ADDENDUM NO. 2

NOTICE is hereby given to prospective Bidders of the following information and modifications to the Bidding Documents. The Bidding Documents remain unchanged except as indicated below. Bidders must acknowledge receipt of this Addendum in the Bid Form and comply with the requirements for submission of Bids as set forth in the Bidding Documents.

INFORMATION

The deadline to submit Bids is Thursday, March 14, 2019, at 11:00 AM at the Owner’s offices of the Purchasing Agent, City Hall, 1305 Hancock Street, Quincy, Massachusetts 02169. Bids will then and there be publicly opened and read aloud.

The answers below are provided in response to questions and comments submitted by prospective Bidders.

1. **Question:** Substantial Completion - 90CD on page 00 11 16-1 & 190CD on page 00 52 10-1. Please clarify.
   
   **Answer:** Substantial Completion time shall be 90 days, see revised Section 00 52 10 – AGREEMENT FORM attached to Addendum No. 1.

2. **Question:** Can cure water be discharged back into the system?
   
   **Answer:** Contractor shall handle cure water in accordance with Section 00 73 10 – GENERAL SUPPLEMENTARY CONDITIONS, SC-6.08, Part B.3.

3. **Question:** Are invert elevations available for the pipes to be lined?
   
   **Answer:** Only information available is approximate depth of manhole as shown on the Drawings which was measured from the Rim to outlet invert.

4. **Question:** Who will give access to the athletic fields for lining and related work?
   
   **Answer:** Woodard & Curran will assist the Contractor in coordinating access to the athletic fields with the Parks & Forestry Department.

5. **Question:** Are there any pump stations that affect the pipes to be lined?
   
   **Answer:** Yes, the large diameter piping on C-102 flows into the MWRA Fenno Street Pumping Station inlet manhole.

6. **Question:** Is pre liner required for all lining diameters?
   
   **Answer:** The Contractor shall provide pre-liners if needed under the Contractor and Manufacturer discretion.

7. **Question:** Is continuous length monitoring of the CIPP required for all lining or at the contractors discretion? This process proves to be very costly and not very effective. Will spot monitoring at man hole accesses be acceptable?
**MODIFICATIONS**

**NOTICE** is hereby given that the Bidding Documents have been modified as follows.

Replacement pages are issued herewith, have an Issue Date of March 11, 2019, contain reference to “ADDENDUM NO. 2” in the footer, and text changes identified by double-underline for additions and Strikeout for deletions.

<table>
<thead>
<tr>
<th>Replacement pages (with text changes)</th>
<th>Provided for purposes of double-sided printing only - no changes (front or back of replacement page)</th>
</tr>
</thead>
<tbody>
<tr>
<td>00 73 10-2, 00 73 10-4, 00 73 10-10 and 00 73 10-Appendix D</td>
<td>00 73 10-1, 00 73 10-3, 00 73 10-5 thru 00 73 10-9</td>
</tr>
<tr>
<td>01 20 25-9 thru 01 20 25-11</td>
<td>01 20 25-12</td>
</tr>
</tbody>
</table>

The following replacement section(s) are **reissued herewith in their entirety**, have an Issue Date of March 11, 2019, contain(s) reference to “ADDENDUM NO. 2” in the footer, and text changes identified by double-underline for additions and Strikeout for deletions.

1. Section 00 43 22 – UNIT PRICES FORM, consisting of 4 pages, see attached.
2. Section 33 01 30.74 – CURED IN PLACE LATERAL LINING, consisting of 10 pages, see attached.

This Addendum is provided to Bidders in a single Portable Document Format (.PDF) posted on the Owner’s Purchasing Bid Page and will be available for examination at the Issuing Office. It is each Bidder’s responsibility to check the website for Addenda per the Invitation to Bid.

**Prepared and Issued by Woodard & Curran (Engineer) on behalf of:**
The City of Quincy, Massachusetts
SECTION 00 43 22

UNIT PRICES FORM

Provide unit pricing for each Bid item in both words and figures. Provide Bid item totals in figures only.

Discrepancies between the multiplication of units of Work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum. Discrepancies between prices written in words and prices written in figures will be resolved in favor of prices written in words.

Unit Prices have been computed in accordance with Paragraph 11.03.A of the General Conditions and Supplementary Conditions, if any. Estimated quantities are not guaranteed and are solely for the purpose of comparison of Bids, and final payment for unit price items will be based on actual quantities determined and based on the unit prices included below as provided in the General Conditions and Supplementary Conditions, if any.

BID PRICES SHALL EXCLUDE SALES AND USE TAX.

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Item Description with Unit or Lump Sum Price in Written Words</th>
<th>Estimated Quantity &amp; Unit</th>
<th>Unit Bid Price (Figures)</th>
<th>Total Bid Item Price (Figures)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Mobilization &amp; Demobilization (Not to exceed 5 percent of the total sum of Items 2 thru 12. Excludes Items 13 thru 19. @ ____________________________ Dollars and ___________________ Cents PER LUMP SUM</td>
<td>1</td>
<td>LS</td>
<td></td>
</tr>
<tr>
<td>2.a</td>
<td>8-Inch Cured-In-Place Pipe @ ____________________________ Dollars and ___________________ Cents PER LINEAR FOOT</td>
<td>1,150</td>
<td>LF</td>
<td></td>
</tr>
<tr>
<td>2.b</td>
<td>10-Inch Cured-In-Place Pipe @ ____________________________ Dollars and ___________________ Cents PER LINEAR FOOT</td>
<td>800</td>
<td>LF</td>
<td></td>
</tr>
<tr>
<td>2.c</td>
<td>15-Inch Cured-In-Place Pipe @ ____________________________ Dollars and ___________________ Cents PER LINEAR FOOT</td>
<td>2,050</td>
<td>LF</td>
<td></td>
</tr>
<tr>
<td>Item No.</td>
<td>Item Description with Unit or Lump Sum Price in Written Words</td>
<td>Estimated Quantity &amp; Unit</td>
<td>Unit Bid Price (Figures)</td>
<td>Total Bid Item Price (Figures)</td>
</tr>
<tr>
<td>---------</td>
<td>---------------------------------------------------------------</td>
<td>---------------------------</td>
<td>--------------------------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td>2.d</td>
<td>24-Inch x 36-Inch Cured-In-Place Pipe @ _______________________ Dollars and __________________ Cents PER LINEAR FOOT</td>
<td>1,350</td>
<td>LF</td>
<td></td>
</tr>
<tr>
<td>2.e</td>
<td>30-Inch x 45-Inch Cured-In-Place Pipe @ _______________________ Dollars and __________________ Cents PER LINEAR FOOT</td>
<td>1,100</td>
<td>LF</td>
<td></td>
</tr>
<tr>
<td>3.a</td>
<td>Testing of Mainline Joints 8-inch to 12-inch Pipe @ _________________ Dollars and ________________ Cents PER EACH</td>
<td>600</td>
<td>EA</td>
<td></td>
</tr>
<tr>
<td>3.b</td>
<td>Testing of Mainline Joints 15-inch Pipe @ _______________________ Dollars and __________________ Cents PER EACH</td>
<td>500</td>
<td>EA</td>
<td></td>
</tr>
<tr>
<td>4.a</td>
<td>Sealing of Mainline Joints 8-inch to 12-inch Pipe @ _________________ Dollars and __________________ Cents PER EACH</td>
<td>600</td>
<td>EA</td>
<td></td>
</tr>
<tr>
<td>4.b</td>
<td>Sealing of Mainline Joints 15-inch Pipe @ _______________________ Dollars and __________________ Cents PER EACH</td>
<td>500</td>
<td>EA</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Grout Service Connection @ _______________________ Dollars and ________________ Cents PER EACH</td>
<td>150</td>
<td>EA</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Additional Grout Pumped @ _______________________ Dollars and ________________ Cents PER GALLON</td>
<td>200</td>
<td>GAL</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Full Wrap Lateral Connection Repair @ _______________________ Dollars and ________________ Cents PER EACH</td>
<td>50</td>
<td>EA</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Curtain Grouting of Manhole @ _______________________ Dollars and ________________ Cents PER GALLON</td>
<td>180</td>
<td>GAL</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Cementitious Coating of Manhole @ _______________________ Dollars and ________________ Cents PER EACH</td>
<td>18</td>
<td>EA</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Replace 26-Inch Standard Manhole Frame &amp; Cover @ _______________________ Dollars and ________________ Cents PER EACH</td>
<td>1</td>
<td>EA</td>
<td></td>
</tr>
<tr>
<td>Item No.</td>
<td>Item Description with Unit or Lump Sum Price in Written Words</td>
<td>Estimated Quantity &amp; Unit</td>
<td>Unit Bid Price (Figures)</td>
<td>Total Bid Item Price (Figures)</td>
</tr>
<tr>
<td>---------</td>
<td>---------------------------------------------------------------</td>
<td>---------------------------</td>
<td>--------------------------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td>11</td>
<td>Locate, Raise and Replace 26-Inch Standard Manhole Frame &amp; Cover @ ________________________________ Dollars and _______________________ Cents PER EACH</td>
<td>3</td>
<td>EA</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Environmental Protection (Hay Bales/Silt Fence) @ ________________________________ Dollars and _______________________ Cents PER LINEAR FOOT</td>
<td>3,000</td>
<td>LF</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Owner’s Contingency Allowance for Additional Night Work Required @ Five Thousand Dollars and Zero Cents NOT TO EXCEED PER HOUR</td>
<td>N/A</td>
<td>$5,000.00</td>
<td>N/A</td>
</tr>
<tr>
<td>14</td>
<td>Owner’s Contingency Allowance for Additional Weekend Work Required @ Five Thousand Dollars and Zero Cents NOT TO EXCEED PER HR</td>
<td>N/A</td>
<td>$5,000.00</td>
<td>N/A</td>
</tr>
<tr>
<td>15</td>
<td>Owner’s Contingency Allowance for Additional Night Work Traffic Management Controls Required @ Twenty Four Thousand Dollars and Zero Cents NOT TO EXCEED PER HR</td>
<td>N/A</td>
<td>$24,000.00</td>
<td>N/A</td>
</tr>
<tr>
<td>16</td>
<td>Owner’s Contingency Allowance for Additional Weekend Work Traffic Management Controls Required @ Thirty Two Thousand Dollars and Zero Cents NOT TO EXCEED PER HR</td>
<td>N/A</td>
<td>$32,000.00</td>
<td>N/A</td>
</tr>
<tr>
<td>17</td>
<td>Owner’s Contingency Allowance for Additional Heavy Cleaning Required Including Storage, Testing and Disposal @ Twenty Thousand Dollars and Zero Cents NOT TO EXCEED</td>
<td>1</td>
<td>N/A</td>
<td>$20,000.00</td>
</tr>
<tr>
<td>18</td>
<td>Owner’s Contingency Allowance for Traffic Police Details @ Twenty-Five Thousand Dollars and Zero Cents NOT TO EXCEED</td>
<td>1</td>
<td>N/A</td>
<td>$25,000.00</td>
</tr>
<tr>
<td>19</td>
<td>Owner’s Contingency Allowance for Materials Escalation price Adjustment (per Paragraph 11.02 of the General Conditions) @ Twenty-Five Thousand Dollars and Zero Cents NOT TO EXCEED</td>
<td>1</td>
<td>N/A</td>
<td>$25,000.00</td>
</tr>
</tbody>
</table>

TOTAL BID PRICE (based on Unit Price Schedule above).  INCLUDE ON BID FORM

______________________________________________________ Dollars and _______________________ Cents  $ ____________________
(Use words)  (Use figures)

END OF SECTION
SECTION 00 73 10

GENERAL SUPPLEMENTARY CONDITIONS

These Supplementary Conditions amend or supplement the Standard General Conditions of the Construction Contract, EJCDC® C-700 (2007 Edition) included in Section 00 72 05. All provisions that are not so amended or supplemented remain in full force and effect unless amended or supplemented in another Section. The terms used in these Supplementary Conditions have the meanings stated in the General Conditions. Additional terms used in this Section have the meanings stated below, if any, which are applicable to both the singular and plural thereof. The address system used herein is the same as the address system used in the General Conditions, with the prefix "SC" added thereto.

This Section may include certain provisions required by Laws and Regulations but does not represent or reflect all applicable provisions and policies or Laws and Regulations and may only include excerpts and portions thereof. Other required provisions and policies, and Laws and Regulations, shall be deemed to be so included and incorporated herein. Contractor is solely responsible to determine, obtain, review and interpret the full text of applicable provisions and policies, Regulations, and Laws.

SC-1.01.B Additional Terms

In the definition of Punch List, replace “Final Completion” with “prior to Warranty Inspection (Post Substantial Completion)”.

Add the following new definitions.

7. Warranty Inspection – the inspection Work specified to be performed during the Correction Period.

8. Completion of Post Substantial Completion Punchlist – Completion of all Work except for Warranty Inspection.

SC-2.03 Commencement of Contract Times; Notice to Proceed

Add the following after Paragraph 2.03.A.

1. Warranty Inspection must commence within 45 calendar days prior to expiration of the Correction Period or within 10 days of receipt of notice from Owner to commence Warranty Inspection.

SC-2.05 Before Starting Construction

Pursuant to subparagraph 2.05.A.1 regarding Progress Schedule, do not include weekends in Work hours.
Pursuant to subparagraph 2.05.A.3 regarding the Schedule of Values, the prices in the Bid Form will constitute the minimum items for the preliminary Schedule of Values for this Project. Add the following immediately after Paragraph 2.05.B.

C. Additionally, within 10 days after the Effective Date of the Agreement, Contractor shall submit a Construction Operations Plan incorporating the schedules submitted pursuant to Paragraph 2.05.A and covering the following.

2. Construction methods and sequence of operations
3. Proposed Site access
4. Proposed erosion control measures and proposed measures to minimize impacts to existing vegetation and impacts to water quality in compliance with the General Requirements.
5. Proposed traffic control measures.
6. Proposed sanitary bypass procedures.

6.D. Contractor shall coordinate all Work activities and gain Work schedule approval from the City of Quincy Parks and Forestry Department prior to Permitting Work around Merrymount Parkway and Furnace Brook Parkway.

SC-2.07 Initial Acceptance of Schedules

Add the following immediately after subparagraph 2.07.A.4.

5. Contractor’s Construction Operations Plan submitted pursuant to Paragraph 2.05.C. will be acceptable to Engineer if it accurately and reasonably addresses all aspects of the Work.

SC 4.01 Availability of Lands

Pursuant to Paragraph 4.01.A, easements and rights-of-way exist for the Project. Documentation is on file with Owner and available upon request.

SC-4.02 Subsurface and Physical Conditions

A. Pursuant to Paragraph 4.02.A,

1. the following reports of explorations and tests of subsurface conditions at or contiguous to the Site are known to Owner:
   a. NONE

2. The following drawings of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities) are known to Owner:
a. Record Drawings of various dates found in Appendix B prepared by various authors for supplemental information.

None of the contents in such drawings is "technical data" on which Contractor may rely.

The “technical data” shall be limited to facts, measurements, field observations, boring logs, soil type and similar data. “Technical data” shall not include opinions regarding suitability of material, dewatering methodologies, soil stability, slope stabilization methods and other opinions or professional judgments.

3. The record drawings identified above are not part of the Contract Documents, but the “technical data” contained therein upon which Contractor may rely, as expressly identified and established above, are incorporated in the Contract Documents by reference and may be reflected in the Drawings. Contractor is not entitled to rely upon any other information and data known to or identified by Owner or Engineer.

4. Copies of record drawings identified above are included as specified in 00 31 00.

SC 4.05 Reference Points

Pursuant to Paragraph 4.05.A, no surveys exist for the Project.

SC-4.06 Hazardous Environmental Conditions at Site

A. Pursuant to Paragraph 4.06.A,

1. the following reports regarding Hazardous Environmental Conditions at the Site are known to Owner:

   a. NONE

SC-5.04 Contractor’s Insurance

Pursuant to Paragraph 5.04.A, in addition to the individuals and entities specified in subparagraph 5.04.B.1, include the following as loss payees.

NONE

Pursuant to subparagraph 5.04.C.5, also provide Owner's Protective Liability in the amount of *$3,000,000* general aggregate (*$1,000,000* per occurrence for bodily injury & property damage).

SC-6.02 Labor; Working Hours

Pursuant to Paragraph 6.02.B, regular working hours for this Project are 7:30 a.m. to 3:30 p.m., Monday through Friday.
SC-6.08 Permits

Pursuant to Paragraph 6.08.A, comply with permit requirements included in Quincy Code of Ordinances, in particular, Chapters 12.08 and 17.36 and Title 15, portions of which are included as attachments to this section. Owner will waive fees associated with road opening and trench permits to be obtained by Contractor.

Add the following immediately after Paragraph 6.08.A.

B. Contractor shall comply with the following licenses and permits Owner has obtained for the Project included in Section 00 31 00.


3. The discharge of wastewater from the installation of a cured-in-place pipe (CIPP) liner, as part of a sewer rehabilitation project, into the Municipal or MWRA sewrage system is prohibited, unless authorized by the MWRA. Wastewater discharged from the CIPP liner into a pipeline operation must comply with MWRA Sewer Use Regulations, 360 C.M.R. 10.021-10.024, prior to mixing with any other streams. Authorization to discharge wastewater from the CIPP liner into a pipeline operation shall be obtained from the MWRA at least thirty (30) calendar days prior to beginning the discharge. To obtain the MWRA Request To Discharge From A CIPP Liner Into A Pipeline Form, please contact Kattia Thomas, Project Manager, Permitting, Toxic Reduction and Control, MWRA, Operations, 2 Griffin Way, Chelsea, MA 02150 or kattia.thomas@mwra.state.ma.us. A sample is included at the end of this section.

3-4. Prior to start of Work in the area of Furnace Brook Parkway, Contractor shall obtain a Construction Permit from the Department of Conservation & Recreation (DCR), Director of Permits located at DCR PERMIT SECTION, 251 Causeway Street, 7th Floor, Boston, MA 02114. A sample is included at the end of this section. Additional information can also be found at the following link: https://www.mass.gov/how-to/applying-for-a-construction-or-vehicle-access-permit

Contractor shall be responsible for all necessary associated fee’s and any specific requirements required by the DCR to complete all Work including but not limited to specific, erosion control, bypass monitoring, pedestrian and vehicle safety, vegetative and pavement, etc.
SC-6.09 Laws and Regulations

Add the following immediately after Paragraph 6.09.A.

1. The Contractor shall comply with the following included as attachments to this section.
   - Applicable sections of the Quincy Code of Ordinances
   - Quincy Zoning Ordinance (Title 17 of the Code of Ordinances)

2. Contractor shall comply with, and assist the Owner in complying with, the requirements of the MWRA I/I Local Assistance Program as set forth in this section.
   a. Contractor and Subcontractors shall comply with all applicable laws and regulations pertaining to nondiscrimination, equal opportunity and affirmative action, including without limitation executive orders and rules and regulations of federal and state agencies of competent jurisdiction.
   b. Contractor and Subcontractor shall make positive efforts to achieve: (1) a minority employee work force goal of 15.30 percent, (2) a woman employee work force goal of 6.90 percent, (3) a goal of 7.24 percent participation of Minority-owned Business Enterprise(s), and (4) a goal of 3.60 percent participation of Woman-owned Business Enterprise(s) within the Project contracts.

SC-6.12 Record Documents

Add the following immediately after Paragraph 6.12.A.

1. Contractor(s) shall maintain books, records, documents, and other evidence directly related to the performance on all Work receiving funding under the Owner’s executed Financial Assistance Agreement with MWRA in accordance with generally accepted professional practice and appropriate accounting procedures and practices. Contractor shall also maintain the financial information and data used in the preparation or support of Project invoices and associated progress reports.

2. The MWRA and any other duly authorized person shall have access to such books, records, documents, and other evidence for inspection, audit, and copying during normal business hours, upon ten (10) days’ notice and at MWRA’s expense. Contractor shall provide proper facilities for such access and inspection. All documents shall be kept for at least seven (7) years after the final payment or at least seven (7) years after closeout of the Project, whichever is later.
SC-6.13 **Safety and Protection**

Add the following immediately after Paragraph 6.13.B.

1. Contractor shall comply with the following minimum requirements and is solely responsible to determine, obtain, review and interpret the full text of applicable Laws and Regulations.

   - Code of Federal Regulations, Chapter XVII-Occupational Safety and Health Administration (OSHA), Department of Labor, Title 29, Part 1926, Safety and Health Regulations for Construction
   - Hazard Communication Standard 1910.1200 regulated by OSHA, including providing and maintaining Safety Data Sheets, labeling of hazardous substances, and providing required protective equipment and training and instruction to personnel on the Site including Owner and Engineer’s personnel
   - OSHA General Industry 1910.146: Permit Required Confined Space Entry
   - ANSI/ASSE A10 series of safety construction standards including the "Manual of Accident Prevention in Construction" published by The Associated General Contractors of America
   - AASHTO Guide on Occupational Safety on Highway Construction Projects, Subpart N, 1926.550, relating to protection of personnel and equipment under electric lines and construction equipment clearances at overhead electric lines especially during operations using large vehicles

SC-7.01 **Related Work at Site**

Pursuant to Paragraph 7.01, Owner has not separately contracted for other work on the Project at the Site.

SC-8.09 **Limitations on Owner’s Responsibilities**

Add the following to Paragraph 8.09.

B. No officer, member or employee of the City of Quincy or its designees or agents, and no member of its governing body, and no other public official of the governing body of the locality or localities in which the Project is situated or being carried out, who exercises any function or responsibilities in the review or approval or the undertaking or carrying out of this Project, shall participate in any decisions relating to this Contract which affects his personal interest or the interest of any corporation, partnership, or associations in which he is directly or indirectly interested or have any personal or pecuniary interest, direct or indirect, in this Contract or proceeds thereof.
SC-8.11 Evidence of Financial Arrangements

Pursuant to Paragraph 8.11.A, the Project is to be funded in part under the Massachusetts Water Resource Authority (MWRA) I/I Local Assistance Program

SC-13.02 Access to Work

Add the following immediately after Paragraph 13.02.A.

1. Contractor shall make the Project Site and all Project records available to MWRA staff for review during the course of the Project. MWRA staff will periodically monitor the progress of Work for which MWRA financial assistance has been provided. The intent of these periodic inspections will be to ensure that the Project is: (1) proceeding substantially as defined in the Scope of Work / Project Schedule sections of the Owner’s executed Financial Assistance Agreement; and (2) proceeding in a manner which will produce the water system improvements which the Owner estimated would be achieved in the Owner’s executed Financial Assistance Application.

SC-14.02 Progress Payments

Add the following language at the end of subparagraph 14.02.C.1.

For the purposes of this Paragraph, “Owner” shall mean “Owner’s approving authorities”.

SC-14.04 Substantial Completion

In Paragraph 14.04. C, second sentence, replace “final payment” with “completion of all Work except for Warranty Inspection”.

SC-14.06 Final Inspection

In Paragraph 14.06.A., first sentence after “the entire Work”, insert “except for Warranty Inspection”. At the end of the first sentence, insert “(Post Substantial Completion Punchlist)”.

SC-14.07 Final Payment

Replace the Article heading with “Payment for Completion of Post Substantial Completion Punchlist”.

In subparagraph 14.07.A.1, first sentence after “satisfactorily completed”, insert “all Work except for Warranty Inspection and”.

In subparagraph 14.07.A.2, replace “final Application” with “Post Substantial Completion Application”.
In subparagraph 14.07.B.1, replace “final Application” with “Post Substantial Completion Application”. In line 5, after “been fulfilled”, insert “except for Warranty Inspection”. In the third sentence, replace “final payment” with “payment for completion of Post Substantial Completion Punchlist”.

Add the following language at the end of subparagraph 14.07.C.1.

For the purposes of this Paragraph, “Owner” shall mean “Owner’s approving authorities”.

**SC-14.08 Final Completion Delayed**

Replace the Article heading, with “Final Completion of Post Substantial Completion Punchlist Delayed”.

In Paragraph 14.08.A, first sentence, replace “final completion of the Work” with “final completion of the Post Substantial Completion Punchlist Work”.

**SC-14.09 Waiver of Claims**

In Paragraph 14.09.A, first sentence, replace “final payment” with “payment for completion of Post Substantial Completion Punchlist”.

Add the following new Article.

**14.10 Final Payment**

A. Upon completion of the Warranty Inspection, issuance of the results of the Inspection along with the plan to repair and replace defective Work, Owner will make final payment in accordance with the Agreement.

**SC-16 DISPUTE RESOLUTION**

Add the following immediately after Paragraph 16.01.D.

**16.02 Arbitration**

A. All Claims or counterclaims, disputes, or other matters in question between Owner and Contractor arising out of or relating to the Contract Documents or the breach thereof (except for Claims which have been waived by the making or acceptance of final payment as provided by Paragraph 14.09) including but not limited to those not resolved under the provisions of Paragraphs 10.05 or 16.01, will be subject to arbitration in accordance with the rules of Construction Industry Rules of the American Arbitration Association, subject to the conditions and limitations of this Paragraph 16.02. This agreement to arbitrate, and any other agreement or consent to arbitrate entered into, will be specifically enforceable under the prevailing Laws of any court having jurisdiction.
B. The demand for arbitration will be filed in writing with the other party to this Contract and with the selected arbitrator or arbitration provider, and a copy will be sent to Engineer for information. The demand for arbitration will be made within the 30-day period specified in Paragraph 16.01.D, and in all other cases, within a reasonable time after the Claim or counterclaim, dispute, or other matter in question has arisen, and in no event shall any such demand be made after the date when institution of legal or equitable proceedings based on such Claim or other dispute or matter in question would be barred by the applicable statute of limitations.

C. No arbitration arising out of or relating to the Contract Documents shall include by consolidation, joinder, or in any other manner any other individual or entity (including Engineer, and Engineer’s consultants and the officers, directors, partners, agents, employees or consultants of any of them) who is not a party to this Contract unless:

1. the inclusion of such other individual or entity is necessary if complete relief is to be afforded among those who are already parties to the arbitration; and

2. such other individual or entity is substantially involved in a question of law or fact which is common to those who are already parties to the arbitration and which will arise in such proceedings.

D. Consolidation shall be by order of the arbitrator(s) in any pending case, or if the arbitrator(s) fail to make an order, a party may apply to a court of competent jurisdiction for such order. The foregoing agreement to arbitrate and other agreements to arbitrate with an additional person or entity shall be specifically enforceable in accordance with the Laws of any court having jurisdiction thereof.

E. The award rendered by the arbitrator(s) shall be consistent with the agreement of the parties, in writing, and include: (i) a concise breakdown of the award; (ii) a written explanation of the award specifically citing the Contract Document provisions deemed applicable and relied on in making the award.

F. The award will be final. Judgment may be entered upon it in any court having jurisdiction thereof, and it will not be subject to modification or appeal, subject to provisions of the controlling Laws relating to vacating or modifying an arbitral award.

G. If the parties decline to arbitrate, such Claims, disputes and other matters shall be decided by a court having jurisdiction.

16.03 General

A. The Contractor will require similar dispute resolution provisions in agreements with its Subcontractors and Suppliers.
B. Contractor shall not have the right to stop performance of the Work pending resolution of a Claim or dispute.

C. Notwithstanding any provision contained in this Article or elsewhere in the Contract Documents, the Owner reserves the following rights in connection with Claims and disputes between the Owner and the Contractor:

1. The right to institute legal action against the Contractor in any court of competent jurisdiction in lieu of demanding arbitration pursuant to this Article, in which case the Claims or disputes which are the subject of such action shall be decided by such court, and not by arbitration.

2. The right to obtain from any court of competent jurisdiction a stay of any arbitration instituted by the Contractor, provided that the application for such stay is made before the appointment of the neutral arbitrator in such arbitration, in which case the Claims or disputes which are the subject of such arbitration shall be decided by such court, and not by arbitration.

3. The right to require the Contractor to join as a party in any arbitration between the Owner and the Engineer relating to the Project, in which case the Contractor agrees to be bound by the decision of the arbitrator or arbitrators in such arbitration.

ATTACHMENTS

A. Quincy Code of Ordinances, Chapters 12.08 and 17.36

B. Quincy Code of Ordinances, cover, preface, contents and Quincy Zoning Ordinance June, 2011, contents and website

C. Sample MWRA Request To Discharge From A CIPP Liner Into A Pipeline Form

C-D. Sample Department of Conservation & Recreation Permit Application For Construction

END OF SECTION
SECTION 00 73 10 – ATTACHMENT D

SAMPLE DEPARTMENT OF CONSERVATION & RECREATION
PERMIT APPLICATION FOR CONSTRUCTION
PERMIT APPLICATION FOR CONSTRUCTION & ASSOCIATED ACCESS TO DCR PARK LANDS & ROADWAYS

Application DATE: ______________________ Permit Requested by ________________________________________
PROPOSED Construction Start Date: ___________________________ Completion Date: __________________________ See next page for instructions.
PLEASE USE ADDITIONAL SHEETS AS NECESSARY

1. PROJECT LOCATION: Address: Street
   DCR Property: Town/City

2. PROJECT DESCRIPTION: Attach a locus plan of the area & a minimum of 3 photos of the existing work location conditions, taken from different angles.

3. PROJECT IMPLEMENTATION INFORMATION: how performed; implemented, within, and short term and long term impacts to DCR property. Submit one full size set of construction engineering plans (+ e-data) additional copies shall be submitted upon request. Either clearly mark drawings relevant to DCR property or remove all drawings not relevant to DCR.

4. TIME FRAME: Desired project start date & how long it will take to complete planning and construction

5. AREA USED AND OR IMPACTED: Length width and depth of DCR area being used and or altered:

6. DCR restricted roadways access: provide proposed travel route, schedule for roadway usage and vehicle proportions (weight, height, & length)

7. Material transportation and or temporary placement of equipment and/or vehicles (lay down area) on or over DCR property provide specifications on travel route and vehicle specifications (loaded weight and dimensions and Cargo description)

8. Traffic Management Plan (TMP) is required and shall conform to current Federal Highway Standards; certified by a Traffic Engineer or Traffic Control Technician. please submit a full size set (24"x36") copies; # of pages/ plans attached

9. Dig Safe #

10. List OTHER PERMIT & LICENSES

11. Applicant Information (Permit Signatory, Proponent, Property Owner, Consultant, primary contact)

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*Signature denotes acceptance of the conditions of the DCR Construction/Access Permit

Return completed application; with the $50.00 application fee to:
DCR: PERMIT SECTION, 251 Causeway Street, 7th Fl. Boston, MA 02114, attn Construction/Access Permits

For Office Use Only

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GENERAL INFORMATION

M.G.L. C.132A§7 C.92§33, 80CMR11.06 and all other enabling powers
grant DCR the authority to issue Construction and Access Permits.

Access is defined as:
I. Use by motor vehicles and/or construction equipment entry and/or exit
to any DCR property including roads, parkway, parkland, structures and/or
canopy from abutting properties.
II. Any physical work (i.e. curb cuts, trench work, street openings)
performed on under and or within DCR owned land including parklands,
reservations, roadways, parkways...

APPLICATION, MITIGATION AND/OR RESTORATION FEES

The non refundable $50 Administrative Application Fee shall accompany
this form. All check shall be payable to the Massachusetts, Department
of Conservation and Recreation.

Include a minimum of 3 existing conditions photographs, taken from 3 or 4
angles, a locus plan of the area and a sketch which indicates lot size,
DCR parkway frontage, proposed work location and details, property lines,
building location(s), related to proposed physical work with respect to DCR
Property baseline, Traffic Management Plan in accordance with current
Federal Highway Administration MUTCD requirements. All documents
should be relevant to the work on DCR properties/issues; if off the
point information documents are included in the application please clearly mark ALL relative information.

III. Application for all non-residential and residential developments
greater than 5 units must include engineered access plans
(minimum of 4 copies) at an appropriate scale (1 inch = 20 or 40
feet) which clearly show all proposed work and:
• DCR Property line and baseline
• Location and dimensions of proposed work
• Location of existing structures, trees, and utilities
• Complete details of existing and proposed drainage.
• Information on over weight equipment and routes to access site

Please note: activities such as camping, or DCR park facilities use require
a reservation, work related to Dam Safety and Water Supply issues are
permitted by those sections, please see DCR web site at:
http://www.mass.gov/dcr/

SPECIFIC INSTRUCTIONS (PRINT OR TYPE)

LINE 1 PROJECT LOCATION: Name the DCR property or properties; Park
and/or Parkway, plus specific location and municipality the access and/or
construction is sought, address of work site.

LINE 2 PROJECT DESCRIPTION: Description of work to be done; Type of
access sought, briefly describe facility for which access is sought.

Ownership Plan showing property lines

EXAMPLE 1: Single family residential driveway at 10 DCR Parkway (80’ north
of the intersection of X road) proposed drive frontage will be 12’ wide.

EXAMPLE 2: 500,000 s.f. shopping mall off of DCR XX parkway and Route XYZ
in Anytown MA, bordering XXX Park; roadway geometry modified to
accommodate left-turn lane, relocation of lights, traffic signals, remove and
replace 15 mature trees, installation of drainage, & utilities (see plans,
Environmental, Conservation Commission, MA Historical permits, Fish and
Wildlife).

LINE 3 PROJECT IMPLEMENTATION AND EFFECTS: Include DCR PROPERTY IMPACTS:

TEMPORARY IMPACTS + how they will be rectified
PERMANENT IMPACTS – how they will be minimized
ENVIRONMENTAL IMPACTS (including copies of permits)
FLORA AND FAUNA IMPACTS and replacement plan

Short explanation of the need for the permit
Short description of the whole construction project
Specific details on all components, phases, construction schedule and
timelines that will directly impact DCR property.
Details on components of the job that will indirectly impact DCR property
Details on the project benefit to DCR, the public, and/or the community
(Attach additional sheets if necessary).

MITIGATION (note Access and Excavation Fees will be charged: Mitigation in the
form of improvement to the Project area may not amount to less than the total of
the access and excavation fees)

EXAMPLE 1: Remove 50 ft of existing granite curb on south side of Property to
construct driveway access & modify the roadway geometry to accommodate left-
turn lane. Three day project starting July 1, 20XX

EXAMPLE 2: Excavate 10 x 10 ft section of roadway at Station 100+00 in
westbound lanes in order to install residential water service to 100 DCR Parkway
on heavily traveled roadway therefore permittee will provide 2 police details and use
4 days; plus additional signage.

LINE 4 TIME FRAMES: Planning, Design and Construction

LINE 5 USAGE AREA: DCR property usage size (length and width) including
excavation dimensions, sizes of components installed.

For projects with permanent installation: O&M requirements, duration and
financial responsibility.

LINE 6: DCR RESTRICTED ROADWAYS ACCESS

LINE 7: MATERIAL TRANSPORTATION

LINE 8: TRAFFIC MANAGEMENT for motor vehicles, pedestrians, and bicycles in
accordance with the most recent MUTCD

Submit a full size (24"x36") plan(s) certified by a Traffic Engineer or Traffic
Control Technician.

1. Detours for motor vehicles, pedestrians, and bicycles.
2. Logistics and effects on: procurement, maintenance, and transportation ...
   a. Items of concern – i.e. schools, playgrounds, handicapped children, and
      elderly housing

LINE 9: DIG SAFE # must be obtained by calling 1-888-DIG-SAFE.

LINE 10: OTHER PERMIT & LICENSES: List all permits; including application dates and
status; enclose 1 copies of each application/permit. Including DCR permits
issued for this work location.

LINE 11 & 12: Contact information for the applicant and their contractors Proponent,
Owner, Permittee name(s) must be the name of the person or entity responsible for
funding the construction and/or the property or facility owner (other than DCR), for
the construction activity being permitted: NOT an agent. Contact may be the
owner’s agent and may be an additional signatory.

Individual or business making application must complete the required
information, including date of application and signature

• Contact names and business title(s)
• Addresses (location and E-mail)
• Phone numbers (office, cell, and fax)
• Name and title of the individual who will accept permit conditions

RETURN COMPLETED PERMIT APPLICATION ALONG WITH FEE

to: Director of Permits
Department of Conservation and Recreation (“DCR’
PERMIT SECTION, 251 Causeway Street, 7th Floor,
Boston, MA 02114

Instruction for completing application for DCR Construction Permit
801 CMR: EXECUTIVE OFFICE FOR ADMINISTRATION AND FINANCE

801 CMR 4.02: FEES FOR LICENSES, PERMITS, AND SERVICES TO BE CHARGED BY STATE AGENCIES

302 Department of Conservation and Recreation

(14) Permits

(a) Construction and Access Fees and Permits

1. Administration application fee for construction permits (non-refundable): $50

2. Driveway access
   i. Residential purposes: two (2) units or fewer: $50
   ii. Each additional unit (up to 5 units): $30
   iii. Non-residential: less than 25,000 square feet: $1,000
   iv. Non-residential: 25,000 sq. ft. through 100,000 sq. ft.: $2,000
   v. Non-residential: greater than 100,001 sq. ft.: $2,000 per each additional 100,000 sq. ft.

3. Sidewalk obstructions
   i. General obstacle: $100 each per day
   ii. Crane, boom, pump truck, scissor lift, man lift: $150 each per day

4. Stormwater discharge: $100 per connection

5. Dewatering: $25 per day

6. Manhole opening/entry: $200 per day

7. Public safety trench permit filing fee (non-refundable): $20

8. DCR Parkway/Roadway Excavation Fees
   i. Road surface five (5) years or older: $8 per sq. ft.*
   ii. Road surface less than five (5) years old: $10 per sq. ft.*
   iii. Sidewalk and DCR Property excavation: $6 per sq. ft.*

* For purposes of calculating square footage, all trenches will be calculated at a minimum width of four (4) feet in minimum increments of one-half foot (6 inches)

9. Tree replacement/restitution fee: $180 per caliper inch

10. Vehicle access fees
    i. Commercial vehicles on parkways: $150 annually
    ii. Loading/unloading on roadway: $100 per day

11. Trucks greater than 5000 lbs and measuring over 7 ft. on restricted DCR Parkways and roadways: $100 per day

12. Mitigation in the form of improvements to the area of the project may not amount to less than the above fees.

13. Land use/lay-down fees based on average rate of return, land value and area.
GENERAL CONDITIONS

A. CONDITION OF PREMISES

1. The Permittee acknowledges that it has made an inspection of the Premises and that the Premises are in a satisfactory condition, suitable for the purposes of this Permit in the Premises' existing condition and that it has not relied upon representations or statements of the DCR, its officers, employees or agents with respect to these conditions. The Permittee expressly agrees that the DCR has no obligation to make any alterations, repairs, additions, or improvements to the Premises. The Permittee agrees for itself and its contractors, subcontractors, officers, servants, agents, employees, representatives and invitees that it accepts the Permitted Area in 'as is', 'where is' and 'with all defects' condition; that DCR is under no obligation to make any repairs, renovations or alterations to the Permitted Area; that DCR has made no representations or warranties regarding the adequacy, operability, safety or fitness of the Permitted Area for any particular purpose or use; and that DCR has made no representations that the Permitted Area complies with applicable laws, ordinances, rules and regulations of government authorities. The Permittee further acknowledges and agrees that entry and activities upon the Permitted Area by the Permittee and its contractors, subcontractors, officers, servants, agents, employees, representatives and invitees shall be at the sole risk and sole expense of the Permittee.

2. At the Permittee’s expense DCR property shall be restored/ returned to its original or better condition, in accordance with standards and specifications of the DCR and this permit.

3. Upon the expiration, termination, or revocation of this Permit, the Permittee shall promptly vacate and surrender the Permitted Area and remove all of its personal property from the Permitted Area. Any property not so removed shall, at the option of DCR and at the sole expense of the Permittee, either become the property of DCR or be removed by DCR and disposed of without any liability in DCR for such removal and disposition.

B. PERMIT TERM

1. The term for the use authorized herein is specified in the Special Conditions, subject to review of the Permittee’s performance and compliance with all terms and conditions of this Permit.

2. All obligations required of the Permittee under the terms of this Permit shall expressly survive the given termination/expiration date until such obligations are completed to the satisfaction of the DCR, unless the DCR has exercised its option to terminate the agreement.

3. If the Permittee is found to be noncompliant with any term and or requirement of this Permit, and does not remedy or cure the noncompliance matter promptly or within a time frame set by DCR, the DCR may immediately revoke this Permit.

C. ADMINISTRATION FEE; RESTORATION, CONSIDERATION; & MITIGATION; [in accordance with 801 CMR 4.02 ]

1. The Permittee shall pay the Commonwealth a fifty dollar administration/application fee.

2. In addition to the administration fee (C.1 above), and required work. The permittee will compensate DCR for the disruption to the DCR properties including parkway, boulevard, road and/or recreational facilities by doing mitigation and or the payment of Parkway/Roadway Excavation Fee, Sidewalk and Parkland modification fees.

3. See the Special Conditions of this permittee for the details of the compensation to DCR for the disruption to the DCR parkway and/or recreational facilities which may include fees or mitigation or a combination of both.

4. If mitigation is allowed as an alternate for the fees, the cost of the mitigation must equal or exceed the Parkway Excavation Fee, Sidewalk and Parkland modification fees: should the mitigation work not exceed the fee amount the difference shall be paid to DCR.

SEE THE SPECIAL CONDITIONS AND THE PAYMENT TRANSMITTAL INVOICE FOR DETAILS ON FEES, PAYMENT SCHEDULE AND MITIGATION APPROVED FOR THIS PERMIT.

5. Payments, shall be in the form of a money order, cashier’s check or certified bank check payable to the Commonwealth of Massachusetts (exclusively), accompanied by a DCR “Payment Transmittal Form,” Exhibit 1 attached to this permit. Indicate your Permit Number on your check, all correspondence and on the mailing envelope; mail to the following address:

Department of Conservation and Recreation

Construction Access Permits

Permit No: ________

251 Causeway Street, Suite 700

Boston, Massachusetts 02114
D. REQUIREMENTS

1. The Permittee shall keep a copy of this Permit at the Premises (on site and visible) and shall be solely responsible for maintenance, care, repair or replacement of all work, improvements or installations related to the permitted work placed or situated on the Premises at all times.

2. The Permittee shall be solely responsible for all expenses arising under this Permit.

3. The Permittee will not use any DCR utilities or resources without express permission from DCR. If the Permittee and or its representative or contractor uses any DCR utilities any expenses associated with that use is the responsibility of the Permittee.

4. The Permittee shall conform to all provisions of state, federal and local laws, rules and regulations applicable to the exercise of the rights and the performance of work under the Permit. Such provisions include, but are not limited to, all health, environmental, noise and sanitary standards and conditions required by Commonwealth of Massachusetts statutes; rules and regulations, including DCR regulations, local bylaws, engineering standards and administrative and executive orders.
   a. Prior to the commencement of any work involving excavation or disturbance of any soils and or vegetation under this Construction / Access Permit:
      i. Dig Safe must be notified for field mark-out of utilities (1-888-DIG-SAFE).
      ii. The Permittee will comply with M.G.L. Chapter 254 requiring approval by the Massachusetts Historical Commission
   b. The Permittee shall adhere to all OSHA Standards for Safety during the construction period.
   c. The Permittee will comply with local noise regulations, exercising care to subject neighborhood abutters to the least amount of noise and vibration pollution during working and non-work hours.

5. All correspondence with the DCR regarding permitted activities should indicate the DCR Construction Permit Number associated with this permit.

6. If the work herein authorized is for a driveway entrance, this Permit is granted and accepted on the condition that if the ownership of the land to which the driveway is appurtenant shall at any time become united with that of any adjoining lot fronting on the roadway and also having an entrance on said roadway, then the DCR may revoke the right to maintain any or all of such entrances and grant a single entrance in place thereof. The entrance hereby granted shall be used only for the Premises shown on the Plan.

7. Within thirty (30) days, after completion of the project or a date specified herein, by the DCR in the Special Conditions, the Permittee shall submit a Mylar copy and an electronic copy of as-built plan(s) for the Project as it relates to DCR property. This information shall be sent to Construction Access Permits, Department of Conservation & Recreation, 251 Causeway Street, Suite 700, Boston, Massachusetts 02114. In addition to the standard title box the permittee will list/add the DCR Construction Permit Number associated with this permit.

8. Within thirty (30) days, after completion of the project or a date specified by DCR in the Special Conditions, the Permittee shall submit two (2) copies of all final environmental reports generated for the Permittee’s Project related to DCR property if applicable. One (1) copy each of the information will be sent (see Notices and Contacts) to the attention of the Environmental Section Head and the Regional Director.

9. The Permittee shall keep the Premises in a clean and orderly manner at all times.

10. The Permittee shall be solely responsible for ice and snow removal during the winter months and street sweepings during the spring, summer and fall on all DCR property associated with this permit and/or impacted by the permit, per DCR protocol (inclusive of all area where public access is possible, as well as but not limited to all roadways, sidewalks and walking paths), inclusive of any and all associated costs and labor. This responsibility will remain in place until the work area(s) are closed and all obstacles that would interfere with DCR’s regular maintenance are removed, leaving the area unencumbered.
E. INSPECTIONS, ACCESS, AND PERMITS

1. The Permittee shall arrange for inspections by local health officials, utilities engineers, building inspectors and others as may be required.

2. The Permittee shall take prompt action to correct any condition that is found not compliant with any federal, state, or local regulation, code or statute.

3. The Permittee agrees at its own expense, to file for; obtain and comply with all applicable federal, state and local permits, licenses and approvals necessary for the work to be performed which is the subject of this Permit. Failure to obtain any required permits, licenses and or approvals, prior to the commencement of work, or failure to maintain such legal obligations in full effect throughout the term of this Permit shall be cause for revocation of this Permit by the DCR.

4. The DCR shall be provided full and unrestricted access to and upon the Premises at all times during the Term of this Permit to inspect the Premises and to review the operations and inspect the Permittee’s equipment.

5. The permittee shall maintain adequate abutter access at all times.

F. PUBLIC SAFETY

1. The Permittee will hire as many safety and/or law enforcement details, as needed to ensure the general public (including but not exclusive of pedestrian, cyclists, and vehicular traffic) safety at all times during all permitted activities on and near the Premises. Advanced notice of starting work shall be provided to the appropriate authority.

   a. For vehicle traffic management and public safety, in and/or on DCR property excluding parkways, boulevards, skating rinks, and or water sheds, the Permittee shall contact and hire as many Environmental Police Officers, as needed to ensure the safety of park users at all times.

   b. For vehicle traffic management and public safety, in and/or on DCR Parkways, Boulevards, skating rinks, and or state water sheds the Permittee shall hire as many Massachusetts State Trooper details as necessary to ensure the public safety at all times during all activities on and/or near the Premises.

   c. For work inside DCR Parks excluding motor vehicle traffic management on Chapter 90 Roadways (parkways and public ways), the Permittee may hire Park Rangers, to ensure the well being of the public in low use situations, within the confines of the park (i.e. playing fields, bike-paths, parking lots, gardens etc.).

   d. For projects impacting both DCR property and municipal roadways, for safety and/or traffic management on the municipal roadways the Permittee may hire as many local safety and/or law enforcement details, or certified flagmen as needed to ensure public safety.

2. The Permittee shall barricade excavations with safety fencing and reflectorized drums with “Type A” flashers to guide personnel and eliminate free access to the work area on, in, or near the Premises. All flashers and “steady-burn” lights on drums must be in good working order. From dusk through dawn, the Permittee shall place sufficient working lights to protect the public from injury or damage.

3. Signage indicating the name of the Permittee, and including contact names and telephone numbers shall be on the premises (permitted work site) in plain view or erected during the duration of the Project.

   a. Additional signage may be required by DCR; See Notice paragraph 2 and the Special Conditions.

G. RESTORATION OF PREMISES

1. See SPECIAL CONDITIONS for additional information specific to this permit.

2. At the Permittee’s sole expense, DCR property shall be restored/returned to its original or better condition, or otherwise improved in accordance with this permit, and in accordance with standards and specifications of the DCR. The Permittee is responsible for repairing, replacing and restoring any and all damage to the DCR real or personal property, its infrastructure improvements and appurtenances, or any other property of third-parties, caused or necessitated by the Permittee by operation of this Permit, regardless of whether such damage occurs within or without the layout of the Premises itself.
a. Any/all DCR utilities (storm drainage, electrical services, plumbing, sprinklers, sanitary services, dam and flood control structures, traffic signals and/or street lighting) worked on, damaged or altered (installation, change, relocation, modification, or adjustment) shall be replaced by the Permittee at their expense, unless specifically addressed in this permit.

b. Temporary service for the impacted utility shall be provided by the Permittee. The Permittee must provide adequate and safe services.

c. Temporary operating expenses for the impacted utility starting at the time of the disruption and/or installation, through DCR acceptance shall be the responsibility of the Permittee.

d. All utilities/equipment shall be replaced or reinstalled to working order by the Permittee at their expense unless specifically addressed in this permit or its attachments.

e. The appropriate DCR section chief, engineer and/or designee shall with assessment review and consultation, determine if the part(s)/fixture(s) may be reused and/or replaced. If the part(s)/fixture(s) need to be replaced, DCR shall supply the specifications.

f. All DCR utilities worked on by the Permittee shall be reviewed and/or inspected by DCR prior to acceptance.

3. Abandonment of existing underground utilities, pipes, chambers, etc.; The Permittee, its agents, contractor or representative shall take all appropriate measures to properly close, fill and cap all underground structure(s) to guard against future sinkholes and eliminate the possibility of future collapse of these abandoned structures. Pipe abandonment under DCR owned or controlled property shall be managed as follows:

a. Located under DCR roadways: All pipes, underground utilities, chambers etc. that are under the roadway must be completely filled with grout or high slump 500 psi concrete and abandoned in place.

b. Not located under DCR roadways: All pipes, underground utilities, chambers etc. that are 18-in. in diameter or greater must be completely filled with grout or high slump 500 psi concrete and abandoned in place. (Specification §.02650, ¶ 3.01 D.3).

c. All pipes that are less than 18-in. in diameter shall be securely plugged with brick, mortar, concrete and/or masonry plugs in both ends at least 12-in. thick and abandoned in place.

4. Any and all parkways, boulevards, roadways, parking areas and/or driveways repairs including trench patches that remain in place for one year or longer will be reviewed by the Permittee and the DCR annually, until such time as the road is permanently repaved from curb to curb. Should the patch fail or prove to be inadequate, the Permittee will be responsible for removal and restoration of the failing area.

5. All opening(s) shall be covered by steel plates when not in use. The Permittee shall not use steel plates that are vulnerable to flexing, or lateral movement due to vehicular traffic. Where any gaps exist between the plate and the roadway surface, "cold-patch" asphalt mix shall be used to fill those voids.

6. In non-trench areas of roadways or sidewalks requiring repairs, the subgrade material shall be Massachusetts Department of Transportation – Highway Division (hereinafter MassDOT -HD) "Type C Gravel (2" maximum aggregate size) and it shall be mechanically compacted in six-inch (6") lifts.

7. Pavement trimming: Only saw cutting (without overcuts) shall be allowed as a means of creating the final, permanent edge between existing and new hot-mix asphalt or cement concrete on any roadway or sidewalk. All accidental overcuts shall be filled with bituminous joint sealer. The standard "cutback" for all permanent pavement patches shall be twenty-four inches (24") beyond the original pavement cuts made to perform the work allowed by this permit. If curbing does not allow for twenty-four inches (24"), then the face of the curbing will serve as the edge of the permanent pavement patch.

8. Controlled-density fill (hereinafter the CDF) shall be used for backfilling trenches made in roadway or sidewalk pavement. The CDF shall conform to MassDOT -"Type 2E," "Flowable and Excavatable." (If the Permittee needs to use backfill materials with higher strength characteristics than MassDOT -"Type 2E" CDF, then the Permittee can request a waiver from the DCR to substitute that higher strength backfill.)

a. The Permittee shall place the CDF so as to allow enough room for a depth of pavement replacement that matches existing pavement thickness.
b. The Permitee is responsible for allowing sufficient curing time for the CDF prior to installing pavement material. The Permitee shall exercise extra caution in areas of high water table.

9. If the Permitee cannot use MassDOT - “Type 2E” CDF, trenches and other excavations shall be back-filled with DCR-approved gravel. The use of previously excavated material as backfill is acceptable, providing that the previously excavated material is suitable for sub-base with no stones larger than 3” in diameter, and is free of all clays and organic matter. However, immediately below any sidewalk or roadway surface, there must be a minimum of twelve inches (12”) of clean gravel borrow (MassDOT #M1.03.0 – Type “C” two-inch [2"] maximum stone size) for the sub-base.

10. All sub-base shall be mechanically compacted in six-inch (6”) lifts to ninety-five percent (95%) compaction, as tested by nuclear compaction equipment, and verified by the DCR on site.

11. The permanent pavement patch of bituminous concrete for roadway sections shall consist of the following minimum measurements: four inch (4”) base, two inch (2”) binder, one and three-quarter inch (1-3/4”) of “State Top” (one-half-inch (1/2”) stone size) top course. Pavement replacement thickness must match the existing pavement thickness, or conform to Figure # 1 “TYPICAL ROADWAY TRENCH REPAIR” whichever pavement depth is deeper.

12. All mixes shall conform to MassDOT “Type I” mixes: Base, Binder, “State Top” [with one-half inch (1/2”) stone size] for roadway use & “Dense Top” [with three-eighths inch (3/8”) stone size] for sidewalk use. The permanent hot-mix asphalt patch shall extend over the original trench cut, and act as a “bridge” twenty-four inches (24”). All hot-mix asphalt surfaces (vertical and horizontal) shall be coated with emulsion tack coat immediately prior to placing any new hot-mix asphalt layer.

13. The Permitee shall be responsible for the adequacy and performance of the trench pavement patch (roadway and/or sidewalk) and restoration of all affected curbing in the work zone. DCR reserves the right to have the trench patches repaired or replaced completely and curbing reset at the expense of the applicant as a result of incomplete or inadequate work by the Permitee.

14. All pavement markings removed and/or damaged during the course of construction must be replaced with markings matching the configuration, color, width and type (thermoplastic, paint, etc.) of the markings removed.

15. Any sidewalk replacement shall conform to the most recent Americans with Disabilities Act (hereinafter the ADA) or Architectural Access Board (hereinafter the AAB) handicapped accessibility standards, whichever is more stringent.

16. Any fine-grading of subgrade soils required before sidewalk installation shall be accomplished with MassDOT -M1.03.0 “Type C” Gravel Borrow (two-inch (2") maximum stone size).

17. Any sidewalk damaged must be replaced with a material matching the existing sidewalk surface (hot-mix asphalt or cement concrete), and the replacement shall conform with the following:
   a. The limits of the sidewalk repair shall include the entire work area and extend to the nearest sidewalk control joint. Sawcuts shall be made along those joints and only full, complete concrete sidewalk panels shall be removed. All demolished concrete walkways shall be removed from the DCR property and legally disposed of off-site.
   b. All cement concrete sidewalk shall contain welded wire mesh. Welded wire mesh for cement concrete walks must meet ASTM Specification A185 and be 6 gauge wire with six-inch by six-inch (6” x 6”) squares. Only sheet mesh shall be permitted (no rolls). The mesh must be installed at mid-depth in the slab and rest on reinforcement “chairs” or cement concrete bricks spaced at 36” maximum in every direction to keep the mesh from deforming during cement concrete placement.

18. For all edgestone/curbing being reset or replaced, on both the front and back of the curbing/edgestone, 2,000 p.s.i. cement concrete (with a six-inch by six-inch (6” x 6”) profile) shall be installed for the entire length of the curbing/edgestone being reset or replaced, and the top surface of both the front and back sections of this cement concrete shall be one and three-quarter inches (1 ¾”) lower than the finished roadway elevation.
19. Detectable warning panels are required for any pedestrian ramp. The detectable warning panels for cement concrete pedestrian ramps shall be “brick-colored” and “safety yellow” for hot-mix asphalt pedestrian ramps. Exceptions to this are possible with the prior approval of DCR’s Chief Engineer, if, for example, the Permittee is trying to match the color of existing nearby pedestrian ramp warning panels. This work must be MUTCD, ADA and AAB compliant.

   a. Detectable warning panels can be precast concrete, cast-in-place concrete or other suitable material permanently applied to the ramp.

H. TRAFFIC MANAGEMENT

1. Traffic Management, including both Vehicle and Pedestrian management; the Permittee must provide safe passage to the public including but not limited to motorists, cyclists, pedestrians, workers, and others affected by the Permittee activities and are the sole responsibility of the Permittee.

2. The Permittee assumes full liability and responsibility for Traffic Management, and shall plan for traffic control on a case by case basis to adjust for the varying conditions among work locations in cooperation with the detail officer.

3. All work done on DCR roadways must conform to the 2009 U.S. Department of Transportation, Federal Highway Administration’s Manual on Uniform Travel Control Devices Guidelines (“MUTCD”) and the April 28th 2009 Governors Executive Order 511. Including recently updated Federal Regulations (the FHWA’s Rule on Work Zone Safety and Mobility) emphasize the importance of providing safe work areas for motorists, workers, and others affected by the maintenance/ utility/ construction activities; whenever the need is indicated the permittee should expand or improve traffic controls.

4. For additional and permit specific Traffic Management requirements see the Special Conditions.

5. Without limiting any of Permittee’s obligations under this or any other Section of this Permit, the Permittee is responsible for proper Traffic Management, including the planning and installation of temporary traffic controls in maintenance, utility, or construction work areas, including, but not limited to, responsibility for ensuring that the pedestrian and vehicular safety is properly and safely performed according to all applicable federal, state, and local laws, regulations and governmental requirements.

6. The Permittee shall submit a site specific Traffic and Pedestrian Management Plan (hereinafter the TMP) for DCR’s review, comment, and subsequent approval.

7. The site specific TRAFFIC MANAGEMENT PLANS DCR approved will be strictly adhered to during field operations.

   (see the Special Conditions, Item H for Approved Plan)

   a. At the discretion of the DCR Chief Engineer or his designee, all TMPs must be prepared and stamped by a Massachusetts Licensed Engineer, specializing in traffic management.

   b. The Permittee will notify and coordinate with the District Manager, the facility supervisor and or the Regional Engineer regarding the TMP, as listed in the Special Conditions and/or Notices and Contacts Section of this Permit.

   c. Any subsequent changes to the approved plan (See the Special Conditions, item H) by any party other than DCR must be resubmitted to DCR and are subject to DCR’s review and subsequent approval before any construction activities may commence.

   d. The TMP will be followed and precautions will be taken to protect the public, the environment and any cultural resource in the area.

8. If the work associated with this Permit potentially impacts other parties, the contractor/ permittee is responsible for notification, and cooperative coordination with all parties, (including but not exclusive of DCR, contractors and representatives, Federal, State and local entities; police fire and ambulance, public transportation and utilities) working in the permitted locations. The coordination is to assure such that all disruptions of vehicular and/or pedestrian traffic is minimized.
a. If this is not done to the satisfaction of DCR this permit will be revoked by a DCR representative during field operations and all associated work will stop until the deficiencies are resolved to the satisfaction of DCR traffic and or permit engineers.

9. In order to reduce the effects on the public who use the DCR’s recreational areas, parks, campgrounds, parkways, boulevards and/or roadways, the Permittee will minimize construction work during peak use periods.

10. Pedestrian and vehicular traffic flow and safety shall be maintained at all times. Detours shall conform to the 2009 U.S. Department of Transportation, Federal Highway Administration’s Manual on Uniform Travel Control Devices Guidelines ("MUTCD").

11. The Permittee will leave sidewalk areas clear and open to permit unimpeded pedestrian traffic passage at all times during construction. A minimum of three feet (3’) clearance will be maintained to permit public access to alternate passage by the affected portion of the Premises.

12. All deliveries shall be made in such a manner as to have the least negative impact on the visiting public, the Premises and the environment.

I. ENVIRONMENTAL IMPACTS AND REPORTING

1. Prior to any construction work for a project in or adjacent to an environmentally sensitive resource area(s), the Permittee will contact appropriate Federal, State, and local agencies and or authorities, obtain any licenses, permits and or Certificates necessary and will comply with all applicable laws, rules and regulations. The Permittee will supply copies of all applicable documentation to DCR when applying for this permit, and or as they are granted, including but not limited to:
   a. Executive Office of Energy and Environmental Affairs, Offices of Massachusetts Environmental Policy Act and Coastal Zone Management
   b. The Massachusetts Department of Fish and Game regarding wildlife and/or plant impacts.
   c. MassGIS data on any Priority Habitat of Rare Species.
   d. The Massachusetts Department of Environmental Protection’s Wetland, Waterways, and Water Management Sections
      i. During all construction phases the Permittee will minimize any potential impacts to flora, fauna and natural resources and habitats on, in, or near the Premises; including the preparation and execution of a management plan for resource protection, erosion and sedimentation control, to minimize the potential impacts to environmentally sensitive resources.
      ii. Special care will be used when permitted work area borders wetlands or waterways resource area(s), including but not limited to installation and maintenance of staked "salt hay" straw bales and silt fences to prevent sediment erosion and siltation from entering resource areas, and protect adjacent resources in accordance with the management plan. Erosion control measures will be in place prior to the start of any earthwork. The Permittee is responsible for inspecting all control measures twice weekly and after every rainfall event, and will maintain the erosion controls such that they operate properly. All erosion control measures will be maintained throughout the construction season until slopes have been stabilized and will be removed upon completion of the project, or stabilization of the area, whichever is last. All silt collected shall be removed and properly managed before the fences and straw bales are removed.

2. This permit in NO way should be construed as approval of any other applicable permits, notices or findings issued by Federal, State, and local agencies and or authorities including but not limited to the Massachusetts Department of Fish and Game, and the Department of Environmental Protection.

3. The Permittee shall protect and maintain drainage and other structures against damage.
   a. Any drainage structures damaged or altered will be replaced by the Permittee at their expense. All catch basins should be deep-sump unless utilities or site conditions interfere with the installation, as determined by DCR storm water engineer(s).
   b. Absolutely no bitumen, asphalt, concrete or brick debris shall be dumped into drainage structures during the construction period. All storm water structures within the limits of work shall be
cleaned prior to the conclusion of the project. This work shall include removing any accumulated dirt, refuse and other debris from each structure, including the gutter mouth of curb inlets. All removed materials shall be properly handled and transported to an approved disposal facility. The Permittee shall incur all cleanup costs.

c. For NPDES MS4 requirements, the following activities shall continue throughout the construction period:
   i. Street Sweeping
   ii. Catch Basin Cleaning

d. If applicable, construction projects shall provide the DCR Storm Water Manager, Robert Lowell with a copy of the Storm Water Pollution Prevention Plan for the site.

e. If applicable, construction projects shall provide the DCR Storm Water Manager, Robert Lowell with a copy of site dewatering permits.

4. The Permittee shall protect and maintain all existing trees against damage.

   a. If applicable, air excavation tools shall be used on DCR property to ensure tree root protection within the drip line. (ref: Special Conditions)

   b. If applicable, a Certified Arborist shall be required on-site during excavations that are located within the drip line. (ref: Special Conditions)

5. Should the permitted work area be located adjacent to an environmentally sensitive area (i.e. wetlands, protected habitat, waterway, and/or coastal shoreline), the Permittee shall notify the DCR Landscape Architect, Matthew Thurlow at (617) 626-4944 and/or DCR Ecologist, Nancy Putnam at (617) 626-1394 (see Notices and Contacts) a minimum of seventy-two (72) hours prior to any tree or shrub removal.

   a. Should the Permittee disturb any vegetation, the disturbed areas will, upon DCR’s approval, be filled, groomed, and planted with native vegetation to blend in with the natural landscape at or before 95% project completion.

   b. The Permittee will monitor the areas of replaced vegetation to make sure that they are established. If the vegetation dies, the Permittee will consult with DCR Landscape Architect (see Notices and Contacts) to work out replacement details.

6. The Permittee will minimize the impact on trees and shrubs on, in and near the Premises.

   a. The Permittee will remove and replace trees and shrubs only if absolutely necessary to the integrity of the construction and only if such removal is approved by DCR Landscape Architect prior to start of construction.

   b. Any tree removed, damaged and or distressed by the proximity of the construction allowed by this permit will be replaced and warranted for two (2) years at the permittee’s cost.

   c. A second notice will be made to the DCR Landscape Architect (see Notices and Contacts) a minimum of 72 hours before any tree is removed.
      i. If the removal of a tree is approved, the Permittee is responsible for disposal/elimination of all associated vegetation materials, above and below ground including but not exclusive of leaves, branches, trunk, and the stump, and restoration of the area.

   d. In locations where tree removal/loss are unavoidable, the specific field placement of replacement vegetation will be at a location(s) as directed by DCR; planting locations may include areas outside the permit premises.

   e. The Permittee will replace all trees removed for construction, the replacement will be based on caliper inch removed and/or cash equivalent. DCR’s Landscape Architect and or designee will have the choice of species, size and location;
      i. One caliper inch (1") for every caliper inch of lost/removed trees in suburban areas, as deemed practical by DCR.
ii. Two caliber inches (2") for every caliber inch of lost/removed trees in urban areas, as deemed practical by DCR.

iii. Any deficiency to the total required replacement caliber inch(es) shall be paid as restitution to the Conservation Trust and Urban Parks Trust Fund. (See the Special Conditions for details).

f. All replacement trees shall be tagged at the approved nursery by the DCR Landscape Architect, before being shipped to the work site.

g. All replacement trees shall be planted by an approved Landscape Contractor, supervised by a Massachusetts Certified Arborist and by standard arboricultural practices. They will be planted within the planting season during which the work is completed. If this cannot be done, planting shall be done in the next planting season. Planting seasons are April 1 through June 15 and September 15 through October 31.

J. OPERATING SCHEDULE

1. DCR roadways shall not be occupied between the hours of 6:30 a.m. and 9:30 a.m. and the hours of 3:30 p.m. and 6:30 p.m. Monday through Friday, or as otherwise described in the Special Conditions. This provision includes time for the placements of traffic equipment to set up the Traffic Management Plan.

2. The Permittee shall shut down all work at 12:00 p.m. (noon) on the eve of major holidays, which include Memorial Day, Independence Day, Labor Day, Thanksgiving, Christmas and New Year’s Day or as otherwise described in the Special Conditions.

3. During periods of closing due to inclement weather or any other cause not within the control of the DCR, all other obligations of the Permittee shall not be waived. The DCR shall not be responsible for any costs incurred or revenue lost due to closing or re-opening of facilities or roadways under the provisions of this section.

4. Should a Special Event occur on the premises during the active duration of this permit, the Permittee will minimize any impacts on the park patrons. Any permitted work on DCR properties associated with the special event location, will cease and or shutdown at 10:00 p.m. prior to the start of the special event permit, and shall only resume after the area impacted by the special event has been cleared, cleaned and maintained.

K. TAXPAYER IDENTIFICATION NUMBER

1. Upon request by DCR, the Permittee shall remit to the DCR a Department of Revenue Certification of Good Standing; complete and remit a Taxpayer Identification Number and/or a Certification (Massachusetts Substitute W-9 Form) prior to the execution of this Permit. (as noted in the Special Conditions)

L. RISK OF OPERATION AND INDEMNIFICATION

1. The Permittee shall assume all risk in connection with any and all activities engaged in on the Premises, and shall be solely responsible and answerable in damages and any other remedies for all accidents or injuries to all persons or property caused by the Permittee and/or its contractors, agents, representatives, employees, licensees, guests and invitees.

2. The Permittee shall be responsible for the security of the Premises and the protection of the assets and property of the DCR. The Commonwealth shall not be responsible for property of the Permittee, its contractors, agents, representatives, employees, licensees, guests and invitees.

3. The Permittee shall agree to defend, hold harmless, and indemnify the Commonwealth of Massachusetts, the DCR, and its agents, officers and employees from any claims regardless of fault, arising out of any violation of any law, ordinance or regulation affecting the activities authorized herein by this Permit, from any claims for personal injury or death or damage to personal property, of whatever kind or nature, arising from the Permittee’s activities on the Premises, including claims arising from the intentional, reckless or negligent acts or omissions of the Permittee, its contractors, agents, representatives, employees, Permittee’s, licensees, guests and invitees,
as authorized under this Permit and claims arising from the Permittee’s failure to provide adequate security on the Premises.

4. The Permittee shall not make any claims against the Commonwealth or the DCR for any injury, loss, or damage to persons, including bodily injury or death, or damage to property or costs or liabilities arising out of or in connection with this Permit, the obligations thereunder and the Permitted Uses, such as without limitation response actions engaged in or required under law or this Permit, including any acts or omissions of the Permittee, its contractors, agents, representatives, employees, licensees, guests and invitees, except for claims arising solely from the reckless conduct of the DCR.

5. The Permittee shall waive any and all claims for compensation for any and all loss or damage sustained by reason of any interference by any public agency or official in the operation of this Permit.

6. The risk of loss resulting from any natural weather phenomena or occurrences remains with the Permittee.
   a. Compensation due to the DCR shall not be reduced or abated in any manner due to natural weather phenomena or other occurrences.

M. INSURANCE

1. The Permittee, its employees, contractors or agents shall hold the appropriate valid license(s) as required by law to perform the construction work associated with this Permit for the duration of the Permit.

2. The Permittee and or their contractor shall carry insurance in the types and amounts as described in this section of the Permit at its own expense.

3. The Permittee shall maintain said policies for the full Term of this Construction permit. Failure to maintain insurance coverage shall be deemed a material breach of the Permittee’s duties under this Construction permit.

4. If the Permittee’s insurance provisions, terms, and coverage, are amended, changed, suspended, expired or cancelled in any fashion, the Permittee shall, to the extent practicable, provide DCR with at least 30 days advance notice thereof.

5. The Permittee shall furnish Certificates of Insurance issued by an insurer or insurers qualified to do business in the Commonwealth. Said Certificates of Insurance must be provided for review and approval to the address listed below prior to execution of the Permit.

   Department of Conservation and Recreation
   Construction Access Permits
   Permit No: ______
   251 Causeway Street, Suite 700
   Boston, Massachusetts 02114

6. Failure to furnish said Certificates of Insurance and/or policies shall be deemed a material breach of the Permittee’s duties under this Permit but in no way shall release Permittee of its obligations herein.

7. The Commonwealth of Massachusetts, including its DCR, shall be named as an additional insured on all policies specified herein, except that in regard to section M.12 the Commonwealth shall be named as an additional insured only on the contractors pollution liability portion of the professional/contractors pollution liability policies per policy endorsements.

8. General Liability: The Permittee shall carry General Liability Insurance in the minimum amount of $1,000,000 per occurrence, $2,000,000 in the aggregate.

9. Public/Products Liability Insurance. The Permittee shall carry public liability insurance as to third persons, and products liability insurance against claims based upon the services provided, in the minimum amount of One Million Dollars ($1,000,000) in the event of death or injury to one individual, and a minimum of Two Million Dollars ($2,000,000) in the event of death or injury to more than one individual, or such other amounts of liability insurance coverage the DCR shall reasonably require from time to time.
10. **Fire and Casualty Insurance.** The Permittee and or their contractor shall carry fire and casualty liability insurance in a minimum amount equal to the fair market value of the structure(s) located upon the Premises, if required by DCR.

11. **Professional/Environmental Impairment Liability Insurance:** Unless specifically excluded in writing in the Special Conditions of this Permit, the Permittee shall carry, or shall cause its contractor to carry, Environmental Impairment Liability Insurance, and shall cause its consultants to carry Professional Liability Insurance, that includes coverage for environmental contamination, bodily injury and/or property damage arising out of acts, errors and omissions of Permittee or its contractors, employees or agents in the performance of the Permitted Uses or any other activities or failures to act at or with respect to the Premises in the amount of one million dollars ($1,000,000) for each claim and three million dollars ($3,000,000) in the aggregate. Coverage includes claims based upon or arising out of underground storage tanks. Notwithstanding any contrary provisions section, said Professional Liability and Environmental Impairment Liability Insurance may be written on a "claims made" basis provided that the insurance coverage is maintained during the full term of this Permit and for at least three (3) years after the expiration of the Term.

12. **Automobile Bodily Injury and Property Damage Liability Insurance** in an amount not less than the compulsory coverage required in Massachusetts. Such insurance shall extend to owned, non-owned and hired automobiles used in the performance of the activities under this License. The limits of liability of such insurance shall be not less than one million dollars ($1,000,000) combined single limit.

13. If the Permittee’s and/or their contractor’s insurance provisions, terms, coverage, etc. are amended, changed, suspended, expired or cancelled in any fashion, the Permittee must notify the DCR verbally immediately and shall notify the DCR in writing within five (5) business days.

N. **HAZARDS – PHYSICAL, ENVIRONMENTAL AND CHEMICAL**

1. The Permittee shall periodically inspect all areas used by the public in and around the Premises for the presence of unsafe or hazardous conditions and shall promptly remedy such conditions when found and shall promptly report the conditions to the DCR. The Permittee shall develop an accident reporting system and shall ensure that all employees understand and comply with said system. The Permittee shall make and preserve records of all accidents, emergencies and administration of medical aid on the Premises.

2. The Permittee shall immediately verbally notify DCR of any injuries, property damage or related incidents that occur on the Premises and shall provide written notice to the DCR Regional Engineer within five (5) calendar days of said incident. The written notice shall provide a detailed account of the incident, including, but not limited to, the nature of the incident, the names of any individuals involved and the names of any and all witnesses, all phone numbers, addresses, and contact information of affected individuals and witnesses, and the names of any agencies (federal, state, and/or local) that responded to the incident.

3. If the Permittee is notified by any regulatory agency having authority over the Premises that the Premises operations are in violation of an applicable rule, regulation or statute, the Permittee shall take immediate action to cure said violation. If the Permittee fails to take prompt remedial measures, the DCR may suspend the operations on any part or all of the Premises.

4. The Permittee shall not release, discharge or similarly dispose of hazardous substances, chemicals or materials.

5. Without limiting any of Permittee's obligations under this or any other Section of this Permit, Permittee agrees that it shall not cause any hazardous materials to be used, (with the exception of oil and other petroleum products contained within and necessary for the equipment utilized during the Permitted Uses), generated, stored or disposed of on, under or about, or transported to, from or through the Premises, except for soil, groundwater or any other material originating on the Premises and removed from the Premises by Permittee as required for the Permitted Uses (e.g., drill cuttings and soil samples, and excavated soil). Permittee assumes full liability and responsibility for such soil, groundwater or other material removed from and not replaced on the Premises including, but not limited to, responsibility for ensuring that the handling, treatment, transport, storage and/or disposal of these materials is properly and safely performed according to all applicable federal, state, and local laws, regulations and governmental requirements.
6. If Permittee’s use of the Premises results in the need for a further response action under applicable environmental laws (other than the c. 21E response actions being undertaken as described in the Scope of Work), the Permittee shall give immediate telephone notice to DCR by calling the Environmental Section Head, Robert Lowell at (617) 626-1340. Without limiting any other provision of this Permit, completion of any such response action shall be the sole responsibility of the Permittee, shall be performed in accordance with applicable environmental laws at Permittee’s sole expense, and shall not be performed without the prior approval of DCR unless an emergency situation exists and approval cannot be obtained. DCR reserves the right to supervise Permittee’s contractor(s) implementing any such response action, and all submittals required to be made to any regulatory agency must be reviewed and approved by DCR.

7. For the purposes of this Permit, “hazardous materials” shall include, but not be limited to, substances defined as “hazardous substances”, “toxic substances”, “hazardous wastes”, “hazardous materials”, “oil” or “asbestos” in any federal or state statute concerning hazardous substances, wastes or materials now or hereafter enacted, including all regulations adopted or publications promulgated hereunder.

8. Pesticide applications may be allowed with written permission by DCR. If allowed, only those materials approved and registered by the U.S. Environmental Protection Agency for the specific purpose planned shall be considered for use on the Premises. Label instructions shall be strictly followed in the preparation and application of pesticides and other hazardous substances and disposal of excess materials and containers. Any and all applicators shall be duly licensed by the Commonwealth and the U.S. Environmental Protection Agency. Use of said materials must have prior authorization from DCR.

9. The Permittee assumes all risk associated with any environmental condition within the subject property and shall be solely responsible for all costs associated with evaluating, assessing and remediating, in accordance with all applicable laws, any environmental contamination (1) discovered during the Permittee’s work or activities under this permit to the extent such evaluation, assessment or remediation is required for Permittee’s work, or (2) resulting from Permittee’s work or activities under this permit. Permittee shall notify DCR of any such assessment and remediation activities for review and approval of proposed activities; except for emergency containment. The Permittee is hereby held solely responsible for obtaining and maintaining any and all environmental compliance permits required by local, state and federal laws and regulations when regular or emergency work is proposed within, or in close proximity to, any wetland area.

10. In the event the Permittee learns of any release of oil or hazardous material or any other emergency within or from the Permitted Area, in addition to providing any regulatory notice required by any local, state or federal law or regulation, the Permittee shall provide notice of any such release or other emergency to DCR as soon as practicable thereafter, but not more than three (3) hours following any such release or emergency. Notice shall be given orally by telephone to the DCR Operations Control Center at (617) 946-3150. In the case of a release or other environmental emergency, notice must also be given in writing within twelve (12) hours, deposited in the United States mail, certified, return receipt requested, postage prepaid to:

Department of Conservation and Recreation
21 Causeway St., Suite 700
Boston, MA 02114
ATTN: Robert Lowell

11. In the event that the Permittee may impact contaminated soil and/or groundwater through permitted activities, the result may require site characterization under the supervision of a Licensed Site Professional (LSP). In this instance, the Permittee shall cease work and obtain from the Massachusetts Department of Environmental Protection (MassDEP) a written approval of a Response Abatement Measure (RAM) Plan (per 310 CMR 40) for the Permitted Uses to continue. The Permittee and its LSP shall oversee work in the Permitted Area to ensure that:
   a. Worker health and safety is protected.
   b. Soil generated and to be removed, if any, is properly disposed of in accordance with M.G.L. c. 21E / Massachusetts Contingency Plan and other applicable state and federal law
c. The RAM is properly implemented and completed. Disposal, if any, of such soil shall be done under the supervision of an LSP and certified by the LSP to MassDEP.

O. LAND MARKERS AND MONUMENTS
1. The Permittee shall take reasonable precautions to protect all public land survey monuments, public land boundary markers and private property corners.
2. In the event that any such markers or monuments are disturbed or destroyed, the Permittee shall take appropriate action to reestablish them in accordance with specifications of the town or county surveyor, or the DCR.

P. TERMINATION
1. The nature of this Permit is a revocable license. As such, the DCR may terminate, with or without cause, upon written or oral notice to the Permittee, at which time all work associated with the permit will immediately end. If applicable, thereafter, the Permittee may cure or remedy such matter within no more than twenty four (24) hours. If the Permittee does not satisfactorily remedy or cure said matter, this Permit will be deemed terminated. If this Permit is revoked or terminated, Permittee shall not be relieved of liability to DCR or the Commonwealth for arrears in any fees or for any other injury, cost, liability or damage sustained or for any response action required or identified as needed as result of a Permittee’s entry and/or use of the Premises, whether occurring before or after such termination.
2. All obligations required of the Permittee under the terms of this Permit shall expressly survive the given termination/expiration date until such obligations are completed to the satisfaction of the DCR.

Q. NON-DISCIMINATION
1. The Permittee acknowledges that there shall be no discrimination against any employee who is employed in the work covered by this Permit, or against any applicant for such employment, based on race, color, religion, sex, sexual orientation, age, national origin, veterans’ status, or physical or mental handicap.
2. The Permittee shall comply with all applicable federal and state statutes, and rules and regulations promulgated there-under prohibiting discrimination in employment.

R. STATUS OF PERMITTEE
1. The relationship of the Permittee to the Commonwealth of Massachusetts and the DCR is that of a Licensee. The Permittee covenants and agrees that it will conduct itself consistent with such status, that it will neither hold itself out as, nor claim to be, an officer or employee of the Commonwealth by reason hereof, and that it will not, by reason hereof, make any claim, demand or application to, or for any right or privilege applicable to an officer or employee of the Commonwealth of Massachusetts, including, but not limited to, Worker’s Compensation Coverage, unemployment insurance benefits, Social Security coverage or retirement membership or credit.
2. Nothing herein contained shall create or be construed as creating a co-partnership between the DCR and the Permittee or to constitute the Permittee as an agent of the DCR.
3. The Permittee acknowledges that this Permit does not confer any rights in real property to the Permittee. As a licensee, the Permittee may enter and use the Premises solely for those purposes contained in this Permit. Any use of the Premises by the Permittee that is inconsistent with the terms of this Permit shall be deemed a material breach of the Permittee’s rights and obligations under this Permit.

S. MERGER
1. All Attachments or Exhibits to this Permit are hereby incorporated by reference and become part of this Permit. Any failure to comply with the terms and conditions contained in any Attachment or Exhibit by either party constitutes a breach of this Permit. The Attachments and Exhibits are intended to be used to clarify the terms of this Permit. In the event there is an irreconcilable conflict between the terms of this Permit and those contained in an Attachment or Exhibit, the term contained in this Permit shall supersede.
2. Plans and documents, including, but not limited to, TMP, pedestrian and vehicle plans, and MUTCD specifications, which are submitted to and approved by the DCR, are hereby incorporated by reference and become part of this Permit.
T. WAIVER

1. No waiver during the term of this Permit, by either party, of any term, condition or covenant of this Permit shall be deemed a waiver at any time thereafter of the same provision or of any other provision contained herein, or of the strict and prompt performance thereof.

U. FORCE MAJEURE

1. Neither party shall be liable to perform its part of this Permit when such failure is due to fire, flood, war, riot, insurrection and/or other catastrophe beyond the control of the parties.

V. SEVERABILITY

1. If any provision of this Permit, or portion of such provision, is held invalid, the remainder of this Permit shall continue in full effect.

W. MODIFICATIONS OR AMENDMENTS

1. Modifications or amendments to this Permit shall be in writing and duly executed by both parties hereto to be effective.

X. ASSIGNMENT AND SUBLETTING

1. Except with the consent of the DCR, this Permit is not transferable.

2. The Permittee shall not assign, sublease, transfer or otherwise dispose of its management responsibilities or of any right, interest or use of the Premises covered by this Permit to anyone other than its contractor or parties specifically named in this permit, without the prior written consent of the DCR.

3. Any such disposition without the written consent of the DCR shall constitute a material breach of this Permit, which shall be cause for immediate termination of the Permit by the DCR.

4. The DCR shall not be obligated to recognize any right of any person or entity to any interest in this Permit or to any rights, equipment, structures, or property of the Permittee at the Premises. Any assignments of rights under this Permit are void.

5. The Permittee may not enter into any agreement with any entity or person, except employees of the Permittee, and/or its contractor or parties specifically named in this permit and/or their contractors, to exercise substantial management responsibilities for operation of the Premises without the prior non-electronic written consent of the DCR Commissioner or designee.

6. In the event of any unapproved or prohibited transfer or encumbrance by the Permittee, or in the event of any default of its obligations to persons or entities which are not a Party to the Permit, such person or entity shall not be deemed to have acquired operating rights, privileges, or title to the Premises or real or personal property of the DCR.

7. Any third-party beneficiaries have no enforceable rights under this Permit.
Y. ATTACHMENT

1. The Permittee is not authorized to permit and shall not permit any liens, mortgages or other security interests for any purpose to be attached to the Permitted Area in connection with the Permittee's use of, occupancy of, and/or activities in, around or near the Permitted Area under this Permit, including without limitation any repairs, renovations, alterations, additions, betterments, fixtures and/or improvements to the Permitted Area. The Permittee shall, upon request of DCR, furnish such waivers of any liens, mortgages, and/or any other security interests, as DCR may require and in a form that is satisfactory to DCR. The Permittee shall, upon the request of DCR, furnish such surety bonds as DCR may request and require, as it relates to said waivers. In the event that any liens, mortgages, or other security interests are attached to the Permitted Area or any part thereof or improvement thereto, the Permittee shall forthwith cause such liens, mortgages, and/or security interests to be released of record without cost to DCR.

Z. NOTICE

1. For purposes of this Permit, the parties hereto shall, unless otherwise indicated below, be deemed duly notified of any information or issues arising from the operation of this Permit in accordance with the terms and provisions hereof only if written notices are provided by first class mail, overnight mail or hand delivered or fax delivery with confirmation to the parties noted in the Notices and Contacts section, (DCR Construction Permits Director; DCR Region Manager, and (DCR Chief Engineer) subject to change upon notice in writing to that effect;

2. If the permitted work site encompasses or encroaches upon designated parking spaces and or parking areas, the permittee will install additional signage indicating the parking restriction.
   a. The "TEMPORARY PARKING RESTRICTIONS" signage must be installed at least 48 hours prior to the start of each portion of the permitted work. A copy of the parking restriction along with the date and time it was posted must be emailed to kathy.delucca@state.ma.us [617-262-1418] or Fax to 1-617-626-1472. Should the permittee not post within the specified time, they will be responsible for any towing reimbursement that may occur.
   b. Should the parking spaces and/or parking areas be located in a residential neighborhood the permittee will provide written notice (mailed or posted) to area residents who may be impacted, at least 72 hours prior to use of the parking space. This notice may include leafleting all cars and mailboxes within 150 feet of the restricted parking area. A description of how you notified the neighbors plus a copy of the parking restriction including the date and time it was posted must be emailed to kathy.delucca@state.ma.us or Faxed to 1-617-626-1472.

3. Before any work is started, the Permittee will provide notice to parties indicated in the Special Conditions and the Notices and Contacts section.

4. The Permittee will supply a written work schedule prior to the commencement of work, and will update the schedule at the time of 50% and 80% completion to parties indicated in the Special Conditions and Notices and Contact section.

At least seventy-two (72) hours prior to removing any vegetation from the Premises, notice shall be provided to the DCR Landscape Architect (as specified in the Notices and Contacts section).
<table>
<thead>
<tr>
<th>ITEM 13 – Owner’s Contingency Allowance for Additional Night Work Required</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Measurement</strong></td>
</tr>
<tr>
<td><strong>Payment</strong></td>
</tr>
<tr>
<td><strong>Schedule of Payment</strong></td>
</tr>
</tbody>
</table>

Includes but is not limited to all labor, material and equipment required for additional costs incurred to complete Work at night or beyond normal business hours of 7:30AM to 3:30PM as directed by the City.

<table>
<thead>
<tr>
<th>ITEM 14 – Owner’s Contingency Allowance for Additional Weekend Work Required</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Measurement</strong></td>
</tr>
<tr>
<td><strong>Payment</strong></td>
</tr>
<tr>
<td><strong>Schedule of Payment</strong></td>
</tr>
</tbody>
</table>

Includes but is not limited to all labor, material and equipment required for additional costs incurred to complete Work on weekends as directed by the City.
ITEM 15 – Owner’s Contingency Allowance for Additional Night Work Traffic Management Controls Required

<table>
<thead>
<tr>
<th>Measurement</th>
<th>Portion of Owner’s contingency allowance amount authorized per Paragraph 11.02 of the General Conditions and Supplementary Conditions. As measured from the time Traffic Management Controls are in place to the time they are removed from the roadway.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Payment</td>
<td>Per-hour. Percent of not to exceed contingency amount authorized by Change Order</td>
</tr>
<tr>
<td>Schedule of Payment</td>
<td>Monthly as authorized by Change Order based on quantity completed</td>
</tr>
</tbody>
</table>

Includes but is not limited to all labor, material and equipment required for additional Traffic Management Control costs incurred to complete Work at night or beyond normal business hours of 7:30AM to 3:30PM as directed by the City.

ITEM 16 – Owner’s Contingency Allowance for Additional Weekend Work Traffic Management Controls Required

<table>
<thead>
<tr>
<th>Measurement</th>
<th>As measured from the time Traffic Management Controls are in place to the time they are removed from the roadway.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Payment</td>
<td>Per-hour. Percent of not to exceed contingency amount authorized by Change Order</td>
</tr>
<tr>
<td>Schedule of Payment</td>
<td>Monthly as authorized by Change Order based on quantity completed</td>
</tr>
</tbody>
</table>

Includes but is not limited to all labor, material and equipment required for additional Traffic Management Control costs incurred to complete Work on weekends as directed by the City.
ITEM 17 – Owner’s Contingency Allowance for Additional Heavy Cleaning Required Including Storage, Testing and Disposal

| Measurement | Portion of Owner’s contingency allowance amount authorized per Paragraph 11.02 of the General Conditions and Supplementary Conditions |
| Payment     | Per Ton – Percent not to exceed contingency amount authorized by Change Order |
| Schedule of Payment | Monthly as authorized by Change Order based on actual |

Includes but is not limited to all material, equipment, labor, tools and services required to provide heavy cleaning, complete removal, storage, containment, erosion controls, testing and disposal of sediment and debris collected during pre-lining CCTV inspection including any associated costs or fees with legally disposing of the material in accordance to all Local, State and Federal rules and regulations.

ITEM 18 – Owner’s Contingency Allowance for Traffic Police Details

| Measurement | Actual wages and fringes paid to police officers based upon invoices and/or payroll records excluding overtime and Contractor markup and/or administration fees |
| Payment     | Percent of not to exceed contingency amount based upon direct costs incurred for Police Details after confirmation of Police Department payment |
| Schedule of Payment | Monthly based on actual |

Direct cost of Police Details excluding overtime and Contractor markup and/or administration fees. Contractor shall not receive payment for any unused portion of the contingency allowance. Excluded: Charges for Police Details not canceled in accordance with Police Department policies and procedures.

ITEM 19 – Owner’s Contingency Allowance for Materials Escalation Price Adjustment (statutory requirement) (per Paragraph 11.02 of the General Conditions)

| Measurement | Portion of Owner’s contingency allowance amount authorized per Paragraph 11.02 of the General Conditions and Supplementary Conditions |
| Payment     | Percent of not to exceed contingency amount authorized by Change Order |
| Schedule of Payment | Monthly as authorized by Change Order |

For price adjustments for materials escalation of Liquid Asphalt, Diesel Fuel, Gasoline, and Portland Cement per statutory requirements in accordance with Section 00 73 73. Contractor shall not receive payment for any unused portion of the contingency allowance.

END OF SECTION
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SECTION 33 01 30.74
CURED IN PLACE LATERAL LINING

PART 1 – GENERAL

1.01 SUMMARY

A. Section Includes

   1. Rehabilitate active sewer laterals without excavation by installation of a resin vacuum impregnated, full wrap one-piece main and lateral liner (LCR – Lateral Connection Repair) (MTH – Main to House) in the form of an internal sleeve. Clean and CCTV inspect laterals.

B. Design Requirements

   1. CIPP system design life and corrosion resistance to typical chemicals found in domestic sewage: minimum of 50 years.

   2. Design as structurally sound, fully stand-alone pipe-within-a-pipe. Meet or exceed physical properties specified, fit tightly within existing pipe and within tolerances specified. Provide that installed CIPP withstands applicable surcharge loads, such as soil overburden and live loads, and external hydrostatic pressure, if present, for each specific installation location.

C. Related Requirements

   1. Section 01 51 40 – Temporary Sewage Bypass

   2. Section 33 01 30.10 – Television Inspection and Cleaning of Sewers

   3. Section 33 01 30.61 – Packer Injection Grouting

1.02 PRICE AND PAYMENT PROCEDURES

A. Measurement and payment requirements: in accordance with Division 01 General Requirements.
1.03 REFERENCES

A. Reference Standards

1. American Society for Testing and Materials (ASTM)
   c. Characteristics of Plastic Pipe by Parallel-Plate Loading
   d. ASTM D2990 - Standard Test Methods for tensile, compressive, and flexural creep and creep-rupture of plastics
   e. ASTM D5813 - Standard Specification for Cured-In-Place Thermosetting Resin Sewer Piping Systems.
   f. ASTM FI216 - Standard Practice for Rehabilitation of Existing Pipelines and Conduits by the Inversion and Curing of a Resin Impregnated Tube

2. National Association of Sewer Service Companies (NAASCO) Recommended Specification for Sewer Collection Systems Rehabilitation

1.04 ADMINISTRATIVE REQUIREMENTS

A. Coordination, Sequencing, and Scheduling: per Division 01 General Requirements.

1.05 SUBMITTALS

A. Submit in accordance with the Division 01 General Requirements.

B. Description of system, equipment, material, and name of manufacturer of the material components (liner and resin) proposed for the service connection rehabilitations.

B. Detailed procedure for installing service lateral liner.

C. Independent laboratory testing results of CIPP samples described in Article 3.07

D. Description of system proposed for handling existing sewer flows per Section 01 51 40.

E. Safety Data Sheets (SDS) for all chemicals to be used
F. Source and Field Quality Control Submittals
   1. Video recording of the rehabilitation work and one-year Warranty Inspections on DVD, verified for accuracy and quality prior to submittal.

G. Qualification Statements
   1. Qualifications of the firm/personnel performing the Work including a list of at least 10 reference projects.

H. Proposed schedule a minimum of two weeks prior to the planned Work.

1.06 QUALITY ASSURANCE
   A. Provide in accordance with Division 01 General Requirements.
   B. Qualifications
      1. Provide that the Work specified is performed by a company or personnel with a minimum 5 years of experience. Provide that supervisory personnel have a minimum 5 years of experience and shall be present at the Site during performance of services specified.

1.07 SITE CONDITIONS
   A. Existing Conditions: per Division 01 General Requirements.
   B. Notify Owner immediately if Site conditions prevent access to manholes or pipes identified as part of the Work.
   C. Service lateral connections may be a combination of tees, wyes or break-in taps or varying sizes and angles ranging from 30 to 90 degrees. Service laterals may enter the main line sewer at any point on the circumference including perpendicular, tangential, etc.
   D. Service lateral connections may be 4-inch diameter, 5-inch diameter, or 6-inch diameter from the 8-inch diameter, 10-inch diameter, 12-inch diameter, 15-inch diameter, 18-inch diameter, or 24-inch diameter mainline.
PART 2 – PRODUCTS

2.01 SERVICE LATERAL CONNECTION REPAIR (LCR)(MTH) LINER

A. The LCRMTH-lining material shall be a polyester felt or fiberglass/polyester needle fleece vacuum resin-impregnated or equivalent material tube, matching the diameter of the lateral pipe, which is inserted into the service lateral to be rehabilitated and cured-in-place by an acceptable curing method. The resin shall be suitable for the design conditions as well as the curing process. The LCRMTH shall provide a service life of 50 years and shall have the minimum structural properties listed below.

<table>
<thead>
<tr>
<th>Mechanical Property</th>
<th>Minimum Initial</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flexural Strength (ASTM 0790)</td>
<td>4,500 psi</td>
</tr>
<tr>
<td>Flexural Modulus of Elasticity (ASTM 0790)</td>
<td>250,000 psi</td>
</tr>
</tbody>
</table>

B. The LCRMTH liner must be a seamless one piece product affixed to the walls of the lateral pipe and at the junction between the pipe and main sewer. The junction between the collar and the lateral sleeve must be watertight and will consist of a lateral portion and a mainline portion.

C. The LCRMTH liner system shall consist of a sectional liner in the mainline (full wrap around the circumference of the main line extending 5” on either side of the service) and the continuous liner shall have the capacity to extend to 5 feet beyond towards within 10 feet of the building foundation from the mainline. The liner shall form a continuous, one piece, tight fitting, corrosion resistant and verifiable non-leaking cured in place pipe. No component of the liner (i.e. lateral tube to mainline piece) shall be glued or sewn fused in the field prior to installation. The material shall be capable of conforming to offset joints, bells and disfigured pipe sections.

D. The carrier packer shall be specifically designed for various diameter services connections. It shall be manufactured to conform to either a wye, tee or break-in type connections. The mainline portion of the carrier packer will accommodate pipe diameters ranging from 8-in to 24-in x 36-in. A corrosion resistant resin compatible with the installation process shall be used.

E. The LCRMTH shall be designed, fabricated, and installed for the actual conditions encountered for this application including the material of the host pipe, in accordance with the applicable provisions of ASTM F1216, and shall meet the following minimum design conditions:

1. AASHTO H-20 live load with one trucks passing.
2. Soil Weight 120 pounds per cubic foot. Coefficient of friction Ku’=0.130.
3. Groundwater: At the ground surface
4. Fully deteriorated pipe with 2 percent (min.) deformation. If ovality of existing pipe is found to be worse, use actual percent up to 5 percent (max.).

5. Soil Modulus 1,000 psi.

6. Factor of Safety = 2

7. Soil Depth: Depth of Cover will be determined by field measurements.

F. The LCRMTH shall be designed to withstand all imposed loads, including live loads and, if applicable, hydrostatic pressure. The LCRMTH liner shall have sufficient wall thickness to withstand all anticipated external pressures and loads that may be imposed after installation. The design shall be performed and certified by a professional engineer licensed by the Commonwealth of Massachusetts.

G. The finished LCRMTH product shall be which when cured is chemically resistant to domestic sewage over the expected life time of the rehabilitated pipe. The liner material and resin shall be completely compatible and provided as a system from one manufacturer.

2.02 RESIN FOR LCRMTH LINER

A. The resin system shall meet the requirements of ASTM F1216, Section 5.2. The resin installed LCRMTH liner system shall produce an LCRMTH that will comply with the structural requirements specified herein and shall provide chemical resistance for the flow media in the gravity pipe. The resin shall be compatible with the rehabilitation process, shall be able to cure in the presence or absence of water, and shall have an initiation temperature for cure as recommended by the resin manufacturer.

PART 3 – EXECUTION

3.01 COORDINATION

A. Provide a minimum two weeks notice of proposed schedule as described above.

B. Contracts, that include both the relining of the main line and the installation of LCRMTH seal product, require the main line relining contractor identify (size and location), video document and notify the Owner which lateral connections are deemed unfit for the LCRMTH product. Where the contract is only for installing the LCRMTH product, the installation contractor shall inform the Owner of service laterals which cannot be installed.

C. Service laterals in which a LCRMTH product cannot be installed will be identified, documented, video recorded, and the Owner's representative will be informed of the conditions encountered. The contractor will not attempt to install a LCRMTH product in these connections unless directed by the Owner's representative.
D. Discharge, bypass, or flooding of sewage, cleaning water, or debris to public or private property including the ground, surrounding residences, and downstream sewers is prohibited. Contractor shall immediately and completely clean and repair any damage resulting from their activities to the satisfaction of the Owner and Engineer.

3.02 PREPARATION

A. Service lateral cleaning and CCTV inspection shall be completed in accordance with 33 31 15 and as detailed below.

B. The Contractor shall clear the line of obstructions such as solids, roots, or broken pipe that will prevent the insertion of the liner. A high speed rotating hydraulic cutter shall be used to cut roots, grease or other obstructions in the pipe. The cut shall be made flush with the wall of the pipe to be restored, and the debris shall be pushed down the lateral pipe to the main pipe and to the downstream manhole and is to be removed by the contractor. If inspection reveals an obstruction that cannot be removed by conventional cleaning equipment, the Contractor shall notify the Engineer and the cleaning effort shall be abandoned. The Contractor shall confirm that the sewer is clean enough to ensure an effective lining. The line segment shall not be lined until approved by the Engineer.

C. Built-up deposits on the main and lateral pipe walls shall be removed. The removal shall reach at least one foot beyond the LCRMTH product to allow the bladder to inflate tightly against the pipe walls ensuring a smooth transition from LCRMTH product to the existing pipe wall.

D. Where the main pipe has been lined previously with a CIPP liner, a check should be made to ensure the prior lateral reopening work created a lateral opening that is flush with the lateral pipe. If this is not the case, the mainline CIPP must be trimmed back using a lateral cutter at no additional cost to the Owner.

E. The Contractor shall be responsible, if needed, for bypassing of sewage during the installation of the LCRMTH product. In cases where the temporary backup of sewage is accepted as a replacement for bypassing, the Contractor is responsible for all damage caused.

3.03 INSTALLATION

A. Lateral liner shall be installed from the mainline sewer without the assistance of a cleanout. Mainline sewer may be lined (CIPP) or unlined pipe. Existing service laterals shall be flush with the mainline sewer wall prior to service lateral liner installation. The liner shall consist of a sectional liner in the mainline (full wrap around the circumference of the main line extending 5 inches on either side of the service) and the continuous liner shall have the capacity to extend to within 10 feet of the building foundation.
B. Where active infiltration is present and when it is recommended by the liner manufacturer, the infiltration shall be stopped in advance by grouting.

C. Service lateral liner material shall be vacuum impregnated on site with the resin immediately prior to installation. Impregnation should be carried out under vacuum using pinch rollers set at the correct gap as per the manufacturer’s instructions. Impregnation should take place in a clean, temperature controlled cab in which the materials are protected from direct sunlight, objects which may damage the coating.

D. Impregnation should not take place outside in an uncontrolled environment in which the materials are exposed to the elements. The liner should not be placed on the ground where it is susceptible to damage from objects such as stones, grit, glass etc.

E. During and upon completion of the impregnation process the liner should be stored in a container to avoid damage prior to loading the material into the installation device.

F. The LCRMTH product shall be loaded inside a pressure apparatus above ground. The pressure apparatus, with an end attached to a robotic manipulator device, shall be positioned in the mainline pipe at the service connection that is to be rehabilitated. The robotic device together with a television camera will be used to align the repair product with the service connection opening. The robotic device shall hold the collar in place while air pressure, supplied to the pressure apparatus through a hose, shall be used to invert the liner into the lateral pipe. The insertion pressure will be adjusted to fully deploy the LCRMTH product into the lateral connection and hold the LCRMTH product tight to the main and lateral pipe walls.

G. Curing shall be accomplished by utilizing the appropriate medium in accordance with the manufacturer’s recommended cure schedule. The curing source or in and output temperatures shall be monitored and logged during the cure cycles if applicable. The manufacturer’s recommended cure method and schedule shall be used for each line segment installed, and the liner wall thickness and the existing ground conditions with regard to temperature, moisture level, and thermal conductivity of soil, per ASTM as applicable, shall be taken into account by the Contractor.

H. For heat-cured liners, if any temperature sensor or multiple sensors do not reach the temperature as specified by the manufacturer to achieve proper curing or cooling, the installer can make necessary adjustments to comply with the manufacturer’s recommendations. The system computer should have an output report that specifically identifies each installed sensor station in the length of pipe, indicates the maximum temperature achieved and the sustained temperature time. Each sensor should record both the maximum temperature and the minimum cool
down temperature and comply with the manufacturers recommendations. For UV Cured Liners, all light train sensor readings, recorded by the tamper proof computer, shall provide output documenting the cure along the entire length of the installed liner. The cure procedure shall be in accordance with the manufacturer’s recommendations.

J-I. The finished LCRMTH product shall be free of dry spots, lifts, delamination and excess resin. The installed LCRMTH product should not inhibit the post installation video inspection, using a closed circuit television camera, of the mainline and service lateral pipes or future pipe cleaning operations.

K. The Contractor shall inform the Engineer of service laterals in which a LCRMTH product cannot be installed due to preexisting conditions. These services will be identified, documented, video recorded, and the Engineer will be informed of the conditions encountered. The Contractor will not attempt to install a LCRMTH product in these services unless directed by the Engineer.

3.04 FIELD TESTING AND ACCEPTANCE

A. Following installation of the service lateral liners, conduct a final, video recorded, color television inspection of the completed work including the service lateral connections at the sewer main and the full length of all service laterals lined during the progress of the work. Copies of these recordings and those made prior to the liner installation shall be submitted to the Engineer for approval and shall be retained by the Owner.

B. Field acceptance of the liner shall be based on the Engineer's evaluation of the installation including TV inspection video recordings and a review of certified test data for the installed pipe samples.

C. Groundwater infiltration of the liner shall be zero.

D. There shall be no evidence of splits, cracks, breaks, lifts, kinks, delamination or crazing in the liner.

E. If any defective liner is discovered after it has been installed, it shall be removed and replaced with either a sound liner or a new pipe at no additional cost to the Owner.

3.05 WARRANTY INSPECTION

A. Warranty Inspection must commence within 45 calendar days prior to expiration of the Warranty Period or within 10 days of receipt of notice from Owner to commence Warranty Inspection. Within 14 calendar days prior to expiration of the Warranty Period (351 days from Substantial Completion), perform CCTV inspection of 10 percent of rehabilitated service connections in accordance with Section 33 31 15 in the presence of the Engineer. Specific locations will be selected at random by Owner.
B. Perform CCTV inspection of the all rehabilitated service laterals if abnormalities and defects are discovered after inspection of a portion of the rehabilitated service laterals at no additional cost to Owner.

C. Repair and replace abnormalities and defects discovered during the Warranty Inspection as recommended by the manufacturer and as specified.

3.06 CLOSEOUT ACTIVITIES

A. Provide in accordance with Division 01 General Requirements.

END OF SECTION
ADDENDUM NO. 2
WOODARD & CURRAN

CURED IN PLACE LATERAL LINING
33 01 30.74-10