

# **Sustainable Transportation Access Rating System (STARS)**

PSU Center for Transportation Studies  
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# Sustainable Transportation

What's the Problem?

What is STARS?

How Does STARS Work?

So What?

Status & Next Steps

Q & A

# What's the Problem?

Increasing congestion and delay

Projects too expensive to be funded as planned

Increasing oil dependence and climate pollution

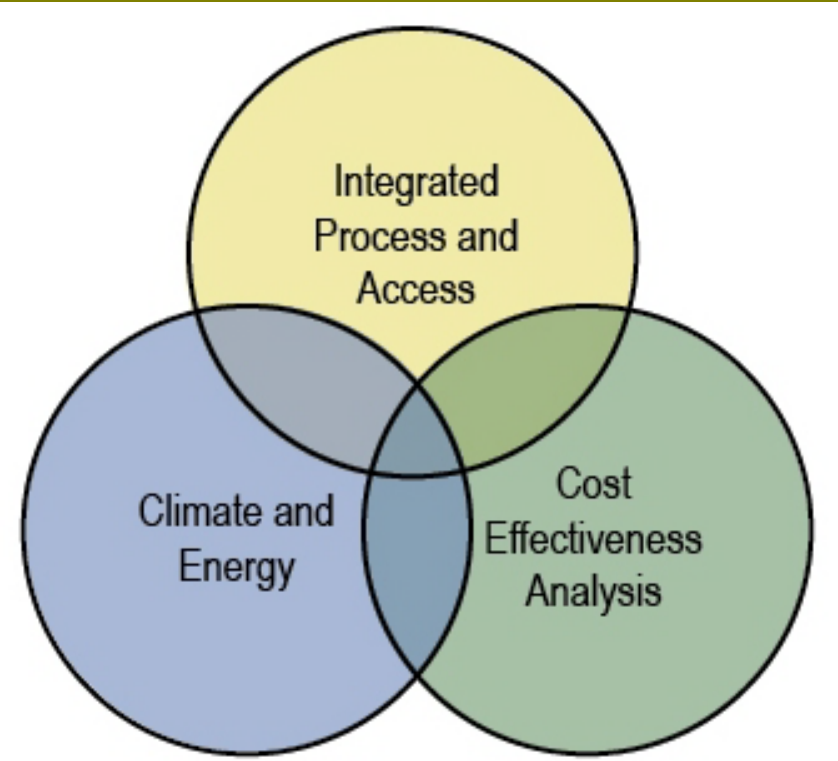
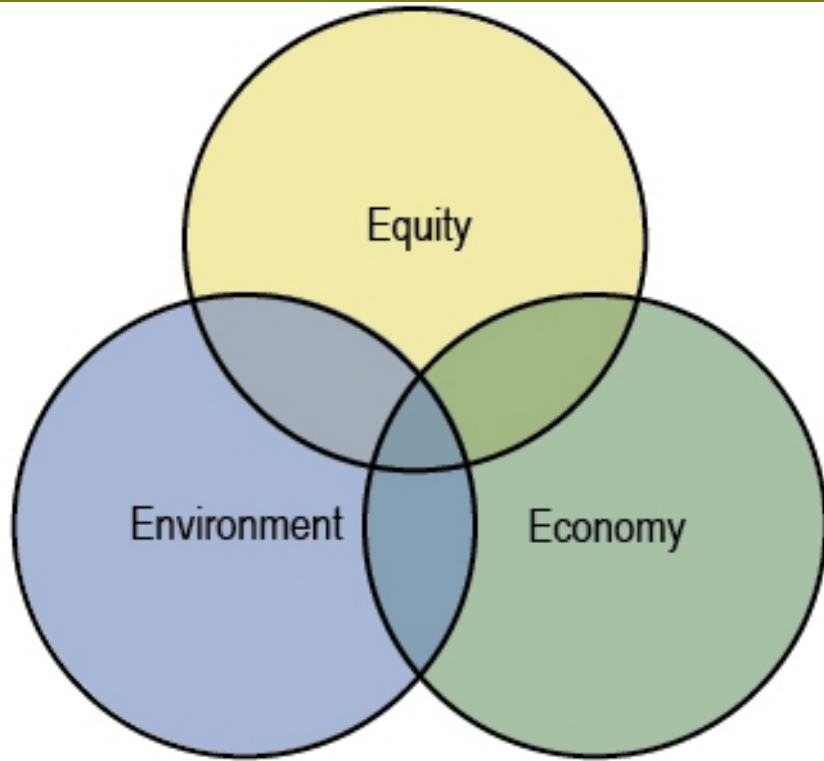
Billions of \$ flowing out of our communities for  
vehicles and petrol

Too many “modal silo” transportation projects

= Unsustainable practice



# STARS: Grounded in Sustainability



# What is STARS?

Sustainable Transportation Access Rating System

“LEED for Transportation”

Framework for designing and/or rating transportation:

Projects

Employer Programs

Plans



Voluntary, national system for public agencies & private sector consultants

# What is STARS?

Performance-based system focused on:

- Access
- Climate + Energy
- Cost Effectiveness

Multimodal: Compares performance across all modal strategies

Full life cycle (unlike other systems)

STARS-Project Under development (“Version 0.95”)



# STARS Goals

Transform transportation industry practice in order to:

- Improve access for all people
- Cut oil dependence and climate pollution
- Maximize cost effectiveness
- Move toward true sustainability



# Who Is Developing STARS?

## North American Sustainable Transportation Council

- ☆ CH2M HILL: six Portland staff
- ☆ Parsons Brinckerhoff: Portland, Seattle & San Francisco staff
- ☆ Confluence Planning: Kelly Rodgers
- ☆ ECONorthwest: Terry Moore
- ☆ Bill Creger, David Evans & Associates
- ☆ Nicole Isle, Brightworks
- ☆ Eric Hesse, TriMet
- ☆ Paul Horton, Evergreen State College
- ☆ Peter Hurley, Portland Bureau of Transportation
- ☆ Several peer reviewers (PSU, PDOT, WSDOT)

# How Does STARS Work?

Create a Multi-Disciplinary Team  
Sustainability Workshop  
Goals: Access, Climate + Energy, \$  
Evaluate Strategies  
Select Alternatives  
Implement  
Monitor Performance

# Sample Project Scorecard

STARS Project Version 0.6				
Project Name: _____				
Contact: _____				
Yes	?	No		
			<b>Project Totals</b>	
			One Star _- points, Two Star _- points, Three Star _- points, Four Star _- points	
Yes	?	No		
			<b>Integrative Process</b>	<b>Project Phase(s)</b>
			IP 1	Comprehensive Project Goals & Objectives (purpose & need)
			IP 2	Multi-Discipline Project Team
			IP 3	Public Stakeholder Engagement
Yes	?	No		
			<b>Access</b>	
			A 1	Establish Mode Split Goal
			A 2	Evaluate Expanded TDM Strategies
			A 3	Evaluate Expanded TSM Strategies
			A 4	Evaluate Expanded Transportation Options
			A 5	Evaluate Expanded Land Use Strategies
			A 6	Implement Expanded Options, TDM, TSM and Land Use Strategies
			A 7	Access Performance

# Credit Structure

Five “required” credits

24 optional credits

Not all credits applicable for a project

Credits accrued to earn certification

Certification earned at:

- Completion of evaluation
- Implementation
- Performance: Operations

# Status & Next Steps

STARS Pilot Project Application Manual  
in final editing

First pilot project: Santa Cruz Highway 1

Seeking additional pilot projects

Ongoing credit research

Complete credit development

Develop certification & training

Fall 2011 national roll-out

# Why Use STARS?

Develop a project that achieves economic, environmental and social equity goals

Increase the funding competitiveness of a project

Boost the local economy

Increase public engagement & support

Lower project costs

# Economic Benefits

24.3 Median commute miles per day for  
33 most populous US metro areas

20.3 Average daily miles for  
Portland area commute

2.9 B Miles saved compared  
to median

Transportation costs saved  
compared to median

\$1.1B

\$15 per hour Estimated value of time  
spent commuting

100 million hours less  
traveled per year saves

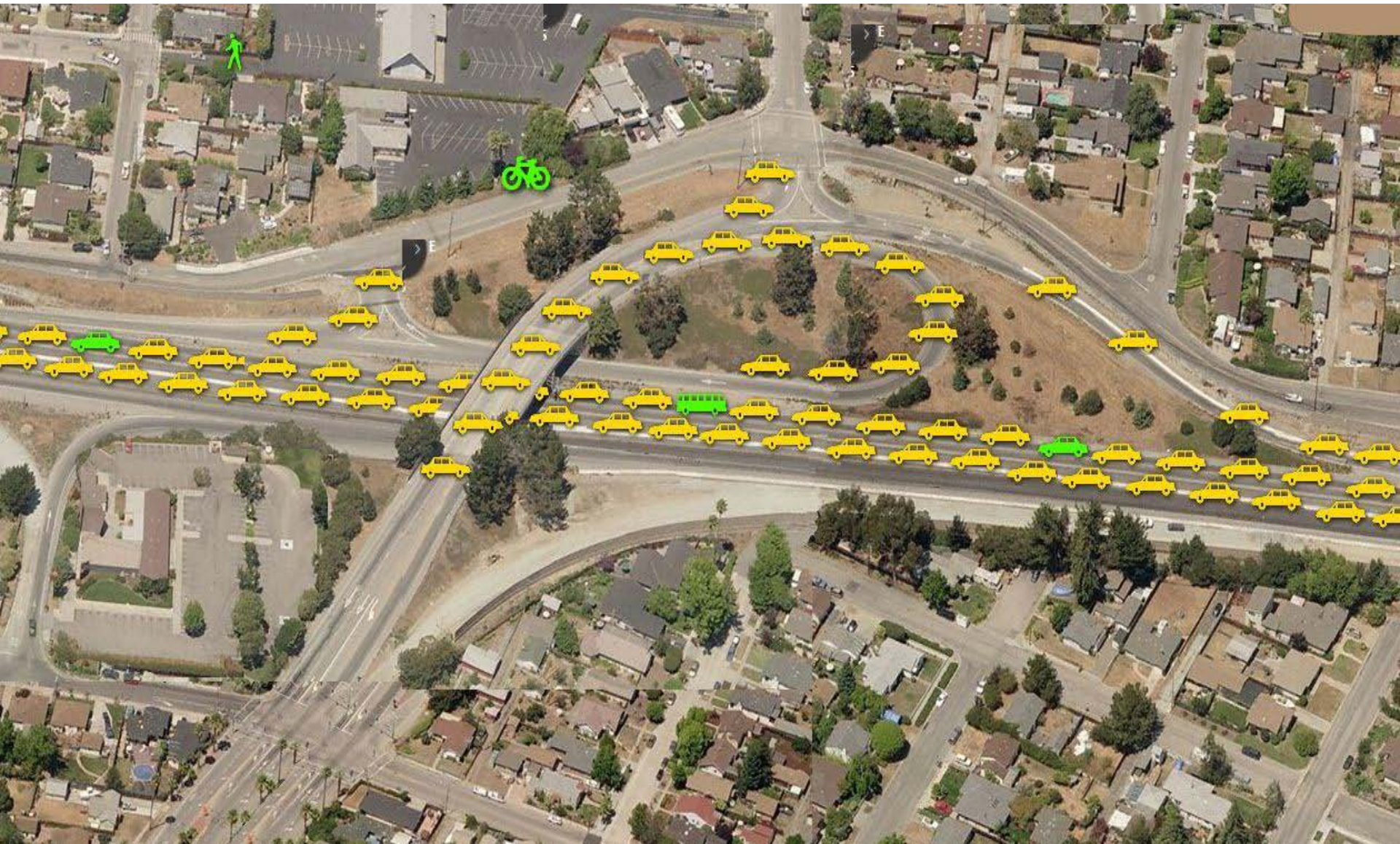
\$1.5B

Total savings  
per year

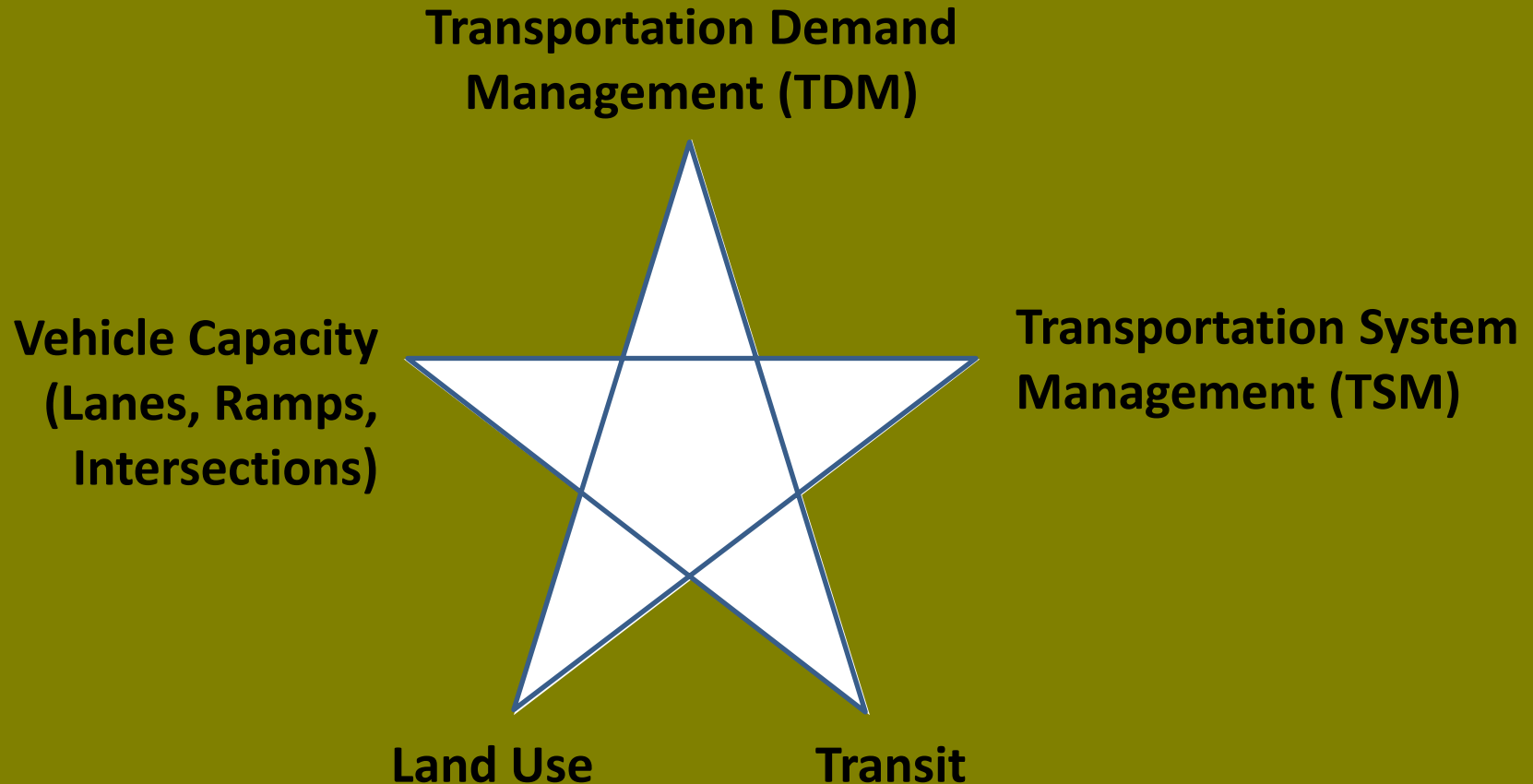
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# So What?

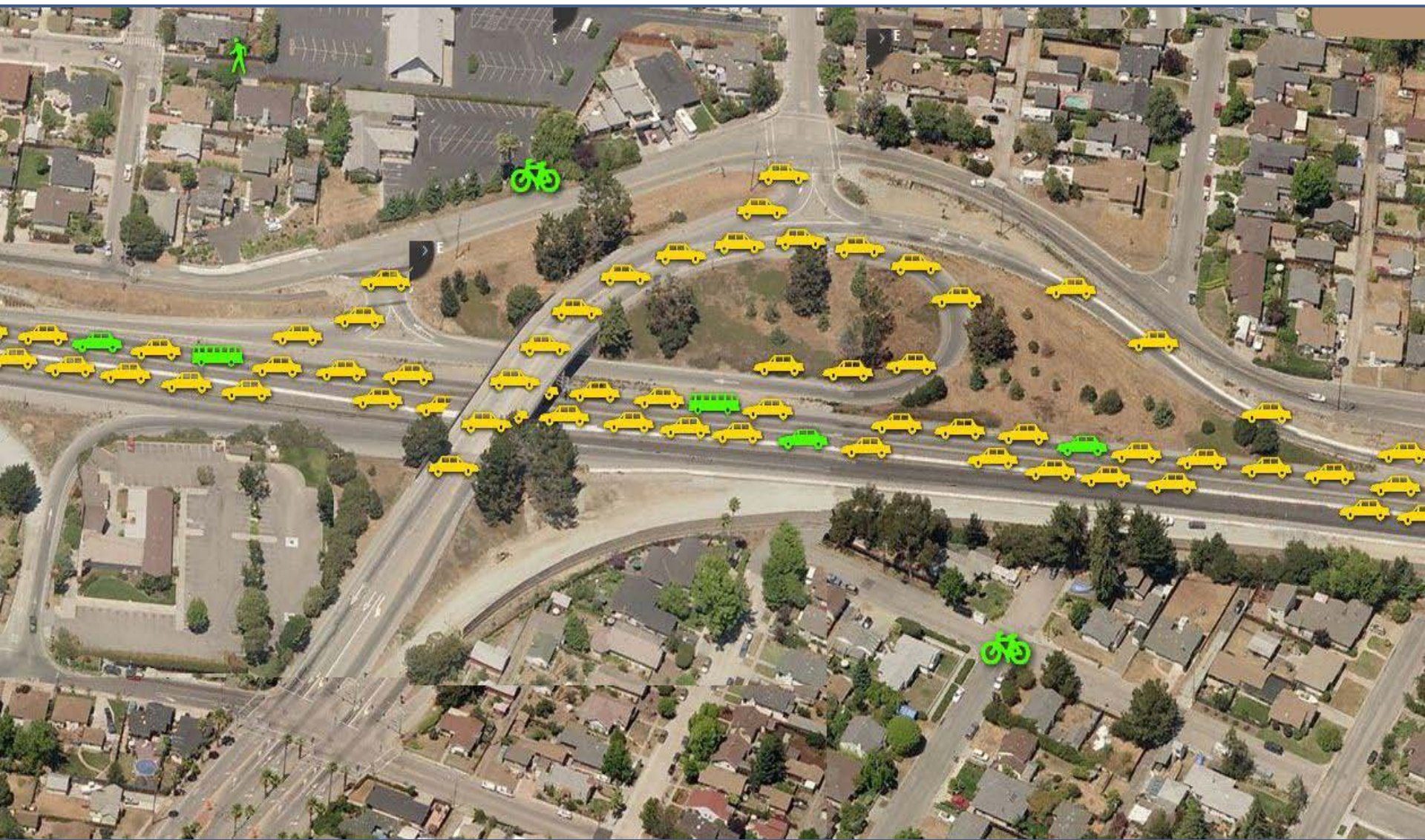


# Integrates Strategies to Achieve Goals



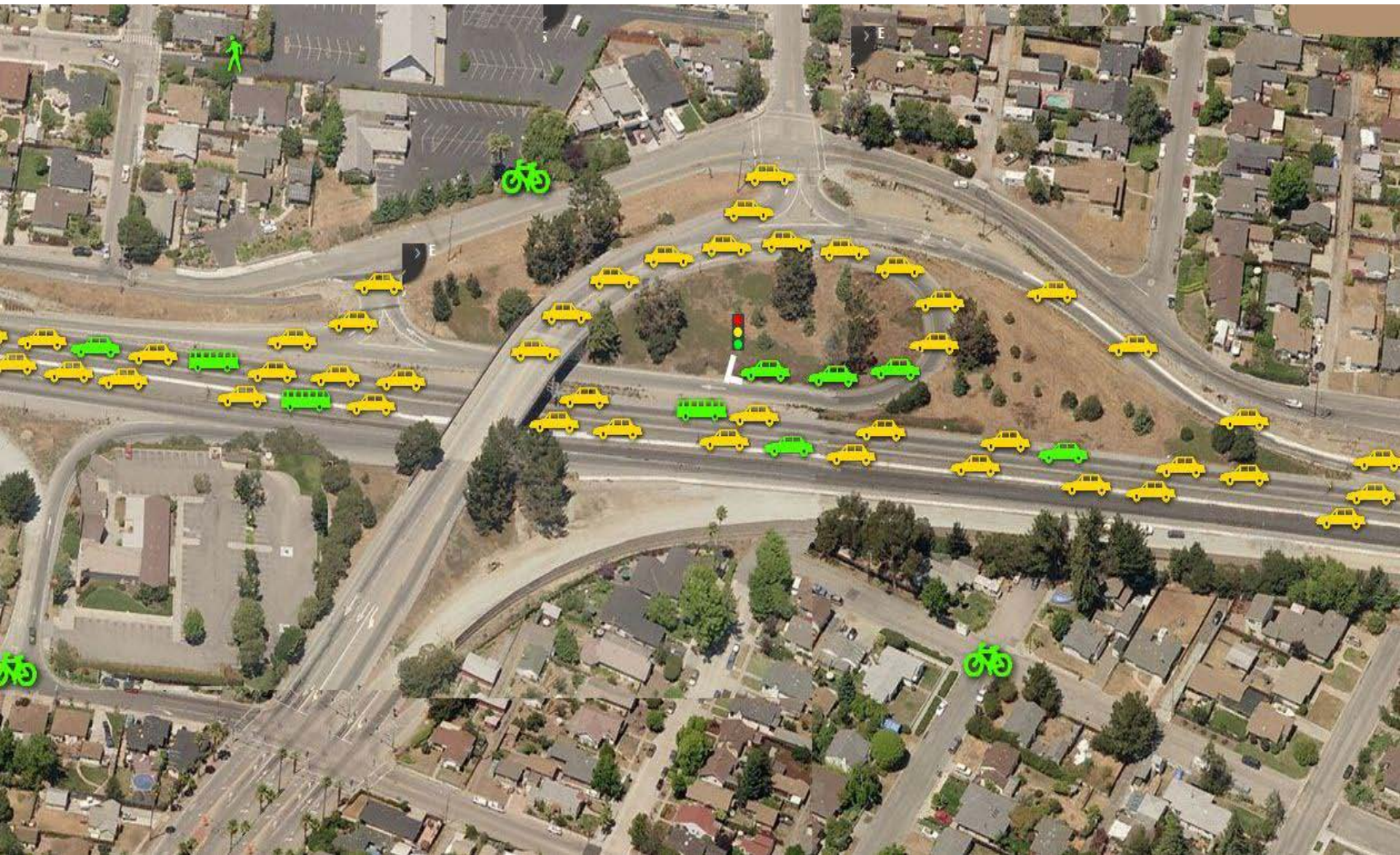


# With Travel Demand Management



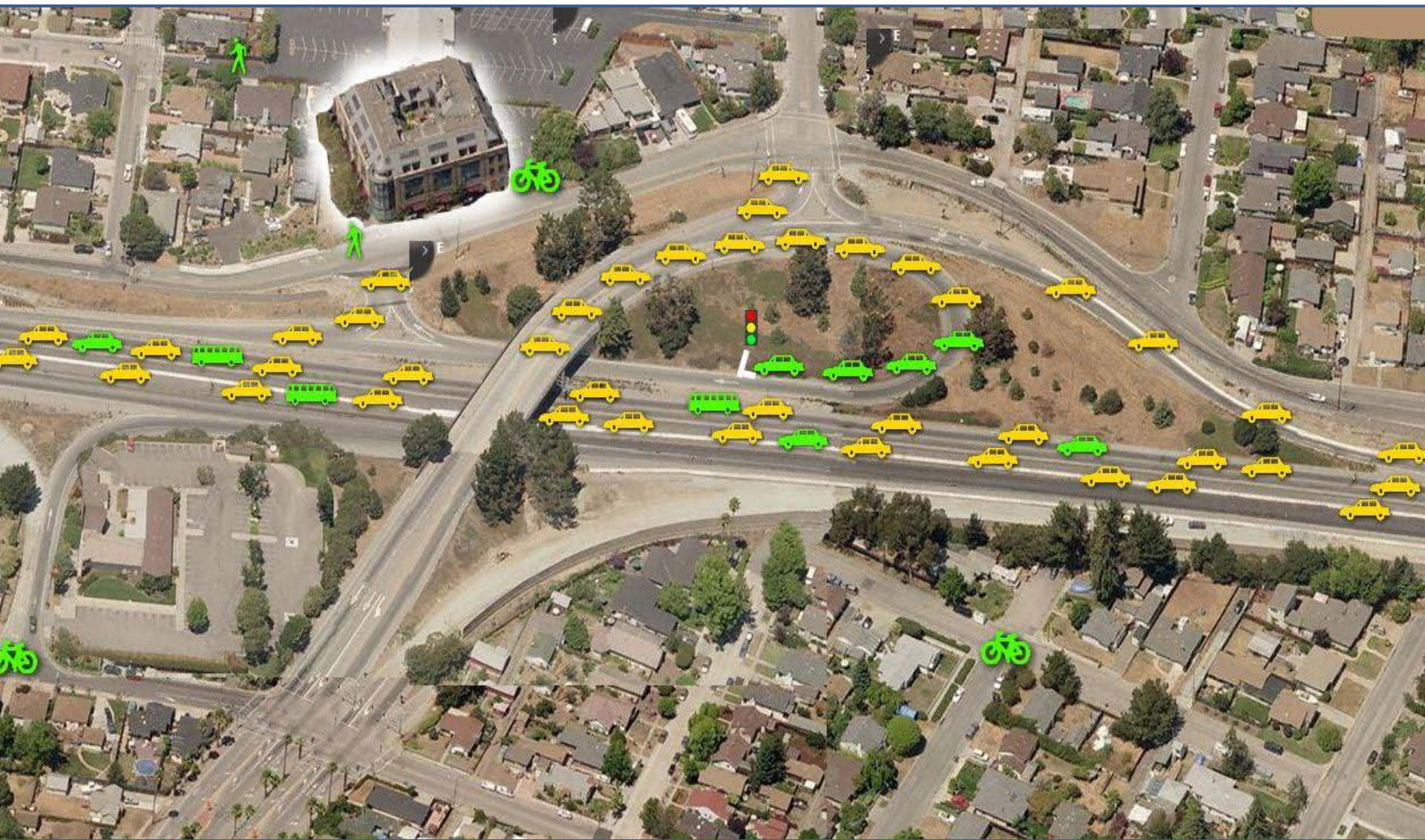


# With TDM + TSM



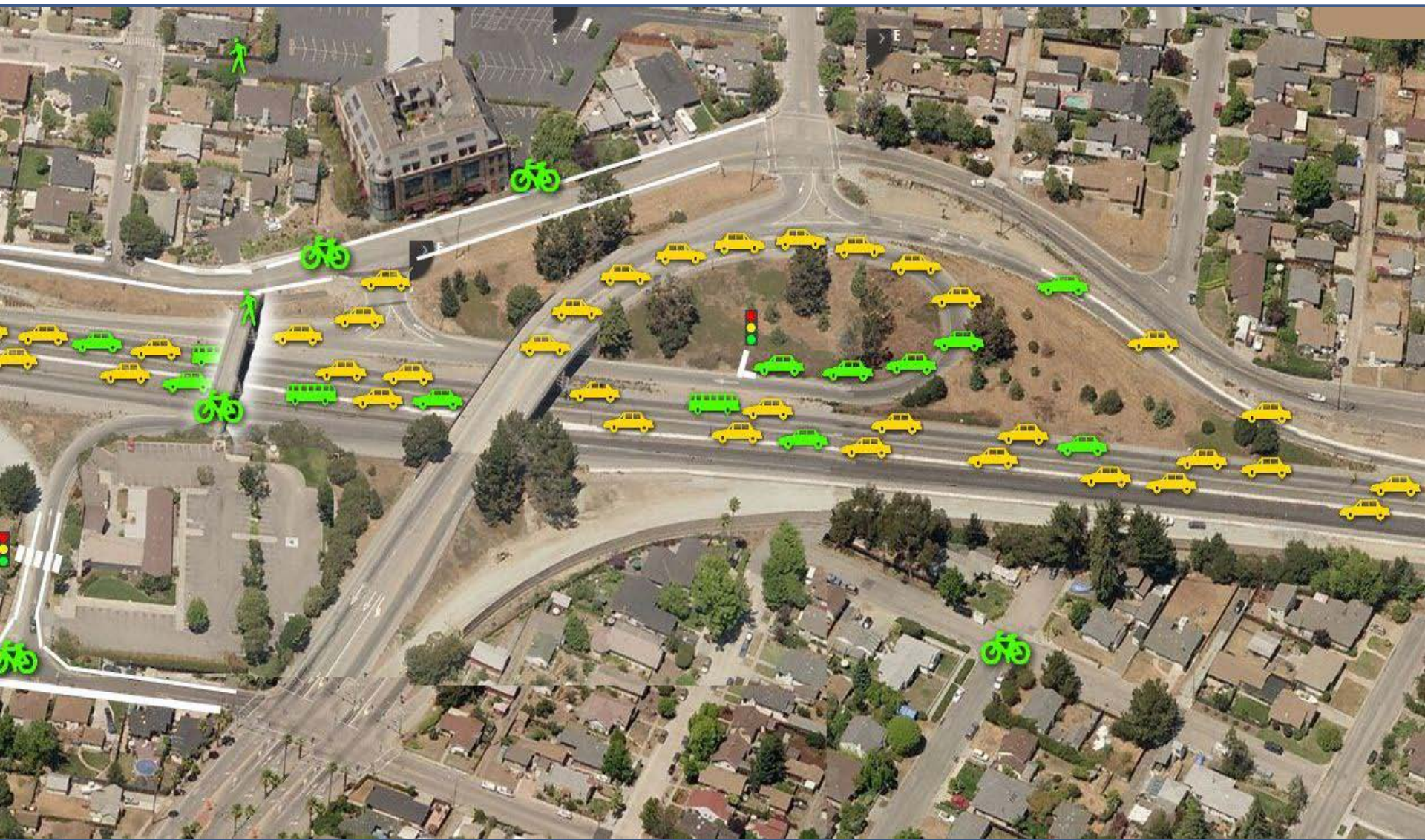


# TDM + TSM + Land Use



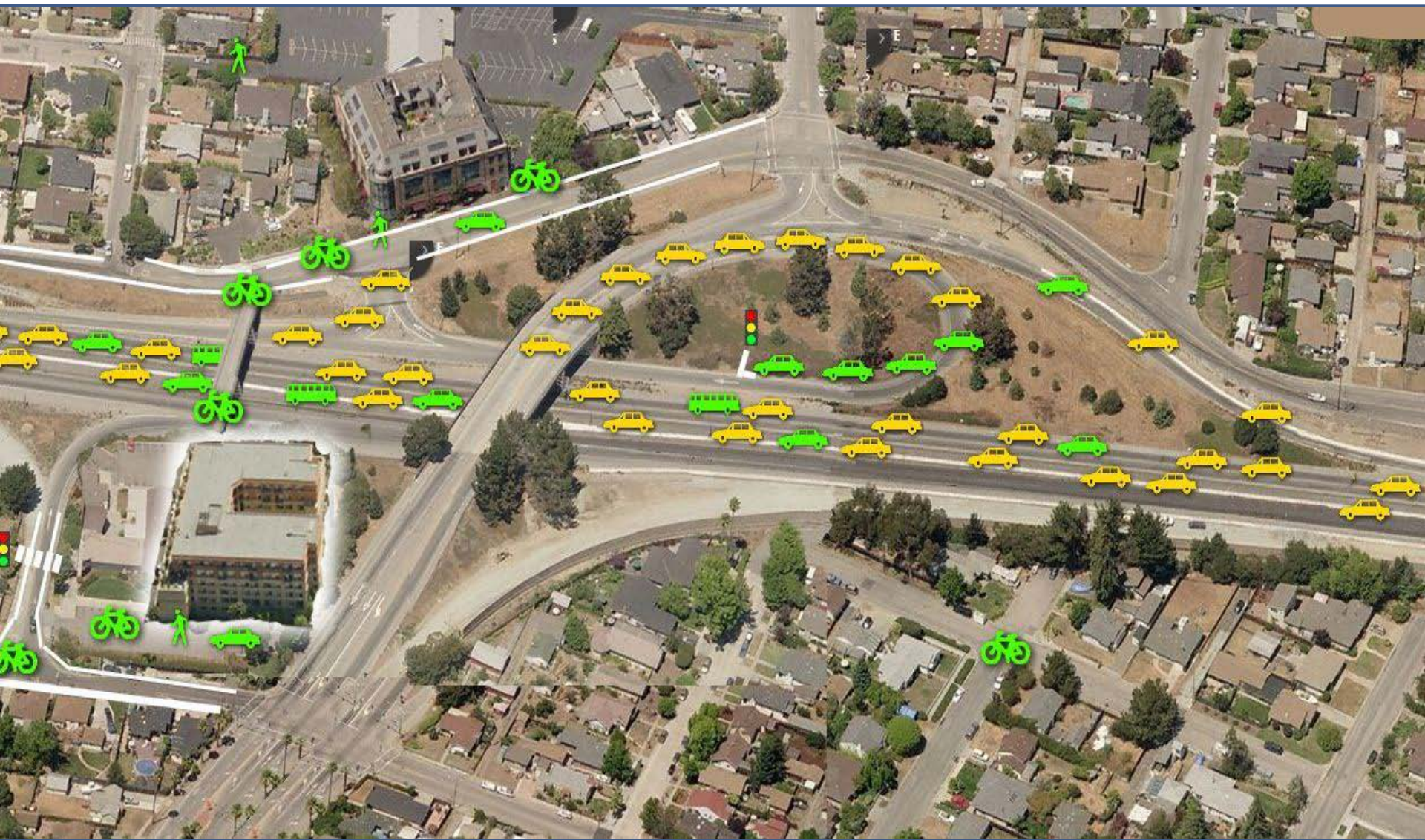


# TDM + TSM + LU + Bike/Ped



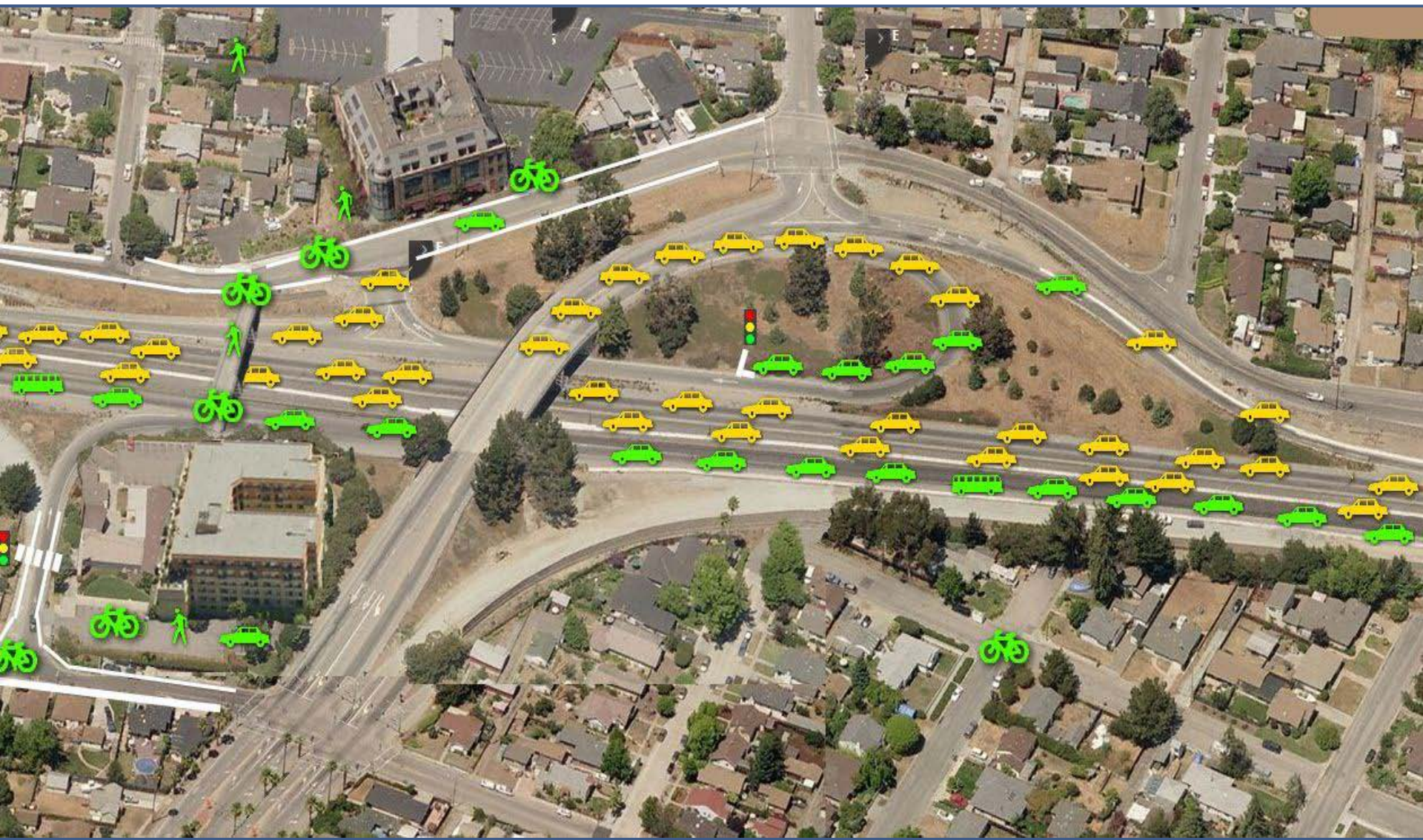


# TDM + TSM + LU + Bike/Ped



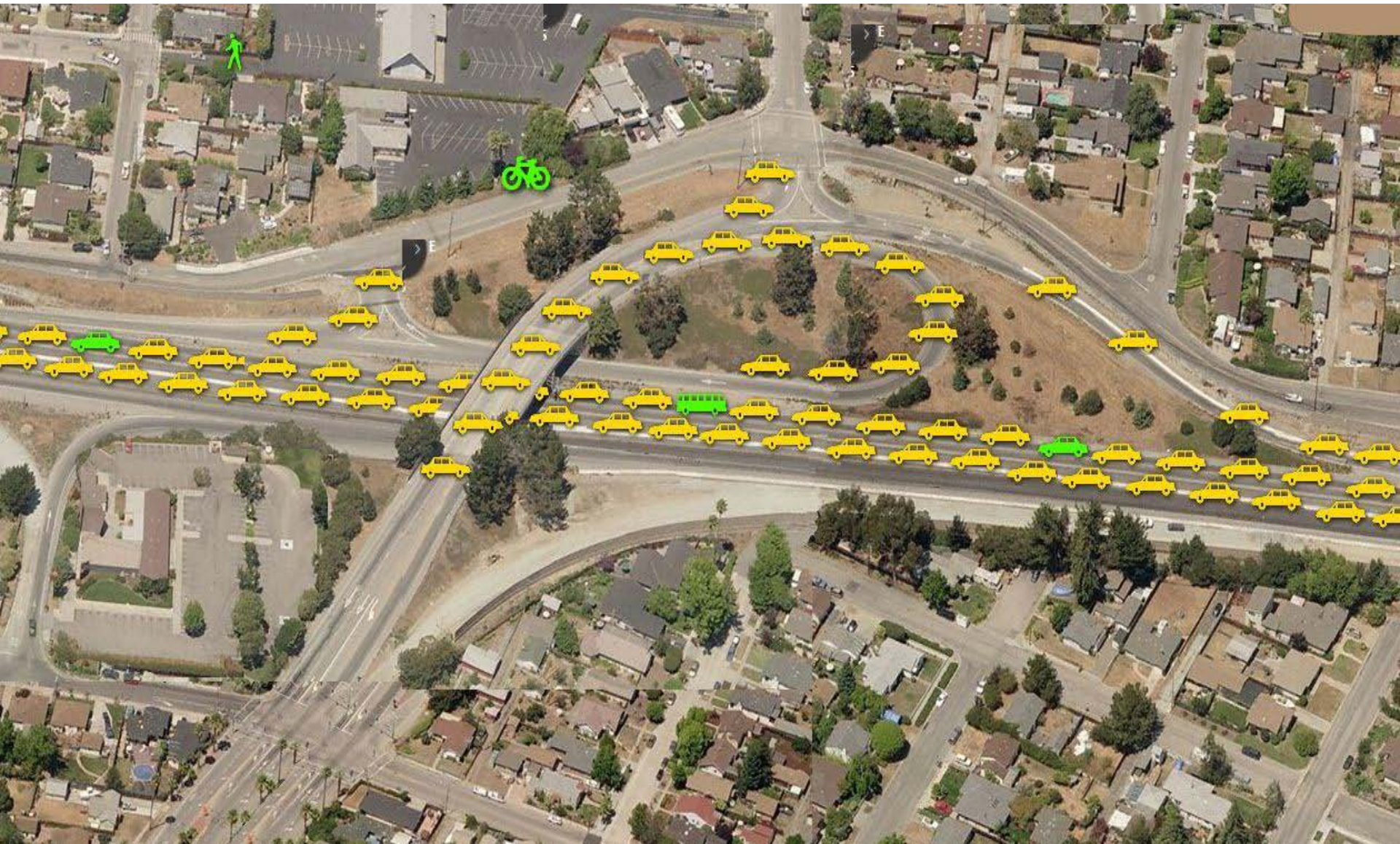


# TDM + TSM + LU + Bike/Ped + Lanes



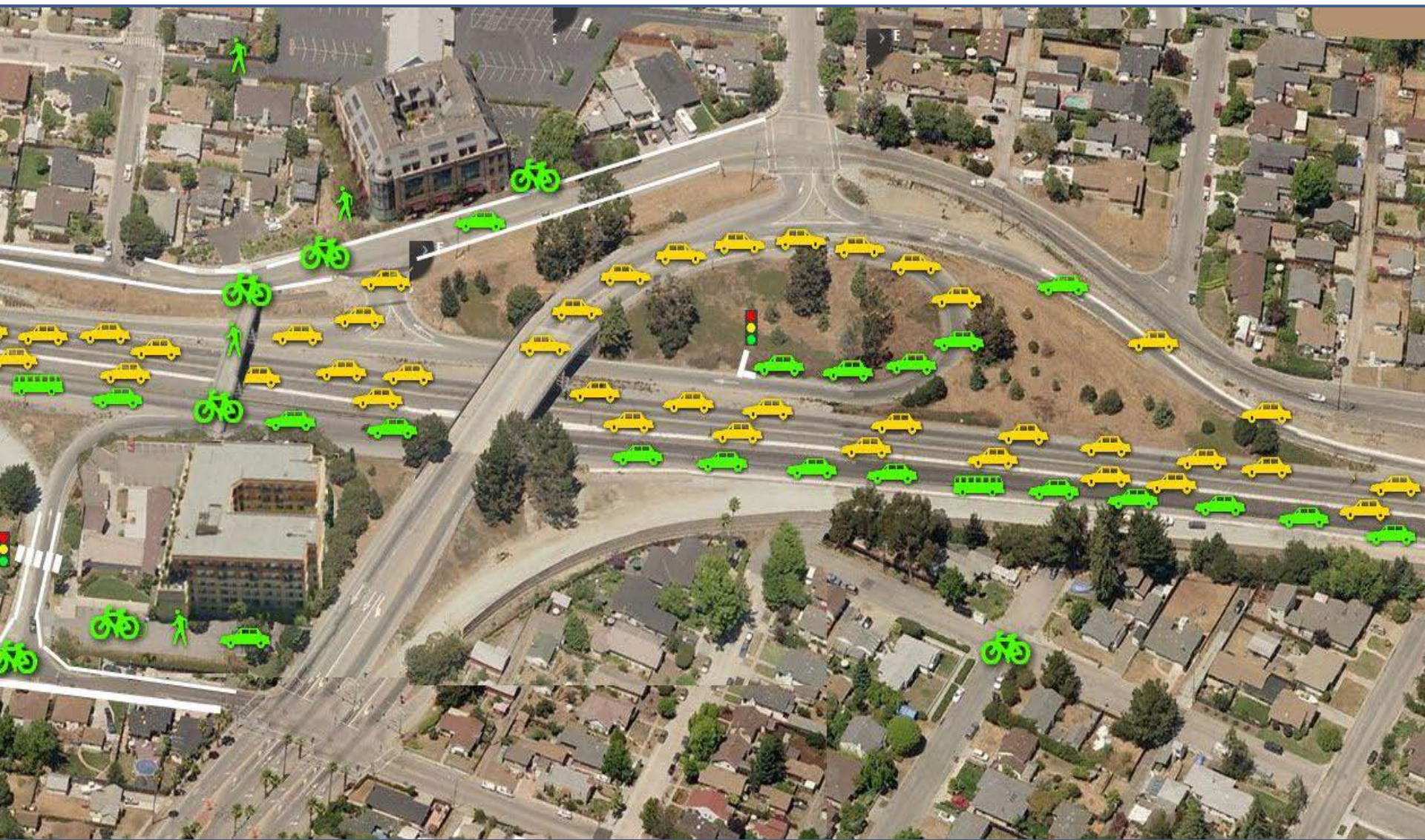


# Before STARS





# After STARS



# Questions?

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