NCE

Collaboration. Commitment. Confidence.℠

FEHR PEERS

2025 Pavement Rehabilitation

By Scott Wikstrom – City Engineer
Rob Rees – Fehr and Peers, Traffic Engineering
Sara Dowling – NCE, Lead Civil Engineer

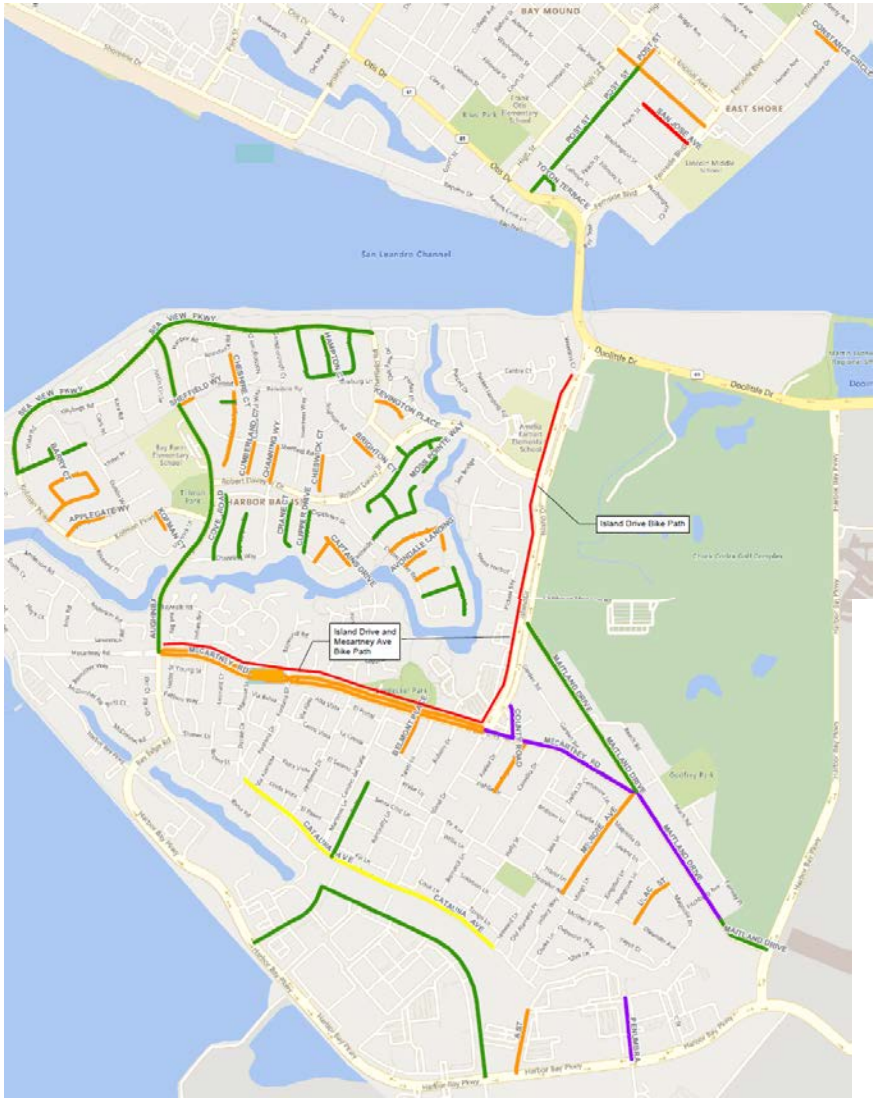
Engineering & Environmental Services

Agenda

- Overview and Objectives – Scott Wikstrom
- Traffic Safety Improvements – Rob Rees
  - Aughinbaugh Bicycle Lane Improvements at Bay Farm School
  - Mecartnery Safety Improvements
  - Mecartney/Island Intersection Improvements
  - Mecartney /Maitland/Melrose Intersection Safety Improvements
- Roundabout Design Approach – Sara Dowling

Overview and Objectives

- Eastern 1/3 of Alameda - Bay Farm
- 12 Miles of Pavement Preservation
- Mostly Slurry Seals and Cape Seals
- Optimize Network Paving Condition
- Island Dr and Mecartney Pathway
- Project Budget $4 - $5 Million



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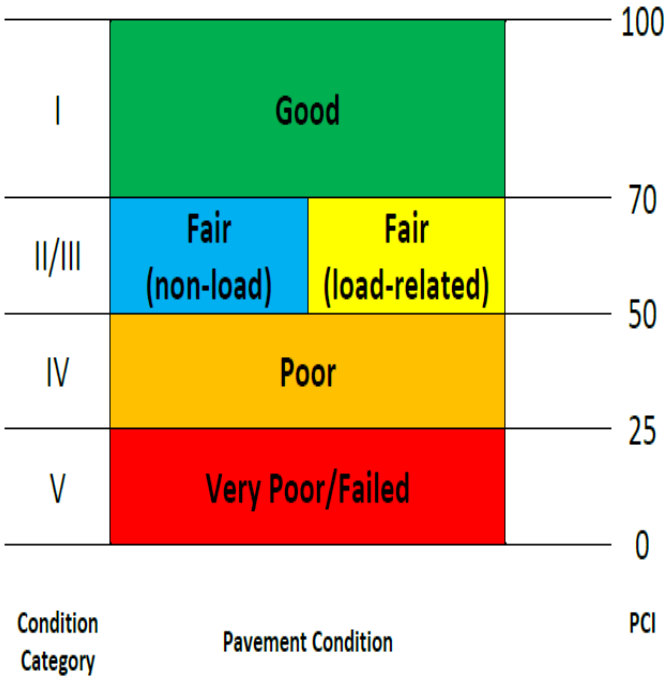
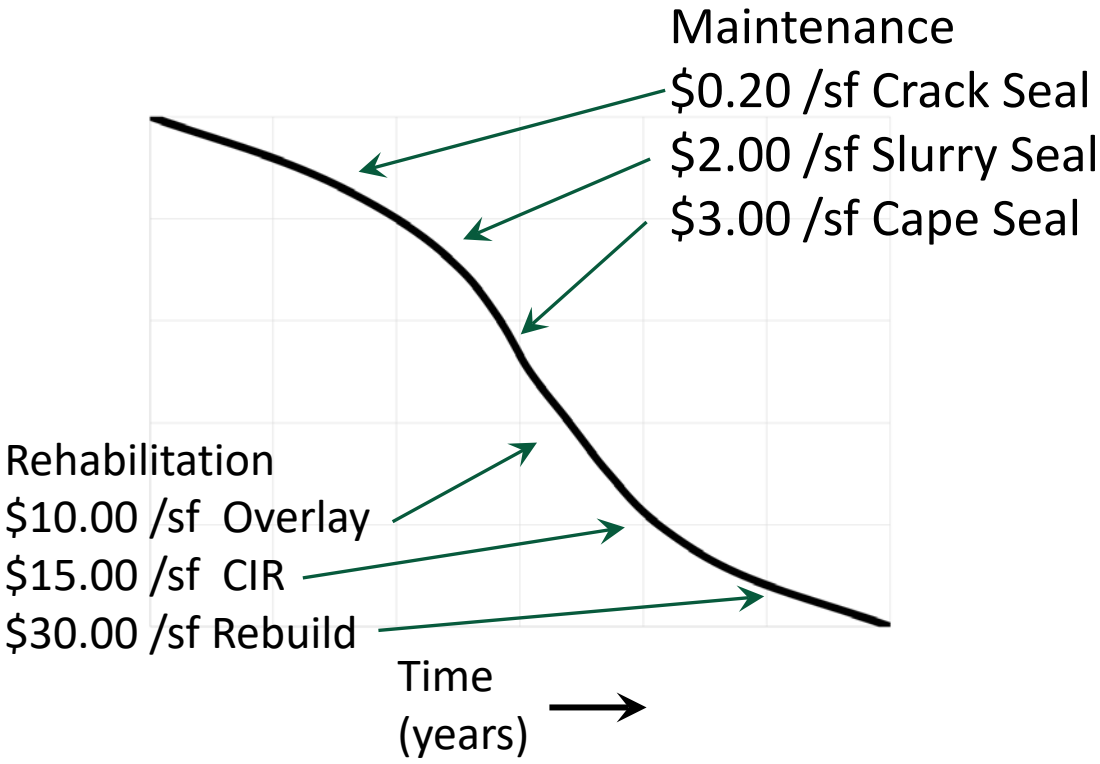
Overview and Objectives





- **Right Treatment** on the **Right Street** at the **Right Time**

Traffic Safety Improvements

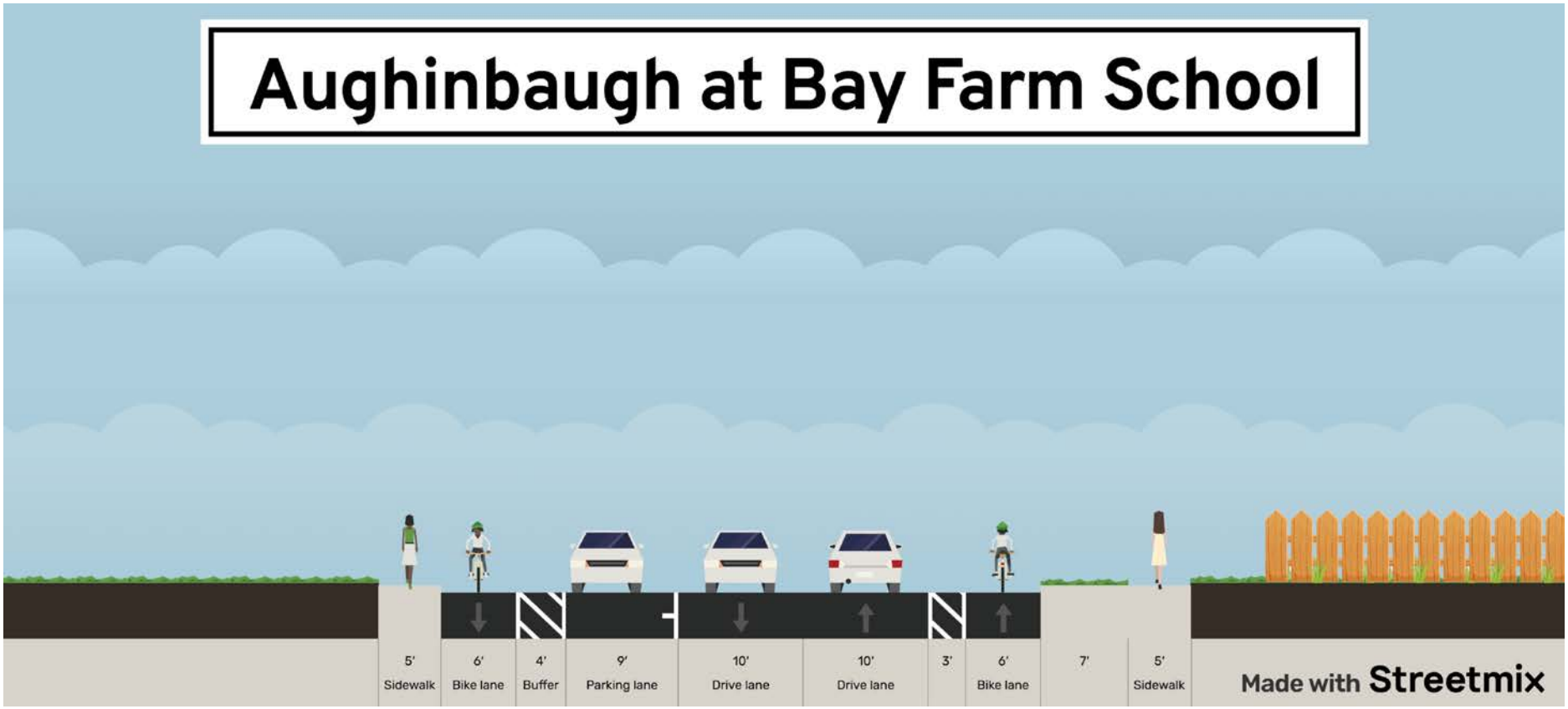
Rob Rees

Three Corridors

Aughinbaugh Existing Conditions

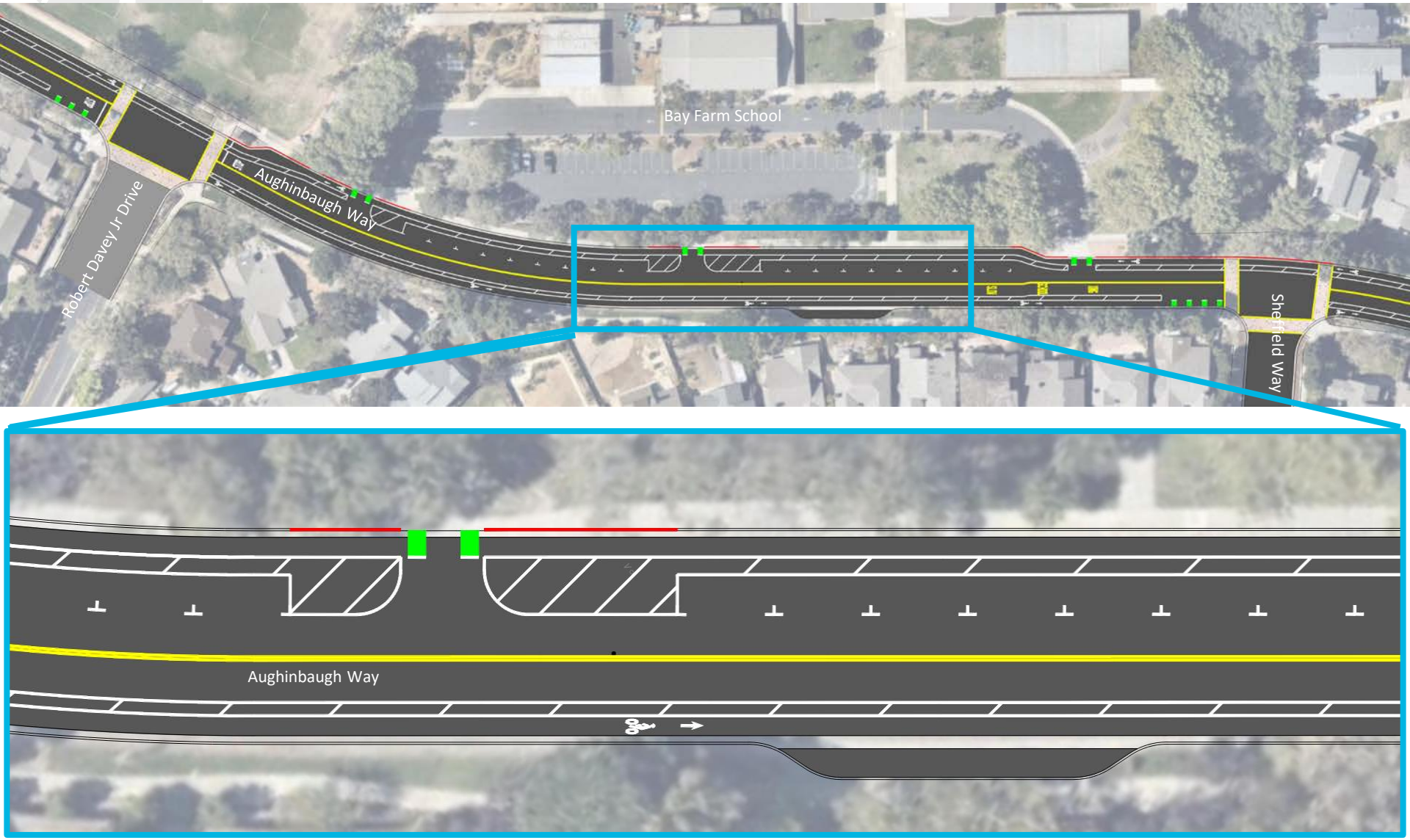
- Bikes conflict with parked cars
- Less protection to bikes adjacent to travel lanes

Aughinbaugh Bicycle Improvements



- Parking Protected Bike Lanes

Aughinbaugh Bicycle Improvements
Bay Farm School



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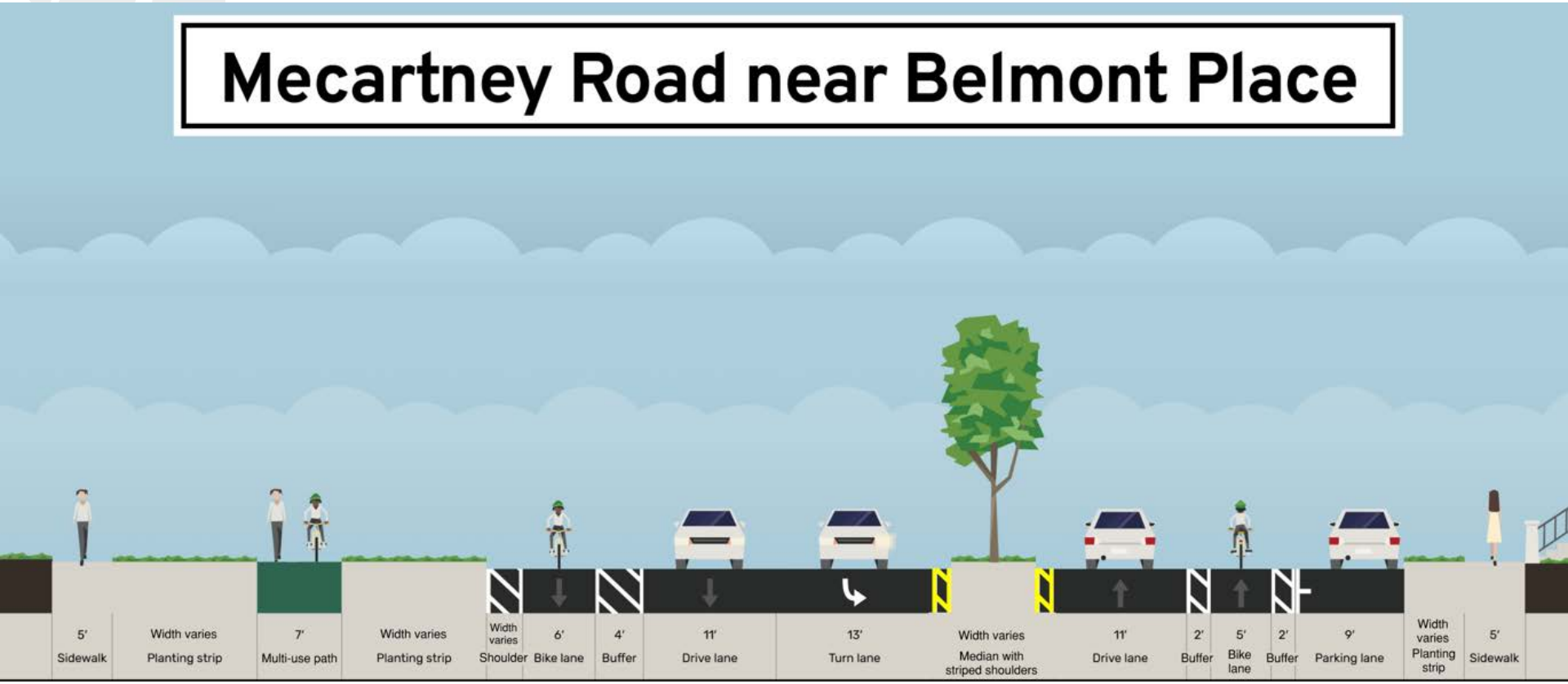
Aughinbaugh Bicycle Improvements at Koffman Parkway Intersection

Mecartney Existing Conditions

- Traffic speeds
- Overcapacity with 4 lanes
- Multi-use Pathway on North side is rough with tree roots

Mecartney Safety Improvements

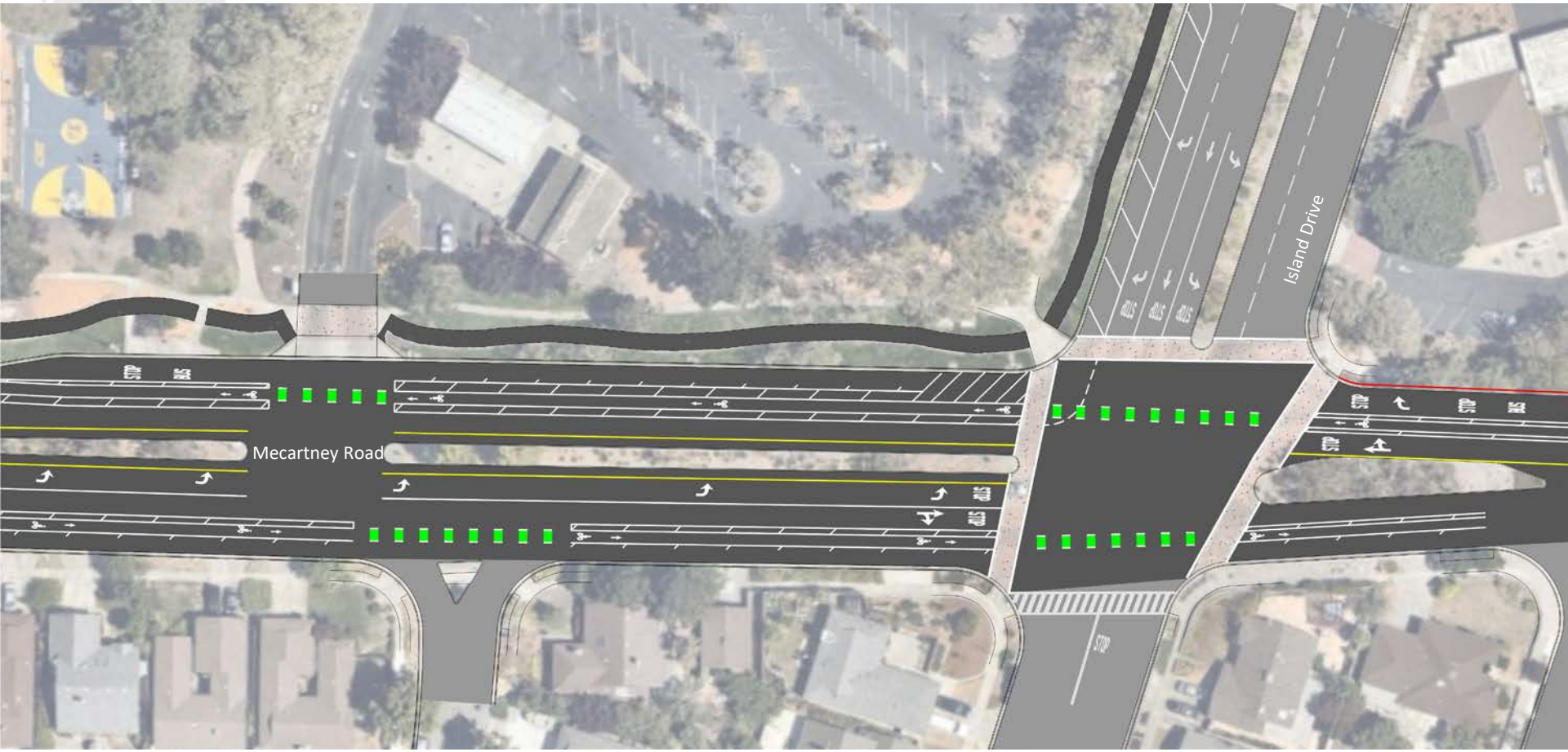


- Travel lane reduction from 4 to 2 (Island to Fontana)
- Turn lane modifications for bike and pedestrian safety
- Buffered bike lanes
- Resurfacing of multi-use pathway
- RRFBs
- Transit Stop Improvements

Mecartney/Island Existing Condition

- Confusing to motorists
- Bike conflicts

Mecartney/Island Intersection Improvements



- Lane reduction
- Removal of southbound right turn lane
- Removal of eastbound through lane

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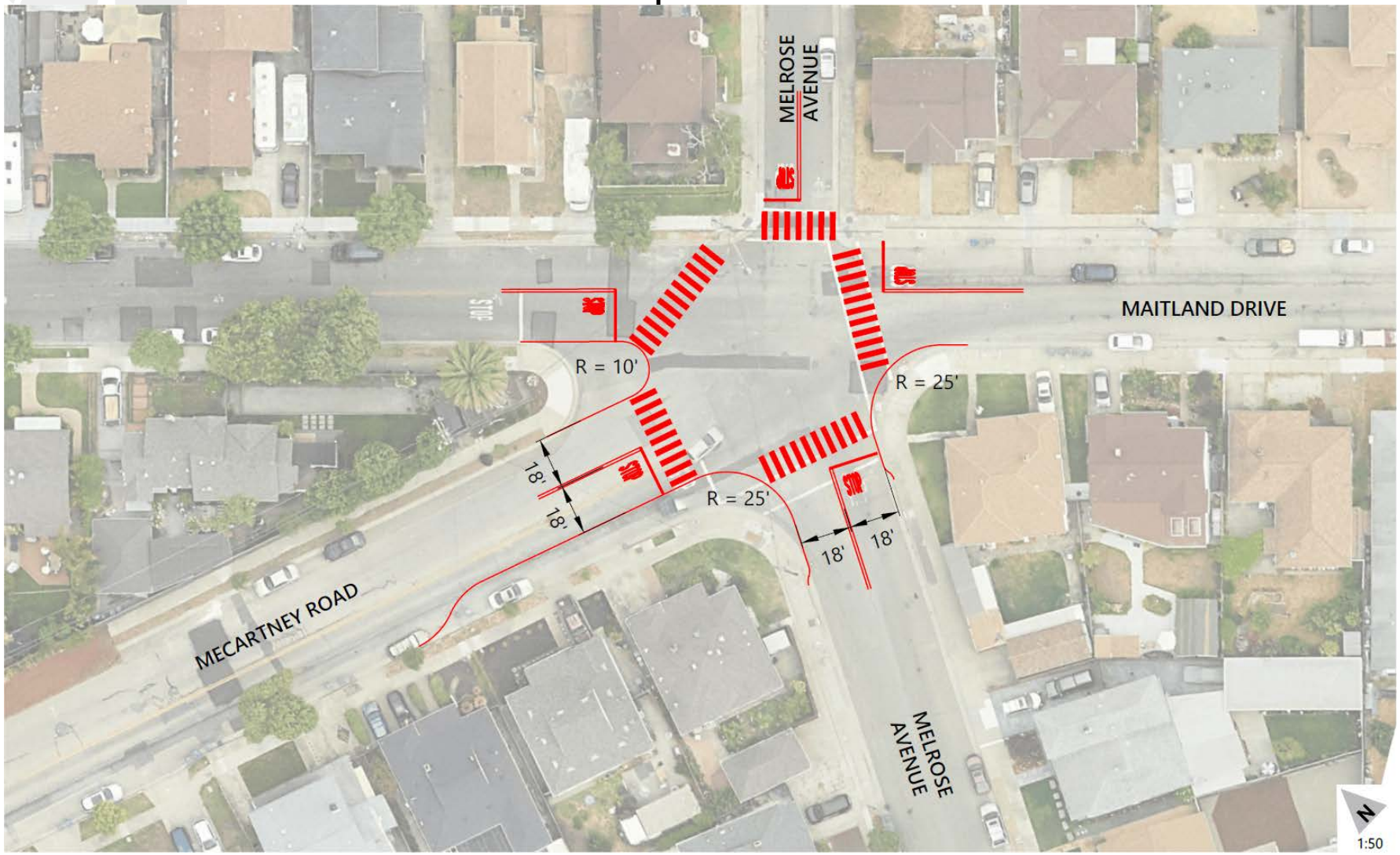
Mecartney/Maitland/Melrose Existing Conditions

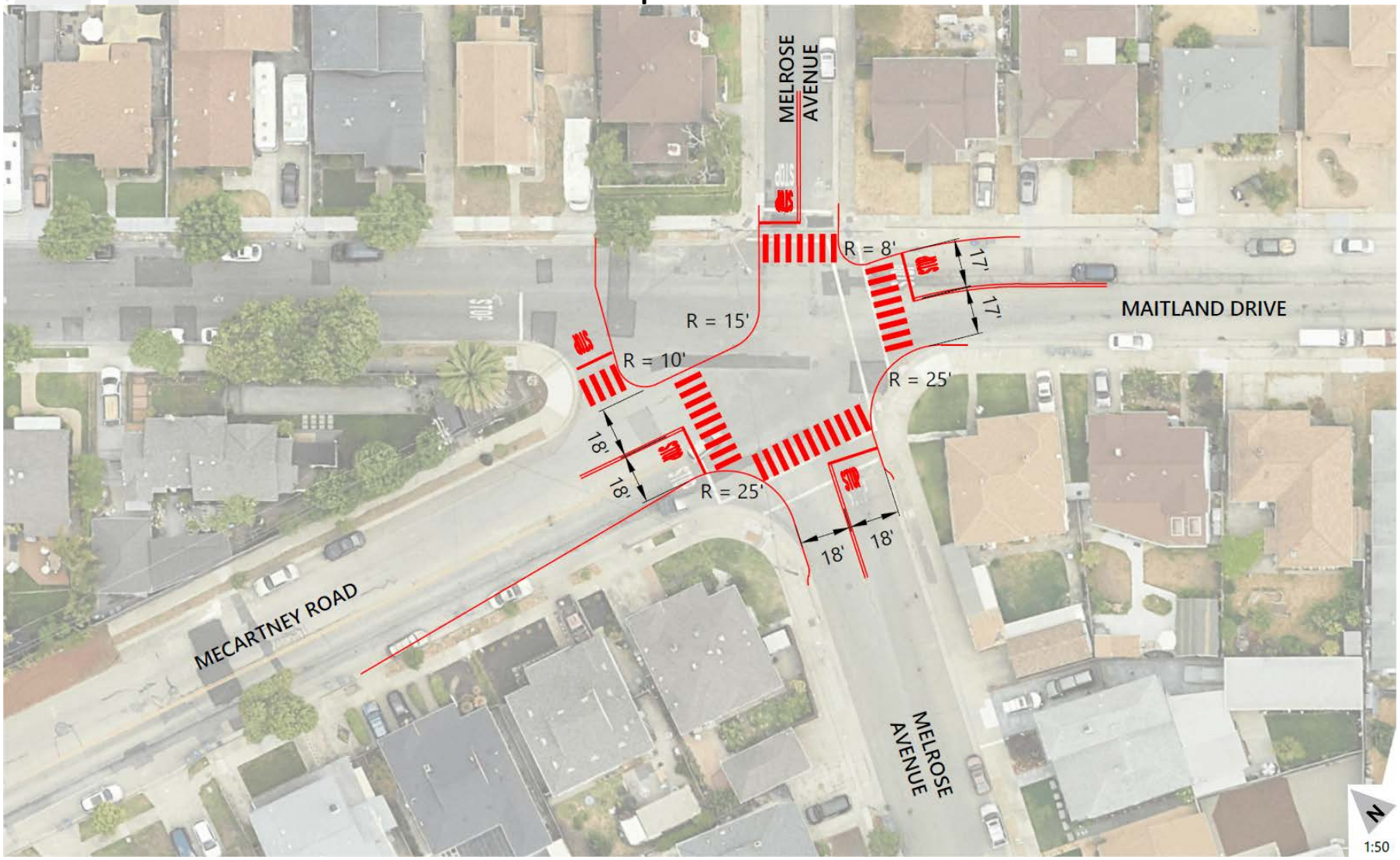
- Poor approach visibility
- Confusing 5- way intersection
- Long and inefficient pedestrian crossings

Mecartney/Maitland/Melrose Safety Improvement Option 1



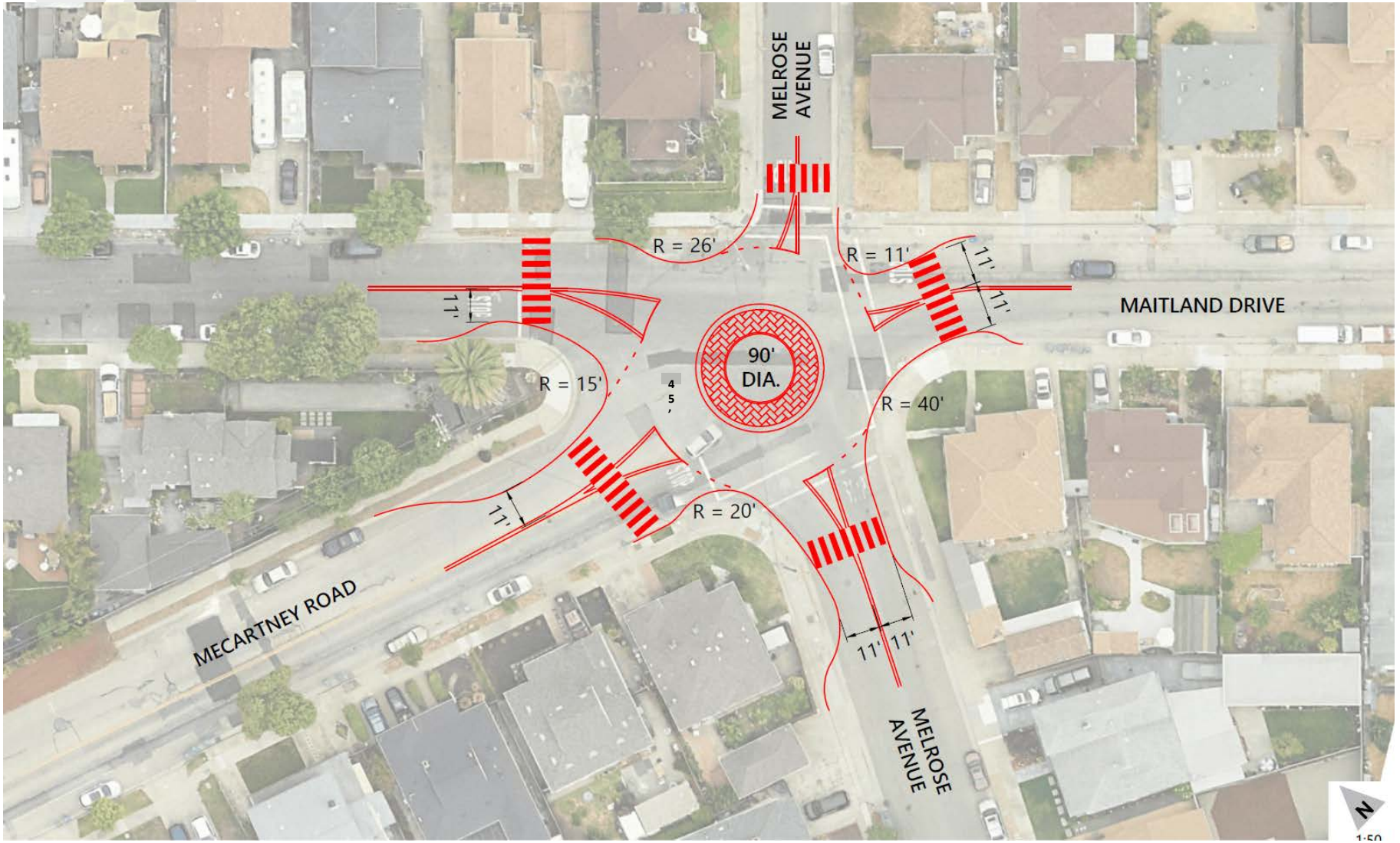
- Bulb-out of corners

Mecartney/Maitland/Melrose Safety Improvements Option 2



- Maitland right out only

Mecartney/Maitland/Melrose Safety Improvements Option 3

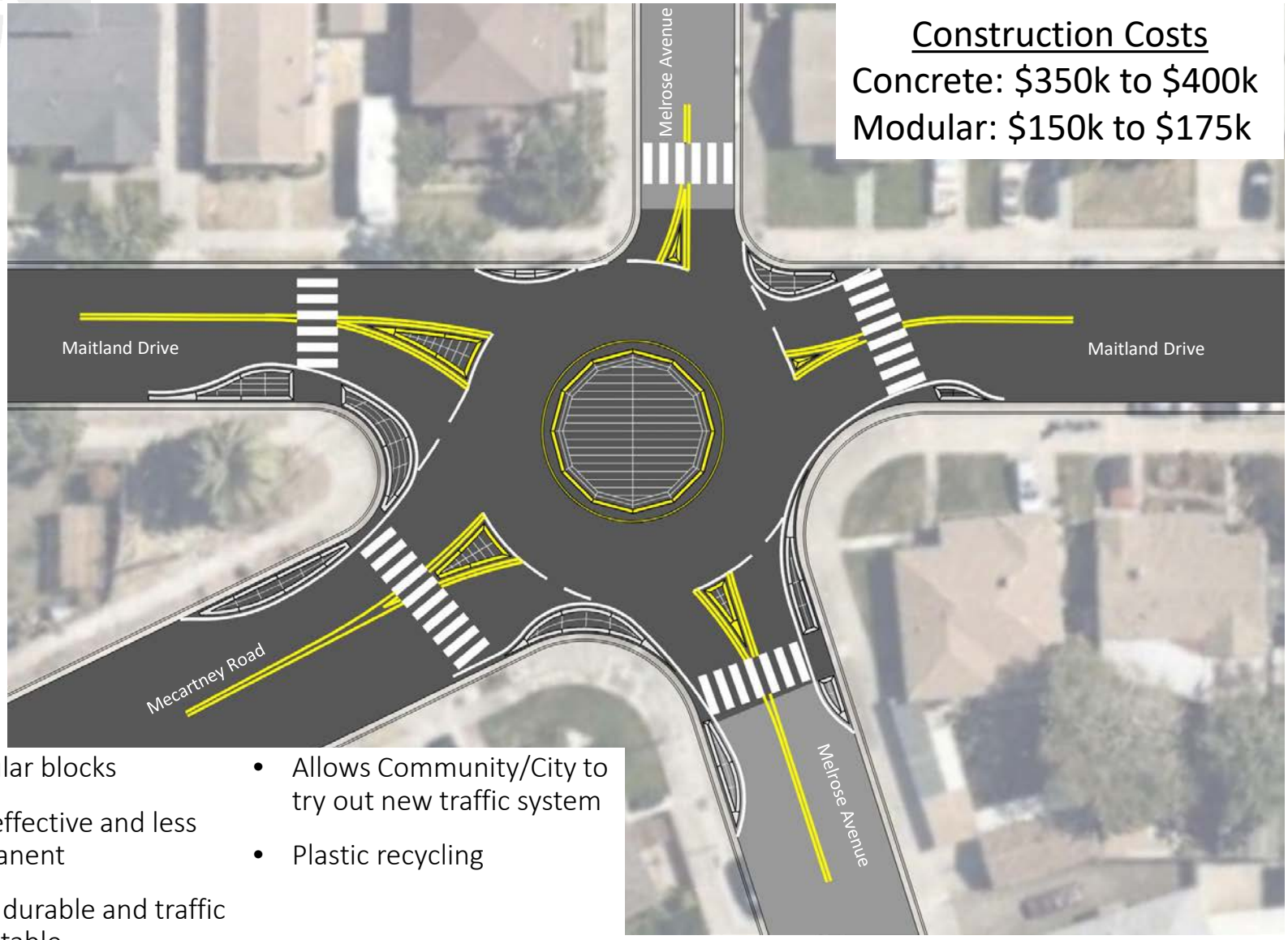


- Roundabout

Roundabout Design Approach

Sara Dowling

Roundabout Modular System



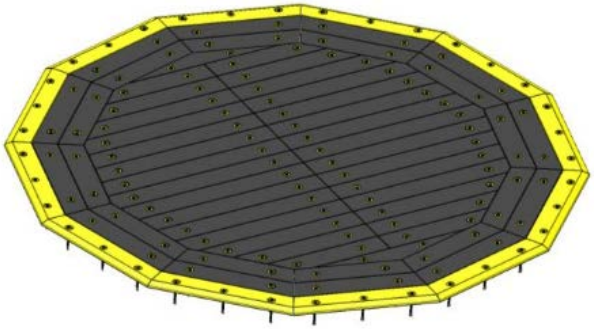
Construction Costs

Concrete: $350k to $400k

Modular: $150k to $175k

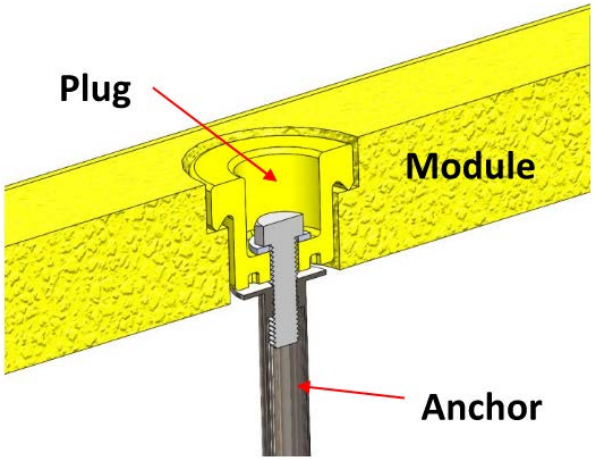
- Modular blocks
- Cost effective and less permanent
- More durable and traffic mountable
- Does not impact drainage requiring costly regrading
- Allows Community/City to try out new traffic system
- Plastic recycling

Roundabout Modular System



Center Island

Splitter Island



- Modular blocks are anchored on top of the roadway
- Modules are made from recycled plastic
- Quick to install (typically 1-12 days)

Presidio Trust Roundabout Example

- Lincoln Boulevard and Girard Road
- Modular system cost $100k
- Installation cost $35k