

NVCOG MS4 meeting

April 20, 2022



Dawn Henning, P.E.
Assistant City Engineer

City of New Haven

Strategies for Disconnecting DCIA

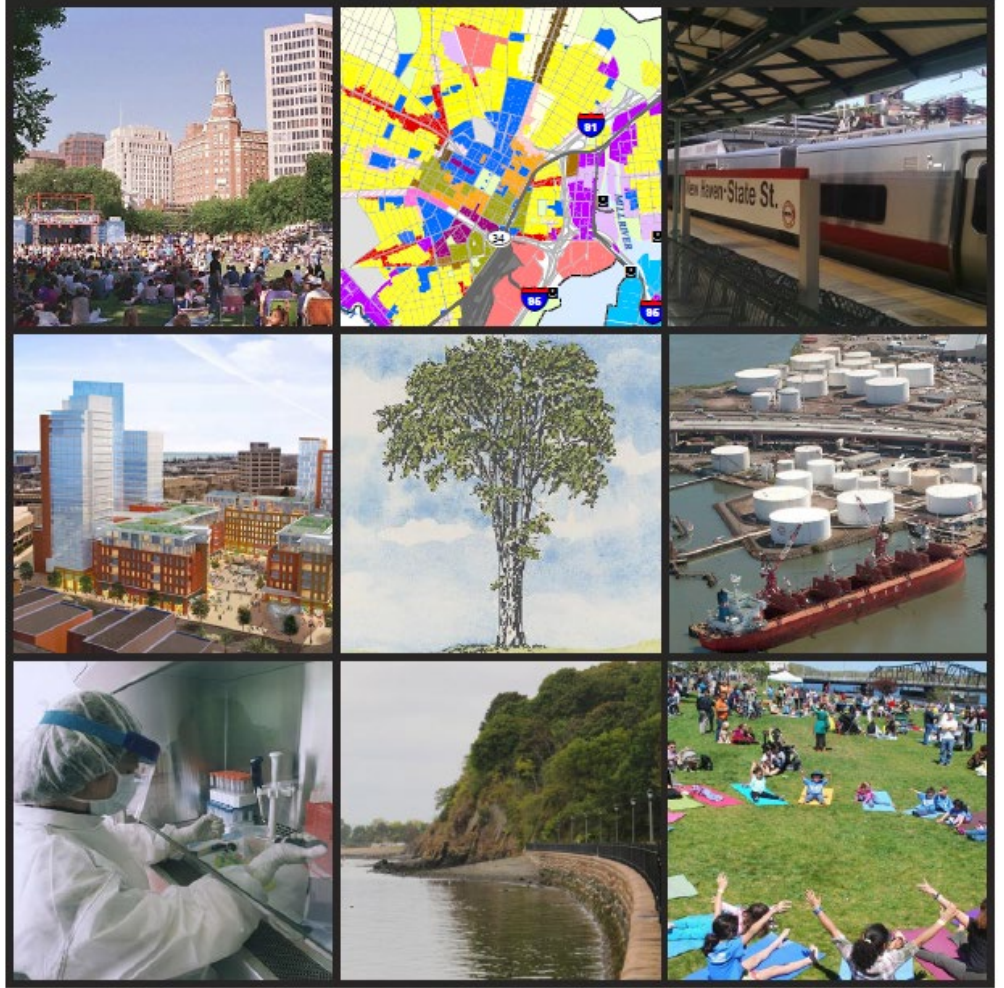


Planning, Policy, & Regulation

- New Haven Zoning Code requires stormwater management plan to be submitted for zoning approval
- Applies to:
 - Any development/construction disturbing 0.5 acres or more
 - Any site with 0.5 acres of existing or proposed impervious cover
 - New residential development of 3 or more units
 - Any new or expanding industrial or commercial use that increases impervious cover by 500 square feet
 - Any application within coastal boundary

New Haven Vision 2025

A Plan for a Sustainable, Healthy, and Vibrant City



City of New Haven, Connecticut
Toni N. Harp, Mayor
November 2015

Section 60 of Zoning Ordinance

“SW management systems shall be designed to collect, retain, and treat the first inch of rain on-site, so as to trap floating material, oil, and litter.”



Firing Range, 200 Wintergreen Ave, New Haven

Motivations for GI Installations



Localized drainage solution (capital funds)



CSO mitigation (grant funded)



Flood prevention (capital funds and grants)



Research (grant funded)

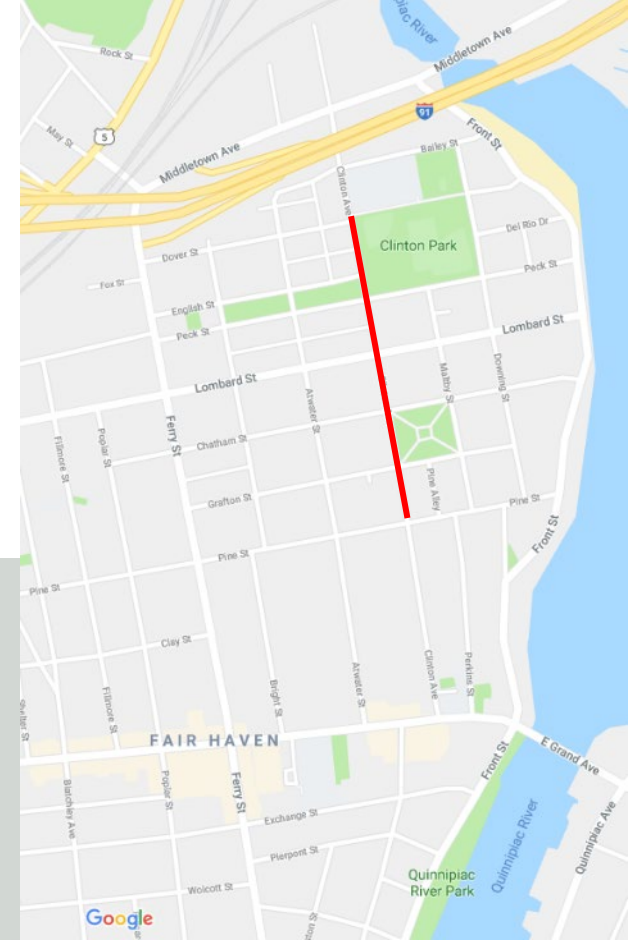
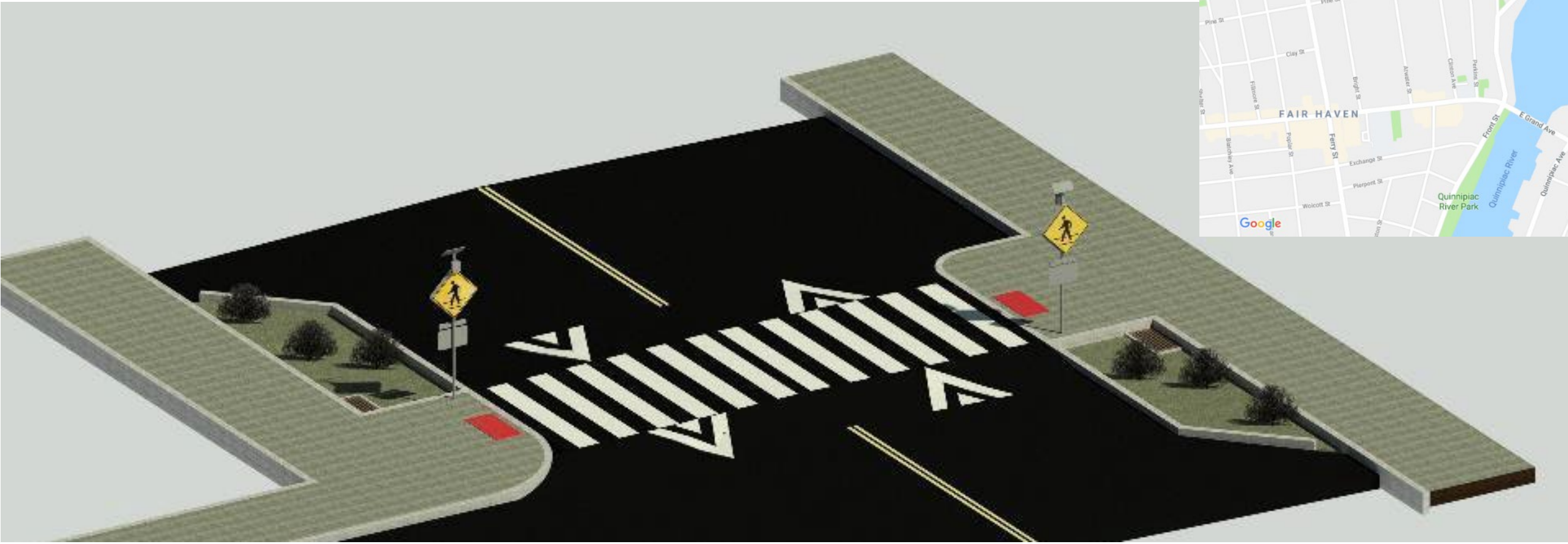
Emerson St.

- Localized drainage issue
- Capital funds



Clinton Avenue Traffic Calming

- Achieve multiple objectives by incorporating GI into traffic calming projects



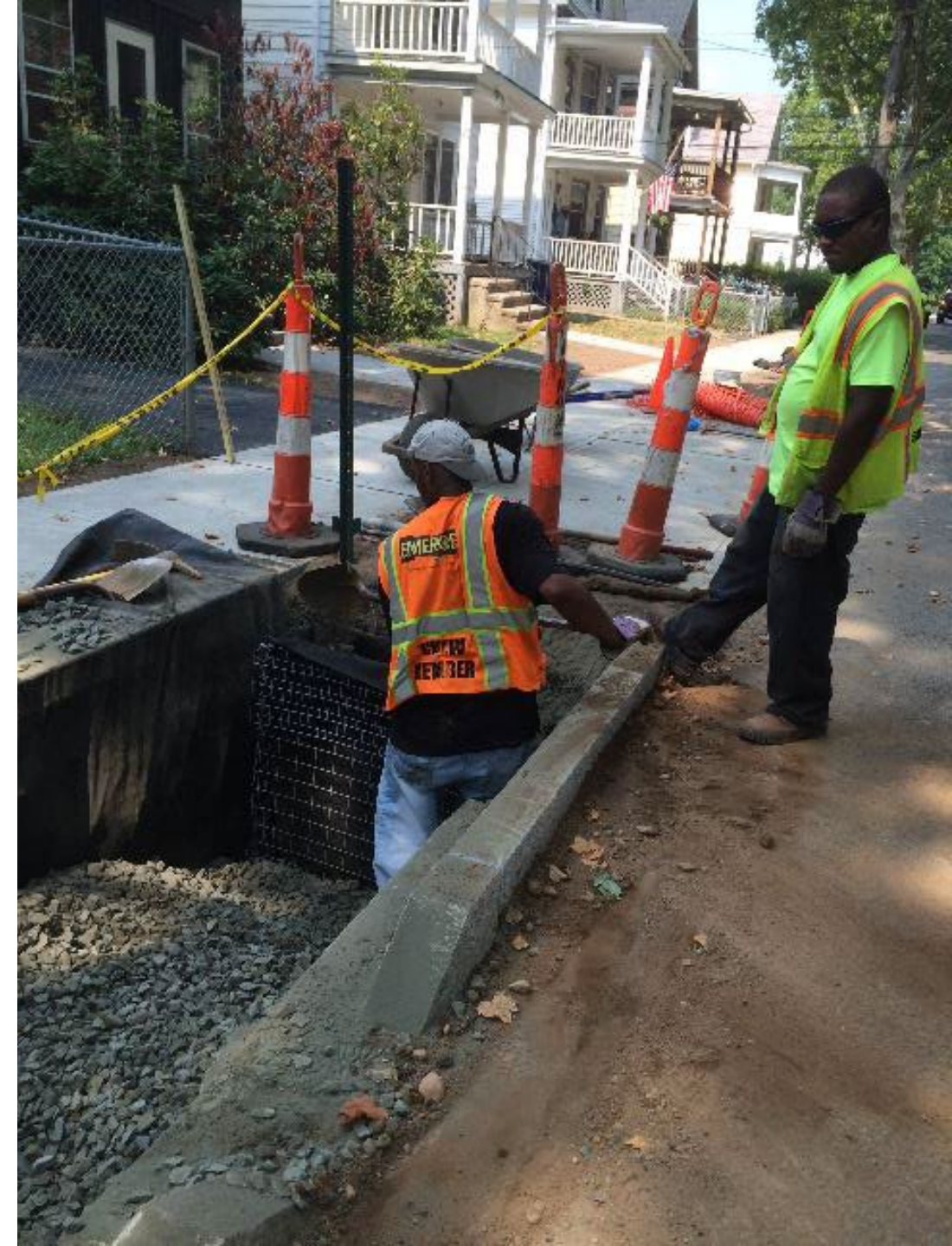
Clinton Avenue Traffic Calming



Partner with Non-profits

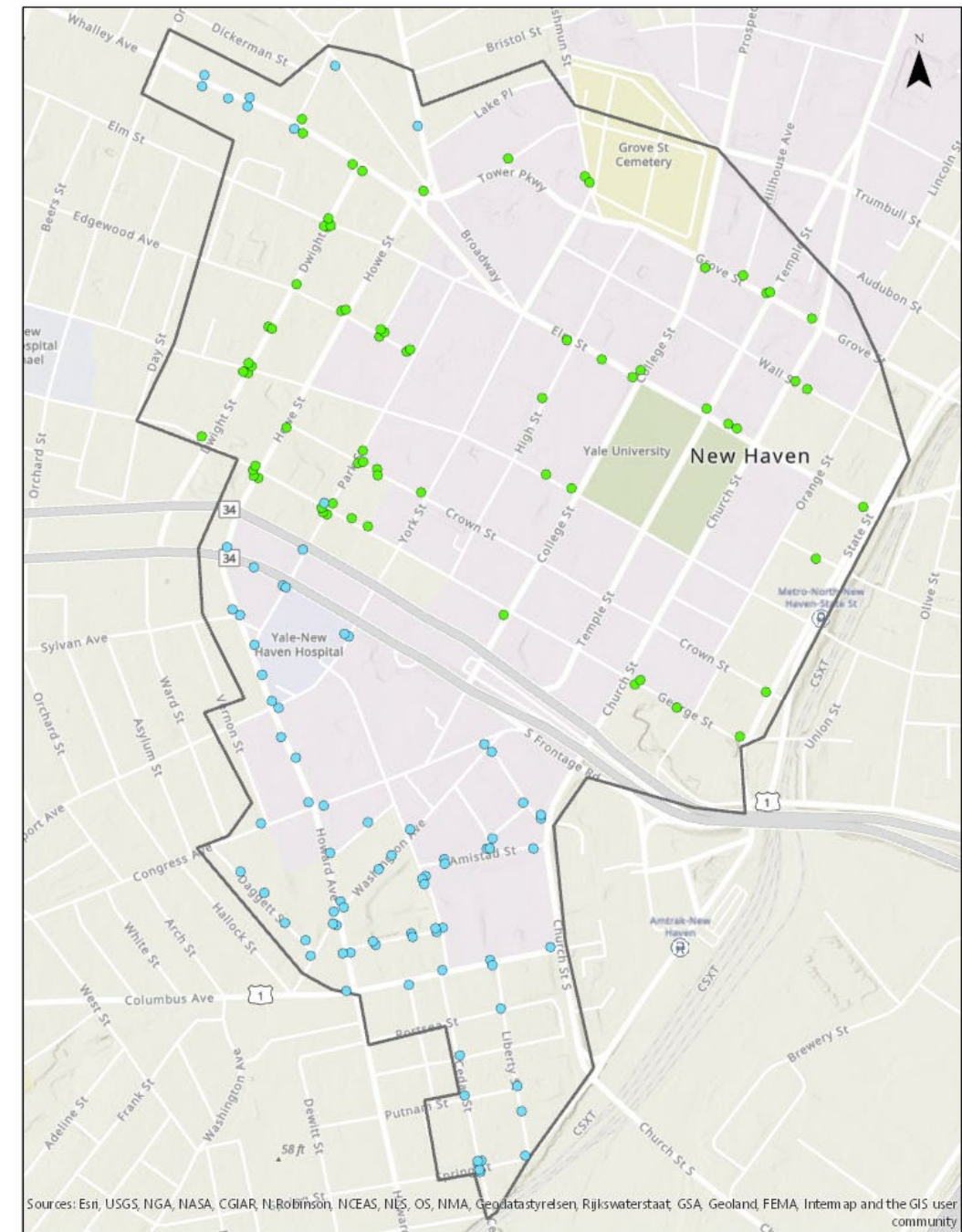
- Urban Resources Initiative
- EMERGE, Inc.
- CFE/Save the Sound
- Universities including Yale FES and Quinnipiac

Good at things we are not!



Downtown Bioswale Project

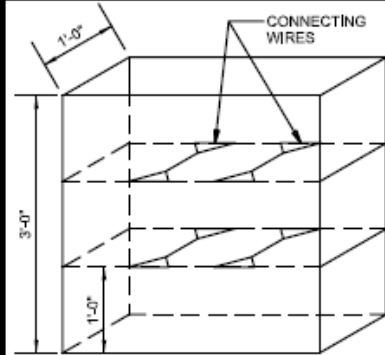
- 178 installations completed to date



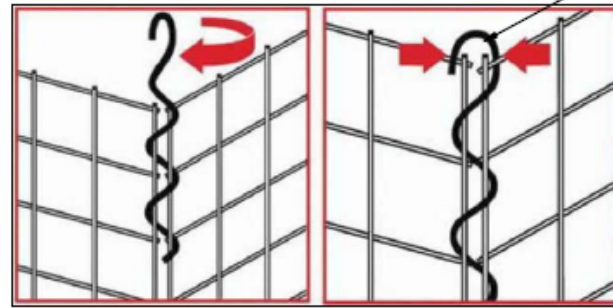
Downtown Bioswales

- Standardized Design
- Size: 15 feet by 5 feet
- Added Granite Curb Edging and changed fencing to add durability

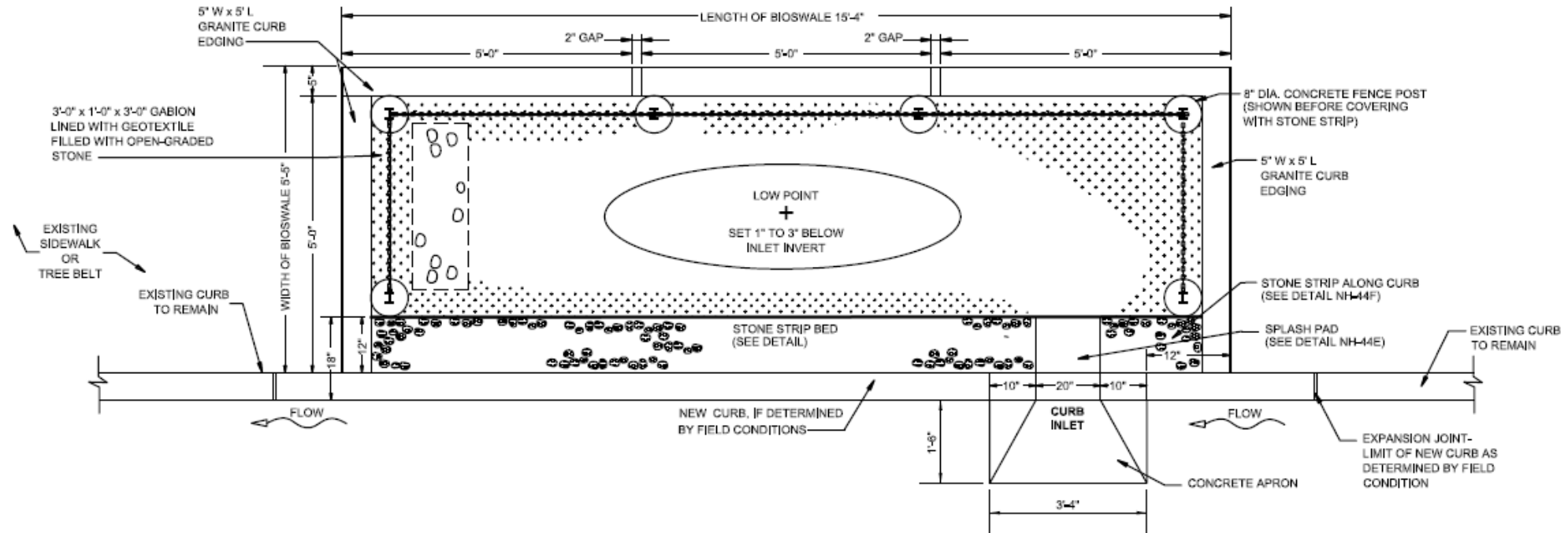




GABION DETAIL
NOT TO SCALE



GABION ASSEMBLY DETAIL
NOT TO SCALE



3 SIDED ENCLOSURE PLAN
STANDARD FOR 15' x 5' BIOSWALE
WITH GRANITE CURB EDGING WITH GABION
NOT TO SCALE

NOTES:

1. NO BIOSWALES SHALL BE INSTALLED IN THE CITY RIGHT-OF-WAY WITHOUT THE EXPRESS PERMISSION OF THE CITY ENGINEER.
2. THE CONTRACTOR SHALL BE REQUIRED TO REMOVE AND REPLACE ALL EXISTING FULL SIDEWALK FLAGS ADJACENT TO THE BIOSWALE.
3. ACTUAL WIDTH OF BIOSWALE MAY VARY BASED ON FIELD CONDITIONS AS DIRECTED BY CITY ENGINEER.

1. BOTTOM OF BIOSWALE IS TO BE LEVEL, UNCOMPACTED (SCARIFY) PRIOR TO FILLING WITH STONE.

2. NO COMPACTION OF STONE OR SOIL LAYERS.

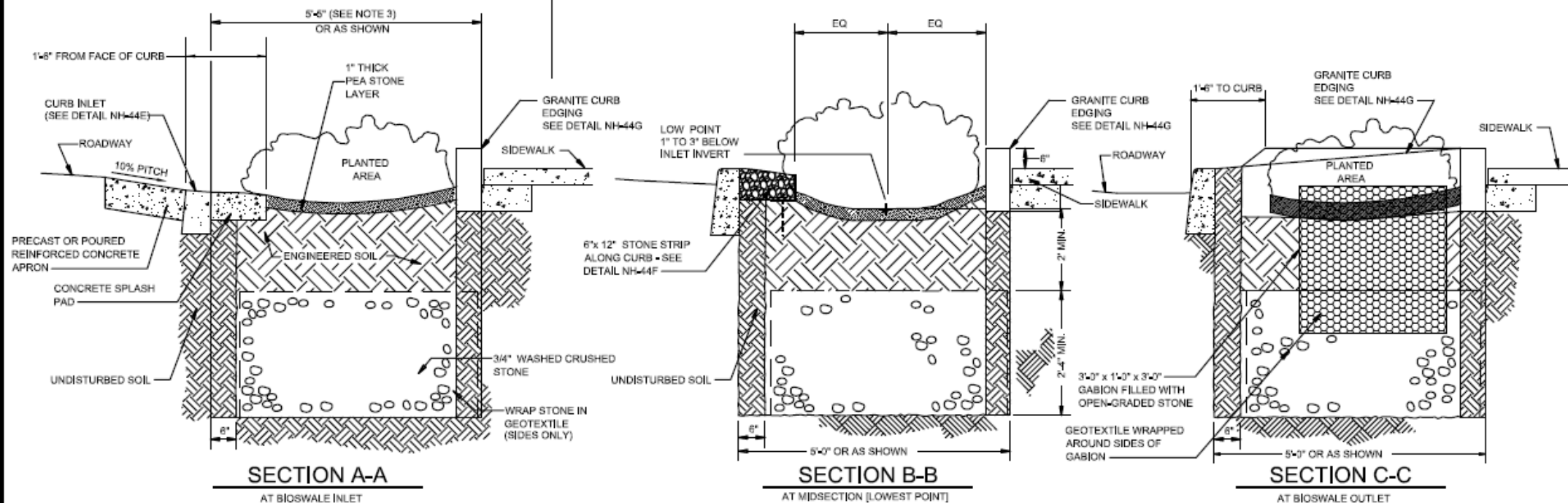
3. ACTUAL WIDTH OF BIOSWALE MAY VARY BASED ON FIELD CONDITIONS AS DIRECTED BY CITY ENGINEER.

4. SIDEWALK TO BE SAWCUT AND REPLACED AT THE NEAREST JOINT OR AS DIRECTED BY CITY ENGINEER.

**CITY OF NEW HAVEN
DEPARTMENT OF ENGINEERING**

GIOVANNI ZINN, P.E.
CITY ENGINEER

DRIVE:	K:\ENGINEER\DWG
FILE:	CITYSTD\DETAILS\2018 DETAILS
DATE:	NOV. 2018
DRAWING NO.:	STD-NH-44C



CROSS SECTIONS

STANDARD FOR 15'x 5' BIOSWALE - GRANITE CURB EDGING

NOT TO SCALE

Education- Newhallville

- Partner with Urban Resources Initiative and EMERGE on research project
- Engaged community throughout site selection and installation process

NEWHALLVILLE BIOSWALES



This **bioswale** is a type of garden designed to slow, capture, and filter stormwater (rain running off of **hard surfaces** like Daisy Street in front of you). Stormwater enters the bioswale from the street, allowing the vegetation and soil to **absorb the water and filter it naturally**, rather than entering the storm drain.



Winterberry



Bee Balm



Black Eyed Susan or Coneflower



Inkberry

These plants are native to Connecticut and provide habitat for birds and beneficial insects!

DID YOU KNOW?

By preventing stormwater from entering the sewer system, these gardens reduce flooding and prevent pollution from entering the Long Island Sound.





Thank You!

Questions?

Contact Dawn Henning
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(475) 434-1643

