



SEWER REHAB

Marblehead Water and Sewer Commission

What is Infiltration and Inflow?

- Infiltration
 - Groundwater seeping into the sanitary sewer system
 - Cracks and holes in pipe
- Inflow
 - Clean water that is directed to the sanitary sewer system
 - Catch basins, downspouts from gutters, sump pumps



How does this effect Marblehead?

- All Towns must deal with the consequences of infiltration and inflow
 - Increased risk of system surcharging
 - Increased treatment demand
- Marblehead Flow Levels
 - Typical Day
 - 2MGD
 - Wet Weather
 - 5MGD



Infiltration and Inflow Program

Phase 1 Flow Metering



Phase 2 Smoke Testing



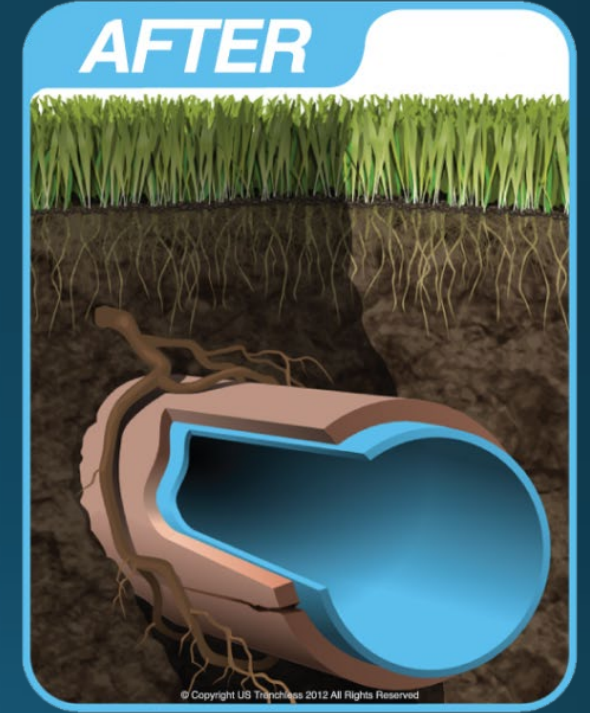
Phase 3 Rehabilitation Projects



Sewer Main Rehabilitation

Sewer Lining

- Provides an inner structural lining to the existing pipe
- Removes infiltration
- Spot repairs will be completed where necessary



Sewer Main Rehabilitation

Sewer Lining

- Manholes act as access points for lining
- Liner is guided into pipe and cured in place using steam



Sewer Main Rehabilitation

Sewer Lining – Service Connections

- Service connections to the sewer main will be lined
- Sewer service will be temporarily out of service while work is being complete (hours not days)
- Notice will be provided when lining work will occur



Manhole Rehabilitation

Manhole Rehab Work

- Manholes are lined with a cementitious coating
- Removes infiltration



Before



After

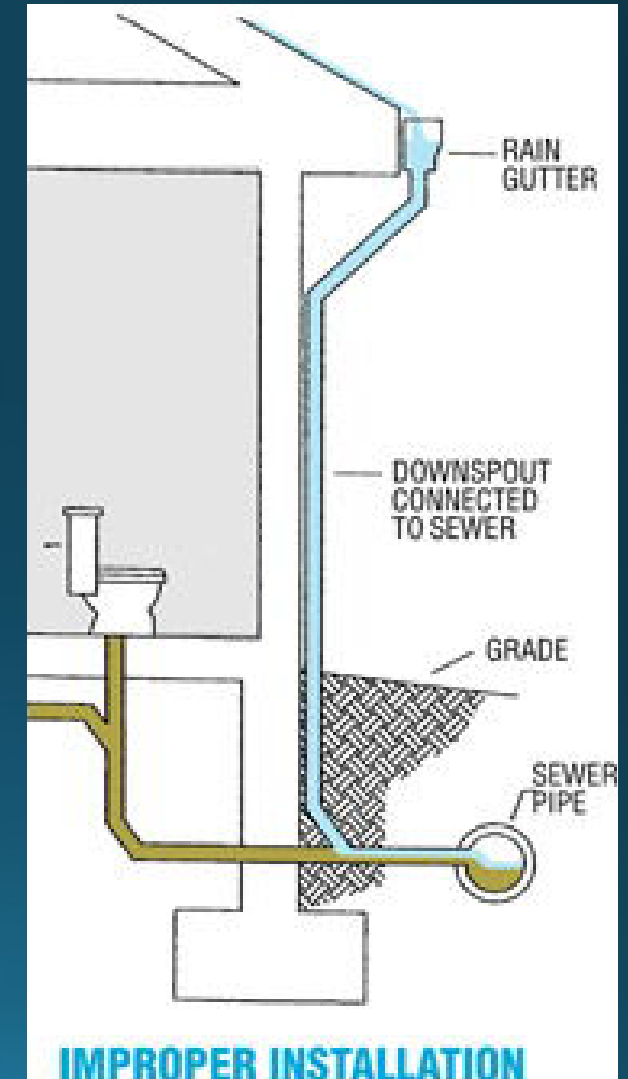
Home Inspections

Prohibited Connections

- Any redirection of storm water into the sanitary sewer system
- Lead service line inspections
- Visit resump.org for more information on the Commission's Infiltration and Inflow Program



*Prohibited Connection Example:
Sump Pump and Downspouts
connected to sewer system*



Work Area #A

Sewer Main Lining and Manhole Rehab Work

- Auburndale Road
- Brook Road
- Glendale Road
- Leicester Road
- Pickwick Road
- Roger Road
- Sharon Road
- Shetland Road
- Trager Road

Manhole Rehab Only

- Hereford Road



Work Area #B

Sewer Main Lining and Manhole Rehab Work

- Atlantic Ave (335 to 364)
- Hathaway Road

Manhole Rehab Only

- Ames Road
- Garden Road
- Crown Way



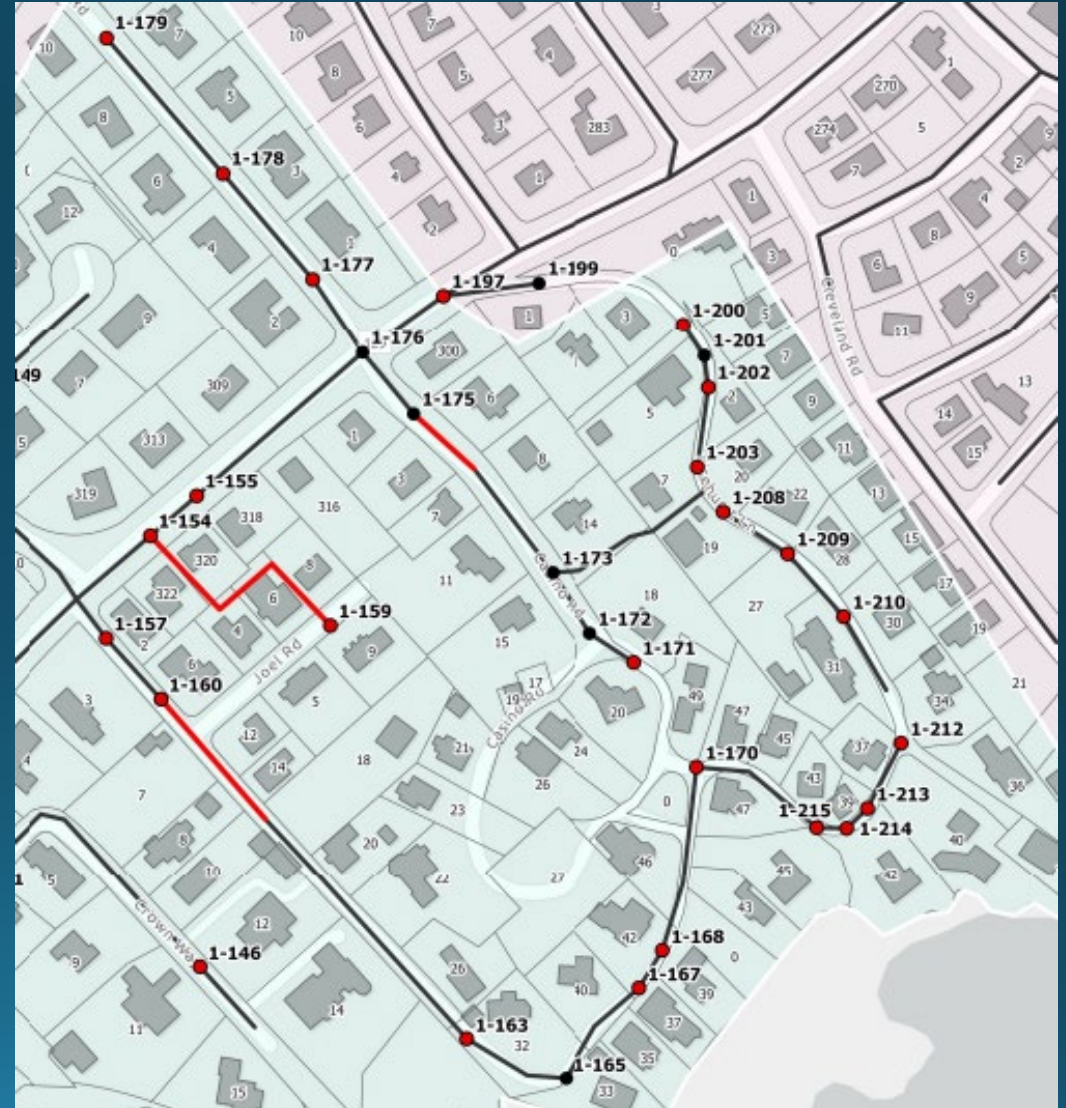
Work Area #C

Sewer Main Lining and Manhole Rehab Work

- Casino Road
- Joel Road
- Clifton Heights Lane

Manhole Rehab Only

- Gerald Road
- Ticehurst Lane



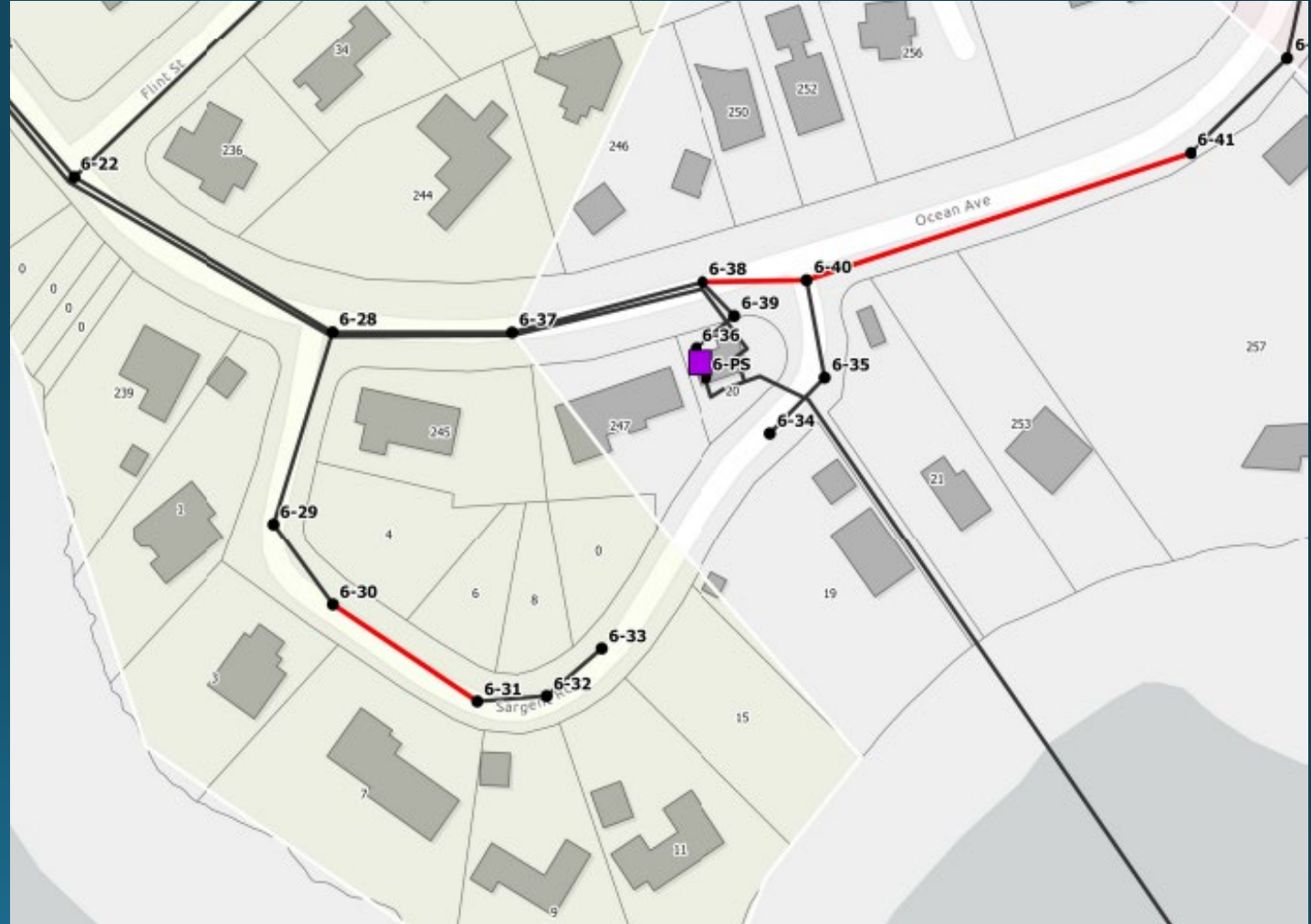
Work Area #D

Sewer Main Replacement

- Sargent Road

Sewer Main Lining

- Ocean Ave



Benefits of I/I Program

- Protects the Environment
- Minimize treatment demand
- Reduction of Sanitary Sewer Overflows (SSO)
- Decreased maintenance and rehabilitation needs for 28 pump stations





Thank you in advance you're your cooperation during the upgrades of the sewer system on your street.

Project updates will be posted on marblehead.org

Additional information can be found on resump.org

Contact Amy McHugh or Bethany Spangler with any questions
(781) 631-0102 or sewer@marblehead.org