

OCTA Signal Synchronization Program

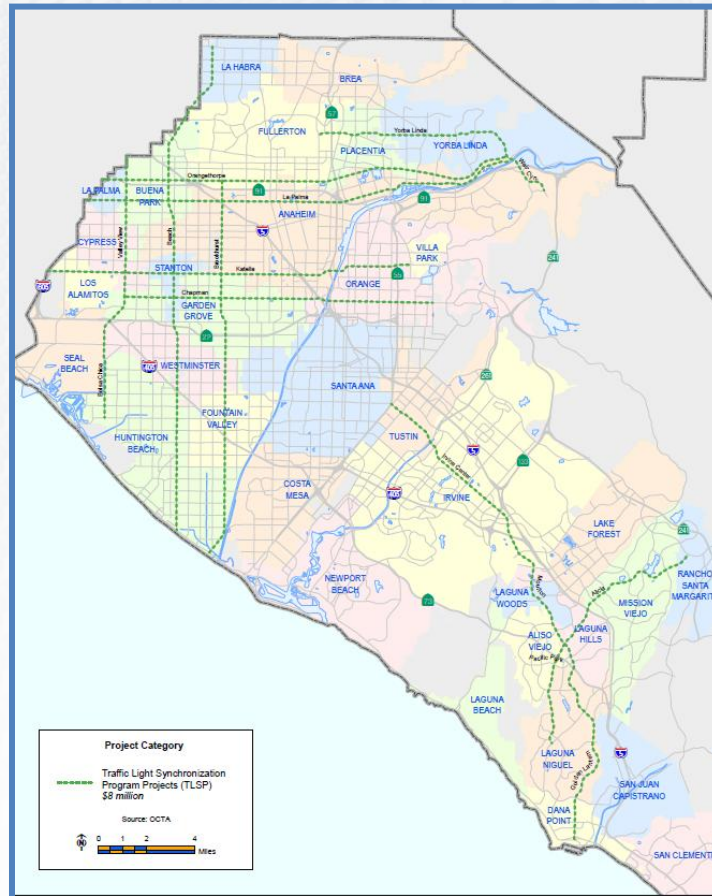
Citizens Advisory Committee
November 15, 2011



Background

- OCTA has completed implementation of ten (10) multi-agency signal synchronization projects throughout Orange County over the last four (4) years.
- OCTA's goal for these projects includes optimizing signal timing to provide drivers a better travel experience through reduced travel times, reduced stops, and reduced delays
- Typically, the Institute of Traffic Engineers (ITE) has found that signal timing efforts result in 5% to 15% travel time and speed improvements. By the ITE standards, the results of OCTA's multi-agency efforts are excellent.

Proposition 1B/Traffic Light Synchronization Projects



Summary of Projects

- 181 miles of arterials
- 673 signalized intersections
- Typical Daily Traffic Volumes – 30,000 to 50,000
- 28 participating local agencies

California Department of Transportation

County of Orange

City of Aliso Viejo

City of Anaheim

City of Brea

City of Buena Park

City of Costa Mesa

City of Dana Point

City of Fountain Valley

City of Fullerton

City of Garden Grove

City of Hunt. Beach

City of La Habra

City of Irvine

City of La Palma

City of Laguna Niguel

City of Laguna Hills

City of Laguna Niguel

City of Laguna Woods

City of Mission Viejo

City of Orange

City of Placentia

City of RSM

City of Santa Ana

City of Seal Beach

City of Stanton

City of Tustin

City of Westminster

Summary of Projects (continued)

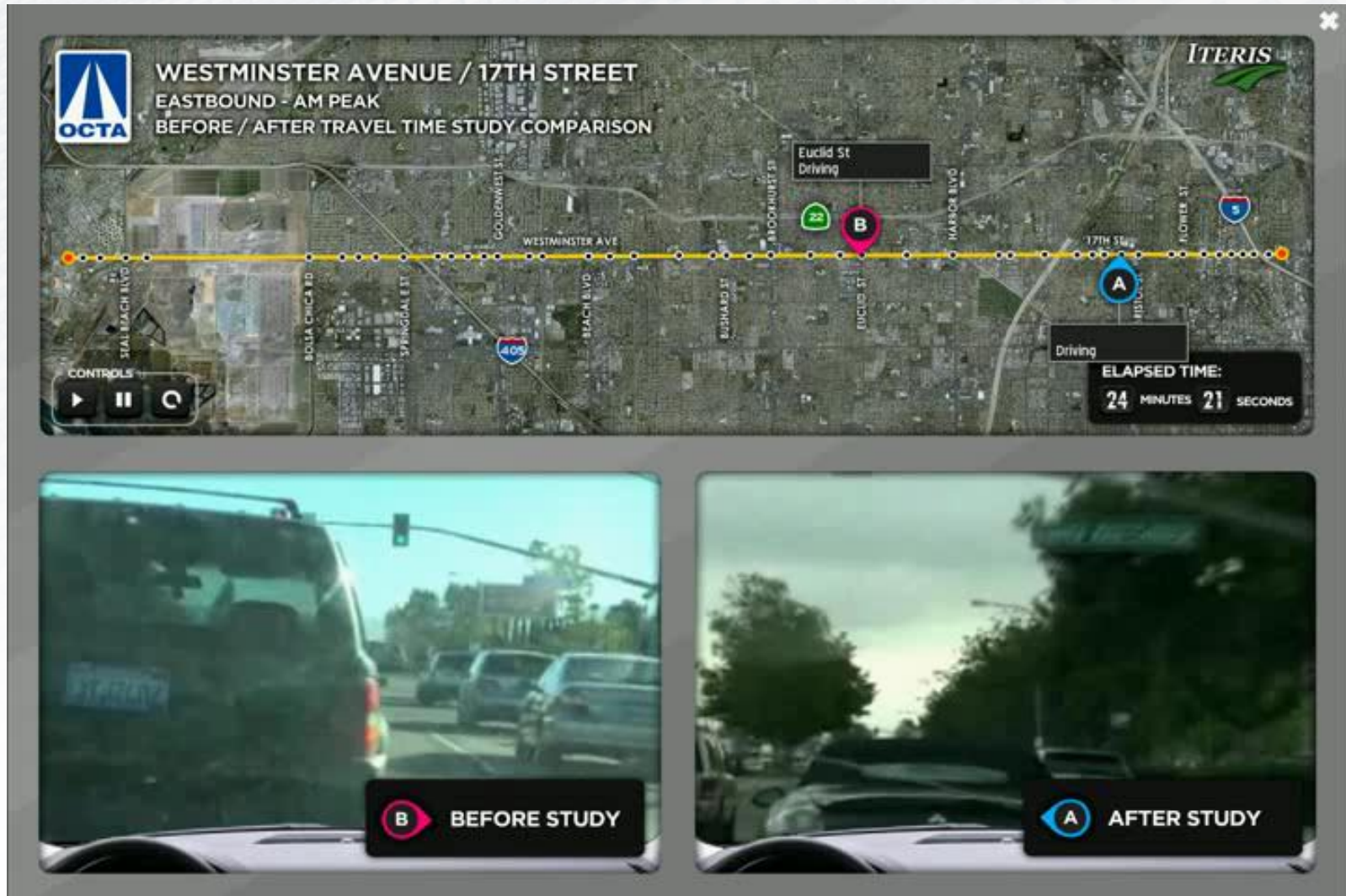
OCTA TRAFFIC SIGNAL SYNCHRONIZATION EFFORTS											
<i>Project</i>	<i>Corridor Name</i>	<i>Project Type</i>	<i>FY Complete</i>	<i>Length (Miles)</i>	<i>Signals</i>	<i>Project Cost</i>	<i>Estimated 3 Year Gas Savings (Dollars)</i>	<i>Estimated Annual Greenhouse Gas Savings (Lbs.)</i>	<i>Average Speed Improvement</i>	<i>Stops per Mile Improvement</i>	<i>Travel Time Improvement</i>
1	Euclid Street	Demonstration Project	07/08	15	62	\$450,000	\$ 1,807,425	8,990,781	24%	43%	20%
2	Oso Parkway	Demonstration Project	08/09	9	34	\$250,000	\$ 950,361	4,727,435	29%	50%	22%
3	Alicia Parkway	Prop. 1B/TLSP	10/11	11	41	\$950,000	\$ 583,116	2,900,630	12%	40%	13%
4	Beach Boulevard	Prop. 1B/TLSP	10/11	20	70	\$1,300,000	\$ 4,310,069	21,439,832	21%	28%	14%
5	Chapman Avenue (South)	Prop. 1B/TLSP	10/11	15	52	\$800,000	\$ 2,658,919	13,226,416	18%	46%	16%
6	Harbor Boulevard	BRT Replacement	10/11	19	83	\$515,172	\$ 3,226,111	16,047,835	12%	23%	11%
7	Westminster Avenue	BRT Replacement	10/11	22	100	\$620,690	\$ 2,690,216	13,382,101	17%	35%	14%
8	Bristol Street	BRT Replacement	10/11	28	107	\$664,138	\$ 4,089,735	20,343,810	18%	28%	15%
SUMMARY OF ALL PROJECTS				139	549	\$5,550,000	\$ 20,315,952	101,058,839	19%	37%	15%

Note: Orangethorpe and Edinger results will be presented for the first time to the Board of Directors on December 12, 2011 and therefore are not presented here.

Summary of Projects

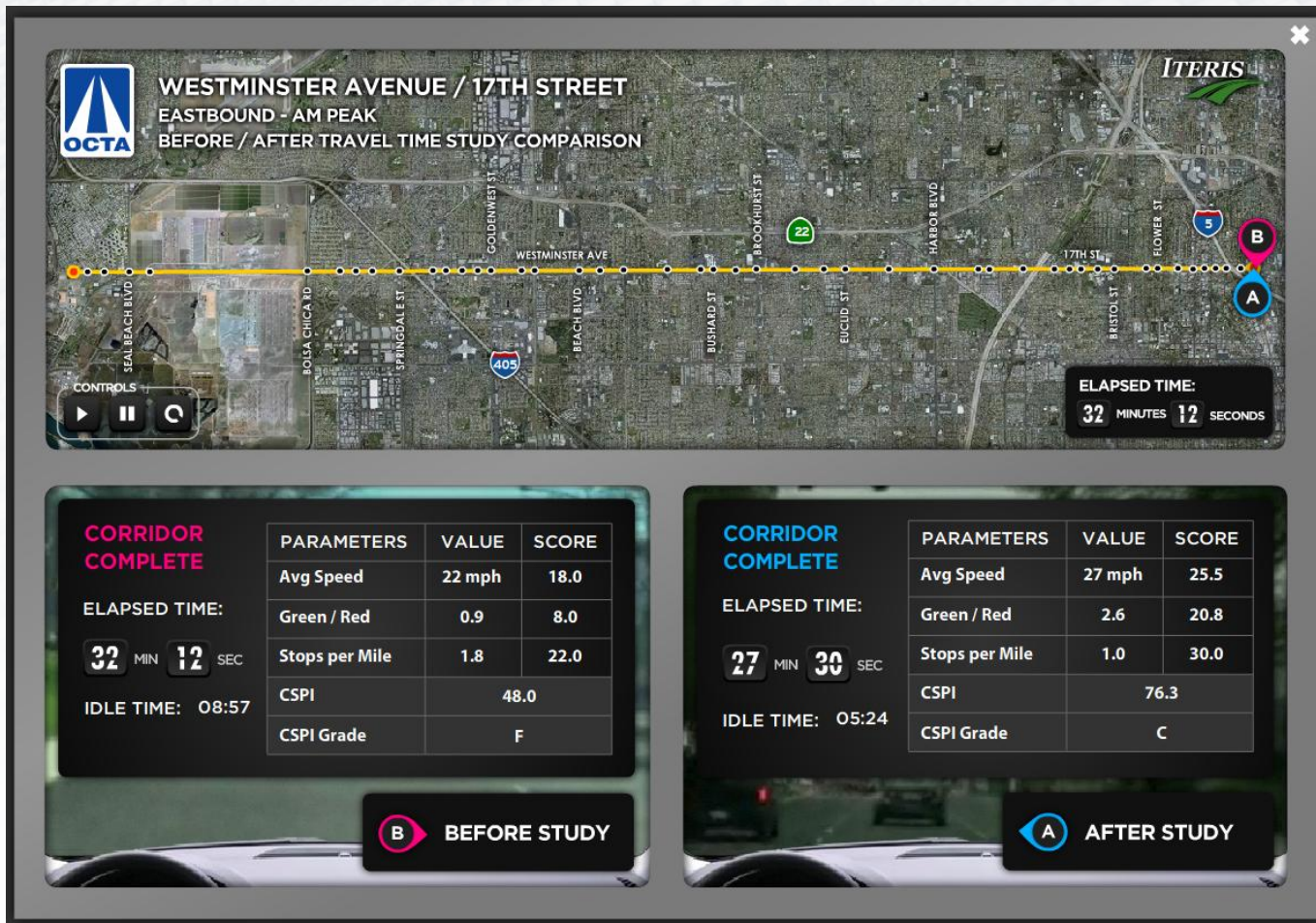
- Corridor speeds increased an average of 19%
- Corridor travel times decreased an average of 15%
- Corridor stops per mile decreased an average of 37%
- Results are sustained for three years (project life)
- Gas savings over project life are estimated at over \$20 million
- Project costs approximately \$5.5 million

Example of Results: Before/After Video

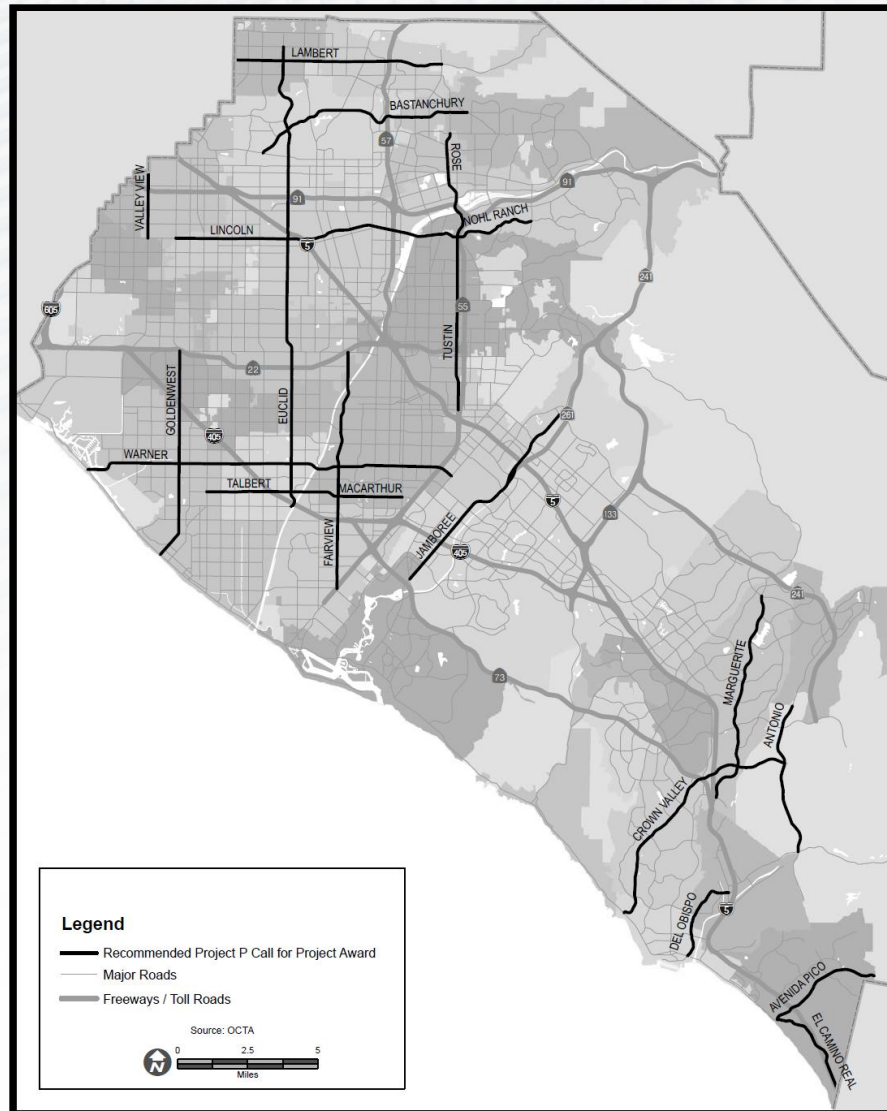


Example of Results: Before/After

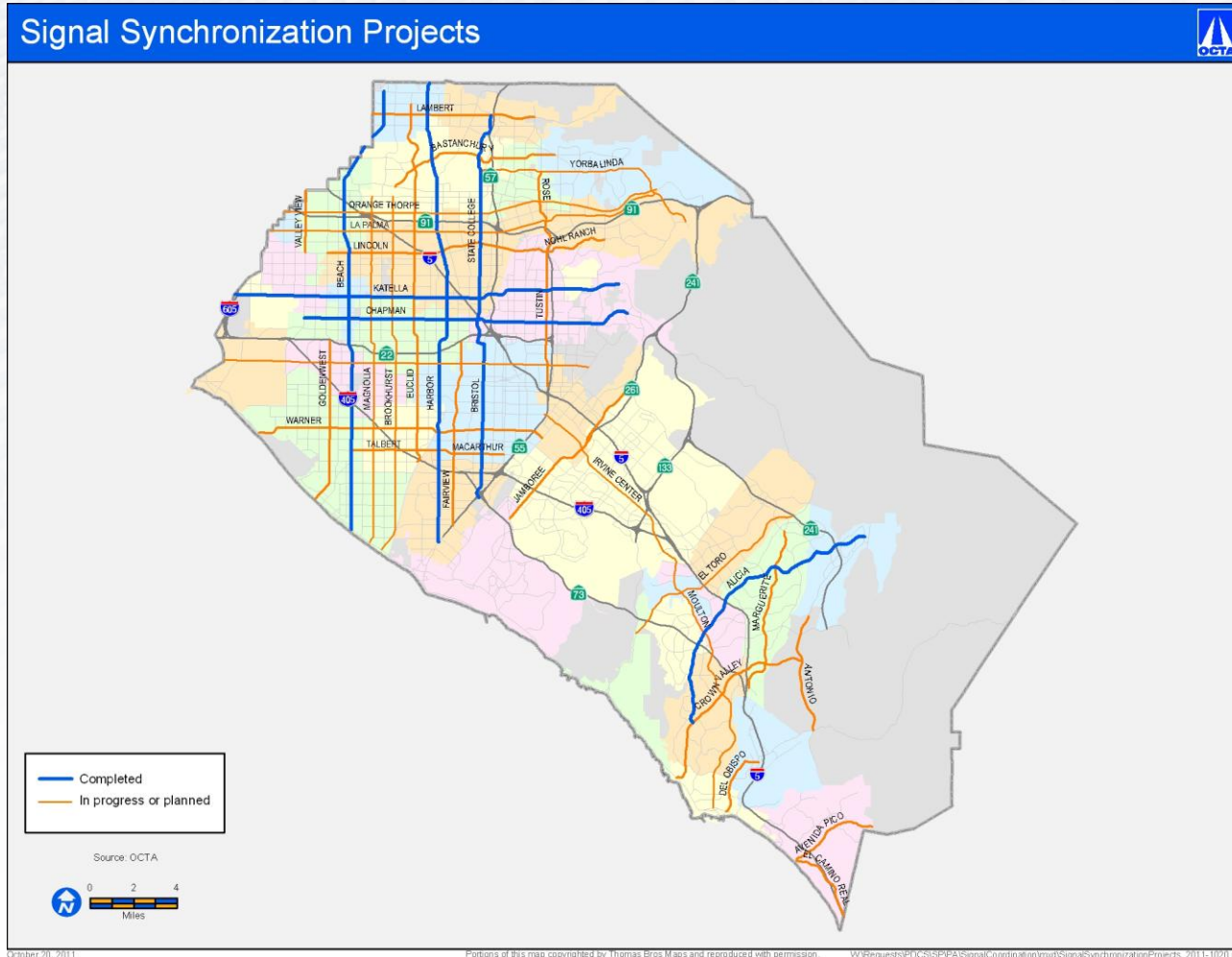
Video



2010 Measure M2/Project P Projects



Completed, In Progress, or Planned Synchronization Projects



Note: Orangethorpe and Edinger results will be presented for the first time to the Board of Directors on December 12, 2011 and therefore are identified as in progress.

Next Steps

- Currently implementing five (5) projects as part of Proposition 1B/Traffic Light Synchronization Program
 - El Toro
 - Brookhurst
 - La Palma
 - Katella
 - Yorba Linda
- Recently awarded \$8 million for seventeen (17) projects as part of Measure M2/Project P 2010 Call for Projects
- OCTA will award \$12 million for the Measure M2/Project P 2012 Call for Projects in spring

Signal Synchronization Video

<http://youtu.be/9RhSzFuE6Mc>

