

ADDENDUM NO. 2

DATED

APRIL 18, 2018

NATICK, MASSACHUSETTS  
BOARD OF SELECTMEN

CONTRACT NO. W-148

WEST CENTRAL, ROUTE 30 WATER MAINS AND  
HEALTH CENTER FORCEMAIN

TO ALL BIDDERS OF RECORD:

This Addendum shall be part of the Contract Documents as provided in the Instructions to Bidders of Contract No. W-148. Acknowledgment of receipt of the Addendum shall be made by inserting its number on Page 00300-1 of the Bid Form. Failure to do so may subject the bidder to disqualification.

**Section 00510 Agreement Page 4 Contract Item 49**

**Delete** "For Trench Infra-Red" and **insert** "For Cold Plane West Central Street"

**Section 01025 Measurement and Payment Page 15 Par. 1.30 A.**

**Insert** "miscellaneous" prior to "pits."

**Section 01025 Measurement and Payment Page 16 Par. 1.32 B.**

**Delete** "under Item No. 34." in the first sentence and **Insert** "under Item No. 35."

**Section 01025 Measurement and Payment Page 19 Par. 1.38 B.**

**Delete** "under Item No. 40." in the first sentence and **Insert** "under Item No. 41."

**Change in Scope West Central Street:** The scope for the West Central water main replacement has been changed from pipe bursting of the 6" CI water main to open cut replacement of the 6" CI water main with new 8" DI water main. Eliminate all specification and drawing references to pipe bursting water main.

The West Central pipe bursting scope revision and paving scope changes (see additional information later in addendum) will require adjustment to the following payment item quantities in Bid Section and Agreement section.

Item 5: Process Gravel 2,150 CY	<b>change to 3,900 C.Y.</b>
Item 6 Ordinary Borrow 1,725 C.Y.	<b>change to 1,800 C.Y.</b>
Item 7 Select Borrow 1,850 C.Y.	<b>change to 1,950 C.Y.</b>
Item 9 Temporary Trench Paving 450 Tons	<b>change to 1,000 Tons</b>
Item 10 Temporary Pit Paving 55 Tons	<b>change to 30 Tons</b>

Item 11 Permanent Trench Paving 2,290 Tons	<b>change to 4,050 Tons</b>
Item 12 Permanent Pit Paving 315 Tons	<b>change to 130 Tons</b>
Item 20 Solid Sleeve 53 EA.	<b>change to 18 EA.</b>
Item 30 Bursting 6" & 10" 4,790 L.F.	<b>change to Bursting 10" C.I. Pipe 615 L.F.</b>
Item 32 For 8" & 10" DI Pipe 250 L.F.	<b>change to 75 L.F.</b>
Item 36 Inspection Pits 75 C.Y.	<b>change to 30 C.Y.</b>
Item 37 For Miscellaneous Pits 35 C.Y.	<b>change to 32 C.Y.</b>
Item 40 Open Cut 8" Water Mains 120 L.F.	<b>change to 4,575 L.F.</b>
Item 49 For Cold Plane West Central 2,500 S.F.	<b>change to 6,600 S.Y.</b>

**Change in Scope for Health Center Forcemain:** The scope change allows the use of an alternative material, High Density Polyethylene (HDPE), for the pipe bursting, sliplining segments and the open cut segments of the forcemain pipe replacement project. Open cut segments can remain Ductile Iron pipe whiles using HDPE for the other segments. No changes are required in the payment items.

**Change in Paving Scope for West Central and Health Center: Adjust specifications as noted below and drawings where required.**

**Section 02513 Asphaltic Concrete Paving, Page 5 Par. 3.6A.3.a.**

**Delete "4 ½"** and **Insert "4"** (two separate lifts of 2") for base Course asphaltic concrete paving.

**Section 02513 Asphaltic Concrete Paving, Page 5 Par. 3.6A.3.b.**

**Delete b. and Insert "Install 1 ½"** bituminous concrete Type I-1 binder course paving and 1 ½" bituminous concrete Type I-1 top course paving

**Section 02513 Asphaltic Concrete Paving, Page 6 Par. 3.7A.4.a.**

**Delete "4 ½"** and **Insert "4"**(two separate lifts of 2") for base Course asphaltic concrete paving.

**Section 02513 Asphaltic Concrete Paving, Page 6 Par. 3.7A.4.b.**

**Delete "3inches"** and **Insert " 1 ½"** bituminous concrete Type I-1 binder course paving"

**Section 02708 Page 2 Sliplining Existing Sleeves**

**Insert** the following paragraphs after 2.2. FITTINGS, Adjust remaining paragraph numbers sequentially. Adjust drawings to reflect elimination of pipe bursting.

**2.3 HIGH DENSITY POLYETHYLENE PIPE**

- A. *Alternative pipe for Health Center Forcemain sliplining, pipe bursting and open cut shall be high density polyethylene pipe (HDPE).*
- B. *Shall meet the performance of ASTM D-1248 and D-3350 standards for Type III High Density Polyethylene (HDPE),*
- C. *Pipe shall be Disco Pipe 4000 DIPS as manufactured by Performance Pipe or approved equal with*

- D. Shall be 12-inch nominal diameter pipe, DR 17, working pressure rating of 125 psi, minimum wall thickness of 0.776 inches, in compliance with ASTM F714, 445574C ASTM D3350 Cell Classification and PE4710 material.*
- E. Shall be chemically resistant to withstand external exposure to soil bacteria and any chemical attack which may be due to materials in the surrounding ground or wastewater carried by the pipe.*

#### **2.4 HIGH DENSITY POLYETHYLENE FITTINGS**

- A. Contractor to utilize mechanical joint fused adaptor for connection to proposed ductile iron pipe. Fittings shall be manufactured by the same manufacturer and of the same materials as the HDPE pipe.*

#### **Section 02708 Page 5 Sliplining Existing Sleeve- Par 2.4 B. 3. & 4.**

**Insert** “HDPE pipe” after the words “ductile iron pipe”

#### **Section 02708 Page 5 Sliplining Existing Sleeves**

**Insert** the following paragraphs after 2.4 INSTALLATION. Adjust remaining paragraph numbers sequentially. Adjust drawings and specifications to reflect the optional use of HDPE pipe for the pipe bursting, sliplining and open cut segments of the Health Center Forcemain replacement project.

#### **2.4 HDPE PIPE JOINING**

- A. HDPE pipe joining shall be by the butt fusion method. Personal performing the Butt fusion process must have a minimum of 5-years experience in the process.*
- B. Fusion process must follow manufacturers recommendations.*
- C. The manufacturer or their certified representative must conduct a site visit to observe the first several Butt fusions for approval.*
- D. Any fusions completed outside the manufactures recommendations, in the opinion of the Engineer shall be cut out and the fusion repeated.*

#### **2.5 HDPE/DUCTILE IRON CONNECTION FITTING**

- A. The mechanical joint flange adapter assembly shall include the necessary ductile iron backup flange, gasket, T-bolts, tie bolts, threaded rods, retainer glands, and accessories, as shown on the Contract Drawings.*

#### **2.6 CONNECTION TO TRANSMISSION MAIN**

- A. A HDPE flange adapter suitable for connection to a 12-inch mechanical joint fitting, shall be butt fused to each end of the HDPE pipe.*
- B. Two (2) full lengths of 12-inch mechanical joint Class 52 ductile iron pipe shall be connected to the 12-inch mechanical joint fitting attached to the flange adapter assembly of the HDPE piping, with joint makeup in compliance with the manufacturers standards.*
- C. Retainer glands shall be installed on each mechanical joint.*

- D. *The flanged bell end of the second length of mechanical joint pipe shall be connected to the spigot end of one full length of 12-inch ductile iron push-on joint pipe with a restraint gasket in the joint.*

**Drawing No. 8 Concrete sidewalk detail:** Delete “ #6 @ 6” O.C.. WWF” and insert “6x6 WWF W1.4xW1.4”

**Drawing No. 3, 4 & 5:** Delete references to pipe busting and insert “open cut”

**MassDOT Permit additional restriction for work in North Main Street: MassHighway limits starts at STA 4+25 and continues south on Rt27 to approximately 50 feet north of House #173. Water service replacement for House #176/180 is outside the MassHighway limits, however the following restrictions still apply with the exception of CDF backfill.**

1. No metal traffic control barrels are allowed in the highway Layout.
2. Equipment cannot enter roadway, MassHighway or Town roadway prior to 9:30 am and all equipment must be off the travelled way by 3:30 pm, unless Contractor requests and receives approval from the town and MassDOT.
3. All equipment must be off the roadway by 12:00 pm the day before a holiday and not enter the roadway until 12:00 pm the day after a holiday.
4. Excavation in existing ramp for temporary by-pass piping cannot occur on Saturdays. This work must be completed at night between 9:00 pm and 5:00 am, unless Contractor requests and receives approval from the Town and MassDOT.
5. The forcemain service trenches in paved roadways must be backfilled with Type 2E Flowable (Excavatable) Controlled Density Fill. CDF must be brought to within seven (7) inches of the existing grade and the trench shall be plated overnight. CDF must be batched at a concrete plant and meeting the following requirements.
  - a. Portland Cement: Meeting AASHTO M85
  - b. Fly Ash: Meeting AASHTO M4.05.02
  - c. Sand: Meeting M4.02.02
  - d. Water: Meeting M4.02.05
  - e. Air Entraining Admixtures: Meeting M4.02.05
  - f. Compressive Strength: 28 days = 30-80psi  
90 days = 100 psi
  - g. Slump: 10-12 inches