

County of San Luis Obispo

Los Osos Roads

Restoration

A Community Improvement
Project



Presented to the Community of Los Osos
Winter, 2012

PUBLIC WORKS



SAN LUIS OBISPO COUNTY



Program Overview

How Did We Get Here?

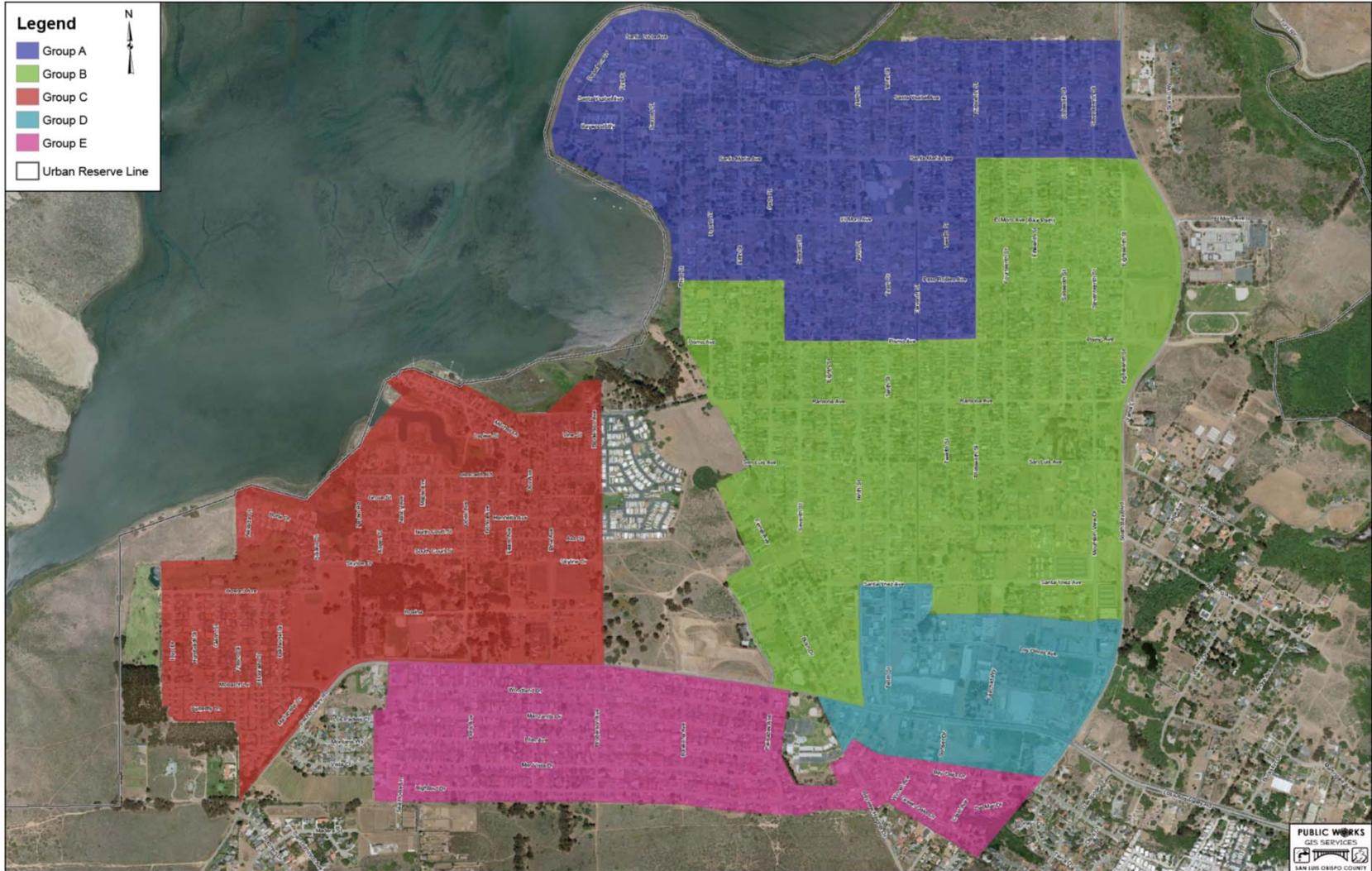
- Conscientious Program Management
- Opportunity Knocks
- Quality of Life
- Input Solicitation
- Primary Objectives
 - Pavement Condition
 - Drainage Enhancements
 - Possible Betterments



Topics not being covered tonight

- Sewer construction schedule
- Traffic circulation, bus circulation, and road closures during construction
- Sewer lateral installations

Community Group Map



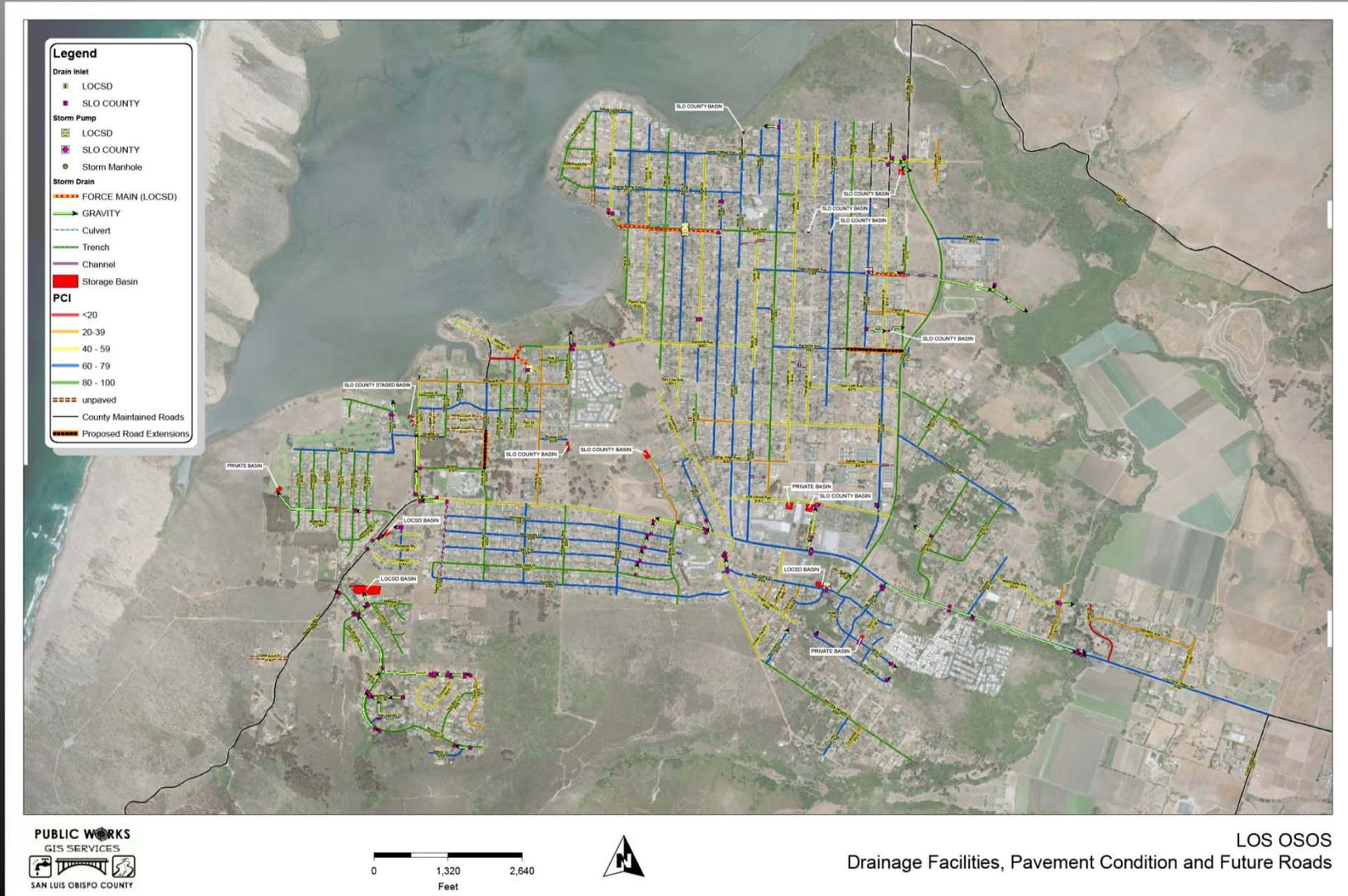
Input Solicitation

- 1998 Los Osos Drainage Study
- Road Crew
- LOCAC
- Los Osos CSD

How much is this going to cost?

- Your community's waste water project is currently estimated to have a direct impact on roads in the range of \$5.5 to 6.1 million. These monies will be supplemented by \$2.2 million set aside in the County Road Fund for repairs due to deferred maintenance and existing deficiencies.

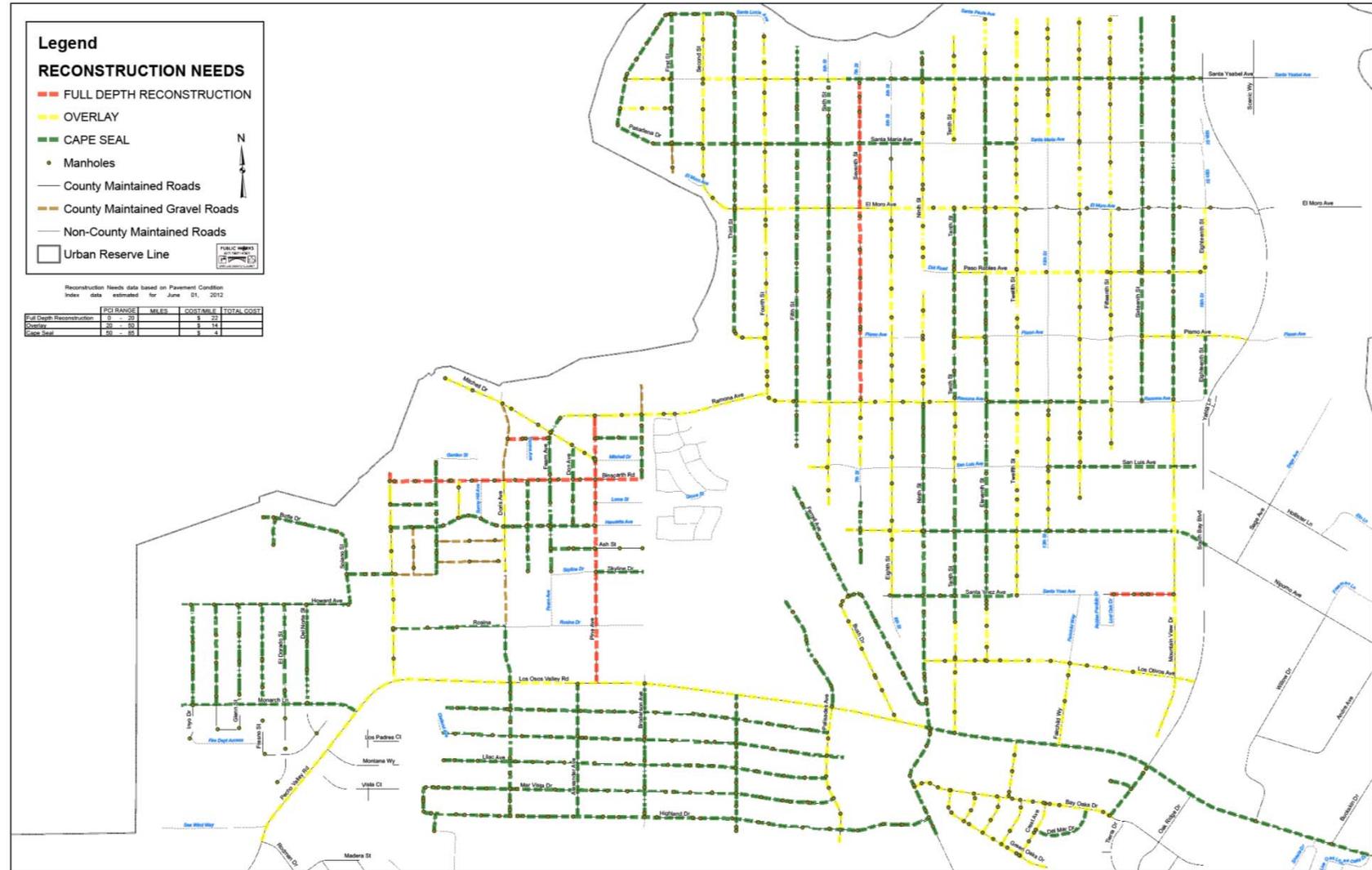
Pavement Condition Index Map



Pavement Condition of Other Communities

Pavement Rating By Community	
Community	Average PCI 12/11
Avila Beach	70
Cambria	58
Cayucos	71
<i>Los Osos</i>	<i>57</i>
Nipomo	63
Oceano	59
Santa Margarita	90
San Miguel	64
Shandon	50
Templeton	71

Pavement Reconstruction Map



Number of Roads Receiving Treatment

- Public Works Currently Maintains 53.7 Miles of Roadway in Los Osos.
- 40.3 miles of County maintained roadway will be disturbed during the construction of the collection system.
- We are proposing all 40.3 miles disturbed receive an improved surface.

Road Surface Treatments

- Asphalt Overlay
- Cape/Slurry Seal
- Full Depth Restoration
- Graveled and Graded (Non-County)

Asphalt Overlay



Asphalt Overlay



Asphalt Overlay



Slurry / Cape Seal



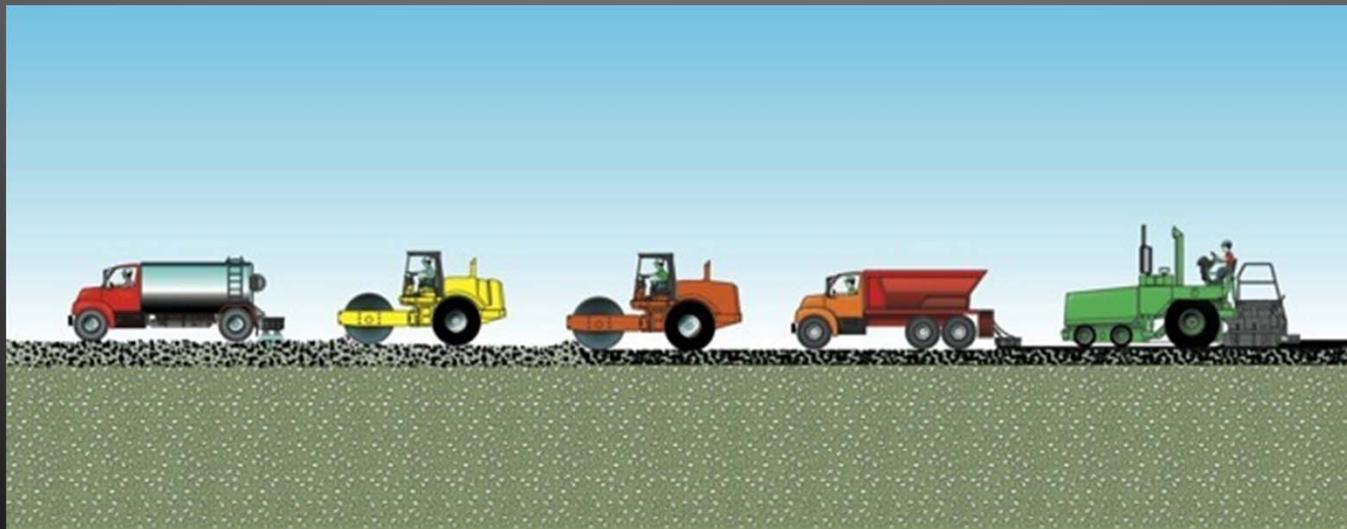
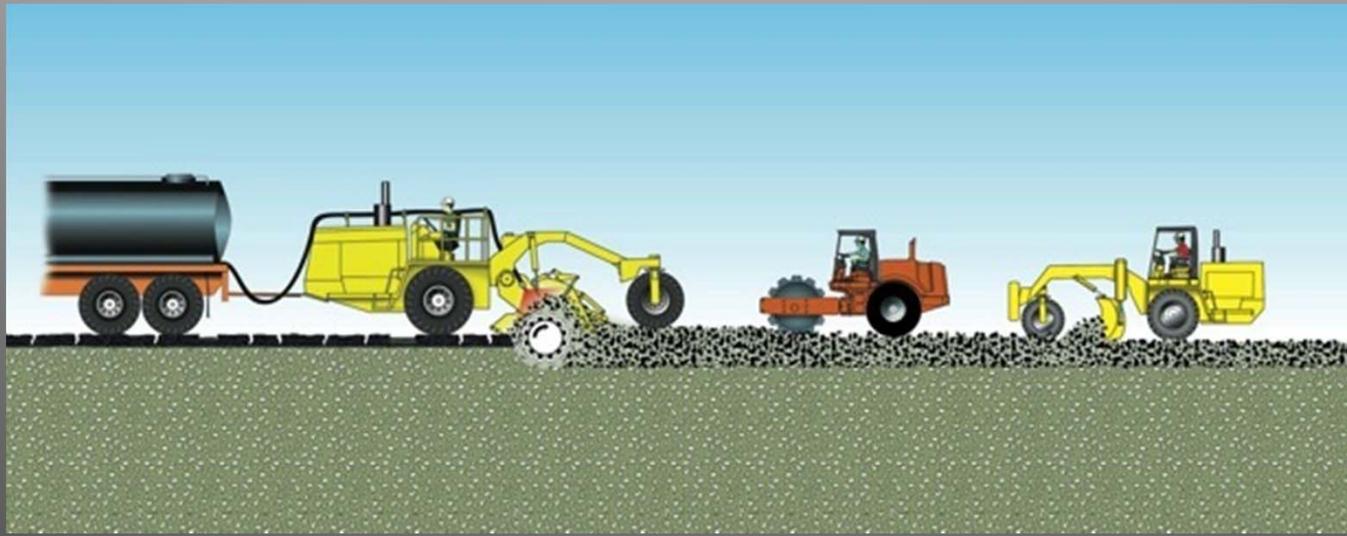
Slurry / Cape Seal



Full Depth Restoration



Example of Full Depth Reclamation



Drainage Issues Site Map



Number of Drainage Issues

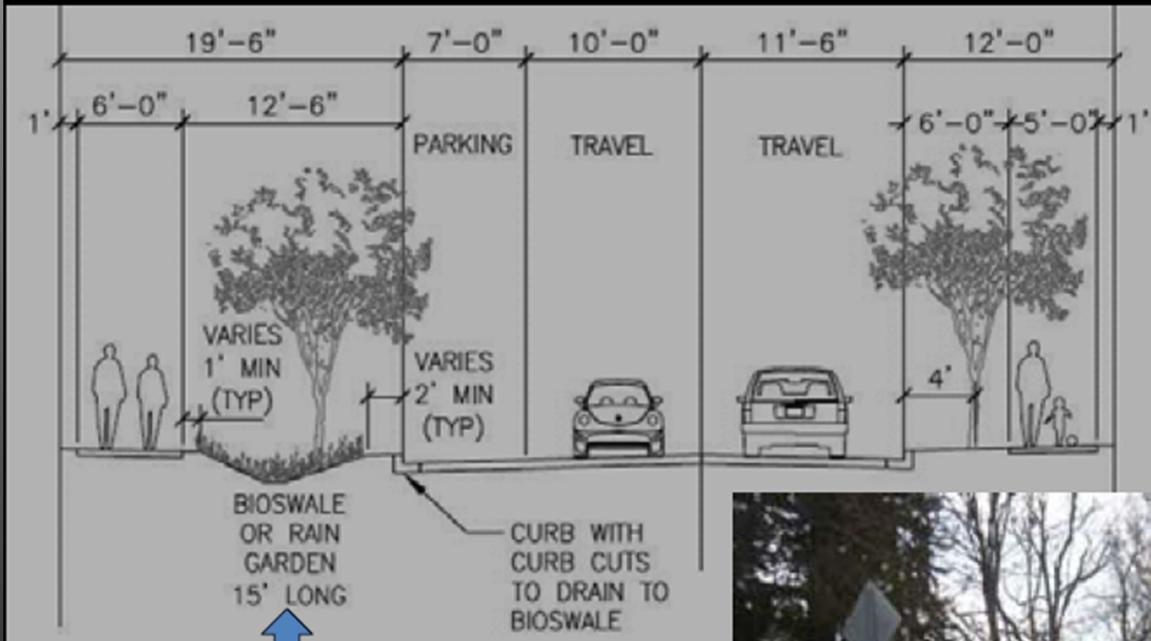
- 37 existing drainage issues were identified
- Improvements are proposed for 27
- Selection was based on Priority (LOCAC/LOCSD), Severity, Cost, and Constructibility.

Drainage Enhancement Tools

- Bio Swales
- Bio Retention
- Infiltration
- Drainage Medians
- Small Storm Systems

Bio Swales

What if You installed bio retention on residential streets.



Infiltrator Concept in 3D



UNDERGROUND ROAD SIDE INFILTRATOR

Road Side Infiltrator Photo



Drainage Issue Site 1 & 2

- Problem: Flooding at Ramona Avenue between 10th and 11th Street.
- Solution: Still Under Investigation.
- Solution will need to be a separate project at some future time.

Preliminary Site Plan

■ Site 1 & 2



Drainage Issue Site 4

- Problem: Ramona Avenue between 15th and 16th Street. Storm water is ponding in roadway potholes and ruts.
- Solution: Fill in potholes and ruts, create a roadway crown, and install bio retention swale.

Preliminary Site Plan ■ Site 4



Drainage Issue Site 6

- Problem: Storm water is ponding at Nipomo Avenue and 13th Street.
- Solution: Install new infiltrators, cleanout silt from existing infiltrator.

Preliminary Site Plan ■ Site 6

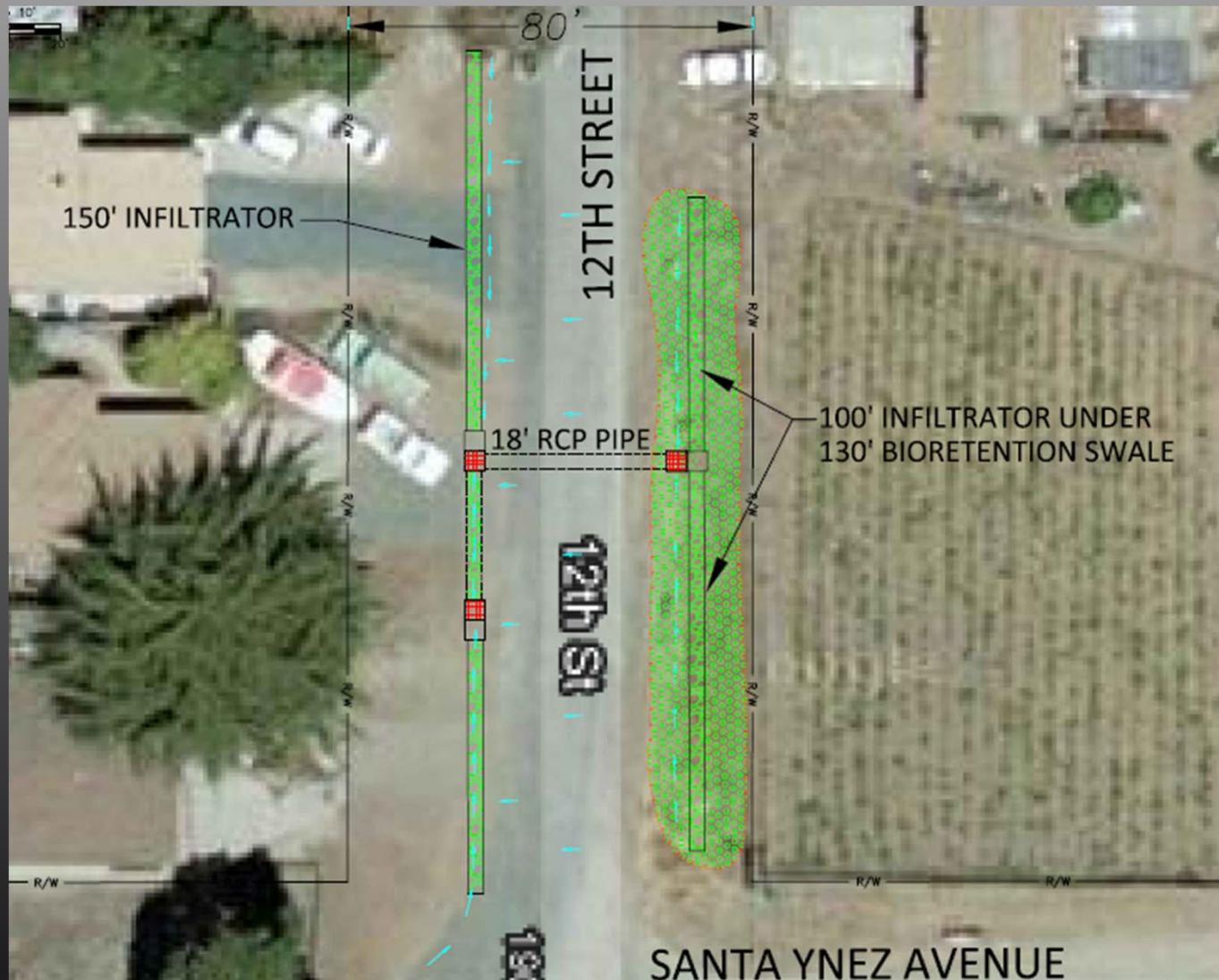


Drainage Issue Site 7 & 7b

- Problem: Storm water is flooding, and ponding at 12th Street between Nipomo Avenue and Santa Ynez Avenue.
- Solution: Install infiltrators and create a bio retention swale.

Preliminary Site Plan

■ Site 7



Preliminary Site Plan

■ Site 7b

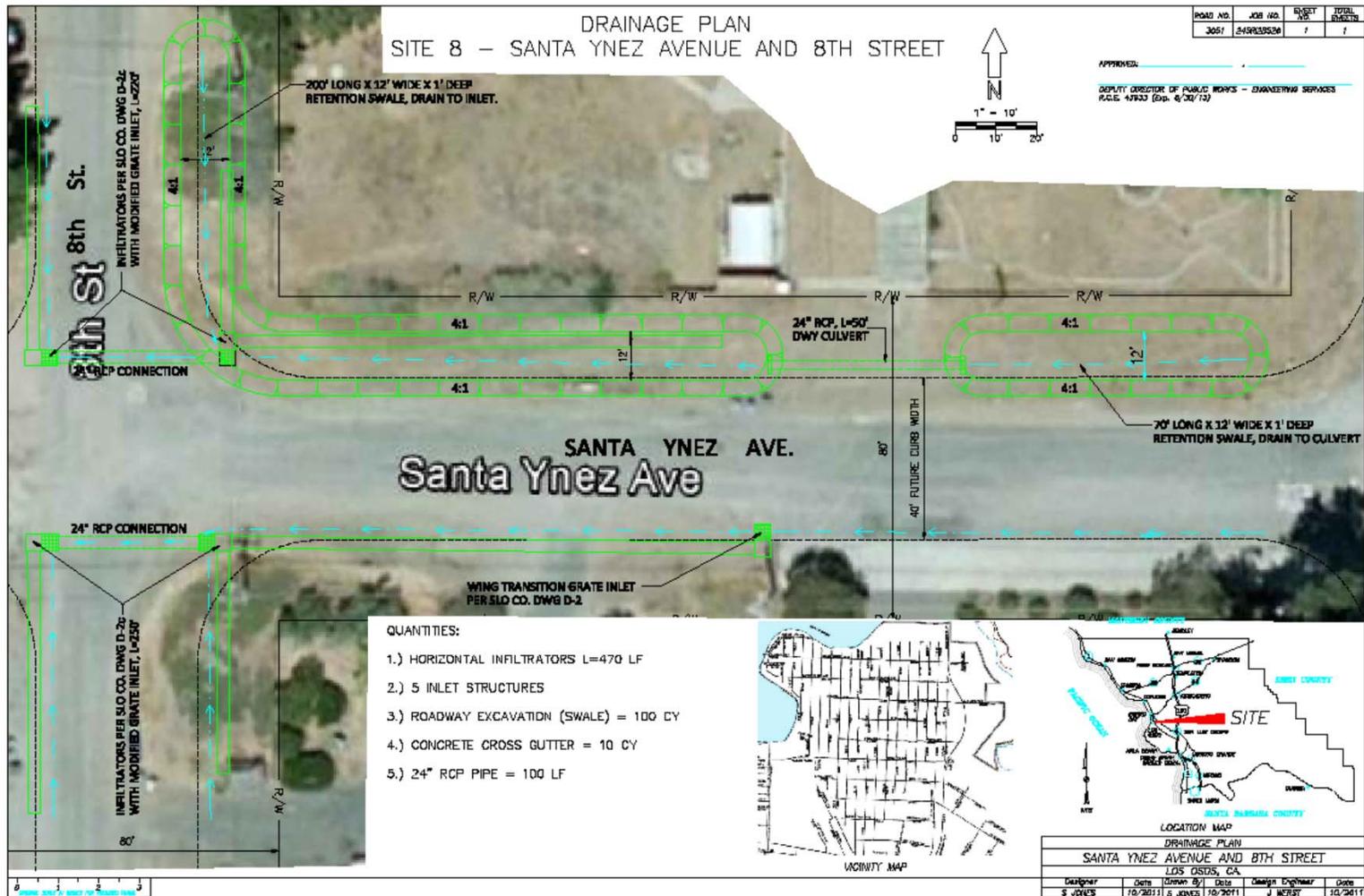


Drainage Issue Site 8

- Problem: Storm water is flooding street, ponding, and large puddles flood street and private property at Santa Ynez Avenue and 8th Street.
- Solution: Install infiltrators and create a large bio retention swale.

Preliminary Site Plan

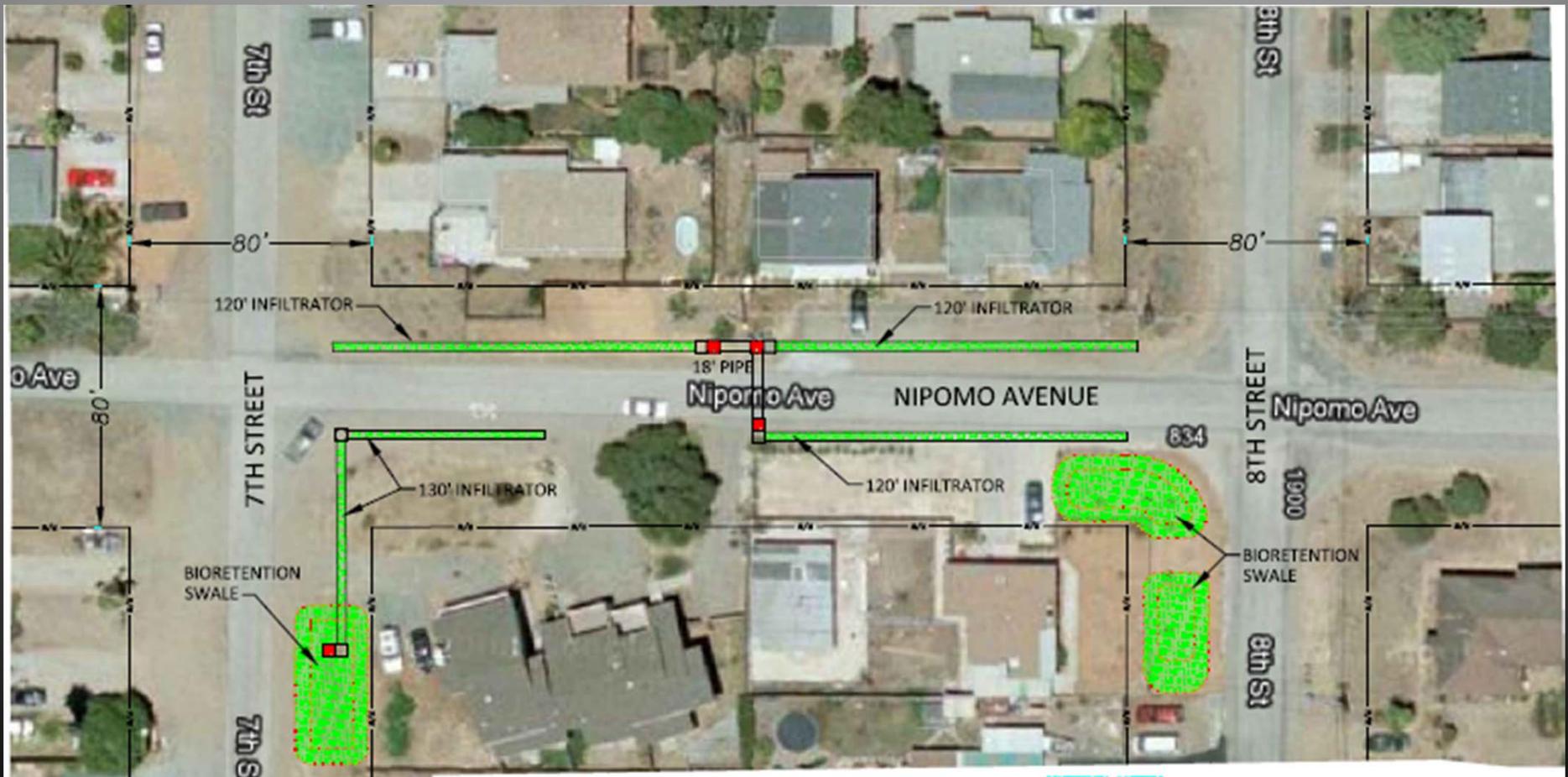
Site 8



Drainage Issue Site 9

- Problem: Nipomo Avenue between 7th and 8th Street, storm water floods and ponds at low spot in roadway.
- Solution: Install infiltrators and bio retention swales.

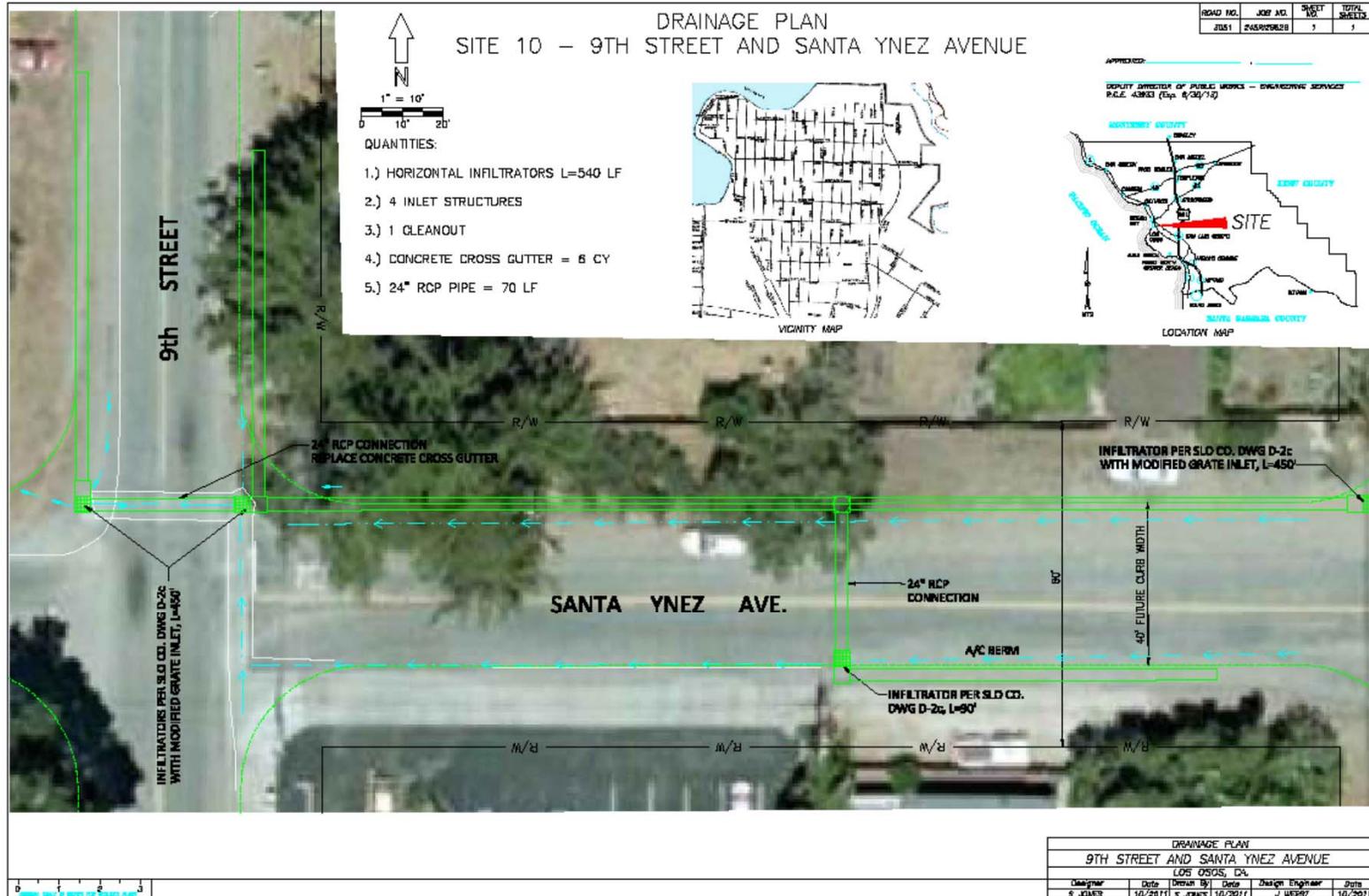
Preliminary Site Plan ■ Site 9



Drainage Issue Site 10

- Problem: Storm water is ponding at Santa Ynez Avenue and 9th Street.
- Solution: Install infiltrators, new cross gutter at 9th Street, and roadside swales.

Preliminary Site Plan ■ Site 10



Drainage Issue Site 15

- Problem: Storm water is ponding at 10th Street and Nipomo Avenue. There are large puddles after rain events
- Solution: Install Infiltrators

Preliminary Site Plan ■ Site 15



Drainage Issue Site 17

- Problem: Flooding at low spot on 11th Street between Nipomo Avenue and Santa Ynez Avenue.
- Solution: Install infiltrators, create bio retention swale.

Drainage Issue Site 18 & 19

- Problem: Storm water runoff, silt, and debris at Bush Drive and Ferrell Avenue.
- Solution: Create bio retention swale and install infiltrator.

Preliminary Site Plan

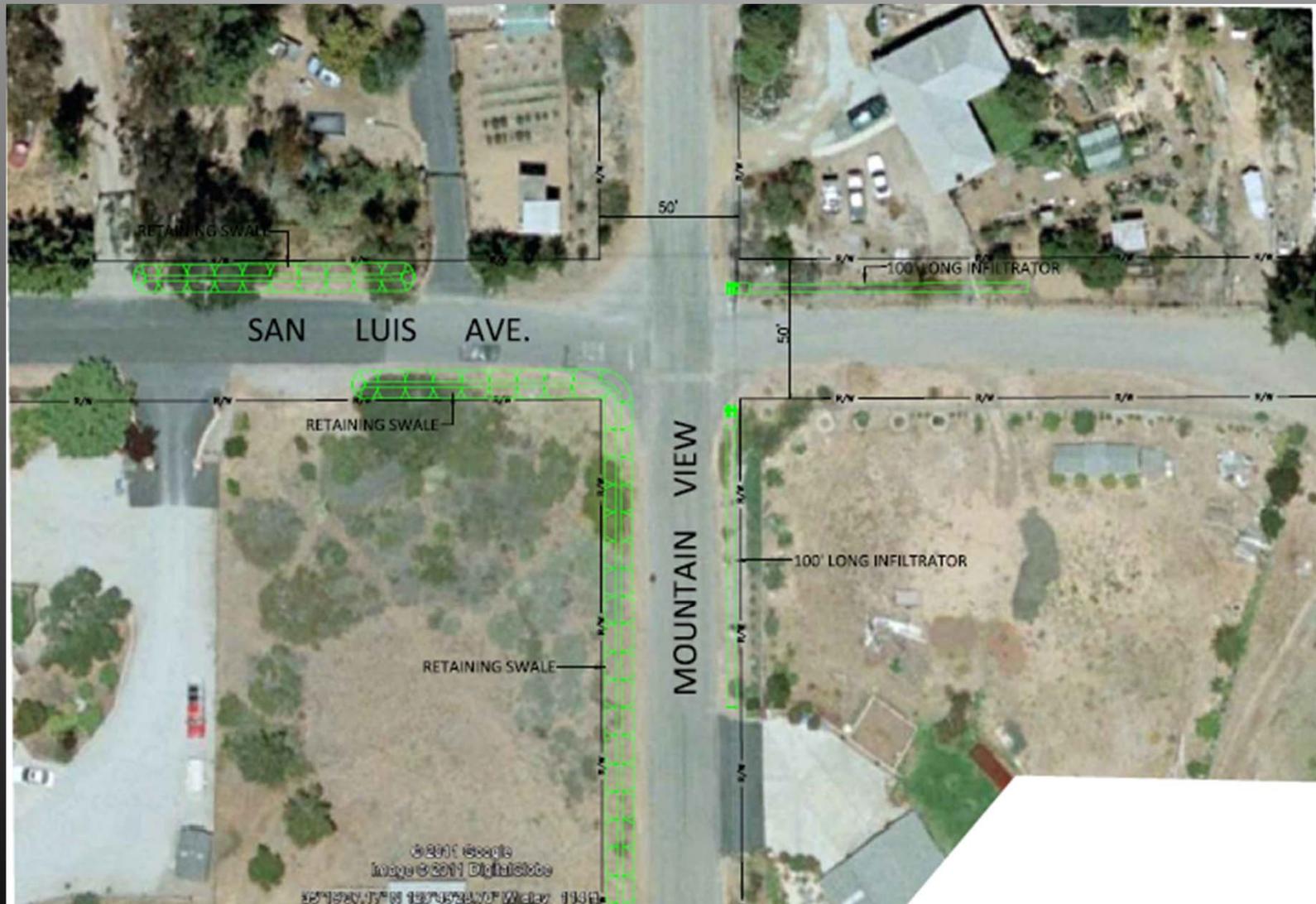
■ Site 18 & 19



Drainage Issue Site 22

- Problem: Large amounts of storm water runoff goes across Mountain View Drive.
- Solution: Install roadside bio retention swales and install infiltrators.

Preliminary Site Plan ■ Site 22



Drainage Issue Site 24, 25, 26

- Problem: Flooding at Paso Robles Avenue.
- Solution: Install cross gutters to maintain flow path towards 18th Street, cleanout roadside swales, install a new cross culvert at 17th Street.

Preliminary Site Plan

■ Site 24, 25, 26



Drainage Issue Site 27 & 28

- Problem: Flooding at low spot on 15th Street between El Morro Avenue and Paso Robles Avenue.
- Solution: Install storm drain, and new sump pump lift station.

Preliminary Site Plan

■ Site 27 & 28



Drainage Issue Site 29

- Problem: Flooding at low spot on Paso Robles Avenue between 12th and 14th Street. There is also erosion along the roadway at the intersection of 13th street.
- Solution: Install storm drain at low spot, install infiltrator, and create roadside bio swales between 13th and 14th Street.

Preliminary Site Plan

■ Site 29



Drainage Issue Site 30

- Problem: Flooding and ponding at Pismo Avenue east of 11th street.
- Solution: Fill in pot holes, create a roadway crown, and roadside swales on Pismo Avenue. Cleanout existing culverts at 11th street and grade a new swale towards the culvert inlets.

Preliminary Site Plan ■ Site 30



Drainage Issues Site 31

- Problem: Flooding at low spot in 10th Street, south of San Luis Avenue.
- Solution: Re-grade existing roadside retention swales and install infiltrators.

Preliminary Site Plan

■ Site 31

DRAINAGE PLAN
Site 31 10th Street South of San Luis Avenue

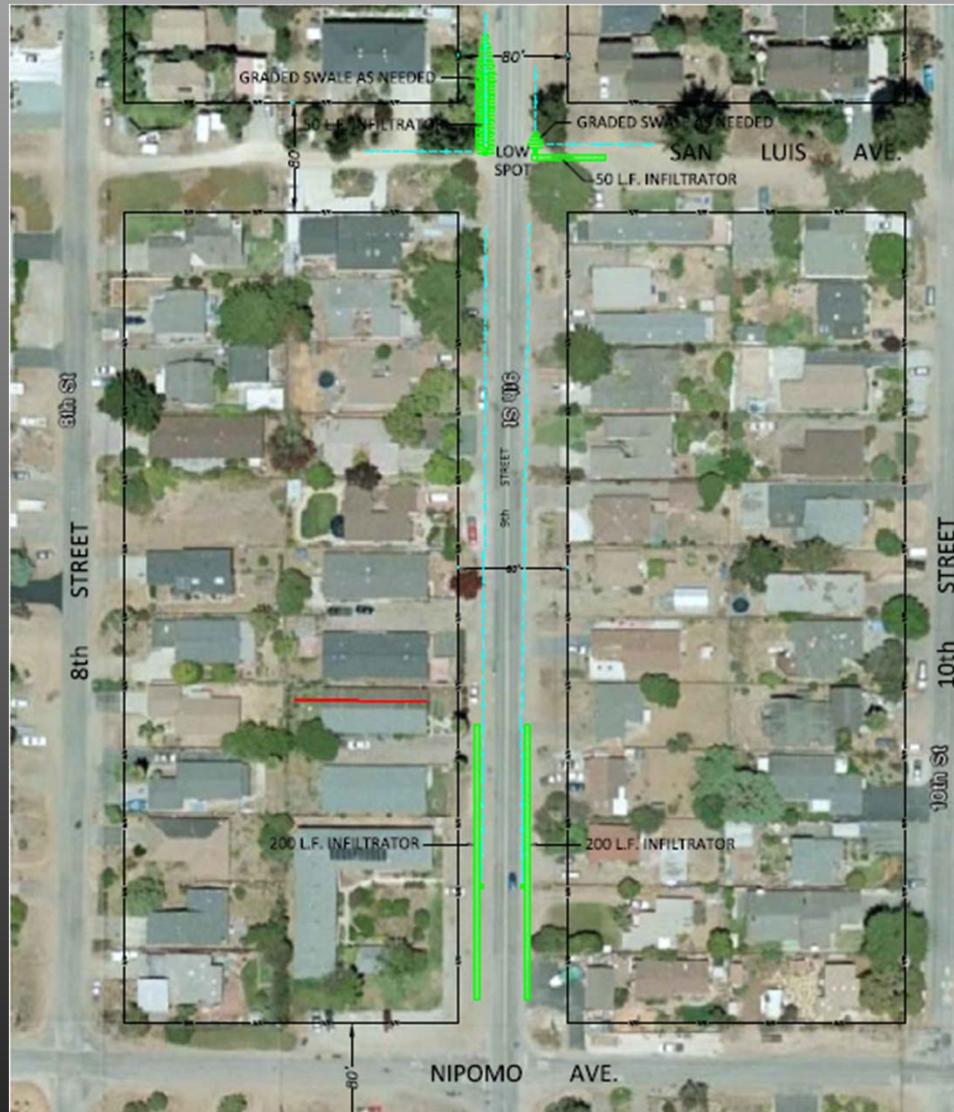


Drainage Issue Site 32

- Problem: Flooding at 9th Street near San Luis Avenue.
- Solution: Install infiltrators and retention swales.

Preliminary Site Plan

■ Site 32



Drainage Issue Site 33

- Problem: Flooding at low spot on 8th Street between Nipomo and San Luis Avenue.
- Solution: Install Infiltrators

Preliminary Site Plan ■ Site 33



Drainage Issue Site 34

- Problem: Flooding at low spot on 7th Street, south of Ramona Avenue.
- Solution: Install infiltrators

Preliminary Site Plan

Site 34



Drainage Issue Site 35

- Problem: Flooding at low spot on 7th Street, between Pismo Avenue and Ramona Avenue.
- Solution: Install infiltrators.

Preliminary Site Plan

■ Site 35



Drainage Issue Site 36

- Problem: Storm water runoff, erosion, silt, sand, and debris at 4th Street and Pismo Avenue.
- Solution: Install storm drain culvert and/or cross gutter.

Preliminary Site Plan

■ Site 36



Drainage Issue Site 51

- Problem: Storm water ponding at low spot in 14th Street, between Pismo and Ramona Avenue.
- Solution: Install Infiltrators.

Preliminary Site Plan

■ Site 51



Drainage Issue Site 52

- Problem: Storm water ponding at low spot in 15th Street, between Pismo and Ramona Avenue.
- Solution: Install Infiltrators.

Preliminary Site Plan

■ Site 52



Drainage Issue Site 53

- Problem: Storm water ponding at low spot in 14th Street, between Ramona and San Luis Avenue.
- Solution: Install Infiltrators

Preliminary Site Plan

■ Site 53

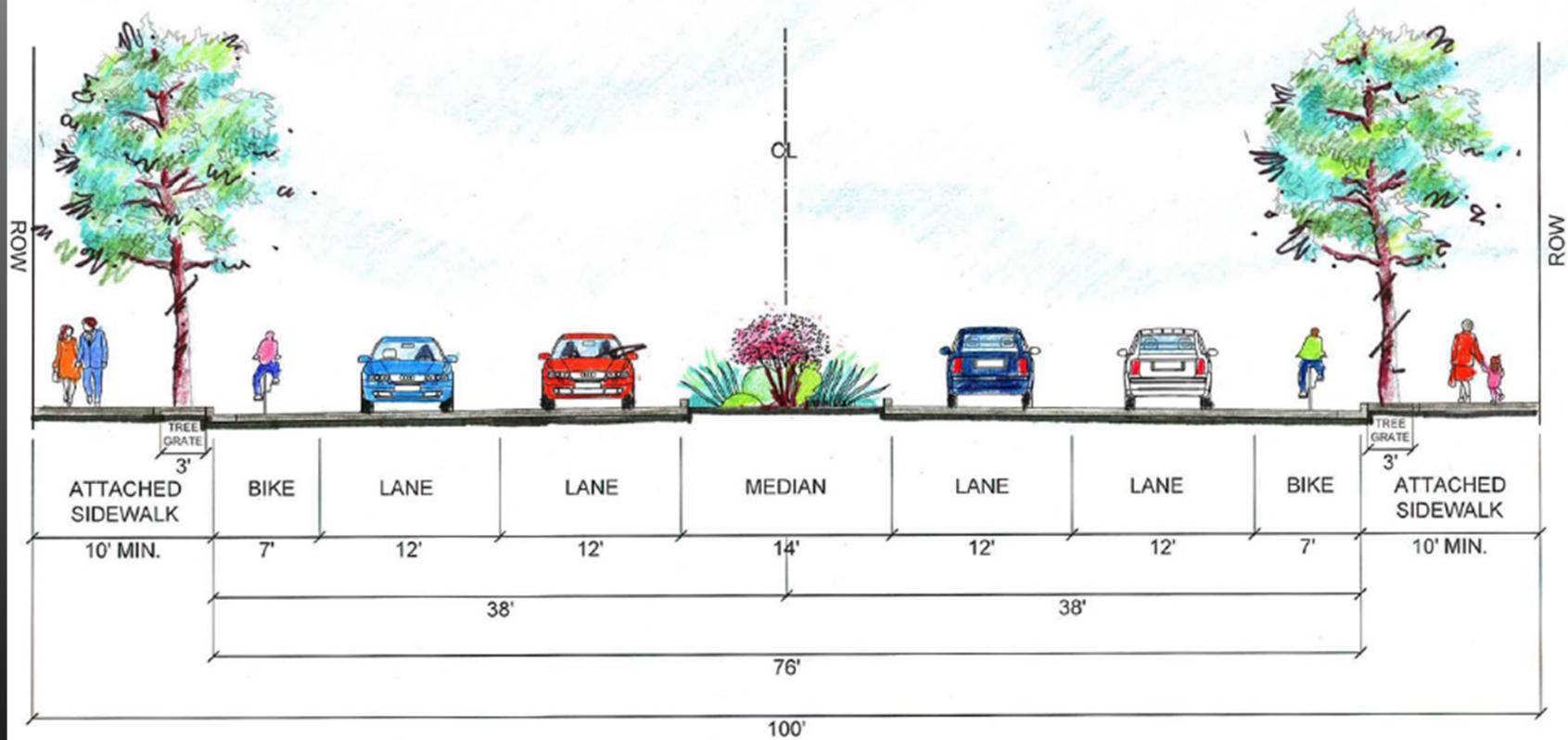


Betterments (Optional)

- Gateway Medians,
- Cooperative Roads Program
 - Improvements to non-maintained streets
- Residential Medians, Walking Paths, etc.

Gateway Median/ LOVR Corridor Study

Proposed Street Section A

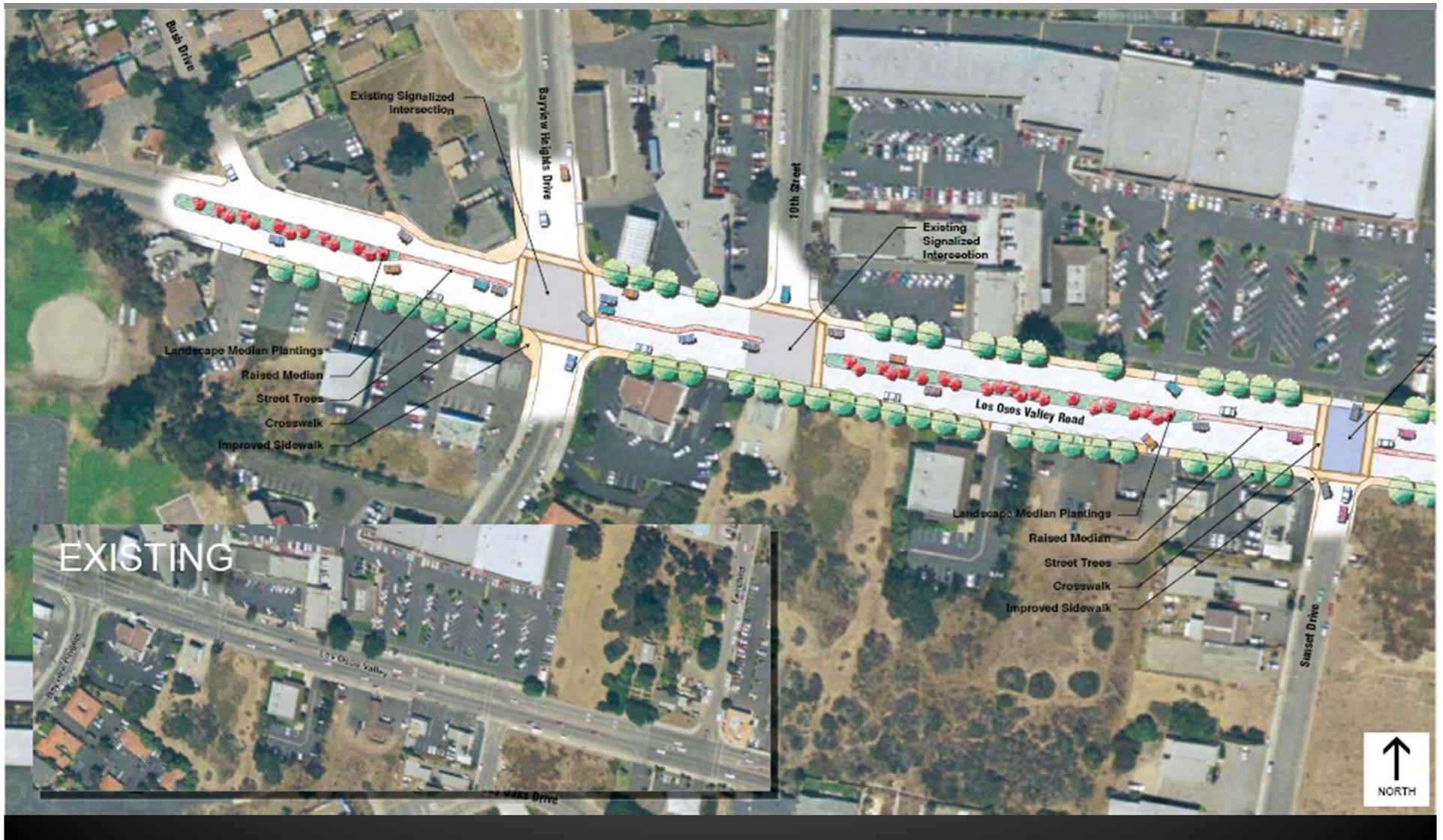


SECTION A
PROPOSED CONCEPT
MEDIAN PLANTING
LOS OSOS VALLEY ROAD

LOVR Corridor Exhibit (East)



LOVR Corridor Exhibit (West)



Cooperative Roads/Residential Betterments

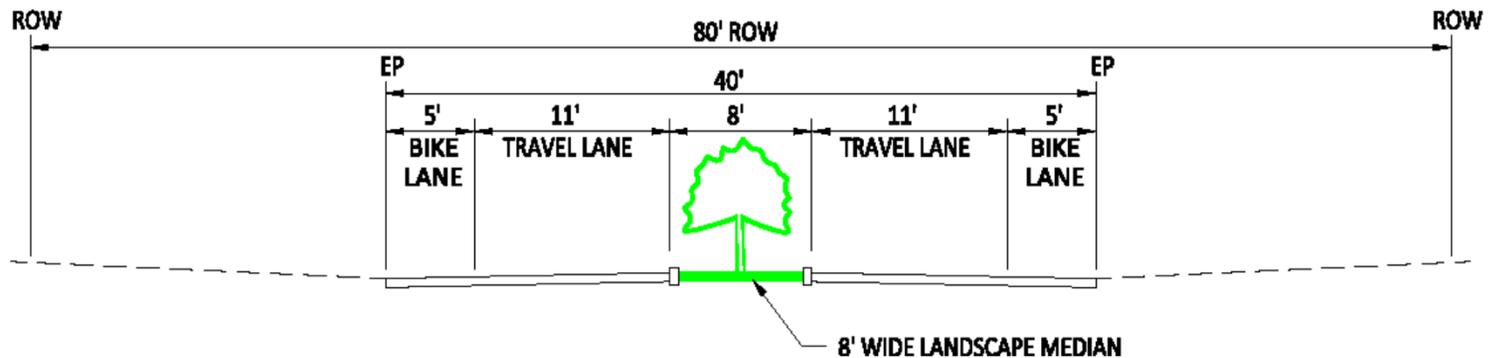
- Cooperative Roads used to bring non-maintained street up to standard and into County System
- Property Owners Decision
- Future roadway maintenance part of Road Program.
- Modified “Cooperative Road” Program could be used for constructing other betterments.
- For further information on Cooperative Roads please contact:
 - ROBERT RUIZ
 - 805-788-2114
 - rruiz@co.slo.ca.us

Residential Median Concept



Landscaped Median Concept

EL MORRO AVENUE - TYPICAL SECTION



Landscaped Median Concept with Drainage



Santa Ysabel Landscaped Median



Santa Ysabel Landscaped Median





Program Summary

- More than 75% of Los Osos roads treated
- Over 70% of drainage issues improved
- Opportunities for gateway and residential enhancements



Questions

- Questions on Roads Restoration

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- Questions on Cooperative Roads

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