

CONTRACT DATA REQUIREMENTS LIST
(1 DATA ITEM)

FORM APPROVED OMB
No. 0704-0188

A. CONTRACT LINE ITEM No. 0004, 1004, 2004, 3004, 4004
 B. EXHIBIT
 C. CATEGORY TDP TM OTHER (CONTRACT BASE AWARD)

D. SYSTEM / ITEM: POWER SYSTEMS INSTALLATION PROGRAM MANAGEMENT
 E. CONTRACT / PR No.
 F. CONTRACTOR

1. DATA ITEM No. M001
 2. TITLE OF DATA ITEM: PROGRAM PLAN
 3. SUBTITLE OF DATA ITEM: N/A

4. AUTHORITY (DATA ACQUISITION DOCUMENT No.)
 5. CONTRACT REFERENCE: SECTION-C, SOW, PARA., 3.1.1
 6. REQUIRING OFFICE: NAS POWER SERVICES GROUP, TECHNICAL OPERATIONS SERVICE

7. DD 250 REQUIRED: N/A
 8. APP CODE
 9. DIST STATEMENT REQUIRED: NONE
 10. FREQUENCY: ONE TIME

11. AS OF DATE
 12. DATE OF FIRST SUBMISSION: SEE BLOCK 16
 13. DATE OF SUBSEQUENT SUBMISSION: SEE BLOCK 16

DISTRIBUTION

A. ADDRESSEE	B. COPIES			A. ADDRESSEE	B. COPIES		
	DRAFT	REG	FINAL REPRO		DRAFT	REG	FINAL REPRO
NAS POWER			1				
AMQ - 240			1				
(A) TOTAL →	0	0	2	(B) TOTAL →			
15 TOTAL OF A & B →				2			

16. REMARKS:
 BLOCK 12 - THE CONTRACTOR SHALL SUBMIT THE PROGRAM PLAN 10 CALENDAR DAYS FOLLOWING RECEIPT OF DELIVERY ORDER.
 BLOCK 13 - THE CONTRACTOR SHALL UPDATE AND SUBMIT THE PROGRAM PLAN AS REVISIONS TO THE PROGRAM MANAGEMENT STRUCTURE OCCUR.
 BLOCK 14B - REPO MEANS EMAILED SOFT COPY.

G. PREPARED BY: RALPH LUND, NAS POWER SERVICES GROUP
 H. DATE: 5/5/08
 I. APPROVED BY: RUSSELL GREEN, NAS POWER SERVICES GROUP
 J. DATE: 5/5/08

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A. CONTRACT LINE ITEM No. 0004, 1004, 2004, 3004, 4004
 B. EXHIBIT
 C. CATEGORY TDP TM OTHER (CONTRACT BASE AWARD)

D. SYSTEM / ITEM: POWER SYSTEMS INSTALLATION PROGRAM MANAGEMENT
 E. CONTRACT / PR No.
 F. CONTRACTOR

1. DATA ITEM No. M002
 2. TITLE OF DATA ITEM: PROGRAM MANAGEMENT REPORT
 3. SUBTITLE OF DATA ITEM: N/A

4. AUTHORITY (DATA ACQUISITION DOCUMENT No.)
 5. CONTRACT REFERENCE: SECTION-C, SOW, PARA. 3.1.2
 6. REQUIRING OFFICE: NAS POWER SERVICES GROUP, TECHNICAL OPERATIONS SERVICE

7. DD 250 REQUIRED: N/A
 8. APP CODE
 9. DIST STATEMENT REQUIRED: NONE
 10. FREQUENCY: QUARTERLY

11. AS OF DATE: SEE BLOCK 16
 12. DATE OF FIRST SUBMISSION: SEE BLOCK 16
 13. DATE OF SUBSEQUENT SUBMISSION: SEE BLOCK 16

DISTRIBUTION

A. ADDRESSEE	B. COPIES			A. ADDRESSEE	B. COPIES		
	DRAFT	REG	FINAL REPRO		DRAFT	REG	FINAL REPRO
NAS POWER			1				
AMQ - 240			1				
(A) TOTAL →	0	0	2	(B) TOTAL →			

(5) TOTAL OF A & B → 2

16. REMARKS:

BLOCK 12 - THE CONTRACTOR SHALL SUBMIT THE PROGRAM MANAGEMENT REPORT NOT LATER THAN 30 CALENDAR DAYS FOLLOWING THE FIRST TASK OR DELIVERY ORDER.

BLOCK 13 - THE CONTRACTOR SHALL UPDATE AND SUBMIT THE PROGRAM MANAGEMENT REPORT AT LEAST ONCE EVERY QUARTER UNLESS OTHERWISE DIRECTED BY THE GOVERNMENT.

BLOCK 14B - REPO MEANS EMAILED SOFT COPY.

G. PREPARED BY: RALPH LUND, NAS POWER SERVICES GROUP
 H. DATE: 5/5/08
 I. APPROVED BY: RUSSELL GREEN, NAS POWER SERVICES GROUP
 J. DATE: 5/5/08

CONTRACT DATA REQUIREMENTS LIST
(1 DATA ITEM)

FORM APPROVED OMB
No. 0704-0188

A. CONTRACT LINE ITEM NO. 0001, 1001, 2001, 3001, 4001		B. EXHIBIT A	C. CATEGORY <input type="checkbox"/> TDP <input type="checkbox"/> TM <input checked="" type="checkbox"/> OTHER (CONTRACT BASE AWARD)		
D. SYSTEM / ITEM Power Equipment Installation		E. CONTRACT / PR NO.		F. CONTRACTOR	
1. DATA ITEM NO. E001	2. TITLE OF DATA ITEM SITE SURVEY REPORT		3. SUBTITLE OF DATA ITEM N/A		
4. AUTHORITY (DATA ACQUISITION DOCUMENT No.)		5. CONTRACT REFERENCE SECTION-C, SOW, PARA. 3.2.5		6. REQUIRING OFFICE NAS POWER SERVICES GROUP, TECHNICAL OPERATIONS SERVICE	
7. DD 250 REQUIRED NONE		8. APP CODE		9. DIST STATEMENT REQUIRED NONE	
				10. FREQUENCY SEE BLOCK 16	
11. AS OF DATE N/A		12. DATE OF FIRST SUBMISSION SEE BLOCK 16		13. DATE OF SUBSEQUENT SUBMISSION SEE BLOCK 16	

DISTRIBUTION

A. ADDRESSEE	B. COPIES			A. ADDRESSEE	B. COPIES		
	DRAFT	REG	FINAL REPRO		DRAFT	REG	FINAL REPRO
NAS POWER		0	1				
AMQ - 240		0	1				
(A) TOTAL →	0	0	2	(B) TOTAL →			
15. TOTAL OF A & B →				14.			

16. REMARKS:
BLOCK 10, 11, 12, 13- THE CONTRACTOR SHALL PROVIDE SITE SURVEY REPORT FOR EACH SITE AS DIRECTED IN THE DELIVERY ORDER.

BLOCK 14B - REPO MEANS SOFT COPY "ELECTRONIC MEDIA" SENT BY EMAIL.

17. PRICE GROUP:		18. ESTIMATED TOTAL PRICE:	
G. PREPARED BY RALPH LUND, NAS POWER SERVICES GROUP	H. DATE 5/5/08	I. APPROVED BY RUSSELL GREEN, NAS POWER SERVICES GROUP	J. DATE 5/5/08

CONTRACT DATA REQUIREMENTS LIST
(1 DATA ITEM)

FORM APPROVED OMB
No. 0704-0188

A. CONTRACT LINE ITEM No. 0002, 1002, 2002, 3002, 4002		B. EXHIBIT A	C. CATEGORY <input type="checkbox"/> TDP <input type="checkbox"/> TM <input checked="" type="checkbox"/> OTHER (CONTRACT BASE AWARD)	
D. SYSTEM / ITEM Power Equipment Installation		E. CONTRACT / PR NO.		F. CONTRACTOR
1. DATA ITEM No. E002	2. TITLE OF DATA ITEM ENGINEERING DESIGN DOCUMENTS		3. SUBTITLE OF DATA ITEM N/A	
4. AUTHORITY (DATA ACQUISITION DOCUMENT No.)		5. CONTRACT REFERENCE SECTION-C, SOW, PARA. 3.2.6		6. REQUIRING OFFICE NAS POWER SERVICES GROUP, TECHNICAL OPERATIONS SERVICE
7. DD 250 REQUIRED NONE	8. APP CODE		9. DIST STATEMENT REQUIRED NONE	10. FREQUENCY SEE BLOCK 16
11. AS OF DATE N/A		12. DATE OF FIRST SUBMISSION SEE BLOCK 16		13. DATE OF SUBSEQUENT SUBMISSION SEE BLOCK 16

DISTRIBUTION

A. ADDRESSEE	B. COPIES			A. ADDRESSEE	B. COPIES		
	DRAFT	REG	FINAL REPRO		DRAFT	REG	FINAL REPRO
NAS POWER		1	1				
AMQ - 240		1	1				
(A) TOTAL →	0	2	2	(B) TOTAL →			
15. TOTAL OF A & B →				5			

16. REMARKS:
BLOCK 10, 11, 12, 13 - ENGINEERING DESIGN DOCUMENTS ARE SUBMITTED IN ACCORDANCE WITH SCHEDULE SPECIFIED IN EACH DELIVERY ORDER.

BLOCK 14b - REPO THIS BLOCK WILL BE USED TO DESIGNATE THE NUMBER OF COPIES IN "ELECTRONIC MEDIA" TO BE DELIVERED TO THE GOVERNMENT. FURTHER REQUIREMENTS ARE CONTAINED IN THE DATA ITEM DESCRIPTION (DID).

17. PRICE GROUP:		18. ESTIMATED TOTAL PRICE:	
G. PREPARED BY RALPH LUND, NAS POWER SERVICES GROUP	H. DATE 5/5/08	I. APPROVED BY RUSSELL GREEN, NAS POWER SERVICES GROUP	J. DATE 5/5/08

CONTRACT DATA REQUIREMENTS LIST
(1 DATA ITEM)

FORM APPROVED OMB
No. 0704-0188

A. CONTRACT LINE ITEM No. 0003, 1003, 2003, 3003, 4003		B. EXHIBIT A	C. CATEGORY <input type="checkbox"/> TDP <input type="checkbox"/> TM <input checked="" type="checkbox"/> OTHER (CONTRACT BASE AWARD)	
D. SYSTEM / ITEM Power Systems Installation		E. CONTRACT / PR No.		F. CONTRACTOR
1. DATA ITEM No. E003	2. TITLE OF DATA ITEM SITE PREPARATION AND INSTALLATION DOCUMENTS		3. SUBTITLE OF DATA ITEM N/A	
4. AUTHORITY (DATA ACQUISITION DOCUMENT No.)		5. CONTRACT REFERENCE SECTION-C, SOW, PARA 3.2.7		6. REQUIRING OFFICE NAS POWER SERVICES GROUP, TECHNICAL OPERATIONS SERVICE
7. DD 250 REQUIRED NONE	8. APP CODE		9. DIST STATEMENT REQUIRED NONE	10. FREQUENCY SEE BLOCK 16
11. AS OF DATE SEE BLOCK 16		12. DATE OF FIRST SUBMISSION SEE BLOCK 16		13. DATE OF SUBSEQUENT SUBMISSION SEE BLOCK 16

DISTRIBUTION

A. ADDRESSEE	B. COPIES			A. ADDRESSEE	B. COPIES		
	DRAFT	REG	FINAL REPRO		DRAFT	REG	FINAL REPRO
AOS -1030		1	1				
AMQ -240		0	1				
ANI-30		1	1				
(A) TOTAL →	0	2	3	(B) TOTAL →			
15. TOTAL OF A & B →				5			

16. REMARKS:
BLOCK 10, 11, 12, 13 - DOCUMENTS ARE SUBMITTED IN ACCORDANCE WITH SCHEDULE SPECIFIED IN EACH DELIVERY ORDER.

BLOCK 14B - REPO THIS BLOCK WILL BE USED TO DESIGNATE THE NUMBER OF COPIES IN "ELECTRONIC MEDIA" TO BE DELIVERED TO THE GOVERNMENT. FURTHER REQUIREMENTS ARE CONTAINED IN THE DATA ITEM DESCRIPTION (DID).

17. PRICE GROUP:		18. ESTIMATED TOTAL PRICE:	
G. PREPARED BY RALPH LUND, NAS POWER SERVICES GROUP	H. DATE 5/5/08	I. APPROVED BY RUSSELL GREEN, NAS POWER SERVICES GROUP	J. DATE 5/5/08

DATA ITEM DESCRIPTION

1. TITLE PROGRAM PLAN	2. IDENTIFICATION NUMBER DI-FAA-M001
3. DESCRIPTION/PURPOSE 3.1 The Program Plan describes and depicts the Contractor's management structure. 3.2 The Program Plan provides current information which is used to describe the approach, resources, and needs of the contractor to perform the management effort.	4. APPROVAL DATE 3/31/09
	5. RESPONSIBLE OFFICE NAS Power Services Group
	6. REFERENCE AMS
7. APPLICATION/INTERRELATIONSHIP This Data Item Description (DID) contains the format and preparation instructions for the Data Product generated by the Specific and Discrete Task Requirements as delineated in the Contract.	
10. PREPARATION INSTRUCTIONS 10.1. <u>Format.</u> The Program Plan format shall be contractor selected. The submission shall be 8 1/2 by 11 inch paper. One way foldouts may be used for graphic material. Written documents shall be furnished in the following format: a) Hard copy on 8.5" x 11" paper. b) Hard copy drawing inserts maximum 11" x 17" c) Soft copy MS Word 2003. d) Drawings could be PDF files or graphic inserts into Word documents.	
10.2 <u>Content.</u> The Program Plan shall provide information on the contractor's organization, practices and techniques to be used in managing the Program, specifically Management of Subcontracts. 10.2.1 The Plan shall specifically contain the following: a. A Chart showing the Structure of the Program Organization by Title and Name. Identify the Program Office, Support contractor's, and Major Subcontractors. b. A Chart showing the Relationship of the Program Functions to the Functional Organizations indicating Lines of Authority and Communications	

DATA ITEM DESCRIPTION

1. TITLE PROGRAM MANAGEMENT REPORT	2. IDENTIFICATION NUMBER DI-FAA-M002
3. DESCRIPTION/PURPOSE Report on the status of the program projects and orders.	4. APPROVAL DATE 3/31/09
	5. RESPONSIBLE OFFICE NAS Power Services Group
	6. REFERENCE Acquisition Management System
7. APPLICATION/INTERRELATIONSHIP This Data Item Description (DID) provides the format and preparation instructions for the Data Product generated by the Specific and Discrete Task Requirements as delineated in the Contract.	
10. PREPARATION INSTRUCTIONS 10.1 <u>Format.</u> The Program Management Report template is provided in M002 Attachment 1. The submission shall be 8 1/2 by 11-inch paper. Written documents shall be furnished in the following format: a) Hard copy on 8.5" x 11" paper, landscape orientation. b) Soft copy MS Excel 2003. 10.2 <u>Content.</u> The Program Management Report shall provide information on the status of the Contractor's installation program. The report template Attachment 1 to M002 is the approved report format.	

ATTACHMENT 1 TC TION-J, ATT J.2
 (Vendor's Name) TASK ORDER LOG DID M002, Attachment A

\$0.00

\$0.00

<u>Region</u>	<u>Type of Work</u>	<u>Organization</u>	<u>Date</u> m/d/yy
AAL	Site Survey	SS	
ACE	Engineering	EN	
AEA	Installation, EG	EG	
AGL	Installation, UPS	UPS	
ANE	Installation, EG/UPS	EG/UPS	
ANM	Program Manag.	PM	
ASO			
ASW			
AWP			

1. STATUS OF WORK RELATING TO MILESTONES AND ANY NEAR TERM AND LONG TERM SCHEDULE CHANGES.

2. PROBLEMS AND ISSUES.

3. SPECIAL INTEREST AND ACTION ITEMS.

DATA ITEM DESCRIPTION

1. TITLE Site Survey Report	2. IDENTIFICATION NUMBER DI-FAA-E001
3. DESCRIPTION/PURPOSE Site investigation for power system work	4. APPROVAL DATE 3/31/09
	5. RESPONSIBLE OFFICE NAS Power Services Group
	6. REFERENCE
7. APPLICATION/INTERRELATIONSHIP	
10. PREPARATION INSTRUCTIONS This document establishes the requirements for: Site Survey Report 10.1 General. The Microsoft versions of Word, Excel, and Project and AutoCAD MicroStation will evolve with time therefore the Government reserves the right to change soft copy versions as the agency upgrades its LAN enterprise services. Provide softcopy via email and/or Compact Disc. 10.1.1 Written documents shall be furnished in the following format: a) Hard copy on 8.5" x 11" paper. b) Hard copy drawing inserts maximum 11" x 17". c) Soft copy MS Word 2003. d) Drawings could be PDF files or graphic inserts into Word documents. 10.1.2 Spreadsheet documents shall be delivered in the following format: a) Hard copy on 8.5" x 11" paper. b) Soft copy MS Excel 2003. 10.1.3 Project Schedules shall be furnished in the following format: a) Hard copy on 8.5" x 11" Portrait or Landscape. b) Softcopy MS Project, Windows 98 version or later. 10.1.4 CADD drawings shall be delivered in the following format: a) Hard copy on Drawing size "A", "B" or "D". b) Softcopy provided in AutoCAD .dwg and .dxf translatable to MicroStation .dgn drawing format. AutoCAD version 13 or later 10.2 Site Survey Report. Use 8.5" x 11" paper in binder. Use 11" x 17" foldouts as necessary for larger drawings. Cost estimate shall be Construction Specification Institute's Division 1 through 17 format. Example: Mechanical costs are listed under Division 15, and Electrical costs are in Division 16. 10.3 TASK DELIVERABLES: Site Survey Report.	

ATTACHMENT J.2
PAGE NO. 1 OF 8

DATA ITEM DESCRIPTION

1. TITLE Engineering Design Documents	2. IDENTIFICATION NUMBER DI-FAA-E002
3. DESCRIPTION/PURPOSE Provide Engineering design services for Installation of power system equipment and any modifications necessary to support that equipment.	4. APPROVAL DATE 3/31/09
	5. RESPONSIBLE OFFICE NAS Power Services Group
	6. REFERENCE

7. APPLICATION/INTERRELATIONSHIP

10. PREPARATION INSTRUCTIONS

Tasks for engineering design services: Individual Task Orders will designate actual deliverables required. Small projects will not require the same design effort as larger projects. Level of engineering effort is determined on a site-by-site basis.

DOCUMENT SUBMITTAL STANDARDS

10.1 General. The Microsoft versions of Word, Excel, and Project and AutoCAD and MicroStation will evolve with time therefore the Government reserves the right to change soft copy versions as the agency upgrades its LAN enterprise services. Provide softcopy via email and/or Compact Disc.

10.1.1 Written documents shall be furnished in the following format:

- a) Hard copy on 8.5" x 11" paper.
- b) Hard copy drawing inserts maximum 11" x 17".
- c) Soft copy MS Word 2003.
- d) Drawings could be PDF files or graphic inserts into Word documents.

10.1.2 Spreadsheet documents shall be delivered in the following format:

- a) Hard copy on 8.5" x 11" paper.
- b) Soft copy MS Excel 2003.

10.1.3 Project Schedules shall be furnished in the following format:

- a) Hard copy on 8.5" x 11" Portrait or Landscape.
- b) Softcopy MS Project, Windows 98 version or later.

10.1.4 CADD drawings shall be delivered in the following format:

- a) Hard copy on Drawing size "A", "B" or "D".
- b) Softcopy provided in AutoCAD .dwg and .dxf translatable to MicroStation .dgn drawing format. AutoCAD version 13.

10.2 ENGINEERING DESIGN DOCUMENTS.

10.2.1 Specifications. Specifications shall be prepared by the Contractor in accordance with Construction Specification Institute (CSI) three part format (PART 1-GENERAL, PART 2-PRODUCTS, PART 3-EXECUTION) performance based specifications. Division 1 of the specifications shall conform to the template found in Part III Section J Attachment J.3.

10.2.2 Drawings. The Contractor shall submit a complete set of reproducible drawings for the final designs. The designs shall be prepared on standard FAA "D" size sheets 36" by 24". Prior to the start of work, the Contractor shall coordinate with the Contracting Officer's Technical Representative (COTR), for CADD standards to be used in the design document deliverable drawings. This coordination will include standard symbols library, naming conventions, layering schemes, standard fonts, database setup, standard title blocks, etc.

10.2.3 Design Data Handbook. The Contractor shall prepare a Design Data Handbook for each design or site adaptation. This handbook shall be presented for review at the points of design specified in paragraph 12. The purpose of the handbook is to convey complete information on the development of various designs. The handbook shall contain the following:

- (a) Design assumptions and parameters for each engineering discipline.
- (b) All design calculations for each engineering discipline.
- (c) All manufacturers data for specified items, including catalog cuts, specification sheets, etc

10.2.4 Cost Estimate. The cost elements shall follow the same format as CSI and NAVFAC specification divisions and sections. Contractor shall prepare cost estimates for the completed construction design. The construction cost estimate shall include escalation cost. A recognized National Standard Cost Index shall be appropriately used in preparation of construction project cost estimates.

10.3 Document Submittal Standards. When specified, the Contractor shall submit ten (10) copies, unless otherwise directed, of the specifications, construction drawings, design data handbooks, cost estimates and reports for review at the following points of design for each assigned task.

- (a) 10% Review.
- (b) 50% Review.
- (c) 100% Review.
- (d) Final Submittal

The Government shall be allowed review time after each submittal. The final submittal, as specified in the task, shall follow the 100% Review.

10.3.1 Definitions. The following are general definitions of the various review percentages.

- (a) The 10% review should include floor plan concepts for all disciplines, major site specific elements, a specification outline with proposed components, and a preliminary construction cost estimate. This review may be conducted at the project site.
- (b) The 50% review should include all designs complete, calculations complete, draft specification, an up to date Design Data Handbook and a construction cost estimate. This review may be conducted at the project site. Attendance by the A/E Project Manager and key design personnel.
- (c) The 100% review should include all details complete, all cost estimates complete, instruction books and the specifications fully coordinated, all FAA review comments incorporated, and an updated Design Data Handbook. All documents should be ready for signature and professional seal.
- (d) The Final Submittal shall include all items complete including the Design Data Handbook and the specification documents in proper form for advertisement. All documents shall sealed by a registered professional engineer or licensed architect.

10.4 TASK DELIVERABLES

The Contractor, at completion of the design task, shall deliver the following final comments:

- (a) Final Drawings per paragraph 10.1.4
- (b) CADD per paragraph 10.1.4.
- (c) Specification volumes, bound, per paragraph 10.1.1
- (d) Specification soft copy per paragraph 10.1.1
- (e) Design Data Handbook per paragraph 10.1.1
- (f) Mechanical/Electrical Systems Instruction Book.
- (g) Construction Cost Estimate per paragraph 10.1.2
- (h) Construction schedule per paragraph 10.1.3.

Delivery.- The Contractor shall be responsible for the delivery of documents required by this engineering requirement to the contracting officer or his designated representative.

DATA ITEM DESCRIPTION

1. TITLE GNAS and CPDS Site Preparation and Installation Documents	2. IDENTIFICATION NUMBER DI-FAA-E003
3. DESCRIPTION/PURPOSE Installation of power system equipment and any modifications necessary to support that equipment.	4. APPROVAL DATE 3/31/09
	5. RESPONSIBLE OFFICE NAS Power Services Group
	6. REFERENCE
7. APPLICATION/INTERRELATIONSHIP	
10. DOCUMENT PREPARATION INSTRUCTIONS	
<p>10.1 General. The Microsoft versions of Word, Excel, and Project and AutoCAD and MicroStation will evolve with time therefore the Government reserves the right to change soft copy versions as the agency upgrades its LAN enterprise services. Provide softcopy via email and/or Compact Disc. : Individual Task Orders will designate actual deliverables required.</p> <p>10.1.1 Written documents shall be furnished in the following format:</p> <ul style="list-style-type: none"> a) Hard copy on 8.5" x 11" paper. b) Hard copy drawing inserts maximum 11" x 17". c) Soft copy MS Word 2003. d) Drawings could be PDF files or graphic inserts into Word documents. <p>10.1.2 Spreadsheet documents shall be delivered in the following format:</p> <ul style="list-style-type: none"> a) Hard copy on 8.5" x 11" paper. b) Soft copy MS Excel 2003. <p>10.1.3 Project Schedules shall be furnished in the following format:</p> <ul style="list-style-type: none"> a) Hard copy on 8.5" x 11" Portrait or Landscape. b) Softcopy MS Project 98 or later. <p>10.1.4 CADD drawings shall be delivered in the following format:</p> <ul style="list-style-type: none"> a) Hard copy on Drawing size "A", "B" or "D". b) Softcopy provided in AutoCAD .dwg and .dxf translatable to MicroStation .dgn drawing format. AutoCAD version 13. <p>10.2 TASK DELIVERABLES</p> <p>10.2.1 General.- The Contractor, at completion of the design task, shall deliver the following:</p> <ul style="list-style-type: none"> (a) Division 1 Specification deliverables per paragraphs 10.1.1, 10.1.2 and 10.1.3. (b) Power cut over and outage schedule. (c) Project Construction Schedule per paragraph 10.1.3 (d) Equipment Start-up test report. (e) Contractor Acceptance Inspection report. The CAI report found in Section-J, Attachment J.4. (f) As-Built Drawings per paragraph 10.1.4. (g) FAA Pre-Construction and Maintenance Project Safety and Health Checklist. Attachment J.5. (h) DOT F4220.3 – Pre-Construction Conference Agenda and Checklist. Attachment J.7. <p>10.2.2 Delivery.- The Contractor shall be responsible for the delivery of documents required by this engineering requirement to the contracting officer or his designated representative.</p>	

COVER PAGE
FOR
CONSTRUCTION SPECIFICATION DIVISION 1 TEMPLATE

This Document is a standard or template for the construction specification Division 1. The information contained within this template is applicable to **Engineering Design Services Task and Site Preparation Installation Task**. If design services are tasked to the contractor this document will be customized for the Region and site for incorporation into the design specifications. Other wise this template provides preliminary information as to the procedures the FAA uses during construction projects. The submittals and deliverables defined within the Division 1 template are required on all construction related work.

Document non-applicability: This document does not apply to tasks with the sole purpose of equipment installation and equipment connection. Also, this document does not apply to on-site technical assistance and equipment service calls.

DIVISION 1 SECTIONS:	Pages
01010 SUMMARY OF WORK	1
01042 COORDINATION	3
01200 PROJECT MEETINGS	4
01300 SUBMITTALS	10
01311 SCHEDULES AND REPORTS	3
01400 QUALITY CONTROL	3
01510 TEMPORARY FACILITIES	3
01600 MATERIALS AND EQUIPMENT	5
01613 DELIVERY, STORAGE, AND HANDLING	1
01700 CONTRACT CLOSE-OUT	5
01710 CLEANING	2

SECTION 01042 – COORDINATION

PART I – GENERAL

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.
4. Administrative and supervisory personnel.
5. Cleaning and protection.

B. Related Sections:

1. Section 01200, "Project Meetings" for progress meetings, coordination meetings, and preinstallation conferences.
2. Section 01300, "Submittals" for preparing and submitting the Contractor's Construction Schedule.
3. Section 0 1600, "Materials and Equipment" for coordinating general installation.
4. Section 0 1700, "Contract Closeout" for coordinating contract closeout.

1.2 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 Contracting Officer 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.

D. Conservation: Coordinate construction operations to assure that operations are carried out with consideration given to conservation of energy, water, and materials.

1. Salvage materials and equipment involved in performance of, but not actually incorporated in, the Work.

1.3 SUBMITTALS

A. Coordination Drawings: Prepare coordination drawings where careful coordination is needed for installation of products and materials fabricated by separate entities. Prepare coordination drawings where limited space availability necessitates maximum utilization of space for efficient installation of different components.

1. Show the relationship of components shown on separate Shop Drawings.
2. Indicate required installation sequences.
3. Comply with requirements contained in Section 01300, "Submittals."

B. Staff Names: Within 15 days of Contract award, submit a list of the Contractor's principal staff assignments, including the superintendent 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 each temporary telephone.

PART 2 - PRODUCTS (NOT APPLICABLE)

PART 3 – EXECUTION

3.1 GENERAL COORDINATION PROVISIONS

- A. Inspection of Conditions: Require the Installer of each major component to inspect both the substrate and conditions under which Work is to be performed. Do not proceed until unsatisfactory conditions have been corrected in an acceptable manner.
- B. Coordinate temporary enclosures with required inspections and tests to minimize the necessity of uncovering completed construction for that purpose.

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 at Substantial Completion.

B. Clean and provide maintenance on completed construction as frequently as necessary 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.

END OF SECTION 01042

SECTION 01200 - PROJECT MEETINGS

PART I - GENERAL

1.1 SUMMARY

- A. This Section specifies administrative and procedural requirements for project meetings, including, but not limited to, the following:
 - 1. Preconstruction conferences.
 - 3. Preinstallation conferences.
 - 3. Progress meetings.
 - 4. Coordination meetings.
- B. Related Sections:
 - 1. Section 01042 "Coordination" for procedures for coordinating project meetings with other construction activities.
 - 2. Section 01300 "Submittals" for submitting the Contractor's Construction Schedule.

1.2 PRECONSTRUCTION CONFERENCE

- A. Schedule a preconstruction conference before starting construction, at a time convenient to the Contracting Officer (COR), but no later than 15 working days after Contract Award. Hold the conference at the Project Site or another convenient location approved by the Contracting Officer's Representative (COR). Conduct the meeting to review responsibilities and personnel assignments.
 - B. Attendees: Authorized representatives of the Government, Architect/Engineer, and their consultants the Contractor and its superintendent; major subcontractors; manufacturers; suppliers; 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 and phasing,
 - 3. Work by others.
 - 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.

1.3 PRE-INSTALLATION CONFERENCES

A. Conduct a preinstallation conference at the Project Site before each construction activity that requires coordination with other construction.

B. Attendees: 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. Advise the COR of scheduled meeting dates.

1. Review the progress of other construction activities and preparations for the particular activity under consideration at each preinstallation conference, including requirements for the following:

- a. Contract Documents.
 - b. Options.
 - C. Related Change Orders.
 - d. Purchases.
 - e. Deliveries.
 - f. Shop Drawings, Product Data, and quality-control samples.
 9. Review of mockups.
 - h. Possible conflicts.
 - i. Compatibility problems.
 - j. Time schedules.
 - k. Weather limitations.
 1. Manufacturer's recommendations.
-
- In. Warranty requirements.
 - n. Compatibility of materials.
 - O. Acceptability of substrates.
 - p- Temporary facilities.
 - q- Space and access limitations.
 - r. Governing regulations.
 - S. Safety.
 - t. Inspecting and testing requirements.
 - U. Required performance results.
 - V. Recording requirements.
 - W. Protection.

2. Record significant discussions and agreements and disagreements of each conference, and the approved schedule. Distribute the record of the meeting to everyone concerned, including the Owner and the Architect/Engineer within 5 working days of the conference.

3. Do not proceed with the installation if the conference cannot be successfully concluded. Initiate whatever actions are necessary to resolve impediments to performance of Work and reconvene the conference at the earliest feasible date.

1.4 PROGRESS MEETINGS

- A. Conduct progress meetings at the Project Site at weekly intervals. Notify the COR of scheduled meeting dates. Coordinate dates of meetings with preparation of the payment request.
- B. Attendees: In addition to representatives of the Government, each subcontractor, supplier, or other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the conference shall be familiar with the Project and authorized to conclude matters relating to the Work.
- C. Agenda: 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. Contractor's Construction Schedule: Review progress since the last meeting. Determine where each activity is in relation to the Contractor's Construction Schedule, whether on time or ahead or behind schedule. Determine how construction 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 and phases.
 - d. Work by others.
 - e. Status of submittals.
 - f. Deliveries.
 - 9. Off-site fabrication problems.
 - h. Access.
 - i. Site utilization.
 - j. Temporary facilities and services.
 - k. Hours of work.
 - 1. Hazards and risks.
 - in. Housekeeping.
 - n. Quality and work standards.
 - 0. Change Orders.
 - P. Documentation of information for payment requests.
- D. Reporting: No later than 5 days after each meeting, distribute minutes of the meeting to each party present and to parties who should have been present, and to the COR and Architect/Engineer. Include a brief summary, in narrative form, of progress since the previous meeting and report.

1. Schedule Updating: Revise the Contractor's Construction Schedule after each progress meeting where revisions to the schedule have been made or recognized. Issue the revised schedule concurrently with the report of each meeting.

1.5 COORDINATION MEETINGS

- A. Conduct project coordination meetings at least once each month for all parties involved. Project coordination meetings are in addition to specific meetings held for other purposes, such as regular progress meetings and special preinstallation meetings.
- B. Request representation at each meeting by every party currently involved in coordination or planning for the construction activities involved.
- C. Record meeting results and distribute copies no later than 5 working days after the meeting to everyone in attendance and to others affected by decisions or actions resulting from each meeting.

PART 2 - PRODUCTS (NOT APPLICABLE)

PART 3 - EXECUTION (NOT APPLICABLE)

END OF SECTION 01200

SECTION 01300 - SUBMITTALS

PART I - GENERAL

SUMMARY

- A. This Section includes administrative and procedural requirements for submittals required for performance of the Work, including the following:
 - 1. Contractor's construction schedule
 - 2. Submittal schedule.
 - 3. Daily construction reports.
 - 4. Shop Drawings..
 - 5. Product Data.
 - 6. Samples.
 - 7. Quality assurance submittals.
 - 8. Operation and Maintenance Manuals

- B. Administrative Submittals: Refer to other Sections of the 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. Insurance certificates.
 - 5. List of subcontractors.

1.2 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.

- 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.

- D. COR: Contracting Officer's Representative.

- E. RE: Resident Engineer.

1.3 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 COR reserves the right to withhold action on a submittal requiring coordination with other submittals until all related submittals are received.

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 resubmittals.

- a. Allow 30 calendar days for initial review. Allow additional time if the COR 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 30 calendar days for reprocessing each submittal.
 - d. No extension of Contract Time will be authorized because of failure to transmit submittals to the COR sufficiently in advance of the Work to permit processing.

B. Submittal Preparation: Place a permanent label or title block on each submittal for identification. Indicate the name of the entity that prepared each submittal on the label or title block.

1. Provide a space approximately 4 by 5 inches on the label or beside the title block on Shop

Drawings to record the Contractor's review and approval markings and the action taken.

~~2. Include the following information on the label for processing and recording action taken.~~

- a. Submittal number.
 - b. Project name.
 - c. Date.
 - d. Name and address of the Architect.
 - e. Name and address of the Contractor.
 - f. Name and address of the subcontractor.
 - g. Name and address of the supplier.
 - h. Name of the manufacturer.
 - i. Number and title of appropriate Specification Section.
 - j. Drawing number and detail references, as appropriate.

C. Submittal Transmittal: Package each submittal appropriately for transmittal and handling. Transmit each submittal from the Contractor to the COR using a transmittal form. The COR 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.

2. Transmittal form: Use form finished by COR.

1.4 CONSTRUCTION SCHEDULE,

A. Construction schedule: Scheduling of construction is the responsibility of the Contractor. Contractor's management personnel shall actively participate in development of the construction/installation schedule so that intended sequences and procedures are clearly understood.

B. Network Analysis System: The system shall consist of diagrams and accompanying mathematical analyses. The network diagram shall depict the order and interdependence of activities and the method by which the work is to be accomplished. Conditions of submittal are:

1.6 DAILY CONSTRUCTION REPORTS

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

1. List of subcontractors at the site.
2. Count of personnel at the site by Contractor and Trades.
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. Emergency procedures.
9. Orders and requests of governing authorities.
10. Change Orders received, implemented.
11. Services connected, disconnected.
12. Equipment or system tests and startups.
13. Partial Completions, occupancies.
14. Substantial Completions authorized.
15. Activities (by number and description) worked on with brief description of daily progress.

1.7 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. Initial Submittal: Submit one correctable, translucent, reproducible print and six blue- or black-line prints for the COR's review. The COR will return the reproducible print and two non-reproducible prints.
 8. Final Submittal: If final submittal is required, submit one correctable, translucent, reproducible print and 6 blue- or black-line prints and 2 additional prints where required for maintenance manuals, plus the number of prints needed by the COR for distribution.
 - a. One of the prints returned shall be marked up and maintained as a "Record Document".
 9. Do not use Shop Drawings without an appropriate final stamp indicating action taken.

1.8 PRODUCT DATA

- A. Collect Product Data into a single submittal for each element of construction or system. Product Data includes printed information, 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 reproducible copy of Product Data where selection of options is required.

4. Submittals: Submit 6 copies of each required submittal; submit 8 copies where required for maintenance manuals. The COR will retain two, and will return the others 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.

1.9 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. Mount or display Samples in the manner to facilitate review of qualities indicated. Prepare Samples to match the COR'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 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 Government's property, are the property of the Contractor and shall be removed from the site after acceptance of that work, and 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.

a. The COR will review and return preliminary submittals with the COR's notation, indicating selection and other action.

4. Submittals: Except for Samples illustrating assembly details, workmanship, fabrication techniques, connections, operation, and similar characteristics, submit 3 sets. The COR will return one 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.

1.10 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 individual sections of these Specifications and each written report shall include the following:

1. Date issued

2. Project title and number

3. Testing laboratory name, address, and telephone number

4. Name and signature of laboratory inspector

5. Date and time of sampling or inspection

6. Record of temperature and weather conditions
7. Date of test
8. Identification of product and specifications
9. Location of sample or test in the project
10. Type of inspection or test
11. Results of tests and compliance with Contract Documents
12. Interpretation of test results, when requested by COR

1.11 OPERATIONS/MAINTENANCE (O&M) INSTRUCTIONS AND PARTS LIST

- A. Prepare operations and maintenance data as specified in this Section and as referenced in other pertinent sections of the Specifications for products furnished under this Contract. Submit, to the COR, Manufacturer's Literature, Technical Data, Operating and Maintenance Instructions, Service Manuals and Parts List as follows:

1. Submit five (5) copies of O&M manuals bound in three-ring binders, containing copies of manufacturer's literature, technical data, operating and maintenance instructions, service manuals and parts lists applicable to each item of equipment furnished. Provide a Table of Contents and an Index with a cross-reference feature which will enable maintenance personnel to locate specific equipment data sheets by knowing the name of the equipment item or the manufacturers of the equipment.
2. Organize and assemble data alphabetically according to the respective manufacturer or vendor who furnished the equipment. Index tabs shall be provided to facilitate locating any given manufacturer's section. Each section shall be separated from the others by plain blue tab separators. Locate manufacturer's index (printed on blue paper) immediately following each blue separator and preceding the manufacturer's instruction books and data.
3. List equipment items arranged alphanumerically by the item nomenclature/tag number, in a Table of Contents (TOC) in the first volume. The TOC shall contain item identification information such as part, model, or catalog number which identifies the system or service in which the item is used. Data pertaining to a given item of equipment shall be located in one of two ways, depending on whether or not the name of the manufacturer is known.

B. Description of Unit and Component Parts:

1. Clearly identify specific product and data applicable to installation
2. Function, normal operating characteristics, and limiting conditions
3. Performance curves, engineering data, and tests
4. Complete nomenclature and commercial number of replacement parts.

C. Operations:

1. Manufacturer's printed operating instructions
2. Description of sequence of operation by control manufacturer
3. Start-up, break-in, routine, and normal operating instructions
4. regulations, control stopping, shutdown, and emergency instructions
5. Summer and winter operating instructions

6. Special operating instructions.

D. Maintenance

1. Manufacturer's maintenance instructions
2. Routine operations
3. Guide to trouble-shooting
4. Disassembly, repair, and reassembly
5. Alignment, adjusting, and checking
6. Servicing and lubricating schedule with list of lubricants required
7. List of original manufacturer's spare parts.

E. Additional Information

1. As-installed control diagrams by control manufacturer
2. Charts of valve tag numbers, with location and function of each valve.
3. Drawing illustrating the relationship of equipment and systems
4. Control and flow diagrams
5. As-installed color coded piping diagrams
6. Data required under pertinent sections of specifications

F. Prior to final inspection of acceptance, review contents of O&M manual with the Government's designated operating and maintenance personnel, instructing them in operation, adjustments and maintenance of products, equipment, and systems. Maintain equipment and pay all costs of operation, demonstration, tests, and instruction until acceptance by the Government.

1.12 COR'S ACTION

A. Except for submittals for the record or information, where action and return is required, the COR 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 COR will stamp each submittal with a uniform, action stamp. The COR will mark the stamp appropriately to indicate the action taken, as follows:

1. Final Unrestricted Release: When the COR marks a submittal "Approved," 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 COR marks a submittal "Approved as Noted," the Work covered by the submittal may proceed provided it complies with notations or corrections on the submittal and requirements of the Contract Documents. Final payment depends on that compliance.

3. Returned for Resubmittal: When the COR marks a submittal "Not Approved, 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 "Not Approved, 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 COR will return the submittal marked "Action Not Required."

C. Unsolicited Submittals: The COR may return unsolicited submittals to the sender without action,

PART 2 - PRODUCTS (NOT APPLICABLE)

PART 3 - EXECUTION

3.1 SUBMITTAL SCHEDULE

A. Schedule of Submittals: Submittals (Schedules, Manufacturer's Literature, Shop Drawings, Samples, Test Reports, Certificates, Design Calculations, and Installation Instructions) are required for the items listed in the specifications or on the drawings. Submittals for additional items not shown on this list, but identified in the specifications or on the drawings, are also required.

B. Submittal Schedule: Asterisk (*) indicates critical items that must be submitted prior to the start of the work.

Division 2 *(List all sections with submittals required under that section)*

Division 3 *(List all sections with submittals required under that section)*

Division 4 *(List all sections with submittals required under that section)*

Division 5 *(List all sections with submittals required under that section)*

Division 6 *(List all sections with submittals required under that section)*

Division 7 *(List all sections with submittals required under that section)*

Division 8 *(List all sections with submittals required under that section)*

Division 9 *(List all sections with submittals required under that section)*

Division 10 *(List all sections with submittals required under that section)*

Division 11 *(List all sections with submittals required under that section)*

Division 12 *(List all sections with submittals required under that section)*

Division 13 *(List all sections with submittals required under that section)*



Division 14 *(List all sections with submittals required under that section*

Division 15 *(List all sections with submittals required under that section*

Division 16 *(List all sections with submittals required under that section*

Division 17 *(List all sections with submittals required under that section*

SECTION 01311 - SCHEDULES AND REPORTS

PART I - GENERAL

1.1 SUMMARY

A. This Section includes administrative and procedural requirements for schedules and reports required for proper performance of the Work-, including:

1. Preliminary construction schedule.
2. Contractor's construction schedule.
3. Submittal schedule.
4. Schedule of inspections and tests.
5. Unit-price schedule.
6. Daily construction reports.
7. Material location reports.
8. Field correction reports.
9. Special reports.

B. Related Sections:

1. Section 0 13 15, " CPM Schedules" specifies requirements for submittal of the CPM schedule.
2. Section 01200, "Project Meetings" specifies requirements for submittal and distribution of meeting and conference minutes.
3. Section 01400, "Quality Control" specifies requirements for submittal of inspection and test reports.
4. Section 0 1600, "Materials and Equipment" specifies requirements for submittal of the list of products.

1.2 SUBMITTAL PROCEDURES

A. Coordination: Coordinate preparation and processing of schedules and reports with ~~performance of other construction activities.~~

B. Coordination: Each prime contractor shall closely coordinate scheduling and reporting with scheduling and reporting of other prime contractors.

1.3 SUBMITTAL SCHEDULE

A. Submit a complete schedule of submittals within 10 working 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 Schedule.

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

1. Scheduled date for the first submittal.
2. Related Section number.
3. Submittal category.
4. Name of the subcontractor.

5. Description of the part of the Work covered,
 6. Scheduled date for resubmittal.
 7. Scheduled date for the Contracting Officer's Representative's (COR's) final release or approval.
- C. Distribution: Following the Architect's response to the initial submittal, print and distribute copies to the COR, subcontractors, and other parties required to comply with submittal dates indicated.
1. Post copies in the Project meeting room and temporary field office.
 2. 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 part of the Work and are no longer involved in construction activities.
- D. Schedule Updating: Revise the schedule after each meeting or other activity where revisions have been recognized or made. Issue the updated schedule concurrently with the report of each meeting.

1.4 SCHEDULE OF INSPECTIONS AND TESTS

- A. Prepare a schedule of inspections, tests, and similar services required by the Contract Documents. Submit within 30 days of the date established for commencement of the Work.
- B. Form: The schedule shall be in tabular form and shall include, but not be limited to, the following:
1. Specification Section number.
 2. Description of the test.
 3. Identification of applicable standards.
 4. Identification of test methods.
 5. Number of tests required.
 6. ~~Time schedule or time span for tests.~~
 7. Entity responsible for performing tests.
 8. Requirements for taking samples.
 9. Unique characteristics of each service.
- C. Distribution: Distribute the schedule to the COR, and each party involved in performance of portions of the Work where inspections and tests are required.

1.5 REPORTS

- A. Daily Construction Reports: Prepare a daily construction report recording the following information concerning events at the site. Submit to the COR at weekly intervals:
1. List of subcontractors at the site.
 2. List of separate contractors at the site.
 3. Approximate count of personnel at the site.
 4. High and low temperatures, general weather conditions.
 5. Accidents.
 6. Meetings and significant decisions.

7. Unusual events (refer to special reports),
 8. Stoppages, delays, shortages, and losses.
 9. Meter readings and similar recordings.
 10. Emergency procedures.
 11. Orders and requests of governing authorities.
 12. Change Orders received, implemented.
 13. Services connected, disconnected.
 14. Equipment or system tests and startups.
 15. Partial Completions, occupancies.
 16. Substantial Completions authorized.
- B. **Material Location Reports:** At weekly intervals, prepare a comprehensive list of materials delivered to and stored at the site. The list shall be cumulative, showing materials previously reported plus items recently delivered. Include with the list a statement of progress on and delivery dates for materials or items of equipment fabricated or stored away from the site. Submit the list to the COR at weekly intervals.
- C. **Field Correction Reports:** When the need to take corrective action that requires a departure from the Contract Documents arises, prepare a detailed report. Include a statement describing the problem and recommended changes. Indicate reasons the Contract Documents cannot be followed. Submit a copy to the COR immediately.

1.6 SPECIAL REPORTS

- A. **General:** Submit special reports directly to the COR within one day of an occurrence. Submit a copy to the Architect and other parties affected by the occurrence.
- B. **Reporting Unusual Events:** When an event of an unusual and significant nature occurs at the site, prepare and submit a special report. List the chain of events, persons participating, response by the Contractor's personnel, an evaluation of the results or effects and similar pertinent information. Advise the COR in advance when such events are known or predictable.

PART 2 - PRODUCTS (NOT APPLICABLE)

PART 3 - EXECUTION (NOT APPLICABLE)

END OF SECTION 01311

SECTION 01400 - QUALITY CONTROL

PART I - GENERAL

1.1 SUMMARY

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

B. Quality-control services include inspections, tests, and related actions, including reports performed by Contractor, by independent agencies, and by governing authorities.

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.

1.2 RESPONSIBILITIES

A. Contractor Responsibilities: Unless otherwise indicated as the responsibility of another identified entity, Contractor shall provide certified testing and inspection agencies, inspections, tests, and other quality-control services specified elsewhere in the Contract Documents and required by authorities having jurisdiction. Costs for these services are 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 Government's responsibility, the Government will employ and pay a qualified independent testing agency to perform those services.

a. Where the Government 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 Government, unless agreed to in writing by the Government.

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 noncompliance with Contract Document requirements.
 - 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 security and protection of samples and test equipment at the Project Site.
 - D. Duties of the Testing Agency: The independent agency engaged to perform inspections, sampling, and testing of materials and construction specified in individual Sections shall cooperate with the COR and the Contractor in performance of the agency's duties. The testing agency shall provide qualified personnel to perform required inspections and tests.
 1. The agency shall notify the COR and the Contractor promptly of irregularities or deficiencies observed in the Work during performance of its services.
 2. The 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 agency shall not perform any duties of the Contractor.
 - E. Coordination: Coordinate the sequence of activities to accommodate required services with a minimum of delay. Coordinate activities to avoid the necessity of removing and replacing construction to accommodate inspections and tests.
 1. The Contractor is responsible for scheduling times for inspections, tests, taking samples, and similar activities.
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1.3 SUBMITTALS

- A. Within 30 calendar days of Contract award, the Contractor shall submit a Quality Control Plan, including proposed independent inspection and testing agencies. Work shall not commence until this submittal has been approved by the Government.
- B. 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 COR. 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.
- 9. 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 retesting-

1.4 QUALITY ASSURANCE

- A. Qualifications for Service Agencies: Engage inspection and testing service agencies, including independent testing laboratories, that are prequalified as complying with the American Council of Independent Laboratories' "Recommended Requirements for Independent Laboratory Qualification" 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.

2. Proposed independent inspection and testing agencies shall be approved by the Government prior to the commencement of any work.

PART 2 - PRODUCTS (NOT APPLICABLE)

PART 3 - EXECUTION

3.1 REPAIR AND PROTECTION

- A. General: Upon completion of inspection, testing, sample taking and similar services, repair damaged construction and restore substrates and finishes.
- B. Protect construction 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 01400

SECTION 01510 - TEMPORARY FACILITIES

PART I - GENERAL

1.1 SUMMARY

- A. Furnish all temporary facilities, including field offices, storage sheds, and temporary utilities required for the duration of the Work.

1.2 JOB CONDITIONS

- A. Determine exact location of buildings and sheds at the job site, subject to approval of COR. Prepare the site. Perform demolition or grubbing needed to clear a space adequate for the structures.
- B. Pay for all utilities used by temporary facilities during construction.
- C. Mount anchor, and secure temporary facilities to resist local wind and seismic design criteria.

1.3 SUBMITTALS

- A. Submit location plan of temporary facilities for approval, including parking and driveways.

PART 2 - PRODUCTS

2.1 TEMPORARY STORAGE BUILDINGS

- A. Furnish storage buildings of adequate size to store materials and equipment delivered to the site that might be affected by weather.

2.2 TEMPORARY SANITARY FACILITIES

- A. Provide portable sanitary facilities at the job site from the commencement of the project to its conclusion, Maintain facilities in clean and sanitary conditions and comply with the requirements of the local health authority.
- B. Contractor's workmen shall use these sanitary facilities at all times. Restrooms within existing or Government occupied buildings shall not be used. Portable toilets shall be maintained and cleaned on a regular basis, not less than weekly.

2.3 TEMPORARY HEATING AND COOLING

- A. Provide all heating devices needed to protect the building during construction. Provide fuel required to service the heating devices. Heating devices shall be attended at all times. Heaters shall not be allowed to operate overnight without someone in attendance.

- B. Protect concrete during placing, setting and curing. Maintain space temperature at not less than 55 degrees F.
- C. Maintain temporary spaces at a temperature of not less than 60 degrees for a period of 10 days prior to placement of interior finishes, and until completion of the Work.

2.4 TEMPORARY UTILITIES

- A. Provide temporary utilities required by trades during construction, including electrical power, water, and telephone. Make arrangements with local utility company; comply with utility company's requirements; and pay utility costs during construction.
- B. Provide a source of temporary electrical power of adequate size for the construction procedures. Comply with OSHA, other applicable safety requirements, and requirements of the power company, Provide extensions to the various parts of the building as needed. Provide junction boxes in such an arrangement that distribution boxes are available within 75 ft of any part of the structure.

2.5 CONSTRUCTION FENCE

- A. Install and maintain a construction fence around the storage yards. Provide wood picket or chain link construction. Provide gates with padlocks, and provide 5 sets of keys to the Government.

2.6 PROJECT SIGN

- A. Arrange for a professional sign painter to paint a project sign. Sign shall include the Project name, the full name and logo of the FAA, Contractor's name, A/E's name and address. Mount sign at a place selected by the COR. Maintain sign until completion of project.. Submit design of sign to C OR for approval.
- B. Sign shall be painted on a 4'x 8'x 3/4" exterior grade plywood board. Frame sign with 2 x 4 wood frame and mount on not less than two 4 x 4 posts. ~~House plywood board in a channel routed 3/4 inch deep into the 2 x 4 frame. Corners shall be shouldered, glued and screwed.~~
- C. No other signs shall be installed at the construction site, except that individual contractors may install a sign not greater than 48" x 36" on the side of their construction office, or the side of the office or trailer may have the companies name or identification permanently and neatly applied.

PART 3 - EXECUTION

3.1 LOCATION OF TEMPORARY FACILITIES

- A. Submit for approval the location for all temporary facilities. Locate facilities in an area that will not interfere with any work to be performed under this Contract.

3.2 REMOVAL OF TEMPORARY FACILITIES

- A. At the conclusion of the Project, remove temporary buildings, shed, and utilities, and restore site to original condition and finish in accordance with the Drawings.

END OF SECTION 01510

SECTION 01600 - MATERIALS AND EQUIPMENT

PART I - GENERAL

1.1 SUMMARY

- A. This Section includes administrative and procedural requirements governing the Contractor's selection of products for use in the Project.
- B. Related Sections:
 - 1. Section 01421, "Reference Standards and Definitions" specifies the applicability of industry standards to products specified.
 - 2. Section 01300, "Submittals" specifies requirements for submittal of the Contractor's Construction Schedule and the Submittal Schedule.

1.2 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 to 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, that is current as of the date of the Contract Documents.
 - b. "Foreign Products," as distinguished from "domestic products," are items substantially manufactured (50 percent or more of value) outside the United States and its possessions. ~~Products produced or supplied by entities substantially owned (more than 50 percent) by persons who are not citizens of, nor living within, the United States and its possessions are also considered to be foreign products.~~
 - 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.

1.3 SUBMITTALS

- A. Product List: Prepare a list showing products specified in tabular form acceptable to the COR Include generic names of products required. Include the manufacturer's name and proprietary product names for each item listed.
 - 1. Coordinate product list with the Contractor's Construction Schedule and the Schedule of Submittals.
 - 2. Form: Prepare product list with information on each item tabulated under the following column headings:
 - a. Related Specification Section number.

- b. Generic name used in Contract Documents.
- C. Proprietary name, model number, and similar designations.
- d. Manufacturer's name and address.
- e. Supplier's name and address.
- f. Installer's name and address.
- 9. Projected delivery date or time span of delivery period.

3. Initial Submittal: Within 15 days after Contract Award, submit 3 copies of an initial product list. Provide a written explanation for omissions of data and for known variations from Contract requirements.

- a. At the Contractor's option, the initial submittal may be limited to product selections and designations that must be established early in the Contract period.

4. Completed List: Within 30 days after date of commencement of the Work, submit 3 copies of the completed product list. Provide a written explanation for omissions of data and for known variations from Contract requirements.

5. Government's Action: The Government will respond in writing to Contractor within (*Number of Days*) days of receipt of the completed product list. No response within this period constitutes no objection to listed manufacturers or products but does not constitute a waiver of the requirement that products comply with Contract Documents. The Government's response will include a list of unacceptable product selections, containing a brief explanation of reasons for this action.

1.4 QUALITY ASSURANCE

- A. Source Limitations: To the fullest extent possible, provide products of the same kind from a single source.

1. When specified products are available only from sources that do not, or cannot, produce a quantity adequate to complete project requirements in a timely manner, consult with the COR to determine the most important product qualities before proceeding. Qualities may include attributes, such as visual appearance, strength, durability, or compatibility. ~~When a determination has been made, select products from sources producig products that possess these qualities, to the fullest extent possible.~~

- B. Compatibility of Options: When the Contractor is given the option of selecting between 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.

- 1. Contractor is responsible for providing products and construction methods that are compatible with products and construction methods of separate contractors.
- 2. If a dispute arises between prime contractors over concurrently selectable, but incompatible products, the Government will determine which products shall be retained and which are incompatible and must be replaced.

- C. Foreign Product Limitations: Except under one or more of the following conditions, provide domestic products, not foreign products, for inclusion in the Work:

- 1. No available domestic product complies with the Contract Documents.

D. 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.

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 weather tight enclosure, with ventilation adequate to prevent condensation. Maintain temperature and humidity within range required by manufacturer's instructions.

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. Proprietary Specification Requirements: Where Specifications name only a single product or manufacturer, provide the product indicated. No substitutions will be permitted.

2. Semi-proprietary Specification Requirements: Where Specifications name 2 or more products or manufacturers, provide 1 of the products indicated. No substitutions will be permitted.

a. Where Specifications specify products or manufacturers by name, accompanied by the term "or equal" or "or approved equal," comply with the Contract Document provisions concerning "substitutions" to obtain approval for use of an unnamed product.

3. Non-proprietary Specifications: When Specifications list products or manufacturers that are available and may be incorporated in the Work, but do not restrict the Contractor to use of these products only, the Contractor may propose any available product that complies with Contract requirements. Comply with Contract Document provisions concerning "substitutions" to obtain approval for use of an unnamed product.

4. 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.

5. Performance Specification Requirements: Where Specifications require compliance with performance requirements, provide products that comply with these requirements and are recommended by the manufacturer for the application indicated.

a. Where no product available within the specified category matches satisfactorily and complies with other specified requirements, comply with provisions of the Contract

6. 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.

7. Visual Matching: Where Specifications require matching an established Sample, the COR's decision will be final on whether a proposed product matches satisfactorily.

a. Where no product available within the specified category matches satisfactorily and complies with other specified requirements, comply with provisions of the Contract Documents concerning "substitutions" for selection of a matching product in another product category.

8. 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 01600

SECTION 01613 - DELIVERY, STORAGE, AND HANDLING

PART 1 - GENERAL (NOT APPLICABLE)

PART 2 - PRODUCTS (NOT APPLICABLE)

PART 3 - EXECUTION

3.1 DELIVERY

- A. Deliver and handle goods according to manufacturer's recommendations, using means and methods that will prevent damage, deterioration, and loss.
- B. Schedule delivery to minimize long-term storage at the Project Site and to prevent overcrowding construction spaces. Coordinate delivery for items that are flammable, hazardous, easily damaged, or sensitive to deterioration or theft with installation time to ensure minimum holding time.
- C. Schedule and effect delivery of goods to take place at the times they are required for installation, unless otherwise specified.
- D. Deliver goods to the Project Site in manufacturer's original sealed container, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.
- E. Inspect goods on delivery to ensure compliance with the Contract Documents and to ensure goods are undamaged and protected against damage.

3.2 STORAGE

- A. Store goods at the Project Site according to manufacturer's recommendations and in a manner that will facilitate inspection and measurement of quantity or counting of units. Store goods using means and methods that will prevent damage, deterioration, and theft or other loss.
- B. Store heavy goods in a manner that will not endanger building structure.
- C. Maintain temperature and humidity in areas where goods are stored within the range required by manufacturer's written instructions.

END OF SECTION 01613