# DRAINAGE FACILITIES INTERCONNECTION AGREEMENT

This **DRAINAGE FACILITIES INTERCONNECTION AGREEMENT** (this "Agreement") is made and entered into as of July 21, 2017 by and between by and between the **Massachusetts Bay Transportation Authority**, a body politic and corporate of the Commonwealth established and existing in accordance with Chapter 161A of the Massachusetts General Laws, as amended, having an address at 10 Park Plaza, Boston, Massachusetts 02116 ("MBTA") and the **City of Somerville**, a municipality of the Commonwealth of Massachusetts, having an address at City Hall, 93 Highland Avenue, Somerville, MA 02143 (the "City"). The MBTA and the City may sometimes be hereinafter referred to collectively as the "Parties", or individually, a "Party".

#### RECITALS

- 1. The Massachusetts Department of Transportation ("MassDOT") is the sponsor of a project to extend the MBTA's Green Line from its current easterly terminus at Lechmere Station in Cambridge, MA to two new termini to be located at Union Square in Somerville, MA and at College Avenue in Medford, MA and to redesign, reconstruct and relocate Lechmere Station ("GLX" or the "Project"); and
- 2. As part of the Project, the MBTA proposes to construct drainage facilities (the "Primary Drainage Facilities") to accommodate the MBTA's drainage requirements after the completion of GLX; and
- 3. The City has participated in the development of GLX in several ways, including reaching agreement with the MBTA and MassDOT to contribute \$50,000,000 toward the cost of GLX pursuant to a separate Project Participation Agreement dated as of December 12, 2016; and
- 4. In partial consideration of the Project Participation Agreement, the City and the MBTA wish to enter into this Agreement to document the terms under which the City may interconnect with the Primary Drainage Facilities with its own facilities (the "Connecting Drainage Facilities") to permit their use for municipal purposes to better accommodate stormwater drainage (the "Municipal Uses").

NOW THEREFORE, for good and valuable consideration, the receipt and legal sufficiency of which is hereby acknowledged, and intending to be legally bound hereby, the Parties hereby agree as follows:

#### **AGREEMENT**

A. <u>Definitions</u>. Capitalized words and phrases used in this Agreement shall have the meanings ascribed to them in the text of this Agreement, as further defined, supplemented or expanded in <u>Exhibit A</u>.

# B. Scope and Limitations of Agreement

- 1. Purpose. This Agreement governs the terms and conditions under which the City will be permitted to connect to the MBTA's Primary Drainage Facilities for the Municipal Uses.
  - 2. Responsibilities of the Parties.
  - (a) The MBTA shall construct, operate, and maintain the Primary Drainage Facilities in accordance with the plans and specifications and on the schedule developed for the Project; <u>provided</u>, <u>however</u>, that the MBTA shall not be obligated to construct the Primary Drainage Facilities in the event it cancels or otherwise fails to complete the Project.
  - (b) The City, at its option, shall construct, operate, and maintain the Connecting Drainage Facilities in accordance with Applicable Laws and Regulations, this Agreement, and with Good Industry Practice. The design of the Connecting Drainage Facilities shall be completed with the assumption that the Old Stone Culvert will remain in place and shall be subject to the prior reasonable approval of the MBTA. Use of the Connecting Drainage Facilities shall be subject to the pre-conditions in this Agreement as may be modified by subsequent agreement.
  - (c) Each Party shall operate, maintain, repair, and inspect, and shall be fully responsible for the facilities that it now or subsequently may own and shall be responsible for the safe installation, maintenance, repair, and condition of their respective drainage facilities.
  - 3. Ownership, Metering, and Priority.
  - (a) The MBTA shall be the sole owner of, and shall be solely responsible for measuring the use of and flow within, the Primary Drainage Facilities, except insofar as the City is responsible for measuring depth within the Primary Drainage Facilities to control operations of the Connecting Drainage Facilities. The City shall be the sole owner of, and shall be solely responsible for measuring the use of and flow within, the Connecting Drainage Facilities.
  - (b) The MBTA shall have priority in the use of the Primary Drainage Facilities. The City shall have the right to use and connect to the Primary Drainage Facilities with the Connecting Drainage Facilities subject to the requirements of this

#### Agreement.

(c) The MBTA shall grant the City, at no additional cost to the City, any easements or real property interests over MBTA property necessary for the City to connect to the Primary Drainage Facilities, and to maintain, repair and replace the Connecting Drainage Facilities, which easement or other interest shall be subject to reasonable and customary railroad protective requirements.

#### C. Plans and Specifications

- 1. Provision of Plans and Specifications. All available data, plans and specifications applicable to the Primary Drainage Facilities and the Connecting Draining Facilities in the possession of each Party, including, to the extent they are developed by such Party, as-built or record plans, shall be made available to the other Party for review and information. Upon receipt of written notice, each Party shall use Reasonable Efforts to make available to the other, copies of interim and modified plans, specifications, and shop drawings generated during the design and construction of the Primary Drainage Facilities and the Connecting Drainage Facilities.
- 2. MBTA Approval of the Connecting Drainage Facilities. The City's construction, reconstruction or alteration of the Connecting Drainage Facilities that directly impacts the Primary Drainage Facilities shall be subject to the prior written approval of the MBTA, which shall not be unreasonably withheld. The City shall provide the MBTA with plans and specifications for the Connecting Drainage Facilities on a schedule sufficiently in advance so as to permit the MBTA to review such plans, and shall inform the MBTA of any proposed material deviation from the terms of any approved plans, which deviation shall be subject to the MBTA's prior approval. Included as a part of any City submission shall be evidence to the reasonable satisfaction of the MBTA that the flows to be coming through the Connecting Drainage Facilities to the Primary Drainage Facilities are of an amount and a quality consistent with the MBTA's permitting obligations pertaining to water quality. The MBTA agrees to waive any MBTA-imposed fees in connection with the review of such plans.

#### D. <u>Inspection, Testing, and Right of Access</u>

1. Equipment Testing and Inspection. Prior to the commencement of construction of the Connecting Drainage Facilities, the City shall have the right to review MBTA testing data and, at its option, to conduct inspection and testing of the Primary Drainage Facilities. The City shall provide the MBTA with a "Testing and Inspection Work Plan" detailing the work it is proposing at least thirty (30) Business Days prior to any planned inspection and the MBTA shall set a Business Day for such inspection and testing. Each Party shall send qualified personnel to inspect and observe the inspection and testing at its own cost and expense. The City shall provide the MBTA a written test report when such testing and inspection are completed. In the event that any test is not successfully completed, the City will take such actions as are necessary in order to successfully complete such test and notify the MBTA of its successful completion.

#### 2. Right of Access.

- (a) At reasonable hours, and upon reasonable notice, or at any time with contemporaneous notice in the event of an emergency or hazardous condition, the MBTA shall have access to the Connecting Drainage Facilities for any reasonable purpose in connection with this Agreement.
- (b) At reasonable hours, and upon reasonable notice, or at any time with contemporaneous notice in the event of an emergency or hazardous conditions, the City shall have access to the Primary Drainage Facilities for any reasonable purpose in connection with this Agreement.

#### E. Conditions of Connection to and Use of the Primary Drainage Facilities

- 1. Acknowledgement of Limited Capacity. The City acknowledges that the Primary Drainage Facilities have been designed and constructed to accommodate the MBTA's use and use by certain portions of the cities of Boston, Cambridge and Somerville within the Millers River Watershed, without regard to the Municipal Uses. The MBTA makes no representation as to the extent to which the Primary Drainage Facilities can accommodate additional stormwater flow.
- 2. Protocol and Use of the Primary Drainage Facilities. Use of the Primary Drainage Facilities by the City shall only be permitted following the MBTA's determination that: (a) the additional stormwater to be conveyed through the Primary Drainage Facilities is of an acceptable quality and would not cause flooding to exceed the top of rail elevation on the Fitchburg commuter rail right of way during a 100-year storm event; and (b) that the Primary Drainage Facilities could accommodate such stormwater and would otherwise remain fully operational and compliant with applicable law and any permits or approvals issued in connection with the Primary Drainage Facilities. The MBTA shall make such determinations in cooperation with the City by use of the MBTA's hydraulic model of the Millers River Watershed and by review of such information provided to the MBTA by the City or information otherwise available to the MBTA, which model and information shall be shared with the City. The Design Criteria for the connection to the Primary Drainage Facilities and the operation of the Connecting Drainage Facilities are provided in Exhibit C.
  - 3. Compliance with the Clean Water Act, NPDES Permit, and Other Permits.
  - (a) As a part of the development of the Connecting Drainage Facilities, the City agrees to discuss with the U.S. Environmental Protection Agency and the Massachusetts Department of Environmental Protection whether either or both agencies will require the City to obtain its own MS4 permit (MS4) for the Connecting Drainage Facilities. In that event, the City shall obtain such permit as an additional pre-condition of the right to make any connection to the Primary Drainage Facilities. In the event the City is not required to obtain a separate MS4,

the MBTA agrees to permit the City to discharge stormwater into the MBTA Primary Drainage Facilities in compliance with the Individual National Pollutant Discharge Elimination System (NPDES) Permit currently in place (NPDES Permit Number MA0003590) as may be revised, and on which the MBTA and the City are named as co-permittees (the "NPDES Permit", attached as <a href="Exhibit D">Exhibit D</a>) on the condition that the City's use of the Primary Drainage Facilities: (a) would contain flow of a quality consistent with the NPDES Permit in every respect, including the requirement to conduct such testing, submit such reports, and perform all other actions related to the use of the Primary Drainage Facilities as set forth in the NPDES Permit; and (b) would do nothing to cause the MBTA to be non-compliant with the NPDES Permit.

(b) As an additional pre-condition to the City's right to use the Primary Drainage Facilities, the City shall submit to the MBTA such reports, including testing and water quality reports, that document to the City's reasonable satisfaction that the City's use of the Primary Drainage Facilities will be in compliance with the requirements of the Clean Water Act and will otherwise be in compliance with such other permits to which the Primary Drainage Facilities may be subject.

## F. Effective Date, Term, Termination, and Disconnection

- 1. Term of Agreement. This Agreement shall become effective on the Effective Date and shall remain in effect unless terminated earlier as a result of an Event of Default under Section H.5.
  - 2. Termination.
  - (a) Either Party may terminate this Agreement after Event of Default pursuant to Section H.5.
  - (b) Upon termination of this Agreement, the Connecting Drainage Facilities shall be disconnected from the Primary Drainage Facilities, unless a superseding agreement is established. All costs required to effectuate such disconnection shall be borne by the defaulting Party.
  - (c) The termination of this Agreement shall not relieve either Party of its liabilities and obligations, owed or continuing at the time of the termination.
  - (d) The provisions of this <u>Section F</u> shall survive termination or expiration of this Agreement.
- 3. Temporary Disconnection. The Parties acknlowledge that temporary disconnection between the Primary Drainage Facilities and the Connecting Drainage Facilities may be necessary from time to time, but shall continue only for so long as reasonably necessary

under Good Industry Practice and consistent with this Agreement. In the event of a planned disconnection, notice shall be provided a minimum of two (2) weeks in advance. In the event of an unplanned disconnection, notification shall be provided contemporaneously. The Parties agree to update each other as to any changes in their respective emergency contact calldown protocols. The MBTA shall not be liable to the City for any damages whatsoever related to temporary disconnections as set forth in this Section F.3.

## G. Cost Responsibility

Each Party shall be responsible for its own costs, of whatever type, incurred in connection with this Agreement. There shall be no cost to the City for the right to install and thereafter connect to the Primary Drainage Facilities if the Project is completed; provided, however, that, in the event the Project is cancelled or is otherwise not completed, it shall be a pre-condition of the City's right to connect to the Primary Drainage Facilities that the Parties shall negotiate a fair and reasonable price to be paid by the City for such right, which price shall reflect ongoing costs to the MBTA and the value of such connection to the City.

# H. <u>Assignment, Liability, Indemnity, Force Majeure, Consequential Damages, and</u> Default

- 1. Prohibition on Assignments. Each Party covenants and agrees with the other that neither this Agreement, nor any interest herein, will be assigned (collaterally, conditionally or otherwise), mortgaged, pledged, encumbered or otherwise transferred, whether voluntarily, involuntarily, by operation of law or otherwise, without the prior written consent of the other Party, which consent shall not be unreasonably withheld; provided, however, that such assignment or transfer shall, in all cases, only be to an entity: (i) reasonably experienced in ownership or operations and maintenance of facilities similar to those that are the subject of this Agreement; and (iii) that agrees in writing to be bound by all of the terms and conditions of this Agreement.
- 2. Limitation of Liability. Each Party's liability to the other Party for any loss, cost, claim, injury, liability, or expense, including reasonable attorney's fees, relating to or arising from any act or omission in its performance of this Agreement, shall be limited to the amount of direct damage actually incurred. In no event shall either Party be liable to the other Party for any indirect, special, consequential, or punitive damages.
- 3. Indemnity. To the fullest extent permitted by law, each Party (each, an "Indemnifying Party") shall at all times indemnify, defend, and hold the other Party, its managers, employees, officers, directors, and agents (each, an "Indemnified Party") harmless from any and all damages, losses, claims (including claims and actions relating to injury to or death of any person or damage to property), demand, suits, recoveries, costs and expenses, court costs, attorney fees by or to third parties, arising out of or resulting from the Indemnifying Party's (including its managers,' employees,' officers,' directors,' and agents') negligent actions or omissions under this Agreement, except in cases of gross negligence or intentional

wrongdoing by the Indemnified Party.

- 4. Force Majeure
- (a) As used in this <u>Section H.4</u>, a "Force Majeure Event" shall mean any act of God; labor strike; act of public enemy; war; insurrection; riot; fire; storm or flood; explosion; breakage or accident to machinery or equipment; any order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities; or any other cause beyond a Party's control." A Force Majeure Event does not include an act of negligence or intentional wrongdoing.
- (b) If a Force Majeure Event prevents a Party from fulfilling any obligations under this Agreement, the Party affected by the Force Majeure Event ("Affected Party") shall promptly notify the other Party, either in writing or via the telephone, of the existence of the Force Majeure Event. The notification must specify in reasonable detail the circumstances of the Force Majeure Event, its expected duration, and the steps that the Affected Party is taking to mitigate the effects of the event on its performance. The Affected Party shall keep the other Party informed on a continuing basis of developments relating to the Force Majeure Event until the event ends. The Affected Party will be entitled to suspend or modify its performance of obligations under this Agreement (other than the obligation to make payments) only to the extent that the effect of the Force Majeure Event cannot be mitigated by the use of Reasonable Efforts. The Affected Party will use Reasonable Efforts to resume its performance as soon as possible.

#### 5. Default

- (a) For purposes of this Agreement, an event of default ("Event of Default") may be declared upon failure by either Party to perform any material covenant set forth in this Agreement where such failure is not excused by Force Majeure and such failure continues uncured for more than thirty (30) calendar days after written notice to the other Party specifying the nature of such failure; provided, however, that the other Party will not default if in the event of an Event of Default that is not reasonably capable of cure within thirty (30) calendar days, the Party commences to cure such Event of Default within thirty (30) calendar days and uses Reasonable Efforts to cure such Event of Default; provided, however, that such cure period shall not exceed ninety (90) calendar days.
- (b) If an Event of Default is not cured as provided in this <u>Section H.5</u>, or if an Event of Default is not capable of being cured within the period provided for herein, the non-defaulting Party shall have the right to terminate this Agreement by written notice at any time until cure occurs, and be relieved of any further obligation hereunder and, whether or not the non-defaulting Party terminates this

Agreement, to recover from the other Party all amounts due hereunder, plus all other damages and remedies to which the non-defaulting Party is entitled at law or in equity except as limited by <u>Section H.2</u>. The provisions of this <u>Section H.5</u> will survive termination of this Agreement.

#### Dispute Resolution

For any disputes between the Parties under this Agreement the Parties shall be able to pursue all available legal remedies and/or equitable remedies.

#### J. Miscellaneous

- 1. Governing Law. All disputes arising out of the performance or non-performance under this Agreement shall be construed in accordance with the laws of the Commonwealth of Massachusetts.
- 2. *Amendment.* The Parties may amend this Agreement only by a written instrument duly executed by both Parties.
- 3. *No Third-Party Beneficiaries*. This Agreement is intended solely for the benefit of the Parties hereto, and nothing herein will be construed to create any duty to, standard of care with reference to or any liability to, any person not a Party hereto.

#### 4. Waiver

- (a) The failure of a Party to this Agreement to insist, on any occasion, upon strict performance of any provision of this Agreement will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party.
- (b) Any waiver at any time by either Party of its rights with respect to this Agreement shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right or duty of this Agreement.

  Termination or default of this Agreement for any reason by a Party shall not constitute a waiver of any legal rights which either Party may have.
- 5. Entire Agreement. This Agreement, including all Exhibits, constitutes the entire agreement between the Parties with reference to the subject matter hereof, and supersedes all prior and contemporaneous understandings or agreements, oral or written, between the Parties with respect to the subject matter of this Agreement. There are no other agreements, representations, warranties or covenants which constitute any part of the consideration for, or any condition to, either Party's compliance with its obligations under this Agreement.
- 6. *Multiple Counterparts*. This Agreement may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.

- 7 Relationship of the Parties. This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship or partnership between the Parties or to impose any partnership obligation or partnership liability upon either Party. Neither Party shall have any right, power or authority to enter into any agreement or undertaking for, act on behalf of, or act as or be an agent or representative of, or otherwise bind, the other Party.
- 8. *Notices*. All notices, requests, demands, elections, consents, approvals and other communications hereunder must be in writing and addressed as follows (or at any other address which either Party may designate by notice):

If to MBTA:

Massachusetts Bay Transportation Authority

10 Park Plaza, Suite 3910

Boston, MA 02116 Attn: General Manager

If to City:

City of Somerville

City Hall

93 Highland Ave. Somerville, MA 02143 Attention: Mayor

with a copy to:

City of Somerville

City Hall

93 Highland Ave. Somerville, MA 02143 Attention: City Solicitor

Any notice required by this Agreement to be given or made within a specified period of time, or on or before a date certain, shall be deemed to have been duly given if delivered by hand during business hours; mailed by certified mail, return receipt requested, postage and fees prepaid; or delivered by nationally-recognized overnight courier, shipping prepaid. A notice shall be deemed given when delivered or when delivery is refused.

- 9. Environmental Releases. Each Party shall notify the other Party, first orally and then in writing, of the release of any hazardous substances, any asbestos or lead abatement activities, or any type of remediation activities related to the Primary Drainage Facilities or the Connecting Drainage Facilities, each of which may reasonably be expected to affect the other Party. The notifying Party shall (i) provide the notice as soon as practicable, provided such Party makes a good faith effort to provide the notice no later than twenty-four (24) hours after such Party becomes aware of the occurrence, and (ii) promptly furnish to the other Party copies of any publicly available reports filed with any governmental authorities addressing such events.
  - 10. Severability. If any term or provision of this Agreement or the application thereto

to any person or circumstance shall, to any extent, be declared to be invalid or unenforceable, then the remainder of this Agreement or the application of such term or provision to other persons or circumstances, other than those as to which it would become invalid or unenforceable, shall not be affected thereby, and each term and provision of this Agreement shall be valid and enforceable to the fullest extent permitted by law.

- 11. Headings and Interpretation. The headings of the sections of this Agreement are for convenience of reference only and shall not be considered a part hereof, nor shall they be deemed to limit or otherwise affect any of the terms or provisions hereof. Reference to the singular or plural shall be deemed to include the other where the context requires.
- 12. No Implied Agreement. No Party shall have any obligations in connection with the transactions contemplated by this Agreement unless both Parties, each acting in its sole discretion, elect to execute and deliver this Agreement to the other Party. No correspondence, course of dealing or submission of drafts or final versions of this Agreement between the Parties shall be deemed to create any binding obligations in connection with the transactions contemplated hereby, and no contract or obligation on the part of any Party shall arise unless and until this Agreement is fully executed by both Parties.
- 13. Authority. Each Party hereby represents and warrants that the execution and delivery of this Agreement has been duly authorized by all requisite action.

[signature page follows]

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed by their respective duly authorized representatives.

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

By:

Name: Steven Poftak

Title: Acting General Manager

CITY OF SOMERVILLE

By;

Name: Joseph A. Curtatone

Title: Mayor

Approval as to Form:

MASSACHUSETTS BAY

TRANSPORTATION AUTHORITY

General Counsel

Approved as to Form:

CITY OF SOMERVILLE

City Solicitor

List of Exhibits:

Exhibit A – Additional Definitions Used in this Agreement

Exhibit B – Design and Use Requirements

Exhibit C - City of Somerville Connection to MBTA Drain Design Criteria

## Exhibit A Additional Definitions Used in this Agreement

- 1. Applicable Laws and Regulations All duly promulgated applicable federal, state and local laws, regulations, rules, ordinances, codes, decrees, judgments, directives, or judicial or administrative orders, permits and other duly authorized actions of any Governmental Authority.
  - 2. **Business Day** Monday through Friday, excluding Federal holidays.
- 3. Good Industry Practice Any of the practices, methods and acts engaged in or approved by a significant portion of the water and sewer industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Industry Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region.
- 4. Governmental Authority Any federal, state, local or other governmental regulatory or administrative agency, court, commission, department, board, or other governmental subdivision, legislature, rulemaking board, tribunal, or other governmental authority having jurisdiction over the Parties, their respective facilities, or the respective services they provide, and exercising or entitled to exercise any administrative, executive, police, or taxing authority or power.
- 5. **Primary Drainage Facilities** The facilities to be constructed as part of GLX for draining water from the MBTA right of way and consisting of:
  - Red Bridge Retention Pond and Retaining Wall US-1
  - Fitchburg Mainline Drain and Miller's River Trunk Drainage
  - Red Bridge Pump Station (RBPS)
  - Washington Pump Station (WPS)
  - Twin 90's/ Structures from RBPS to WPS

To the extent that work to construct a deep drainage facility at Washington St. to the WPS is deemed necessary by the MBTA, such work, while not currently included in the Project, will be considered to be a part of the Primary Drainage Facilities.

- 6. Connecting Drainage Facilities The facilities to be constructed by the City to convey stormwater from the City's separated drainage system to the Primary Drainage Facilities and consisting of:
  - Gravity storm drainage pipe
  - Stormwater pumping station
  - Force main

- Physical connection to the Primary Drainage Facilities
- Level sensing equipment with the Primary Drainage Facilities
- 7. Reasonable Efforts With respect to an action required to be attempted or taken by a Party, efforts that are timely and consistent with Good Industry Practice.

 $x \times x \times x$ 

#### Exhibit B

#### Design and Use Requirements

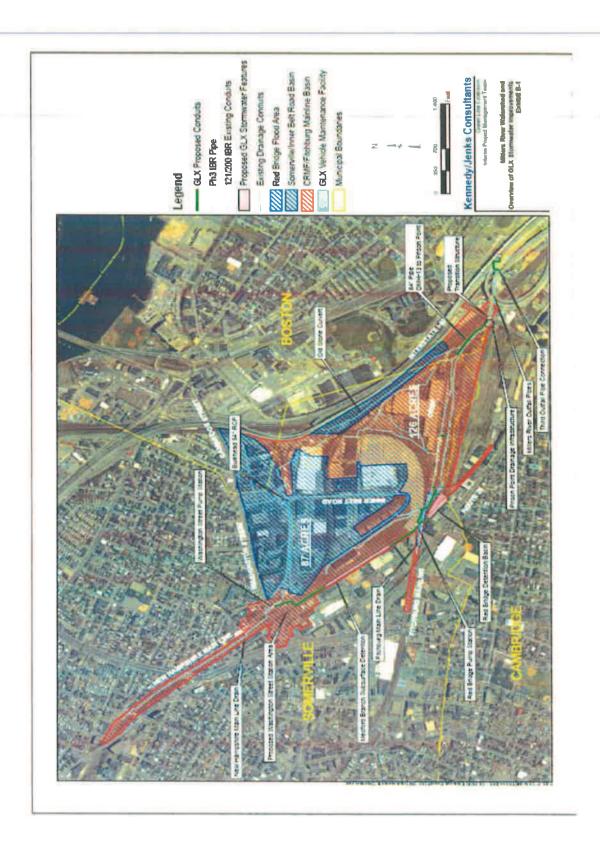
#### 1. Introduction

Stormwater runoff from portions of the cities of Somerville, Cambridge and Boston (Charlestown) drains to the Millers River (the "Millers River watershed"). The stormwater discharges to the Millers River through three outfall pipes owned by MBTA. The stormwater discharge is permitted by the United States Environmental Protection Agency through a NPDES Permit (of which the City is a co-permittee).

#### 2. Purpose of MBTA's Drainage Facilities

Much of the Millers River watershed has experienced years of flooding due to inadequate drainage infrastructure. Beginning in 2009 and continuing through 2016, the MBTA has invested in substantial drainage infrastructure capital improvements to alleviate the flooding on the Fitchburg commuter rail line at the Red Bridge, as well as at Washington Street beneath the railroad bridge overpass. These infrastructure improvements include construction of the Primary Drainage Facilities, including the new Washington Street Pump Station, new underground storage and detention in the corridor between Washington Street and the Red Bridge, the new Red Bridge Pump Station, new above-ground storage and detention adjacent to the Red Bridge Pump Station, new 84-inch diameter Fitchburg Mainline Drain pipe to replace 24-inch and 48-inch pipes, and re-connecting the third outfall pipe to the Miller's River as shown on the plan, included as a part of this Exhibit B.

The basis of design for the Primary Drainage Facilities was to prevent flooding on the Fitchburg commuter rail line from exceeding top of rail elevation during a 100-year storm event. (Note: MBTA normally designs drainage infrastructure so that stormwater never exceeds an elevation of 18-inches below top of railroad cross tie. However, constraints in the existing drainage infrastructure in the Millers River watershed required MBTA to relax this design criterion).



# Exhibit C City of Somerville Connection to MBTA Drain Design Criteria

The City of Somerville will pump stormwater from the Connecting Drainage Facilities to the Primary Drainage Facilities through a proposed pipeline connected to the MBTA's Pipe Storage Control Outlet Structure located at Station 50+15 as labeled in the MBTA Union Square Branch Drainage Plan dated September 2014, and located on MBTA property near Fitchburg Street. MBTA will grant easements to the City of Somerville for the construction and maintenance of the portion of the Somerville pipe on MBTA property.

The pumping from the Connecting Drainage Facilities to MBTA's Primary Drainage Facilities will be controlled based on the hydraulic grade line in the MBTA's drain as measured by a level sensor in the Red Bridge Pump Station wet well. The level sensor and associated telemetry equipment at the Red Bridge Pump Station will be City of Somerville infrastructure. MBTA will not remove or alter that infrastructure without written permission of Somerville. MBTA will grant easements for the installation and ongoing maintenance of the level sensor equipment. Maintenance access will at a minimum be on a quarterly basis.

The pumping from the Connecting Drainage Facilities to the Primary Drainage Facilities will be managed to not increase the peak flood hydraulic grade line above the 100-year storm elevation of 8.47 feet (NAVD88) at Station 68+00 on the Fitchburg Line as set forth in the "Stormwater Drainage Report for the Final Engineering Design", Project-Wide Drainage Improvements, MBTA Green Line Extension, Contract No. E22PS04, January 2015. The Somerville stormwater pump station will be allowed to operate at full capacity provided the water level at the Red Bridge Pump Station wet well as measured by Somerville's level sensor is maintained at an elevation below 8.05 feet (NAVD88). In the event that water levels increase to 8.05 feet (NAVD88), pumping rates will be progressively reduced, and pumping will cease in the event that the water level reaches 8.47 feet (NAVD88). As water levels decrease below 8.05 feet (NAVD88), pumping rates will progressively be increased provided that action does not result in water levels at the Red Bridge Pump Station wet well exceeding the threshold for pumping reduction.

Exhibit C - Page 2



FIGURE 2. Aerial of Proposed Connection Location