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◆ Maryland Life Building ◆ 10 South Street ◆ Suite 301 ◆ Baltimore, MD 21202 ◆

1-800-705-3241

## Sub Contract Agreement

W60617556RETE

A-Plus Contracting

# Sanitary Sewer Contract (SC-1000)



## Sub Contract Agreement

W60617556RETE

### A-Plus Contracting

232 Kershaw Ct.  
Joppa, MD 21085

attn: Ana Louis

02/05/2020

Title: Baltimore City  
Department of Public Works (DPW)  
Sanitary Sewer Laterals  
Cleaning & Inspection (CCTV)

**Various Locations/Citywide**

Reference No.: 1220-040-2017-034



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**Sub Contract Agreement  
Section 1:**

Terms and Conditions (T&C's) –  
**Subcontract Agreement**

**W60617556RETE**





## B&B Partnership Initiative Subcontract Agreement Number **W60617556RETE**

### GENERAL INSTRUCTIONS

#### Standard Form

These instructions are for the information and convenience of the users of the B&B Partnership Initiative Subcontract Agreement. They are not part of the Subcontract, or commentary on, or interpretation of the Subcontract form. The intent of the parties to a particular agreement controls its meaning and not that of the writers and publishers of the standard form. As a standard form, this Subcontract has been designed to establish the relationship of the parties in the standard situation. Recognizing that every project is unique, modifications may be required.

#### Importance of Document

This agreement has important contractual and insurance consequences. Consultation with an appropriate advisor is encouraged with respect to its completion or modification.

### COMPLETING THE AGREEMENT

#### Completing Blanks

Form fields indicate provisions requiring parties to fill in blanks with information. Make sure all blanks are filled in. If it is not applicable, fill in the blank with N/A.

#### Modifications

**Modifications to the provisions contained herein are to be made by means of an addendum.**

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## B&B Partnership Initiative SUBCONTRACT AGREEMENT

This Subcontract is effective as of the 5<sup>th</sup> day of February, 2020 by and between B&B Partnership Initiative ("B&BPILLC") through its business, located at: 11 Century Hill Drive, Latham, NY 12110-2111, telephone 518-698-7058 hereinafter referred to as "B&BPILLC" and A-Plus Contracting located at 3232 Kershaw Ct. Joppa, MD 21085 telephone 410-679-0723 referred to as the "Subcontractor".

**Witnesseth:** The following terms and conditions are mutually agreed to by and between B&B Partnership Initiative ("B&BPILLC") and the Subcontractor:

### ARTICLE 1 DEFINITION OF SUBCONTRACT TERMS

**CONTRACT:** The term "Contract" as used in this Subcontract will mean the Contract between B&B Partnership Initiative ("B&BPILLC") and Customer.

**CUSTOMER:** The term "Customer" as used in this Subcontract will mean the person or entity with which "B&BPILLC" has entered into the Contract. "Owner" and "Customer" may be the same entity.

*Baltimore City - Department of Public Works (DPW)*

**B&B Partnership Initiative:**

Federal Employer Identification Number:  
Business Address: 10 South Street, Suite 301, Baltimore, MD 21202  
Telephone Number: 1-800-705-3241  
Facsimile Number: 1-800-705-3241

**Invoice: Remit invoice to B&B Partnership Initiative at Business Address on the form attached to this Subcontract.**

**OWNER:** The term "Owner" as used in this Subcontract will mean the person or entity which owns the premises on which the project is realized and may be the same as the Customer.

*Baltimore City - Department of Public Works (DPW)*

**PROJECT: Baltimore City - Department of Public Works (DPW), SC-1000**

**SUBCONTRACT:** The Subcontract is the entire and integrated agreement between B&B Partnership Initiative ("B&BPILLC") and the Subcontractor.

**SUBCONTRACT WORK:** Service Work (As more particularly described in Article 5)

**SUBCONTRACTOR:**

Business Name: A-Plus Contracting  
Federal Employer Identification Number:  
Business Address: 232 Kershaw Ct., Joppa, MD 21085  
Telephone Number: 410-679-0723  
Facsimile Number: 410-500-4559

### ARTICLE 2 SUBCONTRACT PRICE

As full compensation for performance of the Subcontract, B&BPILLC agrees to pay Subcontractor the price set forth as follows, the "Subcontract Price", for the satisfactory performance of the Subcontract Work, in the manner described below, subject to all applicable provisions of the Subcontract:

- a) the firm fixed-price of: Six Thousand Eight Hundred Ninety-Four Dollars and Seventy Five Cents (\$6,894.75) subject to additions and deductions as provided for in the Subcontract Documents; and
- b) unit prices in accordance with the attached Schedule of Unit Prices and estimated quantities, which is incorporated into this Subcontract by reference and identified as in Attachment J; and
- c) time and material rates and prices in accordance with the attached Schedule of Labor and Material Costs which is incorporated into this Subcontract by reference and identified as in Attachment J;

### ARTICLE 3 GENERAL PROVISIONS

In the event the Subcontractor's scope of work covers design/build responsibilities the following will apply:

**3.1** The Project is the total design and construction for which the Subcontractor is responsible, including all professional design services and all labor, materials and equipment used or incorporated in the design and construction.

**3.2** The work comprises the completed construction designed under the Project and includes labor necessary to produce the construction, materials and equipment incorporated or to be incorporated into the construction.

**3.3** The drawings, specifications and other documents prepared by the Subcontractor are for use solely with respect to this Project. They are not to be used by the Subcontractor or any sub-subcontractor or material or equipment supplier on other projects or for additions to the scope of work without the specific written consent of B&BPILLC. The Subcontractor, sub-subcontractors and material or equipment suppliers are authorized to use and reproduce applicable portions of the drawings, specifications and other documents prepared by the Subcontractor appropriate to and for use in the execution of their work under the Subcontract Documents.

### ARTICLE 4 SUBCONTRACT DOCUMENTS

**4.1** To assume toward B&BPILLC, to the extent applicable to the Subcontractor's scope of work, all the obligations that B&BPILLC has assumed toward the Owner/Principal Contractor by the terms of the Plans and Specifications, General Conditions and Supplementary General Conditions,

relating to the entire project ("Contract Documents"), which Contract Documents are available for examination by the Subcontractor. If any provision of the documents is inconsistent with a provision of this Subcontract, this Subcontract will govern.

4.2 Upon request, B&BPILLC will make available to the Subcontractor, prior to execution of the Subcontract Agreement, copies of the Subcontract Documents to which the Subcontractor will be bound. Where any provision of the documents is inconsistent with a provision of this Subcontract Agreement, this Subcontract Agreement will govern. Nothing in the Subcontract Documents will be construed to create a contractual relationship between persons or entities other than B&BPILLC and Subcontractor.

**ARTICLE 5  
SCOPE OF SUBCONTRACT WORK**

5.1 B&BPILLC has retained the Subcontractor to furnish and pay for all labor, materials, equipment, expertise, skill and services referred to in this Subcontract, and to perform the Subcontract Work as an independent contractor. The Subcontractor will perform the work (referred to as the "Subcontract Work") under the direction of B&BPILLC and in accordance with this Subcontract. Subcontractor will assume toward B&BPILLC, to the extent applicable to the Subcontractor's scope of work, all the obligations which B&BPILLC has assumed toward the Customer and/or Owner.

5.2 The scope of the Subcontract Work will consist of all work necessary or incidental to complete the: Mechanical work for the project in accordance with and reasonably inferable from the Subcontract Documents as being necessary to produce the intended results and as more particularly, though not exclusively, specified in:

**Attachment A - Scope of Work**

5.3 With the following additions or deletions: N/A

5.4 **TEMPORARY SERVICES** - B&BPILLC will provide to the Subcontractor the following temporary services at the project site during the performance of this Subcontract at no charge to the Subcontractor:

N/A

The Subcontractor will provide, at its own expense, all other necessary temporary services for the completion of its Work.

**ARTICLE 6  
SURETY BONDING**

**6.1 SUBCONTRACTOR BONDS**

6.1.1 The parties may agree that the Subcontractor will furnish to B&BPILLC, as the obligee, appropriate surety bonds to secure the faithful performance of the Subcontract Work and to satisfy all Subcontractor payment obligations arising under this Subcontract. The Subcontractor surety bond requirements, if any, applicable to this Subcontract are as follows:

Subcontractor Performance Bond

Required       Not Required

Subcontractor payment Bond

Required       Not Required

6.1.2 If a performance or payment bond, or both, are required of the Subcontractor under this Subcontract, then the bonds will be in the full amount of the Subcontract Price if lump sum, or N/A if not, and the price for the bonds will be included in the Subcontract Price, unless otherwise specified in this Subcontract. The bonds will be in a form and by a surety mutually agreeable to B&BPILLC and Subcontractor.

6.1.3 The reimbursement amount for the Subcontractor bonds is included in lump sum contract price.

6.1.4 If the Subcontractor fails to provide any required bonds prior to starting work or entering the job site, B&BPILLC may terminate this Subcontract and enter into a subcontract for the balance of the Subcontract Work with another subcontractor. All B&BPILLC costs and expenses incurred by B&BPILLC as a result of the termination will be paid by the Subcontractor.

As specified in: **Attachment H - Bonds**

**ARTICLE 7  
PERFORMANCE OF WORK**

7.1 **DATE OF COMMENCEMENT** - The Subcontractor will commence the Subcontract Work within seventy-two (72) hours of being notified by B&BPILLC, with written notice-to-proceed (NTP) to initially start the Subcontract Work unless otherwise set forth below; see **Attachment B - Notice to Proceed**

7.2 **SCHEDULE OF WORK** - Subcontractor will provide B&BPILLC with scheduling information in a "Schedule of Work" in a form acceptable to B&BPILLC and will conform to B&BPILLC's progress schedules, including any changes made by B&BPILLC in the scheduling of Subcontract Work. Subcontractor will coordinate its Subcontract Work with B&BPILLC, and all other contractors, subcontractors and suppliers so as not to delay or disrupt their performance. Oral extensions of time for performance of this Subcontract Agreement will not be binding on B&BPILLC.

7.3 **SUBCONTRACT PERFORMANCE** - The Subcontractor will use its best care, skill and diligence in supervising and directing the Subcontract Work. The Subcontractor will have responsibility and control over the performance of the Subcontract Work, including the construction methods, techniques, means and sequences for coordinating and completing the various portions of the Subcontract Work, unless the Subcontract gives other specific instructions concerning these matters.

7.4 **SUBCONTRACT PERIOD** - The Subcontract Work will be substantially completed in 182 calendar days from the date of commencement, or on or before 08/31/2020, subject to adjustments in the subcontract period as provided for in the Subcontract Documents.

7.5 **TIME IS OF THE ESSENCE** - Time is of the essence with respect to the job schedule. If Subcontractor reasonably believes that it will be unable to meet the job schedule or any portion of the job schedule Subcontractor will immediately notify B&BPILLC of the anticipated delay and take immediate corrective action to comply with the job schedule (including without limitation working overtime or providing additional personnel or equipment or other resources). All corrective actions will be at Subcontractor's sole cost and expense, unless the delay or anticipated delay is caused by B&BPILLC, in which case the parties will mutually agree upon a corrective action plan and apportioning of the cost. If Subcontractor fails to promptly develop and implement a corrective action plan, B&BPILLC may implement its own corrective action plan at Subcontractor's expense. No oral extensions of time for performance of this agreement will be recognized.

7.6 **WORK BY OTHERS** - Unless B&BPILLC is promptly notified in writing to the contrary, it will be conclusively presumed that work by others which precedes the Subcontractor's performance has been done in a proper manner.

7.7 **PROTECTION AND INSPECTION OF WORK** - Subcontractor agrees to protect partially completed Subcontract Work and equipment or materials left at the work site, and to be responsible for any damage occasioned by its failure to do so. Subcontractor will make the Subcontract

Work accessible at all reasonable times for inspection by B&BPILLC. Subcontractor will, at the first opportunity, inspect all material and equipment delivered to the job site by others to be used or incorporated in the Subcontract Work and give prompt notice of any defect therein. Subcontractor assumes full responsibility to protect the Subcontract Work until final acceptance by the architect, Owner, Customer and B&BPILLC. Subcontractor will promptly repair or replace any Subcontract Work damaged prior to final acceptance by the Owner, at no additional cost.

7.8 **INDEPENDENT CONTRACTOR STATUS** - Nothing in this Subcontract will be construed to place Subcontractor and B&BPILLC in an agency, employment, franchise, joint venture, or partnership relationship. Neither party has the authority to obligate or bind the other in any manner, and nothing contained in this Subcontract will give rise or is intended to give rise to rights of any kind to any third parties. Neither party will make any representation to the contrary. The parties agree that Subcontractor will perform its obligations under this Subcontract as an independent contractor. Subcontractor retains the right to exercise full control of, supervision over and responsibility for Subcontractor's performance under this Subcontract, including the employment, direction, compensation and discharge of Subcontractor's personnel, as well as compliance with workers' compensation, unemployment, disability insurance, social security, withholding and all other laws, rules, codes, taxes, regulations and ordinances governing these matters.

7.9 **SUBCONTRACTOR EMPLOYEES** - Subcontractor will assign qualified personnel to perform the services and will ensure that its personnel devote sufficient time and effort to performing the services as necessary to complete all services in accordance with this Subcontract. Subcontractor will

bear all liability for the acts or omissions of the personnel assigned to perform the services. If B&BPILLC determines that any Subcontractor personnel performing services are unacceptable, B&BPILLC will notify Subcontractor and Subcontractor will take prompt, appropriate corrective action, which may include, at B&BPILLC's request, replacing the personnel. Subcontractor will pay all costs associated with replacing the personnel. If Subcontractor refuses to replace any of its personnel upon B&BPILLC's request, B&BPILLC may immediately terminate this agreement.

## **ARTICLE 8 B&BPILLC's OBLIGATIONS**

**8.1 AUTHORIZED REPRESENTATIVE** - B&BPILLC will designate one or more persons who will be B&BPILLC's authorized representative(s) on-site and off-site. The authorized representatives will be the only person(s) authorized to provide instructions, orders and directions, except in an emergency.

**8.2 TIMELY COMMUNICATIONS** - B&BPILLC, with reasonable promptness, will transmit to the appropriate parties all submittals, transmittals, and written approvals relating to the Subcontract Work. Unless otherwise specified in the Subcontract Documents, communications by and with the Subcontractor's subcontractors, materialmen and suppliers will be through the Subcontractor.

**8.3 OWNER ABILITY TO PAY** - The Subcontractor will have the right to receive from B&BPILLC such information as B&BPILLC has obtained relative to the Owner's financial ability to pay for the Subcontract Work.

## **ARTICLE 9 SUBCONTRACTOR'S OBLIGATIONS**

**9.1 RESPONSIBILITIES** - The Subcontractor will furnish all of the labor, materials, equipment, and services, including, but not limited to, competent supervision, shop drawings, samples, tools, and scaffolding as are necessary for the proper performance of the work in accordance with and reasonably inferable from the Subcontract Documents. The Subcontractor will provide to B&BPILLC a list of its proposed subcontractors and suppliers, and be responsible for taking field dimensions, providing tests, ordering of materials and other actions as required to perform the work and to comply with B&BPILLC's progress schedule. Subcontractor will provide B&BPILLC with scheduling information in a form acceptable to B&BPILLC and will conform to B&BPILLC's progress schedules, including any changes made by B&BPILLC in the scheduling of work.

### **9.2 SUBCONTRACTOR'S OBLIGATIONS FOR SITE VISITATION AND LAYOUT RESPONSIBILITY AND LEVELS**

**9.2.1** The Subcontractor acknowledges that it has visited the project site and visually inspected the general and local conditions which could affect the Subcontract Work. Any failure of the Subcontractor to reasonably ascertain from a visual inspection of the site, the general and local conditions which could affect the Subcontract Work, will not relieve the Subcontractor from its responsibility to properly complete the Subcontract Work without additional expense to B&BPILLC.

**9.2.2** The Subcontractor will lay out and be strictly responsible for the accuracy of the Subcontract Work and for any loss or damage to B&BPILLC or others by reason of the Subcontractor's failure to set out or perform its work correctly. The Subcontractor will exercise prudence so that the actual final conditions and details of its Subcontract Work will result in alignment of finish surfaces.

### **9.3 SHOP DRAWINGS, SAMPLES, PRODUCT DATA AND MANUFACTURERS' LITERATURE**

**9.3.1** If the Subcontractor's scope of work covers design/build responsibilities, the Subcontractor will specify all performance and design criteria related to the systems, materials or equipment to be provided for the Project. The Subcontractor will cause the services to be provided by a properly licensed design professional, whose signature and seal will appear on all drawings, calculations, specifications, certifications, shop drawings and other submittals prepared by those professionals. Shop drawings and other submittals related to the work designed or certified by a professional, if prepared by others, will bear the professional's written approval when submitted to the Subcontractor. B&BPILLC will be entitled to rely upon the adequacy, accuracy and completeness of the services, certifications or approvals performed by the design professionals. B&BPILLC will review, approve or take other appropriate action on submittals only for the limited purpose of checking for conformance with information given by the Subcontractor and the design concept expressed in the Subcontract

Documents. B&BPILLC will not be responsible for the adequacy of the performance or design criteria required by the Subcontract Documents.

**9.3.2** The Subcontractor promptly will submit for approval to B&BPILLC all shop drawings, samples, product data, manufacturers' literature and similar submittals required by the Subcontract Documents. The Subcontractor will be responsible to B&BPILLC for the accuracy and conformity of its submittals to the Subcontract Documents. The Subcontractor will prepare and deliver its submittals to B&BPILLC in a manner consistent with B&BPILLC's progress schedule and in time and sequence as not to delay B&BPILLC or others in the performance of the Subcontract Work. The approval of any Subcontractor submittal will not be deemed to authorize deviations, substitutions or changes in the requirements of the Subcontract Documents unless express written approval is obtained from B&BPILLC and Owner authorizing the deviation, substitution or change. If the Subcontract Documents do not contain submittal requirements pertaining to the Subcontract Work, the Subcontractor agrees upon request to submit in a timely fashion to B&BPILLC for approval any shop drawings, samples, product data, manufacturers' literature or similar submittals as may reasonably be required by B&BPILLC, Owner or architect.

**9.3.3** B&BPILLC, Owner, and architect are entitled to rely on the accuracy and completeness of any professional certifications required by the Subcontract Documents concerning the performance criteria of systems, equipment or materials, including all calculations and any governing performance requirements.

### **9.4 COORDINATION AND COOPERATION**

The Subcontractor will:

- (a) cooperate with B&BPILLC and all others whose work may interfere with the Subcontract Work;
- (b) specifically note and immediately advise B&BPILLC of any interference with the Subcontract Work; and
- (c) participate in the preparation of coordination drawings and work schedules involving the Subcontract Work.

**9.5 AUTHORIZED REPRESENTATIVE** - The Subcontractor will designate one or more persons who will be the authorized Subcontractor's representative(s) on-site and off-site. The authorized representative(s) will be the only person(s) to whom B&BPILLC will issue instructions, orders or directions, except in an emergency.

**9.6 COMMUNICATIONS** - Unless otherwise provided in the Subcontract Documents, Subcontractor communications by and with the Owner, architect, separate contractors and other subcontractors and suppliers of B&BPILLC, regardless of tier, will be through B&BPILLC.

**9.7 TESTS AND INSPECTIONS** - The Subcontractor will schedule all required tests, approvals and inspections of the Subcontract Work or portions of the Subcontract Work at appropriate times so as not to delay the progress of the Subcontract Work. The Subcontractor will give proper written notice to all required parties of such tests, approvals and inspections. The Subcontractor will bear all expenses associated with tests, inspections and approvals required of the Subcontractor by the Subcontract Documents. Required certificates of testing, approval or inspection will, unless otherwise required by the Subcontract Documents, be secured by the Subcontractor and promptly delivered to B&BPILLC.

### **9.8 WORKMANSHIP**

**9.8.1** Every part of the Subcontract Work will be executed in accordance with the Subcontract Documents in a workmanlike manner. All materials used in the Subcontract Work will be furnished in sufficient quantities to facilitate the proper and expeditious execution of the work, and will be new except the materials as may be expressly provided in the Subcontract Documents to be otherwise.

**9.8.2** It is the Subcontractor's responsibility to provide all labor, materials, equipment and other facilities required to complete the work. The Subcontractor will be fully responsible for the checkout and verification of its own work. If any deficiencies or defects are discovered after the work is turned over to B&BPILLC, the deficiencies and defects will be expeditiously corrected at the Subcontractor's expense for the duration of the warranty period.

**9.9 MATERIALS FURNISHED BY OTHERS** - If the scope of the Subcontract Work includes installation of materials or equipment furnished by others, it will be the responsibility of the Subcontractor to examine the items provided and handle, store and install the items, unless otherwise provided in the Subcontract Documents, with such skill and care as to ensure a satisfactory and proper installation. Loss or damage due to acts of the



Subcontractor will be deducted from any amounts due or to become due the Subcontractor under this Subcontract.

**9.10 RECEIVING** - In the event the Subcontractor's scope of work covers the receipt of B&BPILLC furnished equipment, Subcontractor will be required to make a thorough inspection of the packaging and equipment prior to signing a bill of lading with the carrier. A report of the "as delivered" condition is to be furnished to B&BPILLC. In the event that the packaging or equipment is damaged, the Subcontractor will not sign a bill of lading and B&BPILLC will be notified immediately. Failure of the Subcontractor to properly inspect the packaging and equipment for visual damage and provide documentation of the "as delivered" condition may result in damages associated with equipment as well as any resulting delays.

**9.11 SUBSTITUTIONS** - No substitutions will be made in the Subcontract Work unless permitted in the Subcontract Documents and only then upon the Subcontractor first receiving all approvals required under the Subcontract Documents for substitutions.

**9.12 WARRANTY** - The Subcontractor warrants its work against all deficiencies and defects in materials and workmanship and as called for in the Subcontract Documents.

The Subcontractor agrees to satisfy the warranty obligations which appear within the warranty period established in the Subcontract Documents without cost to the Owner, Customer or B&BPILLC. Unless a longer period is specified in the Subcontract Documents, the Subcontractor will warrant the work for a period of one (1) year from the date(s) of substantial completion of all or each designated portion of the Subcontract Work or acceptance or use by B&BPILLC, Customer or Owner of each designated area, system, equipment and item, whichever is later.

The Subcontractor further agrees to furnish any special warranties that will be required in accordance with the Subcontract documents for the Subcontract Work prior to final payment.

#### **9.13 UNCOVERING/CORRECTION OF WORK**

**9.13.1 UNCOVERING OF WORK** - If required in writing by B&BPILLC, the Subcontractor must uncover any portion of the Subcontract Work which has been covered by the Subcontractor or in violation of the Subcontract Documents or contrary to a directive issued to the Subcontractor by B&BPILLC. Upon receipt of a written directive from B&BPILLC, the Subcontractor will uncover the work for B&BPILLC's or Owner's inspection and then restore the uncovered work to its original condition at the Subcontractor's time and expense.

**9.13.2 CORRECTION OF WORK** - The Subcontractor is required to correct in a timely fashion any Subcontract Work rejected by B&BPILLC, Owner or Customer for failing to comply with the Subcontract Documents whether observed prior to the commencement of the warranty period(s) or during the warranty period(s) established under Paragraph 9.12. The Subcontractor will correct at its own cost and time and bear the expense of additional services for any non-conforming Subcontract Work.

**9.14 CLEANUP** - The Subcontractor will follow B&BPILLC's cleanup directions, and

(a) at all times keep the building and premises free from debris resulting from the Subcontract Work; and

(b) broom clean each work area prior to discontinuing Subcontract Work in each area. If the Subcontractor fails to immediately commence compliance with cleanup duties within twenty-four (24) hours after written notification from B&BPILLC of non-compliance, B&BPILLC may implement appropriate cleanup measures without further notice and deduct the cost from any amounts due or to become due the Subcontractor under this Subcontract.

#### **9.15 SAFETY OF PERSONS AND PROPERTY**

**9.15.1** The Subcontractor will perform the Subcontract Work in a safe and reasonable manner. The Subcontractor will seek to avoid injury, loss or damage to persons or property by taking reasonable steps to protect:

(a) employees and other persons at the site;

(b) materials and equipment stored at the site or at off-site locations for use in performance of the Subcontract Work; and

(c) all property and structures located at the site and adjacent to work areas, whether or not the property or structures are part of the project or involved in the Subcontract Work.

**9.15.2** The Subcontractor will submit a site specific safety plan that addresses the hazards/risks associated with the scope of work and control measures to manage the hazards/risks.

**9.15.3** The Subcontractor will give all required notices and comply with all applicable rules, regulations, orders and other lawful requirements established to prevent injury, loss or damage to persons or property.

**9.15.4** The Subcontractor will implement appropriate safety measures pertaining to the Subcontract Work and the project, including establishing safety rules, posting appropriate warnings and notices, erecting safety barriers, and establishing proper notice procedures to protect persons and property at the site and adjacent to the site from injury, loss or damage.

**9.15.5** The Subcontractor will exercise extreme care in carrying out any Subcontract Work which involves explosive or other dangerous methods of construction or hazardous procedures, materials or equipment. At all times the Subcontractor will use properly qualified individuals or entities to carry out the Subcontract Work in a safe and reasonable manner so as to reduce the risk of personal injury or property damage.

**9.15.6** The Subcontractor will promptly remedy any loss or damage caused to the Subcontract Work, materials, equipment and property if the loss or damage is not covered by insurance required under the Subcontract, but only to the extent caused in whole or in part by the Subcontractor and persons or entities performing work for or on behalf of the Subcontractor, regardless of tier, who have furnished labor, materials or services relating to the Subcontract and for whose acts the Subcontractor may be liable.

**9.15.7** The Subcontractor is required to designate an individual at the project site in the employ of the Subcontractor who will act as the Subcontractor's designated safety representative with a duty to prevent accidents. Unless otherwise identified by the Subcontractor in writing to B&BPILLC, the designated safety representative will be the Subcontractor's project superintendent.

**9.15.8** The Subcontractor has an affirmative duty not to overload the structures or conditions at the site and will take reasonable steps not to load any part of the structures, or site so as to give rise to an unsafe condition or create an unreasonable risk of personal injury or property damage. The Subcontractor will have the right to request, in writing, from B&BPILLC loading information concerning the structures at the site.

**9.15.9** The Subcontractor will give prompt written notice to B&BPILLC of any accident involving personal injury requiring a physician's care, any property damage exceeding One Hundred Dollars (\$100.00) in value, or any failure that could have resulted in serious personal injury, whether or not an injury was sustained.

**9.15.10** The Subcontractor will establish its own safety program implementing safety measures, policies and standards conforming to those required or recommended by governmental and quasi-governmental authorities having jurisdiction and by B&BPILLC and Owner, including, but not limited to, requirements imposed by the Subcontract Documents. The Subcontractor will comply with the reasonable recommendations of insurance companies having an interest in the project, and will stop any part of the Subcontract Work which B&BPILLC deems unsafe until corrective measures satisfactory to B&BPILLC will have been taken. B&BPILLC's failure to stop the Subcontractor's unsafe practices will not relieve the Subcontractor of the responsibility. A detailed written report of any accident will be furnished if requested by B&BPILLC. The Subcontractor will indemnify B&BPILLC for fines, or penalties imposed on B&BPILLC as a result of any safety violation by Subcontractor;  
see [Attachment F - Safety](#)

**9.16 PERMITS, FEES AND LICENSES** - The Subcontractor will give adequate notices to authorities pertaining to the Subcontract Work and secure and pay for all permits, fees, licenses, assessments, inspections and taxes necessary to complete the work in accordance with the Subcontract Documents.

**9.17 BACKGROUND CHECKS** - The Subcontractor will secure and pay for background checks for its employees in accordance with applicable state statutes necessary for the proper execution and completion of the Subcontractor's work. Subcontractor will specifically incorporate by reference this provision with all of its lower-tier subcontractors.

**9.18 DELEGATION OF SUBCONTRACTING OF DUTIES** - The Subcontractor is prohibited from delegating, transferring, conveying, relinquishing or otherwise disposing of the whole or any part of its duties under this Subcontract without the prior written approval of B&BPILLC. B&BPILLC's approval will not be unreasonably withheld. Lower-tier Subcontractors and suppliers approved by B&BPILLC on or before the effective date of this Subcontract may be listed below: [N/A](#)

prior written approval of B&BPILLC. This clause survives the termination or cancellation of this Subcontract.

## 9.19 MATERIALS SAFETY

**9.19.1** If the Subcontractor encounters asbestos containing material, formaldehyde, lead, or potentially toxic or otherwise hazardous material, including but not limited to mold, mildew, fungi or other similar microbial conditions in the performance of its work, or disturbs painted surfaces in pre-1978 homes and child-occupied facilities as defined by the EPA's Renovation, Repair & Painting Rule ("Hazardous Material"), Subcontractor will immediately stop work in the affected area and contact B&BPILLC for further instruction. Subcontractor will not disrupt, remove or in any way alter or dislodge any Hazardous Material. Subcontractor will take no further action in the area where the Hazardous Material was found without specific written direction from B&BPILLC. Subcontractor will indemnify and hold B&BPILLC harmless from and against any and all claims (including delay claims) and the costs of the claims, including attorneys' fees, remediation and damages for bodily injury and property damage which may arise as the direct result of the Subcontract Work in or around Hazardous Material, as well as any mold, mildew, fungi or other similar microbial conditions caused by the Subcontractor, its subcontractors, agents or employees in the performance of the Work. **UNDER NO CIRCUMSTANCES WILL B&BPILLC BE LIABLE FOR ANY INJURY TO SUBCONTRACTOR WHICH IS THE RESULT OF SUBCONTRACTOR'S EXPOSURE TO HAZARDOUS MATERIALS.**

**9.19.2** Material Safety Data (MSD) sheets as required by law and pertaining to materials or substances used or consumed in the performance of the Subcontract Work will be submitted to B&BPILLC by the Subcontractor. MSD sheets obtained by B&BPILLC from other subcontractors or sources will be made available to the Subcontractor by B&BPILLC.

**9.20 PREVAILING WAGES** - Subcontractor is responsible for determining the applicable prevailing wage requirements pertaining to Subcontractor's Work and will strictly comply with the requirements. Subcontractor will keep complete and accurate records containing the name, address, the occupational title or titles for the work performed, the rate of pay, daily and weekly hours worked for each occupational title, deductions made, and actual wages paid for work performed by each worker. Unless provided with specific documentation, Subcontractor will submit the attached Statement of Compliance, Exhibit A, and a reasonable number of certified copies of current payroll records on the form incorporated in this Subcontract as Exhibit A-1 with each request for payment. Receipt of the information will be a condition precedent to making any payments to the Subcontractor.

**9.21 COMPLIANCE WITH LAWS** - Subcontractor agrees to comply with all applicable statutes, rules, regulations, codes and ordinances of any federal, state or local government agency, applying to the Subcontract Work required by this Subcontract, including any authorized changes. Subcontractor further represents and warrants that it is fully licensed to perform the Subcontract Work, and it will keep all such licenses current and valid during the performance of the Subcontract Work. Subcontractor will obtain all necessary permits required to do the Subcontract Work.

**9.22 CONFIDENTIALITY** - All information, including without limitation specifications, samples, drawings, materials, know-how, designs, processes, and other technical, business, or financial information, that: (a) has been or will be supplied to Subcontractor by or on behalf of B&BPILLC; or (b) Subcontractor will design, develop, or create in connection with this agreement; as to individual items or a combination of components or both, and whether or not completed, and all derivatives of (a) and (b) that Subcontractor has or will design, develop or create are deemed to be "Confidential Information" of B&BPILLC. All Confidential Information is work made for hire and made in the course of services rendered. All rights to it belong exclusively to B&BPILLC.

B&BPILLC's Confidential Information will remain the property of B&BPILLC. It may not be used by Subcontractor for any purpose other than for performing this Subcontract, may not be disclosed to any third party, and will be returned to B&BPILLC upon the earlier of B&BPILLC's written request or completion of the Subcontract Work. If, with B&BPILLC's prior written approval, Subcontractor furnishes Confidential Information to a sub-tier supplier, Subcontractor will bind the sub-tier supplier to confidentiality requirements substantially identical to this provision and Subcontractor will remain responsible to B&BPILLC for any breach of this provision by its sub-tier suppliers. No disclosure, description or other communication of any sort will be made by Subcontractor to any third person of the fact of B&BPILLC's purchase of the work, the terms of this Subcontract, the substance of any discussions or negotiations concerning this Subcontract, or either party's performance under this Subcontract.

Any news release, public announcement, advertisement, publicity or any other disclosure concerning this Subcontract to any third party except as may be necessary to comply with other obligations stated in this Subcontract requires

**9.23 UNION LABOR** - The Subcontractor will comply with B&BPILLC's National Pneumatic Control Systems Installation & Service Agreement and will employ union labor for all work covered under the scope of the trade jurisdiction of the United Association of Journeymen and Apprentices of the Plumbing and Pipe Fitting Industry of the United States and Canada, AFL-CIO.

## ARTICLE 10 INSURANCE

Subcontractor will maintain, at its own expense and at all times during the course of this Subcontract, those insurance policies and minimum limits of coverage as designated below, with an A.M. Best's Insurance rating of A- or better:

- a) Commercial general liability coverage (including product liability, contractual liability and completed operations liability) in a sum no less than \$3,000,000.00;
- b) If automobiles will be used in performance of this Subcontract, automobile liability coverage in a sum no less than \$1,000,000.00;
- c) Workers' compensation coverage as required by any applicable law or regulation and in accordance with the laws of the state, territory, or province having jurisdiction over Subcontractor's employees; and
- d) Employer's liability coverage in an amount of no less than \$1,000,000.

Except for workers' compensation insurance, all policies of insurance will include B&B Partnership Initiative, LLC., its subsidiaries, and its and their respective officers, directors, shareholders, employees, and agents as additional insureds to the extent of Subcontractor's indemnification obligations pursuant to Article 11 of this Subcontract. All policies will provide that they are primary to and noncontributory with any and all insurance maintained by or afforded to an additional insured under such insurance.

All coverages and coverage limits required under this Subcontract can be met through any combination of primary and excess (umbrella) insurance policies allowed by law. The amount of insurance carried in compliance with the above requirements is not to be construed as either a limitation on or satisfaction of any obligations under this Subcontract.

If the Subcontractor's scope of work covers design/build responsibilities, the Subcontractor will at its expense, procure and maintain Errors and Omissions Insurance in an amount no less than \$5 million.

Subcontractor will not enter upon the work site without first submitting to B&BPILLC the Certificates of Insurance (COI) required by this Subcontract. Any delay caused by the failure to submit the Certificates of Insurance will be solely for the Subcontractor's account and Subcontractor will not be entitled to any extensions of time. Subcontractor will be responsible for any delays resulting from the failure to provide the Certificates of Insurance. As specified in: [Attachment G - Insurance Requirements](#)

## ARTICLE 11 INDEMNIFICATION

Subcontractor will, at its expense, defend and indemnify B&BPILLC and its subsidiaries, affiliates, and agents and their respective officers, directors, shareholders, and employees, and B&BPILLC's customers (collectively, "Indemnitees") from and against any and all loss, cost, expense, damage, claim, demand, or liability, including reasonable attorney and professional fees and costs, and the cost of settlement, compromise, judgment, or verdict incurred by or demanded of an Indemnitee ("Loss") arising out of, resulting from or occurring in connection with Subcontractor's negligence, willful misconduct, or breach of the terms of this agreement. All B&BPILLC remedies set forth in this Subcontract are in addition to, and will in no way limit, any other rights and remedies that may be available to B&BPILLC at law or in equity.

## ARTICLE 12 CHANGES, CLAIMS AND DELAYS

**12.1 CHANGES** - B&BPILLC may direct Subcontractor, in writing, and without invalidating this Subcontract, to make changes in the Subcontract Work within the general scope of this Subcontract, including additions, deletions or revisions. Subcontractor will make no changes in the Subcontract Work without written direction from an authorized B&BPILLC representative. If Subcontractor believes any written direction from B&BPILLC constitutes a change, then Subcontractor will provide written notice within ten (10) days of receipt by it of written direction. Subcontractor will not be compensated for any change made without written direction by an authorized B&BPILLC representative. No changes in the Subcontract Work will exonerate any surety or any bond given in connection with this Subcontract. Any changes in the

Parties Initials \_\_\_\_\_ / \_\_\_\_\_

Subcontract Work which are not in accordance with this Subcontract will be considered non-conforming and at B&BPILLC's option Subcontractor will repair or replace the Subcontract Work at no additional cost or leave the non-conforming Subcontract Work and accept a reduction in the Subcontract Price.

## CLAIMS

**12.2.1** If any dispute will arise between B&BPILLC and Subcontractor regarding performance of the Subcontract Work, any alleged Subcontract Work, or whether written directions constitute a change under Article 12.1 of this Subcontract, Subcontractor will timely perform the disputed Subcontract Work and will give written notice of a claim for additional compensation for the Subcontract Work within ten (10) days after the occurrence of the event giving rise to the dispute. Subcontractor's failure to give written notice within the ten (10) day period constitutes an agreement by Subcontractor that it will receive no extra compensation for the disputed Subcontract Work.

**12.2.2 CLAIMS RESOLUTION** - Except as otherwise set forth below, any dispute arising out of or relating to this Subcontract will be finally resolved by a sole arbitrator in accordance with the Center for Public Resources (CPR) Institute for Dispute Resolution Rules for Non-Administered Arbitration then currently in effect. The arbitration will be governed by the Federal Arbitration Act, 9 U.S.C. §§ 1-16, and judgment upon the award rendered by the arbitrator may be entered by any court having jurisdiction thereof. The place of arbitration will be at a location specified by B&BPILLC.

Either party may apply to the arbitrator seeking injunctive relief until the arbitration award is rendered or the controversy is otherwise resolved. Either party also may, without waiving any remedy under this Subcontract, seek from any court having jurisdiction any interim or provisional relief that is necessary to protect the rights or property of that party, pending the arbitrator's determination of the merits of the controversy.

Any dispute involving intellectual property rights will be adjudicated before a court of competent jurisdiction and this section will not be binding on either party with respect to the dispute in its entirety or any related dispute, including any portions of the dispute that do not concern intellectual property rights.

Subcontractor agrees, at B&BPILLC's sole discretion, to join and to participate in any dispute resolution process required by B&BPILLC's contract with the Customer and/or Owner if any dispute relates to Subcontractor's work. In the event that the Subcontractor makes a claim for additional compensation or any other relief that, in B&BPILLC's sole judgment, arises out of acts or conditions for which the Customer and/or Owner may be responsible, Subcontractor will participate in the dispute resolution process with the Customer and/or Owner and agreed to be bound by the results.

This agreement to arbitrate will not be deemed a limitation of rights or remedies under the laws of the United States of America, under applicable state mechanics' lien laws, or under applicable labor or material payment bonds unless the rights are expressly waived by the Subcontractor.

## 12.3 DELAY

**12.3.1** If Subcontractor's Work is delayed for any reason, including acts of B&BPILLC, Subcontractor's sole remedy will be an extension of time equal to the period of delay, provided Subcontractor has given B&BPILLC written notice of the commencement of the delay within forty-eight (48) hours of its occurrence. Subcontractor will not be entitled to an extension of time, however, for delays caused by Subcontractor, for delays that Subcontractor could have prevented or for delays which were foreseeable to the Subcontractor. If B&BPILLC, in its sole discretion, seeks compensation from the Customer as a result of any delay, then Subcontractor will be entitled to an equitable portion of any amount recovered by B&BPILLC, less a proportional share of the cost of pursuing said claim. This provision will not be construed to require B&BPILLC to pursue any delay claim against the Owner, Customer, or any other party.

**12.3.2 LIQUIDATED DAMAGES** - If B&BPILLC is obligated to pay liquidated or other damages, Subcontractor will be liable for such liquidated or other damages to the extent Subcontractor causes or contributes to any delay or other damages for which B&BPILLC may be liable.

**12.3.3 OTHER DAMAGES** - Notwithstanding the provision of article 12.3.2, and in addition, to the extent B&BPILLC incurs damages of any kind whatsoever, foreseeable or unforeseeable, by reason of Subcontractor's delay in performance or other breach of Subcontractor's obligations under this Subcontract, B&BPILLC will be entitled to recover damages from Subcontractor.

## ARTICLE 13 PAYMENT

## 13.1 GENERAL PROVISIONS

**13.1.1 SCHEDULE OF VALUES** - Within fourteen (14) calendar days from the date of execution of this Subcontract, the Subcontractor will prepare and submit to B&BPILLC a schedule of values apportioned to the various divisions or phases of the Subcontract Work. Each line item contained in the schedule of values will be assigned a monetary price so that the total of all items will equal the Subcontract Price. The schedule of values will be prepared in the detail as may be required by the Owner and, in addition B&BPILLC and Subcontractor may agree on the extent of the detail to be included in the schedule of values, which must be supported by the documents and proof as B&BPILLC may require.

**13.1.2 PAYMENT NOT ACCEPTANCE** - Payment to the Subcontractor does not constitute or imply acceptance of any portion of the Subcontract Work.

## 13.2 PROGRESS PAYMENTS

**13.2.1 APPLICATIONS** - Subcontractor's applications for payment will be itemized and supported by the Subcontractor's schedule of values and any other substantiating data as required in the Contract for B&BPILLC's payment applications. Subcontractor's applications will be notarized if required. Subcontract payment applications may include payment requests on account of properly authorized subcontract construction change directives. The Subcontractor's progress payment application for work performed in the preceding payment period will be submitted to B&BPILLC in accordance with the terms of this Subcontract for approval by B&BPILLC. B&BPILLC will incorporate the approved amount of the Subcontractor's progress payment application into B&BPILLC's payment application to the Owner for the same period and submit it to the Owner in a timely fashion.

**13.2.2 PARTIAL LIEN WAIVERS AND AFFIDAVITS** - As a prerequisite for payment, the Subcontractor will provide, in a form satisfactory to the Owner and B&BPILLC, partial lien and claim waivers for all work performed through the date of the application for payment, except as may be set forth in the application for payment, and similar waivers from its subcontractors, materialmen and suppliers for the completed Subcontract Work. The waivers may be conditional upon payment.

**13.2.3 REJECTION OF SUBCONTRACTOR'S PAYMENT APPLICATION** - B&BPILLC may reject a Subcontractor payment application or nullify a previously approved Subcontractor payment application, in whole or in part, as may reasonably be necessary to protect B&BPILLC from loss or damage based upon:

- (a) the Subcontractor's repeated failure to perform the Subcontract Work as required by the Subcontract;
- (b) loss or damage arising out of or relating to the Subcontract and caused by the Subcontractor to the Owner, B&BPILLC or others to whom B&BPILLC may be liable;
- (c) the Subcontractor's failure to properly pay for labor, materials, equipment or supplies furnished in connection with the Subcontract Work;
- (d) rejected, non-conforming or defective Subcontract Work which has not been corrected in a timely fashion;
- (e) reasonable evidence of delay in performance of the Subcontract Work where the work will not be completed within the subcontract period, and that the unpaid balance of the Subcontract Price is not sufficient to offset the liquidated damages or actual damages that may be sustained by B&BPILLC as a result of the anticipated delay caused by the Subcontractor;
- (f) reasonable evidence demonstrating that the unpaid balance of the Subcontract Price is insufficient to cover the cost to complete the Subcontract Work;
- (g) third party claims involving the Subcontractor or reasonable evidence demonstrating that third party claims are likely to be filed unless and until the Subcontractor furnishes B&BPILLC with adequate security in the form of a surety bond, letter of credit or other collateral or commitment which are sufficient to discharge such claims if established.

B&BPILLC will give written notice to the Subcontractor, at the time of disapproving or nullifying an application for payment, of the specific reasons. When the above reasons for disapproving or nullifying an application for payment are removed, payment will be made for amounts previously withheld.

**13.2.4 RETAINAGE/SECURITY** - B&BPILLC will withhold retainage at a rate of ten (10) percent.

**13.2.5 TIME OF APPLICATION** - For each progress payment period, the Subcontractor will submit its progress payment application to B&BPILLC for the Subcontract Work performed to date no later than seven (7) calendar days prior to the date that B&BPILLC's progress payment application is required to be submitted to the Owner under the Contract, unless otherwise agreed. To the extent allowed under Subparagraph 13.2.6 of this Subcontract, the Subcontractor may include in its progress payment applications to B&BPILLC materials and equipment suitably stored at the site or elsewhere for use in performance of the Subcontract Work.

**13.2.6 STORED MATERIALS AND EQUIPMENT** - Unless otherwise provided in the Subcontract Documents, applications for payment may include materials and equipment not incorporated into the Subcontract Work but delivered to and suitably stored at the site. Applications for payment may include materials and equipment delivered to and suitably stored off the site, if allowed under the Subcontract and properly approved. Approval of payment applications for materials and equipment stored on or off the site will be conditioned on submissions by the Subcontractor of bills of sale and applicable insurance or other procedures satisfactory to the Owner and B&BPILLC to establish the proper valuation of the stored materials and equipment, the Owner's title to the materials and equipment, and to otherwise protect the Owner's and B&BPILLC's interests, including transportation to the site.

**13.2.7 PAYMENT** – Invoices will be submitted to B&BPILLC utilizing one of the following methods:

- (a) electronically utilizing the Web based purchasing system, ACeSS WebPO; or
- (b) by submitting an invoice on the form attached to this Subcontract. Only those Subcontractors not participating in the Web based e-Invoice application should submit an invoice on the attached form.

Progress payments to the Subcontractor for satisfactory performance of the Subcontract Work will be made sixty-five (65) days from the date of a B&BPILLC approved Subcontractor invoice or such time as required by applicable state law, whichever is earlier. Payment will be scheduled for the first payment cycle following the net terms for the invoice. B&BPILLC's obligation to pay is specifically and expressly conditioned upon B&BPILLC receiving payment from the Customer for Subcontract Work. The price for the Subcontract Work will include all freight charges and all taxes assignable to the Subcontract Work.

**13.2.8 OFFSET** - If Subcontractor is in any way indebted to B&BPILLC, moneys due Subcontractor under this Subcontract may be withheld as an offset against other indebtedness.

**13.3 FINAL PAYMENT** - Final payment of the balance owed to Subcontractor will be made sixty-five (65) days from the date of a B&BPILLC approved Subcontractor invoice or such time as required by applicable state law, whichever is earlier. Payment will be scheduled for the first payment cycle following the net terms for the invoice. B&BPILLC's obligation to pay is specifically and expressly conditioned upon B&BPILLC receiving payment from Customer for Subcontract Work. However, Subcontractor will not be entitled to final payment until all Subcontract Work is completed. Subcontractor agrees to furnish, if and when required by B&BPILLC, payroll affidavits, receipts, vouchers, releases of claims for labor and material, and releases from its subcontractors and vendors, in a form satisfactory to B&BPILLC, prior to receipt of any payment.

**13.4 RELEASE AND LIEN WAIVER** - Subcontractor agrees to waive and release all lien and claim rights now existing or which may arise on the Subcontract Work and to furnish waivers of liens and claims from every person furnishing labor or material for the Subcontract Work in a form acceptable to B&BPILLC; and to protect B&BPILLC, the Subcontract Work, the Customer and the Owner from all expenses arising out of the Subcontractor's efforts under this Subcontract.

**13.5 TAX DEDUCTIONS** – B&BPILLC is solely entitled to the recovery of any deductions available pursuant to the Internal Revenue Code Section 179D, energy efficient commercial building deductions.

#### **ARTICLE 14 RECOURSE BY B&BPILLC**

**14.1 DEFAULT** - If, in B&BPILLC's exclusive judgment, the Subcontractor is failing to satisfactorily perform any aspect of the Subcontract Work including, but not limited to, failure to pay its creditors, B&BPILLC may, at its sole option, take whatever steps it deems necessary to correct any deficiency, including but not limited to:

- (a) requiring Subcontractor to correct, replace and/or re-execute, faulty or defective Subcontract Work done or materials furnished; and/or
- (b) requiring Subcontractor to increase the number of workmen assigned to the Subcontract Work and to use overtime labor or work on Saturdays, Sundays or holidays to complete the Subcontract Work on schedule; or
- (c) terminating this Subcontract and completing or correcting the Subcontract Work itself, or retaining others to do so. B&BPILLC may require materials of the Subcontractor to be left on the Subcontract Work site for use in completing or correcting the Subcontract Work.

Subcontractor will be responsible for all costs or expenses incurred by B&BPILLC as a result of Subcontractor's failure to satisfactorily perform.

**14.2 TERMINATION WITHOUT CAUSE** - B&BPILLC may terminate this Subcontract at any time without cause. If this Subcontract is terminated by B&BPILLC without cause and prior to completion, B&BPILLC's sole liability to Subcontractor will be limited to the Subcontractor's out-of-pocket costs for labor and material for the actual Subcontract Work performed by Subcontractor to the date of termination, which must be supported by reasonable and sufficient back-up data and documentation (as invoices and payroll records) substantiating Subcontractor's right to payment plus reasonable and agreed upon overhead and profits to the date of termination. Overhead and profits will in no event exceed fifteen percent (15%) of the actual cost of the actual Subcontract Work performed. B&BPILLC will have the right to ownership and possession of all materials paid for under this Subcontract. Under no circumstances will the Subcontractor be entitled to recover lost profits or any damages from B&BPILLC as a result of early termination nor will Subcontractor be entitled to any claim or lien against B&BPILLC or Customer.

#### **ARTICLE 15 NON-WAIVER**

The failure of either party to enforce at any time any of the provisions of this Subcontract will not be construed to be a continuing waiver of any provisions under this Subcontract, nor will any such failure prejudice the right of such party to take any action in the future to enforce any provisions of this Subcontract.

#### **ARTICLE 16 SEVERABILITY**

If any provision of this Subcontract is held to be illegal, invalid, or unenforceable by a court of competent jurisdiction, that provision will be severed from this Subcontract; the remaining provisions will remain in full force and effect; and a similar legal, valid and enforceable provision will be substituted in lieu of the severed provision.

#### **ARTICLE 17 GOVERNING LAW**

This Subcontract will be governed by the laws of the state where the Subcontract Work is performed, unless otherwise specified in the Subcontract Documents.

#### **ARTICLE 18 NO LICENSE**

No license by implication, estoppel or otherwise under any invention, patent, copyright, trade secret, trademark or other intellectual property right is granted to either party under this Subcontract.

#### **ARTICLE 19 ASSIGNMENT**

The Subcontractor will not assign this agreement or any rights or obligations under this agreement or subcontract all or any material aspect of the work called for without the prior written approval of B&BPILLC. Any assignment without B&BPILLC's written approval will be voidable at the option of B&BPILLC. B&BPILLC may assign this agreement or any rights or obligations under this agreement to any of its subsidiaries or affiliates or to any purchaser or successor to all or substantially all of the assets of the business or product line to which this agreement relates without Subcontractor's consent and upon written notice to Subcontractor.

#### **ARTICLE 20 UTILIZATION OF SMALL BUSINESS CONCERNS**

**20.1** B&BPILLC has committed, in connection with certain of its contracts with the U. S. Government, to award subcontract work to small business concerns. As part of this commitment, B&BPILLC has agreed to include Federal Acquisition Regulation ("FAR") 52.219-8 in its subcontracts that offer further subcontracting opportunities. Accordingly, to satisfy this obligation, B&BPILLC requires subcontractors to comply with FAR 52.219-8 if the subcontract offers further subcontracting opportunities.

For ease of reference FAR 52.219-8 (Utilization of Small Business Concerns) is set forth as follows:  
[http://www.acquisition.gov/far/current/html/52\\_217\\_221.html](http://www.acquisition.gov/far/current/html/52_217_221.html).

**20.2** Furthermore, with respect to subcontracts awarded by B&BPILLC that offer further subcontracting opportunities in excess of \$650,000 (\$1,500,000 for construction), B&BPILLC has committed, in connection with its U. S. Government contracts to flow down FAR 52.219-9 in all subcontracts unless exempted from compliance with the requirement by its own contract with the U. S. Government. Accordingly, to satisfy this obligation, B&BPILLC requires subcontractors to comply with FAR 52.219-9 if the subcontract allows further subcontracting opportunities in excess of \$650,000 (\$1,500,000 for construction) or to adopt a plan similar to the plan required by this clause.

For ease of reference FAR 52.219-9 (Utilization of Small Business Concerns) is set forth as follows:  
[http://www.acquisition.gov/far/current/html/52\\_217\\_221.html](http://www.acquisition.gov/far/current/html/52_217_221.html).

**ARTICLE 21  
SUSPENSION AND DEBARMENT**

**21.1** Subcontractor hereby certifies, for itself and all of its lower-tier subcontractors, that as of the date of the execution of this Agreement, the Subcontractor, nor any lower-tier subcontractors, nor any suppliers are under suspension or debarment by any governmental entity, instrumentality or authority.

**21.2** Subcontractor's obligations pursuant to this provision are ongoing from and after the effective date of this Agreement through the termination date

thereof. Accordingly, the Subcontractor will have an obligation to inform B&BPILLC if, at any time during the term of the Agreement, it or any of its lower-tier subcontractors are suspended or debarred by any governmental entity, instrumentality or authority. Such notification will be made within fifteen (15) days of the date of suspension or disbarment.

**21.3** The failure of the Subcontractor to notify B&BPILLC of any suspension or debarment by any governmental entity, instrumentality or authority will constitute an event of default of this Agreement with B&BPILLC.

**ARTICLE 22  
SURVIVAL**

All provisions of this Agreement which by their nature are intended to survive its Term will remain in force after any termination or expiration of this Agreement including, but not limited to, those addressing the following subjects: Subcontract Price; Payment; Warranty; Indemnification; Confidentiality; Insurance; Severability; Survival; Claims; and Governing Law.

**ARTICLE 23  
ENTIRE SUBCONTRACT**

**23.1** The Contractor shall assume toward the Subcontractor all obligations and responsibilities that the Owner, under such documents, assumes toward the Contractor, and the Subcontractor shall assume toward the Contractor all obligations and responsibilities which the Contractor, under such documents, assumes toward the Owner and the Architect. The Contractor shall have the benefit of all rights, remedies and redress against the Subcontractor that the Owner, under such documents, has against the Contractor, and the Subcontractor shall have the benefit of all rights, remedies and redress against the Contractor that the Contractor, under such documents, has against the Owner, insofar as applicable to this Subcontract.

**23.2** The Subcontractor is bound to Contractor to the same extent that Contractor is bound to the Owner; as applicable to subcontracted Scope of Work.

**23.3** This Subcontract and the Subcontract Documents contains the entire understanding between the parties with respect to the subject matter in this Subcontract and supersedes any prior representations or agreements, oral or written, and all other communications between the parties relating to the subject in this Subcontract. This Subcontract cannot be amended except by an instrument in writing executed by an authorized supply management representative of B&BPILLC and an authorized representative of the Subcontractor. The terms and conditions of the contract between B&BPILLC and Customer, and any other Subcontract Documents incorporated therein insofar as they relate in any way, directly or indirectly, to the Subcontract Work covered by this Subcontract, are hereby incorporated into this Subcontract.

**This Subcontract is entered into as of the date first written above.**

Subcontractor: Summit Mechanical, Inc.  
Sign: \_\_\_\_\_  
Print Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

B&B Partnership Initiative, LLC. (B&BPILLC)  
Sign: \_\_\_\_\_  
Print Name: Priscilla Brown  
Title: Principal  
Date: \_\_\_\_\_

**Sub Contract Agreement  
Section 2:**

**Attachment A –  
Scope of Work (SOW)**

**W60617556ETE**



## Attachment A – SCOPE OF WORK (SOW)

### 1.01 DEFINITIONS

The following definitions shall apply to this technical specification for CCTV Inspection Services:

- A. "OWNER": Baltimore City - Department of Public Works (DPW)
- B. "CCTV": Closed-circuit Television
- C. "CONTRACTOR": Service Provider awarded the work by Owner
- D. "Manhole Structure": When used to describe an access way to the sewer system or a starting/finishing location for line inspection, the term "Manhole Structure" should be construed as any access port to the sewer system.
- E. "Segment": When used to describe a section of the sewer line, the term "segment" should be construed as that portion of the sewer pipe between two Manhole Structures
- F. "NASSCO": National Association of Sewer Service Companies
- G. "PACP": Pipeline Assessment Certification Program
- H. "LACP": Lateral Assessment Certification Program
- I. "MACP": Manhole Assessment Certification Program
- J. "MUTCD": Manual on Uniform Traffic Control Devices
- K. "SUBCONTRACTOR": Service Provider awarded the work under this contract
- L. "WORK HOURS": Weekday hours between 7:30 AM and 5:00 PM

### 1.02 FIGURES

See [Attachment D - Sewer System Design \(Diagram \) Schedule](#)

### 1.03 SCOPE OF WORK

#### A. GENERAL

This section covers the cleaning and inspection of gravity sanitary sewer laterals and pipelines . The purpose of the work is to clean a sewer lateral and remove any settled,



accumulated, or attached debris, and then to conduct a NASSCO, PACP and MACP certified pipeline/manhole condition assessment.

- a. CONTRACTOR shall furnish all labor, materials, equipment, and incidentals necessary for the mobilization, traffic control, CCTV inspection and cleaning of approximately 5,300 Linear Feet (lf) of the 4-inch and 8-inch sanitary sewer laterals described herein.
- b. Sanitary Sewer Lines are to be cleaned and inspected by accessing mainline (trunks) and cleanout (see [Attachment J - Schedule of Values \(SOV\)/Payments](#) ).
- c. CONTRACTOR shall be solely responsible for safety during the performance of all work. The CONTRACTOR shall not enter any sewer segment where hazardous conditions may exist until the source of those conditions is identified and eliminated. The CONTRACTOR shall perform all work in accordance with the latest OSHA confined space entry regulations.
- d. CONTRACTOR shall take satisfactory precautions to protect the sewer segments and appurtenances from damage that might be inflicted upon them using cleaning and inspection equipment. Whenever hydraulically propelled cleaning tools, or any tools which retard the flow of water in the sewer segment are used, precautions shall be taken by the CONTRACTOR to ensure that the water pressure utilized does not result in any damage of the sewer line or flooding to public or private property.
- e. CONTRACTOR shall perform cleaning and inspection services between the hours of 7:00 am and 3:00 pm, and as indicated traffic control permits, to be acquired by the CONTRACTOR.
- f. Sewers that have excessive flow prohibiting cleaning or inspection services, shall be cleaned during low flow hours – between 11:00 p.m. and 6:00 a.m. at no extra cost to the B&BPILLC. CONTRACTOR shall coordinate after hours work with the B&BPILLC and attain the appropriate traffic control permits for nighttime work. CONTRACTOR shall communicate which lines require this low flow cleaning 3 days prior to commencement of night-time work.

#### B. PERMITS AND TRAFFIC CONTROL

- a. CONTRACTOR shall provide Traffic Control plans if required by the appropriate permitting agency. CONTRACTOR shall obtain and pay for all permits.
- b. In addition, CONTRACTOR shall provide all traffic control in accordance with the latest CALTRANS regulations and MUTCD guidelines. Additional local regulations shall have precedence. CONTRACTOR shall supply all signs, barriers, markers, and flagmen as required to maintain traffic.
- c. See [Attachment E - Maintenance of Traffic \(MOT\)](#)

#### C. CLEANING



Combination sewer cleaners with high velocity jetting and vacuum removal equipment shall be utilized to perform cleaning of sewer lines and manholes throughout the sewer system.

- a. The intent of sewer pipeline/manhole cleaning is to (1) remove foreign materials from sewer lines to restore the capacity of the lines to their design hydraulic capacity (2) remove foreign materials from sewer lines to allow for complete pipeline condition assessment according to PACP standards, and (3) remove foreign materials from manholes.
- b. Debris and obstructions to be removed prior to inspection include, but are not limited to, sludge, mud, sand, gravel, rocks, bricks, grease, pieces of broken pipe, roots, rags, encrusted hardened debris, protruding taps, foreign materials, etc. The inspection of the sewer lines and manholes shall not proceed until the cleaning and preparation has been completed to the satisfaction of the standards detailed in Section 3.05.

#### D. CCTV INSPECTION

- a. Electronic digital recordings shall be made of the CCTV inspections and copies of both the recordings and inspection reports shall be supplied to OWNER.

### 1.04 SUBMITTALS

The CONTRACTOR shall submit the following to the OWNER:

#### A. PRE-INSPECTION SUBMITTALS

Inspection operations shall not commence until the following have been received, reviewed, and approved by the OWNER where noted.

- a. A description, including the manufacturer's specifications, for all CCTV equipment, including the 360-Degree Digital Scanning Equipment for manhole inspections.
- b. A description of the traffic control plan for the temporary closing of streets or traffic lanes and rerouting of traffic if necessary. The traffic control plan shall include the anticipated length of time that each specific street will have traffic disruptions and shall conform to the regulations and standards in effect for the affected jurisdiction and Caltrans. Final scheduling shall be coordinated with the affected jurisdiction for defining street detours, closings and interruptions of service for mass transit. CONTRACTOR will obtain and pay for all permits.

## B. PROGRESS SUBMITTALS

Progress reports shall be submitted for OWNER review no later than seven (7) days after the inspection took place. Progress reports shall document work completed and shall include the following:

- a. CONTRACTOR's log sheets, with a section by section breakdown including comments, shall be maintained on site, in a legible manner for review always.
- b. The PACP data collection system used for CCTV shall be compatible with the District's asset management system. The data shall be sent to the District in acceptable PACP Exchange database file format. The system shall be able to produce reports in PDF format to include, at a minimum, all observation points, pertinent data, and defect images for a sewer main segment. All observations in the reports shall match the defect codes in accordance with PACP naming conventions.
- c. Summary table (in MS Excel 2016, MS Word 2016, or later format) listing sewer segments cleaned (using unique numbering system to be provided by the OWNER), location, unique inspection tracking number, and any relevant notes. Summary shall be in accordance with deliverables outlined in section 3.05 (Deliverables).
- d. All CCTV inspection footage shall be submitted on a portable hard drive. Each hard drive shall be labeled as discussed in Section 3.03 B. All CCTV inspection footage/video clips (with audio) shall use the one of the most current NASSCO PACP certified inspection software. The video recordings of the sewer inspections shall be made using digital video equipment. The digital recording equipment shall capture sewer inspection on USB memory or hard drive, with each sewer line inspection recorded as an individual .mpeg file or approved equal. The digital recording shall be free of electrical interference and shall produce a clear and stable image. Files shall be named using a unique naming/numbering system to be provided by OWNER.

### 1.05 QUALITY ASSURANCE / TRAINING REQUIREMENTS (Included in Proposal)

- A. Qualifications of the Inspection Crew Supervisor shall have five years minimum experience and be NASSCO certified with all current LACP, PACP and MACP procedures.
- B. OWNER reserves the right to approve personnel used and to request new personnel if the personnel used is not performing to the satisfaction of OWNER.

- C. CONTRACTOR shall utilize a commercial-off-the-shelf (COTS) NASSCO certified CCTV data collection/inspection software package furnished by a single manufacturer who is fully experienced, reputable and qualified in the manufacture of the equipment to be furnished.
- D. CONTRACTOR's employees responsible for data collection and preparation of the final inspection report shall each have a minimum CCTV inspection experience level of 5-years and have experience spanning the full operational capabilities of the NASSCO certified software package. Evidence of experience shall be provided to OWNER in advance of the work for each person operating the inspection equipment and preparing the final inspection reports.
- E. The methodology of evaluation, data collection, condition assessment, and reporting criteria shall be based upon the latest edition of the NASSCO guidance for all CCTV inspections under this contract.
- F. All inspection equipment technicians and operators shall have been trained and certified to assess the conditions of the sewers according to the NASSCO guidelines. Training of personnel shall be through the Pipeline Assessment and Certification Program (PACP). Proper evidence of certification shall be provided to the OWNER in advance of the work for each person assessing the sewers and operating the inspection equipment.

#### **1.06 PROJECT DESCRIPTION, REQUIREMENTS, AND CONDITIONS**

The City sewer line segments and appurtenances to be cleaned and inspected (unless noted otherwise) under this contract include portions of the City sewer system that are 4-inch through 8-inch diameter lateral lines, and associated trunk (mainline) and manhole structures.

- A. CONTRACTOR shall field verify all conditions and anticipate any increased coordination and setup time for cleaning/inspection operations prior to commencing work.
- B. Manhole Structures along the segments to be accessed may be located in high vehicle traffic areas. As such, accessing these Manhole Structures may require special consideration, coordination, and compliance with the requirements of local jurisdictional Right-Of-Ways. CONTRACTOR shall field verify all conditions and anticipate any increased coordination and set-up time for inspection operations prior to commencing work.
- C. All work performed, and equipment utilized by CONTRACTOR shall conform to Occupational Safety and Health Administration (OSHA) and Maryland Occupational Safety and Health (MOSH) requirements, including, but not limited to, work performed in confined spaces. CONTRACTOR shall provide a minimum of a two-person crew at all times.

- D. CONTRACTOR shall be responsible for managing and controlling traffic in a safe manner at all times, including, but not limited to reconnaissance and CCTV inspection activities.
- E. CONTRACTOR shall provide necessary equipment to meet local noise restrictions.
- F. In the event of a sewer overflow, interruption, or contamination caused by CONTRACTOR's actions, CONTRACTOR shall immediately notify OWNER and shall contain overflow and/or contamination. CONTRACTOR shall be responsible for any fines levied by others, reimbursement of any OWNER-incurred costs, damage, cleanup, restoration of flow, and any disruption of service costs. CONTRACTOR shall also notify OWNER immediately of any observed non-CONTRACTOR related spills and/or any abnormal conditions.

#### **1.07 DISPOSAL OF WASTES**

- A. Sewer cleaning and flushing waste shall be collected by CONTRACTOR and disposed of at the City of Baltimore's Wastewater Treatment Plant, or appropriate location approved of by Baltimore City's - DPW. The CONTRACTOR shall submit notification in writing to the City outlining the dates and method of disposal at this facility seven (7) days prior to starting work.
- B. A receipt for disposition of these materials shall be obtained from consignee, and a certified copy given Owner showing amounts and destination or end use.

#### **1.08 MEASUREMENT AND PAYMENT**

- A. CONTRACTOR shall be paid based on the actual work performed in accordance with the unit rate schedule provided on CONTRACTOR's Cost Proposal Form (Exhibit A). Services under this agreement shall be as requested and needed. OWNER will not be obligated to any minimum or maximum quantities under the agreement.
- B. CONTRACTOR shall reference submitted inspection reports and supporting documentation and data with each monthly itemized invoice.
- C. All CCTV data shall be provided in accordance to the specifications of this Scope of Work. Failure to abide by the stipulations in this Scope of Work or any of the Terms and Conditions of the agreement could result in non-payment and might require re-inspection by the CONTRACTOR prior to approval of any invoices.

## **PART 2: CCTV PRODUCTS**

### **2.01 VIDEO INSPECTION EQUIPMENT**

A. CONTRACTOR shall furnish the inspection studio, television cameras, video capture equipment, data collection/inspection software, and any other necessary equipment, materials, electricity, labor and technicians as may be required to perform the inspections.

B. CLOSED CIRCUIT TELEVISION CAMERA

The camera used for the inspection shall be one specifically designed and constructed for sanitary sewer inspection. Lighting for the camera shall be suitable to allow a clear picture of the entire periphery of the pipe. The camera shall be operative in 100 percent humidity/submerged conditions. The camera equipment will provide a view of the pipe ahead, and of features to the side of the camera through turning and rotation of the lens. The camera shall be capable of tilting at right angles along the axis of the pipe while panning the camera lens through a full circle about the circumference of the pipe. The lights on the camera shall also be capable of panning 90-degrees to the axis of the pipe. Cameras incorporating mirrors for viewing sides or using exposed rotating heads are not acceptable. The camera lens shall be an auto-iris type with remote controlled manual override. The camera unit and tether cable shall be cable of inspecting two complete, consecutive sewer reaches with access approximately 1,000 feet apart. If the equipment proves to be unsatisfactory to the District, it shall be replaced with adequate equipment.

Additional requirements:

- a. Video inspections shall be performed by a certified NASSCO PACP trained operator.
- b. The cameras shall meet Cal-OSHA requirements for operating in the sanitary sewer system.
- c. The CONTRACTOR's CCTV equipment shall include video cameras, a video monitor cable, power sources, and all equipment necessary to perform a CCTV inspection as outlined in this Technical Specifications.
- d. The cameras shall have Pan-and-Tilt capabilities and shall have a minimum of 360 x 270-degree rotation and illumination sensitivity shall be three lux or less and provide a minimum of 460 lines of resolution.

- e. During CCTV inspection, lighting intensity shall be adjusted to minimize glare. Lighting and picture quality shall be adjusted to provide a clear, in focus picture of the entire periphery of the pipeline for all conditions encountered.
- f. All camera systems shall be able to navigate around minor objects, roots, and debris. The system used to move the camera through the pipe shall not obstruct the camera's view or interfere with proper documentation of the sewer conditions.
- g. The camera cable shall be retracted to remove slack and to ensure an accurate footage reading.
- h. The distance shall be measured between the exit of the start manhole and the entrance of the finish manhole for a true measurement of the length of the pipe segment, as required by PACP. It shall be recorded in standard units and the video display readout shall display units to one-tenth of a foot.
- i. The cable footage-counter shall be accurate to plus or minus 2 feet per 1,000 feet.
- j. Video inspection and reporting shall be submitted in a NASSCO compatible format.
- k. The camera lens shall be kept clear of condensation and debris during the CCTV inspection.

#### C. PICTURE QUALITY

The camera, viewing monitor and other components of the inspection system shall be capable of producing picture quality to the satisfaction of the District and shall provide an image that meets the following specifications, or approved equal.

- a. The gray scale shall show equal changes in brightness ranging from black to white with a minimum of five stages.
- b. With the monitor control correctly adjusted, the six colors - Yellow, Cyan, Green, Magenta, Red, and Blue, plus black and white shall be clearly resolved and gray scale shall appear in contrasting shades of gray with no color tint.
- c. The picture shall show no convergence or divergence over the whole of the picture.

- d. The camera shall record at a minimum of 460 lines of horizontal resolution and have a clear, stable image with no interference.
- e. Lighting intensity shall be remote controlled and shall be adjusted to minimize reflective glare.
- f. Lighting and camera quality shall provide a clear, in-focus picture of the entire inside periphery of the sewers for all conditions except submergence. Under ideal conditions (no fog in the sewer) the camera lighting shall allow a clear picture of the entire periphery of the sewer for at least five pipe diameter lengths away. The lighting shall provide uniform light free from shadows or hot spots.
- g. Camera focal distance shall be remotely adjustable through a range of 2 inches to infinity.
- h. The video camera shall be capable of displaying on screen data as specified in Part 3.05.
- i. The camera shall have zoom capabilities to be able to view the entire depth of a 20-foot-deep manhole from the bottom during inspection.
- j. The picture shall be free from debris or moisture buildup on the camera lens.

D. VIDEO CAPTURE SYSTEM

The system shall use one of the most current NASSCO PACP certified inspection software. The video recordings of the sewer inspections shall be made using digital video equipment. The digital recording equipment shall capture sewer inspection on USB memory or hard drive, with each sewer line inspection recorded as an individual .mpeg file or approved equal. The digital recording shall be free of electrical interference and shall produce a clear and stable image.

E. STILL IMAGES

The equipment and software shall be capable of producing digitized images of all sewer line defects, manhole defects, and sewer line service connections in .jpeg format. The CONTRACTOR shall take digital still images of each defect, construction features and service connection to clearly depict it. More images may be necessary depending upon the condition of the pipe.

F. REPORTS

The data shall be sent to the District in acceptable PACP Exchange database file format. The system shall be able to produce reports in PDF format to include, at a minimum, all observation points, pertinent data, and defect images for a sewer main segment. All observations in the reports shall match the defect codes in accordance with PACP naming conventions.

**G. SOFTWARE**

The Software used for the CCTV inspection shall be:

- a. Wincan
- b. Granite XP
- c. POSM
- d. Or Approved, NASSCO Certified Equal

**2.02 DATA COLLECTION / INSPECTION SOFTWARE**

**A. LOGGING AND REPORTING**

- a. CONTRACTOR shall collect all CCTV inspection data using a NASSCO compliant database format. Data shall be delivered to OWNER in approved formats per Sections 1.04 and 1.05. CONTRACTOR shall provide documentation of any additional data fields used during the inspection to satisfy the minimum data requirements of NASSCO standard. File names of database files, JPEG files, and MPEGs shall use a logical sequence which utilizes B&BPILLC unique sewer reach numbering, Manhole Structure numbers, and/or pipeline segment numbers in the filename to allow for quick recognition of location based on file name. Naming conventions shall be standardized and coordinated with OWNER prior to beginning CCTV work.
- b. Each segment of pipe inspected shall be identified by a starting and ending Manhole Structure number as indicated by OWNER prior to the CCTV inspection. As such, each segment of pipe shall be tracked as starting identification number to ending identification number. In the event that an additional access point is used by CONTRACTOR, such point shall be identified by CONTRACTOR using the same numbering convention. The locations of all additional or non-located access points shall be noted and provided to OWNER.
- c. The software package shall include provisions for collecting information specific to Manhole Structures and all other sewer access points.
- d. The software shall be pre-programmed with the pipeline defect conditions described in the NASSCO guidance and shall be flexible enough to allow customization by OWNER.



- e. The footage reading from the camera equipment shall be automatically entered into the survey log and shall directly correspond to the noted defect location throughout the pipe when graphic and tabular reports generated. The graphical reports shall print in color for quick glance referencing of the defect category.
- f. The software shall be capable of compiling data from multiple inspections, sorting the data based on a user defined description field, and providing the data in summary reports.
- g. The software shall be capable of translating field data to the GIS database used by the District and in accordance with NASSCO standards.
- h. All relevant pipe segment information shall be entered prior to the actual survey. The below listed minimum survey detail must be supplied in the software for proper segment documentation. The graphic and tabular survey reports generated shall include the below listed information as well as Manhole Structure inspection observations, pipe centerline footage count, condition grade and defect description, defect location reference including clock description, severity and special remarks:
  1. B&BPILLC Contract Name
  2. B&BPILLC Contract Number
  3. CONTRACTOR Name
  4. CONTRACTOR's Operator Name
  5. Inspection or Survey Date
  6. Inspection Start Time
  7. Sewer Pre-cleaned prior to inspection? Y/N
  8. Ambient weather conditions
  9. Starting Manhole Structure identification no.
  10. Ending Manhole Structure identification no.
  11. Starting Maintenance Access Structure depth (rim to invert) and/or structure dimensions (field verified)
  12. Ending Maintenance Access Structure depth (rim to invert) and/or structure dimensions (field verified)
  13. Direction of survey (upstream / downstream)
  14. Pipe shape
  15. Pipe diameter and/or height and width
  16. Pipe construction material
  17. Pipe liner material
  18. Pipe joint lengths
  19. Pipe total segment length (field verified)

20. Total surveyed length in segment
21. Digital File number

B. DIGITAL VIDEO SYSTEM

- a. The software package shall allow the video surveys to be recorded as digital MPEG files (see Section 1.04). The MPEG files shall have indexes to the defect observations saved as a time reference. One MPEG file shall be provided for each Manhole Structure-to-Manhole Structure pipe segment. MPEG compression shall not significantly degrade the still frame quality of the video signal from the original source video.
- b. Non-digital media will not be accepted. CONTRACTOR shall re-inspect the requested segments if any of the digital recording equipment fails during the inspection.
- c. The software package shall include video image capture capabilities. The software shall be capable of capturing multiple color video frames of the defects found during inspection and attaching these images to the inspection reports. CONTRACTOR shall be required to take video frame snapshots of all defects.
- d. The image capture system shall be capable of recording multiple video clips of an observation of between 5 and 20 seconds in duration. CONTRACTOR shall be required to record video clips of continuous structural defects, such as longitudinal cracks, with a grade rating to show the magnitude of the defect, or of service defects, such as infiltration, to show the degree of the defects.
- e. Footage count and elapsed time shall be captured on the corresponding video image and shall appear on the reports indicating the elapsed time and correct centerline footage measurements of when the image was captured during inspection.
- f. Defect images in the reports shall appear in a highlighted color, based on the nature of the defect, on both the computer monitor and on the printed reports.
- g. The CONTRACTOR shall provide the OWNER with any codecs or special software, if required, to play the CCTV videos. All CCTV videos shall be compatible with standard multimedia players (i.e. Windows Media Player, QuickTime, etc.)
- h. The CONTRACTOR shall be able to provide a digital copy of the recorded footage from the field, soon after inspection and on a USB or portable hard drive.

## **PART 3: CCTV AND CLEANING EXECUTION**

### **3.01 EVALUATION CRITERIA**

- A. Sewer condition grades for all CCTV evaluations in this contract shall be based upon the condition grade schedule presented in the latest edition of the NASSCO guidance, unless otherwise specified/customized by OWNER.
- B. The worst defect along the individual sewer segment shall be used to give a single condition grade for that particular sewer segment; i.e., the grade for the sewer segment is based on the worst internal condition grade along the sewer segment.
- C. It shall be the responsibility of the CONTRACTOR to ensure that defects are reported uniformly and consistently by all inspection crews.
- D. Pre-Cleaning: Inspection shall not commence until the sewer segment to be inspected has been completely cleaned in conformance with Part 3.05. Pre-cleaning shall not have been completed more than 48 hours in advance of the inspection. If pre-cleaning precedes an inspection by more than 48 hours the inspection will be rejected, and the sewer segment shall be re-cleaned and re-inspected at no additional cost to the District.

### **3.02 PROCEDURE**

- A. Prior to opening Manhole Structure covers or other access points, the atmosphere of the access point shall be checked by CONTRACTOR to ensure a non-explosive and non-hazardous atmosphere. The portable gas detection equipment shall measure and alarm the following hazardous gasses: hydrogen sulfide, carbon monoxide, methane, and low oxygen. CONTRACTOR shall ventilate all access points as required for the safe execution of the work in this contract. CONTRACTOR shall ensure that at no time the ventilation be the cause of public nuisance odor problems.
- B. Many of the Manhole Structures along the segments to be inspected under this contract have not been opened for extended periods and, therefore, may be surcharged. As such, CONTRACTOR shall exercise caution when accessing all Maintenance Access Structures.
- C. The camera shall be moved through the sewer segment at a uniform rate, stopping when necessary to ensure proper documentation of the sewer's condition, or to "image capture" defects. At no time shall the television camera be pulled at a speed greater than 40 feet per minute. Manual winches, power winches, TV cable and powered rewinds or other devices (crawler camera) that do not obstruct the camera view or interfere with proper documentation of the sewer conditions shall be used to move the camera through the sewer line.
- D. The camera shall be stopped to inspect any areas of concern by using the pan and tilt feature of the television camera. For the purposes of this technical specification, an "area of concern" shall be considered as any one of the following:

- a. Locations of structural damage to the piping, Manhole Structures and other appurtenant structures, including sagging, cracked or collapsed segments.
  - b. Joints which appear to be damaged, incorrectly installed, shifted, or in any way deficient.
  - c. Areas in which noticeable infiltration is occurring. The approximate flow into the pipe at these locations shall be recorded as a field observation.
  - d. Unusual or deficient conditions such as roots, storm sewer connections, and the presence of vermin, scale, corrosion, grease and grit.
  - e. Any other discernible feature or condition which, in the opinion of CONTRACTOR or OWNER, may pose a problem to the integrity or functionality of the sewer.
- E. Whenever possible, CONTRACTOR shall complete the inspection of a pipe segment in one continuous run. CONTRACTOR shall complete each sewer segment in its entirety before stopping work for the day. No partial segment of sewer inspection shall be permitted. In the event of an obstruction, CONTRACTOR may access the pipeline from the other direction.
- F. CONTRACTOR shall provide a minimum of four video frame snapshots per segment of pipeline between Maintenance Access Structures regardless of the condition of the pipeline segment.
- G. All formatted data, video and corresponding reports shall be submitted on USB or hard drive to the OWNER no later than seven (7) days after CCTV inspection took place. All USB storage and hard drives shall become the property of the OWNER once submitted.

### 3.03 CCTV PERFORMANCE

- A. Color CCTV. All CCTV work shall use color CCTV reproduction.
- B. CCTV Picture Quality. An approved test device shall be provided and be available on site throughout the Contract, enabling the tests specified in this clause to be checked. The CONTRACTOR shall test the camera at the start of each shift.
- C. The electronic systems, television camera and monitor shall be of such quality as to enable the following to be achieved:
  - a. **Shades of Gray.** The gray scale shall show equal changes in brightness ranging from black to white with a minimum of five clearly recognizable stages.
  - b. **Color.** With the monitor adjusted for correct saturation, the six colors plus black and white shall be clearly resolved with the primary and complementary colors in order of decreasing luminance. The gray scale shall appear in contrasting shades of gray with no tint.
  - c. **Linearity.** The background grid shall show squares of equal size, without convergence/divergence over the whole of picture. The center circle shall appear round and have the correct height/width relationship ( $\pm 5\%$ ).

- d. **Resolution.** The live picture must be clearly visible with no interference and capable of registering a minimum number of TV lines/pictures height lines. The resolution shall be checked with the monitor color turned down. In the case of tube cameras this shall be 600 lines.
  - e. **Color Constancy.** To ensure the camera shall provide similar results when used with its own illumination source, the lighting shall be fixed in intensity prior to commencing the inspection. To ensure color constancy, generally no variation in illumination shall take place during the inspection.
  - f. The CONTRACTOR shall note that OWNER may periodically check both the live and video picture consistency against the color bar. Any differences shall require re-inspect of the new length or lengths affected, at the CONTRACTOR's expense.
- D. Video File Playback. Video file playback shall be capable of a resolution of a minimum of 460 lines of resolution.
- E. CCTV Focus/Iris/Illumination. The adjustment of focus and iris shall allow optimum picture quality to be achieved and shall be remotely operated. The adjustment of focus and iris shall provide a minimum focal range from 6 inches in front of the camera's lens to infinity. The distance along the sewer in focus from the initial point of observation shall be a minimum of twice the vertical height of the sewer. The illumination must be such as to allow an even distribution of the light around the sewer perimeter without the loss of contrast, flare out of picture or shadowing.

### 3.04 MANHOLE INSPECTION

#### A. 360-DEGREE DIGITAL SCANNING AND VIDEO EQUIPMENT

- a. The inspection camera system must be 100% digital. Any analog or NTSC video camera will be deemed unacceptable.
- b. The manhole inspection camera system shall be able to travel in both upward and downward directions and shall allow for camera adjustment so that it is centered within the manhole.
- c. Lighting:
  - i. The inspection camera system must be capable of illuminating the interior of the manhole being assessed to evenly and adequately distribute the light evenly onto the structure walls.
  - ii. Manhole inspection equipment must be able to illuminate manholes up to 120" in diameter without the need of any auxiliary lighting.
  - iii. Lighting systems that result in assessments with motion blur, lack of still photo clarity, insufficient illumination, etc. will not be accepted and will be repeated at the CONTRACTOR's expense.

- d. The inspection camera system must have independently or simultaneously controlled digital cameras that provide complete coverage of the interior of the structure to allow for a complete, 360-degree field of view when compiled. Field views from multiple camera systems must sufficiently overlap to enable near seamless compilation.
- e. The digital files must include a distortion-free virtual pan and tilt allowing the review of the asset from any angle throughout the extents of the manhole. The virtual pan and tilt must be able to view 360 degrees in any direction. The virtual pan and tilt that exhibit image distortion in any view will not be accepted.
- f. The inspection system shall be capable of producing individual images or frames with no more than 0.001 inches of movement during image or frame exposure to produce crisp, clear images.
- g. The inspection camera must provide a minimum of 3000 line of vertical resolution in the side view and a minimum of 500 lines in the perspective view.
- h. The digital files must include the capability to produce a three-dimensional representation of the manhole. This data shall allow for the performance of geometric measurements and be exportable to common computer-aided design software.
- i. The digital files must include an unfolded view of the manhole asset being inspected.
- j. 360 Degree Digital Scanning Manhole Inspection Equipment shall be a:
  1. SpiDer Scanner
  2. CleverScan
  3. Or an approved equal

### **3.05 FORMATTING**

#### **A. VIDEO**

At the start of each segment, a data generator shall electronically generate and clearly display on the viewing monitor and video recording a record of data in alphanumeric form containing the following minimum information:

- a. Automatic update of the camera's position, in feet and tenths, in the sewer line from adjusted zero. The distance reading entered on to the data display at the cable calibration point must allow for the distance from the start of the survey to the cable calibration point such that the footage at the start of the survey is zero.
- b. Diameter and length of sewer line, type of material sewer line is composed of, linear material type, etc.

- c. Upstream Manhole Structure and downstream Manhole Structure District's identification numbers.
- d. Direction of inspection (upstream or downstream)
- e. Date and starting time of the inspection.
- f. Operator's/Surveyor's name
- g. Street Name

Once the survey of the pipeline is under way, specific data should be continuously displayed on the viewing monitor and video recording. The size and position of the data display shall be such as not to interfere with the main subject of the picture yet shall be easily readable when the recording is replayed. At a minimum, the following data should be displayed:

- a. Automatic update of the camera's position, in feet and tenths, in the sewer line from adjusted zero.
- b. Upstream Manhole Structure and downstream Manhole Structure District identification numbers.

Each segment length (consecutive Maintenance Access Structure to Maintenance Access Structure) shall be entered on a separate coding sheet. Thus, where CONTRACTOR elects to "pull through" a Manhole Structure during a CCTV survey, CONTRACTOR shall start a new coding sheet at the Manhole Structure "pulled through" and shall reset the distance to zero on the coding sheet, viewing monitor, and video recording.

#### B. USB/HARD DRIVE DEVICE

Permanently label each USB/HARD DRIVE with the following information:

- a. CIBCSO SEWER CCTV INSPECTION
- b. Reach:
- c. CONTRACTOR:
- d. USB/HARD DRIVE No:
- e. Date Inspected:
- f. Start MH:
- g. Finish MH:

### 3.05 CLEANING PROCEDURES

#### A. GENERAL

- a. The normal cleaning operation shall be to propel the jet from the downstream manhole towards the upstream manhole at a low pressure not to exceed 1,500

psi, and then slowly pull the jetting nozzle back at a higher pressure not to exceed 2,500 psi for 8" and 10" pipe, thereby pulling any debris back to the downstream manhole. The pullback rate on jetting shall not be greater than three feet per second.

- b. During the cleaning, the operator shall watch the flow of debris to the manhole from where the jetting began. If no debris is present, then a single cleaning pass shall be sufficient. If debris is encountered the entire sewer segment shall be cleaned repeatedly until debris is no longer present. If after the second pass of cleaning, there is still a sign of significant dirt and gravel the cleaning operation for that pipe shall cease and the District Inspector shall be notified that heavy cleaning of the line is required.
- c. If cleaning of an entire sewer segment cannot be successfully completed from the downstream manhole, the CONTRACTOR shall inspect the sewer line using CCTV methods to identify the cause of the problem. The CONTRACTOR shall not approach the segment from the upstream manhole.
- d. If the CONTRACTOR is unable to successfully clean a sewer line the CONTRACTOR shall inform the District Inspector on the same day.

#### B. MATERIAL REMOVAL

- a. All sludge, dirt, sand, rocks, grease, roots, and other materials resulting from sewer cleaning operations shall be removed at the manhole from which the CONTRACTOR is jetting using the equipment's vacuum system. Those materials which cannot be removed using the vacuum shall be completely removed using alternative methods. Passing material from one sewer line to another shall not be permitted. Material from cleaning operations shall not be stored in manholes.
- b. All material generated in sewer cleaning shall be disposed of at a location chosen by the CONTRACTOR. The CONTRACTOR shall be responsible for delivering the materials to the disposal location (listed in Section 1.07.E of this specification).
- c. Dewatering of the combination sewer cleaner tank shall be discharged into the sanitary sewer system at a manhole downstream of the pipe segments that have been cleaned. However, no sediment, debris, rocks, stones or sand shall be discharged into the District's sewer collection system.

#### C. MANHOLE CLEANING

Both the upstream and downstream manholes are to be cleaned as a respective sewer segment is cleaned. The high-pressure hand gun system shall be used to clean all components of a manhole including the frame, rim, corbels, walls, troughs and inverts. No payment for work performed shall be made until the manholes at both ends of the sewer segment are satisfactorily cleaned. Manhole cleaning shall be in accordance with NASSCO MACP certified guidelines.



#### D. ROOT REMOVAL

- a. If during the cleaning process the operator observes significant quantities of roots being pulled back to the manhole, or the operator performing the inspection encounters any amount of roots more than a "Roots - Fine" classification as defined in the PACP Reference Manual, the CONTRACTOR shall use appropriate hydraulically driven equipment to remove the roots.
- b. Roots shall be removed where root intrusion has either diminished the design hydraulic capacity, or prevented or diminished the quality of the inspection by obscuring any area of the pipeline.
- c. Only physical removal of the roots from the sewer line will be allowed, no chemical removal methods may be used. Root removal equipment may include the following: hydraulically driven root cutting blade assemblies and hydraulic jetting nozzles. Hydraulically propelled chain root cutters are not allowed. Care shall be taken to select equipment that will not damage the host pipe or sewer service connections. All roots shall be removed using the cleaning equipment's vacuum system.
- d. If the roots are encountered during the inspection process the inspection may be paused, the root cutting may be executed, and then the inspection may be resumed.
- e. Payment for root removal shall be included in the contract unit price per lineal foot for sewer cleaning.

#### **PART 4: DELIVERABLES & ACCEPTANCE**

##### **4.01 DELIVERABLES**

The following deliverables shall be in accordance with NASSCO PACP export standards and shall be submitted at the completion of a trunk sewer or sewer basin inspection, or at least monthly, on a portable hard drive:

1. PACP standard database export (.mdb)
2. PACP standard inspection reports in PDF format
3. PACP standard inspection video export saved in MPEG format
4. PACP standard inspection photograph export saved in .jpeg format
5. Map depicting sewer lines inspected to date
6. Footage calibration report for each CCTV camera used
7. PACP Certificate copies of all operators

Summary table of all pipeline segments inspected with the following fields in the order listed:

1. Column 1: Date of Inspection

2. Column 2: Start Manhole
3. Column 3: Stop Manhole
4. Column 4: Total Pipe Length (per as-built plan)
5. Column 5: Feet TV'd Televised Length
6. Column 6: Quick Maintenance Rating (per PACP)
7. Column 7: Quick Structure Rating (per PACP)
8. Column 8: Section Number

An observation table of all pipeline segments inspected with the following fields in the order listed:

1. Column 1: Section Number
2. Column 2: Position of Defect
3. Column 3: Observation Code (per PACP)
4. Column 4: Observation Description
5. Column 5: Structural Grade (per PACP)
6. Column 6: O&M Grade per (PACP)

**PACP Codes:**

1. **AMH** – All inspections shall start with AMH, or other appropriate code for access point. (Refer to PACP Reference manual pg. 7-13)
2. **MSA** – All inspections where a segment is abandoned due to a blockage, obstruction, or collapsed sewer shall end with this code, and a reverse inspection shall be attempted. (Refer to PACP Reference manual pg. 1-4, 8-2, and 8-7)
3. **MGO** – This code shall be used when additional remarks are necessary...such as, reverse inspection, re-inspected during low flow, segment excused by DPW. Also, any defects in Manholes, such as a hole in the trough shall be recorded as an MGO.
4. **MWL** – This code shall be used at the beginning of each survey to indicate the water level and shall be used throughout the survey if the water level changes by 5% or more. (Refer to PACP Reference manual pg. 8-2)
5. **MWM** – This code shall be used when there is an obvious mark on the side of the sewer line, where the water regularly reaches. (Refer to PACP Reference manual pg. 8-2)
6. **RBL** – This code shall be used when roots have formed a mass and, in doing so, are restricting the flow. This code should be used when the cross-sectional area lost is greater than 50% **INSIDE** the service pipe connection **ONLY** (i.e. lateral or tap connections) (Refer to PACP Reference manual pg. 6-7)
7. **RBC** – This code shall be used when roots have formed a mass and, in doing so, are restricting the flow. This code should be used when the cross-sectional area lost is greater than 50% and the roots extend **OUTSIDE** the service pipe connection and into the main sewer pipe. (Refer to PACP Reference manual pg. 6-7)

8. **RBB** – This code shall be used when roots have formed a mass and, in doing so, are restricting the flow. This code should be used when the cross-sectional area lost is greater than 50% and the roots are ENTIRELY WITHIN the main sewer pipe. (Refer to PACP Reference manual pg. 6-7)

#### **4.02 ACCEPTANCE**

The above deliverables shall be submitted to the District for acceptance. The inspections shall be accepted when the District has reviewed the data for compliance with the requirements included in this section.

#### **4.03 QUALITY ASSURANCE**

Each CCTV field inspection operator shall be NASSCO PACP certified. Use of PACP certified technicians to review/document defects in the office (post process) is not acceptable.

The CONTRACTOR must have an internal quality assurance/quality control program in place and all inspection data shall be subjected to the procedures prior to submittal.

**Sub Contract Agreement  
Section 3:**

**Attachment B –  
Notice – to – Proceed  
(NTP)**

**W60617556RETE**





# NOTICE TO PROCEED

Attachment - B

DATE: \_\_\_\_\_

Contractor: \_\_\_\_\_

CONSTRUCTION MANAGER: \_\_\_\_\_

SUBCONTRACTOR: \_\_\_\_\_

SUBCONTRACTOR ADDRESS: \_\_\_\_\_

PROJECT ADDRESS: \_\_\_\_\_

Dear Contractor:

Pursuant to your Construction Contract dated \_\_\_\_\_, 2020 you are hereby notified to proceed with the construction work on the property captioned above. Upon receipt of this notice, you are responsible for the work on said property under the terms and conditions of the Agreement, Specifications and Plans, if any. Please be prepared to begin construction within **Seventy-two (72) hours** from receipt of this notice. Therefore, per our Construction Contract, your completion date is now \_\_\_\_\_, 2020 ( days). Any time delay beyond the above completion date, not agreed upon by the Contractor will incur expenses that will be the responsibility of the Contractor.

Please acknowledge acceptance of this notice in the space provided below and mail back one copy.

\_\_\_\_\_  
Contractor – Project Manager

\_\_\_\_\_  
Phone Number

We received the foregoing Notice to Proceed on

\_\_\_\_\_  
Date

\_\_\_\_\_  
Contractor Name (Printed)

\_\_\_\_\_  
Signature and Title

\_\_\_\_\_  
Contractor's Phone Number

Please notify our office twenty-four (24) hours prior to your beginning work.

**INSTRUCTIONS TO CONTRACTOR:** Please sign both copies of this notice and return one copy to the Contractor at the address listed below:

**B&B Partnership Initiative, 10 South Street, Suite 301, Baltimore, MD 21202**

Cc: Project Manager - [Chris Bowens - 443.810.7052 //v/ cbowens@bbpillc.com]

**Sub Contract Agreement  
Section 4:**

**Attachment C –  
Supplementary Specifications**

**W60617556RETE**





## **SCHEDULE B - APPENDIX 2**

### **SUPPLEMENTARY SPECIFICATIONS – (PROJECT) (SSP) Related to Wastewater Cleaning, CCTV Inspection, And Relines**

*These supplementary specifications shall apply in conjunction with the NASSCO Pipeline Assessment Certification Program – (not included herein); CITY OF BALTIMORE DEPARTMENT OF PUBLIC WORKS BUREAU OF WATER AND WASTEWATER and the City of Baltimore's Department of Transportation (DOT) Book of Standards, City of Baltimore Standard Specifications (Greenbook), Supplementary Master Municipal Construction Documents: Supplementary Specifications and Supplementary Standard Drawings, Supplemental Specifications Based on Materials, Highways, Bridges, Utilities, and Incidental Structures latest edition and revisions (not included herein).*



**SUPPLEMENTARY SPECIFICATIONS – (PROJECT)**

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## SUPPLEMENTARY SPECIFICATIONS (PROJECT)

The *Contractor* is required but is not limited to, as part of his obligation under the Quotation, to perform the various services and activities described in the General Conditions and the Supplementary Specifications (Project) SSP 1 to SSP 21 hereunder.

### SSP 1 General

This section outlines all special provisions (SSP's) related to sewer rehabilitation including flushing, video, repair, inspections, pipe relines, manhole repairs, etc. Only those items related to the Scope of Work outlined in SSP 2 will be applicable to this contract.

### SSP 2 Scope of Work

Inspections and cleaning of sewer laterals by approved methods, on existing City of Baltimore gravity sewer systems, which includes both mains and service connections; as described in [Attachment A - Scope of Work \(SOW\)](#).

#### Description of Work

### SSP 3

The work carried out under this Contract may be described generally as the Inspections and cleaning of sewer laterals, by approved methods, on existing gravity sewer systems, including:

1. Flushing and cleaning sanitary and storm sewer mains/laterals, and as required to permit testing service interfaces as shown on contract maps;
2. Closed Circuit Television (CCTV) inspection and deficiency reporting for sanitary and storm sewers;
3. Digitally video inspect and prepare reports upon completion of all rehabilitation work;
4. Provision for traffic control and traffic diversion in accordance with the General Conditions;
5. Restrict and divert the flow of water or sewage from the sewer main section or service connection being inspected, tested or rehabilitated, as required;
6. Any other related works.

### SSP 4 Limits of Site

The *Site* is limited to City right-of-ways and the private property covered by property impact statements, or consented to by owners. At various locations Citywide.

### SSP 5 Completion Date

The Contractor will provide the goods and services for the period commencing on **February 5, 2020** and terminating on **August 31, 2020**.

## **SSP 6 Access**

An overview map will be issued to assist the Contractor with reviewing access to the different manholes and inspection chambers on the given sewer sections. City crews will assist in locating and exposing manholes and inspection chambers as required for the issued Work.

It is the responsibility of the Contractor to ensure vehicles are not parked over the manholes and other sewer appurtenances. The Contractor shall schedule work by posting no parking signs along the street on the day before the scheduled operation. Traffic signs are available from the Engineering Operations Yard, 6651 - 148th Street, Surrey, for collection and must be returned before final payment can be made. Any loss or damage to the sign shall be borne by the Contractor.

The City will locate the inspection chambers for conducting the reline of the service laterals. The Contractor shall be responsible for any damage done to private property during the course of accessing the inspection chambers to conduct the video inspection.

The Contractor shall notify residents prior to accessing easements and rights-of-way adjacent to private property. Permission to access private property shall be obtained from the resident(s) prior to accessing the property. When required, work shall be rescheduled so as not to disturb residents.

The Contractor shall notify the Contract Administrator of any issues pertaining to access to manholes, inspection chambers or private property access problems.

## **SSP 7 Traffic Control**

Work shall not be performed on arterial and collector roadways between 6:00 a.m. and 9:00 a.m. or between 3:30 p.m. and 7:00 p.m., unless otherwise approved by the Contract Administrator.

## **SSP 8 Supply of Water**

The Contractor may obtain water from the City as detailed below (with 48 hours of notice) by contacting the City's Representative. Supply of Water must be coordinated through the Water Operations section, as permits may be required for water use, through:

- a) Designated Fill Stations or standpipes; or
- b) Fire hydrants

## **SSP 9 Requirements of Work & Personnel**

The following units of work defined pertain to sewer inspection and rehabilitation. Only those applicable to this contract will be considered.

## **SSP 9.1 Work Defined**

SEWER LINE CLEANING shall be performed with hydraulically propelled, high-velocity jet, or mechanically powered equipment. Selection of equipment shall be based on field conditions such as access to manholes & Cleanouts, quantity of debris, size of sewer, depth of flow, etc.

LATERAL SEWER SEALING shall be accomplished using special techniques and equipment working from the main sewer or an access point.

LATERAL SEWER LINING shall be accomplished from a clean out, from a manhole, or remotely from the mainline.

SEWER LINE SECTION SEALING including lateral connections and manholes shall be accomplished using the flooding method with a net hydrostatic exfiltration head of at least 1.2 m.

SEWER PIPE AND LINING INSERTION shall be performed in mainline sewers. Processes include Cured-in-Place Pipe (CIPP), Fold and Form (Deformed/Reformed), Slipline Pipe, Pipe Sections Insertion, Spiral Wound Liner, and Pipe Bursting.

SEWER MANHOLE SEALING shall be accomplished by structure sealing with chemical grout, cementitious materials, resin-soaked oakum, and manufactured seals; by frame sealing with applied materials or manufactured seals; and by cover sealing.

SEWER MANHOLE REHABILITATION shall be accomplished by application of sealing, plugging, patching, coating, and lining processes and materials that will seal, protect or structurally rehabilitate the manhole. Methods include lining and structural enhancement of the manhole using cast-in-place concrete, spray applied cementitious material, cured-in-place thermoset pipe, profiled PVC (grouted) liners, and prefabricated fiberglass (grouted). Work may include repair of manhole chimney and corbel; by step removal or replacement; and by frame & cover reinstallation or replacement.

SEWER FLOW CONTROL shall be performed as required to comply with these specifications.

TELEVISION INSPECTION shall be required to reveal and document sewer line conditions and/or performed in advance of or in conjunction with pipe testing/sealing, pipe repair, and pipe lining activities.

NOTICE OF CLIENT/OWNER REQUIREMENTS which are relevant to and within the scope of work to be performed under the contract.

MUNICIPAL AND OTHER LICENSES AND PERMITS and assistance in obtaining approvals or consent from utilities or carriers such as the telephone company or other persons or organizations upon whose



property or authority performance of work under the contract might impinge; or a written release from responsibility for the performance of work under the contract if and to the extent such work is precluded by the inability to obtain approvals or consent.

CLEARANCE OF BLOCKAGES OR OBSTRUCTIONS in the sewer system, if any, if such clearance is required for performance of work under the contract and if such clearance is not otherwise provided for within the contract.

LOCATION AND EXPOSURE OF ALL MANHOLES, unless otherwise provided for in the Technical Specifications of the contract. The city will locate and designate all manhole access points open and accessible for the work, and provide rights of access to these points.

A MANHOLE-NUMBERING SYSTEM referenced to a map for all areas of the project and accurate manhole invert elevations when required for performance of the work will be supplied by the city.

THE SHUTDOWN OR MANUAL OPERATION OF PUMP STATIONS if such becomes necessary for performance of the work shall be by the City.

NOTICE TO THIRD PARTIES (such as public utilities and the telephone company) of the Contractor's intent to perform work in an area where such parties may have rights to underground property or facilities, and request for maps or other descriptive information as to the nature and location of such underground facilities or property and assurance of the Contractor's ability to enter upon any public or private lands to which access is required for performance of the work under the contract.

INFORMATION PERTINENT TO THE SITE of the project including reports prepared under previously accomplished studies or surveys and other data relative to the project, including, maps, drawings, construction specifications, sewer system records, etc.

## **SSP 9.2 Occupational Health and Safety**

The Contractor and its employees and the Contractor's sub-contractors and their employees shall conform to all health and safety laws, by-laws, or regulations of the United States Environmental Protection Agency (EPA) and Occupational Safety and Health Administration (OSHA) including any regulations requiring installation or adoption of safety devices or appliances. The City of Baltimore may, on twenty-four (24) hours written notice to the Contractor, suspend the work hereunder as a result of failure to install such devices or because the conditions of immediate danger exist that would be likely to result in injury to any person. Such suspension will continue until the default or failure is corrected.

Without limiting the generality of any other indemnities granted by the Contractor herein, the Contractor shall indemnify and save harmless the City of Baltimore against any loss or expense or penalty suffered or incurred

by the City of Baltimore by reason of failure of the Contractor, its agents or employees, or any sub-contractors of the Contractor, its agents or employees to comply or ensure compliance with the health and safety laws, by-laws and regulations mentioned above.

Further, the Contractor warrants that it will not produce or discharge in any manner or form, directly or indirectly, chemicals, sewage, or toxic substances and that all vehicles and equipment used will not pose a hazard to, or harm or adversely affect anyone coming into contact with them and covenants and agrees to provide the City of Baltimore with an environmental plan (where applicable), acceptable to the City of Baltimore, which plan shall outline the procedures to be followed by the Contractor to prevent the production or discharge of chemicals, sewage, or toxic substances into the environment.

- (a) The Contractor shall provide all his work in such a manner that it ensures safety, of the public and in accordance with the safety regulations of the Workers' Compensation Board.
- (b) It is required that the Contractor understands and undertakes to comply with all United States Environmental Protection Agency (EPA) and Occupational Safety and Health Administration (OSHA) Regulations for hazardous materials and substances.

If you are unfamiliar with the EPA or OSHA Safety Regulations covering hazardous materials and substances, in particular the DPW regulations, or if you are uncertain as to how they relate to the work you are performing for the City of Baltimore on its premises/work site, we suggest you call the Contractor's Head Office in Baltimore during normal business hours – (9 a.m. – 5 p.m., Monday to Friday).

#### CONTRACTOR'S INFORMATION

1-800-705-3241  
B&B Partnership Initiative  
10 South Street, Suite 301  
Baltimore, MD 21202

#### SSP 10 Unit Price

The following items relate to payment for all items related to sewer rehabilitation; **ONLY** those applicable to the work of this contract shall apply. All measurements shall be as specified or made by conventional means with accuracies consistent with field conditions and common practice. Should a discrepancy in measurement exist which is greater than 10%, the item in question shall be re-measured by both the Contractor and the Owner's Representative for verification.



## **SSP 11 Notification/Schedule of Work**

During periods when Work has been assigned, but not yet completed, The Contractor shall provide a weekly e-mail status report to the Contract Administrator and the City's Representative containing:

- The anticipated schedule of activities and locations for the upcoming workweek
- A brief summary of the work completed in the previous week (length of sewer inspected/tested, length of sewer relined)
- Any problems or unusual finding encountered the previous week
- Any other issues related to the work progress
- The City shall maintain a spreadsheet of assigned work on the Google Sheets website that the contractor will have access to. The city and the contractor will be responsible for entering pertinent information into the spreadsheet.

Unless otherwise specified or Directed by B&BPILLC or Engineer (Owner), the regular working day shall begin no earlier that 7:00 AM. On Some streets, the Contractor will be restricted to work between the hours of 9:00 AM and 3:00 PM only.

The Normal Working hours of work will be from 7:00 AM to 3:00 PM or as approved by the City. B&BPILLC shall be informed one week in advance of any stoppage or restart of work.

Operation for each of the items may be separate and may involve several mobilizations, setting ups and demobilization. Payment for these services and works is deemed to be a l r e a d y included in this agreement at no additional cost. The work day shall be considered an eight hour day no matter when it starts or ends. The Contractor will be required to work nights, weekends, and/or holidays, when the conditions warrant him to do so. There will be no additional compensation for any planned work. No work shall be permitted after 5:00 PM in non-business or residential areas because of safety and noise concerns.

### **SSP 11.1 Resident Letters**

An information letter notifying the residents of the scope of the Contractor's work shall be issued. The Contractor will distribute the letters and other pertinent information to the residents at least 48 hours prior to commencing the Work.

## **SSP 12 Quality of Work Performance**

All sanitary and storm sewers in the designated line to be CCTV inspected shall be cleaned completely of all foreign materials.

Manhole covers shall be reinstated in a firm non-movable position.

The performance demonstration by the Contractor and what is required by the City in addition to this performance demonstration shall be the minimum standard for the level of services to be provided in this Contract. The Contractor shall follow flushing procedures as outlined in [Attachment #6 – Sanitary Sewer Flushing & Cleaning](#). All damage resulting from the non-compliance of this procedure will be the responsibility of the Contractor. The value of unresolved claims against the Contractor will be deducted from progress payment and held until the claim has been resolved to the satisfaction of the City or its delegate.

### **SSP 13 Dump Sites**

All waste that is removed from the Storm and Wastewater sewer system under this contract shall be disposed of by the Subcontractor at their cost at an approved off-site disposal area. The cost of the removal of the waste material shall be considered included as apart of the agreement at no additional cost.

### **SSP 14 Sewer Flow Control**

When the depth of flow in the sewer section exceeds the allowable 1/3 of the pipe diameter, one or more of the following methods shall be used:

- a) Work to be scheduled during off-peak times subject to the approval of the City (Noise By-law shall be complied with during this Contract work. Specifically, 7:00 p.m. - 9:00 a.m., Monday to Saturday). When working during off-peak times, the Subcontractor will be responsible for notifying residents of the intended work schedule a minimum of 48 hours before commencing the work.
- b) Plugging or Blocking: A sewer line plug may be inserted into the sewer section at a manhole upstream from the section to be inspected. The plug shall be designed such that either all or a portion of the impeded sewage flow can be released. During the inspection, testing and rehabilitation work, flow shall be either shut-off or substantially reduced in order to inspect the pipe at the invert.
- c) All or a portion of the flow shall be diverted from the sewer section by diverting flow from the upstream to the downstream of the sewer section concerned, including all the flow of the service connections to the sewer section concerned if necessary or if diverted.

All temporary work shall be removed upon completion of the work or at the end of each shift as directed by the City. The Subcontractor shall take the necessary precaution to prevent any damage to the public and private property.

No separate payment will be made for this work, which shall be deemed to be included in the unit prices bid in the Schedule of Quantities & Prices.

### **SSP 15 Sewer Cleaning**

**This section supersedes MMCD Section 33 01 30.2**

#### **SSP 15.1 Intent**

The intent of sewer line cleaning is to remove foreign materials from the lines and restore the sewer to a minimum of 95% of the original carrying capacity or as required for proper seating of internal pipe joint sealing packers. Since the success of the other phases of work depends a great deal on the cleanliness of the lines, the importance of this phase of the operation is emphasized. It is recognized that there are some conditions such as broken pipe and major blockages that prevent cleaning from being accomplished or where additional damage would result if cleaning were attempted or continued. Should such conditions be encountered, the Subcontractor may

be required to clean those specific manhole sections. If in the course of normal cleaning operations, damage does result from pre-existing and unforeseen conditions such as broken pipe, the Contractor will not be held responsible.

### **SSP 15.2 General**

1. Prior to all CCTV inspection, all sewer sections shall be cleaned using hydraulically propelled or high velocity hydro cleaning equipment or any acceptable method of cleaning according to the City's Sanitary Sewer Flushing Procedure.
2. High velocity hydro cleaning equipment shall be capable of delivering 4.0 l/sec (60gpm) at a working pressure of 8273 KPA (1200 PSI) with nozzle capable of producing a scouring action from 15° to 45° in all size sewers designated to be cleaned.
3. All dirt, grit, grease, rocks, and all other foreign materials shall be collected, removed and disposed of from the designated sewers and manholes.
4. Precaution shall be taken to protect the sewers from damage from the cleaning operation. Precaution shall also be taken to prevent any damage or flooding to public or private property served by the sewers section involved.
5. When flushing a sanitary sewer main line, it will be necessary to remove the I.C. lids (where possible) to reduce the chance of pressure fluctuations (back or low pressure) in the house plumbing. If a pressure fluctuation situation does occur, the City shall be notified immediately. The Contractor is fully responsible for any damage caused by pressure fluctuations, and shall be responsible to mitigate the situation with the property owner.

In the event the operator is requested, by the City to clear a sanitary sewer I.C. blockage, it is to be pumped out in order to remove debris, and then flushed after plugging the private side of the sanitary I.C. This is also to eliminate pressure fluctuations.

In the process of flushing, debris such as gravel, etc., when present, must be collected and removed at the down-stream manhole.

The following conditions shall be reported to the City, with pertinent information such as asset type and identifying numbers, address or location, type of problem discovered or encountered, and severity of problem, if known:

- Grease in a main line;
- Roots in a main line;
- Structural damage to a main line;
- Infiltration at a manhole;
- Structural damage in a manhole;
- Inability to locate or access an existing manhole because it is buried or obstructed.



Unless otherwise specified, the Contractor is responsible for and shall adhere to all WCB regulations and Health and Safety regulations, including, but not limited to:

- Traffic control;
- Safety apparel and apparatus;
- Confined space entry;
- Overhead electrical safety;
- Contaminated waste transport and disposal;

6. Payment for this work will be made under Schedule C - Form of Quotation Table 1 and Table 2. No additional payment will be made for additional flushing or cleaning required when performing service interface testing and grouting on lines that have already been cleaned under the contract.

### **SSP 15.3 Cleaning Equipment**

#### **SSP 15.3.1 Hydraulically Propelled Equipment**

The equipment used shall be of a movable dam type and be constructed in such a way that a portion of the dam may be collapsed at any time during the cleaning operation to protect against flooding of the sewer. The movable dam shall be equal in diameter to the pipe being cleaned and shall provide a flexible scraper around the outer periphery to insure removal of grease. If sewer cleaning balls or other equipment, which cannot be collapsed, is used, special precautions to prevent flooding of the sewers and public or private property shall be taken.

#### **SSP 15.3.2 High-Velocity Jet (Hydro cleaning) Equipment**

All high-velocity sewer cleaning equipment shall be constructed for ease and safety of operation. The equipment shall have a selection of two or more high-velocity nozzles. The nozzles shall be capable of delivering 4.0 l/sec (60 gpm) at a working pressure of 8273 KPA (1200 PSI), and capable of producing a scouring action from 15 to 45 degrees, in all size lines designated to be cleaned. Equipment shall also include a high-velocity gun for washing and scouring manhole walls and floor. The gun shall be capable of producing flows from a fine spray to a solid stream. The equipment shall carry its own water tank, auxiliary engines, pumps, and hydraulically driven hose reel.

#### **SSP 15.3.3 Mechanically Powered Equipment**

Bucket machines shall be in pairs with sufficient power to perform the work in an efficient manner. Machines shall be belt operated or have an overload device. Machines with direct drive that could cause damage to the pipe will not be allowed. A power rodding machine shall be either a sectional or continuous rod type capable of holding a minimum of 228 meters of rod. The rod shall be specifically heat-treated steel. To ensure safe operation, the machine shall be fully enclosed and have an

automatic safety clutch or relief valve. (This method is not used on this contract)

#### **SSP 15.3.4 Cleaning Precautions**

During sewer cleaning operations, satisfactory precautions shall be taken in the use of cleaning equipment. When hydraulically propelled cleaning tools (which depend upon water pressure to provide their cleaning force) or tools which retard the flow in the sewer line are used, precautions shall be taken to insure that the water pressure created does not damage or cause flooding of public or private property being served by the sewer. When possible, the flow of sewage in the sewer shall be utilized to provide the necessary pressure for hydraulic cleaning devices. When additional water from fire hydrants is necessary to avoid delay in normal work procedures, the water shall be conserved and not used unnecessarily. No fire hydrant shall be obstructed in case of a fire in the area served by the hydrant

#### **SP 16 CCTV Inspection**

##### **This section supersedes MMCD section 33 01 30.1 SSP 16.1 General**

1. The Contractor shall use a pan and tilt type camera, and record in colour, in MPEG 2 format. Each entrance and exit manhole shall also be visually inspected, digitally video recorded and digitally photographed.
2. The designated sewer shall be flushed and completely cleaned prior to inspection. Digital Video inspection shall be performed only after sewers have been thoroughly cleaned so that a clear picture of the interior of the sewer can be obtained. Particular emphasis is made to the removal of accumulated grease where standard flushing practices will loosen the material so that cracks and breaks can be observed during digital video inspection. Where the camera is impeded, the Contractor shall immediately notify the City of Baltimore who will make arrangements to clear the line. Dewatering the main segment shall not be considered an acceptable line cleaning practice for the purpose of digital video inspections.
3. The Contractor shall be equipped with a blower fan capable of de-misting sewers when required.
4. Reports, Summaries, digital images and videos for each sewer section shall be uploaded to the City within a week of video inspection of that sewer section, as per included form - [SANITARY SEWER LATERAL CCTV CERTIFICATE INSPECTION REPORT FORM AMC 6-7.3](#).
5. Depth of flow in the sewer shall not exceed one-third the pipe diameter during the digital video inspection.
6. Digital Video inspections with submerged or unclear sections longer than 3 meters in total length between consecutive manholes will not be accepted. Videos containing sections of mains or laterals where the camera is not centred

in the pipe (not providing a 360° view) for longer than 1 meter will not be accepted.

7. The travelling speed of the camera in the pipeline shall be limited to:
  - a. 0.1 m/s for pipeline of diameter less than 200 mm.
  - b. 0.15 m/s for diameters exceeding 200 mm but not exceeding 310 mm.
  - c. 0.20 m/s for diameters exceeding 310 mm.
8. If the inspection is abandoned due to an obstruction, manhole access constraints, collapse or water depth, contact the City Representative and inform them of the issue, then an attempt must be made from downstream manhole to complete the inspection.
9. If, during the inspection, a defect that is rated as a 4 or a 5 by the PACP coding system is found, then the City Representative must be contacted immediately. The Contractor must stay on site until the City Representative or a Wastewater Operations Supervisor dispatched by the City Representative is on site and has verified the video of the defect. Failure to follow this procedure may result in the Contractor being held liable for any damages the City or a Home Owner incurs due to the failure of the sewer system at the point of the unreported defect.
10. If attempting to LAMP camera and there is an issue with access at the upstream manhole location then the inspection should be attempted from the downstream access point. If access at both locations is unsuitable to perform the inspection then inform the City Representative immediately and an agreeable solution to conduct the inspections will be determined.
11. Scheduling of all digital video inspections shall be closely coordinated with the City Representative to ensure that the inspections are conducted during low flow periods. The Contractor shall proceed with the requested digital video inspection of a section within 48 hours of receiving notice from the City. The City reserves the right to cancel or alter scheduled inspections without notice. If determined by the City that the flow conditions would impair the quality of the inspection results (due to surcharged conditions) night time inspections may also be required subject to the approval of the City.
12. Weekly totals of sewer lengths digitally video recorded and hours spent within the previous week shall be submitted to the Contract Administrator and the City's Representative every Monday morning.

### **SSP 16.2 Process**

1. A sample of inspection report(s), digital video, and corresponding WMV data file shall be submitted for review by the Consultant to the Wastewater Operations Section, and Contract Administrator accordingly. This submission must satisfy all of the specifications contained herein, and the submitted report submission will be used as a benchmark for subsequent inspection submissions.

No Video Inspection surveys are to be carried out until an acceptable sample inspection report has been approved by the Consultant, or by the City's Representative.

CCTV operator to have received and carefully reviewed all of the *Contract Documents*, including the Instructions for Quote and Specifications and Standard Detail Drawings prior to Contract starting.

2. A copy of the CCTV operator's current NASSCO certification certificate shall be submitted to the Consultant or the Contract Administrator at least one week prior to the start of the CCTV Inspection operations.

A copy of the CCTV operator's certification must be submitted for each CCTV operator working on the contract.

A copy of the CCTV reviewer's certification must be submitted for each reviewer/inspector working on the contract.

3. Coding accuracy is to be a function of the number of defects or construction features not recorded (omissions), and the correctness of the coding and classification recorded. Coding accuracy must satisfy the following requirements:

<b>Header accuracy</b>	<b>95%</b>
<b>Detail accuracy</b>	<b>90%</b>

The Contractor is to implement a formal coding accuracy verification system, at the onset of the work that is reviewed and approved by the Contract Administrator or the City Representative. The coding accuracy is to be verified by the Contractor on a random basis, on a minimum of 10% of the inspection reports. The Contract Administrator or the City Representative shall be entitled to review the accuracy verification results, and be present when the assessments are being conducted.

A minimum of two accuracy verifications are to be performed and recorded each working week. Coding that does not satisfy the accuracy requirements, are to be recoded, and the accuracy of the inspection report immediately preceding and following the non-compliant inspection are to be verified. This process is to be repeated until the inspections meet the accuracy requirements.

The Contract Administrator or the City Representative reserves the right to request an independent certified reviewer to assess the accuracy of the reports submitted, at the Contractor's expense.

An operator failing to meet the accuracy requirements on two occasions will not be permitted to code on the remainder of the contract until they have successfully re-attended an Operator's Certification course and re-written the NASSCO Pipeline Assessment Certification Program.

4. As per CSA 6.5.3 Camera Speed:

"The camera must maintain a speed that will allow for the defects to be observed clearly. If the pipe is inspected too fast the picture can appear pixelated and defects can be missed. The speed can vary depending on the pipe diameter smaller than 200mm, 9m/min for pipes with a diameter between 200mm and 300mm, and 12m/min for pipes with a diameter larger than 300mm, or as agreed

to by the owner. The camera should stop and pan special features within the pipe, such as maintenance hole interfaces, taps, and major defects.”

Non-uniform or jerky movement will not be acceptable. The camera shall pause at each defect as listed in Section F and at each service connection.

Clear, well-defined pictures of the defects shall be taken, utilizing 360 degree rotating heads and full pausing capabilities, and the lighting system.

5. Digital video recording shall commence as close as practical to the face of the manhole. The chainage measurement shall reflect the distance from the center of the manhole. All reports and digital video shall consider the length of the main segment being inspected as commencing at the center of the start manhole, and terminating at the center of the end (finish) manhole. A main segment shall be defined as the distance from center to center of successive manholes.

### **SSP 16.3 Recording Equipment**

- a) Digital Video Images and sound shall be recorded in MPEG 2 format at standard speed.

Digital still images shall be recorded in JPG format

Each digital image shall be stored with a unique filename to match the image reference number in the PACP form and PACP data exchange file. The naming convention shall reflect the contract, and the sequence number of the photograph recorded on the data sheet. The exact format requires approval from the Contract Administrator and the City's Representative, prior to commencement of a contract.

- b) All events and defects encountered in the sewer, including manholes, locations, and direction changes, shall be audibly voice labeled in a clear and concise presentation.
- c) Each section of sewer shall be identified verbally and graphically on the video indicating the upstream and downstream manholes, and the date and time of the digital video inspection at the beginning of each main segment being inspected. Only the distance measurement is to be displayed on the digital video during the main segment recording process.
- d) The Contractor shall utilize NASSCO's PACP and LACP to record pipe defects and observations.  
Continuous forward distance readout from the reference manhole and audible notation shall be made at all pipe defects including:
- The defect description, as described by the NASSCO PACP codes.
  - The forward distance from the center of the reference manhole.

The Contractor shall provide the inspection data in the standard NASSCO PACP and LACP data exchange format. A sample of the data file, complete with pictures (JPEG), and video files (MPEG 2) shall be submitted to



Contract Administrator and the City's Representative prior to commencement of the work, for approval.

#### **SSP 16.4 Safety Equipment**

The Contractor shall be fully equipped for traffic control and manhole (confined space) entry, and employ safety procedures required by the Workers' Compensation Board.

The Contractor will keep on-site, during the duration of the work, all documentation relating to:

- a) Confined Space Entry, including entry and emergency procedures;
- b) Written confirmation of confined space training received by employees; and
- c) Documentation verifying that equipment being used meets applicable WCB requirements.

#### **SSP 16.5 Inspection Reports**

The City of Baltimore Utilizes **NASSCO's** (<http://www.nassco.org/>) **Pipeline Assessment Certification Program (PACP)** and **Lateral Assessment Certification Program (LACP)** to code for C.C.T.V.

- A) The required video inspection information shall be recorded on NASSCO'S C.C.T.V. Inspection Forms. See [form - SANITARY SEWER LATERAL CCTV CERTIFICATE INSPECTION REPORT FORM AMC 6-7.3](#). for an example of the forms. Only one sewer section (manhole to manhole) or lateral Inspection (Inspection Chamber to main or main to Inspection chamber) shall be recorded in each data sheet unless otherwise approved.
- B) Each pipe defect record shall be in accordance with NASSCO's PACP or LACP coding.
- C) All field measurements shall be made using the SI unit system.
- D) The City will provide GIS files to upload work order and facility ID information into PACP and LACP databases. An ESRI license will be provided by The City upon request.
- E) The PACP and LACP Inspection table, Media Inspection Table, Media Conditions Table and Custom Fields Table will be populated as per form - [SANITARY SEWER LATERAL CCTV CERTIFICATE INSPECTION REPORT FORM AMC 6-7.3](#).
- F) Digital images (still photographs) with a minimum 1024 x 768 pixel resolution (in addition to the digital video record) shall be taken of all manholes and pipe defects and observations as defined in NASSCO's PACP.

Photograph pictures shall clearly indicate the sewer section identification (upstream and downstream manholes), distance from reference manhole



(chainage) and picture number, without encroaching or obstructing the subject of the Photograph (defects, etc.).

- G) Database and Report files shall follow the naming convention WO#-<Date>-#. See [form - SANITARY SEWER LATERAL CCTV CERTIFICATE INSPECTION REPORT FORM AMC 6-7.3.](#)
- H) Files are to be uploaded to the B&BPILLC Site once a week on a specific day that is agreed on by both the City and the Contractor. See form - [SANITARY SEWER LATERAL CCTV CERTIFICATE INSPECTION REPORT FORM AMC 6-7.3.](#) for the process of uploading.

### **SSP 16.6 PACP Data Exchange Process**

A PACP database shall not contain multiple asset types (e.g. mainlines and laterals) and assets from multiple work orders.

The Pipe Segment Facility ID will consist of a 10-digit number and will serve as the unique identifier for each of the Sanitary Mainlines and Laterals. This ID will be available on each of the maps that the City of Baltimore provides and will, also, be exported by the GIS file into the Inspection table of the PACP and LACP database(s).

The Contractor must ensure that the Pipe Segment Facility ID corresponds with the pipe that is being video inspected by referring to the maps provided by the City before commencing a CCTV inspection. For Laterals the Contractor must also ensure that the property address corresponds to the Pipe Segment Facility ID. Non-compliance will result in a failure to import all observations acquired from the inspection into the City Works Management System.

If a Pipe Segment Facility ID is not provided by the City the Contractor shall attempt to contact the City to obtain the Pipe Segment Facility ID. The asset will not be videoed without the Pipe Segment Facility ID.

If an Asset's Facility ID does not have a work order attached to it by the City, than work cannot be performed on the asset until the work order is attached to it by the City and the proper GIS file has been sent to the Contractor.

### **SSP 16.7 Measurements for Payments**

Payment for the digital video inspection of the sanitary and storm sewer lines, mains and laterals, shall be made under Schedule C – Form of Quotation, and shall include all necessary recording and reporting as per SSP19.

### **SSP 17 Grease Removal**

The removal of normal amounts of grease is included in the payment for Schedule C – Form of Quotation Schedule of Quantities & Prices, Sections 1 and 2. If excessive grease that cannot be removed using hydro cleaning equipment is encountered, the Contractor shall notify the Contract Administrator, and request permission to remove the grease by alternate means. The Contractor shall provide the Contract

Administrator with an hourly rate for excessive grease removal, including equipment, labour, disposal and all other costs for excess grease removal. If the quoted hourly rate is accepted by the Contract Administrator, the Excessive Grease Removal will be paid for under a change order. After receiving the Contract Administrator's approval, the Contractor shall proceed with the grease removal. The Contractor will be responsible for submitting records noting the location and time spent on excess grease removal within 48 hours of the completion of the excessive grease removal work.

No payment will be made for excessive grease removal work without the prior approval of the Contract Administrator, or if the records are submitted later than 48 hours after the completion of the work.

## **SSP 18 Sewer Lining**

**This section supersedes MMCD section 33 05 24**

### **SSP 18.1 Liner Materials**

Acceptable liner technologies are Fold and Form and Cured in Place Pipe (CIPP). The liner technology proposed for point repairs and liners shall be specified on the Product Description form in the Tender Submission Documents.

#### Fold and Form

The formed PVC pipe shall meet the performance requirements of ASTM D 3034, F1504-97, F1871, or latest edition and revision. All test data, whether theoretically extrapolated or actual must be validated by an independent third party qualified in testing these procedures.

The PVC compound / material used for the folded pipe shall conform to ASTM D 1784 classification 12334-B or 12344-B or 12454-B or 12454-C or latest edition and revision.

#### Cured-In-Place Pipe (CIPP)

The Cured-In-Place Pipe (CIPP) shall meet the performance and material requirements of ASTM F1216 or ASTM F1743 or latest edition and revision. All test data, whether theoretically extrapolated or actual must be validated by an independent third party qualified in testing these procedures.

### **SSP 18.2 Liner Design**

The Contractor shall be responsible for preparing designs for all relining and point repairs in the Contract. Liner designs shall be signed and sealed by a Professional Engineer registered in the Province of British Columbia, and submitted to the Contract Administrator prior to commencing the work. No additional payment will be made for the design of the liners. Payment for this work shall deem to be included in the unit prices tendered in the Schedule of Quantities & Prices.



The liner shall be sized such that there is no loss in capacity of the existing sewer. Calculations of pipe flow before and after liner installation shall be submitted to the Contract Administrator for approval. The Contractor shall field measure the internal circumference of the sewers to determine the exact size of liner that is required so that the liner is tight to the wall of the existing pipe.

The length of the liner shall be that deemed necessary by the Contractor to effectively carry out the insertion and sealing of the liner at the inlet and outlet points. The Contractor shall verify the lengths in the field before cutting the liner to length.

Point repairs shall be sized to allow for a minimum 500mm overlap from each end of the noted defect. The estimated length of liner required for each point repair is included in the Point Repair summary in Section F, however the Contractor shall be responsible for determining the actual length of the point repair, including the overlap, by conducting the initial CCTV video inspection.

### **SSP 18.3 Testing**

The City will arrange for third party laboratory testing of the liner material. The Contractor is responsible for the preparation and submittal of the following samples, representative of the work performed under the same field conditions:

- For each pipe diameter, liner design and liner product used, one (1) segment of point repair lining product approximately 1m in length.
- For each relining project, one (1) segment of lining product approximately 1m in length prepared in the field at the inversion length.
- The contractor shall, for each work assignment, deliver the materials to be tested or inform the contract manager or consultant that testing materials is ready for pick up at the work site.

These samples will be tested to the specified ASTM standards.

If testing discloses non-conformance to these standards, repair work shall be completed at the Contractor's expense. Testing and/or quality assurance completed by other agencies does not relieve the Contractor of responsibilities for documentation of installation conditions, inspection, testing, etc. as required by the Contract.

### **SSP 18.4 Documentation**

The Contractor will document the conditions under which each section of sewer rehabilitation is completed as follows:

### General

- Date and time
- Contractor
- Street Name
- Product (CIPP or Fold and Form Brand Name)
- Diameter
- Standard Dimension Ratio (SDR)
- Spool batch number
- Upstream and downstream Manhole numbers

### Insertion Conditions

- Ambient Air temperature
- Maximum drawing force
- Insertion Rate
- Visual observations (note presence of creases, impregnation poor areas, crazing)

### Processing Parameters (Fold and Form)

- Head and tail temperature readings (start, middle, and end of cook)
- Cook time and average pressure
- Cool-down pressure/temperature
- Cool-down duration

### Processing/Wet-out Process (CIPP)

- Resin type (polyester, vinyl ester or epoxy)
- Resin source and batch numbers
- Vacuum pressure
- Visual observations – evidence of distribution of resin/air entrapment
- Quantity of resin utilized
- Total impregnation time

## **SSP 18.5 Warranty**

The Contractor shall make any necessary repairs and replacements to remedy, in a manner satisfactory to the engineer and at no cost to the owner, any and all defects, breaks, or failures of the work occurring within one (1) year following the date of acceptance of the work due to: Faulty or inadequate materials or workmanship, and for damage or disturbances to other improvements under, within, or adjacent to the work, whether or not caused by settling, washing, or slipping, when such damage or disturbance is caused, in whole or in part, from activities of the Contractor in performing his duties and obligations under this Contract. When such defects or damage occur, within the time period described herein before, in any part of the surface or subsurface improvements not included in the work under the contract, the Contractor shall repair the same and the one-year warranty period required shall, with relation to such required



repair, be extended one (1) year from the date of completion of such repairs.

#### **SSP 18.6 Installation**

The Contractor shall be responsible for clearing the line of obstructions such as solids, dropped joints, protruding material (concrete, rocks, etc.) protruding branch connections or broken pipe that will prevent the insertion of the liner. If inspection reveals an obstruction that cannot be removed by normal “no-dig” techniques, the Contractor shall make a point excavation to uncover, remove or repair the obstruction.

For “Pull-in” type installations, the Contractor shall use a recently calibrated Dynamometer with the winch during the installation procedure.

No separate payment will be made for removing line obstructions. The payment for this requirement shall be deemed to be included in the unit prices tendered in the Schedule of Quantities & Prices.

#### **SSP 18.7 Liner Retrieval**

If the liner installation is terminated before completion, the Contractor shall be responsible for the retrieval of the liner, at no additional cost. The existing sewer shall be reinstated to a condition equal to or better than before the attempted liner installation.

#### **SSP 18.8 Liner Finish**

The finished lining shall be continuous over the entire length of an insertion run and shall be free from visual defects such as foreign inclusions, dry spots, pinholes and delamination. The lining shall be impervious and free of any leakage from the pipe to the surrounding ground or from the ground to the inside of the lined pipe.

Any defects, which will affect the integrity or strength of the linings, shall be repaired at the Contractor’s expense.

#### **SSP 18.9 Liner End Seals**

The liner ends in the manhole shall be tight fitting. Any lip or obstruction created by the liner shall be gently tapered. The liner ends shall not obstruct sewage flow. A watertight sealing product, compatible with the liner, shall be applied at the terminal points after the liner has fully stabilized.

If, due to broken or misaligned pipe at the access point, the lining fails to make a tight seal, the Contractor shall apply a seal at that point. The seal shall be compatible with the liner and shall make a tight seal.

Each end of point repairs shall be grouted to form a smooth transition from the original pipe to the relined section. End grouting shall be air

tested to a pressure of 5 psi to verify the effectiveness and completeness of the grouting. End grouting that fails to pass the air test shall be re-grouted and retested until the air test is past. The volume of grout used for end grouting shall be recorded.

Liner end work shall not commence until the liner has fully stabilized.

#### **SSP 19 Reline Mainline**

Payment for relining of a sanitary or storm sewer mainline shall be made per each mainline segment, manhole to manhole at the tendered unit prices under Schedule C – Form of Quotation for the appropriate pipe diameter, and shall include flushing and cleaning the sanitary or storm sewer line, degreasing, root cutting, cutting protruding hubs, removing debris, pre/post relining Closed Circuit Television (CCTV) inspection and reporting of the sanitary or storm sewer line, identifying service connection locations, determining actual liner length, liner design and submission of sample for testing, notifying residents, restricting and diverting sewage flow from mainline and service connections if required, provision of traffic control, supply and installation of relining, end grouting and testing, service connection reinstatement including interface grouting and testing, and any other related work.

#### **SSP 20 Reline Service Connections (Sanitary and Storm Laterals)**

Payment for relining sanitary or storm sewer service connections shall be made per each service connection segment, inspection chamber or property line to mainline or manhole at the tendered unit price under Schedule C – Form of Quotation for the appropriate pipe diameter, and shall include flushing and cleaning the sanitary or storm sewer line, degreasing, root cutting, cutting protruding hubs, removing debris, pre/post relining Closed Circuit Television (CCTV) inspection and reporting of the sanitary or storm sewer line, determining actual liner length, liner design and submission of sample for testing, notifying residents, restricting and diverting sewage flow from mainline and service connections if required, provision of traffic control, supply and installation of relining, end grouting and testing, service connection reinstatement including interface grouting and testing, and any other related work. The intent is to utilize a service connection reline system that addresses the interface area to ensure a complete, sealed system. Where possible a lateral and main/lateral connection reline method shall be implemented and the cost reflected in Schedule C – Form of Quotation. This approach shall also be utilized where connections enter directly into a manhole.

#### **SSP 21 Definitions**

In these Special Provisions, unless the context otherwise requires,

“Section” means section of the Specifications or the Conditions of Contract.

“Item” means item of the Schedule of Quantities and Prices.

**ASTM STANDARD:** There are basically two types of ASTM Standards, which apply to pipeline rehabilitation products: “D” standards, which are for testing procedures and material, compound classifications, and “F” standards which are basically

product specific. Within the “F” standards there are two types of documents; material specifications and installation practices.

**CHANGE ORDER:** A written order to the Contractor authorizing an addition, deletion, or revision in the work within the general scope of work of the agreement, or authorizing an adjustment in the agreement price or agreement time.

**CONTRACTOR:** Any individual, firm, partnership, corporation, or combination of any or all jointly submitting a proposal to whom the Contract is awarded by the Owner or its executors, administrators, successors or assigns.

**CONTRACT ADMINISTRATOR:** means the person, firm or corporation appointed by the Owner and identified by the Owner in writing to the Contractor. The Contract Administrator may be the Owner’s Engineer, other employee or officer, or may be and outside consultant.

**CREW:** The number of persons required for the performance of work at a site as determined by the Contractor in response to task difficulty and safety considerations at the time or location of the work.

**DEBRIS:** Soil, rocks, sand, grease, roots, etc., in a sewer line excluding items mechanically attached to the line such as intruding service connections, intruding pipe, joint, materials, and the like.

**EASEMENT:** A liberty, privilege, or advantage without profit, which the owner of one parcel of land may have in the land of another. In this agreement, all land, other than public streets, in which the Owner has sewer system lines or installations and right of access to such lines or installations.

**ENGINEER:** The City Engineer, Commissioner of Public Works, Superintendent of Public Works, or an Engineer of a municipality including such assistants as are authorized to represent him, or the consulting engineer acting through his authorized agents, who represents the Owner during the construction phase activities.

**FLOW CONTROL:** A method whereby normal sewer flows or a portion of normal sewer flows are blocked, retarded, or diverted (bypassed) within certain areas of the sewer collection system.

**HYDRAULIC CLEANING:** Techniques and methods used to clean sewer lines with water, e.g.: water pumped in the form of a high-velocity spray and water flowing by gravity or head pressure. Devices include high-velocity jet cleaners, cleaning balls, and hinged-disc cleaners.

**INFILTRATION:** The water entering a sewer system, including building sewers, from the ground, through such means as defective pipes, pipes joints, connections, or manhole walls. Infiltration does not include, and is distinguished from, inflow.

**INFILTRATION/INFLOW:** A combination of infiltration and inflow wastewater volumes in sewer lines, with no way to distinguish either of the basic sources, and with the same effect of usurping the capacities of sewer systems and facilities.

**INFLOW:** The water discharged into a sewer system, including service connections, from such sources as roof leaders; cellar, yard, and area drains; foundation drains; cooling water discharges; drains from springs and swampy areas; manhole covers; cross connection from storm drain, combined sewers, catch basins; storm waters; surface runoff, street wash waters; or drainage. Inflow does not include, and is distinguished from, Infiltration.

**INSPECTOR:** The Owner's on-site representative responsible for inspection and acceptance, approval, or rejection of work performed as set forth in these specifications.

**INTERNAL PIPE INSPECTION:** The television inspection of a sewer line section. A TV camera is moved through the line at a slow rate and a continuous picture is transmitted to an aboveground monitor.

**INVERT:** The floor, bottom or lowest point of a conduit.

**JOINTS:** The means of connection sectional lengths of sewer pipe into a continuous sewer line using various types of jointing materials. The number of joints depends on the lengths of the pipe sections used in the specific sewer construction work.

**LINEAR METER:** Being one meter. In these specifications used to denote the unit of measurement relating to the length of a sewer line.

**MAJOR BLOCKAGE:** A blockage (structural defect, collapse, protruding service connection, debris), which prohibits manhole-to-manhole cleaning, TV inspection or rehabilitation procedures.

**MANHOLE SECTION:** The length of sewer pipe connecting two manholes.

**MILESTONE DATE:** Means any date specified in the *Contract Documents* for completion of the work, or portion of the work, including the date of substantial performance.

**OVERFLOW:** (1) The excess water that flows over the ordinary limits of a sewer, manhole, or containment structure. (2) An outlet, pipe, or receptacle for the excess water.

**OWNER:** The City, sanitary district or other municipality, corporation, partnership or individual initiating the project, acting through its legally constituted officials, officers or employees.

**SANITARY SEWER:** A sewer intended to carry only sanitary or sanitary and industrial wastewaters from residences, commercial buildings, industrial parks, and institutions.

**STORM SEWER:** A sewer intended to carry only rain water or run off from residences, commercial buildings, industrial parks, and institutions.

**SEWER CLEANING:** The utilization of mechanical or hydraulic equipment to dislodge, transport, and remove debris from sewer lines.

**SEWER PIPE:** A length of conduit, manufactured from various materials and in various lengths, that when joined together can be used to transport wastewaters from the points of origin to a treatment facility. Types of pipe: Acrylonitrile-butadiene-styrene (ABS); Asbestos-Cement (AC); Brick Pipe (BP); Concrete Pipe (CP); Cast Iron Pipe (CIP); Polyethylene (PE); Polyvinylchloride (PVC); Reinforced Concrete (RC); Reinforced Plastic Mortar (RPM); Steel Pipe (SP); Vitrified Clay (VC).

**SITE:** Any location where work has been or will be done.

**SITE ACCESS:** An adequately clear zone of a size sufficient to accommodate personnel and equipment required at the location where work is to be performed, including roadway or surface sufficiently unobstructed to permit conveyance of vehicles from the nearest paved roadway to the work location.

**SUBCONTRACTOR:** An individual, firm, or corporation having a direct contract with the Contractor or with a lower-tier Subcontractor for performance of part of the work.

**SURCHARGE:** When the sewer flow exceeds the hydraulic carrying capacity of the sewer line.

**SWALE (DIP, SAG, BELLY):** A significant deviation in pipe grade such as to cause entrapment of solids, semisolids, and liquids, thereby impeding the accuracy and/or effectiveness of flow measurements, cleaning, and internal inspection.



For Official Use Only  
SSL-C Application Number: \_\_\_\_\_

# SANITARY SEWER LATERAL CCTV CERTIFICATE INSPECTION REPORT FORM AMC 6-7.3

To be completed by Certified Company Representative and submitted to Baltimore City - DPW

Owner Name: \_\_\_\_\_ APN: \_\_\_\_\_ Address: \_\_\_\_\_ Phone: \_\_\_\_\_

Mailing Address: \_\_\_\_\_  
City State Zip code

Company Name: \_\_\_\_\_ Inspector's Name: \_\_\_\_\_ Phone: \_\_\_\_\_

Sewer Usage:  Single Family Residence  Multi-family Residence  Condo  Commercial  Common Interest Development

Pipe Size: \_\_\_\_\_ Pipe Material: \_\_\_\_\_  Varying Size and/or Material. *Please Note Size & Material in Observation Notes*

CCTV Date: \_\_\_\_\_ Time: \_\_\_\_\_ Camera Direction:  With Flow  Against Flow Total Length: \_\_\_\_\_

**Please be sure to answer all the questions below:**

- Yes  No  Is Cleanout accessible outside of building?
- Yes  No  If **YES**, is it installed properly?
- Yes  No  Is there a sewer ejector pump at this property?
- Yes  No  Does private sewer lateral cross neighboring private property?
- Yes  No  Does private sewer lateral connect to City sewer in public right of way?
- Yes  No  Is there more than one structure at this address served by the private sewer lateral?
- Yes  No  Does property have a backwater valve?
- Yes  No  If **YES**, is backwater valve functioning properly?
- Yes  No  If **NO**, is a backwater valve required?
- Yes  No  Has property been verified as having no outside drains connected to the sewer system?

Method used to verify no outside drains connected to the sewer system: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

I certify that the information and video recording I have provided with this form are true and correct.

Inspector's signature: \_\_\_\_\_ Date: \_\_\_\_\_

The information submitted herewith complies with all requirements set forth by the City of Baltimore - DPW. I declare under penalty of perjury that all information submitted here applies to the listed address only.

Contractor : \_\_\_\_\_ Date: \_\_\_\_\_ Project# \_\_\_\_\_

For more information on the Sanitary Sewer Lateral Program and Additional Forms visit [www.bbpillc.com/PSL](http://www.bbpillc.com/PSL)

Deliver your completed application and supporting documents via email: [SSL@bbpillc.com](mailto:SSL@bbpillc.com), by post or in person to  
B&B Partnership Initiative, 10 South Street, Suite 301, Baltimore, MD. 21202

**For Official Use** Sewer Tap ID: \_\_\_\_\_ Sewer Clean Out ID(s): \_\_\_\_\_ Lateral ID: \_\_\_\_\_

COPY TO: PUBLIC WORKS  OWNER/SITEADDRESS



Address: \_\_\_\_\_ APN: \_\_\_\_\_ Contact: \_\_\_\_\_

Phone #: \_\_\_\_\_ Inspection Date: \_\_\_\_\_ Inspection Time: \_\_\_\_\_

PRIVATE SEWER LATERAL INSPECTION REPORT OBSERVATION CODES

D	DISPLACED JOINTS (Open/Offset)	J	JOINT (hard tap, Y, other)	I	INFILTRATION
C	CRACK	R	ROOTS: 25% 50% 75%	SD	SEDIMENT DEPOSITS
F	FRACTURE	L	LEAK	S	SAG
B	BROKEN	CP	CHANGE IN PIPE MATERIAL	O	OUT OF ROUND (Deformed)

LATERAL INSPECTION LOG

Please add as much detail as possible. GPS not required.

CODE	DISTANCE	GPS	MATERIAL	DEPTH	OBSERVATION

CCTV File Name: \_\_\_\_\_ File Format: \_\_\_\_\_  
 Preferred: .mp4 via USB or FTS

SITE SKETCH

Show footage distance from Clean Out to City sewer main.  
 Please indicate street name(s) and show relationship of building to the lateral(s) and the main in the street.  
 Use supplemental pages if necessary.

Corrective Action Recommended to Maintain, Repair, Rehabilitate or Replace the Private Sewer Lateral

Estimated Time and Cost Associated with such Maintenance, Repair, Rehabilitation or Replacement

**Sub Contract Agreement  
Section 5:**

**Attachment D –  
Sewer System  
Design (Diagram) Schedule**

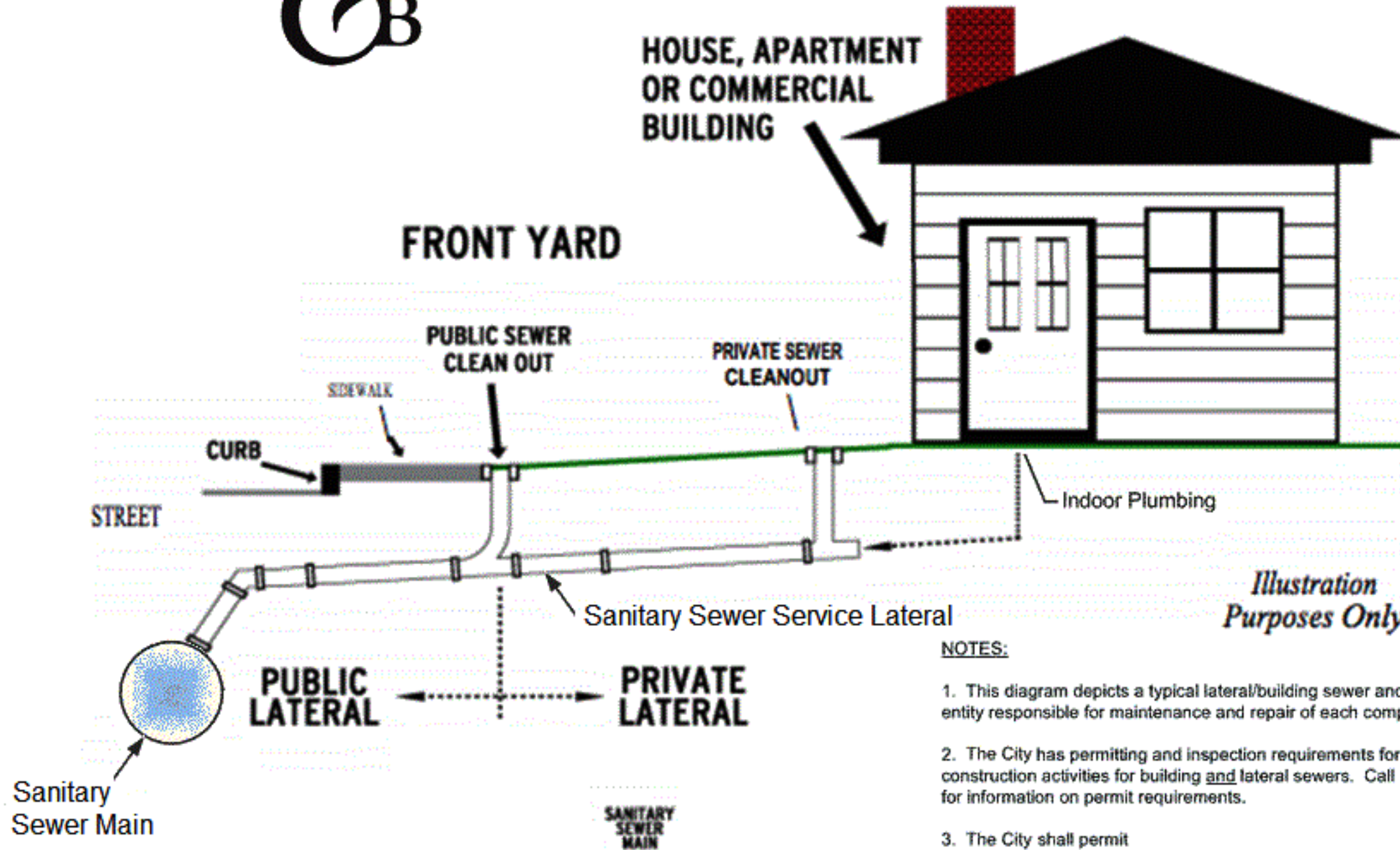
**W60617556RETE**





**HOUSE, APARTMENT  
OR COMMERCIAL  
BUILDING**

**FRONT YARD**



*Illustration  
Purposes Only*

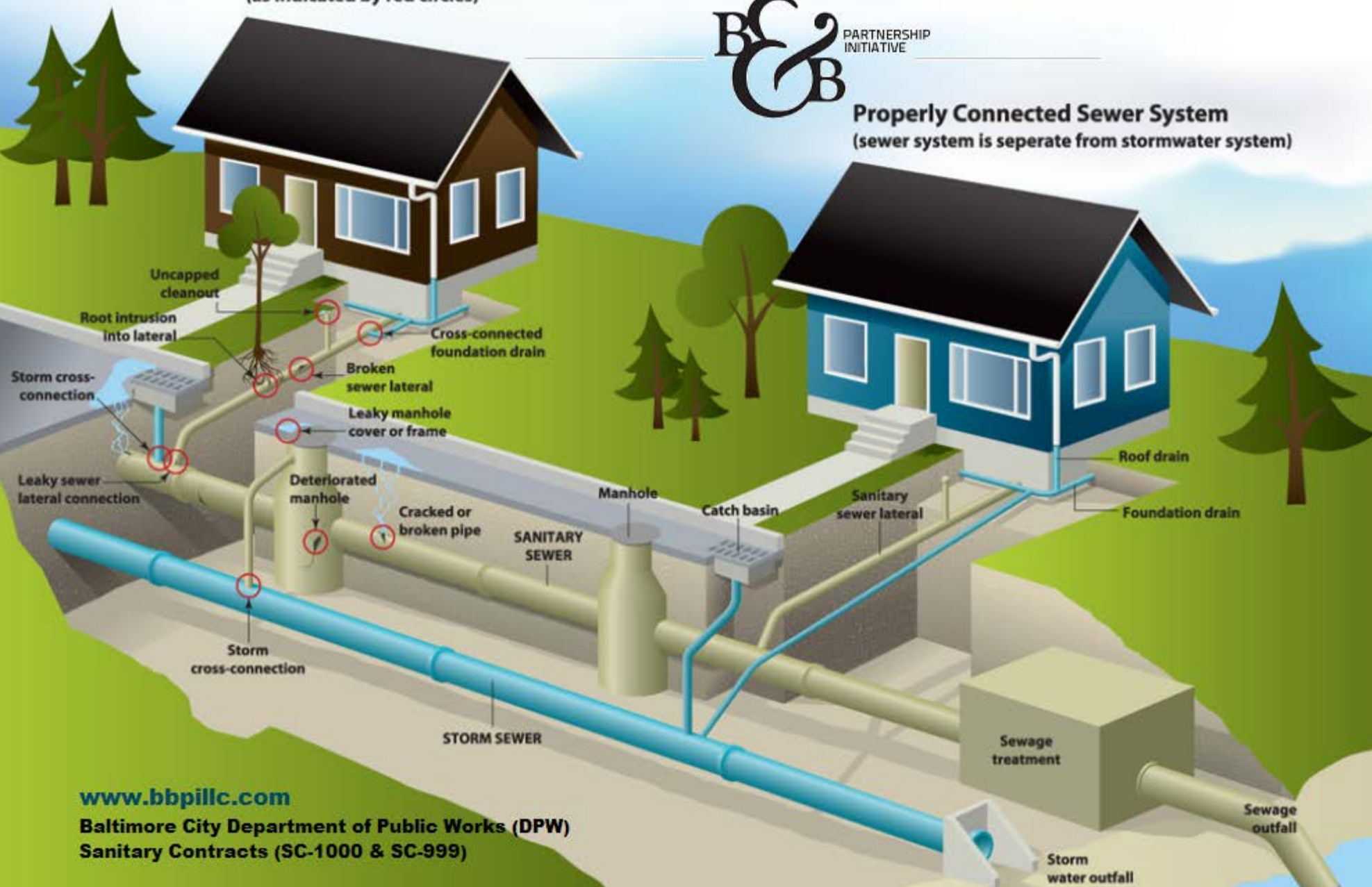
**NOTES:**

1. This diagram depicts a typical lateral/building sewer and identifies the entity responsible for maintenance and repair of each component.
2. The City has permitting and inspection requirements for all construction activities for building and lateral sewers. Call for information on permit requirements.
3. The City shall permit and inspect all plumbing or construction within the building and to a point 2-feet outside of the foundation.

## Sources of Inflow and Infiltration (as indicated by red circles)

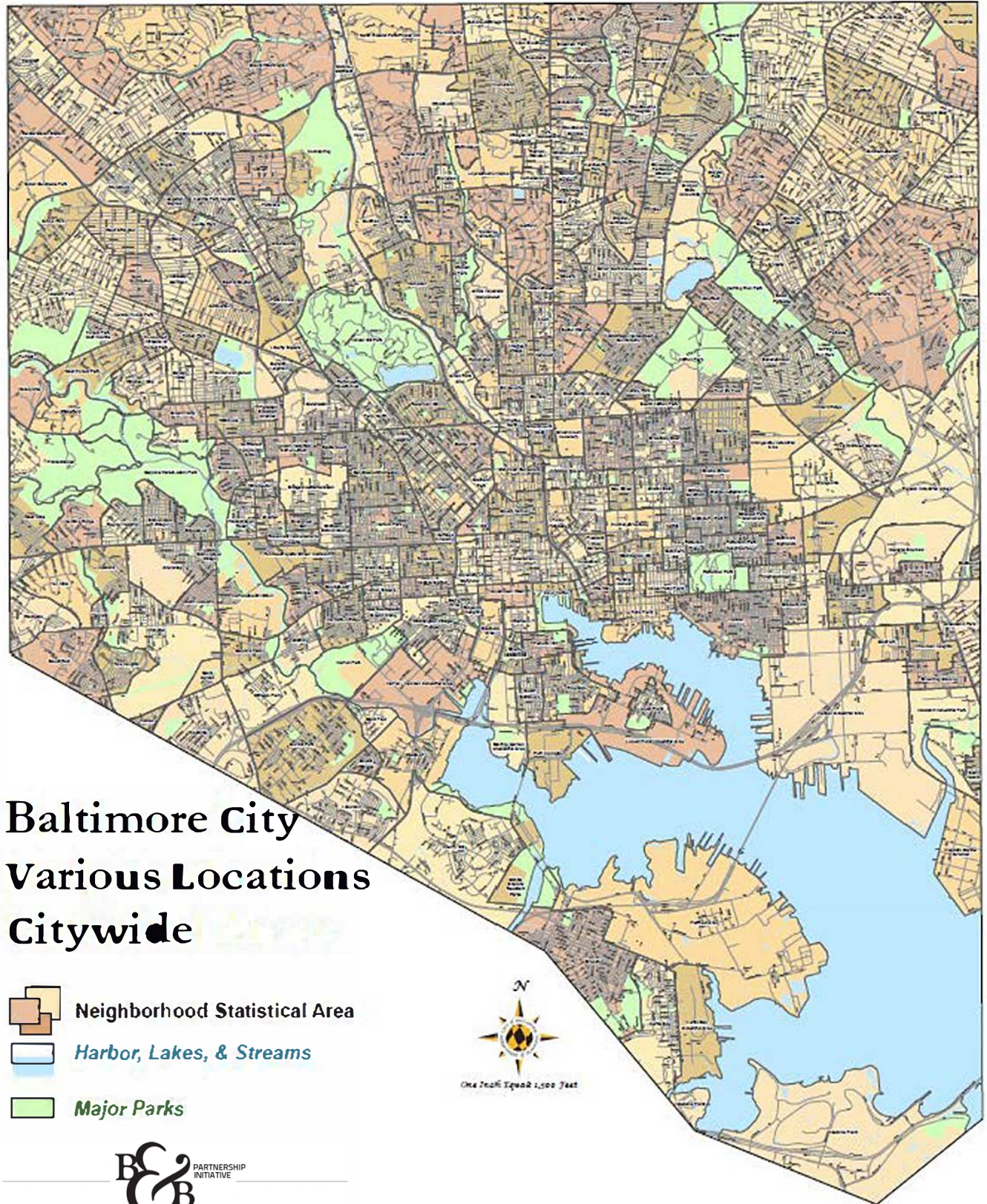


## Properly Connected Sewer System (sewer system is separate from stormwater system)



[www.bbpillc.com](http://www.bbpillc.com)

Baltimore City Department of Public Works (DPW)  
Sanitary Contracts (SC-1000 & SC-999)



# Baltimore City Various Locations Citywide

-  Neighborhood Statistical Area
-  Harbor, Lakes, & Streams
-  Major Parks



Bernard C. "Jack" Young  
Mayor  
Chris Ryer  
Director of Planning

Neighborhood Statistical Area  
boundaries are created from  
2010 Census Block Geography.



APPROVED: *[Signature]*  
 HEAD, BUREAU OF WATER AND WASTEWATER  
 DIRECTOR, DEPARTMENT OF PUBLIC WORKS

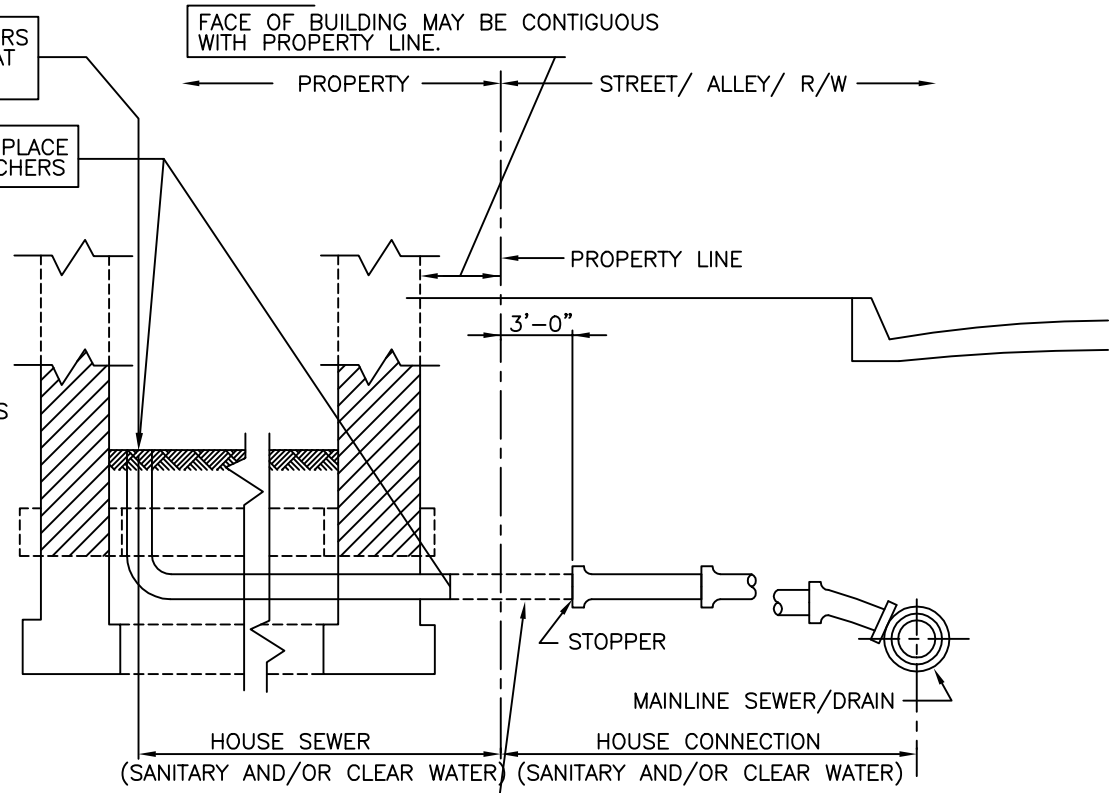
CITY OF BALTIMORE  
 DEPARTMENT OF PUBLIC WORKS  
 BUREAU OF WATER AND WASTEWATER  
 TYPICAL PLUGGING DETAIL  
 SANITARY HOUSE CONNECTIONS

ISSUED 3 / 2008  
 REVISED  
 REVISED  
 SCALE: NONE  
 SHEET 1 OF 1  
 STANDARD NO. BC 830.13

WHERE PLANS INDICATE PLUGGING HOUSE SEWERS INSIDE PROPERTY LINES. PLUG HOUSE SEWER AT SUBGRADE OF UNPAVED CELLAR FLOORS.

ANY PORTION OF THE HOUSE SEWERS LEFT IN PLACE SHALL BE PLUGGED AT THE ENDS OF THE REACHERS

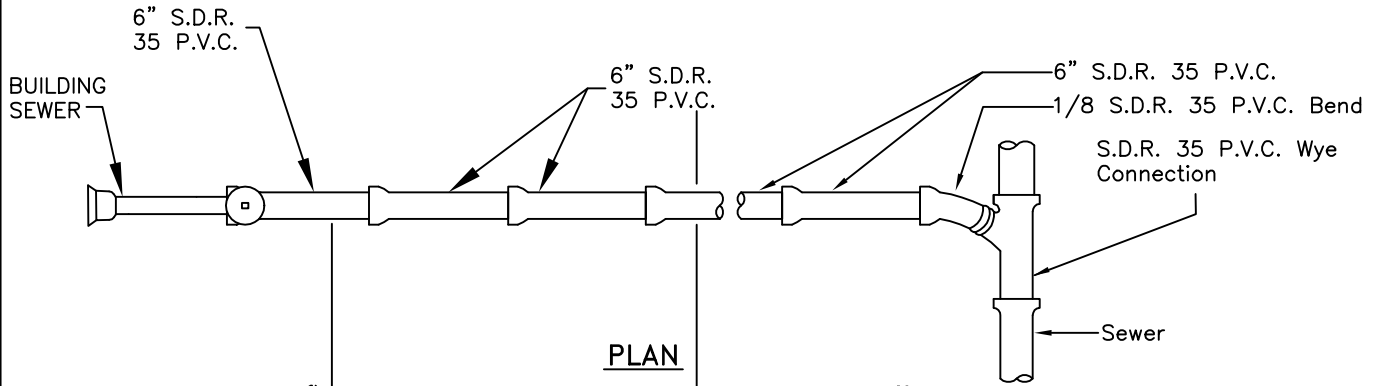
NOTE:  
 DIAMETER OF HOUSE SEWERS/CONNECTIONS TO BE PLUGGED VARY FROM 4" TO 8". STOPPERS TO BE OF ANY APPROVED COMMERCIAL GAS TIGHT TYPE.



LEGEND

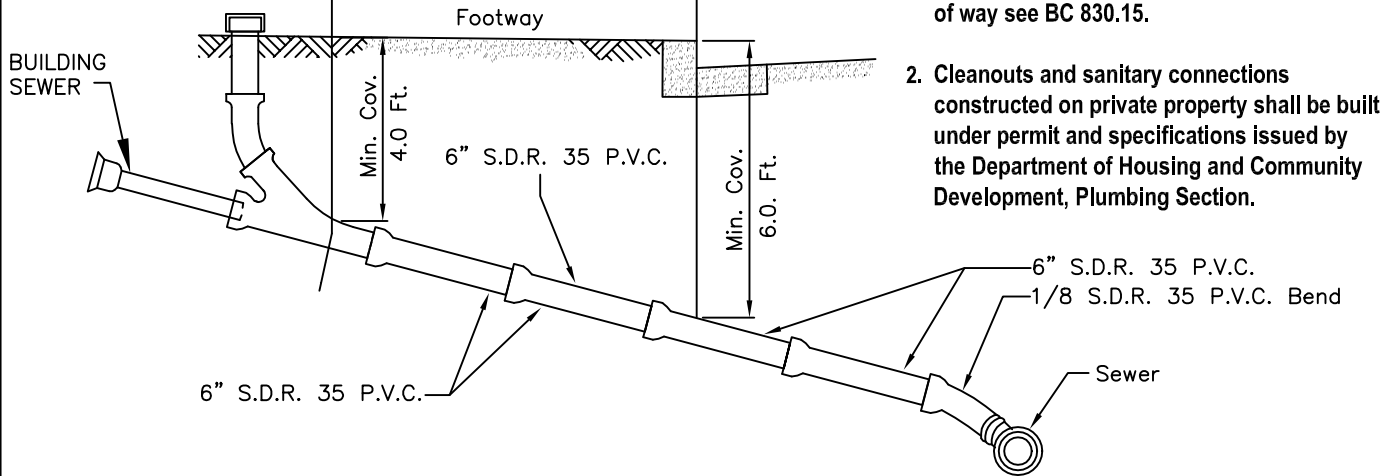
- HOUSE CONNECTION TO BE PLUGGED OUTSIDE OF PROPERTY LINES.
- HOUSE SEWER/HOUSE CONNECTION TO BE PLUGGED INSIDE PROPERTY LINES.
- M.H. SEWERS, MANHOLES AND LAMPHOLES TO BE ABANDONED.
- L.H. SEWERS, MANHOLES AND LAMPHOLES TO BE ABANDONED.

- WHERE PLANS INDICATE PLUGGING HOUSE CONNECTIONS OUTSIDE PROPERTY LINES. REMOVE LENGTH OF HOUSE CONNECTION PIPE AND INSTALL STOPPER LOCATION OF PLUGGED (STOPPER) END OF HOUSE CONNECTION TO BE NOT LESS THAN 3'-0" OUTSIDE OF PROPERTY LINE UNLESS SUITABLE BELL IS FOUND WITHIN THE 3'-0" MIN.
- M.H. - EXISTING MANHOLE
- F.C. - FRONT CONNECTION
- R.C. - REAR CONNECTION
- S.C. - SIDE CONNECTION
- (6.0') - APPROX. DEPTH OF CONNECTION AT PROPERTY LINE
- 0+17.0 - APPROX. LOCATION OF CONNECTION AT PROPERTY LINE OR SHOWN BY DIMENSION
- L.H. - LAMPHOLE



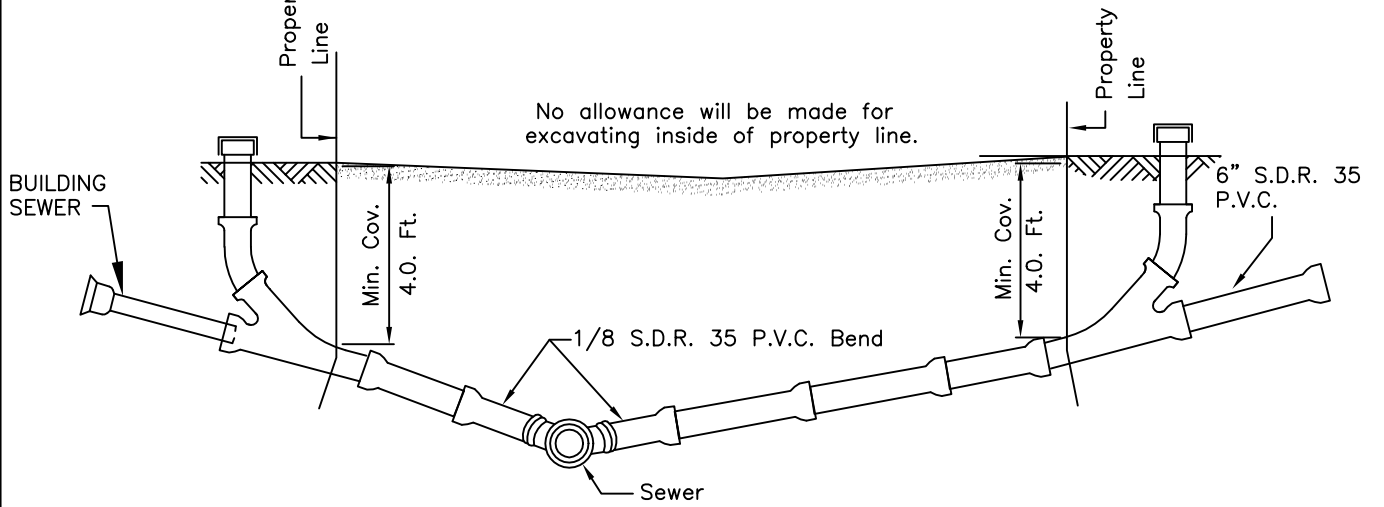
**Notes:**

1. A cleanout shall be constructed on private property at the property line. A minimum clearance of 2.0 ft. from building structures is required for rodding. If the building's proximity to the property line requires the cleanout to be constructed in the public right of way see BC 830.15.
2. Cleanouts and sanitary connections constructed on private property shall be built under permit and specifications issued by the Department of Housing and Community Development, Plumbing Section.


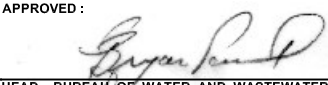
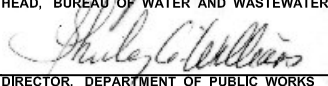


**ELEVATION**

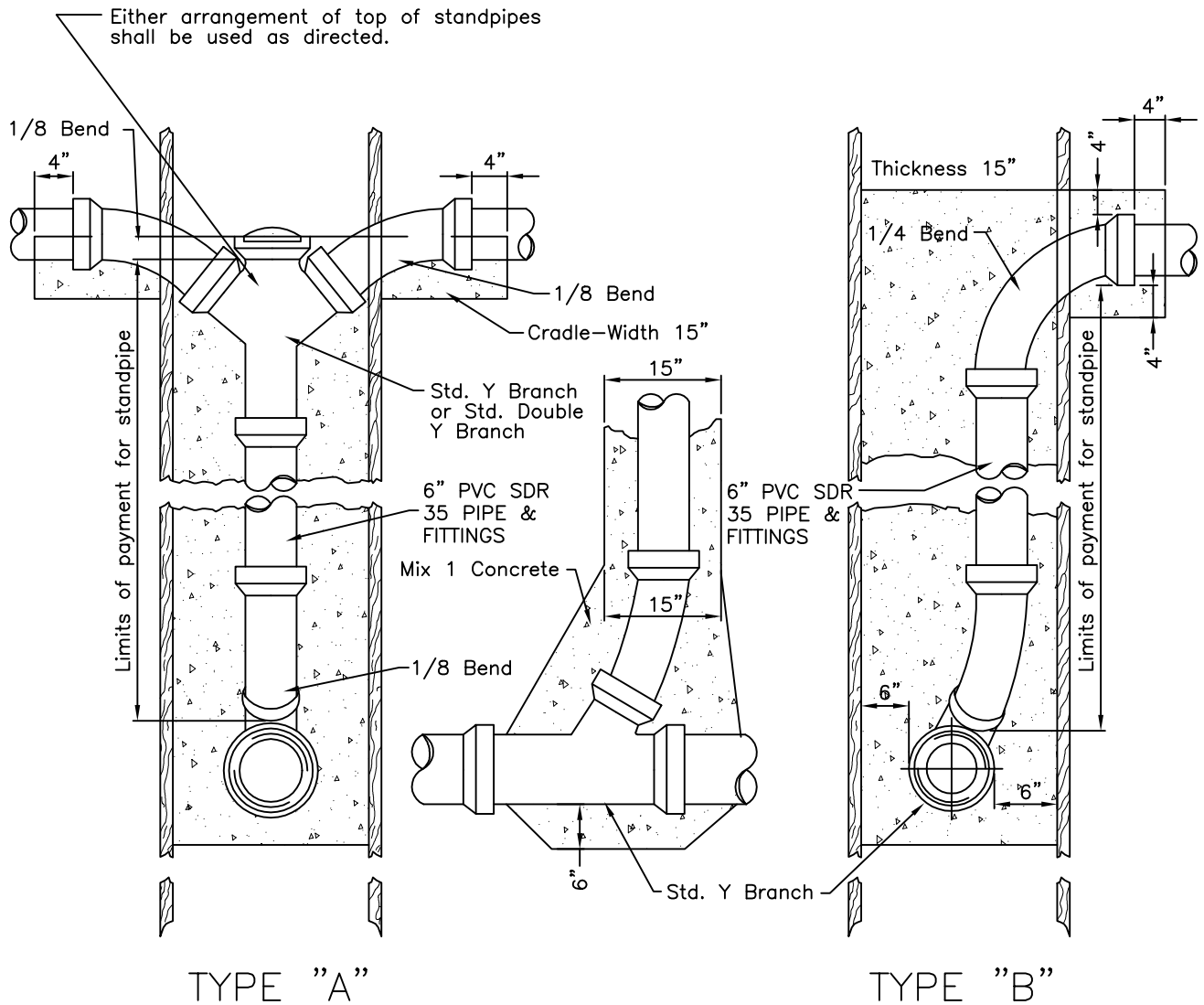
**TYPICAL HOUSE CONNECTION ACROSS FOOTWAYS**



**TYPICAL HOUSE CONNECTION IN ALLEYS**


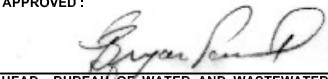

	APPROVED :  HEAD, BUREAU OF WATER AND WASTEWATER	<b>CITY OF BALTIMORE</b> <b>DEPARTMENT OF PUBLIC WORKS</b> <b>BUREAU OF WATER AND WASTEWATER</b>	ISSUED <b>3 / 2008</b>	REVISED 	REVISED 
	 DIRECTOR, DEPARTMENT OF PUBLIC WORKS	<b>TYPICAL INSTALLATIONS</b> <b>OF SANITARY HOUSE</b> <b>CONNECTIONS</b>	<b>STANDARD NO.</b> <b>BC 830.14</b>		
	SCALE : NONE		SHEET 1 OF 1		

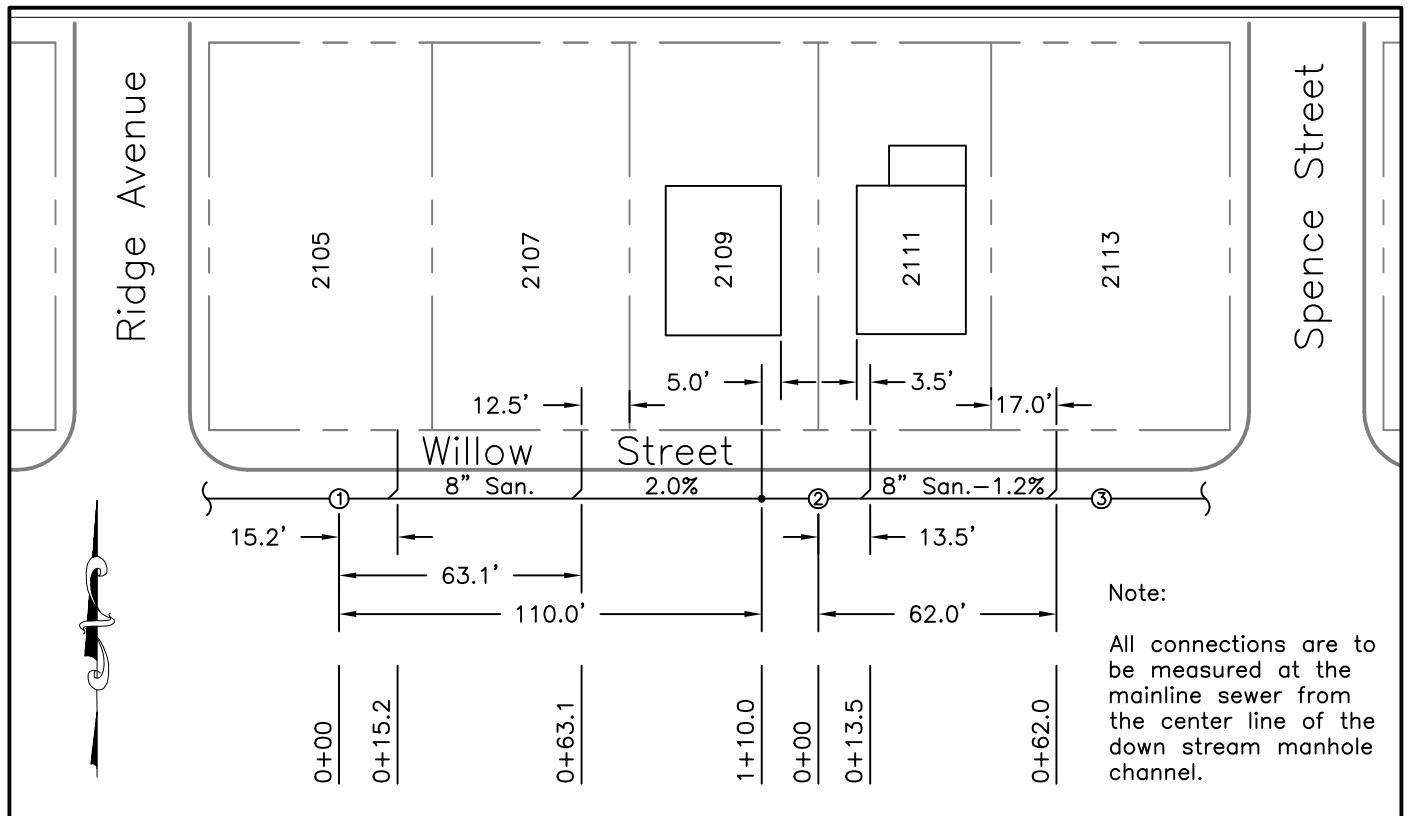




Note:

House connections to be laid not less than 15" below cellar floor if depth of sewer will allow except where "Written Request" is made for connection above floor; connections must be placed at greater depth wherever necessary to properly drain fixtures in cellar.

	APPROVED :  HEAD, BUREAU OF WATER AND WASTEWATER	<b>CITY OF BALTIMORE</b> <b>DEPARTMENT OF PUBLIC WORKS</b> <b>BUREAU OF WATER AND WASTEWATER</b>	ISSUED	REVISED	REVISED
	 DIRECTOR, DEPARTMENT OF PUBLIC WORKS		<b>TYPICAL INSTALLATIONS</b> <b>OF STANDPIPE HOUSE</b> <b>CONNECTIONS</b>	3 / 2008	
				<b>STANDARD NO.</b> <b>BC 830.16</b>	
			SCALE : NONE		SHEET 1 OF 1



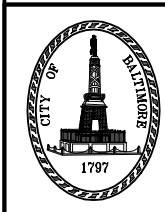
\*See Sheet 2 of 2 for form.

Willow St. from Ridge Ave. to Spence St. PREPARER'S NAME \_\_\_\_\_  
 M.H. 1 to M.H. 2 COMPLETION DATE 07/10/90

HOUSE No.	FRONT REAR OR SIDE	STA. OF Y	SIZE/ TYPE	STAND-PIPE * SIZE LENGTH AND KIND	LOCATION AT R/W OR PROPERTY LINE	COVER **	
						At Curb	At P.L.
2105	Front	0 + 15.2	6" PVC		Blind 'Y'		
2107	Front	0 + 63.1	6" PVC		12.5' West of East Property Line		9.2'
2109	Front	1 + 10.0	6" PVC	4.5'	5.0' West of East Wall of House		6.0'

Willow St. from Ridge Ave. to Spence St. PREPARER'S NAME \_\_\_\_\_  
 M.H. 2 to M.H. 3 COMPLETION DATE 07/10/90

HOUSE No.	FRONT REAR OR SIDE	STA. OF Y	SIZE/ TYPE	STAND-PIPE * SIZE LENGTH AND KIND	LOCATION AT R/W OR PROPERTY LINE	COVER **	
						At Curb	At P.L.
2111	Front	0 + 13.5	6" PVC		3.5' East of West Wall of House		5.4'
2113	Front	0 + 62.0	6" PVC		17.0' East of West Property Line	6.1'	

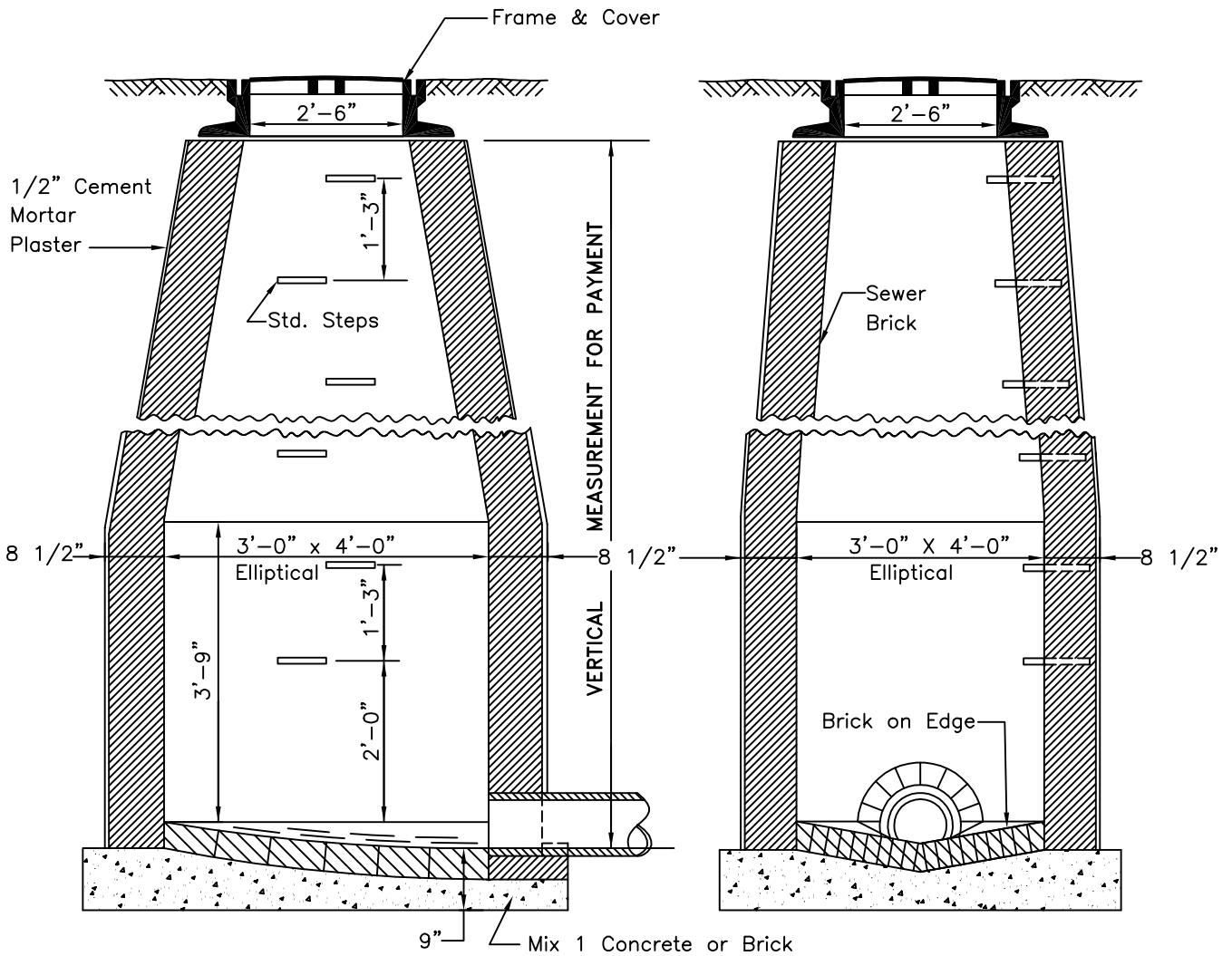


APPROVED: *[Signature]*  
 HEAD, BUREAU OF WATER AND WASTEWATER  
*[Signature]*  
 DIRECTOR, DEPARTMENT OF PUBLIC WORKS

**CITY OF BALTIMORE**  
**DEPARTMENT OF PUBLIC WORKS**  
**BUREAU OF WATER AND WASTEWATER**


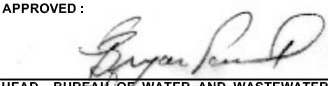
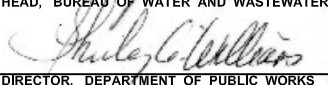
**MEASURING AND RECORDING**  
**AS-BUILT LOCATION OF NEW**  
**SANITARY HOUSE CONNECTIONS**

ISSUED	REVISED	REVISED
3 / 2008		
<b>STANDARD NO.</b>		
<b>BC 830.19</b>		
SCALE : NONE	SHEET 1 OF 2	

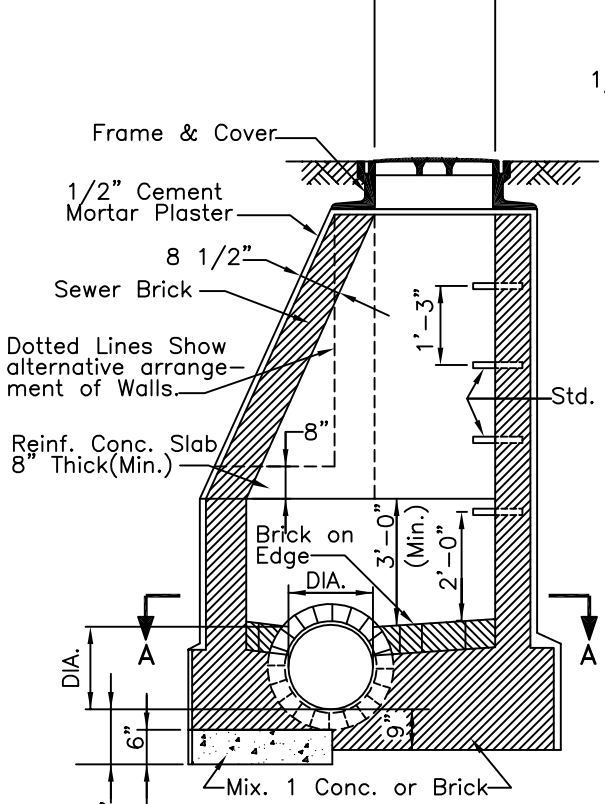


MANHOLE WALL THICKNESS

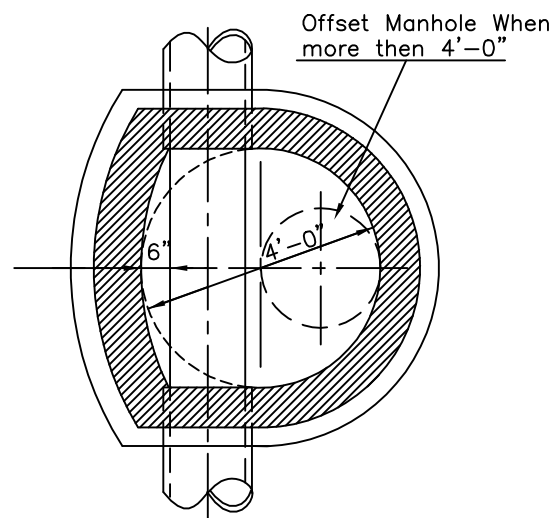
8" To Depth of 12'-0"  
 13" Below Depth of 12'-0"

	APPROVED :  HEAD, BUREAU OF WATER AND WASTEWATER	CITY OF BALTIMORE DEPARTMENT OF PUBLIC WORKS BUREAU OF WATER AND WASTEWATER	ISSUED	REVISED	REVISED
	 DIRECTOR, DEPARTMENT OF PUBLIC WORKS		3 / 2008		
	SANITARY TERMINAL MANHOLE		STANDARD NO. BC 831.03		

For 30" Frame & Cover 2'-6"



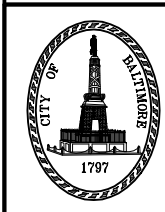
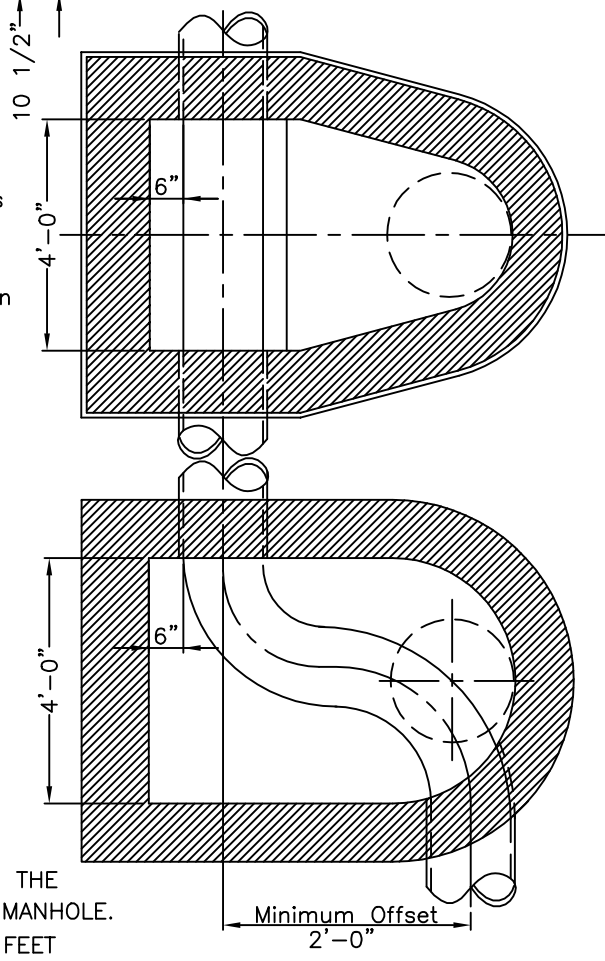
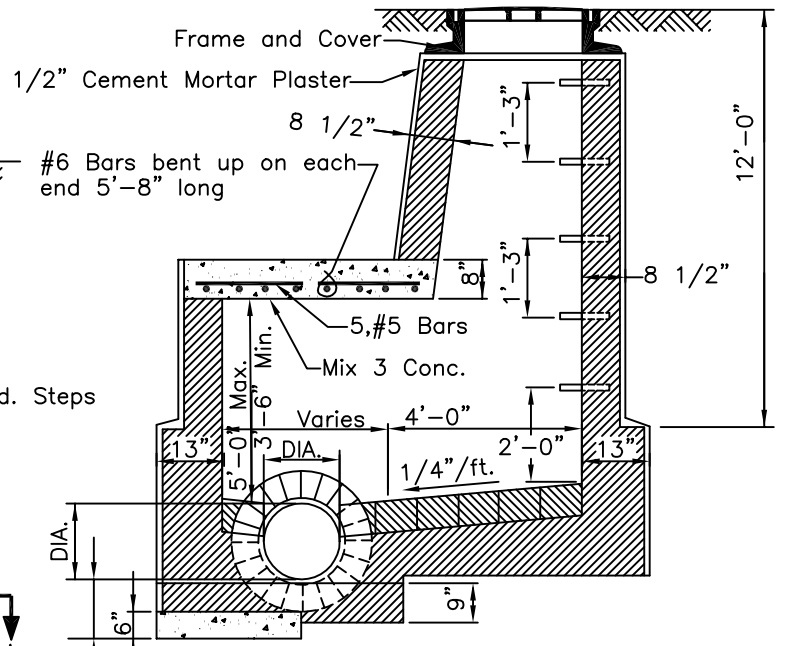
NOTE: If conc. slab is used place #4 Bars 12" c.c. both ways 2" clear from top when Req'd by the Engineer



SECTION-A-A

**BASIS OF PAYMENT**

SANITARY OFFSET MANHOLES SHALL BE PAID FOR ON THE BASIS OF THE LUMP SUM BID FOR EACH COMPLETE MANHOLE. NO ADDITIONAL PAYMENT WILL BE MADE FOR LINEAR FEET OF EXTRA VERTICAL DEPTH.

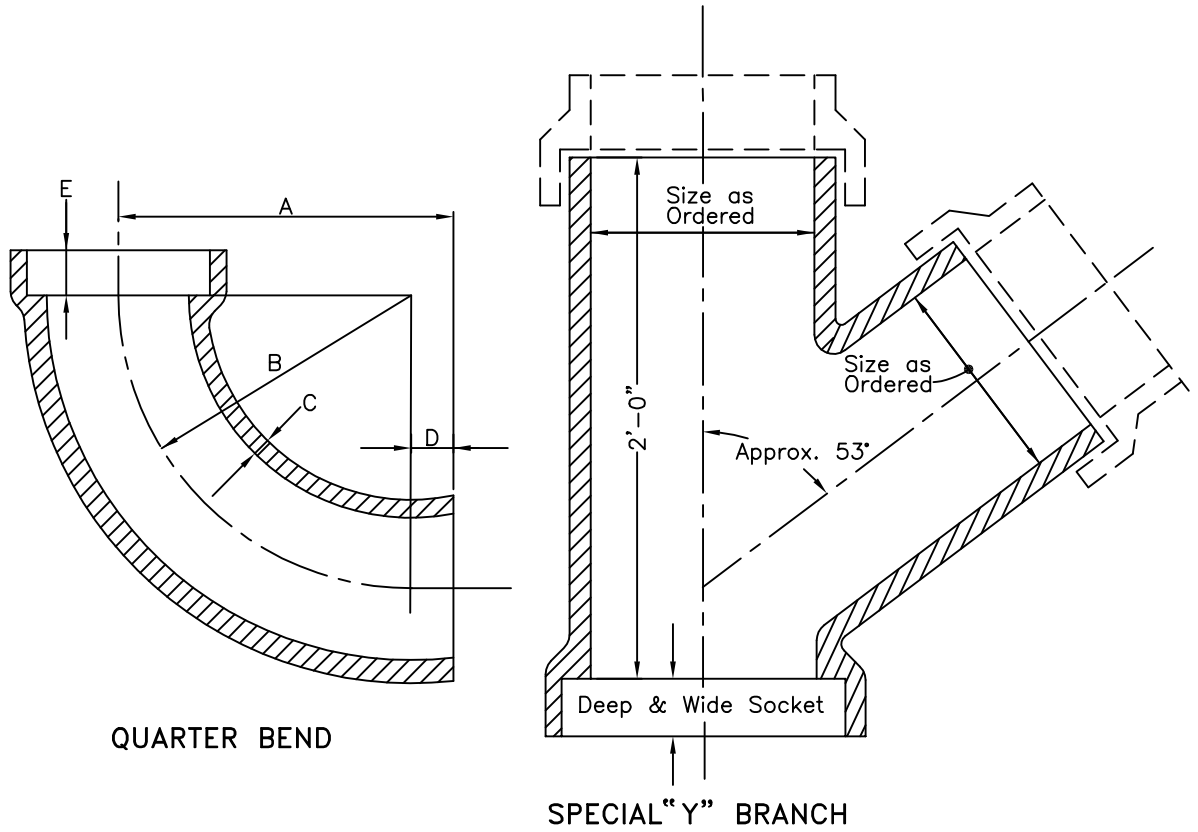


APPROVED:  
*[Signature]*  
 HEAD, BUREAU OF WATER AND WASTEWATER  
*[Signature]*  
 DIRECTOR, DEPARTMENT OF PUBLIC WORKS

CITY OF BALTIMORE  
 DEPARTMENT OF PUBLIC WORKS  
 BUREAU OF WATER AND WASTEWATER  
 SANITARY OFFSET MANHOLE  
 30" COVER

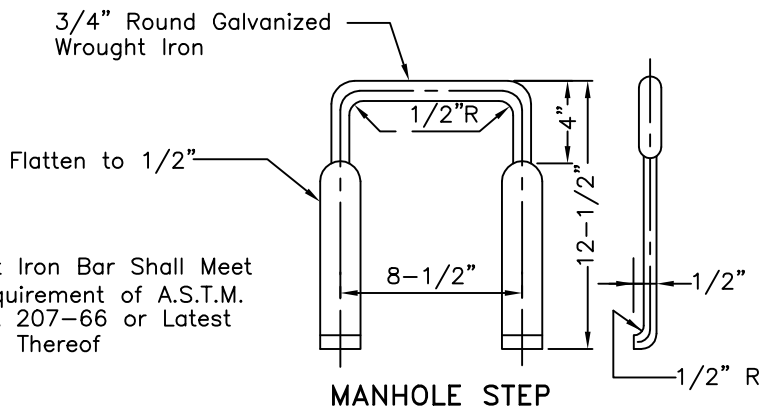
ISSUED	REVISED	REVISED
3 / 2008		
<b>STANDARD NO. BC 831.20</b>		
SCALE : NONE		SHEET 1 OF 1

SIZE	A	B	C	D	E
10"	23"	20"	7/8"	3"	2-3/4"
8"	21"	18"	3/4"	3"	2-3/4"
6"	18"	15"	5/8"	3"	2-1/2"



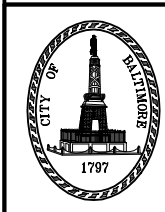
QUARTER BEND

SPECIAL "Y" BRANCH



MANHOLE STEP

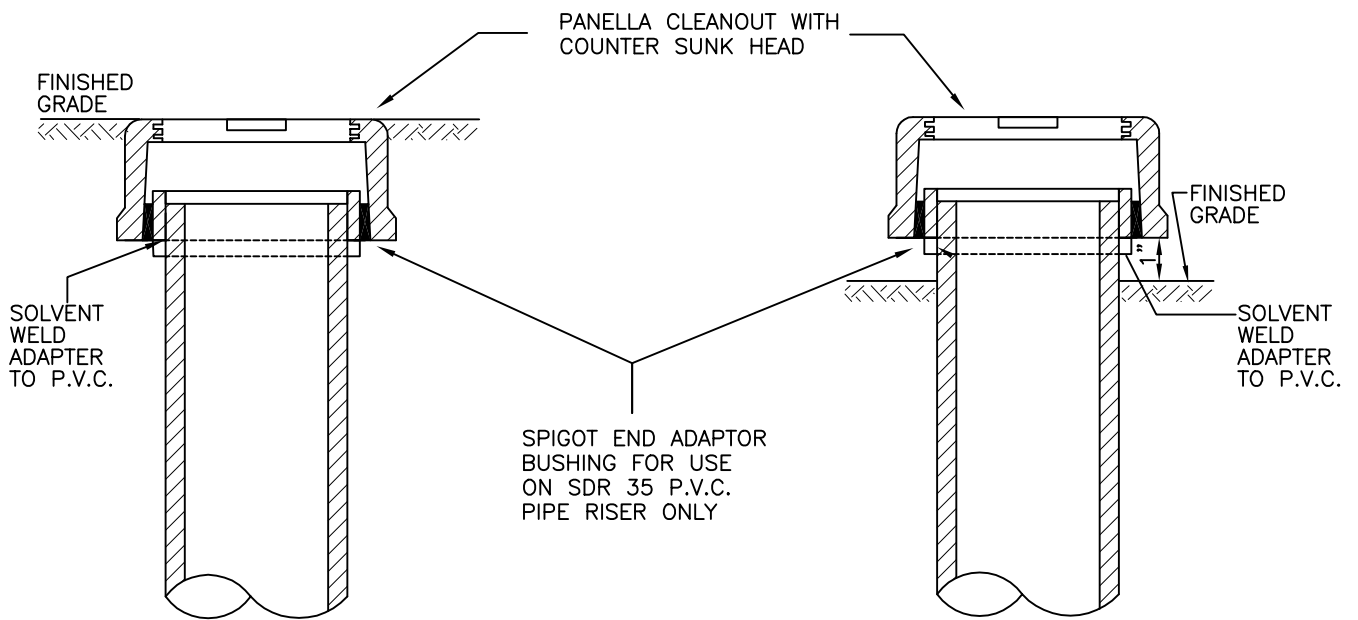
Note: Wrought Iron Bar Shall Meet the Requirement of A.S.T.M. Spec. A 207-66 or Latest Revision Thereof



APPROVED :  
*[Signature]*  
 HEAD, BUREAU OF WATER AND WASTEWATER  
*[Signature]*  
 DIRECTOR, DEPARTMENT OF PUBLIC WORKS

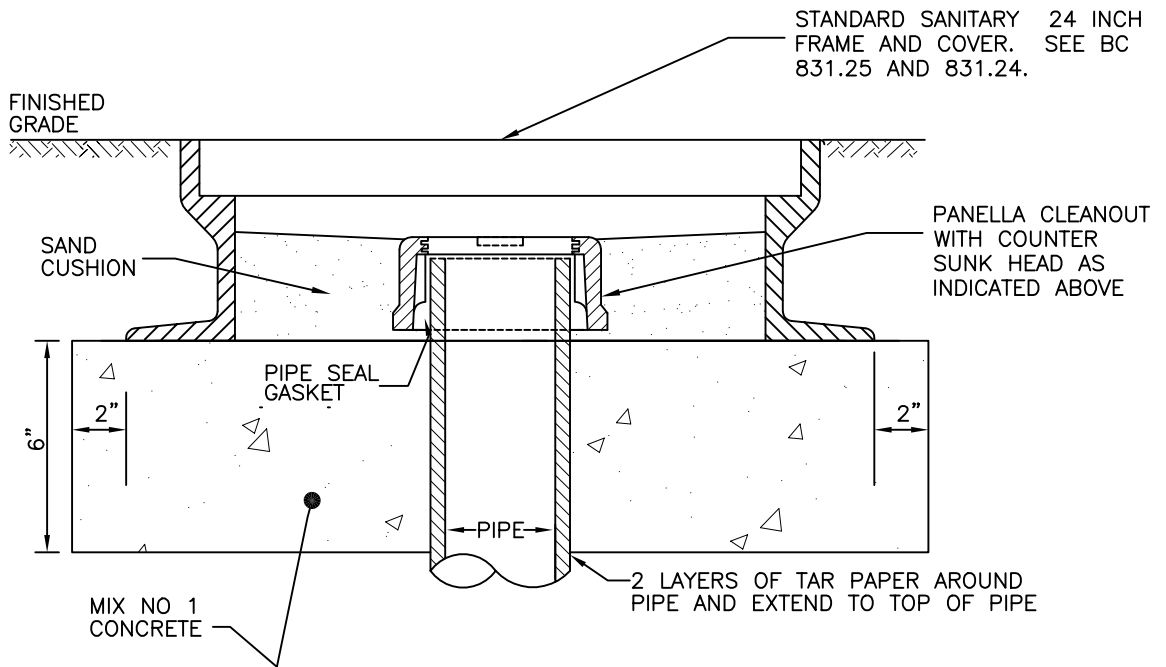
CITY OF BALTIMORE  
 DEPARTMENT OF PUBLIC WORKS  
 BUREAU OF WATER AND WASTEWATER  
 SPECIAL FITTINGS

ISSUED	REVISED	REVISED
3 / 2008		
<b>STANDARD NO. BC 831.23</b>		
SCALE : NONE		SHEET 1 OF 1



DETAIL FOR SIDEWALK AREA ONLY

DETAIL FOR NON-TRAFFIC AREA ONLY



DETAIL FOR ROADWAY AREA ONLY

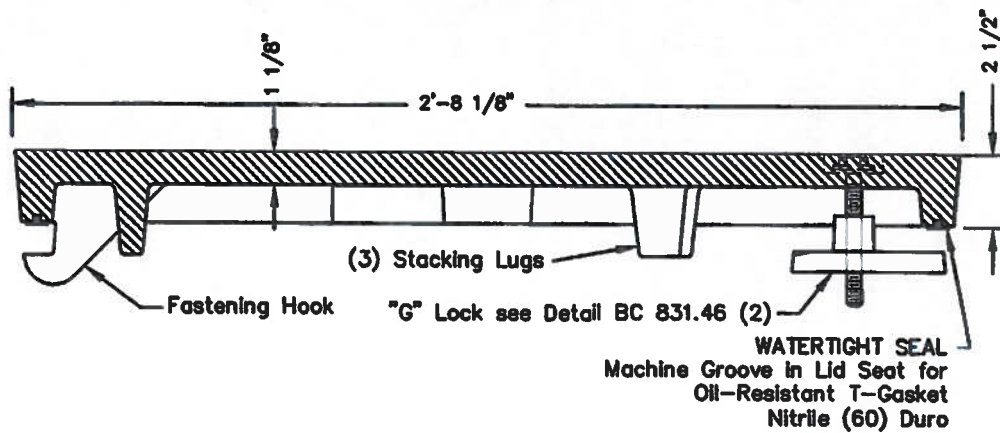
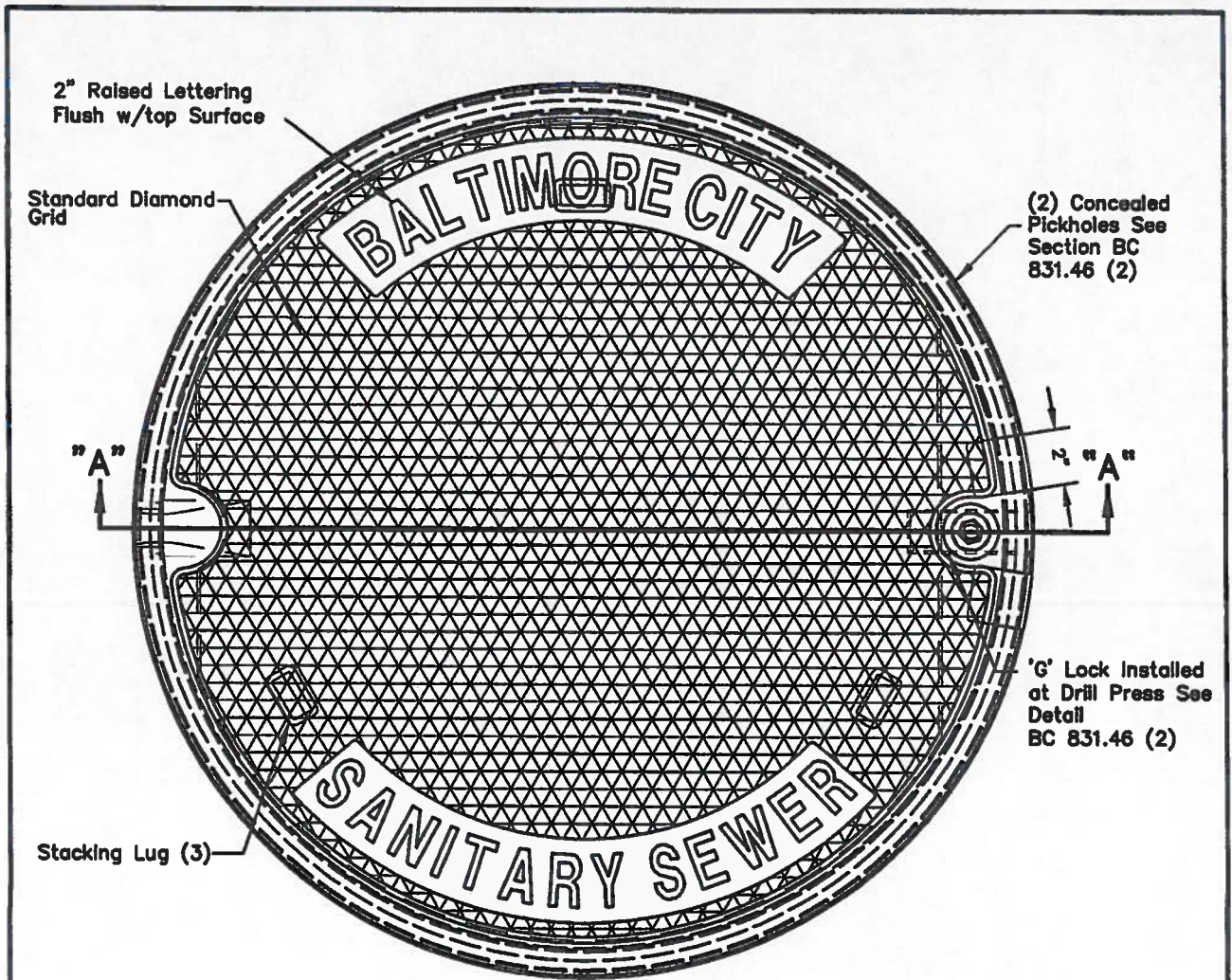


APPROVED :  
*[Signature]*  
 HEAD, BUREAU OF WATER AND WASTEWATER  
*[Signature]*  
 DIRECTOR, DEPARTMENT OF PUBLIC WORKS

CITY OF BALTIMORE  
 DEPARTMENT OF PUBLIC WORKS  
 BUREAU OF WATER AND WASTEWATER

CLEANOUT COVER ASSEMBLY

ISSUED	REVISED	REVISED
3 / 2008		
<b>STANDARD NO. BC 831.29</b>		
SCALE : NONE		SHEET 1 OF 1



SECTION "A-A"

For Std. 30" Lockable Watertight  
Manhole Frame See BC 831.47



APPROVED:  
*Kumar Vind 7/2/14*  
HEAD, BUREAU OF WATER AND WASTEWATER  
*S. D. ... 7/2/14*  
DIRECTOR, DEPARTMENT OF PUBLIC WORKS

CITY OF BALTIMORE  
DEPARTMENT OF PUBLIC WORKS  
BUREAU OF WATER AND WASTEWATER

STANDARD LOCKABLE WATERTIGHT  
SANITARY 30 IN. MANHOLE COVER

ISSUED	REVISED	REVISED
6/2014		

STANDARD NO  
BC 831.46

SCALE: NONE

SHEET 1 OF 2

**Sub Contract Agreement  
Section 6:**

**Attachment E –  
Maintenance of Traffic  
(MOT)**

**W60617556ETE**





**Attachment E – Maintenance of Traffic (MOT) Diagram Schedule  
APPENDIX 1**

The following Dept. of Transportation (DOT) documents are included:

DRAWING NUMBER SPECIFICATION	DATE	REVISION NO.	REVISION DATE
Standard NO. BC 104.01-1	8/2010	n/a	n/a

DRAWING NUMBER SPECIFICATION	DATE	REVISION NO.	REVISION DATE
Standard NO. BC 104.01-2	8/2010	n/a	n/a

DRAWING NUMBER SPECIFICATION	DATE	REVISION NO.	REVISION DATE
Standard NO. BC 104.01-3	8/2010	n/a	n/a

DRAWING NUMBER SPECIFICATION	DATE	REVISION NO.	REVISION DATE
Standard NO. BC 104.01-4	8/2010	n/a	n/a

DRAWING NUMBER SPECIFICATION	DATE	REVISION NO.	REVISION DATE
Standard NO. BC 104.01-5	8/2010	n/a	n/a

DRAWING NUMBER SPECIFICATION	DATE	REVISION NO.	REVISION DATE
Standard NO. BC 104.01-6	8/2010	n/a	n/a

DRAWING NUMBER SPECIFICATION	DATE	REVISION NO.	REVISION DATE
Standard NO. BC 104.01-7	8/2010	n/a	n/a

DRAWING NUMBER SPECIFICATION	DATE	REVISION NO.	REVISION DATE
Standard NO. BC 104.02-2	8/2010	n/a	n/a

DRAWING NUMBER SPECIFICATION	DATE	REVISION NO.	REVISION DATE
Standard NO. BC 104.02-14	8/2010	n/a	n/a

DRAWING NUMBER SPECIFICATION	DATE	REVISION NO.	REVISION DATE
Standard NO. BC 111.01	8/2010	n/a	n/a

DRAWING NUMBER SPECIFICATION	DATE	REVISION NO.	REVISION DATE
Standard NO. BC 117.01	8/2010	n/a	n/a

**GUIDELINES FOR TEMPORARY TRAFFIC CONTROL**

THESE GUIDELINES ARE FOR PREPARING TEMPORARY TRAFFIC CONTROL PLANS (TTCP) FOR CONSTRUCTION OR UTILITY WORK WITHIN OR ADJACENT TO THE STREETS OF BALTIMORE CITY. FOLLOWING THESE GUIDELINES WILL HELP DEVELOP AN ACCEPTABLE PLAN THAT MINIMIZES INCONVENIENCES TO THE DRIVING PUBLIC WHILE ASSURING SAFE CONDITIONS FOR WORKERS AND OTHER STREET USERS INCLUDING PEDESTRIANS AND BICYCLISTS.

DESIGN AND INSTALLATION OF TEMPORARY TRAFFIC CONTROL IN BALTIMORE CITY WILL BE DONE UTILIZING THE TEMPORARY TRAFFIC CONTROL PORTION OF THE MOST CURRENT MARYLAND STATE HIGHWAY ADMINISTRATION (MDSHA) BOOK OF STANDARDS AND THE MARYLAND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) PART 6, TEMPORARY TRAFFIC CONTROL, AS BASIC GUIDELINES. THE GUIDELINES, REQUIREMENTS AND DETAILS PROVIDED HERE SUPPLEMENT THE ABOVE MENTIONED BASIC DOCUMENTS AND INCLUDE OTHER USEFUL INFORMATION THAT WILL FACILITATE DESIGN AND INSTALLATION OF APPROPRIATE TEMPORARY TRAFFIC CONTROLS. USERS OF THIS INFORMATION SHALL ALSO COMPLY WITH TRAFFIC CONTROL RELATED PORTIONS OF THE LATEST BALTIMORE CITY 2006 STANDARD SPECIFICATIONS FOR MATERIALS, HIGHWAYS, BRIDGES, UTILITIES AND INCIDENTAL STRUCTURES.

THE PURPOSE OF USING TEMPORARY TRAFFIC CONTROL DEVICES (TTCD) IS TO ENSURE ROADWAY SAFETY BY PROVIDING ORDERLY AND PREDICTABLE MOVEMENT OF VEHICULAR TRAFFIC AND THE GUIDANCE AND WARNING NECESSARY FOR STREET USERS, PEDESTRIANS AND BICYCLISTS TO NAVIGATE THE WORK ZONE SAFELY. AT THE COMPLETION OF WORK ACTIVITIES, STREET CONDITIONS SHALL BE FULLY RESTORED TO THOSE THAT EXISTED PRIOR TO THE WORK ACTIVITY.

STREET USER AND WORKER SAFETY AND ACCESSIBILITY TO WORK ZONES SHOULD BE INTEGRAL AND HIGH PRIORITY ELEMENTS OF EVERY PROJECT FROM PLANNING THROUGH DESIGN AND CONSTRUCTION. MAINTENANCE AND UTILITY WORK SHOULD BE PLANNED AND CONDUCTED WITH THE SAFETY OF ALL MOTORISTS, BICYCLISTS, PEDESTRIANS (INCLUDING THOSE WITH DISABILITIES), AND WORK ZONE PERSONNEL BEING CONSIDERED AT ALL TIMES. PERSONS INVOLVED IN DEVELOPING TTCP SHOULD BE FAMILIAR WITH PROVISIONS OF THE AMERICAN WITH DISABILITIES ACT.

ANY CONSIDERATIONS FOR CLOSURE OF A STREET OR SIDEWALK MUST BE CAREFULLY REVIEWED AND JUSTIFIED TO BALTIMORE CITY WITH RESPECT TO BOTH THE NECESSITY AS WELL AS THE IMPACT OF THE CLOSURE TO THE PUBLIC.

TEMPORARY TRAFFIC CONTROL ZONES IN BALTIMORE CITY MAY INCLUDE AT GRADE RAILROAD CROSSINGS. IT IS RECOMMENDED THAT EARLY CONTACT AND COORDINATION BE MADE WITH THE RAILROAD COMPANY OR MARYLAND TRANSIT ADMINISTRATION (LIGHT RAIL, METRO SUBWAY).

THESE GUIDELINES, MANUALS AND STANDARDS ADDRESS A WIDE VARIETY OF NECESSARY TRAFFIC CONTROL CONDITIONS, HOWEVER EVERY POSSIBLE SITUATION MAY NOT BE SHOWN. CLOSELY SPACED INTERSECTIONS, AUXILIARY TURN LANES, TURN PROHIBITIONS, SHORT STREET LENGTHS, SHORT BLOCK LENGTHS, TRAFFIC SIGNALS, THE PRESENCE OF HIGH VOLUME COMMERCIAL DRIVEWAYS, PARKING METERS AND VARIABLE STREET WIDTHS ARE URBAN CONDITIONS WHICH REQUIRE CAREFUL ATTENTION TO SITE SPECIFIC CONSTRUCTION SEQUENCE PHASING AND TRAFFIC CONTROL DEVICE APPLICATION.

IF PARKING METERS ARE WITHIN THE WORK ZONE OF A CONTRACT, THE CONTRACTOR SHALL CONTACT BALTIMORE CITY PARKING AUTHORITY TO ARRANGE FOR BAGGING OF PARKING METERS. EXISTING 'PARKING' SIGNS SHALL BE COVERED AND TEMPORARY 'NO PARKING ANYTIME' SIGNS SHALL BE INSTALLED WITHIN THE AFFECTED AREA. PARKING METER POLES SHALL NOT BE USED FOR TEMPORARY SIGNS. AT THE COMPLETION OF CONSTRUCTION, PARKING SIGNAGE AND METERS SHALL BE RESTORED TO THEIR PREVIOUS CONDITION.

AS PART OF TEMPORARY TRAFFIC CONTROL DESIGN INCLUDES A SPECIAL PROVISION CONTAINING ANY WORK RESTRICTIONS, SUCH AS DAYS THE CONTRACTOR MAY NOT WORK, DAYS DETOURS MAY NOT BE IMPLEMENTED, HOURS THAT LANE RESTRICTIONS ARE ALLOWED OR NOT ALLOWED, OR OTHER RESTRAINTS THAT MUST BE CONSIDERED BASED ON TRAFFIC VOLUMES OR OTHER CONSIDERATIONS. THE PREPARER OF THE TRAFFIC CONTROL PLAN SHALL CONTACT THE BALTIMORE CITY TRAFFIC ENGINEERS' OFFICE TO OBTAIN THIS INFORMATION. THE SPECIAL PROVISION SHALL BE PART OF THE PROJECT BOOKLET.

TEMPORARY TRAFFIC SIGNAL MODIFICATION(S) WILL BE COORDINATED THROUGH THE BALTIMORE CITY TRAFFIC ENGINEERS' OFFICE.

THE CONTRACTOR WILL BE SOLELY RESPONSIBLE FOR ALL ACCIDENTS OR DAMAGE TO PERSONS AND ANY PROPERTY DAMAGE RESULTING FROM HIS OPERATIONS.

NO MATERIALS OR EQUIPMENT SHALL BE STORED ON THE ROADWAY SURFACE OR SIDEWALK DURING NON-WORKING PERIODS. ALL STORED MATERIALS AND EQUIPMENT SHALL BE SET BACK AT LEAST SIX (6) FEET BEHIND THE CURB ALONG A CLOSED SECTION ROADWAY AND AT LEAST TWELVE (12) FEET FROM THE EDGE OF AN OPEN SECTION ROADWAY. HAZARDOUS MATERIAL SHALL NOT BE STORED WITHIN THE PUBLIC RIGHT-OF-WAY.

ALL TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE REMOVED AS SOON AS PRACTICAL WHEN THEY ARE NO LONGER NEEDED. WHEN WORK IS SUSPENDED FOR SHORT PERIODS OF TIME, TEMPORARY TRAFFIC CONTROL DEVICES THAT ARE NO LONGER APPROPRIATE SHALL BE REMOVED OR COVERED.

IN UTILIZING THESE GUIDELINES ANY QUESTIONS ABOUT INTERPRETATIONS OR DETAIL APPLICATIONS SHALL BE REFERRED TO BALTIMORE CITY TRAFFIC ENGINEER OR OTHER RESPONSIBLE PARTY WHO HAS EXPERTISE IN TRAFFIC ENGINEERING AND HAS JURISDICTION ON THE AFFECTED STREETS.



APPROVED:  
*Frank Murphy*  
DEPUTY DIRECTOR - OPERATIONS  
*Khalil Zane*  
DIRECTOR, DEPARTMENT OF TRANSPORTATION

CITY OF BALTIMORE  
DEPARTMENT OF TRANSPORTATION  
TRAFFIC DIVISION

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**GUIDELINES FOR TEMPORARY TRAFFIC CONTROL**

STANDARD NO. BC 104.01-1	
SCALE : NONE	SHEET 1 OF 7

**TEMPORARY TRAFFIC CONTROL PLAN (TTCP) PREPARATION AND REQUIREMENTS**

PERSONS RESPONSIBLE FOR THE DEVELOPMENT AND IMPLEMENTATION OF WORK ZONE TTCP SHALL BE CERTIFIED BY THE MARYLAND STATE HIGHWAY ADMINISTRATION, OFFICE OF TRAFFIC AND SAFETY AS HAVING COMPLETED AND PASSED THE TEMPORARY TRAFFIC CONTROL MANAGERS TRAINING COURSE.

SPECIFIC DRAWING SCALES ARE REQUIRED TO ADEQUATELY SHOW THE LOCATIONS OF ADVANCE CONSTRUCTION SIGNS, THE DIMENSIONS FOR THE PLACEMENT OF CHANNELIZING DEVICES AND PAVEMENT MARKINGS, OR OTHER PHASES OF CONSTRUCTION AS REQUIRED. ACCEPTABLE SCALES ARE 1"=20', 1"=30' AND 1"=40'.

IT IS EXPECTED THAT A LOGICAL, PRACTICAL SEQUENCE WILL BE PRESENTED. THIS SEQUENCE SHOULD BE BASED ON REALISTIC AND UP TO DATE CONSTRUCTION PRACTICES AND METHODS. IMPACTS OF UTILITY RELOCATION, PEDESTRIAN MOVEMENTS, TRAFFIC DELAYS, DETOURS, ROADWAY STABILITY, CAPACITY RESTRICTIONS, MINIMUM LANE WIDTHS AND SAFETY MUST BE CONSIDERED ALONG WITH ANY OTHER SITE SPECIFIC CONDITIONS THAT MAY AFFECT WORK ZONE TRAFFIC CONTROL. EACH PHASE OF CONSTRUCTION, INCLUDING THE FOLLOW UP RESTORATION OPERATIONS, SHALL BE PROVIDED WITH APPROPRIATE WORK ZONE TRAFFIC CONTROLS.

FIELD CHECKS OF THE CONSTRUCTION SITE ARE RECOMMENDED PRIOR TO AND DURING THE PREPARATION OF A TEMPORARY TRAFFIC CONTROL PLAN. SPECIFIC SIGN MESSAGES, SIGN SIZES, TAPER LENGTHS, BARRICADE OR TRAFFIC DRUM SPACING, TYPES OF BARRICADES, TYPICALS FOR BARRIER CONNECTIONS, ETC. MUST BE SITE SPECIFIC AND SHOWN ON THE TTCP DRAWINGS. ALSO, IT MUST BE RECOGNIZED THAT MANY OF THE NECESSARY TRAFFIC CONTROL DEVICES ARE LOCATED IN ADVANCE OF THE CONSTRUCTION LIMITS OF A PROJECT.

EACH PROJECT SHALL HAVE SITE / JOB SPECIFIC SET OF GENERAL NOTES AND A DETAILED SEQUENCE OF CONSTRUCTION FOR EACH PHASE OF THE WORK. THIS INFORMATION SHALL APPEAR AT THE BEGINNING OF THE TEMPORARY TRAFFIC CONTROL DRAWINGS.

ALL EXISTING TRAFFIC CONTROL DEVICES (I.E. SIGNS, MARKING, ETC.) THAT MUST BE REMOVED SHALL BE REPLACED IN THEIR PROPER LOCATION PRIOR TO THE COMPLETION OF THE PROJECT. COST OF THE REPLACEMENT AND / OR REPAIR OF DEVICES DAMAGED AS A RESULT OF THE PROJECT SHALL BE ASSESSED TO THE CONTRACTOR.

WORK WITHIN THE TRAVELED PORTION OF ROADWAYS SHALL GENERALLY BE RESTRICTED TO THE HOURS OF 9:00 AM TO 3:30 PM, MONDAY THROUGH FRIDAY, UNLESS OTHERWISE NOTED IN THE CONTRACT DOCUMENTS. WORK OVERNIGHT OR ON HOLIDAYS AND WEEKENDS SHALL NOT OCCUR UNLESS AN EXCEPTION IS GRANTED IN WRITING BY BALTIMORE CITY.

CONSTRUCTION ACTIVITY, LOADING OR UNLOADING OF EQUIPMENT SHALL NOT BLOCK ANY TRAFFIC LANE OTHER THAN THOSE DELINEATED WITHIN THE WORK ZONE.


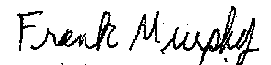
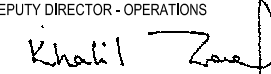
EXCLUSIVE OF EMERGENCY WORK, THE CONTRACTOR SHALL CONTACT OCCUPANTS OF ALL ADJOINING PROPERTIES AND INFORM THEM OF THE SCOPE AND THE TIMING OF CONSTRUCTION. A MINIMUM OF 24 HOURS NOTIFICATION SHALL BE REQUIRED PRIOR TO THE COMMENCEMENT OF ANY ACTIVITY.

ACCESS SHALL BE MAINTAINED TO ALL DRIVEWAYS UNLESS PERMISSION FOR CLOSURE IS GRANTED BY THE PROPERTY OWNER / MANAGER. HOWEVER, ACCESSIBILITY FOR EMERGENCY VEHICLES SHALL BE MAINTAINED AT ALL TIMES.

UNLESS OTHERWISE SPECIFIED ON THE TTCP OR IN THE CONTRACT DOCUMENTS AT LEAST ONE 10-FOOT TRAVEL LANE SHALL BE AVAILABLE FOR TRAFFIC AT ALL TIMES.

TEMPORARY TRAFFIC CONTROL DEVICES (SIGNS, TRAFFIC DRUMS AND CONES, ARROW PANELS, ETC.) SHALL BE PLACED IN ACCORDANCE WITH THE SPACING REQUIREMENTS OF BC 104.01-4. WORK AREA AHEAD (W20-1 MODIFIED) SIGNS MUST BE INSTALLED AT THE END OF EACH WORKDAY WHEN TEMPORARY AGGREGATE RAMPING IS IMPLEMENTED. CHANNELIZING DEVICES SHALL BE PLACED ADJACENT TO EXCAVATIONS AT TEN (10) FOOT INTERVALS. ARROW PANELS (FLASHING MODE ONLY) SHALL BE USED AT THE BEGINNING OF ANY LANE CLOSURE ON A MULTI-LANE ROADWAY. FOR MERGING, SHIFTING, AND SHOULDERS TAPERS, THE MAXIMUM SPACING BETWEEN DEVICES EQUALS THE POSTED SPEED IN FEET.

ALL WARNING SIGNS, UNLESS OTHERWISE SPECIFIED, SHALL BE A MINIMUM OF 48" X 48", BLACK SYMBOL OR LEGEND ON ORANGE BACKGROUND AND DIAMOND SHAPED. ALL WARNING SIGNS NOT APPLICABLE TO THE ACTUAL SITUATION SHALL BE REMOVED OR COVERED DURING NON-APPLICABLE PERIODS. ALL PORTABLE SIGNS SHALL BE MOUNTED A MINIMUM OF ONE (1) FOOT ABOVE THE LEVEL OF THE ROADWAY, WITH HIGHER MOUNTING HEIGHTS DESIRABLE. ALL SPECIAL TRAFFIC SIGNS (NON-STANDARD MUTCD SIGNS) MUST BE DESIGNED. DESIGN DETAILS REQUIRED ARE TYPICAL OF THOSE SHOWN IN THE MUTCD SUPPLEMENT STANDARD HIGHWAY SIGNS. IF ANY TRAFFIC CONTROL SIGNS ARE TO BE PLACED ALONG MDSHA ROADWAY WITHIN THE CITY LIMITS, THE CONTRACTOR SHALL NOTIFY THE BALTIMORE CITY TRAFFIC ENGINEER OF SIGNAGE TO BE INSTALLED.

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TEMPORARY TRAFFIC CONTROL PLAN (TTCP) PREPARATION AND REQUIREMENTS			STANDARD NO. BC 104.01-2		
			SCALE : NONE	SHEET 2 OF 7	

TEMPORARY TRAFFIC CONTROL PLAN (TTCP) PREPARATION AND REQUIREMENTS (CONTINUED)

PAVEMENT MARKING CHANGES MUST BE SPECIFIC WITH RESPECT TO CROSSWALKS, LANE WIDTHS, EDGE LINE WIDTHS, STOP LINE WIDTHS, LANE LINE WIDTHS AND LOCATIONS, COLOR OF LINES, LENGTHS OF SOLID LINES, TAPER LENGTHS, LENGTH OF LINE REMOVALS, PLACEMENT OF ARROWS AND ONLY'S, AND OTHER DIMENSIONS NECESSARY TO ASSURE THE PROPER INSTALLATION OF THE PAVEMENT MARKINGS. IN ADDITION, IF TEMPORARY PAVEMENT MARKINGS ARE TO BE REMOVED RATHER THAN PAVED OVER, THE USE OF REMOVABLE PREFORMED PAVEMENT MARKINGS MUST BE SPECIFIED ON THE DRAWINGS. THE TTCP MUST SPECIFY THAT THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PAVEMENT MARKING REMOVAL AND INSTALLATION.

WHEN PAVEMENT MARKINGS HAVE BEEN OBLITERATED BY THE WORK ACTIVITY, THE CONTRACTOR SHALL INSTALL ANY CRITICAL INTERIM PAVEMENT MARKINGS PRIOR TO THE END OF THE WORKDAY. ON STREET SECTIONS THAT ARE NOT SCHEDULED TO BE OVERLAID, ALL TEMPORARY PAVEMENT MARKINGS SHALL BE REMOVABLE PREFORMED PAVEMENT MARKINGS. ANY CONFLICTING MARKINGS, WHICH NEED TO BE TEMPORARILY REMOVED, ARE TO BE MASKED USING REMOVABLE BLACKOUT TAPE LINES.

FOR STREET SECTIONS THAT ARE TO BE OVERLAID, TEMPORARY MARKINGS CAN BE EITHER TAPE OR PAINT. EXISTING CONFLICTING MARKINGS SHOULD BE REMOVED WITH A PAVEMENT GRINDER.

DURING APPROVED NIGHTTIME OPERATIONS REFLECTORIZED TRAFFIC DRUMS SHOULD BE USED. HOWEVER, FOR EMERGENCY WORK ACTIVITIES WHERE TRAFFIC DRUMS ARE NOT READILY AVAILABLE, REFLECTORIZED TRAFFIC CONES THAT ARE A MINIMUM OF TWENTY EIGHT (28) INCHES IN HEIGHT AND HAVING SIX (6) INCH AND FOUR (4) INCH REFLECTIVE COLLARS WITHIN THE TOP SIXTEEN (16) INCHES OF THE CONE MAY BE USED. ALL WORK AREAS LEFT UNATTENDED AT NIGHT SHALL BE DELINEATED WITH REFLECTORIZED TRAFFIC DRUMS.

WHEN TEMPORARY CONCRETE BARRIER (TCB) IS USED, REFLECTORIZED SIDE BARRIER MARKERS, 8" X 12" TOP BARRIER WALL MARKERS, AND APPROPRIATE END TREATMENTS/ATTENUATION ARE REQUIRED IN ACCORDANCE WITH THE LATEST STANDARDS.

NO STREET OR SIDEWALK CLOSURES ARE PERMITTED WITHOUT THE APPROVAL OF THE BALTIMORE CITY TRAFFIC ENGINEER

SIDEWALK CLOSURES SHALL BE LIMITED TO OCCUR ONLY DURING THE CONSTRUCTION ACTIVITY. DURING CLOSURE, SIDEWALKS SHALL BE BARRICADED TO PHYSICALLY PREVENT PEDESTRIAN PASSAGE AND APPROPRIATE PEDESTRIAN DETOURS SHALL BE POSTED. DURING ALL OTHER TIMES, PROVISIONS FOR SAFE PEDESTRIAN ACCESS THROUGH THE WORK AREA VIA A TEMPORARY WALKWAY SHALL BE PROVIDED.


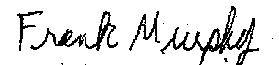
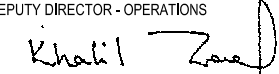
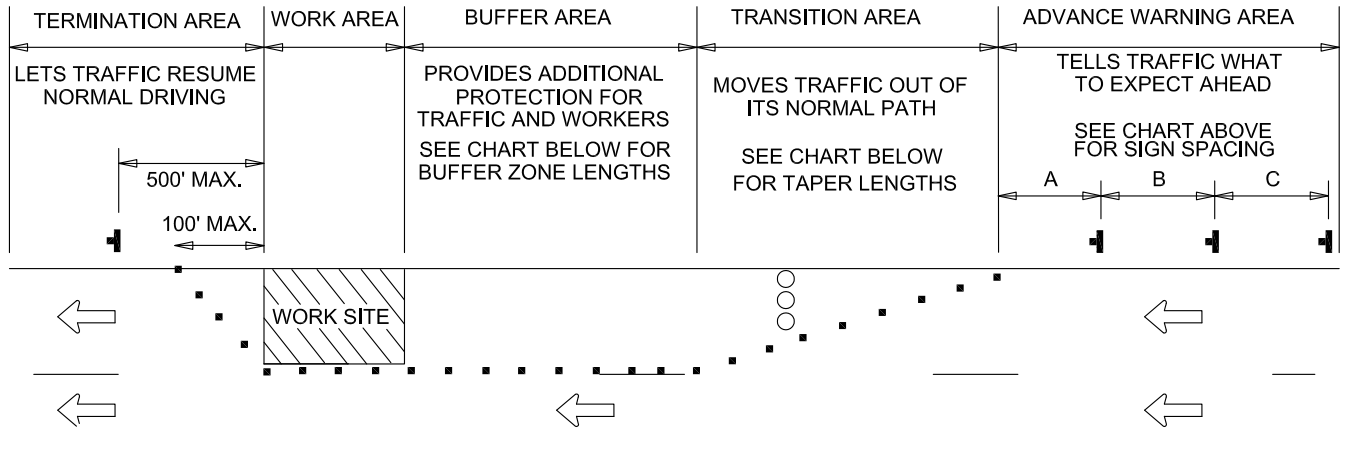
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	 DIRECTOR, DEPARTMENT OF TRANSPORTATION		8 / 2010		
TEMPORARY TRAFFIC CONTROL PLAN (TTCP) PREPARATION AND REQUIREMENTS			STANDARD NO. BC 104.01-3		
			SCALE : NONE	SHEET 3 OF 7	

TABLE 1

GUIDELINES FOR SIGN SPACING					
SPEED M.P.H.	MINIMUM DISTANCE FROM TAPER TO FIRST SIGN	ADDITIONAL SIGNS IN SERIES TO BE SPACED AT A MINIMUM			MINIMUM COMBINED ADVANCED WARNING
		A	B	C	
25-30	200'	200'	200'		600'
30-35	300'	300'	300'		900'
40-45	500'	500'	500'		1500'
45-65	800'	700'	1100'	2600' (OPTIONAL)	2600'

EXAMPLE: TWO LANES, ONE-WAY ROADWAY



NOTE: THE POSTED SPEED PLUS  
10 MPH SHOULD BE USED FOR THE DESIGN  
OF SIGN SPACING, TAPER AND BUFFER LENGTHS

TABLE 2

GUIDELINES FOR TAPER LENGTHS					
SPEED M.P.H.	TAPER LENGTH LANE WIDTH IN FT.			NUMBER OF DEVICES FOR TAPER	SPACING OF DEVICES ALONG TAPER IN FEET
	10	11	12		
20	70	75	80	5	20
25	105	115	125	6	25
30	150	165	180	7	30
35	205	225	245	8	35
40	270	295	320	9	40
45	450	495	540	13	45
50	500	550	600	13	50
55	550	605	660	13	55
60	600	660	720	13	60
65	650	715	780	13	65

$L = WS^2 / 60$  FOR SPEEDS EQUAL TO OR LESS THAN (<) 40 MPH  
 WHERE: L = MINIMUM LENGTH OF TAPER (FT.)  
 S = NUMERICAL VALUE OF PREVAILING TRAVEL SPEED OR SPEED LIMIT (MPH), WHICHEVER IS HIGHER, PRIOR TO WORK STARTING.  
 W = WIDTH OF OFFSET (FT.)

TABLE 3

GUIDELINES FOR BUFFER ZONE LENGTHS	
SPEED (MPH)	LENGTH (FEET)
20	35
25	55
30	85
35	120
40	170
45	220
50	280
55	335
60	415
65	485

NOTES:

LENGTHS IN TABLE 2 ARE MINIMUM TAPER LENGTHS REQUIRED FOR MERGING TRAVEL LANES (MERGING TAPERS). WHEN SHIFTING TRAVEL LANES (SHIFTING TAPER) AND CONDITIONS DO NOT PERMIT USE OF THE LENGTHS IN TABLE 2, LENGTHS EQUAL TO ONE-HALF THOSE IN TABLE 2 MAY BE USED.

MERGING TAPERS SHALL BE A MINIMUM 1,000 FEET ON EXPRESSWAYS AND FREEWAYS UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

WHEN USED, ARROW PANELS SHOULD BE PLACED ON THE SHOULDER AT THE BEGINNING OF THE TAPER. WHERE NO SHOULDER EXISTS, ARROW PANELS SHOULD BE PLACED WITHIN THE TAPER AS CLOSE TO THE BEGINNING OF THE TAPER AS POSSIBLE.



APPROVED:  
*Frank Murphy*  
 DEPUTY DIRECTOR - OPERATIONS  
*Khalil Zane*  
 DIRECTOR, DEPARTMENT OF TRANSPORTATION

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 TRAFFIC DIVISION

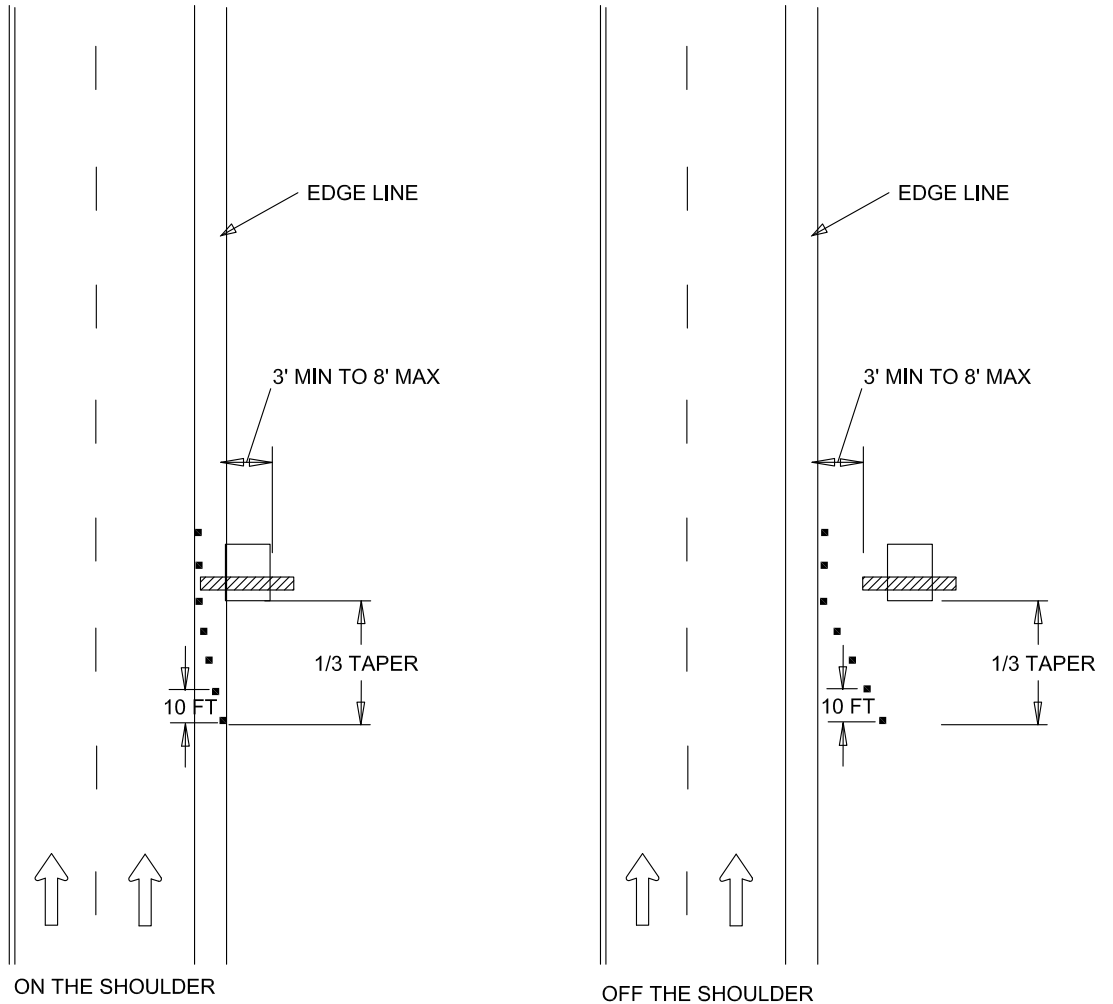
**SIGN SPACING, TAPER AND  
 BUFFER LENGTHS CRITERIA**

ISSUED	REVISED	REVISED
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STANDARD NO.  
 BC 104.01-4  
 SCALE : NONE SHEET 4 OF 7


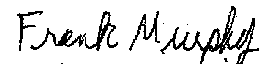
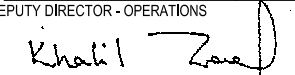
**NOTES:**

1. REFER TO BC 104.01-4 FOR TAPER LENGTHS.
2. PVMS MESSAGES AND PLACEMENT OF THIS DEVICE SHALL BE APPROVED BY THE BALTIMORE CITY TRAFFIC ENGINEER.
3. THE EDGE OF THE SIGN BOARD OF THE PVMS SHALL BE PLACED A MINIMUM OF 3' AND NO MORE THAN 8' FROM EDGE LINE.
4. PMVS SHOULD BE INSTALLED BEHIND TRAFFIC BARRIER WHERE POSSIBLE.

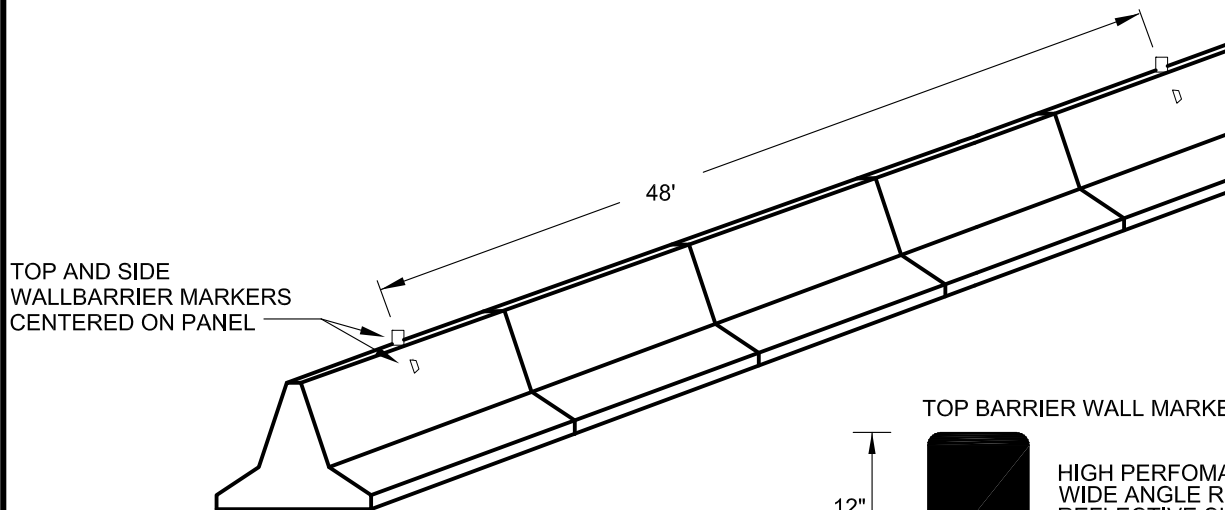


**LEGEND**

- DIRECTION OF TRAFFIC
- PORTABLE VARIABLE MESSAGE SIGN (PVMS)
- CHANNELIZATION DEVICES

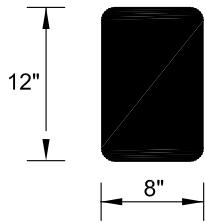
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	 DIRECTOR, DEPARTMENT OF TRANSPORTATION	<b>PORTABLE VARIABLE MESSAGE SIGN PLACEMENT</b>	<b>STANDARD NO. BC 104.01-5</b>			SCALE : NONE

**TEMPORARY TRAFFIC CONTROL TYPICAL APPLICATION**

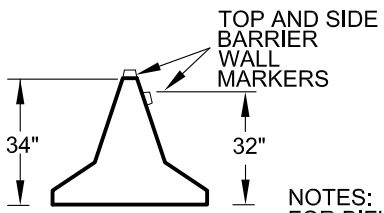


TOP AND SIDE WALLBARRIER MARKERS CENTERED ON PANEL

TOP BARRIER WALL MARKER

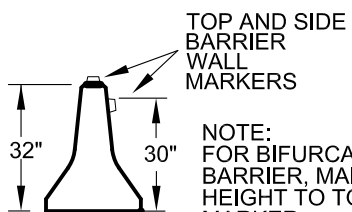


HIGH PERFORMANCE WIDE ANGLE RETRO-REFLECTIVE SHEETING FLUORESCENT ORANGE



JERSEY SHAPE FRONT VIEW

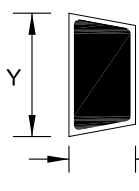
NOTES:  
FOR BIFURCATED JERSEY BARRIER, MAINTAIN 32 INCH HEIGHT TO TOP OF SIDE MARKER JERSEY TYPE BARRIER TO BE USED FOR REPLACEMENT PURPOSES ONLY



F SHAPE FRONT VIEW

NOTE:  
FOR BIFURCATED F-SHAPED BARRIER, MAINTAIN 30 INCH HEIGHT TO TOP OF SIDE MARKER

SIDE BARRIER WALL MARKER



HIGH PERFORMANCE WIDE ANGLE RETRO-REFLECTIVE SHEETING OR RETROREFLECTIVE REFLECTORS

MINIMUM REFLECTIVE AREA, 7.5 SQ. IN.

NOTES:  
SIDE BARRIER MARKERS SHALL BE YELLOW IN COLOR WHEN PLACED ON MEDIAN-SIDE BARRIER (SEPARATING OPPOSING TRAFFIC). SHALL BE WHITE IN COLOR WHEN PLACED ON SHOULDER-SIDE BARRIER (OR BARRIER SEPARATING SAME DIRECTION TRAFFIC).  
THE SPACINGS BETWEEN MARKERS ON CURVES/TURNS SHALL BE 48 FOOT (RADIAL).  
THE BOTTOM OF THE TOP MARKER SHALL BE AT THE SAME ELEVATION AS THE TOP OF THE BARRIER.  
NO ATTACHMENT METHOD MAY BLOCK ANY PART OF THE REFLECTIVE AREA OF THE MARKER.  
BACKING FOR TOP MARKERS SHALL BE SHEET ALUMINUM, MEETING MATERIAL THICKNESS PER TEMPORARY TRAFFIC SIGNS SPECIFICATIONS OR ANY OTHER MATERIAL APPROVED BY SHA, OFFICE OF TRAFFIC AND SAFETY.



APPROVED:  
*Frank Murphy*  
DEPUTY DIRECTOR - OPERATIONS  
*Khali Zae*  
DIRECTOR, DEPARTMENT OF TRANSPORTATION

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**BARRIER DELINEATION  
BARRIER 4' OR CLOSER TO EDGE  
LINE**

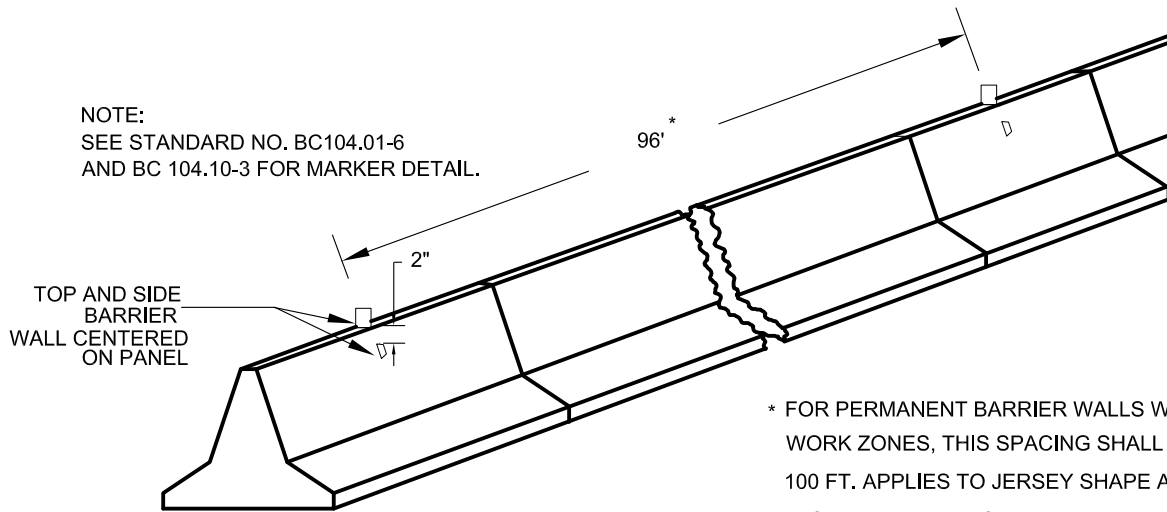
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8 / 2010		

STANDARD NO.  
BC 104.01-6

SCALE : NONE      SHEET 6 OF 7

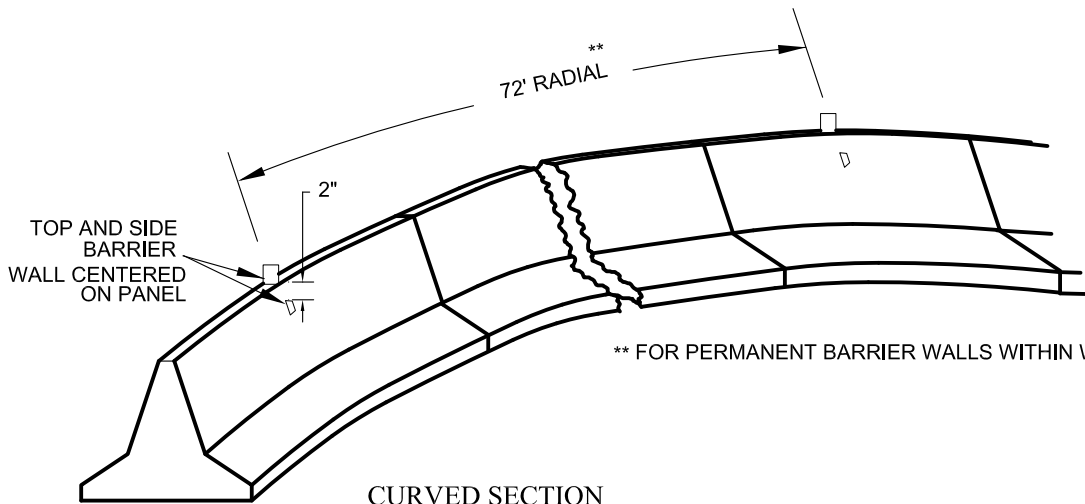
TEMPORARY TRAFFIC CONTROL TYPICAL APPLICATION

NOTE:  
SEE STANDARD NO. BC104.01-6  
AND BC 104.10-3 FOR MARKER DETAIL.



TANGENT SECTION

\* FOR PERMANENT BARRIER WALLS WITHIN WORK ZONES, THIS SPACING SHALL BE 100 FT. APPLIES TO JERSEY SHAPE AND F- SHAPE BARRIERS



CURVED SECTION

\*\* FOR PERMANENT BARRIER WALLS WITHIN WORK ZONES



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*Frank Murphy*  
DEPUTY DIRECTOR - OPERATIONS  
*Khali Zane*  
DIRECTOR, DEPARTMENT OF TRANSPORTATION

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**BARRIER DELINEATION  
BARRIER BETWEEN 4' AND 15'  
FROM EDGE LINE**

ISSUED	REVISED	REVISED
8 / 2010		
STANDARD NO. BC 104.01-7		
SCALE : NONE	SHEET 7 OF 7	







# TEMPORARY TRAFFIC CONTROL TYPICAL APPLICATION

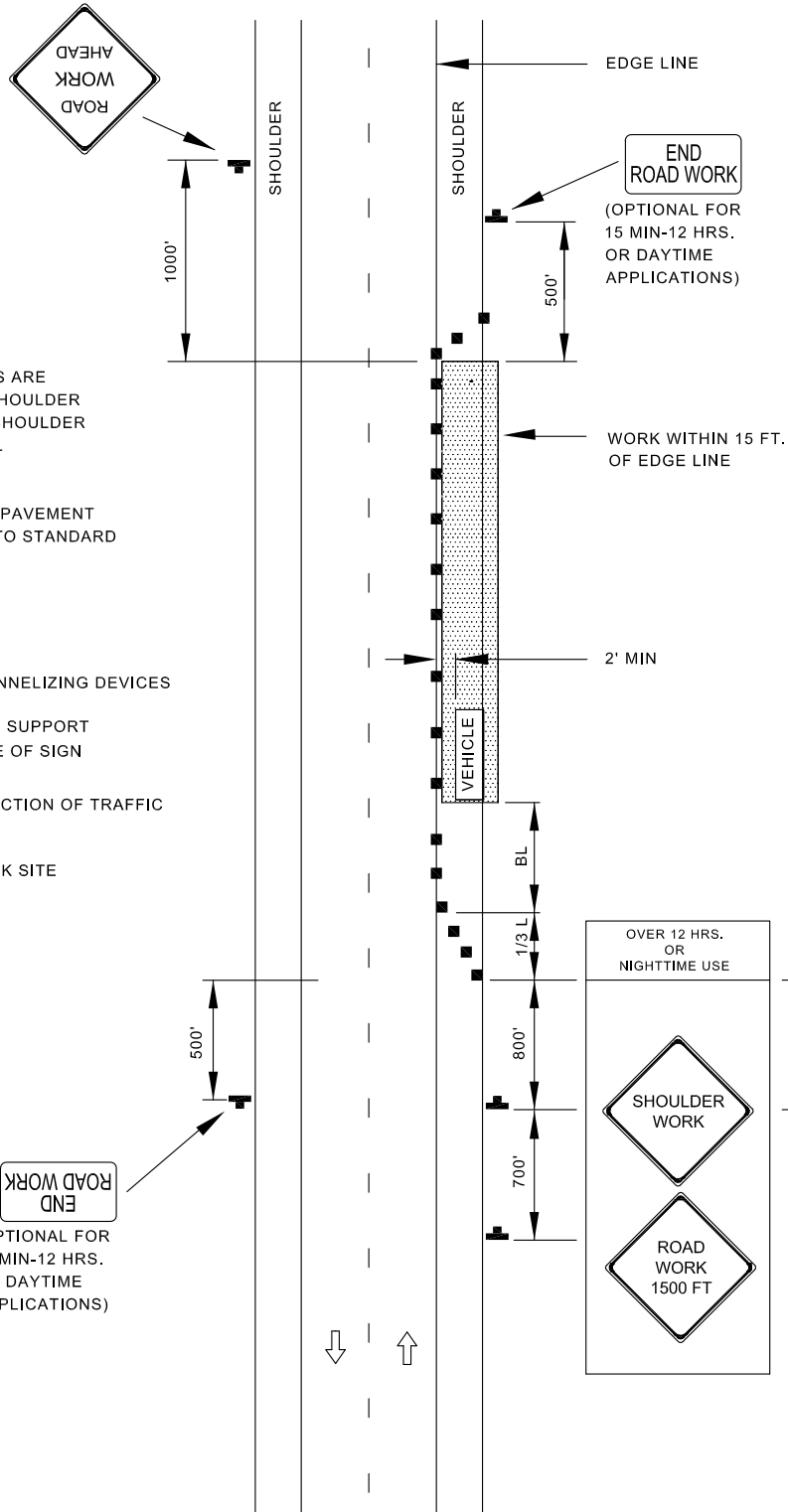
**NOTES:**

SHOULDER CLOSED SIGNS ARE REQUIRED IN PLACE OF SHOULDER WORK SIGNS WHEN THE SHOULDER IS CLOSED BY A PHYSICAL BARRIER.

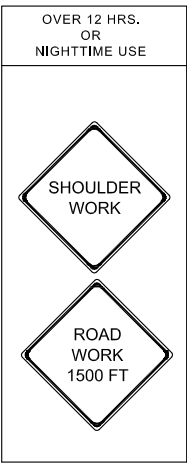
WHEN WORK INVOLVES A PAVEMENT EDGE DROP-OFF, REFER TO STANDARD NO. BC-104.06-12.

**KEY:**

-  CHANNELIZING DEVICES
-  SIGN SUPPORT  
FACE OF SIGN
-  DIRECTION OF TRAFFIC
-  WORK SITE



END ROAD WORK

  
 (OPTIONAL FOR 15 MIN-12 HRS. OR DAYTIME APPLICATIONS)


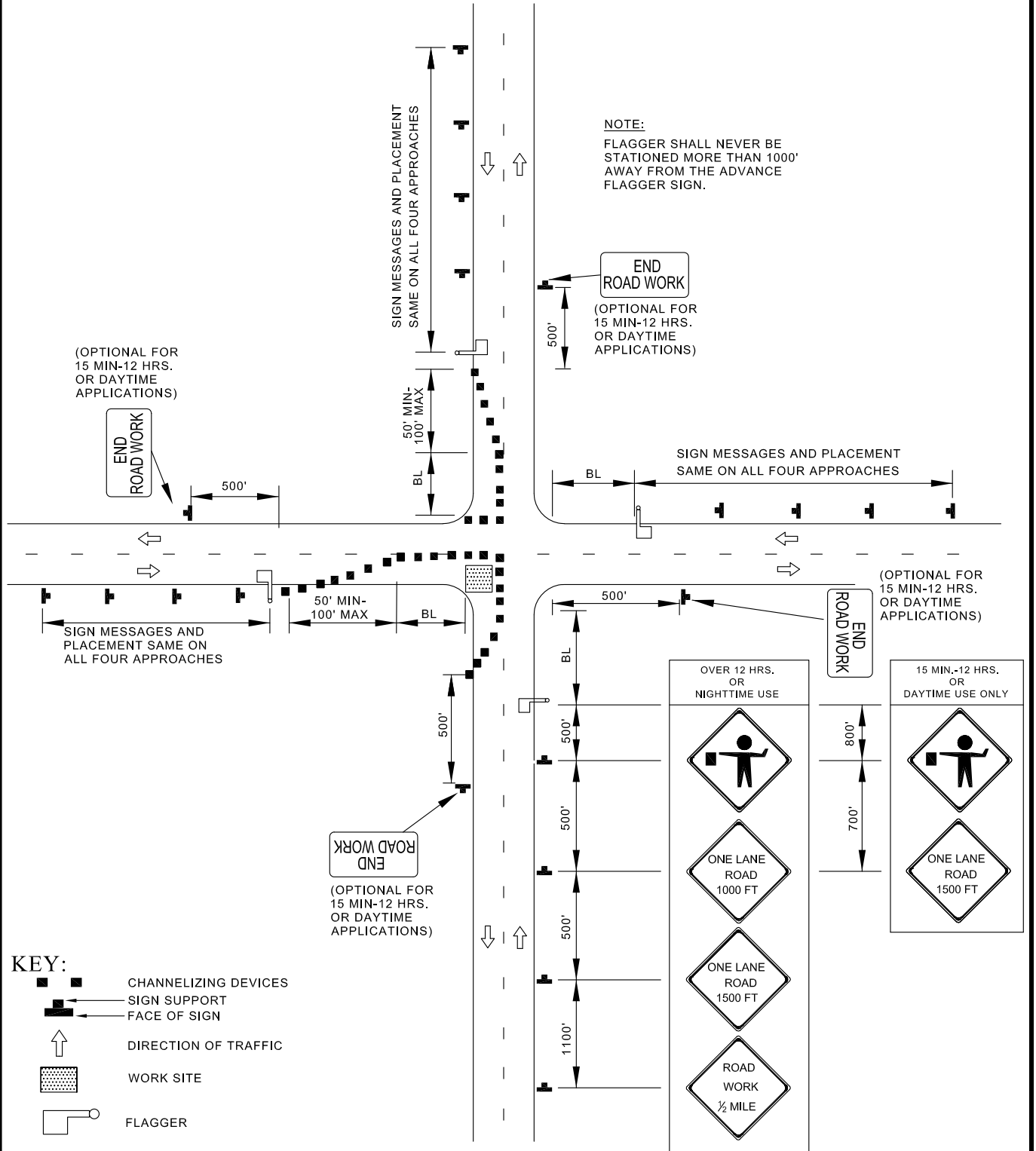
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*Khalil Zana*  
 DIRECTOR, DEPARTMENT OF TRANSPORTATION

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**SHOULDER WORK / 2 LANE, 2 WAY**  
**EQUAL OR LESS THAN 40 MPH**

ISSUED	REVISED	REVISED
8 / 2010		
<b>STANDARD NO.</b> BC 104.02-2		
SCALE: NONE	SHEET 1 OF 1	

# TEMPORARY TRAFFIC CONTROL TYPICAL APPLICATION



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*Frank Murphy*  
DEPUTY DIRECTOR - OPERATIONS  
*Khalil Zane*  
DIRECTOR, DEPARTMENT OF TRANSPORTATION

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**INTERSECTION FLAGGING**  
**OPERATION**  
**2-LANE, 2-WAY**  
**EQUAL / LESS THAN 40 MPH**

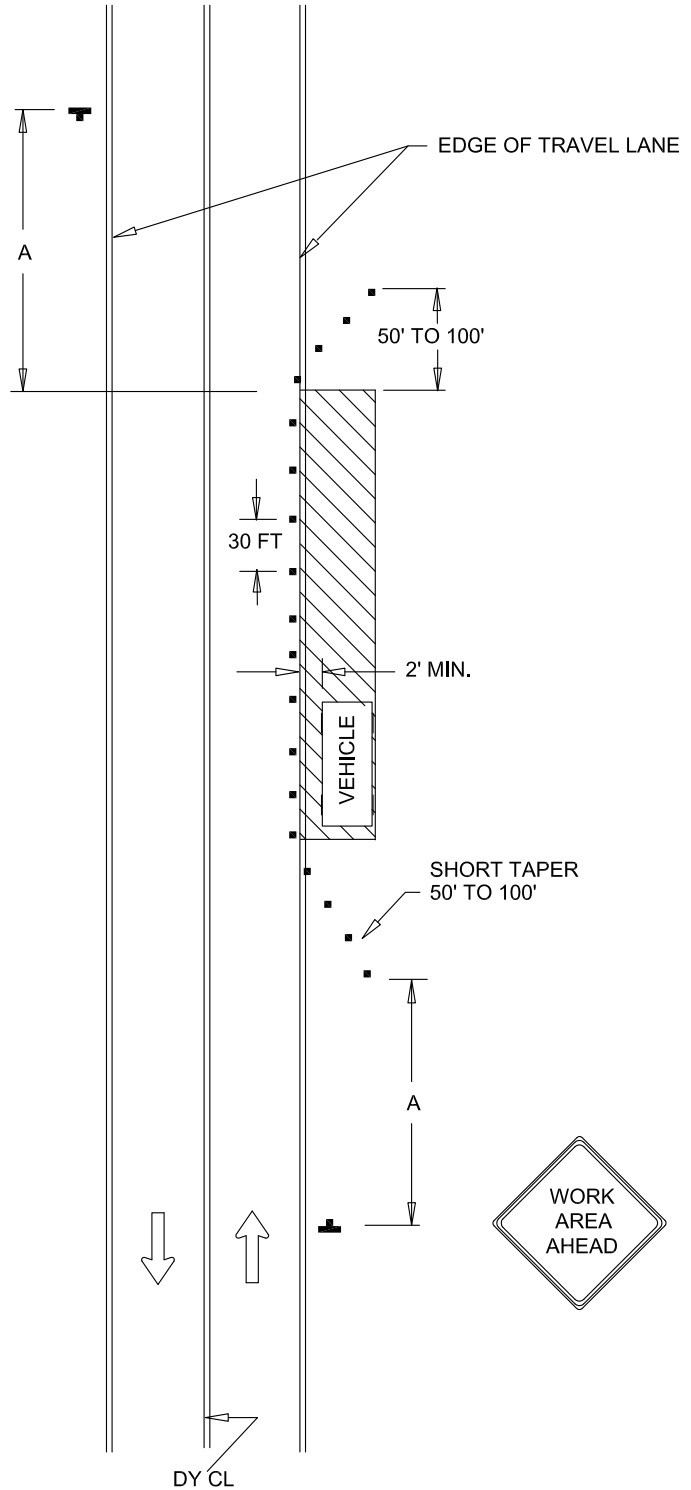
ISSUED	REVISED	REVISED	
8 / 2010			
<b>STANDARD NO.</b> <b>BC 104.02-14</b>			
SCALE : NONE		SHEET 1 OF 1	

**NOTED**

REFER TO BC 104.01-4 FOR SIGN  
SPACING, TAPER AND BUFFER  
LENGTHS

ALL WORK ACTIVITY TO BE OFF THE  
TRAVELED PORTION OF ROADWAY

THE WORK AREA AHEAD SIGN  
SHOULD BE REPLACED WITH  
SHOULDER WORK SIGN FOR  
WORK SITE LOCATIONS ON  
THE SHOULDER



**LEGEND**

- DIRECTION OF TRAFFIC
- SIGN
- WORK SITE
- CHANNELIZING DEVICES

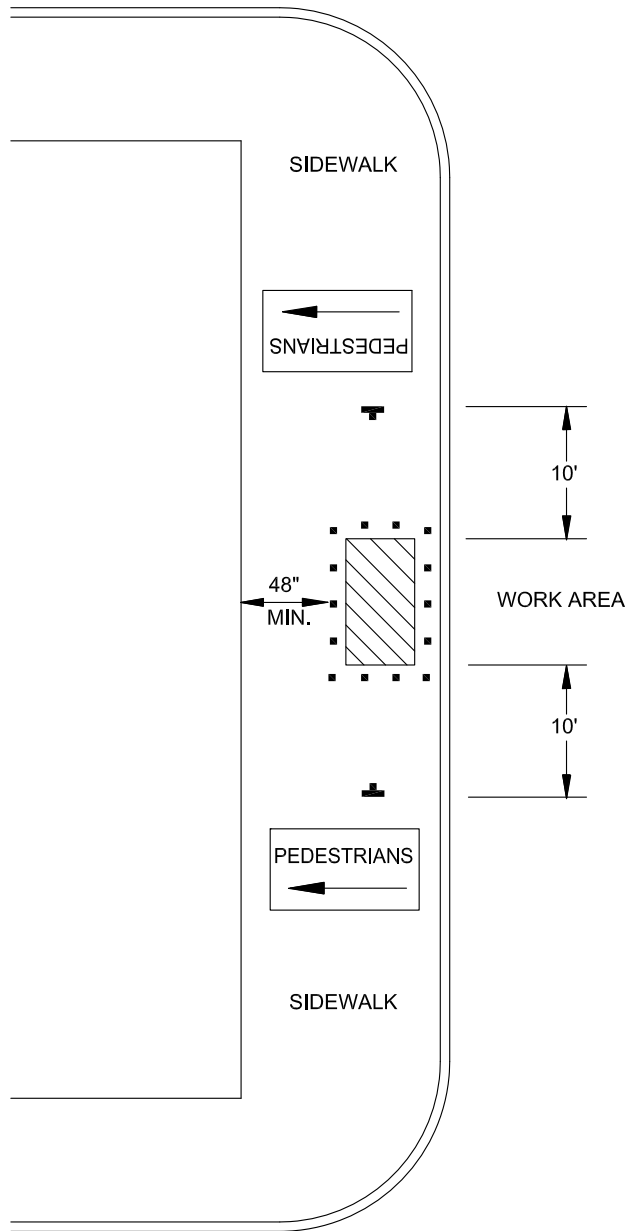


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*Frank Murphy*  
DEPUTY DIRECTOR - OPERATIONS  
*Khali Zane*  
DIRECTOR, DEPARTMENT OF TRANSPORTATION

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DEPARTMENT OF TRANSPORTATION  
TRAFFIC DIVISION

**TRAFFIC CONTROL FOR  
WORK ACTIVITY  
OFF THE ROAD**

ISSUED	REVISED	REVISED
8 / 2010		
STANDARD NO. BC 111.01		
SCALE : NONE	SHEET 1 OF 1	



**LEGEND**



SIGN



WORK SITE



CHANNELIZING DEVICES



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*Frank Murphy*  
 DEPUTY DIRECTOR - OPERATIONS  
*Khali Zane*  
 DIRECTOR, DEPARTMENT OF TRANSPORTATION

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 TRAFFIC DIVISION

**PEDESTRIAN CONTROL FOR  
 SIDEWALK BYPASS**

ISSUED	REVISED	REVISED
8 / 2010		
STANDARD NO. BC 117.01		
SCALE : NONE	SHEET 1 OF 1	

**Sub Contract Agreement  
Section 7:**

**Attachment F –  
Safety**

**W60617556RETE**





## **ATTACHMENT - F CONTRACTOR HEALTH & SAFETY EXPECTATIONS**

### **RESPONSIBILITY OF CONTRACTOR(S)**

The City of Baltimore strives to maintain a safe work environment for employees and contractors and insists upon the enforcement of safe practices and procedures in all premises and in all work activities. It is essential that all contractors and their employees and sub-contractor(s) perform in the same manner. It is every employers and contractors responsibility to ensure that staff and public are protected from workplace hazards.

As a contractor to the City of Baltimore, you are expected to conform to the requirements of the Workers' Compensation Act, the United States Environmental Protection Agency (EPA) and Occupational Safety and Health Administration (OSHA) Regulations and to all federal, provincial and local laws and regulations. The City of Baltimore Building Owner, Project Manager, and the S<sup>4</sup> Manager, Occupational Health & Safety or designate have the authority to order an unsafe act to cease or to have an unsafe piece of equipment removed from the premises or, in extreme situations, to shut down a job entirely. Any City of Baltimore Employee that observes a safety infraction by a contractor performing work for the City of Baltimore should bring it to the attention of a "Site, Survey, Safety and Supervision" S<sup>4</sup> manager immediately (Priscilla Brown - 410-241-2448).

The following information is provided as typical City of Baltimore requirements, but does not relieve the contractor from complying with all applicable local, provincial and federal laws, regulations and bylaws.

### **PERSONNEL**

1. You are expected to inform your employees of any potential hazard in the workplace and advise of appropriate action to be taken should a hazard be found or a fire or accident occur.
2. Contractors will restrict persons invited on the premises to employees only. No families or friends are permitted.
3. The contractor will advise the City of any on-site accidents involving the contractor's employees, or injuries to others caused by the contractor's business.

### **SAFETY MANAGEMENT SYSTEM**

1. Contractors will ensure their employees utilize proper safety equipment and clothing as required for job site activities.
2. Contractors must follow and have on site proper written safe work procedures for hazardous work, e.g. Fall protection, confined space entry, hot work, lockout, excavations and shoring, traffic management, etc.
3. Contractor must Identify workplace risk and implement suitable controls.
4. Contractor must provide safety training and education to staff and have training records available for review.
5. Contractor must have a health & safety program for its workers and sub-contractors
6. Contractor will provide appropriate First-Aid coverage for their workers and subcontractors.
7. Contractor must forward a weekly work task list prior to work commencement.
8. The qualified safety coordinator must participate in the City of Baltimore Orientation or attend the Prime Contractor's Orientation.

## **WORK AREAS –City Facilities**

No work by contractors shall occur in any area without prior consent of the City of Baltimore Manager, Civic Facilities or his designated representative. Work during normal business hours of the City shall not create undue noise, smells or otherwise unduly disturb the work of City of Baltimore staff or the public. If an activity requires that a disturbance is likely, the contractor shall whenever possible only do that work outside normal business hours.

All activities that create a hazard (i.e. work from a ladder, removal of a floor tile, emission of VOC's, etc.) to persons outside the contractor's supervision shall have warning devices, delineation or barriers, sealed spaces, etc. as would normally be required to protect any person from that hazard.

## **SAFETY ATTITUDE**

Your safety record and attitude are important criteria used to judge your qualification for future bidding on solicitations with the City of Baltimore.

You can help ensure employee safety and your eligibility for future business with the City if you exhibit and practice a "Safe Work - Safe City" attitude.

The City of Baltimore is concerned about the health, safety and wellbeing of all employees and contractors. It is essential we maintain a healthy, safe and productive work environment.

### **All Employees & Contractors:**

It is everyone responsibility to:

- ❖ know and comply with WCB regulations and
- ❖ follow established safe work procedures
- ❖ immediately report any work related injury to his/her supervisor; and to the city representative
- ❖ not remain on the work site while his/her ability to work is in any way impaired
- ❖ report unsafe acts and conditions to their supervisor
- ❖ correct unsafe conditions immediately whenever it is possible to do so
- ❖ take reasonable care to protect your health & safety and the health and safety of other persons who may be affected by your act's or omissions at work



An employee must refuse to work if continuing to do so would endanger the health and safety of the employee, fellow employees or others. The worker must immediately report the circumstances of the unsafe condition to his or her supervisor or manager. If the unsafe condition is not remedied or the issue is not resolved the Manager, Occupational Health & Safety must be contacted.

**A common sense approach usually resolves the issue.**

## GENERAL RULES

1. For all secured worksites, contracted workers are required to sign in and sign out each day
2. (Access cards may be issued – a worker may need to provide an Identification document (i.e. Driver's License) in exchange).
3. Personal protective equipment, as determined by the City, through consultation with the Contractors Health and Safety Representatives must be worn when and where required. (Hard Hats, Safety Footwear, Safety Vests and Safety Glasses must be worn on active construction sites. Hearing Protection must be worn when noise levels are above 85dBA.)
4. Horseplay, gambling and the use of alcohol or narcotics will not be tolerated.
5. No Smoking within 7.5M of a City owned buildings door exits, windows and vents.
6. Report **ALL** injuries to your supervisor immediately and notify the City's site representative.
7. Report any unsafe conditions, including someone under the influence or hazards, which may allow an injury to occur to you, a fellow worker, or others on the worksite.
8. Report any property damage, regardless of how minor.
9. Restricted and controlled products will be labeled, used and stored in accordance with the associated regulations, e.g. WHMIS. Follow all procedural instructions when using or handling hazardous materials/controlled products and ensure that all containers of hazardous/controlled product materials are properly labelled and stored in designated areas.
10. Obey all posted signs and notices. Do not venture into areas that you are not authorized to enter.
11. Always use the correct posture when lifting and get assistance if the weight is excessive.
12. Do not work within the limits of approach to high voltage equipment.
13. If working at heights greater than 10 feet a Fall Protection system must be in place. The appropriate Fall Protection equipment must be worn at all times.
14. **Housekeeping** (Orderliness and good housekeeping are basic requirements and must be maintained at all times):
  - a) Aisles are to be kept clear at all times.
  - b) Individual work areas are to be kept clean and tidy.
  - c) All materials, tools, products and equipment are to be kept in their designated areas.
  - d) Liquid spills are to be cleaned up immediately to prevent slips and falls.
  - e) Accumulation of oily rags, combustible refuse or similar fire hazards will not be tolerated.
15. **Fire Prevention:**
  - a) Become familiar with Surroundings and emergency exit.
  - b) Ensure aisles and exits are not blocked at any time.
  - c) Anytime a fire extinguisher is used, report it immediately to your supervisor, so that it can be recharged.
16. **Equipment Operation** (Any equipment, which could create a hazard, must be maintained in good condition):
  - a) Equipment must not be repaired, adjusted or operated unless by a "competent person" who understand the safe operating procedures.



- b) Always be aware of the use and location of the "EMERGENCY STOP" button, if equipment is so equipped, before using the equipment.
- c) Loose clothing, jewelry and long hair must be secured to prevent becoming entangled with equipment.
- d) The Operator must check all safety devices on equipment before operation.
- e) All equipment must be turned off and the appropriate "lock-out" procedure followed, prior to repairs, cleaning, adjustment or lubrication.
- f) Radio/Walkman/I-pod Head phones are not allowed to be worn during regular work operations.
- g) All ladders must be of an approved type and length. Unacceptable ladders must be removed immediately from the premises.
- h) All vehicles and equipment on City property must be kept in safe mechanical condition at all times, and be operated only by persons with a valid driver's license and/or proper training and qualifications.
- i) Contractors will not operate any equipment, valves, switches, etc., which are part of the City's operation, unless specific permission is received from the Department Representative.

17. **Ground Disturbance** –Every time you dig in the ground, with a shovel or mechanized equipment, you run the risk of loss of life or damage to property if you hit any of the many buried cables, conduits, gas or oil pipelines and/or other underground facilities that serve our city, **Miss Utility (811) Must be called and a ticket obtained prior to commencing any ground disturbance activities.**

[\(www.https://www.missutility.net/\)](https://www.missutility.net/)

<b>Issued By:</b>	<b>Site, Survey, Safety, and Supervision - S<sup>4</sup> Contractor Coordination</b>
<b>Date:</b>	<b>Program Revised: January 14, 2019    Original: August 15, 2016</b>
<b>Distributed:</b>	<b>Via Email &amp; Posted on Intranet: January 16, 2019</b>

**This document does not replace the Workers' Compensation Act or OSHA regulation. Each individual Contractor must have specific health and safety safe work rules and procedures that apply to their work tasks. Each Contractor must comply with the Workers' Compensation Act and OSHA Regulation and to all federal, provincial and local laws and regulations. If a contractor is unable to comply they must bring this to the attention of their qualified safety representative and to the Prime Contractor safety representative immediately.**

**Authorized Signature:** \_\_\_\_\_

**Name:** \_\_\_\_\_

**(Please Print)**

**Date:** \_\_\_\_\_



**ATTACHMENT #3  
COMPLIANCE TO SAFETY PROCEDURE  
ENTRY PROCEDURE FOR CONFINED SPACE**

This procedure shall be used as a guideline only. The *Contractor* shall be responsible for familiarization with this and all WCB requirements.

**THERE MUST BE A MINIMUM OF TWO MEN  
- ONE MAN ALWAYS ON THE SURFACE, AND  
- ONE MAN IN THE WELL  
MAN LIFT/RETRIEVAL DEVICES MUST BE USED**

1. a) Open manhole lids, turn on blower/fan to ventilate wet well for approximately two to three minutes.
- b) Leave fan running until job is completed.
- c) Manhole must be circulated by a blower fan to allow fresh air into the confined space. Check levels on gas detector by lowering into well. If levels are not safe, portable fans **MUST** be used.

2. Turn gas detector "ON":

- Oxygen levels should read between 20.0 to 21.0
- H<sub>2</sub>S levels should read 000
- LEL levels should read 000

NOTE: - Readings shall be taken before entering well.  
- Record gas levels on "Confined Entry Space" forms and hand in daily.

3. a) Lower gas detector by rope/cord into lower portion of wet well where work shall be performed.
- b) Pull detector to surface and check gas levels. If levels are safe, entry into well is permitted.
4. Gas detector **MUST** be left "ON" and brought down into well with person(s) entering.
5. Check levels on gas detector when in well. Proceed with washing/repairing of station.
6. If at any time the gas detector goes "OFF" (ringing), **EXIT WET WELL IMMEDIATELY** and check levels.



**Sub Contract Agreement  
Section 8:**

**Attachment G -  
Insurance Requirements**

**W60617556RETE**



Delete Section 00 73 16.01.E of the Standard Specification and replace with the following:

E. COMMERCIAL GENERAL LIABILITY INSURANCE

1. The Contractor shall purchase and maintain commercial general liability insurance in an amount of not less than two million dollars (\$2,000,000) combined single limit per occurrence for all damages arising out of bodily injuries or death and property damage and with those policies with aggregate limits; a three million dollar (\$3,000,000) aggregate limit is required. In case any Work is subcontracted, the Contractor shall require the Subcontractor or anyone directly or indirectly employed by any of them to procure the same coverage.
  - a. Such insurance shall include:
    - i. Products - Completed operations insurance.
    - ii. Contractual liability insurance.
    - iii. Premises and operations insurance.
2. There shall be no exclusions pertaining to collapse of or damage to any building or structure, damage to underground property, or injury or damage arising out of blasting or explosion, products/completed operations, independent contractors, broad form property damage, contractual liability, or cross liability. The provision shall apply to operations by the Contractor or any Subcontractor in the performance of this contract.

Delete Section 00 73 16.01.F of the Standard Specification and replace with the following:

F. BUSINESS AUTOMOBILE LIABILITY INSURANCE

The Contractor shall purchase and maintain, during the life of this Contract, Business Automobile Liability Insurance, at a limit of not less than One Million Dollars (\$1,000,000) per occurrence for all claims arising out of bodily injuries or death and property damage. The Insurance shall apply to any owned, hired or non-owned automobiles used in the performance of this contract.

Delete Section 00 73 16.01.H of the Standard Specification and replace with the following:

H. WORKERS' COMPENSATION

The Contractor shall purchase and maintain Workers' Compensation coverage as required by the State of Maryland, as well as any similar coverage required for this work by applicable Federal or "Other States" State Law.

Delete Section 00 73 16.01.I of the Standard Specification and replace with the following:

I. DEDUCTIBLES AND SELF-INSURED RETENTIONS

Any deductibles or self-insured retentions must be declared to, and approved by, the City. The deductible or self-insured retention assigned to the policies shall be the sole responsibility of the Contractor.

Delete Section 00 73 16.01.J of the Standard Specification and replace with the following:

J. OTHER INSURANCE PROVISIONS

The insurance policies required in the contract are to contain, or be endorsed to contain, the following provisions:

1. General Liability Policies

The Mayor and City Council of Baltimore, its elected/appointed officials, employees, and agents (referred to as the "City") are to be covered, by endorsement, as additional insured's with respect to liability arising out of activities performed by or on behalf of the Contractor in connection with this contract.

To the extent of the Contractor's negligence, the Contractor's insurance coverage shall be primary insurance with respect to the City, its elected/appointed officials, employees, and agents. Any insurance and/or self-insurance maintained by the City, its elected/appointed officials, employees, or agents shall not contribute with the Contractor's insurance or benefit the Contractor in any way.

The Contractor's insurance shall apply separately to each insured against whom claim is made and/or lawsuit is brought, except with respect to the limits of the insurer's liability.

As to the interest of the City as additional insured, the insurance coverage afforded by the policy(ies) purchased by the Contractor as required shall not be cancelled, non-renewed, reduced in coverage or in limits, or invalidated due to any breach or violation by the named insured of any warranties, declarations or conditions, except for the exclusions in the policy, but this shall not prevent the reduction of the applicable aggregate limit by claims paid, until after forty-five (45) days prior written notice has been given to the City and opportunity to cure.

The policy(ies) will automatically include and cover all phases of Work, equipment, persons, etc., which are normally covered while performing Work under the above Contract, whether specifically written therein or not.

The insurance company(ies) providing insurance coverage as required herein is (are) prohibited from pleading governmental function in the absence of any specific written authority by the City.

2. All Policies

Coverage shall not be suspended, voided, canceled, reduced in coverage or in limits, except by the reduction of the applicable aggregate limit by claims paid, until after forty-five (45) days prior written notice has been given to the City. There will be an exception for non-payment of premium, which is ten (10) days' notice of cancellation. Delete Section 00 73 16.01.L of the Standard Specification and replace with the following:

L. VERIFICATION OF COVERAGE

At least ten days prior to commencement of work, the Contractor shall furnish the City a "Certificate of Insurance", with copy(ies) of the additional insured endorsement(s), as verification that coverage is in force. The certificates and endorsements for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf. The certificates and endorsements for each insurance policy are to be on forms approved by the City prior to the commencement of activities associated with this contract. The City reserves the right to require complete, certified copies of all required insurance policies at any time, such evidence of insurance shall refer to the project name and contract number.

Delete Section 00 73 16.01.M of the Standard Specification and replace with the following:

M. SUBCONTRACTORS

The Contractor shall include all Subcontractors as insured under its policies or shall furnish separate certificates of insurance and policy endorsements for each subcontractor. Insurance coverages provided by Subcontractors as evidence of compliance with the insurance requirements of this contract shall be subject to all of the requirements stated herein.

Add the following to Section 00 73 16.01 of the Standard Specification:

N. ENVIRONMENTAL LIABILITY COVERAGE

The Contractor shall purchase and maintain during the life of this contract Environmental Liability Coverage. The limits of liability shall not be less than five million dollars (\$5,000,000) per claim or in the aggregate. If the coverage is written on a claims-made form:

The "Retro Date" must be shown and must be before the date of the contract or the beginning of contracted work.

Insurance must be maintained and evidence of insurance must be provided for at least three (3) years after completion of the contract work and acceptance by the City.

If the coverage is cancelled or not renewed or replaced with another claims-made policy form with a "Retro Date" prior to the contract effective date, the Contractor must purchase "Extended Reporting" coverage for a minimum of three (3) years after completion of the contract work.

A copy of the claims reporting requirements must be submitted to the City for review.

The Mayor and City Council of Baltimore must be named as "Additional Insured".

O. COMMERCIAL UMBRELLA/EXCESS LIABILITY

The Contractor shall maintain either a Commercial Umbrella or Excess Liability at a limit of liability of not less than ten million dollars (\$10,000,000) per each occurrence or in the aggregate. The Contractor agrees to endorse the City as an "Additional Insured" on the Commercial Umbrella/Excess Liability, unless the Commercial Umbrella/Excess Liability provides coverage on a pure/true follow-form basis, or the City is automatically defined as an Additional Protected Person.

P. RAILROAD PROTECTIVE LIABILITY

The Contractor and all subcontractors shall provide, with respect to activities it or any of its agents perform within 50 feet vertically or horizontally of railroad tracks, Railroad Protective Liability

Insurance in the Name of the Owner of the Railroad, in the amount of not less than \$5,000,000 per occurrence, \$10,000,000 per aggregate.

SC-22 PERMITS, LICENSES, CHARGES AND NOTICES (SECTION 01 41 26)

Supplement Section 01 41 26 of the Standard Specifications with the following:

It shall be the Contractors responsibility to obtain the appropriate permits for the off-site disposal of waste material.

The City will obtain a construction permit from the Maryland Department of the Environment if required.

SC-23 DOCUMENT RETENTION

The Contractor shall maintain records of all actions, and accurate books of account for all funds received and disbursed, with full documentation to substantiate the transactions. Records shall be retained for a period of at least five (5) years after receipt of the final payment under this Contract. If Contractor and its parent organization should cease to exist, custody of the records for the Contract will be immediately transferred to the City.

SC-24 RIGHT OF ACCESS TO PRIVATE PROPERTY OWNERS

The City Utility Easement agreements with private property owners provide for authorized City contractors and maintenance crews to access, occupy, and work within the limits of the easements. Most City sewers are constructed within Utility Easements. Occasionally, sewers are found outside utility easements.

However, it is often found that the Contractor must traverse private property to access the sewer within the utility easement. The City policy is to request from the Property Owner a Right-of-Entry (ROE) Agreement or permission letter for this access. The City will provide documentation of access permission to the Contractor prior to issuing the notice-to-proceed.

SC-25 WORK RESTRICTIONS (SECTION 01 14 00)

Supplement Section 01 14 00 with the following:

Unless otherwise specified or directed by the Engineer, the regular working day shall begin no earlier than 7:00 A.M. On some streets, the Contractor will be restricted to work between the hours of 9:00 AM and 3:00 PM only. The Contractor shall contact Department of Transportation's Traffic Engineering Division at 443-984-2173 to identify such streets.



**Sub Contract Agreement  
Section 9:**

**Attachment H -  
Bonds**

**W60617556RETE**





**BID BOND**

Any singular reference to Bidder, Surety, Contractor or other party shall be considered plural where applicable.

BIDDER *(Name and Address)*:

SURETY *(Name, and Address of Principal Place of Business)*:

Contractor *(Name and Address)*:

B&B Partnership Initiative  
10 South Street, suite 301  
Baltimore, Maryland 21202

BID

Bid Due Date:

Description: **Sanitary Sewer Laterals Cleaning & Inspection (CCTV)**

BOND

Bond Number:

Date:

Penal sum \_\_\_\_\_ \$ \_\_\_\_\_  
(Words) (Figures)

Surety and Bidder, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Bid Bond to be duly executed by an authorized officer, agent, or representative.

**BIDDER**

**SURETY**

\_\_\_\_\_  
Bidder's Name and Corporate Seal (Seal)

\_\_\_\_\_  
Surety's Name and Corporate Seal (Seal)

By: \_\_\_\_\_  
Signature

By: \_\_\_\_\_  
Signature (Attach Power of Attorney)

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Title

\_\_\_\_\_  
Title

Attest: \_\_\_\_\_  
Signature

Attest: \_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

\_\_\_\_\_  
Title

1. Bidder and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to pay to Contractor upon default of Bidder (Subcontractor) the penal sum set forth on the face of this Bond. Payment of the penal sum is the extent of Bidder's and Surety's liability. Recovery of such penal sum under the terms of this Bond shall be Contractor's sole and exclusive remedy upon default of Bidder.



2. Default of Bidder shall occur upon the failure of Bidder to deliver within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Contractor) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents.
3. This obligation shall be null and void if:
  - 3.1 Contractor accepts Bidder's Bid and Bidder delivers within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Contractor) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents, or
  - 3.2 All Bids are rejected by Contractor, or
  - 3.3 Contractor fails to issue a Notice of Award to Bidder within the time specified in the Bidding Documents (or any extension thereof agreed to in writing by Bidder and, if applicable, consented to by Surety when required by Paragraph 5 hereof).
4. Payment under this Bond will be due and payable upon default of Bidder and within 30 calendar days after receipt by Bidder and Surety of written notice of default from Contractor, which notice will be given with reasonable promptness, identifying this Bond and the Project and including a statement of the amount due.
5. Surety waives notice of any and all defenses based on or arising out of any time extension to issue Notice of Award agreed to in writing by Contractor and Bidder, provided that the total time for issuing Notice of Award including extensions shall not in the aggregate exceed 120 days from the Bid due date without Surety's written consent.
6. No suit or action shall be commenced under this Bond prior to 30 calendar days after the notice of default required in Paragraph 4 above is received by Bidder and Surety and in no case later than one year after the Bid due date.
7. Any suit or action under this Bond shall be commenced only in a court of competent jurisdiction located in the state in which the Project is located.
8. Notices required hereunder shall be in writing and sent to Bidder and Surety at their respective addresses shown on the face of this Bond. Such notices may be sent by personal delivery, commercial courier, or by United States Registered or Certified Mail, return receipt requested, postage pre-paid, and shall be deemed to be effective upon receipt by the party concerned.
9. Surety shall cause to be attached to this Bond a current and effective Power of Attorney evidencing the authority of the officer, agent, or representative who executed this Bond on behalf of Surety to execute, seal, and deliver such Bond and bind the Surety thereby.
10. This Bond is intended to conform to all applicable statutory requirements. Any applicable requirement of any applicable statute that has been omitted from this Bond shall be deemed to be included herein as if set forth at length. If any provision of this Bond conflicts with any applicable statute, then the provision of said statute shall govern and the remainder of this Bond that is not in conflict therewith shall continue in full force and effect.
11. The term "Bid" as used herein includes a Bid, offer, or proposal as applicable.

**++END OF SECTION++**



**PERFORMANCE BOND**

Subcontractor *(name and address)*:

SURETY *(name and address of principal place of business)*:

Contractor *(name and address)*:

B&B Partnership Initiative  
10 South Street, Suite 301  
Baltimore, Maryland 21202

**CONSTRUCTION CONTRACT**

Effective Date of the Agreement:  
Amount:  
Description *(name and location)*:

**BOND**

Bond Number:  
Date *(not earlier than the Effective Date of the Agreement of the Construction Contract)*:  
Amount:  
Modifications to this Bond Form:  None  See Paragraph 16

Surety and Subcontractor, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Performance Bond to be duly executed by an authorized officer, agent, or representative.

**Subcontractor AS PRINCIPAL**

**SURETY**

\_\_\_\_\_  
Contractor's Name and Corporate Seal *(seal)*

\_\_\_\_\_  
Surety's Name and Corporate Seal *(seal)*

By: \_\_\_\_\_  
Signature

By: \_\_\_\_\_  
Signature *(attach power of attorney)*

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Title

\_\_\_\_\_  
Title

Attest: \_\_\_\_\_  
Signature

Attest: \_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

\_\_\_\_\_  
Title

**Notes: (1) Provide supplemental execution by any additional parties, such as joint ventures. (2) Any singular reference to Subcontractor, Surety, Contractor, or other party shall be considered plural where applicable.**

1. The Subcontractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Contractor for the performance of the Construction Contract, which is incorporated herein by reference.

2. If the Subcontractor performs the Construction Contract, the Surety and the Subcontractor shall have no obligation under this Bond, except when applicable to participate in a conference as provided in Paragraph 3.

3. If there is no Contractor Default under the Construction Contract, the Surety's obligation under this Bond shall arise after:

3.1 The Contractor first provides notice to the Subcontractor and the Surety that the Contractor is considering declaring a Subcontractor Default. Such notice shall indicate whether the Contractor is requesting a conference among the Contractor, Subcontractor, and Surety to discuss the Contractor's performance. If the Contractor does not request a conference, the Surety may, within five (5) business days after receipt of the Owner's notice, request such a conference. If the Surety timely requests a conference, the Contractor shall attend. Unless the Contractor agrees otherwise, any conference requested under this Paragraph 3.1 shall be held within ten (10) business days of the Surety's receipt of the Owner's notice. If the Contractor, the Subcontractor, and the Surety agree, the Subcontractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement shall not waive the Owner's right, if any, subsequently to declare a Subcontractor Default;

3.2 The Contractor declares a Subcontractor Default, terminates the Construction Contract and notifies the Surety; and

3.3 The Contractor has agreed to pay the Balance of the Contract Price in accordance with the terms of the Construction Contract to the Surety or to a Subcontractor selected to perform the Construction Contract.

4. Failure on the part of the Contractor to comply with the notice requirement in Paragraph 3.1 shall not constitute a failure to comply with a condition precedent to the Surety's obligations, or release the Surety from its

obligations, except to the extent the Surety demonstrates actual prejudice.

5. When the Contractor has satisfied the conditions of Paragraph 3, the Surety shall promptly and at the Surety's expense take one of the following actions:

5.1 Arrange for the Subcontractor, with the consent of the Contractor, to perform and complete the Construction Contract;

5.2 Undertake to perform and complete the Construction Contract itself, through its agents or independent contractors;

5.3 Obtain bids or negotiated proposals from qualified contractors acceptable to the Contractor for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Contractor and a Subcontractor selected with the Owners concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Contractor the amount of damages as described in Paragraph 7 in excess of the Balance of the Contract Price incurred by the Contractor as a result of the Subcontractor Default; or

5.4 Waive its right to perform and complete, arrange for completion, or obtain a new Subcontractor, and with reasonable promptness under the circumstance:

5.4.1 After investigation determine the amount for which it may be liable to the Contractor and, as soon as practicable after the amount is determined, make payment to the Contractor; or

5.4.2 Deny liability in whole or in part and notify the Contractor, citing the reasons for denial.

6. If the Surety does not proceed as provided in Paragraph 5 with reasonable promptness, the Surety shall be deemed to be in default on this Bond seven days after receipt of an additional written notice from the Contractor to the Surety demanding that the Surety perform its obligations under this Bond, and the Contractor shall be entitled to enforce any remedy available to the Contractor. If the Surety proceeds as provided in Paragraph 5.4, and the

Contractor refuses the payment or the Surety has denied liability, in whole or in part, without further notice the Contractor shall be entitled to enforce any remedy available to the Contractor.

7. If the Surety elects to act under Paragraph 5.1, 5.2, or 5.3, then the responsibilities of the Surety to the Contractor shall not be greater than those of the Subcontractor under the Construction Contract, and the responsibilities of the Contractor to the Surety shall not be greater than those of the Contractor under the Construction Contract. Subject to the commitment by the Contractor to pay the Balance of the Contract Price, the Surety is obligated, without duplication for:

7.1 the responsibilities of the Subcontractor for correction of defective work and completion of the Construction Contract;

7.2 additional legal, design professional, and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Paragraph 5; and

7.3 liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Subcontractor.

8. If the Surety elects to act under Paragraph 5.1, 5.3, or 5.4, the Surety's liability is limited to the amount of this Bond.

9. The Surety shall not be liable to the Contractor or others for obligations of the Subcontractor that are unrelated to the Construction Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than the Contractor or its heirs, executors, administrators, successors, and assigns.

10. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.

11. Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in

the location in which the work or part of the work is located and shall be instituted within two years after a declaration of Subcontractor Default or within two years after the Subcontractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this paragraph are void or prohibited by law, the minimum periods of limitations available to sureties as a defense in the jurisdiction of the suit shall be applicable.

12. Notice to the Surety, the Contractor, or the Subcontractor shall be mailed or delivered to the address shown on the page on which their signature appears.

13. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

14. Definitions

14.1 Balance of the Contract Price: The total amount payable by the Contractor to the Subcontractor under the Construction Contract after all proper adjustments have been made including allowance for the Subcontractor for any amounts received or to be received by the Contractor in settlement of insurance or other claims for damages to which the Subcontractor is entitled, reduced by all valid and proper payments made to or on behalf of the Subcontractor under the Construction Contract.

14.2 Construction Contract: The agreement between the Contractor and Subcontractor identified on the cover page, including all Contract Documents and changes made to the agreement and the Contract Documents.

14.3 Subcontractor Default: Failure of the Subcontractor, which has not been remedied or waived, to perform or otherwise to comply with a material term of the Construction Contract.



14.4 Contractor Default: Failure of the Contractor, which has not been remedied or waived, to pay the Subcontractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

14.5 Contract Documents: All the documents that comprise the agreement between the Contractor and Subcontractor.

15. Modifications to this Bond are as follows: NONE

**++END OF SECTION++**



**PAYMENT BOND**

Subcontractor (*name and address*):

SURETY (*name and address of principal place of business*):

Contractor (*name and address*):

B&B Partnership Initiative  
10 South Street, Suite 301  
Baltimore, Maryland 21202

**CONSTRUCTION CONTRACT**

Effective Date of the Agreement:

Amount:

Description (*name and location*):

**BOND**

Bond Number:

Date (*not earlier than the Effective Date of the Agreement of the Construction Contract*):

Amount:

Modifications to this Bond Form:  None  See Paragraph 18

Surety and Subcontractor, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Payment Bond to be duly executed by an authorized officer, agent, or representative.

**Subcontractor AS PRINCIPAL**

**SURETY**

\_\_\_\_\_  
Contractor's Name and Corporate Seal (Seal)

\_\_\_\_\_  
Surety's Name and Corporate Seal (Seal)

By: \_\_\_\_\_  
Signature

By: \_\_\_\_\_  
Signature (*attach power of attorney*)

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Title

\_\_\_\_\_  
Title

Attest: \_\_\_\_\_  
Signature

Attest: \_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

\_\_\_\_\_  
Title

**Notes: (1) Provide supplemental execution by any additional parties, such as joint ventures. (2) Any singular reference to Subcontractor, Surety, Contractor, or other party shall be considered plural where applicable.**



1. The Subcontractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Contractor to pay for labor, materials, and equipment furnished for use in the performance of the Construction Contract, which is incorporated herein by reference, subject to the following terms.
  - 5.1 Claimants who do not have a direct contract with the Subcontractor,
    - 5.1.1 have furnished a written notice of non-payment to the Subcontractor, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were, or equipment was, furnished or supplied or for whom the labor was done or performed, within ninety (90) days after having last performed labor or last furnished materials or equipment included in the Claim; and
    - 5.1.2 have sent a Claim to the Surety (at the address described in Paragraph 13).
  - 5.2 Claimants who are employed by or have a direct contract with the Subcontractor have sent a Claim to the Surety (at the address described in Paragraph 13).
2. If the Subcontractor promptly makes payment of all sums due to Claimants, and defends, indemnifies, and holds harmless the Contractor from claims, demands, liens, or suits by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, then the Surety and the Subcontractor shall have no obligation under this Bond.
3. If there is no Contractor Default under the Construction Contract, the Surety's obligation to the Contractor under this Bond shall arise after the Contractor has promptly notified the Subcontractor and the Surety (at the address described in Paragraph 13) of claims, demands, liens, or suits against the Contractor or the Owner's property by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, and tendered defense of such claims, demands, liens, or suits to the Subcontractor and the Surety.
4. When the Contractor has satisfied the conditions in Paragraph 3, the Surety shall promptly and at the Surety's expense defend, indemnify, and hold harmless the Contractor against a duly tendered claim, demand, lien, or suit.
5. The Surety's obligations to a Claimant under this Bond shall arise after the following:
  - 7.1 Send an answer to the Claimant, with a copy to the Contractor, within sixty (60) days after receipt of the Claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed; and
  - 7.2 Pay or arrange for payment of any undisputed amounts.
6. If a notice of non-payment required by Paragraph 5.1.1 is given by the Contractor to the Subcontractor, that is sufficient to satisfy a Claimant's obligation to furnish a written notice of non-payment under Paragraph 5.1.1.
7. When a Claimant has satisfied the conditions of Paragraph 5.1 or 5.2, whichever is applicable, the Surety shall promptly and at the Surety's expense take the following actions:
  - 5.1.1

- 7.3 The Surety's failure to discharge its obligations under Paragraph 7.1 or 7.2 shall not be deemed to constitute a waiver of defenses the Surety or Subcontractor may have or acquire as to a Claim, except as to undisputed amounts for which the Surety and Claimant have reached agreement. If, however, the Surety fails to discharge its obligations under Paragraph 7.1 or 7.2, the Surety shall indemnify the Claimant for the reasonable attorney's fees the Claimant incurs thereafter to recover any sums found to be due and owing to the Claimant.
8. The Surety's total obligation shall not exceed the amount of this Bond, plus the amount of reasonable attorney's fees provided under Paragraph 7.3, and the amount of this Bond shall be credited for any payments made in good faith by the Surety.
9. Amounts owed by the Contractor to the Subcontractor under the Construction Contract shall be used for the performance of the Construction Contract and to satisfy claims, if any, under any construction performance bond. By the Subcontractor furnishing and the Contractor accepting this Bond, they agree that all funds earned by the Subcontractor in the performance of the Construction Contract are dedicated to satisfy obligations of the Subcontractor and Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.
10. The Surety shall not be liable to the Contractor, Claimants, or others for obligations of the Subcontractor that are unrelated to the Construction Contract. The Contractor shall not be liable for the payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligation to make payments to or give notice on behalf of Claimants, or otherwise have any obligations to Claimants under this Bond.
11. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.
12. No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the state in which the project that is the subject of the Construction Contract is located or after the expiration of one year from the date (1) on which the Claimant sent a Claim to the Surety pursuant to Paragraph 5.1.2 or 5.2, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.
13. Notice and Claims to the Surety, the Contractor, or the Subcontractor shall be mailed or delivered to the address shown on the page on which their signature appears. Actual receipt of notice or Claims, however accomplished, shall be sufficient compliance as of the date received.
14. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.
15. Upon requests by any person or entity appearing to be a potential beneficiary of this Bond, the Subcontractor and Contractor shall promptly furnish a copy of this Bond or shall permit a copy to be made.
16. **Definitions**
- 16.1 **Claim:** A written statement by the Claimant including at a minimum:

1. The name of the Claimant;
2. The name of the person for whom the labor was done, or materials or equipment furnished;
3. A copy of the agreement or purchase order pursuant to which labor, materials, or equipment was furnished for use in the performance of the Construction Contract;
4. A brief description of the labor, materials, or equipment furnished;
5. The date on which the Claimant last performed labor or last furnished materials or equipment for use in the performance of the Construction Contract;
6. The total amount earned by the Claimant for labor, materials, or equipment furnished as of the date of the Claim;
7. The total amount of previous payments received by the Claimant; and
8. The total amount due and unpaid to the Claimant for labor, materials, or equipment furnished as of the date of the Claim.

**16.2 Claimant:** An individual or entity having a direct contract with the Subcontractor or with a subcontractor of the Subcontractor to furnish labor, materials, or equipment for use in the performance of the Construction Contract. The term Claimant also includes any individual or entity that has rightfully asserted a claim under an applicable mechanic's lien or similar statute against the real property upon which the Project is located. The intent of this Bond shall be to include without limitation in the terms of "labor, materials, or equipment" that part of the water, gas, power, light, heat, oil, gasoline, telephone

service, or rental equipment used in the Construction Contract, architectural and engineering services required for performance of the work of the Subcontractor and the Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials, or equipment were furnished.

**16.3 Construction Contract:** The agreement between the Contractor and Subcontractor identified on the cover page, including all Contract Documents and all changes made to the agreement and the Contract Documents.

**16.4 Contractor Default:** Failure of the Contractor, which has not been remedied or waived, to pay the Subcontractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

**16.5 Contract Documents:** All the documents that comprise the agreement between the Contractor and Subcontractor.

17. If this Bond is issued for an agreement between a Subcontractor and subcontractor, the term Subcontractor in this Bond shall be deemed to be Subcontractor and the term Contractor shall be deemed to be Subcontractor.

18. Modifications to this Bond are as follows:

**++END OF SECTION++**

**Sub Contract Agreement  
Section 10:**

**Attachment I -  
MBE/WBE Affidavits**

**W60617556RETE**



**MBE/WBE PARTICIPATION AFFIDAVIT**

Contract Description :

\_\_\_\_\_  
\_\_\_\_\_

Prime Bidder: \_\_\_\_\_

Prime Bidder (Company) Phone Number: \_\_\_\_\_

Prime Bidder (Company) Zip Code: \_\_\_\_\_

Which one of the following describes your business' status in terms of Minority and/or Woman-Owned Business Enterprise certification with the State of Rhode Island?  MBE  WBE  Neither MBE nor WBE

**By initialing the following sections and signing the bottom of this document in my capacity as the contractor or an authorized representative of contractor, I make this Affidavit:**

It is the policy of the City of Baltimore that minority business enterprises (MBEs) and women business enterprises (WBEs) should have the maximum opportunity to participate in procurements and projects as prime contractors and vendors. Pursuant to the City of Baltimore's Minority and Women Business Opportunity Office (MWBOO), MBE and WBE participation goals apply to this contract:

- The goal for Minority Business Enterprise (MBE) participation is 20% of the total bid value.
- The goal for Women's Business Enterprise (WBE) participation is 11% of the total bid value.
- The goal for combined MBE/WBE participation is 31% of the total bid value.

**I acknowledge the City of Baltimore's goals of supporting MBE/WBE certified businesses.** Initial \_\_\_\_\_

If awarded the contract, I understand that my company should coordinate with the Minority and Women's Business Coordinator at the City of Baltimore (MBE/WBE Office), and share copies of all executed agreements with the subcontractor(s) being utilized to achieve the participation goals and other requirements of the Laws. **These documents must be submitted prior to the issuance of a notice to proceed.** Initial \_\_\_\_\_

**I understand that, if awarded the contract, my firm must submit to the MBE/WBE Office canceled checks and reports required by the MBE/WBE Office on a quarterly basis verifying payments to the subcontractors(s) utilized on the contract.** Initial \_\_\_\_\_

If I am awarded this contract and find that I am unable to utilize the subcontractor(s) identified in my Statement of Intent, I understand that I must substitute another certified MBE and WBE firm(s) to meet the participation goals. **I understand that I may not make a substitution until I have obtained the written approval of the MBE/WBE Office.** Initial \_\_\_\_\_

**If awarded this contract, I understand that authorized representatives of the City of Baltimore may examine the books, records and files of my firm from time to time, to the extent that such material is relevant to a determination of whether my firm is complying with the City's MBE/WBE participation requirements.** Initial \_\_\_\_\_

**I do solemnly declare and affirm under the penalty of perjury that the contents of the foregoing Affidavit are true and correct to the best of my knowledge, information and belief.**

\_\_\_\_\_  
Signature of Bidder

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Company Name

\_\_\_\_\_  
Date

## SUBCONTRACTOR DISCLOSURE FORM

Fill out this form only if you WILL SUBCONTRACT with other parties. If you will not subcontract any portion of the proposed bid, do not fill out this form.

Bidder: \_\_\_\_\_ Primary NAICS Code: \_\_\_\_\_

Item Description (as seen on RFP):

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Please list all Subcontractors below. Include the total dollar value that you propose to share with each subcontractor and the dollar amount to be subcontracted. Please check off MBE and WBE where applicable. The directory of all state-certified MBE/WBE firms is located at [www.mbe.ri.gov](http://www.mbe.ri.gov). Business NAICS codes can be found at <https://www.naics.com/search/>

Proposed Subcontractor	MBE	WBE	Primary NAICS Code	Date of Mobilization	\$ Value of Subcontract
	<input type="checkbox"/>	<input checked="" type="checkbox"/>			\$
	<input type="checkbox"/>	<input type="checkbox"/>			\$
	<input type="checkbox"/>	<input type="checkbox"/>			\$
	<input type="checkbox"/>	<input type="checkbox"/>			\$
	<input type="checkbox"/>	<input type="checkbox"/>			\$
	<input type="checkbox"/>	<input type="checkbox"/>			\$
<b>A. MBE SUBCONTRACTED AMOUNT:</b>					\$
<b>B. WBE SUBCONTRACTED AMOUNT:</b>					\$
<b>C. NON MBE WBE SUBCONTRACTED AMOUNT:</b>					\$
<b>D. DOLLAR AMOUNT OF WORK DONE BY THE PRIME CONTRACTOR:</b>					\$
<b>E. TOTAL AMOUNT OF BID (SUM OF A, B, C &amp; D):</b>					\$
<b>F. PERCENTAGE OF BID SUBCONTRACTED TO MBEs AND WBEs. (Add A and B. Divide by E and multiply by 100).</b>					%

Please read and initial the following statement acknowledging you understand.

If the percentage of the total amount of the bid being awarded to MBE or WBE vendors is less than 20% (Box F) and the prime contractor is NOT a Baltimore City -certified MBE or WBE, **you should fill out the MBE/WBE WAIVER REQUEST FORM for consideration by City of Baltimore MBE/WBE Outreach Director.** Initial \_\_\_\_\_

**MBE/WBE Declines to Participate Affidavit**

**Fill out this form only if you are a MBE/WBE that declines to participate in Awarded work. Non -MBE or Non - WBE that are not certified by the City of Baltimore are NOT REQUIRED to fill out this form.**

Submit this form to the City of Baltimore Minority and Women’s Business Opportunity Office (MWBOO) Chief, Tamara Brown, at tamara.brown@baltimorecity.gov for review **after contract award and notification.**

This waiver applies only to the current bid which you are submitting to the City of Providence and does not apply to other bids your company may submit for in the future.

Prime Bidder: \_\_\_\_\_

Company Trade: \_\_\_\_\_

Contract Description (w/scope):

\_\_\_\_\_  
 -  
 \_\_\_\_\_  
 -

MBE/WBE Company Name	Individual’s Name	Company Trade	Why did you choose not to work with this company?

I acknowledge the City of Baltimore’s goal of a combined MBE/WBE participation is 31% of the total bid value. I am declining to subcontract\_\_\_\_\_% as a registered MBE/WBE, and acknowledge that a good faith effort has been made to select our company as a MBE/WBE certified business partner.

\_\_\_\_\_  
 Signature of Subcontractor

\_\_\_\_\_  
 Printed Name

\_\_\_\_\_  
 Date Signed

\_\_\_\_\_  
 Signature of City of Baltimore  
 MBE/WBE Director

\_\_\_\_\_  
 \_ Printed Name of City of Baltimore  
 MBE/WBE Director

\_\_\_\_\_  
 Date Signed





**Sub Contract Agreement  
Section 11:**

**Attachment J -  
Schedule of Values (SOV)/  
Payment(s)**

**W60617556RETE**





**EXHIBIT A  
STATEMENT OF COMPLIANCE**

Date: \_\_\_\_\_

Project Name: \_\_\_\_\_

Project/Job Number: \_\_\_\_\_

I, \_\_\_\_\_ do hereby state:  
(Name of Signatory Party) (Title)

1) I pay or supervise the payment of the persons employed by \_\_\_\_\_ on the above referenced project; that during the payroll period commencing on the \_\_\_\_\_ day of \_\_\_\_\_ and ending on the \_\_\_\_\_ day of \_\_\_\_\_, all persons employed on the project have been paid the full weekly wages earned, that no rebates have been or will be made either directly or indirectly to or on behalf of \_\_\_\_\_ from the full weekly wages earned by any person, and that no deductions have been made either directly or indirectly from the full wages earned by any person, other than permissible deductions as defined in Regulations, Part 3 (29 CFR Subtitle A), issued by the Secretary of Labor under the Copeland Act, as amended.

2) Any payrolls required to be submitted under this agreement for the above period are correct and complete; that the wage rates for laborers or mechanics are not less than the applicable wage rates contained in any wage determination incorporated into this agreement; that the classifications set forth for each laborer or mechanic conform with the work performed.

3) Any apprentices employed in the above work are duly registered in a bona fide apprenticeship program registered with a state apprenticeship agency recognized by the Bureau of Apprenticeship and Training, United States Department of Labor, or if no recognized agency exists in a state, are registered with the Bureau of Apprenticeship and Training, United States Department of Labor.

4) That:

A. Where fringe benefits are paid to approved plans, funds or programs – in addition to the basis hourly wage rates paid to laborer(s) or mechanic(s) listed in the above referenced payroll, payments of fringe benefits have been or will be made to appropriate programs for the benefit of such employees, except as noted in Section 4 C below.

B. Where fringe benefits are paid in cash – each laborer or mechanic listed in the above referenced payroll has been paid as indicated on the payroll an amount not less than the sum of the applicable hourly wage rate plus the amount of the required fringe benefits, except as noted in Section 4 C below.

C. Exceptions:

Exception (Craft)	Explanation

Subcontract Initial: \_\_\_\_\_

B&B Partnership Initiative: \_\_\_\_\_

\_\_\_\_\_  
(Printed Name and Title)

\_\_\_\_\_  
(Printed Name and Title)

\_\_\_\_\_  
(Signature)

The willful falsification of any of the above statements may subject the subcontractor to civil or criminal prosecution. See Section 1001 of Title 18 and Section 231 of Title 31 of the United States Code.

**Attachment J - APPENDIX 2  
SUPPLEMENTARY SPECIFICATIONS – (PROJECT)**

**METHOD OF MEASUREMENT AND PAYMENT**

**1.0 General**

The methods of measurement and payment as described for the work in this Contract shall be made as progress payments for work completed by subcontractor, accepted and then paid for by owner. These progress payments are in accordance with the attached Schedule of Values (SOV) and Unit Pricing included in these Contract Documents.

**1.1 Payment**

.1 All payment for work within this Contract is included in the lump sum(s), Schedule of Values (SOV), and unit prices listed in [Attachment J – Schedule of Values \(SOV\)/Payments](#). No separate compensation or extra payment will be made for the work described as part of the work in these *Contract Documents*.

.2 The work includes all materials, labour, equipment, plant, cut and waste, specified testing, other incidentals, and miscellaneous materials necessary to complete the work in conformance with the Contract Designs (Diagrams), Regulations, and Specifications.

.3 The determination of the percentage of the work complete for the purposes of a progress payment will be made by the Contract Administrator and will be determined to an accuracy of plus or minus 5%

**1.2 Variations/  
Quantities**

**In this contract, regardless of whether quantities are titled "contingent", all quantities are in fact, contingent. The Owner has made estimates based on the needs of the City's Utility maintenance system, and it is likely that there will be overruns and underruns of various lines items included in the - Schedule of Values (SOV). The subcontractor should also be aware that these quantities provided are estimated, for bidding purposes only, and may be increased, decreased, or eliminated entirely. The subcontractor will be paid for work which is actually performed by the subcontractor and accepted by B&BPILLC and the Engineer (Owner).**

**Any modifications to this contract's Scope of Work (SOW) - based on variations of quantity; shall be considered only as a "zero cost change order" with no increases to the contract's overall price for the project.**

**- END OF PAGE -**

**Attachment J - APPENDIX 2 - CONSTRUCTION PROJECTS: CONTRACTOR CHANGE ORDERS**

**2.01** The Contractor shall complete additional work using the following method:

A. Labor

- i. The cost of labor shall be the actual cost for wages of workers performing the Work at the time the Work is done, plus employer payments of payroll taxes, workers compensation insurance, liability insurance, health and welfare, pension, vacation, apprenticeship funds, and other direct costs, resulting from Federal, State, or local laws, as well as assessments or benefits required by lawful collective bargaining agreements.
- ii. The use of a labor classification which would increase the Work cost will not be permitted unless the Contractor establishes the necessity for such additional costs. Labor costs for equipment operators and helpers shall be reported only when such costs are not included in the invoice for equipment rental. The labor cost for foremen shall be proportioned to all of their assigned work and only that applicable to the Work will be paid.
- iii. Non-direct labor costs, including superintendence, shall be considered part of the markup specified in 2.F.i.

B. Materials

- i. The cost of materials reported shall be at invoice or lowest current price at which such materials are locally available and delivered to the Work site in the quantities involved, plus sales tax, freight, and delivery.
- ii. The District reserves the right to approve materials and sources of supply, or to supply materials to the Contractor if necessary for the progress of the Work. No markup shall be applied to any material provided by the District.

C. Tool and Equipment Rental

- i. No payment will be made for the use of tools which have a replacement value of \$200 or less.
- ii. Regardless of ownership, the rates to be used in determining equipment rental costs shall not exceed listed rates prevailing locally at equipment rental agencies, or distributors, at the time the Work is performed.
- iii. The rental rates paid shall include the cost of fuel, oil, lubrication, supplies, small tools, necessary attachments, repairs and maintenance of any kind, depreciation, storage, insurance, and all incidentals. Necessary loading and transportation costs for equipment used on the Work shall be included.
- iv. If equipment is used intermittently and, when not in use, could be returned to its rental source at less expense to the District than holding it at the Work site, it shall be returned, unless the Contractor elects to keep it at the Work site, at no expense to the District.

- v. All equipment shall be acceptable to the Engineer, in good working condition, and suitable for the purpose for which it is to be used.
- vi. The reported rental time for equipment already at the Work site shall be the duration of its use on the Work. This time shall begin when the equipment is first used on the Work, plus the time required to move it from its previous site and back, or to a closer site.

**D. Other Items**

The District may authorize other items which may be required on the Work, including labor, services, material, and equipment. These items must be different in their nature from those required for the Work, and be of a type not ordinarily available from the Contractor or Subcontractors.

**E. Invoices**

Labor hours, invoices for material, equipment rental and other expenditures shall be submitted with the daily report per 2.G. If the daily report is not substantiated by invoices or other documentation, the District may establish the cost of the item involved at the lowest price which was current at the time of the report.

**F. Unit Prices (for Schedule of Values)**

- i. Work by the Contractor - UNIT PRICES per Linear Foot (LF)

<b>CATEGORY 4"-8" Laterals</b>	<b>via Sewer Main</b>	<b>via Cleanout</b>
Light Cleaning/Inspection	\$5.10/LF	\$4.34/LF
Heavy Cleaning/Inspection	\$6.96/LF	\$5.63/LF
Specialty Cleaning/Inspection	\$10.33/LF	\$8.68/LF

- ii. Work by Subcontractor

The Contractor may add 5 percent of the subcontractor’s total cost for the work. Regardless of the number of hierarchical tiers of subcontractor, the five percent which includes the Contractor’s allowance for overhead (3.5%) and profit (1.5%) may be applied one time only to the performing subcontractor’s total cost.

**G. Daily Reports**

The Contractor shall submit a daily report to the District on forms approved by the District. Applicable delivery tickets, listing all labor, materials, and equipment involved for that day, and other services and expenditures when authorized shall be included. Failure to submit the daily report by the close of the next Working Day may waive any rights for that day. An attempt shall be made to reconcile the report daily, and it shall be signed by the District and the Contractor. In the event of a

disagreement, pertinent notes shall be entered by each party to explain points which cannot be resolved immediately. Each party shall retain a signed copy of the report. Reports by Subcontractors or others shall be submitted through the Contractor.

The report shall:

- i. List the names of workers, classifications, and hours worked.
- ii. Describe and list quantities of materials used.
- iii. List the type of equipment, size, identification number, and hours of operation, including loading and transportation, if applicable.
- iv. Describe other services and expenditures in such detail as the District may require.

#### H. Other Considerations

For items not addressed in the contract documents, the Contractor shall refer to the Standard Specification for Public Works Construction, 2015 Edition.

### **ARTICLE VIII - TERMINATION OF AGREEMENT**

OWNER may terminate the Agreement at any time, for OWNER's convenience, by delivery of written notice of such termination to CONTRACTOR, and CONTRACTOR shall immediately cease the work and transfer to OWNER, in accordance with OWNER's directions, all materials, supplies, work in progress, equipment, machinery or tools acquired by CONTRACTOR in connection with the performance of the work and for which CONTRACTOR is reimbursed hereunder, and all drawings, specifications, plans, sketches, and information for use in connection therewith. CONTRACTOR shall, if directed by the OWNER and to the extent stated in the notice of termination, do such work as may be necessary to preserve the work in progress and to protect material and equipment on the job site or in transit thereto.

If work is not being done in accordance with the Agreement, any work in progress shall be stopped immediately by the CONTRACTOR upon request of the OWNER. Further, this Agreement may be cancelled by the OWNER by delivery of written notice of such termination to CONTRACTOR in the event the CONTRACTOR fails to perform the work in accordance with the SPECIFICATIONS or otherwise breaches any of the terms and conditions of the Agreement. The remedies of the OWNER set forth in this Agreement are cumulative and in addition to all rights and remedies provided by law or equity.

### **ARTICLE IX - CONTRACTOR STATUS**

**9.01** Contractor shall perform the services assigned by CIBCSD in Contractor's own way as an independent contractor, in pursuit of Contractor's independent calling and not as an employee of CIBCSD. Contractor shall be under the control of CIBCSD only as to the result to be accomplished and the personnel assigned to perform services. However, Contractor shall



regularly confer with CIBCSD's liaison, General Manager, and Commission as provided for in this Agreement.

**9.02** Contractor hereby specifically represents and warrants to CIBCSD that the services to be rendered pursuant to this Agreement shall be performed in accordance with the standards customarily applicable to an experienced and competent Contractor rendering the same or similar services. Furthermore, Contractor represents and warrants that the individual signing this Agreement on behalf of Contractor has the full authority to bind Contractor to this Agreement.

#### **ARTICLE X - AUDIT AND OWNERSHIP OF DOCUMENTS**

**10.01** All draft and final reports, plans, drawings, specifications, data, notes, and all other documents of any kind or nature prepared or developed by Contractor in connection with the performance of services assigned to it by CIBCSD are the sole property of CIBCSD, and Contractor shall promptly deliver all such materials to CIBCSD. Contractor may retain copies of the original documents, at its option and expense.

**10.02** Contractor shall retain and maintain, for a period not less than four years following termination of this Agreement, all-time records, accounting records, certified payroll, and vouchers and all other records with respect to all matters concerning services performed, compensation paid and expenses reimbursed. At any time during normal business hours and as often as CIBCSD may deem necessary, Contractor shall make available to CIBCSD's agents for examination of all such records and will permit CIBCSD's agents to audit, examine and reproduce such records.

#### **ARTICLE XI - MISCELLANEOUS PROVISIONS**

**11.01** This Agreement supersedes any and all previous agreements, either oral or written, between the parties hereto with respect to the rendering of services by Contractor for CIBCSD and contains all of the covenants and agreements between the parties with respect to the rendering of such services in any manner whatsoever. Any modification of this Agreement will be effective only if it is in writing signed by both parties.

**11.02** Contractor shall not assign or otherwise transfer any rights or interest in this Agreement without the prior written consent of CIBCSD. Unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under this Agreement.

**11.03** In the event Contractor is an individual person and dies prior to completion of this Agreement or any Task Order issued hereunder, any monies earned that may be due Contractor from CIBCSD as of the date of death will be paid to Contractor's estate.



**11.04** Contractor shall comply with all local, state and federal laws, rules and regulations including those regarding nondiscrimination and the payment of prevailing wages.

**11.05** During the performance of the Agreement, Contractor and its subcontractors shall not unlawfully discriminate, harass, or allow harassment against any employee or applicant for employment because of sex, race, color, ancestry, religious creed, national origin, physical disability (including HIV and AIDS), mental disability, medical condition (cancer), age (over 40), marital status and denial of family care leave. Contractor and its subcontractors shall insure that the evaluation and treatment of their employees and applicants for employment are free from such discrimination and harassment. Contractor and its subcontractors shall comply with the provisions of the Fair Employment and Housing Act (Government Code, Section 12290 et seq.) and the applicable regulations promulgated there under (California Code of Regulations, Title 2, Section 7285 et seq.). The applicable regulations of the Fair Employment and Housing Commission implementing Government Code Section 12990 et seq., set forth in Chapter 5 of Division 4 of Title 2 of the California Code of Regulations, are incorporated into this Agreement by reference and made a part hereof as if set forth in full. Contractor and its subcontractors shall give written notice of their obligations under this clause to labor organizations with which they have a collective bargaining or other agreement. Contractor shall include the non-discrimination and compliance provisions of this clause in all subcontracts to perform work under the Agreement.

**11.06** Contractor's employees, agents and subcontractors shall adhere to, and comply with, the California Drug Free Workplace Act at Government Code, Sections 8350 through 8357.

**11.07** In the event that any provision of this Work Order is unenforceable or held to be unenforceable, then the parties agree that all other provisions of this Work Order shall continue to be in full force and effect and shall not be affected thereby.

**11.08 Performance and Payment Bonds**

- A. Contractor shall furnish a performance bond and a payment bond, each in an amount at least equal to the Contract Price, as security for the faithful performance and payment of all of Contractor's obligations under the Contract. These bonds shall remain in effect until one year after the date when final payment becomes due or until completion of the correction period, whichever is later, except as provided otherwise by Laws or Regulations, or other specific provisions of the Contract. Contractor shall also furnish such other bonds as are required by other specific provisions of the Contract.
- B. All bonds shall be in the form prescribed by the Contract except as provided otherwise by Laws or Regulations and shall be executed by such sureties as are named in "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds





and as Acceptable Reinsuring Companies” as published in Circular 570 (as amended and supplemented) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. A bond signed by an agent or attorney-in-fact must be accompanied by a certified copy of that individual’s authority to bind the surety. The evidence of authority shall show that it is effective on the date the agent or attorney-in-fact signed the accompanying bond.

- C. Contractor shall obtain the required bonds from surety companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue bonds in the required amounts.
- D. If the surety on a bond furnished by Contractor is declared bankrupt or becomes insolvent, or its right to do business is terminated in any state or jurisdiction where any part of the Project is located, or the surety ceases to meet the requirements above, then Contractor shall promptly notify Owner and Engineer and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which shall comply with the bond and surety requirements above.
- E. If Contractor has failed to obtain a required bond, Owner may exclude the Contractor from the Site and exercise Owner’s termination rights under of this Agreement.
- F. Upon request, Owner shall provide a copy of the payment bond to any Subcontractor, Supplier, or other person or entity claiming to have furnished labor or materials used in the performance of the Work.

**11.09** The following referenced documents are included in this Agreement:

- A. Cost Proposal Form
- B. Non-Collusion Affidavit
- C. Acknowledgement of Insurance Requirements
- D. Scope of Services
- E. CIBCSO Sewer System Figure
- F. Bond Forms



Subcontractor's Name  
Subcontractor Address

Phone:  
Office

**INVOICE**

**BILL TO: BROWN, PRISCILLA**  
**B&B Partnership Initiative LLC**  
**10 South Street, Suite 301**  
**BALTIMORE, MD 21202**  
  
**Attn: PRISCILLA BROWN**

**INVOICE #:**  
**INVOICE DATE:**  
**BILLING PERIOD:**  
**CUSTOMER NUMBER:**  
**CUSTOMER NAME:**  
**CONTACT:**


**PROJECT NAME:** SC-1000

Laterals
Cleaning / Inspection

**NATURE OF INVOICE:**  
  
Monthly Progress Billing No.1

<b>DESCRIPTION:</b>	
	<b>TOTALS</b>
Total Original Contract Price	\$38,195.25
Net Change by Change Orders	\$0.00
Revised Net Contract Price	\$38,195.25
Percent Complete as of Date of Invoice	0.00%
Total Amount Payable as of Date of Invoice	\$0.00

**PLEASE PAY THIS AMOUNT:** \$0.00

**NOTES:**  
  
PAYMENT DUE NET 7 DAYS FROM DATE OF CONTRACTOR'S RECIEPT OF PAYMENT FROM OWNER

Please Send Remittance To:	<i>B&amp;B Partnership Initiative LLC</i> <i>Attn: Accounts Receivable</i> <i>10 South Street, Suite 301</i> <i>BALTIMORE, MD 21202</i>
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FOR INTERNAL USE ONLY.	N52015199.464070
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**PAYMENT APPLICATION**

<b>CUSTOMER:</b> B&B Partnership Initiative LLC 10 South Street, Suite 301 BALTIMORE, MD 21202	<b>PROJECT:</b> SC-1000 Sanitary Sewer Laterals	<b>APPLICATION NO :</b> _____ <u>1</u>
		<b>INVOICE NO :</b> _____ <u>1</u>
<b>ATTN:</b> BROWN, PRISCILLA	<b>CONTRACT NUMBER</b> <b>W60617556RETE</b>	<b>APPLICATION DATE :</b> _____
<b>SUBCONTRACTOR:</b>		<b>PERIOD FROM</b> _____
	<b>PROJECT NUMBER:</b> 1220-040-2017-034	<b>PERIOD TO</b> _____
	<b>SUB-JOB NUMBER:</b> W60617556RETE	

**CONTRACTOR'S APPLICATION FOR PAYMENT**

The undersigned Contractor certifies that to the best of his knowledge and belief the work covered by this Application for Payment has been completed in accordance with the Contract Documents, that all amounts have been paid by him for Work for which previous Certificates for Payment were issued and payments received from the Customer, and that current payment shown herein is now due.

Application is made for Payment, as shown below, in connection with the Contract. The Contract Schedule of Values, and Change Order Summary, is attached.

The present status of the account for this Contract is as follows:

ORIGINAL CONTRACT SUM .....	\$	<u>38,195.25</u>
Net change by Change Orders .....	\$	<u>0.00</u>
<b>CONTRACT SUM TO DATE</b>	<b>\$</b>	<b><u>38,195.25</u></b>
<b>TOTAL COMPLETED &amp; STORED TO DATE</b> .....	<b>\$</b>	_____
<small>(Column G in Schedule of Values)</small>		
<b>LESS: RETAINAGE</b> <u>10%</u> of Completed Work .....	\$	_____
<small>(Column E in Schedule of Values)</small>		
<b>TOTAL EARNED LESS RETAINAGE</b> .....	<b>\$</b>	_____
<b>LESS PREVIOUS CERTIFICATES FOR PAYMENT</b> ...	<b>\$</b>	_____
<b>CURRENT PAYMENT DUE</b> .....	<b>\$</b>	<div style="border: 1px solid black; width: 100px; height: 20px;"></div>
<b>BALANCE TO FINISH, ( Including Retainage )</b> .....	<b>\$</b>	_____

**CONTRACTOR:**

By: \_\_\_\_\_ Date: \_\_\_\_\_

State of: \_\_\_\_\_ County of: \_\_\_\_\_, 2016  
Subscribed & sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_

Notary Public:  
My Commission expires:

Change Order Summary	Additions	Deductions
Total changes approved in previous months by Customer	\$0.00	\$0.00
Total approved this Month	\$0.00	\$0.00
<b>TOTALS</b>	<b>\$0.00</b>	<b>\$0.00</b>
<b>NET CHANGES</b>		<b>\$0.00</b>

**CUSTOMER'S CERTIFICATE FOR PAYMENT**

In accordance with the Contract Documents, based on on-site observation and the data comprising the above application, the Customer certifies that the work has progressed to the point indicated; that to the best of his knowledge information and belief, the quality of # \_\_\_\_\_ in accordance with the Contract Documents; and that the Contractor is entitled to payment of the AMOUNT CERTIFIED.

**AMOUNT CERTIFIED** \$ \_\_\_\_\_  
(Attach explanation if amount certified differs from amount applied for)  
**CUSTOMER**  
By: \_\_\_\_\_ Date : \_\_\_\_\_

This Certificate is not negotiable. The AMOUNT CERTIFIED is payable only to the Contractor named herein. Issuance, payment and acceptance of payment are without prejudice to any rights of the Customer under this Contract.

CONTINUATION SHEET

APPLICATION NO 1  
 APPLICATION DATE \_\_\_\_\_  
 PERIOD TO \_\_\_\_\_

SCHEDULE OF VALUES (SOV)

A ITEM NO.	B DESCRIPTION OF WORK	C SCHEDULED VALUE	D WORK COMPLETED		F MATERIAL STORED (NOT IN D or E)	G TOTAL COMPLETED & STORED TO DATE		H BALANCE TO FINISH (C - G)	I RETAINAGE (IF APPLICABLE) 10%
			FROM PREVIOUS APPLICATIONS	THIS PERIOD		(D + E + F)	(%)		
1	<b>Light Cleaning of 4-inch through 8" Diameter Sanitary Sewer Laterals</b>								
2	- 1000 Linear Feat (LF) Cleaning and Inspection via sewer main	\$5,104.68						\$5,104.68	
3	- 3000 Linear Feat (LF) Cleaning and Inspection via cleanout	\$13,025.18						\$13,025.18	
4	<b>Heavy Cleaning of 4-inch through 8" Diameter Sanitary Sewer Laterals</b>								
5	- 400 Linear Feat (LF) Cleaning and Inspection via sewer main	\$2,784.93						\$2,784.93	
6	- 400 Linear Feat (LF) Cleaning and Inspection via cleanout	\$2,253.22						\$2,253.22	
7	<b>Specialty Cleaning of 4-inch through 8" Diameter Sanitary Sewer Laterals</b>								
8	- 250 Linear Feat (LF) Cleaning and Inspection via sewer main	\$2,581.38						\$2,581.38	
9	- 250 Linear Feat (LF) Cleaning and Inspection via cleanout	\$2,170.94						\$2,170.94	
10									
11	<b>Maintenance of Traffic (MOT)</b>								
12		\$10,274.91						\$10,274.91	
13									
14									
15									
16									
17									
18									
19									
20									
	<b>SUBTOTAL:</b>	\$38,195.25						\$38,195.25	
	<b>TOTAL:</b>	\$38,195.25						\$38,195.25	

**Attachment J - APPENDIX 3  
SUPPLEMENTARY SPECIFICATIONS – (PROJECT)**

**PAYMENT(S)**

**3.0 Payment(s)**

1. Progress payments to the Subcontractor for satisfactory performance of the Subcontract Work shall be made no later than seven (7) Days after receipt by the Contractor of payment from the Owner for the Subcontract Work; with the subcontractor's explicit agreement and understanding to be "Paid-when-Paid".
2. If payment from the Owner for such Subcontract Work is not received by the Contractor, through no fault of the Subcontractor it is understood that:
  - a. Receipt of payment by the Contractor from the Owner for the Subcontract Work is a condition precedent to payment by the Contractor to the Subcontractor. The Subcontractor hereby acknowledges that it relies on the credit of the Owner, not the Contractor, for payment of Subcontract Work.

**Hence the balance of the amount of the requisition as approved by the Contractor shall be due to the Subcontractor on or about seven (7) days after receipt by the Contractor of payment by the owner.**

**Final payment shall be made on acceptance of the work by the Contractor, Architects and/or Engineers, and Owners, and within 30 days after payment has been received by the Contractor.**

- a. A payment is timely if it is mailed, delivered, or transferred to a subcontractor no later than 7 calendar days after the contractor received payment from the City.