



Keep San Diego Moving  
TransNet

# Interstate 5

## Interstate 5 North Coast Corridor HOV/Managed Lanes Project (San Diego to Oceanside)



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For project updates and questions, log-on to [www.KeepSanDiegoMoving.com](http://www.KeepSanDiegoMoving.com) or call the Caltrans Public Information Office at 619-688-6670.

Creating a connected system of managed lanes is one of SANDAG's regional transportation goals. On I-5, managed lanes will: 1) Alleviate traffic congestion, 2) Support different customers, trip types and modes, and 3) Provide reliable trip times.

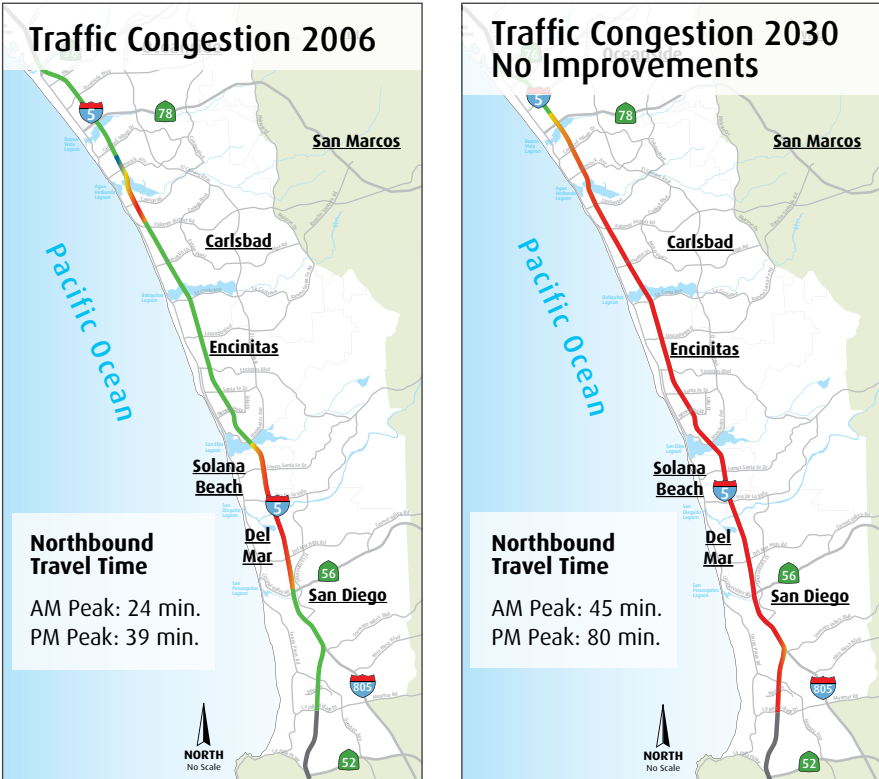
### Meeting Future Travel Demand: Congestion, Customers, Modes & Reliability

#### Alleviate Traffic Congestion

Traffic congestion on the I-5 is created by growth in population in San Diego and the Southern California region, goods movement, tourism, and the local economy. Population in the I-5 NCC has grown nearly 3 times as much as in the County. Since the 1970's, job growth followed suit with nationally significant industries locating here. I-5 was not designed with the current, let alone projected growth in mind. Currently, there are 700,000 vehicle trips on I-5. By 2030, vehicle trips on I-5 are expected to increase to more than 1,000,000 per day due to this growth.

Population Matrix for the I-5 NCC Cities		
Jurisdiction	% Change 1970-2006	% Change 2006-2030
Oceanside	332%	19%
Carlsbad	560%	30%
Encinitas	265%	13%
Solana Beach	132%	2%
San Diego	422%	49%
Del Mar	14%	4%
I-5 NCC	369%	23%
San Diego County	125%	26%

The maps below compare northbound traffic congestion (red) and free flow conditions (green) for 2006 and 2030 if no improvements are made. As shown, without improvements on I-5, the average northbound commute in 2030's PM peak hours will increase from 39



minutes to 80 minutes. I-5 would be congested most hours of the day.

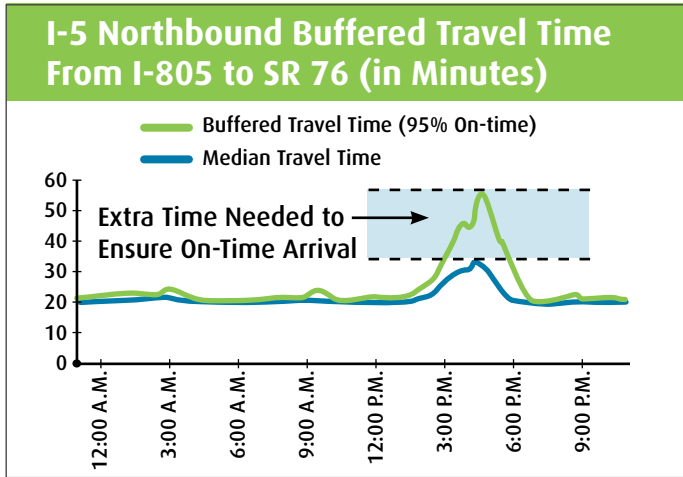
By adding managed lanes, I-5 will have tools and techniques to actively manage congestion through pricing, vehicle eligibility and access.

#### Support Different Customers, Trip Types & Modes

Travelers on I-5 make: local, commuter, interregional, recreational, and goods movement trips. This variety places intense, consistent travel demand on the I-5 seven days a week. HOV use from tourism and recreational trips increases on weekends and has been observed as high as 60%. Managed lanes would serve the growing weekend HOV travel demand, as well as facilitate weekday travel. Managed lanes will provide the flexibility in the overall highway facility, allowing for system and corridor management on a daily basis or as corridor travel needs vary in response to changing conditions.

#### Provide Trip Time Reliability

Travelers want to be able to predict the travel time it will take to arrive on-time to their destinations. The "Buffer Index" shown below, measures the time cushion a traveler needs to add to their average trip time to account for day-to-day traffic variability and instability. In 2007 during PM peak hours on I-5, a driver needed to add about 20 extra minutes to ensure that they would reach their destination on-time. Managed lanes will provide travelers with an option that will allow them to have more reliable trip times even as travel demand increases.



Source: PeMS, 2007

### Environmental Stewardship

In studying project alternatives, the Draft EIR/EIS identifies impacts and mitigations. Protecting and enhancing I-5's adjacent environment, which includes a river valley system and six lagoons, is a priority. These areas provide stopping points for migratory birds and habitat for fish and endangered species. Mitigation measures include: improving water quality; increasing tidal flows into the lagoons; improving water quality; facilitating wildlife crossings; creating and restoring habitats; and, protecting view corridors.



Mitigation measures include improvements to water quality and the habitat of the lagoon environments.

### Community Enhancements

In 2005 and 2006, Caltrans and SANDAG met with cities within the I-5 NCC to identify community enhancement opportunities that could improve how The Project interfaces with adjacent cities. These proposed enhancements would make connections in the existing bicycle and pedestrian network, improve trails, and enhance other new and existing facilities. Design and construction of these features would occur in coordination with each affected city. This future coordination would include creating formal cooperative agreements between Caltrans and each city, where Caltrans would build these enhancements and each city would be responsible for their maintenance. Details about each proposed improvement are provided in the Draft EIR/EIS. Some of the proposed improvements include:

- Streetscape enhancements
- Underpass trail connections
- Park & Ride enhancements
- Pedestrian-friendly bridges
- Enhanced aesthetics

These supporting enhancements were selected for their ability to preserve scenic, aesthetic, historic, and environmental resources and improve safety and mobility.

Fact sheets about the proposed enhancements in each city will be available at the Public Hearings for the Draft EIR/EIS and posted online at: <http://www.KeepSanDiegoMoving.com>.



Trail enhancements propose to improve access to the coastline and its public beaches, lagoons, transit stations, and neighborhoods.



Proposed pedestrian improvements will improve east-west connectivity across I-5 to facilitate coastal access.

### Interstate 5 North Coast Corridor HOV/Managed Lanes Project

This brochure highlights topics from the Draft Environmental Impact Report/Study (Draft EIR/EIS) for the Interstate 5 North Coast Corridor HOV/Managed Lanes Project from San Diego to Oceanside. We encourage you to review the complete Draft EIR/EIS at <http://www.KeepSanDiegoMoving.com/I-5-intro.html> or at your local public library.

### Interstate 5 North Coast Corridor - Gateway to San Diego

The Interstate 5 (I-5) North Coast Corridor (NCC) is the "Gateway to San Diego." Its HOV/Managed Lanes Project ("The Project") proposes highway improvements from La Jolla Village Drive to Camp Pendleton. The Project is located within a geographic area approximately 27 miles long that is home to a world-renowned coastline, protected river valleys and six lagoons. This scenic and protected environment is a challenging location to plan needed improvements. Preliminary engineering and environmental studies are complete. A Draft EIR/EIS is now available for review and comment.

#### I-5 NCC's Multimodal Transportation System

I-5 is the backbone of this area's multimodal transportation system including: regional arterials, rail services, bus services, vanpools/carpools, and bicycle/pedestrian routes. As the only roadway that runs the continuous length of the study limits, I-5 is the primary transportation mode supporting 700,000 vehicle trips every day. Constructed in the 1960's and 1970's, I-5 was part of a national initiative to build an interstate system for defense and commerce. While still performing these original functions, I-5 also supports local trips for more than half-a-million people who now call this corridor home. It carries 2,000,000 visitors to the beach each year, and commuters to 319,000 jobs in the I-5 NCC each week day. The I-5 NCC has absorbed tremendous growth and increased traffic without substantial improvements to the original highway.

#### Regional Goals and the TransNet Program

Through a comprehensive planning effort, seven goals are defined for the region's transportation system: livability, mobility, efficiency, accessibility, reliability, sustainability and equity. To support the region's goals and transportation system, voters in November 2004 extended SANDAG's TransNet program, adding a half-cent sales tax to fund transportation improvement projects until the year 2048. Improvements to the I-5 NCC is a key component of meeting these regional transportation goals.

#### Long-term Construction Timeline

The Project proposes to be constructed in stages and will take several years to complete. Its construction stages and completion dates will be determined by regional priorities.

#### Public Review

The release of the Draft EIR/EIS began a formal public review period governed by the National Environmental Policy Act (NEPA) and California Environmental Quality Act (CEQA). The purpose of NEPA and CEQA is to disclose impacts of project alternatives before decisions are made, and give the public an opportunity for review and comment.



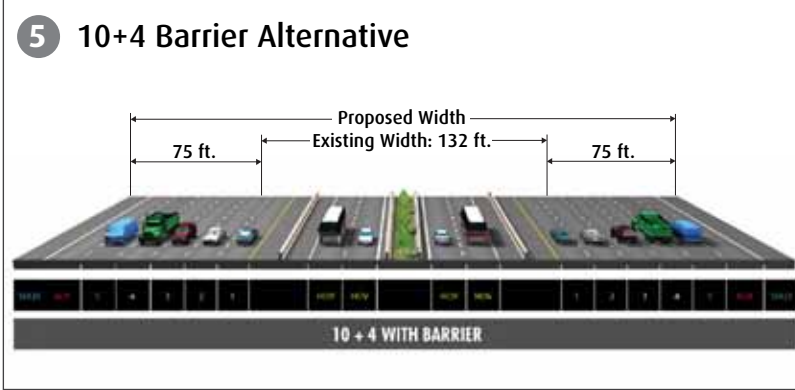
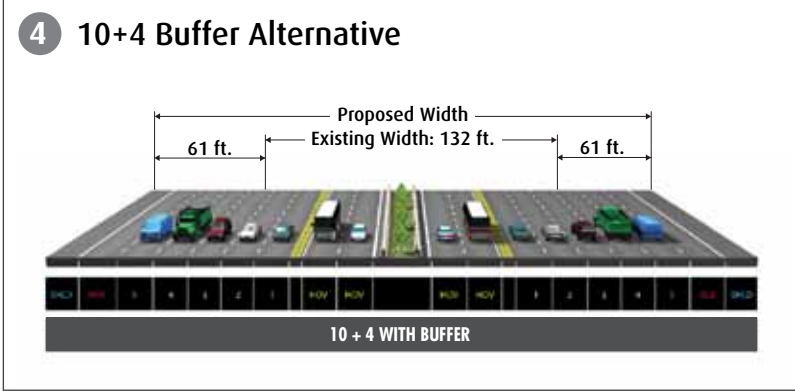
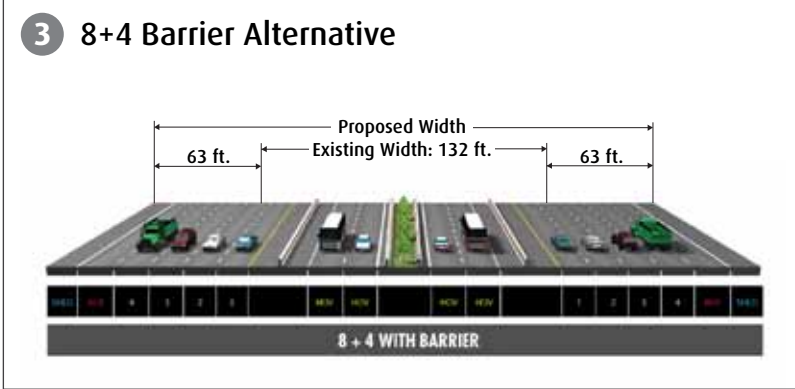
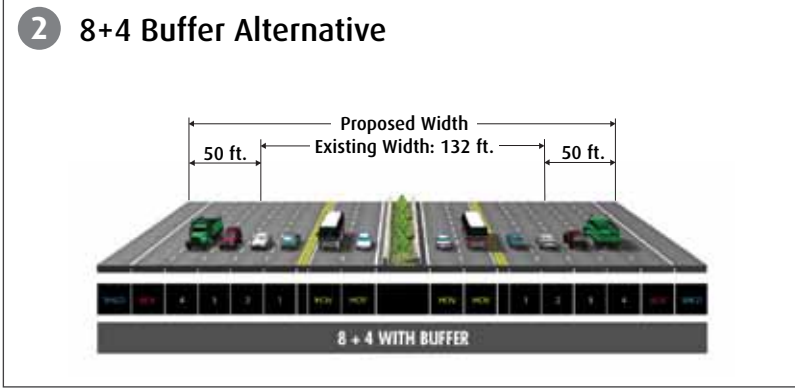
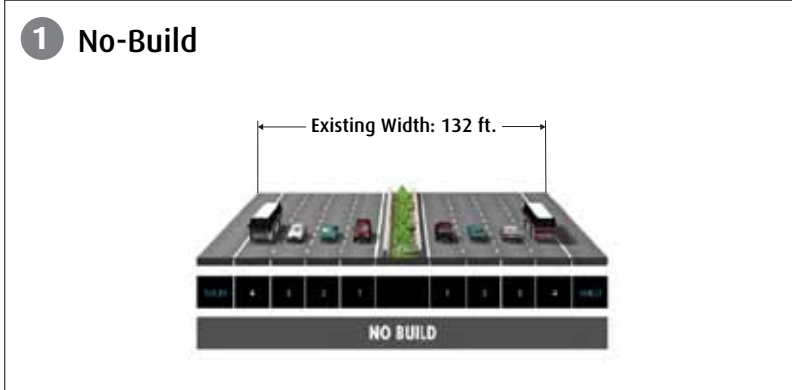
### Project Alternatives Included in the Draft EIR/EIS

The Draft EIR/EIS studied five project alternatives; managed lanes are included in the four build alternatives. Located in the middle of the highway and separated from general purpose lanes, managed lanes will maintain free flow traffic volumes in real time through: value pricing, vehicle eligibility requirements, and the number of lanes that can be accessed. The five project alternatives are:

- 1 No-Build Alternative:** Keep existing conditions of the highway to 8 general purpose lanes (4 in each direction), and 2 partial High Occupancy Vehicle (HOV) lanes (1 in each direction). Other than ongoing operations and maintenance, no other improvements to accommodate future travel demand are provided.
- 2 8 + 4 Buffer Alternative:** Add 4 managed lanes (2 in each direction) that are separated from general purpose lanes with a buffer created by road striping.
- 3 8 + 4 Barrier Alternative:** Same as the alternative above, but managed lanes are separated from the general purpose lanes with a concrete barrier.
- 4 10 + 4 Buffer Alternative:** Add 2 general purpose lanes (1 in each direction) between Del Mar Heights Road and SR 78, 4 managed lanes (2 in each direction), and separate the managed lanes from general purpose lanes with a buffer created by road striping.
- 5 10 + 4 Barrier Alternative:** Same as the alternative above, but managed lanes are separated from the general purpose lanes with a concrete barrier.

#### Notes:

All five alternatives are based on the region's plan for: double-tracking the north-south rail line and improving rail service. The four build alternatives provide auxiliary lanes, direct access ramps (DARS), improved coastal access, intelligent transportation systems, interchange and ramp modifications, noise and retaining walls.



### Comparison of Project Alternatives that Meet Regional Goals

With the exception of the No-Build Alternative, the alternatives studied in the Draft EIR/EIS include managed lanes. The inclusion of managed lanes is a result of a regional approach to provide a competitive, reliable option to the traditional freeway system. Managed lanes support The Project's goals to reduce current and future traffic congestion, increase highway capacity and improve coastal access within this constrained corridor. The chart below shows a comparison of the alternatives design features, impacts, performance, and cost.

Along with managed lanes, a number of design features are included in the improvement alternatives and defined as follows:

- **Managed Lanes** are highway lanes that actively manage traffic through a combination of access control, vehicle eligibility, and

pricing strategies. Managed lanes provide time-saving incentives for high-occupancy vehicle (HOV), Bus Rapid Transit, and fee use for single occupancy users.

- **General Purposes Lanes** are highway lanes that are open to all motor vehicles at all times for no fee.
- **Direct Access Ramps** provide priority access for travelers who use the managed lanes and Bus Rapid Transit Centers.
- **Auxiliary Lanes** supplement general purpose lanes for acceleration and deceleration when entering and exiting on and off-ramps.
- **Traveler Information Systems** such as changeable message signs, closed circuit television cameras, ramp metering, vehicle detection systems, and real-time traffic updates assist travelers with making informed decisions.

Key Features of Alternatives	No-Build	8+4 Buffer 8 Existing GPs + 4MLs + Buffer	8+4 Barrier 8 Existing GPs + 4MLs + Barrier	10+4 Buffer 8 Existing GPs + 2 New GPs + 4MLs + Buffer	10+4 Barrier 8 Existing GPs + 2 New GPs + 4MLs + Barrier
<b>Design Features</b>					
• 4 managed lanes (ML)	No	Yes	Yes	Yes	Yes
• 2 new general purpose lanes (GP)	No	No	No	Yes	Yes
• 4 direct access ramps (DAR)	No	Yes	Yes	Yes	Yes
• Auxiliary lane improvements	No	Yes	Yes	Yes	Yes
• Traveler information improvements	No	Yes	Yes	Yes	Yes
<b>Community Impacts &amp; Opportunities</b>					
• Number of business acquisitions	No Impact	10	11	10	13
• Number of residence acquisitions	No Impact	50	104	53	112
• Residences to receive noise abatement	0	1582	1582	1582	1582
• Community Enhancements	No	Yes	Yes	Yes	Yes
<b>Biological Impacts &amp; Opportunities</b>					
• Coastal Wetlands	No Impact	24 acres	29 acres	27 acres	32 acres
• Coastal Sage Scrub	No Impact	70 acres	73 acres	73 acres	74 acres
• Endangered or Threatened Species	No Impact	Coastal California Gnatcatcher, Belding's Savannah Sparrow	Coastal California Gnatcatcher, Belding's Savannah Sparrow	Coastal California Gnatcatcher, Belding's Savannah Sparrow	Coastal California Gnatcatcher, Belding's Savannah Sparrow, & Light-footed Clapper Rail
• Habitat Creation and Restoration	No	Yes	Yes	Yes	Yes
• Improved Coastal Access	No	Yes	Yes	Yes	Yes
• Improved Water Quality	No	Yes	Yes	Yes	Yes
<b>Travel Times Year 2030</b>					
• General Purpose Lanes (AM/PM peak)	NB 45/80 min SB 60/40 min	NB 25/55 min SB 45/35 min	NB 25/55 min SB 45/35 min	NB 25/35 min SB 35/30 min	NB 25/35 min SB 35/30 min
• <b>HOV/Managed Lanes</b>	---	Free Flow (24 min)	Free Flow (24 min)	Free Flow (24 min)	Free Flow (24 min)
<b>Project Cost Estimate</b>	---	\$3.4 billion	\$4.1 billion	\$3.8 billion	\$4.5 billion

Please see the Draft EIR/EIS for more information.





**I-5 North Coast Corridor  
HOV/Managed Lanes Project:  
Proposed Highway Improvements Map**

**Legend**

- Planning Study Area
- Existing Arterials
- I-5: Proposed 4 Managed Lanes, 0 - 2 General Purpose Lanes & New Auxiliary Lanes
- I-5: Proposed 4 Managed Lanes
- Existing Intersecting Interstate Highways
- Existing State Route Highways
- Proposed Intermediate Access Points
- Proposed Direct Access Ramps (DAR)
- Existing Direct Access Ramps (DAR)
- Proposed Transit Stations
- Existing Coaster Line & Stations / Amtrak Pacific Surfliner Line & Stations / Metrolink Line & Stations
- Existing Sprinter Line & Stations
- Existing Park & Ride Lots
- Existing Airports

