



# STATE ROUTE 174 SAFETY IMPROVEMENT PROJECT



District





- ❖ Scenic
- ❖ Rural
- ❖ Historically rich
- ❖ Relaxing



STATE ROUTE 174 SAFETY IMPROVEMENT PROJECT



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## Mission

Provide a safe,  
sustainable, integrated  
and efficient  
transportation system to  
enhance California's  
economy and livability

## ❖ The Problem

- Collision History

## ❖ Solutions

- A more forgiving roadway

## ❖ Impacts and Benefits

## ❖ What's Next

- Collaboration with Caltrans and the public



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# The Problem

## Collision History 2010-2013

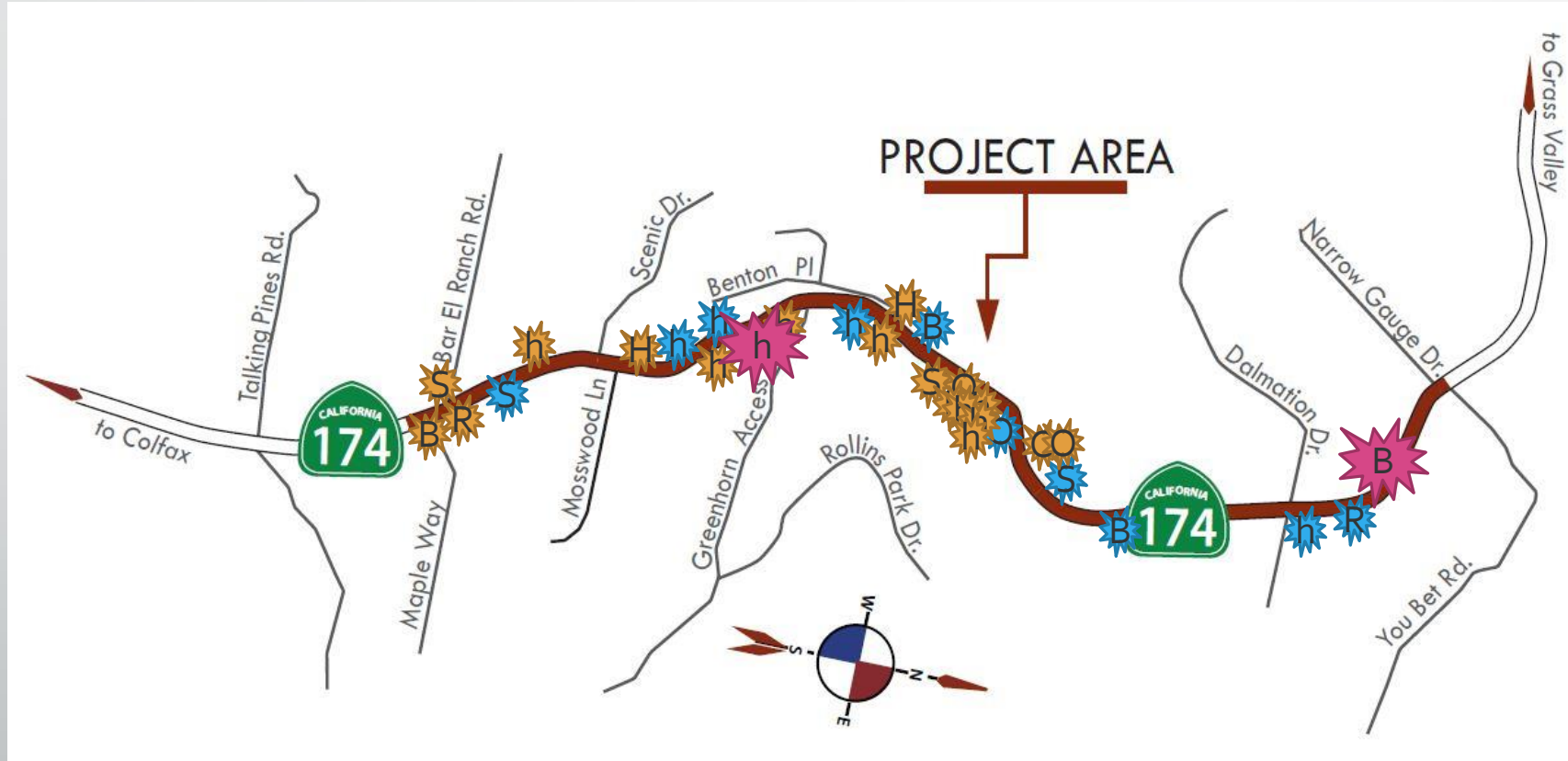
*This segment of SR 174 is experiencing a pattern of run off road collisions where drivers are losing control and leaving the roadway, where they strike a fixed object such as a tree or embankment.* - Caltrans District 3, Approved Project Report, September 6, 2016

Property Damage Only

Injury

Fatality

h - Hit Object - 14  
B - Broadside - 4  
O - Overturn - 4  
S - Sideswipe - 4  
H - Head On - 2  
R - Rear End - 2



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# The Problem

## Collision History 2010-2013

*This segment of SR 174 is experiencing a pattern of run off road collisions where drivers are losing control and leaving the roadway, where they strike a fixed object such as a tree or embankment.* - Caltrans District 3, Approved Project Report, September 6, 2016

|                               | SR 174 | Statewide Average |                             |
|-------------------------------|--------|-------------------|-----------------------------|
| Total Collision Rate          | 2.02   | 1.22              | 1.7 times Statewide Average |
| Fatal Collision Rate          | 0.135  | 0.024             | 5.6 times Statewide Average |
| Fatal + Injury Collision Rate | 1.35   | 0.56              | 2.4 times Statewide Average |



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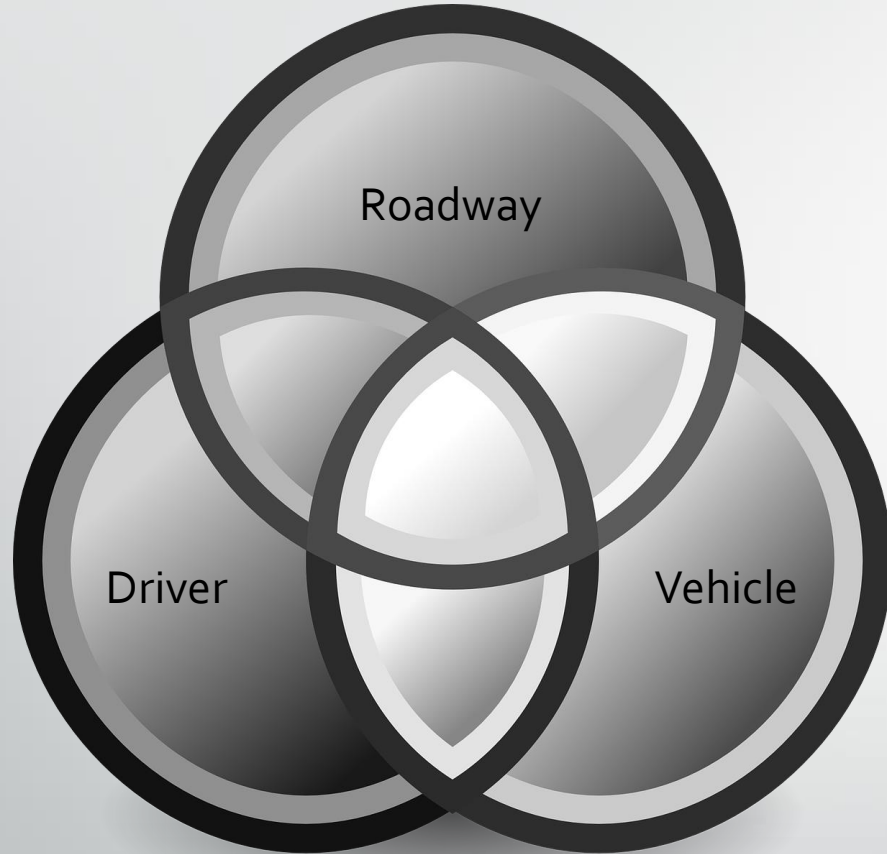


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# The Problem

## Collision History



Caltrans can only control one factor of a collision, the roadway.

This project provides proven counter measures to reduce the severity and the numbers of collisions.



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# The Problem

## Collision History

Caltrans is dedicated to making all of our roads and highways safer.

Per 23 U.S. Code § 148, every state is required to have a Highway Safety Improvement Program.

Caltrans constructs  
all documented safety projects;  
reducing collisions, injuries, and deaths on our roadways.



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# Solutions

## Caltrans Highway Design Manual - Full Standard Solution

- ❖ Standard Horizontal Curves
- ❖ Standard Vertical Curves
- ❖ 4:1 slopes
- ❖ 55 MPH
- ❖ 20' Clear Recovery Zone  
(includes 8' shoulders)
- ❖ 12' lanes
- ❖ 8' shoulders

## Highway 174 - Adaptive Solution

- ❖ Adaptive Horizontal Curves
- ❖ Adaptive Vertical Curves
- ❖ 2:1 slopes
- ❖ 45 MPH
- ❖ Up to 20' Clear Recovery Zone  
(includes 8' shoulders)
- ❖ 12' lanes
- ❖ 8' shoulders



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# Caltrans Highway Design Manual Solution

## Highway 174 Adaptive Solution



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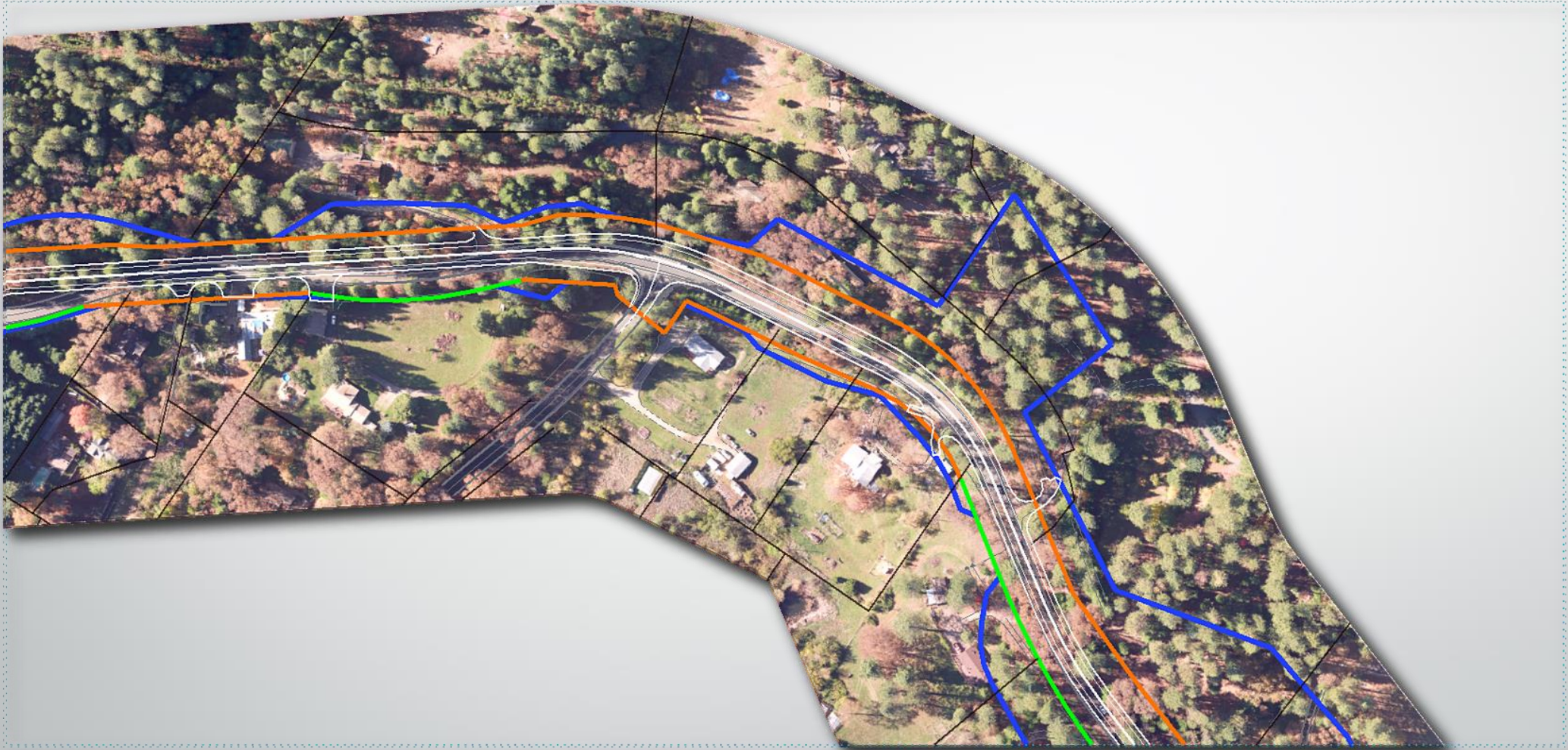


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# Caltrans Highway Design Manual Solution

## Highway 174 Adaptive Solution



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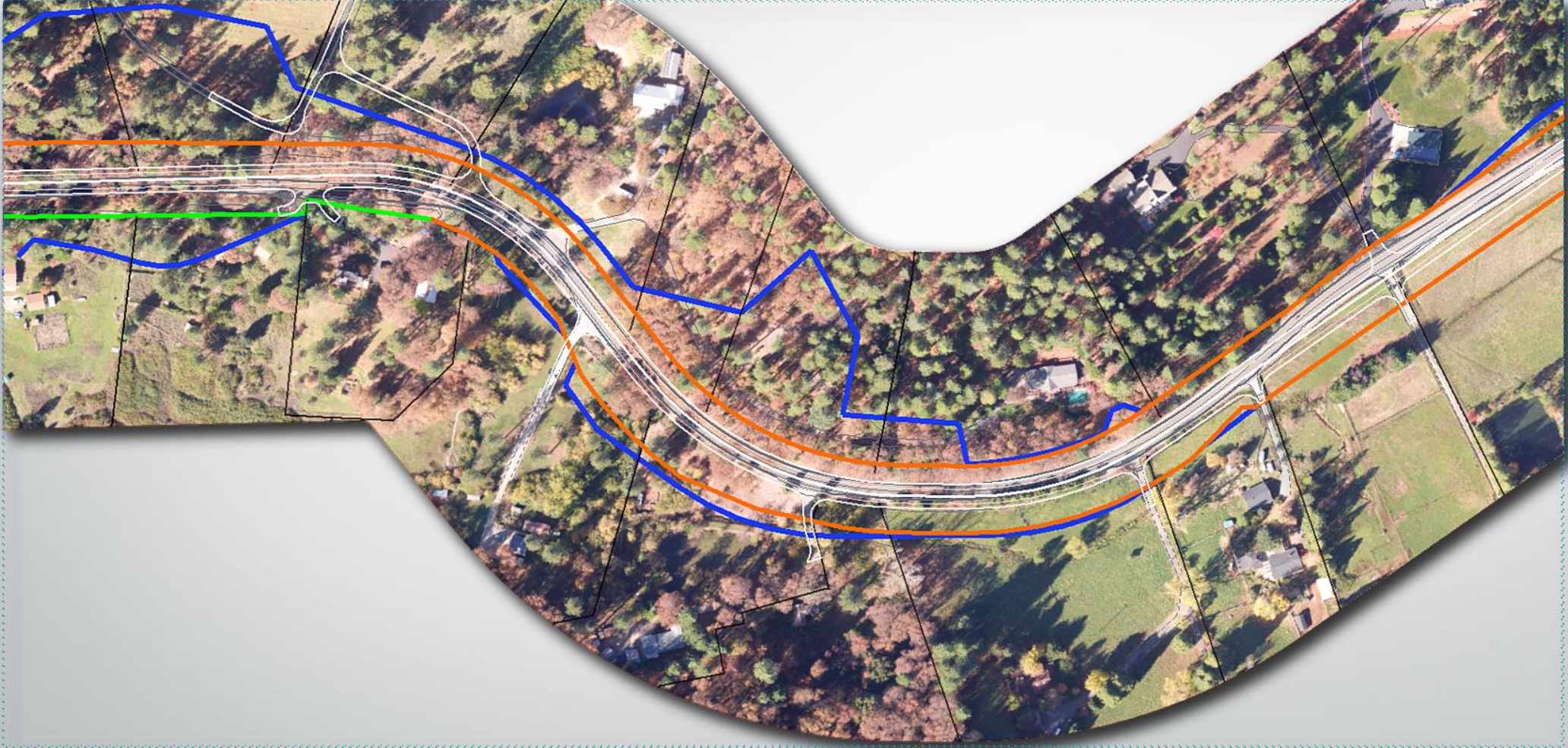


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# Caltrans Highway Design Manual Solution

## Highway 174 Adaptive Solution

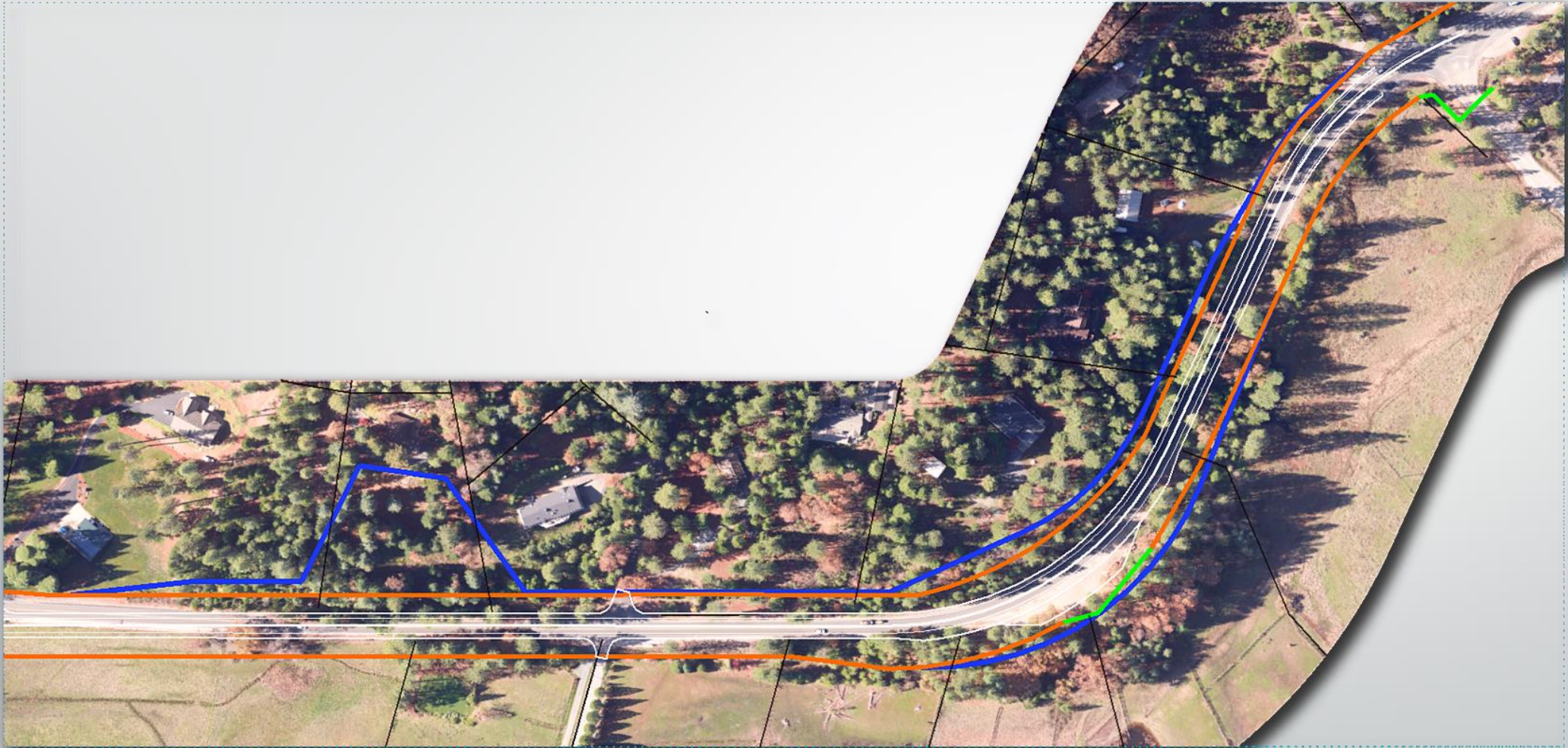


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# Caltrans Highway Design Manual Solution

## Highway 174 Adaptive Solution

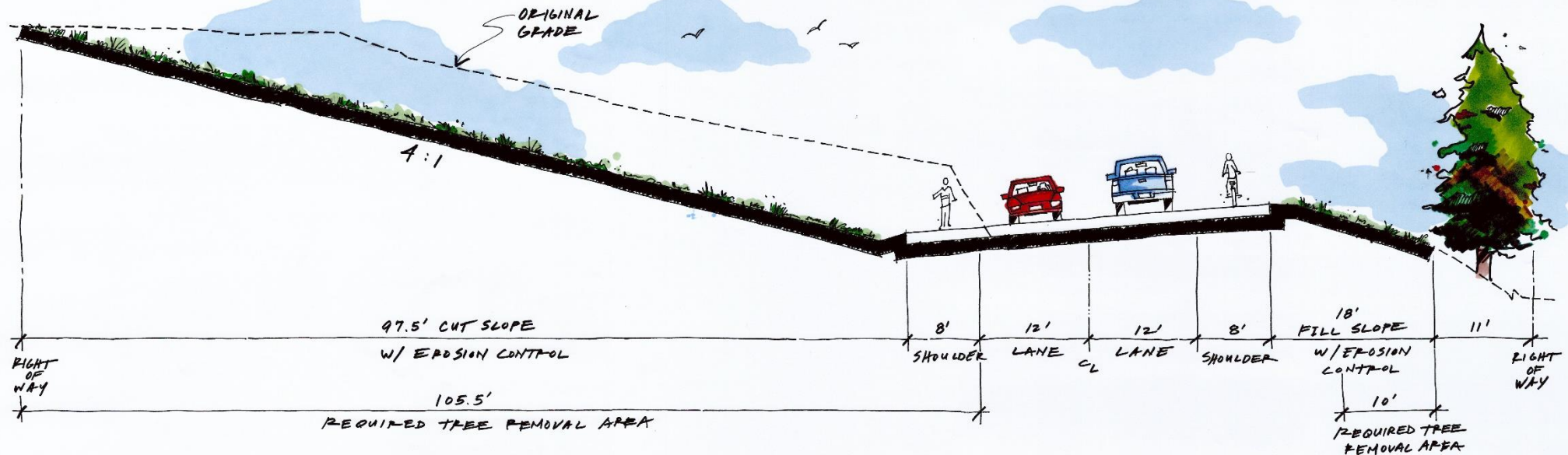


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# Impacts and Benefits

## Caltrans Highway Design Manual - Full Standard Solution

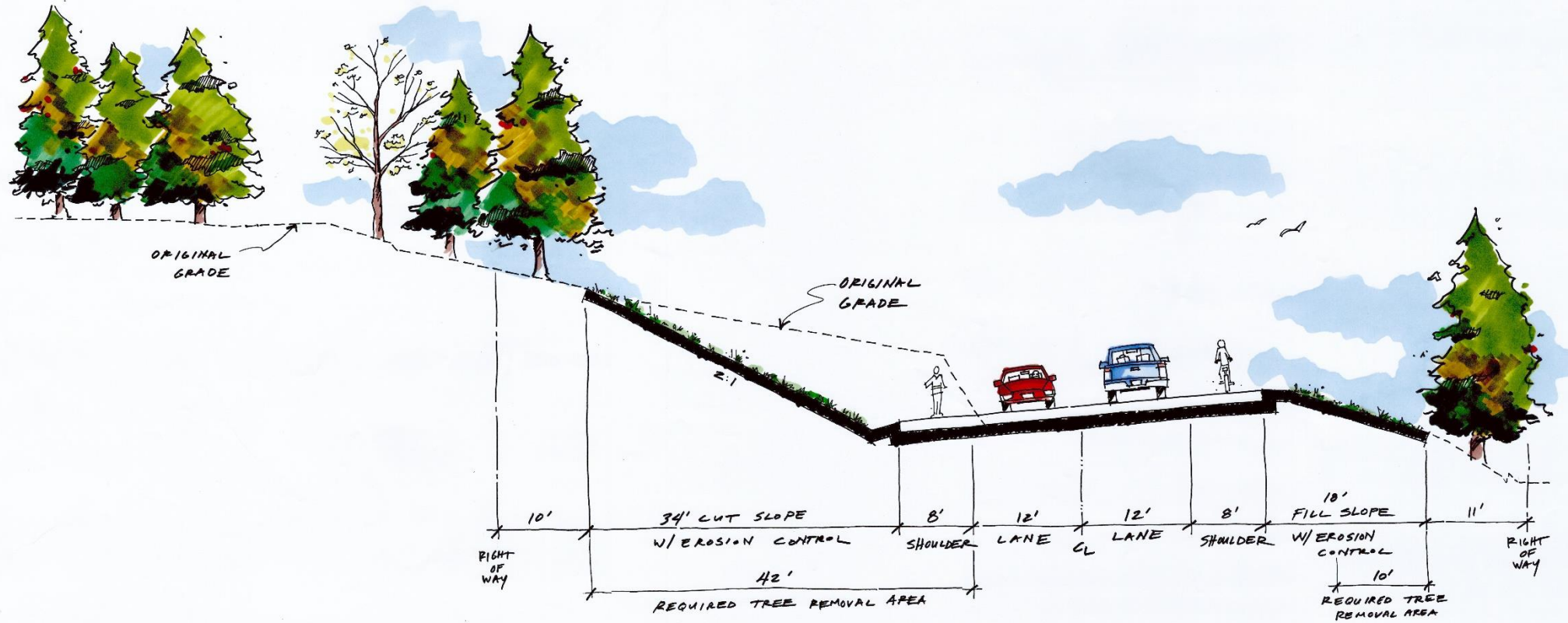


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# Impacts and Benefits

## 174 Highway - Adaptive Solution



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# Impacts and Benefits

## PROJECT IMPACTS

- ❖ Right of Way acquisition affects 49 parcels
- ❖ Approximately 1,700 trees removed
- ❖ Utility relocations



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# Impacts and Benefits

## PROJECT BENEFITS - [What does 8ft shoulders and a 20ft CRZ get you?](#)

- ❖ Pedestrian and bicyclist friendly
- ❖ More room for recovery for an errant vehicle
- ❖ More room off the roadway to avoid drunk drivers, distracted drivers, speeding drivers, etc.
- ❖ More space for emergency vehicles including enforcement vehicles
- ❖ More space for other vehicles including mail carriers, garbage trucks, disabled vehicles and school busses
- ❖ Increased visibility around curves
- ❖ Fewer collisions, less property damaged
- ❖ More importantly...

**SAVED LIVES**



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# Impacts and Benefits



Current



Adaptive



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# What's Next

- ❖ Public input during the design
- ❖ Begin meeting with affected property owners
- ❖ Construction to begin Summer 2019



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### Project Contacts:

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