



CITY OF SOMERVILLE, MASSACHUSETTS

DEPARTMENT OF PUBLIC WORKS

JOSEPH A. CURTATONE


MAYOR

STAN KOTY  
*Commissioner*

RICK WILLETTE  
*Director of Operations*

April 24, 2014

TO: Ald. Heuston

FROM: Melissa A. Miguel, P.E.   
Acting Director of Engineering

Re: Order No. 22  
2013 Ward 2 Sewer/Drain Cleaning and TV Inspection

National Water Main Construction Company has been contracted with the City of Somerville to perform sewer and drain line cleaning and television inspection in two sections of the City including the area of Ward 2 along Washington Street between Beacon Street and the Argenziano School, Dane Street between Somerville Avenue and Washington Street and Dane Avenue between Dane Street and Washington Street. Catch basin laterals along Dane Avenue were also cleaned in an attempt to minimize flooding in that area. Work commenced on July 8, 2013 and was completed on October 3, 2013 in this area.

The cleaning and inspection operation revealed debris in the lines ranging in depth from 6" - 18" (pipe sizes varied from 8" to 30") as well as the presence of boulders and other obstructions. These depths represent an approximate reduction in pipe capacity of 30% - 50% and the presence of boulders can reduce capacity even further. Approximately two hundred and twenty (220) tons of debris was removed from the system in the areas indicated above. It's encouraging that we have been able to remove this debris from the system. It's even more encouraging that the system appears to be structurally sound in this area. While cleaning these mains won't solve the long-term flooding in this portion of the City, restoring the capacity of these mains will help to improve overall conditions in the area.

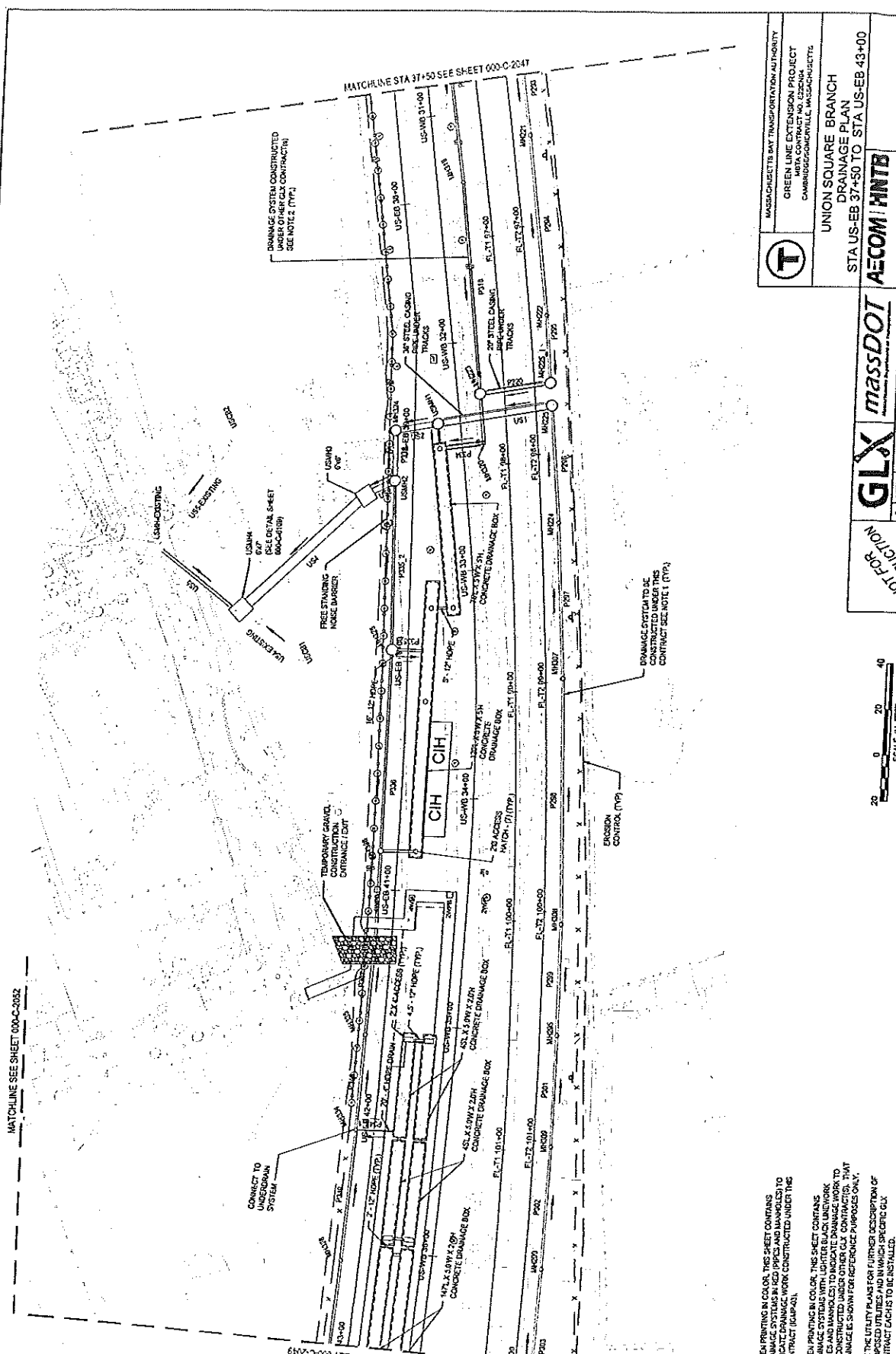
I have recently added cleaning and TV inspection to the scope of work for Kingman Road and Clark Street. It should be noted that the GLX project will be redirecting stormwater flow away from the Kingman Road/Clark Street area where it currently exits the railroad corridor. The proposed design will collect stormwater from the corridor and the new Union Square station and detain it in tanks that are under the station platform and in the corridor. (See attached plans) The proposed discharge will be at the intersection of Linden Street and Charlestown Ave.

Under existing conditions, although some stormwater runs off the corridor, the drainage in the corridor from Medford Street generally runs in surface swales under the Prospect Street bridge to a low point at Kingman Road. It then enters a catch basin at the end of Kingman.

In the proposed condition, all the drainage within the proposed railroad right-of-way from Medford Street to Prospect Street and from the proposed Union Square Station will be collected in sub-drains, detained and then is discharged to the Linden St storm system at a mitigated rate.

Cc: Stan Koty, DPW Commissioner

MATCHLINE SEE SHEET 000-C-0032



MATCHLINE STA 37+50 SEE SHEET 000-C-2047

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY  
 GREEN LINE EXTENSION PROJECT  
 MBTA CONTRACT NO. 2300A  
 CAMBRIDGE/ROSLINDALE, MASSACHUSETTS

**T**

UNION SQUARE BRANCH  
 DRAINAGE PLAN  
 STA US-EB 37+50 TO STA US-EB 43+00

**GLX** **massDOT** **AECOM** **HNTB**

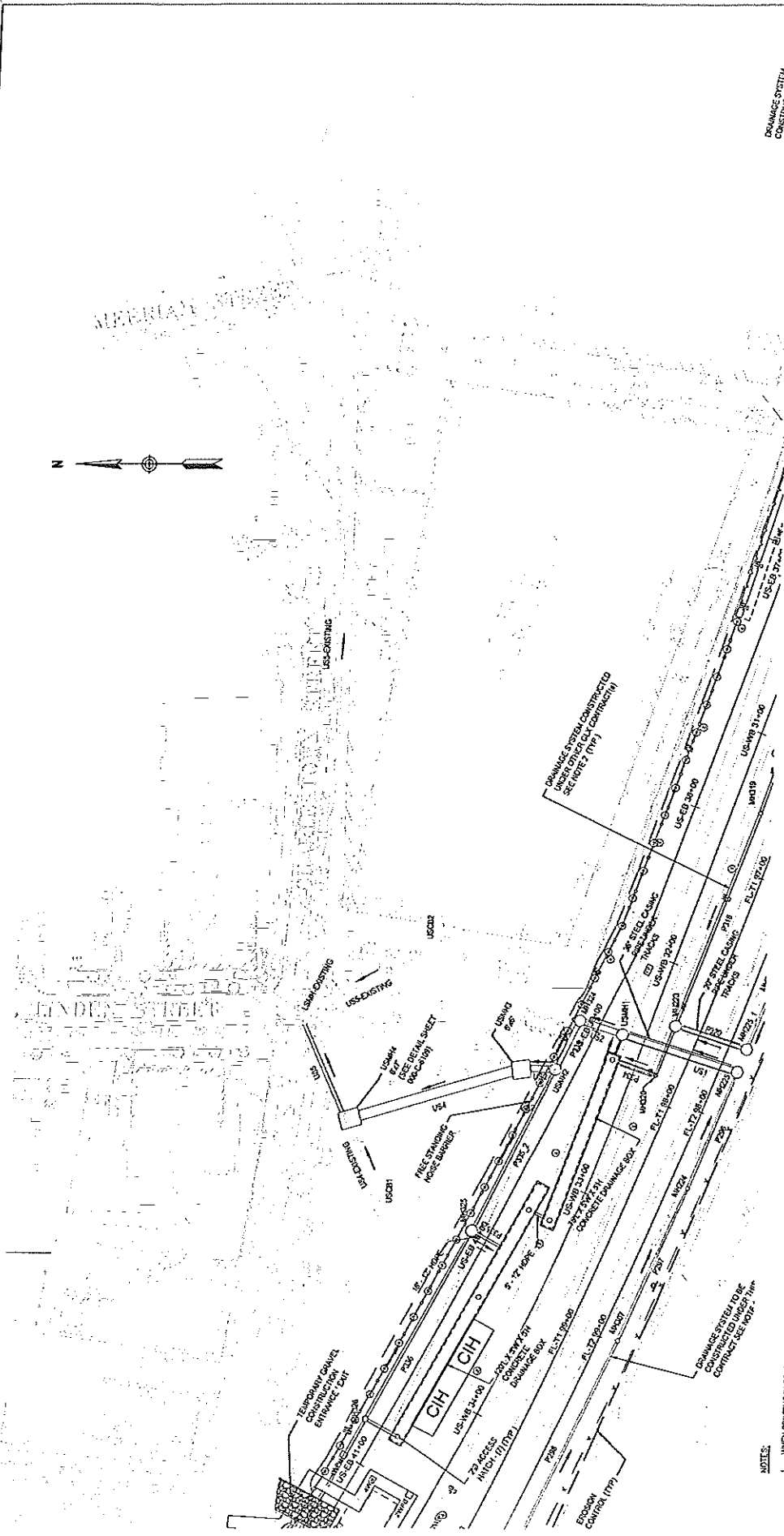
NOT FOR CONSTRUCTION

DATE	BY	CHK	APP	SCALE	PLANNING
10/13/2011	DR	PHW	AS	1"=20'	
SHEET: 000-C-2048					<b>E</b>

- NOTES:**
1. WHEN PRINTING IN COLOR, THIS SHEET COMPAINS DRAINAGE SYSTEMS IN RED. PREVIOUS SHEETS TO INDICATE DRAINAGE WORK CONSTRUCTED UNDER THIS CONTRACT (IGAP-43).
  2. WHEN PRINTING IN COLOR, THIS SHEET COMPAINS DRAINAGE SYSTEMS WITH LIGHTER BLACK LINED PIPES AND MANHOLES TO INDICATE DRAINAGE WORK TO BE CONSTRUCTED UNDER OTHER GLX CONTRACTS. THAT DRAINAGE IS SHOWN FOR REFERENCE PURPOSES ONLY.
  3. SEE THE UTILITY PLANS FOR FURTHER DESCRIPTION OF PROPOSED UTILITIES AND IN WHICH SPECIFIC GLX CONTRACT DUCTS TO BE INSTALLED.



MATCHLINE STA 43+00 SEE SHEET 000-C-2049



- NOTES:**
1. WHEN PRINTING IN COLOR, THIS SHEET CONTAINS DRAINAGE SYSTEMS IN RED (PIPES AND MANHOLES TO BE CONSTRUCTED UNDER THIS CONTRACT (SEE NOTE 1)).
  2. WHEN PRINTING IN COLOR, THIS SHEET CONTAINS DRAINAGE SYSTEMS WITH LIGHTER BLACK LINEWORK (MANHOLES TO INDICATE DRAINAGE WORK TO BE CONSTRUCTED UNDER OTHER GLX CONTRACTORS). THAT DRAINAGE IS SHOWN FOR REFERENCE PURPOSES ONLY.
  3. SEE PLANTIVITY PLANS FOR FURTHER DESCRIPTION OF PROJECT AND THE LOCATION OF MANHOLES IN WHICH SPECIFIC GLX CONTRACT LISTS TO BE INSTALLED.

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MASSACHUSETTS BAY TRANSPORTATION AUTHORITY  
 GREEN LINE EXTENSION PROJECT  
 CONTRACT NO. 02200A  
 BOSTON, CHARLESTOWN, MASSACHUSETTS

PLAN NO.  
 SUR LS PS  
 DATE APR 13, 2011  
 SHEET 006-C-2052

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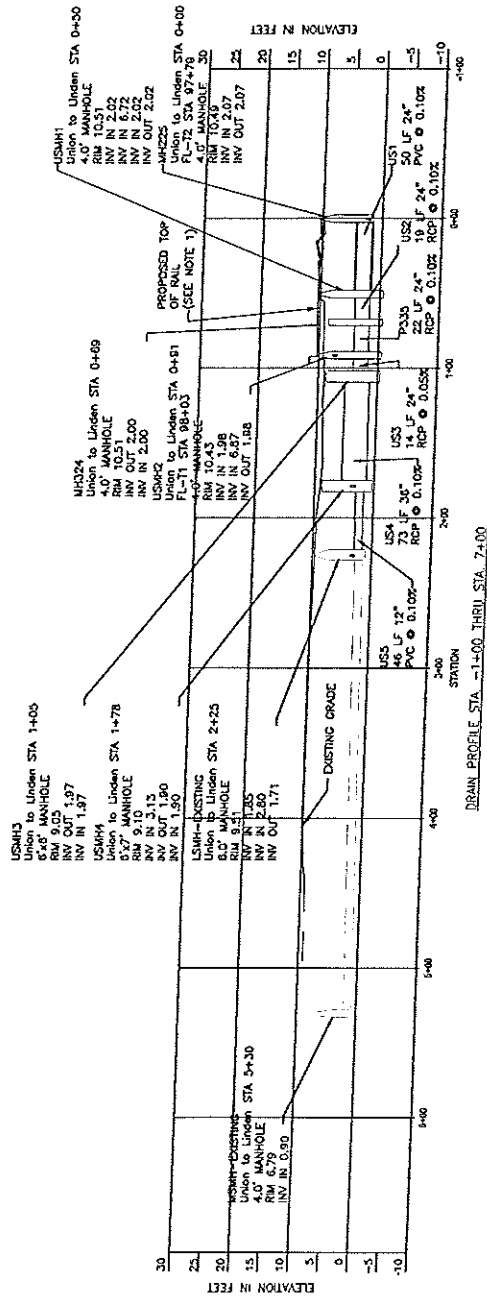
UNION SQUARE BRANCH  
 DRAINAGE PLAN  
 CHARLESTOWN STREET

**AECOM HNTB**

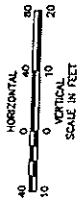
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**GLX** **massDOT**

NOT FOR CONSTRUCTION



NOTES:  
 1. PROPOSED ALIGNMENT IS ALONG THE CENTERLINE OF THE TRACK.  
 2. PROPOSED MANHOLE LOCATION AND INVERTS. EXISTING DRAINAGE SHOWN ON THIS SHEET ARE BASED ON SURVEYS RECEIVED FROM BRYANT.



NOT FOR CONSTRUCTION

GLX		massDOT	
1	DATE	BY	CHECKED
2	SCALE	DATE	BY
3	PROJECT	DATE	BY
4	DESCRIPTION	DATE	BY
5	REVISIONS	DATE	BY
6	APPROVED	DATE	BY
7	DESIGNED	DATE	BY
8	CHECKED	DATE	BY
9	IN CHARGE	DATE	BY
10	PROJECT MANAGER	DATE	BY
11	PROJECT SUPERVISOR	DATE	BY
12	PROJECT ENGINEER	DATE	BY
13	PROJECT ASSISTANT	DATE	BY
14	PROJECT CLERK	DATE	BY

MASSACHUSETTS RAIL TRANSPORTATION AUTHORITY

GREEN LINE EXTENSION PROJECT  
 METRA CONTRACTING  
 CAMBRIDGE/MARYHILL, MASSACHUSETTS

MEDFORD & UNION SQUARE BRANCH  
 DRAINAGE PROFILES  
 FL-T2 87+79 TO CHARLESTOWN STREET

AECOM HNTB

SCALE: 1"=40'  
 DATE: APR 18, 2014  
 SHEET: 000-C-1021