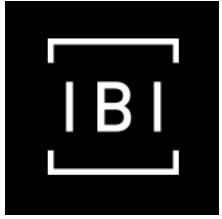


# Bill Delo, AICP - IBI Group

- Managing Principal for IBI Group's Orange County office.
- 20 years of experience in developing multi-modal transportation planning solutions.
- IBI Group is an international multi-disciplinary planning, engineering, and design firm.



# **Mike Arizabal** Project Manager – IBI Group

- Senior Transportation Planner based out of IBI Group's Irvine office.
- 15 years of experience in the research and preparation of local and regional transportation planning and traffic engineering projects throughout Southern California
- Specializes in traffic studies, transit planning, parking management, corridor analysis, route feasibility, and site access/circulation studies.

# San Clemente Arterial and Mobility Study

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City of San Clemente

IBI Group

May 09, 2018

# Background and Project Goals

Understand baseline conditions with and without 241 extension

---

Identify and develop potential roadway alternative packages to improve mobility

---

Analyze and compare the alternative packages to SR-241 extension

---

Provide findings and conclusions



# Methodology

OCTA Travel Demand Model\*  
(Regional Model)

---

Run and Compare Scenario Results  
(Study Area, City-Wide, Key Corridors)

---

Key Metrics  
(VMT, VHT, VHD, V/C)

\*OCTAM 4.0 TransCAD



Defining the cities of tomorrow

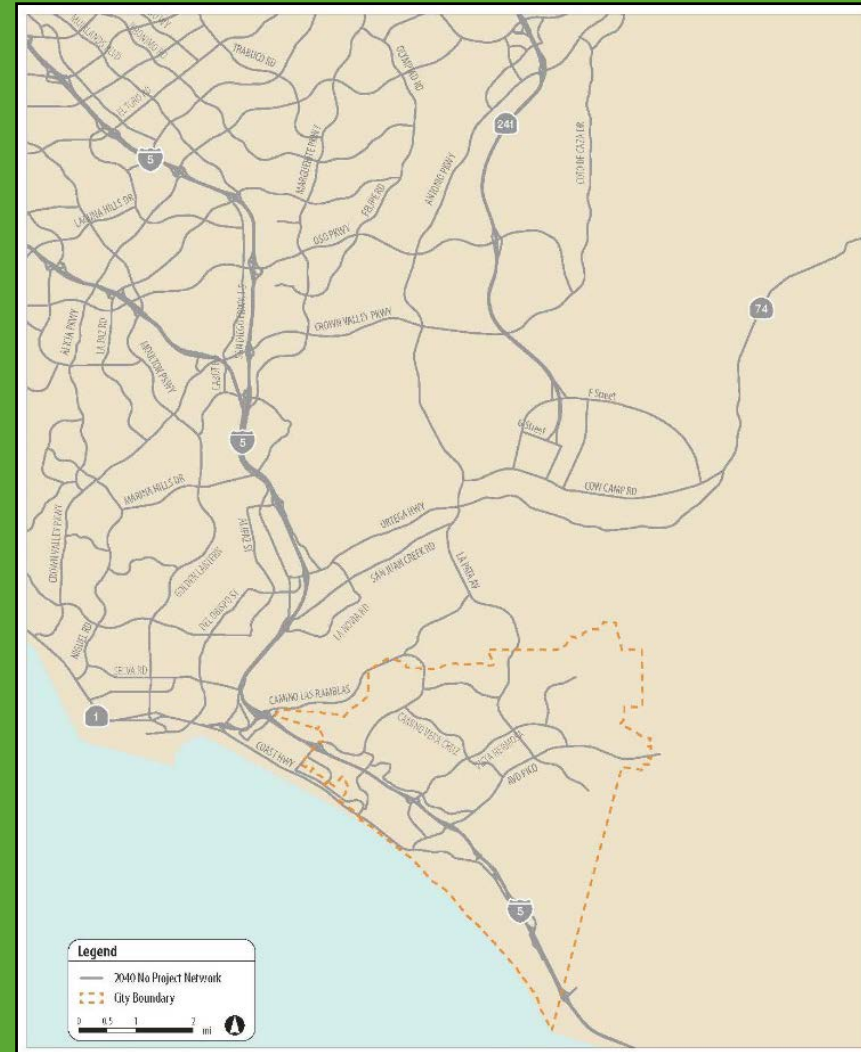
# Measures of Effectiveness



# Network Configurations



Baseline (Do Nothing)



No Project



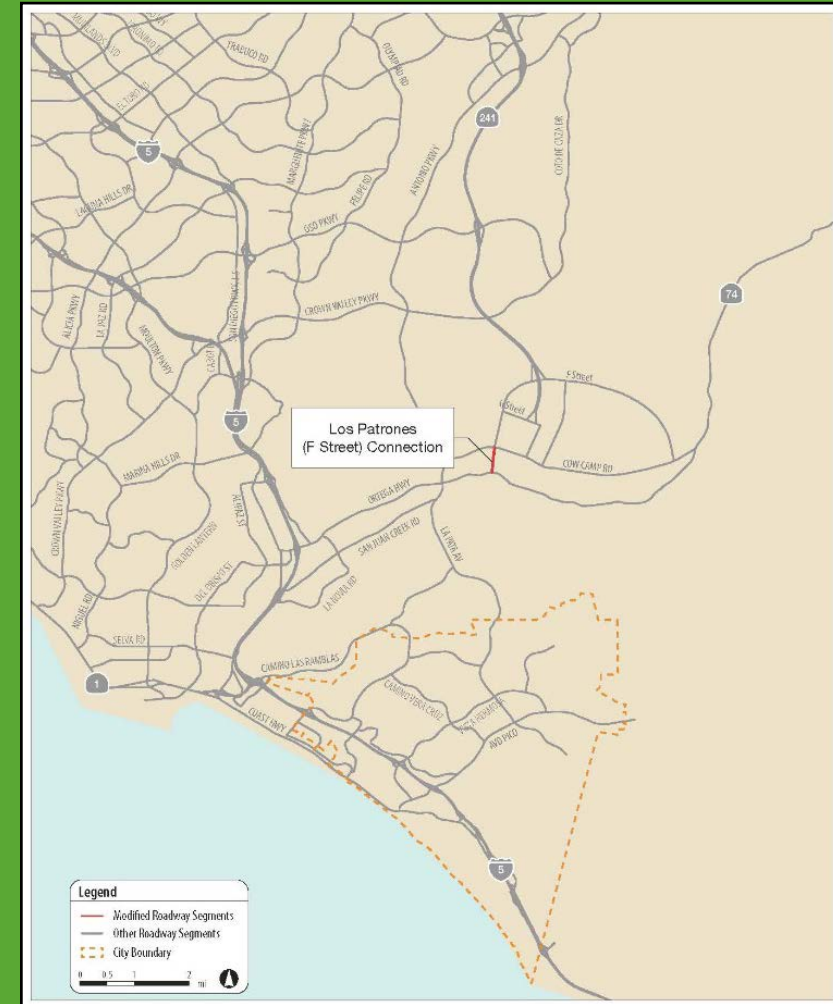
# Network Configurations



With Project



Package 2

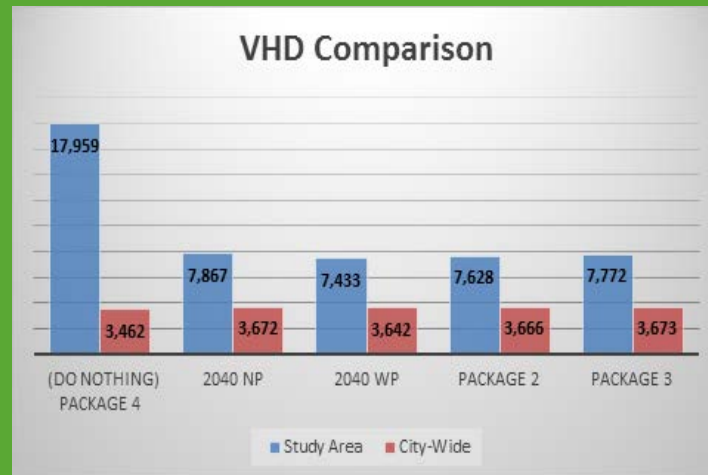
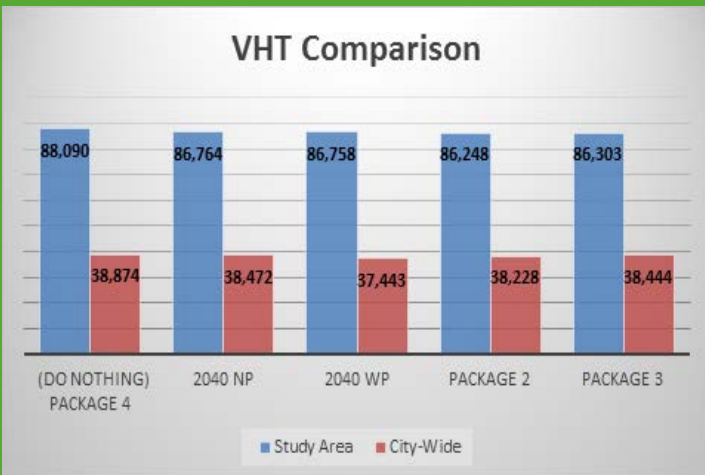
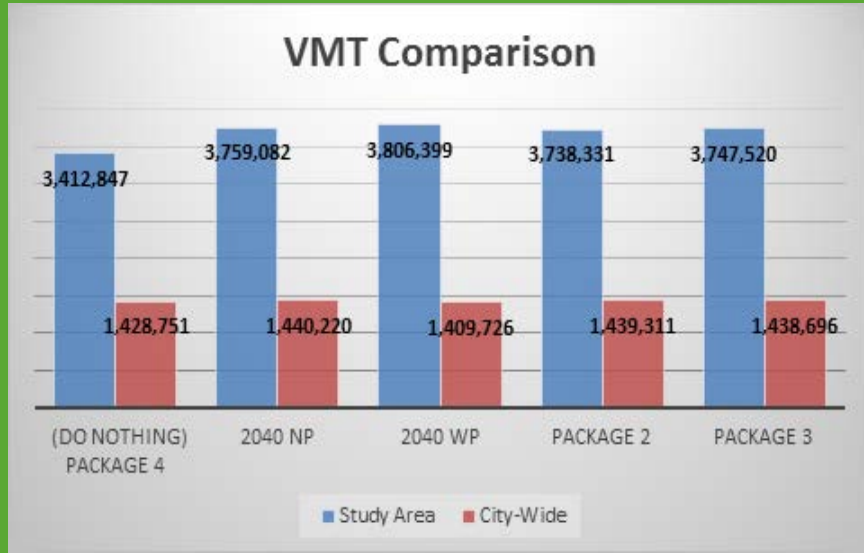


Package 3





# Overall Results (Daily)



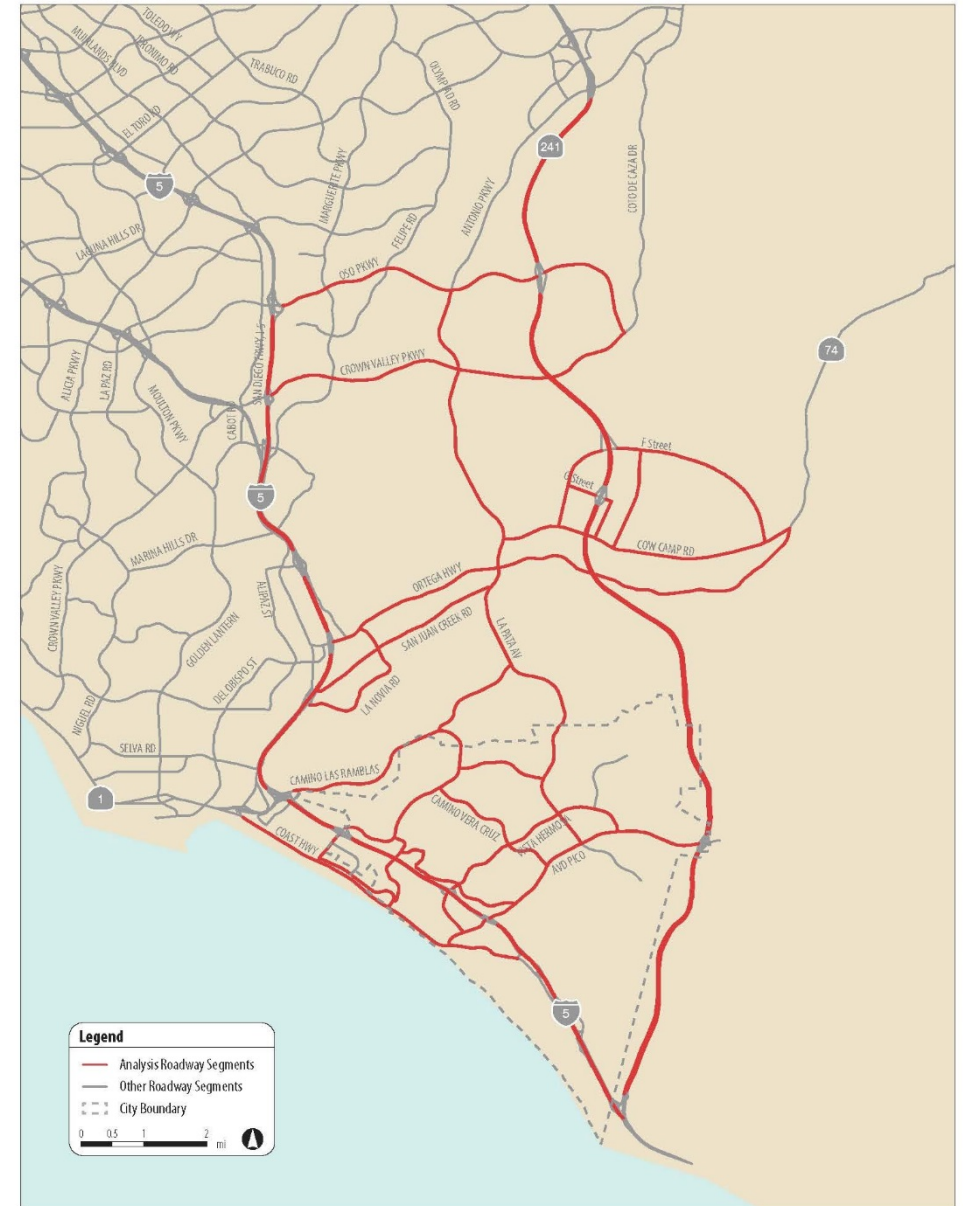
Source: OCTA Traffic Model



Defining the cities of tomorrow

VMT – Vehicle Miles Traveled    VHT – Vehicle Hours Traveled  
VHD – Vehicle Hours Delay

FIGURE 6: STUDY AREA



# Findings

- Study Area metrics (VMT, VHT, VHD) between Project/Package 2/Package 3 scenarios are within 5.5% of each other
- City-Wide metrics (VMT, VHT, VHD) between Project/Package 2/Package 3 scenarios are within 2.7% of each other
- SR-241 extension (Project) and La Pata extension (Package 2) volumes are relatively low

Alternative	Length (miles)	Daily Volume
241 Extension (2040 WP)	11.20	< 12,000
La Pata Extension (Package 2)	4.48	< 250
Los Patrones (F Street) connection between Cow Camp and Ortega (Packages 2 and 3)	0.47	< 21,000

Source: OCTA Traffic Model

# Summary

- Process
  - Evaluated 4 groupings of projects at Year 2040 to understand future mobility impacts in South OC with and without the toll road extension
  - Used OCTA's certified regional traffic model to evaluate key metrics like VMT, VHT, and VHD
- Conclusions
  - Toll road extension doesn't provide significant traffic relief; low demand
  - Study Area metrics similar across scenarios
  - Data shows that the E/W roadways are the areas of concern
- Takeaway
  - Build out of the OCTA LRTP Preferred Plan is just as effective for regional mobility as the SR-241 extension scenario

# Questions?



# Background Info - Scenario Development

- **Package 1**

- 2040 No Project
  - OCTA LRTP Preferred Plan buildout without SR-241 Extension
- 2040 With Project
  - OCTA LRTP Preferred Plan buildout with SR-241 Extension

- **Package 2**

- 2040 Projections
- OCTA LRTP Preferred Plan buildout
- No SR-241 extension
- Los Patrones (F Street) extended from Cow Camp to Ortega Hwy
- La Pata extended to Cristianitos Rd as primary roadway (4 lanes)
- La Pata widened to major roadway (6 lanes) b/w Ortega Hwy and Ave Pico

- **Package 3**

- 2040 Projections
- OCTA LRTP Preferred Plan
- No SR-241
- Los Patrones (F Street) extended from Cow Camp to Ortega Hwy

- **Package 4**

- 2040 Projections/Demographics
- No OCTA LRTP Preferred Plan
- “Do nothing” scenario
- 2012 Network Configuration (baseline)

- *OCTA LRTP Preferred Plan Highlights\**

- *Ortega Hwy Widening*
- *Rancho Mission Viejo (RMV) Roads*
- *Crown Valley Parkway Extension*
- *I-5 HOV extension between San Juan Creek to Pico*
- *I-5 HOV extension between Pico to county limit*
- *Ortega Interchange Project*

\*Not an exhaustive list



# Overall Results (Daily)

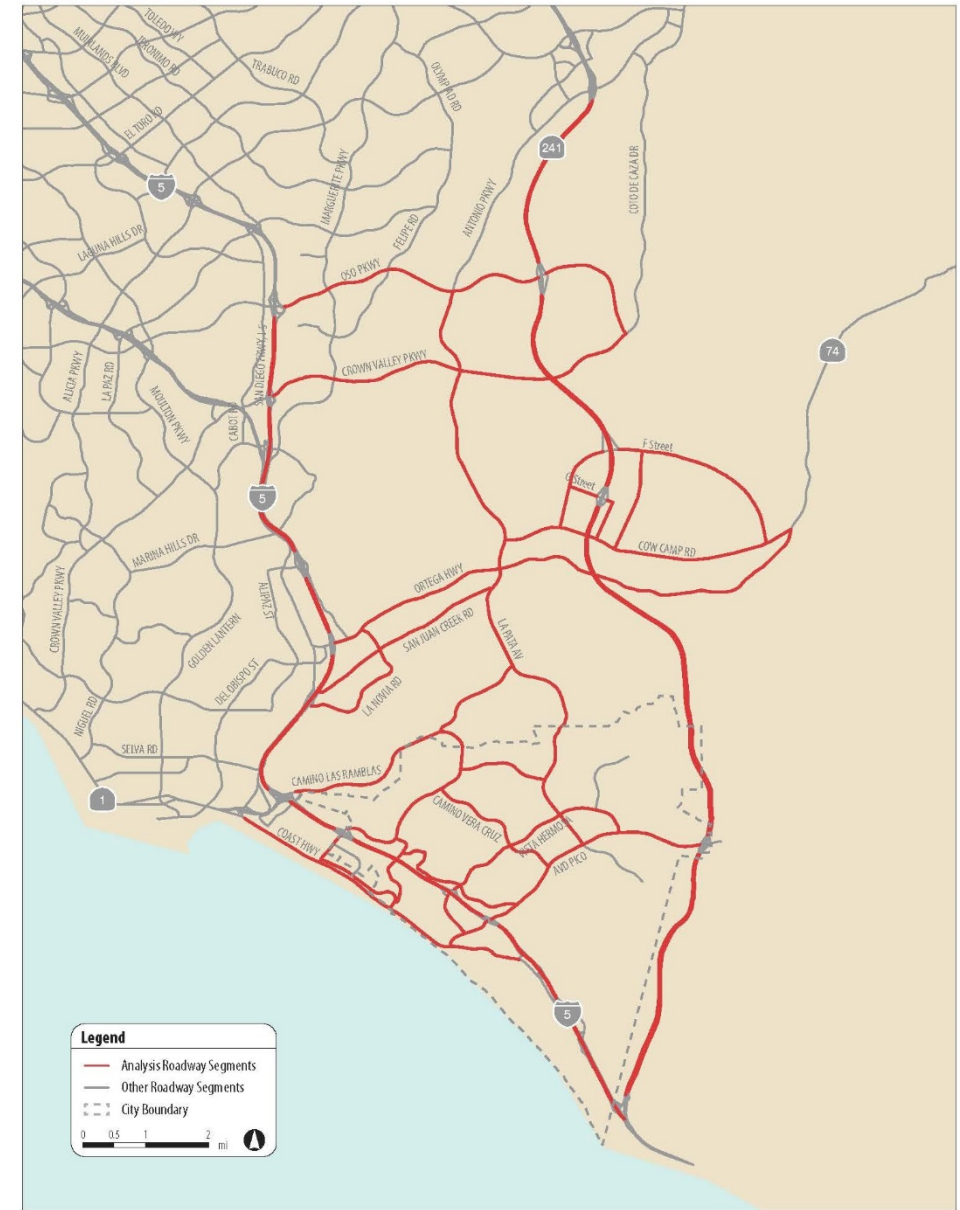
## Study Area

Scenario	VMT	VHT	VHD
(Do Nothing) Package 4	3,412,847	88,090	17,959
2040 NP	3,759,082	86,764	7,867
2040 WP	3,806,399	86,758	7,433
Package 2	3,738,331	86,248	7,628
Package 3	3,747,520	86,303	7,772
Package 5	3,698,772	86,199	8,093
<b>Delta (Pkg4/NP)</b>	<b>346,236 [10.1%]</b>	<b>(1,326) [-1.5%]</b>	<b>(10,091) [-56.2%]</b>
<b>Delta (NP/WP)</b>	<b>47,317 [1.3%]</b>	<b>(6) [-0.1%]</b>	<b>(434) [-5.5%]</b>
<b>Delta (NP/Pkg2)</b>	<b>(20,751) [-0.6%]</b>	<b>(516) [-0.6%]</b>	<b>(239) [-3.0%]</b>
<b>Delta (NP/Pkg3)</b>	<b>(11,563) [-0.3%]</b>	<b>(461) [-0.5%]</b>	<b>(95) [-1.2%]</b>

Source: OCIA Traffic Model

VMT – Vehicle Miles Traveled    VHT – Vehicle Hours Traveled  
VHD – Vehicle Hours Delay

FIGURE 6: STUDY AREA



# Overall Results (Daily)

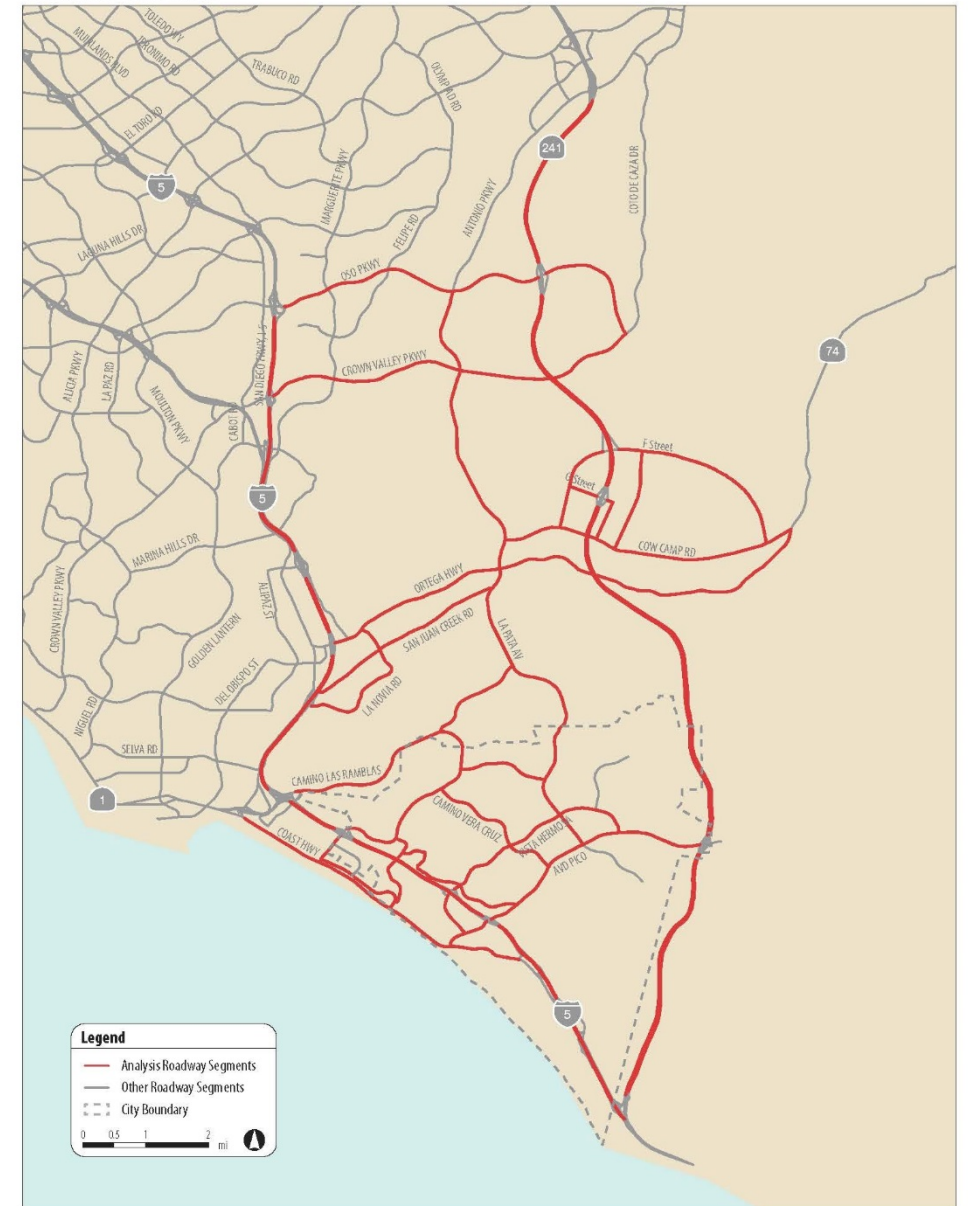
## City-Wide

Scenario	VMT	VHT	VHD
(Do Nothing) Package 4	1,428,751	38,874	3,462
2040 NP	1,440,220	38,472	3,672
2040 WP	1,409,726	37,443	3,642
Package 2	1,439,311	38,228	3,666
Package 3	1,438,696	38,444	3,673
Package 5	1,439,627	38,477	3,765
<b>Delta (Pkg4/NP)</b>	<b>11,469 [0.8%]</b>	<b>(402) [-1.0%]</b>	<b>211 [6.1%]</b>
<b>Delta (NP/WP)</b>	<b>(30,494) [-2.1%]</b>	<b>(1,029) [-2.7%]</b>	<b>(30) [-0.8%]</b>
<b>Delta (NP/Pkg2)</b>	<b>(909) [-0.1%]</b>	<b>(244) [-0.6%]</b>	<b>(7) [-0.2%]</b>
<b>Delta (NP/Pkg3)</b>	<b>(1,524) [-0.1%]</b>	<b>(28) [-0.1%]</b>	<b>1 [0.1%]</b>

VMT – Vehicle Miles Traveled      VHT – Vehicle Hours Traveled

VHD – Vehicle Hours Delay

FIGURE 6: STUDY AREA



# Key Corridors

- I-5 Segments
  - Oso and Crown Valley
  - Ortega and Las Ramblas
  - Camino De Estrella and Vista Hermosa
- Ortega Hwy
- Antonio Pkwy
- La Pata
- Ave Vista Hermosa
- Ave Pico
- Coast Hwy
- SR-241 Extension
  - 10-15,000 Daily Trips (2040 WP scenario)
    - OCTA Traffic Model
- La Pata Extension
  - <250 Daily Trips (Package 2 scenario)
    - OCTA Traffic Model

FIGURE 5: KEY CORRIDORS (DAILY)

