



The Metropolitan District WHSSSES Presentation

Community Planning and Economic Development
Committee Meeting
September 24, 2024

Presentation Acronyms

- BWV – Backwater Valve
- CCTV – Closed Circuit Television Inspection
- CMOM – Capacity Management Operations & Maintenance
- CIPP – Cured In Place Pipe (aka “Lining”)
- CWP – Clean Water Project
- I/I – Infiltration & Inflow
- IP – Integrated Plan
- LF – Linear Feet
- SBPP – Sewer Backup Prevention Program
- SHCP – Sewer House Connection Program
- SSES – Sanitary Sewer Evaluation Survey
- SSO – Sanitary Sewer Overflow
- WHSSES – West Hartford Sanitary Sewer Evaluation Survey
- WPCF/WWTP – Water Pollution Control Facility/Wastewater Treatment Plant



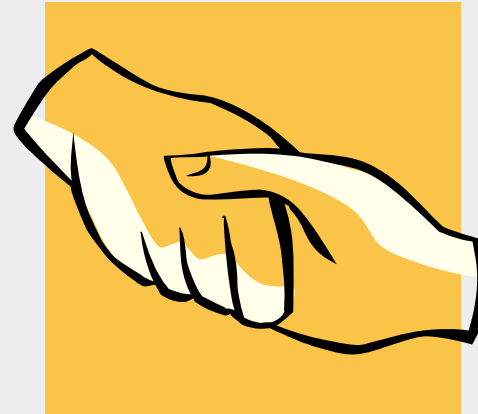
Agenda

- Welcome
 - Introductions
- Presentation
 - Design & construction information
- Discussion
 - Questions and answers



Introductions

- MDC Design & Construction Staff
- Outreach & Communication Staff
- Team Traffic Staff
- Others



The Clean Water Project (CWP)

- Main goals:
 - Eliminate Sanitary Sewer Overflows (SSO)
 - Reduce Combined Sewer Overflows (CSO)
 - Reduce the amount of sewage that enters the CT River
 - Reduce the amount of Nitrogen released into the CT River



The Clean Water Project (CWP)

- MDC SSO Program
 - Compliance with 2006 Consent Decree
 - Initial Phases
 - Data Collection
 - Sewer Modeling & Development of Master Plan
 - Sanitary Sewer Repair/Rehabilitation
 - Incorporated into 2018 Integrated Plan (IP)



West Hartford Sewershed Recommendations - 2015

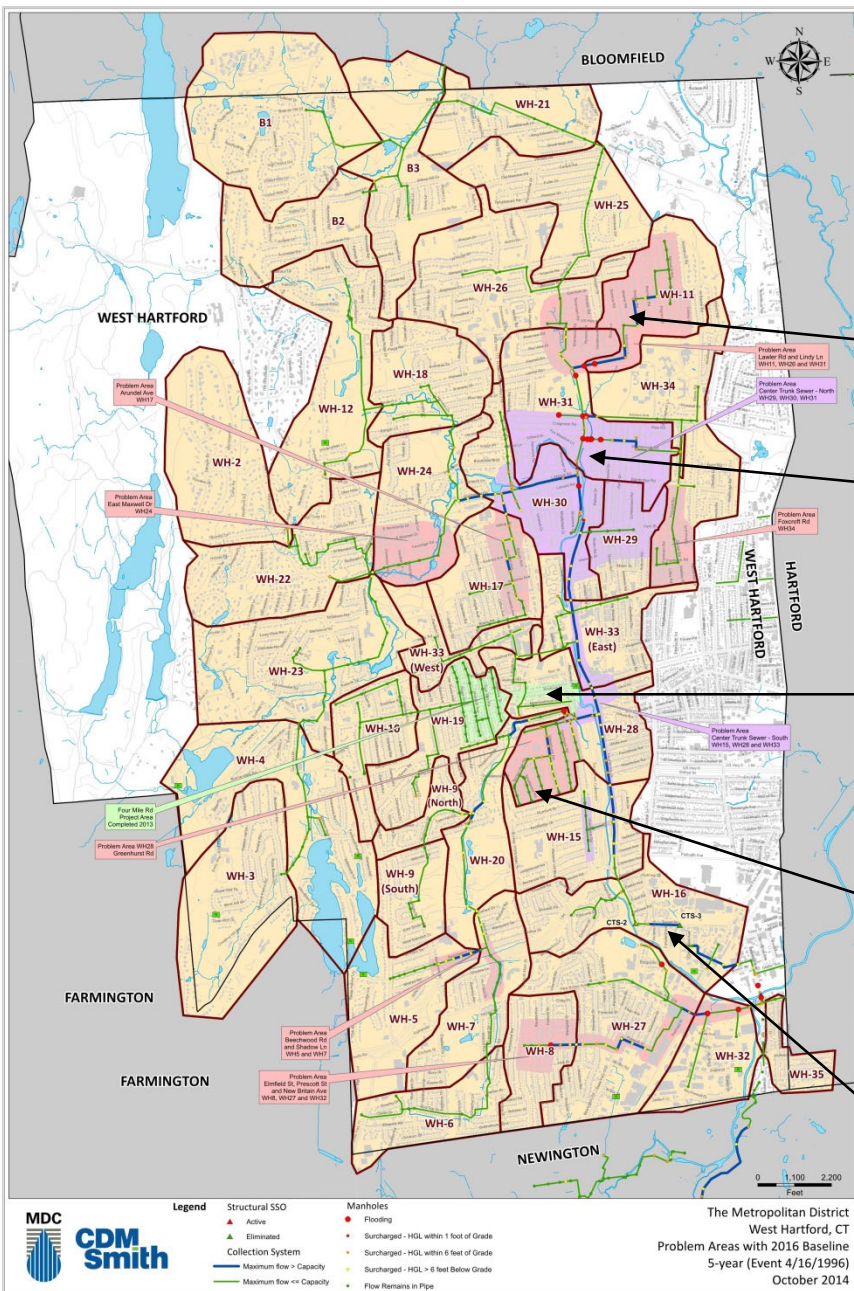
SSES Implementation (Mainline Sewer and Manholes Lining & Repairs) – Various Locations

50% I/I Reduction (private I/I and capacity improvements), North Central WH

Four Mile Road Area Sewer Improvements (SSES, private I/I and capacity improvements) - Completed

Greenhurst Road Area Sewer Improvements (SSES, private I/I and capacity improvements) - Completed

Center Trunk Sewer SSO Consolidation to South Hartford Conveyance & Storage Tunnel (tunnel relief)

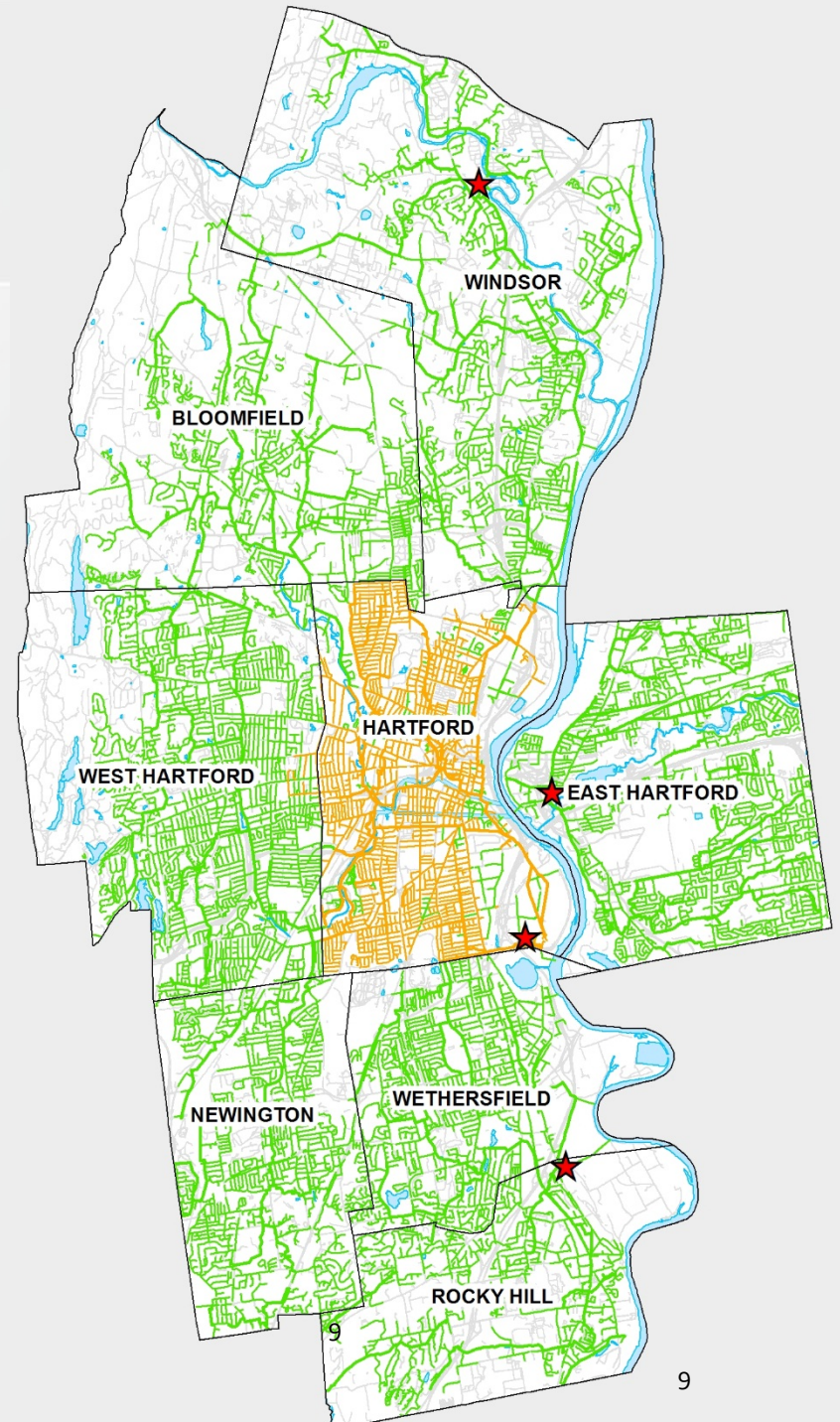




1. Design and Construction

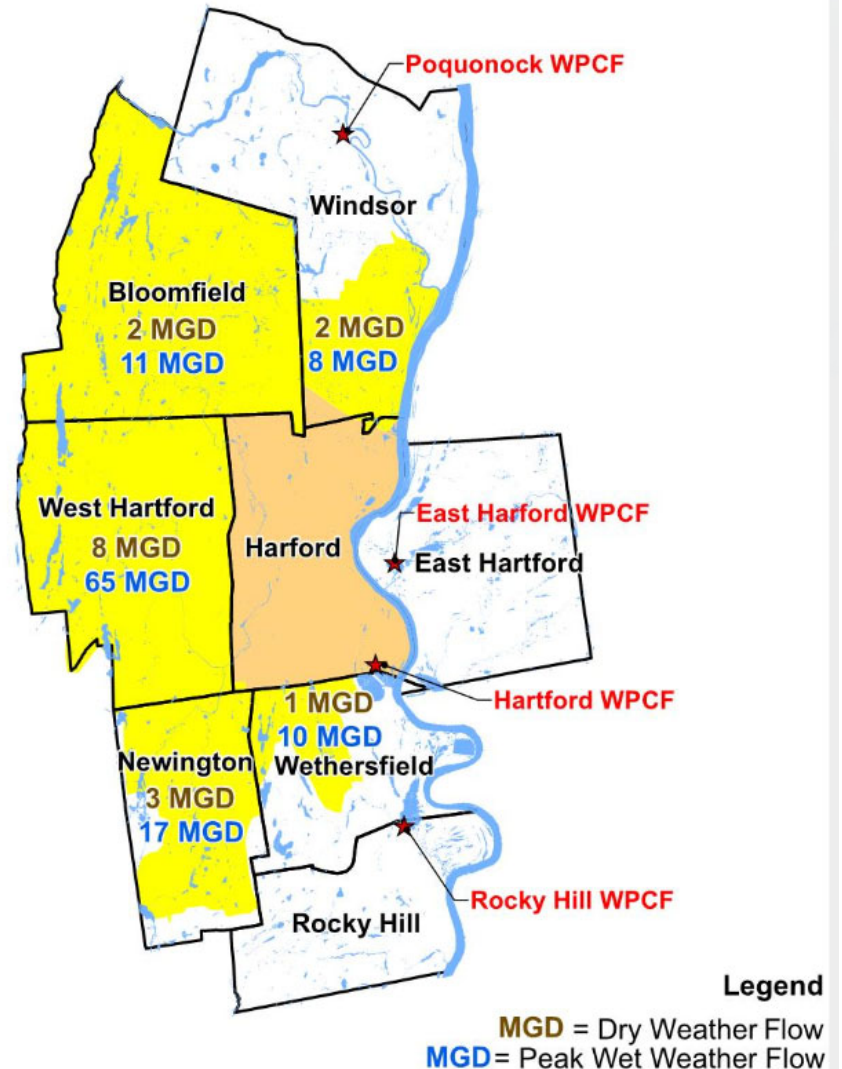
MDC's Sewer System

- 4 water pollution control facilities (WPCF)
- ~1,200 miles of sewers
- Of the 1,200 miles of sewer, 187 miles are combined
- Hartford and a small portion of West Hartford have combined sewers



How are Separated Sewers different from Combined Sewers?

- **Dry day** – no difference (household sewage plus some I/I)
- **Wet day** – no flow from catch basins/brooks, BUT still additional flow from I/I sources
 - Peak flow from Bloomfield, West Hartford, Newington, Windsor & Wethersfield (excluding Hartford) of **135 MGD** is **68%** of the current MGD HWPCF capacity of 200 MGD

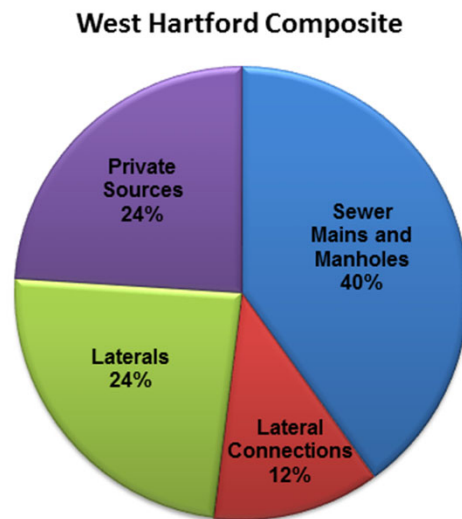


West Hartford's Sewers have excessive Inflow and Infiltration (I/I)?

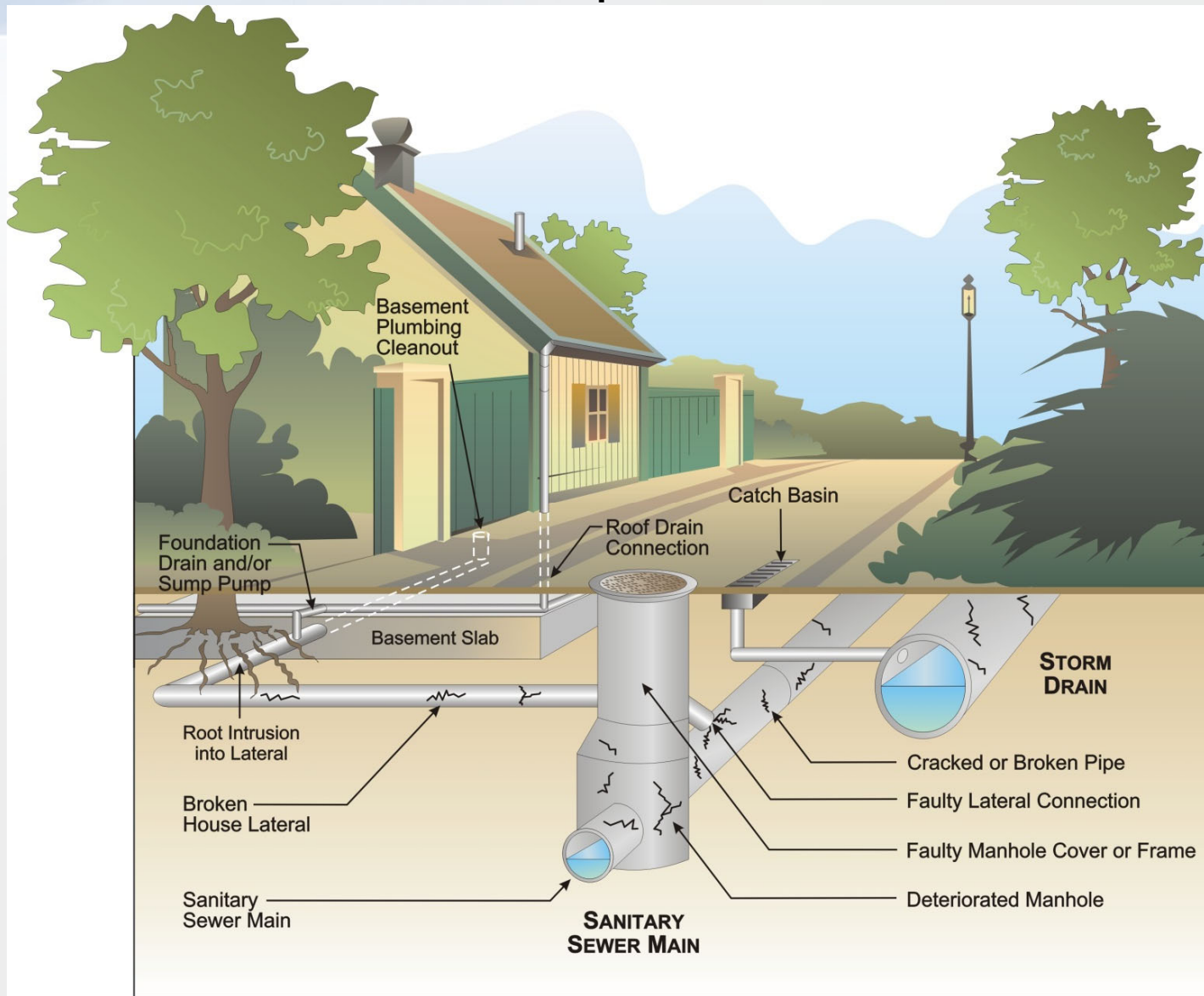
- **WHAT ARE INFLOW AND INFILTRATION?**
- ***Inflow*** – Clean Water (typically stormwater) that enters the sanitary sewer directly, such as catch basins, brooks, & **Private Connections: roof leaders, sump pumps, foundation drains, etc.**
- ***Infiltration*** – Clean Water (typically groundwater) that seeps into the sanitary sewer from cracked pipes, manhole leaks, lateral leaks, etc.
- Dry weather flows are 8 million gallons/day
- Wet weather flows can get up to 65 million gallons/day
- These flows enter Hartford's CSO System en-route to the Hartford Water Pollution Control Facility for treatment



% Private = 60%
% Public = 40%

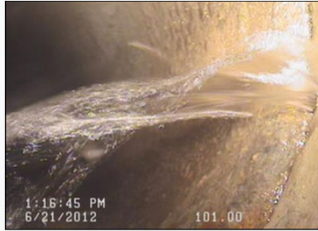


How Stormwater (Inflow) & Groundwater (Infiltration) Enters a Separated Sewer



Separated Sewer System I/I Sources

Public I/I Sources



Leaky Main



Leaky MH



Cover w/ Holes



Typically 8" to 10" Local Pipe



Sump Pump



Foundation Drain



Roof Leader



Leaky Lateral



Private I/I Sources

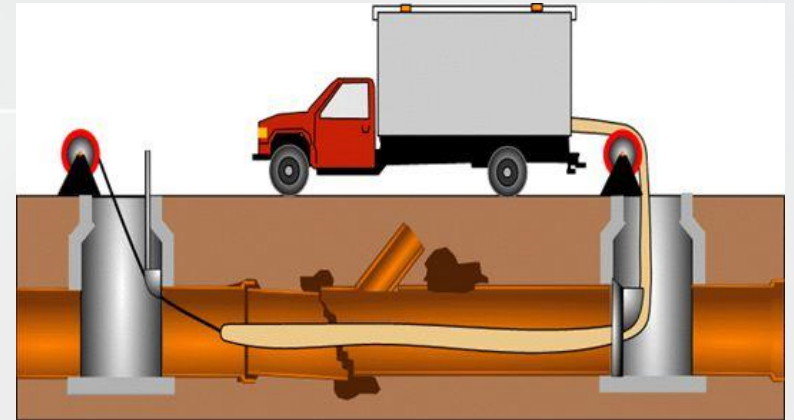
Sewer Collection System Renewal = I/I Reduction (From 2018 LTCP/IP Public Hearing)

Town	Miles	Sewer Rehabilitation (%)			Sewer Age (years)		
		Completed	Recommended	Total	Prior to CWP (2005)	If Infrastructure Ignored (2043)	After IP (2043)
Bloomfield	118	6%	35%	41%	34 yrs	70 yrs	50 yrs
East Hartford	168	3%	23%	26%	45 yrs	81 yrs	62 yrs
Hartford	217	5%	67%	72%	74 yrs	107 yrs	39 yrs
Newington	128	27%	14%	41%	38 yrs	64 yrs	54 yrs
Rocky Hill	90	7%	10%	17%	30 yrs	65 yrs	59 yrs
West Hartford	223	36%	43%	79%	53 yrs	69 yrs	38 yrs
Wethersfield	122	32%	22%	54%	45 yrs	63 yrs	47 yrs
Windsor	152	18%	12%	30%	36 yrs	62 yrs	53 yrs
Total	1,218	17%	33%	50%	50 yrs	75 yrs	49 yrs



Purpose & Scope of Project

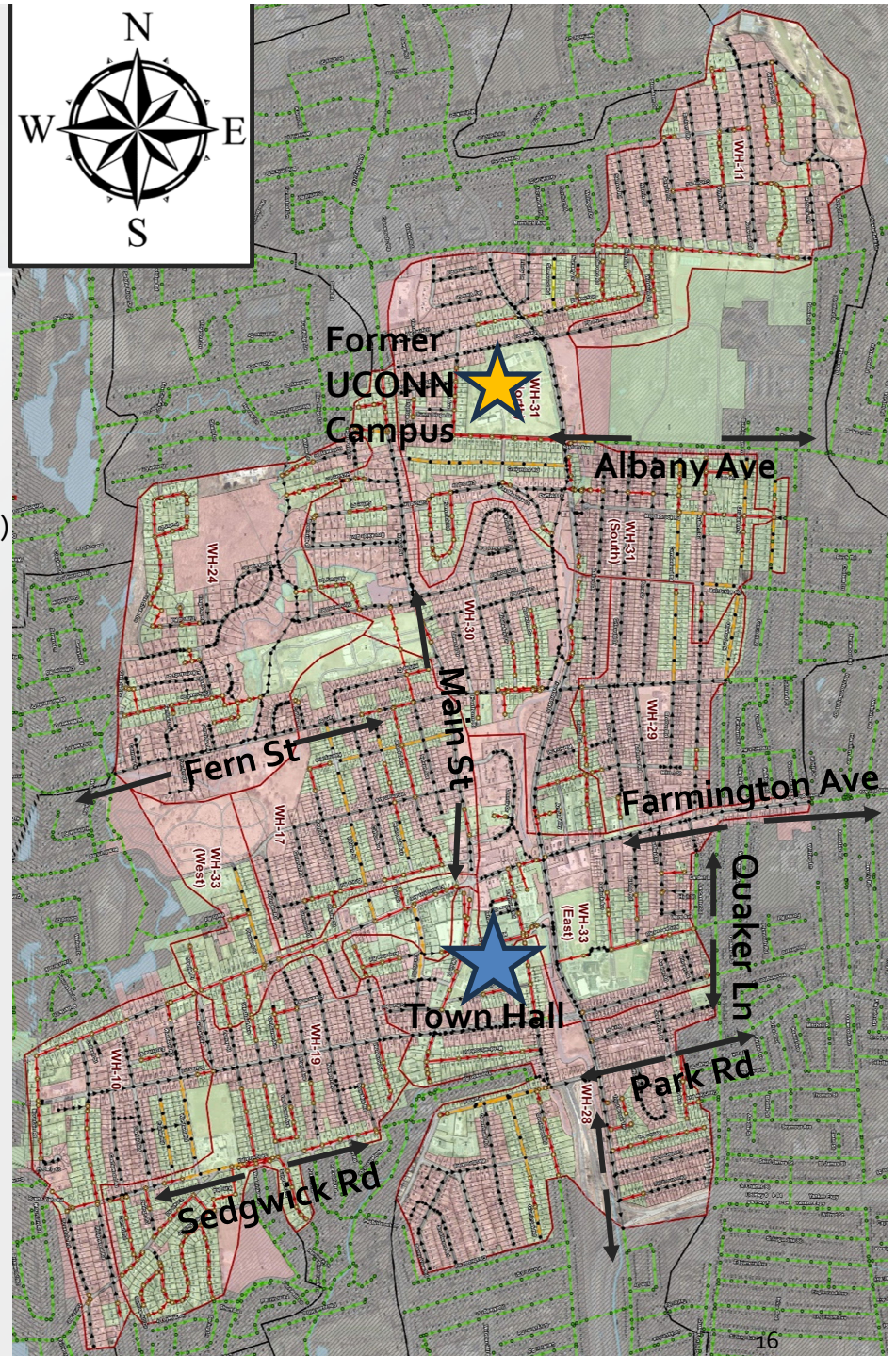
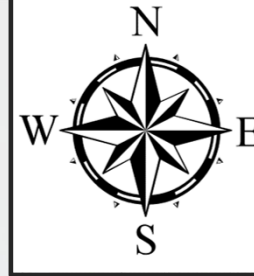
- Sewer and Manhole Lining:
 - Renewal of aging infrastructure
 - Sewers dating back to 1930's
 - “Trenchless” technologies
 - CT DEEP Consent Order Requirement



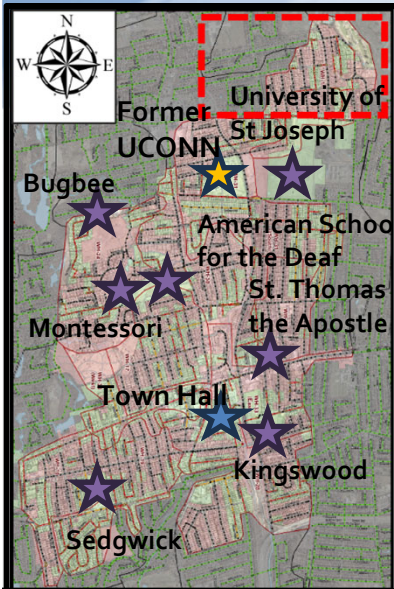
Project Summary

- The purpose of this project is to address all remaining public I/I removal recommendations from the District's (CD Required) Sanitary Sewer Evaluation Survey (SSES).
- This project includes:
 - 105,600 LF of CIPP Lining
 - 178,350 LF of Lateral Lining (approx. 2,400 Properties)
 - 6,050 vertical feet of MH lining (approx. 600 manholes)
 - 156 sewer/lateral point repairs
- Construction Cost = Approximately \$32.5M
- Project Start Date = September 2024
- Project Completion Date = February 2027
 - Interim Milestones for 2025 Town Paving Streets & Completion of Mainline CIPP
- **CONSENT ORDER & CONSENT DECREE PROJECT**

Material	Percentage	Average Year of Install
Clay Tile	83%	1934
Asbestos Cement	5%	1958
Styrene Rubber	4%	1968
Concrete	6%	1947
Other/Unknown	2%	1945

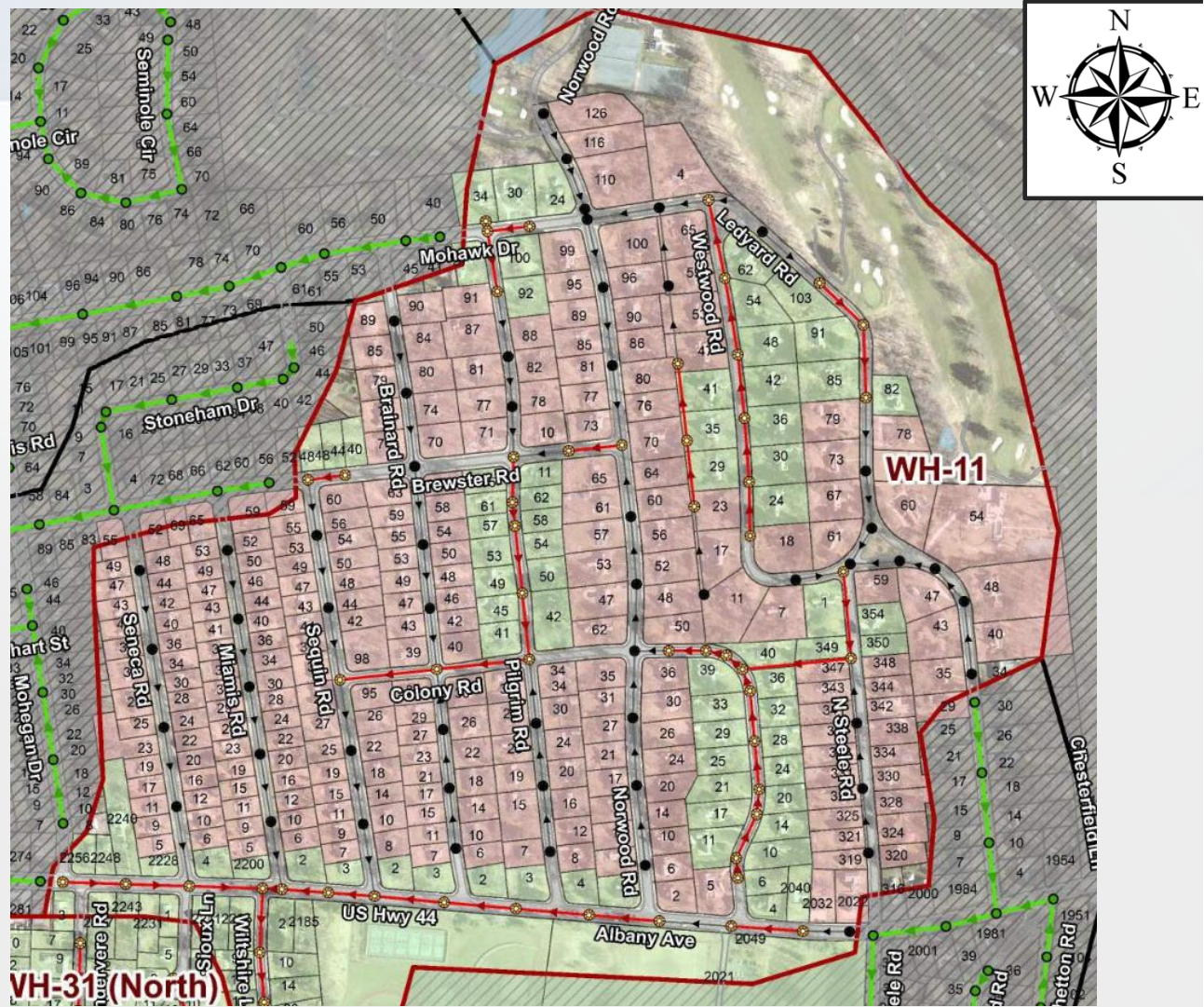


Project Area (Northeast West Hartford)

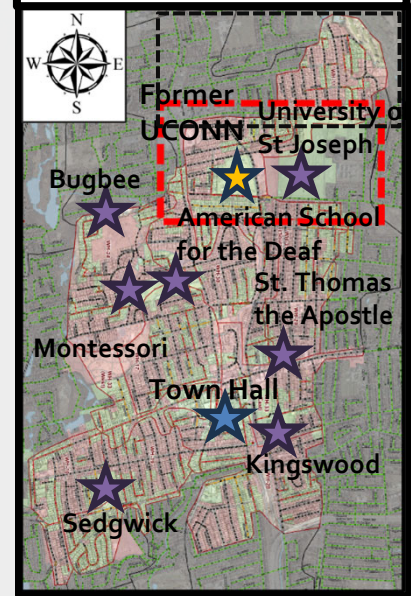
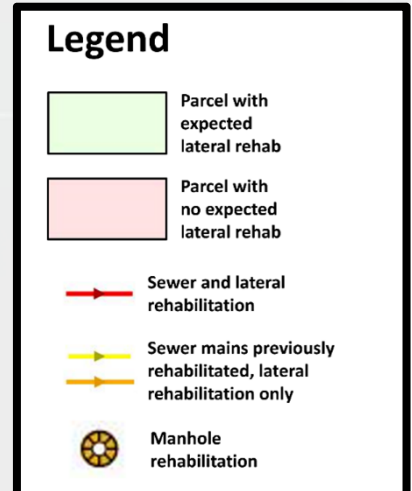
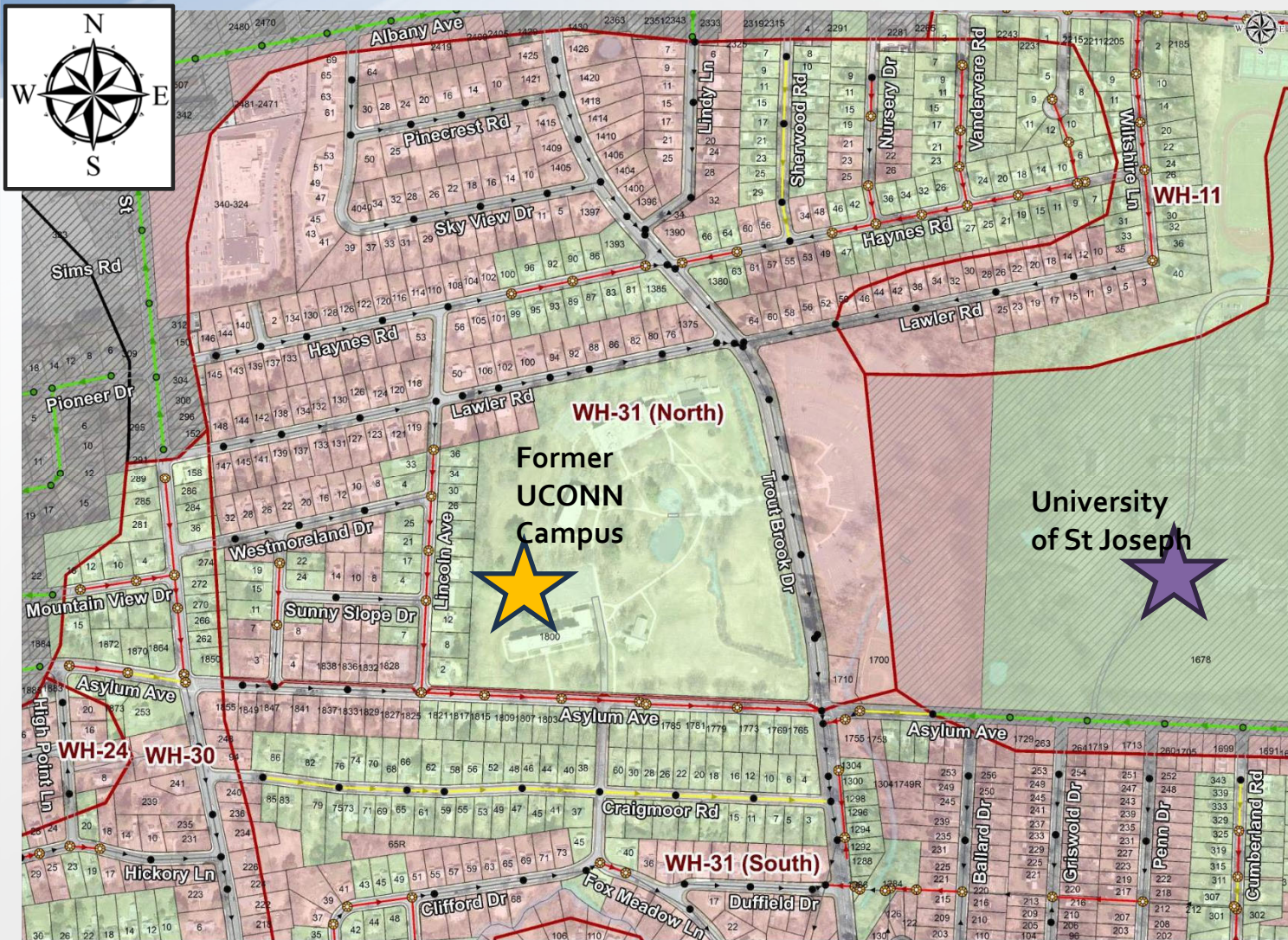


Legend

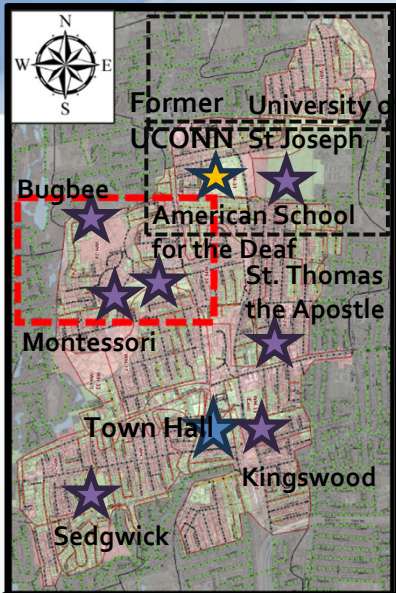
- Parcel with expected lateral rehab
- Parcel with no expected lateral rehab
- Sewer and lateral rehabilitation
- Sewer mains previously rehabilitated, lateral rehabilitation only
- Manhole rehabilitation



Project Area (North-Central West Hartford)

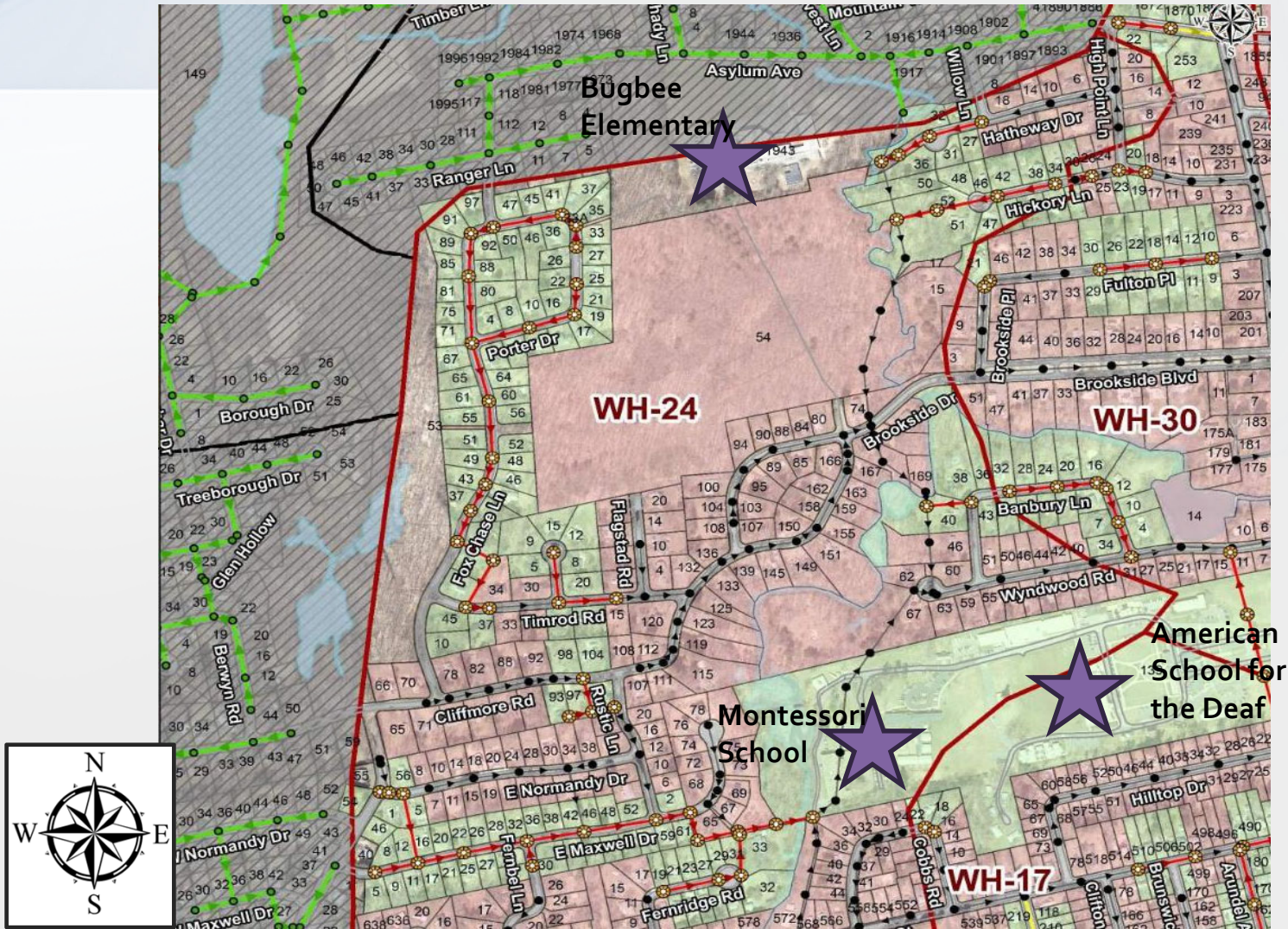


Project Area (Northwest West Hartford)

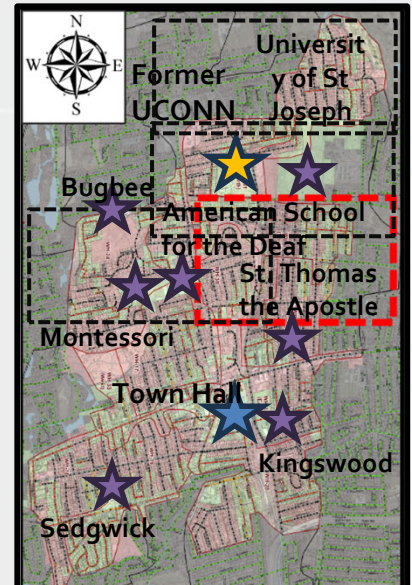


Legend

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Project Area (Central West Hartford)

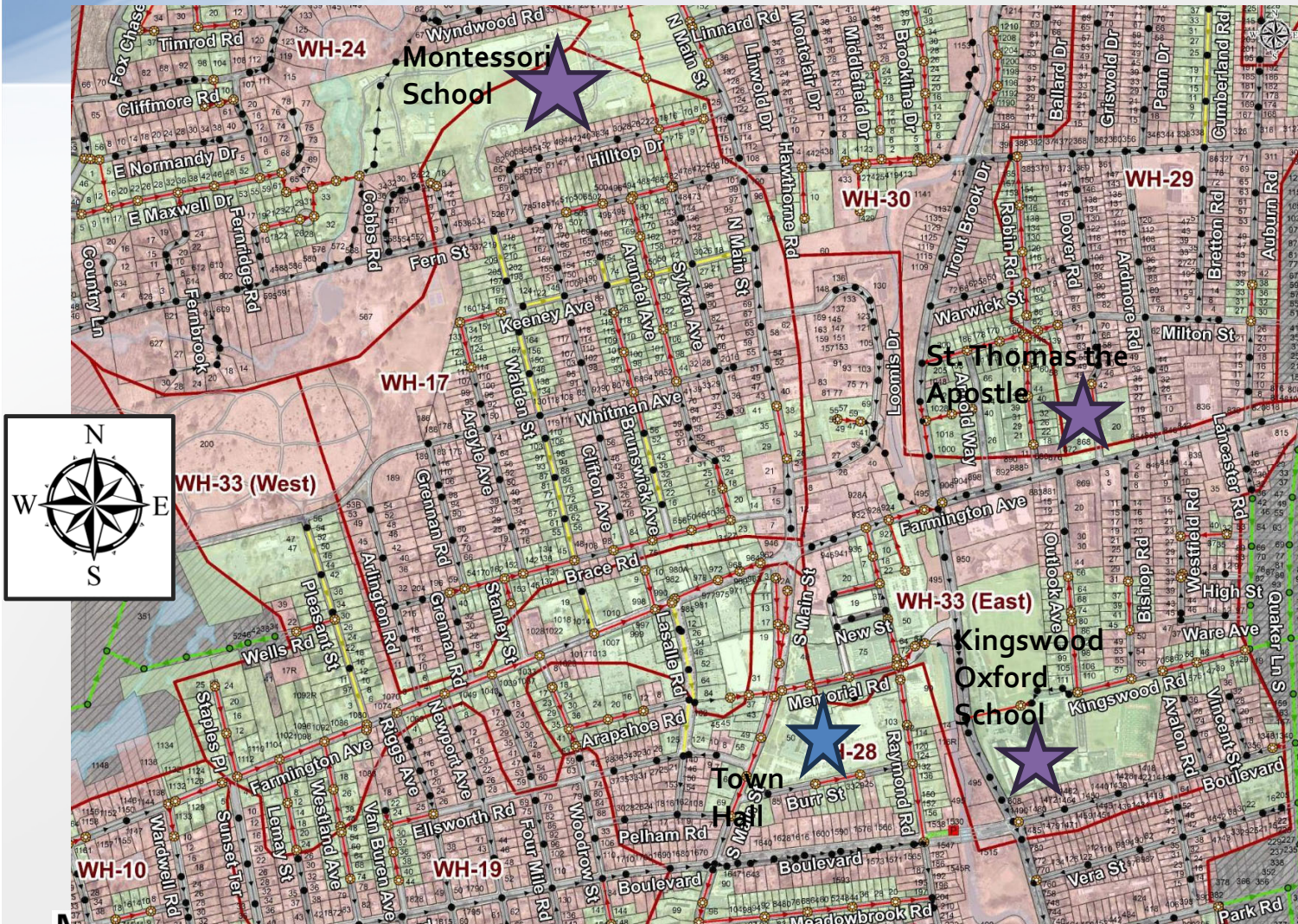


Legend

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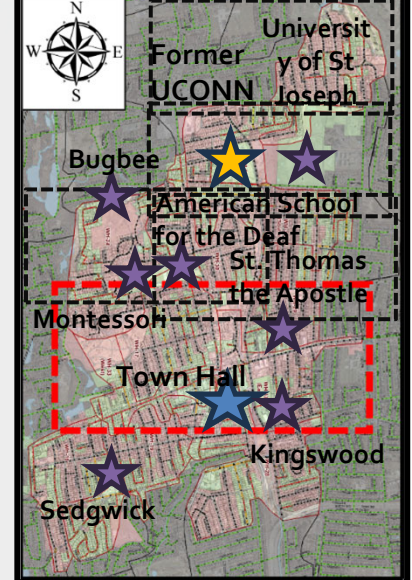


Project Area (Town Center Area)



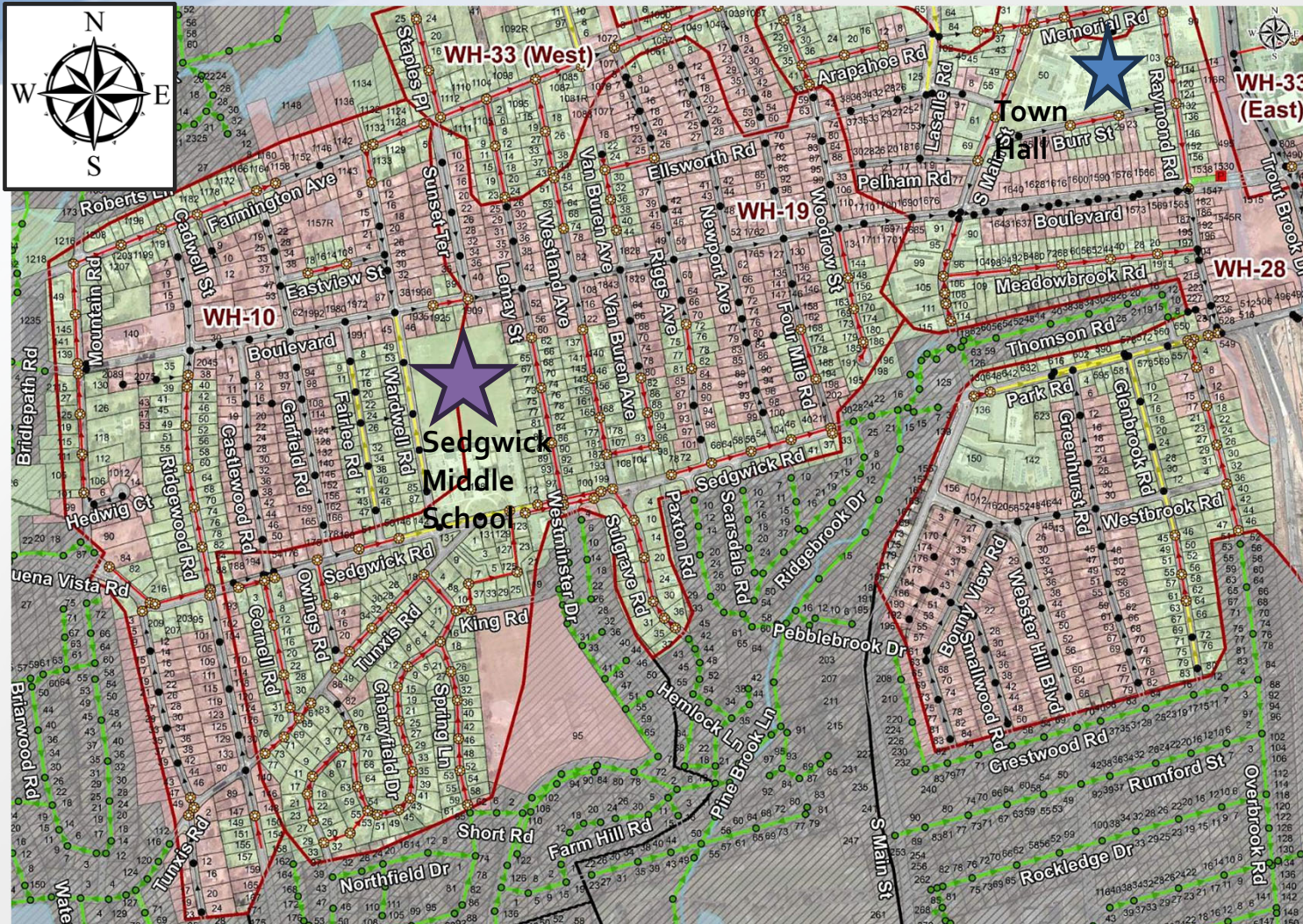
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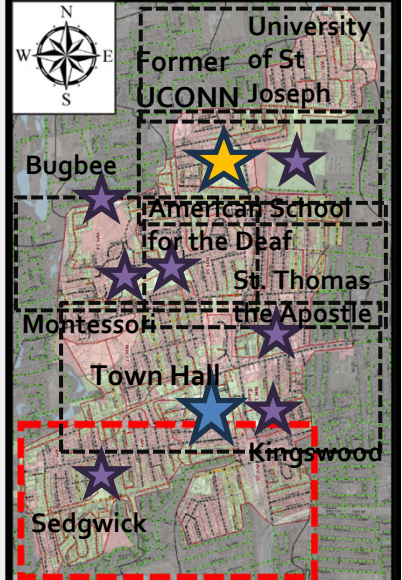
Clean Water Project
the choice is clear

Project Area (Southern West Hartford)



Legend

- Parcel with expected lateral rehab
- Parcel with no expected lateral rehab
- Sewer and lateral rehabilitation
- Sewer mains previously rehabilitated, lateral rehabilitation only
- Manhole rehabilitation



MDC



Clean Water Project
the choice is clear

Typical Lining Project Sequence

Project Outreach

- MDC mails notifications to property owners/residents within Project Area in advance of project start.
 - On Large projects this is completed by Sub-Area based on Contractor Schedule
- Additional Hand-Delivered Notifications are provided:
 - 24-48 hours in advance of CCTV/Cleaning
 - 7 days in advance of mainline CIPP
 - 24-48 hours in advance of mainline CIPP
 - 7 days in advance of lateral CIPP
 - 24-48 hours in advance of mainline CIPP
 - 24-48 hours in advance of lateral CIPP
- Outreach/Inspection Staff meet with property owners to obtain agreements to complete any recommended private property work.
 - Includes Outreach for MDC's Sewer Backup Prevention Program (SBPP) & Sewer House Connection Program (SHCP)
- Project Team will reach out to properties with mainline sewers located within existing private property easements.

Project Construction

- Contractor cleans and inspects all mainline sewers within a given Sub-Area (aka CCTV/Cleaning)
- Contractor cleans and inspects all laterals to be lined within a given Sub-Area
 - Laterals are graded in accordance with NASSCO Industry Standards
 - Laterals with a score greater than 3, on a scale of 1-5, are recommended for lining
- Contractor completes all excavation repairs
- Contractor installs CIPP liner in mainline sewers within a given Sub-Area
- Contractor installs CIPP liner in laterals recommended for and property owner consent within a given Sub-Area



General Sequence/Schedule

Order of Sub Areas for All Activities

- WH 11 (Northeast WH)
- WH 31N (North Central WH)
- WH 31S (Central WH)
- WH 30 (Central WH/Town Center)
- WH 29 (Central WH/Town Center)
- WH 33W (Town Center)
- WH 17 (Town Center)
- WH 33E (Town Center)
- WH 10 (Southern WH)
- WH 19 (Southern WH)
- WH 28 (Southern WH)

Preliminary Schedule

- Mainline CCTV & Cleaning
 - Starting Late September (2024) & Finishing Early January (2025)
- Lateral CCTV & Cleaning
 - Starting Mid November (2024) & Finishing Late April (2025)
- Excavation Work
 - Starting Early April (2025) & Finishing Late June (2025)
- Mainline Lining & MH Rehabilitation
 - Starting Early May (2025) & Finishing Late December (2025)
- Lateral Lining
 - Starting July (2025) & Finishing January (2027)



What to Expect

- Limited sewer usage during sewer lining
- Possible styrene odors
 - Advance Notifications identify steps to minimize odors.
 - Odors may be caused by faulty internal building plumbing
- Multiple Phases of Work on each Street
 - Residents will see crews multiple times over the duration of the project
- Work Hours:
 - 7:00 AM to 5:00 PM, with exceptions
- Traffic:
 - Lane Closures
 - Traffic interruptions
 - Specific Traffic patterns per Work location
- Key coordination efforts:
 - Work on/near schools
 - Work in The Center/Blue Back Square
 - WH School/CREC Transportation
 - CT Transit
 - WH Town Engineering Department
 - WH Police Department



Traffic Flow During Construction

- Work in Roadway- traffic is shifted to drive around the work zone
- Lane Closed – lane reduction, alternating one way or follow detour
- Road Closed – local traffic only, follow detour
- Sidewalk Closed



Construction Traffic Information

www.mdc-roadclosures.com

www.themdc.org



**The Metropolitan District
Construction Traffic Information**



This website provides information on roadwork activity for The Metropolitan District's (MDC) Clean Water and Capital Improvement projects. The information is updated daily. Continue to visit this site for up-to-date construction information.

Click a construction icon on the map below for additional project specific information and a detour map, if applicable.

Construction hours are typically between 7 AM and 5 PM, Monday thru Friday unless noted otherwise. Regular traffic patterns are generally restored at end of each work day.

To report a problem or concern call the MDC Command Center at 860-278-7850 ext. 3600.

The data and information contained on this website is for informational purposes only, and may not necessarily reflect existing site conditions. Anyone who uses or relies upon such data or information does so at his or her own risk, and the MDC shall not be held liable for any such use or reliance.

Look Ahead Calendar

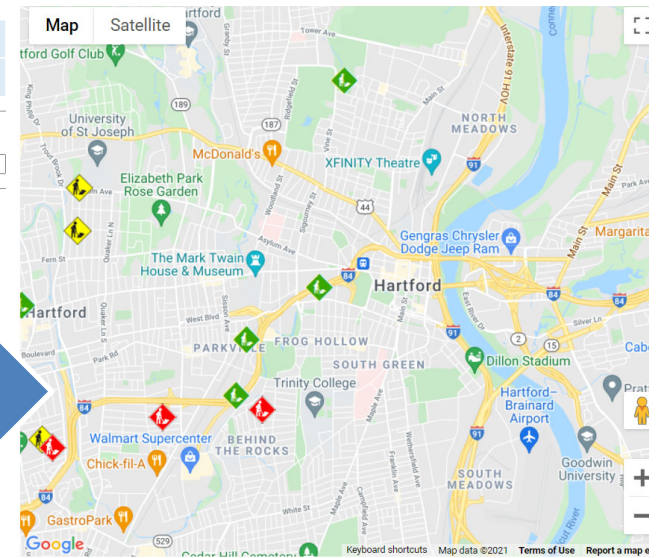
Thu 04	Fri 05	Sat 06	Sun 07
Mon 08	Tue 09	Wed 10	Thu 11

Search for Address:

Enter an Address

- Road Closed, Local Traffic Only
- Lane Closed
- Work In Roadway
- Night Work

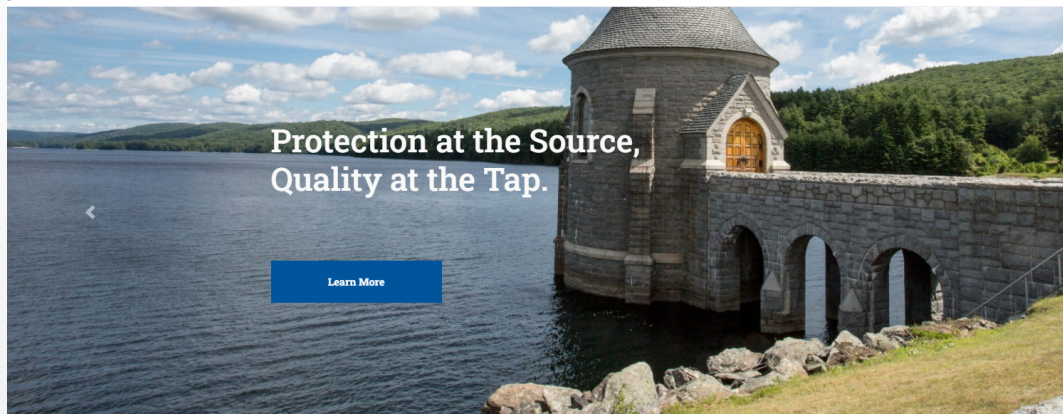
For additional traffic advice information throughout the region, visit the [Connecticut Department of Transportation's Traveler Information website](#).



860-278-7850 | Contact Us | Select Language | Search...

The Metropolitan District
Hartford, Connecticut

About | Customers | What We Do | District Board | Recreation Area



GIS MAPPING

Interactive Geographic Information System maps for towns in the MDC's service area

FINANCE / INVESTOR RELATIONS

MDC Financial Information

TRAFFIC ALERTS

Maps and current roadwork activity for the MDC's construction projects



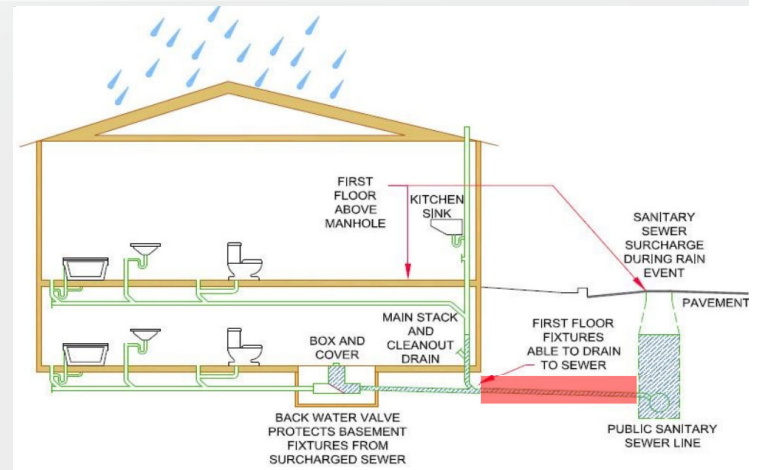


3. MDC's SHCP & SBPP Programs

Consent Order Projects: Private Property Benefit

SBPP: Sewer Backup Prevention Program (“Backwater Valve Program”)

- Separates a home’s foundation drains (via installing sump pumps) and gutters from the sewer system, reducing surcharging during wet weather
- <https://themdc.org/utility-services/backwater-valve-program/>
- To **schedule a free assessment** of your property, contact MDC Utility Services at **(860) 278-7850, ext. 3123**



SHCP: House Connection Program – voluntarily included by MDC

- MDC Board initiative to provide same benefit District-wide that was being offered to North Hartford residents
- Emergency and non-emergency maintenance and inspection services at no cost to the property owner
- Provides funding for renewal of the house connection, if needed
- <https://themdc.org/utility-services/sewer-house-connection-program/>



Contractors for both programs are anticipated to be all SBE (Small Business Enterprise)



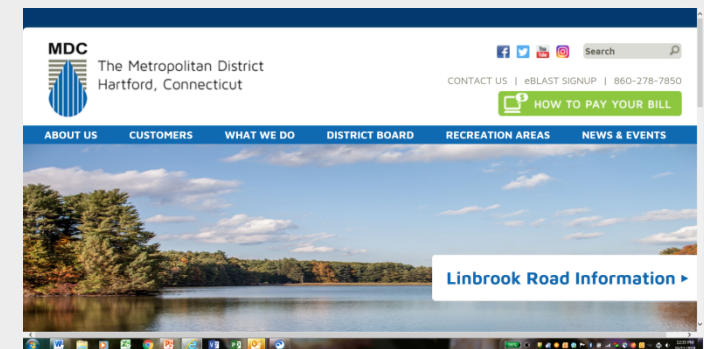
4. Communications

How To Stay Informed

The MDC uses several tools to keep customers informed, including;

- Door to Door Outreach (notices)
- Public Meetings
- E-Blasts (mass emailing)
 - Email Outreach@themdc.com
- Press Releases
- Website & Social Media
 - Follow us on Facebook and Twitter
- MDC Alerts – an Everbridge powered system to call, text or email participants.

Sign up at the MDC homepage: www.themdc.org



MDC ALERTS
NOTIFICATION SIGN UP

POWERED BY
everbridge®



Project Contacts

- Project Manager: Eric Pizzoferrato
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 - Mobile Number: 860-818-3022
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- Construction Manager: Frank Cahill
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 - Mobile Number: 860-818-5204
 - Email Address: Fcahill@themdc.com
 - Construction Supervisor: Randy Ross
 - Phone Number: 860-278-7850 Ext. 3713
 - Mobile Number: 860-209-1318
 - Email Address: RRoss@themdc.com
- MDC Outreach: Julie Mclaughlin
 - Phone Number: 860-278-7850 Ext. 3309
 - Mobile Number: 860-578-6224
 - Email Address: JMclaughlin@themdc.com



Thank you for joining us today.

Discussion and Questions?

Please remember to sign in or leave your business card.

