Summary of the Results of the
Traffic Analysis for the Highway 1 Widening Project
August 2004

Alternative Analysis Findings

Caltrans prepared a *Traffic Analysis Report*, dated June 2002, as part of the Project Study Report (PSR) for the Highway 1 Widening Project. The key findings of this analysis are presented below:

- Under the no-build 2020 scenario, a congested queue of vehicles would extend from Morrissey Boulevard back to Watsonville during both the AM and PM peak periods in the northbound direction.

- Under the no-build 2020 scenario, the increase in southbound congestion at the 1/17 Interchange would result in severe operational impacts to adjacent roadways, including, Route 17, Ocean Street, River Street, Route 9, and Mission Street.

- Based on 2020 traffic volumes, a reversible HOV facility would not be effective in reducing congestion as heavy travel demands are projected in both north and south bound directions. While the reversible lane would reduce congestion in one direction, the traffic in the opposing direction would experience significant delays. Moreover, the reversible HOV facility presents increased maintenance and operational costs, and obstacles to flexible and effective use by commuters.

- While the duration and extent of congestion at the 1/17 Interchange would decrease with lane widening to State Park Drive, by 2020 a significant bottleneck would develop where the 3rd lane was dropped at State Park Drive. Incremental analysis showed that an extension of an additional southbound 3rd lane to Larkin Valley/ San Andreas Road is required to adequately accommodate future (2020) volumes.

Based on these findings, a decision was made by SCCRTC and Caltrans in Summer 2004 to extend the southern project limits to Larkin Valley/San Andreas Road as part of the preliminary design/environmental review phase of the project.

Travel Time Savings

Following are travel speed and time savings calculated as part of the PSR effort using projected 2020 traffic volumes with the project limits extended to Larkin Valley/San Andreas Road.

Northbound AM

Peak Hour Speed

Existing 2001 Condition	30.7 mph
2020 Condition	
No-Build	16.7 mph
Auxiliary Lanes/Ramp Meters	24.8 mph
2-Lanes + HOV Lane	31.0 mph *(all lanes-average)*

Peak Hour Travel Time *(from Airport Blvd. on-ramp to Route 17 on-ramp)*

Existing 2001 Condition	28.6 minutes
2020 Conditions	
No-Build	53.7 minutes
Auxiliary Lanes/Ramp Meters	35.5 minutes
2-Lanes + HOV Lane	28.9 minutes (*all lanes-average)*

Southbound PM

Peak Hour Speed

Existing 2001 Condition	23.1 mph
2020 Conditions	
No-Build	11.4 mph
Auxiliary Lanes/Ramp Meters	13.8 mph
2-Lanes + HOV Lane	46.7 mph *(all lanes-average)*

Peak Hour Travel Time *(from Ocean Ave. on-ramp to San Andreas Rd. off-ramp)*

Existing 2001 Condition	27.8 minutes
2020 Conditions	
No-Build	41.7 minutes
Auxiliary Lanes/Ramp Meters	43.8 minutes
2-Lanes + HOV Lane	13.7 minutes *(all lanes-average)*

Sources:

1. *Project Study Report*, Widening on Route 1 in Santa Cruz County In and Near Capitola and Santa Cruz, Caltrans District 5, June 2002
2. T*raffic Analysis Report*, Attachment R of the *Santa Cruz Route 1 Project Study Report*, Caltrans District 5, June 2002

As part of the current Project Approval/Environmental Documentation (PA/ED) phase of the Highway 1 HOV Lane Widening Project, this traffic analysis will be revised using AMBAG's updated Travel Demand Model with traffic forecasts to the year 2030.