**NOTES TO ARCHITECT/ENGINEER (A/E) & DAS/CS PROJECT MANAGER:**

This version of the Division 01 General Requirements is for **ALL** CT Department of Administrative Services (DAS) Construction Services (CS) **Design-Bid-Build (DBB) AND Construction Manager at Risk (CMR) Capital Construction Projects.**

IMPORTANT NOTE: Section 01 75 00 Starting and Adjusting includes detailed procedural requirements for building system start up and system demonstration. Provide direct reference to individual product specification sections. Revise paragraphs carefully to reflect specific project requirements, or delete them if they do not apply.

**EDITING:** To Show the Editing Notes in this MS Word document the show/hide symbol (¶) button must be must turned on in the MS Word Toolbar. To print this document show/hide symbol (¶) must be turned off in the MS Word Toolbar, this will enable the document to indicate the correct number of total pages.

**TEXT:** The below **blue text** are project specific information that must be completed by the A/E as applicable to the specific project. When complete change **blue text** to **black text.** The ***bold and italicized text*** is for example purposes only and must be modified and edited by the A/E to make it project specific. For **text boxes**, left click on **Insert** and then insert project specific information over the word **Insert** in the underlined space.

**TABLES:** To view the Table Grid in this MS Word document, click inside any table, then go to the **Table Tools > Layout** tab, **Table** group, and click **View Gridlines.**

**HEADERS: The header** for each page of the Project Manual shall match the format, font (Arial), size (9 pt), font style (BOLD & CAPITALIZED) and line borders, of the header shown herein. The header of each page shall contain the Section Number, the Section Title, and the page number & number of pages as shown herein.

**FOOTERS: The footer** for each page of the Project Manual shall match the format, font (Arial), size (9 pt), font style (BOLD & CAPITALIZED) and line borders, of the footer shown herein. The footer shall contain the project number in the right hand side as shown herein. The revision date in the left side of the footer is to remain as it is for Department informational purposes only and should not be altered by the Architect/Engineer.

**SECTIONS AND PARAGRAPHS:** If a **Section** is not part of the project scope, **do not use** the Section in the General Requirements. Check “**NOT USED**” in the Table of Contents. **DO NOT delete** the Section title from the Table of Contents.

If a **Paragraph** is not applicable to the project, **delete the contents** of the Paragraph and renumber the subsequent Paragraphs. Edit **Paragraphs** carefully to reflect specific project requirements. DO NOT include Paragraphs or parts of Paragraphs in the project manual, which have no applicability to the specific project. KEEP IN NUMERICAL SEQUENCE and re-number as necessary.

**GENERAL CONDITIONS:** Please review the General Conditions carefully and coordinate the requirements of those Articles including the Definitions.

**DIVISION 01 SECTIONS** are the organizational key of the Project Manual. All revisions to this Division are the responsibility of the A/E. Division 01 must be closely coordinated with Division 00, Divisions 02 through 49, Division 50 (Project-Specific Available Information), the Drawings, and the Department’s Consultant Bid Data Statement (Form 6005, to be filled out by the A/E for bidding).

**IMPORTANT NOTE REGARDING “HIDDEN TEXT”:**

Each document contains Editing Notes in the form of “hidden text”. The Editing Notes assist the Architect in modifying and editing the document to make it project-specific. In order to show the “hidden text”, click the **Home** tab, and in the **Paragraph** group, click the **Show/Hide** symbol (¶). **Turn off** the Show/Hide symbol (¶) **before printing the document** in order to indicate the correct number of pages. **DELETE THIS NOTE.**

**IMPORTANT NOTE REGARDING FORMATTING:**

Insert a blank page at the end of all *odd numbered* specification sections that states “THIS PAGE INTENTIONALLY LEFT BLANK”. **DELETE THIS NOTE.**

# PART 1 - GENERAL

## 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.

## SUMMARY

### This Section includes administrative and procedural requirements for handling requests for building system start up and system demonstration and includes the following:

NOTE: Edit the following listing depending on whether the relevant article is contained within the final edited section or not

#### Starting Systems.

#### Demonstration and instructions.

#### Testing, adjusting, and balancing.

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

#### Division 01 Section 01 45 00 "Quality Control" specifies quality assurance and inspecting services.

NOTE: Edit the following references if the Sections below are included in this project.

#### Division 01 Section 01 77 00 "Closeout Procedures" specifies requirements for contract close out requirements for system operation and maintenance data and extra materials.

#### Division 01, Section 01 91 00 "Commissioning" specifies process requirements for system commissioning.

#### Division 23, Section 23 08 00 "Commissioning of HVAC" specifies requirements HVAC&R system commissioning.

## STARTING SYSTEMS

### Coordinate schedule for start-up of various equipment and systems.

NOTE: Insert the required number of day for notification prior to start-up of any systems.

### Provide written notification to the Construction Administrator **30 days** prior to start-up of each item.

### 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.

### Verify that tests, meter readings, and specified electrical characteristics agree with those required by the equipment or system manufacturer.

### Verify that wiring and support components are complete and tested.

NOTE Include paragraphs below if it is considered an advantage of requiring the contractor to have the manufacturers field services in relationship to scope and complexity of project. Edit or delete paragraphs that are not applicable to project.

### Execute the start-up under supervision of manufacturer’s representative, in accordance with manufacturer’s instructions.

### 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.

NOTE Section 01 45 00 “Quality Control” describes administrative procedures associated with the following paragraph.

### 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.

## DEMONSTRATION AND INSTRUCTIONS

NOTE: Revise subparagraph below if necessary to allow more or less time to than the 14 days notification specified.

### Demonstrate operation and maintenance of Products to Owner and Agency Personnel **fourteen (14)** days prior to substantial completion.

NOTE: Revise any requirements in paragraph below for special classroom instruction as appropriate for project.

### 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.

NOTE: Revise subparagraph below if necessary to allow more or less time to than the 6 months notification specified.

### For equipment or systems requiring seasonal operation perform demonstration for season within **six (6)** months.

### 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.

### 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.

### Prepare and insert additional data in operations and maintenance manuals when need for additional data becomes apparent during demonstration.

### 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.

## TESTING, ADJUSTING, AND BALANCING

NOTE: Consider adding special requirements that exceed those specified. Possibilities include videocassette recordings for instruction of the owner's personnel.

### 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 01 Section 01 91 00 "Commissioning" as they relate to the Work of this Section.

### 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.

### 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