



The City of Los Altos

GREEN STORMWATER INFRASTRUCTURE



Andrea Trese, P.E.
Associate Civil Engineer



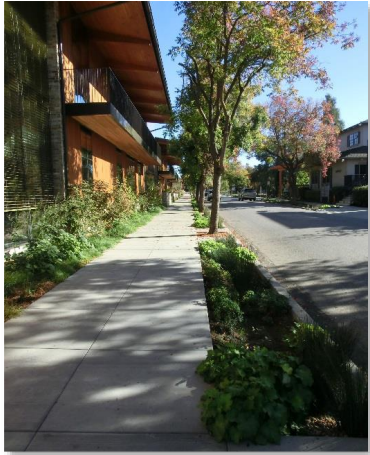
Los Altos Green Stormwater Infrastructure (GSI)

City Projects (Public)

- San Antonio Streetscape
- Rosita Park
- Fremont Avenue Bridge
- Homestead Road Improvements
- Los Altos Community Center



Los Altos GSI



Community & Collaboration

- David and Lucile Packard Foundation Headquarters
- Woodland Branch Library Rain Garden

San Antonio Road Streetscape

- Location: San Antonio Road, along the west side of the street along downtown parking plaza
- Year: Completed January 2014
- GSI Type: Bioretention
 - curb cuts and sheet flow from sidewalk and public parking lot
- Size: Along about 1,000 ft of sidewalk
- Funding:
 - Incorporated into CIP project
 - Bioretention area constructed as living green wall to obscure the parking lot from the view of street traffic



Before



After



San Antonio Road Streetscape

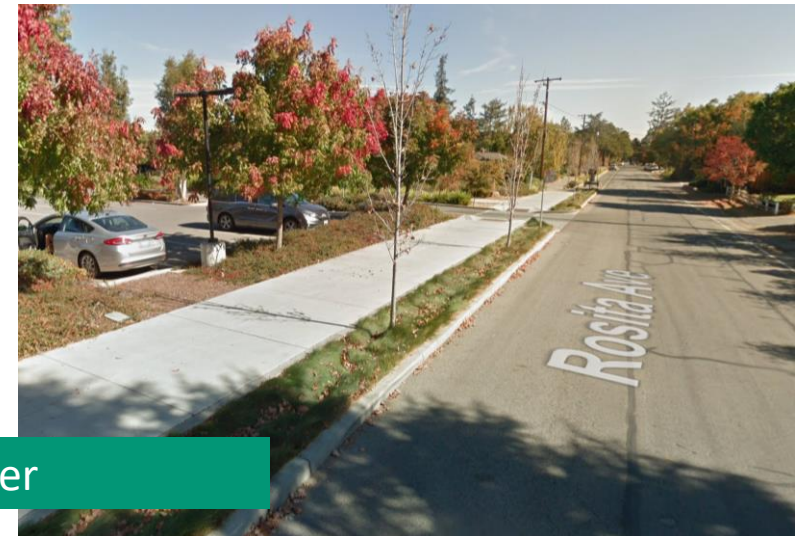


Rosita Park & Rosita Avenue

- Location: In Rosita Park and along Rosita Avenue from the park to Campbell Avenue
- Year: Completed February 2012
- GSI Types:
 - Bioretention in the park and along street/sidewalk with curb cuts
 - Pervious pavers in park plaza area
- Size:
 - Approximately 5.3 acre park
 - Approximately 0.5 acres tributary area, along about 800 ft length of street
- Funding:
 - Incorporated into a CIP project to renovate the park and Rosita Avenue



Before



After

Fremont Avenue Bridge

- Location: Fremont Avenue between Hazelaar Way and Miramonte Avenue, (over Permanente Creek)
- Year: Completed June 2016
- GSI Type: Bioretention
 - Roadway runoff drains to a bioretention area on the west side of the bridge.
- Size: Estimated under 200 sq ft footprint bioretention
- Funding: Incorporated into existing CIP project to replace an older bridge with a new concrete bridge with two 12-ft traffic lanes and two 5-ft bike lanes and pedestrian sidewalk



Before



After



Fremont Avenue Bridge

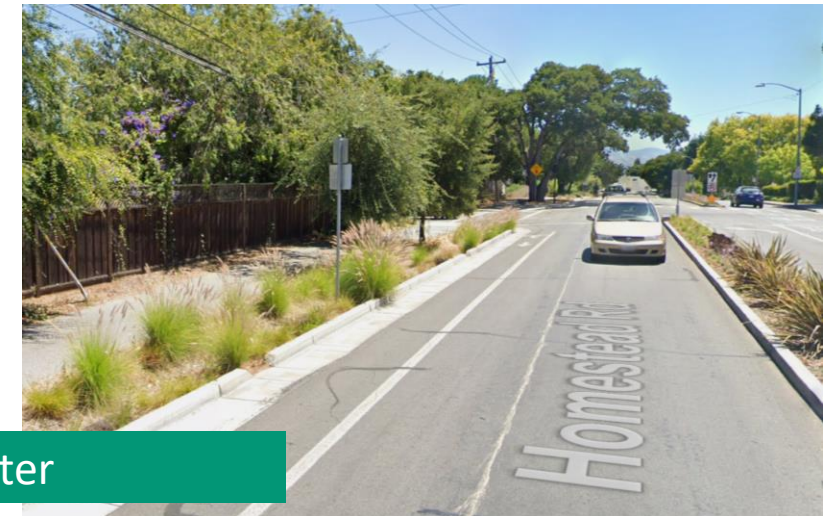


Homestead Road Improvements

- Location: North side of Homestead Road from El Sereno to Stevens Creek
- Year: Completed August 2014
- GSI Type: Bioretention areas treat roadway runoff
- Size: Along about 1,500 ft roadway
- Funding: Incorporated in Pedestrian and Bicycle Safety CIP project
 - Project included new traffic signal and crosswalk, new median islands and landscaping, bike/ped path, and storm drainage improvements



Before



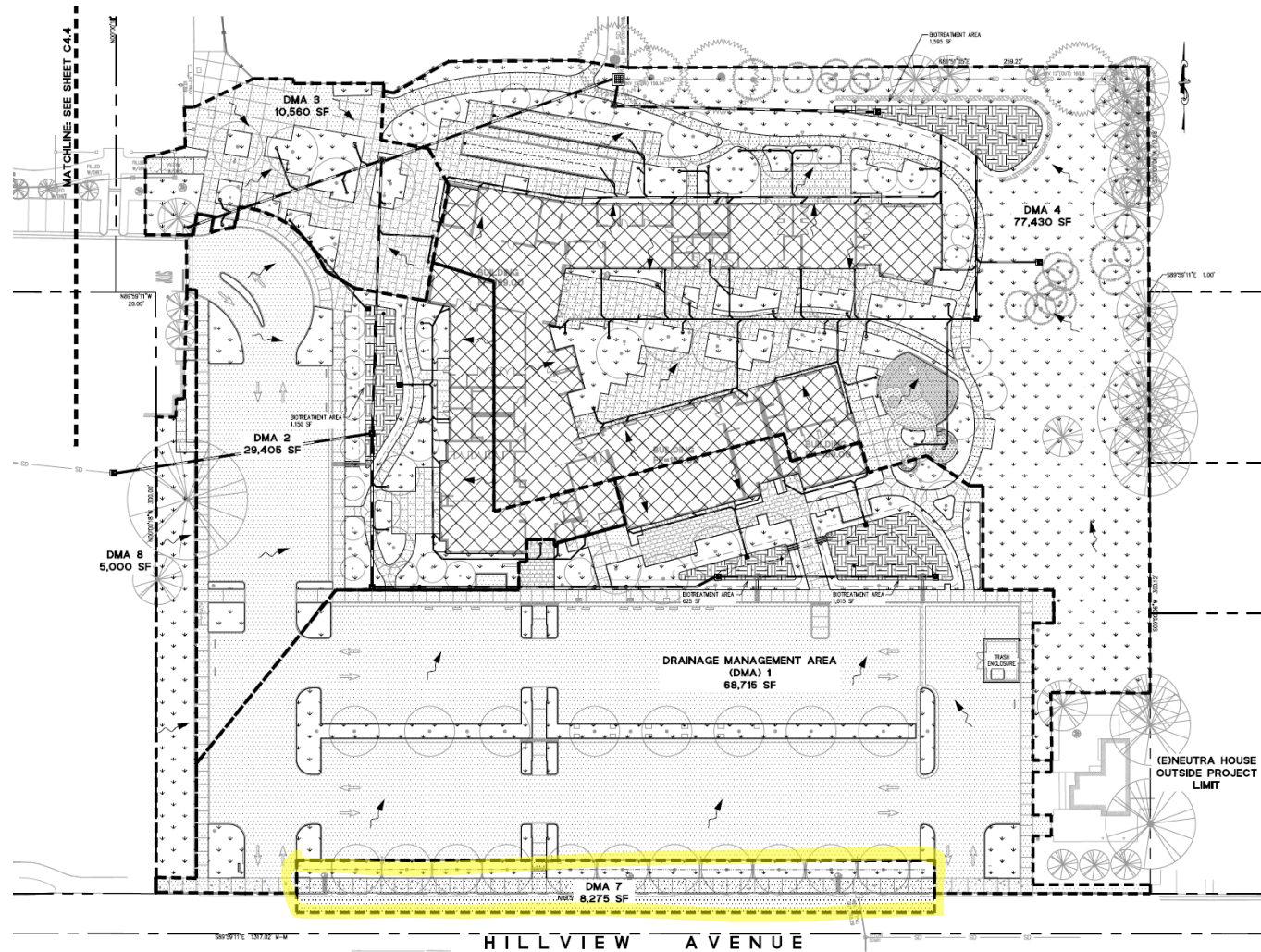
After

Los Altos Community Center

- Location: 97 Hillview Avenue
- Year: In construction 2021
- GSI Type: Curb cuts and trench drains through sidewalk carry street flow to bioretention area
- Size: approximately 0.2 acres drainage area of public street/sidewalk
- Funding: Incorporated into City CIP project, General Fund
 - Project is C.3 regulated and already included design of several bioretention areas
 - Incorporation of GSI was achieved by adding treatment, beyond C.3 requirements, of a small area of the public roadway and sidewalk



Los Altos Community Center



Community & Collaboration



David and Lucile Packard Foundation Headquarters

- Location: Second Street, between Lyell Street and Whitney Street
- Year: Completed 2012
- GSI Type: Green street portion of the project incorporates curbside flow-through rain gardens and corner bulb-outs to capture, treat and infiltrate runoff from adjacent impervious surfaces.
- Funding: Private, LEED Certified project; C.3 regulated. Goes beyond C.3 requirements by treating public street and sidewalk areas.

Community & Collaboration



Woodland Branch Library Rain Garden

- Year: Constructed May 2017
- GSI Type: Bioretention area treats roof runoff
- Funding: Collaboration initiated by Girl Scouts with assistance from local sponsors and the City
- Public Education: Demonstration garden constructed by volunteers
 - Binder about the rain garden and flyers about green stormwater infrastructure are available inside the library

Strategies for Incorporating GSI

Finding Opportunities in Existing CIPs & Maintenance Services

- Working relationships with staff in Transportation Division and Special Project Managers
- Early planning & review of CIP projects list
- Small-scale GSI features
 - easier to incorporate into existing projects
 - adds up over time
- Focus on multiple-benefit aspects (beautification, safety)
- Collaboration with private and non-profit partners
- Training for Municipal Services Staff to maintain public bioretention areas



Photo: Google Street View