CITY OF WORCESTER, MASSACHUSETTS

Various Streets 2022 Sanitary, Surface, and Combined Sewer Rehabilitation Project
Contract S23-2
Bid No. 7870-W3

ADDENDUM NO. 5

To be considered as part of the contract drawings and specifications for the Various Streets 2022 Sanitary, Surface, and Combined Sewer Rehabilitation Project, dated August 2022:

GENERAL

Additional inspection videos of the sewers added to the Project through Addendum No. 2 are available and can be provided upon request, please contact:

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SPECIFICATIONS

SUPPLEMENT TO SPECIAL PROVISIONS – MEASUREMENT AND PAYMENT

1. Page G-16-R, Section 1.05 STRUCTURAL CURED-IN-PLACE PIPE, INSERT the following paragraph:

   "12. Preparation of Manhole SS01144 (see SK-2 REV, attachment A) for the installation of structural cured-in-place pipe shall be considered incidental to the work and shall not be measured separately for payment. This includes removal and disposal of the brick pipe within the manhole, building of a brick bulkhead for the inactive upstream connection, rebuilding the manhole invert and bench, and removal of any other obstruction that could prevent the installation of structural cured-in-place pipe between manholes SS01144 and SS00696.

SECTION 02435 – SEWER MANHOLE REHABILITATION

1. PART 3 – EXECUTION, INSERT the following paragraphs:

   "3.07 REBUILD MANHOLE INVERT AND BENCH:

   A. Existing manhole bench and invert (including debris, deteriorated brick, block, and mortar) shall be removed and disposed of.

B. Bricks shall be moistened by suitable means, as required, until they are neither so dry as to absorb water from the mortar nor so wet as to be slippery when laid.

C. Each brick shall be laid as a header in a full bed and joint of mortar without requiring subsequent grouting, flushing or filling, and shall be thoroughly bonded as required.

D. Channels and shelves shall be constructed of brick and concrete as shown on the Drawings. The brick lined channels shall correspond in shape with the lower half of the pipe. The top of the shelf shall be set at the elevation of the crown of the highest pipe and shall be sloped 1 inch per foot to drain toward the flow through channel. Brick surfaces exposed to sewage flow shall be constructed with a nominal 2-inch by 8-inch face exposed (i.e. bricks on edge).

3.08 BUILD BULKHEAD:

A. Two (2) courses of brick shall be installed at the end of the abandoned pipe and be flush with the interior wall of the manhole. The Contractor shall remove the existing brick pipe within the manhole so that the masonry bulkhead matches and is flush with existing brickwork of the manhole wall."

QUESTIONS

Q1. During a site visit, field crews were unable to locate manholes SS01146, SS01147, SS07212, and SS07213.

A1. Manholes SS01146, SS01147, SS07212, and SS07713 are buried. City forces plan to raise these manholes prior to the rehabilitation work.

Q2. During a site visit, field crews noted that the pipe in manhole SS01144 is not exposed.

A2. Manhole SS01144 is a doghouse manhole and shall require work in preparation for installation of downstream cured-in-place pipe. See sketch SK-2 REV in Attachment A and corresponding modifications to "Supplement to Special Provisions – Measurement and Payment" and "Section 02435 – Sewer Manhole Rehabilitation", as provided within this Addendum No. 5.

Q3. Is there an alternate/parallel line that the flow from Park Ave can be bypassed into?

A3. No.

Q4. Could a Stage 2 traffic control be set up on Park Ave for continuous work?

A4. Stage 2 traffic control is permitted and shall be implemented in accordance with the Construction Zone Safety Plan of the Contract Document (Plan Sheet C503).

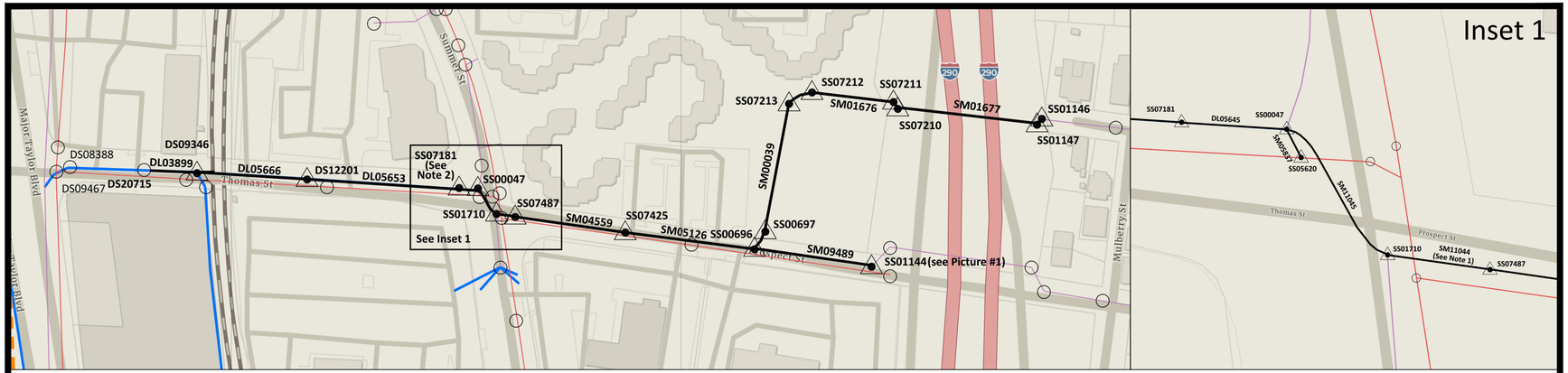
END OF ADDENDUM

ATTACHMENT

Attachment A – SK-2 REV

Attachment A

SK-2 REV



Picture #1: Sewer Manhole SS01144

STRUCTURAL CURED-IN-PLACE PIPE

ASSET ID	MH	TO MH	STREET/LOCATION	PIPE TYPE	PIPE DIA. (IN)	MATERIAL	APPROX. MH TO MH LENGTH (LF)	REINSTATE SERVICE(S) (APPROX. STA)
SM01679	SS01146	SS01147	SHELBY STREET ROW	COMBINED	18	VCP	19	-
SM01677	SS01147	SS07210	PROSPECT STREET ROW	COMBINED	18	CAS	174	-
SM01678	SS07210	SS07211	PROSPECT STREET ROW	COMBINED	18	VCP	18	-
SM01676	SS07211	SS07212	PROSPECT STREET ROW	COMBINED	12x18	CONCRETE	122	0+41, 0+70, 0+90
SM10573	SS07212	SS07213	PROSPECT STREET ROW	COMBINED	20x30	BRICK	38	
SM00039	SS07213	SS00697	PROSPECT STREET ROW	COMBINED	20x30	BRICK	193	0+34, 0+72, 0+73
SM10572	SS00697	SS00696	PROSPECT STREET ROW	COMBINED	20x30	BRICK	29	-
SM09489	SS01144	SS00696	PROSPECT STREET	COMBINED	26x39	BRICK	177	0+20, 0+33, 0+72, 0+79, 1+48
SM05126	SS00696	SS07425	PROSPECT STREET	COMBINED	26x39	BRICK	179	0+25, 0+80,1+19, 1+41
SM04559	SS07425	SS07487	PROSPECT STREET	COMBINED	26x39	BRICK	159	0+70
SM11044 (1)	SS07487	SS01710	PROSPECT STREET	COMBINED	26x39	BRICK	28	-
SM11045	SS01710	SS00047	PROSPECT STREET	COMBINED	26x39	BRICK	43	-
DL05654	SS00047	SS07181	THOMAS STREET	COMBINED	26x39	BRICK	16	ESTIMATED NUMBER OF SVC(S) = 1
SM05837	SS00047	SS05620	THOMAS STREET	COMBINED	12	VCP	10	-
DL05653	SS07181	DS12201	THOMAS STREET	COMBINED	26x39	BRICK	204	ESTIMATED NUMBER OF SVC(S) = 2
DL05666	DS12201	DS09346	THOMAS STREET	COMBINED	26x39	BRICK	159	ESTIMATED NUMBER OF SVC(S) = 2
DL03899	DS09346	~~DS08388~~ DS20715	THOMAS STREET	COMBINED	26x39	BRICK	~~214~~ 36	ESTIMATED NUMBER OF SVC(S) = 2
~~DL09982~~	~~DS08388~~	~~DS09467~~	~~THOMAS STREET~~	~~COMBINED~~	~~26x39~~	~~BRICK~~	~~18~~	-
~~DL02988~~	~~DS09467~~	~~GN002~~	~~THOMAS STREET~~	~~COMBINED~~	~~26x39~~	~~BRICK~~	~~30~~	-

APPROX. TOTAL (LF) = 1,837
APPROX. SUBTOTAL 12-INCH (LF) = 10
APPROX. SUBTOTAL 18-INCH (LF) = 211
APPROX. SUBTOTAL 12x18-INCH (LF) = 122
APPROX. SUBTOTAL 20x30-INCH (LF) = 260
APPROX. SUBTOTAL 26x39-INCH (LF) = ~~1,294~~ 1,001

NOTES:
1. SM11044 TRANSITIONS TO A 36-INCH DI PIPE AT STA 0+05 AND 36-INCH PVC PIPE AT STA 0+12 FROM US MH SS07487

EPOXY LINING AND EXTERIOR SEALING OF SEWER MANHOLES

MH	STREET/LOCATION	MH TYPE	MATERIAL	APPROX. MH DEPTH (VF)
SS01146	SHELBY STREET ROW	COMBINED	BRICK	8
SS01147	SHELBY STREET ROW	COMBINED	BRICK	8
SS07210	PROSPECT STREET ROW	COMBINED	BRICK	8
SS07211	PROSPECT STREET ROW	COMBINED	BRICK	8
SS07212	PROSPECT STREET ROW	COMBINED	BRICK	25
SS07213	PROSPECT STREET ROW	COMBINED	BRICK	25
SS00697	PROSPECT STREET ROW	COMBINED	BRICK	9.5
SS00696	PROSPECT STREET	COMBINED	BRICK	13
SS07425	PROSPECT STREET	COMBINED	BRICK	12
SS07487	PROSPECT STREET	COMBINED	BRICK	11.7
SS01710	PROSPECT STREET	COMBINED	BRICK	12
SS00047	THOMAS STREET	COMBINED	BRICK	13.5
DS12201	THOMAS STREET	COMBINED	BRICK	13.2
DS09346	THOMAS STREET	COMBINED	BRICK	10.3
~~DS08388~~	~~THOMAS STREET~~	~~COMBINED~~	~~BRICK~~	~~8.25~~
~~DS09467~~	~~THOMAS STREET~~	~~COMBINED~~	~~BRICK~~	~~9.5~~

APPROX. TOTAL (VF) = ~~99.4~~ 72.7

EPOXY LINING AND EXTERIOR SEALING OF SEWER STRUCTURE (2)

MH	STREET/LOCATION	TYPE	MATERIAL	APPROX. STRUCTURE DIMENSION (FT)
SS07181	THOMAS STREET	COMBINED	BRICK	14' H X 18.5' W

TOTAL (EA) = 1

NOTES:
2. RECORD DRAWING OF THE STRUCTURE IS ATTACHED, SEE ATTACHMENT H.

Weston & Sampson

Sheet Number:

SK-2 REV

Rev: 1.7 Date: 08/12/2019