Appendix A CEQA Environmental Checklist

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CEQA Environmental Checklist

12-ORA-5	12.4/18.9	0K0200
Dist.-Co.-Rte.	P.M/P.M.	E.A.

This checklist identifies physical, biological, social and economic factors that might be affected by the proposed project. In many cases, background studies performed in connection with the project indicate no impacts. A NO IMPACT answer in the last column reflects this determination. Where there is a need for clarifying discussion, the discussion is included either following the applicable section of the checklist or is within the body of the environmental document itself. The words "significant" and "significance" used throughout the following checklist are related to California Environmental Quality Act (CEQA), not National Environmental Policy Act (NEPA), impacts. The questions in this form are intended to encourage the thoughtful assessment of impacts and do not represent thresholds of significance.

Supporting documentation of all California Environmental Quality Act (CEQA) checklist determinations is provided in Chapter 2 of this Initial Study/Environmental Assessment (IS/EA). Documentation of “No Impact” determinations is provided at the beginning of Chapter 2. Discussion of all impacts, avoidance, minimization, and/or mitigation measures are under the appropriate topic headings in Chapter 2.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
I. AESTHETICS: Would the project:				
a) Have a substantial adverse effect on a scenic vista **Less than significant.** Refer to Section 2.6, Visual/Aesthetics. With implementation of Measures VIS-1 through VIS-4, temporary and permanent impacts to scenic vistas are considered less than significant.	☐	☐	☒	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway **No impact.** There are no State designated scenic highways located within the Study Area. Therefore, no impacts to State designated scenic resources within a scenic highway are anticipated.	☐	☐	☐	☒
c) Substantially degrade the existing visual character or quality of the site and its surroundings? **Less than significant.** Refer to Section 2.6, Visual/Aesthetics. With implementation of Measures VIS-1 through VIS-4, temporary and permanent impacts to existing visual character are considered less than significant.	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? **Less than significant**. Refer to Section 2.6, Visual/Aesthetics. With implementation of Measure VIS-4, temporary light and glare impacts during construction activities would be less than significant. With implementation of Measure VIS-2 permanent impacts from light and glare as a result of any new soundwalls and/or retaining walls would be less than significant.	☐	☐	☒	☐

II. AGRICULTURE AND FOREST RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? ☐ ☐ ☐ ☒

No impact. There is no Prime Farmland, Unique Farmland, or Farmland of Statewide Importance located within the Study Area. Therefore, no impacts to farmland are anticipated.

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract? ☐ ☐ ☐ ☒

No impact. There is no existing land use within the Study Area that is currently zoned for agricultural use under a Williamson Contract. Therefore, no impacts to existing agricultural land use are anticipated.

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))? ☐ ☐ ☐ ☒

No impact. There are no forest lands or timberland located within the Study Area. Therefore, no impacts are anticipated.

d) Result in the loss of forest land or conversion of forest land to non-forest use? ☐ ☐ ☐ ☒

No impact. There is currently no land zoned for forest land use within the Study Area. Therefore, no loss or conversion of existing forest land would occur. No impacts are anticipated.

e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use? ☐ ☐ ☐ ☒

No impact. There is no land within or immediately adjacent to the Study Area that is zoned for agricultural purposes. Therefore, the project would not result in conversion of Farmland to non-agricultural use or forest land to non-forest use. No impacts are anticipated.

III. AIR QUALITY: Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

a) Conflict with or obstruct implementation of the applicable air quality plan? **No impact.** Please refer to Section 2.13 Air Quality. The Build Alternatives are in conformance with all applicable air quality plans. Therefore, no impacts are anticipated.	☐	☐	☐	☒
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation? **Less than significant impact**. Please refer to Section 2.13, Air Quality. The proposed project is located in Orange County (part of the South Coast Air Basin) that is currently in nonattainment zone for ozone, particulate matter less than 10 microns in diameter (PM_{10}), and particulate matter less than 2.5 microns ($PM_{2.5}$). There is a potential for increased particulate matter from construction activities. However, standard dust control measures for handling material would adequately ensure that impacts are less than significant. The Build Alternative would alleviate several peak-hour mainline and freeway ramp inefficiencies and would reduce congestion. These improvements are not expected to generate additional traffic, and regional traffic trips would remain similar. Therefore, no long-term regional emissions would result from implementation of the Build Alternatives. The Build Alternatives would improve traffic movement in the project vicinity, thereby lowering the total pollutants emitted by motor vehicles. Therefore, impacts to air quality are considered less than significant.	☐	☐	☒	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non- attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)? **Less than significant impact.** Please refer to Section 2.13, Air Quality. Increases in criteria pollutants would be temporary and short-term in duration. Please refer to III b) for discussion on temporary construction impacts. Therefore, impacts are considered less than significant.	☐	☐	☒	☐
d) Expose sensitive receptors to substantial pollutant concentrations? **Less than significant impact**. Please refer to Section 2.13, Air Quality. As discussed in Section 2.13, Air Quality, the Build Alternatives are expected to improve air quality because they would reduce congestion, resulting in lower emission levels, and thereby would decrease exposure of sensitive receptors to pollutant concentrations. Therefore, impacts to sensitive receptors from substantial pollutant concentrations are considered less than significant.	☐	☐	☒	☐

e) Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐

Less than significant impact. Please refer to Section 2.13, Air Quality. The Build Alternatives would neither directly nor indirectly create objectionable odors. Therefore, no permanent impacts are anticipated. Exhaust emissions and potential odors may result from construction equipment used on the construction site, as well as from vehicles used to transport materials to and from the site, However, these impacts are considered short-term. Therefore, impacts are considered less than significant.

IV. BIOLOGICAL RESOURCES: Would the project:

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☒	☐

Less than significant impact. As discussed in Section 2.17, Plant Species, no impacts to special-status plant species are anticipated. However, as discussed in Section 2.18, Animal Species, and Section 2.19, Threatened and Endangered Species, the Build Alternatives are expected to have some, but not substantial, indirect effects on bridge- and crevice-dwelling animal species. The introduction of nonnative species and trash would permanently contribute to the degradation of foraging habitat for the white-tailed kite and least Bell's vireo (i.e., riparian vegetation) in the Study Area.

Additionally, the Build Alternatives may have an indirect permanent effect on southern steelhead-designated critical habitat due to permanent changes to water quality through the increase in impervious surface area (i.e., increase in surface runoff).

With implementation of Measures BIO-1 through BIO-16, impacts to these animal species would be considered less than significant.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?	☐	☐	☒	☐

Less than significant impact. As stated in IV a), the Build Alternatives would permanently contribute to the degradation of foraging habitat (i.e., riparian vegetation) in the Study Area. Implementation of minimization and avoidance Measures BIO-1 through BIO-16 would minimize/avoid impacts to riparian habitat or other sensitive natural communities to a level that is less than significant.

c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☒	☐	☐

Less than significant with mitigation. As discussed in Section 2.16, Wetlands and Other Waters of the US, Alternative 2 is expected to permanently affect 0.08 ac nonwetland waters and 0.04 ac wetland waters of the United States. Alternative 3 is expected to permanently affect 0.10 ac nonwetland waters and 0.10 ac wetland waters of the United States.

With implementation of Measures BIO-1 through BIO-9 (in Section 2.15), and WQ-1 through WQ-3 (in Section 2.9), impacts to federally protected wetlands would be avoided and/or minimized to be less than significant. Additionally, with implementation of Measures BIO-11, impacts to jurisdictional wetlands and waters would be compensated and therefore reduced to a less than significant level.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐

Less than significant impact. Since data regarding the historic use of Oso Creek by anadromous fish could not be substantiated, anadromous fish usage of Oso Creek is considered historically absent. Therefore, the Build Alternatives are not presenting barriers to anadromous fish passage in a viable fish-producing stream. However, implementation of Measure BIO-16 would ensure that should it later be determined that Oso Creek was historically used by anadromous fish. For these reasons, impacts to fish passage would be less than significant.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒

No impact. No local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, have been identified. Therefore, no impacts are anticipated.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

No impact. The project is not located within an area that has an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State Habitat Conservation Plan. Therefore, no impacts are anticipated.

V. CULTURAL RESOURCES: Would the project:

a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☐	☒
No impact. As stated in Section 2.7, Cultural Resources, it was determined that no built environment resource within the project Area of Potential Effects (APE) qualifies as a "historical resource" pursuant to CEQA, nor does any such resource qualify as a historic property per Section 106. Therefore, no historical resources will be impacted, and no historic properties will be impacted by the proposed project.				
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☐	☒	☐
Less than significant impact. As stated in Section 2.7, Cultural Resources, the Direct APE is extensively disturbed by development, and the likelihood of encountering intact archaeological resources during construction of the Build Alternatives is low. The right of way (ROW) is completely disturbed by previous infrastructure development or consists entirely of fill. A historic Native American site associated with the historic Juan Avila, Jose Serrano, and Stein Adobes (P-30-000016) was previously recorded in the Direct APE. Research determined that the entire site was destroyed by the original construction of I-5. No visible remains are present and are presumed destroyed by its construction. The State Historic Preservation Officer (SHPO) recommends that archaeological monitoring be performed within the areas where previously documented adobes and the associated Native American site have been noted. Measures CR-1, CR-2, and CR-3 avoid and/or minimize any potential effects to these resources or any unknown cultural resources. Therefore, the Build Alternatives are not anticipated to have a significant impact on any archaeological resources.				
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐
Less than significant with mitigation. Sediments in the Study Area have the potential to contain significant, unrenewable paleontological resources, and it is likely that paleontological localities will be encountered during project excavation. With implementation of Measure PAL-1, potential impacts to paleontological resources that may be present within the Study Area, where excavation may occur, are considered less than significant.				
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐
Less than significant impact. While no human remains have been identified within the Study Area, the potential exists when ground-disturbing activities occur. Implementation of Measure CR-3 will minimize any potential disturbance to human remains. Therefore, impacts are considered less than significant.				

VI. GEOLOGY AND SOILS: Would the project:

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42?

☐ ☐ ☒ ☐

Less than significant impact. As discussed in Section 2.10, Geology and Soils, the closest mapped active fault is located approximately 0–0.5 mile (mi) from the Study Area. No Earthquake Fault-Rupture Hazard Zones delineated by the State of California are reported to be present in the Study Area. Therefore, the threat of surface fault rupture during an earthquake is considered very low, and impacts are considered less than significant.

ii) Strong seismic ground shaking?

☐ ☐ ☒ ☐

Less than significant impact. As discussed in Section 2.10, Geology and Soils, the faults that are considered active and located in close proximity to the Study Area include the Newport Inglewood-Rose Canyon Fault and the San Joaquin Hills Blind Thrust Fault. The Newport Inglewood-Rose Canyon Fault is capable of generating a magnitude 7.1 to 7.5 earthquake, and the San Joaquin Hills Blind Thrust Fault in capable of generating a magnitude 6.6 earthquake. Caltrans considers the possibility of such seismic activity and includes standard design features to minimize and avoid potential adverse impacts from seismic events. Implementation of Caltrans standard seismic design features will ensure that no adverse impacts from seismic hazards would occur under the Build Alternatives. Therefore, impacts are considered less than significant.

iii) Seismic-related ground failure, including liquefaction?

☐ ☐ ☒ ☐

Less than significant impact. According to a Seismic Hazard Zones map prepared by the California Geological Survey (CGS) for the San Juan Capistrano quadrangles, portions of the Study Area located in the alluvium-filled drainages of the Aliso Creek Watershed and La Paz and Oso Creeks are located in designated liquefaction hazard zones.

Potential impacts due to liquefaction can be reduced through proper project planning, design, and construction. During the final design phase, a site-specific Final Geotechnical Design Report (GDR) will be prepared. The Final GDR will provide detailed analyses for the various design features, including but not limited to retaining walls and a noise barrier. The GDR will also provide soil sampling test results and geotechnical analysis regarding liquefaction, lateral spreading susceptibility, and final slope stability analyses. Based on the results of the Final GDR and SGRs, the project design will include deepening the foundation and/or increasing the depth of piles or other suitable remedies. In addition, fill slopes will be stabilized by utilizing the 2:1 (horizontal to vertical) slope, assuming no liquefaction and lateral spreading. Implementation of measures recommended by the Final GDR and Structure Foundation Reports (SFRs) will ensure that there would be less than significant direct or indirect permanent impacts from liquefaction would occur under either Build Alternatives.

iv) Landslides? **Less than significant impact.** As discussed in Section 2.10, Geology and Soils, several slopes within the Study Area are located within mapped earthquake-induced landslide hazard zones. Subsurface exploration and laboratory testing would be conducted during the design phase to further evaluate the potential earthquake-induced landslide hazard and to characterize the geotechnical conditions at these locations for use in further detailed analyses and slope design. Implementation of measures recommended by the Final GDR and SFRs will ensure that there would be less than significant direct or indirect permanent adverse impacts from landslides or slope instability.	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil? **Less than significant impact.** As discussed in Section 2.10, Geology and Soils, construction of the proposed project will likely result in the alteration of existing landforms through grading activities. Alterations in land form from grading may cause erosional impacts to the existing terrain. Erosion and sedimentation in natural drainages and along natural slopes may also impact the various project elements. Applying standard engineering techniques during design and construction to prevent erosion will minimize these impacts to a less than significant level. Typical erosion control minimization measures include improved drainage control and implementation of landscaping after construction. Additionally, with implementation of erosion control BMPs as discussed in Measures WQ-1, WQ-2, WQ-5, and WQ-6, impacts from erosion would be considered less than significant.	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? **Less than significant impact.** Please see response to VI a) iii) and iv). With implementation of Measure GEO-1, impacts would be considered less than significant.	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property? **No impact.** The project does not include development of structures that would require compliance with the Uniform Building Code. Therefore, impacts are not anticipated.	☐	☐	☐	☒
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water? **No impact.** The project does not include development of structures that would require septic tanks or wastewater disposal. Therefore, no impacts are anticipated.	☐	☐	☐	☒

VII. GREENHOUSE GAS EMISSIONS: Would the project:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

An assessment of greenhouse gas (GHG) emissions and climate change is included in the body of environmental document. While Caltrans has included this good-faith effort in order to provide the public and decision-makers as much information as possible about the project, it is Caltrans determination that in the absence of further regulatory or scientific information related to GHG emissions and CEQA significance, it is too speculative to make a significance determination regarding the project's direct and indirect impact with respect to climate change. Caltrans does remain firmly committed to implementing measures to help reduce the potential effects of the project. These measures are outlined in the body of the environmental document.

VIII. HAZARDS AND HAZARDOUS MATERIALS: Would the project:

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? ☐ ☐ ☒ ☐

Less than significant impact. As discussed in Section 2.12, Hazardous Materials/Waste, operation and maintenance of the facilities proposed as part of the Build Alternatives would continue existing transport of hazardous materials/waste associated with vehicles currently utilizing I-5 within the project limits. No new permanent hazardous waste/materials impacts (direct or indirect) beyond existing conditions related to hazardous materials are anticipated.

Implementation of Measures HAZ-1 through HAZ-10 would minimize and avoid any potential hazardous materials releases that may affect the public or the environment. Therefore, impacts to the public or the environment through the routine transport, use, or disposal of hazardous materials during construction of the Build Alternatives would be considered less than significant.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? ☐ ☐ ☒ ☐

Less than significant impact. Please see response to VIII a). Impacts to the public or the environment through reasonably foreseeable upset or accident conditions involving the release of hazardous materials into the environment would be considered less than significant.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mi of an existing or proposed school? **Less than significant impact**. A total of three schools are located within 0.25 mi of the proposed project. Viejo Elementary School and Capistrano Valley High School are publicly operated by Capistrano Unified School District, and Mission Viejo High School is publicly operated by Saddleback Valley Unified School District. Please refer to response VIII a) regarding potential impacts. With implementation of Measures HAZ-3 through HAZ-7, and HAZ-10, potential impacts associated with hazardous emissions or the handling of hazardous or acutely hazardous materials, substances, or waste would be less than significant.	☐	☐	☒	☐
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment? **Less than significant impact.** Seven properties were identified within the Study Area. These properties are: Chevron (28692 Camino Capistrano), Arco (28662 Camino Capistrano), Shell (28681 Marguerite Parkway), Arco (26001 La Paz Road), 76 /Laguna Hills Auto Spa (25172 Cabot Road), and USA (23852 El Toro Road) gas stations as well as an Orange County Transportation Authority (OCTA)/Southern California Regional Rail Authority (SCRRA) railroad right-of-way were identified in Section 2.12, Hazardous Waste/Materials, as sites with known releases. However, with implementation of Measures HAZ-1, HAZ-2, HAZ-7, HAZ-9, and HAZ-10, no significant hazard would occur. Therefore, impacts are considered less than significant.	☐	☐	☒	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two mi of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area? **No impact.** The proposed project is not located within an airport land use plan or within two mi of a public airport or public use airport (http://www.ocair.com/commissions/aluc/).] Therefore, no safety hazards for people residing or working in the Study Area would occur, and no impacts are anticipated.	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area? **No impact.** The proposed project is not located within the vicinity of a private airstrip (http://www.ocair.com/commissions/aluc/). Therefore, no safety hazards for people residing or working in the Study Area would occur, and no impacts are anticipated.	☐	☐	☐	☒

g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐

Less than significant impact. The Build Alternatives would benefit any existing adopted emergency response plan or emergency evacuation plan because the proposed project will help ease congestion along the Interstate 5 (I-5) mainline and reduce travel time. Therefore, the construction of either Build Alternative would result in an overall net benefit.

However, temporary ramp closures during construction of either Build Alternative may interfere with existing adopted emergency response plans or emergency evacuation plans. As discussed in Section 1.4.1, Project Description, a Transportation Management Plan (TMP) would include minimization and avoidance measures consisting of alternate routes and detours for emergency vehicles during construction activities. Therefore, impacts from temporary closures and construction would be considered less than significant.

h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☒

No impact. The proposed project is not located within or adjacent to existing wildlands that could expose people or structures to a significant risk of loss, injury, or death involving wildland fires. Therefore, no impacts are anticipated.

IX. HYDROLOGY AND WATER QUALITY: Would the project:

a) Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐

Less than significant impact. As discussed in Section 2.9, Water Quality and Storm Water Runoff, with conformance to the National Discharge Elimination System (NPDES) Storm Water Permit and Best Management Practices (BMPs) discussed under Measures WQ-1 through WQ-5 would ensure that the Build Alternatives would not violate water quality standards or waste discharge requirements. Therefore, impacts to water quality standards or waste discharge requirements would be less than significant.

b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☒

No impact. The proposed project is not a growth-inducing project and would not require an additional need for groundwater supply. Therefore, the proposed project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge. Therefore, no impacts are anticipated.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐
Less than significant impact. As discussed in Section 2.9, Water Quality and Storm Water Runoff, the increase in impervious area caused by the proposed project is relatively small (less than one percent) compared to the urbanized area within the entire Aliso Creek, San Juan Creek, and Newport Bay watersheds. Incorporation of Measures WQ-1 through WQ-5 would minimize impacts to erosion or siltation. Alterations to existing streams will occur within the Study Area under the Build Alternatives. However, any alteration of existing streams will require a Streambed Alteration Agreement from the California Department of Fish and Wildlife (CDFW) and a Section 404 Permit (Nationwide Permit 14) from the United States Army Corps of Engineers (ACOE), as outlined in measure BIO-9. With implementation of Measures WQ-1, WQ-2, and BIO-9, impacts to the existing drainage would be considered less than significant.				
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☒	☐
Less than significant impact. As discussed in Section 2.9, Water Quality and Storm Water Runoff, because the proposed project consists of lane additions, it would result in a permanent increase of impervious surfaces and a permanent increase in runoff and pollutant loading. However, the increase in impervious area caused by the proposed project is relatively small (less than one percent) compared to the urbanized area within the entire Aliso Creek, San Juan Creek, and Newport Bay watersheds. This minor increase in runoff volume is not expected to result in channel erosion or hydromodification to Aliso Creek, San Juan Creek, or Newport Bay watersheds. Implementation of Measures WQ-1 through WQ-5 would minimize impacts to drainage patterns, stream or river modifications, and an increase in the rate or amount of surface runoff to a level that is less than significant.				
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐
Less than significant impact. Please refer to IX d), above. With the implementation of Measures WQ-1 through WQ-5, impacts to the capacity of existing or planned storage systems would be less than significant.				

f) Otherwise substantially degrade water quality?	☐	☐	☒	☐

Less than significant impact. If construction BMPs are properly designed, implemented, and maintained, as presented in Measures WQ-1 through WQ-5, no adverse water quality impacts would occur during construction of the Build Alternatives. Groundwater dewatering may be necessary to construct the bridge structure footings proposed under the Build Alternatives. Dewatered groundwater may contain high levels of Total Dissolved Solids (TDS), salinity, high nitrates, or other contaminants, which could be introduced into surface waters during construction. However, groundwater and any other nonstorm water dewatering activities are subject to the requirements of the Santa Ana and San Diego Regional Water Quality Control Boards (RWQCB's) Order R8-2004-0021, National Pollutant Discharge Elimination System (NPDES) Permit Number CAG998002, as amended by Order No. R8-2006-0065, *General Waste Discharge Requirements for Short-Term Groundwater-Related Discharges to Surface Waters and De Minimus Wastewater Discharges to Surface Waters within the San Diego Creek/Newport Bay Watershed* or subsequent permit. Compliance with this permit, as described in Measure WQ-3, would avoid adverse impacts to water quality from dewatering activities. Therefore, with implementation of Measures WQ-1 through WQ-5, the proposed project would not substantially degrade water quality, and impacts are considered less than significant.

g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒

No impact. According to Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) Nos. 06059C0427J, 06059C0431J, and 06059C0433J (December 3, 2009), the proposed project is within the 100-year floodplain. However, the proposed project is a transportation improvement project and does not include construction of new residential housing. Therefore, no impacts are anticipated.

h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☒	☐

Less than significant impact. As stated in IX g), FEMA FIRM Map Nos. 06059C0427J, 06059C0431J, and 06059C0433J (December 3, 2009) indicate that the Study Area along I-5 is located within a 100-year floodplain. However, with implementation of Measures HY-1 through HY-4, impacts to floodplains are less than a significant.

i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☒	☐

Less than significant impact. The portion of the study area within the Cities of San Juan Capistrano, Laguna Niguel, Laguna Hills, Laguna Woods, and Lake Forest are not located in areas of dam inundation. However, according to the City of Mission Viejo General Plan Safety Element, the area near the I-5/Oso Parkway interchange is located within an inundation area of the Upper Oso Reservoir Dam, El Toro Reservoir Dam, and the Lake Mission Viejo Dam (located approximately 5, 1.75, and 2.5 mi respectively, west of the City of Mission Viejo limits). However, the City of Mission Viejo is required by Section 8589.5of the California Government Code to have in place emergency procedures for the evacuation and control of populated areas within the limits of inundation below dams. Therefore, with implementation of standard emergency evacuation procedures, impacts from the failure of the Upper Oso Reservoir Dam, El Toro Reservoir Dam, and the Lake Mission Viejo Dam are considered less than significant.

j) Inundation by seiche, tsunami, or mudflow	☐	☐	☐	☒

No impact. According to the General Plans for the Study Area Cities, no major lakes or open water areas exist in the Cities of San Juan Capistrano, Mission Viejo, Laguna Niguel, Laguna Hills, Laguna Woods, or Lake Forest; therefore, the potential for a seiche or tsunami is remote. No impacts from seiches or tsunami are anticipated.

X. LAND USE AND PLANNING: Would the project:

a) Physically divide an established community?	☐	☐	☐	☒

No impact. Under the Build Alternatives, four full nonresidential acquisitions will be required. The businesses to be displaced are located within a commercial area that does not demonstrate indicators of high community cohesion. Therefore, the acquisitions would not divide or fragment an existing cohesive neighborhood. Therefore, the proposed project would not physically divide an established community, and no impacts are anticipated.

b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

No impact. As outlined in Section 2.1 Land Use, the Build Alternatives are consistent with applicable General Plan goals and policies to improve transportation corridors, provide adequate infrastructure, and maintain efficient traffic operations on city streets. The Build Alternatives are also consistent with regional planning efforts. The Build Alternatives are identified in the Southern California Association of Governments (SCAG) 2012–2035 Regional Transportation Plan Sustainable Communities Strategy (RTP) (RTP ID 2M0730). The 2012 RTP was found to conform to the State Implementation Plan (SIP) on June 15, 2012, by the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA). The project is also included in the SCAG financially constrained 2011 Federal Transportation Improvement Program (FTIP). The FTIP was determined to conform to the SIP by the FHWA and FTA on December 14, 2010 (FTIP ID ORA111801). Therefore, the land use changes associated with the Build Alternatives are

consistent with the approved land use and transportation plans, and no impacts are anticipated.

c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

No impact. The proposed project is not located in an area that is covered by a habitat conservation plan or natural community conservation plan. Therefore, no impacts are anticipated.

XI. MINERAL RESOURCES: Would the project:

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒

No impact. The proposed project is not located in an area with known mineral resources (State of California's Guidelines for Classification and Designation of Mineral Lands). Therefore, no impacts are anticipated.

b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

No impact. The proposed project is not located in an area that a local General Plans have designated as a locally important mineral resource recovery site. Therefore, no impacts are anticipated.

XII. NOISE: Would the project result in:

a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐

Less than significant impact. As discussed in Section 2.14, Noise, short-term, construction-related noise impacts would occur as a result of construction of the Build Alternatives. However, construction for the Build Alternatives would be in compliance with local jurisdiction noise restrictions as well as Caltrans Standard Specifications Section 14-8.02 and Caltrans Standard Provisions S5-310, as outlined in Measures N-1 and N-2. Therefore, temporary impacts are considered less than significant.

Many of the residents within the Study Area are currently and would continue to be exposed to traffic noise approaching or exceeding Caltrans noise abatement criteria (NAC) and noise standards in the General Plan of the Cities of San Juan Capistrano, Mission Viejo, Laguna Niguel, Laguna Hills, Laguna Woods, and Lake Forest. However, as the project would not result in any substantial noise level increases in the Study Area, no significant noise impact would occur under CEQA. Noise abatement measures, including sound barriers, have been evaluated to reduce the noise impacts. With implementation of the noise abatement measures, these noise levels would be further reduced. Therefore, long-term impacts are considered less than significant.

b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐

Less than significant impact. During construction, residents have the potential to be exposed to excessive vibration. However, no structures are expected to be exposed to vibration levels reaching a peak particle velocity (PPV) of 0.27 inch per second (in/sec). The project-related vibration levels would not result in damage to structures located nearby. Vibration levels from pile drivers and jackhammers would be potentially perceptible by adjacent residents and would result in temporary annoyance. However, compliance with local jurisdiction noise restrictions and the Caltrans Standard Specification as outlined in minimization measures N-1 and N-2 in Section 2.14 would minimize vibration impacts. Therefore, groundborne vibration and noise impacts are considered less than significant.

In addition, groundborne vibration from on-road vehicles that will use the completed project would not result in any measurable changes in vibration level compared to the existing conditions. Therefore, vibration impacts are considered less than significant

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐

Less than significant impact. A permanent increase in ambient noise levels of less than three dBA would occur as a result of the Build Alternatives. However, this increase is not perceptible to the human ear in an outdoor environment. In addition, with the incorporation of minimization measure N-3, ambient noise increases as a result of the Build Alternatives would be further minimized. Therefore, the increase in ambient noise levels is not considered substantial, and impacts are considered less than significant.

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐

Less than significant impact. Please refer to response XII a), above. With compliance with Measures N-1 and N-2, potential increases in ambient noise due to construction activities are considered less than significant.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two mi of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

No impact. The proposed project is not located within an airport land use plan or within two mi of a public or public use airport (Airport Land Use Commission). Therefore, no impacts are anticipated.

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

No impact. The proposed project is not located within the vicinity of a private airstrip (Airport Land Use Commission). Therefore, no impacts are anticipated.

XIII. POPULATION AND HOUSING: Would the project:

a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒

No impact. As described in Section 2.2 Growth, the Build Alternatives would not be expected to influence the amount, location, and/or distribution of growth in the Study Area cities and the County since no new exit or entrance ramps are proposed, and the Study Area is built out. Due to the fact that very few open areas are available in close proximity to the Study Area, the Build Alternatives will not create new housing or opportunities for capital investment by the public or private sectors.

Although the Build Alternatives would result in changes in land use at the I-5/Avery Parkway interchange and just south of the I-5/El Toro Road interchange east of I-5, they would not result in direct or indirect changes in economic vitality and population density. Therefore, the Build Alternatives are not considered growth-inducing, and no impacts are anticipated.

b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

No impact. The Build Alternatives do not require any acquisition of residential properties. Therefore, replacement housing is not required, and no impacts are anticipated.

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

No impact. The Build Alternatives would not displace existing residential housing. Therefore, no residents would be displaced and no replacement housing would be required. Therefore, no impacts are anticipated.

XIV. PUBLIC SERVICES:

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

Fire protection?	☐	☐	☒	☐

Less than significant impact. The Build Alternatives will help ease congestion along the I-5 mainline and reduce travel time, allowing emergency vehicles to decrease their response times. Therefore, completion of the Build Alternatives will result in an overall net benefit.

However, during construction, some impairment to the delivery of services, including fire response times, may occur due to construction activities and detours. These temporary impacts would be substantially minimized through implementation of a TMP. Therefore, temporary impacts to accessibility of fire protection services are considered less than significant.

Police protection? **Less than significant impact.** The Build Alternatives will help ease congestion along the I-5 mainline and reduce travel time, allowing emergency vehicles to decrease their response times. Therefore, completion of the Build Alternatives will result in an overall net benefit. However, during construction, some impairment to the delivery of services, including police response times, may occur due to construction activities and detours. These temporary impacts would be substantially minimized through implementation of a TMP. Therefore, temporary impacts to the accessibility of police protection services are considered less than significant.	☐	☐	☒	☐
Schools? **Less than significant impact**. Students traveling to and from Viejo Elementary School, Capistrano Valley High School, and Mission Viejo High School would experience temporary traffic delays due to construction activities and detours. However, the TMP will address school access and circulation needs in order to remain fully operational during construction. Therefore, impacts are considered less than significant. Additionally, the Build Alternatives are not growth inducing and would not require additional schools. Therefore, no impacts are anticipated.	☐	☐	☒	☐
Parks? **Less than significant impact.** Several parks are located within 0.25 mi of the Study Area. Park users traveling to and from these parks would experience temporary traffic delays due to construction activities and detours. However, the TMP will address park access and circulation needs in order to remain fully operational during construction. Therefore, impacts are considered less than significant. Additionally, the Build Alternatives are not growth inducing and would not require additional park facilities. Therefore, no impacts are anticipated.	☐	☐	☒	☐
Other public facilities? **No impact.** No other public facilities are located within the Study Area, and the Build Alternatives are not growth inducing. Therefore, no impacts are anticipated to other public facilities.	☐	☐	☐	☒
XV. RECREATION:				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? **No impact.** Although several parks are located within 0.25 mi of the Study Area, the Build Alternatives are not growth inducing and would not require additional park facilities. Therefore, no impacts are anticipated.	☐	☐	☐	☒
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment? **No impact.** The Build Alternatives are not growth inducing and would not require the construction or expansion of recreational facilities. Therefore, no impacts are anticipated.	☐	☐	☐	☒

XVI. TRANSPORTATION/TRAFFIC: Would the project:

a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☐	☒
No impact. As discussed in Section 2.1 Land Use, the Build Alternatives are consistent with applicable General Plan goals and policies to improve transportation corridors, provide adequate infrastructure, and maintain efficient traffic operations on city streets. The Build Alternatives are also consistent with regional planning efforts. The Build Alternatives are identified in the SCAG 2012–2035 RTP (RTP ID 2M0730). The 2012 RTP was found to conform to the SIP on June 15, 2012 by the FHWA and Federal Transit Administration (FTA). The project is also included in the SCAG financially constrained 2011 FTIP. The FTIP was determined to conform to the SIP by the FHWA and FTA on December 14, 2010 (FTIP ID ORA111801). Therefore, the land use changes associated with the Build Alternatives are consistent with the approved land use and transportation plans, and no impacts are anticipated.				
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☒	☐
Less than significant impact. Please see response to XVI a), above. The Build Alternatives are anticipated to improve the levels of service (LOS) within the project limits. Therefore, no permanent impacts are anticipated. However, temporary impacts to traffic within the study area may occur during construction. A Transportation Management Plan (TMP) would be implemented and would minimize these impacts to a less than significant level.				
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
No impact. The proposed project is a transportation improvement project and would not alter existing air traffic patterns. Therefore, no impacts are anticipated.				
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
No impact. The Build Alternatives would not increase any hazards due to design features or incomplete uses. The appropriate highway safety design guidelines would be used throughout the design process. Therefore, no impacts are anticipated.				

e) Result in inadequate emergency access?	☐	☐	☒	☐
Less than significant impact. The Build Alternatives will improve operations within the Study Area and would result in a permanent improvement in emergency access. Temporary delays in emergency response times would occur during construction of the proposed project. However, these delays would be substantially minimized with implementation of the TMP. Therefore, temporary impacts to emergency access would be less than significant.				
f) Conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☐	☒
No impact. Compared to the No Build Alternative, both Build Alternatives would improve pedestrian and bicycle access at the Avery Parkway and La Paz Road interchanges and therefore would not result in any indirect or direct impacts. The undercrossings at both of these interchanges will be replaced as part of this project. Standard outside shoulders, which would accommodate bicycles, will be provided throughout the majority of the Avery Parkway and La Paz Road interchanges in the eastbound (EB) and westbound (WB) directions. Sidewalks will also be provided through both of these interchanges in both the EB and WB directions. Therefore, the Build Alternatives would not decrease safety in existing public transit, bicycle, or pedestrian facilities, and no impacts are anticipated.				
XVII. UTILITIES AND SERVICE SYSTEMS: Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
No impact. These wastewater treatment requirements are not applicable to the proposed project. The Build Alternatives would not generate any wastewater. Please see Section 2.9, Water Quality, for more information.				
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
No impact. This CEQA threshold is not applicable to the proposed project. Please refer to Chapter 1 for drainage facilities that are part of the Build Alternatives.				
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
Less than significant impact. The Build Alternatives will not substantially change the drainage pattern, and drainage improvements will not result in an increase in storm water capacity. Refer to Chapter 1 for more detail on these improvements and Section 2.9, Water Quality, for more information regarding drainage. Potential effects on storm water facilities are considered less than significant.				

d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed? **No impact.** The Build Alternatives are not growth inducing. Therefore, the proposed project would not cause an additional need in water supply entitlements or resources, or the need for new or expanded entitlements. Therefore, no impacts are anticipated.	☐	☐	☐	☒
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? **No impact.** The Build Alternatives will improve transportation within the Study Area and are not considered growth inducing. Therefore, no additional demand for wastewater treatment services would be required as part of the Build Alternatives and no impacts are anticipated.	☐	☐	☐	☒
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs? **Less than significant impact.** The Build Alternatives will implement roadway improvements and do not include the development of land uses that would generate solid waste. Therefore, no long-term impacts to landfills with insufficient permitted capacities would result, and no mitigation is required. The minimal amounts of construction waste generated during construction of the Build Alternatives would likely be disposed of at Prima Deschecha Landfill, the nearest Orange County Waste and Recycling (OCWR) permitted landfill. The Prima Deschecha Landfill receives a daily average of approximately 2,000 tons per day (tpd) of solid waste, and can accept up to 4,000 tpd of solid waste.[1] As of January 2013, the Landfill had an estimated remaining disposal capacity of 135.09 million cubic yards (approximately 59 percent of the total system capacity).[2]Site closure is estimated to occur in 2067. Therefore, the Prima Deschecha Landfill will be able to accept solid waste generated from construction of the Build Alternatives, and due to the amount of waste anticipated, impacts are considered less than significant.	☐	☐	☒	☐
g) Comply with federal, state, and local statutes and regulations related to solid waste? **No impact**. The proposed project is a transportation improvement project and therefore will not generate any solid waste during operations. However, solid waste would be temporarily generated during construction activities, but would comply will federal, state, and local statutes and regulations related to solid waste.	☐	☐	☐	☒

XVIII. MANDATORY FINDINGS OF SIGNIFICANCE

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐

[1] http://oclandfills.com/civicax/filebank/blobdload.aspx?BlobID=6686 – accessed March 5, 2013

[2] cityofmissionviejo.org/WorkArea//DownloadAsset.aspx?id=20753

Less than significant impact with mitigation. As stated in IV a), the Build Alternatives would permanently contribute to the degradation of foraging habitat (i.e., riparian vegetation) in the Study Area. With implementation of Measures BIO-1 through BIO-16 impacts to riparian habitat or other sensitive natural communities are considered less than significant.

As discussed in Section 2.16, Wetlands and Other Waters of the US, Alternative 2 is expected to permanently affect 0.08 ac of nonwetland waters and 0.04 ac of wetland waters of the United States. Alternative 3 is expected to permanently affect 0.10 ac of nonwetland waters and 0.10 ac of wetland waters of the United States. With implementation of Measures BIO-1 through BIO-9 (in Section 2.15), and WQ-1 through WQ-3 (in Section 2.9), impacts to federally protected wetlands would be avoided and/or minimized to be less than significant. Additionally, with implementation of Measures BIO-10 and BIO-11, impacts to jurisdictional wetlands and waters would be compensated and therefore reduced to a less than significant level.

Since data regarding the historic use of Oso Creek by anadromous fish could not be substantiated, anadromous fish usage of Oso Creek is considered historically absent. Therefore, the Build Alternatives are not presenting barriers to anadromous fish passage in a viable fish-producing stream. However, implementation of Measure BIO-16 would ensure that should it later be determined that Oso Creek was historically used by anadromous fish. For this reason, impacts to fish passage would be less than significant.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☒	☐

Less than significant impact. Refer to Section 2.21, Cumulative Impacts, for proposed measures. With implementation of these avoidance and minimization measures, impacts are considered less than significant.

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

Less than significant impact. Adverse effects on human beings are considered less than significant temporarily and permanently as they relate to the Study Area. Both Build Alternatives would be under construction for up to 48 months and would result in temporary detours for emergency vehicles, a temporary increase in congestion on I-5 and local streets, and temporary impairment of automobile and pedestrian access to businesses, public services, schools, and other facilities. However, with implementation of the TMP during construction, these temporary impacts are considered less than significant.

Subsequent to the completion of construction, the Build Alternatives would improve access for all motorists on I-5 and local streets within the Study Area by reducing congestion and improving/maintaining bicycle and pedestrian facilities. Although the construction impacts would be eliminated after construction has been completed, the impacts to community character would continue to be felt, as the Build Alternatives would result in minor amounts of additional hardscape, modified ramps, new concrete barriers, and new retaining and sound walls. These changes would permanently modify the visual quality of the surrounding communities, and as a result, would affect the existing community character. However, with consideration of aesthetic features for retaining walls, soundwalls, and bridge structures during final design, the impacts from the Build Alternatives to community character would be minimized and are therefore considered less than significant.

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