



# **Volume 1 of 1 Project Manual**

**Wethersfield DMV  
Lighting Fixture and Controls Retrofit  
60 State Street, Wethersfield, CT 06109  
Project No.: BI-MM-58**

**Prepared By:  
EDM  
45 South Main Street  
Unionville, CT  
06085**

**Josh Geballe – Commissioner**

**State of Connecticut  
Department of Administrative Services  
Construction Services  
450 Columbus Boulevard  
Hartford, CT 06103**

**Project Manual Date: 07/01/2020**



**IMPORTANT NOTICE - FOR YOUR INFORMATION**

**From The State of Connecticut  
Department of Administrative Services - Construction Services  
Office of Legal Affairs, Policy, and Procurement**

**THIS PROJECT MANUAL CONTAINS UPDATED REQUIREMENTS:**

**11/19/2020: NEW: CTsource – the NEW State Contracting Portal.**

As of August 3, 2020, the new e-Procurement system, “CTsource”, replaced BizNet as the “State Contracting Portal” for all Connecticut Department of Administrative Services / Construction Services (DAS/CS) Solicitations and Contracts. CTsource is a secure, web-based e-Procurement system implemented by the State of Connecticut with its partner, Perfect Commerce LLC (a PROACTIS Company), using their WebProcure application. Although *anyone* can view Solicitations and Contracts on CTsource, only *registered Suppliers\** are able to *respond* to a Solicitation.

\*Examples of Suppliers include vendors, contractors, architects, engineers, consultants, service providers, manufacturers, distributors, and any others who are interested in doing business with the State of Connecticut.

DAS/CS requires all firms to upload their **Bid Package Documents online** through the *new* CTsource e-Procurement system *prior* to the date and time of the **Bid Opening**. Detailed instructions for uploading Bid Package Documents can be found in the DAS/CS publication, **6001 Construction Online Bidding Instructions**, available for download from the online DAS/CS Library (<http://portal.ct.gov/DASCSLibrary>) > 6000 Series.

**CTsource** can be found by selecting the following link: <https://portal.ct.gov/DAS/CTSource/CTSource>

**Register on CTsource** at the Supplier Registration Portal: <https://portal.ct.gov/DAS/CTSource/Registration>.

**DAS/CS Solicitations** can be found on the DAS/CS Bid Board: <https://portal.ct.gov/DAS/Construction-Services/BidBoard>.

**DAS/CS Contracts** can be found on the CTsource Contract Board (filter by “DAS Construction Services” under “Organization”): <https://portal.ct.gov/DAS/CTSource/ContractBoard>

**11/19/2020: UPDATED: CONTRACTOR AND SUBCONTRACTOR PAYMENT REQUIREMENTS.**

**REPORTING REQUIREMENTS:** For compliance with the Connecticut General Statutes Sections 4b-95 and 49-41a, DAS/CS requires every Contractor (and its Subcontractors) who has been awarded a DAS/CS construction contract to log on to the State of Connecticut web-based platform, **PMWeb**, each month and enter payments they have received from the state, from the Contractor, or from a higher tier Subcontractor (as applicable).

The process is described as follows: After the state has made payment to the contractor for work performed (and purchases made) by it and its Subcontractors, the Contractor will input the payment date and amount they receive from the state on a monthly basis. The Contractor’s first-level Subcontractor (Tier 1 Subcontractor) will input the payment they receive from the Contractor. The second-level Subcontractor (Tier 2 Subcontractor) will input the payment they receive from the Tier 1 Subcontractor. And so on.

Detailed instructions can be found in the DAS/CS publication, **6002 Instructions to Contractors and Subcontractors for Entering Payments Online**, available for download from the online DAS/CS Library (<http://portal.ct.gov/DASCSLibrary>) > 6000 Series.

**CONTRACTING REQUIREMENTS:** Contractors awarded a DAS/CS construction contract shall contain a provision in their subcontract agreements requiring their Subcontractors to enter payment receipt from the Contractor in the State of Connecticut web-based platform, **PMWeb**, for work performed or purchases made in relation to state projects.

**11/19/2020: NEW: Employment Information Form.**

Every Contractor (and its Subcontractors) who has been awarded a DAS/CS construction contract shall submit employment statistics contained in the "**Employment Information Form**" located within their firm's **CTsource** account, indicating that the composition of its workforce is at or near parity when compared to the racial and sexual composition of the workforce in the relevant labor market area. Follow the instructions in **6001 Construction Online Bidding Instructions**, available for download from the online DAS/CS Library (<http://portal.ct.gov/DASCSLibrary>) > 6000 Series.

**Updated Forms:**

- 00 45 14 General Contractor Bidder's Qualification Statement
- 00 45 15 Objective Criteria Established for Evaluating Qualifications of Bidders
- 00 45 17 Named Subcontractor Bidder's Qualification Statement

**11/17/2020: NEW: Anti-Discrimination and Anti-Harassment Requirements.**

In accordance with DAS Policy, DAS strictly prohibits discrimination, including sexual harassment and harassment based on all of the following legally protected classes: race; color; religious creed; age; sex; pregnancy; sexual orientation; gender identity or expression; marital status; national origin; ancestry; intellectual disability; physical disability (including, but not limited to, blindness); mental disability; or, veteran status. This prohibition applies to all DAS-administered construction projects, and entities and individuals performing work on such projects. All contractors, subcontractors, and suppliers, as well as their officers, directors, shareholders, partners, employees, or other individuals associated with such entities, are expected to participate in these efforts to ensure that no discriminatory or harassing conduct occurs in connection with a DAS project. This is part of the meaning of a responsible contractor as a contractor with the integrity to ensure faithful performance of the work in a non-discriminatory manner.

DAS will consider instances, of which we become aware, of **alleged** discriminatory behavior on the part of a Bidder, subcontractors or suppliers. This will include the conduct of such entities' officers, directors, shareholders, partners, and employees. Such discriminatory conduct can include instances of name-calling, racist jokes or comments, bullying, intimidation and harassment on the basis of the person being a member of the protected class. Instances of **proven** discriminatory conduct on the part of an entity or individual **may** result in DAS not awarding a contract to a contractor, or require the substitution of a subcontractor or supplier.

In situations involving discriminatory conduct on the part of an officer, director, shareholder, partner or employee, DAS will also consider, as part of the responsibility review, the actions taken by the contractor, subcontractor and supplier to address and mitigate the individual's conduct. DAS will expect that the contractor, subcontractor, or supplier implement systematic monitoring and evaluation of the workplace to exclude such conduct. Regardless of where the discriminatory conduct occurs, if the contractor, subcontractor or supplier fails to address it, the contractor, subcontractor or supplier **shall not be** considered responsible or having the integrity necessary for the faithful performance of the work.




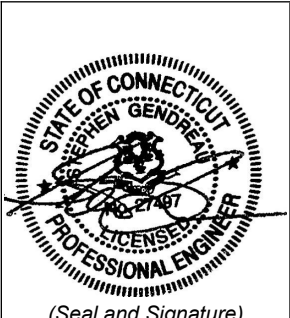

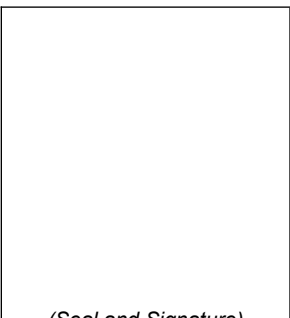
**Updated Forms:**

- 00 45 14 General Contractor Bidder's Qualification Statement
- 00 45 15 Objective Criteria Established for Evaluating Qualifications of Bidders
- 00 45 17 Named Subcontractor Bidder's Qualification Statement

**END**

<b>Project Title:</b>	CT Department of Motor Vehicles, Lighting Fixtures and Controls Retrofit
<b>Project Location:</b>	60 State Street, Wethersfield, CT 06109
<b>Project Number:</b>	BI-MM-58
<b>Architect/Engineer:</b>	EDM, 45 South Main Street, Unionville, CT 06085

### SEALS, SIGNATURES, AND DATES OF DESIGN PROFESSIONALS OF RECORD

 (Seal and Signature)	<p><b>Architect Professional Certification:</b> I hereby certify that these documents were prepared or approved by me and that I am a duly registered Architect.</p> <p>John R. Ineson            (Print Consultant Name)            3771            License No.            08/31/2020            Expiration Date</p>	 (Seal and Signature)	<p><b>Civil Engineer Professional Certification:</b> I hereby certify that these documents were prepared or approved by me and that I am a duly registered Professional Engineer.</p> <p>_____            (Print Consultant Name)            License No.            Expiration Date</p>
 (Seal and Signature)	<p><b>Structural Engineer Professional Certification:</b> I hereby certify that these documents were prepared or approved by me and that I am a duly registered Professional Engineer.</p> <p>_____            (Print Consultant Name)            License No.            Expiration Date</p>	 (Seal and Signature)	<p><b>Electrical Engineer Professional Certification:</b> I hereby certify that these documents were prepared or approved by me and that I am a duly registered Professional Engineer.</p> <p>STEPHEN GENDREAU            (Print Consultant Name)            27497            License No.            01/31/2021            Expiration Date</p>
 (Seal and Signature)	<p><b>Mechanical Engineer Professional Certification:</b> I hereby certify that these documents were prepared or approved by me and that I am a duly registered Professional Engineer.</p> <p>_____            (Print Consultant Name)            License No.            Expiration Date</p>	 (Seal and Signature)	<p><b>Fire-Protection Engineer Professional Certification:</b> I hereby certify that these documents were prepared or approved by me and that I am a duly registered Professional Engineer.</p> <p>_____            (Print Consultant Name)            License No.            Expiration Date</p>

**End of Section  
00 01 07 Seals Page**



## VOLUME 1 of 1

## DIVISION 00 PROCUREMENT AND CONTRACTING REQUIREMENTS

Section No.	Title	Page Count	Not Used
00 01 01	Title Page	1	<input type="checkbox"/>
00 01 07	Seals Page	1	<input type="checkbox"/>
00 01 10	Table of Contents	8	<input type="checkbox"/>
00 01 15	List of Drawing Sheets	1	<input type="checkbox"/>
00 11 16	Invitation to Bid	3	<input type="checkbox"/>
00 21 13	Instructions To Bidders	17	<input type="checkbox"/>
00 25 13	Pre-Bid Meeting Agenda	4	<input type="checkbox"/>
00 30 00	General Statements for Available Information	6	<input type="checkbox"/>
00 30 10	General Statement for Existing Conditions Information		<input type="checkbox"/>
00 30 20	General Statement for Environmental Assessment Information		<input checked="" type="checkbox"/>
00 30 30	General Statement for Hazardous Building Materials Inspection and Inventory		<input type="checkbox"/>
00 30 40	General Statement for Subsurface Geotechnical Report		<input checked="" type="checkbox"/>
00 30 50	General Statement for Elevator Agreement		<input checked="" type="checkbox"/>
00 30 60	General Statement for FM Global Checklist for Roofing Systems		<input checked="" type="checkbox"/>
00 30 70	General Statement for "Statement of Special Inspections"		<input checked="" type="checkbox"/>
00 30 80	General Statement for Other Information		<input type="checkbox"/>
00 40 14	Certificate (of Authority) ( <i>Bidder uploads to BizNet</i> )	2	<input type="checkbox"/>
00 40 15	CT DAS Contractor Prequalification Forms ( <i>Bidder uploads to BizNet</i> )	2	<input type="checkbox"/>
00 41 00	Bid Proposal Form ( <i>Bidder uploads to BizNet</i> )	10	<input type="checkbox"/>
00 41 10	Bid Package Submittal Requirements	4	<input type="checkbox"/>
00 43 16	Standard Bid Bond ( <i>Bidder uploads to BizNet</i> )	1	<input type="checkbox"/>
00 45 14	General Contractor Bidder's Qualification Statement ( <i>Bidder uploads to BizNet</i> )	7	<input type="checkbox"/>
00 45 15	Objective Criteria Established for Evaluating Qualifications of Bidders	4	<input type="checkbox"/>
00 45 17	Named Subcontractor Bidder's Qualification Statement	8	<input type="checkbox"/>
00 52 03	Contract	3	<input type="checkbox"/>
00 52 73	Subcontract Agreement Form	3	<input type="checkbox"/>
00 62 16	Certificate of Insurance	1	<input type="checkbox"/>
00 62 16.1	Asbestos Attachment to Acord Form	1	<input checked="" type="checkbox"/>
00 72 13	General Conditions of the Contract for Construction – For Design-Bid-Build	33	<input type="checkbox"/>
00 72 13.1	Supplementary Conditions	2	<input checked="" type="checkbox"/>
00 73 27	Set-Aside Contractor Schedule – <i>SAMPLE</i>	2	<input type="checkbox"/>
00 73 38	CHRO Contract Compliance Regulations	7	<input type="checkbox"/>
00 73 44	Prevailing Wage Rates/Contractor's Wage Certification/Payroll Certification	38	<input type="checkbox"/>
00 73 63	CT DOC Security Requirements	3	<input checked="" type="checkbox"/>
00 92 10	Additional Forms To be Submitted After Bond Commission Funding Approval	7	<input type="checkbox"/>
00 92 30	Procedures Regarding Taxation for Nonresident General/Prime Contractor and Subcontractors	2	<input type="checkbox"/>

**VOLUME 1 of 1**  
(continued)

**DIVISION 01 GENERAL REQUIREMENTS**

Section No.	Title	Page Count	Not Used
01 11 00	Summary of Work	7	<input type="checkbox"/>
01 20 00	Contract Considerations	3	<input type="checkbox"/>
01 23 13	Supplemental Bids	N/A	<input checked="" type="checkbox"/>
01 25 00	Substitution Procedures	4	<input type="checkbox"/>
01 26 00	Contract Modification Procedures	3	<input type="checkbox"/>
01 29 76	Progress Payment Procedures	5	<input type="checkbox"/>
01 31 00	Project Management and Coordination	5	<input type="checkbox"/>
01 31 19	Project Meetings	4	<input type="checkbox"/>
01 32 16	Construction Progress Schedules	3	<input type="checkbox"/>
01 32 16.13	CPM Schedules	3	<input type="checkbox"/>
01 32 33	Photographic Documentation	2	<input type="checkbox"/>
01 33 00	Submittal Procedures	7	<input type="checkbox"/>
01 35 16	Alteration Project Procedures	6	<input type="checkbox"/>
01 35 26	Government Safety Requirements	12	<input type="checkbox"/>
01 42 20	Reference Standards & Definitions	3	<input type="checkbox"/>
01 45 00	Quality Control	4	<input type="checkbox"/>
01 45 23.13	Testing for Indoor Air Quality, Baseline Indoor Air Quality, and Materials	N/A	<input checked="" type="checkbox"/>
01 50 00	Temporary Facilities & Controls	8	<input type="checkbox"/>
01 57 30	Indoor Environmental Control	2	<input type="checkbox"/>
01 57 40	Construction Indoor Air Quality Management Plan	2	<input type="checkbox"/>
01 60 00	Product Requirements	3	<input type="checkbox"/>
01 71 23	Field Engineering	N/A	<input checked="" type="checkbox"/>
01 73 29	Cutting and Patching	4	<input type="checkbox"/>
01 74 19	Construction Waste Management & Disposal	5	<input type="checkbox"/>
01 75 00	Starting & Adjusting	2	<input type="checkbox"/>
01 77 00	Closeout Procedures	5	<input type="checkbox"/>
01 78 23	Operation & Maintenance Data	4	<input type="checkbox"/>
01 78 30	Warranties & Bonds	3	<input type="checkbox"/>
01 80 13	Sustainable Design Requirements	N/A	<input checked="" type="checkbox"/>
01 91 00	Commissioning	N/A	<input checked="" type="checkbox"/>



**VOLUME 1 of 1**  
**(continued)**

**TECHNICAL SPECIFICATIONS**

<b>DIVISION 02</b>	<b>EXISTING CONDITIONS</b>	<b>Not Used</b> <input type="checkbox"/>
--------------------	----------------------------	------------------------------------------

<b>Section No.</b>	<b>Title</b>	<b>Page Count</b>
<b>02 41 19</b>	<b>Selective Demolition</b>	<b>5</b>

<b>DIVISION 03</b>	<b>CONCRETE</b>	<b>Not Used</b> <input checked="" type="checkbox"/>
--------------------	-----------------	-----------------------------------------------------

<b>Section No.</b>	<b>Title</b>	<b>Page Count</b>
--------------------	--------------	-------------------

<b>DIVISION 04</b>	<b>MASONRY</b>	<b>Not Used</b> <input checked="" type="checkbox"/>
--------------------	----------------	-----------------------------------------------------

<b>Section No.</b>	<b>Title</b>	<b>Page Count</b>
--------------------	--------------	-------------------

<b>DIVISION 05</b>	<b>METALS</b>	<b>Not Used</b> <input checked="" type="checkbox"/>
--------------------	---------------	-----------------------------------------------------

<b>Section No.</b>	<b>Title</b>	<b>Page Count</b>
--------------------	--------------	-------------------

<b>DIVISION 06</b>	<b>WOOD, PLASTICS AND COMPOSITES</b>	<b>Not Used</b> <input checked="" type="checkbox"/>
--------------------	--------------------------------------	-----------------------------------------------------

<b>Section No.</b>	<b>Title</b>	<b>Page Count</b>
--------------------	--------------	-------------------

<b>DIVISION 07</b>	<b>THERMAL AND MOISTURE PROTECTION</b>	<b>Not Used</b> <input type="checkbox"/>
--------------------	----------------------------------------	------------------------------------------

<b>Section No.</b>	<b>Title</b>	<b>Page Count</b>
<b>07 84 00</b>	<b>Firestopping</b>	<b>7</b>

<b>DIVISION 08</b>	<b>OPENINGS</b>	<b>Not Used</b> <input checked="" type="checkbox"/>
--------------------	-----------------	-----------------------------------------------------

<b>Section No.</b>	<b>Title</b>	<b>Page Count</b>
--------------------	--------------	-------------------

<b>DIVISION 09</b>	<b>FINISHES</b>	<b>Not Used</b> <input type="checkbox"/>
--------------------	-----------------	------------------------------------------

<b>Section No.</b>	<b>Title</b>	<b>Page Count</b>
<b>09 91 00</b>	<b>Painting</b>	<b>5</b>

**VOLUME 1 of 1**  
(continued)

<b>DIVISION 10</b>	<b>SPECIALTIES</b>	<b>Not Used</b> <input checked="" type="checkbox"/>
<b>Section No.</b>	<b>Title</b>	<b>Page Count</b>

<b>DIVISION 11</b>	<b>EQUIPMENT</b>	<b>Not Used</b> <input checked="" type="checkbox"/>
<b>Section No.</b>	<b>Title</b>	<b>Page Count</b>

<b>DIVISION 12</b>	<b>FURNISHINGS</b>	<b>Not Used</b> <input checked="" type="checkbox"/>
<b>Section No.</b>	<b>Title</b>	<b>Page Count</b>

<b>DIVISION 13</b>	<b>SPECIAL CONSTRUCTION</b>	<b>Not Used</b> <input checked="" type="checkbox"/>
<b>Section No.</b>	<b>Title</b>	<b>Page Count</b>

<b>DIVISION 14</b>	<b>CONVEYING SYSTEMS</b>	<b>Not Used</b> <input checked="" type="checkbox"/>
<b>Section No.</b>	<b>Title</b>	<b>Page Count</b>

DIVISION 15	RESERVED	
-------------	----------	--

DIVISION 16	RESERVED	
-------------	----------	--

DIVISION 17	RESERVED	
-------------	----------	--

DIVISION 18	RESERVED	
-------------	----------	--

DIVISION 19	RESERVED	
-------------	----------	--

DIVISION 20	RESERVED	
-------------	----------	--

<b>DIVISION 21</b>	<b>FIRE SUPPRESSION</b>	<b>Not Used</b> <input checked="" type="checkbox"/>
<b>Section No.</b>	<b>Title</b>	<b>Page Count</b>

**VOLUME 1 of 1**  
(continued)

**DIVISION 22** **PLUMBING** **Not Used**

Section No.	Title	Page Count

**DIVISION 23** **HEATING, VENTILATING AND AIR CONDITIONING** **Not Used**

Section No.	Title	Page Count

**DIVISION 24** **RESERVED**

**DIVISION 25** **INTEGRATED AUTOMATION** **Not Used**

Section No.	Title	Page Count

**DIVISION 26** **ELECTRICAL** **Not Used**

Section No.	Title	Page Count
26 05 19	<b>Low-Voltage Electrical Power Conductors and Cables</b>	5
26 05 26	<b>Grounding and Bonding for Electrical Systems</b>	2
26 05 29	<b>Hangers and Supports for Electrical Systems</b>	4
26 05 33	<b>Raceways and Boxes for Electrical Systems</b>	7
26 05 43	<b>Underground Ducts and Raceways for Electrical Systems</b>	5
26 05 44	<b>Sleeves and Sleeve Seals for Electrical Boxes and Cabling</b>	4
26 05 48	<b>Seismic Controls for Electrical Systems</b>	5
26 05 53	<b>Identification for Electrical Systems</b>	9
26 09 23	<b>Lighting Control Devices</b>	4
26 09 36	<b>Digital Standalone Lighting Controls</b>	9
26 27 26	<b>Wiring Devices</b>	5
26 51 19	<b>LED Interior Lighting</b>	6
26 52 19	<b>Emergency and Exit Lighting</b>	6
26 56 13	<b>Lighting Poles and Standards</b>	6
26 56 19	<b>Exterior Lighting</b>	8

**DIVISION 27** **COMMUNICATIONS** **Not Used**

Section No.	Title	Page Count

**VOLUME 1 of 1**  
(continued)

<b>DIVISION 28</b>	<b>ELECTRONIC SAFETY AND SECURITY</b>	<b>Not Used</b> <input checked="" type="checkbox"/>
<b>Section No.</b>	<b>Title</b>	<b>Page Count</b>

DIVISION 29	RESERVED	
-------------	----------	--

DIVISION 30	RESERVED	
-------------	----------	--

<b>DIVISION 31</b>	<b>EARTHWORK</b>	<b>Not Used</b> <input checked="" type="checkbox"/>
<b>Section No.</b>	<b>Title</b>	<b>Page Count</b>

<b>DIVISION 32</b>	<b>EXTERIOR IMPROVEMENTS</b>	<b>Not Used</b> <input checked="" type="checkbox"/>
<b>Section No.</b>	<b>Title</b>	<b>Page Count</b>

<b>DIVISION 33</b>	<b>UTILITIES</b>	<b>Not Used</b> <input checked="" type="checkbox"/>
<b>Section No.</b>	<b>Title</b>	<b>Page Count</b>

<b>DIVISION 34</b>	<b>TRANSPORTATION</b>	<b>Not Used</b> <input checked="" type="checkbox"/>
<b>Section No.</b>	<b>Title</b>	<b>Page Count</b>

<b>DIVISION 35</b>	<b>WATERWAYS AND MARINE</b>	<b>Not Used</b> <input checked="" type="checkbox"/>
<b>Section No.</b>	<b>Title</b>	<b>Page Count</b>

DIVISION 36	RESERVED	
-------------	----------	--

DIVISION 37	RESERVED	
-------------	----------	--

DIVISION 38	RESERVED	
-------------	----------	--

DIVISION 39	RESERVED	
-------------	----------	--

<b>VOLUME 1 of 1</b> (continued)
-------------------------------------

<b>DIVISION 40</b>	<b>PROCESS INTEGRATION</b>	<b>Not Used <input checked="" type="checkbox"/></b>
<b>Section No.</b>	<b>Title</b>	<b>Page Count</b>

<b>DIVISION 41</b>	<b>MATERIAL PROCESSING</b>	<b>Not Used <input checked="" type="checkbox"/></b>
<b>Section No.</b>	<b>Title</b>	<b>Page Count</b>

<b>DIVISION 42</b>	<b>PROCESS HEATING, COOLING, AND DRYING</b>	<b>Not Used <input checked="" type="checkbox"/></b>
<b>Section No.</b>	<b>Title</b>	<b>Page Count</b>

<b>DIVISION 43</b>	<b>PROCESS GAS AND LIQUID HANDLING, PURIFICATION, AND STORAGE EQUIPMENT</b>	<b>Not Used <input checked="" type="checkbox"/></b>
<b>Section No.</b>	<b>Title</b>	<b>Page Count</b>

<b>DIVISION 44</b>	<b>POLLUTION CONTROL EQUIPMENT</b>	<b>Not Used <input checked="" type="checkbox"/></b>
<b>Section No.</b>	<b>Title</b>	<b>Page Count</b>

<b>DIVISION 45</b>	<b>INDUSTRY SPECIFIC MANUFACTURING EQUIPMENT</b>	<b>Not Used <input checked="" type="checkbox"/></b>
<b>Section No.</b>	<b>Title</b>	<b>Page Count</b>

<b>DIVISION 46</b>	<b>RESERVED</b>	
--------------------	-----------------	--

<b>DIVISION 47</b>	<b>RESERVED</b>	
--------------------	-----------------	--

<b>DIVISION 48</b>	<b>RESERVED</b>	
--------------------	-----------------	--

<b>DIVISION 49</b>	<b>RESERVED</b>	
--------------------	-----------------	--

**VOLUME 1 of 1**  
(continued)

DIVISION 50	PROJECT-SPECIFIC AVAILABLE INFORMATION	Page Count	Not Used <input type="checkbox"/>
50 10 00	Existing Conditions Information	1	<input type="checkbox"/>
50 20 00	Environmental Assessment Information		<input checked="" type="checkbox"/>
50 30 00	Hazardous Building Materials Inspection and Inventory	10	<input type="checkbox"/>
50 40 00	Subsurface Geotechnical Report		<input checked="" type="checkbox"/>
50 50 00	Elevator Agreement		<input checked="" type="checkbox"/>
50 60 00	FM Global Checklist For Roofing Systems		<input checked="" type="checkbox"/>
50 70 00	Statement of Special Inspections		<input checked="" type="checkbox"/>
50 80 00	Other Information:		<input checked="" type="checkbox"/>
	50 80 00.1		<input checked="" type="checkbox"/>
	50 80 00.2		<input checked="" type="checkbox"/>
	50 80 00.3		<input checked="" type="checkbox"/>

End of Section  
00 01 10 Table of Contents

## Pre-Bid Meeting Agenda:

**DAS ● Construction Services ● Office of Legal Affairs, Policy, and Procurement**

### 1.0 Pre-Bid Meeting:

**1.1** The **Construction Administrator** will conduct a Pre-Bid Meeting.  
For the Pre-Bid Meeting Date, Time, and Location see Section 00 11 16 Invitation To Bid for this Specific Bid.

**1.2 Attendance:**

<b>1.2.1</b>	<b>General Contractor:</b>	Attendance at the Pre-Bid Meeting is <b>MANDATORY</b> . At the Pre-Bid Meeting, all prospective bidders shall <i>sign</i> his or her name on the <b>official roster</b> and <i>list</i> the name and address of the company he or she represents. For <b>MANDATORY</b> Pre-Bid Meetings, this shall be done no later than the designated <b>start time</b> of the Pre-Bid Meeting. Prospective bidders are advised to register early as <b>no</b> attendee will be allowed to register <i>after</i> the advertised start time. <b>Bids</b> submitted by contractors who have <i>not properly</i> registered and attended the <b>MANDATORY</b> Pre-Bid Meeting <i>shall be rejected</i> as <b>non-responsive</b> .
<b>1.2.2</b>	<b>Subcontractors:</b>	Attendance at the Pre-Bid Meeting is recommended.
<b>1.2.3</b>	<b>Pre-Bid Meeting Sign-in Sheet:</b>	It is <b>MANDATORY</b> that all attendees sign the <b>Pre-Bid Meeting Sign-in Sheet</b> .

**1.3 Site/Facility Visit or Walkthrough:** Please **do not** make any Site/Facility Visits without notifying the DAS/CS Project Manager prior to your visit.

- |              |                                     |                                                                                             |
|--------------|-------------------------------------|---------------------------------------------------------------------------------------------|
| <b>1.3.1</b> | <input checked="" type="checkbox"/> | <b>A Site/Facility Visit or Walkthrough is scheduled for the Pre-Bid Meeting</b>            |
| <b>1.3.2</b> | <input type="checkbox"/>            | <b>A Site/Facility Visit or Walkthrough is <u>NOT</u> scheduled for the Pre-Bid Meeting</b> |

**1.4 Bidder Questions:**

**1.4.1** Submit **written** questions to be discussed at the **Pre-Bid Meeting** a **minimum of two (2) Calendar Days prior to Pre-Bid Meeting date**. See the **Invitation to Bid** for instructions on submitting questions.  
**IMPORTANT NOTE:** In accordance with DAS Regulations, **no** participants in any Selection, Proposal, or Bidding process, including User Agency representative(s), shall communicate with any potential Offeror prior to, during, or upon conclusion of the entire Selection, Proposal, or Bidding procedure, with the exception of information necessary to complete the administrative steps of the Selection process.

### 2.0 Pre-Bid Meeting Agenda:

The Pre-Bid Meeting Agenda will include a review of topics, **as applicable to the Project**, which may affect proper preparation and submittal of bids, including, but not limited to, the following:

**2.1 Introduction of Participants:**

- |              |                                              |
|--------------|----------------------------------------------|
| <b>2.1.1</b> | <b>Architect/Engineer:</b> EDM               |
| <b>2.1.2</b> | <b>CA:</b> McCloud Group                     |
| <b>2.1.3</b> | <b>DAS Representative:</b> Nicholas Ross     |
| <b>2.1.4</b> | <b>Agency Representative:</b> Abigail Lawson |

**2.0 Pre-Bid Meeting Agenda (continued):**

<b>2.2</b>	<b>Project Summary:</b>
2.2.1	<b>Summary of Work:</b> See General Requirements Section 01 11 00
2.2.2	<b>Temporary Facilities and Controls:</b> See General Requirements Section 01 50 00
2.2.3	<b>Work Sequence:</b> See General Requirements Section 01 11 00
2.2.4	<b>Contractor Use of Premises:</b> See General Requirements Section 01 11 00
2.2.5	<b>Project Schedule</b>
2.2.6	<b>Contract Time</b>
2.2.7	<b>Liquidated Damages:</b> See General Conditions Section 00 73 13, Articles 1 and 8, and 00 41 00 Bid Proposal Form.

<b>2.3</b>	<b>Procurement and Contracting Requirements:</b>
2.3.1	<b>Section 00 11 16 – Invitation to Bid</b>
2.3.2	<b>Section 00 21 13 – Instructions to Bidders</b>
2.3.3	<b>Section 00 41 00 – Bid Proposal Form</b>
2.3.4	<b>Section 00 41 10 – Bid Package Submittal Requirements</b>
2.3.5	<b>Section 00 30 00 – General Statements for Available information</b>
2.3.6	<b>Division 50 – Project-Specific Available Information</b>
2.3.7	<b>Bonding</b>
2.3.8	<b>Insurance</b>
2.3.9	<b>Bid Security</b>
2.3.10	<b>Notice of Award</b>

<b>2.4</b>	<b>Communication During Bidding Period:</b>
2.4.1	<b>Obtaining Bid Documents</b>
2.4.2	<b>Access to DAS Website, BizNet, and State Contracting Portal</b>
2.4.3	<b>Bidder's Requests for Information:</b> See General Requirements Sections 01 26 00
2.4.4	<p><b>Substitution Procedures (Prior to Bid):</b> See General Requirements Section 01 25 00 &amp; General Conditions Section 00 73 13, Article 15.</p> <p>The Owner will consider Pre-Bid Equals or Substitutions Requests, if made <b>fourteen (14)</b> Calendar Days <b>prior</b> to the <b>Bid Due Date</b>. The information on all materials shall be consistent with the information herein.</p>
2.4.5	<p><b>Substitutions following Contract Award:</b> See General Requirements Section 01 25 00 &amp; General Conditions Section 00 73 13, Article 15.</p> <p>Subject to the Architect or Engineer's determination, if the material or equipment is Equal to the one specified or pre-qualified and the DAS/CS Project Manager's approval of such determination, Substitution of Material or Equipment may be allowed after the Letter of Award is issued, as specified in the Conditions Section 00 73 13, Article 15.</p>
2.4.6	<b>Addenda Procedures:</b> See Item No. 2.7 of this form



**2.0 Pre-Bid Meeting Agenda (continued):**

**2.5 Contract Considerations:**

- 2.5.1 **Allowances:** See General Requirements Section 01 20 00
- 2.5.2 **Unit Prices:** See General Requirements Section 01 20 00
- 2.5.3 **Supplemental Bid:** See General Requirements Section 01 23 13 and 00 41 00 Bid Proposal Form.

**2.6 Separate Contracts:**

- 2.6.1 **Work by Owner**
- 2.6.2 **Work of Other Contracts**

**2.7 Post Pre-Bid Meeting Addendum:**

- 2.7.1 **No Interpretations** of the meaning of the plans, specifications or other contract documents will be made orally at any time. Every bidder **request** for such interpretation **shall** be in writing to the awarding authority and to be given consideration **shall** be received at least **fourteen (14)** Calendar Days **prior** to the Bid Due Date. Any and all such **interpretations** and any **supplemental instructions** will be in the form of written **addenda** to the specifications which, *if* issued, will be posted on the State Contracting Portal.
- 2.7.2 **Other Bidder Questions**

**2.8 Other Agenda Topics and Notes:**

- 2.8.1
- 2.8.2

### 3.0 Pre-Bid Meeting Minutes:

#### 3.1 Recording and Distribution of Pre-Bid Meeting Minutes:

- 3.1.1 The **Construction Administrator** is responsible for conducting the Pre-Bid Meeting and will record and distribute meeting minutes to attendees [and others known by the issuing office to have received a complete set of Procurement and Contracting Documents].

#### 3.2 Pre-Bid Meeting Minutes as “Available Information”

- 3.2.1 Minutes of the Pre-Bid Meeting are issued as “Available Information” and **do not** constitute a modification to the Procurement and Contracting Documents. **Modifications to the Procurement and Contracting Documents are issued by written Addendum only.**

#### 3.3 Pre-Bid Meeting Sign-in Sheet:

- 3.3.1 Minutes will include the list of meeting attendees.

#### 3.4 List of Planholders:

- 3.4.1 Minutes will include the list of planholders.

End of Section  
00 25 13 Pre-Bid Meeting Agenda

List of Drawing Sheets	
Sheet No.	Title
	COVER SHEET
<b>G1.01</b>	PHASING PLANS
<b>G1.02</b>	PHASING PLANS
<b>AD2.11</b>	FIRST FLOOR REFLECTED CEILING DEMOLITION PLAN
<b>AD2.21</b>	SECOND FLOOR REFLECTED CEILING DEMOLITION PLAN
<b>AD2.31</b>	THIRD FLOOR AND MECHANICAL PENTHOUSE REFLECTED CEILING DEMOLITION PLAN
<b>A2.11</b>	FIRST FLOOR AND INSPECTION BUILDING REFLECTED CEILING PLAN
<b>A2.21</b>	SECOND FLOOR REFLECTED CEILING PLAN
<b>A2.31</b>	THIRD FLOOR AND MECHANICAL PENTHOUSE REFLECTED CEILING PLAN
<b>E0.01</b>	ELECTRICAL SYMBOLS, NOTES & ABBREVIATIONS
<b>E0.02</b>	ELECTRICAL SCHEDULES
<b>E0.03</b>	ELECTRICAL LIGHTING CONTROL DETAILS
<b>E0.04</b>	ELECTRICAL DETAILS & LIGHTING CONTROL SCHEDULES
<b>ED1.01</b>	FIRST FLOOR AND INSPECTION BUILDING LIGHTING DEMOLITION PLAN
<b>ED1.02</b>	SECOND FLOOR LIGHTING DEMOLITION PLAN
<b>ED1.03</b>	THIRD FLOOR AND MECHANICAL PENTHOUSE LIGHTING DEMOLITION PLAN
<b>E1.01</b>	FIRST FLOOR AND INSPECTION BUILDING LIGHTING PLAN
<b>E1.02</b>	SECOND FLOOR LIGHTING PLAN
<b>E1.03</b>	THIRD FLOOR AND MECHANICAL PENTHOUSE LIGHTING PLAN
<b>ES1.00</b>	SITE LIGHTING PLAN

**End of Section  
00 01 15 List of Drawing Sheets**





Advertisement No.:	21-01	Advertisement Date:	January 22, 2021
--------------------	-------	---------------------	------------------

<p><b>INVITATION TO BID</b></p> <p>Connecticut Department of Administrative Services (DAS) Construction Services (CS) Office of Legal Affairs, Policy and Procurement 450 Columbus Blvd, Suite 1302, Hartford, CT 06103-1835</p>
------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

<p><b>Find Invitations to Bid on CTsource:</b></p>	<p>Go to the DAS Construction Services Bid Board on CTsource: <a href="https://portal.ct.gov/DAS/Construction-Services/BidBoard">https://portal.ct.gov/DAS/Construction-Services/BidBoard</a> Select the appropriate Solicitation.</p>
<p><b>Instructions for Online Bidding:</b> (Updates are shown in yellow highlight)</p>	<p>Follow the instructions in <b>6001 Construction Online Bidding Instructions</b>, available for download from the online DAS/CS Library (<a href="http://portal.ct.gov/DASCSLibrary">http://portal.ct.gov/DASCSLibrary</a>) &gt; 6000 Series.</p>

Date and Time of Bid Opening:	<table border="1"> <tr> <td style="text-align: center;">March <i>(Month)</i></td> <td style="text-align: center;">10 <i>(Day)</i></td> <td style="text-align: center;">2021 <i>(Year)</i></td> </tr> </table>	March <i>(Month)</i>	10 <i>(Day)</i>	2021 <i>(Year)</i>	Time: 1:00 PM <i>(ET)</i>
March <i>(Month)</i>	10 <i>(Day)</i>	2021 <i>(Year)</i>			

**This Invitation to Bid is for the following Project:**

<b>Project Title:</b>	Wethersfield DMV Lighting Fixture & Controls Retrofit		
<b>Project Location:</b>	60 State Street Wethersfield, CT		
<b>Project Number:</b>	BI-MM-58		
<b>Project Description:</b>	See <b>Specifications Section 01 11 00 Summary of Work, Section 1.3</b>		
<b>Construction Costs:</b>	Greater Than \$500,000		
<b>Bidding Limited To:</b>	Contractors Prequalified by DAS for General Trades (Interior Work Only)		
<b>Threshold Limits:</b> (C.G.S. §29-276b)	This Project DOES NOT exceed Threshold Limits.		
<b>Set-Aside Requirements:</b>	SBE Subcontractors &/or Suppliers: 25%; MBE Subcontractors &/or Suppliers: 6.25%		
<b>Date DAS/CS Began Planning Project:</b>	11-13-2018		
<b>Special Requirements:</b>	N/A		
<b>Cost Estimate Range:</b>	\$ 1,415,500.	To \$	1,564,500.
<b>Date Plans &amp; Specs Ready:</b>	January 22, 2021		
<b>Plans and Specs Download:</b>	Plans and Specs are available for electronic download from <b>CTsource</b> .		
<b>Contract Time Allowed:</b>	<b>Calendar Days:</b>	180	
<b>Liquidated Damages:</b>	\$ 2,093.00	Per Calendar Day Beyond Substantial Completion.	
	\$ 578.00	Per Calendar Day Beyond 90 days After Substantial Completion.	



Advertisement No.:	21-01	Advertisement Date:	January 22, 2021
--------------------	-------	---------------------	------------------

<b>Invitation to Bid (continued)</b>
--------------------------------------

<b>Pre-Bid Meeting Date:</b>	February 4, 2021		
	<input checked="" type="checkbox"/>	Bidders are <b><i>strongly encouraged</i></b> to attend the Pre-Bid Meeting.	
	<input type="checkbox"/>	Bidders are <b><i>required</i></b> to attend a <b>MANDATORY</b> Pre-Bid Meeting.	
<b>Pre-Bid Meeting Time:</b>	9:00 – 10:00	<input checked="" type="checkbox"/> AM	<input type="checkbox"/> PM
<b>Pre-Bid Meeting Location:</b>	Virtual Meeting via Microsoft Teams <a href="#">BI-MM-58 Pre-Bid MS Teams Link</a>		
<b>Pre-Bid Meeting Contact:</b>	<b>DAS/CS Project Manager:</b>	Nicholas Ross	
	<b>Phone No.:</b>	860.597.9142	
<b>Bid Proposal Submission and Other Bid Submittal Requirements:</b>	See <b>Sections 00 21 13 Instructions to Bidders, 00 41 00 Bid Proposal Form, and 00 41 10 Bid Package Submittal Requirements</b> for Bid Proposal submission requirements, including requirements for Affidavits, Certifications, Addenda, Pre-Bid Equals and Substitution Requests, and other bidding documents.		
<b>Bid Upload and Bid Opening:</b>	Bids can be uploaded and edited electronically on <b>CTsource</b> <b>UNTIL 1:00 p.m.</b> on the <b>Bid Opening Date</b> and thereafter shall be locked down and publicly opened on <b>CTsource</b> .		
<b>Bid Results:</b>	Within approximately two (2) days after the Bid Opening Date, the Bid Results will be posted on <b>CTsource</b> .		
<b>Guide to the Code of Ethics For Current or Potential State Contractors (for contracts greater than \$500,000):</b>	Anyone seeking a contract with a value of more than \$500,000 shall electronically download the <b>Guide to the Code of Ethics For Current or Potential State Contractors</b> from the of Office of State Ethics (OSE) website <a href="http://www.ct.gov/ethics">www.ct.gov/ethics</a> , then click on the “ <b>Publications</b> ” link.		
<b>Prevailing Wage Rates:</b>	<p>Prevailing wages are required on this project, in accordance with the schedule provided in <b>Section 00 73 44 Prevailing Wage Rates</b>, pursuant to Connecticut General Statutes (C.G.S.) Section 31-53 (a) through (h), as amended.</p> <p>Each contractor who is awarded a contract on or after October 1, 2002 shall be subject to provisions of C.G.S. § 31-55a concerning annual adjustments to prevailing wages.</p> <p>Wage Rates will be posted each July 1st on the Department of Labor website <a href="http://www.ctdol.state.ct.us">www.ctdol.state.ct.us</a>. Such prevailing wage adjustment shall <b>not</b> be considered a matter for any contract amendment.</p>		
<b>To access Executive Orders:</b>	Go to <a href="http://www.ct.gov">www.ct.gov</a> > Governor Ned Lamont > Executive Orders.		
<b>UPDATED DOCUMENTS:</b>	<p>Many <b>Division 00</b> and <b>Division 01</b> documents have been updated. Read all of the contents of the Project Manual <i>carefully!</i></p> <p>All Contractors are cautioned that any modifications or alterations made to either the Project Manual or any of the forms and documents contained herein may be just cause to <b>reject the bid!</b></p>		



Advertisement No.:	21-01	Advertisement Date:	January 22, 2021
--------------------	-------	---------------------	------------------

### Invitation to Bid (continued)

**PROCESS FOR CONSTRUCTION STORMWATER GENERAL PERMIT:**

See **Section 01 50 00 Temporary Facilities and Controls.**

For all DAS/CS construction projects disturbing **one or more total acres of land area** on a site regardless of project phasing, the **Architect/Engineer** shall be responsible for filing a Department of Energy and Environmental Protection (DEEP) **General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities (DEEP-WPED-GP-015)** registration and Stormwater Pollution Control Plan (SPCP) through the online DEEP ezFile Portal **prior** to bidding.

Once the **Contractor** is under contract with DAS/CS, and **prior** to the commencement of any construction activities, the Contractor (and all other contractors and subcontractors listed on the SPCP) shall assume responsibility for storm water pollution control and conform to the general permit obligations and requirements by **signing** the SPCP "Contractor Certification Statement" and License Transfer Form as directed by the Architect/Engineer.

At completion of the project, the Contractor shall file a **Notice of Termination (DEP-PED-NOT-015)** with the DEEP in order to terminate the Construction Stormwater General Permit. A project shall **only** be considered complete after all **post-construction** measures are installed, cleaned, and functioning and the site has been stabilized for at least **three (3) months** following the cessation of construction activities.

**UPDATED: CONTRACTOR AND SUBCONTRACTOR PAYMENTS REPORTING NOW IN PMWEB:**

See **Section 00 21 13 Instructions to Bidders** (Subsection 3.13) and **Section 01 11 00 Summary of Work** (Subsection 1.11).

For compliance with **C.G.S. § 4b-95 and 49-41a**, DAS/CS requires every Contractor (and its Subcontractors) who has been awarded a DAS/CS construction contract to log on to the State of Connecticut web-based platform, **PMWeb**, **each month** and **enter payments** they have received from the state, from the Contractor, or from a higher tier Subcontractor (as applicable).

The process is described as follows: After the state has made payment to the Contractor for work performed (and purchases made) by it and its Subcontractors, the Contractor will input the payment date and amount they receive from the state on a monthly basis. The Contractor's first-level Subcontractor (Tier 1 Subcontractor) will input the payment they receive from the Contractor. The second-level Subcontractor (Tier 2 Subcontractor) will input the payment they receive from the Tier 1 Subcontractor. And so on.

Contractors awarded a DAS/CS construction contract shall contain a **provision in their subcontract agreements** requiring their Subcontractors to enter payment receipt from the Contractor in the State of Connecticut web-based platform, **PMWeb**, for work performed or purchases made in relation to state projects.

Detailed instructions can be found in the DAS/CS publication, **6002 Instructions to Contractors/Subcontractors for Entering Payments Online**, available for download from the online DAS/CS Library (<http://portal.ct.gov/DASCSLibrary>) > 6000 Series.

**IMPORTANT NOTE:**

*The Commissioner of the Connecticut Department of Administrative Services reserves the right to do any of the following without liability, including but not limited to: (a) waive technical defects in the bid proposal as he or she deems best for the interest of the State; (b) negotiate with a contractor in accordance with Connecticut General Statutes Section 4b-91; (c) reject any or all bids; (d) cancel the award or execution of any contract prior to the issuance of the "Notice To Proceed"; and (e) advertise for new bids.*

**All Project Questions, Bid Questions, and Pre-Bid Equals and Substitution Requests must be submitted fourteen (14) Calendar Days prior to the Bid Due Date.**

All **Project Questions** and **Pre-Bid Equals and Substitution Requests** must be emailed (not phoned) to the **Architect/Engineer** with a **copy** to the **Construction Administrator** and the **DAS/CS Project Manager** listed below.

<b>Architect/Engineer:</b>	EDM Services, Inc.	<b>Email:</b>	jineson@edm-ae.com
<b>Construction Administrator:</b>	The McCloud Group	<b>Email:</b>	koutlaw@themcccloudgroup.com
<b>DAS/CS Project Manager:</b>	Nicholas Ross	<b>Email:</b>	Nicholas.Ross@ct.gov

All **Bid Questions** must be emailed to the **DAS/CS Associate Fiscal Administrative Officer** listed below.

<b>DAS/CS Associate Fiscal Administrative Officer:</b>	Mellanee Walton	<b>Email:</b>	Mellanee.Walton@ct.gov
--------------------------------------------------------	-----------------	---------------	------------------------





## Instructions to Bidders (Important updates will be shown in yellow highlights)

DAS | Construction Services | Office of Legal Affairs, Policy, and Procurement

### 1.0 General Bid Proposal Information

#### 1.1 Online Bidding:

DAS/CS requires all firms to upload their **Bid Package Documents online** through the **new CTsource e-Procurement system** **prior** to the date and time of the **Bid Opening**. See **Page 1** of the **Invitation to Bid** for the **date and time of the Bid Opening**. The submission of paper Bid Package Documents is no longer acceptable by DAS/CS. The Bid Proposal **must be signed prior** to the date and time of the **Bid Opening**. Detailed instructions for uploading Bid Package Documents can be found in the DAS/CS publication *6001 Construction Online Bidding Instructions*, available for download from the online DAS/CS Library (<http://portal.ct.gov/DASCSLibrary>) > 6000 Series. For questions, email Mellanee Walton at [Mellanee.Walton@ct.gov](mailto:Mellanee.Walton@ct.gov).

#### 1.2 Bid Opening:

All Bids shall be publicly opened in **CTsource** by the awarding authority as stated in **Section 00 11 16 Invitation to Bid**.

#### 1.3 Withdrawal of Bid:

**Any Bid on CTsource can be retracted and then either deleted or edited prior to the date and time of the Bid Opening.**

#### 1.4 Disqualification from Bidding:

Any contractor who violates any provision of **Connecticut General Statutes (C.G.S.) § 4b-95**, as revised, shall be **disqualified** from bidding on other contracts for a period not to exceed **twenty-four (24) months**, commencing from the date on which the violation is discovered, for each violation.

#### 1.5 Waive Minor Irregularities:

**1.5.1** The awarding authority **shall** be authorized to **waive minor irregularities** which he or she considers in the best interest of the State, provided the reasons for any such waiver are stated in writing by the awarding authority and made a part of the contract file.

**1.5.2** **No** such bid shall be rejected because of the failure to submit prices for, or information relating to, any item or items for which no specific space is provided in the bid form furnished by the awarding authority, but this sentence shall not be applicable to any failure to furnish prices or information required by **C.G.S. § 4b-95**, as revised, to be furnished in the bid form provided by the awarding authority.

#### 1.6 Minimum Percentage of Work:

The awarding authority **may** require in the **Bid Proposal Form** that the contractor agree to perform a stated, minimum percentage of work with its **own forces**, in accordance with **C.G.S. § 4b-95(b)**.

#### 1.7 Set-Aside Contracts:

The awarding authority **may also** require the contractor to set aside a portion of the contract for subcontractors who are eligible for **set-aside contracts**.

#### 1.8 Connecticut Sales And Use Taxes:

**1.8.1** **All Bidders shall** familiarize themselves with the current statutes and regulations of the **Connecticut Department of Revenue Services (DRS)**, including the Regulations of Connecticut State Agencies (R.C.S.A.) §12-426-18 and all relevant state statutes. The tax on materials or supplies exempted by such statutes and regulations shall not be included as part of a bid. To find and download a copy of the **Sales and Use Tax Exemption for Purchases by Qualifying Governmental Agencies (CERT-134)**, go to the DRS website: ([www.ct.gov/drs](http://www.ct.gov/drs)) and click on the following links: Forms > Forms by Tax Type > Exemption Certificates > CERT-134.

**1.8.2** The State of Connecticut construction contract has the following tax exemptions: (1) Purchasing of materials which will be physically incorporated and become a permanent part of the project; and (2) Services that are resold by the contractor. For example, if a 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.

**1.8.3** The following items are **not** exempt from taxes when used to fulfill a State of Connecticut construction contract: Tools, supplies and equipment used in fulfilling the construction contract.

#### 1.9 Union Labor:

Attention is called to the fact that there may or could be construction work carried on at the site by union labor. This fact must be kept in mind by all Bidders.

<b>1.10 Rejection of Bids:</b>	
The awarding authority <i>shall reject</i> every such <b>Bid Proposal</b> , including but not limited to, the following reasons:	
<b>1.10.1</b>	A <b>Bid Proposal Form</b> that does <i>not</i> contain the signature of the bidder or its authorized representative.
<b>1.10.2</b>	A <b>Bid Proposal Form</b> that is <i>not</i> accompanied by the following documents in <b>CTsource</b> : <ul style="list-style-type: none"> <li>.1 <b>Section 00 43 16 Standard Bid Bond</b>, completed for <i>either</i> the <b>Bid Bond</b> option <i>or</i> <b>Certified Check</b> option;</li> <li>.2 A <b>Certified Check</b> (if applicable) delivered to the DAS/CS Office of Legal Affairs, Policy, and Procurement <i>prior</i> to the date and time of the Bid Opening;</li> <li>.3 <b>Section 00 45 14 General Contractor Bidder’s Qualification Statement</b></li> <li>.4 A <b>DAS Contractor Prequalification Certificate</b> for the Bidder for Projects <i>greater</i> than <b>\$500,000</b>;</li> <li>.5 A <b>DAS Update (Bid) Statement</b> for the Bidder for Projects <i>greater</i> than <b>\$500,000</b>;</li> <li>.6 A <b>Gift and Campaign Contribution Certification – Office of Policy and Management (OPM) Ethics Form 1</b>;</li> <li>.7 A <b>Consulting Agreement Affidavit – OPM Ethics Form 5</b>. <b>NOTE: If the Bidder fails to submit or upload the Consulting Agreement Affidavit</b> required under C.G.S. § 4a-81, such bidder shall be <i>disqualified</i> and the award shall be made to the next lowest responsible qualified bidder or new bids or proposals shall be sought;</li> <li>.8 An <b>Ethics Affidavit (Regarding State Ethics) – OPM Ethics Form 6</b>;</li> <li>.9 An <b>Iran Certification – OPM Ethics Form 7</b>.</li> </ul>
<b>1.10.3</b>	A <b>Bid Proposal Form</b> that: <ul style="list-style-type: none"> <li>.1 Fails to <b>acknowledge</b> all <b>Addenda</b> in the space provided in the <b>Bid Proposal Form</b>;</li> <li>.2 Fails to <b>correctly list ALL of the Named Subcontractors within a particular Class of Work</b> on the <b>Bid Proposal Form for subcontracts in excess of \$100,000</b>;</li> <li>.3 Fails to <b>correctly state a Named Subcontractor’s price</b> on the <b>Bid Proposal Form</b>; and</li> <li>.4 Fails to <b>list Named Subcontractors</b> who are <b>DAS Prequalified at the time of the bid</b>.</li> </ul>
<b>1.10.4</b>	A <b>Bid Proposal Form</b> that is <i>not</i> submitted on the <b>forms furnished</b> for the specific project. <b>NOTE: In no event</b> will bids or changes in bids be made by telephone, telegraph, facsimile or other communication technology except through <b>CTsource</b> . <b>All</b> pages of the <b>Bid Proposal Form must</b> be uploaded to <b>CTsource</b> prior to the date and time of the Bid Opening.
<b>1.10.5</b>	A <b>Bid Proposal Form</b> that has omitted items, omitted pages, added items not called for, altered the form, contains conditional bids, contains alternative bids, or contains obscure bids.
<b>1.10.6</b>	A <b>paper Bid Package</b> sent to the DAS/CS Office of Legal Affairs, Policy, and Procurement. Such bids will be returned to the bidder unopened.
<b>1.10.7</b>	<b>Any Bidder</b> that does <i>not</i> make all required <b>pre-award submittals</b> <i>within</i> the designated time period. DAS/CS <i>may</i> reject such bids as <b>non-responsive</b> .
<b>1.11 Pre-Bid Meeting:</b>	
<b>1.11.1</b>	See <b>Section 00 11 16 Invitation to Bid</b> and <b>Section 00 25 13 Pre-Bid Meeting Agenda</b> for details.
<b>1.11.2</b>	When a <b>Pre-Bid Meeting</b> is “ <b>strongly encouraged</b> ”, all attendees shall sign his or her name to the official roster and list the name and address of the company he or she represents.
<b>1.11.3</b>	When a <b>Pre-Bid Meeting</b> is <b>MANDATORY</b> , all attendees will be required to register. <b>Proper registration</b> means that the attendee has signed his or her name to the official roster and listed the name and address of the company he or she represents on the official roster no later than the designated start time of the <b>MANDATORY Pre-Bid Meeting</b> . Bidders are advised to register early as <b>no</b> attendee will be allowed to register <i>after</i> the advertised start time of the <b>MANDATORY Pre-Bid Meeting</b> .  <b>All bids submitted by all contractors who have not properly registered and attended the MANDATORY Pre-Bid Meeting shall be rejected as non-responsive.</b>
<b>1.11.4</b>	<b>All Bidders Attending a Pre-Bid Meeting at a Connecticut Department of Corrections (DOC) Facility shall complete and submit the DOC “Security Background Questionnaire” prior</b> to the Pre-Bid Meeting. To find and download a copy of the <b>Security Background Questionnaire</b> , go to the <b>DOC website (<a href="http://www.ct.gov/doc">www.ct.gov/doc</a>)</b> , scroll down to “Publications” and click on “Forms” then “Security Background Questionnaire”. Complete and submit the form as directed, and obtain approval, otherwise admission to the Pre-Bid Meeting <b>will be denied</b> . It is recommended that the approved form be brought as evidence of approval to attend the Pre-Bid Meeting.

<b>1.12 Pre-Bid Equals and Substitution Requests Procedures:</b>	
<b>1.12.1</b>	All submissions requesting "Equals and/or Substitutions" shall be made by the <b>Bidder</b> in accordance with <b>Section 01 25 00 Substitution Procedures</b> of the <b>Division 01 General Requirements and Article 15, Materials: Standards of Section 00 72 13 General Conditions</b> . Every submission shall contain all the information necessary for DAS/CS to evaluate the submission and the request. Failure to submit sufficient information to make a proper evaluation, including submittal of data for the first manufacturer listed as well as the data for the " <b>Equals and/or Substitutions</b> " proposed, shall result in a <b>rejection</b> of the submission and request. Upon receipt of the submission and request, DAS/CS shall notify the <b>Bidder</b> that the request has been received and as soon as possible shall render a decision on such submission and request.
<b>1.12.2</b>	<b>Pre-Bid-Opening Substitution of Materials and Equipment:</b> The Owner will consider requests for equals or substitutions <i>if received fourteen (14) Calendar Days prior</i> to the <b>Bid Opening Due Date</b> , as stated in the <b>Invitation To Bid</b> . The <b>Equal or Substitute Product Request (Form 7001)</b> must be used to submit requests. Download <b>Form 7001</b> from the online DAS/CS Library ( <a href="http://portal.ct.gov/DASCSLibrary">http://portal.ct.gov/DASCSLibrary</a> ) > 7000 Series.
<b>1.12.3</b>	<b>Equals and/or Substitutions Requests Submittal:</b> Requests for Equals or Substitutions shall be submitted to the <b>DAS/CS Project Manager, Architect / Engineer, and Construction Administrator</b> .
<b>1.12.4</b>	<b>Substitution Request Deadline:</b> Any substitution request not complying with requirements will be denied. Substitution requests sent <b>after</b> the <b>Deadline</b> will be denied.
<b>1.12.5</b>	<b>Addendum:</b> An Addendum shall be issued to inform all prospective bidder of any accepted substitution in accordance with our addenda procedures.
<b>1.12.6</b>	<b>Time Extensions:</b> No extensions of time will be allowed for the time period required for consideration of any Substitution or Equal.
<b>1.12.7</b>	<b>Post Contract Award Substitution of Materials and Equipment:</b> All requests for "Equals and Substitutions" <b>after</b> the Award of the Contract shall be made <b>only</b> by the <b>Prime Contractor</b> for materials or systems specified that are no longer available. The requests will not be considered if the product was not purchased in a reasonable time after award, in accordance with <b>Article 15, Materials: Standards of Section 00 72 13 General Conditions</b> .
<b>1.13 Joint Ventures:</b>	
<b>1.13.1</b>	<b>Each entity</b> in a Joint Venture shall submit with the Venture's bid a <b>letter</b> on their respective company letterheads stating: <ul style="list-style-type: none"> <li>· Their <b>agreement to bid</b> as a Joint Venture with the other named Joint Venture, and set forth the <b>name and address</b> of the other Joint Venture(s).</li> <li>· The <b>respective percentage of the project work</b> that would be the responsibility of each of the Joint Ventures.</li> </ul>
<b>1.13.2</b>	<b>Prequalification: Each entity</b> in a Joint Venture shall submit its <b>Prequalification Certificate and Update (Bid Statement)</b> . <b>Each entity</b> in a Joint Venture shall be <b>prequalified</b> at the time of the bid and during the entire project construction. <b>Each entity</b> in a Joint Venture shall have the <b>prequalification single project limit</b> , and <b>remaining aggregate capacity balance</b> to meet the value of its respective percentage of the joint proposed bid.
<b>1.13.3</b>	<b>Each entity</b> in a Joint Venture shall submit <b>Section 00 45 14 General Contractor Bidder's Qualification Statement</b> .
<b>1.13.4</b>	<b>Bonding:</b> The Joint Venture shall obtain the required <b>bonding</b> from a surety for the <b>total amount</b> of the contract price.
<b>1.13.5</b>	<b>Insurance: Each entity</b> in a Joint Venture shall have the <b>required insurance coverages and limits</b> to meet the insurance requirements of the contract. The Joint Venture shall provide <b>Builder's Risk insurance</b> .
<b>1.13.6</b>	<b>Bid Submission and Contract Signing:</b> If a Joint Venture submits a bid proposal, it shall be considered to be a proposal by <b>each</b> of the Joint Ventures, jointly and severally, for the performance of the entire contract as a Joint Venture in accordance with the terms and conditions of the contract. <b>Each entity</b> in a Joint Venture is required to <b>sign the contract</b> acknowledging that each Joint Venture shall be jointly and severally liable for the performance of the entire contract.
<b>1.13.7</b>	<b>Certificate of Legal Existence: Each entity</b> in a Joint Venture shall obtain a <b>Certificate of Legal Existence</b> and submit it with the contract documents.
<b>1.14 Procedure for Alleged Violation(s) of Part II Chapter 60 of C.G.S. Bidding and Contracts:</b>	
<b>1.14.1</b>	The Regulations of Connecticut State Agencies establishes a procedure for promptly hearing and ruling on claims alleging a violation or violations of the contract bidding provisions of Part II of Chapter 60 of the Connecticut General Statutes (hereinafter "Chapter 60"). In view of the fact that time is normally of the essence in awarding construction contracts under Chapter 60, the grievance procedures are intended to be quick, informal and conclusive so as to avoid delays which can increase costs and jeopardize the very ability of the State to proceed with needed public works projects.
<b>1.14.2</b>	Download " <b>6510 Procedure for Alleged Violation(s)</b> " and " <b>6505 Petition for Alleged Violation(s)</b> " from the online DAS/CS Library ( <a href="http://portal.ct.gov/DASCSLibrary">http://portal.ct.gov/DASCSLibrary</a> ) > 6000 Series.

<b>1.15 Labor Market Area:</b>	
<b>1.15.1</b>	All Bidders <i>shall</i> have read <b>C.G.S. §§ 31-52 and 31-52a</b> , as revised. These sections relate to the <b>preference of State citizens</b> and the <b>preference of residents of the labor market area</b> in which the work under the contract is to be done and the <b>penalties for violations</b> thereof.
<b>1.15.2</b>	In order to avoid violations by the contractor and to cooperate with and assist the State in the implementation of the statutory mandates, any bidder awarded a contract with the State <b>shall</b> be required to provide the State with the following information: <ul style="list-style-type: none"> <li>.1 The names and addresses of employees utilized by the contractor and by its subcontractors and how long each such employee has resided in Connecticut.</li> <li>.2 How long each employee has resided in the labor market area, as established by the State Labor Commissioner, in which the work under the contract is to be done. Labor market areas are indicated on the end of this section.</li> <li>.3 Within thirty (30) days after the start of work, the contractor <b>shall</b> submit a signed statement setting forth the procedures the contractor and its subcontractors have taken to assure that they have sought out qualified residents of the labor market area. Also, the statement <b>shall</b> include information as to how many persons were considered for employment and how many were actually hired. Such procedures will include, but not be limited to, obtaining names of available persons from area Employment Security Offices.</li> <li>.4 In the same manner as <b>Subsection 1.15.2.3</b> above, the statement <b>shall</b> indicate the steps taken to assure that the contractor and its subcontractors have sought out qualified residents of this State.</li> </ul>
<b>1.15.3</b>	The contractor <b>shall</b> cooperate with and provide information to the DAS/CS Project Manager or their designee assigned to collect and verify the information required. The State may request that all such information be updated during the term of the contract at reasonable times.
<b>1.15.4</b>	All such information gathered and compiled by the State <b>shall</b> be forwarded to the Labor Commissioner.
<b>1.15.5</b>	<b>Pursuant to C.G.S. § 31-52b, as revised:</b> <p style="padding-left: 40px;">“The provisions of C.G.S. § 31-52 and 31-52a <b>shall not</b> apply where the State or any subdivision thereof may suffer the loss of revenue granted or to be granted from any agency or department of the federal government as a result of said sections or regulative procedures pursuant thereto.”</p> <p>However, no exception shall be determined to be applicable unless stated in writing by the Commissioner of the Department of Administrative Services.</p>
<b>1.15.6</b>	<b>Website Link:</b> For guidance on the Connecticut Department of Labor (DOL) Labor Market Areas (LMA) go to the DOL website ( <a href="http://www.ctdol.state.ct.us/">http://www.ctdol.state.ct.us/</a> ) and under “Program & Services”, click on “Labor Market information”.
<b>1.16 Executive Orders:</b>	
<b>1.16.1</b>	All Executive Orders of which are incorporated into and are made a part of the Contract as if they had been fully set forth in it. The Contract is subject to the provisions of the following: <ul style="list-style-type: none"> <li>.1 <b>Executive Order No. 3:</b> Governor Thomas J. Meskill, promulgated 06/16/71, concerning labor employment practices;</li> <li>.2 <b>Executive Order No. 17:</b> Governor Thomas J. Meskill promulgated 02/15/73, concerning the listing of employment openings;</li> <li>.3 <b>Executive Order No. 16:</b> Governor John G. Rowland promulgated 08/04/99, concerning violence in the workplace;</li> <li>.4 <b>Executive Order No. 14:</b> Governor M. Jodi Rell, promulgated 04/17/06, concerning procurement of cleaning products and services; and</li> <li>.5 <b>Executive Order No. 49:</b> Governor Dannel P. Malloy, promulgated 05/22/15, concerning the requirement for certain state contractors to disclosure campaign contributions to candidates for statewide public office or The General Assembly and to ensure convenient public access to information related to gifts and campaign contribution disclosure affidavits by state contractors.</li> </ul>
<b>1.16.2</b>	All Executive Orders are available for download from the State of Connecticut website. Go to <a href="http://www.ct.gov">www.ct.gov</a> , click on “Governor Ned Lamont” and scroll down to “Executive Orders”.
<b>1.17 Retaliation For Disclosure of Information:</b>	
<b>1.17.1</b>	Each contract between a state or quasi-public agency and a large state contractor shall provide that, if an officer, employee, or appointing authority of a large state contractor takes or threatens to take any personnel action against any employee of the contractor in <b>retaliation</b> for such employee's <b>disclosure</b> of information to the Auditors of Public Accounts or the Attorney General under the provisions of <b>C.G.S. § 4-61dd (a)</b> , the contractor shall be liable for a civil penalty of not more than five thousand dollars for each offense, up to a maximum of twenty per cent of the value of the contract. Each violation shall be a separate and distinct offense and in the case of a continuing violation each calendar day's continuance of the violation shall be deemed to be a separate and distinct offense. The executive head of the state or quasi-public agency may request the Attorney General to bring a civil action in the Superior Court for the judicial district of Hartford to seek imposition and recovery of such civil penalty.
<b>1.17.2</b>	Each large state contractor shall post a <b>notice</b> of the provisions of <b>C.G.S. § 4-61dd</b> relating to large state contractors in a conspicuous place that is readily available for viewing by the employees of the contractor.

**1.18 Laws of the State of Connecticut:**

Forum and Choice of Law. The Bidder agrees that in the event it is awarded a Contract, the Bidder and the State deem the Contract to have been made in the City of Hartford, State of Connecticut. Both parties agree that it is fair and reasonable for the validity and construction of the Contract to be, and it shall be, governed by the laws and court decisions of the State of Connecticut, without giving effect to its principles of conflicts of laws. To the extent that any immunities provided by Federal law or the laws of the State of Connecticut do not bar an action against the State, and to the extent that these courts are courts of competent jurisdiction, for the purpose of venue, the complaint shall be made returnable to the Judicial District of Hartford only or shall be brought in the United States District Court for the District of Connecticut only, and shall not be transferred to any other court, provided, however, that nothing here constitutes a waiver or compromise of the sovereign immunity of the State of Connecticut. The Bidder waives any objection which it may now have or will have to the laying of venue of any claims in any forum and further irrevocably submits to such jurisdiction in any suit, action or proceeding.

**1.19 State's Sovereign Immunity:**

Nothing in this Agreement shall be construed as a waiver or limitation upon the **State's sovereign immunity**. To the extent this Section is found to be inconsistent with any other part of this Agreement, this Section shall control. This Section of the Agreement shall survive the completion and/or termination of this Agreement.

**2.0 Bid Proposal Form Instructions:**

**2.1 Bid Proposal Form:**

**2.1.1 All Bidders** shall upload **ALL** pages of **Section 00 41 00 Bid Proposal Form** to **CTsource**, prior to the date and time of the Bid Opening.

**2.2 Threshold Projects:**

**2.2.1** See **page 1** of the **Bid Proposal Form** to determine if this Project exceeds the **Threshold Limits**.

**2.2.2** If this Project exceeds Threshold Limits, **all Bidders** shall list their Firm's **Major Contractor Registration License Number** in the **Bid Proposal Form**.

**2.2.3** The **Apparent Low Bidder** shall also provide the Subcontractor(s) **Major Contractor Registration License** number(s) to the DAS/CS Office of Legal Affairs, Policy, and Procurement within **ten (10) business days after** receipt of the Letter of Intent from DAS/CS.

**2.2.4 Summary of Registration Requirements for Major Contractors:** Any person engaged in the business of construction, structural repair, structural alteration, dismantling or demolition of a structure or addition that exceeds the threshold limits provided in **C.G.S §29-276b**, or any person who, under the direction of a general contractor, performs or offers to perform any work that impacts upon the structural integrity of a structure or addition, including repair, alteration, dismantling or demolition of a structure or addition that exceeds the threshold limits shall engage in or offer to perform the work of a Major Contractor unless such person has first obtained a license or certificate of registration from the **Connecticut Department of Consumer Protection (DCP)**. Individuals must be licensed under the requirements of **C.G.S §20-341gg "Registration of Major Contractors"**. DCP shall issue a certificate of registration to any person who is prequalified pursuant to section 4a-100 who applies for registration in accordance with this section.

**2.2.5** The Bidder and all Subcontractors that engage in work that impacts upon the structural integrity of a structure or addition must register as a **Major Contractor** with DCP and obtain a **Major Contractor License** issued by DCP **PRIOR** to the date and time of the Bid Opening for this Project.

**2.2.6** For further information, go to the DCP Website ([www.ct.gov/dcp](http://www.ct.gov/dcp)).

**2.3 Proposed Lump Sum Base Bid, Allowances, and Contingent Work:**

**2.3.1** The proposed **Lump Sum Base Bid** shall be set forth in the space **provided on Section 00 41 00 Bid Proposal Form**.

**2.3.2** The **Proposed Lump Sum Base Bid** shall *include* all **Allowances**, all work indicated on the drawings and/or described in the specifications *except* for **Contingent Work**. See the **Bid Proposal Form, Section 01 20 00 Contract Considerations, and Section 01 23 13 Supplemental Bids** of Division 01 General Requirements for details regarding **Contingent Work**.

**2.3.3** "**Contingent Work**" includes **Unit Prices** (for Earth and Rock Excavation, Environmental Remediation, and/or Hazardous Building Materials Abatement) and **Supplemental Bids**. See **Section 01 20 00 Contract Considerations and Section 01 23 13 Supplemental Bids**, respectively, for applicability.

**2.3.4** The **Proposed Lump Sum Base Bid** shall be shown in *both numerical figures* and "**printed**" words **dollar amount**. In the event of any discrepancy the "**printed**" words **dollar amount** shall govern.

<b>2.4 Addenda and Interpretations:</b>	
2.4.1	The <b>Number of Addenda</b> issued by the State of Connecticut shall be set forth in the space provided on the <b>Bid Proposal Form</b> . It shall be the Bidder's responsibility to make inquiry as to, and to obtain, the Addenda issued, if any.
2.4.2	<b>Addenda</b> , if issued, will be posted on <b>CTsource</b> .
2.4.3	<b>Failure to acknowledge</b> all <b>Addenda</b> in the space provided in the Bid Proposal Form <b>shall</b> be cause for <b>rejection</b> of the bid.
2.4.4	Attaching <b>Addenda</b> to the <b>Bid Proposal Form</b> does <b>not</b> constitute an acknowledgement of all Addenda and does not relieve the Bidder from the requirement for the Bidder to acknowledge all Addenda in the space provided on the Bid Proposal Form.
2.4.5	<b>No interpretations</b> of the meaning of the plans, specifications or other contract documents will be made <b>orally</b> at any time. Every <b>request</b> for such interpretation <b>shall</b> be in <b>writing</b> to the awarding authority and to be given consideration <b>shall</b> be received at least <b>fourteen (14)</b> Calendar Days <i>prior</i> to the date fixed for the opening of bids. Any and all such <b>interpretations</b> and any <b>supplemental instructions</b> will be in the form of written <b>Addenda</b> to the specifications which, if issued, will be posted on <b>CTsource</b> .
<b>2.5 Bidder's Qualification Statement and Objective Criteria for Evaluating Bidders:</b>	
2.5.1	<b>All Bidders</b> shall download, complete, and upload <b>Section 00 45 14 General Contractor Bidder's Qualification Statement</b> to <b>CTsource</b> prior to the date and time of the Bid Opening. See <b>CTsource</b> for a template. This information shall be considered as part of the <b>Bid Proposal Form</b> . Failure of a Bidder to answer any question or provide required information <b>may</b> be grounds for the awarding authority to <b>disqualify</b> and <b>reject</b> the bid.
2.5.2	<b>All Bidders</b> shall comply with <b>Section 00 45 15 Objective Criteria Established for Evaluating Qualifications of Bidders</b> . The <b>Objective Criteria Established for Evaluating Qualifications of Bidders</b> are to assure that the State of Connecticut will secure the "lowest responsible and qualified bidder" who has the ability and capacity to successfully complete the Bid Proposal Form and the Work. Failure to comply with any portion of this requirement <b>may</b> cause <b>rejection</b> of the bid. <b>Note:</b> Individual Specification Sections <b>may</b> contain General Contractor and/or Subcontractor Qualification requirements that <i>exceed</i> those in <b>Section 00 45 15 Objective Criteria Established for Evaluating Qualifications of Bidders</b> .
<b>2.6 Bidder's Prequalification Requirements for Projects exceeding \$500,000:</b>	
2.6.1	<b>All Bidders</b> for Projects with <b>estimated Construction Costs greater than \$500,000</b> shall upload a current copy of their "DAS Prequalification Certificate" and "DAS Update (Bid) Statement" for the applicable <b>Class of Work</b> on <b>page 1 of Section 00 11 16 Invitation to Bid</b> to <b>CTsource</b> <i>prior</i> to the date and time of the Bid Opening.
2.6.2	Pursuant to <b>C.G.S. § 4b-91(a)(2)</b> and <b>C.G.S. §4a-100</b> , as revised, every contract for the construction, reconstruction, alteration, remodeling, repair or demolition of any public building or any other public work by the state that is <b>estimated</b> to exceed <b>five hundred thousand dollars (\$500,000)</b> shall be awarded <b>only</b> to the lowest responsible and qualified Bidder who is " <b>prequalified</b> " by DAS in the <b>Class of Work for this Project</b> , as specified in <b>Section 00 11 16 Invitation to Bid</b> . No person who's <b>Contract or Subcontract</b> exceeds <b>\$500,000</b> in value may perform work as a Contractor or Subcontractor, unless the person is <b>prequalified</b> , <i>at the time of bid submission</i> , in accordance with <b>C.G.S. § 4a-100</b> , as amended, <b>C.G.S. § 4b-91(a)(2)</b> , and <b>C.G.S. §4b-91(j)</b> . "Prequalified" includes the contractor's or substantial subcontractor's prequalification classifications, aggregate work capacity ratings and single project limits.
2.6.3	The State may waive minor irregularities that otherwise may cause rejection of a Bid only when waiving such minor irregularities is in the best interests of the State and the minor irregularities have been corrected by the Bidder within seven (7) Calendar Days after the Bid Due Date. Failure to properly complete, <u>sign</u> and <u>upload</u> either the " <b>DAS Prequalification Certificate</b> " or " <b>DAS Update (Bid) Statement</b> " to <b>CTsource</b> prior to the date and time of the Bid Opening <b>shall</b> cause <b>rejection</b> of the bid and shall <b>not</b> be considered a minor irregularity under <b>C.G.S. § 4b-95</b> .
2.6.4	See <b>Sections 00 40 15 DAS Contractor Prequalification Certification Requirements</b> and <b>00 40 16 DAS Update Bid Statement Requirements</b> for instructions on preparing and/or downloading your Firm's " <b>DAS Contractor Prequalification Certificate</b> " and " <b>DAS Update (Bid) Statement</b> ".
2.6.5	<b>Bidder's Certification:</b> Within <b>ten (10) business days after</b> receipt of the Letter of Intent from DAS/CS, the <b>Apparent Low Bidder</b> shall submit a <b>Bidder's Certification</b> certifying that the information in the bid is true, that there has been no substantial change in the Bidder's financial position or corporate structure since its most recent <b>DAS Prequalification Certificate</b> and <b>DAS Update (Bid) Statement</b> and that the bid was made without fraud or collusion with any person. See <b>Section 00 92 10 Additional Forms</b> of this Project Manual for a sample form.

<b>2.7 Named Subcontractor Requirements:</b>	
2.7.1	All Bid Proposals <b>shall</b> be for the complete work as specified and <b>shall</b> include the names of <b>ALL Subcontractors</b> for the <b>four (4) Classes of Work</b> specified in <b>C.G.S. § 4b-93(a)</b> , as revised, and for each other <b>Class of Work</b> for which the awarding authority has required a separate section pursuant to said subsection, together with the <b>Proposed Dollar Values of their subcontracts</b> . The contractor shall be selected on the basis of such bids.
2.7.2	The <b>Named Subcontractors Bid Prices</b> shall be the prices set forth in the spaces provided on the <b>Bid Proposal Form</b> .
2.7.3	No bid shall be rejected because of an error in setting forth the Name of a Subcontractor as long as the Subcontractor or Subcontractors designated are clearly identifiable.
2.7.4	No bid shall be rejected because the <b>Named Subcontractor's</b> plans and specifications do not accompany the bid or are not submitted with the bid.
2.7.5	Failure to correctly state <b>ALL of the Named Subcontractors' prices within a particular Class of Work</b> on the Bid Proposal Form <b>shall</b> be cause for <b>rejection</b> of the Bid.
2.7.6	<b>Named Subcontractor Replacement:</b> The awarding authority may require the <b>Bidder</b> to replace a <b>Named Subcontractor</b> whenever the awarding authority determines in their sole discretion that such <b>replacement</b> is in the <b>best interest of the State</b> .
<b>2.7.7 Named Subcontractor Substitution:</b>	
.1	The awarding authority <b>shall not</b> permit <b>substitution</b> of a subcontractor for one <b>Named</b> in accordance with the provisions of <b>C.G.S. § 4b-95</b> , as revised, <b>except</b> for " <b>Good Cause</b> ".
.2	The awarding authority <b>shall not</b> permit <b>substitution</b> of a subcontractor for any designated sub-trade work bid to be performed by the Bidder's own forces in accordance with the provisions of <b>C.G.S. § 4b-95</b> <b>except</b> for " <b>Good Cause</b> ".
.3	<b>"Good Cause":</b> The term "good cause" includes but is not limited to, a subcontractor's or, <b>where appropriate, a Bidder's:</b> (1) death or physical disability, if the listed subcontractor is an individual; (2) dissolution, if a corporation or partnership; (3) bankruptcy; (4) inability to furnish any performance and payment bond shown on the bid form; (5) inability to obtain, or loss of, a license necessary for the performance of the particular category of work; (6) failure or inability to comply with a requirement of law applicable to contractors, subcontractors, or construction, alteration, or repair projects; and (7) failure to perform its agreement to execute a subcontract under C.G.S. § 4b-96, as revised.
<b>2.7.8 Named Subcontractor DAS Prequalification Requirement for Subcontracts exceeding \$500,000:</b>	
.1	The <b>Three (3) Apparent Lowest Bidders</b> shall receive <i>VIA EMAIL</i> a "Set-Aside Contractor Schedule Request" ("Request") from the DAS/CS Office of Legal Affairs, Policy, and Procurement. For <b>Subcontracts greater than \$500,000</b> , the <b>Three (3) Apparent Lowest Bidders</b> shall submit within <b>ten (10) Calendar Days</b> after receipt of the Request current <b>DAS Prequalification Certificate(s) and Update (Bid) Statement(s)</b> for <b>each Named Subcontractor</b> in <b>Table 2.7</b> of the <b>Bid Proposal Form</b> , to the extent the <b>Class of Work for the Named Subcontractor is a Prequalification Classification</b> . This information shall be considered as part of the <b>Bid Proposal Form</b> and failure to comply with any portion of this requirement <b>shall</b> cause <b>rejection</b> of the bid.
.2	See <b>Sections 00 40 15 DAS Contractor Prequalification Certification Requirements and 00 40 16 DAS Update Bid Statement Requirements</b> for instructions on preparing and/or downloading your Firm's " <b>DAS Contractor Prequalification Certificate</b> " and " <b>DAS Update (Bid) Statement</b> ".
.3	<b>In accordance C.G.S. §4b-91(j)</b> , no person whose subcontract <i>exceeds</i> five hundred thousand dollars in value may perform work as a subcontractor on a project, which project is estimated to cost more than five hundred thousand dollars and is paid for, in whole or in part, with state funds, <i>unless, at the time of bid submission</i> , the person is prequalified in accordance with <b>C.G.S. §4a-100</b> , as amended. "Prequalified" includes the contractor's or substantial subcontractor's prequalification classifications, aggregate work capacity ratings and single project limits.  For <b>Subcontracts</b> estimated to <b>exceed \$500,000</b> , the <b>Named Subcontractor must</b> be " <b>prequalified</b> " by DAS in the <b>Class of Work</b> specified in <b>Table 2.7 of Section 00 41 00 Bid Proposal Form</b> <i>at the time of bid submission</i> , pursuant to <b>C.G.S. §4b-91(j)</b> and <b>C.G.S. § 4a-100</b> , as amended. This requirement also applies to the Bidder, if the Bidder is a Named Subcontractor.
<b>2.7.9 Named Subcontractor Bidder's Qualification Statements (Section 00 45 17)</b>	
.1	The <b>Three (3) Apparent Lowest Bidders</b> shall receive <i>VIA EMAIL</i> a "Set-Aside Contractor Schedule Request" ("Request") from the DAS/CS Office of Legal Affairs, Policy, and Procurement. For Projects with <b>estimated Construction Costs greater than \$500,000</b> , the <b>Three (3) Apparent Lowest Bidders</b> shall submit within <b>ten (10) Calendar Days</b> after receipt of the Request completed <b>Section 00 45 17 Named Subcontractor Bidder's Qualification Statement(s)</b> of this Project Manual for <b>each Named Subcontractor</b> in <b>Table 2.7</b> of the <b>Bid Proposal Form</b> . This information shall be considered as part of the <b>Bid Proposal Form</b> and failure to comply with any portion of this requirement <b>may</b> cause <b>rejection</b> of the bid.
.2	<b>Important Note:</b> Individual Technical Specification Sections <b>may</b> contain qualification requirements that <b>exceed</b> those from <b>Section 00 45 17 Named Subcontractor Bidder's Qualification Statement</b> .

<b>2.7 Named Subcontractor Requirements (continued):</b>	
<b>2.7.10 Bidder Performing Work as Named Subcontractor:</b>	
.1	In accordance with <b>C.G.S. § 4b-95(c)</b> , it shall be presumed that the <b>Bidder</b> intends to perform, with its own employees, all work in such <b>four (4) Classes of Work</b> and such other classes, for which <b>no</b> Subcontractor is named in <b>Table 2.7 of the Bid Proposal Form</b> . In accordance with <b>C.G.S. § 4b-92</b> , as revised, the <b>Bidder's</b> qualifications for performing such work shall be subject to review.
.2	In the event that the Bidder names a Subcontractor to perform <b>some, but not all</b> , of the separate section of the specifications for a particular Class of Work, then it will be presumed, in addition, that the Bidder intends to perform the <b>balance</b> of the Class of Work. <b>Post-bid</b> , the Bidder <b>cannot substitute</b> a Subcontractor for one named in the Bid Proposal Form or bring in a Subcontractor for any designated subtrade work presumed to be performed by the General Contractor's own forces, except for "Good Cause" as determined by the awarding authority.
.3	If the Bidder has listed itself as a <b>Named Subcontractor(s)</b> for a <b>Class(es) of Work</b> in <b>Table 2.7 of the Bid Proposal Form</b> and the proposed dollar value of the Subcontract(s) is greater than \$500,000, then <b>to the extent the Class(es) of Work is a Prequalification Classification</b> , the Bidder shall provide a current <b>DAS Prequalification Certificate and Update (Bid) Statement for each of the applicable Class(es) of Work</b> within ten (10) Calendar Days after receipt of the "Set-Aside Contractor Schedule Request" from DAS/CS. <b>Failure to comply with this requirement shall cause rejection of the bid and shall not be considered a minor irregularity under C.G.S. § 4b-95.</b>
<b>2.8 Set-Aside Requirements:</b>	
<b>2.8.1 Bidder's DAS Set-Aside Certificate For Projects With Construction Costs Estimated To Be Less Than \$500,000:</b>	All Small Business Enterprise (SBE) / Minority Business Enterprise (MBE) Bidders shall upload a copy of their Firm's current " <b>DAS Set-Aside Certificate</b> " to <b>CTsource</b> prior to the date and time of the Bid Opening. <b>See Section 00 62 39 DAS Set-Aside Certificate Requirements</b> for instructions on obtaining a copy of your <b>DAS Set-Aside Certificate</b> .
<b>2.8.2 Bidder Contract Compliance Monitoring Report For Projects With Construction Costs Estimated To Be Less Than \$500,000:</b>	All Firm's shall upload a completed copy of the Commission on Human Rights and Opportunities (CHRO) Employment Information Form " <b>Bidder Contract Compliance Monitoring Report</b> " <b>with their Bid Proposal Form</b> prior to the date and time of the Bid Opening. <b>See Section 00 73 40 CHRO Bidder Contract Compliance Monitoring Report Requirements</b> for instructions on finding and completing the report.
<b>2.8.3 All Bidders shall be required</b>	to award not less than the percentage(s) stated on <b>page 1 of Section 00 41 00 Bid Proposal Form</b> to Subcontractors who are currently certified and eligible to participate under the State of Connecticut Set-Aside Program for <b>SBE and/or MBE</b> contractors, in accordance with C.G.S. § 4a-60g. <b>Failure</b> to meet these requirements <b>shall cause rejection</b> of the bid. The MBE participation <b>does</b> count as part of the SBE participation.
<b>2.8.4 Set-Aside Contractor Schedule Request:</b>	The SBE/MBE participation requirement <i>must be met</i> even if the Bidder is <i>certified</i> and <i>eligible</i> to participate in the <b>Small Business Set-Aside Program</b> . To facilitate compliance with this requirement for set-aside subcontractors, the <b>Three (3) Apparent Lowest Bidders</b> shall receive <b>VIA EMAIL</b> a "Set-Aside Contractor Schedule Request" ("Request") from the DAS/CS Office of Legal Affairs, Policy, and Procurement. As directed in the Request, the <b>Three (3) Apparent Lowest Bidders</b> shall submit within <b>ten (10) Calendar Days</b> after receipt of the Request, a <b>list of certified set-aside contractors</b> to be used on this project along with the <b>dollar amounts</b> to be paid to each. (See Section 00 73 27 Set-Aside Contractor Schedule for a sample Request.) A copy of the <b>current DAS Set-Aside Certificate</b> for <b>each Subcontracted SBE and/or MBE firm(s)</b> listed in the " <b>Set-Aside Contractor Schedule</b> " must be attached to the Request. This information will be considered as part of your Bid Proposal Form and <b>failure</b> to comply with any portion of this requirement within the ten (10) days, including but not limited to <b>failure</b> to list or meet the necessary dollar amount or percentage of the bid price, will be cause to <b>reject</b> your bid.
<b>2.8.5 Percentage of Work Performed by SBE/MBE Contractors and Subcontractors:</b>	The percentage of the work performed by the SBE/MBE Contractors and Subcontractors on this project shall not be less than the percentage noted in <b>Subsection 5.1 Amount of Work Required to Be Done by "Set-Aside" Contractors of Section 00 73 38 CHRO Contract Compliance Regulations</b> .
<b>2.8.6 To view and/or download a Set-Aside Certificate:</b>	Go to the DAS Homepage ( <a href="http://www.ct.gov/DAS">www.ct.gov/DAS</a> ) and click on the following links: Small and Minority Businesses > Small Business Directory.
<b>2.9 Insurance Coverages:</b>	
<b>2.9.1</b>	The Insurance coverages required for this project shall be those listed in <b>Article 35 Contractors Insurance of Section 00 73 13 General Conditions</b> of this Project Manual. See <b>Section 00 41 00 Bid Proposal Form</b> and <b>Section 00 62 16 Certificate of Insurance</b> of this Project Manual for additional details.
<b>2.9.2</b>	The <b>Apparent Low Bidder shall</b> submit the Firm's <b>Certificate of Liability Insurance Acord®</b> form within <b>ten (10) business days after</b> receipt of the Letter of Intent from DAS/CS.



**3.0 All Other Required Bid Documents, Affidavits, and Certifications:**

**3.1 Affidavits and Certifications:**

**Important Note:** The State may waive minor irregularities that otherwise may cause rejection of a Bid only when waiving such minor irregularities is in the best interests of the State and the minor irregularities have been corrected by the Bidder within seven (7) Calendar Days after the Bid Due Date. Failure to properly complete, sign and upload **all** of the following Affidavits and Certifications to **CTsource** prior to the date and time of the Bid Opening **shall** cause **rejection** of the bid and shall **not** be considered a minor irregularity under C.G.S. § 4b-95.

**3.1.1 Gift and Campaign Contribution Certification – OPM Ethics Form 1: All Bidders**

- .1 **All Bidders:** In accordance with Executive Order No. 49, and pursuant to C.G.S. §§ 4-250, 4-252(c) and 9-612(f)(2), as revised, any principal or key personnel of the person, firm or corporation submitting a bid or proposal for a contract that has a value of **\$50,000** or more, shall be required to upload to **CTsource** a **Gift and Campaign Contribution Certification** prior to the date and time of the Bid Opening.
- .2 Any bidder or proposer that **does not** upload the **Gift and Campaign Contribution Certification** to **CTsource** prior to the date and time of the Bid Opening as required under this section shall be **disqualified** and DAS shall award the contract to the next highest ranked proposer or the next lowest responsible qualified bidder or seek new bids or proposals. Failure to upload this form to **CTsource** prior to the date and time of the Bid Opening shall not be considered a minor irregularity under CGS 4b-95.
- .3 Once uploaded, an updated **Gift and Campaign Contribution Certification** shall be re-uploaded within **30 days** of any changes to the submitted information.
- .4 **Annually**, on or within **two (2)** weeks of the **anniversary** date of the execution of this contract, the Contractor shall upload a completed **Annual Certification** with authorizing resolution. For the purposes of this paragraph, the execution date of the contract will be the date the DAS Commissioner signs the contract.

**3.1.2 Consulting Agreement Affidavit – OPM Ethics Form 5: All Bidders**

- .1 **All Bidders:** Pursuant to C.G.S. §§ 4a -81a and 4a -81b, as revised, a **Consulting Agreement Affidavit** must be completed and uploaded to **CTsource** prior to the date and time of the Bid Opening for contracts with a value of **\$50,000** or more.
- .2 In the event that a Bidder or vendor fails or refuses to upload the **Consulting Agreement Affidavit** to **CTsource** prior to the date and time of the Bid Opening, as required under C.G.S. § 4a-81, such bidder shall be **disqualified** and the award shall be made to the next lowest responsible qualified bidder or new bids or proposals shall be sought. Failure to upload this form to **CTsource** prior to the date and time of the Bid Opening shall not be considered a minor irregularity under CGS 4b-95.
- .3 Once uploaded, an updated **Consulting Agreement Affidavit** shall be amended and re-uploaded not later than (1) **thirty (30) days** after the effective date of any such change or (2) upon the submittal of any new bid or proposal, whichever is earlier. For the purposes of this paragraph, the **execution date** of the contract will be the date the DAS Commissioner signs the contract.
- .4 Other Contributions by Individuals. Principals of Investment Services Firms, State Contractors, Principals Of State Contractors, Prospective State Contractors Or Principals Of Prospective State Contractors. Lists. Subcontracts Study. State Officials or Employees: All acquisitions, agreements and contracts are subject to the provisions of the C.G.S. § 9-612 regarding **Campaign Contribution or Contributions**.

### 3.1 Affidavits and Certifications Forms (continued):

#### 3.1.3 Ethics Affidavit – OPM Ethics Form 6: All Bidders and Apparent Low Bidder

- .1 **All Bidders:** Pursuant to C.G.S. §§ 1-101mm and 1-101qq, as revised, when DAS/CS is seeking a contract for a large state construction or procurement contract having a cost of more than **\$500,000**, DAS shall inform all potential consultant and contractor firms of the summary of state ethics laws developed by the Office of State Ethics (OSE) pursuant to C.G.S. § 1-81b. "Large State Contract" means an agreement or a combination or series of agreements between a state agency and a person, firm or corporation, having a total value of more than **\$500,000** in a calendar or fiscal year a project for the construction, alteration or repair of any public building or public work. To find and download a copy of the **Guide to the Code of Ethics For Current or Potential State Contractors**, go to the Office of State Ethics (OSE) website ([www.ct.gov/ethics](http://www.ct.gov/ethics)), scroll down to "Resources", and click on the "Publications" link.
- .2 **All Bidders:** Pursuant to C.G.S. § 1-101qq, as revised, DAS is also required to notify all potential consultant and contractor firms or a large state construction or procurement contract that they must upload an **Affirmation of Receipt of State Ethics Laws Summary** to **CTsource** prior to the date and time of the Bid Opening affirming that their key employees have read and understand the summary and agree to comply with the provisions of state ethics law.
- .3 Failure to upload this affidavit to **CTsource** prior to the date and time of the Bid Opening **shall** result in **rejection** of the bid and shall not be considered a minor irregularity under CGS 4b-95.
- .4 **Apparent Low Bidder:** Furthermore, the **Apparent Low Bidder** shall provide the **Summary of the State Ethics Laws** to each **Named Subcontractor** and any other **Subcontractor** or **Subconsultant** with a contract valued over **\$500,000** and obtain a **Subcontractor and Subconsultant State Ethics Affidavit** stating that the key personnel of the subcontractor have read, understand, and agree to comply with provisions of the state ethics laws. The **Apparent Low Bidder** shall submit such subcontractor(s) affidavits to the DAS/CS Office of Legal Affairs, Policy, and Procurement within **ten (10) business days** after receipt of the Letter of Intent from DAS/CS.

#### 3.1.4 Iran Certification – OPM Ethics Form 7: All Bidders

- .1 **All Bidders:** Pursuant to C.G.S. § 4-252a, when DAS/CS is seeking a contract for a large state construction or procurement contract having a cost of more than **\$500,000**, an **Iran Certification** must be completed and uploaded to **CTsource** **prior to the date and time of the Bid Opening**.
- .2 Pursuant to C.G.S. § 4-252a, *"This form must always be submitted with the bid or proposal, or if there was no bid process, with the resulting contract, regardless of where the principal place of business is located. Entities whose principal place of business is located outside of the United States are required to complete the entire form, including the certification portion of the form. United States subsidiaries of foreign corporations are exempt from having to complete the certification portion of the form. Those entities whose principal place of business is located inside of the United States must also fill out the form, but do not have to complete the certification portion of the form."*

#### 3.1.5 Nondiscrimination Certification – Form A, B, C, D, or E: All Bidders

- .1 **All Bidders:** Pursuant to C.G.S. §§ 4a-60 and 4a-60a, as amended, a contractor must provide an awarding State agency with written representation or documentation that certifies the contractor complies with the State's nondiscrimination agreements and warranties prior to the award of any contract with the State. A **Nondiscrimination Certification** is required for all State contracts, regardless of type, term, cost or value. The **appropriate form** must be uploaded to **CTsource** prior to the date and time of the Bid Opening.
- .2 Once uploaded, an updated **Nondiscrimination Certification** shall be re-uploaded within **30 days** of any changes to the submitted information.
- .3 **Annually**, on or within **two (2) weeks** of the **anniversary** date of the execution of this contract, the Contractor shall upload a completed **Annual Certification** with authorizing resolution. For the purposes of this paragraph, the execution date of the contract will be the date the DAS Commissioner signs the contract.

- 3.1.6 For instructions on how to electronically download and upload **Affidavits and Non-Discrimination Forms**, go to the **CTsource Homepage** (<https://portal.ct.gov/DAS/CTSource/CTSource>), scroll down to "Registration", and click on **"Supplier Registration and Portal User Guide"**.

<b>3.2 Security For Faithful Performance:</b>	
<b>3.2.1 Certified Check or Bid Bond: All Bidders</b>	
.1	<b>All Bidders for bids in excess of \$50,000</b> shall submit <i>either</i> a <b>Certified Check or a Bid Bond</b> , in the form required by the awarding authority. See <b>Section 00 43 16 Standard Bid Bond</b> in <b>CTsource</b> for a template and important instructions regarding submitting the Bid Bond or Certified Check. Complete and upload <b>Section 00 43 16 Standard Bid Bond</b> to <b>CTsource</b> prior to the date and time of the Bid Opening for <b>either</b> the Bid Bond option <b>or</b> the Certified Check option.
.2	<b>Certified Check Option:</b> The <b>Certified Check</b> shall be drawn to the order of “ <b>Treasurer, State of Connecticut</b> ”, in which it is understood shall be cashed and the proceeds thereof used so far as may be necessary to reimburse the State of Connecticut for losses and damages arising by virtue of the Bidder’s failure to file the required Bonds and execute the required contract if this proposal is accepted by the Awarding Authority.
.3	<b>Bid Bond Option:</b> The <b>Bid Bond</b> shall be in the form required by the awarding authority, having as <b>surety</b> thereto such surety company or companies acceptable to the DAS Commissioner and as are authorized to do business in this State, for an amount not less than 10 percent of the bid.
.4	<b>Return of Certified Check:</b> All <b>checks</b> submitted by <b>unsuccessful</b> Bidders shall be returned to them <i>after</i> the contract has been awarded.
.5	Failure to submit the Bid Bond <b>or</b> Certified Check <b>prior</b> to the date and time of the Bid Opening <b>shall</b> cause <b>rejection</b> of the bid and shall not be considered a minor irregularity under CGS 4b-95.
.6	<b>Forfeiture of Certified Check or Bid Bond:</b> <b>Failure</b> of the successful bidder to execute a contract awarded as specified and bid shall result in the <b>forfeiture</b> of the certified check or bid bond.
<b>3.2.2 Performance Bond: Apparent Low Bidder:</b>	Within <b>ten (10) business days after</b> receipt of the Letter of Intent from DAS/CS, the <b>Apparent Low Bidder shall</b> substitute for the <b>certified check or bid bond</b> accompanying its bid an executed <b>performance bond</b> , in the amount not less than 100 percent of the contract price, conditioned upon the faithful performance of the contract, and having as surety thereto such surety company or companies satisfactory to the Commissioner and as are authorized to transact business in this State. This bond is to be furnished pursuant to <b>C.G.S. § 49-41</b> , as revised. See <b>Section 00 92 10 Additional Forms</b> of this Project Manual for a template.
<b>3.2.3 Labor and Material Bond: Apparent Low Bidder:</b>	Within <b>ten (10) business days after</b> receipt of the Letter of Intent from DAS/CS, the <b>Apparent Low Bidder shall</b> submit a labor and material bond in the amount not less than 100 percent of the contract price which <b>shall</b> be binding upon the award of the contract to such bidder, with surety or sureties satisfactory to the Commissioner and as are authorized to transact business in this State, for the protection of persons supplying labor or materials in the prosecution of the work provided for in the contract for the use of each such person. Any such bond furnished <b>shall</b> have as principal the name of the successful Bidder. This bond is to be furnished pursuant to <b>C.G.S. § 49-41</b> , as revised. See <b>Section 00 92 10 Additional Forms</b> of this Project Manual for a template.
<b>3.2.4</b>	<b>The following section of the General Statutes of Connecticut, as revised, is inserted as information concerning this bond and will be incorporated into the Contract for the Work:</b> <b>C.G.S. § 49-41a. Enforcement of payment by general contractor to subcontractor and by subcontractor to his subcontractors. (a)</b> When any public work is awarded by a contract for which a payment bond is required by section 49-41, the contract for the public work shall contain the following provisions: (1) A requirement that the general contractor, within thirty days after payment to the contractor by the State or a municipality, pay any amounts due any subcontractor, whether for labor performed or materials furnished, when the labor or materials have been included in a requisition submitted by the contractor and paid by the State or a municipality; (2) a requirement that the general contractor shall include in each of its <b>subcontracts</b> a <b>provision</b> requiring each <b>subcontractor</b> to pay any amounts due any of its subcontractors, whether for labor performed or materials furnished, within thirty days after such subcontractor receives a payment from the general contractor which encompasses labor or materials furnished by such subcontractor. <b>(b)</b> If payment is not made by the general contractor or any of its subcontractors in accordance with such requirements, the subcontractor shall set forth his claim against the general contractor and the subcontractor of a subcontractor shall set forth its claim against the subcontractor through notice by registered or certified mail. Ten days after the receipt of that notice, the general contractor shall be liable to its subcontractor, and the subcontractor shall be liable to its subcontractor, for interest on the amount due and owing at the rate of one percent per month. In addition, the general contractor, upon written demand of its subcontractor, or the subcontractor, upon written demand of its subcontractor, shall be required to place funds in the amount of the claim, plus interest of one per cent, in an interest-bearing escrow account in a bank in this State, provided the general contractor or subcontractor may refuse to place the funds in escrow on the grounds that the subcontractor has not substantially performed the work according to the terms of his or its employment. In the event that such general contractor or subcontractor refuses to place such funds in escrow, and the party making a claim against it under this section is found to have substantially performed its work in accordance with the terms of its employment in any arbitration or litigation to determine the validity of such claim, then such general contractor or subcontractor shall pay the attorney’s fees of such party. <b>(c)</b> No payment may be withheld from a subcontractor for work performed because of a dispute between the general contractor and another contractor or subcontractor. <b>(d)</b> This section shall not be construed to prohibit progress payments prior to final payment of the contract and is applicable to all subcontractors for material or labor whether they have contracted directly with the general contractor or with some other subcontractor on the work.
<b>3.2.5</b>	<b>Surety Sheet: Apparent Low Bidder:</b> Within <b>ten (10) business days after</b> receipt of the Letter of Intent from DAS/CS, the <b>Apparent Low Bidder shall</b> submit a Surety Sheet that provides information regarding the Surety Company and Agent. See <b>Section 00 92 10 Additional Forms</b> of this Project Manual for a template.

<b>3.3 Certificate (of Authority):</b>	
3.3.1	All Bidders for bids in excess of \$50,000 shall upload a signed and scanned Section 00 40 14 Certificate (of Authority) to <b>CTsource</b> prior to the date and time of the Bid Opening. See <b>CTsource</b> for a template.
3.3.2	The Apparent Low Bidder shall submit a <b>second Certificate (of Authority)</b> within <b>ten (10) business days after</b> receipt of the Letter of Intent from DAS/CS.
<b>3.4 Security Requirements for Connecticut Department of Correction (DOC) Facilities:</b>	
3.4.1	All Bidders for Projects at a DOC Facility shall read and comply with Section 00 73 63 CT DOC Security Requirements for Contract Forces on DOC Facilities.
3.4.2	All Bidders Attending a Pre-Bid Meeting at a DOC Facility shall complete and submit the DOC "Security Background Questionnaire" as directed, and obtain approval, <b>prior</b> to the Pre-Bid Meeting, otherwise admission to the Pre-Bid Meeting <b>will be denied</b> . It is recommended that the approved form be brought as evidence of approval to attend the Pre-Bid Meeting. To find and download a copy of the <b>Security Background Questionnaire</b> , go to the <b>DOC website</b> ( <a href="http://www.ct.gov/doc">www.ct.gov/doc</a> ), scroll down to "Publications" and click on "Forms" then "Security Background Questionnaire".
<b>3.5 Affirmative Action Plan &amp; Employment Information Form (DAS-45): Apparent Low Bidder</b>	
3.5.1	For Projects greater than \$500,000 and/or Firms with 50 or more employees, the Apparent Low Bidder shall submit the Firm's <b>Affirmative Action Plan</b> and <b>Employment Information Form (DAS-45)</b> to CHRO within <b>fifteen (15) calendar days after</b> receipt of the "Request for the <i>Affirmative Action Plan and Employment Information Form</i> Letter" from DAS/CS. See <b>Section 00 73 38 Commission on Human Rights and Opportunities/ Contract Compliance Regulations</b> .
3.5.2	The Apparent Low Bidder <b>shall</b> submit a copy of the Transmittal Letter to the DAS/CS Office of Legal Affairs, Policy, and Procurement within <b>fifteen (15) calendar days after</b> receipt of the "Request for the <i>Affirmative Action Plan and Employment Information Form</i> Letter" from DAS/CS.
<b>3.6 Prevailing Wage: Apparent Low Bidder</b>	
3.6.1	The Apparent Low Bidder shall submit the " <b>Contractor's Wage Certification Form</b> " to the Connecticut Department of Labor within <b>fifteen (15) calendar days after</b> receipt of the "Request for the <i>Affirmative Action Plan and Employment Information Form</i> Letter" from DAS/CS. See <b>Section 00 73 44 Prevailing Wage Rates/Contractor's Wage Certification/Payroll Certification</b> of this Project Manual.
3.6.2	Each contractor who is awarded a contract on or after October 1, 2002 shall be subject to provisions of <b>C.G.S. § 31-53, as revised</b> . See <b>Section 00 73 44 Prevailing Wage Rates/Contractor's Wage Certification/Payroll Certification</b> of this Project Manual.
3.6.3	<b>Annual Adjustment Of Prevailing Wage Rates:</b> In determining bid price, consideration should be given to <b>C.G.S. § 31-53 and 31-55a, as revised</b> , regarding <b>annual adjustment of prevailing wage rates</b> . Annual adjustments of prevailing wage rates will <b>not</b> be considered a matter for a contract amendment.
<b>3.7 General Permit for the Discharge of Stormwater &amp; Dewatering Wastewaters from Construction Activities: Apparent Low Bidder</b>	
3.7.1	All DAS/CS construction projects disturbing <b>one or more total acres of land area</b> on a site <b>regardless of project phasing</b> must file a <b>Connecticut Department of Energy and Environmental Protection (DEEP) <a href="#">General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities (DEEP-WPED-GP-015)</a></b> ("Construction Stormwater General Permit") registration and Stormwater Pollution Control Plan (SPCP) with the DEEP. <b>The DAS/CS Architect/Engineer (A/E) shall be responsible for registering the Construction Stormwater General Permit and SPCP through the online DEEP ezFile Portal prior to bidding.</b>
3.7.2	Once the Apparent Low Bidder is under contract with DAS/CS, and prior to the commencement of any construction activities, the Apparent Low Bidder ("Contractor") shall be required to provide the necessary information from all applicable contractors and/or subcontractors working on the Project to the DAS/CS A/E in order to finalize the SPCP and transfer the Construction Stormwater General Permit obligations to the Contractor.
3.7.3	All Contractors and Subcontractors listed on the SPCP shall be required to sign the SPCP "Contractor Certification Statement" and License Transfer Form <b>prior</b> to commencement of any construction activity.

**3.8 Section 00 52 73 Subcontract Agreement Forms: Apparent Low Bidder**

**3.8.1** The **Apparent Low Bidder** shall submit a completed **Section 00 52 73 Subcontract Agreement Form** of this Project Manual for *each* Named Subcontractor within **ten (10) Business Days** after receipt of the "Letter of Intent" from DAS/CS. This information *shall* be considered as part of the **Bid Proposal Form** and failure to comply with any portion of this requirement *may* cause **rejection** of the bid.

**3.8.2** Each **Named Subcontractor** shall be the matter of a **Subcontract** as required by **C.G.S. § 4b-96**.

**3.9 Non-Resident Contractors and Taxation: Apparent Low Bidder**

**3.9.1** **Nonresident contractors** must comply with the **provisions C.G.S. § 12-430 (7), Procedures for Nonresident Contractors**, and the regulations established pursuant to that section. See **Section 00 92 30 Procedures Regarding Taxation for Nonresident General/Prime Contractor and Subcontractors** of this Project Manual for additional details.

**3.9.2** **Apparent Low Bidder who is a Nonresident Contractor:** Within **ten (10) business days after** receipt of the "Letter of Intent" from DAS/CS, a certificate(s) from DRS must be provided which evidences that C.G.S. §12-430 for non-resident contractors has been met. As described in Section 00 92 30 "Procedures Regarding Taxation for Nonresident General/Prime Contractor and Subcontractors", **Verified Nonresident** General/Prime Contractors must submit a copy of their "**Notice of Verified Status**" (Verification Letter) from DRS. **Unverified Nonresident** General/Prime Contractors must submit a copy of **Form AU-965 "Acceptance of Surety Bond"** from DRS.

**3.10 Certificate of Legal Existence: Apparent Low Bidder**

**3.10.1** A **corporation** that is awarded the contract must comply with the laws of this State regarding the procurement of a certificate of authority to transact business in this State from the **Secretary of the State**. A "**Certificate of Legal Existence**" which is not older than **ninety (90) calendar days** from the date of the contract signing must be filed with the DAS/CS Office of Legal Affairs, Policy, and Procurement within **ten (10) business days after** receipt of the "Letter of Intent" from DAS/CS.

**3.11 State Election Enforcement Commission (SEEC) Form 10: Apparent Low Bidder**

**3.11.1** The **Apparent Low Bidder** shall submit a **State Election Enforcement Commission's (SEEC) Form 10** "Notice to Executive Branch State Contractors and Prospective State Contractors of Campaign Contribution and Solicitation Limitations" within **ten (10) business days after** receipt of the "Letter of Intent" from DAS/CS for contracts with a value of \$50,000 or more.

**3.11.2** Pursuant to C.G.S. § 9-612, as revised, a State Contract means an agreement or contract with the state or any state agency or any quasi-public agency having a value in a calendar year of **\$50,000** or more, or a combination or series of such **agreements** or **contracts** having a value of **\$100,000** or more, the **authorized signatory** to this **submission** in response to the State's solicitation expressly **acknowledges receipt** of, and must submit **in writing**, the **SEEC Form 10 notice** advising prospective state contractors of the state campaign contribution and solicitation prohibitions, and will inform its principals of the contents of the **notice**.

**3.11.3** To find and download a copy of **SEEC Form 10**, go to the SEEC website ([www.ct.gov/seec](http://www.ct.gov/seec)), scroll down to "Resources", and click on the following links: Forms > Contractor Reporting Forms > "SEEC Form 10" and follow the directions.

**3.12 OSHA Training Course: Successful Bidder**

**3.12.1** Pursuant to **C.G.S. §. 31-53b (a)**, as revised, each contract entered into for the construction, remodeling, refinishing, refurbishing, rehabilitation, alteration or repair of any public building project by the state or any of its agents, or by any political subdivision of the state or any of its agents, where the total cost of all work to be performed by all contractors and subcontractors in connection with the contract is at least **one hundred thousand dollars (\$100,000)**, shall contain a provision requiring that, not later than **thirty (30) days** after the date such contract is awarded, **each contractor furnish proof to the Labor Commissioner** that all employees performing manual labor on or in such public building, pursuant to such contract, have completed a **course of at least ten (10) hours** in duration in **construction safety and health** approved by the federal Occupational Safety and Health Administration or, in the case of telecommunications employees, have completed at **least ten (10) hours** of training in accordance with 29 CFR 1910.268.

**3.13 UPDATED: Contractor and Subcontractor Payments Reporting now in PMWeb: Successful Bidder**

**3.13.1** For compliance with **C.G.S. § 4b-95 and 49-41a**, DAS/CS requires every Contractor (and its Subcontractors and their Subcontractors) who has been awarded a DAS/CS construction contract to log on to the State of Connecticut web-based platform, **PMWeb**, **each month** and **enter payments** they have received from the state, from the Contractor, or from a higher tier Subcontractor (as applicable).

The process is described as follows: After the state has made payment to the Contractor for work performed (and purchases made) by it and its Subcontractors, the Contractor will input the payment date and amount they receive from the state on a monthly basis. The Contractor's first-level Subcontractor (Tier 1 Subcontractor) will input the payment they receive from the Contractor. The second-level Subcontractor (Tier 2 Subcontractor) will input the payment they receive from the Tier 1 Subcontractor. And so on.

Contractors awarded a DAS/CS construction contract shall contain a **provision in their subcontract agreements** requiring their Subcontractors to enter payment receipt from the Contractor in the State of Connecticut web-based platform, **PMWeb**, for work performed or purchases made in relation to state projects.

Detailed instructions can be found in the DAS/CS publication, **6002 Instructions to Contractors/Subcontractors for Entering Payments Online**, available for download from the online DAS/CS Library (<http://portal.ct.gov/DASCSLibrary>) > 6000 Series.

**4.0 Nondiscrimination and Affirmative Action**

This contract is subject to Federal and state laws, including Title VII of the 1964 Civil Rights Act, 42 U.S.C. § 2000e-2(a)(1), and the Connecticut Fair Employment Practices Act. C.G.S. § 46a-60 et seq., prohibit various forms of discrimination and illegal harassment in employment.

**4.1 Nondiscrimination and Affirmative Action Provisions:**

**4.1.1 This section is inserted in connection with C.G.S. § 4a-60, as revised.**

**4.1.2** References in this section to "contract" **shall** mean this Contract and references to "contractor" **shall** mean the Contractor/Bidder.

**4.1.3 C.G.S. § 4a-60, as revised:**

(a) Except as provided in section 10a-151i, every contract to which an awarding agency is a party, every quasi-public agency project contract and every municipal public works contract shall contain the following provisions:

(1) The contractor agrees and warrants that in the performance of the contract such contractor will not discriminate or permit discrimination against any person or group of persons on the grounds of race, color, religious creed, age, marital status, national origin, ancestry, sex, gender identity or expression, status as a veteran, intellectual disability, mental disability or physical disability, including, but not limited to, blindness, unless it is shown by such contractor that such disability prevents performance of the work involved, in any manner prohibited by the laws of the United States or of the state of Connecticut; and the contractor further agrees to take affirmative action to ensure that applicants with job-related qualifications are employed and that employees are treated when employed without regard to their race, color, religious creed, age, marital status, national origin, ancestry, sex, gender identity or expression, status as a veteran, intellectual disability, mental disability or physical disability, including, but not limited to, blindness, unless it is shown by such contractor that such disability prevents performance of the work involved;

(2) The contractor agrees, in all solicitations or advertisements for employees placed by or on behalf of the contractor, to state that it is an "affirmative action-equal opportunity employer" in accordance with regulations adopted by the Commission on Human Rights and Opportunities;

(3) The contractor agrees to provide each labor union or representative of workers with which such contractor has a collective bargaining agreement or other contract or understanding and each vendor with which such contractor has a contract or understanding, a notice to be provided by the Commission on Human Rights and Opportunities advising the labor union or workers' representative of the contractor's commitments under this section, and to post copies of the notice in conspicuous places available to employees and applicants for employment;

(4) The contractor agrees to comply with each provision of this section and sections 46a-68e and 46a-68f and with each regulation or relevant order issued by said commission pursuant to sections 46a-56, 46a-68e, 46a-68f and 46a-86; and

(5) The contractor agrees to provide the Commission on Human Rights and Opportunities with such information requested by the commission, and permit access to pertinent books, records and accounts, concerning the employment practices and procedures of the contractor as relate to the provisions of this section and section 46a-56.

(b) If the contract is a public works contract, municipal public works contract or contract for a quasi-public agency project, the contractor agrees and warrants that he or she will make good faith efforts to employ minority business enterprises as subcontractors and suppliers of materials on such public works or quasi-public agency project.

(c) Except as provided in section 10a-151i:

(1) Any contractor who has one or more contracts with an awarding agency or who is a party to a municipal public works contract or a contract for a quasi-public agency project, where any such contract is valued at less than fifty thousand dollars for each year of the contract, shall provide the awarding agency, or in the case of a municipal public works or quasi-public agency project contract, the Commission on Human Rights and Opportunities, with a written or electronic representation that complies with the nondiscrimination agreement and warranty under subdivision (1) of subsection (a) of this section, provided if there is any change in such representation, the contractor shall provide the updated representation to the awarding agency or commission not later than thirty days after such change.

(2) Any contractor who has one or more contracts with an awarding agency or who is a party to a municipal public works contract or a contract for a quasi-public agency project, where any such contract is valued at fifty thousand dollars or more for any year of the contract, shall provide the awarding agency, or in the case of a municipal public works or quasi-public agency project contract, the Commission on Human Rights and Opportunities, with any one of the following:

(A) Documentation in the form of a company or corporate policy adopted by resolution of the board of directors, shareholders, managers, members or other governing body of such contractor that complies with the nondiscrimination agreement and warranty under subdivision (1) of subsection (a) of this section;

(B) Documentation in the form of a company or corporate policy adopted by a prior resolution of the board of directors, shareholders, managers, members or other governing body of such contractor if (i) the prior resolution is certified by a duly authorized corporate officer of such contractor to be in effect on the date the documentation is submitted, and (ii) the head of the awarding agency, or a designee, or in the case of a municipal public works or quasi-public agency project contract, the executive director of the Commission on Human Rights and Opportunities or a designee, certifies that the prior resolution complies with the nondiscrimination agreement and warranty under subdivision (1) of subsection (a) of this section; or

(C) Documentation in the form of an affidavit signed under penalty of false statement by a chief executive officer, president, chairperson or other corporate officer duly authorized to adopt company or corporate policy that certifies that the company or corporate policy of the contractor complies with the nondiscrimination agreement and warranty under subdivision (1) of subsection (a) of this section and is in effect on the date the affidavit is signed.

(3) No awarding agency, or in the case of a municipal public works contract, no municipality, or in the case of a quasi-public agency project contract, no entity, shall award a contract to a contractor who has not provided the representation or documentation required under subdivisions (1) and (2) of this subsection, as applicable. After the initial submission of such representation or documentation, the contractor shall not be required to resubmit such representation or documentation unless there is a change in the information contained in such representation or documentation. If there is any change in the information contained in the most recently filed representation or updated documentation, the contractor shall submit an updated representation or documentation, as applicable, either (A) not later than thirty days after the effective date of such change, or (B) upon the execution of a new contract with the awarding agency, municipality or entity, as applicable, whichever is earlier. Such contractor shall also certify, in accordance with subparagraph (B) or (C) of subdivision (2) of this subsection, to the awarding agency or commission, as applicable, not later than fourteen days after the twelve-month anniversary of the most recently filed representation, documentation or updated representation or documentation, that the representation on file with the awarding agency or commission, as applicable, is current and accurate.

(d) For the purposes of this section, "contract" includes any extension or modification of the contract, "contractor" includes any successors or assigns of the contractor, "marital status" means being single, married as recognized by the state of Connecticut, widowed, separated or divorced, and "mental disability" means one or more mental disorders, as defined in the most recent edition of the American Psychiatric Association's "Diagnostic and Statistical Manual of Mental Disorders", or a record of or regarding a person as having one or more such disorders. For the purposes of this section, "contract" does not include a contract where each contractor is (1) a political subdivision of the state, including, but not limited to, a municipality, unless the contract is a municipal public works contract or quasi-public agency project contract, (2) any other state, as defined in section 1-267, (3) the federal government, (4) a foreign government, or (5) an agency of a subdivision, state or government described in subdivision (1), (2), (3) or (4) of this subsection.

(e) For the purposes of this section, "minority business enterprise" means any small contractor or supplier of materials fifty-one per cent or more of the capital stock, if any, or assets of which is owned by a person or persons: (1) Who are active in the daily affairs of the enterprise, (2) who have the power to direct the management and policies of the enterprise, and (3) who are members of a minority, as such term is defined in subsection (a) of section 32-9n; and "good faith" means that degree of diligence which a reasonable person would exercise in the performance of legal duties and obligations. "Good faith efforts" shall include, but not be limited to, those reasonable initial efforts necessary to comply with statutory or regulatory requirements and additional or substituted efforts when it is determined that such initial efforts will not be sufficient to comply with requirements.

(f) Determination of the contractor's good faith efforts shall include, but shall not be limited to, the following factors: The contractor's employment and subcontracting policies, patterns and practices; affirmative advertising, recruitment and training;

technical assistance activities and such other reasonable activities or efforts as the Commission on Human Rights and Opportunities may prescribe that are designed to ensure the participation of minority business enterprises in public works projects.

(g) The contractor shall develop and maintain adequate documentation, in a manner prescribed by the Commission on Human Rights and Opportunities, of its good faith efforts.

(h) The contractor shall include the provisions of subsections (a) and (b) of this section in every subcontract or purchase order entered into in order to fulfill any obligation of a contract with the state, and in every subcontract entered into in order to fulfill any obligation of a municipal public works contract or contract for a quasi-public agency project, and such provisions shall be binding on a subcontractor, vendor or manufacturer, unless exempted by regulations or orders of the Commission on Human Rights and Opportunities. The contractor shall take such action with respect to any such subcontract or purchase order as the commission may direct as a means of enforcing such provisions, including sanctions for noncompliance in accordance with section 46a-56; provided, if such contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the commission regarding a state contract, the contractor may request the state of Connecticut to enter into any such litigation or negotiation prior thereto to protect the interests of the state and the state may so enter.

## 4.2 Nondiscrimination Provisions Regarding Sexual Orientation:

4.2.1 This section is inserted in connection with C.G.S. § 4a-60a, as revised.

4.2.2 References in this section to "contract" shall mean this Contract and references to "contractor" shall mean the Contractor/Bidder.

4.2.3 C.G.S. § 4a-60a, as revised:

(a) Except as provided in section 10a-151i, every contract to which an awarding agency is a party, every contract for a quasi-public agency project and every municipal public works contract shall contain the following provisions:

(1) The contractor agrees and warrants that in the performance of the contract such contractor will not discriminate or permit discrimination against any person or group of persons on the grounds of sexual orientation, in any manner prohibited by the laws of the United States or of the state of Connecticut, and that employees are treated when employed without regard to their sexual orientation;

(2) The contractor agrees to provide each labor union or representative of workers with which such contractor has a collective bargaining agreement or other contract or understanding and each vendor with which such contractor has a contract or understanding, a notice to be provided by the Commission on Human Rights and Opportunities advising the labor union or workers' representative of the contractor's commitments under this section, and to post copies of the notice in conspicuous places available to employees and applicants for employment;

(3) The contractor agrees to comply with each provision of this section and with each regulation or relevant order issued by said commission pursuant to section 46a-56; and

(4) The contractor agrees to provide the Commission on Human Rights and Opportunities with such information requested by the commission, and permit access to pertinent books, records and accounts, concerning the employment practices and procedures of the contractor which relate to the provisions of this section and section 46a-56.

(b) Except as provided in section 10a-151i:

(1) Any contractor who has one or more contracts with an awarding agency or who is a party to a municipal public works contract or a contract for a quasi-public agency project, where any such contract is valued at less than fifty thousand dollars for each year of the contract, shall provide the awarding agency, or in the case of a municipal public works or quasi-public agency project contract, the Commission on Human Rights and Opportunities, with a written representation that complies with the nondiscrimination agreement and warranty under subdivision (1) of subsection (a) of this section.

(2) Any contractor who has one or more contracts with an awarding agency or who is a party to a municipal public works contract or a contract for a quasi-public agency project, where any such contract is valued at fifty thousand dollars or more for any year of the contract, shall provide such awarding agency, or in the case of a municipal public works or quasi-public agency project contract, the Commission on Human Rights and Opportunities, with any of the following:

(A) Documentation in the form of a company or corporate policy adopted by resolution of the board of directors, shareholders, managers, members or other governing body of such contractor that complies with the nondiscrimination agreement and warranty under subdivision (1) of subsection (a) of this section;

(B) Documentation in the form of a company or corporate policy adopted by a prior resolution of the board of directors, shareholders, managers, members or other governing body of such contractor if (i) the prior resolution is certified by a duly authorized corporate officer of such contractor to be in effect on the date the documentation is submitted, and (ii) the head of the awarding agency, or a designee, or in the case of a municipal public works or quasi-public agency project contract, the executive director of the Commission on Human Rights and Opportunities or a designee, certifies that the prior resolution complies with the nondiscrimination agreement and warranty under subdivision (1) of subsection (a) of this section; or



(C) Documentation in the form of an affidavit signed under penalty of false statement by a chief executive officer, president, chairperson or other corporate officer duly authorized to adopt company or corporate policy that certifies that the company or corporate policy of the contractor complies with the nondiscrimination agreement and warranty under subdivision (1) of subsection (a) of this section and is in effect on the date the affidavit is signed.

(3) No awarding agency, or in the case of a municipal public works contract, no municipality, or in the case of a quasi-public agency project contract, no entity, shall award a contract to a contractor who has not provided the representation or documentation required under subdivisions (1) and (2) of this subsection, as applicable. After the initial submission of such representation or documentation, the contractor shall not be required to resubmit such representation or documentation unless there is a change in the information contained in such representation or documentation. If there is any change in the information contained in the most recently filed representation or updated documentation, the contractor shall submit an updated representation or documentation, as applicable, either (A) not later than thirty days after the effective date of such change, or (B) upon the execution of a new contract with the awarding agency, municipality, or entity, as applicable, whichever is earlier. Such contractor shall also certify, in accordance with subparagraph (B) or (C) of subdivision (2) of this subsection, to the awarding agency or commission, as applicable, not later than fourteen days after the twelve-month anniversary of the most recently filed representation, documentation or updated representation or documentation, that the representation on file with the awarding agency or commission, as applicable, is current and accurate.

(c) For the purposes of this section, "contract" includes any extension or modification of the contract, and "contractor" includes any successors or assigns of the contractor. For the purposes of this section, "contract" does not include a contract where each contractor is (1) a political subdivision of the state, including, but not limited to, a municipality, unless the contract is a municipal public works contract or quasi-public agency project contract, (2) any other state, as defined in section 1-267, (3) the federal government, (4) a foreign government, or (5) an agency of a subdivision, state or government described in subdivision (1), (2), (3) or (4) of this subsection.

(d) The contractor shall include the provisions of subsection (a) of this section in every subcontract or purchase order entered into in order to fulfill any obligation of a contract with the state, and in every subcontract entered into in order to fulfill any obligation of a municipal public works contractor contract for a quasi-public agency project, and such provisions shall be binding on a subcontractor, vendor or manufacturer unless exempted by regulations or orders of the Commission on Human Rights and Opportunities. The contractor shall take such action with respect to any such subcontract or purchase order as the commission may direct as a means of enforcing such provisions, including sanctions for noncompliance in accordance with section 46a-56; provided, if such contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the commission regarding a state contract, the contractor may request the state of Connecticut to enter into any such litigation or negotiation prior thereto to protect the interests of the state and the state may so enter.

**End of Section  
00 21 13 Instructions to Bidders**



## Pre-Bid Meeting Agenda:

**DAS ● Construction Services ● Office of Legal Affairs, Policy, and Procurement**

### 1.0 Pre-Bid Meeting:

**1.1** The **Construction Administrator** will conduct a *virtual* Pre-Bid Meeting.  
For the Pre-Bid Meeting Date, Time, and Location see Section 00 11 16 Invitation To Bid for this Specific Bid.

**1.2 Attendance:**

<b>1.2.1</b>	<b>General Contractor:</b>	Attendance at the Pre-Bid Meeting is <b>strongly encouraged</b> .
<b>1.2.2</b>	<b>Subcontractors:</b>	Attendance at the Pre-Bid Meeting is recommended.
<b>1.2.3</b>	<b>Pre-Bid Meeting Sign-in Sheet:</b>	It is <b>strongly encouraged</b> that all attendees sign the <b>Pre-Bid Meeting Sign-in Sheet</b> .

**1.3 Site/Facility Visit or Walkthrough:** Please **do not** make any Site/Facility Visits without notifying the DAS/CS Project Manager prior to your visit.

- |              |                                     |                                                                                                  |
|--------------|-------------------------------------|--------------------------------------------------------------------------------------------------|
| <b>1.3.1</b> | <input type="checkbox"/>            | <b>A Site/Facility Visit or Walkthrough is scheduled for the Pre-Bid Meeting</b>                 |
| <b>1.3.2</b> | <input checked="" type="checkbox"/> | <b>A Site/Facility Visit or Walkthrough <u>WILL NOT</u> be scheduled for the Pre-Bid Meeting</b> |

**1.4 Bidder Questions:**

**1.4.1** Submit **written** questions to be discussed at the **Pre-Bid Meeting** a **minimum of two (2) Calendar Days prior to Pre-Bid Meeting date**. See the **Invitation to Bid** for instructions on submitting questions.  
**IMPORTANT NOTE:** In accordance with DAS Regulations, **no** participants in any Selection, Proposal, or Bidding process, including User Agency representative(s), shall communicate with any potential Offeror prior to, during, or upon conclusion of the entire Selection, Proposal, or Bidding procedure, with the exception of information necessary to complete the administrative steps of the Selection process.

### 2.0 Pre-Bid Meeting Agenda:

The Pre-Bid Meeting Agenda will include a review of topics, **as applicable to the Project**, which may affect proper preparation and submittal of bids, including, but not limited to, the following:

**2.1 Introduction of Participants:**

<b>2.1.1</b>	<b>Architect/Engineer:</b>	<b>EDM</b>
<b>2.1.2</b>	<b>CA:</b>	<b>McCloud Group</b>
<b>2.1.3</b>	<b>DAS Representative:</b>	<b>Nicholas Ross</b>
<b>2.1.4</b>	<b>Agency Representative:</b>	<b>Abigail Lawson</b>

**2.0 Pre-Bid Meeting Agenda (continued):**

<b>2.2</b>	<b>Project Summary:</b>
2.2.1	<b>Summary of Work:</b> See General Requirements Section 01 11 00
2.2.2	<b>Temporary Facilities and Controls:</b> See General Requirements Section 01 50 00
2.2.3	<b>Work Sequence:</b> See General Requirements Section 01 11 00 and Drawing G1.01
2.2.4	<b>Contractor Use of Premises:</b> See General Requirements Section 01 11 00
2.2.5	<b>Project Schedule</b>
2.2.6	<b>Contract Time:</b> 180 calendar days
2.2.7	<b>Liquidated Damages:</b> See General Conditions Section 00 73 13, Articles 1 and 8, and 00 41 00 Bid Proposal Form.

<b>2.3</b>	<b>Procurement and Contracting Requirements:</b>
2.3.1	<b>Section 00 11 16 – Invitation to Bid</b>
2.3.2	<b>Section 00 21 13 – Instructions to Bidders</b>
2.3.3	<b>Section 00 41 00 – Bid Proposal Form</b>
2.3.4	<b>Section 00 41 10 – Bid Package Submittal Requirements</b>
2.3.5	<b>Section 00 30 00 – General Statements for Available information</b>
2.3.6	<b>Division 50 – Project-Specific Available Information</b>
2.3.7	<b>Bonding</b>
2.3.8	<b>Insurance</b>
2.3.9	<b>Bid Security</b>
2.3.10	<b>Notice of Award</b>

<b>2.4</b>	<b>Communication During Bidding Period:</b>
2.4.1	<b>Obtaining Bid Documents</b>
2.4.2	<b>Access to DAS Website, BizNet, CTSOURCE, and State Contracting Portal</b>
2.4.3	<b>Bidder's Requests for Information:</b> See General Requirements Sections 01 26 00
2.4.4	<p><b>Substitution Procedures (Prior to Bid):</b> See General Requirements Section 01 25 00 &amp; General Conditions Section 00 73 13, Article 15.</p> <p>The Owner will consider Pre-Bid Equals or Substitutions Requests, if made <b>fourteen (14)</b> Calendar Days <b>prior</b> to the <b>Bid Due Date</b>. The information on all materials shall be consistent with the information herein.</p>
2.4.5	<p><b>Substitutions following Contract Award:</b> See General Requirements Section 01 25 00 &amp; General Conditions Section 00 73 13, Article 15.</p> <p>Subject to the Architect or Engineer's determination, if the material or equipment is Equal to the one specified or pre-qualified and the DAS/CS Project Manager's approval of such determination, Substitution of Material or Equipment may be allowed after the Letter of Award is issued, as specified in the Conditions Section 00 73 13, Article 15.</p>
2.4.6	<b>Addenda Procedures:</b> See Item No. 2.7 of this form

**2.0 Pre-Bid Meeting Agenda (continued):**

**2.5 Contract Considerations:**

- 2.5.1 **Allowances:** See General Requirements Section 01 20 00
- 2.5.2 **Unit Prices:** See General Requirements Section 01 20 00
- 2.5.3 **Supplemental Bid:** N/A

**2.6 Separate Contracts:**

- 2.6.1 **Work by Owner:** N/A
- 2.6.2 **Work of Other Contracts:** N/A

**2.7 Post Pre-Bid Meeting Addendum:**

- 2.7.1 **No Interpretations** of the meaning of the plans, specifications or other contract documents will be made orally at any time. Every bidder **request** for such interpretation **shall** be in writing to the awarding authority and to be given consideration **shall** be received at least **fourteen (14)** Calendar Days **prior** to the Bid Due Date. Any and all such **interpretations** and any **supplemental instructions** will be in the form of written **addenda** to the specifications which, *if* issued, will be posted on the State Contracting Portal.
- 2.7.2 **Other Bidder Questions**

**2.8 Other Agenda Topics and Notes:**

- 2.8.1
- 2.8.2

### 3.0 Pre-Bid Meeting Minutes:

#### 3.1 Recording and Distribution of Pre-Bid Meeting Minutes:

- 3.1.1 The **Construction Administrator** is responsible for conducting the Pre-Bid Meeting and will record and distribute meeting minutes to attendees **and others known by the issuing office to have received a complete set of Procurement and Contracting Documents.**

#### 3.2 Pre-Bid Meeting Minutes as “Available Information”

- 3.2.1 Minutes of the Pre-Bid Meeting are issued as “Available Information” and **do not** constitute a modification to the Procurement and Contracting Documents. **Modifications to the Procurement and Contracting Documents are issued by written Addendum only.**

#### 3.3 Pre-Bid Meeting Sign-in Sheet:

- 3.3.1 Minutes will include the list of meeting attendees.

#### 3.4 List of Planholders:

- 3.4.1 Minutes will include the list of planholders.

**End of Section  
00 25 13 Pre-Bid Meeting Agenda**

**00 30 00 GENERAL STATEMENTS FOR AVAILABLE INFORMATION NOT USED**

- A. **Summary:** This Section is **not** a Bidding Document, but directs Bidders to **Division 50 00 00 Project-Specific Available Information** that provides project-specific information available for review by Bidders.
- B. **Bidder Responsibility:** The Bidder is responsible for information, including but not limited to, any interpretations and opinions of information contained in any plans, reports, evaluations, and logs, or shown on any drawings, or indicated on any drawings. **Division 50 00 00 Project-Specific Available Information** is provided to Bidders for their use in the preparation of a Bid.
- C. **Measurement:** **Division 50 00 00 Project-Specific Available Information** **shall** be utilized for determination of payment for the Work during construction of the project.
- D. **Payment:** **No** separate payment will be made for **any** Work under **Division 50 00 00 Project-Specific Available Information**.
- E. **Related Sections:** Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section. **See Division 50 00 00 Project-Specific Available Information** for information that is available for this Project.
- F. Please read the following **General Statement(s)** that describe the type of project-specific information that is available in **Division 50 00 00 Project-Specific Available Information**:

00 30 00	General Statements For Available Information Table Of Contents	Not Used
00 30 10	General Statement for Existing Conditions Information	<input type="checkbox"/>
00 30 20	General Statement for Environmental Assessment Information	<input checked="" type="checkbox"/>
00 30 30	General Statement for Hazardous Building Materials Inspection and Inventory	<input type="checkbox"/>
00 30 40	General Statement for Subsurface Geotechnical Report	<input checked="" type="checkbox"/>
00 30 50	General Statement for Elevator Agreement	<input checked="" type="checkbox"/>
00 30 60	General Statement for FM Global Checklist for Roofing Systems	<input checked="" type="checkbox"/>
00 30 70	General Statement for "Statement of Special Inspections"	<input checked="" type="checkbox"/>
00 30 80	General Statement for Other Information	<input type="checkbox"/>

<b>00 30 10</b>	<b>GENERAL STATEMENT FOR EXISTING CONDITIONS INFORMATION</b>	Not Used <input type="checkbox"/>
-----------------	--------------------------------------------------------------	-----------------------------------

- A. “Existing Conditions Information”** for this project is located in **Division 50 00 00 Project-Specific Available Information, Section 50 10 00 Existing Conditions Information** at the end of the Technical Specification Sections.
1. The information is made available for the convenience of all Bidders and is not a part of the Contract.
  2. All Bidders must interpret this information according to their own judgment and acknowledge that they are not relying upon the information shown as accurately describing the conditions which may be found to exist.
  3. Other components of the information, including but not limited to recommendations, may not be relied upon by the Bidders. The Owner shall not be responsible for any interpretation.
  4. All Bidders further acknowledge that they assume all risk contingents upon the nature of the existing conditions which shall be actually be encountered by them.
  5. All Bidders should visit the site and become acquainted with all existing conditions in relationship to this information and may make their own investigations to satisfy themselves as to the existing conditions. Such investigations shall be conducted only under time schedules and arrangements approved in advance by the Owner.

<b>00 30 20</b>	<b>GENERAL STATEMENT FOR ENVIRONMENTAL ASSESSMENT INFORMATION</b>	Not Used <input checked="" type="checkbox"/>
-----------------	-------------------------------------------------------------------	----------------------------------------------

- A. Related Documents:**
- Section 01 20 00 Contract Considerations**
  - Section 01 35 16 Alteration Project Procedures**
  - Section 01 35 29 Environmental Health and Safety**
  - Section 01 50 00 Temporary Facilities and Controls**
  - Section 02 41 19 Selective Demolition**
- B. Definitions:**
1. Clean Fill: Either (1) natural soil or (2) rock, brick, ceramics, concrete, and asphalt paving fragments which are virtually inert and pose neither a pollution threat to ground or surface waters nor a fire hazard.
  2. Contaminated Soil: Treated or untreated soil and/or sediment affected by a known or suspected release and determined, or reasonably expected to contain substances exceeding Residential Direct Exposure Criteria or GA Pollutant Mobility Criteria, as these terms are defined in the Remediation Standard Regulations (RCSA Section 22a-133k-1).
  3. Hazardous Soil: Soil that is classified as a hazardous waste. Soil is classified as hazardous waste if it exhibits a hazardous waste characteristic or if it contains RCRA-listed hazardous constituents above Connecticut’s RCRA "Contained-In" Policy dated May 2002.
  4. Natural Soil: Soil in which all substances naturally occurring therein are present in concentrations not exceeding the concentrations of such substance occurring naturally in the environment and in which soil no other substance is analytically detectable.
  5. Polluted Soil: Soil affected by a release of a substance at a concentration above the analytical detection limit for such substance in accordance with RCSA 22a-133k-1(a)(45) or for naturally occurring substance at a concentration that exceeds concentrations that naturally occur in the environment.
  6. Regulated Soil: Includes Polluted Soil, Contaminated Soil, and Hazardous Soil.
  7. Groundwater Remediation Wastewater: Wastewater generated in connection with investigating pollution or remediating polluted groundwater or soil. Groundwater remediation wastewater includes without limitation groundwater withdrawn from a groundwater recovery well; groundwater which collects in an excavation or foundation drain or other subsurface facility or structure; groundwater contaminated runoff and stormwater impacted by on-site pollutants from any construction activity; condensate resulting from construction or maintenance of a soil vapor extraction system; and wastewater generated by developing, testing, sampling, or purging a well.



00 30 30	<b>GENERAL STATEMENT FOR HAZARDOUS BUILDING MATERIALS INSPECTION AND INVENTORY</b>	Not Used <input type="checkbox"/>
----------	------------------------------------------------------------------------------------	-----------------------------------

**A. Related Documents:**

- Section 01 20 00 Contract Considerations
- Section 01 35 16 Alteration Project Procedures
- Section 02 41 13 Selective Demolition
- Section 02 81 00 Transport and Disposal of Hazardous Materials
  
- Section 02 82 00 Asbestos Remediation
- Section 02 82 13 Asbestos Abatement
- Section 02 82 13.33 Asbestos Containing Roofing Material Abatement
- Section 23 07 00 Thermal Insulation Specifications
- Section 23 33 00 Flexible Connections Specifications
  
- Section 02 83 00 Lead Remediation
- Section 02 83 13 Lead Paint Activity
  
- Section 02 84 33 Removal and Disposal of PCBs
  
- Section 02 84 16 Removal and Handling of Regulated Material
- Section 02 85 00 Mold and Other Hazardous Materials Remediation Specifications

**B. Description of Work:**

**1. Work Involving Asbestos Containing Material (ACM):**

- 1.1 Testing for asbestos has been conducted at the facility scheduled for renovation, demolition, reconstruction, alteration, remodeling, or repair. Results of the asbestos testing are summarized in **Division 50 00 00 Project-Specific Available Information, Section 50 30 00 Hazardous Building Materials Inspection and Inventory** at the end of the Technical Specification Sections.
- 1.2 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.

**2. Work Involving Lead-Based Paint (LBP):**

- 2.1 If this facility was constructed **prior to 1978** it is likely to have painted surfaces containing lead-based paint (LBP).
- 2.2 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 summarized in **Division 50 00 00 Project-Specific Available Information, Section 50 30 00 Hazardous Building Materials Inspection and Inventory** at the end of the Technical Specification Sections. Under no circumstance shall this information be the sole means used by the Contractor for determining the extent of LBP.
- 2.3 The Contractor shall be responsible for verification of all field conditions affecting performance of the Work.

**3. Work Involving Polychlorinated Biphenyls (PCBs) in Building Materials:**

- 3.1 If this facility was constructed **between 1950 and 1978** it is likely to have caulk and/or glazing containing PCBs.
- 3.2 Testing for PCBs has been conducted at the facility scheduled for renovation, demolition, reconstruction, alteration, remodeling, or repair. Results of the PCB testing are summarized in **Division 50 00 00 Project-Specific Available Information, Section 50 30 00 Hazardous Building Materials Inspection and Inventory** at the end of the Technical Specification Sections.
- 3.3 The Contractor shall be responsible for verification of all field conditions affecting performance of the Work.

**4. Work Involving Mold:**

- 4.1 Testing for Mold has been conducted at the facility scheduled for renovation, demolition, reconstruction, alteration, remodeling, or repair. Results of the Mold testing are summarized in **Division 50 00 00 Project-Specific Available Information, Section 50 30 00 Hazardous Building Materials Inspection and Inventory** at the end of the Technical Specification Sections.
- 4.2 The Contractor shall be responsible for verification of all field conditions affecting performance of the Work.

**5. Work Involving Hazardous Materials, Wastes, and Items and Universal Wastes**  
(Including Products Containing Persistent Bioaccumulative Toxic Chemicals (PBT's)):

- 5.1 A **Hazardous Materials, Wastes, and Items and Universal Wastes** Inventory for products containing Persistent Bioaccumulative Toxic Chemicals (PBTs) such as Polychlorinated Biphenols (PCBs), Di-2-ethylhexyl Phthalate (DEHP), and Mercury, has been conducted at the facility scheduled for renovation, demolition, reconstruction, alteration, remodeling, or repair. Results of the inventory are summarized in **Division 50 00 00 Project-Specific Available Information, Section 50 30 00 Hazardous Building Materials Inspection and Inventory** at the end of the Technical Specification Sections.
- 5.2 The Contractor shall be responsible for verification of all field conditions affecting performance of the Work.
- 5.3 Examples of Hazardous Materials, Wastes, and Items and Universal Wastes include, but are not limited to, fluorescent light fixtures and exit signs, ballasts, high-intensity discharge (HID) lamps, certain types of construction products containing vinyl, mercury containing electrical switches, gauges, and thermostats; PCB Capacitors, refrigerants, pressurized cylinders, smoke/carbon dioxide detectors, used electronics, batteries, transformer/hydraulic fluids/oils, and miscellaneous household hazardous waste.
- 5.4 For the purposes of this subsection, **PCB's in building material such as caulk and glazing or any other type of material not listed above is not applicable to this subsection.**

00 30 40 GENERAL STATEMENT FOR SUBSURFACE GEOTECHNICAL REPORT

Not Used

**A. Related Documents:**

- 1. [Division 02: Site Construction](#)

**B. Description of Work:**

**1. Boring Logs:**

- 1.1 The Boring Logs have been prepared for the site of this Work and are in the Contract Documents.

**2. Geotechnical Report(s):**

- 2.1 The Subsurface Geotechnical Report(s) has been prepared for the site of this Work and is located in **Division 50 00 00 Project-Specific Available Information, Section 50 40 00 Subsurface Geotechnical Report** at the end of the Technical Specification Sections.

- 2.2 The Contractor must interpret this report according to his own judgment and acknowledges that he is not relying upon the data as accurately describing the subsurface conditions which may be found to exist.
- 2.3 The Contractor further acknowledges that he assumes all risk contingents upon the nature of the subsurface conditions which shall be actually encountered by him in performing the Work of this Contract.
- 2.4 The Contractor should visit the site and become acquainted with all existing conditions and may make their own subsurface investigations to satisfy themselves as to the subsurface conditions. Such investigations shall be conducted only under time schedules and arrangements approved in advance by the Owner.

<b>00 30 50</b>	<b>GENERAL STATEMENT FOR ELEVATOR AGREEMENT</b>	<b>Not Used</b> <input checked="" type="checkbox"/>
-----------------	-------------------------------------------------	-----------------------------------------------------

**A. Related Documents:**

- 1. [Division 14: Section 14 20 00 Elevators](#)

**B. Description of Work:**

**1. Elevator:**

- 1.1 The Work of this Project includes an Elevator(s).

**2. Elevator Agreement:**

- 2.1 This Project contains elevator specifications that mandate that the general contractor must obtain a signed copy of the Elevator Agreement from the elevator manufacturer prior to their submittal of elevator shop drawings for review. Failure to receive a signed agreement will result in an automatic rejection of the submittal.
- 2.2 The Elevator Agreement is located in **Division 50 00 00 Project-Specific Available Information, Section 50 50 00 Elevator Agreement** at the end of the Technical Specification Sections.

<b>00 30 60</b>	<b>GENERAL STATEMENT FOR FM GLOBAL CHECKLIST FOR ROOFING SYSTEMS</b>	<b>Not Used</b> <input checked="" type="checkbox"/>
-----------------	----------------------------------------------------------------------	-----------------------------------------------------

**A. Related Documents:**

- 1. [Section 01 35 16 Alteration Project Procedures](#)
- 2. [Section 07 35 23 Ethylene-Propylene-Diene-Monomer \(EPDM\) Roofing](#)
- 3. [Section 07 52 16 SBS Modified Bitumen Membrane Roofing](#)

**B. Description of Work:**

- 1. Work Involving FM Global requirements for Existing Roof Removal and Replacement With New Roof:

- 1.1 The Contractor shall be responsible for adhering to FM Global Checklist Requirements for Roof Removal and Replacement With New Roof. See [Section 01 35 16 Alteration Project Procedures](#), [Section 07 35 23 Ethylene-Propylene-Diene-Monomer \(EPDM\) Roofing](#), and [Section 07 52 16 SBS Modified Bitumen Membrane Roofing](#) for additional technical specifications and Contractor responsibilities.
- 1.2 Refer to the **FM Global Data Sheet Website** (<http://www.fmglobal.com/fmglobalregistration/>) and the **FM Global Roof Design / Approval Web Tool - RoofNav** (<https://roofnav.fmglobal.com/RoofNav/Login.aspx>).
- 1.3 A sample of the FM Global Checklist is located in **Division 50 00 00 Project-Specific Available Information, 50 60 00 FM Global Checklist For Roofing Systems** at the end of the Technical Specification Sections.

<b>00 30 70</b>	<b>GENERAL STATEMENT FOR "STATEMENT OF SPECIAL INSPECTIONS"</b>	<b>Not Used</b> <input checked="" type="checkbox"/>
-----------------	-----------------------------------------------------------------	-----------------------------------------------------

- A. The "Statement of Special Inspections" for this project is located in **Division 50 00 00 Project-Specific Available Information, Section 50 70 00 Statement of Special Inspections** at the end of the Technical Specification Sections.

---

<b>00 30 80</b>	<b>GENERAL STATEMENT FOR OTHER INFORMATION</b>	Not Used <input type="checkbox"/>
-----------------	------------------------------------------------	-----------------------------------

---

- A. Other Information for this project is located in **Division 50 00 00 Project-Specific Available Information, Section 50 80 00 Other Information** at the end of the Technical Specification Sections.
- B. Other Information includes the following:
1. **Subsection 50 80.00.1:** [Asbestos Bulk Sample Data, 1985 - Present](#)

**End of Section**  
**00 30 00 General Statements for Available Information**

**Certificate (of Authority)**

**DAS Construction Services Project No.:** \_\_\_\_\_

I \_\_\_\_\_, \_\_\_\_\_  
(Signer's Name)<sup>1</sup> (Signer's Title)

of \_\_\_\_\_, an entity lawfully organized and existing under the laws  
(Name of Entity)

of \_\_\_\_\_, do hereby certify that the following is a true and correct  
(Name of State or Commonwealth)

copy of a resolution adopted on the \_\_\_\_\_ day of \_\_\_\_\_, 20 \_\_\_\_\_ by the governing body of  
(Day)<sup>2</sup> (Month)<sup>2</sup> (Year)<sup>2</sup>

\_\_\_\_\_, in accordance with all of its documents of governance and  
(Name Of Entity)

management and the laws of \_\_\_\_\_ and further certify that such resolution has not  
(Name of State or Commonwealth)

been modified, rescinded or revoked, and is at present in full force and effect.

**RESOLVED:** that \_\_\_\_\_, \_\_\_\_\_  
(Name of Signer of Contract Documents)<sup>3</sup> (Title of Signer of Contract Documents)<sup>3</sup>

of \_\_\_\_\_ is empowered and authorized, on behalf of the entity,  
(Name of Entity)

to execute and deliver contracts and amendments thereto, and all documents required by the Governor, the Connecticut Department of Administrative Services, the Connecticut State Properties Review Board and the Office of the Attorney General associated with such contracts and amendments.

IN WITNESS WHEREOF, the undersigned has executed this certificate this \_\_\_\_\_ day of \_\_\_\_\_, 20 \_\_\_\_\_.  
(Day)<sup>4</sup> (Month)<sup>4</sup> (Year)<sup>4</sup>

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Print Name)

\_\_\_\_\_  
(Title)

**Reference Notes:**

- 1 The signer of this certificate must be someone *other than* the signer of the contract documents *except for* a sole managing member of an LLC or the sole officer or sole principal of a corporation. *If* the signer is a sole managing member of an LLC, *then* along with this certificate the signer must provide a letter on company letterhead that indicates the signer is a sole member and managing member. If the signer is the sole officer or sole principal of a corporation, then the signer must provide with the certificate a letter on company letterhead setting forth this fact.
- 2 This date must be on or before the **date of signing** of the Bid Proposal (or Contract).
- 3 This person shall sign the Contract and other required documents.
- 4 This date must be on or after the **date of signing** of the Bid Proposal (or Contract).

**For Your Information:**

**Certificate (of Authority)**

**All Bidders:**  
**Complete page 1, print, sign, and scan to PDF. Upload the PDF form to CTsource.**

What the **Certificate** is saying is that the organization authorized the signatory to sign the pertinent **documents other than** the Certificate (of Authority) and that, as of the date of **execution** of the CERTIFICATE (i.e., the date set forth in the "In Witness Whereof" blanks) there has been no change in that authorization.

**Instructions For Completing The Certificate (of Authority)**

**The Certificate (of Authority) to Accompany the Bid Proposal Form:**

1. **1<sup>st</sup> Paragraph:**
  - 1.1 First, enter the name and title of the individual signing the Certificate (of Authority).
  - 1.2 Second, enter the legal name of the entity (exactly as it is shown on the Secretary of State registry).
  - 1.3 Third, enter the name of the state or commonwealth the entity is registered in.
  - 1.4 Fourth, enter the date the resolution was adopted by the governing body. This **date** is **on or before** the date the **Bid Proposal** is signed.
  - 1.5 Fifth, enter the name of the state or commonwealth the entity is registered in.
2. **2<sup>nd</sup> Paragraph:**
  - 2.1 First, enter the name and title of the individual signing bid documents for the entity.
  - 2.2 Second, enter the legal name of the entity (exactly as it is shown on the Secretary of State registry).
3. **Last Paragraph:**
  - 3.1 Enter the **Witness Date**<sup>1</sup>. This date will likely be the date of execution of the **Bid Proposal form**.

***<sup>1</sup> This Witness Date Should Not Be Before The Date Of Execution Of The Bid Proposal.***

**The Certificate (of Authority) to Accompany the Contract:**

1. **1<sup>st</sup> Paragraph:**
  - 1.1 First, enter the name and title of the individual signing the Certificate (of Authority).
  - 1.2 Second, enter the legal name of the entity (exactly as it is shown on the Secretary of State registry).
  - 1.3 Third, enter the name of the state or commonwealth the entity is registered in.
  - 1.4 Fourth, enter the date the resolution was adopted by the governing body. This **date** is **on or before** the date the **Contract** is signed.
  - 1.5 Fifth, enter the name of the state or commonwealth the entity is registered in.
2. **2<sup>nd</sup> Paragraph:**
  - 2.1 First, enter the name and title of the individual signing contract documents for the entity.
  - 2.2 Second, enter the legal name of the entity (exactly as it is shown on the Secretary of State registry).
3. **Last Paragraph:**
  - 3.1 Enter the **Witness Date**<sup>1</sup>. This date will likely be the date of execution of the **Contract**.

***<sup>1</sup> This Witness Date Should Not Be Before The Date Of Execution Of The Contract.***

**End of Section 00 40 14 Certificate (of Authority)**

**State of Connecticut**  
**Department of Administrative Services (DAS)**  
**Contractor Prequalification Certificate Requirements**  
**for Projects with Construction Costs Estimated to be Greater Than \$500,000**

**DAS | Construction Services | Office of Legal Affairs, Policy, and Procurement**

**1.0 DAS Contractor Prequalification Certificate**

**1.1 Requirements:**

**1.1.1** All Bidders must upload a copy of their firm's current **DAS Construction Contractor Prequalification Program Certificate** to **CTsource** with their other **Bid Package Documents** for this solicitation *prior* to the date and time of the Bid Opening.

**1.2 Instructions:**

- 1.2.1** To find your **DAS Construction Contractor Prequalification Program Certificate**, go to the **DAS Search for Prequalified Vendors webpage**:  
<https://biznet.ct.gov/PQSearch/Default.aspx>
- 1.2.2** Enter your firm's name in "Company Name or Keyword" and click "Search".
- 1.2.3** Click "Print Certificate" adjacent your firm's name.
- 1.2.4** Save the PDF of your certificate to your computer.
- 1.2.5** Upload your **DAS Construction Contractor Prequalification Program Certificate** to **CTsource** with your other **Bid Package Documents** for this solicitation *prior* to the date and time of the Bid Opening.
- 1.2.6** If you have any questions regarding your certificate (or how to become prequalified), visit the **DAS Construction Contractor Prequalification Program webpage**:  
(<https://portal.ct.gov/DAS/Procurement/PreQual/DAS-Construction-Contractor-Prequalification-Program>)  
or call the DAS/Construction Contractor Prequalification Program at **860-713-5280**.





**State of Connecticut**  
**Department of Administrative Services (DAS)**  
**Update (Bid) Statement Requirements**  
**for Projects with Construction Costs Estimated to be Greater Than \$500,000**

**DAS | Construction Services | Office of Legal Affairs, Policy, and Procurement**

**1.0 DAS Update (Bid) Statement**

**1.1 Requirements:**

<b>1.1.1</b>	<p><b>All Bidders</b> must upload a copy of their firm’s current <b>DAS Update (Bid) Statement</b> to <b>CTsource</b> with their other <b>Bid Package Documents</b> for this solicitation <i>prior</i> to the date and time of the Bid Opening.</p> <p>The Update (Bid) Statement includes information on your company and job being bid. It also indicates your company’s remaining Aggregate Work Capacity (AWC). The remaining AWC is calculated by deducting the amount of ongoing bonded work from your total bonded Aggregate Work Capacity.</p>
--------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

**1.2 Instructions:**

- |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>1.2.1</b>  | To create your <b>Update (Bid) Statement</b> , go to the <b>BizNet login webpage</b> :<br><a href="https://biznet.ct.gov/AccountMaint/Default.aspx">https://biznet.ct.gov/AccountMaint/Default.aspx</a>                                                                                                                                                                                                                                                                             |
| <b>1.2.2</b>  | Enter your e-mail address and password, and click the “Log-In” button.                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>1.2.3</b>  | Click the “Doing Business With the State” link.                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>1.2.4</b>  | Click the “Contractor Prequalification Application” link.                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>1.2.5</b>  | Click the “Bid Statements” link.                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>1.2.6</b>  | Enter the required information.                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>1.2.7</b>  | Use the “Print” link to print your <b>DAS Update (Bid) Statement</b> .                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>1.2.8</b>  | Save the PDF of your certificate to your computer.                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>1.2.9</b>  | Upload your <b>DAS Update (Bid) Statement</b> to <b>CTsource</b> with your other <b>Bid Package Documents</b> for this solicitation <i>prior</i> to the date and time of the Bid Opening.                                                                                                                                                                                                                                                                                           |
| <b>1.2.10</b> | If you have any questions regarding your statement (or how to become prequalified), visit the <b>DAS Construction Contractor Prequalification Program webpage</b> ( <a href="https://portal.ct.gov/DAS/Procurement/PreQual/DAS-Construction-Contractor-Prequalification-Program">https://portal.ct.gov/DAS/Procurement/PreQual/DAS-Construction-Contractor-Prequalification-Program</a> ) or call the DAS Construction Contractor Prequalification Program at <b>860-713-5280</b> . |



## Bid Proposal Form

DAS | Construction Services | Office of Legal Affairs, Policy, and Procurement  
 450 Columbus Boulevard, Suite 1302 | Hartford, CT 06103

<b>Date and Time of Bid Opening:</b>	See page 1 of Section 00 11 16 Invitation To Bid.
<b>Instructions for Online Bidding:</b> (Updates are shown in yellow highlight)	Follow the instructions in <i>6001 Construction Online Bidding Instructions</i> , available for download from the online DAS/CS Library ( <a href="http://portal.ct.gov/DASCSLibrary">http://portal.ct.gov/DASCSLibrary</a> ) > 6000 Series. For questions, email Mellanee Walton at <a href="mailto:Mellanee.Walton@ct.gov">Mellanee.Walton@ct.gov</a> .

### Instructions for Completing This Bid Proposal Form:

- **Download** and **save** the Bid Proposal Form to your computer. Close the form. Open your *saved* Bid Proposal Form and type required information in blue boxes. (Remember to keep saving to your computer.)
- On your Word Toolbar, **click “View” then “Edit Document” or “Print Layout”** in order to edit the form.
- When your Bid Proposal Form is complete, perform a final “save” to your computer! **Print ALL pages and sign** your Bid Proposal Form. **Scan ALL** pages of your Bid Proposal Form to **PDF**. Upload the **PDF** Bid Proposal Form to **CTsource**.
- **Duly Authorized Signature:** A duly authorized representative of the Bidder or Bidder’s partnership, firm, corporation or business organization must sign the Bid Proposal Form.
- **No Facsimile Signature** is permitted. **All information below** is to be filled in by the **Bidder**.
- *If an Addendum is issued that **changes** the **Bid Proposal Form** then the **Revised Bid Proposal Form** (issued with the Addendum) **must** be uploaded instead. **If you have previously responded to the bid, select “Retract & Edit Response”.** You must **Accept the Addendum**, attach applicable documents, and re-submit your bid.*
- Upload to **CTsource** **only** the additional **Bid Package Documents, Affidavits, and Certifications** as described in **Table 1** of **Section 00 41 10 Bid Package Submittal Requirements**.
- A signed and scanned **Certificate (of Authority), Section 00 40 14**, **must** be uploaded to **CTsource** **prior** to the date and time of the Bid Opening.
- **Any Bid Proposal Form** that has omitted or added items, altered the form, contains conditional, alternative, or obscure bids, or is submitted *without* the signature of the bidder or its authorized representative, **will be rejected**.
- See **Section 00 21 13 Instructions to Bidders** for additional information.

### 1.0 General Bid Proposal Information:

<b>Project Title:</b>	Wethersfield DMV Lighting Fixture & Controls Retrofit
<b>Project Location:</b>	60 State Street Wethersfield, CT
<b>Project Number:</b>	<b>BI-MM-58</b>
<b>Construction Costs:</b>	Greater Than \$500,000
<b>Bidding Limited To :</b>	Contractors Prequalified by DAS for General Trades (Interior Work Only)
<b>Threshold Limits: (C.G.S. §29-276b)</b>	This Project DOES NOT exceed Threshold Limits.
<b>Set Aside Requirements:</b>	SBE Subcontractors &/or Suppliers: 25%; MBE Subcontractors &/or Suppliers: 6.25%
<b>Pre-Bid Meeting:</b>	See <b>Section 00 11 16 Invitation to Bid</b> and <b>Section 00 25 13 Pre-Bid Meeting</b> .
<b>Plans and Specifications prepared by A/E:</b>	EDM Services, Inc., 45 South Main Street, Unionville, CT 06085

<b>1.1</b>	<b>Commencement and Acceptance:</b> (See Section 00 73 13 General Conditions, Article 4 - Commencement and Progress of Work and Article 1 - Definitions)			
The Selected Bidder shall commence Work within <b>fourteen (14) Calendar Days <u>after</u></b> receiving a <b>“Construction Start Date and Notice to Proceed”</b> by the Commissioner or authorized representative and continue for <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="text-align: center;">180</td></tr><tr><td style="text-align: center;">90</td></tr></table> <b>Calendar Days</b> for <b>“Substantial Completion”</b> of the project; <b>and</b> then continue <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="text-align: center;">90</td></tr></table> <b>Calendar Days</b> for <b>“Acceptance”</b> of the Work.		180	90	90
180				
90				
90				
<b>1.2</b>	<b>Liquidated Damages:</b> (See Section 00 73 13 General Conditions, Article 8 – Damages & Article 1 - Definitions)			
<b>1.2.1 Liquidated Damages – Substantial Completion:</b>				
The Selected Bidder shall be assessed \$ <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="text-align: center;">2,093.00</td></tr></table> per <b>Calendar Day <u>beyond</u></b> the date established for Substantial Completion of the Contract according to the <b>Contract Time</b> as defined in <b>Article 1.28 of Section 00 73 13 General Conditions</b> , and not otherwise excused or waived pursuant to the Contract Documents, as defined in <b>Article 1.23 of Section 00 73 13 General Conditions</b> .		2,093.00		
2,093.00				
<b>1.2.2 Liquidated Damages – Acceptance:</b>				
The Selected Bidder shall be assessed \$ <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="text-align: center;">578.00</td></tr></table> per <b>Calendar Day <u>beyond ninety (90) days after</u></b> the date of said Substantial Completion that the Selected Bidder fails to achieve <b>Acceptance</b> , as defined in <b>Article 1.1 of Section 00 73 13 General Conditions</b> and not otherwise excused or waived as described above.		578.00		
578.00				
<b>1.3</b>	<b>Bid Proposal Statements and Conditions:</b> This <b>Bid Proposal Form</b> shall be submitted according to, and in compliance with, the foregoing and following statements, conditions, and/or information:			
<b>1.3.1</b>	This Bid Proposal Form is submitted in accordance with Chapter 60 Construction And Alterations Of State Buildings, Part II Bidding And Contracts of the Connecticut General Statutes (C.G.S.), as amended, particularly C.G.S. § 4b-91(a)(5)(A) – (C), and pursuant to, and in compliance with, the <b>Invitation to Bid</b> (Section 00 11 16), the <b>Instructions to Bidders</b> (Section 00 21 13), the <b>Bid Package Submittal Requirements</b> (Section 00 41 10), and the <b>Contract</b> (Section 00 52 03).			
<b>1.3.2</b>	The Bidder proposes to furnish the labor and/or materials, installed as required for the Project named and numbered on this <b>Bid Proposal Form</b> , submitted herein, furnishing all necessary equipment, machinery, tools, labor and other means of construction, and all materials specified in the manner and at the time prescribed strictly in accordance with the provisions of the <b>Contract</b> including, but not limited to, the specifications and/or drawings together with all <b>Addenda</b> issued by the Awarding Authority and received by the Bidder, prior to the scheduled <b>Date and Time of the Bid Opening</b> as stated on <b>page 1</b> of the <b>Invitation To Bid</b> , and in conformity with requirements of the Awarding Authority and any laws or Departmental regulations of the State of Connecticut or of the United States which may affect the same, for and in consideration of the price(s) stated on this <b>Bid Proposal Form</b> , hereof.			
<b>1.3.3</b>	The Bidder acknowledges that the <b>Proposed Lump Sum Base Bid</b> submitted on this <b>Bid Proposal Form</b> includes all work indicated on the drawings and/or described in the specifications, <b>except</b> for the <b>Contingent Work</b> described in <b>Subsection 2.4</b> .			
<b>1.3.4</b>	The Bidder acknowledges and agrees to furnish all labor and materials required for this <b>Project</b> , in accordance with the accompanying <b>Plans and Specifications</b> prepared by the <b>Architect/Engineer</b> listed on <b>page 1</b> of this Bid Proposal Form, for the <b>Contract Sum</b> specified in the <b>Proposed Lump Sum Base Bid</b> in <b>Subsection 2.1</b> of this Bid Proposal Form, subject to <b>additions</b> and <b>deductions</b> according to the terms of the specifications, and including the number of <b>Addenda</b> stated in <b>Subsection 2.2</b> of this Bid Proposal Form.			
<b>1.4</b>	<b>Award:</b>			
<b>1.4.1</b>	All Bid Proposals shall be subject to the provisions of <b>Section 00 21 13 Instructions to Bidders</b> and for purpose of award, consideration shall be given only to Bid Proposals submitted by qualified and responsible Bidders.			
<b>1.4.2</b>	The award shall be made on the <b>lowest Lump Sum Bid</b> and any or all <b>Supplemental Bid(s)</b> as stated in <b>Subsection 2.4.2</b> of this <b>Bid Proposal Form</b> , taken sequentially, as applicable, provided funds are available.			
<b>1.4.3</b>	In the event of any <b>discrepancy</b> between the amount written in words and the amount written in numerical figures, the amount written in words shall be controlling.			

**2.0 Bid Proposal Requirements:**

**Bidder Information:**

**Bid Uploaded On:**     
 (Month) (Day) (Year)

**Proposal Of:**   
 (Complete Bidder's Legal Company Name As Registered With the CT Secretary of State)

**Firm Address:**  ,  ,    
 (Avenue / Street) (Town / City) (State) (Zip Code)

**Contact Person:**    
 (Name) (Title)

**Contact Information:**     
 (Phone Number) (Fax Number) (Email Address)

**Threshold Project: Major Contractor Registration License No.:**

**All Bidders for Projects that exceed Threshold Limits (see page 1 of this Bid Proposal Form):** Insert your Firm's **Major Contractor Registration License Number** in the space provided above. **NOTE: If this Project does NOT exceed Threshold Limits, insert "Not Applicable" in the blue box above. Delete this note by pressing the spacebar.**

**2.1 Proposed Lump Sum Base Bid:**

**2.1.1 All Bidders:** Insert the **Proposed Lump Sum Base Bid** in the spaces provided below, including **both** numerical figures and "printed words" dollar amount. The **Proposed Lump Sum Base Bid** shall include all Allowances, all work indicated on the drawings and/or described in the specifications except for **Contingent Work**.

**2.1.2** The **Proposed Lump Sum Base Bid** shall be shown in **both** numerical figures and "printed words" dollar amount. In the event of any discrepancy the "printed" words dollar amount shall govern.

**2.1.3** The **Proposed Lump Sum Base Bid** is:

\$   
 (Place Numerical Figures in the Box Above)

**Dollars**  
 (Insert "Printed Words" Dollar Amount in the Box Above)

**2.2 Number of Addenda:**

**2.2.1 All Bidders:** Insert the **Number of Addenda** issued by the State of Connecticut in the space provided below.

**2.2.2** Failure to acknowledge the **correct number** of all **Addenda** in **the box below** in this **Bid Proposal Form** shall cause **rejection** of the bid.

**2.2.3** The Bidder acknowledges that their **Proposed Lump Sum Base Bid Proposal** includes:

**Number of Addenda. If none, enter "0".**

**2.3 Allowances:**

See Section 01 20 00 Contract Considerations in Division 01 General Requirements for Allowances for applicability.

<b>2.4</b>	<b>Contingent Work:</b>
<b>2.4.1</b>	<b>Base Bid Quantities and Defined Unit Prices:</b> See <b>Section 01 20 00 Contract Considerations</b> in Division 01 General Requirements for <b>applicability</b> regarding Base Bid Quantities and Defined Unit Prices for Earth and Rock Excavation, Miscellaneous Items, Alterations Items, Environmental Remediation, and/or Hazardous Building Materials Abatement.
<b>2.4.2</b>	<b>Supplemental Bids:</b>
	.1 See <b>Section 01 23 13 Supplemental Bids</b> in Division 01 General Requirements for <b>applicability</b> .
	.2 <b>All Bidders: If Supplemental Bids are applicable</b> to this Project, insert the <b>Supplemental Bids</b> in the spaces provided below. Any <b>Supplemental Bids</b> listed below, <i>if</i> accepted by the Owner, will be taken cumulatively and in numerical order as scheduled. No Supplemental Bid will be skipped or taken out of numerical order as scheduled.

<b>Supplemental Bid No. 1: NOT APPLICABLE</b>		
ADD: \$	<input type="text"/>	<input type="text"/> Dollars
	<i>(Insert Numerical Figures)</i>	<i>(Insert "Printed Words" Dollar Amount)</i>
<b>Supplemental Bid No. 2: NOT APPLICABLE</b>		
ADD: \$	<input type="text"/>	<input type="text"/> Dollars
	<i>(Insert Numerical Figures)</i>	<i>(Insert "Printed Words" Dollar Amount)</i>
<b>Supplemental Bid No. 3: NOT APPLICABLE</b>		
ADD: \$	<input type="text"/>	<input type="text"/> Dollars
	<i>(Insert Numerical Figures)</i>	<i>(Insert "Printed Words" Dollar Amount)</i>
<b>Supplemental Bid No. 4: NOT APPLICABLE</b>		
ADD: \$	<input type="text"/>	<input type="text"/> Dollars
	<i>(Insert Numerical Figures)</i>	<i>(Insert "Printed Words" Dollar Amount)</i>

<b>2.5</b>	<b>Bidder's Qualification Statement and Objective Criteria for Evaluating Bidders:</b>
<b>2.5.1</b>	<b>All Bidders:</b> Download <b>Section 00 45 14 General Contractor Bidder's Qualification Statement</b> from <b>CTsource</b> for the template and instructions. Complete and upload <b>Section 00 45 14 General Contractor Bidder's Qualification Statement</b> to <b>CTsource</b> <i>prior</i> to the date and time of the Bid Opening. Information with regards to the <b>General Contractor's Bidder's Qualification Statement</b> is submitted and is made part of this <b>Bid Proposal Form</b> . Failure of a Bidder to answer any question or provide required information <b>shall</b> be grounds for the awarding authority to <b>disqualify</b> and <b>reject</b> the bid, pursuant to Connecticut General Statutes §4b-92.
<b>2.5.2</b>	<b>All Bidders</b> shall comply with <b>Section 00 45 15 Objective Criteria Established for Evaluating Qualifications of Bidders</b> . <b>Note:</b> Individual Specification Sections may contain General Contractor and/or Subcontractor Qualification requirements that exceed those in <b>Section 00 45 15 Objective Criteria Established for Evaluating Qualifications of Bidders</b> .

<b>2.6</b>	<b>Prequalification Requirements for Projects Exceeding \$500,000:</b> (see Sections 00 40 15 DAS Contractor Prequalification Certification Requirements and 00 40 16 DAS Update Bid Statement Requirements)
<b>2.6.1</b>	<b>All Bidders for Projects with estimated Construction Costs greater than \$500,000:</b> Upload to <b>CTsource</b> a current copy of your Firm's " <b>DAS Contractor Prequalification Certificate</b> " and " <b>Update (Bid) Statement</b> " for the applicable <b>Class of Work</b> on <b>page 1</b> of this <b>Bid Proposal Form</b> <i>prior</i> to the date and time of the Bid Opening. Failure to comply with this requirement <b>shall</b> cause rejection of the bid and shall not be considered a minor irregularity under <b>C.G.S. § 4b-95</b> .
<b>2.6.2</b>	<b>Named Subcontractor(s) for Subcontracts exceeding \$500,000:</b> The <b>Named Subcontractor(s)</b> <i>must</i> be " <b>prequalified</b> " by DAS in the <b>Class of Work</b> specified in <b>Table 2.7</b> of this <b>Bid Proposal Form</b> <i>at the time of bid submission</i> , pursuant to <b>C.G.S. §4b-91(j)</b> and <b>C.G.S. § 4a-100</b> , as amended, to the extent the Class of Work for the Named Subcontractor is a Prequalification Classification. This requirement also applies to the Bidder, if the Bidder is a Named Subcontractor. Failure to comply with this requirement <b>shall</b> cause rejection of the bid and shall not be considered a minor irregularity under <b>C.G.S. § 4b-95</b> .

**2.7 Named Subcontractors and Classes of Work:**

**2.7.1 All Bidders for Projects with one or more Classes of Work checked in Table 2.7 below:** Complete Table 2.7 according to the instructions below. Failure to properly provide all of the **required information** in Table 2.7 may cause rejection of the bid.

**Table 2.7: Named Subcontractors and Classes of Work: NOTE: Check the correct boxes. Select the correct choices. Delete this note by pressing the spacebar.**

<input checked="" type="checkbox"/>	<b>Electrical Work: Enter information in blue boxes below:</b>	
	Complete Subcontractor Name:	
	Proposed Dollar Value of Subcontract: \$	
<input type="checkbox"/>	<b>HVAC Work: NOT APPLICABLE</b>	
	Complete Subcontractor Name:	
	Proposed Dollar Value of Subcontract: \$	
<input type="checkbox"/>	<b>Masonry Work: NOT APPLICABLE</b>	
	Complete Subcontractor Name:	
	Proposed Dollar Value of Subcontract: \$	
<input type="checkbox"/>	<b>Plumbing Work: NOT APPLICABLE</b>	
	Complete Subcontractor Name:	
	Proposed Dollar Value of Subcontract: \$	
<input type="checkbox"/>	<b>Environmental Remediation: NOT APPLICABLE</b>	
	Complete Subcontractor Name:	
	Proposed Dollar Value of Subcontract: \$	
<input type="checkbox"/>	<b>Hazardous Materials Abatement: NOT APPLICABLE</b>	
	Complete Subcontractor Name:	
	Proposed Dollar Value of Subcontract: \$	

- 2.7.2 Instructions For Table 2.7:**
- .1 In accordance with C.G.S. 4b-93(b), each Class of Work set forth in a separate section of the specifications pursuant to this Section shall be a **subtrade** designated in Table 2.7 of this Bid Proposal Form and shall be the matter of a **subcontract**.
  - .2 For each Class of Work checked in Table 2.7, the Bidder shall insert the name of each **Subcontractor** with their **Proposed Dollar Value of Subcontract**; this is known as the **“Named Subcontractor”**.
  - .3 For each Class of Work checked in Table 2.7, if a Bidder intends to use **one or more Subcontractors** to perform **any portion** of the **Classes of Work**, including circumstances where the Subcontractor is a Small Business Enterprise (SBE) or a Minority Business Enterprise (MBE), then it shall provide **ALL** of the Subcontractor Names and Proposed Dollar Values of **each Subcontract**. Insert additional Subcontractor Names and Proposed Dollar Values in **Table 2.7 (continued) “ADDITIONAL Named Subcontractors and Classes of Work”** on the following page.
  - .4 If a Bidder customarily performs any of the specified Classes of Work and is Prequalified by DAS for the Class of Work at the time of the Bid Opening Date if the work is greater than \$500,000, the Bidder may list **itself** as a Subcontractor together with its **price** in the space provided in Table 2.7. Failure to properly provide all of the **required information** in Table 2.7 shall cause **rejection** of the bid.
  - .5 If the Bidder does **not** name **itself** or a **Subcontractor** for a specified Class of Work, it shall be presumed that the Bidder intends to perform with its own employees **all work** in such specified classes. The Bidder shall be required to perform with its own employees **all** of the work of the specified class. Subcontracting any portion of such specified class of work subsequently, will be considered a violation of **C.G.S. § 4b-95** and subject the Bidder to disqualification under **C.G.S. § 4b-95(e)**.
  - .6 In the event that the Bidder names a Subcontractor to perform **some, but not all**, of the separate section of the specifications for a particular Class of Work, then it will be presumed, in addition, that the Bidder intends to perform the **balance** of the Class of Work. **Post-bid**, the Bidder **cannot substitute** a Subcontractor for one named in the Bid Proposal Form or bring in a Subcontractor for any designated subtrade work presumed to be performed by the General Contractor's own forces, except for **“Good Cause”** as determined by the awarding authority.
  - .7 In the event the Bidder either lists itself or is presumed to perform with its own employees all work in a specified class, no such sub-bid by a Bidder shall be considered unless the Bidder can show to the satisfaction of the awarding authority, based on objective criteria established for such purpose, that it customarily performs such subtrade work and is qualified to do the character of work required by the applicable section of the specifications.

**Table 2.7 (continued):  
 ADDITIONAL Named Subcontractors and Classes of Work:**

**ALL BIDDERS: CLICK HERE, AND THEN CLICK DROPDOWN ARROW to select a Class of Work:**

Complete Subcontractor Name:		
Proposed Dollar Value of Subcontract:	\$	

**ALL BIDDERS: CLICK HERE, AND THEN CLICK DROPDOWN ARROW to select a Class of Work:**

Complete Subcontractor Name:		
Proposed Dollar Value of Subcontract:	\$	

**ALL BIDDERS: CLICK HERE, AND THEN CLICK DROPDOWN ARROW to select a Class of Work:**

Complete Subcontractor Name:		
Proposed Dollar Value of Subcontract:	\$	

**ALL BIDDERS: CLICK HERE, AND THEN CLICK DROPDOWN ARROW to select a Class of Work:**

Complete Subcontractor Name:		
Proposed Dollar Value of Subcontract:	\$	

**ALL BIDDERS: CLICK HERE, AND THEN CLICK DROPDOWN ARROW to select a Class of Work:**

Complete Subcontractor Name:		
Proposed Dollar Value of Subcontract:	\$	

**ALL BIDDERS: CLICK HERE, AND THEN CLICK DROPDOWN ARROW to select a Class of Work:**

Complete Subcontractor Name:		
Proposed Dollar Value of Subcontract:	\$	

**ALL BIDDERS: CLICK HERE, AND THEN CLICK DROPDOWN ARROW to select a Class of Work:**

Complete Subcontractor Name:		
Proposed Dollar Value of Subcontract:	\$	

**ALL BIDDERS: CLICK HERE, AND THEN CLICK DROPDOWN ARROW to select a Class of Work:**

Complete Subcontractor Name:		
Proposed Dollar Value of Subcontract:	\$	

**ALL BIDDERS: CLICK HERE, AND THEN CLICK DROPDOWN ARROW to select a Class of Work:**

Complete Subcontractor Name:		
Proposed Dollar Value of Subcontract:	\$	

**ALL BIDDERS: CLICK HERE, AND THEN CLICK DROPDOWN ARROW to select a Class of Work:**

Complete Subcontractor Name:		
Proposed Dollar Value of Subcontract:	\$	

**ALL BIDDERS: CLICK HERE, AND THEN CLICK DROPDOWN ARROW to select a Class of Work:**

Complete Subcontractor Name:		
Proposed Dollar Value of Subcontract:	\$	

**ALL BIDDERS: CLICK HERE, AND THEN CLICK DROPDOWN ARROW to select a Class of Work:**

Complete Subcontractor Name:		
Proposed Dollar Value of Subcontract:	\$	

**ALL BIDDERS: CLICK HERE, AND THEN CLICK DROPDOWN ARROW to select a Class of Work:**

Complete Subcontractor Name:		
Proposed Dollar Value of Subcontract:	\$	



<b>2.8</b>	<b>Set Aside Requirements:</b> (see Sections 00 62 39 DAS-Set Aside Certificate Requirements, 00 73 38 "CHRO Contract Compliance Regulations", and 00 73 40 CHRO Bidder Contract Compliance Monitoring Report Requirements)
<b>2.8.1</b>	<b>For Projects Less Than \$500,000:</b> Submit a current copy of your Firm's "DAS Set-Aside Certificate" with your Bid Proposal Form prior to the date and time of the Bid Opening.
<b>2.8.2</b>	<b>For Projects Less Than \$500,000:</b> Upload a completed copy of the CHRO Employment Information Form, "Bidder Contract Compliance Monitoring Report" with your Bid Proposal Form prior to the date and time of the Bid Opening. The report is on the CHRO Webpage ( <a href="http://www.ct.gov/chro/cwp/view.asp?a=2525&amp;Q=315900&amp;chroPNavCtr=#45679">http://www.ct.gov/chro/cwp/view.asp?a=2525&amp;Q=315900&amp;chroPNavCtr=#45679</a> ).
<b>2.8.3</b>	<b>All Bidders shall be required</b> to award not less than the percentage(s) stated on page 1 of this Bid Proposal Form to Subcontractors who are currently certified and eligible to participate under the State of Connecticut Set-Aside Program for SBE and/or MBE contractors, in accordance with C.G.S. § 4a-60g. <b>Failure</b> to meet these requirements <b>shall</b> cause rejection of the bid.
<b>2.9</b>	<b>Insurance Coverages:</b> The limits of liability for the Insurance required for this project shall be those listed in Article 35 Contractors Insurance of Section 00 73 13 General Conditions. Also see Section 00 62 16 Certificate of Insurance. <b>NOTE: Check the correct box(es). Delete this note by pressing the spacebar.</b>
<b>2.9.1</b>	<b>Commercial General Liability Insurance:</b> The Bidder shall maintain Commercial General Liability (CGL) Insurance. <b>NOTE:</b> All selected firms are required to provide an endorsement to the CGL insurance stating that the State of Connecticut, the Department of Administrative Services, and their respective officers, agents, and employees shall be named as an Additional Insured. Please be advised that a blanket endorsement <b>may not</b> be acceptable. Products/Completed Operations insurance shall be maintained for the duration of the Project and shall be maintained for a minimum of <b>three (3) years</b> after certification by the Owner that all Work has been completed and accepted by the Owner in accordance with the Contract Documents. CGL coverage may include <b>Special Hazards Insurance</b> , as described below.
<b>2.9.2</b>	<b>Special Hazards Insurance:</b> <input checked="" type="checkbox"/> None is Required. <input type="checkbox"/> The Bidder shall maintain Special Hazards Insurance, including coverage for <b>explosion, collapse or underground damage (X-C-U)</b> . <input type="checkbox"/> The Bidder shall maintain Special Hazards Insurance, including coverage for <b>Asbestos Abatement and Lead Liability</b> .
<b>2.9.3</b>	<b>Owner's and Contractor's Protective Liability Insurance:</b> The Bidder shall maintain Owner's and Contractor's Protective Liability Insurance. This coverage shall be for and in the name of the State of Connecticut.
<b>2.9.4</b>	<b>Automobile Liability Insurance:</b> The Bidder shall maintain Automobile Liability Insurance for the operation of all motor vehicles including those owned, non-owned and hired or used in connection with the Contract. Should the Bidder not own any automobiles, the automobile & liability requirement shall be amended to allow the Bidder to maintain only hired and non-owned liability coverage.
<b>2.9.5</b>	<b>Umbrella Liability Insurance:</b> The Bidder shall maintain Umbrella Liability Insurance. The Bidder shall provide an endorsement to the Umbrella Liability Insurance stating that the State of Connecticut is an Additional Insured.
<b>2.9.6</b>	<b>Workers Compensation/Employer Liability Insurance:</b> The Bidder shall maintain Workers Compensation/Employer Liability Insurance.
<b>2.9.7</b>	<b>Builder's Risk Insurance:</b> <input type="checkbox"/> None is Required. <input checked="" type="checkbox"/> The Bidder shall maintain Builder's Risk Insurance providing coverage for the entire Work at the project site, portions of the Work located away from the site but intended for use at the site, and portions of the Work in transit. Coverage shall be written on an All-Risk, Replacement Cost, and completed Value Form basis in an amount at least equal to the projected completed value of the Work. Prior to the Owner's issuance of a Notice to Proceed, the Contractor shall provide coverage for the entire Work in an amount equal to the total contract amount and any additional modifications. The Owner and its officers, agents and employees shall be listed as Loss Payee subject to the prior review of the Owner, and not as an Additional Insured for these coverages. The Builder's Risk Insurance policy shall state it is for the benefit of and payable to the State of Connecticut. The <b>Period of Coverage</b> shall be the number of Calendar Days from Construction Start Date to Substantial Completion as stated in the Bid Proposal Form of the Project Manual, plus ninety (90) Calendar Days to Acceptance of the Work.
<b>2.9.8</b>	<b>Inland Marine/Transit Insurance (Transportation Insurance):</b> <input checked="" type="checkbox"/> None is Required. <input type="checkbox"/> The Bidder shall maintain Inland Marine/Transit Insurance (Transportation Insurance) provided the coverage is not afforded by a Builder's Risk policy. The Inland Marine/Transit Insurance policy shall endorse the State of Connecticut as a Loss Payee and the policy shall state it is for the benefit of and payable to the State of Connecticut.

**3.0 Bid Proposal Acknowledgements:**

The Bidder *acknowledges and agrees* to the following:

**3.1 To Upload to CTsource the Bid Proposal Form (all pages) and all other Bid Documents, Affidavits, and Certifications prior to the Date and Time of the Bid Opening:**

**3.1.1** The Bidder acknowledges and agrees to electronically upload to **CTsource all pages** of the **Bid Proposal Form**, and all other **Bid Documents, Affidavits, and Certifications** as directed in **Section 00 11 16 Invitation to Bid, Section 00 21 13 Instructions to Bidders, and Section 00 41 10 Bid Package Submittal Requirements**.

**3.1.2** The State may waive minor irregularities which it considers in the best interest of the State and, when applicable, are corrected by the Bidder within seven (7) Calendar Days after the Bid Due Date. Failure to properly complete, sign and upload any of the items marked with an asterisk (\*) in **Table 1 of Section 00 41 10 Bid Package Submittal Requirements** *shall* cause rejection of the bid and *shall not* be considered a minor irregularity under **C.G.S. § 4b-95**.

**3.1.3** If there are any delays in the receipt of other documents, then the Bid shall remain valid for the same additional number of days. For example, if the documents are submitted four (4) Calendar Days later; then the bid shall remain valid for ninety-four (94) Calendar Days.

**3.1.4** Failure to submit the documents before the stated deadline **may** result in rejection of the bid at the sole discretion of the Commissioner of Administrative Services.

**3.2 To Hold Bid Price:**

The Bidder acknowledges and agrees to hold the **Proposed Lump Sum Base Bid** in **Subsection 2.1** of this Bid Proposal Form for **ninety (90) Calendar Days** and any extensions caused by the Bidder's delays in required submissions. The Bidder and the State may mutually agree to extend this period. The agreement to extend the **ninety (90) Calendar Day** period may occur after the expiration of the original **ninety (90) Calendar Day** period.

**3.3 To Use and Accept Allowances:**

When applicable to this Project, the Bidder **acknowledges and agrees** to accept and use the **Allowances** as shown in **Section 01 20 00 Contract Considerations** of Division 01 General Requirements as part of the **Proposed Lump Sum Base Bid** listed in **Subsection 2.1** of this Bid Proposal Form.

**3.4 To Use and Accept the Following Contingent Work:**

**3.4.1 Unit Prices:** When applicable to this Project, the Bidder **acknowledges and agrees** to accept and use the **Units, Add Unit Prices, and Deduct Unit Prices** as shown in **Section 01 20 00 Contract Considerations** of Division 01 General Requirements in evaluating either additions to or deductions from the Work.

**3.4.2 Supplemental Bid:** When applicable to this Project and if accepted by the Owner, the Bidder **acknowledges and agrees** to provide all labor, material and equipment to complete the Work in accordance with the **Supplemental Bid** described in **Section 01 23 13 Supplemental Bids** of Division 01 General Requirements and provided by the **Bidder** in **Subsection 2.4.2** of this Bid Proposal Form.

**3.5 To Use the Named Subcontractors Listed in Table 2.7:**

**3.5.1** The Bidder **agrees** that each of the **Named Subcontractors** stated in **Table 2.7** of this Bid Proposal Form will be used for the **Class of Work** indicated, for the **Proposed Total Subcontract Value dollar amount stated, unless** a **substitution** is permitted by the awarding authority as provided for in and in accordance with C.G.S. § 4b-96, as amended.

**3.5.2 For Named Subcontractor(s) with Subcontracts exceeding \$500,000,** the Bidder acknowledges that the **Named Subcontractor(s)** *must* be "prequalified" by DAS in the **Class of Work** specified in **Table 2.7** of this **Bid Proposal Form** *at the time of bid submission*, pursuant to **C.G.S. §4b-91(j)** and **C.G.S. § 4a-100**, as amended, to the extent the Class of Work for the Named Subcontractor is a Prequalification Classification. In addition, the Bidder agrees to submit within *ten (10) Calendar Days* after receipt of the "Set-Aside Contractor Schedule Request" the current DAS Prequalification Certificate(s) and Update (Bid) Statement(s) for each Named Subcontractor in **Table 2.7** of this Bid Proposal Form.

**3.6 To Make Good Faith Efforts to Employ MBEs:**

The Bidder acknowledges and agrees to make **good faith efforts** to employ **Minority Business Enterprises (MBEs)** as **Subcontractors** and **Suppliers** of materials under such Contract.

**3.0 Bid Proposal Acknowledgements (continued):**

**3.7 To Submit a Certified Check or Bid Bond (if required):**

The Bidder acknowledges and agrees to submit a **Certified Check** or **Standard Bid Bond** *prior* to the due date and time of the Bid Opening (if required). Download **Section 00 43 16 Standard Bid Bond** from **CTsource** for the template and instructions.

**3.8 To Accept the Current Prevailing Wage Rate Schedule:**

The U. S. Secretary of Labor's latest decision and the State of Connecticut Department of Labor (DOL) Prevailing Wage Rate Schedule are all incorporated in the documents. The higher rate (Federal or State) for any given occupation shall prevail. At the time of bidding, the Bidder agrees to accept the current Prevailing Wage Rate Schedule, as well as the annual adjustment to the prevailing wage rate that is in effect each July 1st, as provided by DOL. See **Section 00 73 44 Prevailing Wage Rates/Contractor's Wage Certification/Payroll Certification**. Annual adjustments of prevailing wage rates will *not* be considered a matter for a contract amendment with DAS/CS.

**3.9 To Comply With CHRO Requirements:**

If applicable, the Apparent Low Bidder acknowledges and agrees to provide the Commission on Human Rights and Opportunities with such information as is requested by the Commission concerning their **employment practices and procedures** as they relate to the current provisions of the Connecticut General Statutes governing Contract requirements within **fifteen (15) calendar days** *after* receipt of the "Request for the *Affirmative Action Plan and Employment Information Form Letter*" from the DAS/CS Office of Legal Affairs, Policy, and Procurement.

**3.10 To Ensure Executive Order No. 11246 for Equal Employment Opportunity & Non-Segregated Facilities Has Been Met:**

The Apparent Low Bidder acknowledges and agrees to ensure that Executive Order No. 11246 for Equal Employment Opportunity & Non-Segregated Facilities has been met for their firm and their Subcontractors. The Apparent Low Bidder also agrees to certify (if required) to the compliance of non-segregated facilities.

**3.11 To Obtain and Maintain Required Insurance Coverages:**

The Bidder acknowledges and agrees to obtain and maintain the required Insurance Coverages and submit the Firm's "**Certificate of Liability Insurance Acord® form**" within **ten (10) business days** *after* receipt of the "Letter of Intent" from the DAS/CS Office of Legal Affairs, Policy, and Procurement, as discussed in **Section 00 62 16 Certificate of Insurance** and **Article 35, "Contractors Insurance"** in **Section 00 73 13 General Conditions**.

**3.12 To Comply With Security Requirements for CT Department of Correction (DOC) Facilities:**

When applicable to this Project, the Bidder acknowledges and agrees to comply with **Section 00 73 63 CT DOC Security Requirements** for Contract Forces on DOC Facilities.

**3.13 To Ensure C.G.S. § 12-430 for Non-Resident Contractors Has Been Met:**

If applicable, the Apparent Low Bidder acknowledges and agrees to provide either a copy of the "**Notice of Verified Status**" (Verification Letter) from the Connecticut Department of Revenue Services (DRS) (for **Verified Nonresident** General/Prime Contractors) or a copy of **Form AU-965 "Acceptance of Surety Bond"** from DRS (for **Unverified Nonresident** General/Prime Contractors) within **ten (10) business days** *after* receipt of the "Letter of Intent" from the DAS/CS Office of Legal Affairs, Policy, and Procurement which evidences that **C.G.S. § 12-430** for non-resident contractors has been met, as described in **Section 00 92 30 Procedures Regarding Taxation for Nonresident General/Prime Contractor and Subcontractors**.

**3.14 To Execute Contract:**

If selected as the Prime Contractor, the Bidder acknowledges and agrees to **execute a Contract** in accordance with the terms of this **Bid Proposal Form** and the **Contract** within **ten (10) Calendar Days** (legal State holidays excluded) *after* notification thereof by the awarding authority. See **Section 00 52 03 Contract** for a sample.

**3.15 NEW: To Ensure C.G.S. § 49-41a for Payments to Subcontractors Has Been Met:**

For all State contracts that require a **Labor and Material Bond** in accordance with **C.G.S. §49-41**:

**3.15.1** If selected as the Prime Contractor, the Bidder acknowledges and agrees to pay any amounts due each Subcontractor, whether for labor performed or materials furnished, within **thirty (30) days** after payment to the Contractor by the State, when the labor or materials have been included in a requisition submitted by the Contractor and paid by the State.

**3.15.2** If selected as the Prime Contractor, the Bidder acknowledges and agrees to include in each of its Subcontracts a provision requiring each Subcontractor to pay any amounts due any of its Subcontractors, whether for labor performed or materials furnished, within **thirty (30) days** after such Subcontractor receives a payment from the Contractor which encompasses labor or materials furnished by such Subcontractor.

**4.0 Confidentiality of Documents:**

- 4.1** The **undersigned** agrees that if not selected as the Prime Contractor for this project, all plans and specifications in their possession for the project shall be destroyed.
- 4.2** The **undersigned** agrees that if selected as the Prime Contractor for this project:
- 4.2.1** The **plans and specifications** shall not be disseminated to anyone except for construction of this project.
- 4.2.2** The **following provision** shall be included in all of its contracts with subcontractors and sub-consultants:
- “Any and all drawings, specifications, maps, reports, records or other documents associated with the contract shall only be utilized to the extent necessary for the performance of the work and duties under this contract. Said drawings, specifications, maps, reports, records and other documents may not be released to any other entity or person except for the sole purpose of the work described in this contract. No other disclosure shall be permitted without the prior written consent of DAS Construction Services. When any such drawings, specifications, maps, reports, records or other documents are no longer needed, they shall be destroyed.”*
- 4.2.3** Upon completion of the construction and the issuance of a certificate of occupancy, the plans and specifications shall be returned to DAS Construction Services, or destroyed, or retained in a secure location and not released to anyone without first obtaining the permission of DAS Construction Services.

**5.0 Bid Proposal Declarations:**

I (we), the undersigned, hereby declare that I am (we are) the only person(s) interested in the Bid Proposal and that it is made without any connection with any other person making any Bid Proposal for the same work. No person acting for, or employed by, the State of Connecticut is directly or indirectly interested in this Bid Proposal, or in any Contract which may be made under it, or in expected profits to arise therefrom. This Bid Proposal is made without directly or indirectly influencing or attempting to influence any other person or corporation to bid or refrain from bidding or to influence the amount of the Bid Proposal of any other person or corporation. This Bid Proposal is made in good faith without collusion or connection with any other person bidding for the same work and this proposal is made with distinct reference and relation to the plans and specifications prepared for this Contract. I (we) further declare that in regard to the conditions affecting the Work to be done and the labor and materials needed, this Bid Proposal is based solely on my (our) own investigation and research and not in reliance upon any representations of any employee, officer or agent of the State.

**6.0 Duly Authorized Signature:**

**Type of Business:** *(Check Applicable Box)*

<input type="checkbox"/> <b>Limited Liability Corporation (LLC)</b> <input type="checkbox"/> <b>Partnership</b> <input type="checkbox"/> <b>Sole Proprietor</b> <input type="checkbox"/> <b>Doing Business As (d/b/a)</b> <i>(If d/b/a box is checked provide complete name below)</i> <input style="width: 100%;" type="text"/> <i>(Doing Business As Name)</i>	<input type="checkbox"/> <b>Corporation</b> <i>(If Checked, Provide Corporate Seal Below)</i> <div style="border: 1px solid black; width: 100px; height: 100px; margin: 10px auto;"></div> <i>(Provide <u>exact</u> corporate name from corporate seal below)</i> <input style="width: 100%;" type="text"/> <i>(Name On Corporate Seal)</i>
------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Signed:	<input style="width: 100%;" type="text"/> <i>(Month)</i>	<input style="width: 100%;" type="text"/> <i>(Day)</i>	<input style="width: 100%;" type="text"/> <i>(Year)</i>
Bidder's Signature:	<input style="width: 100%;" type="text"/> <i>(Duly Authorized)</i>	<input style="width: 100%;" type="text"/> <i>(Title)</i>	
	<input style="width: 100%;" type="text"/> <i>(Print Named)</i>	<input style="width: 100%;" type="text"/> <i>(Date)</i>	

## Bid Package Submittal Requirements:

**DAS | Construction Services | Office of Legal Affairs, Policy, and Procurement  
 450 Columbus Boulevard, Suite 1302 | Hartford, CT 06103**

<b>1.1</b>	<b>All Bidders:</b>
	All Bidders are required to <b>electronically upload</b> their <b>Bid Proposal Form, Bid Package Documents, Affidavits, and Certifications</b> to <b>CTsource</b> <i>prior</i> to the date and time of the Bid Opening.
1.1.1	<b>See Table 1 for a list of documents that All Bidders <u>must electronically upload to CTsource prior to the date and time of the Bid Opening.</u></b>
1.1.2	<b>Minor Irregularities:</b> The State may waive minor irregularities that otherwise may cause rejection of a Bid only when waiving such minor irregularities is in the best interests of the State and the minor irregularities have been corrected by the Bidder within seven (7) Calendar Days after the Bid Due Date.
1.1.3	<b>Rejection of the Bid:</b> Failure to properly <u>complete, sign and upload</u> to <b>CTsource</b> any of the items <b>marked with an asterisk (*) in Table 1 <u>prior</u></b> to the date and time of the Bid Opening <b>shall cause rejection</b> of the bid and shall <b>not</b> be considered a minor irregularity under <b>Connecticut General Statutes (C.G.S.) § 4b-95</b> .

<b>1.2</b>	<b>Three Apparent Lowest Bidders and the Apparent Low Bidder:</b>		
	The <b>Three Apparent Lowest Bidders</b> and the <b>Apparent Low Bidder</b> must submit <b>Supportive Documents</b> as directed in <b>Tables 2 and 3</b> , respectively, <i>prior</i> to the stated deadlines.		
1.2.1	<b>See Table 2 for a list of Supportive Documents for the Three Apparent Lowest Bidders.</b>		
1.2.2	<b>See Table 3 for a list of Supportive Documents for the Apparent Low Bidder.</b>		
1.2.3	<b>Delays in Receipt:</b> If there are any delays in the receipt of the <b>Supportive Documents</b> specified in Tables 2 and 3, then the Bids shall remain valid for the same additional number of days. <table border="0" style="margin-left: 20px;"> <tr> <td style="width: 20px;">.1</td> <td>For example, since the <b>Three Apparent Lowest Bidders</b> are required to <b>Hold The Bid Price</b> for <b>ninety (90) calendar days</b>, if <b>Supportive Documents</b> are submitted <b>four (4) calendar days later</b>, then the bid shall remain valid for <b>ninety-four (94) calendar days</b>.</td> </tr> </table>	.1	For example, since the <b>Three Apparent Lowest Bidders</b> are required to <b>Hold The Bid Price</b> for <b>ninety (90) calendar days</b> , if <b>Supportive Documents</b> are submitted <b>four (4) calendar days later</b> , then the bid shall remain valid for <b>ninety-four (94) calendar days</b> .
.1	For example, since the <b>Three Apparent Lowest Bidders</b> are required to <b>Hold The Bid Price</b> for <b>ninety (90) calendar days</b> , if <b>Supportive Documents</b> are submitted <b>four (4) calendar days later</b> , then the bid shall remain valid for <b>ninety-four (94) calendar days</b> .		
1.2.4	Failure to submit the <b>Supportive Documents</b> before the stated deadlines <b>may</b> result in rejection of the bid at the sole discretion of the Commissioner of Administrative Services.		

TABLE 1 - ALL BIDDERS			
Construction Costs:		The Bid Proposal Form, Other Bid Package Documents, Affidavits, and Certifications <u>shall</u> be electronically uploaded to <b>CTsource</b> by <u>all</u> Bidders prior to the Date and Time of the Bid Opening.	Form Location
Less Than \$500,000	Greater Than \$500,000		

Bid Proposal Form and Other Bid Package Documents			
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	* Section 00 41 00 Bid Proposal Form	<b>CTsource</b>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	* Section 00 43 16 Standard Bid Bond or Certified Check	<b>CTsource</b>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	* Section 00 45 14 General Contractor Bidder's Qualification Statement	<b>CTsource</b>
	<input checked="" type="checkbox"/>	* DAS Prequalification Certificate	<b>DAS Website</b>
	<input checked="" type="checkbox"/>	* DAS Update (Bid) Statement	<b>DAS Website</b>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Section 00 40 14 Certificate (of Authority)	<b>CTsource</b>
<input checked="" type="checkbox"/>		DAS Set-Aside Certificate	<b>DAS Website</b>
<input checked="" type="checkbox"/>		Bidder Contract Compliance Monitoring Report	CHRO Website

Affidavits and Certifications			
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	* Gift and Campaign Contribution Certification – OPM Ethics Form 1	<b>OPM Website</b>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	* Consulting Agreement Affidavit – OPM Ethics Form 5	<b>OPM Website</b>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	* Ethics Affidavit (Regarding State Ethics) – OPM Ethics Form 6	<b>OPM Website</b>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	* Iran Certification – OPM Ethics Form 7	<b>OPM Website</b>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Nondiscrimination Certification – Form A, B, C, D, or E	<b>OPM Website</b>

\* **NOTE:** The State may waive minor irregularities that otherwise may cause rejection of a Bid only when waiving such minor irregularities is in the best interests of the State and the minor irregularities have been corrected by the Bidder within seven (7) Calendar Days after the Bid Due Date. Failure to properly complete, sign and upload to **CTsource** any of the items marked with an **asterisk (\*)** in **Table 1** prior to the date and time of the Bid Opening **shall** cause rejection of the bid and shall **not** be considered a minor irregularity under C.G.S. § 4b-95.

TABLE 2 THREE (3) APPARENT LOWEST BIDDERS			
Construction Costs:		WHEN APPLICABLE:	
Less Than \$500,000	Greater Than \$500,000	Submit the following <b>Supportive Documents</b> to the DAS/CS Procurement Unit within <b>ten (10) Calendar Days after</b> receipt of the <b>“Set-Aside Contractor Schedule Request”</b> from the DAS/CS Procurement Unit:	Form Location
	<input checked="" type="checkbox"/>	<b>Set-Aside Contractor Schedule</b> for each subcontracted SBE and/or MBE firm(s) (See Section 00 73 27 Set-Aside Contractor Schedule for a sample Request.)	Email From DAS/CS Procurement Unit
	<input checked="" type="checkbox"/>	<b>DAS Set-Aside Certificate(s)</b> for each subcontracted SBE and/or MBE firm(s) listed in the Set-Aside Contractor Schedule.	<b>DAS Website</b>
	<input checked="" type="checkbox"/>	<b>Section 00 45 17 Named Subcontractor Bidder’s Qualification Statements</b> for each Named Subcontractor listed in the Bid Proposal Form.	Copy from Project Manual
	<input checked="" type="checkbox"/>	<b>DAS Prequalification Certificate(s) and Update (Bid) Statement(s)</b> for each Named Subcontractor listed in the Bid Proposal Form with <b>Subcontracts greater than \$500,000.</b>	<b>DAS Website</b>

TABLE 3 APPARENT LOW BIDDER			
Construction Costs:		WHEN APPLICABLE:	
Less Than \$500,000	Greater Than \$500,000	Submit the following <b>Supportive Documents</b> as directed below within <b>fifteen (15) calendar days after</b> receipt of the <b>“Request for the Affirmative Action Plan and Employment Information Form Letter”</b> from the DAS/CS Procurement Unit:	Form Location
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<b>Submit to CHRO if Contractor has 50 or more employees and/or the Project is equal to or greater than \$500,000:</b> Affirmative Action Plan and Employment Information for State of Connecticut.	CHRO Website & <b>CTsource</b>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<b>Submit to DAS/CS Procurement Unit:</b> Copy of CHRO Transmittal Letter to confirm the Affirmative Action Plan was filed with CHRO.	(copy of transmittal letter)
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<b>Submit to Connecticut Department of Labor:</b> Contractors Wage Certification Form. See Section 00 73 44 Prevailing Wage Rates/Contractor’s Wage Certification/Payroll Certification.	Copy from Project Manual

TABLE 3 APPARENT LOW BIDDER (continued)			
Construction Costs:		Submit to DAS/CS Procurement Unit the following <b>Supportive Documents</b> within <b>ten (10) business days after</b> receipt of the "Letter of Intent" from the DAS/CS Procurement Unit:	Form Location
Less Than \$500,000	Greater Than \$500,000		
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<b>Section 00 40 14 Certificate (of Authority)</b>	Email From DAS/CS Procurement Unit
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<b>Section 00 52 03 Contract</b>	Email From DAS/CS Procurement Unit
	<input checked="" type="checkbox"/>	<b>Section 00 52 73 Subcontract Agreement Form (Named &amp; Listed)</b>	Email From DAS/CS Procurement Unit
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<b>Certificate of Liability Insurance Acord® form</b> (See Section 00 62 16 Insurance Certificate Form for details)	Email From DAS/CS Procurement Unit
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<b>Certificate of Asbestos Abatement Liability Insurance</b> (for asbestos abatement only; see Section 00 62 16.1 Asbestos Abatement Liability Insurance for details)	Email From DAS/CS Procurement Unit
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<b>Section 00 92 10: Additional Forms</b>	<b>Performance Bond</b>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<b>Labor &amp; Material Bond</b>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<b>Surety Sheet</b>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<b>Bidder's Certification: Financial Position &amp; Corporate Structure</b>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<b>Power of Attorney from the Surety Company</b>	Surety Company
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<b>Nonresident (Out of State) Contractors:</b> <b>Verified Nonresident</b> General/Prime Contractors must submit a copy of their "Notice of Verified Status" (Verification Letter) from the CT Department of Revenue Services (DRS). <b>Unverified Nonresident</b> General/Prime Contractors must submit a copy of <b>Form AU-965 "Acceptance of Surety Bond"</b> from the DRS. (See Section 00 92 30 Procedures Regarding Taxation for Nonresident General/Prime Contractor and Subcontractors for additional details.)	CT Department of Revenue Services
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<b>General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities:</b> For projects disturbing <b>one or more total acres of land area</b> , submit a copy of the signed <b>Stormwater Pollution Control Plan "Contractor Certification Statement"</b> and <b>License Transfer Form</b> , as directed by the DAS/CS Architect/Engineer, prior to commencement of any construction activities.	DAS/CS Architect/Engineer
	<input checked="" type="checkbox"/>	<b>Ethics Affidavit (Regarding State Ethics) OPM Ethics Form 6</b> for each Named Subcontractor	<b>OPM Website</b>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<b>Threshold Projects Only:</b> Submit <b>Major Contractor Registration License Number(s)</b> for Subcontractors	CT Department of Consumer Protection
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<b>SEEC Form 10</b>	SEEC Website
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<b>Certificate of Legal Existence from Corporations</b>	Secretary of the State
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<b>UPDATED:</b> Contractor and Subcontractor Payments Reporting: Every Contractor (and its Subcontractors) shall log on to <b>PMWeb</b> each month and <b>enter payments</b> they have received from the state, from the Contractor, or from a higher tier Subcontractor (as applicable).	<b>PMWeb</b>

End of Section  
 00 41 10 Bid Package Submittal Requirements



**INSTRUCTIONS FOR CERTIFIED CHECK OR BID BOND (select one):**

**All Bidders:**

**Check the appropriate box below and edit the Bid Bond if applicable.  
Print, sign, and scan to PDF. Upload the PDF form to CTsource.**

- CERTIFIED CHECK OPTION:** *Prior* to the Date and Time of the Bid Opening:
  - (1) Check the box for "Certified Check Option";
  - (2) Print, scan to PDF, and upload the PDF form to **CTsource**; and
  - (3) Deliver the Certified Check, made payable to "Treasurer, State of Connecticut", to the following address:  
State of Connecticut  
Department of Administrative Services, Construction Services  
Office of Legal Affairs, Policy, and Procurement  
450 Columbus Boulevard, North Tower, Suite 1302  
Hartford, CT 06103-1835
  
- BID BOND OPTION** (see template below): *Prior* to the Date and Time of the Bid Opening:
  - (1) Check the box for "Bid Bond Option";
  - (2) Complete the **Standard Bid Bond** (below), print, sign, scan to PDF, and upload the PDF Bid Bond to **CTsource**.

**Standard Bid Bond**

**DAS | Construction Services | Office of Legal Affairs, Policy, and Procurement**

KNOW ALL MEN BY THESE PRESENTS, That we, \_\_\_\_\_

\_\_\_\_\_, hereinafter called the Principal,

of \_\_\_\_\_, as Principal,

and \_\_\_\_\_, hereinafter

called the Surety, a corporation organized and existing under the laws of the

State of \_\_\_\_\_, and duly authorized to transact a

surety business in the State of Connecticut, as Surety, are held and firmly bound unto the State of

Connecticut, as Obligee, in the penal sum of ten (10) percent of the amount of the bid set forth in a

proposal hereinafter mentioned, \_\_\_\_\_

\_\_\_\_\_,

lawful money of the United States of America, for the payment of which, well and truly to be made to the Obligee, the Principal and the Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, That, whereas the Principal has submitted \_\_\_\_\_ or is about to submit a proposal to the Obligee related to a contract for Project No.: \_\_\_\_\_

NOW, THEREFORE, if the said contract be awarded to the Principal and the Principal shall, within such time as may be specified, enter into the said contract in writing with the State of Connecticut and give the required bonds, with surety acceptable to the Obligee, or if the Principal shall fail to do so, pay to the Obligee the damages which the Obligee may suffer by reason of such failure not exceeding the penalty of this bond, then this obligation shall be void, otherwise to remain in full force and effect.

SIGNED, SEALED AND DELIVERED this \_\_\_\_\_ day of \_\_\_\_\_, 20 \_\_\_\_\_

\_\_\_\_\_  
(Principal's Signature)

\_\_\_\_\_  
Surety

\_\_\_\_\_  
(Print Name)

by \_\_\_\_\_  
Its attorney in fact Signature

\_\_\_\_\_  
Company Name

\_\_\_\_\_  
(Print Name)



## General Contractor Bidder's Qualification Statement

DAS | Construction Services | Office of Legal Affairs, Policy, and Procurement

**Instructions:**

- All Bidders are **required to upload this form to CTsource**, properly completed, **prior to the date and time of the Bid Opening**.
- Failure of a Bidder to answer any question or provide required information **shall** be grounds for the awarding authority to disqualify and reject the bid, pursuant to Connecticut General Statutes §4b-92.
- If a question or request for information does not pertain to your organization in any way, use the symbol "NA" (Not Applicable).
- Attach additional information on 8 ½" x 11" sheets with your letterhead as necessary and reference specific section and subsection numbers.
- **NOTE:** The Department reserves the right to request any additional or supplemental information necessary to complete its evaluation of a Bidder's qualification.

**1.0 Project Information:**

1.1 DAS/CS Project Number:

1.2 Project Name:

1.3 Project Location:

**2.0 Projects with Construction Costs Estimated To Be Greater than \$500,000:**

- Select the applicable **Class of Work** as stated in the **00 11 16 Invitation to Bid**.
- Select **YES** if your Firm has the applicable the **DAS Prequalification Certificate and Update (Bid) Statement** or **NO** if it does not.
- If **YES**, upload the applicable **DAS Prequalification Certificate and Update (Bid) Statement** to **CTsource** **prior** to the date and time of the Bid Opening.

**Not Applicable - Construction Costs Less than \$500,000**

Class of Work:

Does your Firm have the applicable  
DAS Prequalification Certificate and  
Update (Bid) Statement?

2.1  **General Building Construction (Group A):**

YES  NO

2.2  **General Building Construction (Group B):**

YES  NO

2.3  **General Building Construction (Group C):**

YES  NO

2.4  **General Trades (Interior Work Only):**

YES  NO

**3.0 Firm's Present Legal Name:** (the *complete legal name exactly* as it appears with the **Secretary of State registry**. The appropriate **title** must be used throughout the documents, for example: General Partner, Member, Manager, Sole Member, etc.)

**Name:**

**4.0** How many years has your Firm been in business under its **Present Legal Name**?

**Years:**

**5.0** How many years has your Firm been in business as a General Contractor?

**Years:**

**6.0** Indicate **all** other **names** by which your Firm has been known and the **length of time** known by each name:

<b>6.1</b>	<input style="width: 480px; height: 30px;" type="text"/>	<input style="width: 40px; height: 20px;" type="text"/>	<input style="width: 40px; height: 20px;" type="text"/>
		<i>Years</i>	<i>Months</i>
<b>6.2</b>	<input style="width: 480px; height: 30px;" type="text"/>	<input style="width: 40px; height: 20px;" type="text"/>	<input style="width: 40px; height: 20px;" type="text"/>
		<i>Years</i>	<i>Months</i>
<b>6.3</b>	<input style="width: 480px; height: 30px;" type="text"/>	<input style="width: 40px; height: 20px;" type="text"/>	<input style="width: 40px; height: 20px;" type="text"/>
		<i>Years</i>	<i>Months</i>

**7.0** This Firm's **Certification** with the CT Secretary of State:

Check Box	Type of Business Entity:	Certification Year
<input type="checkbox"/>	<b>Corporation</b>	<input style="width: 100%; height: 20px;" type="text"/>
<input type="checkbox"/>	<b>Partnership</b>	<input style="width: 100%; height: 20px;" type="text"/>
<input type="checkbox"/>	<b>Sole Proprietorship</b>	<input style="width: 100%; height: 20px;" type="text"/>
<input type="checkbox"/>	<b>Limited Liability Company (LLC)</b>	<input style="width: 100%; height: 20px;" type="text"/>
<input type="checkbox"/>	<b>Other:</b> <input style="width: 380px; height: 20px;" type="text"/>	<input style="width: 100%; height: 20px;" type="text"/>

**8.0** Attach resumes of all **supervisory personnel**, such as **Principals, Project Managers, and Superintendents**, who will be directly involved with the project on which you are now a bidder. Indicate their construction related training, certifications and licenses and the number of years of actual construction experience. Indicate the number of years of this actual construction experience which were in a Supervisory capacity.

**9.0 Named Subcontractor – Bidder Intends to Self-Perform:**

Check **YES** or **NO** for each “Named Subcontractor” **Class of Work** which your firm intends to perform with its own employees for this Contract; see **Section 2.7** of **Section 00 41 00 Bid Proposal Form**.

**NOTE:** For Projects with Construction Costs estimated to be greater than \$500,000, complete **Section 00 45 17 Named Subcontractor Bidder's Qualification Statement** for each **Named Subcontractor Class of Work** checked **YES** and submit within ten (10) calendar days **after** receipt of the “Set-Aside Contractor Schedule Request” from DAS/CS Office of Legal Affairs, Policy, and Procurement.

**Not Applicable – No Named Subcontractors &/or Not Self-Performing**

	Named Subcontractor Class of Work	Does your Firm intend to self-perform this Named Subcontractor Class of Work?	
9.1	Electrical:	YES <input type="checkbox"/>	NO <input type="checkbox"/>
9.2	HVAC:	YES <input type="checkbox"/>	NO <input type="checkbox"/>
9.3	Masonry:	YES <input type="checkbox"/>	NO <input type="checkbox"/>
9.4	Plumbing:	YES <input type="checkbox"/>	NO <input type="checkbox"/>
9.5	Environmental Remediation:	YES <input type="checkbox"/>	NO <input type="checkbox"/>
9.6	Hazardous Materials Abatement:	YES <input type="checkbox"/>	NO <input type="checkbox"/>

**10.0 Named Subcontractor - Class of Work Greater than \$500,000 and Self-Performing:**

- Select the applicable **Named Subcontractor Class of Work** which your firm intends to perform with its own employees for this Contract.
- Select **YES** if your Firm has the applicable the **DAS Prequalification Certificate and Update (Bid) Statement** or **NO** if it does not.
- If **YES**, submit the applicable **DAS Prequalification Certificate and Update (Bid) Statement** within ten (10) calendar days **after** receipt of the “Set-Aside Contractor Schedule Request” from DAS/CS Office of Legal Affairs, Policy, and Procurement.

**Not Applicable – No Class of Work Greater \$500,000 &/or Not Self-Performing**

	Named Subcontractor Class of Work Greater Than \$500,000	Does your Firm have the applicable DAS Prequalification Certificate and Update (Bid) Statement?	
10.1	<input type="checkbox"/> Electrical:	YES <input type="checkbox"/>	NO <input type="checkbox"/>
10.2	<input type="checkbox"/> HVAC:	YES <input type="checkbox"/>	NO <input type="checkbox"/>
10.3	<input type="checkbox"/> Masonry:	YES <input type="checkbox"/>	NO <input type="checkbox"/>
10.4	<input type="checkbox"/> Plumbing:	YES <input type="checkbox"/>	NO <input type="checkbox"/>

**11.0 List all** construction projects your Firm has completed in the **past five (5) years**. Provide **all** of the information listed below. DAS/CS *may* reject a bid as **non-responsive** if the bidder does not make **all** required pre-award submittals within the designated time period. Attach additional sheets as necessary **using the following format**:

**IMPORTANT NOTE:** **Two (2)** of the construction projects completed in the past five (5) years shall be (1) single project contracts that have reached substantial completion, not aggregate projects; (2) of commercial and/or institutional construction work (this includes compliance with general requirements); (3) within the Cost Estimate Range stated in Section 00 11 16 Invitation to Bid for this project; and (4) of the size and complexity of this Project. Failure to identify to **two** such projects **shall** result in rejection of the bid.

<b>11.1 Project Title:</b>		
<b>11.2 Project Location:</b>		
<b>11.3 Construction Start Date:</b>		
<b>11.4 Construction Finish Date:</b>		
<b>11.5 Describe the Scope of Work your Firm performed:</b>		
<b>11.6 Original Contract Amount:</b>		
<b>11.7 Final Contract Amount:</b>		
<b>11.8 Original Contract Duration (Calendar Days):</b>		
<b>11.9 Final Contract Duration (Calendar Days):</b>		
<b>11.10 Owner:</b>		
<b>11.11 Owner's Representative:</b>		
	<i>(Name)</i>	<i>(Phone Number)</i>
<b>11.12 Design Firm:</b>		
<b>11.13 Design Firm's Representative:</b>		
	<i>(Name)</i>	<i>(Phone Number)</i>

**12.0 References:**

Furnish references from **architects, engineers or owners** indicating that your Firm has satisfactorily completed in a timely manner contract work for projects within the cost estimate range, size and complexity of this project. Provide explanations where delays have occurred. This information should cover work done over the past five years.

**13.0 Construction Scheduler:**

**For Projects greater than \$5 Million:** Submit the **name, resume and references** of the **Construction Scheduler** in accordance with the requirements called for in Section **01 32 16.13 Critical Path Method Schedules** of the General Requirements.

Not Applicable – Project Less Than \$5 Million

**14.0** List and explain if your Firm has ever failed to complete a contract or if any officer or partner of your Firm has ever been an officer or partner of another organization that failed to complete a contract. Indicate below the circumstances leading to the project failure and the name of the company which provided the bonding for the failed contract(s):

Not Applicable

**15.0** List and explain if your Firm has ever had a contract terminated, indicating the circumstances leading to the project termination of contract(s):

Not Applicable

**16.0** List and explain all legal or administrative proceedings against your Firm or any officers, principals, partners, members, or employees of the organization currently pending or concluded adversely within the last five years, and any judicial or administrative sanctions that are still in effect against such organization, and any of its officers, principals, partners, members, or employees. (Exclude Occupational Safety and Health Act [OSHA] violations which are called for elsewhere in this statement). Add attachments as necessary.

Not Applicable

**17.0** List and explain any disbarments or suspensions that have been imposed on your Firm in the past five years or that were still in effect during the five year period or that are still in effect. Such list must include disbarments and suspensions of officers, principals, partners, members, and employees of your Firm:

Not Applicable

**18.0** List and explain any other reason(s) that precludes your Firm or any officer, principal, partner, member, or employees thereof from bidding on a contract in Connecticut or any other jurisdiction:

Not Applicable

**19.0** List and explain all willful or serious violations your Firm has had of any OSHA or of any standard, order or regulation promulgated pursuant to such act, during the three year period preceding the bid, provided such violations were cited in accordance with the provisions of any State Occupational Safety and Health Act or Occupational Safety and Health Act of 1970. Indicate whether these were abated within the time fixed by the citation or whether the citation was appealed. If appealed what is the status or disposition. Add attachments as necessary.

Not Applicable

**20.0** List and explain any criminal convictions your Firm has had related to the injury or death of any employee in the three-year period preceding the bid: Add attachments as necessary.

Not Applicable

**21.0** List and explain any changes in your Firm's financial condition or business organization, which might affect your Firm's ability to successfully complete this contract:

Not Applicable

**22.0** List and explain if your Firm has ever failed to submit an Affirmative Action Plan to the Commission on Human Rights and Opportunities (CHRO). Indicate below the circumstances leading to the failure to submit the Affirmative Action Plan to CHRO:

Not Applicable

**23.0** List and explain if your Firm's Affirmative Action Plan has ever been disapproved by CHRO or determined to be noncompliant. Indicate below the circumstances leading to the disapproval or finding of noncompliance of your Affirmative Action Plan by CHRO:

Not Applicable

**24.0** **NEW:** Anti-Discrimination and Anti-Harassment Requirements: List all claims of alleged harassment or discriminatory conduct asserted, filed or claimed against your firm, and to the best of the Firm's knowledge and belief, against its proposed subcontractors and suppliers being utilized for this Project. For each such claim, describe in sufficient detail the nature of the claim and its disposition. This includes claims against the Firm's officers, directors, shareholders, partners and employees.

Not Applicable

**24.1** If any claim resulted in a finding or admission of discriminatory conduct on the part of an officer, director, shareholder, partner or employee, list the actions taken by your Firm or the applicable subcontractor and/or supplier to address and mitigate the individual's conduct, including actions that made it clear such conduct: (i) is not tolerated and will not occur in the future; (ii) will not negatively impact the performance of work on the project job site; and (iii) does not reflect the beliefs and culture of the contractor, subcontractor, or supplier. DAS will expect that your Firm, subcontractor, and/or supplier implement systematic monitoring and evaluation of the workplace to exclude such conduct.

**25.0** **NEW:** Confirm that your Firm's employment statistics have been submitted in the online "Employment Information Form", located within your Firm's **CTsource** account. Follow the instructions in **6001 Construction Online Bidding Instructions**, available for download from the online DAS/CS Library (<http://portal.ct.gov/DASCSLibrary>) > 6000 Series:

Employment Information Form Completed



## 26. Signature

Dated at

Signed this

 day of , 20 

Name of Firm:

Firm Address:

Signature:

Print or Type Name:

Title:

## 27. Notary Statement

Mr./Mrs./Ms.  being duly sworn

deposes and says that he/she is the  of

*(Position or Title)*

, and that the answers to the foregoing

*(Firm Name)*

questions and all statements therein contained are true and correct.

Subscribed and sworn before me this  day of , 20

Notary Public

My Commission Expires , 20

End of Section

00 45 14 General Contractor Bidder's Qualification Statement



## Objective Criteria Established for Evaluating Qualifications of Bidders:

CT DAS | Construction Services | Office of Legal Affairs, Policy, and Procurement

The following items are established pursuant to Sections 4b-92, 4b-94 and 4b-95a of the Connecticut General Statutes (C.G.S.) as amended. **NOTE:** Please see the **new** objective criteria in **Sections 1.22 and 1.23**.

The **Objective Criteria Established for Evaluating Qualifications of Bidders** (this Section 00 45 15) are to assure that the State of Connecticut will secure the "lowest responsible and qualified bidder" who has the ability, capacity, **and integrity** to successfully complete the Bid Proposal Form and the Work. Failure to comply with any portion of this requirement **may** cause **rejection** of the bid. **NOTE:** Individual Specification Sections **may** contain General Contractor and/or Subcontractor Qualification requirements that **exceed** those in this Section 00 45 15 Objective Criteria Established for Evaluating Qualifications of Bidders.

### **NEW: Anti-Discrimination and Anti-Harassment Requirements:**

In accordance with DAS Policy, DAS strictly prohibits discrimination, including sexual harassment and harassment based on all of the following legally protected classes: race; color; religious creed; age; sex; pregnancy; sexual orientation; gender identity or expression; marital status; national origin; ancestry; intellectual disability; physical disability (including, but not limited to, blindness); mental disability; or, veteran status. This prohibition applies to all DAS-administered construction projects, and entities and individuals performing work on such projects. All contractors, subcontractors, and suppliers, as well as their officers, directors, shareholders, partners, employees, or other individuals associated with such entities, are expected to participate in these efforts to ensure that no discriminatory or harassing conduct occurs in connection with a DAS project. This is part of the meaning of a responsible contractor as a contractor with the integrity to ensure faithful performance of the work in a non-discriminatory manner.

DAS will consider instances, of which we become aware, of **alleged** discriminatory behavior on the part of a Bidder, subcontractors or suppliers. This will include the conduct of such entities' officers, directors, shareholders, partners, and employees. Such discriminatory conduct can include instances of name-calling, racist jokes or comments, bullying, intimidation and harassment on the basis of the person being a member of the protected class. Instances of **proven** discriminatory conduct on the part of an entity or individual **may** result in DAS not awarding a contract to a contractor, or require the substitution of a subcontractor or supplier.

In situations involving discriminatory conduct on the part of an officer, director, shareholder, partner or employee, DAS will also consider, as part of the responsibility review, the actions taken by the contractor, subcontractor and supplier to address and mitigate the individual's conduct. DAS will expect that the contractor, subcontractor, or supplier implement systematic monitoring and evaluation of the workplace to exclude such conduct. Regardless of where the discriminatory conduct occurs, if the contractor, subcontractor or supplier fails to address it, the contractor, subcontractor or supplier **shall not be** considered responsible or having the integrity necessary for the faithful performance of the work.

### **THE BIDDER MUST HAVE OR HAVE COMPLETED THE FOLLOWING:**

#### **1.1 DAS Prequalification Requirements:**

For Projects with Construction Costs greater than \$500,000, **all Bidders** shall upload to **CTsource** a valid Department of Administrative Services (DAS) **Prequalification Certificate** and **Update (Bid) Statement** **prior** to the date and time of the Bid Opening.

<b>1.2</b>	<b>Evaluation:</b>
1.2.1	All Bidders shall upload to <b>CTsource</b> Section 00 45 14 General Contractor's Bidder Qualifications Statement <i>prior</i> to the date and time of the Bid Opening.
1.2.2	If applicable, the <b>Three (3) Lowest Bidders</b> shall submit <b>Section 00 45 17 Named Subcontractor's Bidder Qualification Statement(s)</b> to DAS Construction Services (DAS/CS) Office of Legal Affairs, Policy, and Procurement within <b>ten (10)</b> calendar days <i>after</i> receipt of the "Set-Aside Contractor Schedule Request" <i>from</i> DAS/CS.
1.2.3	The Bidder must demonstrate that the Bidder and, if applicable, its Named Subcontractors, meet the <b>objective criteria</b> for this specific project.
1.2.4	The <b>responses</b> to the Statement(s) must identify two (2) <b>projects completed</b> – single project contracts that have reached substantial completion, not aggregate projects – of commercial and/or institutional construction work (this includes compliance with general requirements) during the past five (5) years within the Cost Estimate Range stated in Section 00 11 16 <b>Invitation to Bid</b> for this project, and of the size and complexity of this project. The failure to identify to such projects shall result in rejection of the bid.
1.2.5	If the Bidder identifies two projects that meet the above criteria, the <b>State's evaluation</b> shall be based on the <b>performance record</b> of the prospective Bidder as a general, prime contractor and its named subcontractors during the course of the two (2) comparable projects, and not just the end result. The state will conduct the evaluation based on its interpretation of its objective criteria. <b>Evaluation criteria</b> shall include: Faithful and efficient performance; fulfillment of contract obligations; financial, managerial and technical abilities; and integrity and the absence of any conflicts of interest. Any one or all of the factors noted in this paragraph as well as in the other criteria set forth in this <b>Section 00 45 15</b> may be grounds for the determination by the State, in its sole discretion, of the Bidder's responsibility and qualifications necessary for the faithful performance of the work required of this project.
<b>1.3</b>	<b>References:</b>
	Furnished <b>references from architects, engineers or owners</b> indicating that it has satisfactorily completed in a timely manner contract work for projects and provide explanations where delays have occurred. This information should cover work done over the <b>past five years</b> . Review of DAS/CS projects shall be included in the evaluation of the bidder's qualifications and anticipated future performance.
<b>1.4</b>	<b>Qualified Personnel:</b>
1.4.1	Shown that it customarily employs or has on its payroll <b>supervisory personnel, qualified</b> to perform the work required for this project and to coordinate the work called for in the Bid Specifications.
1.4.2	If the project is for \$5 Million or more, submit the <b>name, resume and references</b> of the <b>Construction Scheduler</b> in accordance with the requirements called for in <b>Section 01 32 16.13 Critical Path Method Schedules</b> of the General Requirements.
<b>1.5</b>	<b>Past Performance:</b>
	Demonstrated a good track record of <b>past performance</b> on State or other projects relative to quantity, quality, timeliness, cost, cooperation and harmonious working relationships with subcontractors, suppliers and client agencies. DAS/CS will review the Bidders past performance ratings prepared by DAS/CS or prepared as part of the DAS Contractor Prequalification Program. This review may focus on the comments relative to: Quality of Supervision, Adherence to Contract Documents, On Time Project Completion, Subcontractor performance, and the handling of Change Orders. Unacceptable ratings for several criteria shall be sufficient cause to deem a bidder not responsible.
<b>1.6</b>	<b>Financial Responsibility:</b>
	Shown that it is <b>financially responsible</b> to perform the work as bid. If requested, additional financial information shall be provided. Prompt and proper payments to its subcontractors and material suppliers is a critical factor to be considered by DAS/CS.
<b>1.7</b>	[Left Blank]

<b>1.8</b>	<b>Equipment Requirements:</b>
	Shown that it owns or possesses, rented, or leased <b>equipment</b> of the type customarily required by contractors in the performance of contract work and that such equipment, if needed, is available for this project.
<b>1.9</b>	<b>Materials and Suppliers:</b>
	Purchased <b>materials</b> over the past three years from suppliers who customarily sell such materials in quantity to contractors.
<b>1.10</b>	<b>Physical Facilities:</b>
	Control of adequate <b>physical facilities</b> from which the work can be performed.
<b>1.11</b>	<b>Compliance with Subcontractor Requirements:</b>
	Demonstrated that on <b>previous state projects</b> the bidder complied in good faith with the requirements of listing subcontractors as outlined in C.G.S. Sections 4b-93 and 4b-95.
<b>1.12</b>	<b>Threshold Building and Major Contractor Requirements:</b>
	Demonstrated that <b>all major subcontractors</b> are in compliance with the provisions of C.G.S. Section 20-341gg, as revised, concerning licensure requirements to perform work on any structure that exceeds the threshold limits contained in C.G.S. Section 29-276b, as revised.
<b>1.13</b>	<b>OSHA Requirements:</b>
	Proven that the Bidder has not been found to be in violation of three or more willful or serious violations of Occupational Safety and Health Administration (OSHA) regulations in the past three years.
<b>1.14</b>	<b>Criminal Convictions and Injuries or Death of Employees:</b>
	Not received a <b>criminal conviction</b> related to the injury or death of any employee in the three-year period preceding the bid.
<b>1.15</b>	<b>Legal or Administrative Proceedings:</b>
	Listed all <b>legal</b> (court and/or arbitration) or <b>administrative proceedings</b> currently pending as well as any legal (court and/or arbitration) or administrative proceeding related to procurement or performance of any public or private construction contracts which has concluded adversely within the last three years.
<b>1.16</b>	<b>Contract Performance and Surety:</b>
	Identified any situations where: (1) the bidder failed to complete a construction contract; or (2) bonds were called during the past three years. If applicable, attach a sheet providing explanation including date(s) and location(s).
<b>1.17</b>	<b>State Tax Requirements:</b>
	Not been found to be in violation of any <b>state tax</b> requirements of the Connecticut Department of Revenue Services in the five (5)-year period preceding the bid.
<b>1.18</b>	<b>State and Federal Labor Requirements:</b>
	Not been found to be in violation of any State or Federal <b>labor laws</b> as required through the Department of Labor including violations of prevailing wage laws in the five (5)-year period preceding the bid.
<b>1.19</b>	<b>Change Order Pricing and State Ethics:</b>
	Been found to be in compliance with all statutory and regulatory requirements. This Item shall include, but not be limited to, any DAS/CS determinations related to improper Change Order pricing relative to C.G.S. Section 1-101nn of The State Ethics Statutes.

**1.20 Internal Revenue Services (IRS) Requirements:**

Not been found in violation of any of the **Internal Revenue Service Tax Requirements** regarding classification of employees and independent contractors in the five (5)-year period preceding the bid.

**1.21 Workers Compensation and Insurance Requirements:**

Not been found to be in any violation of C.G.S. Section 31-288 relating to employee classification for purposes of Workers' Compensation insurance premiums in the five (5)-year period preceding the bid.

**1.22 NEW: Anti-Discrimination and Anti-Harassment Requirements:**

Listed all claims of alleged harassment, including sexual harassment, and discriminatory conduct against a member of a legally protected class, asserted, filed or claimed against the Bidder, and to the best of the Bidder's knowledge and belief, against its proposed subcontractors and suppliers being utilized for this Project. For each such claim, described in sufficient detail the nature of the claim and its disposition. This includes claims against the Bidder's officers, directors, shareholders, partners and employees.

**1.22.1** If any claim resulted in a finding or admission of discriminatory conduct on the part of an officer, director, shareholder, partner or employee:

Listed the actions taken by the Bidder or the applicable subcontractor and/or supplier to address and mitigate the individual's conduct, including actions that made it clear such conduct: (i) is not tolerated and will not occur in the future; (ii) will not negatively impact the performance of work on the project job site; and (iii) does not reflect the beliefs and culture of the Bidder, subcontractor, or supplier. DAS will expect that the Bidder, subcontractor, and/or supplier implement systematic monitoring and evaluation of the workplace to exclude such conduct.

**1.23 UPDATED: CHRO Contract Compliance Requirements  
(Regulations of Connecticut State Agencies Section 46a-68j-30(10)):**

**1.23.1** Developed and implemented a successful affirmative action plan.

**1.23.2** Developed an apprenticeship program complying with Sections 46a-68-1 to 46a-68-17 of the Administrative Regulations of Connecticut State Agencies, inclusive.

**1.23.3** Submitted employment statistics contained in the "**Employment Information Form**" located within the Firm's **CTsource** account, indicating that the composition of its workforce is at or near parity when compared to the racial and sexual composition of the workforce in the relevant labor market area. Follow the instructions in **6001 Construction Online Bidding Instructions**, available for download from the online DAS/CS Library (<http://portal.ct.gov/DASCSLibrary>) > 6000 Series.

**1.23.4** Set aside a portion of the contract for legitimate minority business enterprises. See Section 46a-68j-30(10)(E) of the Contract Compliance Regulations.

**NOTE:** The foregoing Item Numbers **1.13** and **1.14** are meant to comport with C.G.S. Section 31-57b.

**End of Section  
00 45 15 Objective Criteria Established for Evaluating Qualifications of Bidders**

## Named Subcontractor Bidder's Qualification Statement

DAS | Construction Services | Office of Legal Affairs, Policy, and Procurement

**Instructions:**

- This Section is **only applicable** to Projects with Construction Costs **Greater than \$500,000.00**. See **Subsection 2.7 Named Subcontractors and Classes of Work** of **00 41 00 Bid Proposal Form** for applicability.
- If a question or request for information does not pertain to your organization in any way, use the symbol "NA" (Not Applicable). Attach additional information on 8 ½" x 11" sheets with your letterhead as necessary and reference specific subsection number.
- Submit this form for **each** of the Named Subcontractors, within **ten (10)** calendar days **after** receipt of the "Set-Aside Contractor Schedule Request" to:

State of Connecticut  
Department of Administrative Services, Construction Services  
Office of Legal Affairs, Policy, and Procurement  
450 Columbus Boulevard, Suite 1302  
Hartford, CT 06103

**1.0 Project Information:**

1.1 DAS/CS Project Number:

1.2 Project Name:

1.3 Project Location:

**2.0 Named Subcontractor Class of Work:**

Check the applicable Class of Work:

2.1 Electrical Work:

2.2 HVAC Work:

2.3 Masonry Work:

2.4 Plumbing Work:

2.5 Environmental Remediation:

2.6 Hazardous Materials Abatement:

**3.0 Subcontractor's Present Legal Name:**

Name:

**4.0** How many years has the **Subcontractor** been in business under its **Present Legal Name**?

Years:

**5.0** How many years has the **Subcontractor** been in business as a Subcontractor for this Class of Work?

Years:

**6.0** If the **Subcontractor** has not always been a Subcontractor for this Class of Work then list the trade(s) that your firm customarily performed prior to the time that you became a Subcontractor in this **Class of Work**:

**6.1**

**6.2**

**6.3**

**7.0** Indicate **all other names** by which this **Subcontractor** has been known and the **length of time** known by each name:

<b>7.1</b>	<input style="width: 95%; height: 40px;" type="text"/>	<input style="width: 40px; height: 25px;" type="text"/>	<input style="width: 40px; height: 25px;" type="text"/>
		<i>Years</i>	<i>Months</i>
<b>7.2</b>	<input style="width: 95%; height: 40px;" type="text"/>	<input style="width: 40px; height: 25px;" type="text"/>	<input style="width: 40px; height: 25px;" type="text"/>
		<i>Years</i>	<i>Months</i>
<b>7.3</b>	<input style="width: 95%; height: 40px;" type="text"/>	<input style="width: 40px; height: 25px;" type="text"/>	<input style="width: 40px; height: 25px;" type="text"/>
		<i>Years</i>	<i>Months</i>

**8.0** The-Subcontractor's Certification with the CT Secretary of State:

Check Box	Type of Business Entity:	Certification Year
<input type="checkbox"/>	Corporation	<input style="width: 100%; height: 25px;" type="text"/>
<input type="checkbox"/>	Partnership	<input style="width: 100%; height: 25px;" type="text"/>
<input type="checkbox"/>	Sole Proprietorship	<input style="width: 100%; height: 25px;" type="text"/>
<input type="checkbox"/>	Limited Liability Company (LLC)	<input style="width: 100%; height: 25px;" type="text"/>
<input type="checkbox"/>	Other: <input style="width: 350px; height: 25px;" type="text"/>	<input style="width: 100%; height: 25px;" type="text"/>



**9.0** Attach resumes of all supervisory personnel, such as Principals, Project Managers, and Superintendents, who will be directly involved with this project on which you are now a **Named Subcontractor** Bidder for a specific **Class of Work**. Indicate the number of years of construction experience and number of years of which they were in a Supervisory capacity.

**10.0** List all sub-trades which your firm customarily performs with own employees – **this table must be completed for electrical and plumbing trades for all projects.**

	Trade Name	License Holder Name	Connecticut D.C.P. License No.: Format: Prefix - Number - Suffix
10.1			
10.2			
10.3			
10.4			
10.5			

**11.0 Trade References:**  
 Names, addresses and telephone numbers of several firms with whom your organization has regular business dealings (attach separate sheets as necessary).

**12.0** List all construction projects your firm currently has under contract. Provide all of the information listed below. DAS/CS *may* reject a bid as **non-responsive** if the bidder does not make **all** required pre-award submittals within the designated time period. Attach additional sheets as necessary **using the following format:**

<b>12.1</b>	<b>Project Title:</b>		
<b>12.2</b>	<b>Project Location:</b>		
<b>12.3</b>	<b>Construction Start Date:</b>		
<b>12.4</b>	<b>Construction Finish Date:</b>		
<b>12.5</b>	<b>Describe the Scope of Work your Firm performed:</b>		
<b>12.6</b>	<b>Original Contract Amount:</b>		
<b>12.7</b>	<b>Final Contract Amount:</b>		
<b>12.8</b>	<b>Original Contract Duration (Calendar Days):</b>		
<b>12.9</b>	<b>Final Contract Duration (Calendar Days):</b>		
<b>12.10</b>	<b>*Briefly describe any complaints about your Firm's quality control or construction management.</b>		
	<b>*Attach a separate sheet if more space is required.</b>		
<b>12.11</b>	<b>Owner:</b>		
<b>12.12</b>	<b>Owner's Representative:</b>		
		<i>(Name)</i>	<i>(Phone Number)</i>
<b>12.13</b>	<b>Design Firm:</b>		
<b>12.14</b>	<b>Design Firm's Representative:</b>		
		<i>(Name)</i>	<i>(Phone Number)</i>
<b>12.15</b>	<b>General Contractor:</b>		
<b>12.16</b>	<b>G.C.'s Representative:</b>		
		<i>(Name)</i>	<i>(Phone Number)</i>

**13.0 List all construction projects your firm has completed in the past five (5) years or list the ten (10) projects your firm has most recently completed. Provide all of the information listed below. DAS/CS *may* reject a bid as **non-responsive** if the bidder does not make **all** required pre-award submittals within the designated time period. Attach additional sheets as necessary using the following format:**

<b>13.1 Project Title:</b>		
<b>13.2 Project Location:</b>		
<b>13.3 Construction Start Date:</b>		
<b>13.4 Construction Finish Date:</b>		
<b>13.5 Describe the Scope of Work your Firm performed:</b>		
<b>13.6 Original Contract Amount:</b>		
<b>13.7 Final Contract Amount:</b>		
<b>13.8 Original Contract Duration (Calendar Days):</b>		
<b>13.9 Final Contract Duration (Calendar Days):</b>		
<b>13.10 *Briefly describe any complaints about your Firm's quality control or construction management.</b>		
	<i>*Attach a separate sheet if more space is required.</i>	
<b>13.11 Owner:</b>		
<b>13.12 Owner's Representative:</b>		
	<i>(Name)</i>	<i>(Phone Number)</i>
<b>13.13 Design Firm:</b>		
<b>13.14 Design Firm's Representative:</b>		
	<i>(Name)</i>	<i>(Phone Number)</i>
<b>13.15 General Contractor:</b>		
<b>13.16 G.C.'s Representative:</b>		
	<i>(Name)</i>	<i>(Phone Number)</i>

**14.0** Has your Firm ever failed to complete a contract or has any officer or partner of your Firm ever been an officer or partner of another organization that failed to complete a contract? If so, indicate below the circumstances leading to the project failure and the name of the company which provided the bonding for the failed contract(s):

Not Applicable

**15.0** List all legal or administrative proceedings currently pending or concluded adversely within the last five years which relate to procurement or performance of any public or private construction contracts. (Exclude Occupational Safety and Health Act [OSHA] violations which are called for elsewhere in this statement). Add attachment as necessary.

Not Applicable

**16.0** List all willful or serious violations of any OSHA or of any standard, order or regulation promulgated pursuant to such act, during the three year period preceding the bid, provided such violations were cited in accordance with the provisions of any State Occupational Safety and Health Act or Occupational Safety and Health Act of 1970. Indicate whether these were abated within the time fixed by the citation or whether the citation was appealed. If appealed what is the status or disposition. Add attachments as necessary.

Not Applicable

**17.0** Has your Firm had any criminal convictions related to the injury or death of any employee in the three-year period preceding the bid? Please list any such convictions below. Add attachments as necessary.

Not Applicable

**18.0** **NEW:** Anti-Discrimination and Anti-Harassment Requirements: List all claims of alleged harassment or discriminatory conduct asserted, filed or claimed against your firm, and to the best of the Firm's knowledge and belief, against its proposed subcontractors and suppliers being utilized for this Project. For each such claim, describe in sufficient detail the nature of the claim and its disposition. This includes claims against the Firm's officers, directors, shareholders, partners and employees.

Not Applicable

**18.1** If any claim resulted in a finding or admission of discriminatory conduct on the part of an officer, director, shareholder, partner or employee, list the actions taken by your Firm or the applicable subcontractor and/or supplier to address and mitigate the individual's conduct, including actions that made it clear such conduct: (i) is not tolerated and will not occur in the future; (ii) will not negatively impact the performance of work on the project job site; and (iii) does not reflect the beliefs and culture of the contractor, subcontractor, or supplier. DAS will expect that your Firm, subcontractor, and/or supplier implement systematic monitoring and evaluation of the workplace to exclude such conduct.

**19.0** **NEW:** Confirm that your Firm's employment statistics have been submitted in the online "**Employment Information Form**", located within your Firm's **CTsource** account. Follow the instructions in **6001 Construction Online Bidding Instructions**, available for download from the online DAS/CS Library (<http://portal.ct.gov/DASCSLibrary>) > 6000 Series:

Employment Information Form Completed

**20. Signature**

Dated at

Signed this  day of  , 20

Name of Firm:

Firm Address:

*(Signature)*

*(Print or Type Name)*

*(Title)*

**21. Notary Statement**

Mr./Mrs./Ms.  being duly sworn

deposes and says that he/she is the  of

*(Position or Title)*

, and that the answers to the foregoing

*(Firm Name)*

questions and all statements therein contained are true and correct.

Subscribed and sworn before me this  day of  , 20

Notary Public

My Commission Expires  , 20

End of Section  
00 45 17 Named Subcontractor Bidder's Qualification Statement

## Contract

DAS | Construction Services | Office of Legal Affairs, Policy, and Procurement

Contract For:

Dated as of  by and between the **State of Connecticut** (herein called the  
*(Month, Day, Year)*

“State”) acting herein by its Commissioner, Department of Administrative Services under the provisions of the Connecticut General Statutes (C.G.S.) Sections 4-8, 4a-1, 4a-2, 4b-1, 4b-3, and 4b-91, as revised, and  (herein called the “Contractor”).

*(Print Name of Contractor)*

The State and the Contractor in consideration of the hereinafter contained mutual promises and covenants, do hereby agree as follows:

### 1. CONTRACT AND CONTRACT DOCUMENTS:

The **Invitation for Bids**, the enumerated **Plans**, the **Specifications** and **Amendments** thereto, the **Addenda**, the **Bid Proposal** as accepted by the Commissioner, Department of Administrative Services, **Order of Award**, which Order is made a part of this **Contract**, the **General Conditions**, the **Supplementary Conditions**, the **General Requirements**, the **Contract** and the **Bonds** shall form part of this **Contract** and the **provisions** thereof shall be as binding upon the parties as if they were fully set forth herein. The tables of contents, titles, headings, running headlines and marginal notes contained herein and in said Documents, are solely to facilitate to various provisions of the Contract Documents and in no way affect, limit, or cast light upon the interpretations of the provisions to which they refer. Whenever the term “**Contract Documents**” is used, it shall mean and include this **Contract**, the **Invitation for Bids**, the enumerated **Plans**, **Specifications** and **Amendments** thereto, the **Addenda**, the **Bid Proposal** as accepted by the Commissioner, Department of Administrative Services, the **General Conditions**, the **General Requirements**, the **Bonds**, the **Instructions to Bidders**, the **Wage Scales**, the **Supplementary Conditions**, and the **Insurance Certificates**.

### 2. SCOPE OF THE WORK:

The Contractor shall furnish all plant, labor, materials, supplies, equipment, and other facilities and things necessary or proper for or incidental to the work contemplated by this Contract as required by and in strict accordance with applicable Plans, Specifications and Amendments thereto, and Addenda (hereinafter enumerated), and as required by and in strict accordance with such changes as are ordered and approved pursuant to this Contract, and will perform all other obligations imposed on him by this Contract.

**3. ENUMERATION OF PLANS, SPECIFICATIONS AND ADDENDA:**

The following is an enumeration of the Plans, Specifications, and Addenda:

<b>Prepared By:</b>	<input type="text"/> <i>(Print Name of Architect/Engineer Firm)</i>
<b>Plans and Specifications:</b>	<input type="text"/>
<b>Addenda:</b>	<input type="text"/>

**4. COMPENSATION TO BE PAID THE CONTRACTOR**

The State will pay and the Contractor will accept in full consideration for the performance of the Contractor's obligation hereunder the sum of:

<input type="text"/>	Dollars and 00/100 (\$	<input type="text"/>	)
----------------------	------------------------	----------------------	---

**5. PROVISIONS REQUIRED BY LAW DEEMED INSERTED**

Each and every provision of law and clause required by law to be inserted in this Contract shall be deemed to be inserted herein and the Contract shall be read and enforced as though it were included herein, and if through mistake or otherwise any such provision is not inserted, or is not correctly inserted, then upon the application of either party, the Contract shall forthwith be physically amended to make such insertion.

For all State contracts as defined in the **C.G.S. §9-612(f)(1)(C)**, having a value in a calendar year of \$50,000 or more or a combination or series of such agreements or contracts having a value of \$100,000 or more, the authorized signatory to this Agreement expressly acknowledges receipt of the State Elections Enforcement Commission's notice advising state contractors of campaign contribution and solicitation prohibitions, and will inform its principals of the contents of the notice. See **SEEC Form 10**.

Contractor hereby irrevocably assigns to the State of Connecticut all rights, title and interest in and to all **Claims\* associated with this Contract** that Contractor now has or may or will have and that arise under the antitrust laws of the United States, **15 USC Section 1, et seq.** and the antitrust laws of the State of Connecticut, **C.G.S. §35-24, et seq.**, including but not limited to any and all Claims for overcharges. This assignment shall become valid and effective immediately upon the accrual of a Claim without any further action or acknowledgment by the parties.

**\*Definition of Claims associated with this Contract:** "All actions, suits, claims, demands, investigations and proceedings of any kind, open, pending or threatened, whether mature, unmaturing, contingent, known or unknown, at law or in equity, in any forum."



The Commissioner, Department of Administrative Services for and on behalf of the State of Connecticut, and the Contractor have executed this contract on the day and year first written.

<b>State Of Connecticut:</b>  By: <input type="text"/> <i>(Signature)</i>  Print Name: <b>Noel Petra</b> Its: <b>Deputy Commissioner</b> <b>Department of Administrative Services</b>  Date Signed: <input type="text"/>  <b>Office of the Attorney General:</b> <b>Approved as to form:</b>  By: <input type="text"/> <i>(Signature)</i>  Print Name: <input type="text"/> Its: <b>Attorney General /</b> <b>Assistant Deputy Attorney General /</b> <b>Associate Attorney General /</b> <b>Assistant Attorney General</b>  Date Signed: <input type="text"/>	<b>Contractor:</b>  Firm Name: <input type="text"/> By: <input type="text"/> <i>(Signature)</i>  Print Name: <input type="text"/> Its: <input type="text"/> , <b>Duly Authorized</b>  Date Signed: <input type="text"/>  <input type="text"/>  <b>SEAL</b>
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

End of Section  
00 52 03 Contract



## Subcontract Agreement Form

### DAS | Construction Services | Office of Legal Affairs, Policy, and Procurement

In accordance with the requirements of the Connecticut General Statutes (C.G.S.) §4b-96, the Contractor selected for the Contract shall provide to each of its listed or substitute Named Subcontractors the relevant subcontract, along with a notice setting forth the time limit for execution of such subcontract. The Contractor selected for the Contract shall file with the State of Connecticut Department of Administrative Services (DAS) Construction Services Office of Legal Affairs, Policy, and Procurement an executed copy of each subcontract within ten (10) days (Saturdays, Sundays and legal holidays excluded) of presentation of the subcontract to each subcontractor. Each subcontract shall include at least the provisions set forth in the **Subcontract** form found in C.G.S. §4b-96 and shall follow the order of this **Subcontract Agreement Form**.

#### **C.G.S. §4b-96. Subcontract, form. Procedure on failure of subcontractor to execute subcontract. General bidder's responsibilities.**

Within five days after being notified of the award of a general contract by the awarding authority, or, in the case of an approval of a substitute subcontractor by the awarding authority, within five days after being notified of such approval, the general bidder shall present to each listed or substitute subcontractor (1) a subcontract in the form set forth in this section and (2) a notice of the time limit under this section for executing a subcontract. If a listed subcontractor fails within five days, Saturdays, Sundays and legal holidays excluded, after presentation of a subcontract by the general bidder selected as a general contractor, to perform his agreement to execute a subcontract in the form hereinafter set forth with such general bidder, contingent upon the execution of the general contract, the general contractor shall select another subcontractor, with the approval of the awarding authority. When seeking approval for a substitute subcontractor, the general bidder shall provide the awarding authority with all documents showing (A) the general bidder's proper presentation of a subcontract to the listed subcontractor and (B) communications to or from such subcontractor after such presentation. The awarding authority shall adjust the contract price to reflect the difference between the amount of the price of the new subcontractor and the amount of the price of the listed subcontractor if the new subcontractor's price is lower and may adjust such contract price if the new subcontractor's price is higher. The general bidder shall, with respect to each listed subcontractor or approved substitute subcontractor, file with the awarding authority a copy of each executed subcontract within ten days, Saturdays, Sundays and legal holidays excluded, of presentation of a subcontract to such subcontractor. The subcontract shall be in the following form:

*(See page 2 and page 3)*

**SUBCONTRACT**

THIS AGREEMENT made this day of , 20, by and between a corporation organized and existing under the laws of (a partnership consisting of ) (an individual doing business as ) hereinafter called the "Contractor" located at (insert complete address) \_\_\_\_\_, and a corporation organized and existing under the laws of (a partnership consisting of ) (an individual doing business as ) hereinafter called the "Subcontractor", located at (insert complete address) \_\_\_\_\_.

WITNESSETH that the Contractor and the Subcontractor for the considerations hereafter named, agree as follows:

1. The Subcontractor agrees to furnish all labor and materials required for the completion of all work specified in Section No. of the specifications for (Name of Subtrade) and the plans referred to therein and addenda No. , , , and for the (Complete title of project and the project number taken from the title page of the specifications) all as prepared by (Name of Architect or Engineer) for the sum of (\$) and the Contractor agrees to pay the Subcontractor said sum for said work. This price includes the following alternates:

Supplemental No. (s) , , , , , .

(a) The Subcontractor agrees to be bound to the Contractor by the terms of the hereinbefore described plans, specifications (including all general conditions stated therein which apply to his trade) and addenda No. , , , and , and , and to assume to the Contractor all the obligations and responsibilities that the Contractor by those documents assumes to the (Awarding Authority) , hereinafter called the "Awarding Authority", except to the extent that provisions contained therein are by their terms or by law applicable only to the Contractor.

(b) The Contractor agrees to be bound to the Subcontractor by the terms of the hereinbefore described documents and to assume to the Subcontractor all the obligations and responsibilities that the Awarding Authority by the terms of the hereinbefore described documents assumes to the Contractor, except to the extent that provisions contained therein are by their terms or by law applicable only to the Awarding Authority.

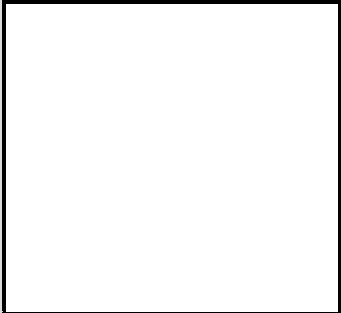

2. The Contractor agrees to begin, prosecute and complete the entire work specified by the Awarding Authority in an orderly manner so that the Subcontractor will be able to begin, prosecute and complete the work described in this subcontract; and, in consideration thereof, upon notice from the Contractor, either oral or in writing, the Subcontractor agrees to begin, prosecute and complete the work described in this Subcontract in an orderly manner in accordance with completion schedules prescribed by the general contractor for each subcontract work item, based on consideration to the date or time specified by the Awarding Authority for the completion of the entire work.

3. The Subcontractor agrees to furnish to the Contractor, within a reasonable time after the execution of this subcontract, evidence of workers' compensation insurance as required by law and evidence of public liability and property damage insurance of the type and in limits required to be furnished to the Awarding Authority by the Contractor.

4. The Contractor agrees that no claim for services rendered or materials furnished by the Contractor to the Subcontractor shall be valid unless written notice thereof is given by the Contractor to the Subcontractor during the first forty (40) days following the calendar month in which the claim originated.

5. This agreement is contingent upon the execution of a general contract between the Contractor and the Awarding Authority for the complete work.

IN WITNESS WHEREOF, the parties hereto have executed this agreement the day and year first above-written.

<b>Subcontractor</b>	
	<input type="text"/>
	<b>Subcontractor</b>
	By: <input type="text"/>
	<i>(Print Name)</i>
	Its: <input type="text"/>
	<b>Duly Authorized</b>
ATTEST: <input type="text"/>	<input type="text"/>
<i>(Signature)</i>	<i>(Subcontractor Signature)</i>
Date: <input type="text"/>	Date: <input type="text"/>
<b>Contractor</b>	
	<input type="text"/>
	<b>Contractor</b>
	By: <input type="text"/>
	<i>(Print Name)</i>
	Its: <input type="text"/>
	<b>Duly Authorized</b>
ATTEST: <input type="text"/>	<input type="text"/>
<i>(Signature)</i>	<i>(Contractor Signature)</i>
Date: <input type="text"/>	Date: <input type="text"/>

**End of Section  
00 52 73 Subcontract Agreement Form**





## CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

**IMPORTANT:** If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

<b>PRODUCER</b>  INSURED <p style="text-align: center;">Contractor's Legal Name and Address</p>	<b>CONTACT</b> NAME: _____ PHONE (A.C. No. Ext): _____ FAX (A.C. No.): _____ E-MAIL ADDRESS: _____  <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%; text-align: center;">INSURER(S) AFFORDING COVERAGE</td> <td style="width: 20%; text-align: center;">NAIC #</td> </tr> <tr> <td>INSURER A:</td> <td></td> </tr> <tr> <td>INSURER B:</td> <td></td> </tr> <tr> <td>INSURER C:</td> <td></td> </tr> <tr> <td>INSURER D:</td> <td></td> </tr> <tr> <td>INSURER E:</td> <td></td> </tr> <tr> <td>INSURER F:</td> <td></td> </tr> </table>	INSURER(S) AFFORDING COVERAGE	NAIC #	INSURER A:		INSURER B:		INSURER C:		INSURER D:		INSURER E:		INSURER F:	
INSURER(S) AFFORDING COVERAGE	NAIC #														
INSURER A:															
INSURER B:															
INSURER C:															
INSURER D:															
INSURER E:															
INSURER F:															

**COVERAGES** **CERTIFICATE NUMBER:** \_\_\_\_\_ **REVISION NUMBER:** \_\_\_\_\_

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL. SUVR. INSR. WORD	POLICY NUMBER	POLICY EFF. (MM/DD/YYYY)	POLICY EXP. (MM/DD/YYYY)	LIMITS
	<b>GENERAL LIABILITY</b> <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-WIDE <input checked="" type="checkbox"/> OCCUR  GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PROJECT <input type="checkbox"/> LOC		Policy Number must be provided	Policy Effective Date must be provided	Policy Expiration Date must be provided	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea. occurrence) \$ 100,000 MED EXP (Any one person) \$ 5,000 PERSONAL & ADY INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - CCMPOCP AGG \$ 2,000,000
	<b>AUTOMOBILE LIABILITY</b> <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> NON-OWNED AUTOS		Policy Number must be provided	Policy Effective Date must be provided	Policy Expiration Date must be provided	COMBINED SINGLE LIMIT (Ea. accident) \$ 1,000,000 BODILY INJURY (Per person) \$ _____ BODILY INJURY (Per accident) \$ _____ PROPERTY DAMAGE (Per accident) \$ _____
	<input type="checkbox"/> UMBRELLA LIAB <input type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED. \$ _____ RETENTION \$ _____					EACH OCCURRENCE \$ _____ AGGREGATE \$ _____
	<b>WORKERS COMPENSATION AND EMPLOYERS' LIABILITY</b> ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) <input type="checkbox"/> Y/N <input checked="" type="checkbox"/> N/A If yes, describe under DESCRIPTION OF OPERATIONS below		Policy Number must be provided	Policy Effective Date must be provided	Policy Expiration Date must be provided	<input checked="" type="checkbox"/> WC STATUTORY LIMITS <input type="checkbox"/> OTHER E.L. EACH ACCIDENT \$ 100,000 E.L. DISEASE - EA EMPLOYEE \$ 100,000 E.L. DISEASE - POLICY LIMIT \$ 500,000
	Owner's and Contractor's Protective Liability Builder's Risk (include here when applicable)					Bodily Injury or Death (per occ.) Total \$ 1,000,000 Property Damages Total (aggregate) \$ 2,000,000 Completed Value

**DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES:** (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

Indicate Project Number and Title here

The State of Connecticut is an Additional Insured with respect to General Liability and Umbrella/Excess Liability Insurance coverage.

If Builder's Risk and or Inland Marine/Transit Insurance is required then the State is endorsed as a Loss Payee.

<b>CERTIFICATE HOLDER</b> State of Connecticut Department of Administrative Services, Construction Services Office of Legal Affairs, Policy and Procurement 450 Columbus Boulevard, Suite 1302 Hartford, CT 06103-1838	<b>CANCELLATION</b> SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.  AUTHORIZED REPRESENTATIVE Agent of Producer
---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

© 1988-2010 ACORD CORPORATION. All rights reserved.

ACORD 25 (2010/05)

The ACORD name and logo are registered marks of ACORD

**End of Section**  
**00 62 16 Certificate of Insurance**





**General Conditions of the Contract for Construction  
For Design-Bid-Build  
Connecticut Department of Administrative Services**

<b>TABLE OF CONTENTS</b>		
<b>ARTICLE</b>	<b>TITLE</b>	<b>PAGE</b>
1	Definitions	2
2	Conditions of Work	6
3	Correlation of Contract Documents	6
4	Commencement and Progress of Work	7
5	Submittals, Product Data, Shop Drawings and Samples	8
6	Separate Contracts	8
7	Cooperation of Trades	9
8	Damages	9
9	Minimum Wage Rates	10
10	Posting Minimum Wage Rates	10
11	Construction Schedules	10
12	Preference in Employment	11
13	Compensation for Changes in the Work	11
14	Deleted Work	14
15	Materials: Standards	14
16	Inspection and Tests	16
17	Royalties and Patents	16
18	Surveys, Permits, and Regulations	17
19	Protection of the Work, Persons and Property	17
20	Temporary Utilities	18
21	Correction of Work	18
22	Guarantees and Warranties	18
23	Cutting, Fitting, Patching, and Digging	18
24	Cleaning Up	19
25	All Work Subject to Control of the Commissioner	19
26	Authority of the Construction Administrator	19
27	Schedule of Values: Application for Payment	20
28	Partial Payments	20
29	Delivery of Statement Showing Amounts Due for Wages, Materials, and Supplies	21
30	Substantial Completion and Acceptance	21
31	Final Payment	22
32	Owner's Right to Withhold Payments	23
33	Owner's Right to Stop Work or Terminate Contract	23
34	Subletting or Assigning of Contract	25
35	Contractor's Insurance	25
36	Foreign Materials	27
37	Hours of Work	27
38	Claims	28
39	Diesel Vehicle Emissions Control	31
40	Disclosure of Records	32
41	Audit and Inspection of Plants, Places of Business, and Records	32
Appendix 1 – CT DAS 7048 General Contractor Retainage Reduction Request Form		33

**ARTICLE 1  
DEFINITIONS**

WHENEVER THE FOLLOWING TERMS, OR PRONOUNS IN PLACE OF THEM, ARE USED THE INTENT AND MEANING SHALL BE AS FOLLOWS:

**1.1 ACCEPTANCE:** The Owner's acknowledgement of the Work from the Contractor upon certification by the Construction Administrator and Architect or Engineer that all Work has been completed.

**1.2 ADDITIONAL OR DELETED WORK:** Work required by the Department that, in the judgment of the Commissioner, involves any addition to, deduction from, or modification of the Work required by the Contract Documents.

**1.3 AGENCY:** The (User) Agency of the State of Connecticut having administrative authority of the facility in which the Work is being performed.

**1.4 APPLICATION FOR PAYMENT, PARTIAL PAYMENT OR REQUISITION:** Contractor's certified request for payment for completed portions of the Work and, if the Contract so provides, for materials or equipment suitably stored pending their incorporation into the Work.

**1.5 ARCHITECT OR ENGINEER:** A sole proprietor, partnership, firm, corporation or other business organization under Contract with the Owner, commissioned to prepare Contract Drawings and Specifications, to advise the Owner and in certain cases, to perform regular inspections during construction and when authorized to perform the duties of the Construction Administrator.

**1.6 AS-BUILT DRAWINGS:** Construction Drawings revised by the Contractor to show all significant Modifications made during the construction process.

**1.7 BASE BID:** Monetary value stated in the Bid Proposal Form as the sum for which the Bidder offers to perform the Work described in the Bidding Documents, exclusive of adjustments for Supplemental Bids.

**1.8 BID BOND:** Form of Bid Security executed by the Bidder as Principal and by a Surety to guarantee that the Bidder will enter into a Contract within a specified time and furnish any required bond as mandated by Connecticut General Statute Section 4b-92.

**1.9 BIDDER:** A sole proprietor, partnership, firm, corporation or other business organization submitting a Bid on the Bid Proposal Form for the Work contemplated.

**1.10 BIDDING DOCUMENTS:** Collectively, the Bidding Requirements and the proposed Contract Documents, including any addenda issued prior to receipt of Bids.

**1.11 BID OR BID PROPOSAL FORM:** A complete and duly signed proposal to perform Work (or a designated portion thereof) for a stipulated sum submitted in accordance with the Bidding Documents.

**1.12 BID SECURITY:** Certified check or Bid Bond submitted with Bid Proposal Form, which provides that the Bidder, if awarded the Contract, will execute such Contract in accordance with the requirements of the Bidding Documents.

**1.13 BUILDER'S RISK INSURANCE:** A specialized form of property insurance which provides coverage for loss or damage to the Work pursuant to the Contract Documents.

**1.14 CASH ALLOWANCE:** An amount established in the Contract Documents for inclusion in the Contract Sum to cover the cost of prescribed items not specified in detail, and as shown in the Allowance Schedule.

**1.15 CERTIFICATE OF ACCEPTANCE:** A document issued by the Owner to the Contractor stating that all Work specified in the Certificate of Acceptance has been completed and accepted by the Owner.

**1.16 CERTIFICATE OF COMPLIANCE:** A document stating that for the portion of the Project completed, either the design portion or the construction portion, has been performed in substantial compliance with all applicable building codes.

**1.17 CERTIFICATE OF OCCUPANCY:** Document issued by the authority having jurisdiction certifying that all or a designated portion of a building is approved for its designated use.

**1.18 CERTIFICATE OF SUBSTANTIAL COMPLETION:** A document prepared by the Architect or Engineer and approved by the Owner on the basis of an inspection stating:

1.18.1 that the Work, or a designated portion thereof, is determined to be Substantially Complete;

1.18.2 the date of Substantial Completion;

1.18.3 the responsibilities of the Owner and the Contractor for security maintenance, heat, utilities, damage to the Work and insurance; and

1.18.4 the time within which the Contractor shall complete the remaining Work.

**1.19 CHANGE ORDER:** Written authorization signed by the Owner, authorizing a modification in the Work, an adjustment in the Contract Sum, or an adjustment in the Contract Time.

**1.20 COMMISSIONER:** The State of Connecticut, Department of Construction Services (CT DCS) Commissioner acting directly or through specifically authorized CT DCS personnel or agent(s) having authority to perform duties defined in Article 25.

**1.21 COMMISSIONING AGENT (CxA):** An independent entity under contract directly with the Owner or Owner's Representative responsible for performing the specified commissioning procedures.

**1.22 CONSTRUCTION ADMINISTRATOR:** A sole proprietor, partnership, firm, corporation or other business organization, under Contract or employed by the Owner commissioned and/or authorized to oversee the fulfillment of all requirements of the Contract Documents. The authorized Construction Administrator may be a Department of Construction Services Assistant Project Manager, Department of Construction Services Project Manager, a Clerk of the Works, an Architect, a Consulting Architect, a Consulting Construction Administrator, a Consulting Engineer etc. or any other designee as authorized and identified by the Owner.

**1.23 CONSTRUCTION CHANGE DIRECTIVE:** A written authorization signed by the Owner, directing a modification in the Work and stating a proposed basis for adjustment, if any, in the Contract Sum, Contract Time or both. Any Construction Change Directive effecting an adjustment to the Contract Sum or Contract Time shall result in a Change Order.

**1.24 CONTRACT DOCUMENTS OR CONTRACT:** The Agreement between Owner and Contractor, Conditions of the Contract (General Conditions, Supplementary Conditions, General Requirements and other Conditions), Drawings, Specifications, and Addenda issued prior to execution of the Contract, other documents listed in the Agreement and Modifications issued after execution of the Contract, all of which shall constitute the Contract.

**1.25 CONTRACTOR OR GENERAL CONTRACTOR:** A sole proprietor, partnership, firm or Corporation, under direct Contract with the Department of Construction Services, responsible for performing the Work under the Contract Documents. Whenever the words "Contractor" or "General Contractor" are used it shall be understood to mean Contractor.

**1.26 CONTRACTOR'S LIABILITY INSURANCE:** Insurance purchased and maintained by the Contractor that insures the Contractor for claims for property damage, bodily injury or death.

**1.27 CONTRACT START DATE OR DATE OF COMMENCEMENT OF THE WORK:** The date, specified by the Owner in the Notice to Proceed, on which the Contractor is required to start the Work.

**1.28 CONTRACT SUM:** The sum stated in the Contract, which is the total amount payable by the Owner to the Contractor for performance of the Work under the Contract Documents.

**1.29 CONTRACT TIME:** The period of time allotted in the Contract Documents for Substantial Completion of the Work, including authorized adjustments thereto. The Contract Time is the sum of all Working Days and Non-Working Days as further defined herein and specified in the Contract Documents.

**1.30 DAY:** Whenever the word Day is used it shall be understood to mean calendar day stated on the Bidding Documents, unless stated otherwise.

**1.31 DEPARTMENT OF CONSTRUCTION SERVICES (CT DCS) PROJECT MANAGER:** The individual employed by the Owner, designated and authorized by the Commissioner, to be responsible for the overall management and oversight of the Project, and to represent the (User) Agency.

**1.32 DIESEL VEHICLE EMISSIONS CONTROL:** The reduction of air pollution emissions from diesel powered vehicles through the use of diesel engine emission control technologies.

**1.33 EQUAL(S):** Any deviation from the Specification which is defined as follows: A replacement for the specified material, device, procedure, equipment, etc., which is recognized and accepted as substantially equal to the first listed manufacturer or first listed procedure specified after review by the Architect/Engineer, and may be rejected or approved at the sole discretion of the Owner. All equals must be substantially equivalent to the first manufacturer or first procedure listed in the Specifications with reference to all of the following areas: the substance and function considering quality, workmanship, economy of operation, durability, and suitability for purposes intended; size, rating, and cost. The equal does not constitute a modification in the scope of Work, the Schedule, or Architect/Engineer's design intent of the specified material, device, procedure, equipment, etc.

**1.34 FINAL INSPECTION:** Review of the Work by the Architect or Engineer and Owner to determine whether Acceptance has been achieved.

**1.35 FINAL PAYMENT:** The last payment made by the Owner to the Contractor, made after notice of the Acceptance. Payment shall include the entire unpaid balance of the Contract Sum as adjusted by modifications.

**1.36 GENERAL CONDITIONS:** The General Conditions of the Contract for Construction, part of Division 00 of the Specifications.

**1.37 GENERAL REQUIREMENTS:** That part of the Contract Documents entitled General Requirements, which is Division 01 of the Specifications.

**1.38 GUARANTEE:** See Warranty.

**1.39 LIQUIDATED DAMAGES:** A sum established in a Contract, usually as a fixed sum per Day, as the predetermined measure of damages to be paid to the Owner due to the Contractor's failure to complete the Work within the Contract Time.

**1.40 LUMP SUM:** An item or category priced as a whole rather than broken down into its elements.

**1.41 MOBILE SOURCE:** A source designed or constructed to move from one location to another during normal operation except portable equipment and includes, but is not limited to, automobiles, buses, trucks, tractors, earth moving equipment, hoists, cranes, aircraft, locomotives operating on rails, vessels for transportation on water, lawnmowers, and other small home appliances.

**1.42 NON-WORKING DAYS:** All Saturdays, Sundays, Legal State Holidays (12), and any other Days identified in the Contract Documents that the Contractor is not permitted to execute the Work. The restriction of Non-Working Days may be suspended upon the approval or direction of the Commissioner.

**1.43 NOTICE TO BIDDER:** A notice contained in the Bidding Document informing prospective Bidders of the opportunity to submit Bids on a Project.

**1.44 NOTICE TO PROCEED:** Written notice, issued by the Commissioner or the Commissioner's authorized representative, to the Contractor authorizing the Contractor to proceed with the Work and establishing the date for commencement of the Contract Time.

**1.45 OWNER OR DEPARTMENT:** The State of Connecticut, Department of Construction Services acting through its Commissioner or specifically authorized Department personnel or agent.

**1.46 OVERHEAD:** Indirect costs including: supervision (any position over the foreman), field and home office expense, insurance, and small tools and consumables.

**1.47 PAYMENT, BOND, LABOR BOND OR MATERIAL BOND:** A bond in which the Contractor and the Contractor's surety guarantee to the Owner that the Contractor will pay for labor and materials furnished for use in the performance of the Contract, as required by Connecticut General Statutes Section 49-41.

**1.48 PERFORMANCE BOND OR SURETY BOND:** A bond in which the Contractor and the Contractor's surety guarantee to the Owner that the Work will be performed in accordance with the Contract Documents, as required by Connecticut General Statutes Section 49-41.

**1.49 PERFORMANCE SPECIFICATION:** A description of the desired results or performance of a product, material, assembly, procedure, or a piece of equipment with criteria for identifying the standard.

**1.50 PLANS OR DRAWINGS:** All Drawings or reproductions of Drawings pertaining to the construction of the Work contemplated and its appurtenances.

**1.51 PROJECT:** The total construction of which the Work performed under the Contract Documents may be the whole or a part.

**1.52 PROJECT MANUAL:** The set of documents assembled for the Work which includes, but is not limited to, Contract Documents, Bidding Requirements, Sample Forms, General Conditions of the Contract for Construction, General Requirements, and the Specifications.

**1.53 PROPRIETARY SPECIFICATION:** A specification that describes a product, procedure, function, material, assembly, or piece of equipment by trade name and/or by naming the manufacturer(s) or manufacturer's procedure, exact model number, item, etc., of those products acceptable to the Owner.

**1.54 RETAINAGE:** A percentage of each Application for Payment and a percentage of the total Contract Sum retained by the Owner.

**1.55 SCHEDULE:** A Critical Path Method (CPM) or Construction Schedule as required by the Contract Documents which shall be a diagram, graph or other pictorial or written Schedule showing all events expected to occur and operations to be performed and indicating the Contract Time, start dates, durations and finish dates as well as Substantial Completion and Acceptance of the Work, rendered in a form permitting determination of the optimum sequence and duration of each operation.

**1.56 SCHEDULE OF VALUES:** A document furnished by the Contractor to the Architect or Engineer and Owner stating the portions of the Contract Sum allocated to the various portions of the Work, which is to be used for reviewing the Contractor's Applications for Payment.

**1.57 SECONDARY SUBCONTRACTOR:** A sole proprietor, partnership, firm or Corporation under direct Contract with the Subcontractor to the General Contractor.

**1.58 SENSITIVE RECEPTOR SITES:** Areas where concentrations of diesel emissions may be harmful to sensitive populations, including, but not limited to, hospitals, school and university buildings being occupied during a student semester, residential structures, daycare facilities, elderly housing, and convalescent facilities.

**1.59 SHOP DRAWINGS:** Drawings provided to Architect or Engineer and Owner by a Contractor that illustrate construction, materials, dimensions, installation, and other pertinent information for the incorporation of an element or item into the construction as detailed Contract Documents.

**1.60 SPECIFICATIONS:** The description, provisions and other requirements pertaining to the method and manner of performing the Work and/or to the quantities and quality of materials to be furnished under the Contract.

**1.61 SUBCONTRACTOR:** A sole proprietor, partnership, corporation or other business organization under direct Contract with the Contractor supplying labor and/or materials for the Work at the site of the Project.

**1.62 SUBMITTALS:** Documents including, but not limited to, samples, manufacturer's data, Shop Drawing, or other such items submitted to the Owner and Architect or Engineer by the Contractor for the purpose of approval or other action, as required by the Contract Documents.

**1.63 SUBSTANTIAL COMPLETION:** The stage in the progress of the Work when the Work or designated portion thereof is sufficiently complete in accordance with the Contract Documents.

**1.64 SUBSTITUTION:** Any deviation from the specified requirements, which is defined as follows: A replacement for the specified material, device, procedure, equipment, etc., which is not recognized or accepted as equal to the first manufacturer or procedure listed in the Specification after review by the Architect/Engineer, and may be rejected or approved by the Owner. The Substitution is not equal to the specified requirement in comparison to the first manufacturer or first procedure listed in the Specifications in one or more of the following areas: the substance and function considering quality, workmanship, economy of operation, durability, and suitability for purposes intended; size, cost, and rating. The Substitution constitutes a modification in the scope of Work, the Schedule, or the Architect/Engineer's design intent of the specified material, device, procedure, equipment, etc.

**1.65 SUPERINTENDENT:** The Contractor's representative at the site who is responsible for continuous field supervision, coordination, in, completion of the Work, and, unless another person is designated in writing by the Contractor to the Owner and the Construction Administrator, for the prevention of accidents.

**1.66 SUPPLEMENTAL BID:** The monetary value stated in the Bid to be added to the amount of the Base Bid if the corresponding Work, as described in the Bidding Documents, is accepted.

**1.67 SUPPLEMENTARY CONDITIONS:** An extension in the Bid to be added to the amount of the Base Bid if the corresponding Work, as described in the Bidding Documents, is accepted.

**1.68 THRESHOLD LIMIT BUILDING:** Any proposed (new) structures or additions as defined by the Connecticut General Statutes Section 29-276b.

**1.69 UNIT PRICE:** The monetary value stated by the Owner or the Contractor, as a price per unit of measurement for materials or services as described in the Contract Documents and/or Bidding Documents.

**1.70 WARRANTY:** A written, legally enforceable assurance of specified quality or performance of a product or Work or of the duration of satisfactory performance.

**1.71 WORK:** The construction and services required by the Contract Documents, and including all labor, materials, equipment and services provided or to be provided by the Contractor to fulfill the Contractor's obligations. The Work may constitute the whole or a part of the Project and "Work Phase".

**1.72 WORK PHASE:** Construction of the Project by sequence or time intervals, which may include but not be limited to separate Construction Start Dates, Substantial Completion Dates, Application for Payments, Change Orders, Liquidated Damages, Retainage, and Subcontractors for each Work Phase.

## **ARTICLE 2 CONDITIONS OF WORK**

**2.1** The Contractor shall carefully examine and study the conditions under which the Work is to be performed and the site of the Work, and compare the Contract Documents with each other and to information furnished by the Owner including but not limited to the Plans and Specifications, the form of the Contract, General Conditions, Supplementary Conditions, General Requirements, Bonds and all other Contract Documents associated with the Work.

**2.2** The Contractor shall report to the Construction Administrator all errors, inconsistencies or omissions discovered. The Contractor shall not be liable to the Owner for damage resulting from errors, inconsistencies or omissions in the Contract Documents unless the Contractor recognized such errors, inconsistencies or omission and failed to report it to the Construction Administrator. If the Contractor performs any actions or construction activity knowing it involves an error, inconsistency or omission in the Contract Documents without notice to the Construction Administrator, the Contractor shall assume responsibility for such performance and related costs for the correction and shall not be allowed to submit any claim related to error, inconsistencies or omission.

**2.3** The Contractor shall take field measurements and verify field conditions and shall carefully compare such field measurements and conditions and other information known to the Contractor with the Contract Documents before commencing activities. Errors, inconsistencies or omissions discovered shall be reported to the Construction Administrator at once; and it will be assumed that the Contractor has been satisfied as to all requirements of the Contract Documents. Any deterrent conditions at the site of the Work which are obvious and apparent upon examination of the site but are not indicated on the Plans shall be corrected by the Contractor without additional compensation.

**2.4** In performing the Work, the Contractor must employ such methods or means as will not cause any interruption of or interference with the Work of any other Contractor, nor any inordinate disruption with the normal routine of the Owner, institution or Agency operating at the site.

**2.5** No claims for additional compensation will be considered when additional costs result from conditions made known to, discovered by, or which should have been discovered by, the Contractor prior to Contract signing.

**2.6** All Communications from the Contractor concerning proposed changes to the Contract Sum, Contract Time, or Work shall be in writing.

**2.7** The Contractor shall perform the Work in accordance with the Contract Documents and approved Submittals pursuant to Article 5.

## **ARTICLE 3 CORRELATION OF CONTRACT DOCUMENTS**

**3.1** The Contract Documents are complementary, and what is called for by any one shall be as binding as if called for by all. Where discrepancies or conflict occur in the Contract Documents the following order of precedence shall be utilized:

**3.1.1** Amendments and addenda shall take precedence over previously issued Contract Documents.

**3.1.2** The Supplementary Conditions take precedence over the General Conditions.

**3.1.3** The General Conditions take precedence over the General Requirements.

**3.1.4** The Specifications shall take precedence over the Plans.

**3.1.5** Stated dimensions shall take precedence over scaled dimensions.

**3.1.6** Large-scale detail Drawings shall take precedence over small-scale Drawings.

**3.1.7** The Schedules contained in the Contract Documents shall take precedence over other data on the Plans.

**3.2** Neither party to the Contract shall take advantage of any obvious error or apparent discrepancy in the Contract Documents. The Contractor shall give immediate written notification of any error or discrepancy discovered to the Construction Administrator, who shall take the necessary actions to obtain such corrections and interpretations as may be deemed necessary for the completion of the Work in a satisfactory and acceptable manner. The Contractor shall then promptly proceed under the direction of the Owner and the provisions of Article 13. The Contractor's failure to provide immediate notice shall mean the Contractor will not be entitled to any additional compensation, either monetary or Contract Time adjustment, with respect to any discrepancy.

**3.3** Execution of the Contract by the Contractor is a representation that the Contractor has visited the site, become familiar with local conditions under which the Work is to be performed, and correlated personal observations with requirements of the Contract Documents.

**3.4** Organization of the Specifications into divisions, sections and articles, and arrangement of Drawings, shall not control the Contractor in dividing the Work among Subcontractors or in establishing the extent of Work to be performed by any trade.

**3.5** Unless otherwise stated in the Contract Documents, words which have well-known technical or construction industry meanings are used in the Contract Documents in accordance with such recognized meanings.

**3.6** In accordance with C.G.S. Section 4a-1, wherever the term "Commissioner of Construction Services" is used in the "Bidding Documents" or "Project Manual" the term "Commissioner of Administrative Services" shall be substituted in lieu thereof; and wherever the term "Department of Construction Services" is used in "Bidding Documents" or "Project Manual", the term "Department of Administrative Services" shall be substituted in lieu thereof.

#### **ARTICLE 4** **COMMENCEMENT AND PROGRESS OF WORK**

**4.1** The Work shall start upon the date given in the Notice to Proceed. The Contractor shall complete all the Work necessary for Final Payment, including but not limited to Substantial Completion, Contract close-out, testing and demonstration of all systems as required for Acceptance, punchlist Work, training and submission of Record Documents, manuals, Guarantees and Warranties as stated in the Contract Document.

**4.2** Time is of the essence with respect to the Contract Time. By executing the Contract, the Contractor confirms and agrees that the Contract Time is a reasonable period to perform the Work. The Contractor shall proceed expeditiously with adequate forces and shall achieve Substantial Completion within the Contract Time. The Contractor may, at his discretion, plan to complete the Work and achieve Substantial Completion in less time than the Contract Time.

**4.3** The Contractor's early completion Schedule notwithstanding, the Owner reserves the right to order Modifications to the Work in accordance with Article 13 at any time during the Contract Time.

**4.4** The Contractor shall not be entitled to costs for delay due to Owner ordered Modifications or any other circumstances for the period of time between the Contractor's elected early completion and the end of the Contract Time. Such costs include, but are not limited to, extended home office costs, field office costs, or supervisory and management costs incurred in performance of the Work. Early completion of the Work shall not merit additional compensation.

**4.5** If the Contractor is delayed at any time in the progress of Work by acts of God, such as fire or flood or any action, injunction or stop order issued by any court, judge or officer of the court or any other court action beyond the Owner's control, then the Contract Time may be extended by Change Order for such reasonable time as demonstrated by the Contractor's Schedule and as the Owner may determine that such event has delayed the Work. In any event, the granting of an extension of time shall be solely within the discretion of the Owner.

**4.6** Except as otherwise may be provided herein, extensions of time shall be the Contractor's sole remedy for such delay. No payment or compensation of any kind shall be made to the Contractor for damages because of hindrance in the orderly progress of Work caused by the aforesaid causes.

**4.7** The Contractor acknowledges that the Contract amount includes and anticipates any and all delays, whether avoidable or unavoidable, from said orders, which may issue from any court, judge, court officer, or act of God, and that such delays shall not, under any circumstances, be construed as compensable delays.

**4.8** Any extension of the Contract Time shall be by Change Order pursuant to Article 13.

**4.9** The Contractor shall employ a competent project manager who shall represent the Contractor. Communications given to the project manager shall be binding as if given to the Contractor. The project manager will be employed full time on the Project and be located and assigned to the Project site during and for the duration of the Work.

**4.10** The Contractor shall employ a competent Superintendent and necessary assistants who will be in attendance at the project site during the performance of the Work.

**4.11** Upon execution of the Contract, materials may be purchased. No material escalation costs will be valid or compensable unless the Owner directs, in writing, a delay in the procurement.

**ARTICLE 5**  
**SUBMITTALS, PRODUCT DATA, SHOP DRAWINGS AND SAMPLES**

**5.1** Contractor shall review, approve, and submit to the Construction Administrator all Submittals including but not limited to, product data, Shop Drawings, and samples, with such promptness as to cause no delay in the Work.

**5.2** Correction or approval of such Submittals, Shop Drawings, product data and samples will be made with reasonable promptness by the Architect or Engineer. Approval will be general only and shall not relieve the Contractor from responsibility for errors in dimensions, for construction and field coordination of the Work or for any departure from the Contract Documents, unless such departure has received the Owner's written approval.

**5.3** No Work governed by such Shop Drawings, Schedules or samples shall be fabricated, delivered or installed until approved by the Architect or Engineer.

**5.4** No damages for delays or time extensions will be granted, even if approvals deviate from the approved Schedule.

**ARTICLE 6**  
**SEPARATE CONTRACTS**

**6.1** The Owner reserves the right to perform Work in connection with the Contract with the Owner's own forces, or to let separate contracts relating to the Contract (Project) site or in connection with Work on adjoining sites. In such cases, the Contractor shall afford such parties reasonable opportunity for storage of materials and equipment and coordinate and connect the Work with the work on adjoining sites or other Projects, and shall fully cooperate with such parties in the matter required under Article 7 herein.

**6.2** Contractors working in the same vicinity shall cooperate with one another and, in case of dispute, decision of the Owner shall be final and binding to all Contractors involved, including Contractors under separate Contracts.

**6.3** The Contractor shall assume all liability, financial or otherwise, in connection with this Contract and shall protect and hold harmless the Owner from any and all damages or claims that may arise because of inconvenience or delay which the Contractor may cause other Contractors. If the Contractor experiences a loss because of the presence and operations of other Contractors working adjacent to or within the limits of the same Project, then as between the Owner and the Contractor, the Contractor shall bear such loss.

**6.4** Insofar as possible, the Contractor shall arrange the Work and shall place and dispose of the materials being used so as not to interfere with the operations of other Contractors adjacent to or within the limits of the same Project. The Contractor shall join its Work with that of others in an acceptable manner, and perform the Work in proper accordance with that of the others.

**6.5** In no event shall the Owner be responsible for any claim or damages that are the result of the Contractor's failure to coordinate the Work with any other Contractor or Subcontractor.



**ARTICLE 7  
COOPERATION OF TRADES**

**7.1** The Contractor shall be responsible for and shall control all activities of their Subcontractors. The Subcontractors shall consult and cooperate with one another. Each Subcontractor shall furnish all necessary information to other Subcontractors and shall lay out and install their own Work so as to avoid any delays or interference with the Work of others.

**7.2** Any cost or changes, cutting and/or repairing, made necessary by the failure to observe the above requirements shall be borne by the party or parties responsible for such failure or neglect or their faulty Work installed.

**ARTICLE 8  
DAMAGES**

**8.1** The Liquidated Damages, provided in the Bidding Documents, will be assessed at two distinct times, as follows:

**8.1.1 Liquidated Damages – Substantial Completion:**

If the Contractor fails to achieve Substantial Completion of the Work by the Substantial Completion Date, and such delay is not otherwise excused under this Contract, then the Contractor agrees to pay to the Owner Liquidated Damages for the dollar amount specified in the Bid Proposal Form for this Project, for each Day beyond Substantial Completion that the Contractor fails to achieve Substantial Completion. The parties to this Contract acknowledge and agree that the actual damages that are to be anticipated as a result of the neglect, failure, or refusal of the Contractor to substantially complete the Project by the established Substantial Completion Date are uncertain in amount or extremely difficult to determine. Accordingly, the parties to this Contract do intend and in fact now agree to liquidate damages in advance and stipulate that the amount set forth in this subparagraph is reasonable and an appropriate remedy and is intended to constitute compensatory damages and does not constitute a penalty of any kind. The parties understand and agree that, by including a provision for Liquidated Damages in this Contract, or in pursuing any relief pursuant to such provision:

- .1 the parties do not intend to set a price for the privilege not to perform;
- .2 the availability of Liquidated Damages may not be relied upon as a basis for argument that the Owner has an adequate remedy at law; and
- .3 the remedies available to the Owner under this Agreement are cumulative and not exclusive.

**8.1.2 Liquidated Damages – Acceptance:**

If the Contractor fails to complete all of the Work required for Acceptance of the Work within ninety (90) Days of Substantial Completion then the Contractor agrees to pay to the Owner Liquidated Damages for the dollar amount specified in the Bid Proposal Form for each Day in excess of ninety (90) Days beyond the Substantial Completion Date that the Contractor fails achieve Acceptance. The parties to this Contract acknowledge and agree that the actual damages that are to be anticipated as a result of the failure of the Contractor to complete all of the Work required for Acceptance within ninety (90) Days of the established Substantial Completion Date are uncertain in amount or extremely difficult to determine. Accordingly, the parties to this Contract do intend and in fact now agree to liquidate damages in advance and stipulate that the amount set forth in this subparagraph is reasonable and an appropriate remedy and is intended to constitute compensatory damages and does not constitute a penalty of any kind. The parties understand and agree that, by including a provision for Liquidated Damages in this Contract, or in pursuing any relief pursuant to such provision:

- .1 the parties do not intend to set a price for the privilege not to perform;
- .2 the availability of Liquidated Damages may not be relied upon as a basis for argument that the Owner has an adequate remedy at law; and
- .3 the remedies available to the Owner under this Agreement are cumulative and not exclusive.

**8.2** The Liquidated Damages or any portion thereof may be waived at the sole discretion of the Commissioner.

**8.3** No payment by the Owner, either partial or final, shall be construed to waive the Owner's right to seek Liquidated Damages.

**8.4** In the event a court determines that the Contract herein is null and void for any reason, Contractor agrees that Contractor will not seek or pursue any lawsuit or claim for damages, including, but not limited to, claims for loss of Overhead or anticipated profits, against the Owner and the Owner shall not be liable for any damages which Contractor may incur as a result of such decision. In addition, if the court enjoins the Owner from entering into or proceeding with the Contract herein, the Owner shall not be liable for any damages arising out of or relating to the award of such Contract which Contractor may have incurred as a result of the injunction.

**ARTICLE 9**  
**MINIMUM WAGE RATES**

**9.1** In accordance with the provisions of the Connecticut General Statutes Section 31-53, the following applies:

"The wages paid on an hourly basis to any person performing the work of any mechanic, laborer, or worker on the work herein contracted to be done and the amount of payment or contribution paid or payable on behalf of each such person to any employee welfare fund, as defined in subsection (h) of this section, shall be at a rate equal to the rate customary or prevailing for the same work in the same trade or occupation in the town in which such public works project is being constructed. Any contractor who is not obligated by agreement to make payment or contribution on behalf of such persons to any such employee welfare fund shall pay to each mechanic, laborer or worker as part of such person's wages the amount of payment or contribution for such person's classification on each payday."

**9.2** Each Contractor who is awarded a Contract on or after October 1, 2002 shall be subject to provisions of the Connecticut General Statutes, Section 31-53 as amended by Public Act 02-69, "An Act Concerning Annual Adjustments to Prevailing Wages." No wage adjustment will be made to the Contract for any wage increase under this Article.

**ARTICLE 10**  
**POSTING MINIMUM WAGE RATES**

**10.1** The Contractor shall post at conspicuous points on the site of the Contract a Schedule showing all determined wage rates for all trades and all authorized deductions, if any, from wages to be paid.

**10.2** The Contractor shall provide weekly certified payrolls to the Owner for all persons working on the site.

**ARTICLE 11**  
**CONSTRUCTION SCHEDULES**

**11.1** Unless otherwise specified in the Contract Documents, within twenty-one (21) Days from the Contract Start Date, the Contractor shall submit the following to the Owner for approval:

**11.1.1** A comprehensive Schedule of Submittals required by the Specifications. Said Schedule shall include Submittal dates, required approval dates and date material must be on site.

**11.1.2** The Contractor shall allow a minimum of 14 Days for the Owner and its agents' review of Submittals. No extension of the Contract Time shall be granted for revisions and resubmission. Further, the Contractor shall allow a minimum of eight weeks for testing and Acceptance of the Work by the Owner.

**11.1.3** When the Contract Documents specify a "CPM Schedule" a detailed Critical Path Method Schedule is required using software approved by the Owner and/or Construction Administrator with as many activities as necessary to make the Schedule an effective tool for planning and monitoring the progress of the Work. The Contractor shall show all pertinent activities requiring coordination between trades.

**11.1.4** When the Contract Documents specify a "Construction Schedule" a detailed Construction Schedule is required using software approved by the Owner as 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.

**11.2** Unless otherwise specified under the Contract Documents, the Contractor shall provide a monthly update of the CPM Schedule or Construction Schedule in the format required by the Owner as well as a disk of the updated Schedule and program. If, in the opinion of the Owner, the Work is falling behind Schedule, the Contractor shall submit a revised Schedule demonstrating a recovery plan to ensure Substantial Completion of the Work within the Contract Time.

**11.3** Overtime, increased manpower, and additional shifts: If ordered by the Owner in writing, the Contractor shall work overtime, and/or add additional manpower and/or shifts:

**11.3.1** If the Contractor is not behind Schedule, the Owner will pay the Contractor the actual additional premium portion of the wages for overtime or additional shift work not included in the Contract price, but the Contractor shall not be entitled to Overhead and Profit.

**11.3.2** If the Contractor, through its sole or partial fault or neglect is behind Schedule, the Owner may order the Contractor, at the Contractor's expense, to increase its manpower or to work any overtime or additional shifts or take other action necessary to expedite the Work to meet the Project Schedule.

**11.3.3** If the Schedule is shown to be more than 21 Days behind in any critical activity, overtime, increase manpower and/or additional shifts shall be implemented immediately regardless of who is at fault. A disagreement over the cause of the impact will not relieve the Contractor from the obligation of complying with this Article. Once liability for the impact is determined, compensation will be determined in accordance with 11.3.1 or 11.3.2.

**11.3.4** The Owner reserves the right to suspend activity under Paragraph 11.3. Suspension shall be in writing and at the sole discretion of the Commissioner.

**11.4** Requisitions for partial payment will not be processed until the Contractor has complied with this requirement.

## **ARTICLE 12** **PREFERENCE IN EMPLOYMENT**

**12.1** Should this Contract be for the construction or repair of any building, then in the employment of labor to perform the Work specified herein, preference shall be given to citizens of the United States, who are, and continuously for at least three (3) months prior to the date hereof, have been residents of the labor market area, as established by the State of Connecticut Labor Commissioner, in which such Work is to be done, and if no such qualified person is available, then to citizens who have continuously resided in the county in which the Work is to be performed for at least three (3) months prior to the date hereof, and then to citizens of the state who have continuously resided in the State at least three months prior to the date hereof.

**12.2** Should this Contract be for a public works project other than for the construction, remodeling or repairing of public buildings covered by Connecticut General Statutes 31-52, then in the employment of mechanics, laborers or workmen to perform the Work specified herein, preference will be given to residents of the state who are, and continuously for at least six (6) months prior to the date hereof have been residents of this State, and if no such person is available then to residents of other states.

**12.3** The provisions of this Article shall not apply where the state or any subdivision thereof may suffer the loss of revenue granted or to be granted from any Agency or Department of the federal government as a result of this Article or regulations related thereto.

## **ARTICLE 13** **COMPENSATION FOR CHANGES IN THE WORK**

**13.1** At any time, without invalidating the Contract and by a written order and without notice to the sureties, the Owner, through the Construction Administrator, may order modifications in the Work consisting of additions, deletions or other revisions. Upon request, the Contractor shall supply the Construction Administrator promptly with a detailed proposal for the same, showing quantities of and Unit Prices for the Work and that of any Subcontractor involved.

**13.2** Modifications to the Work will be authorized by a written Change Order, or if necessary to expedite the Work, a written Construction Change Directive, issued by the Owner as provided for in Article 25. Change Orders and Construction Change Directives shall be processed in accordance with the terms of the Contract Documents. Upon receipt of the written Change Order, the Contractor shall proceed with the Work when and as directed.

**13.3** If a Change Order makes the Work less expensive for the Contractor, the proper deductions shall be made from the Contract Sum, said deductions to be computed in accordance with the provisions listed in this Article 13.

**13.4** The Contractor shall not be entitled to an extension of time if in the opinion of the Owner the Additional Work in conjunction with the Work can be performed without impact on the Contract Time.

**13.5** The Contractor may request, and the Owner may grant additional Contract Time when, in the opinion of the Owner, the Contractor has demonstrated that the Additional Work cannot be performed in conjunction with the Work without impact on the original Substantial Completion and/or Acceptance (if applicable) date.

**13.6** The amount of compensation to be paid to the Contractor for any Additional or Deleted Work that results in a Change Order shall be determined in one of the following manners:

**13.6.1 AMOUNT OF COMPENSATION FOR CHANGE ORDER COSTS: LABOR, EQUIPMENT, BENEFITS AND MATERIAL:**

**13.6.1.1 Unit Price:** As stated in the Contract Documents.

**13.6.1.2 Unit Price:** As subsequently agreed upon by the Contractor and Owner

**13.6.1.3 Lump Sum:** Agreed upon sum by the Owner and the Contractor. The Owner may rely on costs, prices, and documentation provided by the Contractor or Subcontractor in agreeing to a Lump Sum. If the Owner believes that additional information is necessary to substantiate the accuracy of the cost, the Owner reserves the right to request and receive additional information from the Contractor. The Lump Sum must be based upon the following itemized costs:

**13.6.1.3.1 Labor:** (Contractor's or Subcontractor's own forces) No Change Order Proposal shall be negotiated if the request is solely for the increased labor rate over those originally carried by the Contractor in its original bid. Additional foreman hours shall not be included unless additional crews are added and/or a compensable time extension is granted. Project Executive time shall not be included as a direct cost as it is part of the overhead mark-up allowed. Project manager hours shall not be included unless a compensable time extension is granted.

**13.6.1.3.2 Material:** (Actual cost to the Contractor or Subcontractor) Cost shall not be based upon list pricing unless it reflects the actual prices being paid and no discounts or other offsets are being received by the Contractor or Subcontractor. No Change Order Proposal shall be negotiated if the request is solely for the escalation of material prices over those originally carried by the Contractor in its original bid.

**13.6.1.3.3 Benefits:** (The established rates of the following benefit costs inherent to the particular labor involved):

**13.6.1.3.3.1** Workers Compensation.

**13.6.1.3.3.2** Federal Social Security.

**13.6.1.3.3.3** Connecticut Unemployment Compensation.

**13.6.1.3.3.4** Fringe Benefits.

**13.6.1.4 Rented Equipment:** (Used directly on the Work and by the Contractor's or Subcontractor's own forces).

**13.6.1.5 Owned Equipment:** (Used directly on the Work and by the Contractor's or Subcontractor's own forces). Daily rate is not to exceed 3% of the monthly rental rate as identified by a nationally recognized construction cost estimating guide or service.

**13.6.1.6 Small Tools:**

Include items such as shovels, picks, rakes, ladders, and power tools which are expected to be utilized on a project. Trade related equipment, hand tools, and power tools normally supplied with the labor or are normally expected to be owned in the performance of the typical work for a trade are not compensable. These costs shall not be approved as part of the Direct Cost of a Change Order as they are included in the Contractor's overhead mark-up percentage.

**13.6.2 OVERHEAD AND PROFIT PERCENTAGES:** (Maximum allowable percentages applied to labor, equipment, and material)

**13.6.2.1** Contractor's mark-up for Work performed by its own forces:

Change Order Amount	Overhead and Profit
\$0 to \$5,000	20%
\$5,001 to \$15,000	17%
\$15,001 to \$25,000	15%
\$25,000 and greater	12%

**13.6.3 OVERHEAD AND PROFIT PERCENTAGES:** (Maximum allowable percentages applied to labor, equipment, benefits and material)

**13.6.3.1** Contractor's mark-up for Work performed by its Subcontractor's forces and not allowable for any subsidiary in which the Contractor has a majority ownership:

Change Order Amount	Overhead and Profit
\$0 and greater	6%

**13.6.4 OVERHEAD AND PROFIT PERCENTAGES:** (Maximum allowable percentages applied to labor, equipment, benefits and material) Subcontractor's mark-up for Work performed by its own forces:

Change Order Amount	Overhead and Profit
\$0 to \$5,000	20%
\$5,001 to \$15,000	17%
\$15,001 to \$25,000	15%
\$25,000 and greater	12%

**13.6.5 OVERHEAD AND PROFIT PERCENTAGES:** (Maximum allowable percentages applied to labor, equipment, benefits and material)

**13.6.5.1** Subcontractor's mark-up for Work performed by its Secondary Subcontractor's forces. Limited to one level (tier) below the Subcontractor and not allowable for any subsidiary in which the Subcontractor has a majority ownership.

Change Order Amount	Overhead and Profit
\$0 and greater	6%

### 13.7 BOND COSTS

**13.7.1** Actual additional bonding costs associated with the value of the Change Order will be compensable only when supported by written documentation by the bonding company that the Change Order requires an increase to the original Performance, Payment, Labor or Material Bond.

**13.7.2** The Contractor shall notify the bonding company at each \$500,000 increase to the contract value as the cumulative result of change orders. A copy of the Consent of Surety must be provided to the Owner prior to the execution of any change order which exceeds each cumulative \$500,000.

**13.8** Trade discounts, rebates, and amounts received from the sales by the Contractor of surplus materials and equipment shall accrue to the Owner.

**13.9** If the parties cannot agree upon a Lump Sum, then the Commissioner, through the Project Manager, may at the option of the Commissioner take the following action(s):

**13.9.1** Issue a Construction Change Directive for the Additional or Deleted Work. The amount of compensation shall be computed by the actual net costs to the Contractor determined by time and material or Unit Prices based upon the same information required in Subparagraphs 13.6.1.3.3.1 through 13.6.1.5:

**13.9.1.1 Labor:** (Contractor's or Subcontractor's own forces).

**13.9.1.2 Material:** (Used by Contractor's or Sub-contractor's own forces).

**13.9.1.3 Benefits:** (The established rates of the following benefit costs inherent to the particular labor involved):

**13.9.1.3.1 Workers Compensation.**

**13.9.1.3.2 Federal Social Security.**

**13.9.1.3.3 Connecticut Unemployment Compensation.**

**13.9.1.3.4 Fringe Benefits.**

**13.9.1.4 Rented Equipment:** (Used directly on the Work and by the Contractor's or Subcontractor's own forces).

**13.9.1.5 Owned Equipment:** (Used directly on the Work and by the Contractor's or Subcontractor's own forces). Daily rate is not to exceed 3% of the monthly rental rate that can be identified by a nationally recognized construction cost estimating guide or service.

**13.9.2** Issue a Change Order adjusting the Contract Sum in the amount as determined by the Commissioner.

**13.10** For any Change Order or Construction Change Directive the Contractor shall, when requested, promptly furnish in a form satisfactory to the Construction Administrator and the Owner a complete detailed accounting of all costs relating to the Additional Work, including but not limited to certified payrolls and copies of accounts, bills and vouchers to substantiate actual costs. Further, the Owner reserves the right to access and make copies of the Contractor's records at any time upon written request from the Commissioner.

**13.11** Failure of the Contractor to negotiate in good faith issues of time and costs or failure to provide requested documentation within fourteen (14) Days, or a time period accepted by the Commissioner, shall constitute a waiver by the Contractor of any claim. In such cases the Owner may elect to issue a unilateral Change Order in an amount deemed to be fair and equitable by the Commissioner. The provisions hereof shall not affect the power of the Contractor to act in case of emergency, threatened injury to persons, or damage to Work on any adjoining property. In this case the Commissioner, through the Project Manager, shall issue a Change Order for such amount as the Commissioner finds to be reasonable cost of such Work.

## **ARTICLE 14** **DELETED WORK**

**14.1** Without invalidating any of the terms of the Contract, the Commissioner may order deleted from the Contract any items or portions of the Work deemed necessary by the Commissioner.

**14.2** The compensation to be deducted from the Contract Sum for such deletions shall be determined in the manner provided for under the provisions of Article 13 or in the event none of the provisions of Article 13 are applicable then by the value as estimated by the Owner.

## **ARTICLE 15** **MATERIALS: STANDARDS**

**15.1** Unless otherwise specifically provided for in the Specifications, all equipment, materials and articles incorporated in the Work are to be new and of the best grade of their respective kinds for the purposes. Wherever in the Contract Documents a particular brand, make of material, device, or equipment is shown or specified, the first manufacturer listed in the specification section is to be regarded as the standard. When the specification is proprietary and only one manufacturer is listed, the Contractor shall use the named manufacturer and no Substitutions or Equals will be allowed.

**15.2** Any other brand, make of material, device, equipment, procedure, etc. which is a deviation from the specified requirement is prohibited from use, but may be considered by the Owner for approval as an Equal or Substitution. The Contractor is to adhere to the specific requirements of the Contract Documents. Substitutions are discouraged and are only approved by the Commissioner as an exception.

**15.3 Submittals – Equals and Substitution Requests:**

**15.3.1 Substitution of Materials and Equipment before Bid Opening.** The Owner will consider requests for Equals or Substitutions, if made prior to the receipt of the Bid. The information on all materials shall be consistent with the information herein.

**15.3.1.1 Statement of Variances –** a statement of variances must list all features of the proposed Substitution which differ from the Drawings, Specifications and/or product(s) specified and must further certify that the Substitution has no other variant features. A request will be denied if submitted without sufficient evidence.

**15.3.1.2 Substitution Denial –** any Substitution request not complying with the above requirements will be denied. Substitution request sent after the deadline established in the Notice to Bidder will be denied.

**15.3.1.3** An addendum shall be issued to inform all prospective Bidders of any accepted Substitution in accordance with Owner's addenda procedures.

**15.3.2 Substitution of Materials and Equipment After Bid Opening:** Subject to the Architect or Engineer's determination, if the material or equipment is Equal to the one specified or pre-qualified and the CT DCS Project Manager's approval of such determination, Substitution of Material or Equipment may be allowed after the Letter of Award is issued only:

**15.3.2.1** If the specified or pre-qualified item is delayed by unforeseeable contingencies beyond the control of the Contractor which would cause a delay in the Project completion;

**15.3.2.2** If any specified or pre-qualified item is found to be unusable or unavailable due to a change by the manufacturer or other circumstances; or

**15.3.2.3** If the Contractor desires to provide a more recently developed material, equipment, or manufactured model from the same named manufacturer than the one specified or pre-qualified; or

**15.3.2.4** If the specified material and/or equipment inadvertently lists only a single manufacturer.

**15.4** Contractor shall submit each request for Equal or Substitution to the Architect or Engineer who shall review each request and make the following recommendations to the Owner:

**15.4.1** Acceptance or non-acceptance of the adequacy of the submission and required back-up,

**15.4.2** Determination of the category of the request for Substitution or Equal, and

**15.4.3** Overall recommendation for approval or rejection of the Substitution or Equal. The determination of the category as a Substitution may be grounds for an immediate rejection by the Owner.

**15.5** Approval of the Owner for each Equal or Substitution shall be obtained before the Contractor proceeds with the Work. The decision of the Commissioner, in this regard, shall be final and binding on the Contractor.

**15.6** No extension of time will be allowed for the time period required for consideration of any Substitution or Equal. No extension of time will be allowed and no responsibility will be assumed by the Owner when a Contractor submits a request for Substitution or Equal, whether such request be approved or denied, and the Contractor shall not be entitled to any claim for damages for delay.

**15.7** If the Contractor submits any request for an Equal or a Substitution, he shall bear the burden of proof that such requested Equal or Substitution meets the requirements of the Plans and Specifications.

**15.8** The Contractor shall purchase no materials or supplies for the Work which is subject to any chattel mortgage or which are under a conditional sale or other agreement by which an interest is retained by the seller. The Contractor warrants that the Contractor has good title to all materials and supplies used by him in the Work.

**15.9** All products and systems supplied to the State as a result of a purchase by a Contractor shall be certified that, to the best of the supplier's knowledge, there are no materials that are classified as hazardous materials being used within the assembly. Hazardous materials include, but are not limited to, products such as asbestos, lead, and other materials that have proven to cause a health risk by their presence.

**ARTICLE 16**  
**INSPECTION AND TESTS**

**16.1** The purpose of the inspections will be to assure that the Work is performed in accordance with the Contract Documents. These inspections shall include, but not be limited to, all inspections and testing as required by the Owner, and any authorities have jurisdiction.

**16.2** All material and workmanship, if not otherwise designated by the Specifications, shall be subject to inspection, examination and test by the Commissioner at any and all times during manufacture and/or construction and at any and all places where such manufacture and/or construction is carried on. The Contract Documents additionally identify the parties responsible for performing and paying for the required testing and inspections. All required tests performed in a laboratory will be obtained and paid for by the Owner, except when the tests show the Work to be defective. The Contractor shall pay for all the costs associated with re-tests and re-inspections for all tests and inspections which fail. The Owner will issue a deduct Change Order to recover said retesting costs from the Contractor. All other tests, unless otherwise specified, shall be made at the Contractor's expense. Notice of the time of all tests to be made at the site shall be given to all interested parties, including the Owner.

**16.3** Without additional cost to the Owner, the Contractor shall promptly furnish facilities, labor and materials necessary to coordinate and perform operational tests and checkout of the Work. The Contractor shall furnish promptly all reasonable facilities, labor, and materials necessary to make all such testing safe and convenient.

**16.4** If, at any time before final payment and Acceptance of the Work, the Commissioner considers it necessary or advisable to examine of any portion of the Work already completed by removing or tearing out the same, the Contractor shall, upon request, furnish promptly all necessary facilities, labor, and materials. If such Work is found to be defective in any material respect, as determined by the Owner, because of a fault of the Contractor or any of the Contractor's Subcontractors, or if any Work shall have been covered without the approval or consent of the Commissioner (whether or not it is found to be defective), the Contractor shall be liable for testing costs and all costs of correction, including removal and/or demolition of the defective Work, including labor, material, and testing, including labor, material, re-testing or re-inspecting, services of required consultants, additional supervision, the Commissioner's and the Construction Administrator's administrative costs, and other costs for services of other consultants.

**16.5 Cost of Systems Commissioning Retesting:** The cost to retest a pre-functional or functional test, if the Contractor is responsible for the deficiency, shall be the Contractor's. If the Contractor is not responsible, any cost recovery for retesting costs shall be negotiated with the Contractor.

**16.5.1** For a deficiency identified, not related to any pre-functional checklist or start-up fault, the following shall apply: The Commissioning Agent (CxA) and Construction Administrator will direct the retesting of the equipment once at no "charge" to the Contractor for their time. However, the Commissioning Agent's and Construction Administrator's time for additional testing will be charged to the Contractor.

**16.5.2** The time for the Systems Commissioning Agent and Construction Administrator to direct any retesting required because a specific pre-functional checklist or start-up test item, reported to have been successfully completed, but determined during functional testing to be faulty, will be back charged to the Contractor.

**16.5.3** Any required retesting by any Subcontractor shall not be considered a justified reason for a claim of delay or for a time extension by the Contractor.

**ARTICLE 17**  
**ROYALTIES AND PATENTS**

**17.1** If the Contractor desires to use any design, device, material or process covered by a patent or copyright, the Contractor shall provide for such use by suitable legal agreement with the holder of said patent or copyright. The Contractor shall furnish a copy of this legal agreement to the Owner.

**17.2** The Contractor shall indemnify and hold harmless the Owner and Construction Administrator for any costs, expenses and damage which it may be obliged to pay by reason of any infringement of a patent or a copyright, at any time during the prosecution or after the Final payment of the Work.



**ARTICLE 18**  
**SURVEYS, PERMITS AND REGULATIONS**

**18.1** Unless otherwise provided for, the Contractor shall furnish surveys necessary for the execution of the Work. The Owner will furnish the Contractor with two base lines and a benchmark.

**18.2** The Contractor shall obtain and pay for permits and licenses necessary for the execution of the Work and the occupancy and use of the completed Work.

**18.3** The Contractor shall give all notices and comply with all laws, ordinances, rules and regulations including building and fire safety codes relating to the performance of the Work.

**18.4** If underground utilities may be involved in part of the Work the Contractor is required to request "Call-Before-You-Dig" to verify the location of underground utilities at least (3) Working Days, as further defined under Paragraph 1.71 herein, prior to the start of any excavation. The Contractor shall also notify the Owner and Agency at least (3) Working Days prior to the start of any excavation. If "Call-Before-You-Dig" fails or refuses to respond to the Contractor's request, then the Contractor shall obtain the services of a qualified underground utility locating firm, at no additional cost to the Owner, to verify locations of underground utilities prior to the start of any excavation. The Contractor shall be held responsible for providing safety, protecting the Work and protecting workmen as necessary to perform the Work. The Contractor shall be responsible for maintaining and protecting all original utility mark-out at no additional cost to the Owner.

**ARTICLE 19**  
**PROTECTION OF THE WORK, PERSONS AND PROPERTY**

**19.1** The Contractor shall continuously and adequately protect the Work against damage from any cause, and shall protect materials and supplies furnished by the Contractor or Subcontractors, whether or not incorporated in the Work, and shall make good any damage unless it be due directly to errors in the Contract Documents or is caused by agents or employees of the Owner.

**19.2** To the extent required by law, by public authority, or made necessary in order to safeguard the health and welfare of the personnel or occupants of any of the state institutions, the Contractor shall adequately protect adjacent property and persons, and provide and maintain all facilities, including but not limited, to passageways, guard fences, lights, and barricades necessary for such protection.

**19.3** The Contractor shall take all necessary precautions for the safety of employees on the Work and shall comply with applicable provisions of federal and state safety laws and building codes to prevent accidents or injury to persons on, about, or adjacent to the premises where the Work is being performed. The Contractor shall also comply with the applicable provisions of the Associated General Contractors' "Manual of Accident Prevention in Construction", the standards of the Connecticut Labor Department and Occupational Safety and Hazard Association (OSHA).

**19.4** The Contractor shall erect and properly maintain at all times, as required by the conditions and progress of the Work, all necessary safeguards for the protection of employees of the State and the public, and shall post danger signs warning against any dangerous condition or hazard created by such things as protruding nails, well holes, elevator hatchways, scaffolding, window openings, excavations, tripping hazards or slipping, stairways and falling materials.

**19.5** The Contractor shall designate a qualified and responsible on-site staff person, whose duty shall be the prevention of accidents. The name and position of the designated person shall be reported to the Owner by the Contractor at the commencement of the Contract.

**19.6** The Contractor shall at all times protect excavations, trenches, buildings, and all items of Work from damage by rain, water from melted snow or ice, surface water run off and subsurface water usual for the vicinity at the time of operations; and provide all pumps and equipment and enclosures to insure such protection.

**19.7** The Contractor shall construct and maintain all necessary temporary drainage and provide all pumping necessary to keep excavation, basements, footings and foundations free of water.

**19.8** The Contractor shall remove all snow and ice as may be required for access to the site and proper protection and prosecution of the Work.

**19.9** The Contractor shall install bracing, shoring, sheathing, sheet piling, caissons and any other underground facilities as required for safety and proper execution of the Work, and shall remove this portion of the Work when no longer necessary.

**19.10** During cold weather the Contractor shall protect all Work from damage. If low temperature makes it impossible to continue operations safely in spite of cold weather precautions, the Contractor may cease Work upon the written approval of the Commissioner.

**ARTICLE 20  
TEMPORARY UTILITIES**

**20.1** Unless expressly provided for otherwise in the Contract Documents, the Contractor shall include in the proposed contract bid price as stated on the Bid Proposal Form, the costs of all temporary utilities required for Project completion and protection of the Work. Said temporary utilities include, but are not limited to, lighting, heating, cooling, electrical power, water, telephone, sanitary facilities, and potable water.

**ARTICLE 21  
CORRECTION OF WORK**

**21.1** The Contractor shall promptly and without expense to the Owner remove from the premises all materials rejected by or unacceptable to the Commissioner as failing to conform to the Contract Documents, whether incorporated in the Work or not.

**21.2** The Contractor shall promptly and without expense to the Owner replace any such materials, which do not conform to the Contract Documents, and shall bear the expense of making good all Work of other Contractors or Subcontractors destroyed or damaged by such removal or replacement.

**21.3** If the Contractor, after receipt of notice from the Owner, shall fail to remove such rejected or unacceptable materials within a reasonable time as fixed in said notice, the Owner may remove and store such materials at the expense of the Contractor.

**21.4** Such action shall not affect the obligation of the Contractor to replace and complete assembly and installation of the Work and to bear the expenses referred to above. Prior to the correction of rejected or unacceptable Work or if the Commissioner deems it inexpedient or undesirable to correct any portion of the Work which was rejected, deemed unacceptable, or not done in accordance with the Contract Documents, the Contract Sum shall be reduced by such amount as, in the judgment of the Commissioner, shall be equitable.

**21.5** No extension of time will be given to the Contractor for correction of rejected or unacceptable Work. All significant punchlist Work shall be completed before Substantial Completion is determined. The remaining minor punchlist Work, as determined by the Commissioner, shall be completed within **ninety (90) Days** of established Substantial Completion date.

**21.6** Final Payment shall not relieve the Contractor of responsibility for the defects in material or workmanship.

**21.7** Unless expressly provided for otherwise in the Contract Documents, the Contractor shall remedy any rejected or unacceptable Work, and any Work found to be not conforming to the Contract Documents which is discovered within 18 Months after the date of Substantial Completion. The Contractor shall pay for any damage to other Work caused by such nonconforming Work or any damage created in correcting the nonconforming Work.

**ARTICLE 22  
GUARANTEES and WARRANTIES**

**22.1** Unless expressly provided for otherwise in the Contract Documents, the Contractor shall provide a Warranty on the Work for an **18-Month** period from the date of Substantial Completion. The Contractor shall warrant that the equipment, materials and workmanship are of good quality and new, unless permitted elsewhere by the Contract Documents, and that the Work shall be free from defects not inherent in the quality required or permitted and that the Work conforms to the Contract Documents.

**22.2** Disclaimers and limitations from manufactures, Subcontractors, suppliers or installers to the Contractor shall not relieve the Contractor of the Warranty on the Work. The Contract Documents detail the related damages, reinstatement of Warranty, replacement cost and Owner's recourse.

**ARTICLE 23  
CUTTING, FITTING, PATCHING, AND DIGGING**

**23.1** The Contractor will perform or will cause the Subcontractors to perform all cutting, fitting, or patching of the portion(s) of the Work that may be required to make the several parts thereof joined and coordinated in a manner satisfactory to the Commissioner and in accordance with the Plans and Specifications.

**23.2** The responsibility for defective or ill-timed Work shall be with the Contractor, but such responsibility shall not in any way relieve the Subcontractor who performed such Work. Except with the consent of the Commissioner, neither the Contractor nor any of its Subcontractors shall cut or alter the Work of any other Contractor or Subcontractor.

**ARTICLE 24**  
**CLEANING UP**

**24.1** The Contractor shall, on a daily basis, keep the premises free from accumulations of waste material or rubbish.

**24.2** Prior to Acceptance of the Work, the Contractor shall remove from and about the site of the Work, all rubbish, all temporary structures, tools, scaffolding, and surplus materials, supplies, and equipment which may have been used in the performance of the Work. If the Commissioner in his sole discretion determines that the Contractor has failed to clean the work site, the Owner may remove the rubbish and charge the cost of such removal to the Contractor. A deduct Change Order will be issued by the Owner to recover such cost.

**ARTICLE 25**  
**ALL WORK SUBJECT TO CONTROL OF THE COMMISSIONER**

**25.1** The Commissioner hereby declares that the CT DCS Project Manager is the Commissioner's only authorized representative to act in matters involving the Owner's, and/or Architect's or Engineer's, ability to revoke, alter, enlarge or relax any requirement of the Contract Documents; to settle disputes between the Contractor and the Construction Administrator; and act on behalf of the Commissioner. In all such matters, the provisions of Articles 13 and 14 herein shall guide the CT DCS Project Manager.

**25.2** In no event may the Contractor act on any instruction of the Agency without written consent of the Owner. In the event the Contractor acts without such consent, he does so at his own risk and at his own expense, not only for the Work performed, but for the removal of such Work as determined necessary by the Commissioner.

**25.3** In the performance of the Work, The Contractor shall abide by all orders, directions, and requirements of the Commissioner at such time and places and by such methods and in such manner and sequence as the Commissioner may require.

**25.4** The Commissioner shall determine the amount, quality, acceptability and fitness of all parts of the Work, shall interpret the plans, Specifications, Contract Documents and extra work orders and shall decide all other questions in connection with the Work.

**25.5** The Contractor shall employ no plant, equipment, materials, methods, or persons to which the Commissioner objects and shall remove no plant materials, equipment, or other facilities from the site of the Work without the permission of the Commissioner. Upon request, the Commissioner shall confirm in writing any oral order, direction, requirement or determination.

**25.6** In accordance with Section 4b-24 of the Connecticut General Statutes, the public auditors of the State of Connecticut and the auditors or accountants of the Commissioner of Construction Services shall have the right to audit and make copies of the books of any Contractor employed by the Commissioner.

**ARTICLE 26**  
**AUTHORITY OF THE CONSTRUCTION ADMINISTRATOR**

**26.1** The Construction Administrator employed by the Commissioner is authorized to inspect all Work for conformance to the Contract Documents. The Construction Administrator is authorized to reject all Work found to be defective, unacceptable and nonconforming to the Contract Documents. Such inspections and rejections may extend to all or any part of the Work, and to the preparation or manufacture of the material to be used.

**26.2** The Construction Administrator is not empowered to revoke, alter, enlarge, or relax any requirements of the Contract Documents, or to issue instructions contrary to the Contract Documents. The Construction Administrator shall in no case act as foreman or perform other duties for the Contractor, nor shall the Construction Administrator interfere with the management of the Work by the Contractor. Any advice, which the Construction Administrator may give the Contractor, shall in no way be construed as binding the Commissioner or Owner in any way, nor releasing the Contractor from the fulfillment of the terms of the Contract.

**26.3** In any dispute arising between the Contractor and the Construction Administrator with reference to inspection and rejection of the Work, the Construction Administrator may suspend Work on the non-compliant portion of the Work until the dispute can be referred to and decided by the Commissioner.

**ARTICLE 27**  
**SCHEDULE OF VALUES, APPLICATION FOR PAYMENT**

**27.1** Immediately after the signing of the Contract, the Contractor shall furnish for the use of the Commissioner, as a basis for estimating partial payments, a certified Schedule of Values, totaling the Contract Sum and broken down into quantities and unit costs, as outlined in the Contract Documents and as directed by the Owner. The Schedule of Values must reflect true costs and be in sufficient detail to be an effective tool for monitoring the progress of the Work. Upon request of the Commissioner; the Contractor shall supply copies of signed Contracts, vendor quotations, etc. as back up to the Schedule of Values.

**27.2** Approval of the Schedule of Values by the Commissioner is required prior to any payment by the Owner.

**27.3** The Schedule of Values shall include a breakdown of the Contractor's general condition costs.

**27.3.1** Non-recurring costs, (i.e. Mobilization costs, utility hook-ups, temporary heat) will be paid at the time of occurrence.

**27.3.2** Reoccurring costs will be paid in proportion to the percent of completion of the Project.

**27.3.3** Further detail can be found in the General Requirements 01.29.76; paragraphs 1.3.B.4 for this project.

**27.4** The Schedule of Values shall include a breakdown of Contract closeout costs including systems certification testing and acceptance, training, Warranties, Guarantees, As-Built Drawings and attic stock.

**27.5** The Contractor shall make periodic applications for payment, which shall be subdivided into categories corresponding with the approved Schedule of Values and shall be in such numbers of copies as may be designated by the Commissioner.

**ARTICLE 28**  
**PARTIAL PAYMENTS**

**28.1** Commissioner will examine the Contractor's Applications For Payments to determine, in the opinion of the Commissioner, the amounts that properly represent the value of the Work completed and the materials suitably stored on the site.

**28.2** In making such Application For Payment for the Work, there shall not be more than **seven and five-tenths percent (7.5%)** deducted from the amount of each Application for Payment to be retained by the Owner as Retainage until Acceptance of the Work.

**28.2.1** The following criteria shall be utilized in the reduction of Retainage withheld: At fifty percent (50%) completion of the Work the Retainage shall be reduced to **five percent (5%)**. All subsequent Applications for Payment shall be subject to **five percent (5%)** Retainage. Upon Substantial Completion, and in the Commissioner's sole discretion and based upon the factors set forth in **Section 28.3**, the Retainage may be reduced upon the request of the Contractor and recommendation of the DAS Project Manager. In the event of a reduction in Retainage to **below five percent (5%)**, the minimum Retainage withheld shall not be less than the DAS Project Manager's estimate of the remaining Work or **two and five-tenths percent (2.5%)**, whichever is greater. All requests for Retainage Reduction shall be done on **CT DAS Form 7048 General Contractor Retainage Reduction Request**, a sample of which can be found at the end of these General Conditions.

**28.2.2** Subsequent to Substantial Completion, in limited circumstances, at the sole discretion of the Commissioner and based upon factors set forth in Section 28.3, a reduction of Retainage below **two and five-tenths percent (2.5%)** may be considered.

**28.2.3** A "Good" Contractor's Performance Evaluation score shall be defined as a minimum total score of sixty percent (60%).

**28.3** The decision of the Commissioner to reduce the Retainage rate will be based upon the **Contractor's Performance Evaluation** score for completed portions of the Work as set out above and other factors that the Commissioner may find appropriate as follows:

**28.3.1** The Contractor's timely submission of an appropriate and complete CPM Schedule or Construction Schedule and Schedule of Values, in compliance with the Contract requirements and the prompt resolution of the Owner's and/or Architect's or Engineer's comments on the submitted material resulting in an appropriate basis for progress of the Work.

**28.3.2** The Contractor's timely and proper submission of all Contract Document required submissions: including, but not limited to, Shop Drawings, material certificates and material samples and the prompt resolution of the Owners and/or Architect's or Engineer's comments on the submitted material, resulting in an appropriate progress of the Work.

**28.3.3** The Contractor's provision of proper and adequate supervision and home office support of the Project.

**28.3.4** The Work completed to date has been installed or finished in a manner acceptable to the Owner.

**28.3.5** The progress of the Work is consistent with the approved CPM Schedule or Construction Schedule.

**28.3.6** All approved credit change orders have been invoiced.

**28.3.7** All Change Order requests for pricing are current.

**28.3.8** The Contractor has and is maintaining a clean worksite in accordance with the Contract Documents.

**28.3.9** All Subcontractor payments are current at the time of reduction request.

**28.3.10** Contractor is compliant with set-aside provisions of the contract.

**28.3.11** 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 State of Connecticut Department of Construction Services (CT 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.

**28.4** No payments will be made for improperly stored or protected materials or unacceptable Work.

**28.5** At his or her sole discretion, the Commissioner may allow to be included in the monthly requisitions payment requests for materials and equipment stored off the site.

**28.5.1** In the event the Commissioner allows the Contractor to include in its requisitions payment requests for materials and equipment stored off the site, the Contractor shall also submit any additional bonds and/or insurance certificates relating to off-site stored materials and equipment, and follow such other procedures as may be required by the State to obtain the Commissioner's approval of such requests.

**28.5.2** The Architect or Engineer, or Construction Administrator shall have inspected said materials and equipment and recommended payment therefore. The Contractor shall pay for the cost of the Architect's or Engineer's, or Construction Administrator's time and expense in performing these inspection services.

**ARTICLE 29**  
**DELIVERY OF STATEMENT SHOWING**  
**AMOUNTS DUE FOR WAGES, MATERIALS, AND SUPPLIES**

**29.1** For each Application for Payment under this Contract, the Owner reserves the right to require the Contractor and every Subcontractor to submit a written verified statement, in a form satisfactory to the Owner, showing in detail all amounts then due and unpaid by such Contractor or Subcontractor for daily or weekly wages to all laborers employed by it for the performance of the Work or to other persons for materials, equipment or supplies delivered at the site.

**29.2** The term "laborers" as used herein shall include workmen, workwomen, and mechanics.

**29.3** Failure to comply with this requirement may result in the Owner withholding the Application for Payment pursuant to Article 28.

**ARTICLE 30**  
**SUBSTANTIAL COMPLETION AND ACCEPTANCE**

**30.1 Substantial Completion:**

**30.1.1** When the Contractor considers that the Work or a portion thereof is Substantially Complete, the Contractor shall request an inspection of said Work in writing to the Construction Administrator. The request shall certify that the Contractor has completed its own inspection prior to the request and that the Contractor is compliant with all requirements of Section 01 77 00 of the General Requirements. The request must also include a statement that a principal or senior executive of the Contractor is ready, willing and able to attend a walk through inspection with the Architect or Engineer.

**30.1.2** Upon receipt of the request, the Architect or Engineer, Construction Administrator and Owner, will make an inspection to determine if the Work or designated portion thereof is Substantially Complete. A principal or senior executive of the Contractor shall accompany the Architect or Engineer during each inspection/re-inspection. If the inspection discloses any item, whether or not included on the inspection list, which is not in accordance with the requirements of the Contract Documents, the Contractor shall, before issuance of the Certificate of Substantial Completion, complete or correct such item.

**30.1.3** The Contractor shall then submit a request for another inspection. The determination of Substantial Completion is solely within the discretion of the Owner. Any costs for re-inspection beyond one, shall be at the expense of the Contractor and such costs will be recovered by issuance of a credit Change Order. When the Work or designated portion thereof is determined to be Substantially Complete, the Contractor will be provided a Certificate of Substantial Completion from the Owner. The Certificate of Substantial Completion shall establish the date when the responsibilities of the Contractor for security, maintenance, heat, utilities, damage to the Work, and insurance, are transferred to the Owner and shall fix the time within which the Contractor shall finish all items on the inspection list accompanying the Certificate. If the punch list is not complete in **90 Days**, the Owner reserves the right to complete the outstanding punch list items with their own forces or by awarding separate contracts and to deduct the cost thereof from the amounts remaining due to the Contractor.

**30.1.4** The Certificate of Substantial Completion shall be signed by the Construction Administrator, Owner, and Architect or Engineer. Upon Substantial Completion of the Work or designated portion thereof and upon application by the Contractor and certification by the Construction Administrator and Architect or Engineer, the Owner shall make payment reflecting adjustment in Retainage, if any, for such Work or portion thereof as provided in the Contract Documents.

**30.2 Acceptance:**

**30.2.1** Upon completion of the Work, the Contractor shall forward to the Construction Administrator a written notice that the Work is ready for inspection and Acceptance.

**30.2.2** When the Work has been completed in accordance with terms and conditions of the Contract Documents as determined by the Owner a Certificate of Acceptance shall be issued by the Owner.

**ARTICLE 31  
FINAL PAYMENT**

**31.1** The Owner reserves the right to retain for a period of thirty (30) Days after filing of the Certificate of Acceptance the amount therein stated less all prior payments and advances whatsoever to or for the account of the Contractor.

**31.2** All prior estimates and payments, including those relating to extra or additional Work, shall be subject to correction by the Final Payment.

**31.3** No Application for Payment, Final or Partial, shall act as a release to the Contractor or the Contractor's sureties from any obligations under this Contract.

**31.4** The Architect or Engineer and Construction Administrator will promptly issue the Certificate for Payment, stating that to the best of their knowledge, information and belief, and on the basis of their observations and inspections, the Work has been completed in accordance with terms and conditions of the Contract Documents and that the entire balance found to be due the Contractor and noted in said Final Payment is due and payable.

**31.5** Final Payment shall not be released until a Certificate of Acceptance and a Certificate of Compliance have been issued.

**31.6** Neither Final Payment nor any Retainage shall become due until the Contractor submits to the Owner the following:

**31.6.1** An affidavit that payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which the Owner or the Owner's property might be responsible or encumbered (less amounts withheld by Owner) have been paid or otherwise satisfied.

**31.6.2** A certificate evidencing that insurance required by the Contract Documents to remain in force after Final Payment is currently in effect and will not be canceled or allowed to expire without at least 30 Days prior written notice to the Owner.

**31.6.3** A written statement that the Contractor knows of no substantial reason that the insurance will not be renewable to cover the period required by the Contract Documents.

**31.6.4** Written consent of surety, if any, to Final Payment.

**31.6.5** If required by the Owner, other data establishing payment or satisfaction of obligations, such as receipts, releases and waivers of liens, claims, security interests or encumbrances arising out of the Contract, to the extent and in such form as may be designated by the Owner. If a Subcontractor refuses to furnish a release or waiver required by the Owner, the Contractor may furnish a bond satisfactory to the Owner to indemnify the Owner against such lien. If such lien remains unsatisfied after payments are made, the Contractor shall refund to the Owner all money that the Owner may be compelled to pay in discharging such lien, including all costs and reasonable attorney's fees.

**ARTICLE 32**  
**OWNER'S RIGHT TO WITHHOLD PAYMENTS**

**32.1** The Commissioner may withhold a portion of any Payment due the Contractor that may, in the judgment of the Commissioner, be necessary:

**32.1.1** To assure the payment of just claims then due and unpaid to any persons supplying labor or materials for the Work.

**32.1.2** To protect Owner from loss due to defective, unacceptable or non-conforming Work not remedied by the Contractor.

**32.1.3** To protect the Owner from loss due to injury to persons or damage to the Work or property of other Contractors, Subcontractors, or others caused by the act or neglect of the Contractor or any of its Subcontractors.

**32.2** The Owner shall have the right to apply any amount withheld under this Article as the Owner may deem proper to satisfy protection from claims. The amount withheld shall be considered a payment to the Contractor.

**32.3** The Owner has the right to withhold payment if the Contractor fails to provide accurate submissions of Submittals, up date the status including but not limited to the following: As-Built Drawings, request for information (RFI) log, Schedule, submittal log, Change Order log, certified payrolls and daily reports and all other requirement of the Contract Documents.

**32.4** If a Subcontractor refuses to furnish a release or waiver required by the Owner, the Contractor may furnish a bond satisfactory to the Owner to indemnify the Owner against such lien. If such lien remains unsatisfied after payments are made, the Contractor shall refund to the Owner all money that the Owner may be compelled to pay in discharging such lien, including all costs and reasonable attorney's fees.

**ARTICLE 33**  
**OWNER'S RIGHT TO STOP WORK OR TERMINATE CONTRACT**

**33.1** The Commissioner shall have the authority to suspend the Work wholly or in part, for such period or periods as the Commissioner considers being in the best interests of the State, or in the interests of public necessity, convenience or safety. During such periods the Contractor shall store all materials and equipment, in such a manner to prevent the materials and equipment from being damaged in any way, and the Contractor shall take precautions to protect the Work from damage.

**33.1.1** If the Commissioner, in writing, orders the performance of all or any portion of the Work to be suspended or delayed for an unreasonable period of time (i.e. not originally anticipated, customary, or inherent in the construction industry) and the Contractor believes that additional compensation and/or Contract Time is due as a result of such suspension or delay, the Contractor shall submit to the Commissioner in writing a request for a Contract adjustment within 7 Days of receipt of the notice to resume Work. The request shall set forth the specific reasons and support for said adjustment.

**33.1.2** The Commissioner shall evaluate any such requests received. If the Commissioner agrees that the cost and/or time required for the performance of the Contract has increased as a result of such suspension and that the suspension was caused by conditions beyond the control of and not the fault of the Contractor, its suppliers, or Subcontractors, and was not caused by weather, then the Commissioner will make a reasonable adjustment, excluding profit, of the Contract terms. The Commissioner will notify the Contractor of the determination as to what adjustments of the Contract, if any, that the Commissioner deems warranted.

**33.1.3** No Contract adjustment will be made unless the Contractor has submitted the request for adjustment within the time prescribed.

**33.1.4** No Contract adjustment will be made under this Article to the extent that performance would have been suspended or delayed by any other cause within the Contractor's control or by any factor for which the Contractor is responsible under the Contract; or that such an adjustment is provided for or excluded under other term or condition of this Contract.

**33.2 Termination for Convenience:** Notwithstanding any provision or language in the Contract to the contrary, the State may terminate the Contract for convenience whenever the Commissioner determines at his sole discretion that such termination is in the best interests of the State. Any such termination shall be effected by delivery to the Contractor of a written Notice of Termination for Convenience specifying the extent to which performance of Work under the Contract is terminated, and the date upon which such termination shall be effective.

**33.2.1** In the event of such termination, the Contractor shall be entitled to reasonable compensation as determined by the Commissioner, however, no claim for lost Overhead or Profits shall be allowed.

**33.2.2** All Work and materials obtained by the Contractor for the Work, that have been incorporated into the Work, inspected, tested as required, accepted by the Commissioner, and paid for by the State, shall become the property of the State.

**33.2.3** Materials obtained by the Contractor for the Work that have been inspected, tested as required, and accepted by the Commissioner, and that are not incorporated into the Work, shall, at the option of the Commissioner, be purchased from the Contractor at actual cost as shown by receipted bills. To this cost shall be added all actual costs for delivery at such points of delivery as may be designated by the Commissioner, as shown by actual cost records.

**33.2.4** Termination of the Contract for convenience shall not relieve the Contractor or its surety of their responsibilities for the completed Work, nor shall it relieve the Contractor's surety of its obligations to ensure completion of the Work and to pay legitimate claims arising out of the Work.

**33.3 Termination for Cause:**

**33.3.1** The Commissioner may give notice in writing to the Contractor and its surety of any particular delay, neglect, or default of the Contractor due to one or more of the following:

**33.3.1.1** Failure to begin the Work within the time specified for same in the Contract Documents.

**33.3.1.2** Failure to perform the Work with sufficient workmen, equipment or materials to ensure the prompt completion of the Work within the time specified in the Contract.

**33.3.1.3** Unsuitable performance of the Work or failure to remedy or redo such work as DAS Project Manager shall reject as defective, unsuitable, or noncompliant with Contract requirements.

**33.3.1.4** Failure or refusal to remove material rejected as defective, unsuitable, or noncompliant with Contract requirements.

**33.3.1.5** Discontinuance of the suitable prosecution of the Work for a period of seventy-two (72) hours, excluding Saturdays, Sundays and holidays, without written authorization to do so from the DAS Project Manager.

**33.3.1.6** Failure to recommence discontinued Work within forty-eight (48) hours (excluding Saturdays, Sundays and holidays) after being ordered to do so by the DAS Project Manager.

**33.3.1.7** Insolvency, filing for bankruptcy or any act or occurrence that may render the Contractor financially incapable of completing the Work.

**33.3.1.8** Failure to satisfy any final judgment against it for a period of thirty (30) days.

**33.3.1.9** Making of any assignment for the benefit of creditors.

**33.3.1.10** Violation of any provisions of the Contract Documents.

**33.3.2** If the Contractor or its surety within a period of ten (10) days after the issuance of such notice does not proceed in conformance with the directions set forth therein, or fails to present a remedial plan of operation, satisfactory to the Commissioner, for remedying the acts or failures complained of in the notice, then the Commissioner may, at his discretion, order the surety to complete the Work or, without violating the Contract, take the right to control and prosecute the Work out of the hands of said Contractor and surety, terminating the Contract.



**33.3.3** The Commissioner may appropriate or use any or all stockpiled materials and any and all equipment required by the Contract as may be suitable and necessary for completion of the Work and may enter into an agreement, either by negotiation or public letting, for the completion of said Contract by a party other than the Contractor, according to the terms and provisions thereof, or use such other methods or combinations thereof as in his or her opinion shall be required or desirable for the completion of the Work.

**33.3.4** All costs and charges incurred by the Owner in connection with completing the Work, or as a result of the Contractor's default, shall be deducted from any monies due to or which may become due to the Contractor. In case such expense exceeds the sum that would have been payable under the Contract, then the Contractor and the surety shall be liable for, and shall pay to the State, the amount of the excess. Termination of the Contract shall not relieve the Contractor or its surety of their responsibilities for the completed Work, nor shall it relieve the Contractor's surety of its obligations to ensure completion of the Work and to pay legitimate claims arising out of the Work.

**ARTICLE 34**  
**SUBLETTING OR ASSIGNING OF CONTRACT**

**34.1** The Contract or any portion thereof, or the Work provided for therein, or the right, title, or interest of the Contractor therein may not be sublet, sold, transferred, assigned, or otherwise disposed of to any person, firm, or corporation without the written consent of the Commissioner.

**34.2** No person, firm, or corporation other than the Contractor to whom the Contract was awarded shall be permitted to commence Work at the site of the Contract until such consent has been granted.

**ARTICLE 35**  
**CONTRACTOR'S INSURANCE**

**35.1** The Contractor shall not start Work under the Contract until they have obtained insurance as stated in SECTIONS 00 62 16 CERTIFICATE OF INSURANCE and 00 41 00 BID PROPOSAL FORM of the Project Manual and until the insurance has been approved by the Owner. The Contractor shall not allow any Subcontractor to start Work until the same insurance has been obtained by the Subcontractor and approved by the Owner or the Contractor's insurance provides coverage on behalf of the Subcontractor. The Contractor shall send Certificates of Liability Insurance to the Connecticut Department of Administrative Services/Construction Services, Office of Legal Affairs, Policy and Procurement, 450 Columbus Blvd, Suite 1302, Hartford, CT 06103-1835 unless otherwise directed in writing. For insurance definitions see Article 1 herein. Presented below is a narrative summary of the insurance required.

**35.1.1 Commercial General Liability Insurance:** Insurance including contractual liability, products/completed operations, broad form property damage and independent Contractors. The limits shall be no less than \$1,000,000 each occurrence and \$2,000,000 annual aggregate. Coverage for hazards of explosion, collapse and underground (X-C-U) and for asbestos abatement when applicable to this Contract, must also be included when applicable to the Work to be performed. The State of Connecticut, the Department of Administrative Services, and their respective officers, agents, and employees shall be named as an Additional Insured. This coverage shall be provided on a primary basis.

**35.1.2 Owner's and Contractor's Protective Liability Insurance:** Insurance providing a total limit of \$1,000,000 for all damages arising out of bodily injury or death of persons in any one accident or occurrence and for all damages arising out of injury or destruction of property in any one accident or occurrence and subject to a total (aggregate) limit of \$2,000,000 for all damages arising out of bodily injury to or death of persons in all accidents or occurrences and out of injury to or destruction of property during the policy period. This coverage shall be for and in the name of the State of Connecticut.

**35.1.3 Automobile Liability Insurance:** The operation of all motor vehicles including those owned, non-owned and hired or used in connection with the Contract shall be covered by Automobile Liability Insurance providing for a total limit of \$1,000,000 for all damages arising out of bodily injuries to or death of all persons in any one accident or occurrence and for all damages arising out of injury to or destruction of property in any one accident or occurrence. In cases where an insurance policy shows an aggregate limit as part of the automobile liability coverage, the aggregate limit must be at least \$2,000,000. This coverage shall be provided on a primary basis. Should the Contractor not own any automobiles, the automobile & liability requirement shall be amended to allow the Contractor to maintain only hired and non-owned liability coverage.

**35.1.4 Umbrella Liability Insurance:** Umbrella Liability Insurance, including a drop down provision covering any exhausted underlying aggregate limits in the specified amount shown below of combined single limit each occurrence in excess of the coverages described in subsections 35.1.1 Commercial General Liability Insurance, 35.1.3 Automobile Liability, and 35.1.5 Workers' Compensation and Employer's Liability. The State of Connecticut shall be named as an additional insured. The Umbrella Liability Insurance Limits for the Contractor are based on the Contract Value as specified in the following table.

<b>Umbrella Liability Insurance Table:</b>			
<b>Contract Value</b>			<b>Umbrella Limit</b>
\$1.00	to	\$500,000.00	\$1,000,000.00
\$500,000.01	to	\$1,000,000.00	\$2,000,000.00
\$1,000,000.01	to	\$10,000,000	\$5,000,000.00
\$10,000,000.01	to	\$30,000,000	\$10,000,000.00
\$30,000,000.01	to	\$80,000,000	\$15,000,000.00
\$80,000,000.01	to	\$150,000,000	\$20,000,000.00
\$150,000,000.01	to	\$300,000,000	\$25,000,000.00

**35.1.5 Workers' Compensation and Employer's Liability:** As required by Connecticut Law and **Employers' Liability** with a limit of not less than \$100,000 per occurrence, \$500,000 disease policy limit and \$100,000 disease each employee. When Work is on or contiguous to navigable bodies of waterways and ways adjoining, the Contractor shall include the Federal Act endorsement for the U.S. Longshoremen's and Harbor Workers Act.

**35.1.6 Special Hazards Insurance:** If required, will be stated in the BID PROPOSAL FORM of this Project Manual. This includes coverage for explosion, collapse or underground damage and for asbestos abatement when applicable to this Contract and shall be no less than \$1,000,000 each occurrence.

**35.1.7 Builder's Risk Insurance:** If required, will be stated in the BID PROPOSAL FORM of this Project Manual.

**35.1.8 Inland Marine/Transit Insurance:** With respect to property with values in excess of \$100,000 which is rigged, hauled or situated at the site pending installation, the Contractor shall maintain inland marine/transit insurance provided the coverage is not afforded by a Builder's Risk policy.

**35.1.9** When required to be maintained, the Builder's Risk and/or Inland Marine/Transit Insurance policy shall endorse the State of Connecticut as a Loss Payee and the policy shall state it is for the benefit of and payable to the State of Connecticut.

**35.2 Satisfying Limits Under an Umbrella Policy:** If necessary, the Contractor may satisfy the minimum limits required above for either Commercial General Liability, Automobile Liability, and Employer's Liability coverage under an Umbrella or Excess Liability policy. The underlying limits may be set at the minimum amounts required by the Umbrella or Excess Liability policy provided the combined limits meet at least the minimum limit for each required policy. The Umbrella or Excess Liability policy shall have an Annual Aggregate at a limit not less than two (2) times the highest per occurrence minimum limit required above for any of the required coverages. The State of Connecticut shall be specifically endorsed as an Additional Insured on the Umbrella or Excess Liability policy, unless the Umbrella or Excess Liability policy provides continuous coverage to the underlying policies on a complete "Follow-Form" basis.

**35.3** The Contractor shall, at its sole expense, maintain in full force and effect at all times during the life of the Contract or the performance of Work hereunder, insurance coverage as described herein. Certificates shall include a minimum thirty (30)-day endeavor to notify requirement to the Owner prior to any cancellation or non-renewal.

**35.4** The Contractor shall be fully and solely responsible for any costs or expenses as a result of a coverage deductible, coinsurance penalty, or self-insured retention, including any loss not covered because of the operation of such deductible, coinsurance penalty, or self-insured retention.

**35.5** The requirement contained herein as to types and limits of insurance coverage to be maintained by the Contractor are not intended to and shall not in any manner limit or qualify the liabilities and obligations assumed by the Contractor.

**35.6 Indemnification and Hold Harmless Provisions:**

**35.6.1** The Contractor shall indemnify, defend and hold harmless the State and its officers, representatives, agents, servants, employees, successors and assigns from and against any and all (1) Claims arising, directly or indirectly, in connection with the Contract, including the acts of commission or omission (collectively, the "Acts") of the Contractor or Contractor Parties; and (2) liabilities, damages, losses, costs and expenses, including but not limited to, attorneys' and other professionals' fees, arising, directly or indirectly, in connection with Claims, Acts or the Contract. The Contractor shall use counsel reasonably acceptable to the State in carrying out its obligations under this section. The Contractor's obligations under this section to indemnify, defend and hold harmless against Claims includes Claims concerning confidentiality of any part of or all of the Contractor's bid, proposal or any Records, any intellectual property rights, other proprietary rights of any person or entity, copyrighted or uncopyrighted compositions, secret processes, patented or unpatented inventions, articles or appliances furnished or used in the Performance.

**35.6.2** The Contractor shall not be responsible for indemnifying or holding the State harmless from any liability arising due to the negligence of the State or any third party acting under the direct control or supervision of the State.

**35.6.3** The Contractor shall reimburse the State for any and all damages to the real or personal property of the State caused by the Acts of the Contractor or any Contractor Parties. The State shall give the Contractor reasonable notice of any such Claims.

**35.6.4** The Contractor's duties under this section shall remain fully in effect and binding in accordance with the terms and conditions of the Contract, without being lessened or compromised in any way, even where the Contractor is alleged or is found to have merely contributed in part to the Acts giving rise to the Claims and/or where the State is alleged or is found to have contributed to the Acts giving rise to the Claims.

**35.6.5** The Contractor shall carry and maintain at all times during the term of the Contract, and during the time that any provisions survive the term of the Contract, sufficient general liability insurance to satisfy its obligations under this Contract. The Contractor shall name the State as an additional insured on the policy and shall provide a copy of the policy to the Agency prior to the effective date of the Contract. The Contractor shall not begin Performance until the delivery of the policy to the Agency. The Agency shall be entitled to recover under the insurance policy even if a body of competent jurisdiction determines that the Agency or the State is contributorily negligent.

**35.6.6** Such obligations shall not be construed to negate, abridge, or reduce other rights or obligations of indemnity which would otherwise exist as to any party or person described in General Conditions Article 35.

**35.6.7** This section shall survive the Termination of the Contract and shall not be limited by reason of any insurance coverage.

**ARTICLE 36**  
**FOREIGN MATERIALS**

**36.1** Preference shall be given to articles or materials manufactured or produced in the United States, Canada, and Mexico, (the members of the North American Free Trade Agreement (NAFTA)); and the products shall meet all of the referenced standards and Specifications for conditions of performance, quality, and price with duty being equal.

**36.2** Only articles or materials manufactured or produced in the United States, Canada, and Mexico, (the members of the North American Free Trade Agreement (NAFTA)), will be allowed. The foregoing provisions shall not apply to foreign articles or materials required by the Contract Documents.

**36.3 Buy American Act (BAA):** Any "public building" or "public work" project funded by the American Recovery and Reinvestment Act of 2009 ("ARRA") requires that "all of the iron, steel, and manufactured goods used in the project" must be "produced in the United States" in accordance with the requirements of the Buy American Act (BAA).

**ARTICLE 37**  
**HOURS OF WORK**

**37.1** No person shall be employed to work or be permitted to work more than eight (8) hours in any Day or more than forty (40) hours in any week for any Work provided in the Contract, in accordance with Connecticut General Statute Section 31-57.

**37.2** The operation of such limitation of hours of work may be suspended during an emergency, upon the approval of the Commissioner, in accordance with Connecticut General Statute Section 31-57.

**ARTICLE 38**  
**CLAIMS**

**38.1 General:** When filing a formal claim under Section 4-61 (referred to as "Section 4-61" below) of the Connecticut General Statutes (as revised), either as a lawsuit in the Superior Court or as a demand for arbitration, the Contractor must follow the procedures and comply with the requirements set forth in this Article. This Section does not, unless so specified, govern informal claims for additional compensation which the Contractor may bring before the Department. The Contractor should understand, however, that the Department may need, before the Department can resolve such a claim, the same kinds of documentation and other substantiation that it requires under this Article. It is the intent of the Department to compensate the Contractor for actual increased costs caused by or arising from acts or omissions on the part of the Department that violate legal or contractual duties owed to the Contractor by the Department.

**38.2 Notice of Claim:** Whenever the Contractor intends to file a formal claim against the Department under Section 4-61, seeking compensation for additional costs, the Contractor shall notify the Commissioner in writing (in strict compliance with Section 4-61) of the details of said claim. Such written notice shall contain all pertinent information described in Paragraph 38.5 below. Once formal notice of a claim under Section 4-61(b) (as revised) has been given to the Commissioner, the claimant may not change the claim in any way, in either concept or monetary amount, (1) without filing a new notice of claim and demand for arbitration to reflect any such change, and (2) without the minimum period of six months after filing of the new demand commencing again and running before any hearing on the merits of the claim may be held. The only exception to this limitation will be for damages that continue to accrue after submission of the notice, in ways described and anticipated in the notice.

**38.3 Record Keeping:** The Contractor shall keep daily records of all costs incurred in connection with its Work on behalf of the Department. The daily records shall identify each aspect of the Project affected by matters related to any claim for additional compensation that the Contractor has filed, intends to file, or has reason to believe that it may file against the Department; the specific Project locations where Project work has been so affected; the number of people working on the affected aspects of the Project at the pertinent time(s); and the types and number of pieces of equipment on the Project site at the pertinent time(s). Any potential or anticipated effect on the Project's progress or Schedule which may result in a claim by the Contractor shall be noted contemporaneously with the cause of the effect, or as soon thereafter as possible.

**38.4 Claim Compensation:** The payment of any claim, or any portion thereof, that is deemed valid by the Department shall be made in accordance with the following provisions of this Article:

**38.4.1 Compensable Items:** The liability of the Department for claims will be limited to the following specifically identified items of cost, insofar as they have not otherwise been paid for by the Department, and insofar as they were caused solely by the actions or omissions of the Department or its agents (except that with regard to payment for extra work, the Department will pay to the Contractor the Overhead and profit percentages provided for in Article 13.):

**38.4.1.1** Additional Project-site labor expenses.

**38.4.1.2** Additional costs for materials.

**38.4.1.3** Additional, unabsorbed Project-site Overhead (e.g., for mobilization and demobilization).

**38.4.1.4** Additional costs for active equipment.

**38.4.1.5** For each Day of Project delay or suspension caused solely by actions or omissions of the Department either:

**38.4.1.5.1** an additional ten percent (10%) of the total amount of the costs identified in Subparagraphs 38.4.1.1 through 38.4.1.4 above; except that if the delay or suspension period prevented the Contractor from incurring enough Project costs under Subparagraphs 38.4.1.1 through 38.4.1.4 during that period to require a payment by the Department that would be greater than the payment described in Subparagraph 38.4.1.5.2 below, then the payment for affected home office Overhead and profit shall instead be made in the following *per diem* amount:

**38.4.1.5.2** six percent (6%) of the original total Contract amount divided by the original number of Days of Contract Time. Payment under either 38.4.1.5.1 or 38.4.1.5.2 hereof shall be deemed to be complete and mutually satisfactory compensation for any unabsorbed home office overhead and any profit related to the period of delay or suspension.

**38.4.1.6** Additional equipment costs. Only actual equipment costs shall be used in the calculation of any compensation to be made in response to claims for additional Project compensation. Actual equipment costs shall be based upon records kept in the normal course of business and in accordance with generally accepted accounting principles. Under no circumstances shall Blue Book or other guide or rental rates be used for this purpose (unless the Contractor had to rent the equipment from an unrelated party, in which case the actual rental charges paid by the Contractor, so long as they are reasonable, shall be used). Idle equipment, for instance, shall be paid for based only on its actual cost to the Contractor.

**38.4.1.7** Subcontractor costs limited to, and determined in accordance with, Subparagraphs 38.4.1.1 through 38.4.1.5 above and applicable statutory and case law. Such Subcontractor costs may be paid for by the Department only: (a) in the context of an informal claims settlement; or (b) if the Contractor has itself paid or legally assumed, present unconditional liability for those Subcontractor costs.

**38.4.2 Excusable But Not Compensable Items:** The Contractor may be allowed Days but the Department will have no liability for the following non-compensable items:

**38.4.2.1** Abnormal or unusually severe weather

**38.4.2.2** Acts of God

**38.4.2.3** Force Majeure

**38.4.2.4** Concurrent Delay

**38.4.3 Non-Compensable Items:** The Department will have no liability for the following specifically-identified non-compensable items:

**38.4.3.1** Profit, in excess of that provided for herein.

**38.4.3.2** Loss of anticipated profit.

**38.4.3.3** Loss of bidding opportunities.

**38.4.3.4** Reduction of bidding capacity.

**38.4.3.5** Home office overhead in excess of that provided for in Subparagraph 38.4.1.5 hereof.

**38.4.3.6** Attorneys fees, claims preparation expenses, or other costs of claims proceedings or resolution.

**38.4.3.7** Subcontractor failure to perform

**38.4.3.8** Any other consequential or indirect expenses or costs, such as tort damages, or any other form of expense or damages not provided for in these specifications or elsewhere in the Contract.

**38.5 Required Claim Documentation:** All claims shall be submitted in writing to the Commissioner, and shall be sufficient in detail to enable the Department to ascertain the basis and the amount of each claim, and to investigate and evaluate each claim in detail. As a minimum, the Contractor must provide the following information for each and every claim and sub-claim asserted:

**38.5.1** A detailed factual statement of the claim, with all dates, locations and items of Work pertinent to the claim.

**38.5.2** A statement of whether each requested additional amount of compensation or extension of time is based on provisions of the Contract or on an alleged breach of the Contract. Each supporting or breached Contract provision and a statement of the reasons why each such provision supports the claim must be specifically identified or explained.

**38.5.3** Excerpts from manuals or other texts which are standard in the industry, if available, that support the Contractor's claim.

**38.5.4** The details of the circumstances that gave rise to the claim.

**38.5.5** The date(s) on which any and all events resulting in the claim occurred, and the date(s) on which conditions resulting in the claim first became evident to the Contractor.

**38.5.6** Specific identification of any pertinent document, and detailed description of the substance of any material oral communication, relating to the substance of such claim.

**38.5.7** If an extension of time is sought, the specific dates and number of Days for which it is sought, and the basis or bases for the extension sought. A critical path method, bar chart, or other type of graphical schedule that supports the extension must be submitted.

**38.5.8** When submitting any claim over \$50,000, the Contractor shall certify in writing, under oath and in accordance with the formalities required by the contract, as to the following:

**38.5.8.1** That supporting data is accurate and complete to the Contractor's best knowledge and belief;

**38.5.8.2** That the amount of the dispute and the dispute itself accurately reflects what the Contractor in good faith believes to be the Department's liability;

**38.5.8.3** The certification shall be executed by:

**38.5.8.3.1** If the Contractor is an individual, the certification shall be executed by that individual.

**38.5.8.3.2** If the Contractor is not an individual, the certification shall be executed by a senior company official in charge at the Contractor's plant or location involved or an officer or general partner of the Contractor having overall responsibility for the conduct of the Contractor's affairs.

**38.6 Auditing of Claims:** All claims filed against the Department shall be subject to audit by the Department or its agents at any time following the filing of such claim. The Contractor and its Subcontractors and suppliers shall cooperate fully with the Department's auditors. Failure of the Contractor, its Subcontractors, or its suppliers to maintain and retain sufficient records to allow the Department or its agents to fully evaluate the claim shall constitute a waiver of any portion of such claim that cannot be verified by specific, adequate, contemporaneous records, and shall bar recovery on any claim or any portion of a claim for which such verification is not produced. Without limiting the foregoing requirements, and as a minimum, the Contractor shall make available to the Department and its agents the following documents in connection with any claim that the Contractor submits:

**38.6.1** Daily time sheets and foreman's daily reports.

**38.6.2** Union agreements, if any.

**38.6.3** Insurance, welfare, and benefits records.

**38.6.4** Payroll register.

**38.6.5** Earnings records.

**38.6.6** Payroll tax returns.

**38.6.7** Records of property tax payments.

**38.6.8** Material invoices, purchase orders, and all material and supply acquisition contracts.

**38.6.9** Materials cost distribution worksheets.

**38.6.10** Equipment records (list of company equipment, rates, etc.).

**38.6.11** Vendor rental agreements.

**38.6.12** Subcontractor invoices to the Contractor, and the Contractor's certificates of payments to Subcontractors.

**38.6.13** Subcontractor payment certificates.

**38.6.14** Canceled checks (payroll and vendors).

**38.6.15** Job cost reports.

**38.6.16** Job payroll ledger.

**38.6.17** General ledger, general journal (if used), and all subsidiary ledgers and journals, together with all supporting documentation pertinent to entries made in these ledgers and journals.

**38.6.18** Cash disbursements journals.

**38.6.19** Financial statements for all years reflecting the operations on the Project.

**38.6.20** Income tax returns for all years reflecting the operations on the Project.

**38.6.21** Depreciation records on all company equipment, whether such records are maintained by the company involved, its accountant, or others.

**38.6.22** If a source other than depreciation records is used to develop costs for the Contractor's internal purposes in establishing the actual cost of owning and operating equipment, all such other source documents.

**38.6.23** All documents which reflect the Contractor's actual profit and overhead during the years that the Project was being performed, and for each of the five years prior to the commencement of the Project.

**38.6.24** All documents related to the preparation of the Contractor's bid, including the final calculations on which the total proposed Contract bid price as stated in the Bid Proposal Form was based.

**38.6.25** All documents which relate to the claim or to any sub-claim, together with all documents that support the amount of damages as to each claim or sub-claim.

**38.6.26** Worksheets used to prepare the claim, which indicate the cost components of each item of the claim, including but not limited to the pertinent costs of labor, benefits and insurance, materials, equipment, and Subcontractors' damages, as well as all documents which establish the relevant time periods, individuals involved, and the Project hours and the rates for the individuals.

**38.6.27** The name, function, and pertinent activity of each Contractor's or Subcontractor's official, or employee, involved in or knowledgeable about events that give rise to, or facts that relate to, the claim.

**38.6.28** The amount(s) of additional compensation sought and a break-down of the amount(s) into the categories specified as payable under Paragraph 38.4 above.

**38.6.29** The name, function, and pertinent activity of each Department official, employee, or agent involved in or knowledgeable about events that give rise to, or facts that relate to, the claim.

### **ARTICLE 39** **DIESEL VEHICLE EMISSIONS CONTROL**

**39.1** The Contractor shall be responsible for compliance with the following provisions:

**39.1.1** All Contractor and Subcontractor diesel powered non-road construction equipment with engine horsepower (HP) ratings of 60 HP and above, that are on the Project or are assigned to the Contract for a period in excess of 30 consecutive Days, shall be retrofitted with emission control devices in order to reduce diesel emissions. In addition, all motor vehicles and/or construction equipment (both on-highway and non-road) shall comply with all pertinent State and Federal regulations relative to exhaust emission controls and safety.

**39.1.2** Retrofit emission control devices shall consist of oxidation catalysts, or similar retrofit equipment control technology that is:

**39.1.2.1** Included on the U.S. Environmental Protection Agency (EPA) "Verified Technology List," as may be amended from time to time <http://www.epa.gov/otaq/retrofit/retroverifiedlist.htm> and

**39.1.2.2** Verified by EPA to provide a minimum emissions reduction of 20% particulate matter (PM<sub>10</sub>), 40% carbon monoxide (CO), and 50% hydrocarbons (HC).

**39.1.3** Construction shall not proceed until all diesel powered non-road construction equipment meeting the criteria in provision 39.1.1 have been retrofitted, unless the Commissioner grants a waiver under provision 39.2.

**39.1.4** The Contractor shall at least monthly, assess which diesel powered non-road construction equipment are subject to these provisions. The Contractor shall notify the CT DCS Project Manager of any violations of these provisions.

**39.1.5** Idling of delivery and/or dump trucks, or other diesel powered equipment shall be limited to three (3) minutes during non-active use in accordance with the Regulations of Connecticut State Agencies Section 22a-74-18(b)(3)(C), which states, in part:

*"[N]o person shall cause or allow a Mobile Source to operate for more than three (3) consecutive minutes when such Mobile Source is not in motion, except as follows:*

- *When a Mobile Source is forced to remain motionless because of traffic conditions or mechanical difficulties over which the operator has no control,*
- *When it is necessary to operate defrosting, heating or cooling equipment to ensure the safety or health of the driver or passengers,*
- *When it is necessary to operate auxiliary equipment that is located in or on the Mobile Source to accomplish the intended use of the Mobile Source,(To bring the Mobile Source to the manufacturer's recommended)*
- *When a Mobile Source is in queue to be inspected by U.S. military personnel prior to gaining access to a U.S. military installation."*

**39.1.6** All Work shall be conducted to ensure that no harmful effects are caused to adjacent Sensitive Receptor Sites. Diesel powered engines shall be located away from fresh air intakes, air conditioners, and windows.

**39.1.7** If any diesel powered non-road construction equipment is found to be in non-compliance with these provisions by the CT DCS Project Manager, the Contractor will be issued a Non-Conformance Notice and given a 24 hour period in which to bring the equipment into compliance or remove it from the Project. The Contractor's failure to comply with these provisions shall be reason to withhold payment as described in Article 33.

**39.1.8** Any costs associated with these provisions shall be included in the general cost of the contract. In addition, there shall be no time granted to the Contractor for compliance with these provisions. The Contractor's compliance with these provisions and any associated regulations shall not be grounds for a Change Order.

**39.2** The Commissioner reserves the right to waive all or portions of these provisions at his/her discretion. The Contractor may request a waiver to all or portions of these provisions with written justification to the Commissioner as to why the Contractor cannot comply with these provisions. A waiver, to be effective, must be granted in writing by the Commissioner.

#### **ARTICLE 40** **DISCLOSURE OF RECORDS**

**40.1** This Contract may be subject to the provisions of C.G.S. Section 1-218. In accordance with this statute, each contract in excess of two million five hundred thousand dollars (\$2,500,000.00) between a public agency and a person for the performance of a governmental function shall (a) provide that the public agency is entitled to receive a copy of records and files related to the performance of the governmental function, and (b) indicate that such records and files are subject to the Freedom of Information Act (FOIA) and may be disclosed by the public agency pursuant to FOIA. No request to inspect or copy such records or files shall be valid unless the request is made to the public agency in accordance with FOIA. Any complaint by a person who is denied the right to inspect or copy such records or files shall be brought to the Freedom of Information Commission in accordance with the provisions of C.G.S. Sections 1-205 and 1-206.

#### **ARTICLE 41** **AUDIT AND INSPECTION OF PLANTS, PLACES OF BUSINESS, AND RECORDS**

**41.1** The State and its agents, including, but not limited to, the Connecticut Auditors of Public Accounts, Attorney General and State's Attorney and their respective agents, may, at reasonable hours, inspect and examine all of the parts of the Contractor's and Contractor Parties' plants and places of business which, in any way, are related to, or involved in, the performance of this Contract.

**41.2** The Contractor shall maintain, and shall require each of the Contractor Parties to maintain, accurate and complete Records. The Contractor shall make all of its and the Contractor Parties' Records available at all reasonable hours for audit and inspection by the State and its agents.

**41.3** The State shall make all requests for any audit or inspection in writing and shall provide the Contractor with at least twenty-four (24) hours' notice prior to the requested audit and inspection date. If the State suspects fraud or other abuse, or in the event of an emergency, the State is not obligated to provide any prior notice.



41.4 All audits and inspections shall be at the State's expense.

41.5 The Contractor shall keep and preserve or cause to be kept and preserved all of its and Contractor Parties' Records until three (3) years after the latter of (i) final payment under this Agreement, or (ii) the expiration or earlier termination of this Agreement, as the same may be modified for any reason. The State may request an audit or inspection at any time during this period. If any Claim or audit is started before the expiration of this period, the Contractor shall retain or cause to be retained all Records until all Claims or audit findings have been resolved.


41.6 The Contractor shall cooperate fully with the State and its agents in connection with an audit or inspection. Following any audit or inspection, the State may conduct and the Contractor shall cooperate with an exit conference.

41.7 The Contractor shall incorporate this entire Section verbatim into any contract or other agreement that it enters into with any Contractor Party.

END

Appendix 1

7048  
General Contractor (GC)  
Retainage Reduction Request  
Page 1 of 1



To: Department of Administrative Services (DAS) Construction Services  
Office of Legal Affairs, Policy and Procurement  
450 Columbus Blvd, Suite 1302 – North Tower  
Hartford, CT 06103

From:  General Contractor (GC)

Subject: DAS Project Number:   
DAS Project Name:   
Reduction of Retainage at:  Percent (  % ) Project Completion

Date:

In accordance with the General Conditions, Article 28 Progress Payments,  
  
hereby requests a reduction of retainage from  % to  %.

The following list of items required under the General Conditions is in compliance with the terms of the contract and has been verified by the General Contractor (GC).

- DAS Construction Services Contractor Performance Evaluation Score is a minimum of **(60%)** Percent.
- Timely submission of an appropriate and complete CPM Schedule / Schedule of Values, in compliance with the Contract requirements and the prompt resolution of the Owner's and/or A/E's comments on the submitted material resulting in an appropriate basis for payment of the Work.
- Timely and proper submission of all required Contract Documents including but not limited to Shop Drawings, material certificates, material samples and the prompt resolution of the Owner's and/or A/E's comments on the submitted material resulting in an appropriate process of the Work.
- Proper and adequate supervision on site appropriate to the Project.
- The Work completed to date has been installed or finished in a manner acceptable to the Owner.
- The progress of the Work is consistent with the approved CPM Schedule.
- All approved change orders have been invoiced.
- All Change Order requests for payment are current.
- The Contractor is maintaining a clean worksite in accordance with the Contract Documents.
- All Subcontractor payments are current at the time of reduction request.
- GC is in compliance with all other provisions of the contract.

General Contractor Certification:

Project Manager Recommendation:

ADPM Approval:

DAS Chief Architect or Authorized Representative:

END



**Set-Aside Contractor Schedule [SAMPLE ONLY]**

VIA EMAIL

Contractor Name  
Contractor Address  
City, State, Zip Code

BID OPENING DATE

Re: DAS Project Description  
DAS Project Number

Date:

Dear Contractor:

**Section 00 45 17 Named Subcontractor Bidders Qualification Statement(s)** is / (are) required for this project, only for your Named Subcontractors listed in Table 2.7 of your Section 00 41 00 Bid Proposal Form.

No person whose subcontract *exceeds* five hundred thousand dollars in value may perform work as a subcontractor on a project, which project is estimated to cost more than five hundred thousand dollars and is paid for, in whole or in part, with state funds, *unless, at the time of bid submission*, the person is prequalified in accordance with the Connecticut General Statutes Section 4a-100, as amended. This includes the contractor's or substantial subcontractor's prequalification classifications, aggregate work capacity ratings and single project limits.

In accordance with **Subsection 2.8 "Set-Aside Requirements" of Section 00 21 13 Instructions to Bidders**, you are required to *list* in **Table 1** on the next page the names of each *currently certified set-aside contractor* to be used for this project, along with the dollar *amount* to be paid each set-aside contractor.

The **responsibility** for listing a qualified and certified set-aside contractor rests solely with the **bidder** and not the State. **Listing a set-aside contractor who does not qualify may be considered the same as not listing one at all and the bid may be considered non-responsive and subject to rejection.**

ATTACHMENTS:

For Each of the Named Subcontractors from Table 2.7 of your Bid Proposal Form:

- Attach their Section 00 45 17 Named Subcontractor Bidders Qualification Statement(s)

For Each of the Named Set-Aside SBE/MBE Contractors in Table 1 of this Set-Aside Contractor Schedule Request:

- Attach their DAS Set-Aside Certificate of Eligibility (SBE and/or MBE)

For Each of the Named Subcontractors from Table 2.7 of your Bid Proposal Form With Subcontracts Greater Than \$500,000:

- Attach their DAS Prequalification Certificate and Update (Bid) Statement for the Class of Work, to the extent the Class of Work is a Prequalification Classification.

\_\_\_\_\_  
Contractor Authorized Signature & Title \_\_\_\_\_ Date  
This Form Must Be Received No Later Than \_\_\_\_\_ At:

State of Connecticut  
Department of Administrative Services, Construction Services  
Office of Legal Affairs, Policy, and Procurement  
450 Columbus Boulevard, Suite 1302  
Hartford, CT 06103

Attn:

**TABLE 1**  
**SET-ASIDE CONTRACTOR SCHEDULE**  
 (make as many copies of this page as necessary)

**\*Amount:** The total dollar amount to be paid to the set aside contractors must not be less than the percentage(s) stated in the Bid Proposal Form.

**\*\*Class of Work:** Means the name of the trade work to be provided by the Subcontractor or Supplier.

Name:	SAMPLE
Address:	
*Amount:	
Indicate Whether: Subcontractor, Or Supplier, Or Both:	
**Class of Work:	

Name:	SAMPLE
Address:	
*Amount:	
Indicate Whether: Subcontractor, Or Supplier, Or Both:	
**Class of Work:	

Name:	SAMPLE
Address:	
*Amount:	
Indicate Whether: Subcontractor, Or Supplier, Or Both:	
**Class of Work:	

Name:	SAMPLE
Address:	
*Amount:	
Indicate Whether: Subcontractor, Or Supplier, Or Both:	
**Class of Work:	

**State Of Connecticut  
Department of Administrative Services  
Construction Services**

February 1, 2019

**To:** All Department of Administrative Services, Construction Services Contractors  
**Subject:** Set-Aside Contract Laws

Dear Sir/Madam:

The administration of Governor Ned Lamont is committed to supporting the subject programs by encouraging all contractors on State projects to improve their efforts in these areas.

State law requires contractors doing business with the State to demonstrate non-discrimination by making "good faith efforts" in both hiring and in sub-contracting practices (Connecticut General Statutes Section [C.G.S. §] 4a-60).

What does "good faith efforts" mean? It means that you, as contractors, must act affirmatively. It is not good enough to say you can't find minorities and women. You must seek them out. That is the law, and the Department of Administrative Services (DAS) / Construction Services (CS) is committed to enforcing the law. At the same time, we are ready to assist you in making "good faith efforts."

DAS is required by C.G.S. § 4a-60g (b) and (c) to set aside projects (amounting to **twenty-five percent (25%)** of its annual contract awards) for small business and **twenty-five percent (25%)** of that amount for minority business enterprises. DAS may require any general contractor to set aside a portion of the contract for subcontractors who are small businesses or minority business enterprises in lieu of setting aside a project or in addition to setting aside a project.

Therefore, unless otherwise specified in the **Bid Proposal Form**, DAS will require contractors to subcontract **twenty-five percent (25%)** of the total contract value to small businesses certified by DAS and further will require contractors to subcontract 25% of that 25% to minority and women small contractors certified as minority business enterprises by DAS. These statutory goals represent the minimum values expected to be achieved by this program.

Together, we can meet the challenge of providing equal opportunity for minority and women-owned businesses and workers in our State. We expect superior results in the areas of affirmative action, equal employment opportunity, and set-aside contracts. The DAS standard in these areas is not just minimal effort. Our goal is to uphold the letter and the spirit of the law.

For more information on Non-Discrimination and Affirmative Action Provisions for State Contracts please visit the Commission on Human Rights and Opportunities (**CHRO**) Website at [www.ct.gov/chro](http://www.ct.gov/chro).

Sincerely yours,

Josh Geballe  
Commissioner

PB:pb

## Non-Discrimination and Affirmative Action Provisions for State Contracts

Section 1	CHRO – Contract Compliance Regulations Notification to Bidders:
1.1	<p>The contract to be awarded is subject to contract compliance requirements mandated by:</p> <ul style="list-style-type: none"><li>1.1.1 The <b>Connecticut General Statutes (C.G.S.) § 4a-60</b> and <b>4a-60a</b>;</li><li>1.1.2 <b>C.G.S. § 46a-71(d)</b> and <b>46a-81i (d)</b> when the awarding agency is the State; and</li><li>1.1.3 The <b>Contract Compliance Regulations</b> codified in the <b>Regulations of Connecticut State Agencies (RSCA) §46a-68j-21 through 43</b>, which establish a procedure for awarding all contracts covered by <b>C.G.S. §4a-60</b> and <b>46a-71(d)</b>.</li></ul>
1.2	<p>According to the <b>Contract Compliance Regulations §46a-68j-30(9)</b>, every agency awarding a contract subject to the contract compliance requirements has an obligation to “aggressively solicit the participation of legitimate minority business enterprises as bidders, contractors, subcontractors and suppliers of materials.”</p> <p>“<b>Minority business enterprise</b>” is defined in <b>C.G.S §4a-60</b>-as a small contractor or supplier of materials fifty-one (51%) percent or more of the capital stock or assets of which is owned by a person or persons:</p> <ul style="list-style-type: none"><li>1.2.1 who are active in the daily affairs of the enterprise;</li><li>1.2.2 who have the power to direct the management and policies of the enterprise; and</li><li>1.2.3 who are members of a minority, as such term is defined in subsection (a) of <b>C.G.S. §32-9n.</b>”</li></ul>
1.3	<p>“<b>Minority</b>” groups are defined in <b>C.G.S. §32-9n</b> as:</p> <ul style="list-style-type: none"><li>1.3.1 Black Americans, including all persons having origins in any of the Black African racial groups not of Hispanic origin;</li><li>1.3.2 Hispanic Americans, including all persons of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race;</li><li>1.3.3 Persons who have origins in the Iberian Peninsula, including Portugal, regardless of race;</li><li>1.3.4 Women;</li><li>1.3.5 Asian Pacific Americans and Pacific Islanders; or</li><li>1.3.6 American Indians and persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification.</li><li>1.3.7 “<b>Individuals with a disability</b>” is also a minority business enterprise as provided by C.G.S. § 4a-60g (4).</li></ul>
1.4	<p>The above “<b>Minority business enterprise</b>” definitions apply to the contract compliance requirements by virtue of <b>Contract Compliance</b> Regulations §46a-68j-21(11).</p> <p>The awarding agency will consider the following factors when reviewing the bidder’s qualifications under the contract compliance requirements:</p> <ul style="list-style-type: none"><li>1.4.1 the bidder’s success in implementing an affirmative action plan;</li><li>1.4.2 the bidder’s success in developing an apprenticeship program complying with <b>RSCA §46a-68-1 to 46a-68-17</b>, inclusive;</li><li>1.4.3 the bidder’s promise to develop and implement a successful affirmative action plan;</li><li>1.4.4 the bidder’s submission of employment statistics contained in the “Employment Information Form”, indicating that the composition of its workforce is at or near parity when compared to the racial and sexual composition of the workforce in the relevant labor market area; and</li><li>1.4.5 the bidder’s promise to set aside a portion of the contract for legitimate minority business enterprises. See <b>Contract Compliance Regulations § 46a-68j-30(10) (E)</b>.</li></ul>

**Note:** The Commission on Human Rights and Opportunities (CHRO) “Employment Information Form” shall be submitted to the DAS/CS Office of Legal Affairs, Policy, and Procurement on behalf of the awarding agency, the Department of Administrative Services (DAS).

<b>Section 2</b>	<b>Non-Discrimination and other Contract Compliance Requirements:</b>
------------------	-----------------------------------------------------------------------

Pursuant to **C.G.S. §4a-60** and **§4a-60a** and **RSCA §46a-68j-21 to §46a-68j-43**, a contractor agrees to the following:

- 2.1** Not to discriminate or permit discrimination against any person or group of persons on the grounds of race, color, religious creed, age, marital status, national origin, ancestry, sex, sexual orientation, mental retardation, or physical disability including, but not limited to, blindness (unless it is shown that such disability prevents performance of the work involved) in the performance of a contract, in any manner prohibited by the federal and Connecticut anti-discrimination and contract compliance laws;
- 2.2** To undertake affirmative action which will insure that applicants with job-related qualifications are employed and that employees are treated, when employed, without regard to whether they belong to any of the groups identified in Paragraph # 1) above;
- 2.3** To include a statement that the contractor is an “affirmative action-equal opportunity employer”, in all solicitations or advertisements for employees placed by or on behalf of the contractor;
- 2.4** To provide each labor union or representative of workers with which such contractor has a collective bargaining agreement and each vendor with which such contractor has a contract, a notice advising them of the contractor’s commitments under **C.G.S. §4a-60** and **§4a-60a**. The notice is available by contacting **CHRO**;
- 2.5** To post copies of the notice referred to in item 4) in conspicuous places available to employees and applicants;
- 2.6** To provide **CHRO** with such information requested by said agency, permit access to pertinent books, records, and accounts, concerning the employment practices and procedures of the contractor as relate to the provisions of **C.G.S. §4a-60, §4a-60a** and **§46a-56** and, cooperate fully with **CHRO**; and,
- 2.7** To include the language of **C.G.S. §4a-60 (a)** and **§4a-60a (a)** in every subcontract or purchase order executed to fulfill any obligation of the contract with DAS.

<b>Section 3</b>	<b>Affirmative Action Requirements for Certain Public Works Contracts for Construction:</b>
------------------	---------------------------------------------------------------------------------------------

Pursuant to **C.G.S. §46a-68c** and **§46a-68d** and **RSCA §46a-68j-21 to §46a-68j-29**, the following must file an affirmative action plan with the Commission:

- 3.1** A successful bidder on a <sup>1</sup> “**public works contract**” with a value of **\$500,000** or more. The plan must be filed within **thirty (30)** days after a bid has been accepted by an awarding agency but before a contract is awarded. A plan may be filed in advance of, or at the same time as, a bid is submitted.
- 3.2** A contractor with **fifty (50)** or more employees who has been awarded a “**public works contract**” in excess of **\$50,000** in any fiscal year. A plan must be filed within **thirty (30) days** of the date a contract is awarded.

**CHRO** must review a plan within **sixty (60) days** of receipt and must either approve or reject a plan. Should **CHRO** approve an affirmative action plan, **CHRO** will issue a certificate of compliance. This certificate of compliance shall be proof of a successful bidder’s or a contractor’s eligibility to bid or be awarded contracts for a period of **two (2)** years from the date of the certificate. This certificate does not excuse a successful bidder or contractor from being monitored by the **CHRO** for implementation of its affirmative action plan or, from its reporting requirements under **C.G.S. 46a-68e** and **§ 46a-68f**. (Refer to Section 6) Also, **CHRO** may revoke the certificate if a successful bidder or contractor does not implement its affirmative action plan.

Should **CHRO** opt to disapprove an affirmative action plan, **CHRO** must notify the successful bidder or contractor in writing within **ten (10) days** of the disapproval. The notice will state the reason for disapproval and may provide necessary proposals to bring the plan into compliance. The successful bidder or contractor must then submit a new or amended plan, within **thirty (30) days** of the date the notice of disapproval is mailed by **CHRO**.

**Section 3**

(Continued):

In addition, **CHRO** may conditionally approve an affirmative action plan for a successful bidder on a public works contract valued at **\$500,000** or more. **CHRO** must notify the successful bidder in writing within **ten (10) days** of the conditional disapproval and state the reason for conditional approval and, may provide necessary proposals to bring the plan into compliance. The successful bidder must then submit a new or amended plan or, provide written assurances that it will amend its plan to conform to affirmative action requirements, within **thirty (30) days** of the date the notice is mailed by **CHRO**.

**Note:** The awarding agency (DAS) will provide a successful bidder or contractor with a copy of **CHRO**'s Affirmative Action Plan format. All sections of this Affirmative Action Plan format must be completed by the successful bidder or contractor and forwarded to **CHRO**. Also, the awarding agency (DAS) shall withhold **2%** of the total contract price per month from any payment made to a contractor until such time as the contractor has developed an affirmative action plan, which has been approved by **CHRO**.

<sup>1</sup> **“public works contract”** means any agreement between any individual, firm or corporation and the state or any political subdivision of the state other than a municipality for construction, rehabilitation, conversion, extension, demolition or repair of a public building, highway or other changes or improvements in real property, or which is financed in whole or in part by the state, including, but not limited to, matching expenditures, grants, loans, insurance or guarantees.-**C.G.S. §46a-68b**.

**Section 4**

**“Good Faith Efforts” to Include Minority Business Enterprises as Subcontractors”:**

In addition to, or in the absence of, any other subcontractor requirements included in this project, contractors are required to make <sup>2</sup> **“good faith efforts”** to include minority business enterprises in the work of this project as subcontractors (for services and/or material suppliers). For the purpose of identifying minority business enterprises, a minority business enterprise shall be a subcontractor which has a valid certification as such from DAS and/or a subcontractor for which an affidavit has been submitted by the contractor attesting that the subcontractor named as a minority business enterprise meets the minority business enterprise criteria set out in **C.G.S. §4a-60(b)**.

<sup>2</sup> **“Good faith efforts”** means *“that **degree of diligence** which a reasonable person would exercise in the performance of legal duties and obligations”* and includes, but is not limited to, the following **factors**: the contractor's employment and subcontracting policies and practices; affirmative advertising, recruitment, training, technical assistance activities and such other reasonable activities or efforts as **CHRO** may recommend to ensure the participation of minority business enterprises in state projects.



<b>Section 5</b>	<b>Set-Aside Program:</b>
------------------	---------------------------

This contract may be subject to the provisions the **Set-Aside Program for Small Contractors** found at **C.G.S. § 4a-60g** and may be awarded only to a contractor certified as a small and/or minority business enterprise by DAS. The notification as to this special provision will be found in the **Bid Proposal Form** for this contract. The listing of eligible "Set-Aside" contractors is found on the [DAS Website for SBE or MBE Certification](#). In the event that the **Set-Aside Program for Small Contractors** applies to this contract, the following special provisions will also apply:

**5.1 Amount of Work Required to Be Done by "Set-Aside" Contractors**

A contractor awarded a contract on a project pursuant to the provisions of **C.G.S. §4a-60g**, as amended, shall be required to perform not less than **thirty (30)** per cent of the work with his/her own forces and shall ensure that not less than **fifty (50)** per cent of the work be performed by contractors or subcontractors who are certified as small contractors or minority business enterprises pursuant to **C.G.S. §4a-60g**.

The primary product/service performed by contractors working on a contract awarded under **C.G.S. §4a-60g** must be the same as the primary product/service described for the contractors on their "Certificate of Eligibility" which is provided to them by DAS.

**5.2 Alternate Bonding Available to "Set Aside" Contractors**

In lieu of a performance, bid, labor and materials or other required bond, a contractor or subcontractor awarded a contract under **C.G.S. §4a-60g** may provide to the awarding authority (DAS) and the awarding authority shall accept a "Letter of Credit". Any such "Letter of Credit" shall be in an amount equal to **ten per cent (10%)** of the contract for any contract that is less than **one hundred thousand (\$100,000) dollars**, and in the amount of **twenty-five per cent (25%)** for any contract that is **one hundred thousand (\$100,000) dollars** or more.

**5.3 Procedures to Follow Regarding Substitution of Named Project "Set-Aside" Subcontractors.**

The awarding authority (DAS) may also require the contractor to set aside a portion of the contract for subcontractors who are eligible for set aside contracts. The awarding authority shall not permit substitution of a subcontractor for one named in accordance with the provisions of **C.G.S. § 4b-95** or substitution of a subcontractor for any designated sub-trade work bid to be performed by the contractor's own forces, except for good cause.

Pursuant to **C.G.S. § 4b-95**, the term "**good cause**" includes but is not limited to a subcontractor's or, where appropriate, a general contractor's:

- 5.3.1** Death or physical disability, if the listed subcontractor is an individual;
- 5.3.2** Dissolution, if a corporation or partnership;
- 5.3.3** Bankruptcy;
- 5.3.4** Inability to furnish any performance and payment bond shown on the bid form;
- 5.3.5** Inability to obtain, or loss of, a license necessary for the performance of the particular category of work;
- 5.3.6** Failure or inability to comply with a requirement of law applicable to contractors and subcontractors, or to subcontracts for construction, alteration, or repair projects;
- 5.3.7** Failure to perform his/her agreement to execute a subcontract under **C.G.S. § 4b-96**.

Any general contractor who violates any provision of **C.G.S. § 4b-95** shall be disqualified from bidding on other contracts that are subject to the provisions of **Chapter 60 - Construction and Alterations of State Buildings of the C.G.S.** for a period **not to exceed twenty-four (24) months**, commencing from the date on which the violation is discovered, for each violation.

<b>Section 6</b>	<b>Contract Monitoring and Reporting:</b>
------------------	-------------------------------------------

- 6.1 CHRO** has the authority to monitor state contractors pursuant to **C.G.S. § 46a-68e** and **46a-68f** and **RSCA §46a-68j-23(3)**. In addition, under the **RSCA §46a-68j-25(e)** and **46a-68j-26 (g)**, **CHRO** has the authority to monitor the implementation of an affirmative action plan regarding:
- 6.1.1** a successful bidder who has been awarded a public works contract valued at **\$500,000 or more** and;
  - 6.1.2** a contractor with **fifty (50)** or more employees who has been awarded a public works contract **in excess of \$50,000 in any fiscal year.**
- 6.2** In order to monitor the implementation of these plans **CHRO** requires that the following contract monitoring reports be compiled and submitted:
- 6.2.1 Monthly Employment Utilization Report (Form CHRO: 257):** A contractor, on behalf of itself and all subcontractors who perform work on the project during a given month, is required to report on the work hour participation of minority male and female workers in each trade category on the project. The report must be submitted to the contract awarding agency (**DAS**) and to the Commission by the 15<sup>th</sup> day following the end of each calendar month during the term of the on-site construction work of the project.  
**Website page:** <http://www.ct.gov/chro>, then click on **Forms**, then click on **Contract Compliance Forms and Reports.**
  - 6.2.2 Quarterly Small Contractor and Minority Business Enterprise Payment Status Report (Form CHRO: 258).** A contractor is required to report on the participation of small contractors or minority business enterprises identified to participate on the project. The report must be submitted to the contract awarding agency (**DAS**) and to the Commission by the 15<sup>th</sup> day following the end of each calendar quarter during the term of the on-site construction work of the project.  
**Website page:** <http://www.ct.gov/chro>, then click on **Forms**, then click on **Contract Compliance Forms and Reports.**
  - 6.2.3** In addition, the Commission expects that a contractor will designate an Equal Opportunity/Contract Compliance Officer for its public works project who will compile the above monthly and quarterly reports, as well as, undertake the following responsibilities for implementation of its project Affirmative Action Plan (AAP):
    - .1 Maintain a project Equal Employment Opportunity (EEO) file to include all records, correspondence and other documentation relate to the project AAP.
    - .2 Communicate to and inform all project subcontractors, regardless of tier, and labor referral organizations (if applicable) about project equal employment and AAP commitments and performance requirements.
    - .3 Participate in project job meetings to inform project subcontractors about project equal employment and AAP performance requirements.
    - .4 Track the use of employment recruitment sources identified in the project AAP regarding all employment opportunities with all subcontractors on the project. Also, maintain documentation of all contacts with these recruitment sources and their responses.

The Commission will forward a copy of the monthly and quarterly report to each contractor on a public works project.

<b>NOTES:</b>	Bidders and state contractors may review the full text of the before referenced Connecticut General Statutes by accessing either the State Law Library's web site ( <a href="http://www.cslib.org/psaindex.htm">http://www.cslib.org/psaindex.htm</a> ) or the State Legislatures' web site ( <a href="http://www.cga.ct.gov">http://www.cga.ct.gov</a> ).
	The full text of the RSCA 46a-68j-21 through 46a-68j-43 may be reviewed by accessing the Commission's web site: <a href="http://www.ct.gov/chro/cwp/view.asp?a=2525&amp;Q=315900&amp;chroPNavCtr=#45679">http://www.ct.gov/chro/cwp/view.asp?a=2525&amp;Q=315900&amp;chroPNavCtr=#45679</a> In the alternative, bidders or state contractors may request a copy of these state statutes and regulations by contacting the Commission at (860) 541-3400 (in Hartford) or 1 (800) 477-5737.

<b>Section 7</b>	<b>CHRO Contract Compliance Forms:</b>
------------------	----------------------------------------

The following CHRO Contract Compliance Forms are available on the CHRO Website:

- 7.1 **Monthly Employment Utilization Report (Form CHRO-257 and CHRO-257a):**
  - <http://www.ct.gov/chro/lib/chro/257s.pdf>
- 7.2 **Cumulative Utilization Report (Form CHRO-257b):**
  - <http://www.ct.gov/chro/lib/chro/257b.pdf>
- 7.3 **Monthly Small Contractor & MBE Payment Status Report (Form CHRO-258a) and Quarterly Small Contractor & MBE Payment Status Report (Form CHRO-258):**
  - <http://www.ct.gov/chro/lib/chro/258s.pdf>

**End of Section  
00 73 38 CHRO / Contract Compliance Regulations**



**State of Connecticut**  
**Commission on Human Rights and Opportunities (CHRO)**  
**Bidder Contract Compliance Monitoring Report Requirements**  
**for Projects with Construction Costs Estimated to be Less Than \$500,000**

**DAS | Construction Services | Office of Legal Affairs, Policy, and Procurement**

**1.0 CHRO Bidder Contract Compliance Monitoring Report**

**1.1 Requirements:**

**1.1.1** All Bidders must complete in full, sign, and upload the **CHRO Bidder Contract Compliance Monitoring Report** to **CTsource** with their other **Bid Package Documents** for this solicitation *prior* to the date and time of the Bid Opening.

**1.2 Instructions:**

- 1.2.1** Download the PDF-fillable version of the [Notification to Bidders/Contract Compliance Monitoring Form](https://portal.ct.gov/CHRO/Contract-Compliance/Contract-Compliance/Contract-Compliance-Forms-and-Reports#45679) from the **CHRO webpage**:  
<https://portal.ct.gov/CHRO/Contract-Compliance/Contract-Compliance/Contract-Compliance-Forms-and-Reports#45679>
- 1.2.2** Save the document to your computer.
- 1.2.3** Open the document from your computer and follow the instructions for completing the report.
- 1.2.4** Print the **Bidder Contract Compliance Monitoring Report** to paper and sign where indicated.
- 1.2.5** Scan the report to PDF and save to your computer.
- 1.2.6** Upload your **Bidder Contract Compliance Monitoring Report** to **CTsource** with your other **Bid Package Documents** for this solicitation *prior* to the date and time of the Bid Opening.
- 1.2.7** If you have any questions regarding your certificate, visit the **CHRO webpage** (<https://www.ct.gov/chro/cwp/view.asp?a=2525&Q=315900&chroPNavCtr=#45679>) or call the CHRO at **860-541-4709**.



**Minimum Rates and Classifications  
 for Building Construction**

**Connecticut Department of Labor  
 Wage and Workplace Standards Division**

By virtue of the authority vested in the Labor Commissioner under provisions of Section 31-53 of the General Statutes of Connecticut, as amended, the following pages are declared to be the prevailing rates and welfare payments and will apply only where the contract is advertised for bid within 20 days of the date on which the rates are established. Any contractor or sub-contractor not obligated by agreement to pay to the welfare and pension fund shall pay this amount to each employee as part of his hourly wage.

<b>Project Number:</b>	<b>BI-MM-58</b>	<b>Project Town:</b>	<b>Wethersfield, CT</b>
<b>Project: Wethersfield DMV Lighting Fixture &amp; Controls Retrofit</b>			
<b>60 State Street</b>			
<b>Wethersfield, CT</b>			

The following pages contain:

Contractors Wage Certification Form	1 page
Notice to all Mason Contractors reference Section 31-53 of C.G.S. (Prevailing Wages)	1 page
Prevailing Wage Rates - English	7 pages
Informational Bulletin - <b>Occupational Classifications</b>	6 pages
Informational Bulletin – <b>The 10-Hour OSHA Construction Safety and Health Course</b>	2 pages
Footnotes	2 pages
Special Notice re: Wage Rate Adjustments	1 pages
Weekly Payroll Certification Form (WWS-CP1)	1 page
Fringe Benefits Explanation (P)	1 page
Weekly Payroll Certification Form (WWS-CP2)	1 page

**As of: January 15, 2021**







**THIS IS A PUBLIC WORKS PROJECT**

**Covered by the**

**PREVAILING WAGE LAW**

**CT General Statutes Section 31-53**

**If you have QUESTIONS regarding your wages  
CALL (860) 263-6790**

Section 31-55 of the CT State Statutes requires every contractor or subcontractor performing work for the state to post in a prominent place the prevailing wages as determined by the Labor Commissioner.



CONNECTICUT DEPARTMENT OF LABOR  
WAGE AND WORKPLACE STANDARDS DIVISION

**CONTRACTORS WAGE CERTIFICATION FORM**  
**Construction Manager at Risk/General Contractor/Prime Contractor**

I, \_\_\_\_\_ of \_\_\_\_\_  
Officer, Owner, Authorized Rep. Company Name

do hereby certify that the \_\_\_\_\_  
Company Name  
\_\_\_\_\_  
Street  
\_\_\_\_\_  
City

and all of its subcontractors will pay all workers on the  
\_\_\_\_\_  
Project Name and Number  
\_\_\_\_\_  
Street and City

the wages as listed in the schedule of prevailing rates required for such project (a copy of which is attached hereto).

\_\_\_\_\_  
Signed

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

\_\_\_\_\_  
Notary Public

Return to:

Connecticut Department of Labor  
Wage & Workplace Standards Division  
200 Folly Brook Blvd.  
Wethersfield, CT 06109

*Rate Schedule Issued (Date):* \_\_\_\_\_



November 29, 2006

**Notice**  
**To All Mason Contractors and Interested Parties**  
**Regarding Construction Pursuant to Section 31-53 of the**  
**Connecticut General Statutes (Prevailing Wage)**

The Connecticut Labor Department Wage and Workplace Standards Division is empowered to enforce the prevailing wage rates on projects covered by the above referenced statute.

Over the past few years the Division has withheld enforcement of the rate in effect for workers who operate a forklift on a prevailing wage rate project due to a potential jurisdictional dispute.

The rate listed in the schedules and in our Occupational Bulletin (see enclosed) has been as follows:

**Forklift Operator:**

- **Laborers (Group 4) Mason Tenders** - operates forklift solely to assist a mason to a maximum height of nine feet only.
- **Power Equipment Operator (Group 9)** - operates forklift to assist any trade and to assist a mason to a height over nine feet.

The U.S. Labor Department conducted a survey of rates in Connecticut but it has not been published and the rate in effect remains as outlined in the above Occupational Bulletin.

*Since this is a classification matter and not one of jurisdiction, effective January 1, 2007 the Connecticut Labor Department will enforce the rate on each schedule in accordance with our statutory authority.*

Your cooperation in filing appropriate and accurate certified payrolls is appreciated.

**Sec. 31-53b. Construction safety and health course. New miner training program. Proof of completion required for mechanics, laborers and workers on public works projects. Enforcement. Regulations. Exceptions.** (a) Each contract for a public works project entered into on or after July 1, 2009, by the state or any of its agents, or by any political subdivision of the state or any of its agents, described in subsection (g) of section 31-53, shall contain a provision requiring that each contractor furnish proof with the weekly certified payroll form for the first week each employee begins work on such project that any person performing the work of a mechanic, laborer or worker pursuant to the classifications of labor under section 31-53 on such public works project, pursuant to such contract, has completed a course of at least ten hours in duration in construction safety and health approved by the federal Occupational Safety and Health Administration or, has completed a new miner training program approved by the Federal Mine Safety and Health Administration in accordance with 30 CFR 48 or, in the case of telecommunications employees, has completed at least ten hours of training in accordance with 29 CFR 1910.268.

(b) Any person required to complete a course or program under subsection (a) of this section who has not completed the course or program shall be subject to removal from the worksite if the person does not provide documentation of having completed such course or program by the fifteenth day after the date the person is found to be in noncompliance. The Labor Commissioner or said commissioner's designee shall enforce this section.

(c) Not later than January 1, 2009, the Labor Commissioner shall adopt regulations, in accordance with the provisions of chapter 54, to implement the provisions of subsections (a) and (b) of this section. Such regulations shall require that the ten-hour construction safety and health courses required under subsection (a) of this section be conducted in accordance with federal Occupational Safety and Health Administration Training Institute standards, or in accordance with Federal Mine Safety and Health Administration Standards or in accordance with 29 CFR 1910.268, as appropriate. The Labor Commissioner shall accept as sufficient proof of compliance with the provisions of subsection (a) or (b) of this section a student course completion card issued by the federal Occupational Safety and Health Administration Training Institute, or such other proof of compliance said commissioner deems appropriate, dated no earlier than five years before the commencement date of such public works project.

(d) This section shall not apply to employees of public service companies, as defined in section 16-1, or drivers of commercial motor vehicles driving the vehicle on the public works project and delivering or picking up cargo from public works projects provided they perform no labor relating to the project other than the loading and unloading of their cargo.

(P.A. 06-175, S. 1; P.A. 08-83, S. 1.)

History: P.A. 08-83 amended Subsec. (a) by making provisions applicable to public works project contracts entered into on or after July 1, 2009, replacing provision re total cost of work with reference to Sec. 31-53(g), requiring proof in certified payroll form that new mechanic, laborer or worker has completed a 10-hour or more construction safety course and adding provision re new miner training program, amended Subsec. (b) by substituting "person" for "employee" and adding "or program", amended Subsec. (c) by adding "or in accordance with Federal Mine Safety and Health Administration Standards" and setting new deadline of January 1, 2009, deleted former Subsec. (d) re "public building", added new Subsec. (d) re exemptions for public service company employees and delivery drivers who perform no labor other than delivery and made conforming and technical changes, effective January 1, 2009.





## **Important Information:**

For use with Building, Heavy/Highway, and Residential

Welders: Rate for craft to which welding is incidental.

\*Note: Hazardous waste removal work receives additional \$1.25 per hour for truck drivers.

\*\*Note: Hazardous waste premium \$3.00 per hour over classified rate.

**ALL Cranes: When crane operator is operating equipment that requires a fully licensed crane operator to operate he receives an extra \$4.00 premium in addition to the hourly wage rate and benefit contributions:**

- 1) Crane handling or erecting structural steel or stone: hoisting engineer (2 drums or over)
- 2) Cranes (100 ton rate capacity and over) Bauer Drill/Caisson
- 3) Cranes (under 100 ton rated capacity)

**Crane with boom including jib, 150 feet - \$1.50 extra.**

**Crane with boom including jib, 200 feet - \$2.50 extra.**

**Crane with boom including jib, 250 feet - \$5.00 extra.**

**Crane with boom including jib, 300 feet - \$7.00 extra.**

**Crane with boom including jib, 400 feet - \$10.00 extra.**

All classifications that indicate a percentage of the fringe benefits must be calculated at the percentage rate times the "base hourly rate".

- Apprentices duly registered under the Commissioner of Labor's regulations on "Work Training Standards for Apprenticeship and Training Programs" Section 31-51-d-1 to 12, are allowed to be paid the appropriate percentage of the prevailing journeymen hourly base and the full fringe benefit rate, providing the work site ratio shall not be less than one full-time journeyman instructing and supervising the work of one apprentice in a specific trade.

### **Connecticut General Statute Section 31-55a: Annual Adjustments to wage rates by contractors doing state work**

- The Prevailing wage rates applicable to this project are subject to annual adjustments each July 1st for the duration of the project.
- Each contractor shall pay the annual adjusted prevailing wage rate that is in effect each July 1st, as posted by the Department of Labor.
- It is the contractor's responsibility to obtain the annual adjusted prevailing wage rate increases directly from the Department of Labor's website.
- The annual adjustments will be posted on the Department of Labor's Web page: [www.ctdol.state.ct.us](http://www.ctdol.state.ct.us).
- The Department of Labor will continue to issue the initial prevailing wage rate schedule to the Contracting Agency for the project.
- All subsequent annual adjustments will be posted on our Web Site for contractor access.

**Effective October 1, 2005 - Public Act 05-50: any person performing the work of any mechanic, laborer, or worker shall be paid prevailing wage.**

- All Persons who perform work ON SITE must be paid prevailing wage for the appropriate mechanic, laborer, or worker classification.
- All certified payrolls must list the hours worked and wages paid to All Persons who perform work ON SITE regardless of their ownership i.e.: (Owners, Corporate Officers, LLC Members, Independent Contractors, et. al)
- Reporting and payment of wages is required regardless of any contractual relationship alleged to exist between the contractor and such person.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clause (29 CFR 5.5 (a) (1) (ii)).

***Please direct any questions which you may have pertaining to classification of work and payment of prevailing wages to the Wage and Workplace Standards Division, telephone (860)263-6790.***

**Minimum Rates and Classifications for Building Construction**

ID#: 21-19106

**Connecticut Department of Labor  
Wage and Workplace Standards Division**

By virtue of the authority vested in the Labor Commissioner under provisions of Section 31-53 of the General Statutes of Connecticut, as amended, the following are declared to be the prevailing rates and welfare payments and will apply only where the contract is advertised for bid within 20 days of the date on which the rates are established. Any contractor or subcontractor not obligated by agreement to pay to the welfare and pension fund shall pay this amount to each employee as part of his/her hourly wages.

Project Number: #BI-MM-58

Project Town: Wethersfield

State#: #BI-MM-58

FAP#: Wethersfield

Project: Retrofit to Wethersfield DMV Lighting Fixtures & Controls (Wethersfield)

<b>CLASSIFICATION</b>	<b>Hourly Rate</b>	<b>Benefits</b>
1b) Asbestos/Toxic Waste Removal Laborers: Asbestos removal and encapsulation (except its removal from mechanical systems which are not to be scrapped), toxic waste removers, blasters.**See Laborers Group 7**		
1c) Asbestos Worker/Heat and Frost Insulator	42.07	30.99
2) Boilermaker	38.34	26.01
3a) Bricklayer, Cement Mason, Concrete Finisher (including caulking), Stone Masons	35.71	33.31 + a
3b) Tile Setter	34.9	25.87
3c) Terrazzo Mechanics and Marble Setters	31.69	22.35
3d) Tile, Marble & Terrazzo Finishers	26.7	21.75
3e) Plasterer	33.48	32.06
-----LABORERS-----		
4) Group 1: Laborers (common or general), acetylene burners, concrete specialists, wrecking laborers, fire watchers.	31.0	22.15
4a) Group 2: Mortar mixers, plaster tender, power buggy operators, powdermen, fireproofers/mixer/nozzleman (Person running mixer and spraying fireproof only).	31.25	22.15

Project: Retrofit to Wethersfield DMV Lighting Fixtures & Controls (Wethersfield)

4b) Group 3: Jackhammer operators/pavement breaker, mason tender (brick), mason tender (cement/concrete), forklift operators and forklift operators (masonry).	31.5	22.15
4c) **Group 4: Pipelayers (Installation of water, storm drainage or sewage lines outside of the building line with P6, P7 license) (the pipelayer rate shall apply only to one or two employees of the total crew who primary task is to actually perform the mating of pipe sections) P6 and P7 rate is \$26.80.	32.0	22.15
4d) Group 5: Air track operator, sand blaster and hydraulic drills.	31.75	22.15
4e) Group 6: Blasters, nuclear and toxic waste removal.	34.0	22.15
4f) Group 7: Asbestos/lead removal and encapsulation (except it's removal from mechanical systems which are not to be scrapped).	32.0	22.15
4g) Group 8: Bottom men on open air caisson, cylindrical work and boring crew.	29.28	22.15
4h) Group 9: Top men on open air caisson, cylindrical work and boring crew.	28.74	22.15
4i) Group 10: Traffic Control Signalman	18.0	22.15
5) Carpenter, Acoustical Ceiling Installation, Soft Floor/Carpet Laying, Metal Stud Installation, Form Work and Scaffold Building, Drywall Hanging, Modular-Furniture Systems Installers, Lathers, Piledrivers, Resilient Floor Layers.	34.53	25.64
5a) Millwrights	34.94	26.19
6) Electrical Worker (including low voltage wiring) (Trade License required: E1,2 L-5,6 C-5,6 T-1,2 L-1,2 V-1,2,7,8,9)	40.25	29.17+3% of gross wage
7a) Elevator Mechanic (Trade License required: R-1,2,5,6)	55.12	34.765+a+b
-----LINE CONSTRUCTION-----		
Groundman	26.5	6.5% + 9.00
Linemen/Cable Splicer	48.19	6.5% + 22.00
8) Glazier (Trade License required: FG-1,2)	39.18	22.55 + a

9) Ironworker, Ornamental, Reinforcing, Structural, and Precast Concrete Erection	36.67	37.62 + a
-----OPERATORS-----		
Group 1: Crane handling or erecting structural steel or stone, hoisting engineer 2 drums or over, front end loader (7 cubic yards or over), work boat 26 ft. and over and Tunnel Boring Machines. (Trade License Required)	42.45	25.30 + a
Group 2: Cranes (100 ton rate capacity and over); Excavator over 2 cubic yards; Piledriver (\$3.00 premium when operator controls hammer); Bauer Drill/Caisson. (Trade License Required)	42.11	25.30 + a
Group 3: Excavator; Backhoe/Excavator under 2 cubic yards; Cranes (under 100 ton rated capacity), Grader/Blade; Master Mechanic; Hoisting Engineer (all types of equipment where a drum and cable are used to hoist or drag material regardless of motive power of operation), Rubber Tire Excavator (Drott-1085 or similar); Grader Operator; Bulldozer Fine Grade. (slopes, shaping, laser or GPS, etc.). (Trade License Required)	41.32	25.30 + a
Group 4: Trenching Machines; Lighter Derrick; Concrete Finishing Machine; CMI Machine or Similar; Koehring Loader (Skooper).	40.91	25.30 + a
Group 5: Specialty Railroad Equipment; Asphalt Paver; Asphalt Reclaiming Machine; Line Grinder; Concrete Pumps; Drills with Self Contained Power Units; Boring Machine; Post Hole Digger; Auger; Pounder; Well Digger; Milling Machine (over 24	40.28	25.30 + a
Group 5 continued: Side Boom; Combination Hoe and Loader; Directional Driller; Pile Testing Machine.	40.28	25.30 + a
Group 6: Front End Loader (3 up to 7 cubic yards); Bulldozer (rough grade dozer).	39.95	25.30 + a
Group 7: Asphalt roller, concrete saws and cutters (ride on types), vermeer concrete cutter, Stump Grinder; Scraper; Snooper; Skidder; Milling Machine (24	39.59	25.30 + a
Group 8: Mechanic, grease truck operator, hydroblaster; barrier mover; power stone spreader; welding; work boat under 26 ft.; transfer machine.	39.17	25.30 + a
Group 9: Front end loader (under 3 cubic yards), skid steer loader regardless of attachments, (Bobcat or Similar): forklift, power chipper; landscape equipment (including Hydroseeder).	38.71	25.30 + a
Group 10: Vibratory hammer; ice machine; diesel and air, hammer, etc.	36.54	25.30 + a
Group 11: Conveyor, earth roller, power pavement breaker (whiphammer), robot demolition equipment.	36.54	25.30 + a

Project: Retrofit to Wethersfield DMV Lighting Fixtures & Controls (Wethersfield)

Group 12: Wellpoint operator.	36.48	25.30 + a
Group 13: Compressor battery operator.	35.86	25.30 + a
Group 14: Elevator operator; tow motor operator (solid tire no rough terrain).	34.66	25.30 + a
Group 15: Generator Operator; Compressor Operator; Pump Operator; Welding Machine Operator; Heater Operator.	34.23	25.30 + a
Group 16: Maintenance Engineer/Oiler.	33.54	25.30 + a
Group 17: Portable asphalt plant operator; portable crusher plant operator; portable concrete plant operator.	38.11	25.30 + a
Group 18: Power safety boat; vacuum truck; zim mixer; sweeper; (Minimum for any job requiring a CDL license).	35.53	25.30 + a
-----PAINTERS (Including Drywall Finishing)-----		
10a) Brush and Roller	35.62	22.55
10b) Taping Only/Drywall Finishing	36.37	22.55
10c) Paperhanger and Red Label	36.12	22.55
10e) Blast and Spray	38.62	22.55
11) Plumber (excluding HVAC pipe installation) (Trade License required: P-1,2,6,7,8,9 J-1,2,3,4 SP-1,2)	44.63	32.95
12) Well Digger, Pile Testing Machine	37.26	24.05 + a
13) Roofer (composition)	38.4	21.89
14) Roofer (slate & tile)	38.9	21.89
15) Sheetmetal Worker (Trade License required for HVAC and Ductwork: SM-1,SM-2,SM-3,SM-4,SM-5,SM-6)	38.9	39.46
16) Pipefitter (Including HVAC work) (Trade License required: S-1,2,3,4,5,6,7,8 B-1,2,3,4 D-1,2,3,4, G-1, G-2, G-8 & G-9)	44.63	32.95

As of: January 15, 2021

-----TRUCK DRIVERS-----

17a) 2 Axle	29.86	25.79 + a
17b) 3 Axle, 2 Axle Ready Mix	29.97	25.79 + a
17c) 3 Axle Ready Mix	30.03	25.79 + a
17d) 4 Axle, Heavy Duty Trailer up to 40 tons	30.08	25.79 + a
17e) 4 Axle Ready Mix	30.13	25.79 + a
17f) Heavy Duty Trailer (40 Tons and Over)	30.35	25.79 + a
17g) Specialized Earth Moving Equipment (Other Than Conventional Type on-the-Road Trucks and Semi-Trailers, Including Euclids)	30.13	25.79 + a
18) Sprinkler Fitter (Trade License required: F-1,2,3,4)	45.92	26.08 + a
19) Theatrical Stage Journeyman	25.76	7.34

Project: Retrofit to Wethersfield DMV Lighting Fixtures & Controls (Wethersfield)

*Welders: Rate for craft to which welding is incidental.*

*\*Note: Hazardous waste removal work receives additional \$1.25 per hour for truck drivers.*

*\*\*Note: Hazardous waste premium \$3.00 per hour over classified rate*

***ALL Cranes: When crane operator is operating equipment that requires a fully licensed crane operator to operate he receives an extra \$4.00 premium in addition to the hourly wage rate and benefit contributions:***

- 1) Crane handling or erecting structural steel or stone; hoisting engineer (2 drums or over)***
- 2) Cranes (100 ton rate capacity and over) Bauer Drill/Caisson***
- 3) Cranes (under 100 ton rated capacity)***

Crane with 150 ft. boom (including jib) - \$1.50 extra

Crane with 200 ft. boom (including jib) - \$2.50 extra

Crane with 250 ft. boom (including jib) - \$5.00 extra

Crane with 300 ft. boom (including jib) - \$7.00 extra

Crane with 400 ft. boom (including jib) - \$10.00 extra

All classifications that indicate a percentage of the fringe benefits must be calculated at the percentage rate times the "base hourly rate".

Apprentices duly registered under the Commissioner of Labor's regulations on "Work Training Standards for Apprenticeship and Training Programs" Section 31-51-d-1 to 12, are allowed to be paid the appropriate percentage of the prevailing journeymen hourly base and the full fringe benefit rate, providing the work site ratio shall not be less than one full-time journeyperson instructing and supervising the work of each apprentice in a specific trade.

*The Prevailing wage rates applicable to this project are subject to annual adjustments each July 1st for the duration of the project.*

*Each contractor shall pay the annual adjusted prevailing wage rate that is in effect each July 1st, as posted by the Department of Labor.*

*It is the contractor's responsibility to obtain the annual adjusted prevailing wage rate increases directly from the Department of Labor's website.*

*The annual adjustments will be posted on the Department of Labor's Web page: [www.ct.gov/dol](http://www.ct.gov/dol). For those without internet access, please contact the division listed below.*

*The Department of Labor will continue to issue the initial prevailing wage rate schedule to the Contracting Agency for the project.*

*All subsequent annual adjustments will be posted on our Web Site for contractor access.*

*Contracting Agencies are under no obligation pursuant to State labor law to pay any increase due to the annual adjustment provision.*

***Effective October 1, 2005 - Public Act 05-50: any person performing the work of any mechanic, laborer, or worker shall be paid prevailing wage***

All Person who perform work ON SITE must be paid prevailing wage for the appropriate mechanic, laborer, or worker classification.

All certified payrolls must list the hours worked and wages paid to All Persons who perform work ON SITE regardless of their ownership i.e.: (Owners, Corporate Officers, LLC Members, Independent Contractors, et. al)

Reporting and payment of wages is required regardless of any contractual relationship alleged to exist between the contractor and such person.

**As of:** January 15, 2021



Project: Retrofit to Wethersfield DMV Lighting Fixtures & Controls (Wethersfield)

**~~Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clause (29 CFR 5.5 (a) (1) (ii)).**

Please direct any questions which you may have pertaining to classification of work and payment of prevailing wages to the Wage and Workplace Standards Division, telephone (860)263-6790.

**As of:** January 15, 2021



## Information Bulletin *Occupational Classifications*

The Connecticut Department of Labor has the responsibility to properly determine "job classification" on prevailing wage projects covered under C.G.S. Section 31-53(d).

**Note:** *This information is intended to provide a sample of some occupational classifications for guidance purposes only. It is not an all-inclusive list of each occupation's duties. This list is being provided only to highlight some areas where a contractor may be unclear regarding the proper classification. If unsure, the employer should seek guidelines for CTDOL.*

**Below are additional clarifications of specific job duties performed for certain classifications:**

- **ASBESTOS WORKERS**

Applies all insulating materials, protective coverings, coatings and finishes to all types of mechanical systems.

- **ASBESTOS INSULATOR**

Handle, install apply, fabricate, distribute, prepare, alter, repair, dismantle, heat and frost insulation, including penetration and fire stopping work on all penetration fire stop systems.

- **BOILERMAKERS**

Erects hydro plants, incomplete vessels, steel stacks, storage tanks for water, fuel, etc. Builds incomplete boilers, repairs heat exchanges and steam generators.

- **BRICKLAYERS, CEMENT MASONS, CEMENT FINISHERS, MARBLE MASONS, PLASTERERS, STONE MASONS, PLASTERERS. STONE MASONS, TERRAZZO WORKERS, TILE SETTERS**

Lays building materials such as brick, structural tile and concrete cinder, glass, gypsum, terra cotta block. Cuts, tools and sets marble, sets stone, finishes concrete, applies decorative steel, aluminum and plastic tile, applies cements, sand, pigment and marble chips to floors, stairways, etc.

- **CARPENTERS, MILLWRIGHTS. PILEDRIVERMEN. LATHERS. RESILEINT FLOOR LAYERS, DOCK BUILDERS, DIKERS, DIVER TENDERS**

Constructs, erects, installs and repairs structures and fixtures of wood, plywood and wallboard. Installs, assembles, dismantles, moves industrial machinery. Drives piling into ground to provide foundations for structures such as buildings and bridges, retaining walls for earth embankments, such as cofferdams. Fastens wooden, metal or rockboard lath to walls, ceilings and partitions of buildings, acoustical tile layer, concrete form builder. Applies firestopping materials on fire resistive joint systems only. Installation of curtain/window walls only where attached to wood or metal studs. Installation of insulated material of all types whether blown, nailed or attached in other ways to walls, ceilings and floors of buildings. Assembly and installation of modular furniture/furniture systems. Free-standing furniture is not covered. This includes free standing: student chairs, study top desks, book box desks, computer furniture, dictionary stand, atlas stand, wood shelving, two-position information access station, file cabinets, storage cabinets, tables, etc.

- **LABORER, CLEANING**

- The clean up of any construction debris and the general (heavy/light) cleaning, including sweeping, wash down, mopping, wiping of the construction facility and its furniture, washing, polishing, and dusting.

- **DELIVERY PERSONNEL**

- If delivery of supplies/building materials is to one common point and stockpiled there, prevailing wages are not required. If the delivery personnel are involved in the distribution of the material to multiple locations within the construction site then they would have to be paid prevailing wages for the type of work performed: laborer, equipment operator, electrician, ironworker, plumber, etc.

- An example of this would be where delivery of drywall is made to a building and the delivery personnel distribute the drywall from one "stockpile" location to further sub-locations on each floor. Distribution of material around a construction site is the job of a laborer or tradesman, and not a delivery personnel.

- **ELECTRICIANS**

Install, erect, maintenance, alteration or repair of any wire, cable, conduit, etc., which generates, transforms, transmits or uses electrical energy for light, heat, power or other purposes, including the Installation or maintenance of telecommunication, LAN wiring or computer equipment, and low voltage wiring. **\*License required per Connecticut General Statutes: E-1,2 L-5,6 C-5,6 T-1,2 L-1,2 V-1,2,7,8,9.**

- **ELEVATOR CONSTRUCTORS**

Install, erect, maintenance and repair of all types of elevators, escalators, dumb waiters and moving walks. *\*License required by Connecticut General Statutes: R-1,2,5,6.*

- **FORK LIFT OPERATOR**

Laborers Group 4) Mason Tenders - operates forklift solely to assist a mason to a maximum height of nine (9) feet only.

Power Equipment Operator Group 9 - operates forklift to assist any trade, and to assist a mason to a height over nine (9) feet.

- **GLAZIERS**

Glazing wood and metal sash, doors, partitions, and 2 story aluminum storefronts. Installs glass windows, skylights, store fronts and display cases or surfaces such as building fronts, interior walls, ceilings and table tops and metal store fronts. Installation of aluminum window walls and curtain walls is the "joint" work of glaziers and ironworkers, which require equal composite workforce.

- **IRONWORKERS**

Erection, installation and placement of structural steel, precast concrete, miscellaneous iron, ornamental iron, metal curtain wall, rigging and reinforcing steel. Handling, sorting, and installation of reinforcing steel (rebar). Metal bridge rail (traffic), metal bridge handrail, and decorative security fence installation. Installation of aluminum window walls and curtain walls is the "joint" work of glaziers and ironworkers which require equal composite workforce.

- **INSULATOR**

- Installing fire stopping systems/materials for "Penetration Firestop Systems": transit to cables, electrical conduits, insulated pipes, sprinkler pipe penetrations, ductwork behind radiation, electrical cable trays, fire rated pipe penetrations, natural polypropylene, HVAC ducts, plumbing bare metal, telephone and communication wires, and boiler room ceilings.

- **LABORERS**

Acetylene burners, asphalt rakers, chain saw operators, concrete and power buggy operator, concrete saw operator, fence and guard rail erector (except metal bridge rail (traffic), decorative security fence (non-metal).

installation.), hand operated concrete vibrator operator, mason tenders, pipelayers (installation of storm drainage or sewage lines on the street only), pneumatic drill operator, pneumatic gas and electric drill operator, powermen and wagon drill operator, air track operator, block paver, curb setters, blasters, concrete spreaders.

- **PAINTERS**

Maintenance, preparation, cleaning, blasting (water and sand, etc.), painting or application of any protective coatings of every description on all bridges and appurtenances of highways, roadways, and railroads. Painting, decorating, hardwood finishing, paper hanging, sign writing, scenic art work and drywall hhg for any and all types of building and residential work.

- **LEAD PAINT REMOVAL**

- Painter's Rate

1. Removal of lead paint from bridges.
2. Removal of lead paint as preparation of any surface to be repainted.
3. Where removal is on a Demolition project prior to reconstruction.

- Laborer's Rate

1. Removal of lead paint from any surface NOT to be repainted.
2. Where removal is on a *TOTAL* Demolition project only.

- **PLUMBERS AND PIPEFITTERS**

Installation, repair, replacement, alteration or maintenance of all plumbing, heating, cooling and piping. ***\*License required per Connecticut General Statutes: P-1,2,6,7,8,9 J-1,2,3,4 SP-1,2 S-1,2,3,4,5,6,7,8 B-1,2,3,4 D-1,2,3,4.***

- **POWER EQUIPMENT OPERATORS**

Operates several types of power construction equipment such as compressors, pumps, hoists, derricks, cranes, shovels, tractors, scrapers or motor graders, etc. Repairs and maintains equipment. ***\*License required, crane operators only, per Connecticut General Statutes.***

- **ROOFERS**

Covers roofs with composition shingles or sheets, wood shingles, slate or asphalt and gravel to waterproof roofs, including preparation of surface. (demolition or removal of any type of roofing and or clean-up of any and all areas where a roof is to be relaid.)

- **SHEETMETAL WORKERS**

Fabricate, assembles, installs and repairs sheetmetal products and equipment in such areas as ventilation, air-conditioning, warm air heating, restaurant equipment, architectural sheet metal work, sheetmetal roofing, and aluminum gutters. Fabrication, handling, assembling, erecting, altering, repairing, etc. of coated metal material panels and composite metal material panels when used on building exteriors and interiors as soffits, fascia, louvers, partitions, canopies, cornice, column covers, awnings, beam covers, cladding, sun shades, lighting troughs, spires, ornamental roofing, metal ceilings, mansards, copings, ornamental and ventilation hoods, vertical and horizontal siding panels, trim, etc. The sheet metal classification also applies to the vast variety of coated metal material panels and composite metal material panels that have evolved over the years as an alternative to conventional ferrous and non-ferrous metals like steel, iron, tin, copper, brass, bronze, aluminum, etc. Fabrication, handling, assembling, erecting, altering, repairing, etc. of architectural metal roof, standing seam roof, composite metal roof, metal and composite bathroom/toilet partitions, aluminum gutters, metal and composite lockers and shelving, kitchen equipment, and walk-in coolers. To include testing and air –balancing ancillary to installation and construction.

- **SPRINKLER FITTERS**

Installation, alteration, maintenance and repair of fire protection sprinkler systems.

***\*License required per Connecticut General Statutes: F-1,2,3,4.***

- **TILE MARBLE AND TERRAZZO FINISHERS**

Assists and tends the tile setter, marble mason and terrazzo worker in the performance of their duties.

- **TRUCK DRIVERS**

~How to pay truck drivers delivering asphalt is under REVISION~

Truck Drivers are required to be paid prevailing wage for time spent "working" directly on the site. These drivers remain covered by the prevailing wage for any time spent transporting between the actual construction location and facilities (such as fabrication, plants, mobile factories, batch plant, borrow pits, job headquarters, tool yards, etc.) dedicated exclusively, or nearly so, to performance of the contract or project, which are so located in proximity to the actual construction location that it is reasonable to include them. ***\*License required, drivers only, per Connecticut General Statutes.***

***For example:***

- Material men and deliverymen are not covered under prevailing wage as long as they are not directly involved in the construction process. If, they unload the material, they would then be covered by prevailing wage for the classification they are performing work in: laborer, equipment operator, etc.
- Hauling material off site is not covered provided they are not dumping it at a location outlined above.
- Driving a truck on site and moving equipment or materials on site would be considered covered work, as this is part of the construction process.

➤ *Any questions regarding the proper classification should be directed to:*  
*Public Contract Compliance Unit*  
*Wage and Workplace Standards Division*  
*Connecticut Department of Labor*  
*200 Folly Brook Blvd, Wethersfield, CT 06109*  
*(860) 263-6543.*



# **Informational Bulletin**

## **THE 10-HOUR OSHA CONSTRUCTION SAFETY AND HEALTH COURSE**

(applicable to public building contracts entered into *on or after July 1, 2007*, where the total cost of all work to be performed is at least \$100,000)

- (1) This requirement was created by Public Act No. 06-175, which is codified in Section 31-53b of the Connecticut General Statutes (pertaining to the prevailing wage statutes);
- (2) The course is required for public building construction contracts (projects funded in whole or in part by the state or any political subdivision of the state) entered into on or after July 1, 2007;
- (3) It is required of private employees (not state or municipal employees) and apprentices who perform manual labor for a general contractor or subcontractor on a public building project where the total cost of all work to be performed is at least \$100,000;
- (4) The ten-hour construction course pertains to the ten-hour Outreach Course conducted in accordance with federal OSHA Training Institute standards, and, for telecommunications workers, a ten-hour training course conducted in accordance with federal OSHA standard, 29 CFR 1910.268;
- (5) The internet website for the federal OSHA Training Institute is [http://www.osha.gov/fso/ote/training/edcenters/fact\\_sheet.html](http://www.osha.gov/fso/ote/training/edcenters/fact_sheet.html);
- (6) The statutory language leaves it to the contractor and its employees to determine who pays for the cost of the ten-hour Outreach Course;
- (7) Within 30 days of receiving a contract award, a general contractor must furnish proof to the Labor Commissioner that all employees and apprentices performing manual labor on the project will have completed such a course;
- (8) Proof of completion may be demonstrated through either: (a) the presentation of a *bona fide* student course completion card issued by the federal OSHA Training Institute; *or* (2) the presentation of documentation provided to an employee by a trainer certified by the Institute pending the actual issuance of the completion card;
- (9) Any card with an issuance date more than 5 years prior to the commencement date of the construction project shall not constitute proof of compliance;

- (10) Each employer shall affix a copy of the construction safety course completion card to the certified payroll submitted to the contracting agency in accordance with Conn. Gen. Stat. § 31-53(f) on which such employee's name first appears;
- (11) Any employee found to be in non-compliance shall be subject to removal from the worksite if such employee does not provide satisfactory proof of course completion to the Labor Commissioner by the fifteenth day after the date the employee is determined to be in noncompliance;
- (12) Any such employee who is determined to be in noncompliance may continue to work on a public building construction project for a maximum of fourteen consecutive calendar days while bringing his or her status into compliance;
- (13) The Labor Commissioner may make complaint to the prosecuting authorities regarding any employer or agent of the employer, or officer or agent of the corporation who files a false certified payroll with respect to the status of an employee who is performing manual labor on a public building construction project;
- (14) The statute provides the minimum standards required for the completion of a safety course by manual laborers on public construction contracts; any contractor can exceed these minimum requirements; and
- (15) Regulations clarifying the statute are currently in the regulatory process, and shall be posted on the CTDOL website as soon as they are adopted in final form.
- (16) Any questions regarding this statute may be directed to the Wage and Workplace Standards Division of the Connecticut Labor Department via the internet website of <http://www.ctdol.state.ct.us/wgwkstnd/wgemenu.htm>; or by telephone at (860)263-6790.

**THE ABOVE INFORMATION IS PROVIDED EXCLUSIVELY AS AN EDUCATIONAL RESOURCE, AND IS NOT INTENDED AS A SUBSTITUTE FOR LEGAL INTERPRETATIONS WHICH MAY ULTIMATELY ARISE CONCERNING THE CONSTRUCTION OF THE STATUTE OR THE REGULATIONS.**

**Connecticut Department of Labor  
Wage and Workplace Standards Division  
FOOTNOTES**

⇒ Please Note: If the “Benefits” listed on the schedule for the following occupations includes a letter(s) (+ a or + a+b for instance), refer to the information below.

Benefits to be paid at the appropriate prevailing wage rate for the listed occupation.

If the “Benefits” section for the occupation lists only a dollar amount, disregard the information below.

**Bricklayers, Cement Masons, Cement Finishers, Concrete Finishers, Stone Masons  
(Building Construction) and  
(Residential- Hartford, Middlesex, New Haven, New London and Tolland Counties)**

- a. Paid Holiday: Employees shall receive 4 hours for Christmas Eve holiday provided the employee works the regularly scheduled day before and after the holiday. Employers may schedule work on Christmas Eve and employees shall receive pay for actual hours worked in addition to holiday pay.

**Elevator Constructors: Mechanics**

- a. Paid Holidays: New Year’s Day, Memorial Day, Independence Day, Labor Day, Veterans’ Day, Thanksgiving Day, Christmas Day, plus the Friday after Thanksgiving.
- b. Vacation: Employer contributes 8% of basic hourly rate for 5 years or more of service or 6% of basic hourly rate for 6 months to 5 years of service as vacation pay credit.

**Glaziers**

- a. Paid Holidays: Labor Day and Christmas Day.

**Power Equipment Operators  
(Heavy and Highway Construction & Building Construction)**

- a. Paid Holidays: New Year’s Day, Good Friday, Memorial day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day, provided the employee works 3 days during the week in which the holiday falls, if scheduled, and if scheduled, the working day before and the working day after the holiday. Holidays falling on Saturday may be observed on Saturday, or if the employer so elects, on the preceding Friday.

**Ironworkers**

- a. Paid Holiday: Labor Day provided employee has been on the payroll for the 5 consecutive work days prior to Labor Day.

**Laborers (Tunnel Construction)**

- a. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day. No employee shall be eligible for holiday pay when he fails, without cause, to work the regular work day preceding the holiday or the regular work day following the holiday.

**Roofers**

- a. Paid Holidays: July 4<sup>th</sup>, Labor Day, and Christmas Day provided the employee is employed 15 days prior to the holiday.

**Sprinkler Fitters**

- a. Paid Holidays: Memorial Day, July 4th, Labor Day, Thanksgiving Day and Christmas Day, provided the employee has been in the employment of a contractor 20 working days prior to any such paid holiday.

**Truck Drivers**

(Heavy and Highway Construction & Building Construction)

- a. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Christmas day, and Good Friday, provided the employee has at least 31 calendar days of service and works the last scheduled day before and the first scheduled day after the holiday, unless excused.

## STATUTE 31-55a

### - SPECIAL NOTICE -

**To: All State and Political Subdivisions, Their Agents, and Contractors**

**Connecticut General Statute 31-55a - Annual adjustments to wage rates by contractors doing state work.**

*Each contractor that is awarded a contract on or after October 1, 2002, for (1) the construction of a state highway or bridge that falls under the provisions of section 31-54 of the general statutes, or (2) the construction, remodeling, refinishing, refurbishing, rehabilitation, alteration or repair of any public works project that falls under the provisions of section 31-53 of the general statutes shall contact the Labor Commissioner on or before July first of each year, for the duration of such contract, to ascertain the prevailing rate of wages on an hourly basis and the amount of payment or contributions paid or payable on behalf of each mechanic, laborer or worker employed upon the work contracted to be done, and shall make any necessary adjustments to such prevailing rate of wages and such payment or contributions paid or payable on behalf of each such employee, effective each July first.*

- The prevailing wage rates applicable to any contract or subcontract awarded on or after October 1, 2002 are subject to annual adjustments each July 1st for the duration of any project which was originally advertised for bids on or after October 1, 2002.
- Each contractor affected by the above requirement shall pay the annual adjusted prevailing wage rate that is in effect each July 1st, as posted by the Department of Labor.
- It is the **contractor's** responsibility to obtain the annual adjusted prevailing wage rate increases directly from the Department of Labor's Web Site. The annual adjustments will be posted on the Department of Labor Web page: [www.ctdol.state.ct.us](http://www.ctdol.state.ct.us). For those without internet access, please contact the division listed below.
- The Department of Labor will continue to issue the initial prevailing wage rate schedule to the Contracting Agency for the project. All subsequent annual adjustments will be posted on our Web Site for contractor access.

**Any questions should be directed to the Contract Compliance Unit, Wage and Workplace Standards Division, Connecticut Department of Labor, 200 Folly Brook Blvd., Wethersfield, CT 06109 at (860)263-6790.**



[New] In accordance with Section 31-53b(a) of the C.G.S. each contractor shall provide a copy of the OSHA 10 Hour Construction Safety and Health Card for each employee, to be attached to the first certified payroll on the project.

In accordance with Connecticut General Statutes, 31-53 Certified Payrolls with a statement of compliance shall be submitted monthly to the contracting agency.											<b>PAYROLL CERTIFICATION FOR PUBLIC WORKS PROJECTS</b>						Connecticut Department of Labor Wage and Workplace Standards Division 200 Folly Brook Blvd. Wethersfield, CT 06109									
<b>WEEKLY PAYROLL</b>											CONTRACTOR NAME AND ADDRESS:						SUBCONTRACTOR NAME & ADDRESS						WORKER'S COMPENSATION INSURANCE CARRIER			
PAYROLL NUMBER		Week-Ending Date		PROJECT NAME & ADDRESS											POLICY #						EFFECTIVE DATE: EXPIRATION DATE:					
PERSON/WORKER, ADDRESS and SECTION		APPR RATE %	MALE/FEMALE AND RACE*	WORK CLASSIFICATION	DAY AND DATE						Total ST Hours	BASE HOURLY RATE	TYPE OF FRINGE BENEFITS												GROSS PAY FOR ALL WORK PERFORMED THIS WEEK	TOTAL DEDUCTIONS
					S	M	T	W	TH	F	S	Total O/T Hours	TOTAL FRINGE BENEFIT PLAN CASH	Per Hour	1 through 6 (see back)		FICA	FEDERAL WITH-HOLDING	STATE WITH-HOLDING	LIST OTHER						
				Trade License Type & Number - OSHA 10 Certification Number	HOURS WORKED EACH DAY							\$														
															1. \$											
															2. \$											
															3. \$											
															4. \$											
															5. \$											
															6. \$											
															1. \$											
															2. \$											
															3. \$											
															4. \$											
															5. \$											
															6. \$											
															1. \$											
															2. \$											
															3. \$											
															4. \$											
															5. \$											
															6. \$											

12/9/2013 \*IF REQUIRED  
WWS-CPI

\*SEE REVERSE SIDE

PAGE NUMBER \_\_\_\_ OF





**\*FRINGE BENEFITS EXPLANATION (P):**

Bona fide benefits paid to approved plans, funds or programs, except those required by Federal or State Law (unemployment tax, worker’s compensation, income taxes, etc.).

Please specify the type of benefits provided:

- 1) Medical or hospital care \_\_\_\_\_ 4) Disability \_\_\_\_\_
- 2) Pension or retirement \_\_\_\_\_ 5) Vacation, holiday \_\_\_\_\_
- 3) Life Insurance \_\_\_\_\_ 6) Other (please specify) \_\_\_\_\_

**CERTIFIED STATEMENT OF COMPLIANCE**

For the week ending date of \_\_\_\_\_,

I, \_\_\_\_\_ of \_\_\_\_\_, (hereafter known as Employer) in my capacity as \_\_\_\_\_ (title) do hereby certify and state:

**Section A:**

1. All persons employed on said project have been paid the full weekly wages earned by them during the week in accordance with Connecticut General Statutes, section 31-53, as amended. Further, I hereby certify and state the following:

- a) The records submitted are true and accurate;
- b) The rate of wages paid to each mechanic, laborer or workman and the amount of payment or contributions paid or payable on behalf of each such person to any employee welfare fund, as defined in Connecticut General Statutes, section 31-53 (h), are not less than the prevailing rate of wages and the amount of payment or contributions paid or payable on behalf of each such person to any employee welfare fund, as determined by the Labor Commissioner pursuant to subsection Connecticut General Statutes, section 31-53 (d), and said wages and benefits are not less than those which may also be required by contract;
- c) The Employer has complied with all of the provisions in Connecticut General Statutes, section 31-53 (and Section 31-54 if applicable for state highway construction);
- d) Each such person is covered by a worker’s compensation insurance policy for the duration of his employment which proof of coverage has been provided to the contracting agency;
- e) The Employer does not receive kickbacks, which means any money, fee, commission, credit, gift, gratuity, thing of value, or compensation of any kind which is provided directly or indirectly, to any prime contractor, prime contractor employee, subcontractor, or subcontractor employee for the purpose of improperly obtaining or rewarding favorable treatment in connection with a prime contract or in connection with a prime contractor in connection with a subcontractor relating to a prime contractor; and
- f) The Employer is aware that filing a certified payroll which he knows to be false is a class D felony for which the employer may be fined up to five thousand dollars, imprisoned for up to five years or both.

2. OSHA~The employer shall affix a copy of the construction safety course, program or training completion document to the certified payroll required to be submitted to the contracting agency for this project on which such persons name first appears.

\_\_\_\_\_  
 (Signature) (Title) Submitted on (Date)



Weekly Payroll Certification For  
Public Works Projects (Continued)

**PAYROLL CERTIFICATION FOR PUBLIC WORKS PROJECTS**

Week-Ending Date:  
Contractor or Subcontractor Business Name:

**WEEKLY PAYROLL**

PERSON/WORKER, ADDRESS and SECTION	APPR RATE %	MALE/ FEMALE AND RACE*	WORK CLASSIFICATION  Trade License Type & Number - OSHA 10 Certification Number	DAY AND DATE							Total ST Hours	BASE HOURLY RATE	TYPE OF FRINGE BENEFITS Per Hour 1 through 6 (see back)	GROSS PAY FOR ALL WORK PERFORMED THIS WEEK	TOTAL DEDUCTIONS				GROSS PAY FOR THIS PREVAILING RATE JOB	CHECK # AND NET PAY						
				S	M	T	W	TH	F	S					FICA	WITH- HOLDING	WITH- HOLDING	OTHER								
				HOURS WORKED EACH DAY											Total O/T Hours	TOTAL FRINGE BENEFIT PLAN CASH	1. \$	2. \$			3. \$	4. \$	5. \$	6. \$		
													\$	Base Rate	1. \$	2. \$	3. \$	4. \$	5. \$	6. \$						
													\$	Cash Fringe	1. \$	2. \$	3. \$	4. \$	5. \$	6. \$						
													\$	Base Rate	1. \$	2. \$	3. \$	4. \$	5. \$	6. \$						
													\$	Cash Fringe	1. \$	2. \$	3. \$	4. \$	5. \$	6. \$						
													\$	Base Rate	1. \$	2. \$	3. \$	4. \$	5. \$	6. \$						
													\$	Cash Fringe	1. \$	2. \$	3. \$	4. \$	5. \$	6. \$						
													\$	Base Rate	1. \$	2. \$	3. \$	4. \$	5. \$	6. \$						
													\$	Cash Fringe	1. \$	2. \$	3. \$	4. \$	5. \$	6. \$						

\*IF REQUIRED



**Additional Forms to Be Submitted  
After Bond Commission Funding Approval**

DAS | Construction Services | Office of Legal Affairs, Policy, and Procurement

<b>Table of Contents</b>	<b>No. of Pages</b>
<b>Performance Bond</b>	<b>2</b>
<b>Labor And Material Bond</b>	<b>2</b>
<b>Surety Sheet</b>	<b>1</b>
<b>Bidder's Certification: Financial Position and Corporate Structure</b>	<b>1</b>

**PERFORMANCE BOND**  
**Know All Men by These Presents**

**THAT** [ ] of the  
Town of [ ] , County [ ] and  
State of [ ] , as Principal (hereinafter called the Principal),  
and [ ] , [ ]

*(Insert place of Business)*

(a surety company authorized to transact business in the State Of Connecticut) as Surety(ies) (hereinafter called the Surety) are held and firmly bound unto the State of Connecticut (hereinafter called the Obligee) in the full penal sum of

[ ]

(\$ [ ] ) Dollars, lawful money of the United States, to be paid to said State of Connecticut, to the which payment well and truly to be made and done, the said Principal binds himself, his heirs, executors, administrators and assigns (or itself, its successors and assigns), and the said Surety (ies) binds itself, its successors and assigns jointly and severally firmly by these presents.

Signed, sealed and delivered this [ ] day of [ ] 20 [ ] .

**THE CONDITION OF THIS OBLIGATION IS SUCH THAT**

**WHEREAS** said Principal will enter into a certain written contract with said Obligee, to be dated-the

[ ] day of [ ] 20 [ ] , which written , as amended, contract shall provide for the following:

- Project Title:** [ ]
- Project Location:** [ ]
- Contract Number:** [ ]
- Project Number:** [ ]

which contract, including any hereafter made extension, modification or alteration thereof, together with all plans and specifications now made or which may hereafter be made in extension, modification or alteration thereof, is hereby referred to, incorporated in, and made a part of this bond as though herein fully set forth.

**NOW, THEREFORE**, if the said Principal shall well and truly keep, perform and execute all the undertaking, covenants, terms, conditions, and agreements of said contract, as it may be extended, modified or altered, and during the *period* of any guaranty required under the contract, according to its provisions on his or its part to be kept and performed or shall indemnify and reimburse the Obligee for any loss that it may suffer through the failure of the Principal to faithfully observe and perform each and every obligation and duty imposed upon the Principal by the said contract, as it may be extended, modified or altered, at the time and in the manner therein specified, then this obligation shall be null and void, otherwise it shall remain and be in full force and effect.

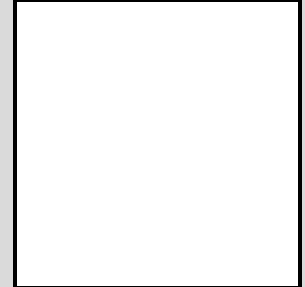
Any alterations which may be made in the terms of the contract, or in the work done or to be done under it, or the giving by the Obligee of any extension of time for the performance of the contract or any other forbearance on the part of either the Obligee or the Principal, one to the other, shall not in any way release the Principal, and/or the Surety(ies) or either of them, their representatives, heirs, executors, administrators, successors or assigns from liability hereunder, and notice to the Surety(ies) of any such alteration, modification, extension or forbearance is hereby specifically and absolutely waived.

In the event that the Surety(ies) assumes the contract or obtains a bid or bids for completion of the contract, the Surety(ies) shall ensure that the contractor chosen to complete the contract is prequalified pursuant to section 4a-100 of the Connecticut General Statutes, in the requisite classification and has the aggregate work capacity rating and single project limit necessary to complete the contract.

**IN TESTIMONY WHEREOF**, the said Principal has hereunto set his / its hand and seal, and the said Surety(ies) has/have caused this instrument to be signed by its/their attorney in fact and its corporate seal to be hereunto affixed, the day and year first written.

**Witness as to Principle**

**SEAL**



(Print Name)

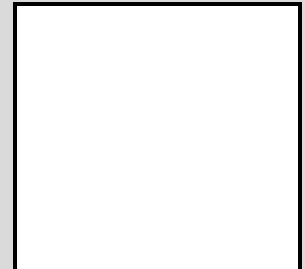
, Its

Duly Authorized

(Print Name)

**Witness as to Surety**

**SEAL**



(Print Name)

by

Its attorney in fact

(Print Name)

**Note:** If more than one surety, add additional lines for additional surety name and address, person signing and title, and two witnesses. Obtain Power of Attorney for each surety.

**End Performance Bond**

**LABOR AND MATERIAL BOND  
Know All Men by These Presents**

**THAT** [ ] of the  
Town of [ ], County [ ] and  
State of [ ], as Principal (hereinafter called the Principal),  
and [ ], [ ]

*(Insert place of Business)*

(a surety company authorized to transact business in the State Of Connecticut) as Surety(ies) (hereinafter called the Surety) are held and firmly bound unto the State of Connecticut (hereinafter called the Obligee) in the full penal sum of

[ ]

(\$ [ ] ) Dollars, lawful money of the United States, to be paid to said State of Connecticut, to the which payment well and truly to be made and done, the said Principal binds himself, his heirs, executors, administrators and assigns (or itself, its successors and assigns), and the said Surety (ies) binds itself, its successors and assigns jointly and severally firmly by these presents.

Signed, sealed and delivered this [ ] day of [ ] 20 [ ] .

**THE CONDITION OF THIS OBLIGATION IS SUCH THAT**

**WHEREAS** said Principal will enter into a certain written contract with said Obligee, to be dated the

[ ] day of [ ] 20 [ ] , which written, as amended, contract shall provide for the following:

**Project Title:** [ ]

**Project Location:** [ ]

**Contract Number:** [ ]

**Project Number:** [ ]

which contract, including any hereafter made extension, modification or alteration thereof, together with all plans and specifications now made or which may hereafter be made in extension, modification or alteration thereof, is hereby referred to, incorporated in, and made a part of this bond as though herein fully set forth.

**NOW, THEREFORE**, if the said Principal shall promptly pay for all materials furnished and labor supplied or performed in the prosecution of the work included in and under the aforesaid contract, as it may be extended, modified or altered, and/or required by the General Statutes of Connecticut, as amended, whether or not the material or labor enters into and becomes a component part of the real asset, then this obligation shall be null and void, otherwise it shall remain and be in full force and effect. This bond is provided pursuant to Section 49-41 et seq. of the General Statutes of Connecticut and shall be governed thereby.

Any party, whether a subcontractor or otherwise, who furnishes materials or supplies or performs labor or services in the prosecution of the work under said contract, as it may be extended, modified or altered, and who is not paid therefor, may bring a suit on this bond in the name of the person suing and prosecute the same to final execution and judgment for such sum or sums as may be justly due.

Any alterations which may be made in the terms of the contract, or in the work done or to be done under it, or the giving by the Obligee of any extension of time for the performance of the contract or any other forbearance on the part of either the Obligee or the Principal, one to the other, shall not in any way release the Principal, and/or the Surety(ies) or either of them, their representatives, heirs, executors, administrators, successors or assigns from liability hereunder, and notice to the Surety(ies) of any such alteration, modification, extension or forbearance is hereby specifically and absolutely waived.

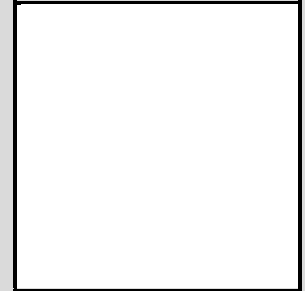


In the event that the Surety(ies) assumes the contract or obtains a bid or bids for completion of the contract, the Surety(ies) shall ensure that the contractor chosen to complete the contract is prequalified pursuant to section 4a-100 of the Connecticut General Statutes, in the requisite classification and has the aggregate work capacity rating and single project limit necessary to complete the contract.

**IN TESTIMONY WHEREOF**, the said Principal has hereunto set his / its hand and seal, and the said Surety(ies) has/have caused this instrument to be signed by its/their attorney in fact and its corporate seal to be hereunto affixed, the day and year first written.

**Witness as to Principle**

**SEAL**



(Print Name)

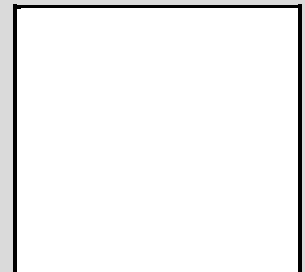
, Its

Duly Authorized

(Print Name)

**Witness as to Surety**

**SEAL**



(Print Name)

by

Its attorney in fact

(Print Name)

**Note:** If more than one surety, add additional lines for additional surety name and address, person signing and title, and two witnesses. Obtain Power of Attorney for each surety.

**End Labor and Material Bond**

## Surety Sheet

State Of Connecticut  
Department of Administrative Services, Construction Services  
Office of Legal Affairs, Policy, and Procurement  
450 Columbus Boulevard, Suite 1302  
Hartford, CT 06103

### 1. Surety Company

Name of Surety Co.:

Address of Home Office:

Telephone Number:

### 2. Agent

Name of Surety Co.:

Address of Agency:

Telephone Number:

Attorney-In-Fact:

Telephone Number:

DAS Project Number:

Contractor's Name:

*End Surety Sheet*

**Bidder's Certification:  
Financial Position and Corporate Structure**

*(Your Name)*

*(Name Of Company)*

Pursuant to C.G.S. § 4b-91(e), as amended, the bidder for this contract (hereinafter "bidder"), certifies under penalty of false statement that the information in the bid is true, that there has been no substantial change in the bidder's financial position or corporate structure since its most recent prequalification certificate was issued or renewed, other than those changes noted in the update statement, and that the bid was made without fraud or collusion with any person.

*(Signature)*

*(Print Name)*

*(Date)*

*(DAS Project Number)*

***End Bidder's Certification: Financial Position and Corporate Structure***

**End of Section 00 92 10  
Additional Forms To Be Submitted After Bond Commission Funding Approval**



## Procedures Regarding Taxation For Nonresident General / Prime Contractor and Subcontractors

**DAS | Construction Services | Office of Legal Affairs, Policy, and Procurement**

According to [Connecticut General Statutes § 12-430\(7\)](#), there are two types of Nonresident Contractors and Subcontractors (*Verified* or *Unverified*) who are required to furnish security for Connecticut taxes arising from jobs performed in Connecticut.

Detailed information can be found by visiting the Connecticut Department of Revenue Services (DRS) website at [www.ct.gov/drs](http://www.ct.gov/drs):

- Under the “**For Businesses**” title, click on “**Withholding Tax**”;
- Click on “**Registering**”;
- Click on “**5. What tax types do I need to register for with DRS**”;
- Read the information for “**Out-of-State**” contractors.
- Click on “[SN 2012\(2\)](#)” for the “Procedure Governing Nonresident Contractors”.

Forms can be downloaded from the DRS website ([www.ct.gov/drs](http://www.ct.gov/drs)) as follows:

- Click on “**Forms**” at the top of the page;
- Under “**Current Year Forms**”:
  - Click on “**Miscellaneous Tax Forms**”;
  - Click on “**Bond Forms**”
- Download the appropriate form.

For questions regarding the nonresident contractor bond law, call **DRS** at **860-541-7538**.

### 1.0 Verified Nonresident Contractors and Subcontractors

Verified Nonresident Contractors are treated just like Resident Contractors. A Verified Nonresident General or Prime Contractor is not required to file a surety bond with DRS. A Verified Nonresident Subcontractor is not required for the General or Prime Contractor to hold back a portion of the amount owed the Subcontractor under the contract.

#### 1.1 Verification Procedure for General/Prime Contractors and Subcontractors:

**1.1.1 Register with DRS** via REG-1 for all appropriate taxes.

**1.1.2 Submit Form AU-960 “Nonresident Contractor Request for Verified Contractor Status” to DRS.** If you have a 3 year filing history with DRS and no delinquencies, then just complete **Part I & Part I**, otherwise go to **Part III**.

**1.1.3 Submit Form AU-961 “Verification Bond” to DRS.**

**1.1.4** If Verified by DRS, submit “**Notice of Verified Status**” (Verification Letter issued by DRS) to the Connecticut Department of Administrative Services / Construction Services (DAS/CS) Office of Legal Affairs, Policy, and Procurement as specified in Section 00 41 00 Bid Proposal Form.

**2.0 Unverified Nonresident Contractors and Subcontractors  
(for Contracts Greater Than \$250,000):**

The requirements for Unverified Nonresident Contractors and Unverified Nonresident Subcontractors (for Contracts greater than \$250,000) are different for General/Prime Contractors and their Subcontractors:

**2.1 Unverified Nonresident General or Prime Contractors:**

- 2.1.1** Submit **Form AU-964 “Surety Bond and Release” to DRS**. The Unverified Nonresident General/Prime Contractor is required to file a good and valid surety bond with DRS using Form AU-964 “Surety Bond and Release” for 5% of the contract price to secure payment of required taxes by both the General/Prime Contractor and its Subcontractors.
- 2.1.2** The General/Prime Contractor must provide proof to DAS/CS that they have posted a good and valid surety bond with DRS by providing a copy of **Form AU-965 “Acceptance of Surety Bond”** that verifies acceptance of the bond by DRS\*.

**2.2 Unverified Nonresident Subcontractors:**

- 2.2.1** The Resident or Verified or Unverified Nonresident General/Prime Contractor is required to hold back 5% of its payments to the Unverified Nonresident Subcontractor. The General/Prime Contractor must keep the hold-backs in a special fund in trust for the state.
- 2.2.2** The Unverified Nonresident Subcontractor can request that the money be released from the General/Prime Contractor by submitting **Form AU-967 “Request for Certificate of Compliance” to DRS**. It must be signed by the General/Prime Contractor and the Nonresident Subcontractor and submitted **to DRS within 90 days of the completion date**.
- 2.2.3** If **Form AU-968 “Certificate of Compliance”** is issued by DRS, DRS will instruct the General/Prime Contractor holding back the 5% to release the withheld amount to the Nonresident Subcontractor. If the “Certificate of Compliance” is denied or not requested within **90 days of the completion date of the contract**, the General/Prime Contractor holding back the 5% will remit the withheld amount on their own Sales & Use tax returns.
- 2.2.4** The 5% holdback does not take the place of any tax returns due from the Unverified Nonresident Contractor.
- 2.2.5** The General/Prime Contractor must give the Unverified Nonresident Subcontractor written notice of the hold-back requirements by the time the Subcontractor begins work under the contract.

\*Document(s) must be submitted to the DAS/CS Office of Legal Affairs, Policy, and Procurement as specified in Section 00 41 00 “Bid Proposal Form”.

**End of Section**

**00 92 30 Procedures Regarding Taxation  
For Nonresident General/Prime Contractor & Subcontractors**

## PART 1 – GENERAL

### 1.1 DEFINITIONS

- A. Contractor:**  
Whenever the term "**Contractor**" is used in these Division 01 General Requirements and the Contract Documents, it may be understood to mean either the **Design-Bid-Build (D-B-B) "General Contractor"** or the **Construction Manager at Risk ("CMR")** as applicable to the specific Project.
- B. Subcontractor:**  
Whenever the term "**Subcontractor**" is used, it may be understood to mean either a **Subcontractor** or a **Supplier**, as applicable to the specific Project.
- C. Contract:**  
Whenever the term "**Contract**" is used in these Division 01 General Requirements and the Contract Documents, it may be understood to mean either the **D-B-B General Contractor's Contract Sum** as stated in their Contract or the **CMR's Contract Sum** as stated in their CMR Agreement, as applicable to the specific Project.

### 1.2 RELATED DOCUMENTS

- A.** The Contract Documents are defined in the D-B-B and CMR Division 00 General Conditions, as applicable to the specific Project.
- B.** Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

### 1.3 WORK COVERED BY CONTRACT DOCUMENTS

- A. Project Delivery Method:**
1. Design-Bid-Build (DBB);
- B. Project Number:** **BI-MM-58**.
- C. Project Title:** **Lighting Fixtures and Controls Retrofit**.
- D. Project Location:** The **State of Connecticut, Department of Motor Vehicles**, located at 60 State Street, **Wethersfield**, Connecticut.
- E. The Project Description:**
1. Removal and replacement of interior building lighting and controls in approximately **120,000** gross square feet, and removal and replacement of exterior parking and building lighting fixtures, as multi-phased construction.
  3. The Authorities Having Jurisdiction for Threshold Projects, Non-Threshold Projects, as defined by the Connecticut General Statutes, are the Connecticut Department of Administrative Services (DAS) / Construction Services (CS) Office of State Building Inspector (OSBI) and Office of State Fire Marshal (OSFM).
- F. Owner:**
1. **Owner's Name:** The Owner is the State of Connecticut, Department of Administrative Services.
  2. **Authorized Representative for the Owner: DAS/CS Project Manager Name:** **Nicholas Ross**.
    - a. **DAS/CS Project Manager's Location:** The DAS/CS Project Manager is located at 450 Columbus Blvd, Suite 1201, Hartford, CT, 06103.
    - b. **Phone:** **(860) 713-5945**.
    - c. **Fax:**
    - d. **Email(s):** **nicholas.ross@ct.gov**.
  3. **Authority:** The DAS/CS Project Manager is the only 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.
    - a. **Related Section: Article 25, All Work Subject To Control of the Commissioner**, Division 00 General Conditions of the Contract for Construction.

**G. Agency:**

1. **Agency Name:** The Connecticut State (User) Agency is the Connecticut Department of Motor Vehicles.
2. **Agency Representative Name and Title:** **Abigail Lawson**. The Agency Representative's Title is: **Fiscal Administrative Supervisor, CT DMV**.
  - a. **Agency Representative Location:** The Agency Representative is located at **60 State Street, Room 327, Wethersfield, CT 06161-3003**.
  - b. **Phone:** **(860) 263-5002**.
  - c. **Fax:** **(860) 263-5513**.
  - d. **Email(s):** **abigail.lawson@ct.gov**.
3. **Authority:** 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.

**H. Architect and Engineer (A/E):**

1. **Architect's Name:** The Architect representing the firm for this project is: **John Ineson, EDM**.
  - a. **Architect's Location:** The Architect is located at **45 South Main Street, Second Floor, Unionville, CT 06085**.
  - b. **Phone:** **(860) 233-8282**.
  - c. **Fax:** **(860) 404-0816**.
  - d. **Email(s):** **jineson@edm-ae.com**.
2. The Architect and Engineer (A/E) 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:
  - a. 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 to the DAS/CS Project Manager.
  - b. 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 Division 00 "General Conditions" and "Supplementary Conditions".
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.

**I. Construction Administrator (CA):**

1. **Construction Administrator Name:** **The McCloud Group**.
  - a. **Construction Administrator Location:** The Construction Administrator is located at **30 Montgomery Street, Suite 940, Jersey City, NJ 07302**.
  - b. **Phone:** **(201) 222-7769**.
  - c. **Fax:** **(201) 222-3491**.
  - d. **Email(s):** **koutlaw@themccloudgroup.com**.
2. **Authority:** As information to the Contractor, the Construction Administrator's status is defined as follows:
  - a. The Construction Administrator (CA) is referred to in the Contract Documents as "Construction Administrator" or by pronouns which imply it. All communications concerning the project will be directed through the Construction Administrator or a designated representative(s).
  - b. The Construction Administrator is the Owner's Agent who will, among other things, monitor and analyze the Contractor's performance, scheduling and construction, process shop drawings, material, and equipment submittals, review and process periodic billings, review, analyze, and recommend cost changes.
  - c. **Related Section:** **Article 26 "Authority of the Construction Administrator"** of Division 00 "General Conditions of the Contract for Construction".
3. 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 for the Project Manager to the Contractor. All such requests and replies shall be in writing.

- K. Work:** The Work includes but is not limited to the following:
- 1 Demolition, Temporary Lighting and Protections.**
  - 2 Site Lighting and Wiring.**
  - 3 Drywall and Painting.**
  - 4 Firestopping.**
  - 5 Electrical Lighting, Wiring, Switching and Lighting Controls Systems.**
- L.** The Contractor will include in their bid, all items required in order to carry out the intent of the Work as described, shown and implied in the Contract Documents.
- M.** It shall be the Contractor's responsibility upon discovery to immediately notify the Construction Administrator, in writing, of errors, omissions, discrepancies, and instances of noncompliance 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.
- N.** The Work will be constructed under the Contractor's Contract as applicable to this Project.

#### 1.6 WORK SEQUENCE (PHASES)

- 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 **nine (9)** Phase Areas, with multiple work areas within those nine (9) Phase Areas. Work within these work areas shall be substantially complete, ready for occupancy within **10** Calendar Days of the commencement of work in each work area. Work of all Phase Areas shall be substantially complete, ready for occupancy within **180** Calendar Days of commencement of the Work (the "Contract Time").
- 1. Refer also to the project Phasing Plans for information. Phase Areas are indicated as Phase 1A, 1B, 1C, 2A, 2B, 2C, 3A, 3B, and 3C.**

#### 1.7 CONTRACTOR'S USE OF PREMISES

- A. General:** During the construction period the Contractor shall have limited use of the premises for construction operations, including use of the site. The Contractor's use of the premises is limited by the Agency's right to perform continuing operations or to retain other contractors on portions of the Project.
- B. Use of the Site:** Limit use of the premises to work in areas indicated. Confine operations to areas within contract limits indicated. Do not disturb portions of the site beyond the areas in which the Work is indicated.
- 1. Owner Occupancy:** Allow for Owner occupancy and use by the public of the existing facility. Building occupied hours are anticipated to be the following:
    - a. Mondays: 6:45 AM to 5:30 PM.
    - b. Tuesday - Friday: 6:45 AM to 5:30 PM and Thursday until 6:00 PM.
    - c. Saturday: 6:45 AM to 2:00 PM for the first floor corridor and the second floor public room, but most of the building is not occupied.
    - d. Sunday: Building not occupied.
  - 2.** The Contractor shall confine his operations including storage of materials, supplies, equipment, and apparatus to the areas bounded by the contract limits indicated and as directed in the Contract Documents.
  - 3.** Existing roads, drives, walks, and parking areas which are not within the contract limit line are to be kept free and clear at all times. All deliveries for the project are to enter the property from **the service entrance**. The Contractor shall check all roadways for accessibility and clearances for deliveries of all large material and equipment. The Contractor shall inform the Construction Administrator at least **seventy-two (72)** hours in advance of these deliveries so they can be coordinated with the Agency so appropriate traffic control, etc. can be provided. Do not use these areas for parking or storage of materials. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.

4. The Contractor shall be responsible for keeping the premises clean and shall pick up rubbish and debris and promptly remove from site.
  5. Parking for the Contractor's employees will be limited to an area designated by the Construction Administrator, and the Contractor may be required to provide identification stickers for all employees' cars.
  6. Special precautions shall be taken to protect all wetland areas designated to remain. Prevent any and all sediment, debris, or other materials from getting into these areas. Should any sediment, debris, or other materials get into these areas or if any damage occurs to the vegetation therein, the Contractor shall immediately contact the Construction Administrator for direction.
  7. The Contractor shall comply with local working hour restrictions, unless specifically approved otherwise in writing by the Owner.
  8. No signs, other than those approved by the Construction Administrator, will be visible on the premises.
- C. Use of the Existing Building:** Maintain the existing building in a weather-tight condition throughout the construction period. Repair damage caused by construction operations. Take all precautions necessary to protect the building and its occupants during the construction period. Note: Check with Agency special types of conditions. Contractor personnel are not allowed to use the Cafeteria or vending machines within the existing buildings unless authorized in writing by the agency.

#### 1.8 OCCUPANCY REQUIREMENTS

- A. 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 Agency usage. Perform the Work so as not to interfere with the Agency's operations. **Work will need to be performed during building non-occupied hours in areas as identified on the Phasing Plans.**
1. Provide adequate building and fire code egress from the buildings during the renovation process and/or as indicated on the Contract Documents. The Contractor will be responsible to maintain and protect egress ways during the construction sequence as required and/or indicated in the Contract documents. The Contractor shall be responsible for preparing egress plans for Owner approval and for DAS/CS Office of State Building Official and Office of State Fire Marshal for approval if required.

#### 1.10 OWNER-FURNISHED PRODUCTS

- A.** The Owner may furnish various products to be incorporated into the Work. The Work includes providing support systems to receive Owner's equipment, and mechanical and electrical connections.
1. The Owner will arrange for and deliver necessary shop drawings, product data, and samples to the Contractor.
  2. The Owner will arrange and pay for delivery of Owner-furnished items according to the Contractor's Construction Schedule.
  3. Following delivery, the Owner will inspect items delivered for damage.
  4. If Owner-furnished items are damaged, defective, or missing, the Owner will arrange for replacement.
  5. The Owner will arrange for manufacturer's field services and for the delivery of manufacturer's warranties to the appropriate Contractor.
  6. The Contractor shall designate delivery dates of Owner-furnished items in the Contractor's Construction Schedule.
  7. The Contractor shall review shop drawings, product data, and samples and return them to the Architect noting discrepancies or problems anticipated in use of the product.
  8. The Contractor is responsible for receiving, unloading, and handling Owner-furnished items at the site.
  9. The Contractor is responsible for protecting Owner-furnished items from damage, including damage from exposure to the elements. The Contractor shall repair or replace items damaged as a result of his operations.

#### 1.11 MISCELLANEOUS PROVISIONS

**A. Examination of Site:**

1. It is not the intent of the Documents to show all existing conditions. All Contractors and Subcontractors are advised to attend the Pre-Bid Meeting prior to submitting their Bid Proposals. This is the only official

opportunity to visit and examine the site with the Owner, Agency, Architect, Engineer and Construction Administrator.

2. The Contractor should investigate and satisfy himself as to the conditions affecting the work, including but not 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. If tests have been done for Asbestos Containing Material (ACM), Lead-Based Paint (LBP) Containing Material, Polychlorinated Biphenyls (PCBs) in Building Materials and/or Mold, then the results are referenced in [Section 00 30 00 Available Information and provided in Division 50 00 00 Project-Specific Available Information](#). See [Section 01 35 16 "Alteration Project Procedures"](#) for **removal responsibility** and additional information.
  4. If tests have been done for Contaminated Soils and/or Contaminated Groundwater, then the results are referenced in [Section 00 30 00 Available Information and provided in Division 50 00 00 Project-Specific Available Information](#). See [Section 01 35 16 "Alteration Project Procedures"](#) for **removal responsibility** and additional information.
  5. If tests have been done for Work Involving Hazardous Materials, Wastes, and Items and Universal Wastes (Including Products Containing Persistent Bioaccumulative Toxic Chemicals" [PBTs] such as PCBs, Di-2-ethylhexyl Phthalate [DEHP], and Mercury), the results are referenced in [Section 00 30 00 Available Information and provided in Division 50 00 00 Project-Specific Available Information](#). See [Section 01 35 16 "Alteration Project Procedures"](#) for **exposure limits and removal responsibility**.
  7. No attempt has been made to locate hazardous material associated with existing site utilities, though it is presumed that at least some asbestos may be discovered associated with underground piping during the course of site and site utilities work. If and when such materials appear, the Contractor shall notify the Owner, who shall direct additional work outside of this Contract to assist in cutting up and disposing of same. The Contractor shall assist the hazardous materials contractor(s) with excavating, heavy lifting, and the like at no additional cost to the Owner.
- B. Pre-Bid Meeting:**
1. A Pre-Bid Meeting and tour of the site will be conducted as scheduled in Division 00 Section 00 11 16 "Invitation to Bid". This scheduled meeting is the only official opportunity for the bidders to tour the site with the Owner, Architect, Engineer, Construction Administrator, and Agency.
- C. Project Documents:**
1. The Specifications and Drawings are intended to describe and illustrate the materials and labor necessary for the work of this Project.
  2. Throughout the Technical Specifications, the Connecticut Department of Transportation Standard Specifications for Roads, Bridges, and Incidental Construction Form 816, current edition including any interim and supplemental specifications are referenced. Where so referenced the requirements set forth therein are applicable and made a part hereof. Copies of Form 816 are available from the Connecticut Department of Transportation at a nominal charge.
- D. Site Logistics Plan(s):** Site Logistics Plan(s) for this Project are in the Contract Documents. The Site Logistics Plan(s) describe in detail the proposed use of the Site and Building, both inside and outside the Contract Limit Area.
1. **Related Section:** Section 01 31 00 "Project Management and Coordination", 1.5 Submittals, A, (4).
  2. The **Site Logistics Plan(s)** include, but are not be limited to the following information:
    - a. [phasing requirements;](#)
    - b. [proposed vehicle and equipment access routes;](#)
    - c. [locations of proposed staging/lay-down and storage areas, utility connections;](#)
    - d. [utilization of maintaining at least one elevator in use at all times;](#)
    - e. [occupant access to the elevator during construction;](#)
    - f. [delivery access of materials, handicap access;](#)

- g. building egress, proposed pedestrian traffic flows in the interior and exterior of the building;
- h. temporary access-ways;
- i. office trailer and dumpster locations;
- j. location of perimeter construction fencing and gates;
- k. other protection measures around and in the building(s);
- l. temporary partitions, proposed pedestrian traffic flows around and in each building;
- m. proposed building access points;
- n. proposed protection measures for trees, shrubs and plantings, interior access-ways;
- o. coordination of activities that relate to building occupants and other field applied measure to protect and coordinate the work including any relocation of utilities.

**E. Scope Review:**

1. Prior to signing a Contract with the State, DAS/CS will conduct a full scope review with the apparent Low Bidder to ensure that all of the requirements have been included within the bid. This scope review will highlight all of the specific requirements of the project, a review of the DAS/CS procedures and all of the Technical sections of the contract documents.
2. This process will ensure that all of the scope of work included in the contract documents has indeed been included.

**F. Specifications, Drawings, and Electronic Data Storage Devices Furnished:**

1. The Contractor shall be able to purchase sets of the Contract Documents at the direct cost of their reproduction directly from the reprographics provider.
2. The Contractor shall receive **one (1)** set of AutoCAD compatible (latest version) Floor Plans on Electronic Data Storage Devices at no cost on or about the time of execution of the Contract from the Architect, subject to the receipt of a completed CAD file release document from the Contractor. Additional sets of AutoCAD compatible (latest version) Floor Plans on Electronic Data Storage Devices from the Architect shall be available at the cost of their reproduction, to the Contractor.

**G. Construction Responsibility:**

1. The Contractor shall be responsible for his construction means, methods, techniques, sequences, and procedures employed in the performance of his work and shall have full responsibility for his failure to carry out any part of his work in accordance with the Contract Documents.

**H. Weekend Work Requests:**

1. The Contractor shall request approval from the Owner a minimum of 48 hours prior to anticipated weekend work. All costs for overtime or weekend work are to be included in the Contract Sum as stated in Division 00 Section 00 41 00 "Bid Proposal Form."

**I. PMWeb Project Management:**

1. DAS/CS is using PMWeb as the project management collaborative software tool for this project.
2. The Contractor is required to utilize PMWeb for the duration of this project and shall provide all project information via this program management software. This includes, but is not limited to contracts, applications for payment, change orders, change order proposals, requests for information, etc.
3. The DAS/CS Project Manager shall arrange for training. This training is for the Contractor's Staff, the DAS/CS Project Manager, the Construction Administrator, the A/E, and their representatives.
4. DAS/CS will be establishing a project specific email "file" address for this project. The Contractor shall send an electronic "file" copy of all project documents to this email address, to include but not limited to all project correspondence, project emails, forms, etc.
5. The Contractor is required to scan all documents that contain wet (ink) signatures and send a copy of those documents electronically to the DAS/CS Project Manager and the project specific email "file" address. The hard copy of the wet signature documents shall be transmitted as directed by the DAS/CS Project Manager. This includes, but is not limited to all contracts, change orders, applications for payment, closeout documentation, etc.

**J. Subcontractor Performance Evaluations:**

1. Pursuant to C.G.S. Sec. 4a-101, the 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 Contractor shall complete and submit to DAS/CS

evaluations of each such subcontractor upon fifty percent (50%) completion of the project and upon Substantial Completion of the project. The 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 Contractor. The Contractor agrees to indemnify and hold the State harmless from any loss, damage, or expense that results from or is caused by the Contractor's failure to complete and submit the evaluations to DAS/CS in accordance with this provision.

**K. Reporting and Contracting Requirements for Contractor and Subcontractor Payments:**

1. For compliance with **C.G.S. Sec. 4b-95 and 49-41**, DAS/CS requires every Contractor (and its Subcontractors) who has been awarded a DAS/CS construction contract to log on to the State of Connecticut web-based platform, BizNet, **each month** and **enter payments** they have received from the state, from the Contractor, or from a higher tier Subcontractor (as applicable).
2. The process is described as follows: The state will pay the Contractor on a monthly basis for work performed (and purchases made) by it and its Subcontractors. The Contractor will input the payment date and amount they receive from the state on a monthly basis. The Contractor's first-level Subcontractor (Tier 1 Subcontractor) will input the payment they receive from the Contractor. The second-level Subcontractor (Tier 2 Subcontractor) will input the payment they receive from the Tier 1 Subcontractor. And so on.
3. Contractors awarded a DAS/CS construction contract shall contain **a provision in their subcontract agreements** requiring their Subcontractors to enter payment receipt from the Contractor in the State of Connecticut web-based platform, BizNet, for work performed or purchases made in relation to state projects.
4. Detailed instructions can be found in the DAS/CS publication, "**6002 Instructions to Contractors/Subcontractors for Entering Payments in BizNet**", available for download by going to the DAS Homepage ([www.ct.gov/DAS](http://www.ct.gov/DAS)) and selecting Doing Business With The State > State Building Construction > Publications and Forms > DAS Construction Services Library > 6000 Series.

**PART 2 - PRODUCTS (Not Applicable)**

**PART 3 - EXECUTION (Not Applicable)**

**END OF SECTION 01 11 00**

## PART 1 - GENERAL

### 1.1 RELATED DOCUMENTS

- A. Contract Documents and general provisions of the Contract, including General and Supplementary Conditions, other Division 01 Specification Sections, and Section 00 41 00 "Bid Proposal Form" apply to this Section.

### 1.2 SUMMARY

- A. This Section includes the following:
  - 1. Allowances.
  - 2. Unit Prices.
- B. **Related Sections:** The following Sections contain requirements that relate to this Section:
  - Section 01 23 13 Supplemental Bids
  - Section 01 26 00 Contract Modification Procedures
  - Section 01 29 76 Progress Payment Procedures
  - Section 01 35 16 Alteration Project Procedures
  - Section 01 35 26 Government Safety Requirements
  - Section 01 50 00 Temporary Facilities and Controls
  - Section 01 77 00 Closeout Procedures
  - Section 02 41 19 Selective Demolition

### 1.3 ALLOWANCES

- A. This Section includes administrative and procedural requirements for Allowances.
- B. **Related Sections:** The following Sections contain requirements that relate to this Section:
  - 1. Division 01 Section 01 26 00 "Contract Modification Procedures" for procedures for submitting and handling Change Orders.
- C. **Cash Allowances:**
  - 1. The Contractor's costs for unloading and handling, labor, installation costs, storage, insurance, overhead and profit and other expense related to the Allowance item shall be included in the Contractor's Lump Sum Base Bid Amount and not in the Allowance unless stated otherwise in the Allowance Schedule of this section.
  - 2. **Architect/Engineer Responsibilities:**
    - a. Consult with Contractor for consideration of Products, suppliers and installers.
    - b. Select Products in consultation with the DAS/CS Project Manager and Agency Representatives and transmit decision to Construction Administrator.
    - c. Prepare Change Order.
  - 3. **Construction Administrator Responsibilities:**
    - a. Consult with Architect/Engineer, Contractor, DAS/CS Project Manager and Agency Representatives for consideration of Products, suppliers and installers.
    - b. Select Products in consultation with Architect/Engineer, DAS/CS Project Manager and Agency Representatives and transmit decision to Contractor.
    - c. Prepare Change Order.
  - 4. **Contractor Responsibilities:**
    - a. Assist Architect/Engineer and Construction Administrator in selection of Products and Suppliers.
    - b. Obtain proposals from Suppliers and offer recommendations.
    - c. On notification of selection by Construction Administrator execute purchase agreement with designated supplier.

- d. Arrange for and process shop drawings, product data, and samples. Arrange for delivery.
  - e. If the actual cost of an Allowance item is more or less than the given amount, the Contract Sum will be adjusted by Change Order.
5. **Allowance Schedule:**
- a. Section **26 05 19 - "Low-Voltage Electrical Power Conductors and Cables"**: Include the Stipulated sum of **Eight thousand five hundred dollars and no cents (\$8,500.00)** for purchase and installation of: TEN (10) NEW 20 AMP CIRCUITS TO THE NEAREST SOURCE PANEL (UP TO 100'-0" LENGTH OF RUN), INCLUDING #12 AWG WIRING, RACEWAYS & NEW 20A-1P CIRCUIT BREAKERS. LOCATIONS OF CIRCUITS ARE TO BE DETERMINED DURING CONSTRUCTION, IF ANY EXISTING CIRCUITS ARE FOUND TO BE INADEQUATE FOR NEW LIGHTING.
  - b. Section **26 05 19 - "Low-Voltage Electrical Power Conductors and Cables"**: Include the Stipulated sum of **Three thousand dollars and no cents (\$3,000.00)** for purchase and installation of: REMOVE AND REPLACE UP TO 500'-0" LENGTH OF RUN OF NM CABLE (A.K.A. ROMEX) WITH MC CABLE WHERE ENCOUNTERED, IN ADDITION TO THE ROOMS NOTED ON THE NEW WORK PLANS. SPECIFIC ROOMS WHERE NM CABLE IS KNOWN TO EXIST ARE NOTED ON THE NEW WORK PLANS. WHEN NM CABLE IS ENCOUNTERED IN ANY OTHER SPACES, NOTIFY ARCHITECT PRIOR TO PROCEEDING, AND PROVIDE INFORMATION REGARDING THE APPROXIMATE LENGTH OF RUN OF WIRING TO BE REPLACED.
  - c. Section **26 05 19 - "Low-Voltage Electrical Power Conductors and Cables"**: Include the Stipulated sum of **Nine thousand eight hundred dollars and no cents (\$9,800.00)** for purchase and installation of: TEN (10) NEW STANDALONE DUAL HEAD LED BATTERY PACK FIXTURES AND 20 AMP WIRING TO THE NEAREST LIGHTING CIRCUIT. LOCATIONS OF STANDALONE BATTERY PACK FIXTURES ARE TO BE DETERMINED DURING CONSTRUCTION, IN LOCATIONS TO BE DETERMINED BY THE AUTHORITY HAVING JURISDICTION.

#### 1.4 DEFINED UNIT PRICES - GENERAL

- A. This Section includes administrative and procedural requirements for unit prices.
- B. **Related Sections:** The following Sections contain requirements that relate to this Section:
  - 1. Division 01 Section 01 26 00 "Contract Modification Procedures" for procedures for submitting and handling Change Orders.
  - 2. Division 01 Section 01 29 76 "Progress Payment Procedures" for procedures for submitting Application for Payments.
- C. **Definition - Unit Price:** Amount the Contractor acknowledges in the Bid Proposal Form as a price per unit of measurement for materials or services as described in the Contract Documents.
- D. **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, excavation, stockpiling, loading, engineering, scaffolding, power hookups, protection, shop drawings, taxes, permits, appliances, delivery, disposal, 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 DAS/CS Project Manager, the Contractor 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.
  - 4. 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.

5. **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.
6. **Unit Price Schedules:** "Unit Price Schedules" are included in this Section. Specification Sections referenced in the Schedule sections contain requirements for materials described under each unit price.

**1.7 UNIT PRICE SCHEDULE – ALTERATIONS**

This Section includes administrative and procedural requirements for the following unit prices and provisions that are to be included in and become part of this Contract to be used in evaluating additions to or deductions from the work called for in the specifications and/or plans.

- 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. **Unit Price Schedule – Alterations:**

1.7 Unit Price Schedule - Alterations						
Section Number &/or Drawing Number	Item Description	Base Bid Quantity	Unit of Measurement	\$ Add Unit Price	\$ Deduct Unit Price	
E-Drawings	Replace NM cable with MC cable	500 linear feet	linear foot	\$ 6.00	\$	6.00

- C. The **\$Add** and **\$Deduct** Unit Prices shown in the table above are a **price per unit measurement** for materials, services, or work added to or deducted from the Contract Sum by appropriate modification **if the Base Bid Quantities** of the Work listed in the above Schedule and described in the corresponding Section and/or Drawing are **increased or decreased**.
- D. The **Base Bid Quantities** for each type of Work listed in the above Schedule and described in the corresponding Section shall be included in the Contractor's **Lump Sum Base Bid**.
- E. Unit Prices shall be negotiated if there is a change in scope of work.

**PART 2 - PRODUCTS (Not Applicable)**

**PART 3 - EXECUTION (Not Applicable)**

**END OF SECTION 01 20 00**



## PART 1 - GENERAL

### 1.1 RELATED DOCUMENTS

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

### 1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for handling requests for equals and substitutions made after award of the Contract.
- B. Related Sections: The following Sections contain requirements that relate to this Section:
  - 1. Division 01 Section 01 33 00 "Submittal Procedures" specifies requirements for submitting the Contractor's Construction Schedule and the Submittal Schedule.
  - 2. Division 01 Section 01 42 20 "Reference Standards and Definitions" specifies the applicability of industry standards to products specified.
  - 3. Division 01 Section 01 60 00 "Product Requirements" specifies requirements governing the Contractor's selection of products and product options.

### 1.3 DEFINITIONS

- A. Definitions in this Article do not change or modify the meaning of other terms used in the Contract Documents.
- B. **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.

### 1.4 SUBMITTALS

- A. **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 7001)"**, an example of which is shown at the end of this Section. The Form is available from the Construction Administrator (CA). See Article 15 in the General Conditions for further refinement and information.
- B. 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 performance, LEED® compliance, 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.
  - 1. Identify the product or the fabrication or installation method to be replaced in each request. Include related Specification Section and Drawing numbers.
  - 2. Provide complete documentation showing compliance with the requirements for equals or substitutions, and the following information, as appropriate:
    - a. 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.
    - b. 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.
    - c. Product Data, including Shop Drawings and descriptions of products and fabrication and installation procedures.
    - d. Samples, where applicable or requested.

- e. A statement indicating the effect on the Contractor's Construction Schedule or CPM Schedule compared to the schedule without approval of the Equal or Substitution. Indicate the effect on overall Contract Time.
  - f. Cost information, broken down, including a proposal of the net change, if any in the Contract Sum.
  - g. 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.
  - h. 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.
3. **Architect's Action:** If necessary, the Architect will request additional information or documentation for evaluation within **seven (7) 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) days** of receipt of the request, or **seven (7) 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) days** after notification.
- a. 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 not be in the form of a change order for an "Equal".
  - b. 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.

## PART 2 - PRODUCTS

### 2.1 EQUAL OR SUBSTITUTIONS

- A. **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. The proposed request does not require extensive revisions to the Contract Documents.
  - 2. The proposed request is in accordance with the general intent of the Contract Documents.
  - 3. The proposed request is timely, fully documented, and/or properly submitted.
  - 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.
  - 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.
  - 6. The proposed request can receive the necessary approvals, in a timely manner, required by governing authorities having jurisdiction.
  - 7. The proposed request can be provided in a manner that is compatible with the Work as certified by the Contractor.
  - 8. The proposed request can be coordinated with the Work as certified by the Contractor.
  - 9. The proposed request can uphold the warranties required by the Contract Documents as certified by the Contractor.
- B. 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.

## PART 3 - EXECUTION (Not Applicable)

END OF SECTION 01 25 00



**7001  
Equal or Substitute  
Product Request**

Page 1 of 2

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,  
Construction Services

DAS 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.:

**IMPORTANT:**  
**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 Name:  Architect's Name:

Project Location:  Owner's Name:

Date Installed:



7001  
Equal or Substitute  
Product Request

Page 2 of 2

Will proposed substitution impact other parts of the Work?	No <input type="checkbox"/>	Yes <input type="checkbox"/>	<i>If Yes Attach An Explanation.</i>
Will proposed substitution increase Contract Time?	No <input type="checkbox"/>	Yes <input type="checkbox"/>	<i>By Number Of Calendar Days</i> <input type="text"/>
Actual Dollar Savings to the State of Connecticut if substitution is accepted:		\$	<input type="text"/>
<b>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.</b>			
Request Submitted By General Contractor / CMR:		<input type="text"/>	
<i>(Firm's Typed Name)</i>			
By:	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<i>(Typed Name)</i>	<i>(Title)</i>	<i>(Signature)</i>
			<i>(Date)</i>
Contractor / CMR Send copies to :	DAS PM: <input type="checkbox"/>	CA: <input type="checkbox"/>	
Consultant's Request Received on (Date): <input type="text"/>			
Consultant's Review – This Substitution Request is:			
<input type="checkbox"/>	Approved:	<i>(Submittal(s) in accordance with Div. 01 General Requirements, Section 01 33 00 Submittal Procedures.)</i>	
<input type="checkbox"/>	Approved as Noted:	<i>(Submittals in accordance with Div. 01 General Requirements, Section 01 33 00 Submittal Procedures.)</i>	
<input type="checkbox"/>	Rejected:	Use Specified Materials.	
<input type="checkbox"/>	Rejected:	Request Not Received Within Specified Time Period - Use Specified Materials.	
Reviewed Issued By:			
Name:	<input type="text"/>		
	<i>(Typed Name)</i>		
Title:	<input type="text"/>		
Signature:	<input type="text"/>	<input type="text"/>	
	<i>(Signature)</i>	<i>(Date)</i>	
CONSULTANT Send copies to:	DAS PM <input type="checkbox"/>	CA <input type="checkbox"/>	Chief Architect <input type="checkbox"/>
			Chief Engineer <input type="checkbox"/>
If Approved: As noted by Consultant,			
DAS Chief Architect:	<input type="text"/>		<input type="text"/>
	<i>(Signature)</i>		<i>(Date)</i>
Copies:	Project File	Red R2	

END

## PART 1 - GENERAL

### 1.1 RELATED DOCUMENTS

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

### 1.2 SUMMARY

- A. This Section specifies administrative and procedural requirements for handling and processing contract modifications.
- B. Related Sections: The following Sections contain requirements that relate to this Section:
  - 1. Division 01 Section 01 20 00 "Contract Considerations" for administrative requirements governing use of Unit Prices.
  - 2. Division 01 Section 01 25 00 "Substitution Procedures" for administrative procedures for handling requests for substitutions made after award of the Contract.
  - 3. Division 01 Section 01 29 76 "Progress Payment Procedures" for administrative procedures governing Applications for Payment.
  - 4. [Division 01 Section 01 32 16 "Construction Progress Schedules" for requirements for construction scheduling and reporting progress of work.](#)
  - 5. Division 01 Section 01 33 00 "Submittal Procedures" for requirements for submittal of the Construction Progress Schedule or CPM Schedule.
  - 6. General Conditions "Article 13 - Compensation for Changes in the Work".
- C. All Forms referenced in this Section are available for download from the DAS website ([www.ct.gov/DAS](http://www.ct.gov/DAS))> Doing Business With The State > State Building Construction > Publications and Forms > DAS Construction Services Library > 7000 Series - Construction Phase Forms.

### 1.3 REQUESTS FOR INFORMATION

- A. 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. 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.
  - 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.
  - 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.
  - 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.
  - 5. A "Request for Information Response" shall be issued within seven (7) 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) 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) 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) days set forth above.
  - 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 five (5) 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 within five (5) days shall waive the Contractor's right to seek additional time or cost under the requirement these Requirements.

#### 1.4 MINOR CHANGES IN THE WORK

- A. 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.

#### 1.5 PROPOSAL REQUEST

- A. 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. "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.
  2. Within **(14) 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.
    - a. 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.
    - b. Indicate applicable delivery charges, equipment rental, and amounts of trade discounts.
    - c. Include a statement indicating the effect the proposed change in the Work will have on the Contract Time.
    - d. 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.
    - e. 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.

#### 1.6 CHANGE ORDER PROPOSAL

- A. 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 Workbook(s)" as required by the Owner.
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.
  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.
  3. Indicate applicable delivery charges, equipment rental, and amounts of trade discounts.
  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.
  5. The State of Connecticut construction contract has the following tax exemptions:
    - a. Purchasing of materials which will be physically incorporated and become a permanent part of the project.
    - b. Tools, supplies and equipment used in fulfilling the construction contract are not exempt.
    - c. Services that are resold by the Contractor are exempt, i.e. if a 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

- C. "Change Order Request" Forms: Use "Change Order Proposal" and "Change Order Proposal Worksheets" forms as required by Owner.
- D. 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.
- E. 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.

**1.7 CONSTRUCTION CHANGE DIRECTIVE**

**A. "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. 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.
  - 2. Contractor must proceed with the Work once a "Construction Change Directive" is issued.
  - 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".
  - 4. Issuance of "Construction Change Directive" does not guarantee payment for the Work described in the "Construction Change Directive".
- B. Documentation: The Contractor shall maintain detailed records on a time and material basis of work required by the "Construction Change Directive".
- 1. After completion of the change, submit an itemized account and supporting data necessary to substantiate cost and time adjustments to the Contract.
  - 2. The final value shall be negotiated based on the supporting data to determine the value of the work.

**1.8 CHANGE ORDER PROCEDURES**

- A. 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.

**PART 2 - PRODUCTS (Not Applicable)**

**PART 3 - EXECUTION (Not Applicable)**

**END OF SECTION 01 26 00**

## PART 1 - GENERAL

### 1.1 RELATED DOCUMENTS

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

### 1.2 SUMMARY

- A. This Section specifies procedures for preparation and submittal of the Contractor's Applications for Payment.
- B. Related Sections: The following Sections contain requirements that relate to this Section.
1. Notice to Bidders: Article 10
  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".
  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".
  5. Division 01 Section 01 77 00 "Closeout Procedures" for requirements for Final Payment.

### 1.3 SCHEDULE OF VALUES

- A. **Coordination:** Coordinate preparation of the "Schedule of Values" with preparation of the CPM Schedule or Construction Schedule. Use "Schedule of Values" form as required by the Owner
1. Submit the "Schedule of Values" to the Construction Administrator at the earliest possible date but no later than **twenty-one (21)** days after Contract Start Date.
  2. **Sub-schedules:** Where Work is separated into phases requiring separately phased payments, provide sub-schedules showing values correlated with each phase of payment.
- B. **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.
1. **Identification:** Project identification on the Schedule of Values shall include, but not be limited to, the following:
    - a. **Owner**
    - b. **Project Number**
    - c. **Project Name**
    - d. **Project Location**
    - e. **Contractor's name and address.**
  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:
    - a. **Item Number.**
    - b. **Description of Work with Related Specification Section or Division Number.**
    - c. **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.**
    - d. **Name of subcontractor.**
    - e. **Name of manufacturer or fabricator.**
    - f. **Name of supplier.**
    - g. **Retainage.**



- h. 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.
  - a. **Site Logistics Plan (01 31 00):** a lump sum at 1/20 of one percent of the base bid total project cost at the time of submission of this plan.
  - b. **Coordination Drawings (01 31 00):** a lump sum of this cost for payment at the submittal of this product a minimum cost of 1/10<sup>th</sup> of one percent of the base bid total project cost or \$5,000 whichever is greater.
  - c. **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.
  - d. **Submittal Schedule (01 33 00):** a lump sum payment calculated at 1/20<sup>th</sup> of 1% of the base bid total project cost upon receipt of the schedule
  - e. **Waste Collection & Cleaning (01 50 00):** 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.
  - f. **As-Built Updates (01 31 00):** a monthly cost, a minimum payment of \$1,000 with forfeit of that monthly payment if not done.
  - g. **Start-up and Adjusting (01 75 00):** a lump sum cost upon completion. (to be determined by the DAS/CS Project Manager (PM) with Architect/Engineer and Construction Administrator (CA) advice)
  - h. **Schedule (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.
  - a. 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.

#### 1.4 APPLICATIONS FOR PAYMENT

- A. 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. The initial "Application for Payment", the "Application for Payment" at time of "Substantial Completion", and the final "Application for Payment", involve additional requirements.
- B. **Payment-Application Terms:** The Owner will process monthly progress payments. The Contractor may submit applications for payment on a monthly basis.
- C. **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.
  - 1. For each item, provide a column including but not limited to the following items:
    - a. Item Number.
    - b. Description of Work and Related Specification Section or Division.
    - c. Scheduled Value, break down by units of material and units of labor.
    - d. Work Completed from previous application.
    - e. Work Completed this period.
    - f. Materials presently stored.

- g. Total Completed and stored to date of application.
  - h. Percentage of Completion.
  - i. Balance to Finish.
  - j. Retainage.
- D. 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.
- E. 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.
- F. 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. List of subcontractors and suppliers' name, FEIN/Social Security numbers, and Connecticut Tax Registration Numbers.
  - 2. List of principal suppliers and fabricators.
  - 3. Schedule of Values.
  - 4. Contractor's Construction Schedule (preliminary if not final).
  - 5. Schedule of principal products.
  - 6. Submittal Schedule (preliminary if not final).
  - 7. List of Contractor's staff assignments.
  - 8. List of Contractor's principal consultants.
  - 9. Copies of all applicable permits.
  - 10. Copies of authorizations and licenses from governing authorities for performance of the Work.
  - 11. 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).
  - 12. 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.
  - 13. Proof that as-built documents are updated as required by Section 01 77 00 "Closeout Procedures.
  - 14. Initial as-built survey and damage report, if required.
  - 15. Update the "Contractor's Master Subcontract Agreement List" and submit copies all recently executed Subcontract Agreements in accordance with CGS § 4b-96.
    - 15.1. 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:

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

- 16. In accordance with CGS § 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.**

- G. 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. This application shall reflect Certificates of Partial Substantial Completion issued previously for Owner occupancy of designated portions of the Work.
  2. Administrative actions and submittals that shall precede or coincide with this application include, but are not limited to, the following:
    - 2.1 Occupancy permits and similar approvals.
    - 2.2 Warranties (guarantees) and maintenance agreements.
    - 2.3 Test/adjust/balance records.
    - 2.4 Maintenance instructions.
    - 2.5 Meter readings.
    - 2.6 Startup performance reports.
    - 2.7 Changeover information related to Owner's occupancy, use, operation, and maintenance.
    - 2.8 Final cleaning.
    - 2.9 Application for reduction of retainage and consent of surety.
    - 2.10 Advice on shifting insurance coverage.
    - 2.11 Final progress photographs.
    - 2.12 List of incomplete Work, recognized as exceptions to Architect's Certificate of Substantial Completion.
- H. 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 "Building Contractor Reporting Form" as supplied by Department of Construction Services, for all Contractors, Subcontractors, Vendors, Suppliers, etc. who work on the Contract. The form includes the following information:
- a. Contractor/Subcontractor name.
  - b. FEIN/Social Security Numbers
  - c. Connecticut Tax Registration Numbers
  - d. Type of work
  - e. Name of business and address
  - f. Remittance address.

**PART 2 - PRODUCTS (Not Applicable)**

**PART 3 - EXECUTION (Not Applicable)**

**END OF SECTION 01 29 76**

## PART 1 - GENERAL

### 1.1 RELATED DOCUMENTS

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

### 1.2 SUMMARY

- A. This Section includes administrative and supervisory requirements necessary for coordinating construction operations including, but not necessarily limited to, the following:
1. General project coordination procedures.
  2. Conservation.
  3. Coordination Drawings, including Site Logistics Plans.
  4. Administrative and supervisory personnel.
  5. Cleaning and protection.
- B. **Related Sections:** The following Sections contain requirements that relate to this Section:
1. Division 01 Section 01 29 76 "Progress Payment Procedures" for Schedule of Values items
  2. Division 01 Section 01 31 19 "Project Meetings" for progress meetings, coordination meetings, and pre-installation conferences.
  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 50 00 "Temporary Facilities and Controls".
  5. Division 01 Section 01 60 00 "Product Requirements" for coordinating general installation.
  6. Division 01 Section 01 71 23 "Field Engineering" specifies procedures for field engineering services, including establishment of benchmarks and control points.
  7. Division 01 Section 01 77 00 "Closeout Procedures" for coordinating contract closeout.

### 1.3 CONSTRUCTION ADMINISTRATOR

A. **Construction Administrator:**

1. The Construction Administrator is identified in Division 01 Section 01 11 00 "Summary of Work".
2. **Construction Mobilization:**
  - a. 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.
  - b. During Construction, coordinate use of site and facilities through the Construction Administrator.
  - c. Comply with Construction Administrator's procedures for intra-project communications; submittals, reports and records, schedules, coordination drawings, and recommendations; and resolution of ambiguities and conflicts.
  - d. Comply with instructions of the Construction Administrator for use of temporary utilities and construction facilities.
  - e. Coordinate field engineering layout as specified in Division 01 Section 01 71 23 "Field Engineering" for work under the instructions of the Construction Administrator.

### 1.4 COORDINATION

- A. 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.
- B. 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.
- C. **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.
  6. As-Built - coordinate monthly meetings to assure up-dates being performed.

## 1.5 SUBMITTALS

- A. **Coordination Drawings:** Prepare coordination drawings to complete detailed coordination of systems and components and to integrate information about fabrication and installation.
  1. Thoroughly prepare coordination drawings, as further stipulated in Part 3 "Execution", reviewing all contract documents and consulting with all entities contributing to or involved with each portion of the work under consideration.
    - a. Show the relationship of all components shown on any separate Shop Drawings.
    - b. Indicate required desired installation sequences.
    - c. Comply with requirements contained in Division 01 Section 01 33 00 "Submittal Procedures".
  2. Prepare coordination drawings for installation of all products and materials fabricated by separate entities.
  4. **Prepare a Site Logistics Plan(s) showing:** The entire project area and limits; all routes into and out of site; all staging and stockpiling and lay-down areas; all aspects of phasing/staging; all parking, paving and fencing; and all specific provisions to satisfy requirements of Division 01 Sections, including but not limited to Field Engineering and Temporary Facilities and Controls. The Site Logistics Plan shall coincide with and complement the general staging plans and site plans outlined in the contract bidding documents. It is intended that the Contractor shall present this refined plan for approval by the Construction Administrator. The fencing shown on this plan is required for all phases. Exact placement and timing of installations and removals will be reviewed and approved by the Construction Administrator prior to implementation. An additional allotment of various fencing is specified in Division 32, which the Contractor shall provide, install, and relocate at various intervals, for installation and removal by the Contractor per the direction of the project's Construction Administrator. This staging and logistics plan will require refinement and change for each phase/stage of the project. The Site Logistics Plan(s) shall be drawn at a scale no smaller than 1"=40' and shall be submitted as stipulated in Division 01 Section 01 29 76 "Progress Payment Procedures", but in no case later than (30) days after Notice to Proceed.
  5. Prepare coordination drawings showing locations of surface recesses and voids, as well as offsets and breaks, requiring filling and/or feathering, both those initially visible and those discovered during the course of work. Review with Owner and Architect to obtain direction for filling and feathering. Revise drawing(s) to record directions for same for field and record purposes.
- B. **Staff Names:** Prior to the contract start date, submit a list of the Contractor's principal staff assignments, including the superintendent, project safety officer, and other personnel in attendance at the Project Site. Identify individuals and their duties and responsibilities. List their addresses and telephone numbers.
  1. Post copies of the list in the Project meeting room, the temporary field office, and at each temporary telephone.
  2. Provide resumes of each staff member proposed for the Project. This shall include the Project Manager, Project Superintendent and Safety Officer.

## PART 2 - PRODUCTS (Not Applicable)

## PART 3 - EXECUTION

### 3.1 GENERAL COORDINATION PROVISIONS

- A. Inspection of Conditions:** The Contractor shall 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.
- B.** The Contractor shall coordinate temporary enclosures with required inspections and tests to minimize the necessity of uncovering completed construction for that purpose.
- C. Coordination Drawings:** Before construction work can begin, the Contractor shall submit to the Architect coordination drawings in the form of (a) reproducible (vellum) transparencies at not less than 1/4-inch scale and (b) CAD files of the coordination drawings on CDROM or other industry-standard portable storage media. Such drawings will be required throughout all areas for trades as described below. These drawings shall show resolutions of trade conflicts in congested areas. The Architect will supply base drawings (with the title blocks removed), including floor plans, reflected ceiling plans, and structural framing plans, in the form of electronic CAD files on CDROM, using the AutoCAD release edition specified with the files, to the Contractor for distribution to the trades for use in developing the coordination drawings. Each trade contractor shall create separate layers within the CAD files to show the work of their trade. Prepare coordination drawings as follows:
1. The Electrical subcontractor shall initiate 1/4-inch scale drawings done on AutoCAD (latest version) showing all the electrical information on the coordination drawings. Said information is to include but not necessarily be limited to cable trays, equipment, lighting, conduits, bus duct, etc. Show space allowances reserved for work under other contracts, such as audio-visual wiring and equipment.
  2. The Ceiling subcontractor shall utilize the drawings to prepare acoustic panel ceiling drawings and any other suspended ceiling drawings, and shall indicate areas of conflict with the work of other trades by drafting the location of grids, panels and tiles.
  3. The Construction Administrator shall review the completed coordination drawings for general compliance and then submit them to the Architect for his review. All subcontractors shall rework the drawings until all systems are properly coordinated.
  4. The Contractor shall indicate Ceiling/Electrical conflicts or obstacles and coordinate to suit the overall construction schedule.
  5. The Contractor shall expedite all drawing work and coordinate to suit the construction schedule. The Contractor shall then review these drawings and compare them with the Architectural, Electrical, Ceiling, and other drawings and determine that all of the work can be installed without undue interference. Prior to the submittal to the Architect, areas of potential conflict shall be brought to the attention of the Contractor who shall convene a coordination meeting of all parties involved, for the purpose of resolving all utility conflicts. The Contractor shall supervise and direct corrective measures and have all trades sign acceptance of the drawings. Submit four (4) hard copies of each drawing to the Architect and two (2) copies to the Construction Administrator for the record, and only after all conflicts have been accommodated.
  6. If the coordination meeting fails to resolve coordination conflicts, the Contractor shall indicate the nature of such conflicts in a detailed RFI, proposing the most economical solution.
  7. The Contractor shall not permit work by trades to proceed in a given bay or area until all trade foremen agree on the exact arrangements for each room or area. If a given trade proceeds prior to trades approval, then if necessary, that trade shall revise their work, if necessary, at no extra cost, in order to permit other trades to proceed.
  8. Submit all coordination drawings on CD-ROM or other industry-standard portable storage media, in addition to hard copy.
- D.** The Construction Administrator will meet with the Contractor on all major items of coordination.

### 3.2 CLEANING AND PROTECTION

- A.** Clean and protect construction in progress and adjoining materials in place, during handling and installation. Apply protective covering, where required, to assure protection from damage or deterioration.

1. Protect all surfaces, workstations, furniture and equipment from dust and debris with approved temporary coverings during work activities within the entire work area.
  2. Provide temporary vertical containment enclosures for work within open office areas, to control and confine all dust and debris.
  3. Monitor and inspect all temporary protections on a regular basis to maintain proper projection, and coordinate with the Agency on any areas which require attention.
  4. Upon removal of temporary protections, clean all work areas of any accumulated dust or debris.
- B.** Clean and provide maintenance on completed construction as construction per manufacturers requirements through the remainder of the construction period. Adjust and lubricate operable components to assure operability without damaging effects.
- C.** Limiting Exposures: Supervise construction operations to assure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period. Where applicable, such exposures include, but are not limited to, the following:
1. Excessive static or dynamic loading.
  2. Excessive internal or external pressures.
  3. Excessively high or low temperatures.
  4. Thermal shock.
  5. Excessively high or low humidity.
  6. Air contamination or pollution.
  7. Water or ice.
  8. Solvents.
  9. Chemicals.
  10. Light.
  11. Radiation.
  12. Puncture.
  13. Abrasion.
  14. Heavy traffic.
  15. Soiling, staining, and corrosion.
  16. Bacteria.
  17. Rodent and insect infestation.
  18. Combustion.
  19. Electrical current.
  20. High-speed operation.
  21. Improper lubrication.
  22. Unusual wear or other misuse.
  23. Contact between incompatible materials.
  24. Destructive testing.
  25. Misalignment.
  26. Excessive weathering.
  27. Unprotected storage.
  28. Improper shipping or handling.
  29. Theft.
  30. Vandalism.



**PART 2 - PRODUCTS (Not Applicable)**

**PART 3 - EXECUTION (Not Applicable)**

**END OF SECTION 01 31 00**

## PART 1 - GENERAL

### 1.1 RELATED DOCUMENTS

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

### 1.2 SUMMARY

- A. This Section specifies administrative and procedural requirements for project meetings, including, but not limited to, the following:
  - 1. **Start Date meeting (establishes start date)**
  - 2. **Pre-construction conferences.**
  - 3. **Pre-installation conferences.**
  - 4. **Progress meetings.**
  - 5. **Safety**
  - 6. **Coordination**
  - 7. **As-built drawings review**
  - 8. **And as required**
- B. **Related Sections:** The following Sections contain requirements that relate to this Section:
  - 1. Division 01 Section 01 31 00 "Project Management and Coordination" for procedures for coordinating project meetings with other construction activities.
  - 2. Division 01 Section 01 32 16 "Construction Progress Schedules" for requirements for construction scheduling and reporting progress of work.
  - 3. Division 01 Section 01 33 00 "Submittal Procedures" for submitting the Construction Schedule or CPM Schedule.
  - 4. Division 01 Section 01 35 26 "Government Safety Requirements specifies the requirements for safety plans, reports, and investigation submittals.

### 1.3 PRE-CONSTRUCTION CONFERENCE

- A. 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 at least **fourteen (14)** days prior to official 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.
- B. **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.
- C. **Agenda:** Discuss items of significance that could affect progress, including the following:
  - 1. **Tentative construction schedule.**
  - 2. **Critical work sequencing.**
  - 3. **Progress meeting schedule.**
  - 4. **Designation of responsible personnel.**
  - 5. **Procedures for processing field decisions and Change Orders.**
  - 6. **Procedures for processing Applications for Payment.**
  - 7. **Distribution of Contract Documents.**
  - 8. **Submittal of Shop Drawings, Product Data, and Samples.**

9. Preparation of record documents.
10. Use of the premises.
11. Parking availability.
12. Office, work, and storage areas.
13. Equipment deliveries and priorities.
14. Safety procedures.
15. First aid.
16. Security.
17. Housekeeping.
18. Working hours.
19. Coordination with Audio Visual and Telecommunications.

#### 1.4 PRE-INSTALLATION/CONSTRUCTION CONFERENCES

- A. The Contractor will schedule a pre-installation conference(s) at the Project Site before each construction activity that requires coordination with other construction. The Contractor shall be responsible to notify in writing the Construction Administrator and the appropriate Subcontractor(s), etc., of the date and time of all Pre-installation/Construction Conferences. Notification shall be at least seven (7) days, prior to the Conference. The Contractor shall be responsible for coordination and attendance of all Subcontractors, etc., involved in or affected by the installation for all Pre-installation/Construction Conferences.
- B. **Attendees:** The Construction Administrator, Contractor, Subcontractors, Owner and Architect, the installer and representatives of manufacturers and fabricators involved in or affected by the installation, and its coordination or integration with other materials and installations that have preceded or will follow, shall attend the meeting. The Contractor shall advise all attendees of the scheduled Pre-installation/Construction Conferences dates.
- C. **Agenda:** Review the progress of other construction activities and preparations for the particular activity under consideration at each Pre-installation/Construction Conference, including but not limited to the following requirements:
  1. Contract Documents.
  2. Options.
  3. Related Change Orders.
  4. Purchases.
  5. Deliveries.
  6. Shop Drawings, Product Data, and quality-control samples.
  7. Review of mockups.
  8. Possible conflicts.
  9. Compatibility problems.
  10. Time schedules.
  11. Weather limitations.
  12. Manufacturer's recommendations.
  13. Warranty requirements.
  14. Compatibility of materials.
  15. Acceptability of substrates.
  16. Temporary facilities.
  17. Space and access limitations.
  18. Governing regulations.
  19. Safety.

**20. Inspecting and testing requirements.**

**21. Required performance results.**

**22. Recording requirements.**

**23. Protection.**

- D. The Construction Administrator will record significant discussions and agreements and disagreements of each Pre-installation/Construction Conference, and the approved schedule. The Construction Administrator will promptly distribute the record of the Pre-installation/Construction Conference to all attendees.
- E. The Contractor shall not proceed with the installation/construction if the conference cannot be successfully concluded. The Contractor shall be responsible to initiate whatever actions are necessary to resolve impediments to performance of Work and schedule and reconvene another Pre-installation/Construction Conference at the earliest feasible date. Failure of the contractor to resolve impediments to the performance of the work will not result in an extension of days.

**1.5 PROGRESS MEETINGS**

- A. 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.
- B. **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.
- C. **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.
  - 1. **Construction Schedule or CPM Schedule:** Review progress since the last Progress Meeting. Determine where each activity is in relation to the required Contractor's "Construction Schedule" or "CPM 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.
  - 2. Review the present and future needs of each entity present, including the following:
    - a. **Interface requirements.**
    - b. **Time.**
    - c. **Sequences.**
    - d. **Status of submittals.**
    - e. **Deliveries.**
    - f. **Off-site fabrication problems.**
    - g. **Access.**
    - h. **Site utilization.**
    - i. **Temporary facilities and services.**
    - j. **Hours of work.**
    - k. **Hazards and risks.**
    - l. **Housekeeping.**
    - m. **Quality and work standards.**
    - n. **Change Orders.**
    - o. **Documentation of information for payment requests.**
- D. **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.

**1.6 SUBCONTRACTOR/COORDINATION/SAFETY MEETINGS**

- A. The Contractor shall conduct Subcontractor/coordination meetings.
- B. The Contractor shall conduct a separate safety meeting after the safety plan is submitted. The Contractor shall take meeting minutes. These minutes shall be made available upon request. The Contractor shall notify the Construction Administrator of the times and dates of these meetings, who may elect to attend these meetings as an observer when necessary. A minimum of one safety meeting will be held per month.

**PART 2 - PRODUCTS (Not Applicable)**

**PART 3 - EXECUTION (Not Applicable)**

**END OF SECTION 01 31 19**

## PART 1 - GENERAL

### 1.1 RELATED DOCUMENTS

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

### 1.2 SUMMARY

- A. 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. Refer to the General Conditions and the Agreement for definitions and specific dates of Contract Time.
- B. This Section includes the following:
1. Format.
  2. Content.
  3. Revisions to schedules.
  4. Submittals.
  5. Distribution.
- C. **Related Sections:** The following Sections contain requirements that relate to this Section:
1. Division 01 Section 01 29 76 "Progress Payment Procedures" specifies requirements for submitting Schedule of Values and Application for Payments.
  2. Division 01 Section 01 31 19 "Project Meetings" specifies requirements for submitting and distributing meeting and conference minutes.
  3. Division 01 Section 01 33 00 "Submittal Procedures" specifies requirements for submitting the Submittal Schedule.
  4. Division 01 Section 01 45 00 "Quality Control" specifies requirements for submitting inspection and test reports.
  5. Division 01 Section 01 60 00 "Product Requirements" specifies requirements for submitting the list of products.

### 1.3 DEFINITIONS

- A. **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.

### 1.4 QUALITY ASSURANCE

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

### 1.5 PRELIMINARY SCHEDULE

- A. Preliminary Gantt schedule is to be prepared by the 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.

**1.6 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):

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

**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.

**1.7 CONTENT**

- A. Show complete sequence of construction by activity, with dates beginning and completion of each element of construction.
- B. Identify each item by specification section numbers.
- C. Identify work of separate phases and other logically grouped activities.
- D. Show accumulated percentages of completion of each item, and total percentage of Work completed, as of the **first** day of each month.
- E. 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.
- F. Indicate delivery dates for Owner/Agency furnished products and any products identified as under Allowances.
- G. Indicate critical path with original baseline indicated.
- H. Coordinate content with Schedule of Values specified in Section 01 29 76 "Progress Payment Procedures."

**1.8 SUBMITTALS AND REVISIONS TO SCHEDULES**

- A. An initial bar graph schedule is to be prepared by the Contractor and submitted to the Construction Administrator. Refer to Article 1.5.
- B. Indicate progress of each activity to date of submittal, and projected completion date of each activity.
- C. Identify activities modified since previous submittal, major changes in scope, and other identifiable changes.
- D. Provide narrative report to define problem areas, anticipated delays, and impact on Schedule. Report corrective action taken, or proposed, and its effect.

- E. Schedules must be revised monthly and when the actual schedule of significant items varies more than **seven (7) days** from the proposed schedule.
- F. Submit revised Construction Schedules for each Application for Payment.
- G. Submit **four (4)** copies of the Construction Schedule to the Construction Administrator.

**1.9 DISTRIBUTION**

- A. Distribute copies of the Construction Schedules to Construction Administrator, Architect, Owner, Subcontractors, suppliers, and other concerned parties.
- B. Instruct recipients to promptly report, in writing, problem anticipated by projections indicated in schedules.

**PART 2 - PRODUCTS (Not Applicable)**

**PART 3 - EXECUTION (Not Applicable)**

**END OF SECTION 01 32 16**



## PART 1 - GENERAL

### 1.1 RELATED DOCUMENTS

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

### 1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for construction photographs.
- B. **Related Sections:** The following Section contains requirements that relate to construction photographs:
  - 1. Division 01 Section 01 33 00 "Submittal Procedures" specifies general requirements for submitting digital construction photographs.

### 1.3 SUBMITTALS

- A. **Photographs:** Provide a digital camera to take **twenty-four (24)** or more photos each time. Deliver **one (1)** set of photo files on **one (1)** CD-ROM or industry-standard portable storage device to the Construction Administrator for the Department.
- B. **Extra Sets:** When requested by the Owner, the photographer shall prepare extra sets of CD-ROM or industry-standard portable storage devices. The photographer shall distribute these directly to the designated parties who will pay the costs for the extra sets directly to the photographer.

## PART 2 - PRODUCTS

### 2.1 PHOTOGRAPHIC COPIES

- A. On the date the work is begun and every **thirty (30) days** thereafter (until the work is at least 95 percent complete), the Contractor shall have digital photographs of the construction taken by a professional photographer.
- B. **Identification:** Label each CD-ROM or industry-standard portable storage device with project name and date the photographs were taken. With each submittal provide the following information:
  - 1. **Name of the Project.**
  - 2. **Name and address of the photographer.**
  - 3. **Name of the Architect.**
  - 4. **Name of the Contractor.**
  - 5. **Date the photographs were taken.**
  - 6. **Vantage Point: Description of vantage point, in terms of location, direction (by compass point), and elevation or story of construction.**

## PART 3 – EXECUTION

### 3.1 PRECONSTRUCTION PHOTOGRAPHS

- A. Before starting construction, take digital photos of the site and surrounding properties from different points of view, as selected by the Construction Administrator.
  - 1. Take digital photos in sufficient number to show existing site conditions before starting Work.
  - 2. Take digital photos of adjacent existing buildings either on or adjoining the property in sufficient detail to record accurately the physical conditions at the start of construction.

**3.2 PHOTOGRAPHIC REQUIREMENTS**

- A. Take **twenty-four (24)** or more digital photographs monthly, coinciding with the cutoff date associated with each Application for Payment. The Construction Administrator shall select the vantage points for each shot to best show the status of construction and progress since the last photos were taken.
- B. As the digital 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 the CD-ROMs or industry-standard portable storage device within **ten (10) days** of their taking.
- C. Provide and coordinate the use of photographic software to assure that the photos are viewable by all interested parties.

**D. PART 2 - PRODUCTS (Not Applicable)**

**E. PART 3 - EXECUTION (Not Applicable)**

**END OF SECTION 01 32 33**

## PART 1 - GENERAL

### 1.1 RELATED DOCUMENTS

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

### 1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for submittals required for performance of the Work, including but not limited to the following:
1. **Submittal schedule.**
  2. **Shop Drawings.**
  3. **Product Data.**
  4. **Samples.**
  5. **Quality assurance submittals.**
  6. **Proposed "Substitutions/Equals".**
  7. **Warranty samples.**
  8. **Coordination Drawings.**
  9. **O & M Manuals**
- B. 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 number's and Connecticut tax registration number.**
- C. **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 01 31 00 "Project Management and Coordination" specifies requirements governing preparation and submittal of required Coordination Drawings.
  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 35 26 "Government Safety Requirements" specifies the requirements for safety plans, reports, and investigation submittals.
  8. Division 01 Section 01 45 00 "Quality Control" specifies requirements for submittal of inspection and test reports and mockups.

9. Division 01 Section 01 45 23.13 "Testing for Indoor Air Quality (IAQ), Baseline IAQ, and Materials" specifies requirements for submittal of documentation required to support LEED or Green Globes certification.
10. Division 01 Section 01 77 00 "Closeout Procedures" specifies requirements for submittal of Project Record Documents and warranties at project closeout.
11. Division 01 Section 01 78 30 "Warranties and Bonds".

### 1.3 DEFINITIONS

- A. 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. Preparation of Coordination Drawings is specified in Division 01 Section 01 31 00 "Project Management and Coordination" and may include components previously shown in detail on Shop Drawings or Product Data.
- B. 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.
- C. Mockups are full-size assemblies for review of construction, coordination, testing, or operation; they are not Samples.

### 1.4 SUBMITTAL PROCEDURES

- A. 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. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
  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.
    - a. The Architect reserves the right to withhold action on a submittal requiring coordination with other submittals until all related submittals are received.
    - b. The Architect reserves the right to reject incomplete submitted packages.
  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.
    - a. Allow **fourteen (14) days** for initial review. Allow additional time if the Architect must delay processing to permit coordination with subsequent submittals.
    - b. If an intermediate submittal is necessary, process the same as the initial submittal.
    - c. Allow **fourteen (14) days** for reprocessing each submittal.
    - d. 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.
- B. **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.
  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. 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.
  3. Include the following information on the label for processing and recording action taken.
    - a. **Project Name and State of Connecticut Project Number.**
    - b. **Date.**
    - c. **Name and address of the Architect, Construction Administrator, and Owner Representative.**
    - d. **Name and address of the Contractor.**
    - e. **Name and address of the subcontractor.**
    - f. **Name and address of the supplier.**

- g. Name of the manufacturer.
  - h. Number and title of appropriate Specification Section.
  - i. Drawing number and detail references, as appropriate.
  - j. Indicate either initial or resubmittal.
  - k. Indicate deviations from Contract Documents.
  - l. Indicate if "equal" or "substitution".
- C. **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.
- 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.

## 1.6 SUBMITTAL SCHEDULE

- A. 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)** days of Contract Award.
- 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.
  - 2. Prepare the schedule in chronological order. Provide the following information:
    - a. Schedule date for the initial submittal.
    - b. Related section number.
    - c. Submittal category (Shop Drawings, Product Data, or Samples).
    - d. Name of Subcontractor.
    - e. Description of the part of Work covered.
    - f. Scheduled date for resubmittal.
    - g. Scheduled date for the Architect's final release of approval.
- B. **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.
- 1. Coordinate submittal schedule with list of subcontracts, the schedule of values, and Contractor's Construction or CPM Schedule.
  - 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.
  - 3. **Final Submittal:** Submit concurrently with the first complete submittal of Contractor's construction schedule.
    - a. Submit revised submittal schedule to reflect changes in current status and timing for submittals.
- C. **Coordination:** Coordinate preparation and processing of submittals with performance of construction activities.
- 1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
  - 2. Submit all submittal items required for each specification section concurrently unless partial submittals for portions of the Work are indicated on approved submittal schedule.
  - 3. Submit action submittals and informational submittals required by the same specification section as separate packages under separate transmittals.
  - 4. Coordinate transmittal of different types of submittals for related parts of the Work so processing will not be delayed because of need to review submittals concurrently for coordination.

- a. **Architect reserves** the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.
- D. **Processing Time:** Allow time for submittal review, including time for resubmittals, as follows. Time for review shall commence on **Architect's** receipt of submittal. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals.
  1. **Initial Review:** Allow **fifteen [15]** days for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. **Architect** will advise Contractor when a submittal being processed must be delayed for coordination with related submittals not yet received. Additional time will be required if processing must be delayed to permit review of related subsequent submittals.
  2. **Intermediate Review:** If intermediate submittal is necessary, process it in same manner as initial submittal.
  3. **Resubmittal Review:** Allow **fifteen 15** days for review of each resubmittal.
  4. **Mass Submittals:** **Six (6)** or more submittals in **one (1) day** or **twenty (20)** or more submittals in **one (1) week**. 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.
- E. **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.
  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.
- A. **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.

#### 1.7 DAILY CONSTRUCTION REPORTS

- A. 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. **List of subcontractors at the site.**
  2. **Approximate count of personnel at the site.**
  3. **High and low temperatures, general weather conditions.**
  4. **Accidents and unusual events.**
  5. **Meetings and significant decisions.**
  6. **Stoppages, delays, shortages, and losses.**
  7. **Meter readings and similar recordings.**
  8. **List of equipment on site and identify if idle or in use.**
  9. **Orders and requests of governing authorities.**
  10. **Change Orders received, start and end dates.**
  11. **Services connected, disconnected.**
  12. **Equipment or system tests and startups.**
  13. **Partial Completion's, occupancies.**
  14. **Substantial Completion's authorized.**
  15. **Equals or Substitutions approved or rejected.**

#### 1.8 SHOP DRAWINGS

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

1. Dimensions.
  2. Identification of products and materials included by sheet and detail number.
  3. Compliance with specified standards.
  4. Notation of coordination requirements.
  5. Notation of dimensions established by field measurement.
  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**.
  7. 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.
  8. Details shall be large scale and/or full size.
- C. 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.
- D. 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.
- E. 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.
- F. Upon final review submit **four (4)** additional prints, same as submitted, for use by the Construction Administrator.
- G. 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.
- H. Only final reviewed Shop Drawings are to be used on the Project site.
- I. 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 A/E increases the value or scope of the CD's, the contractor must provide written notice to the CA 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".

#### 1.11 PRODUCT DATA

- A. 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. 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:
    - a. **Manufacturer's printed recommendations.**
    - b. **Compliance with trade association standards.**
    - c. **Compliance with recognized testing agency standards.**
    - d. **Application of testing agency labels and seals.**
    - e. **Notation of dimensions verified by field measurement.**
    - f. **Notation of coordination requirements.**
  2. Do not submit Product Data until compliance with requirements of the Contract Documents has been confirmed.

3. **Preliminary Submittal:** Submit a preliminary single copy of Product Data where selection of options is required.
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.
  - a. Unless noncompliance with Contract Document provisions is observed, the submittal may serve as the final submittal.
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.
  - a. Do not proceed with installation until a copy of Product Data is in the Installer's possession.
  - b. Do not permit use of unmarked copies of Product Data in connection with construction.

## 1.12 SAMPLES

- A. 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. 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:
    - a. **Specification Section number and reference.**
    - b. **Generic description of the Sample.**
    - c. **Sample source.**
    - d. **Product name or name of the manufacturer.**
    - e. **Compliance with recognized standards.**
    - f. **Availability and delivery time.**
  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.
    - a. 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.
    - b. Refer to other Specification Sections for requirements for Samples that illustrate workmanship, fabrication techniques, details of assembly, connections, operation, and similar construction characteristics.
    - c. 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.
    - d. 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.
  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.
    - a. The Architect will review and return preliminary submittals with the Architects notation, indicating selection and other action.
  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.
  5. Maintain sets of Samples, as returned, at the Project Site, for quality comparisons throughout the course of construction.
    - a. Unless noncompliance with Contract Document provisions is observed, the submittal may serve as the final submittal.
    - b. Sample sets may be used to obtain final acceptance of the construction associated with each set.



- B. 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.
  - 1. Field samples are full-size examples erected on-site to illustrate finishes, coatings, or finish materials and to establish the Project standard.
    - a. Comply with submittal requirements to the fullest extent possible. Process transmittal forms to provide a record of activity.

#### 1.13 QUALITY ASSURANCE SUBMITTALS

- A.** 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.
- B. 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.
  - 1. **Signature:** Certification shall be signed by an officer of the manufacturer or other individual authorized to sign documents on behalf of the company.
- C. 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."

#### 1.14 ARCHITECT'S ACTION

- A.** 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. Compliance with specified characteristics is the Contractor's responsibility.
- B. 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:
  - 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. **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.
  - 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.
    - a. 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.
  - 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."
- C. Unsolicited Submittals:** The Architect will discard unsolicited submittals without action.

#### PART 2 - PRODUCTS (Not Applicable)

#### PART 3 - EXECUTION (Not Applicable)

END OF SECTION 01 33 00

## PART 1 - GENERAL

### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including Division 00 General Conditions of the Contract for Construction for Design-Bid-Build and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

### 1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for performing alteration and renovation Work.
- B. Related Sections: The following Sections contain requirements that relate to this Section:
1. Division 00 Section 00 30 00 "General Statements for Available Information" for information that is available in addition to the Bidding Documents for review by bidders. Such information may include an existing conditions survey, contaminated soil reports, contaminated groundwater reports, hazardous building material reports, geotechnical data, etc.
  2. Division 01 Section 01 31 00 "Project Management and Coordination" for procedures for coordinating cutting and patching with other construction activities.
  3. Division 01 Section 01 73 29 "Cutting and Patching" for procedures for cutting and patching.
  4. Division 01 Section 01 74 19 "Construction Waste Management & Disposal" for the requirements for waste management goals, waste management plan and waste management plan implementation.
  7. Division 50 00 00 "Project-Specific Available Information" for information that is referenced in Section 00 30 00 "General Statements for Available Information".
  8. Refer to other Sections for specific requirements and limitations applicable to performing alteration Work with individual parts of the Work.
  9. 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. **Definitions:**
1. Clean Fill: Either (1) natural soil or (2) rock, brick, ceramics, concrete, and asphalt paving fragments which are virtually inert and pose neither a pollution threat to ground or surface waters nor a fire hazard.
  2. Contaminated Soil: Treated or untreated soil and/or sediment affected by a known or suspected release and determined, or reasonably expected to contain substances exceeding Residential Direct Exposure Criteria or GA Pollutant Mobility Criteria, as these terms are defined in the Remediation Standard Regulations (RCSA Section 22a-133k-1).
  3. Hazardous Soil: Soil that is classified as a hazardous waste. Soil is classified as hazardous waste if it exhibits a hazardous waste characteristic or if it contains RCRA-listed hazardous constituents above Connecticut's RCRA "Contained-In" Policy dated May 2002.
  4. Natural Soil: Soil in which all substances naturally occurring therein are present in concentrations not exceeding the concentrations of such substance occurring naturally in the environment and in which soil no other substance is analytically detectable.
  5. Polluted Soil: Soil affected by a release of a substance at a concentration above the analytical detection limit for such substance in accordance with RCSA 22a-133k-1(a)(45) or for naturally occurring substance at a concentration that exceeds concentrations that naturally occur in the environment.
  6. Regulated Soil: Includes Polluted Soil, Contaminated Soil, and Hazardous Soil.
  7. Groundwater Remediation Wastewater: Wastewater generated in connection with investigating pollution or remediating polluted groundwater or soil. Groundwater remediation wastewater includes without limitation groundwater withdrawn from a groundwater recovery well; groundwater which collects in an excavation or foundation drain or other subsurface facility or structure; groundwater contaminated runoff and stormwater impacted by on-site pollutants from

any construction activity; condensate resulting from construction or maintenance of a soil vapor extraction system; and wastewater generated by developing, testing, sampling, or purging a well.

## PART 2 - PRODUCTS

### 2.1 PRODUCTS FOR PATCHING AND EXTENDING WORK

- A. New materials: As specified in product sections; match existing Products and Work for patching and extending Work.
- B. Type and Quality of Existing Products: Determine by inspecting and testing Products where necessary, referring to existing Work as a standard.

### 2.2 SALVAGEABLE MATERIALS

- A. The **Contractor** shall be responsible for removing the following salvageable items and moving said items to a designated location within the building until reinstallation.
  - 1. **Suspended Ceiling Tile:**
- B. Any salvageable materials not required for reinstallation, or as directed by the Owner shall be removed from the premises and properly disposed of.

## PART 3 - EXECUTION

### 3.1 INSPECTION

- A. **General:**
  - 1. Observe all existing conditions prior to submitting a bid. Include in the bid, existing conditions and their impact, particularly to cost and health and safety of workers and occupants, and proper function and operation of the facility. Be aware of other work being performed. Failure to visit the site shall in no way provide relief from the necessity of furnishing materials or performing any work that may be required to complete the work in accordance with the Contract Documents without additional cost to the Owner. All site visits shall be scheduled with the Owner.
  - 2. The quantities, locations and the extent of work indicated are best estimates, which are limited by the physical constraints imposed by occupancy of the facility. Consider all aspects of the substrates within the identified plan area. Material information and quantities were obtained from site surveys. Accordingly, variations (plus or minus 10 percent) in quantities within the limits of the work area are considered as having no impact on contract sum and contract performance period. Where additional abatement work is required beyond the above variations, the contract sum and contract performance period shall be adjusted under provisions of Division 01 of the Specifications.
  - 3. Verify that demolition is complete and areas are ready for installation of new Work.
  - 4. Beginning of restoration Work means acceptance of existing conditions.
- B. **Project Procedures for Work Involving Asbestos Containing Material (ACM):**
  - 1. The **Contractor** is responsible for abating all **Asbestos Containing Material (ACM)** that is visible and accessible.
  - 2. In **demolition projects**, every attempt should be made by the **Contractor** to **remove all ACM**.
  - 3. If testing for asbestos has been conducted at the facility scheduled for renovation, demolition, reconstruction, alteration, remodeling, or repair, then the results of the asbestos testing are summarized in **Division 50 00 00 Project-Specific Available Information, Section 50 30 00 Hazardous Building Materials Inspection and Inventory** at the end of the Technical Specification Sections. 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.
  - 4. If the Contractor should encounter any material suspected or known to contain asbestos **not previously identified and assigned as the Contractor's responsibility**, then the Contractor should immediately notify the Construction Administrator **in writing** of same. It is the Owner'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. **If necessary, the Contractor will abate ACM's within a reasonable time period after the Owner's issuance of a Change Order for the additional abatement work.**

5. No attempt has been made to locate hazardous material associated with existing site utilities, though it is presumed that at least some asbestos may be discovered associated with underground piping during the course of site and site utilities work. If and when such materials appear, the Contractor shall notify the Owner, who shall direct additional work outside of this Agreement to assist in cutting up and disposing of same. The Contractor shall assist the hazardous materials contractor(s) with excavating, heavy lifting, and the like at no additional cost to the Owner.

**C. Project Procedures for Work Involving Lead-Based Paint (LBP):**

1. The **Contractor** is responsible for abating all **Lead-Based Paint (LBP)** prior to the start of any Work involving renovation, demolition, reconstruction, alteration, remodeling, or repair (if necessary), unless noted differently below or specified differently elsewhere.
2. The **Contractor** shall conduct all demolition and removal Work, specified in the Technical Specifications Sections of this Project Manual, in conformance with the regulations as specified in this **Section 01 35 16 Alteration Project Procedures** and as specified in **Section 02 83 00 Lead Remediation**.
3. If testing for LBP has been conducted at the facility scheduled for renovation, demolition, reconstruction, alteration, remodeling, or repair, then the results of the LBP testing are summarized in **Division 50 00 00 Project-Specific Available Information, Section 50 30 00 Hazardous Building Materials Inspection and Inventory** at the end of the Technical Specification Sections. 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.
4. If the Contractor should encounter any material suspected or known to contain **LBP that was not previously identified and assigned as the Contractor's responsibility**, then the Contractor should immediately notify the Construction Administrator **in writing** of same. It is the State's responsibility to have the material tested and abated (if necessary). The Owner will respond within **four (4) Calendar Days** after receiving the Contractor's written request to the Construction Administrator for testing the suspect material. **The Owner will abate LBP (if necessary) within a reasonable time period, i.e. within ten (10) calendar days.**
5. 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.
6. The Contractor's Work shall be based on a child under the age of six (6) years in residence; the Work shall also be in accordance with Connecticut Regulations Section 19a-111-1 through 11.
7. If this facility was constructed **prior to 1978** it is likely to have painted surfaces containing lead-based paint.
8. 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, as amended, 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.

**D. Project Procedures for Work Involving Polychlorinated Biphenyls (PCBs) in Building Materials:**

1. If this facility was constructed **between 1950 and 1978**, it is likely to have caulk and/or glazing containing PCBs.

2. The **Contractor** is responsible for abating all **Polychlorinated Biphenyls (PCBs) in Building Materials** prior to the start of any Work involving construction, renovation or demolition (if necessary), unless noted differently below or specified differently elsewhere.
3. The **Contractor** shall conduct all demolition and removal Work, specified in the Technical Specifications Sections of this Project Manual, in conformance with the regulations as specified in **Section 01 35 16 Alteration Project Procedures** and as specified in **Section 02 61 23 Removal and Disposal of PCB Contaminated Soils and Section 02 84 33 Removal and Disposal of PCBs**.
4. If the Owner has tested the facility scheduled for renovation, demolition, reconstruction alteration, remodeling or repair for PCBs in Building Materials such as caulk and glazing or other types of material, then the results are located in **Division 50 00 00 Project-Specific Available Information, Section 50 30 00 Hazardous Building Materials Inspection and Inventory** at the end of the Technical Specification Sections; otherwise the Owner assumes such materials do not warrant testing. It is the Owner's responsibility to have the material tested, not the Contractor, subcontractors or anyone working on behalf of the Contractor.
5. In the case where the Owner has a survey of locations with results and if the Contractor should encounter new areas of the subject material already identified by the survey, then he should immediately notify the Construction Administrator **in writing** of same. It is the State's responsibility to have the material tested and abated (if necessary). The Owner will respond within **four (4) Calendar Days** after receiving the Contractor's written request to the Construction Administrator for testing the suspect material. **If necessary, the Contractor will abate PCBs in Building Materials within a reasonable time period after the Owner's issuance of a Change Order for the additional abatement work.**
  - 5.1 When the **Owner** requests the **Contractor** undertake the responsibilities **for the abatement and disposal of the PCBs in Building Materials**, then the compensation to the Contractor by Owner for the Work shall be determined by the "**Unit Prices**" stated in **Section 01 20 00 Contract Considerations**.
6. The work shall be performed by persons who are knowledgeable, qualified, and trained in the removal, treatment, handling, and disposal of PCB contaminated wastes and the subsequent cleaning of the affected environment. These Specifications govern all work activities that disturb PCB-containing caulk and glazing and associated building material. All activities shall be performed in accordance with, but not limited to, OSHA Regulation 29 CFR 1926, the United States Environmental Protection Agency's PCB Regulation 40 CFR Part 761, Connecticut General Statutes 22a-463 through -469 inclusive, and the **PCB Site Remedial Plan** where applicable.

**E. Project Procedures for Work Involving Mold:**

1. The **Contractor** is responsible for abating all Mold (any form of fungi, including mold or mildew, and myotoxins, spores, scents or by-products produced or released by fungi) prior to the start of any Work involving renovation, demolition, reconstruction, alteration, remodeling, or repair (if necessary), unless noted differently below or specified differently elsewhere.
2. The **Contractor** shall conduct all demolition and removal Work, specified in the Technical Specifications Sections of this Project Manual, in conformance with the regulations as specified in **Section 01 35 16 Alteration Project Procedures** and **Section 02 85 00 Mold and Other Hazardous Materials Remediation Specifications**.
3. If the Owner has tested the facility scheduled for renovation, demolition, reconstruction alteration, remodeling or repair for Mold, then the results are located in **Division 50 00 00 Project-Specific Available Information, Section 50 30 00 Hazardous Building Materials Inspection and Inventory** at the end of the Technical Specification Sections. Under no circumstance shall this information be the sole means used by the Contractor for determining the extent of Mold. It is the Contractor's responsibility to verify all materials and field conditions prior to renovation, demolition, reconstruction, alteration, remodeling, or repair that may affect the performance of their Work.
4. If the Contractor should encounter any material suspected or known to contain **Mold that was not previously identified and assigned as the Contractor's responsibility**, he should immediately notify the Construction Administrator **in writing** of same. It is the State's responsibility to have the material tested and abated (if necessary). The Owner will respond within **four (4) Calendar Days** after receiving the Contractor's written testing request to the Construction Administrator for testing the suspect material. **If necessary, the Contractor will abate Mold within a reasonable time period after the Owner's issuance of a Change Order for the additional abatement work.**

- 4.1 When the **Owner** requests the **Contractor** undertake the responsibilities for the **abatement and disposal of Mold**, then the compensation to the Contractor by Owner for the Work shall be determined by the “**Unit Prices**” stated in **Section 01 20 00 Contract Considerations**.
5. Disposal of all hazardous materials shall be in accordance with but not limited to applicable provisions of 40 CFR Parts 761 Subpart K, 761, and 761.65 and the Connecticut General Hazardous Waste Statute Sec. 22a-454.
- F. Project Procedures for Work Involving Hazardous Materials, Wastes, and Items and Universal Wastes (Including Products Containing Persistent Bioaccumulative Toxic Chemicals” (PBTs) such as Polychlorinated Biphenols (PCBs), Di-2-ethylhexyl Phthalate (DEHP), and Mercury):**
2. The **Contractor** is responsible for abating all **Hazardous Materials, Wastes, and Items and Universal Wastes** including products containing Persistent Bioaccumulative Toxic Chemicals” (PBTs) such as Polychlorinated Biphenols (PCBs), Di-2-ethylhexyl Phthalate (DEHP), and Mercury prior to the start of any Work involving renovation, demolition, reconstruction, alteration, remodeling, or repair (if necessary), unless noted differently below or specified differently elsewhere.
  2. If a **Hazardous Materials, Wastes, and Items and Universal Wastes Inventory** has been conducted at the facility scheduled for renovation, demolition, reconstruction, alteration, remodeling, or repair, then the results of the inventory are summarized in **Division 50 00 00 Project-Specific Available Information, Section 50 30 00 Hazardous Building Materials Inspection and Inventory** at the end of the Technical Specification Sections. Under no circumstance shall this information be the sole means used by the Contractor for determining the extent of Hazardous Materials, Wastes, and Items and Universal Wastes. The Contractor shall be responsible for verification of all field conditions affecting performance of the Work
  3. If the Contractor should encounter any Hazardous Materials, Wastes, and Items and Universal Wastes **that were not previously identified and assigned as the Contractor’s responsibility**, then the Contractor should immediately notify the Construction Administrator **in writing** of same. It is the State’s responsibility to have the material tested and abated (if necessary). The Owner will respond within **four (4) Calendar Days** after receiving the Contractor’s written request to the Construction Administrator for testing the suspect material. **If necessary, the Contractor will abate Hazardous Materials, Wastes, and Items and Universal Wastes within a reasonable time period after the Owner’s issuance of a Change Order for the additional abatement work.**
  4. Exposure Levels for PBTs such as PCBs, DEHP, and mercury in the construction industry are regulated by 29 CFR 1910.1200 and 29 CFR 1926.28 et. al. Demolition and removal work 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.
  5. Examples of Hazardous Materials, Wastes, and Items and Universal Wastes include, but are not limited to, fluorescent light fixtures and exit signs, ballasts, high-intensity discharge (HID) lamps, certain types of construction products containing vinyl, mercury containing electrical switches, gauges, and thermostats; PCB Capacitors, refrigerants, pressurized cylinders, smoke/carbon dioxide detectors, used electronics, batteries, transformer/hydraulic fluids/oils, and miscellaneous household hazardous waste.
  6. For the purposes of this paragraph, **PCB’s in building material such as caulk and glazing or any other type of material not listed above is not applicable to this paragraph.**
  7. Construction debris/waste may be classified as hazardous waste. Disposal of all hazardous materials shall be in accordance with but not limited to applicable provisions of 40 CFR Parts 761 Subpart K, 761, and 761.65 and the Connecticut General Hazardous Waste Statute Sec. 22a-454.

### 3.2 PREPARATION

- A. Cut, move, or remove items as are necessary for access to alteration and renovation Work. Replace and restore at completion.
- B. 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.
- C. Remove debris and abandoned items from area and from concealed spaces.
- D. Prepare surface and remove surface finishes to provide for proper installation of new Work and finishes.
- E. Close openings in exterior surfaces to protect existing Work **and salvageable items** from weather and extremes of temperature and humidity. Insulate ductwork and piping to prevent condensation in exposed areas.

### 3.3 INSTALLATION

- A. Coordinate alteration and renovation Work to expedite completion, and if required sequence Work to accommodate Owner occupancy.
- B. 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"**.
- C. 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"**.
- D. In addition to specified replacement of **equipment and fixtures, restore existing plumbing, heating, ventilation, air conditioning, and electrical systems** to full pre-construction operational condition.
- E. Recover and refinish Work that exposes mechanical and electrical Work exposed accidentally during the Work.
- F. Install products as specified in individual specification sections.

### 3.4 TRANSITIONS

- A. 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.
- B. 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.

### 3.5 ADJUSTMENTS

- A. 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.
- B. Where a change of plane of **1/4-inch** in **(12) inches** or more occurs, request recommendation from Architect/Engineer for providing a smooth transition.
- C. Trim existing doors as necessary to clear new floor finish. Refinish trim as required.
- D. Fit Work at penetrations of surfaces as specified in **Section 01 73 29 "Cutting and Patching"**.

### 3.6 REPAIR OF DAMAGED SURFACES

- A. Patch or replace portions of existing surfaces that are damaged, lifted, discolored, or showing imperfections.
- B. Repair substrate prior to patching finishes.

### 3.7 FINISHES

- A. Finish surfaces as specified in individual product specification sections.
- B. Finish patches to produce uniform finish and texture over entire area. When finish cannot be matched, refinish entire surface to nearest intersections.

### 3.8 CLEANING

- A. In addition to cleaning specified in **Section 01 50 00 "Temporary Facilities and Controls"**, clean Agency occupied areas of Work.

**END OF SECTION 01 35 16**

**PART 1 GENERAL**

**1.1 RELATED DOCUMENTS**

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

**1.2 SUMMARY**

- A. This guide specification covers construction safety requirements and requirements for the protection of people, property, and resources. It is intended for use in construction, renovation, and demolition projects for the State of Connecticut Department of Administrative Services (DAS) / Construction Services (CS).
- B. **Related Sections:** The following Sections contain requirements that relate to this Section:
  1. Division 01 Section 01 33 00 Submittal Procedures specifies the requirements for submittal requirements;
  2. Division 01 Section 01 31 19 "Project Meetings" specifies requirements for submittal and distribution of meeting and conference minutes.

**1.2 REFERENCES**

- A. The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

<b>AMERICAN SOCIETY OF SAFETY ENGINEERS (ASSE/SAFE)</b> <a href="http://www.asse.org/publications/">www.asse.org/publications/</a>	
ASSE/SAFE A10.32	(2004) Fall Protection
ASSE/SAFE A10.34	(2001; R 2005) Protection of the Public on or Adjacent to Construction Sites
ASSE/SAFE Z359.1	(2007) Safety Requirements for Personal Fall Arrest Systems, Subsystems and Components
<b>AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME)</b> <a href="http://www.asme.org/Codes/">www.asme.org/Codes/</a>	
ASME B30.22	(2005) Articulating Boom Cranes
ASME B30.3	(2004) Construction Tower Cranes
ASME B30.5	(2004) Mobile and Locomotive Cranes
ASME B30.8	(2004) Floating Cranes and Floating Derricks
<b>NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)</b> <a href="http://www.nfpa.org/">www.nfpa.org/</a>	
NFPA 10	(2007) Portable Fire Extinguishers
NFPA 51B	(2009) Standard for Fire Prevention During Welding, Cutting, and Other Hot Work
NFPA 241	(2004) Safeguarding Construction, Alteration, and Demolition Operations
NFPA 70	(2008) National Electrical Code
NFPA 70E	Standard for Electrical Safety in the Workplace
<b>CODE OF FEDERAL REGULATIONS (CFR)</b> <a href="http://www.archives.gov/federal-register/cfr/">www.archives.gov/federal-register/cfr/</a>	
10 CFR	Standards for Protection Against Radiation
29 CFR 1910	Occupational Safety and Health Standards
29 CFR 1910.28	Safety Requirements For Scaffolding.
29 CFR 1910.146	Permit-required Confined Spaces
29 CFR 1910.147	Control Of Hazardous Energy (Lockout/Tagout)
29 CFR 1910.178	Powered industrial trucks.
29 CFR 1915	Confined and Enclosed Spaces and Other
29 CFR 1926	Safety and Health Regulations for Construction
29 CFR 1926.500	Fall Protection
29 CFR 1926.550	Cranes and Derricks



US Army Core of Engineers (USACE) <a href="http://www.iwr.usace.army.mil">www.iwr.usace.army.mil</a>	
EM 385-1-1	Safety, and Health Requirements Manual (2008),

1.3 SUBMITTALS

- A. An "O" followed by "A" indicates that the Owner acceptance; submittals not having an "O" designation are for Contractor Quality Control approval.
- B. **Submittal Procedures:**
  - 1. **Preconstruction Submittals:**
    - a. Accident Prevention Plan (APP); "O, A";
    - b. Activity Hazard Analysis (AHA); "O, A";
    - c. Crane Critical Lift Plan; "O, A";
    - d. Proof of qualification for Crane Operators; O, A.
  - 2. **Test Reports:** Submit reports as their incidence occurs, in accordance with the requirements of the paragraph entitled, "Reports."
    - a. Accident Reports;
    - b. Monthly Exposure Reports;
    - c. Crane Reports;
    - d. Regulatory Citations and Violations;
    - e. Gas Protection.
  - 3. **Certificates:**
    - a. Confined Space Entry Permit;
    - b. Hot work permit;
    - c. License Certificates.
    - d. Certificate of Compliance – Crane

1.4 DEFINITIONS

- A. **Competent Person.** A competent person is one who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.
- B. **Competent Person for Fall Protection.** A person who is capable of identifying hazardous or dangerous conditions in the personal fall arrest system or any component thereof, as well as their application and use with related equipment, and has the authority to take prompt corrective measures to eliminate the hazards of falling.
- C. **Confined Space:** A space which by design has limited openings for entry and exit, unfavorable natural ventilation which could contain or produce dangerous air contaminants, and which is not intended for continuous employee occupancy. Confined spaces include, but are not limited to storage tanks, process vessels, pits, silos, vats, degreasers, reaction vessels, boilers, ventilation and exhaust ducts, sewers, tunnels, underground utility vaults, and pipelines.
- D. **High Visibility Accident:** Any mishap which may generate publicity and/or high visibility.
- E. **Medical Treatment;** Medical treatment includes treatment administered by a physician or by registered professional personnel under the standing orders of a physician. Medical treatment does not include first aid treatment even through provided by a physician or registered personnel.
- F. **Operating Envelope:** The area surrounding any crane. Inside this "envelope" is the crane, the operator, riggers and crane walkers, rigging gear between the hook and the load, the load and the crane's supporting structure (ground, rail, etc.).
- G. **Qualified Person for Fall Protection:** A person with a recognized degree or professional certificate and with extensive knowledge, training and experience in the field of fall protection; who is capable of performing design, analysis, and evaluation of fall protection systems and equipment.
- H. **Recordable Injuries or Illnesses:** Any work-related injury or illness that results in:
  - 1. Death, regardless of the time between the injury and death, or the length of the illness;
  - 2. Days away from work (any time lost after day of injury/illness onset);
  - 3. Restricted work;

4. Transfer to another job;
5. Medical treatment beyond first aid;
6. Loss of consciousness; or
7. A significant injury or illness diagnosed by a physician or other licensed health care professional, even if it did not result in (1) through (6) above.

I. **Weight Handling Equipment (WHE) Accident:** A WHE accident occurs when any one or more of the six elements in the operating envelope fails to perform correctly during operation, including operation during maintenance or testing resulting in personnel injury or death; material or equipment damage; dropped load; derailment; two-blocking; overload; and/or collision, including unplanned contact between the load, crane, and/or other objects. A dropped load, derailment, two-blocking, overload and collision are considered an accident even though no material damage or injury occurs. A component failure (e.g., motor burnout, gear tooth failure, bearing failure) is not considered an accident solely due to material or equipment damage unless the component failure results in damage to other components (e.g., dropped boom, dropped load, roll over, etc.).

## 1.5 REGULATORY REQUIREMENTS

A. In addition to the detailed requirements included in the provisions of this Section see, **Division 01, Section 01 42 20 "Reference Standards and Definitions"** for other state laws, criteria, rules and regulations. Submit matters of interpretation of standards to the appropriate administrative agency for resolution before starting work. Where the requirements of this specification, applicable laws, criteria, regulations, and referenced documents vary, the most stringent requirements govern.

## 1.6 SITE QUALIFICATIONS, DUTIES, AND MEETINGS

### A. Personnel Qualifications:

#### B. Site Safety and Health Officer (SSHO):

1. Provide a Site Safety and Health Officer (SSHO) at the work site at all times to perform safety and occupational health management, surveillance, inspections, and safety enforcement for the Contractor. The Contractor Quality Control (QC) person **can be the SSHO on this project**. Meet the following requirements within the SSHO:

**Level 1:** Worked on similar projects. 10-hour OSHA construction safety class or equivalent within last **three (3) years**. Competent person training as needed.

#### C. **Certified Safety Professional (CSP) and/or Certified Industrial Hygienist (CIH):**

Provide a **Certified Safety Professional (CSP) and a Certified Industrial Hygienist (CIH)** at the work site to perform safety and occupational health management, surveillance, inspections, and safety enforcement for the Contractor. The **CSP and the CIH** shall be the safety and occupational health "competent person" as defined by this section. **The CSP and the CIH shall have no other duties than safety and occupational health management, inspections, and/or industrial hygiene.**

#### E. Crane Operators:

Meet the Crane Operators and Crane Operation requirements of the Connecticut Bureau of License and Permits – Cranes, Department of Administrative Services, Office of State Fire Marshal pursuant to C.G.S § 29-221 through 29-230. Provide proof of current license and qualification. For more information visit the DAS website ([www.ct.gov/DAS](http://www.ct.gov/DAS)) > Licensing, Certification, Permitting and Codes > Cranes, or call **(860) 713-5580 or (860) 713-5529**.

#### F. Personnel Duties:

##### 1. Site Safety and Health Officer (SSHO):

- a. Conduct daily safety and health inspections and maintain a written log which includes area/operation inspected, date of inspection, identified hazards, recommended corrective actions, estimated and actual dates of corrections. Attach safety inspection logs to the Contractors' daily **production** report.
- b. Conduct mishap investigations and complete required reports. Maintain the **OSHA Form 300 and Daily Production** reports for prime and sub-contractors. For more information visit the OSHA website at [www.osha.gov](http://www.osha.gov) > Employers > Recordkeeping Requirements and Forms.
- c. Maintain applicable safety reference material on the job site.
- d. Attend the pre-construction conference, pre-work meetings including preparatory inspection meeting, and periodic in-progress meetings.
- e. Implement and enforce accepted APPS and AHAs.

- f. Maintain a safety and health deficiency tracking system that monitors outstanding deficiencies until resolution. Post a list of unresolved safety and health deficiencies on the safety bulletin board.
- g. Ensure sub-contractor compliance with safety and health requirements.

Failure to perform the above duties will result in dismissal of the superintendent and/or SSHO, and a project work stoppage. The project work stoppage will remain in effect pending approval of a suitable replacement.

- 2. **Certified Safety Professional (CSP) and Certified Industrial Hygienist (CIH):**
  - a. Perform safety and occupational health management, surveillance, inspections, and safety enforcement for the project.
  - b. Perform as the safety and occupational health "competent person" as defined by this section.
  - c. Be on-site **at least daily**, or whenever work or testing is being performed.
  - d. Conduct and document safety inspections.
  - e. Shall have no other duties other than safety and occupational health management, inspections, and enforcement on this contract.

If the **CSP or CIH** is appointed as the SSHO all duties of that position shall also be performed.

**G. Meetings:**

**1. Preconstruction Conference:**

- a. Contractor representatives who have a responsibility or significant role in accident prevention on the project shall attend the preconstruction conference. This includes the project superintendent, site safety and health officer, quality control supervisor, or any other assigned safety and health professionals who participated in the development of the **Accident Prevention Plan (APP)**; (including the **Activity Hazard Analyses (AHAs)**, and special plans, program and procedures associated with it).
- b. Discuss the details of the submitted APP to include incorporated plans, programs, procedures and a listing of anticipated AHAs that will be developed and implemented during the performance of the contract. This list of proposed AHAs will be reviewed at the conference and an agreement will be reached between the Contractor and the Owner's Representative(s) as to which phases will require an analysis. In addition, establish a schedule for the preparation, submittal, review, and acceptance of AHAs to preclude project delays.
- c. Deficiencies in the submitted APP will be brought to the attention of the Contractor at the preconstruction conference, and the Contractor shall revise the plan to correct deficiencies and re-submit it for acceptance. Do not begin work until there is an accepted APP.

**2. Safety Meetings:**

Safety meetings shall be conducted to review past activities, plan for new or changed operations, review pertinent aspects of appropriate AHA (by trade), establish safe working procedures for anticipated hazards, and provide pertinent safety and health training and motivation.

- a. Meetings shall be conducted at least once a month for all supervisors on the project location and at least once a week for all workers by supervisors or foremen.
- b. Meetings shall be documented, including the date, persons in attendance, subjects discussed, and names of individual(s) who conducted the meeting. Documentation shall be maintained and copies furnished to the Construction Administrator (CA) on request.
- c. The Construction Administrator (CA) shall be informed of all scheduled meetings in advance and be invited to attend.

**1.7 ACCIDENT PREVENTION PLAN (APP):**

- A. Use a qualified person to prepare the written site-specific APP.
  - 1. Prepare the APP in accordance with the format and requirements of **US Army Core of Engineers (USACE), Safety, and Health Requirements Manual, EM 385-1-1**, or as approved by the CA and as supplemented herein. Cover all paragraphs and subparagraph elements in **USACE EM 385-1-1, Appendix A, "Minimum Basic Outline for Accident Prevention Plan"** or as approved by the CA. The USACE Safety, and Health Requirements Manual, EM 385-1-1 is available at the USACE Website [www.iwr.usace.army.mil](http://www.iwr.usace.army.mil).
  - 2. Specific requirements for some of the APP elements are described in "B" below. The APP shall be job-specific and address any unusual or unique aspects of the project or activity for which it is written.
- B. The APP shall interface with the Contractor's overall safety and health program. Include any portions of the Contractor's overall safety and health program referenced in the APP in the applicable APP element

and made site-specific. The Owner considers the Prime General Contractor to be the "controlling authority" for all work site safety and health of the subcontractors. Contractors are responsible for informing their subcontractors of the safety provisions under the terms of the contract and the penalties for noncompliance, coordinating the work to prevent one craft from interfering with or creating hazardous working conditions for other crafts, and inspecting subcontractor operations to ensure that accident prevention responsibilities are being carried out. The APP shall be signed by the person and firm (senior person) preparing the APP, the Contractor, the on-site superintendent, the designated site safety and health officer and any designated Certified Safety Professional (CSP) and/or Certified Industrial Hygienist (CIH).

- C. Submit the APP to the DAS/CS Project Manager and Construction Administrator **Fourteen (14) Calendar Days** prior to the date of the preconstruction conference for acceptance. Work cannot proceed without an accepted APP. Once accepted by the DAS/CS Project Manager and Construction Administrator, the APP and attachments will be enforced as part of the contract. Disregarding the provisions of this contract or the accepted APP will be cause for stopping of work, at the discretion of the DAS/CS Project Manager and Construction Administrator, until the matter has been rectified. Once work begins, changes to the accepted APP shall be made with the knowledge and concurrence of the DAS/CS Project Manager and Construction Administrator, project superintendent, Site Safety and Health Officer (SSHO) and quality control manager. Should any hazard become evident, stop work in the area, secure the area, and develop a plan to remove the hazard. Notify the DAS/CS Project Manager and Construction Administrator within **Twenty (24)** hours of discovery. Eliminate/remove the hazard. In the interim, take all necessary action to restore and maintain safe working conditions in order to safeguard onsite personnel, visitors, the public (as defined by **American Society of Safety Engineers, ASSE/SAFE A10.34 - Protection of the Public on or Adjacent to Construction Sites**, see [www.asse.org](http://www.asse.org)) and the environment.

Copies of the accepted plan will be maintained at the Construction Administrator's office at the job site. Continuously reviewed and amended the APP, as necessary, throughout the life of the contract. Incorporate unusual or high-hazard activities not identified in the original APP as they are discovered.

- D. **APP Contents:**  
The contents of the Accident Prevention Plan (APP) shall be in accordance with **Appendix A** of the US Army Corps of Engineers, **EM 385-1-1 Safety and Health Requirements Manual**, Appendix A, Minimum Basic Outline for Accident Prevention Plans or as approved by the CA. For more information visit the USACE Website at [www.usace.army.mil/Library](http://www.usace.army.mil/Library).

- 1.8 **ACTIVITY HAZARD ANALYSIS (AHA):** Activity Hazard Analyses (AHAs) define the activities being performed and identify the sequences of work, the specific hazards anticipated, site conditions, equipment, materials, and the control measures to be implemented to eliminate or reduce each hazard to an acceptable level of risk. The Activity Hazard Analysis (AHA) format shall be in accordance with US Army Corps of Engineers, **EM 385-1-1 Safety and Health Requirements Manual** or as approved by the CA.

- A. Submittals:
1. Submit initial AHA to CA for review at least **Fifteen (15) Calendar Days** prior to the start of each phase. Format subsequent AHAs as amendments to the APP. The analysis should be used during daily inspections to ensure the implementation and effectiveness of the activity's safety and health controls.
  2. The AHA list will be reviewed monthly at the Contractor supervisory safety meeting and updated as necessary when procedures, scheduling, or hazards change. Develop the activity hazard analyses using the project schedule as the basis for the activities performed. Any activities listed on the project schedule will require an AHA. The AHAs will be developed by the contractor, supplier or subcontractor and provided to the prime contractor for submittal to the CA.

1.9 **DISPLAY OF SAFETY INFORMATION**

Within **one (1) Calendar Days** after commencement of work, erect a safety bulletin board at the job site. Include and maintain information on safety bulletin board as required by US Army Corps of Engineers, **EM 385-1-1 Safety and Health Requirements Manual**, Section 01.A.06 or as approved by the CA. Additional items required to be posted include:

- A. Confined space entry permit.
- B. Hot work permit.
- C. Crane permit
- D. Street permit(s)
- E. Others (as required)

**1.10 SITE SAFETY REFERENCE MATERIALS**

Maintain safety-related references applicable to the project, including those listed in the article "References." Maintain applicable equipment manufacturer's manuals.

**1.11 EMERGENCY MEDICAL TREATMENT**

Contractors will arrange for their own emergency medical treatment. The Owner has no responsibility to provide emergency medical treatment.

**1.12 REPORTS**

**A. Accident Reports**

1. Conduct an accident investigation for recordable injuries and illnesses, and property damage accidents resulting in at least **Two Thousand Dollars (\$2,000)** in damages, to establish the root cause(s) of the accident, complete "Accident Report Form" approved by the CA. Provide the report to the CA within **five (5) Calendar Days** of the accident.

**B. Accident Notification**

Notify the CA as soon as practical, but not later than **four hours (4)**, after any accident meeting the definition of Recordable Injuries or Illnesses or High Visibility Accidents, property damage equal to or greater than \$2,000, or any weight handling equipment accident.

1. Within notification include the following:

- a. contractor name;
- b. contract title;
- c. type of contract;
- d. name of activity,
- e. installation or location where accident occurred;
- f. date and time of accident;
- g. names of personnel injured;
- h. extent of property damage, if any; extent of injury, if known, and brief description of accident **to include type of construction equipment used, Personal Protective Equipment (PPE) used, etc.** Preserve the conditions and evidence on the accident site until the U.S. Department of Labor, Occupational Safety and Health Administration (USDOL-OSHA) investigation team arrives on-site and USDOL-OSHA investigation is conducted.

**C. Monthly Exposure Reports**

Monthly exposure reporting to the CA is required to be attached to the monthly Application for Payment request. This report is a compilation of employee-hours worked each month for all site workers, both prime and subcontractor. Provide on a form approved by the CA.

**D. Crane Reports**

Submit crane inspection reports on a form approved by the CA and as specified herein with Daily Reports of Inspections.

**E. HOT WORK**

Hot Work shall only be performed in accordance with the requirements of **NFPA 51B "Fire Prevention During Welding, Cutting and Other Hot Work Standard.**

**1. Definitions:**

- a. **Hot Work:** Work involving burning, welding, or a similar operation that is capable of initiating fires or explosions. Examples listed by NFPA include arc welding, oxygen- fuel gas welding, open-flame soldering, brazing, thermal spraying, oxygen cutting, and arc cutting.
- b. **Permit Authorizing Individual (PAI).** Means the individual designated by the General Contractor to authorize hot work. The PAI is permitted to be, among others, the General Contractor's project executive, supervisor, foreperson, or designated safety administrator. The PAI CANNOT be the hot work operator, except as permitted in **NFPA 51B**. The PAI is aware of the fire hazards involved and is familiar with the provisions of this standard.

2. **Permit:** Submit and obtain a written permit from the PAI prior to performing "Hot Work" (welding, cutting, etc.) or operating other flame-producing/spark producing devices, from the PAI. CONTRACTORS ARE REQUIRED TO MEET ALL CRITERIA BEFORE A PERMIT IS ISSUED. The General Contractor will provide at least **two (2)** twenty (20) pound 4A:20 BC rated extinguishers for normal "Hot Work". All extinguishers shall be current inspection tagged, approved safety pin and tamper resistant seal.

3. **Fire Watch:** It is also mandatory to have a designated FIRE WATCH for any "Hot Work" done at this activity. The Fire Watch shall be trained in accordance with **NFPA 51B Standard for Fire Prevention During Welding, Cutting, and Other Hot Work** and remain on-site for a minimum of 30 minutes after completion of the task or as specified on the hot work permit. When starting work in the facility, require personnel to familiarize themselves with the location of the nearest fire alarm boxes and place in memory the local fire department emergency phone number(s). ANY FIRE, NO MATTER HOW SMALL, SHALL BE REPORTED TO THE LOCAL FIRE DEPARTMENT, GENERAL CONTRACTOR'S AUTHORIZED REPRESENTATIVE, AND OWNER'S CA IMMEDIATELY.

**1.13 FACILITY OCCUPANCY CLOSURE**

Streets, walks, and other facilities occupied and used by the state User Agency shall not be closed or obstructed without written permission from the CA.

**1.14 SEVERE STORM PLAN**

In the event of a severe storm warning, the Contractor must:

- A. Secure outside equipment and materials and place materials that could be damaged in protected areas.
- B. Check surrounding area, including roof, for loose material, equipment, debris, and other objects that could be blown away or against existing facilities.
- C. Ensure that temporary erosion controls are adequate.

**PART 2 PRODUCTS**

NOT USED.

**PART 3 EXECUTION**

**3.1 CONSTRUCTION AND/OR OTHER WORK**

Comply with the Connecticut State Building and Fire Safety Codes, OSHA regulations, and other references regulations. The most stringent standard prevails.

**3.1.2 HAZARDOUS MATERIAL EXCLUSIONS**

Notwithstanding any other hazardous material used in this contract, radioactive materials or instruments capable of producing ionizing/non-ionizing radiation (with the exception of radioactive material and devices used in accordance with **USACE EM 385-1-1** such as nuclear density meters for compaction testing and laboratory equipment with radioactive sources) as well as materials which contain asbestos, mercury or polychlorinated biphenyls, di-isocyanates, lead-based paint are prohibited. The CA, upon written request by the Contractor, may consider exceptions to the use of any of the above excluded materials.

**3.1.3 UNFORESEEN HAZARDOUS MATERIAL**

- A. Related Section: Division 01, Section 01 35 16, Alteration Project Procedures.

**3.2 PRE-OUTAGE COORDINATION MEETING**

Contractors are required to apply for utility outages at least **fifteen (15) Calendar Days** in advance. As a minimum, the request should include the location of the outage, utilities being affected, duration of outage and any necessary sketches. Special requirements for electrical outage requests are contained elsewhere in this specification section. Once approved, and prior to beginning work on the utility system requiring shut down, attend a pre-outage coordination meeting with the CA, User Agency Representative, and Public Utilities representative to review the scope of work and the lock-out/tag-out procedures for worker protection. No work will be performed on energized electrical circuits unless proof is provided that no other means exist.

**3.3 SAFETY LOCKOUT/TAGOUT PROCEDURES**

- A. The General Contractor shall ensure that each employee is familiar with and complies with these procedures and **OSHA 29 CFR 1910.147 Control Of Hazardous Energy (Lockout/Tagout)**.
  1. The General Contractor's "Authorized Employee" shall apply lockout/tagout tags and take other actions that, because of experience and knowledge, are known to be necessary to make the particular equipment safe to work on.
  2. No person, regardless of position or authority, shall operate any switch, valve, or equipment that has an official lockout/tagout tag attached to it, nor shall such tag be removed except as provided in this section.

3. No person shall work on any equipment that requires a lockout/tagout tag unless he, his immediate supervisor, project leader, or a subordinate has in his possession the stubs of the required lockout/tagout tags. Only qualified personnel shall perform work on electrical circuits.
4. A supervisor who is required to enter an area protected by a lockout/tagout tag will be considered a member of the protected group provided he notifies the holder of the tag stub each time he enters and departs from the protected area.
5. Identification markings on building light and power distribution circuits shall not be relied on for established safe work conditions.
6. Before clearance will be given on any equipment other than electrical (generally referred to as mechanical apparatus), the apparatus, valves, or systems shall be secured in a passive condition with the appropriate vents, pins, and locks. Pressurized or vacuum systems shall be vented to relieve differential pressure completely. Vent valves shall be tagged open during the course of the work. Where dangerous gas or fluid systems are involved, or in areas where the environment may be oxygen deficient, system or areas shall be purged, ventilated, or otherwise made safe prior to entry.

**B. Tag Placement**

Lockout/tagout tags shall be completed in accordance with the regulations printed on the back thereof and attached to any device which, if operated, could cause an unsafe condition to exist. If more than one group is to work on any circuit or equipment, the employee in charge of each group shall have a separate set of lockout/tagout tags completed and properly attached. When it is required that certain equipment be tagged, the State of Connecticut Authority Having Jurisdiction will review the characteristics of the various systems involved that affect the safety of the operations and the work to be done; take the necessary actions, including voltage and pressure checks, grounding, and venting, to make the system and equipment safe to work on; and apply such lockout/tagout tags to those switches, valves, vents, or other mechanical devices needed to preserve the safety provided. This operation is referred to as "Providing Safety Clearance."

**C. Tag Removal**

When any individual or group has completed its part of the work and is clear of the circuits or equipment, the supervisor, project leader, or individual for whom the equipment was tagged shall turn in his signed lockout/tagout tag stub to the Contractor. That group's or individual's lockout/tagout tags on equipment may then be removed on authorization by the Contractor.

**3.4 FALL HAZARD PROTECTION AND PREVENTION PROGRAM**

Establish a fall protection and prevention program, for the protection of all employees exposed to fall hazards. Within the program include company policy, identify responsibilities, education and training requirements, fall hazard identification, prevention and control measures, inspection, storage, care and maintenance of fall protection equipment and rescue and evacuation procedures.

**A. Training**

Institute a fall protection training program. As part of the Fall Hazard Protection and Prevention Program, provide training for each employee who might be exposed to fall hazards. Provide training by a competent person for fall protection in accordance with **USACE EM 385-1-1**, Section 21.A.16.

**B. Fall Protection Equipment and Systems**

Enforce use of the fall protection equipment and systems designated for each specific work activity in the Fall Protection and Prevention Plan and/or AHA at all times when an employee is exposed to a fall hazard. Protect employees from fall hazards as specified in **USACE EM 385-1-1, section 21**. In addition to the required fall protection systems, safety skiff, personal floatation devices, life rings etc., are required when working above or next to water in accordance with **USACE EM 385-1-1, paragraphs 05.H. and 05.I**. Personal fall arrest systems are required when working from an articulating or extendible boom, swing stages, or suspended platform. In addition, personal fall arrest systems are required when operating other equipment such as scissor lifts if the work platform is capable of being positioned outside the wheelbase. The need for tying-off in such equipment is to prevent ejection of the employee from the equipment during raising, lowering, or travel. Fall protection must comply with **OSHA 29 CFR 1926.500, Fall Protection, Subpart M, and ASSE/SAFE A10.32, Fall Protection**.

**1. Personal Fall Arrest Equipment**

Personal fall arrest equipment, systems, subsystems, and components shall meet **ASSE/SAFE Z359.1, Safety Requirements for Personal Fall Arrest Systems, Subsystems and Components**. Only a full-body harness with a shock-absorbing lanyard or self-retracting lanyard is an acceptable personal fall arrest body support device. Body belts may only be used as a positioning device system (for uses such as steel reinforcing assembly and in addition to an approved fall arrest system). Harnesses shall have a fall arrest attachment affixed to the body

support (usually a Dorsal D-ring) and specifically designated for attachment to the rest of the system. Only locking snap hooks and carabiners shall be used. Webbing, straps, and ropes shall be made of synthetic fiber. The maximum free fall distance when using fall arrest equipment shall not exceed **1.8 m 6 feet**. The total fall distance and any swinging of the worker (pendulum-like motion) that can occur during a fall shall always be taken

**2. Fall Protection for Roofing Work**

Implement fall protection controls based on the type of roof being constructed and work being performed. Evaluate the roof area to be accessed for its structural integrity including weight-bearing capabilities for the projected loading.

**a. Low Sloped Roofs:**

**(i)** For work within 6 feet (6 feet (1.8 m) of an edge, on low-slope roofs, protect personnel from falling by use of personal fall arrest systems, guardrails, or safety nets.

**(ii)** For work greater than (6 feet (1.8 m) from an edge, erect and install warning lines in accordance with **OSHA 29 CFR 1926.500, Fall Protection**.

**b. Steep-Sloped Roofs:** Work on steep-sloped roofs requires a personal fall arrest system, guardrails with toe-boards, or safety nets. This requirement also includes residential or housing type construction.

**3. Existing Anchorage**

Certified (or re-certified) by a qualified person for fall protection existing anchorages, to be used for attachment of personal fall arrest equipment in accordance with **ASSE/SAFE Z359.1, Safety Requirements for Personal Fall Arrest Systems, Subsystems and Components**. Existing horizontal lifeline anchorages must be certified (or re-certified) by a registered professional engineer with experience in designing horizontal lifeline systems.

**4. Horizontal Lifelines**

Design, install, certify and use under the supervision of a qualified person horizontal lifelines for fall protection as part of a complete fall arrest system which maintains a safety factor of 2 (**OSHA 29 CFR 1926.500 Fall Protection**).

**5. Guardrails and Safety Nets**

Design, install and use guardrails and safety nets in accordance with **29 CFR 1926, Safety and Health Regulations for Construction Subpart M**.

**6. Rescue and Evacuation Procedures**

When personal fall arrest systems are used, the contractor must ensure that the mishap victim can self-rescue or can be rescued promptly should a fall occur. Prepare a Rescue and Evacuation Plan and include a detailed discussion of the following: methods of rescue; methods of self-rescue; equipment used; training requirement; specialized training for the rescuers; procedures for requesting rescue and medical assistance; and transportation routes to a medical facility. Include the Rescue and Evacuation Plan within the Activity Hazard Analysis (AHA) for the phase of work, in the Fall Protection and Prevention (FP&P) Plan, and the Accident Prevention Plan (APP).

**3.5 SCAFFOLDING**

**A.** The Contractor shall provide all employees with a safe means of access to the work area on the scaffold in accordance with **OSHA 29 CFR 1910.28 Safety Requirements For Scaffolding** and as contained in this section.

1. Climbing of any scaffold braces or supports not specifically designed for access is prohibited.
2. Access scaffold platforms greater than 20 feet (6 m) maximum in height by use of a scaffold stair system.
3. Do not use vertical ladders commonly provided by scaffold system manufacturers for accessing scaffold platforms greater than 20 feet (6 m) maximum in height.
4. The use of an adequate gate is required.
5. Ensure that employees are qualified to perform scaffold erection and dismantling.



6. Do not use scaffold without the capability of supporting at least four times the maximum intended load or without appropriate fall protection as delineated in the accepted fall protection and prevention plan.
7. Stationary scaffolds must be attached to structural building components to safeguard against tipping forward or backward.
8. Give special care to ensure scaffold systems are not overloaded. Side brackets used to extend scaffold platforms on self-supported scaffold systems for the storage of material are prohibited.
9. The first tie-in shall be at the height equal to 4 times the width of the smallest dimension of the scaffold base. Place work platforms on mud sills. Scaffold or work platform erectors shall have fall protection during the erection and dismantling of scaffolding or work platforms that are more than six feet. Delineate fall protection requirements when working above six feet or above dangerous operations in the Fall Protection and Prevention (FP&P) Plan and Activity Hazard Analysis (AHA) for the phase of work.

**B. Stilts**

The use of stilts for gaining additional height in construction, renovation, repair or maintenance work is **PROHIBITED**.

**3.6 EQUIPMENT**

**A. Material Handling Equipment**

Material Handling Equipment shall be in accordance with **OSHA 29 CFR 1910.178 Powered Industrial Trucks** and as contained in this section.

1. Material handling equipment such as forklifts shall not be modified with work platform attachments for supporting employees unless specifically delineated in the manufacturer's printed operating instructions.
2. The use of hooks on equipment for lifting of material must be in accordance with manufacturer's printed instructions.
3. Operators of forklifts or power industrial trucks shall be licensed in accordance with OSHA.

**B. Weight Handling Equipment**

1. Equip cranes and derricks as specified in **ASME B30.5** or **ASME B30.22** or **ASME B30.8** as applicable.
2. Comply with the crane manufacturer's specifications and limitations for erection and operation of cranes and hoists used in support of the work. Perform erection under the supervision of a designated person (as defined in **ASME B30.5**). Perform all testing in accordance with the manufacturer's recommended procedures.
3. Comply with **ASME B30.5** for mobile and locomotive cranes, **ASME B30.22** for articulating boom cranes, **ASME B30.3** for construction tower cranes, and **ASME B30.8** for floating cranes and floating derricks.
4. Under no circumstance shall a Contractor make a lift at or above 90% of the cranes rated capacity in any configuration.
5. When operating in the vicinity of overhead transmission lines, operators and riggers shall be alert to this special hazard and follow the requirements of **ASME B30.5** or **ASME B30.22** as applicable.
6. Do not crane suspended personnel work platforms (baskets) unless the Contractor proves that using any other access to the work location would provide a greater hazard to the workers or is impossible. Do not lift personnel with a line hoist or friction crane.
7. Inspect, maintain, and recharge portable fire extinguishers as specified in **NFPA 10, Standard for Portable Fire Extinguishers**.
8. All employees must keep clear of loads about to be lifted and of suspended loads.

9. Use cribbing when performing lifts on outriggers.
10. The crane hook/block must be positioned directly over the load. Side loading of the crane is prohibited.
11. A physical barricade must be positioned to prevent personnel from entering the counterweight swing (tail swing) area of the crane.
12. Certification records which include the date of inspection, signature of the person performing the inspection, and the serial number or other identifier of the crane that was inspected shall always be available for review by CA.
13. Written reports listing the load test procedures used along with any repairs or alterations performed on the crane shall be available for review by CA.
14. Certify that all crane operators have been trained in proper use of all safety devices (e.g. anti-two block devices).

**C. USE OF EXPLOSIVES**

Explosives shall not be used or brought to the project site without prior written approval from the CA. Such approval shall not relieve the Contractor of responsibility for injury to persons or for damage to property due to blasting operations. Storage of explosives, when permitted on State property, shall be only where directed and in approved storage facilities. These facilities shall be kept locked at all times except for inspection, delivery, and withdrawal of explosives. Explosive work shall be performed in accordance with the requirements of C.G.S. § 29-343 through 29-355 and as required by the Office of State Fire Marshal, CT Department of Construction Services.

**3.7 EXCAVATIONS**

**A. Perform soil classification by a competent person in accordance with 29 CFR 1926 Safety and Health Regulations for Construction.**

**1. Utility Locations**

All underground utilities in the work area must be positively identified by and coordinated in accordance with **Division 00, General Conditions, Article 18 Surveys, Permits, And Regulations**. All underground utilities in the work area must be positively identified by a private utility locating service and coordinated with the public utility company. Any markings made during the utility investigation must be maintained by the General Contractor throughout the contract.

**2. Utility Location Verification**

The Contractor must physically verify underground utility locations by hand digging using wood or fiberglass handled tools when any adjacent construction work is expected to come within three feet of the underground system. Digging within **Two (2) feet (610 mm)** of a known utility must not be performed by means of mechanical equipment; hand digging shall be used. If construction is parallel to an existing utility expose the utility by hand digging every **100 feet (30.5 m)** if parallel within **Five (5) feet (1.5 m)** of the excavation.

**3. Shoring Systems**

Trench and shoring systems must be identified in the accepted safety plan and AHA. Manufacture tabulated data and specifications or registered engineer tabulated data for shoring or benching systems shall be readily available on-site for review. Job-made shoring or shielding must have the registered professional engineer stamp, specifications, and tabulated data. Extreme care must be used when excavating near direct burial electric underground cables.

**4. Trenching Machinery**

Operate trenching machines with digging chain drives only when the spotters/laborers are in plain view of the operator. Provide operator and spotters/laborers training on the hazards of the digging chain drives with emphasis on the distance that needs to be maintained when the digging chain is operating. Keep documentation of the training on file at the project site.

**3.8 UTILITIES WITHIN CONCRETE SLABS**

**A.** Utilities located within concrete slabs or pier structures, bridges, and the like, are extremely difficult to identify due to the reinforcing steel used in the construction of these structures. Whenever contract work involves concrete chipping, saw cutting, or core drilling, the existing utility location must be coordinated with utility company in addition to a private locating service. Outages to isolate utility systems must be used in circumstances where utilities are unable to be positively identified. The use of historical drawings does not alleviate the contractor from meeting this requirement.

**3.9 ELECTRICAL**

**A. Conduct of Electrical Work**

Underground electrical spaces must be certified safe for entry before entering to conduct work. Cables that will be cut must be positively identified and de-energized prior to performing each cut. Positive cable identification must be made prior to submitting any outage request for electrical systems. Arrangements are to be coordinated with the CA and utility company for identification. The CA will not accept an outage request until the Contractor satisfactorily documents that the circuits have been clearly identified. Perform all high voltage cable cutting remotely using hydraulic cutting tool. When racking in or live switching of circuit breakers, no additional person other than the switch operator will be allowed in the space during the actual operation. Plan so that work near energized parts is minimized to the fullest extent possible. Use of electrical outages clear of any energized electrical sources is the preferred method. When working in energized substations, only qualified electrical workers will be permitted to enter. When work requires Contractor to work near energized circuits as defined by the **NFPA 70**, high voltage personnel must use personal protective equipment that includes, as a minimum, electrical hard hat, safety shoes, insulating gloves with leather protective sleeves, fire retarding shirts, coveralls, face shields, and safety glasses. In addition, provide electrical arc flash protection for personnel as required by **NFPA 70E**. Insulating blankets, hearing protection, and switching suits may also be required, depending on the specific job and as delineated in the Contractor's AHA.

**B. Portable Extension Cords**

Size portable extension cords in accordance with manufacturer ratings for the tool to be powered and protected from damage. Immediately remove from service all damaged extension cords. Portable extension cords shall meet the requirements of **NFPA 70**.

**3.10 WORK IN CONFINED SPACES**

**A.** Comply with the requirements in **OSHA 29 CFR 1910.146** and **OSHA 29 CFR 1926.21(b) (6)**. Any potential for a hazard in the confined space requires a permit system to be used.

1. Entry Procedures. Prohibit entry into a confined space by personnel for any purpose, including hot work, until the qualified person has conducted appropriate tests to ensure the confined or enclosed space is safe for the work intended and that all potential hazards are controlled or eliminated and documented. All hazards pertaining to the space shall be reviewed with each employee during review of the AHA.
2. Forced air ventilation is required for all confined space entry operations and the minimum air exchange requirements must be maintained to ensure exposure to any hazardous atmosphere is kept below its' action level.
3. Sewer wet wells require continuous atmosphere monitoring with audible alarm for toxic gas detection.

**END OF SECTION 01 35 26**

## PART 1 - GENERAL

### 1.1 RELATED DOCUMENTS

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

### 1.2 DEFINITIONS

- A. **General:** Basic contract definitions are included in the General Conditions of the Contract for Construction.
- B. **"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.
- C. **"Directed":** Terms such as "directed," "requested," "authorized," "selected," "approved," "required," and "permitted" mean directed by the Architect, requested by the Architect, and similar phrases.
- D. **"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.
- E. **"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.
- F. **"Furnish":** The term "furnish" means supply and deliver to the Project Site, ready for unloading, unpacking, assembly, installation, and similar operations.
- G. **"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.
- H. **"Provide":** The term "provide" means to furnish and install, complete and ready for the intended use.
- I. **"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.
  - 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.
  - 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.
  - 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.
    - a. 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.
- J. **"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.
- K. **"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.

### 1.3 SPECIFICATION FORMAT AND CONTENT EXPLANATION

- A. **Specification Format:** These Specifications are organized into Divisions and Sections based on CSI's "MasterFormat" 49-Division format and numbering system.
- B. **Specification Content:** This Specification uses certain conventions regarding the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations or circumstances. These conventions are explained as follows:
  - 1. **Abbreviated Language:** Language used in Specifications and other Contract Documents is abbreviated. Words and meanings shall be interpreted as appropriate. Words implied, but not stated, shall be interpolated, as the sense requires. Singular words will be interpreted as plural and plural words interpreted as singular where applicable as the context of the Contract Documents indicates.
  - 2. **Streamlined Language:** The Specifications generally use the imperative mood and streamlined language. Requirements expressed in the imperative mood are to be performed by the Contractor. At certain locations in the Text, subjective language is used for clarity to describe responsibilities that must be fulfilled indirectly by the Contractor or by others when so noted.
    - a. The words "**shall be**" are implied where a colon (:) is used within a sentence or phrase.

### 1.4 INDUSTRY STANDARDS

- A. **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.
- B. **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.
- C. **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.
  - 1. **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.
- D. **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.
  - 1. Where copies of standards are needed to perform a required construction activity, the Contractor shall obtain copies directly from the publication source.
- E. **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.

### 1.5 GOVERNING REGULATIONS AND AUTHORITIES

- A. **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. Connecticut State Building Code - 2018.
    - 1.3 International Building Code - 2015.
    - 1.4 International Existing Building Code - 2015.
    - 1.5 International Mechanical Code - 2015.
    - 1.6 International Plumbing Code - 2015.
    - 1.7 International Energy Conservation Code - 2015.
    - 1.8 National Electric Code (NFPA 70) - 2017.

- 1.9 ICC/ANSI A117.1-Accessible and Usable Buildings and Facilities - 2009.
  2. Connecticut Fire Safety Code - 2018.
    - 2.3 International Fire Safety Code - 2015.
    - 2.4 NFPA 101 - 2015.
  3. Connecticut Fire Prevention Code - 2018.
    - 3.1 NFPA 1 - 2015.
  4. Occupational Safety and Health Administration (OSHA)
    - 4.1 OSHA 29 CFR Part 1910 Occupational Safety and Health Regulations - 2019.
    - 4.2 OSHA 29 CFR Part 1926 Occupational Safety and Health Regulations for Construction - 2019.
- B.** The “**latest applicable State Codes**” are available for download from the DAS website ([www.ct.gov/das](http://www.ct.gov/das)) > Doing Business With The State > State Building Construction > Publications and Forms > Office of State Building Inspector *and* Office of State Fire Marshal. Also visit the [www.ctdol.state.ct.us](http://www.ctdol.state.ct.us) Connecticut Department of Labor website.

**1.6 SUBMITTALS**

- A. 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.

**PART 2 – PRODUCTS (Not Applicable)**

**PART 3 – EXECUTION (Not Applicable)**

**END OF SECTION 01 42 20**

---

**PART 1 - GENERAL****1.1 RELATED DOCUMENTS**

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

**1.2 SUMMARY**

- A. This Section includes administrative and procedural requirements for quality-control services.
- B. 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.
- C. 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.
- D. Requirements of this Section relate to customized fabrication and installation procedures, not production of standard products.
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.
  2. Specified inspections, tests, and related actions do not limit Contractor's quality-control procedures that facilitate compliance with Contract Document requirements.
  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.
- E. 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.

**1.3 RESPONSIBILITIES**

- A. 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. 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.
  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.
    - a) Such services include Special Inspections as required by the latest edition of the "Connecticut State Building Code".
    - b) 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.

- c) 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.
  - d) 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.
- B. 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.
- 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. 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.
- C. 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:
- 1. *Provide access to the Work.*
  - 2. *Furnish incidental labor and facilities necessary to facilitate inspections and tests.*
  - 3. *Take adequate quantities of representative samples of materials that require testing or assist the agency in taking samples.*
  - 4. *Provide facilities for storage and curing of test samples.*
  - 5. *Deliver samples to testing laboratories.*
  - 6. *Provide an approved design mix proposed for use for material mixes that require control by the testing agency.*
  - 7. *Provide security and protection of samples and test equipment at the Project Site.*
- D. 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.
- 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.
  - 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.
  - 3. The testing agency shall not perform any duties of the Contractor.
- E. 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:
- 1. When the Contractor notifies the Construction Administrator and/or Testing Agency less than 24 hours before the expected time of testing.
  - 2. When the Contractor requires testing for his own convenience.
  - 3. When the Contractor schedules a test and is not ready for the required test.
- F. Submit reports of tests that are part of the submittal requirements which indicate compliance or non-compliance with the specified standard.
- G. See also General Conditions Article 16 "Inspections & Tests".
- H. As-Built Drawings:
- 1. The Contractor will produce two (2) sets of as-built drawings and specifications for the lighting system, indicating the location (and programmed address, if applicable) of all devices and appliances, the wiring sequences, wiring methods, connection of the components, and shall be given to the Department of Construction Services representative. Refer also to Section 01 77 00 "Closeout Procedures".



#### 1.4 SUBMITTALS

- A. 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. Submit additional copies of each written report directly to the governing authority, when the authority so directs.
  2. Report Data: Written reports of each inspection, test, or similar service include, but are not limited to, the following:
    - a. Date of issue.
    - b. Project title and number.
    - c. Name, address, and telephone number of testing agency.
    - d. Dates and locations of samples and tests or inspections.
    - e. Names of individuals making the inspection or test.
    - f. Designation of the Work and test method.
    - g. Identification of product and Specification Section.
    - h. Complete inspection or test data.
    - i. Test results and an interpretation of test results.
    - j. Ambient conditions at the time of sample taking and testing.
    - k. Comments or professional opinion on whether inspected or tested Work complies with Contract Document requirements.
    - l. Name and signature of laboratory inspector.
    - m. Recommendations on re-testing.

#### 1.5 QUALITY ASSURANCE

- A. **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. 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.
- B. **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.

### PART 2 - PRODUCTS (Not Applicable)

### PART 3 - EXECUTION

#### 3.1 MOCKUPS

- A. Build site-assembled mockups using installers who will perform same tasks for project.
- B. Before installing portions of the Work requiring mockups, build mockups for each form of construction and finish required to comply with the following requirements, using materials indicated for the completed Work:
1. Build mockups in location and of size indicated or, if not indicated, as directed by Architect **or Construction Administrator**.
  2. Notify Architect **and Construction Administrator** seven (7) days in advance of dates and times when mockups will be constructed.
  3. Demonstrate the proposed range of aesthetic effects and workmanship.
  4. Obtain Architect's **and Construction Administrator's** approval of mockups before starting work, fabrication, or construction.

5. Maintain mockups during construction in an undisturbed condition as a standard for judging the completed Work.
6. Demolish and remove mockups when directed, unless otherwise indicated.

**3.2 REPAIR AND PROTECTION**

- A. 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."
- B. Protect constructions exposed by or for quality-control service activities, and protect repaired construction.
- C. Repair and protection is Contractor's responsibility, regardless of the assignment of responsibility for inspection, testing, or similar services.

**END OF SECTION 01 45 00**

## PART 1 - GENERAL

### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including Division 00 General Conditions of the Contract for Construction for Design-Bid-Build and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

### 1.2 SUMMARY

- A. This Section includes requirements for identification badges, parking stickers, construction facilities and temporary controls, including temporary utilities, support facilities, and security and protection.
- B. Temporary utilities include, but are not limited to, the following:
  - 1. **Temporary electric power and lighting services.**
- C. Support facilities include, but are not limited to, the following:
  - 1. **Field offices – Contractor, Subcontractor and Construction Administrator.**
  - 2. **Storage and fabrication sheds.**
  - 3. **Temporary enclosures.**
  - 4. **Temporary lifts, hoists and elevator use.**
  - 5. **Temporary project identification signs.**
  - 6. **Collection and disposal of waste and cleaning.**
  - 7. **Temporary Environmental Controls.**
- D. Security and protection facilities include, but are not limited to, the following:
  - 1. **Temporary fire protection.**
  - 2. **Security for site and Agency.**
  - 3. **Barricades, warning signs, and lights.**
  - 4. **Protection.**
  - 5. **Environmental protection.**
  - 6. **Identification badges for Contractor's personnel & parking stickers.**

### 1.3 RELATED SECTIONS

- A. Division 01 Section 01 57 30 "Indoor Environmental Control" for additional provisions governing temporary heating, ventilating and air conditioning.

### 1.4 SUBMITTALS

- A. **Temporary Utilities:** Submit reports of tests, inspections, meter readings, and similar procedures performed on temporary utilities.
- B. **Implementation and Termination Schedule:** Within **twenty-one (21)** days of the date established for commencement of the Work, submit a schedule indicating implementation and termination of each temporary utility.

### 1.5 QUALITY ASSURANCE

- A. **Regulations:** Comply with industry standards and applicable laws and regulations of authorities having jurisdiction including, but not limited to, the following:
  - 1. **Building and fire code requirements.**
  - 2. **Health and safety regulations.**
  - 3. **Utility company regulations.**

4. **Police, fire department, and rescue squad rules.**
  5. **Environmental protection regulations.**
  6. **Americans with Disabilities Act.**
- B. Standards:** OSHA. Comply with NFPA 241 "Standard for Safeguarding Construction, Alteration, and Demolition Operations," ANSI A10 Series standards for "Safety Requirements for Construction and Demolition," and NECA 200 "Recommended Practice for Installing and Maintaining Temporary Electric Power at Construction Sites."
1. **Electrical Service:** Comply with NEMA, NECA, and UL standards and regulations for temporary electric service. Install service in compliance with NFPA 70 "National Electric Code."
- C. Inspections:** Arrange for authorities having jurisdiction to inspect and test each temporary utility before use. Obtain required certifications and permits.

## 1.6 PROJECT CONDITIONS

- A. Temporary Utilities:** Prepare a schedule indicating dates for implementation and termination of each temporary utility. At the earliest feasible time, when acceptable to the Owner, the Construction Administrator will direct the change over from use of temporary service to use of permanent service.
- B. Conditions of Use:** Keep temporary services and facilities clean and neat in appearance. Operate in a safe and efficient manner. Relocate temporary services and facilities as the Work progresses. Do not overload facilities or permit them to interfere with progress. Take necessary fire-prevention measures. Do not allow hazardous, dangerous, or unsanitary conditions, or public nuisances to develop or persist on-site.

## PART 2 - PRODUCTS

### 2.1 MATERIALS

- A. General:** Provide new materials. If acceptable to the Architect, the Contractor may use undamaged, previously used materials in serviceable condition. Provide materials suitable for use intended.
- B. Lumber and Plywood:** Comply with requirements in Division 06 Section 06 10 00 "Rough Carpentry."
1. For signs and directory boards, provide 3/4-inch exterior grade, Grade A-B Fir plywood. Mount sign on preservative treated Fir posts.
    - a. Project sign shall be 4' x 8' painted and supported on 4-inch x 4-inch posts, of a design to be provided by the Owner via the Construction Administrator.
  2. **Vision Barriers:** Provide minimum 1/2-inch thick exterior plywood.
  3. For safety barriers, sidewalk bridges, and similar uses, provide minimum 5/8-inch thick exterior plywood.
- C. Paint:** Comply with requirements of Division 09 Section 09 91 00 "Painting."
1. For sign and directory boards applying graphics, provide exterior-grade alkyd gloss enamel over exterior primer unless otherwise indicated.
- D. Tarpaulins:** Provide waterproof, fire-resistant, UL-labeled tarpaulins with flame-spread rating of 15 or less. For temporary enclosures, provide translucent, nylon-reinforced, laminated polyethylene or polyvinyl chloride, fire-retardant tarpaulins.
- E. Water:** Provide potable water approved by local health authorities.

### 2.2 EQUIPMENT

- A. General:** Provide new equipment. If acceptable to the Architect, the Contractor may use undamaged, previously used equipment in serviceable condition. Provide equipment suitable for use intended.
1. The 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 except where this is otherwise specified in any Specification Section. All such items shall meet the approval of the Owner but responsibility for design, strength and safety shall remain with the

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 Associated General Contractors (AGC) and the standards of the State Labor Department.

2. Staging, exterior and interior, required for the execution of this Contract, shall be furnished, erected, relocated if necessary and removed by the Contractor. Staging shall be maintained in a safe condition without charge to and for the use of all trades as needed.
- B. Water Hoses:** Provide 3/4-inch, heavy-duty, abrasion-resistant, flexible rubber hoses with pressure rating greater than the maximum pressure of the water distribution system. Provide adjustable shutoff nozzles at hose discharge and backflow preventers.
- C. Electrical Outlets:** Provide properly configured, NEMA-polarized outlets to prevent insertion of 110- to 120-Volt plugs into higher voltage outlets. Provide receptacle outlets equipped with ground-fault circuit interrupters, reset button, and pilot light for connection of power tools and equipment.
- D. Electrical Power Cords:** Provide grounded extension cords. Use hard-service cords where exposed to abrasion and traffic. Provide waterproof connectors to connect separate lengths of electric cords if single lengths will not reach areas where construction activities are in progress. Do not exceed safe length-voltage ratio.
- F. Lamps and Light Fixtures:** Provide general service LED lamps of wattage required for adequate illumination for work areas and in areas as required to support the ongoing operations and proper illumination required by the user Agency. Temporary lighting is to be installed safely and secured against falling during occupied hours. Temporary lights shall be installed high above work surfaces, not more than 12" below existing ceiling. Provide guard cages where exposed to breakage. Provide exterior fixtures where exposed to moisture.
- G. Heating Units:** Provide temporary heating units that have been tested and labeled by UL, FM, or another recognized trade association related to the type of fuel being consumed.
- H. Temporary Field Offices:** Subject to the Agency's approval, a room within the building will be provided for the Contractor's temporary use as a field office.
- I. Temporary Toilet Units:** The Agency will allow the toilets located on **the first floor of the building** for Contractor use. If others are needed, provide self-contained, single-occupant toilet units of the chemical, aerated recirculation, or combustion type. Provide units properly vented and fully enclosed with a glass-fiber-reinforced polyester shell or similar nonabsorbent material.
- J. Fire Extinguishers:** Provide hand-carried, portable, UL-rated, Class A fire extinguishers for temporary offices and similar spaces. In other locations, provide hand-carried, portable, UL-rated, Class ABC, dry-chemical extinguishers or a combination of extinguishers of NFPA-recommended classes for the exposures.
1. Comply with NFPA 10 and NFPA 241 for classification, extinguishing agent, and size required by location and class of fire exposure.

## PART 3 - EXECUTION

### 3.1 INSTALLATION

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

### 3.2 TEMPORARY UTILITY INSTALLATION

- A. General:** Engage the appropriate local utility company to install temporary service or connect to existing service. Where company provides only part of the service, provide the remainder with matching, compatible materials and equipment. Comply with company recommendations.
1. Arrange with company and existing users for a time when service can be interrupted, if necessary, to make connections for temporary services.

2. Provide adequate capacity at each stage of construction. Prior to temporary utility availability, provide trucked-in services.
  3. Obtain easements to bring temporary utilities to the site where the Owner's easements cannot be used for that purpose.
  4. **Use Charges:** If cost or use charges for temporary facilities are specified by this section to be borne by the Owner the cost or use charges for temporary facilities will be borne not longer than **thirty (30)** days after final acceptance of the project.
- B. Temporary Water Service and Distribution:**
1. Connect to existing facilities, through an approved backflow prevention device; extend branch piping with outlets so that water is available by use of hoses. Owner will pay for water used. The Contractor shall not waste water or use faulty equipment. The Contractor shall provide, at his own expense, all connections, extensions and other apparatus required for use of such services. Upon completion of the Contract, the Contractor shall disconnect temporary extensions and return utility to its original condition.
- C. Temporary Electric Power and Lighting Services:**
1. Power and lighting may be taken from existing building circuits subject to compliance with electrical code and requirements and with Owner's prior approval.
  2. Provide service required for construction with branch wiring and distribution boxes located to provide power and lighting by construction-type extension cords.
  3. **Power Distribution System:** Install wiring overhead and rise vertically where least exposed to damage. Where permitted, wiring circuits not exceeding 125 Volts, ac 20 Ampere rating, and lighting circuits may be nonmetallic sheathed cable where overhead and exposed for surveillance.
  4. **Temporary Lighting:** When overhead floor or roof deck has been installed, provide temporary lighting with local switching. Install and operate temporary lighting that will fulfill security and protection requirements without operating the entire system. Provide temporary lighting that will provide adequate illumination for construction operations and traffic conditions.
- C. Temporary Heating, Cooling and Ventilating:**
1. The Contractor may use the existing heating system with temporary extensions, radiators or unit heaters, but such use is subject to the Owner's approval. Coordinate use of existing facilities with Owner. Provide additional, temporary extensions and units to satisfy the criteria given in the preceding paragraph. Owner will pay cost of energy used. Take measures to conserve energy. At the termination of construction, return the facilities to their original condition. Before operation of permanent facilities, verify that installation is approved for operation and that filters are in place.
- D. Temporary Telephone Service and Data:** Provide temporary telephone service throughout the construction period for all personnel engaged in construction activities. Install telephone on a separate line for each temporary office and first aid station. Contractor shall provide telephone service in his office and separate telephone service in the DAS/CS Office and Construction Administrator's Office, if provided. It is preferred that the Contractor use a cellular phone. Basic service and local calls will be paid for by the Contractor. Toll calls will be paid for by the respective users.
1. At each telephone, post a list of important telephone numbers.
- E. Temporary Sanitary Facilities, Including Drinking Water:** Use of building toilet facilities will be permitted subject to Owner's approval.
- F. Storm and Sanitary Sewer:** If sewers are available, provide temporary connections to remove effluent that can be discharged lawfully.
1. Filter out excessive amounts of soil, construction debris, chemicals, oils, and similar contaminants that might clog sewers or pollute waterways before discharge.
  2. Connect temporary sewers to the municipal system, as directed by sewer department officials.
  3. Maintain temporary sewers and drainage facilities in a clean, sanitary condition. Following heavy use, restore normal conditions promptly.

### 3.3 SUPPORT FACILITIES INSTALLATION

- A. General:** Locate field offices, storage sheds, and other temporary construction and support facilities in designated area as shown on the Contract Documents. The location of the trailers on the Drawings is diagrammatic in nature. Final placement of the trailers is to be approved by the Construction Administrator.
1. Maintain support facilities until Final Completion. Remove prior to Final Completion with permission from the Owner.
- B. Field Offices:** Keep all offices clean and orderly, sweep weekly and remove rubbish on a daily basis. Furnish and equip offices as follows:
1. The Contractor shall provide an office for their own use and a method to contact them by e-mail and telephone at any point and time.
  2. **State User Agency Provided Field Offices:** The State User Agency will furnish, without charge, one (1) room for the Contractor's use as an office, and one (1) room for the Construction Administrator in the existing building. The Owner and Construction Administrator will share space. The Contractor shall provide and install a 5-lb ABC fire extinguisher and an approved first aid kit. The Contractor shall be responsible for furniture and shall keep this area clean and return it to its original condition after use.
- 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 specified or original condition.
- D. Temporary Enclosures:** Provide temporary enclosures for protection of construction, in progress and completed, from exposure, foul weather, other construction operations, and similar activities.
1. Where heat is needed and the permanent building enclosure is not complete, provide temporary enclosures where there is no other provision for containment of heat. Coordinate enclosure with ventilating and material drying or curing requirements to avoid dangerous conditions and effects.
  2. Install tarpaulins securely, with incombustible wood framing and other materials. Close openings of 25-sq ft or less with plywood or similar materials.
  3. Close openings through floor or roof decks and horizontal surfaces with load-bearing, wood-framed construction.
  4. Where temporary enclosure exceeds 100-sq ft in area, use UL-labeled, fire-retardant-treated material for framing and main sheathing.
- E. Temporary Lifts, Hoists and Elevator Use:**
1. Use of the building elevator will be permitted, subject to coordination of use with the Agency and proper operation within all proper use and weight limit requirements. Protection pads are to be maintained in place during use and the elevator returned to pre-construction condition upon substantial completion of the Work.
- F. Temporary Project Identification Signs:** Prepare project identification and other signs of size indicated. Install signs where indicated to inform the public and persons seeking entrance to the Project. Support on posts or framing of preservative-treated wood or steel. Do not permit installation of unauthorized signs.
1. **Project Sign:** Engage an experienced sign painter to apply graphics. Comply with details to be furnished by the Construction Administrator.
    - a. **Temporary Tripod Frame:** For groundbreaking ceremonies only, provide a temporary tripod for the sign illustrated and described below. Make the tripod of 12 ft long 2" x 4"s (Stud Grade), beveled and bolted at the top. Provide approximately 5-ft between legs at grade. Provide a 6-ft long, 2" x 4" seat for the sign; locate 5-ft above grade and nail in place. Nail sign at four (4) places where edges intersect tripod legs. Drive a 24" long, pointed 2" x 4" stake into the earth next to each leg and nail to legs.

- b. **Project Sign:** The Contractor shall contact the Construction Administrator for the proper wording for the project sign. Fabricate sign of 3/4" Exterior Grade A-B Fir plywood. Mount sign on preservative treated Fir posts. The Owner shall provide design, color selection and illustration of the Project Sign. Paint both sides and all edges of sign and the posts with two (2) coats of exterior, white, alkyd primer. Paint the border and letters with "bulletin" (sign) paint. Letter sizes, colors and related information are given on the illustration below. A self-adhesive decal of the State seal will be furnished at the Contract signing. Erect the sign within two (2) weeks after execution of the Contract and remove the sign within one (1) week after completion of the project.
- c. **Project Sign Detail:** Sign letter sizes, fonts, colors and related information are shown in the illustration available for download from the DAS website ([www.ct.gov/das](http://www.ct.gov/das)) > Doing Business With The State > State Building Construction > Publications and Forms > DAS Construction Services Library > 3000 Series - Design Phase Forms.

**H. Collection and Disposal of Waste and Cleaning:**

- 1. Collect waste within the contract limit line from construction areas daily. Provide separate containers for proper waste recycling. Comply with requirements of NFPA 241 for removal of combustible waste material and debris. Enforce requirements strictly. Do not hold materials more than seven (7) days during normal weather or three (3) days when the temperature is expected to rise above 80 degrees F. Handle hazardous, dangerous, or unsanitary waste materials separately from other waste by containerizing properly. Dispose of material lawfully.
- 2. Maintain areas under Contractor's control free of waste materials, debris and rubbish. Maintain in a clean and orderly condition.
- 3. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces and other closed or remote spaces before closing the space.
- 4. Periodically clean interior areas before start of surface finishing and continue cleaning on an as-needed basis.
- 5. Control cleaning operations so that dust and other particulates will not adhere to wet or newly coated surfaces.

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

- 2. Dust Control (construction and demolition).
- 3. Noise Control.
- 5. Pollution Control.

**J. Stairs:** Until permanent stairs are available, provide temporary stairs where ladders are not adequate. Cover finished permanent stairs with a protective covering of plywood or similar material so finishes will be undamaged at the time of acceptance.

**3.4 SECURITY AND PROTECTION FACILITIES INSTALLATION (listed in Paragraph 1.2 D)**

- A. Except for use of permanent fire protection as soon as available, do not change over from use of temporary security and protection facilities to permanent facilities until Substantial Completion, or longer, as requested by the Owner.
- B. **Temporary Fire Protection:** Until fire-protection needs are supplied by permanent facilities, install and maintain temporary fire-protection facilities of the types needed to protect against reasonably predictable and controllable fire losses. Comply with NFPA 10 "Standard for Portable Fire Extinguishers" and NFPA 241 "Standard for Safeguarding Construction, Alterations, and Demolition Operations."
  - 1. Provide and locate fire extinguishers where convenient and effective for their intended purpose, but not less than one extinguisher on each floor at or near each usable stairwell.
  - 2. Store combustible materials in containers in fire-safe locations.
  - 3. Maintain unobstructed access to fire extinguishers, fire hydrants, temporary fire-protection facilities, stairways, and other access routes for fighting fires. Prohibit smoking in hazardous fire-exposure areas.
  - 4. Provide supervision of welding operations, combustion-type temporary heating units, and similar sources of fire ignition.



5. The Contractor, during construction, shall be responsible for loss or damage by fire to the work of the Contract until completion. 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.
- D. Security for Site and Agency:**
1. Provide security program and facilities to protect work, existing facilities and the Owner and Agency's operations from unauthorized entry, vandalism and theft. Coordinate with the Owner's and Agency's security program.
  2. The Contractor shall be solely responsible for damage, loss or liability due to theft or vandalism.
- E. Barricades, Warning Signs, and Lights:** Comply with standards and code requirements for erection of structurally adequate barricades. Paint with appropriate colors, graphics, and warning signs to inform personnel and the public of the hazard being protected against. Where appropriate and needed, provide lighting, including flashing red or amber lights.
1. Provide covered walkways as required by governing authorities for public rights-of-way and for public access to existing buildings.
  2. 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.
  3. 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 Owners approval of an alternate egress plan.
  4. See also General Conditions Article 19, "Protection of the Work, Persons and Property".
- G. 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.
1. **Storage:** Where materials and equipment must be stored, and are of value or attractive for theft, provide a secure lockup. Enforce discipline in connection with the installation and release of material to minimize the opportunity for theft and vandalism.
- H. Protection:**
1. Protect buildings, equipment, furnishings, grounds and plantings from damage. Any damage shall be repaired or otherwise made good at no expense to the Owner.
  2. Provide protective coverings and barricades to prevent damage. The 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.
  3. Provide temporary protection for installed products. Control traffic in immediate area to minimize damage.
  4. 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.
  5. Provide temporary partitions and ceilings to separate work areas from Agency-occupied areas to prevent penetration of dust and moisture into Agency-occupied areas and equipment. Erect framing and sheet materials with closed joints and sealed edges at intersections with existing surfaces.
  6. See also General Conditions Article 19, "Protection of the Work, Persons and Property".
- I. Environmental Protection:** Provide protection, operate temporary facilities, and conduct construction in ways and by methods that comply with environmental regulations, and minimize the possibility that air, waterways, and subsoil might be contaminated or polluted or that other undesirable effects might result.
- J. Traffic Ways:**

1. The 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, construction operations or in any other manner.
2. 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 Contractor shall be repaired by him at his own expense.
3. If the work of the Contract affects public use of any street, road, highway or thoroughfare, the 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 Contractor will be responsible for payment of any needed police services.

**K. Identification Badges for Contractor's Personnel, Visitors and Parking Stickers:**

1. The Contractor will provide each person working or visiting at the site with an identification badge, bearing the name of the Contractor and a number. As badges are assigned, a record shall be kept by the Contractor and given to the Construction Administrator and 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 Contractor's field office at the end of each day and pick them up there each morning.
3. All vehicles parking in the Contractor's parking lot and those used around the site require an ID sticker. They will be issued by the Agency. Each contractor shall apply for parking stickers through the Construction Administrator no more than semi-monthly and shall keep record of all stickers issued.

**3.5 OPERATION, TERMINATION, AND REMOVAL**

- A. Supervision:** Enforce strict discipline in use of temporary facilities. Limit availability of temporary facilities to essential and intended uses to minimize waste and abuse.
- B. Maintenance:** Maintain facilities in good operating condition until removal. Protect from damage by freezing temperatures and similar elements.
1. Maintain operation of temporary enclosures, heating, cooling, humidity control, ventilation, and similar facilities on a 24-hour basis where required to achieve indicated results and to avoid possibility of damage.
  2. Protection: Prevent water-filled piping from freezing. Maintain markers for underground lines. Protect from damage during excavation operations.
- C. Termination and Removal:** Unless the Architect/CA requests that it be maintained longer, remove each temporary facility when the need has ended, when replaced by authorized use of a permanent facility, or no later than Substantial Completion. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with the temporary facility. Repair damaged Work, clean exposed surfaces, and replace construction that cannot be satisfactorily repaired.
1. Materials and facilities that constitute temporary facilities are the Contractor's property. The Owner reserves the right to take possession of project identification signs.
  2. Remove temporary paving not intended for or acceptable for integration into permanent paving. Where the area is intended for landscape development, remove soil and aggregate fill that do not comply with requirements for fill or subsoil in the area. Remove materials contaminated with road oil, asphalt and other petrochemical compounds, and other substances that might impair growth of plant materials or lawns. Repair or replace street paving, curbs, and sidewalks at the temporary entrances, as required by the governing authority.
  3. At Substantial Completion, clean and renovate permanent facilities used during the construction period including, but not limited to, the following:
    - a. Replace air filters and clean inside of ductwork and housings.
    - b. Replace significantly worn parts and parts subject to unusual operating conditions.
    - c. Replace lamps burned out or noticeably dimmed by hours of use.

**END OF SECTION 01 50 00**

## PART 1 - GENERAL

### 1.1 RELATED DOCUMENTS

- A. Construction Documents and general provisions of the Contract, including General Conditions of the Contract for Construction and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

### 1.2 SUMMARY

- A. This Section includes the following:
  - 1. Microbial and fungal contamination control.
  - 2. Indoor air quality and pollution control.
  - 3. Heating, ventilating, and air conditioning.
- B. **Related Sections:** The following Sections contain requirements that relate to this Section:
  - 1. Division 01 Section 01 45 23.13 "Testing for Indoor Air Quality (IAQ), Baseline IAQ, & Materials" for building flush out requirements.
  - 2. Division 01 Section 01 57 40 "Construction IAQ Management Plan" for a description of the IAQ management plan.

### 1.3 REFERENCES

- 1. **ASTM International (ASTM):**
  - a. ASTM D5116-2006, Standard Guide for Small-Scale Environmental Chamber Determination of Organic Emissions From Indoor Materials/Products.

## PART 2 - PRODUCTS (Not Applicable)

## PART 3 - EXECUTION

### 3.1 MICROBIAL AND FUNGAL CONTAMINATION CONTROL

- A. Perform, schedule, and sequence Work as required to limit conditions supporting formations of microbes, molds, and fungi.
  - 1. Control water penetration, dampness, and humidity to prevent products not treated for exterior use from becoming soaked or damp.
  - 2. Enclose building prior to installing interior materials and finishes.
  - 3. Do not install interior products subject to moisture absorption until building is enclosed and wet work generating moisture and humidity is complete.
- B. When visible formations are observed and when formations cannot be completely removed by non-abrasive surface cleaning:
  - 1. Remove and replace materials identified as food sources for microbes, molds, and fungi.
  - 2. Correct conditions supporting microbial, mold, and fungal growth.
- C. 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:
  - 1. Gypsum board cores.
  - 2. Organic materials composed of cellulose fiber or paper.
  - 3. Materials containing sucrose or other binders identified as supporting microbial growth.
- D. 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.
- E. Repair or replace ductwork, pans, and other conditions subject to moisture condensation, water penetration, or other water source not drained and made dry.

1. Remove conditions that have become an environment for microbes, molds, or fungi.
  2. Do not permit conditions leading to standing water.
- F. 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.

### 3.2 INDOOR AIR QUALITY AND POLLUTION CONTROL

- A. **Product Emission Rate Standards:** Test to ASTM D5116 for maximum indoor air concentration levels.
1. **Formaldehyde:**
    - a. 0.03 parts per million where no other requirements are specified.
    - b. 0.005 parts per million where products are specified as formaldehyde free.
  2. **Total VOC Emissions for Carpet Tile, Adhesives, and Sealers:** 0.05 mg/m<sup>2</sup> per hour.
  3. **4 Phenyl Cyclohexene (4-PC) Particulate Emissions for Carpet:** One (1) part per billion.
  4. **Total Particulate Emission Rate Levels:** 50 ug/m<sup>3</sup>.
  5. **Primary and Secondary Regulated Pollutants:** Conform to USEPA, Code of Federal Regulations, Title 40, Part 50 National Ambient Air Quality Standard. Refer to EPA Web Site <http://www.epa.gov/epahome/rules.html#codified>.
  6. **Other Pollutants Not Listed:** Not greater than 1/10 of Threshold Limit Value - Time Weighted Average (TLV-TWA) industrial workplace standard.
- B. **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>.
- C. 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.
- D. 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.
- E. Protect construction materials from contamination and pollution from contact with construction dust, debris, fumes, solvents, and other environmentally polluting materials.
- F. 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.

### 3.3 HEATING, VENTILATING, AND AIR CONDITIONING (HVAC)

- A. Do not run permanent HVAC system during course of construction. Seal ductwork intake and exhaust vents.
- B. 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.
1. Ventilate building to remove moisture, dust, fumes, and odors.
  2. Temper and dehumidify air as needed to remove excess moisture.
  3. Do not use propane heaters and other moisture generating heating systems.
- D. Inspect ductwork for refuse, contaminants, moisture and other foreign contamination prior to commissioning. Notify Commissioning Agent (CxA) of satisfactory inspection prior to beginning of Commissioning.
- E. Clean underfloor plenum at access flooring acting as supply air duct, prior to occupancy.

### 3.4 REMEDIAL ACTION

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

**END OF SECTION 01 57 30**

## PART 1 - GENERAL

### 1.1 RELATED DOCUMENTS

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

### 1.2 SUMMARY

- A. This Section includes:
  - 1. Description of a Construction Indoor Air Quality (IAQ) Management Plan.
  - 2. IAQ construction requirements.
- B. Related Sections: The following Sections contain requirements that relate to this Section:
  - 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. Division 01 Section 01 45 23.13 "Testing for IAQ, Baseline IAQ, & Materials."
  - 3. Division 01 Section 01 57 30 "Indoor Environmental Control."

### 1.3 REFERENCES

- A. American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc. (ASHRAE):
  - 1. ASHRAE Standard 52.1-1992, Gravimetric and Dust Spot Procedures for Testing Air Cleaning Devices in General Ventilation for Removing Particulate Matter.
- B. ASTM International, Inc. (ASTM):
  - 1. ASTM D5116-2006, Standard Guide for Small-Scale Environmental Chamber Determinations of Organic Emissions From Indoor Materials/Products.
- C. Sheet Metal and Air Conditioning National Contractors' National Association (SMACNA):
  - 1. IAQ Guidelines for Occupied Buildings under Construction, 1995.

### 1.4 INDOOR AIR QUALITY

- A. 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. Protect workers on the site from undue health risks during construction.
  - 2. Prevent residual problems with indoor air quality in the completed building.

### 1.5 SUBMITTALS

- A. Indoor Air Quality Plan: Within **fourteen (14)** days after receipt of **Notice of Award** 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. List of IAQ protective measures to be instituted on the site.
  - 2. Schedule for inspection and maintenance of IAQ measures.

### 1.6 QUALITY ASSURANCE

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

## PART 2 - PRODUCTS

### 2.1 SUBSTITUTIONS

- A. 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."

**2.2 MATERIALS**

- A. Low emitting products have been specified in appropriate sections.

**PART 3 - EXECUTION**

**3.1 CONSTRUCTION IAQ MANAGEMENT PLAN**

- A. Meet or exceed the minimum requirements of the SMACNA "IAQ Guidelines for Occupied Buildings Under Construction."
  - 1. Protect the ventilation system components from contamination, OR provide cleaning of the ventilation components exposed to contamination during construction prior to occupancy.
- B. During installation of carpet, paints, furnishings, and other VOC-emitting products, provide supplemental (spot) ventilation for at least 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.
- C. Conduct regular inspection and maintenance of indoor air quality measures including ventilation system protection, and ventilation rate.
- D. 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.
- E. Use low-toxic cleaning supplies for surfaces, equipment, and worker's personal use. Options include several soybean-based solvents and cleaning options (SoySolv) and citrus-based cleaners.
- F. Use wet sanding for gypsum board assemblies. Exception: Dry sanding allowed subject to Architect's approval of the following measures:
  - 1. Full isolation of space undergoing finishing.
  - 2. Plastic protection sheeting is installed to provide air sealing during sanding.
  - 3. Closure of all air system devices and ductwork.
  - 4. Sequencing of construction precludes the possibility of contamination of other spaces with gypsum dust.
  - 5. Worker protection is provided.
- G. Use safety meetings, signage, and Contractor agreements to communicate the goals of the construction indoor air quality plan.

**END OF SECTION 01 57 40**

## PART 1 - GENERAL

### 1.1 RELATED DOCUMENTS

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

### 1.2 SUMMARY

- A. This Section includes administrative and procedural requirements governing the Contractor's selection of products for use in the Project.
- B. **Related Sections:** The following Sections contain requirements that relate to this Section:
1. Division 01 Section 01 25 00 "Substitution Procedures" specifies administrative procedures for handling requests for substitutions made after award of the Contract.
  2. Division 01 Section 01 33 00 "Submittal Procedures" specifies requirements for submittal of the Contractor's Construction Schedule and the Submittal Schedule.
  3. Division 01 Section 01 42 20 "Reference Standards and Definitions" specifies the applicability of industry standards to products specified.

### 1.3 DEFINITIONS

- A. Definitions used in this Article are not intended to change the meaning of other terms used in the Contract Documents, such as "specialties," "systems," "structure," "finishes," "accessories," and similar terms. Such terms are self-explanatory and have well-recognized meanings in the construction industry.
1. "Products" are items purchased for incorporation in the Work, whether purchased for the Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.
    - a. "Named Products" are items identified by the manufacturer's product name, including make or model number or other designation, shown or listed in the manufacturer's published product literature, which is current as of the date of the Contract Documents.
  2. "Materials" are products substantially shaped, cut, worked, mixed, finished, refined or otherwise fabricated, processed, or installed to form a part of the Work.
  3. "Equipment" is a product with operational parts, whether motorized or manually operated, that requires service connections, such as wiring or piping.

### 1.4 QUALITY ASSURANCE

- A. **Source Limitations:** To the fullest extent possible, provide products of the same kind from a single source.
- B. **Compatibility of Options:** When the Contractor is given the option of selecting between two (2) or more products for use on the Project, the product selected shall be compatible with products previously selected, even if previously selected products were also options.
- C. **Nameplates:** Except for required labels and operating data, do not attach or imprint manufacturer's or producer's nameplates or trademarks on exposed surfaces of products that will be exposed to view in occupied spaces or on the exterior.
1. Labels: Locate required product labels and stamps on concealed surfaces or, where required for observation after installation, on accessible surfaces that are not conspicuous.
  2. Equipment Nameplates: Provide a permanent nameplate on each item of service-connected or power-operated equipment. Locate on an easily accessible surface that is inconspicuous in occupied spaces. The nameplate shall contain the following information and other essential operating data:
    - a. Name of product and manufacturer.
    - b. Model and serial number.
    - c. Capacity.
    - d. Speed.

e. Ratings.

## 1.5 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A.** Deliver, store, and handle products according to the manufacturer's recommendations, using means and methods that will prevent damage, deterioration, and loss, including theft.
1. Schedule delivery to minimize long-term storage at the site and to prevent overcrowding of construction spaces.
  2. Coordinate delivery with installation time to assure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.
  3. Deliver products to the site in an undamaged condition in the manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing. Store products in accordance with manufacturers' instructions and maintain within temperature and humidity range required by manufacturer.
  4. Inspect products upon delivery to ensure compliance with the Contract Documents and to ensure that products are undamaged and properly protected.
  5. Store products at the site in a manner that will facilitate inspection and measurement of quantity or counting of units.
  6. Store heavy materials away from the Project structure in a manner that will not endanger the supporting construction.
  7. Store products subject to damage by the elements above ground, under cover in a weathertight enclosure, with ventilation adequate to prevent condensation.
  8. 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.
  9. Store loose granular material on solid surfaces in a well-drained area; prevent mixing with foreign matter.
  10. 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.
  11. Stone, masonry units and similar materials shall be stored on platforms or dry skids and shall be adequately covered and protected against damage.
  12. 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.
  13. Promptly inspect shipments to assure that products comply with requirements, that quantities are correct and products are undamaged.
  14. Packages, materials and equipment showing evidence of damage will be rejected and replaced at no additional cost to the Owner.

## PART 2 - PRODUCTS

### 2.1 PRODUCT SELECTION

- A. General Product Requirements:** Provide products that comply with the Contract Documents, that are undamaged and, unless otherwise indicated, new at the time of installation.
1. Provide products complete with accessories, trim, finish, safety guards, and other devices and details needed for a complete installation and the intended use and effect.
  2. Standard Products: Where available, provide standard products of types that have been produced and used successfully in similar situations on other projects.
- B. Product Selection Procedures:** The Contract Documents and governing regulations govern product selection. Procedures governing product selection include the following:
1. Semi-proprietary Specification Requirements: Where Specifications name two (2) or more products or manufacturers, provide one (1) of the products indicated. Comply with the requirements of Division 01 Section 01 25 00 "Substitution Procedures."
  2. Descriptive Specification Requirements: Where Specifications describe a product or assembly, listing exact characteristics required, with or without use of a brand or trade name, provide a product or assembly that provides the characteristics and otherwise complies with Contract requirements.



3. Compliance with Standards, Codes, and Regulations: Where Specifications only require compliance with an imposed code, standard, or regulation, select a product that complies with the standards, codes, or regulations specified.
4. Visual Selection: Where specified product requirements include the phrase "*...as selected from manufacturer's standard colors, patterns, textures...*" or a similar phrase, select a product and manufacturer that complies with other specified requirements. The Architect will select the color, pattern, and texture from the product line selected.

## **PART 3 - EXECUTION**

### **3.1 INSTALLATION OF PRODUCTS**

- A. Comply with manufacturer's instructions and recommendations for installation of products in the applications indicated. Anchor each product securely in place, accurately located and aligned with other Work.
  1. Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.

**END OF SECTION 01 60 00**

## PART 1 - GENERAL

### 1.1 RELATED DOCUMENTS

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

### 1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for cutting and patching.
- B. **Related Sections:** The following Sections contain requirements that relate to this Section:
1. Division 01 Section 01 31 00 "Project Management and Coordination" for procedures for coordinating cutting and patching with other construction activities.
  2. Division 01 Section 01 35 16 "Alteration Project Procedures" for procedures for coordinating cutting and patching with other construction activities.
  3. Division 02 Section **02 41 19 "Selective Demolition"** for demolition of selected portions of the building for alterations.
  4. Refer to other Sections for specific requirements and limitations applicable to cutting and patching individual parts of the Work.
    - a. Requirements of this Section apply to mechanical and electrical installations. Refer to Division 26 Section for other requirements and limitations applicable to cutting and patching mechanical and electrical installations.

### 1.3 SUBMITTALS

- A. **Cutting and Patching Proposal:** Submit a proposal to the Construction Administrator describing procedures well in advance of the time cutting and patching will be performed and if the Owner's Representative and/or Architect/Engineer requires approval of these procedures before proceeding. Request approval to proceed. Include the following information, as applicable, in the proposal:
1. Describe the extent of cutting and patching required. Show how it will be performed and indicate why it cannot be avoided.
  2. Describe anticipated results in terms of changes to existing construction. Include changes to structural elements and operating components as well as changes in the building's appearance and other significant visual elements.
  3. Describe affects to integrity of weather exposed or moisture resistant element.
  4. Describe affects to efficiency, maintenance, or safety of any operational element.
  5. Describe affects to Work of Owner or separate contractor.
  6. List products to be used and firms or entities that will perform Work.
  7. Indicate dates when cutting and patching will be performed.
  8. **Utilities:** List utilities that cutting and patching procedures will disturb or affect. List utilities that will be relocated and those that will be temporarily out of service. Indicate how long service will be disrupted.
  9. Where cutting and patching involves adding reinforcement to structural elements, submit details and engineering calculations sealed by an Engineer registered in the State of Connecticut showing integration of reinforcement with the original structure.
  10. Approval by the Construction Administrator to proceed with cutting and patching does not waive the Architect/Engineer of Record's rights to later require complete removal and replacement of unsatisfactory Work.

### 1.4 QUALITY ASSURANCE

- A. **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. Obtain approval from the Architect/Engineer of the cutting and patching proposal before cutting and patching the following structural elements:

- a. Foundation construction.
  - b. Bearing and retaining walls.
  - c. Structural concrete.
  - d. Structural steel.
  - e. Lintels.
  - f. Structural decking.
  - g. Miscellaneous structural metals.
  - h. Exterior curtain-wall construction.
  - i. Equipment supports.
  - j. Piping, ductwork, vessels, and equipment.
  - k. Structural systems of special construction in Division 13 Sections.
- B. Operational Limitations:** Do not cut and patch operating elements or related components in a manner that would result in reducing their capacity to perform as intended. Do not cut and patch operating elements or related components in a manner that would result in increased maintenance or decreased operational life or safety.
- 1. Obtain Architect/Engineer's approval of the cutting and patching proposal before cutting and patching the following operating elements or safety related systems:
    - a. Primary operational systems and equipment.
    - b. Air or smoke barriers.
    - c. Water, moisture, or vapor barriers.
    - d. Membranes and flashings.
    - e. Fire protection systems.
    - f. Noise and vibration control elements and systems.
    - g. Control systems.
    - h. Communication systems.
    - i. Conveying systems.
    - j. Electrical wiring systems.
    - k. Operating systems of special construction in Division 13 Sections.
- C. Visual Requirements:** Do not cut and patch construction exposed on the exterior or in occupied spaces in a manner that would, in the Architect's opinion, reduce the building's aesthetic qualities. Do not cut and patch construction in a manner that would result in visual evidence of cutting and patching. Remove and replace construction cut and patched in a visually unsatisfactory manner.

## 1.5 WARRANTY

- A. 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.

## PART 2 - PRODUCTS

### 2.1 MATERIALS, GENERAL

- A.** Use materials identical to existing materials. For exposed surfaces, use materials that visually match existing adjacent surfaces to the fullest extent possible if identical materials are unavailable or cannot be used. Use materials whose installed performance will equal or surpass that of existing materials.
- B.** The Contractor shall install sleeves, inserts and hangers furnished by the trades needing same.

## PART 3 - EXECUTION

### 3.1 INSPECTION

- A. Examine surfaces to be cut and patched and conditions under which cutting and patching is to be performed before cutting. If unsafe or unsatisfactory conditions are encountered, notify the Construction Administrator and Architect, before proceeding with corrective action.
- B. Openings and chases may not be shown on the Drawings. It is the responsibility of the Contractor to examine the Architectural, Electrical, Heating, Cooling, Ventilating and Plumbing Drawings and to provide chases, channels or openings where needed.
  - 1. 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.
- C. 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.
- D. See also General Conditions Article 23 "Cutting, Fitting, Patching & Digging".

### 3.2 PREPARATION

- A. Temporary Support: Provide temporary support of Work to be cut.
- B. Protection: Protect existing construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of the Work that might be exposed during cutting and patching operations.
- C. Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.
- D. Avoid cutting existing pipe, conduit, or ductwork serving the building but scheduled to be removed or relocated until provisions have been made to bypass them.

### 3.3 PERFORMANCE

- A. **General:** Employ skilled workmen to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time and complete without delay.
  - 1. Cut existing construction to provide for installation of other components or performance of other construction activities and the subsequent fitting and patching required to restore surfaces to their original condition.
  - 2. DO perform cutting and patching to integrate elements of 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.
- B. **Cutting:** Cut existing construction using methods least likely to damage elements retained or adjoining construction. Where possible, review proposed procedures with the original Installer; comply with the original Installer's recommendations.
  - 1. In general, where cutting, use hand or small power tools designed for sawing or grinding, not hammering and chopping. Cut holes and slots as small as possible, neatly to size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
  - 2. To avoid marring existing finished surfaces, cut or drill from the exposed or finished side into concealed surfaces.
  - 3. Cut through concrete and masonry using a cutting machine, such as a Carborundum saw or a diamond-core drill.
  - 4. Comply with requirements of applicable Division 32 Sections where cutting and patching requires excavating and backfilling.
  - 5. Where services are required to be removed, relocated, or abandoned, by-pass utility services, such as pipe or conduit, before cutting. Cut-off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal the remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after by-passing and cutting.
- C. **Patching:** Patch with durable seams that are as invisible as possible. Comply with specified tolerances.
  - 1. Where feasible, inspect and test patched areas to demonstrate integrity of the installation.

2. Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will eliminate evidence of patching and refinishing.
  3. Where removing walls or partitions extends one finished area into another, patch and repair floor and wall surfaces in the new space. Provide an even surface of uniform color and appearance. Remove existing floor and wall coverings and replace with new materials, if necessary, to achieve uniform color and appearance.
    - a. Where patching occurs in a smooth painted surface, extend final paint coat over entire unbroken surface containing the patch after the area has received primer and second coat.
  4. Patch, repair, or re-hang existing ceilings as necessary to provide an even-plane surface of uniform appearance.
- 3.4 CLEANING**
- A. Clean areas and spaces where cutting and patching are performed. Completely remove paint, mortar, oils, putty, and similar items. Thoroughly clean piping, conduit, and similar features before applying paint or other finishing materials. Restore damaged pipe covering to its original condition.

**END OF SECTION 01 73 29**

## PART 1 - GENERAL

### 1.1 RELATED DOCUMENTS

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

### 1.2 SUMMARY

- A. This Section includes requirements for waste management goals, waste management plan and waste management plan implementation.
- B. 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 "Price and Payment Procedures".
  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".

### 1.3 DEFINITIONS

- A. **Construction Waste:** Solid wastes such as building materials, packaging and rubble resulting from construction, paving and infrastructure.
- B. **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.
- C. **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.
- D. **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.
- E. **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.

F. **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.

#### 1.4 WASTE MANAGEMENT GOALS

- A. 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.
- B. The Contractor shall use all means available to divert the greatest extent practical and economically feasible, construction waste from landfills and incinerators.
- C. 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.
- D. 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.
- E. With regard to these goals the Contractor shall develop, for the Architect's review, a Waste Management Plan for this Project.
- F. 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:
  - 1. Minimizing packaging waste.
  - 2. Salvage and reuse.
  - 3. Salvage for resale or donation.
  - 4. Recycling.
  - 5. Disposal.

#### 1.5 SUBMITTALS

- A. **Draft Waste Management Plan:** Within 30 days after receipt of Notice of Award of Bid, or prior to any waste removal, whichever occurs sooner, the Contractor shall submit **three (3)** copies of a Draft Waste Management Plan to the Construction Administrator.
- B. **Final Waste Management Plan:** Once the Owner has determined which of the recycling options addressed in the Draft Waste Management Plan are acceptable, the Contractor shall submit within 10 days **three (3)** copies of a Final Waste Management Plan.
- C. **Progress Reports:** Submit **three (3)** copies of monthly progress reports, at the same time as the Application for Payment, documenting the following:
  - 1. Material category.
  - 2. Point of waste generation.
  - 3. Total quantity of waste in tons.
  - 4. Quantity of waste salvaged, in tons.
  - 5. Quantity of waste recycled, in tons.
  - 6. Total quantity of waste recovered (salvaged plus recycled) in tons.
  - 7. Total quantity of waste recovered (salvaged plus recycled) as a percentage of total waste.
- D. **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.
- E. **Record Submittals:**
  - 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.
  - 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.
  - 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.

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.

## 1.6 QUALITY ASSURANCE

- A. **Regulatory Requirements:** Comply with regulations of State of Connecticut Department of Environment Protection, Waste Management Bureau Recycling Program.
- B. **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.

## 1.7 WASTE MANAGEMENT PLAN

- A. **Draft Waste Management Plan:** Include the following in the Draft Plan:
  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 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:
    - a. Revenue from the sale of recycled or salvaged materials and
    - b. 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:
      - i) Cardboard.
      - ii) Clean dimensional wood.
      - iii) Beverage containers.
      - iv) Land clearing debris.
      - v) Concrete.
      - vi) Bricks.
      - vii) Concrete Masonry Units (CMU).
      - viii) Asphalt.
      - ix) 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.
- B. **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 Environmental Protection, Waste Management Bureau Recycling Program, (860) 424-3365, [www.dep.state.ct.us/wst/recycle/ctrecycle.htm](http://www.dep.state.ct.us/wst/recycle/ctrecycle.htm).
- C. **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.

### 1.8 WASTE MANAGEMENT PLAN IMPLEMENTATION

- A. **Manager:** The 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.
- B. **Distribution:** The Contractor shall distribute copies of the Waste Management Plan to the Job Site Foreman, each Subcontractor, the Owner, and the Architect.
- C. **Instruction:** The 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.
- D. **Separation Facilities:** The 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.
- E. **Hazardous Wastes:** Hazardous wastes shall be separated, stored, and disposed of according to local regulations.
- F. **Application for Progress Payments:** The 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:
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.
  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.

## PART 2 – PRODUCTS

(Not Applicable)

## PART 3 – EXECUTION

### 3.1 PLAN IMPLEMENTATION

- A. Implement the waste management plan as approved by **Architect or Construction Administrator**.
- B. Provide training of workers, contractors, subcontractors, and suppliers on proper waste management procedures.
1. Distribute waste management plan to all parties involved in the Project within **three (3)** days of submittal return.
  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.

### 3.2 SEPARATION OF RECYCLABLE WASTE MATERIALS

- A. 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. **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.
  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.

3. Other methods proposed by the Contractor and approved by the **Architect or Construction Administrator**.

**END OF SECTION 01 74 19**

## PART 1 - GENERAL

### 1.1 RELATED DOCUMENTS

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

### 1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for handling requests for building system start up and system demonstration and includes the following:
  - 1. Starting Systems.
  - 2. Demonstration and instructions.
  - 3. Testing, adjusting, and balancing.
- B. **Related Sections:** The following Sections contain requirements that relate to this Section:
  - 1. Division 01 Section 01 45 00 "Quality Control" specifies quality assurance and inspecting services.
  - 2. Division 01 Section 01 77 00 "Closeout Procedures" specifies requirements for contract close out requirements for system operation and maintenance data and extra materials.

### 1.3 STARTING SYSTEMS

- A. Coordinate schedule for start-up of various equipment and systems.
- B. Provide written notification to the Construction Administrator **30 days** prior to start-up of each item.
- C. Verify that each piece of equipment or system has been checked for proper lubrication, drive rotation, belt tension, and control sequence for other conditions that may cause damage.
- D. Verify that tests, meter readings, and specified electrical characteristics agree with those required by the equipment or system manufacturer.
- E. Verify that wiring and support components are complete and tested.
- F. Execute the start-up under supervision of manufacturer's representative, in accordance with manufacturer's instructions.
- G. When referenced in individual specification sections, require manufacturer to provide an authorized representative to be present at the site to inspect, check, and approve equipment or system installation prior to start-up, and to supervise placing equipment or system in operation.
- H. Submit a written report in accordance with Division 01 Section 01 45 00 "Quality Control" that the equipment or system has been properly installed and is functioning properly.

### 1.4 DEMONSTRATION AND INSTRUCTIONS

- A. Demonstrate operation and maintenance of Products to Owner and Agency Personnel **fourteen (14)** days prior to substantial completion.
- B. Demonstrate Project equipment and instruct in a classroom environment at location designated by the Construction Administrator and instructed by a qualified manufacturer's representative who is knowledgeable about the Project.
- C. For equipment or systems requiring seasonal operation perform demonstration for season within **six (6)** months.
- D. Utilize operation and maintenance manuals as basis for instruction. Review contents of manual with Owner and Agency Personnel in detail to explain all aspects of operation and maintenance.
- E. Demonstrate start-up, operation, control, adjustment, troubleshooting, servicing, and maintenance, and shutdown of each item at agreed upon scheduled time and at equipment or designated location.
- F. Prepare and insert additional data in operations and maintenance manuals when need for additional data becomes apparent during demonstration.
- G. Starting and adjusting equipment does not constitute acceptance by the owner since commissioning is a requirement of this contract. Additionally, the warrantee does not begin until substantial completion has been granted for that specific item.

**1.5 TESTING, ADJUSTING, AND BALANCING**

- A.** The Contractor will employ and pay for the testing services of an independent consultant to verify the testing, adjusting, and balancing.
  - 1. Comply with the requirements of Division 26 Section 26 09 36 "Digital Lighting Controls" as they relate to the Work of this Section.
- B.** Reports will be submitted by the independent testing consultant to the Construction Administrator indicating observations and results of tests and indicating compliance or non-compliance with the requirements of the Contract Documents.
- C.** The Owner may employ and pay for the services of an independent consultant to verify testing, adjusting, and balancing which was performed by the Contractor.

**PART 2 - PRODUCTS (Not Applicable)**

**PART 3 - EXECUTION (Not Applicable)**

**END OF SECTION 01 75 00**

## PART 1 - GENERAL

### 1.1 RELATED DOCUMENTS

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

### 1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for contract closeout including, but not limited to, the following:
1. Inspection procedures.
  2. Project record document submittal.
  3. Operation and maintenance manual submittal.
  4. Submittal of warranties.
  5. Final cleaning.
- B. **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 29 76 "Progress Payment Procedures".
- C. Closeout requirements for specific construction activities may be included in the appropriate Sections in Divisions 02 through 49.

### 1.3 SUBSTANTIAL COMPLETION

- A. **General:** Basic contract definitions are included in Article 1 of the General Conditions of the Contract for Construction.
- B. **Preliminary Procedures:** Before requesting inspection for Certification of Substantial Completion, complete the following. List exceptions in the request.
1. In the Application for Payment that coincides with, or first follows, the date Substantial Completion is claimed, show 100 percent completion for the portion of the Work claimed as substantially complete.
    - a. Include supporting documentation for completion as indicated in these Contract Documents and a statement showing an accounting of changes to the Contract Sum.
    - b. If 100 percent completion cannot be shown, include a list of incomplete items, the value of incomplete construction, and reasons the Work is not complete.
  2. Advise the Owner of pending insurance changeover requirements.
  3. Submit specific warranties, workmanship bonds, maintenance agreements, final certifications, and similar documents.
  4. Obtain and submit releases enabling the Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, certificates of compliance, operating certificates, and similar releases.
  5. Submit record drawings, maintenance manuals, damage or settlement surveys, property surveys, and similar final record information.
  6. Deliver tools, spare parts, extra stock, and similar items.
  7. Make final changeover of permanent locks and transmit keys to the Owner. Advise the Owner's personnel of changeover in security provisions.
  8. Demonstrate, thru 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.
  9. Complete final cleanup requirements.
  10. Certify that required training of personnel is complete.

- C. **Inspection Procedures:** The Contractor shall be ready and prepared when they request a Substantial Completion inspection. If the inspection reveals that the work is not complete, that there are extensive punchlist items that will take more than **ninety (90)** days to complete and as the items listed in Article 1.3 above are not complete, the Construction Administrator, Architect, and Owner will determine the inspection has failed.
- D. The Contractor is responsible for all costs to re-inspect due to a failed inspection. The Owner will issue a deduct change order to cover all costs for re-inspection.
  - 1. The Architect will repeat inspection when requested and assured that the Work is substantially complete.
  - 2. Results of the completed inspection will form the basis of requirements for final acceptance.

#### 1.4 ACCEPTANCE

- A. **Preliminary Procedures:** Before requesting final inspection for "Certificate of Acceptance" and final payment, complete the following. List exceptions in the request.
  - 1. Submit the final payment request with releases and supporting documentation not previously submitted and accepted. Include insurance certificates for products and completed operations where required.
  - 2. Submit an updated final statement, accounting for final additional changes to the Contract Sum.
  - 3. 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.
  - 4. 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.
  - 5. Submit consent of surety to Final Payment.
  - 6. Submit evidence of final, continuing insurance coverage complying with insurance requirements.
  - 7. Touch up and otherwise repair and restore marred, exposed finishes, including touchup painting.
- B. **Re-inspection 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. If the Work is incomplete, the Construction Administrator will advise the Contractor of Work that is incomplete or of obligations that have not been fulfilled but are required for final acceptance.

#### 1.5 AS-BUILT DOCUMENT SUBMITTALS

- A. **General:** The Contractor shall not use As-built Drawings for construction purposes. Protect contractor As-built Drawings from deterioration and loss in a secure, fire-resistant location. Provide access to As-built Drawings for the Architect's reference during normal working hours. Keep documents current; do not permanently conceal any work until required information has been recorded. **IMPORTANT NOTE: Failure to keep As-built Documents current is sufficient cause to withhold progress payments.**
- B. **As-built Drawings:** The Contractor shall maintain **one (1)** 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. Update As-built Drawings on a monthly basis coincident with the submittal of the Application for Payment.
  - 1. Mark record sets with erasable pencil to distinguish between variations in separate categories of the Work.
  - 2. Mark all new information that is not shown on Contract Drawings.
  - 3. Note related change-order numbers where applicable.
  - 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.
  - 5. Upon completion of the work, the 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.

6. Submit electronic format data of all Coordination Drawings as required by the Owner, at no additional cost.
  7. Refer to Section 01 45 00 "Quality Control" Article 1.3 for required as-built drawings and specifications for fire alarm systems.
- C. Record Specifications:** The Contractor shall maintain one (1) complete copy of the Project Manual, including Addenda. Include with the Project Manual one (1) copy of other written construction documents, such as Change Orders and 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 equals and substitutions 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.
- D. Record Product Data:** The Contractor shall maintain one (1) copy of each Product Data submittal. Note related Change Orders and markup of record drawings and 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 Record Product Data to the Construction Administrator for the Owner's records.
- E. Record Sample Submitted:** Immediately prior to Substantial Completion, the Contractor shall meet with the Construction Administrator, Architect and the Owner's personnel at the Project Site to determine which Samples are to be transmitted to the Owner for record purposes. Comply with the Owner's instructions regarding delivery to the Owner's Sample storage area.
- F. 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.
- G. 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 Division 01 Section 01 78 23 "Operation & Maintenance Data". Included but not limited to the following types of information:
1. Emergency instructions.
  2. Spare parts list.
  3. Copies of warranties.
  4. Wiring diagrams.
  5. Recommended "turn-around" cycles.
  6. Inspection procedures.
  7. Shop Drawings and Product Data.
  8. Fixture lamping schedule.

## PART 2 - PRODUCTS (Not Applicable)

## PART 3 - EXECUTION

### 3.1 CLOSEOUT PROCEDURES

**A. Operation and Maintenance Instructions:** Arrange for each Installer of equipment that requires regular maintenance to meet with the Owner'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. Maintenance manuals.
2. Record documents.
3. Spare parts and materials.
4. Tools.
5. Lubricants.
6. Fuels.
7. Identification systems.
8. Control sequences.
9. Hazards.
10. Cleaning.
11. Warranties and bonds.
12. Maintenance agreements and similar continuing commitments.

**B.** As part of instruction for operating equipment, demonstrate the following procedures:

1. Startup.
2. Shutdown.
3. Emergency operations.
4. Noise and vibration adjustments.
5. Safety procedures.
6. Economy and efficiency adjustments.
7. Effective energy utilization.

### 3.2 FINAL CLEANING

**A. General:** The General Conditions require general cleaning during construction. Regular site cleaning is included in Division 01 Section 01 50 00 "Temporary Facilities and Controls."

**B. Cleaning:** Employ 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.

1. Complete the following cleaning operations before requesting inspection for Certification of Substantial Completion and Certification of Occupancy.
2. Interior:
  - a. Remove labels that are not permanent labels.
  - b. 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.
  - c. 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.



- d. 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.
  - e. Clean floors.
  - f. Vacuum and/or dust walls, ceilings, lighting fixtures, ceiling diffusers and other wall and ceiling items.
  - g. Remove defacements, streaks, fingerprints and erection marks.
3. Exterior:
- a. 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.
  - b. Clean exposed exterior hard-surfaced finishes to a dust-free condition, free of stains, films, and similar foreign substances.
  - c. Remove waste and surplus materials, rubbish and construction equipment and facilities from the site, and deposit it legally elsewhere.
- C. Removal of Protection:** Remove temporary protection and facilities installed for protection of the Work during construction.
- D. 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 Owner's property. Do not discharge volatile, harmful, or dangerous materials into drainage systems. Remove waste materials from the site and dispose of lawfully.
- 1. Where extra materials of value remain after completion of associated Work, they become the Owner's property. Dispose of these materials as directed by the Construction Administrator.
  - 2. Leave building clean and ready for occupancy. If the Contractor fails to clean up, the Owner may do so, with the cost charged to the Contractor. The Owner will issue a credit change order to cover the costs.

END OF SECTION 01 77 00

## PART 1 - GENERAL

### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including Division 00 General Conditions and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

### 1.2 SUMMARY

- A. 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.
- B. **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.
  6. Appropriate Sections of Divisions 02 through 49 specify special operation and maintenance data requirements for specific pieces of equipment or building operating systems.

### 1.3 QUALITY ASSURANCE

- A. **Maintenance Manual Preparation:** In preparation of maintenance manuals, use personnel thoroughly trained and experienced in operation and maintenance of equipment or system involved.
1. Where maintenance manuals require written instructions, use personnel skilled in technical writing where necessary for communication of essential data.
  2. Where maintenance manuals require drawings or diagrams, use draftsmen capable of preparing drawings clearly in an understandable format.
- B. **Instructions for the Owner and Agency Personnel:** The Construction Manager 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.
- C. **Commissioning (Cx) Coordination:** The Commissioning process requires O&M documentation. The Contractor must submit O&M manuals to the Construction Administrator for review and approval .

### 1.4 SUBMITTALS

- A. **Submittal Schedule:** Comply with the following schedule for submitting operation and maintenance manuals:
1. Before Substantial Completion, when each installation that requires operation and maintenance manuals is nominally complete, submit **four (4)** draft copies of each manual to the Owner's Representative, Commissioning Agent (CxA), Agency Representative, and Architect for review. Include a complete index or table of contents of each manual.
    - a. The Owner's Representative will return **one (1)** copy of the draft with comments within **twenty - one (21)** calendar days of receipt.
    - b. Submit **four (4)** copies of data in final form at least **twenty-one (21)** calendar days before final inspection. The Owner's Representative will return **one (1)** copy within **twenty-one (21)** calendar after final inspection, with comments.
  2. After final inspection, make corrections or modifications to comply with the Commissioning Agent's (CxA), Architect's, and Agency Representative's comments. Submit final copies to the Owner's Representative

within **twenty-one (21)** calendar days of receipt of the Commissioning Agent's (CxA), Architect's, and Agency Representative's comments.

- B. 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.
1. **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.
    - a. 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.
    - b. 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.
  2. **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.
  3. **Protective Plastic Jackets:** Provide protective, transparent, plastic jackets designed to enclose diagnostic software for computerized electronic equipment.
  4. **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.
  5. **Drawings:** Where maintenance manuals require drawings or diagrams, provide reinforced, punched binder tabs on drawings and bind in with text.
    - a. Where oversize drawings are necessary, fold drawings to the same size as text pages and use as a foldout.
    - b. 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.

#### 1.5 MANUAL CONTENT

- A.** 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. **General system or equipment description.**
  2. **Design factors and assumptions.**
  3. **Copies of applicable shop drawings and product data.**
  4. **System or equipment identification, including:**
    - a. **Name of manufacturer.**
    - b. **Model number.**
    - c. **Serial number of each component.**
  5. **Operating instructions.**
  6. **Emergency instructions.**
  7. **Wiring diagrams.**
  8. **Inspection and test procedures.**
  9. **Maintenance procedures and schedules.**
  10. **Precautions against improper use and maintenance.**
  11. **Copies of warranties.**
  12. **Repair instructions including spare parts listing.**
  13. **Sources of required maintenance materials and related services.**

**14. Manual index.**

- B.** 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.
- 1. Title Page:** Provide a title page in a transparent, plastic envelope as the first sheet of each manual. Provide the following information:
    - a. Subject matter covered by the manual.**
    - b. Name and address of the Project.**
    - c. Date of submittal.**
    - d. Name, address, and telephone number of the Construction Manager.**
    - e. Name and address of the Architect and Owner's Representative.**
    - f. Cross-reference to related systems in other operation and maintenance manuals.**
  - 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.
    - a.** 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.
  - 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 subcontractor. Clearly delineate the extent of responsibility of each of these entities. Include a local source for replacement parts and equipment.
  - 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.
  - 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.
  - 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.
    - a.** Do not use original Record Documents as part of operation and maintenance manuals.
  - 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.

**1.6 EQUIPMENT AND SYSTEMS MAINTENANCE MANUAL**

- A.** Submit **four (4)** copies of each manual, in final form, on equipment and systems to the Owner's Representative for distribution. Provide separate manuals for each unit of equipment, each operating system, and each electric and electronic system.
- 1.** Refer to individual Specification Sections for additional requirements on operation and maintenance of the various pieces of equipment and operating systems.
- B. Equipment and Systems:** Provide the following information for each piece of equipment, each building operating system, and each electric or electronic system.
- 1. Description:** Provide a complete description of each unit and related component parts, including the following:
    - a. Equipment or system function.**

- b. **Operating characteristics.**
  - c. **Limiting conditions.**
  - d. **Performance curves.**
  - e. **Engineering data and tests.**
  - f. **Complete nomenclature and number of replacement parts.**
2. **Manufacturer's Information:** For each manufacturer of a component part or piece of equipment, provide the following:
- a. **Printed operation and maintenance instructions.**
  - b. **Assembly drawings and diagrams required for maintenance.**
  - c. **List of items recommended to be stocked as spare parts.**
3. **Maintenance Procedures:** Provide information detailing essential maintenance procedures, including the following:
4. **Operating Procedures:** Provide information on equipment and system operating procedures, including the following:
- a. **Startup procedures.**
  - b. **Equipment or system break-in.**
  - c. **Routine and normal operating instructions.**
  - d. **Regulation and control procedures.**
  - e. **Instructions on stopping.**
  - f. **Shutdown and emergency instructions.**
  - g. **Summer and winter operating instructions.**
  - h. **Required sequences for electric or electronic systems.**
  - i. **Special operating instructions.**
5. **Servicing Schedule:** Provide a schedule of routine servicing and lubrication requirements, including a list of required lubricants for equipment with moving parts.
6. **Controls:** Provide a description of the sequence of operation and as-installed control diagrams by the control manufacturer for systems requiring controls.
7. **Circuit Directories:** For electric and electronic systems, provide complete circuit directories of panel boards, including the following:
- a. Controls.
  - b. Communication.

**1.7 COMMISSIONING RECORD AND TESTING DATA MANUAL**

The Contractor shall cooperate with Commissioning Agent (CxA) in the preparation of a separate Manual dedicated to documenting the Commissioning process which will include all certifications and testing data and some repeating of O&M data. Description of this Manual is found in Section 01 91 00 Commissioning and shall be prepared by the Commissioning Agent (CxA).

**PART 2 - PRODUCTS (Not Applicable)**

**PART 3 - EXECUTION (Not Applicable)**

**END OF SECTION 01 78 23**

## PART 1 – GENERAL

### 1.1 RELATED DOCUMENTS

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

### 1.2 SUMMARY

- A. 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 Contractor's period for correction of the Work.
- B. **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. 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.
- C. **Disclaimers and Limitations:** Manufacturer's disclaimers and limitations on product warranties do not relieve the Contractor of the warranty on the Work that incorporates the products. Manufacturer's disclaimers and limitations on product warranties do not relieve suppliers, manufacturers, and subcontractors required to countersign special warranties with the Contractor.

### 1.3 WARRANTY REQUIREMENTS

- A. **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.
- B. **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.
- C. **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 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.
- D. **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.
- E. 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 Contractor presents evidence that entities required to countersign such commitments are willing to do so.
- F. The Contractor shall guarantee all materials and workmanship for a period of **eighteen (18)** months from the date of Substantial Completion of the Work. In addition, the Contractor shall furnish the warranties listed below. Submit four (4) copies of each to the Construction Administrator in the supplier's standard form or in the form given below if there is no standard form available.

G. **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
01	<a href="#">26 09 23</a>	<b>Lighting Control Devices:</b> 5 years, material and installation,
02	<a href="#">26 09 36</a>	<b>Digital Lighting Controls:</b> 5 years, material and installation,
03	<a href="#">26 51 19</a>	<b>LED Lighting and Drivers:</b> 5 years, material and installation,
04	<a href="#">26 52 19</a>	<b>Emergency Lighting Batteries:</b> 5 years, material and installation,
05	<a href="#">26 56 13</a>	<b>Lighting Poles and Standards:</b> 5 years, material and installation,
06	<a href="#">26 56 19</a>	<b>Exterior Lighting:</b> 2 years, material and installation,

H. **Form of Warranty:** Warranties shall be submitted in following format:

**Warranty**

*Commissioner: (Insert Commissioner's Name)*  
**Department of Administrative Services**  
**DAS Commissioner's Office**  
**450 Columbus Boulevard, Suite 1501**  
**Hartford, CT 06103**

*Project Number: (Insert DAS/CS Project Number)*  
*Project Title: (Insert DAS/CS Project Title)*

**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:** \_\_\_\_\_

- I. Bonds shall be by approved Surety Companies, made out to the Commissioner, Department of Administrative Services on companies' standard form.
- J. 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.
- K. Bonds shall be by approved Surety Companies, made out to the Commissioner, Department of Administrative Services, on company's standard form.
- L. Guarantees, warranties or bonds supplied by Subcontractors, Suppliers or Manufacturers shall reference the project name, number, and location and be certified by the Contractor to be for the product and installation on the project and must be countersigned by the Contractor.

#### 1.4 SUBMITTALS

- A. Submit written warranties prior to the date certified for Substantial Completion. If the Architect'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 Architect.
- B. Forms for special warranties are included in this Section. Prepare a written document utilizing the appropriate form, ready for execution by the Contractor, or by the Contractor, subcontractor, supplier, or manufacturer. Submit a draft to the Owner, through the Construction Administrator, for approval prior to final execution.
  - 1. Refer to Divisions 02 through 49 Sections for specific content requirements and particular requirements for submitting special warranties.
- C. **Form of Submittal:** At Final Completion compile **two (2)** copies of each required warranty properly executed by the Contractor, or by the Contractor, subcontractor, supplier, or manufacturer. Organize the warranty documents into an orderly sequence based on the table of contents of the Project Manual.
- D. 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-by-11-inch** paper.
  - 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.
  - 2. Identify each binder on the front and spine with the typed or printed title "WARRANTIES," Project title or name, and name of the Contractor.
  - 3. When warranted construction requires operation and maintenance manuals, provide additional copies of each required warranty, as necessary, for inclusion in each required manual.

#### PART 2 - PRODUCTS (Not Applicable)

#### PART 3 - EXECUTION (Not applicable)

END OF SECTION 01 78 30



## SECTION 024119 - SELECTIVE DEMOLITION

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section Includes:
  - 1. Demolition and removal of selected portions of building or structure.
  - 2. Demolition and removal of selected site elements.
  - 3. Salvage of existing items to be reused or recycled.

#### 1.3 DEFINITIONS

- A. Remove: Detach items from existing construction and legally dispose of them off-site unless indicated to be removed and salvaged or removed and reinstalled.
- B. Remove and Salvage: Carefully detach from existing construction, in a manner to prevent damage, and deliver to Owner.
- C. Remove and Reinstall: Detach items from existing construction, prepare for reuse, and reinstall where indicated.
- D. Existing to Remain: Existing items of construction that are not to be permanently removed and that are not otherwise indicated to be removed, removed and salvaged, or removed and reinstalled.

#### 1.4 MATERIALS OWNERSHIP

- A. Unless otherwise indicated, demolition waste becomes property of Contractor.

#### 1.5 PRE-DEMOLITION MEETINGS

- A. Pre-demolition Conference: Conduct conference at Project site.
  - 1. Inspect and discuss condition of construction to be selectively demolished.
  - 2. Review structural load limitations of existing structure.
  - 3. Review and finalize selective demolition schedule and verify availability of materials, demolition personnel, equipment, and facilities needed to make progress and avoid delays.
  - 4. Review requirements of work performed by other trades that rely on substrates exposed by selective demolition operations.
  - 5. Review areas where existing construction is to remain and requires protection.

#### 1.6 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For refrigerant recovery technician.
- B. Proposed Protection Measures: Submit report, including drawings, that indicates the measures proposed for protecting individuals and property, for environmental protection, for dust control and, for noise control. Indicate proposed locations and construction of barriers.

- C. Schedule of Selective Demolition Activities: Indicate the following:
    - 1. Detailed sequence of selective demolition and removal work, with starting and ending dates for each activity.
    - 2. Interruption of utility services. Indicate how long utility services will be interrupted.
    - 3. Coordination for shutoff, capping, and continuation of utility services.
  
  - D. Inventory: Submit a list of items to be removed and salvaged and deliver to Owner prior to start of demolition.
  
  - E. Pre-demolition Photographs or Video: Submit before Work begins.
  
  - F. Statement of Refrigerant Recovery: Signed by refrigerant recovery technician responsible for recovering refrigerant, stating that all refrigerant that was present was recovered and that recovery was performed according to EPA regulations. Include name and address of technician and date refrigerant was recovered.
- 1.7 CLOSEOUT SUBMITTALS
- A. Inventory: Submit a list of items that have been removed and salvaged.
  
  - B. Landfill Records: Indicate receipt and acceptance of hazardous wastes by a landfill facility licensed to accept hazardous wastes.
- 1.8 QUALITY ASSURANCE
- A. Refrigerant Recovery Technician Qualifications: Certified by an EPA-approved certification program.
- 1.9 FIELD CONDITIONS
- A. Conditions existing at time of inspection for bidding purpose will be maintained by Owner as far as practical.
  
  - B. Notify Architect of discrepancies between existing conditions and Drawings before proceeding with selective demolition.
  
  - C. Hazardous Materials: Hazardous materials are not anticipated to be present in buildings and structures to be selectively demolished. A report on the presence of hazardous materials is included in the Contract Documents. Examine report to become aware of locations where hazardous materials are present.
    - 1. Hazardous material remediation is specified elsewhere in the Contract Documents.
    - 2. Do not disturb hazardous materials or items suspected of containing hazardous materials except under procedures specified elsewhere in the Contract Documents.
  
  - D. Storage or sale of removed items or materials on-site is not permitted.
  
  - E. Utility Service: Maintain existing utilities indicated to remain in service and protect them against damage during selective demolition operations.
    - 1. Maintain fire-protection facilities in service during selective demolition operations.

---

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

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

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that utilities have been disconnected and capped before starting selective demolition operations.
- B. Review record documents of existing construction provided by Owner. Owner does not guarantee that existing conditions are same as those indicated in record documents.
- C. Survey existing conditions and correlate with requirements indicated to determine extent of selective demolition required.
- D. When unanticipated mechanical, electrical, or structural elements that conflict with intended function or design are encountered, investigate and measure the nature and extent of conflict. Promptly submit a written report to Architect.

3.2 UTILITY SERVICES AND MECHANICAL/ELECTRICAL SYSTEMS

- A. Existing Services/Systems to Remain: Maintain services/systems indicated to remain and protect them against damage.
- B. Existing Services/Systems to Be Removed, Relocated, or Abandoned: Locate, identify, disconnect, and seal or cap off indicated utility services and mechanical/electrical systems serving areas to be selectively demolished.
  - 1. Arrange to shut off indicated utilities with utility companies and coordinate with user Agency.
  - 2. If services/systems are required to be removed, relocated, or abandoned, provide temporary services/systems that bypass area of selective demolition and that maintain continuity of services/systems to other parts of building.
  - 3. Disconnect, demolish, and remove fire-suppression systems, plumbing, and HVAC systems, equipment, and components indicated to be removed.
    - c. Equipment to Be Removed: Disconnect and cap services and remove equipment.
    - d. Equipment to Be Removed and Reinstalled: Disconnect and cap services and remove, clean, and store equipment; when appropriate, reinstall, reconnect, and make equipment operational.
    - e. Equipment to Be Removed and Salvaged: Disconnect and cap services and remove equipment and deliver to Owner.

3.3 PREPARATION

- A. Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.

- B. Temporary Facilities: Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.
  - 1. Provide protection to ensure safe passage of people around selective demolition area.
  - 2. Provide temporary weather protection, during interval between selective demolition of existing construction on exterior surfaces and new construction, to prevent water leakage and damage to structure and interior areas.
  - 3. Protect walls, ceilings, floors, and other existing finish work that are to remain or that are exposed during selective demolition operations.
  - 4. Comply with requirements for temporary enclosures, dust control, heating, and cooling.
- C. Temporary Shoring: Provide and maintain shoring, bracing, and structural supports as required to preserve stability and prevent movement, settlement, or collapse of construction and finishes to remain, and to prevent unexpected or uncontrolled movement or collapse of construction being demolished.
  - 1. Strengthen or add new supports when required during progress of selective demolition.

### 3.4 SELECTIVE DEMOLITION, GENERAL

- A. General: Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:
  - 1. Proceed with selective demolition systematically, from higher to lower level. Complete selective demolition operations above each floor or tier before disturbing supporting members on the next lower level.
  - 2. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction. Use hand tools or small power tools designed for sawing or grinding, not hammering and chopping, to minimize disturbance of adjacent surfaces. Temporarily cover openings to remain.
  - 3. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
  - 4. Do not use cutting torches .
  - 8. Locate selective demolition equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
  - 9. Dispose of demolished items and materials promptly.
- B. Removed and Salvaged Items:
  - 1. Clean salvaged items.
  - 2. Pack or crate items after cleaning. Identify contents of containers.
  - 3. Store items in a secure area until delivery to Owner.
  - 4. Transport items to Owner's storage area designated by Owner.
  - 5. Protect items from damage during transport and storage.
- C. Removed and Reinstalled Items:
  - 1. Clean and repair items to functional condition adequate for intended reuse.
  - 2. Pack or crate items after cleaning and repairing. Identify contents of containers.
  - 3. Protect items from damage during transport and storage.
  - 4. Reinstall items in locations indicated. Comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make item functional for use indicated.
- D. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during selective demolition. When permitted by Architect, items may be removed to a suitable, protected storage location during selective demolition and cleaned and reinstalled in their original locations after selective demolition operations are complete.

---

3.6 DISPOSAL OF DEMOLISHED MATERIALS

- A. General: Except for items or materials indicated to be recycled, reused, salvaged, reinstalled, or otherwise indicated to remain Owner's property, remove demolished materials from Project site and legally dispose of them in an EPA-approved landfill.
  - 1. Do not allow demolished materials to accumulate on-site.
  - 2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
  - 3. Remove debris from elevated portions of building by chute, hoist, or other device that will convey debris to grade level in a controlled descent.
  - 4. Comply with requirements specified in Section 017419 "Construction Waste Management and Disposal."
- B. Burning: Do not burn demolished materials.
- C. Disposal: Transport demolished materials off Owner's property and legally dispose of them.

3.7 CLEANING

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

END OF SECTION 02 41 19

SECTION 07 84 00 - FIRESTOPPING

PART 1 GENERAL

1.00 RELATED DOCUMENTS

- A. The BIDDING REQUIREMENTS, CONTRACTING REQUIREMENTS, and applicable parts of DIVISION 1 - GENERAL REQUIREMENTS, as listed in the Table of Contents, shall be included in and made a part of this Section.

1.01 SUMMARY

- A. Provide firestop systems consisting of a material, or combination of materials installed to retain the integrity of fire-rated construction by maintaining an effective barrier against the spread of flame, smoke, and/or hot gases through penetrations, blank openings, construction joints, or at perimeter fire containment in or adjacent to fire-rated barriers in accordance with the requirements of the Building Code for this project.
- B. Firestop systems shall be used in locations including, but not limited to, the following:
1. Penetrations through fire-resistance-rated floor and roof assemblies requiring protected openings including both empty openings and openings that contain penetrations.
  2. Penetrations through fire-resistance-rated wall assemblies including both empty openings and openings that contain penetrations.
  3. Membrane penetrations in fire-resistance-rated wall assemblies where items penetrate one side of the barrier.
  4. Joints in fire-resistance-rated assemblies to allow independent movement.
  5. Perimeter Fire Barrier System between a rated floor/roof and an exterior wall assembly.
  6. Joints, through penetrations and membrane penetrations in Smoke Barriers and Smoke Partitions.

1.02 RELATED WORK

- A. Examine Contract Documents for requirements that affect Work of this Section. Other Specification Sections that relate directly to Work of this Section include, but are not limited to:
1. Division 26 – Electrical

1.03 REFERENCES

- A. Comply with applicable requirements of the following standards. Where these standards conflict with other specified requirements, the most restrictive requirement shall govern.
1. American Society for Testing and Materials (ASTM).
    - a) E 84 Test Method for Surface Burning Characteristics of Building Materials
    - b) E 119 Test Method for Fire Tests of Building Construction and Materials
    - c) E 136 Test Method for Behavior of Materials in a Vertical Tube Furnace at 750F
    - d) E 814 Fire Tests of Through-Penetration Fire Stops
    - e) E 1399 Cyclic Movement and Measuring Minimum and Maximum Joint Widths
    - f) E 1966 Test Method for Resistance of Building Joint

- g) E 2174 Standard Practice for On-Site Inspection of Installed Fire Stops
  - h) E 2393 Standard Practice for On-Site Inspection of Installed Fire Stop Joint Systems
  - i) E 2307 Standard Test Method for Determining the Fire Endurance of Perimeter Fire Barrier Systems Using the Intermediate-Scale, Multi Story Test Apparatus (ISMA)
2. Factory Mutual (FM) Approvals:
    - a) FM Approval Standard of Firestop Contractors – Class 4991
  3. Firestop Contractors International Association (FCIA):
    - a) MOP – FCIA Firestop Manual of Practice
  4. International Firestop Council (IFC):
    - a) Ref. 1 Recommended IFC Guidelines for Evaluating Firestop Engineering Judgments (April 2001)
    - b) Ref. 2 Inspectors Field Pocket Guide
  5. National Fire Protection Association (NFPA):
    - a) NFPA 70 - National Electric Code
    - b) NFPA 101 - Life Safety Code
    - c) NFPA 221 - Fire Walls and Fire Barriers (preliminary to be released)
    - d) NFPA 251 - Fire Tests of Building Construction and Materials
  6. Underwriters Laboratories, Inc. (UL):
    - a) UL Qualified Firestop Contractor Program
    - b) UL 263 Fire Tests of Building Construction and Materials
    - c) UL 723 Surface Burning Characteristics of Building Materials
    - d) UL 1479 Fire-Tests of Through-Penetration Fire Stops
    - e) UL 2079 Tests for Fire Resistance of Building Joint Systems

#### 1.04 SYSTEM PERFORMANCE REQUIREMENTS

- A. Penetrations: Provide and install firestopping systems that are produced to resist the spread of fire, and the passage of smoke and other gases according to requirements indicated, including but not limited to the following:
  1. Firestop all penetrations passing through fire resistance rated wall and floor assemblies and other locations as indicated on the drawings.
  2. Provide and install complete penetration firestopping systems that have been tested and approved by third party testing agency.
  3. F - Rated Through-Penetration Firestop Systems: Provide through-penetration firestop systems with F ratings indicated, as determined per ASTM E 814, but not less than two hour or the fire-resistance rating of the construction being penetrated.
  4. T - Rated Through-Penetration Firestop Systems: Provide firestop systems with T ratings, in addition to F ratings, as determined per ASTM E 814, where indicated.
  5. L – Rated Through-Penetration Firestop Systems: Provide firestop systems with L ratings, in addition to F and T ratings, as determined per UL 1479, where indicated.

- B. Perimeter Fire Containment Systems: Provide interior perimeter joint systems with fire-resistance ratings indicated, as determined per ASTM E 2307, but not less than the fire-resistance rating of the floor construction.
- D. Fire-Resistive Joints: Provide joint systems with fire-resistance ratings indicated, as determined per UL 2079, but not less than the fire-resistance rating of the construction in which the joint occurs.
- E. For firestopping exposed to view, traffic, moisture, and physical damage, provide firestop systems for these conditions that meet conditions expected as communicated through construction documents.
- F. Where there is no specific third party tested and listed, classified firestop system available for a particular firestop configuration, the firestopping contractor shall obtain from the firestop manufacturer, an Engineering Judgment (EJ) or Equivalent Fire Resistance Rated Assembly (EFRR) for submittal.

#### 1.05 SUBMITTALS

- A. Submit Manufacturers Product Data Sheets for each type of product selected. Certify that Firestop Material shall be asbestos free and complies with local regulations.
  - 1. Certification by firestopping manufacturer that products supplied comply with local regulations controlling use of volatile organic compounds (VOC's) and are nontoxic to building occupants.
- B. Submit system design listings, including illustrations from a qualified testing and inspection agency that is applicable to each firestop configuration
  - 1. Where there is no specific third party tested and classified Firestop System available for particular firestop configuration, the firestopping contractor shall obtain from the firestop manufacturer an Engineering Judgment (EJ) or Equivalent Fire Resistance Rated Assembly (EFRR) for submittal.
- C. Submit contractor qualifications as noted in "Quality Assurance" article.

#### 1.06 QUALITY ASSURANCE

- A. Fire-Test-Response Characteristics: Provide firestopping System Design Listing by a testing and inspection agency in accordance with the appropriate ASTM Standard(s) per article 1.04. A qualified testing and inspection agency may be UL, FM Research, Intertek Testing Services, Omega Point Laboratories (OPL) or another agency performing testing and follow-up inspection services for firestop materials that is acceptable to the authority having jurisdiction.
- B. Contractor Qualifications: Acceptable installer firms shall be:
  - 1. FM Approved in accordance with FM Standard 4991 – Approval of Firestop Contractors, or,
  - 2. UL Qualified Firestop Contractor, or;
  - 3. Firestop Contractors International Association Contractor Member in good standing.
  - 4. Licensed by the State or local authority, where applicable.
  - 5. Shown to have successfully completed not less than 5 comparable scale projects.
  - 6. A firm experienced in installing penetration firestopping similar in material, design, and extent to that indicated for this Project, whose work has resulted in construction with a record of successful performance. Qualifications include having the necessary experience, staff, and training to install manufacturer's products per specified requirements. Manufacturer's



willingness to sell its penetration firestopping products to Contractor or to Installer engaged by Contractor does not in itself confer qualification on buyer.

- C. Single Source Responsibility: Obtain firestop systems for each kind of penetration and construction condition indicated from a single primary firestop systems manufacturer.
  - 1. Materials of different manufacture than allowed by the tested and listed system shall not be intermixed in the same firestop system or opening.
  - 2. Tested and listed, classified firestop systems are to be used. If another manufacturer has a tested and listed system, then that system shall be used prior to an Engineering Judgment (EJ) or Equivalent Fire Resistance Rated Assembly (EFRA).
- D. Field Constructed Mockup: Prior to installing firestopping, erect mockups for each different firestop system indicated to verify selections made and to demonstrate qualities of materials and execution. Build mockups to comply with the following requirements, using materials indicated for final installations.
  - 1. Locate mockups on site in locations indicated or, if not indicated, as directed by Contracting Officer. Include mockup for each type of system.
  - 2. Notify Contracting Officer in advance of the dates and times when mockups will be installed.
  - 3. Obtain Contracting Officer and AHJ's acceptance of mockups before start of Work.
  - 4. Retain and maintain mockups during construction in an undisturbed condition as a standard for judging completed unit of Work. Accepted mockups in an undisturbed condition at time of Substantial Completion may become part of completed unit of Work.

#### 1.07 DELIVERY, STORAGE, AND HANDLING

- A. Deliver firestopping products to Project site in original, unopened containers or packages with intact and legible manufacturers' labels identifying product and manufacturer.
- B. Store and handle firestopping materials in accordance with manufacturers written instructions.

#### 1.08 PROJECT CONDITIONS

- A. Environmental Conditions: Install firestopping in accordance with manufacturers written instructions.
- B. Ventilation: Ventilate per firestopping manufacturers' instructions or Material Safety Data Sheet (MSDS)

#### 1.09 SEQUENCING AND SCHEDULING

- A. Project coordination is essential to inform and educate all the parties involved with the firestopping process of their role and how they can affect firestopping on the project. A pre-construction meeting shall be scheduled and required for all parties involved prior to the start of construction.

#### 1.10 ENVIRONMENTAL REGULATIONS

- A. All materials shall be asbestos free and comply with local VOC Regulations.
- B. If required, hazardous disposal of firestop materials shall be strictly observed as noted on the individual MSDS.

---

PART 2 PRODUCTS

2.01 FIRESTOPPING, GENERAL

- A. Systems listed by approved testing agencies, as identified in part 1 above, may be used, providing they conform to the construction type, penetrant type, annular space requirements and fire rating involved in each separate instance.
- B. Manufacturer of firestop products shall have been successfully producing and supplying these products for a period of not less than 3 years, and be able to show evidence of at least 10 projects where similar products have been installed and accepted.
- C. Provide firestop products produced by FCIA Manufacturer Members in good standing.
  - a. 3M Fire Protection Products
  - b. BALCO, Inc.
  - c. HILTI, Inc.
  - d. Specified Technologies, Inc.
  - e. Thermal Ceramics, Inc.
  - f. Thermafiber, Inc.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Examine substrates and conditions, with Installer present, for compliance with requirements for opening configurations, penetrating items, substrates, and other conditions affecting performance of firestopping. Notify the responsible party or parties of any unsatisfactory conditions. Do not proceed with installation until unsatisfactory conditions have been corrected.

3.02 PREPARATION

- A. Cleaning & Preparation: Clean and prepare surfaces as recommended by firestop system manufacturer.
- B. Verify that system components are clean, dry, and ready for installation.
- C. Verify that field dimensions are as shown on the Drawings, tested and listed, classified systems, Engineering Judgments, EFRRA's and as recommended by the manufacturer.

3.03 INSTALLING PENETRATION FIRESTOPS

- A. General: Comply with the "System Performance Requirements" article in Part 1 and the through-penetration firestop manufacturer's installation instructions and drawings pertaining to products and applications indicated.
  - 1. Coordinate with other trades to assure that all pipes, conduit, cable, and other items, which penetrate fire rated construction, have been permanently installed prior to installation of firestop assemblies.

2. Schedule the work to assure that partitions and all other construction that conceals penetrations are not erected prior to the installation of firestop and smoke seals.
- B. Install packing/backing/forming materials and other accessories in accordance with manufacturers written instructions, tested and listed, classified systems
  - C. Install fill, void and cavity materials for through-penetration firestop systems by proven techniques as recommended by the manufacturer, tested and listed, classified system and tooled to produce the following results:
    1. Clean surfaces as recommended by manufacturers' written instructions.
    2. Completely fill voids and cavities formed by openings, forming materials, accessories, and penetrating items.
    3. Install materials so they contact and adhere to substrates formed by openings and penetrating items.
    4. Finish to produce smooth, uniform surfaces as recommended by manufacturer's written instructions and tested and listed, classified system requirements.

### 3.04 INSTALLING FIRESTOP JOINT SYSTEMS

- A. General: Comply with the "System Performance Requirements" article in Part 1 and with the firestop manufacturer's installation instructions and drawings pertaining to products and applications indicated.
  1. Install joint forming materials to provide support of firestop materials during application and at the position required to produce the cross-sectional shapes and depths of installed firestop material relative to joint widths that allow optimum sealant movement capability and develop fire-resistance rating required.
- B. Install tested and listed, classified systems and non-tested engineering judgments, EFRRA's that result in firestop materials:
  1. Directly contacting and fully wetting joint substrates.
  2. Completely filling recesses provided for each joint configuration,
  3. Providing uniform, cross-sectional shapes and depths relative to joint width that optimize movement capability and meet tested and listed system requirements.
- C. Tool non-sag firestop materials immediately after their application and prior to the time skinning or begins. Form smooth, uniform beads of configuration indicated or required to:
  1. Produce fire-resistance rating
  2. Eliminate air pockets
  3. Ensure contact and adhesion with sides of joint.

### 3.05 INSTALLING PERIMETER FIRE BARRIER SYSTEMS

- A. General: Comply with "System Performance Requirements" article in Part 1 and with the firestop manufacture's installation and drawings pertaining to products and applications indicated.
- B. Install metal framing, curtain wall insulation, mechanical attachments, safing materials and other firestop system components as applicable within the system design.

### 3.06 FIELD QUALITY CONTROL

- A. CERTIFICATE OF CONFORMANCE – Firestopping shall be installed by an FM 4991 Approved Firestop Contractor and/or UL Qualified Firestop Contractor. The installer shall issue to AHJ or Government a Certificate of Conformance confirming that the work has been carried out in accordance with ASTM E – 2174, “Standard Practice for On-Site Inspection of Installed Fire Stops and ASTM E-2393, “Standard Practice for On-Site Inspection of Installed Fire Stop Joint Systems.

3.07 CLEANING

- A. Clean off excess fill materials and sealants adjacent to openings and joints as work progresses. Use methods and cleaning materials approved by manufacturers of firestopping products and or assemblies in which openings and joints occur.
- B. Protect firestopping during and after curing period from contact with contaminating substances. If damage caused by others, Government and general contractor to instruct firestop contractor to make appropriate repairs and charge to appropriate trades.

END OF SECTION 07 84 00

---

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes surface preparation and the application of paint systems on the following substrates:
1. Steel.
  2. Gypsum board.
- B. Paint exposed surfaces, except where these Specifications indicate that the surface or material is not to be painted or is to remain natural. If an item or a surface is not specifically mentioned, paint the item or surface the same as similar adjacent materials or surfaces. If a color of finish is not indicated, Architect will select from standard colors and finishes available.
1. Painting includes field painting of suspended ceiling grid tees, exposed bare and covered pipes and ducts, hangers, exposed steel and iron supports, and surfaces of mechanical and electrical equipment that do not have a factory-applied final finish.
- C. Do not paint prefinished items, concealed surfaces, finished metal surfaces, operating parts, and labels.
1. Prefinished items include the following factory-finished components:
    - a. Finished mechanical and electrical equipment.
    - b. Light fixtures and wiring devices.
    - c. Switchgear.
    - d. Distribution cabinets in closets or equipment rooms.
  2. Concealed surfaces include walls or ceilings in the following generally inaccessible spaces:
    - a. Furred areas.
    - b. Ceiling plenums.
    - c. Pipe spaces.
    - d. Duct shafts.
  3. Finished metal surfaces include the following:
    - a. Anodized or coated aluminum.
    - b. Stainless steel.
    - c. Chromium plate.
    - d. Copper and copper alloys.
    - e. Bronze and brass.
  4. Operating parts include moving parts of operating equipment and the following:
    - a. Valve and damper operators.
    - b. Linkages.
    - c. Sensing devices.
    - d. Motor and fan shafts.
  5. Labels: Do not paint over UL, FMG, or other code-required labels or equipment name, identification, performance rating, or nomenclature plates.

D. Related Sections include the following:

1. Divisions 26 Sections for painting of electrical equipment.

## 1.2 DEFINITIONS

A. General: Standard coating terms defined in ASTM D 16 apply to this Section.

1. Flat refers to a lusterless or matte finish with a gloss range below 15 when measured at an 85-degree meter.
2. Eggshell refers to low-sheen finish with a gloss range between 20 and 35 when measured at a 60-degree meter.
3. Semigloss refers to medium-sheen finish with a gloss range between 35 and 70 when measured at a 60-degree meter.
4. Full gloss refers to high-sheen finish with a gloss range more than 70 when measured at a 60-degree meter.

## 1.3 MAINTENANCE MATERIAL SUBMITTALS

A. Furnish extra materials described below that are from same production run (batch mix) as materials applied and that are packaged for storage and identified with labels describing contents.

1. Quantity: Furnish an additional 1 gallon of each material and color applied.

## 1.4 QUALITY ASSURANCE

A. Applicator Qualifications: A firm or individual experienced in applying paints and coatings similar in material, design, and extent to those indicated for this Project, whose work has resulted in applications with a record of successful in-service performance.

B. Mockups: Apply benchmark samples of each paint system indicated and each color and finish selected to verify preliminary selections made under sample submittals and to demonstrate aesthetic effects and set quality standards for materials and execution.

1. Architect will select one surface to represent surfaces and conditions for application of each paint system specified in Part 3.
  - a. Wall Surfaces: Provide samples of at least 100 sq. ft.
2. Apply benchmark samples after permanent lighting and other environmental services have been activated.
3. Final approval of color selections will be based on benchmark samples.
  - a. If preliminary color selections are not approved, apply additional benchmark samples of additional colors selected by Architect at no added cost to Owner.
4. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing.
5. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

---

PART 2 - PRODUCTS

**2.1 MANUFACTURERS**

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
1. Benjamin Moore & Co.
  2. Glidden Professional.
  3. PPG Architectural Finishes, Inc.; Pittsburgh Paints.
  4. Sherwin-Williams Co.

**2.2 PAINT, GENERAL**

- A. Material Compatibility:
1. Provide materials for use within each paint system that are compatible with one another and substrates indicated, under conditions of service and application as demonstrated by manufacturer, based on testing and field experience.
  2. For each coat in a paint system, provide products recommended in writing by manufacturers of topcoat for use in paint system and on substrate indicated.
- B. VOC Content for Interior Paints and Coatings:
1. All interior paints and coatings shall comply with the VOC content regulations of the Ozone Transportation Commission (OTC) effective in the State of Connecticut. For interior paints and coatings applied at Project site, the following VOC limits, exclusive of colorants added to a tint base, when calculated according to 40 CFR 59, Subpart D (EPA Method 24).
    - a. Flat Coatings: 100 g/L.
    - b. Nonflat Coatings: 150 g/L.
    - c. Nonflat-High Gloss Coatings: 250 g/L.
    - d. Primers, sealers and undercoaters: 200 g/L.
    - e. Anti-corrosive and Anti-rust Paints Applied to Ferrous Metals: 250 g/L.
    - f. Dry-Fog Coatings: 400 g/L.
    - g. Clear Wood Finish: Lacquer: 550 g/L
    - h. Clear Wood Finish: Sanding Sealer: 350g/L.
    - i. Clear Wood Finish: Varnish: 350 g/L.
    - j. Clear Brushing Lacquer: 680g/L.
    - k. Floor Coatings: 250 g/L.
    - l. Stain: 250 g/L.
- C. Colors: As selected by Architect from manufacturer's full range.

**2.3 INTERIOR PRIMERS**

- A. General: Provide tinted primers as required for dark colors.
- B. Interior Gypsum Board Primer: Factory-formulated latex-based primer for interior application (100 g/L).
1. Benjamin Moore, Ultra Spec 500 Interior Latex Primer N534: Applied at a dry film thickness of not less than 1.8 mils.

2. Glidden Professional; PVA Interior Primer Sealer 1030-1200N: Applied at a dry film thickness of not less than 1.2 mils.
3. Pittsburgh Paints; 6-2 Speedhide Interior Latex Sealer Quick-Drying: Applied at a dry film thickness of not less than 1.0 mil.
4. Sherwin-Williams; ProMar 200 Zero VOC Primer B28W2600: Applied at a dry film thickness of not less than 1.5 mils.

C. Interior Metal Primer: Factory-formulated metal primer (250 g/L).

1. Benjamin Moore; Super Spec Acrylic Metal Primer No. P04: Applied at a dry film thickness of not less than 1.7 mils.
2. Glidden Professional Devoe Coatings; Devflex 4020PF Direct to Metal Primer: Applied at a dry film thickness of not less than 2.2 mils.
3. Pittsburgh Paints; 90-712 Series Pitt-Tech Interior/Exterior Primer/Finish DTM Industrial Enamel: Applied at a dry film thickness of not less than 2.0 mils.
4. Sherwin-Williams; Pro Industrial Pro-Cryl Universal Acrylic Primer B66 Series: Applied at a dry film thickness of not less than 2.0 mils.

## 2.4 INTERIOR PAINTS

A. Interior Flat Acrylic Paint: Factory-formulated flat acrylic-emulsion latex paint for interior application ceilings and soffits (50 g/L).

1. Benjamin Moore, Ultra Spec 500 Interior Flat N536: Applied at a dry film thickness of not less than 1.8 mils.
2. Glidden Professional; Ultra-Hide 150 Interior Flat Paint 1210V: Applied at a dry film thickness of not less than 1.3 mils.
3. Pittsburgh Paints; 6-70 Series Speedhide Interior Latex Flat: Applied at a dry film thickness of not less than 1.3 mils.
4. Sherwin-Williams; ProMar 200 Zero VOC Interior Latex Flat Wall Paint B30-2600 Series: Applied at a dry film thickness of not less than 1.6 mils.

B. Interior Low-Luster Acrylic Enamel: Factory-formulated eggshell acrylic-latex interior enamel for walls (150 g/L).

1. Benjamin Moore, Ultra Spec 500 Interior Eggshell N538: Applied at a dry film thickness of not less than 1.8 mils.
2. Glidden Professional; Ultra-Hide 150 Interior Eggshell Paint 1412V: Applied at a dry film thickness of not less than 1.3 mils.
3. Pittsburgh Paints; 6-411 Series Speedhide Interior Enamel Latex Eggshell: Applied at a dry film thickness of not less than 1.5 mils.
4. Sherwin-Williams; ProMar 200 Zero VOC Interior Latex Egg-Shell Enamel B20-2600 Series: Applied at a dry film thickness of not less than 1.6 mils.

C. Interior Full-Gloss Acrylic Enamel for Metal Surfaces: Factory-formulated full-gloss acrylic interior enamel (250 g/L).

1. Benjamin Moore; Super Spec HP DTM Acrylic Gloss Enamel P28: Applied at a dry film thickness of not less than 1.7 mils.
2. Glidden Professional Devoe Coatings; Devflex 659 Waterborne Acrylic Gloss Enamel: Applied at a dry film thickness of not less than 2.0 mils.
3. Pittsburgh Paints; 90-374 Series Pitt-Tech Interior/Exterior High Gloss DTM Industrial Enamel: Applied at a dry film thickness of not less than 2.0 mils.
4. Sherwin-Williams; Pro Industrial Zero VOC Acrylic B66-600 Series Gloss: Applied at a dry film thickness of not less than 2.5 mils.



---

PART 3 - EXECUTION

**3.1** FIELD QUALITY CONTROL

- A. Dry Film Thickness Testing: Owner may engage the services of a qualified testing and inspecting agency to inspect and test paint for dryfilm thickness.
1. Contractor shall touch up and restore painted surfaces damaged by testing.
  2. If test results show that dry film thickness of applied paint does not comply with paint manufacturer's written recommendations, Contractor shall pay for testing and apply additional coats as needed to provide dry film thickness that complies with paint manufacturer's written recommendations.

**3.2** INTERIOR PAINTING SCHEDULE

- A. Gypsum Board: Provide the following finish systems over interior gypsum board surfaces:
1. Flat Acrylic Finish (ceilings): Two finish coats over a primer.
    - a. Primer: Interior gypsum board primer.
    - b. Finish Coats: Interior flat acrylic paint.
  2. Low-Luster Acrylic-Enamel Finish (Walls): Two finish coats over a primer.
    - a. Primer: Interior gypsum board primer.
    - b. Finish Coats: Interior low-luster acrylic enamel.
- B. Ferrous and Zinc-Coated Metal: Provide the following finish systems over ferrous metal:
1. Full-Gloss Acrylic-Enamel Finish: Two finish coats over a metal primer.
    - a. Primer: Metal primer; none required for DTM products.
    - b. Finish Coats: Interior full-gloss acrylic enamel for metal surfaces.

END OF SECTION 09 91 00

## SECTION 26 05 19 - LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section Includes:
  1. Copper building wire rated 600 V or less.
  2. Metal-clad cable, Type MC, rated 600 V or less.
  3. Connectors, splices, and terminations rated 600 V and less.

#### 1.3 DEFINITIONS

- A. RoHS: Restriction of Hazardous Substances.

#### 1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Product Schedule: Indicate type, use, location, and termination locations.

#### 1.5 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For testing agency.
- B. Field quality-control reports.

### PART 2 - PRODUCTS

#### 2.1 COPPER BUILDING WIRE

- A. Description: Flexible, insulated and uninsulated, drawn copper current-carrying conductor with an overall insulation layer or jacket, or both, rated 600 V or less.
- B. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  1. Encore Wire Corporation.
  2. General Cable Technologies Corporation.
  3. Southwire Company.

C. Standards:

1. Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and use.
2. RoHS compliant.
3. Conductor and Cable Marking: Comply with wire and cable marking according to UL's "Wire and Cable Marking and Application Guide."

D. Conductors: Copper, complying with ASTM B 3 for bare annealed copper and with ASTM B 8, ASTM B 496 for stranded conductors.

E. Conductor Insulation:

1. Type THHN and Type THWN-2: Comply with UL 83.

2.2 METAL-CLAD CABLE, TYPE MC

A. Description: A factory assembly of one or more current-carrying insulated conductors in an overall metallic sheath.

B. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. Encore Wire Corporation.
2. General Cable Technologies Corporation.
3. Southwire Company.

C. Standards:

1. Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and use.
2. Comply with UL 1569.
3. RoHS compliant, as applicable.
4. Conductor and Cable Marking: Comply with wire and cable marking according to UL's "Wire and Cable Marking and Application Guide."

D. Circuits:

1. Single circuit with color-coded conductors.

E. Conductors: Copper, complying with ASTM B 3 for bare annealed copper and with ASTM B 8 for stranded conductors.

F. Ground Conductor: Insulated.

G. Conductor Insulation:

1. Type TFN/THHN/THWN-2: Comply with UL 83.

H. Armor: Aluminum, interlocked.

I. Jacket: PVC applied over armor, as applicable to use.

### 2.3 CONNECTORS AND SPLICES

- A. Description: Factory-fabricated connectors and splices of size, ampacity rating, material, type, and class for application and service indicated; listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and use.
- B. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  - 1. AFC Cable Systems; a part of Atkore International.
  - 2. O-Z/Gedney; a brand of Emerson Industrial Automation.
  - 3. Thomas & Betts Corporation; A Member of the ABB Group.

## PART 3 - EXECUTION

### 3.1 CONDUCTOR MATERIAL APPLICATIONS

- A. Branch Circuits: Copper. Solid for No. 10 AWG and smaller; stranded for No. 8 AWG and larger.

### 3.2 CONDUCTOR INSULATION AND MULTICONDUCTOR CABLE APPLICATIONS AND WIRING METHODS

- A. Exposed Branch Circuits, Including in Crawlspace: Type THHN/THWN-2, single conductors in raceway.
- B. Branch Circuits Concealed in Ceilings, Walls, and Partitions: Metal-clad cable, Type MC.
- C. Branch Circuits Concealed in Concrete, below Slabs-on-Grade, and Underground: Type THHN/THWN-2, single conductors in raceway.

### 3.3 INSTALLATION OF CONDUCTORS AND CABLES

- A. Conceal cables in finished walls, ceilings, and floors unless otherwise indicated.
- B. Complete raceway installation between conductor and cable termination points according to Section 260533 "Raceways and Boxes for Electrical Systems" prior to pulling conductors and cables.
- C. Use manufacturer-approved pulling compound or lubricant where necessary; compound used must not deteriorate conductor or insulation. Do not exceed manufacturer's recommended maximum pulling tensions and sidewall pressure values.
- D. Use pulling means, including fish tape, cable, rope, and basket-weave wire/cable grips, that will not damage cables or raceway.
- E. Install exposed cables parallel and perpendicular to surfaces of exposed structural members and follow surface contours where possible.
- F. Support cables according to Section 260529 "Hangers and Supports for Electrical Systems."

### 3.4 CONNECTIONS

- A. Tighten electrical connectors and terminals according to manufacturer's published torque-tightening values. If manufacturer's torque values are not indicated, use those specified in UL 486A-486B.
- B. Make splices, terminations, and taps that are compatible with conductor material and that possess equivalent or better mechanical strength and insulation ratings than unspliced conductors.

### 3.5 IDENTIFICATION

- A. Identify and color-code conductors and cables according to Section 260553 "Identification for Electrical Systems."
- B. Identify each spare conductor at each end with identity number and location of other end of conductor, and identify as spare conductor.

### 3.6 SLEEVE AND SLEEVE-SEAL INSTALLATION FOR ELECTRICAL PENETRATIONS

- A. Install sleeves and sleeve seals at penetrations of exterior floor and wall assemblies. Comply with requirements in Section 260544 "Sleeves and Sleeve Seals for Electrical Raceways and Cabling."

### 3.7 FIRESTOPPING

- A. Apply firestopping to electrical penetrations of fire-rated floor and wall assemblies to restore original fire-resistance rating of assembly according to Section 078400 "Firestopping."

### 3.8 FIELD QUALITY CONTROL

- A. Perform tests and inspections.
  - 1. Perform each of the following visual and electrical tests:
    - a. Inspect exposed sections of conductor and cable for physical damage and correct connection according to the single-line diagram.
    - b. Test bolted connections for high resistance using one of the following:
      - 1) A low-resistance ohmmeter.
      - 2) Calibrated torque wrench.
    - c. Inspect compression-applied connectors for correct cable match and indentation.
    - d. Inspect for correct identification.
    - e. Inspect cable jacket and condition.
    - f. Uniform resistance of parallel conductors.
- B. Cables will be considered defective if they do not pass tests and inspections.

END OF SECTION 26 05 19

## SECTION 26 05 26 - GROUNDING AND BONDING FOR ELECTRICAL SYSTEMS

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section includes grounding and bonding systems and equipment

### PART 2 - PRODUCTS

#### 2.1 SYSTEM DESCRIPTION

- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- B. Comply with UL 467 for grounding and bonding materials and equipment.

#### 2.2 CONDUCTORS

- A. Insulated Conductors: Copper wire or cable insulated for 600 V unless otherwise required by applicable Code or authorities having jurisdiction.
- B. Bare Copper Conductors:
  - 1. Stranded Conductors: ASTM B 8.
  - 2. Bonding Conductor: No. 4 or No. 6 AWG, stranded conductor.

#### 2.3 CONNECTORS

- A. Listed and labeled by an NRTL acceptable to authorities having jurisdiction for applications in which used and for specific types, sizes, and combinations of conductors and other items connected.
- B. Conduit Hubs: Mechanical type, terminal with threaded hub.

### PART 3 - EXECUTION

#### 3.1 APPLICATIONS

- A. Conductors: Install solid conductor for No. 8 AWG and smaller, and stranded conductors for No. 6 AWG and larger unless otherwise indicated.

#### 3.2 EQUIPMENT GROUNDING

- A. Install insulated equipment grounding conductors with all feeders and branch circuits.

#### 3.3 INSTALLATION

- A. Grounding Conductors: Route along shortest and straightest paths possible unless otherwise indicated or required by Code. Avoid obstructing access or placing conductors where they may be subjected to strain, impact, or damage.
- B. Bonding Straps and Jumpers: Install in locations accessible for inspection and maintenance except where routed through short lengths of conduit.
  - 1. Bonding to Equipment Mounted on Vibration Isolation Hangers and Supports: Install bonding so vibration is not transmitted to rigidly mounted equipment.

#### 3.4 FIELD QUALITY CONTROL

- A. Perform tests and inspections.
- B. Tests and Inspections:
  - 1. After installing grounding system but before permanent electrical circuits have been energized, test for compliance with requirements.
  - 2. Inspect physical and mechanical condition. Verify tightness of accessible, bolted, electrical connections with a calibrated torque wrench according to manufacturer's written instructions.

**END OF SECTION 26 05 26**



## SECTION 26 05 29 - HANGERS AND SUPPORTS FOR ELECTRICAL SYSTEMS

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section Includes:
  - 1. Conduit and cable support devices.
  - 2. Support for conductors in vertical conduit.
  - 3. Mounting, anchoring, and attachment components, including powder-actuated fasteners, mechanical expansion anchors, concrete inserts, clamps, through bolts, toggle bolts, and hanger rods.
  - 4. Fabricated metal equipment support assemblies.
- B. Related Requirements:
  - 1. Section 260548 "Seismic Controls for Electrical Systems" for products and installation requirements necessary for compliance with seismic criteria.

#### 1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.
  - 1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for the following:
    - a. Clamps.
    - b. Hangers.
    - c. Sockets.
    - d. Eye nuts.
    - e. Fasteners.
    - f. Anchors.
    - g. Saddles.
    - h. Brackets.
  - 2. Include rated capacities and furnished specialties and accessories.

#### 1.4 INFORMATIONAL SUBMITTALS

- A. Seismic Qualification Data: Certificates, for hangers and supports for electrical equipment and systems, accessories, and components, from manufacturer.
  - 1. Basis for Certification: Indicate whether withstand certification is based on actual test of assembled components or on calculation.

2. Dimensioned Outline Drawings of Equipment Unit: Identify center of gravity and locate and describe mounting and anchorage provisions.
3. Detailed description of equipment anchorage devices on which the certification is based and their installation requirements

B. Welding certificates.

#### 1.5 QUALITY ASSURANCE

A. Welding Qualifications: Qualify procedures and personnel according to the following:

1. AWS D1.1/D1.1M.
2. AWS D1.2/D1.2M.

### PART 2 - PRODUCTS

#### 2.1 PERFORMANCE REQUIREMENTS

A. Seismic Performance: Hangers and supports shall withstand the effects of earthquake motions determined according to ASCE/SEI 7.

1. The term "withstand" means "the supported equipment and systems will remain in place without separation of any parts when subjected to the seismic forces specified and the supported equipment and systems will be fully operational after the seismic event."

#### 2.2 SUPPORT, ANCHORAGE, AND ATTACHMENT COMPONENTS

A. Conduit and Cable Support Devices: Steel hangers, clamps, and associated fittings, designed for types and sizes of raceway or cable to be supported.

B. Support for Conductors in Vertical Conduit: Factory-fabricated assembly consisting of threaded body and insulating wedging plug or plugs for nonarmored electrical conductors or cables in riser conduits. Plugs shall have number, size, and shape of conductor gripping pieces as required to suit individual conductors or cables supported. Body shall be made of malleable iron.

C. Mounting, Anchoring, and Attachment Components: Items for fastening electrical items or their supports to building surfaces include the following:

1. Powder-Actuated Fasteners: Threaded-steel stud, for use in hardened portland cement concrete, steel, or wood, with tension, shear, and pullout capacities appropriate for supported loads and building materials where used.

a. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

- 1) Hilti, Inc.
- 2) ITW Ramset/Red Head; Illinois Tool Works, Inc.
- 3) MKT Fastening, LLC.

2. Mechanical-Expansion Anchors: Insert-wedge-type, zinc-coated steel, for use in hardened portland cement concrete, with tension, shear, and pullout capacities appropriate for supported loads and building materials where used.
  - a. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
    - 1) Hilti, Inc.
    - 2) ITW Ramset/Red Head; Illinois Tool Works, Inc.
    - 3) MKT Fastening, LLC.
3. Concrete Inserts: Steel or malleable-iron, slotted support system units are similar to MSS Type 18 units and comply with MFMA-4 or MSS SP-58.
4. Clamps for Attachment to Steel Structural Elements: MSS SP-58 units are suitable for attached structural element.
5. Through Bolts: Structural type, hex head, and high strength. Comply with ASTM A 325.
6. Toggle Bolts: All-steel springhead type.
7. Hanger Rods: Threaded steel.

### PART 3 - EXECUTION

#### 3.1 APPLICATION

- A. Comply with the following standards for application and installation requirements of hangers and supports, except where requirements on Drawings or in this Section are stricter:
  1. NECA 1.
  2. NECA 101
- B. Comply with requirements in Section 078400 "Firestopping" for firestopping materials and installation for penetrations through fire-rated walls, ceilings, and assemblies.
- C. Comply with requirements for raceways and boxes specified in Section 260533 "Raceways and Boxes for Electrical Systems."
- D. Maximum Support Spacing and Minimum Hanger Rod Size for Raceways: Space supports for EMT, IMC, and RMC as required by NFPA 70. Minimum rod size shall be 1/4 inch (6 mm) in diameter.
- E. Spring-steel clamps designed for supporting single conduits without bolts may be used for 1-1/2-inch (38-mm) and smaller raceways serving branch circuits and communication systems above suspended ceilings, and for fastening raceways to trapeze supports.

#### 3.2 SUPPORT INSTALLATION

- A. Comply with NECA 1 and NECA 101 for installation requirements except as specified in this article.
- B. Raceway Support Methods: In addition to methods described in NECA 1, EMT IMC and RMC may be supported by openings through structure members, according to NFPA 70.

- C. Strength of Support Assemblies: Where not indicated, select sizes of components so strength will be adequate to carry present and future static loads within specified loading limits.
  
- D. Mounting and Anchorage of Surface-Mounted Equipment and Components: Anchor and fasten electrical items and their supports to building structural elements by the following methods unless otherwise indicated by code:
  - 1. To Wood: Fasten with lag screws or through bolts.
  - 2. To New Concrete: Bolt to concrete inserts.
  - 3. To Masonry: Approved toggle-type bolts on hollow masonry units and expansion anchor fasteners on solid masonry units.
  - 4. Instead of expansion anchors, powder-actuated driven threaded studs provided with lock washers and nuts may be used in existing standard-weight concrete 4 inches (100 mm) thick or greater. Do not use for anchorage to lightweight-aggregate concrete or for slabs less than 4 inches (100 mm) thick.
  - 5. To Steel: Beam clamps (MSS SP-58, Type 19, 21, 23, 25, or 27), complying with MSS SP-69.
  - 6. To Light Steel: Sheet metal screws.
  - 7. Items Mounted on Hollow Walls and Nonstructural Building Surfaces: Mount cabinets, panelboards, disconnect switches, control enclosures, pull and junction boxes, transformers, and other devices on slotted-channel racks attached to substrate by means that comply with seismic-restraint strength and anchorage requirements.
  
- E. Drill holes for expansion anchors in concrete at locations and to depths that avoid the need for reinforcing bars.

### 3.3 PAINTING

- A. Touchup: Comply with requirements in Section 099100 "Painting" for cleaning and touchup painting of field welds, bolted connections, and abraded areas of shop paint on miscellaneous metal.
  
- B. Galvanized Surfaces: Clean welds, bolted connections, and abraded areas and apply galvanizing-repair paint to comply with ASTM A 780.

**END OF SECTION 26 05 29**

## SECTION 26 05 33 - RACEWAYS AND BOXES FOR ELECTRICAL SYSTEMS

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section Includes:
  - 1. Metal conduits, tubing, and fittings.
  - 2. Surface raceways.
  - 3. Boxes, enclosures, and cabinets.

#### 1.3 DEFINITIONS

- A. GRC: Galvanized rigid steel conduit.

#### 1.4 ACTION SUBMITTALS

- A. Product Data: For surface raceways, wireways and fittings, floor boxes, hinged-cover enclosures, and cabinets.
- B. Shop Drawings: For custom enclosures and cabinets. Include plans, elevations, sections, and attachment details.

### PART 2 - PRODUCTS

#### 2.1 METAL CONDUITS, TUBING, AND FITTINGS

- A. Manufacturers: Subject to compliance with requirements, provide products by the following:
  - 1. AFC Cable Systems; a part of Atkore International.
  - 2. Allied Tube & Conduit; a part of Atkore International.
  - 3. Electri-Flex Company.
  - 4. O-Z/Gedney; a brand of Emerson Industrial Automation.
  - 5. Southwire Company.
- B. Listing and Labeling: Metal conduits, tubing, and fittings shall be listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- C. GRC: Comply with ANSI C80.1 and UL 6.

- D. EMT: Comply with ANSI C80.3 and UL 797.
- E. FMC: Comply with UL 1; aluminum.
- F. Fittings for Metal Conduit: Comply with NEMA FB 1 and UL 514B.
- G. Joint Compound for GRC: Approved, as defined in NFPA 70, by authorities having jurisdiction for use in conduit assemblies, and compounded for use to lubricate and protect threaded conduit joints from corrosion and to enhance their conductivity.

## 2.2 NONMETALLIC CONDUITS AND FITTINGS

- A. Manufacturers: Subject to compliance with requirements, provide products by the following:
  - 1. AFC Cable Systems; a part of Atkore International.
  - 2. CANTEX INC.
  - 3. Condux International, Inc.
  - 4. Electri-Flex Company.
  - 5. RACO; Hubbell.
  - 6. Thomas & Betts Corporation; A Member of the ABB Group.
- B. Listing and Labeling: Nonmetallic conduits, tubing, and fittings shall be listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- C. RNC: Type EPC-80-PVC, complying with NEMA TC 2 and UL 651 unless otherwise indicated.

## 2.3 SURFACE RACEWAYS

- A. Listing and Labeling: Surface raceways and tele-power poles shall be listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- B. Surface Metal Raceways: Galvanized steel with snap-on covers complying with UL 5. Manufacturer's standard enamel finish in color selected by Architect. Paint to match mounting surface if architect has no preference.
  - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
    - a. Hubbell Incorporated; Wiring Device-Kellems.
    - b. Panduit Corp.
    - c. Wiremold / Legrand.

## 2.4 BOXES, ENCLOSURES, AND CABINETS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  - 1. Crouse-Hinds, an Eaton business.
  - 2. EGS/Appleton Electric.

3. Hoffman; a brand of Pentair Equipment Protection.
  4. Hubbell Incorporated.
  5. Milbank Manufacturing Co.
  6. O-Z/Gedney; a brand of Emerson Industrial Automation.
  7. RACO; Hubbell.
  8. Spring City Electrical Manufacturing Company.
  9. Thomas & Betts Corporation; A Member of the ABB Group.
- B. General Requirements for Boxes, Enclosures, and Cabinets: Boxes, enclosures, and cabinets installed in wet locations shall be listed for use in wet locations.
- C. Sheet Metal Outlet and Device Boxes: Comply with NEMA OS 1 and UL 514A.
- D. Cast-Metal Outlet and Device Boxes: Comply with NEMA FB 1, aluminum, Type FD, with gasketed cover.
- E. Luminaire Outlet Boxes: Nonadjustable, designed for attachment of luminaire weighing 50 lb (23 kg). Outlet boxes designed for attachment of luminaires weighing more than 50 lb (23 kg) shall be listed and marked for the maximum allowable weight.
- F. Small Sheet Metal Pull and Junction Boxes: NEMA OS 1.
- G. Cast-Metal Access, Pull, and Junction Boxes: Comply with NEMA FB 1 and UL 1773, cast aluminum with gasketed cover.
- H. Box extensions used to accommodate new building finishes shall be of same material as recessed box.
- I. Device Box Dimensions: 4 inches square by 2-1/8 inches deep (100 mm square by 60 mm deep).
- J. Gangable boxes are allowed.

## PART 3 - EXECUTION

### 3.1 RACEWAY APPLICATION

- A. Outdoors: Apply raceway products as specified below unless otherwise indicated:
1. Exposed Conduit: RGS.
  2. Concealed Conduit, Aboveground: RGS.
  3. Underground Conduit: RGS
  4. Connection to Vibrating Equipment (Including Transformers and Hydraulic, Pneumatic, Electric Solenoid, or Motor-Driven Equipment): LFMC.
  5. Boxes and Enclosures, Aboveground: NEMA 250, Type 3R.
- B. Indoors: Apply raceway products as specified below unless otherwise indicated:
1. Exposed, Not Subject to Physical Damage: EMT. Utilize surface metal raceway where it must be exposed in finished spaces.
  2. Exposed, Not Subject to Severe Physical Damage: EMT. Utilize surface metal raceway where it must be exposed in finished spaces.

3. Exposed and Subject to Severe Physical Damage: RGS. Raceway locations include the following:
    - a. Mechanical rooms.
    - b. Loading dock areas.
    - c. Garage / maintenance / mechanic areas
  4. Concealed in Ceilings and Interior Walls and Partitions: EMT or Metal Clad (MC) Cable
  5. Connection to Vibrating Equipment (Including Transformers and Hydraulic, Pneumatic, Electric Solenoid, or Motor-Driven Equipment): FMC, except use LFMC in damp or wet locations or LFNC in corrosive environments.
  6. Boxes and Enclosures: NEMA 250, Type 1, except use NEMA 250, Type 4 stainless steel in institutional and commercial kitchens and damp or wet locations.
- C. Minimum Raceway Size: 3/4-inch (21-mm) trade size.
- D. Raceway Fittings: Compatible with raceways and suitable for use and location.
1. Rigid Conduit: Use threaded rigid steel conduit fittings unless otherwise indicated. Comply with NEMA FB 2.10.
  2. EMT: Use compression, fittings. Comply with NEMA FB 2.10.
  3. Flexible Conduit: Use only fittings listed for use with flexible conduit. Comply with NEMA FB 2.20.
  4. Nonmetallic Conduit: Use only nonmetallic fittings.
- E. Do not install aluminum boxes, or fittings in contact with concrete or earth.
- F. Install surface raceways only where indicated on Drawings.

### 3.2 INSTALLATION

- A. Comply with NECA 1 and NECA 101 for installation requirements except where requirements on Drawings or in this article are stricter. Comply with NFPA 70 limitations for types of raceways allowed in specific occupancies and number of floors.
- B. Keep raceways at least 6 inches (150 mm) away from parallel runs of flues and steam or hot-water pipes. Install horizontal raceway runs above water and steam piping.
- C. Complete raceway installation before starting conductor installation.
- D. Comply with requirements in Section 260529 "Hangers and Supports for Electrical Systems" for hangers and supports.
- E. Arrange stub-ups so curved portions of bends are not visible above finished slab.
- F. Install no more than the equivalent of three 90-degree bends in any conduit run except for control wiring conduits, for which fewer bends are allowed. Support within 12 inches (300 mm) of changes in direction.
- G. Conceal conduit and EMT within finished walls, ceilings, and floors unless otherwise indicated. Install conduits parallel or perpendicular to building lines.
- H. Support conduit within 12 inches ((300 mm)) of enclosures to which attached.



- I. Threaded Conduit Joints, Exposed to Wet, Damp, Corrosive, or Outdoor Conditions: Apply listed compound to threads of raceway and fittings before making up joints. Follow compound manufacturer's written instructions.
- J. Raceway Terminations at Locations Subject to Moisture or Vibration: Use insulating bushings to protect conductors including conductors smaller than No. 4 AWG.
- K. Install raceways square to the enclosure and terminate at enclosures with locknuts. Install locknuts hand tight plus 1/4 turn more.
- L. Do not rely on locknuts to penetrate nonconductive coatings on enclosures. Remove coatings in the locknut area prior to assembling conduit to enclosure to assure a continuous ground path.
- M. Cut conduit perpendicular to the length. For conduits 2-inch (53-mm) trade size and larger, use roll cutter or a guide to make cut straight and perpendicular to the length.
- N. Install pull wires in empty raceways. Use polypropylene or monofilament plastic line with not less than 200-lb (90-kg) tensile strength. Leave at least 12 inches (300 mm) of slack at each end of pull wire. Cap underground raceways designated as spare above grade alongside raceways in use.
- O. Surface Raceways:
  - 1. Install surface raceway with a minimum 2-inch (50-mm) radius control at bend points.
  - 2. Secure surface raceway with screws or other anchor-type devices at intervals not exceeding 48 inches (1200 mm) and with no less than two supports per straight raceway section. Support surface raceway according to manufacturer's written instructions. Tape and glue are not acceptable support methods.
- P. Install raceway sealing fittings at accessible locations according to NFPA 70 and fill them with listed sealing compound. For concealed raceways, install each fitting in a flush steel box with a blank cover plate having a finish similar to that of adjacent plates or surfaces. Install raceway sealing fittings according to NFPA 70.
- Q. Install devices to seal raceway interiors at accessible locations. Locate seals so no fittings or boxes are between the seal and the following changes of environments. Seal the interior of all raceways at the following points:
  - 1. Where conduits pass from warm to cold locations.
  - 2. Where otherwise required by NFPA 70.
- R. Comply with manufacturer's written instructions for solvent welding RNC and fittings.
- S. Expansion-Joint Fittings:
  - 1. Install in each run of aboveground RNC that is located where environmental temperature change may exceed 30 deg F (17 deg C) and that has straight-run length that exceeds 25 feet (7.6 m). Install in each run of aboveground RMC conduit that is located where environmental temperature change may exceed 100 deg F (55 deg C) and that has straight-run length that exceeds 100 feet (30 m).
  - 2. Install type and quantity of fittings that accommodate temperature change listed for each of the following locations:

- a. Outdoor Locations Not Exposed to Direct Sunlight: 125 deg F (70 deg C) temperature change.
  - b. Outdoor Locations Exposed to Direct Sunlight: 155 deg F (86 deg C) temperature change.
  - c. Indoor Spaces Connected with Outdoors without Physical Separation: 125 deg F (70 deg C) temperature change.
  - d. Attics: 135 deg F (75 deg C) temperature change.
3. Install fitting(s) that provide expansion and contraction for at least 0.00041 inch per foot of length of straight run per deg F (0.06 mm per meter of length of straight run per deg C) of temperature change for PVC conduits. Install fitting(s) that provide expansion and contraction for at least 0.000078 inch per foot of length of straight run per deg F (0.0115 mm per meter of length of straight run per deg C) of temperature change for metal conduits.
  4. Install expansion fittings at all locations where conduits cross building or structure expansion joints.
  5. Install each expansion-joint fitting with position, mounting, and piston setting selected according to manufacturer's written instructions for conditions at specific location at time of installation. Install conduit supports to allow for expansion movement.
- T. Flexible Conduit Connections: Comply with NEMA RV 3. Use a maximum of 72 inches (1830 mm) of flexible conduit for recessed and semirecessed luminaires, equipment subject to vibration, noise transmission, or movement; and for transformers and motors.
1. Use LFMC in damp or wet locations subject to severe physical damage.
  2. Use LFMC in damp or wet locations not subject to severe physical damage.
  3. Use LFNC in corrosive locations
- U. Mount boxes at heights indicated on Drawings. If mounting heights of boxes are not individually indicated, give priority to ADA requirements. Install boxes with height measured to center of box unless otherwise indicated.
- V. Recessed Boxes in Masonry Walls: Saw-cut opening for box in center of cell of masonry block, and install box flush with surface of wall. Prepare block surfaces to provide a flat surface for a rain tight connection between boxes and cover plate or supported equipment and box.
- W. Horizontally separate boxes mounted on opposite sides of walls so they are not in the same vertical channel.
- X. Locate boxes so that cover or plate will not span different building finishes.
- Y. Support boxes of three gangs or more from more than one side by spanning two framing members or mounting on brackets specifically designed for the purpose.
- Z. Fasten junction and pull boxes to or support from building structure. Do not support boxes by conduits.
- 3.3 INSTALLATION OF UNDERGROUND CONDUIT
- A. Refer to Section 260543 for underground conduit / duct installation requirements.

3.4 SLEEVE AND SLEEVE-SEAL INSTALLATION FOR ELECTRICAL PENETRATIONS

- A. Install sleeves and sleeve seals at penetrations of exterior floor and wall assemblies. Comply with requirements in Section 260544 "Sleeves and Sleeve Seals for Electrical Raceways and Cabling."

3.5 FIRESTOPPING

- A. Install firestopping at penetrations of fire-rated floor and wall assemblies. Comply with requirements in Section 078400 "Firestopping."

3.6 PROTECTION

- A. Protect coatings, finishes, and cabinets from damage and deterioration.
  - 1. Repair damage to galvanized finishes with zinc-rich paint recommended by manufacturer.
  - 2. Repair damage to PVC coatings or paint finishes with matching touchup coating recommended by manufacturer.

**END OF SECTION 26 05 33**

## SECTION 26 05 43 - UNDERGROUND DUCTS AND RACEWAYS FOR ELECTRICAL SYSTEMS

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section Includes:
  - 1. Metal conduits and fittings, including GRC.
  - 2. Rigid nonmetallic duct.
  - 3. Duct accessories.

#### 1.3 DEFINITIONS

- A. Direct Buried: Duct or a duct bank that is buried in the ground, without any additional casing materials such as concrete.
- B. Duct: A single duct or multiple ducts. Duct may be either installed singly or as component of a duct bank.
- C. Duct Bank:
  - 1. Two or more ducts installed in parallel, with or without additional casing materials.
  - 2. Multiple duct banks.
- D. GRC: Galvanized rigid (steel) conduit.
- E. Trafficways: Locations where vehicular or pedestrian traffic is a normal course of events.

#### 1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product.
  - 1. Include duct-bank materials, including spacers and miscellaneous components.
  - 2. Include duct, conduits, and their accessories, including elbows, end bells, bends, fittings, and solvent cement.
  - 3. Include underground-line warning tape.

1.5 FIELD CONDITIONS

- A. Ground Water: Assume ground-water level is at grade level unless a lower water table is noted on Drawings.

PART 2 - PRODUCTS

2.1 METAL CONDUIT AND FITTINGS

- A. GRC: Comply with ANSI C80.1 and UL 6.
- B. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  - 1. Allied Tube & Conduit; a part of Atkore International.
  - 2. O-Z/Gedney; a brand of Emerson Industrial Automation.
  - 3. Wheatland Tube Company.
- C. Listed and labeled as defined in NFPA 70, by a nationally recognized testing laboratory, and marked for intended location and application.

2.2 DUCT MATERIAL

- A. Refer to Section 260533 for underground conduit / duct material requirements.

2.3 DUCT ACCESSORIES

- A. Duct Spacers: Factory-fabricated, rigid, PVC interlocking spacers; sized for type and size of duct with which used, and selected to provide minimum duct spacing indicated while supporting duct during concreting or backfilling.
- B. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  - a. CANTEX INC.
  - b. Carlon; a brand of Thomas & Betts Corporation.
  - c. IPEX USA LLC.
  - d. Underground Devices, Inc.
- C. Underground-Line Warning Tape: Comply with requirements for underground-line warning tape specified in Section 260553 "Identification for Electrical Systems."

## PART 3 - EXECUTION

### 3.1 PREPARATION

- A. Coordinate layout and installation of ducts and duct banks with final arrangement of other utilities, site grading, and surface features as determined in the field. Notify Architect if there is a conflict between areas of excavation and existing structures to remain.
- B. Clear and grub vegetation to be removed, and protect vegetation to remain. Remove and stockpile topsoil for reapplication.

### 3.2 UNDERGROUND DUCT APPLICATION

- A. Underground Ducts Crossing Driveways & Parking Areas: GRC
- B. Stub-ups: Concrete-encased GRC.

### 3.3 EARTHWORK

- A. Excavation and Backfill: Do not use heavy-duty, hydraulic-operated, compaction equipment.
- B. Restoration: Replace area after construction vehicle traffic in immediate area is complete.
- C. Restore surface features at areas disturbed by excavation, and re-establish original grades unless otherwise indicated. Replace removed sod immediately after backfilling is completed.
- D. Restore areas disturbed by trenching, storing of dirt, cable laying, and other work. Restore vegetation and include necessary topsoiling, fertilizing, liming, seeding, sodding, sprigging, and mulching.
- E. Cut and patch existing pavement in the path of underground ducts & duct banks.

### 3.4 DUCT AND DUCT-BANK INSTALLATION

- A. Where indicated on Drawings, install duct, spacers, and accessories into the duct-bank configuration shown. Duct installation requirements in this Section also apply to duct bank.
- B. Install duct according to NEMA TCB 2.
- C. Slope: Pitch duct a minimum slope of 1:300 down away from buildings and equipment.
- D. Curves and Bends: Use 5-degree angle couplings for small changes in direction. Use manufactured long sweep bends with a minimum radius of 48 inches (1200 mm), both horizontally and vertically, at other locations unless otherwise indicated.
- E. Joints: Use solvent-cemented joints in duct and fittings and make watertight according to manufacturer's written instructions. Stagger couplings so those of adjacent duct do not lie in same plane.

- F. Sealing: Provide temporary closure at terminations of duct with pulled cables. Seal spare duct at terminations. Use sealing compound and plugs to withstand at least 15-psi (1.03-MPa) hydrostatic pressure.
- G. Pulling Cord: Install 200-lbf- (1000-N-) test nylon cord in empty ducts.
- H. Direct-Buried Duct and Duct Bank:
  - 1. Excavate trench bottom to provide firm and uniform support for duct.
  - 2. Width: Excavate trench 12 inches (300 mm) wider than duct on each side.
  - 3. Set elevation of bottom of duct bank below frost line.
  - 4. Support ducts on duct spacers coordinated with duct size, duct spacing, and outdoor temperature.
  - 5. Spacer Installation: Place spacers close enough to prevent sagging and deforming of duct, with not less than four spacers per 20 feet (6 m) of duct. Place spacers within 24 inches (600 mm) of duct ends. Stagger spacers approximately 6 inches (150 mm) between tiers. Secure spacers to earth and to ducts to prevent floating during concreting. Tie entire assembly together using fabric straps; do not use tie wires or reinforcing steel that may form conductive or magnetic loops around ducts or duct groups.
  - 6. Install duct with a minimum of 3 inches (75 mm) between ducts for like services and 6 inches (150 mm) between power and communications duct.
  - 7. Refer to Section 260533 for additional duct requirements.
- I. Underground-Line Warning Tape: Bury conducting underground line specified in Section 260553 "Identification for Electrical Systems" no less than 12 inches (300 mm) above all concrete-encased duct and duct banks. Align tape parallel to and within 3 inches (75 mm) of centerline of duct bank. Provide an additional warning tape for each 12-inch (300-mm) increment of duct-bank width over a nominal 18 inches (450 mm). Space additional tapes 12 inches (300 mm) apart, horizontally.

### 3.5 GROUNDING

- A. Ground underground ducts and utility structures according to Section 260526 "Grounding and Bonding for Electrical Systems."

### 3.6 FIELD QUALITY CONTROL

- A. Perform the following tests and inspections:
  - 1. Demonstrate capability and compliance with requirements on completion of installation of underground duct, and duct bank.
  - 2. Pull solid aluminum or wood test mandrel through duct to prove joint integrity and adequate bend radii, and test for out-of-round duct. Provide a minimum 12-inch- (300-mm-) long mandrel equal to duct size minus 1/4 inch (6 mm). If obstructions are indicated, remove obstructions and retest.
- B. Correct deficiencies and retest as specified above to demonstrate compliance.

3.7 CLEANING

- A. Pull leather-washer-type duct cleaner, with graduated washer sizes, through full length of duct until duct cleaner indicates that duct is clear of dirt and debris. Follow with rubber duct swab for final cleaning and to assist in spreading lubricant throughout ducts.

**END OF SECTION 26 05 43**



## SECTION 26 05 44 - SLEEVES AND SLEEVE SEALS FOR ELECTRICAL RACEWAYS AND CABLING

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section Includes:

- 1. Sleeves for raceway and cable penetration of non-fire-rated construction walls and floors.
- 2. Sleeve-seal systems.
- 3. Sleeve-seal fittings.
- 4. Grout.
- 5. Silicone sealants.

- B. Related Requirements:

- 1. Section 078400 "Firestopping" for penetration firestopping installed in fire-resistance-rated walls, horizontal assemblies, and smoke barriers, with and without penetrating items.

#### 1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.

### PART 2 - PRODUCTS

#### 2.1 SLEEVES

- A. Wall Sleeves:

- 1. Steel Pipe Sleeves: ASTM A 53/A 53M, Type E, Grade B, Schedule 40, zinc coated, plain ends.
- 2. Cast-Iron Pipe Sleeves: Cast or fabricated "wall pipe," equivalent to ductile-iron pressure pipe, with plain ends and integral waterstop unless otherwise indicated.

- B. Sleeves for Conduits Penetrating Non-Fire-Rated Gypsum Board Assemblies: Galvanized-steel sheet; 0.0239-inch (0.6-mm) minimum thickness; round tube closed with welded longitudinal joint, with tabs for screw-fastening the sleeve to the board.

- C. Sleeves for Rectangular Openings:

1. Material: Galvanized sheet steel.
2. Minimum Metal Thickness:
  - a. For sleeve cross-section rectangle perimeter 50 inches (1270 mm) or more and one or more sides larger than 16 inches (400 mm), thickness shall be 0.138 inch (3.5 mm).

## 2.2 SLEEVE-SEAL SYSTEMS

- A. Description: Modular sealing device, designed for field assembly, to fill annular space between sleeve and raceway or cable.
1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
    - a. Advance Products & Systems, Inc.
    - b. GPT Link Seal.
    - c. Metraflex Company (The).
  2. Sealing Elements: Nitrile (Buna N) rubber interlocking links shaped to fit surface of pipe. Include type and number required for pipe material and size of pipe.
  3. Pressure Plates: Stainless steel.
  4. Connecting Bolts and Nuts: Stainless steel of length required to secure pressure plates to sealing elements

## 2.3 SLEEVE-SEAL FITTINGS

- A. Description: Manufactured plastic, sleeve-type, waterstop assembly made for embedding in concrete slab or wall. Unit shall have plastic or rubber waterstop collar with center opening to match piping OD.
1. Manufacturers: Subject to compliance with requirements, provide products by the following:
    - a. Advance Products & Systems, Inc.
    - b. GPT Link Seal
    - c. Metraflex Company (The).

## 2.4 GROUT

- A. Description: Nonshrink; recommended for interior and exterior sealing openings in non-fire-rated walls or floors.
- B. Standard: ASTM C 1107/C 1107M, Grade B, post-hardening and volume-adjusting, dry, hydraulic-cement grout.
- C. Design Mix: 5000-psi (34.5-MPa), 28-day compressive strength.
- D. Packaging: Premixed and factory packaged.

## 2.5 SILICONE SEALANTS

- A. Silicone Sealants: Single-component, silicone-based, neutral-curing elastomeric sealants of grade indicated below.
  - 1. Grade: Pourable (self-leveling) formulation for openings in floors and other horizontal surfaces that are not fire rated.
- B. Silicone Foams: Multicomponent, silicone-based liquid elastomers that, when mixed, expand and cure in place to produce a flexible, nonshrinking foam.

## PART 3 - EXECUTION

### 3.1 SLEEVE INSTALLATION FOR NON-FIRE-RATED ELECTRICAL PENETRATIONS

- A. Comply with NECA 1.
- B. Comply with NEMA VE 2 for cable tray and cable penetrations.
- C. Sleeves for Conduits Penetrating Above-Grade Non-Fire-Rated Concrete and Masonry-Unit Floors and Walls:
  - 1. Interior Penetrations of Non-Fire-Rated Walls and Floors:
    - a. Seal annular space between sleeve and raceway or cable, using joint sealant appropriate for size, depth, and location of joint.
    - b. Seal space outside of sleeves with mortar or grout. Pack sealing material solidly between sleeve and wall so no voids remain. Tool exposed surfaces smooth; protect material while curing.
  - 2. Use pipe sleeves unless penetration arrangement requires rectangular sleeved opening.
  - 3. Size pipe sleeves to provide 1/4-inch (6.4-mm) annular clear space between sleeve and raceway or cable unless sleeve seal is to be installed or unless seismic criteria require different clearance.
  - 4. Install sleeves for wall penetrations unless core-drilled holes or formed openings are used. Install sleeves during erection of walls. Cut sleeves to length for mounting flush with both surfaces of walls. Deburr after cutting.
- D. Sleeves for Conduits Penetrating Non-Fire-Rated Gypsum Board Assemblies:
  - 1. Use circular metal sleeves unless penetration arrangement requires rectangular sleeved opening.
  - 2. Seal space outside of sleeves with approved joint compound for gypsum board assemblies.

### 3.2 SLEEVE-SEAL-SYSTEM INSTALLATION

- A. Install sleeve-seal systems in sleeves in exterior concrete walls and slabs-on-grade at raceway entries into building.

- B. Install type and number of sealing elements recommended by manufacturer for raceway or cable material and size. Position raceway or cable in center of sleeve. Assemble mechanical sleeve seals and install in annular space between raceway or cable and sleeve. Tighten bolts against pressure plates that cause sealing elements to expand and make watertight seal.

### 3.3 SLEEVE-SEAL-FITTING INSTALLATION

- A. Install sleeve-seal fittings in new walls and slabs as they are constructed.
- B. Assemble fitting components of length to be flush with both surfaces of concrete slabs and walls. Position waterstop flange to be centered in concrete slab or wall.
- C. Secure nailing flanges to concrete forms.
- D. Using grout, seal the space around outside of sleeve-seal fittings.

**END OF SECTION 26 05 44**

## SECTION 26 05 48 - SEISMIC CONTROLS FOR ELECTRICAL SYSTEMS

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section Includes:

- 1. Restraint channel bracings
- 2. Restraint cables.
- 3. Seismic-restraint accessories.
- 4. Mechanical anchor bolts.
- 5. Adhesive anchor bolts.

- B. Related Requirements:

- 1. Section 260529 "Hangers and Supports for Electrical Systems" for commonly used electrical supports and installation requirements.

#### 1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.

- 1. Illustrate and indicate style, material, strength, fastening provision, and finish for each type and size of seismic-restraint component used.
  - a. Tabulate types and sizes of seismic restraints, complete with report numbers and rated strength in tension and shear as evaluated by an agency acceptable to authorities having jurisdiction.
  - b. Annotate to indicate application of each product submitted and compliance with requirements.

#### 1.4 INFORMATIONAL SUBMITTALS

- A. Coordination Drawings: Show coordination of seismic bracing for electrical components with other systems and equipment in the vicinity, including other supports and seismic restraints.
- B. Qualification Data: For professional engineer and testing agency.
- C. Welding certificates.
- D. Field quality-control reports.

1.5 QUALITY ASSURANCE

- A. Comply with seismic-restraint requirements in the IBC unless requirements in this Section are more stringent.
- B. Welding Qualifications: Qualify procedures and personnel according to AWS D1.1/D1.1M, "Structural Welding Code - Steel."
- C. Comply with NFPA 70.

PART 2 - PRODUCTS

2.1 RESTRAINT CHANNEL BRACINGS

- A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
  - 1. B-line, an Eaton business.
  - 2. Hilti, Inc.
  - 3. Mason Industries, Inc.
  - 4. Unistrut; Part of Atkore International.
- B. Description: MFMA-4, shop- or field-fabricated bracing assembly made of slotted steel channels with accessories for attachment to braced component at one end and to building structure at the other end, with other matching components, and with corrosion-resistant coating; rated in tension, compression, and torsion forces.

2.2 RESTRAINT CABLES

- A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
  - 1. Kinetics Noise Control, Inc.
  - 2. Vibration & Seismic Technologies, LLC.
  - 3. Vibration Mountings & Controls, Inc.
- B. Restraint Cables: ASTM A 603 galvanized-steel cables. End connections made of steel assemblies with thimbles, brackets, swivel, and bolts designed for restraining cable service; with a minimum of two clamping bolts for cable engagement.

2.3 SEISMIC-RESTRAINT ACCESSORIES

- A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
  - 1. B-line, an Eaton business.
  - 2. Kinetics Noise Control, Inc.
  - 3. Mason Industries, Inc.
- B. Hanger-Rod Stiffener: Reinforcing steel angle clamped to hanger rod.

- C. Hinged and Swivel Brace Attachments: Multifunctional steel connectors for attaching hangers to rigid channel bracings and restraint cables.
- D. Bushings for Floor-Mounted Equipment Anchor Bolts: Neoprene bushings designed for rigid equipment mountings and matched to type and size of anchor bolts and studs.
- E. Bushing Assemblies for Wall-Mounted Equipment Anchorage: Assemblies of neoprene elements and steel sleeves designed for rigid equipment mountings and matched to type and size of attachment devices used.
- F. Resilient Isolation Washers and Bushings: One-piece, molded, oil- and water-resistant neoprene, with a flat washer face.

#### 2.4 MECHANICAL ANCHOR BOLTS

- A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
  - 1. B-line, an Eaton business.
  - 2. Hilti, Inc.
  - 3. Mason Industries, Inc.
- B. Mechanical Anchor Bolts: Drilled-in and stud-wedge or female-wedge type in zinc-coated steel for interior applications and stainless steel for exterior applications. Select anchor bolts with strength required for anchor and as tested according to ASTM E 488.

#### 2.5 ADHESIVE ANCHOR BOLTS

- A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
  - 1. Hilti, Inc.
  - 2. Kinetics Noise Control, Inc.
  - 3. Mason Industries, Inc.
- B. Adhesive Anchor Bolts: Drilled-in and capsule anchor system containing PVC or urethane methacrylate-based resin and accelerator, or injected polymer or hybrid mortar adhesive. Provide anchor bolts and hardware with zinc-coated steel for interior applications and stainless steel for exterior applications. Select anchor bolts with strength required for anchor and as tested according to ASTM E 488.

### PART 3 - EXECUTION

#### 3.1 EXAMINATION

- A. Examine areas and equipment to receive vibration isolation and seismic-control devices for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.

- B. Examine roughing-in for reinforcement and cast-in-place anchors to verify actual locations before installation.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 APPLICATIONS

- A. Multiple Raceways or Cables: Secure raceways and cables to trapeze member with clamps approved for application by an agency acceptable to authorities having jurisdiction.
- B. Hanger-Rod Stiffeners: Install hanger-rod stiffeners as required to prevent buckling of hanger rods caused by seismic forces.
- C. Strength of Support and Seismic-Restraint Assemblies: Where not indicated, select sizes of components so strength will be adequate to carry present and future static and seismic loads within specified loading limits.

### 3.3 SEISMIC-RESTRAINT DEVICE INSTALLATION

- A. Coordinate the location of embedded connection hardware with supported equipment attachment and mounting points and with requirements for concrete reinforcement and formwork.
- B. Equipment and Hanger Restraints:
  - 1. Install resilient, bolt-isolation washers on equipment anchor bolts where clearance between anchor and adjacent surface exceeds 0.125 inch (3.2 mm).
  - 2. Install seismic-restraint devices using methods approved by an agency acceptable to authorities having jurisdiction providing required submittals for component.
- C. Install cables so they do not bend across edges of adjacent equipment or building structure.
- D. Install bushing assemblies for mounting bolts for wall-mounted equipment, arranged to provide resilient media where equipment or equipment-mounting channels are attached to wall.
- E. Attachment to Structure: If specific attachment is not indicated, anchor bracing to structure at flanges of beams, at upper truss chords of bar joists, or at concrete members.
- F. Drilled-in Anchors:
  - 1. Identify position of reinforcing steel and other embedded items prior to drilling holes for anchors. Do not damage existing reinforcing or embedded items during coring or drilling. Notify the structural engineer if reinforcing steel or other embedded items are encountered during drilling. Locate and avoid prestressed tendons, electrical and telecommunications conduit, and gas lines.
  - 2. Do not drill holes in concrete or masonry until concrete, mortar, or grout has achieved full design strength.
  - 3. Wedge Anchors: Protect threads from damage during anchor installation. Heavy-duty sleeve anchors shall be installed with sleeve fully engaged in the structural element to which anchor is to be fastened.
  - 4. Adhesive Anchors: Clean holes to remove loose material and drilling dust prior to installation of adhesive. Place adhesive in holes proceeding from the bottom of the hole



and progressing toward the surface in such a manner as to avoid introduction of air pockets in the adhesive.

5. Set anchors to manufacturer's recommended torque using a torque wrench.
6. Install zinc-coated steel anchors for interior and stainless-steel anchors for exterior applications

#### 3.4 ACCOMMODATION OF DIFFERENTIAL SEISMIC MOTION

- A. Install flexible connections in runs of raceways, cables, wireways, cable trays, and busways where they cross seismic joints, where adjacent sections or branches are supported by different structural elements, and where connection is terminated to equipment that is anchored to a different structural element from the one supporting them as they approach equipment.

#### 3.5 ADJUSTING

- A. Adjust restraints to permit free movement of equipment within normal mode of operation.

**END OF SECTION 26 05 48**

## SECTION 26 05 53 - IDENTIFICATION FOR ELECTRICAL SYSTEMS

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section Includes:
  - 1. Color and legend requirements for raceways, conductors, and warning labels
  - 2. Labels.
  - 3. Tapes and stencils.
  - 4. Tags.
  - 5. Cable ties.
  - 6. Paint for identification.
  - 7. Fasteners for labels.

#### 1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.
  - 1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for electrical identification products.
- B. Identification Schedule: For each piece of electrical equipment and electrical system components to be an index of nomenclature for electrical equipment and system components used in identification labels. Use same designations indicated on Drawings.

### PART 2 - PRODUCTS

#### 2.1 PERFORMANCE REQUIREMENTS

- A. Comply with ASME A13.1
- B. Comply with NFPA 70.
- C. Comply with 29 CFR 1910.144 and 29 CFR 1910.145.
- D. Comply with ANSI Z535.4 for safety signs and labels.
- E. Comply with NFPA 70E and Section 260574 "Overcurrent Protective Device Arc-Flash Study" requirements for arc-flash warning labels.

- F. Adhesive-attached labeling materials, including label stocks, laminating adhesives, and inks used by label printers, shall comply with UL 969.
- G. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes.
  - 1. Temperature Change: 120 deg F (67 deg C), ambient; 180 deg F (100 deg C), material surfaces

## 2.2 COLOR AND LEGEND REQUIREMENTS

- A. Raceways and Cables Carrying Circuits at 600 V or Less:
  - 1. Black letters on an orange field.
  - 2. Legend: Indicate voltage and system or service type.
- B. Color-Coding for Phase- and Voltage-Level Identification, 600 V or Less: Use colors listed below for ungrounded service, feeder, and branch-circuit conductors.
  - 1. Color shall be factory applied.
  - 2. Colors for 208/120-V Circuits:
    - a. Phase A: Black.
    - b. Phase B: Red.
    - c. Phase C: Blue.
    - d. Neutral: White.
  - 3. Colors for 480/277-V Circuits:
    - a. Phase A: Brown.
    - b. Phase B: Orange.
    - c. Phase C: Yellow.
  - 4. Color for Neutral: White.
  - 5. Color for Equipment Grounds: Green.
- C. Warning Label Colors:
  - 1. Identify system voltage with black letters on an orange background.
- D. Equipment Identification Labels:
  - 1. Black letters on a white field.

## 2.3 LABELS

- A. Vinyl Wraparound Labels: Preprinted, flexible labels laminated with a clear, weather- and chemical-resistant coating and matching wraparound clear adhesive tape for securing label ends.

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
  - a. Brady Corporation.
  - b. Emedco.
  - c. LEM Products Inc.
  - d. Marking Services, Inc.
  - e. Panduit Corp.
  - f. Seton Identification Products.
  
- B. Self-Adhesive Wraparound Labels: Preprinted, 3-mil- (0.08-mm-) thick, polyester flexible label with acrylic pressure-sensitive adhesive.
  1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
    - a. Brady Corporation.
    - b. emedco.
    - c. LEM Products Inc.
    - d. Marking Services, Inc.
    - e. Panduit Corp.
    - f. Seton Identification Products.
  
  2. Self-Lamination: Clear; UV-, weather- and chemical-resistant; self-laminating, protective shield over the legend. Labels sized such that the clear shield overlaps the entire printed legend.
  
  3. Marker for Labels: Machine-printed, permanent, waterproof, black ink recommended by printer manufacturer.
  
- C. Self-Adhesive Labels: Polyester, thermal, transfer-printed, 3-mil- (0.08-mm-) thick, multicolor, weather- and UV-resistant, pressure-sensitive adhesive labels, configured for intended use and location.
  1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
    - a. Brady Corporation.
    - b. emedco.
    - c. LEM Products Inc.
    - d. Marking Services, Inc.
    - e. Panduit Corp.
    - f. Seton Identification Products.
  
  2. Minimum Nominal Size:
    - a. 1-1/2 by 6 inches (37 by 150 mm)for raceway and conductors.
    - b. 3-1/2 by 5 inches (76 by 127 mm)for equipment.
    - c. As required by authorities having jurisdiction.

## 2.4 TAPES AND STENCILS

- A. Marker Tapes: Vinyl or vinyl-cloth, self-adhesive wraparound type, with circuit identification legend machine printed by thermal transfer or equivalent process.
1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
    - a. Carlton Industries, LP.
    - b. Champion America.
    - c. Ideal Industries, Inc.
- B. Self-Adhesive Vinyl Tape: Colored, heavy duty, waterproof, fade resistant; not less than 3 mils (0.08 mm) thick by 1 to 2 inches (25 to 50 mm) wide; compounded for outdoor use.
1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
    - a. Brady Corporation.
    - b. Carlton Industries, LP.
    - c. emedco.
- C. Tape and Stencil: 4-inch- (100-mm-) wide black stripes on 10-inch (250-mm) centers placed diagonally over orange background and is 12 inches (300 mm) wide. Stop stripes at legends.
1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
    - a. LEM Products Inc.
    - b. Marking Services, Inc.
    - c. Seton Identification Products.
- D. Underground-Line Warning Tape:
1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
    - a. Ideal Industries, Inc.
    - b. LEM Products Inc.
    - c. Marking Services, Inc.
    - d. Seton Identification Products.
  2. Tape:
    - a. Recommended by manufacturer for the method of installation and suitable to identify and locate underground electrical and communications utility lines.
    - b. Printing on tape shall be permanent and shall not be damaged by burial operations.

- c. Tape material and ink shall be chemically inert and not subject to degradation when exposed to acids, alkalis, and other destructive substances commonly found in soils.
- 3. Color and Printing:
  - a. Comply with ANSI Z535.1, ANSI Z535.2, ANSI Z535.3, ANSI Z535.4, and ANSI Z535.5.
  - b. Inscriptions for Red-Colored Tapes: "ELECTRIC LINE, HIGH VOLTAGE".
  - c. Inscriptions for Orange-Colored Tapes: "TELEPHONE CABLE, CATV CABLE, COMMUNICATIONS CABLE, OPTICAL FIBER CABLE".
- E. Stenciled Legend: In nonfading, waterproof, ink or paint. Minimum letter height shall be 1 inch (25 mm).

## 2.5 TAGS

- A. Metal Tags: Brass or aluminum, 2 by 2 by 0.05 inch (50 by 50 by 1.3 mm), with stamped legend, punched for use with self-locking cable tie fastener.
  - 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
    - a. Brady Corporation.
    - b. Carlton Industries, LP.
    - c. Seton Identification Products.
- B. Nonmetallic Preprinted Tags: Polyethylene tags, 0.023 inch (0.58 mm) thick, color-coded for phase and voltage level, with factory printed permanent designations; punched for use with self-locking cable tie fastener.
  - 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
    - a. Brady Corporation.
    - b. Carlton Industries, LP.
    - c. Panduit Corp.
    - d. Seton Identification Products.

## 2.6 CABLE TIES

- A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
  - 1. Ideal Industries, Inc.
  - 2. Marking Services, Inc.
  - 3. Panduit Corp.
- B. General-Purpose Cable Ties: Fungus inert, self-extinguishing, one piece, self-locking, and Type 6/6 nylon.

1. Minimum Width: 3/16 inch (5 mm).
  2. Tensile Strength at 73 Deg F (23 Deg C) according to ASTM D 638: 12,000 psi (82.7 MPa).
  3. Temperature Range: Minus 40 to plus 185 deg F (Minus 40 to plus 85 deg C).
  4. Color: Black, except where used for color-coding.
- C. UV-Stabilized Cable Ties: Fungus inert, designed for continuous exposure to exterior sunlight, self-extinguishing, one piece, self-locking, and Type 6/6 nylon.
1. Minimum Width: 3/16 inch (5 mm).
  2. Tensile Strength at 73 Deg F (23 Deg C) according to ASTM D 638: 12,000 psi (82.7 MPa).
  3. Temperature Range: Minus 40 to plus 185 deg F (Minus 40 to plus 85 deg C).
  4. Color: Black.
- D. Plenum-Rated Cable Ties: Self-extinguishing, UV stabilized, one piece, and self-locking.
1. Minimum Width: 3/16 inch (5 mm).
  2. Tensile Strength at 73 Deg F (23 Deg C) according to ASTM D 638: 7000 psi (48.2 MPa).
  3. UL 94 Flame Rating: 94V-0.
  4. Temperature Range: Minus 50 to plus 284 deg F (Minus 46 to plus 140 deg C).
  5. Color: Black.

## 2.7 MISCELLANEOUS IDENTIFICATION PRODUCTS

- A. Paint: Comply with requirements in painting Sections for paint materials and application requirements. Retain paint system applicable for surface material and location (exterior or interior).
- B. Fasteners for Labels: Self-tapping, stainless-steel screws or stainless-steel machine screws with nuts and flat and lock washers.

## PART 3 - EXECUTION

### 3.1 PREPARATION

- A. Self-Adhesive Identification Products: Before applying electrical identification products, clean substrates of substances that could impair bond, using materials and methods recommended by manufacturer of identification product.

### 3.2 INSTALLATION

- A. Verify and coordinate identification names, abbreviations, colors, and other features with requirements in other Sections requiring identification applications, Drawings, Shop Drawings, manufacturer's wiring diagrams, and operation and maintenance manual. Use consistent designations throughout Project.
- B. Install identifying devices before installing acoustical ceilings and similar concealment.
- C. Verify identity of each item before installing identification products.

- D. Coordinate identification with Project Drawings, manufacturer's wiring diagrams, and operation and maintenance manual.
- E. Apply identification devices to surfaces that require finish after completing finish work.
- F. System Identification for Raceways and Cables under 600 V: Identification shall completely encircle cable or conduit. Place identification of two-color markings in contact, side by side.
  - 1. Secure tight to surface of conductor, cable, or raceway.
- G. Elevated Components: Increase sizes of labels and letters to those appropriate for viewing from the floor.
- H. Accessible Fittings for Raceways: Identify the covers of each junction and pull box of the following systems with the wiring system legend and system voltage. System legends shall be as follows:
  - 1. "(INSERT VOLTAGE) POWER."
- I. Vinyl Wraparound Labels:
  - 1. Secure tight to surface of raceway or cable at a location with high visibility and accessibility.
  - 2. Attach labels that are not self-adhesive type with clear vinyl tape, with adhesive appropriate to the location and substrate.
- J. Snap-around Labels: Secure tight to surface at a location with high visibility and accessibility.
- K. Self-Adhesive Wraparound Labels: Secure tight to surface at a location with high visibility and accessibility.
- L. Self-Adhesive Labels:
  - 1. On each item, install unique designation label that is consistent with wiring diagrams, schedules, and operation and maintenance manual.
  - 2. Unless otherwise indicated, provide a single line of text with 1/2-inch- (13-mm-) high letters on 1-1/2-inch- (38-mm-) high label; where two lines of text are required, use labels 2 inches (50 mm) high.
- M. Snap-around Color-Coding Bands: Secure tight to surface at a location with high visibility and accessibility.
- N. Heat-Shrink, Preprinted Tubes: Secure tight to surface at a location with high visibility and accessibility.
- O. Marker Tapes: Secure tight to surface at a location with high visibility and accessibility.
- P. Self-Adhesive Vinyl Tape: Secure tight to surface at a location with high visibility and accessibility.
  - 1. Field-Applied, Color-Coding Conductor Tape: Apply in half-lapped turns for a minimum distance of 6 inches (150 mm) where splices or taps are made. Apply last two turns of tape with no tension to prevent possible unwinding.



- Q. Tape and Stencil: Comply with requirements in painting Sections for surface preparation and paint application.
- R. Floor Marking Tape: Apply stripes to finished surfaces following manufacturer's written instructions.
- S. Underground Line Warning Tape:
  - 1. During backfilling of trenches, install continuous underground-line warning tape directly above cable or raceway at 6 to 8 inches (150 to 200 mm) below finished grade. Use multiple tapes where width of multiple lines installed in a common trench exceeds 16 inches (400 mm) overall.
  - 2. Limit use of underground-line warning tape to direct-buried cables.
  - 3. Install underground-line warning tape for direct-buried cables and cables in raceways.
- T. Metal Tags:
  - 1. Place in a location with high visibility and accessibility.
  - 2. Secure using plenum-rated cable ties.
- U. Cable Ties: General purpose, for attaching tags, except as listed below:
  - 1. Outdoors: UV-stabilized nylon.
  - 2. In Spaces Handling Environmental Air: Plenum rated.

### 3.3 IDENTIFICATION SCHEDULE

- A. Install identification materials and devices at locations for most convenient viewing without interference with operation and maintenance of equipment. Install access doors or panels to provide view of identifying devices.
- B. Identify conductors, cables, and terminals in enclosures and at junctions, terminals, pull points, and locations of high visibility. Identify by system and circuit designation.
- C. Accessible Raceways and Metal-Clad Cables, 600 V or Less, for Service, Feeder, and Branch Circuits, More Than 30 A and 120 V to Ground: Identify with self-adhesive raceway labels.
  - 1. Locate identification at changes in direction, at penetrations of walls and floors, at 50-foot (15-m) maximum intervals in straight runs, and at 25-foot (7.6-m) maximum intervals in congested areas.
- D. Accessible Fittings for Raceways and Cables within Buildings: Identify the covers of each junction and pull box of the following systems with self-adhesive labels containing the wiring system legend and system voltage. System legends shall be as follows:
  - 1. "(INSERT VOLTAGE) POWER."
- E. Power-Circuit Conductor Identification, 600 V or Less: For conductors in vaults, pull and junction boxes, manholes, and handholes, use self-adhesive wraparound labels to identify the phase.
  - 1. Locate identification at changes in direction, at penetrations of walls and floors, at 50-foot (15-m) maximum intervals in straight runs, and at 25-foot (7.6-m) maximum intervals in congested areas.

- F. Control-Circuit Conductor Identification: For conductors and cables in pull and junction boxes, and handholes, use self-adhesive labels with the conductor or cable designation, origin, and destination.
- G. Control-Circuit Conductor Termination Identification: For identification at terminations, provide self-adhesive labels with the conductor designation.
- H. Locations of Underground Lines: Underground-line warning tape for power, lighting, communication, and control wiring and optical-fiber cable.
- I. Workspace Indication: Apply floor marking tape to finished surfaces. Show working clearances in the direction of access to live parts, as applicable. Marking should be confined to unfinished spaces. Workspace shall comply with NFPA 70 and 29 CFR 1926.403 unless otherwise indicated. Do not install at flush-mounted panelboards and similar equipment in finished spaces.
- J. Equipment Identification Labels:
  - 1. Equipment to Be Labeled:
    - a. Enclosures and electrical cabinets.
    - b. Access doors and panels for concealed electrical items.
    - c. Lighting control equipment
    - d. Remote-controlled switches, dimmer modules, and control devices.

**END OF SECTION 26 05 53**

---

## SECTION 26 09 23 - LIGHTING CONTROL DEVICES

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section Includes:
  - 1. Switchbox-mounted occupancy and vacancy sensors.
- B. Related Requirements:
  - 1. Section 262726 "Wiring Devices" for manual light switches.
  - 2. Section 260936 "Digital Standalone Lighting Controls" for hardwired and wireless lighting control systems, including: ceiling sensors, lighting controllers, power packs, digital keypads, etc.

#### 1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Shop Drawings:
  - 1. Show installation details
  - 2. Interconnection diagrams showing field-installed wiring.
  - 3. Include diagrams for power, signal, and control wiring.

#### 1.4 CLOSEOUT SUBMITTALS

- A. Operation and Maintenance Data: For each type of lighting control device to include in operation and maintenance manuals..

#### 1.5 WARRANTY

- A. Manufacturer's Warranty: Manufacturer and Installer agree to repair or replace lighting control devices that fail(s) in materials or workmanship within specified warranty period.
  - 1. Failures include, but are not limited to, the following:
    - a. Faulty operation of lighting control devices.

2. Warranty Period: Five year(s) from date of Substantial Completion.

## PART 2 - PRODUCTS

### 2.1 SWITCHBOX-MOUNTED OCCUPANCY & VACANCY SENSORS

- A. Manufacturers:
  1. Crestron / Steinel
  2. Lutron
  3. Wattstopper
- B. General Requirements for Sensors: Automatic-wall-switch occupancy sensor with manual on-off switch, suitable for mounting in a single gang switchbox using hardwired or wireless connection.
  1. Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application
  2. Occupancy Sensor Operation: Unless otherwise indicated, field selectable vacancy or occupancy operation; with a time delay for turning lights off, adjustable over a minimum range of 1 to 15 minutes.
  3. Operating Ambient Conditions: Dry interior conditions, 32 to 120 deg F (0 to 49 deg C).
  4. Switch Rating: Not less than load controlled by switch.
- C. Wall-Switch Sensor (Typical):
  1. Standard Range: 180-degree field of view, field adjustable from 180 to 40 degrees; with a minimum coverage area of 900 sq. ft. (84 sq. m)
  2. Sensing Technology: Dual technology - PIR and ultrasonic.
  3. Switch Type: SP, field-selectable automatic "on," or manual "on," automatic "off."
  4. Capable of controlling load in three-way & four-way applications.
  5. Capable of dimming where indicated (match sensor to dimming technology of connected fixtures).
  6. Voltage: Dual voltage - 120 and 277 V.
  7. Concealed, field-adjustable, "off" time-delay selector at up to 30 minutes.
  8. Adjustable sensitivity
  9. Color: To be selected by architect.
  10. Faceplate: Stainless steel, color to be selected by architect.

### 2.2 CONDUCTORS AND CABLES

- A. Power Wiring to Supply Side of Remote-Control Power Sources: Not smaller than No. 12 AWG. Comply with requirements in Section 260519 "Low-Voltage Electrical Power Conductors and Cables."
- B. Classes 2 and 3 Control Cable: Multiconductor cable with stranded-copper conductors not smaller than No. 18 AWG. Comply with requirements in Section 260519 "Low-Voltage Electrical Power Conductors and Cables."
- C. Class 1 Control Cable: Multiconductor cable with stranded-copper conductors not smaller than No. 14 AWG. Comply with requirements in Section 260519 "Low-Voltage Electrical Power Conductors and Cables."

---

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine lighting control devices before installation. Reject lighting control devices that are wet, moisture damaged, or mold damaged.
- B. Examine walls and ceilings for suitable conditions where lighting control devices will be installed.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 SENSOR INSTALLATION

- A. Comply with NECA 1.
- B. Install and aim sensors in locations to achieve not less than 90-percent coverage of areas indicated. Do not exceed coverage limits specified in manufacturer's written instructions.

3.3 WIRING INSTALLATION

- A. Comply with NECA 1.
- B. Wiring Method: Comply with Section 260519 "Low-Voltage Electrical Power Conductors and Cables." Minimum conduit size is 1/2 inch (13 mm).
- C. Wiring within Enclosures: Comply with NECA 1. Separate power-limited and nonpower-limited conductors according to conductor manufacturer's written instructions.
- D. Size conductors according to lighting control device manufacturer's written instructions unless otherwise indicated.
- E. Splices, Taps, and Terminations: Make connections only on numbered terminal strips in junction, pull, and outlet boxes; terminal cabinets; and equipment enclosures.

3.4 IDENTIFICATION

- A. Identify components and power and control wiring according to Section 260553 "Identification for Electrical Systems."
  - 1. Identify circuits or luminaires controlled by photoelectric and occupancy sensors at each sensor.

3.5 FIELD QUALITY CONTROL

- A. Perform the following tests and inspections with the assistance of a factory-authorized service representative:
  - 1. Operational Test: After installing time switches and sensors, and after electrical circuitry has been energized, start units to confirm proper unit operation.

2. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.

B. Lighting control devices will be considered defective if they do not pass tests and inspections.

C. Prepare test and inspection reports.

### 3.6 ADJUSTING

A. Occupancy Adjustments: When requested within 12 months from date of Substantial Completion, provide on-site assistance in adjusting lighting control devices to suit actual occupied conditions. Provide up to two visits to Project with manufacturer's field representative present during other-than-normal occupancy hours for this purpose.

1. For occupancy and motion sensors, verify operation at outer limits of detector range. Set time delay to suit Owner's operations.

### 3.7 DEMONSTRATION

A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain lighting control devices.

1. Provide a minimum of 8 hours training

2. Record training and provide DVD of recording to owner.

**END OF SECTION 26 09 23**

## SECTION 260936 – DIGITAL STANDALONE LIGHTING CONTROLS

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section Includes:
  1. Hardwired standalone power switching and dimming systems.
  2. Wireless standalone power switching and dimming systems
  3. Sensors
  4. User Interfaces (Keypads)
  5. Keypad faceplates

#### 1.3 DEFINITIONS

- A. BAS: Building automation system.
- B. Fade Rate: The time it takes each zone to arrive at the next scene, dependent on the degree of change in lighting level.
- C. Low Voltage: As defined in NFPA 70, the term for circuits and equipment operating at less than 50 V or for remote-control, signaling, and power-limited circuits.
- D. RFI: Radio-frequency interference.
- E. Scene: The lighting effect created by adjusting several zones of lighting to the desired intensity.
- F. SCR: Silicon-controlled rectifier.
- G. Zone: A luminaire or group of luminaires controlled simultaneously as a single entity. Also known as a "channel."
- H. RS-485: A serial network protocol complying with TIA-485-A
- I. UTP: Unshielded Twisted Pair

#### 1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product.
  1. For lighting controls system components; include elevation, dimensions, features, characteristics, ratings, and labels.

2. Device plates and plate color and material.
3. Dimming technology compatibility.
4. Operational documentation for software and firmware.

B. Shop Drawings: Detail assemblies of standard components, custom assembled for specific application on Project. Indicate dimensions, weights, arrangement of components, and clearance and access requirements.

1. Include elevation views of front panels of control and indicating devices and control stations.
2. Include diagrams for power, signal, and control wiring.
3. Wire Termination Diagrams and Schedules: Coordinate nomenclature and presentation with Drawings and block diagram. Differentiate between manufacturer-installed and field-installed wiring.
4. Block Diagram: Show interconnections between components specified in this Section and devices furnished with power distribution system components. Indicate data communication paths and identify networks, data buses, data gateways, concentrators, and other devices used. Describe characteristics of network and other data communication lines.

#### 1.5 INFORMATIONAL SUBMITTALS

- A. Field quality-control reports.
- B. Sample Warranty: For special warranty.

#### 1.6 COORDINATION

- A. Field quality-control reports.
- B. Contractor shall place daylight and occupancy sensors per plans as a guideline to achieve optimal performance. Proper placement shall be coordinated with field conditions in order to avoid interference with prescribed lighting levels.
- C. Contractor shall provide luminaries that are compatible with the lighting control system to be installed.
- D. Contractor shall locate keypad stations as per plans.
- E. Contractor shall notify engineer of record of any conflicts or deviations from the contract documents to obtain direction prior to proceeding with work.

#### 1.7 CLOSEOUT SUBMITTALS

- A. Operation and Maintenance Data: For all system components, to include in emergency, operation, and maintenance manuals.
  1. In addition to items specified in Section 017823 "Operation and Maintenance Data," include the following:



- a. Software manuals.
- b. Adjustments of scene preset controls, adjustable fade rates, and fade overrides.
- c. Operation of adjustable zone controls.
- d. Testing and adjusting of panic and emergency power features.

## 1.8 WARRANTY

- A. Special Warranty: Manufacturer agrees to repair or replace components of digital lighting controls system components that fail in materials or workmanship within specified warranty period.
  1. Failures include, but are not limited to, the following:
    - a. Damage from transient voltage surges.
  2. Warranty Period: Cost to repair or replace any parts for five years from date of Substantial Completion.

## PART 2 - PRODUCTS

### 2.1 MANUFACTURERS

- A. Acceptable Manufacturers:
  1. Crestron (Basis of Design) / Steinel
  2. Lutron
  3. Acuity / Sensor Switch

### 2.2 SYSTEM DESCRIPTION

- A. Compatibility:
  1. Dimming control components shall be compatible with luminaires
- B. Capacities: Components shall be rated for a minimum of the connected amperage.
- C. Off Control Position: User-selected off position of any control point shall disconnect the load from line supply.
- D. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

### 2.3 LIGHTING CONTROLLERS

- A. Description: Factory-fabricated equipment providing switching and dimming consisting of the following:
  1. For Basis of Design Crestron GLPP Hardwired Systems:
    - a. Characteristics:

- 1) Provide 1, 2, or 3 zone lighting controllers for 0-10v zones.
  - 2) Shall operate as an autonomous lighting controller for the space.
  - 3) All sensors and zones within the space shall be controlled without additional equipment.
  - 4) Lighting controller shall be surface-mounted. Industrial control enclosure mounts directly on two side by side 4" square electrical junction boxes, suitable for concealed locations.
  - 5) Circuit Input: 100 – 277 VAC, 50/60 Hz. Input, one 16 amp.
  - b. Zone Outputs
    - 1) 1,2, or 3 high inrush mechanically held relays for switching loads.
    - 2) 1,000,000 cycle mechanically latching relays
    - 3) Zero-cross arc-less high inrush
    - 4) Air gap off protection on each channel
    - 5) 0-10v dimming models shall include 0-10v 4 wire dimming for each channel.
2. For Basis of Design Crestron GLPAC Hardwired Systems:
- a. Characteristics
    - 1) Provide 4 or 8 zone lighting controller for switching or 0-10v zones, to provide quantity of control zones as indicated on the drawings.
    - 2) Unit shall operate as an autonomous lighting controller for the space.
    - 3) Up to 4 occupancy sensors and photocells per space
    - 4) Up to 10 devices can connect without additional power
    - 5) Lighting controller shall be a surface-mounted NEMA 1 industrial control enclosure, suitable for concealed locations.
  - b. Zone Outputs
    - 1) 4 or 8 circuit inputs, provide quantity as indicated on drawings
    - 2) 100 – 277 VAC, 50/60 HZ. 16amps each.
    - 3) 4 or 8 zone outputs
    - 4) 100,000 cycle mechanically latching relays
    - 5) Air gap off protection on each channel.
    - 6) 0-10v 4-wire dimming for each channel (60mA max current sink)
3. For Basis of Design Crestron ZUMMESH Wireless Systems:
- a. Characteristics:
    - 1) Fully compatible and scalable with all connected lighting control devices
    - 2) Wi-fi control device communication
    - 3) Commissionable as an autonomous control system without the need for additional equipment
    - 4) Each device shall auto negotiate its communications channel to avoid noisy commercial environments.
    - 5) System shall be secure using 128-bit encryption
    - 6) Range within devices shall be minimum of 50'-0"
    - 7) Controller shall be junction box mounted using ½" knockout
    - 8) 120/277 VAC input
    - 9) Provide controller for intended function (switched vs dimming, suitable for connected amperage of lighting circuit, compatible with connected dimming technology where applicable)

## 2.4 USER INTERFACES (KEYPADS)

- A. Provide keypad quantities and locations as specified herein and shown on the contract drawings.
- B. Hardwired Keypads (For Basis of Design Crestron GLPAC Systems):
  - 1. Field configurable remote keypad with auto-adjusting backlight illuminating replaceable, engravable programmable buttons in number indicated, with white LED indicators, configured to fit in standard single-gang box.
  - 2. Trimmed using decorator style faceplate
  - 3. Minimum buttons: 2, Maximum Buttons: 8
  - 4. Color shall be White.
  - 5. Mounting: Mount in a 1-gang or larger electrical box
  - 6. Cresnet connected for power and communication
- C. Hardwired Keypads (For Basis of Design Crestron GLPP Systems)
  - 1. Provide with battery operated remote programmer
  - 2. Connect to lighting controller with class II #18 AWG or greater conductors
  - 3. Color shall be White.
  - 4. Rocker (on/off/dim) or 4-Button (on / scene 1 / scene 2 / off) as required based on switching indicated on drawings
  - 5. Trimmed using decorator style faceplate
  - 6. Mounting: Mount in a 1-gang or larger electrical box
- D. Wireless Keypads (For Basis of Design Crestron ZUMMESH Systems)
  - 1. ZUMMESH wireless communication, to communicate with other wireless lighting control devices within the space
  - 2. Mounting: Mount in a 1-gang or larger electrical box
  - 3. Battery powered (replaceable, coin cell, 5-year life minimum)
  - 4. Color shall be White.
  - 5. 1-Button (On/Off/Dim) or 4-Button (On/Scene 1/Scene 2/Off) as required
  - 6. Trimmed using gangable decorator trim plates

## 2.5 SENSORS

- A. Dual Technology Motion Sensors (Hardwired)
  - 1. Characteristics
    - a. Compatible with connected lighting controller or power pack
    - b. Detects movement within space while reducing false triggering or shutoffs while space is occupied.
    - c. Both technologies shall be triggered to force on, one or the other must be triggered to reset time.
    - d. Combination of ultrasonic motion detection and passive infrared detection with internal microprocessor.
    - e. Sensitivity is independently adjustable for installed conditions.
    - f. Delayed time off adjustment.
    - g. Walk-through mode.
    - h. Equipped with 4-wire interface for direct connection to control bus.
    - i. Includes connection port for remote mount photocell.

- j. Coverage: 360 deg. 2000 SQFT.
  - k. Setup and commissioning parameters shall be configurable via handheld wireless remote.
  - l. Mounted to an electrical box.
- B. Ultrasonic Motion Sensors (Hardwired)
- 1. Characteristics
    - a. Compatible with connected lighting controller or power pack
    - b. Sensing Technology: Passive infrared (PIR), single pyro, 11 detection levels, 520 switching zones, ultrasonic 40 kHz.
    - c. Mounted to an electrical box.
    - d. Time Delay Setting
    - e. Light Level Setting: 1 - 100 fc (10 - 1000 lux)
    - f. Dip Switch Settings
    - g. Test Mode: Dip switch setting or programming remote
    - h. Ultrasonic Coverage at 9 feet (2.7 m):
      - 1) Presence: Maximum 20 feet by 20 feet (6 by 6 m) or 400 sf (36 sm).
      - 2) Radially and Tangentially: Maximum 32 feet by 32 feet (10 by 10 m) or 1,000 sf (100 sm).
- C. Passive Infrared Motion Sensors (Hardwired)
- a. Compatible with connected lighting controller or power pack
  - b. Mounted to an electrical box.
  - c. Sensing Technology: Ultrasonic
  - d. Delay Setting
  - e. Light Level Setting: 1 - 100 fc (10 - 1000 lux)
  - f. Dip Switch Settings
  - g. HVAC dry contacts: (COM2 Version only)
  - h. Test Mode: Dip switch setting or programming remote
  - i. Standard Sensor - Coverage at 9 feet (2.7 m):
    - 1) Minimum 30 feet by 30 feet or 900 sf horizontal area
  - j. High-bay sensor – Coverage at up to 50 feet:
    - 1) Minimum 30 feet by 30 feet horizontal area
    - 2) Provide sensor interface module where required
- D. Motion Sensors (Wireless)
- 1. Wireless communication with ZUMMESH system devices
  - 2. Passive infrared sensing technology
  - 3. Ceiling mounted
  - 4. 500 sqft coverage (8-12' ceilings)
  - 5. Grace occupancy function
  - 6. Fail-safe to on position when low battery is detected
  - 7. Replaceable battery (10 year lifespan minimum)
- E. Daylight Sensors (Hardwired)
- 1. Indoor Daylight Sensor (Open Loop)
    - a. Continually monitors daylight entering window or skylight to enable daylight harvesting applications to provide control of room lighting based on presence of daylight.

- b. Equipped with 3-wire interface for direct connection to control system utilizing control processor; 24 VDC power from network control bus.
- c. Light sensitivity: 3 to 6,000 foot-candles
2. Mounting: Ceiling surface mounted
3. Provide sensor interface device to connect to lighting controller where required.

F. Daylight Sensors (Wireless)

1. Indoor Daylight Sensor (Open Loop)
  - a. Continually monitors daylight entering window or skylight to enable daylight harvesting applications to provide control of room lighting based on presence of daylight.
  - b. Wireless communication with ZUMMESH system devices
  - c. Replaceable batteries (10-year lifespan minimum)
2. Mounting: Ceiling surface mounted

2.6 KEYPAD FACEPLATES

- A. Provide decorator faceplates for all keypad devices
- B. Multiple devices adjacent to door jambs shall be ganged together
- C. Decorator faceplates shall be White

2.7 CONDUCTORS AND CABLES

- A. Wiring to Supply Side of Remote-Control Power Sources: Not smaller than No. 12 AWG. Comply with requirements in Section 260519 "Low-Voltage Electrical Power Conductors and Cables."
- B. UTP Cable: 100-ohm, UTP. Listed and labeled by an NRTL acceptable to authorities having jurisdiction as complying with UL 444 and NFPA 70
- C. Communications Control Cable, Non-Plenum Rated: 22 AWG data pair stranded bare copper, and 18 AWG power pair stranded bare copper, Type CM
- D. Communications Control Cable Plenum Rated: 22 AWG data pair, stranded bare copper and 18 AWG power pair, stranded bare copper, Type CMP, complying with NFPA 262
- E. Communications High-Power Control Cable, Non-Plenum Rated: 22 AWG stranded bare copper data pair, and 12 AWG stranded bare copper power pair, Type CM

2.8 SYSTEM FUNCTIONS AND SEQUENCES

- A. The system shall be capable of the following lighting control functions:
  1. Scene Creation: Store levels of selected fixture circuits in preset groups.
  2. All zones off
  3. Raise/lower level of individual and all zones
  4. Daylight harvesting

5. Motion sensor control (auto-on and manual-on, selectable, with adjustable default "on" light level)

## 2.9 USER INTERFACE CONTROL FUNCTIONS

- A. The keypad interface shall be capable of the following system control functions:
  1. Scene Recall
  2. Raise/Lower
  3. Off

## 2.10 SYSTEM INSTALLATION

- A. Prior to installation, examine work area to verify measurements, and that commencing installation complies with manufacturer's requirements.
- B. Install controls in accordance with manufacturer's instructions.
- C. Grounding: Provide electrical grounding in accordance with NFPA 70.

## 2.11 WIRING INSTALLATION

- A. Comply with NECA 1.
- B. Wiring Method: Comply with requirements in Section 260519 "Low-Voltage Electrical Power Conductors and Cables." Minimum conduit size shall be **1/2 inch (13 mm)**.
- C. Wiring within Enclosures: Bundle, lace, and train conductors to terminal points. Separate power-limited and nonpower-limited conductors according to conductor manufacturer's written instructions.
- D. Size conductors according to lighting control device manufacturer's written instructions unless otherwise indicated.
- E. Splices, Taps, and Terminations: Make connections only on numbered terminal strips in junction, pull, and outlet boxes; terminal cabinets; and equipment enclosures.
- F. Engage a factory-authorized service representative to provide on-site visit during the rough-in stage of the installation. Wiring topologies and terminations shall be reviewed with the contractor at this time.

## 2.12 IDENTIFICATION

- A. Comply with requirements for identification specified in Section 260553 "Identification for Electrical Systems."
- B. Label each device with a unique designation.
- C. Label each scene control button with approved scene description.

2.13 FIELD QUALITY CONTROL

- A. Manufacturer's Field Service: Engage a factory-authorized service representative to test and inspect components, assemblies, and equipment installations, including connections.
- B. Perform the following tests and inspections with the assistance of a factory-authorized service representative:
  - 1. Continuity tests of circuits.
  - 2. Operational Test: Set and operate controls to demonstrate their functions and capabilities in a methodical sequence that cues and reproduces actual operating functions.
    - a. Include testing under conditions that simulate actual operational conditions. Record control settings, operations, cues, and functional observations.
  - 3. Check operation of daylight harvesting sensors
  - 4. Check "default on" light levels
  - 5. Check dimming range
  - 6. Align high-bay occupancy sensors using manufacturer's laser aiming tool.
  - 7. Check outer limits of detector range
- C. Within 3 months of the date of substantial completion, provide onsite service to adjust the system to account for actual occupied conditions.
- D. Dimming control components will be considered defective if they do not pass tests and inspections.
- E. Test Labeling: After satisfactory completion of tests and inspections, apply a label to tested components indicating test results, date, and responsible agency and representative.
- F. Reports: Written reports of tests and observations. Record defective materials and workmanship and unsatisfactory test results. Record repairs and adjustments.
- G. Keypads shall be factory engraved using laser technology.

2.14 DEMONSTRATION

- A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain all lighting control system components.
  - 1. Provide a minimum of 8 hours training
  - 2. Record training and provide DVD of training to owner.

END OF SECTION 260936

---

## SECTION 26 27 26 - WIRING DEVICES

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section Includes:
  - 1. Toggle switches.
  - 2. Wall plates.

#### 1.3 DEFINITIONS

- A. EMI: Electromagnetic interference.
- B. Pigtail: Short lead used to connect a device to a branch-circuit conductor.
- C. RFI: Radio-frequency interference.
- D. SPD: Surge protective device.
- E. UTP: Unshielded twisted pair.

#### 1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Shop Drawings: List of legends and description of materials and process used for premarking wall plates.

#### 1.5 CLOSEOUT SUBMITTALS

- A. Operation and Maintenance Data: For wiring devices to include in all manufacturers' packing-label warnings and instruction manuals that include labeling conditions.

### PART 2 - PRODUCTS

#### 2.1 GENERAL WIRING-DEVICE REQUIREMENTS

- A. Wiring Devices, Components, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.



- B. Comply with NFPA 70.
- C. Devices that are manufactured for use with modular plug-in connectors may be substituted under the following conditions:
  - 1. Connectors shall comply with UL 2459 and shall be made with stranding building wire.
  - 2. Devices shall comply with the requirements in this Section.
- D. Source Limitations: Obtain each type of wiring device and associated wall plate from single source from single manufacturer.

## 2.2 TOGGLE SWITCHES

- A. Comply with NEMA WD 1, UL 20, and FS W-S-896.
- B. Switches, 120/277 V, 20 A:
  - 1. Single Pole:
    - a. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
      - 1) Hubbell Incorporated; Wiring Device-Kellems.
      - 2) Leviton Manufacturing Co., Inc.
      - 3) Pass & Seymour/Legrand (Pass & Seymour).
  - 2. Two Pole:
    - a. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
      - 1) Hubbell Incorporated; Wiring Device-Kellems.
      - 2) Leviton Manufacturing Co., Inc.
      - 3) Pass & Seymour/Legrand (Pass & Seymour).
  - 3. Three Way:
    - a. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
      - 1) Hubbell Incorporated; Wiring Device-Kellems.
      - 2) Leviton Manufacturing Co., Inc.
      - 3) Pass & Seymour/Legrand (Pass & Seymour).
  - 4. Four Way:
    - a. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
      - 1) Hubbell Incorporated; Wiring Device-Kellems.
      - 2) Leviton Manufacturing Co., Inc.
      - 3) Pass & Seymour/Legrand (Pass & Seymour).

- C. Key-Operated Switches: 120/277 V, 20 A.
  - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
    - a. Hubbell Incorporated; Wiring Device-Kellems.
    - b. Leviton Manufacturing Co., Inc.
    - c. Pass & Seymour/Legrand (Pass & Seymour).
  - 2. Description: Single pole, with factory-supplied key in lieu of switch handle.

## 2.3 WALL PLATES

- A. Single and combination types shall match corresponding wiring devices.
  - 1. Plate-Securing Screws: Metal with head color to match plate finish.
  - 2. Material for Finished Spaces: Steel with white baked enamel, suitable for field painting.
  - 3. Material for Unfinished Spaces: Galvanized steel
  - 4. Material for Damp Locations: Thermoplastic with spring-loaded lift cover, and listed and labeled for use in wet and damp locations.
- B. Wet-Location, Weatherproof Cover Plates: NEMA 250, complying with Type 3R, weather-resistant with lockable cover.

## 2.4 FINISHES

- A. Device Color:
  - 1. Wiring Devices Connected to Normal Power System: As selected by Architect unless otherwise indicated or required by NFPA 70 or device listing.
  - 2. Wiring Devices Connected to Emergency Power System: Red.
- B. Wall Plate Color: For plastic covers, match device color.

## PART 3 - EXECUTION

### 3.1 INSTALLATION

- A. Comply with NECA 1, including mounting heights listed in that standard, unless otherwise indicated
- B. Relocate existing switchboxes to 48" AFF if boxes are currently located above that height (for ADA compliance).
- C. Coordination with Other Trades:
  - 1. Protect installed devices and their boxes. Do not place wall finish materials over device boxes and do not cut holes for boxes with routers that are guided by riding against outside of boxes.

2. Keep outlet boxes free of plaster, drywall joint compound, mortar, cement, concrete, dust, paint, and other material that may contaminate the raceway system, conductors, and cables.
3. Install device boxes in brick or block walls so that the cover plate does not cross a joint unless the joint is troweled flush with the face of the wall.
4. Install wiring devices after all wall preparation, including painting, is complete.

D. Conductors:

1. Do not strip insulation from conductors until right before they are spliced or terminated on devices.
2. Strip insulation evenly around the conductor using tools designed for the purpose. Avoid scoring or nicking of solid wire or cutting strands from stranded wire.
3. The length of free conductors at outlets for devices shall meet provisions of NFPA 70, Article 300, without pigtails.
4. Existing Conductors:
  - a. Cut back and pigtail, or replace all damaged conductors.
  - b. Straighten conductors that remain and remove corrosion and foreign matter.
  - c. Pigtailing existing conductors is permitted, provided the outlet box is large enough.

E. Device Installation:

1. Replace devices that have been in temporary use during construction and that were installed before building finishing operations were complete.
2. Keep each wiring device in its package or otherwise protected until it is time to connect conductors.
3. Do not remove surface protection, such as plastic film and smudge covers, until the last possible moment.
4. Connect devices to branch circuits using pigtails that are not less than 6 inches (152 mm) in length.
5. When there is a choice, use side wiring with binding-head screw terminals. Wrap solid conductor tightly clockwise, two-thirds to three-fourths of the way around terminal screw.
6. Use a torque screwdriver when a torque is recommended or required by manufacturer.
7. When conductors larger than No. 12 AWG are installed on 15- or 20-A circuits, splice No. 12 AWG pigtails for device connections.
8. Tighten unused terminal screws on the device.
9. When mounting into metal boxes, remove the fiber or plastic washers used to hold device-mounting screws in yokes, allowing metal-to-metal contact.

F. Device Plates: Do not use oversized or extra-deep plates. Repair wall finishes and remount outlet boxes when standard device plates do not fit flush or do not cover rough wall opening.

G. Dimmers:

1. Install dimmers within terms of their listing.
2. Install unshared neutral conductors on line and load side of dimmers according to manufacturers' device listing conditions in the written instructions.
3. Coordinate dimming technology of dimmer switches with technology of controlled fixtures
4. Provide 0-10V dimming wiring where applicable.

H. Arrangement of Devices: Unless otherwise indicated, mount flush, with long dimension vertical. Group adjacent switches under single, multigang wall plates.

- I. Adjust locations of floor service outlets and service poles to suit arrangement of partitions and furnishings.

**3.2 IDENTIFICATION**

- A. Comply with Section 260553 "Identification for Electrical Systems."
- B. Identify each switch with panelboard identification and circuit number. Use hot, stamped, or engraved machine printing with black-filled lettering on face of plate, and durable wire markers or tags inside outlet boxes.

**END OF SECTION 26 27 26**

## SECTION 26 51 19 - LED INTERIOR LIGHTING

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 DEFINITIONS

- A. CCT: Correlated color temperature.
- B. CRI: Color Rendering Index.
- C. Fixture: See "Luminaire."
- D. IP: International Protection or Ingress Protection Rating.
- E. LED: Light-emitting diode.
- F. Lumen: Measured output of lamp and luminaire, or both.
- G. Luminaire: Complete lighting unit, including lamp, reflector, and housing.

#### 1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.
  - 1. Arrange in order of luminaire designation.
  - 2. Include data on features, accessories, and finishes.
  - 3. Include physical description and dimensions of luminaires.
  - 4. Include emergency lighting units, including batteries and chargers.
  - 5. Include life, output (lumens, CCT, and CRI), and energy efficiency data.
  - 6. Photometric data and adjustment factors based on laboratory tests, complying with IES Lighting Measurements Testing and Calculation Guides, of each luminaire type. The adjustment factors shall be for lamps and accessories identical to those indicated for the luminaire as applied in this Project.
    - a. Manufacturers' Certified Data: Photometric data certified by manufacturer's laboratory with a current accreditation under the National Voluntary Laboratory Accreditation Program for Energy Efficient Lighting Products.
- B. Shop Drawings: For nonstandard or custom luminaires.
  - 1. Include photometric calculations for all interior and exterior areas. No "typical" area calculations will be accepted. Calculations shall be based on the exact product submitted.
  - 2. Include plans, elevations, sections, and mounting and attachment details.

3. Include details of luminaire assemblies. Indicate dimensions, weights, loads, required clearances, method of field assembly, components, and location and size of each field connection.
4. Include diagrams for power, signal, and control wiring.

C. Product Schedule: For luminaires and lamps. Use same designations indicated on Drawings.

#### 1.4 INFORMATIONAL SUBMITTALS

- A. Detailed description of equipment anchorage devices on which the certification is based and their installation requirements.
- B. Product Certificates: For each type of luminaire.
- C. Product Test Reports: For each luminaire, for tests performed by manufacturer and witnessed by a qualified testing agency.
- D. Sample warranty.

#### 1.5 CLOSEOUT SUBMITTALS

- A. Operation and Maintenance Data: For luminaires and lighting systems to include in operation and maintenance manuals.
  1. Provide a list of all lamp types used on Project; use ANSI and manufacturers' codes.

#### 1.6 QUALITY ASSURANCE

- A. Luminaire Photometric Data Testing Laboratory Qualifications: Luminaire manufacturer's laboratory that is accredited under the NVLAP for Energy Efficient Lighting Products.
- B. Provide luminaires from a single manufacturer for each luminaire type.
- C. Each luminaire type shall be binned within a three-step MacAdam Ellipse to ensure color consistency among luminaires.

#### 1.7 DELIVERY, STORAGE, AND HANDLING

- A. Protect finishes of exposed surfaces by applying a strippable, temporary protective covering before shipping.

#### 1.8 WARRANTY

- A. Warranty: Manufacturer and Installer agree to repair or replace components of luminaires that fail in materials or workmanship within specified warranty period.
- B. Warranty Period: Five year(s) from date of Substantial Completion.

## PART 2 - PRODUCTS

### 2.1 PRODUCTS

- A. Refer to lighting fixture schedule on drawings for the three acceptable manufacturers and model numbers for each fixture type. No substitutions will be accepted.

### 2.2 PERFORMANCE REQUIREMENTS

- A. Seismic Performance: Luminaires shall withstand the effects of earthquake motions determined according to ASCE 7.
- B. Lumen outputs and distribution patterns for fixtures other than the basis of design fixtures (supplied by Apex Lighting) shall be adjusted based on the results of the photometric calculations, in order to achieve light levels and uniformity ratios as specified in the IES (Illumination Engineering Society) guidebook. No additional compensation will be provided to meet the light level and uniformity requirements.

### 2.3 LUMINAIRE REQUIREMENTS

- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- B. Standards:
  - 1. NRTL Compliance: Luminaires for hazardous locations shall be listed and labeled for indicated class and division of hazard by an NRTL.
  - 2. FM Global Compliance: Luminaires for hazardous locations shall be listed and labeled for indicated class and division of hazard by FM Global.
  - 3. UL Listing: Listed for damp location, where noted
  - 4. Recessed luminaires shall comply with NEMA LE 4.
- C. Lamps dimmable from 100 percent to 1 percent of maximum light output.
- D. Internal driver.

### 2.4 MATERIALS

- A. Metal Parts:
  - 1. Free of burrs and sharp corners and edges.
  - 2. Sheet metal components shall be steel unless otherwise indicated.
  - 3. Form and support to prevent warping and sagging.
- B. Doors, Frames, and Other Internal Access: Smooth operating, free of light leakage under operating conditions, and designed to permit relamping without use of tools. Designed to prevent doors, frames, lenses, diffusers, and other components from falling accidentally during relamping and when secured in operating position.
- C. Diffusers and Globes:

1. As indicated on lighting fixture schedules.

D. Housings:

1. As indicated on lighting fixture schedules.

E. Factory-Applied Labels: Comply with UL 1598. Include recommended lamps. Locate labels where they will be readily visible to service personnel, but not seen from normal viewing angles when lamps are in place.

1. Label shall include the following lamp characteristics:

- a. "USE ONLY" and include specific lamp type.
- b. Lamp diameter, shape, size, wattage, and coating.
- c. CCT and CRI for all luminaires.

## 2.5 METAL FINISHES

A. Variations in finishes are unacceptable in the same piece. Variations in finishes of adjoining components are acceptable if they are within the range of approved Samples and if they can be and are assembled or installed to minimize contrast.

## 2.6 LUMINAIRE SUPPORT

A. Comply with requirements in Section 260529 "Hangers and Supports for Electrical Systems" for channel and angle iron supports and nonmetallic channel and angle supports.

B. Single-Stem Hangers: 1/2-inch (13-mm) steel tubing with swivel ball fittings and ceiling canopy. Finish same as luminaire.

C. Wires: ASTM A 641/A 641 M, Class 3, soft temper, zinc-coated steel, 12 gage (2.68 mm).

D. Rod Hangers: 3/16-inch (5-mm) minimum diameter, cadmium-plated, threaded steel rod.

E. Hook Hangers: Integrated assembly matched to luminaire, line voltage, and equipment with threaded attachment, cord, and locking-type plug.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.

B. Examine roughing-in for luminaire to verify actual locations of luminaire and electrical connections before luminaire installation. Proceed with installation only after unsatisfactory conditions have been corrected.



---

### 3.2 TEMPORARY LIGHTING

- A. If approved by the Architect, use selected permanent luminaires for temporary lighting. When construction is sufficiently complete, clean luminaires used for temporary lighting and install new lamps.

### 3.3 INSTALLATION

- A. Comply with NECA 1.
- B. Install luminaires level, plumb, and square with ceilings and walls unless otherwise indicated.
- C. Install lamps and/or drivers in each luminaire.
- D. Supports:
  - 1. Sized and rated for luminaire weight.
  - 2. Able to maintain luminaire position after cleaning and relamping.
  - 3. Provide support for luminaire without causing deflection of ceiling or wall.
  - 4. Luminaire mounting devices shall be capable of supporting a horizontal force of 100 percent of luminaire weight and vertical force of 400 percent of luminaire weight.
- E. Flush-Mounted Luminaire Support:
  - 1. Secured to outlet box.
  - 2. Attached to ceiling structural members at four points equally spaced around circumference of luminaire.
  - 3. Trim ring flush with finished surface.
- F. Wall-Mounted Luminaire Support:
  - 1. Attached to structural members in walls.
  - 2. Do not attach luminaires directly to gypsum board.
- G. Suspended Luminaire Support:
  - 1. Pendants and Rods: Where longer than 48 inches (1200 mm), brace to limit swinging.
  - 2. Stem-Mounted, Single-Unit Luminaires: Suspend with twin-stem hangers. Support with approved outlet box and accessories that hold stem and provide damping of luminaire oscillations. Support outlet box vertically to building structure using approved devices.
  - 3. Do not use ceiling grid as support for pendant luminaires. Connect support wires or rods to building structure.
- H. Ceiling-Grid-Mounted Luminaires:
  - 1. Secure to any required outlet box.
  - 2. Secure luminaire to the luminaire opening using approved fasteners in a minimum of four locations, spaced near corners of luminaire.
  - 3. Use approved devices and support components to connect luminaire to ceiling grid and building structure in a minimum of four locations, spaced near corners of luminaire.
- I. Comply with requirements in Section 260519 "Low-Voltage Electrical Power Conductors and Cables" for wiring connections.

3.4 IDENTIFICATION

- A. Identify system components, wiring, cabling, and terminals. Comply with requirements for identification specified in Section 260553 "Identification for Electrical Systems."

3.5 FIELD QUALITY CONTROL

- A. Perform the following tests and inspections:
  - 1. Operational Test: After installing luminaires, switches, and accessories, and after electrical circuitry has been energized, test units to confirm proper operation.
  - 2. Test for Emergency Lighting: Interrupt power supply to demonstrate proper operation. Verify transfer from normal power to battery power and retransfer to normal.
- B. Luminaire will be considered defective if it does not pass operation tests and inspections.
- C. Prepare test and inspection reports.

**END OF SECTION 26 51 19**

---

## SECTION 26 52 19 - EMERGENCY AND EXIT LIGHTING

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section Includes:
  - 1. Emergency lighting.
  - 2. Luminaire supports.

#### 1.3 DEFINITIONS

- A. CCT: Correlated color temperature.
- B. CRI: Color Rendering Index.
- C. Emergency Lighting Unit: A lighting unit with internal or external emergency battery powered supply and the means for controlling and charging the battery and unit operation.
- D. Fixture: See "Luminaire" Paragraph.
- E. Lumen: Measured output of lamp and luminaire, or both.
- F. Luminaire: Complete lighting unit, including lamp, reflector, and housing.

#### 1.4 ACTION SUBMITTALS

- A. Product Data: For each type of emergency lighting unit, exit sign, and emergency lighting support.
  - 1. Include data on features, accessories, and finishes.
  - 2. Include physical description of the unit and dimensions.
  - 3. Battery and charger for light units.
  - 4. Include life, output of luminaire (lumens, CCT, and CRI), and energy-efficiency data.
  - 5. Include photometric data and adjustment factors based on laboratory tests, complying with IES LM-45, for each luminaire type.
- B. Shop Drawings: For nonstandard or custom luminaires.
  - 1. Include plans, elevations, sections, and mounting and attachment details.

2. Include details of equipment assemblies. Indicate dimensions, weights, loads, required clearances, method of field assembly, components, and location and size of each field connection.
3. Include diagrams for power, signal, and control wiring.
4. Provide egress lighting photometric calculations for all spaces.

C. Product Schedule:

1. For emergency lighting units. Use same designations indicated on Drawings.

1.5 INFORMATIONAL SUBMITTALS

A. Seismic Qualification Data: For luminaires, accessories, and components, from manufacturer.

1. Basis for Certification: Indicate whether withstand certification is based on actual test of assembled components or on calculation.
2. Dimensioned Outline Drawings of Equipment Unit: Identify center of gravity and locate and describe mounting and anchorage provisions.
3. Detailed description of equipment anchorage devices on which the certification is based and their installation requirements.
4. Provide seismic qualification certificate for each piece of equipment.

B. Sample Warranty: For manufacturer's warranty.

1.6 CLOSEOUT SUBMITTALS

A. Operation and Maintenance Data: For luminaires and lighting systems to include in emergency, operation, and maintenance manuals.

1. Provide a list of all lamp types used on Project; use ANSI and manufacturers' codes.

1.7 QUALITY ASSURANCE

A. Luminaire Photometric Data Testing Laboratory Qualifications: Luminaire manufacturer's laboratory that is accredited under the National Volunteer Laboratory Accreditation Program for Energy Efficient Lighting Products.

1.8 DELIVERY, STORAGE, AND HANDLING

A. Protect finishes of exposed surfaces by applying a strippable, temporary protective covering before shipping.

1.9 WARRANTY

A. Warranty: Manufacturer and Installer agree to repair or replace components of luminaires that fail in materials or workmanship within specified warranty period.

1. Warranty Period: Two year(s) from date of Substantial Completion.

- B. Special Warranty for Emergency Lighting Batteries: Manufacturer's standard form in which manufacturer of battery-powered emergency lighting unit agrees to repair or replace components of rechargeable batteries that fail in materials or workmanship within specified warranty period.
  - 1. Warranty Period for Emergency Power Unit Batteries: Five years from date of Substantial Completion. Full warranty shall apply for first year and prorated warranty for the remaining four years.

## PART 2 - PRODUCTS

### 2.1 PERFORMANCE REQUIREMENTS

- A. Seismic Performance: Luminaires shall withstand the effects of earthquake motions determined according to ASCE/SEI 7

### 2.2 GENERAL REQUIREMENTS FOR EMERGENCY LIGHTING

- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- B. NRTL Compliance: Fabricate and label emergency lighting units and batteries to comply with UL 924.
- C. Comply with NFPA 70 and NFPA 101.
- D. Comply with NEMA LE 4 for recessed luminaires.
- E. Comply with UL 1598 for fluorescent luminaires.
- F. Internal Type Emergency Power Unit: Self-contained, modular, battery-inverter unit, factory mounted within luminaire body.
  - 1. Emergency Connection: Operate one lamp or driver continuously at its rated lumen output upon loss of normal power. Connect unswitched circuit to battery charging circuit and switched circuit to luminaire driver.
  - 2. Operation: Relay automatically turns lamp or driver on when power-supply circuit voltage drops to 80 percent of nominal voltage or below. Lamp or driver automatically disconnects from battery when voltage approaches deep-discharge level. When normal voltage is restored, relay disconnects lamps from battery, and battery is automatically recharged and floated on charger.
  - 3. Test Push-Button and Indicator Light: Visible and accessible without opening luminaire or entering ceiling space.
    - a. Push Button: Push-to-test type, in unit housing, simulates loss of normal power and demonstrates unit operability.
    - b. Indicator Light: LED indicates normal power on. Normal glow indicates trickle charge; bright glow indicates charging at end of discharge cycle.
  - 4. Battery: Sealed, maintenance-free.

5. Charger: Fully automatic, solid-state, constant-current type with sealed power transfer relay.

## 2.3 EMERGENCY LIGHTING

- A. General Requirements for Emergency Lighting Units: Self-contained units, or integral to lighting fixtures, as indicated on drawings.
- B. Emergency Luminaires:
  1. See drawings for basis of design fixture schedule.

## 2.4 MATERIALS

- A. Metal Parts:
  1. Free of burrs and sharp corners and edges.
  2. Sheet metal components shall be steel unless otherwise indicated.
  3. Form and support to prevent warping and sagging.
- B. Doors, Frames, and Other Internal Access:
  1. Smooth operating, free of light leakage under operating conditions.
  2. Designed to permit relamping without use of tools.
  3. Designed to prevent doors, frames, lenses, diffusers, and other components from falling accidentally during relamping and when secured in operating position.
- C. Conduit: Electrical metallic tubing minimum 3/4 inch (21 mm) in diameter.

## 2.5 METAL FINISHES

- A. Appearance of Finished Work: Noticeable variations in same piece are not acceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

## 2.6 LUMINAIRE SUPPORT COMPONENTS

- A. Comply with requirements in Section 260529 "Hangers and Supports for Electrical Systems" for channel and angle iron supports and nonmetallic channel and angle supports.
- B. Support Wires: ASTM A 641/A 641M, Class 3, soft temper, zinc-coated steel, 12 gage (2.68 mm)

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for conditions affecting performance of luminaires.

- B. Examine roughing-in for luminaire to verify actual locations of luminaire and electrical connections before luminaire installation.
- C. Examine walls, floors, roofs, and ceilings for suitable conditions where emergency lighting luminaires will be installed.
- D. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 INSTALLATION

- A. Comply with NECA 1.
- B. Install luminaires level, plumb, and square with ceilings and walls unless otherwise indicated.
- C. Install lamps in each luminaire (where applicable).
- D. Supports:
  - 1. Sized and rated for luminaire & emergency power unit weight.
  - 2. Able to maintain luminaire position when testing emergency power unit.
  - 3. Provide support for luminaire and emergency power unit without causing deflection of ceiling or wall.
  - 4. Luminaire-mounting devices shall be capable of supporting a horizontal force of 100 percent of luminaire and emergency power unit weight and vertical force of 400 percent of luminaire weight.
- E. Wall-Mounted Luminaire Support:
  - 1. Attached to structural members in walls
  - 2. Do not attach luminaires directly to gypsum board.
- F. Suspended Luminaire Support:
  - 1. Pendants and Rods: Where longer than 48 inches (1200 mm), brace to limit swinging.
  - 2. Stem-Mounted, Single-Unit Luminaires: Suspend with twin-stem hangers. Support with approved outlet box and accessories that hold stem and provide damping of luminaire oscillations. Support outlet box vertically to building structure using approved devices.
  - 3. Do not use ceiling grid as support for pendant luminaires. Connect support wires or rods to building structure.

### 3.3 IDENTIFICATION

- A. Identify system components, wiring, cabling, and terminals. Comply with requirements for identification specified in Section 260553 "Identification for Electrical Systems."

### 3.4 FIELD QUALITY CONTROL

- A. Perform the following tests and inspections:
  - 1. Test for Emergency Lighting: Interrupt power supply to demonstrate proper operation. Verify transfer from normal power to battery power and retransfer to normal.

- B. Luminaire will be considered defective if it does not pass operation tests and inspections.
- C. Prepare test and inspection reports.

### 3.5 STARTUP SERVICE

- A. Perform startup service:
  - 1. Charge batteries minimum of 24 hours and conduct one-hour discharge test.

### 3.6 ADJUSTING

- A. Adjustments: Within 12 months of date of Substantial Completion, provide on-site visit to do the following:
  - 1. Inspect all luminaires. Replace lamps, batteries, signs, or luminaires that are defective.
    - a. Parts and supplies shall be manufacturer's authorized replacement parts and supplies.
  - 2. Conduct short-duration tests on all emergency lighting.

**END OF SECTION 26 52 19**



---

## SECTION 265613 - LIGHTING POLES AND STANDARDS

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section Includes:
  - 1. Poles and accessories for support of luminaires.

#### 1.3 DEFINITIONS

- A. EPA: Equivalent projected area.
- B. Luminaire: Complete luminaire.
- C. Pole: Luminaire-supporting structure, including tower used for large-area illumination.
- D. Standard: See "Pole."

#### 1.4 ACTION SUBMITTALS

- A. Product Data: For each pole, accessory, and luminaire-supporting and -lowering device, arranged as indicated.
  - 1. Include data on construction details, profiles, EPA, cable entrances, materials, dimensions, weight, rated design load, and ultimate strength of individual components.
  - 2. Include finishes for lighting poles and luminaire-supporting devices.
  - 3. Anchor bolts.
  - 4. Manufactured pole foundations.
- B. Shop Drawings:
  - 1. Include plans, elevations, sections, and mounting and attachment details.
  - 2. Include details of equipment assemblies. Indicate dimensions, weights, loads, required clearances, method of field assembly, components, and location and size of each field connection.
  - 3. Detail fabrication and assembly of poles and pole accessories
  - 4. Foundation construction details, including material descriptions, dimensions, anchor bolts, support devices, and calculations, signed and sealed by a professional engineer licensed in the state of installation.
  - 5. Anchor bolt templates keyed to specific poles and certified by manufacturer.
  - 6. Method and procedure of pole installation. Include manufacturer's written installations.

1.5 INFORMATIONAL SUBMITTALS

- A. Pole and Support Component Certificates: Signed by manufacturers of poles, certifying that products are designed for indicated load requirements according to AASHTO LTS-6-M and that load imposed by luminaire and attachments has been included in design. The certification shall be based on design calculations signed and sealed by a professional engineer.
- B. Seismic Qualification Data: For poles, accessories, and components, from manufacturer.
  - 1. Basis for Certification: Indicate whether withstand certification is based on actual test of assembled components or on calculation.
  - 2. Dimensioned Outline Drawings of Equipment Unit: Identify center of gravity and locate and describe mounting and anchorage provisions.
  - 3. Detailed description of equipment anchorage devices on which the certification is based and their installation requirements.
- C. Material Test Reports:
  - 1. For each foundation component, by a qualified testing agency.
  - 2. For each pole, by a qualified testing agency.
- D. Source quality-control reports.
- E. Field quality-control reports.
- F. Sample Warranty: Manufacturer's standard warranty.
- G. Soil test reports

1.6 CLOSEOUT SUBMITTALS

- A. Operation and Maintenance Data: For poles, to include in emergency, operation, and maintenance manuals.
  - 1. In addition to items specified in Section 017823 "Operation and Maintenance Data," include pole inspection and repair procedures.

1.7 MAINTENANCE MATERIAL SUBMITTALS

- A. Pole repair materials.

1.8 DELIVERY, STORAGE, AND HANDLING

- A. Package aluminum poles for shipping according to ASTM B 660.
- B. Store poles on decay-resistant skids at least 12 inches (300 mm) above grade and vegetation. Support poles to prevent distortion and arrange to provide free air circulation.
- C. Retain factory-applied pole wrappings on metal poles until right before pole installation. Handle poles with web fabric straps.

1.9 WARRANTY

- A. Special Warranty: Manufacturer agrees to repair or replace components of pole(s) that fail in materials or workmanship; that corrode; or that fade, stain, perforate, erode, or chalk due to effects of weather or solar radiation within a specified warranty period. Manufacturer may exclude lightning damage, hail damage, vandalism, abuse, or unauthorized repairs from special warranty period.
1. Warranty Period: Five years from date of Substantial Completion.
  2. Warranty Period for Corrosion Resistance: Five years from date of Substantial Completion.
  3. Warranty Period for Color Retention: Five years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Seismic Performance: Foundation and pole shall withstand the effects of earthquake motions determined according to ASCE/SEI 7.
1. The term "withstand" means "the system will remain in place without separation of any parts when subjected to the seismic forces specified"
- B. Structural Characteristics: Comply with AASHTO LTS-6-M.
- C. Dead Load: Weight of luminaire and its horizontal and vertical supports, lowering devices, and supporting structure, applied according to AASHTO LTS-6-M.
- D. Live Load: Single load of 500 lbf (2200 N) distributed according to AASHTO LTS-6-M.
- E. Ice Load: Load of 3 lbf/sq. ft. (145 Pa), applied according to AASHTO LTS-6-M for applicable areas on the Ice Load Map.
- F. Wind Load: Pressure of wind on pole and luminaire, calculated and applied according to AASHTO LTS-6-M.
- G. Strength Analysis: For each pole, multiply the actual EPA of luminaires and brackets by a factor of 1.1 to obtain the EPA to be used in pole selection strength analysis.
- H. Luminaire Attachment Provisions: Comply with luminaire manufacturers' mounting requirements. Use stainless-steel fasteners and mounting bolts unless otherwise indicated.

2.2 ALUMINUM POLES

- A. Manufacturer:
1. Refer to lighting fixture schedule on drawings for the three acceptable manufacturers and model numbers for each fixture type. No substitutions will be accepted.
- B. Poles: Extruded structural tube complying with ASTM B 221, Alloy 6063-T6, with access handhole in pole wall.

- C. Mast Arms: Aluminum type, continuously welded to pole attachment plate. Material and finish same as plate.
- D. Brackets for Luminaires: Detachable, cantilever, without underbrace.
  - 1. Adaptor fitting welded to pole, allowing the bracket to be bolted to the pole-mounted adapter, then bolted together with stainless-steel bolts.
  - 2. Cross Section: Tapered oval, with straight tubular end section to accommodate luminaire. Match pole material and finish.
- E. Pole-Top Tenons: Fabricated to support luminaire or luminaires and brackets indicated, and securely fastened to pole top.
- F. Grounding and Bonding Lugs: Bolted 1/2-inch (13-mm) threaded lug, complying with requirements in Section 260526 "Grounding and Bonding for Electrical Systems," listed for attaching grounding and bonding conductors of type and size listed in that Section, and accessible through handhole.
- G. Fasteners: Stainless steel, size and type as determined by manufacturer. Corrosion-resistant items compatible with support components.
  - 1. Materials: Compatible with poles and standards as well as to substrates to which poles and standards are fastened and shall not cause galvanic action at contact points.
  - 2. Anchor Bolts, Leveling Nuts, Bolt Caps, and Washers: Hot-dip galvanized after fabrication unless otherwise indicated.
- H. Handhole: Oval shaped, with minimum clear opening of 2-1/2 by 5 inches (65 by 130 mm), with cover secured by stainless-steel captive screws.
- I. Finish: As indicated in lighting fixture schedule on drawings.

### 2.3 MOUNTING HARDWARE

- A. Anchor Bolts: Manufactured to ASTM F 1554, Grade 55, with a minimum yield strength of 55,000 psi (380,000 kPa).

Galvanizing: Hot dip galvanized according to ASTM A 153, Class C. Bent rods.
- B. Nuts: ASTM A 563, Grade A, Heavy-Hex
- C. Washers: ASTM F 436, Type 1.

### 2.4 GENERAL FINISH REQUIREMENTS

- A. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.
- B. Appearance of Finished Work: Noticeable variations in same piece are unacceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

---

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.
- B. Examine poles, luminaire-mounting devices, lowering devices, and pole accessories before installation. Components that are scratched, dented, marred, wet, moisture damaged, or visibly damaged are considered defective.
- C. Examine roughing-in for foundation and conduit to verify actual locations of installation.
- D. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 POLE FOUNDATION

- A. Pre-Cast Foundations: Factory fabricated, with structural steel complying with ASTM A 36/A 36M and hot-dip galvanized according to ASTM A 123/A 123M; and with top-plate and mounting bolts to match pole-base flange and strength required to support pole, luminaire, and accessories.
- B. Cast-in-place foundations are acceptable as an alternative, subject to the requirements for pre-cast foundations.
- C. Anchor Bolts: Install plumb using manufacturer-supplied steel template, uniformly spaced.

3.3 POLE INSTALLATION

- A. Alignment: Align pole foundations and poles for optimum directional alignment of luminaires and their mounting provisions on pole
- B. Clearances: Maintain the following minimum horizontal distances of poles from surface and underground features unless otherwise indicated on drawing.
  - 1. Fire Hydrants and Water Piping: 60 inches (1520 mm).
  - 2. Water, Gas, Electric, Communications, and Sewer Lines: 10 feet (3 m)
  - 3. Trees: 15 feet (5 m) from tree trunk.
- C. Concrete Pole Foundations: Set anchor bolts according to anchor-bolt templates furnished by pole manufacturer.
- D. Foundation-Mounted Poles: Mount pole with leveling nuts and tighten top nuts to torque level according to pole manufacturer's written instructions.
  - 1. Use anchor bolts and nuts selected to resist seismic forces defined for the application and approved by manufacturer.
  - 2. Grout void between pole base and foundation. Use nonshrink or expanding concrete grout firmly packed to fill space.
  - 3. Install base covers unless otherwise indicated.

4. Use a short piece of 1/2 -inch (13-mm) diameter pipe to make a drain hole through grout. Arrange to drain condensation from interior of pole.

E. Poles and Pole Foundations Set in Concrete-Paved Areas: Install poles with a minimum 6-inch- (150-mm-) wide, unpaved gap between the pole or pole foundation and the edge of the adjacent concrete slab. Fill unpaved ring with pea gravel. Insert material to a level 1 inch (25 mm) below top of concrete slab.

F. Raise and set pole using web fabric slings (not chain or cable) at locations indicated by manufacturer.

### 3.4 CORROSION PREVENTION

A. Aluminum: Do not use in contact with earth or concrete. When in direct contact with a dissimilar metal, protect aluminum using insulating fittings or treatment.

B. Steel Conduits: Comply with requirements in Section 260533 "Raceways and Boxes for Electrical Systems." In concrete foundations, wrap conduit with 0.010-inch- (0.254-mm-) thick, pipe-wrapping plastic tape applied with a 50-percent overlap.

### 3.5 GROUNDING

A. Ground Metal Poles and Support Structures: Comply with requirements in Section 260526 "Grounding and Bonding for Electrical Systems."

1. Install grounding electrode for each pole unless otherwise indicated.
2. Install grounding conductor pigtail in the base for connecting luminaire to grounding system.

### 3.6 IDENTIFICATION

A. Identify system components, wiring, cabling, and terminals. Comply with requirements for identification specified in Section 260553 "Identification for Electrical Systems."

### 3.7 FIELD QUALITY CONTROL

A. Special Inspections: Engage a qualified special inspector to perform the following special inspections:

1. Inspect poles for nicks, mars, dents, scratches, and other damage.
2. System function tests.

**END OF SECTION 26 56 13**

---

## SECTION 26 56 19 - EXTERIOR LIGHTING

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section Includes:

- 1. Exterior solid-state luminaires that are designed for and exclusively use LED lamp technology.
- 2. Luminaire supports.
- 3. Luminaire-mounted photoelectric relays.

- B. Related Requirements:

- 1. Section 260923 "Lighting Control Devices" for automatic control of lighting, including time switches, photoelectric relays, occupancy sensors, and multipole lighting relays and contactors.
- 2. Section 265613 "Lighting Poles and Standards" for poles and standards used to support exterior lighting equipment.

#### 1.3 DEFINITIONS

- A. CCT: Correlated color temperature.
- B. CRI: Color rendering index.
- C. Fixture: See "Luminaire."
- D. IP: International Protection or Ingress Protection Rating.
- E. Lumen: Measured output of lamp and luminaire, or both.
- F. Luminaire: Complete lighting unit, including lamp, reflector, and housing.

#### 1.4 ACTION SUBMITTALS

- A. Product Data: For each type of luminaire.

- 1. Arrange in order of luminaire designation.
- 2. Include data on features, accessories, and finishes.
- 3. Include physical description and dimensions of luminaire.
- 4. Lamps, include life, output (lumens, CCT, and CRI), and energy-efficiency data.

5. Photometric data and adjustment factors based on laboratory tests, complying with IES Lighting Measurements Testing and Calculation Guides, of each luminaire type. The adjustment factors shall be for lamps and accessories identical to those indicated for the luminaire as applied in this Project.
  - a. Manufacturer's Certified Data: Photometric data certified by manufacturer's laboratory with a current accreditation under the NVLAP for Energy Efficient Lighting Products
6. Wiring diagrams for power, control, and signal wiring.
7. Photoelectric relays.
8. Means of attaching luminaires to supports and indication that the attachment is suitable for components involved.

B. Shop Drawings: For nonstandard or custom luminaires.

1. Include plans, elevations, sections, and mounting and attachment details.
2. Include details of luminaire assemblies. Indicate dimensions, weights, loads, required clearances, method of field assembly, components, and location and size of each field connection.
3. Include diagrams for power, signal, and control wiring.

C. Product Schedule: For luminaires and lamps. Use same designations indicated on Drawings.

#### 1.5 INFORMATIONAL SUBMITTALS

A. Seismic Qualification Data: For luminaires, accessories, and components, from manufacturer.

1. Basis for Certification: Indicate whether withstand certification is based on actual test of assembled components or on calculation.
2. Dimensioned Outline Drawings of Equipment Unit: Identify center of gravity and locate and describe mounting and anchorage provisions.
3. Detailed description of equipment anchorage devices on which the certification is based and their installation requirements.

B. Product Certificates: For each type of the following:

1. Luminaire.
2. Photoelectric relay.

C. Product Test Reports: For each luminaire, for tests performed by manufacturer and witnessed by a qualified testing agency.

D. Source quality-control reports.

E. Sample warranty.

#### 1.6 CLOSEOUT SUBMITTALS

A. Operation and Maintenance Data: For luminaires and photoelectric relays to include in operation and maintenance manuals.



1. Provide a list of all lamp types used on Project. Use ANSI and manufacturers' codes.
2. Provide a list of all photoelectric relay types used on Project; use manufacturers' codes.

#### 1.7 QUALITY ASSURANCE

- A. Provide luminaires from a single manufacturer for each luminaire type.
- B. Each luminaire type shall be binned within a three-step MacAdam Ellipse to ensure color consistency among luminaires.
- C. Installer Qualifications: An authorized representative who is trained and approved by manufacturer.

#### 1.8 DELIVERY, STORAGE, AND HANDLING

- A. Protect finishes of exposed surfaces by applying a strippable, temporary protective covering prior to shipping.

#### 1.9 FIELD CONDITIONS

- A. Verify existing and proposed utility structures prior to the start of work associated with luminaire installation.
- B. Mark locations of exterior luminaires for approval by Architect prior to the start of luminaire installation.

#### 1.10 WARRANTY

- A. Warranty: Manufacturer and Installer agree to repair or replace components of luminaires that fail in materials or workmanship within specified warranty period.
  1. Failures include, but are not limited to, the following:
    - a. Structural failures, including luminaire support components.
    - b. Faulty operation of luminaires and accessories.
    - c. Deterioration of metals, metal finishes, and other materials beyond normal weathering.
  2. Warranty Period: 2 year(s) from date of Substantial Completion.

### PART 2 - PRODUCTS

#### 2.1 PRODUCTS

- A. Refer to lighting fixture schedule on drawings for the three acceptable manufacturers and model numbers for each fixture type. No substitutions will be accepted.

---

## 2.2 PERFORMANCE REQUIREMENTS

- A. Seismic Performance: Luminaires shall withstand the effects of earthquake motions determined according to ASCE 7.
- B. Lumen outputs and distribution patterns for fixtures other than the basis of design fixtures (supplied by Apex Lighting) shall be adjusted based on the results of the photometric calculations, in order to achieve light levels and uniformity ratios as specified in the IES (Illumination Engineering Society) guidebook. No additional compensation will be granted to obtain these values.

## 2.3 LUMINAIRE REQUIREMENTS

- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- B. NRTL Compliance: Luminaires shall be listed and labeled for indicated class and division of hazard by an NRTL.
- C. FM Global Compliance: Luminaires for hazardous locations shall be listed and labeled for indicated class and division of hazard by FM Global.
- D. UL Compliance: Comply with UL 1598 and listed for wet location where applicable.
- E. Internal driver.
- F. Nominal Operating Voltage: As indicated on drawings.
- G. Source Limitations: For luminaires, obtain each color, grade, finish, type, and variety of luminaire from single source with resources to provide products of consistent quality in appearance and physical properties.

## 2.4 LUMINAIRE-MOUNTED PHOTOELECTRIC RELAYS

- A. Comply with UL 773 or UL 773A.
- B. Contact Relays: Factory mounted, single throw, designed to fail in the on position, and factory set to turn light unit on at 1.5 to 3 fc (16 to 32 lx) and off at 4.5 to 10 fc (48 to 108 lx) with 15-second minimum time delay.
  - 1. Relay with locking-type receptacle shall comply with ANSI C136.10.
  - 2. Adjustable window slide for adjusting on-off set points.

## 2.5 MATERIALS

- A. Metal Parts: Free of burrs and sharp corners and edges.
- B. Doors, Frames, and Other Internal Access: Smooth operating, free of light leakage under operating conditions, and designed to permit relamping without use of tools. Designed to prevent doors, frames, lenses, diffusers, and other components from falling accidentally during

relamping and when secured in operating position. Doors shall be removable for cleaning or replacing lenses.

C. Diffusers and Globes:

1. Acrylic Diffusers: 100 percent virgin acrylic plastic, with high resistance to yellowing and other changes due to aging, exposure to heat, and UV radiation.
2. Glass: Annealed crystal glass unless otherwise indicated.
3. Lens Thickness: At least 0.125 inch (3.175 mm) minimum unless otherwise indicated.

D. Lens and Refractor Gaskets: Use heat- and aging-resistant resilient gaskets to seal and cushion lenses and refractors in luminaire doors.

E. Reflecting surfaces shall have minimum reflectance as follows unless otherwise indicated:

1. White Surfaces: 85 percent.
2. Specular Surfaces: 83 percent.
3. Diffusing Specular Surfaces: 75 percent.

F. Housings:

1. Rigidly formed, weather- and light-tight enclosure that will not warp, sag, or deform in use.
2. Provide filter/breather for enclosed luminaires.

G. Factory-Applied Labels: Comply with UL 1598. Include recommended lamps. Labels shall be located where they will be readily visible to service personnel, but not seen from normal viewing angles when lamps are in place.

1. Label shall include the following lamp characteristics:
  - a. "USE ONLY" and include specific lamp type.
  - b. Lamp diameter, shape, size, wattage and coating.
  - c. CCT and CRI for all luminaires.

## 2.6 FINISHES

A. Variations in Finishes: Noticeable variations in same piece are unacceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

B. Luminaire Finish: Manufacturer's standard paint applied to factory-assembled and -tested luminaire before shipping. Where indicated, match finish process and color of pole or support materials.

## 2.7 LUMINAIRE SUPPORT COMPONENTS

A. Comply with requirements in Section 260529 "Hangers and Supports for Electrical Systems" for channel and angle iron supports and nonmetallic channel and angle supports.

---

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.
- B. Examine roughing-in for luminaire electrical conduit to verify actual locations of conduit connections before luminaire installation.
- C. Examine walls, roofs, and canopy ceilings for suitable conditions where luminaires will be installed.
- D. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 GENERAL INSTALLATION REQUIREMENTS

- A. Comply with NECA 1.
- B. Use fastening methods and materials selected to resist seismic forces defined for the application and approved by manufacturer.
- C. Install lamps in each luminaire.
- D. Fasten luminaire to structural support.
- E. Supports:
  - 1. Sized and rated for luminaire weight.
  - 2. Able to maintain luminaire position after cleaning and relamping.
  - 3. Support luminaires without causing deflection of finished surface.
  - 4. Luminaire-mounting devices shall be capable of supporting a horizontal force of 100 percent of luminaire weight and a vertical force of 400 percent of luminaire weight.
- F. Wall-Mounted Luminaire Support:
  - 1. Attached to structural members in walls
- G. Wiring Method: Install cables in raceways. Conceal raceways and cables.
- H. Install luminaires level, plumb, and square with finished grade unless otherwise indicated.
- I. Coordinate layout and installation of luminaires with other construction.
- J. Adjust luminaires that require field adjustment or aiming. Include adjustment of photoelectric device to prevent false operation of relay by artificial light sources, favoring a north orientation.
- K. Comply with requirements in Section 260519 "Low-Voltage Electrical Power Conductors and Cables" and Section 260533 "Raceways and Boxes for Electrical Systems" for wiring connections and wiring methods.

---

### 3.3 INSTALLATION OF INDIVIDUAL GROUND-MOUNTED LUMINAIRES

- A. Aim as indicated on Drawings.
- B. Install on concrete base with top 36 inches (100 mm) above finished grade or surface at luminaire location. Cast conduit into base, and finish by troweling and rubbing smooth. Concrete materials, installation, and finishing are specified in Section 033000 "Cast-in-Place Concrete."

### 3.4 CORROSION PREVENTION

- A. Aluminum: Do not use in contact with earth or concrete. When in direct contact with a dissimilar metal, protect aluminum by insulating fittings or treatment.
- B. Steel Conduits: Comply with Section 260533 "Raceways and Boxes for Electrical Systems." In concrete foundations, wrap conduit with 0.010-inch- (0.254-mm-) thick, pipe-wrapping plastic tape applied with a 50 percent overlap.

### 3.5 IDENTIFICATION

- A. Identify system components, wiring, cabling, and terminals. Comply with requirements for identification specified in Section 260553 "Identification for Electrical Systems."

### 3.6 FIELD QUALITY CONTROL

- A. Inspect each installed luminaire for damage. Replace damaged luminaires and components.
- B. Perform the following tests and inspections:
  - 1. Operational Test: After installing luminaires, switches, and accessories, and after electrical circuitry has been energized, test units to confirm proper operation.
  - 2. Verify operation of photoelectric controls.
- C. Illumination Tests:
  - 1. Operational Test: After installing luminaires, switches, and accessories, and after electrical circuitry has been energized, test units to confirm proper operation.
- D. Luminaire will be considered defective if it does not pass tests and inspections.
- E. Prepare a written report of tests, inspections, observations, and verifications indicating and interpreting results. If adjustments are made to lighting system, retest to demonstrate compliance with standards.

### 3.7 DEMONSTRATION

- A. Train Owner's maintenance personnel to adjust, operate, and maintain luminaires and photocell relays.

3.8 ADJUSTING

- A. Occupancy Adjustments: When requested within 12 months of date of Substantial Completion, provide on-site assistance in adjusting the direction of aim of luminaires to suit occupied conditions. Make up to two visits to Project during other-than-normal hours for this purpose. Some of this work may be required during hours of darkness.
1. During adjustment visits, inspect all luminaires. Replace lamps or luminaires that are defective.
  2. Parts and supplies shall be manufacturer's authorized replacement parts and supplies.

**END OF SECTION 26 56 19**

# Section 50 10 00 Existing Conditions Information

# **Section 50 30 00 Hazardous Building Materials Inspection and Inventory**



**ASBESTOS BULK SAMPLE DATA**

**1985 - Present**

Wethersfield DMV Building, Wethersfield, CT

Date	Material	Location	% of Asbestos	Asbestos Type	Estimated Qty (in sq. ft.)
1/2/1985	pipe insulation	Boiler Room - H. B. Smith Boilers	40%	amosite	45
1/2/1985	pipe insulation	Boiler Room Stack	70%	chrysotile, amosite	427
1/2/1985	pipe insulation	Pipe maze on boiler room north side	50%	amosite	344
1/2/1985	pipe insulation	Attic	20%	chrysotile	20
1/2/1985	pipe insulation	Test Lane Building	20%	chrysotile	30
11/17/1992	tan vinyl floor tile	Room 145	18%	chrysotile	
11/17/1992	mastic associated with tan vinyl floor tile	Room 145	15%	chrysotile	
11/17/1992	maroon vinyl floor tile	Room 145	8%	chrysotile	
11/17/1992	mastic associated with maroon vinyl floor tile	Room 145	22%	chrysotile	
11/17/1992	suspended ceiling tile #1	Room 145	Less than 1%		
11/17/1992	suspended ceiling tile #2	Room 145	Less than 1%		
11/17/1992	wall plaster	Room 145	Less than 1%		
11/17/1992	wall plaster	Room 145	Less than 1%		
3/18/1997	gray patching cement	main roof - patch area on ductwork	5%		
3/18/1997	gray patching cement	main roof - patch area on ductwork	4%		
3/18/1997	gray patching cement	main roof - patch area on ductwork	3%		
3/18/1997	black patching cement	main roof - patch area on ductwork	6%		
3/18/1997	black patching cement	main roof - patch area on ductwork	8%		
3/18/1997	black patching cement	main roof - patch area on ductwork	6%		
3/18/1997	black flashing felt (top layer)	main roof - parapet wall	2%		
3/18/1997	black flashing felt (top layer)	main roof - parapet wall	2%		
3/18/1997	black flashing felt (top layer)	main roof - parapet wall	1%		
3/18/1997	gray flashing felt	main roof - base of roof hatchway	10%		
3/18/1997	gray flashing felt	main roof - base of roof hatchway	5%		

**ASBESTOS BULK SAMPLE DATA**  
**1985 - Present**  
 Wethersfield DMV Building, Wethersfield, CT

Date	Material	Location	% of Asbestos	Asbestos Type	Estimated Qty (in sq. ft.)
3/18/1997	gray flashing felt	main roof - base of chimney	8%		
3/18/1997	black flashing felt (bottom layer)	main roof - perimeter - parapet wall	5%		
3/18/1997	black flashing felt (bottom layer)	main roof - perimeter - parapet wall	1%		
3/18/1997	black flashing felt (bottom layer)	main roof - perimeter - parapet wall	6%		
3/18/1997	black tar	main roof - pitch box	10%		
3/18/1997	black tar	main roof - pitch box	12%		
3/18/1997	black tar	main roof - pitch box	10%		
3/18/1997	black felt paper	main roof - ductwork	5%		
3/18/1997	black felt paper	main roof - ductwork	4%		
3/18/1997	black felt paper	main roof - ductwork	6%		
3/18/1997	built-up roofing material (top layer)	main roof	Less than 1%		
3/18/1997	built-up roofing material (second layer)	main roof	Less than 1%		
3/18/1997	built-up roofing material (third layer)	main roof	Less than 1%		
3/18/1997	built-up roofing material (fourth layer)	main roof	Less than 1%		
3/18/1997	built-up roofing material (fifth layer)	main roof	Less than 1%		
3/18/1997	built-up roofing material (sixth layer)	main roof	Less than 1%		
3/18/1997	built-up roofing material (seventh layer)	main roof	Less than 1%		
3/18/1997	built-up roofing material (eighth layer)	main roof	Less than 1%		
3/18/1997	built-up roofing material (ninth layer)	main roof	Less than 1%		
3/18/1997	built-up roofing material (tenth layer)	main roof	Less than 1%		
3/18/1997	built-up roofing material (bottom layer)	main roof	Less than 1%		
3/18/1997	built-up roofing material (top layer)	main roof	Less than 1%		
3/18/1997	built-up roofing material (second layer)	main roof	Less than 1%		

**ASBESTOS BULK SAMPLE DATA**

**1985 - Present**

Wethersfield DMV Building, Wethersfield, CT

Date	Material	Location	% of Asbestos	Asbestos Type	Estimated Qty (in sq. ft.)
3/18/1997	built-up roofing material (third layer)	main roof	Less than 1%		
3/18/1997	built-up roofing material (fourth layer)	main roof	Less than 1%		
3/18/1997	built-up roofing material (fifth layer)	main roof	Less than 1%		
3/18/1997	built-up roofing material (sixth layer)	main roof	Less than 1%		
3/18/1997	built-up roofing material (seventh layer)	main roof	Less than 1%		
3/18/1997	built-up roofing material (eighth layer)	main roof	Less than 1%		
3/18/1997	built-up roofing material (ninth layer)	main roof	Less than 1%		
3/18/1997	built-up roofing material (tenth layer)	main roof	Less than 1%		
3/18/1997	built-up roofing material (bottom layer)	main roof	Less than 1%		
3/18/1997	built-up roofing material (top layer)	main roof	Less than 1%		
3/18/1997	built-up roofing material (second layer)	main roof	Less than 1%		
3/18/1997	built-up roofing material (third layer)	main roof	Less than 1%		
3/18/1997	built-up roofing material (fourth layer)	main roof	Less than 1%		
3/18/1997	built-up roofing material (fifth layer)	main roof	Less than 1%		
3/18/1997	built-up roofing material (sixth layer)	main roof	Less than 1%		
3/18/1997	built-up roofing material (seventh layer)	main roof	Less than 1%		
3/18/1997	built-up roofing material (eighth layer)	main roof	Less than 1%		
3/18/1997	built-up roofing material (ninth layer)	main roof	Less than 1%		
3/18/1997	built-up roofing material (tenth layer)	main roof	Less than 1%		
3/18/1997	built-up roofing material (bottom layer)	main roof	Less than 1%		
3/18/1997	gray patching cement	main roof - patch area	Less than 1%		
3/18/1997	gray patching cement	main roof - patch area	Less than 1%		
3/18/1997	gray patching cement	main roof - patch area	Less than 1%		

**ASBESTOS BULK SAMPLE DATA**  
**1985 - Present**  
 Wethersfield DMV Building, Wethersfield, CT

Date	Material	Location	% of Asbestos	Asbestos Type	Estimated Qty (in sq. ft.)
3/18/1997	gray flashing paper	main roof - perimeter	Less than 1%		
3/18/1997	gray flashing paper	main roof - perimeter	Less than 1%		
3/18/1997	gray flashing paper	main roof - perimeter	3%		
6/26/1997	9x9 vinyl floor tile tan	Room 129	36%		
6/26/1997	flooring mastic under 9" tan floor tile	Room 129	10%		
6/26/1997	flooring mastic under 9" tan floor tile	Room 241A	7%		
6/26/1997	flooring mastic under 9" tan floor tile	Room 305A	7%		
6/26/1997	9" x 9" vinyl floor tile dark brown border to tan	Room 117B - entrance	Less than 1%		
6/26/1997	9" x 9" vinyl floor tile cream	Room 118 - hallway outside	25%		
6/26/1997	flooring mastic under 9" cream floor tile	Room 118 - hallway outside	5%		
6/26/1997	flooring mastic under 9" cream floor tile	Room 102 - hallway outside	15%		
6/26/1997	flooring mastic under 9" cream floor tile	Room 170 - hallway outside	15%		
6/26/1997	9" x 9" vinyl floor tile	Room 329 - hallway outside	40%		
6/26/1997	flooring mastic under 9" ivory floor tile	Room 329 - hallway outside	5%		
6/26/1997	flooring mastic under 9" ivory floor tile	Stair #2 - hallway outside	10%		
6/26/1997	flooring mastic under 9" ivory floor tile	Room 232 - hallway outside	10%		
6/26/1997	9" x 9" vinyl floor tile - gray border to cream/ivory	Ladies Room - hallway outside	39%		
6/26/1997	12" x 12" vinyl floor tile - white	cafeteria - first floor	Less than 1%		
6/26/1997	flooring mastic under 12" white floor tile	cafeteria - first floor	7%		
6/26/1997	flooring mastic under 12" white floor tile	Room 248A	3%		
6/26/1997	flooring mastic under 12" white floor tile	Room 248B	5%		
6/26/1997	9" x 9" vinyl floor tile - light brown	Room 115	Less than 1%		

**ASBESTOS BULK SAMPLE DATA**

**1985 - Present**

Wethersfield DMV Building, Wethersfield, CT

Date	Material	Location	% of Asbestos	Asbestos Type	Estimated Qty (in sq. ft.)
6/26/1997	flooring mastic under 9" light brown tile	Room 115	Less than 1%		
6/26/1997	flooring mastic under 9" light brown tile	Room 115	3%		
6/26/1997	flooring mastic under 9" light brown tile	Room 115	2%		
6/26/1997	wall plaster	Room 104	Less than 1%		
6/26/1997	wall plaster	Men's Room	Less than 1%		
6/26/1997	wall plaster	Room 170	Less than 1%		
6/26/1997	wall plaster	Men's Room next to Stair #2	Less than 1%		
6/26/1997	wall plaster	Room 256	Less than 1%		
6/26/1997	wall plaster	Room 325 - hallway outside	Less than 1%		
6/26/1997	wall plaster	Room 305	Less than 1%		
6/26/1997	ceiling plaster	Stairwell #1	Less than 1%		
6/26/1997	ceiling plaster	Stairwell #1	Less than 1%		
6/26/1997	ceiling plaster	Stairwell #2	Less than 1%		
6/26/1997	ceiling plaster	Stairwell #2	Less than 1%		
6/26/1997	ceiling plaster	Foyer - 2nd floor	Less than 1%		
6/26/1997	ceiling plaster	Stairwell #4	Less than 1%		
6/26/1997	ceiling plaster	Stairwell #4	Less than 1%		
6/26/1997	sheetrock	Room 129A	Less than 1%		
6/26/1997	sheetrock	Room 239B	Less than 1%		
6/26/1997	sheetrock	Room 241B	Less than 1%		
6/26/1997	sheetrock	Room 248	Less than 1%		
6/26/1997	sheetrock	Room 102B	Less than 1%		
6/26/1997	sheetrock	Corporate/Public Relations	Less than 1%		

**ASBESTOS BULK SAMPLE DATA**  
**1985 - Present**  
 Wethersfield DMV Building, Wethersfield, CT

Date	Material	Location	% of Asbestos	Asbestos Type	Estimated Qty (in sq. ft.)
6/26/1997	sheetrock	Room 309	Less than 1%		
6/26/1997	sheetrock joint compound	Room 129A	Less than 1%		
6/26/1997	sheetrock joint compound	Room 102B	Less than 1%		
6/26/1997	sheetrock joint compound	Room 239E	Less than 1%		
6/26/1997	sheetrock joint compound	Room 256	Less than 1%		
6/26/1997	sheetrock joint compound	Room 239B	Less than 1%		
6/26/1997	pipe joint insulation - mudded	Penthouse	10%		
6/26/1997	pipe joint insulation - mudded	Penthouse	15%		
6/26/1997	pipe joint insulation - mudded	Room 331	10%		
6/26/1997	pipe joint insulation - mudded	Room 322	10%		
6/26/1997	pipe joint insulation - mudded	Room 224	10%		
6/26/1997	pipe joint insulation - mudded	Room 129	40%		
6/26/1997	pipe joint insulation - mudded	Loading Dock - first floor	15%		
6/26/1997	pipe hanger insulation - mudded	Room 117A - hallway outside	10%		
6/26/1997	pipe hanger insulation - mudded	Boiler Room - hallway outside	10%		
6/26/1997	pipe hanger insulation - mudded	Room 102A - hallway outside	15%		
6/26/1997	roof drain insulation - mudded	Room 323, Room 327, Room 329	10%		
6/26/1997	roof drain insulation - mudded	Room 325A, hallway outside	15%		
6/26/1997	roof drain insulation - mudded	Room 307, hallway outside	10%		
6/26/1997	carpet glue - pink	Room 231	Less than 1%		
6/26/1997	carpet glue - pink	Room 229	Less than 1%		
6/26/1997	carpet glue - pink	Room 226	Less than 1%		
6/26/1997	carpet glue - purple	Room 104	Less than 1%		

**ASBESTOS BULK SAMPLE DATA**  
**1985 - Present**  
 Wethersfield DMV Building, Wethersfield, CT

Date	Material	Location	% of Asbestos	Asbestos Type	Estimated Qty (in sq. ft.)
6/26/1997	carpet glue - purple	Room 104	Less than 1%		
6/26/1997	carpet glue - purple	Room 117	Less than 1%		
6/26/1997	carpet glue - magenta	Vault - second floor	Less than 1%		
6/26/1997	carpet glue - magenta	Room 262	Less than 1%		
6/26/1997	carpet glue - magenta	Room 323, Room 327, Room 329	Less than 1%		
6/26/1997	carpet glue - blue	Room 102	2%		
6/26/1997	carpet glue - blue	Room 170	2%		
6/26/1997	carpet glue - blue	Room 248	3%		
6/26/1997	carpet glue - green	Room 102A	5%		
6/26/1997	carpet glue - green	Room 102A	5%		
6/26/1997	carpet glue - green	Room 102A	5%		
6/26/1997	carpet glue - aqua	Room 224	Less than 1%		
6/26/1997	carpet glue - aqua	Room 224	Less than 1%		
6/26/1997	carpet glue - aqua	Room 224	Less than 1%		
6/26/1997	window glazing	Room 145D	Less than 1%		
6/26/1997	window glazing	Room 170A	Less than 1%		
6/26/1997	window glazing	Room 103B	Less than 1%		
6/26/1997	transite-like window sill	Men's Room next to Stair #2	Less than 1%		
6/26/1997	transite-like window sill	Room 341	Less than 1%		
6/26/1997	transite-like window sill	Room 103B	Less than 1%		
5/3/2004	2' x 4' suspended ceiling tile - type I	3rd floor - Room 340	Less than 1%		
5/3/2004	2' x 4' suspended ceiling tile - type I	3rd floor - Room 340	Less than 1%		
5/3/2004	carpet glue	3rd floor - Room 340	Less than 1%		

**ASBESTOS BULK SAMPLE DATA**

**1985 - Present**

Wethersfield DMV Building, Wethersfield, CT

Date	Material	Location	% of Asbestos	Asbestos Type	Estimated Qty (in sq. ft.)
5/3/2004	carpet glue	3rd floor - Room 340	Less than 1%		
5/3/2004	9" x 9" vinyl floor tile	3rd floor - Room 340	4%		
5/3/2004	9" x 9" vinyl floor tile	3rd floor - Room 340	8%		
5/3/2004	blackmastic - under 9" x 9" vinyl floor tile	3rd floor - Room 340	12%		
5/3/2004	blackmastic - under 9" x 9" vinyl floor tile	3rd floor - Room 340	6%		
5/3/2004	4" black cove base molding	3rd floor - Room 341	Less than 1%		
5/3/2004	4" black cove base molding	3rd floor - Room 340	Less than 1%		
5/3/2004	glue - under 4" black cove base molding	3rd floor - Room 341	Less than 1%		
5/3/2004	glue - under 4" black cove base molding	3rd floor - Room 340	Less than 1%		
5/3/2004	6" black covebase molding	3rd floor - Room 340	Less than 1%		
5/3/2004	6" black covebase molding	3rd floor - Room 340	Less than 1%		
5/3/2004	glue - under 6" black cove base molding	3rd floor - Room 340	Less than 1%		
5/3/2004	glue - under 6" black cove base molding	3rd floor - Room 340	Less than 1%		
5/3/2004	2' x 4' suspended ceiling tile - type II red backing	3rd floor - Room 341	Less than 1%		
5/3/2004	2' x 4' suspended ceiling tile - type II red backing	3rd floor - Room 341	Less than 1%		
3/2/2005	Black cove base	Room 309	Less than 1%		
3/2/2005	Brown cove base glue	Room 309	Less than 1%		
3/2/2005	Black mastic under carpet	Room 309	3%	chrysotile	144
3/2/2005	Carpet glue	Room 309	3%	chrysotile	144
3/2/2005	Black mastic under carpet	Room 320	5%	chrysotile	256
3/2/2005	9x9 brown vinyl floor tile	Room 320	5%	chrysotile	256
3/2/2005	transite wall	Room 309	20%	chrysotile	140
3/2/2005	sheetrock and joint compound	Room 309	Less than 1%		
3/2/2005	sheetrock and joint compound	Room 309	Less than 1%		



**ASBESTOS BULK SAMPLE DATA**  
**1985 - Present**  
 Wethersfield DMV Building, Wethersfield, CT

Date	Material	Location	% of Asbestos	Asbestos Type	Estimated Qty (in sq. ft.)
3/2/2005	sheetrock and joint compound	Room 309	Less than 1%		
5/16/2005	Sheetrock & joint compound	Public Room	Less than 1%		
5/16/2005	sheetrock & joint compound	Public Room	Less than 1%		
5/16/2005	sheetrock & joint compound	Public Room	Less than 1%		
5/16/2005	black mastic	Public Room	10%	chrysotile	900
5/16/2005	carpet glue	Room 2	Less than 1%		
5/16/2005	12" x 12" white floor tile & mastic	Room 1	3%	chrysotile	160
5/16/2005	12" x 12" beige floor tile & mastic	Room 2	3%	chrysotile	100
5/16/2005	black floor tile & mastic	Room 2 (B-side - 1" strip)	Less than 1%		
5/16/2005	black flooring material	Room 2 (B-side - 1" strip)	Less than 1%		
5/16/2005	black cove base & associated glues	Public Room	Less than 1%		
5/16/2005	wood framing glue	Room 2 - wood framing	Less than 1%		
5/16/2005	white levelastic	Public Room (entrance to Room 1)	Less than 1%		
5/16/2005	red levelastic	Public Room	Less than 1%		
11/8/2007	skim coat & plaser	Room 305	Less than 1%		
11/8/2007	skim coat & plaser	Hallway outside bathrooms	Less than 1%		
11/8/2007	skim coat & plaser	Room 329	Less than 1%		
11/8/2007	white join compound & tan sheetrock	Room 305	Less than 1%		
11/8/2007	white join compound & tan sheetrock	Room 329	Less than 1%		
11/8/2007	2' x 4' pinhole suspended ceiling tile	Room 305	Less than 1%		
11/8/2007	2' x 4' pinhole suspended ceiling tile	Room 329	Less than 1%		
11/8/2007	2' x 4' pinhole / crevice suspended ceiling tile	Room 305	Less than 1%		
11/8/2007	2' x 4' pinhole / crevice suspended ceiling tile	Room 329	Less than 1%		
11/8/2007	2' x 4; small & large pinhole ceiling tile	Hallway outside bathrooms	Less than 1%		
11/8/2007	9" x 9" tan floor tile & mastic	Room 305	10%		24800

**ASBESTOS BULK SAMPLE DATA**  
**1985 - Present**  
 Wethersfield DMV Building, Wethersfield, CT

Date	Material	Location	% of Asbestos	Asbestos Type	Estimated Qty (in sq. ft.)
11/8/2007	9" x 9" tan floor tile & mastic	Room 329	10%		24800
11/8/2007	9" x 9" brown floor tile & mastic	Room 301	10%		250
11/8/2007	9" x 9" dark gray floor tile & mastic	3rd floor - north/south hallway (perimeter)	10%		2350
11/8/2007	9" x 9" white floor tile & mastic	3rd floor - north/south hallway (center)	10%		2350
11/8/2007	Black cove base & glue	Room 305	Less than 1%		
11/8/2007	Black cove base & glue	Room 329	Less than 1%		
11/8/2007	brittle black cove base & glue	Room 305	Less than 1%		
11/8/2007	6" black cove base & glue	3rd floor - north/south hallway	Less than 1%		
11/8/2007	6" brown cove base & glue	3rd floor - east/west hallway	Less than 1%		
11/8/2007	gray linoleum & glue	Room 329 (lobby)	3%		375
11/8/2007	gummy yellow carpet glue	Room 305	Less than 1%		
11/8/2007	brittle yellow carpet glue	Room 329	Less than 1%		
11/8/2007	old black cove base glue	Room 305	2.65%		820