

# Annual Report on Compliance

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## *City of Bangor, Maine*

Pursuant to the requirements of

*United States and State of Maine v. City of Bangor Consent Decree*

Civil Action No. 1:15-cv-00350-NT



January 31, 2016

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# CERTIFICATION STATEMENT

## *CITY OF BANGOR, MAINE*

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

By: 

Andrew Rudzinski  
Director of Water Quality

Date: 1/28/16

## I. Introduction

The City of Bangor (the “City” or “Bangor”) is pleased to submit this Annual Report on Compliance, pursuant to the requirements of the *United States and State of Maine v. City of Bangor Consent Decree*, Civil Action No. 1:15-cv-00350-NT, entered on November 13, 2015 (the “Consent Decree”), for the reporting period beginning on January 1, 2015, and ending on December 31, 2015. The Consent Decree supersedes a consent decree agreed to by the United States, the State of Maine, and the City in 1991 (the “1991 Consent Decree”).

## II. Status of Compliance

### A. Submittals Required by the Consent Decree during the Reporting Period

| <u>Date Submitted</u> | <u>Deliverable</u>   |
|-----------------------|--|
| May 15, 2015          | April 2015 Biannual Compliance Report (per the 1991 Consent Decree) – CSO Flow Data  |
| June 30, 2015         | GIS Deliverable (per Par. 9.a of the Consent Decree)   |
| September 3, 2015     | Revision to GIS Deliverable, originally submitted on June 30, 2015   |
| September 28, 2015    | MS4 Permit Year 2 Report, 2013-2018 Permit Cycle (per Par. 10 of the Consent Decree)   |
| Various               | ADS Flow Monitoring Reports beginning with May 2015, within 10 days of the date of receipt of the report by the City (per Par. 22 of the Consent Decree) |

### B. Identification of any Non-Compliance

No non-compliance with the requirements of the Consent Decree was identified for the 2015 reporting period.

## III. Compliance Activities

### A. Measures Taken to Reduce CSO and SSO Volumes

#### 1. Capital Improvement Projects (CIP)

- New Capehart Sewer Replacement Project (Airport Subsection): The New Capehart Sewer Replacement project reached substantial completion on July 31, 2015. The City replaced approximately 6,000 linear feet of 8-inch vitrified clay (VC) sewer line that was prone to infiltration with new polyvinyl chloride (PVC)

pipe on Mitchell Street, Langley Street, Bolling Drive, and cross country areas. The sewer mains were relocated from lawn areas to the middle of roadways, wherever possible. Additionally, 2,600 linear feet of private VC sewer laterals were replaced with new PVC within the public right-of-way as part of this project. Bolling Drive was listed as a trouble spot in the City's Maintenance Improvement Plan (MIP) because roots had penetrated the main line and the slope was flat, which were likely contributing factors to a sanitary sewer overflow (SSO) which occurred on Bolling Drive on January 14, 2012. This project is expected to mitigate extraneous flows as well as this trouble spot, as the new PVC pipe is not as prone to cracking and the slopes in the project area were steepened where possible. The first combined sewer overflow (CSO) outfall downstream of this project area is CSO 011 - Meadowbrook.

- Allen Court (Kenduskeag West Subsection): Approximately 134 linear feet of 8-inch diameter VC separated sanitary sewer was replaced using pipe bursting in the cross country area between Court Street and the Kenduskeag Stream. This sewer main had root intrusion through defects in the VC pipe which was a likely contributing factor to an SSO which occurred on that line on March 14, 2014. This project is expected to mitigate extraneous flows as well as this trouble spot. The first CSO downstream of this project area is CSO 009 - Hammond.
- Hammond Street Phase I Sewer Rehabilitation: Approximately 900 linear feet of 24-inch by 18-inch brick sewer was replaced between Union Street and Ohio Street prior to a Maine Department of Transportation resurfacing project. The purpose of this project was to improve access, reduce inflow and infiltration (I/I), and upgrade the utility prior to the surface restoration project. The first CSO downstream of this project area is CSO 009 - Hammond.
- Removed source of I/I from abandoned connection (Davis Brook Subsection): The sewer crew removed a source of inflow from a service connection for a former building located at 19 Bowdoin Street after verifying that it was abandoned. This first CSO downstream of this repair is CSO 003 - Davis Brook.
- Sewer Spot Repairs Contract (Various Subsections): Several defects identified during closed-circuit television (CCTV) work were repaired during 2015. These defects, found primarily through CCTV inspections, potentially allow infiltration into the collection system or become trouble spots that require frequent maintenance. A complete list of repairs, replacements, and upgrades identified through CCTV work, as well as the date repaired, is included in Appendix D (CCTV Repair Replacement and Upgrade Log). See Section III.C.3 (Repairs, Replacement, or Upgrades Identified by CCTV) of this report for additional information.

- Davis Court and First Street Utility Upgrades Project (Davis Brook Subsection): This project continued the sewer separation work performed as part of the Main Street 2014 Sewer Separation Project. Approximately 480 linear feet of brick sewer was replaced, and 600 linear feet of new storm drain was installed on Davis Court and First Street. The purpose of this project was to improve access, upgrade utilities downstream of a planned development area, and reduce I/I. The City took the opportunity to partner with the Bangor Water District, who upgraded their water main, to share costs related to contractor mobilization and surface restoration. The sewer and stormwater portion of the work reached substantial completion on November 13, 2015. Bangor's CSO 003 - Davis Brook is immediately downstream of this project area.
- Park Street Sewer Repair (Kenduskeag East Subsection): City staff observed a leak at the base of the retaining wall behind City Hall. A sample was taken and analyzed to determine the source of the leak. The sample tested positive for *E. coli*. Follow-up CCTV work revealed a large hole in the sewer line. The City's current on-call contractor mobilized to the site and performed a spot repair. After the repair it was determined the line was still leaking, so the contractor replaced approximately 650 linear feet of brick sewer with new PVC sewer, and installed new manholes as there was formerly no access to the sewer. Flows that leaked from the sewer system flowed into a catch basin on City Hall property which is connected to the combined sewer system. Water was observed leaking from the bottom of the retaining wall after the repair was completed. Follow-up testing performed in late 2015 indicated that human *Bacteroides* were still present in the leak. Follow up investigations will be conducted in 2016. The first CSO outfall downstream of this project area is CSO 023 - Central.
- Pearl Street Sewer Relining (Carr Brook Subsection): Approximately 177 feet of 12-inch diameter VC sewer that runs cross-country between Pearl Street and Fruit Street was rehabilitated using ultraviolet lining technologies. This line is located underneath buildings and had several cracks, roots, and breaks. This project was undertaken to decrease the possibility of a future collapse and to reduce extraneous flows. The first CSO outfall downstream of this project area is CSO 020 - Carr Brook.
- Court Street Sewer Separation Project (Kenduskeag West Subsection): The City's consultant, AECOM, began design and preparation of contract documents for this project which is the second phase of a sewer separation project that was completed in 2014 in conjunction with demolition of the City's former Police Station (Phase I). In this second phase (Phase II) separation work will be continued upstream of the Phase I area and will separate approximately 650 additional linear feet of combined sewer on Court Street, between Bean Court

and Boynton Street. The first CSO outfall downstream of this project area is CSO 009 – Hammond.

## 2. Weir and Regulator Adjustments

- No weirs or regulators were adjusted during the reporting period.

## 3. Other

- Conducted activities in preparation for submittal of the Phase II Long Term Control Plan (LTCP) due on January 31, 2017, as described in Section VI (LTCP) of this report.
- Posted the Consent Decree to the City of Bangor’s website at [http://www.bangormaine.gov/filestorage/318/350/7758/ENV\\_ENFORCEMENT.PDF](http://www.bangormaine.gov/filestorage/318/350/7758/ENV_ENFORCEMENT.PDF). The City prepared standard language to use in contract documents notifying contractors that they need to familiarize themselves with the document and make it available to all subcontractors.
- Conducted Sewer System Evaluation Survey (SSES) in Dow and Airport Subsections as described in further detail in Section V (Sanitary System Evaluation Survey) of this report.
- Continued clearing cross country sewer easement areas.
- Performed visual inspection of cross country sewer easements twice, in the May/June and October 2015 timeframes.
- Inspected CSO tanks as follows: Davis Brook on June 8, 2015; Barkersville on June 18, 2015; Kenduskeag East on July 31, 2015.
- Repaired holes in Davis Brook CSO tank on August 3, 2015.
- Deployed flow meters in strategic locations around the City to collect flow data within the collection system to support the SSES and LTCP programs.
- Reviewed capacity requests for proposed development.
- Retained AECOM to assist with various collection system and treatment plant upgrades.
- Continued updating and maintaining the City’s Geographic Information System (GIS) throughout the reporting period as projects were completed or as new information about infrastructure became available.



- Rebuilt an access road from the end of Garden Way and Drew Lane to improve CCTV and flushing equipment access to the cross country sewer located in the Meadowbrook Subsection just north of Interstate 95.

#### 4. Annual CSO Progress Report

The City of Bangor monitors flow at each of its CSO outfalls, either through the Supervisory Control and Data Acquisition (SCADA) system, a contract with ADS Environmental Services for electronic flow meters, or visual means. These data were used to prepare the Annual CSO Progress Report for 2014, which was submitted to MEDEP on February 27, 2015, pursuant to the requirements of the City's Maine Pollutant Discharge Elimination (MEPDES) permit ME0100781, dated May 26, 2011.

The CSO volumes and events for 2014 were provided to EPA on May 15, 2015, as part of the City's Biannual Compliance Report pursuant to the requirements of the 1991 Consent Decree, Par. 16(B).

The Annual CSO Progress Report for 2015 is due to MEDEP on March 1, 2016. A copy of the report will also be submitted to EPA.

## B. Illicit Connections

### 1. List of Illicit Connections

The following table lists the illicit connections that were discovered within the reporting period:

**Table 1: Illicit Connections**

| ID Number | Date Discovered | Address or Location             | Estimated Flow and Type   | Date Removed |
|-----------|-----------------|---------------------------------|---|--------------|
| 15-1      | 4/7/15          | Bangor Radiator on Maine Avenue | potential discharge from floor drains connected to storm line       | 4/8/15       |
| 15-2      | 4/29/15         | 363 Mt Hope Avenue              | 270 gpd sanitary flow from house improperly connected to storm line | 5/7/15       |
| 15-3      | 5/7/15          | 61 Brewster Street              | 270 gpd sanitary flow from house improperly connected to storm line | 5/8/15       |
| 15-4      | 11/13/15        | 62 Brewster Street              | 270 gpd sanitary flow from house improperly connected to storm line | 11/19/15     |

### 2. GIS Map of Each Illicit Connection

The locations of any illicit connections that were discovered within the reporting period are shown in Appendix A (Location Map of Illicit Connections).

## **C. Collection System Assessments and Maintenance**

The length of the inspectable portion of the City's sewer collection system is approximately 723,454 feet, or 137 miles. The length of the remaining components of the sewer collection system, including interceptors, force mains, siphons, and leads, is approximately 77,332 linear feet, or 14 miles. Generally, interceptors, force mains, siphons, and leads are not able to be inspected using CCTV or flushed under normal operating circumstances using standard industry practices. There are approximately 3,244 public manholes in the collection system.

### **1. CCTV Assessments**

The City and/or its subcontractors completed CCTV inspections on 121,864 linear feet of sewer within the publicly owned sewer collection system in 2015, which is 16.8% of the inspectable portion of the sewer collection system. This amount includes repeat CCTV inspections. The total length of pipe CCTV'd excluding repeat inspections is 108,502 linear feet, or 15.0% of the inspectable portion of the sewer collection system. Refer to Appendix B (CCTV Inspection Log) for a complete listing of CCTV inspections completed during the reporting period.

### **2. Manhole Assessments**

The City and/or its subcontractors completed manhole inspections on 654 publicly owned sewer collection system manholes in 2015, which is 20.2% of the total number of public manholes in the system. This amount includes repeat inspections. The total number of manholes inspected excluding repeats is 611 manholes, or 18.8% of the total number of public manholes in the system. Refer to Appendix C (Manhole Inspection Log) for a complete listing of inspections completed during the reporting period.

### **3. Repairs, Replacements, or Upgrades Identified by CCTV**

Refer to Appendix D (CCTV Repair, Replacement, and Upgrade Log) for a listing of repairs, replacements, or upgrades that were identified during CCTV investigations, as well as a schedule for implementation for those repairs, replacements, or upgrades scheduled during the next reporting period.

### **4. Cleaning**

The City and/or its subcontractors cleaned 142,305 linear feet of pipe within the publicly owned sewer collection system in 2015, which is 19.7% of the length of the inspectable portion of the sewer collection system. The total length of pipe cleaned excluding repeat cleanings is 95,950 linear feet, or 13.3% of the inspectable portion of the sewer collection system. Refer to Appendix E, (Cleaning Log), for a complete listing of cleaning completed during the reporting period. This includes cleaning done in advance of CCTV work and performed as part of routine maintenance activities. Note that lines are not always cleaned in advance of CCTV work, as sometimes it is beneficial to perform a CCTV investigation on a pipe without prior cleaning.

## **D. Maintenance Improvement Plan (MIP)**

As part of the City's annual MIP update, the City updates the following information and performance metrics on a yearly basis:

### Plan Updates

- Organizational Structure, Information Management, Contacts
- Changes to System Maps
- Incorporation of Cleaning, Inspection, and Assessment Programs
- Changes to Sewer Use Ordinance or Fats, Oils, and Grease Program
- Changes to Pump Station Inspection and Maintenance Program
- Collection System Capacity Analysis Updates

### Performance Metrics

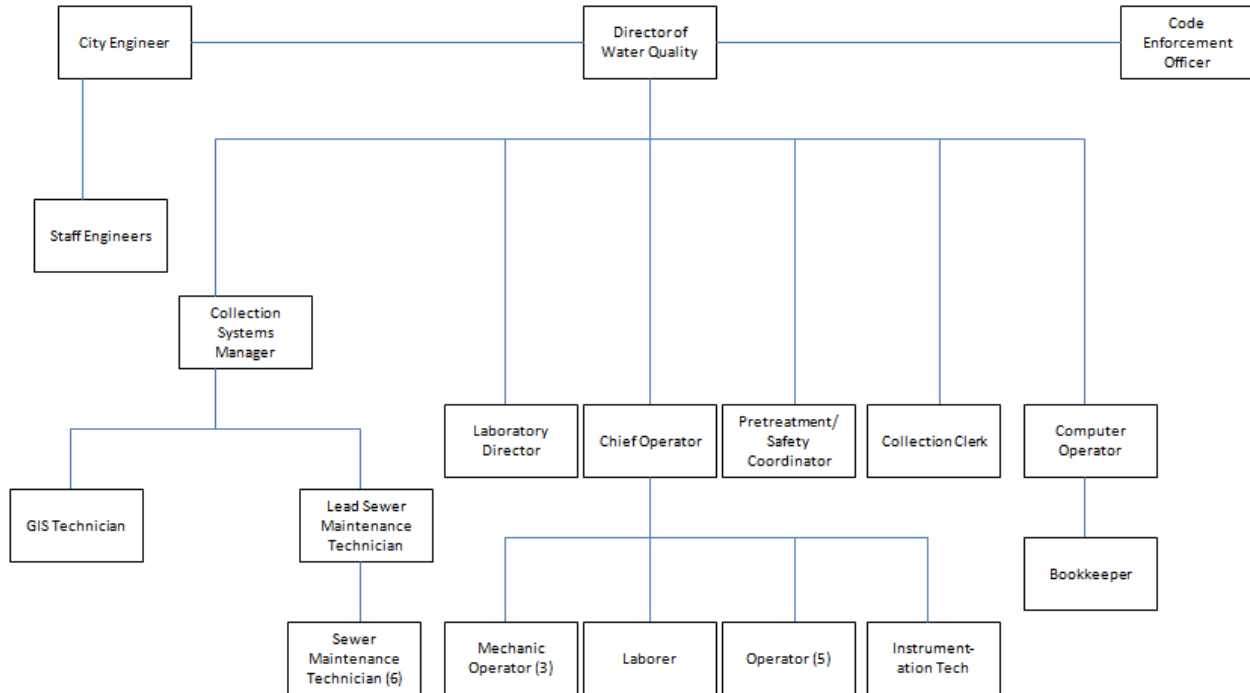
- SSOs
- Routine Cleaning and CCTV Assessment
- Pump Station Work Orders
- Fats, Oils, and Grease

The MIP update incorporates these changes where indicated and described below:

#### **1. Plan Updates**

- a) Organizational Structure, Information Management, Contacts*

Table 2: Organizational Structure



All requests and correspondence are channeled through the Director of Water Quality, who will either address the request or engage appropriate staff. The following provides a brief description of key positions serving the City's Wastewater Treatment Plant (WWTP) operations:

- **Director of Water Quality:** Oversees and supervises the operations of the wastewater treatment plant, the wastewater collection system, and the stormwater system.
- **City Engineer:** Oversees and supervises the operations of the Engineering Department and provides support to other departments as necessary regarding regulatory and technical issues.
- **Staff Engineer:** Assists with compliance activities and prepares reports. Designs, bids, and provides construction oversight for infrastructure upgrades.
- **Collection Systems Manager:** Manages all collection system field operations and maintenance activities except pumping stations, leads response to service calls, investigates and reports SSOs, and trains field crews.
- **Sewer Maintenance Tech:** Conducts staff operations and maintenance activities, mobilizes and responds to service calls, operates closed circuit television inspection unit, records and evaluates collected data on sewage and storm line systems and recommends improvements or repairs.

- Pretreatment/Safety Coordinator: Directs and monitors industrial pretreatment program, including sampling and inspection of permitted facilities; maintains written records and computer tracking system of licensed facilities to ensure compliance with Federal and State regulations. Serves as Safety Coordinator for the Department of Water Quality.
- GIS Technician: Responsible for utility mapping and attribution and communicating with various city departments to keep sewer collection system maps up to date. Provides field support.
- Code Enforcement: Conducts inspections related to Fats, Oils and Grease (FOG) requirements. Responsible for ensuring facilities come into compliance with City's policies regarding FOG.

***b) Changes to System Maps***

The collection system maps are updated continuously throughout the year as part of the City's ongoing GIS infrastructure mapping program. The GIS dataset containing sewer, stormwater, and other relevant features is provided to EPA annually on July 1 pursuant to Par. 9.a. of the Consent Decree.

***c) Incorporation of Cleaning, Inspection, and Assessment Programs***

The City established a goal in the MIP to clean, inspect, and assess 10% of its sewer collection system per year. The lists of pipe that were inspected and cleaned during the reporting period are included in Appendices B (CCTV Inspections) and E (Cleaning Log), respectively. The list of manholes that were inspected during the reporting period is included as Appendix C (Manhole Inspection Log).

***d) Changes to Sewer Use Ordinance or Fats, Oils, and Grease Program***

The sewer use ordinance was not amended during the reporting period. The Fats, Oils, and Grease Program is now administered by Code Enforcement rather than the Pretreatment/Safety Coordinator.

***e) Changes to Pump Station Inspection and Maintenance Program***

The Pump Station Inspection and Maintenance Program did not undergo any changes during the reporting period.

***f) Collection System Capacity Analysis Updates***

The City maintains a hydraulic model of selected portions of its collection system, in part to assist in evaluating available capacity in the collection system. The model was developed using the EPA Stormwater Management Model (SWMM) module and periodically updated by the City's previous consultant, CH2M Hill. In preparation for the City's CSO Phase II LTCP submittal (due January 31, 2017), the City's consultant, AECOM, obtained and worked with the City's existing SWMM model, as follows:

- Reviewed the SWMM model provided by the City's previous consultant
- Extended the model network further upstream in selected areas
- Started to refine the subcatchment delineation in preparation for the calibration update
- Established a multi-phased flow metering program to collect flow data for the model calibration
- Updated the model to include recently constructed sewer separation projects
- Reviewed and selected the typical year used in the SWMM analysis
- Updated the model with control structure weir adjustments made since the last model update

SWMM model update work will continue during the 2016 reporting period.

## 2. Performance Metrics

### a) SSOs

For a detailed listing of SSO events that occurred during the reporting period, refer to Appendix F (SSO Event Log).

**Table 3: Summary of MIP Progress Parameters**

|   |                                 |
|---|---------------------------------|
| Total Number of SSOs  | 23                              |
| Estimated Total Volume of SSOs (of 9 events where volume was known)               | Greater than 16,000 gallons     |
| Number of dry weather SSOs  | 4                               |
| Number of wet weather SSOs  | 17                              |
| Number of SSOs where weather was either unknown or irrelevant to type of incident | 4                               |
| Number of SSOs caused primarily by Pipe Blockage (Debris, Grease)                 | 1                               |
| Number of SSOs caused primarily by Pipe Failure                                   | 1                               |
| Average Response time to SSOs or Service Calls                                    | Within one hour of notification |

**b) Routine Cleaning and CCTV Assessment**

For the total amount of collections system pipe that was inspected by CCTV and cleaned during the reporting period, refer to Appendices C (CCTV Inspection Log) and F (Cleaning Log), respectively.

**c) Pump Station Work Orders**

There were 64 pump station work orders completed during the reporting period.

**d) Fats, Oils, and Grease**

During the reporting period, the City's Plumbing Inspector inspected the installation of 20 grease control devices.

The City continued outreach to facilities that were believed to have inadequate grease controls. Letters were sent to 18 facilities in an effort to bring the facilities into compliance with the City's FOG policies. As a result of follow-up activities, two facilities were found not to be required to have grease controls; four facilities were found to have already had grease controls in place, but had failed to note it on their victualers licensing applications; and nine establishments received permits for and installed grease controls. The remaining three facilities are currently working with Code Enforcement. It is anticipated that these facilities will be brought into compliance in 2016.

## IV. Sanitary Sewer Overflows (SSOs)

### A. Chronological List of SSOs

There were 23 SSOs that occurred during 2015. Refer to Appendix F (SSO Event Log) for a complete listing of any SSOs that occurred within the reporting period, as well as details regarding each incident.

### B. GIS Map of Each SSO

Location maps of SSOs that occurred within the reporting period are included as Appendix G (Location Map of Sanitary Sewer Overflows).

## V. Sanitary System Evaluation Survey (SSES)

### A. SSES Report

During the reporting period, as described below, SSES investigations began in the Airport and Dow Subsections.

#### 1. Airport Subsection

As identified in the SSES Phase II SOW, approved by EPA and MEDEP on March 24, 2015, the Airport Subsection was the subject of flow isolation work initiated in the spring of 2015.

a) *All Known Sources of Inflow and Infiltration*

## (1) List of Public and Private Sources Identified

The following table lists each identified source of I/I discovered as a result of the SSES investigations conducted during the reporting period, along with a determination of whether or not the source is considered to be public, private, or potentially both.

**Table 4: All Known Sources of Inflow and Infiltration, Airport Subsection**

| Location of Source – From Manhole | Location of Source – To Manhole | Location of Source - Street   | Type of Source (Pipe segment, Catch Basin, Roof drain, etc.) | Mechanism (Inflow, Infiltration, or Both) | Origin of Source (Public, Private, or Both) |
|-----------------------------------|---------------------------------|-------------------------------|--|---|---|
| AP024                             | AP023                           | Godfrey Blvd<br>Cross Country | Pipe Segment   | Infiltration                              | Public                                      |
| AP025                             | AP024                           | Godfrey Blvd                  | Pipe Segment   | Infiltration                              | Public                                      |
| AP202                             | AP203                           | Mitchell St<br>Cross Country  | Pipe Segment   | Infiltration                              | Public                                      |
| AP406                             | AP405                           | Johnson St<br>Cross Country   | Pipe Segment   | Infiltration                              | Public                                      |
| AP408                             | AP407                           | Johnson St                    | Pipe Segment   | Infiltration                              | Public                                      |
| AP409                             | AP408                           | Johnson St                    | Pipe Segment   | Infiltration                              | Public                                      |
| AP412                             | AP411                           | Texas Ave<br>Cross Country    | Pipe Segment   | Infiltration                              | Public                                      |
| AP413                             | AP412                           | Texas Ave<br>Cross Country    | Pipe Segment   | Infiltration                              | Public & Private                            |
| AP414                             | AP413                           | Texas Ave<br>Cross Country    | Pipe Segment   | Infiltration                              | Public                                      |
| AP414A                            | AP414                           | Texas Ave<br>Cross Country    | Pipe Segment   | Infiltration                              | Public & Private                            |
| AP415                             | AP414A                          | Texas Ave<br>Cross Country    | Pipe Segment   | Infiltration                              | Public                                      |
| AP416                             | AP415                           | Texas Ave<br>Cross Country    | Pipe Segment   | Infiltration                              | Public                                      |
| AP430                             | AP405                           | Florida Ave                   | Pipe Segment   | Infiltration                              | Public                                      |



| Location of Source – From Manhole | Location of Source – To Manhole | Location of Source - Street | Type of Source (Pipe segment, Catch Basin, Roof drain, etc.) | Mechanism (Inflow, Infiltration, or Both) | Origin of Source (Public, Private, or Both) |
|-----------------------------------|---------------------------------|-----------------------------|--|---|---|
|                                   |                                 | Cross Country               |  |   |   |
| AP440                             | AP408                           | Florida Ave                 | Pipe Segment   | Infiltration                              | Public                                      |
| AP441                             | AP440                           | Florida Ave                 | Pipe Segment   | Infiltration                              | Public                                      |
| AP470                             | AP411                           | Maine Ave                   | Pipe Segment   | Infiltration                              | Public                                      |
| AP603                             | AP602                           | Maine Ave<br>Parking Lot    | Pipe Segment   | Infiltration                              | Public                                      |
| AP604                             | AP603                           | Polk St Cross<br>Country    | Pipe Segment   | Infiltration                              | Public                                      |
| AP605                             | AP604                           | Polk St Cross<br>Country    | Pipe Segment   | Infiltration                              | Public                                      |
| AP700                             | AP603                           | Utah Ave<br>Cross Country   | Pipe Segment   | Infiltration                              | Public                                      |
| AP701                             | AP700                           | Utah Ave<br>Cross Country   | Pipe Segment   | Infiltration                              | Public                                      |
| AP702                             | AP701                           | Utah Ave<br>Cross Country   | Pipe Segment   | Infiltration                              | Public                                      |
| AP703                             | AP702                           | Utah Ave                    | Pipe Segment   | Infiltration                              | Public                                      |
| AP740A                            | AP700                           | Utah Ave<br>Cross Country   | Pipe Segment   | Infiltration                              | Public                                      |
| AP754                             | AP753                           | Griffin Rd<br>Cross Country | Pipe Segment   | Infiltration                              | Public                                      |
| AP755                             | AP754                           | Griffin Rd<br>Cross Country | Pipe Segment   | Infiltration                              | Public                                      |
| AP756                             | AP755                           | Griffin Rd<br>Cross Country | Pipe Segment   | Infiltration                              | Public                                      |
| AP757                             | AP756                           | Griffin Rd<br>Cross Country | Pipe Segment   | Infiltration                              | Public                                      |
| AP758                             | AP757                           | Griffin Rd                  | Pipe Segment   | Infiltration                              | Public                                      |

## (2) Scope of Investigation

The City's consultant, AECOM, subcontracted with the Ted Berry Company to perform SSES field investigations. Flow isolation work began on April 14, 2015, and ended on May 19, 2015, which was considered to be the seasonal high groundwater period. Data was collected generally between the hours of 11:00 p.m. and 5:00 a.m. Typically, the upstream manhole of each manhole to manhole segment was plugged. The flow was measured in the downstream manhole of each segment using pre-calibrated weirs.

A total of 43,494 linear feet of sewer pipe in the Airport Subsection was analyzed during 2015. The flow isolation data was normalized by AECOM to calculate infiltration as gallons per day per inch-mile of pipe. Further CCTV analysis during the seasonal high groundwater period was performed for any pipe segment that had an infiltration rate higher than 4,000 gallons per day per inch-mile.

Areas that were not included in the investigation were those that were scheduled for replacement under the City's 5-year CIP or pipe segments being replaced as part of the New Capehart Sewer Rehabilitation Project. Some of the planned flow isolation work in the Airport Subsection (totaling approximately 9,500 linear feet) could not be completed prior to the close of the seasonal high groundwater period and is scheduled to be completed during the spring of 2016 high groundwater period.

## (3) Potential Impact Areas

Excess flows from the Airport Subsection could ultimately contribute to CSOs at the Meadowbrook, Kenduskeag West, Davis Brook, or Barkersville outfall locations. In the recent past, SSOs in the Airport Subsection have occurred either solely or in part due to wet weather on Utah Avenue, the Public Works property on Maine Avenue, the New Capehart neighborhood (Bolling Drive and cross country areas), Griffin Road, and Maxwell Lane. Excess flows from the Airport Subsection could ultimately overwhelm and contribute to wet weather capacity related SSOs in the Kenduskeag Interceptor sewers, the Meadowbrook Subsection, the Kenduskeag West Subsection, the May Street Subsection, the Davis Brook Subsection, the Davis Brook CSO tank, the Penobscot Interceptor sewer, or any portions of the collection system that are hydraulically influenced by any of these areas.

### **b) Private Sources of Excessive Inflow and Infiltration**

While the flow isolation work identified locations where potential private sources of infiltration could be occurring, the potential private sources have not yet been verified to belong to a specific address. All I/I sources discovered to date as part of the SSES work have been included in Table 4. Further analysis of private sources to determine excessive I/I will be conducted once the SSES work for the entire subsection has been completed.

### **c) Exfiltration**

#### (1) List of Known or Suspected Locations

As a follow up to IDDE sampling, samples collected by City staff in the Domestic Canal (located on a parcel owned by the Airport northeast of the intersection of Godfrey Boulevard and Maine Avenue) showed evidence of *E. coli* and human *Bacteroides*. It was suspected that the source of the

contamination was exfiltration coming from a break in the sewer line near the canal. (See subsection (2) below).

### (2) Methodology Used to Identify Exfiltration

As part of its IDDE program, the City conducted dye testing of several nearby buildings to try to determine if the source of contamination was an illicit connection. After verifying that all buildings were properly connected to a sanitary sewer line, the City CCTV'd the sewer line and observed that a break in the sewer line may be allowing flows to escape into the canal through groundwater.

### (3) Assessment of Inflow and Infiltration Mitigation as Remedial Measures

City staff met to discuss the scope of the repair, and to revisit a conceptual plan of a sewer reroute that would abandon a redundant, unused portion of the system and reduce infiltration. The City determined it could move forward with that concept and began the process of mobilizing the small spot repair contractor and contacting the lessee operating a compressed natural gas facility on the property that the existing sewers crossed in multiple locations. During the last weeks of 2015, the contractor began the process of ordering materials and manhole structures necessary for the repair, which is anticipated to be completed during the first quarter of 2016.

### (4) Additional Necessary Remedial Measures

After the repair is completed, the City will conduct follow up testing as part of its IDDE program to confirm whether the source of contamination has been eliminated or if any further repairs are needed.

## 2. Dow Subsection

As identified in the SSES Phase II SOW, approved by EPA and MEDEP on March 24, 2015, the Dow Subsection was the subject of flow isolation work initiated in the spring of 2015.

### a) All Known Sources of Inflow and Infiltration

#### (1) List of Public and Private Sources Identified

The following table lists each identified source of I/I discovered during the SSES investigation during the reporting period, along with a determination of whether or not the source is considered to be public, private, or potentially both.

**Table 5: All Known Sources of Inflow and Infiltration, Dow Subsection**

| Location of Source – From Manhole | Location of Source – To Manhole | Location of Source - Street  | Type of Source (Pipe segment, Catch Basin, Roof drain, etc.) | Mechanism (Inflow, Infiltration, or Both) | Origin of Source (Public, Private, or Both) |
|-----------------------------------|---------------------------------|------------------------------|--|---|---|
| DW018                             | DW017                           | Maine Ave                    | Pipe Segment   | Infiltration                              | Public                                      |
| DW022                             | DW021                           | General Aviation Parking Lot | Pipe Segment   | Infiltration                              | Public                                      |

| Location of Source – From Manhole | Location of Source – To Manhole | Location of Source - Street             | Type of Source (Pipe segment, Catch Basin, Roof drain, etc.) | Mechanism (Inflow, Infiltration, or Both) | Origin of Source (Public, Private, or Both) |
|-----------------------------------|---------------------------------|---|--|---|---|
| DW201                             | DW200                           | Nason Ave<br>Cross Country              | Pipe Segment   | Infiltration                              | Public                                      |
| DW203                             | DW202                           | Nason Ave<br>Cross Country              | Pipe Segment   | Infiltration                              | Private                                     |
| DW204                             | DW203                           | Nason Ave<br>Cross Country              | Pipe Segment   | Infiltration                              | Private                                     |
| DW251                             | DW250                           | Mildred Ave                             | Pipe Segment   | Infiltration                              | Private                                     |
| DW252                             | DW251                           | Mildred Ave                             | Pipe Segment   | Infiltration                              | Public & Private                            |
| DW255                             | DW203                           | Mildred Ave                             | Pipe Segment   | Infiltration                              | Public & Private                            |
| DW017                             | DW450                           | Maine Ave                               | Pipe Segment   | Infiltration                              | Public                                      |
| DW451                             | DW450                           | Equipment<br>Maintenance<br>Parking Lot | Pipe Segment   | Infiltration                              | Public                                      |
| DW022                             | DW600                           | General<br>Aviation<br>Parking Lot      | Pipe Segment   | Infiltration                              | Public                                      |
| DW606                             | DW605                           | Texas Ave<br>Cross Country              | Pipe Segment   | Infiltration                              | Public                                      |
| DW607                             | DW606                           | Texas Ave<br>Cross Country              | Pipe Segment   | Infiltration                              | Public                                      |
| DW609                             | DW608                           | University Dr                           | Pipe Segment   | Infiltration                              | Public                                      |
| DW610                             | DW609                           | University Dr                           | Pipe Segment   | Infiltration                              | Public                                      |
| DW611                             | DW610                           | Venture Way<br>Cross Country            | Pipe Segment   | Infiltration                              | Public                                      |
| DW612                             | DW611                           | Venture Way<br>Cross Country            | Pipe Segment   | Infiltration                              | Public                                      |
| DW650                             | DW022                           | General<br>Aviation                     | Pipe Segment   | Infiltration                              | Public                                      |

| Location of Source – From Manhole | Location of Source – To Manhole | Location of Source - Street  | Type of Source (Pipe segment, Catch Basin, Roof drain, etc.) | Mechanism (Inflow, Infiltration, or Both) | Origin of Source (Public, Private, or Both) |
|-----------------------------------|---------------------------------|------------------------------|--|---|---|
|                                   |                                 | Parking Lot                  |  |   |   |
| DW660                             | DW600                           | General Aviation Parking Lot | Pipe Segment   | Infiltration                              | Public                                      |
| DW661                             | DW660                           | General Aviation Parking Lot | Pipe Segment   | Infiltration                              | Public                                      |

### (2) Scope of Investigation

The City's consultant, AECOM, subcontracted with the Ted Berry Company to perform SSES field investigations. Flow isolation work began on April 14, 2015, and ended on May 19, 2015, which was considered to be the seasonal high groundwater period. Data was collected generally between the hours of 11:00 p.m. and 5:00 a.m. Typically, the upstream manhole of each manhole to manhole segment was plugged. The flow was measured in the downstream manhole of each segment using pre-calibrated weirs.

A total of 21,927 linear feet of sewer pipe in the Dow Subsection was analyzed during 2015. The flow isolation data was normalized by AECOM to calculate infiltration as gallons per day per inch-mile of pipe. Further CCTV analysis during the seasonal high groundwater period was performed for any pipe segment that had an infiltration rate higher than 4,000 gallons per day per inch-mile.

Areas that were not included in the investigation were those that were scheduled for replacement under the City's 5-year CIP. Some planned flow isolation work in the Dow Subsection (totaling 10,400 linear feet) could not be completed due to the close of the seasonal high groundwater period, and is scheduled to be completed during the spring of 2016 high groundwater period.

### (3) Potential Impact Areas

Excess flows from the Dow Subsection could ultimately contribute to CSOs at the Barkersville outfall location. In the recent past, a SSO in the Dow Subsection has occurred in part due to wet weather on the Dow trunk sewer near the interchange of Interstate 395 and Route 202. Excess flows from the Dow Subsection could ultimately overwhelm and contribute to wet weather capacity related SSOs in the Barkersville Subsection, the Penobscot Interceptor, or any portions of the collection system that are hydraulically influenced by these areas.

#### *b) Private Sources of Excessive Inflow and Infiltration*

While the flow isolation did locate places where potential private sources of infiltration could be occurring, the potential private sources have not yet been verified to belong to a specific address. All I/I sources discovered to date as part of the SSES work have been included in Table 4. Further

analysis of private sources to determine excessive I/I will be conducted once the SSES work for the entire subsection has been completed.

**c) Exfiltration**

**(1) List of Known or Suspected Locations**

No known or suspected exfiltration issues in the Dow Subsection were identified.

**(2) Methodology Used to Identify Exfiltration**

Not applicable.

**(3) Assessment of Inflow and Infiltration Mitigation as Remedial Measures**

Not applicable.

**(4) Additional Remedial Measures**

Not applicable.

**B. SSES Next Phase Scope of Work (SOW)**

The Phase III SSES SOW is due on January 31, 2017.

**VI. CSO Long-Term Control Plan (LTCP)**

The LTCP for the next phase of CSO Control is due on January 31, 2017. The City and AECOM held several meetings throughout the reporting period to discuss progress in preparation for the 2017 LTCP submittal. As part of this effort, AECOM is working on updating the SWMM model as was described in Section III.D.1.f. In addition to the SWMM updates, work began on a review of wet weather operations at the WWTP and CSO storage tanks and trends in annual CSO discharge volumes and activations.

**VII. Compliance Activities Planned for Following Reporting Period**

The following activities, in no particular order, are planned for the next reporting period in order to achieve compliance with the requirements of the Consent Decree and reduce CSO and SSO volumes:

- Locate and redirect illicit connections as part of Municipal Separate Storm Sewer System (MS4) permit compliance activities.
- Continue work under the City's Sewer Spot Repair Contract to prioritize and repair trouble spots and other defects in the collection system.
- Begin preliminary work on a Biotower Upgrade at the WWTP.
- Begin preliminary work on the Hammond Street Phase II Sewer Rehabilitation Project.

- Begin preliminary work on sewer rehabilitation work on Middle Street and Cross Street.
- Continue work with consultant on modeling, to determine if capacity is available to make further adjustments on CSO weirs and regulator structures.
- Clean, perform CCTV inspections, and identify upgrades, repairs, or replacements needed in the collection system, covering a minimum of 10% of the collection system per year. Areas of focus for the next reporting period include the Airport, Dow, Carr Brook, Kenduskeag East, Davis Brook, and Barkersville Subsections.
- Continue collection system maintenance activities such as easement clearing and easement inspections.
- Discontinue cross connection piping that could potentially allow stormwater into the sanitary sewer on McLaughlin Street and Thirteenth and Fourteenth Street.
- Submit the Annual CSO Progress Report to DEP and EPA, due on or before March 1, 2016.
- Conduct limited SSES work specific to a future CSO project in the Kenduskeag East Subsection, and finish SSES work in Airport and Dow Subsections prior to December 31, 2016, including identification of private sources and framework for a public education plan.
- Conduct follow-up investigations in the Park Street area.
- Complete the new sewer installation in the Domestic Canal area in the Airport Subsection and conduct follow-up investigations as necessary.
- Submit plans of the Court Street Sewer Separation project, due on or before January 31, 2016 for review and approval.
- Complete construction of the Court Street Sewer Separation project on or before December 31, 2016.
- Prepare Phase II LTCP submittal due January 31, 2017.
- Prepare phase 3 SSES SOW due January 31, 2017.
- Inspect CSO tanks twice annually, during high tide.

Note that certain of the above-described tasks planned for the next reporting period may be subject to adjustment due to changing priorities, (including, among other things, the need to prioritize

emergency repairs) and to take advantage of opportunities that may arise to align capital projects with other utility or roadway resurfacing work.






## **Appendices**

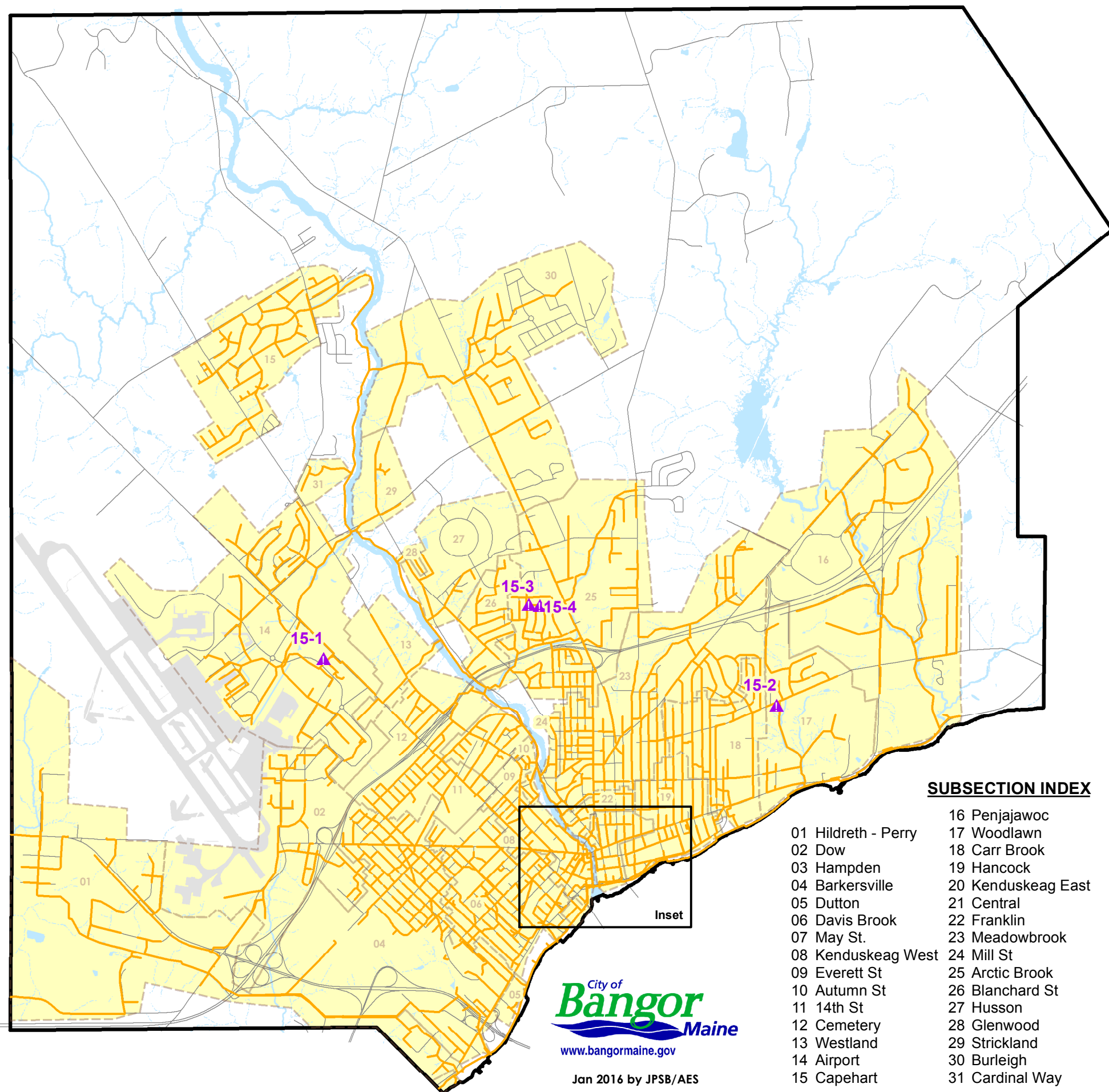
- A. Location Maps of Illicit Connections**
- B. Location Maps of Sanitary Sewer Overflows**
- C. CCTV Inspection Log**
- D. Manhole Inspection Log**
- E. CCTV Repair, Replacement, and Upgrade Log**
- F. Cleaning Log**
- G. SSO Event Log**

# APPENDIX A: LOCATION MAP OF ILLICIT CONNECTIONS

Jan. 1, 2015 - Dec. 31, 2015

## Legend

-  IDDE Location
-  Sewer Pipes
-  Sewer Subsections

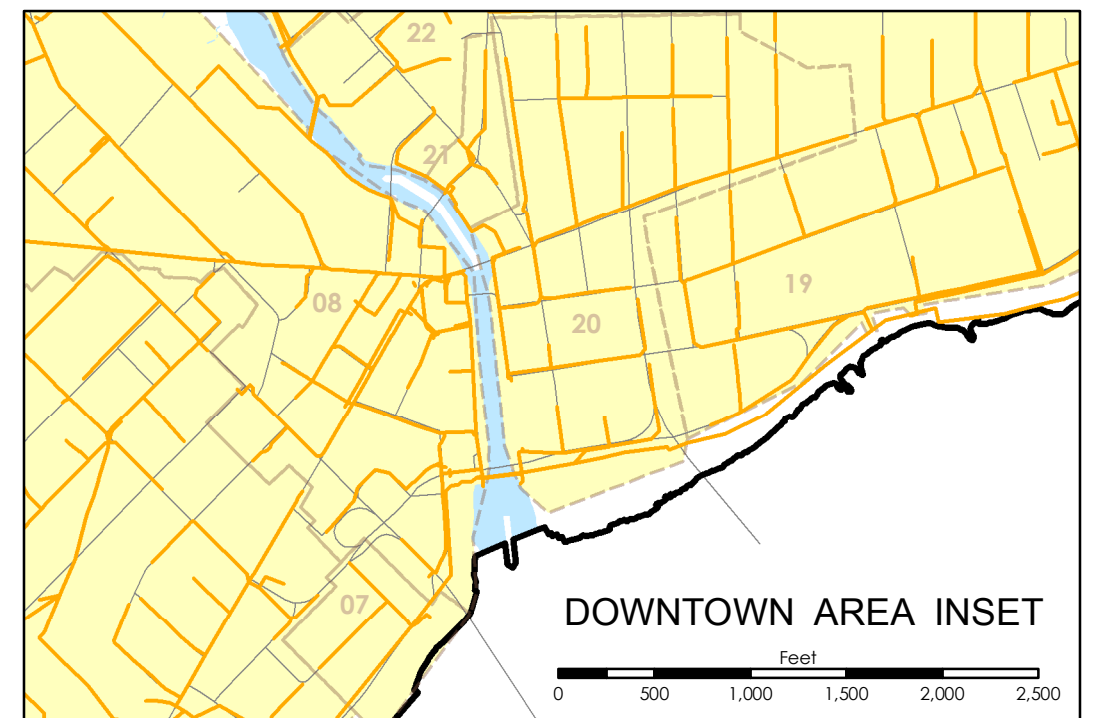


### SUBSECTION INDEX

- |                     |                    |
|---------------------|--------------------|
| 01 Hildreth - Perry | 16 Penjajawoc      |
| 02 Dow              | 17 Woodlawn        |
| 03 Hampden          | 18 Carr Brook      |
| 04 Barkersville     | 19 Hancock         |
| 05 Dutton           | 20 Kenduskeag East |
| 06 Davis Brook      | 21 Central         |
| 07 May St.          | 22 Franklin        |
| 08 Kenduskeag West  | 23 Meadowbrook     |
| 09 Everett St       | 24 Mill St         |
| 10 Autumn St        | 25 Arctic Brook    |
| 11 14th St          | 26 Blanchard St    |
| 12 Cemetery         | 27 Husson          |
| 13 Westland         | 28 Glenwood        |
| 14 Airport          | 29 Strickland      |
| 15 Capehart         | 30 Burleigh        |
|                     | 31 Cardinal Way    |



Jan 2016 by JPSB/AES



### DOWNTOWN AREA INSET

Feet  
0 500 1,000 1,500 2,000 2,500

## APPENDIX B: CCTV INSPECTION LOG

City of Bangor, Maine  
Calendar Year 2015

| Inspection Date | Subsection | Pipe Segment ID | Length of Inspection (FT) | Repeat Inspection (this CY) | Justification for Repeat Inspection (by Reason Code)* |
|-----------------|------------|-----------------|---------------------------|-----------------------------|---|
| 1/29/2015       | AIRPORT    | AP421           | 26.7                      | NO                          | N/A   |
| 1/29/2015       | AIRPORT    | AP422           | 162.5                     | NO                          | N/A   |
| 2/20/2015       | AIRPORT    | AP421           | 111.2                     | YES                         | D   |
| 2/20/2015       | AIRPORT    | AP422           | 184.5                     | YES                         | C   |
| 2/23/2015       | AIRPORT    | AP420           | 239.1                     | NO                          | N/A   |
| 2/23/2015       | AIRPORT    | AP421           | 26.0                      | YES                         | E   |
| 3/12/2015       | AIRPORT    | AP380           | 125.4                     | NO                          | N/A   |
| 3/12/2015       | AIRPORT    | AP415A          | 109.5                     | NO                          | N/A   |
| 3/13/2015       | AIRPORT    | AP430           | 335.1                     | NO                          | N/A   |
| 3/13/2015       | AIRPORT    | AP533           | 146.9                     | NO                          | N/A   |
| 3/13/2015       | AIRPORT    | AP535           | 8.2                       | NO                          | N/A   |
| 3/16/2015       | AIRPORT    | AP430           | 46.6                      | YES                         | D   |
| 3/30/2015       | AIRPORT    | AP329           | 243.9                     | NO                          | N/A   |
| 3/30/2015       | AIRPORT    | AP330           | 235.0                     | NO                          | N/A   |
| 3/31/2015       | AIRPORT    | AP470           | 226.0                     | NO                          | N/A   |
| 3/31/2015       | AIRPORT    | AP715           | 64.4                      | NO                          | N/A   |
| 3/31/2015       | AIRPORT    | AP736           | 287.1                     | NO                          | N/A   |
| 3/31/2015       | AIRPORT    | AP737           | 294.4                     | NO                          | N/A   |
| 4/2/2015        | AIRPORT    | AP309           | 88.3                      | NO                          | N/A   |
| 4/2/2015        | AIRPORT    | AP709           | 357.3                     | NO                          | N/A   |
| 4/6/2015        | AIRPORT    | AP622           | 37.5                      | NO                          | N/A   |
| 4/14/2015       | AIRPORT    | AP622           | 118.3                     | YES                         | E   |
| 4/30/2015       | AIRPORT    | AP515           | 358.8                     | NO                          | N/A   |
| 4/30/2015       | AIRPORT    | AP516           | 135.9                     | NO                          | N/A   |
| 5/1/2015        | AIRPORT    | AP740           | 108.0                     | NO                          | N/A   |
| 5/1/2015        | AIRPORT    | AP740A          | 122.6                     | NO                          | N/A   |
| 5/1/2015        | AIRPORT    | AP740A          | 129.6                     | YES                         | C   |
| 5/4/2015        | AIRPORT    | AP702           | 6.4                       | NO                          | N/A   |
| 5/4/2015        | AIRPORT    | AP702           | 22.0                      | YES                         | E   |
| 5/18/2015       | AIRPORT    | AP406           | 203.3                     | NO                          | N/A   |
| 5/18/2015       | AIRPORT    | AP407           | 117.9                     | NO                          | N/A   |
| 5/18/2015       | AIRPORT    | AP408           | 66.4                      | NO                          | N/A   |
| 5/18/2015       | AIRPORT    | AP409           | 277.3                     | NO                          | N/A   |
| 5/19/2015       | AIRPORT    | AP412           | 175.9                     | NO                          | N/A   |
| 5/19/2015       | AIRPORT    | AP413           | 185.4                     | NO                          | N/A   |
| 5/19/2015       | AIRPORT    | AP414           | 249.1                     | NO                          | N/A   |
| 5/19/2015       | AIRPORT    | AP414A          | 309.8                     | NO                          | N/A   |
| 5/19/2015       | AIRPORT    | AP415           | 158.7                     | NO                          | N/A   |
| 5/19/2015       | AIRPORT    | AP416           | 151.2                     | NO                          | N/A   |
| 5/19/2015       | AIRPORT    | AP430           | 54.8                      | YES                         | E   |
| 5/19/2015       | AIRPORT    | AP440           | 322.2                     | NO                          | N/A   |
| 5/19/2015       | AIRPORT    | AP441           | 276                       | NO                          | N/A   |
| 5/19/2015       | AIRPORT    | AP470           | 62.4                      | YES                         | H   |
| 5/20/2015       | AIRPORT    | AP024           | 296.5                     | NO                          | N/A   |
| 5/20/2015       | AIRPORT    | AP025           | 77.2                      | NO                          | N/A   |
| 5/20/2015       | AIRPORT    | AP025           | 226.4                     | YES                         | E   |
| 5/20/2015       | AIRPORT    | AP263           | 29.2                      | NO                          | N/A   |
| 5/20/2015       | AIRPORT    | AP263           | 127.0                     | YES                         | E   |
| 5/20/2015       | AIRPORT    | AP603           | 353.3                     | NO                          | N/A   |

## APPENDIX B: CCTV INSPECTION LOG

City of Bangor, Maine  
Calendar Year 2015

| Inspection Date | Subsection | Pipe Segment ID | Length of Inspection (FT) | Repeat Inspection (this CY) | Justification for Repeat Inspection (by Reason Code)* |
|-----------------|------------|-----------------|---------------------------|-----------------------------|---|
| 5/20/2015       | AIRPORT    | AP604           | 354.6                     | NO                          | N/A   |
| 5/20/2015       | AIRPORT    | AP605           | 561.4                     | NO                          | N/A   |
| 5/20/2015       | AIRPORT    | AP700           | 352.3                     | NO                          | N/A   |
| 5/21/2015       | AIRPORT    | AP203           | 165                       | NO                          | N/A   |
| 5/21/2015       | AIRPORT    | AP204           | 38.7                      | NO                          | N/A   |
| 5/21/2015       | AIRPORT    | AP701           | 6                         | YES                         | E   |
| 5/21/2015       | AIRPORT    | AP701           | 159                       | NO                          | N/A   |
| 5/21/2015       | AIRPORT    | AP702           | 10.1                      | YES                         | H   |
| 5/21/2015       | AIRPORT    | AP702           | 23.4                      | YES                         | E, H  |
| 5/21/2015       | AIRPORT    | AP703           | 76.6                      | NO                          | N/A   |
| 5/21/2015       | AIRPORT    | AP740A          | 130                       | YES                         | H   |
| 5/21/2015       | AIRPORT    | AP754           | 39.8                      | NO                          | N/A   |
| 5/21/2015       | AIRPORT    | AP755           | 20.3                      | NO                          | N/A   |
| 5/21/2015       | AIRPORT    | AP755           | 98.8                      | YES                         | E   |
| 5/21/2015       | AIRPORT    | AP756           | 76.3                      | NO                          | N/A   |
| 5/21/2015       | AIRPORT    | AP757           | 252                       | NO                          | N/A   |
| 5/21/2015       | AIRPORT    | AP758           | 136.3                     | NO                          | N/A   |
| 6/1/2015        | AIRPORT    | AP662           | 405.9                     | NO                          | N/A   |
| 6/2/2015        | AIRPORT    | AP661           | 413.1                     | NO                          | N/A   |
| 6/2/2015        | AIRPORT    | AP663           | 277.6                     | NO                          | N/A   |
| 6/3/2015        | AIRPORT    | AP660           | 338.8                     | NO                          | N/A   |
| 7/6/2015        | AIRPORT    | AP017           | 491.5                     | NO                          | N/A   |
| 7/6/2015        | AIRPORT    | AP444           | 79.8                      | NO                          | N/A   |
| 7/6/2015        | AIRPORT    | AP450           | 274.4                     | YES                         | E   |
| 7/6/2015        | AIRPORT    | AP450           | 90.9                      | NO                          | N/A   |
| 7/8/2015        | AIRPORT    | AP442           | 176.7                     | NO                          | N/A   |
| 7/8/2015        | AIRPORT    | AP481           | 69.8                      | NO                          | N/A   |
| 7/8/2015        | AIRPORT    | AP530           | 241.7                     | NO                          | N/A   |
| 7/8/2015        | AIRPORT    | AP541           | 109.8                     | NO                          | N/A   |
| 7/13/2015       | AIRPORT    | AP443           | 122.7                     | NO                          | N/A   |
| 7/13/2015       | AIRPORT    | AP443           | 87.1                      | YES                         | E   |
| 7/13/2015       | AIRPORT    | AP481           | 209.8                     | YES                         | E   |
| 7/13/2015       | AIRPORT    | AP482           | 372.3                     | NO                          | N/A   |
| 7/13/2015       | AIRPORT    | AP513           | 349.8                     | NO                          | N/A   |
| 7/13/2015       | AIRPORT    | AP651           | 337.2                     | NO                          | N/A   |
| 7/13/2015       | AIRPORT    | AP723           | 167.9                     | NO                          | N/A   |
| 7/13/2015       | AIRPORT    | AP741           | 103.8                     | NO                          | N/A   |
| 7/14/2015       | AIRPORT    | AP630           | 244.8                     | NO                          | N/A   |
| 7/14/2015       | AIRPORT    | AP631           | 295.4                     | NO                          | N/A   |
| 7/15/2015       | AIRPORT    | AP050           | 203.1                     | NO                          | N/A   |
| 7/15/2015       | AIRPORT    | AP602           | 181.9                     | NO                          | N/A   |
| 7/15/2015       | AIRPORT    | AP704           | 293.8                     | NO                          | N/A   |
| 7/17/2015       | AIRPORT    | AP400           | 60.2                      | NO                          | N/A   |
| 7/17/2015       | AIRPORT    | AP419           | 13.0                      | NO                          | N/A   |
| 7/17/2015       | AIRPORT    | AP420           | 31.8                      | YES                         | E   |
| 7/17/2015       | AIRPORT    | AP420           | 237.3                     | YES                         | E   |
| 7/20/2015       | AIRPORT    | AP419           | 313.0                     | YES                         | E   |
| 9/29/2015       | AIRPORT    | AP280           | 164.2                     | NO                          | N/A   |
| 10/5/2015       | AIRPORT    | AP212           | 202.4                     | NO                          | N/A   |

## APPENDIX B: CCTV INSPECTION LOG

City of Bangor, Maine  
Calendar Year 2015

| Inspection Date | Subsection   | Pipe Segment ID | Length of Inspection (FT) | Repeat Inspection (this CY) | Justification for Repeat Inspection (by Reason Code)* |
|-----------------|--------------|-----------------|---------------------------|-----------------------------|---|
| 10/5/2015       | AIRPORT      | AP263           | 223.1                     | YES                         | D   |
| 10/5/2015       | AIRPORT      | AP264           | 271.9                     | NO                          | N/A   |
| 10/5/2015       | AIRPORT      | AP265           | 39.5                      | NO                          | N/A   |
| 10/5/2015       | AIRPORT      | AP290           | 156.4                     | NO                          | N/A   |
| 10/5/2015       | AIRPORT      | AP291           | 37.6                      | NO                          | N/A   |
| 10/6/2015       | AIRPORT      | AP209           | 6.8                       | NO                          | N/A   |
| 10/6/2015       | AIRPORT      | AP210           | 382.8                     | NO                          | N/A   |
| 10/6/2015       | AIRPORT      | AP211           | 164.6                     | NO                          | N/A   |
| 10/26/2015      | AIRPORT      | AP281           | 86.9                      | NO                          | N/A   |
| 10/26/2015      | AIRPORT      | AP282           | 155.9                     | NO                          | N/A   |
| 10/26/2015      | AIRPORT      | AP283           | 226.7                     | NO                          | N/A   |
| 10/27/2015      | AIRPORT      | AP284           | 106.3                     | NO                          | N/A   |
| 10/27/2015      | AIRPORT      | AP285           | 189.6                     | NO                          | N/A   |
| 10/28/2015      | AIRPORT      | AP260           | 133.8                     | NO                          | N/A   |
| 10/28/2015      | AIRPORT      | AP270           | 132.3                     | NO                          | N/A   |
| 10/28/2015      | AIRPORT      | AP271           | 166.6                     | NO                          | N/A   |
| 10/28/2015      | AIRPORT      | AP286           | 326.8                     | NO                          | N/A   |
| 10/29/2015      | AIRPORT      | AP205           | 65.6                      | NO                          | N/A   |
| 10/29/2015      | AIRPORT      | AP240           | 82.4                      | NO                          | N/A   |
| 10/29/2015      | AIRPORT      | AP241           | 115.1                     | NO                          | N/A   |
| 10/29/2015      | AIRPORT      | AP261           | 134.9                     | NO                          | N/A   |
| 10/29/2015      | AIRPORT      | AP262           | 172.0                     | NO                          | N/A   |
| 10/30/2015      | AIRPORT      | AP242           | 278.5                     | NO                          | N/A   |
| 10/30/2015      | AIRPORT      | AP243           | 43.9                      | NO                          | N/A   |
| 11/2/2015       | AIRPORT      | AP207           | 266.4                     | NO                          | N/A   |
| 11/2/2015       | AIRPORT      | AP208           | 197.7                     | NO                          | N/A   |
| 11/2/2015       | AIRPORT      | AP209           | 10.5                      | YES                         | E   |
| 11/2/2015       | AIRPORT      | AP209           | 247.1                     | YES                         | E   |
| 11/2/2015       | AIRPORT      | AP250           | 249.0                     | NO                          | N/A   |
| 11/2/2015       | AIRPORT      | AP251           | 283.1                     | NO                          | N/A   |
| 11/3/2015       | AIRPORT      | AP206           | 348.7                     | NO                          | N/A   |
| 12/7/2015       | AIRPORT      | AP421           | 262.2                     | YES                         | C   |
| 12/10/2015      | AIRPORT      | AP503           | 20.1                      | NO                          | N/A   |
| 12/10/2015      | AIRPORT      | AP520           | 335.3                     | NO                          | N/A   |
| 12/10/2015      | AIRPORT      | AP521           | 186.7                     | NO                          | N/A   |
| 12/10/2015      | AIRPORT      | AP522           | 234.5                     | NO                          | N/A   |
| 12/17/2015      | AIRPORT      | AP522           | 261.5                     | YES                         | D   |
| 12/28/2015      | AIRPORT      | AP330           | 237.2                     | YES                         | D   |
| 1/22/2015       | ARCTIC BROOK | AB017           | 239.8                     | NO                          | N/A   |
| 2/12/2015       | ARCTIC BROOK | AB609           | 255.9                     | NO                          | N/A   |
| 2/12/2015       | ARCTIC BROOK | AB610           | 483.0                     | NO                          | N/A   |
| 2/12/2015       | ARCTIC BROOK | AB650           | 30.9                      | NO                          | N/A   |
| 2/12/2015       | ARCTIC BROOK | AB655           | 203.6                     | NO                          | N/A   |
| 2/13/2015       | ARCTIC BROOK | AB605A          | 2.3                       | NO                          | N/A   |
| 2/13/2015       | ARCTIC BROOK | AB606           | 39.0                      | NO                          | N/A   |
| 2/13/2015       | ARCTIC BROOK | AB607           | 56.9                      | NO                          | N/A   |
| 2/17/2015       | ARCTIC BROOK | AB110           | 22.3                      | NO                          | N/A   |
| 2/17/2015       | ARCTIC BROOK | AB111           | 132.1                     | NO                          | N/A   |
| 2/17/2015       | ARCTIC BROOK | AB151           | 38.5                      | NO                          | N/A   |

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|-----------------|--------------|-----------------|---------------------------|-----------------------------|---|
| 2/18/2015       | ARCTIC BROOK | AB142           | 13.6                      | NO                          | N/A   |
| 2/18/2015       | ARCTIC BROOK | AB142           | 52.4                      | YES                         | E   |
| 2/18/2015       | ARCTIC BROOK | AB142           | 187.4                     | YES                         | E   |
| 2/23/2015       | ARCTIC BROOK | AB130           | 208.7                     | NO                          | N/A   |
| 2/23/2015       | ARCTIC BROOK | AB135           | 311.9                     | NO                          | N/A   |
| 2/24/2015       | ARCTIC BROOK | AB131           | 238.9                     | NO                          | N/A   |
| 2/24/2015       | ARCTIC BROOK | AB160           | 409.0                     | NO                          | N/A   |
| 3/18/2015       | ARCTIC BROOK | AB161           | 86.2                      | NO                          | N/A   |
| 3/18/2015       | ARCTIC BROOK | AB210           | 185.3                     | NO                          | N/A   |
| 3/18/2015       | ARCTIC BROOK | AB211           | 9.0                       | NO                          | N/A   |
| 4/27/2015       | ARCTIC BROOK | AB402           | 80.4                      | NO                          | N/A   |
| 4/27/2015       | ARCTIC BROOK | AB402           | 80.9                      | NO                          | N/A   |
| 5/13/2015       | ARCTIC BROOK | AB240           | 46.9                      | NO                          | N/A   |
| 5/21/2015       | ARCTIC BROOK | AB108           | 344.9                     | NO                          | N/A   |
| 6/3/2015        | ARCTIC BROOK | AB141           | 20.1                      | NO                          | N/A   |
| 8/25/2015       | ARCTIC BROOK | AB083           | 356.9                     | NO                          | N/A   |
| 8/25/2015       | ARCTIC BROOK | AB085           | 442.3                     | NO                          | N/A   |
| 8/26/2015       | ARCTIC BROOK | AB081           | 141.8                     | NO                          | N/A   |
| 8/26/2015       | ARCTIC BROOK | AB082           | 192.0                     | NO                          | N/A   |
| 9/8/2015        | ARCTIC BROOK | AB123           | 66.6                      | NO                          | N/A   |
| 9/8/2015        | ARCTIC BROOK | AB124           | 106.1                     | NO                          | N/A   |
| 9/8/2015        | ARCTIC BROOK | AB136           | 9.9                       | NO                          | N/A   |
| 9/8/2015        | ARCTIC BROOK | AB137           | 92.0                      | NO                          | N/A   |
| 9/9/2015        | ARCTIC BROOK | AB121           | 292.3                     | NO                          | N/A   |
| 9/9/2015        | ARCTIC BROOK | AB122           | 146.2                     | NO                          | N/A   |
| 9/9/2015        | ARCTIC BROOK | AB124           | 41.0                      | YES                         | E   |
| 9/10/2015       | ARCTIC BROOK | AB250           | 51.5                      | NO                          | N/A   |
| 9/11/2015       | ARCTIC BROOK | AB251           | 5.0                       | NO                          | N/A   |
| 9/25/2015       | ARCTIC BROOK | AB109           | 215.1                     | NO                          | N/A   |
| 9/25/2015       | ARCTIC BROOK | AB140           | 261.1                     | NO                          | N/A   |
| 9/28/2015       | ARCTIC BROOK | AB350           | 0.4                       | NO                          | N/A   |
| 9/29/2015       | ARCTIC BROOK | AB104           | 200.8                     | NO                          | N/A   |
| 9/29/2015       | ARCTIC BROOK | AB105           | 15.3                      | NO                          | N/A   |
| 9/29/2015       | ARCTIC BROOK | AB106           | 332.3                     | NO                          | N/A   |
| 9/29/2015       | ARCTIC BROOK | AB107           | 113.6                     | NO                          | N/A   |
| 10/2/2015       | ARCTIC BROOK | AB208           | 130.6                     | NO                          | N/A   |
| 10/9/2015       | ARCTIC BROOK | AB209           | 392.4                     | NO                          | N/A   |
| 11/4/2015       | ARCTIC BROOK | AB132           | 328.8                     | NO                          | N/A   |
| 11/4/2015       | ARCTIC BROOK | AB200           | 107.4                     | NO                          | N/A   |
| 11/4/2015       | ARCTIC BROOK | AB202           | 217.1                     | NO                          | N/A   |
| 11/4/2015       | ARCTIC BROOK | AB203           | 40.0                      | NO                          | N/A   |
| 11/4/2015       | ARCTIC BROOK | AB204           | 278.6                     | NO                          | N/A   |
| 11/4/2015       | ARCTIC BROOK | AB220           | 169.6                     | NO                          | N/A   |
| 11/4/2015       | ARCTIC BROOK | AB221           | 196.8                     | NO                          | N/A   |
| 11/6/2015       | ARCTIC BROOK | AB205           | 73.6                      | NO                          | N/A   |
| 11/6/2015       | ARCTIC BROOK | AB206           | 291.8                     | NO                          | N/A   |
| 11/6/2015       | ARCTIC BROOK | AB207           | 249.4                     | NO                          | N/A   |
| 11/6/2015       | ARCTIC BROOK | AB260           | 23.4                      | NO                          | N/A   |
| 11/6/2015       | ARCTIC BROOK | AB261           | 69.0                      | NO                          | N/A   |

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|-----------------|--------------|-----------------|---------------------------|-----------------------------|---|
| 11/9/2015       | ARCTIC BROOK | AB302           | 8.8                       | NO                          | N/A   |
| 11/9/2015       | ARCTIC BROOK | AB302           | 154.4                     | YES                         | E   |
| 11/9/2015       | ARCTIC BROOK | AB604           | 72.9                      | NO                          | N/A   |
| 11/10/2015      | ARCTIC BROOK | AB060           | 53.2                      | NO                          | N/A   |
| 11/10/2015      | ARCTIC BROOK | AB061           | 275.0                     | NO                          | N/A   |
| 11/10/2015      | ARCTIC BROOK | AB062           | 168.3                     | NO                          | N/A   |
| 11/10/2015      | ARCTIC BROOK | AB063           | 62.8                      | NO                          | N/A   |
| 11/10/2015      | ARCTIC BROOK | AB065           | 187.2                     | NO                          | N/A   |
| 11/10/2015      | ARCTIC BROOK | AB301           | 670.1                     | NO                          | N/A   |
| 11/12/2015      | ARCTIC BROOK | AB070           | 182.4                     | NO                          | N/A   |
| 11/12/2015      | ARCTIC BROOK | AB070           | 182.9                     | YES                         | E   |
| 11/12/2015      | ARCTIC BROOK | AB071           | 32.7                      | NO                          | N/A   |
| 11/13/2015      | ARCTIC BROOK | AB053           | 53.5                      | NO                          | N/A   |
| 11/13/2015      | ARCTIC BROOK | AB054           | 215.7                     | NO                          | N/A   |
| 11/13/2015      | ARCTIC BROOK | AB055           | 12.9                      | NO                          | N/A   |
| 11/13/2015      | ARCTIC BROOK | AB070           | 338.0                     | YES                         | E   |
| 11/13/2015      | ARCTIC BROOK | AB071           | 37.5                      | YES                         | E   |
| 11/13/2015      | ARCTIC BROOK | AB140           | 70.5                      | YES                         | E   |
| 11/17/2015      | ARCTIC BROOK | AB101           | 146.1                     | NO                          | N/A   |
| 11/17/2015      | ARCTIC BROOK | AB102           | 28.1                      | NO                          | N/A   |
| 11/17/2015      | ARCTIC BROOK | AB120           | 290.1                     | NO                          | N/A   |
| 11/17/2015      | ARCTIC BROOK | AB241           | 22.3                      | NO                          | N/A   |
| 11/18/2015      | ARCTIC BROOK | AB075           | 13.7                      | NO                          | N/A   |
| 11/18/2015      | ARCTIC BROOK | AB076           | 269.4                     | NO                          | N/A   |
| 11/18/2015      | ARCTIC BROOK | AB590           | 12.2                      | NO                          | N/A   |
| 11/19/2015      | ARCTIC BROOK | AB056           | 218.9                     | NO                          | N/A   |
| 11/19/2015      | ARCTIC BROOK | AB057           | 150.1                     | NO                          | N/A   |
| 11/19/2015      | ARCTIC BROOK | AB073           | 139.9                     | NO                          | N/A   |
| 11/19/2015      | ARCTIC BROOK | AB427           | 18.2                      | NO                          | N/A   |
| 11/19/2015      | ARCTIC BROOK | AB428           | 84.0                      | NO                          | N/A   |
| 11/19/2015      | ARCTIC BROOK | AB429           | 55.5                      | NO                          | N/A   |
| 11/20/2015      | ARCTIC BROOK | AB422           | 57.7                      | NO                          | N/A   |
| 11/20/2015      | ARCTIC BROOK | AB423           | 228.5                     | NO                          | N/A   |
| 11/20/2015      | ARCTIC BROOK | AB424           | 219.7                     | NO                          | N/A   |
| 11/20/2015      | ARCTIC BROOK | AB425           | 113.5                     | NO                          | N/A   |
| 11/20/2015      | ARCTIC BROOK | AB426           | 155.8                     | NO                          | N/A   |
| 11/20/2015      | ARCTIC BROOK | AB435           | 6.5                       | NO                          | N/A   |
| 11/20/2015      | ARCTIC BROOK | AB436           | 64.1                      | NO                          | N/A   |
| 11/20/2015      | ARCTIC BROOK | AB490           | 92.6                      | NO                          | N/A   |
| 11/23/2015      | ARCTIC BROOK | AB570           | 360.8                     | NO                          | N/A   |
| 11/23/2015      | ARCTIC BROOK | AB800           | 159.4                     | NO                          | N/A   |
| 11/23/2015      | ARCTIC BROOK | AB801           | 223.1                     | NO                          | N/A   |
| 11/23/2015      | ARCTIC BROOK | AB802           | 179.3                     | NO                          | N/A   |
| 11/23/2015      | ARCTIC BROOK | AB821           | 298.0                     | NO                          | N/A   |
| 11/23/2015      | ARCTIC BROOK | AB822           | 309.1                     | NO                          | N/A   |
| 11/23/2015      | ARCTIC BROOK | AB822           | 398.1                     | YES                         | E   |
| 11/24/2015      | ARCTIC BROOK | AB623           | 156.8                     | NO                          | N/A   |
| 11/24/2015      | ARCTIC BROOK | AB623           | 214.1                     | YES                         | E   |
| 11/24/2015      | ARCTIC BROOK | AB624           | 228.5                     | NO                          | N/A   |

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|-----------------|--------------|-----------------|---------------------------|-----------------------------|---|
| 11/30/2015      | ARCTIC BROOK | AB550           | 2.6                       | NO                          | N/A   |
| 11/30/2015      | ARCTIC BROOK | AB551           | 389.8                     | NO                          | N/A   |
| 11/30/2015      | ARCTIC BROOK | AB560           | 272.7                     | NO                          | N/A   |
| 11/30/2015      | ARCTIC BROOK | AB620           | 19.1                      | NO                          | N/A   |
| 11/30/2015      | ARCTIC BROOK | AB621           | 24.0                      | NO                          | N/A   |
| 11/30/2015      | ARCTIC BROOK | AB621           | 11.9                      | YES                         | E   |
| 11/30/2015      | ARCTIC BROOK | AB622           | 70.2                      | NO                          | N/A   |
| 11/30/2015      | ARCTIC BROOK | AB622           | 53.9                      | YES                         | E   |
| 11/30/2015      | ARCTIC BROOK | AB630           | 120.4                     | NO                          | N/A   |
| 11/30/2015      | ARCTIC BROOK | AB803           | 174.8                     | NO                          | N/A   |
| 12/1/2015       | ARCTIC BROOK | AB023           | 101.1                     | NO                          | N/A   |
| 12/1/2015       | ARCTIC BROOK | AB024           | 42.7                      | NO                          | N/A   |
| 12/1/2015       | ARCTIC BROOK | AB025           | 177.6                     | NO                          | N/A   |
| 12/1/2015       | ARCTIC BROOK | AB026           | 107.9                     | NO                          | N/A   |
| 12/1/2015       | ARCTIC BROOK | AB027           | 87.5                      | NO                          | N/A   |
| 12/1/2015       | ARCTIC BROOK | AB028           | 188.6                     | NO                          | N/A   |
| 12/1/2015       | ARCTIC BROOK | AB029           | 109.3                     | NO                          | N/A   |
| 12/1/2015       | ARCTIC BROOK | AB031           | 306.4                     | NO                          | N/A   |
| 12/1/2015       | ARCTIC BROOK | AB032           | 211.1                     | NO                          | N/A   |
| 12/1/2015       | ARCTIC BROOK | AB033           | 156.4                     | NO                          | N/A   |
| 12/1/2015       | ARCTIC BROOK | AB501           | 86.7                      | NO                          | N/A   |
| 12/1/2015       | ARCTIC BROOK | AB508           | 117.8                     | NO                          | N/A   |
| 12/2/2015       | ARCTIC BROOK | AB504           | 354.0                     | NO                          | N/A   |
| 12/2/2015       | ARCTIC BROOK | AB505           | 439.4                     | NO                          | N/A   |
| 12/2/2015       | ARCTIC BROOK | AB508           | 114.2                     | YES                         | E   |
| 12/2/2015       | ARCTIC BROOK | AB512           | 238.8                     | NO                          | N/A   |
| 12/2/2015       | ARCTIC BROOK | AB513           | 1.7                       | NO                          | N/A   |
| 12/4/2015       | ARCTIC BROOK | AB058           | 274.1                     | NO                          | N/A   |
| 12/4/2015       | ARCTIC BROOK | AB430           | 304.6                     | NO                          | N/A   |
| 12/4/2015       | ARCTIC BROOK | AB502           | 212.8                     | NO                          | N/A   |
| 12/4/2015       | ARCTIC BROOK | AB503           | 114.7                     | NO                          | N/A   |
| 12/7/2015       | ARCTIC BROOK | AB355           | 49.6                      | NO                          | N/A   |
| 12/7/2015       | ARCTIC BROOK | AB356           | 85.9                      | NO                          | N/A   |
| 12/11/2015      | ARCTIC BROOK | AB030           | 63.9                      | NO                          | N/A   |
| 12/14/2015      | ARCTIC BROOK | AB651           | 5.9                       | NO                          | N/A   |
| 12/14/2015      | ARCTIC BROOK | AB651           | 147.4                     | YES                         | E   |
| 12/15/2015      | ARCTIC BROOK | AB621           | 296.1                     | YES                         | C   |
| 12/18/2015      | ARCTIC BROOK | AB052           | 330.4                     | NO                          | N/A   |
| 12/18/2015      | ARCTIC BROOK | AB056           | 59.1                      | YES                         | E   |
| 12/30/2015      | ARCTIC BROOK | AB023           | 296.3                     | NO                          | N/A   |
| 1/8/2015        | BARKERSVILLE | BV715           | 44.9                      | NO                          | N/A   |
| 1/9/2015        | BARKERSVILLE | BV820           | 424.9                     | NO                          | N/A   |
| 1/12/2015       | BARKERSVILLE | BV033           | 246.2                     | NO                          | N/A   |
| 1/12/2015       | BARKERSVILLE | BV034           | 26.5                      | NO                          | N/A   |
| 1/12/2015       | BARKERSVILLE | BV034           | 76.2                      | YES                         | E   |
| 1/13/2015       | BARKERSVILLE | BV028           | 686.6                     | NO                          | N/A   |
| 1/26/2015       | BARKERSVILLE | BV725           | 5.0                       | NO                          | N/A   |
| 2/6/2015        | BARKERSVILLE | BV331           | 98.1                      | NO                          | N/A   |
| 2/6/2015        | BARKERSVILLE | BV332           | 135.8                     | NO                          | N/A   |



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| 2/9/2015        | BARKERSVILLE | BV340           | 182.7                     | NO                          | N/A   |
| 3/16/2015       | BARKERSVILLE | BV476           | 383.2                     | NO                          | N/A   |
| 3/18/2015       | BARKERSVILLE | BV476           | 10.5                      | YES                         | E   |
| 3/18/2015       | BARKERSVILLE | BV477           | 22.4                      | NO                          | N/A   |
| 5/15/2015       | BARKERSVILLE | BV478           | 299.6                     | NO                          | N/A   |
| 5/18/2015       | BARKERSVILLE | BV029           | 159.9                     | NO                          | N/A   |
| 5/18/2015       | BARKERSVILLE | BV030           | 332.8                     | NO                          | N/A   |
| 8/4/2015        | BARKERSVILLE | BV017           | 246.1                     | NO                          | N/A   |
| 8/4/2015        | BARKERSVILLE | BV018           | 255.1                     | NO                          | N/A   |
| 8/4/2015        | BARKERSVILLE | BV019           | 263.6                     | NO                          | N/A   |
| 8/5/2015        | BARKERSVILLE | BV020           | 114.3                     | NO                          | N/A   |
| 8/5/2015        | BARKERSVILLE | BV021           | 64.8                      | NO                          | N/A   |
| 10/1/2015       | BARKERSVILLE | BV425           | 379.8                     | NO                          | N/A   |
| 10/1/2015       | BARKERSVILLE | BV435           | 238.0                     | NO                          | N/A   |
| 11/3/2015       | BARKERSVILLE | BV466           | 434.0                     | NO                          | N/A   |
| 12/28/2015      | BARKERSVILLE | BV479           | 234.5                     | NO                          | N/A   |
| 12/28/2015      | BARKERSVILLE | BV480           | 44.3                      | NO                          | N/A   |
| 4/1/2015        | BLANCHARD ST | BS502           | 251.7                     | NO                          | N/A   |
| 4/1/2015        | BLANCHARD ST | BS502           | 253.8                     | YES                         | C   |
| 12/28/2015      | BLANCHARD ST | BS018           | 298.3                     | NO                          | N/A   |
| 12/28/2015      | BLANCHARD ST | BS019           | 260.2                     | NO                          | N/A   |
| 12/28/2015      | BLANCHARD ST | BS301           | 274.4                     | NO                          | N/A   |
| 12/28/2015      | BLANCHARD ST | BS302           | 296.1                     | NO                          | N/A   |
| 12/28/2015      | BLANCHARD ST | BS303           | 289.8                     | NO                          | N/A   |
| 12/28/2015      | BLANCHARD ST | BS800           | 159.8                     | NO                          | N/A   |
| 12/28/2015      | BLANCHARD ST | BS801           | 345.6                     | NO                          | N/A   |
| 12/31/2015      | BLANCHARD ST | BS020           | 214.1                     | NO                          | N/A   |
| 12/31/2015      | BLANCHARD ST | BS021           | 231.8                     | NO                          | N/A   |
| 1/14/2015       | BURLEIGH     | BU024           | 180.5                     | NO                          | N/A   |
| 1/14/2015       | BURLEIGH     | BU800           | 33.1                      | NO                          | N/A   |
| 1/14/2015       | BURLEIGH     | BU801           | 270.4                     | NO                          | N/A   |
| 1/14/2015       | BURLEIGH     | BU802           | 273.1                     | NO                          | N/A   |
| 1/14/2015       | BURLEIGH     | BU803           | 285.9                     | NO                          | N/A   |
| 1/15/2015       | BURLEIGH     | BU542           | 369.4                     | NO                          | N/A   |
| 1/15/2015       | BURLEIGH     | BU550           | 204.1                     | NO                          | N/A   |
| 1/15/2015       | BURLEIGH     | BU551           | 305.1                     | NO                          | N/A   |
| 1/15/2015       | BURLEIGH     | BU560           | 110.7                     | NO                          | N/A   |
| 1/15/2015       | BURLEIGH     | BU570           | 171.6                     | NO                          | N/A   |
| 1/15/2015       | BURLEIGH     | BU571           | 118.8                     | NO                          | N/A   |
| 1/15/2015       | BURLEIGH     | BU572           | 272.1                     | NO                          | N/A   |
| 1/16/2015       | BURLEIGH     | BU552           | 304.8                     | NO                          | N/A   |
| 1/16/2015       | BURLEIGH     | BU553           | 393.6                     | NO                          | N/A   |
| 1/16/2015       | BURLEIGH     | BU554           | 421.1                     | NO                          | N/A   |
| 2/9/2015        | BURLEIGH     | BU300           | 368.6                     | NO                          | N/A   |
| 2/9/2015        | BURLEIGH     | BU301           | 347.0                     | NO                          | N/A   |
| 2/10/2015       | BURLEIGH     | BU302           | 347.1                     | NO                          | N/A   |
| 2/10/2015       | BURLEIGH     | BU303           | 346.7                     | NO                          | N/A   |
| 2/10/2015       | BURLEIGH     | BU304           | 298.3                     | NO                          | N/A   |
| 2/10/2015       | BURLEIGH     | BU305           | 299.9                     | NO                          | N/A   |

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| 2/10/2015       | BURLEIGH    | BU306           | 297.6                     | NO                          | N/A   |
| 2/11/2015       | BURLEIGH    | BU012           | 73.9                      | NO                          | N/A   |
| 2/11/2015       | BURLEIGH    | BU307           | 398.4                     | NO                          | N/A   |
| 2/11/2015       | BURLEIGH    | BU400           | 414.2                     | NO                          | N/A   |
| 2/11/2015       | BURLEIGH    | BU500           | 293.4                     | NO                          | N/A   |
| 2/12/2015       | BURLEIGH    | BU310           | 345.3                     | NO                          | N/A   |
| 2/12/2015       | BURLEIGH    | BU311           | 348.5                     | NO                          | N/A   |
| 2/12/2015       | BURLEIGH    | BU312           | 207.6                     | NO                          | N/A   |
| 7/9/2015        | BURLEIGH    | BU036           | 66.2                      | NO                          | N/A   |
| 7/9/2015        | BURLEIGH    | BU037           | 1.7                       | NO                          | N/A   |
| 8/3/2015        | BURLEIGH    | BU607           | 293.7                     | NO                          | N/A   |
| 1/7/2015        | CAPEHART    | OC100           | 338.6                     | NO                          | N/A   |
| 1/8/2015        | CAPEHART    | OC006           | 203.9                     | NO                          | N/A   |
| 5/21/2015       | CAPEHART    | OC014           | 153.3                     | NO                          | N/A   |
| 6/2/2015        | CAPEHART    | OC035           | 312.3                     | NO                          | N/A   |
| 3/16/2015       | CARR BROOK  | CB145           | 214.0                     | NO                          | N/A   |
| 3/17/2015       | CARR BROOK  | CB145           | 58.2                      | YES                         | D   |
| 3/17/2015       | CARR BROOK  | CB145           | 58.8                      | YES                         | D   |
| 3/18/2015       | CARR BROOK  | CB145           | 46.2                      | YES                         | E   |
| 7/7/2015        | CARR BROOK  | CB451           | 89.3                      | NO                          | N/A   |
| 7/14/2015       | CARR BROOK  | CB506           | 262.5                     | NO                          | N/A   |
| 7/16/2015       | CARR BROOK  | CB211           | 146.9                     | NO                          | N/A   |
| 7/16/2015       | CARR BROOK  | CB211           | 33.7                      | YES                         | E   |
| 7/20/2015       | CARR BROOK  | CB403           | 348.1                     | NO                          | N/A   |
| 12/1/2015       | CARR BROOK  | CB032           | 100.0                     | NO                          | N/A   |
| 12/4/2015       | CARR BROOK  | CB851           | 322.0                     | NO                          | N/A   |
| 12/4/2015       | CARR BROOK  | CB851           | 82.6                      | YES                         | E   |
| 12/7/2015       | CARR BROOK  | CB850           | 189.5                     | NO                          | N/A   |
| 12/11/2015      | CARR BROOK  | CB211           | 184.4                     | YES                         | D   |
| 1/12/2015       | CEMETERY    | CM581           | 194.6                     | NO                          | N/A   |
| 1/13/2015       | CEMETERY    | CM580           | 302.9                     | NO                          | N/A   |
| 1/23/2015       | CEMETERY    | CM671           | 237.4                     | NO                          | N/A   |
| 1/23/2015       | CEMETERY    | CM672           | 218.4                     | NO                          | N/A   |
| 7/10/2015       | CEMETERY    | CW015           | 215.2                     | NO                          | N/A   |
| 8/10/2015       | CEMETERY    | CM011           | 218.7                     | NO                          | N/A   |
| 8/10/2015       | CEMETERY    | CM012           | 226.5                     | NO                          | N/A   |
| 8/10/2015       | CEMETERY    | CM013           | 125.4                     | NO                          | N/A   |
| 1/2/2015        | DAVIS BROOK | DB305A          | 185.0                     | NO                          | N/A   |
| 1/6/2015        | DAVIS BROOK | DB304A          | 17.6                      | NO                          | N/A   |
| 1/6/2015        | DAVIS BROOK | DB305           | 7.3                       | NO                          | N/A   |
| 1/6/2015        | DAVIS BROOK | DB305           | 95.3                      | YES                         | E   |
| 1/6/2015        | DAVIS BROOK | DB305A          | 6.3                       | YES                         | E   |
| 1/13/2015       | DAVIS BROOK | DB900           | 233.0                     | NO                          | N/A   |
| 4/10/2015       | DAVIS BROOK | DB804           | 273.8                     | NO                          | N/A   |
| 5/13/2015       | DAVIS BROOK | DB702A          | 73.0                      | NO                          | N/A   |
| 5/15/2015       | DAVIS BROOK | DB804           | 319.8                     | YES                         | G   |
| 7/17/2015       | DAVIS BROOK | DB721           | 209.0                     | NO                          | N/A   |
| 7/20/2015       | DAVIS BROOK | DB380           | 126.2                     | NO                          | N/A   |
| 8/5/2015        | DAVIS BROOK | DB407           | 54.5                      | NO                          | N/A   |

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| 8/14/2015       | DAVIS BROOK | DB306           | 362.0                     | NO                          | N/A   |
| 8/14/2015       | DAVIS BROOK | DB307           | 66.3                      | NO                          | N/A   |
| 9/9/2015        | DAVIS BROOK | DB303           | 19.7                      | NO                          | N/A   |
| 10/26/2015      | DAVIS BROOK | DB850           | 67.0                      | NO                          | N/A   |
| 10/26/2015      | DAVIS BROOK | DB851           | 192.7                     | NO                          | N/A   |
| 10/26/2015      | DAVIS BROOK | DB852           | 310.6                     | NO                          | N/A   |
| 10/29/2015      | DAVIS BROOK | DB024A          | 193.0                     | NO                          | N/A   |
| 10/30/2015      | DAVIS BROOK | DB024           | 38.2                      | NO                          | N/A   |
| 11/3/2015       | DAVIS BROOK | DB851A          | 175.8                     | NO                          | N/A   |
| 2/26/2015       | DOW         | DW606           | 120.3                     | NO                          | N/A   |
| 2/26/2015       | DOW         | DW614           | 202.5                     | NO                          | N/A   |
| 2/26/2015       | DOW         | DW660           | 196.8                     | NO                          | N/A   |
| 2/26/2015       | DOW         | DW661           | 201.3                     | NO                          | N/A   |
| 2/27/2015       | DOW         | DW020           | 236.8                     | NO                          | N/A   |
| 2/27/2015       | DOW         | DW021           | 121.2                     | NO                          | N/A   |
| 2/27/2015       | DOW         | DW022           | 351.8                     | NO                          | N/A   |
| 2/27/2015       | DOW         | DW600           | 142.4                     | NO                          | N/A   |
| 3/2/2015        | DOW         | DW212           | 222.6                     | NO                          | N/A   |
| 3/2/2015        | DOW         | DW214           | 264.9                     | NO                          | N/A   |
| 3/2/2015        | DOW         | DW275           | 317.5                     | NO                          | N/A   |
| 3/2/2015        | DOW         | DW276           | 270.1                     | NO                          | N/A   |
| 3/2/2015        | DOW         | DW280           | 31.2                      | NO                          | N/A   |
| 3/2/2015        | DOW         | DW281           | 135.5                     | NO                          | N/A   |
| 3/2/2015        | DOW         | DW282           | 31.0                      | NO                          | N/A   |
| 3/4/2015        | DOW         | DW200           | 336.4                     | NO                          | N/A   |
| 3/4/2015        | DOW         | DW450           | 46.8                      | NO                          | N/A   |
| 3/5/2015        | DOW         | DW017           | 162.1                     | NO                          | N/A   |
| 3/5/2015        | DOW         | DW600           | 3.1                       | YES                         | E   |
| 3/5/2015        | DOW         | DW601           | 92.3                      | NO                          | N/A   |
| 3/5/2015        | DOW         | DW601A          | 162.0                     | NO                          | N/A   |
| 3/5/2015        | DOW         | DW602           | 210.2                     | NO                          | N/A   |
| 3/9/2015        | DOW         | DW018           | 270.8                     | NO                          | N/A   |
| 3/9/2015        | DOW         | DW240           | 265.1                     | NO                          | N/A   |
| 3/9/2015        | DOW         | DW256           | 100.4                     | NO                          | N/A   |
| 3/9/2015        | DOW         | DW450           | 81.5                      | YES                         | E   |
| 3/10/2015       | DOW         | DW007           | 340.3                     | NO                          | N/A   |
| 3/10/2015       | DOW         | DW008           | 337.5                     | NO                          | N/A   |
| 3/10/2015       | DOW         | DW009           | 254.3                     | NO                          | N/A   |
| 3/10/2015       | DOW         | DW015           | 75.6                      | NO                          | N/A   |
| 3/10/2015       | DOW         | DW300           | 10.3                      | NO                          | N/A   |
| 3/10/2015       | DOW         | DW450           | 103.4                     | YES                         | E   |
| 3/11/2015       | DOW         | DW006           | 277.2                     | NO                          | N/A   |
| 3/11/2015       | DOW         | DW301           | 16.2                      | NO                          | N/A   |
| 3/11/2015       | DOW         | DW450           | 2.6                       | YES                         | C   |
| 3/11/2015       | DOW         | DW451           | 175.3                     | NO                          | N/A   |
| 3/11/2015       | DOW         | DW500           | 198.4                     | NO                          | N/A   |
| 3/11/2015       | DOW         | DW501           | 0.5                       | NO                          | N/A   |
| 3/11/2015       | DOW         | DW550           | 80.0                      | NO                          | N/A   |
| 3/12/2015       | DOW         | DW604           | 75.2                      | NO                          | N/A   |

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| 3/13/2015       | DOW           | DW100           | 12.4                      | NO                          | N/A   |
| 3/26/2015       | DOW           | DW450           | 168.1                     | YES                         | C   |
| 3/27/2015       | DOW           | DW016           | 239.4                     | NO                          | N/A   |
| 3/27/2015       | DOW           | DW016A          | 173.8                     | NO                          | N/A   |
| 3/27/2015       | DOW           | DW019           | 274.5                     | NO                          | N/A   |
| 3/27/2015       | DOW           | DW603           | 117.2                     | NO                          | N/A   |
| 3/27/2015       | DOW           | DW604           | 102.1                     | YES                         | C   |
| 4/16/2015       | DOW           | DW612A          | 89.3                      | NO                          | N/A   |
| 4/16/2015       | DOW           | DW612A          | 108.4                     | YES                         | E   |
| 4/16/2015       | DOW           | DW613           | 206.1                     | NO                          | N/A   |
| 5/22/2015       | DOW           | DW601A          | 167.6                     | YES                         | H   |
| 5/22/2015       | DOW           | DW606           | 122.2                     | YES                         | H   |
| 5/22/2015       | DOW           | DW607           | 241.4                     | NO                          | N/A   |
| 5/22/2015       | DOW           | DW608           | 464.4                     | NO                          | N/A   |
| 5/22/2015       | DOW           | DW609           | 343.6                     | NO                          | N/A   |
| 5/22/2015       | DOW           | DW610           | 208.3                     | NO                          | N/A   |
| 5/22/2015       | DOW           | DW611           | 250.1                     | NO                          | N/A   |
| 5/22/2015       | DOW           | DW612           | 350.6                     | NO                          | N/A   |
| 5/26/2015       | DOW           | DW022           | 353.3                     | YES                         | H   |
| 5/26/2015       | DOW           | DW250           | 227.9                     | NO                          | N/A   |
| 5/26/2015       | DOW           | DW251           | 261.8                     | NO                          | N/A   |
| 5/26/2015       | DOW           | DW252           | 385.5                     | NO                          | N/A   |
| 5/26/2015       | DOW           | DW252A          | 75.4                      | NO                          | N/A   |
| 5/26/2015       | DOW           | DW600           | 14.9                      | YES                         | H   |
| 5/26/2015       | DOW           | DW600           | 139.9                     | YES                         | E, H  |
| 5/26/2015       | DOW           | DW650           | 369.1                     | NO                          | N/A   |
| 5/26/2015       | DOW           | DW660           | 197.6                     | YES                         | H   |
| 5/26/2015       | DOW           | DW661           | 201                       | YES                         | H   |
| 5/27/2015       | DOW           | DW018           | 270.3                     | YES                         | H   |
| 5/27/2015       | DOW           | DW201           | 222.7                     | NO                          | N/A   |
| 5/27/2015       | DOW           | DW202           | 83.4                      | NO                          | N/A   |
| 5/27/2015       | DOW           | DW203           | 332.7                     | NO                          | N/A   |
| 5/27/2015       | DOW           | DW204           | 270.1                     | NO                          | N/A   |
| 5/27/2015       | DOW           | DW255           | 261.6                     | NO                          | N/A   |
| 5/27/2015       | DOW           | DW255A          | 43.6                      | NO                          | N/A   |
| 5/27/2015       | DOW           | DW259           | 184.7                     | NO                          | N/A   |
| 5/27/2015       | DOW           | DW450           | 173.2                     | YES                         | H   |
| 5/27/2015       | DOW           | DW451           | 176.3                     | YES                         | H   |
| 5/27/2015       | DOW           | DW452           | 134.7                     | NO                          | N/A   |
| 6/1/2015        | DOW           | DW213           | 25.1                      | NO                          | N/A   |
| 6/1/2015        | DOW           | DW270           | 398.8                     | NO                          | N/A   |
| 7/1/2015        | DOW           | DW400           | 356.0                     | NO                          | N/A   |
| 7/1/2015        | DOW           | DW501           | 41.0                      | YES                         | E   |
| 7/6/2015        | DOW           | DW211           | 270.7                     | NO                          | N/A   |
| 7/7/2015        | DOW           | DW209           | 168.6                     | NO                          | N/A   |
| 7/8/2015        | DOW           | DW302           | 240.7                     | NO                          | N/A   |
| 7/14/2015       | DOW           | DW350           | 174.1                     | NO                          | N/A   |
| 1/23/2015       | FOURTEENTH ST | FS501           | 174.6                     | NO                          | N/A   |
| 1/23/2015       | FOURTEENTH ST | FS502           | 286.8                     | NO                          | N/A   |

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| 1/23/2015       | FOURTEENTH ST   | FS503           | 305.4                     | NO                          | N/A   |
| 5/4/2015        | HANCOCK         | HK293           | 168.6                     | NO                          | N/A   |
| 1/26/2015       | HILDRETH-PERRY  | HP608           | 246.4                     | NO                          | N/A   |
| 1/29/2015       | HILDRETH-PERRY  | HP605           | 283.1                     | NO                          | N/A   |
| 1/29/2015       | HILDRETH-PERRY  | HP606           | 294.4                     | NO                          | N/A   |
| 1/29/2015       | HILDRETH-PERRY  | HP607           | 276.8                     | NO                          | N/A   |
| 3/30/2015       | HILDRETH-PERRY  | HP051           | 280.1                     | NO                          | N/A   |
| 12/8/2015       | HILDRETH-PERRY  | HP227           | 308.7                     | NO                          | N/A   |
| 4/1/2015        | HUSSON          | HS401           | 273.0                     | NO                          | N/A   |
| 3/26/2015       | KENDUSKEAG EAST | KE201           | 118.5                     | NO                          | N/A   |
| 3/26/2015       | KENDUSKEAG EAST | KE260           | 235.0                     | NO                          | N/A   |
| 4/1/2015        | KENDUSKEAG EAST | KE260           | 104.7                     | YES                         | G   |
| 5/11/2015       | KENDUSKEAG EAST | KE301           | 139.7                     | NO                          | N/A   |
| 5/11/2015       | KENDUSKEAG EAST | KE302           | 649.7                     | NO                          | N/A   |
| 5/13/2015       | KENDUSKEAG EAST | KE250           | 202.5                     | NO                          | N/A   |
| 5/13/2015       | KENDUSKEAG EAST | KE250A          | 38.7                      | NO                          | N/A   |
| 5/13/2015       | KENDUSKEAG EAST | KE251           | 3.6                       | NO                          | N/A   |
| 5/14/2015       | KENDUSKEAG EAST | KE251           | 213.0                     | YES                         | E   |
| 10/6/2015       | KENDUSKEAG EAST | KE261           | 311.3                     | NO                          | N/A   |
| 10/12/2015      | KENDUSKEAG EAST | KE261           | 38.4                      | YES                         | E   |
| 10/13/2015      | KENDUSKEAG EAST | KE261           | 354.7                     | YES                         | D   |
| 10/14/2015      | KENDUSKEAG EAST | KE261           | 306.9                     | YES                         | G   |
| 10/16/2015      | KENDUSKEAG EAST | KE262           | 112.2                     | NO                          | N/A   |
| 11/19/2015      | KENDUSKEAG EAST | KE261           | 7.3                       | YES                         | D   |
| 11/19/2015      | KENDUSKEAG EAST | KE261A          | 301.8                     | NO                          | N/A   |
| 11/19/2015      | KENDUSKEAG EAST | KE262           | 160.2                     | YES                         | D   |
| 1/7/2015        | KENDUSKEAG WEST | KW005           | 43.5                      | NO                          | N/A   |
| 2/13/2015       | KENDUSKEAG WEST | KW004           | 95.3                      | NO                          | N/A   |
| 3/6/2015        | KENDUSKEAG WEST | KW065           | 69.0                      | NO                          | N/A   |
| 3/6/2015        | KENDUSKEAG WEST | KW200           | 51.7                      | NO                          | N/A   |
| 3/6/2015        | KENDUSKEAG WEST | KW201           | 381.1                     | NO                          | N/A   |
| 3/30/2015       | KENDUSKEAG WEST | KW281           | 162.2                     | NO                          | N/A   |
| 5/14/2015       | KENDUSKEAG WEST | KW380           | 37.3                      | NO                          | N/A   |
| 5/18/2015       | KENDUSKEAG WEST | KW901           | 146.0                     | NO                          | N/A   |
| 8/18/2015       | KENDUSKEAG WEST | KW102           | 448.3                     | NO                          | N/A   |
| 8/18/2015       | KENDUSKEAG WEST | KW103           | 342.2                     | NO                          | N/A   |
| 8/18/2015       | KENDUSKEAG WEST | KW104           | 14.7                      | NO                          | N/A   |
| 8/18/2015       | KENDUSKEAG WEST | KW160           | 99.9                      | NO                          | N/A   |
| 8/18/2015       | KENDUSKEAG WEST | KW160L01        | 28.4                      | NO                          | N/A   |
| 8/20/2015       | KENDUSKEAG WEST | KW201           | 6.8                       | YES                         | E   |
| 8/20/2015       | KENDUSKEAG WEST | KW202           | 369.6                     | NO                          | N/A   |
| 8/20/2015       | KENDUSKEAG WEST | KW203           | 17.0                      | NO                          | N/A   |
| 9/23/2015       | KENDUSKEAG WEST | KW004           | 187.6                     | YES                         | D   |
| 9/23/2015       | KENDUSKEAG WEST | KW302           | 82.2                      | NO                          | N/A   |
| 9/24/2015       | KENDUSKEAG WEST | KW005A          | 262.5                     | NO                          | N/A   |
| 9/25/2015       | KENDUSKEAG WEST | KW003           | 113.0                     | NO                          | N/A   |
| 9/25/2015       | KENDUSKEAG WEST | KW003A          | 84.2                      | NO                          | N/A   |
| 9/25/2015       | KENDUSKEAG WEST | KW004           | 187.7                     | YES                         | D   |
| 9/28/2015       | KENDUSKEAG WEST | KW005           | 255.8                     | YES                         | D   |

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| 9/28/2015       | KENDUSKEAG WEST | KW070           | 67.0                      | NO                          | N/A   |
| 10/15/2015      | KENDUSKEAG WEST | KW101           | 94.5                      | NO                          | N/A   |
| 10/16/2015      | KENDUSKEAG WEST | KW101           | 785.9                     | YES                         | E   |
| 1/2/2015        | MEADOWBROOK     | MB960           | 295.0                     | NO                          | N/A   |
| 1/2/2015        | MEADOWBROOK     | MB961           | 187.1                     | NO                          | N/A   |
| 1/2/2015        | MEADOWBROOK     | MB962           | 208.7                     | NO                          | N/A   |
| 1/2/2015        | MEADOWBROOK     | MB963           | 264.7                     | NO                          | N/A   |
| 1/16/2015       | MEADOWBROOK     | MB366           | 97.3                      | NO                          | N/A   |
| 1/16/2015       | MEADOWBROOK     | MB367           | 97.3                      | NO                          | N/A   |
| 2/4/2015        | MEADOWBROOK     | MB964           | 296.6                     | NO                          | N/A   |
| 2/4/2015        | MEADOWBROOK     | MB965           | 177.2                     | NO                          | N/A   |
| 2/6/2015        | MEADOWBROOK     | MB710           | 260.4                     | NO                          | N/A   |
| 2/6/2015        | MEADOWBROOK     | MB711           | 124.7                     | NO                          | N/A   |
| 2/6/2015        | MEADOWBROOK     | MB775           | 219.0                     | NO                          | N/A   |
| 2/6/2015        | MEADOWBROOK     | MB776           | 419.7                     | NO                          | N/A   |
| 4/3/2015        | MEADOWBROOK     | MB416           | 238.5                     | NO                          | N/A   |
| 4/6/2015        | MEADOWBROOK     | MB416           | 255.8                     | YES                         | E   |
| 4/6/2015        | MEADOWBROOK     | MB701           | 46.7                      | NO                          | N/A   |
| 4/7/2015        | MEADOWBROOK     | MB862           | 217.7                     | NO                          | N/A   |
| 4/7/2015        | MEADOWBROOK     | MB863           | 225.6                     | NO                          | N/A   |
| 4/7/2015        | MEADOWBROOK     | MB864           | 103.5                     | NO                          | N/A   |
| 4/8/2015        | MEADOWBROOK     | MB860           | 98.0                      | NO                          | N/A   |
| 4/8/2015        | MEADOWBROOK     | MB861           | 195.2                     | NO                          | N/A   |
| 4/9/2015        | MEADOWBROOK     | MB416           | 172.7                     | YES                         | E   |
| 4/9/2015        | MEADOWBROOK     | MB831           | 247.5                     | NO                          | N/A   |
| 4/9/2015        | MEADOWBROOK     | MB832           | 234.3                     | NO                          | N/A   |
| 4/9/2015        | MEADOWBROOK     | MB865           | 337.6                     | NO                          | N/A   |
| 4/9/2015        | MEADOWBROOK     | MB866           | 324.9                     | NO                          | N/A   |
| 4/10/2015       | MEADOWBROOK     | MB812           | 346.3                     | NO                          | N/A   |
| 4/10/2015       | MEADOWBROOK     | MB813           | 331.1                     | NO                          | N/A   |
| 4/10/2015       | MEADOWBROOK     | MB835           | 275.6                     | NO                          | N/A   |
| 4/10/2015       | MEADOWBROOK     | MB836           | 120.4                     | NO                          | N/A   |
| 4/10/2015       | MEADOWBROOK     | MB855           | 227.4                     | NO                          | N/A   |
| 4/10/2015       | MEADOWBROOK     | MB856           | 121.3                     | NO                          | N/A   |
| 4/10/2015       | MEADOWBROOK     | MB857           | 247.1                     | NO                          | N/A   |
| 4/10/2015       | MEADOWBROOK     | MB858           | 56.4                      | NO                          | N/A   |
| 4/13/2015       | MEADOWBROOK     | MB704           | 240.9                     | NO                          | N/A   |
| 4/13/2015       | MEADOWBROOK     | MB705           | 207.1                     | NO                          | N/A   |
| 4/13/2015       | MEADOWBROOK     | MB931           | 60.7                      | NO                          | N/A   |
| 4/13/2015       | MEADOWBROOK     | MB932           | 90.0                      | NO                          | N/A   |
| 4/13/2015       | MEADOWBROOK     | MB933           | 259.3                     | NO                          | N/A   |
| 4/13/2015       | MEADOWBROOK     | MB934           | 229.7                     | NO                          | N/A   |
| 4/14/2015       | MEADOWBROOK     | MB706           | 189.7                     | NO                          | N/A   |
| 4/15/2015       | MEADOWBROOK     | MB757           | 223.2                     | NO                          | N/A   |
| 4/15/2015       | MEADOWBROOK     | MB759           | 2.0                       | NO                          | N/A   |
| 4/21/2015       | MEADOWBROOK     | MB505           | 140.4                     | NO                          | N/A   |
| 4/21/2015       | MEADOWBROOK     | MB506           | 300.2                     | NO                          | N/A   |
| 4/21/2015       | MEADOWBROOK     | MB507           | 300.8                     | NO                          | N/A   |
| 4/21/2015       | MEADOWBROOK     | MB508           | 280.3                     | NO                          | N/A   |

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| 4/21/2015       | MEADOWBROOK | MB509           | 187.9                     | NO                          | N/A   |
| 4/21/2015       | MEADOWBROOK | MB530           | 23.6                      | NO                          | N/A   |
| 4/22/2015       | MEADOWBROOK | MB502           | 74.1                      | NO                          | N/A   |
| 4/22/2015       | MEADOWBROOK | MB503           | 97.3                      | NO                          | N/A   |
| 4/22/2015       | MEADOWBROOK | MB504           | 239.5                     | NO                          | N/A   |
| 4/22/2015       | MEADOWBROOK | MB515           | 121.3                     | NO                          | N/A   |
| 4/22/2015       | MEADOWBROOK | MB530           | 35.2                      | YES                         | C   |
| 4/24/2015       | MEADOWBROOK | MB531           | 25.1                      | NO                          | N/A   |
| 4/24/2015       | MEADOWBROOK | MB531           | 35.7                      | YES                         | E   |
| 5/1/2015        | MEADOWBROOK | MB356           | 67.2                      | NO                          | N/A   |
| 7/7/2015        | MEADOWBROOK | MB263           | 416.2                     | NO                          | N/A   |
| 7/14/2015       | MEADOWBROOK | MB915           | 85.7                      | NO                          | N/A   |
| 7/21/2015       | MEADOWBROOK | MB353           | 103.4                     | NO                          | N/A   |
| 7/21/2015       | MEADOWBROOK | MB360           | 26.3                      | NO                          | N/A   |
| 7/21/2015       | MEADOWBROOK | MB370           | 287.8                     | NO                          | N/A   |
| 7/21/2015       | MEADOWBROOK | MB550           | 375.4                     | NO                          | N/A   |
| 7/21/2015       | MEADOWBROOK | MB551           | 275.4                     | NO                          | N/A   |
| 7/21/2015       | MEADOWBROOK | MB552           | 71.2                      | NO                          | N/A   |
| 7/22/2015       | MEADOWBROOK | MB552           | 6.7                       | YES                         | E   |
| 7/22/2015       | MEADOWBROOK | MB553           | 8.6                       | NO                          | N/A   |
| 7/22/2015       | MEADOWBROOK | MB560           | 2.8                       | NO                          | N/A   |
| 7/22/2015       | MEADOWBROOK | MB561           | 44.9                      | NO                          | N/A   |
| 7/27/2015       | MEADOWBROOK | MB018           | 176.2                     | NO                          | N/A   |
| 7/27/2015       | MEADOWBROOK | MB019           | 192.5                     | NO                          | N/A   |
| 7/27/2015       | MEADOWBROOK | MB020           | 115.7                     | NO                          | N/A   |
| 7/27/2015       | MEADOWBROOK | MB021           | 211.9                     | NO                          | N/A   |
| 7/27/2015       | MEADOWBROOK | MB500           | 73.8                      | NO                          | N/A   |
| 7/27/2015       | MEADOWBROOK | MB758           | 82.5                      | NO                          | N/A   |
| 7/27/2015       | MEADOWBROOK | MB758           | 94.1                      | YES                         | E   |
| 7/28/2015       | MEADOWBROOK | MB017           | 268.9                     | NO                          | N/A   |
| 7/28/2015       | MEADOWBROOK | MB501           | 148.7                     | NO                          | N/A   |
| 7/29/2015       | MEADOWBROOK | MB950           | 261.2                     | NO                          | N/A   |
| 7/30/2015       | MEADOWBROOK | MB956           | 351.7                     | NO                          | N/A   |
| 7/30/2015       | MEADOWBROOK | MB966           | 182.4                     | NO                          | N/A   |
| 7/30/2015       | MEADOWBROOK | MB985           | 43.9                      | NO                          | N/A   |
| 7/30/2015       | MEADOWBROOK | MB986           | 269.7                     | NO                          | N/A   |
| 7/30/2015       | MEADOWBROOK | MB990           | 238.5                     | NO                          | N/A   |
| 8/11/2015       | MEADOWBROOK | MB304           | 74.2                      | NO                          | N/A   |
| 8/11/2015       | MEADOWBROOK | MB305           | 186.5                     | NO                          | N/A   |
| 8/11/2015       | MEADOWBROOK | MB306           | 29.0                      | NO                          | N/A   |
| 8/12/2015       | MEADOWBROOK | MB307           | 23.0                      | NO                          | N/A   |
| 8/12/2015       | MEADOWBROOK | MB308           | 133.1                     | NO                          | N/A   |
| 8/12/2015       | MEADOWBROOK | MB309           | 56.1                      | NO                          | N/A   |
| 8/12/2015       | MEADOWBROOK | MB310           | 345.1                     | NO                          | N/A   |
| 8/13/2015       | MEADOWBROOK | MB301           | 90.5                      | NO                          | N/A   |
| 8/13/2015       | MEADOWBROOK | MB400           | 173.2                     | NO                          | N/A   |
| 8/13/2015       | MEADOWBROOK | MB401           | 314.3                     | NO                          | N/A   |
| 8/13/2015       | MEADOWBROOK | MB402           | 11.6                      | NO                          | N/A   |
| 8/14/2015       | MEADOWBROOK | MB300           | 72.7                      | NO                          | N/A   |

## APPENDIX B: CCTV INSPECTION LOG

City of Bangor, Maine  
Calendar Year 2015

| Inspection Date          | Subsection  | Pipe Segment ID | Length of Inspection (FT) | Repeat Inspection (this CY) | Justification for Repeat Inspection (by Reason Code)* |
|--------------------------|-------------|-----------------|---------------------------|-----------------------------|---|
| 8/17/2015                | MEADOWBROOK | MB302           | 213.2                     | NO                          | N/A   |
| 8/17/2015                | MEADOWBROOK | MB303           | 198.6                     | NO                          | N/A   |
| 8/17/2015                | MEADOWBROOK | MB403           | 18.8                      | NO                          | N/A   |
| 8/17/2015                | MEADOWBROOK | MB415           | 13.6                      | NO                          | N/A   |
| 8/26/2015                | MEADOWBROOK | MB026           | 19.2                      | NO                          | N/A   |
| 8/26/2015                | MEADOWBROOK | MB027           | 121.9                     | NO                          | N/A   |
| 8/26/2015                | MEADOWBROOK | MB028           | 110.7                     | NO                          | N/A   |
| 8/26/2015                | MEADOWBROOK | MB029           | 36.1                      | NO                          | N/A   |
| 8/26/2015                | MEADOWBROOK | MB030           | 207.1                     | NO                          | N/A   |
| 8/26/2015                | MEADOWBROOK | MB700           | 4.7                       | NO                          | N/A   |
| 9/10/2015                | MEADOWBROOK | MB009           | 99.7                      | NO                          | N/A   |
| 11/17/2015               | MEADOWBROOK | MB326           | 388.0                     | NO                          | N/A   |
| 11/17/2015               | MEADOWBROOK | MB327           | 57.1                      | NO                          | N/A   |
| 11/18/2015               | MEADOWBROOK | MB755           | 220.0                     | NO                          | N/A   |
| 1/5/2015                 | PENJAJAWOC  | PJ042           | 106.3                     | NO                          | N/A   |
| 1/5/2015                 | PENJAJAWOC  | PJ043           | 202.1                     | NO                          | N/A   |
| 1/5/2015                 | PENJAJAWOC  | PJ044           | 189.4                     | NO                          | N/A   |
| 1/5/2015                 | PENJAJAWOC  | PJ045           | 167.6                     | NO                          | N/A   |
| 1/5/2015                 | PENJAJAWOC  | PJ046           | 157.4                     | NO                          | N/A   |
| 1/5/2015                 | PENJAJAWOC  | PJ047           | 171.2                     | NO                          | N/A   |
| 1/6/2015                 | PENJAJAWOC  | PJ041           | 244.7                     | NO                          | N/A   |
| 4/16/2015                | WOODLAWN    | WL505           | 343.2                     | NO                          | N/A   |
| 4/28/2015                | WOODLAWN    | WL600           | 224.8                     | NO                          | N/A   |
| 4/29/2015                | WOODLAWN    | WL016           | 256.1                     | NO                          | N/A   |
| 4/29/2015                | WOODLAWN    | WL017           | 130.2                     | NO                          | N/A   |
| 4/29/2015                | WOODLAWN    | WL018           | 64.1                      | NO                          | N/A   |
| 4/29/2015                | WOODLAWN    | WL050           | 458.5                     | NO                          | N/A   |
| 4/29/2015                | WOODLAWN    | WL400           | 289.6                     | NO                          | N/A   |
| 5/5/2015                 | WOODLAWN    | WL021           | 139.1                     | NO                          | N/A   |
| 5/6/2015                 | WOODLAWN    | WL021           | 369.9                     | YES                         | C   |
| 5/6/2015                 | WOODLAWN    | WL023           | 301.3                     | NO                          | N/A   |
| 5/6/2015                 | WOODLAWN    | WL024           | 301.2                     | NO                          | N/A   |
| 5/6/2015                 | WOODLAWN    | WL025           | 280.8                     | NO                          | N/A   |
| 5/6/2015                 | WOODLAWN    | WL500           | 5.6                       | NO                          | N/A   |
| 11/6/2015                | WOODLAWN    | WL531           | 95.6                      | NO                          | N/A   |
|                          |             |                 |                           |                             |   |
| <b>TOTAL CCTV'D (FT)</b> |             |                 | <b>121,864</b>            |                             |   |



## APPENDIX B: CCTV INSPECTION LOG

City of Bangor, Maine  
Calendar Year 2015

| Inspection Date | Subsection | Pipe Segment ID | Length of Inspection (FT) | Repeat Inspection (this CY) | Justification for Repeat Inspection (by Reason Code)* |
|-----------------|------------|-----------------|---------------------------|-----------------------------|---|
|-----------------|------------|-----------------|---------------------------|-----------------------------|---|

\* Reason Codes used in the justification for repeat inspections are as follows:

A - Discovered recent plugs or other buildups

B - Removed protruding service that previously prevented camera from passing, thus allowing reinspection of the pipe segment

C - Removed material or other obstructions in pipes or manholes, thus allowing reinspection of the pipe segment

D - Inspected new work, or assisted contractor preparing to perform work

E - Reinspected pipe segment in order to attempt to obtain an inspection of the entire pipe segment, due to removal of blockages, utilization of another access point, or reconfiguration of camera equipment.

G - Reinspected to perform dye testing, further assess potential work needed, or evaluate progression of defect severity

H - Inspected as part of SSES work to attempt to discover sources of infiltration, likely during a high groundwater period

## APPENDIX C: MANHOLE INSPECTION LOG

City of Bangor, Maine  
Calendar Year 2015

| <b>Date of Inspection</b> | <b>Subsection</b> | <b>Manhole ID</b> | <b>Repeat Inspection (this CY)</b> | <b>Justification for Repeat Inspection (by Reason Code)*</b> |
|---------------------------|-------------------|-------------------|------------------------------------|--|
| 2/23/2015                 | AIRPORT           | AP420             | NO                                 | N/A  |
| 2/23/2015                 | AIRPORT           | AP421             | NO                                 | N/A  |
| 3/23/2015                 | AIRPORT           | AP604             | NO                                 | N/A  |
| 4/2/2015                  | AIRPORT           | AP308             | NO                                 | N/A  |
| 4/6/2015                  | AIRPORT           | AP705             | NO                                 | N/A  |
| 4/6/2015                  | AIRPORT           | AP706             | NO                                 | N/A  |
| 4/6/2015                  | AIRPORT           | AP707             | NO                                 | N/A  |
| 4/14/2015                 | AIRPORT           | AP320             | NO                                 | N/A  |
| 4/14/2015                 | AIRPORT           | AP321             | NO                                 | N/A  |
| 4/14/2015                 | AIRPORT           | AP321A            | NO                                 | N/A  |
| 4/14/2015                 | AIRPORT           | AP721             | NO                                 | N/A  |
| 4/14/2015                 | AIRPORT           | AP722             | NO                                 | N/A  |
| 4/22/2015                 | AIRPORT           | AP350             | NO                                 | N/A  |
| 4/22/2015                 | AIRPORT           | AP351             | NO                                 | N/A  |
| 4/22/2015                 | AIRPORT           | AP352             | NO                                 | N/A  |
| 4/22/2015                 | AIRPORT           | AP353             | NO                                 | N/A  |
| 4/22/2015                 | AIRPORT           | AP354             | NO                                 | N/A  |
| 4/22/2015                 | AIRPORT           | AP356             | NO                                 | N/A  |
| 4/23/2015                 | AIRPORT           | AP413             | NO                                 | N/A  |
| 4/23/2015                 | AIRPORT           | AP414             | NO                                 | N/A  |
| 4/23/2015                 | AIRPORT           | AP414A            | NO                                 | N/A  |
| 4/23/2015                 | AIRPORT           | AP415             | NO                                 | N/A  |
| 4/23/2015                 | AIRPORT           | AP415A            | NO                                 | N/A  |
| 4/23/2015                 | AIRPORT           | AP416             | NO                                 | N/A  |
| 4/23/2015                 | AIRPORT           | AP417             | NO                                 | N/A  |
| 4/23/2015                 | AIRPORT           | AP418             | NO                                 | N/A  |
| 4/23/2015                 | AIRPORT           | AP419             | NO                                 | N/A  |
| 4/23/2015                 | AIRPORT           | AP420             | YES                                | A  |
| 4/23/2015                 | AIRPORT           | AP420A            | NO                                 | N/A  |
| 4/23/2015                 | AIRPORT           | AP481             | NO                                 | N/A  |
| 4/23/2015                 | AIRPORT           | AP482             | NO                                 | N/A  |
| 4/24/2015                 | AIRPORT           | AP411             | NO                                 | N/A  |
| 4/24/2015                 | AIRPORT           | AP412             | NO                                 | N/A  |
| 4/24/2015                 | AIRPORT           | AP440             | NO                                 | N/A  |
| 4/24/2015                 | AIRPORT           | AP441             | NO                                 | N/A  |
| 4/24/2015                 | AIRPORT           | AP442             | NO                                 | N/A  |
| 4/24/2015                 | AIRPORT           | AP443             | NO                                 | N/A  |
| 4/24/2015                 | AIRPORT           | AP445             | NO                                 | N/A  |
| 4/24/2015                 | AIRPORT           | AP450             | NO                                 | N/A  |

# APPENDIX C: MANHOLE INSPECTION LOG

City of Bangor, Maine  
Calendar Year 2015

| <b>Date of Inspection</b> | <b>Subsection</b> | <b>Manhole ID</b> | <b>Repeat Inspection (this CY)</b> | <b>Justification for Repeat Inspection (by Reason Code)*</b> |
|---------------------------|-------------------|-------------------|------------------------------------|--|
| 4/24/2015                 | AIRPORT           | AP451             | NO                                 | N/A  |
| 4/24/2015                 | AIRPORT           | AP460             | NO                                 | N/A  |
| 4/24/2015                 | AIRPORT           | AP461             | NO                                 | N/A  |
| 4/24/2015                 | AIRPORT           | AP470             | NO                                 | N/A  |
| 4/24/2015                 | AIRPORT           | AP471             | NO                                 | N/A  |
| 4/24/2015                 | AIRPORT           | AP472             | NO                                 | N/A  |
| 4/24/2015                 | AIRPORT           | AP480             | NO                                 | N/A  |
| 4/27/2015                 | AIRPORT           | AP406             | NO                                 | N/A  |
| 4/27/2015                 | AIRPORT           | AP407             | NO                                 | N/A  |
| 4/27/2015                 | AIRPORT           | AP408             | NO                                 | N/A  |
| 4/27/2015                 | AIRPORT           | AP409             | NO                                 | N/A  |
| 4/27/2015                 | AIRPORT           | AP410             | NO                                 | N/A  |
| 4/27/2015                 | AIRPORT           | AP430             | NO                                 | N/A  |
| 4/27/2015                 | AIRPORT           | AP520             | NO                                 | N/A  |
| 4/27/2015                 | AIRPORT           | AP521             | NO                                 | N/A  |
| 4/27/2015                 | AIRPORT           | AP522             | NO                                 | N/A  |
| 4/27/2015                 | AIRPORT           | AP532             | NO                                 | N/A  |
| 4/27/2015                 | AIRPORT           | AP533             | NO                                 | N/A  |
| 4/27/2015                 | AIRPORT           | AP534             | NO                                 | N/A  |
| 4/27/2015                 | AIRPORT           | AP534A            | NO                                 | N/A  |
| 4/27/2015                 | AIRPORT           | AP545             | NO                                 | N/A  |
| 4/28/2015                 | AIRPORT           | AP023             | NO                                 | N/A  |
| 4/28/2015                 | AIRPORT           | AP024             | NO                                 | N/A  |
| 4/28/2015                 | AIRPORT           | AP025             | NO                                 | N/A  |
| 4/28/2015                 | AIRPORT           | AP026             | NO                                 | N/A  |
| 4/28/2015                 | AIRPORT           | AP027             | NO                                 | N/A  |
| 4/28/2015                 | AIRPORT           | AP050             | NO                                 | N/A  |
| 4/28/2015                 | AIRPORT           | AP051             | NO                                 | N/A  |
| 4/28/2015                 | AIRPORT           | AP052             | NO                                 | N/A  |
| 4/28/2015                 | AIRPORT           | AP070             | NO                                 | N/A  |
| 4/28/2015                 | AIRPORT           | AP071             | NO                                 | N/A  |
| 4/28/2015                 | AIRPORT           | AP072             | NO                                 | N/A  |
| 4/28/2015                 | AIRPORT           | AP402             | NO                                 | N/A  |
| 4/28/2015                 | AIRPORT           | AP403             | NO                                 | N/A  |
| 4/28/2015                 | AIRPORT           | AP404             | NO                                 | N/A  |
| 4/28/2015                 | AIRPORT           | AP405             | NO                                 | N/A  |
| 4/29/2015                 | AIRPORT           | AP620             | NO                                 | N/A  |
| 4/29/2015                 | AIRPORT           | AP622             | NO                                 | N/A  |
| 4/29/2015                 | AIRPORT           | AP630             | NO                                 | N/A  |

## APPENDIX C: MANHOLE INSPECTION LOG

City of Bangor, Maine  
Calendar Year 2015

| Date of Inspection | Subsection | Manhole ID | Repeat Inspection (this CY) | Justification for Repeat Inspection (by Reason Code)* |
|--------------------|------------|------------|-----------------------------|---|
| 4/29/2015          | AIRPORT    | AP631      | NO                          | N/A   |
| 4/29/2015          | AIRPORT    | AP650      | NO                          | N/A   |
| 4/29/2015          | AIRPORT    | AP651      | NO                          | N/A   |
| 4/29/2015          | AIRPORT    | AP652      | NO                          | N/A   |
| 4/29/2015          | AIRPORT    | AP653      | NO                          | N/A   |
| 4/29/2015          | AIRPORT    | AP660      | NO                          | N/A   |
| 4/29/2015          | AIRPORT    | AP661      | NO                          | N/A   |
| 4/29/2015          | AIRPORT    | AP662      | NO                          | N/A   |
| 4/29/2015          | AIRPORT    | AP663      | NO                          | N/A   |
| 4/30/2015          | AIRPORT    | AP703      | NO                          | N/A   |
| 4/30/2015          | AIRPORT    | AP704      | NO                          | N/A   |
| 4/30/2015          | AIRPORT    | AP705      | YES                         | A   |
| 4/30/2015          | AIRPORT    | AP706      | NO                          | N/A   |
| 4/30/2015          | AIRPORT    | AP707      | YES                         | A   |
| 4/30/2015          | AIRPORT    | AP709      | NO                          | N/A   |
| 4/30/2015          | AIRPORT    | AP715      | NO                          | N/A   |
| 4/30/2015          | AIRPORT    | AP721      | YES                         | A   |
| 4/30/2015          | AIRPORT    | AP722      | YES                         | A   |
| 4/30/2015          | AIRPORT    | AP723      | NO                          | N/A   |
| 4/30/2015          | AIRPORT    | AP730      | NO                          | N/A   |
| 4/30/2015          | AIRPORT    | AP731      | NO                          | N/A   |
| 4/30/2015          | AIRPORT    | AP735      | NO                          | N/A   |
| 4/30/2015          | AIRPORT    | AP736      | NO                          | N/A   |
| 4/30/2015          | AIRPORT    | AP744      | NO                          | N/A   |
| 4/30/2015          | AIRPORT    | AP745      | NO                          | N/A   |
| 5/1/2015           | AIRPORT    | AP605      | NO                          | N/A   |
| 5/1/2015           | AIRPORT    | AP606      | NO                          | N/A   |
| 5/1/2015           | AIRPORT    | AP607      | NO                          | N/A   |
| 5/1/2015           | AIRPORT    | AP740      | NO                          | N/A   |
| 5/1/2015           | AIRPORT    | AP740A     | NO                          | N/A   |
| 5/1/2015           | AIRPORT    | AP741      | NO                          | N/A   |
| 5/1/2015           | AIRPORT    | AP742      | NO                          | N/A   |
| 5/1/2015           | AIRPORT    | AP743      | NO                          | N/A   |
| 5/1/2015           | AIRPORT    | AP750      | NO                          | N/A   |
| 5/1/2015           | AIRPORT    | AP751      | NO                          | N/A   |
| 5/1/2015           | AIRPORT    | AP752      | NO                          | N/A   |
| 5/1/2015           | AIRPORT    | AP753      | NO                          | N/A   |
| 5/1/2015           | AIRPORT    | AP754      | NO                          | N/A   |
| 5/1/2015           | AIRPORT    | AP755      | NO                          | N/A   |

# APPENDIX C: MANHOLE INSPECTION LOG

City of Bangor, Maine  
Calendar Year 2015

| <b>Date of Inspection</b> | <b>Subsection</b> | <b>Manhole ID</b> | <b>Repeat Inspection (this CY)</b> | <b>Justification for Repeat Inspection (by Reason Code)*</b> |
|---------------------------|-------------------|-------------------|------------------------------------|--|
| 5/1/2015                  | AIRPORT           | AP756             | NO                                 | N/A  |
| 5/1/2015                  | AIRPORT           | AP757             | NO                                 | N/A  |
| 5/1/2015                  | AIRPORT           | AP758             | NO                                 | N/A  |
| 5/1/2015                  | AIRPORT           | AP759             | NO                                 | N/A  |
| 5/4/2015                  | AIRPORT           | AP020             | NO                                 | N/A  |
| 5/4/2015                  | AIRPORT           | AP021             | NO                                 | N/A  |
| 5/4/2015                  | AIRPORT           | AP022             | NO                                 | N/A  |
| 5/4/2015                  | AIRPORT           | AP510             | NO                                 | N/A  |
| 5/4/2015                  | AIRPORT           | AP511             | NO                                 | N/A  |
| 5/4/2015                  | AIRPORT           | AP512             | NO                                 | N/A  |
| 5/4/2015                  | AIRPORT           | AP513             | NO                                 | N/A  |
| 5/4/2015                  | AIRPORT           | AP516             | NO                                 | N/A  |
| 5/4/2015                  | AIRPORT           | AP600             | NO                                 | N/A  |
| 5/4/2015                  | AIRPORT           | AP601             | NO                                 | N/A  |
| 5/4/2015                  | AIRPORT           | AP602             | NO                                 | N/A  |
| 5/4/2015                  | AIRPORT           | AP603             | NO                                 | N/A  |
| 5/4/2015                  | AIRPORT           | AP604             | YES                                | A  |
| 5/4/2015                  | AIRPORT           | AP700             | NO                                 | N/A  |
| 5/4/2015                  | AIRPORT           | AP701             | NO                                 | N/A  |
| 5/5/2015                  | AIRPORT           | AP500             | NO                                 | N/A  |
| 5/5/2015                  | AIRPORT           | AP503             | NO                                 | N/A  |
| 5/5/2015                  | AIRPORT           | AP504             | NO                                 | N/A  |
| 5/5/2015                  | AIRPORT           | AP505             | NO                                 | N/A  |
| 5/5/2015                  | AIRPORT           | AP505A            | NO                                 | N/A  |
| 5/5/2015                  | AIRPORT           | AP506             | NO                                 | N/A  |
| 5/5/2015                  | AIRPORT           | AP506A            | NO                                 | N/A  |
| 5/5/2015                  | AIRPORT           | AP507             | NO                                 | N/A  |
| 5/5/2015                  | AIRPORT           | AP508             | NO                                 | N/A  |
| 5/5/2015                  | AIRPORT           | AP509             | NO                                 | N/A  |
| 5/5/2015                  | AIRPORT           | AP530             | NO                                 | N/A  |
| 5/5/2015                  | AIRPORT           | AP531             | NO                                 | N/A  |
| 5/5/2015                  | AIRPORT           | AP531A            | NO                                 | N/A  |
| 5/5/2015                  | AIRPORT           | AP540             | NO                                 | N/A  |
| 5/5/2015                  | AIRPORT           | AP541             | NO                                 | N/A  |
| 5/5/2015                  | AIRPORT           | AP541A            | NO                                 | N/A  |
| 5/5/2015                  | AIRPORT           | AP542             | NO                                 | N/A  |
| 5/6/2015                  | AIRPORT           | AP009             | NO                                 | N/A  |
| 5/6/2015                  | AIRPORT           | AP012             | NO                                 | N/A  |
| 5/6/2015                  | AIRPORT           | AP014             | NO                                 | N/A  |

# APPENDIX C: MANHOLE INSPECTION LOG

City of Bangor, Maine  
Calendar Year 2015

| <b>Date of Inspection</b> | <b>Subsection</b> | <b>Manhole ID</b> | <b>Repeat Inspection (this CY)</b> | <b>Justification for Repeat Inspection (by Reason Code)*</b> |
|---------------------------|-------------------|-------------------|------------------------------------|--|
| 5/6/2015                  | AIRPORT           | AP015             | NO                                 | N/A  |
| 5/6/2015                  | AIRPORT           | AP016             | NO                                 | N/A  |
| 5/6/2015                  | AIRPORT           | AP017             | NO                                 | N/A  |
| 5/6/2015                  | AIRPORT           | AP018             | NO                                 | N/A  |
| 5/6/2015                  | AIRPORT           | AP019             | NO                                 | N/A  |
| 5/6/2015                  | AIRPORT           | AP400             | NO                                 | N/A  |
| 5/6/2015                  | AIRPORT           | AP401             | NO                                 | N/A  |
| 5/7/2015                  | AIRPORT           | AP008             | NO                                 | N/A  |
| 5/7/2015                  | AIRPORT           | AP202             | NO                                 | N/A  |
| 5/7/2015                  | AIRPORT           | AP204             | NO                                 | N/A  |
| 5/7/2015                  | AIRPORT           | AP230             | NO                                 | N/A  |
| 5/7/2015                  | AIRPORT           | AP231             | NO                                 | N/A  |
| 5/7/2015                  | AIRPORT           | AP232             | NO                                 | N/A  |
| 5/7/2015                  | AIRPORT           | AP233             | NO                                 | N/A  |
| 5/7/2015                  | AIRPORT           | AP350             | YES                                | A  |
| 5/7/2015                  | AIRPORT           | AP351             | YES                                | A  |
| 5/7/2015                  | AIRPORT           | AP352             | YES                                | A  |
| 5/7/2015                  | AIRPORT           | AP353             | YES                                | A  |
| 5/7/2015                  | AIRPORT           | AP354             | YES                                | A  |
| 5/7/2015                  | AIRPORT           | AP356             | YES                                | A  |
| 5/18/2015                 | AIRPORT           | AP308             | YES                                | A  |
| 5/18/2015                 | AIRPORT           | AP324             | NO                                 | N/A  |
| 5/18/2015                 | AIRPORT           | AP325             | NO                                 | N/A  |
| 5/18/2015                 | AIRPORT           | AP326             | NO                                 | N/A  |
| 5/18/2015                 | AIRPORT           | AP327             | NO                                 | N/A  |
| 5/18/2015                 | AIRPORT           | AP328             | NO                                 | N/A  |
| 5/18/2015                 | AIRPORT           | AP329             | NO                                 | N/A  |
| 5/18/2015                 | AIRPORT           | AP330             | NO                                 | N/A  |
| 5/18/2015                 | AIRPORT           | AP331             | NO                                 | N/A  |
| 5/18/2015                 | AIRPORT           | AP332             | NO                                 | N/A  |
| 5/18/2015                 | AIRPORT           | AP346             | NO                                 | N/A  |
| 5/18/2015                 | AIRPORT           | AP360             | NO                                 | N/A  |
| 5/19/2015                 | AIRPORT           | AP300             | NO                                 | N/A  |
| 5/19/2015                 | AIRPORT           | AP301             | NO                                 | N/A  |
| 5/19/2015                 | AIRPORT           | AP302             | NO                                 | N/A  |
| 5/19/2015                 | AIRPORT           | AP303             | NO                                 | N/A  |
| 5/19/2015                 | AIRPORT           | AP304             | NO                                 | N/A  |
| 5/19/2015                 | AIRPORT           | AP305             | NO                                 | N/A  |
| 5/19/2015                 | AIRPORT           | AP305A            | NO                                 | N/A  |

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|--------------------|------------|------------|-----------------------------|---|
| 5/19/2015          | AIRPORT    | AP305B     | NO                          | N/A   |
| 5/19/2015          | AIRPORT    | AP306      | NO                          | N/A   |
| 5/19/2015          | AIRPORT    | AP307      | NO                          | N/A   |
| 5/19/2015          | AIRPORT    | AP340      | NO                          | N/A   |
| 5/19/2015          | AIRPORT    | AP341      | NO                          | N/A   |
| 5/19/2015          | AIRPORT    | AP342      | NO                          | N/A   |
| 5/19/2015          | AIRPORT    | AP343      | NO                          | N/A   |
| 5/19/2015          | AIRPORT    | AP344      | NO                          | N/A   |
| 5/19/2015          | AIRPORT    | AP345      | NO                          | N/A   |
| 12/21/2015         | AIRPORT    | AP325      | YES                         | B   |
| 12/21/2015         | AIRPORT    | AP326      | YES                         | B   |
| 12/21/2015         | AIRPORT    | AP327      | YES                         | B   |
| 12/21/2015         | AIRPORT    | AP328      | YES                         | B   |
| 12/21/2015         | AIRPORT    | AP329      | YES                         | B   |
| 12/21/2015         | AIRPORT    | AP330      | YES                         | B   |
| 12/21/2015         | AIRPORT    | AP331      | YES                         | B   |
| 12/21/2015         | AIRPORT    | AP332      | YES                         | B   |
| 12/21/2015         | AIRPORT    | AP343      | YES                         | B   |
| 12/21/2015         | AIRPORT    | AP344      | YES                         | B   |
| 12/21/2015         | AIRPORT    | AP345      | YES                         | B   |
| 12/21/2015         | AIRPORT    | AP346      | YES                         | B   |
| 12/21/2015         | AIRPORT    | AP360      | YES                         | B   |
| 12/22/2015         | AIRPORT    | AP280      | NO                          | N/A   |
| 12/22/2015         | AIRPORT    | AP281      | NO                          | N/A   |
| 12/22/2015         | AIRPORT    | AP282      | NO                          | N/A   |
| 12/22/2015         | AIRPORT    | AP283      | NO                          | N/A   |
| 12/22/2015         | AIRPORT    | AP284      | NO                          | N/A   |
| 12/22/2015         | AIRPORT    | AP285      | NO                          | N/A   |
| 12/22/2015         | AIRPORT    | AP286      | NO                          | N/A   |
| 12/22/2015         | AIRPORT    | AP290      | NO                          | N/A   |
| 12/22/2015         | AIRPORT    | AP291      | NO                          | N/A   |
| 12/22/2015         | AIRPORT    | AP309      | NO                          | N/A   |
| 12/22/2015         | AIRPORT    | AP310      | NO                          | N/A   |
| 12/22/2015         | AIRPORT    | AP311      | NO                          | N/A   |
| 12/22/2015         | AIRPORT    | AP322      | NO                          | N/A   |
| 12/22/2015         | AIRPORT    | AP323      | NO                          | N/A   |
| 12/22/2015         | AIRPORT    | AP340      | YES                         | B   |
| 12/22/2015         | AIRPORT    | AP341      | YES                         | B   |
| 12/22/2015         | AIRPORT    | AP342      | YES                         | B   |

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|---------------------------|-------------------|-------------------|------------------------------------|--|
| 12/22/2015                | AIRPORT           | AP370             | NO                                 | N/A  |
| 12/22/2015                | AIRPORT           | AP371             | NO                                 | N/A  |
| 12/22/2015                | AIRPORT           | AP372             | NO                                 | N/A  |
| 12/23/2015                | AIRPORT           | AP211             | NO                                 | N/A  |
| 12/23/2015                | AIRPORT           | AP212             | NO                                 | N/A  |
| 12/23/2015                | AIRPORT           | AP263             | NO                                 | N/A  |
| 12/23/2015                | AIRPORT           | AP264             | NO                                 | N/A  |
| 12/23/2015                | AIRPORT           | AP265             | NO                                 | N/A  |
| 1/15/2015                 | ARCTIC BROOK      | AB110             | NO                                 | N/A  |
| 1/30/2015                 | ARCTIC BROOK      | AB150             | NO                                 | N/A  |
| 1/30/2015                 | ARCTIC BROOK      | AB160             | NO                                 | N/A  |
| 1/30/2015                 | ARCTIC BROOK      | AB161             | NO                                 | N/A  |
| 1/30/2015                 | ARCTIC BROOK      | AB208             | NO                                 | N/A  |
| 1/30/2015                 | ARCTIC BROOK      | AB209             | NO                                 | N/A  |
| 1/30/2015                 | ARCTIC BROOK      | AB210             | NO                                 | N/A  |
| 2/4/2015                  | ARCTIC BROOK      | AB130             | NO                                 | N/A  |
| 2/4/2015                  | ARCTIC BROOK      | AB131             | NO                                 | N/A  |
| 2/4/2015                  | ARCTIC BROOK      | AB206             | NO                                 | N/A  |
| 2/4/2015                  | ARCTIC BROOK      | AB207             | NO                                 | N/A  |
| 2/4/2015                  | ARCTIC BROOK      | AB233             | NO                                 | N/A  |
| 2/4/2015                  | ARCTIC BROOK      | AB234             | NO                                 | N/A  |
| 2/4/2015                  | ARCTIC BROOK      | AB235             | NO                                 | N/A  |
| 2/5/2015                  | ARCTIC BROOK      | AB106             | NO                                 | N/A  |
| 2/6/2015                  | ARCTIC BROOK      | AB230             | NO                                 | N/A  |
| 2/6/2015                  | ARCTIC BROOK      | AB231             | NO                                 | N/A  |
| 2/6/2015                  | ARCTIC BROOK      | AB232             | NO                                 | N/A  |
| 2/12/2015                 | ARCTIC BROOK      | AB480             | NO                                 | N/A  |
| 2/12/2015                 | ARCTIC BROOK      | AB490             | NO                                 | N/A  |
| 2/18/2015                 | ARCTIC BROOK      | AB006             | NO                                 | N/A  |
| 5/13/2015                 | ARCTIC BROOK      | AB240             | NO                                 | N/A  |
| 12/18/2015                | ARCTIC BROOK      | AB052             | NO                                 | N/A  |
| 12/18/2015                | ARCTIC BROOK      | AB053             | NO                                 | N/A  |
| 12/18/2015                | ARCTIC BROOK      | AB055             | NO                                 | N/A  |
| 12/18/2015                | ARCTIC BROOK      | AB065             | NO                                 | N/A  |
| 12/21/2015                | ARCTIC BROOK      | AB054             | NO                                 | N/A  |
| 12/21/2015                | ARCTIC BROOK      | AB070             | NO                                 | N/A  |
| 12/21/2015                | ARCTIC BROOK      | AB071             | NO                                 | N/A  |
| 12/21/2015                | ARCTIC BROOK      | AB072             | NO                                 | N/A  |
| 12/21/2015                | ARCTIC BROOK      | AB075             | NO                                 | N/A  |



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|---------------------------|-------------------|-------------------|------------------------------------|--|
| 12/21/2015                | ARCTIC BROOK      | AB355             | NO                                 | N/A  |
| 12/21/2015                | ARCTIC BROOK      | AB356             | NO                                 | N/A  |
| 12/21/2015                | ARCTIC BROOK      | AB360             | NO                                 | N/A  |
| 12/21/2015                | ARCTIC BROOK      | AB420             | NO                                 | N/A  |
| 12/21/2015                | ARCTIC BROOK      | AB421             | NO                                 | N/A  |
| 12/21/2015                | ARCTIC BROOK      | AB422             | NO                                 | N/A  |
| 12/21/2015                | ARCTIC BROOK      | AB423             | NO                                 | N/A  |
| 12/21/2015                | ARCTIC BROOK      | AB424             | NO                                 | N/A  |
| 12/21/2015                | ARCTIC BROOK      | AB425             | NO                                 | N/A  |
| 12/21/2015                | ARCTIC BROOK      | AB426             | NO                                 | N/A  |
| 12/21/2015                | ARCTIC BROOK      | AB427             | NO                                 | N/A  |
| 12/21/2015                | ARCTIC BROOK      | AB428             | NO                                 | N/A  |
| 12/21/2015                | ARCTIC BROOK      | AB435             | NO                                 | N/A  |
| 12/21/2015                | ARCTIC BROOK      | AB440             | NO                                 | N/A  |
| 12/21/2015                | ARCTIC BROOK      | AB452             | NO                                 | N/A  |
| 12/21/2015                | ARCTIC BROOK      | AB454             | NO                                 | N/A  |
| 12/21/2015                | ARCTIC BROOK      | AB456             | NO                                 | N/A  |
| 12/21/2015                | ARCTIC BROOK      | AB470             | NO                                 | N/A  |
| 12/21/2015                | ARCTIC BROOK      | AB471             | NO                                 | N/A  |
| 12/22/2015                | ARCTIC BROOK      | AB107             | NO                                 | N/A  |
| 12/22/2015                | ARCTIC BROOK      | AB108             | NO                                 | N/A  |
| 12/22/2015                | ARCTIC BROOK      | AB109             | NO                                 | N/A  |
| 12/22/2015                | ARCTIC BROOK      | AB124             | NO                                 | N/A  |
| 12/22/2015                | ARCTIC BROOK      | AB132             | NO                                 | N/A  |
| 12/22/2015                | ARCTIC BROOK      | AB135             | NO                                 | N/A  |
| 12/22/2015                | ARCTIC BROOK      | AB136             | NO                                 | N/A  |
| 12/22/2015                | ARCTIC BROOK      | AB137             | NO                                 | N/A  |
| 12/22/2015                | ARCTIC BROOK      | AB140             | NO                                 | N/A  |
| 12/22/2015                | ARCTIC BROOK      | AB141             | NO                                 | N/A  |
| 12/22/2015                | ARCTIC BROOK      | AB300             | NO                                 | N/A  |
| 12/22/2015                | ARCTIC BROOK      | AB350             | NO                                 | N/A  |
| 12/22/2015                | ARCTIC BROOK      | AB351             | NO                                 | N/A  |
| 12/22/2015                | ARCTIC BROOK      | AB352             | NO                                 | N/A  |
| 12/22/2015                | ARCTIC BROOK      | AB353             | NO                                 | N/A  |
| 12/22/2015                | ARCTIC BROOK      | AB354             | NO                                 | N/A  |
| 12/22/2015                | ARCTIC BROOK      | AB370             | NO                                 | N/A  |
| 12/22/2015                | ARCTIC BROOK      | AB380             | NO                                 | N/A  |
| 12/22/2015                | ARCTIC BROOK      | AB511             | NO                                 | N/A  |
| 12/22/2015                | ARCTIC BROOK      | AB560             | NO                                 | N/A  |

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|---------------------------|-------------------|-------------------|------------------------------------|--|
| 12/22/2015                | ARCTIC BROOK      | AB561             | NO                                 | N/A  |
| 12/23/2015                | ARCTIC BROOK      | AB028             | NO                                 | N/A  |
| 12/23/2015                | ARCTIC BROOK      | AB081             | NO                                 | N/A  |
| 12/23/2015                | ARCTIC BROOK      | AB082             | NO                                 | N/A  |
| 12/23/2015                | ARCTIC BROOK      | AB083             | NO                                 | N/A  |
| 12/23/2015                | ARCTIC BROOK      | AB085             | NO                                 | N/A  |
| 12/23/2015                | ARCTIC BROOK      | AB100             | NO                                 | N/A  |
| 12/23/2015                | ARCTIC BROOK      | AB101             | NO                                 | N/A  |
| 12/23/2015                | ARCTIC BROOK      | AB102             | NO                                 | N/A  |
| 12/23/2015                | ARCTIC BROOK      | AB103             | NO                                 | N/A  |
| 12/23/2015                | ARCTIC BROOK      | AB120             | NO                                 | N/A  |
| 12/23/2015                | ARCTIC BROOK      | AB121             | NO                                 | N/A  |
| 12/23/2015                | ARCTIC BROOK      | AB122             | NO                                 | N/A  |
| 12/23/2015                | ARCTIC BROOK      | AB123             | NO                                 | N/A  |
| 12/23/2015                | ARCTIC BROOK      | AB200             | NO                                 | N/A  |
| 12/23/2015                | ARCTIC BROOK      | AB201             | NO                                 | N/A  |
| 12/23/2015                | ARCTIC BROOK      | AB202             | NO                                 | N/A  |
| 12/23/2015                | ARCTIC BROOK      | AB203             | NO                                 | N/A  |
| 12/23/2015                | ARCTIC BROOK      | AB220             | NO                                 | N/A  |
| 12/23/2015                | ARCTIC BROOK      | AB221             | NO                                 | N/A  |
| 12/23/2015                | ARCTIC BROOK      | AB236             | NO                                 | N/A  |
| 12/23/2015                | ARCTIC BROOK      | AB241             | NO                                 | N/A  |
| 12/23/2015                | ARCTIC BROOK      | AB250             | NO                                 | N/A  |
| 12/23/2015                | ARCTIC BROOK      | AB251             | NO                                 | N/A  |
| 12/23/2015                | ARCTIC BROOK      | AB510             | NO                                 | N/A  |
| 12/23/2015                | ARCTIC BROOK      | AB550             | NO                                 | N/A  |
| 12/23/2015                | ARCTIC BROOK      | AB551             | NO                                 | N/A  |
| 12/23/2015                | ARCTIC BROOK      | AB570             | NO                                 | N/A  |
| 12/23/2015                | ARCTIC BROOK      | AB620             | NO                                 | N/A  |
| 12/23/2015                | ARCTIC BROOK      | AB621             | NO                                 | N/A  |
| 12/23/2015                | ARCTIC BROOK      | AB622             | NO                                 | N/A  |
| 12/23/2015                | ARCTIC BROOK      | AB630             | NO                                 | N/A  |
| 12/23/2015                | ARCTIC BROOK      | AB750             | NO                                 | N/A  |
| 12/23/2015                | ARCTIC BROOK      | AB751             | NO                                 | N/A  |
| 12/23/2015                | ARCTIC BROOK      | AB752             | NO                                 | N/A  |
| 12/23/2015                | ARCTIC BROOK      | AB760             | NO                                 | N/A  |
| 12/23/2015                | ARCTIC BROOK      | AB800             | NO                                 | N/A  |
| 12/23/2015                | ARCTIC BROOK      | AB801             | NO                                 | N/A  |
| 12/23/2015                | ARCTIC BROOK      | AB802             | NO                                 | N/A  |

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|---------------------------|-------------------|-------------------|------------------------------------|--|
| 12/23/2015                | ARCTIC BROOK      | AB803             | NO                                 | N/A  |
| 12/23/2015                | ARCTIC BROOK      | AB820             | NO                                 | N/A  |
| 12/23/2015                | ARCTIC BROOK      | AB821             | NO                                 | N/A  |
| 12/23/2015                | ARCTIC BROOK      | AB822             | NO                                 | N/A  |
| 1/29/2015                 | BARKERSVILLE      | BV023             | NO                                 | N/A  |
| 1/29/2015                 | BARKERSVILLE      | BV029             | NO                                 | N/A  |
| 1/29/2015                 | BARKERSVILLE      | BV715             | NO                                 | N/A  |
| 1/29/2015                 | BARKERSVILLE      | BV725             | NO                                 | N/A  |
| 2/6/2015                  | BARKERSVILLE      | BV332             | NO                                 | N/A  |
| 2/9/2015                  | BARKERSVILLE      | BV410             | NO                                 | N/A  |
| 2/9/2015                  | BARKERSVILLE      | BV411             | NO                                 | N/A  |
| 2/9/2015                  | BARKERSVILLE      | BV412             | NO                                 | N/A  |
| 2/9/2015                  | BARKERSVILLE      | BV450             | NO                                 | N/A  |
| 2/9/2015                  | BARKERSVILLE      | BV453             | NO                                 | N/A  |
| 2/10/2015                 | BARKERSVILLE      | BV451             | NO                                 | N/A  |
| 2/10/2015                 | BARKERSVILLE      | BV477             | NO                                 | N/A  |
| 2/10/2015                 | BARKERSVILLE      | BV478             | NO                                 | N/A  |
| 2/10/2015                 | BARKERSVILLE      | BV520             | NO                                 | N/A  |
| 2/10/2015                 | BARKERSVILLE      | BV545             | NO                                 | N/A  |
| 3/14/2015                 | BARKERSVILLE      | BV476             | NO                                 | N/A  |
| 3/17/2015                 | BARKERSVILLE      | BV475             | NO                                 | N/A  |
| 12/28/2015                | BARKERSVILLE      | BV479             | NO                                 | N/A  |
| 12/28/2015                | BLANCHARD STREET  | BS300             | NO                                 | N/A  |
| 12/28/2015                | BLANCHARD STREET  | BS301             | NO                                 | N/A  |
| 12/28/2015                | BLANCHARD STREET  | BS302             | NO                                 | N/A  |
| 12/28/2015                | BLANCHARD STREET  | BS303             | NO                                 | N/A  |
| 1/30/2015                 | BURLEIGH          | BU023             | NO                                 | N/A  |
| 1/30/2015                 | BURLEIGH          | BU800             | NO                                 | N/A  |
| 1/30/2015                 | BURLEIGH          | BU801             | NO                                 | N/A  |
| 1/30/2015                 | BURLEIGH          | BU802             | NO                                 | N/A  |
| 1/30/2015                 | BURLEIGH          | BU803             | NO                                 | N/A  |
| 2/12/2015                 | BURLEIGH          | BU541             | NO                                 | N/A  |
| 2/13/2015                 | BURLEIGH          | BU540             | NO                                 | N/A  |
| 2/13/2015                 | BURLEIGH          | BU542             | NO                                 | N/A  |
| 2/13/2015                 | BURLEIGH          | BU550             | NO                                 | N/A  |
| 2/13/2015                 | BURLEIGH          | BU551             | NO                                 | N/A  |
| 2/13/2015                 | BURLEIGH          | BU560             | NO                                 | N/A  |
| 2/13/2015                 | BURLEIGH          | BU570             | NO                                 | N/A  |
| 2/13/2015                 | BURLEIGH          | BU571             | NO                                 | N/A  |

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|---------------------------|-------------------|-------------------|------------------------------------|--|
| 2/17/2015                 | BURLEIGH          | BU552             | NO                                 | N/A  |
| 2/17/2015                 | BURLEIGH          | BU553             | NO                                 | N/A  |
| 2/17/2015                 | BURLEIGH          | BU554             | NO                                 | N/A  |
| 2/27/2015                 | BURLEIGH          | BU450             | NO                                 | N/A  |
| 2/27/2015                 | BURLEIGH          | BU451             | NO                                 | N/A  |
| 2/27/2015                 | BURLEIGH          | BU452             | NO                                 | N/A  |
| 2/27/2015                 | BURLEIGH          | BU453             | NO                                 | N/A  |
| 2/27/2015                 | BURLEIGH          | BU454             | NO                                 | N/A  |
| 2/27/2015                 | BURLEIGH          | BU455             | NO                                 | N/A  |
| 2/27/2015                 | BURLEIGH          | BU460             | NO                                 | N/A  |
| 2/27/2015                 | BURLEIGH          | BU462             | NO                                 | N/A  |
| 2/20/2015                 | CARR BROOK        | CB021             | NO                                 | N/A  |
| 2/20/2015                 | CARR BROOK        | CB400             | NO                                 | N/A  |
| 2/20/2015                 | CARR BROOK        | CB401             | NO                                 | N/A  |
| 2/20/2015                 | CARR BROOK        | CB402             | NO                                 | N/A  |
| 2/20/2015                 | CARR BROOK        | CB403             | NO                                 | N/A  |
| 2/20/2015                 | CARR BROOK        | CB800             | NO                                 | N/A  |
| 2/23/2015                 | CARR BROOK        | CB017             | NO                                 | N/A  |
| 2/23/2015                 | CARR BROOK        | CB018             | NO                                 | N/A  |
| 2/23/2015                 | CARR BROOK        | CB036             | NO                                 | N/A  |
| 2/23/2015                 | CARR BROOK        | CB037             | NO                                 | N/A  |
| 2/23/2015                 | CARR BROOK        | CB210             | NO                                 | N/A  |
| 2/24/2015                 | CARR BROOK        | CB130             | NO                                 | N/A  |
| 2/24/2015                 | CARR BROOK        | CB135             | NO                                 | N/A  |
| 3/23/2015                 | CARR BROOK        | CB016             | NO                                 | N/A  |
| 3/23/2015                 | CARR BROOK        | CB031             | NO                                 | N/A  |
| 3/23/2015                 | CARR BROOK        | CB750             | NO                                 | N/A  |
| 1/23/2015                 | CEMETERY          | CM671             | NO                                 | N/A  |
| 1/23/2015                 | CEMETERY          | CM672             | NO                                 | N/A  |
| 1/29/2015                 | CEMETERY          | CM571             | NO                                 | N/A  |
| 1/29/2015                 | CEMETERY          | CM781             | NO                                 | N/A  |
| 2/29/2015                 | CEMETERY          | CM581             | NO                                 | N/A  |
| 2/30/2015                 | CEMETERY          | CM580             | NO                                 | N/A  |
| 2/10/2015                 | DAVIS BROOK       | DB960             | NO                                 | N/A  |
| 2/10/2015                 | DAVIS BROOK       | DB961             | NO                                 | N/A  |
| 2/17/2015                 | DAVIS BROOK       | DB552             | NO                                 | N/A  |
| 2/17/2015                 | DAVIS BROOK       | DB553             | NO                                 | N/A  |
| 5/13/2015                 | DAVIS BROOK       | DB021             | NO                                 | N/A  |
| 5/13/2015                 | DAVIS BROOK       | DB702             | NO                                 | N/A  |

# APPENDIX C: MANHOLE INSPECTION LOG

City of Bangor, Maine  
Calendar Year 2015

| <b>Date of Inspection</b> | <b>Subsection</b> | <b>Manhole ID</b> | <b>Repeat Inspection (this CY)</b> | <b>Justification for Repeat Inspection (by Reason Code)*</b> |
|---------------------------|-------------------|-------------------|------------------------------------|--|
| 5/15/2015                 | DAVIS BROOK       | DB380             | NO                                 | N/A  |
| 5/15/2015                 | DAVIS BROOK       | DB803             | NO                                 | N/A  |
| 12/21/2015                | DAVIS BROOK       | DB017             | NO                                 | N/A  |
| 12/21/2015                | DAVIS BROOK       | DB018             | NO                                 | N/A  |
| 12/21/2015                | DAVIS BROOK       | DB470             | NO                                 | N/A  |
| 12/21/2015                | DAVIS BROOK       | DB471             | NO                                 | N/A  |
| 12/21/2015                | DAVIS BROOK       | DB472             | NO                                 | N/A  |
| 12/21/2015                | DAVIS BROOK       | DB605             | NO                                 | N/A  |
| 12/21/2015                | DAVIS BROOK       | DB611             | NO                                 | N/A  |
| 12/21/2015                | DAVIS BROOK       | DB620             | NO                                 | N/A  |
| 12/21/2015                | DAVIS BROOK       | DB700             | NO                                 | N/A  |
| 2/9/2015                  | DOW               | DW350             | NO                                 | N/A  |
| 2/9/2015                  | DOW               | DW351             | NO                                 | N/A  |
| 2/11/2015                 | DOW               | DW614             | NO                                 | N/A  |
| 2/17/2015                 | DOW               | DW240             | NO                                 | N/A  |
| 2/17/2015                 | DOW               | DW255             | NO                                 | N/A  |
| 2/17/2015                 | DOW               | DW256             | NO                                 | N/A  |
| 3/24/2015                 | DOW               | DW284             | NO                                 | N/A  |
| 3/24/2015                 | DOW               | DW285             | NO                                 | N/A  |
| 3/24/2015                 | DOW               | DW286             | NO                                 | N/A  |
| 3/24/2015                 | DOW               | DW287             | NO                                 | N/A  |
| 3/24/2015                 | DOW               | DW290             | NO                                 | N/A  |
| 3/24/2015                 | DOW               | DW291             | NO                                 | N/A  |
| 3/24/2015                 | DOW               | DW292             | NO                                 | N/A  |
| 3/25/2015                 | DOW               | DW203             | NO                                 | N/A  |
| 3/25/2015                 | DOW               | DW250             | NO                                 | N/A  |
| 3/25/2015                 | DOW               | DW251             | NO                                 | N/A  |
| 4/15/2015                 | DOW               | DW605             | NO                                 | N/A  |
| 4/15/2015                 | DOW               | DW606             | NO                                 | N/A  |
| 4/15/2015                 | DOW               | DW607             | NO                                 | N/A  |
| 4/15/2015                 | DOW               | DW608             | NO                                 | N/A  |
| 4/15/2015                 | DOW               | DW609             | NO                                 | N/A  |
| 4/15/2015                 | DOW               | DW610             | NO                                 | N/A  |
| 4/15/2015                 | DOW               | DW611             | NO                                 | N/A  |
| 4/15/2015                 | DOW               | DW612             | NO                                 | N/A  |
| 4/15/2015                 | DOW               | DW613             | NO                                 | N/A  |
| 4/15/2015                 | DOW               | DW613A            | NO                                 | N/A  |
| 4/15/2015                 | DOW               | DW670             | NO                                 | N/A  |
| 4/16/2015                 | DOW               | DW020             | NO                                 | N/A  |

## APPENDIX C: MANHOLE INSPECTION LOG

City of Bangor, Maine  
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| Date of Inspection | Subsection | Manhole ID | Repeat Inspection (this CY) | Justification for Repeat Inspection (by Reason Code)* |
|--------------------|------------|------------|-----------------------------|---|
| 4/16/2015          | DOW        | DW021      | NO                          | N/A   |
| 4/16/2015          | DOW        | DW022      | NO                          | N/A   |
| 4/16/2015          | DOW        | DW500      | NO                          | N/A   |
| 4/16/2015          | DOW        | DW501      | NO                          | N/A   |
| 4/16/2015          | DOW        | DW550      | NO                          | N/A   |
| 4/16/2015          | DOW        | DW551      | NO                          | N/A   |
| 4/16/2015          | DOW        | DW552      | NO                          | N/A   |
| 4/16/2015          | DOW        | DW553      | NO                          | N/A   |
| 4/16/2015          | DOW        | DW554      | NO                          | N/A   |
| 4/16/2015          | DOW        | DW600      | NO                          | N/A   |
| 4/16/2015          | DOW        | DW601      | NO                          | N/A   |
| 4/16/2015          | DOW        | DW601A     | NO                          | N/A   |
| 4/16/2015          | DOW        | DW601B     | NO                          | N/A   |
| 4/16/2015          | DOW        | DW602      | NO                          | N/A   |
| 4/16/2015          | DOW        | DW603      | NO                          | N/A   |
| 4/16/2015          | DOW        | DW604      | NO                          | N/A   |
| 4/16/2015          | DOW        | DW612A     | NO                          | N/A   |
| 4/16/2015          | DOW        | DW650      | NO                          | N/A   |
| 4/16/2015          | DOW        | DW660      | NO                          | N/A   |
| 4/16/2015          | DOW        | DW661      | NO                          | N/A   |
| 4/17/2015          | DOW        | DW018      | NO                          | N/A   |
| 4/17/2015          | DOW        | DW019      | NO                          | N/A   |
| 4/17/2015          | DOW        | DW300      | NO                          | N/A   |
| 4/17/2015          | DOW        | DW301      | NO                          | N/A   |
| 4/17/2015          | DOW        | DW302      | NO                          | N/A   |
| 4/17/2015          | DOW        | DW303      | NO                          | N/A   |
| 4/17/2015          | DOW        | DW304      | NO                          | N/A   |
| 4/17/2015          | DOW        | DW305      | NO                          | N/A   |
| 4/17/2015          | DOW        | DW306      | NO                          | N/A   |
| 4/17/2015          | DOW        | DW307      | NO                          | N/A   |
| 4/17/2015          | DOW        | DW308      | NO                          | N/A   |
| 4/17/2015          | DOW        | DW350      | YES                         | A   |
| 4/17/2015          | DOW        | DW351      | YES                         | A   |
| 4/20/2015          | DOW        | DW009      | NO                          | N/A   |
| 4/20/2015          | DOW        | DW011      | NO                          | N/A   |
| 4/20/2015          | DOW        | DW012      | NO                          | N/A   |
| 4/20/2015          | DOW        | DW013      | NO                          | N/A   |
| 4/20/2015          | DOW        | DW014      | NO                          | N/A   |
| 4/20/2015          | DOW        | DW015      | NO                          | N/A   |

# APPENDIX C: MANHOLE INSPECTION LOG

City of Bangor, Maine  
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| Date of Inspection | Subsection | Manhole ID | Repeat Inspection (this CY) | Justification for Repeat Inspection (by Reason Code)* |
|--------------------|------------|------------|-----------------------------|---|
| 4/20/2015          | DOW        | DW016      | NO                          | N/A   |
| 4/20/2015          | DOW        | DW016A     | NO                          | N/A   |
| 4/20/2015          | DOW        | DW017      | NO                          | N/A   |
| 4/20/2015          | DOW        | DW209      | NO                          | N/A   |
| 4/20/2015          | DOW        | DW211      | NO                          | N/A   |
| 4/20/2015          | DOW        | DW212      | NO                          | N/A   |
| 4/20/2015          | DOW        | DW213      | NO                          | N/A   |
| 4/20/2015          | DOW        | DW214      | NO                          | N/A   |
| 4/20/2015          | DOW        | DW270      | NO                          | N/A   |
| 4/20/2015          | DOW        | DW275      | NO                          | N/A   |
| 4/20/2015          | DOW        | DW276      | NO                          | N/A   |
| 4/20/2015          | DOW        | DW280      | NO                          | N/A   |
| 4/20/2015          | DOW        | DW281      | NO                          | N/A   |
| 4/20/2015          | DOW        | DW282      | NO                          | N/A   |
| 4/20/2015          | DOW        | DW283      | NO                          | N/A   |
| 4/20/2015          | DOW        | DW284      | YES                         | A   |
| 4/20/2015          | DOW        | DW285      | YES                         | A   |
| 4/20/2015          | DOW        | DW286      | YES                         | A   |
| 4/20/2015          | DOW        | DW287      | YES                         | A   |
| 4/20/2015          | DOW        | DW290      | YES                         | A   |
| 4/20/2015          | DOW        | DW291      | YES                         | A   |
| 4/20/2015          | DOW        | DW292      | YES                         | A   |
| 4/21/2015          | DOW        | DW203      | YES                         | A   |
| 4/21/2015          | DOW        | DW204      | NO                          | N/A   |
| 4/21/2015          | DOW        | DW206      | NO                          | N/A   |
| 4/21/2015          | DOW        | DW207      | NO                          | N/A   |
| 4/21/2015          | DOW        | DW208      | NO                          | N/A   |
| 4/21/2015          | DOW        | DW240      | YES                         | A   |
| 4/21/2015          | DOW        | DW250      | YES                         | A   |
| 4/21/2015          | DOW        | DW251      | YES                         | A   |
| 4/21/2015          | DOW        | DW252      | NO                          | N/A   |
| 4/21/2015          | DOW        | DW252B     | NO                          | N/A   |
| 4/21/2015          | DOW        | DW253      | NO                          | N/A   |
| 4/21/2015          | DOW        | DW259      | NO                          | N/A   |
| 4/21/2015          | DOW        | DW260      | NO                          | N/A   |
| 4/21/2015          | DOW        | DW261      | NO                          | N/A   |
| 4/21/2015          | DOW        | DW262      | NO                          | N/A   |
| 4/21/2015          | DOW        | DW265      | NO                          | N/A   |
| 4/22/2015          | DOW        | DW200      | NO                          | N/A   |

# APPENDIX C: MANHOLE INSPECTION LOG

City of Bangor, Maine  
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| Date of Inspection | Subsection      | Manhole ID | Repeat Inspection (this CY) | Justification for Repeat Inspection (by Reason Code)* |
|--------------------|-----------------|------------|-----------------------------|---|
| 4/22/2015          | DOW             | DW201      | NO                          | N/A   |
| 4/22/2015          | DOW             | DW202      | NO                          | N/A   |
| 4/22/2015          | DOW             | DW252A     | NO                          | N/A   |
| 4/22/2015          | DOW             | DW255      | NO                          | N/A   |
| 4/22/2015          | DOW             | DW255A     | NO                          | N/A   |
| 4/22/2015          | DOW             | DW256      | YES                         | A   |
| 4/22/2015          | DOW             | DW400      | NO                          | N/A   |
| 4/22/2015          | DOW             | DW401      | NO                          | N/A   |
| 4/22/2015          | DOW             | DW452      | NO                          | N/A   |
| 4/22/2015          | DOW             | DW453      | NO                          | N/A   |
| 1/23/2015          | FOURTEENTH ST   | FS500      | NO                          | N/A   |
| 1/23/2015          | FOURTEENTH ST   | FS501      | NO                          | N/A   |
| 1/23/2015          | FOURTEENTH ST   | FS502      | NO                          | N/A   |
| 1/23/2015          | FOURTEENTH ST   | FS503      | NO                          | N/A   |
| 1/29/2015          | FOURTEENTH ST   | FS050      | NO                          | N/A   |
| 3/6/2015           | HANCOCK         | HK262      | NO                          | N/A   |
| 3/23/2015          | HANCOCK         | HK110      | NO                          | N/A   |
| 3/23/2015          | HANCOCK         | HK251      | NO                          | N/A   |
| 3/23/2015          | HANCOCK         | HK252      | NO                          | N/A   |
| 3/23/2015          | HANCOCK         | HK260      | NO                          | N/A   |
| 3/23/2015          | HANCOCK         | HK261      | NO                          | N/A   |
| 5/4/2015           | HANCOCK         | HK293      | NO                          | N/A   |
| 1/28/2015          | HILDRETH-PERRY  | HP466      | NO                          | N/A   |
| 1/28/2015          | HILDRETH-PERRY  | HP480      | NO                          | N/A   |
| 1/28/2015          | HILDRETH-PERRY  | HP486      | NO                          | N/A   |
| 1/28/2015          | HILDRETH-PERRY  | HP605      | NO                          | N/A   |
| 1/28/2015          | HILDRETH-PERRY  | HP606      | NO                          | N/A   |
| 1/28/2015          | HILDRETH-PERRY  | HP607      | NO                          | N/A   |
| 1/28/2015          | HILDRETH-PERRY  | HP608      | NO                          | N/A   |
| 1/30/2015          | HILDRETH-PERRY  | HP465      | NO                          | N/A   |
| 1/30/2015          | HILDRETH-PERRY  | HP485      | NO                          | N/A   |
| 3/6/2015           | HILDRETH-PERRY  | HP014      | NO                          | N/A   |
| 3/6/2015           | HILDRETH-PERRY  | HP015      | NO                          | N/A   |
| 3/6/2015           | HILDRETH-PERRY  | HP070      | NO                          | N/A   |
| 3/6/2015           | HILDRETH-PERRY  | HP072      | NO                          | N/A   |
| 2/6/2015           | KENDUSKEAG EAST | KE260      | NO                          | N/A   |
| 2/6/2015           | KENDUSKEAG EAST | KE261      | NO                          | N/A   |
| 2/18/2015          | KENDUSKEAG EAST | KE300      | NO                          | N/A   |
| 2/18/2015          | KENDUSKEAG EAST | KE301      | NO                          | N/A   |



# APPENDIX C: MANHOLE INSPECTION LOG

City of Bangor, Maine  
Calendar Year 2015

| <b>Date of Inspection</b> | <b>Subsection</b>      | <b>Manhole ID</b> | <b>Repeat Inspection (this CY)</b> | <b>Justification for Repeat Inspection (by Reason Code)*</b> |
|---------------------------|------------------------|-------------------|------------------------------------|--|
| 3/24/2015                 | KENDUSKEAG EAST        | KE050             | NO                                 | N/A  |
| 3/24/2015                 | KENDUSKEAG EAST        | KE100             | NO                                 | N/A  |
| 3/24/2015                 | KENDUSKEAG EAST        | KE150             | NO                                 | N/A  |
| 3/24/2015                 | KENDUSKEAG EAST        | KE201             | NO                                 | N/A  |
| 1/30/2015                 | KENDUSKEAG INTERCEPTOR | KI037             | NO                                 | N/A  |
| 2/11/2015                 | MAY STREET             | MY001             | NO                                 | N/A  |
| 2/11/2015                 | MAY STREET             | MY002             | NO                                 | N/A  |
| 2/4/2015                  | MEADOWBROOK            | MB963             | NO                                 | N/A  |
| 2/4/2015                  | MEADOWBROOK            | MB964             | NO                                 | N/A  |
| 2/6/2015                  | MEADOWBROOK            | MB710             | NO                                 | N/A  |
| 2/6/2015                  | MEADOWBROOK            | MB775             | NO                                 | N/A  |
| 2/11/2015                 | MEADOWBROOK            | MB202             | NO                                 | N/A  |
| 2/11/2015                 | MEADOWBROOK            | MB203             | NO                                 | N/A  |
| 2/11/2015                 | MEADOWBROOK            | MB204             | NO                                 | N/A  |
| 2/11/2015                 | MEADOWBROOK            | MB205             | NO                                 | N/A  |
| 2/12/2015                 | MEADOWBROOK            | MB114             | NO                                 | N/A  |
| 2/12/2015                 | MEADOWBROOK            | MB206             | NO                                 | N/A  |
| 2/19/2015                 | MEADOWBROOK            | MB910             | NO                                 | N/A  |
| 2/19/2015                 | MEADOWBROOK            | MB950             | NO                                 | N/A  |
| 2/19/2015                 | MEADOWBROOK            | MB960             | NO                                 | N/A  |
| 2/24/2015                 | MEADOWBROOK            | MB756             | NO                                 | N/A  |
| 2/24/2015                 | MEADOWBROOK            | MB758             | NO                                 | N/A  |
| 3/23/2015                 | MEADOWBROOK            | MB951             | NO                                 | N/A  |
| 3/25/2015                 | MEADOWBROOK            | MB135             | NO                                 | N/A  |
| 3/25/2015                 | MEADOWBROOK            | MB141             | NO                                 | N/A  |
| 3/25/2015                 | MEADOWBROOK            | MB146             | NO                                 | N/A  |
| 3/25/2015                 | MEADOWBROOK            | MB147             | NO                                 | N/A  |
| 4/7/2015                  | MEADOWBROOK            | MB862             | NO                                 | N/A  |
| 4/7/2015                  | MEADOWBROOK            | MB863             | NO                                 | N/A  |
| 4/7/2015                  | MEADOWBROOK            | MB864             | NO                                 | N/A  |
| 4/8/2015                  | MEADOWBROOK            | MB860             | NO                                 | N/A  |
| 4/8/2015                  | MEADOWBROOK            | MB861             | NO                                 | N/A  |
| 4/9/2015                  | MEADOWBROOK            | MB831             | NO                                 | N/A  |
| 4/9/2015                  | MEADOWBROOK            | MB832             | NO                                 | N/A  |
| 4/9/2015                  | MEADOWBROOK            | MB851             | NO                                 | N/A  |
| 4/9/2015                  | MEADOWBROOK            | MB865             | NO                                 | N/A  |
| 4/9/2015                  | MEADOWBROOK            | MB866             | NO                                 | N/A  |
| 4/10/2015                 | MEADOWBROOK            | MB857             | NO                                 | N/A  |
| 4/10/2015                 | MEADOWBROOK            | MB858             | NO                                 | N/A  |

# APPENDIX C: MANHOLE INSPECTION LOG

City of Bangor, Maine  
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| Date of Inspection              | Subsection   | Manhole ID | Repeat Inspection (this CY) | Justification for Repeat Inspection (by Reason Code)* |
|---------------------------------|--------------|------------|-----------------------------|---|
| 4/14/2015                       | MEADOWBROOK  | MB930      | NO                          | N/A   |
| 4/14/2015                       | MEADOWBROOK  | MB931      | NO                          | N/A   |
| 4/14/2015                       | MEADOWBROOK  | MB933      | NO                          | N/A   |
| 4/14/2015                       | MEADOWBROOK  | MB934      | NO                          | N/A   |
| 4/15/2015                       | MEADOWBROOK  | MB757      | NO                          | N/A   |
| 4/16/2015                       | MEADOWBROOK  | MB932      | NO                          | N/A   |
| 4/22/2015                       | MEADOWBROOK  | MB503      | NO                          | N/A   |
| 4/27/2015                       | MEADOWBROOK  | MB505      | NO                          | N/A   |
| 4/27/2015                       | MEADOWBROOK  | MB506      | NO                          | N/A   |
| 4/29/2015                       | MEADOWBROOK  | MB502      | NO                          | N/A   |
| 4/29/2015                       | MEADOWBROOK  | MB504      | NO                          | N/A   |
| 4/29/2015                       | MEADOWBROOK  | MB507      | NO                          | N/A   |
| 4/29/2015                       | MEADOWBROOK  | MB508      | NO                          | N/A   |
| 4/29/2015                       | MEADOWBROOK  | MB509      | NO                          | N/A   |
| 4/29/2015                       | MEADOWBROOK  | MB530      | NO                          | N/A   |
| 2/18/2015                       | MILL STREET  | MS206      | NO                          | N/A   |
| 1/29/2015                       | OLD CAPEHART | OC100      | NO                          | N/A   |
| 3/23/2015                       | OLD CAPEHART | OC402      | NO                          | N/A   |
| 5/21/2015                       | OLD CAPEHART | OC014      | NO                          | N/A   |
| 2/12/2015                       | WOODLAWN     | WL104      | NO                          | N/A   |
| 2/12/2015                       | WOODLAWN     | WL105      | NO                          | N/A   |
| 2/12/2015                       | WOODLAWN     | WL120      | NO                          | N/A   |
| 2/23/2015                       | WOODLAWN     | WL504      | NO                          | N/A   |
| 2/23/2015                       | WOODLAWN     | WL505      | NO                          | N/A   |
| 4/5/2015                        | WOODLAWN     | WL021      | NO                          | N/A   |
| 4/29/2015                       | WOODLAWN     | WL023      | NO                          | N/A   |
| 5/6/2015                        | WOODLAWN     | WL024      | NO                          | N/A   |
| 5/6/2015                        | WOODLAWN     | WL025      | NO                          | N/A   |
| 5/13/2015                       | WOODLAWN     | WL020      | NO                          | N/A   |
| 5/13/2015                       | WOODLAWN     | WL022      | NO                          | N/A   |
|                                 |              |            |                             |   |
| <b>TOTAL MANHOLES INSPECTED</b> |              |            | <b>654</b>                  |   |

\* Reason Codes used in the justification for repeat inspections are as follows:

A - Inspected as part of SSES work to attempt to discover sources of infiltration, likely during a high groundwater period

B - Inspected to evaluate condition or determine physical attributes, if not done during a previous inspection

# APPENDIX D: CCTV REPAIR, REPLACEMENT, AND UPGRADE LOG

City of Bangor, Maine  
Calendar Year 2015

| Subsection   | Pipe Segment ID | Manhole ID | Location        | Description of Repair or Defect | Priority Ranked 1-5, 5 highest | Date Repaired or Future Implementation Schedule |
|--------------|-----------------|------------|-----------------|---------------------------------|--------------------------------|---|
| AIRPORT      |                 | AP706      | MANHOLE         | INVERT WORK                     | COMPLETE                       | 11.4.15   |
| AIRPORT      | AP330           |            | AP330           | 39', 8" Line                    | COMPLETE                       | 11.12.15  |
| ARCTIC BROOK |                 | AB605      | MANHOLE         | NEW RIM & COVER                 | COMPLETE                       | 6.15.15   |
| ARCTIC BROOK |                 | AB605A     | MANHOLE         | NEW RIM & COVER                 | COMPLETE                       | 6.15.15   |
| ARCTIC BROOK |                 | AB606      | MANHOLE         | NEW RIM & COVER                 | COMPLETE                       | 6.15.15   |
| ARCTIC BROOK |                 | AB607      | MANHOLE         | NEW RIM & COVER                 | COMPLETE                       | 6.15.15   |
| ARCTIC BROOK |                 | AB608      | MANHOLE         | NEW RIM & COVER                 | COMPLETE                       | 6.15.15   |
| ARCTIC BROOK |                 | AB609      | MANHOLE         | NEW RIM & COVER                 | COMPLETE                       | 6.15.15   |
| ARCTIC BROOK |                 | AB610      | MANHOLE         | NEW RIM & COVER                 | COMPLETE                       | 6.15.15   |
| ARCTIC BROOK |                 | AB353      | MANHOLE         | INVERT WORK                     | COMPLETE                       | 8.14.15   |
| ARCTIC BROOK |                 | AB006      | MANHOLE         | NEW RIM & COVER                 | COMPLETE                       | 10.7.15   |
| ARCTIC BROOK |                 | AB236      | MANHOLE         | NEW RIM & COVER                 | COMPLETE                       | 10.7.15   |
| ARCTIC BROOK |                 | AB235      | MANHOLE         | NEW RIM & COVER                 | COMPLETE                       | 10.7.15   |
| ARCTIC BROOK |                 | AB234      | MANHOLE         | NEW RIM & COVER                 | COMPLETE                       | 10.7.15   |
| ARCTIC BROOK |                 | AB233      | MANHOLE         | NEW RIM & COVER                 | COMPLETE                       | 10.7.15   |
| ARCTIC BROOK |                 | AB232      | MANHOLE         | NEW RIM & COVER                 | COMPLETE                       | 10.7.15   |
| ARCTIC BROOK |                 | AB231      | MANHOLE         | NEW RIM & COVER                 | COMPLETE                       | 10.7.15   |
| ARCTIC BROOK |                 | AB230      | MANHOLE         | NEW RIM & COVER                 | COMPLETE                       | 10.7.15   |
| BARKERSVILLE | BV017           |            | 220' FROM BV017 | REPAIRED HOLE IN LINE           | COMPLETE                       | 8.4.15  |
| BARKERSVILLE | BV479           |            | BV479           | 26', 10" LINE                   | COMPLETE                       | 10.16.15  |
| BARKERSVILLE | BV503           |            | BV503           | 33', 8" LINE                    | COMPLETE                       | 10.14.15  |
| BARKERSVILLE | BV520A          |            | FROM BV502      | 51', 10" LINE                   | COMPLETE                       | 10.16.15  |
| BARKERSVILLE |                 | BV102      | MANHOLE         | NEW RIM & COVER                 | COMPLETE                       | 7.15.15   |
| BARKERSVILLE |                 | BV103      | MANHOLE         | NEW RIM & COVER                 | COMPLETE                       | 7.15.15   |
| BARKERSVILLE |                 | BV104      | MANHOLE         | NEW RIM & COVER                 | COMPLETE                       | 7.15.15   |
| BARKERSVILLE |                 | BV105      | MANHOLE         | NEW RIM & COVER                 | COMPLETE                       | 7.15.15   |
| BARKERSVILLE |                 | BV106      | MANHOLE         | NEW RIM & COVER                 | COMPLETE                       | 7.15.15   |
| BARKERSVILLE |                 | BV212      | MANHOLE         | NEW RIM & COVER                 | COMPLETE                       | 8.15.15   |
| BARKERSVILLE |                 | BV213      | MANHOLE         | NEW RIM & COVER                 | COMPLETE                       | 8.15.15   |
| BARKERSVILLE |                 | BV214      | MANHOLE         | NEW RIM & COVER                 | COMPLETE                       | 9.15.15   |
| BARKERSVILLE |                 | BV215      | MANHOLE         | NEW RIM & COVER                 | COMPLETE                       | 9.15.15   |
| BARKERSVILLE |                 | BV216      | MANHOLE         | NEW RIM & COVER                 | COMPLETE                       | 9.15.15   |
| BARKERSVILLE |                 | BV217      | MANHOLE         | NEW RIM & COVER                 | COMPLETE                       | 9.15.15   |
| BARKERSVILLE |                 | BV218      | MANHOLE         | NEW RIM & COVER                 | COMPLETE                       | 9.15.15   |
| BARKERSVILLE |                 | BV015      | MANHOLE         | RESET RIM, COVER                | COMPLETE                       | 10.21.15  |
| BARKERSVILLE |                 | BV016      | MANHOLE         | RESET RIM, COVER                | COMPLETE                       | 10.21.15  |
| BARKERSVILLE |                 | BV505      | MANHOLE         | NEW RIM & COVER                 | COMPLETE                       | 10.15.15  |
| BARKERSVILLE |                 | BV503      | MANHOLE         | NEW RIM & COVER                 | COMPLETE                       | 10.15.15  |
| BARKERSVILLE |                 | BV545      | MANHOLE         | NEW RIM & COVER                 | COMPLETE                       | 10.15.15  |
| BARKERSVILLE |                 | BV520A     | MANHOLE         | NEW RIM & COVER                 | COMPLETE                       | 10.15.15  |
| BARKERSVILLE |                 | BV520      | MANHOLE         | NEW RIM & COVER                 | COMPLETE                       | 10.15.15  |
| BARKERSVILLE |                 | BV478      | MANHOLE         | NEW RIM & COVER                 | COMPLETE                       | 10.15.15  |
| BARKERSVILLE |                 | BV477      | MANHOLE         | NEW RIM & COVER                 | COMPLETE                       | 10.15.15  |
| BARKERSVILLE |                 | BV502      | MANHOLE         | NEW RIM & COVER                 | COMPLETE                       | 10.15.15  |
| BARKERSVILLE |                 | BV023      | MANHOLE         | NEW RIM & COVER                 | COMPLETE                       | 9.12.15   |
| BARKERSVILLE |                 | BV502      | MANHOLE         | NEW MANHOLE                     | COMPLETE                       | 10.16.15  |

# APPENDIX D: CCTV REPAIR, REPLACEMENT, AND UPGRADE LOG

City of Bangor, Maine  
Calendar Year 2015

| Subsection   | Pipe Segment ID | Manhole ID | Location    | Description of Repair or Defect | Priority Ranked 1-5, 5 highest | Date Repaired or Future Implementation Schedule |
|--------------|-----------------|------------|-------------|---------------------------------|--------------------------------|---|
| BARKERSVILLE |                 | BV024      | MANHOLE     | NEW RIM & COVER                 | COMPLETE                       | 10.4.15   |
| BARKERSVILLE |                 | BV022      | MANHOLE     | NEW RIM & COVER                 | COMPLETE                       | 10.4.15   |
| BURLEIGH     |                 | BU300      | MANHOLE     | NEW RIM & COVER                 | COMPLETE                       | 6.15.15   |
| BURLEIGH     |                 | BU301      | MANHOLE     | NEW RIM & COVER                 | COMPLETE                       | 6.15.15   |
| BURLEIGH     |                 | BU302      | MANHOLE     | NEW RIM & COVER                 | COMPLETE                       | 7.15.15   |
| BURLEIGH     |                 | BU303      | MANHOLE     | NEW RIM & COVER                 | COMPLETE                       | 7.15.15   |
| BURLEIGH     |                 | BU304      | MANHOLE     | NEW RIM & COVER                 | COMPLETE                       | 7.15.15   |
| BURLEIGH     |                 | BU305      | MANHOLE     | NEW RIM & COVER                 | COMPLETE                       | 7.15.15   |
| BURLEIGH     |                 | BU306      | MANHOLE     | NEW RIM & COVER                 | COMPLETE                       | 7.15.15   |
| BURLEIGH     |                 | BU307      | MANHOLE     | NEW RIM & COVER                 | COMPLETE                       | 7.15.15   |
| BURLEIGH     |                 | BU308      | MANHOLE     | NEW RIM & COVER                 | COMPLETE                       | 7.15.15   |
| BURLEIGH     |                 | BU309      | MANHOLE     | NEW RIM & COVER                 | COMPLETE                       | 7.15.15   |
| BURLEIGH     |                 | BU310      | MANHOLE     | NEW RIM & COVER                 | COMPLETE                       | 7.15.15   |
| BURLEIGH     |                 | BU311      | MANHOLE     | NEW RIM & COVER                 | COMPLETE                       | 7.15.15   |
| BURLEIGH     |                 | BU312      | MANHOLE     | NEW RIM & COVER                 | COMPLETE                       | 7.15.15   |
| BURLEIGH     |                 | BU011      | MANHOLE     | NEW RIM & COVER                 | COMPLETE                       | 7.15.15   |
| BURLEIGH     |                 | BU452      | MANHOLE     | NEW RIM & COVER                 | COMPLETE                       | 10.15.15  |
| BURLEIGH     |                 | BU453      | MANHOLE     | NEW RIM & COVER                 | COMPLETE                       | 10.15.15  |
| BURLEIGH     |                 | BU454      | MANHOLE     | NEW RIM & COVER                 | COMPLETE                       | 10.15.15  |
| BURLEIGH     |                 | BU455      | MANHOLE     | NEW RIM & COVER                 | COMPLETE                       | 10.15.15  |
| BURLEIGH     |                 | BU460      | MANHOLE     | NEW RIM & COVER                 | COMPLETE                       | 10.15.15  |
| BURLEIGH     |                 | BU302      | MANHOLE     | INVERT WORK                     | COMPLETE                       | 7.23.15   |
| BURLEIGH     |                 | BU571      | MANHOLE     | INVERT WORK                     | COMPLETE                       | 8.17.15   |
| CAPEHART     |                 | OC431      | MANHOLE     | NEW RIM & COVER                 | COMPLETE                       | 10.4.15   |
| CARR BROOK   | CB211           |            | CB211-CB210 | UV LINED 177'                   | COMPLETE                       | 12.11.15  |
| CARR BROOK   |                 | CB122      | MANHOLE     | NEW RIM & COVER                 | COMPLETE                       | 10.15.15  |
| CARR BROOK   |                 | CB123      | MANHOLE     | NEW RIM & COVER                 | COMPLETE                       | 10.15.15  |
| CARR BROOK   |                 | CB124      | MANHOLE     | NEW RIM & COVER                 | COMPLETE                       | 10.15.15  |
| CARR BROOK   |                 | CB125      | MANHOLE     | NEW RIM & COVER                 | COMPLETE                       | 10.15.15  |
| CARR BROOK   |                 | CB126      | MANHOLE     | NEW RIM & COVER                 | COMPLETE                       | 10.15.15  |
| CARR BROOK   |                 | CB012      | MANHOLE     | NEW RIM & COVER                 | COMPLETE                       | 6.5.15  |
| CARR BROOK   |                 | CB125      | MANHOLE     | INVERT WORK                     | COMPLETE                       | 8.17.15   |
| CARR BROOK   |                 | CB800      | MANHOLE     | NEW RIM & COVER                 | COMPLETE                       | 11.2.15   |
| CARR BROOK   |                 | CB801      | MANHOLE     | NEW RIM & COVER                 | COMPLETE                       | 11.2.15   |
| CARR BROOK   |                 | CB506      | MANHOLE     | NEW RIM & COVER                 | COMPLETE                       | 10.12.15  |
| CARR BROOK   |                 | CB505      | MANHOLE     | NEW RIM & COVER                 | COMPLETE                       | 10.12.15  |
| CARR BROOK   |                 | CB504      | MANHOLE     | NEW RIM & COVER                 | COMPLETE                       | 10.12.15  |
| DAVIS BROOK  | DB022           |            | FROM DB021  | 10', 21" LINE                   | COMPLETE                       | 10.16.15  |
| DAVIS BROOK  | DB024           |            | DB024       | NEW MANHOLE                     | COMPLETE                       | 9.28.15   |
| DAVIS BROOK  | DB024A          |            | DB024A      | 44', 21" LINE                   | COMPLETE                       | 9.29.15   |
| DAVIS BROOK  | DB024A          |            | CB LEAD     | 31', 8" LINE                    | COMPLETE                       | 9.29.15   |
| DAVIS BROOK  | DB024A          |            | SERVICE     | 14', 8" SERVICE                 | COMPLETE                       | 9.29.15   |
| DAVIS BROOK  | DB024A          |            | SERVICE     | 10', 6" LINE                    | COMPLETE                       | 9.29.15   |
| DAVIS BROOK  | DB850           |            | DB850       | 68', 12" LINE                   | COMPLETE                       | 10.1.15   |
| DAVIS BROOK  | DB850           |            | DB850A      | NEW MANHOLE                     | COMPLETE                       | 10.6.15   |
| DAVIS BROOK  | DB851           |            | DB851       | NEW MANHOLE                     | COMPLETE                       | 10.12.15  |

# APPENDIX D: CCTV REPAIR, REPLACEMENT, AND UPGRADE LOG

City of Bangor, Maine  
Calendar Year 2015

| Subsection     | Pipe Segment ID | Manhole ID | Location    | Description of Repair or Defect | Priority Ranked 1-5, 5 highest | Date Repaired or Future Implementation Schedule |
|----------------|-----------------|------------|-------------|---------------------------------|--------------------------------|---|
| DAVIS BROOK    | DB852           |            | DB852       | 203', 8" LINE, 2 MANHOLES       | COMPLETE                       | 10.29.15  |
| DAVIS BROOK    |                 | DB430      | MANHOLE     | NEW RIM & COVER                 | COMPLETE                       | 7.15.15   |
| DAVIS BROOK    |                 | DB101A     | MANHOLE     | NEW RIM & COVER                 | COMPLETE                       | 7.15.15   |
| DAVIS BROOK    |                 | DB101B     | MANHOLE     | NEW RIM & COVER                 | COMPLETE                       | 7.15.15   |
| DAVIS BROOK    |                 | DB101C     | MANHOLE     | NEW RIM & COVER                 | COMPLETE                       | 8.15.15   |
| DAVIS BROOK    |                 | DB120      | MANHOLE     | NEW RIM & COVER                 | COMPLETE                       | 8.15.15   |
| DAVIS BROOK    |                 | DB301A     | MANHOLE     | NEW RIM & COVER                 | COMPLETE                       | 10.15.15  |
| DAVIS BROOK    |                 | DB302      | MANHOLE     | NEW RIM & COVER                 | COMPLETE                       | 10.15.15  |
| DAVIS BROOK    |                 | DB303      | MANHOLE     | NEW RIM & COVER                 | COMPLETE                       | 10.15.15  |
| DAVIS BROOK    |                 | DB303A     | MANHOLE     | NEW RIM & COVER                 | COMPLETE                       | 10.15.15  |
| DAVIS BROOK    |                 | DB360      | MANHOLE     | NEW RIM & COVER                 | COMPLETE                       | 9.15.15   |
| DAVIS BROOK    |                 | DB361      | MANHOLE     | NEW RIM & COVER                 | COMPLETE                       | 9.15.15   |
| DAVIS BROOK    |                 | DB504      | MANHOLE     | RESET RIM, COVER                | COMPLETE                       | 10.27.15  |
| DAVIS BROOK    |                 | DB610      | MANHOLE     | RESET RIM, COVER                | COMPLETE                       | 10.27.15  |
| DAVIS BROOK    |                 | DB019      | MANHOLE     | NEW RIM & COVER                 | COMPLETE                       | 10.12.15  |
| DAVIS BROOK    |                 | DB702      | MANHOLE     | NEW RIM & COVER                 | COMPLETE                       | 10.12.15  |
| DAVIS BROOK    |                 | DB020      | MANHOLE     | NEW RIM & COVER                 | COMPLETE                       | 10.12.15  |
| DAVIS BROOK    |                 | DB021      | MANHOLE     | NEW RIM & COVER                 | COMPLETE                       | 10.12.15  |
| DAVIS BROOK    |                 | DB022      | MANHOLE     | NEW RIM & COVER                 | COMPLETE                       | 10.12.15  |
| DAVIS BROOK    |                 | DB023      | MANHOLE     | NEW RIM & COVER                 | COMPLETE                       | 10.12.15  |
| DAVIS BROOK    |                 | NEW        | MANHOLE     | NEW RIM & COVER                 | COMPLETE                       | 10.15.15  |
| DAVIS BROOK    |                 | DB850      | MANHOLE     | NEW RIM & COVER                 | COMPLETE                       | 10.15.15  |
| DAVIS BROOK    |                 | DB850      | MANHOLE     | NEW RIM & COVER                 | COMPLETE                       | 10.15.15  |
| DAVIS BROOK    |                 | DB023      | MANHOLE     | NEW RIM & COVER                 | COMPLETE                       | 9.12.15   |
| DAVIS BROOK    |                 | DB022      | MANHOLE     | NEW RIM & COVER                 | COMPLETE                       | 9.12.15   |
| DAVIS BROOK    |                 | DB021      | MANHOLE     | NEW RIM & COVER                 | COMPLETE                       | 9.12.15   |
| DAVIS BROOK    |                 | DB702      | MANHOLE     | NEW RIM & COVER                 | COMPLETE                       | 9.12.15   |
| DAVIS BROOK    |                 | DB553      | MANHOLE     | NEW RIM & COVER                 | COMPLETE                       | 9.12.15   |
| DAVIS BROOK    |                 | DB240A     | MANHOLE     | NEW RIM & COVER                 | COMPLETE                       | 10.4.15   |
| DAVIS BROOK    |                 | DB241      | MANHOLE     | NEW RIM & COVER                 | COMPLETE                       | 10.4.15   |
| DAVIS BROOK    |                 | DB720      | MANHOLE     | NEW RIM & COVER                 | COMPLETE                       | 10.4.15   |
| DAVIS BROOK    |                 | DB243      | MANHOLE     | NEW RIM & COVER                 | COMPLETE                       | 10.4.15   |
| DAVIS BROOK    |                 | DB552      | MANHOLE     | NEW RIM & COVER                 | COMPLETE                       | 10.4.15   |
| DAVIS BROOK    |                 | DB553      | MANHOLE     | NEW RIM & COVER                 | COMPLETE                       | 10.4.15   |
| DAVIS BROOK    |                 | DB303      | DOGHOUSE    | NEW RIM & COVER                 | COMPLETE                       | 10.5.15   |
| DAVIS BROOK    |                 | DB360      | DB303-DB360 | 225' OF 8" LINE                 | COMPLETE                       | 10.8.15   |
| DOW            |                 | DW001      | MANHOLE     | NEW RIM & COVER                 | COMPLETE                       | 8.15.15   |
| DOW            |                 | DW350      | MANHOLE     | RESET RIM, COVER                | COMPLETE                       | 9.25.15   |
| DOW            |                 | DW200      | MANHOLE     | INVERT WORK                     | COMPLETE                       | 11.9.15   |
| EVERETT        |                 | ES203      | MANHOLE     | NEW RIM & COVER                 | COMPLETE                       | 10.15.15  |
| FRANKLIN       |                 | FK002      | MANHOLE     | RESET RIM, COVER                | COMPLETE                       | 9.9.15  |
| FRANKLIN       |                 | FK003      | MANHOLE     | RESET RIM, COVER                | COMPLETE                       | 9.9.15  |
| FRANKLIN       |                 | FK004      | MANHOLE     | RESET RIM , COVER               | COMPLETE                       | 9.9.15  |
| HANCOCK        |                 | HK110      | MANHOLE     | NEW RIM & COVER                 | COMPLETE                       | 10.12.15  |
| HILDRETH-PERRY |                 | HP453      | MANHOLE     | NEW RIM & COVER                 | COMPLETE                       | 8.15.15   |
| HILDRETH-PERRY |                 | HP454      | MANHOLE     | NEW RIM & COVER                 | COMPLETE                       | 8.15.15   |

# APPENDIX D: CCTV REPAIR, REPLACEMENT, AND UPGRADE LOG

City of Bangor, Maine  
Calendar Year 2015

| Subsection      | Pipe Segment ID | Manhole ID | Location | Description of Repair or Defect | Priority Ranked 1-5, 5 highest | Date Repaired or Future Implementation Schedule |
|-----------------|-----------------|------------|----------|---------------------------------|--------------------------------|---|
| HILDRETH-PERRY  |                 | HP455      | MANHOLE  | NEW RIM & COVER                 | COMPLETE                       | 8.15.15   |
| HILDRETH-PERRY  |                 | HP456      | MANHOLE  | NEW RIM & COVER                 | COMPLETE                       | 8.15.15   |
| HILDRETH-PERRY  |                 | HP457      | MANHOLE  | NEW RIM & COVER                 | COMPLETE                       | 8.15.15   |
| HILDRETH-PERRY  |                 | HP458      | MANHOLE  | NEW RIM & COVER                 | COMPLETE                       | 8.15.15   |
| HILDRETH-PERRY  |                 | HP459      | MANHOLE  | NEW RIM & COVER                 | COMPLETE                       | 8.15.15   |
| HILDRETH-PERRY  |                 | HP023      | MANHOLE  | NEW RIM & COVER                 | COMPLETE                       | 8.15.15   |
| HILDRETH-PERRY  |                 | HP024      | MANHOLE  | NEW RIM & COVER                 | COMPLETE                       | 8.15.15   |
| HILDRETH-PERRY  |                 | HP081      | MANHOLE  | NEW RIM & COVER                 | COMPLETE                       | 9.15.15   |
| HILDRETH-PERRY  |                 | HP080      | MANHOLE  | NEW RIM & COVER                 | COMPLETE                       | 9.15.15   |
| HILDRETH-PERRY  |                 | HP027      | MANHOLE  | NEW RIM & COVER                 | COMPLETE                       | 9.15.15   |
| HILDRETH-PERRY  |                 | HP028      | MANHOLE  | NEW RIM & COVER                 | COMPLETE                       | 9.15.15   |
| HILDRETH-PERRY  |                 | HP029      | MANHOLE  | NEW RIM & COVER                 | COMPLETE                       | 9.15.15   |
| HILDRETH-PERRY  |                 | HP030      | MANHOLE  | NEW RIM & COVER                 | COMPLETE                       | 9.15.15   |
| HILDRETH-PERRY  |                 | HP032      | MANHOLE  | NEW RIM & COVER                 | COMPLETE                       | 9.15.15   |
| HILDRETH-PERRY  |                 | HP201      | MANHOLE  | NEW RIM & COVER                 | COMPLETE                       | 9.15.15   |
| HILDRETH-PERRY  |                 | HP035      | MANHOLE  | NEW RIM & COVER                 | COMPLETE                       | 9.15.15   |
| HILDRETH-PERRY  |                 | HP553      | MANHOLE  | RESET RIM, COVER                | COMPLETE                       | 8.6.15  |
| HILDRETH-PERRY  |                 | HP554      | MANHOLE  | RESET RIM, COVER                | COMPLETE                       | 8.6.15  |
| HILDRETH-PERRY  |                 | HP461      | MANHOLE  | RESET RIM, COVER                | COMPLETE                       | 10.28.15  |
| HILDRETH-PERRY  |                 | HP464      | MANHOLE  | RESET RIM, COVER                | COMPLETE                       | 10.28.15  |
| HILDRETH-PERRY  |                 | HP406      | MANHOLE  | NEW RIM & COVER                 | COMPLETE                       | 11.16.15  |
| HILDRETH-PERRY  |                 | HP605      | MANHOLE  | NEW RIM & COVER                 | COMPLETE                       | 8.27.15   |
| HILDRETH-PERRY  |                 | HP606      | MANHOLE  | NEW RIM & COVER                 | COMPLETE                       | 8.27.15   |
| HILDRETH-PERRY  |                 | HP607      | MANHOLE  | NEW RIM & COVER                 | COMPLETE                       | 8.28.15   |
| HILDRETH-PERRY  |                 | HP608      | MANHOLE  | NEW RIM & COVER                 | COMPLETE                       | 8.28.15   |
| KENDUSKEAG EAST | KE261A          |            | ALL      | 270', 15" LINE                  | COMPLETE                       | 11.17.15  |
| KENDUSKEAG EAST | KE262           |            | ALL      | 140', 15" LINE                  | COMPLETE                       | 11.17.15  |
| KENDUSKEAG EAST | KE263           |            | ALL      | 50', 15" LINE                   | COMPLETE                       | 11.17.15  |
| KENDUSKEAG EAST |                 | KE204      | MANHOLE  | RESET RIM, COVER                | COMPLETE                       | 7.27.15   |
| KENDUSKEAG EAST |                 | KE260      | MANHOLE  | INVERT WORK                     | COMPLETE                       | 9.10.15   |
| KENDUSKEAG EAST |                 | KE008      | MANHOLE  | INVERT WORK                     | COMPLETE                       | 11.15.15  |
| KENDUSKEAG WEST |                 | KW200      | MANHOLE  | NEW RIM & COVER                 | COMPLETE                       | 10.15.15  |
| KENDUSKEAG WEST |                 | KW201      | MANHOLE  | NEW RIM & COVER                 | COMPLETE                       | 10.15.15  |
| KENDUSKEAG WEST |                 | KW220      | MANHOLE  | NEW RIM & COVER                 | COMPLETE                       | 10.15.15  |
| KENDUSKEAG WEST |                 | KW202      | MANHOLE  | NEW RIM & COVER                 | COMPLETE                       | 10.15.15  |
| KENDUSKEAG WEST |                 | KW203      | MANHOLE  | NEW RIM & COVER                 | COMPLETE                       | 10.15.15  |
| KENDUSKEAG WEST |                 | KW160      | MANHOLE  | NEW RIM & COVER                 | COMPLETE                       | 10.15.15  |
| KENDUSKEAG WEST |                 | KW102      | MANHOLE  | NEW RIM & COVER                 | COMPLETE                       | 10.15.15  |
| KENDUSKEAG WEST |                 | KW103      | MANHOLE  | NEW RIM & COVER                 | COMPLETE                       | 10.15.15  |
| KENDUSKEAG WEST |                 | KW304      | DOGHOUSE | NEW RIM & COVER                 | COMPLETE                       | 10.9.15   |
| MEADOWBROOK     |                 | MB416      | MANHOLE  | NEW RIM & COVER                 | COMPLETE                       | 9.15.15   |
| MEADOWBROOK     |                 | MB403      | MANHOLE  | NEW RIM & COVER                 | COMPLETE                       | 9.15.15   |
| MEADOWBROOK     |                 | MB402      | MANHOLE  | NEW RIM & COVER                 | COMPLETE                       | 9.15.15   |
| MEADOWBROOK     |                 | MB401      | MANHOLE  | NEW RIM & COVER                 | COMPLETE                       | 9.15.15   |
| MEADOWBROOK     |                 | MB400      | MANHOLE  | NEW RIM & COVER                 | COMPLETE                       | 9.15.15   |
| MEADOWBROOK     |                 | MB013      | MANHOLE  | NEW RIM & COVER                 | COMPLETE                       | 9.15.15   |

# APPENDIX D: CCTV REPAIR, REPLACEMENT, AND UPGRADE LOG

City of Bangor, Maine  
Calendar Year 2015

| Subsection   | Pipe Segment ID | Manhole ID | Location                  | Description of Repair or Defect | Priority Ranked 1-5, 5 highest | Date Repaired or Future Implementation Schedule |
|--------------|-----------------|------------|---------------------------|---------------------------------|--------------------------------|---|
| MEADOWBROOK  |                 | MB300      | MANHOLE                   | NEW RIM & COVER                 | COMPLETE                       | 9.15.15   |
| MEADOWBROOK  |                 | MB301      | MANHOLE                   | NEW RIM & COVER                 | COMPLETE                       | 9.15.15   |
| MEADOWBROOK  |                 | MB302      | MANHOLE                   | NEW RIM & COVER                 | COMPLETE                       | 9.15.15   |
| MEADOWBROOK  |                 | MB303      | MANHOLE                   | NEW RIM & COVER                 | COMPLETE                       | 9.15.15   |
| MEADOWBROOK  |                 | MB304      | MANHOLE                   | NEW RIM & COVER                 | COMPLETE                       | 9.15.15   |
| MEADOWBROOK  |                 | MB305      | MANHOLE                   | NEW RIM & COVER                 | COMPLETE                       | 9.15.15   |
| MEADOWBROOK  |                 | MB306      | MANHOLE                   | NEW RIM & COVER                 | COMPLETE                       | 9.15.15   |
| MEADOWBROOK  |                 | MB307      | MANHOLE                   | NEW RIM & COVER                 | COMPLETE                       | 9.15.15   |
| MEADOWBROOK  |                 | MB308      | MANHOLE                   | NEW RIM & COVER                 | COMPLETE                       | 9.15.15   |
| MEADOWBROOK  |                 | MB309      | MANHOLE                   | NEW RIM & COVER                 | COMPLETE                       | 9.15.15   |
| MEADOWBROOK  |                 | MB982      | MANHOLE                   | NEW RIM & COVER                 | COMPLETE                       | 10.15.15  |
| MEADOWBROOK  |                 | MB981      | MANHOLE                   | NEW RIM & COVER                 | COMPLETE                       | 10.15.15  |
| MEADOWBROOK  |                 | MB980      | MANHOLE                   | NEW RIM & COVER                 | COMPLETE                       | 10.15.15  |
| MEADOWBROOK  |                 | MB982      | MANHOLE                   | INVERT WORK                     | COMPLETE                       | 7.20.15   |
| MEADOWBROOK  |                 | MB921      | MANHOLE                   | INVERT WORK                     | COMPLETE                       | 8.6.15  |
| MEADOWBROOK  |                 | MB009      | MANHOLE                   | BRICK WORK                      | COMPLETE                       | 8.14.15   |
| MEADOWBROOK  |                 | MB206      | MANHOLE                   | INVERT WORK                     | COMPLETE                       | 9.10.15   |
| MEADOWBROOK  |                 | MB758      | MANHOLE                   | INVERT WORK                     | COMPLETE                       | 11.9.15   |
| MEADOWBROOK  |                 | MB316      | MANHOLE                   | NEW RIM & COVER                 | COMPLETE                       | 11.17.15  |
| MEADOWBROOK  |                 | MB960      | MANHOLE                   | NEW RIM & COVER                 | COMPLETE                       | 10.11.15  |
| MEADOWBROOK  |                 | MB910      | MANHOLE                   | NEW RIM & COVER                 | COMPLETE                       | 10.11.15  |
| MEADOWBROOK  |                 | MB911      | MANHOLE                   | NEW RIM & COVER                 | COMPLETE                       | 10.11.15  |
| MEADOWBROOK  |                 | MB912      | MANHOLE                   | NEW RIM & COVER                 | COMPLETE                       | 10.11.15  |
| MEADOWBROOK  |                 | MB913      | MANHOLE                   | NEW RIM & COVER                 | COMPLETE                       | 10.11.15  |
| MEADOWBROOK  |                 | MB914      | MANHOLE                   | NEW RIM & COVER                 | COMPLETE                       | 10.11.15  |
| PENJAJAWOC   |                 | PJ503      | MANHOLE                   | RESET RIM                       | COMPLETE                       | 7.1.15  |
| PENJAJAWOC   |                 | PJ301      | MANHOLE                   | RESET RIM & COVER               | COMPLETE                       | 8.14.15   |
| PENJAJAWOC   |                 | PJ500      | MANHOLE                   | INVERT WORK                     | COMPLETE                       | 12.8.15   |
| WOODLAWN     |                 | WL021      | MANHOLE                   | NEW RIM & COVER                 | COMPLETE                       | 9.15.15   |
| WOODLAWN     |                 | WL022      | MANHOLE                   | NEW RIM & COVER                 | COMPLETE                       | 9.15.15   |
| WOODLAWN     |                 | WL023      | MANHOLE                   | NEW RIM & COVER                 | COMPLETE                       | 9.15.15   |
| WOODLAWN     |                 | WL024      | MANHOLE                   | NEW RIM & COVER                 | COMPLETE                       | 9.15.15   |
| WOODLAWN     |                 | WL025      | MANHOLE                   | NEW RIM & COVER                 | COMPLETE                       | 9.15.15   |
| WOODLAWN     |                 | WL104      | MANHOLE                   | NEW RIM & COVER                 | COMPLETE                       | 10.13.15  |
| WOODLAWN     |                 | WL105      | MANHOLE                   | NEW RIM & COVER                 | COMPLETE                       | 10.13.15  |
| WOODLAWN     |                 | WL120      | MANHOLE                   | NEW RIM & COVER                 | COMPLETE                       | 10.13.15  |
| AIRPORT      | AP421           |            | VARIOUS                   | REPLACE 370' OF PIPE            | 5                              | 2ND OR 3RD QUARTER OF 2016                      |
| AIRPORT      | AP707           |            | 10' UPSTREAM OF MH AP706  | REPAIR BREAK                    | 5                              | 2ND OR 3RD QUARTER OF 2016                      |
| AIRPORT      | AP721           |            | 5' DOWNSTREAM OF MH AP721 | REPLACE 5' OF MAINLINE          | 5                              | 2ND OR 3RD QUARTER OF 2016                      |
| ARCTIC BROOK | AB057           |            | 150' UPSTREAM OF MH AB056 | REPAIR COLLAPSE                 | 5                              | 2ND OR 3RD QUARTER OF 2016                      |

# APPENDIX D: CCTV REPAIR, REPLACEMENT, AND UPGRADE LOG

City of Bangor, Maine  
Calendar Year 2015

| Subsection      | Pipe Segment ID | Manhole ID | Location                    | Description of Repair or Defect                     | Priority Ranked 1-5, 5 highest | Date Repaired or Future Implementation Schedule |
|-----------------|-----------------|------------|-----------------------------|---|--------------------------------|---|
| DOW             | DW450           |            | 140' UPSTREAM OF MH DW017   | REPLACE 75' OF MAINLINE                             | 5                              | 2ND OR 3RD QUARTER OF 2016                      |
| DOW             | DW612A          |            | 106' UPSTREAM OF MH DW612   | REPLACE 100' OF MAINLINE                            | 5                              | 2ND OR 3RD QUARTER OF 2016                      |
| DOW             | DW650           |            | VARIOUS                     | REPAIR HOLE, CAP CONNECTIONS TO DEMO'D BUILDINGS    | 5                              | 3RD OR 4TH QUARTER OF 2016                      |
| DOW             | DW660           |            | FIRST 30' OF PIPE           | REPLACE PIPE, CAP ABANDONED TAP                     | 5                              | 3RD OR 4TH QUARTER OF 2016                      |
| KENDUSKEAG EAST | KE261           |            | ALL                         | REPLACE LINE, NEW MH                                | 5                              | 3RD QUARTER OF 2016                             |
| AIRPORT         | AP203           |            | VARIOUS                     | REHAB OR REPLACE LINE - BAD JOINTS, INFILTRATION    | 4                              | TBD   |
| AIRPORT         | AP205           |            | VARIOUS                     | REHAB OR REPLACE LINE, CAP CONNECTION IF NOT ACTIVE | 4                              | TBD   |
| AIRPORT         | AP370           |            | VARIOUS                     | REHAB OR REPLACE - SEVERAL DEFECTS, INFILTRATION    | 4                              | TBD   |
| AIRPORT         | AP372           |            | VARIOUS                     | REHAB OR REPLACE - SEVERAL DEFECTS, INFILTRATION    | 4                              | TBD   |
| AIRPORT         | AP406           |            | 46' DOWNSTREAM OF MH AP406  | REPAIR BREAK  | 4                              | TBD   |
| AIRPORT         | AP409           |            | 150' DOWNSTREAM OF MH AP409 | REPAIR BREAK AT TAP                                 | 4                              | TBD   |
| ARCTIC BROOK    | AB490           |            | 91' DOWNSTREAM OF MH AB490  | REPAIR BREAK  | 4                              | TBD   |
| ARCTIC BROOK    | AB551           |            | VARIOUS                     | REPLACE LINE - BREAK, ROOTS, INFILTRATION           | 4                              | TBD   |
| ARCTIC BROOK    | AB017           |            | 11' UPSTREAM OF MH AB016    | REPAIR HOLE   | 4                              | TBD   |
| ARCTIC BROOK    | AB137           |            | 88' UPSTREAM OF MH AB136    | REPAIR BREAK AND PROTRUDING TAP                     | 4                              | TBD   |
| ARCTIC BROOK    | AB142           |            | 13' DOWNSTREAM OF MH AB142  | REPAIR BREAK AND PROTRUDING TAP                     | 4                              | TBD   |
| ARCTIC BROOK    | AB402           |            | 80' UPSTREAM OF MH AB401    | DEFORMATION AND SLOPE - REPLACE LINE                | 4                              | TBD   |
| ARCTIC BROOK    | AB621           |            | VARIOUS                     | REPLACE LINE - SEVERAL HOLES & SAGS                 | 4                              | TBD   |
| ARCTIC BROOK    | AB621           |            | VARIOUS                     | SAGS - PREVENT FULL CCTV INSP.                      | 4                              | TBD   |
| BARKERSVILLE    | BV017           |            | ALL                         | REPLACE PIPE (DEFECTS IN BRICK)                     | 4                              | TBD   |
| BARKERSVILLE    | BV019           |            | ALL                         | REPLACE PIPE (DEFECTS IN BRICK)                     | 4                              | TBD   |
| BARKERSVILLE    | BV820           |            | VARIOUS                     | SMALL HOLE, CRACKS                                  | 4                              | TBD   |
| CARR BROOK      | CB851           |            | 69' UPSTREAM OF MH CB850    | HINGE CRACKS  | 4                              | TBD   |
| DAVIS BROOK     | DB305           |            | VARIOUS                     | SMALL HOLES, VOIDS VISIBLE                          | 4                              | TBD   |
| DAVIS BROOK     | DB305A          |            | 184' UPSTREAM OF MH DB305A  | REPAIR HOLE   | 4                              | TBD   |
| DAVIS BROOK     | DB702A          |            | VARIOUS                     | REPLACE PIPE (DEFECTS IN BRICK)                     | 4                              | TBD   |
| DAVIS BROOK     | DB900           |            | VARIOUS                     | CRACKS, ONE SAG                                     | 4                              | TBD   |
| DOW             | DW450           |            | VARIOUS                     | CAP CONNECTIONS TO DEMO'D BUILDINGS                 | 4                              | TBD   |



# APPENDIX D: CCTV REPAIR, REPLACEMENT, AND UPGRADE LOG

City of Bangor, Maine  
Calendar Year 2015

| Subsection      | Pipe Segment ID | Manhole ID | Location                           | Description of Repair or Defect              | Priority Ranked 1-5, 5 highest | Date Repaired or Future Implementation Schedule |
|-----------------|-----------------|------------|------------------------------------|--|--------------------------------|---|
| DOW             | DW611           |            | 144' AND 226' UPSTREAM OF MH DW611 | CAP CONNECTIONS IF NOT ACTIVE                | 4                              | TBD   |
| KENDUSKEAG EAST | KE251           |            | VARIOUS                            | OFFSET JOINT, DROP SEGMENT, VOID             | 4                              | TBD   |
| KENDUSKEAG EAST | KE260           |            | VARIOUS, HOLE 235' IN              | REHAB OR REPLACE                             | 4                              | TBD   |
| KENDUSKEAG EAST | KE250           |            | VARIOUS                            | CRACKS, SAG, BROKEN AT MANHOLE               | 4                              | TBD   |
| KENDUSKEAG WEST | KW101           |            | VARIOUS                            | REPLACE PIPE (DEFECTS IN BRICK)              | 4                              | TBD   |
| KENDUSKEAG WEST | KW160           |            | VARIOUS                            | SEVERAL CRACKS                               | 4                              | TBD   |
| MEADOWBROOK     | MB550           |            | VARIOUS                            | SEVERAL REPAIR PATCHES, CRACKS, ETC.         | 4                              | TBD   |
| MEADOWBROOK     | MB915           |            | VARIOUS                            | REPLACE MAINLINE                             | 4                              | TBD   |
| WOODLAWN        | WL024           |            | VARIOUS                            | SAGS   | 4                              | TBD   |
| AIRPORT         | AP415           |            | 104' DOWNSTREAM OF MH AP415        | REPAIR BREAK                                 | 3                              | TBD   |
| ARCTIC BROOK    | AB124           |            | 9' FROM MH AB123                   | REPAIR BREAK AT TAP                          | 3                              | TBD   |
| ARCTIC BROOK    | AB161           |            | 5' UPSTREAM OF MH AB160            | REPAIR BREAK                                 | 3                              | TBD   |
| ARCTIC BROOK    | AB501           |            | VARIOUS                            | REPAIR LINE - SAG                            | 3                              | TBD   |
| ARCTIC BROOK    | AB508           |            | VARIOUS                            | CRACKS, SEPARATED JOINT                      | 3                              | TBD   |
| ARCTIC BROOK    | AB560           |            | VARIOUS                            | REPLACE OR REHAB LINE - INFILTRATION         | 3                              | TBD   |
| ARCTIC BROOK    | AB620           |            | VARIOUS                            | MULTIPLE CRACKS, DEBRIS IN LINE              | 3                              | TBD   |
| ARCTIC BROOK    | AB624           |            | VARIOUS                            | REPLACE OR REHAB LINE - CRACKS, INFILTRATION | 3                              | TBD   |
| ARCTIC BROOK    | AB655           |            | VARIOUS                            | REPLACE OR REHAB LINE - CRACKS, DEBRIS       | 3                              | TBD   |
| BARKERSVILLE    | BV020           |            | ALL                                | REPLACE PIPE (DEFECTS IN BRICK)              | 3                              | TBD   |
| BARKERSVILLE    | BV425           |            | VARIOUS                            | REPLACE OR REHAB LINE - INFILTRATION         | 3                              | TBD   |
| BARKERSVILLE    | BV435           |            | 238' DOWNSTREAM OF MH BV435        | RAISE BURIED MANHOLE                         | 3                              | TBD   |
| BARKERSVILLE    | BV466           |            | VARIOUS                            | LONG HINGE CRACKS, DEFORMATION               | 3                              | TBD   |
| CARR BROOK      | CB506           |            | VARIOUS                            | REPLACE OR REHAB LINE - CRACKS               | 3                              | TBD   |
| DAVIS BROOK     | DB804           |            | VARIOUS                            | REPLACE OR REHAB - SEVERAL CRACKS            | 3                              | TBD   |
| DOW             | DW100           |            | 12' UPSTREAM OF MH DW006           | UPSIZE LINE FROM 6" DIAMETER TO 8"           | 3                              | TBD   |
| DOW             | DW614           |            | VARIOUS                            | EVALUATE FOR REROUTE OR REPLACE              | 3                              | TBD   |
| KENDUSKEAG WEST | KW202           |            | VARIOUS                            | REPLACE PIPE (DEFECTS IN BRICK)              | 3                              | TBD   |
| MEADOWBROOK     | MB366           |            | VARIOUS                            | SEVERAL CRACKS                               | 3                              | TBD   |
| MEADOWBROOK     | MB367           |            | VARIOUS                            | SEVERAL CRACKS, SMALL HOLE                   | 3                              | TBD   |
| MEADOWBROOK     | MB416           |            | VARIOUS                            | REPLACE PIPE (DEFECTS IN BRICK)              | 3                              | TBD   |
| WOODLAWN        | WL025           |            | JUST UPSTREAM OF MH WL024          | REPAIR BREAK                                 | 3                              | TBD   |
| WOODLAWN        | WL600           |            | VARIOUS                            | REPAIR OR REHAB - SEVERAL CRACKS             | 3                              | TBD   |
|                 | AB161           |            | 86' UPSTREAM OF MH AB160           | REPAIR PROTRUDING TAP                        | 3                              | TBD   |

**APPENDIX D: CCTV REPAIR, REPLACEMENT, AND UPGRADE LOG**  
 City of Bangor, Maine  
 Calendar Year 2015

| Subsection   | Pipe Segment ID | Manhole ID | Location                    | Description of Repair or Defect     | Priority Ranked 1-5, 5 highest | Date Repaired or Future Implementation Schedule |
|--------------|-----------------|------------|-----------------------------|-------------------------------------|--------------------------------|---|
|              | AB436           |            | DEAD END OF LINE            | INSTALL MANHOLE AT END OF LINE      | 3                              | TBD   |
| ARCTIC BROOK | AB160           |            | ALL                         | SURFACE DAMAGE - REPLACE PIPE       | 2                              | TBD   |
| ARCTIC BROOK | AB436           |            | 42' UPSTREAM OF MH AB435    | REPAIR HOLE                         | 2                              | TBD   |
| ARCTIC BROOK | AB503           |            | VARIOUS                     | RPLACE LINE - INFILTRATION          | 2                              | TBD   |
| MEADOWBROOK  | MB263           |            | VARIOUS                     | LONG CRACKS, SMALL HOLE             | 2                              | TBD   |
| MEADOWBROOK  | MB509           |            | 135' DOWNSTREAM OF MH MB509 | SPOT REPAIR AT JOINT - INFILTRATION | 2                              | TBD   |
| MEADOWBROOK  | MB551           |            | 214' FROM MH MB550          | REPAIR CONNECTION AT TAP            | 2                              | TBD   |

**General Notes:**

- Small repairs are scheduled and prioritized with respect to each other and other work as schedules and resources allow. Furthermore, if it becomes apparent that several repairs are needed in the same area, they may be combined to form a larger CIP during which pipes are completely replaced or rehabilitated rather than repaired.

## APPENDIX E: CLEANING LOG

City of Bangor, Maine  
Calendar Year 2015

| Date of Cleaning | Subsection | Pipe Segment ID | Length of Pipe Segment | # Passes | Approx. Length Cleaned (FT) | Repeat Cleaning (this CY) | Justification for Repeat Cleaning (by Reason Code)* |
|------------------|------------|-----------------|------------------------|----------|-----------------------------|---------------------------|---|
| 2/19/2015        | AIRPORT    | AP421           | 200                    | 2        | 400                         | NO                        | N/A   |
| 3/2/2015         | AIRPORT    | AP263           | 35                     | 1        | 35                          | NO                        | N/A   |
| 3/2/2015         | AIRPORT    | AP280           | 350                    | 1        | 350                         | NO                        | N/A   |
| 3/2/2015         | AIRPORT    | AP380           | 125                    | 1        | 125                         | NO                        | N/A   |
| 3/11/2015        | AIRPORT    | AP417           | 100                    | 1        | 100                         | NO                        | N/A   |
| 3/11/2015        | AIRPORT    | AP418           | 350                    | 1        | 350                         | NO                        | N/A   |
| 3/12/2015        | AIRPORT    | AP415A          | 150                    | 1        | 150                         | NO                        | N/A   |
| 3/26/2015        | AIRPORT    | AP329           | 300                    | 2        | 600                         | NO                        | N/A   |
| 4/2/2015         | AIRPORT    | AP709           | 350                    | 1        | 350                         | NO                        | N/A   |
| 4/3/2015         | AIRPORT    | AP417           | 100                    | 1        | 100                         | YES                       | D   |
| 4/3/2015         | AIRPORT    | AP418           | 350                    | 1        | 350                         | YES                       | D   |
| 4/9/2015         | AIRPORT    | AP415A          | 175                    | 2        | 350                         | YES                       | D   |
| 4/10/2015        | AIRPORT    | AP353           | 275                    | 1        | 275                         | NO                        | N/A   |
| 4/10/2015        | AIRPORT    | AP355           | 350                    | 1        | 350                         | NO                        | N/A   |
| 4/16/2015        | AIRPORT    | AP330           | 50                     | 2        | 100                         | NO                        | N/A   |
| 4/16/2015        | AIRPORT    | AP522           | 225                    | 1        | 225                         | NO                        | N/A   |
| 4/23/2015        | AIRPORT    | AP412           | 175                    | 1        | 175                         | NO                        | N/A   |
| 4/23/2015        | AIRPORT    | AP413           | 175                    | 1        | 175                         | NO                        | N/A   |
| 4/27/2015        | AIRPORT    | AP515           | 525                    | 2        | 1050                        | NO                        | N/A   |
| 4/27/2015        | AIRPORT    | AP516           | 600                    | 2        | 1200                        | NO                        | N/A   |
| 4/28/2015        | AIRPORT    | AP051           | 325                    | 2        | 650                         | NO                        | N/A   |
| 5/1/2015         | AIRPORT    | AP740           | 150                    | 1        | 150                         | NO                        | N/A   |
| 5/1/2015         | AIRPORT    | AP740A          | 130                    | 10       | 1300                        | NO                        | N/A   |
| 5/1/2015         | AIRPORT    | AP740A          | 150                    | 1        | 150                         | YES                       | E   |
| 5/4/2015         | AIRPORT    | AP508           | 250                    | 4        | 1000                        | NO                        | N/A   |
| 5/4/2015         | AIRPORT    | AP530           | 275                    | 3        | 825                         | NO                        | N/A   |
| 5/4/2015         | AIRPORT    | AP531           | 225                    | 1        | 225                         | NO                        | N/A   |
| 5/4/2015         | AIRPORT    | AP541           | 125                    | 1        | 125                         | NO                        | N/A   |
| 5/4/2015         | AIRPORT    | AP541A          | 175                    | 1        | 175                         | NO                        | N/A   |
| 5/4/2015         | AIRPORT    | AP542           | 250                    | 1        | 250                         | NO                        | N/A   |
| 5/13/2015        | AIRPORT    | AP415A          | 175                    | 2        | 350                         | YES                       | D   |
| 6/3/2015         | AIRPORT    | AP660           | 175                    | 1        | 175                         | NO                        | N/A   |
| 6/6/2015         | AIRPORT    | AP660           | 175                    | 4        | 700                         | YES                       | E   |
| 6/19/2015        | AIRPORT    | AP417           | 100                    | 1        | 100                         | YES                       | D   |
| 6/19/2015        | AIRPORT    | AP418           | 350                    | 1        | 350                         | YES                       | D   |
| 7/6/2015         | AIRPORT    | AP450           | 275                    | 2        | 550                         | NO                        | N/A   |
| 7/8/2015         | AIRPORT    | AP050           | 200                    | 1        | 200                         | NO                        | N/A   |
| 7/8/2015         | AIRPORT    | AP051           | 300                    | 1        | 300                         | YES                       | D   |
| 7/15/2015        | AIRPORT    | AP403           | 180                    | 1        | 180                         | NO                        | N/A   |
| 7/17/2015        | AIRPORT    | AP420           | 250                    | 2        | 500                         | NO                        | N/A   |
| 7/20/2015        | AIRPORT    | AP419           | 325                    | 2        | 650                         | NO                        | N/A   |
| 7/23/2015        | AIRPORT    | AP329           | 50                     | 1        | 50                          | YES                       | D   |
| 7/23/2015        | AIRPORT    | AP415A          | 175                    | 1        | 175                         | YES                       | D   |
| 7/23/2015        | AIRPORT    | AP417           | 100                    | 1        | 100                         | YES                       | D   |
| 7/23/2015        | AIRPORT    | AP418           | 350                    | 1        | 350                         | YES                       | D   |

## APPENDIX E: CLEANING LOG

City of Bangor, Maine  
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| Date of Cleaning | Subsection   | Pipe Segment ID | Length of Pipe Segment | # Passes | Approx. Length Cleaned (FT) | Repeat Cleaning (this CY) | Justification for Repeat Cleaning (by Reason Code)* |
|------------------|--------------|-----------------|------------------------|----------|-----------------------------|---------------------------|---|
| 8/21/2015        | AIRPORT      | AP415A          | 175                    | 3        | 525                         | YES                       | D   |
| 8/24/2015        | AIRPORT      | AP417           | 100                    | 3        | 300                         | YES                       | D   |
| 8/24/2015        | AIRPORT      | AP418           | 350                    | 2        | 700                         | YES                       | D   |
| 8/24/2015        | AIRPORT      | AP614           | 225                    | 1        | 225                         | NO                        | N/A   |
| 8/27/2015        | AIRPORT      | AP281           | 350                    | 2        | 700                         | NO                        | N/A   |
| 8/27/2015        | AIRPORT      | AP282           | 350                    | 2        | 700                         | NO                        | N/A   |
| 9/23/2015        | AIRPORT      | AP353           | 300                    | 1        | 300                         | YES                       | D   |
| 9/23/2015        | AIRPORT      | AP355           | 600                    | 1        | 600                         | YES                       | D   |
| 11/5/2015        | AIRPORT      | AP415A          | 150                    | 1        | 150                         | YES                       | D   |
| 12/11/2015       | AIRPORT      | AP521           | 175                    | 3        | 525                         | NO                        | N/A   |
| 12/21/2015       | AIRPORT      | AP330           | 275                    | 1        | 275                         | YES                       | D   |
| 12/31/2015       | AIRPORT      | AP330           | 250                    | 2        | 500                         | YES                       | D   |
| 1/16/2015        | ARCTIC BROOK | AB552           | 75                     | 1        | 75                          | NO                        | N/A   |
| 1/16/2015        | ARCTIC BROOK | AB562           | 125                    | 1        | 125                         | NO                        | N/A   |
| 2/18/2015        | ARCTIC BROOK | AB141           | 300                    | 1        | 300                         | NO                        | N/A   |
| 2/18/2015        | ARCTIC BROOK | AB552           | 75                     | 1        | 75                          | YES                       | D   |
| 2/18/2015        | ARCTIC BROOK | AB562           | 125                    | 1        | 125                         | YES                       | D   |
| 3/16/2015        | ARCTIC BROOK | AB552           | 75                     | 1        | 75                          | YES                       | D   |
| 3/16/2015        | ARCTIC BROOK | AB562           | 125                    | 1        | 125                         | YES                       | D   |
| 3/20/2015        | ARCTIC BROOK | AB552           | 75                     | 1        | 75                          | YES                       | D   |
| 3/20/2015        | ARCTIC BROOK | AB562           | 125                    | 1        | 125                         | YES                       | D   |
| 4/9/2015         | ARCTIC BROOK | AB552           | 75                     | 1        | 75                          | YES                       | D   |
| 4/10/2015        | ARCTIC BROOK | AB562           | 125                    | 2        | 250                         | YES                       | D   |
| 4/10/2015        | ARCTIC BROOK | AB752           | 325                    | 1        | 325                         | NO                        | N/A   |
| 5/1/2015         | ARCTIC BROOK | AB552           | 75                     | 1        | 75                          | YES                       | D   |
| 5/1/2015         | ARCTIC BROOK | AB562           | 125                    | 1        | 125                         | YES                       | D   |
| 5/28/2015        | ARCTIC BROOK | AB132           | 350                    | 1        | 350                         | NO                        | N/A   |
| 6/11/2015        | ARCTIC BROOK | AB552           | 75                     | 1        | 75                          | YES                       | D   |
| 6/11/2015        | ARCTIC BROOK | AB562           | 125                    | 1        | 125                         | YES                       | D   |
| 6/12/2015        | ARCTIC BROOK | AB404           | 200                    | 1        | 200                         | NO                        | N/A   |
| 6/12/2015        | ARCTIC BROOK | AB410           | 475                    | 1        | 475                         | NO                        | N/A   |
| 6/18/2015        | ARCTIC BROOK | AB605           | 450                    | 1        | 450                         | NO                        | N/A   |
| 6/30/2015        | ARCTIC BROOK | AB552           | 75                     | 1        | 75                          | YES                       | D   |
| 7/1/2015         | ARCTIC BROOK | AB562           | 125                    | 1        | 125                         | YES                       | D   |
| 7/14/2015        | ARCTIC BROOK | AB552           | 75                     | 1        | 75                          | YES                       | D   |
| 7/14/2015        | ARCTIC BROOK | AB562           | 125                    | 1        | 125                         | YES                       | D   |
| 7/23/2015        | ARCTIC BROOK | AB552           | 75                     | 1        | 75                          | YES                       | D   |
| 7/23/2015        | ARCTIC BROOK | AB562           | 125                    | 1        | 125                         | YES                       | D   |
| 7/24/2015        | ARCTIC BROOK | AB082           | 200                    | 1        | 200                         | NO                        | N/A   |
| 7/24/2015        | ARCTIC BROOK | AB083           | 375                    | 1        | 375                         | NO                        | N/A   |
| 7/24/2015        | ARCTIC BROOK | AB085           | 450                    | 1        | 450                         | NO                        | N/A   |
| 8/12/2015        | ARCTIC BROOK | AB354           | 275                    | 1        | 275                         | NO                        | N/A   |
| 8/12/2015        | ARCTIC BROOK | AB355           | 150                    | 1        | 150                         | NO                        | N/A   |
| 8/12/2015        | ARCTIC BROOK | AB356           | 350                    | 1        | 350                         | NO                        | N/A   |
| 8/12/2015        | ARCTIC BROOK | AB552           | 75                     | 1        | 75                          | YES                       | D   |

## APPENDIX E: CLEANING LOG

City of Bangor, Maine  
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| Date of Cleaning | Subsection   | Pipe Segment ID | Length of Pipe Segment | # Passes | Approx. Length Cleaned (FT) | Repeat Cleaning (this CY) | Justification for Repeat Cleaning (by Reason Code)* |
|------------------|--------------|-----------------|------------------------|----------|-----------------------------|---------------------------|---|
| 8/12/2015        | ARCTIC BROOK | AB562           | 125                    | 1        | 125                         | YES                       | D   |
| 8/21/2015        | ARCTIC BROOK | AB552           | 75                     | 1        | 75                          | YES                       | D   |
| 8/21/2015        | ARCTIC BROOK | AB562           | 125                    | 1        | 125                         | YES                       | D   |
| 8/21/2015        | ARCTIC BROOK | AB562           | 125                    | 1        | 125                         | YES                       | D   |
| 8/25/2015        | ARCTIC BROOK | AB351           | 275                    | 2        | 550                         | NO                        | N/A   |
| 8/25/2015        | ARCTIC BROOK | AB353           | 360                    | 1        | 360                         | NO                        | N/A   |
| 8/25/2015        | ARCTIC BROOK | AB360           | 350                    | 2        | 700                         | NO                        | N/A   |
| 8/27/2015        | ARCTIC BROOK | AB053           | 50                     | 1        | 50                          | NO                        | N/A   |
| 8/27/2015        | ARCTIC BROOK | AB054           | 225                    | 1        | 225                         | NO                        | N/A   |
| 8/27/2015        | ARCTIC BROOK | AB060           | 50                     | 1        | 50                          | NO                        | N/A   |
| 8/27/2015        | ARCTIC BROOK | AB061           | 275                    | 1        | 275                         | NO                        | N/A   |
| 8/27/2015        | ARCTIC BROOK | AB062           | 175                    | 1        | 175                         | NO                        | N/A   |
| 8/27/2015        | ARCTIC BROOK | AB063           | 70                     | 1        | 70                          | NO                        | N/A   |
| 8/27/2015        | ARCTIC BROOK | AB064           | 75                     | 1        | 75                          | NO                        | N/A   |
| 8/27/2015        | ARCTIC BROOK | AB065           | 200                    | 1        | 200                         | NO                        | N/A   |
| 8/27/2015        | ARCTIC BROOK | AB303           | 275                    | 1        | 275                         | NO                        | N/A   |
| 8/27/2015        | ARCTIC BROOK | AB457           | 100                    | 1        | 100                         | NO                        | N/A   |
| 8/27/2015        | ARCTIC BROOK | AB562           | 125                    | 2        | 250                         | YES                       | D   |
| 8/27/2015        | ARCTIC BROOK | AB562           | 125                    | 2        | 250                         | YES                       | D   |
| 8/28/2015        | ARCTIC BROOK | AB101           | 150                    | 1        | 150                         | NO                        | N/A   |
| 8/28/2015        | ARCTIC BROOK | AB103           | 35                     | 1        | 35                          | NO                        | N/A   |
| 8/28/2015        | ARCTIC BROOK | AB104           | 200                    | 1        | 200                         | NO                        | N/A   |
| 8/28/2015        | ARCTIC BROOK | AB105           | 20                     | 1        | 20                          | NO                        | N/A   |
| 8/28/2015        | ARCTIC BROOK | AB106           | 325                    | 1        | 325                         | NO                        | N/A   |
| 8/28/2015        | ARCTIC BROOK | AB120           | 300                    | 1        | 300                         | NO                        | N/A   |
| 8/28/2015        | ARCTIC BROOK | AB121           | 300                    | 1        | 300                         | NO                        | N/A   |
| 8/28/2015        | ARCTIC BROOK | AB122           | 150                    | 1        | 150                         | NO                        | N/A   |
| 8/28/2015        | ARCTIC BROOK | AB123           | 75                     | 1        | 75                          | NO                        | N/A   |
| 8/28/2015        | ARCTIC BROOK | AB124           | 250                    | 1        | 250                         | NO                        | N/A   |
| 8/28/2015        | ARCTIC BROOK | AB241           | 130                    | 1        | 130                         | NO                        | N/A   |
| 8/28/2015        | ARCTIC BROOK | AB250           | 60                     | 1        | 60                          | NO                        | N/A   |
| 8/28/2015        | ARCTIC BROOK | AB251           | 125                    | 1        | 125                         | NO                        | N/A   |
| 9/3/2015         | ARCTIC BROOK | AB203           | 40                     | 1        | 40                          | NO                        | N/A   |
| 9/3/2015         | ARCTIC BROOK | AB204           | 275                    | 1        | 275                         | NO                        | N/A   |
| 9/3/2015         | ARCTIC BROOK | AB205           | 75                     | 1        | 75                          | NO                        | N/A   |
| 9/3/2015         | ARCTIC BROOK | AB206           | 300                    | 1        | 300                         | NO                        | N/A   |
| 9/3/2015         | ARCTIC BROOK | AB207           | 250                    | 1        | 250                         | NO                        | N/A   |
| 9/3/2015         | ARCTIC BROOK | AB208           | 100                    | 1        | 100                         | NO                        | N/A   |
| 9/3/2015         | ARCTIC BROOK | AB209           | 300                    | 1        | 300                         | NO                        | N/A   |
| 9/3/2015         | ARCTIC BROOK | AB260           | 25                     | 1        | 25                          | NO                        | N/A   |
| 9/3/2015         | ARCTIC BROOK | AB261           | 150                    | 1        | 150                         | NO                        | N/A   |
| 9/4/2015         | ARCTIC BROOK | AB109           | 250                    | 1        | 250                         | NO                        | N/A   |
| 9/4/2015         | ARCTIC BROOK | AB140           | 325                    | 1        | 325                         | NO                        | N/A   |
| 9/4/2015         | ARCTIC BROOK | AB551           | 400                    | 1        | 400                         | NO                        | N/A   |
| 9/8/2015         | ARCTIC BROOK | AB132           | 325                    | 1        | 325                         | YES                       | D   |

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| 9/8/2015         | ARCTIC BROOK     | AB137           | 125                    | 1        | 125                         | NO                        | N/A   |
| 9/8/2015         | ARCTIC BROOK     | AB507           | 375                    | 1        | 375                         | NO                        | N/A   |
| 9/8/2015         | ARCTIC BROOK     | AB801           | 225                    | 1        | 225                         | NO                        | N/A   |
| 9/8/2015         | ARCTIC BROOK     | AB802           | 175                    | 1        | 175                         | NO                        | N/A   |
| 9/8/2015         | ARCTIC BROOK     | AB803           | 175                    | 1        | 175                         | NO                        | N/A   |
| 9/8/2015         | ARCTIC BROOK     | AB821           | 300                    | 1        | 300                         | NO                        | N/A   |
| 9/8/2015         | ARCTIC BROOK     | AB822           | 400                    | 1        | 400                         | NO                        | N/A   |
| 9/26/2015        | ARCTIC BROOK     | AB350           | 225                    | 5        | 1125                        | NO                        | N/A   |
| 10/23/2015       | ARCTIC BROOK     | AB552           | 75                     | 1        | 75                          | YES                       | D   |
| 10/26/2015       | ARCTIC BROOK     | AB562           | 125                    | 1        | 125                         | YES                       | D   |
| 11/6/2015        | ARCTIC BROOK     | AB552           | 75                     | 1        | 75                          | YES                       | D   |
| 11/6/2015        | ARCTIC BROOK     | AB562           | 125                    | 1        | 125                         | YES                       | D   |
| 11/10/2015       | ARCTIC BROOK     | AB124           | 250                    | 1        | 250                         | YES                       | F   |
| 12/10/2015       | ARCTIC BROOK     | AB623           | 400                    | 7        | 2800                        | NO                        | N/A   |
| 12/10/2015       | ARCTIC BROOK     | AB624           | 250                    | 1        | 250                         | NO                        | N/A   |
| 12/11/2015       | ARCTIC BROOK     | AB552           | 75                     | 1        | 75                          | YES                       | D   |
| 12/11/2015       | ARCTIC BROOK     | AB622           | 350                    | 7        | 2450                        | NO                        | N/A   |
| 12/14/2015       | ARCTIC BROOK     | AB562           | 125                    | 1        | 125                         | YES                       | D   |
| 12/14/2015       | ARCTIC BROOK     | AB621           | 300                    | 3        | 900                         | NO                        | N/A   |
| 12/14/2015       | ARCTIC BROOK     | AB630           | 150                    | 3        | 450                         | NO                        | N/A   |
| 3/11/2015        | BARKERSVILLE     | BV056           | 175                    | 1        | 175                         | NO                        | N/A   |
| 6/30/2015        | BARKERSVILLE     | BV532           | 150                    | 1        | 150                         | NO                        | N/A   |
| 6/30/2015        | BARKERSVILLE     | BV535           | 275                    | 1        | 275                         | NO                        | N/A   |
| 4/1/2015         | BLANCHARD STREET | BS502           | 250                    | 3        | 750                         | NO                        | N/A   |
| 3/2/2015         | BURLEIGH         | BU532           | 200                    | 1        | 200                         | NO                        | N/A   |
| 3/2/2015         | BURLEIGH         | BU535           | 275                    | 1        | 275                         | NO                        | N/A   |
| 3/20/2015        | BURLEIGH         | BU532           | 200                    | 1        | 200                         | YES                       | D   |
| 3/20/2015        | BURLEIGH         | BU535           | 275                    | 1        | 275                         | YES                       | D   |
| 3/24/2015        | BURLEIGH         | BU554           | 400                    | 1        | 400                         | NO                        | N/A   |
| 3/25/2015        | BURLEIGH         | BU552           | 300                    | 1        | 300                         | NO                        | N/A   |
| 3/25/2015        | BURLEIGH         | BU553           | 400                    | 1        | 400                         | NO                        | N/A   |
| 3/26/2015        | BURLEIGH         | BU550           | 200                    | 1        | 200                         | NO                        | N/A   |
| 3/26/2015        | BURLEIGH         | BU551           | 300                    | 1        | 300                         | NO                        | N/A   |
| 3/26/2015        | BURLEIGH         | BU560           | 100                    | 1        | 100                         | NO                        | N/A   |
| 3/26/2015        | BURLEIGH         | BU801           | 275                    | 1        | 275                         | NO                        | N/A   |
| 3/26/2015        | BURLEIGH         | BU802           | 275                    | 1        | 275                         | NO                        | N/A   |
| 3/26/2015        | BURLEIGH         | BU803           | 300                    | 1        | 300                         | NO                        | N/A   |
| 5/1/2015         | BURLEIGH         | BU532           | 150                    | 1        | 150                         | YES                       | D   |
| 5/1/2015         | BURLEIGH         | BU535           | 275                    | 1        | 275                         | YES                       | D   |
| 5/18/2015        | BURLEIGH         | BU532           | 150                    | 1        | 150                         | YES                       | D   |
| 5/18/2015        | BURLEIGH         | BU535           | 275                    | 1        | 275                         | YES                       | D   |
| 7/28/2015        | BURLEIGH         | BU532           | 200                    | 1        | 200                         | YES                       | D   |
| 7/28/2015        | BURLEIGH         | BU535           | 275                    | 1        | 275                         | YES                       | D   |
| 8/27/2015        | BURLEIGH         | BU532           | 200                    | 1        | 200                         | YES                       | D   |
| 8/27/2015        | BURLEIGH         | BU535           | 275                    | 1        | 275                         | YES                       | D   |

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| 10/26/2015       | BURLEIGH    | BU532           | 175                    | 1        | 175                         | YES                       | D   |
| 10/26/2015       | BURLEIGH    | BU535           | 275                    | 1        | 275                         | YES                       | D   |
| 11/6/2015        | BURLEIGH    | BU532           | 200                    | 1        | 200                         | YES                       | D   |
| 11/6/2015        | BURLEIGH    | BU535           | 275                    | 1        | 275                         | YES                       | D   |
| 11/12/2015       | BURLEIGH    | BU532           | 150                    | 1        | 150                         | YES                       | D   |
| 11/12/2015       | BURLEIGH    | BU535           | 275                    | 1        | 275                         | YES                       | D   |
| 12/11/2015       | BURLEIGH    | BU532           | 200                    | 1        | 200                         | YES                       | D   |
| 12/11/2015       | BURLEIGH    | BU535           | 275                    | 1        | 275                         | YES                       | D   |
| 2/18/2015        | CARR BROOK  | CB126           | 375                    | 1        | 375                         | NO                        | N/A   |
| 3/2/2015         | CARR BROOK  | CB126           | 375                    | 1        | 375                         | YES                       | D   |
| 3/2/2015         | CARR BROOK  | CB406           | 300                    | 1        | 300                         | NO                        | N/A   |
| 3/4/2015         | CARR BROOK  | CB133           | 305                    | 1        | 305                         | NO                        | N/A   |
| 3/14/2015        | CARR BROOK  | CB145           | 150                    | 2        | 300                         | NO                        | N/A   |
| 3/30/2015        | CARR BROOK  | CB110           | 325                    | 1        | 325                         | NO                        | N/A   |
| 3/30/2015        | CARR BROOK  | CB111           | 425                    | 2        | 850                         | NO                        | N/A   |
| 3/31/2015        | CARR BROOK  | CB110           | 325                    | 4        | 1300                        | YES                       | D   |
| 4/8/2015         | CARR BROOK  | CB107           | 275                    | 2        | 550                         | NO                        | N/A   |
| 4/8/2015         | CARR BROOK  | CB108           | 325                    | 3        | 975                         | NO                        | N/A   |
| 4/8/2015         | CARR BROOK  | CB109           | 275                    | 3        | 825                         | NO                        | N/A   |
| 4/23/2015        | CARR BROOK  | CB126           | 350                    | 1        | 350                         | YES                       | D   |
| 4/28/2015        | CARR BROOK  | CB134           | 300                    | 1        | 300                         | NO                        | N/A   |
| 4/28/2015        | CARR BROOK  | CB406           | 175                    | 1        | 175                         | YES                       | D   |
| 4/28/2015        | CARR BROOK  | CB407           | 175                    | 1        | 175                         | NO                        | N/A   |
| 5/20/2015        | CARR BROOK  | CB126           | 350                    | 1        | 350                         | YES                       | D   |
| 6/11/2015        | CARR BROOK  | CB126           | 350                    | 1        | 350                         | YES                       | D   |
| 6/11/2015        | CARR BROOK  | CB134           |                        | 1        | 0                           | YES                       | E   |
| 7/14/2015        | CARR BROOK  | CB133           | 350                    | 1        | 350                         | YES                       | E   |
| 7/14/2015        | CARR BROOK  | CB406           | 300                    | 1        | 300                         | YES                       | D   |
| 7/29/2015        | CARR BROOK  | CB126           | 350                    | 1        | 350                         | YES                       | D   |
| 8/10/2015        | CARR BROOK  | CB134           | 350                    | 1        | 350                         | YES                       | E   |
| 8/26/2015        | CARR BROOK  | CB126           | 350                    | 1        | 350                         | YES                       | D   |
| 9/8/2015         | CARR BROOK  | CB126           | 375                    | 1        | 375                         | YES                       | D   |
| 9/8/2015         | CARR BROOK  | CB133           | 350                    | 1        | 350                         | YES                       | E   |
| 9/8/2015         | CARR BROOK  | CB406           | 300                    | 1        | 300                         | YES                       | D   |
| 11/6/2015        | CARR BROOK  | CB134           | 350                    | 1        | 350                         | YES                       | E   |
| 11/6/2015        | CARR BROOK  | CB406           | 350                    | 1        | 350                         | YES                       | D   |
| 12/11/2015       | CARR BROOK  | CB850           | 200                    | 1        | 200                         | NO                        | N/A   |
| 12/11/2015       | CARR BROOK  | CB851           | 225                    | 1        | 225                         | NO                        | N/A   |
| 12/14/2015       | CARR BROOK  | CB125           | 375                    | 1        | 375                         | NO                        | N/A   |
| 12/14/2015       | CARR BROOK  | CB133           | 350                    | 1        | 350                         | YES                       | E   |
| 12/14/2015       | CARR BROOK  | CB405           | 300                    | 1        | 300                         | NO                        | N/A   |
| 2/18/2015        | DAVIS BROOK | DB520           | 125                    | 1        | 125                         | NO                        | N/A   |
| 3/24/2015        | DAVIS BROOK | DB564           | 150                    | 1        | 150                         | NO                        | N/A   |
| 3/24/2015        | DAVIS BROOK | DB565           | 75                     | 1        | 75                          | NO                        | N/A   |
| 3/24/2015        | DAVIS BROOK | DB566           | 175                    | 2        | 350                         | NO                        | N/A   |

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| 4/3/2015         | DAVIS BROOK | DB564           | 150                    | 1        | 150                         | YES                       | D   |
| 4/3/2015         | DAVIS BROOK | DB565           | 75                     | 1        | 75                          | YES                       | D   |
| 4/3/2015         | DAVIS BROOK | DB566           | 175                    | 1        | 175                         | YES                       | D   |
| 5/11/2015        | DAVIS BROOK | DB520           | 100                    | 1        | 100                         | YES                       | D   |
| 5/13/2015        | DAVIS BROOK | DB530           | 150                    | 3        | 450                         | NO                        | N/A   |
| 5/18/2015        | DAVIS BROOK | DB380           | 145                    | 4        | 580                         | NO                        | N/A   |
| 6/26/2015        | DAVIS BROOK | DB564           | 75                     | 1        | 75                          | YES                       | D   |
| 6/26/2015        | DAVIS BROOK | DB565           | 125                    | 1        | 125                         | YES                       | D   |
| 6/26/2015        | DAVIS BROOK | DB566           | 175                    | 1        | 175                         | YES                       | D   |
| 8/10/2015        | DAVIS BROOK | DB564           | 75                     | 1        | 75                          | YES                       | D   |
| 8/10/2015        | DAVIS BROOK | DB565           | 125                    | 1        | 125                         | YES                       | D   |
| 8/10/2015        | DAVIS BROOK | DB566           | 175                    | 1        | 175                         | YES                       | D   |
| 8/12/2015        | DAVIS BROOK | DB564           | 75                     | 1        | 75                          | YES                       | D   |
| 8/12/2015        | DAVIS BROOK | DB565           | 175                    | 1        | 175                         | YES                       | D   |
| 8/12/2015        | DAVIS BROOK | DB566           | 150                    | 1        | 150                         | YES                       | D   |
| 10/23/2015       | DAVIS BROOK | DB850           | 60                     | 1        | 60                          | NO                        | N/A   |
| 10/26/2015       | DAVIS BROOK | DB564           | 75                     | 1        | 75                          | YES                       | D   |
| 10/26/2015       | DAVIS BROOK | DB565           | 125                    | 1        | 125                         | YES                       | D   |
| 10/26/2015       | DAVIS BROOK | DB566           | 175                    | 1        | 175                         | YES                       | D   |
| 2/18/2015        | DOW         | DW265           | 110                    | 2        | 220                         | NO                        | N/A   |
| 3/2/2015         | DOW         | DW614           | 150                    | 1        | 150                         | YES                       | D   |
| 3/4/2015         | DOW         | DW450           | 200                    | 4        | 800                         | NO                        | N/A   |
| 3/10/2015        | DOW         | DW450           | 200                    | 4        | 800                         | YES                       | D   |
| 3/12/2015        | DOW         | DW450           | 235                    | 2        | 470                         | YES                       | D   |
| 3/20/2015        | DOW         | DW604           | 120                    | 4        | 480                         | NO                        | N/A   |
| 3/24/2015        | DOW         | DW265           | 110                    | 2        | 220                         | YES                       | D   |
| 3/24/2015        | DOW         | DW450           | 235                    | 6        | 1410                        | YES                       | D   |
| 3/25/2015        | DOW         | DW614           | 150                    | 1        | 150                         | YES                       | D   |
| 3/27/2015        | DOW         | DW603           | 100                    | 8        | 800                         | NO                        | N/A   |
| 4/9/2015         | DOW         | DW265           | 110                    | 1        | 110                         | YES                       | D   |
| 4/15/2015        | DOW         | DW614           | 200                    | 1        | 200                         | YES                       | D   |
| 4/21/2015        | DOW         | DW400           | 290                    | 2        | 580                         | NO                        | N/A   |
| 4/21/2015        | DOW         | DW401           | 225                    | 2        | 450                         | NO                        | N/A   |
| 4/21/2015        | DOW         | DW453           | 130                    | 2        | 260                         | NO                        | N/A   |
| 4/28/2015        | DOW         | DW614           | 200                    | 2        | 400                         | YES                       | D   |
| 5/11/2015        | DOW         | DW265           | 110                    | 1        | 110                         | YES                       | D   |
| 6/12/2015        | DOW         | DW265           | 75                     | 1        | 75                          | YES                       | D   |
| 6/12/2015        | DOW         | DW614           | 200                    | 1        | 200                         | YES                       | D   |
| 6/30/2015        | DOW         | DW265           | 75                     | 1        | 75                          | YES                       | D   |
| 7/8/2015         | DOW         | DW265           | 75                     | 1        | 75                          | YES                       | D   |
| 7/23/2015        | DOW         | DW014           | 200                    | 1        | 200                         | NO                        | N/A   |
| 7/23/2015        | DOW         | DW265           | 110                    | 2        | 220                         | YES                       | D   |
| 8/7/2015         | DOW         | DW265           | 110                    | 2        | 220                         | YES                       | D   |
| 8/24/2015        | DOW         | DW614           | 225                    | 1        | 225                         | YES                       | D   |
| 8/27/2015        | DOW         | DW265           | 110                    | 1        | 110                         | YES                       | D   |



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| 9/8/2015         | DOW            | DW265           | 110                    | 1        | 110                         | YES                       | D   |
| 9/23/2015        | DOW            | DW265           | 110                    | 1        | 110                         | YES                       | D   |
| 9/23/2015        | DOW            | DW614           | 200                    | 1        | 200                         | YES                       | D   |
| 11/5/2015        | DOW            | DW614           | 150                    | 1        | 150                         | YES                       | D   |
| 11/12/2015       | DOW            | DW265           | 110                    | 1        | 110                         | YES                       | D   |
| 12/31/2015       | DOW            | DW614           | 200                    | 2        | 400                         | YES                       | D   |
| 3/25/2015        | FOURTEENTH ST  | FS151           | 300                    | 2        | 600                         | NO                        | N/A   |
| 3/25/2015        | HANCOCK        | HK011           | 275                    | 2        | 550                         | NO                        | N/A   |
| 3/25/2015        | HANCOCK        | HK040           | 50                     | 1        | 50                          | NO                        | N/A   |
| 3/25/2015        | HANCOCK        | HK041           | 300                    | 1        | 300                         | NO                        | N/A   |
| 8/12/2015        | HANCOCK        | HK011           | 250                    | 1        | 250                         | YES                       | D   |
| 8/12/2015        | HANCOCK        | HK041           | 350                    | 1        | 350                         | YES                       | D   |
| 11/5/2015        | HANCOCK        | HK011           | 275                    | 1        | 275                         | YES                       | D   |
| 11/5/2015        | HANCOCK        | HK040           | 50                     | 1        | 50                          | YES                       | D   |
| 11/5/2015        | HANCOCK        | HK041           | 300                    | 1        | 300                         | YES                       | D   |
| 3/11/2015        | HILDRETH-PERRY | HP466           | 325                    | 1        | 325                         | NO                        | N/A   |
| 3/11/2015        | HILDRETH-PERRY | HP485           | 400                    | 1        | 400                         | NO                        | N/A   |
| 3/20/2015        | HILDRETH-PERRY | HP473           | 300                    | 1        | 300                         | NO                        | N/A   |
| 5/18/2015        | HILDRETH-PERRY | HP466           | 325                    | 1        | 325                         | YES                       | D   |
| 5/18/2015        | HILDRETH-PERRY | HP485           | 425                    | 1        | 425                         | YES                       | D   |
| 5/18/2015        | HILDRETH-PERRY | HP486           | 150                    | 1        | 150                         | NO                        | N/A   |
| 7/20/2015        | HILDRETH-PERRY | HP466           | 325                    | 1        | 325                         | YES                       | D   |
| 7/20/2015        | HILDRETH-PERRY | HP485           | 425                    | 1        | 425                         | YES                       | D   |
| 7/24/2015        | HILDRETH-PERRY | HP406           | 500                    | 2        | 1000                        | NO                        | N/A   |
| 8/21/2015        | HILDRETH-PERRY | HP473           | 300                    | 1        | 300                         | YES                       | D   |
| 9/3/2015         | HILDRETH-PERRY | HP466           | 325                    | 1        | 325                         | YES                       | D   |
| 9/3/2015         | HILDRETH-PERRY | HP485           | 600                    | 1        | 600                         | YES                       | D   |
| 2/18/2015        | HUSSON         | HS500           | 300                    | 1        | 300                         | NO                        | N/A   |
| 4/16/2015        | HUSSON         | HS006A          | 160                    | 1        | 160                         | NO                        | N/A   |
| 4/16/2015        | HUSSON         | HS006B          | 50                     | 1        | 50                          | NO                        | N/A   |
| 4/16/2015        | HUSSON         | HS007           | 75                     | 1        | 75                          | NO                        | N/A   |
| 4/16/2015        | HUSSON         | HS500           | 325                    | 1        | 325                         | YES                       | D   |
| 5/18/2015        | HUSSON         | HS006A          | 160                    | 1        | 160                         | YES                       | D   |
| 5/18/2015        | HUSSON         | HS006B          | 50                     | 1        | 50                          | YES                       | D   |
| 5/18/2015        | HUSSON         | HS007           | 75                     | 1        | 75                          | YES                       | D   |
| 5/18/2015        | HUSSON         | HS500           | 325                    | 1        | 325                         | YES                       | D   |
| 6/11/2015        | HUSSON         | HS006A          | 160                    | 1        | 160                         | YES                       | D   |
| 6/11/2015        | HUSSON         | HS006B          | 50                     | 1        | 50                          | YES                       | D   |
| 6/11/2015        | HUSSON         | HS007           | 75                     | 1        | 75                          | YES                       | D   |
| 6/11/2015        | HUSSON         | HS500           | 375                    | 1        | 375                         | YES                       | D   |
| 7/1/2015         | HUSSON         | HS500           | 375                    | 1        | 375                         | YES                       | D   |
| 7/20/2015        | HUSSON         | HS006A          | 160                    | 1        | 160                         | YES                       | D   |
| 7/20/2015        | HUSSON         | HS006B          | 50                     | 1        | 50                          | YES                       | D   |
| 7/20/2015        | HUSSON         | HS007           | 75                     | 1        | 75                          | YES                       | D   |
| 7/20/2015        | HUSSON         | HS500           | 375                    | 1        | 375                         | YES                       | D   |

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| 8/21/2015        | HUSSON          | HS500           | 375                    | 1        | 375                         | YES                       | D   |
| 10/23/2015       | HUSSON          | HS500           | 375                    | 1        | 375                         | YES                       | D   |
| 5/11/2015        | KENDUSKEAG EAST | KE251           | 175                    | 1        | 175                         | NO                        | N/A   |
| 6/22/2015        | KENDUSKEAG EAST | KE701           | 375                    | 1        | 375                         | NO                        | N/A   |
| 11/10/2015       | KENDUSKEAG WEST | KW103           | 350                    | 3        | 1050                        | NO                        | N/A   |
| 11/10/2015       | KENDUSKEAG WEST | KW105           | 200                    | 3        | 600                         | NO                        | N/A   |
| 11/10/2015       | KENDUSKEAG WEST | KW203           | 350                    | 3        | 1050                        | NO                        | N/A   |
| 11/13/2015       | KENDUSKEAG WEST | KW201           | 600                    | 2        | 1200                        | NO                        | N/A   |
| 11/13/2015       | KENDUSKEAG WEST | KW202           | 375                    | 3        | 1125                        | NO                        | N/A   |
| 11/13/2015       | KENDUSKEAG WEST | KW240           | 325                    | 2        | 650                         | NO                        | N/A   |
| 3/2/2015         | MEADOWBROOK     | MB996           | 350                    | 1        | 350                         | NO                        | N/A   |
| 4/3/2015         | MEADOWBROOK     | MB416           | 275                    | 5        | 1375                        | NO                        | N/A   |
| 4/8/2015         | MEADOWBROOK     | MB851           | 275                    | 1        | 275                         | NO                        | N/A   |
| 4/13/2015        | MEADOWBROOK     | MB812           | 350                    | 2        | 700                         | NO                        | N/A   |
| 4/13/2015        | MEADOWBROOK     | MB813           | 350                    | 2        | 700                         | NO                        | N/A   |
| 4/15/2015        | MEADOWBROOK     | MB759           | 75                     | 1        | 75                          | NO                        | N/A   |
| 4/15/2015        | MEADOWBROOK     | MB809           | 400                    | 1        | 400                         | NO                        | N/A   |
| 4/15/2015        | MEADOWBROOK     | MB835           | 75                     | 1        | 75                          | NO                        | N/A   |
| 4/22/2015        | MEADOWBROOK     | MB530           | 30                     | 4        | 120                         | NO                        | N/A   |
| 4/24/2015        | MEADOWBROOK     | MB530A          | 25                     | 3        | 75                          | NO                        | N/A   |
| 4/29/2015        | MEADOWBROOK     | MB407           | 160                    | 1        | 160                         | NO                        | N/A   |
| 5/1/2015         | MEADOWBROOK     | MB356           | 200                    | 2        | 400                         | NO                        | N/A   |
| 5/20/2015        | MEADOWBROOK     | MB904           | 245                    | 2        | 490                         | NO                        | N/A   |
| 5/20/2015        | MEADOWBROOK     | MB905           | 300                    | 2        | 600                         | NO                        | N/A   |
| 5/20/2015        | MEADOWBROOK     | MB906           | 350                    | 2        | 700                         | NO                        | N/A   |
| 6/14/2015        | MEADOWBROOK     | MB768           | 225                    | 3        | 675                         | NO                        | N/A   |
| 6/22/2015        | MEADOWBROOK     | MB986           | 275                    | 1        | 275                         | NO                        | N/A   |
| 6/22/2015        | MEADOWBROOK     | MB990           | 250                    | 1        | 250                         | NO                        | N/A   |
| 7/14/2015        | MEADOWBROOK     | MB966           | 375                    | 1        | 375                         | NO                        | N/A   |
| 7/15/2015        | MEADOWBROOK     | MB951           | 275                    | 1        | 275                         | NO                        | N/A   |
| 7/22/2015        | MEADOWBROOK     | MB551           | 175                    | 2        | 350                         | NO                        | N/A   |
| 7/22/2015        | MEADOWBROOK     | MB560           | 50                     | 3        | 150                         | NO                        | N/A   |
| 7/24/2015        | MEADOWBROOK     | MB553           | 175                    | 3        | 525                         | NO                        | N/A   |
| 7/28/2015        | MEADOWBROOK     | MB912           | 75                     | 3        | 225                         | NO                        | N/A   |
| 7/29/2015        | MEADOWBROOK     | MB956           | 375                    | 1        | 375                         | NO                        | N/A   |
| 7/29/2015        | MEADOWBROOK     | MB985           | 275                    | 2        | 550                         | NO                        | N/A   |
| 8/26/2015        | MEADOWBROOK     | MB951           | 375                    | 3        | 1125                        | YES                       | D   |
| 8/26/2015        | MEADOWBROOK     | MB952           | 225                    | 1        | 225                         | NO                        | N/A   |
| 9/8/2015         | MEADOWBROOK     | MB996           | 375                    | 1        | 375                         | YES                       | D   |
| 11/6/2015        | MEADOWBROOK     | MB986           | 275                    | 1        | 275                         | YES                       | D   |
| 12/1/2015        | MEADOWBROOK     | MB806           | 385                    | 3        | 1155                        | NO                        | N/A   |
| 12/1/2015        | MEADOWBROOK     | MB807           | 400                    | 3        | 1200                        | NO                        | N/A   |
| 12/1/2015        | MEADOWBROOK     | MB808           | 400                    | 3        | 1200                        | NO                        | N/A   |
| 12/1/2015        | MEADOWBROOK     | MB830           | 350                    | 2        | 700                         | NO                        | N/A   |
| 12/1/2015        | MEADOWBROOK     | MB831           | 225                    | 2        | 450                         | NO                        | N/A   |

## APPENDIX E: CLEANING LOG

City of Bangor, Maine  
Calendar Year 2015

| Date of Cleaning | Subsection  | Pipe Segment ID | Length of Pipe Segment | # Passes | Approx. Length Cleaned (FT) | Repeat Cleaning (this CY) | Justification for Repeat Cleaning (by Reason Code)* |
|------------------|-------------|-----------------|------------------------|----------|-----------------------------|---------------------------|---|
| 12/2/2015        | MEADOWBROOK | MB804           | 25                     | 3        | 75                          | NO                        | N/A   |
| 12/2/2015        | MEADOWBROOK | MB805           | 200                    | 3        | 600                         | NO                        | N/A   |
| 12/2/2015        | MEADOWBROOK | MB821           | 350                    | 3        | 1050                        | NO                        | N/A   |
| 12/2/2015        | MEADOWBROOK | MB822           | 225                    | 3        | 675                         | NO                        | N/A   |
| 12/2/2015        | MEADOWBROOK | PJ400           | 300                    | 1        | 300                         | NO                        | N/A   |
| 12/14/2015       | MEADOWBROOK | MB996           | 375                    | 1        | 375                         | YES                       | D   |
| 3/11/2015        | CAPEHART    | OC453           | 250                    | 1        | 250                         | YES                       | D   |
| 3/11/2015        | CAPEHART    | OC455           | 200                    | 1        | 200                         | NO                        | N/A   |
| 3/16/2015        | CAPEHART    | OC403           | 150                    | 1        | 150                         | NO                        | N/A   |
| 3/16/2015        | CAPEHART    | OC420           | 100                    | 1        | 100                         | NO                        | N/A   |
| 3/16/2015        | CAPEHART    | OC421           | 300                    | 1        | 300                         | NO                        | N/A   |
| 4/9/2015         | CAPEHART    | OC422           | 375                    | 1        | 375                         | NO                        | N/A   |
| 5/13/2015        | CAPEHART    | OC403           | 150                    | 1        | 150                         | YES                       | D   |
| 5/13/2015        | CAPEHART    | OC420           | 100                    | 1        | 100                         | YES                       | D   |
| 5/13/2015        | CAPEHART    | OC421           | 300                    | 1        | 300                         | YES                       | D   |
| 5/13/2015        | CAPEHART    | OC422           | 375                    | 1        | 375                         | YES                       | D   |
| 6/17/2015        | CAPEHART    | OC422           | 375                    | 1        | 375                         | YES                       | D   |
| 6/19/2015        | CAPEHART    | OC403           | 300                    | 1        | 300                         | YES                       | D   |
| 6/19/2015        | CAPEHART    | OC420           | 100                    | 1        | 100                         | YES                       | D   |
| 6/19/2015        | CAPEHART    | OC421           | 350                    | 1        | 350                         | YES                       | D   |
| 6/19/2015        | CAPEHART    | OC453           | 250                    | 1        | 250                         | YES                       | D   |
| 6/19/2015        | CAPEHART    | OC455           | 200                    | 1        | 200                         | YES                       | D   |
| 6/28/2015        | CAPEHART    | OC851           | 350                    | 2        | 700                         | NO                        | N/A   |
| 6/30/2015        | CAPEHART    | OC452           | 100                    | 1        | 100                         | NO                        | N/A   |
| 6/30/2015        | CAPEHART    | OC460           | 125                    | 1        | 125                         | NO                        | N/A   |
| 6/30/2015        | CAPEHART    | OC461           | 100                    | 1        | 100                         | NO                        | N/A   |
| 6/30/2015        | CAPEHART    | OC462           | 250                    | 1        | 250                         | NO                        | N/A   |
| 6/30/2015        | CAPEHART    | OC463           | 200                    | 1        | 200                         | NO                        | N/A   |
| 6/30/2015        | CAPEHART    | OC465           | 125                    | 1        | 125                         | NO                        | N/A   |
| 8/27/2015        | CAPEHART    | OC403           | 150                    | 1        | 150                         | YES                       | D   |
| 8/27/2015        | CAPEHART    | OC420           | 100                    | 1        | 100                         | YES                       | D   |
| 8/27/2015        | CAPEHART    | OC421           | 350                    | 1        | 350                         | YES                       | D   |
| 8/27/2015        | CAPEHART    | OC422           | 375                    | 1        | 375                         | YES                       | D   |
| 10/26/2015       | CAPEHART    | OC403           | 300                    | 1        | 300                         | YES                       | D   |
| 10/26/2015       | CAPEHART    | OC421           | 350                    | 1        | 350                         | YES                       | D   |
| 10/26/2015       | CAPEHART    | OC422           | 375                    | 1        | 375                         | YES                       | D   |
| 11/9/2015        | CAPEHART    | OC453           | 275                    | 1        | 275                         | YES                       | D   |
| 11/9/2015        | CAPEHART    | OC455           | 200                    | 1        | 200                         | YES                       | D   |
| 3/16/2015        | PENJAJAWOC  | PJ400           | 300                    | 1        | 300                         | NO                        | N/A   |
| 3/27/2015        | PENJAJAWOC  | PJ039           | 60                     | 2        | 120                         | NO                        | N/A   |
| 3/27/2015        | PENJAJAWOC  | PJ040           | 265                    | 2        | 530                         | NO                        | N/A   |
| 3/27/2015        | PENJAJAWOC  | PJ041           | 325                    | 2        | 650                         | NO                        | N/A   |
| 3/30/2015        | PENJAJAWOC  | PJ038           | 200                    | 2        | 400                         | NO                        | N/A   |
| 3/30/2015        | PENJAJAWOC  | PJ750           | 200                    | 2        | 400                         | NO                        | N/A   |
| 4/14/2015        | PENJAJAWOC  | PJ701           | 350                    | 3        | 1050                        | NO                        | N/A   |

## APPENDIX E: CLEANING LOG

City of Bangor, Maine  
Calendar Year 2015

| Date of Cleaning          | Subsection | Pipe Segment ID | Length of Pipe Segment | # Passes | Approx. Length Cleaned (FT) | Repeat Cleaning (this CY) | Justification for Repeat Cleaning (by Reason Code)* |
|---------------------------|------------|-----------------|------------------------|----------|-----------------------------|---------------------------|---|
| 4/14/2015                 | PENJAJAWOC | PJ702           | 225                    | 1        | 225                         | NO                        | N/A   |
| 4/14/2015                 | PENJAJAWOC | PJ703           | 125                    | 1        | 125                         | NO                        | N/A   |
| 4/14/2015                 | PENJAJAWOC | PJ704           | 450                    | 1        | 450                         | NO                        | N/A   |
| 4/16/2015                 | PENJAJAWOC | PJ036           | 100                    | 3        | 300                         | NO                        | N/A   |
| 4/16/2015                 | PENJAJAWOC | PJ700           | 350                    | 3        | 1050                        | NO                        | N/A   |
| 4/23/2015                 | PENJAJAWOC | PJ400           | 300                    | 1        | 300                         | YES                       | D   |
| 6/11/2015                 | PENJAJAWOC | PJ400           | 300                    | 1        | 300                         | YES                       | D   |
| 6/16/2015                 | PENJAJAWOC | PJ112           | 375                    | 1        | 375                         | NO                        | N/A   |
| 6/16/2015                 | PENJAJAWOC | PJ113           | 275                    | 2        | 550                         | NO                        | N/A   |
| 7/30/2015                 | PENJAJAWOC | PJ400           | 300                    | 1        | 300                         | YES                       | D   |
| 9/8/2015                  | PENJAJAWOC | PJ400           | 300                    | 1        | 300                         | YES                       | D   |
| 11/9/2015                 | PENJAJAWOC | PJ400           | 300                    | 1        | 300                         | YES                       | D   |
| 12/14/2015                | WESTLAND   | WL600           | 75                     | 1        | 75                          | NO                        | N/A   |
| 4/30/2015                 | WOODLAWN   | WL024           | 300                    | 4        | 1200                        | NO                        | N/A   |
| 4/30/2015                 | WOODLAWN   | WL025           | 300                    | 1        | 300                         | NO                        | N/A   |
| 4/30/2015                 | WOODLAWN   | WL600           | 225                    | 1        | 225                         | NO                        | N/A   |
| 5/5/2015                  | WOODLAWN   | WL021           | 475                    | 4        | 1900                        | NO                        | N/A   |
| 5/5/2015                  | WOODLAWN   | WL022           | 375                    | 2        | 750                         | NO                        | N/A   |
| 5/5/2015                  | WOODLAWN   | WL023           | 300                    | 2        | 600                         | NO                        | N/A   |
| 10/26/2015                | WOODLAWN   | WL600           | 75                     | 1        | 75                          | YES                       | D   |
| 11/6/2015                 | WOODLAWN   | WL600           | 75                     | 1        | 75                          | YES                       | D   |
|                           |            |                 |                        |          |                             |                           |   |
| <b>TOTAL CLEANED (FT)</b> |            |                 |                        |          | <b>142,305</b>              |                           |   |

\* Reason Codes used in the justification for repeat cleaning are as follows:

- A - Lack of physical access
- B - Vegetative root intrusion
- C - Protruding laterals that may cause material to buildup
- D - Existing condition requiring frequent maintenance flushing to prevent a blockage, such as sags in pipes, pipes with flat slopes, ends of lines, areas with low flow, or areas known to be prone to grease, paper, rag, deposit, sludge, or other buildup.
- E - Removal of blockage
- F - Investigation of complaint
- G - Prior to CCTV investigation

## APPENDIX F: SSO EVENT LOG

City of Bangor, Maine  
Calendar Year 2015

| Event No. | Date/Time Reported or Discovered | Date/Time Stopped     | Location (Nearest Address)   | Final Disposition (Ground, Street, MS4, Surface Water)                             | Source of Notification             | Suspected Cause of Event  | Due to blockage or hydraulic limitation within publicly owned Collection System | Measures Taken to Stop Event                                     | Estimated Release Volume (gal)/ Methodology | Date of Most Recent SSO Event at Location |
|-----------|----------------------------------|-----------------------|--|--|------------------------------------|---|---|--|---|---|
| 15-00     | 6/12/2015                        | Unknown               | 252 Harlow Street at CSO 011   | Birch Stream, Kenduskeag Stream  | Federal Building personnel to WWTP | Likely resulted from testing of fire suppression equipment in aircraft hangars, unauthorized discharge to collection system | No  | No measures, was notified after the fact                         | Unknown                                     | None recorded                             |
| 15-01     | 6/11/2015                        | Unknown               | 94 Kenduskeag Ave (nearest parcel) - MH AP001                              | Unknown  | Consultant                         | Unknown   | Unknown   | No measures, discovered after incident ended                     | Unknown                                     | None recorded                             |
| 15-02     | 7/14/2015 at 7:00 AM             | Unknown-prior to 7 AM | 530 Maine Ave  | Ground   | Sewer Crew                         | Pin hole leak in drain hose on vac truck  | No  | Repaired hose  | 15 gal/onsite estimate                      | n/a                                       |
| 15-03     | 9/25/2015 at 8:30 AM             | 9/26/2015 at 11:00 AM | 54 Pleasant View   | Basement backup, flowed back into system   | Public Works                       | Roots and wipes in sewer main AP360 and private lateral   | Yes-partially   | Jetted main line and snaked house service                        | 5 gal/onsite estimate                       | None recorded                             |
| 15-04     | 9/30/2015 at 10:30 AM            | Unknown               | 410 State Street (Wing Parking Lot MH CB011)                               | MS4 via CB F08-4036 to Penobscot River   | EMMC to Sewer Dept.                | Surcharge during high intensity rain event  | Yes   | No applicable measures, wet weather related                      | Unknown                                     | 9/3/2013                                  |
| 15-05     | 9/30/2015 at 10:30 AM            | Unknown               | Hancock Street at MH HK004   | Ground   | Public Works                       | Surcharge during high intensity rain event  | Yes   | No applicable measures, wet weather related                      | Unknown                                     | None recorded                             |
| 15-06     | 9/30/2015 at 12:10 PM            | Unknown               | 300 West Broadway  | Basement backup, flowed back into system   | Homeowner to Public Works          | Surcharge during high intensity rain event  | Yes   | No applicable measures, wet weather related                      | 6700 gal/depth reported x bldg footprint    | None recorded                             |
| 15-07     | 9/30/2015 at 12:30 PM            | Unknown               | 294 West Broadway  | Basement backup, flowed back into system   | Resident to Public Works           | Surcharge during high intensity rain event  | Yes   | No applicable measures, wet weather related                      | Unknown                                     | None recorded                             |
| 15-08*    | 9/30/2015 at 1:00 PM             | Unknown               | 78 Exchange Street (Kenduskeag Plaza East) one or more MHs at head of tank | Reached CBs in 78 Exchange Street Parking lot which discharge to Kenduskeag Stream | Public Works                       | Surcharge during high intensity rain event  | Yes   | Staff was onsite controlling Kenduskeag East and West CSO valves | Unknown                                     | 1/6/2014                                  |
| 15-09     | 9/30/2015 at 1:30 PM             | 9/30/2015             | 18 Maxwell Lane  | Basement backup, flowed back into system   | Resident to Public Works           | Surcharge during high intensity rain event, blockage and infiltration   | Yes-partially   | Jetted main  | 25 gal/onsite estimate                      | None recorded                             |
| 15-10     | 9/30/2015 at 11:30 AM            | 9/30/2015 at 12:30 PM | 200 Parkview Ave.  | Basement backup, flowed back into system   | Resident to Public Works           | Surcharge during high intensity rain event, blockage and infiltration   | Yes-partially   | Jetted main  | 25 gal/onsite estimate                      | 10/20/2012                                |

## APPENDIX F: SSO EVENT LOG

City of Bangor, Maine  
Calendar Year 2015

| Event No. | Date/Time Reported or Discovered | Date/Time Stopped     | Location (Nearest Address)  | Final Disposition (Ground, Street, MS4, Surface Water)  | Source of Notification   | Suspected Cause of Event  | Due to blockage or hydraulic limitation within publicly owned Collection System | Measures Taken to Stop Event   | Estimated Release Volume (gal)/ Methodology | Date of Most Recent SSO Event at Location |
|-----------|----------------------------------|-----------------------|---|---|--------------------------|---|---|--|---|---|
| 15-11     | 9/30/2015 at 11:30 AM            | 9/30/2015 at 12:30 PM | 195 Parkview Ave.   | Basement backup, flowed back into system  | Resident to Public Works | Surcharge during high intensity rain event, blockage and infiltration | Yes-partially   | Jetted main  | 25 gal/onsite estimate                      | None recorded                             |
| 15-12     | 9/30/2015 at 11:30 AM            | 9/30/2015 at 12:30 PM | 104 Seventh St.   | Basement backup, flowed back into system  | Resident to Sewer Dept.  | Surcharge during high intensity rain event, blockage and infiltration | Yes-partially   | Jetted main  | 25 gal/onsite estimate                      | None recorded                             |
| 15-13     | 10/1/2015 at 8:00 AM             | 10/1/2015             | 368 Garland St.   | Basement backup, flowed back into system  | Resident                 | Likely surcharge during high intensity rain event 9/30/2015           | Yes   | No measures, was notified after the fact   | 6000 gal/depth reported x bldg footprint    | None recorded                             |
| 15-14     | 10/2/2015 at 1:00 PM             | 10/1/2015             | 325 Garland St  | Basement backup, flowed back into system  | Resident                 | Likely surcharge during high intensity rain event 9/30/2015           | Yes   | No measures, was notified after the fact   | 4000 gal/depth reported x bldg footprint    | None recorded                             |
| 15-15     | 10/2/2015 at 9:00 AM             | Unknown               | 678 Main St. (nearest parcel) - Structure BV002                   | Likely only the ground  | Sewer Crew               | Likely surcharge during high intensity rain event 9/30/2015           | Yes   | No measures, discovered after incident ended   | Unknown                                     | None recorded                             |
| 15-16     | 10/8/2015 at 8:00 AM             | In progress           | 73 Harlow St. (closest parcel) - Park Street sewer mainline       | Groundwater and ground, through un-numbered CB in parking lot to the combined sewer system on Harlow Street | City Hall staff          | Collapsed pipe and deteriorated mortar                                | No  | Performed spot repair, then replaced 470 feet of sewer mainline and installed 3 manholes | Unknown                                     | Unknown                                   |
| 15-17     | 10/9/2015 at 12:30 PM            | Unknown               | 35 Valley Ave. (closest parcel) - MH KI031                        | Ground, unknown whether flows reached the Kenduskeag Stream   | Sewer Crew               | Likely surcharge during high intensity rain event 9/30/2015           | Yes   | No measures, discovered after incident ended   | Unknown                                     | None recorded                             |
| 15-18     | 10/13/2015 at 8:00 AM            | Unknown               | 666 Finson Road (closest parcel) - MH KI091                       | Ground, unknown whether flows reached the Kenduskeag Stream   | Sewer Crew               | Likely surcharge during high intensity rain event 9/30/2015           | Yes   | No measures, discovered after incident ended   | Unknown                                     | None recorded                             |
| 15-19     | 10/16/2015 at 10:00 AM           | Unknown               | 228 Buck St. - MHs at head of Barkersville Tank (BV016 and BV016) | Ground  | Sewer Crew               | Likely surcharge during high intensity rain event 9/30/2015           | Yes   | No measures, discovered after incident ended   | Unknown                                     | None recorded                             |

## APPENDIX F: SSO EVENT LOG

City of Bangor, Maine  
Calendar Year 2015

| Event No. | Date/Time Reported or Discovered | Date/Time Stopped | Location (Nearest Address) | Final Disposition (Ground, Street, MS4, Surface Water) | Source of Notification | Suspected Cause of Event                                    | Due to blockage or hydraulic limitation within publicly owned Collection System | Measures Taken to Stop Event                      | Estimated Release Volume (gal)/ Methodology | Date of Most Recent SSO Event at Location |
|-----------|----------------------------------|-------------------|----------------------------|--|------------------------|---|---|---|---|---|
| 15-20     | 10/19/2015 at 9:30 AM            | Unknown           | 408 Harlow St. MH KI025    | Ground   | Routine inspection     | Likely surcharge during high intensity rain event 9/30/2015 | Yes   | No measures, discovered after incident ended      | Unknown                                     | None recorded                             |
| 15-21     | 10/22/2015 at 12:30 PM           | Unknown           | 459 Harlow St. MH MS002    | Ground   | Routine inspection     | Likely surcharge during high intensity rain event 9/30/2015 | Yes   | No measures, discovered after incident ended      | Unknown                                     | None recorded                             |
| 15-22**   | 12/15/2015 at 8:40 AM            | In progress       | 611 Godfrey Blvd           | Groundwater flowing toward canal                       | IDDE sampling          | Likely broken pipe  | No  | Construct new sewer and abandon deteriorated pipe | Unknown                                     | Unknown                                   |

\* 15-08: Due to widespread surface flooding, the specific structures in the local area that were involved could not be determined.

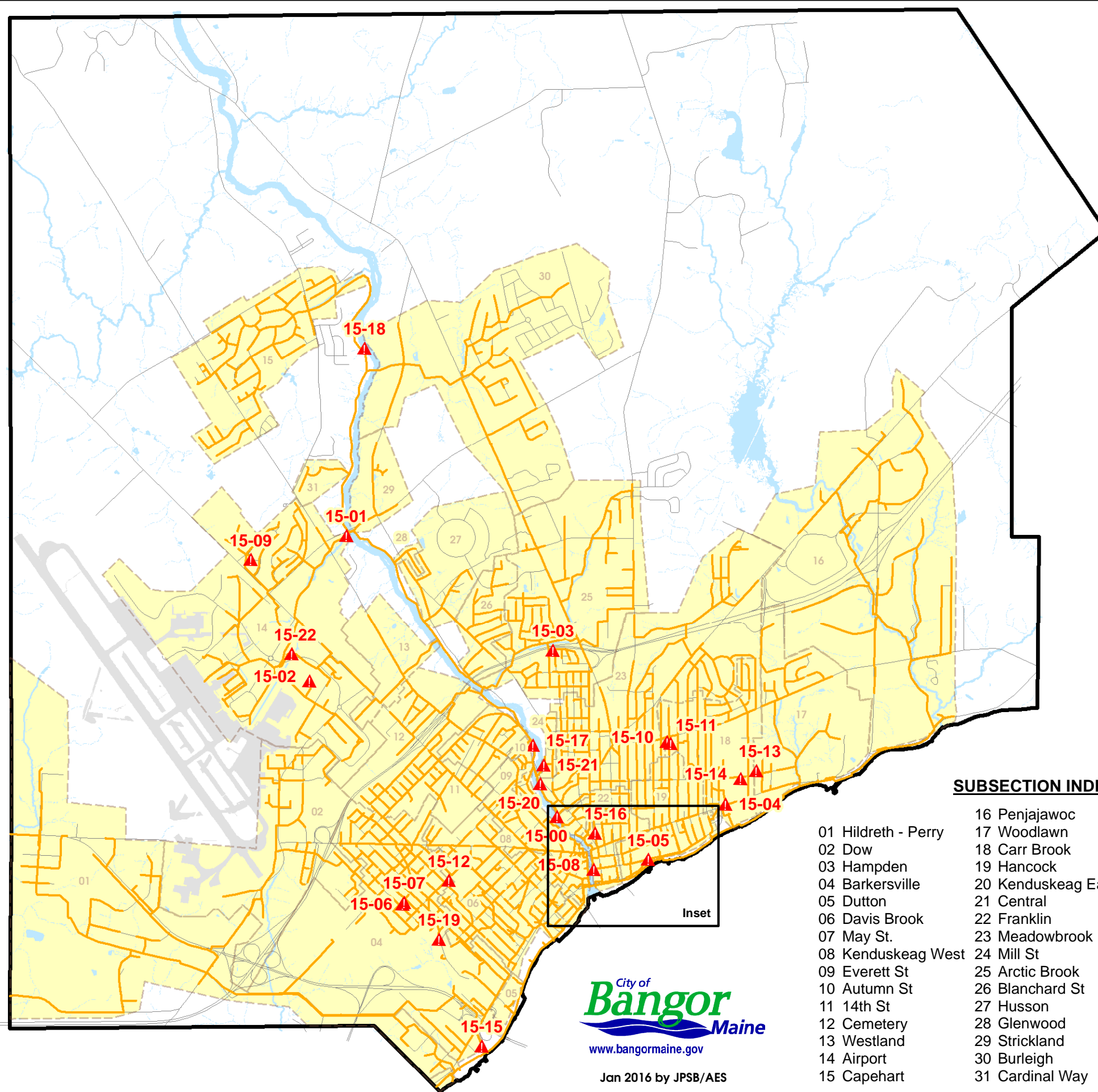
\*\*15-22: This event is exfiltration that was reported as an SSO using the MEDEP's "Discharge Incident Report" form.

General Notes:

- An event occurred on 9/30/2015 at the Cemetery licensed CSO, which was reported as an SSO using the MEDEP's "Discharge Incident Report Form". This will be included as a CSO in the MEDEP's "Annual CSO Progress Report".
- For some instances where the incident was reported or discovered after the SSO event had ceased, the Date/Time Stopped and the Estimated Release Volume were not able to be determined. In cases such as this, "Unknown" appears in the table.

# APPENDIX G: LOCATION MAP OF SANITARY SEWER OVERFLOWS

Jan. 1, 2015 - Dec. 31, 2015



## Legend

- ▲ SSO Location
- Sewer Pipes
- Sewer Subsections

## SUBSECTION INDEX

- |                     |                    |
|---------------------|--------------------|
| 01 Hildreth - Perry | 16 Penjajawoc      |
| 02 Dow              | 17 Woodlawn        |
| 03 Hampden          | 18 Carr Brook      |
| 04 Barkersville     | 19 Hancock         |
| 05 Dutton           | 20 Kenduskeag East |
| 06 Davis Brook      | 21 Central         |
| 07 May St.          | 22 Franklin        |
| 08 Kenduskeag West  | 23 Meadowbrook     |
| 09 Everett St       | 24 Mill St         |
| 10 Autumn St        | 25 Arctic Brook    |
| 11 14th St          | 26 Blanchard St    |
| 12 Cemetery         | 27 Husson          |
| 13 Westland         | 28 Glenwood        |
| 14 Airport          | 29 Strickland      |
| 15 Capehart         | 30 Burleigh        |
|                     | 31 Cardinal Way    |

