

# NARRAGANSETT BAY COMMISSION



## CSO PROGRAM UPDATE

June 10, 2013

# NBC CSO PROGRAM

## PHASE 1

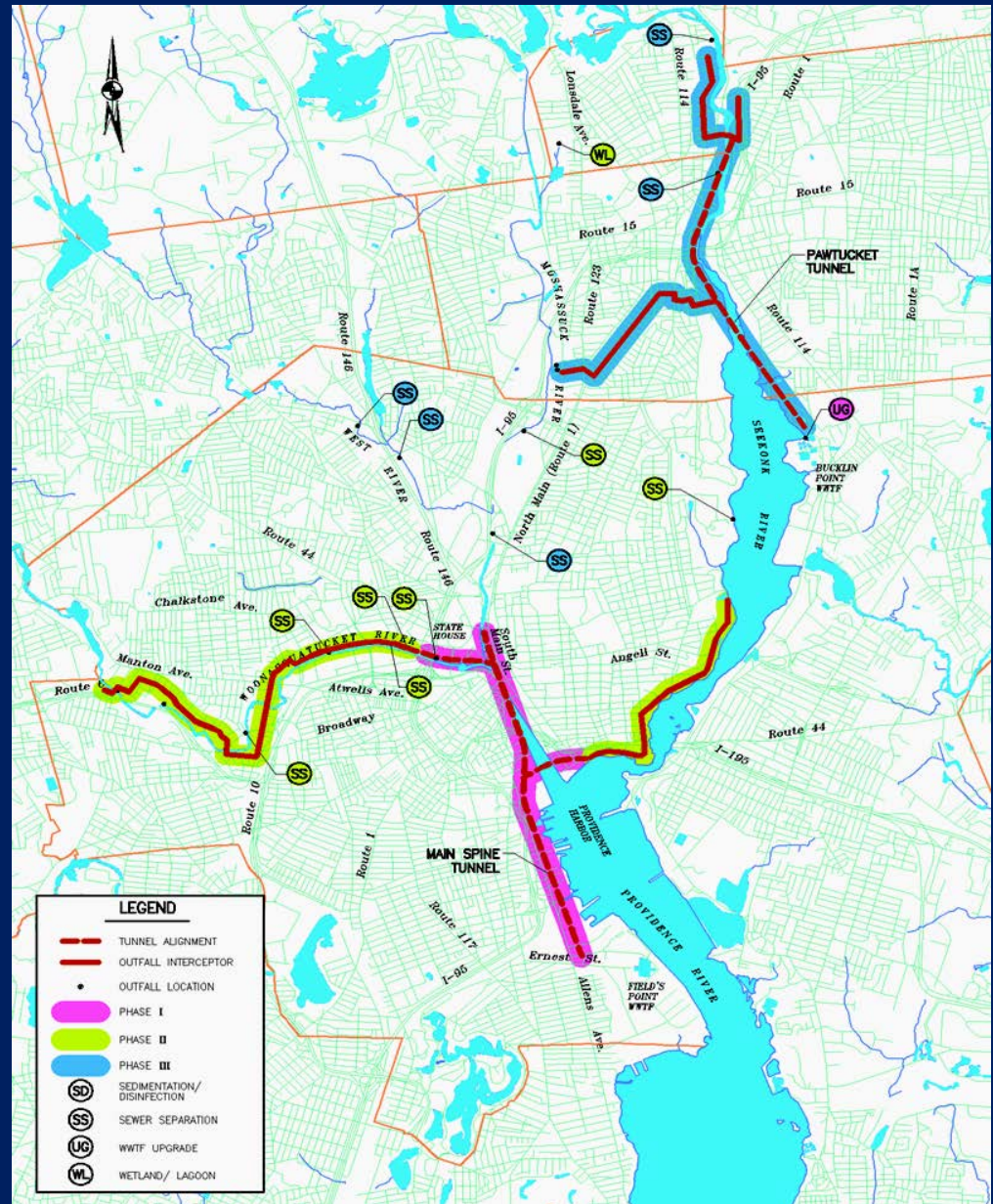
- 26-ft diameter deep rock tunnel
- Diversion structures at 8 CSOs
- Relief structures at 2 interceptors
- Pump station
- Online in 2008
- Collected 4.8 billion gallons

## PHASE 2

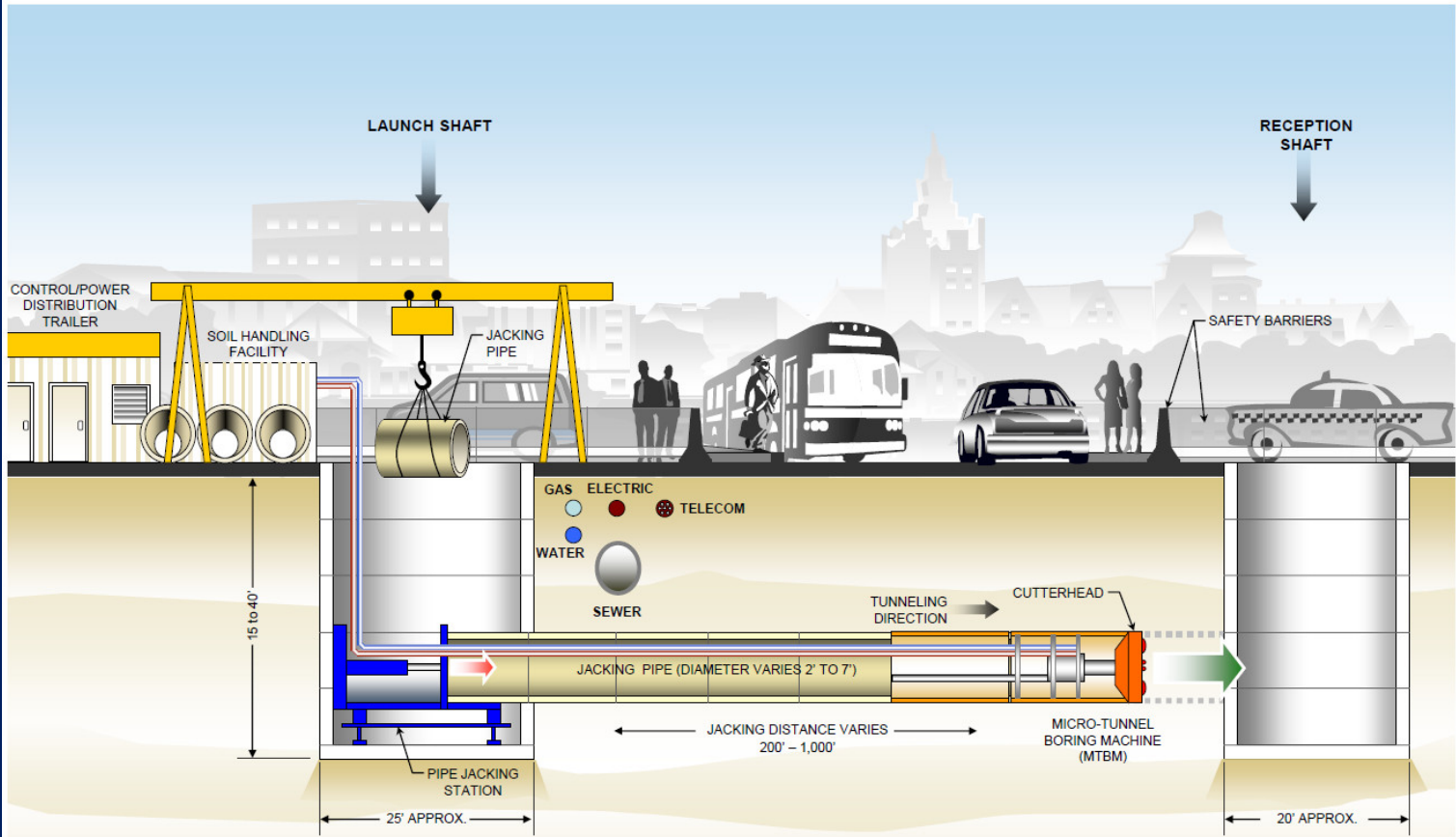
- 2 interceptors to transport flow to tunnel
- Sewer separation at CSOs 027 and 037
- Constructed wetlands facility at CSO 106
- Completed by 2014

## PHASE 3

- Conceptual design is to construct deep rock tunnel.
- Completed by 2021

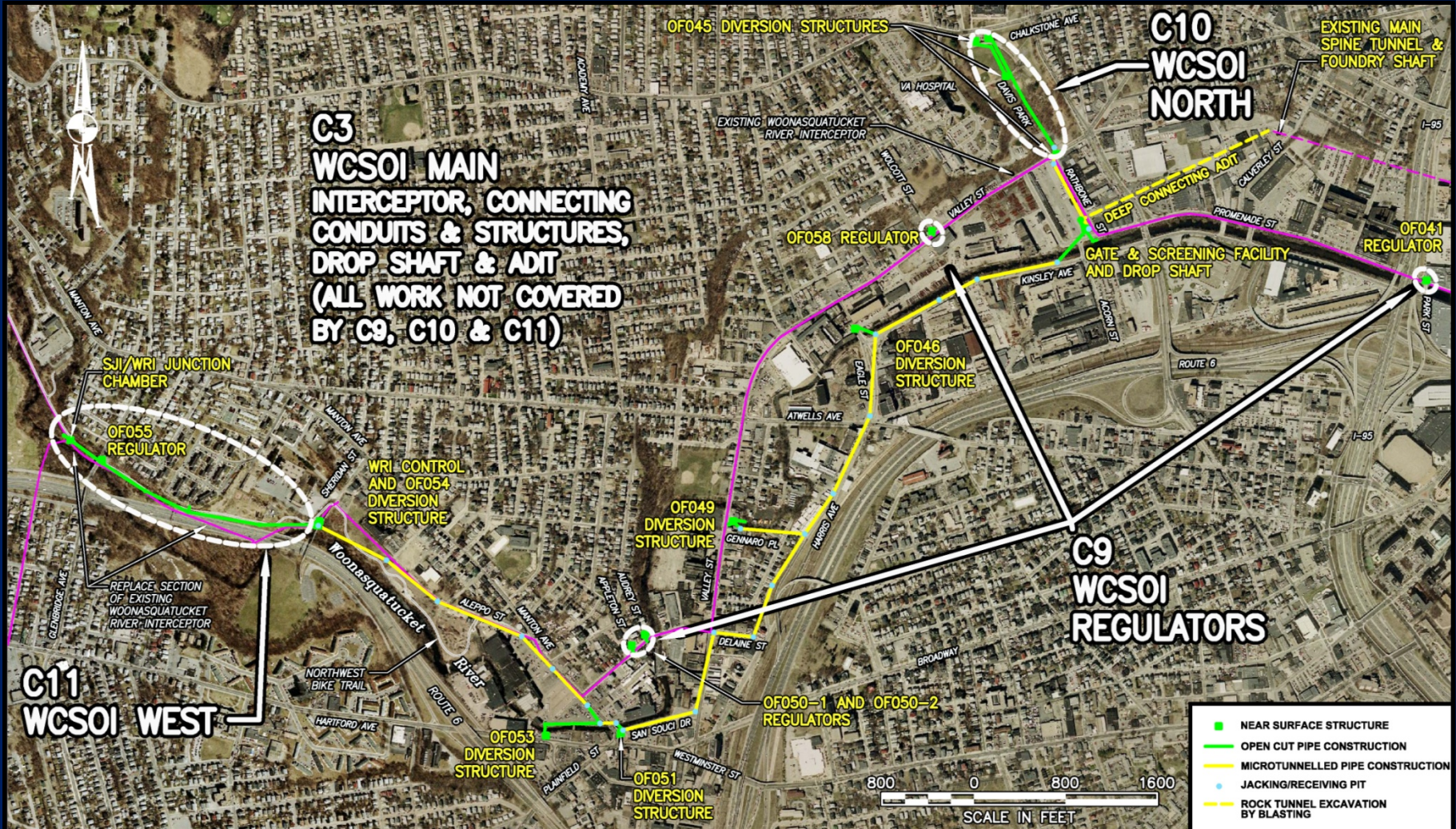


# What is microtunneling?



**PIPE JACKING USING MICROTUNNELING MACHINE**

# Woonasquatucket CSO Interceptor



# Woonasquatucket CSO Interceptor

Contract	Contractor	Low Bid	Percent Complete	Expected Completion Date
303.03-WCSOI Main	Barletta/Shank/Balfour Beatty	\$59,995,000	32%	Dec 2014
303.09-WCSOI Regulator Modifications	Grove Construction, Inc.	\$894,000	100%	Jan 2012
303.10-WCSOI North	Cardi Corporation	\$5,368,000	100%	May 2013
303.11-WCSOI West	DiGregorio, Inc.	\$6,848,518	97%	Sept 2013
303.13-WCSOI Demolition	AA Asbestos Abatement Co, Inc.	\$194,000	100%	July 2012
303.14-WCSOI CSO 054	DiGregorio, Inc.	\$2,368,863	54%	July 2013

# Seekonk CSO Interceptor

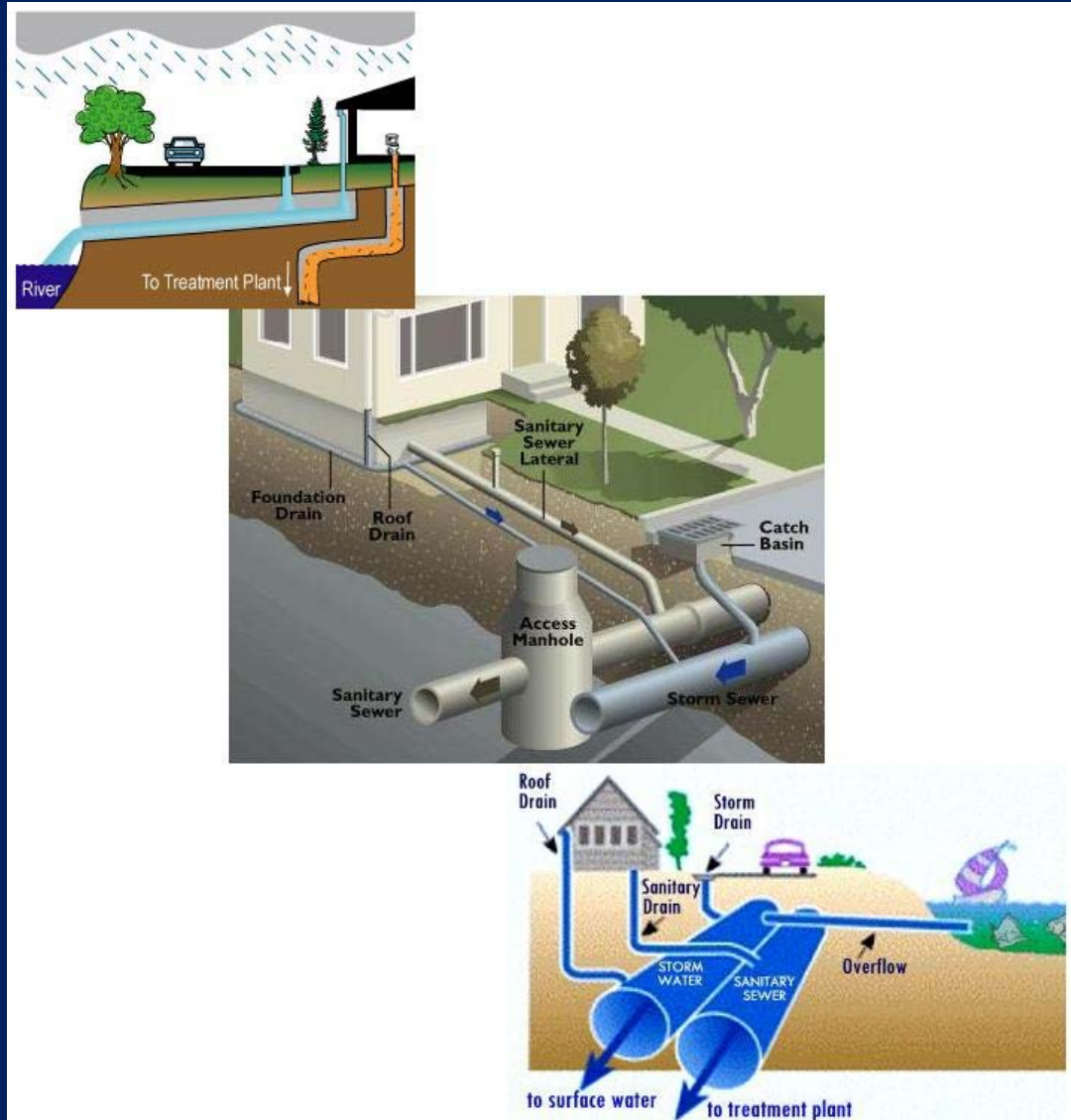


# Seekonk CSO Interceptor

Contract	Contractor	Low Bid	Percent Complete	Expected Completion Date
303.04-SCSOI Main	Northeast Remsco Construction, Inc.	\$18,657,000	25%	Dec 2014
303.12-CSO 025 Regulator Modification	RP Iannuccillo & Sons Construction Co.	\$598,000	100%	Nov 2012

# What is Sewer Separation?

- Catch basins are currently connected to the sanitary sewer.
- Construct new storm sewers and catch basins
- Disconnect existing catch basins from sanitary sewer



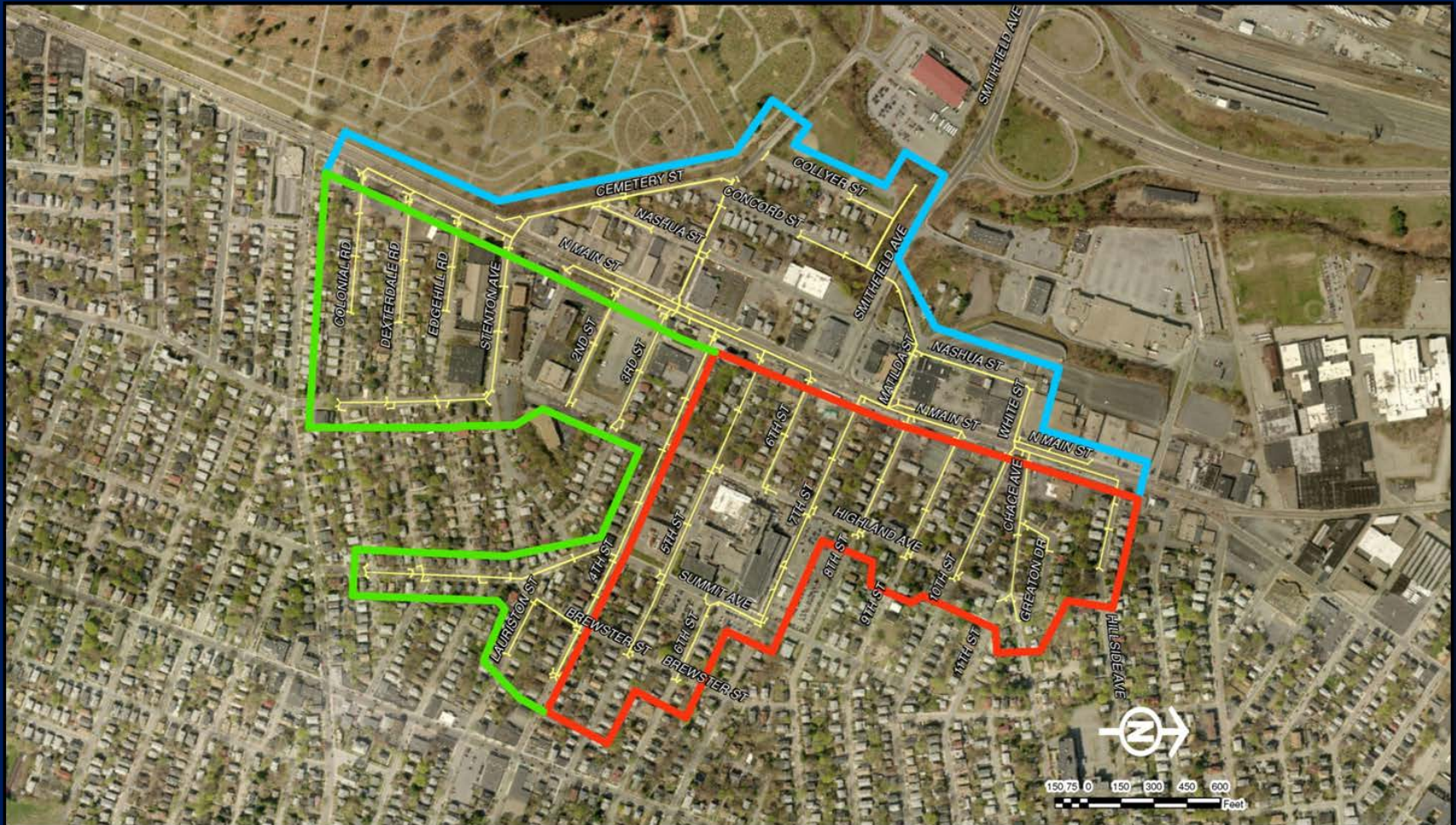


# SEWER SEPARATION-CSOs 027 & 037

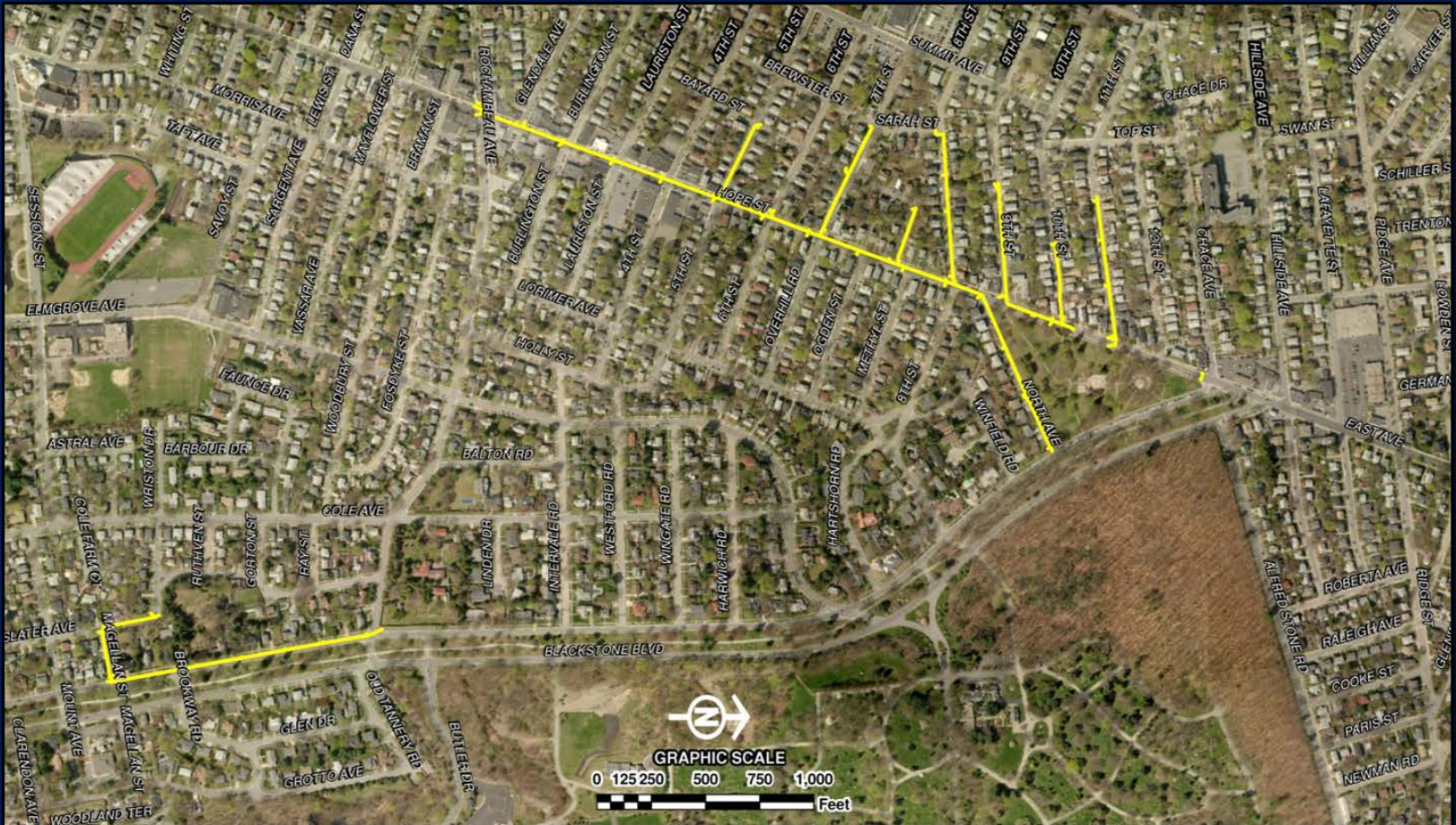
- Construct new storm sewers via conventional open-cut trenching methods



# CSO 037 SEWER SEPARATION



# CSO 027 SEWER SEPARATION



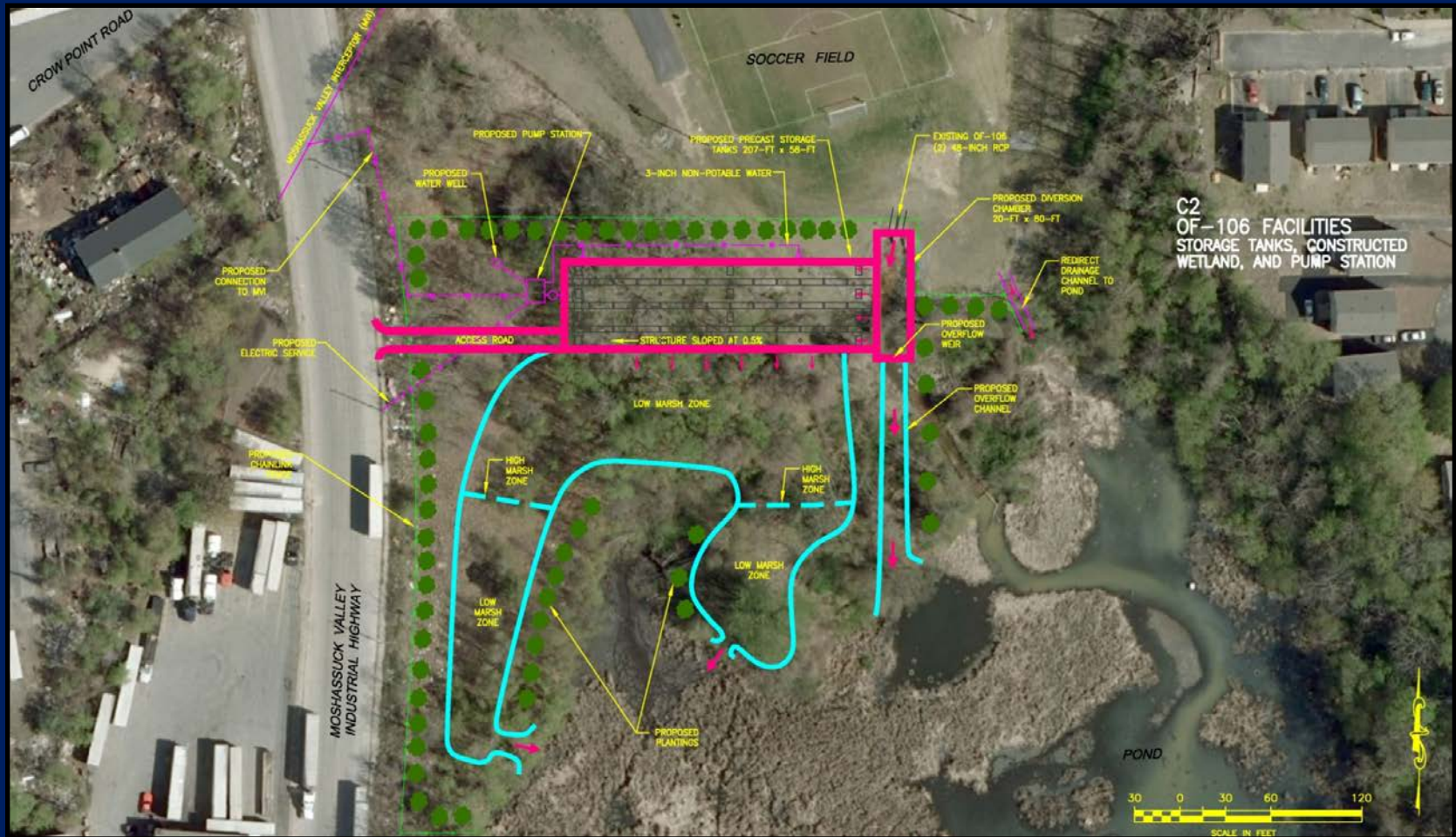
# SEWER SEPARATION-CSOs 027 & 037

- Extensive utility impacts (water and gas)
- National Grid requires replacement of cast iron gas main with HDPE pipe if gas main is encroached upon
- Replacement of water main required as storm sewer was proposed to be constructed beneath the water main
- \$3.6 million for gas main replacement
- \$4.25 million for water main replacement

# CSOs 027 and 037 Sewer Separation

Contract	Contractor	Low Bid	Percent Complete	Expected Completion Date
303.05-CSO 027	John Rocchio Corporation	\$6,580,587	86%	Dec 2013
303.06 CSO 037 West	CB Utility Company, Inc.	\$7,429,700	67%	Sept 2013
303.07 CSO 037 South	John Rocchio Corporation	\$7,766,822	0%	Dec 2014
303.08 CSO 037 North	DiGregorio, Inc.	\$7,367,301	2%	Dec 2014

# CSO 106 Wetlands Facility



# CSO 106 Wetlands Facility

- 0.32 MG storage of combined wastewater from CSO 106 in tanks
- Pumped to sanitary sewer after rain event
- Overflows to constructed wetlands when tanks are full.
- J.H. Lynch & Sons, Inc. was the lowest bidder.
- \$3,688,936
- 36% complete
- Expected completion date is Dec 2014.