





***Demolition of Commercial Point CSO Facility  
Screenings Building***

June 19, 2019

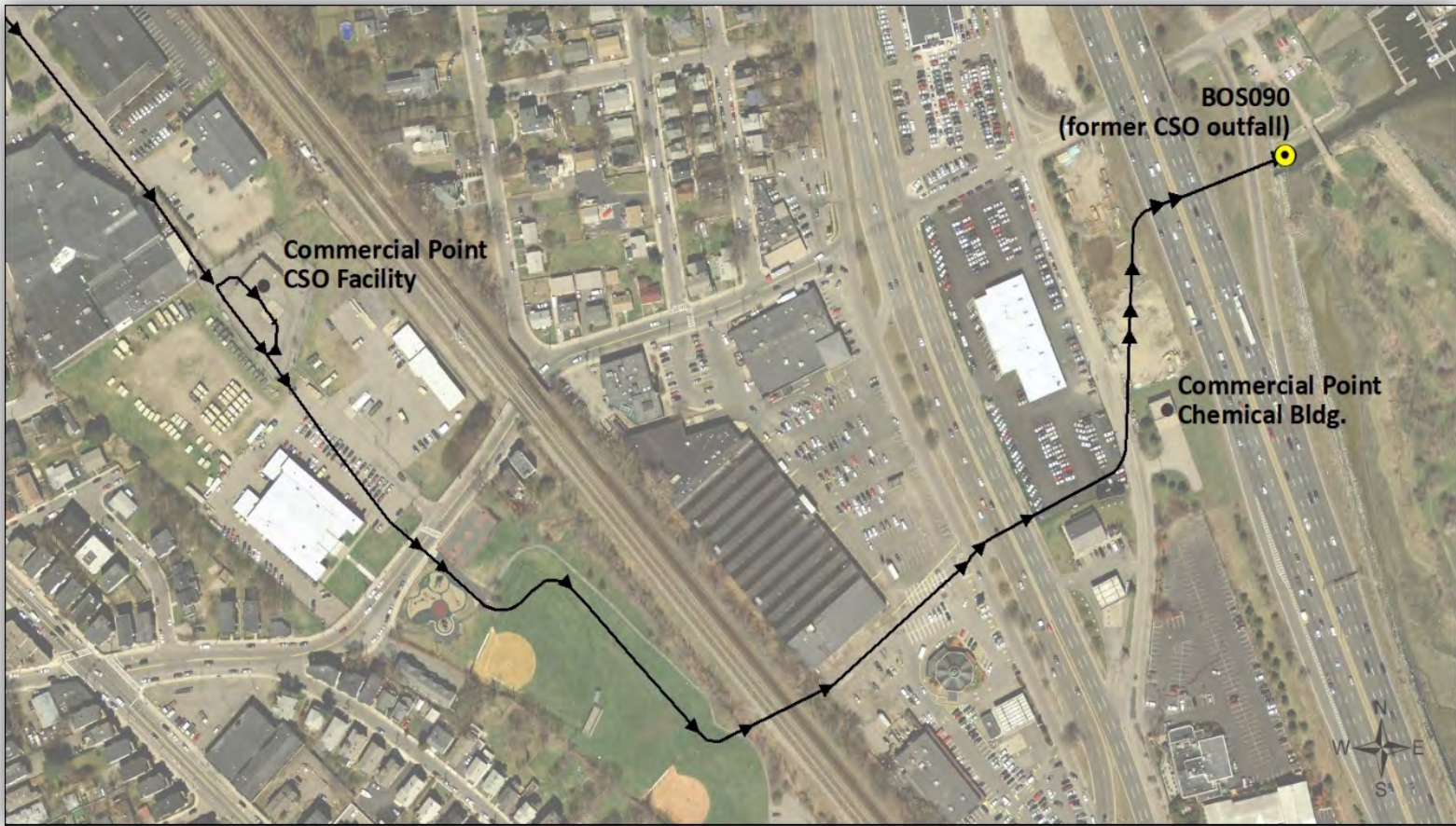


# Commercial Point Sewer Separation Area



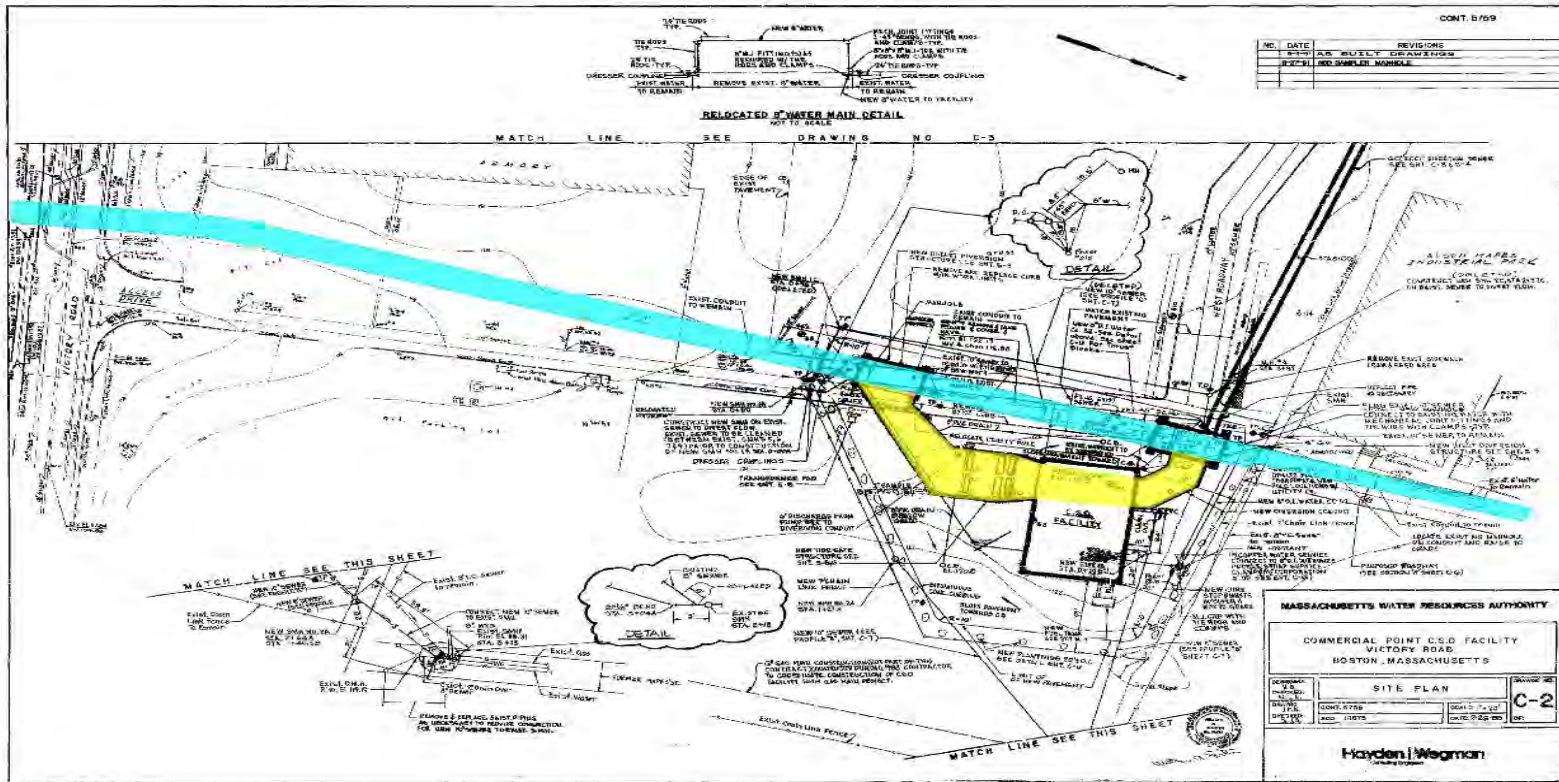


# Commercial Point CSO Facility Connection to Storm Sewer





# Commercial Point CSO Facility Screenings Building





# Commercial Point CSO Facility Screenings Building



**Commercial Point**



# Commercial Point CSO Screenings Building Chemical Addition Room





# Commercial Point CSO Screenings Facility UST Removal







## Next Steps

- Design Bulkheads to Isolate the Facility's Bypass Piping from the BWSC Storm Drain (Task Order Consultant Services)
- Award Contract to Install Bulkheads and Fill Bypass Piping/Channel
- Prepare Demolition Contract for Screening Building (In-house Effort)
- Award Demolition Contract to Return Property to Pre-Facility Condition
- Return Property to Commonwealth



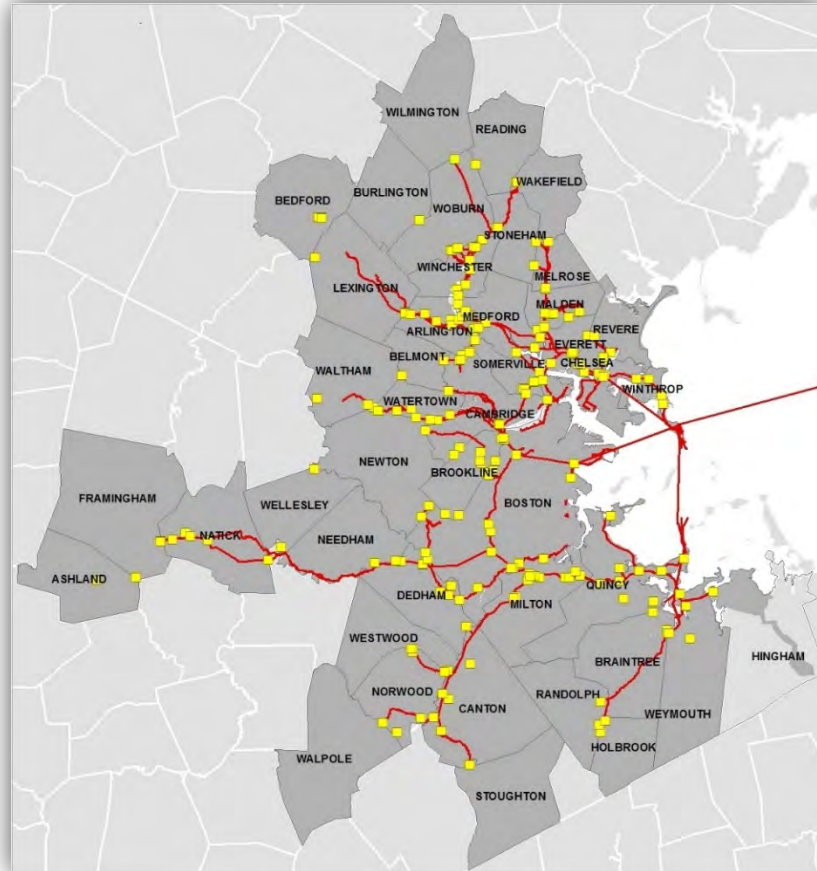


***Telog Dataloggers  
for Wastewater Metering***

June 19, 2019



# Wastewater Meter Distribution





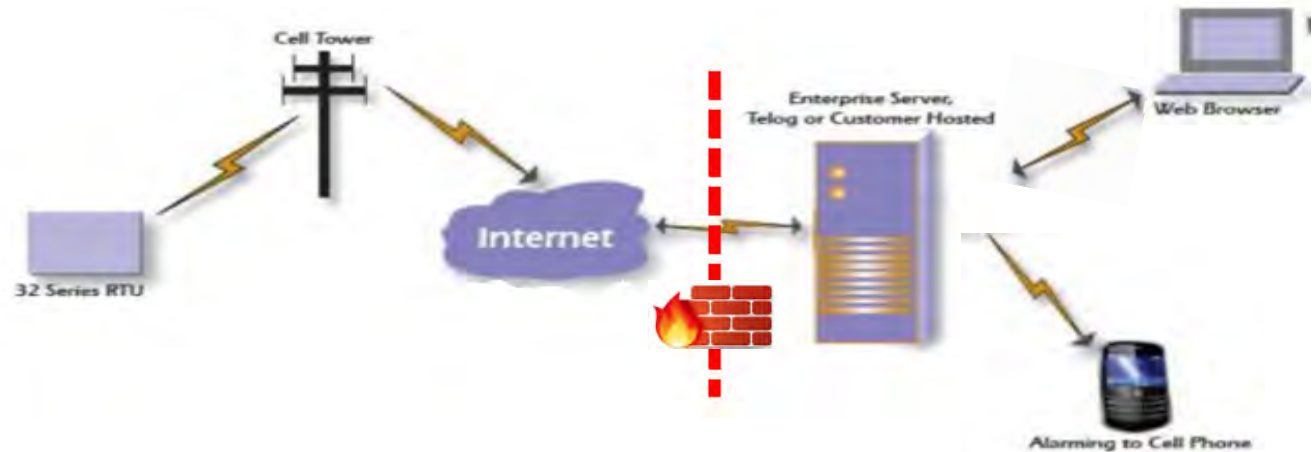
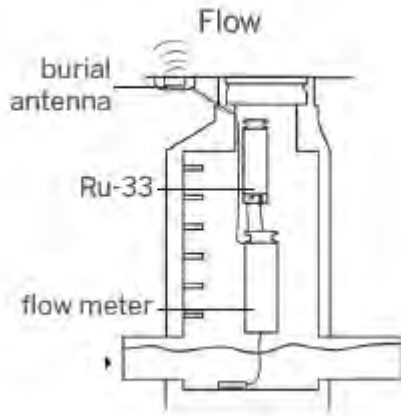
# Current Wastewater Metering System

## Hardware

- Flow meters
- Telog dataloggers / telemetry
- 3G Modems
- Antenna

## Software

- Dedicated server inside firewall
- Telog Enterprise for Wastewater/Water
- Telog Web Module
- Interface to MWRA PI Historian





## Typical Current Installation at Meter B0-CH2

A wastewater meter and datalogger mounted in a manhole chamber





# Communication and Reporting Platform Review

- Seven systems evaluated, two systems short-listed:
  - Ayyeka
  - Telog
- Both not “cloud-based”
- Both compatible with multiple meter vendors



## Recommendation

Staff recommend purchase of Telog dataloggers

- No need to build and maintain new server and system on MWRA network
- Allows data editing
- Remote programming capability of connected meters
- Able to meet Verizon 4G deadline







***Chemical Tank Relining & Pipe Replacement  
Deer Island Treatment Plant  
Contract 7373***

June 19, 2019



# Contract 7373 Work Areas





# Chemical Tank Relining

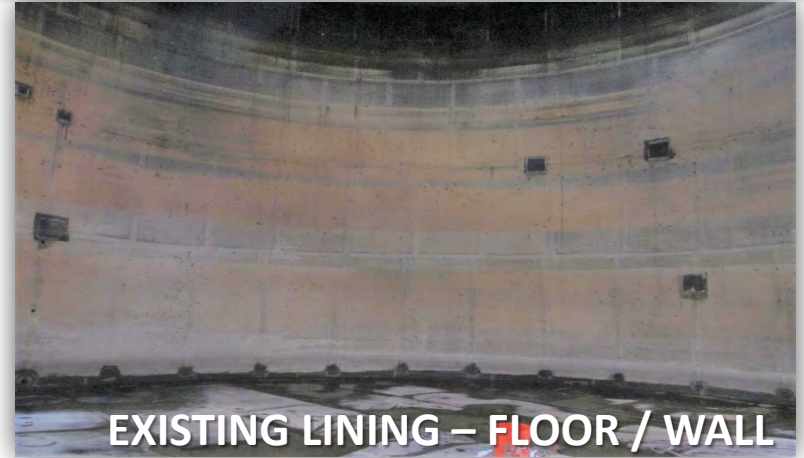
- 4 Tanks - Sodium Hypochlorite
  - Disinfection (NPDES)
  - Odor control (Air Permit)
- 2 Tanks - Sodium Bisulfite
  - Dechlorination (NPDES)
- Stores 270,000 Gallons Each





# Chemical Tank Relining (Continued)

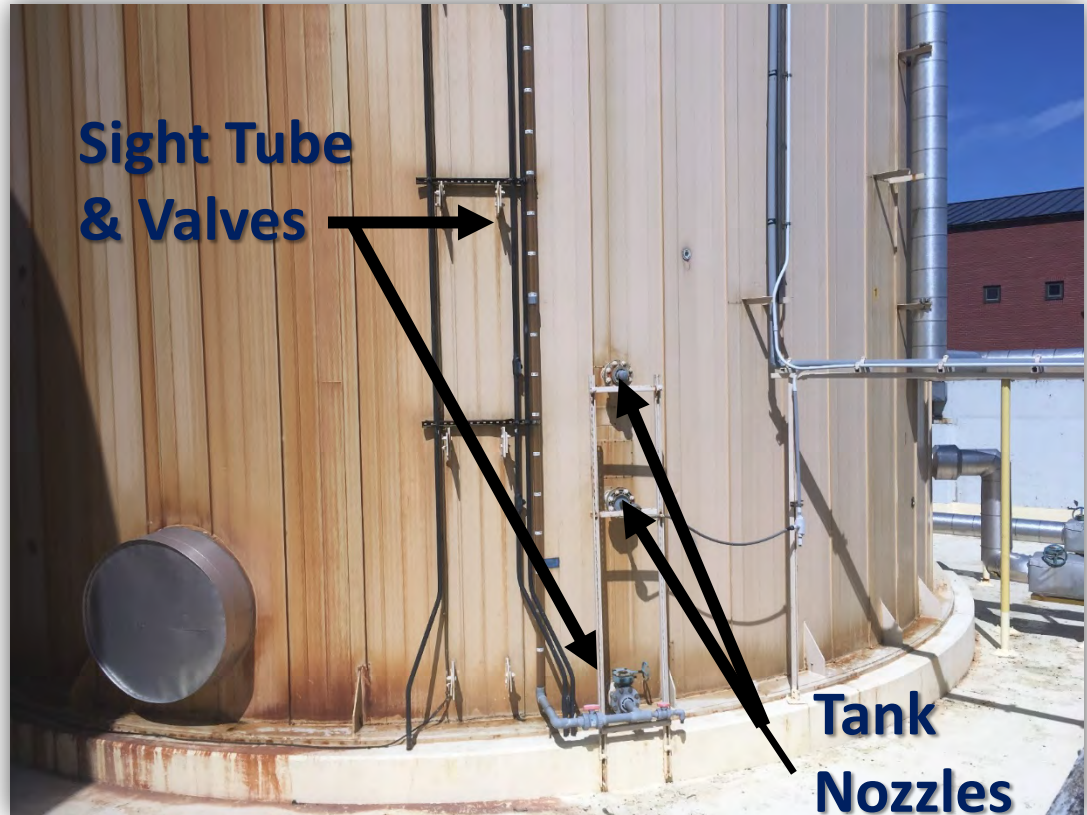
- Constructed of welded steel plates
- Lined with chlorobutyl rubber
- Interior inspected annually
- Linings becoming brittle
- 5 of 6 tanks will be relined





# Other Chemical Storage Tank Work

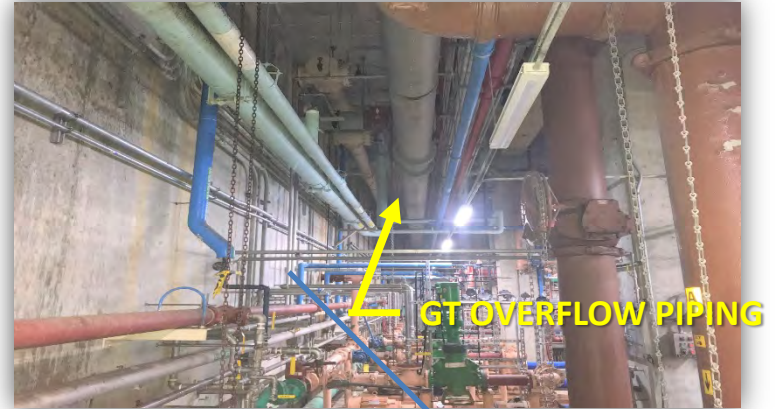
- Paint tank nozzles & access ports
  - 21 per tank
- Replace sight tubes and valves





# Gravity Thickener Overflow Piping

- GT Overflow piping
  - 16-inch to 30-inch diameter
- Original Piping - 25 years
- Internal corrosion observed
- Complete replacement recommended





## Contract 7373 – Chemical Tank Relining and Pipe Replacement

- Recommended Contractor: Walsh Construction Co. II, LLC
- Price: \$8,504,505
- Contract Term: 850 Calendar Days







***Chelsea Creek Headworks Upgrade  
Contract 7161 - Change Order 29***

June 19, 2019

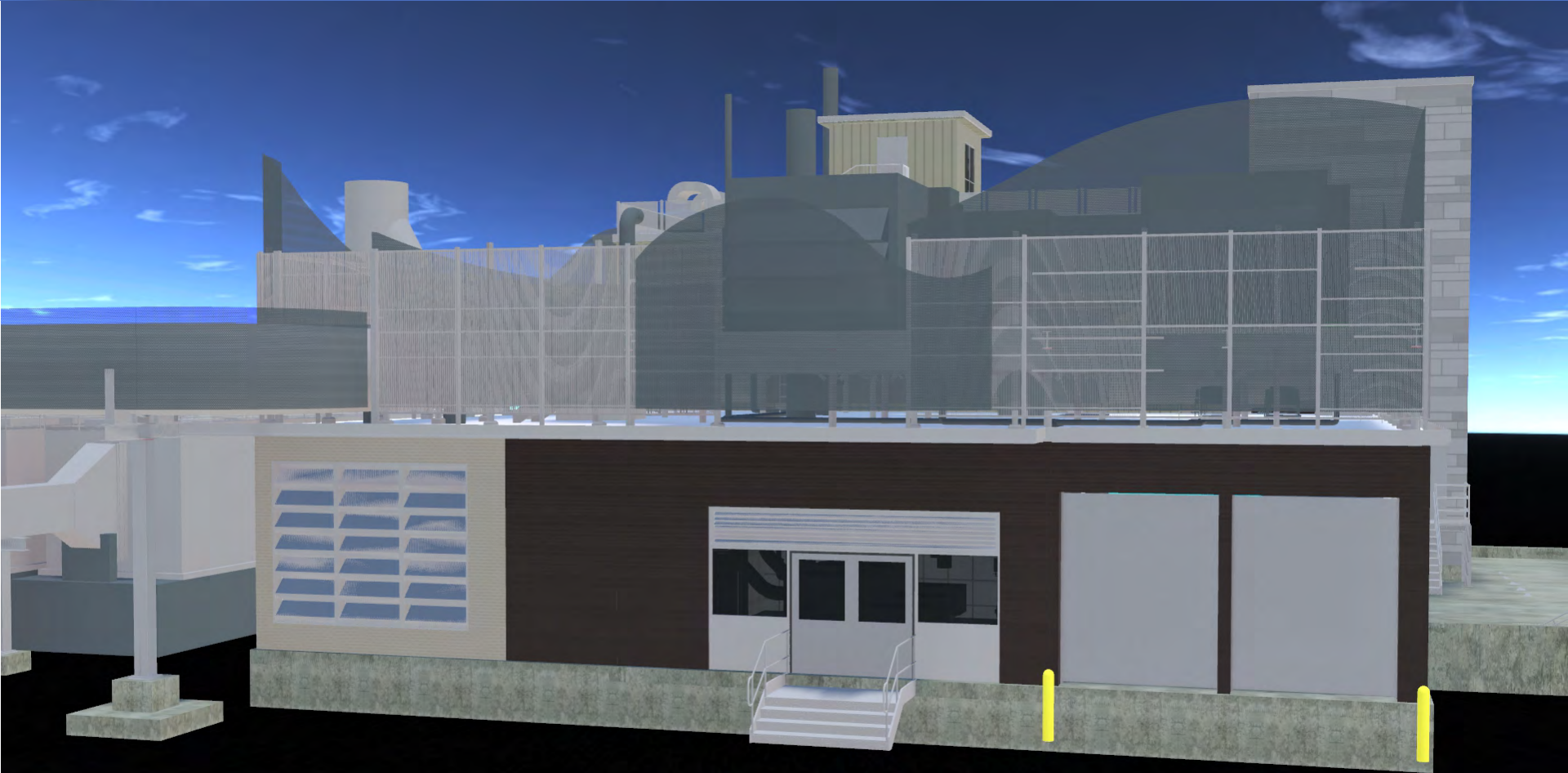


# Chelsea Creek Headworks: Existing Equipment Screen





# Chelsea Creek Headworks: Future Equipment Screen





# Chelsea Creek Headworks: Roofing Penetrations & Supports





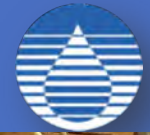
# Chelsea Creek Headworks: Equipment Layout





# Chelsea Creek Headworks: Existing Dunnage Demolition





# Chelsea Creek Headworks: Channel 2 Demolition







# Chelsea Creek Headworks: Channel 2 Concrete Resurfacing





# Chelsea Creek Headworks: Carbon Adsorber 1





# Chelsea Creek Headworks: Carbon Adsorber 1





# Chelsea Creek Headworks: Exterior Windows and Siding





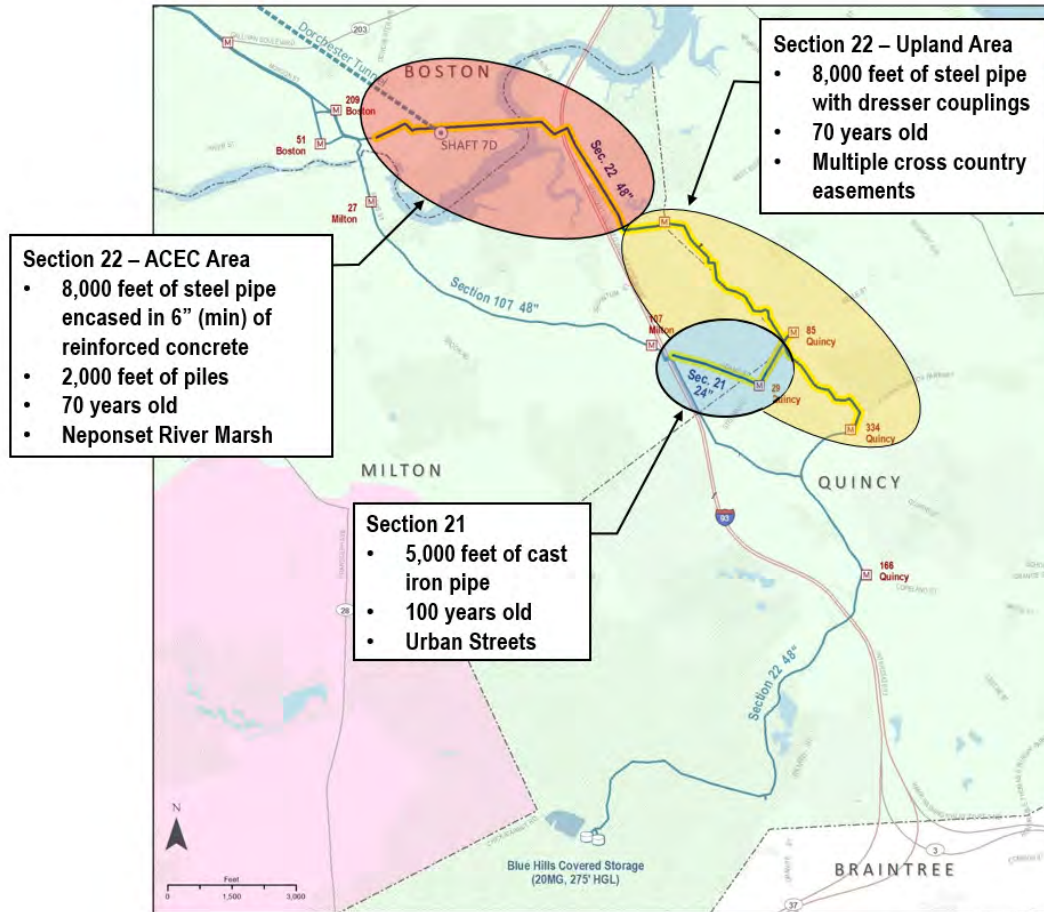


***Section 22 Rehabilitation Alternatives Analysis and  
Environmental Permitting  
Contract 7155***

June 19, 2019

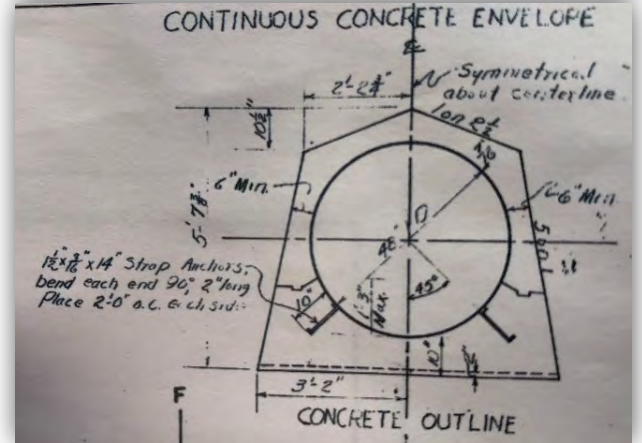


# Distinct Project Segments





# Section 22 through DCR's Neponset River Estuary (ACEC), Boston







## Section 22 in ACEC between Route 93 and Granite Avenue, Milton





## Section 22 Under the Neponset River, Boston/Milton





# Project Components

## Project Design Assessment

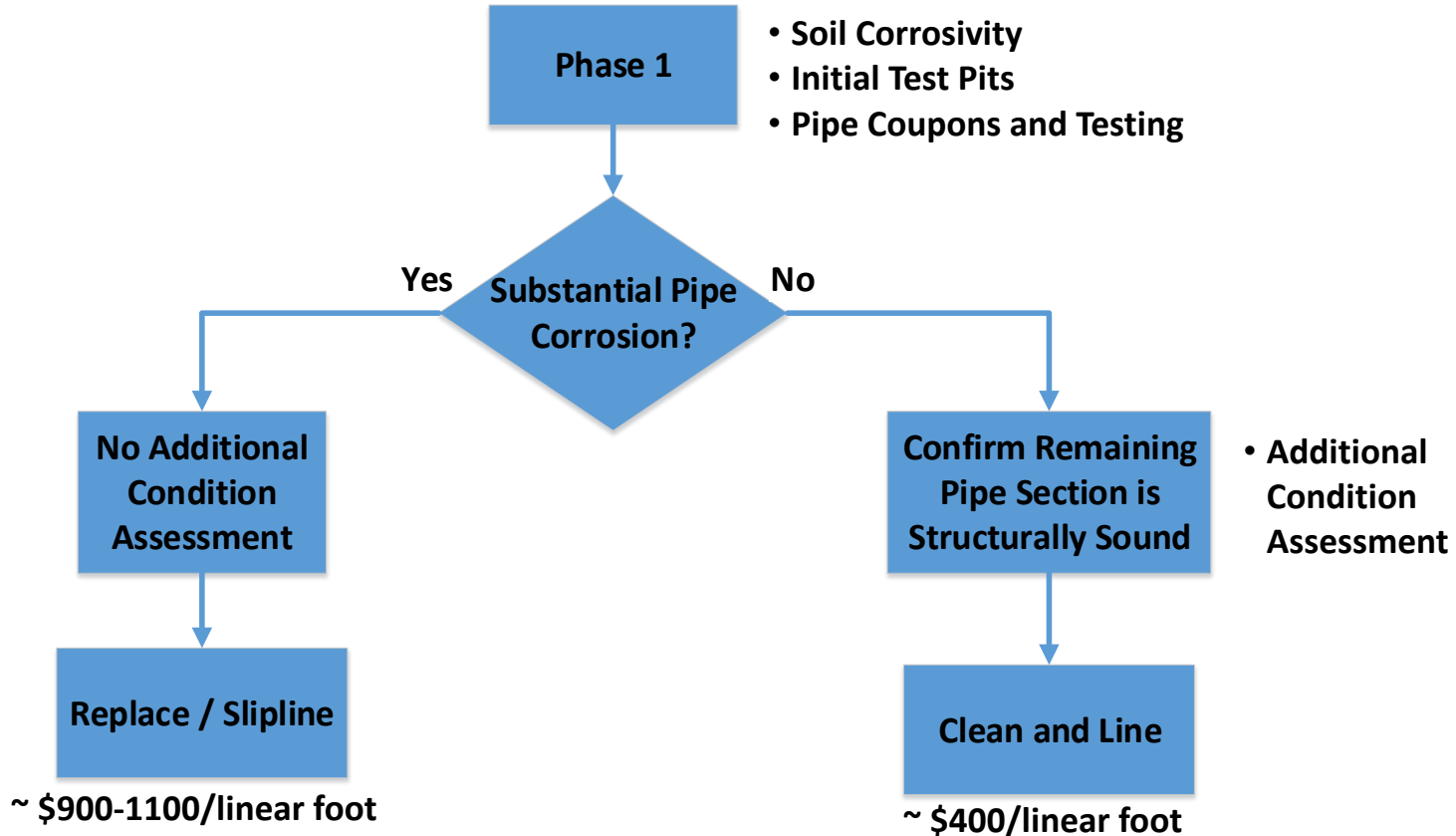
- Review of Leak and Maintenance History
- Review of hydraulic operating conditions
- Hydraulic analysis to determine if smaller diameter possible for slip lining

## Field Condition Assessment

- Geotechnical Borings – soil corrosivity/hazardous materials
- Field test pits – pipe and piers
- Acoustic leak detection
- Internal pipe inspection – intelligent pipe pig
- \$72/linear foot comparable to recent projects



# Condition Assessment Flow Chart





# Project Components

## Alternative Analysis

- Replace, Clean and Line, Slip Line Piping
- Evaluate Neponset River Crossing
  - » Microtunnel
  - » Horizontal Directional Drilling
- Provide recommended alternative for each pipe section

## Environmental Permitting

- Environmental Notification Form
- Environmental Impact Report



# Proposals

Proposer	Rank	Proposed Cost	Other Direct Costs	Proposed Hours
Black & Veatch	1	\$2,870,000.00	\$1,633,636	8,863
Kleinfelder	2	\$3,108,086.80	\$2,043,288	8,070
Hazen Sawyer	3	\$4,395,884.00	\$2,166,427	14,498
Engineer's Estimate		\$2,160,000.00	\$1,260,000	6,400



# Schedule and Award Summary

ITEM	START	DURATION	END
Pipeline Condition Assessment Alternatives Analysis Environmental Notification Form	July 2019	18 Months	January 2021
Environmental Impact Report	February 2021	18 Months	July 2022

