

September 11, 2017

## **Addendum No. 2**

Charter Township of Shelby  
Sanitary Sewer SAD 34-S-2015

To all prospective Bidders and others concerned:

This ADDENDUM is hereby incorporated into the original Contract Documents dated August 10, 2017, and the Addendum dated August 29, 2017 for the bidding referred to above and is considered as binding as though originally appearing therein. Receipt of this ADDENDUM shall be noted on the place provided on the page titled "Proposal" P-1. Failure to do so may disqualify the Bidder. Please also acknowledge the receipt of this addendum using the Bid Addendum Acknowledgement included with this Addendum.

This Addendum consists of 6 pages.

YOU ARE HEREBY ADVISED THAT the Contract Documents for the above referenced project are revised in the following particulars (deletions are shown by strikethrough and additions are underlined and red):

### **GENERAL CLARIFICATIONS:**

1. Questions received in writing by bidders and their answers are included herein.
2. Approval from ITC is provided for construction within their easement located on parcel 07-01-300-005.
3. Clarifications to the Special Provisions regarding unknown subsurface conditions are provided.
4. Pay item quantities have been adjusted. A revised Bid Proposal is provided.

### **CONTRACTOR QUESTIONS AND RESPONSE:**

1. *I see that any boulders encountered during the jack and bore process is incidental to the pay item. Boulders imbedded in this kind of soil are a very tough to deal with as you can't loosen them, they must be reduced by hand labor to proceed. Slow process. Typically it would get addressed during construction. If we have to anticipate boulders in our base bid for all the bores on this project our numbers will be sky high to cover ourselves to some extent.*
  - Boulders are addressed in a revised Special Provision included with the addendum. See Item 58.
2. *In the special provisions 25 Backfill "The top twelve inches (12") shall be filled with 21AA limestone so that after compacting to ninety –five percent (95%) of the maximum unit weight, it will have a thickness of twelve inches (12")." This calls for*

*any where there is sand backfill called out on the plans. Is this stone required in the existing green belt areas? Where is this stone paid for?*

- As indicated in Item 25 **“When backfilling under or within a one-on-one slope line drawn downward and outward from a point three feet (3') outside the pavement, shoulder or curb and gutter and as shown on the plans. Backfill shall be with Granular Material Class II and compacted to ninety-five (95%) of the maximum unit weight to within twelve inches (12") of finish grade. The top twelve inches (12") shall be filled with 21AA limestone so that after compacting to ninety-five percent (95%) of the maximum unit weight, it will have a thickness of twelve inches (12”).”**
  - The stone is incorporated in the unit price per foot of pipe.
3. *In the special provisions 8. Temporary Sheet Piling calls for sheet piling to be used where necessary. Does the contractor determine when sheet piling is required or is the engineer/owner going to direct the contractor where to install sheet piling? Are the means and methods still the contractors? If the engineer / owner is going to make this determination please list out where this sheet piling will be required.*
- The contractor will determine when and where sheet piling is required. The means and methods are still the contractor's.
4. *The quantities on the plans due not match the unit price bid tab in the contract. Are there sanitary sewers being installed that are not shown on the plans?*
- Quantities have been reviewed and revised accordingly. A revised Bid Proposal is included with this addendum.
5. *There are jack and bore casings sizes that are shown on the plans but there are no unit pricing for these items. How are they to be paid?*
- Quantities have been reviewed and revised accordingly. A revised Bid Proposal is included with this addendum.

#### **QUESTIONS RECEIVED AFTER SEPTEMBER 7:**

*We are requesting if Pilot Tube Guided Boring Method (GBM) microtunneling be allowed as a "means and methods" for sanitary sewer installation in accordance with the project bidding plans and AEW special provision for microtunneling provided in the 21-Inch Relief Sewer, St. Clair Shores, MI.*

*Also, would GBM microtunneling also be allowed in lieu of bore and jacked sanitary sewer in steel casing as shown at the locations shown on the construction drawings.*

*If allowed, sections of the project would be installed using vitrified clay jacking pipe from Logan or CanClay.*

- This inquiry was received after the date indicated in the Instructions to Bidders for inquiries. As such, there is not sufficient time to investigate a requested change in method and material. The request does not provide detail on the construction of leads, saddles and other parameters. No approval can be granted prior to bid, and all bidders shall bid the project as presented.

**Description of Addendum:**

**CHANGES TO THE CONSTRUCTION DRAWINGS:**

<u>Sheet No.</u>	<u>Comments</u>
4	Item 3 in quantity list: Changed unit from Ft to Ea
5	Item 2 in quantity list: Changed quantity from 2 to 3
7	Clarification of permanent and temporary easement across ITC easement on Parcel 07-01-300-002; clarification of Parcel ID
9	Clarification of Parcel ID
12	-Change pipe between MH20 and MH21 from PVC Truss to Concrete CI V. No change in quantity list. -Revised arrow to MH 20 in plan view.
13	Revised tree removal note under quantity list, was 18 inch now reads 19 inch.

**CHANGES TO THE PROJECT MANUAL:**

*Proposal*

**\*\* A new bid form sheet is attached to this addendum that should be used for submitting a bid price.**

Items 22, 25, 27, 59, and 60 have been added to the bid proposal, changing item numbers for items 22 onward.

22	Steel Casing Pipe, 24 inch, Jacked in Place	Ft	60
25	Removal of 12-inch to 24-inch Diameter Boulders from Casing	Ea	22
27	Interior Drop Connection, 8 inch	Ea	1
59	Driveway, HMA, 1300 T, 2 inch	Ton	55
60	Driveway, HMA, 1300 L, 2 inch	Ton	55

Item 51 has been removed.

51	<del>Remove and Replace Brick Pavers</del>	<del>Syd</del>	<del>4</del>
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Items 4, 5, 7, 15, 16, 17, 18, 21, 23(new number), 32 (new number), 35 (new number), and 48 (new number) shall be revised as follows:

4	Tree, Rem, Greater Than 37 inch	Ea	4
5	Tree Clearing	Sta	94.80
7	Dr Structure Rem	Ea	2
15	Sanitary Sewer, PVC Truss, 10 inch,	Ft	382
16	Sanitary Sewer, PVC Truss, 12 inch,	Ft	1,720
17	Sanitary Sewer, CI V, 15 inch,	Ft	4,149
18	Sanitary Sewer, CI V, 18 inch,	Ft	5,755
21	Steel Casing Pipe, 20 inch, Jacked in Place	Ft	65

23	Steel Casing Pipe, 36 inch, Jacked in Place	Ft	869
32	Pipe Testing	Ft	15,239
35	Sewer, CI V, 15 inch,	Ft	16
48	Fence, Moving	Ft	553

*Special Provisions*

Items 6, 33, 36, 40, and 41 shall be revised as follows:

**6. CONSTRUCTION MILESTONES**

The project shall be substantially completed within four hundred twenty (420) calendar days from the date that the Contract times commence. The project shall be completed in its entirety including site restoration, clean-up, and punch-list work within four hundred eighty (480) calendar days from the date that the Contract times commence. It is required that the construction at the Clinton River crossing be completed outside of the spawning period which takes place between March 1<sup>st</sup> and June 30<sup>th</sup>.

Separately, the project related construction within the Diegel property (Parcel ID 07-01-451-002) must be completed prior to March 15, 2018.

**33. SOIL EROSION AND SEDIMENTATION CONTROL**

During progress of the work, the Contractor shall provide and maintain soil erosion and sedimentation control measures as provided in these specifications and accompanying drawings. In the absence of specific requirements the Contractor shall provide soil erosion and sedimentation control measures in accordance with Part 91 of Act 451 of the Public Acts of 1994, as amended and the Macomb County Public Works Commissioner(MCPWC).

Soil erosion measures required on the plans or by the Macomb County Public Works Commissioner, including but not limited to drain guards, silt fence, channel restoration installation, construction dewatering system, Mulch Blanket (also called Rolled Erosion Control Products (RECP)) and bank stabilization shall be installed and maintained by the Contractor throughout the project. Soil erosion measures shall be constructed in conformance with details shown on Soil Erosion and Sedimentation Control Plan Sheet of these plans and the requirements of the MCPWC. All labor, materials, equipment, disposal of sediment, removal of sediments and any related maintenance work shall be included in the cost for “Soil Erosion and Sedimentation Control”.

The completed work for Soil Erosion and Sedimentation Control (SESC) shall be paid for at the Contract lump sum price for “Soil Erosion and Sedimentation Control”. Progress payments for this item of work shall be determined by the percentage of the completed work based on the length of the installed sanitary sewer pipe.

SESC Measures shall be measured and paid for as the lump sum specified above which shall be considered payment in full for all labor, materials, and equipment required to complete the work.

No additional payment shall be provided for either maintenance or removal of temporary erosion control items.

**36. MULCH MAT BLANKET**

This item of work is for the installation of the mulch mat blanket, also indicated as Rolled Erosion Control Product (RECP) as shown and as detailed on the plans. It includes all labor, materials, equipment, excavation and any related work necessary to perform this construction and as required by the Soil Erosion Control Permit and the Michigan Department of Environmental Quality (MDEQ) permit.

“Mulch Mat Blanket” of the type and quantity required will be included in the contract lump sum price for “Soil Erosion and Sedimentation Control”.

**40. STEEL CASING PIPE, 36 INCH, OPEN CUT**

This item of work is for the installation of the steel casing pipe by open cut construction across the Clinton River and as detailed on the plans. This work will occur across the flow channel of the Clinton River and the Contractor shall include provisions to control the flow in their bid. It shall include all labor, materials, equipment, excavation and any related work necessary to perform the open cut construction at this crossing and as required by the Michigan Department of Environmental Quality (MDEQ) permit.

Steel casing shall be as described in the Sanitary Sewer Specifications and on the Sanitary Sewer Standard Detail Sheet.

Steel casing pipe to be installed by open cut construction to be performed as described in the Sanitary Sewer Specifications and on the Sanitary Sewer Standard Detail Sheet. Materials of excavation shall include any and all materials encountered, such as, top soil, clay, sand, gravel cinders, boulders, heterogeneous fill material, old timbers, or any combination of these in whatever condition found. Pavement, curb, or sidewalk necessary to be cut shall be considered as excavation. ~~Any unforeseen obstacles such as buried trees or timbers, abandoned utilities, metal objects, concrete masses, or any debris encountered shall be removed as work included in the contract bid price for the construction of the sewer.~~ Included in this pay item are all costs necessary to perform the open cut installation of the casing pipe and the installation of the associated sanitary sewer in the casing.

“Steel Casing Pipe, 36 Inch, Open Cut” shall be per lineal foot. The Contractor will receive no additional compensation for rocks, cobbles or boulders encountered. The Contractor shall make an estimation of the number to be encountered and include this cost as part of the cost per lineal foot. The Contractor shall include provisions in their bid to control and work within the flow of the Clinton River.

**41. STEEL CASING PIPE, \_\_ INCH, JACKED IN PLACE**

This item of work is for the installation of the steel casing pipe by jacked in place construction as shown as detailed on the plans. It includes all labor, materials, equipment, excavation and any related work necessary to perform this construction or as required by the Michigan Department of Environmental Quality (MDEQ) permit or Consumers Energy.

Steel casing shall be as described in the Sanitary Sewer Specifications and on the Sanitary Sewer Standard Detail Sheet. The size of casing shall be as shown on the plans and bid in the Bid Proposal. If the Contractor elects to request increasing the casing size to perform the work they shall submit this request to the Engineer in writing. There will be no additional compensation for the Contractor-elected casing size increase.

Steel casing pipe to be installed by jacked in place construction is to be performed as described in the Sanitary Sewer Specifications and on the Sanitary Sewer Standard Detail Sheet. Materials of excavation shall include any and all materials encountered, such as, top soil, clay, sand, gravel cinders, rocks, cobbles, boulders, heterogeneous fill material, old timbers, or any combination of these in whatever condition found. Pavement, curb, or sidewalk necessary to be cut shall be considered as excavation. All boulders encountered shall be removed in accordance with work item "REMOVAL OF 12-INCH TO 24-INCH DIAMETER BOULDERS FROM CASING".

~~Any unforeseen obstacles such as buried trees or timbers, abandoned utilities, metal objects, concrete masses, or any debris encountered shall be removed as work included in the cost for "Steel Casing Pipe, \_\_\_ Inch, Jacked in Place".~~

~~The Contractor shall expect that they will encounter rocks, cobbles, boulders and groundwater in the "Steel Casing Pipe, \_\_\_ Inch, Jacked in Place" operation. This item of work shall include all work necessary to complete the work including removing of all rocks, cobbles and boulders, and controlling groundwater and installation of the sanitary sewer through the steel casing. There will be no additional compensation for this work.~~

Review of the Geotechnical Report shows that the N-values vary throughout the project area with many exceeding the 30-75 range. The Contractor shall review the report and soil borings and determine the methods and equipment necessary to bore and jack the casing under the conditions to be encountered.

"Steel Casing Pipe, \_\_\_ Inch, Jacked in Place" shall be per lineal foot. The Contractor shall make an estimation of the number of rocks, cobbles or boulders under 12" diameter to be encountered and include this cost as part of the cost per lineal foot.

Item 58 shall be added as follows:

**58. REMOVAL OF 12-INCH TO 24-INCH DIAMETER BOULDERS FROM CASING**

Removal of rocks, cobbles and boulders encountered during work item "STEEL CASING PIPE, \_\_\_ INCH, JACKED IN PLACE" which are smaller than the smallest diameter of the boulder bid item (12 inch diameter) shall be considered incidental. Removal of boulders encountered during bore and jack operations which are greater than the larger diameter of the boulder bid item (24 inch) shall be considered additional work for which the contractor will be compensated on a negotiated time and material basis.

Boulders shall be removed by drilling, jack hammering, wedging, sledging, expansive cement, barring, or other means as approved by the ENGINEER in advance. Blasting will be allowed only when approved in advance by the ENGINEER. Boulders shall be paid for at the contract unit price per each. Price shall include all items including but not limited to equipment damage, earth

stabilization if required, dewatering, blasting (if approved) and crew hours. Boulder diameter shall be defined as the average of the measured distance between edges of the boulder in the tunnel bore in three perpendicular directions.

Attachments:

**Correspondence from ITC**

**Bid Proposal**

**Special Provisions**

**Construction Drawings 4, 5, 7, 9, 12, 13**

**Bid Addendum Acknowledgment**

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