

**EXHIBIT B**

To

**ASH LOAD-OUT BUILDING AND SITE MODIFICATIONS  
AT THE  
MID-CONNECTICUT RESOURCE RECOVERY FACILITY  
AGREEMENT**

**GENERAL REQUIREMENTS**

# GENERAL REQUIREMENTS

<u>Section</u>	<u>Title</u>
01010	Summary of Work
01025	Measurement and Payment
01039	Coordination and Meetings
01300	Submittals
01340	Shop Drawings
01400	Quality Control (QC)
01410	Testing Laboratory Services
01600	Material and Equipment
01700	Contract Closeout
01740	Warranties and Bonds

**SECTION 01010  
SUMMARY OF WORK**

**Part 1. GENERAL**

**1.1 SECTION INCLUDES**

- A. Project Description
- B. Work covered by Contract Documents
- C. Work Site Location
- D. Contractor use of site and premises
- E. Work Sequence
- F. Owner Occupancy

**1.2 PROJECT DESCRIPTION**

- A. CRRA is seeking bids from qualified contractors to furnish all tools, materials, labor, equipment and incidentals thereto for modifying the Ash Load-Out Building and site at the RRF to accommodate larger trucks for hauling the ash and for adding a truck weigh scale with an unattended scale house as well as all other improvements required for the Project.

**1.3 WORK COVERED BY CONTRACT DOCUMENTS**

- A. Furnish labor, material and equipment for the following:
  - 1. Roadway modifications (intersection improvements at five locations within the site);
  - 2. Drainage installation (at roadway improvement areas, truck scale area and Ash Load-Out Building area);
  - 3. Utility relocation (to provide power and communications to the truck scale facility and to relocate utilities to accommodate the addition to the Ash Load-Out Building);
  - 4. Construction activities required to minimize soil erosion and sedimentation;
  - 5. Maintenance and protection of traffic and facility operation;
  - 6. Cleaning up, disposing of waste and debris and demolition materials, and restoring the work site to original condition; and
  - 7. All other work required to complete the Project.

**1.4 WORK SITE LOCATION**

- A. Connecticut Resources Recovery Authority  
Power Block Facility  
1 Reserve Road, Gate 20  
Hartford, Connecticut

## **1.5 CONTRACTOR USE OF WORK SITE AND PREMISES**

- A. Limit use of work site and premises to allow Owner occupancy and to maintain facilities operations.

## **1.6 WORK SEQUENCE**

- A. The total contract time will be **150 days**, beginning at a date to be specified in the Notice to Proceed.

## **1.7 OWNER OCCUPANCY**

- A. The Owner will occupy the site and premises during the entire period of construction.
- B. Cooperate with Owner to minimize conflict, and to facilitate Owner's operations. The contractor shall ensure that all of his action(s) do not, in any manner, unnecessarily delay and/or impede the day to day operations of this facility.
- C. Schedule the Work to accommodate this requirement. This may require off-hour and weekend work.

## **Part 2. PRODUCTS**

Not used

## **Part 3. EXECUTION**

Not used

ENDOF SECTION

**SECTION 01025  
MEASUREMENT AND PAYMENT**

**Part 1. GENERAL**

**1.1 SECTION INCLUDES**

- A. Schedule of Values
- B. Format
- C. Preparation of Applications
- D. Submittal Procedures
- E. Substantiating Data

**1.2 RELATED SECTIONS**

- A. Agreement
- B. Standard General Conditions
- C. Supplementary Conditions
- D. Section 01700 - Contract Closeout

**1.3 SCHEDULE OF VALUES**

- A. Submit Schedule of Values in duplicate within ten (10) days after Effective Date of Agreement or date established in Notice to Proceed.
- B. Submit at least the following:
  - 1. Mobilization
  - 2. Progress Schedule
  - 3. Demolition of Portion of Existing building in phases
  - 4. Construction of new building addition in phases
  - 5. Staging and Traffic control
  - 6. Scale and unattended scale house with related accessories
  - 7. Site work
  - 8. Electrical work
  - 9. Miscellaneous work
  - 10. Clean-up
  - 11. Contract Closeout
- C. Include within each line item, a directly proportional amount of the CONTRACTOR'S overhead and profit.
- D. Revise schedule to list approved Change Orders, with each Application for Payment.

## **1.4 FORMAT**

- A. Form AIA G702 and G703 (or approved substitute) Application for Payment (included at the end of this section).
- B. Utilize Schedule of Values for listing items in Application for Payment.
- C. Provide a column for listing each of the following items. Items Number; Description of Work; Scheduled Value; Previous Applications; Work in Place and Stored Materials under this Application; Authorized Change Orders; Total Completed and Stored to Date of Application; Percentage of Completion; Balance to Finish; and Retainage.

## **1.5 PREPARATION OF APPLICATIONS**

- A. Present required information in typewritten form.
- B. Execute certification by signature of authorized officer.
- C. Use data from approved Schedule of Values. Provide dollar value in each column for each line item for portion of work performed.
- D. List each authorized Change Order as an extension on continuation sheet, listing Change Order number and dollar amount as for an original item of Work.
- E. Application for Final Payment: as specified in Section 01700.

## **1.6 SUBMITTAL PROCEDURES**

- A. Submit three (3) copies of each Application for Payment.
- B. Submit an updated construction schedule with each Application for Payment.
- C. Payment Period: at intervals stipulated in the Agreement.
- D. Submit under transmittal letter specified in Section 01300.

## **1.7 SUBSTANTIATING DATA**

- A. When Engineer requires substantiating information, submit data justifying dollar amounts in question.
- B. Provide one (1) copy of data with cover letter for each copy of submittal. Show Application number and date, and line item by number and description.

## **Part 2. PRODUCTS**

Not used

**Part 3. EXECUTION**

Not used

END OF SECTION

**SECTION 01039  
COORDINATION AND MEETING**

**Part 1. GENERAL**

**1.1 SECTION INCLUDES**

- A. Coordination.
- B. Field engineering.
- C. Pre-construction meeting.
- D. Progress meetings.
- E. Pre-installation meeting.

**1.2 RELATED SECTIONS**

- A. Section 01300 - Submittals.

**1.3 COORDINATION**

- A. Coordinate scheduling, submittals, and Work of the various sections of the Project Manual and Plans to assure efficient and orderly sequence of installation of interdependent construction elements.
- B. Coordinate completion and clean up of Work of separate sections in preparation for Substantial Completion.
- C. Coordinate access to site for correction of defective Work and Work not in accordance with Contract Documents to minimize disruption of OWNER'S activities.

**1.4 FIELD ENGINEERING**

- A. Confirm drawing dimensions and elevations.
- B. Submit a copy of as-built drawings in conformance with the Contract Documents.

**1.5 PRE-CONSTRUCTION MEETING**

- A. OWNER will schedule a meeting after Notice of Award.
- B. Attendance Required: OWNER, ENGINEER, and CONTRACTOR.
- C. Agenda:
  - 1. Submission of executed bonds and insurance certificates.
  - 2. Distribution of Contract Documents.
  - 3. Submission of list of Subcontractors, list of Products, Schedule of Values, and Progress Schedule.



4. Designation of personnel representing parties in Contract.
  5. Procedures and processing of field decisions, submittals, and substitutions, Applications for Payments, proposal request, Change orders and Contract Closeout procedures.
  6. Scheduling.
- D. Record minutes and distribute copies within three (3) days after meeting to participants and those affected by decisions made.

## **1.6 PROGRESS MEETINGS**

- A. OWNER will schedule and administer meetings throughout progress of the Work.
- B. Make arrangements for meetings, prepare agenda with copies for participants, and preside at meetings.
- C. Attendance Required: CONTRACTOR, major Subcontractors and Suppliers, OWNER, and ENGINEER, as appropriate to agenda topics for each meeting.
- D. Agenda:
  1. Review minutes of previous meetings.
  2. Review of Work progress.
  3. Field observations, problems, and decisions.
  4. Identification of problems, which impede planned progress.
  5. Review of submittals schedule and status of submittals.
  6. Review of off-site fabrication and delivery schedules.
  7. Maintenance of progress schedule.
  8. Corrective measures to regain projected schedules.
  9. Planned progress during succeeding work period.
  10. Coordination of projected progress.
  11. Maintenance of quality and work standards.
  12. Effect of proposed changes on progress schedule and coordination.
  13. Other business relating to the Work.
- E. Record minutes and distribute copies within two (2) days after meeting to participants and those affected by decisions made.

## **1.7 PRE-INSTALLATION MEETING**

- A. When required in individual specification sections, convene a pre-installation meeting at work site prior to commencing work of the section.
- B. Require attendance of parties directly affecting, or affected by, work of the specific section.
- C. Notify OWNER five (5) days in advance of meeting date.

- D. Prepare agenda and preside at meeting:
  - 1. Review conditions of installation, preparation and installation procedures.
  - 2. Review coordination with related work.
- E. Record minutes and distribute copies within two days after meeting to participants and those affected by decisions made.

**Part 2. PRODUCTS**

Not used

**Part 3. EXECUTION**

Not used

END OF SECTION

## **SECTION 01300 SUBMITTALS**

### **Part 1. GENERAL**

#### **1.1 SECTION INCLUDES**

- A. Submittal procedures.
- B. Construction progress schedules.
- C. Manufacturer's certificates

#### **1.2 RELATED SECTIONS**

- A. Section 01340 - Shop Drawings
- B. Section 01400 - Quality Control
- C. Section 01410 - Testing Laboratory Services
- D. Section 01700 - Contract Closeout
- E. Section 01740 - Warranties and Bonds

#### **1.3 SUBMITTAL PROCEDURES**

- A. Transmit each submittal with a transmittal letter, except Shop Drawings which will be submitted as specified in Section 01340.
- B. Identify Project, Contractor, Subcontractor or supplier; pertinent drawing and detail number, and specification section number, as appropriate.
- C. Apply Contractor's stamp, signed or initialed certifying that review, verification of Products required, field dimensions, adjacent construction Work, and coordination of information, is in accordance with the requirements of the Work and Contract Documents.
- D. Schedule submittals to expedite the Project, and deliver to Engineer with a copy to Owner. Coordinate submission of related items.
- E. Identify variations from Contract Documents and Product or system limitations that may be detrimental to successful performance of the completed Work.
- F. Provide space for Contractor and Engineer review stamps.
- G. Revise and resubmit, identify all changes made since previous submission.
- H. Distribute copies of reviewed submittals as appropriate. Instruct parties to promptly report any inability to comply with provisions.
- I. Submittals not requested will not be recognized or processed.

#### **1.4 CONSTRUCTION PROGRESS SCHEDULES**

- A. Submit initial schedule in duplicate within 10 days after date established in Notice to Proceed.
- B. Show complete sequence of construction by activity, with dates for beginning and completion of each element of construction.
- C. Submit revised schedules with each Application for Payment, identifying changes since previous version. Progress Reports shall include the following:
  - 1. Listing of target delivery dates for material.
  - 2. A narrative of any problem experienced by the Contractor that could impact progress.
- D. Submit a horizontal bar chart with separate line for each section of Work, identifying first work day of each week.

#### **1.5 MANUFACTURER CERTIFICATES**

- A. Submit certifications by manufacturer to Engineer for all materials required on the project, in quantities specified for Product Data.,
- B. Indicate material of Product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certification as appropriate.
- C. Certificates may be recent or previous test results on material or Product, but must be acceptable to Engineer.

#### **Part 2. PRODUCTS**

Not Used

#### **Part 3. EXECUTION**

Not Used.

END OF SECTION

## **SECTION 01340 SHOP DRAWINGS**

### **Part 1. GENERAL**

#### **1.1 REQUIREMENTS INCLUDE**

- A. Shop drawing submittal procedures.
- B. ENGINEER'S review.
- C. Shop drawing schedule.
- D. Number of copies.
- E. Project record documents.

#### **1.2 RELATED SECTIONS**

- A. Standard General Conditions.
- B. Supplementary Conditions
- C. Section 01300 - Submittals.

#### **1.3 SHOP DRAWING SUBMITTAL PROCEDURES**

- A. Coordinate and check all Shop Drawings furnished by suppliers and Subcontractors for accuracy and for conformance with requirements of the Contract Documents.
- B. Attach a copy of a Shop Drawing Transmittal form to each group of Shop Drawings, manufacturer's literature, equipment data and samples submitted. Use a sufficient number of Shop Drawing Transmittal forms to provide for the following:
  - 1. Items on a single transmittal form pertain to the same Specification Section.
  - 2. Items on a single transmittal form are either all original submittals or the same number resubmittal.
  - 3. Each material sample is listed on a separate transmittal form.
- C. Number each submittal consecutively and insert the number in the space provided on the transmittal form. Assign re-submittals the same transmittal number as the original with a suffix of a sequential letter to indicate the resubmittal. For example, the first resubmittal or submittal 25 would be number 25A.
- D. Insert the applicable Specification Section number in the space provided.
- E. Enter the number of each item Submitted.
- F. Indicate whether the submittal is an original submittal, a first resubmittal or a higher numbered resubmittal by checking the proper box.

- G. Indicate the number of resubmittal for second or higher number re-submittals.
- H. Complete the information required under the column headings "Manufacturer", "Manufacturer's Number", "Revision Number" and "Subject". Select a brief title under "Subject" which clearly distinguishes the equipment or material covered by the transmittal from other equipment and material furnished under the Contract.
- I. Complete the certification at the bottom of the Shop Drawing Transmittal form indicating whether or not the submittal is in strict accordance with the Contract Documents. Specifically note all deviations, if any, from the Contract Documents and reasons therefore in the space provided on the Shop Drawing Transmittal form or in a referenced serial letter.
- J. Sign and date the Shop Drawing Submittal form.
- K. Submittals which do not have a fully completed Shop Drawings Transmittal form will be returned along with un-reviewed attachments. Such submittals, even though incomplete, will be counted as a submittal. See Supplementary Conditions.

#### **1.4 1.4 ENGINEER'S REVIEW**

- A. ENGINEER'S review will be completed within a reasonable time after receipt by ENGINEER of each submittal in proper sequence and will be returned to CONTRACTOR with one of the following markings:
  - 1. "No Exception Taken" indicates submittal has been reviewed and appears to be in conformance with requirements of the Contract Documents. CONTRACTOR may proceed with construction shown on the submittal.
  - 2. "Make corrections noted" indicates submittal appears to be in conformance with requirements of the Contract Documents. CONTRACTOR shall incorporate the corrections noted and may proceed with construction shown on the submittal. No resubmittal is required.
  - 3. "Revise and Resubmit" indicates submittal does not appear to be in conformance with the Contract Documents. ENGINEER'S comments will be noted on the submittal or in a separate letter. CONTRACTOR shall recheck, make necessary revisions and resubmit.
  - 4. "Reference" indicates submittal gives general information incidental to but not required for construction.
- B. Review of conformance with design concepts and compliance with Contract Documents does not require ENGINEER to review features solely related to construction or all dimensions, quantities and other data. CONTRACTOR shall not rely on ENGINEER'S approval as a verification or check of all such items in the submittal or of satisfactory and safe installation and construction.

CONTRACTOR shall verify all fabrication and installation requirements, quantities and dimensions.

### **1.5 SHOP DRAWING SCHEDULE**

- A. Include the following:
  - 1. Description of each submittal.
  - 2. Date by which each submittal will be delivered to ENGINEER.
  - 3. Date by which each submittal must be approved to maintain construction schedule.
  - 4. Relevant Specification Section Reference.
- B. Allow reasonable time for ENGINEER to review Shop Drawings and for possible resubmittal.

### **1.6 NUMBER OF COPIES**

- A. Submit the following:
  - 1. Four (4) copies in addition to the number the CONTRACTOR wants returned of each Shop Drawing which has been specifically prepared for the Work.
  - 2. Five (5) copies in addition to the number the CONTRACTOR wants returned of all pre-printed manufacturer's data, brochures, Suppliers, information and other information submitted as Shop Drawings.
  - 3. Five (5) samples except as otherwise specified.

### **1.7 PRESENTATION**

- A. Present in a clear and thorough manner.
- B. Identify field dimensions, show relation to adjacent or critical features or Work.
- C. Provide space for CONTRACTOR and ENGINEER review stamps.
- D. Use sheet size of not less than 8 1/2 by 11 inches and not more than 28 by 40 inches.

## **Part 2. PRODUCTS**

Not used

## **Part 3. EXECUTION**

Not used

END OF SECTION

**SECTION 01400  
QUALITY CONTROL**

**Part 1. PART 1 GENERAL**

**1.1 SECTION INCLUDES**

- A. Quality assurance - control of installation.
- B. Tolerances.
- C. References.
- D. Inspecting and testing laboratory services.
- E. Manufacturers, field services and reports.

**1.2 RELATED SECTIONS**

- A. Section 01300 Submittals: Submission of manufacturers' instructions and certificates.
- B. Section 01410 Testing Laboratory Services.

**1.3 QUALITY ASSURANCE - CONTROL OF INSTALLATION**

- A. Monitor quality control over suppliers, manufacturers, Products, services, site conditions and workmanship, to produce Work of specified quality.
- B. Comply with manufacturers' instructions, including each step in sequence.
- C. Should manufacturers' instructions conflict with Contract Documents, request clarification from ENGINEER before proceeding.
- D. Comply with specified standards as minimum quality for the Work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- E. Perform Work by persons qualified to produce workmanship of specified quality.

**1.4 TOLERANCES**

- A. Monitor tolerance control of installed Products to produce acceptable Work. Do not permit tolerances to accumulate.
- B. Comply with manufacturers' tolerances. Should manufacturers' tolerances conflict with Contract Documents, request clarification from ENGINEER before proceeding.
- C. Adjust Products to appropriate dimensions; position before securing Products in place.



## 1.5 REFERENCES

- A. For Products or workmanship specified by association, trade, or other consensus standards, complies with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.
- B. Conform to reference standard by date of issue current on date of Contract Documents, except where a specific date is established by code.
- C. Obtain copies of standards where required by product specification sections.
- D. The contractual relationship, duties, and responsibilities of the parties to the agreement nor those of the Engineer shall not be altered from the Contract Documents by mention or inference otherwise in any reference document.

## 1.6 INSPECTION AND TESTING SERVICES

- A. Contractor will appoint and employ services of an independent firm to perform inspecting and testing as specified in Section 01410.
- B. The independent firm will perform inspections, tests, and other services as required by the Engineer or the Owner.
- C. Inspecting, testing, and source quality control may occur on or off the project site. Perform off-site inspecting or testing as required by the Engineer or the Owner.
- D. Reports will be submitted by the independent firm to the Engineer in duplicate, indicating observations and results of tests and indicating compliance or non-compliance with Contract Documents.
- E. Cooperate with independent firm; furnish samples of materials, design mix, equipment, tools, storage, safe access, and assistance by incidental labor as requested.
  - 1. Notify Engineer and independent firm 24 hours prior to expected time for operations requiring services.
  - 2. Make arrangements with independent firm and pay for additional samples and tests required for Contractor's use.
- F. Testing or inspecting does not relieve Contractor to perform Work to contract requirements.
- G. If any work is found to be defective in any respect because of a fault of the Contractor, or if any work has been covered over without the approval or consent of the Owner (whether or not it is found to be defective), the Contractor shall be liable for testing costs and all costs of correction,

including labor, material, services or required consultants, additional supervision, and the Owner's administration costs. Said costs will be charged to the Contractor by deducting inspection and testing charges from the contract price.

**Part 2. PRODUCTS**

Not used

**Part 3. EXECUTIONS**

Not used

END OF SECTION

**SECTION 01410**  
**TESTING LABORATORY SERVICES**

**Part 1. PART 1 GENERAL**

**1.1 SECTION INCLUDES**

- A. Selection and payment.
- B. Contractor submittals.
- C. Laboratory responsibilities.
- D. Laboratory reports.
- E. Limits on testing laboratory authority.
- F. Contractor responsibilities.
- G. Schedule of inspections and tests.

**1.2 RELATED SECTIONS**

- A. General Conditions: Inspections, testing, and approvals required by public authorities.
- B. Section 01300 - Submittals: Manufacturer's certificates.
- C. Section 01400 - Quality Control
- D. Section 01700 - Contract Closeout: Project record documents.
- E. Contract Drawing Specification Requirements: Inspections and tests required, and standards for testing.

**1.3 REFERENCES**

- A. ASTM C1077 - Practice for Laboratories Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Laboratory Evaluation.
- B. ASTM D3740 - Practice for Evaluation of Agencies Engaged in Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction.
- C. ASTM E329 - Practice for Use in the Evaluation of Inspection and Testing Agencies as Used in Construction.
- D. ASTM E543 - Practice for Determining the Qualification of Nondestructive Testing Agencies.
- E. ASTM E548 - Practice for Preparation of Criteria for Use in the Evaluation of Testing Laboratories and Inspection Bodies.
- F. ASTM E699 - Practice for Criteria for Evaluation of Agencies Involved in Testing, Quality Assurance, and Evaluating Building Components in Accordance with Test Methods Promulgated by ASTM-Committee E6.

#### **1.4 SELECTION AND PAYMENT**

- A. Employment and payment for services of an independent testing laboratory to perform specified inspecting and testing, by Contractor
- B. Employment - of testing laboratory in no way relieves Contractor of obligation to perform Work in accordance with requirements of Contract Documents.

#### **1.5 QUALITY ASSURANCE**

- A. Comply with requirements of ASTM C1077, ASTM D3740, ASTM D4561, ASTM E329, ASTM E543, ASTM E548, and ASTM E699.
- B. Laboratory: Authorized to operate in State in which Project is located.
- C. Laboratory Staff: Maintain a full time registered Engineer on staff to review services.
- D. Testing Equipment: Calibrated at reasonable intervals with devices of accuracy traceable to either National Bureau of Standards or accepted values of natural physical constants.

#### **1.6 CONTRACTOR SUBMITTALS**

- A. Prior to start of Work, submit testing laboratory name, address, and telephone number, and names of full time registered Engineer and responsible officer.
- B. Submit copy of report of laboratory facilities inspection made by materials Reference Laboratory of National Bureau of Standards during most recent inspection, with memorandum of remedies of any deficiencies reported by the inspection.

#### **1.7 LABORATORY RESPONSIBILITIES**

- A. Test samples of mixes submitted by Contractor.
- B. Provide qualified personnel at site. Cooperate with Engineer and Contractor in performance of services.
- C. Perform specified inspecting, sampling, and testing of Products in accordance with specified standards.
- D. Ascertain compliance of materials and mixes with requirements of Contract Documents.
- E. Promptly notify Engineer and Contractor of observed irregularities or non-conformance of Work or Products.

- F. Perform additional inspection and tests required by Engineer.

## **1.8 LABORATORY REPORTS**

- A. After each inspection and test, promptly submit three (3) copies of laboratory report to Engineer, and to Contractor.
- B. Include:
  - 1. Date issued,
  - 2. Project title and number,
  - 3. Name of inspector,
  - 4. Date and time of sampling or inspection,
  - 5. Identification of product and specifications section,
  - 6. Location on the site,
  - 7. Type of inspection or test,
  - 8. Date of test,
  - 9. Results of tests,
  - 10. Conformance with Contract Documents.
- C. When requested by Engineer or owner, provide interpretation of test results.

## **1.9 LIMITS ON TESTING LABORATORY AUTHORITY**

- A. Laboratory may not release, revoke, alter, or enlarge on requirements of Contract Documents.
- B. Laboratory may not approve or accept any portion of the Work.
- C. Laboratory may not assume any duties of Contractor.
- D. Laboratory has no authority to stop the Work.

## **1.10 CONTRACTOR RESPONSIBILITIES**

- A. Deliver to laboratory at designated location, adequate samples of materials proposed to be used which require testing, along with proposed mix designs.
- B. Cooperate with laboratory personnel, and provide access to the Work and to manufacturers, facilities.
- C. Provide incidental labor and facilities:
  - 1. to provide access to Work to be tested,
  - 2. to obtain and handle samples at the site or at source of Products to be tested,
  - 3. to facilitate tests and inspections,
  - 4. to provide storage and curing of test samples.

- D. Notify Engineer and laboratory 24 hours prior to expected time for operations requiring inspecting and testing services.

#### **1.11 SCHEDULE OF INSPECTIONS AND TESTS**

- A. Provide supervision, labor, equipment, materials to conduct the tests and inspection.

#### **Part 2. PRODUCTS**

Not Used

#### **Part 3. EXECUTION**

Not Used

END OF SECTION

**SECTION 01600  
MATERIAL AND EQUIPMENT**

**Part 1. GENERAL**

**1.1 SECTION INCLUDES**

- A. Products.
- B. Transportation and handling.
- C. Storage and protection.
- D. Product options.
- E. Substitutions.

**1.2 RELATED SECTIONS**

- A. Section 01300 - Submittals.
- B. Section 01400 – Quality Control: Product quality monitoring.

**1.3 PRODUCTS**

- A. Product: Means new material, -machinery, components, fixtures and systems forming the work. Does not include machinery and equipment used for preparation, fabrication, conveying and erection of the work. Product may also include existing materials or components required for reuse.
- B. Do not use materials and equipment removed from existing premises, except as specifically permitted by the Contract Documents.
- C. Provide interchangeable components of the same manufacture for components being replaced.

**1.4 TRANSPORTATION AND HANDLING**

- A. Transport and handle Products in accordance with manufacturer's instructions.
- B. Promptly inspect shipments to ensure that Products comply with requirements, quantities are correct, and Products are undamaged.
- C. Provide equipment and personnel to handle Products by methods to prevent soiling, disfigurement, or damage.

**1.5 STORAGE AND PROTECTION**

- A. Store and protect Products in accordance with manufacturers' instructions.
- B. Store with seals and labels intact and legible.

- C. Store sensitive Products in weather tight, climate controlled, enclosures in an environment favorable to Product.
- D. For exterior storage of fabricated Products, place on sloped supports above ground.
- E. Provide off -site storage and protection when site does not permit on-site storage or protection.
- F. Cover Products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of-Products.
- G. Store loose granular materials on solid flat surfaces in a well-drained area. Prevent mixing with foreign matter.
- H. Provide equipment and personnel to store Products by methods to prevent soiling, disfigurement, or damage.
- I. Arrange storage of Products to permit access for inspection. Periodically inspect to verify Products are undamaged and are maintained in acceptable condition.
- J. After receipt of products, the Contractor assumes responsibility for loss and damage including but not limited to breakage, corrosion, weather damage and distortion.
- K. Notify Owner and Engineer in writing upon acceptance of a shipment.

## **1.6 PRODUCT OPTIONS**

- A. Products Specified by Reference Standards or by Description Only: Any Product meeting those standards or description.
- B. Products Specified by Naming One or More Manufacturers: Products of manufacturers named and meeting specifications, no options or substitutions allowed.
- C. Products Specified by Naming One or More Manufacturers with a Provision for Substitutions: Submit a request for substitution for any manufacturer not named in accordance with the following article.

## **1.7 SUBSTITUTIONS**

- A. Engineer will consider requests for Substitutions only within 15 days after date established in Notice to Proceed.
- B. Substitutions may be considered when a Product becomes unavailable through no fault of the Contractor.



- C. Document each request with complete data substantiating Compliance of proposed Substitution with Contract Documents.
- D. A request constitutes a representation that the Contractor:
  - 1. Has investigated proposed Product and determined that it meets or exceeds the quality level of the specified Product.
  - 2. Will provide the same warranty for the Substitution as for the specified Product.
  - 3. Will coordinate installation and make changes to other Work that may be required for the Work to be complete with no additional cost to Owner.
  - 4. Waives claims for additional costs or time extension that may subsequently become apparent.
  - 5. Will reimburse owner and Engineer for review or redesign services associated with re-approval by authorities.
- E. Substitutions will not be considered when they are indicated or implied on shop drawing or product data submittals, without separate written request, or when acceptance will require revision to the Contract Documents.
- F. Substitution Submittal Procedure:
  - 1. Submit three copies of request for Substitution for consideration. Limit each request to one proposed Substitution.
  - 2. Submit shop drawings, product data, and certified test results attesting to the proposed Product equivalence. Burden of proof is on proposer.
  - 3. The Engineer will notify Contractor in writing of decision to accept or reject request.

**Part 2. PRODUCTS**

Not used.

**Part 3. EXECUTION**

Not Used.

END OF SECTION

**SECTION 01700  
CONTRACT CLOSEOUT**

**Part 1. GENERAL**

**1.1 SECTION INCLUDES**

- A. Closeout procedures.
- B. Final cleaning.
- C. Project record documents.
- D. As-built and conformed to Construction Record Drawings.
- E. Warranties and Bonds.

**1.2 RELATED SECTIONS**

- A. Standard General Conditions
- B. Supplementary Conditions
- C. Section 01025 - Measurement and Payment
- D. Section 01300 - Submittals
- E. Section 01340 - Shop Drawings
- F. Section 01740 - Warranties and Bonds

**1.3 CLOSEOUT PROCEDURES**

- A. Submit written certification that Contract Documents have been reviewed, Work has been inspected, and that Work is complete in accordance with Contract Documents and ready for Engineer's inspection.
- B. Provide submittals to Engineer and Owner that are required by governing or other authorities.
- C. Submit final Application for Payment identifying total adjusted Contract Sum, previous payments, and balance due.

**1.4 FINAL CLEANING**

- A. Execute final cleaning prior to final project assessment.
- B. Clean equipment and fixtures to a sanitary condition with cleaning materials appropriate to the surface and material being cleaned.
- C. Clean site; sweep paved areas.
- D. Remove waste and surplus materials, rubbish, and construction facilities from the site.

## **1.5 PROJECT RECORD DOCUMENTS**

- A. Maintain on site, one set of the following record documents; record actual revisions to the Work:
  - 1. Drawings.
  - 2. Specifications.
  - 3. Addenda.
  - 4. Change Orders and other modifications to the Contract.
  - 5. Reviewed Shop Drawings, Product Data, and Samples.
  - 6. Manufacturer's instruction for assembly, installation, and adjusting.
- B. Ensure entries are complete and accurate, enabling future reference by owner.
- C. Store record documents separate from documents, used for construction.
- D. Record information concurrent with construction progress.
- E. Specifications: Legibly mark and record at each Product section description of actual Products installed, including the following:
  - 1. Manufacturer's name and product model and number.
  - 2. Product substitutions or alternates utilized.
  - 3. Changes made by Addenda and modifications.
- F. Record Documents and Shop Drawings: Legibly mark each item to record actual construction including:
  - 1. Measured elevations of buried piping.
  - 2. Measured locations of existing buried utilities and appurtenances encountered during the progress of the work.
  - 3. Field changes of dimension and detail.
  - 4. Details not on original Contract drawings.

## **1.6 AS-BUILT AND CONFORMED TO CONSTRUCTION RECORD DRAWINGS**

- A. As-built for products: In accordance with Section 01340.
- B. Conformed to construction Record Drawings: One complete set of full size prints marked to show changes and revisions to date of the project completion.

## **1.7 WARRANTIES AND BONDS**

- A. Submit in accordance with Section 01740.

**Part 2. PRODUCTS**

Not Used

**Part 3. EXECUTION**

Not Used

END OF SECTION

**SECTION 01740  
WARRANTIES AND BONDS**

**Part 1. GENERAL**

**1.1 SECTION INCLUDES**

- A. Preparation and submittal.
- B. Time and schedule of submittals.

**1.2 RELATED' SECTIONS**

- A. Instruction to Bidders
- B. General Conditions: Performance bond and labor and material payment bonds, warranty, and correction of work.
- C. Section 01700 - Contract Closeout: Contract closeout procedures.
- D. Section 01700 - Contract Closeout.
- E. Contract Drawing Specifications: Warranties required for specific Products or Work.

**1.3 FORM OF SUBMITTALS**

- A. Bind in commercial quality 8-1/2 x 11 inch three ring binders with durable plastic covers.
- B. Cover: Identify each binder with typed or printed title WARRANTIES AND BONDS, with title of Project; name, address and telephone number of Contractor and supplier; and name of responsible company principal.
- C. Table of Contents: Neatly typed, in the sequence of the Table of Contents of the Project Manual, with each item identified with the number and title of the specification section in which specified, and the name of Product or work item.
- D. Separate each warranty or bond with index tab sheets keyed to the Table of Contents listing. Provide full information, using separate typed sheets as necessary. List Subcontractor, supplier, and manufacturer, with name, address, and telephone number of responsible principal.

**1.4 PREPARATION OF SUBMITTALS**

- A. Obtain warranties and bonds, executed in duplicate by responsible Subcontractors, suppliers, and manufacturers, within ten days after completion of the applicable item of work. Except for items put into use with

Owner's permission, leave date of beginning of time of warranty until the Date of Substantial completion is determined.

- B. Verify that documents are in proper form, contain full information, and are notarized.
- C. Co-execute submittals' when required.
- D. Retain warranties and bonds until time specified for submittal.

#### **1.5 TIME OF SUBMITTALS**

- A. Make submittals within ten days after Date of Substantial Completion, prior to final Application for Payment.
- B. For items of Work for which acceptance is delayed beyond Date of Substantial Completion, submit within ten days after acceptance, listing the date of acceptance as the beginning of the warranty period.

#### **Part 2. PRODUCTS**

Not Used

#### **Part 3. EXECUTION**

Not Used

END OF SECTION