

Request for Proposals (RFP): # SCF27-1207

6130 Tuttle Place Progressive Design- Build Office Renovation & Tenant Improvements

RFP Release Date: November 16, 2026

SCF Purchasing
7033 East Tudor Road
Anchorage, AK 99507

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Important Notice: You must register with the *SCF Contact Person* at the link below. Please include the RFP number and title as well as contact information with your registration. Failure to register with the *SCF Contact Person* may result in the rejection of your Proposal.

SCFPurchasing@southcentralfoundation.com

Table of Contents

Section 1. Background and History 2
1.1 SCF History 2
1.2 Vision and Mission Statement 2
1.3 SCF Facilities 2
Section 2. General Information 3
2.1 Purpose of the Request for Proposal (RFP) 3
2.2 Contract Period 3
2.3 Proposer Registration 3
2.4 SCF Public Bid (RFP/ITB) Contact 3
Section 3. Request for Proposal Details 4
3.1 RFP Schedule 4
3.2 Deadline for Receipt of Proposals 4
3.3 Other Licenses and Registrations Requirements 4
3.4 Conflict of Interest and Restrictions 5
3.5 Addendum to the RFP and Right to Award 5
3.6 Liquidated Damages, Retainage, & Contingency 5
3.7. Cancellation of the RFP 5
3.8. Contract Negotiations 5
3.9. Performance Bonds and Surety Deposits 5
Section 4. Instructions for Proposers 6
4.1 Proposer's Review and Substantive Questions 6
4.2 Filing a Protest 6
4.3 Proposal Requirements 6
4.4 Proposal Submission 7
4.5 Proposal Withdrawal and Correction 7
Section 5. Format for Proposals 8
5.1 Proposal Content and Format 8
Proposal Section 1. Title Page 8
Proposal Section 2. Cover Letter 8
Proposal Section 3. Response to Criteria 9
Proposal Section 4. Key Personnel Resumes 10
Proposal Section 5. License / Insurance Certificates 10
Proposal Section 6: Form of Non-Collusive Affidavit 10
Section 6. Selection Process 10
6.1 RFP Compliance 10
6.2 Evaluation Process 11

6.3 Evaluation Criteria and Point Value 11
6.4 Discussions 11
6.5 Presentations 11
6.6 Notice of Award 11
Section 7. Standard Contract Terms 12
7.1 Introduction 12
7.2 Conflict of Interest 12
7.3 Status of Independent Contractor 12
7.4 Americans with Disabilities Act 12
7.5 Insurance Requirements 13
7.6 Compliance with Legal Obligations and SCF Code of Conduct 14
7.7 Monitoring 14
7.8 Lobbying 15
7.9 Exclusion and Debarment 15
7.10 Successors, Assignment or Delegation 16
7.11 Nondiscrimination 16
7.12 Alaska Native/American Indian Preference in Employment and Training 17
7.13 Federal Tort Claims Act 17
7.14 Media Contact 17

EXHIBITS:

EXHIBIT A: Scope of Services
EXHIBIT B: Proposal Offer and Signature Page (Attached)
EXHIBIT C: Form of Non-Collusive Affidavit
EXHIBIT D: SCF Modified Professional Services Contract
EXHIBIT E: SCF Division 01 Specifications, Clean Construction Procedures

Section 1. Background and History

1.1 SCF History

Southcentral Foundation (SCF) is an Alaska Native-owned, nonprofit health care organization serving nearly 70,000 Alaska Native and American Indian people living in Anchorage, Matanuska-Susitna Valley and nearby villages in the Anchorage Service Unit. Incorporated in 1982 under the tribal authority of Cook Inlet Region, Inc. (CIRI), SCF is the largest of the CIRI nonprofits, employing more than 2,700 people in more than 80 programs.

1.2 Vision and Mission Statement

SCF's vision is a Native Community that enjoys physical, mental, emotional, and spiritual wellness; its mission is to work together with the Native Community to achieve wellness through health and related services. The organization has developed and implemented comprehensive health-related services to meet the changing needs of the Native Community to enhance culture and empower individuals and families to take charge of their lives.

1.3 SCF Facilities

SCF offers a wide range of health and wellness services for Alaska Native and American Indian people living in Anchorage and the Matanuska-Susitna Borough, and nearby villages. They also provide regional support to residents of 55 rural villages in the Anchorage Service Unit, a geographical area stretching 107,400 square miles across Southcentral Alaska – extending from the Canadian border on the east to the Aleutian Chain and Pribilof Islands on the west.

Section 2. General Information

2.1 Purpose of the Request for Proposal (RFP)

SCF is soliciting proposals from qualified firms interested in providing progressive design-build services for the renovation and tenant improvements of approximately 4,000 square feet of existing office space at 6130 Tuttle Place in Anchorage, Alaska.

The objective of this project is to renovate and reconfigure existing office space to accommodate SCF's Facilities operations and facility planning and construction departments. The project will provide functional, efficient, and updated workspaces to support departmental operations and the relocation of personnel from the Alaska Native Health Campus. Services will include design, Preconstruction, permitting, and construction in accordance with the Scope of Work outlined in Exhibit A.

2.2 Contract Period

The contract term shall begin with the selection of a winning Proposer in January 2027. The targeted timeframe for substantial completion of the project is on or before May 5, 2027, as outlined in Exhibit A.

The project schedule will be further refined with selected Proposer.

2.3 Proposer Registration

Proposers must register with the SCF Purchasing Agent by emailing SCFPurchasing@southcentralfoundation.com **no later than November 25th, 2026.** Include the RFP Number and title in the subject line of the email when you register. Send Proposer contact name, title, email, phone, and address. Failure to register with the SCF Purchasing Department by the above deadline may result in the rejection of your Proposal. Please visit the SCF website frequently during the RFP process for up-to-date information, including revised RFPs, changes to the schedule, notices, and question/comment responses, etc. SCF will not be providing updated information via email.

2.4 SCF Public Bid RFP Contact

Any questions regarding this RFP should be addressed and/or delivered to:

SCF Purchasing Department
7033 East Tudor Road
Anchorage, AK 99507
Attention: Sam Gunderson
Email: SCFPurchasing@southcentralfoundation.com
Phone: 907-729-4925

Section 3. Request for Proposal Details

3.1 RFP Schedule

This RFP will follow the schedule in Table 1, RFP Schedule, below; SCF reserves the right to modify this schedule.

RFP Release Date	*November 16, 2026*
Deadline for Registration	*November 25, 2026*
Mandatory Site Visit and Pre-Bid meeting	*December 2, 2026 @ 2PM AST*
Deadline to Submit Questions	*December 3, 2026*
Deadline for SCF to Respond to Questions	*December 9,2026*
Proposal Due Date	*December 17, 2026*
Anticipated Notice of Award	*December 29, 2026*
Anticipated Service Start Date	*January 12, 2027*

Table 1. RFP Schedule

Mandatory Site Visit/Pre-Bid Meeting, December 2, 2026, at 2PM 6130 Tuttle Place (Front Lobby)

3.2 Deadline for Receipt of Proposals

Proposals must be submitted no later than the proposal due date and time. Proposers are fully responsible for timely delivery of proposals. Any proposal received after the stated closing time will not be considered. The Proposer is responsible for assuring actual delivery of the proposal to the email address referenced in Section 2.4, before the advertised date and hour located in Section 3.1.

3.3 Other Licenses and Registrations Requirements

All Proposers must hold a valid Alaska Business License.

All Proposers are required to hold all necessary applicable professional licenses and registrations required by Federal, State, Municipality or Borough law and proof of such shall be submitted with each proposal. Obtaining and ensuring compliance to all licensing and registration requirements is the responsibility of the Proposer.

3.4 Conflict of Interest and Restrictions

If Proposer, Proposer's employee, subcontractor, or any individual providing services under contract to SCF has a perceived or material conflict of interest affecting the objectivity, analysis, and/or performance under contract, the Proposer is required to submit details in writing to SCF within ten (10) days of issuance of this RFP. SCF will determine if the conflict is significant and material and if so, may notify the Proposer in writing of elimination from the RFP process.

3.5 Addendum to the RFP and Right to Award

SCF reserves the right to issue written addendums to revise or clarify the RFP, respond to questions, and/or extend or shorten the due date of the proposals.

SCF reserves the right to not award or cancel the award of the contract to a Proposer who will not agree to all provisions, terms, and conditions as contained within this RFP.

3.6 Liquidated Damages, Retainage, & Contingency

Retainage in the amount of Five Percent (5%) of the cost of work shall be withheld from progress payments according to the terms in the SCF Modified sample contract provided in Exhibits D, E, and F.

Contingency For this project, the contingency shall be five percent (5%) of the 65% Guaranteed Maximum Price (GMP), according to the terms outlined in the SCF Modified Sample Contract provided in Exhibits D, E, and F

3.7 Cancellation of the RFP

SCF retains the right to cancel the RFP process if it is in SCF's best interest. SCF will not be responsible for costs incurred by Proposers for proposal preparation.

3.8 Contract Negotiations

This RFP does not obligate SCF or the selected Proposer until a contract is signed and approved by both parties. Upon completion of the evaluation process, contract negotiations may commence. If the selected Proposer fails to provide necessary information for negotiations in a timely manner and/or negotiate in good faith, SCF may terminate the award of the contract. SCF will not be responsible for costs incurred by the Proposer resulting from contract negotiations.

SCF reserves the right to include additional terms and conditions during contract negotiations. However, these terms and conditions must be within the scope of the original RFP and will be limited to price, clarification, definition, administrative, and legal requirements.

3.9 Performance Bonds and Surety Deposits

Project Bonding Requirements:

All proposers shall submit a cashier's check or a bid bond, using form AIA A310-2010, in the amount of five percent (5%) of the bid amount listed for item A on Exhibit B:

A copy of the bid bond will suffice for bidding purposes. An original would need to be submitted to Southcentral Foundation per contracting documents in the event of an award.

Section 4. Instructions for Proposers

4.1 Proposer's Review and Substantive Questions

Proposers should carefully review this RFP for errors, questionable or objectionable materials, and items requiring clarification. Proposers may submit these comments and/or questions in writing to SCF's Purchasing Agent as directed in Section 2.4 of this RFP. This will allow time for written response, clarification, or an addendum to the RFP to be issued, if required, to all Proposers.

Proposers may not rely upon verbal responses made by any SCF employees or any representatives of SCF.

Proposers who contact any other SCF employee regarding this RFP may be disqualified. Proposers have no claim against SCF for failure to obtain information made available by SCF and are solely responsible for conducting their own research, due diligence, or other work necessary for the preparation of proposals, negotiation of agreements, or delivery of services pursuant to any agreement.

4.2 Filing a Protest

A Proposer may protest the award of a contract or the proposed award of a contract. The protest must be filed in writing, addressed to the SCF Contract Administrator, and include the following information:

- The name, address, and telephone number of the protester.
- Signature of the protester or the protester's representative.
- Identification of the RFP.
- Detailed statement of the legal and factual grounds of the protest, including copies of relevant documents; and
- Form of relief requested.

Protests must be submitted to SCF Contract Administrator within (5) five business days of Notice of Award date, as provided in Section 3.1 of this RFP. Only Proposers that submitted a valid proposal may file a protest.

4.3 Proposal Requirements

A. SCF requests Proposers submit (1) one proposal consisting of Proposer's detailed plan for provision of services.

B. Proposers may not submit more than (1) one proposal.
C. A proposal's content will not be disclosed to other Proposers.
D. All proposals and other material submitted become the property of SCF.
E. SCF assumes no responsibility or liability for the transmission, delay, or delivery of proposals by either public or private carriers.
F. SCF discourages excessive or costly proposals. All costs incurred by Proposers in preparing and submitting a proposal are the Proposer's responsibility and shall not be charged to SCF or reflected as an expense of the resulting contract.
G. It is the responsibility of the Proposer to indicate within their proposal the applicability and compliance required of any other Federal, state, municipal, or other governmental statutes, regulations, ordinances, acts, and/or requirements.
H. In the event that only one proposal is received, SCF reserves the right to restructure the RFP and/or extend the due date of proposals.

4.4 Proposal Submission

Proposers are required to submit one (1) PDF electronic copy of their proposal. The Proposer is responsible for assuring actual delivery of the proposal by email to SCFPurchasing@southcentralfoundation.com before the advertised date and hour specified in Section 3.1.

The subject line should read, "RFP SCF27-1207 6130 Tuttle Place Progressive Design- Build Office Renovation & Tenant Improvements".

4.5 Proposal Withdrawal and Correction

A proposal may be either corrected or withdrawn by submitting a written request to the SCF Purchasing Agent prior to the Proposal Due Date and time in Section 3.1, Table 1. In the case of a request to correct a proposal the revised proposal must be submitted at the time of request and receipt confirmed by a non-system generated response from the SCF Purchasing Agent.

Section 5. Format for Proposals

5.1 Proposal Content and Format

The proposals should be compiled in a professional manner, organized exactly in accordance with this section, with page numbers in bottom righthand corner of footer. Proposers should respond directly to the evaluation criteria for this project; generic marketing information is not acceptable. Additional material (other than that requested below) is not required or desired. Clarity and brevity are encouraged. 11pt minimum font, Arial – all pages; document should be "portrait" orientation format.

Please limit proposal response for Response to Criteria and Key Personnel Resumes to 5 pages total. Title page, Cover Letter, Licenses/Certificates and Forms are not included in page limit.

Section 1, Title page……1 page, maximum
Section 2, Cover Letter……1 page, maximum
Section 3, Response to Criteria…… Comply with overall page limit
Section 4, Key Personnel Resumes…… 1 page, maximum (each)
Section 5, Licenses/Insurance Certificates……not included in page limit
Section 6, Form of Non-Collusive Affidavit (notarized)……not included in page limit
Section 7, Proposal Offer and Signature Page……not included in page limit

Proposal Section 1. Title Page

The title page (cover) should contain the following:

- RFP Name and Identification Number
- Name, title, company, mailing address, phone number, and email address of the person authorized to commit the Proposer to contractual arrangement with SCF. This person will be the Proposer's authorized contact for all communication. Proposer may also identify an alternate Contract Administrator in case the authorized contact is unavailable.

Proposal Section 2. Cover Letter

Include a cover letter on Proposer letterhead stating your team's understanding of the services to be performed and why you/your team is the best qualified. Describe the team makeup and organizational relationships. Letter shall be signed by the Proposer's authorized contact.

Proposal Section 3. Response to Criteria

Proposers shall carefully review Exhibit A, Scope of Services, in preparing their proposal.

A. Similar Project Experience (22.5 points)

SCF recognizes the importance of delivering facilities that support our mission and values, and long-term goals of Native organizations we serve. SCF utilizes a collaborative design and cost estimating processes that incorporate Stakeholder input, culture considerations Operational requirements and fiscal responsibility throughout project development.

Provide a summary of recent work involving projects of similar scope. For each project, include information on the firm's/individual's role on the project, the scope, size and cost of the project.

B. Project Approach and Ability to Manage the Project Successfully (30 points)

Provide a work plan demonstrating your approach to this project. The following should be addressed:

- How will communications be handled within the team and with SCF?
- Describe staff involvement and how input will be solicited, evaluated, and implemented.
- How will the data gathering and compilation process be managed?

Provide a preliminary schedule showing Owner and Staff involvement and decision-point milestones.

Outline Scope of Services intended to be accomplished via subcontract vs. your firm's own resources.

Discuss what you see to be the primary challenge(s) of this project and your approach to meeting that challenge.

C. Capacity of Resources (20 points)

Specifically address availability of key personnel assigned to this project throughout the design, preconstruction, permitting, and construction phases, including the ability to meet the required Substantial Completion date of May 5th, 2027. Include a statement indicating that all information in the proposal is accurate, truthful, and factual; certifying that personnel and resources proposed will be made available to fulfill duties and obligations of the contract, if awarded.

D. Alaska Native/ American Indian Preference (2.5 points)

Describe the nature of any Alaska Native/ American Indian Ownership of the prime firm. Also describe the extent of active professional participation by Alaska Natives and/or Native Americans on the work to be performed under this contract. Reference AN/AI Preference statement in Section 7.12

E. Cost Proposal (25 points)

Complete and sign Exhibit B Proposal Offer and Signature Form with a time and materials not to exceed price for this scope of work. On a separate sheet provide fully burdened hourly rates for the proposed key personnel from the firm.

Proposal Section 4. Key Personnel Resumes

Provide resumes for key personnel who will be assigned to this project.

Proposal Section 5. License / Insurance Certificates

Provide the following certifications and licenses in this section:

A. Alaska Business license or any other professional licenses, certifications, and/or registrations as required by this RFP in Section 3.3.
B. Insurance certificate; include proof of insurance. Limits included in Section 7.5.

Proposal Section 6: Form of Non-Collusive Affidavit

Complete and notarize the Form of Non-Collusive Affidavit, attached to this RFP as Exhibit C.

Section 6. Selection Process

6.1 RFP Compliance

Prior to evaluation, each proposal will be reviewed to determine whether it is compliant with RFP requirements. Noncompliant proposals will not be evaluated. Example factors that may result in a proposal being declared noncompliant include, but are not limited to:

a. Not providing evidence of meeting minimum requirements.
b. Substantial and material conflicts of interest that were not declared.
c. Substantial and material noncompliance to formatting requirements of RFPs.
d. Insufficient information regarding Scope of Services or hourly rates (delivered under separate email).

6.2 Evaluation Process

An evaluation committee consisting of three (3) or more individuals will independently evaluate proposal compliance and content.

6.3 Evaluation Criteria and Point Value

Proposal evaluation will be based on Table 2 criteria and point values and will be documented by recording a final score calculated as the average score of the committee members' individual point value totals.

Evaluation Criteria	Point Value
Similar Project Experience	22.5
Project Approach and Ability to Manage Project Successfully	30
Capacity of Resources	20
AN/AI Preference	2.5
Cost Proposal	25
Total Point Value - 100	

Table 2. Evaluation Criteria and Point Value

6.4 Discussions

As determined by the evaluation process, Proposers may be offered the opportunity to respond to written questions or discuss their proposal with appropriate SCF personnel or evaluation committee and the proposal may be adjusted as a result of that discussion. Proposers may also be allowed to submit a best and final proposal as a result of any discussion.

6.5 Presentations

SCF reserves the right to require formal oral presentation of proposals. If a presentation is requested, Proposers will be notified in writing of the request, date, time, location, and amount of time allowed for the presentation and/or questions and answer period. Time frames will be strictly enforced.

The entire evaluation committee will be present for oral presentations. All costs associated with oral presentation will be the Proposer's responsibility.

6.6 Notice of Award

A notice of contract award will be provided to all Proposers.

Section 7. Standard Contract Terms

7.1 Introduction

SCF is providing the following standard provisions for Proposers to review and consider in advance of a submitted proposal. These and other standard provisions will be presented to a successful Proposer at the time of contract award.

The Agreement between the two parties will be the SCF Professional Services Contract, which SCF will provide when ready to enter into an agreement with the winning Proposer. See Exhibit E for an example draft agreement to review.

7.2 Conflict of Interest

Proposer shall not refer work to itself or to any prohibited entity in violation of the Stark anti-kickback provisions of Federal law. During the term of this Agreement, at any time and from time to time, Proposer agrees to immediately notify Owner's Contract Administrator in writing of all situations that may fall within the scope of these provisions. If any conflicts exist at the time of the execution of this Agreement, Proposer agrees to submit a separate written attachment to this Agreement for SCF review. SCF will determine if the conflict is significant and material, and if so, will notify the Proposer in writing that said conflicts are a material breach and grounds for termination of the Proposer's services.

7.3 Status of Independent Contractor

The Parties intend that Proposer must provide the work described in an Agreement as an independent contractor. As an independent Contractor, Proposer is not an employee of SCF. Therefore, payments made to Proposer by SCF will not be eligible for unemployment compensation or other similar benefits. Proposer is responsible for paying all employment, income and any other taxes with respect to such payments. Neither Proposer nor any Party employed by the Proposer will be deemed for any purpose to be an employee, agent, servant or representative of SCF. Furthermore, Proposer shall not assert in any legal proceedings arising out of this Agreement that Proposer or any Party employed by Proposer is an employee, agent, servant, or representative of SCF.

7.4 Americans with Disabilities Act

All SCF owned and/or operated facilities must comply as required with the Americans with Disabilities Act, Public Law 101-336, and with the Uniform Federal Accessibility Standards ("UFAS").

7.5 Insurance Requirements

Proposer shall purchase and maintain in force at all times during the performance of services under an Agreement the following policies of insurance, unless expressly waived below by SCF in writing. Where specific limits are shown, it is understood they will be the minimum acceptable limits. If the Proposer's policy contains higher limits, SCF will be entitled coverage to the extent of such higher limits. Certificates of Insurance and the attachments of Additional Insured Endorsements and Transfer of the Waiver of Rights Endorsements must be furnished to the SCF Contract Administrator prior to performing any services. Failure to furnish satisfactory evidence of insurance or lapse of the policy is a material breach and grounds for termination of the Proposer's services.

1. ***Commercial General Liability Insurance:*** Proposer shall provide Commercial General Liability Insurance with coverage limits not less than $1,000,000 Combined Single Limit for Bodily Injury and Property Damage per occurrence and $2,000,000 Combined Single Limit of Bodily Injury and Property Damage Aggregate. Commercial General Liability insurance shall be written on ISO occurrence form CG 0001, or a substitute form providing equivalent coverage and shall cover liability arising from premises, operations, independent contractors, products-completed operations, personal and advertising injury and liability assumed under an insured contract (including the tort liability of another assumed in a business contract). Proposer shall name SCF as an insured under the CGL, using ISO additional insured endorsements CG 20 10 and CG 20 37 or their equivalent, including coverage for SCF with respect to liability arising out of

   Proposer's services provided under this Agreement. Additional insured coverage, as required in this subparagraph, will apply as primary insurance with respect to any other insurance or self-insurance programs afforded to SCF.

2. ***Workers' Compensation Insurance:*** Proposer shall maintain Workers Compensation and Employers Liability Insurance for his own employees in the amount required under Statutory Limits for those states in which employees are working and Employers Liability Insurance as required by state and Federal statutes. The employer's Liability Insurance shall not be less than $1,000,000 per bodily Injury per accident, $1,000,000 bodily injury by disease per employee and $1,000,000 bodily injury by disease policy limit. Proposer will also be responsible for ensuring that any subcontractors who directly or indirectly provide services under this contract maintain Workers' Compensation Insurance in the amount required under Statutory Limits. Proposer waives all rights against SCF and its agents, officers, directors, and employees for recovery of damages to the extent these damages are covered by the workers compensation and employers' liability, or any commercial umbrella liability insurance obtained by Proposer pursuant to this Agreement. Proposer, pursuant to this agreement, shall obtain an endorsement equivalent to WC 00 03 13 to affect this waiver.

3. ***Professional Liability Insurance:*** Contractor will carry Professional Liability coverage at a limit of $1,000,000 Per Claim and $2,000,000 Aggregate. If the professional liability policy is written on a claims made form, Contractor shall provide insurance for a period of two years after final payment of this agreement.

4. ***Commercial Auto Liability Insurance****:* Proposer shall maintain a commercial automobile liability insurance policy covering all owned, hired, and non-owned vehicles to be used or in connection with Proposer, with coverage limits not less than $1,000,000 per accident combined single limit bodily injury and property damage.

5. ***Subcontracting Requirements****:* Proposer is required to have prior written approval by SCF before using any subcontractor. SCF may, in its sole discretion, withhold its approval for any reason or for no reason. Additionally, Proposer will be responsible for ensuring that its subcontractors are bound by the same insurance provisions as required herein as required by Alaska law during the course of its subcontractors' operations. Proposer shall provide written copies of all subcontractors' certificates of insurance and endorsements to SCF prior to any subcontractor commencing work.

6. ***Builder's Risk:*** The Contractor shall purchase and maintain in a company or companies lawfully authorized to do business in Alaska property insurance written on a builder's risk "all-risk" or equivalent policy form in the amount of the initial Contract Sum, plus the value of subsequent Modifications and cost of materials supplied or installed by others.

7.6 Compliance with Legal Obligations and SCF Code of Conduct

Proposer agrees to comply with all Federal, state and local laws; SCF clean construction procedures; ethical, environmental or safety business standards; and any underlying agreement or grant provisions to which SCF is subject. Proposer shall ensure that the provision of services and/or expenditure of funds under this Agreement do not violate any laws, business standards, or underlying agreement or grants. Proposer shall be responsible for any damage or injury not caused by SCF as a result of Proposer's, or any subcontractor's or their employees', servants,' or agents' failure to comply with any law, applicable business standard or underlying agreement or grant. Furthermore, Proposer has been supplied with a copy of SCF's Code of Conduct and agrees to comply with its provisions and to complete SCF compliance training if necessary. The link to SCF's Ethics & Compliance page containing the Code of Conduct and Ethics can be found at: https://www.southcentralfoundation.com/about-us/ethics-and-compliance/

7.7 Monitoring

SCF may establish a schedule for periodic review of Proposer's performance. Review may be at least once a year, or as frequently as SCF determines necessary.

7.8 Lobbying

The undersigned representative of Proposer certifies, to the best of his/her knowledge and belief, that:

A. No Federal appropriated funds have been paid or will be paid, by or on behalf of Proposer, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract; the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

B. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, Proposer shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

C. Proposer shall require that the language of this certification be included in the award documents for all sub-awards at all tiers (including subcontracts, sub-grants, and contracts under grants, loans, or cooperative agreements) and that all sub-recipients shall certify and disclose accordingly.

7.9 Exclusion and Debarment

Each party represents and warrants that no adverse action by the Federal government that will or may result in mandatory or permissive exclusion from a Federal healthcare program pursuant to 42 U.S.C §1320a-7 has occurred or is pending or threatened against it, its principals, its affiliates, or to the best of its knowledge, against any of its employees, agents or subcontractors providing services under this Agreement. Each Party additionally represents and warrants that neither it, its principals, its affiliates, and to the best of its knowledge, its employees, its agents, nor its subcontractors providing services under this agreement are suspended, debarred, or otherwise determined to be ineligible for award of contract, grant, or cooperative agreement by any Federal, state, or other governmental body.

Each Party shall immediately provide written notice to the other Party of (1) its receipt of a notice of an adverse action by the Federal government against any of the individuals or entities specified above that will or may result in mandatory or permissive exclusion from a Federal healthcare program pursuant to 42 U.S.C. §1320a-7, (2) the date of any adjudication or determination that any of the individuals or entities specified above has committed any action that would subject it/them to mandatory or permissive exclusion under 42 U.S.C. §1320a-7, or (3) a notice of an adverse action by a governmental body against any of the individuals or entities specified above

that will or may result in a determination of ineligibility for award of contract, grant or cooperative agreement. In the event either Party fails to provide the other Party with such written notice, or it is discovered that either Party's representations contained herein are false, the other Party has the right to immediately terminate this Agreement.

7.10 Successors, Assignment or Delegation

This Agreement may not be assigned or subcontracted or otherwise transferred by Proposer without the prior written consent of SCF, which SCF may withhold for any reason or for no reason, in its sole and absolute discretion, and any assignment or other transfer in violation hereof shall be null and void and of no force or effect. If SCF consents to an assignment or subcontract of all or any portion of this Agreement, Proposer warrants to SCF that the assignee or subcontractor shall execute a written instrument agreeing to be bound by all of the terms and conditions of this Agreement, that Proposer shall provide SCF with a copy of the written agreement, and that any such assignment or subcontract shall not relieve the Proposer from any obligations hereunder. Proposer further agrees that Proposer shall guarantee the performance of any assignee or subcontractor hereunder. Without limiting the foregoing, this Agreement shall be binding upon, and inure to the benefit of, the parties hereto, and their successors and permitted assigns, if any.

7.11 Nondiscrimination

Proposer shall not discriminate against any employee or applicant for employment because of race, color, religion, national origin, ancestry, age, sex, marital status, or "qualified individual with a disability status."

7.12 Alaska Native/American Indian Preference in Employment and Training

Pursuant to Section 7(B) of P.L. 93-638, 25 U.S.C. §5307(b), the Indian Self-Determination and Education Assistance Act, Proposer shall give preference in all phases of employment and training for all work performed under this Agreement to qualified Alaska Natives and/or American Indians regardless of age, marital status, religion, sex, or "qualified individual disability status," consistent with prevailing law.

7.13 Federal Tort Claims Act

To the extent that this Contract or any portion of it comes within the coverage of Public Law 101-512 and the Federal Tort Claims Act, 28 U.S.C. §§ 2671- 2680, as implemented (the "FTCA"), all claims for damages by any person alleged to have been caused while carrying out this Agreement by the employees of Owner and/or its subsidiaries, servants, agents, representatives, affiliates, or contractors, including without limitation personal service contractors, shall be governed by the terms and to the extent provided by the FTCA, and such claims shall be made in accordance with 28 C.F.R. Part 14 and related laws.

7.14 Media Contact

Proposer, its employees, agents, and subcontractors shall not contact any member of the print or electronic media as a representative of SCF without the prior written approval of the President/CEO of SCF. If any member of the print or electronic media contacts the Proposer asking for information, the Proposer will refuse to comment and will refer the inquiry to SCF's Office of Public Relations and the SCF Contract Administrator. Further, Proposer will not use SCF's name in any advertising, publications, promotional materials or publicity release concerning any Agreement or the services performed under it.

EXHIBIT A: Scope of Services

Scope of Work/Services: 6130 Tuttle Place Progressive Design- Build Office Renovation & Tenant Improvements

- Remodel underutilized office space at 6130 Tuttle Place Facilities Warehouse.
  - The remodel will support the relocation of the SCF Facility Planning and Construction (FPC) team from on-ANHC campus to off-campus.
- The area of work includes approximately 4,000 SF of existing office space on the second floor of 6130 Tuttle:
  - 1,000 sf for Facilities Operations tenant improvement
  - 3,000 sf for Facility Planning and Construction tenant improvement.
  - Minor refresh to common space: men's and women's toilet rooms
- Anticipated services include:
  - design services (space program; 35%, 65%, and Construction [Permit] Documents)
  - pre-construction services, including schedule and cost estimate.
  - Permitting
  - Review structural.
  - demolition and minor reconfiguration of existing office and support space to accommodate the following scope:
    - up to (12) employees' workspace (combo of open workstations, small group tables, and enclosed offices)
    - a reconfigured Plans Room within open work area
    - conference room for 12-15 persons (repurposed existing Plans Room)
    - refresh existing break room.
    - refresh men's and women's toilet rooms.
    - construction scope includes but not limited to:
- minor mechanical (heating/cooling); electrical, IT/technology, & plumbing improvements
- lighting improvements; window shade devices
- refresh/patch flooring and paint.
- purchase additional workstation furniture for new hires.
  - RFP Bid Proposal Form to include fees for the following:
    - Design services – 35%, 65%, and Permit Documents (allow for owner reviews at each phase)
    - Pre-construction services to include constructability review narrative of design docs at 35% in CSI format; cost estimate at 35% in CSI format.
  - Negotiate GMP at 65% (max. allowable construction contingency is 5%)
  - The initial contract will be for design and pre-construction services only.
  - GMP negotiation to be executed as a Progressive Design-Build Amendment (to include CA phase design services); use of SCF-hosted Auto-desk Forma is required; comply with SCF Division 01 specifications, including Clean Construction Procedures.

RFP Requirement – Proposed Design, Construction Schedule, and Fees

- Proposers shall include a proposed design and construction schedule as part of their RFP response, along with a detailed breakdown of proposed fees and associated costs. The proposed schedule shall identify key project milestones, including design, permitting, procurement, construction, and substantial completion.
- The proposed project schedule must demonstrate the ability to achieve Substantial Completion on or before May 5, 2027.

Project and Design Management Platform

- SCF hosted Autodesk Forma Build, Design Collaboration and Model Coordination shall be utilized as the Project Management Information System (PM/Design management software) for all collaboration, correspondence, storage of documents, storage of BIM models and scheduling dashboard, creation and storage of meeting agendas/minutes, submittals, RFIs, photos, schedules, Sheets, specifications, Issues, etc. throughout the duration of the project including warranty period. Owner will advise workflows and approve any successful proposer workflows.
- Provide Client references for projects that required the use of Forma. Successful proposer must show evidence of Forma training prior to fully executed agreement and designate a Forma point of contact in their team that will be responsible for the Design Team's effective use of Forma and its interrelated modules throughout the duration of the project including warranty period and 10-month warranty inspection.
- Describe your current Forma training plans. The below links are helpful.

  - https://learnacc.autodesk.com/page/all-courses
  - https://learnacc.autodesk.com/page/autodesk-build

Design Review Platform

- Architect led and hosted Bluebeam Sessions using SCF's Bluebeam Profile, Tools and Invitation template will be used for Review Milestones. 35%, 65% and Permit review and to backcheck 100% deliverables. All deliverables will be uploaded to Session including cost estimates. Cost estimates are to be available within one week of other deliverables.

Design Scope of Work

Designer shall:

- Review all Documents Listed as Exhibits in this RFP.

- Attend mandatory Pre-Proposal Conference to become familiar with existing conditions, at 6130 Tuttle Place.

- Note that timely, organized SCF stakeholder engagement is a requirement for scope development. SCF will assist the Designer in determining a pertinent stakeholder list, an engagement work plan, and stakeholder engagement schedule.
  During the design and pre-construction phases, the Design-Build Team shall organize, coordinate, and lead weekly on-hour coordination and planning meetings with the Project Team. A standard meting agenda shall be developed in collaboration with SCF at the beginning of the Project and coordinated wit SCF stakeholders each week in advance of the scheduled meeting.
  Meetings shall be conducted in person on a regular basis with SCF stakeholders at an SCF facility located on the Alaska Native Health Center Campus in Anchorage. Virtual meetings may be scheduled as needed to accommodate stakeholder availability or specific coordination requirements.

- During the construction phase, coordination meetings shall be led by the Design-Build Team at intervals established as part of the negotiated Guaranteed maximum Price (GMP) schedule. The frequency, format, and participants for these meetings shall be coordinated with SCF to support effective communication, project oversight, and timely resolution of issues.

EXHIBIT B: Proposal Offer and Signature Page

RFP Number: SCF 27-1207

RFP Name: 6130 Tuttle Place Progressive Design- Build Office Renovation & Tenant Improvements

RFP Proposal Due Date and Time: December 17, 2026, No Later than 2PM (AKST)

Proposer shall complete and return EXHIBIT B, Proposal Offer and Signature Page, with your submitted proposal, as a separate PDF file. Proposer shall initial each page and sign and date the last page.

Preparation of Fee Proposals

Part I – Phase 1 Costs: Time and Materials, NTE for Pre-Construction Services (Part 1A), 100 % Design (Part 1B). This amount is based on projected hours for employees proposed to work on Pre-Construction Services multiplied by fully burdened hourly rates for each employee plus estimated reimbursable costs (Part IV below). Proposers shall complete EXHIBIT B, showing projected number of hours for each individual employee and the corresponding fully burdened hourly rate for that employee. This item will establish the initial contract value for Pre-Construction Services for the selected Proposer.

Part II – Phase 2 DB Fee: Provide the fee on a percentage basis including profit and overhead that will be applied to the direct Cost of the Work during Phase 2, the construction phase. SCF expects responsible proposals to fall within reasonable ranges. Proposers that propose fees or amounts below 3% shall provide specific, verifiable examples (within the past 5 years) where they have successfully provided Design-Build services on projects of similar size and complexity for the fee proposed. Costs for the Design-Builder's internal Project Manager for construction phase services shall be included in the proposed DB Fee section, regardless of onsite or home office location. For pricing comparison purposes an estimated Cost of the Work has been provided. This estimated number is for proposal comparison purposes only. The Proposer will develop the actual Cost of the Work at completion of the 100% documents. The Proposed Design-Builder Fee percentage included in the price proposal shall be used to establish the actual profit and overhead Fee in the GMP.

Part III – Bonds and Insurance: Include costs for the required Bonds and Insurance as set forth in the RFP (see sample contract for requirements). Similar to the DB Fee above, state the percentage and multiply it by the target Guaranteed Maximum Price "GMP" Construction Costs provided to determine the single dollar amount for the Bonds and Insurance cost for the purpose of analysis of the Fee & Price Proposal.

Part IV – Staff Rates for Phase 1: Includes dollar amounts for staff Member Classifications, Hourly Rates, and Estimated Hours.

Part V – Summary of Fee & Price Proposal: The dollar amount for the Phase 1 Costs will be added to the dollar amounts for the DB Fee, Bonds, and Insurance to determine a single amount that shall be the Proposer's Total Fee/ Price Proposal.

PROPOSERS MUST COMPLETE THE SECTION BELOW

A. **Part IA – Pre-Construction Services Fee** (T&M NTE Amount).

$_____

B. **Part IB –100% Design Fee** (T&M NTE Amount).

$_____

C. **Part II – Construction D-B Fee** (% of total Construction Cost (GC+DC)). Assume the Total Estimated Cost of the work to be $900,000.00, for purposes of this calculation.

_____% * $900,000.00 = $_____

D. **Part III – Bonds and Insurance** (% of total Construction Cost). Assume a Total Estimated Cost of the work to be $900,000.00, for purposes of these calculations.

Insurance Premiums:

_____% * $900,000.00 $_____

= **Performance and Payment Bond:**

_____% * $900,000.00 = $_____

E. **Part IV – Staff Hourly Rates.** Fill out the below table for staff hourly rates. Rates shall be fully burdened to include all Overhead and Profit Add additional Pages as needed.

Staff Name/ Classification	Estimated Hours (Phase 1)	Hourly Rate (2024)
		$
		$
		$
		$
		$
		$
		$
		$
		$
		$
		$

		$
		$
		$
Estimated Reimbursable Description	**Qty**	**Total Cost**
		$
		$
		$
		$

Annual escalation percentage for Hourly Billing rates _____%

F. Part V – Summary of Fee and Price Proposal. Complete the below table using the calculated values from above, to arrive at a total Proposal Dollar Amount.

Summary of all Proposal Items:	**Proposal Amount TOTALS:**
Description of Proposal Item: Part I (A +B): *Phase 1 Total Costs*	$_____
Description of Proposal Item: Part II: *DB Fee*	$_____
Description of Proposal Item: Part III: *Bonds and Insurance*	$_____
PROPOSAL TOTAL:	$_____

The DB Fee and Bonds and Insurance percentages will be used as the basis for negotiating the Phase 2 final Guaranteed Maximum Price.

See the next page for the Summary Matrix of Cost Allocation.

EXHIBIT B: Proposal Offer and Signature Page (2 of 2)

Acknowledgement of receipt of Addenda:

Addendum No. _____Date Received: _____Signature:_____

Addendum No. _____Date Received: _____Signature: _____

Addendum No. _____Date Received: _____Signature: _____

Addendum No. _____Date Received: _____Signature: _____

Addendum No. _____Date Received: _____Signature: _____

By signing below Proposer agrees to all terms and conditions as listed within this Request for Proposal issued by SCF.

Authorized Signature: _____ Date:_____

EXHIBIT C: Form of Non-Collusive Affidavit

FORM OF NON-COLLUSIVE AFFIDAVIT

AFFIDAVIT

(PRIME PROPOSER)

State of: _____

_____Judicial District

_____, being first duly sworn, deposes and says:

"That he/she is the Proposer, or a partner or officer of the firm, party, etc., making the foregoing proposal or bid, that such proposal or bid is genuine and not collusive or a sham; that said Proposer has not colluded, conspired, connived or agreed, directly or indirectly, with any Proposer or person, to put in a sham bid or to refrain from bidding, and has not in any manner, directly or indirectly, sought by agreement or collusion, or communications or conference, with any person, to fix the bid price of affiant or any other Proposer, or to fix any overhead, profit or cost element or said bid price, or of that of any other Proposer, or to secure any advantage against the Southcentral Foundation or any person interested in the proposed contract; and that all statements in said proposal or bid are true."

Signature of: _____

Proposer's Representative

_____

NOTARY

Subscribed and sworn to before me this_____day of_____, 2026.

_____

My Commission Expires:

_____

EXHIBIT D: SCF Professional Service Contract

PROFESSIONAL SERVICES CONTRACT
BY AND BETWEEN
SOUTHCENTRAL FOUNDATION AND SUPPLIER NAME

This Professional Services Contract (the "Agreement") is made and entered into on Contract Start Date (the "Effective Date"), by and between Supplier Name, Supplier Primary Address Street1, Supplier Primary Address City, Supplier Primary Address State Supplier Primary Address Postal Code (hereinafter referred to as "Contractor") and Southcentral Foundation, 4501 Diplomacy Drive, Anchorage, Alaska 99508 (hereinafter referred to as "SCF") the tribal organization designated by Cook Inlet Region, Inc. to provide healthcare services to Alaska Native and American Indian beneficiaries of the Indian Health Service pursuant to P.L. 93-638, as amended, the Indian Self Determination and Education Assistance Act, and Section 325 of P.L. 105-83.

The purpose of this Agreement is to Contract Purpose.

1. **Scope of Services**

a. Contractor shall provide all labor, equipment, and materials needed to Description of Work, located at Address/Location of Work, as described in Contractor's quote dated Contractor's quote date, which is incorporated by reference into this Agreement as Exhibit A.

b. SCF shall… [**DELETE IF NOT NEEDED**]

2. **Term**

The term of this Agreement shall commence on the Effective Date and shall continue Term of Agreement. This Agreement may be extended by mutual written agreement of both parties, contingent upon continued funding.

3. **Compensation**

a. Payment to Contractor shall not exceed $Contract Maximum Value.

b. Additional services performed by Contractor that are not specifically provided for in this Agreement will be not compensated; nor may Contractor perform any services not covered by the Agreement unless the services are specifically approved in writing by the SCF Program Manager or another authorized SCF agent.

c. All invoices should include a brief description of the work completed (e.g. dates, number of hours, location services performed, applicable SCF program) and **SCF Contract Number: Contract Number**.

d. Contractor shall email invoice to: both the department contact email and SCFAPPillar@scf.cc or mail Southcentral Foundation, ATTN: Accounts Payable, 7033 E. Tudor Road, Anchorage, Alaska 99507.

4. Termination

a. Either party may terminate this Agreement, in whole or in part, for cause, at any time by written notice of the terminating party to the other party. Either party may terminate this Agreement, in whole or in part, without cause, by 30 day written notice of the terminating party to the other party. Notice of termination will be sent by certified mail. If hand delivered, then the delivery of the notice of the termination shall be evidenced by a signed and dated receipt. The obligation to pay monies due under this Agreement for service provided prior to the termination if any, shall survive termination.

b. Upon termination, Contractor shall immediately deliver to SCF all documentation including, without limitation, medical, dental or behavioral health charts; x-rays; drawings; specifications; calculations; notes; files; and computer data relating to the services performed hereunder. All such documents will be the exclusive property of SCF and SCF may use such documents as it may choose, including for completion of the work assigned hereunder by it or other contractors. Failure to deliver the above-referenced documents shall be cause for SCF to withhold all payments due Contractor.

5. Status of Independent Contractor

The parties intend that Contractor shall provide the work described in this Agreement as an independent contractor. As an independent contractor, Contractor is not an employee of SCF. Therefore, payments made to Contractor by SCF for this Agreement will not be eligible for unemployment compensation or other similar benefits. Contractor is responsible for paying all employment, income and any other taxes with respect to such payments. Neither Contractor nor any party employed by Contractor shall be deemed for any purpose to be an employee, agent, servant or representative of SCF. Further, Contractor shall not assert in any legal proceedings arising out of this Agreement that Contractor or any party employed by Contractor is an employee or loaned servant of SCF.

6. Liability

Contractor shall not do, nor permit anything to be done, which in any manner shall subject SCF to any liability as a result of this Agreement. Contractor shall be solely responsible for the supervision, acts and omissions of its employees, subcontractors, if any, and agents.

7. Federal Tort Claims Act

All claims for damages by any person alleged to have been caused while carrying out this Agreement shall be governed by the terms of and to the extent provided by Public Law 101-512 and the Federal Tort Claims Act, 28 U.S.C. 2671-2680, as implemented, and such claims will be made in accordance with 28 C.F.R. Part 14 and related law.

8. Indemnity

Notwithstanding Section 7, Federal Tort Claims Act, each party (as the “Indemnifying Party”) will indemnify, hold harmless, and defend the other party (as the “Indemnified Party”), including its officers, directors, employees, agents, and subcontractors, if any, from and against any and all liability, including but not limited to fines, penalties, settlements, judgments, awards, attorney’s fees, and costs and expenses, for all actions, claims, damages, losses, and expenses arising directly or indirectly as a result of

any strict liability, error, omission, or negligent act or willful misconduct of the Indemnifying Party, its assignee, subcontractor, or anyone directly or indirectly employed by it or them in the performance of this Agreement, except for any claims or damages caused solely as a result of the willful misconduct of the Indemnified Party. Any claims, damages, liability, losses and expenses arising out of or resulting from or sustained in connection with the performance of work, under this Agreement, that are the result of the negligence or willful misconduct of both parties, will be apportioned on a comparative fault basis. This provision shall survive the termination of this Agreement with respect to acts or omissions that occurred prior to termination and shall be in effect during all applicable statutes of limitations.

9. Insurance Requirements

See Appendix A attached hereto.

10. Compliance with Legal Obligations and SCF Code of Conduct

Contractor agrees to comply with all federal, state and local laws; ethical, environmental or safety business standards; and any underlying agreement or grant provisions to which SCF is subject. Contractor shall ensure that the provision of services and/or expenditure of funds under this Agreement do not violate any laws, business standards, or underlying agreement or grants. Contractor shall be responsible for any damage or injury not caused by SCF as a result of Contractor's, or any subcontractor's or their employees', servants', or agents' failure to comply with any law, applicable business standard, or underlying agreement or grant. Furthermore, Contractor has been supplied with a copy of SCF's Code of Conduct and agrees to comply with its provisions and to complete SCF compliance training if necessary.

11. Confidentiality

a. Contractor and SCF shall protect the Proprietary Information of the other and shall keep all such Proprietary Information confidential. Proprietary Information shall be disclosed only on a need-to-know basis. "Proprietary Information" means non-public information of competitive or commercial value to the Discloser; and personal or medical information regarding the Discloser's employees, customers, patients and staff, which either: (i) the Discloser has designated as confidential (by legend or other reasonable means); or (ii) a reasonable person would recognize as confidential or proprietary in nature. Any disclosures made by SCF to Contractor are made in reliance on this Section and Contractor's agreement to maintain confidentiality. Contractor acknowledges that certain information that may be disclosed to it by SCF may be subject to special disclosure limitations under federal, state or local law, and Contractor expressly agrees to comply in all respects with any such laws. Contractor shall be responsible for any breach by its employees or subcontractors of this Section.

b. All medical information and/or data concerning specific patients (including but not limited to, the identity of the patients), derived from or obtained during the course of the services under this Agreement, shall be treated by Contractor as confidential so as to comply with all applicable local, state and federal laws regarding the confidentiality of patient records and the privacy, security, and administration of health information. Such medical information and/or data shall not be released, disclosed or published to any party other than as required or permitted under applicable laws. Such applicable laws include, but are not limited to, the Federal Privacy Act, 5 U.S.C. §552a(b); the Public Health Service Act, 42 CFR Part 2; and the Health Insurance Portability and Accountability Act of 1996 as amended ("HIPAA"), 42 U.S.C. § 1171 et seq. and regulations issued under it. This provision shall survive the termination or expiration of this Agreement.

c. All obligations of Contractor regarding confidentiality and disclosure of information contained in this Agreement shall survive the termination of this Agreement and remain binding upon Contractor and its successors and assigns.

12. HIPAA Compliance

a. Contractor and SCF shall carry out their obligations under this Agreement so as to (i) ensure that the provision of services contemplated therein complies with all applicable laws and regulations, including privacy regulations now in effect pursuant to Public Law 104-191 of August 21, 1996, known as the Health Insurance Portability and Accountability Act of 1996, Subtitle F - Administrative Simplification, Sections 261, et seq., as amended ("HIPAA") to protect the privacy of any individually identifiable patient information ("Protected Health Information") that is learned as a result of the services provided pursuant to the Agreement, and (ii) implement any changes required during the term of the Agreement which are necessary to adapt the services to comply with any future applicable laws or regulations, including, without limitation, additional privacy and security requirements promulgated under HIPAA and other applicable State and Federal laws and regulations.

b. Contractor and SCF agree that they will (i) not use or further disclose Protected Health Information obtained or accessible by it as a result of its performance under the Agreement other than as permitted or required thereunder or by law, (ii) use appropriate safeguards to prevent use or disclosure of such Protected Health Information except as permitted by the Agreement, (iii) report to the other party any use or disclosure of Protected Health Information not provided for in the Agreement of which it becomes aware and mitigate, to the extent practicable, any harmful effect of such use or disclosure, (iv) ensure that any agents, including subcontractors, to whom it provides Protected Health Information, or who have access to Protected Health Information, agree to the same restrictions and conditions that apply to Contractor with respect to such Protected Health Information, (v) make available Protected Health Information to the individual who has a right of access under State and/or Federal law or regulation, (vi) make available Protected Health Information for amendment and incorporate any amendments to Protected Health Information, (vii) make available the information required to provide an accounting of disclosures, (viii) make its internal practices, books and records relating to the use and disclosure of Protected Health Information received or obtained from the other party, or created or received by Contractor available to the Secretary of HHS for determining Provider's compliance with Federal regulations, and (ix) unless prohibited by law, at the termination of the Agreement, return or destroy all Protected Health Information received from, or created on behalf of, the other party to the Agreement.

c. In the event that Contractor or SCF breaches any of the above provisions, or declines to implement any changes that are required or reasonably requested to ensure compliance with such laws and regulations, the non-breaching party may immediately terminate the Agreement with notice of termination to the breaching party.

13. Notices

All notices and other required communications (“Notices”) shall be sent to the addresses set forth below. All Notices shall be given by (a) personal delivery with written acknowledgement of receipt, or (b) by registered or certified mail, return receipt requested, or (c) by courier service. All Notices shall be effective

and shall be deemed delivered on the next business day after actual receipt. Either party may change its address for Notice from time to time by so notifying the other in accordance with this provision. All Notices and other required communication to the parties shall be addressed respectively as follows:

Southcentral Foundation
Attn: Kate Lynch, MBA, Manager of Contracts
7033 E Tudor Road
Anchorage, Alaska 99507
Tel: (907) 729-3007

Supplier Name
Attn: Signing Authority's Name, Signing Authority's Title
Signing Authority's Address
Signing Authority's City State ZIP
Tel: Signing Authority's Phone Number

14. Amendment/Modification

This Agreement may be amended by mutual written consent of both parties to be attached hereto and incorporated herein, and executed by Contractor and the SCF President/CEO. SCF at its discretion may amend this Agreement to conform with federal, state, or local governmental guidelines, policies and available funding amounts, or for any other reason. If such amendments result in a change in the funding, the scope of service or schedule, or the activities to be undertaken as a part of this Agreement, such modification will be incorporated only by written amendment executed by both the SCF President/CEO and Contractor.

15. Monitoring

SCF may establish a schedule for periodic review of Contractor's performance. Review may be at least once a year, or as frequently as SCF determines necessary.

16. Lobbying

The undersigned representative of Contractor certifies, to the best of his/her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of Contractor, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract; the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, Contractor shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

c. Contractor shall require that the language of this certification be included in the award documents for all sub-awards at all tiers (including subcontracts, sub-grants, and contracts under grants, loans, or cooperative agreements) and that all sub-recipients shall certify and disclose accordingly.

17. Exclusion and Debarment

Each party represents and warrants that no adverse action by the federal government that will or may result in mandatory or permissive exclusion from a federal healthcare program pursuant to 42 U.S.C. §1320a-7 has occurred or is pending or threatened against it, its principals, its affiliates, or to the best of its knowledge, against any of its employees, agents or subcontractors providing services under this Agreement. Each party additionally represents and warrants that neither it, its principals, its affiliates, and to the best of its knowledge, its employees, its agents, nor its subcontractors providing services under this Agreement are suspended, debarred, or otherwise determined to be ineligible for award of contract, grant or cooperative agreement by any federal, state, or other governmental body.

Each party shall immediately provide written notice to the other party of (1) its receipt of a notice of an adverse action by the federal government against any of the individuals or entities specified above that will or may result in mandatory or permissive exclusion from a federal healthcare program pursuant to 42 U.S.C. §1320a-7, (2) the date of any adjudication or determination that any of the individuals or entities specified above has committed any action that would subject it/them to mandatory or permissive exclusion under 42 U.S.C. §1320a-7, or (3) a notice of an adverse action by a governmental body against any of the individuals or entities specified above that will or may result in a determination of ineligibility for award of contract, grant or cooperative agreement. In the event either party fails to provide the other party with such written notice, or it is discovered that either party's representations contained herein are false, the other party has the right to immediately terminate this Agreement.

18. Nondiscrimination

Except as provided in Section 19, Contractor shall not discriminate against any employee or applicant for employment because of race, color, religion, national origin, ancestry, age, sex, marital status, or "qualified individual with a disability status".

19. Alaska Native/American Indian Preference In Employment and Training

Pursuant to Section 7(B) of P.L. 93-638, 25 U.S.C. §5307(b), the Indian Self-Determination and Education Assistance Act, Contractor shall give preference in all phases of employment and training for all work performed under this Agreement to qualified Alaska Natives and/or American Indians regardless of age, marital status, religion, sex, or "qualified individual disability status," to the extent authorized by prevailing law or SCF's Compact with the U.S. Indian Health Service.

20. Risk Management and Incident Reporting Cooperation

The parties agree to cooperate with each other's reasonable risk management and quality assurance activities, to the extent applicable to the services provided under this Agreement. Should a party become aware of an incident or claim which may give rise to a claim under any applicable professional liability policy of insurance; the party shall notify the other party within a reasonably prompt time after becoming aware of the incident or claim. The obligations of this provision shall survive termination of this Agreement.

21. Terms of Underlying Agreement or Grant

This Agreement may be subject to an underlying Agreement or Grant ("The Underlying Agreement or Grant"). The terms and conditions imposed upon SCF in an Underlying Agreement or Grant are applicable to and binding upon Contractor. A copy, if applicable, of the Underlying Agreement or Grant is available for Contractor's review at SCF's place of business. In the event of a conflict between the terms and conditions of this Agreement and an Underlying Agreement or Grant the terms of an Underlying Agreement or Grant shall control.

22. Criminal Background Investigation

Contractor and any individual employed by Contractor providing services under this Agreement shall be subject to SCF's background check policy and procedure. Contractor and any individual employed by Contractor providing services under this Agreement shall be screened for listing as an "Excluded Person/Party" on the Federal System for Award Management and shall also undergo a criminal history screen to ensure that they meet the criminal history standards set forth in all applicable local, state and federal laws including, but not limited to, the Social Security Act, 42 U.S.C § 1320a-7; the Indian Child Protection and Family Violence Prevention Act, 25 U.S.C. § 3201 et seq., the Crime Control Act of 1990, 42 U.S.C. Sec.13041 et seq.; and the Alaska Criminal History and Barrier Crimes Statutes and Regulations, AS 47.05.300 et seq.; 7 AAC 10.

Prior to providing services under this Agreement, Contractor and any individual employed by Contractor providing services under this Agreement shall submit to any necessary criminal background investigation. SCF may perform such investigation and may invoice Contractor for the costs of fingerprinting (if necessary) and applicable criminal history screening. If Contractor and/or any individual employed by Contractor providing services under this Agreement do not meet SCF's criminal history requirements, SCF will provide written notice to Contractor and this Agreement may be terminated immediately.

During the term of this Agreement, Contractor shall immediately provide to SCF written notice of any arrests, charges, convictions, or any other criminal legal action taken against Contractor and/or any individual employed by Contractor providing services under this Agreement. SCF may terminate this Agreement immediately if Contractor fails to provide to SCF written notice of such criminal legal action.

23. Health Requirements

Contactor shall comply with SCF's immunization requirements to include: MMR (documentation of 2 vaccines or proof of immunity via a titer), Varicella (documentation of 2 vaccines or proof of immunity via a titer), Hepatitis B series (documentation of 2 or 3 dose vaccine series or proof of immunity via a titer) , at least one Tdap on record and/or Tdap or TD within the last 10 years, COVID-19 (documentation of full vaccination – this means two weeks post second shot of Pfizer monovalent, Moderna monovalent, Novavax or two weeks post single shot of Johnson and Johnson, Pfizer bivalent or Moderna bivalent), documentation of PPD skin testing placement with reading or QuantiFERON lab for Tuberculosis within previous 12 months, and annual Influenza vaccine by October 30th of each year. Contractor shall comply with any SCF screening protocols that may be in place as part of SCF's emergency preparedness or response procedures, prior to coming onsite. Contractor shall maintain physical distancing of at least six (6) feet and wear a mask as required. [DELETE THIS SECTION IF NOT APPLICABLE]

24. General Provisions

a. Governing Law, Venue, and Jurisdiction. This Agreement shall be governed, construed and enforced in accordance with the laws of the State of Alaska and the United States of America. All parties expressly agree that should litigation or any legal preceding be necessary under this Agreement, the same shall be commenced exclusively in Alaska Superior Court, Third Judicial District at Anchorage or in the United States District Court for the District of Alaska.

b. Legal Construction/Severability. This Agreement has been negotiated by the parties and their respective legal counsel, if any, and the parties intend and agree that the rule of construction that a document is construed against the drafting party shall not apply to this Agreement. In case any provision of this Agreement is found by a court of law to be invalid, unenforceable, or in violation of law, this Agreement shall be construed as if such invalid or unenforceable provision had never been contained herein and all remaining provisions of this Agreement shall continue to be valid and binding upon the parties.

c. Ownership of Materials. All data, materials and documents developed or produced as deliverables under this Agreement (e.g., original computer disks, hard copies of information stored on computer disks, pamphlets, brochures, media releases, video including copyrights, etc.) will automatically become the property of SCF and remain the property of SCF without further compensation to Contractor. Any and all such materials and documents must be submitted to SCF upon expiration or termination of this Agreement. Contractor expressly agrees to ensure that this provision is included in any subcontract of services hereunder. If applicable, Contractor agrees to sign the copyright agreement attached hereto and incorporated herein. Notwithstanding anything else in this Section, Contractor shall retain ownership of templates used in the creation of the work product and components or modules of the work product which provide business or technical information or utility not unique to SCF's business. To the extent that Contractor's templates, skills, or knowledge are embedded in any work product or deliverable provided to SCF, Contractor grants SCF a perpetual, royalty-free, non-transferable limited license to use such templates, skills or knowledge in the ordinary course of its business as a provider of healthcare services.

d. Audit and Examination of Records. Contractor agrees to maintain and make available for review by SCF all books, records, documents and other evidence pertaining to costs and expenses of this Agreement for examination and audit by SCF for a period of seven (7) years from and after the termination of this Contract. SCF shall have the right to make copies of documents audited and such copies will become the confidential property of SCF.

e. Media Contact. Contractor, its employees, agents, and subcontractors shall not contact any member of the print or electronic media as a representative of SCF without the prior written approval of the President/CEO of SCF. If any member of the print or electronic media contacts Contractor asking for information, Contractor will refuse to comment and will refer the inquiry to SCF's Office of Corporate Communications. Further, Contractor will not use SCF's name in any advertising, publications, promotional materials or publicity release concerning this Agreement or the services performed under it.

f. Entire Agreement. This Agreement represents the entire agreement and understanding between the parties hereto with respect to the subject matter hereof and supersedes all prior or contemporaneous, express or implied, written or oral agreements, representations and conditions

between the parties with respect thereto. [DELETE IF NOT APPLICABLE: Notwithstanding this provision, if applicable, the parties agree to comply with the terms of the HIPAA Business Associate Addendum attached to this Agreement as Appendix B.]

g. Captions. Titles or captions contained herein are inserted as a matter of convenience and for reference and in no way define, limit, extend or describe the scope of the Agreement or any provision thereof.

h. Successors, Assignment or Delegation. This Agreement may not be assigned or subcontracted or otherwise transferred by Contractor without the prior written consent of SCF, which SCF may withhold for any reason or for no reason, in its sole and absolute discretion, and any assignment or other transfer in violation hereof shall be null and void and of no force or effect. If SCF consents to an assignment or subcontract of all or any portion of this Agreement, Contractor warrants to SCF that the assignee or subcontractor shall execute a written instrument agreeing to be bound by all of the terms and conditions of this Agreement, that Contractor shall provide SCF with a copy of the written agreement, and that any such assignment or subcontract shall not relieve Contractor from any obligations hereunder. Contractor further agrees that Contractor shall guarantee the performance of any assignee or subcontractor hereunder. Without limiting the foregoing, this Agreement shall be binding upon, and inure to the benefit of, the parties hereto, and their successors and permitted assigns, if any.

i. No Third Party Beneficiaries/Partnership. This Agreement does not create, and shall not be construed as creating, any rights enforceable by any person or entity not a party to this Agreement. Nothing in this Agreement shall be intended or deemed to create a partnership, joint venture, association, or other similar relationship between the parties hereto.

j. Waiver. No provision of this Agreement may be waived unless agreed to by SCF in writing. No delay on the part of SCF in the exercise of any right, power, or remedy shall operate as a waiver thereof; nor shall any single or partial exercise by SCF of any right, power, or remedy preclude other or further exercise thereof, or the exercise of any other right, power, or remedy. All rights, powers and remedies shall be cumulative.

k. Legal Expenses. If either party to this Agreement brings suit or otherwise becomes involved in any legal proceedings seeking to enforce the terms of this Agreement, or to recover damages for breach, the prevailing party shall be entitled to recover its full reasonable cost and expenses (including fees of attorneys, expert witnesses, accountants, court reporters and others) incurred in connection therewith including all such reasonable cost and expenses incurred in: (i) trial and appellate court proceeding, (ii) bankruptcy or other insolvency proceedings, and (iii) post-judgment collection proceedings.

l. Counterparts. This Agreement may be executed in counterparts, each of which shall be deemed an original, and all of which taken together shall constitute a single agreement.

m. Conflict of Interest. Contractor shall not refer work to himself/herself/itself or to any prohibited entity in violation of the Stark or anti-kickback provisions of federal law. No amount hereunder is intended to be, nor shall be, construed as an inducement or payment for referral of or recommending referral of patients of Contractor to SCF. Contractor agrees that, during the term of this Agreement, Contractor will not perform similar services for any other client in the same business as SCF unless SCF agrees in writing to such arrangements. Contractor agrees to

immediately notify SCF's Contracts Administrator of all situations that fall within the scope of this provision. If any conflicts exist at the time of the execution of this Agreement, Contractor agrees to submit a separate attachment to this Agreement for approval and Contractor acknowledges that this Agreement may be terminated immediately if such conflicts violate the Stark or anti-kickback provisions of federal law.

n. Force Majeure. Each party shall not be liable for their respective failure to perform any of their obligations under this Agreement if prevented from performing such obligation by a cause beyond their respective reasonable control, which by the use of due diligence Contractor or SCF, as the case may be, shall not have been able to overcome, including, but not limited to, acts of God, natural disaster, civil commotion, quarantine, fire, labor disputes or any action or non-action by the United States government, including changes in existing legislation affecting the subject matter of this Agreement.

o. Signatures. The undersigned individuals executing this Agreement represent and warrant that they are fully authorized to do so and bind the respective party for the purposes provided herein.

SOUTHCENTRAL FOUNDATION	**SUPPLIER NAME**
By: _____	By: _____
April Kyle, MBA	Signing Authority's Name
President/CEO	Signing Authority's Title
Date: _____	Date: _____

APPENDIX A – INSURANCE PROVISIONS

Notwithstanding Section 7, Federal Tort Claims Act, without limiting Contractor's indemnification pursuant to Section 8, Indemnity, it is agreed that Contractor shall purchase and maintain in force at all times during the performance of services under this Agreement the following policies of insurance, unless expressly waived below by SCF in writing. Where specific limits are shown, it is understood that they shall be the minimum acceptable limits. If Contractor's policy contains higher limits, SCF shall be entitled to coverage to the extent of such higher limits. Certificates of Insurance and the attachments of Additional Insured Endorsements and Transfer of the Waiver of Rights Endorsements must be furnished to SCF Contract Specialist prior to beginning work. Failure to furnish satisfactory evidence of insurance or lapse of the policy is a material breach and grounds for termination of Contractor's services.

1) Commercial General Liability Insurance: Contractor shall provide Commercial General Liability Insurance with coverage limits not less than $1,000,000 Combined Single Limit for Bodily Injury and Property Damage per occurrence and $2,000,000 Combined Single Limit of Bodily Injury and Property Damage Aggregate. Commercial General Liability insurance shall be written on ISO occurrence form CG 0001 or a substitute form providing equivalent coverage and shall cover liability arising from premises, operations, independent contractors, products-completed operations, personal and advertising injury and liability assumed under an insured contract (including the tort liability of another assumed in a business contract). Contractor shall name SCF as an insured under the CGL, using ISO additional insured endorsements CG 20 10 and CG 20 37 or their equivalent, including coverage for SCF with respect to liability arising out of Contractor's services provided under this Agreement. Additional insured coverage, as required in this subparagraph, will include completed operations and will apply as primary insurance with respect to any other insurance or self-insurance programs afforded to SCF.

2) Workers' Compensation Insurance: Contractor must maintain Workers Compensation and Employers Liability Insurance for its own employees in the amount required under Statutory Limits for those states in which employees are working and Employers Liability Insurance as required by state and federal statutes. The employer's Liability Insurance shall not be less than $1,000,000 per bodily Injury per accident, $1,000,000 bodily injury by disease per employee and $1,000,000 bodily injury by disease policy limit. Contractor will also be responsible for ensuring that any subcontractors who directly or indirectly provide services under this contract maintain Workers' Compensation Insurance in the amount required under Statutory Limits. Contractor waives all rights against SCF and its agents, officers, directors and employees for recovery of damages to the extent these damages are covered by the workers compensation and employers liability or any commercial umbrella liability insurance obtained by Contractor pursuant to this Agreement. Contractor, pursuant to this agreement, shall obtain an endorsement equivalent to WC 00 03 13 to affect this waiver.

3) Professional Liability Insurance: Contractor will carry Professional Liability coverage at a limit of $1,000,000 Per Claim and $2,000,000 Aggregate. The policy will be endorsed to include sexual abuse coverage with a minimum separate limit of $1,000,000 per claim. If the professional liability policy is written on a claims made form, Contractor shall provide insurance for a period of two years after final payment of this agreement.

4) Commercial Auto Liability Insurance: Contractor shall maintain a commercial automobile liability insurance policy covering all owned, hired, and non-owned vehicles to be used or in connection with Contractor, with coverage limits not less than $1,000,000 per accident combined single limit bodily injury and property damage.

5) Subcontracting Requirements: Contractor is required to have prior approval by SCF before using any subcontractor. SCF may, in its sole discretion, withhold its approval for any reason or for no reason. Additionally, Contractor shall be responsible for ensuring that its subcontractors comply with the same insurance provision as required herein and as required by Alaska law during the course of its subcontractors' operations. Contractor shall provide copies of all subcontractors' certificates of insurance and endorsements to SCF prior to any subcontractor commencing work.

EXHIBIT A – CONTRACTOR'S QUOTE & WORK DETAIL DATED CONTRACTOR'S QUOTE DATE

EXHIBIT E: SCF Division 01 Specifications, Clean Construction Procedures

SECTION 000110
TABLE OF CONTENTS

PROCUREMENT AND CONTRACTING REQUIREMENTS

1.01 DIVISION 00 -- PROCUREMENT AND CONTRACTING REQUIREMENTS

A. 000110 - Table of Contents

SPECIFICATIONS

2.01 DIVISION 01 -- GENERAL REQUIREMENTS

A. 011000 – Summary of Work
B. 012000 - Price and Payment Procedures
C. 012300 - Alternates
D. 012500 - Substitution Procedures
E. 012600 – Contract Modification Procedures
F. 013000 - Administrative Requirements
G. 013100 – Project Management and Coordination
H. 014000 - Quality Requirements
I. 014010 – Clean Construction Procedures
J. 014010.01 – Clean Construction Assessment and Approval Forms
K. 014100 - Regulatory Requirements
L. 014200 – Reference Standards and Definitions
M. 015000 – Temporary Facilities and Controls
N. 016000 – Product Requirements
O. 017000 - Execution and Closeout Requirements
P. 017419 - Construction Waste Management and Disposal
Q. 017610 - Temporary Protective Coverings
R. 017824 – Facility Asset Data
S. 017839 – Project Record Building Information Model (BIM)
T. 017900 - Demonstration and Training
U. 019100 – Commissioning
V. 019119.43 – Exterior Enclosure Commissioning

END OF SECTION

SECTION 01 11 00
SUMMARY OF WORK

PART 1 – GENERAL

1.01 1.01 SECTION INCLUDES

A. Work Summary

1.02 RELATED REQUIREMENTS

A. Drawings and general provisions of the Contract, including General and Supplemental Conditions and Division 00 & 01 Specifications apply to the section.

1.03 WORK UNDER OWNER'S SEPARATE CONTRACTS

A. Work with Separate Contractors: Cooperate fully with Owner's separate contractors, so work on those contracts may be carried out smoothly, without interfering with or delaying Work under this Contracts or other contracts. Coordinate the Work of this Contract with work performed under Owner's separate contracts.

B. Concurrent Work: Owner has awarded separate contracts for the following operations at the project site. Those operations will be conducted simultaneously with work under this contract.
   1. Insert Project Name Here – Commissioning Agent Services: To Insert Name Here Company for commissioning services during design and construction.

C. Commissioning Scope:
   1. Systems to commission in the new construction shall include, but are not limited to the following:
      a. The entire HVAC system consisting of boilers, chillers, pumps, piping, and air distribution systems.
      b. Building Automation Systems consisting of HVAC digital controls.
      c. Life Safety System consisting of the fire alarm system, and fire/smoke dampers, emergency lighting, etc.
      d. Plumbing system consisting of domestic hot water, cold water. Waste and vent piping; domestic hot water heating system and plumbing fixtures/valves.
      e. The building envelope (i.e. walls, doors, windows, roofing system, etc.).
      f. Electrical systems consist of lighting and receptacle systems, electrical panels, transformers, motor control centers, electrical motors and other electrical items (non-emergency power).
      g. Emergency power generation and associated electrical components and controls.
      h. Security system components, including controlled access doors, card readers, nurse call systems, audible alarms, PA systems, and security cameras.
   2. Systems to commission in the existing building shall include, but are not limited to the following:

a. The modified portions of the HVAC systems consisting of terminal units, piping and air distribution systems.
b. Building Automation System consisting of HVAC direct digital controls.
c. Life Safety System in the areas modified consisting of the fire alarm system, and fire/smoke dampers, emergency lighting, etc.
d. Modified portions of the plumbing system consisting of domestic hot water, cold water, waste and vent piping systems, and plumbing fixtures/valves.
e. Modified portions of the electrical systems consist of lighting & receptacle systems, electrical panels, transformers, motor control centers, electrical motors and electrical items, (non-emergency power).

1.04 EMERGENCY POWER GENERATION AND ASSOCIATED ELECTRICAL COMPONENTS AND CONTROLS.

A. Commissioning Plan & Schedule
1. A project schedule and planning phase information will be made available to the Commissioning Authority (CxA) for the development of a comprehensive commissioning plan (i.e. construction phase, acceptance phase, post acceptance phase, etc.)
2. The CxA shall develop a commissioning plan that defines the commissioning process for the various phases of project development. This plan shall include a schedule of commissioning process activities and identify the parties that will perform these activities.
3. The commissioning plan shall be updated as the project progresses, and more information is available, or when the project requirements change.
4. The CxA shall work with the design team to integrate the commissioning process into the contract documents so as to describe the Contractor's responsibilities.

D. Basis of Design
1. The CxA shall verify the facilities functional needs and environmental needs are clearly described. The Cx shall verify the requirements outlined in the Owner’s Project Requirements are being followed and maintain the project designintent throughout all phases of the project.

E. Design Review
1. The CxA shall review the 35%, 65%, and 95% design submittal documents to verify that the design achieves the project intents and project requirements. The final construction documents (100%) will be reviewed by the CxA to verify the project intent requirements have been incorporated. CxA comments shall be submitted to the project hub for Owner and Design Team access.

F. Pre-Construction Preparation

1. The CxA shall plan, conduct, and document a pre-construction commissioning meeting for the purpose of defining communication channels and procedures.

G. Construction Verification
   1. The CxA will provide approved PFC forms to the Contractor to execute the PFCs in phases (e.g. equipment installation, piping rough-in, electrical rough-in feeder and load side termination for electrical systems, etc.) as the work progresses. This process is intended to document that the installation occurs per the contract documents as the work is installed, rather than waiting to review after the installation is complete. Resolution of deficiencies documented on subsequent site visits. All elements of equipment and systems installation and all relevant PFCs must be complete prior to functional testing of associated systems

H. Review of Submittals
   1. The CxA shall provide during the pre-construction meeting a list of contractor's submittals (shop drawings & manufacturers data) that will be reviewed by the CxA.

I. Training
   1. The CxA will review training session agendas to verify that they are conducted properly and guide the contractor in understanding what is expected from the training sessions.

J. System Performance Test
   1. The building and it's components will be tested to ensure that they meet the project intent. This will include testing of specific performance (e.g., TAB, controls, fire alarm, etc.)

K. Systems Manual
   1. The CxA shall review the Contractors O&M documents for compliance with the contract documents.

L. Commissioning Report
   1. A detailed commissioning report including all commissioning documents, issues and resolution log, product manuals, and any other supporting documentation required by the Owner shall be developed and issued to the Owner by the CxA team.

PART 2 – PRODUCTS – NOT USED

PART 3 – EXECUTION

3.01 WORK COVERED BY CONTRACT DOCUMENTS

A. Work Summary:
   1. Contractors will review existing conditions and prepare a bid for the Insert Name Here Project based on the information contained in this

Project Manual and the Drawings dated xx/xx/xxxx and Specifications dated xx/xx/xxxx. Additionally, the Contractor shall comply with all administrative requirements of the contract, including the submission of a Contractor's Construction Schedule, safety plan, Schedule of Values, daily reports, Submittals, and other deliverables required under the contract.

3.02 METHOD

A. Construct the Work under a Insert Style of Contact Here contract.

3.03 WORK BY OWNER

A. Not Applicable

3.04 CONTRACTOR'S USE OF PREMISES

A. The Southcentral Foundation Campus and the Insert Name of Facility Here is a Tobacco Free campus. No smoking is permitted on the campus or in any Areas of Work.

B. The Contractor will coordinate with SCF for area of use.

C. Limit use of premises for the Work and for storage to allow for:
   1. Owner occupancy.
   2. Public use.
   3. Coordinated use of premises under direction of Owner.
   4. Full responsibility for protection and safekeeping of products under this Contract stored at Project Site.
   5. Moving any stored products, under Contractor's control, which interfere with operations of Owner or separate Contractor(s).

D. Obtain and pay for use of any additional storage or work areas needed for operations.

3.05 OWNER'S OCCUPANCY

A. The Owner will continue to occupy and operate the Insert Name of Facility Here. The Contractor shall coordinate with the Owner to allow normal operations to continue.
B. Contractor shall schedule and coordinate with the Insert Name of Facility Here, any work which could interfere with the Owner operations.
C. Cooperate with the Owner in construction operations to minimize conflict and to facilitate Owner usage.
D. After substantial completion, schedule work to maintain Owner's operation.

Include in contract sum sufficient funds as may be required for any “after hours” work caused by this requirement. No additional payment to Contractor will be authorized because of Contractor’s failure to anticipate required “after hours work”.

E. Contractor shall conduct operations to insure the least inconvenience to staff, visitors, and the public.

3.06 EXCESSIVE NOISE

A. Minimize noise during Owner’s normal working hours. Notify Owner at least 72 hours prior to noisy operations.

3.07 USE OF OWNER’S PROPERTY AND EQUIPMENT

A. Use of Owner’s property or equipment such as tools, ladders, furniture, janitorial equipment and supplies etc., is strictly prohibited.

END OF SECTION

SECTION 01 20 00
PRICE AND PAYMENT PROCEDURES

PART 1 – GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplemental Conditions and Division 00 & 01 Specifications apply to this section.

B. Section 01 11 00 - Summary of Work

C. Section 01 26 00 - Contract Modification Procedures

D. Section 01 30 00 – Administrative Requirements

E. Section 01 60 00 - Product Requirements

F. Section 01 70 00 – Execution and Closeout Requirements

1.02 SCHEDULE OF VALUES

A. Coordinate with Contractor's construction schedule and Application for Payment.

B. Submit typed Schedule of Values using form AIA G703-1992 for Bid-Build projects, AIA G743 for Design-Build projects, or alternate form pre-approved by Owner.

Submit Schedule of Values to the Architect, Owner, and Owner's Representative as soon as possible, but no later than 20 days after Notice to Proceed for Construction has been issued.

C. Format: When using a pre-approved, non-AIA G702-1992 form for a Schedule of Values, the format shall be as follows: Utilize the Table of Contents of this Project Manual and include other significant work items. At a minimum, rough-in and finish work shall be broken out separately.

1. Identify each line item with number and title of the Specification Section. Identify site mobilization, bonds, and insurance.
2. Tabular form indicating:
   a. Related Specification Section or Division.
   b. Description of 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.
1) Percentage of Contract Sum to nearest one-hundredth percent, adjusted to total 100 percent.

3. Provide a breakdown of the Contract Sum in sufficient detail to facilitate continued evaluation of Applications for Payment and progress reports. Coordinate with the Project Manual table of contents. Break principal subcontract amounts down into several line items.
4. Round amounts to nearest whole dollar; the total shall equal the Contract Sum.
5. Provide a separate line item in the Schedule of Values for each part of the Work where an Application for Payment may include materials or equipment, purchased, or fabricated and stored, but not yet installed.
6. Differentiate between items stored on-site and items stored off- site. Include requirements for insurance and bonded warehousing, if required.
7. Margins of Cost: Show line items for indirect costs and margins on actual costs only when such items are listed individually in Applications for Payment. Each item in the Schedule of Values and Applications for Payment shall be complete. Include the total cost and proportionate share of general overhead and profit margin for each item.
8. Temporary facilities and other major cost items that are not direct cost of actual work-in-place may be shown either as separate line items in the Schedule of Values or distributed as general overhead expense, at the Contractor's option.
9. Schedule Updating: Update and resubmit the Schedule of Values prior to the next Application for Payment when Change Orders or Construction Change Directives result in a change in the Contract Sum.

Include within each line item, a directly proportional amount of Contractor's overhead and profit.

D. Provide sub schedule for each separate stage of work specified in Section 01 11 00 - Summary of Work.

E. Revise schedule to list approved Change Orders, with each Application for Payment.

1.03 APPLICATIONS FOR PAYMENT

A. Each Application for Payment shall be consistent with previous applications and payments as certified by the Architect (or Owner on Design-Build Projects) and paid for by the Owner.
1. The initial Application for Payment, the Application for Payment at time of Substantial Completion, and the final Application for Payment involve additional requirements.

B. Payment-Application Times: Each progress-payment date is indicated in the Agreement. The period of construction Work covered by each Application for Payment is the period indicated in the General Conditions.

C. Payment Application Form: Use AIA Document G702-1995 and Continuation Sheets G703-1992 for Design Bid Build or use AIA Document G742 and G743 for Design Build, or alternative form pre-approved by Owner.

D. Application Preparation: Complete every entry on the form. Include notarization and execution by a person authorized to sign legal documents on behalf of the Contractor. The Architect (or Owner if project is Design-Build) will return incomplete applications without action.
   1. Entries shall match data on the Schedule of Values and the Contractor's Construction Schedule. Use updated schedules if revisions were made.
   2. Include amounts of Change Orders and Construction Change Directives issued prior to the last day of the construction period covered by the application.

E. Transmittal: Submit 1 completed, signed, and notarized copy of each Application for Payment to the Architect (or Owner if a Design-Build Project) by a method pre-approved by the Owner, including waivers of lien and similar attachments, when required by contract.
   1. Transmit each copy with a transmittal form listing attachments and recording appropriate information related to the application, in a manner acceptable to the Architect and Owner.

F. Initial Application for Payment: Administrative actions and submittals, that must precede or coincide with submittal of the first Application for Payment, include the following:
   1. List of subcontractors.
   2. List of principal suppliers and fabricators.
   3. Approved Schedule of Values.
   4. Contractor's Construction Schedule (preliminary if not final).
   5. Submittal Schedule (preliminary if not final).
   6. Certificates of insurance and insurance policies.

G. Applications for Progress Payments
   1. Payment Period: Submit at intervals stipulated in Contract.
   2. Electronic media printout including equivalent information will be considered in lieu of standard form specified: submit sample to Architect for approval.
   3. Submit Applications for Payment on an approved form per the Contract and this specification.
   4. For each item, provide a column for listing each of the following:
   5. Item Number.
   6. Description of work.
   7. Scheduled Values.
   8. Previous Applications.

9. Work in Place and Stored Materials under this application.
10. Authorized Change Orders.
11. Total Completed and Stored to Date of Application.
12. Percentage of Completion.
13. Balance to Finish.
14. Retainage, if applicable (see contract).
15. Execute certification by signature of authorized officer and notarize payment applications.
16. Use data from approved Schedule of Values. Provide dollar value in each column for each line item for portion of work performed and for stored products.
17. List each authorized Change Order as a separate line item, listing Change Order number and dollar amount as for an original item of Work.
18. Submit Application for Payment utilizing Owner's project information management software, Forma. Architect reviews in Design Bid Build or Owner reviews in Design Build. Once approved the Contractor sends the approved pay application to scfappillar@southcentralfoundation.com and copies the SCF Construction Project Manager and the Forma project.
19. Include the following with the application:
20. Construction Progress Schedule; revised and current as specified.
21. When Architect or Owner requires substantiating information, submit data justifying dollar amounts in question. Provide data with cover letter for each copy of submittal. Show application number and date, and line item by number and description.

H. Application for Payment at Substantial Completion: Following issuance of the Certificate of Substantial Completion, submit an Application for Payment.
   1. This application shall reflect Certificates of Partial Substantial Completion issued previously for Owner occupancy of designated portions of the Work.
   2. Administrative actions and submittals that shall precede or coincide with this application include those required for Substantial Completion as outlined in Section 01 70 00 Execution and Closeout Requirements.

I. Final Payment Application: Administrative actions and submittals that must precede or coincide with submittal of the final Application for Payment including Section 01 70 00 - Execution and Closeout Requirements.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION

SECTION 01 23 00
ALTERNATES

PART 1 – GENERAL

1.01 SECTION INCLUDES

A. Description of Alternates.

1.02 RELATED REQUIREMENTS

A. Drawings and general provisions of the Contract, including General and Supplemental Conditions and Division 01 Specifications apply to this section.

1.03 ACCEPTANCE OF ALTERNATES

A. Alternates quoted on Bid Forms will be reviewed and accepted or rejected at Owner's option. Accepted Alternates will be identified in the Owner-Contractor Agreement.

B. Coordinate related work and modify surrounding work to integrate the Work of each Alternate.

1.04 SCHEDULE OF ALTERNATES

A. Alternate No. _____ - _____:
   1. Base Bid Item: Section _____ and Drawing number ____ including _____.
   2. Alternate Item: Section _____ and Drawing number ____ including _____.

B. Alternate No. _____ - _____:
   1. Base Bid Item: Section _____ and Drawing number ____ including _____.
   2. Alternate Item: Section _____ and Drawing number ____ including _____.

C. Alternate No. _____ - _____:
   1. Base Bid Item: Section _____ and Drawing number ____ including _____.
   2. Alternate Item: Section _____ and Drawing number ____ including _____.

D. Alternate No. _____ - _____:
   1. Base Bid Item: Section _____ and Drawing number ____ including _____.
   2. Alternate Item: Section _____ and Drawing number ____ including _____.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION

SECTION 01 26 00
CONTRACT MODIFICATION PROCEDURES

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Procedures for documenting and processing contract modifications.

1.02 RELATED SECTIONS

A. Drawings and general provisions of the Contract, including General and Supplemental Conditions and Division 00 & 01 Specifications apply to this section.

B. Section 00 52 13 – Agreement Form.

C. Section 01 20 00 – Price and Payment Procedures.

D. Section 01 60 00 - Product Requirements.

E. Section 01 70 00 – Execution and Closeout Requirements.

1.03 SUBMITTALS

A. Submit name of the individual authorized to receive change documents and be responsible for informing others in contractor's employ or subcontractors of changes to the Work.

B. Proposal Form (for proposed change): AIA Document G709-2018 or another form acceptable to Owner.

C. Change Order Form: AIA Form G701-2017 - Change Order or other form acceptable to Owner.

1.04 DOCUMENTATION OF CHANGE IN CONTRACT SUM AND CONTRACT TIME

A. Maintain detailed records of work done on a time and materials basis. Provide full information required for evaluation of proposed changes, and to substantiate costs of changes in the Work.

B. Document each quotation for a change in cost or time with sufficient data to allow evaluation of the quotation.

C. On request, provide additional data to support computations:

1. Quantities of products, labor, and equipment.
2. Taxes, insurance and bonds.
3. Overhead and profit.
4. Justification for any change in Contract Time.
5. Credit for deletions from Contract, similarly documented.

D. Support each claim for additional costs and for work done on a time and materials basis, with additional information:

1. Origin and date of claim.
2. Dates and times work was performed, and by whom.
3. Time records and wage rates paid.
4. Invoices and receipts for products, equipment and subcontracts, similarly documented.

1.05 CHANGE PROCEDURES

A. Architects Supplemental Instructions: The Architect will advise of minor changes in the Work not involving an adjustment to Contract Sum or Contract Time, by issuing supplemental instructions on AIA Form G710-2017 - Architect's Supplemental Instructions.

B. Proposal Request: The Owner may issue a Proposal Request (AIA Document G709 or form acceptable to Owner) which includes a detailed description of a proposed change with supplementary or revised Drawings and Specifications, a change in Contract Time for executing the change with a stipulation of any overtime work required and the period of time during which the requested price will be considered valid.

C. Change Proposal: The Contractor may propose a change by submitting a request for change to the Owner, describing the proposed change and its full effect on the Work, with a statement describing the reason for the change, and the effect on the Contract Sum and Contract Time with full documentation. Document any requested substitutions in accordance with Section 016000 – Product Requirements.

D. It is the Owners decision whether a change directive is stipulated sum, unit price, or time and materials.

1.06 CONSTRUCTION CHANGE AUTHORIZATION

A. Architect or Owner may issue a document, signed by the Owner, instructing the Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order.

1. The document will describe changes in the Work and will designate the method of determining any change in Contract Sum or Contract Time.

2. Promptly execute the change in Work.

1.07 STIPULATED SUM CHANGE ORDER

A. Based on Proposal Request and Contractor's fixed price quotation or Contractor's request for a Change Order as approved by the Owner.

1.08 TIME AND MATERIAL CHANGE ORDER

A. Submit itemized account and supporting data after completion of change, within time limits indicated in the Conditions of the Contract.

B. Maintain detailed records of work done on time and materials.

C. Provide full information required for evaluation of proposed changes, and to substantiate costs for changes in the Work.

1.09 EXECUTION OF CHANGE ORDERS

A. Architect or Owner's Representative may prepare Change Orders for signatures of Owner, Contractor, and Architect as provided in the Conditions of the Contract, Article 7.

1.10 CORRELATION OF CONTRACTOR SUBMITTALS

A. Promptly revise Schedule of Values and Application for Payment Forms to record each authorization Change Order as a separate line item and adjust the Contract Sum.

B. Promptly revise Construction Progress Schedules to reflect any change in Contract Time, revise sub-schedules to adjust time for other items of work affected by the change, and resubmit.

C. Promptly enter changes in Project Record Documents.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION

SECTION 01 30 00
ADMINISTRATIVE REQUIREMENTS

PART 1 – GENERAL

1.01 SECTION INCLUDES

A. General administrative requirements.
B. Accident Prevention Plan.
C. Preconstruction meeting.
D. Progress meetings.
E. Construction progress schedule.
F. Progress photographs.
G. Submittals for review, information, and project closeout.
H. Number of copies of submittals.
I. Requests for Information (RFI) procedures.
J. Submittal procedures.

1.02 RELATED REQUIREMENTS

A. Drawings and general provisions of the Contract, including General and Supplemental Conditions and Division 00 & 01 Specifications apply to this section.
B. Section 005213 – Agreement Form.
C. Section 016000 - Product Requirements.
D. Section 017000 - Execution and Closeout Requirements.

1.03 REFERENCE STANDARDS

A. AIA G716 - Request for Information 2004.
B. AIA G810 - Transmittal Letter 2001.

1.04 GENERAL ADMINISTRATIVE REQUIREMENTS

A. Comply with requirements of Section 017000 - Execution and Closeout Requirements for coordination of execution of administrative tasks with timing of construction activities.
B. Utilize SCF's Autodesk Construction Cloud (ACC) project management site for tracking and memorialization of all meeting agendas/minutes, submittals, RFI's ASI's, posting of drawings/specifications, document filing, and for all other project document tracking, as directed by the Owner.

C. Make the following types of submittals to Architect:
    1. Requests for Interpretation (RFI).
    2. Requests for substitution.
    3. Shop drawings, product data, and samples.
    4. Test and inspection reports.
    5. Design data.
    6. Manufacturer's instructions and field reports.
    7. Applications for payment and change order requests.
    8. Progress schedules.
    9. Coordination drawings.
    10. Correction Punch List and Final Correction Punch List for Substantial Completion.
    11. Closeout submittals.

1.05 ACCIDENT PREVENTION PLAN

A. Plan Overview
    1. The APP (aka Construction Safety & Health Plan) shall interface with the Contractor's overall safety and health program. Include any portions of the Contractor's overall safety and health program referenced in the APP in the applicable APP element and ensure it is site-specific. The Prime Contractor is considered to be the "controlling authority" for all worksite safety and health of each subcontractor(s). Contractors are responsible for informing their subcontractors of the safety provisions under the terms of the contract and the penalties for noncompliance, coordinating the work to prevent one craft from interfering with or creating hazardous working conditions for other crafts, and inspecting subcontractor operations to ensure that accident prevention responsibilities are being carried out.

B. Plan Content
    1. Include and address in the APP the following, at a minimum.
        a. Type of Project/ Project Description
        b. Scope of Work
        c. Contact Information
        d. Identification of person(s) responsible for safety at the project location and lines of authority
        e. Project Location
        f. Geographic Risks
        g. Site drawings and hazard locations: Contractor’s site safety plan, including mustering point, location of nearest hospital/ emergency clinic, vehicular and pedestrian traffic flow graphics, site security checkpoints, area of work limits/fencing, etc., at a minimum.
        h. Procedures to avoid hazards (in the form of Activity Hazard Analysis and Work Plan, as needed, for each unique task where hazards exist).
            1) Crane work, confined space entry, scaffolding, walking and working surfaces including fall protection, and other specialized

work shall require a separate and specific Work Plan to address the unique risks and hazards associated with the work.

i. Security risks and securing of supplies and the worksite.
j. Safety check schedule
k. Safety orientation for new workers and visitors to the site and accident notification process to Owner.
l. Accident notification and investigation process
m. PPE Guidelines
n. Safety Training
o. First Aid Locations
p. Hazard communication plan
q. All content required by OSHA and AHJs
r. Signature sheet signed by an Officer of the company and the Responsible Person onsite

C. Plan Approval
1. Submit APP for Owner's approval a minimum of 3 weeks prior to any work being performed.

PART 2 - PRODUCTS - NOT USED

PART 3 – EXECUTION

3.01 PRECONSTRUCTION MEETING

A. Schedule meeting after Notice of Award.

B. Attendance Required:
1. Owner.
2. Architect.
3. Contractor.
4. Owner's Representative (if applicable).

C. Agenda:
1. Execution of Owner-Contractor Agreement.
2. Submission of executed bonds and insurance certificates.
3. Distribution of Contract Documents.
4. Submission of list of subcontractors, list of products, schedule of values, and progress schedule.
5. Submission of initial Submittal schedule.
6. Designation of personnel representing the parties to Contractor, Owner, Architect, and Owner's Representative (if applicable).
7. Procedures and processing of field decisions, submittals, substitutions, applications for payments, proposal request, change orders, and contract closeout procedures.
8. Scheduling.

D. Record minutes and distribute copies electronically to Architect, Owner, Owner's Representative (if applicable), participants, and those affected by decisions made.

3.02 PROGRESS MEETINGS

A. Schedule and administer meetings throughout progress of the work at maximum bi-monthly intervals.

B. Make arrangements for meetings, prepare agenda with electronic copies for participants (to be distributed 24 hours prior to meeting), preside at meetings.

C. Attendance Required:
   1. Contractor.
   2. Owner.
   3. Architect.
   4. Special consultants.
   5. Contractor's superintendent.
   6. Major subcontractors.

D. Agenda:
   1. Review minutes of previous meetings.
   2. Review of work progress.
   3. Field observations, problems, and decisions.
   4. Identification of problems that impede, or will impede, planned progress.
   5. Review of submittals schedule and status of submittals.
   6. Review of RFIs log and status of responses.
   7. Maintenance of progress schedule.
   8. Corrective measures to regain projected schedules.
   9. Planned progress during succeeding work period.
   10. Coordination of projected progress.
   11. Maintenance of quality and work standards.
   12. Effect of proposed changes on progress schedule and coordination.
   13. Other business relating to work.

E. Record minutes and distribute electronic copies within two days after meeting to Architect, Owner, and participants, and those affected by decisions made.

3.03 CONSTRUCTION PROGRESS SCHEDULE

A. Within 10 days after date of the Agreement, submit preliminary schedule defining planned operations for the first 60 days of work, with a general outline for remainder of work.

B. If preliminary schedule requires revision after review, submit revised schedule within 10 days.

C. Within 20 days after review of preliminary schedule, submit draft of proposed complete schedule for review.

1. Include written certification that major contractors have reviewed and accepted proposed schedule.

D. Within 10 days after joint review, submit complete schedule.

E. Submit updated construction schedule with each Application for Payment.

3.04 PROGRESS PHOTOGRAPHS

A. Submit photographs with each application for payment, taken not more than 3 days prior to submission of application for payment.

B. Photography Type: Digital; electronic files.

C. Provide high quality digital photographs of site and construction throughout progress of work, using the ACC photo application.

D. In addition to periodic, recurring views, take photographs of each of the following events:
   1. Excavations in progress.
   2. Foundations in progress and upon completion.
   3. Structural framing in progress and upon completion.
   4. Enclosure of building, upon completion.

3.05 REQUESTS FOR INFORMATION (RFI)

A. Definition: A request seeking one of the following:
   1. An interpretation, amplification, or clarification of some requirement of Contract Documents arising from inability to determine from them the exact material, process, or system to be installed; or when the elements of construction are required to occupy the same space (interference); or when an item of work is described differently at more than one place in Contract Documents.
   2. A resolution to an issue which has arisen due to field conditions and affects design intent.

B. Whenever possible, request clarifications at the next appropriate project progress meeting, with response entered into meeting minutes, rendering unnecessary the issuance of a formal RFI.

C. Preparation: Prepare an RFI immediately upon discovery of a need for interpretation of Contract Documents. Failure to submit a RFI in a timely manner is not a legitimate cause for claiming additional costs or delays in execution of the work.
   1. Prepare a separate RFI for each specific item.
      a. Review, coordinate, and comment on requests originating with subcontractors and/or materials suppliers.
      b. Do not forward requests which solely require internal coordination between subcontractors.
   2. Prepare in a format and with content acceptable to Owner.
      a. Use AIA G716-2004 - Request for Information.

3. Combine RFI and its attachments into a single electronic file. PDF format is preferred.

D. Reason for the RFI: Prior to initiation of an RFI, carefully study all Contract Documents to confirm that information sufficient for their interpretation is not included.
   1. Include in each request Contractor's signature attesting to good faith effort to determine from Contract Documents information requiring interpretation.
   2. Unacceptable Uses for RFIs: Do not use RFIs to request the following:
      a. Approval of submittals (use procedures specified elsewhere in this section).
      b. Approval of substitutions (see Section - 016000 - Product Requirements)
      c. Changes that entail change in Contract Time and Contract Sum (comply with provisions of the Conditions of the Contract).
      d. Different methods of performing work than those indicated in the Contract Drawings and Specifications (comply with provisions of the Conditions of the Contract).
   3. Improper RFIs: Requests not prepared in compliance with requirements of this section, and/or missing key information required to render an actionable response. They will be returned without a response, with an explanatory notation.

E. Content: Include identifiers necessary for tracking the status of each RFI, and information necessary to provide an actionable response.
   1. Official Project name and number, and any additional required identifiers established in Contract Documents.
   2. Owner's, Architect's, and Contractor's names.
   3. Discrete and consecutive RFI number, and descriptive subject/title.
   4. Issue date and requested reply date.
   5. Reference to particular Contract Document(s) requiring additional information/interpretation. Identify pertinent drawing and detail number and/or specification section number, title, and paragraph(s).
   6. Annotations: Field dimensions and/or description of conditions which have engendered the request.
   7. Contractor's suggested resolution: A written and/or a graphic solution, to scale, is required in cases where clarification of coordination issues is involved, for example, routing, clearances, and/or specific locations of work shown diagrammatically in Contract Documents. If applicable, state the likely impact of the suggested resolution on Contract Time or the Contract Sum.

F. Attachments: Include sketches, coordination drawings, descriptions, photos, submittals, and other information necessary to substantiate the reason for the request.

G. RFI Log: Prepare and maintain a tabular log of RFIs for the duration of the project.

1. Indicate current status of every RFI. Update log promptly and on a regular basis.
2. Note dates of when each request is made, and when a response is received.
3. Highlight items requiring priority or expedited response.
4. Highlight items for which a timely response has not been received to date.

H. Review Time: Architect will respond and return RFIs to Contractor within seven calendar days of receipt, excluding SCF recognized holidays. For the purpose of establishing the start of the mandated response period, RFIs received after 2:00PM (Owner's local time) will be considered as having been received on the following regular working day.
   1. Response period may be shortened or lengthened for specific items, subject to mutual agreement, and recorded in a timely manner in progress meeting minutes.

I. Responses: Content of answered RFIs will not constitute in any manner a directive or authorization to perform extra work or delay the project. If in Contractor's belief it is likely to lead to a change to Contract Sum or Contract Time, promptly issue a notice to this effect, and follow up with an appropriate Change Order request to Owner.
   1. Response may include a request for additional information, in which case the original RFI will be deemed as having been answered, and an amended one is to be issued forthwith. Identify the amended RFI with an R suffix to the original number.
   2. Do not extend applicability of a response to specific item to encompass other similar conditions, unless specifically so noted in the response.
   3. Upon receipt of a response, promptly review and distribute it to all affected parties, and update the RFI Log.
   4. Notify Architect within seven calendar days, excluding SCF recognized holidays, if an additional or corrected response is required by submitting an amended version of the original RFI, identified as specified above.

3.06 SUBMITTAL SCHEDULE

A. Submit to Architect, through Forma, for review a schedule for submittals in tabular format.
   1. Format schedule to allow tracking of status of submittals throughout duration of construction.
   2. Account for time required for preparation, review, manufacturing, fabrication, and delivery when establishing submittal delivery and review deadline dates.
      a. For assemblies, equipment, systems comprised of multiple components and/or requiring detailed coordination with other work, allow for additional time to make corrections or revisions to initial submittals, and time for their review.

3.07 SUBMITTALS FOR REVIEW

A. When the following are specified in individual sections, submit them for review:
   1. Product data.
   2. Shop drawings.
   3. Samples for selection.
   4. Samples for verification.

B. Submit to Architect for review for the limited purpose of checking for compliance with information given and the design concept expressed in Contract Documents.

C. Samples will be reviewed for aesthetic, color, or finish selection.

D. After review, provide copies and distribute in accordance with SUBMITTAL PROCEDURES article below and for record documents purposes described in Section 017000 – Execution and Closeout Requirements.

3.08 SUBMITTALS FOR INFORMATION

A. When the following are specified in individual sections, submit them for information:
   1. Design data.
   2. Certificates.
   3. Test reports.
   4. Inspection reports.
   5. Manufacturer's instructions.
   6. Manufacturer's field reports.
   7. Other types indicated.

B. Submit for Architect's knowledge as contract administrator or for Owner.

3.09 SUBMITTALS FOR PROJECT CLOSEOUT

A. Submit Correction Punch List for Substantial Completion.

B. Submit Final Correction Punch List for Substantial Completion.

C. When the following are specified in individual sections, submit them at project closeout in compliance with requirements of Section 017800 - Closeout Submittals:
   1. Project record documents.
   2. Operation and maintenance data.
   3. Warranties.
   4. Bonds.
   5. Other types as indicated.

D. Submit for Owner's benefit during and after project completion.

3.10 NUMBER OF COPIES OF SUBMITTALS

A. Electronic Documents: Submit one electronic copy in PDF format; an electronically marked up file will be returned. Create PDFs at native size and right-side up; illegible files will be rejected.

B. Samples: Submit the number specified in individual specification sections; one of which will be retained by Architect.
   1. After review, produce duplicates.
   2. Retained samples will not be returned to Contractor unless specifically so stated.

3.11 SUBMITTAL PROCEDURES

A. General Requirements:
   1. Use a separate transmittal for each item.
   2. Submit separate packages of submittals for review and submittals for information, when included in the same specification section.
   3. Transmit using approved form.
      a. Use Form AIA G810-2001.
   4. Identify each item based on applicable specification section. For revised submittals use original number and a sequential numerical suffix.
   5. Identify: Project; Contractor; subcontractor or supplier; pertinent drawing and detail number; and specification section number and article/paragraph, as appropriate on each copy.
   6. Apply Contractor's stamp, signed or initialed certifying that review, approval, verification of products required, field dimensions, adjacent construction work, and coordination of information is in accordance with the requirements of the work and Contract Documents.
   7. Schedule submittals to expedite the Project, and coordinate submission of related items.
      a. For each submittal for review, allow 14 calendar days, excluding SCF recognized holidays.
      b. For sequential reviews involving Architect's consultants, Owner, or another affected party, allow an additional 7 calendar days.
      c. For sequential reviews involving approval from authorities having jurisdiction (AHJ), in addition to Architect's approval, allow an additional 30 calendar days.
   8. Identify variations from Contract Documents and product or system limitations that may be detrimental to successful performance of the completed work.
   9. Provide space for Contractor and Architect review stamps.
   10. When revised for resubmission, identify all changes made since previous submission.
   11. Distribute reviewed submittals. Instruct parties to promptly report inability to comply with requirements.

12. Incomplete submittals will not be reviewed, unless they are partial submittals for distinct portion(s) of the work and have received prior approval for their use.
13. Submittals not requested will not be recognized or processed.

B. Product Data Procedures:
   1. Submit only information required by individual specification sections.
   2. Collect required information into a single submittal.
   3. Do not submit (Material) Safety Data Sheets for materials or products.

C. Shop Drawing Procedures:
   1. Prepare accurate, drawn-to-scale, original shop drawing documentation by interpreting Contract Documents and coordinating related work.
   2. Do not reproduce Contract Documents to create shop drawings.
   3. Generic, non-project-specific information submitted as shop drawings do not meet the requirements for shop drawings.

D. Samples Procedures:
   1. Transmit related items together as a single package.
   2. Identify each item to allow review for applicability in relation to shop drawings showing installation locations.

3.12 SUBMITTAL REVIEW

A. Submittals for Review: Architect will review each submittal, and approve, or take other appropriate action.

B. Submittals for Information: Architect will acknowledge receipt and review. See below for actions to be taken.

C. Architect's actions will be reflected by marking each returned submittal using virtual stamp on electronic submittals.

D. Architect's and consultants' actions on items submitted for review:
   1. Authorizing purchasing, fabrication, delivery, and installation:
      a. "Approved", or language with same legal meaning.
      b. "Approved as Noted, Resubmission not required", or language with same legal meaning.
   2. Not Authorizing fabrication, delivery, and installation:
      a. "Revise and Resubmit".
      b. "Rejected".

E. Architect's and consultants' actions on items submitted for information:
   1. Items for which no action was taken:
      a. "Received" - to notify the Contractor that the submittal has been received for record only.
   2. Items for which action was taken:
      a. "Reviewed" - no further action is required from Contractor.

END OF SECTION

SECTION 01 31 00
PROJECT MANAGEMENT AND COORDINATION

PART 1 - GENERAL

1.01 RELATED SECTIONS

A. Drawings and general provisions of the Contract, including General and Supplemental Conditions and Division 00 & 01 Specifications apply to this section.
B. Section 00 52 13 – Agreement Form
C. Section 01 30 00 – Administrative Requirements
D. Section 01 70 00 – Execution and Closeout Requirements

1.02 DEFINITIONS

A. Request for Information (RFI): Request from Owner, Architect, or Contractor seeking information required by a clarification of the Contract Documents.

B. Architect's Supplemental Instructions (ASI): Information provided by Architect to clarify scope of work in Contract Documents.

1.03 PROJECT SCHEDULE

A. Provide a project schedule for approval by the Architect and Owner prior to starting work. The Project Schedule shall use the Critical Path Method "CPM" or other Owner approved method. The Schedule shall have adequate detail that provides information on the planned work and tasks and shall be relationship driven using either predecessor or successor relationships. The schedule shall be updated and submitted with every Application for Payment, and uploaded to Autodesk Construction Clout (ACC).

1.04 COORDINATION

A. Coordination: Coordinate construction operations included in different Sections of the Specifications and with other contractors and entities that depend on each other for proper installation, connection, and operation to ensure efficient and orderly installation of each part of the Work.
   1. 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.
   2. Coordinate installation of different components to ensure maximum performance and accessibility for required maintenance, service, and repair.

3. Make adequate provisions to accommodate items scheduled for later installation.

B. 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 Owner and separate contractors if coordination of their Work is required.

C. 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. Startup and adjustment of systems.
   8. Project closeout activities.

D. Conservation: Coordinate construction activities to ensure that operations are carried out with consideration given to conservation of energy, water, and materials. Coordinate use of temporary utilities to minimize waste.
   1. Salvage materials and equipment involved in performance of, but not actually incorporated into, the Work. Refer to other Sections for disposition of salvaged materials that are designated as Owner's property.

1.05 COORDINATION DRAWINGS

A. General: Prepare coordination drawings in accordance with requirements in individual Sections, where installation is not completely shown on Shop Drawings, where limited space availability necessitates coordination, or if coordination is required to facilitate integration of products and materials fabricated or installed by more than one entity.
   1. Content: Project-specific information, drawn accurately to a scale large enough to indicate and resolve conflicts. Do not base coordination drawings on standard printed data. Include the following information, as applicable:
      a. Use applicable Drawings as a basis for preparation of coordination drawings. Prepare sections, elevations, and details as needed to describe relationship of various systems and components.
      b. Coordinate the addition of trade-specific information to the coordination drawings in a sequence that best provides for

coordination of the information and resolution of conflicts between installed components before submitting for review.

c. Indicate functional and spatial relationships of components.
d. Indicate space requirements for routine maintenance and for anticipated replacement of components during the life of the installation.
e. Show location and size of access doors required for access to concealed dampers, valves, and other controls.
f. Indicate required installation sequences.
g. Specifically note dimensions that appear to be in conflict with submitted equipment and minimum clearance requirements. Provide alternate sketches to Architect indicating proposed resolution of such conflicts. Minor dimension changes and difficult installations will not be considered changes to the Contract.

1.06 KEY PERSONNEL

A. Key Personnel Names: Within 15 days of starting construction operations, 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 email addresses. Provide names, addresses, and telephone numbers of individuals assigned as standbys in the absence of individuals assigned to Project.
   1. Post copies of list in project meeting room, in temporary field office, on Project Website**,** and by each temporary telephone. Keep list current at all times.

1.07 PROJECT MEETINGS

A. General: Contractor will schedule and conduct meetings and conferences at Project site, unless otherwise indicated. Meeting agendas and notes shall utilize Autodesk Construction Cloud (ACC) software.
   1. Attendees: Inform participants and others involved, and individuals whose presence is required, of date and time of each meeting. Notify Owner and Architect of scheduled meeting dates and times.
   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 Owner and Architect, within two days of the meeting.

B. Preconstruction Conference: Contractor will schedule and conduct a preconstruction conference before starting construction, at a time

convenient to Owner and Architect, but no later than 20 days after execution of the Agreement.

1. Conduct the conference to review responsibilities and personnel assignments.
2. Attendees: Authorized representatives of Owner, Architect, and their consultants; Contractor and its superintendent; major subcontractors; suppliers; and other concerned parties shall attend the conference. Participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
3. Agenda: Discuss items of significance that could affect progress, including the following:
    a. Tentative construction schedule.
    b. Phasing.
    c. Critical work sequencing and long-lead items.
    d. Designation of key personnel and their duties.
    e. Lines of communications.
    f. Procedures for processing field decisions and Change Orders.
    g. Procedures for RFIs and ASIs.
    h. Procedures for testing and inspecting.
    i. Procedures for processing Applications for Payment.
    j. Distribution of the Contract Documents.
    k. Submittal procedures.
    l. Sustainable design requirements.
    m. Preparation of record documents.
    n. Use of the premises [and existing building if applicable].
    o. Work restrictions.
    p. Working hours.
    q. Owner's occupancy requirements.
    r. Responsibility for temporary facilities and controls.
    s. Procedures for moisture and mold control.
    t. Procedures for disruptions and shutdowns.
    u. Construction waste management and recycling.
    v. Parking availability.
    w. Office, work, and storage areas.
    x. Equipment deliveries and priorities.
    y. First aid.
    z. Security.
    aa. aa. Progress cleaning.

C. Pre-installation Conferences: Conduct a pre-installation conference at Project site before each construction activity that requires coordination with other construction.
    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 activity under consideration, including requirements for the following:
    a. Contract Documents.
    b. Options.
    c. Related RFIs and ASIs.
    d. Related Change Orders.
    e. Purchases.
    f. Deliveries.
    g. Submittals.
    h. Review of mockups.
    i. Possible conflicts.
    j. Compatibility problems.
    k. Time schedules.
    l. Weather limitations.
    m. Manufacturer's written recommendations.
    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, 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.
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. Progress and Coordination Meetings: Contractor will conduct progress meetings at appropriate intervals.
    1. Coordinate dates of meetings with preparation of payment requests.
    2. Attendees: Each contractor, subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the meeting shall be familiar with Project and authorized to conclude matters relating to the Work.

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: Review progress since the last meeting. Determine whether each activity is on time, ahead of schedule, or behind schedule, in relation to Contractor's construction schedule. 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.
        1) Review schedule for next period.
    b. Review present and future needs of each entity present, including the following:
        1) Interface requirements.
        2) Sequence of operations.
        3) Status of submittals and RFI's
        4) Off-site fabrication and deliveries.
        5) Site access and utilization.
        6) Temporary facilities and controls.
        7) Progress cleaning.
        8) Quality and work standards.
        9) Status of correction of deficient items.
        10) Field observations.
        11) Status of proposal requests.
        12) Pending changes.
        13) Status of Change Orders.
        14) Pending claims and disputes.
        15) Documentation of information for payment requests.
4. Minutes: Entity responsible for conducting the meeting will record and distribute the meeting minutes to each party present and to parties requiring information.
    a. Schedule Updating: Revise Contractor's construction schedule after each progress meeting where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with the report of each meeting.

E. Project coordination meetings are to be held weekly. Project coordination meetings are in addition to specific meetings held for other purposes, such as progress meetings and pre-installation conferences.

PART 2 - PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION

SECTION 01 40 00
QUALITY REQUIREMENTS

PART 1 – GENERAL

1.01 SECTION INCLUDES

A. Submittals.
B. Quality assurance.
C. References and standards.
D. Testing and inspection agencies and services.
E. Control of installation.
F. Mock-ups.
G. Tolerances.
H. Manufacturers' field services.
I. Defect Assessment.

1.02 RELATED REQUIREMENTS

A. Drawings and general provisions of the Contract, including General and Supplemental Conditions and Division 00 & 01 Specifications apply to this section.
B. Section 013000 - Administrative Requirements: Submittal procedures.
C. Section 014200 - Reference Standards and Definitions.
D. Section 016000 - Product Requirements: Requirements for material and product quality.

1.03 REFERENCE STANDARDS

A. Note: If a newer version of any reference standard exists, the newer version shall be incorporated and followed in lieu of the older version referenced herein.
B. ASTM C1021 - Standard Practice for Laboratories Engaged in Testing of Building Sealants 2008 (Reapproved 2023).
C. ASTM C1077 - Standard Practice for Agencies Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Testing Agency Evaluation 2017.
D. ASTM C1093 - Standard Practice for Accreditation of Testing Agencies for Masonry 2022a.
E. ASTM D3740 - Standard Practice for Minimum Requirements for Agencies Engaged in Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction 2019.

F. ASTM E329 - Standard Specification for Agencies Engaged in Construction Inspection, Testing, or Special Inspection 2021.

G. ASTM E543 - Standard Specification for Agencies Performing Nondestructive Testing 2021.

H. ASTM E699 - Standard Specification for Agencies Involved in Testing, Quality Assurance, and Evaluating of Manufactured Building Components 2016.

I. IAS AC89 - Accreditation Criteria for Testing Laboratories 2021.

1.04 DEFINITIONS

A. Contractor's Quality Control Plan: Contractor's management plan for executing the Contract for Construction.

1.05 SUBMITTALS

A. See Section 013000 - Administrative Requirements, for submittal procedures.

B. Test Reports: After each test/inspection, promptly submit one electronic copy of report to Architect, Owner, and Owner’s Representative.
   1. Include:
      a. Date issued.
      b. Project title and number.
      c. Name of inspector.
      d. Date and time of sampling or inspection.
      e. Identification of product and specifications section.
      f. Location in the Project.
      g. Type of test/inspection.
      h. Date of test/inspection.
      i. Results of test/inspection.
      j. Compliance with Contract Documents.
      k. When requested by Architect, provide interpretation of results.

C. Certificates: When specified in individual specification sections, submit certification by the manufacturer and Contractor or installation/application subcontractor to Architect, as specified for Product Data.
   1. Indicate material or product complies with or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.

D. Manufacturer's Instructions: When specified in individual specification sections, submit electronic instructions for delivery, storage, assembly, installation, start-up, adjusting, and finishing, for the Owner's information. Indicate special procedures, perimeter conditions requiring special attention, and special environmental criteria required for application or installation.

E. Manufacturer's Field Reports: Submit reports for Architect's benefit as contract administrator or for Owner/ Owner’s Representative.

1. Submit for information for the limited purpose of assessing compliance with information given and the design concept expressed in the Contract Documents.

1.06 QUALITY ASSURANCE

A. Contractor's Quality Control (CQC) Plan:
   1. Thirty days prior to start of work, submit a comprehensive plan describing how contract deliverables will be produced. Tailor CQC plan to specific requirements of the project. Include the following information:
      a. Management Structure: Identify personnel responsible for quality. Include a chart showing lines of authority.
      b. Management Approach: Define, describe, and include in the plan specific methodologies used in executing the work.
         1) Management and control of documents and records relating to quality.
         2) Communications.
         3) Coordination procedures.
         4) Resource management.
         5) Process control.
         6) Inspection and testing procedures and scheduling.
         7) Control of noncomplying work.
         8) Tracking deficiencies from identification, through acceptable corrective action, and verification.
         9) Control of testing and measuring equipment.
         10) Project materials certification.
         11) Managerial continuity and flexibility.
      c. Owner will not make a separate payment for providing and maintaining a Quality Control Plan. Include associated costs in Bid price.
      d. Acceptance of the plan is required prior to start of construction activities not including mobilization work. Owner's acceptance of the plan will be conditional and predicated on continuing satisfactory adherence to the plan. Owner reserves the right to require Contractor to make changes to the plan and operations, including removal of personnel, as necessary, to obtain specified quality of work results.

B. Quality-Control Personnel Qualifications. Engage a qualified person with requisite training and experience to implement and manage quality assurance (QA) and quality control (QC) for the project. QC personnel may be subject to SCF approval.

1.07 REFERENCES AND STANDARDS

A. For products and workmanship specified by reference to a document or documents not included in the Project Manual, also referred to as reference standards, comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.

B. Comply with reference standard of date of issue current on date of Contract Documents, except where a specific date is established by applicable code.
C. Obtain copies of standards where required by product specification sections.
D. Maintain copy at project site during submittals, planning, and progress of the specific work, until Substantial Completion.
E. Should specified reference standards conflict with Contract Documents, request clarification from Architect before proceeding.
F. Neither the contractual relationships, duties, or responsibilities of the parties in Contract nor those of Architect shall be altered from Contract Documents by mention or inference otherwise in any reference document.

1.08 TESTING AND INSPECTION AGENCIES AND SERVICES

A. Owner will employ and pay for services of an independent testing agency to perform other specified testing.
B. Employment of agency in no way relieves Contractor of obligation to perform Work in accordance with requirements of Contract Documents.

PART 2 - PRODUCTS - NOT USED

PART 3 – EXECUTION

3.01 CONTROL OF INSTALLATION

A. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce work of specified quality.
B. Comply with manufacturers' instructions, including each step in sequence.
C. Should manufacturers' instructions conflict with Contract Documents, request clarification from Architect before proceeding.
D. Comply with specified standards as minimum quality for the work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
E. Have work performed by persons qualified to produce required and specified quality.
F. Verify that field measurements are as indicated on shop drawings or as instructed by the manufacturer.
G. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, and disfigurement.

3.02 MOCK-UPS

A. Before installing portions of the Work where mock-ups are required, construct mock-ups in location and size indicated for each form of construction and finish required to comply with the following requirements, using materials indicated for the completed Work. The purpose of mock-up is to demonstrate the proposed range of aesthetic effects and workmanship.

B. Accepted mock-ups establish the standard of quality the Architect will use to inspect against and to determine the acceptability of Work yet to be completed.

C. Tests shall be performed under provisions identified in this section and identified in the respective product specification sections.

D. Assemble and erect specified items with specified attachment and anchorage devices, flashings, seals, and finishes.

E. Architect will use accepted mock-ups as a comparison standard for the remaining Work.

F. Where mock-up has been accepted by Architect and is specified in product specification sections to be removed, protect mock-up throughout construction, remove mock-up and clear area when directed to do so by Architect. Confirm with Architect and Owner prior to removal of mock-up.

3.03 TOLERANCES

A. Monitor fabrication and installation tolerance control of products to produce acceptable Work. Do not permit tolerances to accumulate.

B. Comply with manufacturers' tolerances. Should manufacturers' tolerances conflict with Contract Documents, request clarification from Architect before proceeding.

C. Adjust products to appropriate dimensions; position before securing products in place.

3.04 TESTING AND INSPECTION

A. Testing Agency Duties:
   1. Provide qualified personnel at site. Cooperate with Architect and Contractor in performance of services.
   2. Perform specified sampling and testing of products in accordance with specified standards.
   3. Ascertain compliance of materials and mixes with requirements of Contract Documents.
   4. Promptly notify Architect and Contractor of observed irregularities or non-compliance of Work or products.
   5. Perform additional tests and inspections required by Architect.
   6. Submit reports of all tests/inspections specified.

B. Limits on Testing/Inspection Agency Authority:

1. Agency may not release, revoke, alter, or enlarge on requirements of Contract Documents.
2. Agency may not approve or accept any portion of the Work.
3. Agency may not assume any duties of Contractor.
4. Agency has no authority to stop the Work.

C. Contractor Responsibilities:
1. Deliver to agency at designated location, adequate samples of materials proposed to be used that require testing, along with proposed mix designs.
2. Cooperate with laboratory personnel and provide access to the Work and to manufacturers' facilities.
3. Provide incidental labor and facilities:
   a. To provide access to Work to be tested/inspected.
   b. To obtain and handle samples at the site or at source of Products to be tested/inspected.
   c. To facilitate tests/inspections.
   d. To provide storage and curing of test samples.
4. Notify Architect and laboratory 24 hours prior to expected time for operations requiring testing/inspection services.
5. Employ services of an independent qualified testing laboratory and pay for additional samples, tests, and inspections required by Contractor beyond specified requirements.
6. Arrange with Owner's agency and pay for additional samples, tests, and inspections required by Contractor beyond specified requirements.

D. Re-testing required because of non-compliance with specified requirements shall be performed by the same agency on instructions by Architect.

E. Re-testing required because of non-compliance with specified requirements shall be paid for by Contractor.

3.05 MANUFACTURERS' FIELD SERVICES

A. When specified in individual specification sections, require material or product suppliers or manufacturers to provide qualified staff personnel to observe site conditions, conditions of surfaces and installation, quality of workmanship, start-up of equipment, test, adjust, and balance equipment, as applicable, and to initiate instructions when necessary.

B. Report observations and site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturers' written instructions.

3.06 DEFECT ASSESSMENT

A. Replace Work or portions of the Work not complying with specified requirements.

END OF SECTION

SECTION 01 40 10
CLEAN CONSTRUCTION PROCEDURES

PART 1 – GENERAL

1.01 SECTION INCLUDES

A. Clean Construction procedures, policies, and best practices and requirements.

1.02 RELATED REQUIREMENTS

A. Drawings and general provisions of the Contract, including General and Supplemental Conditions and Division 00 & 01 Specifications apply to this section.

B. Successful proposer is required to meet all Clean Construction Procedures, including attachments, referenced and/or linked documents, definitions and requirements.

1.03 PURPOSE

A. To outline the process for selecting and implementing proper controls to reduce risk and to minimize impact of construction or renovation activities throughout Southcentral Foundation (SCF) facilities.

1.04 SCOPE

A. This applies to all direct hire employees, Civil Service and Commissioned Corps Officers working under contractual agreements with Southcentral Foundation (SCF) and volunteers. Individuals and business entities that have entered into contractual agreements with Southcentral Foundation (SCF) are not exempt, unless otherwise stated in their contracts.

1.05 DEFINITIONS

A. Customer-owner: Individuals who seek and receive services at SCF's programs and departments. The following terms may be used by SCF programs and departments in referring to customers:
   1. Patients
   2. Residents
   3. Students
   4. Members
   5. Beneficiaries

6. Guests
7. Event Participants
8. Clients

B. General Maintenance: Routine activities and repairs needed to maintain the safety, functionality, and operational efficiency of a facility's equipment and infrastructure as described below.
   1. Preventive Maintenance: Regular inspections, cleaning, lubrication, and other tasks to prevent breakdowns and ensure equipment operates optimally.
   2. Routine repairs: Addressing minor issues and problems that arise during normal operation.
   3. Servicing: Repairing or replacing parts to restore equipment to its original safety and performance specifications.
   4. Functional checks: Ensuring that equipment and systems are operating as intended.

C. Contractor: An individual or entity with no relationship to SCF that enters into a contractual agreement with SCF that creates legal-binding and enforceable obligations to both SCF and the individual/entity.
   1. The following terms may be used by SCF programs and departments in referring to contractors.
      a. Agent
      b. Bidder
      c. Business Associate
      d. Consultant
      e. Supplier
      f. Vendor

1.06 PROCEDURE

A. The Clean Construction Procedures with the accompanying Clean Construction Assessment and Approval Forms will apply to all projects, including small construction and maintenance work.
   1. PCRA – Preconstruction Risk Assessment Procedure
   2. ICRA – Infection Control Management for Clean Construction Procedure (Collaboration Draft)
   3. ILSM – Interim Life Safety Measures Procedure.
   4. IUSM – Interim Utility System Measures Procedure
   5. WICRA – Water Management Procedure (Draft)
   6. Clean Construction Assessment and Approval Forms

B. The Clean Construction Procedures and Clean Construction Assessment and Approval Forms will be implemented in the planning phase of each project and will be assessed by the Manager of Facilities, Construction Project Manager (CPM) or their designee, in consultation with

the Manager of Safety and Security or their designee, and the Nurse Manager of Quality Assurance (QA) or their designee.

C. The spreadsheet version of Clean Construction Assessment and Approval Forms will be filled out by the Contractor and shared with SCF CPM and SCF QA through Forma. SCF QA will review and create a Docu-Sign workflow. Once all signatures are obtained in Docu-Sign the Contractor will file the fully executed version on Forma.

D. The Contractor is required to provide the Manager of Facilities, Construction Project Manager (CPM) or their designee, in consultation with the Manager of Safety and Security or their designee, and the Nurse Manager of Quality Assurance (QA) or their designee with updated documentation of the risk assessment throughout planning, design, and construction.

1.07 ATTACHMENTS

A. 01 40 10.01 - Clean Construction Assessment and Approval Forms

1.08 REFERENCES

A. Contractors are required to read and follow the SCF Policies and Procedures below. Current versions of these policies and procedures are available upon request.
   1. Preconstruction Risk Assessment Procedure
   2. Infection Control Management for Clean Construction Procedure (Collaborative Draft)
   3. Interim Life Safety Measures Procedure
   4. Interim Utility System Measures
   5. Water Management Procedure (Draft)
   6. Clean Construction Assessment and Approval Forms

B. Facility Guidelines Institute, Guidelines for Design and Construction of Healthcare Facilities (2022).

END OF SECTION

PRECONSTRUCTION RISK ASSESSMENT (PCRA)

Project Name:		**Start Date:**	99/99/99	**Estimated End Date:**	99/99/99
Building:		**Impacted Department(s)** (list all that apply):			

Instructions: Complete the entire form and submit to the Project Manager, Facilities, and Infection Control and Safety program for review and approval. ILSM, ICRA, and IUSM approvals may take up to 10 business days to gain approval. Ensure supporting documentation is attached to include, communication plan, building drawings, etc. Risk assessment should identify specific mitigation methods for each phase of the project. This document is dynamic and should be reviewed regularly as the project progresses. Utilize the clarification section to identify the applicability of additional forms (i.e., Demo higher ICRA need than finishing work). Kick off meeting and regular project meetings must include the Project Manager, Safety, Infection Control, General Contractor, etc. PCRA will be a standing agenda item on the project meeting agenda.

Once approved and signed; display and hang a copy at the work site.

Section 1: General Project Information
- required section -

Today's Date:

Project Manager (name & contact #):		**Impacted Department(s)** (list all that apply):	
Contractor Contact (name & contact #):		**Impacted Department(s)** (list all that apply):	
Appointed Site Safety Officer (name & contact #):		**Adjacent Department(s)** (list all that apply):	
Life Safety Occupancy (business, hospital, etc.):		**Anticipated Accreditation or Regulatory Surveys:**	

Scope of Work/ Additional Information or Requirements: This should include the scope of work for the project and relevant information that will assist those approving to have all applicable information. *This form should be updated when additional phases are added or the scope of the project changes.

Important Contacts:

SCF Facilities: 907-729-5261	**SCF Facilities Planning:** 907-729-8894	
Security Dispatch: 907-729-5700	**SCF Safety:** 907-729-5153	**SCF Infection Control:** 907-729-6839

PCRA Signatures

Reviewed and signed by at least the Health Facilities, ANMC Safety, and Infection Control. At a minimum a copy of the signed form should be provided to the Department Director, Security, and affected areas and available at the worksite.

Facilities print name and signature:	**Infection Control print name and signature:**
Date:	Date:
Safety print name and signature:	**Project Manager print name and signature:**
Date:	Date:

General Contractor print name and signature:	Director of Affected Department:
Date:	Date:

PRECONSTRUCTION RISK ASSESSMENT (PCRA)

Project Name:	0	**Start Date:**	99/99/99	**Estimated End Date:**	99/99/99
Building:	0	**Impacted Department(s)** (list all that apply):	0		

Type A	Type B	Type C	Type D
Inspection and non-invasive activities. Includes but is not limited to: Removal of ceiling tile for visual inspection-limited to 1 tile per 50 square feet with limited exposure time. Limited building system maintenance - e.g., pneumatic tube station, HVAC system, fire suppression system, electrical and carpentry work (to include painting without sanding) that does not create dust of debris. Clean plumbing activity limited in nature.	**Small-scale, short duration activities that create minimal dust and debris. Includes but is not limited to:** Work conducted above the ceiling (e.g., prolonged inspection or repair of firewalls and barriers, installation of conduit and/or cabling, and access to mechanical and/or electrical chase spaces). Fan shutdown/startup. Installation of electrical devices or new flooring that produces minimal dust and debris. The removal of drywall where minimal dust and debris is created. Controlled sanding activities (e.g., wet or dry sanding) that produces minimal dust and debris.	**Large-scale, longer duration activities that create a moderate amount of dust and debris. Includes but is not limited to:** Removal of pre-existing floor covering, walls, casework or other building components. New drywall placement. Renovation work in a single room. Non-existing cable pathway or invasive electrical work above ceilings. The removal of drywall where a moderate amount of dust and debris is created. Dry sanding where a moderate amount of dust and debris is created. Work creating significant vibration and/or noise. Any activity that cannot be completed in a single work shift.	**Major demolition and construction activities. Includes but is not limited to:** Removal or replacement of building system component(s). Removal/installation of drywall partitions. Invasive large-scale new building construction. Renovation work in two or more rooms.
Type A	**Type B**	**Type C**	**Type D**
WATER MANAGEMENT: BUILDING WATER DISTRIBUTION SYSTEM **Inspection, maintenance/repair and non-invasive activities of brief duration and low water age:** Replacing fixture trim(s). Replacing fixture "in-kind". Impact and Risk only to building users in the immediate area of work. **Water shut down for LESS THAN 24 hours**	**WATER MANAGEMENT: BUILDING WATER DISTRIBUTION SYSTEM** **Inspection, maintenance/repair and non-invasive activities of brief duration and modest water age:** Replacing or installing fixtures & trim. Working within wall cavities and/or ceiling areas. **Water is shut down for 7 days or more**	**WATER MANAGEMENT: BUILDING WATER DISTRIBUTION SYSTEM** **Inspection, maintenance/repair and non-invasive activities of brief duration and medium water age:** Plumbing work requiring multiple fixtures (existing, replacing, or new). Major water system component replacement (boilers, heaters, main). Work in wall cavities or ceilings with major disruption to local and downstream occupied areas. Change of functional building space in existing building. **Water is shut down for 30 days or less**	**WATER MANAGEMENT: BUILDING WATER DISTRIBUTION SYSTEM** **Inspection, maintenance/repair and non-invasive activities of brief duration and high water age:** Change in functional building space. Tenant improvements. New Shell and Core Buildings, additions, and expansions. Acquisition of a building with unknown water quality/safety conditions. Infrastructure projects connecting to building water. **Water in the area is not active (new start up) or was shut down for GREATER THAN 30 days**
Low Risk Areas	**Medium Risk Areas**	**High Risk Areas**	**Highest Risk Areas**

Non-customer-owner (CO) care areas such as:	CO care support areas such as:	CO care areas such as:	Procedural, invasive, sterile support and highly compromised CO care areas such as:
• Public hallways and gathering areas not on clinical units. • Office areas not on clinical units. • Breakrooms not on clinical units. • Bathrooms or locker rooms not on clinical units. • Mechanical rooms not on clinical units. • EVS closets not on clinical units.	• Waiting areas. • Supply rooms. • Sterile Processing Department - dirty side. • Kitchen, Cafeteria, Gift Shop, Coffee Shop, and food kiosks.	• CO exam rooms and areas. • Employee Health. • Pharmacy - General Work Zone. • Medication rooms and clean utility rooms. • Imaging Suites: Diagnostic Imaging. • Laboratory.	• Procedural Suites. • Pharmacy Compounding. • Sterile Processing Department - clean side.

PRECONSTRUCTION RISK ASSESSMENT (PCRA)

Project Name:	0	**Start Date:**	99/99/99	**Estimated End Date:**	99/99/99
Building:	0	**Impacted Department(s)** (list all that apply):	0		

Infection Prevention Requirements	**Identified Risk or Hazard** Select YES if any of the risks or hazards apply and proceed with requirements.				**Req'd**	**Additional Info.**
SEE POLICYTECH FOR MOST CURRENT PROCEDURE	YES	NO	N/A	Completed Infection Control Risk Assessment (ICRA)	ICRA/Class	Coordinate with Infection Control (IC)
	YES	NO	N/A	Completed Water Infection Control Risk Assessment (WICRA)	WICRA/Class	Coordinate with Infection Control (IC) and Facilities for Mitigation
Life Safety Requirements	**Identified Risk or Hazard** Select YES if any of the risks or hazards apply and proceed with requirements.				**Req'd**	**Additional Info.**
SEE POLICYTECH FOR MOST CURRENT PROCEDURE	YES	NO	N/A	Complete assessment for Interim Life Safety Measures (ILSM)	ILSM	Complete ILSM assessment with required signatures.
Utility Systems Requirements	**Identified Risk or Hazard** Select YES if any of the risks or hazards apply and proceed with requirements.				**Req'd**	**Additional Info.**
SEE POLICYTECH FOR MOST CURRENT PROCEDURE	YES	NO	N/A	Complete assessment for Interim Utility System Measures (IUSM)	IUSM	Complete IUMS-Disruption Form assessment with required signatures.
Safety Requirements	**Identified Risk or Hazard** Select YES if any of the risks or hazards apply and proceed with requirements.				**Req'd**	**Additional Info.**
Evaluation Required --- ALL PROJECTS	YES	NO	N/A	Communication Plan (notification to construction team, impacted areas, and staff)		Connect with Corporate Communications
	YES	NO	N/A	Noise or vibration in area or nearby (special considerations required for NICU/Peds/ORs/Imaging and inpatient areas)		Coordinate with impacted Department(s)

Reference applicable procedures in Policytech	YES	NO	N/A	Hazardous Materials & Waste (considerations for hazards and PPE - odors, fumes, VOC, corrosives)		Review Safety Data Sheet (SDS) & OSHA requirements, keep SDS on site
	YES	NO	N/A	Biohazardous Waste/Respiratory Protection (considerations for disposal and proper PPE per 29 CFR 1910.1030/1910.134)		Evaluate for compliance for 29 CFR 1910.1030, 29 CFR 1910.134 and ANMC Procedures. ***Current fit tests,*** vaccine recommendations/ requirements
	YES	NO	N/A	Traffic/Parking/Shuttles		Include traffic disruptions in attached documentation (map/duration, etc.)
	YES	NO	N/A	Construction Site Safety (e.g. falling objects, tripping hazards, fall protection, PPE)		Appoint Site Safety Officer; Identify required PPE and obtain signage
	YES	NO	N/A	Motorized equipment (e.g. forklift, scissors lift, crane)		Evaluate for specific requirements including competency/training

PRECONSTRUCTION RISK ASSESSMENT (PCRA)

Project Name:	0	**Start Date:**	99/99/99	**Estimated End Date:**	99/99/99
Building:	0	**Impacted Department(s)** (list all that apply):	0		

Safety Requirements *(Continued)*	**Identified Risk or Hazard** Select YES if any of the risks or hazards apply and proceed with requirements.				**Req'd**	**Additional Info.**
Evaluation Required --- ALL PROJECTS	YES	NO	N/A	Relocate occupants (e.g. COs, staff, classes, meetings, etc.)		Coordinate with impacted Department(s)
	YES	NO	N/A	Confined Space entry required		Evaluate for confined space requirements per OSHA
	YES	NO	N/A	Scaffolding or working on elevated surfaces		**If yes**, name and contact of competent person:
Reference applicable procedures in Policytech	YES	NO	N/A	Safety Barrier		Evaluate for barrier to reduce the risk of jobsite hazards
	YES	NO	N/A	Electrical Safety		Use of temporary power/extension cords, etc.

Security Requirements	**Identified Risk or Hazard** Select YES if any of the risks or hazards apply and proceed with requirements.				**Req'd**	**Additional Info.**
Evaluation Required	YES	NO	N/A	Access Control (e.g. ID badge access, physical keys, disable security systems)		Perimeter access to the construction area must remain secure- (badge access)
	YES	NO	N/A	High Security Considerations (e.g. perimeter, medications, medical records, IT, HR files, etc.)		PM to coordinate with departments, Security

	YES	NO	N/A	Medication Safety and Security (i.e. unsecure doors/walls/ceilings, moving Pyxis, waste)		PM coordinate with Pharmacy Department
	YES	NO	N/A	Other security measures (explain):		PM to coordinate with departments, Security

Identified Risk or Hazard - (NOTES):

PRECONSTRUCTION RISK ASSESSMENT (PCRA)

Project Name:	0	**Start Date:**	99/99/99	**Estimated End Date:**	99/99/99
Building:	0	**Impacted Department(s)** (list all that apply):	0		

Surveillance Checks	Date:			Date:			Date:			Date:			Date:			Date:			Date:		
	Yes	**No**	**N/A**	**Yes**	**No**	**N/A**	**Yes**	**No**	**N/A**	**Yes**	**No**	**N/A**	**Yes**	**No**	**N/A**	**Yes**	**No**	**N/A**	**Yes**	**No**	**N/A**
1. ILSM(s) as identified on the permit are in place.																					
Comments and/or corrective actions:																					
2. Fire protection features are adequate and in place.																					
Comments and/or corrective actions:																					
3. All exits in the area are unobstructed.																					
Comments and/or corrective actions:																					
4. Site is kept clean and orderly and free from hazards.																					
Comments and/or corrective actions:																					
5. Hazardous materials are used correctly and properly stored.																					
Comments and/or corrective actions:																					
6. Infection control measures are in place and followed.																					
Comments and/or corrective actions:																					
7. Site is secure from unauthorized access.																					
Comments and/or corrective actions:																					

Hazard Surveillance Criteria

1. ILSM(s) are adequate for the project and in effect.	• Review ILSM(s) in place. • Validate measures are implemented.
2. Fire protection features are adequate and in place.	• Fire extinguishers properly tagged and inspected. • Sprinkler system operable – sprinkler heads permitted to be turned up as long within 22" of the deck when ceiling removed. • Smoke/Heat detection systems must be within 12" of the deck when ceiling removed. • Fire alarm operable: pull stations accessible, smoke detectors activated, occupant notification devices operable.
3. Unless identified by an ILSM, exits in the area are unobstructed.	• Unless identified by an ILSM or as part of the Life Safety Drawings, all means of egress clear of obstructions and exit signs posted and visible.
4. Site is kept clean and orderly and free from hazards.	• All materials (including flammable and combustible materials) are properly stored and/or removed from job site daily. • Waste is disposed of properly & daily, and no smoking policy is enforced. • Tools and equipment are properly used and/or stored, in good condition and secured from unauthorized use. • Temporary lighting and electrical in safe proper use - electrical panels, outlets, and conduits free from hazards.
5. Hazardous materials are used correctly and properly stored.	• Safety Data Sheets (SDS) available and location known by all workers.
6. Infection control measures are in place and followed.	• Review Infection Control Risk Assessment. • Differential pressure monitors in place and indicating appropriate negative pressure in construction space. • If required, maintaining -0.01 "WC to -0.30 "WC see ICRA Permit for more detailed information.
7. Site is secure from unauthorized access.	• Project location is secure when work is not active. • Project workers are wearing proper identification and easily identified.

INFECTION CONTROL RISK ASSESSMENT (ICRA)

Project Name:	0	**Start Date:**	99/99/99	**Estimated End Date:**	99/99/99
Building:	0	**Impacted Department(s)** (list all that apply):	0		

Pre-Construction Project Type Assessment

RISK

Each project is assessed by assigning a risk group and project type to determine infection prevention precautions required during project.

Clean Construction Procedure #805-03 Infection Control Permit and Class Procedures provided below.

PM signature required.

Activity: Please click on the hyperlink inside the table below to highlight your designated risk level.

RISK LEVELS	TYPE A	TYPE B	TYPE C	TYPE D
LOW RISK	Class I	Class II	Class II	Class III* / Class IV
MEDIUM RISK	Class I	Class II	Class III* / Class IV	Class IV
HIGH RISK	Class I	Class III	Class IV	Class V
HIGHEST RISK	Class III	Class IV	Class V	Class V

*__Type C__ [Medium Risk] and __Type D__ [Low Risk] work areas that fall under Class III precautions - but cannot be fully sealed or isolated from occupied patient care areas - should follow the negative air exhaust requirements outlined in Class IV precautions.

Infection Control Construction Permit - Project Requirements by Class as designated above.

Classification	During Project	Upon Completion of Project
Class I	1. Perform non-invasive work activity so as not to block or interrupt patient care. 2. Perform non-invasive work activities in areas that are not directly occupied with patients. 3. Perform non-invasive work activity in a manner that does not create dust. 4. Immediately replace any displaced ceiling tile before leaving the area and/or at end of non-invasive work activity.	**Work Area Cleaning:** 1. Clean work areas including all environmental surfaces, high horizontal surfaces and flooring materials. 2. Check all supply and return air registers for dust accumulation on upper surfaces as well as air diffuser surfaces.
Class II	1. Perform only limited dust work and/or activities designed for basic facilities and engineering work. 2. Perform limited dust and invasive work following standing precautions procedures approved by the organization. 3. ***This Class of Precautions must never be used for construction or renovation activities.***	**Work Area Cleaning:** 1. Clean work areas including all environmental surfaces, high horizontal surfaces and flooring materials. 2. Check all supply and return air registers for dust accumulation on upper surfaces as well as air diffuser surfaces.
	1. Provide active means to prevent airborne dust dispersion into the occupied areas. 2. Means for controlling minimal dust dispersion may include hand-held HEPA vacuum devices, polyethylene plastic containment, or isolation of work area by closing room door. 3. Remove or isolate return air diffusers to avoid dust from entering the HVAC system.	**Work Area Cleaning:** 1. Clean work areas including all environmental surfaces, high horizontal surfaces and flooring materials. 2. Check all supply and return air registers for dust accumulation on upper surfaces as well as air diffuser surfaces. **Removal of Critical Barriers:**

Class III	system. 4. Remove or isolate the supply air diffusers to avoid positive pressurization of the space. 5. If work area is contained, then it must be always neutrally to negatively pressurized. 6. Seal all doors with tape that will not leave residue. 7. Contain all trash and debris in the work area. 8. Nonporous/smooth and cleanable containers (with a hard lid) must be used to transport trash and debris from the construction areas. These containers must be damp-wiped cleaned and free of visible dust/debris before leaving the contained work area. 9. Install an adhesive (dust collection) mat at entrance of contained work area based on facility policy. Adhesive mats must be changed routinely and when visibly soiled. 10. Maintain clean surroundings when area is not contained by damp mopping or HEPA vacuuming surfaces. 11. When in place, negative air devices must always remain operational and in place for a period after completion of dust creating activities to remove contaminants from the work area and before removal of critical barriers.	**Removal of Critical Barriers:** 1. Critical barriers must remain in place during all work involving drywall removal, creation of dust and activities beyond simple touch-up work. The barrier may NOT be removed until work area cleaning has been performed. 2. All (plastic or hard) barrier removal activities must be completed in a manner that prevents dust release. Use the following precautions when removing hard barriers: i. Carefully remove screws and painter tape. ii. If dust will be generated during screw removal, use hand-held HEPA vacuum. iii. Drywall cutting is prohibited during the removal process. iv. Clean all stud tracks with HEPA vacuum before removing outer hard barrier. v. Use a plastic barrier to enclose area if dust could be generated. **HVAC systems:** 1. Upon removal of critical barriers, remove isolation of HVAC system in areas where work is being performed. 2. Verify that HVAC systems are clean and operational. 3. Verify the HVAC systems meets original airflow and air exchange design specifications.

INFECTION CONTROL RISK ASSESSMENT (ICRA)

Project Name:	0	**Start Date:**	99/99/99	**Estimated End Date:**	99/99/99
Building:	0	**Impacted Department(s)** (list all that apply):	0		

Infection Control Construction Permit - Project Requirements by Class		
Classification	**During Project**	**Upon Completion of Project**
	1. Construct and complete critical barriers meeting NFPA 241 requirements including: Barriers must extend to the ceiling or, if ceiling tile is removed, to the deck above, and all penetrations through the barrier shall meet the appropriate fire rating requirements. 2. All (plastic or hard) barrier construction activities must be completed in a manner that prevents dust release. Plastic barriers must be effectively affixed to ground and ceiling and secure from movement or damage. Apply tape that will not leave a residue to seal gaps between barriers, ceiling or floor. 3. Seal all penetrations in containment barriers, including floors and ceiling, using approved materials (UL schedule firestop if applicable for barrier type). 4. Containment units or environmental containment units (ECUs) approved for Class IV precautions in small areas totally contained by the unit and that has HEPA-filtered exhaust air. 5. Remove or isolate return air diffusers to avoid dust entering the HVAC system. 6. Remove or isolate the supply air diffusers to avoid positive pressurization of the space. 7. Negative airflow patterns must be maintained from the entry point into the construction area. 8. Maintain negative pressurization of the entire workspace by use of HEPA exhaust air systems directed outdoors. Exhaust discharged directly to the outdoors that is 25 feet or greater from entrances, air intakes and windows do not require HEPA-filtered air. 9. If exhaust is directed indoors, then the system must be HEPA filtered. Prior to start of work, HEPA filtration must be verified by particulate measurement as no less than 99.97% efficiency and must not alter or change airflow/pressure relationships in other areas.) 10. Exhaust into shared or recirculating HVAC systems, or other shared exhaust systems (e.g., bathroom exhaust) is not acceptable. 11. Install device on exterior of work containment to continually monitor negative	**Work Area Cleaning:** 1. Clean work areas including all environmental surfaces, high horizontal surfaces and flooring materials. 2. Check all supply and return air registers for dust accumulation on upper surfaces as well as air diffuser surfaces. **Removal of Critical Barriers:** 1. Critical barriers must remain in place during all work involving drywall removal, creation of dust and activities beyond simple touch-up work. The barrier may NOT be removed until a work area cleaning has been performed. 2. All (plastic or hard) barrier removal activities must be completed in a manner that prevents dust release. Use the following precautions when removing hard barriers: i. Carefully remove screws and painter tape. ii. If dust will be generated during screw removal, use hand-held HEPA vacuum. iii. Drywall cutting is prohibited during removal process. iv. Clean all stud tracks with HEPA vacuum before removing outer hard barrier. v. Use a plastic barrier to enclose area if dust could be generated. **HVAC systems:** 1. Upon removal of critical barriers, remove isolation of HVAC system in areas where work is being performed. 2. Verify that HVAC systems are clean and operational. 3. Verify the HVAC systems meets original airflow and air exchange design specifications.

Class IV	11. Install device on exterior of work containment to continually monitor negative pressurization. To ensure proper pressure is continuously maintained, it is recommended that the device(s) have a visual pressure indicator. 12. Contain all trash and debris in the work area. 13. Nonporous/smooth and cleanable containers (with a hard lid) must be used to transport trash and debris from the construction areas. These containers must be damp-wiped cleaned and free of visible dust/debris before leaving the contained work area. 14. Worker clothing must be clean and free of visible dust before leaving the work area. HEPA vacuuming of clothing or use of cover suits is acceptable. 15. Install an adhesive (dust collection) mat at entrance of contained work area based on facility policy. Adhesive mats must be changed routinely and when visibly soiled. 16. Consider collection of particulate data during work to monitor and ensure that contaminates do not enter the occupied spaces. Routine collection of particulate samples may be used to verify HEPA filtration efficiencies. **Negative Air Requirements:** 17. The use of negative air must be designed to remove contaminates from the work area. At a minimum of 0.01" WC achieving 0.03" WC where there is excessive odors/dust. Negative air related to construction should not interfere with adjacent pressure relationship requirements. 18. Negative air devices must always remain operational and in place for a period after completion of dust creating activities to remove contaminants from the work area and before removal of critical barriers.	

INFECTION CONTROL RISK ASSESSMENT (ICRA)

Project Name:	0	**Start Date:**	99/99/99	**Estimated End Date:**	99/99/99
Building:	0	**Impacted Department(s)** (list all that apply):	0		

Infection Control Construction Permit - Project Requirements by Class		
Classification	**During Project**	**Upon Completion of Project**

Class V	1. Construct anteroom large enough for equipment staging, cart cleaning, workers. The anteroom must be constructed adjacent to entrance of construction work area. 2. Personnel will be required to wear disposable coveralls at all times during Class V work activities. Disposable coveralls must be removed before leaving the anteroom. 3. Negative airflow pattern must be maintained from the entry point to the anteroom and into the construction area. The airflow must cascade from outside to inside the construction area. The entire construction area must remain negatively pressurized.	**Work Area Cleaning:** 1. Clean work areas including all environmental surfaces, high horizontal surfaces and flooring materials. 2. Check all supply and return air registers for dust accumulation on upper surfaces as well as air diffuser surfaces. **Removal of Critical Barriers:** 1. Critical barriers must remain in place during all work involving drywall removal, creation of dust and activities beyond simple touch-up work. The barrier may NOT be removed until work area cleaning has been performed. 2. All (plastic or hard) barrier removal activities must be completed in a manner that prevents dust release. Use the following precautions when removing hard barriers: i. Carefully remove screws and painter tape. ii. If dust will be generated during screw removal, use hand-held HEPA vacuum. iii. Drywall cutting is prohibited during the removal process. iv. Clean all stud tracks with an HEPA vacuum before removing the outer hard barrier. v. Use a plastic barrier to enclose the area if dust could be generated. **HVAC systems:** 1. Upon removal of critical barriers, remove isolation of HVAC system in areas where work is being performed. 2. Verify that HVAC systems are clean and operational. 3. Verify the HVAC systems meets original airflow and air exchange design specifications.

Additional Information or Requirements *(Additional measures being taken to mitigate infection control measures)* :

ICRA Signatures

Reviewed and signed by at least the Health Facilities, ANMC Safety, and Infection Control. At a minimum a copy of the signed form should be provided to the Department Director, Security, and affected areas and available at the worksite.

Facilities print name and signature:	**Infection Control print name and signature:**
Date:	Date:
Safety print name and signature:	**Project Manager print name and signature:**
Date:	Date:

INTERIM LIFE SAFETY MEASURES (ILSM)

Project Name:	0	**Start Date:**	99/99/99	**Estimated End Date:**	99/99/99
Building:	0	**Impacted Department(s)** (list all that apply):	0		

Interim Life Safety Measures Permit & Contact Information				**Today's Date:**	1/0/1900
Submitted By: (name & company):			**Life Safety Occupancy:** (business, hospital, etc.):		
Project Manager: (name & contact #):			**Impacted Department(s):** (list all that apply):		
Contractor: (name & contact #):			**Impacted Department(s):** (contact #s):		
Appointed Site Safety Officer: (name & contact #):			**Adjacent Department(s):** (list all that apply):		
Important Contacts:	**SCF Facilities:** 907-729-5261	**SCF Safety:** 907-729-5153	**Infection Control:** 907-729-6839		
	Security Dispatch: 907-729-5700	**SCF Facilities Planning:** 907-729-8894			

Instructions: Answer the questions below. For any "yes" answers, indicate the duration of the measure. For "yes" answers, the "Implemented ILSM" column details the minimum required ILSM. Unless otherwise noted, the Project Manager (PM) is responsible for implementing all required ILSMs. Blank rows are provided to allow additional ILSMs as required for the safety of customer-owners and staff and the preservation of the facility. Include drawings to show the affected area and where specific ILSMs will be implemented. Obtain proper review and approvals prior to beginning work. ***Include drawings to show the affected area and where specific ILSMs will be implemented.*** PM to obtain proper review and approvals prior to beginning work.

Measure	ILSM Evaluation	YES	NO	Duration of ILSM dates/phase(s)	Implemented ILSM
1.	Will a fire alarm system be out of service for more than 4 hours in a 24-hour period?	YES ☐	NO ☐		Temporary fire alarm/detection systems shall be provided in the affected space and must be approved by the Director of Facilities, PM, or designee. Temporary systems shall be tested and inspected monthly. Affected/nearby staff will be trained to recognize and respond to an alarm from the temporary fire system. Documentation kept with the onsite project folder. **OR**
					Director of Facilities, PM, or designee, will notify the fire department. The PM shall initiate Fire Watch and document according to fire watch procedure. To the extent possible, the detectors will be disabled and covered during work hours and enabled during non-work hours as fully functional. (Fire watch must be completed and documented even if the construction site is occupied.)
2.	Will the fire sprinkler system be out of service for more than 10 hours in a 24-hour period?	YES ☐	NO ☐		Temporary fire sprinkler systems shall be provided in the affected space and must be approved by the Director of Facilities or designee. Temporary systems will be tested and inspected monthly. Documentation kept with the onsite project folder. **OR**
					Complete Red Tag Permit. Director of Facilities, PM, or designee, will notify the fire department. The PM shall initiate Fire Watch and document according to fire watch procedure. (Fire watch must be completed and documented even if the construction site is occupied.)

3.	Will exit accesses, exits, or exit discharges be blocked?	**YES** ☐	**NO** ☐		Post signs identifying alternate exits for impacted personnel. The remaining means of egress shall be maintained at all times and inspected at least daily using the PCRA Inspection Checklist which will be kept in the project folder and at the work site. Impacted personnel will be provided with education to promote awareness of building deficiencies, construction hazards, and temporary measures to maintain fire safety.

INTERIM LIFE SAFETY MEASURES (ILSM)

Project Name:	0	**Start Date:**	99/99/99	**Estimated End Date:**	99/99/99
Building:	0	**Impacted Department(s)** (list all that apply):	0		

Instructions: Answer the questions below. For any "yes" answers, indicate the duration of the measure. For "yes" answers, the "Implemented ILSM" column details the minimum required ILSM. Unless otherwise noted, the Project Manager (PM) is responsible for implementing all required ILSMs. Blank rows are provided to allow additional ILSMs as required for the safety of patients and staff and the preservation of the facility. Include drawings to show the affected area and where specific ILSMs will be implemented. Obtain proper review and approvals prior to beginning work. ***Include drawings to show the affected area and where specific ILSMs will be implemented.*** PM to obtain proper review and approvals prior to beginning work.

Measure	ILSM Evaluation	YES	NO	Duration of ILSM dates/phase(s)	Implemented ILSM
4.	Will an exit access, exit, or exit discharge be obstructed?	**YES** ☐	**NO** ☐		Remaining means of egress shall be maintained at all times and inspected at least daily using the PCRA Inspection Checklist which will be kept in the onsite project folder. Considerations should include customer-owner and support equipment movement.
5.	Will hot work be required?	**YES** ☐	**NO** ☐		The Director of Facilities, PM, or designee will provide an additional portable fire extinguisher in the construction area. Construction personnel shall be provided additional training on the use of fire extinguishing equipment. Complete hot work permit, open and close daily at control room. Initiate fire watch. Document according to fire watch procedure.
6.	Will the work area contain or be used to store excessive flammable material?	**YES** ☐	**NO** ☐		The Director of Facilities, PM, or designee will provide an additional portable fire extinguisher in the area. Affected personnel shall be provided additional training on the use of fire extinguishing equipment.
7.	Will the existing smoke compartment boundary, corridor construction, or other fire barriers be impaired/degraded?	**YES** ☐	**NO** ☐		The Project Manager shall use temporary construction partitions that are smoke-tight, or made of non-combustible or limited-combustible material that will not contribute to the development or spread of fire. Barriers that replace or take the place of existing rated smoke and/or fire separations shall be of the same rated
8.	Will construction activity include excavations, hazardous storage areas, or site conditions that have potential to significantly impact life safety of patients or staff?	**YES** ☐	**NO** ☐		The Project Manager shall increase surveillance of buildings, grounds, and equipment, giving special attention to construction areas and storage, excavation, and field offices. Document using the PCRA Inspection Checklist which will be kept in the project folder and at the work site.
9.	Will activity significantly increase the flammable and combustible fire loading in non-hazardous spaces?	**YES** ☐	**NO** ☐		The Project Manager shall enforce storage, housekeeping, and debris-removal practices that reduce the building's flammable and combustible fire load to the lowest feasible level. Document using the PCRA Inspection Checklist which will be kept in the project folder and at the work site.
10.	Additional ILSM Considerations (as needed):	**YES** ☐	**NO** ☐		
11.	Additional ILSM Considerations (as needed):	**YES** ☐	**NO** ☐		

Additional Information or Requirements:	
Safety print name and signature:	**Facilities print name and signature:**
Date:	Date:
Project Manager print name and signature:	**Contractor/Vendor print name and signature:**
Date:	Date:

Document Version: November 2025

INTERIM UTILITY SYSTEM MEASURES (IUSM)

Project Name:	0	**Start Date:**	99/99/99	**Estimated End Date:**	99/99/99
Building:	0	**Impacted Department(s)** (list all that apply):	0		

Interim Utility System Measures Permit & Contact Information				**Today's Date:**	1/0/1900
Submitted By: (name & company):		**Life Safety Occupancy:** (business, hospital, etc.):			
Project Manager: (name & contact #):		**Impacted Department(s):** (list all that apply):			
Contractor: (name & contact #):		**Impacted Department(s):** (contact #s):			
Appointed Site Safety Officer: (name & contact #):		**Adjacent Department(s):** (list all that apply):			
Important Contacts:	**SCF Facilities:** 907-729-5261	**SCF Safety:** 907-729-5153	**Infection Control:** 907-729-6839		
	Security Dispatch: 907-729-5700	**SCF Facilities Planning:** 907-729-8894			

Instructions: PM to ensure the below answers are provided for each utility system. For any "YES" answers, indicate the duration of the measure and review the "Implemented IUSM" column details for the minimum requirements. Unless otherwise noted, the PM is responsible for implementing all required IUSMs. Blank rows are provided to allow additional IUSMs as required for the safety of patients and staff and the preservation of the facility. PM to obtain proper review and approvals prior to beginning work. **Signed IUSM required for ALL Utility systems.**

Interim Utility System Measures (IUSM)

All permits, risk assessments, mitigating measures and procedures shall be in place before work begins.

Measure	IUSM Evaluation	YES	NO	Duration of IUSM dates/phase(s)	Implemented IUSM
1.	Domestic Water ☐ Hot Water ☐ Cold Water	YES ☐	NO ☐		Explain Interruption and measures implemented: *Click here to enter text.*
					Point of no return identified? Describe: *Click here to enter text.*
					☐ Complete ICRA & ILSM ☐ Hot Work being performed? ☐ - Hot Work Permit obtained from control room? ☐ Follow Lock Out / Tag Out procedures. ☐ Prepare and review emergency response plan specific to the work taking place. *Explain:*
					☐ Coordinate with/Notify impacted department(s). End-user names and contacts: *Click or tap here to enter text.*
					☐ Standby Equipment used? Specify: *Click here to enter text.*
					☐ Back-up procedures in place? Specify: *Click here to enter text.*
					☐ Emergency Procedures Reviewed? List: *Click here to enter text.*
					Contact information for person performing work:

INTERIM UTILITY SYSTEM MEASURES (IUSM)

Project Name:	0	Start Date:	99/99/99	Estimated End Date:	99/99/99
Building:	0	Impacted Department(s) (list all that apply):	0		

Measure	IUSM Evaluation	YES	NO	Duration of IUSM dates/phase(s)	Implemented IUSM
2.	Electrical	YES ☐	NO ☐		Explain Interruption and measures implemented: *Click here to enter text.*
					Point of no return identified? Describe: *Click here to enter text.*
					☐ Complete **ICRA** & **ILSM** ☐ Hot Work being performed? ☐ - Hot Work Permit obtained from control room? ☐ Follow Lock Out / Tag Out procedures. ☐ Prepare and review emergency response plan specific to the work taking place. *Explain:*
					☐ Coordinate with/Notify impacted department(s). End-user names and contacts: *Click or tap here to enter text.*
					☐ Standby Equipment used? Specify: *Click here to enter text.*
					☐ Back-up procedures in place? Specify: *Click here to enter text.*
					☐ Emergency Procedures Reviewed? List: *Click here to enter text.*
					Contact information for person performing work:
3.	Emergency Power	YES ☐	NO ☐		Explain Interruption and measures implemented: *Click here to enter text.*
					Point of no return identified? Describe: *Click here to enter text.*
					☐ Complete **ICRA** & **ILSM** ☐ Hot Work being performed? ☐ - Hot Work Permit obtained from control room? ☐ Follow Lock Out / Tag Out procedures. ☐ Prepare and review emergency response plan specific to the work taking place. *Explain:*
					☐ Coordinate with/Notify impacted department(s). End-user names and contacts: *Click or tap here to enter text.*
					☐ Standby Equipment used? Specify: *Click here to enter text.*
					☐ Back-up procedures in place? Specify: *Click here to enter text.*
					☐ Emergency Procedures Reviewed? List: *Click here to enter text.*

					Contact information for person performing work:

INTERIM UTILITY SYSTEM MEASURES (IUSM)

Project Name:	0	**Start Date:**	99/99/99	**Estimated End Date:**	99/99/99
Building:	0	**Impacted Department(s)** (list all that apply):	0		

Measure	IUSM Evaluation	YES	NO	Duration of IUSM dates/phase(s)	Implemented IUSM
4.	Fire Detection	YES ☐	NO ☐		☐ Complete **ILSM** and evaluate for Fire Watch ☐ Hot Work being performed? ☐ - Complete red tag permit at ANMC control room
					Contact information for person performing work:
5.	Fire Suppression	YES ☐	NO ☐		☐ Complete **ILSM** and evaluate for Fire Watch
					Contact information for person performing work:
6.	HVAC	YES ☐	NO ☐		Explain Interruption and measures implemented: *Click here to enter text.*
					Point of no return identified? Describe: *Click here to enter text.*
					☐ Complete **ICRA** & **ILSM** ☐ Hot Work being performed? ☐ - Hot Work Permit obtained from control room? ☐ Follow Lock Out / Tag Out procedures. ☐ Prepare and review emergency response plan specific to the work taking place. *Explain:*
					☐ Coordinate with/Notify impacted department(s). End-user names and contacts: *Click or tap here to enter text.*
					☐ Standby Equipment used? Specify: *Click here to enter text.*
					☐ Back-up procedures in place? Specify: *Click here to enter text.*
					☐ Emergency Procedures Reviewed? List: *Click here to enter text.*
					Contact information for person performing work:
7.	Pneumatic Tube	YES ☐	NO ☐		Explain Interruption and measures implemented: *Click here to enter text.*
					Point of no return identified? Describe: *Click here to enter text.*
					☐ Hot Work being performed? ☐ - Hot Work Permit obtained from control room? ☐ Follow Lock Out / Tag Out procedures.

					☐ Coordinate with/Notify impacted department(s). End-user names and contacts: *Click or tap here to enter text.*
					Contact information for person performing work:

INTERIM UTILITY SYSTEM MEASURES (IUSM)

Project Name:	0	**Start Date:**	99/99/99	**Estimated End Date:**	99/99/99
Building:	0	**Impacted Department(s)** (list all that apply):	0		

Measure	IUSM Evaluation	YES	NO	Duration of IUSM dates/phase(s)	Implemented IUSM
8.	Medical Gas	**YES** ☐	**NO** ☐		Explain Interruption and measures implemented: *Click here to enter text.*
					Point of no return identified? Describe: *Click here to enter text.*
					☐ Complete **ICRA** & **ILSM** ☐ Hot Work being performed? ☐ - Hot Work Permit obtained from control room? ☐ Follow Lock Out / Tag Out procedures. ☐ Prepare and review emergency response plan specific to the work taking place. *Explain:*
					☐ Coordinate with/Notify impacted department(s). End-user names and contacts: *Click or tap here to enter text.*
					☐ Standby Equipment used? Specify: *Click here to enter text.*
					☐ Back-up procedures in place? Specify: *Click here to enter text.*
					☐ Emergency Procedures Reviewed? List: *Click here to enter text.*
					Contact information for person performing work:
9.	Suction	**YES** ☐	**NO** ☐		Explain Interruption and measures implemented: *Click here to enter text.*
					Point of no return identified? Describe: *Click here to enter text.*
					☐ Complete **ICRA** & **ILSM** ☐ Hot Work being performed? ☐ - Hot Work Permit obtained from control room? ☐ Follow Lock Out / Tag Out procedures. ☐ Prepare and review emergency response plan specific to the work taking place. *Explain:*
					☐ Coordinate with/Notify impacted department(s). End-user names and contacts: *Click or tap here to enter text.*
					☐ Standby Equipment used? Specify: *Click here to enter text.*

					☐ Back-up procedures in place? Specify: *Click here to enter text.*
					☐ Emergency Procedures Reviewed? List: *Click here to enter text.*
					Contact information for person performing work:

INTERIM UTILITY SYSTEM MEASURES (IUSM)

Project Name:	0	**Start Date:**	99/99/99	**Estimated End Date:**	99/99/99
Building:	0	**Impacted Department(s)** (list all that apply):	0		

Measure	IUSM Evaluation	YES	NO	Duration of IUSM dates/phase(s)	Implemented IUSM
10.	Other (explain):	YES ☐	NO ☐		Explain Interruption and measures implemented: *Click here to enter text.*
					Point of no return identified? Describe: *Click here to enter text.*
					☐ Complete ICRA & ILSM ☐ Hot Work being performed? ☐ - Hot Work Permit obtained from control room? ☐ Follow Lock Out / Tag Out procedures. ☐ Prepare and review emergency response plan specific to the work taking place. *Explain:*
					☐ Coordinate with/Notify impacted department(s). End-user names and contacts: *Click or tap here to enter text.*
					☐ Standby Equipment used? Specify: *Click here to enter text.*
					☐ Back-up procedures in place? Specify: *Click here to enter text.*
					☐ Emergency Procedures Reviewed? List: *Click here to enter text.*
					Contact information for person performing work:

Completed By:		Date:	
Approved By:		Date:	

POST WORK REVIEW

Measure	IUSM Evaluation	YES	NO	Date Review Completed	Implemented IUSM
1.	Post work review.	YES ☐	NO ☐		☐ Systems returned to normal?
					☐ All testing and recertification completed as Per Code and AHJ?
					☐ Systems cleaned, flushed, and sanitized?

				Contact information for person performing work:
Reviewed by SCF REP:			Date:	

Document Version: November 2025

WATER INFECTION CONTROL RISK ASSESSMENT (WICRA)

Project Name:	0	**Start Date:**	99/99/99	**Estimated End Date:**	99/99/99
Building:	0	**Impacted Department(s)** (list all that apply):	0		

Construction Project Type Assessment

RISK
Each project is assessed by assigning a risk group and project type to evaluate waterborne infection risks and to determine infection prevention precautions required during project.

Water Infection Control Permit and Class Procedures provided below.
PM signature required.

Building Water Distribution System Construction Activities & Scope of Work
Activity: Please click on the hyperlink inside the table below to highlight your designated risk level.

RISK LEVELS	TYPE A	TYPE B	TYPE C	TYPE D
LOW RISK	Class I	Class II	Class III	Class IV
MEDIUM RISK	Class I	Class II	Class III	Class IV
HIGH RISK	Class II	Class III	Class IV	Class IV
HIGHEST RISK	Class III	Class IV	Class IV	Class IV

Infection Control Construction Permit - Project Requirements by Class as designated above.

Classification	Before/During Project	Upon Completion of Project
Class I	1. Perform repair or replacement of plumbing components (i.e., plumbing fixture, trim, or other).	1. Flush the fixture for a minimum of 4 minutes hot, then 4 minutes cold or 4 minutes water mixing fixture.
Class II	**Perform ALL CLASS 1 mitigation in addition to the following:** 1. Prior to construction activities, determine baseline meaurements (i.e., residual Chlorine). 2. Residual Chlorine Range: 0.20 ppm to 4.0 ppm. 3. Validate Temperature: Hot water range [110°F (45°C) to 120°F (48.9°C)] and Cold-water range [≤ 77°F (25°C)]. All temperatures taken prior to fixture mixing valve. 4. Notify the project manager if ranges listed above are out of parameters before starting work.	**Perform ALL CLASS 1 mitigation in addition to the following:** 1. Temperature: Hot water range [110°F (45°C) to 120°F (48.9°C)] and Cold-water range [≤ 77°F (25°C)]. All temperatures taken prior to fixture mixing valve. 2. Residual Chlorine range: 0.20 ppm to 4.0 ppm. 3. Report any odor, discolored water, flecks, or floating debris at baseline or at work completion; none should be present. 4. Record information and store within the project folder. 5. Notify the project manager if ranges above are out of parameters before returning space for use.

Class III	**Perform ALL CLASS 1 and 2 mitigations in addition to the following:** 1. Flush the fixture for a minimum of 4 minutes hot, then 4 minutes cold or 4 minutes water mixing fixture every 4 days throughout the duration of the project at fixtures in construction zone, if not isolated from the main. Report on Daily Hazard Checklist. 2. Following flushing protocol, obtain residual chlorine and temperature readings once per week at designated fixture locations. 3. Review any disinfection (i.e., hyperchlorination) procedures to be performed with the Owner's Project Representative including location(s), method, schedule, and timing to return water system for portable usage. Provide any reports of activities for building water main (i.e., point-of-entry), building distribution systems (hot and/or cold). 4. If necessary, provide any temporary inline or point-of-use filtration during construction for designated sinks, showers, or other fixtures or piping lines to reduce risk of exposure. 5. If necessary, provide any temporary auto-flushing devices at fixtures to meet flushing requirements. 6. Review installation for patient and medical equipment with water reservoirs (i.e., ice machines or other) on the project and preventative maintenance prior to occupant start-up.	**Perform ALL CLASS 1 and 2 mitigations in addition to the following:** 1. Review options and finalize the decision to perform analytical laboratory sampling for water chemistry (i.e., metals), water quality (i.e., bacteria), or microbials (i.e., pathogens of interest). 2. Use risk of occupants, baseline sampling, historical building water distribution system performance, or records from water management program as consideration.

WATER INFECTION CONTROL RISK ASSESSMENT (WICRA)

Project Name:	0	**Start Date:**	99/99/99	**Estimated End Date:**	99/99/99
Building:	0	**Impacted Department(s)** (list all that apply):	0		

Class IV	**Perform ALL CLASS 1, 2, & 3 mitigations in addition to the following:** 1. Conduct a project-specific pre-construction risk assessment for potential growth and spread of waterborne pathogens. See Supplement S2: WMC-ICRA Pre-Construction Risk Assessment Checklist. (See below) a. Review site/civil construction activity risk factors. b. Review building design and construction activity risk factors. • Based upon the risk assessment, prepare a project-specific WMC plan for commissioning the building water system(s) per ANSI/ASHRAE 188 risk management process for WMPs. • Establish a WMC plan with scheduled milestones starting from the date of water activiation through the first-day patient care operations.	**Perform ALL CLASS 1, 2, & 3 mitigations in addition to the following:** 1. Implement/operationalize project-specific controls (i.e., protocols for flushing, temperature, and residual oxidant). 2. Implement and operate upon WMC Plan for achieving water quality and safety. 3. Obtain any authorities having jurisdiction (AHJs) and Building Owner's approval before initating patient care.

SUPPLEMENT S2: WMC-ICRA PRE-CONSTRUCTION RISK ASSESSMENT CHECKLIST

Use this document in conjunction with Water Management for Construction (WMC) Infection Control Risk Assessment (ICRA) tool for improving water quality and safety associated with construction activities. The objective is to reduce risk of waterborne pathogen growth and spread in building water distribution systems from construction activities (i.e., any new building, or any renovation, alteration, and demolition). Please identify all risk factors within the construction project scope. The WMC-PRCA checklist should be reviewed by an infection prevention and control practitioner and facility construction project manager to determine WMC-ICRA Construction Project Category, Building Occupant Risk Groups, and Risk Mitigation Level. Describe additional information in the Note(s) Section to clarify extent of construction project scope.

Site WMC Risk Factors	Yes	No	Notes Section:
Evacuation			
Potential for soil and sediment invasion			
Describe location(s)			
Underground utility connections			

Meters			
Pumping failures			
Pipeline breaks			
Other system repairs			
Emergency conditions			
Lengthy underground piping connections	**Yes**	**No**	**Notes Section:**
Site routing of water utility piping			
Fire hydrant locations and piping routing with dead-ends			
Distance from building main connection to the street connection/invert			
Vibration Activities	**Yes**	**No**	**Notes Section:**
Pile driving/structural foundation			
Jackhammering			
Saw cutting			
What buildings are these activities adjacent to?			
Demolition Activities	**Yes**	**No**	**Notes Section:**
Creates air plumes of dust of water aerosols toward patient care areas			
Drift of debris toward cooling towers			
Drift of debris toward HVAC intake vents			
Demolishing building water system components	**Yes**	**No**	**Notes Section:**
Impacting other buildings water supply connection points			
Other Site/Civil utility demolition activities			
Demolishing underground tunnels	**Yes**	**No**	**Notes Section:**
Utility			
Walking/passage/transportation			

WATER INFECTION CONTROL RISK ASSESSMENT (WICRA)

Project Name:	0	**Start Date:**	99/99/99	**Estimated End Date:**	99/99/99
Building:	0	**Impacted Department(s)** (list all that apply):	0		

Construction equipment with water reservoirs (i.e., typically spray activities)	**Yes**	**No**	**Notes Section:**	
Water tankers				
Paving equipment				
Spray nozzles				
Misters				
Other				
Water main disruptions	**Yes**	**No**	**Notes Section:**	
Opportunity for water main breakage				
Length of shut down in hours/days				
Off-site construction of municipal water delivery system				
Central Utility Plant Modifications/Alterations	**Yes**	**No**	**Notes Section:**	
Underground utility connections				
Cooling Towers	**Yes**	**No**	**Notes Section:**	
Replacement				
Addition				
Disinfection of underground utility connections or building	**Yes**	**No**	**Notes Section:**	
Does the project call for building water main disinfection?				
When during the project is this activity scheduled to be performed?				
High Water Age / Stagnation Challenges	**Yes**	**No**	**Notes Section:**	
How long will building's water system experience dormancy or shut-downs?	N/A	N/A	<24 hours	<7 calendar days
			<30 calendar days	>30 calendar days
Inadequate residual disinfectant	**Yes**	**No**	**Notes Section:**	

Is disinfectant residual measurement between TRO>0.5 ppm or <4.0 ppm / or / FRO>.02 ppm or <4.0 ppm?			
Provide verification of existing residual disinfectant measurements	**Yes**	**No**	**Notes Section:**
Incoming municipal water main			
Pre & Post water softener			
Pre & Post RO or other central filtration system			
Return hot water loop system			
Distal distribution points on each floor of construction			
Confirm existing temperature control ranges	**Yes**	**No**	**Notes Section:**
Hot water storage temperature			
Hot water range (per WMP at fixture delivery)			
Cold water range (per WMP at fixture delivery)			
Does the project utilize point-of-use mixing values?			
Unoccupied areas of low or no use areas pre or post occupancy	**Yes**	**No**	**Notes Section:**
Shell areas with water in piping system			
Unoccupied areas with water in piping system			
Low use areas with water in piping system			
Efficiency design challenges	**Yes**	**No**	**Notes Section:**
Water system design for conservation measures			
Participating in LEED, WELL, or FitWEL building rating systems			
Auto-fixtures (electronic, sensor, or push button - ex. Surgical scrub sinks)			
Aerators			
Ligature-resistant fixtures (i.e., behavioral health, security fixtures)			
Other - mixed temperature fixtures, etc.			

WATER INFECTION CONTROL RISK ASSESSMENT (WICRA)

Project Name:	0	**Start Date:**	99/99/99	**Estimated End Date:**	99/99/99
Building:	0	**Impacted Department(s)** (list all that apply):	0		

Re-pressurization (start-up and shut-down)	**Yes**	**No**	**Notes Section:**
Will any part of the building water system experience re-pressurization?			
Building/Plumbing Water service disruption	**Yes**	**No**	**Notes Section:**
New construction tie-ins			
Replacement valves			
Meters			
Pumping failures			
Other system repairs or component replacement			
Emergency conditions			
Construction equipment with water reservoirs typically with spray activities	**Yes**	**No**	**Notes Section:**
Showers			
Spray nozzles			
Misters			
Other:			
Disinfection of building water distribution	**Yes**	**No**	**Notes Section:**
Does the project call for building water distribution system disinfection?			
Have ports and isolation valves been installed for this section of the building?			

When during the project is the activity scheduled to be performed?			
Central Utility System Modifications/Alterations	**Yes**	**No**	**Notes Section:**
Water Heater			
Heat Exchangers			
Water Storage			
Hot Water Loop Systems			
Boiler System			
Clean Stream			
Other central building water system components			

Citation: Scanlon MM, Gordon JL, Tonozzi AA, and Griffin SC (2022). Reducing the Risk of Healthcare Associated Infections from Legionella and Other Waterborne Pathogens Using a Water Management for Construction (WMC) Infection Control Risk Assessment (ICRA) Tool. Infectious Disease Reports , 14 (3) Supplement S2.

END OF SUPPLEMENT S2: WMC-ICRA PRE-CONSTRUCTION RISK ASSESSMENT CHECKLIST
Please ensure all sections on the previous pages are fully completed and addressed before proceeding to next page.

WATER INFECTION CONTROL RISK ASSESSMENT (WICRA)

Project Name:	0	**Start Date:**	99/99/99	**Estimated End Date:**	99/99/99
Building:	0	**Impacted Department(s)** (list all that apply):	0		

Additional Information or Requirements ***(Additional measures being taken to mitigate water infection control measures)*** :

WICRA Signatures	
Reviewed and signed by at least the Health Facilities, ANMC Safety, and Infection Control. At a minimum a copy of the signed form should be provided to the Department Director, Security, and affected areas and available at the worksite.	
Facilities print name and signature:	**Infection Control print name and signature:**
Date:	Date:
Safety print name and signature:	**Project Manager print name and signature:**
Date:	Date:

Document Version: November 2025

SECTION 01 41 00
REGULATORY REQUIREMENTS

PART 1 – GENERAL

1.01 SUMMARY OF REFERENCE STANDARDS

A. Regulatory requirements applicable to this project are the following:

B. 36 CFR 1191 - Americans with Disabilities Act (ADA) Accessibility Guidelines for Buildings and Facilities; Architectural Barriers Act (ABA) Accessibility Guidelines current edition.

C. ADA Standards - 2010 ADA Standards for Accessible Design 2010.

D. 29 CFR 1910 - Occupational Safety and Health Standards Current Edition.

E. NFPA 101 - Life Safety Code Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments, Supplements, and codes referenced herein.

F. NFPA 99 – Health Care Code

G. FGI Guidelines – 2022 Facility Guidelines Institute for Design and Construction.

H. IFC – International Fire Code – Current guidelines adopted by the State of Alaska.

I. ICC (IBC) - International Building Code Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.

1.02 RELATED REQUIREMENTS

A. Drawings and general provisions of the Contract, including General and Supplemental Conditions and Division 00 & 01 Specifications apply to this section.

B. Section 005213 – Agreement Form.

C. Section 014000 - Quality Requirements.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION

SECTION 01 42 00
REFERENCE STANDARDS AND DEFINITIONS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplemental Conditions and Division 00 & 01 Specifications apply to this section.
B. Section 005213 – Agreement Form.
C. Construction Drawings, Technical Specifications, Architect's Supplemental Instructions, Requests for Information, and Addenda.

1.02 SECTION INCLUDES

A. Use of references in Drawings and Specifications, including requirements for copies of reference standards at Project site.
B. Definitions and terms used in Specifications and Drawings, including abbreviations, acronyms, names, and terms which may be used in Specifications.

1.03 DEFINITIONS

A. "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.

B. "Directed": A command or instruction by Architect. Other terms including "requested," "authorized," "selected," "approved," "required," and "permitted" have the same meaning as "directed."

C. "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."

D. "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.

E. "Furnish": Supply and deliver to Project site, ready for unloading, unpacking, assembly, installation, and similar operations.

F. "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.

G. “Provide”: Furnish and install, complete and ready for the intended use.

H. “Project Site”: Space available for performing construction activities. 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.

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
B. Contract Documents to the extent referenced. Such standards are made a part of the Contract Documents by reference.

C. Publication Dates: Comply with standards in effect as of date of the Contract Documents, unless otherwise indicated. Comply with standard dates referenced in the International Building Code (IBC).

D. Copies of Standards: Each entity engaged in construction on Project shall be familiar with industry standards applicable to its construction activity. Copies of applicable standards are not bound with the Contract Documents.

E. Where copies of standards are needed to perform a required construction activity, obtain copies directly from publication source and make them available on request.

1. Abbreviations and Acronyms for 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 specification section.

1.04 USE OF REFERENCES

A. References: The Drawings and Specifications contain references to various standards, standard specifications, codes, practices and requirements for products, execution, tests and inspections. These reference standards are published and issued by the agencies, associations, organizations and societies listed in this Section or identified in individual product specification Sections.

1. Wherever term "Agency" occurs in Standard Specifications, it shall be understood to mean the term used for Southcentral Foundation for purposes of the Contract.

B. Wherever term "Engineer" occurs in Standard Specifications, it shall be understood to mean Architect or other responsible design professional for purposes of the Contract.

1. Where reference is made to Standard Details, such reference shall be to the Standard Details accompanying the Standard Specifications.

C. Relationship to Drawings and Specifications: Such references are incorporated into and made a part of the Drawings and Specifications to the extent applicable.

D. Referenced Grades Classes and Types: Where an alternative or optional grade, class or type of product or execution is included in a reference but is not identified on the Drawings or in the Specifications, provide the highest, best, and greatest of the alternatives or options for the intended use and prevailing conditions.

E. Copies of Reference Standards:

1. Reference standards are not furnished with the Drawings and Specifications because it is presumed that the Contractor, subcontractors, manufacturers, suppliers, trades, and crafts are familiar with these generally recognized standards of the construction industry.

2. Copies of reference standards may be obtained from publishing sources.

F. Jobsite Copies:

1. Contractor shall obtain and maintain at the Project site copies of reference standards identified on the Drawings and in the Specifications in order to properly execute the Work.
2.
3. At a minimum, the following shall be readily available, as applicable to the Work:
   a. State Building Codes: As referenced in Section 01 41 00 - Regulatory Requirements.
   b. Safety Codes: Occupational Safety and Health Act (OSHA) regulations and local and state Safety requirements and regulations.
   c. General Standards:
      1) Underwriters Laboratories, Inc. (UL) Building Products Listing.
      2) Factory Mutual Research Organization (FM) Approval Guide.
      3) American Society for Testing and Materials (ASTM) Standards in Building Codes.
      4) American National Standards Institute (ANSI) standards.
   d. Fire and Life Safety Standards: All referenced standards pertaining to fire rated construction and exiting.
   e. Common Materials Standards: American Concrete Institute (ACI), American Institute of Steel Construction (AISC), American Welding Society (AWS), Gypsum Association (GA), National Fire Protection Association (NFPA), and Tile Council of America (TCA) standards to the extent referenced within the Contract Specifications.

f. Product Listings: Approval documentation, indicating approval of authorities having jurisdiction for use of product within the applicable jurisdiction.

G. Edition Date of References:
1. When an edition or effective date of a reference is not given, it shall be understood to be the current edition enforced by the Authorities Having Jurisdiction as of the date of the Agreement, Contract Drawings and Contract Specifications.
2.
3. All amendments, changes, errata, and supplements as of the effective date shall be included.

H. ASTM and ANSI References: Specifications and Standards of the American Society for Testing and Materials (ASTM) and the American National Standards Institute (ANSI) are identified in the Drawings and Specifications by abbreviation and number only and may not be further identified by title, date, revision, or amendment. It is presumed that the Contractor is familiar with and has access to these nationally- and industry-recognized specifications and standards.

1.04 DEFINITIONS OF TERMS

A. Basic Contract Definitions: Words and terms governing the Work are defined in the Contract General and Supplementary Conditions, as referenced in the Agreement.

B. Words and Terms Used on Drawings and in Specifications: Additional words and terms may be used in the Drawings and Specifications and are defined as follows:

1. "Applicable:" As appropriate for the particular condition, circumstance or situation.

2. "Approve(d):" Approval action shall be limited to the duties and responsibilities of the party giving approval, as stated in the Conditions of the Contract. Approvals shall be valid only if obtained in writing and shall not apply to matters regarding the means, methods, techniques, sequences and procedures of construction. Approval shall not relieve the Contractor from responsibility to fulfill Contract requirements.

3. "And/or:" If used, shall mean that either or both of the items so joined are required.

4. "Directed:" Limited to duties and responsibilities of the Southcentral Foundation's Representative or Architect as stated in the Contract

General Conditions, meaning "as instructed by SCF's Representative or Architect, in writing, regarding matters other than the means, methods, techniques, sequences and procedures of construction. Terms such as "directed", "requested", "authorized", "selected", "approved", "required", and "permitted" mean "directed by SCF's Representative or Architect", "requested by the SCF's Representative or Architect", and similar phrases. No implied meaning shall be interpreted to extend the responsibility of the SCF's Representative, Architect or other responsible design professional into the Contractor's supervision of construction.

5. "Equal" or "Equivalent:" As determined by Architect or other responsible design professional as being equivalent, considering such attributes as durability, finish, function, suitability, quality, utility, performance, and aesthetic features.

6. "Furnish:" Means "supply and deliver, to the Project site, ready for unloading, unpacking, assembly, installation, and similar operations."

7. "Indicated:" The term indicated refers to graphic representations, notes, or schedules on the Drawings, or other Paragraphs or Schedules in the Specifications, and similar requirements in the Contract Documents. Terms such as "shown", "noted", "scheduled", and "specified" are used to help the reader locate the reference. There is no limitation on location.

8. "Install:" Describes operations at the Project site including the actual unloading, unpacking, assembly, erection, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning, and similar operations.

9. "Installer:"

    a. "Installer" refers to the Contractor or an entity engaged by the Contractor, such as an employee, subcontractor, or sub-subcontractor for performance of a particular construction activity, including installation, erection, application, and similar operations. Installers are required to be experienced in the operations they are engaged to perform.
    b. "Experienced Installer:" The term "experienced," when used with "installer" means having a minimum of 5 previous Projects similar in size to this Project, knowing the precautions necessary to perform the Work, and being familiar with requirements of authorities having jurisdiction over the Work.

10. "Jobsite:" Same as site, Area of Work, or other similar term referencing the physical property where the work is to be carried out upon.

11. "Necessary:" With due considerations of the conditions of the Project and as determined in the professional judgment of the Architect or other responsible design professional as being necessary for performance of the Work in conformance with the requirements of the Contract Documents, but excluding matters regarding the means, methods, techniques, sequences, and procedures of construction.

12. "Noted:" Same as "Indicated."

13. "Per:" Same as "in accordance with," "according to" or "in compliance with."

14. "Products:" Material, system or equipment.

15. "Project Site:" Same as "Site." See definition of “Jobsite” above.

16. "Proper:" As determined by the Architect or other responsible design professional as being proper for the Work, excluding matters regarding the means, methods, techniques, sequences, and procedures of construction, which are solely the Contractor's responsibility to determine.

17. "Provide:" Means "furnish and install, complete and ready for the intended use."

18. "Regulation:" Includes laws, ordinances, statutes and lawful orders issued by authorities having jurisdiction, as well as and rules, conventions and agreements within the construction industry that control performance of the Work.

19. "Required:" Necessary for performance of the Work in conformance with the requirements of the Contract Documents, excluding matters regarding the means, methods, techniques, sequences and procedures of construction, such as:
    a. Regulatory requirements of authorities having jurisdiction.
    b. Requirements of referenced standards.
    c. Requirements generally recognized as accepted construction practices of the locale.
    d. Notes, schedules and graphic representations on the Drawings.
    e. Requirements specified or referenced in the Specifications.
    f. Duties and responsibilities stated in the Bidding and Contract Requirements.

20. "Scheduled:" Same as "Indicated."

21. "Selected:" As selected by SCF's Representative, Architect or other responsible design professional from the full selection of the manufacturer's products, unless specifically limited in the Contract Documents to a particular quality, color, texture or price range.

22. "Shown:" Same as "Indicated."

23. "Site:" Same as "Site of the Work" or "Project Site;" the area or areas or spaces occupied by the Project and including adjacent areas and other related areas occupied or used by the Contractor for construction activities, either exclusively or with others performing other construction on the Project. The extent of the Project Site is shown on the Drawings and may or may not be identical with the description of the land upon which the Project is to be built.

24. "Supply:" See "Furnish."

25. "Testing Laboratory" or "Testing Laboratories:" An independent entity engaged to perform specific inspections or tests, at the Project Site or elsewhere, and to report on, and, if required, to interpret, results of those inspections or tests. Refer to Section 014000 – Quality Requirements.

26. "Testing and Inspection Agency:" Same as "Testing Laboratory."

1.05 ABBREVIATIONS, ACRONYMS, NAMES AND TERMS, GENERAL

A. Abbreviations, Acronyms, Names and Terms: Where acronyms, abbreviations, names, and terms are used in the Drawings, Specifications, or other Contract Documents, they shall mean the recognized name of the trade association, standards generating organization, authority having jurisdiction or other entity applicable.

B. Abbreviations, General: The following are commonly used abbreviations which may be found on the Drawings or in the Specifications. Refer to the Drawings for additional abbreviations or acronyms. This is a partial list. If there is any discrepancy or confusion, notify the University in writing by RFI:

AC or ac	Alternating current (or air conditioning, depending on context)
AMP or amp	Ampere
C	Celcius
CFM or cfm	Cubic feet per minute
CM or cm	Centimeter
CY or cy	Cubic Yard
DC or dc	Direct Current
DEG or deg	Degrees
F	Fahrenheit
FPM or fpm	Feet per minute

FPS or fps	Feet per second
FT or ft	Foot or feet
Gal or gal	Gallons
GPM or gmp	Gallons per minute
IN or in	Inches
Kip or kip	Thousand Pounds
KSI or ksi	Thousand pounds per square inch
KSF or ksf	Thousand pounds per square foot
KV or kv	Kilovolt
KVA or kva	Kilovolt amperes
KWH or kwh	Kilowatt hour
LBF or lbf	Pounds force
LF or lf	Lineal foot
M or m	Meter
MPH or mph	Miles per hour
MM or mm	Millimeter
PCF or pcf	Pounds per cubic foot
PSF or psf	Pounds per square foot
PSI or psi	Pounds per square inch
PSY or psy	Pounds per square yard
SF or sf	Square foot
Sy or sy	Square yard
V or v	Volts

C. Abbreviations and Acronyms for 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 Research's "Encyclopedia of Associations" or in Columbia Books' "National Trade & Professional Associations of the U.S."

D. Undefined Abbreviations, Acronyms, Names and Terms: Words and terms not otherwise specifically defined in this Section, in the Instructions to Bidders, in the Contract General Conditions, on the Drawings or elsewhere in the Specifications, shall be as customarily defined by trade or industry practice, by reference standard and by specialty dictionaries such as the following:

1. Dictionary of Architecture and Construction, Fourth Edition (Cyril M. Harris, McGraw-Hill Book Company, 2005).

2. Encyclopedia of Associations, published by Gale Research Co., commonly available in public libraries.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION

SECTION 014339
MOCKUPS

PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes:
   1. Integrated exterior mockups.
   2. Preconstruction laboratory mockups.
   3. Room mockups.

B. Related Requirements:
   1. Section 014000 "Quality Requirements" for quality assurance requirements for aesthetic and workmanship mockups specified in other Sections.
   2. Section 019119.43 "Exterior Enclosure Commissioning" for testing building enclosure systems and assemblies as part of the exterior enclosure commissioning process.

1.02 ALLOWANCES

A. See Section 012100 "Allowances" for description of allowances affecting items specified in this Section.

1.03 DEFINITIONS

A. Integrated Exterior Mockups: Mockups of the exterior enclosure constructed on-site as [**freestanding temporary built elements**][**part of permanent construction**] , consisting of multiple products, assemblies, and subassemblies.

B. Preconstruction Laboratory Mockups: Mockups of the exterior enclosure constructed at a testing facility to verify performance characteristics.

C. Room Mockups: Mockups of typical interior spaces complete with wall, floor, and ceiling finishes; doors; windows; millwork; casework; specialties; furnishings and equipment; and lighting as indicated.

1.04 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference [**at Project site**][**by web conference**]<**Insert location**> .
   1. Meet with Owner, [**Construction Manager,**] Architect, testing and inspecting agency representative, and installers of major systems whose Work is included in [**integrated exterior**][**preconstruction laboratory**][**and**][**room**] mockups.
   2. Review coordination of equipment and furnishings provided by the Owner for room mockups.
   3. Review locations and extent of mockups.
   4. Review testing procedures to be performed on mockups.
   5. Review and finalize schedule for mockups, and verify availability of materials, personnel, equipment, and facilities needed to complete mockups [**and testing**] and maintain schedule for the Work.

1.05 ACTION SUBMITTALS

A. Shop Drawings: For [integrated exterior][preconstruction laboratory][and][room] mockups.
   1. Include plans, elevations, sections, and [**mounting**][**attachment**][**and**][**support**] details.
   2. Indicate manufacturer and model number of individual components, subassemblies, and assemblies.
   3. Include site location drawing [**indicating orientation of mockup**] .
   4. Revise and resubmit Shop Drawings to reflect approved modifications in details and component interfaces resulting from changes made during testing procedures.

B. Delegated Design Submittals: For temporary structural supports for mockups not attached to building structure, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.

1.06 INFORMATIONAL SUBMITTALS

A. Room Mockup Coordination Drawings: <**Insert description of drawing type**>[**and other details**] , drawn to scale, on which the following items are shown and coordinated with each other, using input from installers of the items involved:

B. <**Insert requirements**> .

C. Preconstruction Test Reports: For [**integrated exterior**][**preconstruction laboratory**] mockups.

D. Qualification Statements: For testing agency.

E. Delegated Design Engineer Qualifications: For delegated design.

1.07 QUALITY ASSURANCE

A. Delegated Design Engineer Qualifications: A professional engineer who is legally qualified to practice in [**state**]<**Insert jurisdiction**> where Project is located and who is experienced in providing engineering services of the type indicated.

B. Preconstruction Laboratory Mockup Testing Agency Qualifications: Qualified in accordance with ASTM E329 for testing indicated [**and accredited by the International Accreditation Service (IAS) or the International Laboratory Accreditation Cooperation (ILAC) Mutual Recognition Arrangement as complying with ISO/IEC 17025**] .

C. Testing Agency Qualifications: Qualified in accordance with ASTM E329 for testing indicated [**and accredited by IAS or ILAC Mutual Recognition Arrangement as complying with ISO/IEC 17025**] and acceptable to Owner and Architect.

1.08 MOCKUPS

A. Build mockups to do the following:
   1. Verify selections made under Sample submittals.
   2. Demonstrate aesthetic effects.

3. Demonstrate the qualities of products and workmanship.
4. Demonstrate acceptable coordination between components and systems.
5. Perform preconstruction testing, such as window air-leakage and water-penetration-resistance testing.

B. Fabrication: Before fabricating or installing portions of the Work requiring mockups, build mockups for each form of construction and finish required. Use materials and installation methods as required for the Work.
1. Build mockups of size indicated.
2. Build mockups in location indicated or, if not indicated, as directed in writing by Architect [**or Construction Manager**] .
3. Employ supervisory personnel who will oversee mockup construction. Employ workers who will be employed to perform same tasks during the construction at Project.
4. Demonstrate the proposed range of aesthetic effects and workmanship.
5. Maintain mockups during construction in an undisturbed condition as a standard for judging the completed Work.

C. Demolish and remove mockups when directed unless otherwise indicated.

D. Notifications:
1. Notify Architect [**and Construction Manager**][**seven**]<**Insert number**> days in advance of the dates when mockups will be constructed.
2. Notify Architect [**and Construction Manager**][**14**]<**Insert number**> days in advance of the dates and times when mockups will be tested.
3. Allow [**seven**]<**Insert number**> days for initial review and each re-review of each mockup.

E. Approval: Obtain Architect's [**and Construction Manager's**] written approval of mockups before starting fabrication or construction of corresponding Work.
1. Unless otherwise indicated, approved mockups establish the standard by which the Work will be judged.
2. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Owner specifically approves such deviations by Change Order.
3. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.09 COORDINATION

F. Coordinate schedule for construction of mockups, so construction, testing, and review of mockups do not impact Project schedule.

PART 2 - PRODUCTS

2.01 PERFORMANCE REQUIREMENTS

G. Delegated Design: Engage a qualified professional engineer, as defined in Section 014000 "Quality Requirements," to design support structure for free-standing mockups.
   1. Structural Performance:

H. Seismic Performance: Mockups and support structure to withstand the effects of earthquake motions determined in accordance with [**ASCE/SEI 7**]<**Insert requirement**> .

I. Mockup Testing Performance Requirements: Perform tests using design pressures and performance criteria indicated for assemblies and products that are specified in other Sections and incorporated into [**integrated exterior**][**preconstruction laboratory**] mockups.

2.02 INTEGRATED EXTERIOR MOCKUPS

A. Construct integrated exterior mockups [**in accordance with approved mockup Shop Drawings**][**as indicated on Drawings**] . Construct mockups to demonstrate constructability, coordination of trades, and sequencing of Work; and to ensure materials, components, subassemblies, assemblies, and interfaces integrate into a system complying with indicated performance and aesthetic requirements.

B. Design and construct foundation and superstructure to support free-standing integrated exterior mockups.

C. Build integrated exterior mockups using installers and construction methods that will be used in completed construction.

D. Use specified products that have been approved in writing by Architect. Coordinate installation of materials and products specified in individual Specification Sections that include Work included in integrated exterior mockups.

E. The Work of integrated exterior mockups includes, but is not limited to, the following:
   1. Precast architectural concrete.
   2. Masonry veneer.
   3. Stone cladding.
   4. Cold-formed metal framing and sheathing.
   5. Air and weather barriers.
   6. Thermal insulation.
   7. Through-wall flashing.
   8. Flashing and sheet metal trim.
   9. Joint sealants.
   10. Metal wall panels.
   11. Aluminum-framed entrances and storefront.
   12. Glazed curtain walls.
   13. Aluminum windows.
   14. Glazing.

F. Photographic Documentation: Document construction of integrated exterior mockups with photographs in accordance with Section 013233 "Photographic Documentation." Provide photographs showing details of interface of different materials and assemblies.
   1. Document testing procedures, including water penetration and other deficiencies. Photograph modifications to component interfaces intended to correct deficiencies.

G. Provide and document modifications to construction details and interfaces between components and systems required to properly sequence the Work, or to pass performance testing requirements. Obtain [**Architect's**][**Construction Manager's**] written approval for modifications.

H. Retain approved mockups constructed in place. Incorporate fully into the Work.

2.03 PRECONSTRUCTION LABORATORY MOCKUPS

A. Construct preconstruction laboratory mockups [**in accordance with approved Shop Drawings**][**as indicated on Drawings**] . Construct mockups to demonstrate constructability, coordination of trades, and sequencing of Work; ensure materials, components, subassemblies, assemblies, and interfaces integrate into a system complying with indicated performance and aesthetic requirements; and conduct performance testing indicated.

B. Build preconstruction laboratory mockups at testing agency facility using installers and construction methods that will be used at Project site.

C. Use specified products that have been approved in writing by Architect. Coordinate installation of materials and products specified in individual Specification Sections that include Work included in preconstruction laboratory mockups.

D. The Work of preconstruction laboratory mockups includes, but is not limited to, the following:
   1. Precast architectural concrete.
   2. Masonry veneer.
   3. Stone cladding.
   4. Cold-formed metal framing and sheathing.
   5. Air and weather barriers.
   6. Thermal insulation.
   7. Through-wall flashing.
   8. Flashing and sheet metal trim.
   9. Joint sealants.
   10. Metal wall panels.
   11. Aluminum-framed entrances and storefront.
   12. Glazed curtain walls.
   13. Aluminum windows.
   14. Glazing.

E. Photographic Documentation: Document construction of preconstruction laboratory mockups with photographs in accordance with Section 013233 "Photographic Documentation." Provide photographs showing details of interface of different materials and assemblies.
   1. Document testing procedures, including water penetration and other deficiencies. Photograph modifications to component interfaces intended to correct deficiencies.

F. Provide and document modifications to construction details and interfaces between components and systems required to properly sequence the Work, or to pass performance testing requirements. Obtain [**Architect's**][**Construction Manager's**] written approval for modifications.

G. When testing is complete, remove test specimens and test assemblies, and preconstruction laboratory mockups; do not reuse products on Project.

2.04 ROOM MOCKUPS

A. Build room mockups [**in accordance with approved mockup Shop Drawings**][**as indicated on Drawings**] to evaluate constructability, demonstrate the coordination of trades and sequencing of Work, and to demonstrate aesthetic requirements. Include each visible finish, component, and equipment item within room mockups; include operable lighting.

B. Provide room mockups of the following rooms:
   1. Classroom.
   2. Patient care room.
   3. Hotel guest room.
   4. Residential apartment unit.

C. The Work of room mockups includes, but is not limited to, the following:
   1. Millwork and casework.
   2. Doors and frames.
   3. Access doors and frames.
   4. Glazing.
   5. Metal framing.
   6. Gypsum board.
   7. Ceramic tiling.
   8. Acoustical ceilings.
   9. Resilient flooring.
   10. Painting.
   11. Registers and grilles.
   12. Wiring devices.
   13. Lighting.

PART 3 - EXECUTION

3.01 TESTING OF INTEGRATED EXTERIOR MOCKUPS

A. Integrated Exterior Mockup Testing Agency: [**Owner will engage**][**Engage**] a qualified testing agency to perform tests and inspections.

1. Testing and inspecting agency will interpret tests and state in each report whether tested Work complies with or deviates from requirements.

B. Integrated Exterior Mockup Testing Services: Perform the following tests in the following order:
   1. Water-Spray Test: Before installation of interior finishes has begun, test areas designated by Architect in accordance with AAMA 501.2 for evidence of water penetration.
   2. Perform a minimum of [**two**][**three**]<**Insert number**> tests in areas as directed by Architect.
   3. Air Leakage: Test in accordance with ASTM E783 at 1.5 times the rate specified in "Mockup Testing Performance Requirements" Paragraph in "Performance Requirements" Article, but not more than **0.09 cfm/sq. ft.** at a static-air-pressure differential of **1.57 lbf/sq. ft.**.
   4. Perform a minimum of [**two**][**three**]<**Insert number**> tests in areas as directed by Architect.
   5. Water Penetration: Test in accordance with ASTM E1105 at a minimum [**uniform**][**and**][**cyclic**] static-air-pressure differential of 0.67 times the static-air-pressure differential specified for laboratory testing in "Mockup Testing Performance Requirements" Paragraph in "Performance Requirements" Article, but not less than **6.24 lbf/sq. ft.**, and verify no evidence of water penetration.

C. Manufacturer's Field Service: Engage a factory-authorized service representative to test and inspect components, assemblies, and installations, including connections, and also to observe testing for the following systems and assemblies.
   1. Curtain wall specified in Section 084413 "Glazed Aluminum Curtain Walls."
   2. Integrated exterior mockup will be considered defective if it does not pass tests and inspections.

D. Prepare test and inspection reports.

3.02 TESTING OF PRECONSTRUCTION LABORATORY MOCKUPS

A. Testing Agency: [**Owner will engage**][**Engage**] a qualified testing agency to perform tests and inspections.
   1. Testing and inspecting agency will interpret tests and state in each report whether tested Work complies with or deviates from requirements.

B. Testing Criteria: Where the following tests are indicated, use criteria indicated.
   1. Air Leakage in Accordance with ASTM E283/E283M: Air leakage of not more than [**0.06 cfm/sq. ft.**]<**Insert value**> at a static-air-pressure differential of [**1.57 lbf/sq. ft.**][**6.24 lbf/sq. ft.**]<**Insert value**> .
   2. Static Water Penetration Resistance in Accordance with ASTM E331: Minimum static-air-pressure differential of [**20 percent**]<**Insert differential**> of positive wind-load design pressure, but not less than

[6.24 lbf/sq. ft.][10 lbf/sq. ft.][15 lbf/sq. ft.]<**Insert value**> . No evidence of water penetration as defined by AAMA 501.1.

3. Dynamic Water Penetration Resistance in accordance with AAMA 501.1: Minimum air-pressure differential of [**20 percent**]<**Insert differential**> of positive wind-load design pressure, but not less than [6.24 lbf/sq. ft.][10 lbf/sq. ft.][15 lbf/sq. ft.]<**Insert value**> .

C. Unlock, open, and relock operable windows and doors five times. Perform necessary hardware adjustments, if any, and repeat cycling.

D. Preconstruction Laboratory Mockup Testing: Perform the following tests in the following order.
   1. Structural, 50 Percent Outward-Acting: ASTM E330/E330M at 50 percent of negative test load for not less than [**10**]<**Insert number**> seconds.
   2. Structural, 50 Percent Inward Acting: ASTM E330/E330M at 50 percent of positive test load for not less than [**10**]<**Insert number**> seconds.
   3. Air Leakage: ASTM E283/E283M.
   4. Water Penetration Resistance under Static Pressure: ASTM E331.
   5. Water-Penetration Resistance under Dynamic Pressure: AAMA 501.1.
   6. Structural, 50/100 Percent: ASTM E330/E330M at the following wind loads:
      a. 50 percent of positive test load for not less than [**10**]<**Insert number**> seconds.
      b. 100 percent of positive test load for not less than [**10**]<**Insert number**> seconds.
      c. 50 percent of negative test load for not less than [**10**]<**Insert number**> seconds.
      d. 100 percent of negative test load for not less than [**10**]<**Insert number**> seconds.
   7. Structural, Sloped Glazing, 100 Percent: ASTM E330/E330M at 100 percent of positive test load due to snow/ice, for not less than [**10**]<**Insert number**> seconds.
   8. Repeat Air Leakage: ASTM E283/E283M.
   9. Repeat Water Penetration under Static Pressure: ASTM E331.
   10. Repeat Water Penetration under Dynamic Pressure: AAMA 501.1.
   11. Vertical Inter-Story Movement: AAMA 501.7. Repeat the following:
      a. Air Leakage: ASTM E283/E283M. Test in accordance with AAMA 501.7 with mockup in "open" position.
      b. Water Penetration Resistance under Static Pressure: ASTM E331. Test in accordance with AAMA 501.7 with mockup in "open" position. Return to "closed" position prior to next test.
      c. Water Penetration Resistance under Dynamic Pressure: AAMA 501.
   12. Elastic Lateral Inter-Story Movement: AAMA 501.4. Repeat the following:
      a. Air Leakage: ASTM E283/E283M.
      b. Water Penetration Resistance under Static Pressure: ASTM E331.

c. Water Penetration Resistance under Dynamic Pressure: AAMA 501.1.

13. Shading Device, 100 Percent: AAMA 514 at 100 percent of design snow/ice load. Repeat the following:
    a. Air Leakage: ASTM E283/E283M.
    b. Water Penetration Resistance under Static Pressure: ASTM E331.
    c. Water Penetration Resistance under Dynamic Pressure: AAMA 501.1.
14. Thermal Cycling: AAMA 501.5.
15. Surface Temperature Assessment for Condensation Evaluation: AAMA 501.9.
16. Repeat the following:
    a. Air Leakage: ASTM E283/E283M.
    b. Water Penetration Resistance under Static Pressure: ASTM E331.
    c. Water Penetration Resistance under Dynamic Pressure: AAMA 501.1.
17. Structural, 75/150 Percent: ASTM E330/E330M at the following loads:
    a. 75 percent of positive test load for not less than [**10**]<**Insert number**> seconds.
    b. 150 percent of positive test load for not less than [**10**]<**Insert number**> seconds.
    c. 75 percent of negative test load. for not less than [**10**]<**Insert number**> seconds.
    d. 150 percent of negative test load for not less than [**10**]<**Insert number**> seconds.
18. Structural, Sloped Glazing, 200 Percent: ASTM E330/E330M at 200 percent of positive test load due to snow/ice, for not less than [**10**]<**Insert number**> seconds.
19. Shading Device, 200 Percent: AAMA 514 at 200 percent of design snow/ice load.
20. Shading Device, Ice Impact: AAMA 514.
21. Inelastic Seismic: AAMA 501.4.

E. Manufacturer's Field Service: Engage a factory-authorized service representative to test and inspect components, assemblies, and installations, including connections, and also to observe testing for the following systems and assemblies.
    1. Curtain wall specified in Section 084413 "Glazed Aluminum Curtain Wall."
    2. Aluminum windows specified in Section 085113 "Aluminum Windows."
    3. Preconstruction laboratory mockup will be considered defective if it does not pass tests and inspections.

F. Prepare test and inspection reports.

END OF SECTION 014339

SECTION 01 50 00
TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplemental Conditions and Division 01 Specifications apply to this section.

B. Document 00 52 13 – Agreement Form.

1.02 SUBMITTALS

A. Submit schedule of proposed connection and termination dates 15 days before implementation.

B. Submit site plan showing temporary facilities, utility connections, and construction personnel parking areas.

1.03 QUALITY ASSURANCE

A. Arrange and pay for Authorities Having Jurisdiction to approve each temporary utility before use. Obtain n e c e s s a r y certifications and permits.

1.04 PROJECT CONDITIONS

A. Assume responsibility for operation, maintenance, and protection.

PART 2 - PRODUCTS

2.01 FIRE EXTINGUISHERS

A. Portable, UL rated; with class and extinguishing agent as required by locations and classes of fire exposures.

2.02 TEMPORARY ELECTRICITY

A. If required, Contractor shall provide and shall pay for power service required from utility source.

B. Provide power outlets for construction operations, with branch wiring and distribution boxes. Provide flexible power cords as required.

C. Provide main service disconnect and overcurrent protection at convenient location.

2.03 TEMPORARY LIGHTING

A. Provide and maintain lighting for constructions operations.

B. Permanent building lighting may be utilized during construction only with written pre-approval from Owner.

2.04 TEMPORARY HEAT

A. Provide and pay for heat devices and heat as required to maintain specified conditions for construction operations. Use equipment that will not have harmful effect on completed installation.

1. Use permanent heating system, or provide vented, self-contained, liquid-gas, propane-gas, or fuel-oil heaters with individual space thermostatic control.
2. Use of gasoline-burning space heaters, open-flame heaters, or salamander-type heating units is prohibited.
3. Heating Units: Listed and labeled for type of fuel being consumed, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
4. Prior to operation of permanent equipment for temporary heating purposes, verify that installation is approved for operation, equipment is lubricated, and filters are in place. Provide and pay for operation, maintenance, and regular replacement of filters and worn or consumed parts.

B. Maintain minimum ambient temperature of 50 degrees F. in areas where construction is in progress, unless indicated otherwise in Specifications.

2.05 HUMIDITY CONTROL

A. Ventilate enclosed areas to assist cure of materials, to dissipate humidity, and to prevent accumulation of dust, fumes, vapors, or gases.

2.06 TELEPHONE SERVICE

A. Provide, maintain, and pay for mobile telephone service to field supervisor(s) at time of project mobilization through project completion.

2.07 COMPUTER AND COPY SERVICE

A. Provide, maintain, and pay for computer service to field office at time of project mobilization.

B. Provide, maintain, and pay for 8-1/2 x 11-inch copy machine in field office.

2.08 TEMPORARY WATER SERVICE

A. Existing water service may be used. Owner will pay cost of water used. Exercise measures to conserve water.

B. If Owner provided water is not available or adequate, provide, maintain, and pay for suitable quality water required for construction.

   1. Extend branch piping with outlets located so water is available by hoses with threaded connections.

   2. Sterilize temporary water piping prior to use.

2.09 TEMPORARY SANITARY FACILITIES

A. Provide and maintain self-contained facilities and enclosures including toilets, wash facilities and drinking water, for use of construction persons.

2.10 BARRIERS

A. Provide barriers to prevent unauthorized entry to construction areas and to protect adjacent properties from damage from construction operations. Coordinate all requirements for infection control with the Owner.

B. Provide barricades and covered walkways required by governing authorities for public rights-of-way.

C. Protect non-owned vehicular traffic, stored materials, site, and structures from damage.

2.11 FIELD OFFICES AND SHEDS

D. Office: Suitable for Contractor field management and tool storage, weather-tight, with lighting, electrical outlets, heating equipment and equipped with sturdy furniture, drawing rack, and drawing display table.

E. Provide space for project meetings, with table and chairs necessary to accommodate all attendees.

F. Locate offices and sheds a minimum distance of 20 feet from existing structures unless Owner approves in writing.

G. Provide fire resistant rated walls where closer than 30 feet to other permanent buildings or interior property lines. Not required at public right of way.

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 and modify facilities as required by progress of the Work.

3.02 WEATHER CONTROL

A. Provide temporary insulated weather-tight closure of exterior openings to accommodate acceptable working conditions and protection for products, to allow for temporary heating and maintenance of required ambient temperatures identified in individual Specifications Sections, and to prevent entry of unauthorized persons. Provide access doors with self-closing hardware and locks.

3.03 PROTECTION OF INSTALLED WORK

A. Protect installed Work and provide special protection where specified in individual Specifications Sections.

B. Provide temporary and removable protection for installed products. Control activity in immediate work area to minimize damage.

C. Provide protection covering at walls, projections, jambs, sills, and soffits of openings.

D. Protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.

E. Prohibit traffic or storage upon waterproofed or roofed surfaces. If traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.

F. Prohibit traffic from landscaped areas.

3.04 SECURITY

A. Provide security and facilities to protect Work from unauthorized entry, vandalism, or theft.
B. Coordinate with Owner’s security program.

3.05 PARKING

A. Coordinate with Owner to arrange for parking areas to accommodate construction personnel.

B. When site space is not adequate, provide additional off-site parking.

C. Designate one parking space onsite for the Owner.

3.06 PROGRESS CLEANING

A. Maintain work and storage area free of waste materials, debris, and rubbish. Maintain site in a clean and orderly conditions to maintain site passage and exits, and to avoid fire hazard.

B. Provide waste-collection containers in sizes adequate to handle construction waste.

C. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces, and other closed or remote spaces, prior to enclosing the spaces.

D. Broom and vacuum clean interior areas prior to start of surface finishing and continue cleaning to eliminate dust.

E. Remove waste materials, debris, and rubbish from site periodically at least once weekly and dispose off-site.

F. Open free-fall chutes not permitted. Terminate closed chutes into appropriate containers with lids.

3.07 REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS

G. Remove temporary above grade or buried utilities, equipment, facilities, materials, prior to Substantial Completion Inspection.

H. Remove underground installations to a minimum depth of two feet. Grade site as indicated.

I. Clean and repair damage caused by installation or use of temporary work.

J. Restore existing facilities used during construction to original condition.

END OF SECTION

SECTION 01 60 00
PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplemental Conditions and Division 00 & 01 Specifications apply to this section.

B. Section 00 52 13 – Agreement Form

C. Section 01 40 00 - Quality Requirements

D. Section 01 70 00 – Execution and Closeout Requirements

1.02 DEFINITIONS

A. Products: New material, machinery, components, equipment, fixtures, and systems forming the Work. Products do not include machinery and equipment used for preparation, fabrication, conveying and erection of the Work.

B. Products may also include existing materials or components required for reuse where specified.

C. Provide interchangeable components of the same manufacturer, for similar use products.

D. Substitutions: Changes in products from those required by the Contract documents, proposed by the Contractor.
   1. Substitutions will not be accepted during Bidding.

1.04 PRODUCT SUBMITTALS

A. Product List: Submit a list, showing proposed products. Include manufacturer's name and proprietary product names for each product.
   1. Coordinate product list with Contractor's Construction Schedule and the Submittals Schedule.
   2. Form: Tabulate information for each product under the following column heading:
      a. Specification Section number and title.
      b. Generic name used in the Contract Documents.
      c. Proprietary name, model number, and similar designations.
      d. Manufacturer's name and address.

e. Supplier's name and address.
f. Installer's name and address.
g. Projected delivery date or time span of delivery period.
h. Identification of items that require early submittal approval for scheduled delivery date.

3. Initial Submittal: Within 30 days after notice to proceed, submit initial product list. Include a written explanation for omissions of data and for variations from Contract requirements.
   a. At Contractor's option, initial submittal may be limited to product selections and designations that must be established early in Contract period.
4. Completed List: Within 60 calendar days after notice to proceed to construction, submit product list. Include a written explanation for any omissions of data and for variations from Contract requirements.
5. Architect's Action: Architect will respond in writing to Contractor within 7 calendar days, excluding SCF recognized holidays, of receipt of completed product list. Architect's response will include a list of unacceptable product selections and a brief explanation of reasons for this action. Architect's response, or lack of response, does not constitute a waiver of requirement to comply with the Contract Documents.

B. Substitution Requests: Submit one request for each proposed substitution. Include Specification Section number and title and Drawing numbers and titles.
   1. Documentation: Show compliance with requirements for substitutions.
   2. Show history of product in Alaska.

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

D. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within 7 days of receipt.

1.05 QUALITY ASSURANCE

A. Compatibility of Options: If Contractor is given option of selecting between two or more products for use on Project, product selected shall be compatible with products previously selected, even if previously selected products were also options.

1.06 PRODUCT DELIVERY, STORAGE, AND HANDLING

A. Deliver, store, and handle products using means and methods that will prevent damage, deterioration, and loss, including theft. 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 ensure compliance with the Contract Documents and to ensure 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. Store cementitious products and materials on elevated platforms.
   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 freezing.

1.07 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.

PART 2 – PRODUCTS

2.01 PRODUCT SELECTION PROCEDURES

A. General Product Requirements: Provide products that comply with the Contract Documents, that are undamaged and, unless otherwise indicated, that 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. Owner reserves the right to limit selection to products with warranties not in conflict with requirements of the Contract Documents.
3. Where products are accompanied by the term “as selected,” Architect will make selection.
4. Where products are accompanied by the term “match,” sample to be matched is Architect’s or existing construction.
5. Descriptive, performance, and reference standard requirements in the Specifications establish “salient characteristics” of products.
6. Or Equal: Where products are specified by name and accompanied by the term “or equal” or “or approved,” comply with product specification.

B. Product Selection Procedures:
   1. Available Products: Where Specifications include a list of names of both products and manufacturers, provide one of the products listed, or an unnamed product, that complies with requirements.
   2. Available Manufacturers: Where Specifications include a list of manufacturers, provide a product by one of the manufacturers listed, or with an unnamed manufacturer, that complies with requirements.
   3. Visual Selection Specification: Where Specifications include the phrase “as selected from manufacturer’s colors, patterns, textures” or a similar phrase, select a product that complies with specified requirements.
      a. Standard Range: Where Specifications include the phrase “standard range of colors, patterns, textures” or similar phrase, Architect will select color pattern, density, or texture from manufacturer’s product line that does not include premium items.
      b. Full Range: Where Specifications include the phrase “full range of colors, patterns, textures” or similar phrase, Architect will select color, pattern, density, or texture from manufacturer’s product line that includes both standard and premium items.

2.02 PRODUCT SUBSTITUTIONS

A. See Specification Section 01 25 00 – Substitution Procedures.

PART 3 - EXECUTION - NOT USED

END OF SECTION

SECTION 01 70 00
EXECUTION AND CLOSEOUT REQUIREMENTS

PART 1 – GENERAL

1.01 SECTION INCLUDES

A. Examination, preparation, and general installation procedures.
B. Cutting and patching.
C. Surveying for laying out the work.
D. Cleaning and protection.
E. Starting of systems and equipment.
F. Demonstration and instruction of Owner personnel.
G. Closeout procedures, including Contractor's Correction Punch List, except payment procedures.
H. General requirements for maintenance service.
I. Project record documents.
J. Operation and maintenance data.
K. Warranties and bonds.

1.02 RELATED REQUIREMENTS

A. Drawings and General Provisions of the Contract, including General and Supplemental Conditions and Division 00 & 01 Specifications apply to this section.
B. Section 005213 – Agreement Form
C. Section 011000 – Summary of Work: Limitations on working in existing building; continued occupancy; work sequence; identification of salvaged and relocated materials.
D. Section 012000 – Price and Payment Procedures.
E. Section 013000 - Administrative Requirements: Submittals procedures.
F. Section 014000 - Quality Requirements: Testing and inspection procedures.
G. Section 015000 - Temporary Facilities and Controls: Temporary exterior enclosures.
H. Section 015000 - Temporary Facilities and Controls: Temporary interior partitions.
I. Section 017419 - Construction Waste Management and Disposal: Additional procedures for trash/waste removal, recycling, salvage, and reuse.
J. Section 017610 - Temporary Protective Coverings: Materials for protection of installed work.

K. Section 017824 – Facility Asset Data

L. Section 017839 – Project Record Building Information Model (BIM)

M. Section 017900 - Demonstration and Training: Demonstration of products and systems to be commissioned where indicated in specific specification sections.

N. Section 018100 – Commissioning.

O. Section 078400 - Firestopping.

P. Individual Product Sections: Specific requirements for operation and maintenance data.

Q. Individual Product Sections: Warranties required for specific products or Work.

1.03 SUBMITTALS

A. See Section 013000 - Administrative Requirements, for submittal procedures.

B. Survey work: Submit name, address, and telephone number of Surveyor before starting survey work.
   1. On request, submit documentation verifying accuracy of survey work.
   2. Submit a copy of site drawing signed by the Land Surveyor, that the elevations and locations of the work are in compliance with Contract Documents.
   3. Submit surveys and survey logs for the project record.

C. Cutting and Patching: Submit written request in advance of cutting or alteration that affects:
   4. Structural integrity of any element of Project.
   1. Integrity of weather exposed or moisture resistant element.
   2. Efficiency, maintenance, or safety of any operational element.
   3. Visual qualities of sight exposed elements.
   4. Work of Owner or separate Contractor.
   5. Include in request:
      a. Identification of Project.
      b. Location and description of affected work.
      c. Necessity for cutting or alteration.
      d. Description of proposed work and products to be used.
      e. Effect on work of Owner or separate Contractor.
      f. Written permission of affected separate Contractor.
      g. Date and time work will be executed.

D. Project Record Documents: Submit electronic documents to Architect with claim for final Application for Payment.

E. As-Built Model that incorporates Record and Federated Models.

F. Operation and Maintenance Data:

1. Facility Asset Data Excel File
2. For equipment, or component parts of equipment put into service during construction and operated by Owner, submit completed electronic documents within 10 calendar days, excluding SCF recognized holidays, after acceptance.
3. Submit one electronic copy of completed documents 15 calendar days, excluding SCF recognized holidays, prior to final inspection. This copy will be reviewed and returned after final inspection, with Architect comments. Revise content of all document sets as required prior to final submission.
4. Submit 1 hard copy and 1 electronic set of revised final documents in final form within 10 calendar days, excluding SCF recognized holidays, after final inspection.

G. Warranties and Bonds:
1. For equipment or component parts of equipment put into service during construction with Owner's permission, submit electronic documents within 10 calendar days, excluding SCF recognized holidays, after acceptance.
2. Make other submittals within 10 calendar days, excluding SCF recognized holidays, after Date of Substantial Completion, prior to final Application for Payment.
3. For items of Work for which acceptance is delayed beyond Date of Substantial Completion, submit within 10 calendar days, excluding SCF recognized holidays, after acceptance, listing the date of acceptance as the beginning of the warranty period.
4. Submit 1 final hard copy and 1 electronic copy of all warranties and bonds for entire project, prior to final Application for Payment.

1.04 QUALIFICATIONS

A. For surveying work, employ a land surveyor registered in the State in which the Project is located and acceptable to Architect and Owner. Submit evidence of surveyor's Professional Liability insurance coverage in the form of an Insurance Certificate. Employ only individual(s) trained and experienced in collecting and recording accurate data relevant to ongoing construction activities.

1.05 PROJECT CONDITIONS

A. Ventilate enclosed areas to assist cure of materials, to dissipate humidity, and to prevent accumulation of dust, fumes, vapors, or gases.

B. Erosion and Sediment Control: Plan and execute work by methods to control surface drainage from cuts and fills, from borrow and waste disposal areas. Prevent erosion and sedimentation.

C. Noise Control: Provide methods, means, and facilities to minimize noise produced by construction operations.

D. Pollution Control: Provide methods, means, and facilities to prevent contamination of soil, water, and atmosphere from discharge of noxious, toxic substances, and pollutants produced by construction operations. Comply with federal, state, and local regulations.

1.06 COORDINATION

A. Coordinate scheduling, submittals, and work of the various sections of the Project Manual to ensure efficient and orderly sequence of installation of interdependent construction elements, with provisions for accommodating items installed later.

B. Notify affected utility companies and comply with their requirements.

C. Verify that utility requirements and characteristics of new operating equipment are compatible with building utilities. Coordinate work of various sections having interdependent responsibilities for installing, connecting to, and placing in service, such equipment.

D. Coordinate space requirements, supports, and installation of mechanical and electrical work that are indicated diagrammatically on drawings. Follow routing indicated for pipes, ducts, and conduit, as closely as practicable; place runs parallel with lines of building. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance, and for repairs.

E. In finished areas except as otherwise indicated, conceal pipes, ducts, and wiring within the construction. Coordinate locations of fixtures and outlets with finish elements.

F. Coordinate completion and clean-up of work of separate sections.

G. After Owner occupancy of premises, coordinate access to site for correction of defective work and work not in accordance with Contract Documents, to minimize disruption of Owner's activities.

1.07 CLOSEOUT PROCEDURES

A. Comply with procedures stated in General Conditions of the Contract for issuance of Certificate of Substantial Completion and including the following:
   1. Certificate of Substantial Completion: AIA Form G704-2017 or Owner pre-approved similar shall be used.
   2. Contractors Affidavit of Payment of Debts and Claims: AIA Form G706-1994 or Owner pre-approved similar shall be used.
   3. Contractors Affidavit or Release of Liens: AIA Form G706A-1994 or Owner pre-approved similar shall be used.
   4. Consent of Surety Company to Final Payment: AIA Form G707-1994 or Owner pre-approved similar shall be used.

B.

C. OWNER may occupy portions of the project for its use, under provisions to be stated in Certificate of Substantial Completion.

D. Submit final Application for Payment identifying total adjusted Contract Sum, previous payments, and sum remaining due.

1.08 SUBSTANTIAL COMPLETION

A. Preliminary Procedures: Before requesting inspection for determining date of Substantial Completion, complete the following. List items below that are incomplete in request.
   1. Prepare a list of items to be completed and corrected (punch list), the value of items on the list, and reasons why the Work is not complete.
   2. Advise Owner of pending insurance changeover requirements.
   3. Submit specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
   4. Obtain and submit releases permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, boiler operating certificates, and similar releases.
   5. Prepare and submit Project Record Documents, operation and maintenance manuals, property surveys, and similar final record information.
   6. Deliver tools, spare parts, extra materials, and similar items to location designated by Owner. Label with manufacturer's name and model number where applicable.
   7. Make final changeover of permanent locks to Owner. Advise Owner's personnel of changeover.
   8. Complete startup testing of systems.
   9. Submit test/adjust/balance records.
   10. Terminate and remove temporary facilities from Project site, along with mockups, construction tools, and similar elements.
   11. Advise Owner of changeover in heat and other utilities.
   12. Submit changeover information related to Owner's occupancy, use, operation, and maintenance.

B. Inspection: Submit a written request for inspection for Substantial Completion to Architect or Owner's Representative. On receipt of request, Architect or Owner's Representative will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect or Owner's Representative will prepare the Certificate of Substantial Completion after inspection or will notify Contractor of items, either on Contractor's list or

additional items identified by Architect and/or Owner's Representative, 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.
2. Results of completed inspection will form the basis of requirements for Final Completion.

1.09 FINAL COMPLETION

A. Preliminary Procedures: Before requesting final inspection for determining date of Final Completion, complete the following:
   1. Submit a final Application for Payment according to Section 01 20 00 – Price and Payment Procedures.
   2. Submit certified copy of Architect's Substantial Completion inspection list of items to be completed or otherwise resolved for acceptance.
   3. Submit evidence of final, continuing insurance coverage complying with insurance requirements.
   4. Instruct Owner's personnel in operation, adjustment, and maintenance of products, equipment, and systems.

B. Inspection: Submit a written request for final inspection for acceptance. 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 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.

C. List of Incomplete Items (Punch Lists): Prepare and Submit 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.

1.11 WARRANTIES

A. Submittal Time: Submit electronic and 1 hard copy of warranties on request of Architect or Owner's Representative for designated portions of the Work where commencement of warranties other than date of Substantial Completion is indicated.

B. Partial Occupancy: Submit properly executed warranties within 15 days of completion of designated portions of the Work that are completed and occupied or used by Owner during construction period by separate

agreement with Contractor.

C. Organize hard copy of warranty documents into an orderly sequence based on the table of contents of the Project Manual.
   5. Bind warranties and bonds in heavy-duty, 3-ring, vinyl-covered, loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8 ½ by-11-inch paper.
   6. 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.
   7. Identify each binder on the front and spine with the typed or printed title "Warranties," Project name, and name of Contractor.

D. Provide additional copies of each warranty to include in operation and maintenance manuals.

E. In addition to the hard copy, also provide one PDF electronic copy of warranty manual. Electronic copy shall be tabbed using digital bookmarks.

1.12 REINSPECTION FEES

A. Should status of completion of Work require reinspection by Contracting Officer due to failure of Work to comply with Contractor's claims on initial inspection, Owner will deduct the amount of costs for reinspection services from final payment to the Contractor.

1.13 ADJUSTING

A. Adjust operating products and equipment to ensure smooth and unhindered operation.

1.14 PROJECT RECORD DOCUMENTS

A. Coordinate with Section 017824 – Facility Asset Data and Section 017839 – Project Record Building Information Model (BIM)

B. Maintain on site, one set of the following Record Documents; record actual revisions to the Work differing from Contract Drawings. Documents shall be electronic and shall be accessible at all times to Architect, Owner, and Owner's Representative:
   1. Contract Drawings
   2. Specifications.
   3. Addenda.
   4. Change Orders and other modifications to the Contract.

5. Reviewed shop drawings, product data, and samples.
6. Manufacturer's instructions for assembly, installation, and adjusting.

C. Store Record Documents separate from documents used for construction.

D. Record information concurrent with construction progress.

E. Record Specifications: Clearly identify and record at each product section description of actual products installed, particularly concealed products, including the following:
   1. Manufacturer's name and product model and number.
   2. Product substitutions or alternates utilized.
   3. Changes made by Addenda and Modifications.

F. Contract Drawings and Shop Drawings: Clearly mark each item to record actual construction graphically to scale including:
   1. Measured depths of foundations in relation to finish first floor datum.
   2. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
   3. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the Work.
   4. Field changes of dimension and detail.
   5. Details not on original Contract Drawings.

G. Final Documentation after completion of work.
   1. Final drawing annotations shall be noted on a clean electronic copy of the drawings titled Contract As-Built Drawings.
   2. Record document annotations to electronic copies of Contract As-Built Specifications.
   3. Annotations shall be typewritten with minimum 10-point font lettering of quality equal to original documents.

H. Before final Application for Payment, submit contractor record annotations on Contract Documents to Architect with dated transmittal letter containing project title, list of documents and signature of Contractor certifying that all concealed changes have been recorded before final Application for Payment.

1.15 SPARE PARTS AND MAINTENANCE MATERIALS

A. Provide products, spare parts, maintenance, and extra materials in quantities specified in individual Specification Sections.

B. Deliver to project site and place in location as directed, obtain receipt prior to final payment.

PART 2 – PRODUCTS

2.01 PATCHING MATERIALS

A. New Materials: As specified in product sections; match existing products and work for patching and extending work.

B. Type and Quality of Existing Products: Determine by inspecting and testing products where necessary, referring to existing work as a standard.

C. Product Substitution: For any proposed change in materials, submit request for substitution described in Section 016000 - Product Requirements.

2.02 Cleaning materials

A. 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.

PART 3 – EXECUTION

3.01 EXAMINATION

A. Verify that existing site conditions and substrate surfaces are acceptable for subsequent work. Start of work means acceptance of existing conditions.

B. Verify that existing substrate is capable of structural support or attachment of new work being applied or attached.

C. Examine and verify specific conditions described in individual specification sections.

D. Take field measurements before confirming product orders or beginning fabrication, to minimize waste due to over-ordering or mis-fabrication.

E. Verify that utility services are available, of the correct characteristics, and in the correct locations.

F. Prior to Cutting: Examine existing conditions prior to commencing work, including elements subject to damage or movement during cutting and patching. After uncovering existing work, assess conditions affecting performance of work. Beginning of cutting or patching means acceptance of existing conditions.

3.02 PREPARATION

A. Clean substrate surfaces prior to applying next material or substance.

B. Seal cracks or openings of substrate prior to applying next material or substance.

C. Apply manufacturer required or recommended substrate primer, sealer, or conditioner prior to applying any new material or substance in contact or bond.

3.03 LAYING OUT THE WORK

A. Verify locations of survey control points prior to starting work.
B. Promptly notify Architect of any discrepancies discovered.
C. Protect survey control points prior to starting site work; preserve permanent reference points during construction.
D. Promptly report to Architect the loss or destruction of any reference point or relocation required because of changes in grades or other reasons.
E. Replace dislocated survey control points based on original survey control. Make no changes without prior written notice to Architect.
F. Utilize recognized engineering survey practices.
G. Establish elevations, lines, and levels. Locate and lay out by instrumentation and similar appropriate means:
H. Site improvements including pavements; stakes for grading, fill and topsoil placement; utility locations, slopes, and invert elevations.
I. Grid or axis for structures.
J. Building foundation, column locations, and ground floor elevations.
K. Periodically verify layouts by same means.
L. Maintain a complete and accurate log of control and survey work as it progresses.

3.04 GENERAL INSTALLATION REQUIREMENTS

A. Install products as specified in individual sections, in accordance with manufacturer's instructions and recommendations, and to avoid waste due to necessity for replacement.

B. Make vertical elements plumb and horizontal elements level, unless otherwise indicated.

C. Install equipment and fittings plumb and level, neatly aligned with adjacent vertical and horizontal lines, unless otherwise indicated.

D. Make consistent texture on surfaces, with seamless transitions, unless otherwise indicated.

E. Make neat transitions between different surfaces, maintaining texture and appearance.

3.05 CUTTING AND PATCHING

A. Whenever possible, execute the work by methods that avoid cutting or patching.

B. Perform whatever cutting and patching is necessary to:
    1. Complete the work.
    2. Fit products together to integrate with other work.
    3. Provide openings for penetration of mechanical, electrical, and other services.
    4. Match work that has been cut to adjacent work.
    5. Repair areas adjacent to cuts to required condition.
    6. Repair new work damaged by subsequent work.

7. Remove samples of installed work for testing when requested.
8. Remove and replace defective and non-complying work.

C. Execute work by methods that avoid damage to other work and that will provide appropriate surfaces to receive patching and finishing. In existing work, minimize damage and restore to original condition.

D. Employ original installer to perform cutting for weather exposed and moisture resistant elements, and sight exposed surfaces.

E. Cut rigid materials using masonry saw or core drill. Pneumatic tools not allowed without prior approval.

F. Restore work with new products in accordance with requirements of Contract Documents.

G. Fit work airtight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.

H. At penetrations of fire rated walls, partitions, ceiling, or floor construction, completely seal voids with fire rated material in accordance with Section 078400, to full thickness of the penetrated element.

I. Patching:
   1. Finish patched surfaces to match finish that existed prior to patching. On continuous surfaces, refinish to nearest intersection or natural break. For an assembly, refinish entire unit.
   2. Match color, texture, and appearance.
   3. Repair patched surfaces that are damaged, lifted, discolored, or showing other imperfections due to patching work. If defects are due to condition of substrate, repair substrate prior to repairing finish.

3.06 PROGRESS CLEANING

A. Maintain areas free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition.

B. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces, and other closed or remote spaces, prior to enclosing the space.

C. Broom and vacuum clean interior areas prior to start of surface finishing and continue cleaning to eliminate dust.

D. Collect and remove waste materials, debris, and trash/rubbish from site periodically and dispose off-site; do not burn or bury.

3.07 PROTECTION OF INSTALLED WORK

A. Protect installed work from damage by construction operations.

B. Provide special protection where specified in individual specification sections.

C. Provide temporary and removable protection for installed products. Control activity in immediate work area to prevent damage.

D. Provide protective coverings at walls, projections, jambs, sills, and soffits of openings.

E. Protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.
F. Prohibit traffic or storage upon waterproofed or roofed surfaces. If traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.
G. Remove protective coverings when no longer needed; reuse or recycle coverings if possible.

3.08 SYSTEM STARTUP

A. Coordinate with requirements of Section 018100 - Commissioning.
B. Coordinate schedule for start-up of various equipment and systems.
C. Verify that each piece of equipment or system has been checked for proper lubrication, drive rotation, belt tension, control sequence, and for conditions that may cause damage.
D. Verify tests, meter readings, and specified electrical characteristics agree with those required by the equipment or system manufacturer.
E. Verify that wiring and support components for equipment are complete and tested.
F. Execute start-up under supervision of applicable Contractor personnel and manufacturer's representative in accordance with manufacturers' instructions.
G. Submit a written report that equipment or system has been properly installed and is functioning correctly.

3.09 DEMONSTRATION AND INSTRUCTION

A. See Section 017900 - Demonstration and Training.

3.10 ADJUSTING

A. Adjust operating products and equipment to ensure smooth and unhindered operation.

3.11 FINAL CLEANING

A. Execute final cleaning prior to final project assessment.
B. Clean areas to be occupied by Owner prior to final completion before Owner occupancy.
C. Use cleaning materials that are nonhazardous.
D. Clean interior and exterior glass, surfaces exposed to view; remove temporary labels, stains and foreign substances, polish transparent and glossy surfaces, vacuum carpeted and soft surfaces.

E. Remove all labels that are not permanent. Do not paint or otherwise cover fire test labels or nameplates on mechanical and electrical equipment or other surfaces and equipment.

F. Clean equipment and fixtures to a sanitary condition with cleaning materials appropriate to the surface and material being cleaned.

G. Clean filters of operating equipment.

H. Clean debris from roofs, gutters, downspouts, scuppers, overflow drains, area drains, drainage systems, etc.

I. Clean site: sweep paved areas, remove petrochemical spills, rake clean landscaped surfaces, remove all nails and screws using a magnetic sweeper.

J. Remove waste, surplus materials, trash/rubbish, and construction facilities, materials, and equipment from the site; dispose of in legal manner; do not burn or bury.

K. 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.

L. 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.

M. Clean exposed exterior and interior hard-surfaced finishes to a dirt-free condition, free of stains, films, and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.

N. Remove debris and surface dust from limited access spaces, including roofs, plenums, shafts, trenches, equipment vaults, manholes, attics, and similar spaces.

O. Sweep concrete floors broom clean in unoccupied spaces.

P. Vacuum carpet and similar soft surfaces, removing debris and excess nap; shampoo if visible soil or stains remain.

Q. Touch up and otherwise repair and restore exposed finishes and surfaces damaged by this work. Replace finishes and surfaces that cannot be satisfactorily repaired or restored or that already show evidence of repair or restoration.

R. Wipe surfaces of mechanical and electrical equipment, elevator equipment, and similar equipment. Remove excess lubrication, paint and mortar droppings, and other foreign substances.

S. Replace parts subjected to construction operating conditions.

T. Clean plumbing fixtures to a sanitary condition, free of stains, including stains resulting from water exposure.

U. Replace disposable air filters and clean permanent air filters. Clean exposed surfaces of diffusers, registers, and grills.

V. Clean ducts, blowers, and coils if units were operated without filters during construction.

W. Clean light fixtures, lamps, globes, and reflectors to function with full efficiency. Replace burned-out bulbs, and those noticeably dimmed by hours of use, and defective and noisy starters in fluorescent and mercury vapor fixtures to comply with requirements for new fixtures.

X. Leave Project clean and ready for occupancy.

3.12 CLOSEOUT PROCEDURES

A. Make submittals that are required by governing or other authorities.

B. Provide electronic copies to Architect and Owner, unless otherwise specified.

C. Accompany Architect, Owner, or Owner’s Representative on preliminary inspection to determine items to be listed for completion or correction in the Contractor's Correction Punch List for Contractor's Notice of Substantial Completion.

D. Notify Architect when work is considered ready for Architect's Substantial Completion inspection.

E. Submit written certification containing Contractor's Correction Punch List, that Contract Documents have been reviewed, work has been inspected, and that work is complete in accordance with Contract Documents and ready for Architect's Substantial Completion inspection.

F. Conduct Substantial Completion inspection and create Final Correction Punch List containing Architect's and Contractor's comprehensive list of items identified to be completed or corrected and submit to Architect.

G. Correct items of work listed in Final Correction Punch List and comply with requirements for access to Owner-occupied areas.

H. Notify Architect when work is considered finally complete and ready for Architect's Substantial Completion final inspection.

I. Complete items of work determined by Architect listed in executed Certificate of Substantial Completion.

3.13 PROJECT RECORD DOCUMENTS

A. Maintain on site one electronic set of the following record documents; record actual revisions to the Work:

1. Drawings.
2. Specifications.
3. Addenda.
4. Change Orders and other modifications to the Contract.

B. Ensure entries are complete and accurate, enabling future reference by Owner.

C. Store record documents separate from documents used for construction.

D. Record information concurrent with construction progress.

E. Specifications: Clearly mark and record at each product section description of actual products installed, including the following:
   1. Manufacturer's name and product model and number.
   2. Product substitutions or alternates utilized.
   3. Changes made by Addenda and modifications.

F. Record Drawings: Clearly mark each item to record actual construction including:
   1. Measured depths of foundations in relation to finish first floor datum.
   2. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
   3. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the Work.
   4. Field changes of dimension and detail.
   5. Details not on original Contract drawings.

3.14 OPERATION AND MAINTENANCE DATA

A. Product Data: Mark each sheet to clearly identify specific products and component parts, and data applicable to installation. Delete inapplicable information.

B. Drawings: Supplement product data to illustrate relations of component parts of equipment and systems, to show control and flow diagrams. Do not use Project Record Documents as maintenance drawings.

C. Typed Text: As required to supplement product data. Provide logical sequence of instructions for each procedure, incorporating manufacturer's instructions.

3.15 OPERATION AND MAINTENANCE DATA FOR MATERIALS AND FINISHES

A. For Each Product, Applied Material, and Finish:
   1. Product data, with catalog number, size, composition, and color and texture designations.
   2. Information for re-ordering custom manufactured products.

B. Instructions for Care and Maintenance: Manufacturer's recommendations for cleaning agents and methods, precautions against detrimental cleaning agents and methods, and recommended schedule for cleaning and maintenance.

C. Additional information as specified in individual product specification sections.

D. Where additional instructions are required, beyond the manufacturer's standard printed instructions, have instructions prepared by personnel experienced in the operation and maintenance of the specific products.

1.16 OPERATION AND MAINTENANCE DATA FOR EQUIPMENT AND SYSTEMS

A. For Each Item of Equipment and Each System:
   1. Description of unit or system, and component parts.
   2. Identify function, normal operating characteristics, and limiting conditions.
   3. Include performance curves, with engineering data and tests.
   4. Complete nomenclature and model number of replaceable parts.

B. Where additional instructions are required, beyond the manufacturer's standard printed instructions, have instructions prepared by personnel experienced in the operation and maintenance of the specific products.

C. Operating Procedures: Include start-up, break-in, and routine normal operating instructions and sequences. Include regulation, control, stopping, shutdown, and emergency instructions. Include summer, winter, and any special operating instructions.

D. Maintenance Requirements: Include routine procedures and guide for preventative maintenance and troubleshooting; disassembly, repair, and reassembly instructions; and alignment, adjusting, balancing, and checking instructions.

E. Provide servicing and lubrication schedule, and list of lubricants required.

F. Include manufacturer's printed operation and maintenance instructions.

G. Include sequence of operation by controls manufacturer.

H. Provide original manufacturer's parts list, illustrations, assembly drawings, and diagrams required for maintenance.

I. Provide control diagrams by controls manufacturer as installed.

J. Provide charts of valve tag numbers, with location and function of each valve, keyed to flow and control diagrams.

K. Additional Requirements: As specified in individual product specification sections.

3.17 ASSEMBLY OF OPERATION AND MAINTENANCE MANUALS

A. Assemble operation and maintenance data into a single set of durable manuals for Owner's personnel use (1 copy), with data arranged in the same sequence as, and identified by, the specification sections. An identical electronic copy, electronically bookmarked, shall also be submitted.

B. Where systems involve more than one specification section, provide separate tabbed divider for each system (separate bookmark for each system in electronic copy).

C. Binders: Commercial quality, 8-1/2 by 11 inch (216 by 280 mm) three D side ring binders with durable plastic covers; 2 inch (50 mm) maximum ring size. When multiple binders are used, correlate data into related consistent groupings.

D. Cover: Identify each binder with typed or printed title OPERATION AND MAINTENANCE INSTRUCTIONS; identify title of Project; identify subject matter of contents.

E. Project Directory: Title and address of Project; names, addresses, and telephone numbers of Architect, Consultants, Contractor, and subcontractors, with names of responsible parties.

F. Tables of Contents: List every item separated by a divider (or electronic bookmarks), using the same identification as on the divider tab; where multiple volumes are required, include all volumes Tables of Contents in each volume, with the current volume clearly identified.

G. Dividers: Provide tabbed dividers for each separate product and system (and bookmarks in electronic copy); identify the contents on the divider tab; immediately following the divider tab include a description of product and major component parts of equipment.

H. Text: Manufacturer's printed data, or typewritten data on 20-pound paper.

I. Drawings: Provide with reinforced punched binder tab. Bind in with text; fold larger drawings to size of text pages.

J. Arrangement of Contents: Organize each volume in parts as follows:
   1. Project Directory.
   2. Table of Contents, of all volumes, and of this volume.

   Operation and Maintenance Data: Arranged by system, then by product category, Source data, Operation and maintenance data, Field quality control data, and Photocopies of warranties and bonds.

3.18 WARRANTIES AND BONDS

A. Obtain warranties and bonds, executed in duplicate by responsible Subcontractors, suppliers, and manufacturers, within 10 calendar days, excluding SCF recognized holidays, after completion of the applicable item of work. Except for items put into use with Owner's permission, leave date of beginning of time of warranty until Date of Substantial completion is determined.

B. Verify that documents are in proper form, contain full information, and are notarized.

C. Co-execute submittals when required.

D. Retain warranties and bonds until time specified for submittal.

E. Include originals of each in operation and maintenance hard copy manuals, indexed separately on Table of Contents. Include electronic copies of each, electronically tabbed, in the electronic copy of operation and maintenance manual.

F. Include 1 separate hard copy manual and 1 electronic manual of all warranties and bonds (submitted separately from operation and maintenance manual).

3.19 MAINTENANCE

A. Provide service and maintenance of components indicated in specification sections.

B. Maintenance Period: As indicated in specification sections or, if not indicated, not less than one year from the Date of Substantial Completion or the length of the specified warranty, whichever is longer.

C. Examine system components at a frequency consistent with reliable operation. Clean, adjust, and lubricate as required.

D. Include systematic examination, adjustment, and lubrication of components. Repair or replace parts whenever required. Use parts produced by the manufacturer of the original component.

E. Maintenance service shall not be assigned or transferred to any agent or subcontractor without prior written consent of the Owner.

END OF SECTION

SECTION 01 74 19
CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

PART 1 - GENERAL

1.01 WASTE MANAGEMENT REQUIREMENTS

A. Owner requires that this project generate the least amount of trash and waste possible.

B. Employ processes that ensure the generation of as little waste as possible due to error, poor planning, breakage, mishandling, contamination, or other factors.

C. Minimize trash/waste disposal in landfills; reuse, salvage, or recycle as much waste as economically feasible.

D. Methods of trash/waste disposal that are not acceptable are:
   1. Burning on the project site.
   2. Burying on the project site.
   3. Dumping or burying on other property, public or private.
   4. Other illegal dumping or burying.

E. Regulatory Requirements: Contractor is responsible for knowing and complying with regulatory requirements, including but not limited to Federal, state and local requirements, pertaining to legal disposal of all construction and demolition waste materials.

1.02 DEFINITIONS

A. Clean: Untreated and unpainted; not contaminated with oils, solvents, caulk, or the like.

B. Construction and Demolition Waste: Solid wastes typically including building materials, packaging, trash, debris, and rubble resulting from construction, remodeling, repair and demolition operations.

C. Hazardous: Exhibiting the characteristics of hazardous substances, i.e., ignitibility, corrosivity, toxicity or reactivity.

D. Nonhazardous: Exhibiting none of the characteristics of hazardous substances, i.e., ignitibility, corrosivity, toxicity, or reactivity.

E. Nontoxic: Neither immediately poisonous to humans nor poisonous after a long period of exposure.

F. Recyclable: The ability of a product or material to be recovered at the end of its life cycle and remanufactured into a new product for reuse by others.

G. Recycle: To remove a waste material from the project site to another site for remanufacture into a new product for reuse by others.

H. Recycling: The process of sorting, cleansing, treating and reconstituting solid waste and other discarded materials for the purpose of using the altered

form. Recycling does not include burning, incinerating, or thermally destroying waste.

I. Return: To give back reusable items or unused products to vendors for credit.

J. Reuse: To reuse a construction waste material in some manner on the project site.

K. Salvage: To remove a waste material from the project site to another site for resale or reuse by others.

L. Sediment: Soil and other debris that has been eroded and transported by storm or well production run-off water.

M. Source Separation: The act of keeping different types of waste materials separate beginning from the first time they become waste.

N. Toxic: Poisonous to humans either immediately or after a long period of exposure.

O. Trash: Any product or material unable to be reused, returned, recycled, or salvaged.

P. Waste: Extra material or material that has reached the end of its useful life in its intended use. Waste includes salvageable, returnable, recyclable, and reusable material.

PART 2 - PRODUCTS – NOT USED

PART 3 – EXECUTION

3.01 WASTE MANAGEMENT PROCEDURES

A. See Section 013000 for additional requirements for project meetings, reports, submittal procedures, and project documentation.

B. See Section 015000 for additional requirements related to trash/waste collection and removal facilities and services.

C. See Section 016000 for waste prevention requirements related to delivery, storage, and handling.

D. See Section 017000 for trash/waste prevention procedures related to demolition, cutting and patching, installation, protection, and cleaning.

3.02 WASTE MANAGEMENT PLAN IMPLEMENTATION

A. Hazardous Wastes: Separate, store, and dispose of hazardous wastes according to applicable regulations.

END OF SECTION

SECTION 01 76 10
TEMPORARY PROTECTIVE COVERINGS

PART 1 – GENERAL

1.01 SECTION INCLUDES

A. Temporary protective coverings for installed floors, walls, and other surfaces.

1.02 RELATED REQUIREMENTS

A. Drawings and general provisions of the Contract, including General and Supplemental Conditions and Division 00 & 01 Specifications apply to this section.

B. Section 005213 – Agreement Form.

C. Section 017000 - Execution and Closeout Requirements: Coordination of requirements for materials specified in this section.

1.03 REFERENCE STANDARDS

A. ANSI A135.4 - Basic Hardboard 2012 (Reaffirmed 2020).

PART 2 – PRODUCTS

2.01 GENERAL

A. Provide materials that are easily removed without damage to the surfaces covered and with the following characteristics:
   1. Impact resistant.
   2. Slip resistant.
   3. Flame retardant.

PART 3 – EXECUTION

3.01 PREPARATION

A. Remove dirt and debris from surfaces to be protected.

3.02 INSTALLATION

A. Install in accordance with manufacturer's instructions.

B. Trim or overlap sheet materials to fit area to be covered.

C. Roll out and cut rolled materials to fit area to be covered.

D. Tape seams. Avoid taping directly to finished surfaces.
E. Stretch self-adhering film materials to completely cover surface.
F. Install door jamb protection to full height of opening.

3.03 REMOVAL

A. Remove protective coverings prior to Date of Substantial Completion. Reuse or recycle materials if possible.

END OF SECTION

SECTION 01 78 24
FACILITY ASSET DATA

PART 1 – GENERAL

1.01 SUMMARY

A. Populate Facility Asset Data fields in Excel template from the Building Information Model (BIM).

B. SCF uses Gordian Cloud Platform (GCP) and Siemens Asset Management CMMS to log and track assets:

C. All software-operated systems.
   1. HVAC systems and equipment.
   2. Plumbing equipment.
   3. Electrical systems and equipment.
   4. Items specified in individual product Sections.
   5. Conveying systems.
   6. Lab equipment.
   7. Roofing systems and roofing specialties.
   8. Integrated Automation Controls – equipment, valves, dampers.
   9. Fire suppression – valves, equipment, pumps.

1.02 RELATED REQUIREMENTS

A. Drawings and general provisions of the Contract, including General and Supplemental Conditions and Division 00 & 01 Specifications apply to this section.

B. Section 017000 - Closeout Submittals: Operation and maintenance manuals.

1.03 SUBMITTALS

A. See Section 013000 - Administrative Requirements, for submittal procedures; except:
   1. Make Facility Asset Data submittals on time schedule specified by SCF.
   2. Progress submittal will be at 95% design or GMP negotiations.
   3. Prefinal submittal will be when Record Documents are complete.
   4. Final submittal will be at Closeout. Contractor's As-built Model submission will contain at minimum the same data in the Facility Asset Data Excel File.

B. Facility Asset Data Excel File
   1. This is created from the Revit Files that are populated in design.

1.04 QUALITY ASSURANCE

1. Contractor provides a Facility Asset Data Excel File preparer familiar with the design (Revit and BIM), construction and maintenance of the assets.

2. Where a single preparer is not familiar with all aspects, provide specialists with necessary qualifications.

PART 2 - PRODUCTS - NOT USED

PART 3 – EXECUTION

3.01 FIELD VERIFICATION

A. Field verify Facility Asset Data information at prefinal submittal and final submittal with Contractor and SCF personnel. Include in the meeting Contractor Facility Asset Data Excel File preparer, Contractor Quality Control Manager, Commissioning Authority, SCF CPM, and SCF Manager of Facilities.

B. Twenty-Five fields will be verified. If mistakes found or incomplete, corrections will be made within 14 days.

3.02 TRAINING – GENERAL – NOT USED.

END OF SECTION

SECTION 01 78 40

BUILDING INFORMATION MODEL DELIVERABLES AT PROJECT CLOSEOUT

PART 1 – GENERAL

1.01 SUMMARY

A. Provide complete, accurate, and coordinated Building Information Model (BIM) deliverables representing the facility and installed work as constructed at project closeout.

B. The closeout BIM deliverables shall support the Owner's ongoing operations, maintenance, facility management, renovation, and asset-management activities.

C. The Contractor shall update the construction BIM to incorporate verified field conditions, approved changes, substitutions, shop-drawing information, commissioning results, and other information necessary to represent the completed facility.

D. The closeout information shall be suitable for incorporation into the Owner's common data environment (CDE), facility management system, computerized maintenance management system (CMMS), or other designated information-management platform.

E. Information-management practices shall generally conform to the principles of ISO 19650 for information management throughout the asset life cycle. ISO 19650-2 addresses the delivery phase, while ISO 19650-3 addresses operational-phase information management.

1.02 RELATED REQUIREMENTS

A. Project BIM Execution Plan (BEP).

B. Owner's Exchange Information Requirements (EIR), Asset Information Requirements (AIR), or equivalent Owner information requirements.

C. Contract drawings and specifications.

D. As-built and record-document requirements.

E. Operations and maintenance manual requirements.

F. Commissioning requirements.

G. Warranty and closeout requirements.

1.03 DEFINITIONS

A. As-Constructed Model: BIM updated to represent the physical conditions and installed systems at completion.

B. Asset Information: Structured information necessary to identify, operate, maintain, replace, or manage an asset.

C. COBie: Construction Operations Building information exchange, a standardized method for delivering facility asset information in digital form.

D. Native Model: Model maintained in the authoring software in which the discipline model was created.

E. Open Model: Model exchanged in a non-proprietary format, such as Industry Foundation Classes (IFC).

F. Maintainable Asset: Equipment, component, or system designated by the Owner as requiring identification and/or operational or maintenance information.

1.04 REFERENCES

A. ISO 19650-1, Organization and digitization of information about buildings and civil engineering works — Information management using building information modelling — Part 1: Concepts and principles.

B. ISO 19650-2, Information management — Delivery phase of the assets.

C. ISO 19650-3, Information management — Operational phase of the assets.

D. ISO 19650-4, Information exchange.

E. ISO 16739 / buildingSMART IFC. The current official IFC release is IFC 4.3.2.0.

F. National BIM Standard–United States (NBIMS-US), including the current COBie specification where required by the Owner. NIBS identifies COBie as a standardized means of delivering facility information at handover.

1.05 SUBMITTALS

A. Submit the following as part of project closeout:

1. Final discipline BIM models.
2. Federated coordination model.
3. Open-format BIM exchange files.
4. COBie or equivalent structured asset-data deliverable.
5. Final 2D record drawings generated from or coordinated with the BIM.
6. Model inventory and file index.
7. Model validation and quality-control report.
8. Asset-information completeness report.
9. BIM software version and export information.
10. Model-origin and coordinate-system documentation.
11. Required linked documents, including O&M manuals, warranties, product data, commissioning records, and equipment documentation.
12. Final BIM Execution Plan or closeout BIM plan documenting the final information-management procedures.
13. Written confirmation that the submitted models represent verified as-constructed conditions.

1.06 CLOSEOUT MODEL DEVELOPMENT

A. Update models progressively during construction rather than creating the closeout model solely from design documents after completion.

B. Incorporate, as applicable:

1. Approved RFIs and design changes.
2. Architect's supplemental instructions and construction change directives.
3. Approved submittals and shop drawings.
4. Product substitutions.
5. Field-verified dimensions and locations.
6. Concealed conditions documented before enclosure.
7. Equipment identification and asset tags.
8. Final equipment selections and manufacturer information.
9. Installed controls and control sequences.
10. Commissioning results affecting asset information.
11. Final system configurations.
12. Warranty information.
13. Maintenance requirements.
14. Serial numbers and model numbers where required.
15. Final room, space, zone, and equipment relationships.

C. Do not represent design intent as installed condition where field information demonstrates a different condition.

D. Where field verification is not reasonably possible for concealed work, identify the source and confidence level of the information in accordance with the project BIM Execution Plan.

PART 2 – PRODUCTS

2.01 MODEL CONTENT

A. Models shall contain sufficient geometric and non-geometric information to support the Owner's intended use of the closeout BIM.

B. Unless otherwise specified by the Owner, include accurately modeled:
1. Building and site elements.
2. Structural systems.
3. Architectural elements.
4. Major mechanical systems and equipment.
5. Plumbing systems and equipment.
6. Fire protection systems.
7. Electrical distribution equipment and major electrical systems.
8. Lighting and controls where required.
9. Low-voltage and communications systems where required.
10. Security systems where required.
11. Building automation and controls equipment.
12. Civil/site infrastructure included within the project scope.
13. Major specialty equipment.
14. Other maintainable assets identified by the Owner.

C. Model geometry shall be sufficiently accurate to identify location, spatial relationship, system association, and access requirements.

D. Do not require excessive geometric detail that provides no operational, maintenance, coordination, or asset-management value.

2.02 ASSET INFORMATION

A. For each Owner-designated maintainable asset, provide applicable information including:
   1. Asset identification/tag number.
   2. Asset classification.
   3. Asset description.
   4. Manufacturer.
   5. Manufacturer model number.
   6. Serial number, where applicable.
   7. Equipment type.
   8. Location.
   9. System association.
   10. Installation date.
   11. Warranty information.
   12. Supplier/vendor.
   13. Maintenance requirements.
   14. Replacement parts information.
   15. Capacity and performance data.
   16. Electrical characteristics.
   17. Commissioning status.
   18. Relevant O&M documentation.
   19. Relevant warranty documentation.
   20. URL, document reference, or electronic reference to supporting information where required.

B. Asset data shall be consistent across the BIM, equipment schedules, COBie deliverable, O&M documentation, and commissioning records.

C. Do not populate fields with fictitious, placeholder, or generic information merely to satisfy a data-field requirement.

D. Where a data field is not applicable, use the project-approved "Not Applicable" or equivalent value rather than leaving the field ambiguous.

2.03 COBie DELIVERABLE

A. Where required by the Owner, provide a final COBie deliverable containing information necessary to support facility operations and maintenance.

B. The COBie deliverable shall identify applicable facilities, floors, spaces, zones, systems, equipment, components, documents, attributes, contacts, warranties, and other required information.

C. Use the version of COBie identified in the Owner's EIR/BEP. If no version is specified, coordinate the required version with the Owner before final submission. NIBS currently publishes COBie Version 3 as part of NBIMS-US guidance.

D. Do not collect asset attributes indiscriminately. Asset-information requirements shall reflect the Owner's operational needs; NIBS specifically recognizes that the required level of asset information should be determined according to the intended use of the information.

2.04 OPEN BIM DELIVERABLE

A. Provide an IFC export of each applicable discipline model and/or the federated model when required by the Owner.

B. Unless otherwise specified, use IFC 4.3 for new open-model deliverables where the authoring and receiving applications support the required exchange. IFC is an open, vendor-neutral standard intended to facilitate exchange among BIM, construction, and facility-management applications.

C. Verify the IFC export by opening the exported file in an independent IFC-capable viewer and confirming:
   1. Model geometry.
   2. Spatial hierarchy.
   3. Element classification.
   4. Element properties.
   5. Asset identifiers.
   6. System relationships.
   7. Coordinates and orientation.
   8. Model completeness.

D. If the Owner's receiving system requires another IFC version or Model View Definition, comply with that requirement instead of automatically using IFC 4.3.

2.05 NATIVE MODEL DELIVERABLE

A. Provide final native authoring files for each discipline where required by the Contract.

B. Native models shall be purge-cleaned, audited, and free of unnecessary temporary or obsolete content.

C. Remove or clearly identify:
   1. Temporary construction elements.
   2. Unused design alternatives.
   3. Superseded model elements.
   4. Unused views and sheets where appropriate.
   5. Temporary coordination geometry.
   6. Unresolved model warnings that could affect model reliability.

D. Preserve required model history and metadata where specified by the Owner.

2.06 LINKED DOCUMENTS

A. Link or otherwise associate required documents with the corresponding model elements or asset records where the Owner's information environment supports such functionality.

B. Documents may include:
    1. O&M manuals.
    2. Product data.
    3. Manufacturer literature.
    4. Installation instructions.
    5. Startup reports.
    6. Testing and balancing reports.
    7. Commissioning records.
    8. Warranty certificates.
    9. Spare-parts lists.
    10. Training records.
    11. Inspection records.
    12. Certifications.
    13. Photographs of concealed conditions where required.

PART 3 – EXECUTION

3.01 GENERAL

A. The Contractor shall be responsible for coordinating and submitting complete closeout BIM information for work within the Contractor's scope.

B. Each subcontractor responsible for BIM-authoring work shall provide its final discipline information to the Contractor for incorporation into the overall closeout deliverable.

C. The final BIM shall not contain unresolved coordination issues that affect the accuracy or usefulness of the closeout information.

3.02 MODEL COORDINATES

A. Maintain the project coordinate system established in the BIM Execution Plan.

B. Final models shall accurately preserve:
    1. Project base point.
    2. Survey point.
    3. Geographic coordinates, where required.
    4. True north/project north relationships.
    5. Elevation datum.
    6. Shared coordinates.
    7. Units.

C. Document the final coordinate system in the model index and closeout documentation.

3.03 MODEL QUALITY CONTROL

A. Perform a formal quality-control review before submission.

B. At a minimum, verify:
    1. Model opens without errors.
    2. Required elements are present.

3. Major elements are correctly located.
4. Asset identifiers are unique.
5. Required parameters are populated.
6. No duplicate asset records exist.
7. Room and space information is correct.
8. System assignments are correct.
9. Manufacturer and model information agrees with approved submittals.
10. Serial numbers agree with field records where required.
11. Linked documents open correctly.
12. Model coordinates are correct.
13. Federated model alignment is correct.
14. IFC exports contain required information.
15. COBie data passes the Owner's validation rules.
16. Model file names and metadata comply with the project naming convention.

C. Submit a signed or electronically certified model quality-control report identifying the person responsible for final verification.

3.04 FIELD VERIFICATION

A. Verify final asset locations and identifying information against installed conditions.

B. Verification may use field observation, laser scanning, survey data, photographs, commissioning records, approved submittals, or other reliable project records as appropriate.

C. For major equipment and concealed systems designated by the Owner, field verification shall include sufficient information to establish the installed location and identity of the asset.

3.05 MODEL FEDERATION

A. Provide a final federated model combining applicable discipline models.

B. The federated model shall use the approved project coordinates and shall be free from unintended offsets between disciplines.

C. The federated model shall be suitable for:
1. Facility visualization.
2. Asset identification.
3. Spatial review.
4. Maintenance planning.
5. Future renovation planning.
6. Owner-required facility-management workflows.

3.06 FILE STRUCTURE AND NAMING

A. Use the project naming convention established in the BIM Execution Plan and CDE.

B. File names shall identify, as applicable:
1. Project.

2. Originator.
3. Volume or system.
4. Level/location.
5. Type.
6. Role/discipline.
7. Number.
8. Revision/status.

C. Do not submit files with names such as "final-final," "latest," "new," or other ambiguous identifiers.

3.07 DATA CONSISTENCY

A. The following information shall be cross-checked before final submission:
   1. BIM ↔ COBie ↔ Equipment Schedules ↔ O&M Manuals ↔ Commissioning Records ↔ Warranty Records

B. Conflicting information shall be resolved before acceptance.

C. The Owner may reject a closeout submission where asset information is incomplete, contradictory, or not traceable to reliable project records.

3.08 CLOSEOUT DATA DROP

A. Provide a preliminary closeout BIM data drop sufficiently in advance of final project completion to permit Owner review.

B. The preliminary data drop shall include the same fundamental data structure as the final submission.

C. Correct deficiencies identified by the Owner and resubmit before final closeout.

D. Data-drop milestones are recommended because staged information exchanges allow project teams to identify missing information before final handover.

3.09 FINAL DELIVERY PACKAGE

A. Organize the final digital package using the Owner's CDE or other designated delivery location.

B. Unless otherwise directed, structure the package substantially as follows:

```
01_Model/
  Architectural/
  Structural/
  Civil/
  Mechanical/
  Electrical/
  Plumbing/
  Fire_Protection/
  Low_Voltage/
  Federated/

02_Open_BIM/
```

IFC/

03_Asset_Data/
COBie/
Asset_Register/

04_Record_Documents/
Record_Drawings/
Schedules/

05_OandM/
Manuals/
Product_Data/
Warranties/

06_Commissioning/
Functional_Testing/
TAB/
Commissioning_Reports/

07_QA_QC/
Model_Check/
Data_Validation/
Closeout_Certification/

08_Documentation/
Model_Index/
Coordinate_System/
BIM_Closeout_Report/

3.10 ACCEPTANCE CRITERIA

A. Final BIM deliverables will be considered complete when:
   1. All required discipline models have been submitted.
   2. The models represent the installed work to the accuracy required by the Contract.
   3. Required asset data is complete and validated.
   4. Required COBie data has been submitted and validated.
   5. Required open-format models have been submitted and tested.
   6. Native files have been submitted where required.
   7. Model coordinates and federation have been verified.
   8. Required linked documents are accessible.
   9. Required quality-control documentation has been submitted.
   10. Identified Owner review comments have been resolved.
   11. The final information package has been accepted by the Owner.

B. BIM acceptance does not relieve the Contractor of obligations to provide conventional record drawings, O&M manuals, warranties, commissioning documentation, or other closeout information required by the Contract.

3.11 OWNER ACCEPTANCE

A. The Owner's acceptance shall be based on compliance with the project BIM requirements, information requirements, and this specification.

B. The Owner may require correction and resubmission of deficient models or data without additional cost where deficiencies result from failure to comply with the Contract requirements.

C. Final payment and/or substantial completion closeout shall not be considered complete until required BIM deliverables have been accepted, unless otherwise established by the Contract.

END OF SECTION

SECTION 01 79 00
DEMONSTRATION AND TRAINING

PART 1 – GENERAL

1.01 SUMMARY

A. Demonstration of products and systems to be commissioned and where indicated in specific specification sections.

B. Training of Owner personnel in operation and maintenance is required for:
   1. All software-operated systems.
   2. HVAC systems and equipment.
   3. Plumbing equipment.
   4. Electrical systems and equipment.
   5. Items specified in individual product Sections.
   6. Conveying systems.

C. Training of Owner personnel in care, cleaning, maintenance, and repair is required for:
   1. Items specified in individual product Sections.

1.02 RELATED REQUIREMENTS

A. Drawings and general provisions of the Contract, including General and Supplemental Conditions and Division 00 & 01 Specifications apply to this section.

B. Section 017000 - Closeout Submittals: Operation and maintenance manuals.

C. Section 018100 - Commissioning: Additional requirements applicable to demonstration and training.

D. Other Specification Sections: Additional requirements for demonstration and training.

1.03 SUBMITTALS

A. See Section 013000 - Administrative Requirements, for submittal procedures; except:
   1. Make all submittals specified in this section, and indicated elsewhere for commissioning purposes, directly to the Commissioning Authority.
   2. Submit one copy to the Commissioning Authority, not to be returned.
   3. Make commissioning submittals on time schedule specified by Commissioning Authority.
   4. Submittals indicated as "Draft" are intended for the use of the Commissioning Authority in preparation of overall Training Plan; submit in editable electronic format, Microsoft Word 2003 preferred.

B. Draft Training Plans: Owner will designate personnel to be trained; tailor training to needs and skill-level of attendees.
   1. Submit to Commissioning Authority for review and inclusion in overall training plan.
   2. Submit not less than four weeks prior to start of training.
   3. Revise and resubmit until acceptable.
   4. Provide an overall schedule showing all training sessions.
   5. Include at least the following for each training session:
      a. Identification, date, time, and duration.
      b. Description of products and/or systems to be covered.
      c. Name of firm and person conducting training; include qualifications.
      d. Intended audience, such as job description.
      e. Objectives of training and suggested methods of ensuring adequate training.
      f. Methods to be used, such as classroom lecture, live demonstrations, hands-on, etc.
      g. Media to be used, such as slides, hand-outs, etc.
      h. Training equipment required, such as projector, projection screen, etc., to be provided by Contractor.

C. Training Manuals: Provide 1 hard copy training manual for each attendee; allow for minimum of two attendees per training session. Provide an electronic copy of training manuals 48 hours in advance of training.
   1. Include applicable portion of O&M manuals.
   2. Include copies of all hand-outs, slides, overheads, video presentations, etc., that are not included in O&M manuals.
   3. Provide one extra copy of each training manual to be included with operation and maintenance data (hard copy/physical manual and electronic manual).

D. Training Reports:
   1. Identification of each training session, date, time, and duration.
   2. Sign-in sheet showing names and job titles of attendees.
   3. List of attendee questions and written answers given, including copies of and references to supporting documentation required for clarification; include answers to questions that could not be answered in original training session.
   4. Include Commissioning Authority's formal acceptance of training session.

E. Video Recordings: Submit digital video recording of each demonstration and training session for Owner's subsequent use.
   1. Format: MP4
   2. Label each video with session identification and date.

1.04 QUALITY ASSURANCE

A. Instructor Qualifications: Familiar with design, operation, maintenance and troubleshooting of the relevant products and systems.

1. Provide as instructors the most qualified trainer of those contractors and/or installers who actually supplied and installed the systems and equipment.
2. Where a single person is not familiar with all aspects, provide specialists with necessary qualifications.

PART 2 - PRODUCTS - NOT USED

PART 3 – EXECUTION

3.01 DEMONSTRATION - GENERAL

A. Demonstrations conducted during system start-up do not qualify as demonstrations for the purposes of this section, unless approved in advance by Owner.

B. Demonstrations conducted during Functional Testing need not be repeated unless Owner personnel training is specified.

C. Demonstration may be combined with Owner personnel training if applicable.

D. Operating Equipment and Systems: Demonstrate operation in all modes, including start-up, shut-down, seasonal changeover, emergency conditions, and troubleshooting, and maintenance procedures, including scheduled and preventive maintenance.
   1. Perform demonstrations not less than two weeks prior to Substantial Completion.
   2. For equipment or systems requiring seasonal operation, perform demonstration for other season within six months.

E. Non-Operating Products: Demonstrate cleaning, scheduled and preventive maintenance, and repair procedures.
   1. Perform demonstrations not less than two weeks prior to Substantial Completion.

3.02 TRAINING - GENERAL

A. Commissioning Authority will prepare the Training Plan based on draft plans submitted.

B. Conduct training on-site unless otherwise indicated.

C. Owner will provide classroom and seating at no cost to Contractor.

D. Do not start training until Functional Testing is complete, unless otherwise specified or approved by the Commissioning Authority.

E. Provide training in minimum two-hour segments.

F. The Commissioning Authority is responsible for determining that the training was satisfactorily completed and will provide approval forms.

G. Training schedule will be subject to availability of Owner's personnel to be trained; re-schedule training sessions as required by Owner; once schedule

has been approved by Owner failure to conduct sessions according to schedule will be cause for Owner to charge Contractor for personnel "show-up" time.

H. Review of Facility Policy on Operation and Maintenance Data: During training discuss:
   1. The location of the O&M manuals and procedures for use and preservation; backup copies.
   2. Typical contents and organization of all manuals, including explanatory information, system narratives, and product specific information.
   3. Typical uses of the O&M manuals.

I. Product- and System-Specific Training:
   1. Review the applicable O&M manuals.
   2. For systems, provide an overview of system operation, design parameters and constraints, and operational strategies.
   3. Review instructions for proper operation in all modes, including start-up, shut-down, seasonal changeover and emergency procedures, and for maintenance, including preventative maintenance.
   4. Provide hands-on training on all operational modes possible and preventive maintenance.
   5. Emphasize safe and proper operating requirements; discuss relevant health and safety issues and emergency procedures.
   6. Discuss common troubleshooting problems and solutions.
   7. Discuss any peculiarities of equipment installation or operation.
   8. Discuss warranties and guarantees, including procedures necessary to avoid voiding coverage.
   9. Review recommended tools and spare parts inventory suggestions of manufacturers.
   10. Review spare parts and tools required to be furnished by Contractor.
   11. Review spare parts suppliers and sources and procurement procedures.

J. Be prepared to answer questions raised by training attendees; if unable to answer during training session, provide written response within three days.

END OF SECTION

SECTION 01 9113
GENERAL COMMISSIONING REQUIREMENTS

PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes:
   1. General requirements for coordinating and scheduling commissioning.
   2. Commissioning meetings.
   3. Commissioning reports.
   4. Use of test equipment, instrumentation, and tools for commissioning.
   5. PreFunctional checklist, including, but not limited to, installation checks, startup, performance tests, and performance test demonstration.
   6. Functional performance tests and Functional Performance Test demonstration.
   7. Adjusting, verifying, and documenting identified systems and assemblies.
   8. Integrated System functional performance test guidelines.

B. Related Requirements:
   1. Section **01 3000 - Administrative Requirements** for Administrative requirements including submittal procedures requirements for commissioning.
   2. Section **01 7000 - Execution and Closeout Requirements** for certificate of Construction Phase Commissioning Completion submittal requirements.
   3. Section **01 9119.43 - Exterior Enclosure Commissioning** for technical commissioning requirements for the exterior enclosure.
   4. Section **21 0800 - Commissioning of Fire Suppression** for technical commissioning requirements for fire suppression.
   5. Section **22 0800 - Commissioning of Plumbing** for technical commissioning requirements for plumbing.
   6. Section **23 0800 - Commissioning of HVAC** for technical commissioning requirements for HVAC.
   7. Section **26 0800 - Commissioning of Electrical Systems** for technical commissioning requirements for electrical systems.

1.02 DEFINITIONS

A. Acceptance Criteria: Threshold of acceptable work quality or performance specified for a commissioning activity, including, but not limited to, prefunctional checklist, performance tests, performance test demonstrations, Functional performance tests and Functional performance test demonstrations.

B. Basis-of-Design Document: A document prepared by the Architect that records concepts, calculations, decisions, and product selections used to comply with Owner's Project Requirements and to suit applicable regulatory requirements, standards, and guidelines.

C. Commissioning Authority: An entity engaged by Owner, and identified in Section **011000 - Summary of Work**, to evaluate Commissioning-Process Work.

D. Commissioning Plan: A document, prepared by Commissioning Authority, that outlines the organization, schedule, allocation of resources, and documentation requirements of commissioning.

E. Commissioning: A quality-focused process for verifying and documenting that the facility and all of its systems and assemblies are planned, designed, installed, and tested to comply with Owner's Project Requirements. The requirements specified here are limited to the construction phase commissioning activities. The scope of commissioning is defined in Section **011000 - Summary of Work**.

F. Construction Phase Commissioning Completion: The stage of completion and acceptance of commissioning when resolution of deficient conditions and issues discovered during commissioning and retesting until acceptable results are obtained has been accomplished. Owner will establish in writing the date Construction Phase Commissioning Completion is achieved. See Section **01 7000 - Execution and Closeout Procedures** for certificate of Construction Phase Commissioning Completion submittal requirements.
   1. Commissioning is complete when the work specified in this Section and related Sections has been completed and accepted, including, but not limited to, the following:
      a. Completion of tests and acceptance of test results.
      b. Resolution of issues, as verified by retests performed and documented with acceptance of retest results.
      c. Comply with requirements in Section **01 7900 - Demonstration and Training**.
      d. Completion and acceptance of submittals and reports.

G. Owner's Project Requirements: A document written by Owner, Architect, or Commissioning Authority that details the functional requirements of a project and the expectations of how it will be used and operated, including Project goals, measurable performance criteria, cost considerations, benchmarks, success criteria, and supporting information.

H. Owner's Witness: Commissioning Authority, Owner's Project Manager, or Architect-designated witness authorized to authenticate test demonstration data and to sign completed test data forms.

I. "Systems," "Assemblies," "Subsystems," "Equipment," and "Components": Where these terms are used together or separately, they shall mean "as-built" systems, assemblies, subsystems, equipment, and components.

J. Test: Performance tests, performance test demonstrations, Functional performance tests, and Functional performance test demonstrations.

K. Sampling Procedures and Tables for Inspection by Attributes: As defined in ASQ Z1.4.

1.03 COMPENSATION

A. Should Architect, Commissioning Authority, other Owner's witness, or Owner's staff perform additional services or incur additional expenses due to actions of Contractor listed below, compensate Owner for such additional services and expenses.
   1. Failure to provide timely notice of commissioning activities schedule changes.
   2. Failure to meet acceptance criteria for test demonstrations.

B. Contractor shall compensate Owner for such additional services and expenses at the professional's billing rate per labor hour plus travel expenses plus per diem allowances for meals and lodging according to current U.S. General Services Administration (GSA) Per Diem Rates.

1.04 COMMISSIONING TEAM

A. Members Appointed by Contractor(s):
   1. Commissioning Coordinator: A person or entity employed by Contractor to manage, schedule, and coordinate commissioning.
   2. Project superintendent and other employees that Contractor may deem appropriate for a particular portion of the commissioning.
   3. Subcontractors, installers, suppliers, and specialists that Contractor may deem appropriate for a particular portion of the commissioning.
   4. Appointed team members shall have the authority to act on behalf of the entity they represent.

B. Members Appointed by Owner:
   1. Commissioning authority, plus consultants that Commissioning Authority may deem appropriate for a particular portion of the commissioning.
   2. Owner representative(s), facility operations and maintenance personnel, plus other employees, separate contractors, and consultants that Owner may deem appropriate for a particular portion of the commissioning.
   3. Architect, plus employees and consultants that Architect may deem appropriate for a particular portion of the commissioning.

1.05 SUBMITTALS

A. Comply with requirements in Section **01 3000 - Administrative Procedures** for submittal procedures general requirements for commissioning.

B. INFORMATIONAL SUBMITTALS
   1. Commissioning Plan Information:
      a. List of Contractor-appointed commissioning team members to include specific personnel and subcontractors to the performance of the various commissioning requirements.
      b. Schedule of commissioning activities, integrated with the construction schedule. Comply with requirements in **Section 01 3100 - Project Management and Coordination** for construction schedule general requirements for commissioning.
      c. Contractor personnel and subcontractors to participate in each test.

d. List of instrumentation required for each test to include identification of parties that will provide instrumentation for each test.

2. Commissioning schedule.
3. Two-week look-ahead schedules.
4. Commissioning Coordinator Letter of Authority
5. Commissioning Coordinator Qualification Data:
6. List test instrumentation, equipment, and monitoring devices. Include the following information:
   a. Make, model, serial number, and application for each instrument, equipment, and monitoring device.
   b. Brief description of intended use.
   c. Calibration record showing the following:
      1) Calibration agency, including name and contact information.
      2) Last date of calibration.
      3) Range of values for which calibration is valid.
      4) Certification of accuracy.
      5) N.I.S.T. traceability certification for calibration equipment.
      6) Due date of the next calibration.
7. Test Reports:
   a. Pre-Startup Report: Prior to start up of equipment or a system, submit signed, completed prefunctional checklist.
   b. Test Data Reports: At the end of each day in which tests are conducted, submit test data for tests performed.
   c. Commissioning Issues Reports: Daily, at the end of each day in which tests are conducted, submit commissioning issue reports for tests for which acceptable results were not achieved.
   d. Weekly Progress Report: Weekly, at the end of each week in which tests are conducted, submit a progress report.
   e. Data Trend Logs: Submit data trend logs at the end of the trend log period.
   f. System Alarm Logs: Daily, at the start of days following a day in which tests were performed, submit print-out of log of alarms that occurred since the last log was printed.
8. Prefunctional Checklist:
   a. Material checks.
   b. Installation checks.
   c. Startup procedures, where required.

C. CLOSEOUT SUBMITTALS
1. Commissioning Report:
   a. At Construction Phase Commissioning Completion, include the following:
      1) Pre-startup reports.
      2) Approved test procedures.
      3) Test data forms, completed and signed.
      4) Progress reports.

5) Commissioning issues report log.
6) Commissioning issues reports showing resolution of issues.
7) Correspondence or other documents related to resolution of issues.
8) Other reports required by commissioning.
9) List unresolved issues and reasons they remain unresolved and should be exempted from the requirements for Construction Phase Commissioning Completion.
10) Report shall include commissioning work of Contractor.

2. Request for Certificate of Construction Phase Commissioning Completion.
3. Operation and Maintenance Data. For proprietary test equipment, instrumentation, and tools to include in operation and maintenance manuals.

1.06 QUALITY ASSURANCE

A. Commissioning Coordinator Qualifications:
   1. Documented experience commissioning systems of similar complexity to those contained in these documents on at least three projects of similar scope and complexity.
   2. Certification of commissioning process expertise. The following certifications are acceptable. Owner reserves the right to accept or reject certifications as evidence of qualification.
      a. Certified Commissioning Professional, by Building Commissioning Association.
      b. Commissioning Process Management Professional, by American Society of Heating, Refrigerating and Air-Conditioning Engineers.
      c. Accredited Commissioning Process Authority Professional, by University of Wisconsin.
      d. Accredited Commissioning Process Manager, by University of Wisconsin.
      e. Accredited Green Commissioning Process Provider, by University of Wisconsin.

B. Calibration Agency Qualifications: Certified by The American Association of Laboratory Accreditation that the calibration agency complies with minimum requirements of ISO/IEC 17025.

1.07 COMMISSIONING AUTHORITY'S RESPONSIBILITIES

A. Commissioning Authority Responsibilities: Comply with requirements in Section **011000 - Summary of Work**.

PART 2 - PRODUCTS

2.01 TEST EQUIPMENT, INSTRUMENTATION, AND TOOLS

A. Test equipment and instrumentation required to perform the commissioning shall remain the property of Contractor unless otherwise indicated.

B. Test equipment and instrumentation required to perform commissioning shall comply with the following criteria:

3. Be manufactured for the purpose of testing and measuring tests for which they are being used and have an accuracy to test and measure system performance within the tolerances required to determine acceptable performance.
4. Calibrated and certified.
    a. Calibration performed and documented by a qualified calibration agency according to national standards applicable to the tools and instrumentation being calibrated. Calibration shall be current according to national standards or within test equipment and instrumentation manufacturer's recommended intervals, whichever is more frequent, but not less than within six months of initial use on Project. Calibration tags permanently affixed.
    b. Repair and recalibrate test equipment and instrumentation if dismantled, dropped, or damaged since last calibrated.
5. Maintain test equipment and instrumentation.
6. Use test equipment and instrumentation only for testing or monitoring Work for which they are designed.

2.02 PROPRIETARY TEST EQUIPMENT, INSTRUMENTATION, AND TOOLS

A. Proprietary test equipment, instrumentation, and tools are those manufactured or prescribed by tested equipment manufacturer and required for work on its equipment as a condition of equipment warranty, or as otherwise required to service, repair, adjust, calibrate or perform work on its equipment.
    1. Identify proprietary test equipment, instrumentation, and tools required in the test equipment identification list submittal.
    2. Proprietary test equipment, instrumentation, and tools shall become the property of Owner at Substantial Completion.

2.03 REPORT FORMAT AND ORGANIZATION

A. General Format and Organization:
    1. Electronic Data: Portable document format (PDF); a single file with outline-organized bookmarks for major and minor tabs and tab contents itemized for specific reports.

B. The Commissioning Authority shall compile and prepare a Commissioning Report containing:
    1. Include a table of contents and an index to each test.
    2. Include major tabs for each Specification Section.
    3. Include minor tabs for each test.
    4. Within each minor tab, include the following:
        a. Test specification.
        b. Pre-startup reports.
        c. Approved test procedures.
        d. Test data forms, completed and signed.
        e. Commissioning issue reports, showing resolution of issues, and documentation related to resolution of issues pertaining to a single test. Group data forms, commissioning issue reports showing

resolution of issues, and documentation related to resolution of issues for each test repetition together within the minor tab, in reverse chronological order (most recent on top).

PART 3 - EXECUTION

3.01 PREPARATION

A. Review preliminary Prefunctional Checklist and preliminary test procedures and data forms.

3.02 PREFUNCTIONAL CHECKLIST

A. Prefunctional checklist cannot modify or conflict with the Contract Documents.

B. The Commissioning Agent will create prefunctional checklist based on actual systems and equipment to be included in Project.

C. Material Checks: Compare specified characteristics and approved submittals with materials as received. Include factory tests and other evaluations, adjustments, and tests performed prior to shipment, if applicable.
   1. Services connection requirements, including configuration, size, location, and other pertinent characteristics.
   2. Included optional features.
   3. Delivery Receipt Check: Inspect and record physical condition of materials and equipment on delivery to Project site, including agreement with approved submittals, cleanliness and lack of damage.

D. Installation Checks:
   1. Location according to Drawings and approved Shop Drawings.
   2. Configuration.
   3. Compliance with manufacturers' written installation instructions.
   4. Attachment to structure.
   5. Access clearance to allow for maintenance, service, repair, removal, and replacement without the need to disassemble or remove other equipment or building elements. Access coordinated with other building elements and equipment, including, but not limited to, ceiling and wall access panels, in a manner consistent with OSHA fall-protection regulations and safe work practices.
   6. Utility connections are of the correct characteristics, as applicable.
   7. Correct labeling and identification.

E. Startup Checks: Verify readiness of equipment to be energized. Include manufacturer's standard startup procedures and forms.

F. Startup: Perform and document initial operation of equipment to prove that it is installed properly and operates as intended according to manufacturer's standard startup procedures, minimum.

G. Performance Tests:

1. Static Tests: As specified elsewhere, including, but not limited to, duct and pipe leakage tests, insulation-resistance tests, and water-penetration tests.
2. Component Performance Tests: Tests evaluate the performance of an input or output of components under a full range of operating conditions.
3. Equipment and Assembly Performance Tests: Test and evaluate performance of equipment and assemblies under a full range of operating conditions and loads.
4. System Performance Tests: Test and evaluate performance of systems under a full range of operating conditions and loads.
5. Intersystem Performance Tests: Test and evaluate the interface of different systems under a full range of operating conditions and loads.

H. Deferred PreFunctional Checklist: Obtain Owner approval of proposed deferral of prefunctional checklist, including proposed schedule of completion of each deferred prefunctional checklist, before submitting request for Certificate of Construction Phase Commissioning Completion. When approved, deferred prefunctional checklist may be completed after date of Construction Phase Commissioning Completion. Include the following in request for Certificate of Construction Phase Commissioning Completion:
   1. Identify deferred prefunctional checklist by number and title.
   2. Provide a target schedule for completion of deferred prefunctional checklist.
   3. Written approval of proposed deferred prefunctional checklist, including approved schedule of completion of each deferred construction checklist.

I. Delayed PreFunctional checklist: Obtain Owner approval of proposed delayed PreFunctional checklist, including proposed schedule of completion of each delayed construction checklist, before submitting request for Certificate of Construction Phase Commissioning Completion. When approved, delayed prefunctional checklist may be completed after date of Construction Phase Commissioning Completion. Include the following in request for Certificate of Construction Phase Commissioning Completion:
   1. Identify delayed prefunctional checklist by number and title.
   2. Provide a target schedule for completion of delayed prefunctional checklist.
   3. Written approval of proposed delayed prefunctional checklist, including approved schedule of completion of each delayed construction checklist.

3.03 GENERAL EXECUTION REQUIREMENTS

A. Schedule and coordinate commissioning with the construction schedule.

B. Perform activities identified in prefunctional checklist, including tests, and document results of actions as construction proceeds.

C. Perform test demonstrations for Owner's witness. Unless otherwise indicated, demonstrate tests for 100 percent of work to which the test applies. In

some instances, demonstration of a random sample of other than 100 percent of the results of a test is specified.

D. Report test data and commissioning issue resolutions.

E. Schedule personnel to participate in and perform Commissioning-Process Work.

F. Installing contractors' commissioning responsibilities include, but are not limited to, the following:
   1. Operating the equipment and systems they install during tests.
   2. In addition, installing contractors may be required to assist in tests of equipment and systems with which their work interfaces.

3.04 CONTRACTOR'S RESPONSIBILITIES

A. Management and Coordination: Manage, schedule, and coordinate commissioning, including, but not limited to, the following:
   1. Coordinate with subcontractors on their commissioning responsibilities and activities.
   2. Obtain, assemble, and submit commissioning documentation.
   3. Attend periodic on-site commissioning meetings. Comply with requirements in Section **01 3100 - Project Management and Coordination**.
   4. Develop and maintain the commissioning schedule. Integrate commissioning schedule into the construction schedule. Update schedule at specified intervals.
   5. Review and comment on preliminary test procedures and data forms.
   6. Report inconsistencies and issues in system operations.
   7. Verify that tests have been completed and results comply with acceptance criteria, and that equipment and systems are ready before scheduling test demonstrations.
   8. Direct and coordinate test demonstrations.
   9. Coordinate witnessing of test demonstrations by Owner's witness.
   10. Coordinate and manage training. Be present during training sessions to direct video recording, present training and direct the training presentations of others. Comply with requirements in Section **01 7900 - Demonstration and Training**.
   11. Provide documentation to the Commissioning Authority for the preparation and submission of specified commissioning progress reports.
   12. Track commissioning issues until resolution and retesting is successfully completed.
   13. Retain original records of Commissioning-Process Work, organized as required for the commissioning report. Provide access by Owner to these records on request.
   14. Provide documentation to the Commissioning Authority for the assembly and submission of the commissioning report.

3.05 FUNCTIONAL PERFORMANCE TESTING

A. Quality Control: PreFunctional checklist, including tests, are quality-control tools designed to improve the functional quality of Project. Test demonstrations evaluate the effectiveness of Contractor's quality-control process.

B. Owner's witness will be present to witness commissioning work requiring the signature of an owner's witness, including, but not limited to, test demonstrations. Owner's project manager will coordinate attendance by Owner's witness with Contractor's published commissioning schedule. Owner's witness will provide no labor or materials in the commissioning work. The only function of Owner's witness will be to observe and comment on the progress and results of commissioning.

C. PreFunctional Checklist:
   1. Complete prefunctional checklist as Work is completed.
   2. Distribute prefunctional checklist to installing contractors before they start work.
   3. Installers:
   4. Verify installation using approved prefunctional checklist as Work proceeds.
   5. Complete and sign prefunctional checklist weekly for work performed during the preceding week.
   6. Provide Commissioning Authority access to prefunctional checklist.

D. Installation Compliance Issues: Record as an installation compliance issue Work found to be incomplete, inaccessible, at variance with the Contract Documents, nonfunctional, or that does not comply with prefunctional checklist. Record installation compliance issues on the construction checklist at the time they are identified. Record corrective action and how future Work should be modified before signing off the construction checklist.

E. Pre-Startup Audit: Prior to executing startup procedures, review completed installation checks to determine readiness for startup and operation. Report conditions, which, if left uncorrected, adversely impact the ability of systems or equipment to operate satisfactorily or to comply with acceptance criteria. Prepare pre-startup report for each system.

F. Test Procedures and Test Data Forms:
   1. Test procedures shall define the step-by-step procedures to be used to execute tests and test demonstrations.
   2. Test procedures shall be specific to the make, model, and application of the equipment and systems being tested.
   3. Completed test data forms are the official records of the results of tests.
   4. Commissioning Authority will provide to Contractor preliminary test procedures and test data forms for performance tests and Functional performance tests after approval of Product Data, Shop Drawings, and preliminary operation and maintenance manual.
   5. Review preliminary test procedures and test data forms and provide comments within 14 days of receipt from Commissioning Authority. Review shall address the following:

a. Equipment protection and warranty issues, including, but not limited to, manufacturers' installation and startup recommendations, and operation and maintenance instructions.
b. Applicability of the procedure to the specific software, equipment, and systems approved for installation.

6. After Contractor has reviewed and commented on the preliminary test procedures and test data forms, Commissioning Authority will revise and reissue the approved revised test procedures and test data forms marked "Approved for Testing."
7. Use only approved test procedures and test data forms marked "Approved for Testing" to perform and document tests and test demonstrations.

G. Performance of Tests:
1. The sampling rate for tests is 100 percent. The sampling rate for test demonstrations is 100 percent unless otherwise indicated.
2. Perform and complete each step of the approved test procedures in the order listed.
3. Record data observed during performance of tests on approved data forms at the time of test performance and when the results are observed.
4. Record test results that are not within the range of acceptable results on commissioning issue report forms in addition to recording the results on approved test procedures and data forms according to the "Commissioning Compliance Issues" Paragraph in this Article.
5. On completion of a test, sign the completed test procedure and data form. Tests for which test procedures and data forms are incomplete, not signed, or which indicate performance that does not comply with acceptance criteria will be rejected. Tests for which test procedures and data forms are rejected shall be repeated and results resubmitted.

H. Performance of Test Demonstration:
1. Perform test demonstrations on a sample of tests after test data submittals are approved. The sampling rate for test demonstrations shall be 100 percent unless otherwise indicated in the individual test specification.
2. Notify Owner's witness at least three days in advance of each test demonstration.
3. Perform and complete each step of the approved test procedures in the order listed.
4. Record data observed during performance of test demonstrations on approved data forms at the time of demonstration and when the results are observed.
5. Provide full access to Owner's witness to directly observe the performance of all aspects of system response during the test demonstration. On completion of a test demonstration, sign the completed data form and obtain signature of Owner's witness at the time of the test to authenticate the reported results.

6. Test demonstration data forms not signed by Contractor and Owner's witness at the time of the completion of the procedure will be rejected. Test demonstrations for which data forms are rejected shall be repeated and results shall be resubmitted.
    a. Exception for Failure of Owner's Witness to Attend: Failure of Owner's witness to be present for agreed-on schedule of test demonstration shall not delay Contractor. If Owner's witness fails to attend a scheduled test, Contractor shall proceed with the scheduled test. On completion, Contractor shall sign the data form for Contractor and for Owner's witness, and shall note the absence of Owner's witness at the scheduled time and place.
7. False load test requirements are specified in related sections.
    a. Where false load testing is specified, provide temporary equipment, power, controls, wiring, piping, valves, and other necessary equipment and connections required to apply the specified load to the system. False load system shall be capable of steady-state operation and modulation at the level of load specified. Equipment and systems permanently installed in this work shall not be used to create the false load without Architect's written approval.

I. Deferred Tests:
1. Deferred Tests List: Identify, in the request for Certificate of Construction Phase Commissioning Completion, proposed deferred tests or other tests approved for deferral until specified seasonal or other conditions are available. When approved, deferred tests may be completed after the date of Construction Phase Commissioning Completion. Identify proposed deferred tests in the request for Certificate of Construction Phase Commissioning Completion as follows:
    a. Identify deferred tests by number and title.
    b. Provide a target schedule for completion of deferred tests.
2. Schedule and coordinate deferred tests. Schedule deferred tests when specified conditions are available. Notify Architect and Commissioning Authority at least five working days (minimum) in advance of tests.
3. Where deferred tests are specified, coordinate participation of necessary personnel and of Architect, Commissioning Authority, and Owner's witness. Schedule deferred tests to minimize occupant and facility impact. Obtain Architect's approval of the proposed schedule.

J. Delayed Tests:
1. Delayed Tests List: Identify, in the request for Certificate of Construction Phase Commissioning Completion, proposed delayed tests. Obtain Owner approval of proposed delayed tests, including proposed schedule of completion of each delayed test, before submitting request for Certificate of Construction Phase Commissioning Completion. Include the following in the request for Certificate of Construction Phase Commissioning Completion:
    a. Identify delayed tests by test number and title.

b. Written approval of proposed delayed tests, including approved schedule of completion of delayed tests.

2. Schedule and coordinate delayed tests. Schedule delayed tests when conditions that caused the delay have been rectified. Notify Architect and Commissioning Authority at least five working days (minimum) in advance of tests.
3. Where delayed tests are approved, coordinate participation of necessary personnel and of Architect, Commissioning Authority, and Owner's witness. Schedule delayed tests to minimize occupant and facility impact. Obtain Architect's approval of the proposed schedule.

K. Commissioning Compliance Issues:
1. Test results that are not within the range of acceptable results are commissioning compliance issues.
2. Track and report commissioning compliance issues until resolution and retesting are successfully completed.
3. If a test demonstration fails, determine the cause of failure. Direct timely resolution of issue and then repeat the demonstration. If a test demonstration must be repeated due to failure caused by Contractor work or materials, reimburse Owner for billed costs for the participation in the repeated demonstration.
4. Test Results: If a test demonstration fails to meet the acceptance criteria, perform the following:
   a. Complete a commissioning compliance issue report form promptly on discovery of test results that do not comply with acceptance criteria.
   b. Submit commissioning compliance issue report form within 24 hours of the test.
   c. Determine the cause of the failure.
   d. Establish responsibility for corrective action if the failure is due to conditions found to be Contractor's responsibility.
5. Commissioning Compliance Issue Report: Provide a commissioning compliance issue report for each issue. Do not report multiple issues on the same commissioning compliance issue report.
   a. Exception: If an entire class of devices is determined to exhibit the identical issue, they may be reported on a single commissioning compliance issue report. (For example, if all return-air damper actuators that are specified to fail to the open position are found to fail to the closed position, they may be reported on a single commissioning issue report. If a single commissioning issue report is used for multiple commissioning compliance issues, each device shall be identified in the report, and the total number of devices at issue shall be identified.
   b. Complete and submit Part 1 of the commissioning compliance issue report immediately when the condition is observed.

c. Record the commissioning compliance issue report number and describe the deficient condition on the data form.
d. Resolve commissioning compliance issues promptly. Complete and submit Part 2 of the commissioning compliance issue report when issues are resolved.

6. Diagnose and correct failed test demonstrations as follows:
   a. Perform diagnostic tests and activities required to determine the fundamental cause of issues observed.
   b. Record each step of the diagnostic procedure prior to performing the procedure. Update written procedure as changes become necessary.
   c. Record the results of each step of the diagnostic procedure.
   d. Record the conclusion of the diagnostic procedure on the fundamental cause of the issue.
   e. Determine and record corrective measures.
   f. Include diagnosis of fundamental cause of issues in commissioning compliance issue report.
7. Retest:
   a. Schedule and repeat the complete test procedure for each test demonstration for which acceptable results are not achieved. Obtain signature of Owner's witness on retest data forms. Repeat test demonstration until acceptable results are achieved. Except for issues that are determined to result from design errors or omissions, or other conditions beyond Contractor's responsibility, compensate Owner for direct costs incurred as the result of repeated test demonstrations to achieve acceptable results.
   b. For each repeated test demonstration, submit a new test data form, marked "Retest."
8. Do not correct commissioning compliance issues during test demonstrations.
   a. Exceptions will be allowed if the cause of the issue is obvious and resolution can be completed in less than five minutes. If corrections are made under this exception, note the deficient conditions on the test data form and issue a commissioning compliance issue report. A new test data form, marked "Retest," shall be initiated after the resolution has been completed.

3.05 COMMISSIONING MEETINGS

A. Commissioning Authority will schedule and conduct commissioning meetings. Comply with requirements in Section **01 3100 - Project Management and Coordination**.

3.06 SEQUENCING

A. Sequencing of Commissioning Verification Activities: For a particular material, item of equipment, assembly, or system, perform the following in the order listed unless otherwise indicated:
   1. PreFunctional Checklist:

a. Material checks.
b. Installation checks.
c. Start up, as appropriate. Some startup may depend on component performance. Such startup may follow component performance tests on which the startup depends.
d. Performance Tests as appropriate.

2. Functional performance tests.
a. Static tests, as appropriate.
b. Component performance tests. Some component performance tests may depend on completion of startup. Such component performance tests may follow startup.
c. Equipment and assembly performance tests.
d. System performance tests.
e. Intersystem performance tests.

B. Before performing Functional performance tests, verify that materials, equipment, assemblies, and systems are delivered, installed, started, and adjusted to perform according to prefunctional checklist.

C. Verify readiness of materials, equipment, assemblies, and systems by performing tests prior to performing test demonstrations. Notify Architect if acceptable results cannot be achieved due to conditions beyond Contractor's control or responsibility.

D. Commence tests as soon as installation checks for materials, equipment, assemblies, or systems are satisfactorily completed. Tests of a particular system may proceed prior to completion of other systems, provided the incomplete work does not interfere with successful execution of test.

3.07 SCHEDULING

A. Commence commissioning as early in the construction period as possible.

B. Commissioning Schedule: Integrate commissioning into Contractor's construction schedule.
1. Include detailed commissioning activities in monthly updated Contractor's construction schedule and short interval schedule submittals.
2. Schedule the start date and duration for the following commissioning activities:
a. Submittals.
b. Preliminary operation and maintenance manual submittals.
c. Installation checks.
d. Startup, where required.
e. Performance tests.
f. Performance test demonstrations.
g. Functional performance tests.
h. Functional performance test demonstrations.
3. Schedule shall include a line item for each installation check, startup, and test activity specific to the equipment or systems involved.

4. Determine milestones and prerequisites for commissioning. Show commissioning milestones, prerequisites, and dependencies in monthly updated critical-path-method construction schedule and short interval schedule submittals.

C. Two-Week Look-Ahead Commissioning Schedule:
   1. Two weeks prior to the beginning of tests, submit a detailed two-week look-ahead schedule. Thereafter, submit updated two-week look-ahead schedules weekly for the duration of commissioning.
   2. Two-week look-ahead schedules shall identify the date, time, beginning location, Contractor personnel required, and anticipated duration for each startup or test activity.
   3. Use two-week look-ahead schedules to notify and coordinate participation of Owner's witnesses.

D. Owner's Witness Coordination:
   1. Coordinate Owner's witness participation via Construction Manager.
   2. Notify Construction Manager of commissioning schedule changes at least five work days in advance for activities requiring the participation of Owner's witness.

3.08 COMMISSIONING REPORTS

A. Test Reports:
   1. Pre-startup reports include observations of the conditions of installation, organized into the following sections:
      a. Equipment Model Verification: Compare contract requirements, approved submittals, and provided equipment. Note inconsistencies.
      b. Preinstallation Physical Condition Checks: Observe physical condition of equipment prior to installation. Note conditions including, but not limited to, physical damage, corrosion, water damage, or other contamination or dirt.
      c. Preinstallation Component Verification Checks: Verify components supplied with the equipment, preinstalled or field installed, are correctly installed and functional. Verify external components required for proper operation of equipment correctly installed and functional. Note missing, improperly configured, improperly installed, or nonfunctional components.
      d. Summary of Installation Compliance Issues and Corrective Actions: Identify installation compliance issues and the corrective actions for each. Verify that issues noted have been corrected.
      e. Evaluation of System Readiness for Startup: For each item of equipment for each system for which startup is anticipated, document in summary form acceptable to Owner completion of equipment model verification, preinstallation physical condition checks, preinstallation component verification checks, and completion of corrective actions for installation compliance issues.
   2. Test data reports include the following:

a. "As-tested" system configuration. Complete record of conditions under which the test was performed, including, but not limited to, the status of equipment, systems, and assemblies; temporary adjustments and settings; and ambient conditions.
b. Data and observations, including, but not limited to, data trend logs, recorded during the tests.
c. Signatures of individuals performing and witnessing tests.
d. Data trend logs accumulated overnight from the previous day of testing.

3. Commissioning Compliance Issues Reports: Report as commissioning compliance issues results of tests and test demonstrations that do not comply with acceptance criteria. Report only one issue per commissioning compliance issue report. Use sequentially numbered facsimiles of commissioning compliance issue report form included in this Section, or other form approved by Owner. Distribute commissioning compliance issue reports to parties responsible for taking corrective action. Identify the following:
   a. Commissioning compliance issue report number. Assign unique, sequential numbers to individual commissioning compliance issue reports when they are created, to be used for tracking.
   b. Action distribution list.
   c. Report date.
   d. Test number and description.
   e. Equipment identification and location.
   f. Briefly describe observations about the performance associated with failure to achieve acceptable results. Identify the cause of failure if apparent.
   g. Diagnostic procedure or plan to determine the cause (include in initial submittal).
   h. Diagnosis of fundamental cause of issues as specified below (include in resubmittal).
   i. Fundamental cause of unacceptable performance as determined by diagnostic tests and activities.
   j. When issues have been resolved, update and resubmit the commissioning issue report forms by completing Part 2. Identify resolution taken and the dates and initials of the persons making the entries.
   k. Schedule for retesting.
4. Weekly progress reports include information for tests conducted since the preceding report and the following:
   a. Completed data forms.
   b. Equipment or system tested, including test number, system or equipment tag number and location, and notation about the apparent acceptability of results.
   c. Activities scheduled but not conducted per schedule.
   d. Commissioning compliance issue report log.

e. Schedule changes for remaining Commissioning-Process Work, if any.

5. Data trend logs shall be initiated and running prior to the time scheduled for the test demonstration.
   a. Trend log data format shall be multiple data series graphs. Where multiple data series are trend logged concurrently, present the data on a common horizontal time axis. Individual data series may be presented on a segmented vertical axis to avoid interference of one data series with another, and to accommodate different axis scale values. Graphs shall be sufficiently clear to interpret data within the accuracy required by the acceptance criteria.
   b. Attach to the data form printed trend log data collected during the test or test demonstration.
   c. Record, print out, and attach to the data form operator activity during the time the trend log is running. During the time the trend log is running, operator intervention not directed by the test procedure invalidates the test results.
6. System Alarm Logs: Record and print out a log of alarms that occurred since the last log was printed. Evaluate alarms to determine if the previous day's work resulted in any conditions that are not considered "normal operation."
   a. Conditions that are not considered "normal operation" shall be reported on a commissioning issue report attached to the alarm log. Resolve as necessary. The intent of this requirement is to discover control system points or sequences left in manual or disabled conditions, equipment left disconnected, set points left with abnormal values, or similar conditions that may have resulted from failure to fully restore systems to normal, automatic control after test completion.

3.09 CERTIFICATE OF CONSTRUCTION PHASE COMMISSIONING COMPLETION

A. When Contractor considers that construction phase commissioning, or a portion thereof which Owner agrees to accept separately, is complete, Contractor shall prepare and submit to Owner and Commissioning Authority through Architect a comprehensive list of items to be completed or corrected. Failure to include an item on such list does not alter Contractor's responsibility to compete commissioning.

B. On receipt of Contractor's list, Commissioning Authority will make an inspection to determine whether the construction phase commissioning or designated portion thereof is complete. If Commissioning Authority's inspection discloses items, whether included on Contractor's list, which is not sufficiently complete as defined in "Construction Phase Commissioning Completion" Paragraph in the "Definitions" Article, Contractor shall, before issuance of the Certificate of Construction Phase Completion, complete or correct such items on notification by Commissioning Authority. In such case, Contractor shall then submit a request for another inspection by Commissioning Authority to determine construction phase commissioning completion.

C. Contractor shall promptly correct deficient conditions and issues discovered during commissioning. Costs of correcting such deficient conditions and issues, including additional testing and inspections, the cost of uncovering and replacement, and compensation for Architect's and Commissioning Authority's services and expenses made necessary thereby, shall be at Contractor's expense.

D. When construction phase commissioning or designated portion is complete, Commissioning Authority will prepare a Certificate of Construction Phase Commissioning that shall establish the date of completion of construction phase commissioning. Certificate of Construction Phase Commissioning Completion shall be submitted prior to requesting inspection for determining date of Substantial Completion.

END OF SECTION 01 9113

SECTION 01 9119.43
EXTERIOR ENCLOSURE COMMISSIONING

PART 1 GENERAL

1.01 RELATED DOCUMENTS

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

1.02 SUMMARY

A. Section includes building enclosure Cx process requirements for the above- and below-grade systems and assemblies:
   1. Opaque walls.
   2. Roofs.
   3. Openings.
   4. Interfaces.

B. Related Requirements:
   1. Section **01 9113 - General Commissioning Requirements** for general requirements for Cx processes including definitions, Cx team membership, Owner's responsibilities, Contractor's responsibilities, and CxA's responsibilities.

1.03 DEFINITIONS

A. Building Enclosure: Materials, components, systems, and assemblies intended to provide shelter and environmental separation between interior and exterior, or between two or more environmentally distinct interior spaces in a building or structure. The building enclosure includes, but is not limited to, exterior walls, above and below grade, and roof assemblies.

B. Cx: Commissioning, as defined in Section **01 9113 - General Commissioning Requirements**.

C. CxA: Commissioning Authority, as defined in Section **01 9113 - General Commissioning Requirements**.

D. "Systems," "Assemblies," "Subsystems," "Equipment," and "Components": Where these terms are used together or separately, they shall mean "as-built" systems, assemblies, subsystems, equipment, and components.

1.04 INFORMATIONAL SUBMITTALS

A. Qualification Data: For testing agency.

B. Prefunctional Checklists: Draft Prefunctional Checklists will be created by CxA for Contractor review.

C. Cx Process Submittals:

D. Test Reports: Prepared by a qualified testing agency for the test.

E. Record Drawings: As-built drawings of mockups showing changes made during testing.

F. Field quality-control reports.

1.05 CLOSEOUT SUBMITTALS

A. Operation and Maintenance Data: For building envelope systems and components to include in operation and maintenance manuals.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION

3.01 CONSTRUCTION CHECKLIST REVIEW

A. Review and provide written comments on draft Construction Checklists. CxA will create required draft Construction Checklists and provide them to Contractor.

B. Return draft Construction Checklist review comments within [**10**] <**Insert number**> days of receipt.

C. When review comments have been resolved, CxA will provide final Construction Checklists, marked "Approved for Use, (date)."

D. Use only Construction Checklists, marked "Approved for Use, (date)."

3.02 GENERAL TESTING REQUIREMENTS

A. If tests cannot be completed because of a deficiency outside the scope of the building enclosure systems, document the deficiency and report it to Owner. After deficiencies are resolved, reschedule tests.

B. If seasonal testing is specified, complete appropriate initial performance tests and documentation and schedule seasonal tests.

C. Coordinate schedule with, and perform Cx activities at the direction of the CxA.

3.03 BUILDING ENCLOSURE TESTING

A. Building Enclosure Testing: Perform testing before installation of interior finishes unless otherwise indicated.

B. Testing Agency: Engagea qualified testing agency to perform tests and inspections.

C. Expansion Building Enclosure Testing: Perform the following tests in the following order:

1. Whole Building Air Leakage Rate by Fan Pressurization: ASTM E 779.
2. Maximum Air Leakage Rate: **<Insert value>**.
3. Whole Building Air Tightness Using an Orifice Blower Door: ASTM E 1827.
4. Maximum Air Leakage Rate: **<Insert value>**.

END OF SECTION 01 9119.43

END OF RFP DOCUMENT