Mountain View, CA

Shoreline Boulevard Corridor Study



PROJECT OWNER:

City of Mountain View

PROJECT DATE(S):

2013 - 2015

TJKM CLIENT REFERENCE:

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\$22K

PROJECT DESCRIPTION:

This project sought to design corridor alternatives that addressed key transportation needs for the Shoreline corridor and North Bayshore area, with particular attention on improvements to the local and regional transit system, potential alternatives for the US 101 northbound off-ramp, and developments to benefit pedestrians and bicyclists.

The effort included gathering new input to confirm community desires for transit improvements, off-ramp realignment, and bicycle and pedestrian facilities. Alternatives included exclusive transit lanes, transit signal priority and jump lanes, as well as narrowing traffic lane widths, buffered bike lanes, enhanced crossings for pedestrians, and signal modifications. Multiple alternatives were proposed to include low-cost operational strategies as well as long-term capital intensive projects.

Evaluating those alternatives required the development of criteria that incorporated not just the technical merits of each option, but also a level of community support, connectivity, and accessibility; transit ridership; bicycle and pedestrian activity; compatibility with land use and urban design; and funding potential.

TJKM conducted a detailed traffic analysis using both VISSIM microsimulation and Synchro tools for the Shoreline corridor between Middlefield Road and Charleston Road. TJKM calibrated the VISSIM simulation model against traffic volumes, travel times, bottleneck locations, and queue lengths. TJKM simulated and documented the operational results of the existing conditions and multiple alternatives, as listed below:

- Realignment of the US 101 northbound off-ramp to La Avenida Street
- A reversible, center-running bus lane
- Extension of Inigo Way north to connect Pear Avenue and Space Park Way
- Conversion of Shoreline Boulevard/Plymouth Street from stop-control to signal-control
- Elimination of left turns onto southbound SR 85 from northbound Shoreline Boulevard
- Extension of Space Park Way to Joaquin Road
- Addition of a single, northbound, left-turn lane at the intersection of Shoreline Boulevard and Space Park Way, with as long a left-turn pocket as possible to Pear Avenue
- Conversion of the intersection of Shoreline Boulevard and Space Park Way (extended) from stop-control to signal-control
- Conversion of Plymouth Street to eastbound only (one way)

The simulation results assisted with the decision-making process in selecting the best set of strategies to improve the Shoreline corridor.



