



# Costa Mesa Freeway (State Route 55) Access Study – Initial Screening of Alternatives



**Board of Directors' Meeting  
October 27, 2008**



- Improve mobility and reduce existing and future congestion
- Minimize environmental and traffic impacts
- Manage regional traffic impacts to local streets
- Consider existing and planned transit programs such as bus rapid transit
- Enhance system linkage and connectivity according to local and regional plans

# Community Outreach Methods

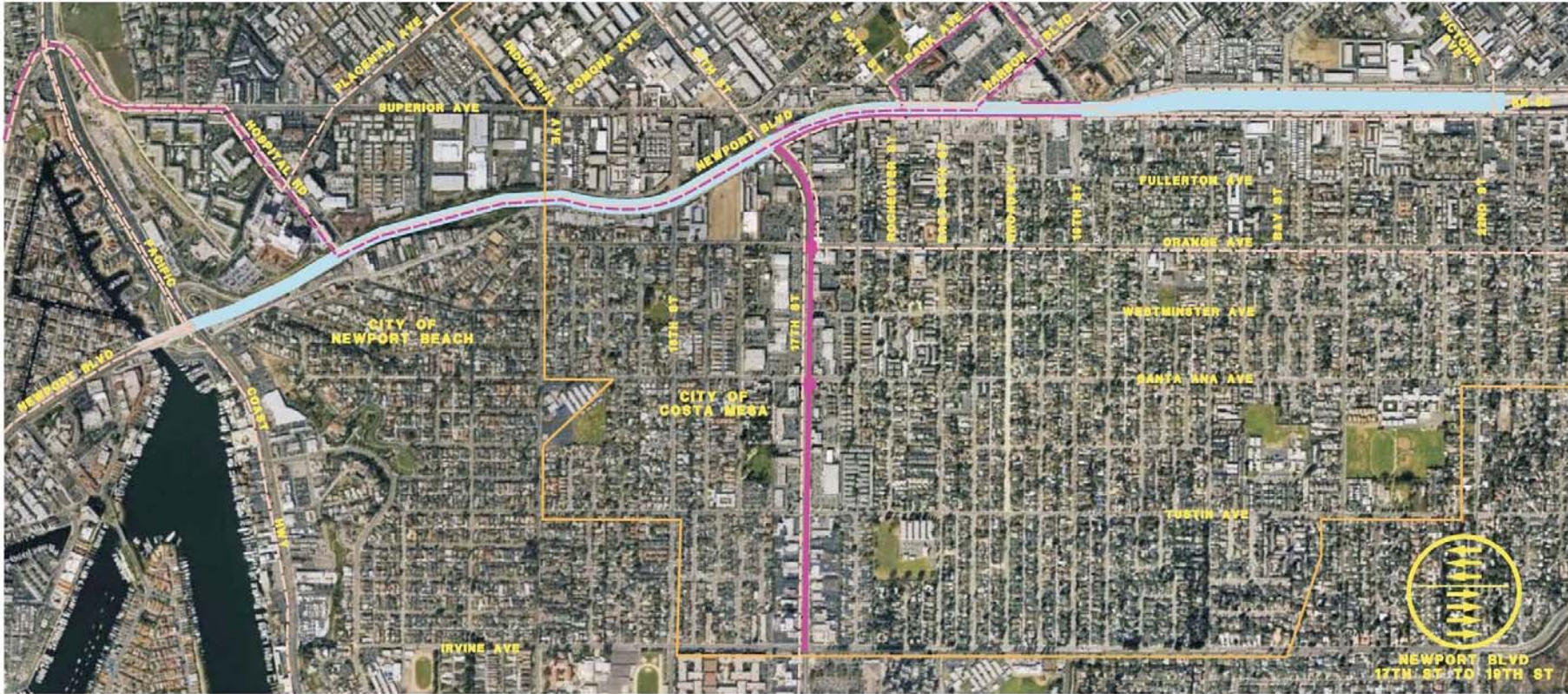
- Stakeholder groups
- Web site and online survey
- E-newsletter
- Direct mail piece
- News media
- Open houses (3)



- Cut/cover alternative preferred
- No build/baseline second most preferred
- Signal synchronization needs improvement
- Cut-through traffic remains a concern primarily on weekends and during summer
- Cost, funding, and schedule need refinement



# No Build/Baseline

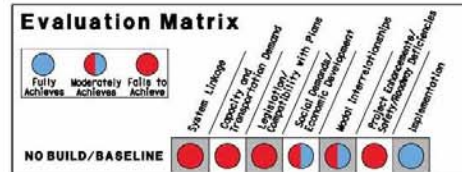


## LEGEND

- EXISTING SR-55/NEWPORT BLVD
- CITY STREET IMPROVEMENTS
- CITY LIMITS
- EXISTING OCTA BUS ROUTES
- PROPOSED BRT ROUTES

## COMPONENTS

- 1** MAINTAIN SR-55/NEWPORT BLVD IN EXISTING CONDITION.
- 2** 4 NB LANES ON NEWPORT BLVD FROM 17TH ST TO 19TH ST.
- 3** 3 SB LANES ON NEWPORT BLVD FROM BROADWAY TO 17TH ST.
- 4** ADD 4th SB LANE ON NEWPORT BLVD FROM 19TH TO BROADWAY.
- 5** ADD SB RIGHT TURN LANE ON NEWPORT BLVD AT 17TH ST.
- 6** IMPROVE ORANGE/17TH ST AND SANTA ANA/17TH ST INTERSECTIONS.
- 7** IMPROVE MOBILITY THROUGH 17TH ST.
- 7** ENHANCE EXISTING BUS ROUTES WITH BRT ROUTES.

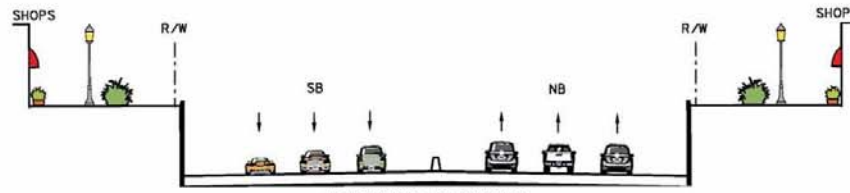


# Current Freeway Plan



## LEGEND

- PROPOSED FREEWAY EXTENSION
- PROPOSED STREET IMPROVEMENTS
- PROPOSED RAMPS
- BASELINE IMPROVEMENTS
- CITY LIMITS
- EXISTING OCTA BUS ROUTES
- PROPOSED BRT ROUTES



## COMPONENTS

- 1 REALIGN/EXTEND SR-55 FREEWAY TO THE EAST OF EXISTING NEWPORT BLVD FROM INDUSTRIAL AVE TO JUST SOUTH OF BAY ST AS DEPRESSED FREEWAY, THREE LANES EACH DIRECTION.
- 2 PROVIDE STREET OVERCROSSINGS.
- 3 PROVIDE INTERCHANGES AT 17TH ST AND 19TH ST.

## IMPACTS

- RELOCATION OF 85 RESIDENTIAL UNITS AND 40 BUSINESSES
- HIGH PROJECT COST

## Evaluation Matrix

	System Usage	Capacity and Transport Affordability	Legislative/Regulatory Compatibility	Social Desirability/Economic Development	Modal Interrelationships	Project Appropriateness/Safety/Reliability/Innovation
<b>CURRENT FREEWAY PLAN (EASTERLY FREEWAY EXTENSION)</b>	<span style="color: blue;">●</span>	<span style="color: red;">●</span>	<span style="color: blue;">●</span>	<span style="color: red;">●</span>	<span style="color: blue;">●</span>	<span style="color: red;">●</span>

# Transportation Systems Management (TSM)



## LEGEND

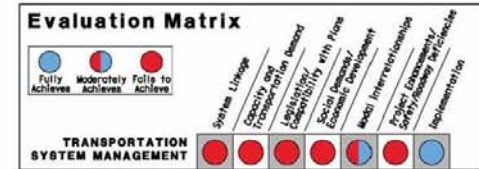
- PROPOSED STREET IMPROVEMENTS
- BASELINE IMPROVEMENTS
- PROPOSED PEDESTRIAN BRIDGE
- CITY LIMITS
- EXISTING OCTA BUS ROUTES
- PROPOSED BRT ROUTES
- PROPOSED SIGNAL TIMING MODIFICATIONS
- EXISTING BUS STOPS

## COMPONENTS

- 1** ADD ONE SB LANE TO MAINTAIN 4 NB AND SB LANES ON NEWPORT BLVD AS CONVENTIONAL HIGHWAY FROM 19TH ST TO 17TH ST.
- 2** ADD BUS TURNOUTS.
- 3** MODIFY SIGNAL TIMING AT INTERSECTIONS.
- 4** CONSTRUCT PEDESTRIAN BRIDGE ACROSS NEWPORT BLVD AT BROADWAY ST.

## IMPACTS

- A** POTENTIAL LOSS OF STREET PARKING
- B** ADDITIONAL RIGHT OF WAY REQUIRED



# Vertical Terminal Enhancement



## LEGEND

- ▬ PROPOSED STREET IMPROVEMENTS
- ▬ PROPOSED RAMP
- ▬ BASELINE IMPROVEMENTS
- ▬ PROPOSED PEDESTRIAN BRIDGE
- ▬ CITY LIMITS
- ▬ EXISTING OCTA BUS ROUTES
- ▬ PROPOSED BRT ROUTES



## COMPONENTS

- 1** IMPROVE MOBILITY TO 19TH ST ON THE WEST SIDE OF NEWPORT BLVD:
  - ADD RAMP BRAID AT SB NEWPORT BLVD TIE-IN AT SR-55.
  - ADD FREE RIGHT FROM 19TH ST TO NEWPORT BLVD BY RELOCATING EXISTING BUS TURNOUT TO THE WEST.
  - ADD EB 19TH ST TO NB SR-55 FLYOVER.
- 2** IMPROVE MOBILITY AT 17TH ST ON THE WEST SIDE OF NEWPORT BLVD:
  - SIGNIFICANT GEOMETRIC IMPROVEMENTS AT NEWPORT/17TH/SUPERIOR INTERSECTION.
  - PARTIAL WIDENING ALONG SUPERIOR AVE MAY BE REQUIRED.
- 3** CONSTRUCT PEDESTRIAN BRIDGE ACROSS NEWPORT BLVD AT BROADWAY ST.

## IMPACTS

- A** VISUAL IMPACTS
- B** ADDITIONAL RIGHT OF WAY REQUIRED
- C** MODERATE PROJECT COST
- D** POTENTIAL LOSS OF STREET PARKING

## Evaluation Matrix

<span style="color: blue;">●</span> Fully Achieves	<span style="color: red;">●</span> Moderately Achieves	<span style="color: red;">●</span> Fails to Achieve
Density Usage Capacity and Responsiveness Accessibility/Equity Social Desirability with Private Economic Development Modal Interrelationships Project Consistency Sustainability/Resilience Implementation	Vertical Terminal Enhancement	(Matrix of colored circles representing evaluation results for each criterion)

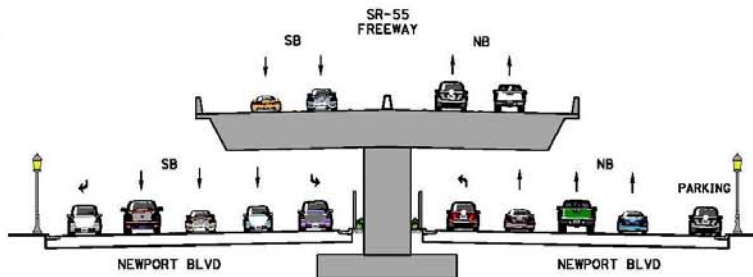


# Viaduct



## LEGEND

- █ PROPOSED ELEVATED FREEWAY
- █ PROPOSED STREET IMPROVEMENTS
- █ BASELINE IMPROVEMENTS
- █ PROPOSED RAMP
- █ CITY LIMITS
- █ EXISTING OCTA BUS ROUTES
- █ PROPOSED BRT ROUTES



ELEVATED SR-55 FREEWAY  
TYPICAL SECTION A-A  
NOT TO SCALE

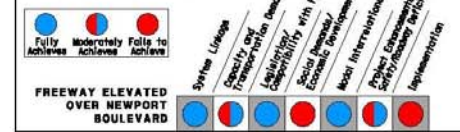
## COMPONENTS

- 1 SR-55 FREEWAY ELEVATED OVER NEWPORT BLVD FROM 19TH ST TO INDUSTRIAL WAY.
- 2 CONTROLLED ACCESS FREEWAY OVER NEWPORT BLVD.
- 3 SIDE STREET ACCESS FROM NEWPORT BLVD.
- 4 PROVIDE INTERCHANGE AT 19TH ST.

## IMPACTS

- █ HIGH PROJECT COST
- █ ENVIRONMENTALLY SENSITIVE ALTERNATIVE

## Evaluation Matrix

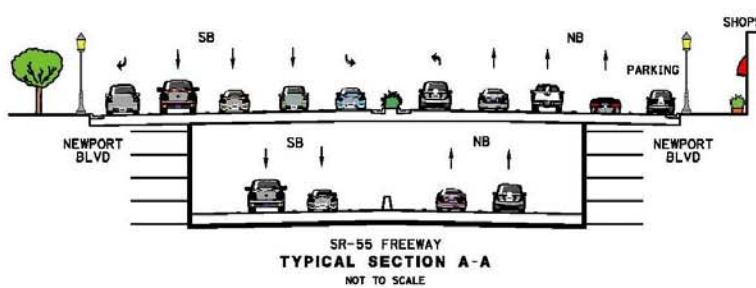


# Cut and Cover Tunnel



## LEGEND

- █ PROPOSED FREEWAY EXTENSION
- █ PROPOSED STREET IMPROVEMENTS
- █ PROPOSED RAMPS
- █ BASELINE IMPROVEMENTS
- █ CITY LIMITS
- █ EXISTING OCTA BUS ROUTES
- █ PROPOSED BRT ROUTES



## COMPONENTS

- 1 CUT AND COVER SR-55 FREEWAY ALONG NEWPORT BLVD FROM 19TH ST TO INDUSTRIAL WAY.
- 2 CONTROLLED ACCESS FREEWAY UNDER NEWPORT BLVD.
- 3 SIDE STREET ACCESS FROM NEWPORT BLVD.
- 4 PROVIDE INTERCHANGE AT 19TH ST.

## IMPACTS

- █ HIGH PROJECT COST

## Evaluation Matrix

	System Linkage	Capacity and Transportation Demand	Reliability	Scale/Impacts/Community Development	Major Interconnections	Project Effectiveness/ Sustainability/ Safety	Implementation
CUT/COVER FREEWAY ALONG NEWPORT BOULEVARD	<span style="color: blue;">●</span>	<span style="color: red;">●</span>	<span style="color: blue;">●</span>	<span style="color: red;">●</span>	<span style="color: blue;">●</span>	<span style="color: red;">●</span>	<span style="color: red;">●</span>

- System linkage
- Capacity and transportation demand
- Compatibility with legislation and plans
- Social demands/economic development
- Modal interrelationships
- Project enhancements/safety
- Feasibility/implementation

- No build/baseline
- TSM
- Terminal enhancement
- Cut/cover tunnel
- Future study alternatives may be hybrids using most promising elements of screened alternatives

## Other Considerations

- Shuttle/park and ride to beach areas
- Avoid potential tunnel queuing at Industrial Way
- Conduct weekend/summer congestion analysis as part of future study

- Bored Tunnel Freeway
  - Cost, water table, utilities
- Reversible Lanes
  - Relatively uniform weekday directional split
- One-Way Couplets
  - No closely spaced parallel streets
- Parallel Routes
  - Superior Avenue is beyond area of worst congestion
  - Irvine Avenue has on-street residential

- Approve initial screening report for the Costa Mesa Freeway (State Route 55) Access Study
- Immediately begin working with the cities of Costa Mesa and Newport Beach and Caltrans to develop cooperative agreement and funding plan for next phase