

5. *Significant Unavoidable Adverse Impacts*

This chapter replaces Chapter 5 contained in the February 2016 Draft EIR. Section 15126.2 of the California Environmental Quality Act (CEQA) Guidelines requires that “direct and indirect significant effects of the project on the environment shall be clearly identified and described, giving due consideration to both the short- and long-term effects.” Cumulative impacts must also be considered.

This Environmental Impact Report (EIR) assesses a “project” that consists of an updated Comprehensive Plan (proposed Plan), including updated policies that will necessitate regulatory (zoning) changes and transportation investments. To test the possible impacts of the Plan, which has not yet been finalized, the Draft EIR considers six simplified planning scenarios with different amounts of growth and different transportation investments.

Chapter 1, Executive Summary, contains Table 1-3, which summarizes the impacts, mitigation measures, and levels of significance (before and after mitigation) associated with each planning scenario. While mitigation measures identified in this Draft EIR are expected to be incorporated into the proposed Plan that is ultimately adopted where this is feasible and these measures would reduce the level of impact to less than significant in many cases, the following impacts would remain significant and unavoidable after identified mitigation measures are applied:

Aesthetics and Visual Resources

None.

Air Quality

AIR-2	Implementation of the proposed Plan could violate an air quality standard; contribute substantially to an existing or project air quality violation; and/or result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is nonattainment under an applicable federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors). (Significant and Unavoidable – All Six Scenarios)
--------------	--

The Bay Area Air Quality Management District (BAAQMD) is the primary agency responsible for ensuring the health and welfare of sensitive individuals to elevated concentrations of air pollutants in the Air Basin.

SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS

Projects that exceed BAAQMD's regional significance thresholds contribute to the nonattainment designation of the Air Basin. The Air Basin is currently designated a nonattainment area for California and national Ozone (O₃), California and national fine inhalable particulate matter (PM_{2.5}), and California coarse inhalable particulate matter (PM₁₀) ambient air quality standards (AAQS). At a plan level, air quality impacts are measured by the potential for a project to contribute to the State and federal nonattainment designations in the Air Basin. Any project that produces a significant regional air quality impact that is in nonattainment area adds to the cumulative impact. Pursuant to the CEQA Guidelines Section 15130(b)(1), cumulative impacts can be based on the growth projections in a local General Plan. Consequently, the analysis in this Draft EIR is the proposed Plan's contribution to cumulative impacts.

For the proposed Plan, an emissions inventory and forecast was generated to identify the magnitude of emissions from buildout of the proposed Plan. Table 4.2-8 in Chapter 4.2, Air Quality, of this Supplement to the Draft EIR identifies the emissions associated with buildout of each of the scenarios. However, as shown in the table, the proposed Plan would generate a substantial increase in criteria air pollutant emissions. Therefore, the proposed Plan could contribute to an increase in health effects in the basin until such time the attainment standards are met in the Air Basin. Criteria air pollutant emissions would be generated from on-site area sources (e.g., landscaping fuel, consumer products), vehicle trips generated by the proposed Plan, and energy use (e.g., natural gas used for cooking and heating). Therefore, impacts associated with both construction and operational emissions from future development proposals allowed by the proposed Plan would be significant.

Construction emissions associated with individual development projects permitted under the proposed Plan would generate an increase in criteria air pollutants and toxic area contaminants (TACs). Construction emissions from buildout of future projects within Palo Alto would primarily be: 1) exhaust emissions from off-road diesel-powered construction equipment; 2) dust generated by demolition, grading, earthmoving, and other construction activities; 3) exhaust emissions from on-road vehicles; and 4) off-gas emissions of reactive organic gases (ROGs) from application of asphalt, paints, and coatings. Because the details regarding future construction activities are not known at this time, including phasing of future individual projects, construction duration and phasing, and preliminary construction equipment, construction emissions are evaluated qualitatively in accordance with BAAQMD's plan-level guidance. BAAQMD has developed project-level thresholds for construction activities. Subsequent environmental review of future development projects would be required to assess potential impacts under BAAQMD's project-level thresholds. Mitigation measures would require adherence to the current BAAQMD basic control measures and implementation of BAAQMD-approved mitigation measures, ensure impacts from fugitive dust generated during construction activities are less than significant. However, an analysis of emissions generated from the construction of specific future projects under the proposed Plan would be required to evaluate emissions compared to BAAQMD's project-level significance thresholds during individual environmental review. No additional mitigation measures are available and the impact is considered *significant and unavoidable*.

SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS

Biological Resources

None.

Cultural Resources

None.

Geology, Soils, and Seismicity

None.

Greenhouse Gas Emissions and Climate Change

None.

Hazards and Hazardous Materials

None.

Hydrology and Water Quality

None.

Land Use and Planning

None.

Noise

None.

Population and Housing

None.

Public Services and Recreation

None.

SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS

Transportation and Traffic

TRANS-1 Implementation of the project would cause an intersection to drop below its motor vehicle level of service standard, or deteriorate operations at representative intersections that already operate at a substandard level of service. (Significant and Unavoidable – All Six Scenarios)

The proposed Plan would result in significant impacts at the following intersections:

- I-280 NB Ramps and Sand Hill Road (#1) (in Menlo Park)
- Middlefield Road and East Charleston Road (#2)
- Alma Street and East/West Charleston Road (#4)
- El Camino Real (State Route 82) and San Antonio Road (#8) (in Mountain View)
- Foothill Expressway and Page Mill Road (#9)
- Foothill Expressway and Arastradero Road (#10)
- Middlefield Road and Embarcadero Road (#16)
- Embarcadero Road and East Bayshore Road (#18)

Under Scenario 1 there would be a significant impact at six of the 14 intersections that were analyzed in the February 2016 Draft EIR and at one of the four intersections (#16) added to the analysis as part of this Supplement to the Draft EIR. Under Scenario 1 there would be seven intersections where there would be a significant impact during at least one of the peak hours.

- I-280 NB Off-Ramp and Sand Hill Road (in Menlo Park) (#1)
- Middlefield Road and East Charleston Road (#2)
- Alma Street and East/West Charleston Road (#4)
- El Camino Real (SR 82) and San Antonio Road (in Mountain View and Los Altos) (#8)
- Foothill Expressway and Page Mill Road (#9)
- Foothill Expressway and Arastradero Road (#10)
- Middlefield Road and Embarcadero Road (#16)

Under Scenario 2 there would be a significant impact at three of the 14 intersections that were analyzed in the February 2016 Draft EIR and at one of the four intersections (#16) added to the analysis as part of this Supplement to the Draft EIR. Under Scenario 2 there would be four intersections where there would be a significant impact during at least one of the peak hours.

- I-280 NB Off-Ramp and Sand Hill Road (in Menlo Park) (#1)
- Alma Street and East/West Charleston Road (#4)
- El Camino Real (SR 82) and San Antonio Road (in Mountain View and Los Altos) (#8)
- Middlefield Road and Embarcadero Road (#16)

SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS

Under Scenario 3 there would be a significant impact at four of the 14 intersections that were analyzed in the February 2016 Draft EIR and at one of the four intersections (#16) added to the analysis as part of this Supplement to the Draft EIR. Under Scenario 3 there would be five intersections where there would be a significant impact during at least one of the peak hours.

- I-280 NB Off-Ramp and Sand Hill Road (in Menlo Park) (#1)
- El Camino Real (SR 82) and San Antonio Road (in Mountain View and Los Altos) (#8)
- Foothill Expressway and Page Mill Road (#9)
- Foothill Expressway and Arastradero Road (#10)
- Middlefield Road and Embarcadero Road (#16)

Under Scenario 4 there would be a significant impact at five of the 14 intersections that were analyzed in the February 2016 Draft EIR and at two of the four intersections (#16 and #18) added to the analysis as part of this Supplement to the Draft EIR. Under Scenario 4 there would be seven intersections where there would be a significant impact during at least one of the peak hours.

- I-280 NB Off-Ramp and Sand Hill Road (in Menlo Park) (#1)
- Middlefield Road and East Charleston Road (#2)
- El Camino Real (SR 82) and San Antonio Road (in Mountain View and Los Altos) (#8)
- Foothill Expressway and Page Mill Road (#9)
- Foothill Expressway and Arastradero Road (#10)
- Middlefield Road and Embarcadero Road (#16)
- Embarcadero Road and East Bayshore Road (#18)

Scenario 5 would result in a substandard level of service and a significant impact at three of the 14 intersections that were analyzed in the February 2016 Draft EIR. Scenario 5 would also result in improved average delay at the intersection of Foothill Expressway/Junipero Serra Boulevard and Page Mill Road (#9), although it would still operate at LOS F in the PM peak hour. In addition, Scenario 5 would result in an impact at one of the four intersections (#16) added to the analysis as part of this Supplement to the Draft EIR, as discussed further below. Under Scenario 5 there would be four intersections where there would be a significant impact during at least one of the peak hours.

- I-280 NB Off-Ramp and Sand Hill Road (in Menlo Park) (#1)
- El Camino Real (SR 82) and San Antonio Road (in Mountain View and Los Altos) (#8)
- Foothill Expressway and Arastradero Road (#10)
- Middlefield Road and Embarcadero Road (#16)

Scenario 6 would both result in a substandard level of service and a significant impact at four of the 14 intersections that were analyzed in the February 2016 Draft EIR. In addition, Scenario 6 would result in an impact at two of the four intersections (#16 and #18) added to the analysis as part of this Supplement to the Draft EIR. The intersections that would be impacted under Scenario 6 but not under Scenario 5 is Foothill Expressway and Page Mill Road (#9) and Embarcadero Road and East Bayshore Road (#18). Under

SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS

Scenario 6 there would be six intersections where there would be a significant impact during at least one of the peak hours.

- I-280 NB Off-Ramp and Sand Hill Road (in Menlo Park) (#1)
- El Camino Real (SR 82) and San Antonio Road (in Mountain View and Los Altos) (#8)
- Foothill Expressway/Junipero Serra Boulevard and Page Mill Road (#9)
- Foothill Expressway and Arastradero Road (#10)
- Middlefield Road and Embarcadero Road (#16)
- Embarcadero Road and East Bayshore Road (#18)

Mitigation measures would include additional Transportation Demand Management (TDM) measures, payment of a Transportation Impact Fee, support for expanded public transit, and support for unbundled parking. For the Middlefield Road and East Charleston Road (#2) and Embarcadero Road and East Bayshore Road (#18) intersections, these mitigation measures would be sufficient to reduce the impact to a less-than-significant level. However, for the remaining intersections, all of the scenarios would still generate additional vehicle trips such that intersections would be significantly affected. The affected intersections are operating close to or below level of service standards under existing conditions, so even small increases in traffic at these intersections would trigger impacts. Therefore, the impact would be *significant and unavoidable*.

TRANS-3	Implementation of the project would cause a freeway segment or ramp to drop below its level of service standard, or deteriorate operations that already operate at a substandard level of service. (Significant and Unavoidable – All Six Scenarios)
----------------	---

All six scenarios, unless otherwise noted below, would have a significant impact on the following freeway segments:

- Northbound US 101, between Rengstorff Avenue and San Antonio Road, both AM and PM peak hours
- Northbound US 101, between San Antonio Road and Oregon Expressway, AM peak hour
- Northbound US 101, between Embarcadero Road and University Avenue, PM peak hour
- Southbound US 101, between Oregon Expressway and San Antonio Road, PM peak hour
- Southbound US 101, between San Antonio Road and Rengstorff Avenue, PM peak hour (except Scenario 6)
- Northbound I-280, between Sand Hill Road and Woodside Road (SR 84), PM peak hour
- Southbound I-280, between Woodside Road (SR 84) and Sand Hill Road, PM peak hour

Mitigation would include the City advocating for regional transportation planning to reduce congestion and improve traffic flow on existing area freeway facilities consistent with Statewide greenhouse gas (GHG) emissions reduction initiatives. Mitigations also include support freeway information, monitoring, and control systems and, where appropriate, support for exclusive bus and high-occupancy vehicle (HOV) lanes

SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS

on freeways and expressways. This mitigation would reduce impacts at the following segments to less-than-significant levels:

- Southbound US 101, between Oregon Expressway and San Antonio Road, PM peak hour (Scenario 6 only)
- Southbound US 101, between San Antonio Road and Rengstorff Avenue, PM peak hour
- Northbound I-280, between Sand Hill Road and Woodside Road (SR 84), PM peak hour

However, on the remaining segments, the trip reduction needed to avoid an impact is greater than 40 percent and therefore the additional TDM mitigation measure would reduce but not eliminate the impact. Therefore, the impact would be *significant and unavoidable*.

TRANS-6	Implementation of the project would impede the operation of a transit system as a result of congestion. (Significant and Unavoidable – All Six Scenarios)
----------------	--

All six scenarios would cause some degradation in level of service on at least one roadway segment and have a significant impact on multiple intersections. Transit services that travel on those roadway segments and use those impacted intersections would be slowed down by the increased congestion. Mitigation measures would eliminate the impact on transit at the following intersections, which are projected to operate at a substandard level of service and are used by at least one bus route:

- Middlefield Road and East Charleston Road (#2) under Scenarios 1 and 4
- Embarcadero Road and East Bayshore Road (#18) under Scenario 6

However, impacts at all intersections and segments where buses operate would not be eliminated. Santa Clara Valley Transportation Authority (VTA) Route 88 runs on East/West Charleston Road and crosses the Caltrain tracks and Alma Street. The intersection of Alma Street and East/West Charleston Road (#4) is one of the impacted intersections under Scenarios 1 and 2, but signal *pre-emption* for VTA's bus service would not be possible at this location, due to the railroad crossing and the need for Caltrain to have signal pre-emption capabilities. However, signal *priority* for VTA buses should be possible at this intersection and would provide sufficient mitigation to eliminate the impact on transit at this intersection. No further feasible mitigation measures have been identified. Thus, all six scenarios would have a significant impact on transit operations by increasing congestion and this impact is considered *significant and unavoidable*.

Utilities and Service Systems

None.

SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS