HACIENDA AVENUE GREEN STREET IMPROVEMENT PROJECT

Green Infrastructure Workshop
November 29, 2018
Hacienda Avenue
- Excessively wide right of way
- Poorly defined travel lanes
- PCI’s ranged from 5 to 32
- Inconsistent pavement sections
- Severe potholes
• Lack of sidewalks
• Uneven walking surface
• Missing ADA ramps
• No defined bike lane
• Potholes, rough pavement
• Parked cars
• Inadequate storm drain facilities
• Areas of localized flooding
• Flat grate inlets at various low point
• Outdated bus stops
• Poorly located

• Inconsistent street lighting
• HPS street lights on wood poles
- Excessively wide pavement – speeding, passing on right
- Divides community
The Search for Funding

The Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006 (Proposition 84)
### Source/Use of Funds

**Source of Funds:**
- City Funds (60%) $4,023,525
- Grant Funds (40%) $2,634,000
**Total Source of Funds** $6,657,525

**Use of Funds:**
- Design (6%) $429,000
- Construction Engineering (7%) $459,000
- Construction (87%) $5,769,525
**Total Use of Funds** $6,657,525
Schedule

• Original proposal to include Hacienda in CIP 2007-2008
• Grant applications and awards 2009-2012
• Approval of conceptual design Nov. 2012
• PS&E approval Oct. 2013
• Caltrans – authorization to proceed (E76) Feb. 2014
• Advertise for bids / Begin utility relocations March 2014
• Open bids April 2014
• Award construction contracts June 2014
• Begin construction July 2014
• End construction Fall 2015
Green Street (90% Complete)
Completed Improvements
**Condition:**
Major puddles, inadequate storm drainage

**Recommended Treatment:**
Redesign street, treat stormwater in bio-infiltration basins

- Move curb line toward street - install bio-infiltration
- No-mow sod and diverse plantings
- Basins designed for 80% capture
- Street trees in parking lane
Storm Water Treatment

• Treatment Details
  – Sized Using SCVURPPP Methodology
  – Combination Flow and Volume Approach
  – Total Project Drainage Area = 18 acres
  – 63 Individual Drainage Areas
  – Capturing 0.95 ac-ft of runoff
    (Greater than 80% of the average annual rainfall-project wide)
Storm Water Treatment (cont’d)

• Bio-Infiltration Areas
  – 3 ft Deep Section
  – 3:1 Side Slopes
  – Overflow Pipes
  – Perc. at 4 inch/hr

  Water Monitoring
  ▪ San Francisco Estuary Institute (SFEI)
Before
(No Bio-Infiltration)

After
(Bio-Infiltration)
Abbott Avenue Pervious Concrete
Abbott Avenue Pervious Concrete
Abbott Avenue Pervious Concrete
Abbott Avenue Pervious Concrete
Abbott Avenue Pervious Concrete
Thank You!

Questions?