF electronic files to Architect's Construction Administrator Coordinator (CAC), with CC to Owner's Representative and Architect. Include project name and Submittal Identification Number in subject line of email. When files are too large for e-mail, post files to Architect's project FTP site and submit transmittal via e-mail to Architect's CAC as indicated above, indicating submittal has been uploaded to FTP site.
 - a. Architect will return annotated file. Annotate and retain one copy of file as an electronic Project record document file.
 2. Action Submittals: Must be submitted electronically. Architect will return one annotated copy.
 3. Informational Submittals: Must be submitted electronically. Architect will not return copies.
 4. Certificates and Certifications Submittals: Provide a statement that includes signature of entity responsible for preparing certification. Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity.
 - a. Provide a digital signature with digital certificate on electronically submitted certificates and certifications where indicated.
 - b. Provide a notarized statement on original paper copy certificates and certifications where indicated.
- C. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.

1. If information must be specially prepared for submittal because standard printed data are not suitable for use, submit as Shop Drawings, not as Product Data.
 2. Mark each copy of each submittal to show which products and options are applicable to Project.
 3. Include the following information, as applicable:
 - a. Manufacturer's written recommendations.
 - b. Manufacturer's product specifications, including performance characteristics written to match specified terminology for ease of comparison.
 - c. Manufacturer's Instructions: Prepare written or published information that documents manufacturer's recommendations, guidelines, and procedures for installing or operating a product or equipment. Include name of product and name, address, and telephone number of manufacturer. Include the following, as applicable:
 - 1) Preparation of substrates.
 - 2) Required substrate tolerances.
 - 3) Recommendations for cleaning and protection.
 - d. Standard color charts.
 - e. Standard product maintenance manuals.
 - f. Statement of compliance with specified referenced standards.
 - g. Testing by recognized testing agency.
 - h. Application of testing agency labels and seals.
 - i. Notation of coordination requirements.
 - j. Availability and delivery time information.
 - k. Clearances required to other construction, if not indicated on accompanying Shop Drawings.
 - l. Additional information as required by Specifications.
 4. Submit Product Data before or concurrent with Samples.
 5. Submit Product Data as a PDF electronic file.
 6. Material Safety Data Sheets (MSDSs): Submit information directly to Owner; do not submit to Architect.
 - a. Architect will not review MSDS sheets and will remove/discard them from the submittal.
- D. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data, unless submittal of digital data drawing files are otherwise permitted.
1. Preparation: Fully illustrate requirements in the Contract Documents. Include the following information, as applicable:
 - a. Dimensions.
 - b. Identification of products.
 - c. Templates and patterns.
 - d. Schedules.
 - e. Compliance with specified standards.
 - f. Notation of dimensions established by field measurement.

- g. Relationship to adjoining construction clearly indicated.
 - h. Additional information as required by Specifications.
 - i. Do not include the phrase "by others," except when relating to materials, products or equipment not included under the Work of the Contract.
 - 2. Sheet Size: Except for templates, patterns, and similar full-size drawings, submit Shop Drawings on sheets at least 8-1/2 by 11 inches but no larger than 30 by 42 inches.
 - a. Submittals shall be clear and legible. The Architect reserves the right to reject in full any submittal due to illegibility, as determined solely by the Architect, without any impact to the allowed review time. All dimensions and text shall be a minimum of 10pt or 0.389 inches in height. Drawings not conforming to this requirement will be rejected without review.
 - 3. Submit Shop Drawings in the following format:
 - a. PDF electronic file.
- E. Samples: Submit Samples for review of kind, color, pattern, and texture for a check of these characteristics with other elements and for a comparison of these characteristics between submittal and actual component as delivered and installed.
- 1. Transmit Samples that contain multiple, related components such as accessories together in one submittal package.
 - 2. Identification: Attach label on unexposed side of Samples that includes the following:
 - a. Generic description of Sample.
 - b. Product name and name of manufacturer.
 - c. Sample source.
 - d. Number and title of appropriate Specification Section.
 - e. Specification paragraph number and generic name of each item.
 - 3. For projects where electronic submittals are required, provide corresponding electronic submittal of Sample transmittal, digital image file illustrating Sample characteristics, and identification information for record.
 - 4. Disposition: Maintain sets of approved Samples at Project site, available for quality-control comparisons throughout the course of construction activity. Sample sets may be used to determine final acceptance of construction associated with each set.
 - a. Samples that may be incorporated into the Work are indicated in individual Specification Sections. Such Samples must be in an undamaged condition at time of use.
 - b. Samples not incorporated into the Work, or otherwise designated as Owner's property, are the property of Contractor.
 - 5. Samples for Initial Selection: Submit manufacturer's color charts consisting of units or sections of units showing the full range of colors, textures, and patterns available.
 - a. Number of Samples: Submit two (2) full set(s) of available choices where color, pattern, texture, or similar characteristics are required to be selected from manufacturer's product line. Architect will return one (1) submittal set with options selected.

6. Samples for Verification: Submit full-size units or Samples of size indicated, prepared from same material to be used for the Work, cured and finished in manner specified, and physically identical with material or product proposed for use, and that show full range of color and texture variations expected. Samples include, but are not limited to, the following:
 - a. Partial sections of manufactured or fabricated components; small cuts or containers of materials; complete units of repetitively used materials; swatches showing color, texture, and pattern; color range sets; and components used for independent testing and inspection.
 - b. Number of Samples: Submit three (3) sets of Samples. Architect will retain two Sample sets; remainder will be returned.
 - 1) Submit a single Sample where assembly details, workmanship, fabrication techniques, connections, operation, and other similar characteristics are to be demonstrated.
 - 2) If variation in color, pattern, texture, or other characteristic is inherent in material or product represented by a Sample, submit at least three sets of paired units that show approximate limits of variations.
7. Field Samples: Erect at project site at location(s) acceptable to Architect.
 - a. Construct each field sample complete; including work of all trades required to finish the Work.
 - b. When directed by Architect, demolish field sample and remove from Project Site, unless acceptable by Architect as part of the completed.
- F. Product Schedule: As required in individual Specification Sections, prepare a written summary indicating types of products required for the Work and their intended location. Include the following information in tabular form:
 1. Type of product. Include unique identifier for each product indicated in the Contract Documents or assigned by Contractor if none is indicated.
 2. Manufacturer and product name, and model number if applicable.
 3. Number and name of room or space.
 4. Location within room or space.
 5. Submit product schedule as a PDF electronic file.
- G. Application for Payment and Schedule of Values: Comply with requirements specified in Division 01 Section "Payment Procedures."
- H. Subcontract List: Prepare a written summary identifying individuals or firms proposed for each portion of the Work, including those who are to furnish products or equipment fabricated to a special design. Use of CSI form 1.5A is preferred, if not used, submission must include the following information in tabular form:
 1. Name, address, and telephone number of entity performing subcontract or supplying products.
 2. Submit list electronically.
- I. Contractor's Construction Schedule: Comply with requirements specified in Division 01 Section "Construction Progress Documentation."

- J. Qualification Data: Prepare written information that demonstrates capabilities and experience of firm or person. Include lists of completed projects with project names and addresses, names and addresses of architects and owners, and other information specified.
- K. Certificates:
1. Installer Certificates: Prepare written statements on manufacturer's letterhead certifying that Installer complies with requirements in the Contract Documents and, where required, is authorized by manufacturer for this specific Project.
 2. Manufacturer Certificates: Prepare written statements on manufacturer's letterhead certifying that manufacturer complies with requirements in the Contract Documents. Include evidence of manufacturing experience where required.
 3. Product Certificates: Prepare written statements on manufacturer's letterhead certifying that product complies with requirements in the Contract Documents.
 4. Material Certificates: Prepare written statements on manufacturer's letterhead certifying that material complies with requirements in the Contract Documents.
- L. Contractor Certification Letter: Where specifically authorized in individual Sections, prepare written certification on Contractor's letterhead indicating that products listed in the Certification Letter will be provided as specified in the Section without modification or deviation from the Contract Documents. See Sample "Contractor's Certification Letter" attached to this Section.
1. Submission of "Contractor's Certification Letter" signifies that Contractor will provide Products and Materials as specified in PART 2 of individual Specification Sections, and negates the requirement to submit the Product Data portion of Action Submittals. However, Product Data specified as part of Operation and Maintenance Data shall be submitted as specified in the Specification Section.
- M. Reports:
1. Material Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements in the Contract Documents.
 2. Product Test Reports: Prepare written reports indicating current product produced by manufacturer complies with requirements in the Contract Documents. Base reports on evaluation of tests performed by manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.
 3. Research/Evaluation Reports: Prepare written evidence, from a model code organization acceptable to authorities having jurisdiction, that product complies with building code in effect for Project. Include the following information:
 - a. Name of evaluation organization.
 - b. Date of evaluation.
 - c. Time period when report is in effect.
 - d. Product and manufacturers' names.
 - e. Description of product.
 - f. Test procedures and results.
 - g. Limitations of use.

4. Preconstruction Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of tests performed before installation of product, for compliance with performance requirements in the Contract Documents.
 5. Compatibility Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of compatibility tests performed before installation of product. Include written recommendations for primers and substrate preparation needed for adhesion.
 6. Field Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of field tests performed either during installation of product or after product is installed in its final location, for compliance with requirements in the Contract Documents.
 7. Manufacturer's Field Reports: Prepare written information documenting factory-authorized service representative's tests and inspections. Include the following, as applicable:
 - a. Name, address, and telephone number of factory-authorized service representative making report.
 - b. Statement on condition of substrates and their acceptability for installation of product.
 - c. Statement that products at Project site comply with requirements.
 - d. Summary of installation procedures being followed, whether they comply with requirements and, if not, what corrective action was taken.
 - e. Results of operational and other tests and a statement of whether observed performance complies with requirements.
 - f. Statement whether conditions, products, and installation will affect warranty.
 - g. Other required items indicated in individual Specification Sections.
- N. Schedule of Tests and Inspections: Comply with requirements specified in Division 01 Section "Quality Requirements."
- O. Maintenance Data: Prepare written and graphic instructions and procedures for operation and normal maintenance of products and equipment. Comply with requirements specified in Division 01 Section "Operation and Maintenance Data."
- P. Design Data: Prepare written and graphic information, including, but not limited to, performance and design criteria, list of applicable codes and regulations, and calculations. Include list of assumptions and other performance and design criteria and a summary of loads. Include load diagrams if applicable. Provide name and version of software, if any, used for calculations. Include page numbers.
- Q. Insurance Certificates and Bonds: Prepare written information indicating current status of insurance or bonding coverage. Include name of entity covered by insurance or bond, limits of coverage, amounts of deductibles, if any, and term of the coverage.
- R. Construction Photographs and Videos: Comply with requirements specified in Division 01 Section "Photographic Documentation."

PART 3 - EXECUTION

3.01 CONTRACTOR'S REVIEW

- A. Action and Informational Submittals: Review each submittal and check for coordination with other Work of the Contract and for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to Architect.
1. Verify:
 - a. Field Measurements.
 - b. Field Construction Criteria.
 - c. Catalog Numbers and Similar Data.
 - d. Quantities.
 2. Contractor's responsibility regarding errors and omissions in submittals is not relieved by Architect's review of submittals.
 3. Contractor's responsibility regarding deviations in submittals from requirements of Contract Documents is not relieved by Architect's review of submittals, unless Architect gives written acceptance of specific deviations as approved by Owner.
 4. When work is directly related and involves more than one trade, coordinate submittal with other trades and submit under one cover.
 5. After a submittal has been submitted for review, no changes may be made to that Submittal other than changes resulting from review notes made by the Architect unless such changes are clearly identified and circled before being resubmitted. Any failure to comply with this requirement shall nullify and invalidate the Architect's review.
- B. Project Closeout and Maintenance Material Submittals: See requirements in Section 01 77 00 "Closeout Procedures."
- C. Approval Stamp: Stamp each Submittal Identification Form with Contractor's stamp certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.

3.02 ARCHITECT'S ACTION

- A. General: Architect will not review submittals that do not bear Contractor's approval certification and will return them without action.
- B. Action Submittals: Architect will review each submittal, make marks to indicate corrections or modifications required, and return it. Architect will indicate on Submittal Identification Form for each submittal to indicate action taken, as follows:
1. "No Exceptions Taken":
 - a. No further review of submittal is required.
 2. "Make Corrections Noted":
 - a. If Contractor complies with noted corrections, fabrication may proceed and resubmission is not required, unless otherwise noted.

- b. If for any reason the Contractor cannot comply with the noted corrections, fabrication shall not proceed and Contractor shall resubmit, following procedures outlined hereinbefore.
 - 3. "Revise and Resubmit":
 - a. Contractor shall revise and resubmit for review. Fabrication shall not proceed.
 - 4. "Rejected":
 - a. Submittal is not in compliance with the Contract Documents and is not acceptable. Provide new submittal.
 - 5. "For Record / Information Only":
 - a. Submittal has been received and will be retained for record keeping purposes.
 - 6. "Not Required for Review":
 - a. Submittal is not required by Contract Documents and has not been reviewed.
 - C. Informational Submittals: Architect will review each submittal and will either not return it, or will return it if it does not comply with requirements. Architect will forward each submittal to appropriate party.
 - D. Partial submittals are not acceptable, will be considered nonresponsive, and will be returned without review.
 - E. Incomplete submittals are unacceptable, will be considered nonresponsive, and will be returned for resubmittal without review.
 - F. Submittals not required by the Contract Documents may not be reviewed and may be discarded.
- 3.03 DISTRIBUTION OF SUBMITTALS BY ORIGINAL SUBMITTER, AFTER ARCHITECT'S REVIEW
- A. Make and distribute copies of submittal which have been accepted by the Architect to the following:
 - 1. Contractor.
 - 2. Related Contractor(s).
 - 3. Supplier.
 - 4. Fabricator.
 - 5. Owner's representative.
 - 6. Job-site file (record copy).
 - B. Produce and distribute additional copies as required.
 - C. Attachments:
 - 1. Submittal Identification Form
 - 2. Sample of filled in Submittal Identification Form

END OF SECTION

SUBMITTAL IDENTIFICATION SHEET

To be completed by Contractor/CM

PROJECT NAME

ADDRESS

NUMBER

OWNER

ARCHITECT / ENGINEER

SUBMITTED BY

CONTRACTOR / CM SUBMITTAL NO.

CANNON DESIGN SUBMITTAL NO.

DRAWING / DETAIL REFERENCE

SPECIFICATION SECTION / PARAGRAPH

MANUFACTURER / SUPPLIER

ITEM / PRODUCT ID

REQUIRED DATE

PRIORITY

CRITICAL

ITEM BEING SUBMITTED (check only one)

☐ Shop Drawings
 ☐ Certification / Qualifications
 ☒ Coordination Drawing

☐ Samples (____ copies)
 ☐ Record Documents
 ☐ Calculations

☐ LEED Submittal
 ☐ Product Data
 ☐ Schedules

☐ Other _____
 ☐ O&M Manuals

ITEM BEING SUBMITTED FOR (check only one)

☐ Action
 ☐ Information Only
 ☐ Record

REMARKS OR DEVIATIONS

CONTRACTOR / CM CERTIFICATION

(SUBMITTALS NOT CERTIFIED WILL BE RETURNED WITHOUT REVIEW)

REVIEWED BY

DATE

To be completed by Reviewer

CANNON DESIGN SUBMITTAL NUMBER

RECEIVED DATE

☐ A. No Exceptions Taken
 No further review of submittal is required.

☐ B. Make Corrections Noted
 Incorporate corrections in work; resubmission is not required.

☐ C. Revise and Resubmit
 Revise as noted, and resubmit for review.

☐ D. Rejected
 Submittal is not in compliance with Contract Documents; provide new submittal.

☐ E. For Record / Information Only
 Submittal was reviewed for Record / Information purposes only.

☐ F. Not Required for Review
 Submittal is not required by Contract Documents and has not been reviewed.

Review is for conformance with the design concept of this project and for general compliance with contract documents. Contractor is responsible for quantities, dimensions and compliance with contract documents and for information that pertains to fabrication processes, construction techniques and coordination of this work with all trades which will be affected thereby. This review is null and void if submittal deviates from contract documents and does not indicate or note deviations.

A/E COMMENTS

☐ See attached sheet(s) for additional comments

REVIEWED BY

DATE

SUBMITTAL IDENTIFICATION SHEET

To be completed by Contractor/CM

Any Project

PROJECT NAME

1234 W Hanley St Aurora, IL 60126

ADDRESS

001234.00

NUMBER

Any

OWNER

Cannon Design

ARCHITECT / ENGINEER

Contractor D

SUBMITTED BY

CONTRACTOR / CM SUBMITTAL NO.

CANNON DESIGN SUBMITTAL NO.

DRAWING / DETAIL REFERENCE

SPECIFICATION SECTION / PARAGRAPH

MANUFACTURER / SUPPLIER

ITEM / PRODUCT ID

REQUIRED DATE

PRIORITY

CRITICAL

ITEM BEING SUBMITTED (check only one)

- | | | |
|--------------------------------------|--|--|
| <input type="radio"/> Shop Drawings | <input type="radio"/> Certification / | <input type="radio"/> Coordination Drawing |
| <input type="radio"/> Samples | <input type="radio"/> Qualifications | <input type="radio"/> Calculations |
| <input type="radio"/> (____ copies) | <input type="radio"/> Record Documents | <input type="radio"/> Schedules |
| <input type="radio"/> LEED Submittal | <input type="radio"/> Product Data | <input type="radio"/> O&M Manuals |
| <input type="radio"/> Other _____ | | |

ITEM BEING SUBMITTED FOR (check only one)

- | | | |
|------------------------------|--|------------------------------|
| <input type="radio"/> Action | <input type="radio"/> Information Only | <input type="radio"/> Record |
|------------------------------|--|------------------------------|

REMARKS OR DEVIATIONS

CONTRACTOR / CM CERTIFICATION
(SUBMITTALS NOT CERTIFIED WILL BE RETURNED WITHOUT REVIEW)

REVIEWED BY

DATE

To be completed by Reviewer 001234.00

CANNON DESIGN SUBMITTAL NUMBER

RECEIVED DATE

Outside consultants DO NOT PUT YOUR REVIEW
HERE

- ☐ A. No Exceptions Taken
No further review of submittal is required.
- ☐ B. Make Corrections Noted
Incorporate corrections in work;
resubmission is not required.
- ☐ C. Revise and Resubmit
Revise as noted, and resubmit for review.
- ☐ D. Rejected
Submittal is not in compliance with Contract Documents;
provide new submittal.
- ☐ E. For Record / Information Only
Submittal was reviewed for Record / Information
purposes only.
- ☐ F. Not Required for Review
Submittal is not required by Contract Documents
and has not been reviewed.

Review is for conformance with the design concept of this project and for general compliance with contract documents. Contractor is responsible for quantities, dimensions and compliance with contract documents and for information that pertains to fabrication processes, construction techniques and coordination of this work with all trades which will be affected thereby. This review is null and void if submittal deviates from contract documents and does not indicate or note deviations.

A/E COMMENTS

☐ See attached sheet(s) for additional comments

Outside Consultants can put a stamp here and sign it with comments. If you will need more space, please put your review on the contractor ID(if there is one)or your own separate sheet.

DO NOT PUT YOUR SIGNATURE HERE

REVIEWED BY

DATE

SECTION 01 35 44

SPECIAL PROCEDURES FOR ENVIRONMENTAL HEALTH AND SAFETY AND FIRE AND LIFE SAFETY

PART 1 - GENERAL

1.01 SUMMARY

- A. This Section includes special administrative and procedural requirements related to environmental health and safety.
- B. University is Authority Having Jurisdiction (AHJ) for Fire and Life Safety. This responsibility is administered by the University's Fire and Life Safety Officer.
- C. Related Requirements:
 - 1. Division 01 Section "Indoor Air Quality Procedures" for procedure related to maintaining indoor air quality during construction.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.01 ENVIRONMENTAL HEALTH AND SAFETY AND FIRE AND LIFE SAFETY PROCEDURES

- A. Physical, Life, and Fire Safety:
 - 1. All contractors are required to conform to the Federal Occupational Safety and Health Administration (OSHA) regulations for construction (29 CFR 1926). Certain General Industry Standards (29 CFR 1910) may also apply, depending on location of work.
 - 2. Provide an effective health and safety program to control hazards, including but not limited to compressed gases, welding, electrical, safety netting, cranes, scaffolding and supplies on the roof.
 - 3. Provide fire protection in all construction areas to the satisfaction of the Authority Having Jurisdiction.
 - 4. During the construction phase, the Authority Having Jurisdiction may conduct oversight inspections to observe and provide recommendations regarding applicable safety standards. The following minimum items are included:
 - a. Do not block exit corridors. Install signage clearly identifying exit routes.
 - b. Provide physical barriers with appropriate warning signage to protect public areas from construction work.
 - c. Conduct daily inspections to eliminate fire hazards and any other safety hazards.
 - d. Periodic safety inspections will be performed on job sites by the Authority Having Jurisdiction. The Authority Having Jurisdiction for fire safety will present University's Project Manager with a written summary of the findings who will then take these issues to the Contractor's superintendent, foreman or other designated representative and return the summary form with documentation of

the resolution of safety items to AHJ. Abate deficient items in a timely manner. Include documentation and resolution of safety items presented in weekly Progress Meeting minutes. Inspections by University AHJ are spot-checks only. They are not all encompassing. These inspections and recommendations do not relieve the Contractor from obligations related to safe work practices, as required under federal law.

- e. AHJ has the right to access the site at all times. Should a potential threat to personnel or property be observed, AHJ may require the hazard related operation immediately altered until adequate safeguards are addressed.
- f. Supply AHJ, through the University Project Manager, with a copy of Contractor's weekly safety meeting minutes and safety inspection reports.
- g. Provide signs used for proper identification of construction areas.
- h. Provide adequate number of appropriately rated fire extinguishers to be available on-site for emergency use in the construction area.
- i. Ensure standpipes, pull stations, electrical panels, water control valves and fire hydrants are accessible at all times.
- j. Post emergency notification phone numbers provided by Contractor and University in all construction areas.
- k. Notify University Project Manager of any lost time injuries occurring on University's property within one (1) calendar day and of any fatalities immediately.
- l. Submit copies of all injury reports to AHJ, through University's Project Manager.
- m. Equip construction personnel with personal protective equipment (PPE) where required. Coordinate with University Project Manager to identify where use of PPE will be required.

B. OSHA Hazard Communication Standard:

- 1. Every Contractor and Subcontractor performing work shall to comply with the OSHA Hazard Communication Standard. Compliance includes joint University and Contractor responsibilities for the purpose of providing timely communications and information sharing with regard to hazardous materials, chemicals and chemical sources which may be present on-site or brought in by Contractor.
- 2. University Project Manager will provide Contractor with the following:
 - a. Information regarding known hazardous chemicals and agents or other hazards present at the job site.
 - b. University emergency procedures and contact numbers.
- 3. Provide safety training and environmental surveillance of all workers.
- 4. Inform and provide University's Project Manager the following:
 - a. Material safety data sheets (MSDS) for all chemicals introduced into the workplace.
 - b. Information regarding potential sources of pollutants which may be entrained in University's air intakes, e.g., roofing tar fumes, nuisance dusts, exhaust from internal combustion engines, welding or cutting fumes, and asbestos - if damaged or encountered during the course of the work.

C. Asbestos and Lead Paint:

1. The presence of asbestos-containing materials and/or paint containing lead on the job site does not mean a problem exists. Areas where asbestos is friable and not contained or lead paint is present or will be caused to be present in airborne or settled dust are of concern.
2. Responsibilities of University and Contractor regarding asbestos and lead paint are as follows:
 - a. University:
 - 1) Notify the Contractor of the condition and location(s) where asbestos is known to be present or may reasonably be encountered, e.g., asbestos insulation, ceiling tiles, floor tiles, fire doors, wall and ceiling plasters, concrete, grouting, etc., and lead paint on metal building materials, walls, windows, etc.
 - 2) Coordinate with Contractor when response action is required by a Subcontractor.
 - 3) Contract with third party contractor to monitor areas where friable asbestos and/or lead-containing particles are present during construction/renovation projects for its own records and purpose. Monitoring results can be shared with Contractors but are in no way to be used for Contractor employee monitoring.
 - 4) Final authority on all asbestos-related concerns and contractual arrangements.
 - b. Contractor:
 - 1) Notify University's Project Manager of any suspected or existing problem involving asbestos or lead and cease work in that area until University has assessed the situation.
 - 2) Ensure that undamaged asbestos-containing material and/or material containing lead, not included in the scope of the project, are not damaged.
 - 3) Train and monitor their own employees, including Asbestos Awareness training and Lead Paint Awareness training, where applicable.
 - 4) Be responsible for all environmental/industrial hygiene surveillance of its work staff and subcontractors and for required area monitoring where potential contamination of adjacent areas exists.
 - 5) Prevent problems which can result in asbestos or lead exposure to building occupants.
 - 6) Coordinate with the University's EHS Department and Building Maintenance and Operations through University's Project Manager and perform all activities that may potentially disturb asbestos containing materials in a manner acceptable to the EHS.
 - 7) Follow State of Colorado regulation, Emission Standards for Asbestos, Part B, Control of Asbestos, "Regulation 8" and OSHA standards regulating exposure to asbestos and lead.
 - 8) Comply with current "Asbestos-Contaminated Soil Management Standard Operating Procedure Document, University of Colorado Anschutz Medical Campus" during excavation operations.

- D. Carcinogens:
1. Contractor or any Subcontractor shall not knowingly install or cause to be installed any material or product containing carcinogens. Refer to Annual Report on Carcinogens, U.S. Department of Health and Human Services, National toxicology Program.
- E. Hazardous Waste:
1. All hazardous wastes are to be handled and disposed of according to current University EHS guidelines which can be obtained through University Project Manager. Only individuals specifically authorized by University may sign hazardous waste manifests for wastes generated on University's property. Only University approved transporters and disposal facilities are to be used for transportation and disposal of hazardous wastes.
- F. The Control of Hazardous Energy (Lockout/Tagout):
1. Provide and enforce a program and procedures for the control of hazardous energy (lockout/tagout) including, but not limited to, locks, tags and lockout devices. Provide proof that workers have received safety training in the control of hazardous energy through lockout/tagout.
- G. Hot Work Operations:
1. Comply with University hot work policy and obtain Hot Work Permit prior to executing any hot work in existing buildings.
 2. Notify University Project Manager prior to any hot work on University property.
 3. Provide and enforce a program to control fires during hot work operations. Provide appropriately rated fire extinguishers, fire retardant protective covers (when needed), and any other hot work related equipment.
- H. Confined Space Entry:
1. Work in compliance with the "Confined Space Entry Procedure for Non-University Personnel" whenever any project requires entry into a confined space. A copy of this procedure can be obtained from University EHS through University's Project Manager.
- I. Green Tagging of Work Area:
1. Obtain a Green Tag and Construction Permit from the University Project Manager prior to any work being conducted in a laboratory or on any exhaust ductwork system serving a laboratory. If a Green Tag has been issued, it will be displayed at the entry of the laboratory area. The Green Tag assures that any radioactive, chemical or biological materials have been removed from the laboratory verifying the area is free from hazards to workers. If a Green Tag is not displayed, coordinate tagging with EHS through University's Project Manager.

END OF SECTION

SECTION 01 35 46

INDOOR AIR QUALITY PROCEDURES

PART 1 - GENERAL

1.01 SUMMARY

- A. This Section includes administrative and procedural requirements for managing emissions and moisture control during construction.

1.02 DEFINITIONS

- A. Sustainable Design Related Terminology: As defined in ASTM E 2114 - Standard Terminology for Sustainability Relative to the Performance of Buildings.
- B. Adequate Ventilation: Ventilation, including air circulation and air changes, required to cure materials, dissipate humidity, and prevent accumulation of particulates, dust, fumes, vapors, or gases.
- C. Hazardous Materials: Any material that is regulated as a hazardous material in accordance with 49 CFR 173, requires a Material Safety Data Sheet (MSDS) in accordance with 29 CFR 1910.1200, or which during end use, treatment, handling, storage, transportation or disposal meets or has components which meet or have the potential to meet the definition of a Hazardous Waste in accordance with 40 CFR 261. Throughout this specification, hazardous material includes hazardous chemicals.
 - 1. Hazardous materials include: pesticides, biocides, and carcinogens as listed by recognized authorities, such as the Environmental Protection Agency (EPA) and the International Agency for Research on Cancer (IARC).
- D. Indoor Air Quality (IAQ): The composition and characteristics of the air in an enclosed space that affect the occupants of that space. The indoor air quality of a space refers to the relative quality of air in a building with respect to contaminants and hazards and is determined by the level of indoor air pollution and other characteristics of the air, including those that impact thermal comfort such as air temperature, relative humidity and air speed.
- E. Interior Final Finishes: Materials and products that will be exposed at interior, occupied spaces including but not limited to flooring, wallcovering, finish carpentry, and ceilings.
- F. Packaged Dry Products: Materials and products that are installed in dry form and are delivered to the site in manufacturer's packaging including but not limited to carpets, resilient flooring, ceiling tiles, and insulation.
- G. Wet Products: Materials and products installed in wet form, including paints, sealants, adhesives, special coatings, and other materials which require curing.

1.03 QUALITY ASSURANCE

- A. Inspection and Testing Lab Qualifications: Minimum of 5 years experience in performing the types of testing specified herein.

1.04 PRECONSTRUCTION MEETING

- A. After award of Contract and prior to the commencement of the Work, schedule and conduct meeting with University and Architect to review and discuss the proposed IAQ Management Plan and develop a mutual understanding of detailed requirements for maintaining indoor air quality and environmental protection.

1.05 SUBMITTALS

- A. Indoor Air Quality (IAQ) Management Plan: Not less than 10 business days before the Pre-construction meeting, prepare and submit an IAQ Management Plan including, but not limited to, the following:
 - 1. Procedures for control of emissions during construction.
 - a. Identify schedule for application of interior finishes.
 - 2. Procedures for moisture control during construction.
 - a. Identify porous materials and absorptive materials.
 - b. Identify schedule for inspection of stored and installed absorptive materials.
 - 3. Revise and resubmit Plan as required by University.
 - a. Approval of Contractor's Plan will not relieve the Contractor of responsibility for compliance with applicable environmental regulations.
- B. Product Data:
 - 1. Submit product data for filtration media used during construction and during operation. Include Minimum Efficiency Reporting Value (MERV).
 - 2. Submit air pressure difference maps for each mode of operation of HVAC.
 - 3. Material Safety Data Sheets: Submit MSDSs for inclusion in Operation and Maintenance Manual for the following products. Coordinate with Division 01 Section "Operation and Maintenance Data".
 - a. Adhesives.
 - b. Floor and wall patching/leveling materials.
 - c. Caulking and sealants.
 - d. Carpet.
 - e. Cleaning products.
- C. Inspection and Test Reports:
 - 1. Moisture control inspections.
 - 2. Moisture content testing.
 - 3. Moisture penetration testing.
 - 4. Microbial growth testing.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.01 IAQ MANAGEMENT - EMISSIONS CONTROL

- A. Provide point person responsible for the implementation and assurance that the Indoor Air Quality Plan is being implemented.
- B. University Indoor Air Quality Plan: Comply with the requirements of the University IAQ Plan, latest version, appended to this Specification Section.
- C. Flush-Out: After construction ends, prior to occupancy and with all interior finishes installed, perform a building flush-out by supplying a total air volume of 14,000 cu.ft. of outdoor air per sq.ft. of floor area while maintaining an internal temperature of at least 60 degrees F and relative humidity no higher than 60%.

3.02 IAQ MANAGEMENT - MOISTURE CONTROL

- A. Housekeeping:
 - 1. Keep materials dry. Protect stored on-site and installed absorptive materials from moisture damage.
 - 2. Verify that installed materials and products are dry prior to sealing and weatherproofing the building envelope.
 - 3. Install interior absorptive materials only after building envelope is sealed and weatherproofed.
- B. Inspections: Document and report results of inspections; state whether or not inspections indicate satisfactory conditions.
 - 1. Examine materials for dampness as they arrive. If acceptable to University, dry damp materials completely prior to installation; otherwise, reject materials that arrive damp.
 - 2. Examine materials for mold as they arrive and reject materials that arrive contaminated with mold.
 - 3. Inspect stored and installed absorptive materials regularly for dampness and mold growth. Inspect weekly.
 - a. Where stored on-site or installed absorptive materials become wet, notify Architect and University. Inspect for damage. If acceptable to University, dry completely prior to closing in assemblies; otherwise, remove and replace with new materials.
- C. Schedule:
 - 1. Schedule work such that absorptive materials, including but not limited to porous insulations, paper-faced gypsum board, ceiling tile, and finish flooring, are not installed until they can be protected from rain and construction-related water.

- D. Testing for Moisture Content: Test moisture content of porous materials and absorptive materials to ensure that they are dry before sealing them into an assembly. Document and report results of testing. Where tests are not satisfactory, dry materials and retest. If satisfactory results cannot be obtained with retest, remove and replace with new materials.
1. Concrete: Moisture test prior to finish flooring application as specified in Division 09.
 2. Gypsum Board, Gypsum Plaster, Insulation, and other absorptive materials: Moisture test with a Pinless Moisture Meter to assess patterns of moisture, if any.
- E. Testing for Support of Microbial Growth: Test and report in accordance with ASTM D6329 Standard Guide for Developing Methodology for Evaluating the Ability of Indoor Materials to Support Microbial Growth Using Static Environmental Chambers. Indicate susceptibility of product or material to colonization and amplification of microorganisms. Identify microorganisms and conditions of testing.
1. Normal conditions: Perform testing at 35 degrees Centigrade and 50 percent relative humidity.
 2. Extreme conditions: Perform worst case scenarios screening tests by providing an atmosphere where environmental conditions may be favorable for microbial growth.
 3. Perform testing for the following:
 - a. Other appropriate material.

END OF SECTION

INDOOR AIR QUALITY PLAN

Project _____

Completed by: _____
(Name & Company)

Date: _____

This plan describes the measures to be taken to provide good indoor air quality (IAQ) during construction and after construction is complete and the occupants have moved into the building. This plan is based on the SMACNA standard "IAQ Guidelines for Occupied Buildings under Construction".

It is not the intent of this document to replace or supersede OSHA regulations as to safe construction workplace practices. It remains the responsibility of the Construction Manager and the individual sub-contractors to maintain safe building and site operations. Addition precautions may be necessary when hazardous materials are present.

The plan will address construction IAQ by recommending procedures in five areas of concern:

1. HVAC system protection
2. Containment source control
3. Pathway interruption
4. Housekeeping
5. Scheduling and Construction Activity Sequence

The following describes the specific measures to be performed in each area of concern:

1. HVAC System Protection:

- During construction, provide MERV 13 filters for supply air intake when in use. Provide MERV 8 filters at the return air system openings when in use. Perform frequent maintenance when the HVAC system is being utilized and replace filters as they become loaded, prior to building flushout, and prior to occupancy.
- When performing construction activities that produce dust, such as drywall sanding, concrete cutting, masonry work, wood sawing or adding insulation, seal off the supply diffusers and return air system openings completely for the duration of the task.
- Shut down and seal off the supply diffusers and return air ducts during any demolition operations.
- Whenever the HVAC system is not used during construction, seal off the supply diffusers and return air system openings to prevent the accumulation of dust and debris in the duct system.
- Do not use the mechanical rooms to store construction or waste materials. Keep rooms clean and neat.
- Provide periodic duct inspections during construction; if the ducts become contaminated due to inadequate protection, clean the ducts professionally in accordance with NADCA (National Air Duct Cleaning Association) standards.

- The General Contractor shall take photographs showing measures in place.

2. Containment Source Control:

- Use low VOC products as indicated by the specifications to reduce potential problems.
- Restrict traffic volume and prohibit idling of motor vehicles where emissions could be drawn into the building.
- Utilize electric or natural gas alternatives for gasoline and diesel equipment where possible and practical. Use low-sulfur diesel in lieu of regular diesel.
- Cycle equipment off when not being used or needed.
- Exhaust pollution sources to the outside with portable fan systems. Prevent exhaust from recirculating back into the building from construction equipment outside the building.
- Keep containers of wet products closed as much as possible. Cover or seal containers of waste materials that can release odor or dust.
- Protect stored on-site or installed absorptive building materials from weather and moisture; wrap with plastic and seal tight to prevent moisture absorption.
- The General Contractor shall take photographs showing measures in place.

3. Pathway Interruption:

- Provide dust curtains or temporary enclosures to prevent dust from migrating to other areas when applicable.
- Locate pollutant sources as far away as possible from supply ducts and areas occupied by workers when feasible. Supply and exhaust systems may have to be shut down or isolated during such activity.
- During construction, isolate areas of work to prevent contamination of clean or occupied areas. Pressure differentials may be utilized to prevent contaminated air from entering clean areas.
- Depending on weather, ventilation using 100% outside air will be used to exhaust contaminated air directly to the outside during installation of VOC emitting materials.

4. Housekeeping:

- Provide regular cleaning concentrating on HVAC equipment and building spaces to remove contaminants from the building prior to occupancy.
- All coils, air filters, fans and ductwork shall remain clean during installation and, if required, will be cleaned prior to performing the testing, adjusting and balancing of the systems.
- Suppress and minimize dust with wetting agents or sweeping compounds. Utilize efficient and effective dust collecting methods such as a damp cloth, wet mop, or vacuum with particulate filters, or wet scrubber.
- Remove accumulations of water inside the building. Protect porous materials such as insulation and ceiling tile from exposure to moisture.
- Thoroughly clean all interior surfaces prior to replacing filters and running HVAC system for system balancing, commissioning and building flushout.
- Provide photographs of the above activities during construction to document compliance.

5. Scheduling and Construction Activity Sequence:

- Schedule high pollution activities that utilize high VOC level products (including paints, sealers, insulation, adhesives, caulking and cleaners) to take place prior to installing highly absorbent materials (such as ceiling tiles, gypsum wall board, fabric furnishing, carpet and insulation, for example). These materials will act as 'sinks' for VOCs, odors and other contaminants, and release them later after occupancy.

PLANNING AND INSPECTION CHECKLISTS

The planning and inspection checklists included in this document are useful to ensure construction IAQ management is planned and implemented correctly. The planning checklist should be completed by the contractor prior to construction. The inspection checklists should be completed monthly to confirm the IAQ management plan is being followed. At the time of inspection, photographs should be taken to support the checklist.

INDOOR AIR QUALITY PLANNING CHECKLIST
(Must be completed weekly)**Project** _____**Completed by:** _____
(Name & Company)**Date:** _____**1. HVAC System Protection:**

- ☐ MERV 13 filters at supply air intake
- ☐ MERV 8 filters at return air openings
- ☐ Seal supply diffusers and return air during demolition
- ☐ Seal supply diffusers and return air openings during construction
- ☐ Mechanical rooms clean and neat
- ☐ Periodic duct inspections during construction
- ☐ General Contractor to document with photographs

2. Containment Source Control:

- ☐ Low/no VOC products as indicated by specifications
- ☐ Restrict vehicle traffic volume and prohibit idling
- ☐ Utilize electric or natural gas alternatives for gasoline and diesel
- ☐ Cycle equipment off when not being used or needed
- ☐ Exhaust pollution sources to the outside
- ☐ Keep containers of wet products closed
- ☐ Cover or seal containers of waste materials
- ☐ Protect absorptive building materials from weather and moisture
- ☐ Prevent fume migration from construction vehicles and equipment into adjacent buildings
- ☐ General Contractor to document with photographs

3. Pathway Interruption:

- ☐ Provide dust curtains or temporary enclosures
- ☐ Locate pollutant sources as far away as possible from supply ducts and areas occupied by workers
- ☐ General Contractor to document with photographs
- ☐ Isolate areas of work to prevent contamination of clean or occupied areas
- ☐ When using VOC emitting materials ventilate using 100% outside air
- ☐ General Contractor to document with photographs

4. Housekeeping:

- ☐ Provide regular cleaning, including HVAC equipment
- ☐ If necessary clean HVAC equipment prior to testing, adjusting and balancing the systems
- ☐ Suppress and minimize dust with wetting agents or sweeping compounds
- ☐ Remove accumulations of water inside the building
- ☐ Protect porous materials
- ☐ General Contractor to document with photographs

5. Scheduling and Construction Activity Sequence:

- ☐ Schedule high pollution activities prior to installing absorbent materials
- ☐ General Contractor to document with photographs

I confirm the checked activities to be proceeding according to the Construction Indoor Air Quality Plan. Items that are not checked will be addressed, initialed and dated once corrective actions have been taken. Items that are not applicable are labeled as such.

Signed: _____
(Contractor)

Date: _____

INDOOR AIR QUALITY INSPECTION CHECKLIST
(Must be completed weekly)

Project _____

Completed by: _____
(Name & Company)

Date: _____

1. HVAC System Protection:

- ☐ MERV 13 filters at supply air intake
- ☐ MERV 8 filters at return air openings
- ☐ Seal supply diffusers and return air during demolition
- ☐ Seal supply diffusers and return air openings during construction
- ☐ Mechanical rooms clean and neat
- ☐ Periodic duct inspections during construction
- ☐ General Contractor to document with photographs

2. Containment Source Control:

- ☐ Low/no VOC products as indicated by specifications
- ☐ Restrict vehicle traffic volume and prohibit idling
- ☐ Utilize electric or natural gas alternatives for gasoline and diesel
- ☐ Cycle equipment off when not being used or needed
- ☐ Exhaust pollution sources to the outside
- ☐ Keep containers of wet products closed
- ☐ Cover or seal containers of waste materials
- ☐ Protect absorptive building materials from weather and moisture
- ☐ General Contractor to document with photographs

3. Pathway Interruption:

- ☐ Provide dust curtains or temporary enclosures
- ☐ Locate pollutant sources as far away as possible from supply ducts and areas occupied by workers
- ☐ General Contractor to document with photographs
- ☐ Isolate areas of work to prevent contamination of clean or occupied areas
- ☐ When using VOC emitting materials ventilate using 100% outside air
- ☐ General Contractor to document with photographs

4. Housekeeping:

- ☐ Provide regular cleaning, including HVAC equipment
- ☐ If necessary clean HVAC equipment prior to testing, adjusting, and balancing the systems
- ☐ Suppress and minimize dust with wetting agents or sweeping compounds
- ☐ Remove accumulations of water inside the building
- ☐ Protect porous materials
- ☐ General Contractor to document with photographs

5. Scheduling and Construction Activity Sequence:

- ☐ Schedule high pollution activities prior to installing absorbent materials
- ☐ General Contractor to document with photographs

I confirm the checked activities to be proceeding according to the Construction Indoor Air Quality Plan. Items that are not checked will be addressed, initialed and dated once corrective actions have been taken. Items that are not applicable are labeled as such.

Signed: _____
(Contractor)

Date: _____

SECTION 01 40 00**QUALITY REQUIREMENTS****PART 1 - GENERAL****1.01 SUMMARY**

- A. This Section includes administrative and procedural requirements for quality assurance and quality control.
 - 1. Testing and inspecting services are required to verify compliance with requirements specified or indicated. These services do not relieve Contractor of responsibility for compliance with the Contract Document requirements.
 - a. Specific quality-assurance and -control requirements for individual construction activities are specified in the Sections that specify those activities. Requirements in those Sections may also cover production of standard products.
 - b. Specified tests, inspections, and related actions do not limit Contractor's other quality-assurance and -control procedures that facilitate compliance with the Contract Document requirements.
 - c. Requirements for Contractor to provide quality-assurance and -control services required by Architect, University, or authorities having jurisdiction are not limited by provisions of this Section.
 - d. Specific test and inspection requirements are not specified in this Section.
- B. Related Requirements:
 - 1. Division 01 Section "References" for list of references, standards and definitions.

1.02 DEFINITIONS

- A. Quality-Assurance Services: Activities, actions, and procedures performed before and during execution of the Work to guard against defects and deficiencies and substantiate that proposed construction will comply with requirements.
- B. Quality-Control Services: Tests, inspections, procedures, and related actions during and after execution of the Work to evaluate that actual products incorporated into the Work and completed construction comply with requirements. Services do not include contract enforcement activities performed by Architect.
- C. Mockups: Full-size physical assemblies that are constructed on-site. Mockups are constructed to verify selections made under Sample submittals; to demonstrate aesthetic effects and, where indicated, qualities of materials and execution; to review coordination, testing, or operation; to show interface between dissimilar materials; and to demonstrate compliance with specified installation tolerances. Mockups are not Samples. Unless otherwise indicated, approved mockups establish the standard by which the Work will be judged.
 - 1. As indicated in individual Specifications Sections or on the Drawings, the Work may include the following types of mockups:
 - a. Room Mockups: Mockups of typical interior spaces complete with finishes.

- D. Installer/Applicator/Erector: Contractor or another entity engaged by Contractor as an employee, Subcontractor, or Sub-subcontractor, to perform a particular construction operation, including installation, erection, application, and similar operations.
 - 1. Use of trade-specific terminology in referring to a trade or entity does not require that certain construction activities be performed by accredited or unionized individuals, or that requirements specified apply exclusively to specific trade(s).
- E. Experienced: When used with an entity or individual, "experienced" means having successfully completed a minimum of five previous projects similar in nature, size, and extent to this Project; being familiar with special requirements indicated; and having complied with requirements of authorities having jurisdiction.

1.03 CONFLICTING REQUIREMENTS

- A. Referenced Standards: If compliance with two or more standards is specified and the standards establish different or conflicting requirements for minimum quantities or quality levels, comply with the most stringent requirement. Refer conflicting requirements that are different, but apparently equal, to Architect for a decision before proceeding.
- B. Minimum Quantity or Quality Levels: The quantity or quality level shown or specified shall be the minimum provided or performed. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. To comply with these requirements, indicated numeric values are minimum or maximum, as appropriate, for the context of requirements. Refer uncertainties to Architect for a decision before proceeding.

1.04 INFORMATIONAL SUBMITTALS

- A. Schedule of Tests and Inspections: Prepare in tabular form and include the following:
 - 1. Specification Section number and title.
 - 2. Entity responsible for performing tests and inspections.
 - 3. Description of test and inspection.
 - 4. Identification of applicable standards.
 - 5. Identification of test and inspection methods.
 - 6. Number of tests and inspections required.
 - 7. Time schedule or time span for tests and inspections.
 - 8. Requirements for obtaining samples.
 - 9. Unique characteristics of each quality-control service.

1.05 REPORTS AND DOCUMENTS

- A. Test and Inspection Reports: Prepare and submit certified written reports specified in other Sections. Include the following:
 - 1. Date of issue.
 - 2. Project title and number.
 - 3. Name, address, and telephone number of testing agency.
 - 4. Dates and locations of samples and tests or inspections.

5. Names of individuals making tests and inspections.
 6. Description of the Work and test and inspection method.
 7. Identification of product and Specification Section.
 8. Complete test or inspection data.
 9. Test and inspection results and an interpretation of test results.
 10. Record of temperature and weather conditions at time of sample taking and testing and inspecting.
 11. Comments or professional opinion on whether tested or inspected Work complies with the Contract Document requirements.
 12. Name and signature of laboratory inspector.
 13. Recommendations on retesting and reinspecting.
- B. Manufacturer's Technical Representative's Field Reports: Prepare written information documenting manufacturer's technical representative's tests and inspections specified in other Sections. Include the following:
1. Name, address, and telephone number of technical representative making report.
 2. Statement on condition of substrates and their acceptability for installation of product.
 3. Statement that products at Project site comply with requirements.
 4. Summary of installation procedures being followed, whether they comply with requirements and, if not, what corrective action was taken.
 5. Results of operational and other tests and a statement of whether observed performance complies with requirements.
 6. Statement whether conditions, products, and installation will affect warranty.
 7. Other required items indicated in individual Specification Sections.
- C. Factory-Authorized Service Representative's Reports: Prepare written information documenting manufacturer's factory-authorized service representative's tests and inspections specified in other Sections. Include the following:
1. Name, address, and telephone number of factory-authorized service representative making report.
 2. Statement that equipment complies with requirements.
 3. Results of operational and other tests and a statement of whether observed performance complies with requirements.
 4. Statement whether conditions, products, and installation will affect warranty.
 5. Other required items indicated in individual Specification Sections.
- D. Permits, Licenses, and Certificates: For University's records, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, correspondence, records, and similar documents, established for compliance with standards and regulations bearing on performance of the Work.
- 1.06 QUALITY ASSURANCE
- A. General: Qualifications paragraphs in this article establish the minimum qualification levels required; individual Specification Sections specify additional requirements.
1. Monitor quality control over products, services, site conditions, and workmanship to produce work of specified quality.

2. Comply fully with manufacturers' instructions, including each step in sequence.
 3. If manufacturers' instructions conflict with Contract Document requirements, request clarification from Architect before proceeding.
 4. Comply with specified standards as a minimum quality for the work except when more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
 5. Perform work by persons qualified to produce workmanship of specified quality.
- B. Manufacturer Qualifications: A firm experienced in manufacturing products or systems similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.
- C. Fabricator Qualifications: A firm experienced in producing products similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.
- D. Subcontractor and Installer Qualifications: A firm or individual experienced in installing, erecting, or assembling work similar in material, design, and extent to that indicated for this Project, whose work has resulted in construction with a record of successful in-service performance. In addition comply with the following:
1. For all trades: Proof of applicable licensing.
 2. Electrical contractors:
 - a. Company: State of Colorado master electrician license.
 - b. On-site electricians: State of Colorado journeyman license.
 3. Plumbing Contractors:
 - a. Company: State of Colorado master plumbers license.
 - b. On-site plumbers: State of Colorado journeyman license.
 - c. Gas piping installations: State of Colorado master plumber with minimum 5 years institutional or heavy commercial gas piping experience. Provide an on-site supervisor with a minimum of 3 years of supervisory experience.
- E. Professional Engineer Qualifications: A professional engineer who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing engineering services of the kind indicated. Engineering services are defined as those performed for installations of the system, assembly, or product that are similar in material, design, and extent to those indicated for this Project.
- F. Specialists: Certain Specification Sections require that specific construction activities shall be performed by entities who are recognized experts in those operations. Specialists shall satisfy qualification requirements indicated and shall be engaged for the activities indicated.
1. Requirements of authorities having jurisdiction shall supersede requirements for specialists.
- G. Testing Agency Qualifications: An NRTL, an NVLAP, or an independent agency with the experience and capability to conduct testing and inspecting indicated, as documented according to ASTM E 329 or ASTM D 3740 as appropriate; and with additional qualifications

specified in individual Sections; and, where required by authorities having jurisdiction, that is acceptable to authorities.

1. NRTL: A nationally recognized testing laboratory according to 29 CFR 1910.7.
 2. NVLAP: A testing agency accredited according to NIST's National Voluntary Laboratory Accreditation Program.
 3. Independent Agency: Meeting "Recommended Requirements for Independent Laboratory Qualifications" published by American Council for Independent Laboratories.
 4. Authorized to operate in the State of Colorado.
 5. Calibrate testing equipment at reasonable intervals with devices of accuracy traceable to National Bureau of Standards or of accepted values of natural physical constants.
- H. Manufacturer's Technical Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to observe and inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.
- I. Factory-Authorized Service Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.
- J. Mockups: Before installing portions of the Work requiring mockups, build mockups for each form of construction and finish required to comply with the following requirements, using materials indicated for the completed Work:
1. Build mockups in location and of size indicated or, if not indicated, as directed by Architect.
 2. Notify Architect seven calendar days in advance of dates and times when mockups will be constructed.
 3. Employ supervisory personnel who will oversee mockup construction. Employ workers that will be employed during the construction at Project.
 4. Demonstrate the proposed range of aesthetic effects and workmanship.
 5. Obtain Architect's approval of mockups before starting work, fabrication, or construction.
 - a. Allow seven calendar days for initial review and each re-review of each mockup.
 6. Maintain mockups during construction in an undisturbed condition as a standard for judging the completed Work.
 7. Demolish and remove mockups when directed unless otherwise indicated.
- K. Room Mockups: When indicated on Drawings, construct room mockups incorporating required materials and assemblies, finished according to requirements. Provide required lighting and additional lighting where required to enable Architect to evaluate quality of the Work. Provide room mockups of the following rooms:

1.07 QUALITY CONTROL

- A. University Responsibilities: Where quality-control services are indicated as University's responsibility, University will engage a qualified testing agency to perform these services.
1. University will furnish Contractor with names, addresses, and telephone numbers of testing agencies engaged and a description of types of testing and inspecting they are engaged to perform.
 2. Payment for these services will be made by the University.
 3. Costs for retesting and reinspecting construction that replaces or is necessitated by work that failed to comply with the Contract Documents will be charged to Contractor.
- B. Contractor Responsibilities: Tests and inspections not explicitly assigned to University are Contractor's responsibility. Perform additional quality-control activities required to verify that the Work complies with requirements, whether specified or not.
1. Unless otherwise indicated, provide quality-control services specified and those required by authorities having jurisdiction. Perform quality-control services required of Contractor by authorities having jurisdiction, whether specified or not.
 2. Where services are indicated as Contractor's responsibility, engage a qualified testing agency to perform these quality-control services.
 - a. Contractor shall not employ same entity engaged by University, unless agreed to in writing by University.
 3. Notify testing agencies at least 24 hours in advance of time when Work that requires testing or inspecting will be performed.
 4. Where quality-control services are indicated as Contractor's responsibility, submit a certified written report, in duplicate, of each quality-control service.
 5. Testing and inspecting requested by Contractor and not required by the Contract Documents are Contractor's responsibility.
 6. Submit additional copies of each written report directly to authorities having jurisdiction, when they so direct.
- C. Manufacturer's Field Services: Where indicated, engage a factory-authorized service representative to inspect field-assembled components and equipment installation, including service connections. Report results in writing as specified in Division 01 Section "Submittal Procedures."
- D. Manufacturer's Technical Services: Where indicated, engage a manufacturer's technical representative to observe and inspect the Work. Manufacturer's technical representative's services include participation in preinstallation conferences, examination of substrates and conditions, verification of materials, observation of Installer activities, inspection of completed portions of the Work, and submittal of written reports.
- E. Manufactured Items and Equipment: Where manufactured products or equipment are required to have representative samples tested, do not use such materials or equipment until tests have been made and the materials or equipment found to be acceptable. Do not incorporate in the work any product which becomes unfit for use after acceptance.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.01 REPAIR AND PROTECTION

- A. General: On completion of testing, inspecting, sample taking, and similar services, repair damaged construction and restore substrates and finishes.
 - 1. Provide materials and comply with installation requirements specified in other Specification Sections or matching existing substrates and finishes. Restore patched areas and extend restoration into adjoining areas with durable seams that are as invisible as possible. Comply with the Contract Document requirements for cutting and patching in Division 01 Section "Execution".
- B. Protect construction exposed by or for quality-control service activities.
- C. Repair and protection are Contractor's responsibility, regardless of the assignment of responsibility for quality-control services.

END OF SECTION

SECTION 01 41 00

REGULATORY REQUIREMENTS

PART 1 - GENERAL

1.01 SUMMARY

- A. This Section includes the following:
 - 1. Building Department Authority.
 - 2. MS 4 Storm Water and Water Quality Permits
 - 3. Applicable Codes and Standards.

1.02 BUILDING DEPARTMENT AUTHORITY

- A. The University of Colorado Anschutz Medical Campus is charged with the responsibility of ensuring that provision of applicable codes, standards and guidelines are met on its campuses.
- B. The University of Colorado Anschutz Medical Campus has an established Building Authority responsible to review and examine buildings and plan documents, to permit and inspect construction and/or demolition to ensure conformance to codes adopted by the University and issue certificates of temporary occupancy and occupancy if satisfactory conformance is demonstrated.
- C. The authority is executed by the Campus Building Official (CBO) who has the responsibility to perform all the duties set forth in the Current Approved State Buildings Codes and other applicable codes and standards indicated in the "Applicable Codes and Standards" Article of this Section.
- D. Permits: Obtain a separate permit for each Project from the Office of the CBO prior to erecting, constructing, enlarging, repairing, moving, removing, converting or demolishing any building or portion thereof. Coordinate and obtain all permits through the University Project Manager. The Contractor is not responsible for costs associated with construction permits.
 - 1. Exempt work: A building permit is not required for the following:
 - a. Fences less than or equal to 6 feet tall.
 - b. Movable casework, counters and partitions not over 5 feet 9 inches tall with no electrical or plumbing.
 - c. Platforms, walks, and driveways not more than 30 inches above grade and not over any basement or story below.
 - d. Painting, papering and similar finish work.
 - e. Other work of limited scope at the discretion of the CBO.

- E. Permit Issuance: The CBO, or at the discretion of the CBO a third-party code consultant, will review application, Drawings, Specifications, computations and other data filed for permit. Complete the permit application with the University Project Manager. Permits require submittal of two (2) stamped, signed sets of Construction Documents, including Drawings, Specifications and all Addenda, and one (1) set of each engineering discipline's calculations, where such calculations are required. If CBO determines that submittal conforms to the requirements of the Building Code and other applicable codes, standards, laws, regulations and ordinances, an inspection record card will be issued with the building permit. Keep one stamped set of documents on site. The University will keep one stamped set in the Campus Support plan room.
- F. Suspension or Revocation of Permit: CBO may, in writing, suspend or revoke a permit issued in error or on the basis of submitted information that is incorrect or that is in violation of the Building Code and other applicable codes and standards.
- G. Posting of Permit: Post the Permit in a visible and protected location near the access to the project.
- H. Inspection Record Card: Post the Inspection Record Card next to the permit in a visible and protected location near the access to the project. CBO will make required entries based on inspection of the work.
- I. Inspection Requests:
 - 1. Notify CBO that work is ready for inspection two business days before such inspection is desired by telephoning the number posted on the permit. The CBO retains the right to require requests in writing.
 - 2. A re-inspection fee may be charged for prior rejected items.
- J. Construction Inspections:
 - 1. Contractor is not responsible for costs associated with construction inspections, except re-inspections. The CBO or his/her designee will perform all general building, electrical and plumbing inspections. All construction or work for which a permit is required must remain accessible and exposed for inspection purposes. Provide access to and means for inspection of work.
 - 2. Provisions for structural and other special inspections required by Contract Documents, current approved State Building Codes and University Codes will be provided by the University.

K. Certification of Occupancy:

1. When CBO inspects the project and finds no violations of any provision of the Building Code, other applicable codes, standards, laws, regulations and ordinances, CBO will issue a Certification of Occupancy (CO) which will contain the following:
 - a. Building permit number.
 - b. Address of building.
 - c. Name and address of Owner.
 - d. Description of building or portion thereof for which certification is issued.
 - e. Statement that described building or portion thereof has been inspected for compliance with the requirements of the Building Code, other applicable codes, standards, laws, regulations and ordinances, as relates to type of occupancy and use for which the building is intended.
2. Temporary Certificate of Occupancy (TCO): If CBO finds no substantial hazard will result from occupancy of any building or portion thereof before the same is completed, CBO may issue a TCO for the use of a portion or portions of a building or structure prior to the completion of the entire building or structure.
3. Posting of CO: Provide a copy to the University Project Manager and post in a conspicuous location on the premises. CO may not be removed except by CBO upon initial occupancy.
4. Revocation of CO:

1.03 APPLICABLE CODES AND STANDARDS

- A. The following approved building codes and standards have been adopted by State Buildings Programs (SBP) as the minimum requirements to be applied to all state-owned buildings and physical facilities including capital construction and controlled maintenance construction projects. Current applicable codes can be obtained from The Office of the State Architect's website.
- B. University of Colorado | Anschutz Medical Campus Codes and Standards: The following codes and standards supplement those indicated on the Office of the State Architect website.
 1. The Manual of Guidelines and Standards for Construction Projects:
<http://ucdenver.edu/about/departments/FacilitiesManagement/FacilitiesProjects/Pages/GuidelinesStandards.aspx>
 2. Colorado Rules and Regulations pertaining to Radiation Control, 6 CCR 1007 Part 1-20.
 3. Colorado Rules and Regulations pertaining Air Quality Control Commission Regulations, 5 CCR 1001-10, Part B "Asbestos Control."
 4. Colorado Rules and Regulations pertaining to Solid Waste, 6 CCR 1007-2.
 5. Colorado Rules and Regulations pertaining to Hazardous Waste, 6 CCR 1007-3.
 6. Federal Hazardous Waste Regulations, 40 CFR, Parts 260 through 264.
 7. Federal Clean Water Act (CWA) is 33 U.S.C § 1251 et seq. (1972).
 8. University of Colorado | Anschutz Medical Campus, Asbestos Contaminated Soil Management, Standard Operating Procedure (SOP) Document.
 9. NFPA 30: Flammable and Combustible Liquids Code.
 10. NFPA 45: Standard on Fire Protection for Laboratories Using Chemicals.

11. NFPA 72: National Fire Alarm and Signaling Code.
12. Life Safety Code (NFPA 101) – latest edition.
 - a. Use the most restrictive interpretation where NFPA 101 conflicts with the IBC requirements.
13. ANSI/AIHA Z9.5 Laboratory Ventilation – latest edition:
<http://www.aiha.org/insideaiha/standards/Pages/ANSIZ9.aspx>.
14. ANSI/AIHA Z9.6 Exhaust Systems for Grinding, Buffing and Polishing – latest edition:
<http://www.aiha.org/insideaiha/standards/Pages/ANSIZ9.aspx>.
15. ANSI/AIHA Z9.10 Fundamentals Governing the Design and Operation of Dilution Ventilation Systems in Industrial Occupancies – latest edition:
<http://www.aiha.org/insideaiha/standards/Pages/ANSIZ9.aspx>.
16. ANSI/ASHRAE/ASHE Standard 170 – Ventilation of Healthcare Facilities – latest edition.
17. ASHRAE 62.1 – Ventilation for Acceptable Indoor Air Quality.
18. OSHA "Safety and Health Regulation for Construction" (29 CFR 1926).
19. OSHA "Occupational Safety and Health Standards" (29 CFR 1910).
20. American Institute of Architects, Academy of Architecture for Health (AIA AAHA) and Facility Guidelines Institute (FGI), Guidelines for Design and Construction of Hospital and Healthcare Facilities – latest edition (FOR PATIENT CARE AREAS ONLY).
21. CDC-NIH Biosafety in Microbiological and Biomedical Laboratories (BMBL); latest edition.
22. NIH Design Requirements Manual (DRM) – latest edition:
<http://orf.nih.gov/PoliciesAndGuidelines/BiomedicalandAnimalResearchFacilitiesDesignPoliciesandGuidelines/DesignRequirementsManualPDF.htm>.
23. NIH Guidelines for Research Involving Recombinant DNA Molecules – latest edition.
24. ILAR Guide for Care and Use of Laboratory Animals - latest edition.
25. National Research Council of the National Academies, Institute for Laboratory Animal Research, Division on Earth and Life Studies: Guide for the Care and Use of Laboratory Animals - latest edition.
26. Uniform Federal Accessibility Standards (UFAS) – latest edition.
27. Metro Wastewater District's Rules and Regulations, (Sections 6.17 [6.13, 6.14] and 6.18).
28. City of Aurora Asphalt and Paving Standards - latest edition.

C. Other Standards: As indicated in individual Specification Sections.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

SECTION 01 42 00

REFERENCES

PART 1 - GENERAL

1.01 SUMMARY

- A. This Section includes the following:
 - 1. Definitions.
 - 2. Industry Standards.
 - 3. Abbreviations and Acronyms.
- B. Related Requirements:
 - 1. Division 01 Section "Summary" for an explanation of specification and drawing conventions.
 - 2. Division 01 Section "Regulatory Requirements" for a list of applicable codes.

1.02 DEFINITIONS

- A. General: Basic Contract definitions are included in the Conditions of the Contract.
 - 1. Definitions in this Section are not intended to be complete, exhaustive or exclusive. They are general and apply to the Work to the extent that such definitions are not stated more explicitly in other provisions of the Contract Documents.
- B. "Approved": When used to convey Architect's action on Contractor's submittals, applications, and requests, "approved" is limited to Architect's duties and responsibilities as stated in the Conditions of the Contract. Except where expressly indicated, such approval does not release the Contractor from responsibility to fulfill requirements of the Contract Documents.
- C. "Backup": N+1 system.
- D. "Directed": A command or instruction by Architect. Other terms including "requested," "authorized," "selected," "required," and "permitted" have the same meaning as "directed."
- E. "EHS": Environmental Health and Safety.
- F. "Engineer": Architect. Other terms including "Mechanical Engineer", "Electrical Engineer", or "Structural Engineer" have the same meaning as "Engineer".
- G. "General Conditions": Contract terms contained in Contractor's Agreement Design/Bid/Build, State Form SC-6.21 and The General Conditions of the Construction Contract Design/Bid/Build, State Form SC-6.23.
- H. "General Requirements": Provisions and requirements of all Division 01 Sections as they apply to all aspects of the Work.

- I. "Guarantee": The narrow definition of the term "warranty" applying to both "warranty" and "guarantee" which terms are used interchangeably.
- J. "Indicated": Requirements expressed by graphic representations or in written form on Drawings, in Specifications, and in other Contract Documents. Other terms including "shown," "noted," "scheduled," and "specified" have the same meaning as "indicated."
- K. "Redundant": 2N system. The level of redundancy is determined by design.
- L. "Regulations": Laws, ordinances, statutes, and lawful orders issued by authorities having jurisdiction, and rules, conventions, and agreements within the construction industry that control performance of the Work, whether lawfully imposed by authorities having jurisdiction or not.
- M. "Furnish": Supply and deliver to Project site, ready for unloading, unpacking, assembly, installation, and similar operations.
- N. "Install": Operations at Project site including unloading, temporarily storing, unpacking, assembling, erecting, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning, and similar operations.
- O. "Owner": Principal Representative and/or University.
- P. "Provide": Furnish and install, complete and ready for the intended use.
- Q. "Project Manual": Bound, printed volume or volumes including Conditions of the Contract and Specifications, which may also include bidding requirements, contract forms, details, schedules, surveys, reports or other relevant items that may or may not be Contract Documents.
- R. "Project Site": Space available for performing construction activities, either exclusively or in conjunction with others performing other work as part of the Project. The extent of Project site is shown on Drawings and may or may not be identical with the description of the land on which Project is to be built.
- S. "Supplementary Conditions": University Special Supplementary General Conditions. Other terms including "Supplementary General Conditions" shall have the same meaning.

1.03 INDUSTRY STANDARDS

- A. Applicability of Standards: Unless the Contract Documents include more stringent requirements, applicable construction industry standards have the same force and effect as if bound or copied directly into the Contract Documents to the extent referenced. Such standards are made a part of the Contract Documents by reference.
 - 1. Referenced standards take precedence over standards that are not referenced but generally recognized in the construction industry as applicable.

- B. Publication Dates: Comply with standards in effect as of date of the Contract Documents.
1. Updated Codes and Standards: Where an applicable code or standard has been revised and reissued after the date of the Contract Documents and before performance of Work affected, submit Contractor-Initiated Change Order Bulletin and Change Order Proposal in accordance with Division 01 Section "Contract Modification Procedures" for consideration to modify contract requirements to comply with revised code or standard.
- C. Copies of Standards: Each entity engaged in construction on Project should be familiar with industry standards applicable to its construction activity. Copies of applicable standards are not bound with the Contract Documents.
1. Where copies of standards are needed to perform a required construction activity, obtain copies directly from publication source.
 2. Where required by individual Specification Sections provide and maintain copies of referenced codes and standards at Project Site.
 3. Although copies of standards needed for enforcement of requirements may be part of required submittals, the Architect reserves the right to require the Contractor to submit additional copies as necessary for enforcement of requirements.
- D. Unreferenced Standards: Unreferenced standards are not directly applicable to the Work, except as a general requirement of whether the Work complies with recognized construction industry standards.
- E. Conflicting Requirements: Where compliance with two or more standards is specified, and they establish different or conflicting requirements for minimum quantities or quality levels, the most stringent requirement will be enforced, unless the Contract Documents indicate otherwise. Refer requirements that are different, but apparently equal, and uncertainties as to which quality level is more stringent to the Architect for a decision before proceeding.

1.04 ABBREVIATIONS AND ACRONYMS

- A. Industry Organizations: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities indicated in Gale's "Encyclopedia of Associations" or in Columbia Books' "National Trade & Professional Associations of the United States."
- B. Industry Organizations: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in the following list. Names, telephone numbers, and Web sites are subject to change and are believed to be accurate and up-to-date as of the date of the Contract Documents.

AA	Aluminum Association, Inc. (The): www.aluminum.org	(703) 358-2960
AAADM	American Association of Automatic Door Manufacturers: www.aaadm.com	(216) 241-7333
AABC	Associated Air Balance Council: www.aabchq.com	(202) 737-0202
AAMA	American Architectural Manufacturers Association: www.aamanet.org	(847) 303-5664

AASHTO	American Association of State Highway and Transportation Officials: www.transportation.org	(202) 624-5800
AATCC	American Association of Textile Chemists & Colorists: www.aatcc.org	(919) 549-8141
ABAA	Air Barrier Association of America: www.airbarrier.org	(866) 956-5888
ABMA	American Bearing Manufacturers Association: www.abma-dc.org	(202) 367-1155
ACI	American Concrete Institute: www.concrete.org	(248) 848-3700
ACPA	American Concrete Pipe Association: www.concrete-pipe.org	(972) 506-7216
AEIC	Association of Edison Illuminating Companies, Inc. www.aeic.org	(205) 257-2530
AF&PA	American Forest & Paper Association: www.afandpa.org	(800) 878-8878
AGA	American Gas Association: www.aga.org	(202) 824-7000
AGC	Associated General Contractors of America (The): www.agc.org	(703) 548-3118
AHAM	Association of Home Appliance Manufacturers: www.aham.org	(202) 872-5955
AHRI	Air-Conditioning, Heating, and Refrigeration Institute: www.ahrinet.org	(703) 524-8800
AI	Asphalt Institute: www.asphaltinstitute.org	(859) 288-4960
AIA	American Institute of Architects (The): www.aia.org	(800) 242-3837
AISC	American Institute of Steel Construction: www.aisc.org	(800) 644-2400
AISI	American Iron and Steel Institute: www.steel.org	(202) 452-7100
AITC	American Institute of Timber Construction: www.aitc-glulam.org	(303) 792-9559
ALSC	American Lumber Standard Committee, Inc.: www.alsc.org	(301) 972-1700
AMCA	Air Movement and Control Association International, Inc. www.amca.org	(847) 394-0150
ANSI	American National Standards Institute: www.ansi.org	(202) 293-8020
AOSA	Association of Official Seed Analysts, Inc. www.aosaseed.com	(405) 780-7372
APA	Architectural Precast Association: www.archprecast.org	(239) 454-6989
APA	APA - The Engineered Wood Association: www.apawood.org	(253) 565-6600
API	American Petroleum Institute: www.api.org	(202) 682-8000
ARMA	Asphalt Roofing Manufacturers Assoc.: www.asphaltroofing.org	(202) 207-0917
ASCE	American Society of Civil Engineers: www.asce.org	(800) 548-2723
ASHRAE	American Society of Heating, Refrigerating and Air-Conditioning Engineers: www.ashrae.org	(800) 527-4723
ASME	ASME International: www.asme.org	(800) 843-2763
ASSE	American Society of Safety Engineers: www.asse.org	(847) 699-2929
ASSE	American Society of Sanitary Engineering: www.asse-plumbing.org	(440) 835-3040
ASTM	ASTM International: www.astm.org	(610) 832-9500
ATIS	Alliance for Telecommunications Industry Solutions: www.atis.org	(202) 628-6380
AWCI	Association of the Wall and Ceiling Industry: www.awci.org	(703) 534-8300
AWI	Architectural Woodwork Institute: www.awinet.org	(571) 323-3636

AWPA	American Wood Protection Association: www.awpa.com	(205) 733-4077
AWS	American Welding Society: www.aws.org	(800) 443-9353
AWWA	American Water Works Association: www.awwa.org	(800) 926-7337
BHMA	Builders Hardware Manufacturers Association: www.buildershardware.com	(212) 297-2122
BIA	Brick Industry Association (The): www.bia.org	(703) 620-0010
BICSI	BICSI, Inc. www.bicsi.org	(800) 242-7405
BIFMA	BIFMA International: www.bifma.com	(616) 285-3963
BISSC	Baking Industry Sanitation Standards Committee: www.bissc.org	(866) 342-4772
CCC	Carpet Cushion Council: www.carpetcushion.org	(610) 527-3880
CDA	Copper Development Association: www.copper.org	(212) 251-7200
CEA	Consumer Electronics Association: www.ce.org	(866) 858-1555
CFFA	Chemical Fabrics & Film Association, Inc. www.chemicalfabricsandfilm.com	(216) 241-7333
CGA	Compressed Gas Association: www.cganet.com	(703) 788-2700
CIMA	Cellulose Insulation Manufacturers Assoc: www.cellulose.org	(888) 881-2462
CISCA	Ceilings & Interior Systems Construction Association: www.cisca.org	(630) 584-1919
CISPI	Cast Iron Soil Pipe Institute: www.cispi.org	(423) 892-0137
CLFMI	Chain Link Fence Manufacturers Inst: www.chainlinkinfo.org	(301) 596-2583
CRRC	Cool Roof Rating Council: www.coolroofs.org	(866) 465-2523
CPA	Composite Panel Association: www.pbmdf.com	(703) 724-1128
CPPA	Corrugated Polyethylene Pipe Association: www.plasticpipe.org	(800) 510-2772
CRI	Carpet and Rug Institute (The): www.carpet-rug.com	(706) 278-3176
CRSI	Concrete Reinforcing Steel Institute: www.crsi.org	(847) 517-1200
CSA	CSA International: www.csa-international.org	(866) 797-4272
CSI	Cast Stone Institute: www.caststone.org	(717) 272-3744
CSI	Construction Specifications Institute (The): www.csinet.org	(800) 689-2900
CTI	Cooling Technology Institute: www.cti.org	(281) 583-4087
DHI	Door and Hardware Institute: www.dhi.org	(703) 222-2010
ECA	Electronic Components Association: www.ec-central.org	(703) 907-8024
EIA	Electronic Industries Alliance: www.eia.org	(703) 907-7500
EIMA	EIFS Industry Members Association: www.eima.com	(800) 294-3462
EJCDC	Engineers Joint Contract Documents Committee: www.ejdc.org	(703) 295-5000
EJMA	Expansion Joint Manufacturers Association, Inc. www.ejma.org	(914) 332-0040
ESD	ESD Association (Electrostatic Discharge Assoc.): www.esda.org	(315) 339-6937
ETL SEMCO	Intertek ETL SEMCO: www.intertek-etlsemko.com	(800) 967-5352
FM Approvals	FM Approvals LLC: www.fmglobal.com	(781) 762-4300
FM Global	FM Global (Formerly: FMG - FM Global): www.fmglobal.com	(401) 275-3000
FSA	Fluid Sealing Association: www.fluidsealing.com	(610) 971-4850

FSC	Forest Stewardship Council: www.fsc.org	49 228 367 66 0
GA	Gypsum Association: www.gypsum.org	(202) 289-5440
GANA	Glass Association of North America: www.glasswebsite.com	(785) 271-0208
GS	Green Seal: www.greenseal.org	(202) 872-6400
GSI	Geosynthetic Institute: www.geosynthetic-institute.org	(610) 522-8440
HI	Hydraulic Institute: www.pumps.org	(973) 267-9700
HI	Hydronics Institute: www.gamanet.org	(908) 464-8200
HMMA	Hollow Metal Manufacturers Association (Part of NAAMM)	
HPVA	Hardwood Plywood & Veneer Association: www.hpva.org	(703) 435-2900
HPW	H. P. White Laboratory, Inc. www.hpwhite.com	(410) 838-6550
IAS	International Approval Services (Now CSA International)	
ICEA	Insulated Cable Engineers Association, Inc. www.icea.net	(770) 830-0369
ICRI	International Concrete Repair Institute, Inc. www.icri.org	(847) 827-0830
IEC	International Electrotechnical Commission: www.iec.ch	41 22 919 02 11
IEEE	Institute of Electrical and Electronics Engineers, Inc. www.ieee.org	(212) 419-7900
IES	Illuminating Engineering Society: www.ies.org	(212) 248-5000
IENT	Institute of Environmental Sciences and Technology: www.ient.org	(847) 981-0100
IGCC	Insulating Glass Certification Council: www.igcc.org	(315) 646-2234
IGMA	Insulating Glass Manufacturers Alliance: www.igmaonline.org	(613) 233-1510
ILI	Indiana Limestone Institute of America, Inc. www.iliai.com	(812) 275-4426
ISO	International Organization for Standardization: www.iso.ch	41 22 749 01
	Available from ANSI: www.ansi.org	11
ISSFA	International Solid Surface Fabricators Association: www.issfa.net	(877) 464-7732
ITS	Intertek Testing Service NA (Now ETL SEMCO)	
ITU	International Telecommunication Union: www.itu.int/home	41 22 730 51 11
KCMA	Kitchen Cabinet Manufacturers Association: www.kcma.org	(703) 264-1690
LPI	Lightning Protection Institute: www.lightning.org	(800) 488-6864
MBMA	Metal Building Manufacturers Association: www.mbma.com	(216) 241-7333
MFMA	Maple Flooring Manufacturers Assoc., Inc. www.maplefloor.org	(888) 480-9138
MFMA	Metal Framing Manufacturers Association, Inc. www.metalframingmfg.org	(312) 644-6610
MHIA	Material Handling Industry of America: www.mhia.org	(800) 345-1815
MIA	Marble Institute of America: www.marble-institute.com	(440) 250-9222
MPI	Master Painters Institute: www.paintinfo.com	(888) 674-8937
MSS	Manufacturers Standardization Society of The Valve and Fittings Industry Inc. www.mss-hq.com	(703) 281-6613
NAAMM	National Association of Architectural Metal Manufacturers: www.naamm.org	(630) 942-6591
NACE	NACE International (National Association of Corrosion Engineers International) www.nace.org	(800) 797-6623
NADCA	National Air Duct Cleaners Association: www.nadca.com	(202) 737-2926

NAIMA	North American Insulation Manufacturers Assoc. www.naima.org	(703) 684-0084
NCMA	National Concrete Masonry Association: www.ncma.org	(703) 713-1900
NCPI	National Clay Pipe Institute: www.ncpi.org	(262) 248-9094
NCTA	National Cable & Telecommunications Assoc: www.ncta.com	(202) 775-2300
NEBB	National Environmental Balancing Bureau: www.nebb.org	(301) 977-3698
NECA	National Electrical Contractors Association: www.necanet.org	(301) 657-3110
NeLMA	Northeastern Lumber Manufacturers' Assoc'n: www.nelma.org	(207) 829-6901
NEMA	National Electrical Manufacturers Association: www.nema.org	(703) 841-3200
NETA	InterNational Electrical Testing Association: www.netaworld.org	(888) 300-6382
NFHS	National Federation of State High School Associations: www.nfhs.org	(317) 972-6900
NFPA	NFPA (National Fire Protection Association): www.nfpa.org	(800) 344-3555
NFRC	National Fenestration Rating Council: www.nfrc.org	(301) 589-1776
NGA	National Glass Association: www.glass.org	(866) 342-5642
NHLA	National Hardwood Lumber Association: www.natlhardwood.org	(800) 933-0318
NLGA	National Lumber Grades Authority: www.nlga.org	(604) 524-2393
NOFMA	NOFMA: The Wood Flooring Manufacturers Association: www.nofma.com	(901) 526-5016
NOMMA	National Ornamental & Miscellaneous Metals Association: www.nomma.org	(888) 516-8585
NRCA	National Roofing Contractors Association: www.nrca.net	(800) 323-9545
NRMCA	National Ready Mixed Concrete Association: www.nrmca.org	(888) 846-7622
NSF	NSF International (National Sanitation Foundation International): www.nsf.org	(800) 673-6275
NSSGA	National Stone, Sand & Gravel Association: www.nssga.org	(800) 342-1415
NTMA	National Terrazzo & Mosaic Assoc., Inc. (The): www.ntma.com	(800) 323-9736
NWFA	National Wood Flooring Association: www.woodfloors.org	(800) 422-4556
NWWDA	National Wood Window and Door Association	
PCI	Precast/Prestressed Concrete Institute: www.pci.org	(312) 786-0300
PDCA	Painting & Decorating Contractors of America: www.pdca.com	(800) 332-7322
PDI	Plumbing & Drainage Institute: www.pdionline.org	(800) 589-8956
PGI	PVC Geomembrane Institute: http://pgi-tp.cce.uiuc.edu	(217) 333-3929
PLANET	Professional Landcare Network: www.landcarenetwork.org	(800) 395-2522
PTI	Post-Tensioning Institute: www.post-tensioning.org	(602) 870-7540
RCSC	Research Council on Structural Connections: www.boltcouncil.org	
RFCI	Resilient Floor Covering Institute: www.rfci.com	(301) 340-8580
RIS	Redwood Inspection Service: www.redwoodinspection.com	(925) 935-1499
SAE	SAE International: www.sae.org	(877) 606-7323
SCTE	Society of Cable Telecommunications Engineers: www.scte.org	(800) 542-5040
SDI	Steel Deck Institute: www.sdi.org	(847) 458-4647

SDI	Steel Door Institute: www.steeldoor.org	(440) 899-0010
SEFA	Scientific Equipment and Furniture Association: www.sefalabs.com	(877) 294-5424
SEI/ASCE	Structural Engineering Institute/American Society of Civil Engineers (See ASCE)	
SGCC	Safety Glazing Certification Council: www.sgcc.org	(315) 646-2234
SIA	Security Industry Association: www.siaonline.org	(866) 817-8888
SJI	Steel Joist Institute: www.steeljoist.org	(843) 626-1995
SMA	Screen Manufacturers Association: www.smainfo.org	(561) 533-0991
SMACNA	Sheet Metal and Air Conditioning Contractors' National Association: www.smacna.org	(703) 803-2980
SPFA	Spray Polyurethane Foam Alliance: www.sprayfoam.org	(800) 523-6154
SPIB	Southern Pine Inspection Bureau: www.spib.org	(850) 434-2611
SPRI	Single Ply Roofing Industry: www.spri.org	(781) 647-7026
SSINA	Specialty Steel Industry of North America: www.ssina.com	(800) 982-0355
SSPC	SSPC: The Society for Protective Coatings: www.sspc.org	(877) 281-7772
STI	Steel Tank Institute: www.steeltank.com	(847) 438-8265
SWI	Steel Window Institute: www.steelwindows.com	(216) 241-7333
SWRI	Sealant, Waterproofing, & Restoration Inst. www.swrionline.org	(816) 472-7974
TCNA	Tile Council of North America, Inc. www.tileusa.com	(864) 646-8453
TIA/EIA	Telecommunications Industry Association/Electronic Industries Alliance: www.tiaonline.org	(703) 907-7700
TMS	The Masonry Society: www.masonrysociety.org	(303) 939-9700
TPI	Truss Plate Institute, Inc. www.tpinst.org	(703) 683-1010
TRI	Tile Roofing Institute: www.tilerroofing.org	(312) 670-4177
UL	Underwriters Laboratories Inc. www.ul.com	(877) 854-3577
UNI	Uni-Bell PVC Pipe Association: www.uni-bell.org	(972) 243-3902
USAV	USA Volleyball: www.usavolleyball.org	(888) 786-5539
USGBC	U.S. Green Building Council: www.usgbc.org	(800) 795-1747
USITT	United States Institute for Theatre Technology, Inc. www.usitt.org	(800) 938-7488
WASTEC	Waste Equipment Technology Association: www.wastec.org	(800) 424-2869
WCLIB	West Coast Lumber Inspection Bureau: www.wclib.org	(800) 283-1486
WCMA	Window Covering Manufacturers Assoc: www.wcmanet.org	(212) 297-2122
WCSC	Window Covering Safety Council: www.windowcoverings.org	(800) 506-4636
WDMA	Window & Door Manufacturers Association: www.wdma.com	(800) 223-2301
WMMPA	Wood Moulding & Millwork Producers Assoc.: www.wmmpa.com	(800) 550-7889
WSRCA	Western States Roofing Contractors Assoc: www.wsrca.com	(800) 725-0333
WWPA	Western Wood Products Association: www.wwpa.org	(503) 224-3930

Code Agencies: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in the following list. Names, telephone numbers, and Web sites are subject to change and are believed to be accurate and up-to-date as of the date of the Contract Documents.

DIN	Deutsches Institut für Normung e.V. www.din.de	49 30 2601-0
IAPMO	International Association of Plumbing and Mechanical Officials: www.iapmo.org	(909) 472-4100
ICC	International Code Council: www.iccsafe.org	(888) 422-7233
ICC-ES	ICC Evaluation Service, Inc. www.icc-es.org	(800) 423-6587
UBC	Uniform Building Code (See ICC)	

- D. Federal Government Agencies: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in the following list. Names, telephone numbers, and Web sites are subject to change and are believed to be accurate and up-to-date as of the date of the Contract Documents.

CE	Army Corps of Engineers: www.usace.army.mil	(202) 761-0011
CPSC	Consumer Product Safety Commission: www.cpsc.gov	(800) 638-2772
DOC	Department of Commerce: www.commerce.gov	(202) 482-2000
DOD	Department of Defense: http://.dodssp.daps.dla.mil	(215) 697-6257
DOE	Department of Energy: www.energy.gov	(202) 586-9220
EPA	Environmental Protection Agency: www.epa.gov	(202) 272-0167
FAA	Federal Aviation Administration: www.faa.gov	(866) 835-5322
FCC	Federal Communications Commission: www.fcc.gov	(888) 225-5322
FDA	Food and Drug Administration: www.fda.gov	(888) 463-6332
GSA	General Services Administration: www.gsa.gov	(800) 488-3111
HUD	Department of Housing and Urban Development: www.hud.gov	(202) 708-1112
LBL	Lawrence Berkeley National Laboratory: www.lbl.gov	(510) 486-4000
NCHRP	National Cooperative Highway Research Program (See TRB)	
NIST	National Institute of Standards and Technology: www.nist.gov	(301) 975-6478
OSHA	Occupational Safety & Health Administration: www.osha.gov	(800) 321-6742
PBS	Public Buildings Service (See GSA)	
PHS	Office of Public Health and Science: www.hhs.gov/ophs	(202) 690-7694
RUS	Rural Utilities Service (See USDA)	(202) 720-9540
SD	State Department: www.state.gov	(202) 647-4000
TRB	Transportation Research Board: http://gulliver.trb.org	(202) 334-2934
USDA	Department of Agriculture: www.usda.gov	(202) 720-2791
USPS	Postal Service: www.usps.com	(202) 268-2000

Standards and Regulations: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the standards and regulations in the following list. Names, telephone numbers, and Web sites are subject to change and are believed to be accurate and up-to-date as of the date of the Contract Documents.

ADAAG	Americans with Disabilities Act (ADA)	(800) 872-2253
	Architectural Barriers Act (ABA)	(202) 272-0080
	Accessibility Guidelines for Buildings and Facilities. Available from U.S. Access Board: www.access-board.gov	
CFR	Code of Federal Regulations: Available from Government Printing Office: www.gpoaccess.gov/cfr/index.html	(866) 512-1800
DOD	Department of Defense Military Specifications and Standards: Available from Department of Defense Single Stock Point http://dodssp.daps.dla.mil	(215) 697-2664
DSCC	Defense Supply Center Columbus (See FS)	
FED-STD	Federal Standard (See FS)	
FS	Federal Specification: Available from Department of Defense Single Stock Point: http://dodssp.daps.dla.mil	(215) 697-2664
	Available from Defense Standardization Program: www.dps.dla.mil	
	Available from General Services Administration: www.gsa.gov	(202) 619-8925
	Available from National Institute of Building Sciences: www.wbdg.org/ccb	(202) 289-7800
FTMS	Federal Test Method Standard (See FS)	
MIL	(See MILSPEC)	
MIL-STD	(See MILSPEC)	
MILSPEC	Military Specification and Standards. Available from Department of Defense Single Stock Point: http://dodssp.daps.dla.mil	(215) 697-2664
UFAS	Uniform Federal Accessibility Standards. Available from Access Board: www.access-board.gov	(800) 872-2253

State Government Agencies: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in the following list. Names, telephone numbers, and Web sites are subject to change and are believed to be accurate and up-to-date as of the date of the Contract Documents.

CBHF	State of California, Department of Consumer Affairs Bureau of Home Furnishings and Thermal Insulation: www.dca.ca.gov/bhfti	(800) 952-5210
CCR	California Code of Regulations: www.calregs.com	(916) 323-6815
CDHS	California Department of Health Services (See CDPH)	
CDPH	California Department of Public Health, Indoor Air Quality Section: www.cal-iaq.org	(510) 620-2802
CPUC	California Public Utilities Commission: www.cpuc.ca.gov	(415) 703-2782
TFS	Texas Forest Service - Forest Resource Development: http://txforests-service.tamu.edu	(979) 458-6650

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

SECTION 01 50 00

TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.01 SUMMARY

- A. This Section includes requirements for temporary utilities, support facilities, and security and protection facilities.
 - 1. Nothing in this Section is intended to limit types and amounts of temporary work required, and no omission from this Section will be recognized as an indication by Architect that such temporary activity is not required for successful completion of the Work. The use of alternative facilities equivalent to those specified is the Contractor's option, subject to Architect's and University acceptance.
- B. Related Requirements:
 - 1. Division 01 Section "Summary" for work restrictions and limitations on utility interruptions.
 - 2. Division 01 Section "Photographic Documentation" for documenting pre-construction conditions of existing facilities.
 - 3. Division 01 Section "Indoor Air Quality Procedures" for temporary facility work including HVAC, air filtration, moisture management, air filtration and dust control partitions required to comply with indoor air quality requirements during construction.

1.02 USE CHARGES

- A. General: Installation and removal of and use charges for temporary facilities shall be included in the Contract Sum unless otherwise indicated. Allow other entities to use temporary services and facilities without cost, including, but not limited to, University's construction forces, Architect, testing agencies, and authorities having jurisdiction.
- B. Use Charges: As follows:
 - 1. For renovations of existing facilities: Arrange for and University will pay for all use charges.

1.03 INFORMATIONAL SUBMITTALS

- A. Fire-Safety Program: Show compliance with requirements of NFPA 241 and authorities having jurisdiction. Indicate Contractor personnel responsible for management of fire-prevention program.
- B. Dust- and HVAC-Control Plan: Submit coordination drawing and narrative that indicates the dust- and HVAC-control measures proposed for use, proposed locations, and proposed time frame for their operation. Identify further options if proposed measures are later determined to be inadequate. Include the following:
 - 1. Locations of dust-control partitions at each phase of work.

2. HVAC system isolation schematic drawing.
3. Location of proposed air-filtration system discharge.
4. Waste handling procedures.
5. Other dust-control measures.

1.04 QUALITY ASSURANCE

- A. General: Comply with governing regulations and utility company regulations and recommendations for the construction of temporary facilities including, but not necessarily limited to, code compliances, permits, inspections, testing, health, safety, pollution and environmental compliances.
- B. Fire-safety: Comply with NFPA 421 "Standard for Safeguarding Construction, Alteration, and Demolition Operations".
- C. Safety: Comply with ANSI/ASSE A10 "Construction Package" series of safety construction standards.
- D. Electric Service: Comply with NECA, NEMA, and UL standards and regulations for temporary electric service. Install service to comply with NFPA 70.
- E. Tests and Inspections: Arrange for authorities having jurisdiction to test and inspect each temporary utility before use. Obtain required certifications and permits.
- F. Accessible Temporary Egress: Where temporary accessible egress from existing buildings or portions thereof is provided, comply with applicable provisions in the U.S. Architectural & Transportation Barriers Compliance Board's ADA-ABA Accessibility Guidelines and ICC/ANSI A117.1.

1.05 PROJECT CONDITIONS

- A. Temporary Use of Permanent Facilities: Engage Installer of each permanent service to assume responsibility for operation, maintenance, and protection of each permanent service during its use as a construction facility before University's acceptance, regardless of previously assigned responsibilities.
- B. Conditions of Use: Keep temporary services and facilities clean and neat in appearance. Operate in a safe and efficient manner. Take necessary fire prevention measures. Do not overload facilities, or permit them to interfere with progress. Do not allow hazardous, dangerous or unsanitary conditions, or public nuisances to develop or persist on the site.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. General: Provide both new or used materials and equipment for temporary facilities, which are in substantially undamaged and serviceable condition. Provide types and qualities which are recognized in the construction industry as suitable for the intended use in each application. Comply with Utility Company requirements as applicable.

2.02 TEMPORARY FACILITIES

- A. Field Offices, General: By arrangement with the University, use of space within the existing building will be permitted for Contractor use as field office.

2.03 EQUIPMENT

- A. Fire Extinguishers: Portable, UL rated; with class and extinguishing agent as required by locations and classes of fire exposures.
- B. Digital Camera: Minimum 12 megapixel; available in field office for use.
- C. Air-Filtration Units: Primary and secondary HEPA-filter-equipped portable units with four-stage filtration. Provide single switch for emergency shutoff. Configure to run continuously.

PART 3 - EXECUTION

3.01 INSTALLATION, GENERAL

- A. Locate facilities where they will serve Project adequately and result in minimum interference with performance of the Work. Relocate, expand and modify facilities as required by progress of the Work.
- B. Provide each facility ready for use when needed to avoid delay. Do not remove until facilities are no longer needed or are replaced by authorized use of completed permanent facilities.
- C. Use qualified workers for the installation of temporary facilities.

3.02 TEMPORARY UTILITY INSTALLATION

- A. General: Install temporary service or connect to existing service.
 - 1. Arrange with utility company, University, and existing users for time when service can be interrupted, if necessary, to make connections for temporary services. Comply with requirements in Division 01 Section "Summary" for existing utility disruption procedures.

- B. Sanitary Facilities: By arrangement with University, use of designated existing facilities within existing building will be permitted.
1. Contractor will be responsible for cleaning and maintaining these facilities for the duration of the project.
 - a. If the task of cleaning and maintaining the sanitary facilities is not performed to University expectations, the Contractor will be required to install temporary facilities outside. These restroom facilities are currently shared with other building tenants on the floor. Any damages to restroom facilities caused by Contractor abuse will need to be repaired at their expense.
 2. Use of non-designated existing toilet facilities is not permitted.
 3. Supply and maintain toilet tissue, paper towels, paper cups and similar disposable materials as appropriate for each sanitary facility, and provide appropriate waste paper containers for used materials.
 4. Provide drinking water for construction personnel by either water-system-connected drinking fountains or by containerized tap dispensers with paper cups (or both).
- C. HVAC Equipment: Unless University authorizes use of permanent HVAC system, provide vented, self-contained, liquid-propane-gas or fuel-oil heaters with individual space thermostatic control.
1. Permanent HVAC System: If University authorizes use of permanent HVAC system for temporary use during construction, provide filter with MERV of 8 at each return-air and exhaust grille in system and remove at end of construction. Clean and adjust HVAC system and put in new condition before Completion as required in Division 01 Section "Closeout Procedures".
- D. Isolation of Work Areas in Occupied Facilities: Prevent dust, fumes, and odors from entering occupied areas.
1. Maintain dust partitions during the Work. Use vacuum collection attachments on dust-producing equipment. Isolate limited work within occupied areas using portable dust-containment devices.
 2. Perform daily construction cleanup and final cleanup using approved, HEPA-filter-equipped vacuum equipment.
- E. Ventilation and Humidity Control: Provide temporary ventilation required by construction activities for curing or drying of completed installations or for protecting installed construction from adverse effects of high humidity. Select equipment that will not have a harmful effect on completed installations or elements being installed. Coordinate ventilation requirements to produce ambient condition required and minimize energy consumption.
1. Provide dehumidification systems when required to reduce substrate moisture levels to level required to allow installation or application of finishes.
- F. Lighting: Provide temporary lighting with local switching that provides adequate illumination for construction operations, observations, inspections, and traffic conditions.
1. Provide temporary light to levels and as required by governing regulations but not less than minimum 5 foot-candle illumination in all areas accessible to workers during hours they are at the job; minimum 10 foot-candles for shop areas; 20 foot-candles or more where detailed or finishing work is being done, supplemented as may be required.

2. Install and operate temporary lighting that fulfills security and protection requirements without operating entire system.
3. Where permanent light fixtures have been used for temporary lighting, supply temporary lamps and replace with new lamps at time of Completion.
4. Provide lighting in stairways and exits at all times.

G. Telephone Service:

1. Provide superintendent with cellular telephone or portable two-way radio for use when away from field office.

3.03 SUPPORT FACILITIES INSTALLATION

A. Traffic Controls: Comply with requirements of authorities having jurisdiction.

1. Protect existing site improvements to remain including curbs, pavement, and utilities.
2. Maintain access for fire-fighting equipment and access to fire hydrants.

B. Parking: Comply with requirements in Division 01 Section "Summary of Work."

C. Waste Disposal Facilities: Provide waste-collection containers in sizes adequate to handle waste from construction operations. Comply with requirements of authorities having jurisdiction. Comply with progress cleaning requirements in Division 01 Section "Execution."

1. Coordinate with University Project Manager to obtain approval from University Environmental Services Manager.
2. Provide waste chutes as required in accordance with applicable laws and regulations.

D. Temporary Elevator Use: Use of elevators is not permitted without prior written approval of the Architect and University Project Manager.

1. If so approved, only one designated elevator may be used subject to the requirements of "Existing Elevator Use" paragraph below.

E. Existing Elevator Use: Existing freight elevator with existing wall protection) may be used at no charge to Contractor or other subcontractors for transporting personnel, small tools, materials, and equipment. Comply with requirements of Division 01 Section "Summary" and the following:

1. Contractor will not be granted exclusive use of the designated elevator. University personnel and staff will be permitted to use this elevator as their work duties require.
2. Total load carried does not exceed rated capacity of elevator.
3. No materials, equipment, trash, tools or other items too large to be readily moved into and out of the car may be carried in the elevator.
4. Before acceptance of the building, linings are removed; all exposed surfaces are in new condition; all controls, relays, other parts showing any wear have been replaced.

F. Existing Stair Usage: Use of University's existing stairs will be permitted, provided stairs are cleaned and maintained in a condition acceptable to University. At Substantial Completion, restore stairs to condition existing before initial use.

1. Provide protective coverings, barriers, devices, signs, or other procedures to protect stairs and to maintain means of egress. If stairs become damaged, restore damaged areas so no evidence remains of correction work.

3.04 SECURITY AND PROTECTION FACILITIES INSTALLATION

- A. Protection of Existing Facilities: Protect existing vegetation, equipment, structures, utilities, and other improvements at Project site and on adjacent properties, except those indicated to be removed or altered. Repair damage to existing facilities.
- B. Protection of Work: Protect in-progress and completed work from damage or deterioration, other than normal weathering of exposed materials, through construction duration until completion, as appropriate and as recommended by manufacturer and Installer.
 1. Provide protective coverings at walls, projections, jambs, sills, and soffits of openings. Protect finished floors and stairs from traffic, movement of heavy objects, and storage.
 2. Always protect excavation, trenches, and building, from damage from rainwater, spring water, ground water, backing up of drains or sewers. Provide pumps, equipment, enclosures, to provide this protection.
 3. Remove protective coverings and materials at the appropriate time but no later than final cleaning operations.
- C. Environmental Protection: Provide protection, operate temporary facilities, and conduct construction as required to comply with environmental regulations and that minimize possible air, waterway, and subsoil contamination or pollution or other undesirable effects.
 1. Comply with work restrictions specified in Division 01 Section "Summary of Work."
- D. Security: Provide security program and facilities to protect the Work, existing facilities, and University operations and to prevent unauthorized entrance, vandalism, theft, and similar violations of security.
 1. Coordinate with University Police.
 2. Provide lockable entrances and lock entrances at end of each work day.
 3. After review and approval by University, install temporary enclosure around partially completed areas of construction.
 4. Storage: Where materials and equipment must be stored, and are of value or attractive for theft, provide a secure lockup. Enforce discipline in connection with the installation and release of material to minimize the opportunity for theft and vandalism.
- E. Barricades, Warning Signs, and Lights: Comply with requirements of authorities having jurisdiction for erecting structurally adequate barricades, including warning signs and lighting wherever required to prevent accidents and losses.
- F. Temporary Egress: Maintain temporary egress from existing occupied facilities as indicated and as required by authorities having jurisdiction.

- G. Temporary Partitions: Provide floor-to-floor or floor-to-ceiling dustproof partitions terminating in dustproof floor or ceiling above to limit dust and dirt migration and to separate existing active elevator hoistways and other areas occupied by University from dust, fumes and noise in compliance with Division 01 Section "Indoor Air Quality Procedures" and the following:
1. Construct dustproof partitions with 5/8-inch gypsum wallboard with joints taped on occupied side, and 1/2-inch fire-retardant-treated plywood on construction operations side.
 2. Where fire-resistance-rated temporary partitions are indicated or are required by authorities having jurisdiction, construct partitions according to the rated assemblies.
 3. Insulate partitions to control noise transmission to occupied areas.
 4. Seal joints and perimeter. Equip partitions with gasketed dustproof doors and security locks where openings are required.
 5. Protect air-handling equipment.
 6. Provide walk-off mats at each entrance through temporary partition.
 7. At elevator hoistway entrances not used during construction, seal openings with plastic sheet and duct tape.
- H. Temporary Fire Protection: Install and maintain temporary fire-protection facilities of types needed to protect against reasonably predictable and controllable fire losses. Comply with NFPA 241; manage fire-prevention program.
1. Fire Extinguishers: Minimum one per floor at or near useable exit.
 - a. Provide additional extinguishers where convenient and effective for intended purpose.
 - b. Comply with NFPA 10 to the extent applicable.
 2. Strictly enforce site prohibition against smoking.
 3. Develop and supervise an overall fire-prevention and -protection program for personnel at Project site. Coordinate with University Project Manager to review needs with local fire department and establish procedures to be followed. Instruct personnel in methods and procedures. Post warnings and information.
 4. Maintain unobstructed access to fire extinguishers, temporary fire protection facilities, stairways and other access routes for fighting fires.
 5. Store combustible materials in containers in fire-safe locations.
 6. Permanent Fire Protection System: Complete and make operational at earliest possible date. Instruct site personnel on use of permanent system.

3.05 MOISTURE AND MOLD CONTROL

- A. Contractor's Moisture-Protection Plan: Comply with requirements in Division 01 Section "Indoor Air Quality Procedures".

3.06 OPERATION, TERMINATION, AND REMOVAL

- A. Supervision: Enforce strict discipline in use of temporary facilities. To minimize waste and abuse, limit availability of temporary facilities to essential and intended uses.
 - 1. Do not permit temporary offices and similar temporary or permanent spaces to be used as living quarters or for other unintended occupancies or uses.
- B. Maintenance: Maintain facilities in good operating condition until removal.
 - 1. Maintain operation of temporary enclosures, heating, cooling, humidity control, ventilation, and similar facilities on a 24-hour basis where required to achieve indicated results and to avoid possibility of damage.
- C. Janitorial Services: Provide daily janitorial services for temporary offices, toilets, and similar areas at the project site. Require users of other temporary facilities to maintain clean and orderly premises.
- D. Temporary Facility Changeover: Do not change over from using temporary security and protection facilities to permanent facilities until Substantial Completion.
- E. Termination and Removal: Remove each temporary facility when need for its service has ended, when it has been replaced by authorized use of a permanent facility, or no later than Substantial Completion, unless Architect requests that it be retained for a longer period of time. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with temporary facility. Repair damaged Work, clean exposed surfaces, and replace construction that cannot be satisfactorily repaired.
 - 1. Materials and facilities that constitute temporary facilities are property of Contractor. University reserves right to take possession of Project identification signs.
 - 2. At Substantial Completion, repair, renovate, and clean permanent facilities used during construction period. Comply with final cleaning requirements specified in Division 01 Section "Closeout Procedures."

END OF SECTION

SECTION 01 60 00

PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.01 SUMMARY

- A. This section includes administrative and procedural requirements for selection of products for use in Project; product delivery, storage, and handling; manufacturers' standard warranties on products; special warranties; and comparable products.
- B. Related Requirements:
 - 1. Division 01 Section "Alternates" for products selected under an alternate, if applicable.
 - 2. Division 01 Section "Substitution Procedures" for requests for substitutions.
 - 3. Division 01 Section "References" for applicable industry standards for products specified.
 - 4. Division 01 Section "Closeout Procedures" for submittal of project warranties.

1.02 DEFINITIONS

- A. Products: Items obtained for incorporating into the Work, whether purchased for Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.
 - 1. Named Products: Items identified by manufacturer's product name, including make or model number or other designation shown or listed in manufacturer's published product literature, that is current as of date of the Contract Documents.
 - 2. New Products: Items that have not previously been incorporated into another project or facility. Products salvaged or recycled from other projects are not considered new products.
 - 3. Comparable Product: Product that is demonstrated and approved through submittal process to have the indicated qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics that equal or exceed those of specified product.
- B. Basis-of-Design Product Specification: A specification in which a specific manufacturer's product is named and accompanied by the words "basis-of-design product," including make or model number or other designation, to establish the significant qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics for purposes of evaluating comparable products of additional manufacturers named in the specification.

1.03 ACTION SUBMITTALS

- A. Comparable Product Requests: Submit request for consideration of each comparable product. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.

1. Requests for consideration of comparable products will only be entertained during bidding.
 2. Include data to indicate compliance with the requirements specified in "Comparable Products" Article.
 3. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation of a comparable product request. Architect will notify Contractor of approval or rejection of proposed comparable product.
 - a. Form of Approval: Written Addendum.
- B. Basis-of-Design Product Specification Submittal: Comply with requirements in Division 01 Section "Submittal Procedures." Show compliance with requirements.

1.04 QUALITY ASSURANCE

- A. Compatibility of Options: If Contractor is given option of selecting between two or more products for use on Project, select product compatible with products previously selected, even if previously selected products were also options. The complete compatibility between the various choices available to the Contractor is not assured by the various requirements of the Contract Documents, but must be provided by the Contractor.
- B. Source Limitations: To the fullest extent possible, provide products of the same kind, from a single source.
- C. Nameplates: Except for required labels and operating data, do not attach or imprint manufacturers or producer's nameplates or trademarks on exposed surfaces of products which will be exposed to view in occupied spaces or on the exterior.
- D. Labels: Locate required product labels and stamps on a concealed surface or, where required for observation after installation, on an accessible surface that is not conspicuous.
- E. Equipment Nameplates: Provide a permanent nameplate on each item of service-connected or power-operated equipment. Locate on an easily accessible surface which is inconspicuous in occupied spaces. The nameplate shall contain the following information and other essential operating data.
1. Name of product and manufacturer.
 2. Model and serial number.
 3. Capacity.
 4. Speed.
 5. Ratings.
 6. Power characteristics (if applicable).
 7. UL label or compliance (if applicable).

1.05 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, and handle products using means and methods that will prevent damage, deterioration, and loss, including theft and vandalism. Comply with manufacturer's written instructions.

- B. Delivery and Handling:
 - 1. Schedule delivery to minimize long-term storage at Project site and to prevent overcrowding of construction spaces.
 - 2. Coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.
 - 3. Deliver products to Project site in an undamaged condition in manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.
 - 4. Inspect products on delivery to determine compliance with the Contract Documents and to determine that products are undamaged and properly protected.
- C. Storage:
 - 1. Store products to allow for inspection and measurement of quantity or counting of units.
 - 2. Store materials in a manner that will not endanger Project structure.
 - 3. Store products that are subject to damage by the elements, under cover in a weathertight enclosure above ground, with ventilation adequate to prevent condensation.
 - 4. Protect foam plastic from exposure to sunlight, except to extent necessary for period of installation and concealment.
 - 5. Comply with product manufacturer's written instructions for temperature, humidity, ventilation, and weather-protection requirements for storage.
 - 6. Protect stored products from damage and liquids from freezing.

1.06 PRODUCT WARRANTIES

- A. Warranties specified in other Sections shall be in addition to, and run concurrent with, other warranties required by the Contract Documents. Manufacturer's disclaimers and limitations on product warranties do not relieve Contractor of obligations under requirements of the Contract Documents. Such disclaimers and limitations do not relieve warranty requirements on Work that incorporates product nor do they relieve suppliers, manufacturers and subcontractors required to countersign special warranties with the Contractor.
 - 1. Manufacturer's Warranty: Written warranty furnished by individual manufacturer for a particular product and specifically endorsed by manufacturer to University.
 - 2. Special Warranty: Written warranty required by the Contract Documents to provide specific rights for University.
- B. Special Warranties: Prepare a written document that contains appropriate terms and identification, ready for execution.
 - 1. Manufacturer's Standard Form: Modified to include Project-specific information and properly executed.
 - 2. Specified Form: When specified forms are included with the Specifications, prepare a written document using indicated form properly executed.
 - 3. See other Sections for specific content requirements and particular requirements for submitting special warranties.

- C. Submittal Time and Form: Comply with requirements in Division 01 Section "Closeout Procedures".
- D. Warranty Requirements:
1. Related Damages and Losses: When correcting warranted Work that has failed, remove and replace other Work that has been damaged as a result of such failure or that must be removed and replaced to provide access for correction of warranted Work.
 2. Reinstatement of Warranty: When Work covered by a warranty has failed and been corrected by replacement or rebuilding, reinstate the warranty by written endorsement. The reinstated warranty shall be equal to the original warranty with an equitable adjustment for depreciation.
 3. Replacement Cost: Upon determination that Work covered by a warranty has failed, replace or rebuild the Work to an acceptable condition complying with requirements of Contract Documents. The Contractor is responsible for the cost of replacing or rebuilding defective Work regardless of whether the University has benefited from use of the Work through a portion of its anticipated useful service life.
 4. University's Recourse:
 - a. Written warranties made to the University are in addition to implied warranties, and shall not limit the duties, obligations, rights and remedies otherwise available under the law, nor shall warranty periods be interpreted as limitations on time in which the University can enforce such other duties, obligations, rights, or remedies.
 - b. Rejection of Warranties: The University reserves the right to reject warranties and to limit selections to products with warranties not in conflict with requirements of the Contract Documents.
 - c. The University reserves the right to refuse to accept Work for the Project where a special warranty, certification, or similar commitment is required on such Work or part of the Work, until evidence is presented that entities required to countersign such commitments are willing to do so.

PART 2 - PRODUCTS

2.01 PRODUCT SELECTION PROCEDURES

- A. General Product Requirements: Provide products that comply with the Contract Documents, are undamaged, are asbestos free, and, unless otherwise indicated, are new at time of installation.
1. Provide products complete with accessories, trim, finish, fasteners, and other items needed for a complete installation and indicated use and effect.
 2. Standard Products: If available, and unless custom products or nonstandard options are specified, provide standard products of types that have been produced and used successfully in similar situations on other projects.
 3. University reserves the right to limit selection to products with warranties not in conflict with requirements of the Contract Documents.
 4. Where products are accompanied by the term "as selected", Architect will make selection.

5. Descriptive, performance, and reference standard requirements in the Specifications establish salient characteristics of products.
 6. Or Equal: For products specified by name and accompanied by the term "or equal," or "or approved equal," or "or approved," comply with requirements in "Comparable Products" Article to obtain approval for use of an unnamed product and provide only products previously approved during bid phase by written Addendum. The determination of equivalence is at the sole discretion of the Architect who has no obligation to prove non-equivalence.
 7. Mechanical and electrical equipment design and their space requirements are based on the first named item of the Section in which specified or that scheduled on the Drawings. If other than the first named or scheduled item listed for use is selected, modification to other elements of Work may be required. Show all such modification on shop drawings and submittals as appropriate. The cost of such modifications is solely the responsibility of the Contractor.
 8. Where manufacturers are listed as acceptable for specific proprietary products but precise identification by model, series, or trade name is not specified, submit detailed product information for such products for Architect's acceptance prior to ordering. Include specific requirements for modifications to other construction, including but not limited to, power and utility requirements, characteristics, capacities, size and locations. The cost of such modifications is solely the responsibility of the Contractor.
- B. Product Selection Procedures:
1. Product: Where Specifications name a single manufacturer and product, provide the named product that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered.
 2. Manufacturer/Source: Where Specifications name a single manufacturer or source, provide a product by the named manufacturer or source that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered.
 3. Products:
 - a. Restricted List: Where Specifications include a list of names of both manufacturers and products, provide one of the products listed that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered.
 4. Manufacturers:
 - a. Restricted List: Where Specifications include a list of manufacturers' names, provide a product by one of the manufacturers listed that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered.

5. Basis-of-Design Product: Where Specifications name a product, or refer to a product indicated on Drawings, and include a list of manufacturers, provide the specified or indicated product or a comparable product by one of the other named manufacturers. If proposing a comparable product by another manufacturer, whether named or not, provide a custom product if manufacturer's standard product does not include salient features of the Basis-of-Design product indicated. Drawings and Specifications indicate sizes, profiles, dimensions, and other characteristics that are based on the product named. Comply with requirements in "Comparable Products" Article for consideration of an unnamed product by one of the other named manufacturers.
 6. Contractor's Option: Where materials, products, systems or methods are specified to be selected from a list of options, subject to compliance with requirements, the choice of which material, method, product or system will be solely at the Contractor's discretions. There will be no change in Contract Sum or Time because of such choice.
- C. Visual Matching Specification: Where Specifications require "match Architect's sample", provide a product that complies with requirements and matches Architect's sample. Architect's decision will be final on whether a proposed product matches.
1. If no product available within specified category matches and complies with other specified requirements, comply with requirements in Division 01 Section "Substitution Procedures" for proposal of product.
- D. Visual Selection Specification: Where Specifications include the phrase "as selected by Architect from manufacturer's full range" or similar phrase, select a product that complies with requirements. Architect will select color, gloss, pattern, density, or texture from manufacturer's product line that includes both standard and premium items.
- 2.02 COMPARABLE PRODUCTS
- A. Conditions for Consideration: Prior to bid, Architect will consider Contractor's request for comparable product when the following conditions are satisfied. If the following conditions are not satisfied, Architect will reject request:
1. Evidence that the proposed product does not require revisions to the Contract Documents, that it is consistent with the Contract Documents and will produce the indicated results, and that it is compatible with other portions of the Work.
 2. Detailed comparison of significant qualities of proposed product with those named in the Specifications. Significant qualities include attributes such as performance, weight, size, durability, visual effect, and specific features and requirements indicated.
 3. Evidence that proposed product provides specified warranty.
 4. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners, if requested.
 5. Samples, if requested.

PART 3 - EXECUTION (Not Used)

END OF SECTION

SECTION 01 73 00

EXECUTION

PART 1 - GENERAL

1.01 SUMMARY

- A. This Section includes general administrative and procedural requirements governing execution of the Work including, but not limited to, the following:
 - 1. Construction layout.
 - 2. Installation of the Work.
 - 3. Cutting and patching.
 - 4. Progress cleaning.
 - 5. Protection of installed construction.
 - 6. Correction of the Work.
- B. Related Requirements:
 - 1. Division 01 Section "Summary of Work" for limits on use of Project site and procedures related to utility interruptions.

1.02 DEFINITIONS

- A. Cutting: Removal of in-place construction necessary to permit installation or performance of other work.
- B. Patching: Fitting and repair work required to restore construction to original conditions after installation of other work.

1.03 INFORMATIONAL SUBMITTALS

- A. Cutting and Patching Plan and Request: Submit plan and request describing procedures at least 21 calendar days prior to the time cutting and patching will be performed.
 - 1. Submit request whenever cutting and patching operation affect:
 - a. Work of the University or any separate contractor.
 - b. Integrity or effectiveness of weather-exposed or moisture-resistant elements or systems.
 - c. Efficiency, operational life, maintenance or safety of operational elements.
 - d. Visual qualities of sight-exposed elements.
 - 2. Include the following information:
 - a. Extent: Describe reason for and extent of each occurrence of cutting and patching, including explanation of why cutting and patching operation cannot be reasonable avoided.
 - b. Changes to In-Place Construction: Describe cutting and patching methods and anticipated results. Include changes to structural elements and operating components as well as changes in building appearance and other significant visual elements.

- c. Products: List products to be used for patching and firms or entities that will perform patching work.
 - d. Trades: Indicate trades and subcontractors who will perform the work.
 - e. Dates: Indicate when cutting and patching will be performed.
3. Limitations: Approval of cutting and patching request does not waive right of Architect or University to later require complete removal and replacement of work found to be unsatisfactorily cut and patched.

1.04 QUALITY ASSURANCE

- A. Manufacturer's Installation Instructions: Obtain and maintain on-site manufacturer's written recommendations and instructions for installation of products and equipment.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. General: Comply with requirements specified in other Sections.
- B. In-Place Materials: Use materials for patching identical to in-place materials. For exposed surfaces, use materials that visually match in-place adjacent surfaces to the fullest extent possible.
- 1. If identical materials are unavailable or cannot be used, use materials that, when installed, will provide a match acceptable to Architect for the visual and functional performance of in-place materials.
- C. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.
- 1. Use cleaning products that comply with Green Seal's GS-37, or if GS-37 is not applicable, use products that comply with the California Code of Regulations maximum allowable VOC levels.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Examination and Acceptance of Conditions: Before proceeding with each component of the Work, examine substrates, areas, and conditions, with Installer or Applicator present, for compliance with requirements for installation tolerances and other conditions affecting performance.
- 1. Examine walls and floors for suitable conditions where products and systems are to be installed.
 - 2. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.

3. Proceed with installation only after unsatisfactory conditions have been corrected. Proceeding with the Work indicates acceptance of surfaces and conditions.

3.02 PREPARATION

- A. Field Measurements: Take field measurements as required to fit the Work properly. Recheck measurements before installing each product. Where portions of the Work are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication.
- B. Review of Contract Documents and Field Conditions: Immediately on discovery of the need for clarification of the Contract Documents caused by differing field conditions outside the control of Contractor, submit a request for information to Architect according to requirements in Division 01 Section "Project Management and Coordination".

3.03 INSTALLATION

- A. Comply with manufacturer's written instructions and recommendations for installing products in applications indicated to the extent they are more explicit or stringent than requirements of the Contract Documents.
- B. Install products at the time and under conditions, including weather that will ensure the best possible results. Maintain conditions required for product performance until Substantial Completion.
- C. Isolate each part of complete installation from incompatible material as needed to prevent deterioration.
- D. Conduct construction operations so no part of the Work is subjected to damaging operations or loading in excess of that expected during normal conditions of occupancy.
- E. Sequence the Work and allow adequate clearances to accommodate movement of construction items on site and placement in permanent locations.
- F. Tools and Equipment: Do not use tools or equipment that produce harmful noise levels.
- G. Templates: Obtain and distribute to the parties involved templates for work specified to be factory prepared and field installed. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing products to comply with indicated requirements.
- H. Attachment: Provide blocking and attachment plates and anchors and fasteners of adequate size and number to securely anchor each component in place, accurately located and aligned, true and level as applicable, with other portions of the Work. Where size and type of attachments are not indicated, verify size and type required for load conditions.
 1. Mounting Heights: Where mounting heights are not indicated, mount components at heights directed by Architect.
 2. Allow for building movement, including thermal expansion and contraction.

3. Coordinate installation of anchorages. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in concrete or masonry. Deliver such items to Project site in time for installation.
- I. Joints: Unless indicated otherwise, make joints of uniform width. Where joint locations in exposed work are required but not indicated, arrange joints for the best visual effect. Confirm arrangement with Architect before proceeding. Fit exposed connections together to form hairline joints.
- J. Hazardous Materials: Use products, cleaners, and installation materials that are not considered hazardous.

3.04 CUTTING AND PATCHING

- A. Cutting and Patching, General: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time, and complete without delay.
 1. Cut in-place construction to provide for installation of other components or performance of other construction, and subsequently patch as required to restore surfaces to their original condition.
- B. Responsibility: Provide cutting and patching work, including attendant excavation and backfill required to complete the Work or to:
 1. Make components fit together properly.
 2. Uncover portions of the Work to provide for installation of ill-timed work.
 3. Remove and replace defective work or work not conforming to requirements of Contract Documents.
 4. Remove samples of installed work as specified for testing.
 5. Provide routine penetrations of non-structural surfaces for installation of piping and electrical conduit.
- C. Protection: Protect in-place construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of Project that might be exposed during cutting and patching operations.
- D. Adjacent Occupied Areas: Where interference with use of adjoining areas or interruption of free passage to adjoining areas is unavoidable, coordinate cutting and patching according to requirements in Division 01 Section "Summary".
- E. Cutting: Cut in-place construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction. If possible, review proposed procedures with original Installer; comply with original Installer's written recommendations.
 1. In general, use hand or small power tools designed for sawing and grinding, not hammering and chopping. Cut holes and slots neatly to minimum size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
 2. Finished Surfaces: Cut or drill from the exposed or finished side into concealed surfaces.
 3. Proceed with patching after construction operations requiring cutting are complete.

- F. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other work. Patch with durable seams that are as invisible as practicable. Provide materials and comply with installation requirements, including tolerance, specified in other Sections, where applicable.
1. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate physical integrity of installation.
 2. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will eliminate evidence of patching and refinishing.
 3. Floors and Walls: Where walls or partitions that are removed extend one finished area into another, patch and repair floor and wall surfaces in the new space. Provide an even surface of uniform finish, color, texture, and appearance. Remove in-place floor and wall coverings and replace with new materials, if necessary, to achieve uniform color and appearance.
 - a. Where patching occurs in a painted surface, prepare substrate and apply primer and intermediate paint coats appropriate for substrate over the patch, and apply final paint coat over entire unbroken surface containing the patch. Provide additional coats until patch blends with adjacent surfaces.
- G. Cleaning: Clean areas and spaces where cutting and patching are performed. Remove paint, mortar, oils, putty, and similar materials from adjacent finished surfaces.

3.05 PROGRESS CLEANING

- A. General: Clean Project site and work areas daily, including common areas. Enforce requirements strictly. Dispose of materials lawfully.
1. Comply with requirements in NFPA 241 for removal of combustible waste materials and debris.
 2. Do not hold waste materials more than seven calendar days during normal weather or three calendar days if the temperature is expected to rise above 80 deg F.
 3. Containerize hazardous and unsanitary waste materials separately from other waste. Mark containers appropriately and dispose of legally, according to regulations.
 - a. Use containers intended for holding waste materials of type to be stored.
- B. Collection Point: Review location with University and obtain approval.
- C. Site: Maintain Project site free of waste materials and debris.
- D. Wind Blown Debris: Prevent spread of trash, debris, cartons, packing material, or other waste on or off Project site by wind.
- E. Dust: Sprinkle dusty debris with water.
- F. Packing Materials: Immediately after uncrating or unpacking materials or equipment, remove all crating, lumber, excelsior, wrapping or other like combustible materials from building to central collection facility.

- G. Work Areas: Clean areas where work is in progress to the level of cleanliness necessary for proper execution of the Work.
 - 1. Remove liquid spills promptly.
 - 2. Where dust would impair proper execution of the Work, broom-clean or vacuum the entire work area, as appropriate.
- H. Installed Work: Keep installed work clean. Clean installed surfaces according to written instructions of manufacturer or fabricator of product installed, using only cleaning materials specifically recommended. If specific cleaning materials are not recommended, use cleaning materials that are not hazardous to health or property and that will not damage exposed surfaces.
- I. Concealed Spaces: Remove debris from concealed spaces before enclosing the space.
- J. Exposed Surfaces in Finished Areas: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.
- K. Waste Disposal: Do not bury or burn waste materials on-site. Do not wash waste materials down sewers or into waterways. Comply with waste disposal requirements in Division 01 Section "Construction Waste Management and Disposal".
- L. During handling and installation, clean and protect construction in progress and adjoining materials already in place. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.
- M. Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.
- N. Limiting Exposures: Supervise construction operations to assure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period.

3.06 STARTING AND ADJUSTING

- A. Start equipment and operating components to confirm proper operation. Remove malfunctioning units, replace with new units, and retest.
- B. Adjust equipment for proper operation. Adjust operating components for proper operation without binding.
- C. Test each piece of equipment to verify proper operation. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.
- D. Manufacturer's Field Service: Comply with qualification requirements in Division 01 Section "Quality Requirements".

3.07 PROTECTION OF INSTALLED CONSTRUCTION

- A. Provide final protection and maintain conditions that ensure installed Work is without damage or deterioration at time of Substantial Completion.
- B. Comply with manufacturer's written instructions for temperature and relative humidity.
- C. Limiting Exposures: Supervise construction activities to ensure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period. Where applicable, such exposures include, but are not limited to, the following:
 - 1. Excessive static or dynamic loading.
 - 2. Excessive internal or external pressures.
 - 3. Excessively high or low temperatures.
 - 4. Thermal shock.
 - 5. Excessively high or low humidity.
 - 6. Air contamination or pollution.
 - 7. Water or ice.
 - 8. Solvents.
 - 9. Chemicals.
 - 10. Light.
 - 11. Radiation.
 - 12. Puncture.
 - 13. Abrasion.
 - 14. Heavy traffic.
 - 15. Soiling, staining and corrosion.
 - 16. Bacteria.
 - 17. Rodent and insect infestation.
 - 18. Combustion.
 - 19. Electrical current.
 - 20. High speed operation.
 - 21. Improper lubrication.
 - 22. Unusual wear or other misuse.
 - 23. Contact between incompatible materials.
 - 24. Misalignment.
 - 25. Excessive weathering.
 - 26. Unprotected storage.
 - 27. Improper shipping or handling.
 - 28. Theft.
 - 29. Vandalism.

END OF SECTION

SECTION 01 77 00

CLOSEOUT PROCEDURES

PART 1 - GENERAL

1.01 SUMMARY

- A. This Section includes administrative and procedural requirements for contract closeout, including, but not limited to, the following:
 - 1. Substantial Completion procedures, including Notice of Completion and Final Inspection procedures.
 - 2. Occupancy procedures, including Notice of Approval of Occupancy/Use and University Supplemental Notice of Occupancy and Use List.
 - 3. Final Acceptance procedures, including Pre-Acceptance Checklist and University Supplemental Building/Project Acceptance List.
 - 4. Inspections after completion.
 - 5. Warranties.
 - 6. Final cleaning.
 - 7. Repair of the Work.
- B. Related Requirements:
 - 1. Division 01 Section "Photographic Documentation" for submitting final completion construction photographic documentation.
 - 2. Division 01 Section "Execution" for progress cleaning of Project site.
 - 3. Division 01 Section "Operation and Maintenance Data" for operation and maintenance manual requirements.
 - 4. Division 01 Section "Project Record Documents" for submitting record Drawings, record Specifications, and record Product Data.
 - 5. Division 01 Section "Demonstration and Training" for requirements for instructing University's personnel.

1.02 ACTION SUBMITTALS

- A. Product Data: For cleaning agents.
- B. Contractor's List of Incomplete Items: Initial submittal at Notice of Completion.
- C. Certified List of Incomplete Items: Final submittal at Final Acceptance.

1.03 CLOSEOUT SUBMITTALS

- A. Certificates of Release: From authorities having jurisdiction.
- B. Certificate of Insurance: For continuing coverage.

1.04 MAINTENANCE MATERIAL SUBMITTALS

- A. Schedule of Maintenance Material Items: For maintenance material submittal items specified in other Sections.

1.05 NOTICE OF COMPLETION AND SUBSTANTIAL COMPLETION PROCEDURES

- A. Procedures and Submittals Prior to Notice of Completion: Complete and submit all of the following items prior to submitting Notice of Completion to Architect. Include Contractor's comprehensive list of items to be completed, corrected or not in compliance with the Drawings and Specifications.
1. Contractor's List of Incomplete Items: Prepare and submit a list of items to be completed and corrected (Contractor's preliminary punch list), indicating the value of each item on the list and reasons why the Work is incomplete.
 2. Building Inspection Record: Submit completed record with all required corrections noted.
 3. Certificate of Occupancy: Submit Certificate of Occupancy (CO) or Temporary Certificate of Occupancy (TCO).
 4. Final Completion Schedule: Submit schedule for performing and completing all work indicated on the Contractor's list of incomplete items.
 5. Submit closeout submittals specified in other Division 01 Sections, including project record documents, operation and maintenance manuals, final completion construction photographic documentation, damage or settlement surveys, and similar final record information.
 6. Submit closeout submittals specified in individual Sections, including specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
- B. Final Inspection: Submit Notice of Completion to Architect. Upon receipt, Architect and University will review and if all items on the University Supplemental Notice of Completion Checklist are complete will, within the timeframe required by the Contract, schedule and make an inspection of the Project to determine whether the Work is substantially complete.
1. Final Punch List: Based on the inspection, Architect will prepare a final punch list of work to be completed, work not in compliance with the Drawings or Specifications, and unsatisfactory work for any reason.
 2. Re-inspection: If the cumulative number of items identified on the final punch list prevents a determination that the work is substantially complete, complete those items and when complete resubmit Notice of Completion. Upon receipt of resubmittal, Architect and University will then schedule and make a re-inspection of the Project to determine whether the Work is substantially complete.
- C. Notice of Substantial Completion: When inspection of the Work indicates that the Project is substantially complete and all other Contract provisions required for substantial completion have been satisfied, Architect will issue a Notice of Substantial Completion (State Form SBP-07).

1.06 LIST OF INCOMPLETE ITEMS (PUNCH LIST)

- A. Organization of List: Include name and identification of each space and area affected by construction operations for incomplete items and items needing correction including, if necessary, areas disturbed by Contractor that are outside the limits of construction.
 - 1. Organize list of spaces in sequential order, starting with exterior areas first and proceeding from lowest floor to highest floor or as approved by Architect.
 - 2. Organize items applying to each space by major element, including categories for ceiling, individual walls, floors, equipment, and building systems.
 - 3. Include the following information at the top of each page:
 - a. Project name.
 - b. Date.
 - c. Name of Architect.
 - d. Name of Contractor.
 - e. Page number.
 - 4. Submit list of incomplete items in the following format:
 - a. MS Excel and PDF electronic file. Architect will return annotated file.

1.07 OCCUPANCY PROCEDURES

- A. Procedures and Submittals Prior to Occupancy: Complete and submit all items on both State Form SBP-01 "Notice of Approval of Occupancy/Use" and University Supplemental Notice of Occupancy and Use List.

1.08 FINAL ACCEPTANCE PROCEDURES

- A. Procedures and Submittals Prior to Final Acceptance: Complete and submit all items on both State Form SBP-05 "Pre-Acceptance Checklist" and "University Supplemental Building/Project Acceptance List".
- B. Inspection: Submit a written request for final inspection to determine acceptance a minimum of 10 business days prior to date the work will be completed and ready for final inspection and tests. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare a final Certificate for Payment after inspection or will notify Contractor of construction that must be completed or corrected before certificate will be issued.
 - 1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.

1.09 SETTLEMENT AND FINAL PAYMENT

- A. Submit and complete all of the following as a condition precedent to settlement and final payment:
 - 1. All guarantees and warranties.
 - 2. All statement to support local sales tax refunds, if any.
 - 3. Three (3) sets of operation and maintenance manuals.

4. One (1) set of as-built Contract Documents showing all job changes.
5. All demonstration and training completed in accordance with Division 01 Section "Demonstration and Training".
6. All punch list items documented as complete.

- B. Final Certificate of Payment: Submit in accordance with the requirements of Division 01 Section "Payment Procedures".

1.10 INSPECTIONS AFTER COMPLETION

- A. Warranty/Guarantee Inspections: During the warranty period, accompany Architect and University Representative, and participate in inspection(s) of the Project to identify defective and deficient work at intervals and as required by the Contract.
- B. List of Deficient or Defective Work: Within 10 business days of inspection, Architect will provide Contractor with a list of items requiring correction.
- C. Remedial Work: Upon receive of itemized list, immediately correct and remedy deficiencies and defects in a manner satisfactory to the Architect and University.

1.11 SUBMITTAL OF PROJECT WARRANTIES

- A. Time of Submittal: Submit written warranties to the Architect prior to advertisement of the Notice of Contractor's Settlement. If the Notice of Acceptance designates a commencement date for warranties other than the date of Notice of Acceptance for the Work, or a designated portion of the Work, submit written warranties upon request of the Architect.
- B. Partial Occupancy: When a designated portion of the Work is completed and occupied or used by the University, by separate agreement with the Contractor during the construction period, submit properly executed warranties to the Architect within fifteen (15) calendar days of completion of that designated portion of the Work.
- C. Special Warranties: When a special warranty is required to be executed by the Contractor, or the Contractor and a Subcontractor, supplier or manufacturer, prepare a written document that contains appropriate terms and identification, ready for execution by the required parties. Submit a draft to the University through the Architect for approval prior to final execution. Refer to individual Specification Sections for specific requirements for special warranties.
- D. Form of Submittal: Organize warranty documents into an orderly sequence based on the table of contents of Project Manual.
1. Number of Copies: Two.
 2. Bind warranties and bonds in heavy-duty, three-ring, vinyl-covered, loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2-by-11-inch paper.
 3. Provide heavy paper dividers with plastic-covered tabs for each separate warranty. Mark tab to identify the product or installation. Provide a typed description of the

- product or installation, including the name of the product and the name, address, and telephone number of Installer.
4. Identify each binder on the front and spine with the typed or printed title "WARRANTIES," Project name, and name of Contractor.
 5. Warranty Electronic File: Scan warranties and bonds and assemble complete warranty and bond submittal package into a single indexed electronic PDF file with links enabling navigation to each item. Provide bookmarked table of contents at beginning of document.
- E. Provide additional copies of each warranty to include in operation and maintenance manuals.
- F. List of Extended Warranties: Provide a comprehensive list of all manufacturers' standard and special warranties with duration greater than one year after Notice of Acceptance. Organize list into an orderly sequence based on table of contents of the Project Manual.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.
1. Use cleaning products that comply with Green Seal's GS-37, or if GS-37 is not applicable, use products that comply with the California Code of Regulations maximum allowable VOC levels.
 2. Do not use sweeping compounds on concrete floors that will leave residue affecting finish floor materials.

PART 3 - EXECUTION

3.01 FINAL CLEANING

- A. General: Perform final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.
- B. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to condition expected in an average commercial building cleaning and maintenance program. Comply with manufacturer's written instructions.
1. Complete the following cleaning operations immediately prior to Occupancy for entire Project or for a designated portion of Project:
 - a. Clean Project site, yard, and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste material, litter, and other foreign substances.

- b. Sweep paved areas broom clean. Remove petrochemical spills, stains, and other foreign deposits.
- c. Rake grounds that are neither planted nor paved to a smooth, even-textured surface.
- d. Remove tools, construction equipment, machinery, and surplus material from Project site.
- e. Clean exposed interior finishes to a dirt-free condition, free of grease, dust, stains, films, fingerprints, and similar foreign substances.
- f. Vacuum carpet and similar soft surfaces, removing debris and excess nap; clean according to manufacturer's recommendations if visible soil or stains remain.
- g. Leave Project clean and ready for occupancy.

3.02 REPAIR OF THE WORK

- A. Complete repair and restoration operations before requesting inspection for determination of Substantial Completion.
- B. Repair or remove and replace defective construction. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment. Where damaged or worn items cannot be repaired or restored, provide replacements. Remove and replace operating components that cannot be repaired. Restore damaged construction and permanent facilities used during construction to specified condition.

3.03 ATTACHMENTS

- A. Samples of the following forms are appended to this Section for reference:
 - 1. University of Colorado | Anschutz Medical Campus Supplemental Notice of Occupancy and Use List.
 - 2. University of Colorado | Anschutz Medical Campus Supplemental Building / Project Acceptance List.

END OF SECTION

Supplemental Notice of Occupancy and Use List

Project Name & Number: _____

Contractor: _____

In addition to completing Notice of Approval of Occupancy / Use (SBP-01), the following items must be completed before Occupancy is approved.

Activity	Date Completed	Remarks
1. Final and formal address posted on the building entries.		
2. A copy of the Contractor's in-progress red line "as-built" drawings has been given to BMO representative & a 2nd copy is provided for Projects plan room. This is to include landscape drawings showing irrigation installation.		
3. Maintenance, operations and spare parts manuals on all installed equipment.		
4. Notice of Partial Substantial Completion concerning roles/ responsibilities of University and Contractor for security, maintenance, heat, utilities reviewed and accepted.		
5. Manufacturer maintenance, operations and spare parts manuals for fixtures, mechanical, electrical and plumbing.		
6. Hardware maintenance, operations and spare parts manuals for doors & locks, including roll up doors.		
7. Warranty Dates and Contact list for all Contractors and Suppliers given to BMO.		
8. Transfer utility account from Contractor to Facilities Operations.		
9. Site plan to include first floor main isolation locations and plans for each floor to include main utility shutoffs, for utilities to include water, electrical, steam, sewer, fuel supply, telecom, fiber optic and gasses, identified on a set of drawings.		
10. If Commissioning Report is completed, BMO has reviewed/ commented, including electrical, plumbing, mechanical/ HVAC.		
11. All Contractor provided equipment has new filters & construction filters removed.		
12. Not Used		
13. Elevator equipment rooms insulated and space conditioned for control system requirements.		
14. Testing Certifications provided to BMO for Elevators, Fire Systems & Annunciator Systems.		
15. FSS has been provided with copy of Building Department testing and inspection report for window washing equipment.		
16. Roof walking pads to access equipment are installed.		
17. PM to communicate to fire department via Life Safety Officer that building has transitioned to BMO. Alarms at Anschutz Medical Campus report to University Police Dispatch and at Downtown report to designated monitoring company.		

Supplemental Building / Project Acceptance List

Project Name & Number: _____

Contractor: _____

In addition to completing Pre-Acceptance Checklist (SBP-05), the following items must be completed before Final Acceptance.

Activity	Date Completed	Remarks
1. Review State Buildings Pre-Acceptance check list & Notice of Approval of Occupancy / use form with BMO rep & confirm agreement with status		
*2. Establish list of post construction change orders & track separately from basic project until items are complete – call it Phase 2 to avoid delay on basic project		
3. O & M Manuals given to BMO Representative and BMO Archivist (2 hard copies and 1 electronic total)		
*4. Record Documents – a hard copy of plans and specifications are provided for plan room & given to BMO & electronic auto cad & specs are given to Archive Officer (Art Steinman) this is to include landscape drawings showing irrigation installation.		
*5. Final Site Walk is completed with University Grounds Supervisor. Drain barriers are removed and storm drains cleared. MS4 storm water plan, CDPHE permits, and evidence of final closeout received by Project Manager and all copied to University Engineering Division.		
<u>*/**6. Move-related work items complete including physical move, tours (occupants & police), mail, phone & electrical hook ups for equipment & furniture systems complete & freezers enrolled in University freezer program.</u>		
7. If exterior work is applicable: Landscape – Include a walk through with University Grounds for 1) new & established 1-year service date; 2) existing damaged landscape is repaired; and 3) irrigation – zone control test is complete.		
8. Attic stock, matches spec. requirements, is located in secured location, and is inventoried.		
9. Electrical system one line diagram framed and mounted in electrical room.		
10. Spare fire suppression heads in cabinets and tool: cabinet in main electrical room includes one complete set of spare fuses for major equipment.		
11. Contractor keys issued by University BMO returned to University Key Shop via PM/ BMO Rep.		
12. Interior Finishes Binder given to the University Project Manager: (Two hard copies)		
13. Not Used		
14. Not Used		

15. Safety grating in pipe chases in place.		
16. Signs in place including monument sign, building exterior and site signage and building interior signage.		
17. All applicable reports, including Air Emission reports; Sewer Reports, including for process diverters, traps and collection tanks; Fuel Storage Tank and Detection reports; and Water System tests and reports provided to BMO via PM and BMO Rep.		
18. Not Used		
19. Not Used		
20. Not Used		
21. Not Used		
22. If commissioning is included for project, Commissioning Agent certification is received by BMO via PM and BMO Rep.		

University Project Manager
(sign & print name)

Date

University BMO Rep.
(sign & print name)

Date

University FSS
(sign & print name)

Date

University Downtown Rep (if necessary)
(sign & print name)

Date

* Warranty dates are not subject to completion of these items by contract

** **Highlighted items are not the responsibility of Contractor but PM and BMO Rep must ensure these are completed and operational prior to occupancy and use.**

Mark N/A by item if it is not applicable to project

3.1.12

SECTION 01 78 23

MAINTENANCE DATA

PART 1 - GENERAL

1.01 SUMMARY

- A. This Section includes administrative and procedural requirements for preparing maintenance manuals.
- B. Related Requirements:
 - 1. Division 01 Section "Submittal Procedures" for submitting copies of submittals for maintenance manuals.

1.02 CLOSEOUT SUBMITTALS

- A. Format: Submit maintenance manuals in the following format:
 - 1. PDF electronic file. Assemble each manual into a composite electronically indexed file. Submit on digital media acceptable to Architect.
 - 2. Paper copies. Assemble in accordance with the requirements of this Section.
 - a. Submit three final copies, one to be retained by the Architect and two to be retained by the University.
- B. Final Manual Submittal: Submit each manual in final form prior to requesting inspection for Substantial Completion. Architect will return copy with comments.
 - 1. Correct or revise each manual to comply with Architect's comments. Submit copies of each corrected manual within 15 calendar days of receipt of Architect's comments and prior to commencing demonstration and training.

PART 2 - PRODUCTS

2.01 GENERAL REQUIREMENTS FOR MAINTENANCE MANUALS

- A. Intent: Prepare data in form of an instructional manual for use by University personnel.
- B. Organization: Unless otherwise indicated, organize each manual into a separate section for each system. Each manual shall contain the following materials, in the order listed:
 - 1. Title page.
 - 2. Table of contents.
 - 3. Manual contents.
- C. Title Page: Include the following information:
 - 1. Subject matter included in manual.
 - 2. Name and address of Project.
 - 3. Name and address of University.
 - 4. Date of submittal.

5. Name and contact information for Contractor.
 6. Name and contact information for Architect.
- D. Table of Contents: List each product included in manual, identified by product name, indexed to the content of the volume, and cross-referenced to Specification Section number in Project Manual.
1. If maintenance documentation requires more than one volume to accommodate data, include comprehensive table of contents for all volumes in each volume of the set.
- E. Manual Contents: Organize into sets of manageable size.
- F. Manufacturers' Data: Where manuals contain manufacturers' standard printed data, include only sheets pertinent to product or component installed. Mark each sheet to identify each product incorporated into the Work. Identify data applicable to the Work and delete references to information not applicable.
- G. Manuals, Paper Copy: Submit manuals in the form of hard copy, bound and labeled volumes.
1. Binders: Heavy-duty, three-ring, vinyl-covered, loose-leaf binders, in minimum 1 inch and maximum 2 inch thickness necessary to accommodate contents, sized to hold 8-1/2-by-11-inch paper; with clear plastic sleeve on spine to hold label describing contents and with pockets inside covers to hold folded oversize sheets.
 - a. If two or more binders are necessary to accommodate data of a system, organize data in each binder into groupings by subsystem and related components.
 - b. Identify each binder on front and spine, with printed title "MAINTENANCE MANUAL," Project title or name, and subject matter of contents, and indicate Specification Section number on bottom of spine.
 2. Dividers: Heavy-paper dividers with plastic-covered tabs for each section of the manual. Mark each tab to indicate contents. Include typed list of products and major components of equipment included in the section on each divider, cross-referenced to Specification Section number and title of Project Manual.
 3. Protective Plastic Sleeves: Transparent plastic sleeves designed to enclose diagnostic software storage media for computerized electronic equipment.

2.02 PRODUCT MAINTENANCE MANUALS

- A. Content: Organize manual into a separate section for each product, material, and finish. Separate into two manuals: one for exterior moisture protection products and those exposed to weather and one for interior products. Include source information, product information, maintenance procedures, repair materials and sources, and warranties and bonds, as described below.
- B. Source Information: Provide the following information for each product included in manual:
1. Name, address, and telephone number of Installer or supplier and maintenance service agent.
 2. Cross-reference Specification Section number and title.
 3. Drawing or schedule designation or identifier where applicable.

- C. Product Information: Include the following, as applicable:
 - 1. Product name and model number.
 - 2. Manufacturer's name.
 - 3. Color, pattern, and texture.
 - 4. Material and chemical composition.
- D. Maintenance Procedures: Include manufacturer's written recommendations and the following:
 - 1. Types of cleaning agents to be used and methods of cleaning.
 - 2. List of cleaning agents and methods of cleaning detrimental to product.
 - 3. Schedule for routine cleaning and maintenance.
- E. Repair Materials and Sources: Include lists of materials and local sources of materials and related services.
- F. Warranties and Bonds: Include copies of warranties and bonds and lists of circumstances and conditions that would affect validity of warranties or bonds.
 - 1. Include procedures to follow and required notifications for warranty claims.

PART 3 - EXECUTION (Not Used)

END OF SECTION

SECTION 01 78 39

PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

1.01 SUMMARY

- A. This Section includes administrative and procedural requirements for project record documents, including the following:
 - 1. Record Drawings.
 - 2. Record Specifications.
 - 3. Record Product Data.
 - 4. Record Samples.
 - 5. Miscellaneous record submittals.
- B. Related Requirements:
 - 1. Division 01 Section "Execution" for final property survey.
 - 2. Division 01 Section "Closeout Procedures" for general closeout procedures.
 - 3. Division 01 Section "Operation and Maintenance Data" for operation and maintenance manual requirements.

1.02 CLOSEOUT SUBMITTALS

- A. General: Submit record drawings with duplicate original transmittal letters containing:
 - 1. Date.
 - 2. Project title and number.
 - 3. Contractor's name and address.
 - 4. Certification that each document as submitted is complete and accurate.
 - 5. Signature of authorized representative of the Contractor.
- B. Record Drawings: Submit copies of record Drawings as follows:
 - 1. Submit three paper-copy sets of marked-up record prints, two copies will be retained by the University and one copy retained by the Architect.
 - 2. Submit three paper-copy sets and three digital copies on CD of electronic files for all delegated-design submittals. Two copies will be retained by the University and one copy retained by the Architect.
- C. Record Specifications: Submit three paper copies of Project's Specifications, including addenda and contract modifications. Two copies will be retained by the University and one copy retained by the Architect.
- D. Record Product Data: Submit three paper copies of each submittal. Two copies will be retained by the University and one copy retained by the Architect.
 - 1. Where record Product Data are required as part of operation and maintenance manuals, submit duplicate marked-up Product Data as a component of manual.

- E. Miscellaneous Record Submittals: See other Specification Sections for miscellaneous record-keeping requirements and submittals in connection with various construction activities. Submit three paper copies of each submittal. Two copies will be retained by the University and one copy retained by the Architect.
- F. Interior Finishes Binder: Three copies. Two copies will be retained by the University and one copy retained by the Architect.

PART 2 - PRODUCTS

2.01 RECORD DRAWINGS

- A. Record Prints: Maintain one set of marked-up paper copies of the Contract Drawings and Shop Drawings, incorporating new and revised drawings as modifications are issued.
 - 1. Preparation: Mark record prints to show the actual installation where installation varies from that shown originally. Require individual or entity who obtained record data, whether individual or entity is Installer, subcontractor, or similar entity, to provide information for preparation of corresponding marked-up record prints.
 - a. Give particular attention to information on concealed elements that would be difficult to identify or measure and record later.
 - b. Accurately record information in an acceptable drawing technique.
 - c. Record data as soon as possible after obtaining it.
 - d. Record and check the markup before enclosing concealed installations.
 - e. Cross-reference record prints to corresponding archive photographic documentation.
 - f. Mark using line types and symbols conforming to Contract Documents.
 - 2. Content: Types of items requiring marking include, but are not limited to, the following:
 - a. Dimensional changes to Drawings.
 - b. Revisions to details shown on Drawings.
 - c. Depths of foundations below first floor.
 - d. Locations and depths of underground utilities referenced to permanent surface improvements.
 - e. Revisions to routing of piping and conduits.
 - f. Revisions to electrical circuitry.
 - g. Actual equipment locations.
 - h. Duct size and routing.
 - i. Locations of concealed internal utilities referenced to visible and accessible features of structure.
 - j. Locations of concealed valves, dampers, controls, balancing devices, junction boxes, cleanouts, and other items requiring access or maintenance.
 - k. Changes made by Change Order.
 - l. Changes made following Architect's written orders.
 - m. Details not on the original Contract Drawings.
 - n. Field records for variable and concealed conditions.
 - o. Record information on the Work that is shown only schematically.

3. Mark the Contract Drawings and Shop Drawings completely and accurately. Use personnel proficient at recording graphic information in production of marked-up record prints.
 4. Mark record sets with erasable, red-colored pencil. Use other colors to distinguish between changes for different categories of the Work at same location.
 5. Mark additional information important to University that was either shown schematically or omitted from original Drawings.
 6. Note Change Order numbers, and similar identification, where applicable.
- B. Record Delegated Design Electronic Files: For all delegated design submittals, including but not limited to landscape irrigation, fire alarm and fire sprinkler plans, prepare electronic files in full compliance with University of Colorado | Anschutz Medical Campus Guidelines and Design Standards, Part 1.0, Paragraph "Drawing Production Standards".
- C. Identification: Identify and date each record Drawing; include the designation "PROJECT RECORD DRAWING" in a prominent location.
1. Record Prints: Organize record prints into manageable sets. Bind each set with durable paper cover sheets. Include identification on cover sheets.
 2. Identification: As follows:
 - a. Project name.
 - b. Date.
 - c. Designation "PROJECT RECORD DRAWINGS".
 - d. Name of Architect.
 - e. Name of Contractor.

2.02 RECORD SPECIFICATIONS

- A. Preparation: Mark Specifications to indicate the actual product installation where installation varies from that indicated in Specifications, addenda, and contract modifications.
1. Give particular attention to substitutions, selection of options, and similar information on concealed products and installations that cannot be readily identified and recorded later.
 2. Mark copy with the proprietary name and model number of products, materials, and equipment furnished, including substitutions and product options selected.
 3. Note related Change Orders where applicable.
 4. Maintain one complete copy of all Addenda, Change Orders and other written change documents in printed form during construction.

2.03 RECORD PRODUCT DATA

- A. Preparation: Mark Product Data to indicate the actual product installation where installation varies substantially from that indicated in Product Data submittal.
1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
 2. Include significant changes in the product delivered to Project site and changes in manufacturer's written instructions for installation.
 3. Note related Change Orders, record Specifications, and record Drawings where applicable.

- B. Directory: Include record Product Data directory organized by Specification Section number and title.
- C. Product List: Update and record any changes to Product List submitted in accordance with Division 01 Section "Product Requirements", including any changes to brand, model, subcontractor, or Installer so that final list reflects materials, equipment and systems incorporated into the Work.

2.04 RECORD SAMPLES

- A. Prior to Final Acceptance, meet with University Project Manager and Architect at site to review and identify which submitted samples maintained during the progress of the Work are to be transmitted to the University.
- B. Deliver selected samples to storage area identified by University.
- C. Finishes Binder: Three-ring notebook or notebooks, organized by Specification Section number, providing a listing and description of all material finishes on the Project and including a minimum 6-inch by 6-inch sample thereof to accompany the description. Accompany each material selection indicated with the following:
 - 1. Manufacturer and product name.
 - 2. Pattern name and number, as applicable.
 - 3. Color name, as applicable.
 - 4. Any additional information required to order replacement product.

2.05 MISCELLANEOUS RECORD SUBMITTALS

- A. Assemble miscellaneous records required by other Specification Sections for miscellaneous record keeping and submittal in connection with actual performance of the Work. Bind or file miscellaneous records and identify each, ready for continued use and reference.
 - 1. Include manufacturer's certifications, field test record, copies of permits, licenses, certifications, inspection reports, releases, notices, receipts for fee payments and similar documents.
- B. Directory: Include miscellaneous record submittals directory organized by Specification Section number and title.

PART 3 - EXECUTION

3.01 RECORDING AND MAINTENANCE

- A. Recording: Maintain one copy of each submittal during the construction period for project record document purposes. Post changes and revisions to project record documents as they occur; do not wait until end of Project. Update at least weekly.
- B. Maintenance of Record Documents and Samples: Store record documents and Samples in the field office apart from the Contract Documents used for construction. Do not use project record documents for construction purposes. Maintain record documents in good order and in a clean, dry, legible condition, protected from deterioration and loss. Provide access to project record documents for Architect's and University's reference during normal working hours.

END OF SECTION

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SECTION 01 78 46**EXTRA STOCK MATERIALS****PART 1 - GENERAL****1.01 SUMMARY**

- A. This Section includes descriptions and quantities of required extra stock materials.

1.02 INFORMATIONAL SUBMITTALS

- A. Schedule of Maintenance Materials: Prepare a schedule in tabular form of all extra stock materials required in individual Specification Sections including:
1. Specification Section number and title.
 2. Description of required material
 3. Quantity of required material.

1.03 MAINTENANCE MATERIALS

- A. Furnish extra materials that match and are from the same production runs as the product installed.
- B. Provide in the quantities indicated.

PART 2 - PRODUCTS (Not Used)**PART 3 - EXECUTION****3.01 MAINTENANCE MATERIAL SCHEDULE**

SECTION	TITLE	DESCRIPTION	QUANTITY
09 68 13	TILE CARPETING	Carpet Tile	Furnish 5% of full-size units for each type, color, pattern, and size indicated
09 65 13	RESILIENT BASE AND ACCESSORIES	Resilient Base	Furnish 50 linear feet of each type, color, pattern, and size of wall base installed. Furnish 2% of each type, color, pattern, and size of all other resilient accessories installed

END OF SECTION

SECTION 02 41 19

SELECTIVE DEMOLITION

PART 1 - GENERAL

1.01 SUMMARY

- A. This Section includes the following:
 - 1. Demolition and removal of identified interior finish materials.
 - 2. Salvage of existing items to be reused or recycled.
- B. Related Sections:
 - 1. Division 01 Section "Alternates" for bid alternates affecting the work of this Section.

1.02 DEFINITIONS

- A. Remove: Detach items from existing construction and legally dispose of them off-site, unless indicated to be removed and salvaged or removed and reinstalled.
- B. Remove and Reinstall: Detach items from existing construction, prepare them for reuse, and reinstall them where indicated.
- C. Existing to Remain: Existing items of construction that are not to be removed and that are not otherwise indicated to be removed, removed and salvaged, or removed and reinstalled.

1.03 ACTION SUBMITTALS

- A. Schedule of Selective Demolition Activities: Indicate the following:
 - 1. Detailed sequence of selective demolition and removal work, with starting and ending dates for each activity. Ensure Owner's on-site operations are uninterrupted.
 - 2. Use of elevator and stairs.
 - 3. Locations of proposed dust-and noise-control temporary partitions and means of egress, including for other tenants affected by selective demolition operations.
 - 4. Coordination of Owner's continuing occupancy of portions of existing building and of Owner's partial occupancy of completed Work.
 - 5. Means of protection for items to remain and items in path of waste removal from building.
- B. Pre-demolition Photographs or Video Recordings: Show existing conditions of adjoining construction and site improvements, including finish surfaces that might be misconstrued as damage caused by selective demolition operations.

1.04 QUALITY ASSURANCE

- A. Regulatory Requirements: Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.
- B. Standards: Comply with ANSI A10.6 and NFPA 241.

- C. Pre-demolition Conference: Conduct conference at Project site to comply with requirements in Division 01 Section "Project Management and Coordination. Review methods and procedures related to selective demolition including, but not limited to, the following:
 - 1. Inspect and discuss condition of construction to be selectively demolished.
 - 2. Review and finalize selective demolition schedule and verify availability of materials, demolition personnel, equipment, and facilities needed to make progress and avoid delays.

1.05 PROJECT CONDITIONS

- A. Owner will occupy portions of building immediately adjacent to selective demolition area. Conduct selective demolition so Owner's operations will not be disrupted.
 - 1. Comply with requirements specified in Division 01 Section "Summary of Work".
- B. Conditions existing at time of inspection for bidding purpose will be maintained by Owner as far as practical.
- C. Notify Architect of discrepancies between existing conditions and Drawings before proceeding with selective demolition.
- D. Storage or sale of removed items or materials on-site is not permitted.
- E. Utility Service: Maintain existing utilities indicated to remain in service and protect them against damage during selective demolition operations.
 - 1. Maintain fire protection facilities in service during selective demolition operations.

PART 2 - PRODUCTS

2.01 PERFORMANCE REQUIREMENTS

- A. Regulatory Requirements: Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Survey existing conditions and correlate with requirements indicated to determine extent of selective demolition required.
- B. Inventory and record the condition of items to be removed and reinstalled.
- C. Survey of Existing Conditions: Record existing conditions by use of photographs and preconstruction video tapes.
 - 1. Comply with requirements specified in Division 01 Section "Photographic Documentation."

3.02 UTILITY SERVICES AND MECHANICAL/ELECTRICAL SYSTEMS

- A. Existing Services/Systems: Maintain services/systems indicated to remain and protect them against damage during selective demolition operations.

3.03 PREPARATION

- A. Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
 - 1. Comply with requirements for access and protection specified in Division 01 Sections "Temporary Facilities and Controls".
- B. Temporary Facilities: Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.
 - 1. Provide protection to ensure safe passage of people around selective demolition area and to and from occupied portions of building.
 - 2. Provide temporary weather protection, during interval between selective demolition of existing construction on exterior surfaces and new construction, to prevent water leakage and damage to structure and interior areas.
 - 3. Protect walls, ceilings, floors, and other existing finish work that are to remain or that are exposed during selective demolition operations.
 - 4. Cover and protect furniture, furnishings, and equipment that have not been removed.
 - 5. Comply with requirements for temporary enclosures, dust control, heating, and cooling specified in Division 01 Section "Temporary Facilities and Controls."

3.04 SELECTIVE DEMOLITION, GENERAL

- A. General: Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete the Work within limit at ions of governing regulations and as follows:
 - 1. Proceed with selective demolition systematically.
 - 2. Remove decayed, vermin infested, or otherwise dangerous or unsuitable materials and promptly dispose of off-site.
 - 3. Locate selective demolition equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
 - 4. Dispose of demolished items and materials promptly.
- B. Removed and Reinstalled Items:
 - 1. Protect items from damage during transport and storage.
 - 2. Reinstall items in locations indicated. Comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make item functional for use indicated.

- C. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during selective demolition. When permitted by Architect, items may be removed to a suitable, protected storage location during selective demolition and cleaned and reinstalled in their original locations after selective demolition operations are complete.

3.05 CLEANING

- A. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations began.

3.06 DISPOSAL OF DEMOLISHED MATERIALS

- A. General: Except for items or materials indicated to be recycled, reused, salvaged, reinstalled, or otherwise indicated to remain Owner's property, remove demolished materials from Project site and legally dispose of them in an EPA-approved landfill.
 - 1. Do not allow demolished materials to accumulate on-site.
 - 2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
 - 3. Remove debris from elevated portions of building by chute, hoist, or other device that will convey debris to grade level in a controlled descent.
- B. Burning: Do not burn demolished materials.
- C. Disposal: Transport demolished materials off Owner's property and legally dispose of them.

END OF SECTION

SECTION 09 65 13

RESILIENT BASE AND ACCESSORIES

PART 1 - GENERAL

1.01 SUMMARY

- A. This Section includes the following:
 - 1. Resilient base.
 - 2. Resilient molding accessories.

1.02 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Samples: For each type of product indicated, in manufacturer's standard-size, but not less than 12 inches long, of each resilient product color, texture, and pattern required.

1.03 QUALITY ASSURANCE

- A. Installer Qualifications: Engage an experienced installer to perform work of this Section who specializes in installing resilient products similar to those required for this Project and with a record of successful in-service performance.
- B. Source Limitations: Obtain each type and color of product specified from one source with resources to provide products of consistent quality in appearance and physical properties without delaying the Work.
- C. Fire-Test-Response Characteristics: As determined by testing identical products according to ASTM E 648 or NFPA 253 by a qualified testing agency.
 - 1. Critical Radiant Flux Classification: Class I, not less than 0.45 W/sq. cm.

1.04 DELIVERY, STORAGE, AND HANDLING

- A. Store resilient products and installation materials in dry spaces protected from the weather, with ambient temperatures maintained within range recommended by manufacturer, but not less than 50 deg F or more than 90 deg F.

1.05 PROJECT CONDITIONS

- A. Maintain ambient temperatures within range recommended by manufacturer, but not less than 70 deg F or more than 95 deg F, in spaces to receive resilient products during the following time periods:
 - 1. 48 hours before installation.
 - 2. During installation.
 - 3. 48 hours after installation.

- B. Until Substantial Completion, maintain ambient temperatures within range recommended by manufacturer, but not less than 55 deg F or more than 95 deg F.
- C. Install resilient products after other finishing operations, including painting, have been completed.

1.06 EXTRA MATERIALS

- A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Provide extra materials as per Division 01 Section "Extra Stock Materials".

PART 2 - PRODUCTS

2.01 MANUFACTURERS

- A. Subject to compliance with requirements, provide products as manufactured by Roppe Corp. www.roppe.com, or one of the following:
 - 1. Johnsonite: www.johnsonite.com.
 - 2. Musson, R. C. Rubber Co. www.mussonrubber.com.

2.02 RESILIENT BASE

- A. Resilient Base Standard: ASTM F 1861.
 - 1. Material Requirement: Type TP (rubber, thermoplastic).
 - 2. Manufacturing Method: Group I (solid, homogeneous).
 - 3. Style: Cove (base with toe).
- B. Minimum Thickness: 0.125 inch.
- C. Height: 4-1/2 inches.
- D. Lengths: Coils in manufacturer's standard length.
- E. Outside Corners: Preformed.
- F. Inside Corners: Preformed.
- G. Colors: As indicated on Drawings, or as selected by Architect from manufacturer's full range.

2.03 RESILIENT MOLDING ACCESSORIES

- A. Resilient Molding Accessory: Rubber.
 - 1. Edge Strips: 0.125-inch thick, 1-inch wide, with tapered or bullnose edge.
- B. Colors and Profiles: As selected by Architect from full range of industry colors.

2.04 INSTALLATION MATERIALS

- A. Trowelable Leveling and Patching Compounds: Latex-modified, portland cement based or blended hydraulic-cement-based formulation provided or approved by manufacturer for applications indicated.
- B. Adhesives: Water-resistant type recommended by manufacturer to suit resilient products and substrate conditions indicated.
- C. Floor Polish: Provide stripper, sealer, and polish recommended by the University Environmental Health and Safety (EHS) through the University Project Manager.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Examine substrates, areas, and conditions where installation of resilient products will occur, with Installer present, for compliance with manufacturer's requirements, including those for maximum moisture content. Verify that substrates and conditions are satisfactory for resilient product installation and comply with requirements specified. Do not proceed with installation until unsatisfactory conditions have been corrected.

3.02 PREPARATION

- A. Prepare substrates according to manufacturer's written instructions to ensure adhesion of resilient products.
- B. Concrete Substrates for Resilient Accessories: Prepare according to ASTM F 710.
 - 1. Verify that substrates are dry and free of curing compounds, sealers, and hardeners.
 - 2. Remove substrate coatings and other substances that are incompatible with adhesives and that contain soap, wax, oil, or silicone, using mechanical methods recommended by manufacturer. Do not use solvents.
 - 3. Alkalinity and Adhesion Testing: Perform tests recommended by manufacturer.
 - 4. Moisture Testing: Perform tests recommended by manufacturer.
- C. Fill cracks, holes, and depressions in substrates with trowelable leveling and patching compound and remove bumps and ridges to produce a uniform and smooth substrate.
- D. Do not install resilient products until they are same temperature as the space where they are to be installed.
 - 1. Move resilient products and installation materials into spaces where they will be installed at least 48 hours in advance of installation.
- E. Sweep and vacuum clean substrates to be covered by resilient products immediately before installation.

3.03 RESILIENT BASE INSTALLATION

- A. Comply with manufacturer's written instructions for installing resilient base.
- B. Apply resilient base to walls, columns, pilasters, casework and cabinets in toe spaces, and other permanent fixtures in rooms and areas where base is required.
- C. Install resilient base in lengths as long as practicable without gaps at seams and with tops of adjacent pieces aligned.
- D. Tightly adhere resilient base to substrate throughout length of each piece, with base in continuous contact with horizontal and vertical substrates.
- E. Do not stretch resilient base during installation.
- F. Interrupt base at locations where corner guards are installed to floor.

3.04 RESILIENT ACCESSORY INSTALLATION

- A. Comply with manufacturer's written instructions for installing resilient accessories.
- B. Resilient Molding Accessories: Butt to adjacent materials and tightly adhere to substrates throughout length of each piece. Install reducer strips at edges of carpet and resilient floor covering that would otherwise be exposed.

3.05 CLEANING AND PROTECTION

- A. Perform the following operations immediately after installing resilient products:
 - 1. Remove adhesive and other surface blemishes using cleaner recommended by resilient product manufacturers.
 - 2. Sweep or vacuum horizontal surfaces thoroughly.
 - 3. Do not wash resilient products until after time period recommended by resilient product manufacturer.
 - 4. Damp-mop or sponge resilient products to remove marks and soil.
- B. Protect resilient products against mars, marks, indentations, and other damage from construction operations and placement of equipment and fixtures during the remainder of construction period. Use protection methods indicated or recommended in writing by resilient product manufacturer.
 - 1. Cover resilient products installed on floors with undyed, untreated building paper until inspection for Substantial Completion.
- C. Final Cleaning: Clean resilient products not more than 4 days before dates scheduled for inspections intended to establish date of Substantial Completion in each area of Project. Clean products according to manufacturer's written recommendations.

3.06 CONSTRUCTION WASTE MANAGEMENT

- A. Manage construction waste in accordance with provisions of Division 01 Section "Construction Waste Management and Disposal."

END OF SECTION

SECTION 09 68 13

TILE CARPETING

PART 1 - GENERAL

1.01 SUMMARY

- A. This Section includes the following:
 - 1. Modular carpet tile.
- B. Related Sections:
 - 1. Division 01 Section "Extra Stock Materials" for required maintenance stock.
 - 2. Division 02 Section "Selective Demolition" for removal and salvage of existing carpet.
 - 3. Division 09 Section "Resilient Base and Accessories" for resilient wall base and accessories installed with carpet tile.

1.02 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated. Include manufacturer's written data on physical characteristics, durability, and fade resistance. Include installation recommendations for each type of substrate.
- B. Shop Drawings: Show the following:
 - 1. Columns, doorways, enclosing walls or partitions, built-in cabinets, and locations where cutouts are required in carpet tiles.
 - 2. Carpet tile type, color, and dye lot.
 - 3. Type of subfloor.
 - 4. Type of installation.
 - 5. Pattern of installation.
 - 6. Pattern type, location, and direction.
 - 7. Pile direction.
 - 8. Type, color, and location of insets and borders.
 - 9. Type, color, and location of edge, transition, and other accessory strips.
 - 10. Transition details to other flooring materials.
 - 11. Architect will review shop drawings for pattern match, if any, for matching during installation and possible waste factors in ordering required amounts. Provide copy of approved shop drawings on job site during installation.
- C. Samples: For each of the following products and for each color and texture required. Label each Sample with manufacturer's name, material description, color, pattern, and designation indicated on Drawings and in schedules.
 - 1. Carpet Tile: Two full-size samples.
 - 2. Exposed Edge, Transition, and other Accessory Stripping: 12-inch- long Samples.
- D. Product Schedule: For carpet tile. Use same designations indicated on Drawings.

1.03 INFORMATIONAL SUBMITTALS

- A. Manufacturer's Installation Instructions: Indicate special procedures and perimeter conditions requiring special attention.
- B. Qualification Data: For Installer.
- C. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency.

1.04 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For carpet tiles to include in maintenance manuals. Include the following:
 - 1. Methods for maintaining carpet tile, including cleaning and stain-removal products and procedures and manufacturer's recommended maintenance schedule.
 - 2. Precautions for cleaning materials and methods that could be detrimental to carpet tile.
- B. Warranty Documents: Manufacturer's warranty documents.

1.05 QUALITY ASSURANCE

- A. Manufacturer Qualifications:
 - 1. Upon request, provide a representative to assist in project start-up and to inspect installation while in process and upon completion.
 - a. Representative will notify designated contact if any installation instructions are not followed.
 - b. Representative will be present at 6-month and 11-month punch walks.
 - 2. 5-years of documented experience in manufacturing of carpet tile.
- B. Installer Qualifications:
 - 1. Flooring contractor must be certified by the carpet manufacturer prior to bid.
 - 2. Flooring contractor to be a specialty contractor normally engaged in this type of work and has prior experience in the installation of carpet tiles.
 - 3. Flooring contractor will be responsible for proper product installation, including floor testing and preparation, as specified by the carpet manufacturer and job conditions herein.
- C. Single Source Responsibility: Obtain each type of carpet from one source and by a single manufacturer.
- D. Preinstallation Conference: Conduct conference at Project site to comply with requirements in Division 01 Section "Project Management and Coordination."

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to the site in manufacturer's original packaging listing manufacturer's name, product name, identification number, and related information.
- B. Store in a dry location, between 60 degrees F and 80 degrees F and a relative humidity below 65%. Protect from damage and soiling. Stack carpet in boxes.
- C. Make stored materials available for inspection by The University's representative.
- D. Store materials in area of installation for minimum period of 48 hours prior to installation.

1.07 PROJECT CONDITIONS

- A. Sub-floor preparation is to include all required work to prepare the existing floor for installation of the product as specified in this document and Manufacturer's installation instructions.
- B. Comply with Part 3 of this section for preparation of concrete to receive moisture sensitive flooring.
- C. Provide all material used in sub-floor preparation and repair as recommended by the carpet manufacturer and chemically and physically compatible with the carpet system being bid.
- D. Maintain minimum 65 degrees F ambient temperature and 65% Relative Humidity for 72 hours prior to, during, and 48 hours after installation.
- E. Do not install carpet until space is enclosed and weatherproof, wet-work in space is completed and nominally dry, work above ceilings is complete, and ambient temperature and humidity conditions are and will be continuously maintained at values near those indicated for final occupancy.

1.08 WARRANTY

- A. Warranty to be sole source responsibility of the Manufacturer. Second source warranties and warranties that involve parties other than the carpet manufacturer are unacceptable.
- B. If the product fails to perform as warranted when properly installed and maintained, repair or replace the affected area at the discretion of the Manufacturer.
- C. Chair Pads shall not be required for carpet warranty coverage.
- D. Include carpet product installed on stairs in warranty provided it is properly installed and maintained.

- E. Provide warranty for a specifically defined non-prorated period of 15 years to cover the following. "Lifetime" warranties are not acceptable.
 - 1. Excessive Surface Wear: More than 15% loss of pile fiber weight.
 - 2. Excessive Static Electricity: More than 3.0 kV per AATCC 134.
 - 3. Resiliency Loss of the Backing: More than 10% loss of backing resiliency.
 - 4. Delamination.
 - 5. Edge ravel.
 - 6. Zippering.
- F. Provide an additional warranty for a minimum non-prorated period of two years and cover against shrinkage, cupping, and doming.
- G. Tuft Bind warranty in lieu of edge ravel and zippering is not acceptable.

1.09 EXTRA MATERIALS

- A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Provide extra materials as per Division 01 Section "Extra Stock Materials".

PART 2 - PRODUCTS

2.01 MATERIALS, GENERAL

- A. Fiber:
 - 1. Nylon Fiber: Fiber must be premium branded nylon. Mill extruded nylon will not be accepted. 100% type 6,6 bulk continuous filament (BCF) nylon. Hollow filament fiber shape for optimal soil hiding capability. A modification ratio of less than 1.5. Polymer identification to AATCC TM 20.
 - 2. Construction: Texture - level loop or textured loop with maximum pile height variation of 1/32 inch.
 - 3. Pile Weight- Minimum 17 oz/yd², ASTM D5848 test method.
 - 4. Pile Density: Minimum 5500 for heavy or severe traffic.
 - 5. Dye Method: Fiber to be minimum 75% solution dyed; 95% preferred.
 - 6. Stain Resistance: AATCC TM 171 (HWE) for 2 cleanings to simulate removal of topical treatments by hot water extraction, followed by AATCC TM 175 Stain Resistance test minimum rating of 8 using AATCC Red 40 Stain Scale.
 - 7. Soil Resistance: Soil resistance treatment to be heat cured by mill during manufacturing process.
 - 8. Coloration/Patterning: Minimum five (5) color hues. Recommended: Hue values to be in medium to medium-dark range with random or complex patterning for optimum soil hiding capability. Restrict solid color carpet to accent areas. Do not use light colors.
- B. Backing Characteristics:
 - 1. Primary Backing: Synthetic Woven or Non-Woven.
 - 2. Pre-Coat (Fusion Coat): Sealant Vinyl.

3. Secondary Backing: Vinyl Closed Cell. 100% reclaimed-content, nylon reinforced vinyl matrix backing is preferred and should be provided if available.
 - a. High performance, moisture impermeable modular, vinyl.
 - b. Recommended Sizes: 24- by 24-inches or 60cm or 36-inches square.

2.02 PERFORMANCE CHARACTERISTICS

- A. Test reports for the following performance assurance testing to be submitted upon request. Submitted results shall represent average results for production goods of the referenced style.
- B. Requirements listed below must be met by all products.
 1. Flooring Radiant Panel; ASTM E-648 / NFPA 253: Class 1 (CRF: 0.45 watts/sq cm or greater)
 2. Federal Flammability: CPSC FF 1-70: Passes (must pass Methenamine Pill test, ASTM D2859 test method)
 3. Smoke Density: ASTM E-662 / NFPA 258: < 450 Flaming Mode (or to State Code)
 4. Electrostatic Propensity: AATCC TM 134 (Step & Scuff): 3.5 kV or less by permanent means (i.e. antistatic filaments) and without chemical treatment. 3.0 kV in areas of heavy electronic usage
 5. Static Coefficient of Friction: ASTM C-1028: Passes ADA Requirements for Accessible Routes (minimum 0.60)
 6. Tuft Bind: ASTM D1335 test method. Must resist a minimum of 10 lbs-force.
 7. Dimensional stability: Aachen method/ ISO 2551. Maximum change +/-0.20%
 8. Delamination of Secondary Backing of Pile Floor Coverings: ASTM D-3936: Minimum 15 lbs.
 9. Colorfastness to Light: AATCC TM 16.3 to 200 AFU; minimum rating 3-4 using AATCC Grey Scale for color change.
 10. Colorfastness to atmospheric contaminants: AATCC TM 164 (resistance to fade from oxides of nitrogen) and AATCC TM 129 (resistance to fade from ozone) for 2 cycles; minimum rating of 3-4 using AATCC Gray Scale for Color Change.
 11. Colorfastness to crocking: AATCC TM 165, minimum rating of 4 using the AATCC Chromatic Transference Scale.
 12. Texture Retention: Vettermann Drum: ASTM D-5417: Minimum 3.5 @ 22,000 cycles or Hexapod Test Method, ASTM D5252, for 12,000 cycles (8.4 lb tumbler) with a minimum rating of a 3.5 Rating using the appropriate Commercial Reference Scale for the construction per ASTM D7330 test method. Testing without underpad or brushing.
 13. Moisture Barrier: Moisture Penetration by Impact Test: No penetration of backing after 10,000 impacts @ 10 psi.
 14. Sustainability:
 - a. NSF/ANSI 140 the Sustainability Assessment for Carpet.
 - 1) VOC Chamber Testing ASTM D-5116: Product inclusive of "dry" adhesive system meets criteria established by the State of Washington Indoor Air Quality Specification for Carpet and/or Carpet & Rug Institute's (CRI) Indoor Air Quality Carpet Testing Program. If "dry" adhesive (2.02D) not available from manufacturer and "wet" adhesive is used to install the product, carpet and adhesive to meet CRI's Green Label requirements.

2.03 CARPET TILE

- A. Products: Subject to compliance with requirements, provide carpet tile as indicated on the Drawings,.

2.04 INSTALLATION ACCESSORIES

- A. Trowelable Leveling and Patching Compounds: Latex-modified, hydraulic-cement-based formulation provided or recommended by carpet tile manufacturer.
- B. Adhesives: Water-resistant, mildew-resistant, non-staining, pressure-sensitive type to suit products and subfloor conditions indicated, that complies with flammability requirements for installed carpet tile and is recommended by carpet tile manufacturer for releasable installation.
 - 1. VOC Limits: Provide adhesives with VOC content not more than 50 g/L when calculated according to 40 CFR 59, Subpart D (EPA method 24).

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for maximum moisture content, alkalinity range, installation tolerances, and other conditions affecting carpet tile performance. Examine carpet tile for type, color, pattern, and potential defects.
- B. Prepare sub-floor to comply with criteria established in Manufacturer's installation instructions. Use only preparation materials that are acceptable to the Manufacturer.
 - 1. Slab substrates are dry and free of curing compounds, sealers, hardeners, and other materials that may interfere with adhesive bond. Determine adhesion and dryness characteristics by performing bond and moisture tests recommended by carpet tile manufacturer.
 - 2. Remove all deleterious substances from substrate(s) that would interfere with or be harmful to the installation. (*i.e. floor wax*)
 - 3. Remove sub-floor ridges and bumps. Fill cracks, joints, holes, and other defects.
- C. Verify that sub-floor is smooth and flat within specified tolerances and ready to receive carpet.
- D. Verify that substrate surface is dust-free and free of substances that would impair bonding of product to the floor.
- E. There will be no exceptions to the provisions stated in the Manufacturer's installation instructions.
- F. Proceed with installation only after unsatisfactory conditions have been corrected.

3.02 PREPARATION OF CONCRETE TO RECEIVE MOISTURE SENSITIVE FLOORING

- A. Prepare all concrete substrates to receive moisture sensitive floor finishes including, tile carpeting, according to ASTM F 710 and the following:
 - 1. Verify that substrates are dry and free of curing compounds, sealers, and hardeners.
 - 2. Remove substrate coatings and other substances that are incompatible with adhesives and that contain soap, wax, oil, or silicone, using mechanical methods recommended by manufacturer. Do not use solvents.
 - 3. Alkalinity and Adhesion Testing: Perform tests recommended by manufacturer. Proceed with installation only after substrate pH is between 7.0 and 9.0.
 - 4. Moisture Testing: Perform tests recommended by manufacturer and as follows. Proceed with installation only after substrates pass testing.
 - a. Perform anhydrous calcium chloride test, ASTM F 1869. Proceed with installation only after substrates have maximum moisture-vapor-emission rate of 3 lb of water/1000 sq. ft. in 24 hours.
 - b. Perform relative humidity test using in situ probes, ASTM F 2170. Proceed with installation only after substrates have a maximum 80 percent relative humidity level measurement.

3.03 PREPARATION

- A. General: Comply with CRI 104, Section 6.2, "Site Conditions; Floor Preparation," and with carpet tile manufacturer's written installation instructions for preparing substrates indicated to receive carpet tile installation.
- B. Use trowelable leveling and patching compounds, according to manufacturer's written instructions, to fill cracks, holes, depressions, and protrusions in substrates. Fill or level cracks, holes and depressions 1/8 inch wide or wider and protrusions more than 1/32 inch, unless more stringent requirements are required by manufacturer's written instructions.
- C. Remove coatings, including curing compounds, and other substances that are incompatible with adhesives and that contain soap, wax, oil, or silicone, without using solvents. Use mechanical methods recommended in writing by carpet tile manufacturer.
- D. Broom and vacuum clean substrates to be covered immediately before installing carpet tile.

3.04 INSTALLATION

- A. General: Comply with CRI 104, Section 14, "Carpet Modules," and with carpet tile manufacturer's written installation instructions.
- B. Installation Method: Glue down; install every tile with full-spread, releasable, pressure-sensitive adhesive.
- C. Maintain dye lot integrity. Do not mix dye lots in same area.

- D. Cut and fit carpet tile to butt tightly to vertical surfaces, permanent fixtures, and built-in furniture including cabinets, pipes, outlets, edgings, thresholds, and nosings. Bind or seal cut edges as recommended by carpet tile manufacturer.
- E. Extend carpet tile into toe spaces, door reveals, closets, open-bottomed obstructions, removable flanges, alcoves, and similar openings.
- F. Where demountable partitions or other items are indicated for installation on top of finished carpet tile floor, install carpet tile before installation of these items.
- G. Maintain reference markers, holes, and openings that are in place or marked for future cutting by repeating on finish flooring as marked on subfloor. Use nonpermanent, non-staining marking device.
- H. Install pattern parallel to walls and borders.
- I. Completed carpet is to be smooth and free of bubbles, puckers, and other defects.

3.05 CLEANING AND PROTECTION

- A. Perform the following operations immediately after installing carpet tile:
 - 1. Remove excess adhesive, seam sealer, and other surface blemishes using cleaner recommended by carpet tile manufacturer.
 - 2. Remove yarns that protrude from carpet tile surface.
 - 3. Vacuum carpet tile using commercial machine with face-beater element.
- B. Remove all rubbish, wrappings, debris, trimmings, etc. from site and dispose of properly.
- C. Clean and vacuum carpet surfaces per manufacturer's instructions.
- D. Protect installed carpet tile to comply with CRI 104, Section 16, "Protection of Indoor Installations."
- E. Protect carpet tile against damage from construction operations and placement of equipment and fixtures during the remainder of construction period. Use protection methods indicated or recommended in writing by carpet tile manufacturer.

3.06 CONSTRUCTION WASTE MANAGEMENT

- A. Manage construction waste in accordance with provisions of Division 01 Section "Construction Waste Management and Disposal."

END OF SECTION