



261-2017 ADDENDUM 1

2016 SEWER RENEWALS BY CIPP LINING, CONTRACT 3

URGENT

PLEASE FORWARD THIS DOCUMENT TO WHOEVER IS IN POSSESSION OF THE BID OPPORTUNITY

ISSUED: April 24, 2017
BY: Chris Mitchell
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THIS ADDENDUM SHALL BE INCORPORATED INTO THE BID OPPORTUNITY AND SHALL FORM A PART OF THE CONTRACT DOCUMENTS

Template Version: A20160708

Please note the following and attached changes, corrections, additions, deletions, information and/or instructions in connection with the Bid Opportunity, and be governed accordingly. Failure to acknowledge receipt of this Addendum in Paragraph 10 of Form A: Bid may render your Bid non-responsive.

PART A – BID SUBMISSION

Replace: 261-2017_Bid_Submission with 261-2017_Addendum_1-Bid_Submission. The following is a summary of changes incorporated in the replacement Bid Submission:

- Form B(R1): Revised Item No. B.b).i).
- Form B(R1): Revised Item No. C.b).i).
- Form B(R1): Revised Item No. C.b).ii).
- Form B(R1): Revised Item No. D.e).i).
- Form B(R1): Revised Item No. E.c).
- Form B(R1): Revised Item No. H.
- Form B(R1): Add New Item No. K. Subsequent item numbering has changed.
- Form B(R1): Revised Item No. L – Manhole Construction
- Form B(R1): Revised Item No. N – Provisional Items
- Form B(R1): Revised Item No. O – Cash Allowance for Provisional Manhole Construction and Repair

PART D – SUPPLEMENTAL CONDITIONS

- Add: D14.5 Liner installation work on Taylor Ave asset S-MA60004672 shall be completed prior to October 30, 2017.
- Add: D14.6 Inspection of manhole S-MH60019492 shall be completed within 14 Calendar Days of Award.

PART E – SPECIFICATIONS

- Add: E7.3.8 (c) Manhole S-MH60019492 is believed to be in poor condition, however, the full extent of its deterioration is currently unknown. The Contractor administrator, upon receipt of the inspection data for this manhole, will complete an assessment of the manhole and advise

the Contractor of the required repairs or provide authorization to reconstruct the manhole. The Contractor will be required to provide a price for the proposed repairs in accordance with E7.5.7. Reconstruction of manhole S-MH60019492 shall be paid in accordance with E7.5.8. Repair of manhole MH60019492 shall be paid under the cash allowance for Provisional Manhole Construction and Repair (E7.5.7). The decision to complete repairs to the manhole or undertake reconstruction of the manhole will be based on the condition of the manhole, social economic impact of the proposed work, and project budget.

Revise: E7.5.7 to read: Cash Allowance For Provisional Manhole Construction and Repair

Revise: E7.5.7 (a) to read: The Cash Allowance for provisional manhole construction and repair is intended to be used for the out of scope construction and repair of manholes where required to facilitate installation of CIPP liners and where directed by the Contract Administrator. The Cash Allowance will not be used to pay for the construction of manholes identified on the drawings and within Form B or for the repair of manholes where provisional items exist in Form B.

Add: E7.5.8 Provisional Reconstruction of Manhole S-MH60019492

- (a) Reconstruction of manhole S-MH60019492 will be measured on a lump sum basis and paid for at the Contract Price for "Manhole Construction" for each manhole identified on the Drawings and constructed in accordance with the Bid Opportunity and CW 2130. The lump sum price shall include the following:
- (i) Traffic control;
 - (ii) Installation and removal of all shoring;
 - (iii) Removal of existing manhole where required;
 - (iv) Supply installation of all manhole and sewer materials required to complete the work;
 - (v) Flow Control required to complete the work;
 - (vi) Restoration of the roadway; and
 - (vii) Any other materials or work required to complete the installation as specified herein.

Add: E13.2 (f) Sodding shall not be required for Taylor Ave asset S-MA60004672. Contractor shall smooth out any rutting of the boulevard to the satisfaction of the Contract Administrator.

Add: E14 **DIGITAL PANORAMIC MANHOLE INSPECTIONS**

E14.1 Notwithstanding CW 2145, inspect manholes using digital panoramic manhole inspection system such as the IBAK PANORAMO SI, or equivalent meeting the following criteria:

- (a) The inspection camera system must be 100% digital. Any analog or NTSC video camera will be deemed unacceptable.
- (b) The inspection camera system must have two independently or simultaneously controlled digital cameras, one facing in the downward direction and one facing in the upward direction. Each camera must have a minimum of 185 degree field of view.
- (c) The inspection camera system must provide sufficient illumination of the interior of the manhole to obtain proper exposure without introducing any motion blur. The light shall be positioned to distribute the light evenly onto the structure walls. The lighting must be able to illuminate manholes without the need of any auxiliary lighting.
- (d) The inspection system shall produce individual images or frames with no more than 0.001 inches (0.025mm) of movement during image or frame exposure to produce crisp, clear images. Inspections showing evidence of scratched lenses or protective due to poor handling and application shall be rejected.
- (e) The inspection camera must provide a minimum of 3000 line of vertical resolution in the side view and a minimum of 500 lines in the perspective view.

- (f) Contractor is responsible for reviewing collected data, coding observations, however the City must have the ability to view the digital film file in the way that the contractor can view them, including full control of the virtual pan and tilt.
- (g) The digital film files must include an unfolded view of the manhole with a minimum of 3000 lines of vertical resolution.
- (h) The digital film files must include the capability to produce a three dimensional representation of the manhole structure. This data shall be used to perform geometric measurements. This file shall be exportable to common CAD programs for further analysis.
- (i) The digital file files must include a distortion-free virtual pan and tilt allowing the review of the manhole structure from any angle from any depth. The virtual pan and tilt must be able to view 360 degrees in any direction. The virtual pan and tilt must consist of views from the top and bottom camera, any virtual pan and tilts that artificially create this view from a single camera will be deemed unacceptable due to distorted images on the direct side view.
- (j) The virtual pan and tilt and unfolded views must be able to be viewable by the City with all the required software included.
- (k) All chambers that exhibit weir wall or spill pipe weir levels as observed within the field or identified, but not limited to control structures or manholes identified within the Construction Drawings, must be measured from manhole rim to weir crest where possible and detailed within the Inspection Comments field.
- (l) CW 2145 Sections 3.17.8.5, 3.17.8.6, and 3.17.8.7 are not applicable when utilizing digital panoramic methods.
- (m) Further to CW 2145 Clause 3.11.5, provide file names within the 360Player.exe software, manholes to be in alpha numeric order to ensure efficient reference.

E14.2

Provide Digital Panoramic Manhole Inspection conforming to Section E14.1 for manhole S-MH60019492 at upstream end of De La Digue Ave asset S-MA60023243. Dewater the manhole to expose invert and base in order to determine the extent of rehabilitation or reconstruction work to be performed, subject to review and approval by the Contract Administrator. Provide inspection data to the Contract Administrator within 7 Calendar Days of completing the inspection.

DRAWINGS

Replace: 261-2017_Drawing_11453-R0 with 261-2017_Addendum_1-Drawing_11453-R1.