Connecticut
DAS
Division Of
Construction Services

6030
Bid Addendum

ADDENDUM NO.: 02 **DATE OF ADDENDUM: 06/10/2016**

Department of Agriculture – Roof Replacement
190 Rogers Avenue
Milford, CT
BI – HH – 53

Original Bid Due Date / Time:	June 29, 2016	1:00 PM

Previous Addendums: Addendum #1 dated 6/8/2016

TO: Prospective Bid Proposers:
This Addendum forms part of the "Contract Documents" and modifies or clarifies the original "Contract Documents" for this Project dated 11/16/2015. Prospective Bid Proposers shall acknowledge receipt of the total number the Addenda issued for this Project on the space provided on Section 00 41 00 Bid Proposal Form. Failure to do may subject Bid Proposers to disqualification.

The following clarifications are applicable to drawings and specifications for the project referenced above.

Item 1

DIVISION 01 GENERAL REQUIREMENTS is deleted and replaced per **ATTACHED** DIVISION 01 GENERAL REQUIREMENTS (Sections: 01 10 00 – Summary; 01 20 00 – Contract Considerations; 01 30 00 – Administrative Requirements; 01 40 00 – Quality Requirements; 01 50 00 – Temporary Facilities and Controls; 01 60 00 – Product Requirements; 01 70 00 – Execution and Closeout Procedures).

All questions must be in writing (not phone or e-mail) and must be forwarded to the consulting Architect/Engineer (Benjamin Robinson, AIA; Hoffmann Architects, Inc.; Fax: 203-239-6340) with copies sent to the DCS Project Manager (Richard Terrell / DAS Facilities Planning Office; Fax: 860-713-7355) and Construction Manager.

End of Addendum No. 02

Mellanee Walton

Mellanee Walton, Associate Fiscal Administrative Officer
Department of Administrative Services
On Behalf of the Division of Construction Services

01 10 00 SUMMARY

A. **Summary:** Section 01 10 00 Summary contains the following Subsections:

01 11 00	Summary of Work	Not Used ☐
01 11 13	Work Covered By Contract Documents	Not Used ☐
01 12 16	Work Sequence - Phase(s);	Not Used ☐
01 12 19	Contract Interface	Not Used ☐
01 14 00	Work Restrictions	Not Used ☐
01 14 16	Coordination With Occupants	Not Used ☐
01 14 23	Subcontractor Evaluations	Not Used ☐

01 11 00 SUMMARY OF WORK

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

B. **Project Number:** ***BI-HH-53***.

C. **Project Title:** ***Department of Agriculture – Roof Replacement***.

It is to be completed and ready for use by the Owner and Agency within the Contract Time specified in Division 00, Section 00 11 16 "Invitation To Bid".

D. **Project Location:** The ***190 Rogers Avenue***, located in ***Milford***, Connecticut.

E. **The Project Description:**

1. The Project consists of the complete removal and replacement of the existing asphalt roofing system and flat roofing system. The removal shall include all elements down to the existing plywood roof deck. The approximate area of the asphalt shingle roof is 5,700 square feet. The approximate area of the flat roof is 780 square feet.
2. The building is existing.
3. The Authority Having Jurisdiction for a Project that **does not Exceed** the Threshold limitations and is not a CSUS 2020 Project, as defined by the Connecticut General Statutes, is the CT DAS / DCS Code Unit.
4. Coordinate the work of this contract with FM Global.

01 11 13 WORK COVERED BY CONTRACT DOCUMENTS

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

B. The Work includes but is not limited to the following:

1. ***Masonry repointing;***
2. ***Rough Carpentry associated with re-roofing;***
3. ***Insulation, Roofing, Sheet Metal, and Joint Sealants;***

C. The Contractor will include in his bid, all items required in order to carry out the intent of the work as described, shown and implied in the Contract Documents.

D. It shall be the Contractor's responsibility upon discovery to immediately notify the Construction Administrator (CA), in writing, of errors, omissions, discrepancies, and instances of non-compliance with applicable codes and regulations within the documents, and of any work which will not fit or properly function if installed as indicated on the Contract Documents. Any additional costs arising from the Contractor's failure to provide such notification shall be borne by the Contractor.

E. **The Work will be constructed under a single lump sum.**

F. **Examination Of Site:**

1. It is not the intent of the Documents to show all existing conditions. All contractors are advised to visit and examine the site with the Construction Administrator prior to submitting bids.

2. Contractors should investigate and satisfy themselves as to the conditions affecting the work, including but no restricted to those bearing upon transportation, disposal, handling and storage of materials, availability of labor, water, electric power, uncertainties of weather, roads or similar physical conditions of the ground, the character of equipment, and facilities needed preliminary to and during the prosecution of the Work. The Contractor should further satisfy himself as to the character, quality, and quantity of surface and subsurface materials or obstacles to be encountered insofar as this information is reasonably ascertainable from an inspection of the site, as well as from information presented by the Contract Documents. Any failure by the Contractor to acquaint himself with the available information shall not relieve him from the responsibility for estimating properly the difficulty and cost of successfully performing the Work.

3. **Pre-Bid Conference:**

3.1 A Pre-Bid Conference and tour of the site will be conducted as scheduled in Division 00 Section 00 11 16 "Invitation to Bid". This scheduled conference is the only official opportunity for the bidders to tour the site with the Owner, Architect, Engineer, Construction Administrator, and Agency.

G. **Project Documents:**

1. The Specifications and Drawings are intended to describe and illustrate the materials and labor necessary for the work of this Project.

H. The General Contractor will be given ***Five (5)*** sets of the Contract Documents on or about the time of execution of Contract, free of charge. If additional copies are wanted, they will be available at the direct additional cost of their reproduction, to the contractor.

I. The Contractor shall receive ***one (1)*** set of AutoCAD compatible (latest version) Floor Plans on disks at no cost on or about the time of execution of the Contract from the Architect. Additional sets of AutoCAD compatible (latest version) Floor Plans on disks from the Architect at the cost of their reproduction, to the contractor.

01 12 16 WORK SEQUENCE - PHASE(S)

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

B. The entire Project shall be constructed in ***One*** Phase. Work of these Phase shall be substantially complete, ready for occupancy within ***Sixty (60)*** Calendar Days of commencement of the Work (the "**Contract Time**").

01 12 19 CONTRACT INTERFACE

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

B. **Owner:** The Owner is the State of Connecticut, Department of Administrative Services.

1. The authorized representative for the Owner is ***Richard Terrell, Project Manager***, DAS Bureau of Properties and Facilities Management. The DAS Bureau of Properties and Facilities Management is located at Room ***G.5***, 165 Capitol Avenue, Hartford, CT, 06106. Phone: ***860-713-5717***; Fax: ***860-713-7355***; E-mail: ***richard.terrell@ct.gov***.

2. The DCS Project Manager is the authorized representative for the Department of Administrative Services Commissioner to act in matters involving revoking, altering, enlarging or relaxing any requirement of the contract documents.

C. **Agency:** The Connecticut State (User) Agency is ***Department of Agriculture***.

1. The Agency Representative is ***David Carey***. The Agency Representative's title is ***Director, Bureau of Aquaculture and Laboratory***. The Agency Representative is located at ***190 Rogers Avenue, Milford***. Connecticut, 06460. Phone: ***203-874-0696 x103***; Fax: ***203-783-9976***; E-mail: ***David.Carey@ct.gov***.

2. The Agency Representative has the administrative authority for the facility and or site where the work is being performed but does not have the authority to change the contract documents or direct the contractor.

D. **Architect And Engineer:** The Architectural Firm is ***Hoffman Architects, Inc.***, and is located at ***2321 Whitney Avenue, Hamden, CT***. The Architect representing the firm for this project is ***Benjamin J. Robinson, AIA***. Phone: ***203-239-6660***; Fax: ***203-239-6340***; E-mail: ***b.robinson@hoffarch.com***.

1. The Architect and Engineer or their accredited representative is referred to in the Contract Documents as "Architect" or "Architects" or "Engineer" or "Engineers" or by pronouns which imply them. As information for the Contractor, the Architect's or Engineer's status is defined as follows:

   1.1 The Architect and Engineer will not make interpretations or decisions directly to the Contractor. All interpretations or decisions will be conveyed through the Construction Administrator.

   1.2 As the authorized representative of the Department of Administrative Services Commissioner, the Architect and Engineer is responsible for review of shop drawings, materials, and equipment intended for the work, in accordance with the "General Conditions", and the "Supplementary Conditions".

   1.3 Wherever the Architect or Engineer is mentioned in the documents in connection with an administrative function, it shall include the Construction Administrator in that function except for shop drawings.

E. **Construction Administrator:** The Construction Administrator is ***Richard Terrell / DAS Project Manager***, and is located at ***165 Capitol Avenue, Hartford***, Connecticut, ***06106***. Phone: ***860-713-5717***; Fax: ***860-713-7355***; E-mail: ***richard.terrell@ct.gov***.

1. The Construction Administrator is referred to in the Contract Documents as "Construction Administrator" or "Construction Manager" or by pronouns which imply it. All communications concerning the project will be directed through the Construction Administrator or a designated representative(s).

2. As information to the Contractor, the Construction Administrator's status is defined as follows:

   2.1 The Construction Administrator is the Owner's Agent who will, among other thing's, monitor the General Contractor's performance, scheduling and construction, process shop drawings, material, and equipment submittals, review and process periodic billings, review and recommend cost changes.

   2.2 The Construction Administrator will process all requests for information, interpretations and decisions regarding the meaning and intent of the Contract Documents, consulting with appropriate parties prior to rendering the interpretations or decisions to the Contractor. All such requests and replies shall be in writing.

F. **PMWeb Project Management: (Note: Will Not be Used for this Project)**

01 14 00 WORK RESTRICTIONS

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

B. The Contractor shall confine his operations, including storage of apparatus, equipment and materials to the contract limit lines as directed by the Construction Administrator.

C. The areas and/or spaces, including their access, shall be maintained free and clear throughout the contract term.

D. Parking for Contractor's employees will be limited to an area (or areas) designated by the Construction Administrator. The Contractor may be required to provide identification stickers for employees' cars.

01 14 16 COORDINATION WITH OCCUPANTS

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

B. **Full Agency Occupancy During Construction:** The Agency will occupy the site and existing building during the entire construction period. Cooperate with the Agency during construction operations to minimize conflicts and facilitate Owner usage. Perform the Work so as not to interfere with the Agency's operations.

1. Provide adequate building and fire code egress from the buildings during the renovation process. The Contractor will be responsible to maintain and protect egress ways during the construction sequence per the design as supplied by the Architect. Contractor shall be responsible for preparing egress plans for Owner approval and for Office of State Building Official and Office of State Fire Marshal for approval if required.

D. **Agency Occupancy:**

1. The Construction Administrator will determine whether such occupancy is possible and, if so, will make arrangements for holding a job inspection with the DCS Project Manager, Agency Representative, Architect and General Contractor.

2. A comprehensive list of items to be completed or corrected as issued by the General Contractor, together with the status of completion and terms of occupancy, will be forwarded to the DCS Project Manager and the Architect by the Construction Administrator. A letter will be issued by the DCS Project Manager and Architect to Construction Administrator granting such occupancy and will state the terms and conditions of occupancy.

3. Prior to Agency occupancy, mechanical and electrical systems shall be fully operational. Required inspections and tests shall have been successfully completed. Upon occupancy, the Agency will operate and maintain mechanical and electrical systems serving occupied portions of the building.

4. The Architect will prepare a "Certificate of Substantial Completion" for the Work to be occupied prior to Agency occupancy. Use the "Certificate of Substantial Completion" form as required by the Owner.

5. The DCS Project Manager will request a signed "Certificate of Compliance" from the Architect and Contractor, and forward the Certificate to the State Building Inspector for a Certificate of Occupancy and obtain the same after his review and approval.

5. A letter from the DCS Project Manager to the Agency Representative with copy to the General Contractor granting occupancy will state the terms and conditions of occupancy and that fire insurance coverage has been requested, the effective date of which will indicate to the Contractor that he may cancel fire insurance coverage for the project.

6. Upon occupancy, the Agency will assume responsibility for maintenance and custodial service for occupied portions of the building.

7. **Work after Agency Occupancy:**

7.1 For all work to complete the occupied building, warranty work, the balancing and commissioning of systems, repair of latent defects and adjustments after occupancy, the contractor is responsible for all costs associated with working in occupied buildings.

01 14 23 SUBCONTRACTOR EVALUATIONS:

A. Pursuant to C.G.S. Sec. 4a-101, the General Contractor shall compile evaluation information during the performance of the contract on each of its subcontractors who are performing work with a value in excess of five hundred thousand dollars ($500,000.00). The General Contractor shall complete and submit to the DCS evaluations of each such subcontractor upon fifty percent (50%) completion of the project and upon Substantial Completion of the project. The General Contractor acknowledges that its failure to complete and submit these evaluations in a timely manner may, by statute, result in a delay in project funding and, consequently, payment to the General Contractor. The General Contractor agrees to indemnify and hold the State harmless from any loss, damage, or expense that results from or is caused by the General Contractor's failure to complete and submit the evaluations to DCS in accordance with this provision.

End
Section 01 10 00 Summary

01 20 00 CONTRACT CONSIDERATIONS

A. **Summary:** Section 01 20 00 Contract Considerations contains the following subsections:

01 21 00	Allowances	Not Used ☒
01 22 00	Unit Prices - General	Not Used ☐
01 22 13	Unit Price Schedules - Earth And Rock Excavation	Not Used ☒
01 22 16	Unit Price Schedule - Miscellaneous	Not Used ☒
01 22 19	Unit Price Schedule – Alterations	Not Used ☒
01 23 00	Supplemental Bids	Not Used ☐
01 25 00	Substitution Procedures	Not Used ☐
01 26 00	Contract Modification Procedures	Not Used ☐
01 29 76	Progress Payment Procedures	Not Used ☐

01 21 00 ALLOWANCES – (NOT APPLICABLE FOR THIS PROJECT)

01 22 00 UNIT PRICES - GENERAL

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

B. **Definition - Unit Price:** Amount the General Contractor acknowledges in the Bid Proposal Form as a price per unit of measurement for materials or services as described in the Bidding Documents or in the Contract Documents.

C. **Procedures:**

1. Unit Prices included in the Contract Documents are to be used for determining compensation to the Contractor or Owner for changes to the scope of the work indicated in the Contract Documents, and included in the Lump Sum Contract Price. Special Unit Prices are for items complete, in place, and shall be inclusive of furnishing and installing of all material, labor, trucking, overhead, profit, equipment, hoisting, engineering, scaffolding, power hookups, protection, shop drawings, taxes, permits, appliances, delivery, insurance, supervision, cost of bond, etc. and shall remain in effect until completion of the Contract.
2. **Unit Price:** Is identified by the Owner as a price per unit of measurement for materials or services added to or deducted from the Contract Sum by appropriate modification, if the estimated quantities of Work required by the Contract Documents are increased or decreased.
3. **Increases or Decreases:** Should the amount of the Work required be increased or decreased because of changes in the work ordered in writing by the DCS Project Manager, the Undersigned agrees that the following supplemental UNIT PRICES will be decreased 10% for a reduction of work. Each Unit Price shall include all equipment, tools, labor, permits, fees, etc., incidental to the completion of the work involved. All items marked with an asterisk (*) in the unit price schedules shall include the completion of the excavation, formation and compaction of sub-grade and the disposal of surplus or unsuitable materials in accordance with the Plans and Specifications or as directed by the Construction Administrator.

D. The Owner reserves the right to reject the Contractor's measurement of work-in-place that involves use of established unit prices, and to have this work measured, at the Owner's expense, by an independent surveyor acceptable to the Contractor.

E. **Defect Assessment:** Replace the Work, or portions of the Work, not conforming to the specified requirements. If, in the opinion of the Architect/Engineer it is not practical to remove and replace the work the Architect/Engineer will direct an appropriate remedy or adjust the payment.

F. **Unit Price Schedule:** A "Unit Price Schedule" is included at the end of this Section. Specification Sections referenced in the Schedule contain requirements for materials described under each unit price.

01 22 13 UNIT PRICE SCHEDULES – (NOT APPLICABLE FOR THIS PROJECT)

01 22 19 UNIT PRICE SCHEDULE - ALTERATIONS – (NOT APPLICABLE FOR THIS PROJECT)

01 23 00 SUPPLEMENTAL BIDS

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

B. **Definition:** A Supplemental Bid is an amount proposed by bidders and stated on the Bid Proposal Form for certain work defined in the Bidding Documents that may be added to the Base Bid amount if the Owner decides to accept a corresponding change in either the amount of construction to be completed, or in the products, materials, equipment, systems, or installation methods described in the Contract Documents.

The cost for each supplemental bid is the net addition to the Contract Sum to incorporate the Supplemental Bid into the Work. Supplemental Bids are only accepted in the numerical order that they are listed on the Bid Proposal Form and never accepted out of numerical sequence. No other adjustments are made to the Contract Sum.

C. **Procedures:**

1. **Coordination:** Modify or adjust affected adjacent Work as necessary to completely and fully integrate that Work into the Project.

1.1 Include as part of each Supplemental Bid, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether or not mentioned as part of the Supplemental Bid.

1.2 Execute accepted Supplemental Bids under the same conditions as other Work of this Contract.

1.3 Schedule: A "Schedule of Supplemental Bids" is included at the end of this Section. Specification Sections referenced in the Schedule contain requirements for materials necessary to achieve the Work described under each Supplemental Bid.

D. **Schedule of Supplemental Bids:**

1. None

01 25 00 SUBSTITUTION PROCEDURES

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

B. **Summary**

1. This Section includes administrative and procedural requirements for handling requests for equals and substitutions made after award of the Contract.

2. Related Sections: The following Sections contain requirements that relate to this Section:

2.1 Division 01 Section 01 33 00 "Submittal Procedures" specifies requirements for submitting the Contractor's Construction Schedule and the Submittal Schedule.

2.2 Division 01 Section 01 42 19 "Reference Standards" specifies the applicability of industry standards to products specified.

2.3 Division 01 Section 01 60 00 "Product Requirements" specifies requirements governing the Contractor's selection of products and product options.

C. **Definitions**

1. Definitions in this Article do not change or modify the meaning of other terms used in the Contract Documents.

2. **Equals or Substitutions General:** Changes in products, materials, equipment, and methods of construction required by the Contract Documents proposed by the Contractor after award of the Contract.

D. **Submittals**

1. **Equals and Substitution Request Submittals:** The Owner will consider requests for equals or substitutions if made prior to the Receipt of the Competitive Bid. The

information on all materials shall be consistent with the information herein. After the contract award, substitutions will be considered for materials or systems specified that are no longer available. It will not be considered if the product was not purchased in a reasonable time after award. The Contractor shall submit all equal and substitutions requests on the ***"Equal or Substitute Product Request"*** Form, an example is shown at the end of this Section and the Form is available from the Construction Representative (CA). See Article 15 in the General Conditions for further refinement and information.

1.1 The Contractor is required to prepare and submit three (3) copies of the required data for the first manufacturer listed or procedure listed in the specifications section with reference to all of the following areas: the substance and function considering quality, workmanship, economy of operation, durability and suitability for purposes intended including the size, rating and cost. All submissions must include all the required data for the first listed manufacturer or procedure as specified, as well as the required data for the proposed Equal or Substitution. This will enable the Owner and Architect to determine that the proposed Equal or Substitution is or is not substantially equal to the first listed manufacturer or procedure.

2. Identify the product or the fabrication or installation method to be replaced in each request. Include related Specification Section and Drawing numbers.

3. Provide complete documentation showing compliance with the requirements for equals or substitutions, and the following information, as appropriate:

3.1 Coordination information, including a list of changes or modifications needed to other parts of the Work and to construction performed by the Owner and separate contractors that will be necessary to accommodate the proposed Equal or Substitution.

3.2 A detailed comparison chart of significant qualities of the proposed substitution with those of the Work specified. Significant qualities may include elements, such as performance, weight, size, durability, and visual effect.

3.3 Product Data, including Shop Drawings and descriptions of products and fabrication and installation procedures.

3.4 Samples, where applicable or requested.

3.5 A statement indicating the effect on the Contractor's Construction Schedule compared to the schedule without approval of the Equal or Substitution. Indicate the effect on overall Contract Time.

3.6 Cost information, broken down, including a proposal of the net change, if any in the Contract Sum.

3.7 The Contractor's certification that the proposed Equal or Substitution conforms to requirements in the Contract Documents in every respect and is appropriate for the applications indicated.

2.8 The Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of the failure of the Equal or Substitution to perform adequately.

4. **Architect's Action:** If necessary, the Architect will request additional information or documentation for evaluation within **seven (7)** Calendar Days of receipt of the original request for equal or substitution request. The Architect will notify the Construction Administrator who will notify the Owner of recommended acceptance or rejection of the proposed equal or substitution, within **fourteen (14)** Calendar Days of receipt of the request, or **seven (7)** Calendar Days of receipt of additional information or documentation, whichever is later. The Construction Administrator will give final acceptance or rejection by the Owner not less than **seven (7)** Calendar Days after notification.

1.1 Any request deemed an "Equal" and accepted by the Construction Administrator, Architect, Owner, and Agency will result in written notification to the Contractor and will <u>not</u> be in the form of a change order for an "Equal".

1.2 Any request deemed a "Substitution" and rejected or approved by Construction Administrator, Architect, and Owner may result in written notification to the Contractor and may be in the form of a Change Order if the "Substitution" is approved.

E. **Equal Or Substitutions**

1. **Conditions:** The Architect will consider the Contractor's request for Equal or Substitution of a product or method of construction when one or more of the following conditions are satisfied, as determined by the Architect. If the following conditions are not satisfied, the Architect will return the requests to the Construction Administrator without action except to record noncompliance with these requirements.

   1.1 The proposed request does not require extensive revisions to the Contract Documents.

   1.2 The proposed request is in accordance with the general intent of the Contract Documents.

   1.3 The proposed request is timely, fully documented, and/or properly submitted.

   1.4 The proposed request can be provided within the Contract Time. However, the Architect will not consider the proposed request if it is a result of the Contractor's failure to pursue the Work promptly or coordinate activities properly.

   1.5 The proposed request will offer the Owner a substantial advantage, in cost, time, energy conservation, or other considerations, after deducting additional responsibilities the Owner must assume. However, if the proposed request requires the Owner to incur additional responsibilities, including but not limited to, additional compensation to the Architect for redesign and evaluation services, increased cost of other construction by the Owner or similar considerations, then the Owner will have just cause to reject the request for Equal or Substitution.

   1.6 The proposed request can receive the necessary approvals, in a timely manner, required by governing authorities having jurisdiction.

   1.7 The proposed request can be provided in a manner that is compatible with the Work as certified by the Contractor.

   1.8 The proposed request can be coordinated with the Work as certified by the Contractor.

   1.9 The proposed request can uphold the warranties required by the Contract Documents as certified by the Contractor.

2. The Contractor's submission and the Architect's review of Submittals, including but not limited to, Samples, Manufacturer's Data, Shop Drawings, or other such items, which are not clearly identified as a request for an Equal or Substitution, will not be considered or accepted as a valid request for an Equal or Substitution, nor does it constitute an approval.

3. **Equal or Substitution Produce Request Form** (Example):

Connecticut DAS Division Of Construction Services

7001
Equal or Substitute Product Request

Page 1 of 1

Request Phase Pre-Bid ☐ Post Bid ☐ *(See Article 15 Materials: Standards, General Conditions)*

(If Pre-bid only) Current Bid Due Date: _____ **Request No.:** _____ **Dated:** _____

To: State of Connecticut
Department of Administrative Services
Division of Construction Services

DCS Project No.: _____
Project Name / Location:

References: Specification(s): Section(s): _____ Paragraph(s): _____
Drawing(s): Drawing(s) No(s): _____ Detail(s) No(s): _____

Contractually Specified Product: _____
Contractor Proposed Product: _____

Proposed Product is : Equal: ☐ Substitute: ☐ Model No.: _____

*See attached data for **both** specified and proposed products as required by Article 15 General Conditions.*

Data attached: Drawings: ☐ Product Data: ☐ Reports: ☐ Samples: ☐
Tests: ☐ Other: _____

Reason(s) for not providing the Specified Product:

Similar Installation:
Project: Architect:
Address: Owner:
Date Installed:

Will proposed substitution impact other parts of the Work? No ☐ Yes ☐ *If yes attach explanation.*
Will proposed substitution increase Contract Time? No ☐ Yes ☐ *by number of Days* _____

Actual Dollar Savings to the State of Connecticut if substitution is accepted: $ _____

The Undersigned Certifies that the proposed Request for an Equal or Substitute Product conforms to all of the requirements of Division 01 General Requirements, Section 01 25 00 Substitution Procedures.

Request Submitted By General Contractor / CMR: _____
(Firm's Typed Name)

By: _____ *(Typed Name)* _____ *(Title)* _____ *(Signature)* _____ *(Date)*

CONTRACTOR / CMR Send copies to DCS PM: ☐ CA: ☐

Consultant's Review – This Substitution Request is: Request Received on (Date): _____

☐ **Approved:** *(Submittals in accordance with Div. 01 General Requirements, Section 01 33 00 Submittal Procedures.)*
☐ **Approved as Noted:** *(Submittals in accordance with Div. 01 General Requirements, Section 01 33 00 Submittal Procedures.)*
☐ **Rejected:** **Use Specified Materials.**
☐ **Rejected:** **Request Not Received Within Specified Time Period - Use Specified Materials.**

Reviewed Issued By: _____ *(Typed Name)* _____ *(Signature)* _____ *(Date)*

CONSULTANT Send copies to: DCS PM: ☐ CA: ☐ Chief Architect ☐ Chief Engineer ☐

If Approved: As noted by Consultant,
DCS Chief Architect: _____ *(Signature)* _____ *(Date)*

Copies: Project File Red R2

01 26 00 CONTRACT MODIFICATION PROCEDURES

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

B. **Summary**

1. This Section specifies administrative and procedural requirements for handling and processing contract modifications.

C. **Related Sections:** The following Sections contain requirements that relate to this Section:

1. Division 01 Section 01 25 00 "Substitution Procedures" for administrative procedures for handling requests for substitutions made after award of the Contract.
2. Division 01 Section 01 29 76 "Progress Payment Procedures" for administrative procedures governing Applications for Payment.
3. Division 01 Section 01 32 16 "Construction Progress Schedules" for requirements for construction scheduling and reporting progress of work.
4. Division 01 Section 01 33 00 "Submittal Procedures" for requirements for submittal of the Construction Progress Schedule.
5. Division 00 General Requirements "Article 13" "Change Orders".

D. **Requests For Information**

1. In the event that the Contractor or subcontractor, at any tier, determines that some portion of the drawings, specifications, or other contract documents requires clarification or interpretation by the Architect, the Contractor shall submit a "Request for Information" in writing to the Architect via the Construction Administrator. "Requests for Information" may only be submitted by the Contractor and shall only be submitted on the "Request for Information" forms as required by the Owner.

1.1 In the "Request for Information", the Contractor shall clearly and concisely set forth the issue for which clarification or interpretation is sought and why a response is needed from the Architect.

1.2 In the "Request for Information", the Contractor shall set forth an interpretation or understanding of the requirement along with reasons why such an understanding was reached.

1.3 The Owner acknowledges that this is a complex project. Based upon the owner's past experience with projects of similar complexity, the Owner anticipates that there will probably be some "Requests for Information" on this project.

1.4 The Architect will review all "Requests for Information" to determine whether they are valid "Requests for Information". If it is determined that the document is not a valid "Request for Information", it will be returned to the Contractor, unreviewed as to content, for resubmittal on the proper form and in the proper manner.

1.5 A "Requests for Information Response" shall be issued within **seven (7)** Calendar Days of receipt of the request from the Contractor unless the Owner determines that a longer time is necessary to provide an adequate response. If a longer time is determined necessary by the Owner, the Owner will, within **seven (7)** Calendar Days of receipt of the request, notify the Contractor of the anticipated response time. If the Contractor submits a "Request for Information" on an activity with **seven (7)** Calendar Days or less of float on the current project schedule, the Contractor shall not be entitled to any time extension due to the time it takes the Architect to respond to the request provided that the Architect responds within the **seven (7)** Calendar Days set forth above.

1.6 A "Request for Information Response" from Architect will not change any requirement of the Contract Documents. In the event the Contractor believes that the "Request for Information Response" will cause a change to the requirements of the Contract Documents, the Contractor shall within **seven (7)** Calendar Days give written notice to the Construction Administrator stating that the Contractor believes the "Request for Information Response" will result in a "Change Order" and the Contractor intends to submit a "Change Order Proposal" request. Failure to give such written notice **seven (7)** Calendar

Days shall waive the Contractor's right to seek additional time or cost under the requirement these Requirements.

E. Minor Changes In The Work

1. The Architect, through the Construction Administrator, will issue supplemental instructions authorizing minor changes in the Work, not involving adjustment to the Contract Sum or Contract Time, on the "Supplemental Instructions" form as required by the Owner.

F. Proposal Request

1. **Architect/Owner-Initiated Requests For Proposals:** The Architect or Owner will issue a detailed description of proposed changes in the Work via the Construction Administrator that will require adjustment to the Contract Sum or Contract Time. If necessary, the description will include supplemental or revised Drawings and Specifications. Such requests shall be on a "Proposal Request" form as required by the Owner.

   1.1 "Proposal Request" is issued for information only. Do not consider them as an instruction either to stop work in progress or to execute the proposed change.

      1.1.1 Within **fourteen (14)** Calendar Days of receipt of a "Proposal Request", submit a "Change Order Proposal" with the required information necessary to execute the change to the Construction Administrator for the Architect's/Owner's review.

      1.1.2 Include a list of quantities of products required and unit costs, with the total amount of purchases to be made. Where requested, furnish survey data to substantiate quantities.

      1.1.3 Indicate applicable delivery charges, equipment rental, and amounts of trade discounts.

      1.1.4 Include a statement indicating the effect the proposed change in the Work will have on the Contract Time.

      1.1.5 The Agency is tax exempt. All Contractor and Subcontractor services provided under your Contract with the State of Connecticut may not be exempt from taxes. The Department of Revenue Services can guide you as to which services are exempt and which are not. Please contact the State of Connecticut, Department of Revenue Services at 1-800-382-9463 or 860-541-3280.

      1.1.6 Dollar values shown on the Schedule of Values shall not be the governing (or deciding) final amounts for change orders involving either additional charges or deletions.

G. Change Order Proposal:

1. When either a "Request for Information" from the Contractor or a "Proposal Request" from the Architect or Owner results in conditions that may require modifications to the Contract, the Contractor may propose changes by submitting a request for a "Change Order Proposal" to the Architect via the Construction Administrator on forms as required by the Owner. These forms shall also include "Change Order Proposal Worksheets" as required by the Owner.

   1.1 Include statements outlining the reasons for the change and the effect of the change on the Work. Provide a complete description of the proposed change. Indicate the effect of the proposed change on the Contract Sum and Contract Time.

   1.2 Include a list of quantities of products required and unit costs, with the total amount of purchases to be made. Where requested, furnish survey data to substantiate quantities as directed by Article 13 of the General Conditions of the Contract for Construction.

   1.3 Indicate applicable delivery charges, equipment rental, and amounts of trade discounts.

   1.4 Comply with requirements in Division 01 Section 01 25 00 "Substitution Procedures" if the proposed change requires an equal or substitution of one product or system for a product or system specified.

1.5 The State of Connecticut construction contract has the following tax exemptions:

1.5.1 Purchasing of materials which will be physically incorporated and become a permanent part of the project.

1.5.2 Tools, supplies and equipment used in fulfilling the construction contract are not exempt.

1.5.3 Services that are resold by the contractor are exempt, i.e. if a General Contractor hires a plumber, carpenter or electrician, a resale certificate may be issued to the subcontractor because these services are considered to be integral and inseparable component parts of the building contract.

2. **"Change Order Request" Forms:** Use "Change Order Proposal" and "Change Order Proposal Worksheets" forms as required by Owner.

3. A "Change Order Proposal" cannot be submitted without either prior submission of a "Request for Information" from the Contractor or as a response to a "Proposal Request" submitted by the Architect or Owner.

4. Any "Change Order Request" submitted without a prior submittal of a "Request for Information" or as a response to a "Proposal Request" will be immediately rejected and returned to the Contractor.

H. **Construction Change Directive:**

1. **"Construction Change Directive":** When the Owner and the Contractor disagree on the terms of a "Change Order Proposal" resulting from either a "Request for Information" or "Proposal Request", then the Architect through the Construction Administrator may issue a "Construction Change Directive" on a "Construction Change Directive" form as authorized by the Owner. The "Construction Change Directive" instructs the Contractor to proceed with a change in the Work, for subsequent inclusion in a "Change Order".

1.1 The "Construction Change Directive" contains a complete description of the change in the Work. It also designates the method to be followed to determine change in the Contract Sum or Contract Time.

1.2 Contractor must proceed with the Work once a "Construction Change Directive" is issued.

1.3 The change in the Contract Sum and Contract Time resulting from the issuance of a "Construction Change Directive" will be based on "Time & Material" or "Unit Prices".

1.4 Issuance of "Construction Change Directive" does not guarantee payment for the Work described in the "Construction Change Directive".

2. **Documentation:** The Contractor shall maintain detailed records on a time and material basis of work required by the "Construction Change Directive".

2.1 After completion of the change, submit an itemized account and supporting data necessary to substantiate cost and time adjustments to the Contract.

2.2 The final value shall be negotiated based on the supporting data to determine the value of the work.

3. **Change Order Procedures:**

3.1 Upon the Owner's approval of a Contractor's "Change Order Proposal", the Construction Administrator will issue a "Change Order" for signatures of the Architect, Owner and the Contractor on a "Change Order" form as required by the Owner.

01 29 76 PROGRESS PAYMENT PROCEDURES

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

B. **Summary:**

1. This Section specifies procedures for preparation and submittal of the Contractor's Applications for Payment.

2. **Related Sections:** The following Sections contain requirements that relate to this Section.

2.1 **Division 00 Notice to Bidders:** Article 10.

2.2 **General Conditions:** Articles: 27 "Schedule of Values, Application for Payment"; 28 "Partial Payments"; 31 "Final Payment"; and 32 "Owner's Right to Withhold Payments".

2.3 Division 01 Section 01 32 16 "Construction Progress Schedules" for requirements for construction scheduling and reporting progress of work.

2.4 Division 01 Section 01 33 00 "Submittal Procedures".

2.5 Division 01 Section 01 77 00 "Closeout Procedures" for requirements for Final Payment.

C. **Schedule Of Values:**

1. **Coordination:** Coordinate preparation of the "Schedule of Values" with preparation of the Construction Schedule. Use "Schedule of Values" form as required by the Owner.

1.1 Submit the "Schedule of Values" to the Construction Administrator at the earliest possible date but no later than **twenty-one (21)** Calendar Days after Contract Start Date.

1.2 **Sub-schedules:** Where Work is separated into phases requiring separately phased payments, provide sub-schedules showing values correlated with each phase of payment.

2. **Format and Content:** Use the Project Manual Table of Contents as a guide to establish the format for the "Schedule of Values". Provide at least one line item for each Specification Section on electronic media printout.

2.1 Identification: Project identification on the Schedule of Values shall include, but not be limited to, the following:

2.1.1 Owner;

2.1.2 Project Number;

2.1.3 Project Name;

2.1.4 Project Location;

2.1.5. Contractor's name and address.

2.2 Arrange the "Schedule of Values" in tabular format as required by the Owner, containing separate columns including, but not limited to, the following Items:

2.2.1 Item Number;

2.2.2. Description of Work with Related Specification Section or Division Number;

2.2.3. Scheduled Values broken down by description number, type material, units of each material.

.1 Include break down of General Condition requirements, i.e. bonds, insurance premiums, taxes, job mobilization, temporary facilities, field supervision and layout, operation and maintenance manuals, punch list activities, project record documents, demonstration and training, overhead, and profit as separate line items.

2.2.4. Name of subcontractor;

2.2.5 Name of manufacturer or fabricator;

2.2.6 Name of supplier;

2.2.7 Retainage;

2.2.8 Contract sum in sufficient detail.

3. Percentage of Contract Sum to nearest one-hundredth percent, adjusted to total 100 percent.

4. 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. In addition, the following items listed below must be included.

4.1 Project Coordination (01 31 13): a lump sum of this cost for payment at the submittal of this product a minimum cost of 1/10th of one percent of the base bid total project cost or $5,000 whichever is greater.

4.2 Photographic Documentation (01 32 33): a monthly cost of $1,000 per month to be paid each month upon receipt of the photographs or forfeit of that month's payment.

4.3 Submittal Procedures (01 33 00): a lump sum payment calculated at 1/20th of 1% of the base bid total project cost upon receipt of the schedule.

4.4 As-Built Updates (01 31 00) a monthly cost, a minimum payment of $1,000 with forfeit of that monthly payment if not done.

4.5 Progress Cleaning (01 74 13): a monthly cost. A minimum payment of $1,000 to $3,000 (based on size & complexity of the project) with forfeit of that monthly payment if not done.

4.6 Starting and Adjusting (01 75 00): a lump sum cost upon completion. (to be determined by DCS Project Manager with Architect/Engineer & Construction Administrator advice).

4.7 Construction Progress Schedules (01 32 16): For the Base Schedule a lump sum payment or 40% of the total schedule budget, with the remainder paid on an even payment over the duration of the project.

5. Round amounts to nearest whole dollar; the total shall equal the Contract Sum.

6. **Unit-Cost Allowances:** Show the line-item value of unit-cost allowances, as a product of the unit cost, multiplied by the measured quantity. Estimate quantities from the best indication in the Contract Documents.

7. **General Conditions:** 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.

7.1 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.

D. Applications For Payment:

1. Each Application for Payment shall be consistent with previous applications and payments as certified by the Architect and Construction Administrator and paid for by the Owner.

1.1 The initial "Application for Payment", the "Application for Payment" at time of "Substantial Completion", and the final "Application for Payment", involve additional requirements.

2. **Payment-Application Terms:** The Owner will process monthly progress payments. The Contractor may submit applications for payment on a monthly basis.

3. **Payment-Application Forms:** Use the "Application for Payment" form as required by the Owner. Present the required information on electronic media printout or Owner approved form; multiple pages should be used if required.

3.1 For each item, provide a column including but not limited to the following items:

3.2 Item Number.

3.3 Description of Work and Related Specification Section or Division.

3.4 Scheduled Value, break down by units of material and units of labor.

3.5 Work Completed from previous application.

3.6 Work Completed this period.

3.6.1 Materials presently stored.

3.6.2 Total Completed and stored to date of application.

3.6.3 Percentage of Completion.

3.6.4 Balance to Finish.

3.6.5 Retainage.

E. **Application Preparation:** Complete every entry on the Application form. At the time of Final Payment only, include an executed Application form by a person authorized to sign legal documents on behalf of the Contractor. The Construction Administrator will return incomplete Applications without action.

1. Entries shall match data on the "Schedule of Values".

2. Include amounts of Change Orders issued prior to the last day of the construction period covered by the application.

F. Transmittal: Except for final payment, submit to the Construction Administrator by a method ensuring receipt within ***forty-eight (48)*** hours. ***One (1)*** complete, signed and notarized original of each Application for Payment, including lien waivers and similar attachments when required, along with ***six (6)*** copies. For Final Payment, ***nine (9)*** complete, signed and notarized copies shall be submitted.

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.

G. **Applications for Payment:** Administrative actions and submittals, that must precede or coincide with submittal of the first Application for Payment and all subsequent Application for Payments including, but not limited to, the following items:

1. **Subcontractor Evaluations:**

Pursuant to C.G.S. Sec. 4a-101, the General Contractor shall compile evaluation information during the performance of the contract on each of its subcontractors who are performing work with a value in excess of five hundred thousand dollars ($500,000.00). The General Contractor shall complete and submit to the DCS evaluations of each such subcontractor **upon fifty percent (50%) completion of the project and upon Substantial Completion of the project**. The General Contractor acknowledges that its failure to complete and submit these evaluations in a timely manner may, by statute, result in a delay in project funding and, consequently, payment to the General Contractor. The General Contractor agrees to indemnify and hold the State harmless from any loss, damage, or expense that results from or is caused by the General Contractor's failure to complete and submit the evaluations to DCS in accordance with this provision.

2. List of subcontractors and suppliers' name, FEIN/Social Security numbers, and Connecticut Tax Registration Numbers;

3. List of principal suppliers and fabricators;

4. Schedule of Values;

5. Contractor's Construction Schedule (preliminary if not final);

6. Schedule of principal products;

7. Submittal Schedule (preliminary if not final);

8. List of Contractor's staff assignments;

9. List of Contractor's principal consultants;

10. Copies of all applicable permits;

11. Copies of authorizations and licenses from governing authorities for performance of the Work;

12. Proof that subcontractors have been paid amounts included on the Contractor's Application for Payment within thirty (30) days after the Owner has paid the Contractor for the particular Application for Payment in accordance with Connecticut General Statute § 49-41a (a)(1).

13. Releases of Lien from subcontractors with amounts included on the Contractor's Application for Payment when Contractor has been paid by the Owner for the particular Application for Payment but the subcontractors have not been paid.

14. Proof that as-built documents are updated as required by Section 01 77 00 "Closeout Procedures."

15. Initial as-built survey and damage report, if required.

16. Update the "Contractor's Master Subcontract Agreement List" and submit copies all recently executed Subcontract Agreements in accordance with CGS § 4b-96.

16.1 The "Contractor's Master Subcontract Agreement List" shall list all Subcontract Agreements in order of Contract Sum magnitude (from high to low) in the following format:

Contractor's Master Subcontract Agreement List				
Subcontractor Name	Minority Or Small Business Designation	Trade	Address	Contract Sum

17. In accordance with 42-158j (b):
Each payment requisition submitted shall include a statement showing the status of all pending construction change orders, other pending change directives and approved changes to the original contract or subcontract. Such statement shall identify the pending construction change orders and other pending change directives, and shall include the date such change orders and directives were initiated, the costs associated with their performance and a description of any work completed. As used in this section, "pending construction change order" or "other pending change directive" **means an authorized directive for extra work that has been issued to a contractor or a subcontractor and identified by an official Change Order Number or Construction Change Directive Number assigned by the State of Connecticut**.

H. **Application for Payment at Substantial Completion:** Following issuance of the Certificate of Substantial Completion submit an Application for Payment form; use the form as required by the Owner. Present the required information on electronic media printout as applicable that include, but are not limited, to the following:

1. **Subcontractor Evaluations:**

Pursuant to C.G.S. Sec. 4a-101, the General Contractor shall compile evaluation information during the performance of the contract on each of its subcontractors who are performing work with a value in excess of five hundred thousand dollars ($500,000.00). **The General Contractor shall complete and submit to the DCS evaluations of each such subcontractor upon fifty percent (50%) completion of the project and upon Substantial Completion of the project.** The General Contractor acknowledges that its failure to complete and submit these evaluations in a timely manner may, by statute; result in a delay in project funding and, consequently, payment to the General Contractor. The General Contractor agrees to indemnify and hold the State harmless from any loss, damage, or expense that results from or is caused by the General Contractor's failure to complete and submit the evaluations to DCS in accordance with this provision.

2. This application shall reflect Certificates of Partial Substantial Completion issued previously for Owner occupancy of designated portions of the Work.

3. Administrative actions and submittals that shall precede or coincide with this application include, but are not limited to, the following:

3.1 Occupancy permits and similar approvals;

3.2 Warranties (guarantees) and maintenance agreements;

3.3 Test/adjust/balance records;

3.4 Maintenance instructions;

3.5 Meter readings;

3.6 Startup performance reports;

3.7 Changeover information related to Owner's occupancy, use, operation, and maintenance;

3.8 Final cleaning;

3.9 Application for reduction of retainage and consent of surety;

3.10 Advice on shifting insurance coverage;

3.11 Final progress photographs;

3.12 List of incomplete Work, recognized as exceptions to Architect's Certificate of Substantial Completion.

I. **Final Payment Application:** Administrative actions and submittals that must precede or coincide with submittal of the final Application for Payment include, but are not limited, to the following:

1. Completion of Project Closeout requirements.

2. Completion of list of items remaining to be completed as indicated on the attachment to the Certificate of Substantial Completion.

3. Ensure that unsettled claims will be settled.

4. Ensure that incomplete Work is not accepted and will be completed in accordance with a schedule prepared by the Contractor which is acceptable to the Owner.

5. Transmittal of required Project construction records to the Owner (including as-built documents specified in Section 01 77 00 "Closeout Procedures").

6. Certified property survey.

7. Proof that taxes, fees, and similar obligations were paid.

8. Removal of temporary facilities and services.

9. Removal of surplus materials, rubbish, and similar elements (Reference Section 01 74 19 "Construction Waste Management & Disposal").

10. Change of door locks to Owner's access.

11. The requirements of the General Conditions and Supplementary Conditions for Final Acceptance, Final Completion, Final Inspection, and Final Payment.

12. Asbestos, lead or other hazardous material manifests.

13. Completion of "Contractor Reporting Form" as supplied by DCS, for all Contractors, Subcontractors, Vendors, Suppliers, etc. who work on the Contract. The form includes the following information:

13.1 Contractor/Subcontractor name.

13.2 FEIN/Social Security Numbers

13.3 Connecticut Tax Registration Numbers

13.4 Type of work

13.5 Name of business and address

13.6 Remittance address.

End
Section 01 20 00
Contract Considerations

01 30 00 ADMINISTRATIVE REQUIREMENTS

A. **Summary:** Section 01 30 00 Administrative Requirements contains the following Subsections:

01 31 13	Project Coordination	Not Used ☐
01 31 19	Project Meetings	Not Used ☐
01 32 16	Construction Progress Schedules	Not Used ☐
01 32 33	Photographic Documentation	Not Used ☐
01 33 00	Submittal Procedures	Not Used ☐
01 35 16	Alteration Project Procedures	Not Used ☐
01 35 19	Confined Space Entry	Not Used ☐
01 35 53	Security Procedures	Not Used ☐

01 31 13 PROJECT COORDINATION

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

B. **Related Sections:** The following Sections contain requirements that relate to this section.

1. **Section 01 29 76 "Progress Payment Procedures"** submission of Schedule of Values and Applications for payment.

C. **Construction Administrator:**

1. The Construction Administrator is identified in Division 01 **Section 01 12 19 "Contract Interface".**

2. **Construction Mobilization:**

2.1 Cooperate with the Construction Administrator in the allocation of mobilization areas of the site, for field offices and sheds, for agency facility access, traffic, and parking facilities.

2.2 During Construction, coordinate use of site and facilities through the Construction Administrator.

2.3 Comply with Construction Administrators procedures for intra-project communications; submittals, reports and records, schedules, coordination drawings, and recommendations; and resolution of ambiguities and conflicts.

2.4 Comply with instructions of the Construction Administrator for use of temporary utilities and construction facilities.

2.5 Coordinate field engineering layout as specified in Division 01 **Section 01 71 23 "Field Engineering"** for work under the instructions of the Construction Administrator.

D. Coordinate construction operations included in various Sections of these Specifications to assure efficient and orderly installation of each part of the Work. Coordinate construction operations included under different Sections that depend on each other for proper installation, connection, and operation.

1. Schedule construction operations in the 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 assure maximum accessibility for required maintenance, service, and repair.

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

E. Where necessary, prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports, and attendance at meetings.

1. Prepare similar memoranda for the Construction Administrator, Owner and separate contractors where coordination of their work is required.

F. **Administrative Procedures:** Coordinate scheduling and timing of required administrative procedures with other construction activities to avoid conflicts and assure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:

1. Preparation of schedules.

2. Installation and removal of temporary facilities.

3. Delivery and processing of submittals.

4. Progress meetings.

5. Project closeout activities.

G. General Coordination Provisions:

1. Inspection of Conditions: Require the Installer of each major component to inspect both the substrate and conditions under which Work is to be performed and coordinate such inspections with the Construction Administrator and authorities having jurisdictions. If unsatisfactory conditions exist notify the Construction Administrator immediately. Do not proceed until unsatisfactory conditions have been corrected in an acceptable manner.

2. The Contractor shall coordinate temporary enclosures with required inspections and tests to minimize the necessity of uncovering completed construction for that purpose.

2.1 Coordination Drawings:

2.1.1 The HVAC Subcontractor will initiate Mylar at 1/4" scale drawings done on AutoCAD showing ducts and piping in plan and section. Sheet metal shop drawings must be approved prior to starting coordination drawings.

2.1.2 The Sprinkler Subcontractor will then superimpose his piping layout on the tracing.

2.1.3 The Electrical subcontractor will superimpose all the electrical information on the tracing. Said information to include but not necessary limited to cable trays, equipment, lighting, conduits, bus duct, etc.

2.1.4 The sprinkler subcontractor will complete the coordination drawing by drawing his piping (include pitch) on the tracing.

2.1.5 The Construction Administrator will review the completed coordination drawing for general compliance and then submit it to the Architect for his review. All subcontractors shall rework the Mylar drawings until all systems are properly coordinated.

3. The Construction Administrator will meet with the Contractor on all major items of coordination.

4. See also **Division 00 General Conditions, Article 7 "Cooperation of Trades".**

01 31 19 PROJECT MEETINGS

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

B. Pre-construction Conference:

1. The Contractor will attend a Pre-construction Conference before starting construction, as scheduled by the Construction Administrator convenient to the Owner, the Construction Administrator, Architect, and Contractor. This meeting will take place within **fourteen (14)** Calendar Days after the written Notice to Proceed and before the Contract Start Date. Hold the conference at the Project Site or another convenient location as directed by the Construction Administrator. The Construction Administrator shall conduct the Pre-construction Conference to review the Contractor and Subcontractor responsibilities and personnel assignments.

2. **Attendees:** Authorized representatives of the Construction Administrator, Owner, Architect, and their consultants; the Contractor and its superintendent; major subcontractors; agency; and other concerned parties shall attend the conference. All participants at the conference shall be familiar with the Project and authorized to conclude matters relating to the Work.

3. **Agenda:** Discuss items of significance that could affect progress, including the following:

3.1 Tentative construction schedule;

3.2 Critical work sequencing;

3.3 Progress meeting schedule;

3.4 Designation of responsible personnel;

3.5 Procedures for processing field decisions and Change Orders;

3.6 Procedures for processing Applications for Payment;

3.7 Distribution of Contract Documents;

3.8 Submittal of Shop Drawings, Product Data, and Samples;

3.9 Preparation of record documents;

3.10 Use of the premises;

3.11 Parking availability;

3.12 Office, work, and storage areas;

3.13 Equipment deliveries and priorities;

3.14 Safety procedures;

3.15 First aid;

3.16 Security;

3.17 Housekeeping;

3.18 Working hours;

3.19 Coordination with Audio-Visual and Telecommunications.

C. Progress Meetings:

1. The Construction Administrator will conduct progress meetings, bi-weekly, at the Project Site or at regular intervals as agreed upon at the Pre-construction Conference. The Construction Administrator will notify the Owner, the Architect, and the Contractor of the scheduled Progress Meeting dates. Coordinate dates of Progress Meetings with preparation of Application for Payment requests.

2. **Attendees:** In addition to representatives of the Contractor, Construction Administrator, Owner and the Architect, subcontractor, supplier, or other entity concerned with current progress or involved in planning, coordination, or performance of future activities may be requested to attend these meetings on an as needed basis. All participants at the meeting shall be familiar with the Project and authorized to conclude matters relating to the Work. The Contractor shall include the site superintendent as a minimum.

3. **Agenda:** Progress Meetings shall review and correct or approve minutes of the previous Progress Meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to the status of the Project.

   3.1 **Construction Schedule:** Review progress since the last Progress Meeting. Determine where each activity is in relation to the required Contractor's "Construction Schedule" and whether each activity is on time or ahead or behind Schedule. Determine how Work that is behind Schedule will be expedited; secure commitments from parties involved to do so. Discuss whether Schedule revisions are required to insure that current and subsequent activities will be completed within the Contract Time.

   3.2 Review the present and future needs of each entity present

4. **Reporting:** The Construction Administrator will distribute minutes of the meeting to each party present, promptly and before the next scheduled meeting, and to parties who should have been present.

5. A schedule of regular Project Meetings will be established at the Pre-construction Conference.

01 32 16 CONSTRUCTION PROGRESS SCHEDULES

A. Related Documents

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

B. Summary

1. This Section includes administrative and procedural requirements for the preparation, submittal, and updating of the Contractor's construction schedules and reporting progress of the Work.
   - 1.1. Refer to the General Conditions and the Agreement for definitions and specific dates of Contract Time.
2. This Section includes the following:
   - 2.1. Format.
   - 2.2. Content.
   - 2.3. Revisions to schedules.
   - 2.4. Submittals.
   - 2.5. Distribution.
3. **Related Sections**: The following Sections contain requirements that relate to this Section:
   - 3.1 Division 01 Section 01 29 76 "Progress Payment Procedures" specifies requirements for submitting Schedule of Values and Application for Payments.
   - 3.2 Division 01 Section 01 31 19 "Project Meetings" specifies requirements for submitting and distributing meeting and conference minutes.
   - 3.3 Division 01 Section 01 33 00 "Submittal Procedures" specifies requirements for submitting the Submittal Schedule.
   - 3.4 Division 01 Section 01 45 00 "Quality Control" specifies requirements for submitting inspection and test reports.
   - 3.5 Division 01 Section 01 60 00 "Product Requirements" specifies requirements for submitting the list of products.

C. Definitions

1. **Construction Schedule:** A method of planning and scheduling a construction project utilizing a horizontal bar chart with a separate bar for each major portion of the Work or operation to make the schedule an effective tool for planning and monitoring the progress of the work.

D. Quality Assurance

1. **The Contractor's Consultant:** Retain a consultant to provide planning, evaluating, and reporting by CPM scheduling.
   - 1.1. **In-House Option:** The Owner may waive the requirement to retain a consultant if the Contractor can demonstrate that:
     - 1.1.1. The Contractor has the computer equipment required to produce construction schedules.
     - 1.1.2. The Contractor employs skilled personnel with experience in construction scheduling and reporting techniques.
   - 1.2. **Program:** Use **Microsoft Project** latest version.
   - 1.3. **Standards:** Comply with procedures contained in AGC's "Construction Planning & Scheduling."

E. Preliminary Schedule

1. Preliminary Gantt schedule is to be prepared by the General Contractor and submitted to the Construction Administrator within **seven (7)** days of award of contract. This schedule is to cover all items of Work from the start of the project up to the completion of the project. This schedule must be revised when the actual schedule of significant items varies more than one week from the proposed schedule.

F. Construction Schedule Format

1. **Format:** Utilize a horizontal bar chart (Gantt) with a separate bar for each major portion of the Work or operation, identifying first work day of each week.
2. **Program:** Use **Microsoft Project**, latest version.
3. **Sequence of Listings:** Utilize the Table of Contents of this Project Manual and the chronological order **of the start of each item of work.**

4. **Scale and Spacing:** Provide space for notations and revisions.

5. **Sheet Size:** To be coordinated with Construction Administrator.

6. **Weather Days Allowance:** The Contractor shall include as a separate identifiable activity on the Critical Path of the Construction Schedule, and activity labeled "Weather Days Allowance." Insert this activity immediately prior to the substantial completion milestone.

6.1 The Contractor shall be fully responsible for determining the number of weather delay days to be included in the Construction Schedule. This determination shall be based on the normal anticipated weather for the project location and the nature of the project work. The Construction Schedule shall be based on the contractor's determined weather delay allowance., The weather delay activity shall be included in the construction schedule immediately prior to the Substantial Completion milestone.

6.2 The minimal allowed duration of the Weather Days Allowance shall be calculated as follows (decimals rounded to nearest whole number):

$$\frac{\text{Contract Time (Calendar Days)}}{365} \text{ multiplied by } 7 \text{ equals } \text{Weather Days Allowance (Calendar Days)}$$

6.3 The Contractor shall insert an activity in the Critical Path of the Construction Schedule to reflect weather day occurrences when weather days are experienced and accepted by the Owner. Identify this activity as a weather delay.

6.4 The Contractor shall reduce duration of Weather Days Allowance activity as weather delays are experienced and inserted into the schedule. Remaining weather days in Weather Day Allowance at completion of project is considered float. Weather delay, when justified, are considered allowable, non compensable.

G. Content

1. Show complete sequence of construction by activity, with dates beginning and completion of each element of construction.
2. Identify each item by specification section numbers.
3. Identify work of separate phases and other logically grouped activities.
4. Show accumulated percentages of completion of each item, and total percentage of Work completed, as of the **first** day of each month.
5. Provide separate schedule of submittal dates for shop drawings, product data, and samples, Owner/Agency furnished products and any products identified as under Allowances, and dates reviewed submittals will be required from Architect/Engineer. Indicate decision dates for selection of finishes.
6. Indicate delivery dates for Owner/Agency furnished products and any products identified as under Allowances.
7. Indicate critical path with original baseline indicated.
8. Coordinate content with Schedule of Values specified in Section 01 29 76 "Progress Payment Procedures."

H. Submittals and Revisions To Schedules

1. An initial bar graph schedule is to be prepared by the General Contractor and submitted to the Construction Administrator. Refer to Article 1.5.
2. Indicate progress of each activity to date of submittal, and projected completion date of each activity.
3. Identify activities modified since previous submittal, major changes in scope, and other identifiable changes.
4. Provide narrative report to define problem areas, anticipated delays, and impact on Schedule. Report corrective action taken, or proposed, and its effect.
5. Schedules must be revised monthly and when the actual schedule of significant items varies more than **seven (7) days** from the proposed schedule.
6. Submit revised Construction Schedules for each Application for Payment.

7. Submit **four (4)** copies of the Construction Schedule to the Construction Administrator.

I. **Distribution**

1. Distribute copies of the Construction Schedules to Construction Administrator, Architect, Owner, Subcontractors, suppliers, and other concerned parties.

2. Instruct recipients to promptly report, in writing, problem anticipated by projections indicated in schedules.

01 32 33 PHOTOGRAPHIC DOCUMENTATION

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

B. **Related Sections:** The following Sections contain requirements that relate to this section

1. **Section 01 29 76 "Progress Payment Procedures"** submission of Schedule of Values and Applications for payment.

C. On the date the work is begun and every **thirty (30)** days thereafter (typically at the end of the month- until the work is at least 95 percent complete), the Contractor shall have photographs of the construction taken by a professional photographer or an individual approved by the Owner.

D. Photographs: Provide a digital camera to take ***twenty-four (24)*** or more photos each time. Deliver 1 sets of photo files on CD-ROM and one set of prints to the Construction Administrator for DCS. Label each CD-ROM with project name and the date the photographs were taken. With each submittal provide an index sheet of digital photos and where the photos were taken.

E. As photographs are a record of the work progress, they shall be taken each month, whether or not they show work done during the preceding month. Deliver digital photos to the Construction Administrator within ***ten (10)*** Calendar Days of their taking.

01 33 00 SUBMITTAL PROCEDURES

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

B. **Summary**

1. This Section includes administrative and procedural requirements for submittals required for performance of the Work, including but not limited to the following:

1.1 Submittal schedule.

1.2 Shop Drawings.

1.3 Product Data.

1.4 Samples.

1.5 Quality assurance submittals.

1.6 Proposed "Substitutions/Equals".

1.7 Warrantee samples.

1.8 Coordination Drawings.

1.9 O & M Manuals

C. **Administrative Submittals:** Refer to other Division 01 Sections and other Contract Documents for requirements for administrative submittals. Such submittals include, but are not limited to, the following:

1. Permits.

2. Applications for Payment.

3. Performance and payment bonds.

4. Contractor's construction schedule.

5. Daily construction reports.

6. Construction Photographs.

7. Insurance certificates.

8. List of subcontractors.

9. Subcontractors/Suppliers FEIN #'s and Connecticut tax registration #.

D. **Related Sections:** The following Sections contain requirements that relate to this Section:

1. Division 01 Section 01 25 00 "Substitution Procedures" specifies requirements for submittal of requests for equals and substitutions.
2. Division 01 Section 01 29 76 "Progress Payment Procedures" specifies requirements for submittal of the Schedule of Values.
3. Division 01 Section "Project Coordination" 01 31 13 for Project Coordination documents.
4. Division 01 Section 01 31 19 "Project Meetings" specifies requirements for submittal and distribution of meeting and conference minutes.
5. Division 01 Section 01 32 16 "Construction Progress Schedules" for requirements for construction scheduling and reporting progress of work.
6. Division 01 Section 01 32 33 "Photographic Documentation" specifies requirements for submittal of periodic construction photographs.
7. Division 01 Section 01 45 00 "Quality Control" specifies requirements for submittal of inspection and test reports and mockups.
8. Division 01 Section 01 77 00 "Closeout Procedures" specifies requirements for submittal of Project Record Documents and warranties at project closeout.
9. Division 01 Section 01 78 30 "Warranties and Bonds".

E. **Definitions**

1. Coordination Drawings show the relationship and integration of different construction elements that require careful coordination during fabrication or installation to fit in the space provided or to function as intended and as identified in the Specification Divisions 02 through 49.
   - **1.1** Preparation of Coordination Drawings is specified in Division 01 Section 01 31 13 "Project Coordination" and may include components previously shown in detail on Shop Drawings or Product Data.
2. Field samples are full-size physical examples erected on-site to illustrate finishes, coatings, or finish materials. Field samples are used to establish the standard by which the Work will be judged.
3. Mockups are full-size assemblies for review of construction, coordination, testing, or operation; they are not Samples.

F. **Submittal Procedures**

1. **Coordination:** Coordinate preparation and processing of submittals with performance of construction activities. Transmit each submittal sufficiently in advance of performance of related construction activities to avoid delay.
   - **1.1** Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
   - **1.2** Coordinate transmittal of different types of submittals for related elements of the Work so processing will not be delayed by the need to review submittals concurrently for coordination.
     - **1.2.1** The Architect reserves the right to withhold action on a submittal requiring coordination with other submittals until all related submittals are received.
     - **1.2.2** The Architect reserves the right to reject incomplete submitted packages.
   - **1.3** **Processing:** To avoid the need to delay installation as a result of the time required to process submittals, allow sufficient time for submittal review, including time for re-submittals.
     - **1.3.1** Allow **fourteen (14)** calendar days for initial review. Allow additional time if the Architect must delay processing to permit coordination with subsequent submittals.
     - **1.3.2** If an intermediate submittal is necessary, process the same as the initial submittal.
   - **1.4** Allow **fourteen (14)** calendar days for reprocessing each submittal.

1.5 No extension of Contract Time will be authorized because of failure to transmit submittals to the Architect sufficiently in advance of the Work to permit processing.

2. **Submittal Preparation:** Place a permanent label, title block or ***8-1/2 inches x 11 inches*** cover page approved by the Architect, on each submittal for identification. Indicate the name of the entity that prepared each submittal on the label or title block.

2.1 The minimum number of copies required for each submittal shall be ***seven (7)*** or as determined otherwise at the pre-construction conference or by the Construction Administrator.

2.2 Provide a space approximately ***4 inches by 5 inches*** on the label, beside the title block or on the cover page on Shop Drawings to record the Contractor's review and approval markings and the action taken.

2.3 Include the following information on the label for processing and recording action taken.

2.3.1 Project Name and State of Connecticut Project Number.

2.3.2 Date.

2.3.3 Name and address of the Architect, Construction Administrator, and Owner Representative.

2.3.4 Name and address of the Contractor.

2.3.5 Name and address of the subcontractor.

2.3.6 Name and address of the supplier.

2.3.7 Name of the manufacturer.

2.3.8 Number and title of appropriate Specification Section.

2.3.9 Drawing number and detail references, as appropriate.

2.3.10 Indicate either initial or resubmittal.

2.3.11 Indicate deviations from Contract Documents.

2.3.12 Indicate if "equal" or "substitution".

3. Submittal Transmittal: Package each submittal appropriately for transmittal and handling. Transmit each submittal from the Contractor to the Architect using a transmittal form. Copy the Construction Administrator on the transmittal. The Architect will return all submittals to the Contractor after action is taken with a complete copy of the submittal package and one complete copy of the submittal package. The Architect will not accept submittals received from sources other than the Contractor.

3.1 On the transmittal, record relevant information and requests for data. On the form, or separate sheet, record deviations from Contract Document requirements, including variations and limitations. Include Contractor's certification that information complies with Contract Document requirements.

G. **Submittal Schedule:**

1. After development and review by the Owner and Architect acceptance of the Contractor's Construction or CPM schedule prepare a complete schedule of submittals. Submit the schedule to the Construction Administrator within **thirty (30)** Calendar Days of Contract Award.

1.1 Coordinate Submittal Schedule with the list of subcontracts, Schedule of Values, and the list of products as well as the Contractor's Construction or CPM Schedule.

1.2 Prepare the schedule in chronological order. Provide the following information:

1.2.1 Schedule date for the initial submittal.

1.2.2 Related section number.

1.2.3 Submittal category (Shop Drawings, Product Data, or Samples).

1.2.4 Name of Subcontractor.

1.2.5 Description of the part of Work covered.

1.2.6 Scheduled date for resubmittal.

1.2.7 Scheduled date for the Architect's final release of approval.

2. **Submittal Schedule:** Submit a schedule of submittals, arranged in chronological order by dates required by construction schedule. Include time required for review, ordering, manufacturing, fabrication, and delivery when establishing dates. Include additional time required for making corrections or modifications to submittals noted by the Architect and additional time for handling and reviewing submittals required by those corrections.

2.1 Coordinate submittal schedule with list of subcontracts, the schedule of values, and Contractor's construction schedule.

2.2 Initial Submittal: Submit concurrently with start-up construction schedule. Include submittals required during the first 60 days of construction. List those submittals required to maintain orderly progress of the Work and those required early because of long lead time for manufacture or fabrication.

2.3 Final Submittal: Submit concurrently with the first complete submittal of Contractor's construction schedule.

2.3.1 Submit revised submittal schedule to reflect changes in current status and timing for submittals.

3. **Coordination:** Coordinate preparation and processing of submittals with performance of construction activities.

3.1 Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.

3.2 Submit all submittal items required for each specification section concurrently unless partial submittals for portions of the Work are indicated on approved submittal schedule.

3.3 Submit action submittals and informational submittals required by the same specification section as separate packages under separate transmittals.

3.4 Coordinate transmittal of different types of submittals for related parts of the Work so processing will not be delayed because of need to review submittals concurrently for coordination.

3.4.1 ***[Architect reserves] [Architect and Construction Administrator reserve]*** the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.

3.5 **Processing Time:** Allow time for submittal review, including time for resubmittals, as follows. Time for review shall commence on ***[Architect's] [Construction Administrator's]*** receipt of submittal. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals.

3.5.1 **Initial Review:** Allow **fourteen (14)** Calendar Cays for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. [**Architect**] [**Construction Manager**] will advise Contractor when a submittal being processed must be delayed for coordination with related submittals not yet received. Additional time will be required if processing must be delayed to permit review of related subsequent submittals.

3.5.2 **Intermediate Review:** If intermediate submittal is necessary, process it in same manner as initial submittal.

3.5.3 **Resubmittal Review:** Allow **fourteen (14)** Calendar Days for review of each resubmittal.

3.5.4 **Mass Submittals:** ***Six (6)*** or more submittals in ***one (1)*** Calendar Day or ***twenty (20)*** or more submittals in ***seven (7)*** Calendar Days. If "Mass Submittals" are received, Architect's review time stated above may be extended as necessary to perform proper review. Architect will review "Mass Submittals based upon priority determined by Architect after consultation with Owner and Contractor.

3.6 **Distribution:** Following response to the initial submittal, print and distribute copies to the Construction Administrator, Architect, Owner, subcontractors,

and other parties required to comply with submittal dates indicated. Post copies in the Project meeting room and field office.

3.6.1 When revisions are made, distribute to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in construction activities.

3.7 **Schedule Updating:** Revise the schedule after each meeting or activity where revisions have been recognized or made. Issue the updated schedule concurrently with the report of each meeting.

H. Daily Construction Reports

1. Prepare a daily construction report recording the following information concerning events at the site, and submit duplicate copies to the Construction Administrator at weekly intervals:

1.1 List of subcontractors at the site.

1.2 Approximate count of personnel at the site.

1.3 High and low temperatures, general weather conditions.

1.4 Accidents and unusual events.

1.5 Meetings and significant decisions.

1.6 Stoppages, delays, shortages, and losses.

1.7 Meter readings and similar recordings.

1.8 List of equipment on site and identify if idle or in use.

1.9 Orders and requests of governing authorities.

1.10 Change Orders received, start and end dates.

1.11 Services connected, disconnected.

1.12 Equipment or system tests and startups.

1.13 Partial Completion's, occupancies.

1.14 Substantial Completion's authorized.

1.15 Equals or Substitutions approved or rejected.

I. Shop Drawings

1. Submit newly prepared information drawn accurately to scale. Highlight, encircle, or otherwise indicate deviations from the Contract Documents. Do not reproduce Contract Documents or copy standard information as the basis of Shop Drawings. Standard information prepared without specific reference to the Project is not a Shop Drawing.

2. Shop Drawings include fabrication and installation Drawings, setting diagrams, schedules, patterns, templates and similar Drawings. Include the following information:

2.1 Dimensions.

2.2 Identification of products and materials included by sheet and detail number.

2.3 Compliance with specified standards.

2.4 Notation of coordination requirements.

2.5 Notation of dimensions established by field measurement.

2.6 Sheet Size: Except for templates, patterns and similar full-size Drawings, submit Shop Drawings on sheets at least ***8-1/2 by 11 inches*** but no larger than ***36 by 48 inches***.

2.6.1 Submit ***one (1)*** reproducible media and ***seven (7)*** prints as directed by the Construction Administrator. The Contractor's submittal shall identify the specification section and/or drawing number applicable to the submittal.

2.6.2 Details shall be large scale and/or full size.

3. The Contractor shall review the Shop Drawings, stamp with this approval, and submit them with reasonable promptness and in orderly sequence so as to cause no delay in his Work or in the Work of any subcontractor. Shop Drawings shall be properly identified as specified for item, material, workmanship, and project number. At the

submission, the Contractor shall inform the Architect, in writing of any deviation in the shop drawings from the requirements of the Contract Documents.

4. The Architect will review and comment on shop drawings with reasonable promptness so as to cause no delay, but only for conformance with the design concept of the project and with the information given in the Contract Documents. Refer to Article 5 of the General Conditions. Shop Drawings received by the Architect that indicate insufficient study of drawings and specifications, illegible portions or gross errors, will be rejected outright. Such rejections shall not constitute an acceptable reason for granting the Contractor additional time to perform the work.

5. The Contractor shall make any corrections required by the Architect and shall resubmit the required number of corrected copies of Shop Drawings until fully reviewed.

6. Upon final review submit ***four (4)*** additional prints, same as submitted, for use by the Construction Administrator.

7. The Architect's review and comments on Shop Drawings shall not relieve the Contractor of responsibility for any deviation from the requirements of the Contract Documents.

8. Only final reviewed Shop Drawings are to be used on the Project site.

9. The Work installed shall be reviewed in accordance with the Shop Drawings and the drawings and specifications. Final Review of the Shop Drawings by the Architect shall constitute acceptance by the State and the Architect of a variation or departure that is **clearly identified**. If the contractor believes notations made by the Architect/Engineer increases the value or scope of the CD's, the contractor must provide written notice to the Construction Administrator within seven (7) days of this issue. Final reviewed Shop Drawings shall not replace or be used as a vehicle to issue or incorporate change orders or substitutions. Substitutions shall be submitted in accordance with Division 01 Section 01 25 00 "Substitution Procedures".

J. Shop Drawing For Fire Protection Systems

1. Shop drawings for fire protection systems shall comply with all of the requirements in the section above "Shop Drawings" In addition Sprinkler system shop drawings and hydraulic calculations must be stamped by a professional engineer licensed in the State of Connecticut and must include the DCS project number. **Two (2)** sets of information [as noted in this Section 01 33 00 "Submittal Procedures"] shall be submitted to the State's Insurance Carrier (SIC), and **one (1)** set shall be submitted to the Office of State Fire Marshal (OSFM):

   1.1 Office of State Fire Marshal:
   CT Department of Administrative Services
   Division of Construction Services
   Office of State Fire Marshal
   165 Capitol Ave, Room 258
   Hartford, CT 06106
   Phone: (860) 713-5750

   1.2 State Insurance Carrier (SIC):
   FM Global Factory Mutual Insurance Company
   P.O. Box 9102
   500 River Ridge Drive
   Norwood, MA 02062
   Tel: (781) 440-8000 or FAX (781) 440-8742
   Contact: Costa Terzides (781) 440-8204 or Jeannette Dantona (781) 440-8245

2. Before the shop drawings are submitted to SIC or OSFM, the Architect/Engineer's fire protection consultant must review the sprinkler design for compliance with the code, OSFM, and FM Global requirements.

   2.1 The State Insurance Carrier (SIC) requires **two (2)** weeks prior notice of a sprinkler system acceptance test.

K. Product Data

1. Collect Product Data into a single submittal for each element of construction or system. Product Data includes printed information, schedules, such as manufacturer's installation instructions, catalog cuts, standard color charts, roughing-in diagrams and templates, standard wiring diagrams, and performance curves.

1.1 Mark each copy to show applicable choices and options. Where printed Product Data includes information on several products that are not required, mark copies to indicate the applicable information. Include the following information:

1.1.1 Manufacturer's printed recommendations.

1.1.2 Compliance with trade association standards.

1.1.3 Compliance with recognized testing agency standards.

1.1.4 Application of testing agency labels and seals.

1.1.5 Notation of dimensions verified by field measurement.

1.1.6 Notation of coordination requirements.

1.2 Do not submit Product Data until compliance with requirements of the Contract Documents has been confirmed.

1.3 **Preliminary Submittal:** Submit a preliminary single copy of Product Data where selection of options is required.

1.4 **Submittals:** Submit ***seven (7)*** copies of each required submittal; submit ***five (5)*** copies where required for maintenance manuals. The Architect will retain ***one (1)*** and will return the other marked with action taken and corrections or modifications required.

1.4.1 Unless noncompliance with Contract Document provisions is observed, the submittal may serve as the final submittal.

1.5 **Distribution:** Furnish copies of final submittal to installers, subcontractors, suppliers, manufacturers, fabricators, and others required for performance of construction activities. Show distribution on transmittal forms.

1.5.1 Do not proceed with installation until a copy of Product Data is in the Installer's possession.

1.5.2 Do not permit use of unmarked copies of Product Data in connection with construction.

L. Samples

1. Submit full-size, fully fabricated Samples cured and finished as specified and physically identical with the material or product proposed. Samples include partial sections of manufactured or fabricated components, cuts or containers of materials, color range sets, and swatches showing color, texture, and pattern.

1.1 Store, mount or display Samples on site in the manner to facilitate review of qualities indicated. Prepare Samples to match the Architect's sample. Include the following:

1.1.1 Specification Section number and reference.

1.1.2 Generic description of the Sample.

1.1.3 Sample source.

1.1.4 Product name or name of the manufacturer.

1.1.5 Compliance with recognized standards.

1.1.6 Availability and delivery time.

1.2 Submit Samples for review of size, kind, color, pattern, and texture. Submit Samples for a final check of these characteristics with other elements and a comparison of these characteristics between the final submittal and the actual component as delivered and installed.

1.2.1 Where variation in color, pattern, texture, or other characteristic is inherent in the material or product represented, submit at least ***three (3)*** multiple units that show approximate limits of the variations.

1.2.2 Refer to other Specification Sections for requirements for Samples that illustrate workmanship, fabrication techniques, details of assembly, connections, operation, and similar construction characteristics.

1.2.3 Refer to other Sections for Samples to be returned to the Contractor for incorporation in the Work. Such Samples must be undamaged at

time of use. On the transmittal, indicate special requests regarding disposition of Sample submittals.

1.2.4 Samples not incorporated into the Work, or otherwise designated as the Owner's property, are the property of the Contractor and shall be removed from the site prior to Substantial Completion.

1.3 **Preliminary Submittals**: Submit a full set of choices where Samples are submitted for selection of color, pattern, texture, or similar characteristics from a range of standard choices, unless otherwise noted in specification section.

1.3.1 The Architect will review and return preliminary submittals with the Architects notation, indicating selection and other action.

1.4 **Submittals:** Except for Samples illustrating assembly details, workmanship, fabrication techniques, connections, operation, and similar characteristics, submit ***three (3)*** sets. The Architect will return ***one (1)*** set marked with the action taken.

1.5 Maintain sets of Samples, as returned, at the Project Site, for quality comparisons throughout the course of construction.

1.5.1 Unless noncompliance with Contract Document provisions is observed, the submittal may serve as the final submittal.

1.5.2 Sample sets may be used to obtain final acceptance of the construction associated with each set.

2. **Distribution of Samples:** Prepare and distribute additional sets to subcontractors, manufacturers, fabricators, suppliers, installers, and others as required for performance of the Work. Show distribution on transmittal forms.

2.1 Field samples are full-size examples erected on-site to illustrate finishes, coatings, or finish materials and to establish the Project standard.

2.1.1 Comply with submittal requirements to the fullest extent possible. Process transmittal forms to provide a record of activity.

M. **Quality Assurance Submittals**

1. Submit quality-control submittals, including design data, certifications, manufacturer's instructions, manufacturer's field reports, and other quality-control submittals as required under other Sections of the Specifications.

2. **Certifications:** Where other Sections of the Specifications require certification that a product, material, or installation complies with specified requirements, submit a notarized certification from the manufacturer certifying compliance with specified requirements.

2.1 Signature: Certification shall be signed by an officer of the manufacturer or other individual authorized to sign documents on behalf of the company.

3. **Inspection and Test Reports:** Requirements for submittal of inspection and test reports from independent testing agencies are specified in Division 01 Section 01 45 00 "Quality Control."

N. **Architect's Action:**

1. Except for submittals for the record or information, where action and return is required, the Architect will review each submittal, mark to indicate action taken, and return promptly.

1.1 Compliance with specified characteristics is the Contractor's responsibility.

2. **Action Stamp:** The Architect will stamp each submittal with a uniform, action stamp. The Architect will mark the stamp appropriately to indicate the action taken, as follows:

2.1 **Final Unrestricted Release:** When the Architect marks a submittal "Approved for fabrication," the Work covered by the submittal may proceed provided it complies with requirements of the Contract Documents. Final payment depends on that compliance.

2.2 **Final-But-Restricted Release:** When the Architect marks a submittal "Incorporate Notations," the Work covered by the submittal may proceed provided it complies with notations or corrections on the submittal and requirements of the Contract Documents. Submit corrected copies for record. Final payment depends on that compliance.

2.3 **Returned for Resubmittal:** When the Architect marks a submittal "Rejected, or Revise and Resubmit," do not proceed with Work covered by the submittal, including purchasing, fabrication, delivery, or other activity. Revise or prepare a new submittal according to the notations; resubmit without delay. Repeat if necessary to obtain different action mark.

2.3.1 Do not use, or allow others to use, submittals marked "Rejected, or Revise and Resubmit" at the Project Site or elsewhere where Work is in progress.

2.4 **Other Action:** Where a submittal is for information or record purposes or special processing or other activity, the Architect will return the submittal marked "Action Not Required."

3. **Unsolicited Submittals:** The Architect will discard unsolicited submittals without action.

01 35 16 ALTERATION PROJECT PROCEDURES

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

B. **Summary**

1. This Section includes administrative and procedural requirements for performing alteration and renovation Work.

2. **Related Sections:** The following Sections contain requirements that relate to this Section:

2.1 Division 01 Section 01 31 13 "Project Coordination" for procedures for coordinating cutting and patching with other construction activities.

2.2 Division 01 Section 01 73 29 "Cutting and Patching" for procedures for cutting and patching.

2.3 Division 02 Section 02 41 19 "Selective Structure Demolition" for demolition of selected portions of the building for alterations.

2.4 Refer to other Sections for specific requirements and limitations applicable to performing alteration Work with individual parts of the Work.

2.5 Requirements of this Section apply to mechanical and electrical installations. Refer to Division 21, 22, 23 and 26 Sections for other requirements and limitations applicable to renovation Work by mechanical and electrical installations.

C. **Products For Patching And Extending Work:**

1. **New Materials:** As specified in product sections; match existing Products and Work .for patching and extending Work.

2. **Type and Quality of Existing Products:** Determine by inspecting and testing Products where necessary, referring to existing Work as a standard.

D. **Inspection**

1. **General:**

1.1 Verify that demolition is complete and areas are ready for installation of new Work.

1.2 Beginning of restoration Work means acceptance of existing conditions.

2. **Project Procedures for Work Involving Lead Containing Material (LBP):**

2.1 Exposure levels for lead in the construction industry are regulated by 29 CFR 1926.62. Construction activities disturbing surfaces containing lead-based paint (LBP) which are likely to be employed, such as sanding, grinding, welding, cutting and burning, have been known to expose workers to levels of lead in excess of the Permissible Exposure Limit (PEL). Conduct demolition and removal Work specified in the technical sections of this specification in conformance with these regulations. In addition, construction debris/waste may be classified as hazardous waste. Disposal of hazardous waste material shall be in accordance with 40 CFR Parts 260 through 271 and Connecticut Hazardous Waste Management Regulations Section 22a-209-1; 22a-209-8(c); 22a-449(c)-11; and 22a-449(c)-100 through 110.

2.2 The Contractor's Work shall be based on a child under the age of six (6) in residence; the Work shall also be in accordance with Connecticut Regulations Section 19a-111-1 through 11.

2.3 This facility was constructed prior to 1978 and is likely to have painted surfaces containing lead-based paint.

2.4 In accordance with the United States Environmental Protection Agency's (EPA) Lead-Based Paint Renovation, Repair, and Painting Program (RRP) issued by the EPA on April 22, 2008 and regulated by 40 CFR 745, contractors performing renovation, repair and painting projects that disturb lead-based paint in homes, child care facilities, and schools built before 1978 must be certified and must follow specific work practices to prevent lead contamination. EPA requires that firms performing renovation, repair, and painting projects that disturb lead-based paint in pre-1978 homes, child care facilities and schools be certified by EPA and that they use certified renovators who are trained by EPA-approved training providers to follow lead-safe work practices. The Contractor must be a Renovation Firm that has completed an EPA Lead-Safe Certification Program and be certified to conduct lead-based paint activities and renovations under the RRP rule. The Contractor shall have at least one "Certified Renovator" assigned to jobs where LBP is disturbed.

2.5 Testing for lead-based paint has been conducted at the facility scheduled for renovation, demolition, reconstruction, alteration, remodeling, or repair. Results of the LBP testing are for information purposes only. The results are in **[Section 00 30 00 Available Information]**. Under no circumstance shall this information be the sole means used by the Contractor for determining the extent of LBP. The Contractor shall be responsible for verification of all field conditions affecting performance of the Work.

3. Project Procedures for Work Involving Asbestos Containing Material (ACM):

3.1 The Owner is responsible for abating all ACM that is visible and accessible. This is to be accomplished through a separate project prior to the start of the renovation project. In demolition projects, every attempt should by the owner to remove all ACM.

3.2 If the Contractor should encounter any material suspect or known to contain ACM, he should immediately notify the Construction Administrator of same. It is the State's responsibility to have the material tested and abated (if necessary). The Owner will respond within ***twenty-four (24)*** hours after receiving the Contractor's written request to the Construction Administrator for testing the suspect material. The Owner will abate ACM (if necessary) within a reasonable time period, i.e. within **seven (7)** Calendar Days.

3.3 Testing for asbestos has been conducted at the facility scheduled for renovation, demolition, reconstruction, alteration, remodeling, or repair. Results of the asbestos testing are for information purposes only. The results are in **[Section 00 30 00 Available Information]**. Under no circumstance shall this information be the sole means used by the Contractor for determining the extent of asbestos. The Contractor shall be responsible for verification of all field conditions affecting performance of the Work.

3.4 See also Division 00 General Conditions, Article 23 "Cutting, Fitting, Patching and Digging".

4. Project Procedures for Work Involving Products Containing Persistent Bioaccumulative Toxic Chemicals" (PBT's) such as Polychlorinated Biphenols (PCB's), Di-2-ethylhexyl Phthalate (DEHP), and Mercury:

4.1 The Contractor is responsible for abating all PCB's, DEHP, and mercury prior to the start any work involving construction, renovation or demolition (if necessary).

4.2 Exposure Levels for Products Containing Persistent Bioaccumulative Toxic Chemicals (PBT's) such as PCB's. DEHP, and mercury in the construction industry is regulated by 29CFR1910.1200 and 29CFR1926.28 et. al. Construction, renovation or demolition activities disturbing Products Containing Persistent Bioaccumulative Toxic Chemicals" (PBT's) such as PCB's and DEHP which are likely to be employed. These materials include but are not limited to fluorescent light fixture & exit sign, ballast's, high density discharge (HID) lamps , and certain types of construction products containing

vinyl, and mercury containing electrical switches and thermostats. These activities may expose workers in excess of the respective Permissible Exposure Limit (PEL). Conduct demolition and removal Work specified in the technical sections of these specifications in conformance with these regulations. In addition construction debris/waste may be classified as hazardous waste. Disposal of all hazardous materials shall be in accordance with but not limited to 40CRF Parts 761 Subpart K, 761, and 761.65 and the Connecticut General Hazardous Waste Statute Sec. 22a-454.

4.3 A Survey for Products Containing Persistent Bioaccumulative Toxic Chemicals (PBT's) such as PCB's, DEHP and Mercury has **NOT** been conducted at the facility. Examples include but are not limited to fluorescent light fixture & exit sign, ballast's, high density discharge(HID) lamps , and certain types of construction products containing vinyl, and mercury containing electrical switches and thermostats. It is the Contractors responsibility for verification of all material and field conditions prior to construction, renovation, and demolition that may affect the performance of their Work.

E. Preparation:

1. Cut, move, or remove items as are necessary for access to alterations and renovation Work. Replace and restore at completion.
2. Remove unsuitable material not marked for salvage, such as rotted wood, corroded metals, and deteriorated masonry and concrete. Replace materials as specified for finished Work.
3. Remove debris and abandoned items from area and from concealed spaces.
4. Prepare surface and remove surface finishes to provide for proper installation of new Work and finishes.
5. Close openings in exterior surfaces to protect existing Work and salvage items from weather and extremes of temperature and humidity. Insulate ductwork and piping to prevent condensation in exposed areas.

F. Installation:

1. Coordinate Work of alterations and renovations to expedite completion and if required sequence Work to accommodate Owner occupancy.
2. Remove, cut and patch Work in a manner to minimize damage and to provide restoring Products and finishes to original and or specified condition in accordance with **Section 01 73 29 "Cutting and Patching".**
3. Refinish visible existing surfaces to remain in renovated rooms and spaces, to specified condition for each material, with neat transition to adjacent finishes in accordance with **Section 01 73 29 "Cutting and Patching".**
4. In addition to specified replacement of ***equipment*** and ***fixtures***, restore existing ***plumbing, heating, ventilation, air conditioning, electrical***, systems to full operational condition.
5. Recover and refinish Work that exposes mechanical and electrical Work exposed accidentally during the Work.
6. Install Products as specified in individual sections.

G. Transitions:

1. Where new Work abuts or aligns with existing, perform a smooth and even transition. Patch work to match existing adjacent Work in texture and appearance.
2. When finished surfaces are cut so that a smooth transition with new Work is not possible, terminate existing surface along a straight line at a natural line of division and make recommendation to Architect/Engineer.

H. Adjustments:

1. Where removal of partitions or walls result in adjacent spaces becoming one, rework floors, walls, and ceilings to a smooth plane without breaks, steps, or bulkheads.
2. Where a change of plane of ***¼*** inch in ***12 inches*** or more occurs, request recommendation from Architect/Engineer for providing a smooth transition.
3. Trim existing doors as necessary to clear new floor finish. Refinish trim as required.

4. Fit Work at penetrations of surfaces as specified in Section 01045 "Cutting and Patching".

I. **Repair of Damaged Surfaces:**

1. Patch or replace portions of existing surfaces that are damaged, lifted, discolored, or showing imperfections.

2. Repair substrate prior to patching finish.

J. **Finishes:**

1. Finish surfaces as specified in individual Product sections.

2. Finish patches to produce uniform finish and texture over entire area. When finish cannot be matched, refinish entire surface to nearest intersections.

K. **Cleaning:**

1. In addition cleaning specified in **Section 01 77 00 "Closeout Procedures"**, clean Agency occupied areas of Work.

01 35 19 CONFINED SPACE ENTRY

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

B. **Summary:** If the work involves "Confined Space Entry" then the Owner has identified confined spaces associated with this project (see **Division 00 Section 00 30 00 "Available Information"**.), The Owner has established a permit-required, confined space entry program. Confined spaces that affect the Work of this Project will be defined in accordance with the requirements of OSHA, 29 CFR 1910.146 "Permit-Required Confined Spaces", and the Owner's confined space Entry Plan. In the event that the Contractor must perform work within a permitted "confined space" as defined by Federal OSHA regulations, the Contractor will comply with all safety and monitoring requirements imposed by OSHA relative to work within the permitted confined space.

C. **Definitions:**

1. **Acceptable Entry Conditions:** means the conditions that must exist in a permit space to allow entry and to ensure that employees involved with a permit-required confined space entry can safely enter into and work within the space.

2. **Confined Space:** means a space that:

2.1 Is large enough and so configured that an employee can bodily enter and perform assigned work; and

2.2 Has limited or restricted means for entry or exit (for example, tanks, vessels, silos, storage bins, hoppers, vaults, and pits are spaces that may have limited means of entry.); and

2.3 Is not designed for continuous employee occupancy.

3. **Entry:** means the action by which a person passes through an opening into a permit-required confined space. Entry includes ensuing work activities in that space and is considered to have occurred as soon as any part of the entrant's body breaks the plane of an opening into the space.

4. **Permit-Required Confined Space** (Permit Space): means a confined space that has one or more of the following characteristics:

4.1 Contains or has a potential to contain a hazardous atmosphere;

4.2 Contains a material that has the potential for engulfing an entrant;

4.3 Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or by a floor which slopes downward and tapers to a smaller cross-section; or

4.4 Contains any other recognized serious safety or health hazard.

5. **Permit-Required Confined Space Program** (Permit Space Program): means the employer's overall program for controlling, and, where appropriate, for protecting employees from, permit space hazards and for regulating employee entry into permit spaces.

6. **Permit System:** means the employer's written procedure for preparing and issuing permits for entry and for returning the permit space to service following termination of entry.

D. All proposed entries must be reviewed and approved, in advance, by the Owner and Construction Administrator prior to the Contractor's entry into a permitted confined space.

E. All such compliance measures will be at the Contractor's expense and performed with their own equipment. The Owner reserves the right to suspend the Contractor's operations for any violation of the above-mentioned confined space regulations.

F. The Contractor shall be responsible for obtaining the Permit at no additional cost to the Owner.

01 35 53 SECURITY PROCEDURES

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

B. Provide a security program and facilities to protect work, existing facilities, and Owner's operations from unauthorized entry, vandalism, and theft. Coordinate with Owner's security program.

C. The General Contractor shall be solely responsible for damage, loss, or liability due to theft or vandalism.

D. **Identification Badges for General Contractor's Personnel and Visitors:**

1. The General Contractor will provide each person working or visiting at the site with an identification badge, bearing the name of the General Contractor, subcontractors, design professionals, and a number. As badges are assigns, a record shall be kept by the General Contractor and given to the Construction Administrator and User Agency Administrator. Update and correct the records of all badges issued on a semi-monthly basis.

2. Badges are to be worn on outer garment where visible at all times while at the construction site, return them to the General Contractor's field office at the end of each day and pick them up there each morning.

E. **Parking Stickers:** All vehicles parking in the General Contractor's parking lot and those used around the site require an ID sticker. They will be issued by the User Agency. Each General Contractor shall apply for parking stickers through the Construction Administrator no more than semi-monthly and shall keep record of all stickers issued.

End
Section 01 30 00
Administrative Requirements

01 40 00 QUALITY REQUIREMENTS

A. **Summary:** Section 01 40 00 Quality Requirements contains the following Subsections:

01 42 16	Definitions	Not Used ☐
01 42 19	Reference Standards	Not Used ☐
01 45 00	Quality Control	Not Used ☐
01 45 23	Testing For Indoor Air Quality, Baseline IAQ, & Materials	Not Used ☐

01 42 16 DEFINITIONS

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

B. **Definitions**

1. **General:** Basic contract definitions are included in the General Conditions of the Contract for Construction.

2. **"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. Location is not limited to this term.

3. **"Directed":** Terms such as "directed," "requested," "authorized," "selected," "approved," "required," and "permitted" mean directed by the Architect, requested by the Architect, and similar phrases.

4. **"Approved":** The term "approved," when used in conjunction with the Architect's action on the Contractor's submittals, applications, and requests, is limited to the Architect's duties and responsibilities as stated in the Conditions of the Contract.

5. **"Regulations":** The term "regulations" includes laws, ordinances, statutes, and lawful orders issued by authorities having jurisdiction, as well as rules, conventions, and agreements within the construction industry that control performance of the Work.

6. **"Furnish":** The term "furnish" means supply and deliver to the Project Site, ready for unloading, unpacking, assembly, installation, and similar operations.

7. **"Install":** The term "install" describes operations at the Project Site including the actual unloading, unpacking, assembly, erecting, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning, and similar operations.

8. **"Provide":** The term "provide" means to furnish and install, complete and ready for the intended use.

9. **"Installer":** An installer is the Contractor or another entity engaged by the Contractor, either as an employee, subcontractor, or contractor of lower tier, to perform a particular construction activity, including installation, erection, application, or similar operations. Installers are required to be experienced in the operations they are engaged to perform.

   9.1 The term "experienced," when used with the term "installer," means having a minimum of ***five (5)*** previous projects similar in size and scope to this Project, being familiar with the special requirements indicated, and having complied with requirements of authorities having jurisdiction.

   9.2 **Trades:** Using terms such as "carpentry" does not imply that certain construction activities must be performed by accredited or unionized individuals of a corresponding generic name, such as "carpenter." It also does not imply that requirements specified apply exclusively to tradespersons of the corresponding generic name.

   9.3 **Assigning Specialists:** Certain Sections of the Specifications require that specific construction activities shall be performed by specialists who are recognized experts in those operations. The specialists must be engaged for those activities, and their assignments are requirements over which the Contractor has no option. However, the ultimate responsibility for fulfilling contract requirements remains with the Contractor.

   9.3.1 This requirement shall not be interpreted to conflict with enforcing building codes and similar regulations governing the Work. It is also

not intended to interfere with local trade-union jurisdictional settlements and similar conventions.

10. **"Project Site"**: Is the space available to the Contractor for performing construction activities, either exclusively or in conjunction, with others performing other Work as part of 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 on which the Project is to be built.

11. **"Testing Agencies":** A testing agency is an independent entity engaged to perform specific inspections or tests, either at the Project Site or elsewhere, and to report on and, if required, to interpret results of those inspections or tests.

01 42 19 REFERENCE STANDARDS

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

B. **Industry Standards:**

1. **Applicability of Standards:** Except where the Contract Documents include more stringent requirements, applicable construction industry standards have the same force and effect as if bound or copied directly into the Contract Documents to the extent referenced. Such standards are made a part of the Contract Documents by reference.

2. **Publication Dates:** Comply with the standards in effect as of the date of the Contract Documents unless a specific date is indicated in the Contract Documents or the governing regulations cited herein.

3. **Conflicting Requirements:** Where compliance with ***two (2)*** or more standards is specified and the standards establish different or conflicting requirements for minimum quantities or quality levels, comply with the most stringent and highest quality requirement. Request a decision from the Architect before proceeding on requirements that are different but apparently equal, and where it is uncertain which requirement is the most stringent.

4. **Minimum Quantity or Quality Levels:** The quantity or quality level shown or specified shall be the minimum acceptable. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. To comply with these requirements, indicated numeric values are minimum or maximum, as appropriate, for the context of the requirements. Request a clarification from the Architect regarding uncertainties before proceeding.

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

C. Where copies of standards are needed to perform a required construction activity, the Contractor shall obtain copies directly from the publication source.

1. **Abbreviations and Names:** Trade association names and titles of general standards are frequently abbreviated. Where such acronyms or abbreviations are used in the Specifications or other Contract Documents, they mean the recognized name of the trade association, standards-generating organization, authorities having jurisdiction, or other entity applicable to the context of the text provision. Refer to Thompson Gale's "Encyclopedia of Associations," available in most libraries.

D. **Governing Regulations And Authorities:**

1. **Copies of Regulations:** Obtain copies of the **"latest applicable State Codes"** and the following regulations and retain at the Project Site to be available for reference by parties who have a reasonable need during submittals, planning, and progress of the Work, until Substantial Completion.

1.1 **Connecticut State Building Code –** 2005 Connecticut Supplement.

1.1.1 CT Supplement - 2005.

1.1.2 CT Amendments – 2009, 2011, 2013

1.1.3 International Building Code – 2003.

1.1.4 International Existing Building Code - 2003

1.1.5 International Mechanical Code – 2003.

1.1.6 International Plumbing Code - 2003

1.1.7 International Energy Conservation Code – 2003.

1.1.8 National Electric Code (NFPA 70) – 2005.

1.1.9 ICC/ANSI A117.1-Accessible and Usable Buildings and Facilities - 2003.

1.2. **Connecticut Fire Safety Code –** 2005.

1.2.1 CT Supplement

1.2.2 CT Amendments – 2009, 2012.

1.2.3 International Fire Safety Code – 2003.

1.2.4 NFPA 101 – 2003.

1.3. **Connecticut Fire Prevention Code –** 2015.

1.3.1 NFPA 1 – 2012.

1.4. **Occupational Safety and Health Administration (OSHA)**

1.4.1 OSHA 29 CFR Part 1910 Occupational Safety and Health Regulations – 1999.

1.4.2 OSHA 29 CFR Part 1926 Occupational Safety and Health Regulations for Construction – 1999.

2. For a list of the **"latest applicable State Codes"** and how they can be obtained see www.ct.gov/dcs (Connecticut Department of Administrative Services – Division of Construction Services website) and click on "Office of State Building Inspector". Also visit the www.ctdol.state.ct.us Connecticut Department of Labor website.

E. **Submittals:**

1. **Permits, Licenses, and Certificates:** For the Owner's records, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, correspondence, records, and similar documents.

01 45 00 QUALITY CONTROL

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

B. **Summary**

1. This Section includes administrative and procedural requirements for quality-control services.

2. Quality-Control services include fire alarm acceptance testing, inspections, tests, and related actions, including reports performed by Contractor, by independent agencies, and by governing authorities. They do not include contract enforcement activities performed by the Owner.

3. Inspection and testing services are required to verify compliance with requirements specified or indicated. These services do not relieve Contractor of responsibility for compliance with Contract Document requirements.

4. Requirements of this Section relate to customized fabrication and installation procedures, not production of standard products.

4.1 Specific quality-control requirements for individual construction activities are specified in the Sections that specify those activities. Requirements in those Sections may also cover production of standard products.

4.2 Specified inspections, tests, and related actions do not limit Contractor's quality-control procedures that facilitate compliance with Contract Document requirements.

4.3 Requirements for Contractor to provide quality-control services required by Architect, Owner, or authorities having jurisdiction are not limited by provisions of this Section.

C. **Related Sections:** The following Sections contain requirements that relate to this Section:

1. Division 01 Section **01 33 00 "Submittal Procedures"** specifies requirements for development of a schedule of required tests and inspections.

2. Division 01 Section **01 73 29 "Cutting and Patching"** specifies requirements for repair and restoration of construction disturbed by inspection and testing activities.

3. Division 01 Section **01 77 00 "Closeout Procedures"**, specific requirements for contract closeout procedures.

D. Responsibilities

1. Contractor Responsibilities: Unless otherwise indicated as the responsibility of another identified entity, the Owner, through the Construction Administrator, shall provide inspections, tests, and other quality-control services specified elsewhere in the Contract Documents and required by authorities having jurisdiction. All tests required by the individual specification sections are required to be scheduled and notification given to the Construction Administrator ***24 / 48*** hours in advance of the test/inspection as applicable. Costs for these services are not included in the Contract Sum.

1.1 Where individual Sections specifically indicate that certain inspections, tests, and other quality-control services are the Contractor's responsibility, the Contractor shall employ and pay a qualified independent testing agency to perform quality-control services. Costs for these services are included in the Contract Sum.

1.2 Where individual Sections specifically indicate that certain inspections, tests, and other quality-control services are the Owner's responsibility, the Owner will employ and pay a qualified independent testing agency to perform those services.

1.2.1 Such services include Special Inspections as required by the latest edition of the "Connecticut State Building Code".

1.2.2 Where the Owner has engaged a testing agency for testing and inspecting part of the Work, and the Contractor is also required to engage an entity for the same or related element, the Contractor shall not employ the entity engaged by the Owner. The Owner will engage the services of a qualified Special Inspector for this project. The Special Inspector, as a representative of the Owner, shall document and confirm compliance with the provisions of the Connecticut State Building Code for Special Inspections.

1.2.3 Materials and assemblies for this project will be tested and construction operations inspected as the work progresses. Failure to detect any defective work or material shall not in any way prevent later rejection when such defect is discovered nor shall it obligate the State for final acceptance.

1.2.4 The Owner's use of testing and inspection services shall in no way relieve the Contractor of the responsibility to furnish materials and finished construction in full compliance with the Contract Documents and the Connecticut State Building Code.

2. Retesting: The Contractor is responsible for retesting where results of inspections, tests, or other quality-control services prove unsatisfactory and indicate noncompliance with Contract Document requirements, regardless of whether the original test was Contractor's responsibility.

2.1 The cost of retesting construction, revised or replaced by the Contractor, is the Contractor's responsibility where required tests performed on original construction indicated non-compliance with Contract Document requirements.

2.2 The Owner will issue a credit change order to cover all costs incurred related to all re-tests/re-inspections due to non-compliance to the Contract Documents, including but not limited to the Owner's costs and the Consultant's costs.

3. Associated Services: Cooperate with agencies performing required inspections, tests, and similar services, and provide reasonable auxiliary services as requested. Notify the Agency sufficiently in advance of operations to permit assignment of personnel. Auxiliary services required include, but are not limited to, the following:

3.1 Provide access to the Work.

3.2 Furnish incidental labor and facilities necessary to facilitate inspections and tests.

3.3 Take adequate quantities of representative samples of materials that require testing or assist the agency in taking samples.

3.4 Provide facilities for storage and curing of test samples.

3.5 Deliver samples to testing laboratories.

3.6 ***Provide an approved design mix proposed for use for material mixes that require control by the testing agency.***

3.7 ***Provide security and protection of samples and test equipment at the Project Site.***

4. **Duties of the Testing Agency:** The independent testing agency engaged to perform inspections, sampling, and testing of materials and construction specified in individual Sections shall cooperate with the Construction Administrator, Architect and the Contractor in performance of the testing agency's duties. The testing agency shall provide qualified personnel to perform required inspections and tests.

4.1 The testing agency shall notify the Construction Administrator and the Contractor promptly of irregularities or deficiencies observed in the Work during performance of its services.

4.2 The testing agency is not authorized to release, revoke, alter, or enlarge requirements of the Contract Documents or approve or accept any portion of the Work.

4.3 The testing agency shall not perform any duties of the Contractor.

5. Owner will pay for the services of an independent testing agency laboratory to perform inspections, tests and other services required by the Specifications except as noted below, listed for which the Owner will issue a deduct change order to cover the cost associated with these tests:

5.1 When the Contractor notifies the Construction Administrator and/or Testing Agency less than ***24 hours*** before the expected time of testing.

5.2 When the Contractor requires testing for his own convenience.

5.3 When the Contractor schedules a test and is not ready for the required test.

6. Submit reports of tests that are part of the submittal requirements which indicate compliance or non-compliance with the specified standard.

7. See also General Conditions Article 16 "Inspections & Tests".

E. **Submittals**

1. Unless the Contractor is responsible for this service, the independent testing agency shall submit a certified written report, in duplicate, of each inspection, test, or similar service to the Construction Administrator. If the Contractor is responsible for the service, submit a certified written report, in duplicate, of each inspection, test, or similar service through the Contractor.

1.1 Submit additional copies of each written report directly to the governing authority, when the authority so directs.

1.2 Report Data: Written reports of each inspection, test, or similar service include, but are not limited to, the following:

1.2.1 Date of issue.

1.2.2 Project title and number.

1.2.3 Name, address, and telephone number of testing agency.

1.2.4 Dates and locations of samples and tests or inspections.

1.2.5 Names of individuals making the inspection or test.

1.2.6 Designation of the Work and test method.

.1 Identification of product and Specification Section.

.2 Complete inspection or test data.

.3 Test results and an interpretation of test results.

.4 Ambient conditions at the time of sample taking and testing.

.5 Comments or professional opinion on whether inspected or tested Work complies with Contract Document requirements.

.6 Name and signature of laboratory inspector.

.7 Recommendations on re-testing.

F. **Quality Assurance**

1. **Qualifications for Service Agencies:** Engage inspection and testing service agencies, including independent testing laboratories, that are pre-qualified as complying with the National Voluntary Laboratory Accreditation Program and that specialize in the types of inspections and tests to be performed.

1.1 Each independent inspection and testing agency engaged on the Project shall be authorized by authorities having jurisdiction to operate in the state where the Project is located.

2. **Mockups:** Provide full-size, physical assemblies that are constructed on-site. Mockups will be used to verify selections made under sample submittals, to demonstrate aesthetic effects and, where indicated, qualities of materials and execution, and to review construction, coordination, testing, or operation; they are not samples. ***[Approved mockups establish the standard by which the Work will be judged.]***

G. **Repair And Protection**

General: Upon completion of inspection, testing, sample taking and similar services, repair damaged construction and restore substrates and finishes. Comply with Contract Document requirements for Division 01 **Section 01 73 29 "Cutting and Patching."**

1. Protect constructions exposed by or for quality-control service activities, and protect repaired construction.

2. Repair and protection is Contractor's responsibility, regardless of the assignment of responsibility for inspection, testing, or similar services.

01 45 23 TESTING FOR INDOOR AIR QUALITY, BASELINE IAQ, & MATERIALS

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

B. **Summary;**

1. This Section includes the following:

1.1 Requirements of baseline Indoor Air Quality (IAQ) testing for maximum indoor pollutant concentrations for acceptance of the facility.

1.2 Requirements for independent materials testing of specific materials anticipated to have major impact on IAQ.

1.3 Procedures for testing specific construction materials for IAQ performance to assure compliance with green building rating system credits. Materials have been identified for independent testing based on the following ***three (3)*** criteria:

1.3.1 Large volume of material used in occupied spaces.

1.3.2 The space is occupied during normal working hours.

1.3.3 Materials are used in an area where there is recirculating air.

2. **Related Sections:** The following Sections shall contain requirements that relate to this Section:

2.1 **Divisions 01 through 49** sections for green building rating system requirements specific to the Work of each of those sections. These requirements may or may not include reference to LEED or Green Globes.

2.2 **Division 23 Section 23 05 93 "Testing, Adjusting and Balancing for HVAC"** for additional requirements for baseline testing for IAQ.

2.3 **Division 23 Section 23 05 93 "Testing, Adjusting and Balancing for HVAC"** for cleaning of HVAC system including duct work, air intakes and returns, and changing of filters.

C. **References:**

1. American Society of Heating, Refrigerating and Air Conditioning Engineers (ASHRAE):

1.1 ASHRAE 52.2-1999, Method of Testing General Ventilation Air-Cleaning Devices for Removal Efficiency by Particle Size.

2. ASTM International, Inc. (ASTM):

2.1 ASTM D5116-2006, Standard Guide for Small-Scale Environmental Chamber Determinations of Organic Emissions From Indoor Materials/Products.

3. Sheet Metal and Air Conditioning Contractors' National Association (SMACNA):

3.1 IAQ Guidelines for Occupied Buildings Under Construction, 1995.

4. United States Environmental Protection Agency (EPA):

4.1 Compendium of Methods for the Determination of Air Pollutants in Indoor Air.

D. Submittals:

1. **Baseline IAQ Testing:** Submit a report for each test site specified for IAQ baseline testing as prescribed in **Section 23 05 93 "Testing, Adjusting and Balancing for HVAC".** Report on air concentrations of targeted pollutants as identified in Table 3.1 below.

2. **Product Emissions Test Reports:** Submit a report for each material emissions test performed. Report test results in terms of emission factors that will be used by the Owner to model indoor air concentrations. These reports and the modeling data prepared by the Owner shall be included in the closeout documentation specified in **Section 01 77 00 "Closeout Procedures".**

E. Quality Assurance;

1. Perform material tests and report results in accordance with ASTM D5116.

F. Baseline IAQ Testing:

1. **HVAC System Verification:** To assure compliance with recognized standards for indoor air quality including ASHRAE 62-2004, the Owner's independent testing and balancing agency shall verify the performance of each HVAC system including space temperature and space humidity uniformity, outside air quantity, filter installation, drain pan operation, and any obvious contamination sources.

2. **Indoor Air Quality Testing:** Upon verification of HVAC system operation, the Contractor shall hire an independent contractor, subject to approval by the Architect, with a minimum of ***five (5)*** years experience in performing the types of testing specified herein, to test levels of indoor air contaminants for compliance with specified requirements.

2.1 Submit a test plan for the approval of the Architect. The plan shall specify procedures, times, instrumentation, and sampling methods that will be employed.

2.2 Perform testing in ***sixteen [16]*** different locations. Contaminant levels are to be measured on ***in an area*** agreed upon by the Contractor and the Architect. Areas with very high outside air ventilation rates such as laboratories are excluded from these testing requirements. The Architect is the sole judge of areas exempt from testing.

2.3 Collect air samples on ***three (3) consecutive*** Calendar Days during normal business hours (between the hours of 8:00 AM and 5:00 PM) with building operating at normal HVAC rates. Average the results of each three-day test cycle to determine compliance or non-compliance of indoor air quality for each air handling zone tested.

2.4 Sample and record outside air levels of formaldehyde and TVOC contaminants at outside air intake of each respective air handling unit simultaneously with indoor tests to establish basis of comparison for these contaminant levels. Indoor testing will be done in the breathing zone; between ***four (4)*** and ***seven (7)*** feet from the floor.

2.5 Acceptance of respective portions of ***the building*** by the Architect is subject to compliance with specified limits of indoor air quality contaminant levels.

3. Compliance indoor air quality shall conform to the following standards and limits:

3.1 Carbon Monoxide: Not to exceed nine (9) ppm.

3.2 Carbon Dioxide: Not to exceed 800 ppm.

3.3 Airborne Mold and Mildew: Simultaneous indoor and outdoor readings.

3.4 Maximum Air Concentration Standards: Indoor room air concentration levels, emission rates, and qualities of the listed contaminants shall not exceed the following limits specified in **Table 5.1** below.

4. **Test Reports:** Prepare test reports showing the results and location of each test, a summary of the HVAC operating conditions, a listing of any discrepancies and recommendations for corrective actions, if required.

   4.1 Include certification of test equipment calibration with each test report.

5. If any test fails the standard, the Contractor is responsible to ventilate the building with 100 percent outside air until the building passes both air quality tests and duct inspections. Retesting shall be performed at no additional expense to the Owner.

Table 5.1 Maximum Indoor Air Concentration Standards

Indoor Contaminants	Maximum Air Concentration Levels*
Formaldehyde	50 parts per billion
Particulates (PM10)	50 micrograms per cubic meter
Total Volatile Organic Compounds (TVOC)	500 micrograms per cubic meter
4-Phenylcyclohexene (4-PCH)**	6.5 micrograms per cubic meter
Carbon Monoxide (CO)	9 parts per million and no greater than 2 parts per million above outdoor levels

* All levels must be achieved prior to acceptance of the building. The levels do not account for contributions from office furniture, occupants, and occupant activities.

** This test is only required if carpet and fabrics with styrene-butadiene rubber (SBR) latex backing material are installed in the building.

6. Construction Indoor Air Quality (IAQ) Management Plan (During Construction) Credit: Comply with SMACNA IAQ Guidelines for Occupied Buildings under Construction.

7. Construction Indoor Air Quality (IAQ) Management Plan (Before Construction) Credit:

   7.1 After construction ends, prior to occupancy and with all interior finishes installed, perform a building flush-out by supplying a total air volume of 14000 cu ft of outdoor air per sq ft of floor area while maintaining an internal temperature of at least 60 degrees F and relative humidity no higher than 60 percent.

   7.2 If building occupancy is to occur before completion of the flush-out, deliver a minimum of 3500 cu ft of outdoor air per sq ft of floor area to the space. Once the space is occupied, ventilate it at a minimum rate of 0.30 cfm/sq ft of outside air or the design minimum outside air rate determined in accordance with Sections 4 through 7 of ASHRAE 62.1 or applicable local code, whichever is more stringent. During each day of the flush-out period, begin ventilation a minimum of ***three (3) hours*** prior to occupancy and continue during occupancy. Maintain these conditions until a total of 14000 cu ft/sq ft of outside air has been delivered to the space.

   7.3 Engage an independent testing and inspecting agency to conduct a baseline IAQ testing program according to EPA Compendium of Methods for the Determination of Air Pollutants in Indoor Air.

G. Independent Materials Testing:

1. **Materials That Must Be Tested:** Test materials listed below that are proposed for use on this project for permanent, in-place Indoor Air Quality performance in accordance with requirements of these specifications. Results shall be furnished to the Architect. Materials meeting the criteria for independent testing are as follows:

   1.1 Field applied paint systems on appropriate substrate. Paint primers and intermediate coats (if used) should be applied with a typical drying time allowed between coats (not to exceed ***seven (7)*** Calendar Days).

   1.2 Carpet including manufacturer's recommended adhesive. The carpet will be applied to the appropriate concrete flooring per manufacturer's instructions so that the testing is of the "carpet assembly."

   1.3 Acoustical ceiling tile.

1.4 Fireproofing material applied to appropriate substrate.

2. **Materials for Testing:** Only test representative samples of actual products selected for use on this project. Tests of products generically and/or technically similar but produced by a manufacturer other than that of the product selected for use on this project is invalid.

3. **Materials Testing Parameters:**

3.1 Wrap each material to be tested in air tight covering for shipment direct from the factory to the testing laboratory to avoid contamination in transit. Unwrap material or apply material to substrate if material is wet-applied, such as paint or adhesive materials) in the testing lab.

3.2 Emissions Testing: Perform all testing in accordance with ASTM D5116. Report results in accordance with Section ii of referenced ASTM Standard. Report in terms of emission rates at a minimum of ***three (3)*** distinct time intervals (e.g., ***one (1) hour, 24 hours, 72 hours)*** that will be modeled by the Architect to predict maximum indoor air concentrations and to assist the Contractor in determining suitability of products or materials. Assumptions that will be used for the Architect's model are given below for information.

4. **Table 4.2** summarizes required product testing.

Table 4.2 PRODUCT EMISSION TESTING

PRODUCT ASSEMBLY TO BE TESTED	TVOC (per ASTM)	PM (per NIOSH)
Wall paint on appropriate substrate, including any primer coat	Yes	No
Carpet including adhesive and concrete flooring	Yes	No
Acoustical Ceiling Tile	No	Yes
Fireproofing material on appropriate substrate	No	Yes

5. **Model Assumptions Used for Predicting Indoor Air Concentrations:** The model will assume the standard room enclosure as 10' long x 10' wide x 9' high. Each product tested will be modeled separately to provide information on the particular product. The model will assume a ventilation rate of one (1) air change per hour.

5.1 **Field Applied Paint Systems:** Test fully cured samples of each complete paint system including primers, intermediate coats (if used), and finish coats. The model assumes application to all four (4) walls and one-half of ceiling of model standard room enclosure.

5.2 **Carpet and Adhesive Assembly:** Assumes application to entire 10 x 10 ft floor surface of model standard room enclosure.

5.3 **Acoustical Ceiling Tile:** Assumes application to entire 10 x 10 ft ceiling surface of model standard room enclosure.

5.4 **Fireproofing:** Assumes application to entire 10 x 10 ft area above the ceiling surface of model standard room enclosure.

6. **Materials Test Reports:** Submit test reports to the Architect. The report shall include the information outlined in Section 11 of ASTM D5116.

H. **Product/Material Evaluation:** All products/materials shown by testing to comply with emissions limits and other criteria specified in this section will be approved for use on this project subject to compliance with all other specified requirements of the Project Manual. Products/materials shown by model to exceed specified emission limits shall be discussed, test results interpreted, and a determination made as to alternative product uses or selections.

End
Section 01 40 00
Quality Requirements

01 50 00 TEMPORARY FACILITIES AND CONTROLS

A. **Summary:** Section 01 50 00 Temporary Facilities And Controls contains the following subsections:

01 51 13	Temporary Electricity And Lighting	Not Used ☐
01 51 16	Temporary Fire Protection	Not Used ☐
01 51 23	Temporary Heating, Cooling And Ventilating	Not Used ☒
01 51 33	Temporary Telecommunications	Not Used ☐
01 51 36	Temporary Water	Not Used ☐
01 52 13	Field Offices And Sheds	Not Used ☐
01 52 19	Temporary Sanitary Facilities	Not Used ☐
01 54 00	Construction Aids	Not Used ☐
01 55 13	Temporary Access Roads	Not Used ☒
01 55 16	Haul Routes	Not Used ☐
01 56 00	Temporary Barriers And Enclosures	Not Used ☐
01 56 43	Temporary Protection	Not Used ☐
01 57 19	Temporary Environmental Controls	Not Used ☐
01 57 21	Environmental Management	Not Used ☐
01 57 23	Temporary Storm Water Control	Not Used ☒
01 57 30	Indoor Environmental Control	Not Used ☒
01 57 40	Construction Indoor Air Quality Management Plan	Not Used ☐
01 58 13	Temporary Project Signage	Not Used ☒

01 51 13 TEMPORARY ELECTRICITY AND LIGHTING

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

B.

Connect to existing service, provide branch wiring and distribution boxes located to provide power and lighting by construction-grade extension cords. Owner will pay cost of energy used. Take measures to conserve energy. Provide lighting for construction operations. At the termination of construction, return the facilities to their original condition.

01 51 16 TEMPORARY FIRE PROTECTION

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

B. The Contractor, during construction, shall be responsible for loss or damage by fire to the work until Acceptance of the Work. Any fire used within the structure for working purposes shall be extinguished when not in use. Bitumen or tar shall be melted on the ground only. No flammable material shall be stored in the structure in excess of amounts allowed by the authorities. No gasoline shall be stored in or close to the building at any time. The Contractor shall assign a responsible employee to be in charge of fire protection measures.

C. If an EPDM or other single-ply roof is included in the work that requires cleaning of mating surfaces of laps with gasoline, limit amount of gasoline on roof to 2 gallons which shall be in U.L. listed containers. Also provide one 30 B:C fire extinguisher within 75 feet of any point on the roof.

01 51 23 TEMPORARY HEATING, COOLING, AND VENTILATING (NOT APPLICABLE FOR THIS PROJECT)

01 51 33 TEMPORARY TELECOMMUNICATIONS

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

B. Public pay phones are not available at the existing facility, but the Agency, with prior notification, will make a phone available for local calls. All pay calls shall be logged and paid by the Contractor.

01 51 36 TEMPORARY WATER

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

B. **Existing Water Service:** Water for construction purposes may be taken from the existing service. The Contractor shall provide connections, approved backflow prevention device, meter and pipe to the water main or nearest hydrant, subject to the approval of DCS. Upon completion of work, the Contractor shall remove the temporary connections and backfill if necessary. If new water service is installed before construction is complete, the new system may be used provided it is returned to the Owner in as-new condition. The Contractor shall pay for the water used, as metered.

01 52 13 FIELD OFFICES AND SHEDS

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

B. **Storage and Fabrication Sheds:** Install storage and fabrication sheds sized, furnished, and equipped to accommodate materials and equipment involved, including temporary utility service. Sheds may be open shelters or fully enclosed spaces within the building or elsewhere on-site.

1. Storage sheds for tools, materials and equipment shall be weathertight with heat, lighting and ventilation for products requiring controlled conditions.
2. Remove temporary materials, equipment services and construction before Substantial Completion.
3. Clean and repair damage caused by installation or use of temporary facilities. Restore existing facilities used during construction to be specified or to original condition.

01 52 19 TEMPORARY SANITARY FACILITIES

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

B. **General Contractor's Construction Work:** Provide toilet facilities for General Contractor's and subcontractor's employees engaged on the Project, including employees of other contractors in accordance with the OSHA Table D-1 (29CFR CH.XVII, OSHA Standard 1926.51) below. Locate toilets where directed and maintain them in a sanitary condition.

Number Of Employees	Minimum Number Of Facilities*
20 or less	1 toilet
20 or more	1 toilet and 1 urinal per 40 employees
200 or more	1 toilet and 1 urinal per 50 employees
*Toilet/Urinal Combinations shall count as only one facility.	

1. Job sites, not provided with a sanitary sewer, shall be provided with one of the following toilet facilities unless prohibited by State Codes:
   - 1.1 Chemical toilets;
   - 1.2 Recirculating toilets;
   - 1.3 Combustion toilets.
2. Inside buildings, locate toilet facilities no more than 4 stories or 60 feet above or below, nor more than 500 feet travel on the same level from the work location of any person.
3. Locate toilet facilities no more than 1000 feet from any work location.

C. The General Contractor shall provide, where directed, chemical toilets with toilet tissue, plus wash basins with water, soap and paper towels. The General Contractor shall maintain the facilities in a sanitary condition.

D. If women are employed in the work, provide separate, designated facilities for them of the same kind. Provide an adequate number of each kind of facility for each gender.

01 54 00 CONSTRUCTION AIDS

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

B. The General Contractor shall furnish tools, apparatus and appliances, hoists and/or cranes and power for same, scaffolding, runways, ladders, temporary supports and bracing and similar work or material necessary to insure convenience and safety in the execution of the Contract Documents except where this is otherwise specified in any Technical Specification Section. All such items shall meet the approval of DCS but responsibility for design, strength, and safety shall remain with the General Contractor. All such items shall comply with Federal OSHA regulations and applicable codes, statutes, rules and regulations, including compliance with the requirements of the current edition of the "Manual of Accident Prevention in Construction" published by the A.G.C. (Associated General Contractors of America) and the standards of the Connecticut Department of Labor (DOL).

C. Staging/laydown areas, exterior, and interior, required for the execution of the Contract Documents, shall be furnished, erected, relocated if necessary, and removed by the general Contractor. Staging/laydown shall be maintained in a safe condition without charge to the Owner and for the use of all trades as needed.

01 55 13 TEMPORARY ACCESS ROADS - (NOT APPLICABLE FOR THIS PROJECT)

01 55 16 HAUL ROUTES

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

B. The General Contractor may use on-site paved roads and parking areas but shall not encumber same or their access. Public highways shall not be blocked by standing trucks, parked cars, material storage, and construction operations or in any other manner.

C. Public roads and existing paved roads, drives and parking areas on Owner's property shall be kept free from scrap or debris due to construction operations and any damage to their surface caused by the General Contractor shall be repaired by him at his own expense.

D. If the work of the Contract affects public use of any street, road, highway, or thoroughfare, the General Contractor shall confer with the police authority having jurisdiction to determine if and how many police are needed for public safety in addition to any barriers and signals that may be needed. The General Contractor will be responsible for payment of any needed police services.

01 56 00 TEMPORARY BARRIERS AND ENCLOSURES

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

B. Provide barriers to prevent public entry into construction areas and to protect existing facilities from damage by construction operations.

C. Before excavation begins, install an enclosure fence with lockable entrance gates. Locate where indicated on the Construction Documents, or enclose the entire construction site or the portion determined sufficient to accommodate construction operations. Install in a manner that will prevent people, dogs, and other animals from easily entering the site, except by the entrance gates.

1. **Chain Link Fence:** Provide chain link construction fencing with posts set in a compacted mixture of gravel and earth. Use a ***six (6)*** foot-high (minimum) chain link fence with top rail and filter fabric screening. At completion of the project, the Contractor must remove the construction fence completely, including all portions of below-ground footings. Fence posts must be removed, not sawn off flush with the soil line.

2. **Security Enclosure and Lockup:** Install substantial temporary enclosure of partially completed areas of construction. Provide locking entrances to prevent unauthorized entrance, vandalism, theft, and similar violations of security. Provide keys to the Construction Administrator.

3. **Storage/laydown areas:** Where materials and equipment must be stored, and are of value or attractive for theft, provide a secure lockup. Enforce discipline in connection with the installation and release of material to minimize the opportunity for theft and vandalism.

D. Provide covered walkways as required by governing authorities for public rights-of-way and for public access to existing buildings.

E. Provide barriers around **all** trees and plants designated to remain. Protect against vehicular traffic, materials' dumping, chemically injurious materials, puddles, or running water.

F. Provide temporary, insulated, weathertight closures at openings to the exterior to provide acceptable working conditions and protection for materials, to allow for temporary heating and to prevent entry of unauthorized persons. Provide doors with self-closing hardware and locks.

G. Barriers and enclosures shall be in conformance with code requirements. Do not block egress from occupied buildings unless necessary to further the work of the Contract. In this case, secure the Department's approval of an alternate egress plan.

H. See also **Division 00 General Condition, Article 19 "Protection of the Work, Persons, and Property.**

01 56 43 TEMPORARY PROTECTION

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

B. Protect buildings, equipment, furnishings, grounds, and plantings from damage. Any damage shall be repaired or otherwise made good at no expense to the State.

C. Provide protective coverings and barricades to prevent damage. The General Contractor shall be held responsible for, and must make good at his own expense, any water, or other type of damage due to improper coverings. Protect the public and building personnel from injury.

D. Provide temporary protection for installed products. Control traffic in immediate area to minimize damage.

E. Provide protective coverings for walls, projections, jambs, sills and soffits of openings. Protect finished floors and stairs from traffic, movement of heavy objects and storage. Prohibit traffic and storage on waterproofed and roofed surfaces and on lawn and landscaped areas.

F. See also **Division 00 General Condition, Article 19 "Protection of the Work, Persons, and Property.**

01 57 19 TEMPORARY ENVIRONMENTAL CONTROLS

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

B. **Temporary Environmental Controls:** General Contractor is to provide the following controls.

1. **Rodent and Pest Control:** Before deep foundation work has been completed, retain a local exterminator or pest control company to recommend practices to minimize attraction and harboring of rodents, roaches, and other pests. Employ this service to perform extermination and control procedures at regular intervals so the Project will be free of pests and their residues at materials.
2. Dust Control (construction and demolition);
3. Noise Control;
4. Erosion and Sediment Control;
5. Pollution Control;
6. Traffic Control.

01 57 21 ENVIRONMENTAL MANAGEMENT

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

B. **Summary:**

1. This Section includes the following:

1.1 Special requirements for environmental management during construction operations.

1.2 Monitoring requirements.

C. **Related Sections:** The following Sections contain requirements that relate to this Section:

1. Division 01 **Section 01 45 00 "Quality Control"** for Meetings and project coordination.

2. Division 01 **Section 01 81 13 "Sustainable Design Requirements"** for Closeout Documentation

D. **Definitions:**

1. Definitions pertaining to sustainable development: As defined in ASTM E2114.

2. Environmental pollution and damage: The presence of chemical, physical, or biological elements or agents which adversely affect human health or welfare; unfavorably alter ecological balances; or degrade the utility of the environment for aesthetic, cultural, or historical purposes.

E. **Preconstruction Meeting**

1. After award of Contract and prior to the commencement of the Work, schedule and conduct meeting with Owner and Architect to discuss the proposed Environmental Protection Plan and to develop mutual understanding relative to details of environmental protection.

2. Schedule meeting in conjunction with preconstruction meeting for Environmental Regulatory Requirements.

3. Verify procedures and requirements necessary to ensure implementation of Environmental Protection Plan is coordinated with applicable environmental regulatory requirements.

F. **Submittals**

1. **Environmental Protection Plan:** Not less than ***ten (10)*** days before the Pre-construction meeting, prepare and submit an Environmental Protection Plan.

1.1 **Format:** At a minimum, address the following elements:

.1 ***Identification of Project;***

.2 ***Identification and contact information for Environmental Manager;***

.3 ***General site information;***

.4 ***Summary of Plan;***

.5 ***Procedures to address water resources;***

.6 ***Procedures to address land resources;***

.7 ***Procedures to address air resources;***

.8 ***Procedures to address fish and wildlife resources;***

.9 ***Monitoring procedures.***

1.2 Revise and resubmit Plan as required by Owner.

.1 Approval of Contractor's Plan will not relieve the Contractor of responsibility for compliance with applicable environmental regulations.

2. Reports for Field Quality Control.

G. **Environmental Protection**

1. **Protection of natural resources:** Comply with applicable regulations and these specifications. Preserve the natural resources within the Project boundaries and outside the limits of permanent Work performed under this Contract in their existing condition or restore to an equivalent or improved condition as approved by Owner.

1.1 Confine demolition and construction activities to ***[work area limits indicated on the Drawings] [maximum 40 feet beyond the building perimeter, 10 feet beyond solid paving, and 25 feet beyond pervious paving].***

1.1.1 Disposal operations for demolished and waste materials that are not identified to be salvaged, recycled or reused:

.1 Remove debris, rubbish, and other waste materials resulting from demolition and construction operations, from site.

.2 No burning permitted.

.3 Transport materials with appropriate vehicles and dispose off-site to areas that are approved for disposal by governing authorities having jurisdiction.

.4 Avoid spillage by covering and securing loads when hauling on or adjacent to public streets or highways. Remove spillage and sweep, wash, or otherwise clean project site, streets, or highways.

1.2 **Water resources**: Protect groundwater resources from contaminants.

1.2.1 Comply with requirements of the National Pollutant Discharge Elimination System (NPDES) and the State Pollutant Discharge Elimination System (SPDES).

1.2.2 Oily substances: Prevent oily or other hazardous substances from entering the ground, drainage areas, or local bodies of water.

.1 Store and service construction equipment at areas designated for collection of oil wastes.

1.2.3 Mosquito abatement: Prevent ponding of stagnant water conducive to mosquito breeding habitat.

1.2.4 Prevent run-off from site during demolition and construction operations.

1.2.5 Stream Crossings: ***[Equipment will not be permitted to ford live streams.] [Equipment will be permitted to ford live streams if temporary culverts or bridges are constructed for the purpose. Remove temporary culverts and bridges upon completion of work and repair the area to its original condition, unless otherwise accepted in writing by Owner.]***

1.3 **Land resources:** Prior to construction, identify land resources to be preserved within the Work area. Do not remove, cut, deface, injure, or destroy land resources including trees, shrubs, vines, grasses, topsoil, and landforms without permission from Owner.

1.3.1 Conserve distinctive ***[geological] [topographical] [historic]*** features and character

1.3.2 **Earthwork:** As specified in the applicable Specification Section under Division 31 Earth Work and as follows:

.1 **Erodible soils:** Plan and conduct earthwork to minimize the duration of exposure of unprotected soils, except where the constructed feature obscures borrow areas, quarries, and waste material areas. Clear areas in reasonably sized increments only as needed to use the areas developed. Form earthwork to final grade as shown. Immediately protect side slopes and back slopes upon completion of rough grading.

.2 Delineate work zones so as to restrict compaction of soil elsewhere.

.3 Delineate buffer zones around moist ***areas [and shorelines].***

.4 Erosion and sedimentation control devices: Construct or install temporary and permanent erosion and sedimentation control features as required.

1.3.3 **Tree and plant protection:**

.1 Prior to start of construction, tag each tree and plant scheduled to remain with value as approved by Owner. In the event of damage to tree or plant, Owner may at Owner's

discretion, deduct the indicated value of the damaged tree or plant from the Contract Sum.

1.4 **Air Resources**: Comply with IAQ Management Plan and as follows:

1.4.1 Prevent creation of dust, air pollution, and odors.

1.4.2 Sequence construction to avoid disturbance to site to the greatest extent possible.

1.4.3 Use mulch, water sprinkling, temporary enclosures, and other appropriate methods to limit dust and dirt rising and scattering in air to lowest practical level.

.1 Do not use water when it may create hazardous or other adverse conditions such as flooding and pollution.

1.4.4 Store volatile liquids, including fuels and solvents, in closed containers.

1.4.5 Properly maintain equipment to reduce gaseous pollutant emissions.

1.5 **Fish and Wildlife Resources:** Manage and control construction activities to minimize interference with, disturbance of, and damage to fish and wildlife.

1.5.1 Do not disturb fish and wildlife.

1.5.2 Do not alter water flows or otherwise significantly disturb the native habitat related to the project and critical to the survival of fish and wildlife, except as indicated or specified.

1.5.3 Identify and conserve wildlife corridors that intersect the site.

H. **Field Quality Control**

1. **General:**

1.1 Comply with requirements of agencies having jurisdiction and as specified herein.

1.2 Provide field practices, shipping, and handling of samples in accordance with ASTM D4840.

2. **Field Quality Control Reports:** Provide in accordance with approved Environmental Protection Plan.

01 57 23 TEMPORARY STORM WATER CONTROL (NOT APPLICABLE FOR THIS PROJECT)

01 57 30 INDOOR ENVIRONMENTAL CONTROL

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

B. **Summary:**

1. This Section includes the following:

1.1 Microbial and fungal contamination control.

1.2 Indoor air quality and pollution control.

1.3 Heating, ventilating, and air conditioning.

2. **Related Sections:** The following Sections contain requirements that relate to this Section:

2.1 Division 01 **Section 01 45 23 "Testing for IAQ, Baseline IAQ & Materials"** for building flush out requirements.

2.2 Division 01 **Section 01 57 40 "Construction IAQ Management Plan"** for a description of the IAQ management plan.

C. **References:**

1. **ASTM International (ASTM):**

1.1 ASTM D5116-2006, Standard Guide for Small-Scale Environmental Chamber Determination of Organic Emissions From Indoor Materials/Products.

D. Microbial And Fungal Contamination Control:

1. Perform, schedule, and sequence Work as required to limit conditions supporting formations of microbes, molds, and fungi.
   - **1.1** Control water penetration, dampness, and humidity to prevent products not treated for exterior use from becoming soaked or damp.
   - **1.2** Enclose building prior to installing interior materials and finishes.
   - **1.3** Do not install interior products subject to moisture absorption until building is enclosed and wet work generating moisture and humidity is complete.
2. When visible formations are observed and when formations cannot be completely removed by non-abrasive surface cleaning:
   - **2.1** Remove and replace materials identified as food sources for microbes, molds, and fungi.
   - **2.2** Correct conditions supporting microbial, mold, and fungal growth.
3. Remove interior products and finishes, identified as food sources that have absorbed sufficient moisture to become damp whether or not microbial, mold, or fungal growth is observed. Include:
   - **3.1** Gypsum board cores.
   - **3.2** Organic materials composed of cellulose fiber or paper.
   - **3.3** Materials containing sucrose or other binders identified as supporting microbial growth.
4. Remove fibrous insulation materials subject to retaining moisture such as duct liner, insulation, and other materials that are made wet or damp and cannot immediately be made dry.
5. Repair or replace ductwork, pans, and other conditions subject to moisture condensation, water penetration, or other water source not drained and made dry.
   - **5.1** Remove conditions that have become an environment for microbes, molds, or fungi.
   - **5.2** Do not permit conditions leading to standing water.
6. Install wet work and allow time needed to dry and cure prior to installing materials such as carpet, acoustical material, textiles, and other material of type that may attract and retain moisture.

E. Indoor Air Quality and Pollution Control:

1. Product Emission Rate Standards: Test to ASTM D5116 for maximum indoor air concentration levels.
   - **1.1 Formaldehyde:**
     - **1.1.1** 0.03 parts per million where no other requirements are specified.
     - **1.1.2** 0.005 parts per million where products are specified as formaldehyde free.
   - **1.2 Total VOC Emissions for Carpet Tile, Adhesives, and Sealers:** 0.05 mg/m^2 per hour.
   - **1.3 4 Phenyl Cyclohexene (4-PC) Particulate Emissions for Carpet:** One (1) part per billion.
   - **1.4 Total Particulate Emission Rate Levels:** 50 ug/m^3.
   - **1.5 Primary and Secondary Regulated Pollutants:** Conform to USEPA, Code of Federal Regulations, Title 40, Part 50 National Air Ambient Air Quality Standard. Refer to EPA Web Site:

     http://www.epa.gov/epahome/rules.html#codified.
   - **1.6** Other Pollutants Not Listed: Not greater than 1/10 of Threshold Limit Value - Time Weighted Average (TLV-TWA) industrial workplace standard.
2. **Architectural Coatings - Volatile Organic Compound (VOC) Content Limits:** Conform to US Environmental Protection Agency (EPA) Federal Register 48886/Vol. 63, No.176 Friday, September 11, 1998/ Rules and Regulations. Refer to EPA Web Site: http://www.epa.gov/ttn/atw/eparules.html.

3. Do not use products in combination with or in contact with other products that can be identified as combining to form toxic fumes or sustained odors.

4. Do not use solvents within interior areas that may penetrate and be retained in absorptive materials such as concrete, gypsum board, wood, cellulose products, fibrous material, and textiles.

5. Protect construction materials from contamination and pollution from contact with construction dust, debris, fumes, solvents, and other environmentally polluting materials.

6. Allow furnishings and materials such as carpet, floor tile, acoustical tile, textiles, office furniture, and casework, to air out in clean environment prior to installation.

F. **Heating, Ventilating, and Air Conditioning (HVAC)**

1. Do not run permanent HVAC system during course of construction. Seal ductwork intake and exhaust vents.

2. Heat, dehumidify, and ventilate building during course of Work as necessary to maintain environmental conditions suitable for drying and curing materials and for prevention of conditions suitable for mold and mildew growth.

2.1 Ventilate building to remove moisture, dust, fumes, and odors.

2.2 Temper and dehumidify air as needed to remove excess moisture.

2.3 Do not use propane heaters and other moisture generating heating systems.

3. Flush out building prior to commissioning. Refer to **Section 01 45 23 Testing For Indoor Air Quality, Baseline IAQ, & Materials** for procedure.

4. Inspect ductwork for refuse, contaminants, moisture and other foreign contamination prior to commissioning. Notify Commissioning Authority (CxA) of satisfactory inspection prior to beginning of Commissioning.

5. Clean underfloor plenum at access flooring acting as supply air duct, prior to occupancy.

G. **Remedial Action:**

1. Promptly take action as necessary to inspect and remediate conditions suspected of supporting microbial, fungal or mold conditions and where contaminated by indoor air pollution.

2. Notify and consult with Architect prior to beginning remedial action where contamination by hazardous chemicals, microbes, and fungi is suspected.

01 57 40 CONSTRUCTION INDOOR AIR QUALITY MANAGEMENT PLAN

A. **Related Documents:** Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 specification sections, apply to this section.

B. **Summary:**

1. This Section includes:

1.1 Description of a Construction Indoor Air Quality (IAQ) Management Plan.

1.2 IAQ construction requirements.

2. **Related Sections:** The following Sections contain requirements that relate to this Section:

2.1 Divisions 01 through 49 sections for green building rating system requirements specific to the Work of each of those sections. These requirements may or may not include reference to LEED.

2.2 Division 01 Section 01 45 23 "Testing for IAQ, Baseline IAQ, & Materials."

2.3 Division 01 Section 01 57 30 "Indoor Environmental Control."

2.4 Division 01 Section 23 05 93 "Testing, Adjusting and Balancing for HVAC" for additional requirements for baseline testing for IAQ.

2.5 Division 01 Section 23 05 93 "Testing, Adjusting and Balancing for HVAC" for cleaning of HVAC system including ductwork, air intakes and returns, and changing of filters.

C. **References:**

1. **American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc. (ASHRAE):**

1.1 ASHRAE Standard 52.1 INT1-2007, Gravimetric and Dust Spot Procedures for Testing Air Cleaning Devices in General Ventilation for Removing Particulate Matter.

2. **ASTM International, Inc. (ASTM):**

2.1 ASTM D5116-2006, Standard Guide for Small-Scale Environmental Chamber Determinations of Organic Emissions From Indoor Materials/Products.

3. **Sheet Metal and Air Conditioning National Contractors' National Association (SMACNA):**

3.1 IAQ Guidelines for Occupied Buildings Under Construction ANSI/SMACNA 008-2008.

D. **Indoor Air Quality:**

1. **Goals:** The Owner has set the following indoor air quality goals for jobsite operations on the project, within the limits of the construction schedule, Contract Sum, and available materials, equipment, products and services. Goals include:

1.1 Protect workers on the site from undue health risks during construction.

1.2 Prevent residual problems with indoor air quality in the completed building.

E. **Submittals:**

1. **Indoor Air Quality Plan:** Within ***fourteen 14*** Calendar Days after receipt of ***[Notice of Award]*** ***[Insert]*** and prior to any waste removal from the project, develop and submit for review a healthy indoor air quality plan. The plan shall include:

1.1 List of IAQ protective measures to be instituted on the site.

1.2 Schedule for inspection and maintenance of IAQ measures.

F. **Quality Assurance:**

1. Perform material tests and report results in accordance with ASTM D5116.

G. **Substitutions:**

1. Should the Contractor desire to use procedures, materials, equipment, or products that are not specified but meet the intent of the specifications to protect indoor air quality on the site, the Contractor shall propose these substitutions in accordance with **Section 01 60 00 "Product Requirements."**

H. **Materials:**

1. Low emitting products have been specified in appropriate sections.

I. **Construction IAQ Management Plan:**

1. Meet or exceed the minimum requirements of the **SMACNA "IAQ Guidelines for Occupied Buildings Under Construction ANSI/SMACNA 008-2008."**

1.1 Protect the ventilation system components from contamination, OR provide cleaning of the ventilation components exposed to contamination during construction prior to occupancy.

1.2 After construction ends, prior to occupancy and with all interior finishes installed, perform a building flush-out by supplying a total air volume of 14000 cu ft of outdoor air per sq ft of floor area while maintaining an internal temperature of at least 60 degrees F and relative humidity no higher than 60 percent.

1.2.1 ***[Insert reference to specification section where building air flush-out is specified in detail or insert requirements here.]***

1.3 If building occupancy is to occur before completion of the flush-out, deliver a minimum of 3500 cu ft of outdoor air per sq ft of floor area to the space. Once the space is occupied, ventilate it at a minimum rate of 0.30 cfm/sq ft of outside air or the design minimum outside air rate determined in accordance with the applicable Sections of **ANSI/ASHRAE Standard 62.1-2007, Ventilation for Acceptable Indoor Air Quality** or applicable local code, whichever is more stringent. During each day of the flush-out period, begin ventilation a

minimum of three (3) hours prior to occupancy and continue during occupancy. Maintain these conditions until a total of 14000 cu ft/sq ft of outside air has been delivered to the space.

2. During installation of carpet, paints, furnishings, and other VOC-emitting products, provide supplemental (spot) ventilation for at least s***eventy-two (72)*** hours after work is completed. Preferred HVAC system operation uses supply air fans and ducts only; exhaust provided through windows. Use exhaust fans to pull exhaust air from deep interior locations. Stair towers and other paths to exterior can be useful during this process.

3. Conduct regular inspection and maintenance of indoor air quality measures including ventilation system protection, and ventilation rate.

4. Require VOC-safe masks for workers installing VOC-emitting products (interior and exterior) defined as products that emit 150 gpl or more UNLESS local jurisdiction's requirements are stricter, in which case the strictest requirements shall be followed for use of VOC-safe masks.

5. Use low-toxic cleaning supplies for surfaces, equipment, and worker's personal use. Options include several domestically produced biobased, soybean-based solvents cleaning products options, and citrus-based cleaners.

6. Use wet sanding for gypsum board assemblies. Exception: Dry sanding allowed subject to Architect's approval of the following measures:

   6.1 Full isolation of space undergoing finishing.

   6.2 Plastic protection sheeting is installed to provide air sealing during sanding.

   6.3 Closure of all air system devices and ductwork.

   6.4 Sequencing of construction precludes the possibility of contamination of other spaces with gypsum dust.

   6.5 Worker protection is provided.

7. Use safety meetings, signage, and Contractor agreements to communicate the goals of the construction indoor air quality plan.

01 58 13 TEMPORARY PROJECT SIGNAGE - (NOT APPLICABLE FOR THIS PROJECT)

End
Section 01 50 00
Temporary Facilities And Controls

01 60 00 PRODUCT REQUIREMENTS

A. **Summary:** Section 01 60 00 Product Requirements contains the following subsections:

01 60 00	**Product Requirements**

01 60 00 PRODUCT REQUIREMENTS

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

B. **Materials and Equipment:** Shall be delivered, stored and handled to prevent intrusion of foreign matter and damage by weather or breakage. Packaged materials shall be delivered and stored in original, unbroken packages.

1. Promptly inspect shipments to assure that products comply with requirements, that quantities are correct and products are undamaged.
2. Packages, materials and equipment showing evidence of damage will be rejected and replaced at no additional cost to the Owner.

C. **Storage and Protection:**

1. Store products in accordance with manufacturers' instructions with seals and labels intact and legible. Store sensitive products in weathertight enclosures; maintain within temperature and humidity range required by manufacturer.
2. For exterior storage of fabricated products, place on sloped supports above ground. Cover products subject to deterioration with impervious sheet covering; provide ventilation to avoid condensation.
3. Store loose granular material on solid surfaces in a well-drained area; prevent mixing with foreign matter.
4. Arrange storage to provide access for inspection. Periodically inspect to insure products are undamaged and are maintained under required conditions. Keep log showing date, time and problems, if any.
5. Stone, masonry units and similar materials shall be stored on platforms or dry skids and shall be adequately covered and protected against damage.
6. The Contractor shall prepare, as directed by the Owner, one area or space in the building for storage of State-owned equipment.

End
Section 01 60 00
Product Requirements

01 70 00 EXECUTION AND CLOSEOUT REQUIREMENTS

A. **Summary:** Section 01 70 00 Execution and Closeout Procedures contains the following subsections:

01 71 23	Field Engineering	Not Used ☒
01 73 29	Cutting and Patching	Not Used ☐
01 74 13	Progress Cleaning	Not Used ☐
01 74 19	Construction Waste Management & Disposal	Not Used ☒
01 75 00	Starting And Adjusting	Not Used ☒
01 77 00	Closeout Procedures	Not Used ☐
01 78 23	Operation And Maintenance Data	Not Used ☐
01 78 30	Warranties And Bonds	Not Used ☐

01 71 23 FIELD ENGINEERING (NOT APPLICABLE FOR THIS PROJECT)

01 73 29 CUTTING AND PATCHING

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

B. It is the responsibility of the Contractor to provide chases, channels or openings where needed.

C. The Contractor shall install sleeves, inserts, and hangers furnished by the trades needing same.

D. After installing work into openings, channels, and/or chases, the Contractor shall close same. If finishes are to be restored, the new work shall match the original and shall be done by the trade customarily responsible for the particular kind of work.

E. Written permission shall be obtained from the Contractor before cutting beams, arches, lintels or other structural members.

F. Requirements for Structural Work: Do not cut and patch structural elements in a manner that would change their load-carrying capacity or load-deflection ratio.

1. Contractor shall obtain written approval from the Architect/Engineer of the cutting and patching proposal before cutting and shall submit all Architect/Engineer approval letters to the Construction Administrator before patching the following structural elements:

*1.1 **Foundation construction.***

*1.2 **Bearing and retaining walls.***

*1.3 **Structural concrete.***

*1.4 **Structural steel.***

*1.5 **Lintels.***

*1.6 **Structural decking.***

*1.7 **Miscellaneous structural metals.***

*1.8 **Exterior curtain-wall construction.***

*1.9 **Equipment supports.***

*1.10 **Piping, ductwork, vessels, and equipment.***

*1.11 **Structural systems of special construction in Division 13 Sections.***

G. Do cutting and patching to integrate all elements of the work. Provide penetrations of existing surfaces. Provide samples for testing. Seal penetrations through floors, walls, ceilings, and roofs, as applicable; restore or preserve fire-rated and smoke-barrier construction. Construction and finishes shall match original work.

H. The Contractor shall verify dimensions for built-in work and/or work adjoining that of other trades before ordering any material or doing any work. Discrepancies shall be submitted to the Construction Administrator before proceeding with the work.

I. Existing Warranties: Replace, patch, and repair material and surfaces cut or damaged by methods and with materials in such a manner as not to void any warranties required or existing.

J. Also see Division 00 General Conditions **Article 23 "Cutting, Fitting, Patching, and Digging".**

01 74 13 PROGRESS CLEANING

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

B. **This Section includes:**

1. Cleaning requirements during construction operations.
2. Final cleaning prior to turning the project over to the Owner.

C. **Quality Assurance**

1. Coordinate with **Section 01 57 21 – Environmental Management.**
2. Coordinate with **Section 01 77 00 – Closeout Procedures.**

2.1 Contractor shall provide progress cleaning that minimizes sources of food, water, and harborage available to pests.

D. Utilize non-toxic cleaning materials and methods.

1. Use natural cleaning materials where feasible. Natural cleaning materials include:

1.1 abrasive cleaners: substitute 1/2 lemon dipped in borax.

1.2 ammonia: substitute vinegar, salt and water mixture, or baking soda and water.

1.3 disinfectants: substitute 1/2 cup borax in gallon water.

1.4 drain cleaners: substitute 1/4 cup baking soda and 1/4 cup vinegar in boiling water.

1.5 upholstery cleaners: substitute dry cornstarch.

E. Maintain areas under the General Contractor's control free of waste materials, debris, and rubbish. Maintain in a clean and orderly condition.

F. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces, and other closed or remote spaces before closing the space.

G. Periodically clean interior areas before start of surface finishing and continue cleaning on an as-needed basis.

H. The General Contractor shall control cleaning operations so that dust and other particulates will not adhere to wet or newly-coated surfaces.

I. Remove waste materials, debris, and rubbish from site daily and dispose of legally off-site. No scrap/debris shall remain inside the building or anywhere on site upon final acceptance of the project.

J. **Final Cleaning:**

1. At completion of Work, remove all remaining waste materials, rubbish, tools, equipment, machinery and surplus materials, and clean all exposed surfaces; leave Project clean and ready for occupancy.

1.1 After review of trees to remain by Architect and Owner, remove tree tags.

1.2 Provide final cleaning in accordance with ASTM E1971 and the approved Integrated Pest management (IPM) plan.

K. See also **Division 00 General Conditions, Article 24 "Cleaning Up".**

01 74 19 CONSTRUCTION WASTE MANAGEMENT & DISPOSAL

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

B. **Summary:** This Section includes requirements for waste management goals, waste management plan and waste management plan implementation.

C. **Related Sections:** The following Sections contain requirements that relate to this Section:

1. Division 01 **Section 01 11 00 "Summary of Work".**
2. Division 01 **Section 01 20 00 "Contract Considerations".**
3. Division 01 **Section 01 25 00 "Substitution Procedures".**

4. Division 01 **Section 01 31 19 "Project Meetings".**
5. Division 01 **Section 01 33 00 "Submittal Procedures".**
6. Division 01 **Section 01 45 00 "Quality Control".**
7. Division 01 **Section 01 50 00 "Temporary Facilities and Controls".**
8. Division 01 **Section 01 60 00 "Product Requirements".**
9. Division 01 **Section 01 77 00 "Closeout Procedures".**

D. **Definitions:**

1. **Construction Waste:** Solid wastes such as building materials, packaging and rubble resulting from construction, paving and infrastructure.

E. **Demolition Waste:** Solid wastes such as concrete, wood, brick, plaster, roofing materials, wallboard, metals, carpeting, insulation, and clean fill resulting from demolition or selective demolition of structures.

F. **Recyclable Materials:** Products and materials that can be recovered and remanufactured into a new product. Recyclable materials include, but are not limited to, the following:

1. Metals (ferrous and non-ferrous), including banding, metal studs, ductwork, and piping.
2. Asphaltic concrete paving.
3. Portland cement concrete.
4. Gypsum products.
5. Paper and cardboard.
6. Wood products, including structural, finish, crates, and pallets.
7. Brick and masonry.
8. Carpet and padding.
9. Plastics.
10. Copper wiring.

G. **Recycling Facility:** A business that specializes in collecting, handling, processing, distributing, or remanufacturing waste materials generated by new construction projects, into products or materials that can be used for this project or by others.

H. **Salvage and Reuse:** Existing usable product or material that can be saved and reused in some manner on the project site. Materials for reuse must be approved by the Architect. Materials that can be salvaged and reused must comply with applicable technical specifications and include, but are not limited to, the following:

1. Dimensional lumber and other wood products.
2. Structural steel.
3. Soil.
4. Masonry products.
5. Plants.

I. **Salvage for Resale:** Existing usable product that can be saved and removed intact (as is) from the project site to another site for resale to others without remanufacturing.

J. **Waste Management Goals:**

1. The Owner has established that this Project shall generate the least amount of waste possible and that processes that ensure the generation of as little waste as possible due to error, poor planning, breakage, mishandling, contamination, or other factors shall be employed.
2. The General Contractor shall use all means available to divert the greatest extent practical and economically feasible, construction waste from landfills and incinerators.
3. Of the inevitable waste that is generated, as many of the waste materials as economically feasible shall be reused, salvaged, or recycled. Waste disposal in landfills shall be minimized.
4. Recycle and/or salvage a minimum of ***75*** percent of non-hazardous construction ***and demolition*** waste by weight of the total solid waste generated by the Project.

5. With regard to these goals the General Contractor shall develop, for the Architect's and Owner's Construction Administrator's review, a Waste Management Plan for this Project.

6. Take a pro-active, responsible role in management of construction waste and require all subcontractors, vendors, and suppliers to participate in the effort. Establish a construction waste management program that includes the following categories:

6.1 Minimizing packaging waste.

6.2 Salvage and reuse.

6.3 Salvage for resale or donation.

6.4 Recycling.

6.5 Disposal.

K. Submittals:

1. **Draft Waste Management Plan:** Within ***thirty (30)*** Calendar days after receipt of Notice of Award of Bid, or prior to any waste removal, whichever occurs sooner, the general Contractor shall submit ***three (3)*** copies of a Draft Waste Management Plan to the Construction Administrator.

2. **Final Waste Management Plan:** Once the Owner has determined which of the recycling options addressed in the Draft Waste Management Plan are acceptable, the general Contractor shall submit within ***ten (10)*** Calendar days ***three (3)*** copies of a Final Waste Management Plan.

3. **Progress Reports:** Submit ***three (3)*** copies of monthly progress reports, at the same time as the Application for Payment, documenting the following:

3.1 Material category.

3.2 Point of waste generation.

3.3 Total quantity of waste in tons.

3.4 Quantity of waste salvaged, in tons.

3.5 Quantity of waste recycled, in tons.

3.6 Total quantity of waste recovered (salvaged plus recycled) in tons.

3.7 Total quantity of waste recovered (salvaged plus recycled) as a percentage of total waste.

4. **Calculations:** Submit ***three (3)*** copies of calculations indicating the end-of-project rates for salvage, recycling, and disposal as a percentage of total waste generated by the Project prior to Substantial Completion.

5. **Record Submittals:**

5.1 Donations: Indicate which salvageable materials were donated, who they were donated to, and whether the recipient is tax exempt. Submit documentation indicating receipt of donations.

5.2 Sales: Indicate which salvageable materials were sold, who they were sold to, and whether the recipient is tax exempt. Submit documentation indicating receipt of materials.

5.3 Recycling: Indicate which materials were recycled and the name of the facility licensed to accept them. Submit documentation such as manifests, weight tickets, receipts, and invoices.

5.4 Waste Disposal: Indicate which materials were accepted as waste by landfills and incinerator facilities licensed to accept them. Submit documentation indicating receipt of materials.

L. Quality Assurance:

1. **Regulatory Requirements:** Comply with regulations of State of Connecticut Department of Energy and Environment Protection, Waste Management Bureau Recycling Program.

2. **Waste Management Conference:** Review and discuss the waste management plan, requirements for documenting quantities of each type of waste and its disposition, procedures for materials separation, procedures for periodic collection and transportation to recycling and disposal facilities. Review waste management

requirements for each trade. Verify availability of containers and bins needed to avoid delays.

M. Waste Management Plan:

1. **Draft Waste Management Plan:** Include the following in the Draft Plan:

   1.1 Analysis of the proposed jobsite waste to be generated, including types and quantities.

   1.2 **Landfill Options:** The name of the landfill(s) where trash will be disposed of, the applicable landfill tipping fee(s), and the projected cost of disposing of all Project waste in the landfill(s).

   1.3 **Alternatives to Landfilling:** A list of each material proposed to be salvaged, reused, or recycled during the course of the Project, the proposed local market for each material, and the estimated net cost savings or additional costs resulting from separating and recycling (versus landfilling) each material. "Net" means that the following have been subtracted from the cost of separating and recycling:

      1.3.1 Revenue from the sale of recycled or salvaged materials and

      1.3.2 Landfill tipping fees saved due to diversion of materials from the landfill. The list of these materials is to include, at a minimum, the following materials:

         .1 Cardboard.

         .2 Clean dimensional wood.

         .3 Beverage containers.

         .4 Land clearing debris.

         .5 Concrete.

         .6 Bricks.

         .7 Concrete Masonry Units (CMU).

         .8 Asphalt.

         .9 Metals from banding, stud trim, ductwork, piping, rebar, roofing, other trim, steel, iron, galvanized sheet steel, stainless steel, aluminum, copper, zinc, lead, brass, and bronze.

N. Resources for Development of Waste Management Plan: The following sources may be useful in developing the Draft Waste Management Plan:

1. **Recycling Haulers and Markets:** Local haulers and markets for recyclable materials. For more information, contact the State of Connecticut Department of Energy and Environmental Protection, Waste Management Bureau Recycling Program, (860) 424-3366:

   http://www.ct.gov/deep/cwp/view.asp?a=2714&q=324884&depNav_GID=1645&deepNav=|.

O. Final Waste Management Plan: The Final Waste Management Plan shall contain the following:

1. Analysis of the proposed jobsite waste to be generated, including types and quantities.
2. **Landfill Options:** The name of the landfill(s) where trash will be disposed of, the applicable landfill tipping fee(s), and the projected cost of disposing of all Project waste in the landfill(s).
3. **Alternatives to Landfilling:** A list of the waste materials from the Project that will be separated for reuse, salvage, or recycling.
4. **Meetings:** A description of the regular meetings to be held to address waste management. Refer to **Section 01 31 19 "Project Meetings".**
5. **Materials Handling Procedures:** A description of the means by which any waste materials identified in item (3) above will be protected from contamination, and a description of the means to be employed in recycling the above materials consistent with requirements for acceptance by designated facilities.
6. **Transportation:** A description of the means of transportation of the recyclable materials (whether materials will be site-separated and self-hauled to designated

centers, or whether mixed materials will be collected by a waste hauler and removed from the site) and destination of materials.

P. Waste Management Plan Implementation:

1. **Manager:** The General Contractor shall designate an on-site party (or parties) responsible for instructing workers and overseeing and documenting results of the Waste Management Plan for the Project.
2. **Distribution:** The General Contractor shall distribute copies of the Waste Management Plan to the Job Site Foreman, each Subcontractor, the Owner, and the Architect.
3. **Instruction:** The General Contractor shall provide on-site instruction of appropriate separation, handling, and recycling, salvage, reuse, and return methods to be used by all parties at the appropriate stages of the Project.
4. **Separation Facilities:** The General Contractor shall lay out and label a specific area to facilitate separation of materials for potential recycling, salvage, reuse, and return. Recycling and waste bin areas are to be kept neat and clean and clearly marked in order to avoid contamination of materials.
5. **Hazardous Wastes:** Hazardous wastes shall be separated, stored, and disposed of according to local regulations.
6. **Application for Progress Payments:** The General Contractor shall submit with each Application for Progress Payment a Summary of Waste Generated by the Project. Failure to submit this information shall render the Application for Payment incomplete and shall delay Progress Payment. The Summary shall be submitted on a form acceptable to the Owner and shall contain the following information:
   - **6.1** The amount (in tons or cubic yards) of material landfilled from the Project, the identity of the landfill, the total amount of tipping fees paid at the landfill, and the total disposal cost. Include manifests, weight tickets, receipt, and invoices.
   - **6.2** For each material recycled, reused, or salvaged from the Project: the amount (in tons or cubic yards), the date removed from the jobsite, the receiving party, the transportation cost, the amount of any money paid or received for the recycled or salvaged material, and the net total cost or savings of salvage or recycling of each material shall be indicated. Attach manifests, weight tickets, receipts, and invoices.

Q. Plan Implementation:

1. Implement the waste management plan as approved by Owner and Construction Administrator.
2. Provide training of workers, contractors, subcontractors, and suppliers on proper waste management procedures.
   - **2.1** Distribute waste management plan to all parties involved in the Project within ***three (3)*** Calendar Days of submittal return.
   - **2.2** Distribute plan to parties when they first begin working on the Project site. Review plan procedures and locations established for salvage, recycling, and disposal.

R. Separation Of Recyclable Waste Materials:

1. Provide the necessary containers and bins, to facilitate the waste management program, that are clearly and appropriately marked. Prevent contamination of recyclable materials from incompatible products and materials. Separate construction waste at the project site by one of the following methods:
   - **1.1** **Source Separated Method:** Waste products and materials, that are recyclable, are separated from trash and sorted into appropriately marked separate containers and then transported to the respective recycling facility for further processing. Trash is transported to a landfill or incinerator.
   - **1.2** **Co-Mingled Method:** All construction waste is placed into a single container and then transported to a recycling facility where the recyclable materials are sorted and processed and the remaining trash is transported to a landfill or incinerator.
   - **1.3** Other methods proposed by the Contractor and approved by the Owner, Construction Administrator.

01 75 00 STARTING AND ADJUSTING - (NOT APPLICABLE FOR THIS PROJECT)

01 77 00 CLOSEOUT PROCEDURES

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

B. **Substantial Completion:**

1. Upon completion of the work, the General Contractor shall submit to the State a Certificate of Substantial Completion wherein the General Contractor certifies that all conditions of the Contract Documents have been met, and that the facility is ready for occupancy by the Agency. Issuance of a Certificate of Substantial Completion by the Owner shall be a pre-condition for payment by the Owner.

1.1 Preliminary Procedures: Before requesting inspection for Certification of Substantial Completion, complete the following. List exceptions in the request.

1.2 In the Application for Payment that coincides with, or first follows, the date Substantial Completion is claimed, show 100 percent (100%) completion for the portion of the Work claimed as substantially complete.

1.2.1 Include supporting documentation for completion as indicated in the Contract Documents and a statement showing all accounting of the Contract Documents.

1.2.3 If 100 percent (100%) completion cannot be shown, include a list of incomplete items, the value of incomplete construction, and reasons the Work is not complete shall be provided as well as a schedule for completion of work.

1.3 Advise the Owner of pending insurance changeover requirements.

1.4 Submit specific warranties, workmanship bonds, maintenance agreements, final certifications, and similar documents.

1.5 Obtain and submit releases enabling the Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.

1.6 Submit as-built record drawings, maintenance manuals, damage or settlement surveys, property surveys, and similar final record information.

1.7 Deliver tools, spare parts, extra stock, and similar items.

1.8 Make final changeover of permanent locks and transmit keys to the Owner. Advise the Owner's personnel of changeover in security provisions.

1.9 Demonstration, through operation and testing, the functions of all systems and/or equipment to the satisfaction of the Owner for compliance to the contract. Complete testing of systems and instruction of the Owner's operation and maintenance personnel. Discontinue and remove temporary facilities from the site, along with mockups, construction tools, and similar elements.

1.10 Complete final cleanup requirements, including touchup painting.

1.11 Touch up and otherwise repair and restore marred, exposed finishes.

1.12 Compliance with other terms as outlined in the Contract Documents.

1.13 List of all the General Contractor's suppliers, sub-contractors, etc. Include name of firm, address, FEIN number and CT Tax I.D. number.

2. **Inspection Procedures:** The General Contractor shall be ready and prepared when they request a Substantial Completion inspection. If the inspection reveals that the work is not complete, there are extensive punchlist items and as the items listed above are not complete, the Construction Administrator, Owner, and Agency will determine the inspection has failed.

3. The General Contractor is responsible for all costs to re-inspect due to a failed inspection.

3.1 The General Contractor will repeat inspection when requested and assured that the Work is substantially complete.

3.2 Results of the completed inspection will form the basis of requirements for Acceptance of the Work.

C. **Acceptance of the Work**

1. **Preliminary Procedures:** Before requesting a Final Inspection and Certificate of Acceptance and Final Payment, complete the following. List exceptions in the request.

1.1 Submit a request for the Final Inspection and Certificate of Acceptance, with releases and supporting documentation not previously submitted and accepted. Include insurance certificates for products and completed operations where required. Submit an updated final statement, accounting for final additional changes to the Contract Sum.

1.2 Submit a certified copy of the Architect's Final Inspection list of items to be completed or corrected, endorsed and dated by the Architect. The certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance and shall be endorsed and dated by the Architect.

1.3 Submit final meter readings for utilities, a measured record of stored fuel, and similar data as of the date of Substantial Completion or when the Owner took possession of and assumed responsibility for corresponding elements of the Work.

1.4 Submit consent of surety to Final Payment.

1.5 Submit evidence of final, continuing insurance coverage complying with insurance requirements.

D. **Reinspection Procedure:** The Inspection Group will re-inspect the Work upon receipt of notice from the Construction Administrator that the Work, including inspection list items from earlier inspections, has been completed, except for items whose completion is delayed under circumstances acceptable to the Owner.

1. Upon completion of re-inspection, the Construction Administrator will prepare a Certificate of Acceptance for issuance by the Owner. If the Work is incomplete, the Construction Administrator will advise the General Contractor of Work that is incomplete or of obligations that have not been fulfilled but are required for Acceptance.

E. Issuance of a Certificate of Acceptance, in accordance with CGS § 4-61(b)(2) as amended, by the Owner does not alter the responsibility of the General Contractor to complete all Work in accordance with the Contract Documents.

F. **General Contractor's As-Built Drawings Submittal:**

1. **General:** The General Contractor shall not use the As-Built Drawings for construction purposes. Protect General Contractor's As-Built Drawings from deterioration and loss in a secure, fire-resistant location. Provide access to the As-Built Drawings for Owner's and Construction Administrator's reference during normal working hours. Keep documents current; do not permanently conceal any work until required information has been recorded. Failure to keep documents current is sufficient cause to withhold progress payments.

1.1 The General Contractor shall also engage the services of a Surveyor registered in the State of Connecticut to conduct a final survey to determine the location of exterior underground utility lines and to record the results, and update existing electronic media.

1.2 The record of exterior underground utilities shall be made at the time of installation on Mylar film drawing and AutoCAD (latest version) compatible disks. The drawing shall bear the seal of the Land Surveyor and a statement of accuracy.

2. **General Contractor's As-Built Drawings:** The General Contractor shall maintain one clean, complete undamaged set of blue or black line white-prints of Contract Drawings and Shop Drawings. Mark the set to show the actual installation where the installation varies substantially from the Work as originally shown. Mark which drawing is most capable of showing conditions fully and accurately. Where Shop Drawings are used, record a cross-reference at the corresponding location on the Contract Drawings. Give

particular attention to concealed elements that would be difficult to measure and record at a later date. **Failure to keep As-built Documents current is sufficient cause to withhold progress payments.**

2.1 Mark record sets with erasable pencil to distinguish between variations in separate categories of the Work.

2.2 Mark all new information that is not shown on Contract Drawings.

2.3 Note related Agreement Amendments where applicable.

2.4 Organize record drawing sheets into manageable sets. Bind sets with durable-paper cover sheets; print suitable titles, dates, and other identification on the cover of each set.

2.5 Upon completion of the work, the General Contractor shall submit Record Drawings to the Construction Administrator for the Owner's Records who will pass them on to the Architect or Engineer for transferring the changes to the Record Drawing Mylar Tracings.

2.6 Submit electronic format data of all Coordination Drawing drawings as required by the owner.

2.7 Refer to Section **01 45 00 "Quality Control"** Paragraph **8.3.6** for required as-built drawings and specifications for fire alarm systems.

2.8 Upon completion of the work, the General Contractor shall submit Record Drawings to the Architect and/or Engineer for transferring the changes to the Record Drawings.

G. **General Contractor's Record Documents:** Within **thirty (30)** Calendar Days after receipt of the General Contractor's "As-Built Drawings" the Architect/Engineers shall convert the General Contractor "As-Built" information into an electronic CADD format as required by the Owner, using the original Architect/Engineer contract documents as base drawings. The Architect shall produce "Record Documents" that show all of the significant modifications made during the course of the project.. The Architect's shall produce ***two (2)*** sets of electronic CADD format "Record Documents" on electronic media as required by the Owner and (1) set of reproducible Mylar's "Record Documents". The original Mylar "Cover Sheet" that includes the original Architect/Engineer Team Members dated signatures and professional seals shall be the Record Documents Cover Sheet. The Architect's final "Record Documents" (electronic media and reproducible Mylar's) shall be made at the Architect's expense and shall become the property of the State.

H. **General Contractor's Record Specifications:** The General Contractor shall maintain one complete copy of the Project Manual, Include with the Project Manual one copy of other written construction documents, such modifications issued in printed form during construction.

1. Mark these documents to show substantial variations in actual Work performed in comparison with the text of the Specifications and modifications.

2. Give particular attention to the Technical Specifications and selection of options and information on concealed construction that cannot otherwise be readily discerned later by direct observation.

3. Note related record drawing information and Product Data.

4. Upon completion of the Work, submit record Specifications to the Construction Administrator for the Owner's records.

I. **General Contractor's As-Built Product Data:** The General Contractor shall maintain one copy of each As-Built Product Data submittal and a markup of record drawings and As-Built Specifications.

1. Mark these documents to show significant variations in actual Work performed in comparison with information submitted. Include variations in products delivered to the site and from the manufacturer's installation instructions and recommendations.

2. Give particular attention to concealed products and portions of the Work that cannot otherwise be readily discerned later by direct observation.

3. Upon completion of markup, submit complete set of As-Built Product Data to the Construction Administrator for the Owner's records.

4. The Architect and Engineers will be responsible for the accuracy of As-Built Drawings.

J. **General Contractor's Record Sample Submitted:** Immediately prior to Substantial Completion, the appropriate Architect/Engineer Team Members shall meet with the Owner,

Construction Administrator, and the Agency's personnel at the Project Site to determine which Samples are to be transmitted to the Owner for record purposes. Comply with the Owner/Agency instructions regarding delivery to the Owner/Agency Sample storage area.

K. **General Contractor's Miscellaneous Record Submittals:** Refer to other Specification Sections for requirements of miscellaneous record keeping and submittals in connection with actual performance of the Work. Immediately prior to the date or dates of Substantial Completion, complete miscellaneous records and place in good order. Identify miscellaneous records properly and bind or file, ready for continued use and reference. Submit to the Construction Administrator for the Owner's records.

L. **Maintenance Manuals:** Organize operation and maintenance data into suitable sets of manageable size. Bind properly indexed data in individual, heavy-duty, ***2-inch, 3***-ring, vinyl-covered binders, with pocket folders for folded sheet information. Mark appropriate identification on front and spine of each binder according to Section **01 78 23 "Operation and Maintenance Data"**. The manual shall include, but not be limited to, the following types of information:

1. Emergency instructions.

2. Spare parts list.

3. Copies of warranties.

4. Inspection procedures.

5. Shop Drawings and Product Data.

6. List of vendors and addresses.

M. **Closeout Procedures:**

1. Operation and Maintenance Instructions: Arrange for each Installer of equipment that requires regular maintenance to meet with the Agency's personnel to provide instruction in proper operation and maintenance. Provide instruction by manufacturer's representatives if installers are not experienced in operation and maintenance procedures. Include a detailed review of the following items:

1.1 Maintenance manuals.

1.2 Record documents.

1.3 Spare parts and materials.

1.4 Cleaning.

1.5 Warranties and bonds.

1.6 Maintenance agreements and similar continuing commitments.

N. **Final Cleaning:**

1. **General:** The Contract Documents require general cleaning during construction. Regular site cleaning is included in **Section 01 74 13 "Progress Cleaning".**

2. Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to the condition expected in a normal, commercial building cleaning and maintenance program. Comply with manufacturer's instructions. Complete the following cleaning operations before requesting inspection for Certification of Substantial Completion and Certification of Occupancy.

3. **Interior:**

3.1 Remove labels that are not permanent labels.

3.2 Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other substances that are noticeable vision-obscuring materials. Replace chipped or broken glass and other damaged transparent materials. Remove paint spots; wash and polish glass.

3.3 Clean exposed interior hard-surfaced finishes to a dust-free condition, free of stains, films, and similar foreign substances. Restore reflective surfaces to their original condition. Leave concrete floors broom clean. Vacuum carpeted surfaces.

3.4 Wash washable surfaces of mechanical, electrical equipment and fixtures and replace filters, clean strainers on mechanical equipment. Remove excess

lubrication and other substances. Clean plumbing fixtures to a sanitary condition. Clean light fixtures and lamps.

3.5 Clean and polish finish hardware.

3.6 Clean and polish tile and other glazed surfaces.

3.7 Clean floors; wax and buff resilient tile. Clean vinyl or rubber base.

3.8 Vacuum and/or dust walls, ceilings, lighting fixtures, ceiling diffusers and other wall and ceiling items.

3.9 Remove defacements, streaks, fingerprints, and erection marks.

4. Exterior:

4.1 Clean the site, including landscape development areas, of rubbish, litter, and other foreign substances. Sweep paved areas broom clean; remove stains, spills, and other foreign deposits. Rake grounds that are neither paved nor planted, to a smooth, even-textured surface.

4.2 Clean exposed exterior hard-surfaced finishes to a dust-free condition, free of stains, films, and similar foreign substances

4.3 Clean roofs, gutters and downspouts.

4.4 Remove waste and surplus materials, rubbish and construction equipment and facilities from the site, and deposit it legally elsewhere.

4.5 Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other substances that are noticeable vision-obscuring materials. Replace chipped or broken glass and other damaged transparent materials. Remove paint spots; wash and polish glass.

5. Pest Control: Engage an experienced, licensed exterminator to make a final inspection and rid the work of rodents, insects, and other pests.

6. Removal of Protection: Remove temporary protection and facilities installed for protection of the Work during construction.

7. Compliance: Comply with regulations of authorities having jurisdiction and safety standards for cleaning. Do not burn waste materials. Do not bury debris or excess materials on the Agency's property. Do not discharge volatile, harmful, or dangerous materials into drainage systems. Remove waste materials from the site and dispose of lawfully.

7.1 Where extra materials of value remain after completion of associated Work, they become the Agency's property. Dispose of these materials as directed by the Construction Administrator.

7.2 Leave building clean and ready for occupancy. If the Design Builder fails to clean up, the Owner may do so, with the cost charged to the Developer.

01 78 23 OPERATION AND MAINTENANCE DATA

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

B. Summary: This Section includes administrative and procedural requirements for operation and maintenance manuals, including the following:

1. Preparing and submitting operation and maintenance manuals for building operating systems and equipment.

2. Preparing and submitting instruction manuals covering the care, preservation, and maintenance of architectural products and finishes.

C. Related Sections: The following sections contain requirements that relate to this Section:

1. Division 01 Section **01 33 00 "Submittal Procedures"** specifies preparation of Shop Drawings and Product Data.

2. Division 01 Section **01 75 00 "Starting and Adjusting"** specifies instruction of the Owner and Agency operating personnel in the operation and maintenance of building systems and equipment and the general requirements for starting-up equipment and systems.

3. Division 01 Section **01 77 00 "Closeout Procedures"** specifies general closeout requirements.

4. Division 01 Section **01 78 30 "Warranties and Bonds"** specifies requirements for submittal of warranties and bonds.

5. Division 01 Section **01 81 13 "Sustainable Design Requirements"** specifies requirements for submittals related to green building certification.

6. Appropriate Sections of the Divisions 02 through 49 specify special operation and maintenance data requirements for specific pieces of equipment or building operating systems.

D. Quality Assurance

1. **Maintenance Manual Preparation:** In preparation of maintenance manuals, use personnel thoroughly trained and experienced in operation and maintenance of equipment or system involved.

   1.1 Where maintenance manuals require written instructions, use personnel skilled in technical writing where necessary for communication of essential data.

   1.2 Where maintenance manuals require drawings or diagrams, use draftsmen capable of preparing drawings clearly in an understandable format.

2. **Instructions for the Owner and Agency Personnel:** The Contractor must use experienced instructors thoroughly trained and experienced in operation and maintenance of equipment or system involved, to instruct the Owner's operation and maintenance personnel.

E. Submittals:

1. **Submittal Schedule:** Comply with the following schedule for submitting operation and maintenance manuals:

   1.1 Before Substantial Completion, when each installation that requires operation and maintenance manuals is nominally complete, submit ***two (2)*** draft copies of each manual to the Construction Administrator for review. Include a complete index or table of contents of each manual.

      1.1.1 The Construction Administrator will return ***one (1)*** copy of the draft with comments within **twenty-one (21)** Calendar Days of receipt.

      1.1.2 Submit ***three (3)*** copies of data in final form at least **twenty (21)** Calendar Days before final inspection. The Construction Administrator will return **one (1)** copy within **twenty (21)** Calendar Days after final inspection, with comments.

2. After final inspection, make corrections or modifications to comply with the Architect's comments. Submit final copies to the Construction Administrator within **twenty (21)** Calendar Days of receipt of the Architect's comments.

3. **Form of Submittal:** Prepare operation and maintenance manuals in the form of an instructional manual for use by the Owner's operating personnel. Organize into suitable sets of manageable size. Where possible, assemble instructions for similar equipment into a single binder.

4. **Binders:** For each manual, provide heavy-duty, commercial-quality, 3-ring, vinyl-covered, loose-leaf binders, in thickness necessary to accommodate contents, sized to receive ***8-1/2-by-11- inch*** paper. Provide a clear plastic sleeve on the spine to hold labels describing contents. Provide pockets in the covers to receive folded sheets.

   4.1 Where ***two (2)*** or more binders are necessary to accommodate data, correlate data in each binder into related groupings according to the Project Manual table of contents. Cross-reference other binders where necessary to provide essential information for proper operation or maintenance of the piece of equipment or system.

   4.2 Identify each binder on front and spine, with the printed title **"OPERATION AND MAINTENANCE MANUAL"**, Project title or name, and subject matter covered. Indicate volume number for multiple volume sets of manuals.

5. **Dividers:** Provide heavy paper dividers with celluloid-covered tabs for each separate section. Mark each tab to indicate contents. Provide a typed description of the product and major parts of equipment included in the section on each divider.

6. **Protective Plastic Jackets:** Provide protective, transparent, plastic jackets designed to enclose diagnostic software for computerized electronic equipment.

7. **Text Material:** Where maintenance manuals require written material, use the manufacturer's standard printed material. If manufacturer's standard printed material is not available, provide specially prepared data, neatly typewritten, on ***8-1/2-by-11-inch, 20-lb/sq ft*** white bond paper.

8. **Drawings:** Where maintenance manuals require drawings or diagrams, provide reinforced, punched binder tabs on drawings and bind in with text.

   8.1 Where oversize drawings are necessary, fold drawings to the same size as text pages and use as a foldout.

   8.2 If drawings are too large to be used practically as a foldout, place the drawing, neatly folded, in front or rear pocket of binder. Insert a typewritten page indicating drawing title, description of contents, and drawing location at the appropriate location in the manual.

F. **Manual Content**

1. In each manual include information specified in the individual Specification Section and the following information for each major component of building equipment and its controls:

   1.1 General system or equipment description.

   1.2 Design factors and assumptions.

   1.3 Copies of applicable shop drawings and product data.

   1.4 System or equipment identification, including:

      1.4.1 Name of manufacturer.

      1.4.2 Model number.

      1.4.3 Serial number of each component.

   1.5 Operating instructions.

   1.6 Emergency instructions.

   1.7 Wiring diagrams.

   1.8 Inspection and test procedures.

   1.9 Maintenance procedures and schedules.

   1.10 Precautions against improper use and maintenance.

   1.11 Copies of warranties.

   1.12 Repair instructions including spare parts listing.

   1.13 Sources of required maintenance materials and related services.

   1.14 Manual index.

2. Organize each manual into separate sections for each piece of related equipment. As a minimum, each manual shall contain a title page; a table of contents; copies of product data, supplemented by drawings and written text; and copies of each warranty, bond, and service contract issued.

   2.1 **Title Page:** Provide a title page in a transparent, plastic envelope as the first sheet of each manual. Provide the following information:

      2.1.1 Subject matter covered by the manual.

      2.1.2 Name and address of the Project.

      2.1.3 Date of submittal.

      2.1.4 Name, address, and telephone number of the Contractor.

      2.1.5 Name and address of the Architect and Construction Administrator.

      2.1.6 Cross-reference to related systems in other operation and maintenance manuals.

   2.2 **Table of Contents**: After title page, include a typewritten table of contents for each volume, arranged systematically according to the Project Manual format.

Include a list of each product included, identified by product name or other appropriate identifying symbol and indexed to the content of the volume.

2.2.1 Where a system requires more than one volume to accommodate data, provide a comprehensive table of contents for all volumes in each volume of the set.

2.3 Provide a general information section immediately following table of contents, listing each product included in the manual, identified by product name. Under each product, list the name, address, and telephone number of the subcontractor or Installer and the maintenance contractor. Clearly delineate the extent of responsibility of each of these entities. Include a local source for replacement parts and equipment.

2.4 **Product Data:** Where the manuals include manufacturer's standard printed data, include only sheets that are pertinent to the part or product installed. Mark each sheet to identify each part or product included in the installation. Where the Project includes more than ***one (1)*** item in a tabular format, identify each item, using appropriate references from the Contract Documents. Identify data that is applicable to the installation, and delete references to information that is not applicable.

2.5 **Written Text**: Prepare written text to provide necessary information where manufacturer's standard printed data is not available, and the information is necessary for proper operation and maintenance of equipment or systems. Prepare written text where it is necessary to provide additional information or to supplement data included in the manual. Organize text in a consistent format under separate headings for different procedures. Where necessary, provide a logical sequence of instruction for each operation or maintenance procedure.

2.6 **Drawings:** Provide specially prepared drawings where necessary to supplement manufacturer's printed data to illustrate the relationship of component parts of equipment or systems or to provide control or flow diagrams. Coordinate these drawings with information contained in project record drawings to assure correct illustration of the completed installation.

2.6.1 Do not use original Record Documents as part of operation and maintenance manuals.

2.7 **Warranties and/or Bonds:** Provide a copy of each warranty and/or bond in the appropriate manual for the information of the Owner's operating personnel. Provide written data outlining procedures to follow in the event of product failure. List circumstances and conditions that would affect validity of warranty or bond.

G. Material And Finishes Maintenance Manual:

1. Submit ***four (4)*** copies of each manual, in final form, on material and finishes to the Construction Administrator for distribution. Provide ***one (1)*** section for architectural products, including applied materials and finishes. Provide a second section for products designed for moisture protection and products exposed to the weather.

1.1 Refer to individual Specification Sections for additional requirements on care and maintenance of materials and finishes.

2. **Architectural Products:** Provide manufacturer's data and instructions on care and maintenance of architectural products, including applied materials and finishes.

2.1 **Manufacturer's Data:** Provide complete information on architectural products, including the following, as applicable:

2.1.1 Manufacturer's catalog number.

2.1.2 Size.

2.1.3 Material composition.

2.1.4 Color.

2.1.5 Texture.

2.1.6 Reordering information for specially manufactured products.

2.2 **Care and Maintenance Instructions:** Provide information on care and maintenance, including manufacturer's recommendations for types of

cleaning agents to be used and methods of cleaning. Provide information on cleaning agents and methods that could prove detrimental to the product. Include manufacturer's recommended schedule for cleaning and maintenance.

3. **Moisture Protection and Products Exposed to the Weather:** Provide complete manufacturer's data with instructions on inspection, maintenance, and repair of products exposed to the weather or designed for moisture-protection purposes.

3.1 **Manufacturer's Data:** Provide manufacturer's data giving detailed information, including the following, as applicable:

3.1.1 Applicable standards.

3.1.2 Chemical composition.

3.1.3 Installation details.

3.1.4 Inspection procedures.

3.1.5 Maintenance information.

3.1.6 Repair procedures.

01 78 30 WARRANTIES AND BONDS

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

B. **Summary:** This Section includes administrative and procedural requirements for warranties required by the Contract Documents, including manufacturer's standard warranties on products and special warranties.

1. Refer to the General Conditions for terms of the General Contractor's period for correction of the Work.

C. **Related Sections:** The following Sections contain requirements that relate to this Section:

1. Division 01 Section **01 33 00 "Submittal Procedures"** specifies procedures for submitting warranties.

2. Division 01 **Section 01 77 00 "Closeout Procedures"** specifies contract closeout procedures.

3. Division 01 **Section 01 78 23 "Operation and Maintenance Data"** specifies required operation and maintenance data.

4. The Divisions 02 through 49 Sections for specific requirements for warranties on products and installations specified to be warranted.

5. Certifications and other commitments and agreements for continuing services to Owner are specified elsewhere in the Contract Documents.

D. **Disclaimers and Limitations**: Manufacturer's disclaimers and limitations on product warranties do not relieve the General Contractor of the warranty on the Work that incorporates the products. Manufacturer's disclaimers and limitations on product warranties do not relieve the suppliers, manufacturers, and subcontractors required to countersign special warranties with the General Contractor.

E. **Related Damages and Losses:** When correcting failed or damaged warranted construction, remove and replace construction that has been damaged as a result of such failure or must be removed and replaced to provide access for correction of warranted construction.

F. **Reinstatement of Warranty:** When Work covered by a warranty has failed and been corrected by replacement or rebuilding, reinstate the warranty by written endorsement. The reinstated warranty shall be equal to the original warranty with an equitable adjustment for depreciation.

G. **Replacement Cost:** Upon determination that Work covered by a warranty has failed, replace or rebuild the Work to an acceptable condition complying with requirements of the Contract Documents. The General Contractor is responsible for the cost of replacing or rebuilding defective Work regardless of whether the Owner has benefited from use of the Work through a portion of its anticipated useful service life.

H. **Owner's Recourse:** Expressed warranties made to the Owner are in addition to implied warranties and shall not limit the duties, obligations, rights, and remedies otherwise available under the law. Expressed warranty periods shall not be interpreted as limitations on the time in which the Owner can enforce such other duties, obligations, rights, or remedies.

1. **Rejection of Warranties:** The Owner reserves the right to reject warranties and to limit selection to products with warranties not in conflict with requirements of the Contract Documents.

I. Where the Contract Documents require a special warranty, or similar commitment on the Work or part of the Work, the Owner reserves the right to refuse to accept the Work, until the General Contractor presents evidence that entities required to countersign such commitments are willing to do so.

J. The General Contractor shall warranty all materials and workmanship for a period of **eighteen (18)** from the date of Substantial Completion. In addition, the Contractor shall furnish the warranties listed below. Submit four copies of each to the Architect in the supplier's standard form or in the form given below if there is no standard form available.

K. The General Contractor shall warranty all materials and workmanship for a period of **eighteen (18)** months from the date of Substantial Completion. In addition, the General Contractor shall furnish the warranties listed below. Submit four copies of each to the Architect in the supplier's standard form or in the form given below if there is no standard form available.

L. **Specification/Warranty Table:** The General Contractor shall provide for all warranties as shown in the Specification/Warranty table:

Specification / Warranty Table

Item No.	Section No.		Specification Product/Warranty
1.	07	07 52 00	**Modified Bitumen Roofing, Base Flashing, and Insulation:** **20** year unlimited, materials and installation, and; **2** year General Contractor's warranty for installation.
2.	07	07 31 13	**Fiberglass Based Asphalt Shingle Roofing System:** **30** year material, non-prorated, and; **15** year wind speed warranty (130 mph), and; **10** year algae discoloration, and; **20** year workmanship warranty.
3.	07	07 92 00	**Sealants:** **5** year material warranty.

M. Submit certification that finish materials are fire rated as specified.

N. Form of Warranty: Warranties shall be submitted in following format:

Warranty

Commissioner: *Melody A. Currey*
Department of Administrative Services
Division of Construction Services
165 Capitol Avenue
Hartford, Connecticut 06106

Project Number: *BI-HH-53*
Project Title: *Department of Agriculture – Roof Replacement*

I (We) hereby warranty

the _____ ***work on the referenced project for a period of*** _____ ***years***

from _____ ***, 20*** _____ ***against failures of workmanship and materials in accordance***

with the requirements of Section _____ ***, Page*** _____ ***, Paragraph*** _____ ***, of the Specifications.***

Installer ☐ | ***Subcontractor*** ☐ | ***Vendor/Suppliers*** ☐ | ***Manufacturer*** ☐

Installer or Subcontractor or Vendor/Suppliers or Manufacturer Name: _____

Installer or Subcontractor or Vendor/Suppliers or Manufacturer Signature: _____

General Contractor's Name _____

General Contractor's Signature: _____

or

General Contractor's Authorized Agent Signature: _____

O. Bonds shall be by approved Surety Companies, made out to the Commissioner, Department of Administrative Services on companies' standard form.

P. Warranties, Guarantees, or bonds supplied by the General Contractor's Subcontractors or Vendors/Suppliers or Manufacturers shall reference the project name, number, and location and be certified by the General Contractor to be for the product and installation on the project and must be countersigned by the General Contractor.

Q. **Submittals**:

1. Submit written warranties prior to the date certified for Substantial Completion. If the General Contractor's Certificate of Substantial Completion designates a commencement date for warranties other than the date of Substantial Completion for the Work, or a designated portion of the Work, submit written warranties upon request of the Owner.

2. Forms for special warranties are included in this Section. Prepare a written document utilizing the appropriate form, ready for execution by the General Contractor's, and by the General Contractor's subcontractor or vendor/supplier, or manufacturer. Submit a draft to the Owner, through the Construction Administrator, for approval prior to final execution.

2.1 Refer to the Divisions 02 through 48 Sections for specific content requirements and particular requirements for submitting special warranties.

3. **Form of Submittal:** At Acceptance of the Work compile ***two (2)*** copies of each required warranty properly executed by the General Contractor, and by the General Contractor's subcontractor or vendor/supplier, or manufacturer. Organize the warranty

documents into an orderly sequence based on the table of contents of the Project Manual.

4. Bind warranties and bonds in heavy-duty, commercial-quality, durable 3-ring, vinyl-covered loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive ***8-1/2-inch*** by-***11-inch (115-by-280-mm)*** paper.

   4.1 Provide heavy paper dividers with celluloid covered tabs for each separate warranty. Mark the 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 the Installer.

   4.2 Identify each binder on the front and spine with the typed or printed title "WARRANTIES," DCS Project Number, Project Title, name of the General Contractor, and name of General Contractor's subcontractor or vendor/supplier, or manufacturer.

   4.3 When warranted construction requires operation and maintenance manuals, provide additional copies of each required warranty, as necessary, for inclusion in each required manual.

End
Section 01 70 00
Execution and Closeout Procedures