

## SECTION 01025

### MEASUREMENT AND PAYMENT

#### PART 1 - GENERAL

##### 1.01 SUMMARY

- A. This Section covers the method of measuring completed work for payments to the Contractor.
- B. Measurement shall be as described under each bid item in Part 3 herein.
- C. Payment for the various items on the Bid Schedule, as further specified herein, shall include all compensation to be received by the Contractor for furnishing all tools, equipment, supplies, and manufactured articles, and for all labor, operations, and incidentals as necessary to complete the various items of the work all in accordance with the requirements of the Contract Documents, including all appurtenances thereto and including all costs of compliance with the regulations of public agencies having jurisdiction, including safety and health requirements of the Occupational Safety and Health Administration of the U. S. Department of Labor (OSHA) and the Washington Industrial Safety and Health Act (WISHA) Department of Labor and Industries. No separate payment will be made for any item that is not specifically set forth in the Bid Schedule, and all costs thereof shall be included in the prices named in the Bid Schedule for the various items of work.
- D. Indirect costs, including but not limited to, supervision and overhead, profit, the general conditions specified in the Contract, all shall be allocated to each bid item as applicable for work defined in the bid item. No separate payment will be made to the Contractor for these items.
- E. No payment will be made for work and materials that are not in compliance with the requirements of the Contract Documents.

##### 1.02 PROGRESS PAYMENTS

- A. Progress payments shall be made monthly for work completed for each bid item and in accordance with the Schedule of Values and shall be based on the measurement sections specified in Part 3 herein.
- B. For lump sum items, estimates of percent complete will be made based on the amount of work completed and completion of observable milestones in accordance with the Schedule of Values, as specified in Paragraph 1.04.

##### 1.03 DESCRIPTION OF BID ITEMS

- A. Bid item descriptions are provided to delineate the work and represent an approximation of the scope of work. The prices named in the Bid Schedule shall include all work necessary for a complete and functional system, in place and operating, whether included in the bid item description or not.

- B. Bid Item Nos. 4 through 13 are delineated according to the Areas identified on the Drawings. The bid item limits for each Area shall extend 5 feet beyond each Area or structure. In cases where two Areas are adjacent, the bid item limits shall be the common line between the two Areas. Bid Item No. 3 shall include all other work on the Drawings and in the Specifications that is not specifically included in a designated Area.

#### 1.04 SCHEDULE OF VALUES

- A. Description of Work
  - 1. Contractor shall submit to the Engineer a Schedule of Values allocated to the various portions of the work within 15 days after Award of Contract.
  - 2. Upon request of the Engineer, support the values with data which will substantiate their correctness.
  - 3. The Schedule of Values, unless objected to by the Engineer, shall be used only as the basis for the Contractor's Applications for Payment.
  - 4. Payment shall not be made until the Schedule of Values has been reviewed and accepted by the Engineer.
- B. Form and Content of Schedule of Values
  - 1. Present schedule on 8½ inch by 11 inch white paper; Contractor's standard forms and automated printout will be considered for approval by Engineer upon Contractor's request. Identify schedule with:
    - a. Title of project and location
    - b. Engineer and project number
    - c. Name and address of Contractor
    - d. Date of submission.
  - 2. Schedule shall list the installed value of the component parts of the work in sufficient detail to serve as a basis for computing value for progress payments during construction.
  - 3. The major line items of the Schedule of Values shall be the Bid Items listed in the Bid Schedule.
  - 4. For each major line item, list subvalues of major products or operations under the item.
  - 5. For the various portions of the work:
    - a. Each item shall include a directly proportional amount of the Contractor's overhead and profit.
    - b. For items on which progress payments will be requested for stored materials, break down the values into:
      - 1) The cost of materials, delivered, and unloaded.
      - 2) The total installed value.
  - 6. The sum of all values listed in the schedule shall equal the total contract sum.
- C. Review and Resubmittal
  - 1. After review by Engineer, revise and resubmit schedule as required.
  - 2. Resubmit revised schedules in same manner.

PART 2 - PRODUCTS - Not applicable to this Section.

## PART 3 – EXECUTION

### 3.01 MOBILIZATION/DEMobilIZATION, BONDS, AND INSURANCE (Bid Item No. 1)

- A. Payment: Payment for Mobilization/Demobilization, Bonds, and Insurance (Bid Item No. 1) will be made at the lump sum price stated in the Bid Schedule. The lump sum price for Bid Item No. 1 shall include all costs associated with mobilizing and demobilizing personnel, equipment, supplies, offices and other facilities necessary for the work; bond and insurance premiums; surveying; coordination, connection, and service charges for temporary and permanent electrical, water, telephone, and natural gas utilities; additional permits required to complete the work; miscellaneous start-up costs; and demobilization.
- B. Measurement: Bid Item No. 1 shall be paid for as a lump sum.
  - 1. When five (5) percent of the total original Contract amount is earned from other bid items, forty (40) percent of the amount bid for mobilization, or five (5) percent of the total original contract amount, whichever is least, will be paid.
  - 2. When ten (10) percent of the total original Contract amount is earned from other bid items, seventy (70) percent of the amount of bid for mobilization, or five (5) percent of the total original Contract amount, whichever is least, will be paid.
  - 3. When ninety (90) percent of the total original Contract amount is earned from other bid items, ninety (90) percent of the amount of bid for mobilization will be paid.
  - 4. Upon completion of the work, payment of any remaining amount for Bid Item No. 1 will be paid.

### 3.02 EXCAVATION SAFETY (Bid Item No. 2)

- A. Payment: The payment for Excavation Safety (Bid Item No. 2) will be made at the lump sum price stated in the Bid Schedule. The lump sum price for Bid Item No. 2 shall include all necessary work, equipment, materials, labor, and incidentals for providing shoring, sheeting, and bracing for excavations and trenches in accordance with federal, state, and local safety requirements.
- B. Measurement: Bid Item No. 2 shall be paid for as a lump sum. Progress payments will be made in accordance with the submitted and approved Schedule of Values.

### 3.03 GENERAL SITE (Bid Item No. 3)

- A. Payment: The payment for General Site (Bid Item No. 3) will be made at the lump sum price stated in the Bid Schedule. The lump sum price for Bid Item No. 3 shall include all necessary work, equipment, materials, labor, and incidentals for general site work, including but not limited to erosion control; dewatering; demolition; relocation of utilities; temporary piping and utilities; relocation of gate and installation of fencing; earthwork including structure and trench excavation, fill, haul, and finish grading; pavement removal and disposal; yard piping; asphalt paving; retaining walls; site electrical, including conduit, wire, signal cable, and fiber optic cable; and all other work not otherwise included in Bid Item Nos., 1, 2, or 4 through 13.
- B. Measurement: Bid Item No. 3 shall be paid for as a lump sum. Progress payments will be made in accordance with the submitted and approved Schedule of Values.

### 3.04 HEADWORKS (Bid Item No. 4)

- A. Payment: The payment for Headworks (Bid Item No. 4) will be made at the lump sum price stated in the Bid Schedule. The lump sum price for Bid Item No. 4 shall include all necessary work, equipment, materials, labor, and incidentals, including but not limited to, demolition, subgrade preparation and incidental excavation, structural, architectural, mechanical, process, electrical, instrumentation, and controls for construction of the headworks screening and grit removal system, as shown on the Area 100 contract drawings. It shall include installing equipment in this area supplied under the Phase 2 MBR Equipment and Services Assigned Contract (Bid Item 14).
- B. Measurement: Bid Item No. 4 shall be paid for as a lump sum. Progress payments will be made in accordance with the submitted and approved Schedule of Values.

### 3.05 AERATION BASINS (Bid Item No. 5)

- A. Payment: The payment for Aeration Basins (Bid Item No. 5) will be made at the lump sum price stated in the Bid Schedule. The lump sum price for Bid Item No. 5 shall include all necessary work, equipment, materials, labor, and incidentals, including but not limited to, demolition, subgrade preparation and incidental excavation, structural, architectural, mechanical, process, electrical, instrumentation, and controls for construction of the Aeration Basins, as shown on the Area 200 contract drawings. It shall include installing equipment in this area supplied under the Phase 2 MBR Equipment and Services Assigned Contract (Bid Item 14)
- B. Measurement: Bid Item No. 5 shall be paid for as a lump sum. Progress payments will be made in accordance with the submitted and approved Schedule of Values.

### 3.06 MBR TANKS (Bid Item No. 6)

- A. Payment: The payment for MBR Tanks (Bid Item No. 6) will be made at the lump sum price stated in the Bid Schedule. The lump sum price for Bid Item No. 6 shall include all necessary work, equipment, materials, labor, and incidentals, including but not limited to, demolition, subgrade preparation and incidental excavation, structural, architectural, mechanical, process, electrical, instrumentation, and controls for construction of the MBR Tanks, as shown on the Area 300 contract drawings. It shall include installing equipment in this area supplied under the Phase 2 MBR Equipment and Services Assigned Contract (Bid Item 14)
- B. Measurement: Bid Item No. 6 shall be paid for as a lump sum. Progress payments will be made in accordance with the submitted and approved Schedule of Values.

### 3.07 MBR SUPPORT BUILDING (Bid Item No. 7)

- A. Payment: The payment for MBR Support Building (Bid Item No. 7) will be made at the lump sum price stated in the Bid Schedule. The lump sum price for Bid Item No. 7 shall include all necessary work, equipment, materials, labor, and incidentals, including but not limited to, demolition, subgrade preparation and incidental excavation, structural, architectural, mechanical, process, electrical,

instrumentation, and controls for construction of the MBR Support Building, as shown on the Area 400 contract drawings. It shall include installing equipment in this area supplied under the Phase 2 MBR Equipment and Services Assigned Contract (Bid Item 14)

- B. Measurement: Bid Item No. 7 shall be paid for as a lump sum. Progress payments will be made in accordance with the submitted and approved Schedule of Values.

### 3.08 SECONDARY SUPPORT BUILDING (Bid Item No. 8)

- A. Payment: The payment for Secondary Support Building (Bid Item No. 8) will be made at the lump sum price stated in the Bid Schedule. The lump sum price for Bid Item No. 8 shall include all necessary work, equipment, materials, labor, and incidentals, including but not limited to, demolition, subgrade preparation and incidental excavation, structural, architectural, mechanical, process, electrical, instrumentation, and controls for construction of the Secondary Support Building, as shown on the Area 500 contract drawings. It shall include installing equipment in this area supplied under the Phase 2 MBR Equipment and Services Assigned Contract (Bid Item 14)

- B. Measurement: Bid Item No. 8 shall be paid for as a lump sum. Progress payments will be made in accordance with the submitted and approved Schedule of Values.

### 3.09 DIGESTERS (Bid Item No. 9)

- A. Payment: The payment for Digesters (Bid Item No. 9) will be made at the lump sum price stated in the Bid Schedule. The lump sum price for Bid Item No. 9 shall include all necessary work, equipment, materials, labor, and incidentals, including but not limited to, demolition, subgrade preparation and incidental excavation, structural, architectural, mechanical, process, electrical, instrumentation, and controls for construction of the Digesters, as shown on the Area 600 contract drawings.

- B. Measurement: Bid Item No. 9 shall be paid for as a lump sum. Progress payments will be made in accordance with the submitted and approved Schedule of Values.

### 3.10 SOLIDS HANDLING BUILDING (Bid Item No. 10)

- A. Payment: The payment for Solids Handling Building (Bid Item No. 10) will be made at the lump sum price stated in the Bid Schedule. The lump sum price for Bid Item No. 10 shall include all necessary work, equipment, materials, labor, and incidentals, including but not limited to, demolition, subgrade preparation and incidental excavation, structural, architectural, mechanical, process, electrical, instrumentation, and controls for construction of the Solids Handling Building, as shown on the Area 700 contract drawings.

- B. Measurement: Bid Item No. 10 shall be paid for as a lump sum. Progress payments will be made in accordance with the submitted and approved Schedule of Values.

### 3.11 EQUIPMENT BUILDING (Bid Item No. 11)

- A. Payment: The payment for Equipment Building (Bid Item No. 11) will be made at the lump sum price stated in the Bid Schedule. The lump sum price for Bid Item No. 11 shall include all necessary work, equipment, materials, labor, and incidentals, including but not limited to, demolition, subgrade preparation and incidental excavation, structural, architectural, mechanical, process, electrical, instrumentation, and controls for construction of the Equipment Building, as shown on the Area 800 contract drawings.
- B. Measurement: Bid Item No. 11 shall be paid for as a lump sum. Progress payments will be made in accordance with the submitted and approved Schedule of Values.

### 3.12 LAB/OFFICE BUILDING (Bid Item No. 12)

- A. Payment: The payment for Lab/Office Building (Bid Item No. 12) will be made at the lump sum price stated in the Bid Schedule. The lump sum price for Bid Item No. 12 shall include all necessary work, equipment, materials, labor, and incidentals, including but not limited to, demolition, subgrade preparation and incidental excavation, structural, architectural, mechanical, process, electrical, instrumentation, and controls for construction of the Lab/Office Building, as shown on the Area 900 contract drawings.
- B. Measurement: Bid Item No. 12 shall be paid for as a lump sum. Progress payments will be made in accordance with the submitted and approved Schedule of Values.

### 3.13 ODOR CONTROL (Bid Item No. 13)

- A. Payment: The payment for Odor Control (Bid Item No. 13) will be made at the lump sum price stated in the Bid Schedule. The lump sum price for Bid Item No. 13 shall include all necessary work, equipment, materials, labor, and incidentals, including but not limited to, demolition, subgrade preparation and incidental excavation, structural, architectural, mechanical, process, electrical, instrumentation, and controls for construction of the Odor Control system, as shown on the Area 1000 contract drawings.
- B. Measurement: Bid Item No. 13 shall be paid for as a lump sum. Progress payments will be made in accordance with the submitted and approved Schedule of Values.

### 3.14 PHASE 2 MBR EQUIPMENT AND SERVICES (Bid Item No. 14)

- A. Payment: Payment for Bid Item No. 14, Phase 2 Membrane Bioreactor (MBR) Equipment and Services, shall be made at the assigned contract lump sum price stipulated in the Proposal. The lump sum price provides all compensation to Enviroquip. The Contractor's administration and coordination costs of the assigned membrane contract and the cost of installation of the equipment are included in other bid items.

- B. Measurement: Bid Item No. 14 shall be paid for as a lump sum. Monthly progress payments will be made by the City to the Contractor based on the percentage of work completed and the prices indicated in the submitted and approved Schedule of Values for the Phase 2 MBR System Equipment and Services Assigned Contract.

END OF SECTION