

**SECTION 01150**  
**MEASUREMENT AND PAYMENT**

PART 1 GENERAL

1.01 SCHEDULE OF VALUES

- A. The Contractor shall submit a Schedule of Values for the Work of the Contract, including quantities and unit prices aggregating the Contract Price, for approval in accordance with the Standard General Conditions.
- B. If any unit price in the approved Schedule of Values requires that the said unit price cover and be considered compensation for certain work or material essential to the item, this same work or material will not also be measured or paid for under any other pay item which may appear elsewhere in the Conformed Project Manual.

1.02 MEASUREMENT OF QUANTITIES

- A. Engineer will measure work completed under the Contract according to the standards of weights and measures recognized by the U.S. Bureau of Standards.
- B. The method of measurement and computations to be used in determination of quantities of material furnished and of work performed under the Contract will be those methods generally recognized as conforming to good engineering practice.
- C. Engineer will measure for area computations on the surface. Pay measurements for area computations will not exceed the neat dimensions indicated on the Conformed Project Manual, unless Engineer otherwise orders in writing.
- D. Engineer will measure structures according to neat lines indicated on the Conformed Project Manual or as altered to fit field conditions. Owner will not pay for length, width, or depth in excess of that indicated in the Conformed Project Manual or specified for any construction, unless Engineer otherwise approves in writing.
- E. Engineer will measure items by the linear foot, such as pipe, parallel to the existing grade.
- F. Engineer will use the average end area method, based on horizontal measurements, in computing volumes of excavation, or other acceptable methods.
- G. The term "each", when used as an item of payment, will mean complete payment for the Work described in the Conformed Project Manual.
- H. The term "lump sum", when used as an item of payment, will mean complete payment for the Work described in the Conformed Project Manual, including all necessary fittings and accessories, and required testing completed. The Contractor is responsible for all costs associated with supplying and proper disposal of all test water.

1.03 SCOPE OF PAYMENT

- A. The Contractor will receive and accept compensation provided for in the Conformed Project Manual as full payment for furnishing materials, labor, tools, and equipment and for performing Work under the Contract in a complete and acceptable manner and for all risk, loss, damage, or expense of whatever character arising out of the nature of the Work or the prosecution thereof, subject to the provisions of the General Conditions.

## 1.04 DESCRIPTION OF BID ITEMS

### A. LUMP SUM BID ITEMS

Lump Sum Items on the Bid Proposal Form are those items included in the Base Bid for the Contract, including all work shown on the Conformed Project Manual. Payment for these items will be made for placement of all materials shown on, or reasonably inferred from, the Conformed Project Manual. All materials shall be furnished and installed in accordance with the Conformed Project Manual. No measurement will be made. The lump sum price will include all work and materials required to complete the item described in good working order. Payment will be in accordance with the proposal and will include but not be limited to the placing and installing of materials, and the furnishing of such manpower and equipment as required in order to accomplish the work. The work in this contract generally includes, but is not limited to:

- Project 17-1: work shall consist of reconstructing Ontario Avenue from 4<sup>th</sup> Street to 8<sup>th</sup> Street and mill and overlay from 8<sup>th</sup> Street to 11<sup>th</sup> Street.
- Project 17-2: work shall consist of constructing a boat launch and parking lot at the intersection of 5<sup>th</sup> Street with Ontario Avenue.

Work shall include but not limited to: stormwater pipe and inlets, tack coating, base repairs, base and wearing course asphalt, saw cutting, traffic control, site clearing, grading and cleaning, utility boxes/valves and manhole adjustments, concrete curbs, sidewalks, aprons and ADA ramps, seam sealing, tree and stump removal, pavement notches, street signs, rain garden, lighting, riprap, pavement markings, landscaping, signage, benches, picnic tables, erosion and sediment control measures and all necessary appurtenances and site restoration. Project to be built to 2010 ADA standards.

### B. CONTINGENT BID ITEMS

1. Contingent Bid Items on the Bid Proposal Form in the Proposal are in addition to those shown on the Contract Drawings and are to be used and paid for only at the written direction and authorization of the Engineer. Payment for these items will be made for materials placed in addition to those shown or beyond the limits indicated or reasonably inferred from the Contract Documents. All materials shall be installed in accordance with these specifications. Measurements and payment will be in accordance with the proposal and will include but not necessarily be limited to the placing and installing of materials, and the furnishing of such manpower and equipment as required in order to accomplish the work as directed in writing by the Engineer. The Owner hereby reserves the right to unlimited increase or decrease of the estimated quantities as shown in the Proposal, without additional unit price increases for the duration of this Contract.

#### **ITEM 201 Roadway Base Repair**

This item shall consist of excavating the roadway brick subbase and subgrade and backfilling with 2A stone and 25mm base course. See Roadway Base Repair Detail. This item is primarily intended for use where the roadway subbase/subgrade has settled and/or sunken. The work includes all excavation of material and disposal off site, placing and compacting the 2A stone and 25mm base course to the requirements stated in the Conformed Project Manual. Measurement will be made by the two-dimensional method determined in the field. Payment will be made at the unit price bid per square yard for the actual amount of base area repaired.

**ITEM 202 Relocate Water Service**

This item shall consist of uncovering and relocating an existing water service. This item is primarily intended for use where the existing water service conflicts/interferes with the proposed storm sewer pipe location. Payment will be made at the unit price bid per the actual number of services relocated.

**ITEM 203 Relocate Sewer Lateral**

This item shall consist of uncovering and relocating an existing sanitary sewer lateral. This item is primarily intended for use where the existing sanitary sewer lateral conflicts/interferes with the proposed storm sewer pipe location. Payment will be made at the unit price bid per the actual number of laterals relocated.

**1.05 GENERAL NOTES.**

- A. The following items are part of the Lump Sum Scope of Work. The Contractor shall include in his Lump Sum price the cost to perform/provide all of the following that are necessary to complete this project. No separate measurement or payment will be made. The Conformed Project Manual requires the Contractor to provide a completely interconnected and functional system. The Contractor shall provide all labor, equipment and materials which are obviously necessary to carry out the full intent and meaning of the Conformed Project Manual or to be reasonably inferred therefrom.
1. The Contractor shall include all costs of mobilization in the Lump Sum Bid Items 101, 102 and 103. Mobilization shall consist of the assembling and setting up for the project, the Contractor's necessary general plant, including Contractor's offices, storage areas, temporary utilities, sanitary and other facilities, as required by the Conformed Project Manual and special requirements of the Contract, as well as by local or State law and regulation.
  2. Mobilize men, equipment and materials needed to the jobsite, and remove same when complete (demobilization). Mobilization shall include all necessary bonds and insurance. No separate payment will be made for insurance and bonds and/or any other initial expense.
  3. Surveying, construction layout and measurement of quantities.
  4. Consult with utilities and carefully field verify the location and depth of any underground utility line(s). Follow requirements of PA One Call.
  5. Coordinate gas, water and/or sewer, utility relocations with appropriate utility company/authority.
  6. Coordinate road closures with the appropriate municipal, county, fire department, police, post office and school officials.
  7. Remove obstructions such as trees, tree roots, vegetation, grass, timber, debris, brush, rock, etc. that may interfere with the proposed construction.
  8. Control dust and remove/dispose of excess or unwanted material or debris.
  9. Furnish and install coffer dams, site dewatering, and bypass pumping as required.
  10. Saw-cut existing roadway, curb, sidewalk and any structures/material of any nature as needed.
  11. Furnish, haul, and clean-up all materials used on the site.
  12. Remove and dispose of any existing asphalt or concrete which may be encountered.

13. Remove and reset property line markers (pins, pipes, etc.).
14. Remove, relocate, and reset street signs, mailboxes, fencing, hand railings, steps, stairways and short retaining walls.
15. Remove all unused excavated material from the project site.
16. Provide final cleaning of roadway, parking lot and ramp.
17. Scarify, mill and/or excavate roadway as required to meet the proposed roadway grades.
18. Place and grade the subgrade material in order to reach the required grades for the proposed roadway and then place, grade and compact the roadway.
19. Adjust the elevation of manholes, inlets, water meter pits, cleanouts, gas & water valves, sprinkler heads, sewer cleanouts or any other structures encountered to be flush with the finished pavement or ground surface.
20. Connect existing roof/sump spouts to new trench drains and project thru new curbs to the new asphalt roadway surface.
21. Remove and dispose of the existing concrete curbs and sidewalks.
22. Furnish and install project sign.
23. Remove and dispose of the existing asphalt roadway (including any brick subbase which may be encountered for base repairs and new concrete curb installation).
24. Repaint all existing street markings and lines.
25. Coordinate and connect parking lot lights to existing power supply.
26. Furnish and install as needed grout, 2A aggregate, well compacted AASHTO # 57 stone, select material, trench bedding, geotextile, rip-rap, butyl tape, fittings, shoring, sheeting, and bracing.
27. Excavate, grade, and compact/roll the subgrade/subbase material in order to reach the required grades for the proposed asphalt roadway and then place, grade and compact the asphalt roadway.
28. The Contractor is required to proof roll the prepared subgrade/subbase with a loader tri-axle dump truck in the presence of the Engineer before paving.
29. Furnish reproducible As-Built Plans to the Engineer prior to final payment.
30. The Contractor shall include all costs for the erosion & sediment pollution control measures in the Lump Sum Bid Items 101, 102, and 103.
31. Concrete testing, compaction/backfill/embankment testing, water sampling and analysis.
32. Attend preconstruction and progress meetings.
33. Coordinate and communicate work scope and schedule with residents and adjacent property owners.

#### 1.06 NON-PAYMENT FOR REJECTED PRODUCTS

- A. Owner will not pay Contractor for any of the following:
  1. Products wasted or disposed of in a manner that is not acceptable.
  2. Products determined as unacceptable before or after placement.
  3. Products not completely unloaded from the transporting vehicle.
  4. Products placed beyond the lines and levels of the required Work.
  5. Products remaining on hand after completion of the Work.
  6. Loading, hauling and disposing of rejected Products.

**END OF SECTION**