

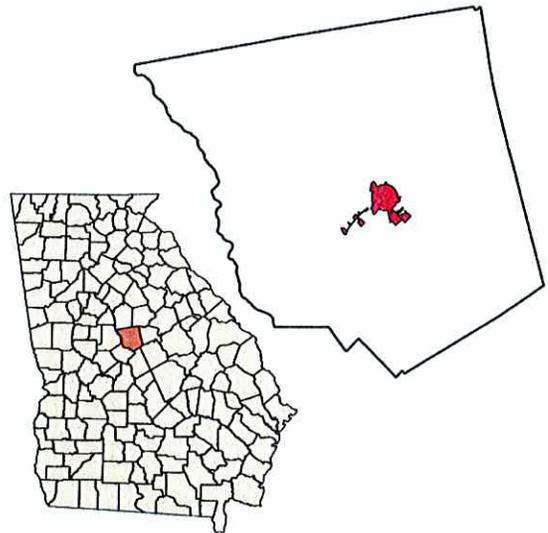


# Contract Documents & Specifications

## Bus Parking & Building Improvements

for the

### Jones County Board of Education



March, 2021

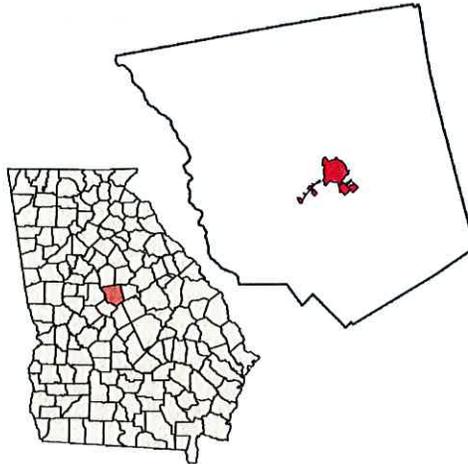
I&A Project No.: 1162-003-01



**CONTRACT DOCUMENTS  
and  
SPECIFICATIONS**

**BUS PARKING &  
BUILDING IMPROVEMENTS**

**FOR THE**



**Jones County  
Board of Education**

**MARCH, 2021**

**I & A PROJECT NO.: 1162-003-01**



**INGRAM & ASSOCIATES, L.L.C.**  
332 New Street  
Macon, Georgia 31201

PROJECT IDENTIFICATION:

**Bus Parking & Building Improvements  
Jones County Board of Education**

THIS BID IS SUBMITTED TO:

**Jones County Board of Education  
125 Stewart Avenue  
Gray, GA 31032**

THIS BID IS SUBMITTED FROM:

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

Contact Person: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

Phone Number: \_\_\_\_\_

Fax Number: \_\_\_\_\_

The undersigned BIDDER proposes and agrees, if this Bid is accepted, to enter into an agreement with OWNER to perform and furnish all Work as specified or indicated in the Contract Documents for the Contract Price and within the Contract Time indicated in this Bid and in accordance with the other terms and conditions of the Contract Documents.

BIDDER accepts all of the terms and conditions of the Advertisement or Invitation to Bid and Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for sixty days after the day of Bid opening. BIDDER will sign and submit the Agreement with the Bonds and other documents required by the Bidding Requirements within five days after the date of OWNER's Notice of Award.

In submitting this Bid, BIDDER represents, as more fully set forth in the Agreement, that: BIDDER has examined copies of all the Bidding Documents and of the following Addenda (receipt of all which is hereby acknowledged):

Date

Number

\_\_\_\_\_

\_\_\_\_\_

## Bid Form

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BIDDER has familiarized itself with the nature and extent of the Contract Documents, Work, site, locality, and all local conditions and Laws and Regulations that in any manner may affect cost, progress, performance or furnishing of the Work.

BIDDER has reviewed and checked all information and data shown or indicated on the Plans with respect to existing Underground Facilities at or contiguous to the site and assumes responsibility for the accurate location of said Underground Facilities. No additional examinations, investigations, explorations, tests, reports or similar information or data in respect of said Underground Facilities are or will be required by BIDDER in order to perform and furnish the Work at the Contract Price, within the Contract Time and in accordance with the Plans.

BIDDER has correlated the results of all such observations, examinations, investigations, explorations, tests, reports and studies with the terms and conditions of the Contract Documents.

BIDDER has given ENGINEER written notice of all conflicts, errors, or discrepancies that it has discovered in the Contract Documents and the written resolution thereof by ENGINEER is acceptable to BIDDER.

This Bid is genuine and not made in the interest of or on behalf of any undisclosed person, firm or corporation and is not submitted in conformity with an agreement or rules of any group, association, organization or corporation; BIDDER has not directly or indirectly induced or solicited any other corporation to refrain from bidding; and BIDDER has not sought by collusion to obtain for itself any advantage over any other BIDDER or over OWNER. Bids will be good for **60** days.

BIDDER agrees to commence work under this Agreement on or before a date to be specified in a written "Notice to Proceed" of the OWNER and to fully complete the work as specified in **90** consecutive calendar days

Reconnecting of the existing water mains must be coordinated with Mr. Joe Evans and must be completed during a weekend or after school is out.

**THE REST OF THIS PAGE INTENTIONALLY LEFT BLANK.**

**Jones County Board of Education  
Bus Parking & Building Improvements**

Item No.	QTY	UNIT	DESCRIPTION	Unit Price	Total Price
1	1	LS	Site Preparation, Disposal of Debris, Insurance, Bonds, Mobilization/Demobilization, Stakeout and Site Cleanup, etc.	\$	\$
2	1	LS	Quality Control Testing (Owner selected Geotechnical Consultant)	\$	\$
3	1	LS	Erosion, Sedimentation & Pollution Control including; all BMPs not specifically itemized below, inspections, maintenance/removals, and temporary grassing/mulching measures	\$	\$
4	1	EA	Temporary Gravel Construction Exit (Co)	\$	\$
5	3	MO	NPDES Permit GAR100002 Monitoring & Reporting	\$	\$
6	30	LF	Silt Fence Type "A" (Sd1-A)	\$	\$
7	8	EA	Inlet Sediment Trap (Sd2)		
8	0.31	AC	Turf Establishment Permanent Targeted Species-common Bermuda	\$	\$
9	1	LS	Grading Complete -Approx. Fill 288 CY(230 CY needed with assumed 20% shrinkage included) -1121 CY of cut volume available	\$	\$
10	484	LF	18" HDPE Storm Pipe	\$	\$
11	130	LF	12" HDPE Storm Pipe	\$	\$
12	200	LF	4" Perforated HDPE Drain Pipe	\$	\$
13	2	EA	Junction Box	\$	\$
14	3	EA	Grated Inlet	\$	\$
15	2	EA	Pedestal Top Inlet	\$	\$
16	2	EA	24" Nyloplast Drain Basin	\$	\$
17	1765	TN	Graded Aggregate Base Construction (GDOT 300 and 310)(2801 SY @ 12" Thick)	\$	\$
18	2	EA	Trees to be Removed (in Phase 2 Area Only)	\$	\$
19	187	LF	Concrete Retaining Wall	\$	\$
20	245	LF	6" Water Main Relocation	\$	\$
21	50	LF	10" Water Main Relocation	\$	\$
22	2	EA	10" Gate Valve	\$	\$
23	1	EA	6" Gate Valve	\$	\$
24	1470	SF	Concrete Sidewalk (4" Thick)	\$	\$
25	1170	SF	Concrete Ramp (6" Thick)	\$	\$

**TOTAL BASE BID:** \$ \_\_\_\_\_

**Bid Form**

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Bidder agrees to furnish materials and equipment and to perform all labor necessary for the construction of the: **Bus Parking & Building Improvements** for the total base bid amount of \_\_\_\_\_ (\$\_\_\_\_\_).

If awarded, a contract shall be awarded to the responsible bidder that fulfills the needs and requirements set forth by the **Jones County Board of Education**.

The above lump sum and unit prices shown shall include all labor, materials, bailing, shoring removal, overhead, profit, insurance, etc., to cover the finished work of the several kinds called for.

BIDDER understands that the OWNER reserves the right to reject any or all bids and to waive any informality in the bidding.

The following documents are attached to and made a condition of this Bid:

- a. Required Bid Bond for the sum of \_\_\_\_\_ Dollars (\$\_\_\_\_\_) according to the conditions of "Instructions to Bidders".
- b. Bid Data submitted by BIDDER that indicates standard specifications, details or drawings with any deviation from the specifications indicated.

SUBMITTED on \_\_\_\_\_, 20 \_\_\_\_.

BIDDER: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

Phone: \_\_\_\_\_

Fax: \_\_\_\_\_

Seal: (if bid by a Corporation)

**END OF SECTION**

**PART 1 GENERAL****1.01 DESCRIPTION**

- A The Work to be performed under this Contract shall consist of furnishing all labor, specified materials, tools, equipment and all miscellaneous appurtenances and performing all Work required to perform the construction of the project titled **Bus Parking and Building Improvements for the Jones County Transportation Office** as shown on the construction drawings. Construction consists of furnishing all labor, equipment, specified materials, and all appurtenances necessary for a complete project.
- B All Work described above shall be performed as shown on the Drawings and as specified.

**1.02 PROJECT LOCATION**

The equipment and materials to be furnished will be installed at the locations shown on the drawings.

**1.03 QUANTITIES**

The Owner reserves the right to alter the quantities of work to be performed or to extend or shorten the improvements at any time when found necessary, and the Contractor shall perform the work as altered, increased, or decreased. Payment for such increased or decreased quantity will be made in accordance with the Instructions to Bidders. No allowance will be made for any change in anticipated profits nor shall such changes be considered as waiving or invalidating any condition or provisions of the Contract and Bond.

**1.04 PARTIAL OWNER OCCUPANCY**

The existing facilities to which these improvements are being made will continue in operation during the period of construction.

**1.05 DRAWING INDEX**

Sheet No.	Title
	Title Sheet
1	General Notes & Legend
2	Site Plans & Profile
3	Phase II Conceptual Layout
4-5	Miscellaneous Details
6	Erosion Control Notes & Details

**END SECTION**

Summary of Work

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**PART 1 GENERAL**

**1.1 SCOPE**

- A. This Section describes the methods by which measurement will be made of the quantities for which payment will be made for the Project.
- B. The Bid lists each item of the Project for which payment will be made. No payment will be made for any items other than those listed in the Bid.
- C. Required items of work and incidentals necessary for the satisfactory completion of the work which are not specifically listed in the Bid, and which are not specified in this Section to be measured or to be included in one of the items listed in the Bid, shall be considered as incidental to the work. All costs thereof, including Contractor's overhead costs and profit, shall be considered as included in the lump sum or unit prices bid for the various Bid items. The Contractor shall prepare the Bid accordingly.
- D. Work includes furnishing all plant, labor, equipment, tools and materials, which are not furnished by the Owner and performing all operations required to complete the work satisfactorily, in place, as specified and as indicated on the Drawings.

**1.2 MEASUREMENT OF WORK**

- A. Measurement of an item of work will be by the unit indicated in the Bid Form.
- B. Final payment quantities shall be determined from the record drawings. The record drawing lengths, dimensions, quantities, etc. shall be determined by a survey after the completion of all required work. The precision of final payment quantities shall match the precision shown for that item in the Bid Form.
- C. Payment will include all necessary and incidental related work not specified to be included in any other item of work listed in the Bid Form.
- D. Unless otherwise stated in individual sections of the Specifications or in the bid, no separate payment will be made for any item of work, materials, parts, equipment, supplies or related items required to perform and complete the work. The costs for all such items required shall be included in the price bid for item of which it is a part.
- E. Payment will be made by extending unit prices multiplied by quantities provided and then summing the extended prices to reflect actual work. Such price and payment shall constitute full compensation to the Contractor for furnishing all plant, labor, equipment, tools and materials not furnished by the Owner and for

## Measurement and Payment

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- performing all operations required to provide to the Owner the entire Project, complete in place, as specified and as indicated on the Drawings.
- F. "Products" shall mean materials or equipment permanently incorporated into the work.
  - G. "Provide" shall mean furnish and install.
  - H. Measurement methods delineated in the individual specification sections complement the criteria of this section. In the event of conflict, the requirements of the individual specification section govern.
  - I. Work shall be measured by the [Engineer or his representative] [Owner] with assistance from the Contractor prior to preparation of a payment request by the Contractor.
  - J. Unit quantities that are measured in place shall be measured monthly. The Contractor shall give the Engineer a minimum of two days notice for making all required measurements.
  - K. Materials that must be measured as delivered shall be measured at the time of delivery by the Engineer or his representative; the Contractor shall provide sufficient advance notice so that such measurements can be made.
  - L. Work completed shall be measured for completion against the schedule of values provided by the Contractor in accordance with the General Conditions. Related work necessary for a complete and operational job, such as relocation of mail boxes removal of trees, relocation of utilities, field engineering, clearing and grubbing, traffic control, etc., not specifically identified as a pay item shall be included in the unit price bid. No additional payments will be made for such activities.

### 1.3 ESTIMATED QUANTITIES

- A. All estimated quantities for unit price items, stipulated in the BID FORM, or other Contract Documents, are approximate and are to be used as a basis for comparing the bids submitted for the Project. The actual amounts of work done and materials furnished under unit price items may differ from the estimated quantities. The basis of payment for work and materials will be the actual amount of work done and materials furnished. The Contractor agrees to make no claim for damages, anticipated profits or otherwise on account of any difference between the amounts of work actually furnished and the estimated amounts included in the BID FORM. The Contractor will not be paid for any work which exceeds the quantity set forth in the BID FORM without a change order issued before the work is performed unless specifically ordered in writing by the Engineer. The Contractor will provide

assistance to the Engineer to check quantities and elevations when so requested.

#### **1.4 MEASUREMENT OF QUANTITIES**

- A. Measurement by Weight – Concrete reinforcing steel, rolled or formed steel or other metal shapes will be measured by handbook weights. Welded assemblies will be measured by handbook or scale weight.
- B. Measurement by Volume – Measured by cubic dimension using mean length, width and height or thickness.
- C. Measurement by Area – Measured by square dimension using mean length and width or radius.
- D. Linear Measurement – Measured by linear dimension, at the item centerline or mean chord.
- E. Stipulated Sum/Price Measurement – Items measured by weight, volume, area, or linear means or combination, as appropriate, as a completed item or unit of the Work.

#### **1.5 PROGRESS PAYMENTS**

- A. Progress payments shall be based on the quantity of units installed.
- B. All items of Work not specifically listed in the Bid Schedule shall be considered incidental to the construction, and the cost of all such work and material shall be included in the prices bid for various items listed.
- C. All items listed for measurement and payment shall include all machinery, plant, materials and labor, etc., to successfully and satisfactorily complete Work specified.
- D. Payment – The Contractor will receive payment only for the items listed in the Bid Schedule of his contract, and no separate payments will be made for the work under any section of the Contract Documents except as provided for in the Bid Form. Where measurements are required to be made by the Engineer, for the payment of a pay item, the failure of the Contractor to give the adequate notification or failure of the Contractor to give the engineer assistance for the measurement shall result in the forfeiture of payment for the work or item, which was not measured.
- E. Work to be paid for as a “Lump Sum” shall be measured for completion against the “Schedule of Values” provided by the Contractor. The “Schedule of Values” shall be submitted at the Preconstruction conference and shall include quantities and prices of items aggregating the total “Lump Sum” and will subdivide the work into

## Measurement and Payment

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component parts in sufficient detail to serve as the basis for progress payments during construction.

### **PART 2 – PRODUCTS**

#### **2.1 STORED MATERIALS**

- A. Partial payment shall be made for approved materials stored at the project site, provided invoices for said materials are furnished in accordance with payment request submittal and shop drawings for said materials have been approved.

### **PART 3 – EXECUTION**

#### **3.1 CLEARING AND GRUBBING**

- A. Measurements: Measurements for clearing and grubbing shall be on the basis of acreage cleared for installation and construction as shown on the plans.
- B. Payment: Payment for clearing and grubbing shall be based on the unit price bid in the Bid Form. Payment shall include all labor, material and equipment necessary to remove trees, stumps, vegetation, topsoil, etc. as required in the plans and specifications.

#### **3.2 TRENCH EXCAVATION AND BACKFILL**

- A. No separate or additional payment shall be made for any special or unique method, means, techniques or equipment necessary for the Contractor's compliance with these Specifications, regulatory requirements, permits, laws or regulations which govern this Project.
- B. Trench Excavation: No separate payment shall be made for trench excavation. All costs shall be included in the unit price bid for the item to which it pertains at the appropriate depth.
- C. Sheeting, Bracing and Shoring
  - 1. No separate payment will be made for providing sheeting, bracing and timbering which are specified, shown on the Drawings or necessary due to Contractor's means of construction.
  - 2. No payment will be made for sheeting removed or for sheeting left in place for the Contractor's convenience.

- D. Rock Excavation: No separate payment will be made for rock excavation. The cost for all such work and all associated costs shall be included in the unit price for the item to which it pertains.
- E. Dewatering Excavations: All costs of equipment, labor and materials required for dewatering shall be included in the price bid for the item to which it pertains.
- F. Bedding and Haunching
  - 1. No additional payment will be made for improved bedding required to compensate for over excavation of the trench.
  - 2. No payment will be made for additional trench depth.
- G. Initial Backfield
  - 1. No separate payment shall be made for initial backfill.
  - 2. No separate payment shall be made for drying out the initial backfill material in order to meet the compaction requirements.
  - 3. No separate payment shall be made for the adding of moisture to the initial backfill materials in order to meet the compaction requirements.
  - 4. No separate payment shall be made for providing select material if the insitu material cannot meet the compaction requirements.
- H. Final Backfilling
  - 1. No additional payment will be made for additional material when excavated materials are used.
  - 2. No separate payment shall be made for drying out the final backfill material in order to meet the compaction requirements.
  - 3. No separate payment shall be made for the adding of moisture to the initial backfill materials in order to meet the compaction requirements.
  - 4. No additional payment will be made for providing select material if the insitu material cannot meet the compaction requirements.
- I. Additional Material: No separate payment will be made for additional earth or fill materials imported to the Project site.

## Measurement and Payment

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- J. Excavation and Bedding for Storm Drain: No additional payment will be made for additional trench depth.

### 3.3 RADING

- A. Measurement: Measurement for grading shall be based on the actual number of cubic yards of cut material generated from earthwork operations. Topsoil to be stripped and wasted on-site will be measured separately.
- B. Payment: Payment will include all labor, materials, and equipment to grade the streets and railway beds to the lines and grades as shown on the plans or as directed by the Engineer.

### 3.4 EARTHWORK

- A. Unclassified Excavation
  - 1. Unclassified Excavation shall be on a cubic yard basis and shall include all labor, materials and equipment needed to remove, relocate and compact earth materials as indicated on the construction plans.
  - 2. Payment for Unclassified Excavation for the Pump Station shall be included in the cost of the Pump Station. The unit quantity was based on the prismatic method of volume calculation with a compaction factor included. Cross Sections are shown in the construction plans for contract verification. In the event the contractor's calculations are drastically different from the Engineer's Calculations, attention to this matter shall occur prior to any material excavated or risk no additional compensation.
- B. Unsuitable Material
  - 1. Costs for undercutting, foundation preparation, and removal and replacement of unsuitable material, where shown on the Drawings or specified, shall be included in the price bid for the pump station.
  - 2. Payment for removal and replacement of unsuitable material which is ordered by the Engineer which is not shown on the Drawings or specified, shall be included in the lump sum price bid for the pump station.
  - 3. No separate payment will be made for concrete backfill of trenches beneath structures. The cost of this work and all costs incidental thereto shall be included in the price bid for the item to which the work pertains.

4. Additional costs of corrective work, made necessary by unauthorized excavation of earth or rock, shall be borne by the Contractor.
- C. Dewatering: No separate payment will be made for dewatering required to accomplish the work.
- D. Backfilling: No separate payment will be made for backfilling or excavation, hauling and placement of borrow material. The cost of all such work and all costs incidental thereto shall be included in the unit price bid for Unclassified Excavation.

### 3.5 CLASS "A" PAVEMENT REPLACEMENT

- A. Measurement: Measurement of the Class "A" Pavement Replacement shall be on the basis of the linear foot of asphalt or concrete replaced, at the thickness as specified.
- B. Payment: Payment of Class "A" Pavement Replacement shall be on the basis of the unit price in the Bid Form. Payment shall include cleaning existing pavement, placing concrete base course, placing tack coat, and placing asphalt surface course.

### 3.6 EROSION AND SEDIMENTATION CONTROL

- A. General
  1. Payment shall be made for temporary and/or permanent erosion and sedimentation controls, except as noted below. All other temporary and/or permanent erosion and sedimentation control costs shall be included in the unit price bid for the item to which it pertains.
  2. No payment will be made for any portion of the Project for which temporary erosion and sedimentation controls are not properly maintained.
  3. Quantities for payment shall be based upon actual quantity constructed and authorized by the Engineer.
- B. Temporary Construction Exits, Co: All costs for construction exits, including installation, maintenance, repair and removal shall be included in the unit price bid.
- C. Temporary Sediment Barriers, Sd1: All costs for sediment barriers, whether specifically hay bales, specifically silt fences, or Contractor's choice of bales or

## Measurement and Payment

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silt fence, including installation, maintenance, repair, replacement, and removal shall be included in the unit price bid for Sediment Barriers.

- D. Temporary Ditch Checks, Cd: All costs for Temporary Ditch Checks, including stone, necessary earthwork, periodic maintenance and repair, and removal of sediment and stone following establishment of permanent erosion control measures shall be included in the unit price bid for temporary pitch checks.
- E. Temporary Mulch and Temporary Grassing
  - 1. Measurement and Payment for Temporary Mulch and Temporary Grassing shall be on a per acre basis and shall include all labor, materials and equipment needed to Temporary Mulch and the Temporary Grass distributed area.
- F. Grassing Complete, Permanent
  - 1. The unit price bid for Grassing shall be for one-time clean up of the disturbed area. Any other costs for labor, materials, and equipment for clean-up and grassing of the disturbed area shall be included in the price bid for the item to which it pertains.
  - 2. No additional payment will be made for grassing of the disturbed area where the Contractor must reseed due to inadequate watering and maintenance; loss of seeds caused by site erosion, e.g., wind and rain; inadequate germination of the seeds; inadequate coverage/density; providing permanent species at the appropriate season after temporary grassing has been performed.
  - 3. No additional payment will be made for providing a temporary species of grass where the seasonal limitations do not allow for the proper germination of a permanent species of grass. Any additional cost anticipated for sowing a temporary species shall be included in the price bid for the item to which it pertains.
  - 4. Measurement for payment for Grassing shall be the acreage of area disturbed, excluding the paved area.

### 3.7 WATER DISTRIBUTION

#### A. Measurement:

- 1. Water Mains: Each size of water mains and 6" fire hydrant leads will be measured along the pipe from center of fitting to center of fitting or end of

pipe in place, without deduction for the length of intermediate fittings or valves.

2. Fittings: Measurement of fittings will be on the basis of each installed
3. Fire Hydrants: Measurement of fire hydrants will be on the basis of each installed.
4. Valves: Measurement of valves will be on the basis of each installed.
5. Service Connections: The quantity of new service connections complete will be the actual number installed. Short side and long side will be paid separately.

B. Payment:

1. Water Mains: Water mains measured as described above will be paid for at the unit price bid per linear foot for the various sizes shown in the Bid Form. Payment shall include all labor, equipment and materials necessary to complete the work as specified, including thrust blocking.
2. Fittings: Fittings for iron and plastic pipe in the distribution system will be paid for on the basis of the unit price per pound of ductile iron fittings at the weights listed in A.W.W.A. Specification C 153 for mechanical joint compact fittings. No distinction will be made between the weight of compact ductile iron, cast iron or ductile iron fittings, unless the fittings used are not manufactured as compact fittings. Fittings not manufactured as compact fittings will be paid for on the basis of the unit price per pound of ductile iron fittings at the weights listed in A.W.W.A. C-153. PVC fittings used for P.V.C. Pipe, at the Contractor's option, will be considered a subsidiary obligation to the pipe and will not be measured for separate payment. Payment for P.V.C. fittings shall be included in the unit price per foot for P.V.C. pipe. No separate payment will be made for galvanized fittings in galvanized iron pipe. The adapters necessary to connect to valves shall be considered a part of the line in which they are installed.
3. Fire Hydrants: Fire hydrants shall be paid for at the unit price per each shown in the Bid Form. The price shall include all labor, equipment, materials and incidentals necessary for a complete installation. No separate payment will be made for gravel, retainer glands, strapping, blocking or other incidentals normally provided for a hydrant installation. Any additional fittings required to install a hydrant will be paid for at the unit price bid for each fitting.

## Measurement and Payment

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3. Valves: Gate valves will be paid for at the unit price per each shown in the Bid Form for various sized valves. The price shall include all materials, labor, equipment, valve box, concrete blocking, concrete pad and all other incidentals required for a complete installation.
5. Service Connections: Service Connections will be paid at the unit price. The unit price id shall include, but not be limited to, saddle, corporation stop, [backflow preventer] service tubing, [meter box] and all related materials and labor, [Meters will be purchased be contractor and delivered to Owner].
6. Cleaning and Disinfecting: No separate payment will be made for cleaning and disinfecting. Cleaning and disinfecting piping in the distribution system will be included in the lump sum and unit prices for the appropriate items.
7. Grassing: There will be no separate measurement or payment. Grassing shall be considered as a subsidiary obligation of the Contractor in the restoration of disturbed areas.
8. Metal Detector Tape and Tracer Wire: No separate payment will be made for tape. The cost of furnishing and placing Metal Detector Tape and tracer wire shall be included in the contract unit price for installing non-metallic pipe.

### 3.8 JACK AND BORE/OPEN CUT

- A. Measurement: Measurement of jack and bore or open cut shall be on the basis of linear footage steel casing jacked and bored or open cut.
- B. Payment:
  1. Payment for jack and bore or open cut of steel casing shall be on the basis of the unit price for linear foot of the casing size as provided in the Bid Form Payment shall include all materials, labor and necessary extras to jack and bore or open cut the required size steel casing. Payment for carrier pipe installed shall be made separately.
  2. Unit price bid shall also include cost of any additional insurance required by Department of Transportation for individual crossing(s).
  3. Unit price bid shall include cost of any warning signs and/or flagmen that may be required by highway departments. Contractor is to determine need for such prior to submitting bid price.

5. Payment for pipeline construction in state highway or railroad rights-of-way shall be contingent upon approval and acceptance by highway department or railroad.
6. No payment shall be made for incomplete or unacceptable borings, for realignment, or for increased length for the convenience of the Contractor.

### 3.9 HORIZONTAL DIRECTIONAL DRILLING

- A. Measurement: The items listed in the proposal shall be considered as sufficient to complete the work accordance to the plans and specifications. Any portion of the work not listed in the bid form shall be deemed to be a part of the item which it is associated with and shall be included in the cost of the unit shown on the bid form and shall be considered satisfactory to cover the cost of all labor, material, equipment and performance of all operations necessary to complete the work in place. The unit of measurement shall be the unit shown on the bid form. Payment shall be based upon the actual quantity multiplied by the unit prices. Where work is to be performed at a lump sum price, the lump sum shall include all operations and elements necessary to complete the work.
- B. Payment: Payment for the work covered by this section shall be based on the items listed in the proposal for each numbered directional bore. Payment shall include, but not be limited to, the set up, the cost of furnishing and installing the pipe, and caps and testing, disposal of material and cleanup, erosion control, and all other related appurtenances for a complete installation. Partial payments will be paid upon the submission of properly certified invoices.

### 3.10 ROCK REMOVAL

- A. No separate measurement or payment will be made for trench rock excavation for sewers or other pipes, nor for any other appurtenant facilities such as manholes, wetwells, and pipe protection or encasement. Payment for such excavation shall be included in unit prices bid per linear foot of the various sizes and type of pipe laid for the respective trench depths as provided for in Bid Schedule.

## SANITARY SEWER SYSTEM

### 3.11 SANITARY SEWER CONSTRUCTION

- A. Measurement:
  1. Gravity Sewer: Measurement of the sanitary sewer pipe will be on the basis of the length in feet of pipe of various depth zone classifications and measured

## Measurement and Payment

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from center of manhole to center of manhole. Depth zone measurements will be taken from the Contractor's cut sheets from existing grade to pipe invert and checked by the Engineer.

2. Manholes: Manholes shall be measured from the invert of the sewer pipe to the top of the manhole casting.
3. Service Laterals: Measured of laterals will be on the basis of the length in feet of pipe from the center of the main to the point where the lateral reaches the property line.
4. Stone Backfill: Stone backfill will be measured by using the length for which stone is ordered by the Engineers, times a depth of 6-inches, times a width of 2 feet wider than the barrel of the pipe or times the width of the trench. Stone backfill will only be used as directed by the Engineer.
5. Stubs and Plugs: Measurement of stubs and plugs will be measured on the basis of each.
6. Outside Drop: Measurement of outside drop will be measured on the basis of each outside drop connection.
7. Pump Stations: Each pump station will be individually identified on the Bid Form. A pay line may be shown on the drawings to separate the payment of the pump station and force main. If the pay line is not shown on the drawings, the lump sum for pump station will end at the tee or wye on the joining of the discharge line of the pumps beyond the valve pit.
8. Force Main: The length of the force main and appurtenances shall be determined by measurement along the centerline of the pipe actually furnished and installed.
9. Air Release Valve and Manhole: Measurement of Air Release Valve and Manhole will be measured on the basis of each installed.

### B. Payment:

1. Gravity Sewer: Payment for installing sanitary sewer will be on the basis of the unit price per linear foot on the Bid Form for each depth zone classification and shall include all work required for excavation, shoring, dewatering, bedding, haunching, backfilling, grassing, capping and all other items necessary to properly install the pipe.
2. Manholes: Payment for manholes will be made at the unit price for

various types. Payment shall include the cost of excavating, dewatering, constricting the manholes in accordance with the plans, furnishing and installing a frame and cover and steps, backfilling and compacting the material around the manhole.

3. Laterals: Payment will include furnishing the fittings, pipe, plug and marking stake, backfilling, compaction, and all work and materials necessary to complete laterals.
4. Stone Backfill: Payment will include the cost of removing the unsuitable material and furnishing and placing the stone at the price shown in the bid form.
5. Stubs and Plugs: Payment shall include one 4-foot length of pipe, connection to the manhole, and a suitable manufactured plug.
6. Outside Drop: The unit price shall include all labor, pipe, concrete, excavation, fittings, and all necessary items for a complete installation.
7. Air Release Valve and Manhole: The unit price will include furnishing and installing the valves, piping and manhole, backfilling, compacting, grassing, and clean up.
8. Metal Detector Tape and Tracer Wire: No separate payment will be made for tape or wire. Cost of furnishing and placing metal detector tape and 14 gauge tracer wire shall be included in the contract nit price for installing pipe.
9. Trench Wall Supports: No separate payment will be made for bracing and sheeting.
10. Grassing: Grassing shall be paid wt the unit price bid for grassing in the bid form.

**END OF SECTION**



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