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### Introductions

- Roland Neufeld, Assistant Engineer – Project Engineer
- Fred Ho, Senior Civil Engineer – Project Manager
- Michelle Quinney, City Engineer

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### Presentation Overview

- Hacienda Avenue – Background & Diagnosis
- Preliminary Planning
- Design Elements
- Project Sustainability Ratings
- Construction Challenges
- Public Outreach/Project Schedule
- Summary – Lessons Learned
- Questions & Comments

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## Hacienda Avenue



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- Excessively wide right of way
- Poorly defined travel lanes
- PCI's ranged from 5 to 32
- Inconsistent pavement sections
- Severe potholes



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- Lack of sidewalks
- Uneven walking surface
- Missing ADA ramps
- One pedestrian fatality



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- No defined bike lane
- Potholes, rough pavement
- Parked cars

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- Inadequate storm drain facilities
- Areas of localized flooding
- Flat grate inlets at various low point



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- Outdated bus stops
- Poorly located



- Inconsistent street lighting
- HPS street lights on wood poles

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- Excessively wide pavement – speeding, passing on right
- Divides community

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### The Hacienda Avenue Check Up

	CONDITION		
	Good	Fair	Poor
Walkability			✓
Bikeability			✓
Driveability			✓
Transit Friendly		✓	
Encourages Community Interaction			✓
Night vision			✓
Ability to Weather the Storms			✓
Sustainable Life Style			✓




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### Concerns to be addressed:

- Pavement rehabilitation
- Improve traffic and pedestrian safety
- Infill missing public improvements
- Improve drainage
- Improve aesthetics

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### The Search for Funding

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



Logos include: CA.GOV, EPA (United States Environmental Protection Agency), VTA (Valley Transportation Authority), Santa Clara Valley Urban Runoff Pollution Prevention Program, and CalRecycle.

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### Source/Use of Funds

Source of Funds:

• City Funds (60%)	\$ 4,023,525
• Grant Funds (40%)	\$ 2,634,000
<b>Total Source of Funds</b>	<b>\$ 6,657,525</b>

Use of Funds:

• Design (6%)	\$ 429,000
• Construction Engineering (7%)	\$ 459,000
• Construction (87%)	\$ 5,769,525
<b>Total Use of Funds</b>	<b>\$ 6,657,525</b>

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### Main Project Goals

Address existing concerns and...  
Incorporate "Green Street" elements



Icons include: water treatment, green buildings, pedestrian, bicycle, bus, footprint, recycling, and people shaking hands.

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## Treatment Plan (Design Elements)



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**Condition:**  
Pavement Failure



**Recommended Treatment:**  
FDR - Full depth pavement reclamation

- What is FDR?
  - Recycling Process
  - Cement Mixing
- Why use FDR?
  - Environmentally Friendly
  - Cost Effective



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**Condition:**  
Poor Driveability



**Recommended Treatment:**  
Provide well defined vehicle and parking lanes

- Reduce street width
- Install consistent 11' vehicle lanes
- Install defined 8' parking lanes
- Eliminate ability for cars to pass on the right



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**Condition:**  
Poor Walkability



**Recommended Treatment:**  
Improve pedestrian safety



- Continuous sidewalks
- Corner bulb-outs
- ADA accessibility ramps
- Separate sidewalks from roadway
- Address storm drainage

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**Condition:**  
Poor Bikeability



**Recommended Treatment:**  
Install consistent, well defined bike lanes

- Continuous striped bike lane
- Smooth pavement surface
- Connects to other bike facilities




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**Condition:**  
Not transit friendly



**Recommended Treatment:**  
Consistent bus stop treatments

- Easy to find
- Inviting atmosphere
- Landscaping / shade




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**Condition:**  
Poor night vision

**Recommended Treatment:**  
Install a consistent and efficient street lighting system



- Remove existing HPS street lights
- Install City standard street lighting with uniform coverage
- Use LED street lights for maximum efficiency



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**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



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Before  
(No Bio-Infiltration)



After  
(Bio-Infiltration)



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**Condition:**  
Low community interaction

**Recommended Treatment:**  
Install improvements to encourage outdoor activity  
Improve aesthetics

- Decrease street width
- Improve walkability & bikeability
- Improve neighborhood aesthetics
- Strengthen the connection to the Los Gatos Creek Trail
- Install adequate night lighting





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### Healthy Street (90% Complete)




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### Sustainability Ratings

**Greenroads**

- Sustainability Rating System for Roads
- Points Awarded for:
  - Treatment of Runoff
  - Reduction of Light Pollution
  - Material Recycling
  - Using Regional Materials...



**Bay Friendly**

- Grant Requirement
- Promotes Sustainable Landscape Design




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### Construction Challenges




Schedule



Maintaining Property Access



Differing Site Conditions - Cobblestones



Utility Relocations & Upgrades

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### Utility Relocations/Upgrades



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### Differing Site Conditions

- Excessive size and amount of cobblestones
- Added rock crushing process
- Additional two weeks of roadway closure
- \$300,000



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### Property Access – Public Notifications

- Road closed to thru traffic for one month
- Advance notice on arterials via changeable message signs
- Detours and signage allowed local traffic only on Hacienda
- Some closures removed by residents
- Driveways completely closed at four different times during project
- Residents notified by City's website – updated daily




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### Public Outreach

- Initial property owner meetings – September 2012
- Neighborhood mailings/meeting – November 2012
- Neighborhood 50% final design meeting – June 2013
- Neighborhood update mailing – April 2014
- Presentations at local schools – June 2014
- Quarterly construction meetings – Summer 2014 - Summer of 2015
- Next Door, Facebook, hand delivered flyers
- Website Updates – Project plans, FAQ's, Road Closure/ Driveway Closure Charts, [www.cityofcampbell.com/567](http://www.cityofcampbell.com/567)

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### 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 Summer 2015

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## Summary – Lessons Learned

- It pays to implement more sustainable design and construction practices
- There is never too much coordination or advance planning with the utility companies and the community
- Maintaining a presence in the community and providing project updates are vital and essential components of a successful project
- Pay attention to existing conditions and expect the unexpected

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## Questions - Comments



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